Staff Report to the Planning Commission

Application Number: 06-0418

Applicant: County of Santa Cruz, CAO
Owner: County of Santa Cruz
APN: 026-062-97 and 026-461-02

Agenda Date: March 14,2007
Agenda Item #: 8
Time: After 9:00 a.m.

Project Description: Proposal to demolish an approximately 16,000 square foot animal shelter consisting of 4 buildings, 4 sheds, and kennels (total of about 12,000 sq ft covered space and about 4,000 sq ft outdoor kennels/runs), and to construct a replacement Animal Services Facility with one 1-story, 13,144 square foot building, 1,330 sq. ft. of exterior kennels, visitor use area, animal exercise yards, future agility training area, and service yard, with associated parking, landscaping, and approximately 1,850 cubic yards of grading. Existing 1,400 sq ft office building (currently SPCA office), 1,200 sq ft shed/barn, and pasture area on northern parcel APN 026-461-02 to remain.

Location: The property is located on the northeast comer of the intersection of 7th Avenue and Rodriguez Street at 2200 and 2260 7th Avenue, in the Live *Oak* Planning Area.

Supervisoral District: First District (District Supervisor: Jan Beautz)

Permits Required: Master Site Plan Development Permit for the public facility use, Design Review and Grading Approval.

Staff Recommendation:

- Certification of the Mitigated Negative Declaration as complying with the requirements of the California Environmental Quality Act; and,
- Approval of Application 06-0418, based on the attached findings and conditions.

Exhibits

A. Project plans (reduced in report, full size plans attached)
B. Findings
C. Conditions
D. Mitigated Negative Declaration (CEQA determination) with the following attached documents:
(1) Location Map
(2) Vicinity Map
(3) Zoning Map
(4) General Plan Designation Map
(5) Assessors Parcel Maps
(6) Project Plans
(7) Geotechnical Investigation
(8) Santa Cruz Water Dept. Letters
(9) Drainage Study
(10) Environmental Site Assessment
(11) Central Fire District Letter
(12) Traffic Study
(13) Noise Assessment Study

(14) County Sanitation District Memo
(15) Arborists Report
(16) Design Review Form
(17) Discretionary Comments
(18) Review Comments Received

E. Color Program Board (in file)
F. Visual Simulation (in file)

Parcel Information

Parcel Size:	2.73 Acres (118,814 square feet) total
Existing Land Use - Parcel:	Unused animal shelter facility and existing SPCA office use
Existing Land Use - Surrounding:	Single and multi-family residential, commercial, & school
Project Access:	7th Avenue and Rodriguez Street
Planning Area:	Live *Oak*
Land Use Designation:	Public Facility
Zone District:	PF (Public and Community Facilities)
Coastal Zone:	__ Inside X Outside
Appealable to Calif. Coastal Comm.	__ Yes X No

Environmental Information

A Mitigated Negative Declaration has been prepared (Exhibit D) that addresses the environmental concerns associated with this project.

Services Information

Urban/Rural Services Line:	X Inside __ Outside
Water Supply:	City of Santa Cruz Water Department
Sewage Disposal:	Santa Cruz County Sanitation District
Fire District:	Central Fire Protection District
Drainage District:	Zone 5

History

The site has been developed for animal shelter facilities since the early 1970's and used for kennels prior to that since the 1950's. The conceptual master plan uses approved in 1972 (Use Permit 4513-U and Planned Development Permit D-72-11-9) included expansion of the existing animal control and animal shelter facilities and associated veterinary hospital. The project included housing for dogs, cats, and large animals, veterinary hospital, office, humane education auditorium, and two outdoor dog runs of 400 square feet each. The program statement with Permit #91-0024 identified SPCA office hours as 9:00 a.m. to 5:30 p.m., with pet adoption open from 12:00 to 5:30 p.m. Monday through Saturday. Kennels were staffed 7:00 a.m. to 6:00 p.m. and field workers were staffed from 6:00 a.m. to 5:00 a.m. 7 days a week. The SPCA facility had 29 employees including the 6 animal control officers. The Conceptual Master Plan included 65 indoor/outdoor kennels for dogs and 12 indoor/outdoor kennels for cats (but facility later housed up to 90 cat kennels). Numerous other permits were approved over the years for the animal facilities onsite including small expansions, remodels, temporary structures, and ancillary use approvals.

The property currently has numerous structures, including the old animal shelter building with offices, kennels and sheds, an older residential structure used as offices, paved and unpaved parking areas, and miscellaneous dog runs and agility training area. A barn for housing non-domestic or large animals is also located on the northern parcel. The primary animal shelter facility on the southern parcel has been closed for about 4 years while the county took over control of the facility and purchased the property, though the facility has been used during this time for some intermittent short term uses. During this time, the Society for the Prevention of Cruelty to Animals (SPCA) continued office use in the existing building on the northern parcel and the site was used for various other related uses including animal adoptions, spay and neuter programs and clinics, dog training and agility classes, and housing livestock (sheep and goats).

Project Setting

The project site is located on the northeast comer of the intersection of 7th Avenue and Rodriguez Street in an urban area of Live Oak. The site is composed of two parcels, both relatively rectangular in shape, nearly level, and roughly 2.73 acres in size combined. The site is elevated roughly 85 feet above sea level. The slopes in the vicinity of the site are inclined very gently toward a distant tributary arm of Arana Gulch.

No native habitats exist onsite. There are **14** trees on the parcels including redwood, *oak,* Myoporum, pine, and ornamental trees that range from 2 to 32-inches in diameter. One of these is a large redwood tree (approximately 30-inch diameter and 55-foot height) located at the very southwest comer of the southern parcel. There are also 10 trees located along the property frontage within the 7th Avenue and Rodriguez Street public right-of-way. These include 7 large Sycamore trees ranging in size from 14 to 28-inches in diameter and **3** Crepe Myrtle trees less than 6-inches in diameter.

Surrounding land uses include single-family residences to the east, to the south across Rodriguez Street, and to the west at the comer of 7th Avenue and Rodriguez ***Street.*** An upholstery shop, VFW hall, and cemetery are also located across 7th Avenue fi-om the site to the west. Multi-family residential townhomes are located adjacent to the north. Green Acres elementary school with a large play yard abuts the project site to the northeast. There is **an** existing pedestrian easement along the east side of the southern parcel that provides access to the school from Rodriguez Street. This school access is currently separated fi-om the development area with a fence, and the walkway and fencing will be retained with the new project. The site also has an existing 10-foot storm drain easement that runs along the southern property line of the northern parcel, which will be retained with the proposed project.

Project Description

The project consists of demolishing an existing unused animal shelter with 4 buildings, 4 sheds, and kennels totaling approximately 16,000 square feet (with roughly 12,000 sq ft covered space and 4,000 sq ft of outdoor kennels and runs), and a Master Public Facility Site Plan to construct a replacement Animal Services Facility with a one story, 13,144 square foot building, 1,330 **sq.** ft. of exterior kennels, visitor use area, animal exercise yards, future agility training area, and service yard, with associated parking and landscaping. **A** location is also included in the master site plan for two

possible future dog agility training areas. LEED renewable resource, recycled materials and energy efficiency principals will be utilized in the project where possible. The project includes approximately 1,850 cubic yards of rough grading with some additional earthwork likely necessary to accommodate over-excavation and recompaction onsite. The existing 1,400 sq ft office building (currently SPCA office), 1,200 sq ft shed/barn, and pasture area on northern parcel APN 026-461-02 will remain. This master plan application replaces all previous land use applications for this site including, but not limited to, Planned Development and Use Permits 77-1572-PD, 4513-U and D-72-11-9 and Permit 91-0024.

The new facility will serve as administrative offices for the Animal Services Authority (ASA) staff and provide services related to keeping and handling animals under the control of the ASA. The facility offices will operate daily from 9:00 a.m. to 5:30 p.m., with the kennels only open from noon to 5:30 p.m. The facility will have a maximum onsite staff of 17 employees and 15 volunteers. It is estimated that 40 to 90 members of the public may visit the facility in a day. Animal control officers (6 total, 2-3 daily) will be out in the field most of the day. Some animal transport will occur to and from the site, with loading and unloading done within the Sally Port area. The project includes veterinarian functions onsite that will serve only the facility animals.

Though the number of animals kept onsite will vary at any time, the proposed facility can accommodate 54 dogs, 90 cats, and 20 miscellaneous small animals. Large animals (pigs, goats, horses, etc.) will be kept in the barn as needed on an occasional basis. There are 3 outside dog get-acquainted yards near the front entrance on the east side and 3 outside dog exercise yards at the rear, north side of the building. The cats and small animals will be housed entirely within the building.

The dog kennel portion of the building is located in the middle of the site and is a minimum of 170 feet from any neighboring residence. The kennel building will be constructed of concrete block and wood frame with no windows, and with a continuous roof and ceiling inside to minimize sound transmission from the interior of the building to the exterior. Sound absorption surfaces will be used in the ceiling to reduce the effect of reverberation and sound build up. About half of the kennels are entirely inside, and the inside/outside kennels will have sound controlling "guillotine" type doors that can be closed off to isolate noise. The kennels are designed so that most kennels do not have sight lines to other kennels to reduce dog barking.

County sewer and city water systems will serve the new/replacement building. Solid waste will be handled by trash service. New sidewalks along the street frontages will be installed with this project. Remaining curb, gutter, street trees and other road improvements will be installed with the future Redevelopment and Public Works upper 7th Avenue improvements.

Zoning & General Plan Consistency

The subject property is located in the PF (Public and Community Facilities) zone district, a designation that allows public facility uses. The proposed animal services facility is also consistent with the site's Public Facility General Plan designation. As designed, the proposed animal services facility is consistent with the surrounding land uses. Surrounding parcels to the west, south, and east are zoned R-1 (Single-Family Residential) with the parcel across the street to the southwest zoned C-1 (Neighborhood Commercial). Parcels to the west and east of the northerly parcel are also zoned PF, with a parcel to the north zoned RM (Residential Multi-Family).

Design Review

The proposed development will be an improvement to the area. The existing animal shelter facility is dated and run down in appearance and has been vacant for some time. The proposed new facility complies with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate site and architectural design features such as articulated street facades and landscaping to reduce the visual impact of the proposed development on surrounding land uses and the natural landscape.

The proposed building is a relatively low 1-story structure, with board and batt siding, and with building planes broken up to minimize bulk and mass facing the adjacent public roadways. The scale and architectural style of the building is compatible with the nearby residential uses, and responds to the neighborhood input received at the early community meetings held by the applicant. The Visual Simulation provided demonstrates the style and scale of the new building from public viewsheds at the corner of 7th Avenue and Rodriguez Street, The Colors Board submitted demonstrates the general color palette that will be utilized for the new buildings to further ensure compatibility with the surrounding neighborhood. As well, the existing large trees along the street frontages will be preserved, and the project utilities will be screened with vegetation to soften the public views.

Nine of the 14 existing trees onsite will be retained including all of the trees with diameters greater than 20-inches (redwood, *oak*, and Myoporum trees). The large redwood tree at the very southwest corner of the southern parcel and the 10 trees (including 7 large Sycamores) located within the public right-of-way along the property's 7th Avenue and Rodriguez Street frontages will be preserved with the project. Approximately 29 new trees are proposed to be planted onsite, which will more than accommodate the 5 trees to be removed. The new trees include a mix of California Live *Oak,* Cork *Oak,* California Pepper Tree, London Plane Tree, Victorian box, Jacaranda, and Western Redbuds.

Parking

The new facility will be adequately served by **34** onsite parking spaces located in a new parking area accessed off of Rodriguez Avenue. Two of those spaces will be accessible van spaces. An existing lot with 11 spaces located off of 7th Avenue will continue to serve the existing office building on the northern parcel. Only 7 spaces are required to serve that building so the additional 4 spaces are available to serve the staff or volunteers of the new facility if needed. **As** well, the master site plan includes a possible future parking area at the rear of the new lot that ***can*** accommodate 9 new parking spaces if necessary to serve the facility in the future. Adequate bicycle parking will also be provided onsite.

Drainage

An existing 18-inch storm drain bisects the site in the east/west direction. This system collects runoff from off-site properties east and north of the subject site, primarily Green Acres Elementary School. The project proposal does not include additional development of the northerly 1.01-acre of the site, the area northerly of the 18-inch storm drain. This storm drain will be surcharged into a grass-lined bio-swale. Flow rates will be controlled in order to not exceed existing flows into the

storm drainage system. The storm drain pipes in 7th Avenue will be replaced with the Redevelopment Agency and Public Works planned improvements in the near future. Bio-swales will also be used to clean runoff before it leaves the site. As well, a silt and grease trap is proposed in the lower parking lot inlet to provide water quality treatment.

Impact Fees

This project is exempt from Child Care mitigation fees pursuant to County Code Sections 15.04.050(d) and (g), as it is a County generated public project for a replacement building substantially equivalent in size to the preexisting building.

Environmental Review

Environmental review has been required for the proposed project per the requirements of the California Environmental Quality Act (CEQA). The project was reviewed by the County's Environmental Coordinator on 12/26/06. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit D) was made on 12/27/06. The mandatory public comment period expired on 2/2/07, without any comments affecting the Negative Declaration other than minor modifications to the mitigations.

Regarding the County's intent to issue a Mitigated Negative Declaration for the project, comments were received from the applicant's representative Teall Messer and from the Monterey Bay Unified Air Pollution Control District (MBUAPCD). **As** a result of the applicant's representative's comments, minor modifications were made to the mitigation language to more specifically apply to the project as proposed. Jean Getchell of the MBUAPCD contacted Planning staff during the review period regarding the potential issue of releasing asbestos during the demolition of the existing structure. The applicant will be required to perform an asbestos survey prior to demolition and to complete and submit a Notification of Demolition and Renovation from the MBUAPCD as a condition of project approval.

The environmental review process focused on the potential impacts of the project in the areas of geologic/seismic/soils, soil erosion/grading, drainage/water quality, tree protections, toxic/ hazardous materials/air quality, traffic/circulation, and noise. The environmental review process generated mitigation measures that will reduce potential impacts from the proposed development and adequately address any issues.

Conclusion

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.

Staff Recommendation

- Certification of the Mitigated Negative Declaration as complying with the requirements of the California Environmental Quality Act; and,

- **APPROVAL** of Application Number **06-0418,** based on the attached findings and conditions.

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.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Site conservation:
The grading cut and fill will be balanced to minimize trucking through the neighborhood. Standard measures are to be taken to control dust, dirt and noise during construction.

Tree cover at parking lot exceeds county standards will help reduce heat building up from the pavement.

Drainage:
Site drainage has been taken to bioswales that will clean the water before it goes off site. The off site water flow is being controlled to achieve rates compatible with existing flows so as to not add burden to the area storm drainage systems.

Building design:
The building has been designed with an eye to neighborhood compatibility. The structure has been broken down into smaller elements with different exterior finish materials. The primary exterior finishes are similar to board and batt siding and composition shingle roofing which are typical residential materials. Detailing has been handled with references to the California ranch style. To not overwhelm the neighborhood the building creates a fairly low visual presence. The large setbacks from the street and neighboring residences will allow the landscaping to screen and soften it. All dog runs are screened by a six foot solid fence as is the services yard

Exterior mechanical equipment is located in a screened well on roof.

Exterior lighting:
Exterior lighting is being designed with low height fixtures with minimal off site light bleed and no sky lighting.

Accessibility: The facility has two accessible parking spaces which are located adjacent to the building entrance. The building entrance has an accessible path the public way and to the (currently not used but scheduled to be reconsciousness) bus stop. All other building entrances also have accessible paths to public ways. The building interiors are to be fully accessible for staff and the public including the animal care facilities and kennels. A simple layout and signage are to be used to make the building maximally accessible for people who have sight, dexterity or acoustic problems.

Existing building to remain: The existing building at 2360 7th Ave. on the north parcel is to remain as office space. Currently it is being leased to the SPCA. That or a similar use is anticipated to continue.

Community Process:
The community has been involved at every stage of this project. The purchase of the property by the County was finalized on May 18, 2004 at a properly noticed and advertised public hearing before the Board of Supervisors. At the time of purchase, the plan was to remodel the existing facility. Due to the scope of the required improvements, it was determined that a remodel of the existing facilities would not be cost-effective and that consideration should be given to the construction of a new facility. The existing condition of the current facilities on Seventh Avenue has clearly been of concern to the neighborhood over a number of years and the proposed development of a new animal shelter at that site would serve to mitigate issues of noise, appearance, and parking.

In collaboration with Supervisor Beautz' Office, the director of animal services met with members of the community informally several times to discuss the plans for re-model, and after the decision was made to build the new facility, meetings were held on April 17, 2006 and May 11, 2006. The May 11th meeting was a public meeting, held at the Simpkins Family Swim Center. The meeting invitation, mailing list, and attendance record is attached as Exhibit. The mailing list extended the 300' circumference standard for public meetings for development projects. Comments received at the public meeting were favorable. Residents felt that a new facility would greatly improve the look and feel of the current facility. The only concerns expressed were directed to careful management of foot and vehicle traffic at the corner of Rodrigues and Seventh Avenue. These concerns are addressed in the recommend Seventh Avenue plan line.

The required Neighborhood Notification Sign will be on site on or before November 17, 2006.

Noise:
The animal noises are limited to the dogs and occasional large animals as they are the only ones with access to the exterior. The dog kennel part of the building is located in the middle of the site and is a minimum of 170' from any neighboring residences. The kennel wing is to be constructed to limit the passage of any sound generated inside the building out to the exterior. The kennel walls are solid with no windows, there are sound absorption surfaces inside and there is no direct path to the exterior for sound other than the doorways. 21 of the 54 kennels are entirely inside. The inside/outside kennels have sound controlling guillotine doors that are closed off to isolate the noise emitter inside at night and if there is a noise problem. Dogs are to a large extent sight motivated as regards sound and the kennels are set up so that the kennels have no sight line to other kennels, inside or outside.

The night drop cages are a potentially new service, planned for the future, or as funds are identified to construct them. The night drop facility, if constructed, will replace people leaving a dog tied up to the fence or kittens in a cardboard box. It is not anticipated that there will be any increase in noise and possibly there may be a decrease.

There are occasional night deliveries of animals that have been picked up by the Animal Control officers during late-in-the day or on call shifts. These will be taken into the only part and the insulated garage door closed before they are removed from the vehicle. The dogs will be kept in kennels in the only part until morning so the other dogs are not aroused by new arrivals.

Traffic
All deliveries and ASA vehicles will access the building through the service yard. The deliveries are during regular working hours. Two main types are involved: the first is the pick-up of deceased animals, which occurs once per week. This truck will pull into the only port, and the door will be closed prior to pick-up. The second truck delivery is for the delivery of animal food. Delivery can be restricted to a truck under 30 feet in length. ASA also has a stock trailer that will be kept in the pasture. Access to the barn will be through the existing north parking lot or the existing north parking lot.

Sanitation
The building will be served by the county sewer system. The solid waste from the kennels will be picked up and put into plastic bags that are put into the trash enclosure and then removed by the trash hauler. The outside kennel runs will be protected against rain water encumbering the sanitary sewers.

After the solids are picked up the kennels are washed down one time a day with Kennel Sol, a disease control solution that is diluted with water. In the rare event of a disease outbreak a solid bleach solution may also be used. This water along with the water from the laundry will be piped to the sewer system.

The trash enclosure will provide enough space for a dumpster and recycling containers based on the Scotts Valley facility's usage.

Recycling
The demolition of the existing buildings will include separating the waste into types so that it can be properly handled at the land fill site and recycled as best can be. Concrete and concrete block, which are a substantial part of the kennel buildings, can be recycled as well as wooden ties, gypsum wallboard, carpet and carpet padding, and some of the framing lumber. The small office building at the southwest corner has small amounts of lead in the paint and will be properly disposed of.

A roomy, roofed trash enclosure is being provided so that separated recycling can be employed. The sizing is based on the experience of the Scotts Valley facility. The ASA contracts with Grey Bears for weekly removal of recycling, and this practice can be continued at the new facility.

Renewable resource considerations:
The building is being designed in general accordance with LEED standards. Concrete, concrete block, ceiling tile, insulation, reinforcing steel, structural sheathing and other materials are being utilized that contain recycled and/or local or normally waste materials. Paint with low volatile emissions is being utilized. Energy efficiency is being considered in all lighting fixture and equipment selections.

Several decrepit buildings are to be demolished to make way for the project. The materials will be sorted in accordance with county procedures to permit reuse and efficient placement at the county land fill.

To achieve energy efficiency the building envelope is well insulated, tight against heat leakage, has windows with glass that excludes intense sun heat, and has a very efficient heat system including a heat recovery sub-system in the kennels. New generation roofing is being utilized that reflects 30% more sunlight and thus heat load than typical composition shingle roofing.

Project Program Statement

The mission statement of the SCASA is: "Through community involvement, education, adoption, and humane law enforcement, we work to preserve the well being of all animals and bring an end to the homeless animal crises."

The principal use for the new Animal Services Authority (ASA) facility is public administrative offices for the ASA staff. The primary ancillary use is keeping and handling animals under the control of the ASA. ASA office staff will perform animal related office type functions and animal care. There is a veterinary suite that serves only the facility animals and currently does not serve the public directly. There are up to five animal control officers, and one field supervisor. On a daily basis, either two or three officers are on duty, each of whom has a truck. The officers are out in the field following up on calls during the day unless they need to return to drop off animals when their truck is full or report to the shelter for other business. There is transport of animals from an off site veterinary clinic, and sometimes transport of animals to an off-site vet office. Three or four days a week there is transport of animals between the ASA's Watsonville facility and the mid county location, depending on the time of year.

The public will come to visit the animals and engage ASA services. Three outside dog get-acquainted yards are provided near the front entrance on the east side. Three outside dog exercise yards are provided on the north side. These exercise yards will be for facility dogs who are accompanied by a human at all times. An animal night drop may be planned for the future near the parking lot for people who need to drop off stray animals or surrender animals after the facility has closed. This building facility will be a new function for the ASA. Currently people drop off animals in cardboard boxes or crates, leave them at the front door or tie them to the fence until staff arrives the following morning.

There is an existing building on the north side of the site that is to continue as kennels space. Presently the building is leased by the Society for the Prevention of Cruelty to Animals. The barn and corral on the north east side of the site will remain as is.

The service yard will encompass a truck and cage washing station and limited outside storage for cages and equipment. The ASA's transport and animal control vans and trucks will park here and in the only port.

Hours of operation are:
Office 9:00 a.m. to 5:30 p.m. Monday through Sunday
Kennels 12 noon to 5:30 p.m. Monday through Sunday

On weekdays, the ASA facility will have up to 17 employees on site between business hours, and between 8 to 15 volunteers per day, who typically work shifts of approximately 2 hours. Approximately 40 to 90 members of the public will visit the site during open hours, depending on whether it is a weekday or weekend and visitation varies with the time of year. Members of the public visit the shelter for a variety of reasons. Generally, those who come before the kennels are open are there to find or surrender lost animals, surrender animals owned by them, take care of citations or other requests to appear, obtain a license, or check lost and found files. Typically, these transactions take from between 5 and 30 minutes. In addition to the activities described above, members of the public who visit the shelter after the noon hour are also perusing animals for possible adoption, or counseling on adoption. Their length of stay is typically between 10 and 90 minutes. Thus there is generally a high turnover during the business day. A conservative length of maximum average stay may be considered to be 60 minutes. The typical car for the public visitors has two people in it. The number of volunteers on site at any time rarely exceeds four.

Exclusive of the Animal Control Officers who are generally working off site the range varies during the week the total number of people on site during the course of a day is as follows:

	Total People on Site During a Day			
	Weekday	Saturday	Sunday	After hours all days
Staff	17	9	8	0
Volunteers	8 - 15	8 - 15	8 - 15	0
Members of public	40 - 60	60 - 90	50 - 70	0

Night time range is limited to the occasional delivery of stray animals. The building is not staffed at night. Animal control trucks will be parked in the only port and service yard when not in use and are not included herein.

The mid and north county operation is currently sited at 27 Janis Way in Scotts Valley. The number of marked parking spaces available to employees, volunteers and the public is 26. Two are accessible. There are an additional four spaces for animal control vehicles. These can fill up during peak visitation periods, but that has happens only occasionally. As there is not a specific County parking standard for this type of facility in Code Section 3.10.532, the Scotts Valley facility was used as a model. The number of spaces has been increased 25% to allow for the increase that the said county location is expected to generate and to make sure that the neighbors do not have facility visitors filling the spots in front of their homes.

Thus when factored out for the number of people in the cars for the public (2) and the number of hours the public is normally on site (7) and the maximum length of visitor stay (60 minutes) the parking needs are as below.

	Maximum Parking Needs During a Day		
	Weekday	Saturday	Sunday
Staff	17	9	8
Volunteers	4	4	4
Members of public	5	7	5
Subtotal	26	20	17
25% anticipated increase due to new location	7	5	5
Total parking need	33	25	24

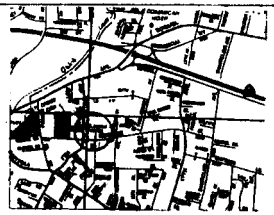
The parking complement for the 2E40 Seventh Avenue site is currently planned for 34 spaces available to employees, the public and volunteers, 2 of which are accessible, plus four spaces for animal control vehicles in the only port/service yard area. An additional 11 spaces are planned to serve the kennel building, 2360 Seventh Ave. Using the County standard of one space per 200 square feet of commercial space, the 2360 Seventh Avenue site has 4 excess spaces which can be used by ASA employees. Finally, the site plan provides space for an additional 9 spaces located off the new parking lot, should they be required to service the program needs in an enhanced future. The ASA will actively promote ride shares, car pooling, and public transportation options for employees and volunteers. A bus stop serves the site.

The animal population varies depending on the season. The main building can accommodate up to 90 cats. There are kennels sufficient for up to 54 dogs and space for approx. 20 miscellaneous small animals. The rat and small animals are in cages that are entirely inside. The dog kennels have 33 that are half inside and half outside and 21 that are entirely inside. Fowl are occasional visitors and are to be kept completely inside.

Large animals such as goats, pigs, cows, horses, or llamas are occasional. The large animals are kept in the barn during the holding period and until they are adopted or long term homes are arranged. No large animals are kept in residence on site. In 2004 there were 16 large animals, in 2005 there were 31 and for the first half of 2006 there were 11.

Design Team

Architect	Teall Messer Teall Messer Architect 3833 Glen Haven Road Soquel, CA 95073
Electrical Engineer	David Auble Prime Design Group 9099 Soquel Ave., #9 Aptos, CA 95003
Civil Engineer	Duane Smith C.E. Bland Engineering 1100 Water Street Santa Cruz, CA 95060
Landscape Architect	Michael Arnone L.A. 3370 Sacmel Place Santa Cruz, CA 95062
Geotechnical Engineer	Daleth Foster, P.E. Haasbury Engineering Inc. 718 Soquel Avenue Santa Cruz, AC 95062
Acoustic Engineer	Jeff Peek Edward Peek and Associates 1975 Hamilton Ave, Suite 26 San Jose, CA 95125
Traffic Engineer	Higgins Associates 1300-B First Street Gilroy, CA
Surveyor	Gary Bland Surveying 1100 Water Street Santa Cruz, Ca 95060



Location Map

From Highway 1 exit at Soquel Drive overpass. Proceed west on Soquel Drive to 7th Ave. Proceed south on 7th Avenue to the corner of Rodrigues Street.

Project Information

Site	APN's 026-462-97 026-461-02
Owner	County of Santa Cruz
Site area	2.73 acres
Project description	Masterplan for site including demolition of approx. 12,500 sf of existing buildings, constructing 13,144 sf. one story animal shelter with interior and exterior animal cages and kennels, trash enclosure, exercise and pet acquainted yards, service yard, parking lot, fencing, flag pole, landscaping, signage, wastewater processing system. No change is proposed to the kennelsite building or barn on APN 026-461-02
Zoning	PF Public facility
General plan	Public facility
CBC occupancy	B, animal shelter S-3, limited garage
CBC Construction	Type V-N, fire sprinkler protected per NFPA 13 as currently adopted in Chapter 35 of the CBC
Codes	All materials and work of this project shall be in accordance with the following codes, as amended by the County of Santa Cruz and the Central Fire Protection District of Santa Cruz County: 2001 California Building Code 2001 California Mechanical Code 2001 California Plumbing Code 2001 California Electrical Code 2001 California State Fire Code National Fire Protection Association Standards All applicable state and local ordinances
Areas	Office, general use and small animal care 7,219 Dog interior kennels wing 4,453 Sally port/garage 1,472 Total kennel spaces 13,144 sf. Dog exterior kennels 1,330
Accessibility	The building will be accessible from the public sidewalk and accessible parking spaces. All portions of the building will be fully accessible to employees, volunteers and the public. All emergency egress routes will be accessible. No change to the existing kennels building which is accessible per a previous permit.

Sheet Index

Teall Messer Architect
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Soquel, CA 95073
(831) 462-4721
Fax 462-9343

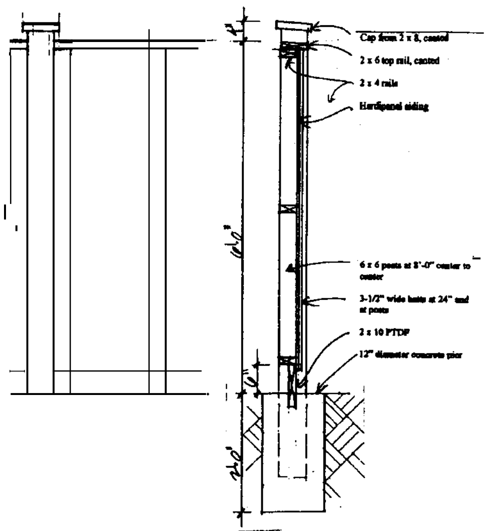
SANTA CRUZ COUNTY ANIMAL SERVICES AUTHORITY ANIMAL SHELTER

7th Avenue & Rodrigues Street
Santa Cruz, California

Date
Revisions 1 Feb. 07

Sheet Number
A 1.1

EXHIBIT A



* All wood material to be redwood, cedar pressure

Wood Fence 1" = 1'-0"

Plumbing Fixture Units

[illegible]

Project Name: Santa Cruz Animal Shelter Authority
Building Name: Santa Cruz Animal Shelter

# of Fixtures	Fix. Calified	Individual Fixtures[1]	Minimum Fixture Outlet Pipe Size (in)[1]	Private: Individual Dwelling	Private: 3 or more Dwellings	Public: General Use	Public: Heavy-Use Assembly	Total # of Fixture
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Total fixture number for the building [illegible]

Notes
1 [illegible]
2 [illegible]
3 [illegible]
4 [illegible]
5 [illegible]
6 [illegible]
7 [illegible]

California Building Code Constraints

Occupancy group	B	Table 3-A
Construction type	V-non fire rated, fire sprinkler protected	
Unprotected openings	>10' to property line	Table 5-A
Non rated exterior bearing walls	Everywhere	Table 5-A
Total B area	11,672 sf.	
Allowable area	3 x 8,000 = 24,000 sf.	Table 5-B; 505.3

Occupancy group	S-3	Table 3-A
Construction type	V- non fire rated, fire sprinkler protected	
Unprotected openings	>10' to property line	Table 5-A
Non rated exterior bearing walls	Everywhere >20' to property line	Table 5-A
Total S-3 area	1,472 sf.	
Allowable area	3 x 8000 sf. =24,000 sf.	Table 5-B

Separations	S-3	Table 3-B
B	One hour fire rated separation	

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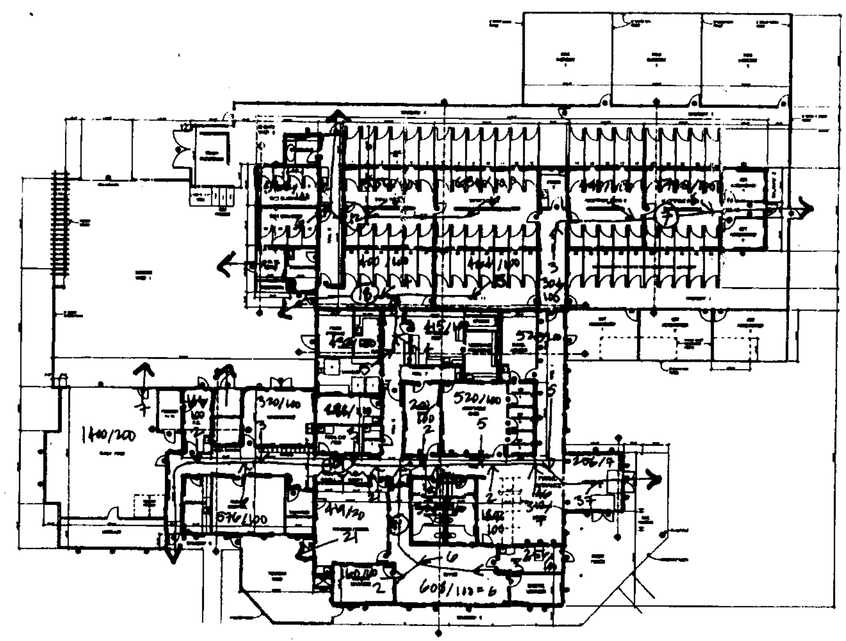


Exiting Plan
No scale

	Occupant load factors	2 exits required
Offices	100	30
Lobby	15	50
Classroom	20	30
Garage	200	30

SANTA CRUZ COUNTY
ANIMAL SERVICES
AUTHORITY ANIMAL
SHELTER
7th Avenue & Rodriguez Street
Santa Cruz, California

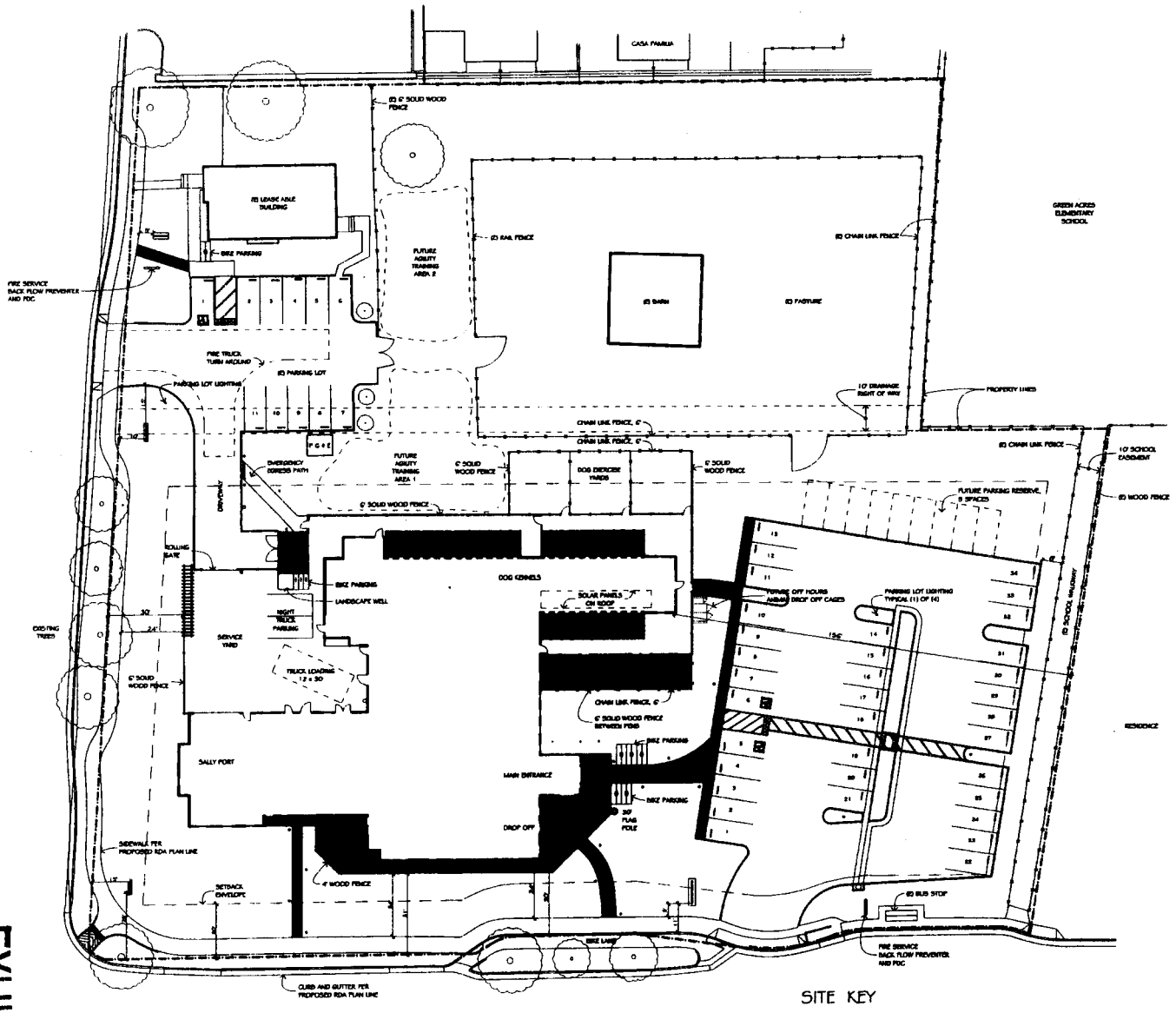
Date 3 Mar. 07
Revisions

Teall Messer Architect

A 1.2

EXHIBIT A

EXHIBIT A



SITE PLAN
Scale: 1" = 20'-0"

SITE KEY
- ASPHALT
- CONCRETE
- LIGHT BOLLARD

Parking
- Required
  - Staff at maximum shift: 17
  - Volunteers: 4
  - Visitors: 5
  - 25% usage increase: 7
  - Total: 33
- Provided
  - 2 accessible van spaces: 2
  - Standard spaces: 32
  - Compact spaces: 0
  - Total: 34

Bike Parking
- Required at new animal shelter
  - 13,144 sf at 1:1000: 13
  - Provided: 13
- Required at 2200 7th Ave.
  - 1,500 sf at 1:1000: 2
  - Provided: 2

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SANTA CRUZ COUNTY
ANIMAL SERVICES AUTHOR
ANIMAL SHELTER

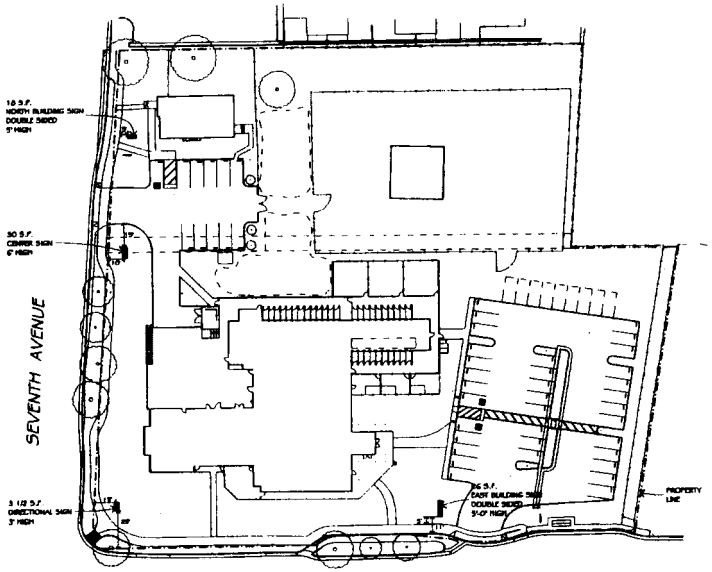
7th Avenue & Rodriquez Street
Santa Cruz, California

Date: February 7, 2007
Revisions:

SITE PLAN
1" = 20'

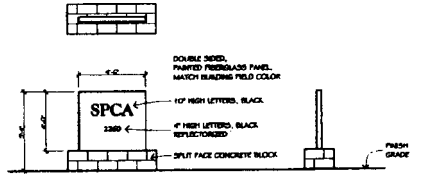
Sheet Number

A2.1



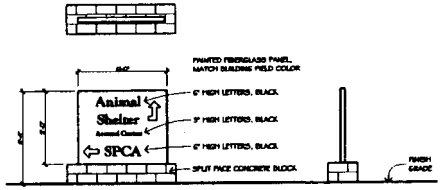
SIGNAGE PLAN

Scale: 1" = 40'-0"



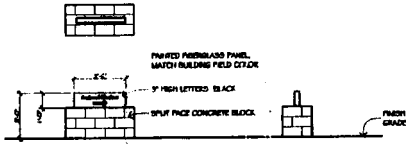
NORTH BUILDING SIGN 16 square feet

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



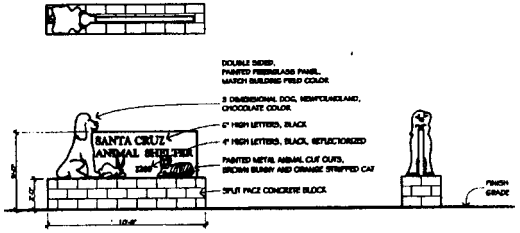
CENTER SIGN 30 square feet

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



DIRECTIONAL SIGN 3 1/2 square feet

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



EAST BUILDING SIGN 26 square feet

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

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SANTA CRUZ COUNTY
ANIMAL SERVICES AUTHORT
ANIMAL SHELTER

7th Avenue & Rodriquez Street
Santa Cruz, California

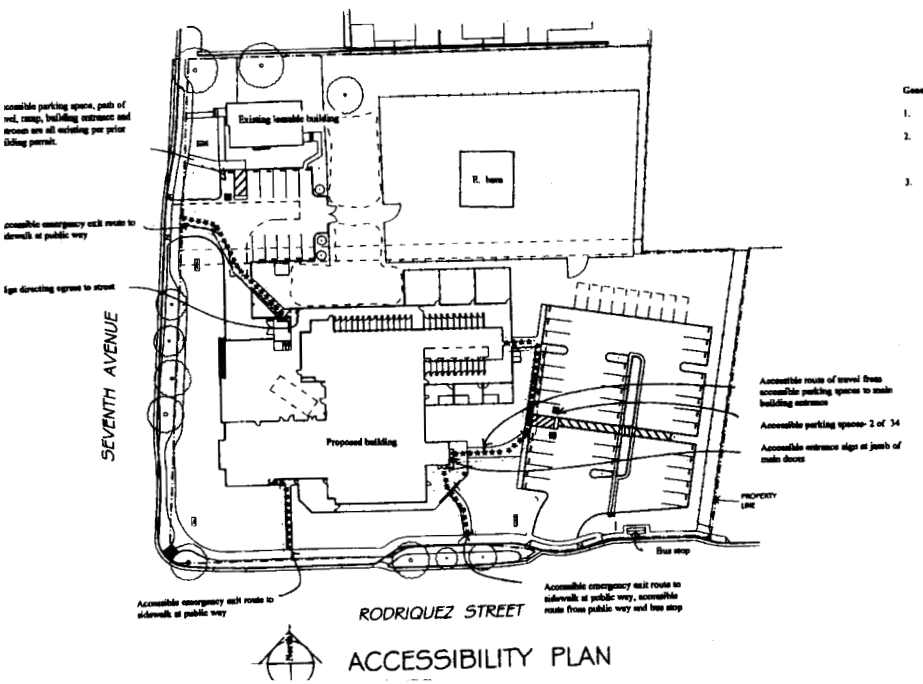
Date: February 7, 2007
Revisions

SIGNAGE PLAN
Differing Scales

Sheet Number

A2.2

EXHIBIT A



ACCESSIBILITY PLAN

General Notes

1. All building entrances are accessible
2. The walks around the building, service yard, porches, pet acquisitory yards and exercise yards are all sloped at less than 6% with cross slopes less than 2%. See civil engineering plans, C-3.
3. See building plans, sheet 3.1, for interior accessibility. All staff and public spaces are accessible. All interior doors will have lever handles. Restrooms and entrance doors will have proper signage.

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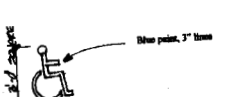
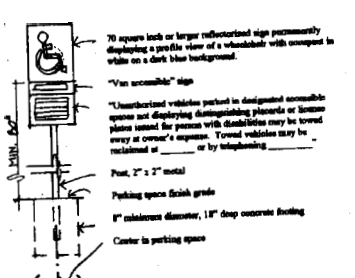
SANTA CRUZ COUNTY ANIMAL SERVICES AUTHO
ANIMAL SHELTER

7th Avenue & Rodriquez Street
Santa Cruz, California

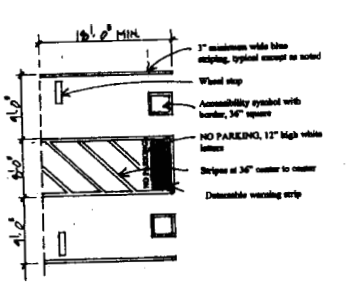
Date: November 7 FEB 03
Revisions



Accessibility Symbol No scale



Van Accessible Parking Space Sign



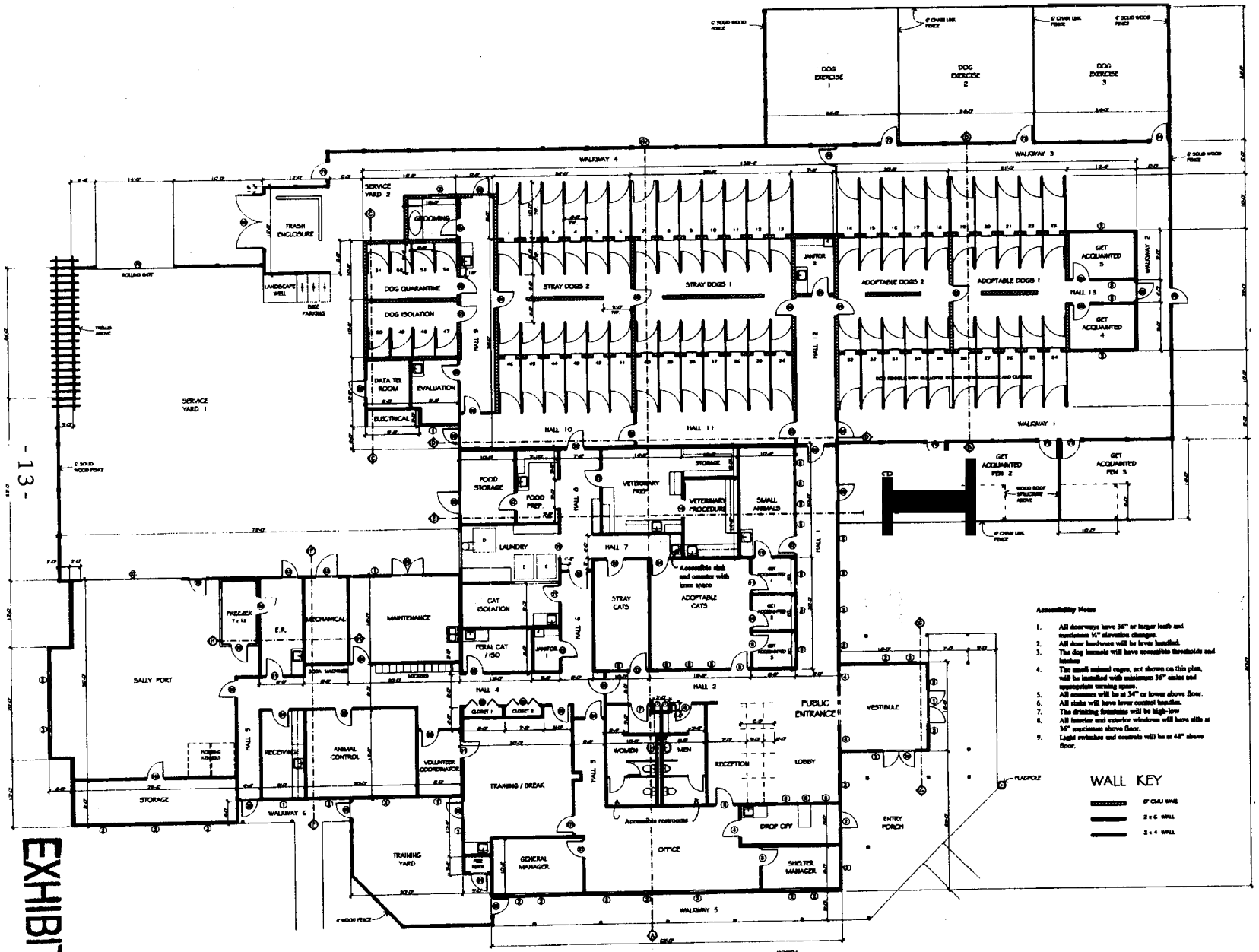
Double Accessible Parking Spaces No scale

ACCESSIBILITY PLAN
Differing Scales

Sheet Number

A2.3

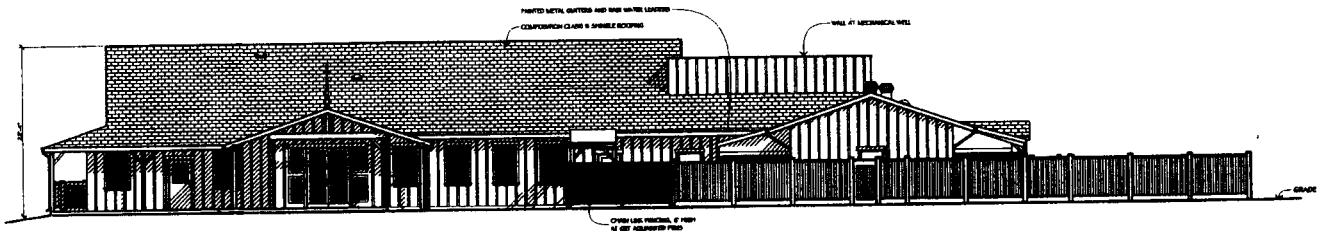
EXHIBIT A



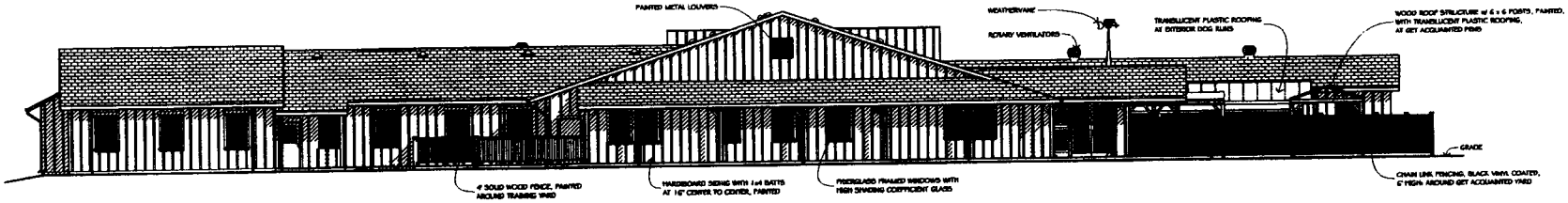
FLOOR PLAN

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

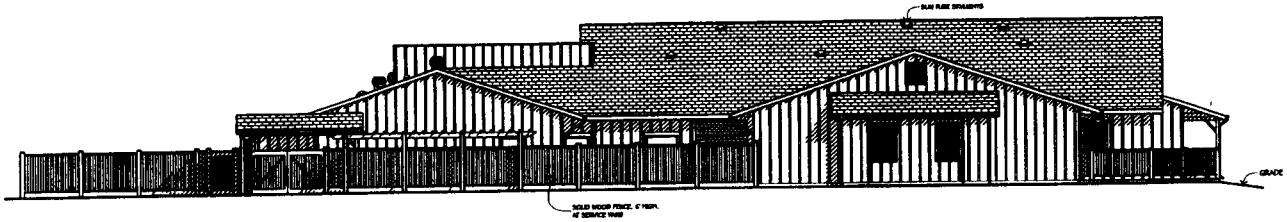
EXHIBIT A



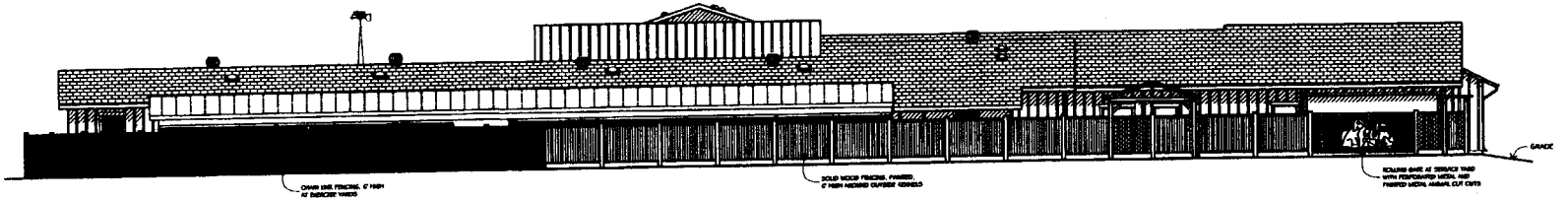
EAST ELEVATION



COUTH ELEVATON RODRIGUEZ STREET



WEST ELEVATION - SEVENTH AVENUE



NORTH ELEVATION

EXHIBIT A

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SANTA CRUZ COUNTY
ANIMAL SERVICES AUTHORI
ANIMAL SHELTER

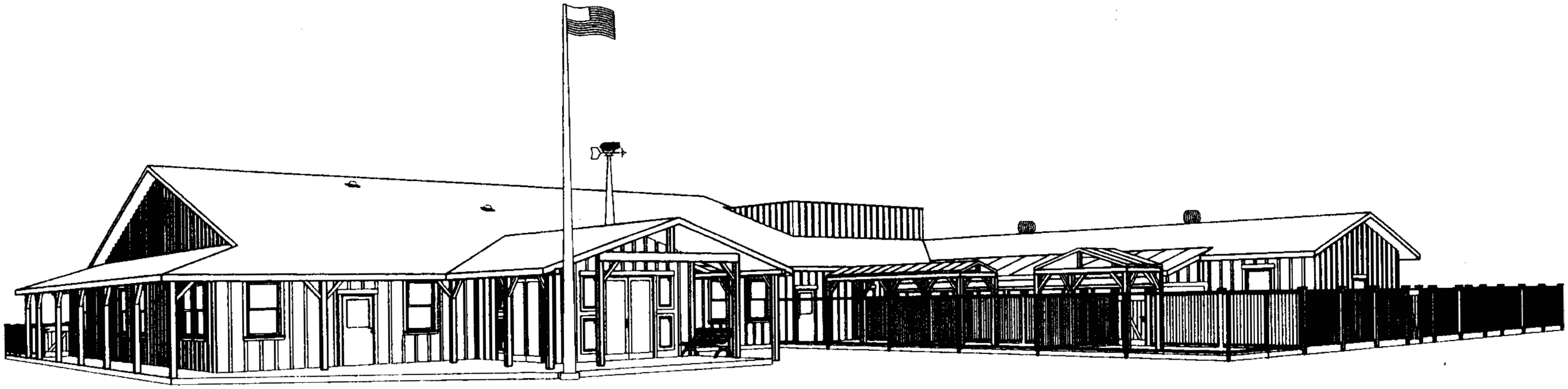
7th Avenue & Rodriguez Street
Santa Cruz, California

Date: February 7, 2007
Revisions

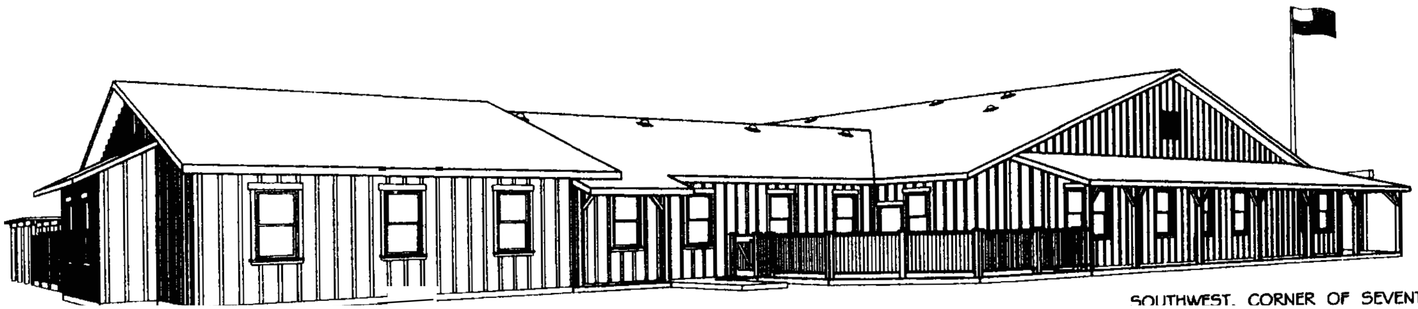
ELEVATIONS
1/8" = 1'-0"

Sheet Number

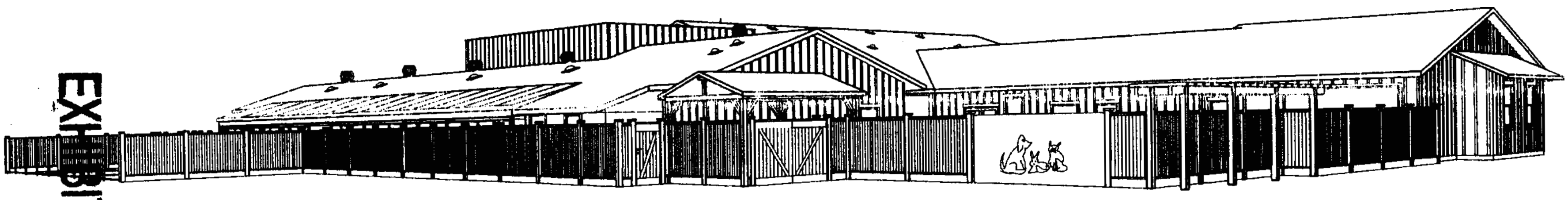
A4.4



SOUTHEAST, RODRIQUEZ STREET VIEW



SOUTHWEST, CORNER OF SEVENTH & RODRIQUEZ VIEW



NORTHWEST, SEVENTH AVENUE VIEW

EXHIBIT A

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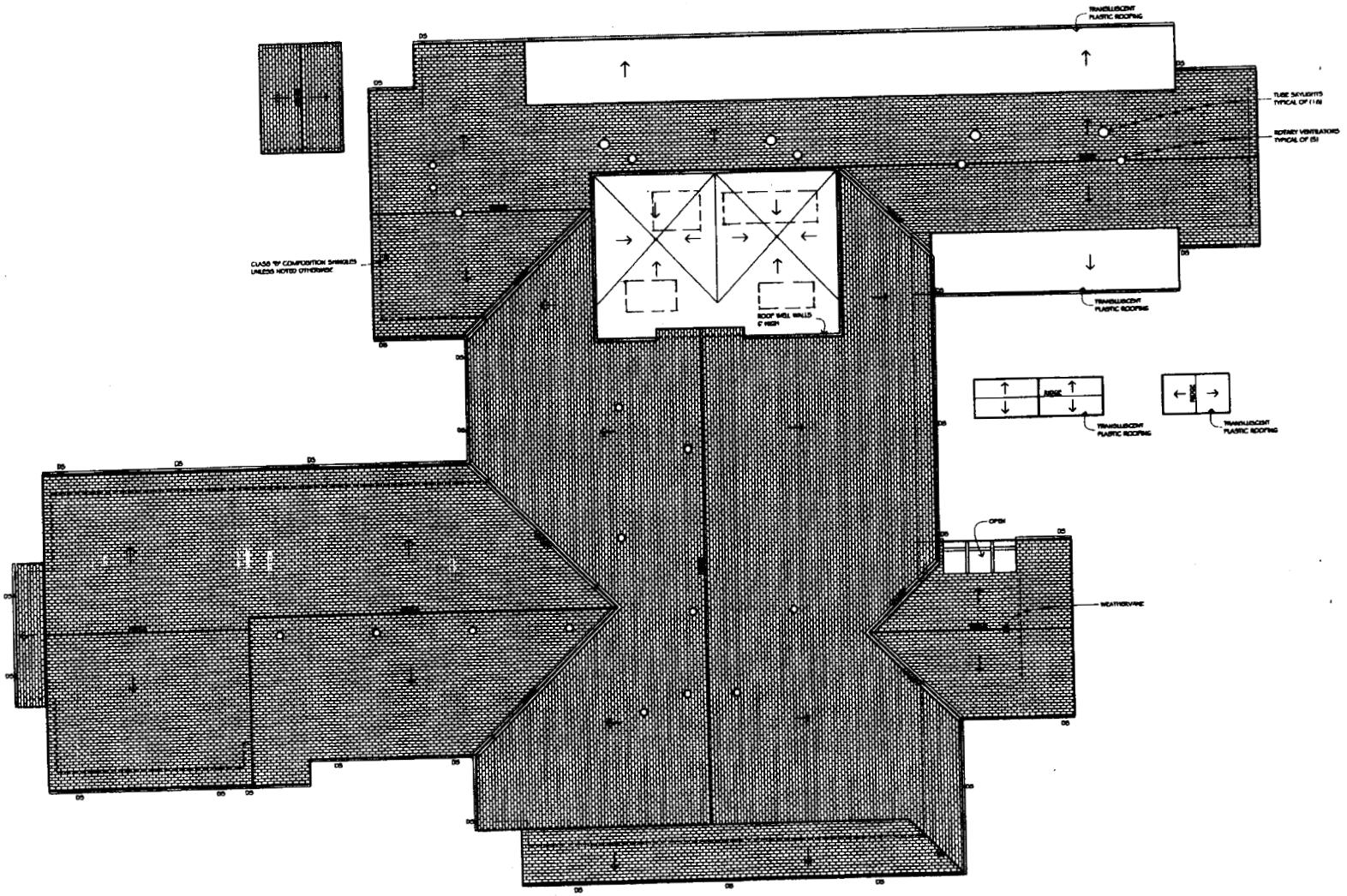
SANTA CRUZ COUNTY
ANIMAL SERVICES AUTHO
ANIMAL SHELTER
7th Avenue & Rodriquez Street
Santa Cruz, California

Date: February 7, 2007
Revisions

EXTERIOR PERSPECTIVES
Differing Scales

Sheet Number

A4.5



ROOF PLAN NORTH

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SANTA CRUZ COUNTY
ANIMAL SERVICES AUTHORI
ANIMAL SHELTER

7th Avenue & Ledyard Street
Santa Cruz, California

Date: February 7, 2007
Revisions

ROOF PLAN
1/8" = 1'-0"

Sheet Number

A6.1

EXHIBIT A

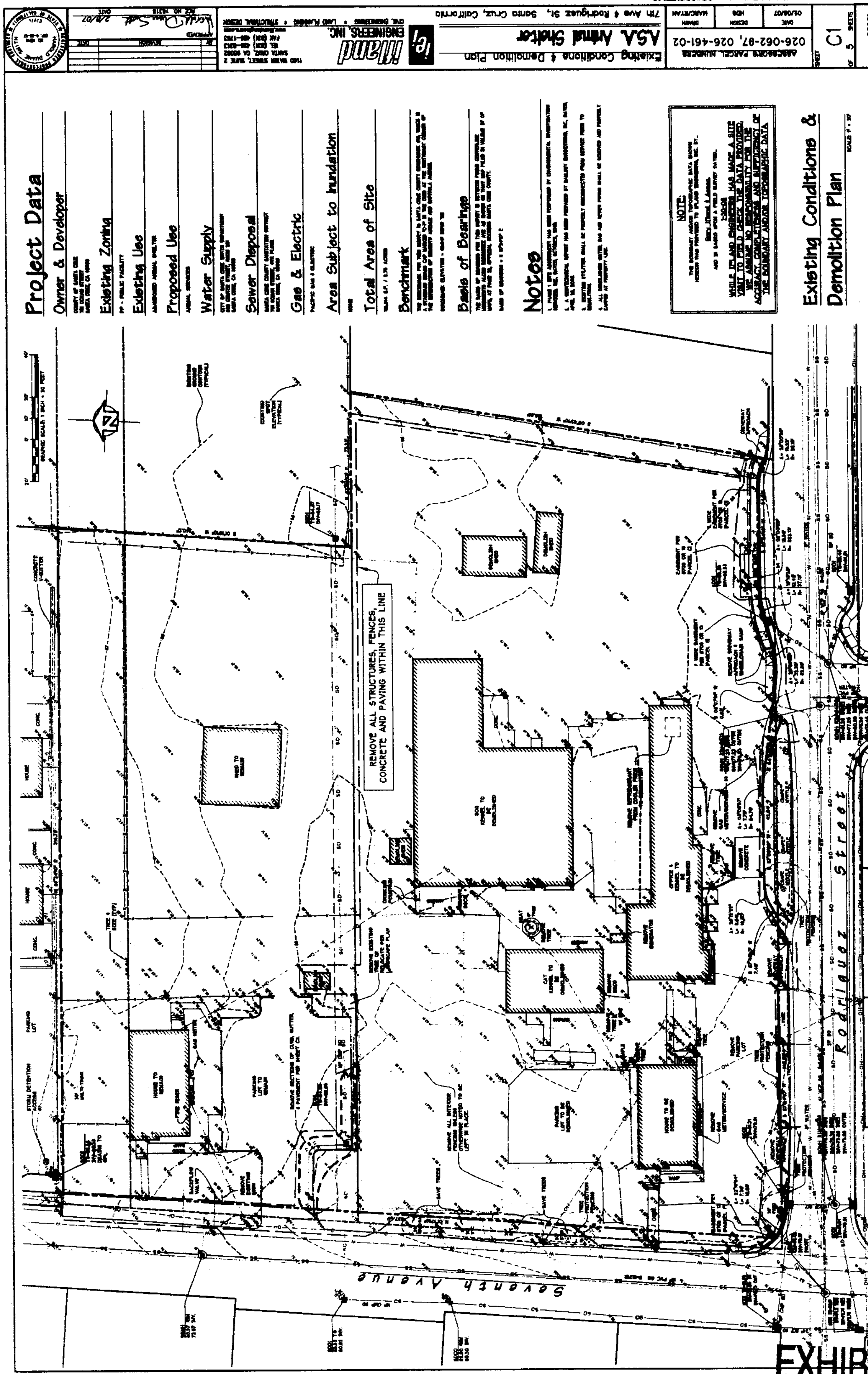
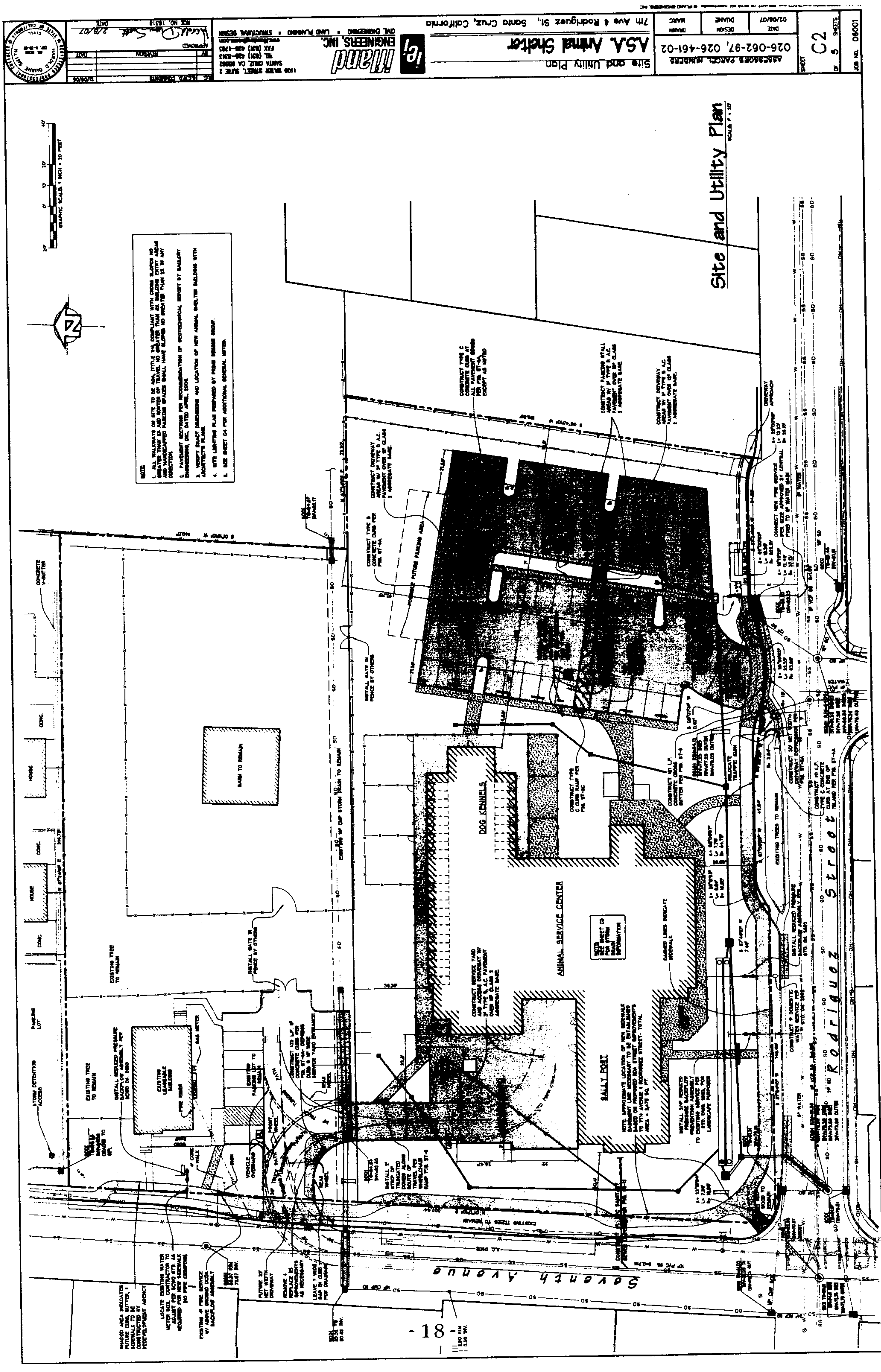
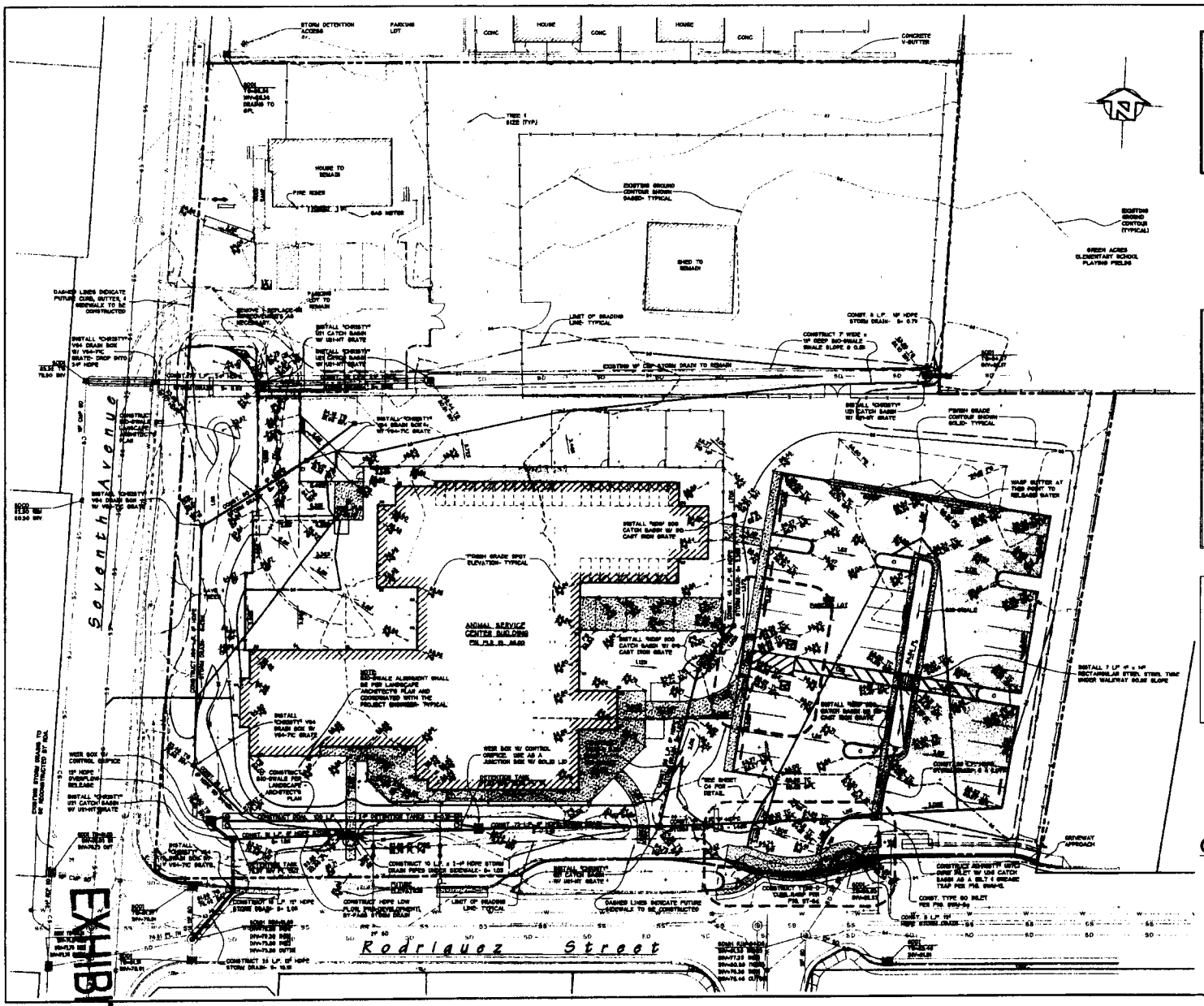

Project Data
Owner & Developer
Existing Zoning
Existing Use
Proposed Use
Water Supply
Sewer Disposal
Gas & Electric
Area Subject to Inundation
Total Area of Site
Benchmark
Basis of Bearings
Notes
Existing Conditions & Demolition Plan
REMOVE ALL STRUCTURES, FENCES, CONCRETE AND PAVING WITHIN THIS LINE
Seventh Avenue
Rodriguez Street
Existing Conditions & Demolition Plan
A.S.A. Animal Shelter
7th Ave & Rodriguez St, Santa Cruz, California
026-062-87, 026-461-02
C1
ifland ENGINEERS, INC.

EXHIBIT A


Site and Utility Plan
A.S.A. Animal Shelter
7th Ave & Rodriguez St., Santa Cruz, California
ifland ENGINEERS, INC.
ASSESSOR'S PARCEL NUMBERS
026-062-97, 026-461-02
C2
OF 5 SHEETS
JOB NO. 06001
Site and Utility Plan
ANIMAL SERVICE CENTER
DOG KENNELS
SALLY PORT
Seventh Avenue
Rodriguez Street



Estimated Earthwork Quantities

1646 CUBIC YARDS EXCAVATION
1646 CUBIC YARDS EMBANKMENT
0 CUBIC YARDS- BALANCE ON SITE

NOTES:

1. ESTIMATE DOES NOT INCLUDE STRIPPING, UTILITY TRENCH VOLUMES OR ANY OVEREXCAVATION, IF REQUIRED BY SITE CONDITIONS.
2. ESTIMATE ASSUMES A 10% COMPACTION FACTOR ON ALL FILL MATERIAL AND A 0% EXPANSION FACTOR ON ALL CUT MATERIAL.
3. PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL CONFIRM THAT ESTIMATES ARE CORRECT.

GRAPHIC SCALE: 1 INCH = 20 FEET

NOTE:
THE INTENT OF GRADING IS TO ACCOMMODATE THE CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY

Drainage - Pre/Post Development

NORTHERN 1.01 ACRES

PRE & POST-DEVELOPMENT RUN-OFF:

Q_{10} = 0.340 CUBIC FEET PER SECOND (C.F.S.)
Q_{25} = 0.55 CUBIC FEET PER SECOND (C.F.S.)
Q_{50} = 0.645 CUBIC FEET PER SECOND (C.F.S.)
Q_{100} = 1.09 CUBIC FEET PER SECOND (C.F.S.)

SOUTHERN 1.72 ACRES

PRE-DEVELOPMENT RUN-OFF:

Q_{10} = 0.478 CUBIC FEET PER SECOND (C.F.S.)
Q_{25} = 1.44 CUBIC FEET PER SECOND (C.F.S.)
Q_{50} = 2.145 CUBIC FEET PER SECOND (C.F.S.)
Q_{100} = 3.74 CUBIC FEET PER SECOND (C.F.S.)

POST-DEVELOPMENT RUN-OFF:

Q_{10} = 0.468 CUBIC FEET PER SECOND (C.F.S.)
Q_{25} = 1.55 CUBIC FEET PER SECOND (C.F.S.)
Q_{50} = 2.345 CUBIC FEET PER SECOND (C.F.S.)
Q_{100} = 3.65 CUBIC FEET PER SECOND (C.F.S.)

NOTES:

1. ALL WALKWAYS ON SITE TO BE ADA, (TITLE 24) COMPLIANT WITH CROSS SLOPES NOT GREATER THAN 1X AND SLOPES OF TRAVEL NO GREATER THAN 5X. BUILDING ENTRY AREAS AND HANDICAPPED PARKING SPACES SHALL HAVE SLOPES NO GREATER THAN 1X IN ANY DIRECTION.
2. PAVEMENT SECTIONS PER RECOMMENDATION OF GEOTECHNICAL REPORT BY HAILEY CONSULTING, INC., DATED APRIL, 2006.
3. SSD-SWALE ALIGNMENT SHALL BE PER LANDSCAPE ARCHITECTS PLAN AND COORDINATED WITH PROJECT CIVIL ENGINEER.
4. STORM DRAIN INLETS LOCATED IN SSD-SWALES SHALL BE RAISED ABOVE FLOWLINE ELEVATION TO ALLOW FOR INCREASED FILTERING AND RECHARGE.
5. ROOF DOWNSPOUTS DISCHARGE TO CONCRETE SPLASHPAD BLOCK AND DRAIN TO SSD-SWALES. SEE ROOF PLAN, A&I FOR EXACT LOCATION AND CONFIGURATION OF DOWNSPOUTS.
6. SEE SHEET C4 FOR ADDITIONAL GENERAL NOTES.

Grading & Drainage Plan

SCALE: 1" = 20'

EXHIBIT A

Grading & Drainage Plan
ASA Animal Shelter
7th Ave & Rodriguez St., Santa Cruz, California

ASSESSOR'S PARCEL NUMBERS
026-062-97, 026-461-02

DESIGN: DIANE
DRAWN: MARC
DATE: 02/24/07

SHEET C3 OF 5 SHEETS
JOB NO. 06001

2/24/07

1100 WILLIS STREET, SUITE 2
SANTA CRUZ, CA 95062
PH (831) 459-7963
FAX (831) 459-7963
www.bkengineers.com
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN

BK ENGINEERS, INC.

General Notes

1. SHADING IN PLAN INDICATES NEW ASPHALTIC CONCRETE PAVING.

2. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA."

3. WORK SHALL BE LIMITED TO 8:00 A.M. TO 5:00 P.M. WEEKDAYS. NON-NOISE PRODUCING ACTIVITIES, SUCH AS INTERIOR PAINTING, SHALL NOT BE SUBJECT TO THIS RESTRICTION.

4. DESIGNATE A "DISTURBANCE COORDINATOR" TO RESPOND TO CITIZEN COMPLAINTS AND INQUIRIES REGARDING CONSTRUCTION NOISE AND DUST. THE NAME, PURPOSE AND TELEPHONE NUMBER OF THE DISTURBANCE COORDINATOR SHALL BE POSTED ON A SIGN EASILY VISIBLE FROM OFF-SITE DURING THE ENTIRE TIME PROJECT GRADING AND CONSTRUCTION OCCURS. THE DISTURBANCE COORDINATOR SHALL INVESTIGATE THE CONCERN AND TAKE REMEDIAL ACTION, IF NECESSARY, WITHIN 24 HOURS OF RECEIVING A COMPLAINT OR INQUIRY.

5. ALL FIGURE (FIG.) REFERENCES, UNLESS OTHERWISE SPECIFIED, REFER TO STANDARD DRAWINGS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA".

6. NO CHANGES IN THE APPROVED IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.

7. NO LAND CLEARING, GRADING OR EXCAVATING SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS A SEPARATE WINTER EROSION CONTROL PLAN IS APPROVED BY THE PLANNING DIRECTOR.

8. BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION SUCH PROTECTION MAY CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF THE PROJECT, ANY EXPOSED SOIL ON DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.

9. NO LAND DISTURBANCE SHALL TAKE PLACE PRIOR TO THE ISSUANCE OF BUILDING PERMITS, EXCEPT THE MINIMUM REQUIRED TO INSTALL STREET IMPROVEMENTS, PROVIDE ACCESS FOR COUNTY REQUIRED TESTS OR TO CARRY OUT OTHER WORK SPECIFICALLY REQUIRED BY ANOTHER OF THESE CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A NPDES PERMIT FROM THE REGIONAL WATER QUALITY CONTROL BOARD PRIOR TO GRADING.

10. THE CONTRACTOR SHALL APPLY WATER TO ALL EXPOSED EARTH SURFACES AT INTERVALS SUFFICIENT TO PREVENT AIRBORNE DUST FROM LEAVING THE PROJECT SITE. ALL EXPOSED EARTH SHALL BE WATERED DOWN AT THE END OF THE WORK DAY.

11. WHILE IN TRANSIT TO AND FROM THE PROJECT SITE, ALL TRUCKS TRANSPORTING FILL SHALL BE EQUIPPED WITH TARPS.

12. ALL GRADING WORK AND CONSTRUCTION OF IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH RECOMMENDATIONS SPECIFIED IN THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY BAILEY ENGINEERING, INC., DATED APRIL 25, 2006 (JOB #0601-42872-G65). THE GEOTECHNICAL ENGINEER SHALL INSPECT THE COMPLETED PROJECT AND CERTIFY IN WRITING THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT.

13. 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 ARCHEOLOGICAL 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.

14. ALL CONSTRUCTION STAKING FOR CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS AND WATER LINES SHALL BE DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.

15. FOR DESIGN AND CONSTRUCTION PURPOSES, "FACE OF CURB" AS SHOWN ON THESE PLANS SHALL BE DEFINED AS THE CONTROL LINE FROM WHICH THE LOCAL AGENCY REQUIRES THE STREET WIDTH TO BE DETERMINED.

16. THE DIRECTOR OF PUBLIC WORKS, OR HIS AUTHORIZED REPRESENTATIVE, SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.

17. THE CONTRACTOR SHALL NOTIFY THE COUNTY CONSTRUCTION ENGINEER (831-454-2160) 24 HOURS PRIOR TO START OF CONSTRUCTION.

18. THE CONTRACTOR SHALL NOTIFY THE SANITATION DISTRICT INSPECTOR (831-454-2160), OR LEAVE MESSAGE AT (831-454-2800) BEFORE 9:00 AM AT LEAST 24 HOURS PRIOR TO THE CONNECTION OF ANY BUILDING SEWER TO THE SEWER LATERAL, OR TO THE ABANDONMENT THEREOF. IN THE CASE OF ABANDONMENTS, NO DEMOLITION PERMITS WILL BE ISSUED UNTIL SAID SEWER LINE HAS BEEN ABANDONED.

19. THE TOP 8" OF SUB-GRADE UNDER ALL PAVED SURFACES SUBJECT TO VEHICULAR USE SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION. THE CONTRACTOR'S ATTENTION IS ALSO REFERRED TO FIG. SS-2 "SANITARY SEWER - STANDARD TRENCH BACKFILL" FOR ADDITIONAL BACKFILL AND COMPACTION STANDARDS.

20. EACH NEW SANITARY SEWER LATERAL NOT IMMEDIATELY CONNECTED TO A DWELLING UNIT SHALL BE MARKED WITH A 2" X 4" X 8' REDWOOD STAKE MARKED TO 18" ABOVE FINISH GRADE AT THE END OF EACH NEW LATERAL STUB-OUT. AN "S" SHALL BE PAINTED ON THE MARKER AND THE END OF EACH LATERAL SHALL BE PROPERLY CAPPED. ALL LATERALS INSTALLED IN NEW DEVELOPMENTS SHALL ALSO BE MARKED BY STAMPING AN "S" IN THE CURB JUST ABOVE THE LATERAL.

21. INSULATED COPPER WIRE NO. 10 SHALL BE PLACED ALONG TOP OF ALL GRAVITY AND FORCE MAINS. THE WIRE SHALL RUN BETWEEN MANHOLES, CLEANOUTS, OR OTHER APPROPRIATE FACILITIES, BROUGHT TO THE SURFACE AND BOLTED OR OTHERWISE SECURELY AFFIXED TO THE MANHOLE OR CLEANOUT COVER OR OTHER APPROPRIATE METAL STRUCTURE.

22. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ON ALL LATERALS WHERE THE FINISHED FLOOR ELEVATION IS LESS THAN ONE FOOT ABOVE THE RIM ELEVATION OF THE NEAREST UPSTREAM MANHOLE OR CLEANOUT. THE VALVES SHALL BE LOCATED IN SUCH A WAY AS TO PREVENT ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF SEWAGE RELEASED THROUGH THE DEVICE, AS NOTED ON FIGURE SS-14.

23. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.

24. LATERAL UTILITY TRENCHES IN COUNTY MAINTAINED ROAD RIGHT OF WAY SHALL BE BACKFILLED WITH 1-SACK CEMENT/SAND SLURRY, PER FIG. SD-11, OR AS DIRECTED BY THE COUNTY INSPECTOR.

25. UNDERGROUND UTILITY LOCATIONS SHOWN ARE COMPILED FROM INFORMATION SUPPLIED BY UTILITY AGENCIES, AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF AFFECTED UTILITY LINES PRIOR TO ANY TRENCHING OR EXCAVATIONS. FOR LOCATION, CALL USA (800-642-2444).

26. ANY EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED AS A PART OF THIS CONSTRUCTION SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE.

27. IF SIDEWALK IS NOT PLACED MONOLITHICALLY WITH CURB AND GUTTER, PLACE #4 DOWELS 18" LONG AT 4' O.C. IN BACK OF CURB 3" BELOW TOP OF CURB, 6" INTO CONCRETE, AS PER STANDARD FIG. ST-4A.

28. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND UTILITIES AND SUBSTRUCTURES. PRIOR TO FURTHER CONSTRUCTION, THE ENGINEER MUST BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES THAT MAY EXIST.

29. REFER TO FIGURES SS-2A, SS-2B & EP-4 FOR BACKFILL REQUIREMENTS. REFER TO SS-11 FOR CONCRETE CAP AND ENCASEMENT REQUIREMENTS.

30. WATER SERVICES FOR SITE SHALL BE INSTALLED BY THE CONTRACTOR ACCORDING TO THE CITY OF SANTA CRUZ REQUIREMENTS PER DETAILS BY ENGINEER.

31. ALL REQUIREMENTS OF THE CENTRAL FIRE PROTECTION DISTRICT SHALL BE MET. THIS SHALL INCLUDE ALL REQUIREMENTS RELATING TO SMOKE DETECTORS, ADDRESS NUMBERS, FIRE ALARM, AUTOMATIC SPRINKLER SYSTEM, ACCESS WIDTHS AND TURNAROUNDS, AND FIRE HYDRANTS.

32. PVC SEWER PIPE SHALL BE MANVILLE "RING-TITE" OR EQUAL. RCP STORM DRAIN PIPE SHALL BE CLASS III. HDPE SHALL BE ADS (N-12) OR HANCOR (HI-Q).

33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF CONSTRUCTION QUANTITIES PRIOR TO BIDDING ON ANY ITEM. QUANTITY REFERENCES SHOWN ON THESE PLANS, OR ENGINEER'S ESTIMATES ARE FOR ESTIMATING PURPOSES ONLY AND SHALL NOT BE CONSIDERED AS A BASIS FOR CONTRACTOR PAYMENT. CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY FLUCTUATIONS IN SUCH QUANTITIES AND ESTIMATES.

34. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

35. UNLESS OTHERWISE NOTED, THE TERMS "INSTALL" AND "CONSTRUCT" MEAN THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS, PRODUCTS, EQUIPMENT, AND LABOR FOR SAID INSTALLATION AND CONSTRUCTION.

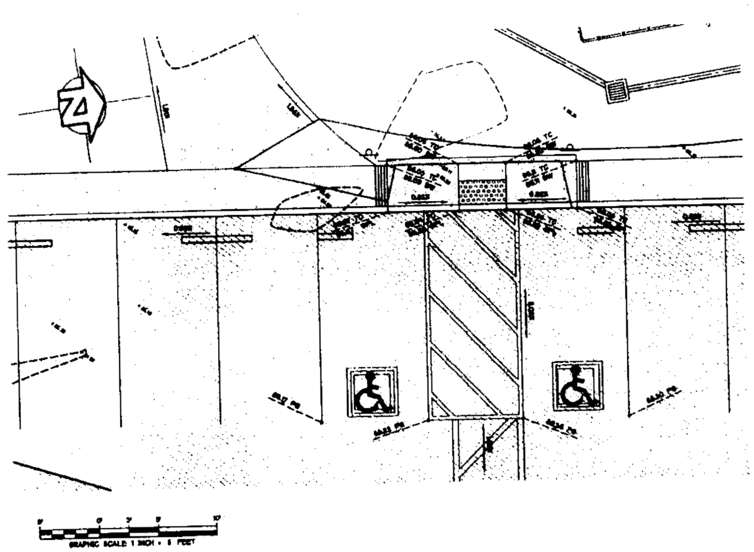
36. ALL CONSTRUCTION STAKING FOR CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS AND WATER LINES SHALL BE DONE UNDER THE OBSERVATION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.

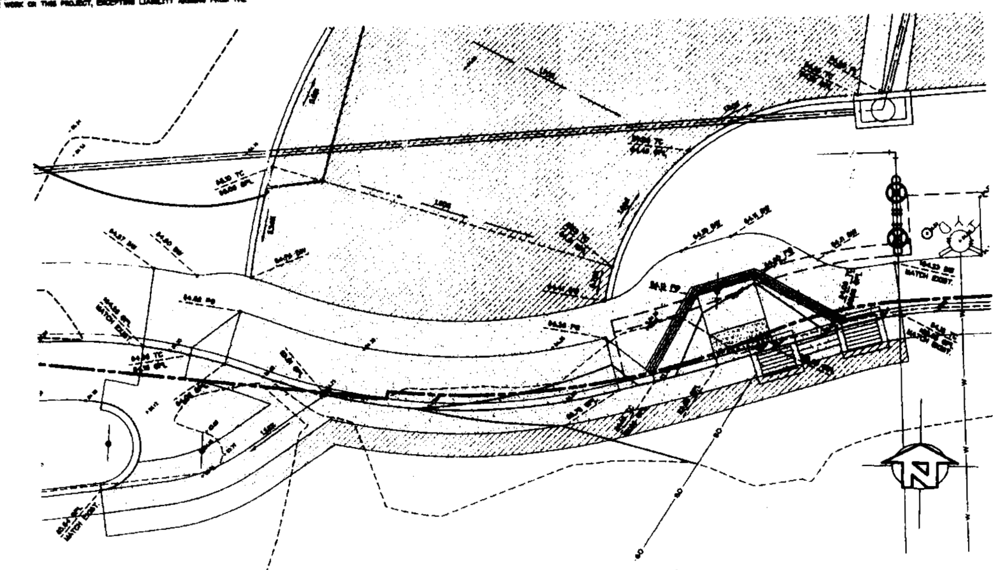
37. DIMENSIONED LOCATIONS OF ALL SEWER AND STORM DRAIN MANHOLES AND RELATED STRUCTURES AND THEIR GRATE, RIM, FLOWLINE OR INVERT ELEVATIONS SHALL TAKE PRECEDENCE OVER ANY PIPE LENGTHS OR SLOPES SHOWN ON THE PLAN. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY SUCH SLOPES AND LENGTHS TO BE IN AGREEMENT WITH SURVEY LAYOUT PRIOR TO CONSTRUCTION.

38. ALL WORK ADJACENT TO OR WITHIN A COUNTY ROAD SHALL BE SUBJECT TO THE PROVISIONS OF CHAPTER 9.70 OF THE COUNTY CODE, INCLUDING OBTAINING AN ENCROACHMENT PERMIT WHERE REQUIRED. WHERE FEASIBLE, ALL IMPROVEMENTS ADJACENT TO OR AFFECTING A COUNTY ROAD SHALL BE COORDINATED WITH ANY PLANNED COUNTY SPONSORED CONSTRUCTION ON THAT ROAD.

39. FOR ROAD WORK INVOLVING A PAVEMENT CONFORM SECTION BETWEEN THE LIP OF GUTTER AND THE EXISTING PAVED ROAD, THE CONFORM SHALL BE EXTENDED AS FAR AS NECESSARY TO ACHIEVE A STREET CROSS SLOPE OF 2% - 4%.

NOTE:
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR AGREES THAT HE WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE APPLIED CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS. THE CONSTRUCTION CONTRACTOR ALSO AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.





Grading & Drainage Details

SCALE 1" = 5'

Grading & Drainage Details

A.S.A. Animal Shelter

7th Ave & Rodriguez St, Santa Cruz, California

Ifland Engineers, Inc.

1100 WATER STREET, SUITE 2, SANTA CRUZ, CA 95062, TEL (831) 426-5313, FAX (831) 426-1763

CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN

ASSESSOR'S PARCEL NUMBERS: 026-062-97, 026-461-02

DATE	DESIGN	DRAWN
02/08/07	DUANE	MARC

SHEET C4 OF 5 SHEETS

JOB NO. 06001

APPROVED 2/8/07

RCE NO. 18316

EXHIBIT A

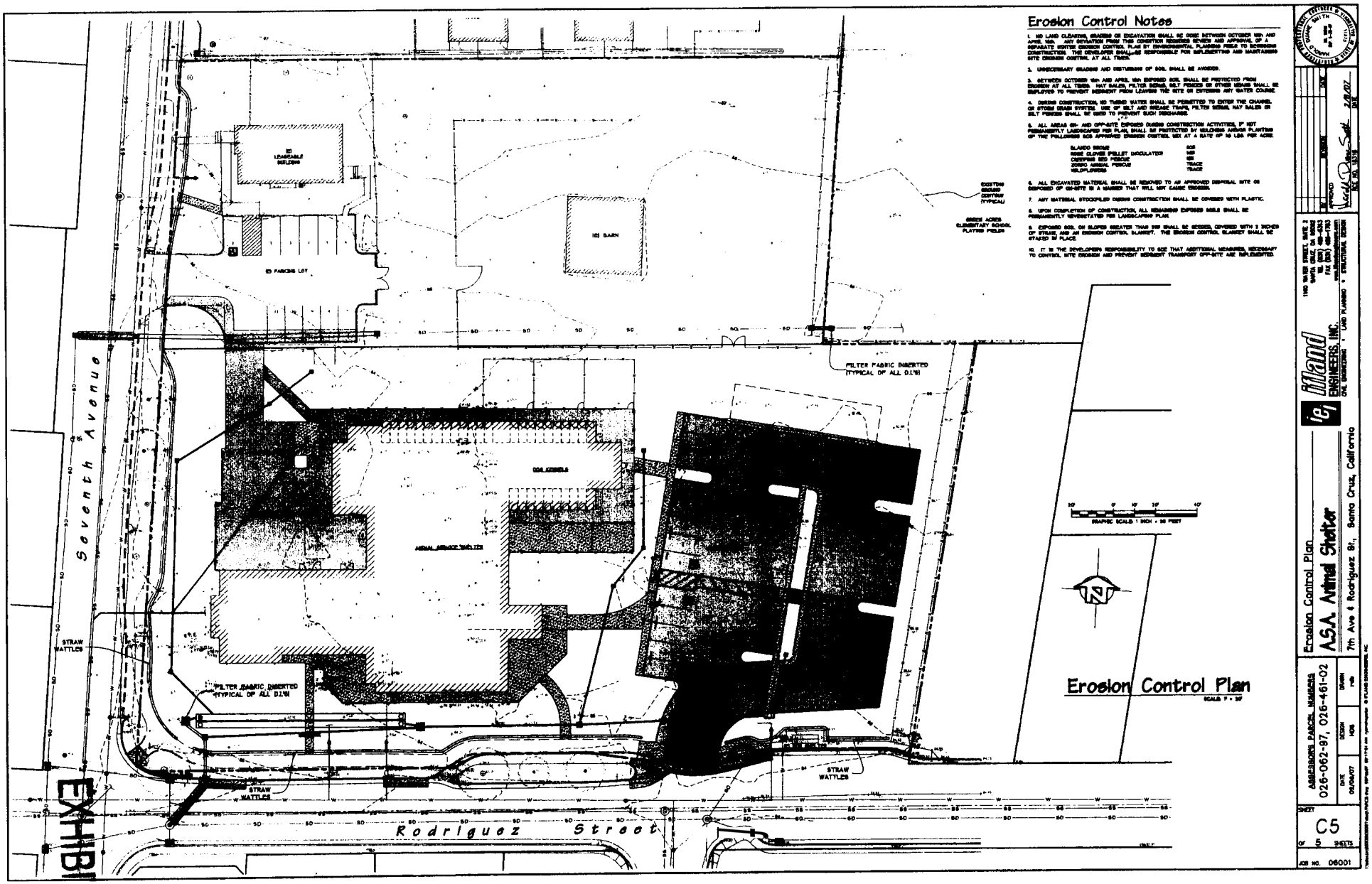
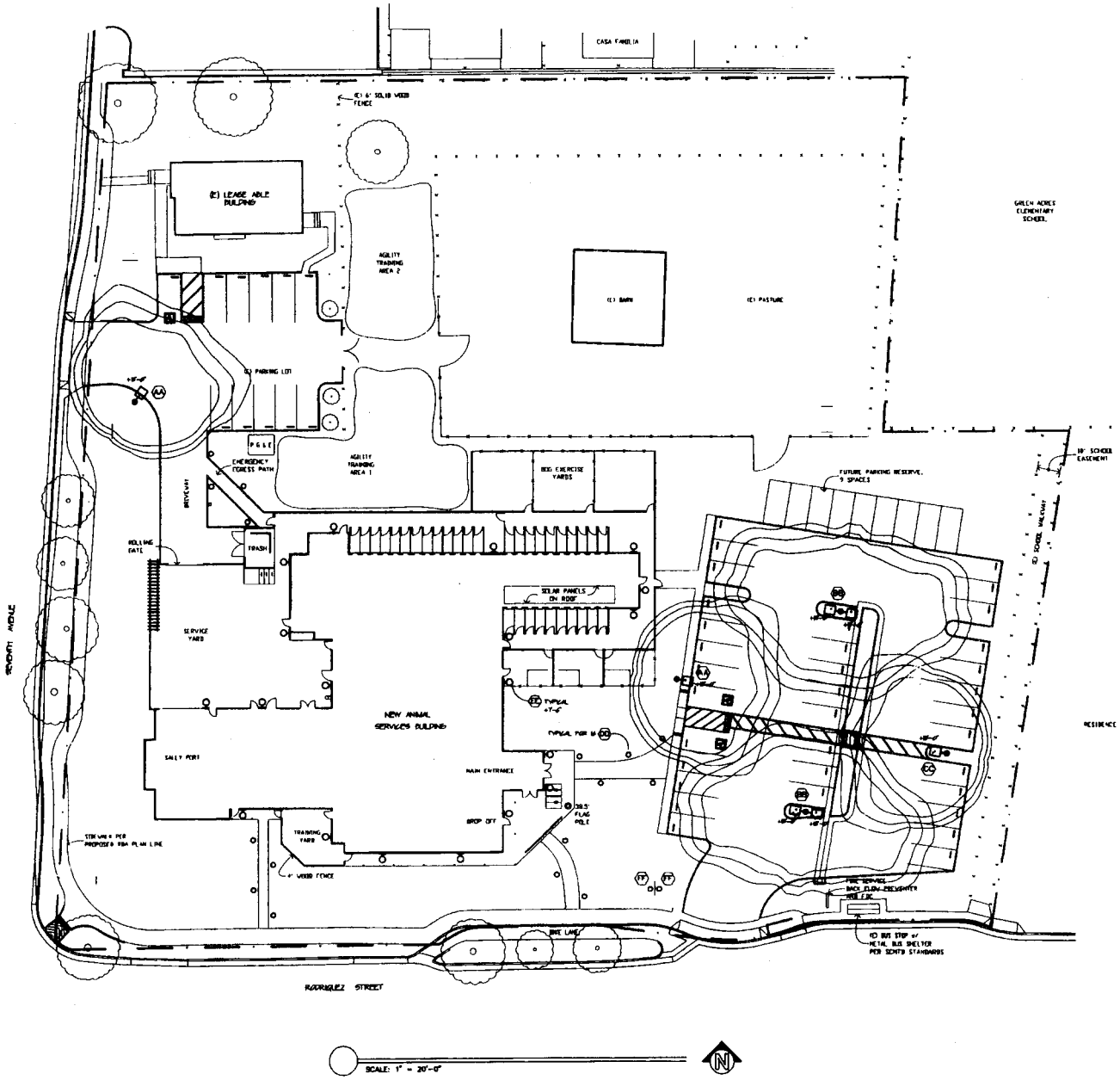

Erosion Control Notes
1. NO LAND CLEARING, GRADING OR EXCAVATION SHALL BE DONE BETWEEN OCTOBER 15th AND APRIL 15th. ANY DEVIATION FROM THIS CONDITION REQUIRES REVIEW AND APPROVAL OF A SEPARATE WINTER EROSION CONTROL PLAN BY ENVIRONMENTAL PLANNING PRIOR TO BEGINNING CONSTRUCTION. THE DEVELOPER SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING SITE EROSION CONTROL AT ALL TIMES.
2. UNNECESSARY GRADING AND DISTURBING OF SOIL SHALL BE AVOIDED.
3. BETWEEN OCTOBER 15th AND APRIL 15th EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. HAY BALES, FILTER BERMS, SILT FENCES OR OTHER MEANS SHALL BE EMPLOYED TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING ANY WATER COURSE.
4. DURING CONSTRUCTION, NO TURBID WATER SHALL BE PERMITTED TO ENTER THE CHANNEL OR STORM DRAIN SYSTEM. USE OF SILT AND DEBRIS TRAPS, FILTER BERMS, HAY BALES OR SILT FENCES SHALL BE USED TO PREVENT SUCH DISCHARGE.
5. ALL AREAS ON- AND OFF-SITE EXPOSED DURING CONSTRUCTION ACTIVITIES, IF NOT PERMANENTLY LANDSCAPED PER PLAN, SHALL BE PROTECTED BY WELCHING ANNUAL PLANTING OF THE FOLLOWING SOIS APPROVED EROSION CONTROL SEED AT A RATE OF 50 LBS PER ACRE.
BLANDO BROME 50#
ROSE CLOVER PELLET INOCULATED 5#
CREEPING RED FESCUE 10#
ZORRO ANNUAL FESCUE TRACE
WILDFLOWERS TRACE
6. ALL EXCAVATED MATERIAL SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.
7. ANY MATERIAL STOCKPILED DURING CONSTRUCTION SHALL BE COVERED WITH PLASTIC.
8. UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED SOILS SHALL BE PERMANENTLY REVEGETATED PER LANDSCAPING PLAN.
9. EXPOSED SOIL ON SLOPES GREATER THAN 3:1 SHALL BE SEEDED, COVERED WITH 3 INCHES OF STRAW AND AN EROSION CONTROL BLANKET. THE EROSION CONTROL BLANKET SHALL BE STAPLED IN PLACE.
10. IT IS THE DEVELOPER'S RESPONSIBILITY TO SEE THAT ADDITIONAL MEASURES, NECESSARY TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF-SITE ARE IMPLEMENTED.
EXISTING GRADE CONTOUR TYPICAL
GREEN ACRES ELEMENTARY SCHOOL PLAYING FIELDS
10 LEARNABLE BUILDING
10 BARN
10 PARKING LOT
DOG KENNELS
ANIMAL ARRIVAL SHELTER
FILTER FABRIC INSERTED (TYPICAL OF ALL D.I.'S)
STRAW WATTLES
Seventh Avenue
Rodriguez Street
GRAPHIC SCALE 1 INCH = 10 FEET
Erosion Control Plan
SCALE 1" = 10'
mad ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
Erosion Control Plan
ASA Animal Shelter
7th Ave & Rodriguez St., Santa Cruz, California
ASSESSORS PARCEL NUMBERS
026-062-97, 026-461-02
DATE 05/04/07
DESIGN HDN
DRAWN mb
SHEET C5
OF 5 SHEETS
JOB NO. 06001

EXHIBIT A

EXHIBIT A



Teall
Messer
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FAX 462 8343

Electrical Engineering
Design and Drafting Service
PrimeDesignGroup

Prime Design Group, Inc.
9888 Soquel Drive, #9
Aptos, CA 95003
FAX (831) 662-8976
Phone (831) 662-8976

Animal Services Facility
Santa Cruz County
Animal Services
Authority

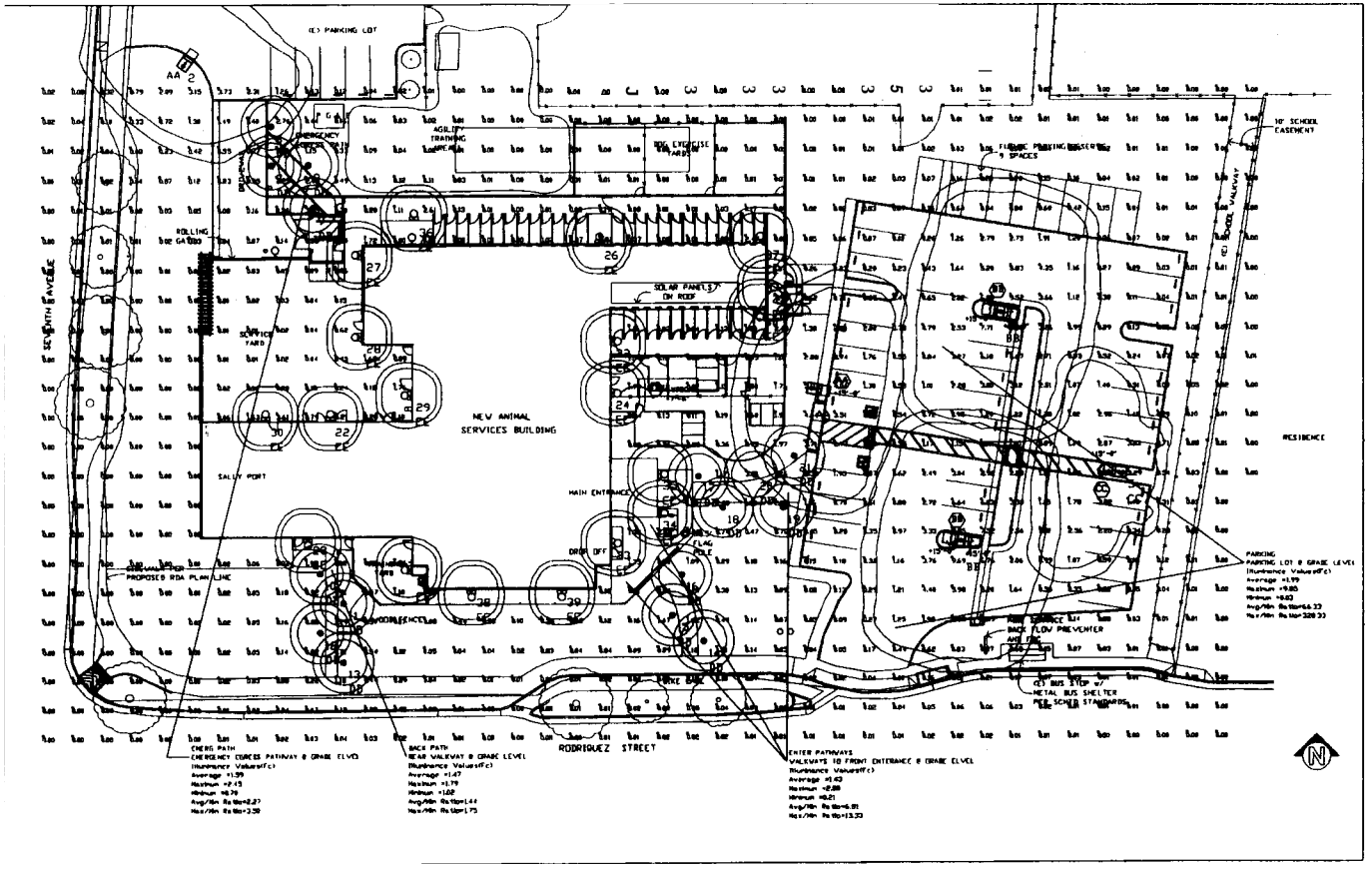
7th Ave. and Rodriguez
Santa cruz, California

Date: 10/20/06
Drawn by: DAA
Revisions:

Electrical Site Lighting Plan

Sheet Number:

E 1.1



Luminaire Location Summary

Project: ANIMAL SHELTER SC

Singlo	Label	X	Y	Z	Orient	Tilt
1	AA	477.791	184.872	15	356.883	0
2	AA	863.546	293.816	15	54.234	0
3	BB	548.277	236.359	15	356.857	0
4	BB	588.691	131.912	15	356.857	0
5	CC	583.854	155.242	15	176.679	0
6	DD	293.687	272.199	3.17	0	0
7	DD	293.746	259.81	3.17	0	0
8	DD	306.314	259.987	3.17	0	0
9	DD	308.11	245.712	3.17	0	0
10	DD	318.346	181.263	3.17	0	0
11	DD	318.347	111.819	3.17	0	0
12	DD	318.586	98.232	3.17	0	0
13	DD	318.484	96.25	3.17	0	0
14	DD	441.231	98.111	3.17	0	0
15	DD	438.481	186.867	3.17	0	0
16	DD	433.695	126.61	3.17	0	0
17	DD	439.37	154.22	3.17	0	0
18	DD	447.784	143.492	3.17	0	0
19	DD	466.363	143.492	3.17	0	0
20	DD	458.61	184.841	3.17	0	0
21	DD	472.867	161.885	3.17	0	0
22	CC	313.952	173.726	7.5	90	0
23	CC	386.294	133.533	7.5	279	0
24	CC	499.441	182.884	7.5	0	0
25	CC	463.333	238.926	7.5	0	0
26	CC	485.573	233.818	7.5	90	0
27	CC	324.374	238.109	7.5	180	0
28	CC	324.374	202.421	7.5	180	0
29	CC	341.238	182.261	7.5	180	0
30	CC	291.759	173.815	7.5	90	0
31	CC	341.383	182.586	7.5	180	0
32	CC	499.54	208.725	7.5	0	0
33	CC	499.592	131.398	7.5	0	0
34	CC	485.586	141.652	7.5	0	0
35	CC	485.586	155.98	7.5	0	0
36	CC	348.867	241.671	7.5	90	0
37	CC	466.589	233.745	7.5	90	0
38	CC	361.64	113.487	7.5	279	0
39	CC	398.985	113.487	7.5	279	0
40	CC	466.543	251.212	7.5	279	0

Luminaire Schedule

Project: ANIMAL SHELTER SC

Symbol	Qty	Label	Arrangement	Lumens	LLD	LDD	BF	LLF	Description	Filename
	1	CC	SINGLE	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH-HS PRORATED 175MH	AVA325MSles
	2	AA	SINGLE	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH PRORATED 175MH	AVA325Mles
	2	BB	BACK-BACK	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH PRORATED 175MH BtoB	AVA325Mles
	16	DD	SINGLE	2400	0.85	0.9	1	0.765	BEGA 8143P BOLLARD 32WATT CFL	7273.IES
	19	EE	SINGLE	3200	0.85	0.9	0.98	0.750	BEGA 2483P 42WATT CFL	2483P.ies

Numeric Summary

Project: ANIMAL SHELTER SC

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	# Pts	Description
GENERAL SITE	Illuminance	Fc	0.61	9.85	0.00	N.A.	N.A.	835	ALL POINTS SHOWN @ GRADE LEVEL
PARKING	Illuminance	Fc	1.99	9.85	0.03	66.33	328.33	147	PARKING LOT @ GRADE LEVEL
EMERG PATH	Illuminance	Fc	1.59	2.45	0.70	2.27	3.50	3	EMERGENCY EGRESS PATHWAY @ GRADE ELVEL
ENTER PATHWAYS	Illuminance	Fc	1.43	2.80	0.21	6.81	13.33	12	WALKWAYS TO FRONT ENTERANCE @ GRADE ELVEL
BACK PATH	Illuminance	Fc	1.47	1.79	1.02	1.44	1.75	3	REAR WALKWAY @ GRADE LEVEL

ASSOCIATED LIGHTING REPRESENTATIVES, INC
8488 ENTERPRISE WAY
P.O. BOX 2865
OAKLAND, CA 94621
PHONE: (510) 638-0158 - FAX (510) 638-2988

REPORT FOR: PrimeDesignGroup-- DAVE AUBLE
BY: APPLICATIONS ENGINEERING -- LARRY AYERS LC
SALES REPRESENTATIVE: ALR-- STEVE HOLSAVAY

DATE: 13 NOVEMBER 2006

AGI32 VERSION 1.91

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Phone (831) 662-8070

nimal Services Facility
Santa Cruz County
Animal Services
Authority

7th Ave. and Rodriguez
Santa Cruz, California

Date: 11/14/06
Drawn by: DAA
Revisions:

Lighting Photometric Pl

Sheet Number:

E 2

EXHIBIT A

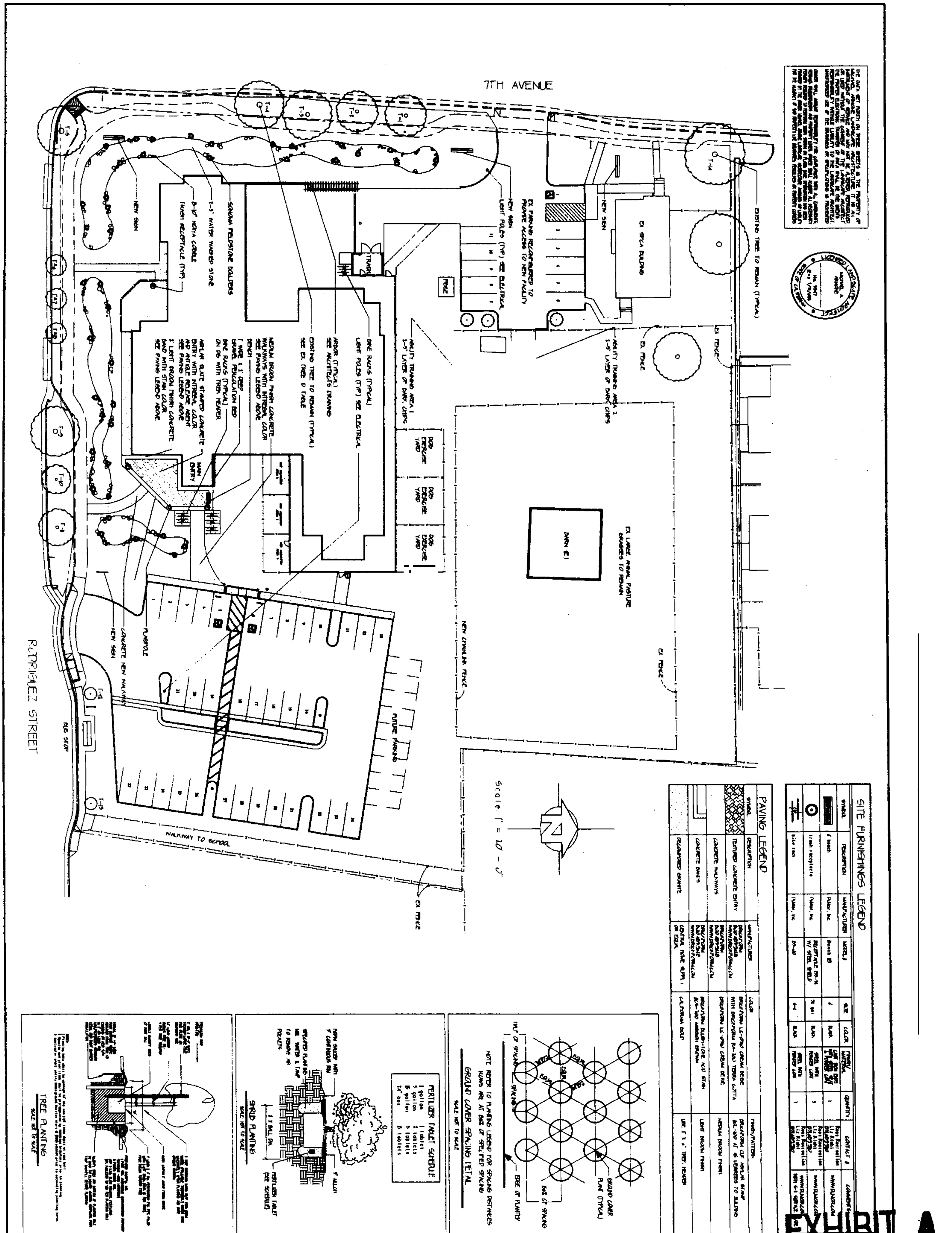


EXHIBIT A

MICHAEL ARNONE
LANDSCAPE ARCHITECT
California license #3347
3370 Samuel Place
Santa Cruz, CA 95062
831.462.4988

ANIMAL SERVICES AUTHORITY FACILITY

7TH AVENUE AND RODRIGUEZ STREET
SANTA CRUZ, CALIFORNIA

DATE	PURPOSE	BY
7.26.06	first time review	MAA
11.14.06	revised site plan	MAA
2.2.07	revised utilities	MAA

scale: 1" = 20' - 0"

sheet title: site furnishings & landscape plan

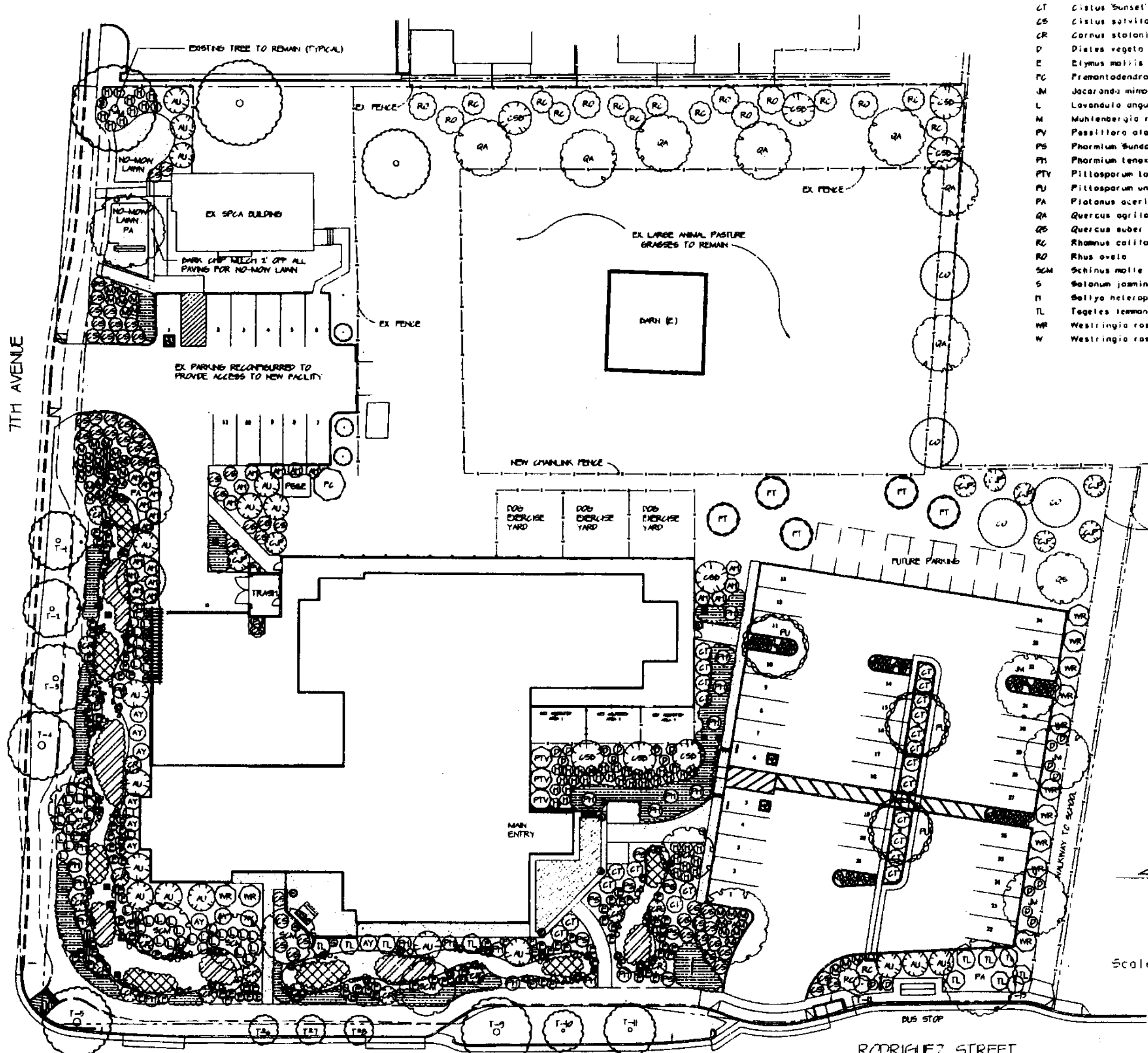
sheet number: L - 1

GROUND COVER LEGEND

Symbol	Scientific Name	Common Name	Size	Spacing/Area
	Carex tumilicola	Berkeley Sedge	plugs	30" o c
	Juncus patens	Spreading Rush	plugs	36" o c
	Erigeron karvinskianus	Santa Barbara Daisy	1 Gal	36" o c
	No Mow Lawn	Red Fescue Blend Seed	seed	1,015 sq ft

PLANT LEGEND

Alias	Scientific Name	Common Name	Planting Size	Quantity
AY	Alyogyne huegelii 'Santa Cruz'	Blue Hibiscus	5-Gal	10
FT	Apple espalier	Six in One Apple	15-Gal	5
AU	Arbutus unedo rubra	Strawberry Tree	5-Gal	16
AM	Arctostaphylos densiflora 'Howard McMinn'	McMinn Manzanita	5-Gal	24
CJP	Ceanothus 'Julia Pheps'	Ceanothus	5-Gal	[illegible]
CSB	Ceanothus 'Sierra Blue'	Sierra Blue Ceanothus	5-Gal	[illegible]
CO	Cercis occidentalis	Western Redbud	15-Gal	5
CT	Cistus 'Sunset'	Sunset Rockrose	5-Gal	[illegible]
CS	Cistus salvifolius	Sageleaf Rockrose	1-Gal	[illegible]
CR	Cornus stolonifera	Red-twig Dogwood	5-Gal	[illegible]
D	Dietes vegeta	Fortnight Lily	1-Gal	[illegible]
E	Elymus mollis	Pacific Dune Grass	1-Gal	[illegible]
FC	Fremontodendron 'California Glory'	Flannel Bush	5-Gal	1
JM	Jacaranda mimosifolia	Jacaranda	24"-Box	[illegible]
L	Lavandula angustifolia	English Lavender	1-Gal	[illegible]
M	Muhlenbergia rigens	Deer Grass	1-Gal	[illegible]
PV	Passiflora alatocaerulea	Passion Vine	5-Gal	2
PS	Phormium 'Sundowner'	Red Flax	5-Gal	7
PH	Phormium tenax 'Yellow Wave'	Dwarf Flax	5-Gal	20
PTV	Pittosporum tobira 'Variegata'	Variegated Tobira	5-Gal	9
PU	Pittosporum undulatum	Victorian box	24"-Box	9
PA	Platanus acerifolia 'Bloodgood'	London Plane Tree	24"-Box	4
QA	Quercus agrifolia	California Live Oak	15-Gal	7
QS	Quercus suber	Cork Oak	15-Gal	1
RC	Rhamnus californica	Coffeeberry	5-Gal	11
RO	Rhus ovata	Sugar Bush	5-Gal	7
SCM	Schinus molle	California Pepper Tree	24" Box	6
S	Solanum jasminoides	Potato Vine	5-Gal	6
H	Sollya heterophylla	Australian Bluebell Cr.	1-Gal	40
TL	Tagetes lemmonii	Bush Marigold	5-Gal	10
WR	Westringia rosmariniformis	Westringia	5-Gal	11
W	Westringia rosmariniformis 'Compacta'	Dwarf Rosemary Bush	1-Gal	45



PLANTING NOTES.

1. All existing trees, shrubs and ground covers to remain shall be protected. Any damage caused by Contractor's work shall be repaired or replaced at the contractor's expense and be approved by the Landscape Architect.
2. Planting beds shall receive the following soil amendments per thousand square feet to be thoroughly incorporated into the top 6-8 inches of soil:
   - 6 cu yd Nitrified redwood sawdust
   - 25 lbs Dolomite 65
   - 35 lbs Treble superphosphate (0-45-0)
3. After amending soil, grade all areas smooth with no localized depressions exceeding 1/2 inch. All areas shall surface drain with 1.5 percent minimum slope away from all buildings, paving or other structures.
4. All imported top soil shall be submitted to Landscape Architect for testing and approval if testing is required. Contractor shall pay for all lab testing fees.
5. Contractor shall consult with Landscape Architect if plant substitutions are required.
6. Quantities are for aiding in bidding only. Contractor shall verify all quantities.
7. Contractor shall lay out plant material as per plan and receive approval from Landscape Architect prior to installation.
8. No plants shall be planted with root balls or new pits in a dry condition.
9. Plant all plants as per planting details in square pits with sides and bottoms thoroughly scarified. Do not amend backfill mix beyond initial topsoil amending unless noted. Use Agriform time release fertilizer tablets or equal as per schedule in planting details.
10. Immediately after planting, treat all areas with pre-emergent weed control as per manufacturer recommendations prior to top dressing.
11. All newly planted material shall be watered by deep soaking within 3 hours of planting.
12. All planting areas shall receive 3 inches of shredded fir bark top dressing (mulch).
13. Contractor shall be responsible for irrigating all new plant material until the entire project has been approved and accepted by County of Santa Cruz.
14. Thirty days after planting, Contractor shall restake and straighten all trees as necessary to be approved by Landscape Architect.
15. Contractor shall install a Trex headerboard (or equal) along the edge of the new no-mow lawn.

SEE PLANTING DETAILS SHEET L-1

NOTES:
1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO EFFECTIVELY WATER ALL NEW PLANTING AREAS. THE SYSTEM WILL BE DESIGNED FOR THE CONSTRUCTION DOCUMENT PHASE OF WORK. DRIP IRRIGATION EQUIPMENT, BUBBLERS AND LOW FLOW SPRAY HEADS WILL BE USED TO CONSERVE WATER. THE PLAN SHALL BE SUBMITTED AND APPROVED BY THE [illegible]
2. THE LAYOUT AND SIZE OF THE BIO SWALE SHALL CONFORM TO THE RECOMMENDATIONS BY THE CONSULTING ENGINEER. IT IS THE INTENT OF THE LANDSCAPE DESIGN TO MAKE THE APPEARANCE OF THE BIO SWALE RESEMBLE A DRY CREEK BED. SONOMA FIELDSTONE BOULDERS, SMOOTH NORTH COBBLE AND WATER WASHED STONE CAN BE USED ON TOP OF THE BIO SWALE. PLANTINGS OF SEDGE AND RUSH SPECIES ARE SHOWN WITHIN THE BIO SWALE ZONE ALONG WITH DEER GRASS AND PACIFIC DUNE GRASS ALONG THE PERIMETER.

EXISTING TREE INVENTORY

ID	SPECIES	TRUNK CALIPER	CANOPY WIDTH	APPROX. HEIGHT
T-1	SYCAMORE	16"	30'	45'
T-2	SYCAMORE	16"	30'	45'
T-3	SYCAMORE	24"	30'	45'
T-4	SYCAMORE	30"	30'	45'
T-5	REDWOOD	30"	30'	55'
T-6	CRAPE MYRTLE	5"	12'	15'
T-7	CRAPE MYRTLE	5"	12'	15'
T-8	CRAPE MYRTLE	4"	10'	15'
T-9	SYCAMORE	24"	40'	40'
T-10	SYCAMORE	16"	35'	40'
T-11	SYCAMORE	16"	35'	40'
T-12	PISTACHE	3"	6'	10'
T-13	PISTACHE	2"	5'	8'
T-14	MYOPORUM	MULTI 6", 4", 5"	12'	15'

Scale: 1" = 20' - 0"

EXHIBIT A

MICHAEL ARNONE
LANDSCAPE ARCHITECT
California license #3347
3370 Samuel Place
Santa Cruz, CA 95062
831.462.4988

ANIMAL SERVICES AUTHORITY FACILITY
7TH AVENUE AND RODRIGUEZ STREET
SANTA CRUZ, CALIFORNIA

DATE	PURPOSE	BY
7.21.06	first issue review	MAA
11.30.06	revised site plan	MAA
2.2.07	revised utilities	MAA

scale: 1" = 20' - 0"

sheet title: planting plan

sheet number: L - 2

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.

This finding can be made, in that the project is located on property designated for public facility uses and is not encumbered by physical constraints to development. The project has been designed to mitigate any potential impacts to the environment. Construction will comply with prevailing building technology and the Uniform Building Code to insure the optimum in safety and the conservation of energy and resources. The proposed public facility 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.

Also to ensure an energy efficient building and healthy environment, the applicant's project description includes the intent to design the building in general accordance with LEED standards. This will be accomplished in the following ways: utilizing construction materials that contain recycled, local, and/or normally wasted materials; using paint with low volatile emissions; considering energy efficiency in all lighting fixtures and equipment schedules; sorting building demolition materials to allow for reuse and efficient placement at the land fill; utilizing building principles to achieve energy efficiency including increased insulation, minimized heat leakage, use of glass that excludes intense sun heat, and a very efficient heat system including a heat recovery sub-system in the kennels; as well as, the use of new generation roofing materials that reflect **30%** more sunlight and associated heat load than typical composition shingle roofing.

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.

This finding can be made, in that the proposed location of the animal services facility and the conditions under which it would be operated and maintained will be consistent with all pertinent County ordinances and the purpose of the PF (Public and Community Facilities) zone district in that the primary use of the property will be a public facility use (animal services facility) that meets all current site standards for the zone district.

The project is also consistent with the regulations in County Code Section **13.10.642,** which apply to the maintenance of kennels, small-animal hospitals, veterinarians' offices, animal shelters and pounds. The area where the kennels will be maintained is entirely enclosed by a closed non-transparent fence of six feet in height. The actual enclosures where the animals will be kept are more than 75 feet from any residence. Condition IV.C. is included to ensure that the premises will be kept in a neat and sanitary manner by the daily removal of excrement and the use of sprays and disinfectants, as determined to be necessary by the Environmental Health Services, to prevent an accumulation of flies, the spread of diseases, offensive odor, or excessive dust.

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.

This finding can be made, in that the proposed public facility use is consistent with the use and development requirements specified for the Public Facility/Institutional (P) land use designation in the County General Plan and the site is located within the Urban Services Line. Pursuant to the General Plan Objective 2.21 program, the project is consistent with the Public Facility (PF) zoning regulations that govern the location, design, and use of public and quasi-public facilities, and a project Master Plan was provided and reviewed in conjunction with this application.

Consistent with General Plan Policy 2.21.3, the Public Facility land use designation on this site is utilized exclusively for the public facility activity at the site. Consistent with Public Facility Policy 2.21.5, this application includes a long-term Master Plan for the public facility in conjunction with the application to establish a new facility to replace the previous animal shelter facility. The Master Plan for the new facility includes the adjoining parcel to the north, which includes elements related to the use of the public facility and related facilities and improvements. The Master Plan site plan demonstrates that the proposed use and possible expansion to include future agility training areas is compatible with the goals and policies of the General Plan. Also, consistent with Policy 2.21.6, the project and environmental review processing encouraged cooperative planning and Master Plan review between appropriate review agencies to assure adequate assessment of the public facility needs.

The project was designed and reviewed to ensure compatibility with surrounding uses through application of the Design Review ordinance (Policy 8.5.2). Careful attention was also given to landscaping, signing, access, site and building design, visual impacts, drainage, parking, on site circulation, traffic patterns, fencing, and mitigation of potential nuisance factors identified with the previous facility design and operations.

The proposed animal services facility structure will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the PF zone district, in that the structure will not adversely shade adjacent properties, and will meet current setbacks for the zone district that ensure access to light, air, and open space in the neighborhood.

The proposed structure will not be improperly proportioned to the parcel size or the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed structure will comply with the site standards for the PF zone district (including setbacks, height, and number of stones) and will result in a structure consistent with a design that could be approved on similarly sized lots in the vicinity.

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.

This finding can be made, in that the proposed animal services facility is to be constructed on an existing previously developed lot. The expected level of traffic generated by the proposed project is anticipated to be 10 peak hour trips during the AM peak period and 15 peak hour trips during the PM peak period. The traffic report included in Exhibit D determined that 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.

This finding can be made, in that the proposed animal services public facility is consistent with the land use intensity and the existing mix of low and high-density residential, public facility, and commercial uses in the neighborhood. The public facility nature of the property will harmonize with the existing development in the area located along 7th Avenue, a relatively major north-south transportation arterial in the Live *Oak* area. As well, the proposed structure is located in a mixed neighborhood containing a variety of architectural styles and the project was designed to be compatible with the surrounding uses.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed animal services facility 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 proposed building is a relatively low 1-story structure, with board and batt siding, and with building planes broken up to minimize bulk and mass facing the adjacent public roadways. The new building is similar in scale and a compatible architectural style to the residential structures nearby, and is consistent with the neighborhood input received at the early public meetings.

Conditions of Approval

Exhibit A: Project Plans entitled "Santa Cruz County Animal Services Authority Animal Shelter": architectural plans prepared by Teall Messer Architect, 9 sheets A1.1 to A6.1 dated 2/7/07; engineered plans prepared by Ifland Engineers Inc., 5 sheets C-1 to C5 dated 2/8/07; lighting plans prepared by Prime Design Group, 2 sheets E1.1 and E2 dated 10/20/06; and landscape plans prepared **by** Michael Arnone Landscape Architect, 2 sheets L-1 & L-2 revisions dated 2/2/07.

This permit authorizes the following:

1) Demolition of the existing unused approximately 16,000 square foot (sq ft) animal shelter consisting of 4 buildings, 4 sheds, and kennels (total of about 12,000 sq ft covered space and about 4,000 sq ft outdoor kennels/runs);
2) Master Public Facility Site Plan for the construction of a replacement Animal Services Facility with one 1-story, 13,144 sq ft building and **1,330** sq ft of exterior kennels, with associated parking, landscaping, and approximately 1,850 cubic yards of grading; and,
3) Additional Master Plan facility uses including:
   - Visitor use area, animal exercise yards, service yard and future agility training area; and,
   - Retention of the existing 1,400 sq ft office building (currently SPCA office), 1,200 sq ft shed/barn, and pasture area on northern parcel APN 026-461-02.

I. Prior to exercising any rights granted by this permit including, without limitation, any site disturbance, demolition, or start of construction, 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 Demolition Permit from the Santa Cruz County Building Official, or submit final demolition plans for review by an equivalent State **or** other agency.

C. Obtain a Building Permit from the Santa Cruz County Building Official, submit the construction drawings to the International Code Council (I.C.C.) for review, or obtain equivalent review by a contract agency.

D. Obtain a Grading Permit from the Santa Cruz County Building Official or if no permits are obtained, obtain final grading review by Environmental Planning.

E. Obtain an Encroachment Permit from the Department **of** Public Works (DPW) or equivalent DPW Road Engineering and Driveway Encroachment review and approval for all off-site work performed in the County road right-of-way. Additional details shall be provided at the driveway entrance off Rodriguez Street to demonstrate that there will not be conflicts between the existing bike lane, new accessible sidewalk, drainage swales, curbs, and driveway.

F. Obtain final water service approval from the City of Santa Cruz.

G. Obtain final sewer service approval from the Santa Cruz County Sanitation District.

EXHIBIT C

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

I. Obtain any required permits from the County's Environmental Health Services Department for the safe disposal of biological waste resulting from the use of the building as an animal shelter with animal veterinarian component serving the shelter.

J. Obtain a National Pollutant Discharge Elimination System (NPDES), storm water permit from the California Regional Water Quality Control Board, Central Coast Region. All conditions of the NPDES permit are, by reference, hereby incorporated into the conditions of this permit.

K. Notify the Monterey Bay United Air Pollution Control District (MBUAPCD) of the project and obtain approval of the demolition plan and the plan for disposing of associated waste material, as required by federal regulations (national emissions standards for asbestos) and rules of the MBUAPCD. This shall be done prior to approval of demolition or building permits, or if no permits are issued, prior to beginning demolition, in order to address the potential of demolishing building(s) that contain lead paint and asbestos containing construction materials.

L. The owner/developer shall designate a disturbance coordinator to respond to citizen complaints and inquiries from area residents during construction. **A** 24-hour contact number shall be conspicuously posted on the job site. The disturbance coordinator shall record the name, phone number and nature of the disturbance. The disturbance coordinator shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the compliant or inquiry. Unresolved complaints received by County staff from area residents may result in the prescription of additional Operational Conditions.

M. Pay a Negative Declaration filing fee of $1,850.00 to the Clerk of the Board of the County of Santa Cruz as required by the California Department of Fish and Game mitigation fees program (per state law, Fish and Game Code Section 711.4(c)(3)), or pay a $50.00 filing fee with a "letter of no effect" issued by Fish and Game.

II. Prior to issuance of a Building Permit, Grading Permit, or if no permits are issued, prior to ground disturbance on the site and start of construction, the applicant/owner shall:

A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).

B. Submit final architectural and civil engineered 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. Any changes from

the approved Exhibit **"A"** for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. Identify the final exterior building and roof materials and colors for Planning Department approval if changes from the approved palette are proposed. Color boards must be in 8.5" x 11" format.

2. A final sign plan for the public facility shall be submitted for staff review and approval. Signage for the site must comply with the approved Exhibit **"A"** for this permit.

3. Final grading plans, that are prepared, wet stamped, and signed by a licensed civil engineer. Final grading plans must include the limits of grading, estimated earthwork volumes including over-excavation and recompaction calculations, cross sections through all improvements, and existing and proposed cut and fill areas. The grading plans shall comply with all recommendations of the geotechnical report and addendum information (Bauldry Engineering, April 2006 and July 2006), including over-excavation/recompaction of the subsurface, construction of a mat foundation designed to span voids beneath the structure, and flexible utility connections to address potential liquefaction. The final grading plans shall also specify the destination of exported soil material. The material shall either be brought to the municipal landfill or to another site that has a valid permit to receive the material.

4. Final detailed erosion control plan, that is prepared, wet stamped, and signed by a licensed civil engineer for review and approval by Environmental Planning staff. In order to prevent erosion of sandy soils, off site sedimentation, and pollution of Arana Gulch, the plan shall include the following elements: clearing and grading schedule; temporary driveway surfacing and construction entry stabilization; sediment control structures; details of temporary drainage control including lined swales and erosion protection at the outlets of pipes; and, specifications for revegetation of bare areas, both temporary cover during construction and permanent planting.

5. Final drainage plans that are prepared, wet stamped, and signed by a licensed civil engineer. Final drainage plans must include existing and proposed drainage facilities, and details of devices such as back drains, culverts, energy dissipaters, detention pipes, etc. The drainage plan shall indicate that all runoff from paved surfaces, except for the walkway around the dog kennels, will pass through a silt and grease trap or bioswale in order to protect surface water quality from degradation due to silt, grease and other urban contaminants.

6. Engineered improvement plans for all on-site and off-site improvements. All improvements shall be submitted for the review and approval by the Department of Public Works. Details of the frontage improvements at the project entry off Rodriguez Street shall be submitted for review and approval by the Road Engineering division and for Accessibility review.

7. A tree protection plan for the existing trees to be retained on site must be indicated on the project plans. The grading, drainage and site plans must incorporate the tree protection recommendations of the project arborist (Arbor *Art,* October 2006 and November, 2006) in order to minimize impacts from loss of native trees. These recommendations include:

a. Rerouting improvements to prevent disturbance within eighteen feet of the large redwood tree on the northeast corner of Rodriquez Street and 7th Avenue;

b. Limiting excavation to a depth of four inches in proximity to the mature Sycamore trees on Rodriquez Street and on 7th Avenue; and,

c. Specifying asphalt rather than concrete curb on the west side of tree numbers **20-4** through **23-4.**

8. Project plans shall incorporate all recommendations in the Noise Assessment Study (Pack and Associates, August, 2006) such that the General Plan thresholds for acceptable levels of noise will not be exceeded at any of the three closest sensitive receptors.

9. A lighting plan for the proposed development. Lighting must comply with the following conditions:

a. All site, building, security and landscape lighting shall be directed onto the site and away from adjacent properties. Light sources shall not be visible from adjacent properties. Light sources can be shielded by landscaping, structure, fixture design **or** other physical means. Building and security lighting shall be integrated into the building design.

b. 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.

c. Area lighting shall be high-pressure sodium vapor, metal halide, fluorescent, or equivalent energy-efficient fixtures.

10. All rooftop mechanical and electrical equipment shall be designed to be an integral part of the building design, and shall be screened.

EXHIBIT C

11. Utility equipment such as electrical and gas meters, electrical panels, junction boxes, and backflow devices shall not be located on exterior wall elevations facing streets unless screened from streets and building entries using architectural screens, walls, fences, and/or plant material.

12. For any structure proposed to be within **2** feet of the maximum height limit for the zone district (35 feet in PF zone), the building plans must include a roof plan and a surveyed contour map of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site, which clearly depict the total height of the proposed structure.

13. Details showing compliance with fire department requirements.

14. Irrigation equipment and details to accommodate future Redevelopment Agency Street Tree planting in the landscape strip along the 7th Avenue and Rodriguez Street frontages (e.g. irrigation line sleeves under the sidewalk and driveways, mainline connection stubout, and automatic controller station and wire). The plans should demonstrate consistency with the approved 7th Avenue Plan Line. Applicant shall work with the Redevelopment Agency and Department of Public Works to coordinate the plan line improvements and to install irrigation improvements as needed.

C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached.

D. Meet all requirements of and pay all applicable fees to the City of Santa Cruz Water Department (see Water District letter dated **6/14/06** with form dated **9/19/06** revised **12/1/06,** and Water Conservation letter dated **9/17/06).**

E. Meet all requirements of and pay all applicable fees to the Santa Cruz County Sanitation District (see Sanitation memo dated **9/25/06).**

F. Meet all requirements and pay any applicable plan check fee of the Central Fire Protection District (see Fire District letter dated **11/28/06).**

G. Meet all requirements of and pay Zone 5 drainage fees to the County Department of Public Works, Drainage (see Drainage comments dated **12/6/06** and **12/26/06).** Drainage fees will be assessed on the net increase in impervious area.

H. 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.

I. Submit **3** copies of a final grading and building plan review letter prepared and stamped by a licensed Geotechnical Engineer to Environmental Planning staff, approving the plans. The letter shall indicate that all recommendations of the geotechnical report and addendum information (Bauldry Engineering, April **2006** and July **2006)** are reflected in the project plans.

J. Provide required off-street parking for a minimum of **34** 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.

K. 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.

L. Complete and file a silt and grease trap maintenance agreement with the Department of Public Works. The trap shall be inspected to determine if it needs cleaning or repair prior to October 15 of each year at a minimum. **A** brief annual report shall be prepared by the trap inspector at the conclusion of each inspection and submitted to the Drainage Section of the Department of Public Works within 5 days of the inspection. This monitoring report shall specify any repairs that have been done or that are needed to allow the trap(s) to function adequately.

M. Submit a letter by the project arborist to Environmental Planning staff, indicating that the plans reflect the arborist's tree protection recommendations (Arbor ***Art,*** October **2006** and November, **2006).**

N. Submit a letter by the project acoustic engineer to Environmental Planning staff, indicating that he has reviewed the plans and that they meet General Plan standards and that the thresholds for acceptable levels of noise will not be exceeded at any of the three closest sensitive receptors.

O. Pay the current Live *Oak* Transportation Improvement Area (TIA) fees for Roadside and Transportation improvements. Currently, these fees can be calculated as follows, but are subject to change:

1. The development is subject to Live *Oak* Transportation Improvement (TIA) fees at a rate of **$440** per daily trip-end generated by the proposed use. The traffic report submitted indicates a total of **60** new trips generated by the proposed public facility use. The fee is calculated as **60** trip ends multiplied by **$440** per trip end equals **$26,400.** The total TIA fee of **$26,400** is to be split evenly between transportation improvement fees and roadside improvement fees (currently estimated at $13,200 each).

111. 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. All site improvements shown on the final approved Building Permit or construction plans shall be installed.

B. All inspections required by the Building Permit or equivalent review shall be completed to the satisfaction of the County Building Official or contract inspector.

C. All new utilities to serve the proposed development shall be installed underground.

1. Pad-mounted transformers (as part of the underground electrical service distribution system) shall not be located in the front/street setback or area visible from public view, unless they are completely screened by walls and/or thick landscaping, and shall not obstruct views of traffic fiom driveways, or views to monument signs. Underground vaults may be located in the front setback area for aesthetic purposes.

D. Back flow devices and other landscape irrigation valves shall not be located in the front/street setback or area visible from public view, unless they are completely screened by walls and/or thick landscaping, and shall not obstruct views of traffic from driveways, or views to monument signs.

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

F. 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. **Master Plan Program (Public Facility Use):** Given the location of the project with respect to adjacent existing residential, public facility, school, and commercial uses, all change of use requests shall be processed at Level 3 to permit a thorough review of possible impacts. Only the uses listed below may be processed at Level 1, based on the parking available on site:

- Uses listed in the current PF (Public Facilities) use charts.

EXHIBIT C

The following additional restrictions apply to the proposed uses (and any future uses that include animal service elements):

1. The animal services facility operators shall designate a contact person to serve as a conflict resolution coordinator to address neighbor concerns as they may arise, including but not limited to noise, odor control, or parking. Any standing conflict that cannot be resolved should be returned to Planning for additional use permit review.

2. **A** parking analysis shall be prepared 1 year after project occupancy to determine whether the parking provided is adequately serving the facility. This evaluation should include parking usage counts over a two-week period including peak visitation and staffing times. If it is determined that the parking is inadequate, the applicant and/or facility operators shall provide a parking plan to improve the reserve parking spaces at the rear of the main parking lot for review and approval by Planning and Public Works. If accepted, this plan shall be implemented within 4 months of approval.

3. This Master Plan authorizes the occasional use of large animal and other livestock on a temporary as needed basis, however no large animals shall be stored on a permanent or long term basis for more than 90 days without additional Planning review and approval.

4. No outdoor unscreened storage visible from the public road or adjacent residences is permitted.

C. The regular operations of the facility shall ensure that the premises are kept in a neat and sanitary manner by the daily removal of excrement and the use of sprays and disinfectants, as determined to be necessary by the Environmental Health Services, to prevent an accumulation of flies, the spread of diseases, offensive odor, or excessive dust.

D. The landscape plan shall be maintained as depicted in the approved Exhibit "A", including maintenance of specimen trees as shown on these plans. Changes to this plan shall be subject to review by the Planning Director.

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

V. Mitigation Monitoring Program

The mitigation measures listed under this heading have been incorporated in 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

EXHIBIT C

monitoring and reporting program for the above mitigation is hereby adopted as a condition of approval for this project. This 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.

Mitigation Measure: Geotechnical (Condition **II.B.3** and 11.1)

Monitoring Program: In order to mitigate the potential for damage due to liquefaction the development shall comply with all recommendations of the geotechnical report and addendum information (Bauldry Engineering, April 2006 and July 2006), including over-excavationhecompaction of the subsurface, construction of a mat foundation designed to span voids beneath the structure, and flexible utility connections. Prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall submit a grading plan and building plan review letter from the project geotechnical engineer to Environmental Planning staff, approving the plans. The letter shall indicate that all recommendations are reflected in the project plans. Permits will not be approved or correction notices will be issued in the case of noncompliance.

Mitigation Measure: Urban Pollutants (Condition II.B.5 and II.L)

Monitoring Program: In order to protect surface water quality from degradation due to silt, grease and other urban contaminants, prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall revise the drainage plan to indicate that all runoff from paved surfaces, except for the walkway around the dog kennels, will pass through a silt and grease trap or bioswale. The facility operator, applicant, and/or owner shall be responsible for maintaining the trap(s) according to the following monitoring and maintenance procedures:

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

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(s) to function adequately.

Permits will not be approved or correction notices will be issued in the case of noncompliance after construction.

C. Mitigation Measure: Erosion Control (Conditions II.B.3 and II.B.4)

Monitoring Program: In order to prevent erosion of sandy soils, off site

sedimentation, and pollution of Arana Gulch, prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall:

1. Submit a detailed erosion control plan for review and approval by Environmental Planning staff. The plan shall include the following elements: clearing and grading schedule, temporary driveway surfacing and construction entry stabilization, sediment control structures, details of temporary drainage control including lined swales and erosion protection at the outlets of pipes; and specifications for revegetation of bare areas, both temporary cover during construction and permanent planting;

2. Modify the grading plans to specify the destination of exported soil material. The material shall either be brought to the municipal landfill or to another site that has a valid permit to receive the material.

Permits will not be approved or correction notices will be issued in the case of noncompliance.

D. Mitigation Measure: Tree Protection (Condition II.B.7 and II.M)

Monitoring Program: In order to minimize impacts from loss of native trees, prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall revise the grading, drainage and site plans to incorporate the tree protection recommendations of the project arborist (Arbor ***Art,*** October **2006** and November, **2006).** The arborist shall provide a letter to Environmental Planning staff indicating that the plans reflect the recommendations. These recommendations include:

1. Rerouting improvements to prevent disturbance within eighteen feet of the large redwood tree on the northeast comer of Rodriquez Street and 7th Avenue;

2. Limiting excavation to a depth of four inches in proximity to the mature Sycamore trees on Rodriquez Street and on 7th Avenue;

3. Specifying asphalt rather than concrete curb on the west side of tree numbers **20-4** through **23-4.**

Permits will not be approved or correction notices will be issued in the case of noncompliance.

E. Mitigation Measure: Noise Impacts (Condition II.B.8 and II.N)

Monitoring Program: In order to reduce off site noise impacts to a less than significant level, all recommendations in the Noise Assessment Study (Pack and Associates, August, **2006)** shall be incorporated into the project plans such that the

General Plan thresholds for acceptable levels of noise will not be exceeded at any of the three closest sensitive receptors. Prior to approval of building or grading permits, or if no permits are issued, prior to start of construction on the site, the applicant shall provide a letter to Environmental Planning staff from the project acoustic engineer, indicating that he has reviewed the plans and that they meet this standard. Permits will not be approved or correction notices will be issued in the case of noncompliance.

F. Mitigation Measure: Air Pollutants (Condition I.K)

Monitoring Program: In order to ensure that there are no significant impacts on the environment from demolishing building(s) that contain lead paint and asbestos containing construction materials, prior to approval of demolition or building permits, or if no permits are issued, prior to beginning demolition, the applicant shall notify the Monterey Bay United Air Pollution Control District (MBUAPCD) of the project. Applicant shall obtain approval of the demolition plan and the plan for disposing of associated waste material, as required by federal regulations (national emissions standards for asbestos) and rules of the MBUAPCD. Permits will not be approved or correction notices will be issued in the case of noncompliance.

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 on the expiration date listed below unless you obtain the required permits and commence construction.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Mark Deming, AICP	Melissa Allen
Assistant Director	Project Planner

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

EXHIBIT C

COUNTY OF SANTA CRUZ

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

NEGATIVE DECLARATION AND NOTICE OF DETERMINATION

Application Number: 06-0418 **County of Santa Cruz**

Proposal to demolish an approximately 12, *500* square foot animal shelter consisting of 4 buildings, 2 sheds, and kennels, and to construct a replacement Animal Services Facility with one 1-story, 12,635 square foot building, 1,600 sq. ft. of exterior kennels, visitor use area, animal exercise yard, and service yard, with associated parking, landscaping, and approximately 1,850 cubic pards of grading. Existing office building (currently SPCA office), shed/barn, and pasture area on northern parcel APN 026-461-02 to remain. Project requires a Master Site Plan Development Permit for the public facility use, amendments to Commercial Development, Planned Development and Use Permits 96-0156, 77-1572-PD, 4513-U and D-72-11-9, Design Review, Soils Report Review, and Grading Approval. The project is located at 2200 and 2260 7'' Avenue on the NE comer with Rodriguez Street in Santa Cruz, California.

APN:026-062-97 and 026-461-02 **Melissa Allen, Staff Planner**

Zone District: Public Facility, PF

ACTION: Negative Declaration with Mitigations

REVIEW PERIOD ENDS: February 2,2007

This project will be considered at a public hearing by the Planning Commission. 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.

Findings:

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__February 2, 2007

Date Approved By Environmental Coordinator__Februarv 6, 2007

Claudia Slater

CLAUDIA SLATER
Environmental Coordinator
(831) 454-~~3127~~ ← 5175

If this project is approved, complete and file this notice with the Cierk 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:_____

EXHIBIT D

COUNTY OF SANTA CRUZ

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

NOTICE OF ENVIRONMENTAL REVIEW PERIOD

SANTA CRUZ COUNTY

APPLICANT: **County of Santa Cruz**

APPLICATION NO.: **06-0418**

APN: **026-062-97 and 026-461-02**

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

XX Negative Declaration
(Your project will not have a significant impact on the environment.)

XX Mitigations will be attached to the Negative Declaration.

_____ No mitigations will be attached.

_____ Environmental Impact Report
(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Paia Levine, Environmental Coordinator at (831) 454-3178, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: **February 2,2007**

Melissa **Allen**
Staff Planner

Phone: **454-2218**

Date: **December 27.2006**

EXHIBIT D

NAME: County of Santa Cruz
APPLICATION: 06-0418
A.P.N: 26-062-97, 26-461-02

NEGATIVE DECLARATION MITIGATIONS

Revised 2-7-07

1. In order to mitigate the potential for damage due to liquefaction the development shall comply with all recommendations of the geotechnical report and addendum information (Bauldry Engineering, April 2006 and July,2006), including overexcavation/recompaction of the subsurface, construction of a mat foundation designed to span voids beneath the structure, and flexible utility connections. Prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall submit a grading plan and building plan review letter from the project geotechnical engineer to Environmental Planning staff, approving the plans. The letter shall indicate that all recommendations are reflected in the project plans.

2. To protect surface water quality from degradation due to silt, grease and other urban contaminants, prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall revise the drainage plan to indicate that all runoff from paved surfaces, except for the walkway around the dog kennels, will pass through a silt and grease trap~~,~~ or bioswale. The trap(s) shall be maintained according to the following monitoring and maintenance procedures:

   A. The traps shall be inspected to determine if they need cleaning or repair prior to October 15 each year at a minimum,

   B. 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(s) to function adequately.

3. In order to prevent erosion of sandy soils, off site sedimentation, and pollution of Arana Gulch, prior *to* approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall:

   A. Submit a detailed erosion control plan for review and approval by Environmental Planning staff. The plan shall include the following elements: clearing and grading schedule, temporary driveway surfacing and construction entry stabilization, sediment control structures, details of temporary drainage control including lined swales

EXHIBIT D

and erosion protection at the outlets of pipes; and specifications for revegetation of bare areas, both temporary cover during construction and permanent planting,

B. Modify the grading plans to specify the destination of exported soil material. The material shall either be brought to the municipal landfill or to another site that has a valid permit to receive the material.

4. In order to minimize impacts from loss of native trees, prior to approval of building or grading permits, or if no permits are issued, prior to ground disturbance on the site, the applicant shall revise the grading, drainage and site plans to incorporate the tree protection recommendations of the project arborist (Arbor Art, October 2006 and November, 2006). The arborist shall provide a letter to Environmental Planning staff indicating that the plans reflect the recommendations. These recommendations include:

   A. Rerouting improvements to prevent disturbance within eighteen feet of the large redwood tree on the northeast corner of Rodriquez Street and 7th Avenue;

   B. Limiting excavation to a depth of four inches in proximity to the mature Sycamore trees on Rodriquez Street and on 7th Avenue;

   C. Specifying asphalt rather than concrete curb on the west side of tree numbers 20-4 through 23-4.

5. in order to reduce off site noise impacts to a less than significant level, all recommendations in the Noise Assessment Study (Pack and Associates, August, 2006) shall be incorporated into the project plans such that the General Plan thresholds fer acceptable levels of noise will not be exceeded at any of the three closest sensitive receptors. Prior to approval of building or grading permits, or if no permits are issued, prior to start of construction on the site, the applicant shall provide a letter to Environmental Planning staff from the project acoustic engineer, indicating that he has reviewed the plans and that they meet this standard.

6. In order *to* ensure that there are no significant impacts on the environment from demolishing building(s) that contain lead paint and asbestos containing construction materials; prior to approval of demolition or building permits, or if no permits are issued, prior to beginning demolition, the applicant notify the Monterey Bay United Air Pollution Control District (MBUAPCD) of the project. Applicant shall obtain approval of the demolition plan and the plan for disposing of associated waste material, as required by federal regulations (national emissions standards for asbestos) and rules of the MBUAPCD.

EXHIBIT **D**

Environmental Review Initial Study

Application Number: 06-0418

Date: December 26,2006
Staff Planner: Melissa Allen

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: County of Santa Cruz
OWNER: County of Santa Cruz
APN: 026-062-97 and 026-461-02
SUPERVISORIAL DISTRICT: First

LOCATION: 2200 and 2260 7th Avenue on the NE corner with Rodriguez Street

SUMMARY PROJECT DESCRIPTION:

Proposal to demolish an approximately 12,500 square foot animal shelter consisting of 4 buildings, 2 sheds, and kennels, and to construct a replacement Animal Services Facility with one 1-story, 12,635 square foot building, 1,600 sq. ft. of exterior kennels, visitor use area, animal exercise yard, and service yard, with associated parking, and landscaping. Project includes approximately 1,850 cubic yards of grading, plus earthwork for recompaction of poor subgrade material. Existing office building (currently SPCA office), shed/barn, and pasture area on northern parcel APN 026-461-02 to remain. Project requires a Master Site Plan Development Permit for the public facility use, amendments to Commercial Development, Planned Development and Use Permits 96-0156, 77-1572-PD, 4513-U and D-72-11-9, Design Review, Soils Report Review, and Grading Approval.

ALL OF THE FOLLOWING POTENTIAL ENVIRONMENTAL IMPACTS ARE EVALUATED IN THIS INITIAL STUDY. CATEGORIES THAT ARE MARKED HAVE BEEN ANALYZED IN GREATER DETAIL BASED ON PROJECT SPECIFIC INFORMATION.

X	Geology/Soils	X	Noise
X	Hydrology/Water Supply/Water Quality		Air Quality
	Biological Resources		Public Services & Utilities
	Energy & Natural Resources		Land Use, Population & Housing
	Visual Resources & Aesthetics		Cumulative impacts
	Cultural Resources		Growth Inducement
	Hazards & Hazardous Materials		Mandatory Findings of Significance
X	Transportation/Traffic		

DISCRETIONARY APPROVAL(S) BEING CONSIDERED

____	General Plan Amendment	__X__	Grading Permit
____	Land Division	____	Riparian Exception
____	Rezoning	__X__	Other: Master Site Plan Review
__X__	Development Permit	____	
____	Coastal Development Permit	____	

NON-LOCAL APPROVALS
Other agencies that must issue permits or authorizations:
RWQCB, NPDES permit and water quality review
MBUAPCD, approval of demolition involving asbestos material

ENVIRONMENTAL REVIEW ACTION
On the basis of this Initial Study and supporting documents:

___ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the attached mitigation measures have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

___ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Paia Levine

11/3/06
Date

For: Ken Hart
Environmental Coordinator

EXHIBIT D

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS
Parcel Size: *2.73* acres (118,814 square feet) total
Existing Land Use: Portion unused animal shelter facility, portion existing office use
Vegetation: Ornamental landscape with large frontage trees
Slope in area affected by project: 2.73 ac. 0 - *30%* ___ 31 – 100%
Nearby Watercourse: Arana Gulch
Distance To: Roughly 1,000 feet to the northwest

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: None
Water Supply Watershed: None
Groundwater Recharge: Not in recharge area
Timber or Mineral: None
Agricultural Resource: No resource in area
Biologically Sensitive Habitat: No resource
Fire Hazard: Outside critical hazard area
Floodplain: None
Erosion: Moderately to highly erodable surface soils - See Sec. A.4
Landslide: None, level site

Liquefaction: High potential in some areas - See Sec. A.1 and A.2
Fault Zone: No fault zone
Scenic Corridor: Outside
Historic: None
Archaeology: No resource
Noise Constraint: None
Electric Power Lines: Existing
Solar Access: Unobstructed
Solar Orientation: S, E, W

Hazardous Materials: See Sec. G.1

SERVICES

Fire Protection: Central Fire District
School District: Santa Cruz City
Sewage Disposal: Santa Cruz Sanitation

Drainage District: Zone 5
Project Access: 7th Ave. & Rodriguez St.
Water Supply: Santa Cruz Water Dept.

PLANNING POLICIES

Zone District: Public Facility, PF
General Plan: Public Facility

Special Designation: None

Urban Services Line: _X_ Inside ___ Outside
Coastal Zone: ___ Inside _X_ Outside

PROJECT SETTING AND BACKGROUND:

The project site is located in an urban area of Live Oak on the northeast corner of the 7th Avenue and Rodriguez Street intersection, within the unincorporated portion of Santa Cruz County. The site is composed of two parcels, both relatively rectangular in shape, nearly level, and roughly 2.73 acres (118,814 square feet) in size combined. The site is elevated roughly 85 feet above sea level. The slopes in the vicinity of the site are inclined very gently toward a tributary arm of Arana Gulch. The topography forms a slight depression along the parcel's northern boundary, where surface water can collect during rainstorms. The corner site has about 340 feet of 7th Avenue frontage and about 370 feet of frontage on Rodriguez Street.

EXHIBIT D

No native habitats exist onsite. There are 14 trees on the parcels including redwood, oak, Myoporum, pine, and ornamental trees that range from 2 to 32-inches in diameter (at diameter breast height). One of these is a large redwood tree (approximately 30-inch diameter and 55-foot height) located at the very southwest corner of the southern parcel. There are also 10 trees located along the property frontage within the 7th Avenue and Rodriguez Street public right-of-way. These are 7 large Sycamore trees ranging in size from 14 to 28-inches in diameter and 3 Crepe Myrtle trees less than 6-inches in diameter.

The site has been developed for animal shelter facilities since the early 1970's and used for kennels prior to that since the 1950's. The conceptual master plan uses approved in 1972 (Use Permit 4513-U and Planned Development Permit D-72-11-9) included expansion of the existing animal control and animal shelter facilities and associated veterinary hospital. The project included housing for dogs, cats, and large animals, veterinary hospital, office, humane education auditorium, and two outdoor dog runs of 400 square feet each. The program statement with Permit #91-0024 identified SPCA office hours as 9:00 a.m. to 5:30 p.m., with pet adoption open from 12:00 to 5:30 p.m. Monday through Saturday. Kennels were staffed 7:00 a.m. to 6:00 p.m. and field workers were staffed from 6:00 a.m. *to* 5:00 a.m. 7 days a week. The SPCA facility had 29 employees including the 6 animal control officers. The Conceptual Master Plan included 65 indoor/outdoor kennels for dogs and 12 indoor/outdoor kennels for cats. Numerous other permits were approved over the years for the animal facilities onsite including small expansions, remodels, temporary structures, and ancillary use approvals.

The property currently has numerous structures, including the old animal shelter building with offices, kennels and sheds, an older residential structure used as offices, and paved and unpaved parking areas. A barn for housing non-domestic or large animals is also located on the northern parcel. The primary animal shelter facility on the southern parcel has been closed for about 4 years while the county took over control of the facility and purchased the property. During this time, the Society for the Prevention of Cruelty to Animals (SPCA) continued office use in the existing building on the northern parcel and the site was used for various other related uses including animal adoptions, spay and neuter programs and clinics, dog training and agility classes, and housing livestock (sheep and goats). This existing situation represents the baseline condition for the environmental review.

The subject site is zoned PF (Public Facility) with a consistent Public Facility general plan designation. Surrounding parcels to the west, south, and east are zoned R-1 (Single-Family Residential) with the parcel across the street to the southwest zoned C-1 (Neighborhood Commercial). Parcels to the west and east of the northerly parcel are also zoned PF, with a parcel to the north zoned RM (Residential Multi-Family). All neighboring zone districts are consistent with the underlying General Plan designations.

Surrounding land uses are generally consistent with the above stated zone districts, and include single-family residential adjacent to the east, single-family residential across Rodriguez Street to the south, and a single-family residence at the corner of 7th Avenue and Rodriguez Street to the west. An upholstery shop, VFW hall, and cemetery are also located across 7th Avenue to the west from the site. Multi-family residential townhomes are located adjacent to the north. Green Acres elementary school (Live Oak School

EXHIBIT D

District) with large play yard abuts the project site to the northeast. There is an existing pedestrian easement along the east side of the southern parcel that provides access to the school from Rodriguez Street. This school access is currently separated from the development area with a fence, and the walkway and fencing will be retained with the new project. The site also has an existing 10-foot storm drain easement that runs along the southern property line of the northern parcel, which will be retained with the proposed project.

DETAILED PROJECT DESCRIPTION:

The project consists of demolishing an existing abandoned animal shelter consisting of 4 buildings, 2 sheds, and kennels totaling approximately 12,500 square foot, and construction of a replacement Animal Services Facility with a one story, 12,635 square foot building, 1,600 sq. ft. of exterior kennels, visitor use area, animal exercise yard, and service yard, with associated parking and landscaping. **LEED** renewable resource, recycled materials and energy efficiency principals will be utilized in the project where possible. The project includes approximately 1,850 cubic yards of grading. There may be additional earthwork volume as a result of over-excavation and recompaction that must occur to remove unsuitable subsurface materials and redensify the subsurface. The existing office building (currently SPCA office), shed/barn, and pasture area on northern parcel APN 026-461-02 will remain.

The new facility will serve as administrative offices for the Animal Services Authority (ASA) staff and provide services related to keeping and handling animals under the control of the ASA. The facility offices will operate daily from 9:00 a.m. to 5:30 p.m., with the kennels only open from noon to 5:30 p.m. The facility **will** have a maximum onsite staff of 17 employees and 15 volunteers. There will be 40 **to** 90 public visitors per day. Animal control officers (6 total, 2-3 daily) will be out in the field most of the day. The project includes veterinarian functions onsite that will serve only the facility animals. Some animal transport will also occur to and from the site.

Though the number of animals kept onsite will vary at any time, the proposed facility can accommodate 54 dogs, 90 cats, and 20 miscellaneous small animals. Large animals (pigs, goats, horses, etc.) will be kept in the barn as needed on an occasional basis. There are 3 outside dog get-acquainted yards near the front entrance on the east side and 3 outside dog exercise yards at the rear, north side of the building. The cats and small animals will be housed entirely within the building.

The dog kennel portion of the building is located in the middle of the site and is a minimum of 170 feet from any neighboring residence. The kennel building will be constructed of concrete block and wood frame with no windows, and with a continuous roof and ceiling inside to minimize sound transmission from the interior of the building to the exterior. Sound absorption surfaces will be used in the ceiling to reduce the effect of reverberation and sound build up. About half of the kennels are entirely inside, and the inside/outside kennels will have sound controlling "guillotine" type doors that can be closed off to isolate noise. The kennels are designed so that most kennels do not have sight lines to other kennels to reduce dog barking.

EXHIBIT D

County sewer and city water systems will serve the new/replacement building. Solid waste will be handled by trash service. New sidewalks along the street frontages will be installed with this project. Remaining curb, gutter and other road improvements will be installed with the future Redevelopment and Public Works upper 7th Avenue improvements.

An existing 18-inch storm drain bisects the site in the east/west direction. This system collects runoff from off-site properties east and north of the subject site, primarily Green Acres Elementary School. The project proposal does not include additional development of the northerly 1.01-acre of the site, the area northerly of the 18-inch storm drain. This storm drain will be surcharged into a grass-lined bio-swale. Flow rates will be controlled in order to not exceed existing flows into the storm drainage system. The storm drain pipes in 7th Avenue will be replaced with the Redevelopment Agency and Public Works planned improvements in the near future. Bio-swales will also be used to clean runoff before it leaves the site. As well, a silt and grease trap is proposed in the lower parking lot inlet to provide water quality treatment.

The large trees onsite and along the street frontages will be preserved. Nine of the 14 existing trees onsite will be retained including all of the trees with diameters greater than 20-inches (redwood, oak, and Myoporum trees). The 5 trees proposed to be removed are: one 18-inch pine tree, one 14-inch redwood, and three **6** to 8-inch non-native trees, all located interior to the site. The large redwood tree at the very southwest corner of the southern parcel will be protected. The 10 trees (including 7 large Sycamores) located within the public right-of-way along the property's 7th Avenue and Rodriguez Street frontages will also be preserved with the project. Approximately 29 new trees are proposed to be planted onsite. These include a mix of California Live Oak, Cork Oak, California Pepper Tree, London Plane Tree, Victorian box, Jacaranda, and Western Redbud trees.

EXHIBIT **D** :

III. ENVIRONMENTAL REVIEW CHECKLIST

A. Geology and Soils

Does the project have the potential to:

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
1. Expose people or structures to potential adverse effects, including the risk of material loss, injury, or death involving:				
A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence?			X	
B. Seismic ground shaking?			X	
C. Seismic-related ground failure, including liquefaction?		X		
D. Landslides?				X

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or State mapped fault zone, therefore the potential for ground surface rupture from faulting is low.

A geotechnical investigation for the proposed project was performed by Bauldry Engineering, Inc., dated April 2006 (Attachment 7). This report has been reviewed and accepted by the Environmental Planning Section of the Planning Department.

The report concluded that the project should be designed assuming that significant seismic shaking will occur during the lifetime of the improvements. Structures built in accordance with the latest edition of the California Building Code for Seismic Zone 4 may be damaged during a large magnitude earthquake, but should not collapse.

An approximately 15-foot thick layer of saturated sand underlies the project site. The report indicates that there is a high potential for liquefaction of the medium dense sections of this saturated sand in the event of intense seismic shaking. Recommendations of the geotechnical engineer to mitigate hazards from liquefaction

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

and differential settlement include ver-excavation and recompaction of the subsoil, a structural mat foundation that can span separations and differential settlement, and flexible fittings on utility connections. These methods should mitigate the hazards of seismic shaking and liquefaction to a less than significant level.

The potential for landsliding to affect the site is low, as the site and surrounding area are nearly level.

2. Subject people or improvements to damage from soil instability as a result of on- or off-site landslide, lateral spreading, to subsidence, liquefaction, or structural collapse?		X		

See A.l above. The geotechnical report cited above (Attachment 7) did not identify a significant potential for damage caused by landslide, lateral spreading, subsidence, or structural collapse hazards. The report did conclude, however, that there is a potential risk from liquefaction. The recommendations contained in the report will be implemented to mitigate for this potential hazard.

3. Develop land with a slope exceeding 30%?				X

There are no slopes that exceed 30% on the property and, as such, no improvements are proposed on slopes in excess of 30%.

4. Result in soil erosion or the substantial loss of topsoil?		X		

The geotechnical investigation for the site (Attachment 7) determined that the surface soils primarily consist of soft sandy silt. The potential for erosion exists during the construction phase of the project as these surface soils are classified as moderately to highly erodable. All finished and disturbed ground surface should be prepared and maintained to reduce erosion.

Prior to approval of a grading or building permit, or if no permits are issued, prior to the start of construction, the project must have an approved Erosion Control Plan. The plan will specify detailed erosion and sedimentation control measures.

5. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to property?		X		

According to the geotechnical report (Attachment 7) for the project there are indications

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

of isolated areas of moderately expansive clays in the upper 3 feet of surface soil on the site.' Structures underlain by expansive soil can experience differential uplift, which can be highly damaging. To mitigate this hazard, the recommendations contained in the geotechnical report in the Earthwork and Grading section, including that all plastic clay soils should be removed during excavation, shall be implemented.

6.	Place sewage disposal systems in areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative wastewater disposal systems?	_____	_____	_____	X

The project will be served by sanitary sewers maintained by the Santa Cruz County Sanitation District, and will not include a septic and leachfield system or alternative wastewater disposal system. The project will be conditioned to pay standard sewer connection and service fees that fund sanitation improvements within the district.

7.	Result in coastal cliff erosion?	_____	_____	_____	X

B. Hydr Water Supply and Water Quality

Does the project have the potential to:

1.	Place development within a 100-year flood hazard area?	_____	_____	_____	X

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated April 15, 1986, no portion of the project site lies within a 100-year flood hazard area.

2.	Place development within the floodway resulting in impedance or redirection of flood flows?	_____	_____	_____	X

According to the Federal Emergency Management Agency (FEMA) National Flood insurance Rate Map, dated April 15, 1986, no portion of the project site lies within a 100-year flood hazard area or floodway.

3.	Be inundated by a seiche or tsunami?	_____	_____	_____	X

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4. Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table?			X	

The project will obtain water from Santa Cruz Water Department and will not rely on private well water. Although the project will incrementally increase water demand, Santa Cruz Water Department has indicated that adequate supplies are available to serve the project (Attachment 8). The project *is* not located in a mapped groundwater recharge area. Nevertheless, Department of Public Works encourages drainage to be recharged where possible. For this site, however, the geotechnical engineer recommends against installing permeable pavement for this project (as proposed for the parking area) due to the soil conditions onsite (Attachment 7).

5. Degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).			X	

The project design and proposed activities will not generate a significant amount of contaminants to a public or private water supply. The parking area and driveway associated with the project will incrementally contribute urban pollutants to the environment. However, the proposed planter strip/bio-swale area in the center of the parking lot, together with a required silt and grease trap and plan for maintenance, will reduce this impact to a less than significant level. Additional vegetated bio-swales proposed along the front of the site and in between the two parcels will provide water filtration benefits. Potential siltation will also be controlled by implementation of erosion control measures.

6. Degrade septic system functioning?				X

No septic systems are proposed with this project and there are no other septic systems in the site vicinity that could be affected **by** the project.

7. Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner, which could result in flooding, erosion, or siltation on or off-site?			X	

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

The proposed project is not located near any natural watercourses, and will not alter the existing overall drainage pattern of the site. The proposed development is replacing a facility of similar size so there will not be significant changes to the patterns existing currently. The project will direct runoff into the existing storm drain system and to a detention system designed to restrict the flow leaving the site to existing levels. Drainage analysis and calculations are provided in Attachment 9. As well, the Department of Public Works (DPW) Drainage Section staff has reviewed and approved the preliminary drainage plan for adequate capacity of the infrastructure and for offsite flooding potential.

8. Create or contribute runoff, which would exceed the capacity of existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?	_____	_____X_____	_____	

Drainage Calculations prepared by lfland Engineers, Inc., dated December 2006, have been reviewed for potential drainage impacts and accepted by DPW Drainage staff. The project will result in approximately 43,869 sq ft of impervious surface. Runoff will be detained in underground, dual detention pipes (each 2 feet in diameter and approximately 100 feet long) before being released from the property. According to the drainage calculations these detention pipes will release stormwater at a rate that will not exceed the pre-development, 10-year runoff rate.

Refer to response B.5 for discussion of urban contaminants and other polluting runoff.

9. Contribute to flood levels or erosion in natural watercourses by discharges of newly collected runoff?	_____	_____X_____	_____	

See B.8 above. This property is not located close to a natural watercourse, nor in or near a flood zone. As well, as the site was previously developed and this is a replacement facility of similar square footage, the net new impervious surfaces are relatively small. The project stormwater runoff rate will be restricted to existing levels by an onsite detention system. Recommendations contained in the geotechnical investigation regarding drainage will also be followed. These measures, combined with implementation of a detailed erosion control and drainage plan, will minimize any contributions to flooding and erosion.

10. Otherwise substantially degrade water supply or quality?	_____	_____	____X____	_____

See B.5 above. The bio-swales and the silt and grease trap proposed to filter parking lot runoff, together with a required plan for maintenance, will minimize the effects of urban pollutants. Standard erosion control methods will be used to prevent sediment

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

from leaving the site.

C. Re

Does the project have the potential to:

1. Have an adverse effect on any species identified as a candidate, sensitive, or special status species, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?			X	

The site is not County mapped as having any significant biotic resources. According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game, there are no known special status plant or animal species in the site vicinity except for the Zayante band-winged grasshopper (ZBWG). The developed and disturbed nature of the site, including a lack of suitable habitat for ZBWG, make it very unlikely that any special status plant or animal species occur in the area. No special status species were observed on the property during site visits.

2. Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?		X		

There are no mapped or designated sensitive biotic communities on or adjacent to the project site. Maintaining good water quality (see B.5) will prevent any off site impact on Arana Gulch, a sensitive habitat downstream of the property.

3. Interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native or migratory wildlife nursery sites?				X

The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

4. Produce nighttime lighting that will illuminate animal habitats?		X		

The subject property is located in an urbanized area and is surrounded by existing

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

residential and commercial development that generates nighttime lighting. There are no sensitive animal habitats within or adjacent to the project site. The project will be conditioned such that all site lighting shall be directed onto the site and away from adjacent properties, all lighted parking and circulation areas shall utilize low-rise light standards or light fixtures attached to the building, all light fixtures shall be energy-efficient, and light standards are limited to a maximum height of 15 feet.

5. Make a significant contribution to the reduction of the number of species of plants or animals?			X	

See C.1 above.

6. Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?			X	

The project will not conflict with any local policies or ordinances. The property is located outside of the Coastal Zone, therefore the Significant Tree Ordinance does not apply to this site. The Design Review Ordinance is complied with in that the policy requires preservation of trees greater than six inches where this is feasible. In this case, all the largest trees (those greater than 20-inch diameter) on site and along the street frontages will be preserved, and only two native trees larger than six inches, an 18 inch pine and a 19 inch redwood, will be removed. It is not feasible to design around the two that are to be removed. This loss will be mitigated by a requirement to replace these *two* trees on site, at a ratio of 3:1. The proposed landscape plan includes the replacement trees. See the Project Setting section for a detailed list of trees to be removed and trees to be preserved.

7. Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?				X

There are no conservation plans or biotic conservation easements in effect or planned in the project vicinity.

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

D. Energy and Natural Resources
Does the project have the potential to:

1. Affect or be affected by land designated as "Timber Resources" by the General Plan? _____ _____ _____ X

The project is located within an urban area of the Count!

2. Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use? _____ _____ _____ X

The project site is not currently being used for agriculture and no agricultural uses are proposed for the site or surrounding vicinity.

3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner? _____ _____ X _____

While the proposed use of the property will utilize additional energy, the proposed building and use is consistent with the zoning and General Plan designations for the property. This facility is also replacing an older building that served a similar use on this site previously. The changes in resource use will be less than significant. As well, LEED principles for energy conservation will be utilized in the project design and operations where possible.

4. Have a substantial effect on the potential use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)? _____ _____ X _____

The project does not entail the extraction or substantial consumption of minerals, energy resources, or other natural resources. The design and construction of the project also incorporates LEED principals of resource conservation where possible.

E. Visual Resources and Aesthetics
Does the project have the potential to:

1. Have an adverse effect on a scenic resource, including visual obstruction of that resource? _____ _____ X _____

The project will not directly impact any public scenic resources, as designated in the

EXHIBIT D

	significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

County's General Plan (1994), or obstruct any public views of these visual resources.

2.	Substantially damage scenic resources, within a designated scenic corridor or public view shed area including, but not limited to, trees, rock outcroppings, and historic buildings?			X	

The replacement facility is located at the corner of two public roadways in a highly traveled area in Live Oak. Five trees will be removed from the interior of the site, but all of the large trees onsite and along the frontage are being retained. The project includes 29 new trees that will adequately mitigate the tree removals and enhance the public streetscape (see the response to C.6 above). In addition, the project site is not located along a County designated scenic road or within a designated scenic resource area.

3.	Degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridgeline?			X	

The existing visual setting is an urban mixed residential and commercial neighborhood. The proposed project is attractively designed and landscaped **so** as to fit into this setting and be aesthetically compatible with the surrounding development. The new building is designed with a scale and character that is appropriate for this site and use. See Design Review comments by Urban Designer, Larry Kasparowitz, dated November 27,2006 (Attachment 11).

4.	Create a new source of light or glare, which would adversely affect day or nighttime views in the area?			X	

The project will create an incremental increase in night lighting. However, this increase will be small, and will be similar in character to the lighting associated with the surrounding existing uses. As well, site lighting shall be located and shielded to minimize the impact on the neighboring area. The project will also be conditioned to minimize light glare or over-spray onto adjacent properties.

5.	Destroy, cover, or modify any unique geologic or physical feature?			X	

There are no unique geological or physical features on or adjacent to the site that would be destroyed, covered, or modified by the project.

EXHIBIT **D**

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

F. Cultural Resources

Does the project have the potential to:

1. Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?				X

The existing structure(s) on the property is not designated as a historic resource on any federal, State or local inventory.

2. Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?			X	

According to County resource maps (Santa Cruz Archaeological Society Inventory, 1992), the project site does not lie within an area of archaeological sensitivity and no archaeological resources have been identified in the project area. It is also unlikely that archaeological resources would exist on this site give the previously disturbed and developed nature of the site. However, pursuant to County Code Section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, any human remains of any age, or any artifact or **other** evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

3. Disturb any human remains, including those interred outside of formal cemeteries?			X	

Given the site's disturbed nature, it is highly unlikely that human remains are present on the site. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4. Directly or indirectly destroy a unique paleontological resource or site?				X

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applirable

No paleontological resources are known to exist on the subject site or in the vicinity.

G. Hazards and Hazardous Materials

Does the project have the potential to:

1.	Create a significant hazard to the public or the environment as a result of the routine transport, storage, use, or disposal of hazardous materials, not including gasoline or other motor fuels?		X	

Medical waste generated on-site will be handled and stored separately in the building and removed by a medical waste company as approved by **the** County Environmental Health Department.

2.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X	

The southerly parcel of the project site (2200 7th Avenue) is included on the current 7/12/05 list of hazardous sites in Santa Cruz County compiled pursuant to the specified code, for possible gasoline contamination. A Phase 1 Environmental Site Assessment report, prepared in October, 2003, provided the following information (Attachment 12): The site at 2200 7th Avenue formerly had a 500-gallon gasoline Underground Storage Tank (UST) from 1954 until 1992, located east of the outdoor kennels. The UST was later removed under permit from the Santa Cruz County Environmental Health Department and during removal leaks and gasoline contamination were detected. Subsequent soil and ground water investigations revealed gasoline contamination in soils and shallow ground water in the vicinity of the tank. The State Regional Water Quality Control Board (RWQCB) had SPCA installed three ground water monitoring wells to characterize soil and ground water impact. Those monitoring results revealed the only well with petroleum hydrocarbon impacts was Monitoring Well-1 located near the former tank pit. RWQCB requested an additional round of ground water monitoring. The report also recommended further investigation including well sampling for TPHG, BTEX and MTBE. The follow-up Groundwater Monitoring Report (Attachment 12) determined that no petroleum hydrocarbon constituents (TPH-G, BTEX compounds, or MTBE) was detected in groundwater samples collected on December 9, 2003. No further recommendations were made **by** the agencies or consultants overseeing the UST removal.

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

The project will be conditioned to comply with RWQCB requirements if there are additional pre-construction requirements regarding possible contamination.

The existing buildings at 2200 7th Avenue are older and do have asbestos containing construction materials. To ensure compliance with air quality and hazardous materials standards for the removal and disposal of possible asbestos and lead paint containing materials, the project will not proceed until the Monterey Bay Unified Air Pollution Control District (MBUAPCD) accepts the demolition, remodeling and disposal plan. With the inclusion of these conditions to comply with RWQCB and MBUAPCD requirements, the project will not create a significant hazard to the public or the environment.

3.	Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?				X
4.	Expose people to electro-magnetic fields associated with electrical transmission lines?				X
5.	Create a potential fire hazard?			X	

The project design incorporates applicable fire safety code requirements and the project will be conditioned to include fire protection devices as required by Central Fire District as specified in their review letter dated November 28, 2006 (Attachment 13).

6.	Release bio-engineered organisms or chemicals into the air outside of project buildings?			X	

H. Transportation/Traffic

Does the project have the potential to:

1.	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	

EXHIBIT D

	Significant *Or* Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant *Or* No Impact	Nor Applicable

As analyzed in the Higgins Associates report ("Traffic Impact Analysis", dated August 18, 2006 , Attachment 14) the project is expected to generate an estimated 60 daily trips distributed throughout the day with 10 morning peak hour trips and 15 evening peak hour trips expected. The trip distribution analysis indicates that trips will access the facility via Highway 1 with approximately equal distribution among Soquel Avenue, Capitola Rd., and 7th Avenue. There will be a maximum of 6 new trips added to any of the three intersections in any one direction during the evening peak hour.

Operations at three intersections along 7th Avenue were analyzed in the report: at Capitola Road, at Rodriguez Street, and at Soquel Avenue. The report found that Levels of Service (LOS) at the three intersections under Background Plus Project conditions would remain unchanged from Background conditions except that 7th Avenue/Rodriguez Street would change from operating at a LOS A to a LOS B during the AM peak hour. Under cumulative conditions, peak hour LOS will not drop below D at any of the intersections. The intersection of 7th Avenue and Capitola Road may be reduced to LOS D; however, the General Plan states that while an LOS of C is the goal, mitigation is not required until LOS is reduced below D. The Traffic Analysis does not recommend any mitigation measures. Further, traffic counts were made during Highway 1 construction, and impacts may therefore be overstated.

The traffic report also states that under cumulative conditions a signal at 7th Avenue and Rodriguez Street and a left turn lane along southbound 7th Avenue might be warranted. However, because of the particular operational characteristics of this intersection, including a free flow speed of twenty-five mph and no current operational deficiencies, a signal and/or a left turn lane may not be beneficial. DPW will monitor this intersection over time and provide improvements if and when they are warranted and appropriate for the conditions. For further details, see Attachment 14, Sections 2.4 and 5.1.

2.	Cause an increase in parking demand, which cannot be accommodated by existing parking facilities?	_____	_____	X

The project is providing parking onsite to meet the estimated parking demand. The number of spaces required to serve the new facility is estimated at 38 based on 17 spaces for the maximum number of employees onsite at a time, **4** spaces to accommodate a typical number of volunteers onsite at a time, and 17 spaces to accommodate a typical number of visitors visiting the site at a time. These estimates are based on review of visitor trips to the existing similar Scotts Valley Animal Services Facility and on the amount of visitor turnover and volunteer shift changes throughout the day. The project provides 34 parking spaces in a new lot off of Rodriguez Street. An additional 4 spaces can be used for employees and volunteers in the existing lot off of 7th Avenue adjacent to the office building on the northern parcel. These spaces are in addition to the 7 spaces in that lot that serve the existing office building. The Animal Services Authority vehicles will primarily be off site during the day and will typically be

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impart	Not Applirable

stored in the sally port and service yard areas. An area is also provided onsite that can accommodate 9 additional parking spaces if needed in the future.

3.	Increase hazards to motorists, bicyclists, or pedestrians?		X	

The proposed project will comply with current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians. The project will improve circulation conditions by providing new pedestrian sidewalks along the site frontage and by improving parking and circulation onsite. These improvements will be augmented by further improvement of this upper portion of 7th Avenue to be accomplished by the Department of Public Works and Redevelopment Agency, scheduled for the near future. That project will consist of curb, gutter and drainage facilities on 7th Avenue, extending onto Rodriguez Street.

4.	Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the county congestion management agency for designated intersections, roads or highways?		X	

See H.l above. According to the traffic study performed by Higgins Associates (Attachment 14), the proposed project will generate an estimated 60 daily trips, with 10 AM peak hour trips and 15 PM peak hour trips projected. The report analyzed the potential impacts to the following intersection(s): 7th Avenue/Capitola Road, 7th Avenue/Rodriguez Street, and 7th Avenue/Soquel Avenue, and concluded that when the project trips are added to the network the road and intersection operations will not be reduced to a level of service below the County standard. See also cumulative conditions discussion in H.l above. The report determined that no mitigations are necessary at this time and no intersection improvements were required for this project.

I. Noise

Does the project have the potential to:

1.	Generate a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X	

This use of the proposed animal services facility will be similar to a commercial use. This site is located in a primarily residential neighborhood, with residences located adjacent to and directly across the street from the project site. Edward L. Pack Associates, acoustical engineer, prepared a Noise Assessment Study for this project,

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

dated August 7, 2006 (Attachment 15). The purpose of the analysis was to measure existing noise levels, to determine the project-generated noise level, to determine compliance with the General Plan, and to determine potential impacts on adjacent residences. The report analyzed the expected noise impacts at the three closest residences which are located adjacent to the site to the east, across Rodriguez Street to the south, and across 7th Avenue to the west, respectively.

The report found that existing noise levels at this location are relatively high under current conditions (without an animal facility operating) due to the adjacent road and intersection traffic noise. Overall, noise limits given in the General Plan will not be exceeded, but noise at *two* of the residences from barking dogs will exceed the limits for impulsive sound. Mitigation in the form of sound fencing was recommended and has been included in the plans. Specific data on noise levels is included in the acoustic report, which is attached.

The facility was designed to minimize noise impacts in several ways. The dog kennel part of the building is located in the middle of the site, a minimum of 170 feet from any neighboring residence. The kennel building will be constructed of concrete block and wood, with no windows, and with a continuous roof and ceiling inside to minimize sound transmission from the interior of the building to the exterior. Sound absorption surfaces will be used in the ceiling to reduce the effect of reverberation and sound build up. About half of the kennels are entirely inside, and the inside/outside kennels will have sound controlling guillotine doors that can be closed off to isolate noise. The kennels are also designed so that most kennels do not have sight lines to other kennels. This will reduce barking, as dog barking tends to be sight activated.

The recommended mitigation for the impulsive sounds that will be generated in the dog exercise yards in the rear of the front parcel is a solid, six-foot, masonry or airtight wood barrier. The barriers are included in the design of the project.

It is useful to note that even though the baseline for the analysis is the property as it is used now, relative to the old SPCA facility that existed here for decades, the new facility will house fewer dogs and provide much better indoor sound insulation.

2. Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies? ____ ____ X ____

See 1.1 above. As noted in the Noise Assessment Study (Attachment 15), County General Plan noise element policy thresholds limit noise exposure to sensitive land uses to 60 decibels (dB) DNL at residential land uses, average hourly noise levels to 50 dBA (Leq), and maximum short-term noise levels from impulsive sources (such as dog barks) to 65 dbA (Lmax). The report concluded that project-generated noise exposures (day/night average) and the maximum noise levels will be in compliance

EXHIBIT D

	Significant Or Potentially Significant Impart	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
with the County standards. The report also concluded that expected hourly average noise levels for impulsive sound could exceed the limits of the standards at two residences (one adjacent to the east and one to the west across 7th Avenue) by up to 2 decibels. To mitigate this impact, noise control barriers will be installed that will lower the noise below the General Plan thresholds. The project plans incorporate two 6-foot, solid, acoustically-effective fences at each end of the dog exercise/play yards as recommended in the acoustical report. A letter from the acoustical engineer is required prior to the start of construction to ensure that the final plans are in compliance with the General Plan thresholds.				
3. Generate a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	_____	_____	X	_____

Noise generated during construction of the proposed building will increase the ambient noise levels for adjoining areas. Construction will be temporary, however, and given the limited duration of this impact it is considered to be less than significant. A condition of approval will also be included to limit construction activities to take place between 8:00 a.m. and 5:30 p.m. weekdays, to reduce the noise impact on nearby residential development.

J. Air Quality

Does the project have the potential to:
(Where available, the significance criteria established by the MBUAPCD may be relied upon to make the following determinations).

1. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	_____	X	_____	_____

The North Central Coast Air Basin does not meet State standards for ozone and particulate matter (PM10). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NOx]), and dust. Given the moderate amount of new traffic that will be generated by the project, estimated at 60 trips distributed throughout the day, there is no indication that new emissions of VOCs or NOx will exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants.

Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering, will be implemented during construction to reduce impacts to a less than significant level. See also *G.2* above.

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

The existing buildings were evaluated for asbestos and lead contaminants and were found to contain lead and asbestos in the building materials. In order to assure proper handling that will prevent impacts from these materials in the environment, the project will be required to have a demolition and waste handling and disposal plan that is in compliance with procedures of the MBUAPCD. A Notification of Demolition and Renovation will be filed and reviewed by MBUAPCD prior to the start of any demolition onsite.

2.	Conflict with or obstruct implementation of an adopted air quality plan?		X	

The project will not conflict with or obstruct implementation of **the** regional air quality plan. See J.l above.

3.	Expose sensitive receptors to substantial pollutant concentrations?		X	

See J.1 and Section G above.

4.	Create objectionable odors affecting a substantial number of people?		X	

The proposed project does not include restaurants or other activities, which could emit potentially objectionable odors.

K. Public Services and Utilities

Does the project have the potential to:

1.	Result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:			
	a. Fire protection?		X	

The project will be conditioned to comply with all Central Fire District requirements pertinent to the project (Attachment 13).

	b. Police protection?		X	

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
c. Schools?				X
d. Parks or other recreational activities?				X
e. Other public facilities; including the maintenance of roads?			X	

b. - e.: While the project represents an incremental contribution to the need for some services, the increase will be minimal. The project meets the standards and requirements identified by Central Fire Protection District and County Road Engineering. The project includes the installation of public sidewalks along the property frontage and maintains bicycle access.

2. Result in the need for construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	

Drainage analysis of the project by lfland Engineers, Inc., December 2006, concluded that existing and proposed facilities should adequately accommodate increases in storm water runoff. An existing 18-inch storm drain bisects the site in the east/west direction. This system collects runoff from off-site properties east and north of the subject site. This storm drain will be surcharged into a grass-lined swale. The use of additional bio-swales and underground detention throughout the site will accommodate increased runoff onsite. As well, the County Public Works and Redevelopment Agency have plans to improve the storm water capacity within the upper 7th Avenue roadway under a separate project in the near future. Department of Public Works Drainage staff have reviewed the drainage information and have determined that with these improvements, downstream storm facilities are adequate to handle the drainage associated with the project (Attachment 9).

3. Result in the need for construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	

The project will connect to an existing municipal water supply. Santa Cruz Water Department has determined that adequate supplies are available to serve the project (Attachment 8). Municipal sewer service is available to serve the project, as reflected in the attached letter from the Santa Cruz County Sanitation District (Attachment 16).

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or *No* Impact	Not Applicable
4. Cause a violation of wastewater treatment standards of the Regional Water Quality Control Board?			X	

The project's wastewater flows will comply with and will not violate any wastewater treatment standards.

5. Create a situation in which water supplies are inadequate to serve the project or provide fire protection?		X		

The water mains serving the project site provide adequate flows and pressure for fire suppression. **A** new 1-inch domestic/business water service is required to serve the new building, thus allowing the existing ¾-inch water service to'be utilized for site irrigation. A 4-inch service line will accommodate fire needs. Additionally, the Central Fire Protection District has reviewed and approved the preliminary project plans, assuring conformity with fire protection standards that include minimum requirements for water supply for fire protection. The development will also comply with the Central Fire District and Santa Cruz Water Department requirements specified in Attachments 13 and 8.

6. Result in inadequate access for fire protection?		X		

The project's road access meets County standards. The preliminary design has been approved by Central Fire Protection District and the development must comply with the Central Fire District requirements specified in Attachment 13.

7. Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?			X	

The project will make an incremental contribution to the reduced capacity of regional landfills. However, this contribution will be relatively small and will be of similar magnitude to that created by existing land uses around the project. Waste generated onsite will be disposed of in the Buena Vista landfill or at another permitted site. Demolition procedures and construction materials will incorporate Leed principals of reuse and recyclable materials where possible to minimize waste materials.

8. Result in a breach of federal, state, and local statutes and regulations related to solid waste management?			X	

EXHIBIT **D**

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

L. Land Use, Population, and Housing

Does the project have the potential to:

1.	Conflict with any policy of the County adopted for the purpose of avoiding or mitigating an environmental effect?		X	

The proposed project does not conflict with any policies adopted for the purpose of avoiding or mitigating an environmental effect.

2.	Conflict with any County Code regulation adopted for the purpose of avoiding or mitigating an environmental effect?		X	

The proposed project does not conflict with any regulations adopted for the purpose of avoiding or mitigating an environmental effect.

3.	Physically divide an established community?			X

The project will not include any element that will physically divide an established community.

4.	Have a potentially significant growth inducing effect, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?		X	

The proposed project is designed at a use and intensity of development allowed by the General Plan and zoning designations for the parcel. Additionally, the project does not involve extensions of utilities (e.g. water, sewer, or new road systems) into areas previously not served. Consequently, it is not expected to have a growth-inducing effect.

5.	Displace substantial numbers of people, or amount of existing housing, necessitating the construction of replacement housing elsewhere?		X	

The proposed project does not result in the loss of any housing units.

EXHIBIT D

M. Non-Local Approvals

Does the project require approval of federal, state, or regional agencies? Yes X No ____
Regional Water Quality Control Board
Monterey Bay Unified Air Pollution Control District

N. Mandatory Findings of Significance

Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory? Yes ____ No X

2. Does the project have the potential to achieve short term, to the disadvantage of long-term environmental goals? (A short term impact on the environment *is* one which occurs in a relatively brief, definitive period of time while long term impacts endure well into the future) Yes ____ No X

3. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)? Yes ____ No X

4. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? Yes ____ No X

EXHIBIT D

TECHNICAL REVIEW CHECKLIST

	REQUIRED	COMPLETED*	N/A
Agricultural Policy Advisory Commission (APAC) Review			X
Archaeological Review			X
Biotic Report/Assessment			X
Geologic Hazards Assessment (GHA)			X
Geologic Report			X
Geotechnical (Soils) Report	X	April 2006	
Riparian Pre-Site			X
Septic Lot Check			X
Other:			
Traffic Report	X	8/18/06	
Noise Report	X	*8/7/06*	
Arborist Report	X	10/1/06 & 11/11/06	
Drainage Study	X	December 2006	

Attachments:

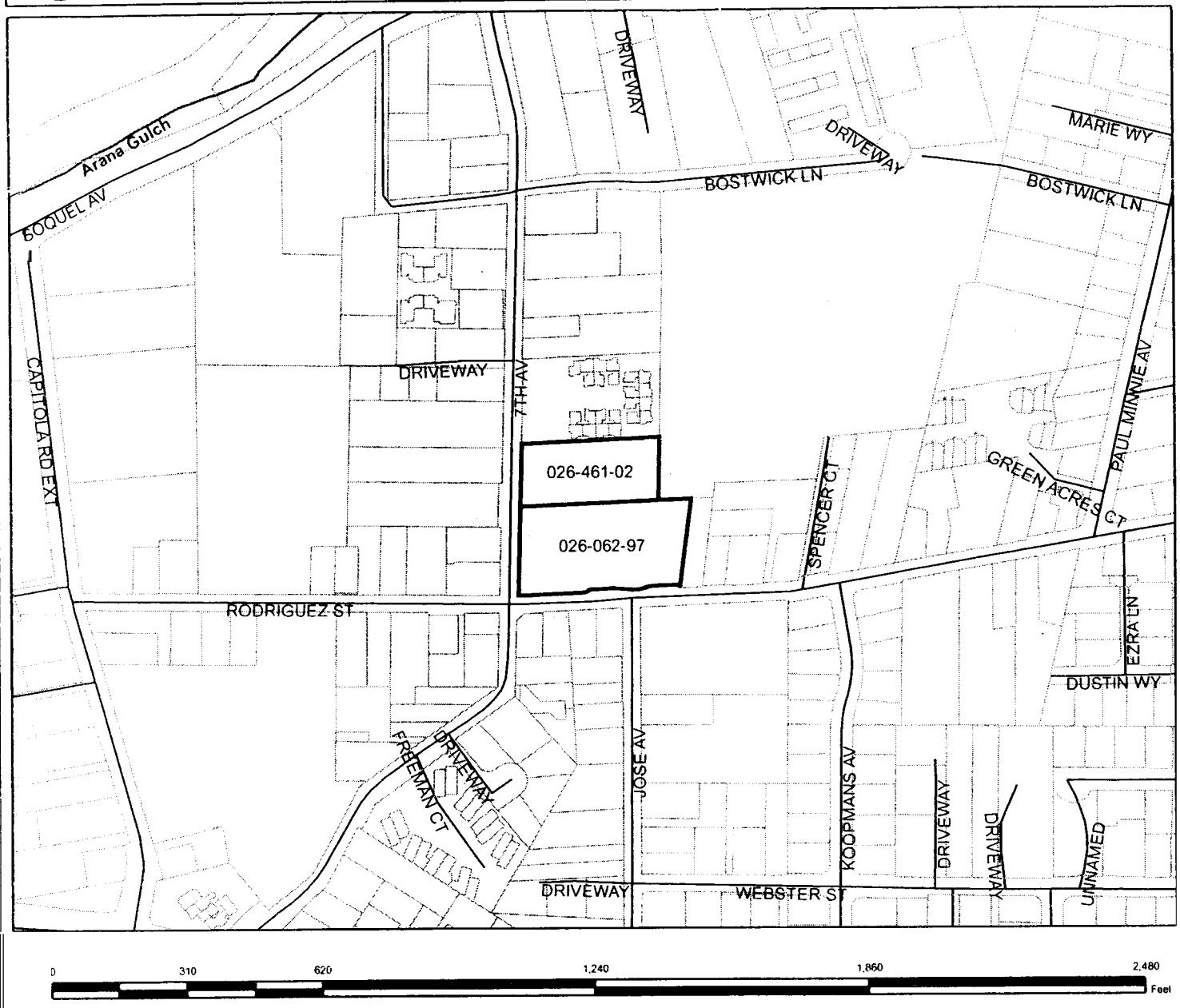
1. Location Map
2. Vicinity Aerial Photo
3. Zoning Map
4. General Plan Designation Map
5. Assessors Parcel Maps
6. Project Plans (Architectural plans prepared by Teall Messer Architect dated 1/15/06, Preliminary improvement plans prepared by Ifland Engineers, Inc. dated 10/31/06, and Landscape and Planting plans prepared by Michael Arnone Landscape Architect, dated revised 11/10/06)
7. Geotechnical Investigation (Conclusions and Recommendations) prepared by Bauldry Engineering, Inc., dated April 2006, with addendum letter dated July 19, 2006
8. Letter from Santa Cruz Water Department dated June 14, 2006, Service Form dated 12/1/06, and Water Conservation comments 12/6/06 with 9/17/06 letter
9. Drainage Study and calculations prepared by Ifland Engineers, Inc., dated December 2006
10. Arborists Report prepared by Arbor Art Tree Service, Nigel Belton, dated October 1, 2006, with Addendum Report dated November 11,2006
11. Design Review by County Urban Designer, dated November 27, 2006

EXHIBIT D

12. Environmental Site Assessment – Phase 1 Report (Summary and Recommendations) prepared by Environmental Investigation Services, Inc., dated October 31, 2003, with Groundwater Monitoring Report letter, dated January 14,2004
13. Central Fire Protection District letter, dated 11/28/06
14. Traffic Study (Conclusions and Recommendations) prepared by Higgins Associates, dated August 18, 2006
15. Noise Assessment Study (Conclusions and Recommendations) prepared by Edward L. Pack Associates, Inc., dated August 7, 2006
16. Memo from Department of Public Works, County Sanitation District, dated September 25, 2006
17. Discretionary Application Comments, dated December 26, 2006
18. Comments Received during Review period.

EXHIBIT D

Location Map



Legend

- Project Parcels
- Assessors Parcels
- Streets
- INTERMITTENT STREAM
- LAKE
- PERENNIAL STREAM

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Environmental Review Inital Study
ATTACHMENT 1
APPLICATION 06-0415

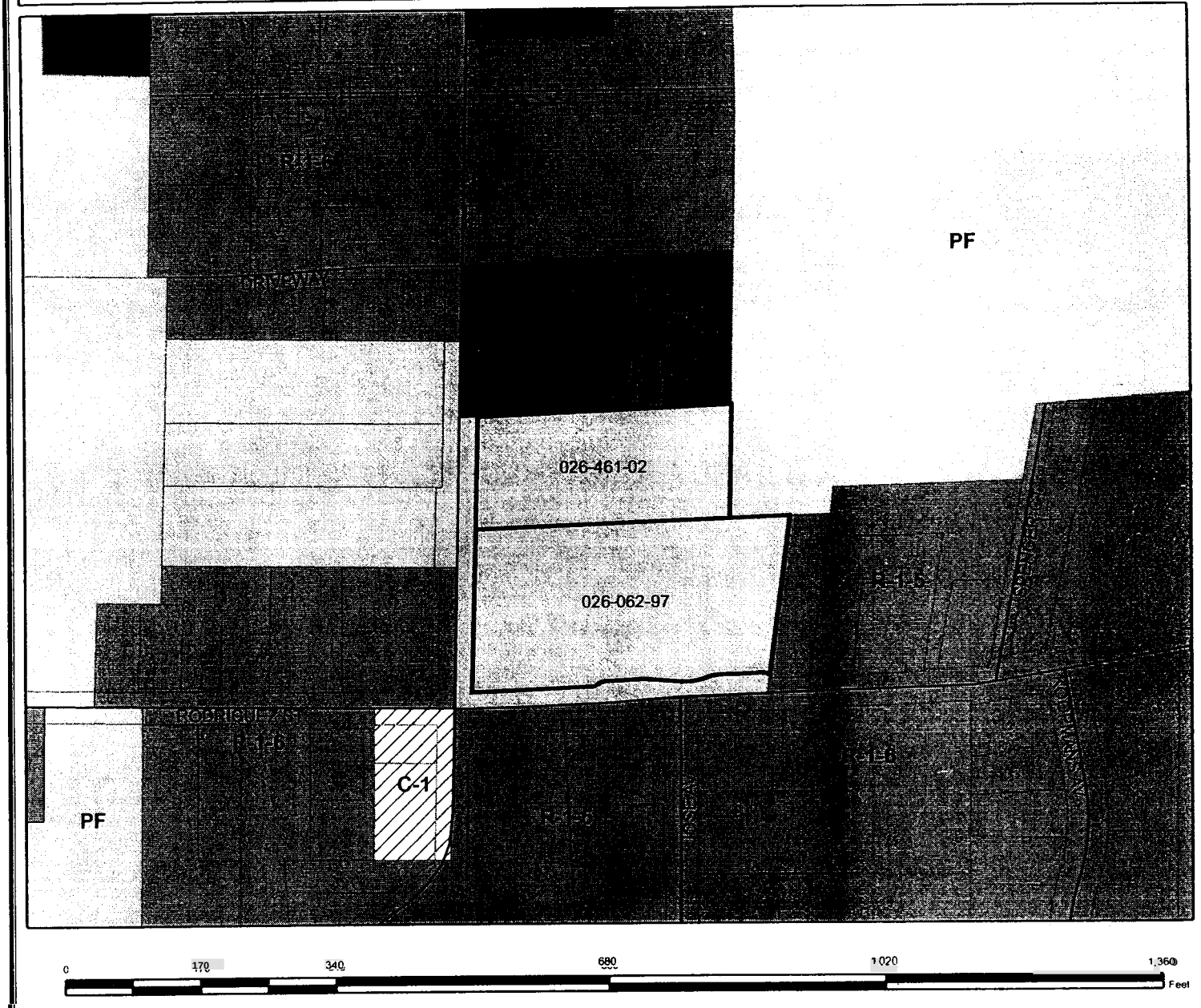
Map Created by
County of Santa Cruz
Planning Department
August 2006

EXHIBIT D

VICINITY MAP - ANIMAL SERVICES FACILITY

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 2
APPLICATION CA-0418

Zoning Map



Legend

- Project Parcels
- Assessors Parcels
- Streets
- PUBLIC FACILITY (PF)
- RESIDENTIAL-SINGLE FAMILY (R-1)
- RESIDENTIAL-MULTI FAMILY (RM)
- COMMERCIAL-COMMUNITY (C-2)
- COMMERCIAL-NEIGHBORHOOD (C-1)

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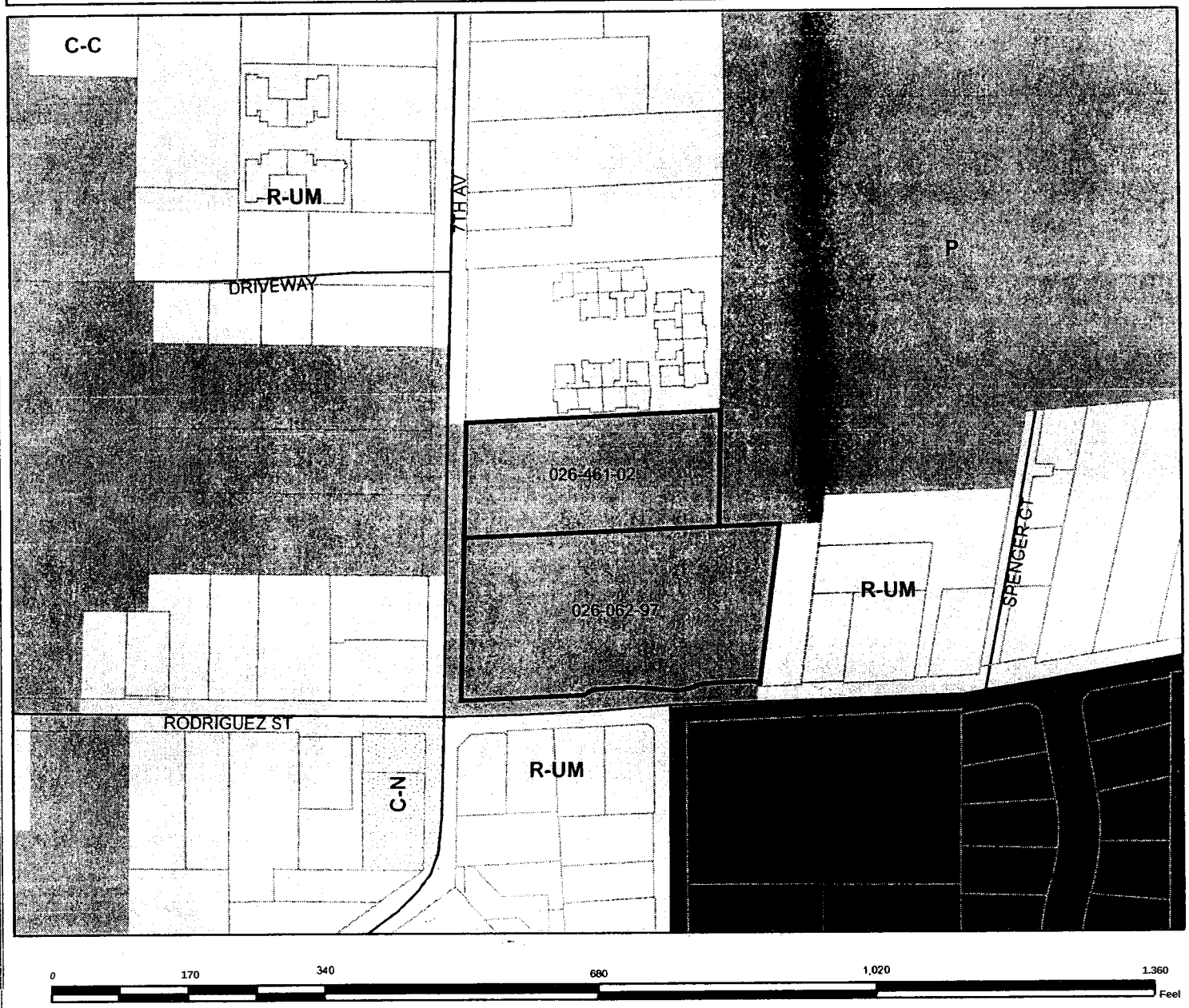
Environmental Review Inital Study
ATTACHMENT 3
APPLICATION 06-0418

Map Created by
County of Santa Cruz
Planning Department
August 2006

EXHIBIT D

General Plan Designation Map



Legend

- Project Parcels
- Assessors Parcels
- Streets
- Public Facilites (P)
- Residential - Urban Medium Density (R-UM)
- Residential - Urban Low Density (R-UL)
- Commercial-Neighborhood (C-N)
- Commercial-Community (C-C)

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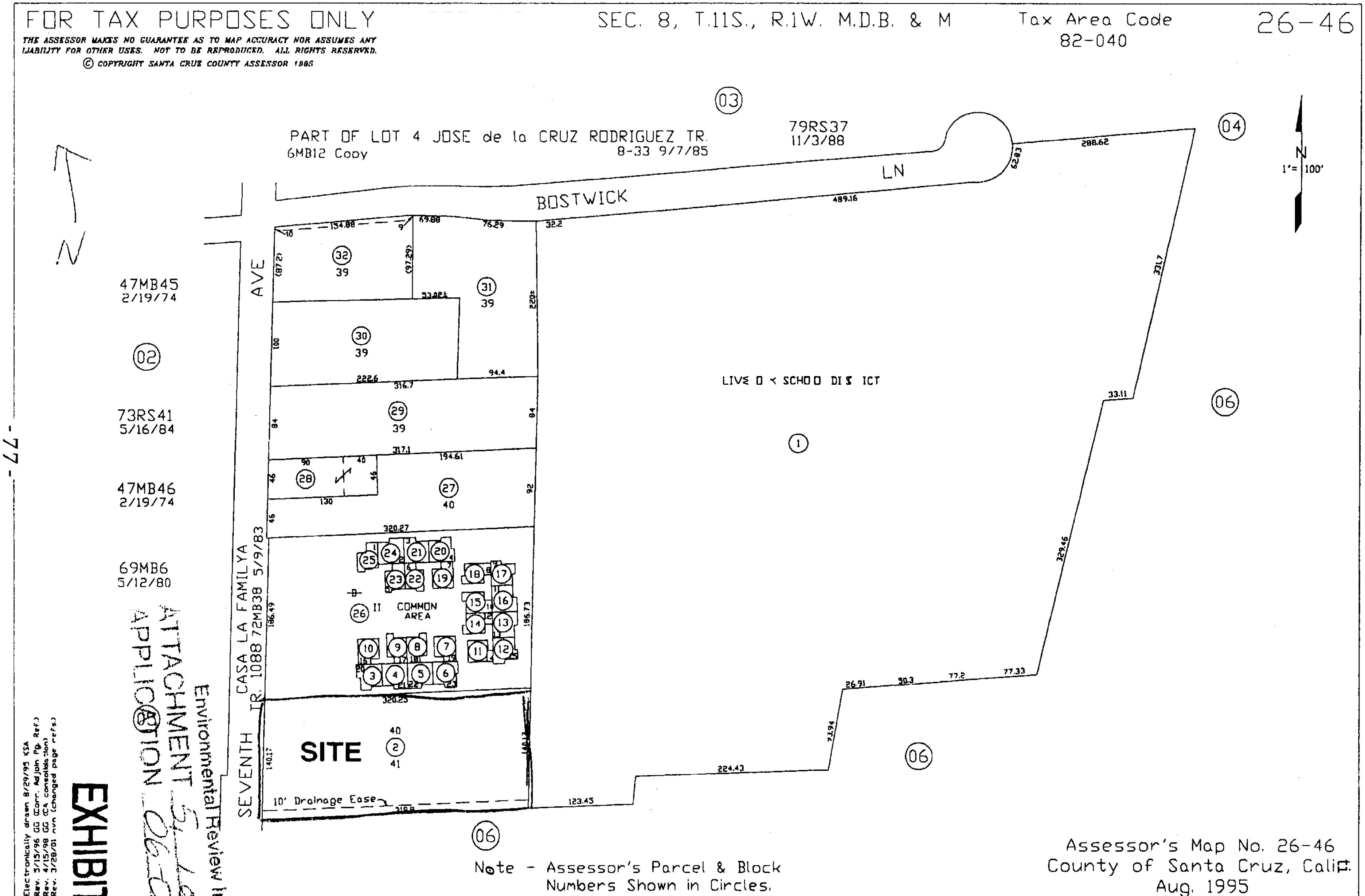
Environmental Review Inital Study
ATTACHMENT 4
APPLICATION 06-0418

Map Created by
County of Santa Cruz
Planning Department
August 2006

EXHIBIT D



Environmental Review Inital Study
ATTACHMENT
APPLICATION

EXHIBIT D

ASSESSORS PARCEL MAP - APN 026-4 1-02

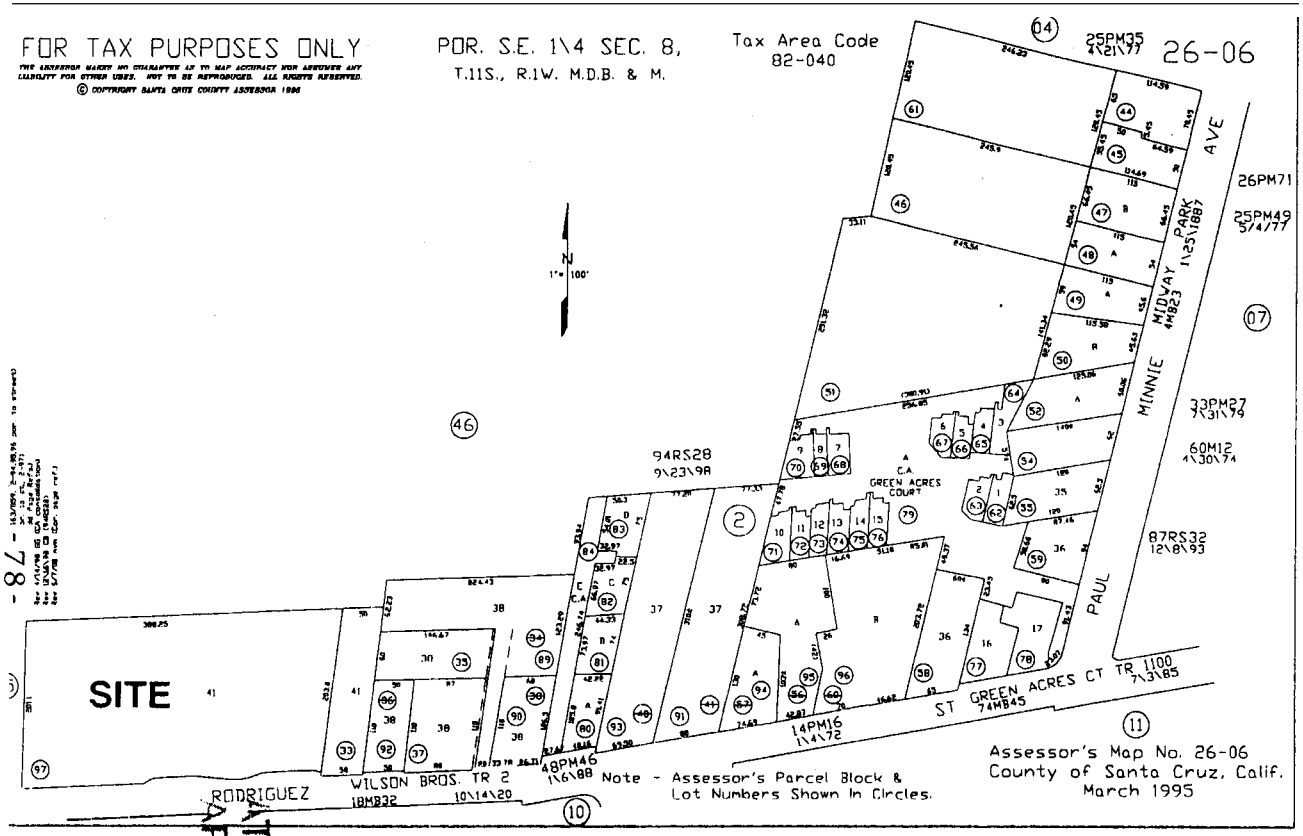


EXHIBIT D

Environmental Review Initial Study
ATTACHMENT
APPLICATION 06-0243

ASSESSORS PARCEL MAP -- APN 026-062-97

Site conservation
The grading cut and fill will be balanced to minimize trucking through the neighborhood Standard measures are to be taken to control dust, dirt and noise during construction.

Tree cover at parking lot exceeds county standards will help reduce heat building up from the pavement.

Drainage:
Site drainage has been taken to bioswales that will clean the water before it goes off site. The off site water flow is being controlled to achieve rates compatible with existing flows so as to not add burden to the area storm drainage systems.

Building design
The building has been designed with an eye to neighborhood compatibility. The structure has been broken down into smaller elements with different exterior finish materials. The primary exterior finishes are similar to board and batt siding and composition shingle roofing which are typical residential materials. Detailing has been handled with references to the California ranch style. To not overwhelm the neighborhood the building creates a fairly low visual presence. The large setbacks from the street and neighboring residences will allow the landscaping to screen and soften it. All dog runs are screened by a six foot solid fence as is the services yard

Exterior mechanical equipment is located in a screened well on roof.

Exterior lighting:
Exterior lighting is being designed with low height fixtures with minimal off site light bleed and no sky lighting.

Accessibility: The facility has two accessible parking spaces which are located a to the building entrance. The building entrance has an accessible path the public to the (currently not used but scheduled to be reconmissioned) bus stop. All oth- building entrances also have accessible paths to public ways. The building inten- to be fully accessible for staff and the public including the animal care facilities a kennels. A simple layout and signage are to be used to make the building maxim accessible for people who have sight, dexterity or acoustic problems.

Existing building to remain: The existing building at 2260 7th Ave. on the north is to remain as office space. Currently it is being leased to the SPCA. That or a s use is anticipated to continue.

Community Process:
The community has been involved at every stage of this project. The purchase of the property by the County was finalized on May 18, 2004 at a properly noticed and advertised public meeting before the Board of Supervisors. At the time of purchase, the plan was to remodel the existing facility. Due to the scope of the required improvements, it was determined that a remodel of the existing facilities would not be cost-effective and that consideration should be given to the construction of a new facility. The existing condition of the current facilities on Seventh Avenue has clearly been of concern to the neighborhood over a number of years and the proposed development of a new animal shelter at that site would serve to mitigate issues of noise, appearance, and parking.

In collaboration with Supervisor Beautz' Office, the director of animal services met with members of the community informally several times to discuss the plans for re-model, and after the decision was made to build the new facility, meetings were held on April 17, 2006 and May 11, 2006. The May 11th meeting was a public meeting, held at the Shoreline Family Swim Center. The meeting invitation, mailing list, and attendance record is attached as Exhibit . The mailing list exceeded the 300' circumference standard for public meetings for development projects. Comments received at the public meeting were favorable. Residents felt that a new facility would greatly improve the look and feel of the current facility. The only concerns expressed were directed to careful management of foot and vehicle traffic at the corner of Rodriguez and Seventh Avenue. These concerns are addressed in the recommend Seventh Avenue plan line.

The required Neighborhood Notification Sign will be on site on or before November 17, 2006.

Noise:
The animal noises are limited to the dogs and occasional large animals as they are the only ones with access to the exterior. The dog kennel part of the building is located in the middle of the site and is a minimum of 170' from any neighboring residence. The kennel wing is to be constructed to limit the passage of any sound generated inside the building out to the exterior. The kennel walls are solid with no windows, there are sound absorption surfaces inside and there is no direct path to the exterior for sound other than the doorways. 21 of the 54 kennels are entirely inside. The inside/outside kennels have sound controlling guillotine doors that are closed off to isolate the noise maker inside at night and if there is a noise problem. Dogs are in a large screen sight activated so regards sound and the kennels are set up so that the kennels have no sight line to other kennels, inside or outside.

The night drop cages are a potentially new service, planned for the future, or as funds are identified to construct them. The night drop facility, if constructed, will replace people leaving a dog tied up to the fence or kittens in a cardboard box. It is not anticipated that there will be any increase in noise and possibly there may be a decrease.

There are occasional night deliveries of animals that have been picked up by the Animal Control officers during late-in-the day or on call shifts. These will be taken into the sally port and the insulated garage door closed before they are removed from the vehicle. The dogs will be kept in kennels in the sally port until morning so the other dogs are not aroused by new arrivals.

Traffic
All deliveries and ASA vehicles will access the building through the service yard. The deliveries are during regular working hours. Two main types are involved: the first is the pick-up of deceased animals, which comes once per week. This truck will pull into the sally port, and the door will be closed prior to pick-up. The second truck delivery is for the delivery of animal food. Delivery can be restricted to a truck under 30 feet in length. ASA also has a stock trailer that will be kept in the pasture. Access to the barn will be through the existing north parking lot or the existing north parking lot.

Sanitation
The building will be served by the county sewer system. The solid waste from the kennels will be picked up and put into plastic bags that are put into the trash enclosure and then removed by the trash hauler. The outside kennel runs will be protected against rain water encumbering the sanitary sewers.

After the solids are picked up the kennels are washed down one time a day with Kennel Sol, a disease control solution that is diluted with water. In the rare event of a disease outbreak a mild bleach solution may also be used. This water along with the water from the laundry will be piped to the sewer system

The trash enclosure will provide enough space for a dumpster and recycling containers, based on the Santa Valley facility's usage.

Recycling
The demolition of the existing buildings will include separating the waste into types so that it can be properly handled at the land fill site and recycled as best can be. Concrete and concrete block, which are a substantial part of the kennel buildings, can be recycled as well as ceramic tile, gypsum wallboard, carpet and carpet padding, and some of the framing lumber. The small office building at the southwest corner has small amounts of lead in the paint and will be properly disposed of.

A roomy, roofed trash enclosure is being provided so that segregated recycling can be employed. The sizing is based on the experience of the Santa Valley facility. The ASA contracts with Grey Bears for weekly removal of recycling, and this practice can be continued at the new facility.

Renewable resource considerations:
The building is being designed in general accordance with LEED standards. Con concrete block, ceiling tile, insulation, reinforcing steel, ornamental sheathing and materials are being utilized that contain recycled and/or local or normally waste materials. Paint with low volatile emissions is being utilized. Energy efficiency considered in all lighting fixture and equipment selections

Several decrepit buildings are to be demolished to make way for the project. The materials will be sorted in accordance with county procedures to permit reuse and efficient placement of the county land fill.

To achieve energy efficiency the building envelope is well insulated, tight against heat leakage, has windows with glass that excludes intense sun heat, and has a very efficient heat system including a heat recovery sub-system in the kennels. New generation roofing is being utilized that reflects 30% more sunlight and thus heat load than typical composition shingle roofing.

Project Program Statement

The mission statement of the SCASA is: "Through community involvement, education, adoption, and humane law enforcement, we work to preserve the well being of all animals and bring an end to the homeless animal crisis."

The principal use for the new Animal Services Authority (ASA) facility is public administrative offices for the ASA staff. The primary ancillary use is keeping and handling animals under the control of the ASA. ASA office staff will perform animal related office type functions and animal care. There is a veterinary suite that serves only the facility animals and currently does not serve the public directly. There are up to five animal control officers, and one field supervisor. On a daily basis, either two or three officers are on duty, each of whom has a truck. The officers are out in the field following up on calls during the day unless they need to return to drop off animals when their truck is full or report to the shelter for other business. There is transport of animals from an off site veterinary clinic, and sometimes transport of animals to an off-site vet office. Three or four days a week there is transport of animals between the ASA's Watsonville facility and the mid county locations, depending on the time of year.

The public will come to visit the animals and engage ASA services. Three outside dog get-acquainted yards are provided near the front entrance on the east side. Three outside dog exercise yards are provided on the north side. These exercise yards will be for facility dogs who are accompanied by a human at all times. An animal night drop may be planned for the future near the parking lot for people who need to drop off stray animals or surrender animals after the facility has closed. This holding facility will be a new function for the ASA. Currently people drop off animals in cardboard boxes or crates, leave them at the front door or tie them to the fence until staff arrives the following morning.

There is an existing building on the north side of the site that is to continue as leaseable space. Presently the building is leased by the Society for the Prevention of Cruelty to Animals. The barn and corral on the north east side of the site will remain as is.

The service yard will encompass a truck and cage washing station and limited outside storage for cages and equipment. The ASA's transport and animal control vans and trucks will park here and is the sally port.

Hours of operation are:
Office 9:00 a.m. to 5:30 p.m. Monday through Sunday
Kennels 12 noon to 5:30 p.m. Monday through Sunday

On weekdays, the ASA facility will have up to 17 employees on site between business hours, and between 8 to 15 volunteers per day, who typically work shifts of approximately 2 hours. Approximately 40 to 90 members of the public will visit the site during open hours, depending on whether it is a weekday or weekend and visitation varies with the time of year. Members of the public visit the shelter for a variety o reasons. Generally, those who come before the kennels are open are there to find s surrender lost animals, surrender animals owned by them, take care of shelters re requests to spouse, obtain a license, or check lost and found files. Typically, those transactions take from between 5 and 30 minutes. In addition to the activities described above, members of the public who visit the shelter after the noon hour are also previewing animals for possible adoption, or completing an adoption. The length of stay is typically between 10 and 90 minutes. This is to say that there is generally a high turnover during the business day.

Exclusive of the Animal Control Officers who are generally working off site the usage varies during the week the number of people on site is as follows:

	Weekday	Saturday	Sunday	After hours all days
Staff	17	9	8	0
Volunteers	8 – 15	8 – 15	8 – 15	0
Members of public	40 – 60	60 - 90	50 - 90	0

Night time usage is limited to the occasional delivery of stray animals. The building is not staffed at night. Animal control trucks will be parked in the sally port and service yard when not in use.

The mid and north county operation is currently sited at 27 Janus Way in Scotts Valley. The number of marked parking spaces available to employees, volunteers and the public is 26. Two are accessible. There are an additional four spaces for animal control vehicles. These can fill up during peak visitation periods, but that has happened only occasionally. As there is not a specific County parking standard for this type of facility in Code Section 3.10.552, the Scotts Valley facility was used as a model. The number of spaces for the new facility have been increase to ensure adequate on-site parking during peak visitors.

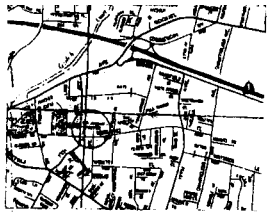
The parking complement for the 2260 Seventh Avenue site is currently planned for 34 spaces available to employees, the public and volunteers, 2 of which are accessible, plus four spaces for animal control vehicles in the sally port/service yard area. An additional 11 spaces are planned to serve the leased building, 2260 Seventh Ave. Using the County standard of one space per 200 square feet of commercial space, the 2260 Seventh Avenue site has 4 excess spaces which can be used by ASA employees. Finally, the site plan provides space for an additional 9 spaces located off the new parking lot, should they be required to service the program needs. The ASA will actively promote ride shares, car pooling, and public transportation options for employees and volunteers. A bus stop serves the site.

The animal population varies depending on the season. The main building can accommodate up to 90 cats. There are kennels sufficient for up to 54 dogs and space for approx. 20 miscellaneous small animals. The cat and small animals are in cages that are entirely inside. The dog kennels have 33 that are half inside and half outside and 21 that are entirely inside. Fowl are occasional visitors and are to be kept completely inside.

Large animals such as goats, pigs, cows, horses, or llamas are occasional. The large animals are kept in the barn during the holding period and until they are adopted or long term homes are arranged. No large animals are kept in residence on site. In 2004 there were 16 large animals, in 2005 there were 11 and for the first half of 2006 there were 11.

Design Team

Architect	Teall Messer **Teall Messer Architect** 3833 Glen Haven Road Soquel, CA 95073
Electrical Engineer	David Auble **Prime Design Group** 9099 Soquel Ave., #9 Aptos, CA 95003
Civil Engineer	Duane Smith C.E. **Ifland Engineering** 1100 Water Street Santa Cruz, CA 95060
Landscape Architect	Michael Arnone L.A. 3370 Samuel Place Santa Cruz, CA 95062
Geotechnical Engineer	Daleth Foster, P.E. **Basinry Engineering Inc.** 718 Soquel Avenue Santa Cruz, AC 95062
Water Resources Engineer	Peter Hause P.E. **Pali Creek Engineering, Inc.** 227 Fero Street Santa Cruz, CA 95060
Acoustic Engineer	Jeff Pack **Edward Pack and Associates** 1975 Hamilton Ave, Suite 26 San Jose, CA 95125
Traffic Engineer	**Higgins Associates** 1300-B Pine Street Orbey, CA
Surveyor	**Gary Ifland Surveying** 1100 Water Street Santa Cruz, CA 95060



Location Map

From Highway 1 exit at Soquel Drive overpass. Proceed west on Soquel Drive to 7th Ave. Proceed south on 7th Avenue to the corner of Rodriguez Street.

Project Information

Site	APN's 026-062-97 026-461-02
Owner	County of Santa Cruz
Site area	2.73 acres
Project description	Masterplan for site including demolition of approx. 12,500 sf of existing buildings, constructing 13,144 sf. one story animal shelter with interior and exterior animal cages and kennels, trash enclosure, exercise and get acquainted yards, service yard, parking lot, fencing, flag pole, landscaping, signage, wastewater processing system. No change is proposed to the leaseable building or barn on APN 026-461-02
Zoning	PF Public facility
General plan	Public facility
CBC occupancy	B, animal shelter S-3, limited garage
CBC Construction	Type V-N, fire sprinkler protected per NFPA 13 as currently adopted in Chapter 35 of the CBC
Codes	All materials and work of this project shall be in accordance with the following codes, as amended by the County of Santa Cruz and the Central Fire Protection District of Santa Cruz County: 2001 California Building Code 2001 California Mechanical Code 2001 California Plumbing Code 2001 California Electrical Code 2001 California State Fire Code National Fire Protection Association Standards All applicable state and local ordinances

	Office, general use and small animal care	7,219
	Dog interior kennels wing	4,453
	Sally port/garage	1,472
	Total interior space	13,144 sf.
	Dog exterior kennels	1,330

Accessibility: The building will be accessible from the public sidewalk and accessible parking spaces. All portions of the building will be fully accessible to employees, volunteers and the public. All emergency egress routes will be accessible.

No change to the existing leasable building which is accessible per a previous permit.

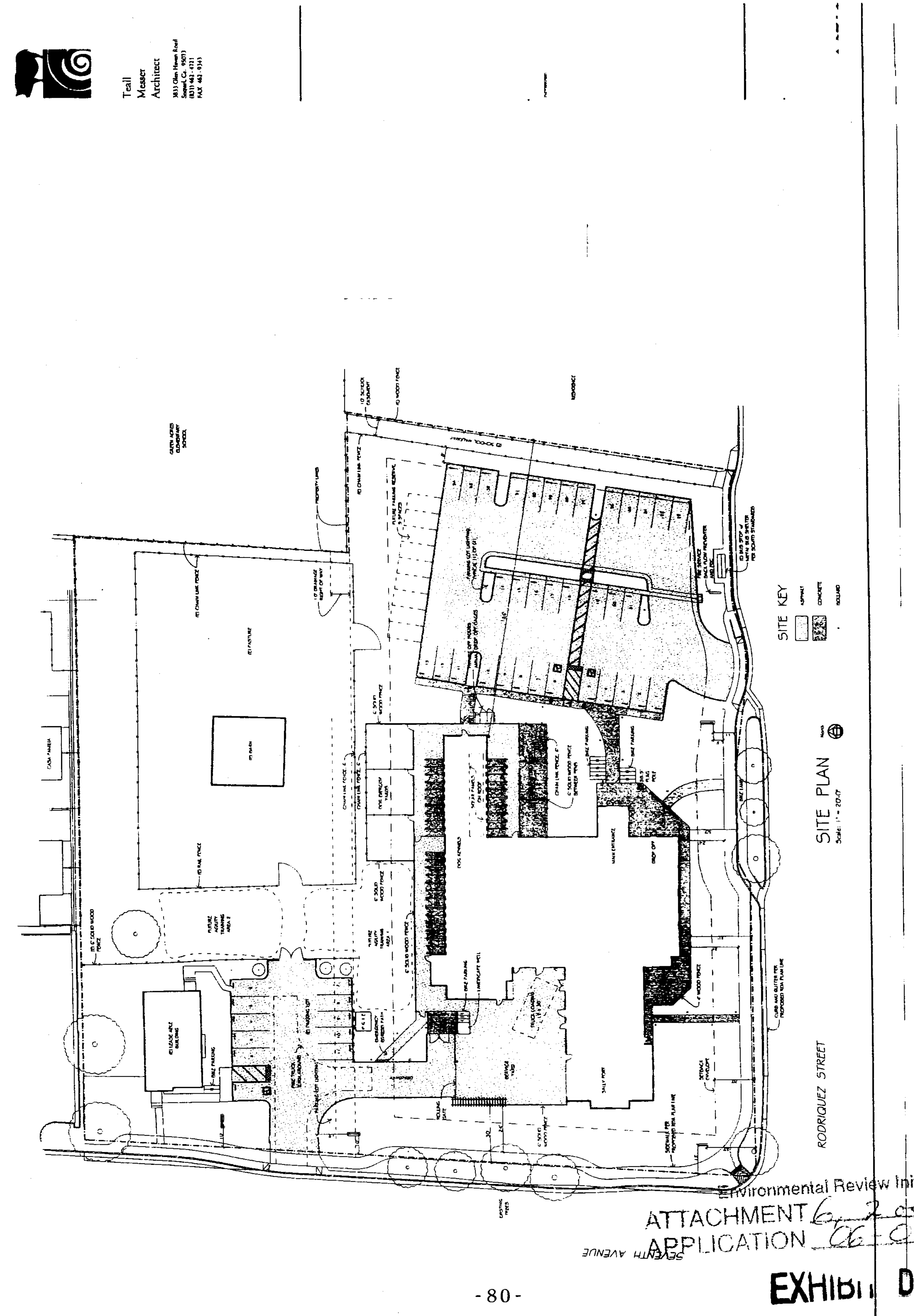
Sheet Index

Teall Messer Architect
3833 Glen Haven Road
Soquel, CA 95073
(831) 462-4721
Fax 462-9343

SANTA CRUZ COUNTY ANIMAL SERVICES AUTHORITY ANIMAL SHELTER
7th Avenue & Rodriguez Street
Santa Cruz, California

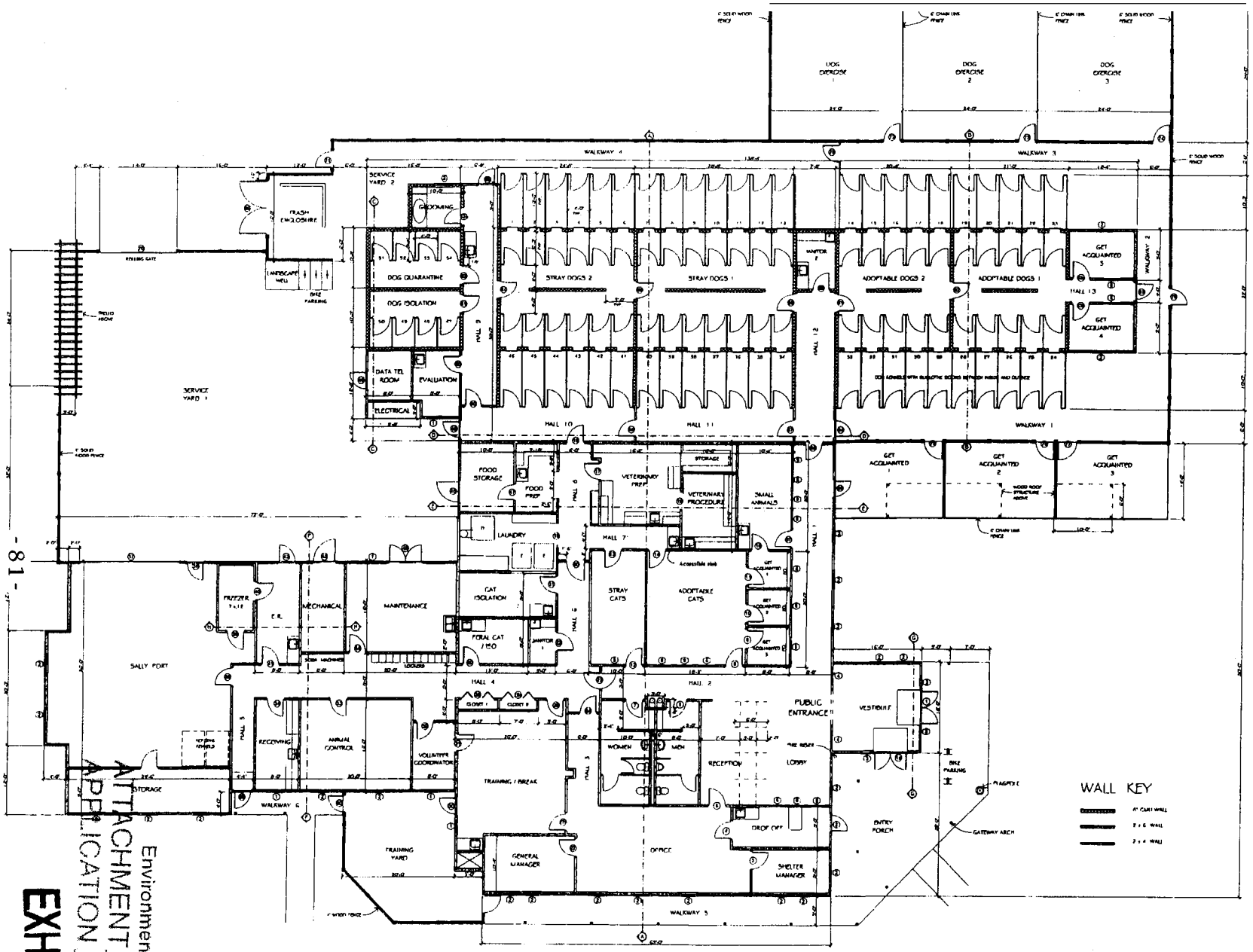
Date 15 NOV. 06
Revisions

Sheet Number
A 1.1



Environmental Review Inital Study
ATTACHMENT 6, 2 of 12
APPLICATION 06-0418

EXHIBIT D



FLOOR PLAN

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

Teall
Messer
Architect

5833 Oban Haven Road
Soquel, Ca. 95073
(831) 462 - 4721
FAX 462 - 9343

SANTA CRUZ COUNTY
ANIMAL SERVICES AUTH
ANIMAL SHELTER

7th Avenue & Rodriguez Street
Santa Cruz, California

Date: November 15, 2006
Revisions

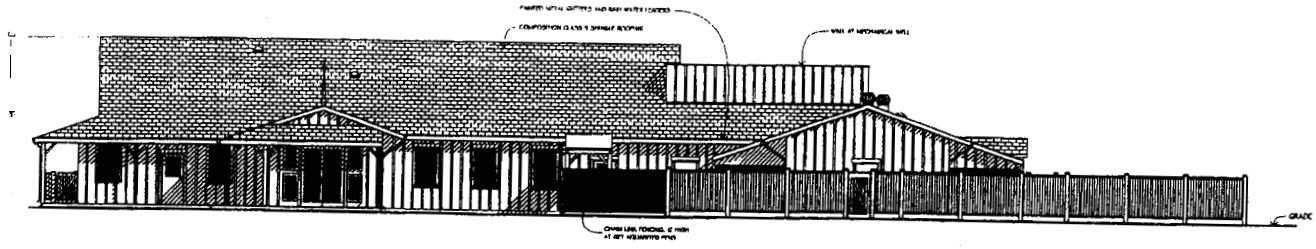
FLOOR PLAN
1/8" = 1'-0"

Sheet Number

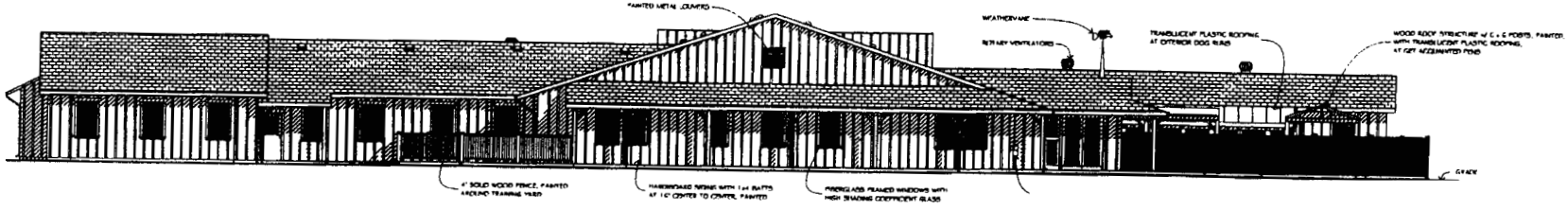
A3.1

Environmental Review Initial Study
ATTACHMENT 6
APPLICATION 06-0178

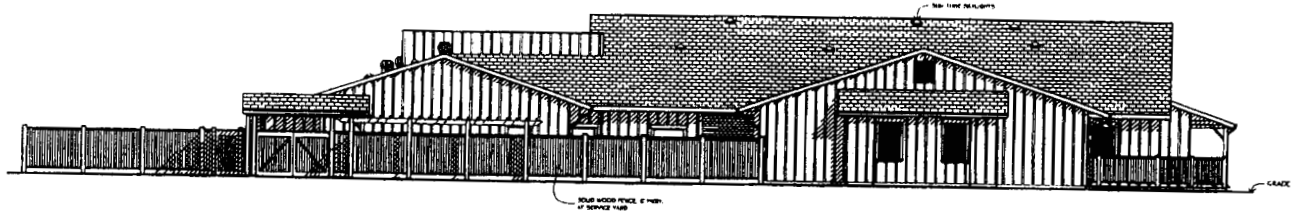
EXHIBIT D



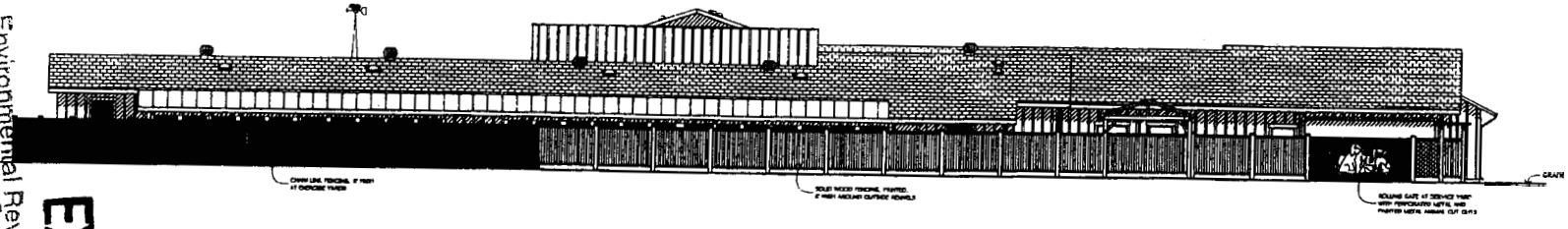
EAST ELEVATION



SOUTH ELEVATION ON RODRIGUEZ STREET



WEST ELEVATION - SEVENTH AVENUE



NORTH ELEVATION

Teall
Messer
Architect

3833 Glen Haven Road
Soquel, Ca. 95073
(831) 462 - 4721
FAX 462 - 9343

SANTA CRUZ COUNTY
ANIMAL SERVICES AUTH
ANIMAL SHELTER

7th Avenue & Rodrigues Street
Santa Cruz, California

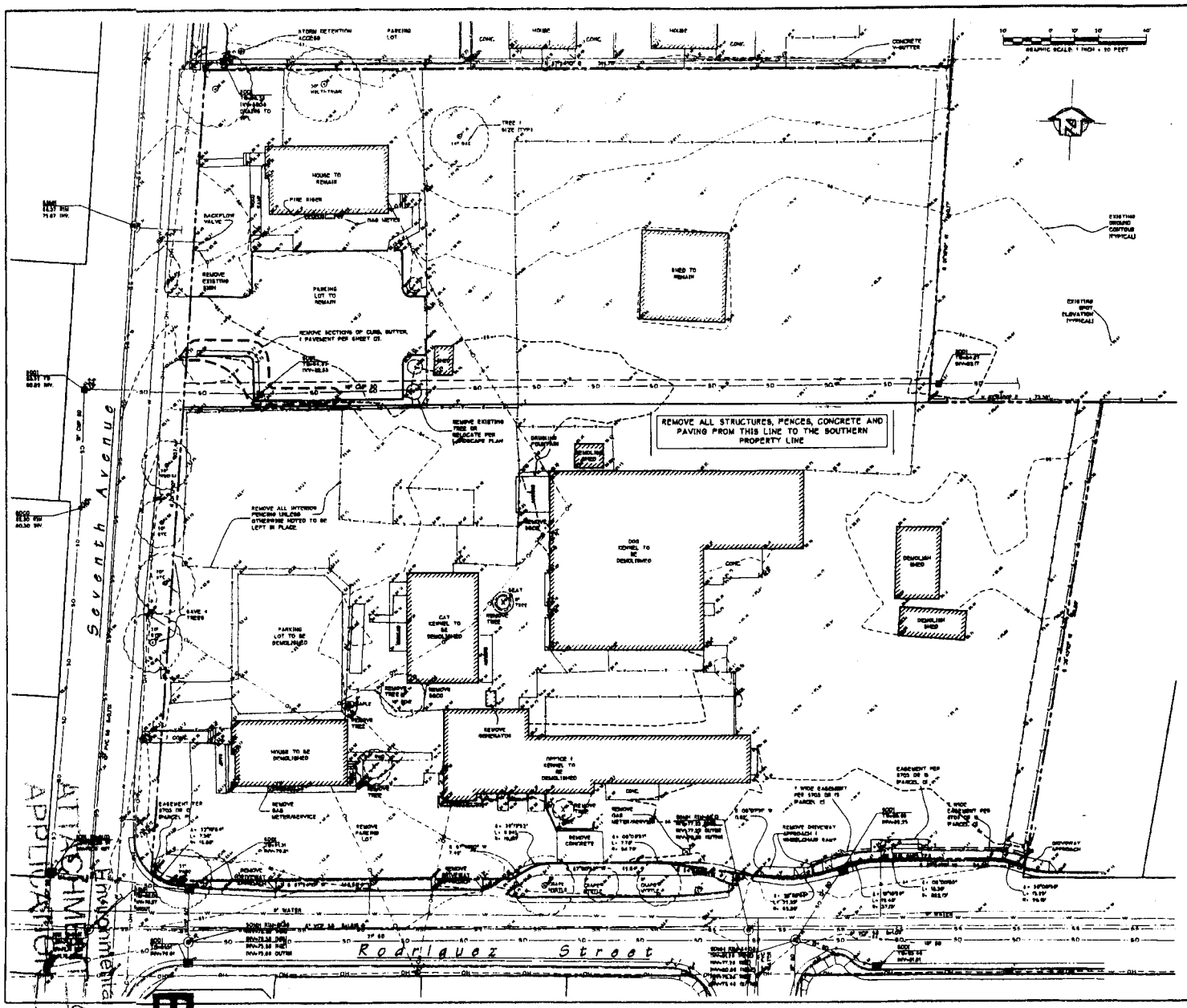
Date: November 15, 2006
Revisions:

EVATIONS
1" = 1'-0"

Sheet Number

A4.4

EXHIBIT J
Environmental Review Initial Study
ATTACHMENT G
APPLICATION 06-0245



Project Data

Owner & Developer

COUNTY OF SANTA CRUZ
701 OCEAN STREET
SANTA CRUZ, CA 95060

Existing Zoning

PF - PUBLIC FACILITY

Existing Use

ABANDONED ANIMAL SHELTER

Proposed Use

ANIMAL SERVICES

Water Supply

CITY OF SANTA CRUZ WATER DEPARTMENT
606 CENTER STREET, ROOM 301
SANTA CRUZ, CA 95060

Sewer Disposal

SANTA CRUZ COUNTY SANITATION DISTRICT
701 OCEAN STREET, 4TH FLOOR
SANTA CRUZ, CA 95060

Gas & Electric

PACIFIC GAS & ELECTRIC

Area Subject to Inundation

NONE

Total Area of Site

76,674 S.F. / 1.76 ACRES

Benchmark

THE BENCHMARK FOR THIS SURVEY IS SANTA CRUZ COUNTY BENCHMARK NO. 58001 IS A STANDARD BRASS CAP MARKED "C-7" IN TOP CURB AT THE SOUTHEAST CORNER OF THE INTERSECTION OF KENNETH AVENUE AND CAPITOLA AVENUE.

BENCHMARK ELEVATION = 48.641 (NAVD '88)

Basis of Bearings

THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN FOUND CENTERLINE MONUMENTS ALONG RODRIGUEZ AVE AS SHOWN ON THAT MAP FILED IN VOLUME 37 OF MAPS, AT PAGE 55, OFFICIAL RECORDS SANTA CRUZ COUNTY.

BASIS OF BEARINGS = S 67°47'00" E

Notes

1. PHASE I SITE ASSESSMENT WAS BEEN PERFORMED BY ENVIRONMENTAL SHEETRATION SERVICES, INC., DATED OCTOBER, 2005.
2. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY BALLERY ENGINEERING, INC., DATED JUNE 16, 2006.
3. EXISTING UTILITIES SHALL BE PROPERLY DISCONNECTED FROM SERVICE PRIOR TO DEMOLITION

NOTE:
THE BOUNDARY AND/OR TOPOGRAPHIC DATA SHOWN HEREON WAS PROVIDED TO IPLAND ENGINEERS, INC. BY:
Gary Wood & Assoc.
AND IS BASED UPON A FIELD SURVEY DATED:
1-30-06
WHILE IPLAND ENGINEERS HAS MADE A SITE VISIT TO FIELD CHECK THE DATA PROVIDED, WE ASSUME NO RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS AND SUFFICIENCY OF THE BOUNDARY AND/OR TOPOGRAPHIC DATA

Existing Conditions & Demolition Plan

SCALE: 1" = 10'

IPLAND ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
1140 GILMAN STREET, SUITE 2
SANTA CRUZ, CA. 95062
TEL (831) 426-5313
FAX (831) 426-1763

Existing Conditions & Demolition Plan
ASA Animal Shelter
7th Ave & Rodriguez St., Santa Cruz, California

ASSESSORS PARCEL NUMBERS
026-062-97, 026-461-02

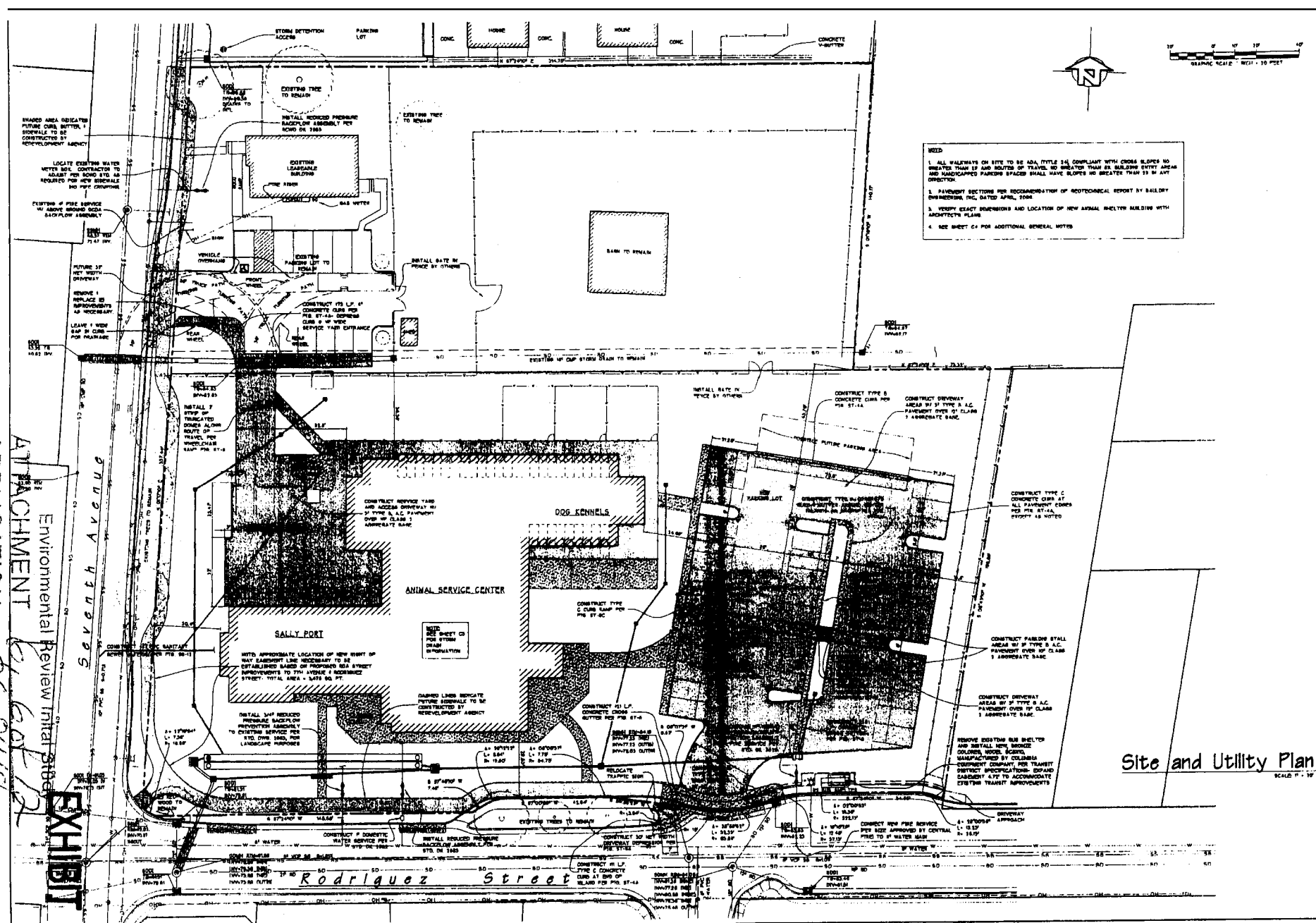
DESIGN: HJS
DRAWN: MJA/CT/AM
CHECKED: LDS
DATE: 10/31/06

SHEET C1 OF 5 SHEETS

JOB NO. 06001

EXHIBIT D

Environmental Review Initial Study
ATTACHMENT
APPLICATION
06-0278



-84-

APPLICATION DG-04-15

ATTACHMENT 6

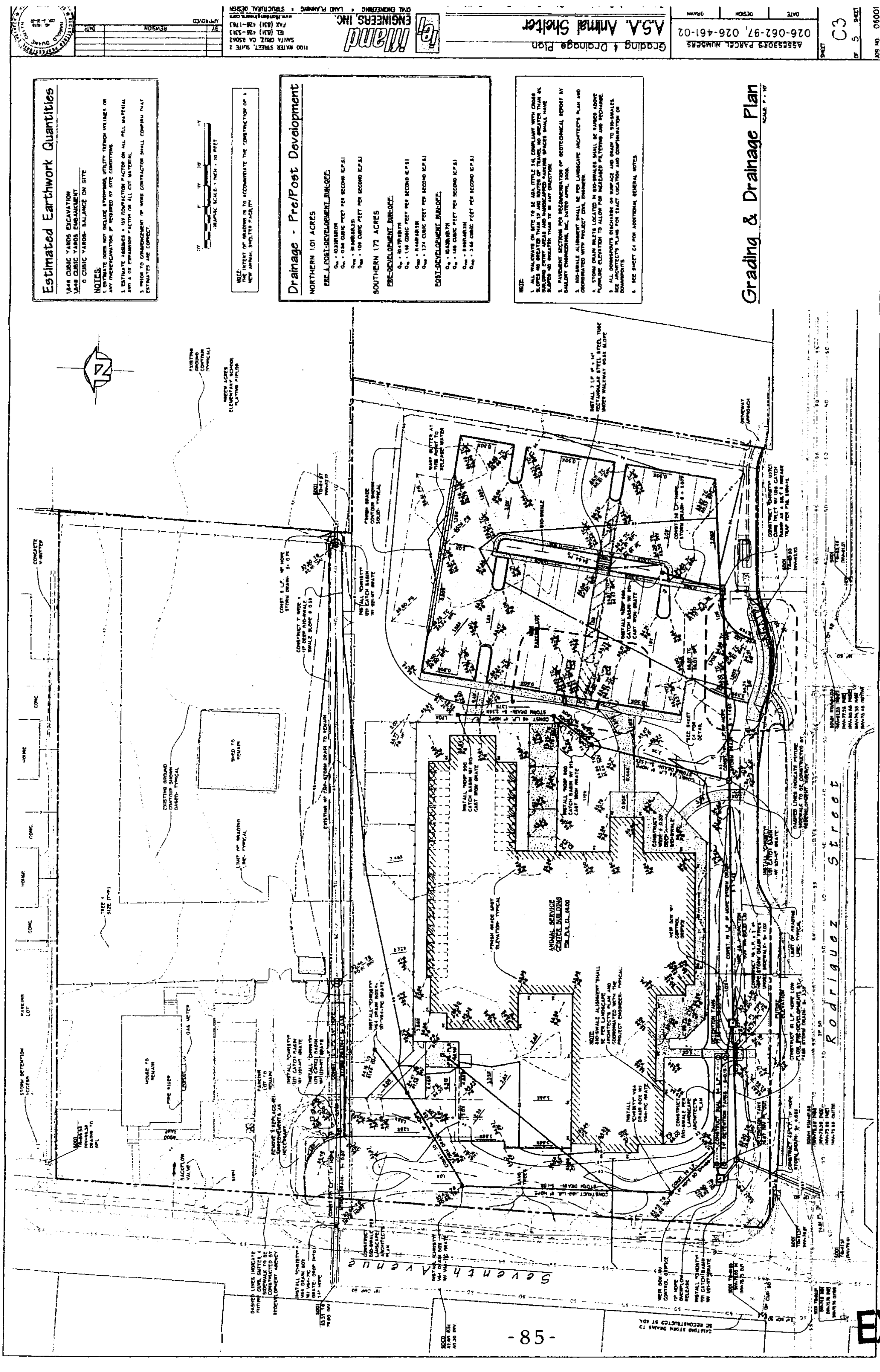
Environmental Review Initial Study

EXHIBIT D

Site and Utility Plan

ASSESSORS PARCEL NUMBERS 026-062-97, 026-461-02

A.S.A. Animal Shelter



Environmental Review Inital Study
ATTACHMENT 6, 1 of 12
APPLICATION 06-0418

EXHIBIT D

General Notes

1. SHADING IN PLAN INDICATES NEW ASPHALTIC CONCRETE PAVING.

2. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA."

3. WORK SHALL BE LIMITED TO 8:00 A.M. TO 6:00 P.M. WEEKDAYS. NON-NOISE PRODUCING ACTIVITIES, SUCH AS INTERIOR PAINTING, SHALL NOT BE SUBJECT TO THIS RESTRICTION.

4. DESIGNATE A "DISTURBANCE COORDINATOR" TO RESPOND TO CITIZEN COMPLAINTS AND INQUIRIES REGARDING CONSTRUCTION NOISE AND DUST. THE NAME, PURPOSE AND TELEPHONE NUMBER OF THE DISTURBANCE COORDINATOR SHALL BE POSTED ON A SIGN EASILY VISIBLE FROM OFF-SITE DURING THE ENTIRE TIME PROJECT GRADING AND CONSTRUCTION OCCURS. THE DISTURBANCE COORDINATOR SHALL INVESTIGATE THE CONCERN AND TAKE REMEDIAL ACTION, IF NECESSARY, WITHIN 24 HOURS OF RECEIVING A COMPLAINT OR INQUIRY.

5. ALL FIGURE (FIG.) REFERENCES, UNLESS OTHERWISE SPECIFIED, REFER TO STANDARD DRAWINGS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA."

6. NO CHANGES IN THE APPROVED IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.

7. NO LAND CLEARING, GRADING OR EXCAVATING SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS A SEPARATE WINTER EROSION CONTROL PLAN IS APPROVED BY THE PLANNING DIRECTOR.

8. BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION SUCH PROTECTION MAY CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF THE PROJECT, ANY EXPOSED SOIL OR DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.

9. NO LAND DISTURBANCE SHALL TAKE PLACE PRIOR TO THE ISSUANCE OF BUILDING PERMITS, EXCEPT THE MINIMUM REQUIRED TO INSTALL STREET IMPROVEMENTS, PROVIDE ACCESS FOR COUNTY REQUIRED TESTS OR TO CARRY OUT OTHER WORK SPECIFICALLY REQUIRED BY ANOTHER OF THESE CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A NPDES PERMIT FROM THE REGIONAL WATER QUALITY CONTROL BOARD PRIOR TO GRADING.

10. THE CONTRACTOR SHALL APPLY WATER TO ALL EXPOSED EARTH SURFACES AT INTERVALS SUFFICIENT TO PREVENT AIRBORNE DUST FROM LEAVING THE PROJECT SITE. ALL EXPOSED EARTH SHALL BE WATERED DOWN AT THE END OF THE WORK DAY.

11. WHILE IN TRANSIT TO AND FROM THE PROJECT SITE, ALL TRUCKS TRANSPORTING FILL SHALL BE EQUIPPED WITH TARPS.

12. ALL GRADING WORK AND CONSTRUCTION OF IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH RECOMMENDATIONS SPECIFIED IN THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY BALLONY ENGINEERING, INC., DATED APRIL 18, 2006 (JOB 6001-S2873-G63). THE GEOTECHNICAL ENGINEER SHALL INSPECT THE COMPLETED PROJECT AND CERTIFY IN WRITING THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT.

13. 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 ARCHEOLOGICAL 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.

14. ALL CONSTRUCTION STAKING FOR CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS AND WATER LINES SHALL BE DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.

15. FOR DESIGN AND CONSTRUCTION PURPOSES, "FACE OF CURB" AS SHOWN ON THESE PLANS SHALL BE DEFINED AS THE CONTROL LINE FROM WHICH THE LOCAL AGENCY REQUIRES THE STREET WIDTH TO BE DETERMINED.

16. THE DIRECTOR OF PUBLIC WORKS, OR HIS AUTHORIZED REPRESENTATIVE, SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.

17. THE CONTRACTOR SHALL NOTIFY THE COUNTY CONSTRUCTION ENGINEER (831-454-2160) 24 HOURS PRIOR TO START OF CONSTRUCTION.

18. THE CONTRACTOR SHALL NOTIFY THE SANITATION DISTRICT INSPECTOR (831-454-2160), OR LEAVE MESSAGE AT 831-454-2886 BEFORE 9:00 A.M. AT LEAST 24 HOURS PRIOR TO THE CONNECTION OF ANY BUILDING SEWER TO THE SEWER LATERAL, OR TO THE ABANDONMENT THEREOF. (IN THE CASE OF ABANDONMENTS, NO DEMOLITION PERMITS WILL BE ISSUED UNTIL SAID SEWER LINE HAS BEEN ABANDONED.)

19. THE TOP 6" OF SUB-GRADE UNDER ALL PAVED SURFACES SUBJECT TO VEHICULAR USE SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION. THE CONTRACTOR'S ATTENTION IS ALSO REFERRED TO FIG. SS-1 "SANITARY SEWER - STANDARD TRENCH BACKFILL" FOR ADDITIONAL BACKFILL AND COMPACTION STANDARDS.

20. EACH NEW SANITARY SEWER LATERAL NOT IMMEDIATELY CONNECTED TO A DWELLING UNIT SHALL BE MARKED WITH A 2" X 4" X 8' REDWOOD STAKE MARKER TO 18" ABOVE FINISH GRADE AT THE END OF EACH NEW LATERAL STUB-OUT. AN "S" SHALL BE PAINTED ON THE MARKER AND THE END OF EACH LATERAL SHALL BE PROPERLY CAPPED. ALL LATERALS INSTALLED IN NEW DEVELOPMENTS SHALL ALSO BE MARKED BY STAMPING AN "S" IN THE CURB JUST ABOVE THE LATERAL.

21. INSULATED COPPER WIRE NO. 10 SHALL BE PLACED ALONG TOP OF ALL GRAVITY AND FORCE MAINS. THE WIRE SHALL RUN BETWEEN MANHOLES, CLEANOUTS, OR OTHER APPROPRIATE FACILITIES, BROUGHT TO THE SURFACE AND BOLTED OR OTHERWISE SECURELY AFFIXED TO THE MANHOLE OR CLEANOUT COVER OR OTHER APPROPRIATE METAL STRUCTURE.

22. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ON ALL LATERALS WHERE THE FINISHED FLOOR ELEVATION IS LESS THAN ONE FOOT ABOVE THE RIM ELEVATION OF THE NEAREST UPSTREAM MANHOLE OR CLEANOUT. THE VALVES SHALL BE LOCATED IN SUCH A WAY AS TO PREVENT ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF SEWAGE RELEASED THROUGH THE DEVICE, AS NOTED ON FIGURE SS-14.

23. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.

24. LATERAL UTILITY TRENCHES IN COUNTY MAINTAINED ROAD RIGHT OF WAY SHALL BE BACKFILLED WITH 2-SACK CEMENT/SAND SLURRY, PER FIG. SS-8, OR AS DIRECTED BY THE COUNTY INSPECTOR.

25. UNDERGROUND UTILITY LOCATIONS SHOWN ARE COMPILED FROM INFORMATION SUPPLIED BY UTILITY AGENCIES, AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF AFFECTED UTILITY LINES PRIOR TO ANY TRENCHING OR EXCAVATING. FOR LOCATION, CALL USA (800-642-2444).

26. ANY EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED AS A PART OF THIS CONSTRUCTION SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE.

27. IF SIDEWALK IS NOT PLACED MONOLITHICALLY WITH CURB AND GUTTER, PLACE #4 DOWELS 18" LONG AT 4' O.C. IN BACK OF CURB 3" BELOW TOP OF CURB, 6" INTO CONCRETE, AS PER STANDARD FIG. ST-4A.

28. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND UTILITIES AND SUBSTRUCTURES. PRIOR TO FURTHER CONSTRUCTION, THE ENGINEER MUST BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES THAT MAY EXIST.

29. REFER TO FIGURES SS-2A, SS-2B & CP-1 FOR BACKFILL REQUIREMENTS. REFER TO SS-11 FOR CONCRETE CAP AND ENCASEMENT REQUIREMENTS.

30. WATER SERVICES FOR SITE SHALL BE INSTALLED BY THE CONTRACTOR ACCORDING TO THE CITY OF SANTA CRUZ REQUIREMENTS PER DETAILS BY ENGINEER.

31. ALL REQUIREMENTS OF THE CENTRAL FIRE PROTECTION DISTRICT SHALL BE MET. THIS SHALL INCLUDE ALL REQUIREMENTS RELATING TO SMOKE DETECTORS, ADDRESS NUMBERS, FIRE ALARM, AUTOMATIC SPRINKLER SYSTEM, ACCESS WIDTHS AND TURNAROUNDS, AND FIRE HYDRANTS.

32. PVC SEWER PIPE SHALL BE MANVILLE "RING-TITE" OR EQUAL. RCP STORM DRAIN PIPE SHALL BE CLASS III. HDPE SHALL BE ADS (N-12) OR HANCOR (HI-Q).

33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF CONSTRUCTION QUANTITIES PRIOR TO BIDDING ON ANY ITEM. QUANTITY REFERENCES SHOWN ON THESE PLANS, OR ENGINEER'S ESTIMATES ARE FOR ESTIMATING PURPOSES ONLY AND SHALL NOT BE CONSIDERED AS A BASIS FOR CONTRACTOR PAYMENT. CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY FLUCTUATIONS IN SUCH QUANTITIES AND ESTIMATES.

34. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

35. UNLESS OTHERWISE NOTED, THE TERMS "INSTALL" AND "CONSTRUCT" MEAN THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS, PRODUCTS, EQUIPMENT, AND LABOR FOR SAID INSTALLATION AND CONSTRUCTION.

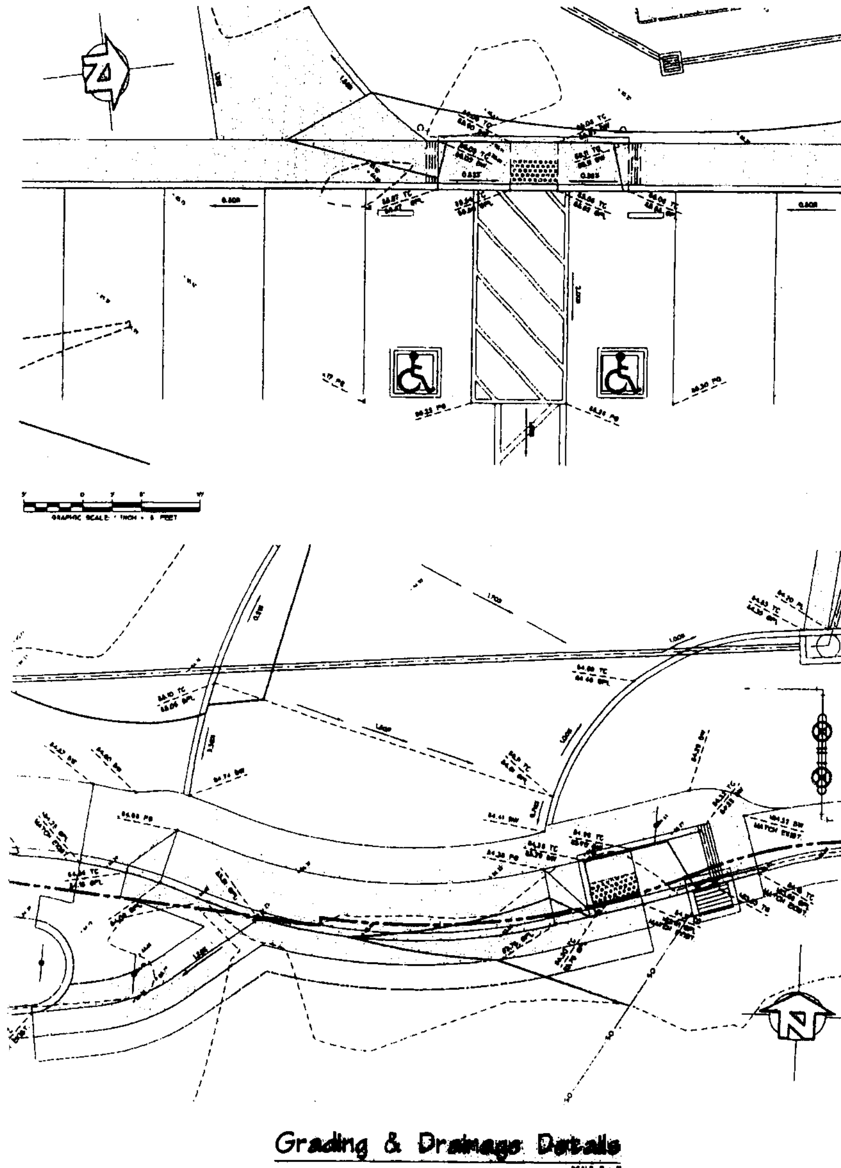
36. ALL CONSTRUCTION STAKING FOR CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS AND WATER LINES SHALL BE DONE UNDER THE OBSERVATION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.

37. DIMENSIONED LOCATIONS OF ALL SEWER AND STORM DRAIN MANHOLES AND RELATED STRUCTURES AND THEIR GRATE, RIM, FLOWLINE OR INVERT ELEVATIONS SHALL TAKE PRECEDENCE OVER ANY PIPE LENGTHS OR SLOPES SHOWN ON THE PLAN. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY SUCH SLOPES AND LENGTHS TO BE IN AGREEMENT WITH SURVEY LAYOUT PRIOR TO CONSTRUCTION.

38. ALL WORK ADJACENT TO OR WITHIN A COUNTY ROAD SHALL BE SUBJECT TO THE PROVISIONS OF CHAPTER 9.70 OF THE COUNTY CODE, INCLUDING OBTAINING AN ENCROACHMENT PERMIT WHERE REQUIRED. WHERE FEASIBLE, ALL IMPROVEMENTS ADJACENT TO OR AFFECTING A COUNTY ROAD SHALL BE COORDINATED WITH ANY PLANNED COUNTY SPONSORED CONSTRUCTION ON THAT ROAD.

39. FOR ROAD WORK INVOLVING A PAVEMENT CONFORM SECTION BETWEEN THE LIP OF GUTTER AND THE EXISTING PAVED ROAD, THE CONFORM SHALL BE EXTENDED AS FAR AS NECESSARY TO ACHIEVE A STREET CROSS SLOPE OF 1% - 4%.

NOTE:
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR AGREES THAT HE WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE APPLIED CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS. THE CONSTRUCTION CONTRACTOR ALSO AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.



Grading & Drainage Details

SCALE: 1" = 8'

Ifland Engineers, Inc.
Civil Engineering • Land Planning • Structural Design
1100 Water Street, Suite 2, Santa Cruz, CA 95062

Grading & Drainage Details
A.S.A. Animal Shelter
7th Ave & Rodriguez St., Santa Cruz, California

Assessor's Parcel Numbers: 026-062-97, 026-461-02

Sheet C4 of 5 sheets

Job No. 06001

EXHIBIT D

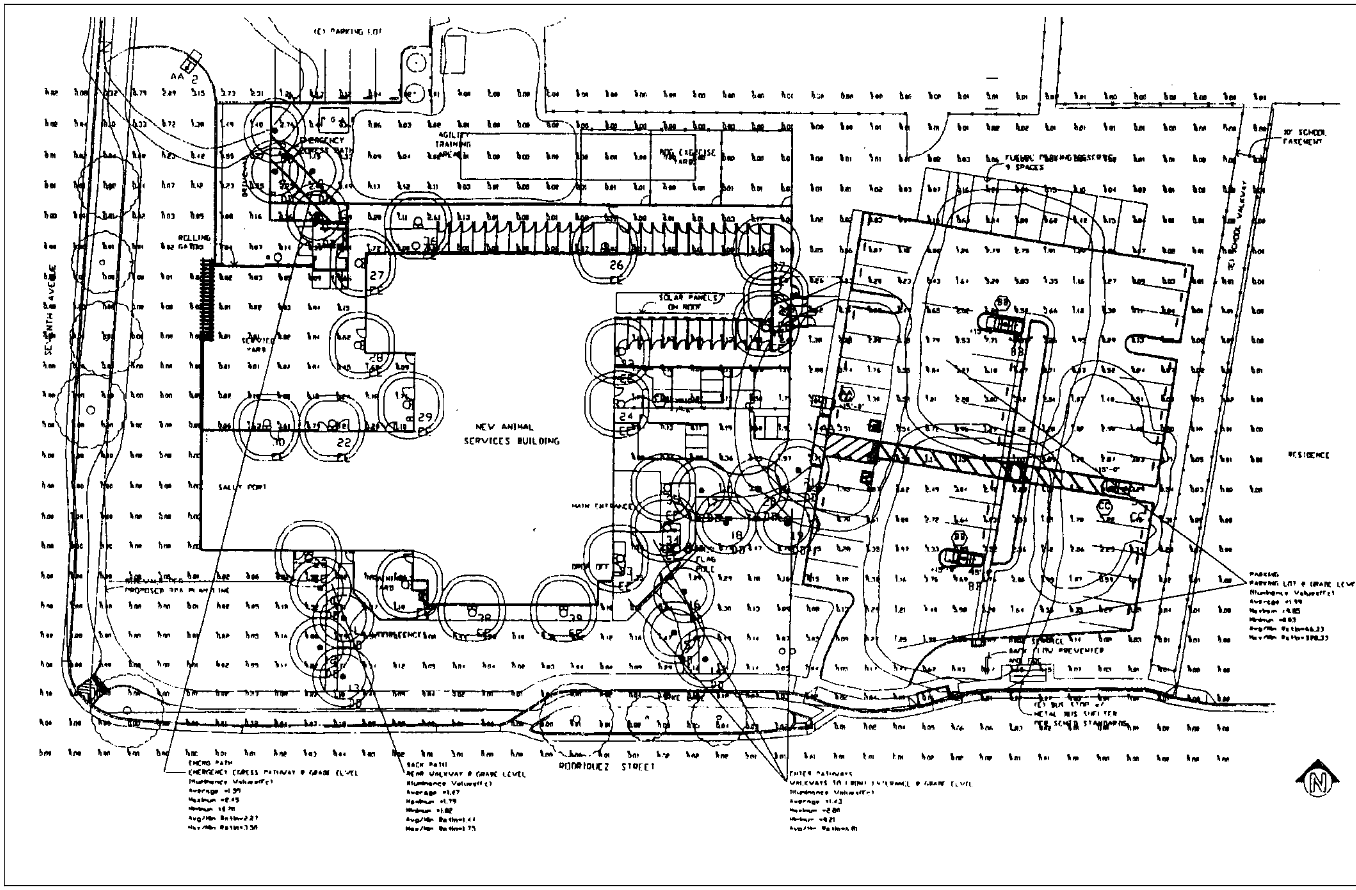
Environmental Review Inital Study
ATTACHMENT 6 S of 12
APPLICATION 06-0418

EXHIBIT D

Environmental Review Inital Study

ATTACHMENT 6, Pg 1 of 1

APPLICATION 06-0418



Luminaire Location Summary						
Project: ANIMAL SHELTER SC						
SeqNo	Label	X	Y	Z	Orient	Tilt
1	AA	477.751	184.272	15	358.063	0
2	AA	263.346	293.816	15	54.234	0
3	BB	542.277	210.359	15	358.857	0
4	BB	528.691	131.912	15	358.857	0
5	CC	383.854	155.242	15	170.679	0
6	DD	293.657	273.199	3.17	0	0
7	DD	293.746	259.81	3.17	0	0
8	DD	306.514	259.987	3.17	0	0
9	DD	308.11	245.712	3.17	0	0
10	DD	318.346	121.263	3.17	0	0
11	DD	318.347	111.219	3.17	0	0
12	DD	318.546	101.232	3.17	0	0
13	DD	318.484	91.23	3.17	0	0
14	DD	441.231	98.111	3.17	0	0
15	DD	438.481	106.867	3.17	0	0
16	DD	433.695	128.61	3.17	0	0
17	DD	439.37	194.28	3.17	0	0
18	DD	447.704	143.492	3.17	0	0
19	DD	468.363	143.492	3.17	0	0
20	DD	458.61	154.841	3.17	0	0
21	DD	472.087	161.225	3.17	0	0
22	CC	313.952	173.736	7.5	90	0
23	CC	396.254	133.533	7.5	270	0
24	CC	409.441	182.884	7.5	0	0
25	CC	463.133	218.826	7.5	0	0
26	CC	408.573	233.818	7.5	90	0
27	CC	324.574	230.109	7.5	180	0
28	CC	324.574	202.421	7.5	180	0
29	CC	341.238	182.261	7.5	180	0
30	CC	291.759	173.815	7.5	90	0
31	CC	341.363	122.506	7.5	180	0
32	CC	409.54	200.125	7.5	0	0
33	CC	409.592	131.392	7.5	0	0
34	CC	425.526	141.652	7.5	0	0
35	CC	425.526	155.101	7.5	0	0
36	CC	342.267	241.671	7.5	90	0
37	CC	460.389	233.745	7.5	90	0
38	CC	361.64	115.427	7.5	270	0
39	CC	398.595	115.427	7.5	270	0
40	CC	464.343	211.212	7.5	270	0

Teall
Messer
Architect
3833 Glen Haven Road
Soquel, CA 95073
(831) 462 4721
FAX 462 9343

PrimeDesignGroup
Electrical Engineering Design and Drafting S

Animal Services Facility
Santa Cruz County
Animal Services
Authority
7th Ave. and Rodriguez
Santa Cruz, California

Luminaire Schedule											
Project: ANIMAL SHELTER SC											
Symbol	Qty	Label	Arrangement	Lumens	LLD	LDD	BF	LLF	Description	Filename
	1	CC	SINGLE	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH-HS PRORATED 175MH	AVA325HSI.ies
	2	AA	SINGLE	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH PRORATED 175MH	AVA325MI.ies
	2	BB	BACK-BACK	12800	0.726	0.9	1	0.653	EMCO AVA-3-250MH PRORATED 175MH RtoR	AVA325MI.ies
	16	DD	SINGLE	2400	0.85	0.9	1	0.765	BEGA 8143P BOLLARD 32WATT CFL	7273.IES
	19	CC	SINGLE	3200	0.85	0.9	0.98	0.750	BEGA 2483P 42WATT CFL	2483P.ies

Numeric Summary										
Project: ANIMAL SHELTER SC										
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	# Pts	Description
GENERAL SITE	Illuminance	Fc	0.61	9.85	0.00	N.A.	N.A.	835	ALL POINTS SHOWN @ GRADE LEVEL
PARKING	Illuminance	Fc	1.99	9.85	0.03	66.33	328.33	147	PARKING LOT @ GRADE LEVEL
EMERG PATH	Illuminance	Fc	1.59	2.45	0.70	2.27	3.50	3	EMERGENCY EGRESS PATHWAY @ GRADE LEVEL
ENTER PATHWAYS	Illuminance	Fc	1.43	2.80	0.21	6.81	13.33	12	WALKWAYS TO FRONT ENTERANCE @ GRADE LEVEL
BACK PATH	Illuminance	Fc	1.47	1.79	1.02	1.44	1.75	5	REAR WALKWAY @ GRADE LEVEL

ALR
ASSOCIATED LIGHTING REPRESENTATIVES, INC
8480 ENTERPRISE WAY
P.O. BOX 2265
OAKLAND, CA 94621
PHONE: (510) 638-0158 - FAX (510) 638-2908

REPORT FOR: PrimeDesignGroup-- DAVE AUBLE
BY: APPLICATIONS ENGINEERING -- LARRY AYERS LC
SALES REPRESENTATIVE: ALR-- STEVE HOLDAWAY

DATE: 13 NOVEMBER 2006

AGI32 VERSION 1.91
AGI (C) 2002 LIGHTING ANALYSTS, INC.
1034 WEST CHATFIELD AVENUE, SUITE 100, LITTLETON, CO 80127

Date: 11/14/06
Drawn by: DAA
Revisions:

Lighting Photometric

Sheet Number:

E 2

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 6, 10 of 12
APPLICATION 06-0418

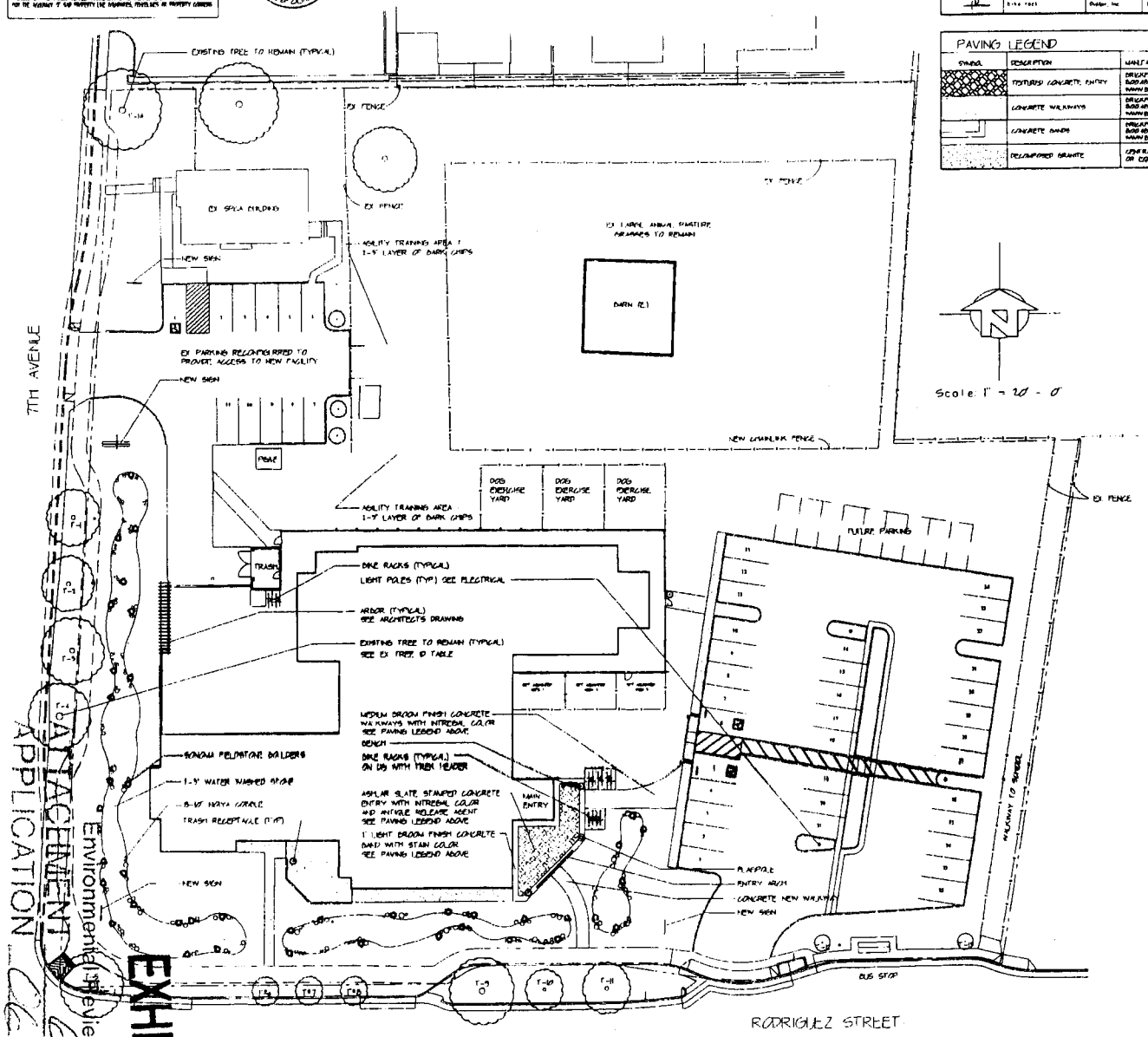
MICHAEL ARNONE LANDSCAPE ARCHITECT — CALIFORNIA

SITE FURNISHINGS LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL #	SIZE	COLOR	FINISH/MATERIAL	QUANTITY	CONTACT #	COMMENTS
	6 bench	Dumor, Inc	Bench 89	6'	Black	Cast iron ends with wood slats & powder coat	1	Ross Recreation Llc Ricci 8148831362	www.dumor.com
	trash receptacle	Dumor, Inc	Receptacle mb-32 w/ steel shelf	32 gal	Black	steel with powder coat	1	Ross Recreation Llc Ricci 8148831362	www.dumor.com
	bike rack	Dumor, Inc	bk-60	6-8	Black	steel with powder coat	1	Ross Recreation Llc Ricci 8148831362	www.dumor.com with 6-8 surface plate

PAVING LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	COLOR	PRESENTATION:
	textured concrete entry	Brickform Bubbles Sand Mann Brickform Low	Brickform Lc-pad cream beige with Brickform Ra-100 terra cotta	Brickform cut asphalt stamp ra-100 at 45 degrees to building
	concrete walkways	Brickform Bubbles Sand Mann Brickform Low	Brickform Lc-pad cream beige	Medium broom finish
	concrete bands	Brickform Bubbles Sand Mann Brickform Low	Brickform Bluish-tone acid stain ra-100 harbor brown	Light broom finish
	decomposed granite	General Rock Supply or equal	California gold	1/2" x 4" x 6' trex header



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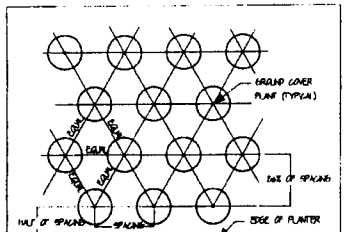


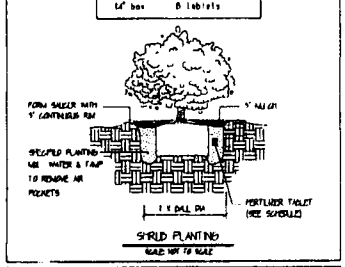
NOTE REFER TO PLANTING LEGEND FOR SPACING DISTANCES ROWS ARE AT BACK OF STAGGERED SPACING

GROUND COVER SPACING DETAIL

SCALE: NOT TO SCALE

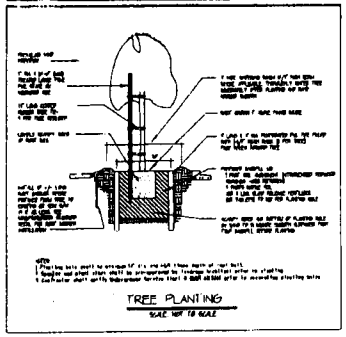
FERTILIZER TABLET SCHEDULE

1 gallon	1 tablet
5 gallon	2 tablets
15 gallon	5 tablets
24" box	8 tablets



SHRUB PLANTING

SCALE: NOT TO SCALE



TREE PLANTING

SCALE: NOT TO SCALE

MICHAEL ARNONE
LANDSCAPE ARCHITECT
California license #3347
3370 Samuel Place
Santa Cruz, CA 95062
831.462.4988

ANIMAL SERVICES AUTHORITY FACILITY
7TH AVENUE AND RODRIGUEZ STREET
SANTA CRUZ, CALIFORNIA

DATE	PURPOSE	BY
7.28.06	final issues response	MAA
11.16.06	revised site plan	MAA

scale: 1" = 20' - 0"

sheet title: site furnishings & landscape plan

sheet number: L - 1

EXHIBIT D

ATTACHMENT 6

Environmental Review Initial Study

APPLICATION 06-0225

- 89 -

MICHAEL ARNONE
LANDSCAPE ARCHITECT
California license #3347
3370 Samuel Place
Santa Cruz, CA 95062
831.462.4988

ANIMAL SERVICES AUTHORITY FACILITY
7TH AVENUE AND RODRIGUEZ STREET
SANTA CRUZ, CALIFORNIA

DATE	PURPOSE	BY
7.28.06	first issue review	MAA
11.10.06	revised site plan	MAA

scale: 1" = 20' - 0"

sheet title: planting plan

sheet number: L - 2

THE DATA SET FORTH ON THESE SHEETS IS THE PROPERTY OF MICHAEL ARNONE LANDSCAPE ARCHITECTURE. IT IS AN INSTRUMENT OF SERVICE AND MAY NOT BE ALTERED, REPRODUCED OR USED WITHOUT THE CONSENT OF THE LANDSCAPE ARCHITECT. THE PARTIES ELECTRONIC TRANSFER OF DATA SHALL BE THE USER'S RESPONSIBILITY WITHOUT LIABILITY TO THE LANDSCAPE ARCHITECT. UNAUTHORIZED USE OF THE DRAWINGS OR SPECIFICATIONS IS PROHIBITED.

OWNER SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL EASEMENTS, SETBACK REQUIREMENTS AND PROPERTY LINES. OWNER SHALL ACQUIRE ALL NECESSARY PERMITS REQUIRED TO PERFORM WORK SHOWN ON PLANS. SAID INFORMATION HAS BEEN PROVIDED BY THE OWNER. ABOVE LANDSCAPE ARCHITECT ASSUMES NO LIABILITY FOR THE ACCURACY OF SAID PROPERTY LINE BOUNDARIES, EASEMENTS OR PROPERTY CORNERS.

LICENSED LANDSCAPE ARCHITECT — MICHAEL A. ARNONE — No. 3347 — Exp. 7/31/2007 — STATE OF CALIFORNIA

GROUND COVER LEGEND

Symbol	Scientific Name	Common Name	Size	Spacing/Area
	Carex tumilicola	Berkeley Sedge	plugs	30" o. c.
	Juncus patens	Spreading Rush	plugs	36" o. c.
	Erigeron karvinskianus	Santa Barbara Daisy	1 Gal	36" o. c.
	No Mow Lawn	Red Fescue Blend Seed	seed	1015 sq. ft.

PLANT LEGEND

Alias	Scientific Name	Common Name	Planting Size	Quantity
AY	Alyogyne huegelii 'Santa Cruz'	Blue Hibiscus	5-Gal	10
FT	Apple espalier	Six In One Apple	15-Gal	5
AU	Arbutus unedo rubra	Strawberry Tree	5-Gal	8
AM	Arctostaphyllos densiflora 'Howard McMinn'	McMinn Manzanita	5-Gal	14
BY	Bougainvillea 'California Gold'	Yellow Bougainvillea	5-Gal	1
BI	Bougainvillea 'San Diego Red'	Bougainvillea	5-Gal	1
CJP	Ceanothus 'Julia Phelps'	Ceanothus	5-Gal	8
CSB	Ceanothus 'Sierra Blue'	Sierra Blue Ceanothus	5-Gal	8
CO	Cercis occidentalis	Western Redbud	15-Gal	6
CT	Cistus 'Sunset'	Sunset Rockrose	5-Gal	15
CS	Cistus salvifolius	Sageleaf Rockrose	1-Gal	51
CR	Cornus stolonifera	Red-twig Dogwood	5-Gal	19
D	Dietes vegeta	Fortnight Lily	1-Gal	8
E	Elymus mollis	Pacific Dune Grass	1-Gal	34
FC	Fremontodendron 'California Glory'	Flannel Bush	5-Gal	1
JM	Jacaranda mimosifolia	Jacaranda	24"-Box	5
L	Lavandula angustifolia	English Lavender	1-Gal	41
M	Muhlenbergia rigens	Deer Grass	1-Gal	46
PV	Passiflora alatocaerulea	Passion Vine	5-Gal	1
PS	Phormium 'Sundowner'	Red Flax	5-Gal	7
PH	Phormium tenax 'Yellow Wave'	Dwarf Flax	5-Gal	20
PTV	Pittosporum tobira Variegata'	Variegated Tobira	5-Gal	5
PU	Pittosporum undulatum	Victorian box	24"-Box	5
PA	Platanus acerifolia 'Bloodgood'	London Plane Tree	24"-Box	4
QA	Quercus agrifolia	California Live Oak	15-Gal	7
QS	Quercus suber	Cork Oak	15-Gal	1
RC	Rhamnus californica	Coffeeberry	5-Gal	12
RO	Rhus ovata	Sugar Bush	5-Gal	7
SCM	Schinus molle	California Pepper Tree	15-Gal	4
S	Solanum jasminoides	Potato Vine	5-Gal	4
H	Sollya heterophylla	Australian Bluebell Creeper	1-Gal	48
TL	Tagetes lemmonii	Bush Marigold	5-Gal	12
WR	Westringia rosmariniformis	Westringia	5-Gal	11
W	Westringia rosmariniformis Compacta	Dwarf Rosemary Bush	1-Gal	45

PLANTING NOTES

1. All existing trees, shrubs and ground covers to remain shall be protected. Any damage caused by Contractor's work shall be repaired or replaced at the Contractor's expense and be approved by the Landscape Architect.
2. Planting beds shall receive the following soil amendments per thousand square feet to be thoroughly incorporated into the top 6-8 inches of soil:
   - 4 cu. yd. — Nitrified redwood sawdust
   - 15 lbs — Dolomite #
   - 15 lbs — Treble superphosphate (0-45-0)
3. After amending soil, grade all areas smooth with no localized depressions exceeding 5 inch. All areas shall surface drain with 15 percent minimum slope away from all buildings, paving or other structures.
4. All imported top soil shall be submitted to Landscape Architect for testing and approval if testing is required. Contractor shall pay for all lab testing fees.
5. Contractor shall consult with Landscape Architect if plant substitutions are required.
6. Quantities are for aiding in bidding only. Contractor shall verify all quantities.
7. Contractor shall lay out plant material as per plan and receive approval from Landscape Architect prior to installation.
8. No plants shall be planted with root balls or root pits in a dry condition.
9. Plant all plants as per planting details in square pits with sides and bottoms thoroughly scarified. Do not amend backfill mix beyond initial topsoil amending unless noted. Use Agriform time release fertilizer tablets or equal as per schedule in planting details.
10. Immediately after planting treat all areas with pre-emergent weed control as per manufacturer recommendations prior to top dressing.
11. All newly planted material shall be watered by deep soaking within 3 hours of planting.
12. All planting areas shall receive 3 inches of shredded fir bark top dressing (mulch).
13. Contractor shall be responsible for irrigating all new plant material until the entire project has been approved and accepted by County of Santa Cruz.
14. Thirty days after planting Contractor shall restake and straighten all trees as necessary to be approved by Landscape Architect.
15. Contractor shall install a Trex headerboard (or equal) along the edge of the new no-mow lawn.

SEE PLANTING DETAILS SHEET L-1

NOTES:

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO EFFECTIVELY WATER ALL NEW PLANTING AREAS. THE SYSTEM WILL BE DESIGNED FOR THE CONSTRUCTION BID DOCUMENT PHASE OF WORK. DRIP IRRIGATION EQUIPMENT, BUBBLERS AND LOW FLOW SPRAY HEADS WILL BE USED TO CONSERVE WATER. THE PLAN SHALL BE SUBMITTED AND APPROVED BY THE SCWD.
2. THE LAYOUT AND SIZE OF THE BIO SWALE SHALL CONFORM TO THE RECOMMENDATIONS BY THE CONSULTING ENGINEER. IT IS THE INTENT OF THE LANDSCAPE DESIGN TO MAKE THE APPEARANCE OF THE BIO SWALE RESEMBLE A DRY CREEK BED. SONOMA FIELDSTONE BOULDERS, SMOOTH NOYO COBBLE AND WATER WASHED STONE CAN BE USED ON TOP OF THE BIO SWALE. PLANTINGS OF SEDGE AND RUSH SPECIES ARE SHOWN WITHIN THE BIO SWALE ZONE ALONG WITH DEER GRASS AND PACIFIC DUNE GRASS ALONG THE PERIMETER.

EXISTING TREE INVENTORY

ID	SPECIES	TRUNK CALIPER	CANOPY WIDTH	APPROX. HEIGHT
T-1	SYCAMORE	16"	36'	45'
T-2	SYCAMORE	14"	30'	45'
T-3	SYCAMORE	16"	34'	45'
T-4	SYCAMORE	18"	40'	45'
T-5	REDWOOD	30"	15'	65'
T-6	CRAPE MYRTLE	4"	8'	14'
T-7	CRAPE MYRTLE	4"	8'	14'
T-8	CRAPE MYRTLE	4	10'	14'
T-9	SYCAMORE	14"	40'	40'
T-10	SYCAMORE	14"	35'	40'
T-11	SYCAMORE	14"	36'	40'
T-12	PISTACHE	5"	6'	10'
T-13	PISTACHE	5"	6'	8'
T-14	MYOPORUM	MULTI 6", 6", 8"	15'	15'

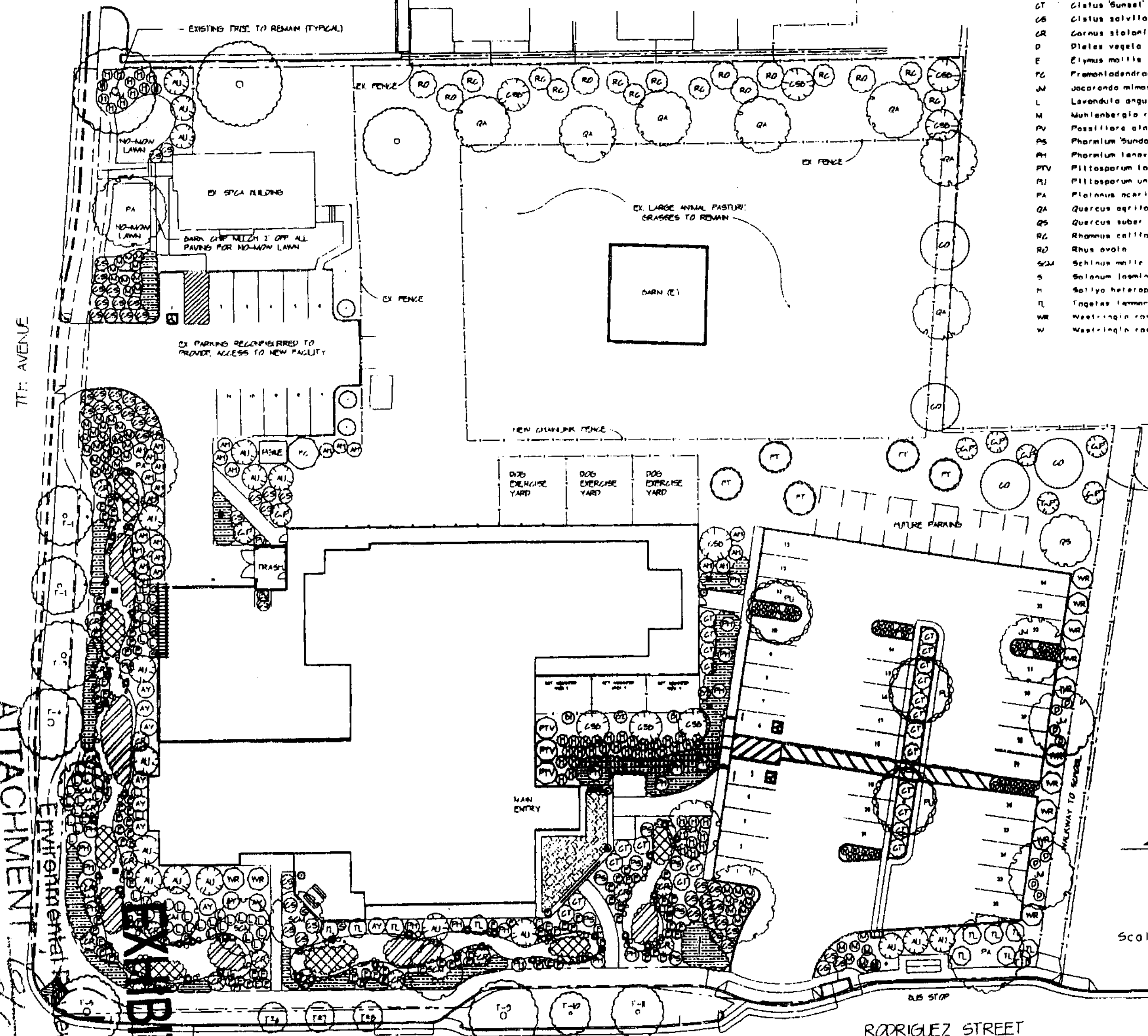


EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 10, 12 of 12
APPLICATION 06-0418

GEOTECHNICAL INVESTIGATION
FOR
NEW ANIMAL SHELTER
2200 7TH AVENUE
SANTA CRUZ COUNTY, CALIFORNIA
SANTA CRUZ COUNTY APN 026-062-97

FOR
COUNTY OF SANTA CRUZ
SANTA CRUZ, CALIFORNIA

Environmental Review Inital Study
ATTACHMENT 7, 1 of 43
APPLICATION 06-0418

BY
BAULDRY ENGINEERING, INC.
CONSULTING GEOTECHNICAL ENGINEERS
0611-SZ972-H63
APRIL 2006

EXHIBIT D

Bauldry Engineering, Inc.
CONSULTING GEOTECHNICAL ENGINEERS
718 SOQUEL AVENUE, SANTA CRUZ. CA 95062 (831) 457 1223 FAX (831) 457 1225

0611-SZ972-G63
April 28, 2006

County of Santa Cruz
701 Ocean Street, Room 520
Santa Cruz, CA 95060

Attention: Susan Pearlman

Subject: Geotechnical Investigation
New Animal Shelter
2200 7th Avenue
Santa Cruz, California
APN 026-062-97

Dear Ms. Pearlman.

In accordance with your authorization, we have performed a geotechnical investigation for the New Animal Shelter, which is located in Santa Cruz County, California.

The accompanying report presents our conclusions and recommendations as well as the results of the geotechnical investigation on which they are based The conclusions and recommendations presented in this report are contingent upon our review of the plans during the design phase of the project, and our observation and testing during the construction phase of the project

If you have any questions concerning the data, conclusions, or recommendations presented in this report, please call our office.

Very truly yours,

Bauldry Engineering, Inc.

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

Daleth Foster
Senior Engineer
C.E. 57965
Exp. 6/30/06

Engineering/Projects/0611 GI
Copies: 1 to County of Santa Cruz, Attn: Susan Pearlman
4 to Teall Messer Architect

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT F 2 of 14
APPLICATION 06-0415

GEOTECHNICAL INVESTIGATION

PURPOSE OF INVESTIGATION

The purpose of our investigation was to explore the subsurface conditions in the area of the proposed new construction, and based on our findings provide geotechnical engineering recommendations for the design and construction of the proposed new Animal Shelter.

SCOPE OF SERVICES

This report describes the geotechnical investigation and presents results, including recommendations, for the proposed development. If the proposed design and construction differ significantly from that planned at the lime this report was written, the conclusions and recornmendations provided in this report are null and void unless the changes are reviewed by our firm, and the conclusions and recommendations presented in this report are modified, or verified, in writing.

Our scope of services for this project has consisted of:

1. Discussions with you and Teall Messer, the Project Architect

2. Review of the following maps and reports:
   a. Preliminary site plans prepared by Teall Messer Architect.
   b. The topographic survey map showing existing site improvements prepared by Gary Ifland and dated January 30, 2006.
   c. Geologic Map of Santa Cruz County, California, Brabb, 1989.
   d. Preliminary Landslide Deposits in Santa Cruz County, California, Cooper-Clark, 1975.
   e. Map Showing Quaternary Geology and Liquefaction Potential of Santa Cruz County, California, Dupre, 1975.
   f. Map Showing Faults and Their Potential Hazards in Santa Cruz County, California; Hall, Sarna-Wojcicki, Dupre, 1974.
   g. USGS 7.5 Minute Topographic Map, Soquel Quadrangle.

3. The drilling and logging of 6 test borings.

4. Laboratory analysis of retrieved soil samples.

5. Engineering analysis of the field and laboratory results

6. Freparaiion of this report documenting our investigation and presenting recommendations for the design of the project.

SITE DESCRIPTION

Location

The project site is located on the northeast quadrant of the intersection of 7th Avenue and Thompson Avenue in the Live Oak area of the Santa Cruz County, California The site address is 2200 7th Avenue. The Assessors Parcel Number is 026-462-97.

EXHIBIT D
Environmental Review Initial Study
ATTACHMENT 7, 3 of 18
APPLICATION 06-0478

Site Topography and Setting
The site is irregularly rectangular, nearly level, and roughly 1% acres in size. The site is elevated roughly 85 feet above sea level on the first emergent marine terrace. The slopes in the vicinity of the site are inclined very gently toward a tributary arm of Arana Gulch, The topography forms a slight depression along the parcel's northern boundary, and I understand that surface water collects in this area during rainstorms. Currently, the parcel houses several structures, including an older residential structure, offices, kennels and sheds, and paved and unpaved parking areas.

Proposed Development
The proposed project consists of the removal of all of the existing site improvements and the construction of a new animal shelter. The project will include an Animal Service Center with and kennels on the west side of the site, and a parking lot on the east side of the site.

Earth **Materials**
The project site is mapped on the USGS Geologic Map of Santa Cruz County (Brabb 1989) as being underlain marine terrace deposits blanketing sandstone bedrock of the Purisima Formation. The soils encountered in our test borings are consistent with this description. The surface soil on the site is composed of dark brown soft sandy silt The soft surface soil overlies a 2% to **4%** foot layer of stiff sandy clay that grades to medium dense clayey sand. Below a depth ranging between 2% and 6 feet we encountered silty sand grading to clean sand, This saturated sand layer was loose in the upper section and medium dense to dense at depth. Sandstone of the Purisima Formation was encountered at a depths ranging between 17 and 22 feet below the ground surface.

Groundwater
Groundwater was encountered at a depth of 8 to 10 feet below the ground surface. It should be noted that the borings were open only for a few hours. This may not have been sufficient time for groundwater to stabilize.

The groundwater conditions described in this report reflect the conditions encountered during our drilling investigation in March 2006 at the specific locations drilled. It must be anticipated that the perched and regional groundwater tables may vary with location and will fluctuate with variations in rainfall, runoff, irrigation and other changes to the conditions existing at the time our measurements were made.

The table below summarizes the information that is detailed on the boring logs included in Appendix **A** of this report

Summary of Subsurface Findings

Earth Material	B-1 (16.5 ft)	B-2 (24 ft)	B-3 (20 ft)	B-4 (25 ft)	E-5 (25 ft)	B-6 (9.5 ft)
FILL Gravelly SAND Loose			-	0-1.5 ft	-	-
NATIVE Dark Brown Sandy SILT Soft to Firm		0-1.5 H	0-1.5 ft	1.5-2.5 ft	0-1.5 ft	0-1.5 ft
Sandy CLAY lo clayey SAND Medium Dense	0-2.5 H	1.5-5H	1.5-3 ft	2.5-5 ft	1.5-6 ft	1.5-6 ft
Silty SAND grading to SAND Medium Dense to Dense	2.5-16.5 n	5-17 ft	3-17 ft	5-22 H	6-22 H	6-9.5 H
BEDROCK Purisima Formalion Uncemented		17-24 ft		22-25 H	22-25 ft	-

SEISMIC HAZARDS

***Seismic* Shaking and CBC Design Parameters**

The project should be designed assuming that significant seismic shaking will occur during the lifetime of the project Generally, shaking will be more intense the closer the site is to an earthquake epicenter, however, seismic shaking can be intensified by local topography and soil conditions.

Mapped active or potentially active faults that may significantly affect the site are listed in the following table. The fault distances and seismic source types are based on a review of the document titled "Maps Of Known Active Faults Near-Source Zones In California And Adjacent Portions Of Nevada" prepared by the California Department of Conservation Division of Mines and Geology and published February 1998

Fault	Seismic Source Type	Distance to Source (kilometers)
San Andreas	A	15
San Gregorio	A	19
Zayante	B	13
Monterey Bay –Tularcitos	B	10

Structures built in accordance with the latest edition of the California Building Code for Seismic Zone 4 may be damaged during a large magnitude earthquake, but should not collapse. The following values for seismic design at the project site were derived or taken from the 2001 CBC.

2001 CBC Seismic Desian Parameters

Seismic Zone	Zone 4
Seismic Zone Factor	Z = 0.4
Soil Profile Type	Stiff Soil Profile (S_D)
Near Source Factor N_a	N_a = 1.0
Near Source Factor N_v	N_v = 1.0
Seismic coefficient C_a	C_a = 0.44
Seismic coefficient C_v	C_v = 0.64

Liquefaction

Liquefaction is a phenomenon that can occur in loose to medium dense, saturated gravel, sand and non-plastic silt that are subject to seismic accelerations. An approximately 15 foot thick layer of saturated sand that varies from medium dense to dense underlies the project site. The results of our analysis, which are based on the work of Seed (Recent Advances in Soil liquefaction Engineering: A Unified and Consistent Framework, Seed et al., 2003), indicate that there is a high potential for liquefaction of the medium dense sections of this saturated sand in the event of intense seismic shaking

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 7, 5 of 15
APPLICATION 06-0418

Liquefaction occurs when the soil grains are cyclically accelerated such that they begin to loose contact, allowing pressurized pore water to flow between soil particles. The pressurized groundwater can flow up towards the ground surface. The soil, which derives its strength from point-to-point contact between grains, can become fluidized, lowering soil shear strength and bearing capacity. When the cyclic accelerations cease the water pressure dissipates and the grains settle in a new packing structure, frequently resulting in ground surface settlement. Settlement can be differential due to the presence of non-homogeneous earth materials and due to differential densification and dewatering processes. Liquefaction induced bearing failure and differential ground settlement can be highly damaging to structures, pavements and utilities.

We analyzed the potential for liquefaction to occur on the site using the following assumptions and criteria:

1. Estimated mean peak ground accelerations of 0.5 g and a 7.9 magnitude earthquake.
2. **A** groundwater elevation of 8 feet below the ground surface, at or above the field conditions encountered in March 2006.

Ground Surface Settlement

We analyzed the potential for the ground surface settlement due to liquefaction. Our settlement potential analysis was performed using the criteria recommended by Seed et al. (2003). Our analysis was performed for existing ground elevations using maximum accelerations of 0.5g.

The results of our analysis indicate that there is a high potential for liquefaction in some areas and a low potential for liquefaction in other areas. Total ground surface settlement could range between negligible to 2% inches depending on location and groundwater elevation. Up to ⅔ of the seismically induced settlement could act differentially across a given area.

It must be cautioned that geotechnical modeling of liquefaction and liquefaction-induced settlement is an inexact and evolving science. The mathematical models contain many simplifying assumptions, not the least of which are isotropy and homogeneity of the soil strata. The probabilities generated by our analyses show the tendency of soil behavior. Soil with a high probability of liquefaction may not deform, but is more likely to deform, than soil with a low probability of liquefaction.

Slope Stability

The potential for landsliding to affect the site is low as the site and surrounding area are relatively level.

Surface Ground Rupture from Faulting

The project site is located within 15 kilometers of a mapped trace of the San Andreas Fault. The County of Santa Cruz currently considers the risk associated with surface ground rupture to be acceptable with a 50-foot minimum building setback from an active fault trace, as documented by a detailed fault investigation. A detailed fault investigation was outside our scope of services for this project.

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 7, 6 of 18
APPLICATION 06-0418

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 Animal Shelter can be designed and constructed to an "ordinary" level of seismic 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 seismic 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 the Animal Shelter at the subject site are the following:

a **Surface drainage**

Large playing fields associated with Green Acres Elementary School are located adjacent to the site The playing fields appear to slope in the general direction of the project site The surface grades on the project site form a very gentle swale along the parcel's northern boundary We were informed by the site maintenance manager that water collects in the area of this unimproved "swale" during rainstorms

We recommend that surface grades be designed to collect and convey surface runoff from the project site and from the adjacent playing fields to appropriate drainage facilities

b. **Soft, wet surface soil**

The site is underlain by approximately 1% to 3% feet of soft sandy silt and clay that was wet at the time of our investigation. It appears that water perches on a clayey layer at a depth of 1% to 2 feet below the ground surface. Soft soils are susceptible to differential settlement, which can be highly damaging to structures.

To reduce the potential for differential settlement below the structure and parking area we recommend that all existing fill and the upper low strength soils be removed and replaced as an adequately compacted engineered fill, in accordance with the recommendations provided in the EARTHWORK AND GRADING RECOMMENDATIONS Section of this report.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT F, 7 of 12
APPLICATION 06-0478

c. **Moderately expansive clay soil**
We encountered isolated areas of moderately expansive clays in the upper 3 feet of surface soil on the site. Structures underlain by isolated areas of expansive soil can experience differential uplift, which can be highly damaging.

To reduce the potential for differential expansion to impact site improvements, all plastic clay soils should be segregated during excavation, in accordance with the recommendations provided in the EARTHWORK AND GRADING RECOMMENDATIONS Section of this report.

d. **Liquefaction induced ground settlement**
Saturated medium dense sand strata that are susceptible to liquefaction-induced settlement underlie the site. We anticipate that there could be up to 2% inches of settlement across the site in the event of a strong magnitude earthquake occurring on a nearby fault system. Liquefaction can be highly damaging to foundations, pavements and utilities. In the event of a strong magnitude earthquake, damage to pavements and utilities should be anticipated.

To help minimize the potential for differential settlement to impact the site we have provided the following recommendations:

I. Structures should be constructed with a structural mat foundation that is design to resist differential settlement, as per the recommendations provided in the FOUNDATION Section of this report.

II. The utilities should be fitted with flexible connections to accommodated differential settlement, as per the recommendations contained in the UTILITY CONNECTIONS Section of this report.

POST REPORT SERVICES

3. Plan Review

Grading, foundation, and drainage plans should De 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.

4. Construction Observation and Testing

Field observation and testing must be provided during construction by a representative of Bauldry Engineering, Inc. 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, drainage, and earthwork construction, including the degree of compaction, comply with the specification requirements. Any work related to foundation, drainage, or earthwork construction, or grading performed without the full knowledge of, and not under the direct observation of Bauldry Engineering, Inc., the Geotechnical Engineer, will render the recommendations of this report null and void.

5. 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

Environmental Review Inital Study
ATTACHMENT 7 Bof 16
APPLICATION 06-0418
EXHIBIT D

representative, the architect, the grading contractor, a county representative 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

6. Demolition

The initial preparation of the site will consist of the removal of the existing structures, foundations, abandoned underground utilities, concrete slabs, all subsurface obstructions, trees, and root 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 Geotechnical Engineer in the field will designate the extent of this soil removal.

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

7. 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.

8. Subgrade Preparation

Following the stripping and backfilling of voids, the exposed soils in the building areas should be removed to a minimum depth of 30 inches below existing grade or as designated by the Geotechnical Engineer All plastic clay soil should be segregated and removed from ihe site during the excavation process. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The approved non-expansive excavated soil may then be placed in thin lifts. There should be a minimum of 12 inches of non-expansive engineered fill under all foundation elements. The excavation and recompaction in the roadway and parking areas should extend to a minimum depth of 24 inches below the original ground surface and should result in a minimum of 18 inches of recompacted material below all roadway sections. Recompacted sections should extend 5 feet beyond all building and pavement areas.

9. Compaction Requirements

The minimum compaction requirements are outlined in the table below.

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 7 9 of 18
APPLICATION 06-0418

a

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
The maximum dry density will be obtained from a laboratory compaction curve run in accordance with ASTM Procedure #D1557. This test will also establish the optimum moisture content of the material. Field density testing will be in accordance with ASTM Test #D2922.	

10. Moisture Conditioning

The moisture conditioning procedure should result in soil with a relatively uniform 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 the soil is wet, it will need to be dried back. The native soil may require a diligent and active drying and/or mixing operation to reduce or raise 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.

11. 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 under the observation of the Geotechnical Engineer. 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.

12. Erosion Control

The surface soils are classified as moderately to highly erodable. All finished and disturbed ground surface should be prepared and maintained to reduce erosion This work, at a minimum, should include effective planting. Erosion control should be installed as soon as practicable so that a sufficient growth will be established prior to inclement weather conditions. The ground cover should be continually maintained to minimize surface erosio

"EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 7, 10 of 18
APPLICATION 06-0415

CUT AND FILL SLOPES

13. Cut **and** Fill **Slopes**

The site is essentially level and no cut or fill slopes **are** currently proposed for the development We should be retained to provide recommendations for cut and fill slopes if they are added to the project.

FOUNDATIONS - GENERAL

14. Plan Review

We request an opportunity to review the grading plans and structural details during the design and prior to completion to determine if supplemental recommendations will be required

FOUNDATIONS – STRUCTURAL MAT

15. General Description **of** Foundation

It is our opinion that a structural mat foundation that is designed to resist differential settlement and span liquefaction-induced voids is an appropriate foundation system to support the proposed Animal Shelter. It must be anticipated that the mat will need to be re-leveled following an event of liquefaction-induced settlement. The structural mat foundation should be bedded into adequately compacted engineered fill that is constructed in accordance with the recommendations provided in the EARTHWORK AND GRADING RECOMMENDATIONS Section of this report.

The structural mat should be designed and constructed in accordance with the following criteria

a The structural mat foundation should be designed **to** span a 5 foot void appearing anywhere under the structure, as designed by the Project Structural Engineer in accordance with applicable CBC or ACI Standards.

b The perimeter of the structural mat should embed a minimum depth of 18 inches below grade.

c The allowable bearing capacity *of* the structural mat foundation is 1,000 psf for dead plus live load with 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.

d The coefficient of vertical subgrade reaction (K_{vl}) for a structural mat constructed to the criteria outlined above is 75 tons per ft^3.

e A representative o! Bauldry Engineering, Inc. must observe footing excavations and the structural mat subgrade before **the** steel is placed and concrete is poured to insure bedding into proper material.

16. Moisture Control – **Capillary** Break

The structural mat should be underlain by a 4-inch minimum thickness of ¾ inch clean crushed rock (capillary break), overlain by a waterproof membrane We do not recommend the use of sand or Class 2 baserock for capillary break material-

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 7 11 of 18
APPLICATION EA-0418

The capillary break should be constructed ai or above the surrounding surface grades io help minimize moisture below slab floors.

17. Subgrade Saturation

It is important that the subgrade soils be thoroughly 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 TRENCHES

18. 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.

19. 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.

20. Shoring

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

21. Utility Connections

Utility lines should be designed to tolerate differential ground settlement due to liquefaction. Utility lines connected to structures should be designed to mitigate potential damage resulting from ground settlement. Utility lines should be provided with flexible connections able to accommodate 2+ inches of settlement. It is likely that utilities will need to be repaired following an episode of liquefaction.

SURFACE **DRAINAGE**

22. Surface Grades and **Storm** Water **Runoff**

Large playing fields associated with Green Acres Elementary School are located adjacent to the site The playing fields appear to slope in the general direction of the project site The surface grades on the project site form a very gentle swale along the parcel's northern boundary We were informed by the site maintenance manager that water collects in the area of this unimproved "swale" during rainstorms

We recommend that surface grades be designed to collect and convey surface runoff from the project site and from the adjacent playing fields to appropriate drainage facilities. 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

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 7-12-06-18
APPLICATION 06-0418

location away from structures and graded areas. We recommend that concentrated storm water runoff be discharged onto pavements and conveyed into the storm water system

23. 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 Concentrated roof runoff should be transported in a closed conduit that discharges onto pavements and conveyed into the storm water discharge system along the existing roadways

24. 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, Inc., the Project Geotechnical Engineer.

The building and surface drainage facilities must inspected and maintained on a routine basis. Repairs and upgrades, whenever necessary, must be made in a timely manner. We recommended that the property owner inspect the drainage systems prior to each rainy season, following the first significant rain, and throughout each rainy season. The civil and geotechnical engineers should be consulted if significant erosion or other drainage problems occur so that the conditions can be observed and supplemental recommendations can be provided, as necessary.

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.

25. Percolation Pits

Percolation pits are acceptable for the disposal of storm water runoff at the project site Percolation pits are designed to become inundated when inflow exceeds the "design storm", and therefore must be located where surface overflow is acceptable. Percolation pits designed to current county specification will overflow. All percolation pits should be sited a minimum of 15 feet away from structural improvements and pavements, and should penetrate the below the surface 5 to 6 feet of lower permeability soils.

PAVEMENT DESIGN

26. Laboratory Testing Pavement Subgrade **Soil**

The soils that will comprise the pavement subgrade will in all likelihood be the light brown dark brown sandy silt that predominates on the upper 18 inches **of** the site. The "R" Value result for the upper sandy silt was 19 and we have used this for design of the pavement sections noted below. This must be verified in the field and, if necessary, modifications made to these tentative sections.

27. Recommended Pavement Sections

For design purposes, the following traffic indices are suggested:

a. Parking stalls	T.I. = **4%**
b. Traffic aisles	T.I. = 5
c. Truck usage areas	T.I. = 6½*

Environmental Review Inital Study
ATTACHMENT 7, 13 of 15
APPLICATION 06-0418

EXHIBIT D

'This value may be modified after we have information on the truck traffic that will use this facility.

Material	Traffic Index		
	4 %	5.0	6 ½
Asphalt Concrete (inches)	3 0	3.0	3.0
Class 2 Aggregate Base, R=78 (inches)	10	12	16

28. General Pavement Recommendations

To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be implemented.

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 asphalt 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 Study
ATTACHMENT 7, 14 of 18
APPLICATION 06-0418

EXHIBIT D

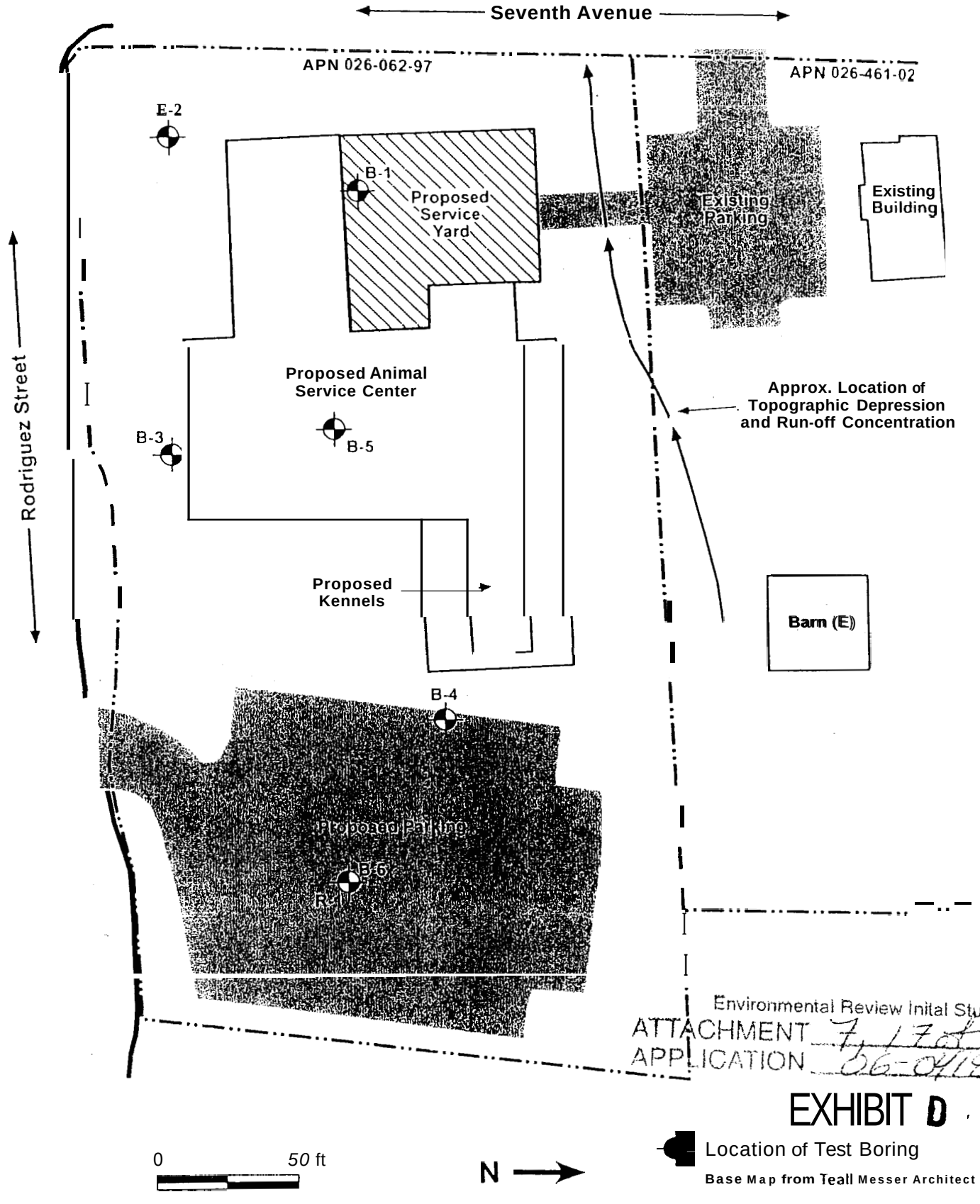
APPENDIX A

Regional Site Plan
Site Plan Showing Test Borings
Boring Log Explanation
Log of Test Borings
Atterberg Limits
R-Value
Liquefaction Analysis

'ROJECT NO. 0611-SZ972-H63	REPORT DATE: April 28,2006

EXHIBIT D

Bauldty Engineering, Inc.	Figure No 1	Regional Site Plan



Environmental Review Inital Study
ATTACHMENT 7, 17 of 19
APPLICATION 06-0418

EXHIBIT D

Bauldry Engineering, Inc. | Figure No 2 | Site Plan Showing Test Borings

Bauldry Engineering, Inc.
CONSULTING GEOTECHNICAL ENGINEERS
718 SOQUEL AVENUE, SANTA CRUZ, CA 95062 (831) 457-1223 FAX (831) 457-1225

0611-SZ972-G63
July 19, 2006

Teall Messer Architect
3833 Glen Haven Road
Soquel, CA 95073

Subject: Permeable Pavements
New Animal Shelter
2200 7th Avenue
Santa Cruz, California
APN 026-062-97

Dear Mr. Messer,

We understand that permeable pavements are being considered for the proposed Animal Shelter project. We **do** not recommend the use of permeable pavements for this project. The surface soils on the site consist of soft silt overlying relatively impermeable clay. The soft silt is prone to **loss** of strength when saturated, and therefore, we have recommended that the upper 18 inches be recompacted such that it is relatively impermeable. The use of permeable pavements at the site is in direct conflict with the intent of the proposed site preparation. The use of permeable pavement will likely result in **a** significantly reduced pavement lifespan.

If you have any questions concerning this letter.

Very truly yours,

Bauldry Engineering, Inc.

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

Daleth Foster
Senior Engineer
C.E. 57965
Exp. 6/30/08

Engineering/Projects/Letter Regarding Permeable Pavements
Copies: 1 to County of Santa Cruz, Attn: Susan Pearlman
2 to Teall Messer Architect

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 7 18 of 18
APPLICATION 06-0418

CITY OF
SANTA CRUZ

WATER DEPARTMENT

809 Center Street, Room 102 Santa Cruz **CA** 95060 Phone (831) 420-5200 Fax (831) 420-5201

June 14,2006

Teall Messer
3833 Glen Haven Road
Soquel CA 95073

Re: APN 026-062-97,2200 7TH AVENUE PROPOSED COMMERCIAL BUILDING

Dear Mr. Messer:

This letter is to advise you that the subject parcel is located within the service area of the Santa Cruz Water Department and potable water is currently available for normal domestic use and fire protection. Service will be provided to the parcel upon payment of the fees and charges in effect at the time of service application and upon completion of the installation, at developer expense, of any water mains, service connections, fire hydrants and other facilities required for the parcel under the rules and regulations of the Santa Cruz Water Department. The development will also be subject to the City's Landscape Water Conservation requirements.

At the present time:

the required water system improvements are not complete; and
financial arrangements have not been made to the satisfaction of the City to guarantee payment of all unpaid claims.

This letter will remain in effect for a period of two years from the above date. It should he noted, however, that the City Council may elect to declare a moratorium on new service connections due to drought conditions or other water emergency. Such a declaration would supersede this statement of water availability.

If you have any questions regarding service requirements, please call the Engineering Division at (831) 420-5210. If you have questions regarding landscape water conservation requirements, please contact the Water Conservation Office at (831) 420-5230.

Sincerely,

Bill Kocher
Director

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 8, 1 of 4
APPLICATION 06-0415

BK/mf
P:\WTEN\EngTech\Letter Boilerplates\Water Availability doc
Cc SCWD Engineering

NEW WATER SERVICE INFORMATION FORM

SANTA CRUZ MUNICIPAL UTILITIES

809 Center Street, Room 102
Santa Cruz. CA 95060
Telephone (831) 420-5210

Multiple APN? Y **APN:** 026-461-02

Date: 9/7/2006 **Revision Date 1 :** 9/19/2006

Revision Date 2 : 12/1/2006

PROJECT ADDRESS: *2200* & 2260 - 7th **Avenue**

APPLICANT INFORMATION:

Name:	Santa Cruz County CAO/Susan Pearlman		
Mail Street:	701 Ocean St., 5th flr		
City/St/Zip:	Santa Cruz	CA	95060-
Phone:	( ) 454-7203	Fax:	
Cell:			

PROJECT DESCRIPTION:

Demo ex 12,500 sf animal services facility (4 bldgs) and construct 12.635 sf bldg 8 1.600 sf ext kennels, assoc park 8 ldscpg REP Teal Messer ph 454-4721 or SCC Plnr Melissa Allen ph 454-5318 fx 454-3420 (add APN 026-062-97) E

3/4"	070-1710		Active		bus-gen
3/4"	070-2160		Active		bus-genl
4"	070-1710	15846	Active		

No connection fee credit(s) for services inactive over 24 months

SECTION 2 FIREFLOWS

Hyd # 1586 Size/Type: 6"stmr Static 78 Res 64 Flow 1162 Flow w/20# Res. 2504 FF Date 05/03

Location: @ 2320 - 7th

Hyd # Size/Type: Static Res Flow Flow w/20# Res. FF Date

Location:

SECTION 3 WATER SERVICE FEES

Service Type	Service Size	Meter Size	Meter Type	# SIOs	Meter Inst	Eng Plan Review	Permit Insp	Rvw Fee	Backflow Permit Type	Backflow Permit Fee	Water System Dev	Sewer Connection	Zone Capacity
Domestic													
Dom/Fire													
Irrigation	3/4	3/4	Disc	1	$285	$50		$50	RP	$120	$9,795		
Business	1	1	Disc	1	$311	$100	$180	$100	RP	$240	$16,325		
Fire Svc	4	5/8	Disc	1	$263	$50	$180	$50	DCDA	$120			
Hydrant		Type											
WATER SERVICE FEE TOTALS					$859	$200	$360	$200		$480	$26,120	$	$.00

Street Opening Fee $ **Irr Plan Review Fee** $160 **Total** $28,379 **- Credits** $6,793 **GRAND TOTAL** $21,586

ADDITIONAL COMMENTS

PLNG APPL 06-0418 REVISIONS REQ'D 12/1/06: Revise utility site plan sheet C2 by Ifland Eng - A SEPARATE LATERAL CONN IS REQD for the new 4" fire service, delete the connection from the existing fire hydrant lateral; INSTALL 1" DOM WATER SERV - delete the new 3/4" water service - the existing 3/4" water service accnt 070-2160 is proposed (8 reqd by Water Con) for irrigation. PROVIDE Reduced pressure backflow assemblies on 2 existing 3/4" and the new 1" water services @ the boxes. This is a County initiated project w/outside agent plan review 8 inspections. List of approved contractors and RP (dom) 8 DCDA (fire) Assemblies 8 backflow. fire service 8 dom service details mailed previously. Above fees are estimated. The irrigation plans w/revisions 11/10/06 were resubmitted to the Water Cons Office for review. The civil utility plan sheet C2 will be redlined and sent directly to Ifland Engineers for required revisions.

SECTION 4 QUALIFICATIONS

1. Service will be furnished upon:
(1) payment of the required fees due at the time service is requested (a building permit is required), and; (2) installation of the adequately sized water services, water mains and fire hydrants as required for the project under the rules and regulations of the Santa Cruz Water Department and the appropriate Fire District and any restrictions that may be in effect at the time application for service is made.
2. Fees and charges noted above are accurate as of the date hereof, and are subject to change at any time without notice to applicant.

BP# none PLAN APP # 06-0418 PLANNER Melissa Allen REVIEWED BY Sherry Reiker

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT D, 2 of 4
APPLICATION 06-0418

Water Conservation Office 809 Center Street, Room 100 Santa Cruz, CA 95060
Phone: (831) 420-5230 FAX: (831) 420-5231

Melissa Allen
Santa Cruz County Planning Redevelopment
701 Ocean St.
Santa Cruz, CA 95060

September 17,2006

Subject Property: 2200 & 2260 7th Avenue Permit #06-0418 APN: 026-461-02

Dear Ms Allen:

This letter is a follow-up to the 9/14/06 letter I sent you regarding landscape plans for the Santa Cruz Animal Services project. **As** previously stated, the preliminary planting plan dated July 28, 2006 appears to be consistent with the City of Santa Cruz's Water Efficient Landscape Ordinance, however the submittal is incomplete – imgation plans are required. Our understanding is that this project will not require a building permit, which is when detailed irrigation and planting plans are normally reviewed. Accordingly we would appreciate your adding the following as conditions of approval for the Development Permit summarizing the city's landscape ordinance, to make sure the project meets the city's landscape water conservation requirements.

1) Section 16.16.040(b) of the Water Efficient Landscape Ordinance states: "... In the portion of the water service area outside the city limits of the city of Santa Cruz, and for any applicable public or private landscaping project not associated with a building permit, the director shall require landscape plans to be submitted directly to the water department for processing. If another jurisdiction requires an approvable landscape plan as part of its land use approval process, said plan must be submitted to the water department before an application is processed to completion."

2) A separate dedicated city meter is required for irrigation water for landscaping over 5,000 square feet in area. Applicant is required to submit three sets of complete planting and imgation plans, and an annual imgation schedule, to the City of Santa Cruz Water Department and receive approval of same plans as a condition of receiving imgation meter service.

3) Imgation plans must meet all standards of the Water Efficient Landscape Ordinance (Chapterl6.16 of the Santa Cruz Municipal Code), including but not to limited to:

a) All imgation systems shall be designed to avoid runoff, over-spray, low-head drainage and other similar conditions where water flows off-site on to adjacent property, non-irrigated area, walks, roadways, or structures.

EXHIBIT D
Environmental Review Initial Study
ATTACHMENT 3 3 of 4
APPLICATION 06-0418

b) Overhead sprinkler imgation systems are prohibited in median strips, parking islands, parkway strips and similar narrow areas measuring less than five feet wide from curb to curb. Overhead irrigation systems shall be separated from adjacent sidewalks, driveways, or other paved surfaces by a mulched border at least two feet wide consisting of shrubs, ground cover or other landscape treatment that is not spray irrigated.

c) **All** imgation systems shall be equipped with a controller that includes dual or multiple programming capability, multiple start times, and a percent switch. Irrigation systems shall be equipped with rain sensing device to prevent imgation during rainy weather.

4) Planting plans must meet all standards of the Water Efficient Landscape Ordinance (Chapter16.16 of the Santa Cruz Municipal Code), including but not to limited to:

a) High water use plants shall be limited to not more than 10 percent of the total landscaped area. **All** other plantings in non-turf areas shall be composed of low to moderate use plants. Plants having similar water requirements shall be grouped together in distinct hydrozones.

b) The combined size of turf area and swimming pools shall be limited to not more than 25 percent of the total developed landscape area. Turf shall not **be** placed in areas less than 8 feet wide or on sloped greater than 10 percent.

5) **A** landscape review fee payable to the City of Santa Cruz Water Engineering Department is due prior to approval of the landscape plans.

6) **A** final inspection of the completed landscape installation by City of Santa Cruz Water Department staff is required.

The full text of the ordinance is available on the City's website at www.ci.santa-cruz.ca.us/wt/wtcon. We appreciate you cooperation in including these requirements in the conditions of approval for the development permit. Please contact me if you have any questions.

Elena Freeman
Water Conservation Representative
City *of Santa* ***Cruz*** *Water Dept.*
809 Center Street, Room 100
Santa Cruz, ***CA*** *95060*
(831) 420-5230 FAX (831) 420-5231
efreeman@ci.santa-cruz ca us

cc: Sherry Reiker, Water Engineering

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 9, 4 of 4
APPLICATION 06-0416

DRAINAGE STUDY

FOR

Animal Services Administration

SEVENTH AVENUE @ RODGRIGUEZ STREET

SANTA CRUZ

December 2006
Job 06001

IFLAND ENGINEERS, INC.
1100 Water Street, Suite 2
Santa Cruz, **CA** 95062
(831) 426-5313 **FAX** (831) 426-1763
www.iflandengineers.com

EXHIBIT **D**

Environmental Review Inital Study
ATTACHMENT 4, 1 of 13
APPLICATION 06-0418

Introduction:
The subiect 2.73 Acre site located at the northeasterly corner of Seventh Avenue and Rodrigukz Street has been occupied by the **SPCA** as an animal shelter. Under the newly created Animal Services Agency redevelopment of the site **is** being proposed. Site redevelopment will necessitate compliance with drainage regulations as mandated by the County of Santa Cruz Design Criteria.

Presently an existing **18"** storm drain bisects the site in the east/west direction. This system collects runoff from off-site properties east and north of the subject site, primarily Green Acres Elementary School. School. The project proposal does not include development of the northerly **1.01** Ac. of the site; basically the area northerly of the aforementioned storm drain. Although, the existing storm drain does not meet current design standards, mitigation measures will include surcharging the storm drain into a grass-lined bio-swale.

Site redevelopment generally covers the southerly 1.72 acres **of** the site on which most of the existing improvements exist. Analysis and mitigation measures for increased runoff are focused primarily on this southern portion of the site.

Resources used for the study include Map *3* and Table 07 from the County of Santa Cruz Modeled Stormwater Facilities Management System, marked as Exhibits **A** and B, the County of Santa Cruz County Soil Survey and permeability data marked as Exhibits C and D. From Exhibits A and B, we determined the existing **flows** and capacities **of** the existing storm drain system bisecting the site and that in Seventh Avenue. Exhibits C and D demonstrate that the soil type and soil permeability of the upper 63" is very poor.

Existing Conditions:
The following calculations provide analysis *of* the existing conditions with the noted northerly/southerly division of the site.

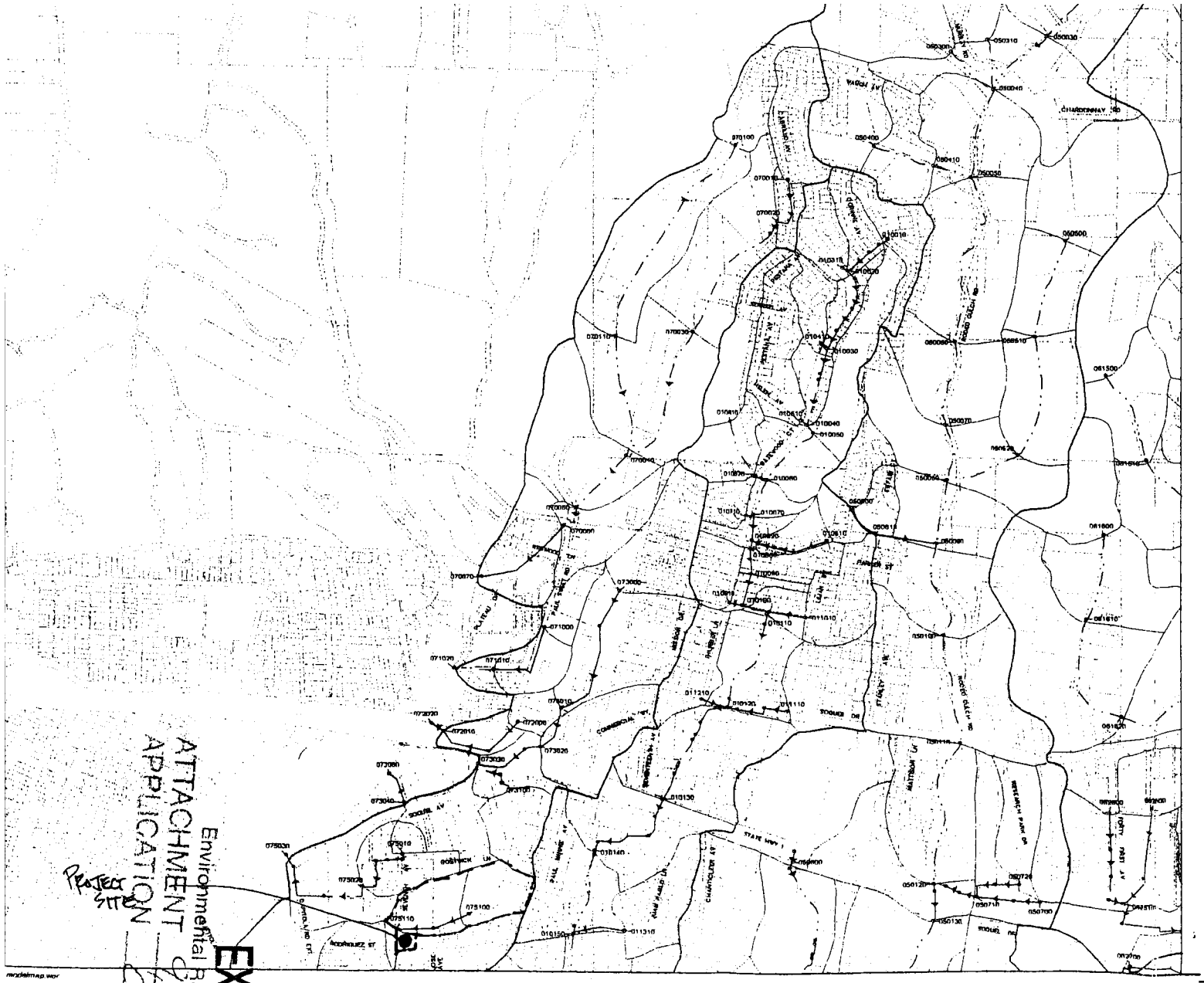
1. Northerly 1.01 Ac.
   The County of Santa Cruz Modeled Stormwater System data provides an estimated 13 cfs through the existing 18" CMP that crosses the property. To that contribution from the **1.01** Ac. is added to determine the runoff to Seventh Avenue as follows.

   - impervious area = 0.1834 AC

   $C_{10} = \frac{(0.9)(0.1834) + (0.2)(0.8266)}{1.01} = 0.32$

   I_{10} @ T_c = 15 min = 1.8"/hr.
   $Q_{10} = (0.32)(1.8)(1.01)$ = 0.58 c.f.s.
   $Q_{100} = (1.5)(1.25)(Q_{10})$ = 1.09 c.f.s.

EXHIBIT **D**
Environmental Review Inital Study
ATTACHMENT 9, 2 of 13
APPLICATION 06-0418



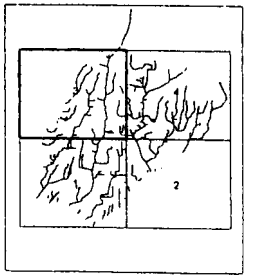
County of Santa Cruz Modeled Stormwater System

N

1000' 0 1000'

LEGEND

- Analysis Node
- Storage Basin
- Basin Boundary
- Drainage Area
- Roadway Reach
- Channel
- Pipe/Culvert



Map Index

EXHIBIT A

Map 3

Stormwater Facilities Management Sys

EXHIBIT D
Environmental Review Initial Study
ATTACHMENT
APPLICATION
PROJECT SITE
3 of 3
06-0418

Page 2

County of Santa Cruz
Stormwater Facilities Management System
Conveyance Facilities
07 - Arana Gulch Basin

10/20/9

ID	LOCATION Comments	Type	USIE	DSIE	EXISTING SECTION USGE	DSGE	Length	Slope	Man N	No	Size*	Base*	DESIGN DISCHARGE (cfs) 2	5	10	25	50	100	Section Capaci
075012-075013		Pipe	81.45	80.69			106	.0072	.013		30.0		2	3	3	4	5	6	3
075013-075014		Pipe	80.69	80.10			119	.0050	.013		24.0		2	3	3	4	5	6	1
075014-075020		Pipe	80.10	75.85	83	83	406	.0105	.013		18.0		2	3	3	4	5	6	1
075020-075026		Natural Channel	75.85	73.80			474	.0043	.035		51.4	40.3	8	14	19	24	27	32	7
075026-075028		Pipe	73.80	52.10		60	567	.0383	.013		24.0		8	14	19	24	27	32	4
075028-075030		Pipe			60	58	141	.0284	.013		36.0		8	14	19	24	27	32	11
075100-075102	EXISTING	Pipe	88.29	82.90			383	.0141	.013	1	18.0		6	10	13	16	19	22	1
075102-075110	SYSTEM	Pipe	82.90	81.88			364	.0028	.013	1	18.0		6	10	13	16	19	22	1
075110-075112	SEVENTH	Pipe	81.88	76.26			209	.0269	.013	1	16.0		11	19	25	32	37	43	1:
075112-075114	AVENUE	Pipe	76.26	72.30			44	.0900	.013	1	24.0		11	19	25	32	37	43	6(
075114-075116		Pipe	72.30	71.25			182	.0058	.013	1	33.0		11	19	25	32	37	43	4(
075120-075126		Pipe	71.25	63.81	82	68	848	.0088	.013	1	33.0		19	33	43	56	65	75	5(
075126-075130		Pipe	63.81	58.68	68	71	87	.0590	.013	1	36.0		19	33	43	56	65	75	162
075130-075132		Pipe	58.68	40.30	71		248	.0741	.013	1	48.0		39	68	90	116	134	157	391
075132-075140		Natural Channel			54	16	799	.0476	.035		54.4	49.3	39	68	90	116	134	157	538
075140-075150	Ditch	Natural Channel					93		.035				44	81	110	146	169	200	
075200-075140	Ditch	Natural Channel					173		.035				6	13	19	26	32	38	
076040-076050		Pipe	82.92	35.00	91		337	.1422	.013	1	27.0		8	11	15	19	22	26	117

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 9 4 of 13
APPLICATION 06-0418

EXHIBIT B

*NOTE: Size = diameter in inches for pipes, depth in feet for boxes and improved channels, and area in square feet for natural channels.
Base = Base width in feet for boxes and improved channels, and wetted perimeter in feet for natural channels.

KVL Consultants, Inc.

(convdat2)

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Environmental Review Inital Study
ATTACHMENT 9, 5 of 13
APPLICATION 06-0415
PROJECT SITE
SOIL TYPE 176

EXHIBIT D

EXHIBIT C

TABLE 12.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

Soil name and map symbol	Depth	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T
		In/hr	In/in	pH			
167, 168, 169---- Santa Lucia	0-5	0.6-2.0	0.10-0.14	5.1-7.3	Low----------	0.15	2
	5-38	0.6-2.0	0.08-0.11	5.1-6.5	Low----------	0.10	
	38	---	---	---	----------	---	
170, 171, 172---- Soquel	0-21	0.6-2.0	0.14-0.18	5.6-6.5	Moderate-------	0.43	5
	21-37	0.2-0.6	0.14-0.17	5.6-7.3	Moderate-------	0.43	
	37-51	0.2-0.6	0.17-0.19	5.6-7.3	Moderate-------	0.28	
	51-62	0.2-0.6	0.13-0.17	5.6-7.3	Moderate-------	0.37	
173*: Sur----------	0-18	2.0-6.0	0.05-0.10	6.1-7.3	Low----------	0.10	1
	18-35	2.0-6.0	0.05-0.08	5.1-7.3	Low----------	0.10	
	35	---	---	---	----------	---	
Catelli----------	0-7	2.0-6.0	0.10-0.13	5.6-7.3	Low----------	0.20	2
	7-37	2.0-6.0	0.10-0.13	5.6-6.5	Low----------	0.20	
	37	---	---	---	----------	---	
174*, 175*: Tierra----------	0-14	0.6-2.0	0.09-0.13	5.6-7.3	Low----------	0.32	1
	14-66	<0.06	0.02-0.04	5.1-7.3	High----------	0.28	
Watsonville-----	0-18	0.6-2.0	0.14-0.17	5.6-7.3	Low----------	0.28	3
	18-39	<0.06	0.02-0.04	5.6-8.4	[illegible]	0.28	
	39-63	0.06-0.2	0.04-0.06	5.6-8.4		0.24	
176, 177---------- Watsonville	0-18	0.6-2.0		5.6-7.3	Low----------	0.28	3
	18-39	<0.06		5.6-8.4	High----------	0.28	
	39-63	0.06-0.2		5.6-8.4	Moderate-------	0.24	
178, 179, 180---- Watsonville	0-26	0.6-2.0		5.6-7.3	Low----------	0.28	3
	26-41	<0.06		5.6-8.4	High----------	0.28	
	41-63	0.06-0.2		5.6-8.4	Moderate------	0.24	
181*: Xerorthents.							
Rock outcrop.							
182, 183---------- Zayante	0-30	6.0-20	0.04-0.08	5.1-6.0	Low----------	0.10	5
	30-60	6.0-20	0.04-0.01	4.5-7.3	Low----------	0.10	
184*: Zayante----------	0-30	6.0-20		5.1-6.0	Low----------	0.10	5
	30-60	6.0-20	0.04-0.01	4.5-7.3	Low----------	0.10	
Rock outcrop.							

* See description of the map unit for composition and behavior characteristics of the clap unit.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 9, 6 of 13
APPLICATION 06-0418

EXHIBIT D

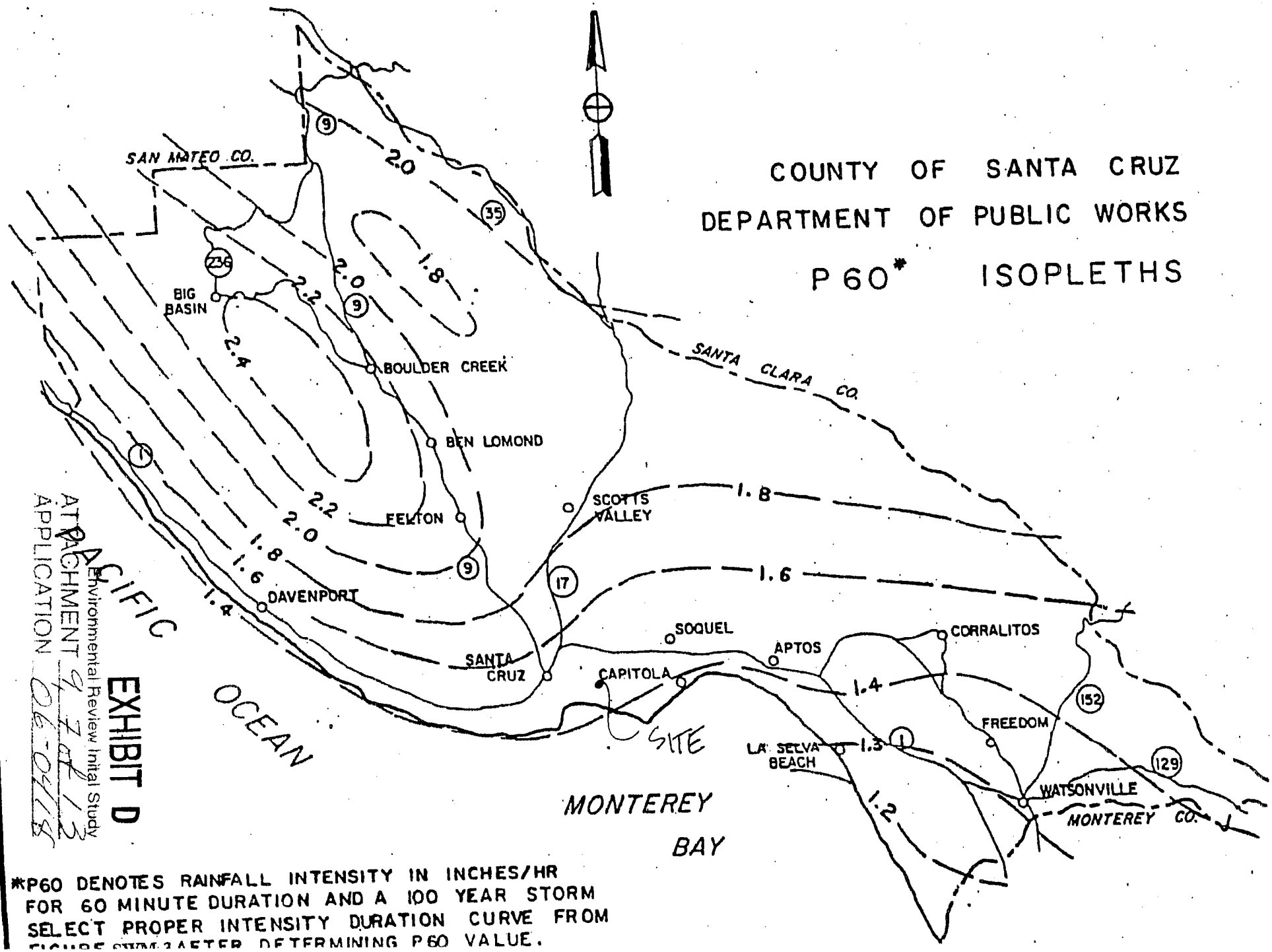


EXHIBIT D

ATTACHMENT 4 of 13
Environmental Review Initial Study
APPLICATION 06-0118

*P60 DENOTES RAINFALL INTENSITY IN INCHES/HR FOR 60 MINUTE DURATION AND A 100 YEAR STORM SELECT PROPER INTENSITY DURATION CURVE FROM FIGURE SWM-3A AFTER DETERMINING P60 VALUE.

FIG. SW

2. Southerly 1.72 Ac.
Calculation of the existing runoff from the southerly portion follows and includes existing buildings and hardscape but does not include the semi-permeable gravel parking area.

- Impervious area = 0.6687 **AC**

$$C_{10} = \frac{(0.9)(0.6687) + (0.2)(1.0513)}{1.72} = 0.47$$

I_{10} @ T_c = 15 min = 1.8"/hr.
$Q_{10} = (0.47)(1.8)(1.72)$ = 1.46 c.f.s.
$Q_{100} = (1.5)(1.25)(Q_{10})$ = 2.74 c.f.s.

Post Development Conditions:
While the northerly portion of the property will remain largely unchanged and the existing storm drain will not be replaced even though it lacks capacity to carry a 10 year storm: the pipe will be allowed to surcharge into a designed bio-swale to accommodate the 10-year storm. These improvements are not intended to mitigate drainage volumes, but rather to maintain existing drainage pattern in order to avoid potential downstream impacts.

Detention will be required for the southerly portion of the site to mitigate the increased runoff rate. Grass lined bio-swales will be used for treatment of roof and site runoff and a storm drain and sub-surface detention system will mitigate the increased runoff created by the new development.

General requirements and mitigations are included for these two separate areas as follows:

1. Northerly 1.01 Ac.
   - Use (E) 18" to carry a Q_2 storm of 6 c.f.s.
   - The grass-lined swale will be designed to carry the Q_{10} flow of 13 c.f.s., less that carried by the **(E)** 18"CMP storm drain. Exhibit E shows the proposed configuration of the swale. Modifications in final design may alter this design.

Runoff from this northerly area will be intercepted in a drop inlet east of the existing parking lot in a 24" storm drain and continued to Seventh Avenue to a proposed new storm drain system to replace the existing storm drain which runs southerly to Rodriguez Street. By agreement our analysis stops at the intersection of Seventh Avenue and Rodriguez Street.

EXHIBIT **D**
Environmental Review Inital Study
ATTACHMENT 9 8 of 13
APPLICATION 86-0418

2. Southerly 1.78 Ac.

- Impervious area = 1.049 AC

$$C_{10} = \frac{(0.9)(0.1.049) + (0.2)(0.6676)}{1.72} = 0.63$$

I_{10} @ T_c = 15 min = 1.8"/hr.
$Q_{10} = (0.63)(1.8)(1.72)$ = 1.95 c.f.s.
$Q_{100} = (1.5)(1.25)(Q_{10})$ = 3.65 c.f.s.

- Exhibit F shows calculations used to determine the storage volume required to mitigate the increased runoff in the southerly portion of the project.
- To accomplish this storage, the plans propose dual 24" diameter pipes each 54' in length.

The preliminary plans show the configuration of the collection, detention and discharge system. Since this is a conceptual design, further work will be required to assure operational characteristics, however *a* conceptual profile of the system is provided *as* Exhibit G herein.

Design Conclusions:

- The design of the storm drain system across the northerly parcel is intended to surcharge in storms greater than 2 yr. return period. The surcharge will be carried in a bio-swale in the pasture area before being intercepted by a drainage inlet near the upper parking lot. As preliminarily designed some grading refinements may be necessary in order to create the surcharge into the swale; however the pipe sizes seem to be sufficient to handle the 10 yr. return period for the other pipe sections in the storm drain system.
- The major site development occurs in the southerly portion of the site Bio-swales will be included in the landscape plan and shown on the civil drawings. Mitigation for the increased site run-off will be handled by an underground detention system. The volume calculation requirement is for 337 cubic feet of storage which will be located in the southerly yard along Rodriguez Street. Exhibit *G* provides a conceptual design of the tank, orifice/flow restrictor and "bubble up" outlet for storms greater than the design storm. The final design of the system will be completed with the construction drawings following the approval of the Development Permit.
- The only area requiring treatment for water quality is the parking lot. This will be addressed with the use of a silt and grease trap system in the lower parking lot inlet. Bio-swales will provide treatment *for* building roof and related site improvements. The storm drain system shown does not intercept roof drainage, but is required so that related site sutface drainage is managed without creating a nuisance or hazard.
- The study has attempted to consider the proposed frontage improvements proposed by the RDA (Redevelopment Agency) however, we expect that further revisions to the calculations may result as the project is reviewed for approvals. These changes, too, will result in some refinements to the design and thus reinforce the conceptual nature of this submittal.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 9, 9 of 13
APPLICATION 06-0418

Man Made Channels -- English Units

Civil Tools for Windows
(07-25-2006, 14:06:20)

```
          Flow Depth = 1.000 ft
            Flowrate = 7.523 cfs
Channel Bottom Width = 0.000 ft
  Channel Side Slope = 3.500 ft/ft
       Channel Slope = 0.00500 ft/ft
   Channel Roughness = 0.030
         Wetted Area = 3.50 sf
    Wetted Ferimeter = 7.28 ft
            Velocity = 2.15 fps
         Froude No. = 0.54
               Flow = Sub-Critical
```

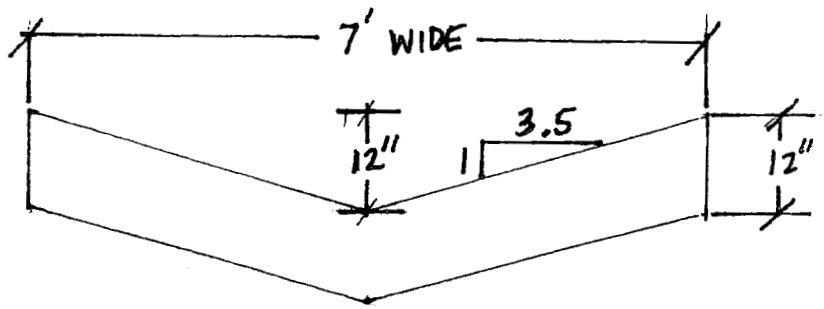


EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 9 10 of 13
APPLICATION

EXHIBIT E

Job ANIMAL SERVICES

Job# 06001

Calc by RC

Date 12/26/06

Run-off to Detention System

Area Total =	1.72	acres
Impervious Area =	1.05	acres
Pervious Area =	0.67	acres
C_1 =	0.9	
C_2 =	0.2	

$$C_{Post} = \frac{C_1(A_1) + C_2(A_2)}{A_T}$$

$$C_{Post} = \frac{0.9*(1.05) + 0.2*(0.67)}{1.72}$$

C_{Post} =	0.63

Detention System Storage

Release Rate = Q_{pre} = 1.46 cfs

I_{10} @ T_c = 15 min.

P_{60} =	1.5
Return Period Factor =	1.00
Antecedent Moisture Factor =	1.00

T_C (min)	I_{10} (min)	C_{Post}	Area (acres)	Q_{post} (cfs)	Q_{Pre} (cfs)	*Required Storage Volume (ft^3)
1	5.61	0.63	1.72	6.05	1.46	275
2	4.18	0.63	1.72	4.51	1.46	366
3	3.52	0.63	1.72	3.80	1.46	421
4	3.12	0.63	1.72	3.36	1.46	456
5	2.83	0.63	1.72	3.06	1.46	479
6	2.62	0.63	1.72	2.83	1.46	493
7	2.46	0.63	1.72	2.65	1.46	500
8	2.32	0.63	1.72	2.51	1.46	502
9	2.21	0.63	1.72	2.38	1.46	499
10	2.11	0.63	1.72	2.28	1.46	492
15	1.78	0.63	1.72	1.92	1.46	414
20	1.57	0.63	1.72	1.70	1.46	287

*Required Storage Volume = $(Q_{Post} - Q_{Pre})*T_C*60$

Safety Factor = 1.25

Detention Volume =	627	ft^3

Detention System Sizing

Pipe diameter =	24	inches
# of Pipes =	2	
Area =	6.28	ft^2

Lenath of Pipe needed =	100

EXHIBIT D

Environmental Review Inital Study

ATTACHMENT 4, 11 of 13

APPLICATION 06-0418

EXHIBIT F

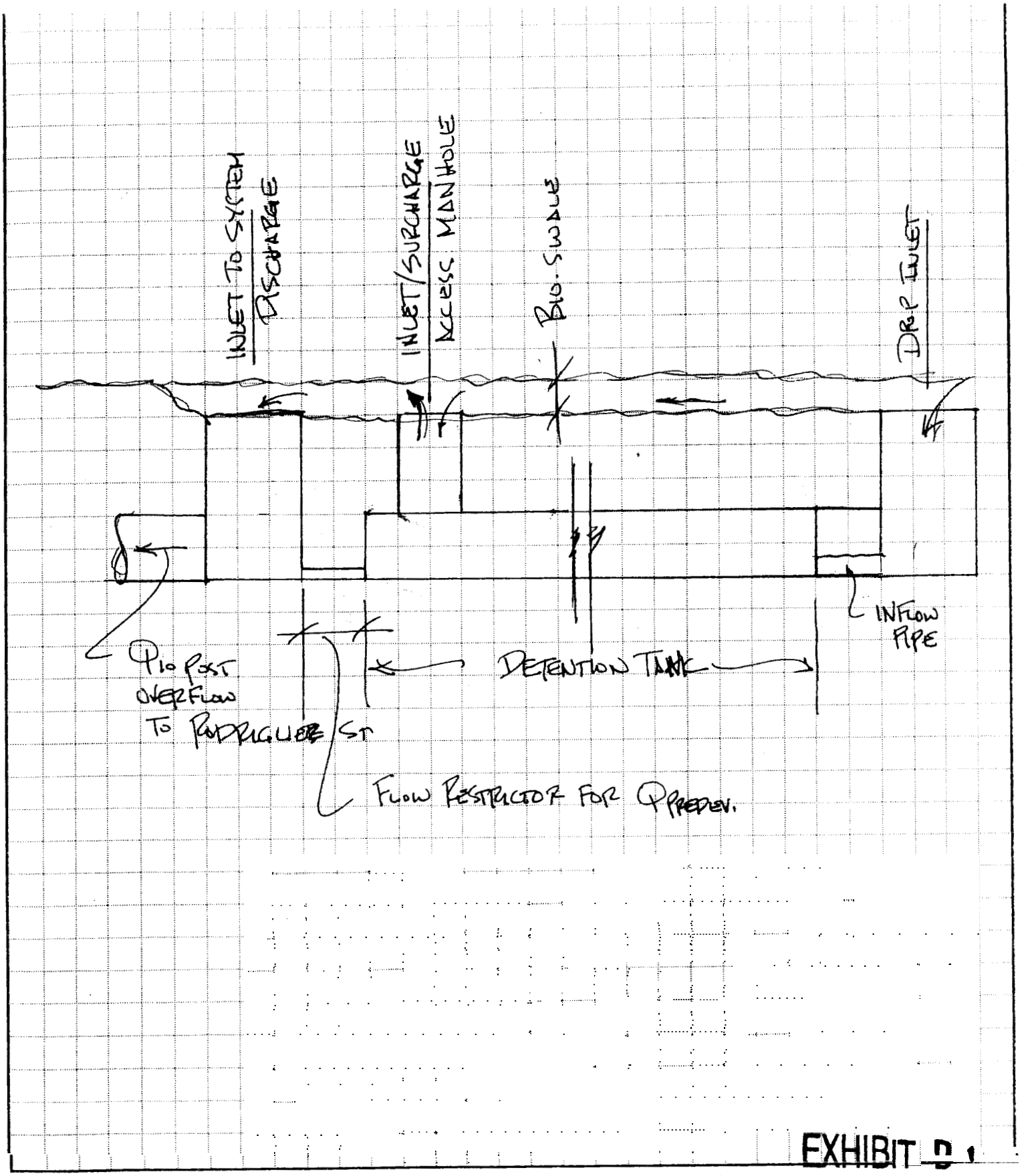


EXHIBIT D

PRODUCT 204-1 (Single Sheets) 205-1 (Padded)

Environmental Review Inital Study
ATTACHMENT 4, 12 of 13
APPLICATION 06-0418

EXHIBIT G

DRAINAGE SYSTEM CALCULATION

PROJECT: **06001 - Animal Services Administration**

P60 = 1.50 Design Storm 10 Years Return Period Factor 1.00 Antecedent Moisture Factor (Ca) 1.00 Date: ______

INLET OR JUNCTION STRUCTURE							ACCUMULATED FLOW				PIPE FLOW													
AREA DESIGNATION (1)	Area A (ac) (2)	C (3)	A*C (4)	Tc (min) I (in/hr) (5)	Q (cfs) CaCIA (6)	JUNCTION DESIGNATION (7)	Σ A*C (8)	Σ Tc Tc (min) (9)	I (in/hr) (10)	Q (cfs) (11)	PIPE LINE DESIGNATION (12)	L (ft) (13)	D (in) Type (14)	Pipe Area (sq ft) n (15)	V (fps) V (fpm) (16)	Sn (17)	LOSSES FRIC. L*Sn (ft) (18)	LOSSES Hi (ft) (19)	LOSSES Σ H (ft) (20)	Outlet Control W.S. Elev. (21)	T.G. Elev. (22)	Inlet Control W.S. Elev. (23)	PIPE F.L. (24)	INLET FREEBOARD
			#####	####	#####		#####	#VALUE!	#####	#VALUE!				#VALUE!	#VALUE! #VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#######		#######		#######
			#####	####	#####		#####	#VALUE! #VALUE!	#####	#VALUE!				#VALUE!	#VALUE! #VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#######		#######		#######
			#####	####	#####		#####	#VALUE! 0.02	#####	13.00		8	18.0	1.77 0.011	7.35 441.2	0.01094	0.088	0.924	1.011	89.16	84.57	84.59	82.17	[redacted]
			#####	####	#####		#####	#VALUE! 0.47	#####	13.00		207	18.0	1.77 0.013	7.35 441.2	0.01528	3.164	0.924	4.087	88.14	83.90	84.06	81.64	[redacted]
			#####	####	#####		#####	#VALUE! 0.28	#####	13.00		70	24.0	3.14 0.011	4.14 248.2	0.00236	0.165	0.292	0.457	84.06	83.44	82.90	80.61	[redacted]
			#####	####	#####		#####	#VALUE! 0.18	#####	13.00		44	24.0	3.14 0.011	4.14 248.2	0.00236	0.104	0.292	0.396	83.60	84.53	82.55	80.26	0.93
			#####	####	#####		#####	#VALUE! 0.12	#####	13.00		29	24.0	3.14 0.011	4.14 248.2	0.00236	0.068	0.292	0.361	83.20	84.32	82.45	80.16	1.12
			#####	####	#####		#####	#VALUE! 0.68	#####	25.00		209	30.0	4.91 0.011	5.09 305.5	0.00266	0.555	0.443	0.998	81.80	83.32	82.84	79.90	[redacted]
			#####	####	#####		#####	#VALUE! 0.14	#####	25.00		44	30.0	4.91 0.011	5.09 305.5	0.00266	0.117	0.443	0.560	80.80	79.03	78.67	75.73	[redacted]
			#####	####	#####		#####	#VALUE! 0.72	#####	25.00		182	33.0	5.94 0.013	4.21 252.4	0.00223	0.406	0.302	0.709	80.24	80.91		72.76	0.67
			#####	####	#####		#####	#VALUE! #VALUE!	#####	#VALUE!				#VALUE!	#VALUE! #VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#######		#######		#######
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			#####	####	#####		#####	#VALUE! #DIV/0!	#####	#VALUE!														

EXHIBIT D

Environmental Review Initial Study

ATTACHMENT 9 13 of 13

APPLICATION 06-0418

EXHIBIT H

ARBOR ART
Tree Service
Ph / Fax (831) 688-1239
P.O. Box 1744
Aptos, CA 95001
CCL # 657930

REVIEW OF THE PLANS FOR STREET IMPROVEMENTS AT THE ANIMAL SERVICES AUTHORITY PROPERTY TEE CORNER OF 7TH AVENUE AND RODRIGUEZ STREETS SANTACRUZ

PREPARED AT THE REQUEST OF:
SHERYL BAILEY
PROJECT MANAGER
SANTA CRUZ REDEVELOPMENNT AGENCY
501 OCEAN STREET, ROOM 510
SANTA CRUZ, CA 95060

SITE INSPECTION BY:
NIGEL BELTON
WCISA CERTIFIED ARBORIST WE-410A
ON OCTOBER 1,2006

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10, 1 of 13
APPLICATION 06-0418

JOB: RDA - 7TH AVE - 10/06

REVIEW OF THE PLANS FOR STREET IMPROVEMENTS
AT THE *ANIMAL* SERVICES AUTHORITY PROPERTY
TEE CORNER OF 7TE AVENUE Ah?) RODRIGUEZ STREETS
SANTA CRUZ

Assignment:

This report will evaluate the potential impacts of the proposed street and sidewalk improvements on the health of eight significant trees that are located on the Animal Services Authority (ASA) property frontages (APN number 026-062-97).

The report will make recommendations regarding appropriate design criteria and the construction methods and materials required to minimize root damage to these trees. The report will also make recommendations for tree preservation during the construction process.

Background:

The Redevelopment Agency **(RDA)** and the Department of Public Works (DPW) are establishing a plan line for Seventh Avenue from Capitola Drive to **Soquel** Drive. They are also revising the plan line for the portion of Rodriguez Street that fronts **the property** that was formally occupied by the Society For The Prevention Of Cruelty To Animals **(SPCA).** This property **is now** owned by The County of Santa Cruz and is under the direction of the Animal Services Authority **(ASA).** It is currently known as the **ASA** property.

The RDA began working on the Seventh Avenue Plan Line and the revision **to** the Rodriguez Street Plan Line in response to the ASA's **submittal for a** development permit with the intention to develop new buildings and facilities **for** future animal services.

The RDA is funding this project. In addition to establishing the new **plan line** and the pian line revision, this project will also include the reconstruction **of** the former animal services facilities on this site.

The RDA has asked me to evaluate the trees along the frontages of the **ASA property** and make recommendations in order to facilitate the completion of appropnate development plans for the proposed facility.

I reviewed conceptual plans regarding both frontages that were prepared by Joel La Cagnin, Civil Engineer? Department of Public Works. These plans were revised to address the verbal recommendations I made regarding curb set backs from existing trees **and** sidewalks.

This report serves to **make** additional recommendations **pertaining** to the project design, the construction process, choice of materials and the tree protection measures that are required to ensure the health and longevity of the subject trees.

PAGE 1.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10, 2 of 13
APPLICATION 06-248

REVIEW OF THE PLANS FOR STREET IMPROVEMENTS
AT THE ANIMAL SERVICES AUTHORITY PROPERTY
THE CORNER OF 7TB AVENUE AND RODRIGUEZ STREETS
SANTA CRUZ

1. The proposed work on Rodriguez Street affects three significant Sycamore Trees (Platanus acerifolia). The work will entail the installation of a new sidewalk on the north side *of* the existing asphalt bicycle path. The existing bicycle path is situated on the north side of these trees and will be retained for the same usage

The existing curb and channel on the south side **of** the subject trees will mostly be left in place as is, however the final location and alignment of the driveway is unknown at this time. **Any** revisions to this preliminary **plan** will have to be reviewed by the consulting arborist before implementation.

2. The proposed work on the corner **of** Seventh avenue and Rodriguez Street will affect the Coast Redwood (Sequoia sempervirens) which is located **on** Rodriguez Street. The tree is noted **as** #24-8 on the site plan.

This tree will be situated in a proposed landscaped median. **A** new sidewalk and pedestrian access ramp to the street comer will be in close proximity to this tree.

3. Four London Plane Sycamores are located on Seventh Avenue. The trees *are* noted on the **plan** respectively **as** #s 20-4, 21-4, 22-4 and 23-4.

These trees will be retained in a landscaped median. **A** new sidewalk will be constructed OR the east side of the trees at approximately four to five feet from their **trunks,** This was the previous recommendation that was made when draft plans were reviewed by the Redevelopment Agency and the Department of Public Works staff **A new** curb is proposed on the west side of the trees at a similar distance from the trunks.

Observations:

1. Three large London Plane Sycamore trees are located in the grass median **strip** in front **of** this property on Rodriguez Street. The trees are situated between an asphalt sidewalk on the **north** side and the street curb.

- The most eastern tree has a 17 inch trunk diameter when measured at 54 **inches** above grade (DBH).
- The middle tree has a 14 inch DBH measurement.
- The western **tree** has a 29 inch DBH measurement.

The trees appear to be in good health despite exhibiting some foliage damage and leaf drop due *to* Sycamore Anthracnose Disease (Gnomonia veneta).

PAGE 2.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10, 3 of 3
APPLICATION 06-0416

REVIEW OF THE PLANS FOR STREET IMPROVEMENTS
AT THE ANIMAL SERVICES AUTHORITY PROPERTY
THE CORNER OF 7TH AVENUE AND RODRIGUEZ STREETS
SANTA CRUZ

There is minimal evidence of surface root damage to the adjacent sidewalk which is in close **proximity** to the trees' root collars (between two and three feet). **No** damage to the adjacent curb is evident is evident

2 The Coast Redwood tree located near the comer of Seventh Avenue has a 36 inch DBH measurement.

This tree is growing in an un-maintained landscape and exhibits good health and vitality.

3. The four London Plane Sycamores that are located on Seventh Avenue are growing in rough grass along the property frontage.

- Tree #20-4 has an 18 inch DBH measurement.
- Tree #21-4 has a 12 inch DBH measurement.
- Tree # 22-4 has a 24inch DBH measurement.
- Tree # 23-4 has a 30 inch DBH measurement.

The Sycamore trees appear to be in good health despite the presence of Sycamore Anthracnose disease and exhibit fair vitality.

Discussion:

1. The existing bicycle path on the north side of the three Sycamore trees Iocated on Rodriguez Street will be retained for the same end use. The proposed sidewalk will be located on the north side this path. It will **be** located at between six **and** seven feet from the tree trunks at grade

Care will have to **be** taken to minimize excavation when constructing the new sidewalk so as to reduce damage to the root structure. **A** reinforced concrete sidewalk that does not require more than a four inch excavation below grade is recommended.

2. The Coast Redwood (#24-8) located on the corner of the **property** will be **encroached** upon **by** the **new** sidewalk and a pedestrian access **ramp.** The sidewalk and ramp are to be set back approximately eight feet from the trunk at grade, which corresponds **With** the **verbal** recommendation I made to the Redevelopment Agency and Public Works Staff when the plans were reviewed.

These structures should also be constructed of reinforced concrete and the base excavation must be no deeper than four inches.

PAGE 3.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10, 4 of 13
APPLICATION 06-0418

3. The roots of the four trees located on Seventh Avenue (#s 20-4 through 23-4) will be minimally affected if the proposed sidewalk (that is to be set back between four and five feet from these trees) is constructed to the same specifications as for the other frontage trees.

It is also recommended that the proposed curb on the west side of these trees is constructed from asphalt as a concrete structure will require a deeper base excavation which may entail the cutting of larger roots.

Conclusion and Recommendations:

These trees should thrive over the long term if the recommendations outlined below are followed carefully. Coast Redwoods and London Plane Sycamore trees are noted as resilient species.

Any changes to the existing set of plans will have to be reviewed by the project arborist.

The sidewalks along the entire **property** frontage should be constructed of concrete and must not entail an excavation of more than four inches below existing grades.

The curb adjacent to the four London Plane Sycamore trees on Seventh Avenue should be of asphalt construction to minimize excavation during the construction process.

The existing asphalt bicycle path on the Rodriguez Street Frontage should be retained as is and resurfaced.

Construction period fencing must be installed before any site work begins. These fences should consist of plastic ''snow fencing" and must be placed as close to the edge of new sidewalk, ramp and curb construction as possible to define the root protection zones. **Fence locations must be identified on a final set of plans and approved by an arborist before work begins.**

Any pruning that maybe required to avoid conflicts with construction equipment should be undertaken at the same time.

Landscape improvements within the root protection zones must entad minimal cultivation in these areas. Cultivation should be no more than two inches below existing grade to protect the majority of the absorbing roots near the surface. Cultivation within four **feet** of the trunks must be done by hand.

No grading and trenching is to be allowed within protection zones. Vehicles and equipment must be excluded from the protection zones. No materials can be piled or stored in these areas either.

EXHIBIT D
Environmental Review initai Study
ATTACHMENT 10
APPLICATION 06-048

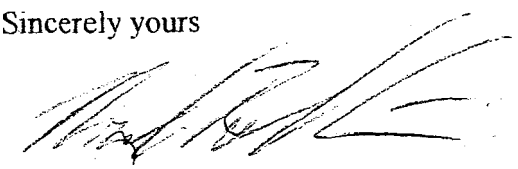
REVIEW OF THE PLANS FOR STREET IMPROVEMENTS
AT THE ANIMAL SERVICES AUTHORITY PROPERTY
THE CORNER OF 7TH AVENUE AND RODRIGUEZ STREETS
SANTA CRUZ

The installation of a four inch deep wood chip mulch **in** the proposed landscape medians is recommended. A mulched soil surface Will reduce the need for cultivation to remove weeds. **It** will reduce weed growth and help retain soil moisture to the benefit of these trees. Supplemental irrigation over the *first* summer post construction will also be beneficial. Irrigation to the depth of **18** inches every three weeks over the dry period is recommended. Soaker hoses **laid** out in **the** landscape median areas are recommended.

A consulting arborist should be retained to **oversee** this **work** and *to* ensure **that** the recommendations outlined above are followed. Issues of particular concern that require **this** oversight are the depth of the sidewalk excavations, the fence locations and the maintenance of root protection zones. The arborist should meet the construction supervisor on site before any work begins and be on site *to* ensure that the excavation and grading work is in compliance with the above recommendations.

Please contact me if you **have** any questions.

Sincerely yours



Nigel Belton

EXHIBIT D

Environmental **Review** Inital Study
ATTACHMENT 10 6 of 13
APPLICATION 06-0415

PAGE 5.

ARBOR ART
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CCL # 657930

INSPECTIONOF THE SITE;
UTILITY, GRADINGAND DRAINAGE PLANS
FOR THEASA FRONTAGE
ON THE CORNER OF 7TH AVENUEAND RODRIGUEZ STREET
SANTA CRUZ

REQUESTED BY:
SHERYL BAILEY
PROJECT MANAGER
SANTA CRUZ,COUNTYREDEVELOPMENTA GENCY
GOVERNMENTAL CENTER
701 OCEAN STREET
SANTA CRUZ, CA 95060

SITE INSPECTION ON NOVEMBER 11, 2006
BY:
NIGEL BEL'TON
WCISA CERTIFIEDARBORIST WE-410A

JOB: RDA.ASA.11/06

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10 7 of 13
APPLICATION 06-0418

INSPECTION OF THE SITE, UTILITY, GRADING AND DRAINAGE PLANS FOR THE ASA FRONTAGE ON THE CORNER OF 7TH AVENUE AND RODRIGUEZ STREET SANTA CRUZ

Background and Assignment:

This report has been provided at the request of Sheryl Bailey, Project Manager for the Santa Cruz County Redevelopment Agency in response to a memo sent by Teall Messer, Architect on November 3,2006 (please see attached). This document is an addendum to the previous arborist report I prepared regarding the ASA property. All the other recommendations made in that report remain applicable.

The memo lists a number of questions pertaining to the plans for frontage improvements at the Animal Services Authority property on the comer of 7'' Avenue and Rodriguez Street (APN number 026 062 97). Teall Messer provided me with the site, utility, grading and drainage plans (sheets C-2 and C-3 respectively). These plans were prepared for the Animal Services Authority by Ifland Engineers, Inc. A copy of tbe drainage plan provided by Mr. Messer was used as the reference for this report. Mr. Messer has requested information regarding the potential impact of the proposed design on two specific trees on this site.

This report will address the'specific questions concerning the plans for improvements and their impact on two trees.

Discussion:

The questions on the memo are answered below in the order that they were received.

Question one:

This concerns the location of construction period tree protective fencing around all the trees that are to be retained on this property.

1 will determine the, location of the fencing by drawing the fencing locations on the plan provided and submit it to Sheryl Bailey for Mr. Messer to copy.

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 10 8 of 13
APPLICATION 06-0418

INSPECTION OF THE SITE, UTILITY, GRADING AND DRAINAGE PLANS FOR THE ASA FRONTAGE ON THE CORNER OF 7TH AVENUE AND RODRIGUEZ STREET SANTA CRUZ

Question two:

This concerns the location of the storm drain trench to the street drain box near the Coast Redwood (Sequoia sempervirens). The tree is located on the comer of 7th and Rodriguez. Streets.

I recommend that the storm drain must be located no closer than eighteen feet from the base of the trunk of the tree as the trenching process Will sever the majority of the roots in its vicinity.

Question three:

This concerns the request to prune the Coast Redwood tree on the comer of 7th Avenue and Rodriguez Street to improve traffic visibility around the comer.

The tree should be pruned to improve pedestrian, bicyclist and vehicular traffic safety. The pruning should entail the removal of all basal suckers and raising the foliar canopy to eight feet above existing grade measured from the landscaped area. This action will enhance visibility in the vicinity of the subject tree, the street frontage and the adjacent intersection.

I have contacted Nathan Lewis of Lewis Tree Service to discuss the pruning requirements.

Question four:

This concerns the requesr to reduce the length of the landscape median (planter) between Rodriguez Street and the bike path by seven feet at its eastern end.

This design change is acceptable regarding potential impacts on the adjacent tree's health. The changes will have minimal effect on the health of the closest London Plane Sycamore Tree (Platanus acenfolia) because the set back from the tree to the curb will still be adequate.

EXHIBIT D
- Environmental Review Inital Study
ATTACHMENT 10 9 of 13
APPLICATION 06-0414

INSPECTION OF THE SITE,
UTILITY, GRADING AND DRAINAGE PLANS
FOR THE ASA FRONTAGE
ON THE CORNER OF 7TH AVENUE AND RODRIGUEZ STREET
SANTA CRUZ

The reccmmendations outlined in the initial report for the **ASA** regarding the mulching and summer imgation of the existing trees in landscape medians pertain to this area as well.

Please contact me if you have any more questions.

Sincerely yours

Nigel Belton

Enclosures:

- Copy of the hand drawn outlines of tree protective fence locations for Teall Messer
- Copy of the memo sent by Teall Messer on November 3,2006

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 10, 10 of 13
APPLICATION 06-0418

PAGE 3.

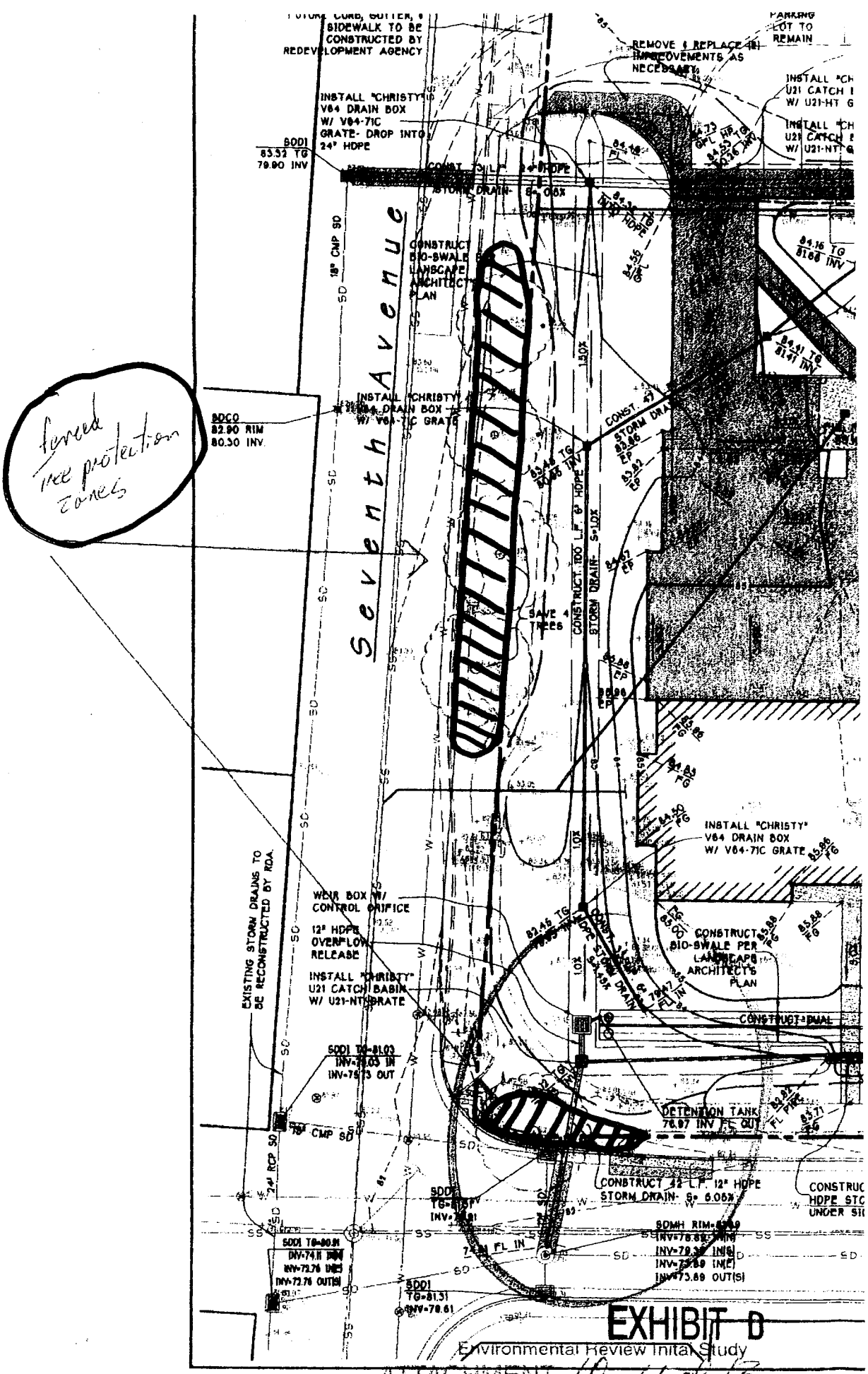


EXHIBIT D

Environmental Review Inital Study

ATTACHMENT 10 11 of 13

APPLICATION 06-0418

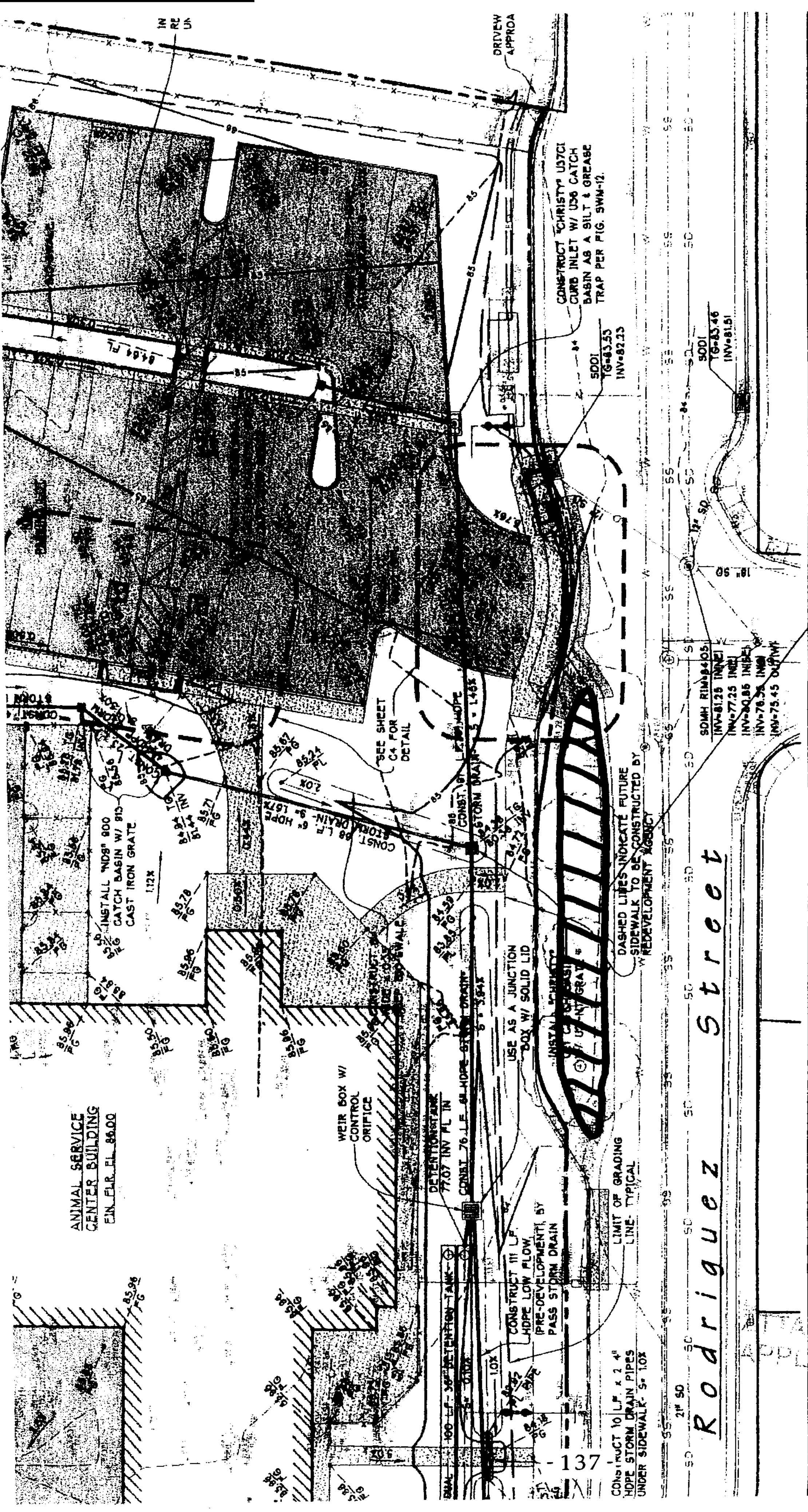


EXHIBIT D

Environmental Review Inital Study

ATTACHMENT 10, 12 of 13

APPLICATION 06-0418

Transmittal Memo

Date: 3 November 2006

To: Nigel Belton
Arbor **Art**
P.O. **Box** 1744
Aptos, CA *95003*

FC: Sheryl Bailey
Betsey Lynberg
Susan Pearlman

Teall Messer Architect
3833 **Glen** Haven **Road**
Soquel, CA 95073
831 4624721
Fax 462-9343

Subj: Animal Services at 7th Avenue
APN 026-461-02 and 026-462-97

Ref: *Your* October 1,2006, report

Mr. Belton,

I have a couple of questions regarding your report.

1. One recommendation refers to construction period fencing at the root zones. Will you be determining the fence locations in the field or is there **a** prescriptive way to approach this?

2. We need to trench for a storm drain pipe around the coast redwood on the comer to a drain box in the street. How do we go about determining a safe location for that trench? It will be several feet down.

3. We would like to prune the coast redwood. First the group of suckers around the base and then the branches **up** a bit so a driver can better see around the comer. Is this acceptable?

4. We want to reduce the planter between bike **path** and Rodriguez Street by 7' on its easterly end. Please see the enclosed plan. Is this acceptable?

Thank you.

Attachment
Sheet C3
Photo of coast redwood

AnimalServices\MBelton06-11-3

EXHIBIT D
Environmental Review **Inital** Study
ATTACHMENT 10 13 of 13
APPLICATION 06-0418

COUNTY OF SANTA CRUZ | Planning Department

INTEROFFICE MEMO

APPLICATION NO: 06-0418

Date: November 27,2006

To: Melissa Allen, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Design Review for an animal services facility at 7th Avenue and Rodriguez Street, Santa Cruz

GENERAL PLAN / ZONING CODE ISSUES

Design Review Authority

13.11.040 Projects requiring design review.

(e) **All** commercial remodels or new commercial construction.
(9 All county projects

Design Review Standards

13.11.072 Site design.

Evaluation Criteria	Meets criteria in code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Location and type of access to the site	✔		
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			**NIA**
	✔		
Natural Site Amenities and Features			
Relate to surrounding topography	✔		
Retention of natural amenities	✔		
Siting and orientation which takes advantage of natural amenities	✔		
Ridgeline protection			**N/A**

Environmental Review Initial Study
ATTACHMENT 11, Exhibit D
APPLICATION 06-0418
EXHIBIT D

Protection of public viewshed	✔		
Minimize impact on private views	✔		
Accessible to the disabled, pedestrians, bicycles and vehicles	✔		
Reasonable protection for adjacent properties	✔		
Reasonable protection for currently occupied buildings using a solar energy system	✔		
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	✔		
Street face setbacks	✔		
Character of architecture	✔		*The roof at the entry and along the Rodriquez side should continue and be symmetrical. The architect should work out the intersection accordingly.*
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			
Scale is addressed on appropriate levels	✔		
Design elements create a sense of human scale and pedestrian interest	✔		
Building Articulation			
Variation in wall plane, roof line, detailing, materials and siting.	✔		
Solar Design			

Environmental Review Inital Study
ATTACHMENT 4 2 of 5
APPLICATION 06-0418

EXHIBIT D

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.		✔	*May not be important to this project in particular.*

13.11.074 Access, circulation and parking.

Minimize the visual impact of pavement and parked vehicles.	✔		
Parking design shall be an integral element	✔		
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*
Loading areas shall be designed to not	✔		
A minimum of one tree for each five parking spaces should be planted along each single or double row of parking spaces.	✔		
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.	✔		

Environmental Review Inital Study
ATTACHMENT 4 3 of 5
APPLICATION 06-0418

EXHIBIT D

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	✔		
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.	✔		
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 going traffic, where appropriate.	✔		
Service Vehicles/Loading Space. Loading space shall be provided as required for commercial and industrial uses.	✔		
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.	✔		
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.	✔		
It shall be an objective of landscaping 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 visually screen parking from public streets and adjacent uses.	✔		
Parking lots shall be landscaped with large canopy trees.	✔		
A landscape strip shall be provided at the end of each parking aisle.	✔		

Environmental Review Inital Study
ATTACHMENT 4 4 of 5
APPLICATION 06-0418

EXHIBIT D

4 minimum 5-foot wide landscape strip (to provide necessary vehicular back-out movements) shall be provided at dead-end aisles.	✔		
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 in 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 materials.	✔		
Pedestrian Travel Paths			
On-site pedestrian pathways shall be provided form street, sidewalk and parking areas to the central use area. These areas should be delineated 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.	✔		
Separations between bicycle and pedestrian circulation routes shall be utilized where appropriate.	✔		

Environmental Review Inital Study
ATTACHMENT 4.5 of 5
APPLICATION 06-0418

EXHIBIT D

Environmental
Investigation Services, Inc.

January 14,2004

Mr. Tom Sayles
California Regional Water Quality Control Board
Central Coast Region
81 Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

Subject: December **2003** Groundwater **Monitoring Report**
SPCA Site 2200 7th Avenue, Saata Cruz, California.

Dear Mr. Sayles:

Environmental Investigation Services, Inc. (EIS) has prepared this report to document the procedures and results of groundwater monitoring recently conducted at the subject site. This report has been prepared to comply with requirements contained **in a** Central Coast Regional Water Quality Control Board (CCRWQCB) request to perform one additional groundwater monitoring event. Following a summary background, the monitoring program is reviewed and the groundwater monitoring methods and findings are presented. Laboratory analytical reports and chain-of-custody documents are included in Attachment **A.**

BACKGROUND

The subject property, a Society for the Prevention of Cruelty to Animals **(SPCA)** animal shelter located at 2200 7th Avenue formerly had a 500-gallon gasoline underground storage tank from 1954 until 1992. The UST, located adjacent to the eastern fenceline of the outdoor kennel area, was removed under permit from the Santa Cruz County Environmental Health Department (SCCEHD). During UST removal, gasoline contamination was detected. Subsequent soil and groundwater sampling documented contamination in soil and shallow groundwater in the vicinity of the former UST.

The **SPCA** installed three groundwater monitoring wells to characterize soil and groundwater impacts. ***An*** October 12, 1994 groundwater sample collected from well MW-1, located in the area of the former UST excavation (Figure 1) contained total petroleum hydrocarbons as gasoline at 4,900 parts per billion (ppb), no detectable benzene or methyl tert-butyl ether (MTBE), 5.5 ppb toluene, 5.7 ppb ethylbenzene, and 120 ppb total xylenes. October 12, 1994 groundwater samples collected from wells MW-2 and MW-3 contained no detectable petroleum hydrocarbons. Based on these analytical results the CCRWQCB requested additional groundwater monitoring; however, no additional groundwater monitoring was completed at the site

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12, Lot 16
APPLICATION 06-0418

GROUNDWATER MONITOFUNG PROGRAM

Mr. Tom Sayles of the CCRWQCB requested one additional round of groundwater monitoring at the subject property. In response, EIS measured groundwater elevations and collected groundwater saples from site monitoring wells MW-1, MW-2 and MW-3. Groundwater samples were analyzed for petroleum hydrocarbon constituents and this report was prepared. This report includes:

- tabulated current and previous monitoring data,
- a site map showing well locations
- a table showing well completion information,
- certified analytical reports, and
- sampling protocols, and field sampling logs.

The methods and results are presented below, and supporting data tables, figures, and field and laboratory data are attached.

METHODS

Groundwater Sampling

Groundwater elevations were measured and groundwater samples were collected from monitoring wells MW-1, MW-2 and MW-3 on December 9, 2003. Prior to sampling, the depth to groundwater in each monitoring well was measured and recorded. These data are presented on Table 1. Monitoring wells MW-1, MW-2 and MW-3 were then purged using an electric submersible pump, and sampled using a disposable bailer. The monitoring wells were purged of at least three casing volumes prior to obtaining samples. During purging, electrical conductivity. pH, temperature, and dissolved oxygen were monitored to ensure that a representative sample was obtained. Sampling field data are included in Attachment A. Following purging, the samples were collected and placed in the appropriate EPA approved containers. The samples were sealed, labeled, logged onto a chain-of-custody document, and transported on ice to the laboratory. Purge water was temporarily stored onsite in a 55-gallon drum.

Laboratory Analyses

The groundwater samples were submitted to American Scientific Laboratories, LLC. of Los Angeles, California for analysis of total petroleum hydrocarbons as gasoline (TPH-G) by Environmental Protection Agency (EPA) method 8015M, and for benzene, toluene, ethyl benzene, and total xylenes (BTEX) and MTBE by EPA method 8020.

FINDINGS

Groundwater Elevations

Depth to groundwater measurements are summarized on Table 1 along with a summary of monitoring well construction details. Groundwater elevation data collected on December 9, 2003 were used to construct a groundwater elevation contour map (Figure 3). Based on the December 9 data, groundwater appears to flow to the southwest with a flow gradient of about 0.005 feet per foot.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12, 2 of 4
APPLICATION 06-0418

Groundwater Quality

No TPH-G, BTEX compounds, **or** MTBE was detected in the groundwater samples collected on December 9, 2003. Current and previous groundwater monitoring **data** are summarized on Table 2.

If you have any questions or comments regarding this report, please do **not** hesitate to call Mr. Peter Littman of EIS at (831) 688-6580.

Sincerely,

Environmental Investigation Services, Inc.

Peter Littman
Project Manager

Peter J. Castro, **C.E.G.#**1993
Project Geologist

REGISTERED GEOLOGIST
PETER J. CASTRO
No. 1993
CERTIFIED ENGINEERING GEOLOGIST
expires 8-31-05
STATE OF CALIFORNIA

Attachments: Table 1 - Groundwater Elevation and Monitoring Well Data
Table **2** - Groundwater Analytical Data
Figure 1 - General Site Location **Map**
Figure 2 - **Monitoring** Well Location Map
Figure 3 – Groundwater Elevation Contour Map
Attachment **A** - Laboratory Analytical Reports, Chain **of** Custody Documents, and Sampling Field Data

cc: Mr. John Kriegsman, Santa Cruz County Public Works Department
Mr. Steve Baiocchi, Santa Cruz County Environmental Health Department

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12, 3 of 16
APPLICATION 06-0418

Table 1 – Groundwater Elevation and Monitoring Well Data
SPCA Site, 2200 7th Avenue, Santa Cruz, California

Well	T.O.C. Elevation*	Screened Interval	Date	Total Well Depth	Depth to Water	Groundwater Elevation
MW-1	84.87	5 – 20	12/09/03	17.35	13.23	71.64
MW-2	84.48	5 - 20	12/09/03	16.85	12.83	71.65
MW-3	84.18	5 - 20	12/09/03	17.05	13.08	71 10

Notes:
All measurements are in feet; screened intervals are in feet below ground surface.
TOC - Top of **Casing measurement reference point.**
* Wells were **surveyed to the nearest** 0.01 **feet** on 7/15/97,

Environmental Review Inital Study
ATTACHMENT 12 4 of 16
APPLICATION 06-0418

EXHIBIT D

Table 2 – Groundwater Analytical Data
SPCA Site, 2200 7th Avenue, Santa Cruz, California

Well	Date	TPH-Gas	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
MW-1	10/12/96	**4900**	ND	5.5	5.7	120	ND
	12/09/03	ND	ND	**ND**	**ND**	ND	ND
MW-2	10/12/96	ND	ND	ND	ND	ND	ND
	12/09/03	ND	ND	ND	ND	ND	ND
MW-3	10/12/96	ND	ND	ND	ND	ND	ND
	12/09/03	ND	ND	ND	ND	**ND**	ND

Notes:

All **results reported as micrograms per liter (µg/L)**.
TPH-Gas = Total **Petroleum hydrocarbons as gasoline.**
MTBE = **Methyl tert-butyl ether.**
ND = Not **detected above laboratory detection reporting limits (see lab reports).**

Environmental Review Inital Study
ATTACHMENT 12 5 of 16
APPLICATION Dec-04-18

EXHIBIT D

Approximate Scale

1 3/4 inch = 61.2 feet

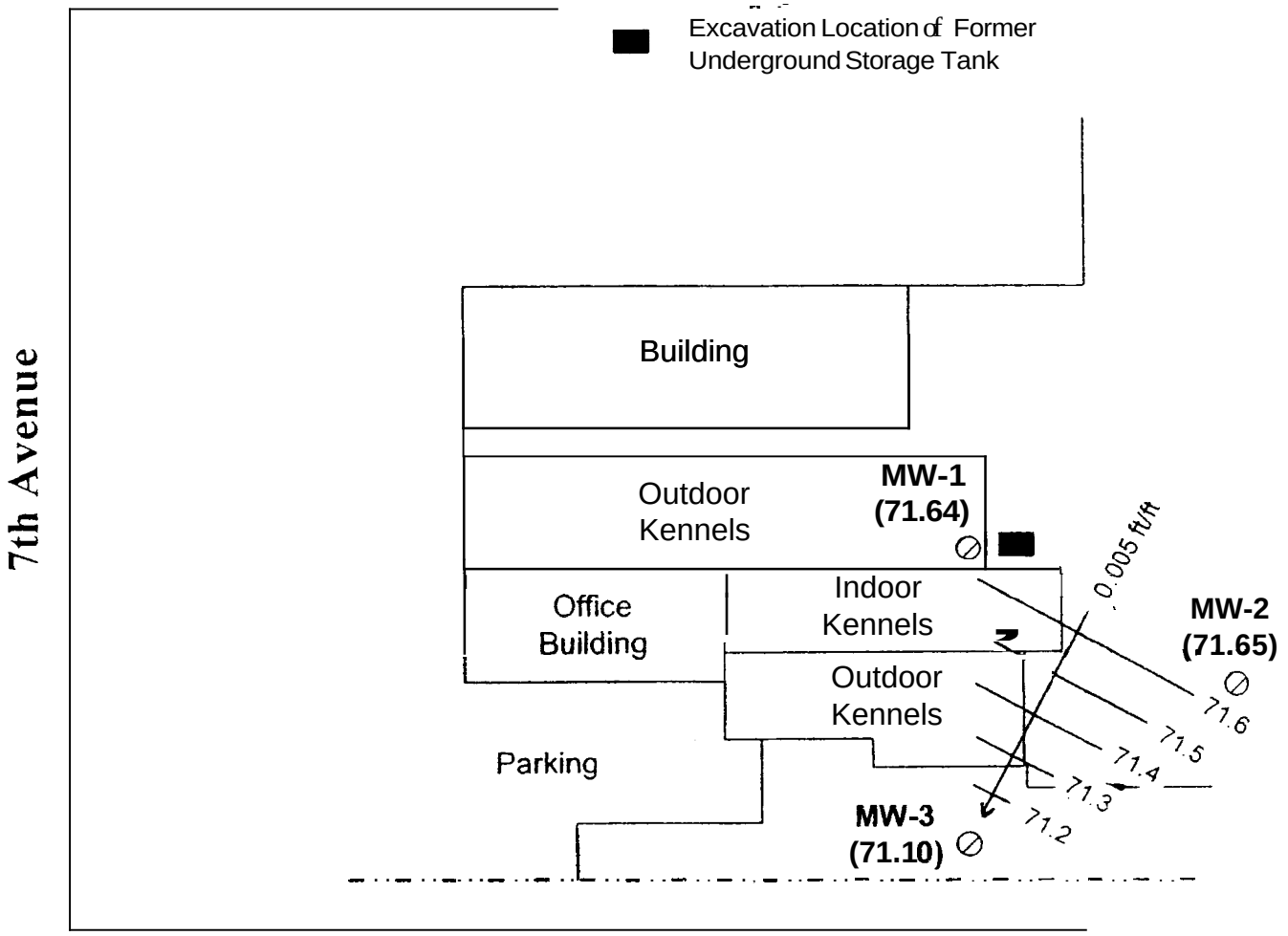
Legend

MW-1 (71.64) — Groundwater Monitoring Well Location, Designation and Groundwater Elevation (measured 12/9/03)

71.6 — Groundwater Elevation Contour Interval

Groundwater Flow Direction (Flow Gradient Indicated)

Excavation Location of Former Underground Storage Tank



Environmental Review Inital Study
ATTACHMENT 12, 6 of 16
APPLICATION 06-0418

SPCA Groundwater Elevation Contour Map	Figure #3		Project #360-1
Environmental Investiaation Services, Inc.	2200 7th Ave Santa Cruz, California		January 6, 2003

Environmental Investigation Services. Inc.

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

SPCA
2200 and 2260 7th Avenue,
Assessors *Parcel* #s 026-461-02 & *026-062-97*
Santa Cruz, California

PREPARED FOR:

Santa Cruz County Public Works
Real Property Division
701 Ocean Street, Room 214
Santa Cruz, CA *95060*

PROJECT No. 350-1

October 31,2003

~~PREPARED~~ **BY:**

Peter Littman, REA

Environmental Investigation Services, Inc.
417 Racquet Lauding
Aptos, CA 95003

Environmental Review Inital Study
ATTACHMENT 12, 7 of 16
APPLICATION 06-0418

EXHIBIT D

TABLE OF CONTENTS

Environmental Review Inital Study
ATTACHMENT 12 of 16
APPLICATION 06-0418

EXHIBIT D

I. EXECUTIVE SUMMARY

Environmental Investigation Services Inc. has completed an environmental site assessment of the commercial property at 2200 and 2260 7th Avenue in Santa Cruz. Peter Littman Cal EPA Registered Environmental Assessor completed this report according to ASTM Standards.

This Executive Summary is provided solely for the purpose of overview. Any party who relies on this report must read tbe full report. The Executive Summary omits a number of details, any one of which could be crucial to the proper understanding and risk assessment of the subject matter,

The subject property was inspected on October 13, 2003. The former Society for Prevention of Cruelty to Animals (SPCA) property is composed of two parcels of land that total approximately two acres of commercial land at the northeast comer of Seventh Avenue and Rodriguez Street. There are two addresses, 2200 and 2260, 7th Avenue for the subject property. There are two residential structures that have been converted into administrative offices, three kennel buildings A, €3 and C, a cat-house, livestock barn, office supply shed, maintenance shed and old and newer vehicles occupy the site.

As part of this Phase 1 assessment, a mold and lead paint survey was performed on the two oldw buildings (former residences presently offices at 2200 and 2260). The lead paint survey revealed that both 2200 and 2260 offices have considerable amounts of positive lead paint results, or are above action level (1.0 mg/cm^2) throughout the interior rooms. The results of lead paint survey of 2200 7" Avenue building revealed the kitchen has lead based paint above 1.0 mg/cm^2 and the pain is in poor condition, i.e. peeling and chipped. Within 2200 7th Avenue, there are other rooms with LBP above the action level, (the two bedrooms, the bathroom, the closets and porch; however, these rooms have paint that is considered in fair or intact condition, Because of the large number of fair or borderline conditions of paint in this building four dust wipe samples were collected. The results of the dust wipe sampling and analysis revealed two of the four samples (the living mom and hallway) exceed the safe occupant level of 40. Because of the higher cancentratione in the dust wipe samples it is necessary to use lead safe practices to repair or repaint the interior of the 2200 7th Avenue building. The 2260 building had many surfaces with lead based paint exceeding the action level; however, the condition of the paint in this building is considered intact. A copy of the lead paint inspection report is included in the appendix of this report.

In addition, soil samples were collected on opposing comers of the exterior of the 2200 building, and four dust interior samples were collected and analyzed for lead. See chart for results.

A preliminary indoor air quality (IAQ) survey was performed to determine if any potential health hazards from air contaminants exist from water entrainment in the buildings. Although there was physical evidence of mold, debris. odors, and water stains in the walls and ceiling of the buildings at 2200 and 2260 7th Avenue, the concentrations

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12 9 of 16
APPLICATION 06-0418

of mold spores in the air samples were representative of various microorganisms found ubiquitously in nature and concentrations did not exceed the proposed 10,000 spores/m^3 threshold. These damaged areas should be repaired to prevent future problems. A copy of the IAQ Investigation Report is included in the appendix of this report.
No Manufacturing of toxic, inflammable materials, or petrochemicals was observed at the property during EIS's site visit. No evidence of underground storage tanks, such as vent pipes and fill ports were observed. There was no evidence of the on-site disposal of toxic, flammable, or hazardous materials observed on the subject properties. No evidence of hazardous material storage or use was noted on the property.

According to Santa Cruz County directories and assessor records, SPCA and animal Welfare Association occupied the site from tbe 1960's until the present. Prior to the SPCA the site was occupied by a residence and a kennel in the 1950's. Prior to the 1950's, the site was occupied by a residence since the 1920's. The subject property at 2200 7th Avenue, east of the outdoor kennels, formerly had a 500-gallon gasoline Underground Storage Tank (UST) from 1954 until 1992. The UST was removed under permit from the Santa Cruz County Environmental Health Department (SCCEHD) and during removal, leaks and gasoline contamination were detected. Subsequent soil and ground water investigations revealed gasoline contamination in soils and shallow ground water in vicinity of the tank. The State Regional Water Quality Control Board (RWQCB) had SPCA install three ground water monitoring wells onsite to characterize soil and ground water impact. The results of the ground water monitoring revealed the only well with petroleum hydrocarbon impacts was Monitoring Well-1 (MW-1) located in area of the former tank pit. Results of laboratory analysis revealed total purgeable petroleum hydrocarbons as gasoline (TPH-G) was detected at 4,900 ppb in water from MW-1. The RWQCB requested one more round of ground water monitoring; however, according to Tom Sayles, Engineer with RWQCB, no additional ground water monitoring has been perfoxmcd.

Residences.border the site to the south, east and west, and offices and a school border to the north of the subject property.

Based on the list review, there are no NPL, RCRA TSD sites, or Solid Waste Active and Inactive Landfills sites located within ½ mile to the subject property. There are nine Leaking Underground Storage Tank (LUST) sites located within ½ mile of subject property.

There are no offsite concerns considered likely to impact the subject property based on hydraulic gradient, site distance, and regulatory status.

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 12, 10 of 16
APPLICATION 06-0418

II. CONCLUSIONS *AND* SPECIFIC RECOMMENDATIONS

EIS recommends further investigation at this time.

The three monitoring wells should be sampled once for TPHG, BTEX and MTBE according to California State Central Coast Regional Water Quality Control Board (RWQCB) guidelines, The results of sampling should be forwarded to RWQCB, in technical report format.

The four 55-gallon drums of soil cuttings should be characterized with one composite sample and disposed of appropriately, depending on the results of the lab analysis.

With regards to lead based paint issues, the kitchen in 2200 7th Avenue building should be repaired and/or repainted by a contractor practicing Lead *Safe* Practices per CAL OSHA, prior to occupation of this building.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12, 11 of 16
APPLICATION 06-0418

Environmental
Investigation Services, Inc.

PRELIMINARY INDOOR AIR QUALITY INVESTIGATION REPORT
SANTA CRUZ COUNTY ANIMAL WELFARE ASSOCIATION
SANTA CRUZ, CA

October 31,2003

Executive Summary

As a base-line study, a preliminary indoor air quality survey was performed at the Santa Cruz County Animal Welfare Association facility. Observations from the preliminary walk-through indicate that all but a few facilities are in operation within the **two** (2) acre facility. Results from air samples collected from three (3) indoor locations were deem normal that represented flora found ubiquitously in nature, but in lower concentrations.

Introduction

It has been well documented that certain ubiquitous microorganism and/ or chemicals in certain concentrations, along with surrounding factors (room size, ventilation, and lighting), and stress can directly or indirectly trigger allergenic responses in certain healthy individuals. This investigation was performed to establish a microbial baseline for those facilities tested for indoor quality purposes.

Background

The Santa Cruz County Animal Welfare Association facility is a two-acre complex of buildings **and** facilities located at 2200 7th Avenue, and 2260 7th Avenue in Santa Cruz, California. The main office was located at 2260 7th Avenue. The facility complex included kennels, barns, homes, an office building. sheds, and a trailer. The point of contact was the site manager, Ms. Lisa Carter. This survey was performed by Alfred L. Jin, a certified microbiologist, and biological safety professional; and industrial hygienist from Environmental Investigative Services, Incorporated.

Heating Ventilation and Air Conditioning (HVAC) Units

The building heating systems comprised of either single **wall** or floor mounted units. The heating units were not in operation at the time of the survey.

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 12-12-06
APPLICATION 06-0418

Purpose and Scope

The purpose of this survey was to identify potential health hazards of air contaminants arising from water entrainment in some of the buildings. In order to understand the indoor air quality (IAQ) related building problems, employee interview(s), physical walk through inspection of the facility, and a ventilation profile are initially conducted to assess the extent of the IAQ problem. Subsequent air samples may be required to be taken to further assess the situation.

Employee Interviews: **All** interviews were privately conducted with each employee. All employees were asked to state (if any) their health concerns. The information obtained was evaluated for common events that may be shared among employees.

Building *Walkthrough Inspection:* A building walkthrough was performed to note observations that may help identify potential sources of IAQ problems.

Ventilation Profiles: **A** profile of the building ventilation system was conducted by observing air flow patterns. Airflow patterns were observed as smoke (generated from a Regin - Smoke Bottle) travels through the air. **A** positive pressure environment is indicated when smoke is observed to leave the room, and negative pressure environment is indicated when smoke is observed to enter the room. All results are summarized in tables and/or figures in this report.

Air Monitoring *Surveys*: For this study, the air monitoring survey consisted of taking temperature and relative humidity measurements; and taking total airborne particulates air samples.

Study Methods: The monitoring strategy involved comparing total airborne concentrations from indoor and outdoor air samples to determine if microbial amplification had occurred. Microbial amplification is commonly caused by the presence of water. Under certain conditions of temperature and relative humidity, microorganism can proliferate and grow.

Survey Methods: Total air samples were collected to detect the presence of air contaminants. Temperature and relative humidity measurements are taken to determine the range of comfort zones.

Collection Method

Total Particulates: Monitoring for total particulate bioaerosols detect both non-viable and viable particles. Air samples were collected on Zefon Air-0-Cell sampling cassettes. In accordance with manufacturer recommendations, air was drawn through a sampler at a rate of 15 liters per minute. The sampling time was 10 minutes (150 liters) for a limit of detection of 7 counts/m^3.

EXHIBIT D
Environmental Review initai Study
ATTACHMENT 12, 13 of 16
APPLICATION 06-0418

Temperature and Relative Humidity Measurements:

Temperature and relative humidity readings were directly taken using a self-calibrating Mannix digital psychrometer-hydrometer, model 9900W.

Laboratory Analysis

Total Particulate: Subsequent to collection, air samples were transported under the chain of custody to the Aerotech Laboratories, Incorporated located at 1501 West Knudsen Drive in Phoenix, Arizona (85027) for extended aer-o-cell analysis. Aerotech is an AIHA Laboratory Accredited (#102297) Laboratory. Air samples were tested for bioaerosols (e.g., mold spores, pollen, insect parts, skin cell fragments), fibers (e.g., asbestos, cellulose, clothing fibers), and inorganic particles (e.g., ceramic, fly ash combustion particles, copy toner). Particles were expressed in bacterial spores, pollen grains, or fibers per cubic meter.

Results

Employee Interviews: Ms. Carter confirmed that moldy or mildew odors were detected in some buildings and water leaks had existed in some buildings.

Building Walk-throughInspections: There were evidence of mold, debris, odors, and water stains in the walls and ceiling of the buildings located at 2260 7th Avenue and 2200 7th Avenue. Surplus furniture and office supplies were noted in all the buildings that were inspected. The kitchen flooring materials (e.g., linoleum tile or mastic) may contain asbestos.

Ventilation Profile:: Figures 1-3, indicate airflow patterns for each respective building.

Air *Monitoring Suwey:*

Total Particle Air-Monitoring (Table 1)

Mold Spores: The concentration of mold spores detected ranged from 493 - 833 mold spores/ m3. The ambient outdoor concentration of mold spores ranged from 1.237 - 1.860 mold spore/m3.

Pollen: The concentration of pollen detected from the indoor air samples ranged from non-detectable at <7 pollen grains/m3. These values were below ambient outdoor concentration of 7 pollen grains/m3.

Skin *Cell Fragments:* The skin cell fragments detected from air samples ranged from 513 to 5,200 skin cell fragments/m3. The ambient concentration was 113

Environmental Review Inital Study
ATTACHMENT 12, 14 of 16
APPLICATION 86-0418

EXHIBIT D

- 447 skin cells fragments/ m3.

Cellulose Fibers: The concentration of skin cell fragments detected from air samples collected ranged from 53 to 120 fibers/m3. The ambient concentration was 13 - 27 fibers/m3.

Miscellaneous Test: No insect parts, inorganic particles (e.g., ceramic, fly ash combustion particles, copy toner) were detected from any of the air samples collected.

Temperature and Relative Humidity (RH) - (Table 2):
Indoor air temperature and relative humidity measurements taken during the time of the sampling ranged between 66.5 to 76.4 F and 35.2 to 48.9%RH. The ambient external air temperature and relative humidity ranged from 76.2 to 94.3 F and, 18.5 to 36.0%RH, respectively

Discussions

Total Particulate (Table 1):
Mold Spores: The total particulate air sample results determined the following:

a. The mold spore concentrations detected represent mixtures of various microorganisms found ubiquitously in nature, and concentrations did not exceed the proposed 10,000 spores/m3 threshold.

b. The skin cell fragment concentrations did not exceed the proposed 10,000-skin cells/m3 threshold normally found in residential and commercial settings.

c. The pollen counts detected did not exceed the 20-grains/m3-threshold set by the Pollen and Mold Committee of the American Academy of Allergy.

d. No insect parts, nor inorganic particles (e.g., ceramic, fly ash combustion particles, copy toner) were detected from any of the air samples collected.

Temperature and relative humidity values (table 2):

a. The measurements varied through the unoccupied facilities. Since respective building heating units were not operational during the time of the measurements, a proper evaluation of the comfort environment could not be performed. As a result, adherence to the guidelines set in the American Society of Heating and Refrigeration Air-conditioning Engineers

EXHIBIT D
ATTACHMENT 12, 15 of 16
APPLICATION 06-0418

(ASHRAE) Standard 55-19 could not be performed.

Conclusions

Air sampling results indicate that the indoor air consisted lower concentrations of microbial flora found ubiquitously in nature. As a result, the indoor air did not exceed any proposed thresholds.

Recommendations:

a. Test of all linoleum tile or mastic flooring materials of asbestos.

This report was prepared by:

Alfred L. Jin, MS, CBSP, BSM (ASM), CM (ACM), M (ASCP)
Industrial Hygienist, Biosafety and Environmental Specialist

Environmental Review Inital Study
ATTACHMENT 12, 16 of 16
APPLICATION 06-0418

EXHIBIT D

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:	November 28,2006
To:	County of Santa Cruz
Applicant:	**Teall Messer**
From:	Tom Wiley
Subject:	**06-0418**
Address	**2200 7th Ave.**
APN:	026-062-97
OCC:	1324
Permit:	20060360

Environmental Review Inital Study
ATTACHMENT 13, Lot 2
APPLICATION 06-0418

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:

Prior to final inspection, provide to the Fire District a CD with a plot plan, building layout, exiting, riser location and knox box locations. The CD must be formatted in JPEG.

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 Part III of the California Building Code.

*The FIRE FLOW requirement for **the** subject property is **1500** 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 PLANS: New/upgraded hydrants, water storage tanks, and/or upgraded roadways shall be installed PRIOR to and during time of construction (CFC 901.3).

NOTE on the plans occupancy load of each area. Show where occupancy control signs will be posted.

SHOW on the plans DETAILS of compliance with the District Access Requirements outlined on the enclosed handout. The roadway(s) are required to be designated as fire lanes, and painted with a red curb with FIRE LANE NO PARKING in contrasting color every 30 feet on the top of the red curb. If the roadway is 27' or less, both sides of the

EXHIBIT D

street/roadway shall be painted, **35'** and down to **28'** in width, the roadway curbs shall be painted on one side, and **36'** and wider no red curb is required. All cul-de-sacs shall be fire lane, red curbed.

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 The FDC shall be labeled with the address of the building that it serves, with **2"** peal and stick plastic reflective numbers.

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

Compliance with the District Access Requirements outlined on the enclosed handout is required.

SHOW location of fire extinguishers.

SHOW Occupant Load(s) and an Exiting Plan.

SHOW location of exit signs.

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 regarding the plan check comments, please call me at **(831) 479-6843** and leave a message, or email me at tomw@centralfDd.com. All other questions may be directed to Fire Prevention at **(831)** 479-6843.

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.
1324-1 12806

Environmental Review Inital Study
ATTACHMENT 13 2 of 2
APPLICATION 06-0418

EXHIBIT D

HIGGINS ASSOCIATES

CIVIL & TRAFFIC ENGINEERS

S.C.C.O ANIMAL SERVICES CENTER

SANTA CRUZ, CALIFORNIA

TRAFFIC IMPACT ANALYSIS

Final Report

Prepared For

Teall Messer, Architect
Soquel, California

August 18, 2006

EXHIBIT D

TABLE OF CONTENTS

Environmental Review Inital Study
ATTACHMENT 14, 2 of 25
APPLICATION 06-0418

EXHIBIT D

LIST OF EXHIBITS

Environmental Review Inital Study
ATTACHMENT 14 3 of 25
APPLICATION 06-0418

EXHIBIT D

LIST OF APPENDICES

1 INTRODUCTION

This Traffic Impact Analysis (TIA) presents an analysis of the traffic impacts for the proposed S.C.C.O. Animal Services Shelter development in Santa Cruz, California. The animal service center is currently housed in temporary quarters at 25 Janis Way, Scotts Valley, California. The project is proposed to relocate the existing facility in Scotts Valley to Santa Cruz. **Exhibit 1** shows the project location.

1.1 Project Description

An area of evaluation has been identified in consultation with the County of Santa Cruz Public Works and Utilities Department, to focus on the study intersections listed below in the vicinity of the project site. The project site is located near the northeast comer of 7th Avenue and Rodriquez Street, east of the City of Santa Cruz. The project site would provide access to the local street system with 7th Avenue and Rodriquez Street. **Exhibit 2** shows the project site plan.

1.2 Scope of Work

This traffic study analyzed the anticipated project traffic impacts on the local roadways in the project area. The study analyzes traffic conditions under these development scenarios:

- Existing Conditions
- Background Conditions
- Background Plus Project Conditions
- Cumulative Conditions

The following three intersections were analyzed. Recommendations for improvements and mitigation measures to offset the traffic impacts from the proposed project are provided. The site plan was analyzed for traffic circulation.

Project intersections:

1. 7th Avenue/Capitola Road;
2. 7th Avenue/Rodriquez Street; and
3. 7th Avenue/Soquel Avenue.

Environmental Review Inital Study
ATTACHMENT 14, 5 of 25
APPLICATION 06-0418

EXHIBIT D

1.3 Peak Hour Signal Warrants

Peak hour signal warrants were analyzed for all unsignalized intersections as part of the Traffix analyses, based on the methodologies described in the *Manual on Uniform Traffic Control Devices* (MUTCD 2000, Section 4C.04 Warrant 3, Peak hour).

The decision to install a traffic signal should not be based purely on the warrants alone. Engineering judgment would be exercised on a case-by-case basis to evaluate the effect a traffic signal would have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

1.4 Traffic Operation Evaluation Methodologies and Level of Service Standards

Quantitative Levels of Service (LOS) analyses were performed for the study intersections and highway segments, based on the *2000 Highway Capacity Manual* methodologies. Intersection operations were evaluated using the Traffix analysis software.

Intersection traffic flow operations were evaluated using a Level of Service (LOS) concept. Intersections are rated based on a grading scale of LOS **A** through LOS F, with LOS **A** representing free flowing conditions and LOS F representing forced flow conditions. The County of Santa Cruz has established LOS C as the minimum acceptable LOS for overall intersection operations. Generally, LOS F operations on the minor street approach of two-way or one-way stop controlled intersections are considered the threshold warranting improvements.

For signalized intersections, average control delay per vehicle is utilized to define intersection level of service. Delay is dependent upon a number of factors including the signal cycle length, the roadway capacity (number of travel lanes) provided on each intersection approach and the traffic demand. **Appendix A1** shows the relationship between vehicle delay and the signalized intersection level of service categories. The SYNCHRO software program was utilized to calculate signalized intersection levels of service.

At all-way and two-way stop controlled intersections, the operating efficiency of vehicle movements that must yield to through movements were analyzed. The level of service for vehicle movements on the controlled approaches is based on the distribution of gaps in the major street traffic stream and driver judgment in selecting gaps. **Appendix *A2*** shows the relationship between the vehicle delay and level of service for two-way stop controlled intersections. The 2000 HCM calculates the level of service of the minor street approaches. Using this data, an overall intersection level of service was calculated. Both are reported in this study because traffic on the minor street approaches has the lowest priority of right-of-way at the intersection and is the most critical in terms of delay. The SYNCHRO software program was utilized to calculate intersection levels of service for intersections that are one and two-way stop controlled.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 14, 6 of 25
APPLICATION 06-0418

2 EXISTING CONDITIONS

This chapter presents a description of the existing street network, existing traffic volumes and intersection levels of service.

2.1 Existing Street Network

Highway 1 is a north-south freeway extending along the Coast of California. In the project vicinity, Highway 1 runs east-west and carries approximately 83,000 vehicles per day near its interchange with State Park Drive. This highway provides regional access to the project area, and serves as the connector to *State* Route 17 in Santa Cruz and to State Route 156 in Castroville.

Soquel Drive is a two to six-lane roadway that serves as a major arterial in the area. The road runs parallel to Highway 1 extending from just west of Freedom Boulevard in Aptos Village westerly to the City of Santa Cruz. Abutting land uses are primarily commercial, office and light industrial.

Capitola Road serves as a primary thoroughfare for neighboring residents of Santa Cruz, California linking Highway 1 from Soquel Avenue to Capitola Road. It is the main bicycle route from Soquel Drive to Capitola Village and the beaches.

17th Avenue serves as a route for transit/school buses, commercial and through traffic from Santa Cruz and Live *Oak* areas. It also provides as a path for bicycle traffic granting access to park sites, the Live *Oak* fire station and allows children to travel to various local schools.

7th Avenue is currently a two lane road between Eaton Street and East Cliff Drive. The bicyclist and pedestrian safety along this road was improved by construction of bike lanes, sidewalks and bus pullouts for a bicyclist/pedestrian friendly route.

Rodriguez Street is considered as a collector from Capitola Road Extension to Chanticleer Avenue. It serves as a major link for bicycle routes on Seventeenth Avenue, Chanticleer Avenue and Seventh Avenue. Rodriguez Street also provides access for children attending Green Acres Elementary School.

2.2 Existing Bicycle Facilities

Bike routes around the study area are currently located along the following roadways: Bike lane construction is presently under study for the Soquel Avenue Corridor, Capitola Road, 17th Avenue, 7th Avenue, and Rodriguez Street.

2.3 Existing Transit Services

The Santa Cruz Metropolitan Transportation District (Metro) provides transit service within Santa Cruz County. Metro offers fixed-route service on 42 routes within the county, operates the Highway 17 express service to San Jose, and offers van and taxi paratransit service for handicapped and elderly users.

The study area is served by the Route 53 Capitola/Dominican.

2.4 Existing Intersection Volumes and Operating Conditions

The following intersections have been studied for the project:

1. 7th Avenue/Capitola Road;
2. 7th Avenue/Rodriquez Street; and
3. 7th Avenue/Soquel Avenue;

Existing intersection volumes were compiled using weekday AM and PM peak hour traffic count data. Traffic counts performed by Higgins Associates at the study intersections were used in this analysis; this data was collected on May **18,** 2006 at three intersections. Each intersection was analyzed at its individual peak hour. The existing weekday AM and PM peak hour volumes are illustrated on **Exhibit 3.**

Weekday AM and PM peak hour levels of service for the study intersections are summarized on **Exhibit 4.** The recommended intersection improvements are shown on **Exhibit 5.** All three study intersections would operate at the County of Santa Cruz standard LOS C or better. The 7th Avenue/Capitola Road intersection would operate at LOS C during AM and PM peak hour. The 7th Avenue/Rodriguez Street intersection would operate at LOS **A** during AM and PM peak hour. The 7th Avenue/Soquel Avenue would operate at LOS C during AM and PM peak hour. No mitigations are required at the study intersections under Existing conditions. The LOS calculation sheets are included in **Appendix B** for the existing conditions.

The Peak Hour signal warrant will not be met during both the *Ah4* and PM peak hours at the intersection of 7th Avenue/Rodriquez Street. A left *turn* warrant would be met for the PM peak existing conditions along the southbound approach on 7th Avenue for a 40 mph design speed. The free flow speed along 7th Avenue is 25mph. However, existing traffic counts were conducted during the Highway I construction. This would probably increase the threshold of the left turn warrant. Moreover: the southbound approach operates at levels of service **A** and there are no operational deficiencies at the intersection. Field observations indicate that the intersection layout is not faced with any sight distance problems. Intersection existing analysis: layout and engineering judgment suggests that there would be no need for provision of an exclusive left turn lane in the southbound direction. Warrant worksheets are included in **Appendix F.**

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 14, 4 6 of 2
APPLICATION 06-0418

3 BACKGROUND CONDITIONS

This section describes Background conditions, which include projects that have been approved by the County but not yet constructed. The existing traffic was added to the Background traffic and analyzed. The project traffic was then added and analyzed to determine possible project impacts for Background conditions. The list of Background projects was obtained from the City; the locations of these projects are depicted on **Exhibit 6a**, and the trip generations for the projects are itemized on **Exhibit 6b.**

3.1 Background Conditions Intersection Volumes and Operating Conditions

The Background peak hour traffic volumes are illustrated on **Exhibit 7. Exhibit 4** contains the levels of service for the study intersections under Background conditions.

All three of the study intersections would operate at County of Santa Cruz standard LOS C or better. The 7th Avenue/Capitola Road intersection would operate at LOS C during AM and PM peak hour. The 7th Avenue/Rodriguez Street intersection would operate at LOS A during AM and PM peak hour. The 7th Avenue/Soquel Avenue would operate at LOS C during AM and PM peak hour. No mitigations are required at any of the study intersections. The LOS calculation sheets are included in **Appendix C.**

The Peak Hour signal warrant will not be met during both the AM and PM peak hours at the intersection of 7th Avenue/Rodriquez Street. Left turn warrant along southbound 7th Avenue would be met during the PM peak hour for a 40 mph design speed. However, existing traffic counts were conducted during the Highway 1 construction and free flow speed on 7th Avenue is 25 mph. This would probably increase the threshold of the left turn warrant. Moreover, the southbound approach operates at levels of service A and there are no operational deficiencies at the intersection. Intersection background analysis, layout and engineering judgment suggests that there would be no need for provision cf an exclusive left turn lane in the southbound direction. Warrant worksheets are included in **Appendix F.**

Environmental Review Inital Study
ATTACHMENT 14 9 of 25
APPLICATION 06-0416

EXHIBIT D

4 BACKGROUND PLUS PROJECT CONDITIONS

This chapter presents a description of the Background Plus Project conditions of the network, traffic volumes and intersection levels of service. The project trip generation, distribution, and assignment are also addressed.

4.1 Project Definition

The proposed project involves relocating an existing Animal Service Shelter in Scotts Valley, California to a site just east of the City of Santa Cruz. The proposed project will be located on the northeast quadrant of 7th Avenue/Rodriquez Street intersection. The project site would provide access for the local system via 7th Avenue and Rodriquez Street.

4.2 Project Trip Generation

As the Institute of Transportation Engineers (ITE) ***Trip Generation*** handbook does not include trips generated due to the Animal Services Center, Project Trip Generation was based on the trips generated from the existing facility in Scotts Valley, California. Based on the daily counts collected at the existing facility in Scotts Valley, California, the proposed project would generate an estimated 60 daily trips (Thursday, July 20, 2006). Trips generated from the facility were recorded from Wednesday, July 19, 2006 to Sunday, July 23, 2006. The trips were recorded over three 2 hour intervals and one 2 ½ hour interval ranging down from 9:00 to 11:00 ***AM,*** 11:00 to 1:00 PM, 1:00 to 3:00 PM, and 3:00 to 5:30 PM. The daily counts at the existing facility in Scotts Valley, California are summarized in **Exhibit 8.** The counting log is attached in the **Appendix G.** The trips were analyzed to determine the peak hour project trips. AM and PM peak hour volumes at 7th Avenue and Rodriquez Street were totaled for a period of 2 hours and a percent factor was determined in relation to the peak hour volumes at the same lccation. This factor was then applied to determine the **AM** and PM trips generated due to the project site. The derivations are shown in **Exhibit 8.**

Staff at Scotts Valley, California was consulted to determine a rough average service time for a customer. Based on the information provided, for the project trips a 75% of the trips were assumed to enter and 25% of the trips were assumed to exit the facility.

4.3 Project. Trip Distribution and Assignment

Trip distribution defines the origins and destinations of all trips to and from a project site. The project traffic was distributed onto the study street network based upon existing travel patterns and land use in the vicinity of the project site. Project traffic was distributed onto the study street network as shown on the following page:

Environmental Review Inital Study
ATTACHMENT 14 Page 25
APPLICATION 06-0478

To/From North:	40%
Soquel Avenue West - 15%	
Soquel Avenue East - 25%	
To/From South:	55%
Capitola Road West - 10%	
Capitola Road East – 15%	
7th Street South – 30%	
To/From West:	5%
Rodriquez Street - 5%	
TOTAL:	100%

Exhibit 9 illustrates the project trip distribution and assignment at the study intersections.

Trips to and from the site are anticipated to use Highway 1. Twenty-five percent of the trips were anticipated to traverse along Soquel Avenue, 35% of the trips were anticipated to use 7th Avenue with customers equidistantly using either Soquel Avenue, Capitola Road East and West to reach the Animal Services facility.

4.4 Background Plus Project Intersection Volumes and Operating Conditions

In order to evaluate the potential traffic impacts that may be attributed to the proposed project, the Background Plus Project volumes were derived by adding the Background traffic volumes to the study project trips. The Background Plus Project peak hour traffic volumes are illustrated on **Exhibit 10. Exhibit 4** contains the levels of service for the study intersections under Background Plus Project conditions.

Levels of service at the three study intersections under Background Plus Project conditions would remain unchanged from Background conditions except that 7th Avenue/Rodriquez Street would operate at LOS B during the AM peak hour. No intersection improvements are recommended under Background Plus Project conditions. The LOS calculation sheets are included in **Appendix D.**

The Peak Hour signal warrant is not met during both the AM and PM peak hours at the intersection of 7th Avenue/Rodriquez Street Riverside. Left turn warrant along southbound 7th Avenue would be met during the PM peak hour for a 40 mph design speed. However. existing traffic counts were conducted during the Highway 1 construction and free flow speed on 7th Avenue is 25 mph. This would probably increase the threshold of the left turn warrant. Moreover, the southbound approach operates at Levels of Service A and there are no operational deficiencies at the intersection. Intersection background analysis, layout and engineering judgment suggests that there would be no need for provision of an exclusive left *turn* lane in the southbound direction. Warrant worksheets are included in **Appendix F.**

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 11
APPLICATION 06-0115

5 CUMULATIVE CONDITIONS

This section describes Cumulative conditions: which includes estimated traffic conditions in roughly 10 years, i.e. the year 2016, with and without project conditions. Consultation with County of Santa Cruz staff, suggested an application of a conservative regional traffic growth of 2% per year along Soquel Avenue, 7'' Avenue, and Capitola Road to account for the cumulative impacts for the study area in 2016. Cumulative Project volumes were thus, derived for. Cumulative Conditions and project trips were added to determine the Cumulative Plus Project Conditions. These volumes were then analyzed to determine possible project impacts for the Cumulative Conditions.

5.1 Cumulative Conditions Intersection Volumes and Operating Conditions

The Cumulative peak hour traffic volumes with and without project are illustrated on **Exhibits 11** and **12. Exhibit 4** contains the levels of service for the study intersections under Cumulative conditions.

Levels of service at the three study intersections would operate at the following Levels of Service. The 7th Avenue/Capitola Road intersection would operate at LOS C during AM peak period and LOS D during the PM peak hours. As stated above a conservative regional growth of 2% was applied for the cumulative conditions. Furthermore, the existing counts were conducted during the Highway 1 construction. The LOS at this intersection exceeds the threshold by 1.3 seconds delay during the PM peak Cumulative Conditions and 1.4 seconds during the PM peak Cumulative Plus Project Conditions. In Lieu of the given circumstances, the intersection is evaluated to operate at the County acceptable LOS C. The 7th Avenue/Rodriquez Street intersection would operate at LOS B during AM and PM peak hours. The 7'' Avenue/Soquel Avenue intersection would operate at LOS C during AM and PM peak period No intersection improvements are recommended. The LOS calculation sheets are included in **Appendix E.**

The Peak Hour signal warrant will be met during **AM** Peak Period for Cumulative conditions without the project conditions. The Peak Hour signal warrant will not be met during the PM Peak Period. The Peak Hour Signal Warrant will also be met during AM Peak Period for Cumulative Plus Project Conditions. However, the traffic for the Cumulative Conditions assumed a conservative growth of 2% regional growth per year and the traffic counts were also conducted when the Highway 1 was under construction. Given the above criteria, and also that the Peak Hour Warrant for the Cumulative AM Conditions fall on the threshold and the operational characteristics at the intersections at acceptable Levels of Service the installation of the signal may not be required.

Left turn warrant along southbound 7th Avenue would be met during the AM and PM peak hour for a 40 mph design speed. Based on the regional growth assumed for the cumulative conditions, no operational deficiencies present at the intersection, and the existing traffic counts, engineering judgment suggests that there would be no need for provision of an exclusive left turn lane in the southbound direction. Warrant worksheets are included in **Appendix F**.

6 PROJECT ACCESS, CIRCULATION, AND PARKING ASSESMENT

Access to the project site would be provided by the 7th Avenue and Rodriguez Street. Majority of the trips would be utilizing Highway 1, Soquel Avenue, and 17th Avenue for access to the Animal services facility. The proposed development has convenient access to all of these major transportation roadway networks.

The proposed development provides 31 news parking spaces in addition to 11 old parking spaces available at the site. The proposed site development provides a new parking lot east of the facility along Rodriquez Street. This parking lot provides 31 parking spaces with 2 parking spaces dedicated to the PHC (physically challenged). Furthermore, the proposed development wishes to retain 11 parking spaces north of the facility along 7th Avenue. The project is assumed to generate 10 peak hour trips during AM peak period and 15 peak hour trips during PM peak period. The parking spaces provided is adequate enough to satisfy the parking demand at the facility.

7 SITE PLAN ANALYSIS

The latest version of the project site plan is included as **Exhibit 2.**

8 SUMMARY OF RECOMMENDATIONS

8.I Existing **Conditions**

No mitigations are recommended under Existing Conditions.

8.2 Background Conditions

No mitigations are recommended under Background Conditions.

8.3 Background Plus Project Conditions

No mitigations are recommended under Background Plus Project Conditions.

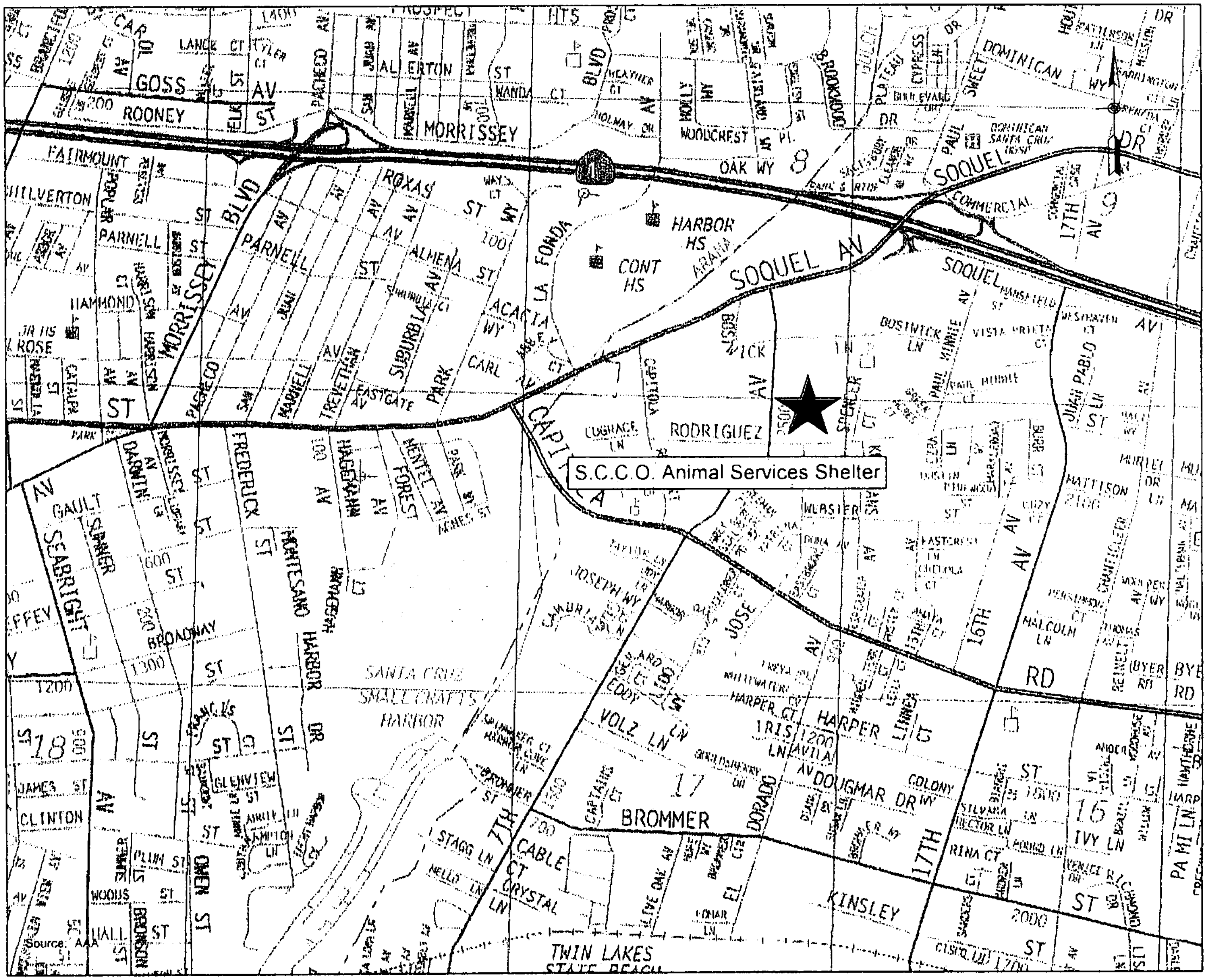
8.4 Cumulative Conditions

No mitigations are recommended under Cumulative Conditions.

Environmental Review Inital Study
ATTACHMENT 14 13 of 25
APPLICATION 06-0418

EXHIBIT D

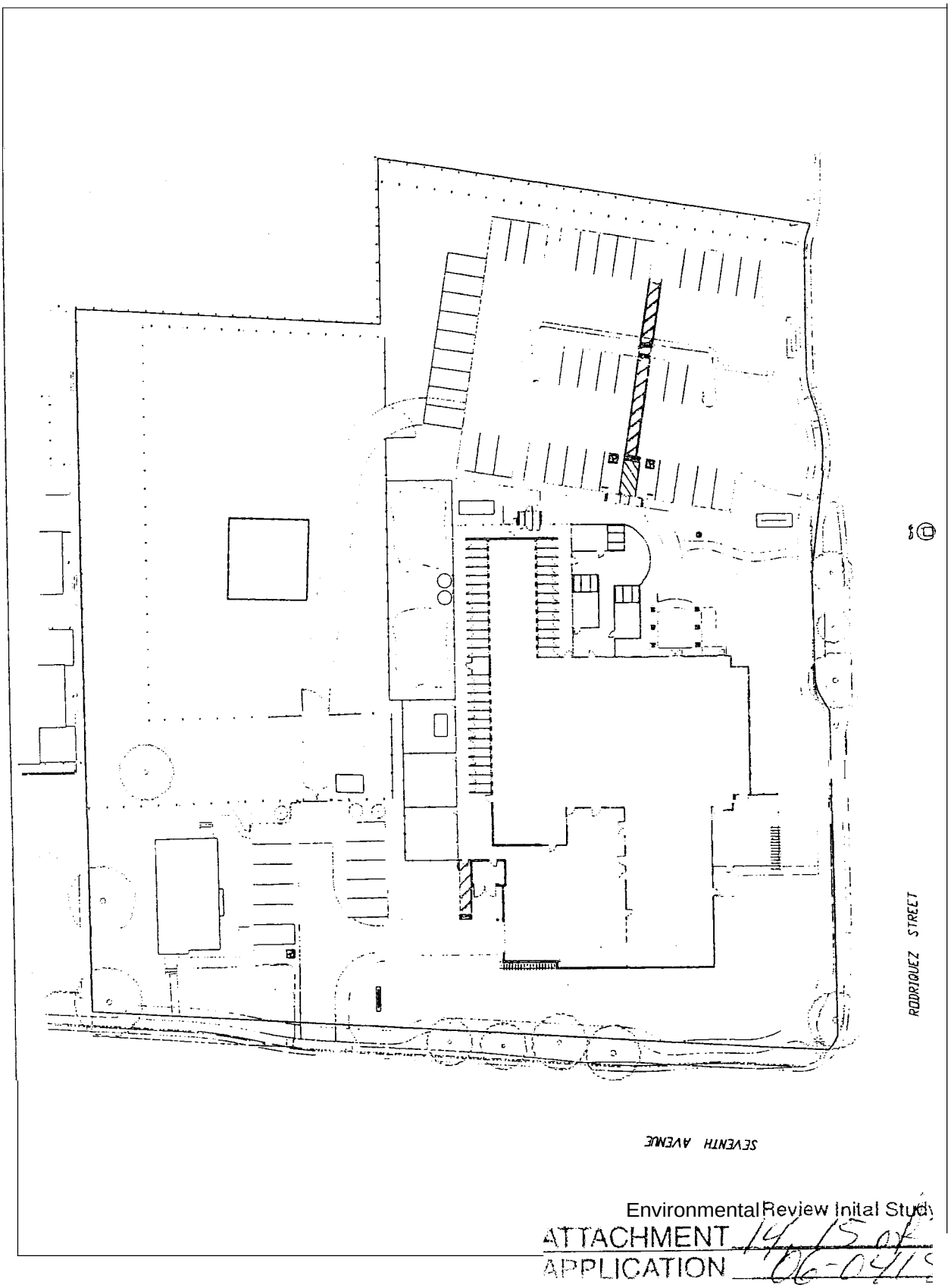
SANTA CRUZ COUNTY
ANIMAL SERVICES SHELTER



6-123 Exhibits.xls
Proj Location Map

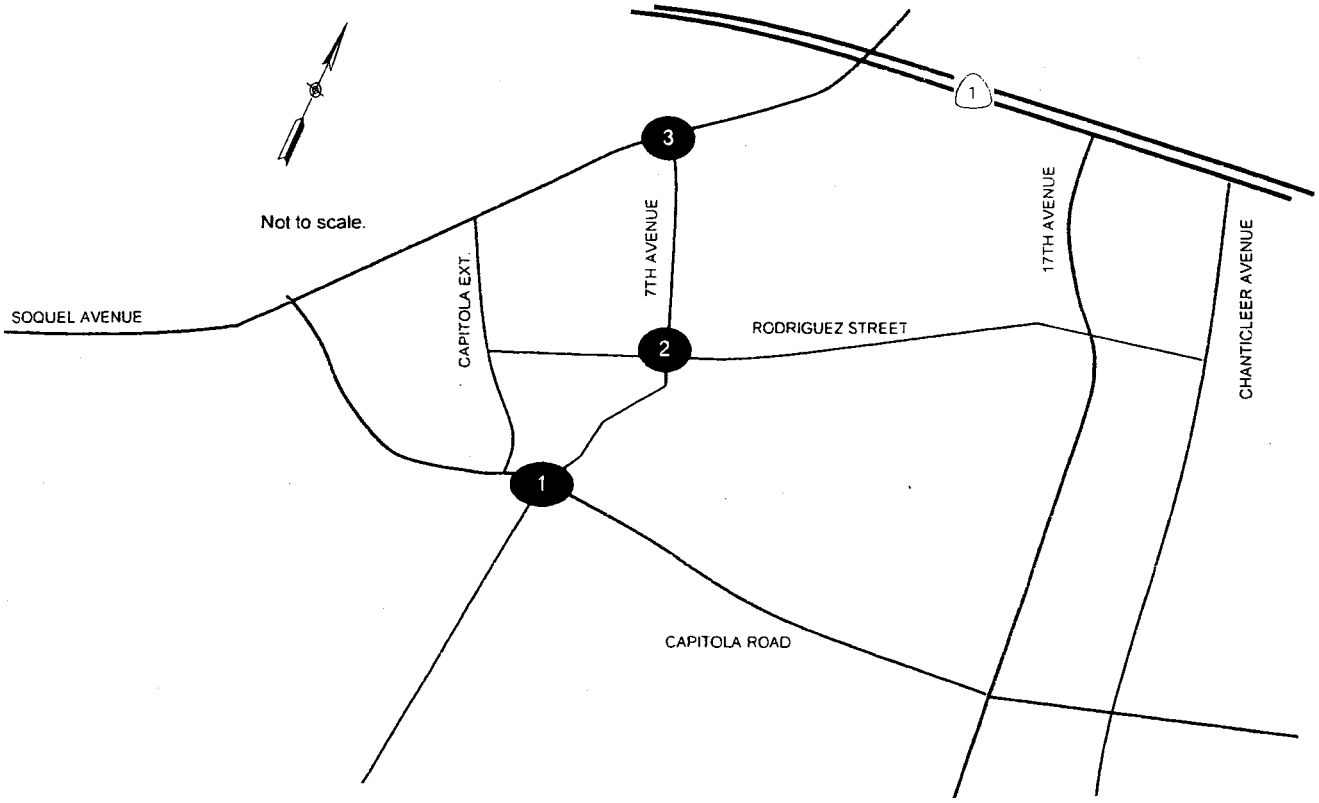
EXHIBIT 1
T LOCATION MAP

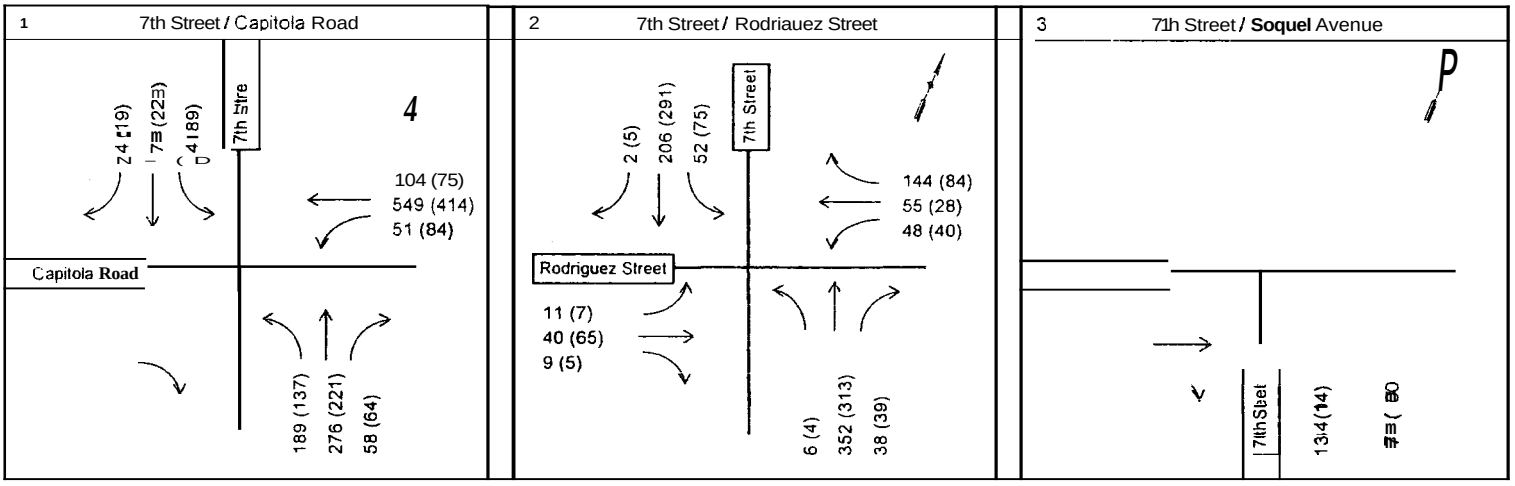
EXHIBIT D
Environmental Review Initial Study
ATTACHMENT 14, 14 of 25
APPLICATION 06-0418



Environmental Review Inital Study
ATTACHMENT 14, 15 of
APPLICATION 06-04

EXHIBIT D





Environmental Review Inital Study
ATTACHMENT 4 16 of 25
APPLICATION 06-0416

EXHIBIT D

EXHIBIT 3
EXISTING CONDITIONS
AM (PM) PEAK HOUR VOLUMES

HIGGINS ASSOCIATES

	N-S Street	E-W Street	Existing Lane Configuration	Existing Intersection Control	Existing LOS Standard	Existing Conditions				Background Conditions				Background with Project Conditions				Cumulative Conditions				Cumulative with Project Conditions			
						AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr	
						Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	7th Street	Capitola Road	NB 1-L, 1-T, 1-R SB 1-L, 1-T/R EB 1-L, 2-T, 1-R WB 1-L, 1-T, 1-T/R	Signalized	C	31	C	31.1	C	33.7	C	31.3	C	33	C	31.3	C	32.6	C	35	D	32.7	C	36.4	D
2	7t S re	Bch g az Bee t	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	All Way Stop	C	38	4	3	4	.9	a	9 5	a	10.0	B	X	a	12.4	3	1.5	B	12.6	B	1.7	3
3	7th Street	Soquel Avenue	NB 1-L, 1-R EB 1-T, 1-T/R WB 1-L, 2-T	Signalized	C	20 1	C	2a	C	Z0 1	C	25.6	0	20 1	C	5.7	C	2 .3	C	29.8	0	Z0.3	C	30.0	C

Notes:
1. L, T, R = Left, Through, Right.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound.
3. Level of Service (LOS) and control delay are shown for both overall intersection and worst approach when intersection is controlled by one/two-way stop control.

EXHIBIT D

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≤ 123 LOO
LOS Int

EXHIBIT 4
LEVEL OF SERVICE
SUMMARY TABLE

SANTA CRUZ COUNTY
ANIMAL SERVICES SHELTER

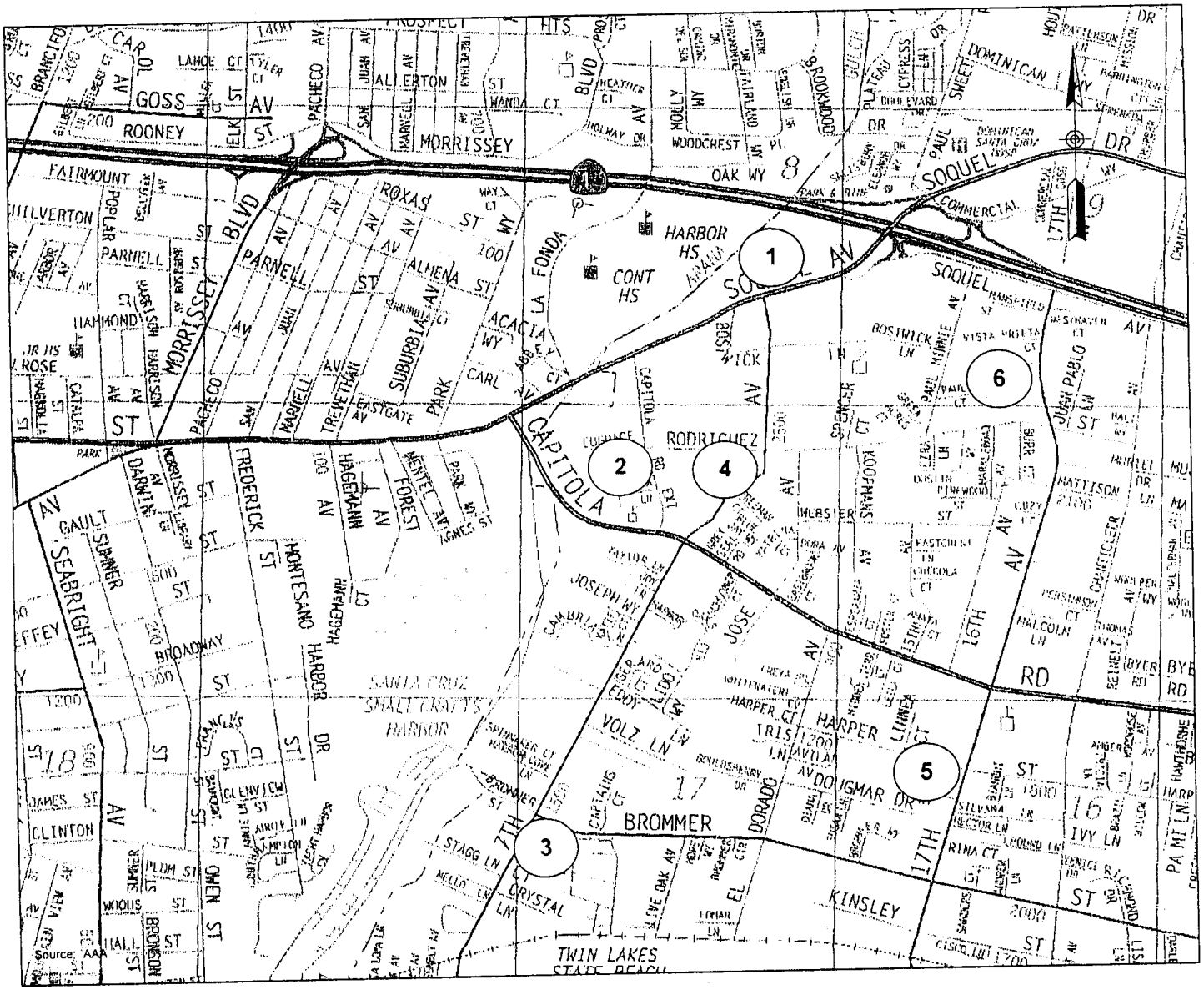


EXHIBIT D

Environmental Review Initial Study
ATTACHMENT
APPLICATION

HIGGINS ASSOCIATES

6-123 Exhibits.xls
Back Projects

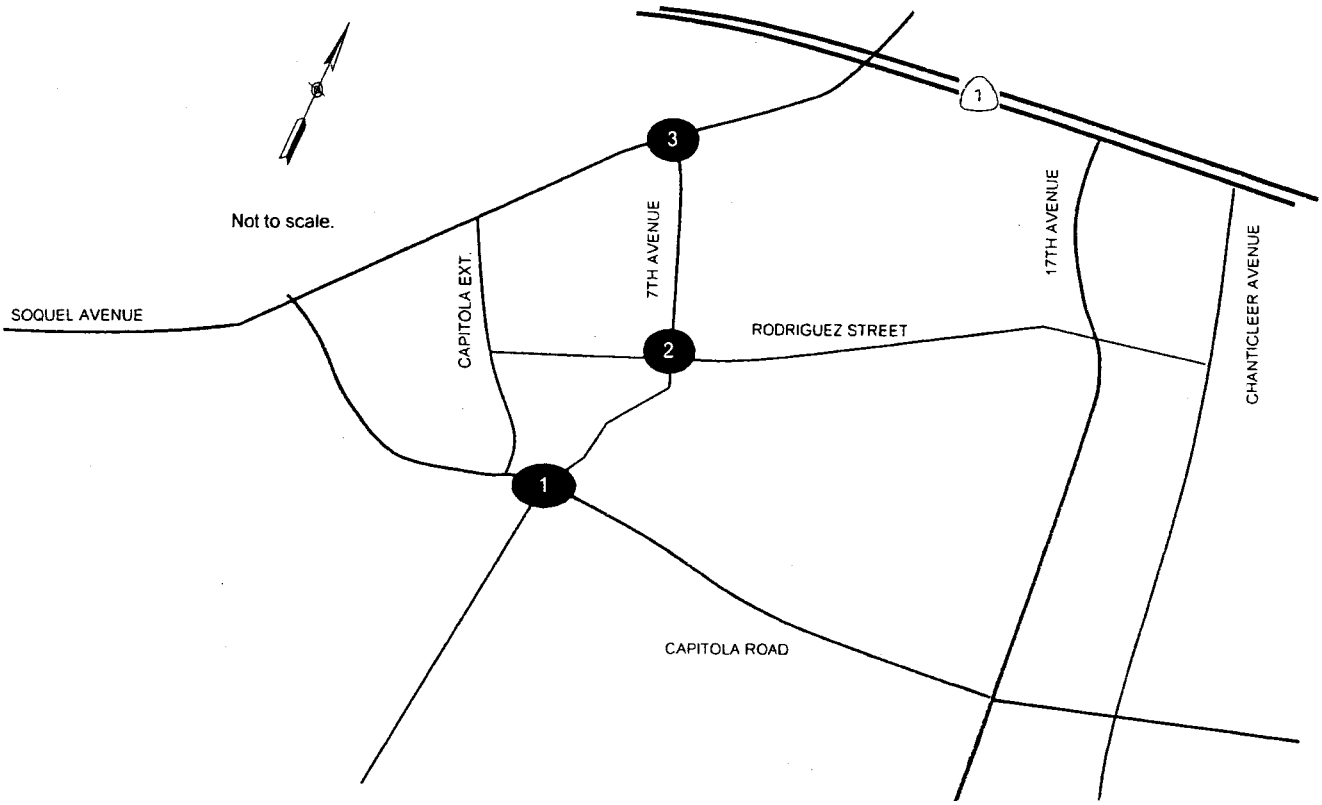
EXHIBIT 6A
BACKGROUND PROJECTS
LOCATION MAP

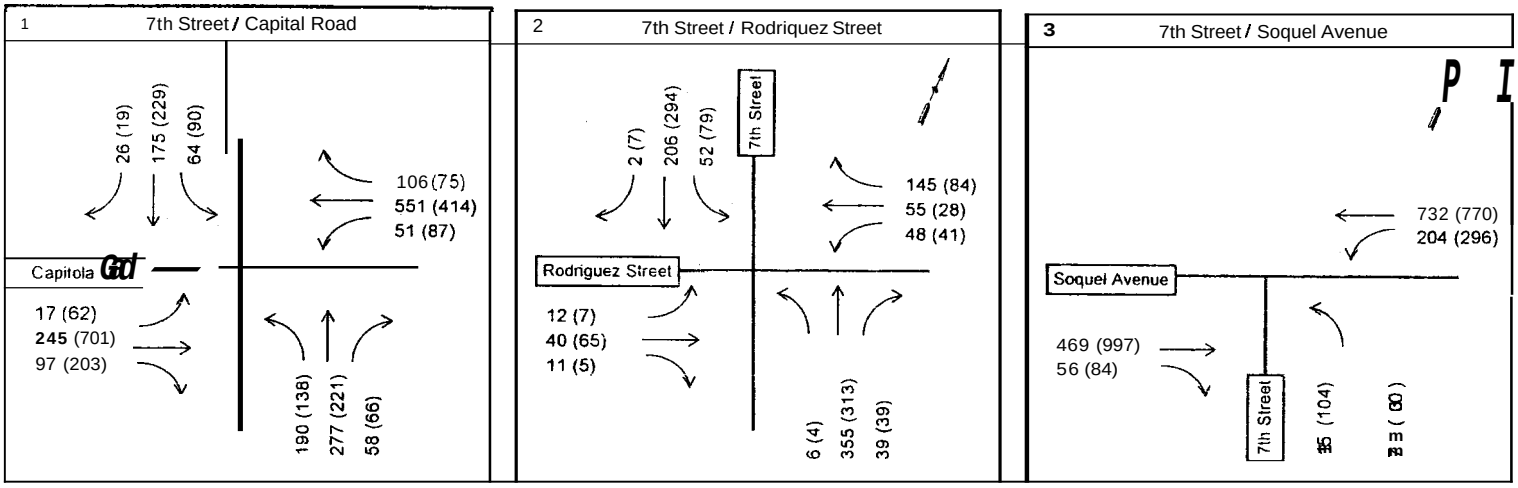
NO	PROJECT NAME	PROJECT SIZE	WEEKDAY		WEEKDAY AM PEAK HOUR				WEEKDAY PM PEAK HOUR			
			DAILY TRIP RATE	TRIP GEN. (ADT)	PEAK HOUR VOL.	% OF ADT	IN	/ OUT	PEAK HOUR VOL.	% OF ADT	IN	/ OUT
1	Soquel Avenue Flower Stand	1 S.F.D.	9.57	10	1	(8%)	0	1	1	(11%)	1	0
2	Three (3)-Lot MLD #05-0371											
	1 Single Family Unit	1 S.F.D.	9.57	"	1	(8%)	0	1	1	(11%)	1	0
	2Townhomes	2 T.H.	9.57	"	2	(8%)	0	1	2	(11%)	1	1
3	Two (2)-Lot MLD #04-0567	2 S.F.D.	9.57	"	2	(8%)	0	1	2	(11%)	1	1
4	Property #05-0205	1 S.F.D.	9.57	"	1	(8%)	0	1	1	(11%)	1	0
5	Ten (10)-Lot Townhomes #03-0039	10 T.H.	9.57	"	8	(8%)	2	6	10	(11%)	6	4
6	Four (4)-Lot MLD #03-0385	4 S.F.D.	9.57	"	3	(8%)	1	2	4	(11%)	3	1
		Total		204	16	(8%)	6	12	21	(11%)	14	8

Notes
1. S.F.D. = Single Family Dwelling Units
2. T.H. = Townhome
3. Institute of Transportation Engineers, *Trip Generation*, 7th Edition, 2004

Environmental Review Initial Study
ATTACHMENT 4
APPLICATION 06-0115

EXHIBIT D





Environmental Review Inital Study
ATTACHMENT 14 20 25
APPLICATION 06-0418

EXHIBIT D

EXHIBIT 7
BACKGROUND WITHOUT PROJECT CONDITIONS
AM (PM) PEAK HOUR VOLUMES

S.C.C.O. ANIMAL SERVICES SHELTER
Santa Cruz County, California
August 2, 2006

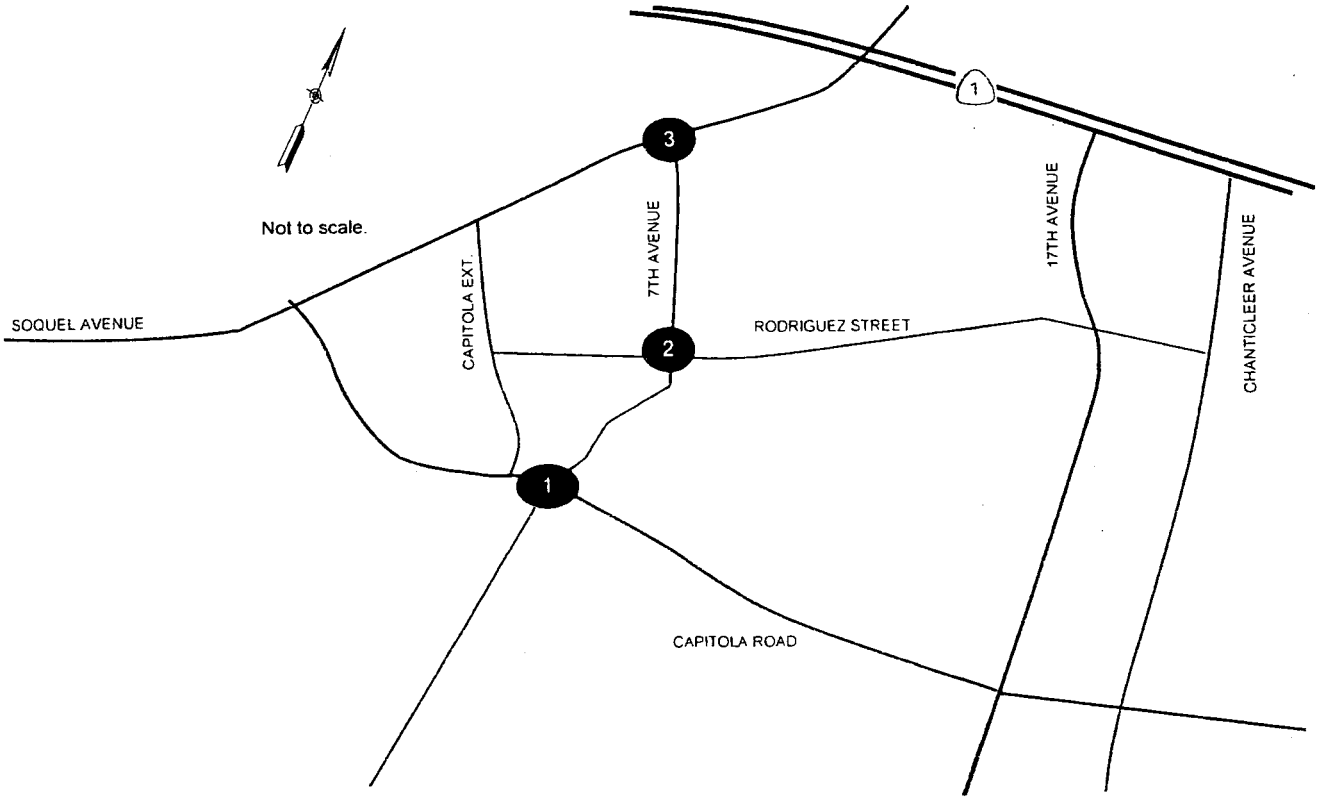
Data from vehcile trips counted at Scotts Valley, CA

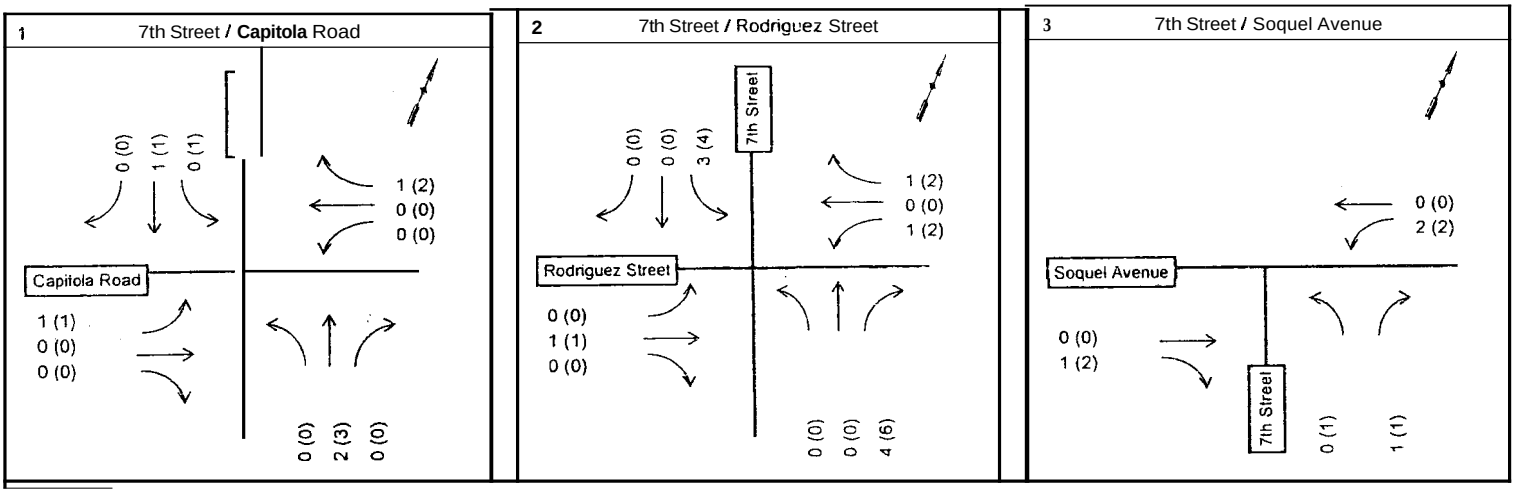
DATE	9:00-11:00 AM	11:00-1:00 PM	1:00-3:00 PM	3:00-5:30 PM	Total
Wednesday, July 19, 2006	12	13	13	19	57
Thursday, July 20, 2006	14	17	15	16	62
Friday, July 21, 2006	15	21	19	35	90
Saturday, July 22, 2006	13	24	22	15	74
Sunday, July 23, 2006	7	8	7	11	33
	15	24	22	35	90
2hr PeakVolumes	**15**	**24**	**22**	**28**	**90**

Data from TMC Rodrigues and 7th Thursday, June 15,2006

2hr PeakVolumes	1414			1848	
Peak Hour Volumes	977			955	
% of PHV	**69.00%**			**52.00%**	
PHV at Animal Services Center	***10***			***15***	

	ITE LAND USE CODE	PROJECT SIZE	WEEKDAY DAILY TRIPS	AM PEAK HOUR TOTAL PEAK HOUR	AM PEAK HOUR % OF ADT	AM PEAK HOUR IN	AM PEAK HOUR OUT	PM PEAK HOUR TOTAL PEAK HOUR	PM PEAK HOUR % OF ADT	PM PEAK HOUR IN	PM PEAK HOUR OUT
TRIP GENERATION RATES Animal Service Shelter	-		-	-	-	0.75	0.25	-	-	0.75	0.25
PROJECT TRIPS Animal Service Shelter	-		62	10	-	8	3	15	-	11	4
Total			**62**	**10**	-	**8**	**3**	**15**	-	**11**	**4**

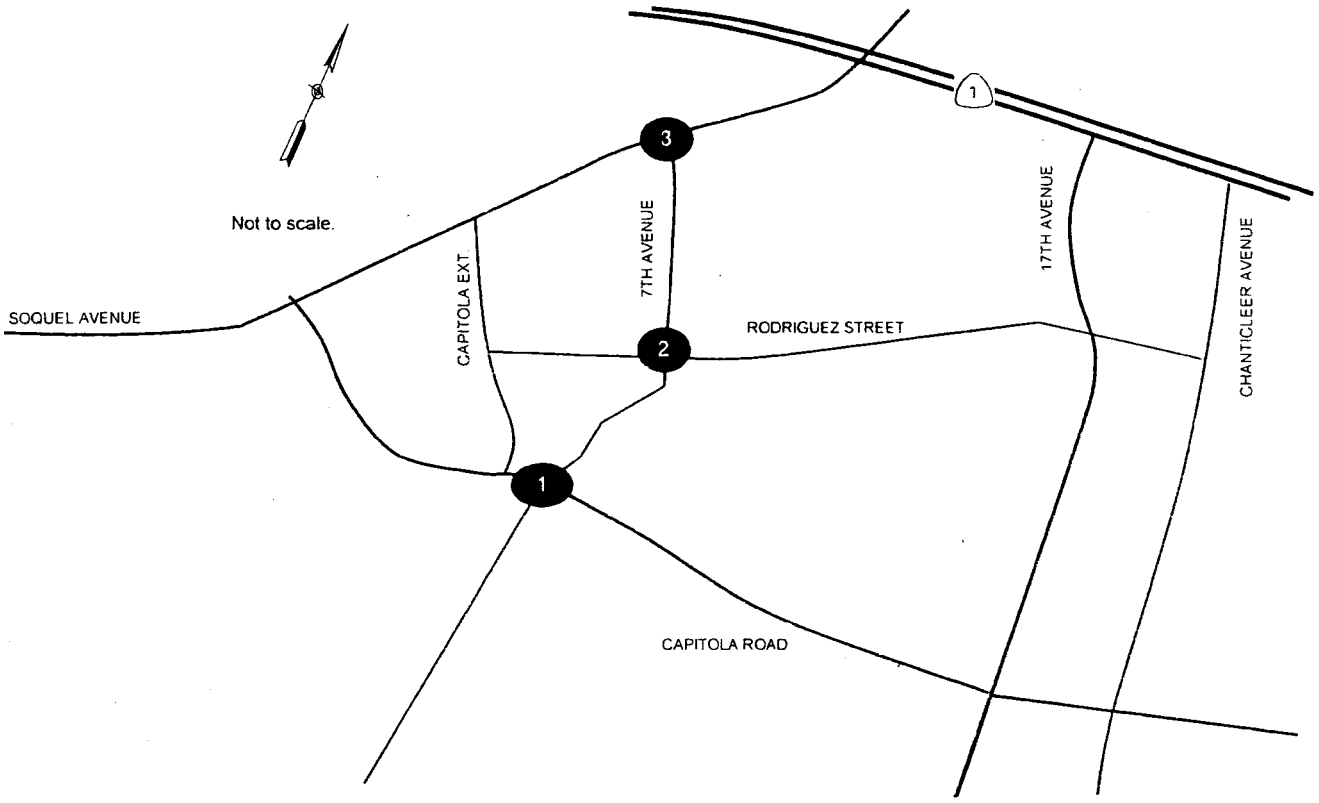




Environmental Review Inital Study
ATTACHMENT 14 22 of 25
APPLICATION 06-0418

EXHIBIT D :

EXHIBIT 9
PROJECT ASSIGNMENT
AM (PM) PEAK HOUR VOLUMES



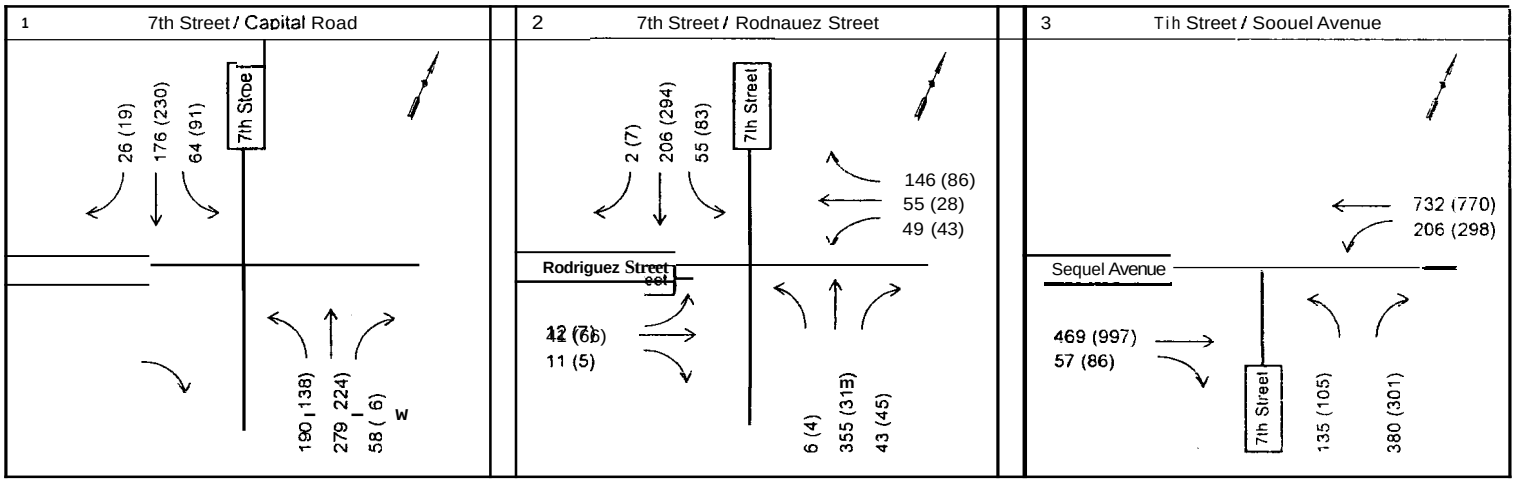
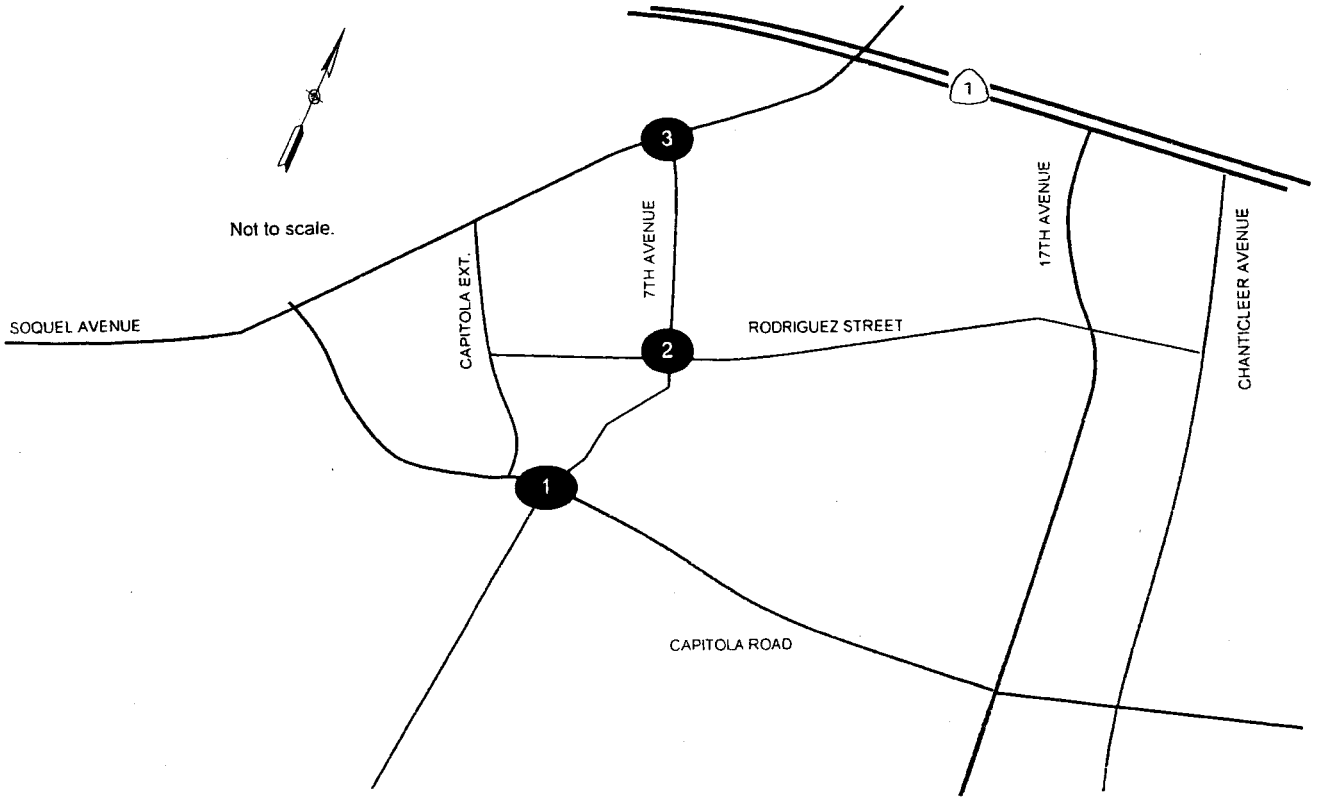


EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 14, 23 of 25
APPLICATION 06-0418

EXHIBIT 10
BACKGROUND WITH
PROJECT CONDITIONS
AM (PM) PEAK HOUR VOLUMES



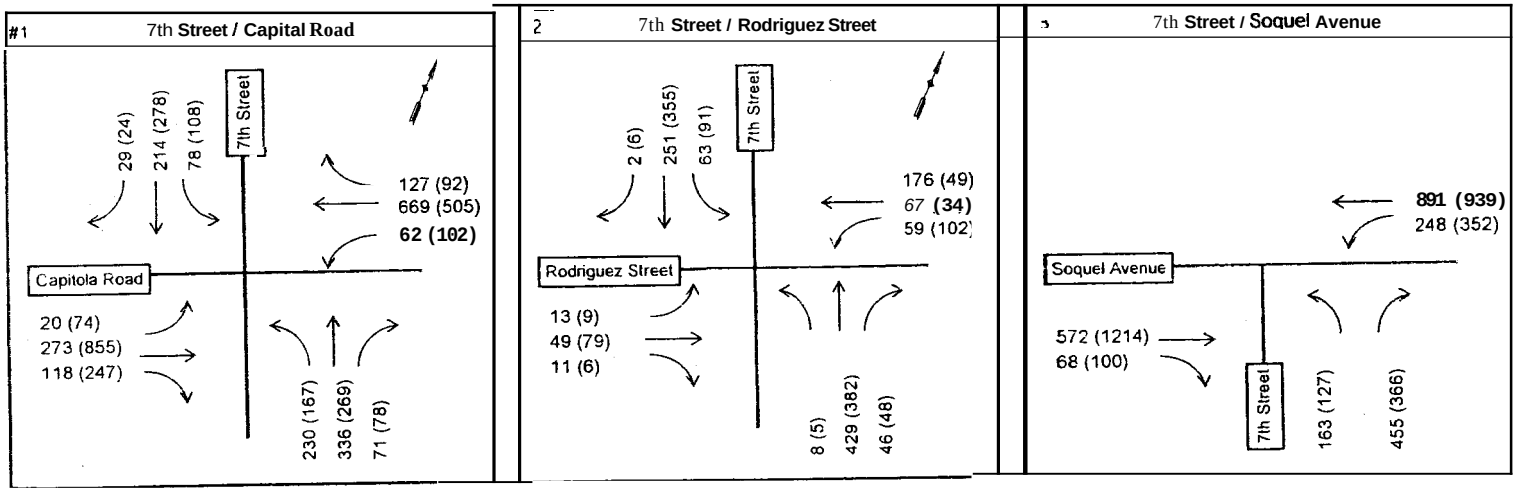
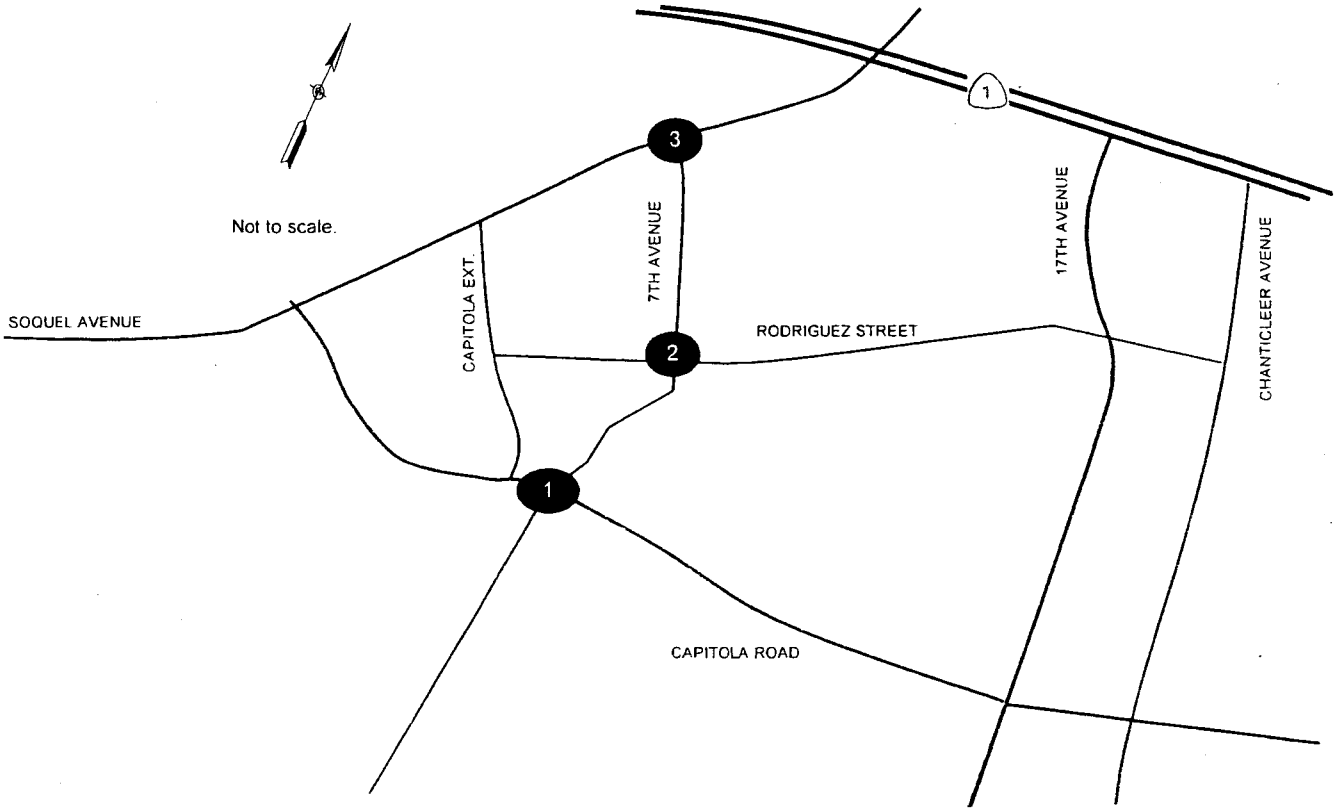


EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 14, 24 of 25
APPLICATION 06-0418

EXHIBIT 11
CUMULATIVE WITHOUT PROJECT CONDITIONS
AM (PM) PEAK HOUR VOLUMES

HIGGINS ASSOCIATES



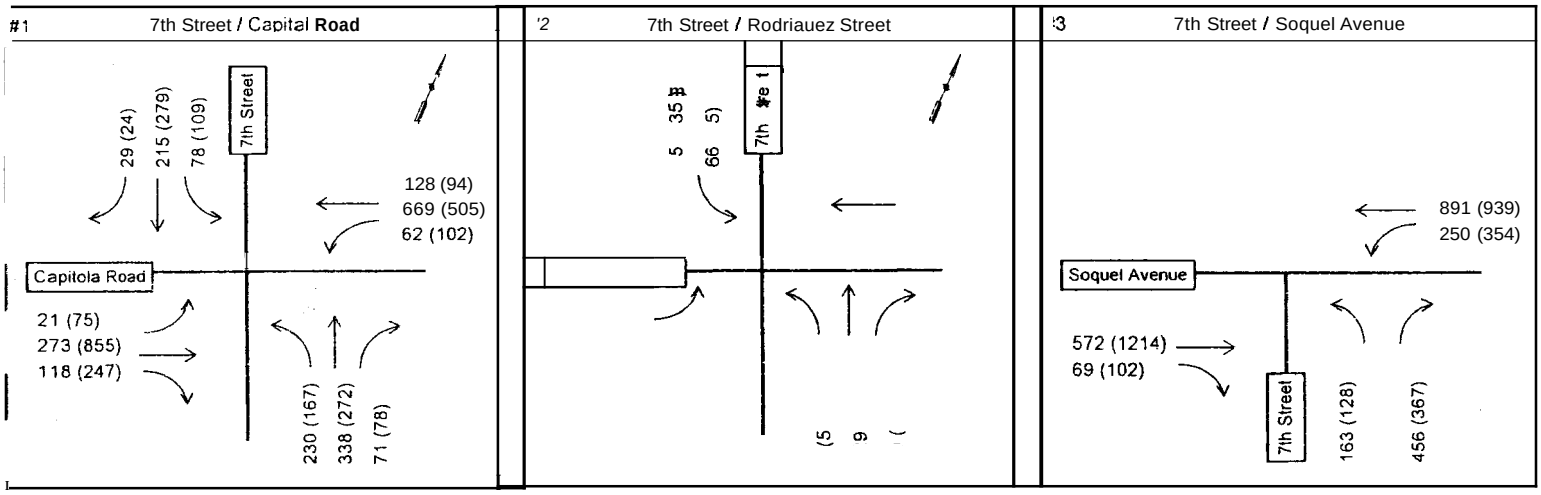


EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 14 25 of 25
APPLICATION 06-0418

EXHIBIT 12
CUMULATIVE WITH PROJECT CONDITIONS
AM (PM) PEAK HOUR VOLUMES

EDWARD L. PACK ASSOCIATES, INC.

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SAN JOSE, CA 95125

Acoustical Consultants

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FAX: 408-371-1196
www.packassociates.com

August 7,2006
Project No. 38-048

Mr. Teall Messer
3833 Glen Haven Road
Soquel, **CA** 95073

Subject: Noise Assessment Study for tlie Planned Animal Services Center, 7th Avenue, Santa Cruz County

Dear Mr. Messer:

This report presents the results of a noise assessment study for the planned Animal Services Center along 7th Avenue in Santa Cruz County, as shown on the Site Plan, Ref. (a). The noise exposures and noise levels presented herein were evaluated against the standards of the County of Santa Cruz Noise Element: Ref. (b) The purpose of the analysis was to determine the project-generated noise exposures and noise level impacts from the facility operations to the adjacent residential land uses. The results of the analysis reveals that project-generated noise exposures (24-hour average) and the maximum noise levels will be in compliance with tlie standards. The expected 1-hour average noise levels will exceed the limits of the standards at two residences. Mitigation measures will be required.

Sections I and II of this report contain a summary of our findings and recommendations, respectively. Subsequent sections contain site and project descriptions, analyses and evaluations. Appendices A, B and C, attached, contain the list of references, descriptions of the standards, definitions of the terminology, descriptions of the acoustical instrumentation used for the field survey, and the noise measurement data and calculation tables.

Environmental Review Inital Study
ATTACHMENT 15, Lot 21
APPLICATION 06-0418

EXHIBIT D

1. Summary of Findings

The findings presented below were evaluated against the standards of the County of Santa Cruz Noise Element, which utilizes the Day-Night Level (DNL) noise descriptor to define acceptable noise exposures for noise sensitive land uses. The DNL is a 24-hour time-weighted average descriptor commonly used to describe community noise environments. The standards specify a limit of 60 decibels (dB) DNL at residential land uses

The Noise Element also restricts noise fi-om stationary sources (in contrast to transportation sources) at commercial facilities. The Noise Element limits short-term noise levels from impulsive sources, such as dog barks, to 65 dBA maximum (L_{max}) and 50 dBA hourly average (L_{eq}).

Note that the County of Santa Cruz Noise Ordinance is a curfew ordinance which limits noise annoyance between 10:00 p.m. and 8:00 a.m., but does not quantify noise limits. Because of the subjective nature of the Noise Ordinance, potential annoyances are not addressed in this study. It is assumed that compliance with the adopted standards described above will result in noise levels that are satisfactory with the neighbors.

Noise from the facility is expected to be limited primarily to dogs barking while in the outdoor play areas. The kennel building is planned to be constructed of solid concrete, with a continuous roof and ceiling inside. The ceiling will be sound absorptive *to* reduce the effect of reverberation and sound build up. Sound transmission fi-om the interior of the building to the exterior is expected to be minimal.

The noise levels shown below represent the project-generated noise levels and noise exposures for planned project conditions.

Environmental Review Inital Study
ATTACHMENT 15, 2 of 2
APPLICATION 06-0918

EXHIBIT D

A. Existing Ambient Noise Environment at the Site

- The existing ambient noise exposure at the rear of the residence adjacent to the facility to the east is 53 dB DNL.

- The existing hourly L_{eq}'s at the rear of the residence adjacent to the facility to the east from 9:00 a.m. to 5:00 p.m. range from 51.4 to 56.5 dBA.

- The existing niaximum noise levels at the rear of the residence adjacent to the facility to the east range from 71.6 to 88.2 dBA during the planned operational hours of 9:00 a.m. to 5:30 p.m.

B. Proiect-Generated Noise Exposures (DNL)

- The project-generated noise exposure at the most impacted residential property line to the east of the planned facility will be 45 dB DNL. The proposed project will add 1 dB to the existing noise environment. Thus, the noise exposure will be within the 60 dB DNL limit of the County of Santa Cruz Noise Element standards and will not add significantly to the noise environment.

- The project-generated noise exposure at the most impacted residential property to the south of the planned facility across Rodriquez Street will be 31 dB DNL. The proposed project will not add to the existing noise environment. Thus, the noise exposure will be within the 60 dB DNL limit of the County of Santa Cruz Noise Element standards.

Environmental Review Inital Study
ATTACHMENT 15, 3 of 21
APPLICATION 06-0418

EXHIBIT D

- The project-generated noise exposure at tlie most impacted residential property to the west of tlie planned facility across 7th Avenue will be 45 dB DNL. The proposed project will not add to the existing noise environment. Thus, the noise exposure will be within the 60 dB DNL limit of the County of Santa Cruz Noise Element standards.

C. Project-Generated Noise Levels (Leq, Lmax)

- The project-generated hourly average noise level at the most impacted residential property line to the east of the planned facility will be 52 dBA L_{eq}. Thus, the noise levels will be up to 2 dB in excess of the County of Santa Cruz Noise Element standards.

- The project-generated hourly average noise level at the most impacted residential property to the south of the planned facility across Rodriquez Street will be 38 dBA L_{eq}. Thus, the noise levels will be within the 50 dBA $L_{„}$ limit of the County of Santa Cruz Noise Element standards.

- The project-generated hourly average noise level at the most impacted residential property to the west of the planned facility across 7th Avenue will be 52 dBA L_{eq}. Thus, the noise levels will be up to 2 dB in excess of tlie County of Santa Cruz Noise Element standards.

- The project-generated maximum noise level at the most impacted residential property line to tlie east of the planned facility will be **up** to 58 dBA L_{max}. Thus, the maximum noise levels will be within the 65 dBA L_{max} limit of the County of Santa Cruz Noise Element standards.

Environmental Review Inital Study
ATTACHMENT 15 4 of 21
APPLICATION 06-0418

EXHIBIT D

- The project-generated maximum noise level at the most impacted residential property to the south of the planned facility across Rodriquez Street will be up to 44 dBA L_{max}. Thus, the maximum noise levels will be within the 65 dBA L_{max} limit of the County of Santa Cruz Noise Element standards.

- The project-generated maximum noise level at the most impacted residential property to the west of the planned facility across 7th Avenue will be up to 58 dBA L_{max}. Thus, the maximum noise levels exposure will be within the 65 dBA L_{max} limit of the County of Santa Cruz Noise Element standards.

As shown above, noise from dogs barking will be within the limits of the County of Santa Cruz Noise Element with the exception of the hourly average noise limit for impulsive sound. The hourly average noise limit is expected to be exceeded by **up** to 2 decibels. Mitigation measures will be required.

II. Recommendations

To achieve compliance with the SO dBA L_{eq} limit of the County Santa Cruz Noise Element, the following noise control barrier is recommended:

- Construct a 6 ft. high acoustically-effective fence along the east side of the easterly dog play area.

- Construct a 6 ft. high acoustically-effective fence along the west side of the of the westerly dog play area.

Please see Figure 1 for the locations of the recommended noise control barriers.

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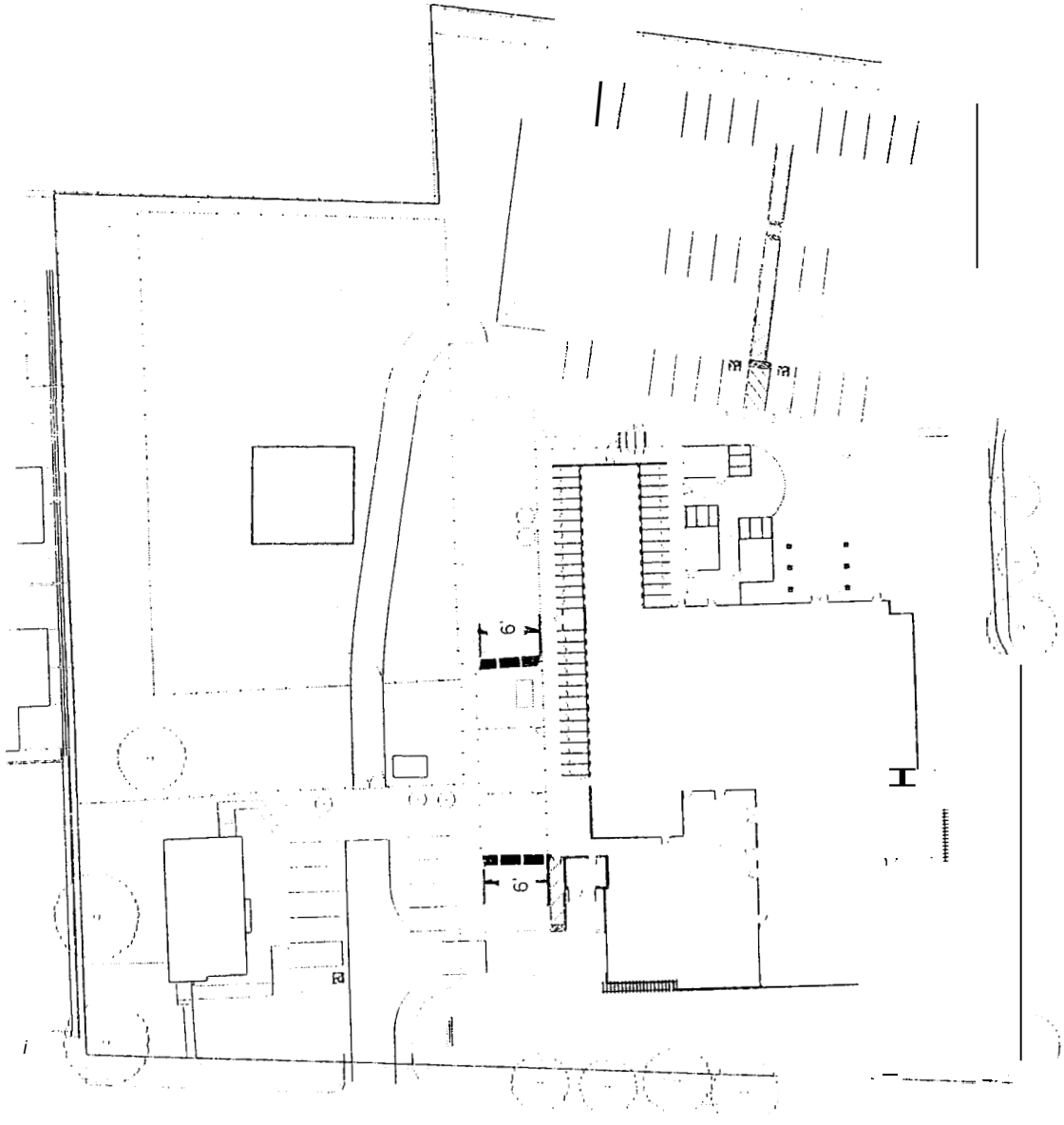

FIGURE 1

ontrol fa c ws

Environmental Review Inital Study
ATTACHMENT 1 Sheet 21
APPLICATION PR-00418

EXHIBIT D

To achieve an acoustically-effective barrier, it must be constructed air-tight, i.e., without cracks, gaps or other openings, and must provide for long-term durability. Barriers can be constructed of masonry, wood, stucco, concrete, metal or a combination thereof and must have a minimum surface weight of 2.5 Ibs. per sq. ft. If wood construction is used, homogeneous sheet materials are preferable to conventional wood fencing, as the latter has a tendency to warp and form openings with age. However, high quality air-tight tongue-and-groove, board and batten or shiplap construction can be used. All connections with posts or pilasters must be sealed air-tight and no openings are permitted between the upper barrier components and the ground.

The implementation of the above recommended measures will reduce dog barking noise to comply with the standards of the County of Santa Cruz Noise Element.

111. Site and Project Descriptions

The planned project site is at 7th Avenue and Rodriquez Street in Santa Cruz County. The site presently contains the Santa Cruz County Animal Services Authority center. The Society for the Prevention of Cruelty to Animals (SPCA) facility is in an existing building located adjacent to the north of the planned facility. A barn for housing non-domestic or large animals is also on the northerly portion of the site. Surrounding land uses include single-family residential adjacent to the east, single-family residential across Rodriquez Street to the south, and a single-family residence at the corner of 7th Avenue and Rodriquez Street to the west. An upholstery shop and VFW hall are also across 7th Avenue from the site. Multi-family residential is adjacent to the north of the SPCA facility.

The planned project description, as provided by the project sponsor, Ref. (c), includes the re-construction and operation of a primarily dog and cat kennel and holding facility. The dog kennel will be entirely indoors with outside access for exercise. Three outdoor single dog yards will be located near the front of the facility for dogs that are brought into the facility. These yards will have walls so that the dogs have no view to others. Thus?barlting from dogs in these yards is expected to be minimal.

Three larger dog yards will be located on the north side of the kennels. It is expected that an average of two dogs per yard will be exercised at any given time with a rotation of the three yards every 30- minutes. It is these three yards where most noise will emanate.

The hours of operation will be 9:00 a.m. to 5:30 p.m. for the office and 12:00 p.m. to 5:30 p.m. for the kennels. Although a precise exercise schedule has not been determined, we estimate that 6 dogs at a time will be exercised from 9:00 a.m. to 5:00 p.m.

IV. Analysis of the Noise Levels

A. Existing Ambient Noise Levels

To determine the existing noise exposures at the site, continuous recordings of the sound levels were made at the easterly property line coincident with the rear facade of the neighbor's house to the east. This location will be the most noise impacted area of the neighbor's house where the existing ambient is also the lowest (farthest from the roadways). The noise measurements were made on July 25-26, 2006 and were recorded and processed using a Larson-Davis LDL 812 Precision Integrating Sound Level Meter. The meter yielded: by direct readout, a series of descriptors of the sound levels versus time, as described in Appendix B, and included the L_2, L_8, L_{25}, and L_{50}, i.e., those levels exceeded for 2%, 8%, 25%, and 50% of the time. Also measured were the maximum and minimum levels and the continuous equivalent-energy levels (L_{eq}), which are used to calculate the DNL. The measured L_{eq}'s are shown in the data table in Appendix C.

As shown in the tables?the L_{eq}'s from at the measurement location, 80 ft. from the centerline of Rodriquez Street ranged, from 48.5 to 56.5 dBA during the daytime and from 36.2 to 49.2 dBA at night.

During the dog play operational hours of 9:00 a.m. to 5:00 p.m., the measured maximum sound levels ranged from 71.6to 58.2 dBA.

EXHIBIT D

Environmental Review Inital Stud
ATTACHMENT 15, Sht 21
APPLICATION 06-045

B. Project-Generated Noise Levels

To determine the levels of dog barking noise and the behavioral characteristics of kenneled dogs, observations were made at the Tappen Hill dog boarding facility in Sebastopol, Ref.(d), for a noise study for a new kennel facility in Morgan Hill. Noise level measurement were made at the Good Neighbor Dog Training facility in Saratoga, Ref, (e), and at a neighborhood park for the purposes of obtaining dog bark sound data.. The visit to the Tappen Hill facility revealed that dogs bark infrequently during the outdoor play times and very rarely while indoors. During the outdoor play times dogs were heard barking a few times every several minutes. Typically one dog would bark about four times then be quiet. This occurred every four minutes on the average. However, Tappen Hill is a dog boarding facility where dogs are placed in a certain social status during play which minimizes barking. For the purposes of this study, we are assuming that each of the six dogs in the play areas will bark four times (1 second each) every minute for a total of 24 barks per minute. We estimate that this will occur continually with each 30 minute rotation of the dogs. Assuming that 12 dogs will exercise each hour, all 60 dogs (maximum capacity) will exercise over the course of five hours.

The results of the sound level measurements of individual dog barks are shown in Table I, below. The measured noise levels were adjusted for an equivalent distance.

TABLE I

Dog Bark Sound Levels

Environmental Review Inital Study
ATTACHMENT 15, 9 of 24
APPLICATION 06-0418

Dog Species	Sound Level, dBA	Distance
Great Dane	94	4 ft.
Boston Terrier	88	4 ft.
Cocker Spaniel	57	4 ft.
Golden Retriever	93	4 ft.
Labrador Retriever	91	4 ft.
Jack Russell Terrier	81	5 ft.
Unknown (mutt)	57	4 ft.

EXHIBIT D

The terriers (small dogs) generated sound levels of 81-88 dBA at 4 ft. The mutt and Cocker Spaniel (medium dogs) generated sound levels of 87 dBA at 4 ft. The Great Dane and retrievers (large dogs) generated sound levels of 91-94 dBA at 4 ft.

Maximum sound levels, by definition, are 1 second rms levels. Therefore, the duration of each dog bark shown above is 1 second.

Sound or noise from individual, stationary noise sources diminish at a rate of 6 dB per doubling of the distance from the source to the receiver, or $20\log_{10}(r_1/r_2)$, where r_1 = the measurement distance and r_2 is the distance to the receptor location.

The distance from the outdoor play areas to the residential property to the east is 240 ft. Therefore, tlie dog bark sound levels at 240 ft. are reduced by 36 dB, resulting in sound levels of up to 52 dBA for small dogs, 51 dBA for niedium dogs and up to 58 dBA for large dogs.

The distance from the outdoor play areas to the residence across Rodriquez Street to tlie south is 260 ft. The sound reduction fi-om distance is **36** dB. In addition, the facility building shields the outdoor play area from the Rodriquez Street homes. The sound reduction from the building is 14 dB. The total sound reduction is 50 dB. Therefore. the dog bark sound levels will be up to 38 dBA for small dogs. 37 dBA for medium dogs and 44 dBA for large dogs

The distance fi-om the outdoor play areas to the residential property to the west across 7th Avenue where there is a line-of-sight to the play area beyond the corner of the building is 240 ft. Therefore, the dog bark sound levels at 240 ft. ai-e reduced by 36 dB, resulting in sound levels of **up** to 52 dBA for small dogs, 51 dBA for medium dogs and up to 58 dBA for large dogs.

Environmental Review Inital Study
ATTACHMENT 15, 10 of 21
APPLICATION 06-0418

EXHIBIT D

V. Evaluations of the Noise Levels and Noise Exposures

A. Existing Ambient Noise Exposures

To evaluate the noise exposures against the County of Santa Cruz standards, the DNL for the survey location was calculated by decibel averaging **of** the L_{eq}'s as they apply to the daily time periods of the DNL index. The DNL is a 24-hour noise descriptor that uses the measured L_{eq} values to calculate a 24-hour time-weighted average noise exposure. The formula used to calculate the DNL's is described in Appendix B. The results of the calculations are shown in Appendix C.

The noise exposure at the easterly property line of the facility closest to the neighbor's home, 80 ft. from the centerline of Rodriquez Street, **was** calculated to be 53 dB DNL. The noise levels at the homes across Rodriquez Street are higher due to the closer proximity to the street. The noise levels across 7th Avenue are likewise higher due to the closer proximity to a busier street.

B. Project-Generated Noise Levels

Maximum Noise Levels

The project-generated maximum noise levels, as identified in Section IV-B, revealed that the niaximum noise levels at the residence to the east will be 52, 51 and 58 dBA L_{max} for small, medium and large dogs, respectively. Thus, the maximum noise levels will be within the 65 dBA Lmax limit of the County of Santa Cruz Noise Element standards.

The maximum noise levels at the most impacted residence across Rodriquez Street to the south will be 38, 37 and 44 dBA L_{max} for small, medium and large dogs, respectively. Thus, the niaximuni noise levels will be within the ***65*** dBA L_{max} limit of the County of Santa Cruz Noise Element standards.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 15, 11 of 21
APPLICATION 06-0418

The maximum noise levels at the most impacted residence across 7th Avenue to the west will be 52, 51 and 58 dBA L_{max} for small, medium and large dogs, respectively. Thus, the maximum noise levels will be within the 65 dBA L_{max} limit of the County of Santa Cruz Noise Element standards.

Hourly Average Noise Levels

To determine the hourly average (L_{eq}) noise levels produced by dog barking, a playtime scenario was developed, as described in Section III. We are assuming, for the purposes of this study, that the dogs will be grouped according to size; small, medium and large. A group of six dogs (two in each of three play yards) **will** play outdoors for 30 minutes.

Table II, below, provides the dog barking noise levels at the residences to the east, south and west.

TABLE II

Hourly Average Noise Levels, Leq(h)

Property	6 Large Dogs	6 Medium Dogs	6 Small Dons
East	54 dBA 30 min.	47 dBA 30 **min.**	48 dBA 30 min.
South	40 dBA 30 min.	33 dBA 30 min.	34 dBA 30 min.
West	54 dBA 30 min.	47 dBA 30 min.	48 dBA 30 min.

East 6 large dogs @ 54 dBA + 6 niedium dogs @ 47 dBA = 52 **dBA** $L_{eq(h)}$
East 6 large dogs @54 dBA + 6 small dogs @ 48 dBA = 52 dBA $L_{eq(h)}$
East 6 medium dogs @ 47 dBA + 6 small dogs @ 48 dBA = 48 **dBA** $L_{eq(h)}$

South 6 large dogs @ 40 dBA + 6 medium dogs @ 33 dBA = 38 **dBA** $L_{eq(h)}$
South 6 large dogs @40 dBA + 6 small dogs @ 34 dBA = 38 dBA $L_{eq(h)}$
South 6 medium dogs @ 33 dBA + 6 small dogs @ 34 dBA = **34 dBA** $L_{eq(h)}$

West 6 large dogs @ 54 dBA + 6 medium dogs @ 47 dBA = 52 **dBA** $L_{eq(h)}$
West 6 large dogs @54 dBA + 6 small dogs @ 48 dBA = 52 dBA $L_{eq(h)}$
West 6 medium dogs @ 47 dBA + 6 small dogs @ 48 dBA = 48 **dBA** $L_{eq(h)}$

EXHIBIT D

Environmental Review Inital Stud
ATTACHMENT 15 12 of 21
APPLICATION 06-0418

As shown above, the hourly average noise level with 6 large dogs and 6 of either medium or sinall dogs will be up to 2 dB in excess of the 50 dBA L_{eq} limit at the residences to both the east and across 7th Avenue to the west.

Project-generated Noise Exposures

To calculate the Day-Night Level produced by dog activities in the play yards, a scenario of 6 dogs in one of the groups every 30 minutes in the three play areas was assumed. Therefore, every hour would have either a large dog group and a medium dog group, a large dog group and a sinall dog group, or a medium dog group and a small dog group.

At the residence to the east, the hourly L_{eq}'s with each group rotation would be:

Hour 1 = large + medium =	52 dBA L_{eq}
Hour 2 = small + large =	52 dBA L_{eq}
Hour 3 = medium + small =	48 dBA L_{eq}
Hour 4 = large + medium =	52 dBA L_{eq}
Hour 5 = small + large =	52 dBA L_{eq}
DNL	**45 dB**

At the residence to the south, the hourly L_{eq}'s with each group rotation would be:

Hour 1 = large + medium =	38 dBA L_{eq}
Hour 2 = small + large =	38 dBA L_{eq}
Hour 3 = medium + sinall =	34 dBA L_{eq}
Hour 4 = large + medium =	38 dBA L_{eq}
Hour 5 = small + large =	38 dBA L_{eq}
DNL	**31 dB**

At the residence to the west, the hourly L_{eq}'s with each group rotation would be

Houi 1 = large + medium =	52 dBA L_{eq}
Houi 2 = small + large =	52 dBA L_{eq}
Houi 3 = medium + small =	48 dBA L_{eq}
Hour 4 = large + medium =	52 dBA L_{eq}
Hour 5 = small + large =	52 dBA L_{eq}
DNL	**45 dB**

Environmental Review Inital Study
ATTACHMENT 15, 13 of 21
APPLICATION 06-0418

EXHIBIT D

The project-generated noise exposures at the most impacted residences will be within the 60 dB DNL limit of the Santa Cruz County Noise Element standards. The project-generated noise exposure at the residence to the east will add 1 dB to the existing noise exposure of 53 dB DNL. Note that 45 dB + 53 dB = 54 dB. The cumulative noise exposure will remain within the 60 dB DNL limit and the increase in the noise environment will be insignificant. The project will not add to the existing noise environment at the other two sensitive receptor locations because of higher traffic noise levels.

As shown by the above evaluations. the project-generated noise exposures and maximum noise levels will be in compliance with the standards. The hourly L_{eq}'s, however, will exceed the limits of tlie standards at the residences to tlie east and west when large dogs ai-e in tlie play area. Mitigation measures will be required. The recommended measures are described in Section 11.

This report presents the results of a noise assessment study for the planned Santa Cruz County Animal Services Authority Animal Shelter along 7th Avenue in Santa Cruz County. The study findings are based on field measurements and other data and are correct to the best of our knowledge. However, changes in the operational scenario, operational hours, noise regulations or other changes beyond our control may result in future noise levels different than our estimates. If you have any questions or would like an elaboration on this report, please call me.

Sincerely

EDWARD L. PACK ASSOC., INC.

Jeffrey K. Pack
President

Attachment: Appendices A, B and C

Environmental Review Inital Study
ATTACHMENT 15, 14 of 21
APPLICATION 06-0418

EXHIBIT D

Appendix A

References:

(a) Site Plan, Santa Cruz County Animal Services Authority Animal Shelter, by Teall Messer Architect, undated

(b) Santa Cruz County General Plan, Santa Cruz County, Department of County Planning and Building, December 19, 1994

(c) Santa Cruz County Animal Services Authority Project Program Statement Provided by Mr. Teall Messer, Architect to Edward L. Pack Associates, Inc., by email, August 1, 2006

(d) "Revised Noise Assessment Study for the Planned Dog Kennel, 13675 Watsonville Road, Santa Clara County", by Edward L. Pack Associates, Inc., Project No. 36-011-1, July 9,2004

(e) "Noise Level Measurement Study of the Good Neighbor Dog Training Facility, Saratoga-Sunnyvale Road, Saratoga", by Edward L. Pack Associates, Inc., Project No. 22-133-3, November 30, 2000

Environmental Review Inital Study
ATTACHMENT 15, 15 of 21
APPLICATION 06-0418

EXHIBIT D

APPENDIX B

Noise Standards, Terminology, Instrumentation,

1. Noise Standards

A. Santa Cruz County "Noise Element" Standards

The noise section of the Santa Cruz County General Plan, adopted December 19, 1994, identifies an exterior limit of 60 dB Day-Night Level (DNL) at outdoor living or recreation areas of residential developments. as shown in Figure 6-1 under Policy 6.9.1. This standard applies at the property line of residential areas impacted by transportation related noise sources.

Figure *6-2* identifies limits on maximum allowable noise exposure for stationary noise sources under Policy 9.6.4 "Commercial and Industrial Development".

	Daytime	Nighttime
	7 AM to 10 PM	10 PM to 7 AM
Hourly L_{eq}- average hourly noise level. dB	*50*	45
Maximum Level, dB	70	*65*
Maximum Level dB - Impulsive Noise	65	*60*

At interior living spaces of residential area. the standards established an interior limit of 45 dB DNL for noise levels due to exterior sources.

Environmental Review Inital Study
ATTACHMENT 15, 16 of 21
APPLICATION 06-0418

EXHIBIT D

2. Terminology

A. Statistical Noise Levels

Due to the fluctuating character of urban traffic noise, statistical procedures are needed to provide an adequate description of the environment. A series of statistical descriptors have been developed which represent the noise levels exceeded a given percentage of the time. These descriptors are obtained by direct readout of the Sound Level Meters and Noise Analyzers. Some of the statistical levels used to describe community noise are defined as follows:

L_1 A noise level exceeded for 1% of the time.

L_{10} - A noise level exceeded for 10% of the time, considered to be an "intrusive" level.

L_{50} - The noise level exceeded 50% of the time representing an "average" sound level.

L_{90} - The noise level exceeded 90 % of the time, designated as a "background" noise level.

L_{eq} The continuous equivalent-energy level is that level of a steady-state noise having the same sound energy as a given time-varying noise. The L_{eq} represents the decibel level of the time-averaged value of sound energy or sound pressure squared and is used to calculate the DNL and CNEL.

Environmental Review Inital Study
ATTACHMENT 15, 17 of 21
APPLICATION 06-0418

EXHIBIT D

B. Day-Night Level (DNL)

Noise levels utilized in the standards are described **in** terms of tlie Day-Night Level (DNL). The **DNL** rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The 24-hour day is divided into two subperiods for the **DNL** index, i.e.. tlie daytime period from 7:00 a.m. to 10:00 p.m., and the nighttime period from 10:00 p.m. to 7:00 a.m. **A** 10 dBA weighting factor is applied (added) to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours. The DNL is calculated from the measured L_{eq} in accordance with the following mathematical formula:

$$\mathbf{DNL} = [(L_d+10\log_{10}15) \,\&\, (L_n+10+10\log_{0}9)] - 10\log_{10}24$$

Where:

L_d = L_{eq} for the daytime (7:00 a.m. *to* 10:00 p.m.)
L_n = L_{eq} for the nighttime (10:00 p.m. to 7:00 a.m.)
24 indicates the 24-hour period
& denotes decibel addition.

C. A-Weighted Sound Level

The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlates well with the response of the human ear.

Environmental Review Inital Study
ATTACHMENT 15, 18 of 21
APPLICATION 06-0416

EXHIBIT D

3. **Instrumentation**

The on-site field measurement data were acquired by the use of one or more of the sound analyzer listed below. The instrumentation provides a direct readout of the L exceedance statistical levels including the equivalent-energy level (L_{eq}). Input to the meters were provided by microphones extended to a height of 5 ft. above the ground. The "A" weighting network and the "Fast" response setting of the meters were used in conformance with the applicable standards. The Larson-Davis meters were factory modified to conform with the Type 1 performance standards of ANSI S1.4. All instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Bruel & Kjaer 2231 Precision Integrating Sound Level Meter
Larson Davis LDL 812 Precision Integrating Sound Level Meter
Larson Davis 2900 Real Time Analyzer

APPENDIX C

Noise Measurement Data and Calculation Tables

DNL CALCULATIONS

CLIENT: TEALL MESSER ARCHITECT
FILE: 38-048
PROJECT: ANIMAL SERVICES CENTER
DATE: 7/25-26/2006
SOURCE: EXISTING AMBIENT

LOCATION 1	West Prop. Line			
3 to Source	80 ft. to Rodriquez St. CL			
TIME	Leq	10^Leq/10		
7:00a.m.	50.7	117489 8		
8:00 a.m.	51.8	151356 1		
9:00a.m.	56.5	446683 6		
10:00a.m.	51.4	138038 4		
11:00 a.m.	53.3	213796 2		
12:00noon	52.4	173780 1		
1:00p.m.	52.3	169824 4		
2:00 p.m.	52.4	173780 1	63.4	
3:00 p.m.	51.7	147910 8	59.9	
4:00 p.m.	54.0	251188 6		
5:00 p.m.	53.3	213796 2		
6:00 p m.	51.6	144544 0		
7:00 p.m.	51.5	141253 8		
8:00 p.m.	51.9	154881 7		
9:00 p.m.	48.5	70794 6	SUM=	2709118.:
10:00 p.m.	45.8	38018 9	Ld=	52.(
11:00 p.m.	43.8	23988 3		
12:00mdnt	41.3	13489 6		
1:00 a.m.	40.3	10715 2		
2:00 a.m.	36.4	4365 2		
3:00 a.m.	36.2	4168 7		
4:00 a.m.	37.9	6166 0		
5:00 a.m.	45.4	34673 7		
6:00 a.m.	49.2	83176 4	SUM=	218762.(
			Ln=	43.9
	Daytime Level=	64.4		
	Nighttime Level=	63.4		
	DNL=	**53**		
	24-Hour Leq=	50.9		

Environmental Review inital Study
ATTACHMENT 15, 21 of 21
APPLICATION 06-0418

EXHIBIT D

SANTA CRUZ COUNTY SANITATION DISTRICT

INTER-OFFICE CORRESPONDENCE

DATE: SEPTEMBER 25,2006

TO: PLANNING DEPARTMENT: MELISSA ALLEN

FROM: SANTA CRUZ COUNTY SANITATION DISTRICT

SUBJECT: CONDITIONS OF SERVICE FOR THE FOLLOWING PROPOSED DEVELOPMENT

APN: 26-062-97, 26-461-02 APPLICATION NO.: 06-0418

PARCEL ADDRESS: 2200 AND 2260 7TH AVENUE

PROJECT DESCRIPTION: MASTER PLAN FOR ANIMAL SHELTER INCLUDING DEMOLITION OF EXISTING BUILDINGS (12,500 SQ. FT.) AND CONSTUCTJON OF ONE STORY ANIMAL SHELTER (12,635 SQ. FT.)

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 availability letter must be obtained by the applicant. Once a tentative map is approved this letter shall apply until the tentative map approval expires.

A sewer connection permit is required for this project. **An** approved sewer plan shall be obtained prior to the District's issuance of a connection permit and can be submitted concurrent to the building permit application.

Diane Romeo
Sanitation Engineering

DR/dr

c: Santa Cruz County, Christina Mowrey-Riggs (CAO)
District Environmental Compliance, Amy Gross
County of Santa Cruz, John Kriegsman (Real Property)

Engineer: Ifland Engineers
1100 Water Street
Santa Cruz, CA 95060

Architect: Teall Messer
3833 Glen Haven Road
Soquel, CA 95073

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 16
APPLICATION 06-0418

Project Planner: Melissa Allen
Application No.: 06-0418
APN: 026-062-97

Date: December 26. 2006
Time: 18:49:37
Page: 1

Environmental Planning Completeness Comments

Project is complete for grading (see Kevin Crawdford's previous misc. comments)

Environmental Planning Miscellaneous Comments

========== REVIEW ON AUGUST 14, 2006 BY JOSEPH L HANNA ==========
========== UPDATED ON AUGUST 29. 2006 BY KEVIN D CRAWFORD ==========
08/29/06 - Comments this date by Kevin Crawford. Soil Rpt by Bauldry Engr'g dated 4/28/06 reviewed and accepted on 8/24/06.

I am unable to enter comments under "Completeness Comments" today for some unknown reason. Therefore I'm stating here that this project may be considered Complete from a Grading standpoint.

The following comments are the Miscellaneous Comments that must be addressed prior to issuance of the building or grading permits:

This project will require a grading permit. It must be a "stand-alone" S-style permit since the grading quantities exceed 1,000 CY.

Sht C1: Please add to note in box regarding building removals: "Separate Demolition permits are required for removal of all existing buildings."

Sht C3: 1) The percolation pits are shown directly over both existing and proposed storm drain pipes. Either the pits or the pipes need to move. No information is provided on the disposition of the existing 18-inch pipe. Pleaseclarify the intent of these drainage improvements. 2) Please adjust the "Limits of Grading" line to include ALL disturbed areas, including R/W improvements and the D.G. driveway. 3) Provide Typical Cross Sections perpendicularly through all proposed improvements. including R/W and property lines. 4) Provide a thickness for the proposed D.G. driveway. 5) Provide a note describing the destination of any unsuitable materials that may be excavated from the site. 6) Provide a construction detail for the proposed Bio-swales and Percolation pits. 7) Provide a proposed pad (or rough grade) elevation for the proposed building.

Sht C4: Label the Details (i.e. "Driveway Detail". "Handicapped Parking Detail")

Sht C5: 1) With no topo provided for the parcel to the east, it appears that some erosion control measures may be needed along that boundary. 2) Add note to "25' x 50' Const. Entrance": "to be used as the only construction vehicle access and egress". Remove note regarding construction access at Seventh Ave driveway. 3) Show "Limits of Grading" line on this plan. ========== UPDATED ON AUGUST 30. 2006 BY ANDREA M KOCH ==========
========== UPDATED ON AUGUST 31. 2006 BY ANDREA M KOCH ==========

No additional comments from the Resource Planner. See Kevin Crawford's comments (above). ========== UPDATED ON AUGUST 31, 2006 BY ANDREA M KOCH ==========

Dpw Drainage Completeness Comments

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 12 Lof 6
APPLICATION 06-0418

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

========= REVIEW ON AUGUST 31, 2006 BY ALYSON B TOM ========= Application with memo from planner dated 8/9/06. preliminary drainage study dated July 2006 and civil plan sheets dated 8/3/06 has been received. Please address the following:

COMPLETENESS 1) Please provide an analysis for the proposed northern system demonstrating capacity for the 10 year storm and a safe 25 year overflow path. Safe overflow should not reach the water treatment pond area. Analysis should consider full build out of the watershed. The Fig. SWM-6 provided has only partial information and refers to future modifications needed. Please provide the final modified plans and analysis will full information on Fig. SWM-6. Demonstrate that water from the water treatment ponds will not enter the storm drain system and vice versa.

2) Do the percolation pits in the northern system have to be so deep? Please consult with the geotechnical engineer to determine the shallowest depth necessary in order to take advantage of the higher permeability soils and update plans accordingly.

3) Please provide notes/details on how roof runoff will be handled. Roof runoff should be allowed to flow into bio swales where ever feasible and acceptable to the geotechnical engineer.

========= UPDATED ON DECEMBER 6, 2006 BY ALYSON B TOM ========= Application with preliminary drainage study dated November 2006 and civil plan sheets dated 10/31/06 has been received. Please address the following:

1) Previous comment No. 1 has not been addressed. Please provide an analysis for the proposed northern system demonstrating capacity for the 10 year storm and a safe 25 year overflow path. Will the proposed swale contain the entire 25 year expected flows? If not, what is the expected water surface elevation and flooding area for the 10 and 25 year storms? It does not appear that the project will be replacing the existing downstream storm drains in 7th Avenue, therefore please provide both an analysis based on existing conditions as well as one for the proposed downstream ugrades to be constructed with a later RDA project. This is important for understanding potential flooding risks for the proposed project during the interim period. How was the initial water surface elevation determined for the downstream end of the system used in the evaluation? What does the 8LF of 24- pipe shown in the analysis represent? The proposed swale cross section appears to be unrealistic given the existing topography near SDD1. Provide proposed grading contours consistent with the proposed swale design.

2) Previous comment No. 3 has not been addressed. Please provide notes/details on how roof runoff will be handled. Roof runoff should be allowed to flow into bio swales where ever feasible and acceptable to the geotechnical engineer.

3) Please update the preliminary drainage study to reflect the proposal. Please update the post development section and the design conclusions section suggesting that the proposed bioswales will be providing water quality and or recharge benefits. As designed, with closely spaced inlets at the bottom the swales, it is unclear that there will be filtering or recharge benefits from the proposed swales.

Please see miscellaneous comments for compliance and informational issues that are

EXHIBIT D

Environmental Review Inital Study
ATTACHMENT 2 of 6
APPLICATION 06-0418

outstanding.
========= UPDATED ON DECEMBER 26. 2006 BY ALYSON B TOM ========= Application with grading/drainage plan dated 12/26/06 and drainage study dated December 2006 has been received and is complete with regards to stormwater management for the discretionary stage. Please see miscellaneous comments for issues to be addressed in the building/grading permit application.

Dpw Drainage Miscellaneous Comments

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

========= REVIEW ON AUGUST 31. 2006 BY ALYSON B TOM ========= COMPLIANCE ISSUES: The followinq describes items for which this project may not in compliance with applicable-design criteria, code, and policy. Updates.to the project to achieve' compliance may result in changes to the scope of the proposed project, which may in turn necessitate further review and possibly different or additional requirements.

1) Please provide screening, filtering, or hydraulic trap upstream of the percolation pits and perforated pipe in order to minimize clogging and future maintenance.

2) There are two proposed storm drains that run from the site to junction structures on the other side of county maintained roads. Please provide inlets or other junction structures at the curbs on the project side of the road so that maintenance for the County maintained portion is clear.

3) The calculation for the existing c factor for the southern portion of the project seems to have errors. Either provide a plan that shows all existing and permitted impervious areas or provide a more detailed accounting. Is the existing gravel parking area permitted? Mitigation and fee assessment should be based on the permitted impervious areas. Baserock and decomposed granite will be considered semi impervious.

4) Please provide details and analysis for the proposed bioswales.

5) Is the curb around the landscape island necessary, can it be a flush curb? Please update plans so that runoff will have a greater opportunity to flow into the landscape area.

6) Please provide final detention system analysis and design. The preliminary analysis was conservative in that by using Figure SWM-15a a 0.9 post project coefficient of runoff was assumed for the southern project area. Please provide details for the detention system showing how the pre project runoff will bypass the detention system.

7) How will runoff the proposed service yard area be handled? Runoff from this area should go through water quality treatment, either filtration through vegetated areas or structural treatment. How will runoff flow under/through the proposed wall?

8) Please add notes that all inlets shall include signage stating "No Dumping Drains to Ocean. No Tire Desecho Corre Al Mar" or equivalent to be maintained by the property owner.

Environmental Review Inital Study
ATTACHMENT 17, 3 of 6
APPLICATION 06-0418

EXHIBIT D

9) Public Works staff may inspect the installation of the drainage related items. If necessary, submit a copy of the reproducible final civil plan sheets with a signature block along with the engineer-s estimate for the drainage related items. A 2% ($560 minimum) deposit will be assessed for inspection fees.

INFORMATION: The following should be completed prior to construction

1) Can the inlet located half way up the bioswale along the western property boundary be elevated so that low flows bypass the pipe system and are allowed to filter through the swale?

2) Please provide dimensioned details for the bio swale and percolation pits. include specifications for gravel size, shape and grading. filter fabric and bedding material for the perforated pipe.

3) Please provide a letter from the geotechnical engineer approving of the final plans.

4) Provide recorded maintenance agreement(s) for the proposed retention, detention and water quality treatment units. Include maintenance requirements for the retention, detention, and swale systems on the final civil plans.

5) The applicant is required to obtain an encroachment permit from the County for the proposed work in the County road right of way and permission from the adjacent school for the storm drain work on the school property.

6) This project will disturb over 1 acre and is required to obtain coverage under the SWRCB construction general permit. See http://www.swrcb.ca.gov/stormwtr/construction.html for more information.
========= UPDATED ON DECEMBER 6, 2006 BY ALYSON B TOM ========= COMPLIANCE ISSUES: The following describes items for which this project may not in compliance with applicable design criteria. code. and policy. Updates to the project to achieve compliance may result in changes to the scope of the proposed project, which may in turn necessitate further review and possibly different or additional requirements.

1) Previous compliance issue No. 2 has not been addressed. There are two proposed storm drains that run from the site to junction structures on the other side of county maintained roads. Please provide inlets or other junction structures at the curbs on the project side of the road so that maintenance for the County maintained portion is clear. Is the 12" pipe leading from the inlet to the manhole in Rodriguez Street adequate?

2) Previous compliance issue No. 3 has not been addressed. The calculation for the existing c factor for the southern portion of the project seems to have errors. Either provide a plan that shows a 1 existing and permitted impervious areas or provide a more detai1ed accounting Is the existing gravel parking area permitted? Mitigation and fee assessment shou d be based on the permitted impervious areas. Baserock and decomposed granite wi 1 be considered semi impervious.

3) Previous compliance issue No. 4 has not been addressed. Please provide details and analysis for the proposed bioswales.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 17, 4 of 6
APPLICATION 06-0418

4) Previous compliance issue No. 5 has not been addressed. Is the curb around the landscape island necessary, can it be a flush curb? Please update plans so that run-off will have a greater opportunity to flow into the landscape area.

5) Previous compliance issue No. 6 has not been fully addressed. Please provide final detention system analysis and design. Provide watershed map(s) showing which areas will drain to the detention system and which will bypass. Demonstrate that discharge from the site is limited to predevelopment levels considering bypass.

6) Previous compliance issue No. 7 has not been addressed. Runoff from the proposed service yard should go through water quality treatment, either filtration through vegetated areas or structural treatment. The plans show discharge almost directly to an inlet in the proposed bioswale. How will runoff flow under/through the proposed wall?

7) Previous compliance issue No. 8 has not been addressed. Please add notes that all inlets shall include signage stating "No Dumping Drains to Ocean. No Tire Desecho Corre Al Mar" or equivalent to be maintained by the property owner.

8) Public Works staff may inspect the installation of the drainage related items. If necessary, submit a copy of the reproducible final civil plan sheets with a signature block along with the engineer's estimate for the drainage related items. A 2% ($560 minimum) deposit will be assessed for inspection fees.

9) Demonstrate that the existing 18 inch CMP proposed to be retained adequate in condition. If this pipe does not have adequate condition it should be replaced with a pipe with adequate condition.

10) Provide a final drainage study that is signed and stamped by the project civil engineer. This study should include all final analysis for the proposed project, including any analysis provided in the discretionary stage.

All previous information issues from 8/31/06 area still outstanding.
========= UPDATED ON DECEMBER 26. 2006 BY ALYSON B TOM ========= Previous miscellaneous comment No. 6 has been addressed. Please address all other comments with the building/grading application.

Dpw Driveway/Encroachment Completeness Comments

========= REVIEW ON AUGUST 18. 2006 BY DEBBIE F LOCATELLI =========
Proposed and/or existing driveway approaches shall meet ADA requirement for the wrap around 3' minimum (per FIG DW-1). ========= UPDATED ON NOVEMBER 30, 2006 BY DEBBIE F LOCATELLI =========
No further comments.

Environmental Review Inital Study
ATTACHMENT 17 5 of 6
APPLICATION 06-0418

Dpw Driveway/Encroachment Miscellaneous Comments

========= REVIEW ON AUGUST 18. 2006 BY DEBBIE F LOCATELLI =========
No comment.
========= UPDATED ON NOVEMBER 30, 2006 BY DEBBIE F LOCATELLI =========

EXHIBIT D

No comment.

Dpw Road Engineering Completeness Comments

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

========== REVIEW ON SEPTEMBER 8, 2006 BY GREG J MARTIN ==========
The truck loading area and turn templates do not function for a 35 foot truck. A civil engineer should analyze and depict the truck turns on the site plan.

The driveway on the south side of the property is too wide. Vehicles could easily hit the island directly across from the entrance. We recommend it be shifted seven feet or a minimum of five feet.

The overflow parking conflicts with the decomposed granite access drive to the barn. An island is recommended to separate the access road and the overflow parking. A gate is also needed.

Dpw Road Engineering Miscellaneous Comments

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

========== REVIEW ON SEPTEMBER 8, 2006 BY GREG J MARTIN ==========

Environmental Health Completeness Comments

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

========== REVIEW ON AUGUST 28. 2006 BY JIM G SAFRANEK ==========
NO COMMENT
========== UPDATED ON DECEMBER 5, 2006 BY JIM G SAFRANEK ==========

Environmental Health Miscellaneous Comments

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

========== REVIEW ON AUGUST 28, 2006 BY JIM G SAFRANEK ========== Prior to building permit phase, applicant will need: Preliminary design review and approval of kennel by Roger Houston of EHS, 454-2734. I'll forward these Development Permit plans to Houston for his first review. Building plan (kennel)review and approval of EHS kennel permit by Houston. Vet Medical Waste plan and permit approval by C. Brown of EHS, 454-2752.
========== UPDATED ON DECEMBER 5, 2006 BY JIM G SAFRANEK ========== The EHS Contact Person Roger Houston has retired. His replacement is A. Strader 454-2741. Previous misc comments still apply.

EXHIBIT D
Environmental Review Inital Study
ATTACHMENT 13
APPLICATION 06-0418

Melissa Allen

From: Lucia Ruiz-Garcia
Sent: Tuesday, January 09,2007 12:06 PM
To: Melissa Allen
cc: Paia Levine
Subject: FW: EC Not of Det for 1-2-07

Importance: High

Hello!!

Jean Getchell asked me to pass this on to you, so here it is:

-----Original Message-----
From: Jean Getchell [mailto:jgetchell@mbuapcd.org]
Sent: Tuesday, January 02, 2007 11:28 AM
To: Lucia Ruiz-Garcia
Cc: msheehan@mbuapcd.org
Subject: Re: EC Not of Det for 1-2-07
Importance: High

** High Priority **

Lucia:

Please notify Melissa Allen that this project will require clearance from the Air District prior to demolition of the existing 4 buildings, 2 sheds and kennels. I have copied Mike Sheehan of the Air District's Compliance
Division, who works with other public agencies and property owners to ensure that any demolition activity complies with Air District Rule 424, National Emission Standards for Hazardous Air Pollutants [which includes asbestos] and Rule 439, Building Removals.
Thanks very much.

Jean Getchell
Supervising Planner
Monterey Bay Unified APCD
24580 Silver Cloud Court
Monterey, CA 93940
(831) 647-9411 X 227

>>> "Lucia Ruiz-Garcia" <PLN113@co.santa-cruz.ca.us> 12/28/2006 2:32:58 PM >>>
Hello!!

Here is the Environmental Coordinator's Notice of Determinations for January 2, 2007. There is only one Item. Libraries: please "Post for 21 Days" thank you!

If you have any question regarding this e-mail, please ccntact me.

Have a nice day!!

Lucia Ruiz-Garcia
Administrative Hearing Clerk &
Environmental Coordinator's Clerk
701 Ocean Street, Room 400
Santa Cruz, CA 95060
(831) 454-3155
pln113@co.santa-cruz.ca.us

EXHIBIT D
Attachment 13
1 of 2

TEALL MESSER
ARCHITECT

3833 GLEN HAVEN RD.
SOQUEL CALIF. 95073
8314624721
FAX 462 9343

29 January 2007

Paia Levine
Environmental Review
Planning Department
701 Ocean Street. 4th Floor
Santa Cruz. CA 95060

Subj: Application 06-0418
Apn's 026-062-97 and 026-461-02

Ref: Negative Declaration mitigations

Dear Paia:

In reviewing the mitigations I have some corrections relating to the work as described on the submitted plans. To my mind these are clarifications, not changes. and should be included in tlie final mitigations in order to make them as accurate as possible and avoid unpleasant questions during final plan check. Using the numbering system in the mitigations:

2. All runoff from paved surfaces does not pass through a silt and grease trap. only that from tlie new parking lot that accesses from Rodriguez Street. The other paved surfaces. which include tlie service yard parking lot. the existing parking lot. walkways and tlie patios. all sheet drain to vegetation lined bio-swales and then to a piped system through a detention tank and then to the storm drain **in** the street. No silt and grease trap. The only exception to this latter system is tlie walkways around the dog kennels. Since tlie fences enclosing them are acoustic control barriers and extend info the ground they can't sheet drain out. The dog kennels themselves are protected from rain water and all drain to the internal building drain and finally to the sanitary sewer. Therefore the walkways will have trench drains that will probably go to tlie storm drainage system without passing through a bioswale. These trench drains are not shown on tlie pians.

3. **A.** The submitted plans contain several of the elements requested, such as temporary driveway surfacing. I am hoping these have not been reviewed and found to be deficient.

6. I don't see any country control to assure that the requirements of the MBUAPCD are properly dealt with. Should we provide copies of tlie notification and approval(s) at a certain point?

Thank you for your help with this.

EXHIBIT D
Attachment 1
2 of 2

Respectfully yours,

Teall R. Messer
Project architect

CC: Susan Pearlman
Tim McBrian
Melissa Allen

ASANewBuilding\Lcounty07-1-29

EXHIBIT D