Staff Report to the Zoning Administrator

Application Number: 03-0382

Applicant: Lichen *Oaks,* LLC
Owner: Lichen Oaks, LLC
APN: 074-181-01

Agenda Date: May 6,2005
Agenda Item #: 9
Time: After 10:00 a.m.

Project **Description:** Proposal to construct an approximately 4,500 square foot barn with a bathroom and outside paddocks, a 13,338 sq ft covered riding arena with viewing room and toilet facilities and about 3,406 cubic yards of excavation, 1,558 cubic yards of embankment and 1,549 cubic yards of export to be distributed onsite in approved pasture area.

Location: Located on the northwest comer of the intersection of Quail Hollow Road and East Zayante Road. : Site Address: 110 Quail Hollow Road, Felton.

Supervisoral District: 5th District (District Supervisor: Stone)

Permits Required: Residential Development Permit and Preliminary Grading Approval

Staff Recommendation:

- Approval of Application 03-0382, based on the attached findings and conditions.
- Certification of the mitigated Negative Declaration in accordance with the California Environmental Quality Act.

Exhibits

A.	Project plans	E.	Assessor's Parcel Map
B.	Findings	F.	Zoning and General Plan Maps
C.	Conditions	G.	Agency Comments
D.	Mitigated Negative Declaration and Initial Study		

Parcel Information

Parcel Size:	- 86 acres
Existing Land Use - Parcel:	Residential and residential agriculture (horses)
Existing Land Use - Surrounding:	rural residential, residential agriculture, timber production, organized camp, commercial riding stable, Quail Hollow County Park

Application **No. 03-0382**
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Owner: Lichen Oaks, LLC

Project Access:	Quail Hollow Road
Planning Area:	San Lorenzo Valley
Land Use Designation:	RR (Rural Residential)
Zone District:	SU (Special Use)
Coastal Zone:	__ Inside XX Outside

Environmental Information

Geologic Hazards:	No physical evidence on site
Soils:	Soils Report and Soils Report Review completed for this project
Fire Hazard:	Not a mapped constraint
Slopes:	Gently sloping to > 30%
Env. Sen. Habitat:	Riparian habitat, Coastal Prairie grassland
Grading:	3,406 cubic yards of cut, 1,558 cubic yards of fill proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Not a mapped resource
Drainage:	Drainage plans submitted
Traffic:	None to minor increase anticipated
Roads:	Existing roads adequate
Parks:	Existing park facilities adequate
Archaeology:	Archaeologic Reconnaissance found no physical evidence on site

Services Information

Urban/Rural Services Line:	__ Inside XX Outside
Water Supply:	San Lorenzo Valley Water
Sewage Disposal:	septic
Fire District:	Zayante Fire
Drainage District:	Zone 8

Project **Setting**

The subject parcel is located at the northeastern comer of the intersection of Quail Hollow and Zayante Roads. The property is characterized by gently sloping open pasture areas with a large pond/small lake in the vicinity of Quail Hollow Road. The property increases in slope to the north and northeast and transitions to *oak* woodlands. Zayante Creek, a perennial stream, runs across the parcel roughly parallel to the eastern property line, which is also the Zayante Road frontage. The property is currently developed with horse pastures, two single family residences, various outbuildings and an outdoor riding arena and a small training ring (round pen). The project site is located at the northeastern corner of the property. The proposed project site is located in an open meadow area adjacent to an intermittent tributary to Zayante Creek, Zayante Creek and at the base of amoderately steep, wooded slope (30-40%). The project site is accessed via an existing bridge over the intermittent stream.

The applicant proposes to construct an approximately 4,500 square foot horse barn and a 13,338 square foot covered riding arena. The barn will contain **nine** horse stalls, a feed/equipment room,

wash rack, tack room, office, laundry room and bathroom with access aisles and grooming areas between the stalls. There will be seven outdoor, uncovered paddocks connecting to seven of the stalls that will contain sand footing over "Gravelpave" - a reinforced pervious base. The covered riding arena includes a 140 foot by 78 foot riding court using a sand or modified sand-type surface, an approximately 1,020 square foot hay/shavings storage area and a viewing room (about 680 square feet) and terrace. The viewing room includes a small bathroom and sink. The project proposes an estimated **3,406** cubic yards of excavation and 1,558 cubic yards to construct the barn, arena and access improvements on the site. **A** retaining wall **up** to 10 feet high will be constructed behind the barn at the base of a sloping hillside. Approximately 1,849 cubic yards of excess materials will be distributed onsite in a gently sloping open pasture area in the vicinity of Quail Hollow Road. **A** small open shed-like structure (manure bunker) is proposed for manure storage during the rainy season. The project also includes drainage facilities and velocity dissipators at various locations to contain and distribute the runoff from the proposed impervious surfaces. Some of the velocity dissipators are located within a riparian comdor, thus requiring a riparian exception. The project includes a new septic system for the barn and arena, which will require a pump system as it is located upslope of the structures. **A** new 30,000 to 50,000 gallon water storage tank will be constructed to meet the requirements of the Zayante Fire Department for fire protection for the proposed structures, in addition to a new well dedicated to the proposed tank and riding facility.

Zoning & General Plan Consistency

The subject property is zoned SU (Special Use) zone district with a Rural Residential General Plan designation. The Special Use (SU) is an implementing zone district for the Rural Residential General Plan designation, and all allowed uses for the Residential Agriculture (RA) zone district is allowed in the SU zone district. Horsekeeping is a principal permitted use in the RA zone district on parcels larger than one acre, and non-habitable accessory structures over 1,000 square feet and/or with bathrooms associated with horse keeping are conditionally allowed uses. The site development standards applicable to the SU zone district with a Rural Residential General Plan designation are the RA zone district standards. The proposed project meets the required setbacks of 40 feet for the front yard and 20 feet for the side and rear yards.

In addition, there are two riparian setbacks that the proposed structures must meet. There is a 50-foot riparian setback from Zayante Creek, a 30-foot riparian setback from the unnamed intermittent tributary and an additional 10 foot building setback from the riparian setback. The proposed structures will be over 80 feet from Zayante Creek and within 40 feet of the intermittent stream channel. Thus, the structures meet the required riparian setbacks. The site grading will be located within 30 feet of the intermittent stream and about 75 feet from Zayante Creek. Thus, the grading just meets the riparian setback. Some of the velocity dissipators and percolation pits, however, will be located within the riparian setbacks, which requires a Riparian Exception (please see the Findings in Exhibit B). This disturbance tends to be temporary and will not adversely affect the corridor or sensitive habitat.

The proposed structures are larger than most "backyard" horse keeping operations. The property owner breeds, raises and trains horses, which are uses allowed in the zone district. The proposed barn size is consistent with a larger horse keeping facility and is consistent with the size of the parcel and the number of horses that it can accommodate. The riding arena is smaller in size than jumping arenas and dressage courts. Several neighbors have raised concerns that the proposed horse facilities

will be used as a commercial horse boarding or training facility, citing traffic and noise as key issues. The property owners maintain that the facilities are for their own animals. The conditions of approval prohibit boarding and training of outside horses (horses that do not belong to the property owners or their immediate family), **unless** a Level **5** Commercial Horse Boarding and Training Permit is obtained. Furthermore, the conditions of approval limit the number of open houses and clinics that may be held at the facilities and place limitations on the use of any amplified sound systems.

Environmental Review

Because the volume of earthwork required for this project exceeds 1,000 cubic yards, the project is subject to further review under CEQA and the County Environmental Review Guidelines. The County Environmental Coordinator considered the project on February 14, 2005, and issued a preliminary determination of a Negative Declaration with Mitigations (Exhibit D) on April 1, 2005. The primary concerns and potential impacts, which have been raised for this project, are briefly summarized below. Please refer *to* the attached Initial Study (Exhibit D) for full details.

The primary issues raised concerned sensitive habitats associated with native grassland and riparian habitat. The proposed development site contains nahve grassland species. The applicant must mitigate for the loss of 0.4 acres of grassland habitat through restoring a 1.2-acre area of the property to native grassland. Key mitigations for potential impacts **to** the riparian comdors include erecting temporary chain link fencing at the boundaries of the riparian comdor to avoid inadvertent incursions by heavy equipment during grading operations, development of a complete erosion control plan including sediment barrier and the prohibition of winter grading and a cut-off date of August 15th to commence **grading.**

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

- **APPROVAL** of Application Number **03-0382,** based on the attached findings and conditions.
- Certification that the proposal is exempt from *further* Environmental Review under the California Environmental Quality Act.

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

Application No. 03-0382
APN: 074-181-01
Owner: Lichen Oaks. LLC

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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 because the project is located in an area designated for residential agricultural uses and is not encumbered by physical constraints that preclude the proposed development. Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. **A** soils report has been submitted and accepted by the County Planning Department to ensure structural and site stability, and the proper design and function of the grading and drainage improvements. The final building plans and construction are required to comply with the recommendations for the specific foundation, retaining wall grading and drainage design criteria contained in this report. The proposed barn and covered riding arena meets the required 20 foot side yard setback from the closest property line and will not affect the light, air, or open space of adjacent properties or the neighborhood.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

The subject parcel is zoned Special Use (SU) with a Rural Residential General Plan land use designation. The site development standards applicable to the SU zone district within the Rural Residential General Plan designation are the Residential Agriculture (RA) zone district standards, and all principal and allowed uses for the Residential Agriculture (RA) zone district apply to the use of this parcel. This finding can be made in that horse keeping is a principal permitted use in the RA zone district on parcels larger than one acre, and non-habitable accessory structures over 1,000 square feet and/or with bathrooms associated with horse keeping are conditionally allowed uses. The proposed location of the barn and covered riding arena and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the applicable zone district. In addition, the proposed development is consistent with Chapter 16.30 in that the structures meet both the required riparian and building setbacks from Zayante Creek and its unnamed intermittent tributary, which are total setbacks of 60 feet and 40 feet respectively. Moreover, the limits of grading meet the minimum riparian setback to the intermittent stream of 30 feet and a temporary fence is required to be placed along this setback to avoid accidental encroachment during grading operations. The limits of grading are well outside of the 50-foot riparian setback from Zayante Creek. Some of the drainage outlets and dissipators will be located within the riparian setbacks, which requires a Riparian Exception under Chapter 16.30. The Riparian Exception findings can be made for this project and are included.

The preliminary grading and erosion control plans are consistent with the County Grading ordinance (Chapter 16.20) and Erosion Control ordinance (Chapter 16.22) in that grading has been minimized relative to this sloping site and the need for level building pads for the barn and paddocks and for the

riding arena.

The project will remove about 0.4 acres of native grassland, a sensitive habitat. In accordance with the regulations within Chapter 16.32 (Sensitive Habitat ordinance), this habitat will be restored at another location on site at a ratio of 3:1 thereby increasing this habitat area.

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 residential agricultural use is consistent with the use and density requirements specified for the Rural Residential (RR) land use designation in the County General Plan.

The proposed barn and covered riding arena is consistent with General Plan Policy 8.1.3 (Residential Site and Development Standards Ordinance), in that the barn and covered riding arena 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 barn and covered riding arena 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 barn and covered riding arena will comply with the site standards for the RA zone district (including setbacks, lot coverage, height and number of stories). The structures are large is size and scale, nevertheless, the subject parcel is also contains significant acreage (86 acres) and the development is in scale with the size of the property and the number of horses that are allowed to be kept on the parcel. The project will result in a structure consistent with a design that could be approved on any similarly sized lot in the vicinity with a Special Use (with a Rural or Mountain Residential General Plan), Residential Agriculture, Agriculture, Commercial Agriculture or Timber Production zoning designation.

As discussed in Finding #2, the project is consistent with Chapters 16.30 and 16.32 of the County Code, which implement the General Plan policies for Riparian Corridor Protection and Sensitive Habitat Protection. Specifically, the proposed project meets the riparian corridor protection policies (Objective 5.2 and policies 5.2.1 and 5.2.4) of the County of Santa Cruz General Plan in that the structures meet the 40-foot setback from the intermittent stream channel and the 60- foot setback from the perennial stream (Zayante Creek). The grading plan meets the required setbacks for intermittent and perennial streams at 30 and 50 feet respectively. The proposed drainage outlets *are* located within the riparian setbacks and will require a Riparian Exception permit. The findings for this exception can be made. The conditions of approval for the project require submittal of final erosion control plans and that grading activities will be limited to the dry season in conformance with General Plan policy **6.3.4** for erosion control plans, 6.3.5 and 6.3.6 limiting the grading season and requiring the installation of erosion control measures.

The site has been designed to avoid 30% slopes consistent with General Plan policy 6.3.1 restricting development on slopes steeper than 30%. In addition, the site grading has been minimized to the extent feasible given the site's slope and the necessity of the level design needed for the horse barn and for the riding arena, through the use of retaining walls and project layout. Excess materials will

be disposed on site in a level to rolling pasture area. Thus, the project is consistent with General Plan policy 6.3.9 for site design to minimize grading.

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 equine facilities are associated with an existing residential development and are for the personal use of the property owner and for the keeping and training of the property owners' personal horses. There will not be any significant increase in traffic, as commercial boarding or training of outside horses is prohibited under the operational conditions of this permit.

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 structure is located in a rural neighborhood containing a variety of architectural styles and land uses. There is a commercial riding stable across Zayante Road and northeast of the subject parcel. There is an organized camp immediately north of the parcel and numerous small acreage parcels - some of which have horses. Quail Hollow County Park is located to the northwest. The proposed barn and covered riding arena are consistent with the land use intensity **and** density of the neighborhood.

Riparian Exception Findings

1. That there are special circumstances or conditions affecting the property.

There are special circumstances affecting the property, in that the slopes and configuration of the parcel in the development area require two of the drainage outlets be located within the 30 foot riparian corridor setback of an intermittent tributary to Zayante Creek.

2. That the exception is necessary for the proper design and function of some permitted or existing activity on the property.

The exception is necessary for the proper design and function of the drainage system for the proposed equestrian facilities (barn and covered riding arena) and allowed use on this property. As stated above, there are topographic constraints on the parcel limiting the location of drainage outlets that will achieve proper drainage control.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property downstream or in the area in which the project is located.

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The granting of the exception will not be detrimental to the public welfare or injurious to other property downstream. The proposed drainage facilities will retain most of the proposed runoff and will use adequately designed gabion mattresses to dissipate excess runoff to minimize potential erosion. The disturbance to the riparian habitat is minimal as it is well above the stream channel and the area surrounding the rock mattresses will be revegetated.

4. That the granting of the exception, in the coastal zone, will not reduce or adversely impact the riparian corridor, and there is no feasible less environmentally damaging alternative.

The project is not located within the Coastal Zone.

6. That the granting *of* the exception is in accordance with the purpose of this chapter, and with the objectives of the general plan and elements thereof, and the local coastal program land use plan.

The granting of the exception is in accordance with the purpose of the Riparian Protection Ordinance and the objectives of the General Plan, in that the location of the proposed drainage outlets and velocity dissipators will control the runoff generated by the project and will minimize potential erosion from the runoff. Minimal habitat will be disturbed during construction and the overall functioning of the riparian comdor and stream channel will be unaffected.

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Conditions of Approval

Exhibit A: Project Plans prepared by Linda Royer, Sheets G1, L1, L4, L4.1, L6, A10, A11 last revised 12/2/03, Sheets L1 **.1,** L2 last revised 3/18/04, Sheets A1 last revised 7/3/03, A2, A3, A9, A12 last revised 7/18/03 and prepared by Ifland Engineers, Sheets C1-3, dated 4/16/04, Manure Management Plan dated 11/15/02

I. This permit authorizes the construction of an approximately 4,500 square foot barn with a bathroom and outside paddocks, a 13,338 sq ft covered riding arena with viewing room and toilet facilities and about 3,406 cubic yards of excavation, 1,558 cubic yards of embankment and 1,849 cubic yards of export to be distributed onsite in approved pasture area and related drainage and driveway improvements. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

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

B. Pay any outstanding fees in the At-Cost account #13534 and maintain a balance of $900 for the cost of inspections.

C. Pay the Negative Declaration Filing Fee at the Clerk of the Board of Supervisors *immediately* following permit approval. The **required** filing fee is $25 and must be accompanied by the Certificate of Fee Exemption.

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

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

F. Obtain **a** Construction Permit from the State Water Resources Control Board for disturbance exceeding one acre. Submit proof of the permit to the Planning Department and Department of Pubiic Works, Drainage Engineering.

II. Prior to issuance of a Building Permit 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 Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "**A**" on file with the Planning Department. The final plans shall include the following additional information:

1. The conditions of approval shall be incorporated into the final building plans.

2. Identify finish of exterior materials and color of roof covering for Planning Department approval. Submit two copies of a color board. All color boards must

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be in 8.5" x 11" format.

3. All site improvements including but not limited to septic location, parking, driveway location and driveway profile, water storage and building foot prints and all required setbacks (including riparian setbacks and building setbacks).

4. Plans shall provide architectural elevations and cross sections for determining maximum height. For any structure proposed to be within 2 feet of the maximum height limit for the zone district, 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.

5. Submit final Grading, drainage, and erosion control plans.

a. Final engineered grading and erosion control plans shall include:

i. Specifications for the installation of a temporary chain link fence along the riparian corridor setbacks along Zayante Creek and the intermittent channel. These locations must be clearly delineated on the plans.

ii. Final erosion control plans must include and show the location of the installation of silt fencing around the perimeter of the disturbance area.

iii. Final grading plans shall clearly delineate the area of slopes exceeding 30%. Site disturbance is prohibited on slopes greater than 30%.

iv. Final plans shall clearly delineate the area to receive the excess fill and shall specify that the fill shall not exceed 18 inches in depth. The restoration of this area shall be addressed in the erosion control plan.

V. Final grading plans shall specify that grading must commence prior to August 15" and under no circumstances shall proceed beyond October 15th.

vi. The final grading and erosion control plans shall be reviewed and approved by the project soils engineer. Submit 3 copies of the soils engineer's plan review letter.

b. Final grading and drainage plans shall be revised to relocate the drainage outlet and retention/dissipator for the barn. The dissipator/retention system shall be located outside of the 30 foot riparian setback and placed further east of the barn (northeast of the proposed site on Exhibit **A).**

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6. Final drainage plans shall meet the requirements of the Department of Public Works, Drainage Division as specified in their miscellaneous comments dated September 9,2003 and May 10,2004.

7. Obtain a valid septic permit and submit a valid Environmental Health Services septic clearance.

8. Details showing compliance with Zayante Fire Department requirements in their comments dated September 18,2003 and April 28,2004. The final plans shall meet all requirements of the applicable Urban Wildland Intermix Code.

9. Final landscaping plans shall specify plants species, sizes and locations. At least 80% of the landscaping shall utilize native, drought tolerant species. The Boston Ivy and cotoneaster in Exhibit A landscape plan shall be replaced with native species.

10. Submit a mitigation plan prepared by the project biologist for restoration of a minimum of 1.2 acres to native grassland habitat. The restoration plan must be reviewed and accepted by the Environmental Planning Section of the Planning Department. The restoration area shall be clearly shown and incorporated into the final building application plans.

C. Meet all requirements of and pay Zone 8 drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area (current fees are $0.85 per square foot, but are subject to change without notice).

D. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.

E. The applicant/owner shall submit proof of Fire Clearance under the Urban Wildland Intermix Code. The final plans shall meet all requirements of the applicable Urban Wildland Intermix Code. The applicant/owner shall pay any applicable plan check fee of the Zayante Fire Protection District.

F. Submit **3** copies of a soils report prepared and stamped by a licensed Geotechnical Engineer.

G. Submit **3** copies of a letter of plan review and approval by the project soils engineer. The letter shall state that the building, grading, drainage and erosion control plans are in conformance with the soils report recommendations and shall specifically reference the plans (sheet numbers, preparer's name(s) and dates) reviewed.

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

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and other requirements lawfully imposed by the school district.

I. Complete and record a Declaration of Restriction to construct two non-habitable accessory structures (barn and covered riding arena). **You may not alter the wording of this declaration.** Follow the instructions to record and return the form to the Planning Department.

III. Prior to site disturbance and during construction:

A. All land clearing, grading and/or excavation shall start on or before August 15'' and shall be completed or operations halted and the site winterized by October 15''. **Grading is prohibited between October 15 and April 15.** If grading is not completed prior to the October 15th deadline, the applicant/owner shall immediately commence securing the site for the winter and shall:

1. Submit a complete winterization plan to Environmental Planning for review and approval.

2. Shall deposit **an** additional $1,500 into at cost account #13534 to cover additional plan review and erosion control inspections for the site.

3. All erosion control shall be implemented, monitored and maintained through the winter such that turbid water and soils are not allowed to leave the site.

4. Earthwork shall not recommence until April 15'' or the project soils engineer deems that the soil conditions *are* suitable for continuing the site grading, **whichever comes later.**

B. **A** pre-construction meeting is required with Environmental Planning staff (contact Kent Edler at 454-3168), the project soils engineer and the grading contractor, prior to any land clearing or grading activities.

C. The required chainlink fencing and silt fencing shall be installed along the riparian comdor setbacks, prior to the pre-construction meeting. The installation must be inspected and approved by the Environmental Planning staff before grading can commence. The fencing may be moved temporarily to accommodate installation of the grading facilities.

D. Erosion shall be controlled at all times. Erosion control measures shall be monitored, maintained and replaced as needed. No turbid runoff shall be allowed to leave the immediate construction site.

E. All earthwork and retaining wall construction shall be supervised by the project soils engineered and shall conform with the soils report recommendations.

F. All foundation and retaining wall excavations shall be observed and approved in writing

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B. One "Open House" and up to two horse-related clinics/riding demonstrations or similar events are allowed per year.

C. Sound systems within or around the riding arenas shall be operated at a volume that does not exceed a maximum noise level of 45 dB at any property line. Failure to meet this condition is grounds for immediate revocation of this condition allowing the use of amplified sound.

D. Manure shall be managed in accordance with the approved Manure Management Plan, with the exception that manure shall not be spread on the property between August 1 and

April 15. Manure spreading is prohibited in areas with moderate percolation or better (sandy loam soils), within the native grassland areas and within 50 feet of any stream, drainage channel or spring.

E. The breeding of flies shall be minimized by regular disposal of manure or through the use of fly predators and/or fly-traps around all accumulated manure.

F. The barn and the covered riding arena shall be maintained as a non-habitable structures and shall adhere to following conditions:

1. The barn and the covered riding arena shall not have separate electric meter(s) from the main dwelling. Electrical service shall not exceed 100A/220V/single phase.

2. Waste drains for a utility sink or clothes washer shall not exceed 1½ inches in size.

3. Mechanical heating, cooling, humidification or dehumidification of the barn and/or the covered riding arena structure or any portion thereof is prohibited. The structures may be either finished with sheet rock or insulated, but shall not utilize both sheet rock and insulation.

4. The barn and/or the covered riding arena structure shall not to be converted into a dwelling unit or into any other independent habitable structure in violation of County Code Section 13.10.611.

5. The barn and/or the covered riding arena structure shall not have a kitchen or food preparation facilities and shall not be rented, let or leased as an independent dwelling unit. Under County Code Section 13.20.700-K, kitchen or food preparation facilities shall be defined as any room or portion of a room used or intended or designed to be used for cooking and/or the preparation of food and containing one or more of the following appliances: any sink having a drain outlet larger **than** 1 1/2 inches in diameter, any refrigerator larger than 2 1/2 cubic feet, any hot plate, burner, stove or oven.

6. The barn and/or the covered riding arena structure may be inspected for condition compliance twelve months after approval, and at any time thereafter at the

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by the project soils engineer prior to foundation pour. A copy of the letter shall be kept on file with the Planning Department.

G. Dust suppression techniques shall be included as part of the construction plans and implemented during construction.

H. 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. 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 plans shall be installed.

B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official and the County Senior Civil Engineer.

C. The construction and grading must comply with all recommendations of the approved soils reports.

D. The soils engineer shall submit a letter to the Planning Department verifying that all construction has been performed according to the recommendations of the accepted soils report. **A** copy of the letter shall be kept in the project file for future reference.

E. Final erosion control and drainage measures shall be completed.

F. All landscaping shall be installed and all habitat restoration shall be completed. The final landscaping and restoration area shall be inspected and approved by Environmental Planning staff prior to building permit final clearance. Contact Jessica DeGrassi at 454-**3** 162 a minimum of four working days prior to final inspections.

V. Operational Conditions

A. The barn and covered riding arena is for the use of the property owners. The boarding and training of outside horses (horses that do not belong to the property owners or their immediate family) is prohibited and public riding and/or horsemanship lessons are prohibited, unless a Level **5** Commercial Horse Boarding and Training Permit is obtained.

discretion of the Planning Director. Construction of or conversion to an accessory structure pursuant to an approved permit shall entitle County employees or agents to enter and inspect the property for such compliance without warrant or other requirement for permission.

G. All landscaping and the restored native grassland shall be permanently maintained.

H. 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.

VI. **As** a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within **sixty** (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

EXHIBIT *C*

E. Within 30 days of the issuance of this development approval, the Development Approval Holder shall record in the office of the Santa Cruz County Recorder an agreement, which incorporates the provisions of this condition, or this development approval shall become null and void.

VII. Mitigation Monitoring Program

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

A. Mitigation Measure 1.: Conditions II.A.10, IV.F. and V.D and V.G.

Monitoring Program: Environmental Planning staff will require that the native grassland mitigation plan be submitted and must review and approve the plan prior to approving the building permits. Work is not allowed to commence until the grading and building permits are issued. Environmental Planning staff will place a hold on the final of the building permit that cannot be cleared until the native grassland mitigation area is inspected and approved. The owner will not be able to get permanent electrical power until the holds are cleared.

B. Mitigation Measure 2: Conditions II.5.a.i., II.5.a.ii., II.5.a.v., III.A., IILB., IIIC. and III.D.

Monitoring Program: The Engineering and Grading staff of Environmental Planning will require a pre-construction meeting prior to the applicant/owner commencing work, the required temporary fencing and silt fence will be inspected at this time. Regular inspections are required and will be tracked for the grading permit application. Failure to obtain the required inspections or meet requirement may result in the issuance of a stop work order. Further work and inspections will not be authorized until the conditions of approval and/or required inspections and erosion control are satisfactorily met. Building inspections will not be conducted until all stop work notices are rescinded. A stop work order will be issued at the October 15'' deadline if grading has not been completed with orders to implement immediate winterization. Failure to comply can result in further action by Code Compliance up to and including revocation of the Zoning and Building permit and civil penalties.

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.

EXHIBIT C

Application # **03-0382**
APN: 074-181-01
Owner: Lichen **Oaks, LLC**

Please note: This permit expires two years from the effective date unless you obtain the required permits and commence construction.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey
Deputy Zoning Administrator

Cathleen Carr
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 **Zoning** Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz **County** Code.

EXHIBIT C

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: 03-0382 **Lichen Oaks LLC**

Proposal to construct an approximately 4,500 square foot barn with a bathroom and outside paddocks, a 13, 338 sq ft covered riding arena with viewing room and toilet facilities and about 3,406 cubic yards of excavation, 1,558 cubic yards of embankment and 1,849 cubic yards of export to be distributed onsite in approved **pasture** area. The project location is on the northwest comer of the intersection of Quail Hollow Road and East Zayante Road, Felton, California.

APN: 074-181-01 **Cathleen Carr, Staff Planner**

Zone District: SU

ACTION: Negative Declaration with Mitigations
REVIEW PERIOD ENDS: March 23,2005
This project will be considered at a public hearing by the Zoning Administrator. The time, **date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.**

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__March 23.2005

Date Approved **By** Environmental Coordinator__March 29, 2005

KEN HART
Environmental Coordinator
(831) 454-3127

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

NOTICE OF DETERMINATION

The Final Approval of This Project was Granted by _____

on _____. No **EIR** was prepared under CEQA.

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

Date completed notice filed with Clerk of the Board:_____

Exhibit D

NAME: Lichen Oaks, LLC
APPLICATION: 03-0382
A.P.N: 074-181-01

NEGATIVE DECLARATION MITIGATIONS

1. In order to mitigate the loss of .4 acres of native grassland, prior to building permit approval the applicant shall submit a mitigation pian prepared by the project biologist for review and approval by environmental planning staff. The plan shall include mitigation for lost resources at the ratio of 3:1. The mitigation may be achieved by management to enhance and extend native grass meadows elsewhere on the property, rather than exclusively by salvaging or pianting native species, as long as the proposed management area is compatibie with the current and planned use of the property (grazing and riding) as well as the piacement of excess fill from the project.

2. In order to minimize impacts on the riparian area:

   a) Grading plans shall be revised to show temporary chain link fence erected at the boundary of the riparian buffer to prevent accidental incursion into the corridor during construction. Fencing can be temporarily moved to accommodate installation of drainage facilities.

   b) To minimize potential for erosion and sedimentation of Zayante and tributary creeks, winter grading (October 15 through April 15) will not be approved. If grading has not commenced by August 15 it shall be postponed until the following April 15.

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: Lichen Oaks LLC

APPLICATION NO.: 03-0382

APN: 074-181-01

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 Claudia Slater, Environmental Coordinator at (831) 454-5175, 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: **March 23, 2005**

Cathleen Carr
Staff Planner

Phone: 454-3225

Date: February 17, 2005

COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT

Date: **February 22, 2005**
Staff Planner: Cathleen Carr

ENVIRONMENTAL REVIEW
INITIAL STUDY

APPLICANT: Lichen Oaks LLC
OWNER: Lichen Oaks LLC
Application No: 03-0382
Site Address: 110 Quail Hollow Road
APN: 074-181-01
USGS Quad: Felton
Supervisorial District: 5
Location: Located on the northwest corner of the intersection of Quail Hollow Road and East Zayante Road.

EXISTING SITE CONDITIONS

Parcel Size: approximately 86 acres
Existing Land Use: Residential, agriculture (horses)
Vegetation: Grassland, scattered small brush, oak woodland, riparian woodland and redwood groves
Slope: 0-15%__~60__, 16-30%__~10__, 31-50%__~10__, 51+%__6__ acres
Nearby Watercourse: Zayante Creek and an intermittent tributary (Turner Gulch)
Distance To: Immediately adjacent to the tributary

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: None mapped
Water Supply Watershed: None mapped
Groundwater Recharge: Groundwater recharge
Timber or Mineral: None mapped
Agricultural Resource: None mapped
Biologically Sensitive Habitat: Riparian, Sandhills
Noise Constraint: None mapped
Fire Hazard: None mapped
Floodplain: *FEMA* Zone A, *B,* C
Erosion: Moderafe *to* High
Landslide: None mapped

Liquefaction: Negligible *Potential*
Fault Zone: None mapped
Scenic Corridor: None *mapped*
Historic: None mapped
Archaeology: Archaeological

Electric Power Lines: None
Solar Access: Adequate
Solar Orientation: Adequate
Hazardous Materials: *None*

SERVICES

Fire Protection: Zayanfe Fire
Drainage District: Flood Zone 8
School District: *SLVUSD*
Project Access: Quail Hollow Road
Water Supply: Well
Sewage Disposal: septic

PLANNING POLICIES

Zone District: *SU*
Special Designation: No
General Plan: *RR*

Special Community: *No*
Coastal Zone: *No*
Within USL: *No*

PROJECT SUMMARY DESCRIPTION:

Proposal to construct an approximately 4,500 square foot barn with a bathroom and outside paddocks, a 13,338 sq ft covered riding arena with viewing room and toilet facilities and about 3,406 cubic yards of excavation, 1,558 cubic yards of embankment and 1,849 cubic yards of export to be distributed onsite in approved pasture area.

DETAILED PROJECT DESCRIPTION:

The applicant proposesto construct an approximately 4,500 square foot horse barn and a 13,338 square foot covered riding arena. The barn will contain nine horse stalls, a feed/equipment room, wash rack, tack room, office, laundry room and bathroom with access aisles and grooming areas between the stalls. There will be seven outdoor, uncovered paddocks connecting to seven of the stalls that will contain sand footing over "Gravelpave" - a reinforced pervious base. The covered riding arena includes a 140 foot by 78 foot riding court using a sand or modified sand-type surface, an approximately 1,020 square foot hay/shavings storage area and a viewing room (about 680 square feet) and terrace. The viewing room includes a small bathroom and sink, The project proposes an estimated 3,406 cubic yards of excavation and 1,558 cubic yards to construct the barn, arena and access improvements on the site. A retaining wall up to 10 feet high will be constructed behind the barn at the base of a sloping hillside. Approximately 1,849 cubic yards of excess materials will be distributed onsite in a gently sloping open pasture area in the vicinity of Quail Hollow Road. **A** small open shed-like structure (manure bunker) is proposed for manure storage during the rainy season. The project also includes drainage facilities and velocity dissipators at various locations to contain and distribute the runoff from the proposed impervious surfaces. Some of the velocity dissipators are located within a riparian corridor, thus requiring a riparian exception. The project includes a new septic system for the barn and arena, which will require a pump system as it is located upslope of the structures. A new 30,000 *to* 50,000 gallon water storage tank will be constructed to meet the requirements of the Zayante Fire Department for fire protection for the proposed structures, as Well as a new well dedicated to the proposed tank and riding facility.

PROJECT SETTING:

The subject parcel is located at the northeastern corner of the intersection of Quail Hollow and Zayante Roads. The property *is* characterized by gently sloping open pasture areas with a large pondlsmall lake in the vicinity of Quail Hollow Road. The property increasesin slope to the north and northeast and transitions to oak woodlands. Zayante Creek, a perennial stream, runs across the parcel roughly parallel to the eastern property line, which is also the Zayante Road frontage. The property **is** currently developed with horse pastures, two single family residences, various outbuildings and an outdoor riding arena and a small training ring (round pen). The project site is located at the northeastern corner

of the property. The proposed project site is located in an open meadow area adjacent to an intermittent tributary to Zayante Creek, Zayante Creek and at the base of a moderately steep, wooded slope (30-40%). The project site is accessed via an existing bridge over the intermittent stream.

The land uses in the area surrounding the subject parcel are primarily rural residential, residential agriculture and some timber production with an organized camp immediately adjacent to the north property line, a nearby commercial riding stable located *to* the northeast and across Zayante Road and Quail Hollow County Park to the northwest.

Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

ENVIRONMENTAL REVIEW CHECKLIST

A. Geology and Soils

Does the project have the potential to:

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 ___

The project site is not located in a fault zone mapped by the state or the county. The nearest earfhquake-producing faults in the area include the Zayante Fault Zone, located approximately 2 miles to the southwest of the project site. Since there is no evidence of active faulting in the immediate vicinity of the site, potential for ground rupture at the site is low.

   b. *Seismic ground shaking?* ___ ___ X ___

The project will likely be subject to some seismic shaking during the life of *the structures. The structures shall be designed in accordance with the Uniform Building Code as well as any additional requirements dictated by the soils engineer such that the hazard presented by seismic shaking is mitigated to a less than significant level.*

   c. *Seismic-related ground failure, including liquefaction?* ___ ___ X ___

According to the Liquefaction Map, completed by Dupre in 1970, the subject parcel is located in an area of low liquefaction potential. The geotechnical report shows that the soils below the surface to ***be*** *loose to medium dense sandy/silty sands.* ***At*** *a depth between 5 and 10 feet below grade the soils become dense to verydense sandysilts. The project soils engineer concluded based on the soils type present thaf the liquefaction*

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
potential is low at this site (Attachment 5).				
d. *Landslides?*	___	___	X	___

The project soils engineer states that landsliding may affect the slopes along Zayante Creek and the tributary. The project soils engineer states that the potential for landslide damage to the proposed project is low due to its setbacks from the creek banks. The engineer does require that any structure sited closer than 50 feet from the top of the slope to Zayante Creek and 30 feet from the top of the bank along the intermittent tributary will require additional geotechnical engineering analysis.

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	___

As discussed above, the project site is not subject to landslides or liquefaction. The site is also not subject to lateral spreading or subsidence, which are phenomena typically associated with alluvial soils.

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

The building envelopes, site grading and proposed road improvements are located on slopes less than 30%.

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

The soils underlying the site possess an erosion hazard, Although erosion potential is generally reduced because most of the site is relatively level, potential for erosion is greatest when exposed soils are subject to rainfall and stormwater runoff. Thus, erosion potential will be minimized by confining site clearing, grading and excavation activity to the dry season (April 15 to October 15), as generallyrequiredbythe County. Prior to the onset of the rainy season, any exposed soils will be protected by permanent vegetation in accordance wifh the project landscaping plan, Prior to approval of a grading permit, the project must have an approved Erosion Control Plan, which will specify detailed erosion and sedimentation control measures, This erosion control plan must include specific sediment control barriers such as straw bale dikes or silt fencing be located between the construction site and the two stream channels. In addition, the project applicant will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which is to include Best Management Practices (BMPs) for erosion control, as required by the State Water Resources Control Board and administered by Regional Water Qualify

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No impact

Control Board. (See also 5. Hydrology, Water Supply and Water Quality below).

The small paddocks outside of the barn will be underlain with "Gravelpave" a reinforced grid over rock with sand on top. This willprovide a firm subsurface for the paddocks, which will prevent the paddocks from becoming muddy during the rainy season, and allow water to percolate.

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 ___

A geotechnical report has been completed by Bauldry Engineering, dated 5/27/03 (Attachment 5), found sandy and sandy silt soils and did not note any potential problems with expansive soils.

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

The project will dispose of all sewage through an approved septic and leach system located in an area with adequate percolation, as designed and approved by Bonny Doon Environmental Consulting. The location of the leachfield requires a pump-up system, which will be located across an existing 30-foot right-of-way, as shown on sheet L2.

7. Result in Coastal cliff erosion? ___ ___ ___ X .

B. Hydrology, Water Supply and Water Quality

Does the project have the potential to:

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

Although portions of the subject property are within the 100-year flood plain, according to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated April 15, 1986, the project site lies entirely outside of the 100-year flood hazard area.

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

According to the FEMA National Flood Insurance rafe map, dated April 15, 1986, no

	Significant Or Potentially Signincant Impact	Lest Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
portion of the project site lies within a floodway,				
3. *Be inundated* **by** *a seiche* or *tsunami?*	___	___	___	X
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 includes retaining all runoff through retention/detention pipes located in four separate location onsite, see sheet C1 by Ifland Engineers, The retention/detention pipes are sized based on the design criteria and the small drainage areas contributing to the streams. Note that drainage systems terminate in oversized, perforated pipes which allow for groundwater refention of surface runoff, and at the same time, for detention of stormwater which does not percolate back into the ground, see memo by Ifland Engineers dated 7/12/04.

The Zayanfe Fire agency is requiring dedicafed wafer storage for the project between 30,000 and 50,000 galloos in size, A new well will be developed which will be dedicated to the water storage and use of the horse facility. This is an area mapped as having an adequate supply of good quality groundwater,

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

Runoff from the project site enters Zayante Creek, a tributary to the San Lorenzo River. The San Lorenzo River is a water source for the Cify of Santa Cruz. As discussed in A.4., a final erosion control plan will be required **by** *the Planning Department prior to building permit approval. Potential erosion and sedimentation problems at this site will be minimized by confining site clearing, grading, and excavation for the project to the dry season (April 15 through October 15), and by utilizing sediment barriers such as straw bale dikes or silt fencing between the disturbance areas and the stream banks. In addition, the applicanf must prepare a state-mandated Storm Water Pollution Prevention (SWPPP). The Implementation of the provisions of the County-required Erosion Control Plan and the SWPPP will ensure Potential water quality problems will be avoided.*

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO impact

The drainage system and the layout of the barn and arena were developed based on the site constraints, avoiding grading in steep sloping areas or riparian areas. Energy dissipators were located at the top pf bank to allow for access room around the drainage facilities. Discharging the runoff through fhe energy dissipators, will greatly slow its velocity thereby eliminating the potential erosion hazards along the banks of the ephemeral creek.

Environmental Health Services has reviewed and accepted the Manure Management Plan (Attachments 7 and 10) for the proposed horse facility, The Manure Management Plan (Attachment 7) Proposes to construct a small, covered manure bunker to store a manure trailer. During the summer months, the manure will be spread (using a manure spreader) over about 12 acres of grass pastures near Quail Hollow Road. The pasture area is over 120 feet from Zayante Creek at its closest location. The pastures are level to very gently sloping, thus the potential for nutrient laden runoff leaving the site is minimized. During the rainy season, accumulated manure will be hauled off-site to a disposal facility, either a landfill facility or a recycling/compost facility

6. *Degrade septic system functioning?* ___ ___ ___ X

The septic system for the proposed horse facilities are located uphill of the structures and drainage outlets. Environmental Health Services staff has approved this "pump up" system. The septic system for the existing dwellings is located on the other side of the intermittent creek channel.

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 ___

As discussed in 8.4 and B.5., the proposed drainage plan incorporates on site detention and retention. Drainage will be discharged on large gabion mattress velocity dissipators for runoff exceeding the design standard IO-year storm. Grading plans prepared by Ifland engineers show all grading contained within areas where drainage patterns exist as sheet flow. Post-development drainage patterns are shown on sheet C I by Ifland Engineers. Refer to 65 above. The project incorporates on site retention. The drainage plan has been reviewed and accepted by the Drainage Engineering Section of the Department of Public Works.

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 ___

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO impact

There are no drainage improvements in the immediate project area that will be affected. Driveway runoff will be percolated on site as will the runoff from the buildings where the soils are suitable. There is adequate area and open space to absorb the runoff from a 10-year storm. Excess runoff generated by rainfall exceeding a IO-year storm will sheet flow from gabion mattress dissipators to the nearby stream channels. Pollution control measures have been discussed previously in A.4 and 8.5.

9. *Contribute* to *flood levels or erosion in natural water courses* by *discharges of newly collected runoff?* — — X —

The project will result in about 18,000 square feet of new impervious surface. However, fhe proposed storm drainage retention and detention system will adequately control the increased volume ofrun-off such that peak flows will not exceed the existing creek channel capacity and pre-development runoff volumes.

10. *Otherwise substantially degrade water supply* or *quality?* — — X —

See A.4, B.5 and B.8 above, discuss mitigation to minimize erosion/siltation/urban pollutant contamination.

C. Biological Resources

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 —

According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game, Zayante Creek is a known habitat for Steelhead trout (Oncorhvnchus mykiss irideus), which is Federally listed as a Threatened species. The proposed structures will be over 80 feet from a perennial stream (Zayante Creek) and within 40 feef of an intermittent stream channel (a tributary to Zayante Creek). The Site grading will be within 30 feet of the intermittent stream and over 75 feet from Zayante Creek. The intermittent tributary is not utilized by steelhead trout for spawning or rearing. The project has adequate setbacks to prevent disturbance of the riparian habitat. As discussed in A.4, B.5 and B.8, measures such as a detailed erosion control plan, an engineered drainage plan to control runoff, restricting earthwork to the dry season and the

	Significant Or Potentially Significant **Impact**	**Less Than** Significant With Mitigation Incorporation	**Less** Than Signincant Impact	No Impact

installation of sediment barriers during construction will all minimize potential adverse wafer quality impacts which could in turn adversely affect the spawning and rearing habitat for steelhead trout. An additional measure to avoid potential unintended adverse impacts to the riparian habitat is to require that a physical barrier be constructed between the construction site within two feet of the limits of grading or at the riparian setback (whichever is the more restrictive) to avoid accidental encroachment of heavy equipment, etc. The barrier shall be high visibility, temporary construction fencing or temporary chain link fencing.

The subject parcel is mapped within the Sand Parklands biotic habitat. A Botanical Review (Attachment 8) was conducted by the Biotic Resources Group to determine if San Parklands habitat and plant species are present on the proposed building sites. This assessment concluded that no special status species or their habitat is found within the development area.

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

See C.1 above. The Botanical Review found native grass species within the project area. Site visits by Environmental Planning and Development Review staff confirmed the presence of native grasses within the development area. Native grasslands are an ecosystem that deserves protection according to the California Department of Fish and Game. The project will eliminate about 0.4 acres of a mixed native grassland meadow. There is approximately 22.4 acres of mixed native grasslands on the subject parcel. Therefore, the project as proposed would result in a minor reduction of native grass species on this site. There are areas available on site for enhancement of the some of the remaining mixed native grasslands to increase the native species and discourage their displacement by non-native grasses

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	___

See C.1 above

4. Produce night time lighting that will illuminate animal habitats?	___	___	___	X

	Significant or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
See C.1 above				
5. Make a significant contribution to the reduction of the number of species of plants or animals?	___	___	X	___

As discussed above, the project would not be likely to adversely affect or cause a reduction in any species of wildlife.

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	___

See C.1 above. The setbacks for the project from the adjacent stream channels meets or exceeds the setbacks for *intermittent* and perennial streams set forth in the Riparian protection ordinance. *No* frees over *4" in* diameter will be removed in conjunction *with* the proposed project.

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.

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 Pian?	___	___	___	X .

The project site does *not* contain any designated timber resources.

2. Affect or be affected by lands currently

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation incorporation	Less Than Significant Impact	NO impact
utilized for agriculture, or *designated in the General Plan for agricultural use?*	___	___	___	X .

The project site is not currently being used for commercial agriculture and no commercial agricultural uses' are proposed for the site. The site is not zoned for commercial agricultural use and contains no Williamson Act lands. Therefore no conflicts will occur. Residential agricultural uses, including horse keeping, is an allowed use in this zone district on a parcel over one acre in size.

3. *Encourage activities which result in the use* of *large amounts of fuel, water,* or *energy,* or *use* of *these* in *a wasteful manner?*	___	___	___	X .
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 would not entail the extraction or substanfial consumption of minerals, energy resources, or other natural resources.

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 .

There is no mapped scenic road or public view that will be obstructed or otherwise adversely impacted by the proposed project.

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

The project site contains no scenic resources such as trees, rock outcroppings, historic buildings or *similar resources. The project site is also not within a public viewshed area.*

3. *Degrade the existing visual character or quality* of *the site and its surroundings,*				

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
including substantial change in topography or ground surface relief features, and/or development on a ridgeline?	___	___	___	X

Currently the proposed building sife is in a sloping meadow sife bordered on the south and west by wooded riparian corridors, trees and shrubs and a driveway to the adjacent property to the north. The property slopes up away from the project, increasing in steepness from 25% slopes to about 35%. This slope is vegetated with native shrubs and oak woods. The site is not located on a ridgeline, is not within a mapped scenic resource area and is not visible from a designated scenic road.

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

Lighting associated with the horse barn and covered riding arena will be minimal and large expanses of undeveloped and unlit areas will remain, so that there will nof be an adverse affect on animal habitats. Most lighting will be internal, although one or more outdoor security lights can be expected for securityand safety. This lighting source will be required to be directed towards the ground and be energy efficient. The project would not include sources of light and glare that would adversely affect day and nighttime views of the Site area.

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, modified or covered by the project.

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 project site area is not in the vicinity of any structures that are listed or eligible for listing on fhe California Register of Historic Places, any State historical landmarks, points of historical interest, historical resources identified in historic resource surveys, or locally designated historic properties or districts.

2. *Cause an adverse change in* the *significance of an archaeological*				

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation incorporation	Less Than Significant Impact	NO impact
resource pursuant to CEQA *Guidelines* 15064.5?	___	___	X	___

According to County resource maps (Santa Cruz Archaeological Society Inventory, 1992), the project site lies within an area of archeological sensitivity. Given the degree of ground disturbance throughout the site, it may be likely that intact cultural deposits are uncovered during project construction. Although a preliminary Archaeological Reconnaissance has been completed by Doane and Haversat in October 2003, which did not reveai any archaeological artifacts at the barn or arena sites (Attachment 9).

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

As *discussed in F.2 above, it is unlikely that prehistoric or historic-era cultural materials are present, including human remains. However, pursuant to Sections 16.40.040 and 16.42.100 of the Santa Cruz County Code, if at any time during the site preparation, excavation, or other ground disturbance associated with this project, 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.*

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

There are no known paleontological resources on the 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 .

The proposed project will not involve handling or storage of hazardous materials'

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*				

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
public or the environment?	___	___	___	X .

A review of federal and state environmental databases did not reveal the existence of any existing contamination in the vicinity of the site.

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 .

There are no airports within two miles of the project site.

4.	Expose people to electro-magnetic fields associated with electrical transmission lines?	___	___	___	X

There are no high-voltage electric transmission lines in the vicinity of the site.

5.	Create a potential fire hazard?	___	___	___	X

The project design will incorporate all applicable fire safety code requirements and will include sprinklers and fire hydrants and on-site wafer storage between 30,000 to 50,000 gallons, as specified by the Zayante Fire District.

6.	Release bioengineered organisms or chemicals into the air outside of project buildings?	___	___	___	X .

The propose project will not involve processes which could result in the release of bioengineered organisms or chemical agenfs.

H. Transportation/Traffic

Does the project have the potential to:

1.	Cause an increase in traffic which 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	___ .

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact

The proposed equine facilities are associated with an existing residential development and are for the personal use of the property owner and for the keeping and training of the property owners' personal horses. There will not be any significanf increase in traffic, as commercial boarding or training of outside horses is excluded from the permits being sought.

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

As the proposed facilities are for the owners' personal horses, a minimal increase in parking demand is expected. There is adequate room af the proposed facilities for a trainer and/or farmworker.

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

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	—

The addition of a horse barn and riding arena in a location surrounded by trees does not represent a significant impact to the ambient noise levels in the area. The project will be condifioned to maintain daytime noise levels at 45 dB or less at the property lines, if any sound system is used in the riding arena.

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

	Significant or Potentially Significant impact	Less Than Significant With Mitigation incorporation	Less Than Significant impact	NO Impact

The project will not expose adjacent properties to noises exceeding the acceptable limits as established by the Santa Cruz County General Plan Noise Element (6.9.1) of 50 dB daytime, 45 dB nighttime hourly average and 70 and 65 dB day and night time maximum noise levels.

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 for the proposed barn and arena will increase the ambient noise levels for adjoining areas, Construction would be limited in duration, however and a condition of approval will be included to limit all construction to the time between 8:00 AM and 5:30 PM weekdays, to reduce the noise impact on nearby residential development, In addition, the construction noise is temporary and therefore not significant. The proposed development would increase ambient noise levels surrounding properties, but not to a significant level. See also I-1.

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 is currentty classified as a maintenance area with respect to federal ozone standards, and as a non-attainment area with respect to state ozone standards, and is also a state non-attainment area for particulate matter (PM_{10}). The Air Basin is classified as a state and federal attainment area for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. Therefore, the regional pollutants of concern that would be emitted by the project are the ozone precursors (Volatile Organic Compounds and Nitrogen Oxides) and particulate matter (PM_{10}).

The Monterey Bay Unified Air Pollution Control District (MBUAPCD) applies a Significance threshold of 137 pounds per day for both Volatile Organic Compounds (VOCs) and Nitrogen Oxides (No,), and a threshold of 82 pounds per day for PM_{10}. It is estimated that the traffic generated by the project, plus minor on-site emission from the natural gas combustion, would emit Jess than 100 pounds per day of both VOCs and NO, Therefore, the project would not exceed the MBUAPCD emissions thresholds for these pollutants, and thus would not be considered to contribute substantially to the regional emissions of these pollutants.

	Significant Or Potentially Significant Impact	Leas Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

In calculating PM_{10} emissions, the Air District applies en emission rate of 10 to 38 pounds of PM_{10} per day per acre of grading, with the actualrate depending on whether the activity involves minimal grading or earthmoving and excavation. Based on the level of grading activity for the proposed project, PM_{10} emissions will constitute a less than significant impact to air quality standards.

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

The project will not result in emissions of criteria pollutants such as ozone precursors or particulate matter, for which the air basin is not in attainment under state and/or federal standards. Therefore, the project would not be likely to conflict with or obstruct implementation of the Air Quality Management Plan for the Air District.

3. *Expose sensitive receptors to substantial pollutant concentrations?* ___ ___ X ___

Dust generation may occur during project construction. Final grading and erosion control plans must include methods to control dust, and will be submitted to the Department of Public Works and Environmental Planning for review.

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

As discussed in B.5 above, a Manure Management Plan (Attachment 7) has been prepared for the proposed horse facility. The measures proposed for the storage and dispersal/disposal of accumulated manure will minimize the potential for objectionable odors from affecting adjacent property owners.

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* environ-*.mental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any* of *the public services:*

   a. Fire protection? ___ ___ X ___

While the project represents an incremental contribution to the need for services, this

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant impact	No Impact

project meets all the standards and requirements presented by the Zayante Fire Protection District. The fire stations in the service area that would serve the site include the Zayante Fire Station located across the street on E. Zayante Road. The project will include all fire safety features required by the Zayante Fire Protection District including hydrants, sprinklers, access and dedicated water storage.

b. *Police protection?* ___ ___ X ___

While the project represents an incremental contribution to the need for services, the project will not creafe a significant demand for new services, nor will it require additional personnel.

c. *Schools?* ___ ___ ___ X

The proposed horse barn and riding arena does not create need for school services.

d. *Parks* or *other recreational facilities?* ___ ___ ___ X .

The horse barn and riding arena does not create need for parks or recreational services.

e. *Other public facilities; including* the *maintenance* of *roads?* ___ ___ ___ X .

Not applicable.

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 .

See A.4, B.7 and B.8 for discussion of the drainage plans. The site is able to accommodate the design standard of runoff from a IO-year storm through onsite detention and retention. No expansion of offsite drainage facilities are required.

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 well and construct a new septic system. The well and septic system will be adequate to accommodate the relatively light demands of this

	Significant Or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
project.				
4. *Cause a violation of wastewater treatment standards* of *the Regional Water Quality Control Board?*	___	___	___	X

The project's wasfewater flows will be very light and will not cause a violation of wasfewater treatment standards.

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

The well serving the project site provides adequate fire flows and pressure for fire suppression at the site. The risk of fire at the site is low and would not impair the capability of *the system to provide adequate fire flows to otherproperties. Additionally, the Zayante Fire District has reviewed the project plans to assure conformity with fire protection standards.*

6. Result in inadequate access for fire protection?	___	___	___	X .

The project entrances appear to provide adequate access for fire equipment throughout the site. The final site pian will be subject to the approval of the Zayante Fire District with respect to fire access.

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

Approximately 1,849 cubic yards of excess soil material will be removed and disposed of prior to development. It is expected that most, if not all, of this material will be distributed on a pasture area onsite.

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

Since the responsibility for solid waste management rests with the County, the project itself would not result in a breach of regulations related to solid waste management.

L. Land Use, Population, and Housing

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
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 meets the riparian corridor protection policies (Objective 5.2 and policies 5.2.1 and 5.2.4) of the County of Santa Cruz General Pian in thaf the structures meet the 40-foot setback from the intermittent stream channel and the 60- foot setback from the perennial stream (Zayante Creek). The gradingplan meets the required setbacks for intermittent and perennial streams at 30 and 50 feet respectively. The proposed drainage outlets are located within the riparian setbacks and will require a Riparian Exception permit. The findings for this exception can be made. The project will be required to submit final erosion controlplans and grading activities will be limited to the dry season in conformance with General Plan policy 6.3.4 for erosion controlplans, 6.3.5 and 6.3.6 limiting the grading season and requiring the installation of *erosion control measures.*

The site has been designed to avoid 30% slopes consistent with General Plan policy 6.3.1 restricting development on slopes steeper than 30%. In addition, the site grading has been minimized to the extent feasible given the site's slope the necessity of the level design needed for the horse barn and for the riding arena, through the use of retaining walls and project layout. Excess materials will be disposed on site in a level to rolling pasture area. Thus, the project is consistent with General Plan policy 6.3.9 for site design to minimize grading.

2. *Conflict with any County Code regulation adopted* for *the purpose* of *avoiding* or *mitigating a'n environmental effect?*	___	___	X	___

The project meets the required site development standards for a Special Use zoned parcel with a Rural Residential General Plan designafion with respect to structure height, lot coverage and required setbacks. In addition, the project is consistent with the Riparian protection ordinance, the erosion control ordinance and grading ordinance, which implement the General Plan policies discussed above. Horse keeping and small-scale agriculture are principal permitted uses in the Residential Agricultural zone district. The site development standards and the uses allowed in the Special Use zoned parcels with Rural Residential General Plan designation are the same as the Residential Agriculture zone district. Therefore, horse keeping is a principal use on the subject parcel. A Residential Development Permit is required in accordance with County Code Section 13.10.611 (Accessory Structures) to exceed 1,000 square feet in area and to allow toilets in both structures.

3. *Physically divide an established community?*	___	___	___	X

	Significant Or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact

The land uses surrounding the project site include equestrian uses, both private horse keeping and a commercial boarding facility. Under current conditions, the project would not introduce a new physical division in the 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 the density and intensity of development indicated by the General Plan and Zoning designations of the parcel. The applicant has not requested an increase in density that would allow more units than currently designated for the Site. The proposed project does not involve substantial extensions of *utilities such as water, sewer, or new road systems into areas previously not served and* is *consistent with the County General Plan. The project will not induce substantial growth that is not consistent with County planning goals.*

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

The proposed project will not involve demolition of any existing housing units nor will it create any residential units.

M. Non-Local Approvals

Does the project require approval of *federal, state, or regional agencies?* Yes X No ___ .

Which agencies? Regional *Water* Quality *Control Board*

N. Mandatory Findings of **Significance**

1. *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 papulation* to drop below *self-sustaining levels, threaten* to *eliminate a plant* or *animal community, reduce the number* Yes — No X

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 impacts that are individually limited, but cumulatively considerable (Acumulatively 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 .

3. Does the project Rave environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly7 Yes — No X .

TECHNICAL REVIEW CHECKLIST	REQUIRED	COMPLETED*	N/A
APAC REVIEW			
ARCHAEOLOGIC REVIEW	yes	1012003	
BIOTIC ASSESSMENT	yes	9/20/04	
GEOLOGIC HAZARD ASSESSMENT			
GEOLOGIC REPORT			
RIPARIAN PRE-SITE			
SEPTIC LOT CHECK			
SOILS REPORT	yes	9/23/03	
OTHER:			

*Attach summary and recommendation from completed reviews

List any other technical reports or information sources used in preparation of this initial study:

Geotechnical Investigation by Bauldry Engineering dated May 2003

Archaeologic Reconnaissance by Doane and Haversat dated October 2003 .

ENVIRONMENTAL REVIEW ACTION

On the basis of this initial evaluation:

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

X 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 mitigation measures described below have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

Signature

Paia Levine

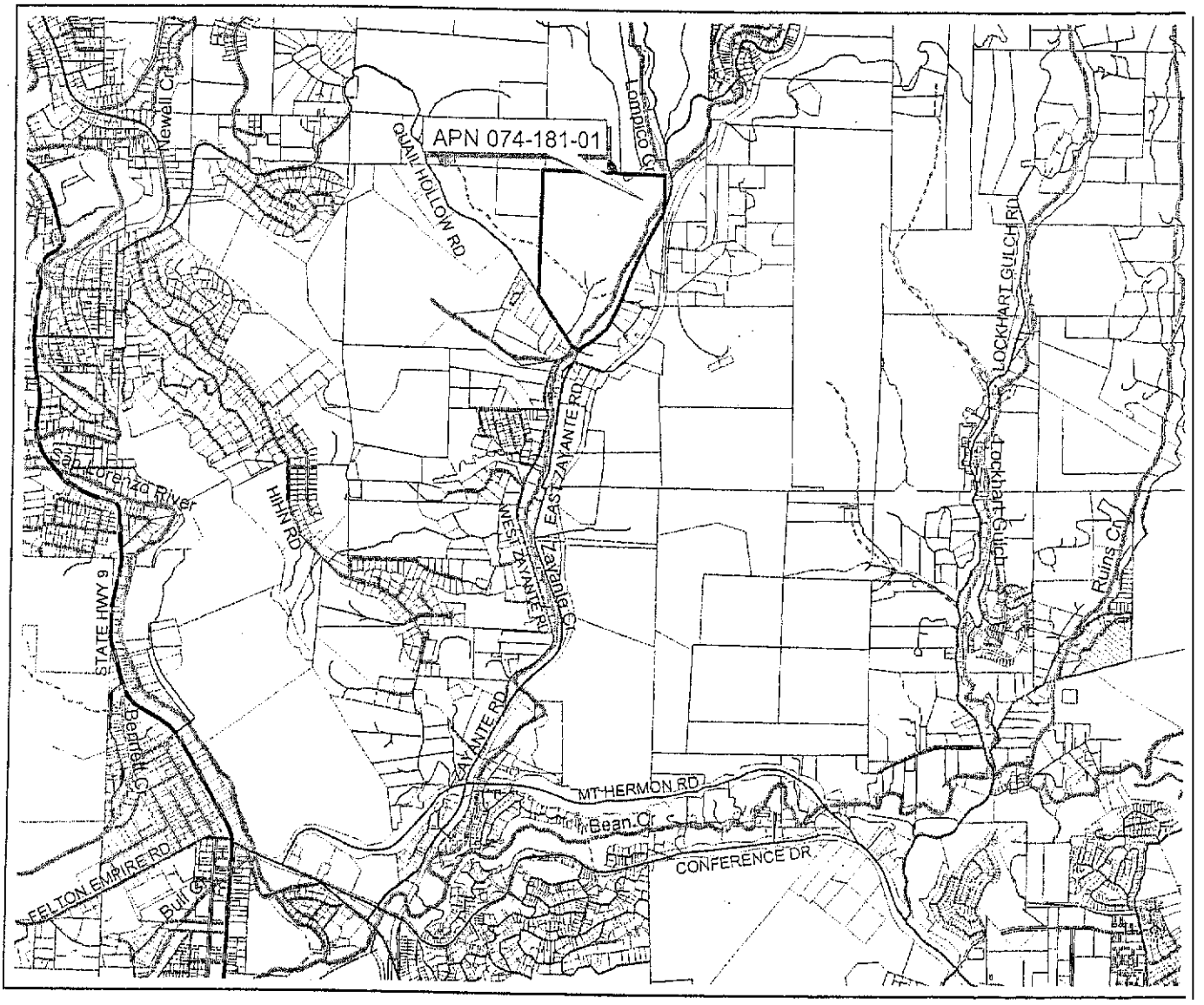
2-21-05
Date

For: Ken Hart
Environmental Coordinator

Attachments:

1. Vicinity Map
2. Map of Zoning Districts
3. Map of General Pian Designations
4. Project Plans
5. Soils Report Excerpts
6. Soils Report Review Letter dated 9/23/03
7. Manure Management Pian dated 11/15/02
8. Botanical Review, dated September 20, 2004
9. Archaeologic Reconnaissance dated October 2003
10. Public Correspondence
11. comments recid during review period

Location Map



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Environmental Review Inital Study

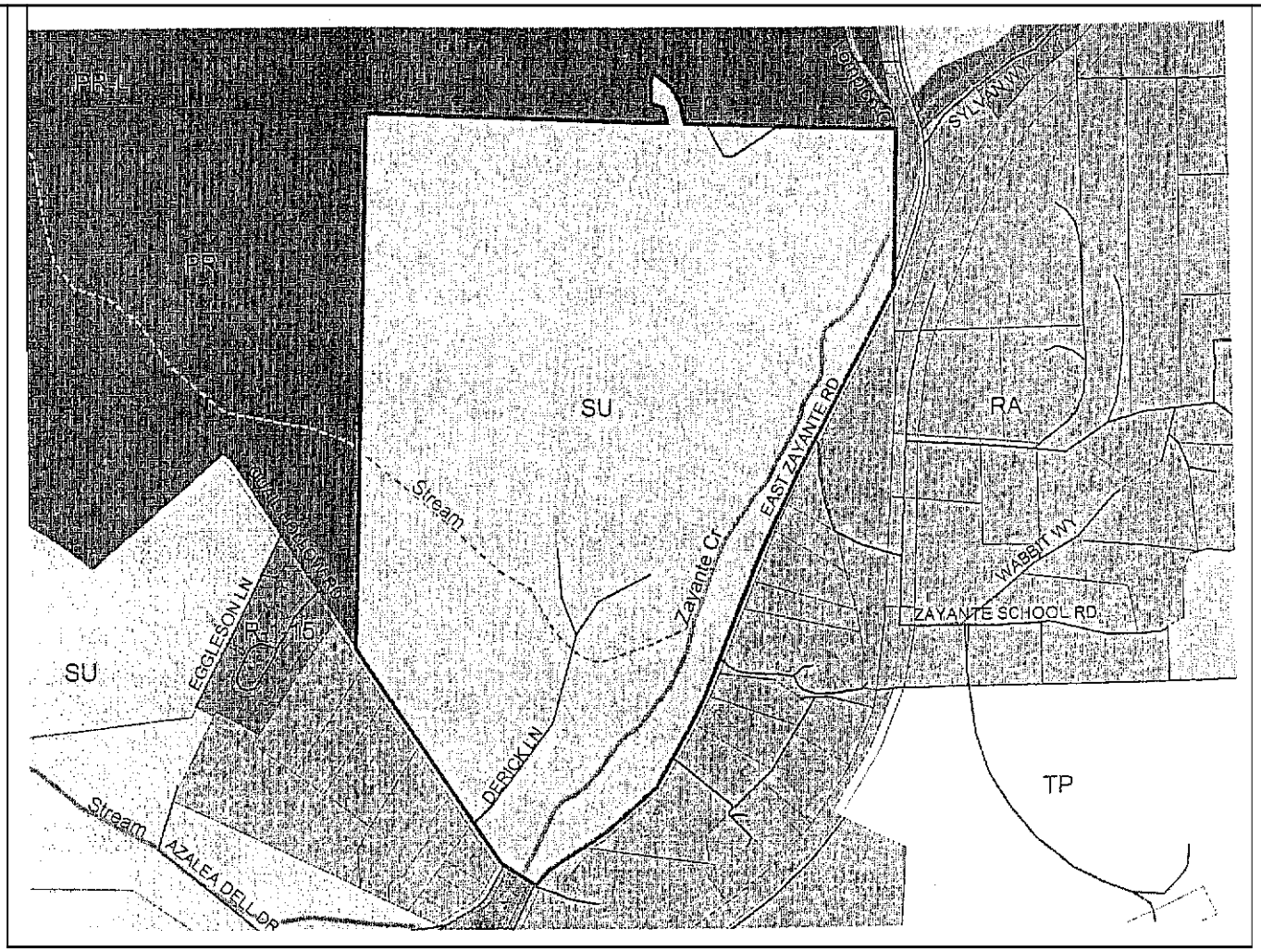
ATTACHMENT 1

APPLICATION ?%a-

N

Map created by Santa Cruz County Planning Department: September 2003

Zoning Map



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Environmental Review Inital Stud

ATTACHMENT 2
APPLICATION

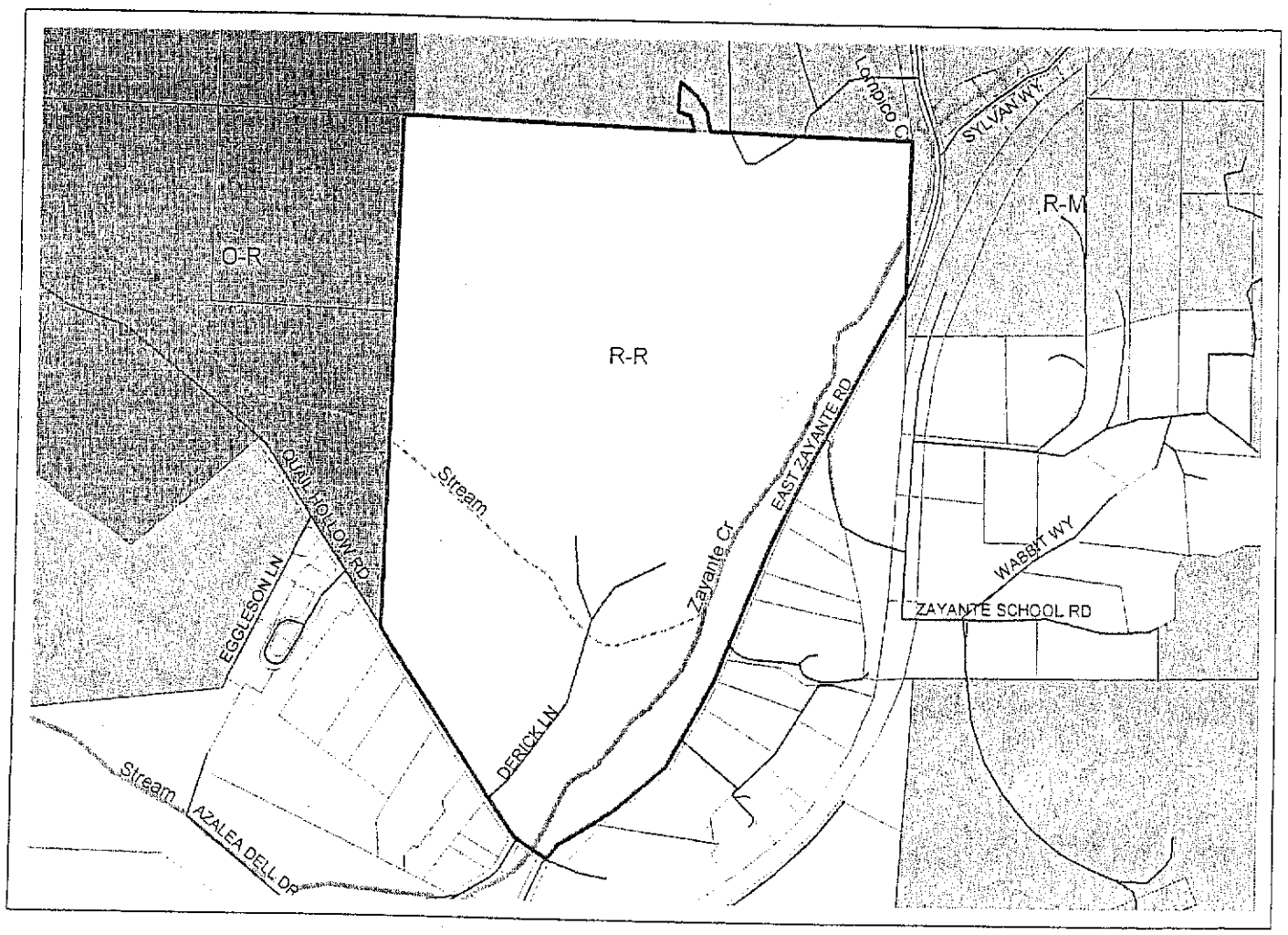
Legend

- APN 074-181-01
- Parcel boundaries
- Streets
- Intermittent Stream
- Perennial Stream
- RA
- R-1-15
- PR
- SU
- TP

Map created by Santa Cruz County Planning Department:
September 2003

Map created by Santa Cruz County Planning Department:
September 2003

General Plan Map



Environmental Review Initial Study

ATTACHMENT 3, 1 of 5

APPLICATION 03-0382

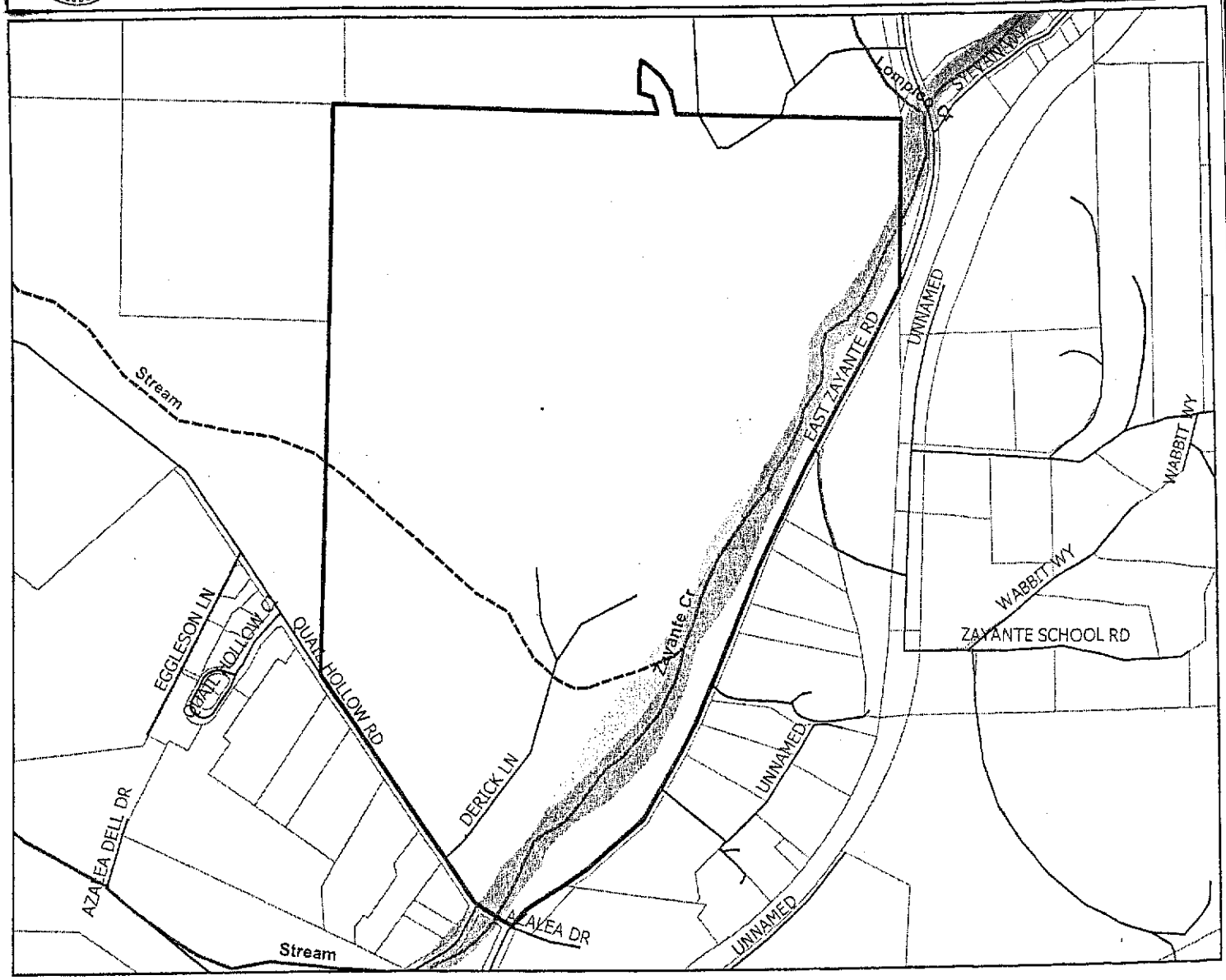
N

Legend

- APN 074-181-01
- Parcel boundaries
- Streets
- Intermittent Stream
- Perennial Stream
- Parks and Recreation
- Mountain Residential
- Rural Residential

Map created by Santa Cruz County
Planning Department
September 2003

Floodway/ Floodplain Map



Legend

- APN 074-181-01
- Streets
- Assessors Parcels
- INTERMITTENT STREAM
- PERENNIAL STREAM
- FLOODPLAIN
- FLOODWAY

N

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Environmental Review Inital Study
ATTACHMENT 3, 2 of 5
APPLICATION 03-0382

Map Created by
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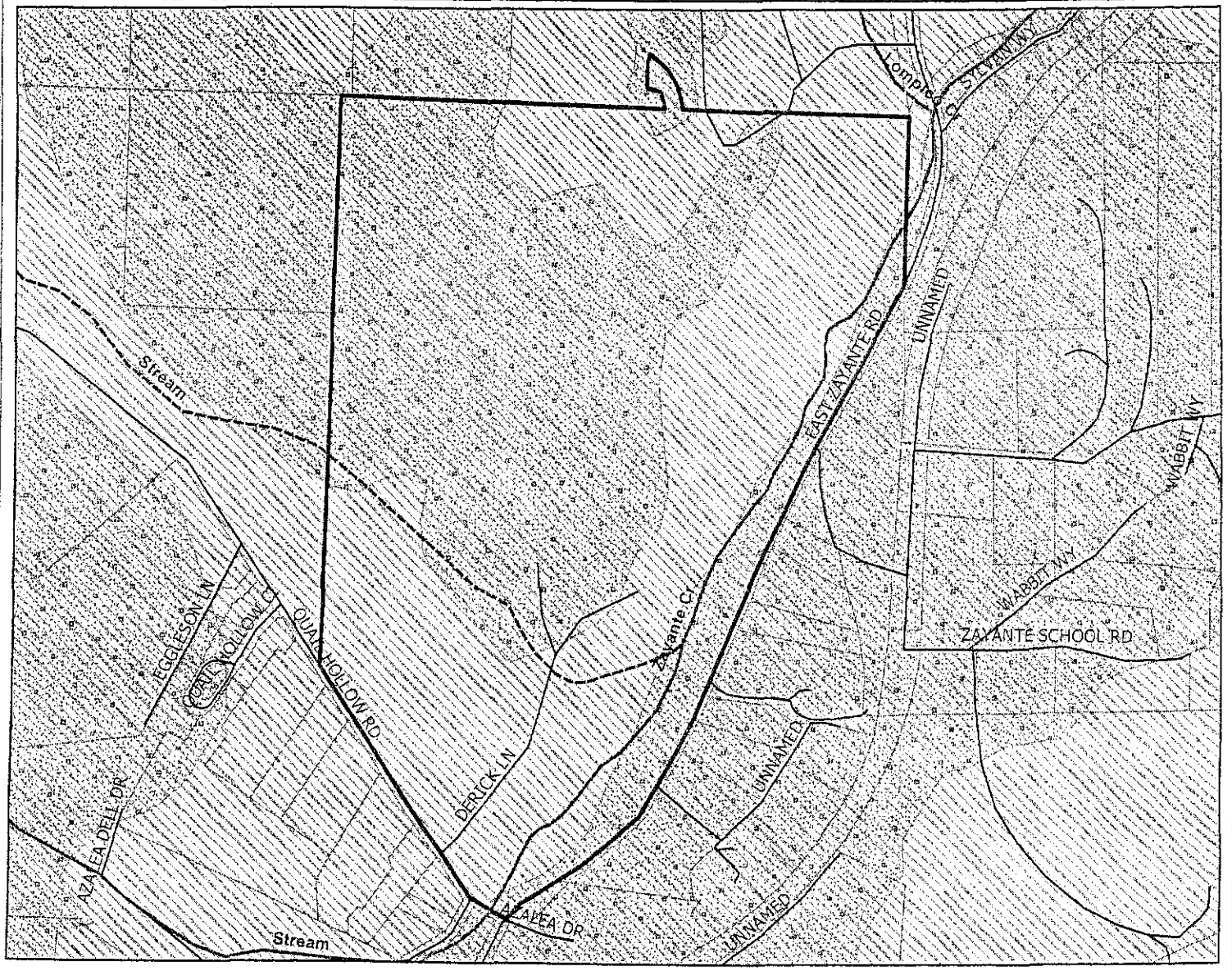
Planning Department
February 2005

Groudwater Recharge/ Water Supply Watershed Map



Environmental Review Initial Study

ATTACHMENT 3, 30 of 5

APPLICATION 03-0382

Legend

- APN 074-181-01
- Streets
- Assessors Parcels
- INTERMITTENT STREAM
- PERENNIAL STREAM
- Ground Water Recharge
- Water Supply Watersheds

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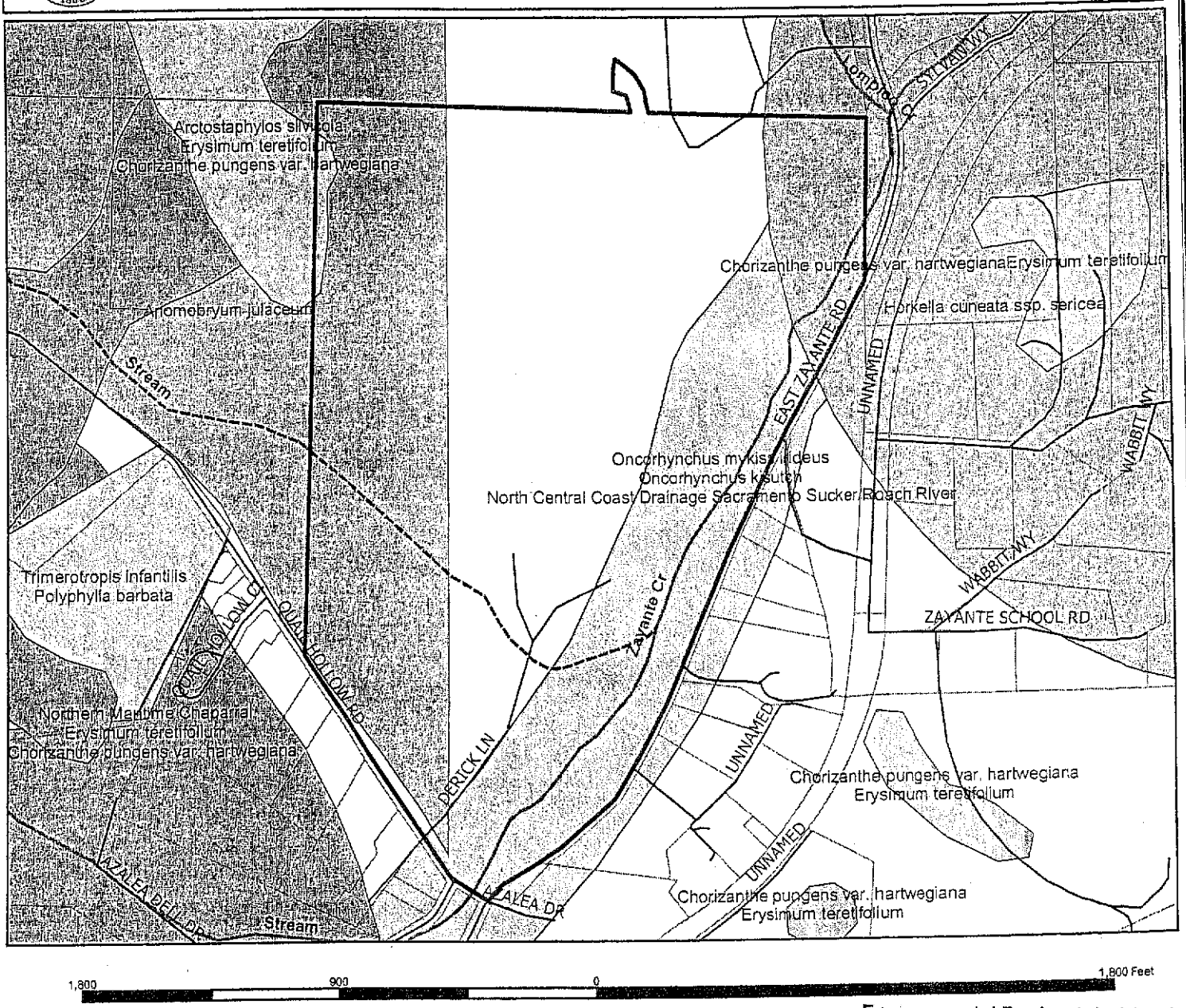
Map Created **by**
County of Santa Cruz
Planning Department
February 2005

Biotic Resource Map



Environmental Review Initial Study
ATTACHMENT 3, 4 or 5
APPLICATION 03-0382

Legend

- APN 074-181-01
- Streets
- Assessors Parcels
- INTERMITTENT STREAM
- PERENNIAL STREAM
- Plant (80m)
- Animal (80m)
- Terr. Comm. (80)

W E S

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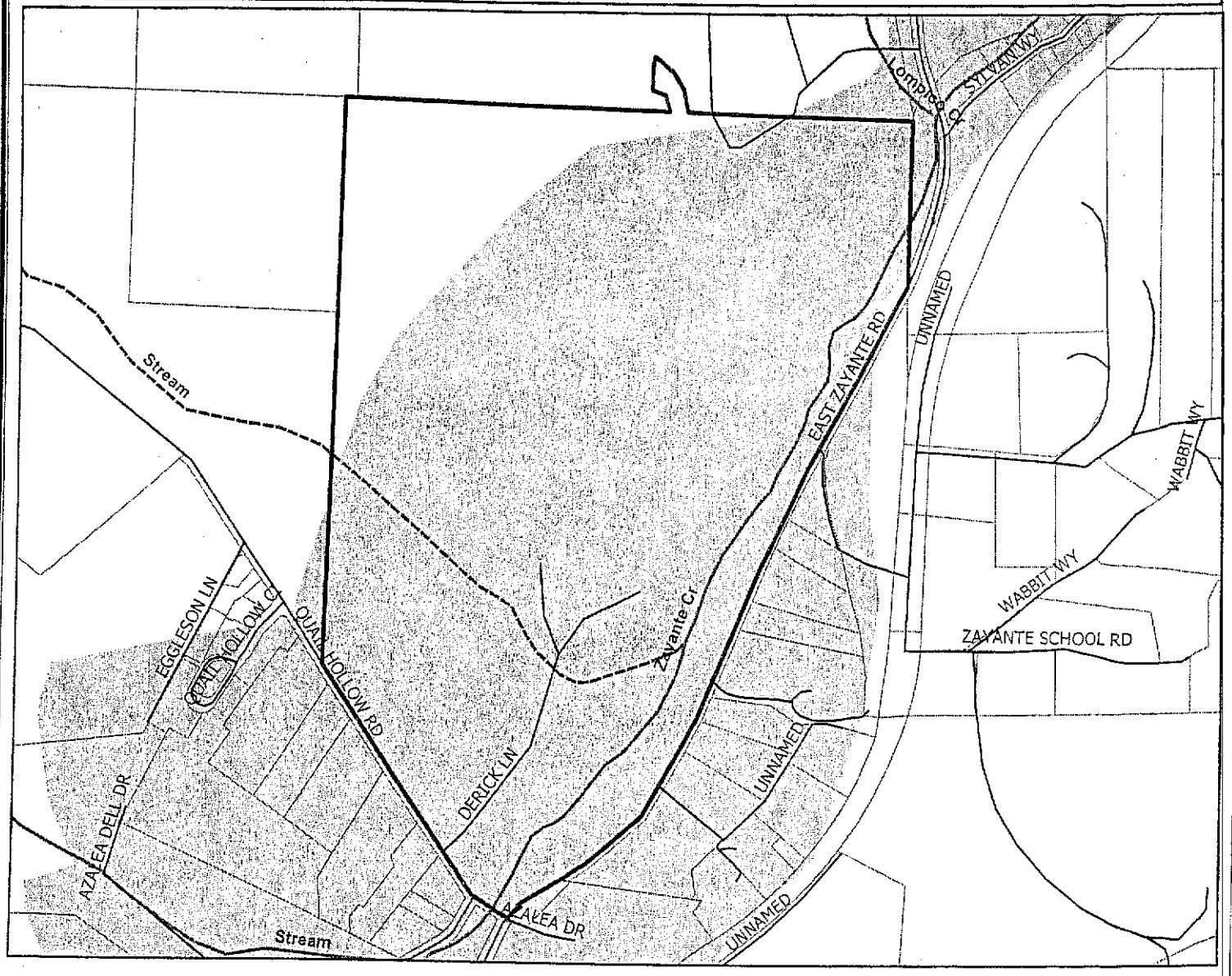
January 2005

Archaeologic Map



1,800 900 0 1,800 Feet

Legend

- APN 074-181-01
- Streets
- Assessors Parcels
- INTERMITTENT STREAM
- PERENNIAL STREAM
- Archeologic Resources

N
W E
S

Environmental Review Inital Study
ATTACHMENT 3, 5 of 5
APPLICATION 03-0382

Map Created by
County *of* Santa Cruz
Planning Department
February 2005

LICHEN OAKS RANCH BARN AND ARENA

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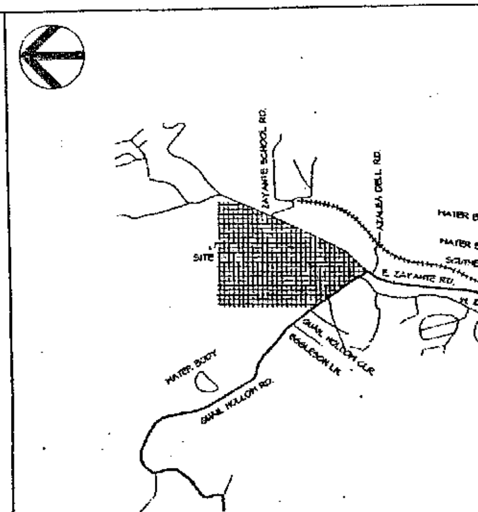
DRAWING INDEX:

G1	COVER SHEET, DRAWING INDEX, SITE PLAN, CODE REVIEW, AND LEGENDS
L1	OVERALL SITE PLAN
L1.1	MANURE MANAGEMENT PLAN AND DETAILS
L2	PARTIAL SITE PLAN
L3	NOT USED
L3.1	SLOPE PLAN
L4	LAYOUT PLAN
L5	NOT USED
L6	PLANTING PLAN
C1	GRADING AND DRAINAGE PLAN
C2	SITE CROSS SECTIONS AND DETAILS
C3	PARTIAL SITE PLAN
A1	ARENA FLOOR PLAN
A2	ARENA EXTERIOR ELEVATIONS AND ROOF PLAN
A3	ARENA EXTERIOR ELEVATION AND BUILDING SECTION
A4	NOT USED
A5	NOT USED
A6	NOT USED
A7	NOT USED
A8	NOT USED
A9	BARN FLOOR PLAN
A10	BARN EXTERIOR ELEVATIONS
A11	BARN EXTERIOR ELEVATIONS AND ROOF PLAN
A12	BARN BUILDING SECTION

(3/G1) DRAWING INDEX
Scale: N.T.S.



(5/G1) SITE LOCATION
Scale: N.T.S.

PROJECT DESCRIPTION: PRIVATE AGRICULTURAL BARN AND ARENA
PROPOSAL: NEW BARN = 4,498 S.F.
NEW ARENA = 13,338 S.F.

GENERAL PLAN DESIGNATION: MOUNTAIN RESIDENTIAL AND RURAL RESIDENTIAL
ZONE DISTRICT: SU – SPECIAL USE
PARCEL SIZE: 84.2 ACRES

OCCUPANCY CLASSIFICATIONS: BARN: ACCESSORY BUILDING, GROUP U DIVISION 3, PER SECTION 312, CALIFORNIA BUILDING CODE, 2001 ED.
ARENA: ACCESSORY BUILDING, GROUP U DIVISION 3, PER SECTION 312, CALIFORNIA BUILDING CODE, 2001 ED.

BUILDING CONSTRUCTION TYPE: BARN: TYPE V-N, PER APPENDIX CHAPTER 3 SECTION 327, CALIFORNIA BUILDING CODE, 2001 ED.
ARENA: TYPE II-N, PER APPENDIX CHAPTER 3 SECTION 327, CALIFORNIA BUILDING CODE, 2001 ED.

FIRE RATINGS: TABLE 6-A, CALIFORNIA BUILDING CODE, 2001 ED.

CDF/COUNTY FIRE DEPARTMENT NOTES:
1. ALL DRAWINGS WILL BE IN COMPLIANCE WITH CALIFORNIA BUILDING AND FIRE CODES (2001) AS AMENDED BY THE AUTHORITY HAVING JURISDICTION.
2. FINAL BUILDING AND FIRE SYSTEMS PLANS AND PERMITS WILL BE ONSITE DURING INSPECTIONS.
3. NEW BUILDINGS WILL BE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM COMPLYING WITH THE CURRENTLY ADOPTED EDITION OF NFPA 13 AND CHAPTER 35 OF THE CALIFORNIA BUILDING CODE AND ADOPTED STANDARDS OF THE AUTHORITY HAVING JURISDICTION.
4. A 60 FOOT CLEARANCE WILL BE MAINTAINED WITH NON-COMBUSTIBLE VEGETATION AROUND ALL NEW BUILDINGS OR TO THE PROPERTY LINE (WHICHEVER IS A SHORTER DISTANCE). SINGLE SPECIMENS OF TREES, ORNAMENTAL SHRUBBERY, OR SIMILAR PLANTS USED AS GROUND COVERS, PROVIDED THEY DO NOT FORM A MEANS OF RAPIDLY TRANSMITTING FIRE FROM NATIVE GROWTH TO ANY STRUCTURE ARE EXEMPT.
5. THE NEW DRIVEWAY WILL BE 12 FEET MINIMUM WIDTH, A MAXIMUM 20% SLOPE, AND HAVE AN OVERHEAD CLEARANCE OF 15 FEET VERTICAL DISTANCE. DRIVEWAY CONSTRUCTION SPECIFICATIONS WILL BE NOTED ON BUILDING PERMIT PLANS.
6. ADDITIONAL SPECIFICATIONS, DETAILS, AND REQUIRED CALCULATIONS WILL BE SHOWN ON THE BUILDING PERMIT PLANS.

(1/G1) CODE REVIEW INFORMATION
Scale: N.T.S.

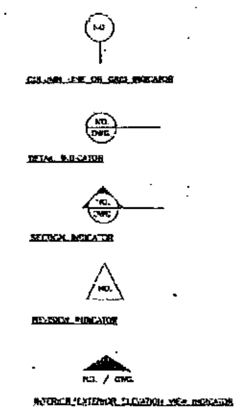
▨	EARTH
▨	STONE FILL
▨	CONCRETE
▨	BRICK
▨	CMU
▨	BATT INSULATION
▨	RIGID INSULATION
▨	TAPERED INSULATION
▨	FINISHED WOOD
▨	BLOCKING
▨	ROUGH FRAMING
▨	PLYWOOD
▨	STEEL
▨	GYP. BD.

NOTE: UNLESS NOTED OTHERWISE

(2/G1) MATERIAL LEGEND
Scale: N.T.S.

A/C	AIR CONDITIONING
ALUM	ALUMINUM
APPROX.	APPROXIMATE
BD	BOARD
BLDG	BUILDING
BOT	BOTTOM
CLG	CEILING
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
D	DRAIN
DET	DETAIL
DN.	DOWN
DWG	DRAWING
E	EAST
EL	ELEVATION
ELEC.	ELECTRICAL
EXT	EXTERIOR
FLR	FLOOR
FTG.	FOOTING
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
HC	HOLLOW CORE
HD	HEAVY DUTY
HM	HOLLOW METAL
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
JT	JOINT
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
N	NORTH
PT	POINT
PTD	PAINT
R	RISER
S	SOUTH
SCH	SCHEDULE
SHT	SHEET
SPEC	SPECIFICATION
STL	STEEL
STRUCT	STRUCTURAL
T	TREAD
THK	THICK(NESS)
TYP	TYPICAL
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WD	WOOD
WIN	WINDOW

(4/G1) ABBREVIATION LIST
Scale: N.T.S.



(6/G1) SYMBOL LEGEND
Scale: N.T.S.

Environmental Review Inital Study
ATTACHMENT 4, 1 of 18
APPLICATION 03-0382

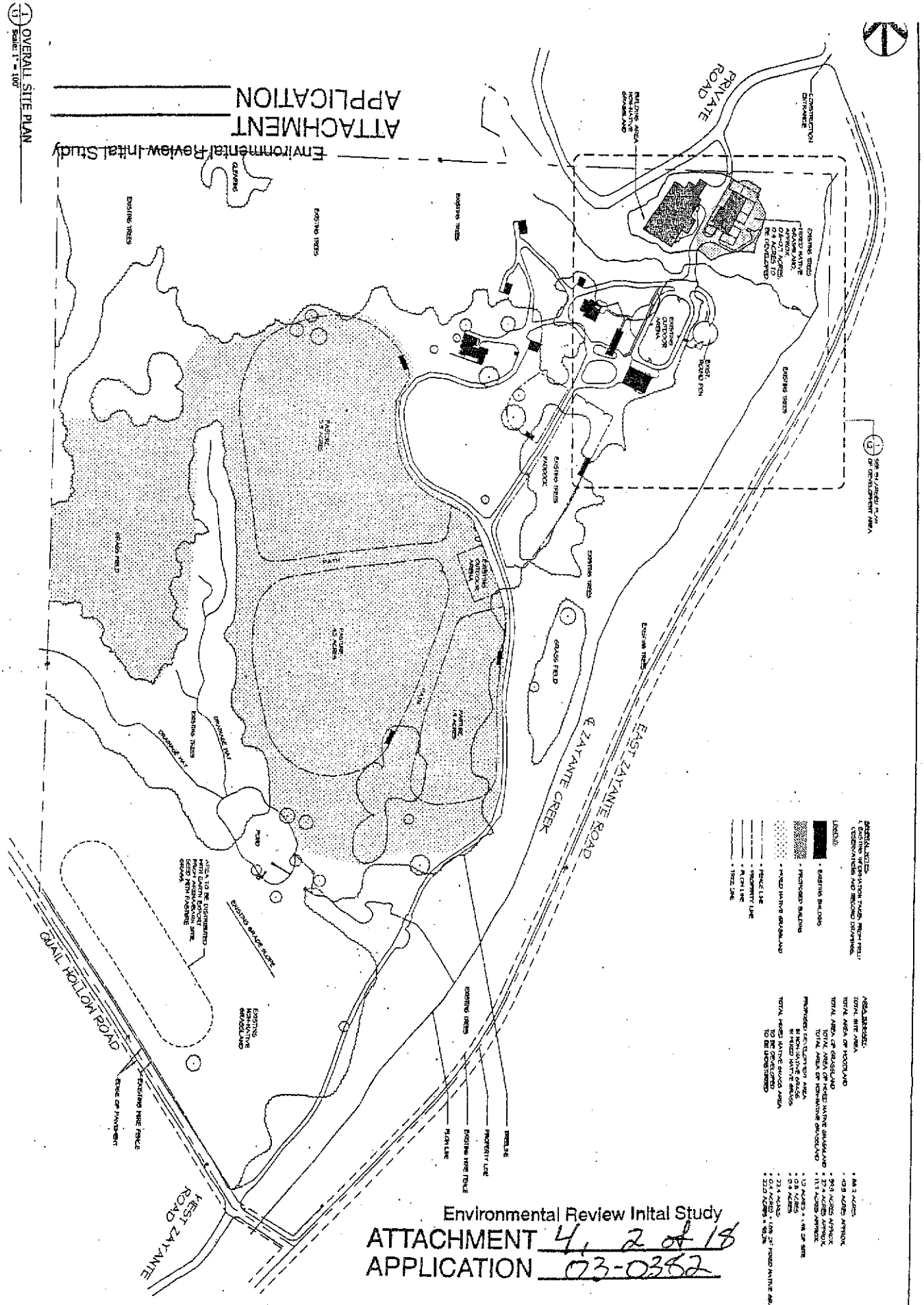
Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
14432 S. Livesay Road
Oregon City, Or. 97045
(503) 650-1663 FAX (503) 650-5862
CA Landscape Architect License #4137

LICHEN OAKS RANCH
110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018
COVER SHEET, DRAWING INDEX, SITE PLAN, CODE REVIEW, AND LEGENDS

DATE: 8-28-03
DRAWN: REJ

NO.	DATE	DESCRIPTION
1	[illegible]	PROGRESS PRINT
2	7-28-03	PROGRESS PRINT FOR REVIEW
3	1-3-03	PROGRESS PRINT FOR REVIEW
4	7-18-03	ISSUED FOR PLANNING REVIEW
5	12-2-03	REVISED FOR PLANNING REVIEW

SHEET G1



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	5	7-3-03	PROGRESS PRINT FOR REVIEW
	6	7-18-03	ISSUED FOR PLANNING REVIEW
	7	12-7-03	REVISED FOR PLANNING REVIEW

DRAWN: LLR
DATE: 07-18-03

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

OVERALL SITE PLAN

Equine Facility Design
Building Design
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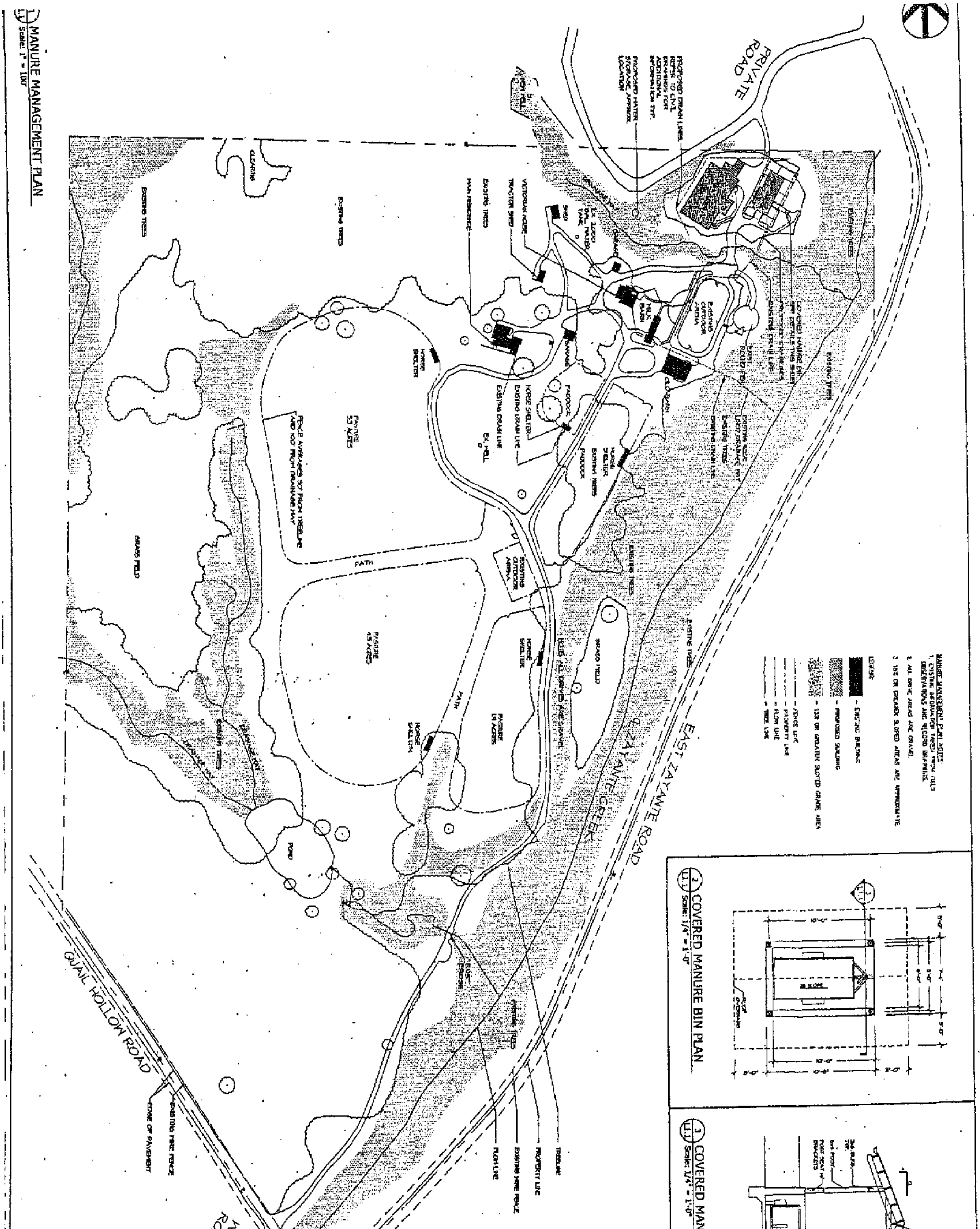
Linda L. Royer
14482 S. Highway 213
Oregon City, Or. 97045
(503) 650-1663 FAX (503) 650-5662
CA Landscape Architect License #4797



Environmental Review Inital Study

ATTACHMENT 4, 3 of 18

APPLICATION 03-0382

SHEET	NO.	DATE	DESCRIPTION
L1.1	1	11-28-02	PROGRESS PRINT
	2	2-19-03	PROGRESS PRINT
	3	2-28-03	PROGRESS PRINT FOR REVIEW
	4	4-8-03	ISSUED FOR PLANNING REVIEW
	5	12-1-03	REVISED FOR PLANNING REVIEW
	6	3-18-04	REVISED

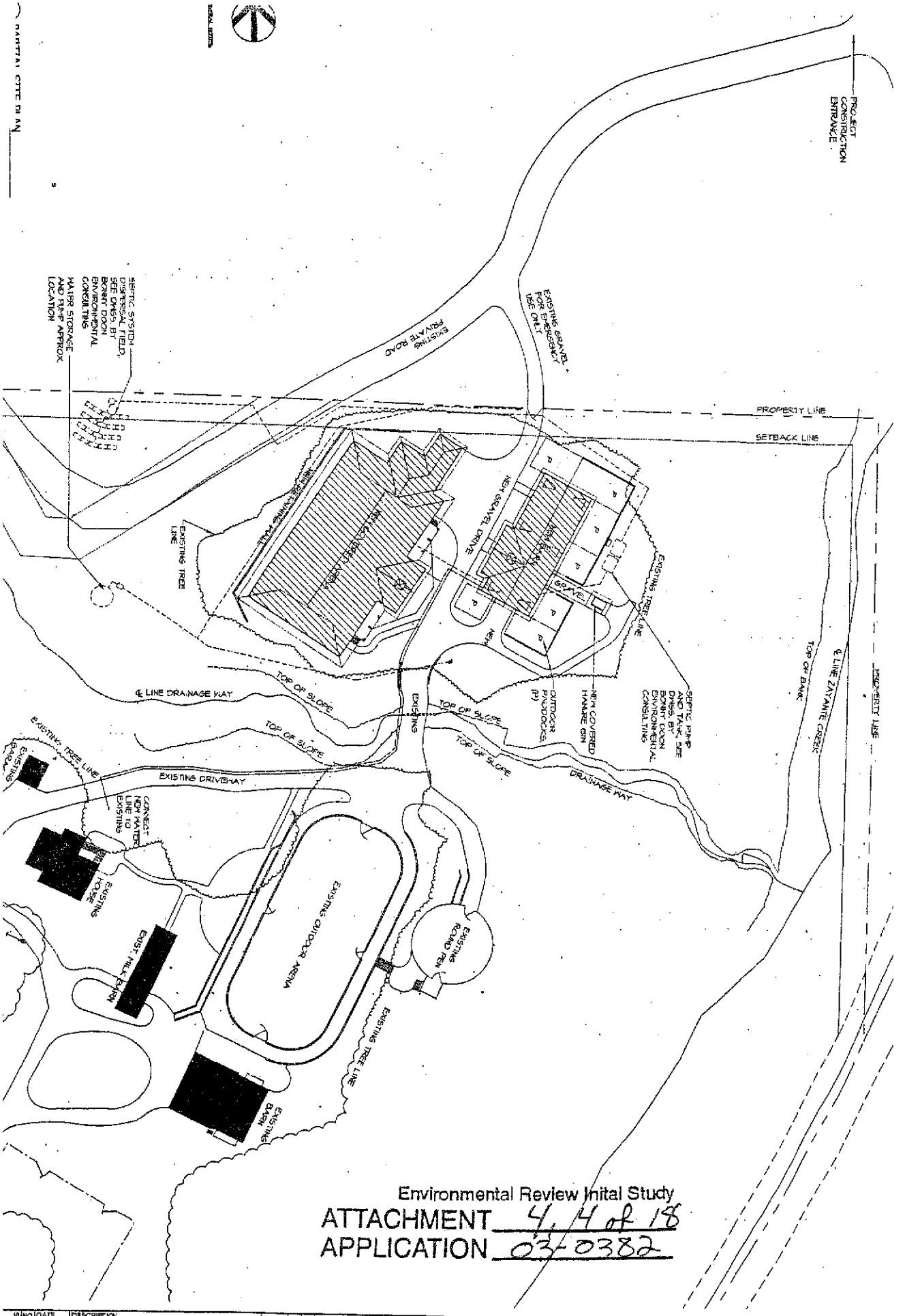
LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA

APN 074-181-01

MANURE MANAGEMENT PLAN AND BIN DETAILS

Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
Oregon City, Or.
CA Landscape Architect License



Environmental Review Inital Study
ATTACHMENT 4, 4 of 18
APPLICATION 03-0382

NO	DATE	DESCRIPTION
1-5	4-23-02	PROGRESS PRINT (4-23-02 - 2-18-03)
6	2-28-03	PROGRESS PRINT FOR REVIEW
7	3-5-03	PROGRESS PRINT FOR REVIEW
8	3-18-03	ISSUED FOR PLANNING REVIEW
9	11-7-03	REVISED FOR PLANNING REVIEW
10	3-8-04	REVISED

DRAWN: RD
DATE: 3-18-03

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA

APN #074-181-01

PARTIAL SITE PLAN AT PROPOSED BUILDINGS

Equine Facility Design
Building Design
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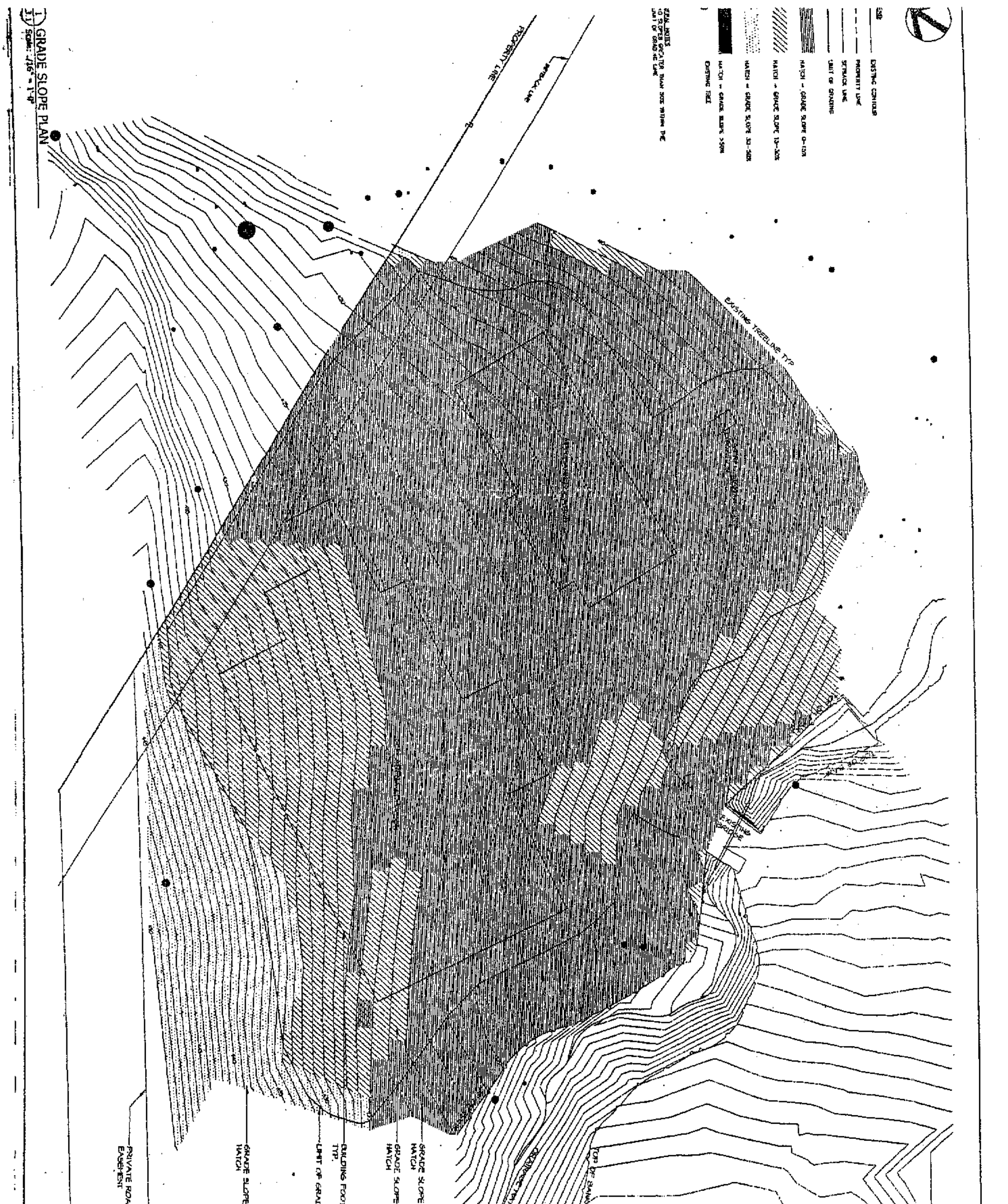
Linda L. Royer
14452 S. Livesay Road
Oregon City, Or. 97045
(503) 650-4440 FAX (503) 650-9862
CA Landscape Architect License #4731



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L3.1	1	12-30-02	PROGRESS PRINT
	2	1-18-03	PROGRESS PRINT
	3	2-28-03	PROGRESS PRINT FOR REVIEW
	4	7-18-03	ISSUED FOR PLANNING REVIEW
	5	12-7-03	REVISED FOR PLANNING REVIEW

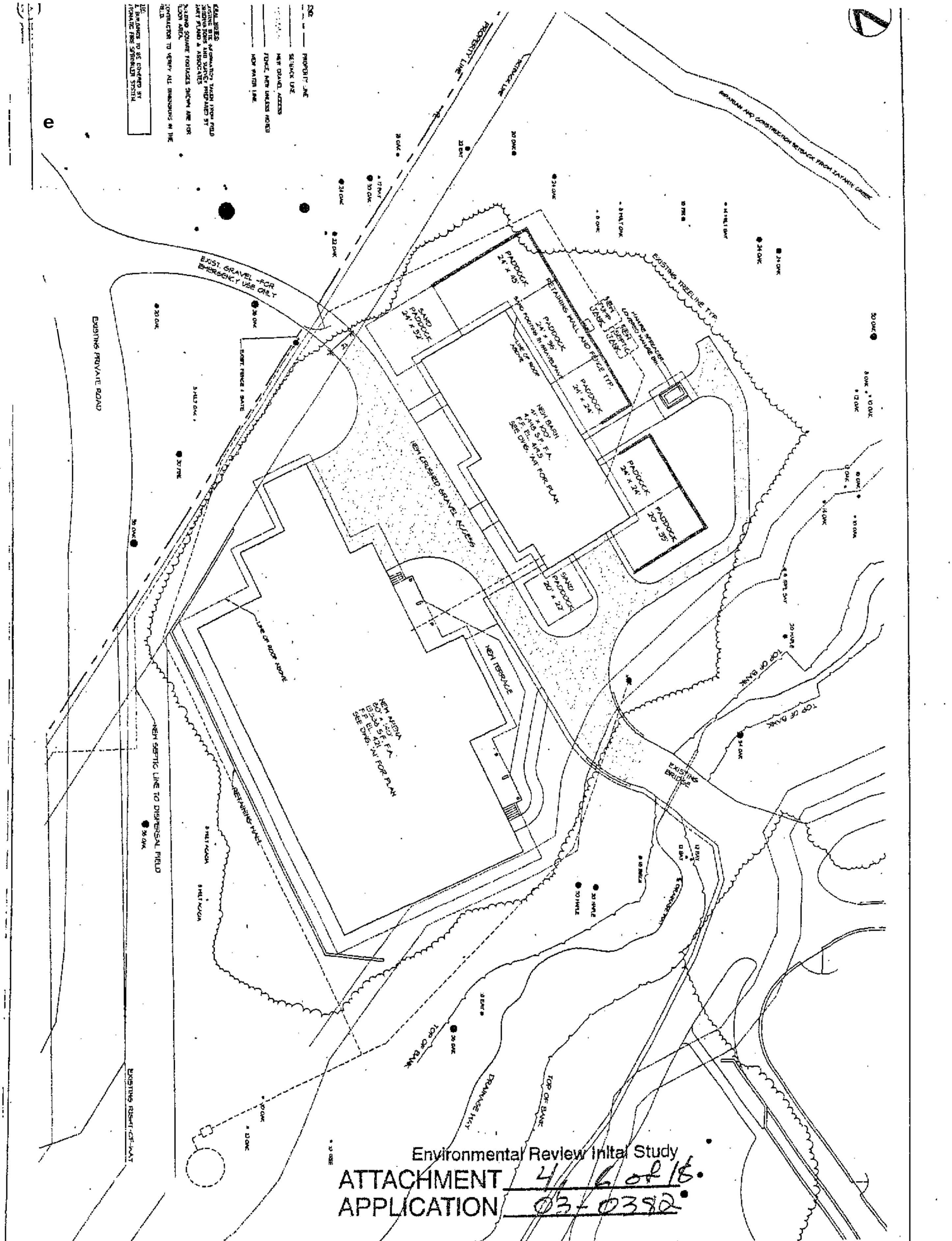
LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #014-181-01

GRADE SLOPE PLAN AT PROPOSED BUILDINGS

Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
14482 S. Livesay Road
Oregon City, Or. 97045
(503) 650-1668 FAX (503) 650-5862
CA Landscape Architect License #4157



Environmental Review Inital Study
ATTACHMENT 4, 6 of 18
APPLICATION 03-0382

SHEET	NO.	DATE	DESCRIPTION
L4	1	1-30-03	PROGRESS PRINT
	2	2-19-03	PROGRESS PRINT
	3	2-28-03	PROGRESS PRINT FOR REVIEW
	4	7-3-03	PROGRESS PRINT FOR REVIEW
	5	7-18-03	ISSUED FOR PLANNING REVIEW
	6	12-7-03	REVISED FOR PLANNING REVIEW

DRAWN: PEL
DATE: 3-20-03

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

LAYOUT PLAN AT PROPOSED BUILDINGS

Equine Facility Design
Building Design
Site Planning
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(503) 650-1565 FAX (503) 650-5863
CA Landscape Architect License #4191

Environmental Review Initial Study

ATTACHMENT 4, 7-18

APPLICATION 03-6 82

NO.	DATE	DESCRIPTION
1	1-18-03	ISSUED FOR PLANNING REVIEW
2	12-2-03	REVISED FOR PLANNING REVIEW

SHEET L4.1

DATE: 9-8-03

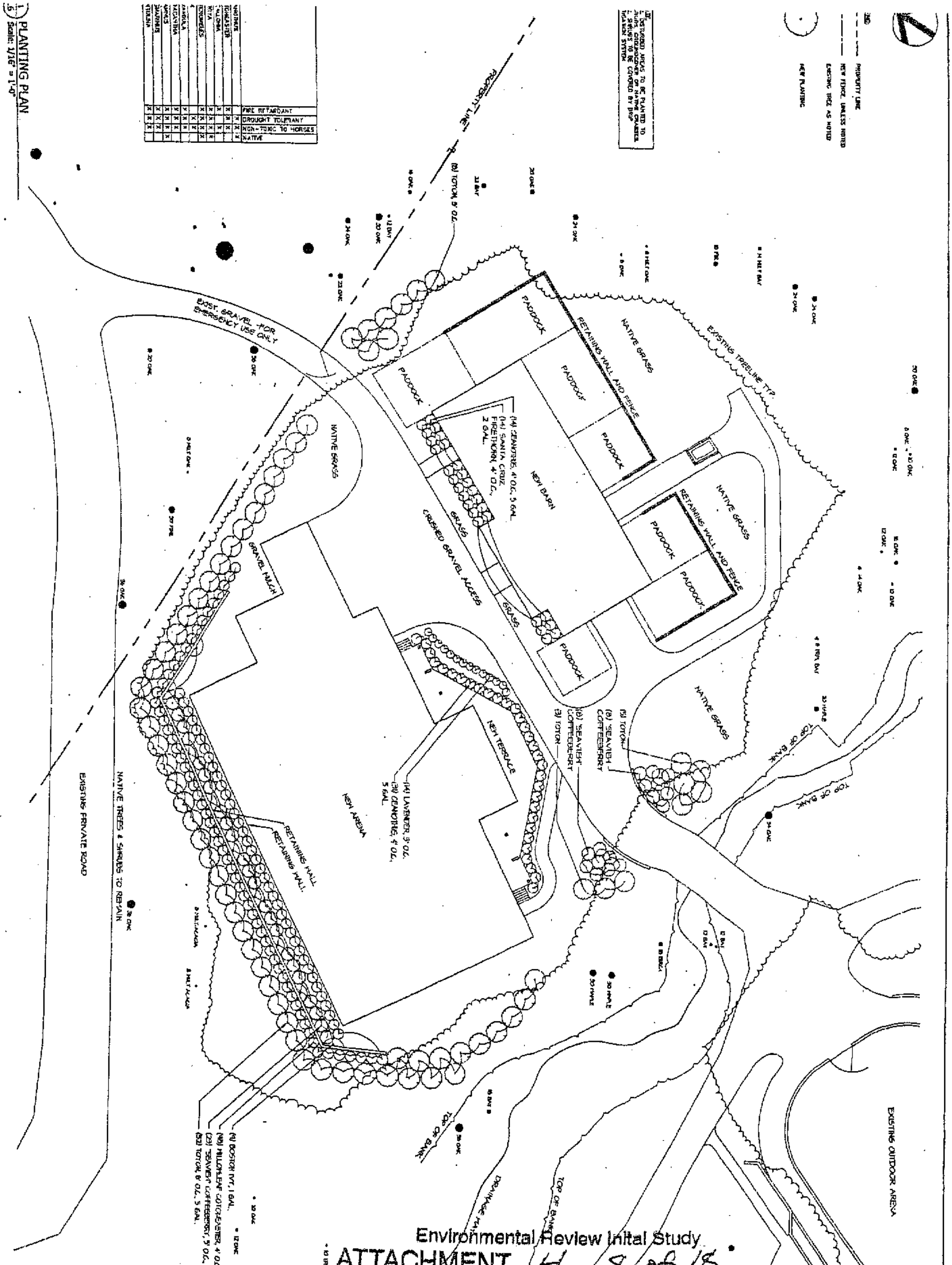
LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

DRAINAGE WAY SETBACK PLAN

Equine Facility De
Building Design
Site Planning
Landscape Architectur
Linda L. Royer
14452 S. Livesay Road
Oregon City, Or. 97045
(503) 650-1563 FAX (503) 65
CA Landscape Architect Licens



Environmental Review Inital Study
ATTACHMENT 4, 8 of 18
APPLICATION 03-0382

SHEET	NO.	DATE	DESCRIPTION
L6	1	11-15-02	PROGRESS PRINT
	2	11-30-02	PROGRESS PRINT
	3	2-28-03	PROGRESS PRINT FOR REVIEW
	4	7-16-03	ISSUED FOR PLANNING REVIEW
	5	12-2-03	REVISED FOR PLANNING REVIEW

DATE: 11-15-02
DRAWN: MEJ

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018
APN #074-181-01
PLANTING PLAN AT PROPOSED BUILDINGS

Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
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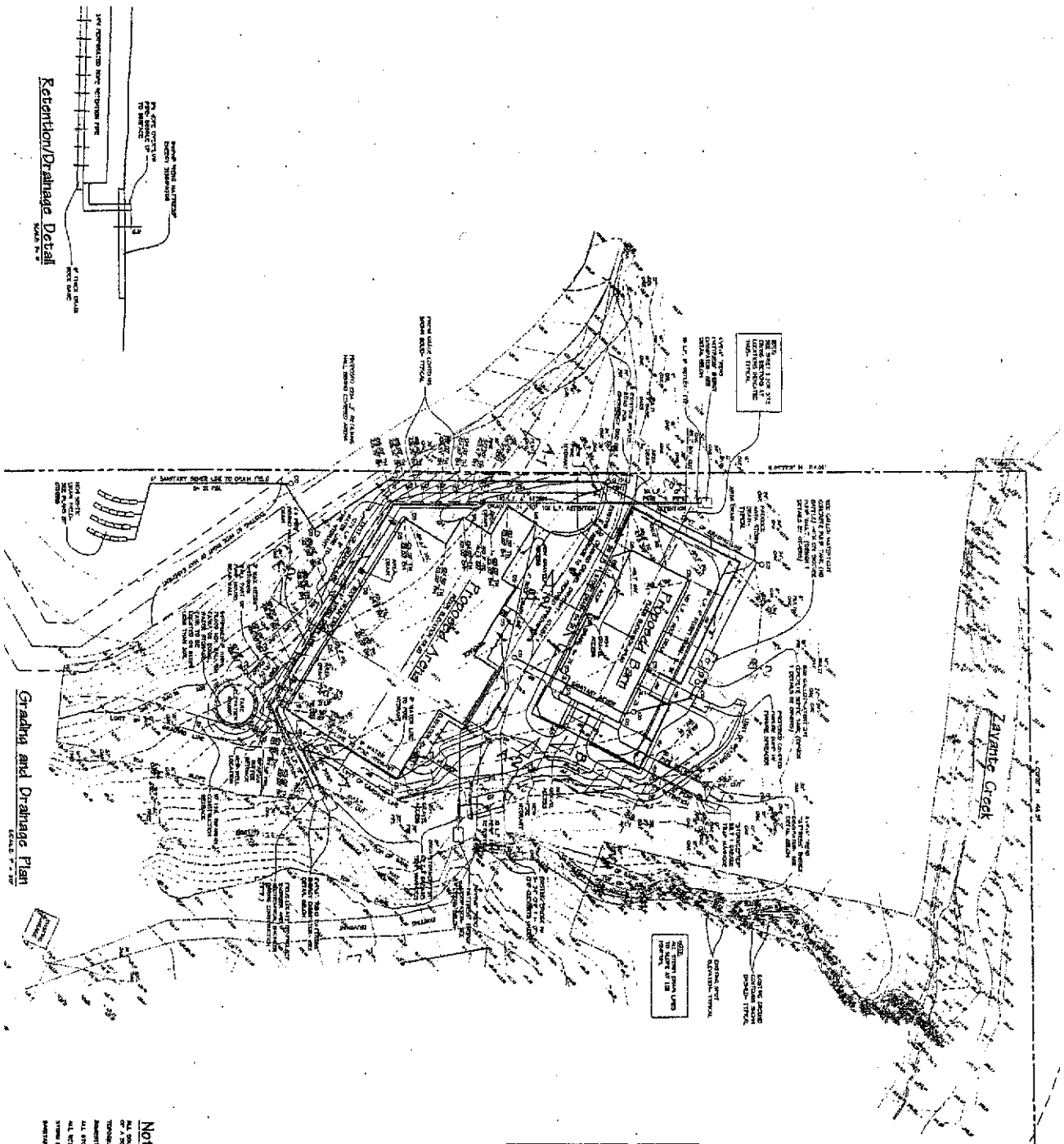
(503) 650-1663 FAX (503) 650-5663
CA Landscape Architect License #4757



Preliminary Earthwork Quantities

3406 CUBIC YARDS EXCAVATION
1268 CUBIC YARDS ENGAINMENT
1946 CUBIC YARDS EXPORT TO BE DISTRIBUTED ON SITE AS APPROVED PASTURE AREAS

Notes:

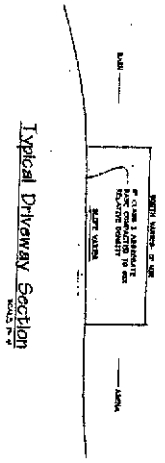
Environmental Review Inital Study
ATTACHMENT 4, 9 of 18
APPLICATION 03-0382

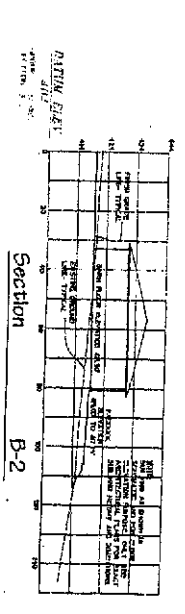
APN 074-181-01		Grading and Drainage Plan for:	
DATE 04/18/04	DESGN Glen	Lichen Oaks Ranch	
SCALE 1"=30'	DRAWN Mara	110 Quail Hollow Road, Felton, California	

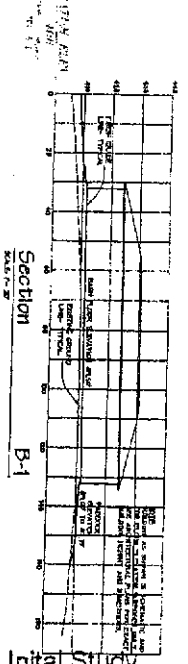
Ifland ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
CONSTRUCTION MANAGEMENT

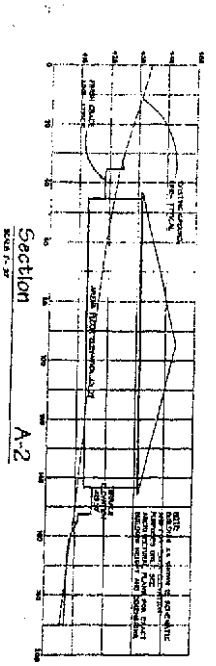
1100 WATER STREET
SANTA CRUZ, CA 95062
TEL (831) 426-5313
FAX (831) 426-1763
WWW.IFLANDENGINEERS.COM

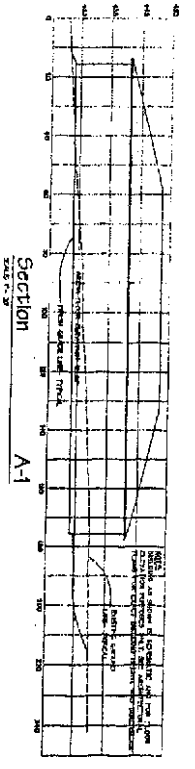
C1











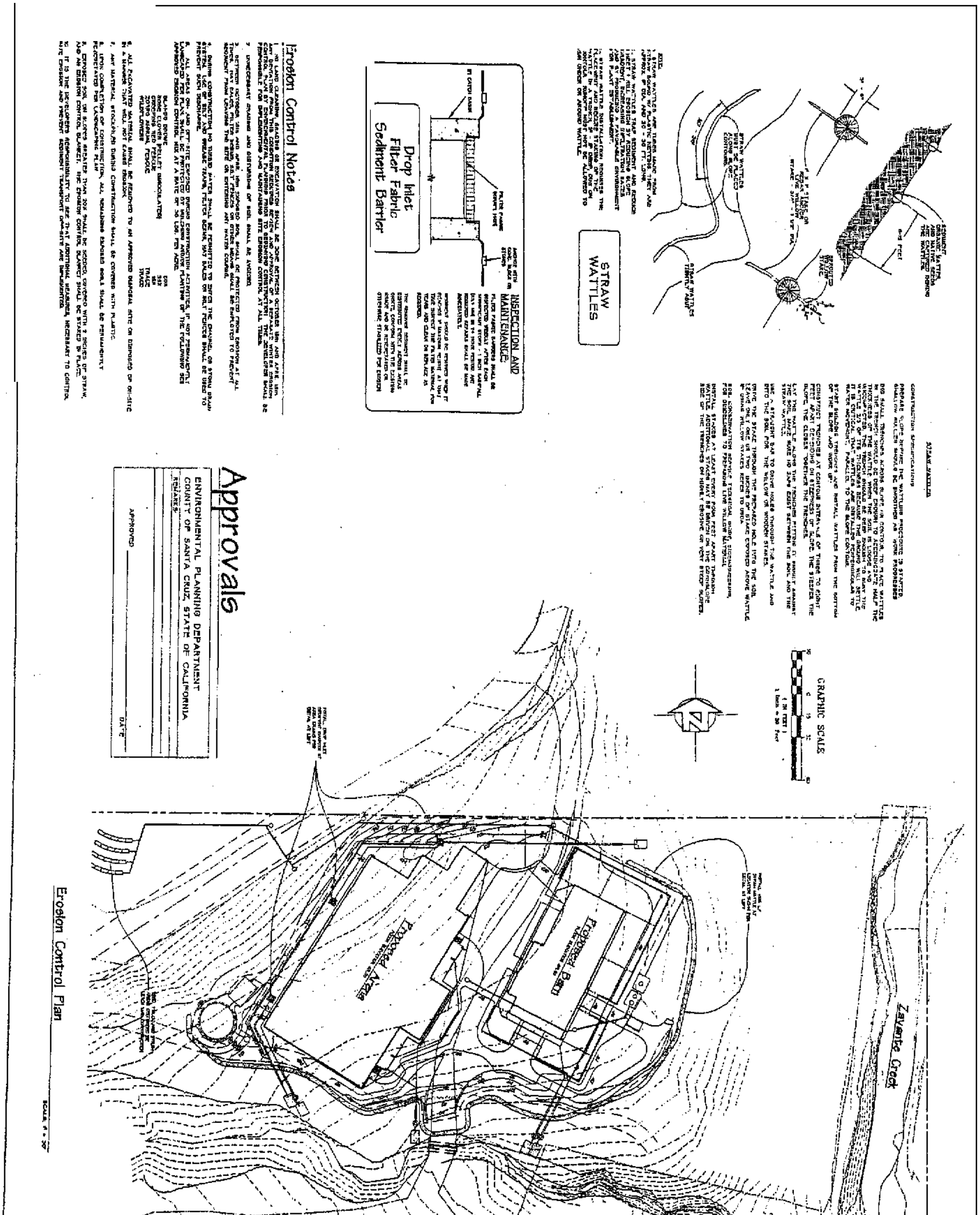
Environmental Review Inital Study
ATTACHMENT 4, 10 of 18
APPLICATION 03-0382

APN 074-181-01	Site Cross Sections and Details		
DATE 04/16/04	DESIGN Glen		
SCALE 1/4" = 20'	DRAWN Mara		
Lichen Oaks Ranch			
110 Quail Hollow Road, Felton, California			

Miand ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
CONSTRUCTION MANAGEMENT
1100 WATER STREET
SANTA CRUZ, CA 95062
TEL (831) 429-6313
FAX (831) 429-1783
WWW.MIANDENGINEERS.COM

	Planning comments	12/8/04
APPROVED		

C2
3 SHEETS
03008



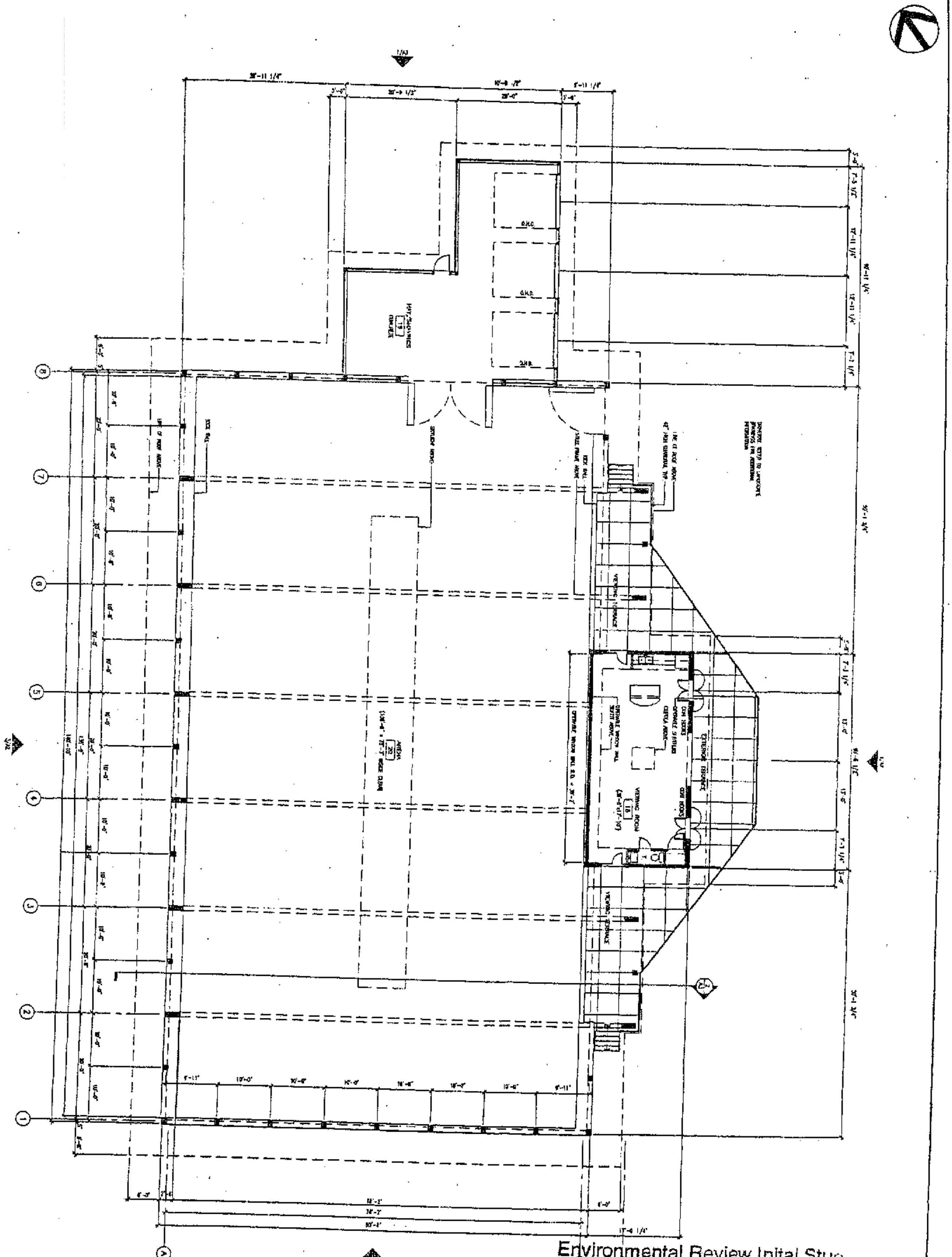
Environmental Review Inital Study
ATTACHMENT 4, 11 of 18
APPLICATION 03-0382

SHEET C3 OF 3 SHEETS	APN 074-181-01	
	DATE 04/16/04	DESIGN Glen
JOB NO. 03008	SCALE 1"= 30'	DRAWN Mare

Erosion Control Plan & Details
Lichen Oaks Ranch
110 Quail Hollow Road, Felton, California

ifland ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
CONSTRUCTION MANAGEMENT
1100 WATER STREET
SANTA CRUZ, CA 95062
TEL (831) 426-5313
FAX (831) 426-1763
WWW.IFLANDENGINEERS.COM

BY	REVISION	DATE
APPROVED		



Environmental Review Inital Stuc

ATTACHMENT 4, 12 of 18

APPLICATION 03-0382

SHEET	NO	DATE	DESCRIPTION
A1	1-6	9-18-02	PROGRESS PRINT (4-8-02, 5-28, 6-26, 1-8-03, 7-28)
	7	1-3-03	PROGRESS PRINT FOR REVIEW

DRAWN: TEJ

DATE: 8-16-99

LICHEN OAKS RANCH

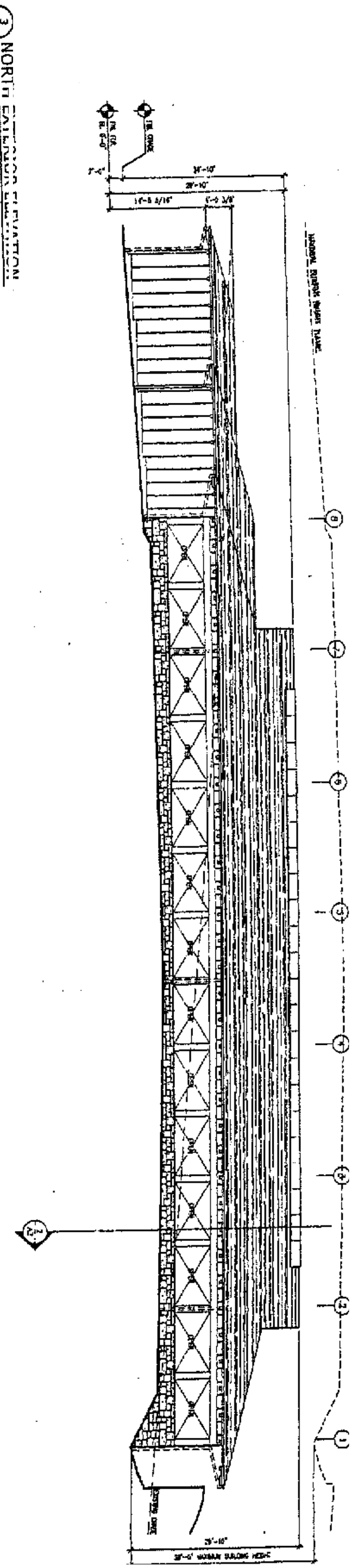
110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

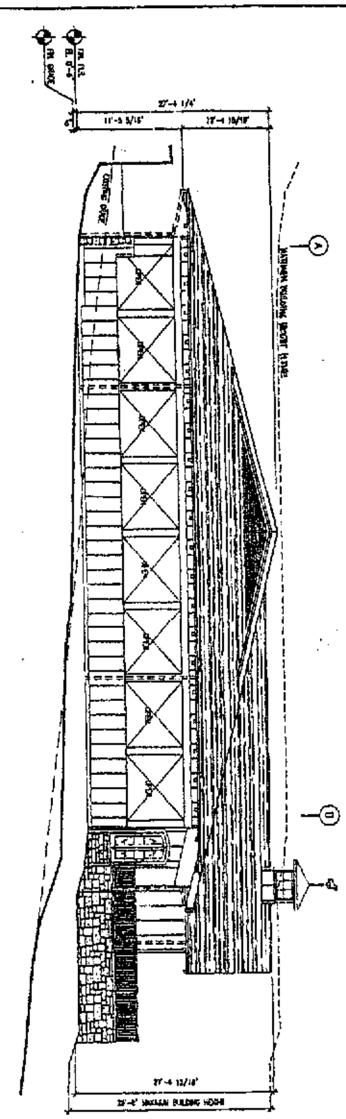
APN #074-181-01

ARENA FLOOR PLAN

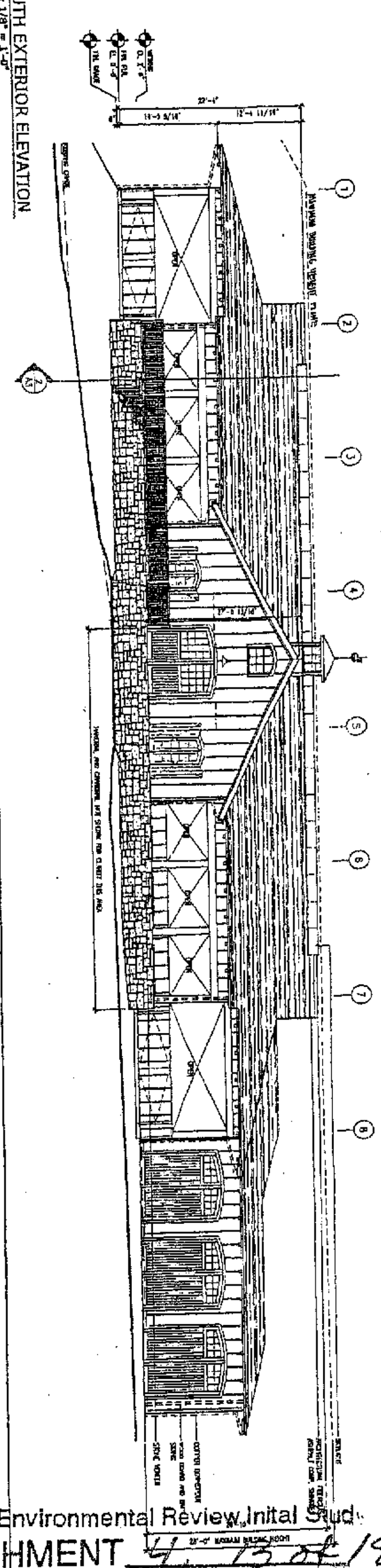
Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
14435 S. Livesay Road
Oregon City, Or. 97045
(503) 650-1665 FAX (503) 650-8662
CA Landscape Architect License #4737

3/A2 NORTH EXTERIOR ELEVATION
Scale: 1/8" = 1'-0"

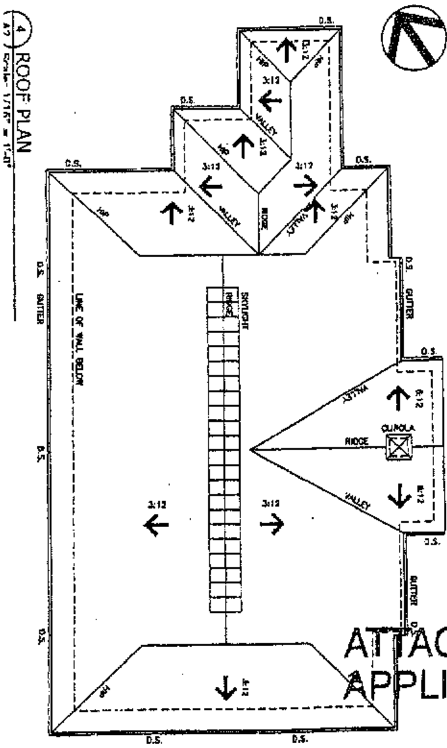




1/A2 SOUTH EXTERIOR ELEVATION
Scale: 1/8" = 1'-0"



4/A2 ROOF PLAN
Scale: 1/16" = 1'-0"



Environmental Review Inital Study
ATTACHMENT 4, 13 of 18
APPLICATION 03-0382

SHEET	NO.	DATE	DESCRIPTION
A2	1-5	3-18-02	PROGRESS PRINT (4-8-02, 5-28, 6-26, 7-28-03)
	6	1-3-03	PROGRESS PRINT FOR REVIEW
	7	1-11-03	PROGRESS PRINT FOR REVIEW
	8	1-16-03	ISSUED FOR PLANNING REVIEW
	9	6-11-04	REVISED TO SHOW MAXIMUM BUILDING HEIGHT

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

ARENA EXTERIOR ELEVATIONS AND ROOF PLAN

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Site Planning
Landscape Architecture
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14482 S. Livesay Road
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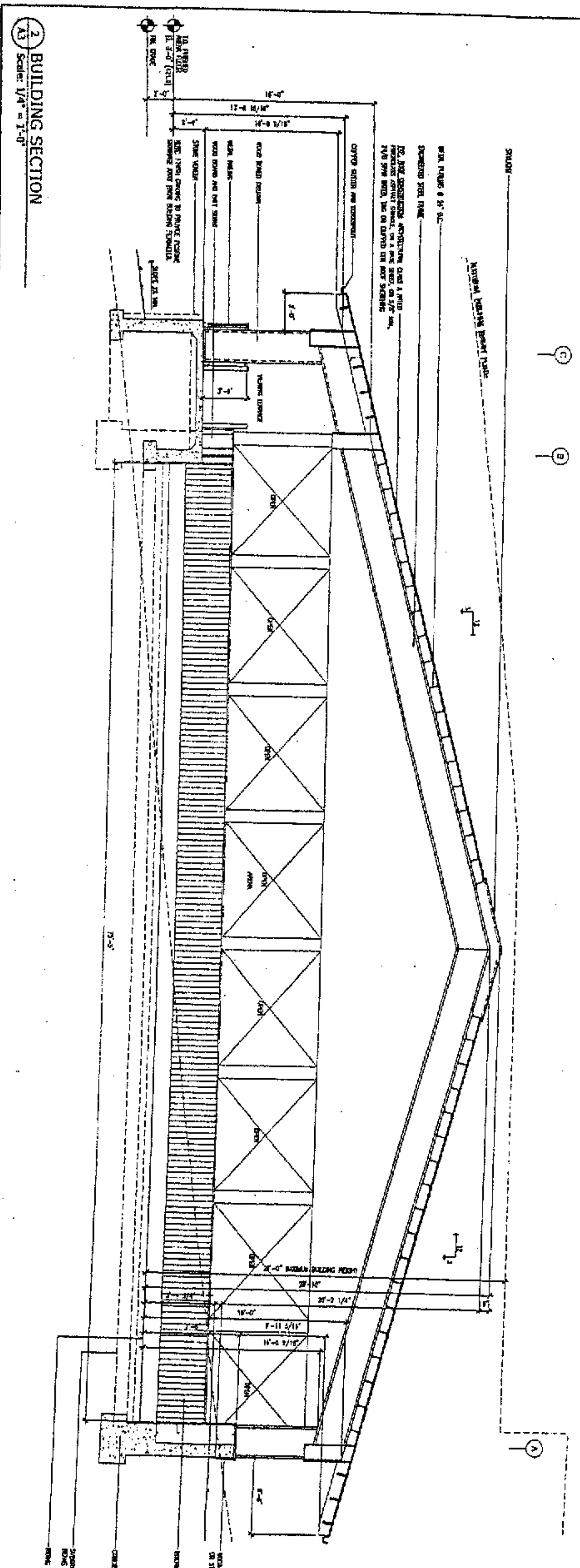
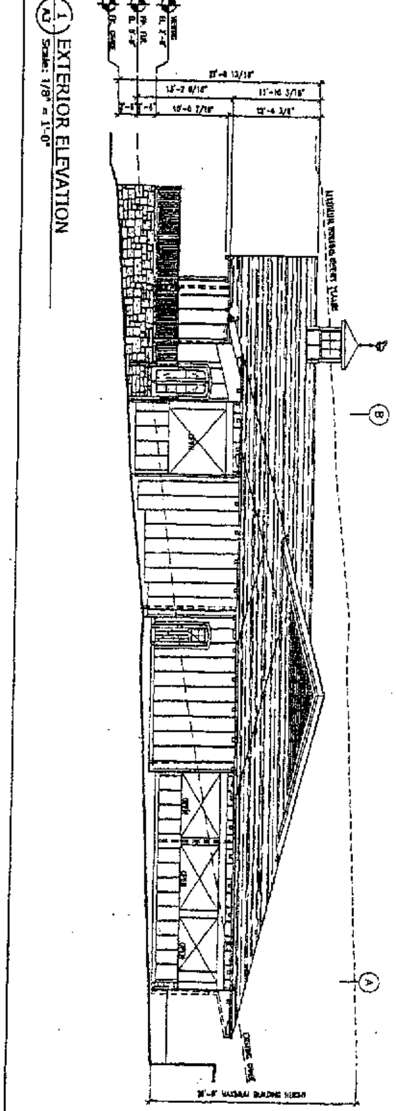
(503) 660-1663 FAX (503) 656-5561
CA Landscape Architect License 4737





Environmental Review Inital Study
ATTACHMENT 4, 14 of 18
APPLICATION 03-0382

SHEET	NO	DATE	DESCRIPTION
A3	1-5	3-18-02	PROGRESS PRINT (4-8-02, 5-28, 6-28, 7-28-03)
	6	7-3-03	PROGRESS PRINT FOR REVIEW
	7	7-11-03	PROGRESS PRINT FOR REVIEW
	8	7-18-03	ISSUED FOR PLANNING REVIEW
	10	6-11-04	REVISED TO SHOW MAXIMUM BUILDING HEIGHT

LICHEN OAKS RANCH
110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018
APN #074-181-01
ARENA EXTERIOR ELEVATION AND BUILDING SECTION

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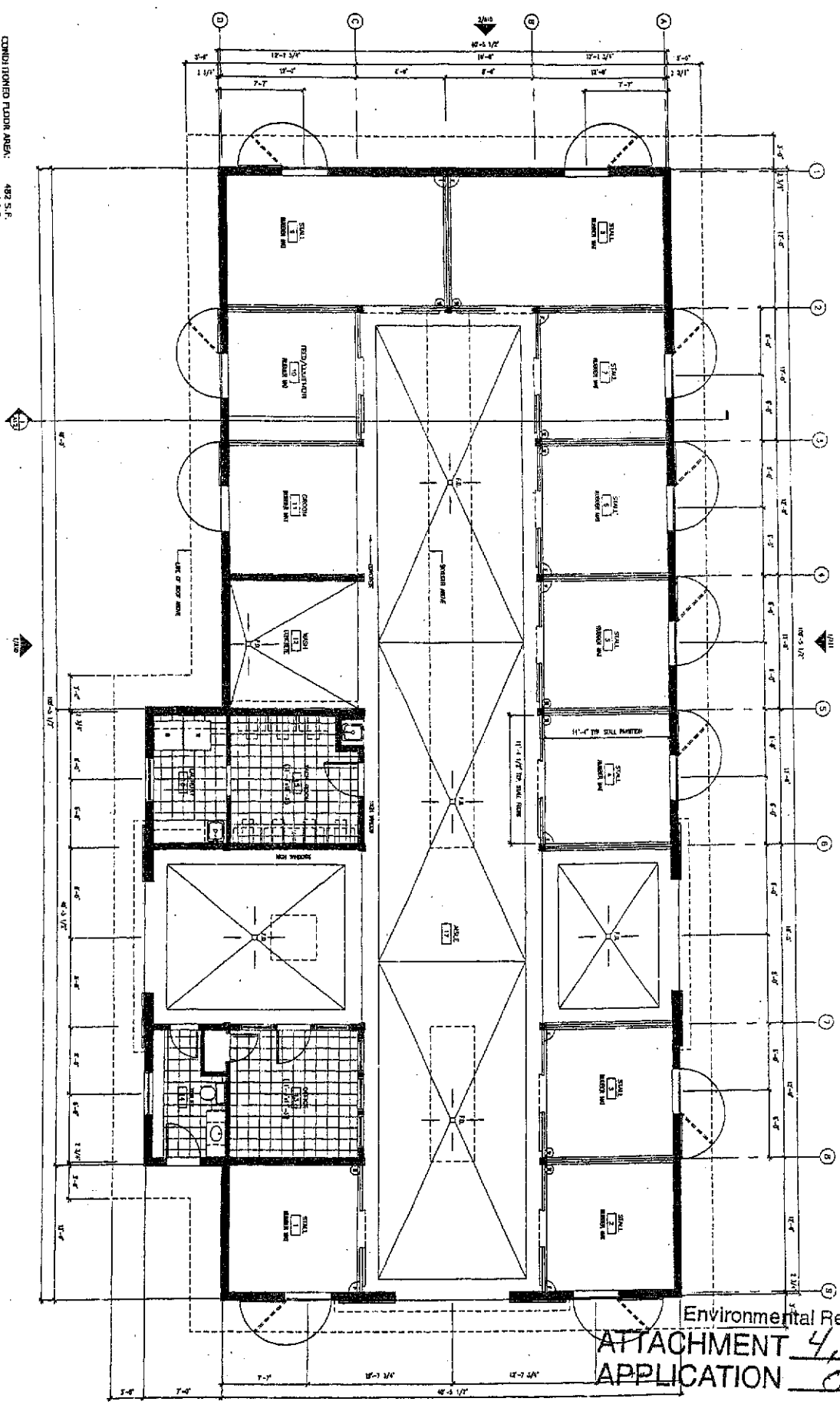
Oregon City, Or. 97045
(503) 655-1663 FAX (503) 655-9667
CA Landscape Architect License #4737

1 A9 BARN FLOOR PLAN
SCALE: 3/16" = 1'-0"

CONDITIONED FLOOR AREA: 482 S.F.
UNCONDITIONED FLOOR AREA: 3,916 S.F.
TOTAL FLOOR AREA: 4,398 S.F.



Environmental Review Inital Study
ATTACHMENT 4, 15 of 18
APPLICATION 03-0382

NO	DATE	DESCRIPTION
3	3-15-01	PROGRESS PRINT (4-6-01, 5-16, 5-30, 1-5-05)
2	7-3-03	PROGRESS PRINT FOR REVIEW
1	1-6-03	ISSUED FOR PLANNING REVIEW

SHEET A9

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

BARN FLOOR PLAN

Equine Facility Design
Building Design
and Planning
Landscape Architecture
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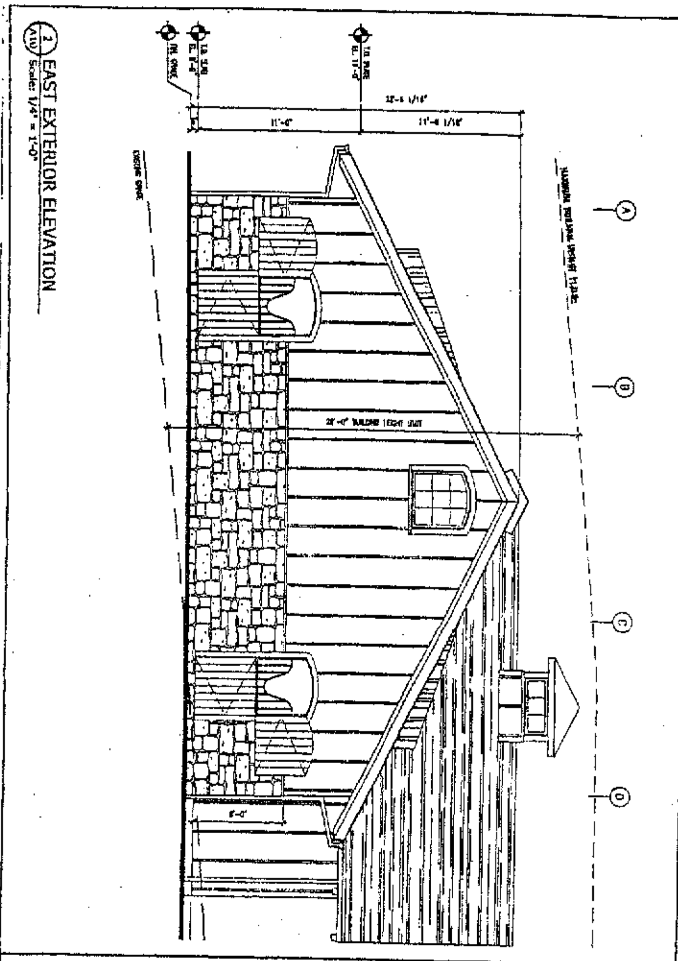
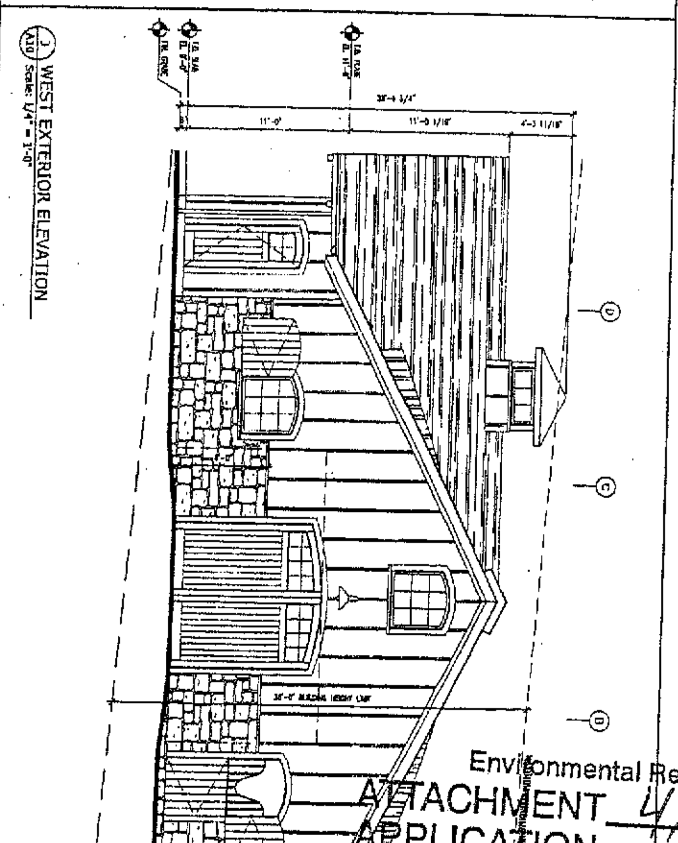
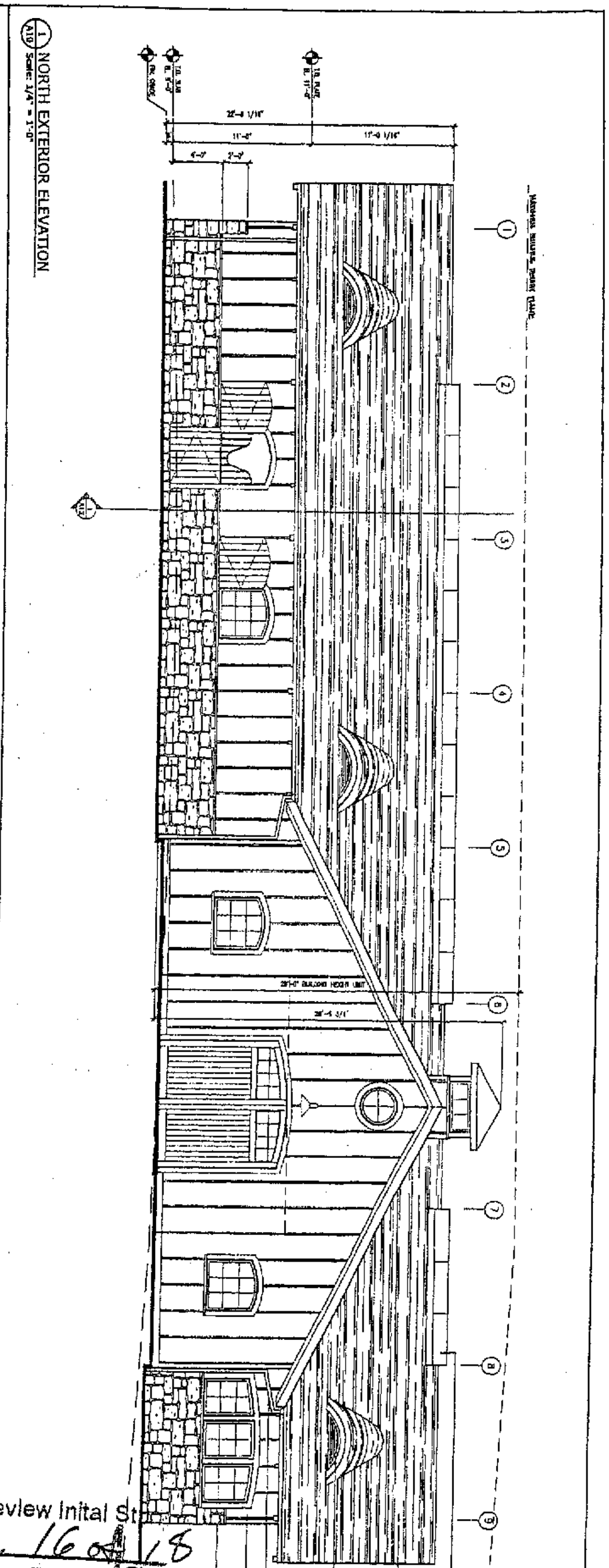
16435 S. Livesay Road
Oregon City, Or. 97045
(503) 656-1643 FAX (503) 656-3657
CA Landscape Architect License #4191

58







Environmental Review Inital Study
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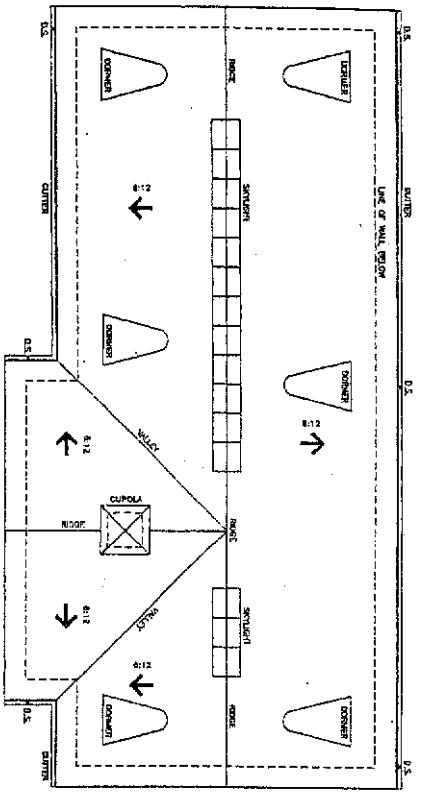
APPLICATION 03-0382

SHEET	NO.	DATE	DESCRIPTION
A10	1-6	3-18-03	PROGRESS PRINT (3-26, 4-8-03, 6-26, 9-10, 1-6-03)
	7-9	2-28-03	PROGRESS PRINT FOR REVIEW (7-3, 7-18-03)
	10	7-18-03	ISSUED FOR PLANING REVIEW
	11	12-7-03	REVISED FOR PLANNING REVIEW
	12	0-17-04	REVISED TO SHOW MAXIMUM BUILDING HEIGHT

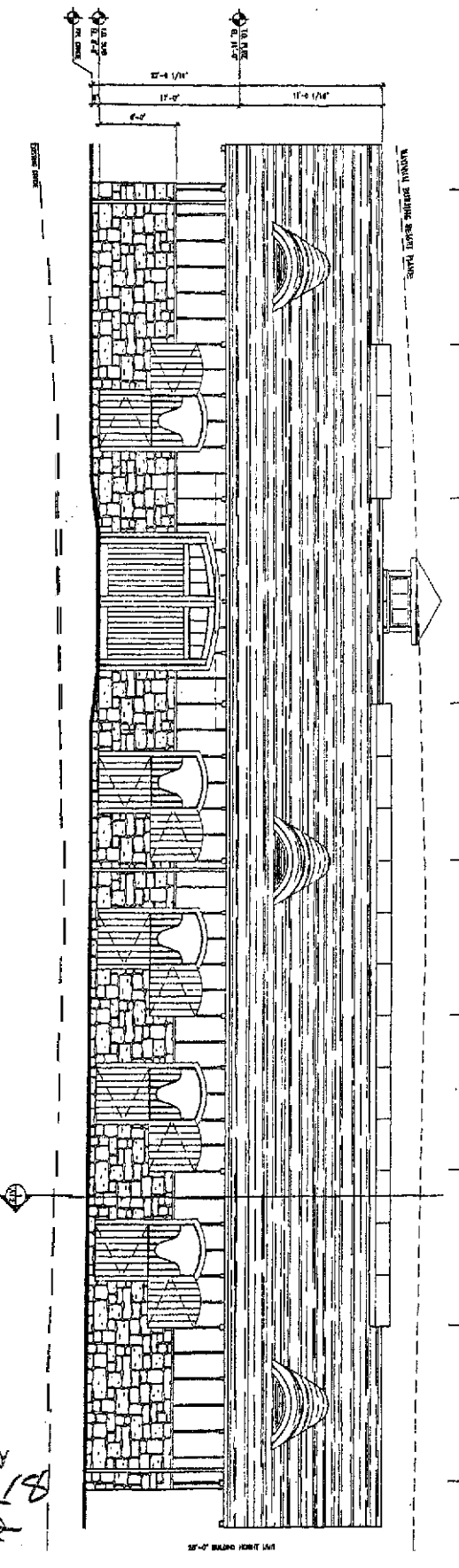
DATE 9-10-03
DRAWN FBU

LICHEN OAKS RANCH
110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018
APN #074-181-01
BARN EXTERIOR ELEVATIONS

Equine Facility Design
Building Design
Site Planning
Landscape Architecture
Linda L. Royer
14432 S Livesay Road
Oregon City, OR 97045
(503) 650-1663 FAX (503) 650-5647
CA Landscape Architect License #4131



2 A1.1 ROOF PLAN
Scale: 1/8" = 1'-0"



1 A1.1 SOUTH EXTERIOR ELEVATION
Scale: 1/4" = 1'-0"

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Study
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SHEET	NO.	DATE	DESCRIPTION
All	1-5	3-18-03	PROGRESS PRINT (3-27-02, 4-8, 6-26, 1-8-03)
	6	7-3-03	PROGRESS PRINT FOR REVIEW
	7	7-16-03	PROGRESS PRINT FOR REVIEW
	8	7-18-03	ISSUED FOR PLANNING REVIEW
	9	12-2-03	REVISED FOR PLANNING REVIEW
	10	6-17-04	REVISED TO SHOW MAXIMUM BUILDING HEIGHT

DRAWN: TEL
DATE: 1-5-03

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA 95018

APN #074-181-01

BARN EXTERIOR ELEVATION AND ROOF PLAN

Equine Facility Design
Building Design

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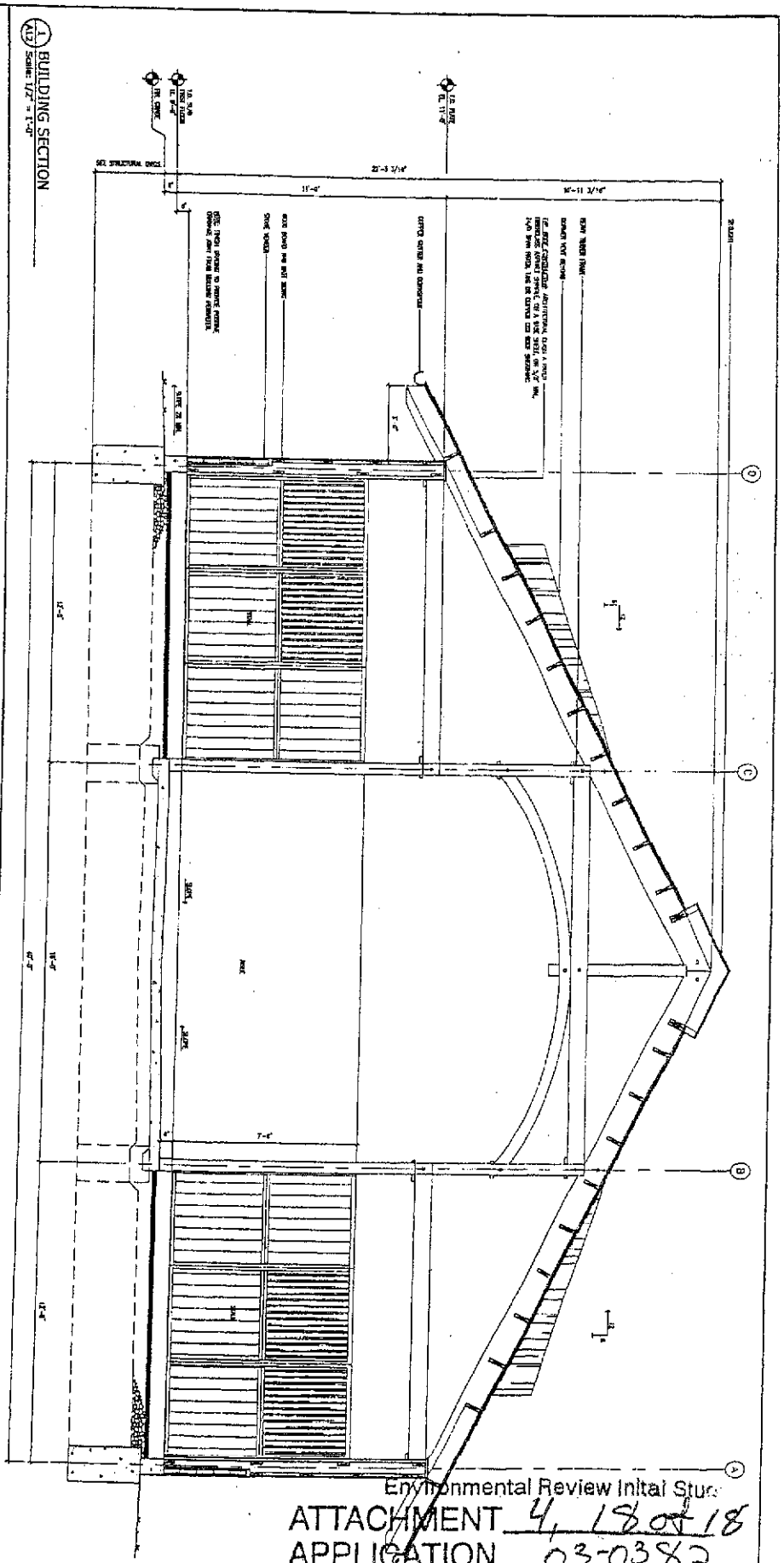

Environmental Review Inital Study
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NO	DATE	DESCRIPTION
1	7-3-03	PROGRESS PRINT FOR REVIEW
2	7-16-03	ISSUED FOR PLANNING REVIEW

SHEET A12

DRAWN: FBJ

DATE: 3-14-03

LICHEN OAKS RANCH

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APN #074-181-01

BARN BUILDING SECTION AND DETAILS

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0323-SZ932-A71
May 27, 2003

Fioyd and Jean Kvamrne
19490 Glen Una Drive
Saratoga, CA 95070

Subject: Geotechnicai Investigation
Proposed Horse Barn, Arena and Trailer Shed
Lichen Oaks Ranch
110 Quail Hollow Drive
APN 074-181-01
Santa Cruz County, California

Dear Mr. and Ms. Kvamme,

In accordance with your authorization, we have performed a geotechnical investigation for your proposed equine facilities project located in the Zayante area of 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. If you have any questions concerning the data, conclusions, or recommendations presented in this report, please call our office

Very truly yours,

Bauldry Engineering

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

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

BDB\Engineering/Projects/0323gl.doc
Copies: 2 to Floyd and Jean Kvamme
5 to Richard Beale Land Use Planning Inc., Attention: Ron Powers
1 to Ifland Engineers Inc.
1 *to* Equine Facility Design, Attention: Linda L. Royer

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APPLICATION

Liquefaction

Liquefaction tends to occur typically in soils composed of loose sands and non-cohesive silts of restricted permeability. In order for liquefaction to occur there must be the proper soil type, soil saturation, and cyclic accelerations of sufficient magnitude to progressively increase the water pressures within the soil mass. Non-cohesive soil shear strength is developed by the point to point contact of the soil grains. As the water pressures increase in the void spaces surrounding the soil grains, the soil particles become supported more by the water than the point to point contact. When the water pressures Increase sufficiently, the soil grains begin to lose contact with each other, resulting in the loss of shear strength and continuous deformation of the soil where the soil appears to liquefy.

Our field and laboratory analysis of this site, Including the nature *of* the subsurface soil, the location of the ground water table, and the estimated ground accelerations, leads to the conclusion that the potential for liquefaction to occur and cause significant damage to the proposed equine facility is low.

Landsliding

Landsliding is a hazard which may affect the slopes along Zayante Creek and the tributary drainage. The proposed buildings **are** set back 60 feet, or more, from the top of the slope that descends to Zayante Creek; and 30 feet, or more, from the top of the bank along the tributary drainage. Given these set backs, it is our opinion that the potential for landsiiding to occur and cause significant damage to the proposed facility is low.

Additional geotechnical engineering analyses will be required for any structure sited closer than 50 feet to the top of the slope that descends to Zayante Creek, and 30 feet from the top of bank along the tributary drainage.

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APPLICATION 02

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 horse barn, covered arena, and trailer shed can be designed and constructed *to* an "ordinary" level *of* seismic risk and seismic performance as defined below:

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

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

2. Primary Geotechnical Constraints

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

a. Slope Stability. Landsliding is a hazard which may affect the slopes along Zayante Creek and the tributary drainage, The proposed buildings are set back 60 feet, or more, from the top of the slope that descends to Zayante Creek; and 30 feet, or more, from the top of the bank along the tributary drainage, Given these set backs, it is our opinion that the potential for landsliding to occur and cause significant damage to the proposed facility is low. Additional geotechnical engineering analyses will be required for any structure sited closer than 50 feet to the top of the slope that descends to Zayante Creek, and 30 feet from the top of bank along the tributary drainage.

b. Settlement and Differential Bearing Conditions. The surface soil conditions vary from loose to medium dense, Additionally, the footprint of the proposed arena will span across both cut and native grades. These variable soil conditions can result in differential settlement and bearing conditions. Differential settlement can be highly damaging to structures.

To help mitigate the problems associated with differential bearing conditions, we recommend that the structures be designed with a spread footing foundation system constructed on a uniform thickness of engineered fill. Subgrade preparation recommendations are provided in the EARTHWORK AND GRADING section that follows.

c. Perched Groundwater: There is a potential for the groundwater to perch shallowly beneath the proposed arena during the rainy season. It is proposed to construct the arena over a cut pad on the northwest side which grades to approximately existing ground surface to the southeast.

To help mitigate potential problems due to perched groundwater, the grades beneath the arena should be lowered as little as feasible. If feasible, the grades beneath the southeast side should be raised and the cut along the northwest side minimized.

POST REPORT SERVICES

3. Plan Review

Grading, foundation, retaining wall, and drainage plans should be reviewed by the Geotechnical Engineer during their preparation and prior to contract bidding to insure that the recommendations of this report have been included and to provide additional recommendations, if needed.

4. Construction Observation and Testing

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

5. Notification and Preconstruction Meeting

The Geotechnica! 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 contractor. During this period, a pre-construction conference should be held on the site, with at least the owner's representative, the grading contractor, and one of our engineers present. At this time, the project specifications and the testing and construction observation requirements will be outlined and discussed.

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EARTHWORK AND GRADING

6. Initial Site Preparation

The initial site preparation will consist of the removal of trees as required, including rootballs and debris. Abandoned septic tanks and leach lines found in the construction area must be completely removed. The extent of the soil, debris, and leach line removal will be designated by the Geotechnical Engineer in the field. This material must be removed from the site. All voids created by the removal of trees, septic tanks, and leach lines must be backfilled with properly compacted 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 prepara on 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

Barn, Following the stripping and backfilling of voids, the exposed soils in the barn area should be removed to a minimum depth of 24 inches below existing grade or as designated by the Geotechnical Engineer. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted, The excavated soil may then be placed in thin lifts. Recompacted sections should extend 5 feet beyond the barn perimeter.

Arena and Trailer Shed Foilowing the stripping and backfilling of voids, the exposed soils in the arena and shed areas should be removed to a minimum depth of 36 inches below design or existing grades, whichever is deepest, or as designated by the Geotechnical Engineer. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The excavated soil may then be placed in thin lifts. Recompacted sections should extend 5 feet beyond all slab-on-grade floors, and foundation and grade beam elements. There should be a relatively uniform thickness of engineered fill beneath all foundation elements. The interior soil floor within the arena does not need to be excavated and replaced as an engineered fill unless the soil is within **5** feet of the foundation.

New Gravel Driveway: Following the stripping, the driveway area should be excavated to the design grades. The exposed soils beneath *the* new gravel driveway should be scarified, moisture conditioned, and compacted as an engineered fill except for any contaminated material noted by the Geotechnical Engineer in the field.

9. Compaction Requirements

The minimum compaction requirements are outlined in the table below:

Minimum Compaction Requirements

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

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10. Moisture Conditioning

The moisture conditioning procedure should result in soil with a moisture content of 1 to 3 percent over optimum at the time of compaction. If the soil is dry water may need to be added. If grading is performed during or soon after the rainy season, the native soil may require a diligent and active drying and/or mixing operation to uniformly reduce the moisture content to the levels required to obtain adequate compaction. Additionally, the base of excavations may require stabilization treatments prior *to* placement of fill sections

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

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CUT **AND** FILL SLOPES

13. Cut and Fill Slope Height and Gradient

Cut and fill slopes shall not exceed a 2:1 (horizontal to vertical) gradient and a 5 foot vertical height unless specifically reviewed by the Geotechnical Engineer. **All** fill slopes should be constructed with engineered fill meeting the minimum density requirements of this report.

14. Fill Slope Keyways

Fill slopes should be keyed into the native slopes with a 10 foot wide base keyway that is sloped negatively at least 2% into the bank, The depth of the keyways will vary, depending

on the materials encountered. It is anticipated that the depth of the keyways may be 3 to 6 feet, but at all locations shall be at least 2 feet into firm material. Subsequent keys may be required as the fill section progress upslope. The Geotechnical Engineer will designate keys in the field. See the Keyway Detail in Appendix A for general details.

15. Subsurface Drainage

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

16. Cut and Fill Slope Setbacks

The toe *of* all fill slopes should be set back at least 10 feet horizontally from the top of all cut **slopes.** A lateral surface drain should be placed between the cut and fill slopes.

BUILDING FOUNDATIONS- SPREAD FOOTINGS

17. General Design and Construction Recommendations

The footings should be bedded into properly compacted engineered fill prepared in accordance with the EARTHWORK AND GRADING section of this report. Footings should not span areas of cut and fill. Structures proposed to span areas of cut and fill may require additional excavation and *recompaction to* equalize fill depths.

No footing should be placed closer than 8 feet to the top of a fill slope or 6 feet from the base of a cut slope.

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

Footing excavations must be observed by a representative of Bauldry Engineering before steel is placed and concrete is poured to confirm bedding into proper material.

The footings should contain steel reinforcement as determined by the Project Structural Engineer in accordance with applicable UBC or **ACI** Standards.

18. General Description of Foundation

Barn and Trailer Shed: it is our opinion **that** a reinforced concrete spread footing foundation, constructed in conjunction with the site preparation procedures outlined in this report, is an appropriate system to support the proposed barn and shed structures. This system could consist of continuous exterior footings, in conjunction with interior isolated spread footings or additional continuous footings *or* concrete slabs.

Arena: It is our opinion that an appropriate foundation system to support the proposed arena structure will consist of reinforced concrete spread footings constructed as an interconnected grid and bedded *into* engineered *fill. The grid system* should consist of continuous exterior footings tied together with interior cross beams. This grid system could include concrete slabs.

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Structure Type	Footing Width	Footing Depth*
1 and 2 Story Structure	15 inches	18 inches

20. Allowable Bearing Capacity
Footings constructed to the given criteria may be designed for the following allowable bearing capacities:

- 2,000 psf for Dead plus Live Load
- a 1/3rd increase for Seismic or Wind Load

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

SLAB-ON-GRADE **FLOOR** SYSTEMS
21. Slab-on-Grade Floor Design
Concrete slab-on-grade floors may be used for ground level construction on engineered fill. The slab-on-grade floors should be constructed in accordance with the recommendations provided in the EARTHWORK AND GRADING section of this report.

Slabs may be structurally integrated with the footings or constructed as "free floating" slabs. Free floating slabs should be provided with **a** minimum ¼ inch felt separation between the slab and footings. Free floating slabs must be designed and constructed as completely independent of the foundation system.

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

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

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

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23. Subgrade Saturation

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

RETAINING WALLS AND LATERAL PRESSURES

24. Retaining Wall Foundations

Retaining walls may be founded on either spread footings or piers designed to the following criteria.

Spread Footings: Retaining walls may be founded using a spread footing foundation. Footings should be embedded a minimum of 24 inches into firm native soil or engineered fill. The embedded face of the footing should be a minimum of 8 horizontal feet from the face of adjacent slopes. Retaining wail footings constructed in accordance with the preceding conditions may be designed for the following allowable bearing capacities. Should the footing sizes vary significantly from those provided below, supplemental design criteria should be provided.

Retaining Wall Footings

Footing Width	Embedment Depth	Bearing Capacity
3 feet	24 inches	1,930 psf
4 feet	24 inches	2,160 psf
5 feet	**24** inches	2,390 psf
6 feet	24 inches	2,620 psf

Design for a "coefficient of friction" of 0.30 between the base of footing and the soil.

Piers: Retaining walls may be founded on piers designed for the following criteria:

a. Minimum pier embedment should be 7 feet into the firm native soil or engineered fill. Actual depths may be deeper and will depend upon a lateral force analysis performed by your structural engineer.

b. Minimum pier size should be 18 inches in diameter and all pier holes must be free of loose material on the bottom.

c. The allowable end bearing capacity for a 5 foot pier is 5,500 psf, with a 1/3rd increase for wind or seismic loading.

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

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27. Retaining Wall Drains

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

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

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

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

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

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

28. Surface Drainage above Retaining Walls

Water should not be allowed *to* flow over the top of retaining walls. **A** lined "V"-ditch should be constructed adjacent *to* and along the top of walls where necessary to collect surface runoff from the slope. The "V"-ditch should transport the collected water to ***a*** sold pipe that discharges away from the wall and other structures.

29. Compaction of Backfill

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

UTILITY TRENCHES

30. 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.

31. 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.

32. Shoring

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

SURFACE DRAINAGE

33. Surface Grades and Storm Water Runoff

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

Concentrated surface water should be controlled using lined ditches, catch basins, and closed conduit piping, or other appropriate facilities, and should be discharged at an approved location away from structures and graded areas. We recommend that concentrated storm water runoff systems be provided with energy dissipators that are constructed and located to minimize erosion. Storm water must not be discharged on or adjacent *to* the fiil.

34. 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 solid pipe which discharges at an approved location. Roof runoff should be discharged using energy dissipators, or other facilities, that minimize erosion. Roof runoff must not be discharged on or adjacent to fill.

35. Protection **of** Cut and Fill **Slopes**

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

36. Maintenance and Irrigation

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

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

37. Percolation Pits

Percolation pits are acceptable for the disposal of storm water runoff at the project Site. Percolation pits should be sited in the meadow area along the side of, or below, the barn, arena or trailer shed. Percolation pits should be **set** back a minimum of **25** feet from the structures and 30 feet from the top of bank.

It must be anticipated that the percolation pits will overflow episodically, therefore the percolation pits must be sited in an area where the overflow will not cause erosion or be a nuisance.

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

0323-SZ932-A71
August 12,2003

Floyd and Jean Kvamme
19490 Glen Una Drive
Saratoga, CA 95070

Subject: Plan Review
Grading and Drainage
Lichen Oaks Ranch
110 Quail Hollow Drive
APN 074-181-01
Santa Cruz County, California

Gear Mr. and **Ms.** Kvamme,

As requested, **we** are providing the geotechnical engineering services for the subject site. We have reviewed the following plans and specifications.

TYPE	SHEETS	DATE	PREPAREDBY
Grading	C1, C2	July 23, 2003	Ifland Engineers Inc.

It is our opinion that the plans and specifications are generally in conformance with the requirements and specifications of our Geotechnical Investigation dated May 27, 2003. We have the following comments and recommendations:

1. To minimize the potential for saturating the soils adjacent *to* the paddock, the Reno Mattress Energy Dissipator sited along north side of the paddock should be setback 15 feet, or more, from the paddock.

2. The Reno Mattress Energy Dissipators south of the barn and arena are sited along the top of bank. Discharging water along the top of bank may result in bank erosion. Of particular concern is the mattress located upstream of the driveway crossing. To minimize erosion, the mattresses may need to be set back from the top *of* bank and

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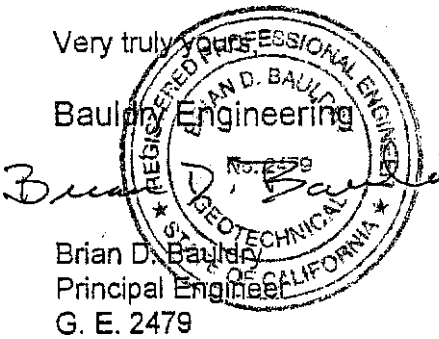
the driveway, or specifically field located by the Project Civil Engineer in conjunction with the Geotechnical Engineer at the time of construction.

3. To minimize erosion, the Reno Mattress Energy Dissipators should be routinely monitored throughout the rainy season and maintained and repaired, as necessary.

If you have any question, please call our office.

Very truly yours,

Baulding Engineering



Brian D. Baulding
Principal Engineer
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Exp. 12/31/06

BDB\Engineering/Projects/0323grading prl 1.doc
Copies: 1 to Floyd and Jean Kvamme
1 to Richard Beale Land Use Planning Inc., Attention: Ron Powers
1 to Ifland Engineers Inc.

Environmental Review Inital Study
ATTACHMENT 5, 13 of 15
APPLICATION 03-0382

RECEIVED SEP 0 2 2003

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

0323-SZ932-A71
August 28, 2003

Floyd and Jean Kvamme
19490 Glen Una Drive
Saratoga, CA 95070

Subject: Export Soil Placement Area
Lichen Oaks Ranch
110 Quail Hollow Drive
APN 074-181-01
Santa Cruz County, California

Dear Mr. and Ms. Kvamme,

The proposed project will require a moderate amount of grading including both cut and fill construction. It is our understanding that the cut and fill quantities will not be balanced. The proposed grading plan indicates that the volume of cut soils will exceed the fill requirements by approximately 2,700 yd^3. The excess cut soils are to be exported to a meadow in the southern area of the ranch where they will be spread out as a shallow surface layer. It is estimated that the surface layer will be less than a foot thick.

We have reviewed the Overall Site Plan prepared by Equine Facility Design and dated 7-18-02 (planning review dated 7-18-03). This plan shows the area where the export soils from the arena and barn sites are to be placed. The export fill placement area is gently sloping grassland.

It is our opinion that, from a geotechnical perspective, the proposed grassland placement area in the southern section of the ranch is an acceptable area for the placement of the excess cut soils.

The grassland should be stripped prior to placing the fill. The fill should be stabilized by placing in thin lifts and track-walking. Densifying this surface soil layer with heavy compaction equipment is not recommended as it would deter plant growth. Following fill placement, the strippings may be spread as a cover over the fill.

Environmental Review Initial Study
ATTACHMENT 5 14 of 15
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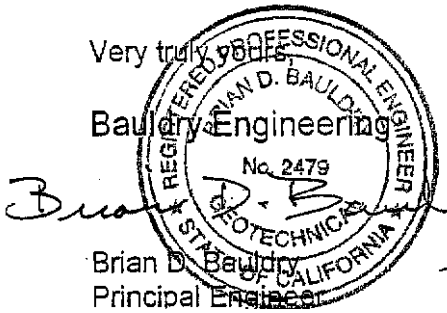
Planting and other erosion control measures should be installed as soon as practicable **so** that a sufficient growth will be established prior to inclement weather conditions. It is vital that the fill not be left standing through a winter season without effective planting and erosion control measures having been provided.

If you have any question, please call our office,

Very truly yours,

Baulder Engineering



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

BDB\Engineering/Projects/0323 export fill 1.doc
Copies: 1 to Floyd and Jean Kvamme
2 to Richard Beale Land Use Planning Inc., Attention: Ron Powers

Environmental Review Inital Study
ATTACHMENT 5, 15 OF 15
APPLICATION 03-0382

County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR SANTA CRUZ CA 950604000
(831) 454-2580 FAX (831) 454.2131 TDD (831) 454-2123
ALVIN D. JAMES, DIRECTOR

September 23, 2003

Floyd and Jean Kvamme
19490 Glen Una Drive
Saratoga, CA 95070

SUBJECT: Review of Geotechnical Investigation by Bauldry Engineering
Dated May 27, 2003, Project No.: 0323-SZ932-A71
APN: 074-181-01, Application No.: 03-0382

Dear Mr. & Mrs. Benson:

Thank you for submitting the soil report for the parcel referenced above. The report was reviewed for conformance with County Guidelines for Soils/Geotechnical Reports and also for completeness regarding site-specific hazards and accompanying technical reports (e.g. geologic, hydrologic, etc.). The purpose of this letter is io inform you that the Planning Department has accepted the report and the following recommendations become permit conditions:

1. Ail report recommendations must be followed,

2. An engineered foundation plan and erosion control plans are required.

3. Final plans shall show the drainage system as detailed in the soils engineering report including outlet locations and appropriate energy dissipation devices and the soils engineering must approve drainage system design,

4. Final plans shall reference the approved soils engineering report and state that all development shall conform to the report recommendations.

5. Prior to building permit issuance, the soil engineer must submit a brief buiiding, grading and drainage plan review letter to Environmental Planning stating that the plans and foundation design are in general compliance with the report recommendations. If, upon plan review, the engineer requires revisions or additions, the appiicant shall submit to Environmental Planning two copies of revised plans and a final plan review letter stating that the plans, as revised, conform to the report recommendations.

6. The soil engineer must inspect all foundation excavations and a letter of inspection must be submitted *to* Environmental Planning and your building inspector prior to pour of concrete.

Environmental Review Inital Study
ATTACHMENT 6, 1 of 2
APPLICATION 03-0382

7. For all projects, the soil engineer must submit a final letter report to Environmental Planning and your buiiding inspector regarding compliance with all technical recommendations of the soil report prior *to* final inspection. For all projects with engineered fills, the soil engineer must submit a final grading report (reference August 1997 County Guidelines for Soils/Geotechnical Reports) *to* Environmental Planning and your building inspector regarding the compliance with all technical recommendations of the soil report prior *to* finai inspection,

The soil report acceptance is only limited *to* the technical adequacy of the report. Other issues, like planning, building, septic or sewer approval, etc., may stili.require resolution.

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

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

Sincerely,

Joe Hanna, CEG
County Geologist

Kevin Crawford
Senior Civil Engineer

Cc: Jessica DeGrassi, Resource Planner
Building Pian Check

Environmental Review Inital Study
ATTACHMENT 6, 2 of 2
APPLICATION 03-0382

Equine Facility Design
Building Design and Site Planning
Landscape Architecture
Linda L. Royer, A.S.L.A.

Lichen Oaks Ranch Manure Management Program
Owners: Lichen Oaks Ranch LLC
Address: 110 Quail Hollow Road, Felton
APN # 074-181-01
Date: Novemher 15,2002

The site is 86.2 acres. The owners currently have five horses on the property and with the construction of the nine stall barn and arena may have up to nine horses stabled in the barn and up to six additional horses in the pastures or paddocks which have shelters. There are currently two large paddocks with shelters and three large pastures of 1.9, 4.5, and 5.3 acres.

During the dry months of the year, all the horses will typically be kept in the pastures or paddocks twenty four hours a day except when being ridden. In the wet months of the year, up to nine of the horses will be kept in the stalls at night and turned out to posture during the day.

When the horses are stabled, the stalls and runs off the stalls will be cleaned daily with manure and bedding deposited in either the manure spreader, during dry months, or a dump trailer during wet months. The manure trailer holds 96 cubic feet of material. The manure spreader or trailer is parked in a concrete walled 6' x 10' roofed bunker with three foot roof overhangs located below the barn. Details are attached. During the dry months the manure and bedding is spread on the 12 acre grass field in the south portion of the ranch bordered by Quail Hollow Road. In wet months the dump trailer will be hauled offsite to a disposal facility, either the dump or a recycling/compost facility.

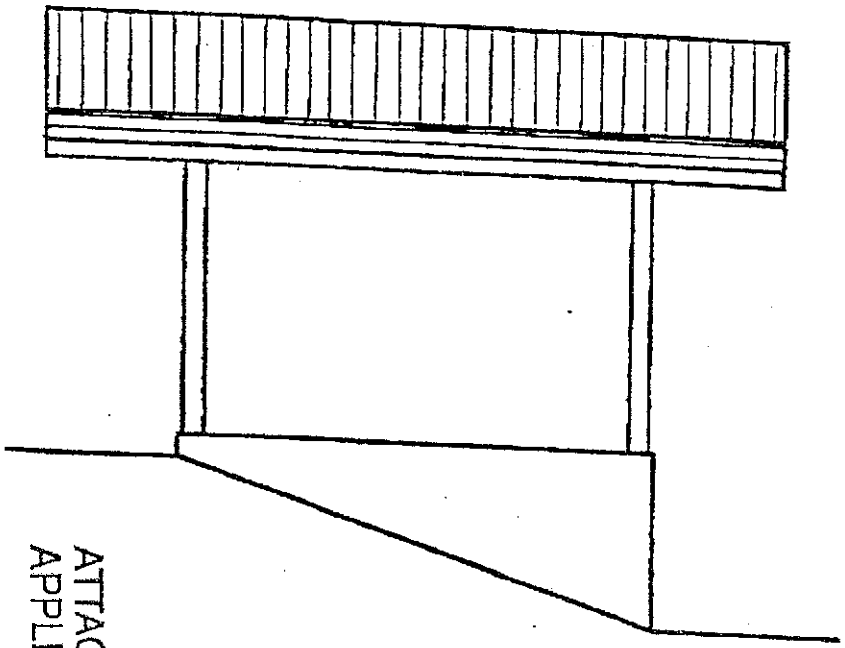
The existing shelters as well as the new barn and arena will all have gutters to catch roof runoff so that it does not go into the ground as the horses stand and move around on. The runs off the stalls have a layered footing of coarse rock, Invisible Structures 'Gravelpave' reinforced rings over the rock and sand on top so that the water drains through and the horses are never standing on dirt or in mud.

Soil erosion is minimized by the smaller number of horses on the acreage and by the large vegetative buffers between the runs, paddocks, and pastures and the stream, pond, or drainage way. The slope of the land is west to east, toward Zayante Creek, not toward the pond or drainageway feeding it. The closest pasture fence to the creek is 120 feet and there is a road and large buffer of dense native vegetation between the pasture and the creek. Erosion is also minimized by keeping the horses off steep slopes. The average slope to the pasture and paddocks is 3%.

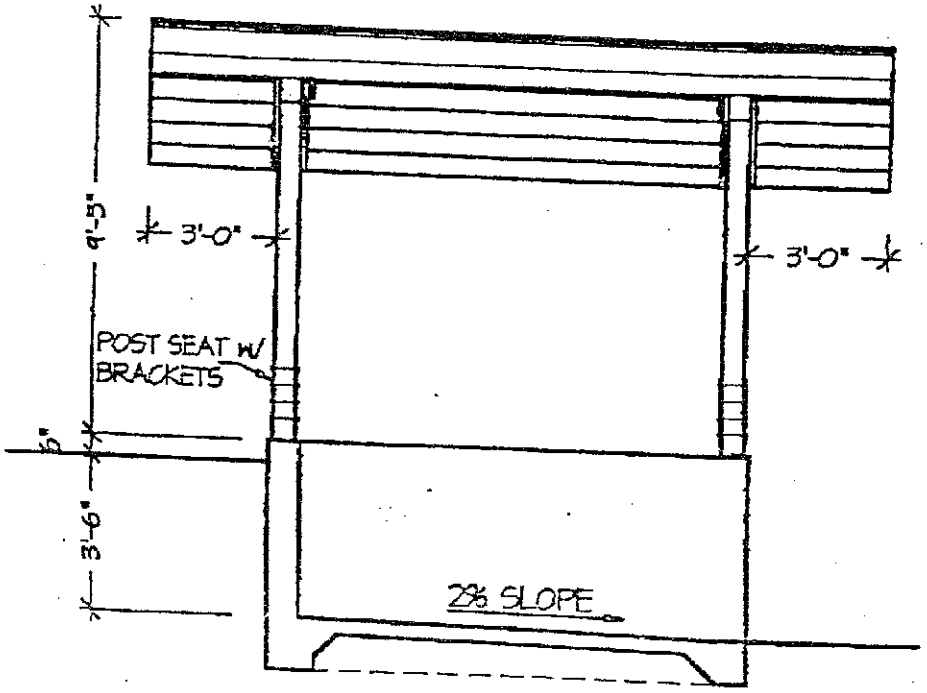
An automatic fly spray system will be utilized in the barn and under the cover of the manure shed.

14432 6 Livesay Road Oregon City, Oragon 97045
(503) 650-1663 Fax (503) 650-5062 Mobile (503) 789-5650

Environmental Review Inital Study
ATTACHMENT F 1 of 2
APPLICATION 03-0382



ELEVATION



SECTION 2

Environmental Review Initial Study
ATTACHMENT 7
APPLICATION 9B-0282

LICHEN OAKS RANCH

110 QUAIL HOLLOW ROAD, FELTON, CALIFORNIA

MANURE BIN ELEVATION, AND SECTION 2

PROJECT NUMBER :	DRAWING NUMBER :
ISSUE DATE : 10-31-02	SK-4
SCALE : 1/4" = 1'-0"	
DRAWN BY : AG	
PRINCIPAL :	

Biotic Resources Group

Biotic Assessments • Resource Management • Permitting

September 20, 2004

Ron Powers
Richard Beale Land Use Planning, Inc.
100 Doyle Street #E
Santa Cruz, CA 95062

RE: **Botanical Review of Proposed Arena and Barn, Lichen Oaks Ranch, 110 Quail Hollow Road, Felton**

Dear Ron,

The Biotic Resources Group has conducted a botanical review of the new covered arena and barn proposed for the Lichen Oaks Ranch at 110 Quail Hollow Road in the Felton area of Santa Cruz County, as per your request. The botanical review of the proposed development area was conducted in June 2002 and was focused on the occurrence of special status plant species and/or habitats within an approximately 1.2-acre area. The results of this botanical assessment are described herein.

ASSESSMENT METHODOLOGY

Kathleen Lyons conducted a site visit of the project area on May 29, 2002. The proposed development area is located within an 86+-acre property north of the intersection of Quail Hollow Road and West Zayante Road. A new covered horse arena and barn are proposed for a grassy area north of Turner Gulch, an intermittent tributary to Zayante Creek. This site is accessed from an existing ranch road and bridge over the gulch. The proposed development area was viewed on foot during the June survey.

Prior to the June 2002 site visit, previous reports for the property were reviewed, including a Biological Constraints Analysis prepared by H.T. Harvey & Associates (*Quail Hollow Biological Constraints Analysis*, H.T. Harvey & Associates, 1994). In addition, I conducted surveys of the property in 1997; field notes and maps from those earlier surveys were also reviewed. The major plant communities within the proposed development area, based on the classification system developed by California Department of Fish and Game (CDFG, 2002b) (and amended to reflect site conditions) were identified during the field visit. To assess the potential occurrence of special status biotic resources, previous reports for the property and the California Department of Fish & Game's (CDFG) RareFind database (CDFG, 2002) for the Felton USGS quadrangle were reviewed. Based on these reviews, the following plant species and/or their habitat were searched for within the proposed development area: Zayante sand deposits (potential to support Ben Lomond spineflower, Santa Cruz wallflower, silver-leaved manzanita, Ponderosa pine, and other sandhill endemics), native grassland, and riparian woodlands.

The purpose of the site assessment was to document the occurrence of habitats within the proposed barn and arena development area and the known or potential for special status plant species and/or habitats.

Environmental Review Initial Study
ATTACHMENT 8, 1 of 3
APPLICATION 03-0382

2551 South Rodeo Gulch Road, #12 ♦ Soquel, California 95073 ♦ (831) 476-4803 ♦ Fax (831) 476-8038

ASSESSMENT RESULTS

The proposed barn and arena development area is dominated by grassland. Riparian woodland occurs along Turner Gulch and Zayante Creek and oak woodland occurs along the western border of the development area. These habitat types are consistent with the plant community mapping done by H.T. Harvey & Associates in 1994.

Riparian Woodland. The woodland, growing along both Turner Gulch and Zayante Creek, includes trees of big leaf maple (*Acer macrophyllum*), black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), California bay (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), blue elderberry (*Sambucus mexicana*) and California buckeye (*Aesculus californica*). The understory includes typical woodland species; including California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), mugwort (*Artemisia douglasiana*), and periwinkle (*Vinca major*).

Coast Live Oak Woodland. The western edge of the proposed development area supports an oak woodland comprised of coast live oak, madrone (*Arbutus menziesii*), Douglas fir (*Pseudostuga menziesii*), and scattered ponderosa pine (*Pinus ponderosa*). The understory includes California blackberry, coffee berry (*Rhamnus californica*), poison oak, and hazel nut (*Corylus cornuta*).

Grassland. The development area supports grassland; an unimproved dirt road traverses the grassland north of the road crossing over Turner Gulch. The grassland supports a mixture of native and non-native herbaceous species. Native grasses of California oatgrass (*Danthonia californica*) and purple needlegrass (*Nassella pulchra*) were observed to intermix with non-natives of wild oat (*Avena* sp.), soft chess (*Bromus hordeaceous*), and ripgut brome (*Bromus diandrus*). The densest area of native grasses was observed along the eastern edge of the grassland, closest to Zayante Creek. This area could be classified as a pocket of native grassland. Non-grass species that were observed include filaree (*Erodium botrys*), sun cups (*Camissonia ovata*), and blue-eyed grass (*Sisyrinchium bellum*).

Sensitive Habitats and Special Status Plant Species

Sensitive habitats are defined by local, State: or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. Within the Felton-Ben Lomond region, Ponderosa pine forest, silver-leaved manzanita chaparral and riparian woodlands are considered sensitive habitats. This designation is due to the prevalence of native plant species, known/potential for rare, threatened or endangered species, their limited distribution within the region and value to wildlife. Plant species of concern include those listed by either the Federal or State resource agencies as well as those identified as rare by CNPS (List 1B).

The property is known to support ponderosa pine forest, including inclusions of sand parkland. A colony of Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*) (a federally listed endangered species) is known to inhabit an area of sand parkland along the property's western boundary (abutting Quail Hollow County Park). The ponderosa pine forest habitat also has been documented to support curly-leaved monardella (*Monardella undulata*).

The proposed barn and arena development area was not observed to support any sensitive habitats or special status plant species, based on the 2002 field survey and the review of previous reports for the property. No individuals of Ben Lomond spineflower were observed within the proposed barn and arena development area during the June 2002 survey, although individuals of this species were observed within the sand

parkland area of the parcel (along the western property line, abutting Quail Hollow County Park). Although a few scattered individuals of Ponderosa pine were observed in the oak woodland westward of the proposed development area, these pines will not be affected by the proposed development. Native grasses (i.e., California oatgrass and purple needlegrass) were observed within the easternmost grassland of the development area; the densest area of native grasses was located closest to Zayante Creek.

ASSESSMENT CONCLUSIONS

Based on the June 2002 site assessment and a review of previous reports, development of the new barn and arena on the parcel will not result in any significant impacts to sensitive habitats or result in the loss of any special status species (or their habitat). Grading will remove an area supporting native grasses. The planting plan specifies replanting native grasses in the disturbed areas. It is recommended that purple needlegrass and California oatgrass be included in the native grasses replanted such there is no net loss of native grasses within the proposed development area.

Intended Use of this Report

The findings presented in this botanical review are intended for the sole use of the current owners of Lichen Oaks Ranch and Santa Cruz County Planning Department in evaluating the proposed barn and arena development on the subject parcel. The findings presented by the Biotic Resources Group in this report are for information purposes only; they are not intended to represent the interpretation of any State, Federal or County laws, polices or ordinances pertaining to permitting actions within sensitive habitat or endangered species. The interpretation of such laws and/or ordinances is the responsibility of the applicable governing body.

Thank you for the opportunity to assist you in your project planning. Please give me a call if you have any questions on this report.

Sincerely,

Kathleen Lyons

Kathleen Lyons
Plant Ecologist

Environmental Review Inital Study
ATTACHMENT 9, 3 of 3
APPLICATION 03-0382

ARCHAEOLOGICAL CONSULTING

P.O. BOX 3377
SALINAS, CA 93912
(831) 422-4912

PRELIMINARY ARCHAEOLOGICAL RECONNAISSANCE OF THE PROPOSED NEW BARN *AND* ARENA SITE ON APN 074-181-01 FELTON, SANTA CRUZ *COUNTY*, CALIFORNIA

by

Mary Doane, B.A. and Trudy Haversat, M.A., RPA

October 30,2003

Prepared for

Floyd and Jean Kvamme

SUMMARY: **PROJECT** 3514
RESULTS: SEE TEXT
ACRES: <2 OF THE 86.2 ACRE PARCEL
SITES: NONE IN PROJECT AREA, CA-SCR-134 ON PARCEL
UTMG: 5.8435/41.0413
MAP: USGS 7.5 MINUTE FELTON QUADRANGLE

Note: *SOPA*, the Society of Professional Archaeologists, has been superseded by the new Registry of Professional Archaeologists. Registered Professional Archaeologists are designated by RPA.

INTRODUCTION

In October 2003 Archaeological Consulting was authorized by Floyd and Jean Kvamme to prepare a Preliminary Archaeological Reconnaissance report for a portion of the Lichen Oaks Ranch parcel in Felton, Santa Cruz County, California.

As part of our methodology in the preparation of this report, we have: 1) reviewed a background records search at the Northwest Regional Information Center of the California Archaeological Inventory, located at Sonoma State University, Rohnert Park; and 2) conducted a field reconnaissance of the project area. The following report contains the results of these investigations as well as our conclusions and recommendations.

PROJECT LOCATION AND DESCRIPTION

The project parcel is located at 110 Quail Hollow Road in Felton, Santa Cruz County, California (see Map 1). The project area includes the northeastern portion of the project parcel, APN 074-181-01. The Universal Transverse Mercator Grid (UTMG) coordinates for the approximate center of the current project area are 5.8435/41.0413 on the USGS 7.5 minute Felton Quadrangle (1955; photorevised 1968).

At the time of the field reconnaissance the project area was vacant and undeveloped except for a ranch road. The project area overlooks Zayante **Creek** to the east and is bounded by Turner Gulch to the south. Vegetation in the project area consisted of mown dry grasses. Native oaks and other trees encompass the grassy meadow on all sides. Rodent throw and bare patches from which **trees** had been removed provided good soil visibility. Overall soil visibility within the project area was considered adequate for the purposes of the reconnaissance.

PROJECT METHODOLOGY

The methodology used in the preparation of this report included two primary steps, as follows:

Background Research

The background research for this project included an examination of the archaeological site records, maps, and project files of the Northwest Regional Information Center of the California Archaeological Inventory, located at Sonoma State University, Rohnert Park, California. In addition, our own extensive personal files and maps were examined for supplemental information, such as rumors of historic or prehistoric resources within the general project area.

The Regional Information Centers have been established by the California Office of Historic Preservation as the local repository for all archaeological reports which are prepared under cultural resource management regulations. The background literature search at the appropriate Regional Information Center is required by state guidelines and current professional standards. Following completion of the project, a copy of the report also must be deposited with that organization.

These literature searches are undertaken to determine if there are any previously recorded archaeological resources within the project area, and whether the area has been included within any previous archaeological research or reconnaissance projects.

Field Reconnaissance

The field reconnaissance was conducted by Mary Doane, B.A, on October 29, 2003. The survey consisted of a "general surface reconnaissance" of all project areas which could reasonably be expected to contain visible cultural resources, and which could be viewed without major vegetation removal or excavation.

RESULTS OF THE RECONNAISSANCE

Background Research

The record search of the files at the Northwest Regional Information Center showed that there are two recorded archaeological sites within one kilometer of the project area including CA-SCR-134 which is recorded on the southern half of the project parcel. CA-SCR-312H is located west of the project parcel in Quail Hollow Ranch. No evidence of a previous archaeological reconnaissance in the current project area was found.

In addition, the California Inventory of Historical Resources (March 1976), California Historical Landmarks, and the National Register of Historic Places were checked for listed cultural resources that might be present in the project area; none were discovered.

The project area lies within the currently recognized ethnographic territory of the Costanoan (often called Ohlone) linguistic group. Discussions of this group and their territorial boundaries can be found in Breschini, Haversat, and Hampson (1983), Kroeber (1925), Levy (1978), Margolin (1978), and other sources. In brief, the group followed a general hunting and gathering subsistence pattern with partial dependence on the natural acorn crop. Habitation is considered to have been semi-sedentary and occupation sites can be expected most often at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Also, resource gathering and processing areas, and associated temporary campsites, are frequently found on the coast and in other locations containing resources utilized by the group. Factors which influence the location of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones, the presence of specific resources (oak groves, marshes, quarries, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors.

Field Research

None of the materials frequently associated with prehistoric cultural resources in this area (dark midden soil, marine shell fragments, broken or fire-altered rocks, bones or bone fragments, flaked or ground stone, etc.) were noted during the survey. The soil in the project area was a light brownish gray to medium gray silty clay.

No evidence of potentially significant historic resources was seen in the project area.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the background research and the surface reconnaissance, we conclude that the project area does not contains evidence of potentially significant archaeological resources. Because of this we make the following recommendation:

- The proposed project should not be delayed for archaeological reasons.

Because of the possibility of unidentified (e.g., buried) cultural resources being found during construction, we recommend that the following standard language, or the equivalent, be included in any permits issued within the project area:

- If historic or prehistoric archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

REFERENCES

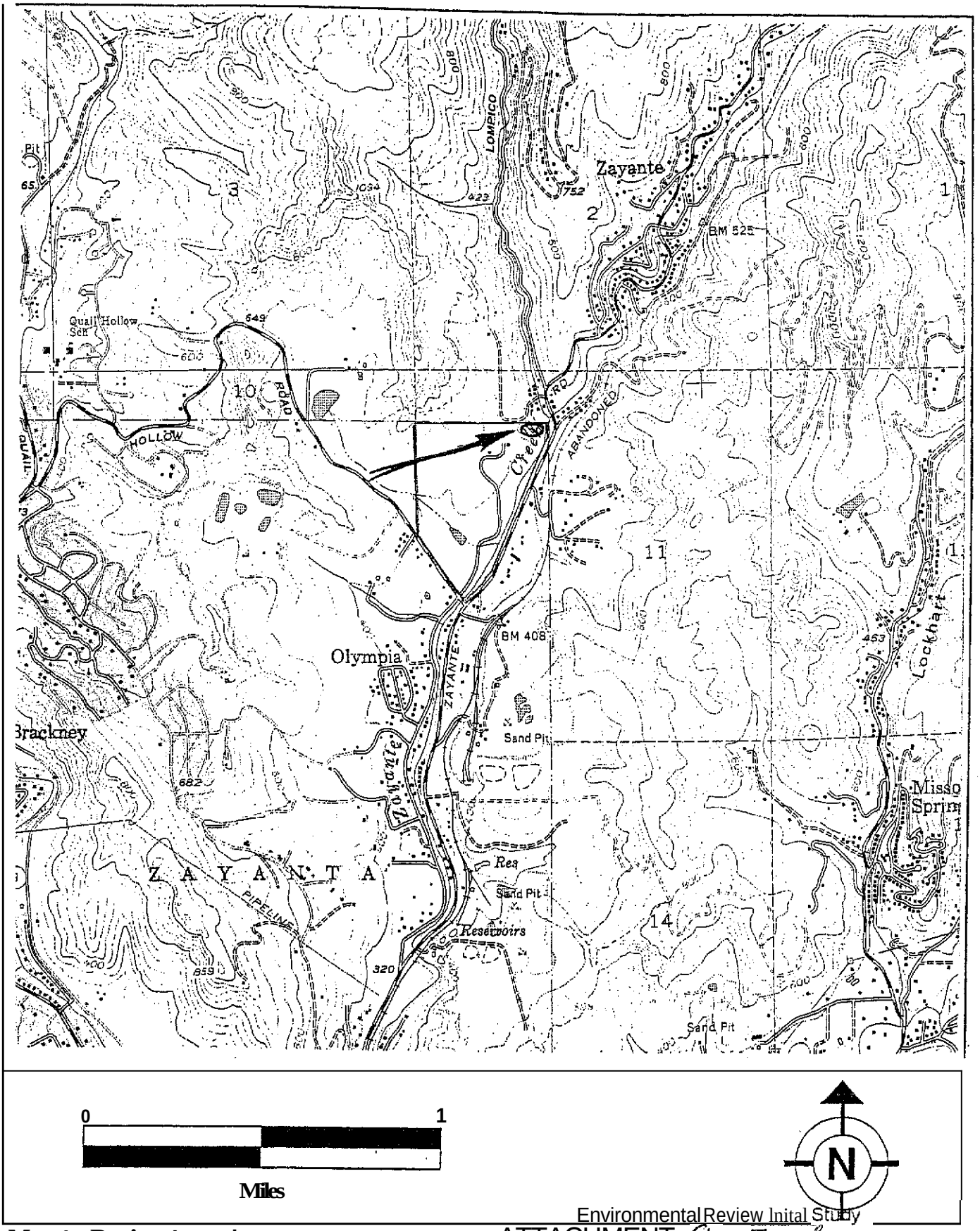
Breschini, G. S., T. Haversat, and R. P. Hampson
1983 A Cultural Resources Overview of the Coast and Coast-Valley Study Areas [California]. Submitted to Bureau of Land Management, Bakersfield.

Kroeber, 4. L.
1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78.

Levy, R.
1978 Costanoan. Pp. 485-495 in Handbook of North American Indians, Vol. 8, California. Smithsonian Institution, Washington, D.C.

Margolin, M.
1978 The Ohlone Way. Heyday Books, Berkeley.

Environmental Review Inital Study
ATTACHMENT 9 pt 11
APPLICATION 03-0382

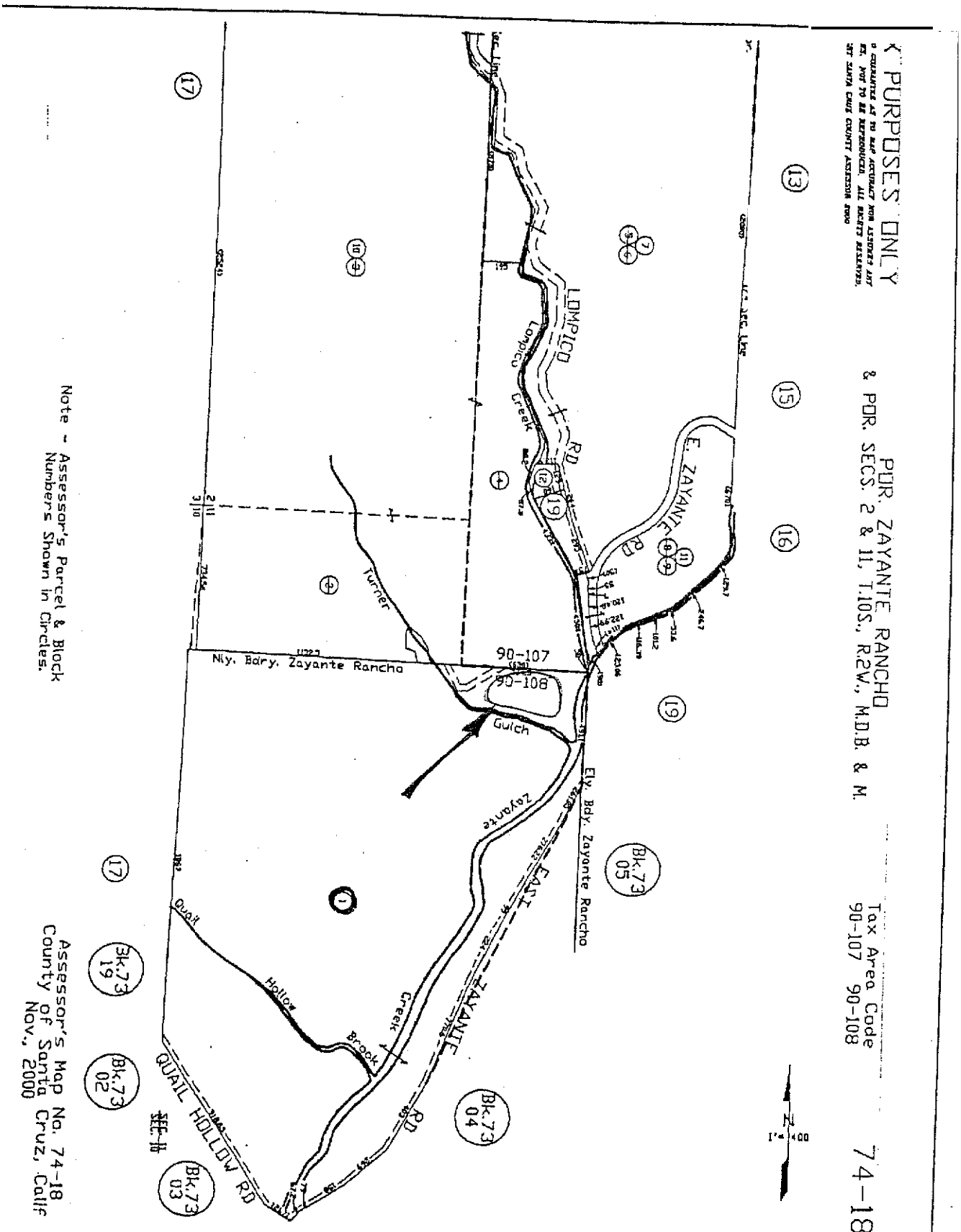


Map 1. Project Location.

Environmental Review Inital Study

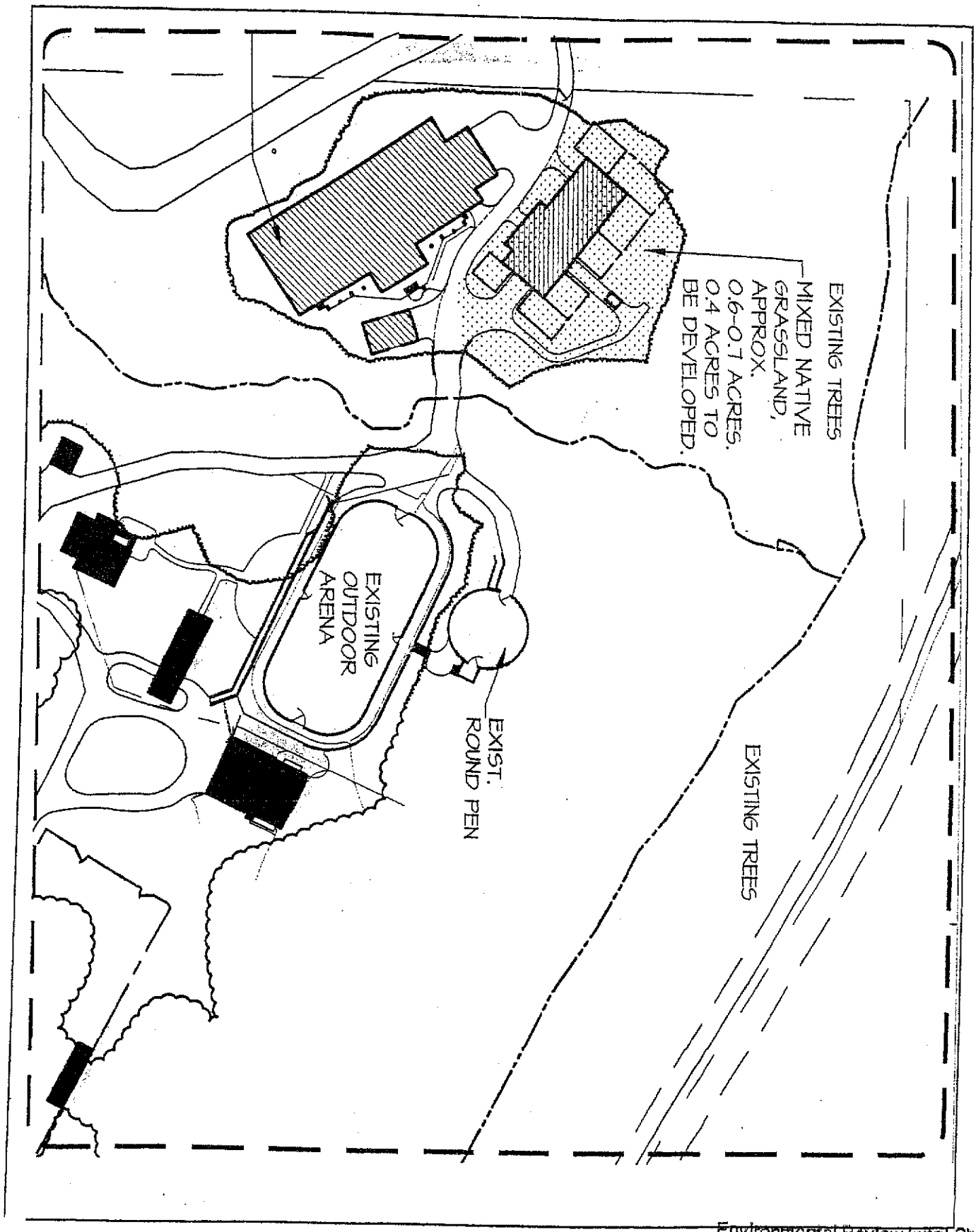
ATTACHMENT 9, 7 of

APPLICATION 03-0382



Map **2.** Project Location.

Environmental Review Inital Study
ATTACHMENT 9, 8 of 11
APPLICATION 03-0382



Map 3. Project Location.

Environmental Review Inital Study
ATTACHMENT 9, 8 of 11
APPLICATION 03-0382

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, SUITE 400, SANTA CRUZ, CA 95060
(831)454-2580 FAX (831) 454-2131 TDD (831) 454-2123
ALVIN JAMES, DIRECTOR

September *29,2003*

Lichen Oaks LLC
C/O Richard Beale Land Use
100 Doyle Street, Suite E
Santa Cruz, CA 95062

SUBJECT: ARCHAEOLOGICAL RECONNAISSANCE ON APN 074-181-01

To Whom It May Concern,

The preliminary archaeological site review for this parcel has been completed. The results of this review indicate the presence of prehistoric cultural resources on the parcel that may be within the proposed development area. Therefore, an archaeological assessment must be prepared by a qualified professional archaeologist and submitted for review and approval prior to permit approval. The purpose of the report will be to determine the significance of the resource, evaluate the impacts of the proposed project and recommend mitigation measures to protect the cultural resources. The scope of work for this report will be to (1) determine the extent of the site, (2) determine the depth of the deposit, and (3) determine the nature of the deposit (disturbed/in tact).

Preparation of the report is the responsibility of the applicant. The completed report must be'submitted to the County for review, There is a fee for this archaeological review. I am enclosing a suggested list of archaeological consultants. After you have selected an archaeologist to perform the work, please have them contact me at 454-3372 for maps and other materials prepared by the reconnaissance team.

Please call me if you have any questions.

Sincerely,

Elizabeth Hayward
Planning Technician

Environmental Review Inital Study
ATTACHMENT 9 10 of 11
APPLICATION 03-0382

SCAS/ARCHTECH PRELIMINARY RECONNAISSANCE
PREPARED FOR **SANTA** CRUZ COUNTY PLANNING DEPARTMENT

FIELD **FORM** 1A

SCAS PROJECT # **SE** - 03 - 97?

Site data **are** not for public distribution. No part of these forms may be abstracted for an environmental impact report.

Applicant's Name LICHEN OAKS LLC C/O RICHARD BEALE Phone 831-425-5999

Tenant's Name ϕ Phone ϕ

Parcel APN 074-181-01 Date Request Rec'd 9/19/03

Planning Permit No. 03-0382 Date Mailed to County 9/24/03

USGS Quad FELTON UTMG

Parcel size 90.917 AC (EMIS)

Description of the Proposed Project:

PROPOSAL TO CONSTRUCT AN APPROX 4,500 SQ FT BARN WITH PADDOCKS ETC.

Previously Recorded Sites Nearby

CA-SCR-134 ON THE PARCEL

Prehistoric cultural resources evidence: YES _____ NO _____
Comment:

Historic cultural resources evidence: YES _____ NO _____
Comment:

Environmental Review Initial Study
ATTACHMENT 9 11 of 11
APPLICATION 03-0382

THIS WILL HAVE TO BE FORWARDED TO A PROFESSIONAL ARCHY AS IT CONTAINS A RECORDED PREHISTORIC SITE.

ArchTech

Page 1 of 1

citylteam MINISTRIES

October 8,2003

County Planning Department
Attention: Cathleen Carr
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

RE: Lichen Oaks Ranch Barn and Arena Application 03-0382
APNs: 074-181-01

Dear Ms. Carr:

Our property, CityTeam Camp MayMac at 9115 East Zayante Road (074-181-10), is located immediately adjacent (north *of)* the Kvamme property know as the Lichen *Oaks* Ranch. It is our understanding that the County Planning Department may be interpreting our existing 30-foot right-of-way that crosses the Kvamme property as a "front" yard for the Kvamme property. We also understand that if this right-of-way is considered a front yard, that the Lichen Oaks application will require a public hearing.

This private driveway easement that crosses the Lichen Oaks Ranch serves our camp only and no other properties. The Kvamme property does not have legal access over the CityTeam Camp MayMac property. No other properties are allowed to access our driveway. As the closest property owner and the only property affected by the County's interpretation, we wish to state that we have no objection to the proposed bam or arena application.

We have reviewed the plan for the Lichen Oaks barn and riding arena and believe it will not impact any of the neighbors, specifically CityTeam Camp MayMac. Please call us if you have any questions about this right-of-way.

Sincerely,

Patrick Robertson
President

John Scott
Camp MayMac Director

Environmental Review Inital Study
ATTACHMENT 10, 1 of 5
APPLICATION 03-0382

2304 Zanker Road, San **Jose,** California 95131-1115 ■ TEL 408-232-5600 ■ FAX 408-436-0702 ■ www.citytearn.org

May 11,2004

Cathleen Carr
Santa Cruz County Planning Department
701 Ocean Street – 4th Floor
Santa Cruz CA 95060

Subject: Application 03-0382; 110 Quail Hollow Road, Felton

Dear Ms. Carr,

The main public interests regarding this application are water quaiity and public viewshed.

The project is very close to Zayante Creek and other watercourses. The number of horses potentially accommodated by the project couid have a significant impact. I trust that County requirements for drainage and manure management will ensure the water quality *of* the Creek and other watercourses. Nevertheless, there is sometimes a difference between the concept of best management practices and actual experience,

It would therefore be appropriate to conduct a monitoring program for a period of time to **ensure** that the water quality of the Creek is maintained.

The project lies in a very special viewshed. An expansive meadow gradually rises from Zayante Creek into Quail Hoiiow Park and then transforms into the unique sandhills of this area. Magnificent trees and other vegetation that is special to the area border the meadow. It is important public policy to preserve this viewshed. (It should be noted, parentheticaliy, that the natural quality of the area had much to do with the decision to keep Quail Hollow Park a nature park and not develop it with ball fields).

The proposed project raises two concerns. The proposal is a major expansion of a horse facility. While perhaps not contemplated, it raises the question of future uses, including commercial boarding, breeding and training. This in turn might result in pressures to convert the meadow between Quail Hollow Road and the creek into facilities to accommodate such uses.

It should be made clear *to* the applicant that future conversion of this area to such uses would *not* be permitted.

The second, and more important concern is the area where the excavated fill is proposed to be placed. It is easily conceivable, and would be entirely

Environmental Review Inital Study
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inappropriate, that the excavated fill could be placed along Quail Hollow Road to form a berm, which would seriously degrade this important viewshed.

Already the applicants have made an unfortunate decision in lining Quail Hollow Road along their property frontage with a row of lollipop trees, which are entirely out of character with the existing landscape, in terms of their arrangement and type. These trees add nothing to the natural landscape and will in the future only serve to obscure views,

The project generates a significant amount of excavated materia!. The plans show no contours for its proposed location. When you look at the expanse of meadow from Zayante Creek to Quail Hollow Park you will see a flow of terrain that should not be interrupted by mounds of excavated fill. Any dumping of fil! will be apparent as an unnatural land feature. At worst, it can create a berm that will do serious damage to the landscape.

Therefore, the excavated material should not be placed in the proposed **area.**

This should not be a problem. There are certainly other options. Exporting he material from the site is one. Clean fill is marketable material. Perhaps Quail Hollow Park could use some to make repairs. Placing it in areas beyond the drainage from Quail Hollow Park would be another choice and place the fill out of public view.

Thank you for taking these concerns into account.

Sincerely,

Peter Katzlberger
453 Quail Hollow Road
Felton CA 95018

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1711 Quail Hollow Rd
Ben Lomond, CA 95005
May 12,2004

Cathleen Carr
Santa Cruz County Planning Department
701,Ocean Avenue, 4rth Floor
Santa Cruz, CA 95060

Dear Ms. Can.

I am writing with comments on the horse arena and associated barn that is proposed for the property on Quail Hollow Road in Felton that is between the Quail Hollow County Park and East Zayante Road. I have several comments that I would like to make.

1) First, I think the comment window should be extended and the project more widely advertised so that all affected parties can have a chance to comment. A notice and information on the project should be posted at Quail Hollow County Park so regular park users can have a chance to comment. I think a notice should go to nearby residents on Zayante Road, and all residents of Quail Hollow Road, including the Ben Lomond end of the road.
2) More information about the scope of the project and proposed uses should be made available to the public so that we can have some details on which to comment.
3) I would like to know what the impacts to traffic on Quail Hollow Road would be. Since the County has made our road an evacuation route and posted signs showing people that it is an alternative to Highway 9, traffic noise and speeding have become problems on the road. We certainly don't need any more traffic
4) I don't think a horse arena with its associated event announcement over megaphones or loudspeakers would be compatible with the nature-oriented county park next door. I don't want to be trying to enjoy myself bird watching at the park and have to put up with hearing horse events announced over loudspeakers. These are not compatible uses. Even if the owner agrees not to use loudspeakers, what is going to keep them from using them in the future? It is my experience that the County Sheriffs department lets people do pretty much what they want on their own property regardless of the amount of noise they make—at least up to a point.
5) I am also concerned that boarding a large number of horses will lead to lots of people wanting to ride on the trails at Quail Hollow County Park. The Santa Margarita Sandstone that underlies some of the park is very fragile and horses would cause bad erosion, especially without proper trail maintenance, and especially on steep areas of the trails. There are examples of this type of impact at the Quail Hollow Quarry, where people have ridden horses for many years.
6) I am also concerned about increased sediment runoff and increased levels of nutrients in the runoff into Zayante Creek, which is already impacted in this way. I don't see whether it matters if this is a

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commercial operation or a private one if there are a lot of horses boarded and exercised there that can produce these impacts to the creek. Local folks have been working on removing barriers in order to reestablish steelhead upstream on Lompico Creek. I don't want to see that fine effort undermined by continued negative impacts to Zayante Creek.

7) Quail Hollow Park has had Western Bluebirds nesting in a box dong the fence line that adjoins the property we are discussing. Western Bluebirds have been extirpated from this part of Santa Cruz County for many years, and this is the first nesting that we are aware of. I am concerned that a high level of activity near the bluebird box will discourage them from trying to nest again in the future.

Thanks for considering my comments.

Best regards,

Leda Beth Gray

Cc: Supervisor Mark Stone

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APPLICATION 03-0382

CITY OF
SANTA CRUZ

WATER DEPARTMENT

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

March 17,2005

Mr. Ken Hart
Environmental Coordinator
County of Santa Cruz
Planning Department
701 Ocean Street,
Santa Cruz, CA 95060

Re: Lichen *Oaks* LLC Preliminary Environmental Determination,
Application 03-0382 AF'N 074-181-01.

Dear Mr. Hart:

We have reviewed the above referenced Environmental Determination for potential impacts to the municipal water supply of the City of Santa ***Cruz*** and offer the following comments on the proposed project.

There are two primary areas of concern regarding water quality and the proposed project. First we are concerned about potential nitrogen inputs into ground and surface water at the site. Second, the location of the project is in a small comer of the parcel which is immediately adjacent to Zayante Creek, and a small tributary to Zayante Creek.

Regarding the nitrogen issue, in the mid 1990's the Santa Cruz County Environmental Health Service with grant funding from the California Regional Wzter Quality Control Board completed the San Lorenzo Nitrate Management Plan (SLNMP). This Plan included field studies at the Quail Hollow Ranch Regional Park Stables located immediately east of the proposed project location, which shares the same soil type as the proposed project location. This study focused on Best Management Practices (BMP's) for nitrogen control from equestrian facilities.

Within the Lower Zayante sub-basin (project area), Iivestock (primarily horses), accounted for 41% of the summer nitrogen load to the streams. This is second to septic systems, which account for 48% (SLNMP). Note that one horse discharges almost as much nitrogen to the environment as an average household of three people, and the Manure Management Program states that the project will house up to 15 horses.

Environmental Review Inital Study
ATTACHMENT 11, 1 of 3
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The Quail Hollow study and SLNMP make numerous recommendations regarding BMP's for livestock management. We recognize that many of these BMP's have been incorporated into the proposed project. The proposed practice of spreading manure on-site during the dry season is not a recommended BMP, and rolls back some of the benefits of some of the other BMP's. This proposed practice is of concern. We recommend that the manure proposed for spreading also be removed from the site. This is consistent with the practices of neighboring Quail Hollow Ranch.

Regarding the proximity to the adjacent watercourses, the SRNMP recommends a separation of 50-100 feet between livestock and watercourses, unless other measures are taken to prevent contamination. While this distance is maintained from Zayante Creek, the smaller intermittent tributary is within that zone. Again, we acknowledge that BMP's have been applied to the project, but we remain concerned. The project footprint is located within an existing opening within the oak dominated woodland which borders Zayante Creek. A review of air photos for the area shows that significant vegetative clearance exists around structures. Much of this clearance has probably occurred over a period of time. It is probable that future clearing around the structures could reduce the benefits of the existing native buffer strip with regard to water quality. We recommend that the existing vegetated buffer strips between the project and Zayante Creek, and both banks of the intermittent drainage be permanently maintained.

The City is currently in the process of negotiating an Endangered Species Act – Section 10 permit for numerous species, including the Mount Hermon June Beetle **(MHJB).** This permit requires the development and implementation of a Habitat Conservation Plan (HCP), which includes conservation measures for the MHJB (among other species). Therefore the City will share *an* increased regulatory burden if these species are not equally protected throughout their range. While a botanical survey was undertaken for the project, it does not appear that surveys for listed insects have been completed, nor have any mitigations for activities associated with this project (i.e. soil compaction, tree removal, night lighting, etc.) which might impact the MHJB, in particular, been proposed. The proposed equestrian facility is located in the vicinity of the Zayante Sandhills where numerous historical MHJB, as well as observations of other listed insect species, have been made. Furthermore, the subject parcel appears to have appropriate habitat to support this species (i.e. Ponderosa Pines – which are considered a host plant for this Federally Endangered insect),

Finally, we agree with some of the concerns raised by Mr. Katzlberger in his letter of May 11,2004, attached in the staff report. We concur that a water quality monitoring plan be implemented to monitor the project, for a period of time, We continue to be concerned with possible equestrian related impacts within the area of the project. Possibly, the applicant could work with County Environmental Health to coordinate or share the monitoring of this and other existing facilities within the sub-basin.

Environmental Revlew Inital Stud
ATTACHMENT 11, 2 of 3
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The above comments are made for the existing proposal of a private facility. **A** future commercial endeavor at the site would be of significantly greater concern to us.

Thank you for your consideration of the above comments.

Sincerely,

Bill Kocher
Director, Santa Cruz Water Department

Cc: Chris Berry, Water Resources Manager

References:

San Lorenzo Nitrate Management Plan Phase II Final Report. 1995. County of Santa Cruz Health Services Agency, Environmental Health Service.

San Lorenzo River Nitrogen Control Project: Quail Hollow Ranch Regional Park Stables. Balance Hydrologics, Inc. August 1994. Prepared for Santa Cruz County Environmental Health Service and the California Regional Water Quality Control Board Central Coast Region.

Environmental Revlew Inital *Study*
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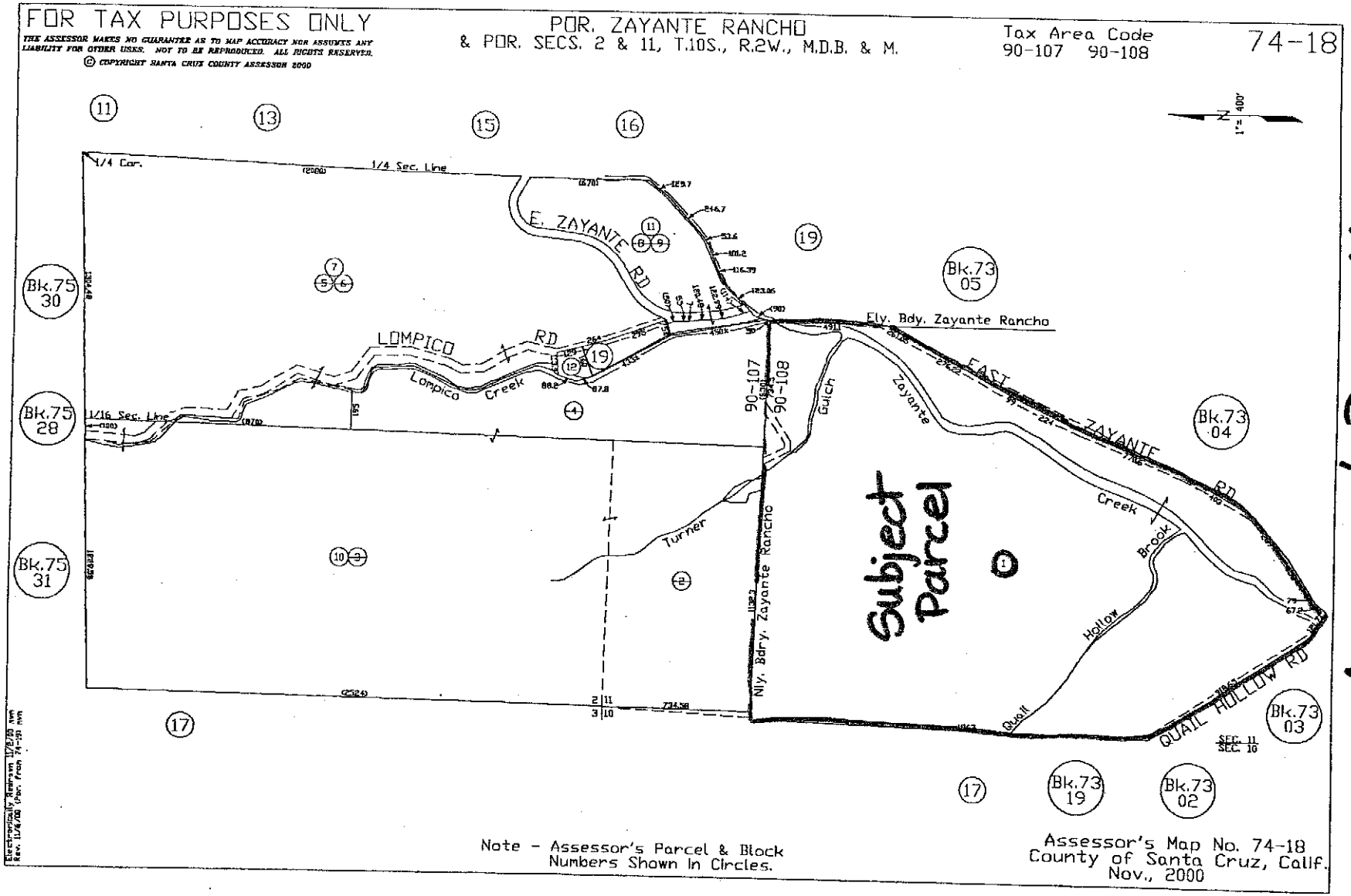
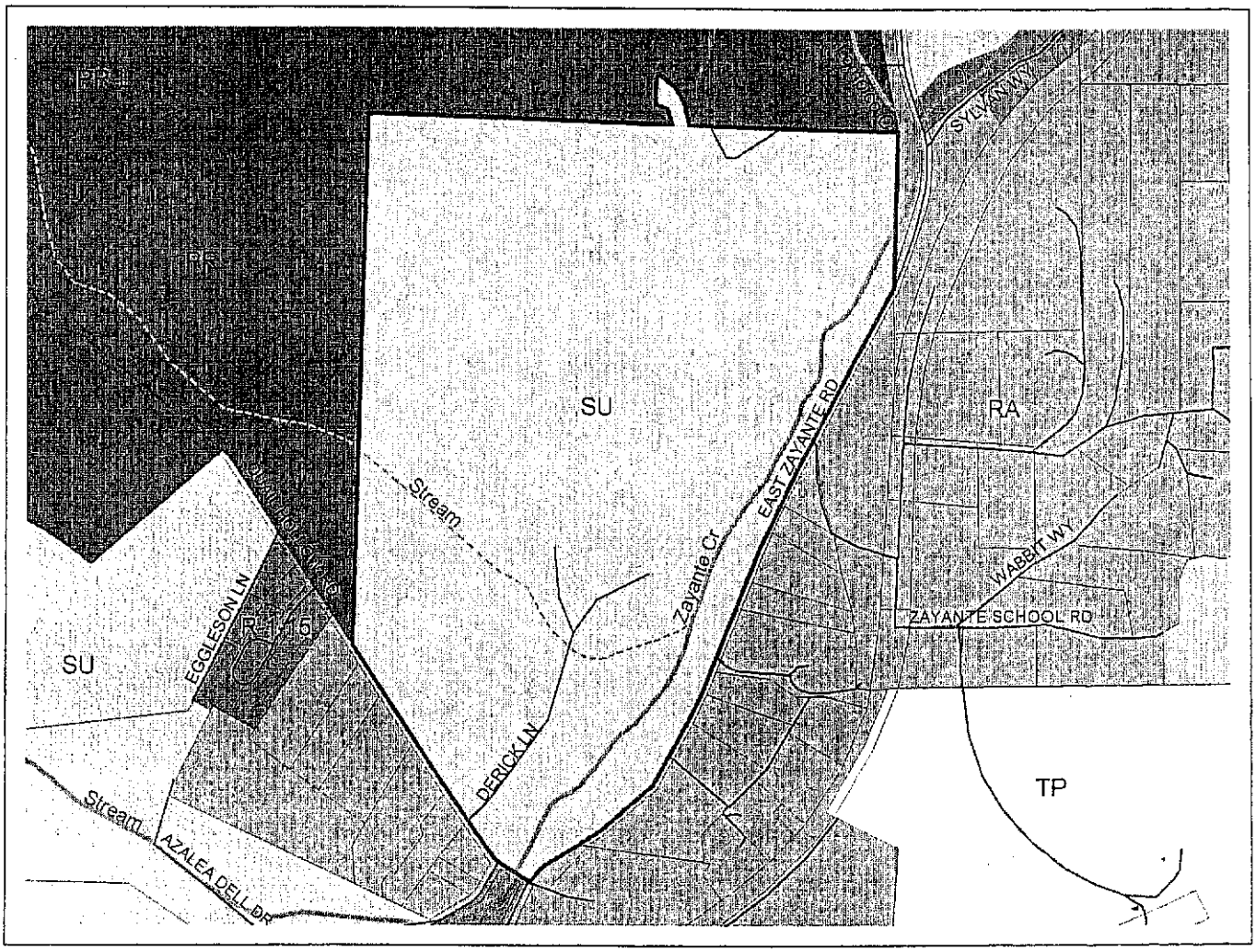
Exhibit E

Assessor's Parcel Map



Zoning Map



1000 0 1000 2000 Feel

Legend

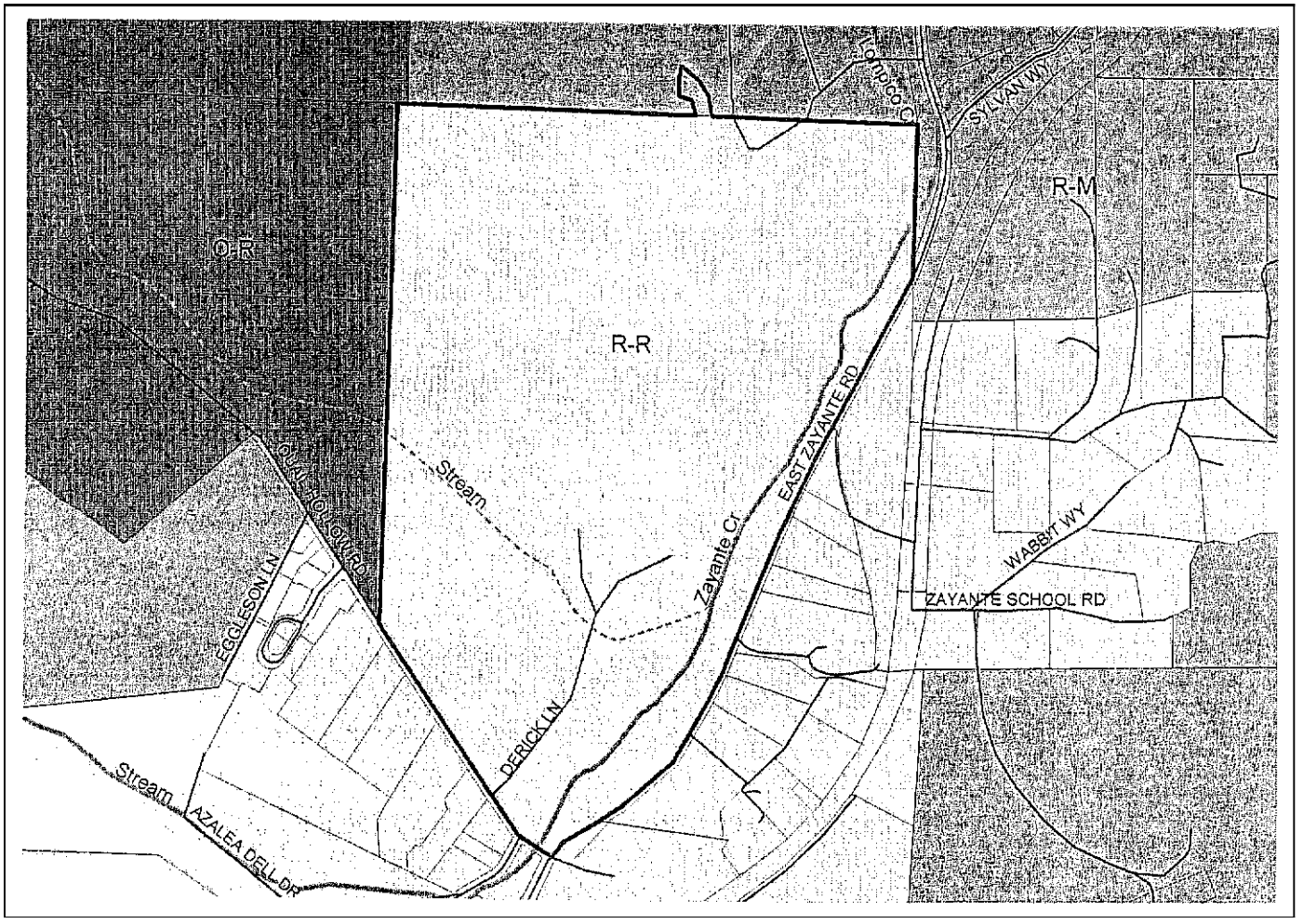
- APN 074-181-01
- Parcel boundaries
- Streets
- Intermittent Stream
- Perennial Stream
- RA
- R-1-15
- PR
- SU
- TP

N

Map created by Santa Cruz County Planning Department: September 2003

Exhibit F

General Plan Map



1000 0 1000 2000 Feet

Legend

- APN 074-181-01
- Parcel boundaries
- Streets
- Intermittent Stream
- Perennial Stream
- Parks and Recreation
- Mountain Residential
- Rural Residential

N

Map created by Santa Cruz County Planning Department
September 2003

Cathleen Carr

From: Paia Levine
Sent: Thursday, April 14, 2005 11:36 AM
To: Cathleen Carr
Subject: FW: Your comments on Lichen Oaks environmental review

here cat is the modification on the mmp that needs to be made via conditions.

-----Original Message---
From: Paia Levine
Sent: Monday, April 04,2005 10:42 AM
To: Matt Baldzikowski (E-mail 2)
Subject: FW: Your comments on Uchen Oaks environmental review

----Original Message-----
Fmm: Paia Levine
Sent: Friday, April 01, 2005 1:45 PM
To: matt baldzikowski (E-mail)
cc: Cathleen Carr; John Ricker
Subject: Your comments on Lichen Oaks environmental review

Hello Matt:
I have read your comments about potential pollution of surface waters and have discussed them with John Ricker of Environmental Health Services. I have also reviewed portions *of* the San Lorenzo Nitrate Management Plan. The County has been given a mandated limit on nitrogen levels by State agencies and *so* has a parallel interest in this issue.
Based on the composition *of* the soils in the area(s) that horses will be using, the limit on the number of animals and the existing use it does not appear that there may be a significant impact as a result of the project and therefore a mitigation measure will not be added to the project. John does recommend that the Manure Management Plan be revised to include a provision that spreading of manure not occur after August 1 and not be placed where soils do not percolate at a moderate rate or better. This will coincide well with restrictions about spreading manure on prairie vegetation.
Based on the soil conditions and on data from Quail Hollow Ranch stables John does not recommend any additional changes. Your suggestion that vegetative buffers be preserved will be worked in to the project conditions.
Thank you for your input.
Paia Levine
County of Santa Cruz
701 Ocean Street, Santa Cruz, CA 95060
phone: (831) 454 3178
fax: (831) 454 2131
email: paia.levine@co.santa-cruz.ca.us

Exhibit G

COUNTY OF SANTA CRUZ

Inter-Office Correspondence

DATE: August **18**, 2004

TO: **Tom** Burns, Planning Director

FROM: Supervisor Mark W. Stone

RE: LICHEN *OAKS*, 03-0382 - CONDITIONS OF **APPROVAL**

I have been contacted by several constituents who want to reiterate their concerns about the Lichen Oaks development. Per your May 20, **2004**, memo, I want to verify that the Planning Department will be placing conditions on any approval that clearly state:

- the owners will not be allowed to board **or** train outside horses

  a Level *5* commercial stable permit will be required in order to convert the facilities to commercial use and pubic gatherings

  other limitations will be placed on the frequency of riding events or open houses

  there will be limitations on noise and amplified music

I understand that once the application is complete, Planning will start to draft the Initial Study for Environmental Review and that once it is completed, the project will be ready to schedule a Zoning Administrator hearing. I understand the application is not likely to be scheduled for the **ZA** hearing before January.

I appreciate your working with the community to ensure that this riding facility remains limited to personal use.

MWS:pmp

cc: Cathleen Carr, Planner

2207N5

Project Planner: Cathleen Carr
Appiication No.: 03-0382
APN: 074-181-01

Date: April 14, 2005
Time: 15:29:34
Page: 1

Environmental Planning Completeness Comments

The project does not conform with the grading ordinance and general plan standards for minimizing grading. Plans show grading on slopes greater than 30%. where there are alternative locations to build. All development must be located outside riparian setback and buffer.
========= reviewed ON OCTOBER 1. 2003 BY JESSICA L DEGRASSI =========
========= UPDATED ON MAY 13. 2004 BY JESSICA L DEGRASSI =========
Plans have been revised to mimimize grading

Allthough most of the development is outsicle the riparian corridor there is still the location of the 6-foot eve of the area that lies within the 10-foot buffer to the riparian corridor. This buffer is only for construction purposes and all development including eves and overhangs must be outside this buffer line. Findings for a riparian exception cannot be made for this development.

Also, the drainage devices located in the riparian setback shall also require a riparian exception. Allthough there are other locations on the property where these devices may be moved to prevent locating them in the riparian corridor, you must prove that these locations are the only feasible locations for these devices. Ultimately this is up to the soils engineer.

Please include grading for the water tank pad into the grading quantities. =========
UPDATED ON AUGUST 10, 2004 BY JESSICA L DEGRASSI =========

Environmental Planning Miscellaneous Comments

========= reviewed ON OCTOBER 1, 2003 BY JESSICA L DEGRASSI =========
Erosion control plans must be included with the building permit application. Plan review letters form the soil engineer must be submitted with the building permit application. ========= UPDATED ON AUGUST 10, 2004 BY JESSICA L DEGRASSI =========
Condition permit for no winter grading, use silt fence around perimeter of area to be disturbed instead of straw wattles, and rough grade inspection on building permit.

Dpw Drainage Completeness Comments

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

========= REVIEW ON SEPTEMBER 19, 2003 BY ALYSON B TOM ========= Application with civil plans by Ifland Engineers dated 7/23/03 has been recieved. The applcation is not complete with regards to drainage for the discretionary stagee. All potential off-site impacts and mitigations must be identified prior to discretionary completeness.

1) The site is located in groundwater recharge and water supply watershed zones. Accordingly, all additional runoff due to proposed impervious surfaces and permanent site disturbance should be retained and infiltrated on site so that the post project runoff rates are limited to pre project levels. Please update civil drainage plans to incorporate retention facilities, Please note that if the proposed structures

were located further away from the drainage courses there may be more space to accommodate the on-site retention and meet the general plan requirements for the groundwater recharge and water supply watershed site constraints. The design of the retention facilities should take into account site specific factors such as soil type, slope. vegetated cover, etc. and should include design for safe overflow and maintenance considerations.

2) In the current plan it appears runoff from the uncovered paddock areas will drain directly. via piping. to the downstream drainage course. Are there any water quality concerns related to the paddock area runoff (ex: will paddock area runoff have high bacteriological concentrations). If so, how will these be mitigated/eliminated?

Please see miscellaneous comments for issues to be addressed in the building application stage.
========== UPDATED ON MAY 10, 2004 BY ALYSON B TOM ========== Application with civil plans dated 4/16/04has been received. Please address the following:

1) Please describe how the retention facilities were sized. What site specific factors were considered in the design. How will the runoff from the proposed drivewaylroadway areas be retained? Three of the four proposed outlet locations are directly above steep slopes. Consider moving the outlet locations to discharge further away from the top of slope. The roposed drainage facilities should not contribute to increased erosion potentia!.

2) Please address previous completeness comment no. 2

See miscellaneous comments for issues to be addressed prior to building permit submittal.
========== UPDATED ON MAY 13, 2004 BY ALYSON B TOM ==========
========== UPDATED ON AUGUST 27, 2004 BY CARISA REGALADO ==========
A memo dated 7/12/04from Ifland Engineers, Inc. was received addressing previous drainage Completeness Comments. Although more information was given for retention sizing and water quality, the following items need to be addressed before this application can be considered complete for the discretionary stage.

1) Under item 1, page 1 of memo. please correct typo of A = .96 cfs to A = 0.096 for the 4200 s.f. area.

2) Under item 1. page 2 of memo, it is not clear if the retention / detention pipe "capacity of over 6.5cfs" refers to flow capacity or storage volume capacity. Please clarify.

3) For retention calculations, please use a 2-year storm, 2-hour duration. As you are aware, the design should consider safe overflow.

4) What is the infiltration rate of the soil at the percolation pipe locations? This should be considered in the retention calculations for an appropriate storage volume in the percolation pipe. From NRCS Soil Survey, this development appears to be over two different soil types: therefore, the rate should be specific to the location of the proposed percolation pipe.

5) Two area drains are proposed within the paddocks. It appears likely that damage would result to any exposed structures from horses in these facilities and that these structures would probably allow debris into the proposed drain system. possibly reducing its effectiveness. How will runoff from the remaining paddocks be captured to maintain water quality if this system is used? Does this design concur with that proposed by Equine Facility Design for this area? It is understood that this design will be perforated pipes under the sand, "Gravelpave" surface which appears to be different than that proposed by Ifland. Please clarify what the proposed design is for this area. Also, it must be confirmed that no damage to the new storm drain system and that no excessive debris being introduced into the system will result causing a less than designed for capacity and that water quality for the area and adjacent drainage way will not be impacted.

If needed, further drainage plan guidance may be obtained from the County of Santa Cruz Planning website: http://sccounty01.co.santa-cruz.ca.us/planning/brochures/drain.htm

Please call or visit the Dept. of Public Works, Stormwater Management Division, from 8:00 am to 12:00 pm if you have any questions.

Dpw Drainage Miscellaneous Comments

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

--------- REVIEW ON SEPTEMBER 19, 2003 BY ALYSON B TOM ========= The following comments should be addressed prior to building permit issuance.

1) The proposed project is disturbing more than one acre. Therefore the applicant is responsible for obtaining coverage under the State Water Resources Control Board Construction General Permit. See http://www.swrcb.ca.gov/stormwtr/construction.html

2) A detailed on-site drainage plan should be submitted. This plan should describe pipe sizes, slopes, types, invert information, and swale details. An analysis of the system may be required to demonstrate that the system meets all County Design Criteria and groundwater recharge/water supply watershed requirements.

3) Approval from the project geotechnical engineer for the final drainage plan will be required. This approval should state that the proposed project will not increase erosion or instability on site or downstream from the site.

For questions regarding this review Public Works storm water management staff is available from 8-12 Monday through Friday.
========= UPDATED ON MAY 10, 2004 BY ALYSDN B TOM ========= Please address the following in addition to the previous miscellaneous comments prior to building permit issuance.

1) Provide details and specifications for the proposed retention pipes. Detail pipe slope, perforation sizing and spacing, drain rock requirements, etc. on the plans.

2) Please include silt traps or other facilties upstream of the retention pipes so that the long-term maintenance and viability of the system is prolonged.

3) Provide a copy of a signed, notorized. and recorded maintenance agreement for the retention and maintenance facilities. Maintenance requirements should also be specified on the final plans.
========== UPDATED ON AUGUST 27, 2004 BY CARISA REGALADO ========
Please see previous Miscellaneous Comments given on September 19, 2003 and May 10, 2004.

For increases in imoervious area. a drainage fee will be assessed. The fees are currently $0.85 per square foot. (See 2004/05 Santa Cruz County Department of Public Works Service & Capital Improvement Fees.)

Environmental Health Completeness Comments

========== REVIEW ON SEPTEMBER 25, 2003 BY JIM G SAFRANEK ========= The manure management plan submitted does not address all of the issues listed on the EHS handout for man. manage. plans. Applicant will need to provide calculations to justify size of proposed manure bin. Contact: RICK JONES of EHS at 454-2746.
========== UPUATED ON OCTOBER 10, 2003 BY JIM G SAFRANEK ========= Rick Jones of EHS has now approved the Manure Mangement Plan. Discr. Permit requirements for EHS have been satisfied.
--------- UPDATED ON MAY 7, 2004 BY JIM G SAFRANEK ========= No comment.

Environmental Health Miscellaneous Comments

========== REVIEW ON SEPTEMBER 25, 2003 BY JIM G SAFRANEK ========
NO COMMENT
========== UPDATED ON MAY 7, 2004 BY JIM G SAFRANEK ========
NO COMMENT

Zayante Fire Department Completeness Comments

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

========== REVIEW ON SEPTEMBER 18, 2003 BY COLLEEN L EAXTER ========= DEPARTMENT NAME: CDF/COUNTY FIRE FOR ZAYANTE FIRE Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT. with an annotated copy of this letter: Note on the plans that these plans are in compliance with California Building and Fire Codes (2001) as amended by the authority having jurisdiction. Each APN (lot) shall have separate submittals for building and sprinkler system plans. The job copies of the building and fire systems plans and permits must be onsite during inspections. SHOW on the plans a public fire hydrant within 250 feet of any portion of the property, along the fire department access route, meeting the minimum required fire flow for the building. This information can be obtained from the water company. Fire hydrant shall be painted in accordance with the state of California Health and Safety Code. See authority having jurisdiction. NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13 and Chapter 35 of California Building Code and adopted standards of the authority having jurisdiction. NOTE that the designer/installer shall submit three (3) sets of plans and calculations for the underground and overhead Residential Automatic Fire Sprinkler System to this agency for approval, Installation shall follow our guide sheet. Building numbers shall be

provided. Numbers shall be a minimum of 4 inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street. NOTE on the plans that a 60 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt.
SHOW on the plans, DETAILS of compliance with the driveway requirements. The driveway shall be 12 feet minimum width and maximum twenty percent slope. The driveway shall be in place to the following standards prior to any framing construction. or construction will be stopped: - The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%. with grades of 15% not permitted for distances of more than 200 feet at a time. - The driveway shall have an overhead clearance of 15 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private access roads, driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. - The driveway shall be thereafter maintained to these standards at all times, All Fire Department building requirements and fees will be addressed in the Building Permit phase. Plan check is based upon plans submitted to this office. Any changes or alterations shall be resubmitted for review prior to construction. 72 hour minimum notice is required prior to any inspection and/or test. Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply wuth the 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, and, to hold harmless and without prejudice, the reviewing agency,
AGRICULTURAL BUILDINGS AS DEFINED IN APPENDIX CHAPTER 3, DIVISION II, OF THE CALIFORNIA BUILDING CODE NOT EXCEEDING 2,000 SQUARE FEET, NOT EXCEEDING 7.92 FEET IN HEIGHT. HAVING A CLEAR UNOBSTRUCTED SIDE YARD EXCEEDING 60 FEET IN ALL DIRECTIONS. AND LOCATED WITHIN AN AGRICULTURAL ZONED DISTRICT, AS DEFINED IN THE SANTA CRUZ COUNTY PLANNING CODE, OR AS EXEMPTEDBY THE FIRE CHIEF, SHALL NOT REQUIRE FIRE SPRINLERS. YOUR BARN EXCEEDS THESE GUIDLINES AS IT IS 4.500 SQUARE FEET. A SPRINKLER SYSTEM PER NFPA 13 SHALL BE INSTALLED IN THE BARN. SHOW ON PLANS ALL FIRE REQUIREMENTS LISTED ABOVE IN ORDER FOR PLANS TO BE APPROVED. ========= UPDATED ON APRIL 28, 2004 BY COLLEEN L BAXTER =========
DEPARTMENT NAME:CDF FOR ZAYANTE FIRE Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter: SHOW on the plans a public fire hydrant within 250 feet of any portion of the property, along the fire department access route, meeting the minimum required fire flow for the building. This information can be obtained from the water company. All

bridges. culverts and crossings shall be certified by a registered engineer. Minimum capacity of 25 tons. Cal-Trans H-20 loading standard. All Fire Department building requirements and fees will be addressed in the Building Permit phase. Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction. 72 hour minimum notice is required prior to any inspection and/or test. Note: As a condition of submittal *of* these plans. the submitter. designer and installer certify that these plans and details comply wuth the 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. and. to hold harmless and without prejudice, the reviewing agency.

UPDATED ON APRIL 12, 2005 BY COLLEEN L BAXTER ==========

NO NEW ADDITIONAL FIRE NOTES AS OF 4/12/05. ========== UPDATED ON APRIL 12, 2005 BY COLLEEN L BAXTER ==========

Zayante Fire Department Miscellaneous Comments

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

========== REVIEW ON SEPTEMBER 18, 2003 BY COLLEEN L BAXTER ==========
========== UPDATED ON APRTL 28, 2004 BY COLLEEN L BAXTER ==========
========== UPDATED ON APRIL 12, 2005 BY COLLEEN L BAXTER ==========
========== UPDATED ON APRIL 12, 2005 BY COLLEEN L BAXTER ==========