MONTECITO RANCH

APPENDIX K

MANURE MANAGEMENT AND FLY/VECTOR CONTROL PLAN

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022; STP 08-019; ER 09-013; Log No. 01-09-013; SCH No. 2002021132

August 4, 2010



GPA 04-013, SPA 01-001, REZ 04-22, TM 5250 RPL6, MUP 04-045, MUP 09-023 MONTECITO RANCH Log. No. 01-09-013

MANURE MANAGEMENT AND FLY/VECTOR CONTROL PLAN

FOR

MONTECITO RANCH

RURAL COUNTRY ESTATES

APPLICANT:

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SUBMITTED TO:

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Background

This Manure Management Plan and Fly/Vector Prevention and Management Plan (Plan) has been created following similar plans approved by the San Diego County Department of Environmental Health, and Vector Surveillance and Control Program. It is an attempt to plan for the minimization of files, mosquitoes, rodents and other pests that may breed in animal wastes, or be attracted to garbage associated with the proposed equestrian facilities, and vectors that could be attracted to the proposed wastewater reclamation facility. This plan is created to meet the requirements of the Vesting Site Plan 5250RPL5 for the Montecito Ranch Project and the associated Major Use Permits for the equestrian facilities within the Specific Plan Area (MUP 04-045) and the proposed wastewater reclamation facility (MUP ___).

The control and removal of animal manure and management of any pesticides used on the property is of interest to the County's Department of Public Works and Department of Health Services, and the Regional Water Quality Control Board. Enforcement of pesticide use is under the auspices of the County Agricultural Commissioner's Office. All pesticides used to reduce fly or mosquito breeding will be applied by a licensed, professional company.

Principles of Integrated Pest Management, IPM, will be used with little or no use of pesticides. Timely removal of manure and temporary storage measures will be the basis of fly prevention and odor reduction in the equestrian facilities.

Description of Facilities

An equestrian staging area is proposed within Montecito Ranch. A portion (approximately three acres) of the historic park site will be used as an area for equestrian facilities for day use visitors. A stone monument wall with signage and accent planting will provide identity as a gateway to the facility. A graded, decomposed granite parking area provides vehicular access and parking for 10 truck/trailers and 23 cars. Five 15' x 15' square pens, hitching posts, an 80' diameter pen and 100' x 150' arena with bleachers are provided in addition to an animal wash down area. Decomposed granite trails will provide access to the community trail network. A turf picnic pavilion with barbeque serves as a focal element for the facility. A service access drive provides a link to the Historic Park site and a landscaped berm adjoining Montecito Ranch Road will provide a screen buffer for the parking area and facilities. Equestrian style fencing will define the facility limits. This facility is a day-use only equestrian park, with no boarding capabilities.

The Montecito Ranch project includes an on-site wastewater reclamation facility (WRF) as one option for treating sewage generated by the project. The facility would generate tertiary treated effluent for re-use as irrigation water within the development. The wastewater reclamation facility would include a number of design measures to prevent fly/vector control problems, as noted below.

Manure Management and Fly/Vector Control

The Plan is designed to:

Minimize fly/mosquito and vector production

- Reduce odors
- Minimize public complaints
- Minimize manure content and sediment in storm water runoff

Equestrian Facilities

The following measures apply to the equestrian facility within Montecito Ranch.

Manure Management & Disposal

The respective facility manager will ensure that the following measures will be implemented at the equestrian facility:

- The arena and temporary holding pens will be cleaned weekly, with immediate disposal to a covered, roll-off commercial dumpster.
- Outside temporary holding pens will contain decomposed granite that is layered over thick asphalt felt.
- Manure storage bins would be placed onto impervious surfaces with appropriate berming.
- All waste will be disposed of directly to a commercial dumpster. No composting is proposed.
- Dumpsters will be emptied once a week and taken to the landfill or recycling area of the landfill.
- Prior to the known rainy seasons (September through March), cleaning efforts will be made to remove any excess accumulations of manure from premises to prevent fly breeding and reduce storm-water runoff. Good drainage is to be maintained to prevent standing pools of water and mosquito breeding.

Water Management Methods

The following guidelines will be implemented to provide effective reduction of fly and mosquito sources:

- Use non-leak valves on all water devices.
- The Montecito Ranch equestrian facility will provide a water spout for individual horse owners to utilize with their own buckets. No individual horse waterers or large troughs are proposed.
- Feed troughs and bins will not be provided because spilled feed attracts flies and makes a good breeding site.
- Properly grade earth surfaces in pens and arena corrals for drainage.
- Facility users will be requested to report all water leaks to prevent unnecessary wet manure areas or mosquito breeding areas.
- Regular inspections by maintenance personnel will ensure that all watering devices are working, have proper air-gap back-flow prevention and are not breeding mosquitoes. At this time there are no watering ponds or large water storage containers.

General Sanitation Management Methods

A general cleanup program shall supplement the manure and water management efforts. Good sanitary methods shall pay attention to the following items:

- Remove damp or spilled feed from around facility.
- Store all garbage, fruit and vegetable wastes and pet droppings in tight lid containers until off-grounds disposal is possible.
- The Park maintenance personnel or HOA maintenance department will control weeds in order to improve sun penetration and air movement so that the grounds remain dry and to avoid breeding of flies, rodents, mosquitoes and other potential pests (e.g., by removing breeding habitats).
- Yellow Jacket and fly traps will be used if those insects become a problem and are attracted to the garbage.

Feed Storage

• Feed and supplement storage will not be allowed.

Rodent Control

No rodent poisons are proposed, as they are dangerous to the animals. Snap traps or live traps will be used as necessary. If rodent baits are used in the future, they shall be contained in approved tamper resistant bait stations and used according to the label. If severe rodent problems occur a licensed Private Pest Control Operator (PCO) may be employed.

Pesticides and Larvicides

No use of pesticides is planned in the equestrian park except for an insecticide (Py-Tech or similar product) to reduce fly and mosquito breeding, which will be applied by a licensed professional company. Hydrated lime may be used in some areas to reduce odors, with such applications also effective in reducing fly breeding.

Stormwater Management

The Proposed Project includes on-site detention basins to provide flow control. These basins would be designed to drain within 72 hours to prevent mosquito breeding, pursuant to County requirements. The project SWMP also identifies maintenance requirements for the described basins, including monthly inspections and trimming or removal of excess vegetation as needed for (among other reasons) vector control.

Wastewater Reclamation Facility

The proposed on-site WRF will implement a number of measures to reduce attraction of flies, mosquitoes and vectors in general. Vector attraction would be limited to two primary components of the reclamation process, the screening process at the headworks and at the wet weather storage pond. A number of operational procedures described below will minimize vector problems at the facility.

Headworks

Screened material will be removed from the facility two-to-three times per week. The screening process takes place indoors, with screened material disposed of in a commercial dumpster which is also housed indoors until transported off site. Routine removal of

material minimizes fly attraction/propagation.

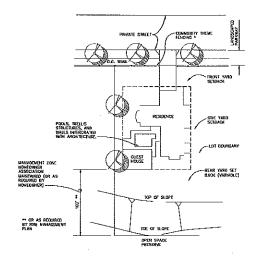
Wet Weather Storage Area

Wet weather storage ponds are proposed at the WRF to store approximately 84 days of tertiary treated water as a result of wet weather and reduced demand for irrigation. The wet weather storage ponds would be able to hold approximately 9,240,000 gallons of water. The stored water would be used after the wet weather period has ended. During wet weather years, water will be pumped into the pond beginning around November and ending in February or March, with the water completely used/drained by approximately the end of June. Thus, during wet weather years, the pond could maintain water for up to eight months. It is not expected that the wet weather storage will be used every year and it may be dry for up to two to three years at a time. The following measures will be implemented to reduce attraction of flies, mosquitoes, rodents and other vectors:

- Synthetic pesticides (e.g., methoprene and cyromzine), biochemical pesticides (i.e., *Bacillus thuringiensis israeliensus*), and/or biological controls (e.g., mosquito fish) will be applied by a licensed, professional company to the wet weather storage area to control attraction/propagation of mosquitoes.
- Chlorine addition to the treated water will be increased for long-term storage, reducing attraction to flies and mosquitoes.
- The wet weather storage ponds will be disked annually in the Fall to remove vegetation within and around the perimeter of the pond to limit rodent housing.
- Vector control is not necessary for the emergency wastewater storage area.
 Emergency storage will occur in a covered concrete tank, with storage lasting no longer than 48 hours. Short-term storage would not invite vectors.

Any changes to the fly/vector plan should be made with consultation and approval of San Diego Department of Environmental Health Services, Vector Control.

VESTING SITE PLAN MONTECITO RANCH "B" DESIGNATOR SITE PLAN (S 06-



TYPICAL 20,000 SQUARE FOOT LOT MINIMUM SETBACKS:

BOOR: 25 FEET FI MARD: 20 FEET FI

20 FEET FROM PROPERTY UP SUDVISION WAY, ASH ST. AS

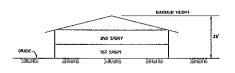
ALL OTHER STREETS:

15 FEET FROM EDGE OF STREET REDIT-OF-WAY
10 FOOT SOE YAND SEIBACK
15 FOOT SHE YAND SEIBACK WHERE UTILITY EASEMENT EXISTS
15 FEET FROM 100 PC 50 OPE

with Brush Vanacement Regits.

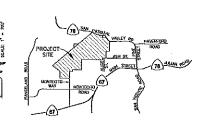
**Optional Houseower Installed Fenong Where Fencing is desired within Fright Y

TYPICAL RESIDENTIAL LOT CONFIGURATION



PROPOSED TYPICAL RESIDENTIAL BUILDING

MAP 888



VICINITY MAP

WORK TO BE DONE

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3. EAUTOPHIL REPARTIONT OF TRANSCORITION, "MANUAL OR UNIFORM TRAFFIC CONTROL DESIGN."

4. STATE OF CAUFURBA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECFICATIONS (WAY:

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TO 199-0497 (1919) 806-74355

PROPOSED STORM OFFAIN HEADWAL

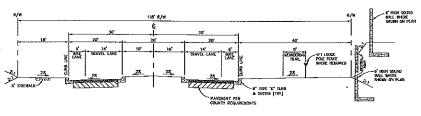
DRAINAGE IMBROATION (BASINS GREATER THAN 25 ACRES)

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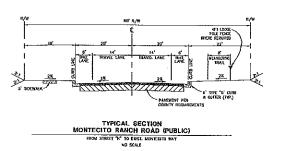
PROPOSED WATER LINE

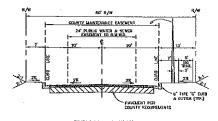
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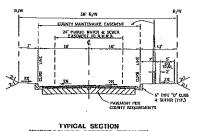
TYPICAL SECTION
MONTECITO RANCH ROAD (PUBLIC)
FROM ELY PROJECT BROKY TO TK' STREET





TYPICAL SECTION
NEIGHBORHOOD STREETS (PRIVATE)
"A" - "C" - "H" - "J" - "("

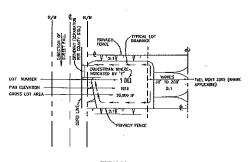
"O SCALE



TYPICAL SECTION

NEIGHBORHODD STREETS (PRIVATE)

"B" - "C" - "D" - "E" - "C" - "C" - "I"
"L" "M" - "N" - "O" - "P" - "O" - "E"
"S" "T" - "U" - "Y" - "W"



TYPICAL LOT

REVISIONS

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DATE: 1/HJ/08 SIE NO. D2012.05 SHEET

VESTING SITE PLAN MONTECITO RANCH

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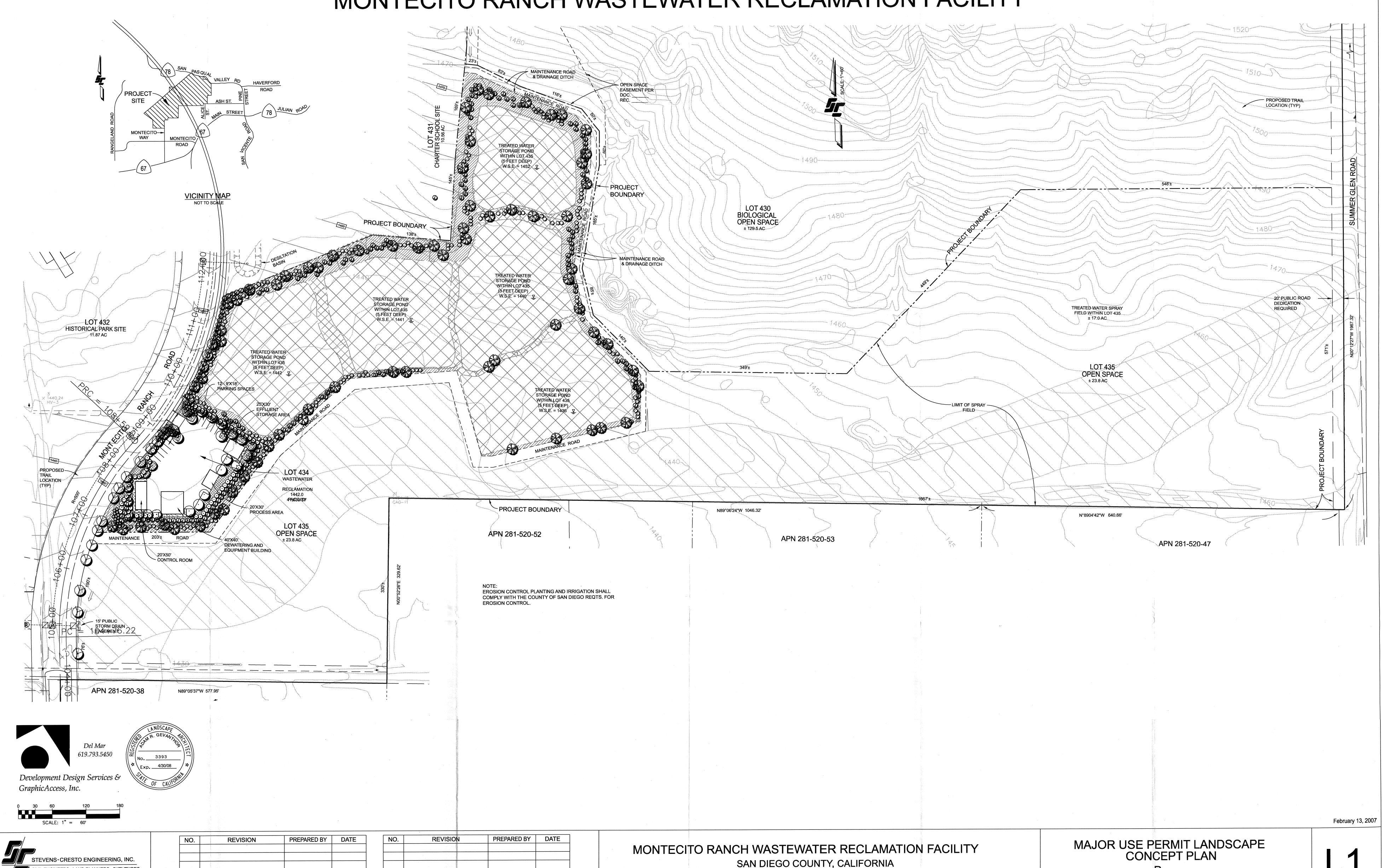
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Figure 2 – Equestrian Park Concept Plan No scale



COUNTY OF SAN DIEGO MAJOR USE PERMIT PLOT PLAN (P__-_) MONTECITO RANCH WASTEWATER RECLAMATION FACILITY



SAN DIEGO, CA 92123 -1352

MONTECITO RANCH, LLC

COUNTY OF SAN DIEGO MAJOR USE PERMIT PLOT PLAN (P___-MONTECITO RANCH WASTEWATER RECLAMATION FACILITY

PLANT LEGEND

	STREET TREE				
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX	PLANT 2'-6" FROM EDGE OF SIDE WALK AT 25' O.C.	
	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	PLANT 2'-6" FROM EDGE OF SIDE WALK AT 25' O.C.	
	SHRUBS			SIDE WALK AT 25 O.C.	
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	
*	RHAPHIOLEPIS INDICA 'BALLERINA'	INDIAN HAWTHORN	5 GALLON	MAINTAIN AT 30" HIGH HEDGE PLANT 36" O.C.	
	INTERIOR AND ENT	RY PLANTING			
	TREES		0175	NOTEC	
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	
	KOELREUTERIA BIPINATA	CHINESE FLAME TREE	24" BOX		
	CUPANIOPSIS ANACARDIOIDES	CARROT WOOD TREE	24" BOX		
	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE	24" BOX		
	LAGENST HOLIVIA INDICA NATOTILE	OHAI E WITHEE	Z4 BOX		
	LARGE SHRUBS				
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	
	PITTOSPORUM TOBIRA 'VARIEGATA'	VARIEGATED PITTOSPORUM	5 GALLON		
0	FEIJOA SELLOWANA	PINEAPPLE GUAVA	5 GALLON		
	ADDUTUG LINEDO (COMBACTA)	DWARF STRAWBERRY TREE	5 GALLON		
	ARBUTUS UNEDO 'COMPACTA' HETEROMELES ARBUTIFOLIA	TOYON	5 GALLON		
	MEDIUM OUDUDO				
	MEDIUM SHRUBS				

COMMON NAME

INDIAN HAWTHORN

COMMON NAME

INDIAN HAWTHORN

DWARF OLEANDER

TEXAS PRIVET

MONTECITO RANCH ROAD STREETSCAPE

	ACCENT SHRUB			
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
Ewy.	PHORMIUM SPP.	NEW ZEALAND FLAX	5 GALLON	
	PERENNIALS			
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
•	AGAPANTHUS 'QUEEN ANNE' HEMEROCALLIS HYBRIDS	LILY-OF-THE-NILE DAY LILY	1 GALLON 1 GALLON	
	GROUNDCOVERS			
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
	GAZANIA 'MITSUWA YELLOW' MYOPORUM PARVIFOLIUM 'PINK' LONICERA JAPONICA 'HALLIANA'	GAZANIA PINK MYOPORUM HONEYSUCKLE	FLATS FLATS 1 GALLON	PLANT AT 12" O.C. PLANT 12" O.C. PLANT 24" O.C.
		SLOPE PLANTING		
	TREES			
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
The state of the s	POPULUS FREMONTII	WESTERN COTTONWOOD	5 GALLON	PLANT AT RATE OF: 1 PER 200 SQ. FT.
	PLATANUS MEXICANA 'ALAMO'	MEXICAN SYCAMORE	5 GALLON	PLANT AT RATE OF: 1 PER 200 SQ. FT.
	SHRUBS			
*	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
	CISTUS 'SUNSET'	ROCKROSE	5 GALLON	PLANT AT RATE OF: 1 PER 200 SQ. FT.
0	CEANOTHUS HORIZONTALIS 'YANKEE POINT'	WILD LILAC	5 GALLON	PLANT AT RATE OF: 1 PER 200 SQ. FT.
	SHRUBS AND IRRIGATED HYDROSEED N	ліх	r	
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BUSH	1 GALLON	PLANT AT 10' O.C.
	ESCHSCHOLIZIA CALIFORNICA	CALIFORNIA POPPY	HYDROSEED	2 LBS. PER ACRE.
	PLANTAGO INSULARIS VERBENA TENUISECTA	INDIAN WHEAT GRASS MOSS VERBENA	HYDROSEED HYDROSEED	60 LBS. PER ACRE. 3 LBS. PER ACRE.
<i></i>	VENDEIVA TEIVUISEUTA		THE ROOLLE	
	<u>B</u> (OTTOM OF DETENTION BAS	SIN PLANTING	
	NON-IRRIGATED HYDROSEED MIX			
	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
			HYDROSEED	2 LBS. PER ACRE.
	MUHLENBERGIA RUGENS	DEER GRASS		2 200. 12.17.00.12.
	LEYMUS TRITICOIDES	BEARDLEE WILDRYE	HYDROSEED	10 LBS. PER ACRE.
	LEYMUS TRITICOIDES FESTUCA RUBRA 'MOLATE'	BEARDLEE WILDRYE RED FOUNTAIN GRASS	HYDROSEED HYDROSEED	10 LBS. PER ACRE. 8 LBS. PER ACRE.
	LEYMUS TRITICOIDES FESTUCA RUBRA 'MOLATE' DESCHAMPSIA ELONGATA	BEARDLEE WILDRYE RED FOUNTAIN GRASS SLENDER HAIRGRASS	HYDROSEED HYDROSEED HYDROSEED	10 LBS. PER ACRE. 8 LBS. PER ACRE. 5 LBS. PER ACRE.
	LEYMUS TRITICOIDES FESTUCA RUBRA 'MOLATE'	BEARDLEE WILDRYE RED FOUNTAIN GRASS	HYDROSEED HYDROSEED	10 LBS. PER ACRE. 8 LBS. PER ACRE.

DESIGN STATEMENT / OBJECTIVES

- Planting will be designed to obscure undesirable views (automobile, storage, utility areas, etc.) and add character and interest to the site. Where planting area exceeds eight feet in width, mounding shall be used. Planting shall blend with designs proposed for adjacent
- Architectural elements of the site will be related and enhanced with plantings of similar design character.
- 3. All plant material selected for use will be of a type known to be successful in the area or in similar climatic and soil conditions.
- Color from plant foliage, bark or flowers will be utilized to create a friendly, warm and visually exciting landscape environment. Thematic color schemes will be utilized in developing project identity. See final planting plans for installation layout, details and specifications.
- 5. All outdoor storage, loading, refuse and utility areas will be visually screened on all sides (except at access points). Planting will be used to soften hard materials where such are used for screening.
- 6. Vehicular entrances will be identified and accented with special groupings or trees, shrubs and/or ground covers, however, these areas shall not detract from the building as the focus of
- Slope plantings are intended to take place during the appropriate seasons of late fall or winter (November through February) for optimum results.
- Landscape finish grading objectives will include positive surface drainage of planted areas throughout the site - a minimum of two percent (2%) away from building in planting areas. See civil engineering plans for final grading.
- Irrigation systems will be permanent below ground automated systems adequate for the establishment and maintenance of all plant material. These systems will be installed as soon as practical after grading and prior to plant material installation. Areas adjacent to structures, roadways, entries and activity areas will be irrigated with permanent below grade automated
- 10. Irrigation systems shall utilize low precipitation fixed and pop-up steam rotor, shrub spray and bubbler heads for transitional landscape areas, adjacent open space, parkways, parking area landscaping, building perimeter landscape planting and all lawn areas. Pop-up spray heads shall be used adjacent to walks, drives and activity areas.
- 11. All soils will be fertilized, amended, and tilled to conform to recommendations made by a soil testing laboratory and/or landscape architect in order to promote healthy and vigorous plant growth.
- 12. All planting areas will be privately maintained in a weed and debris free condition.



BOTANICAL NAME

SMALL SHRUBS

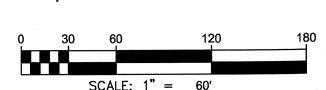
BOTANICAL NAME

RHAPHIOLEPIS INDICA 'CLARA'

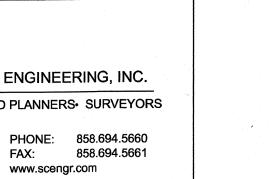
LIGUSTRUM JAPONICUM 'TEXANUM'

RHAPHIOLEPIS INDICA 'BALLERINA'

NERIUM OLEANDER 'PETITE PINK'



SAN DIEGO, CA 92123 -1352



		-				
NO.	REVISION	PREPARED BY	DATE	NO.	REVISION	PREPARED BY DATE

NOTES

NOTES

5 GALLON

5 GALLON

1 GALLON

1 GALLON

EROSION CONTROL PLANTING AND IRRIGATION SHALL COMPLY WITH THE COUNTY OF SAN DIEGO REQTS. FOR **EROSION CONTROL.**

MONTECITO RANCH WASTEWATER RECLAMATION FACILITY

SAN DIEGO COUNTY, CALIFORNIA

MONTECITO RANCH, LLC

MAJOR USE PERMIT LANDSCAPE

CONCEPT PLAN LEGEND

February 13, 2007