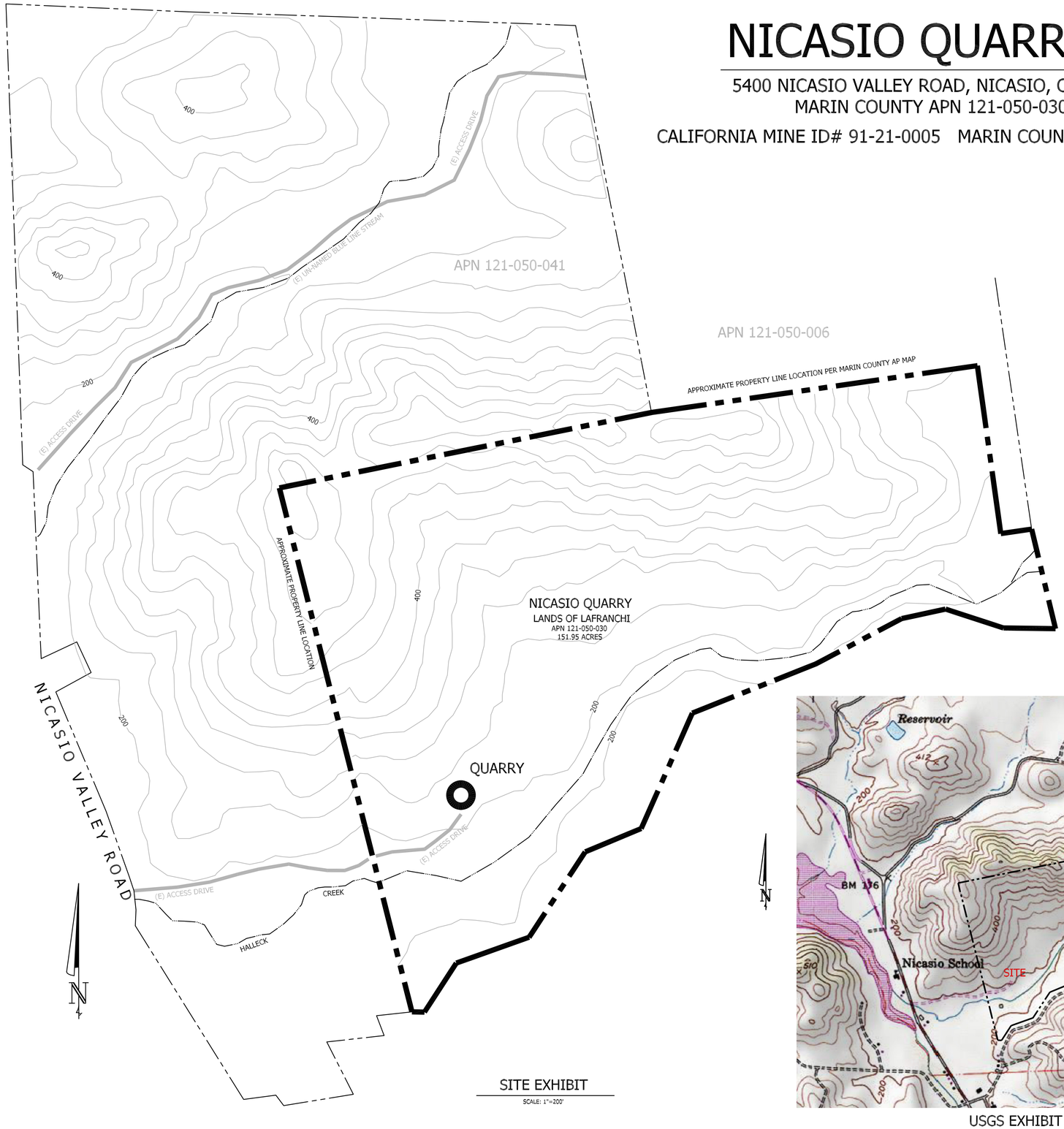
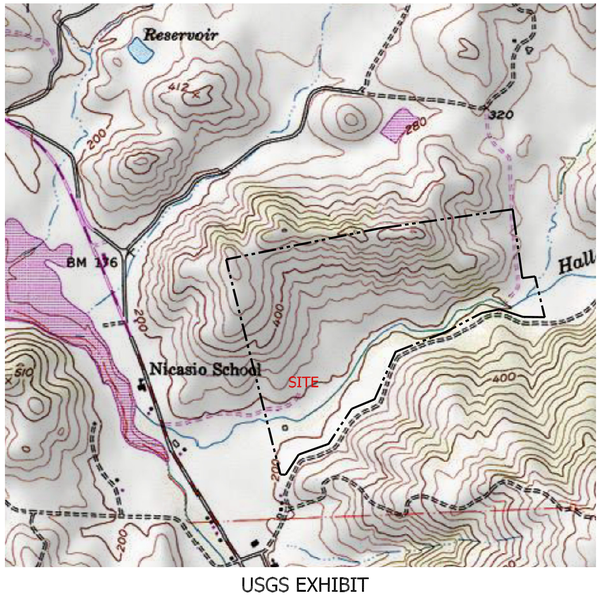
NICASIO QUARRY

5400 NICASIO VALLEY ROAD, NICASIO, CALIFORNIA
MARIN COUNTY APN 121-050-030

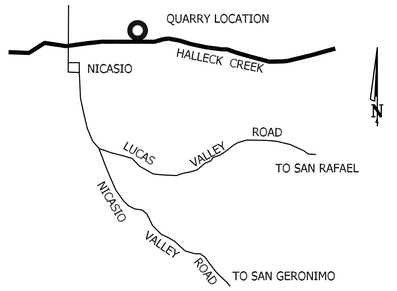
CALIFORNIA MINE ID# 91-21-0005 MARIN COUNTY PERMIT #Q01-01



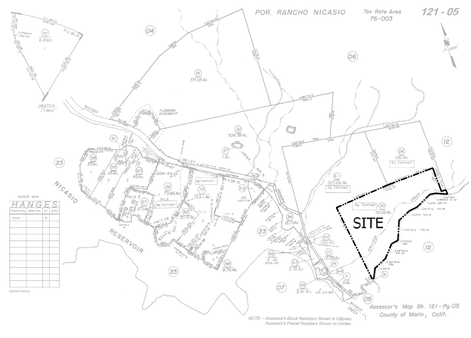
SITE EXHIBIT
SCALE: 1"=200'



USGS EXHIBIT
SCALE: 1"=1000'



LOCATION MAP
NO SCALE



ASSESSOR'S PARCEL MAP
NO SCALE

SYMBOL & ABBREVIATION LEGEND

	DRAINAGE SWALE (TYP)	AB	AGGREGATE BASE
	PROPOSED STORM DRAIN	AC	ASPHALT CONCRETE
	DAYLIGHT LINE	AD	AREA DRAIN
	BOUNDARY LINE	CO	CLEAN OUT
	EXISTING STORM DRAIN	DI	DROP INLET (TYP)
	FIBER ROLL BARRIER (TYP)	FG	FINISHED GRADE
S=10%	SLOPE = 10%	INV	INVERT GRADE
	ROCK RIP RAP (TYP)	SD	STORM DRAIN
	EXISTING ROAD		

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. STROH
No. 60900
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

SURVEY AND BOUNDARY NOTE:

PARCEL BOUNDARY HAS BEEN SHOWN FOR REFERENCE ONLY. THE APPROXIMATE LOCATION OF BOTH LEGAL BOUNDARY AND EXISTING EASEMENTS HAVE BEEN SHOWN FROM RECORD DATA ONLY AND DO NOT REFLECT A BOUNDARY SURVEY.

SITE PLAN AND TOPOGRAPHIC SURVEY REFLECT PLANS PREPARED BY CSW STUBER STROH AND MAPPING BY MICHAEL KING (IN MAY 1973). ADDITIONAL TOPOGRAPHIC INFORMATION COMPILED BY LUNNY PAVING AND GRADING IN 2001 AND FIELD RECONNAISSANCE BY ENTERRA ASSOCIATIES IN 2016.

PROPERTY INFORMATION

OWNER:	RANDALLE LAFRANCHI 6300 NICASIO VALLEY ROAD NICASIO, CALIFORNIA 94946
OPERATOR	LUNNY GRADING AND PAVING 17300 SIR FRANCIS DRAKE BOULEVARD INVERNESS, CA 94937
MARIN COUNTY APN:	121-151-030
SITE ADDRESS:	5400 NICASIO VALLEY ROAD NICASIO, CALIFORNIA
PARCEL ACREAGE:	151.95 ACRES

SHEET INDEX

C1	COVER SHEET
C2	SITE PLAN
C2A	SWPPP - EROSION CONTROL PLAN
C2B	RECLAMATION PLAN
C2C	FINAL EROSION CONTROL PLAN
C3	NOTES AND DETAILS
C4	NOTES AND DETAILS

NO.	DATE	REVISION DESCRIPTION	BY	CHK

ENTERRA Associates, Inc.
CONSULTING CIVIL ENGINEERS AND LAND PLANNERS
1275 FOURTH STREET, #240 SANTA ROSA, CA 95404
PH (707) 396-7842 • EMAIL: enterracivil@gmail.com

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NICASIO QUARRY - SWPPP

COVER SHEET
5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: AS SHOWN

DATE:	2.23.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00

SHEET NO.:

1 OF 4

LEGEND

△	SET SURVEY CONTROL PT
	TOP OF BANK
	TOE OF BANK
	EDGE OF PAVEMENT
	FENCE LINE
O	CHAIN LINK FENCE
	FIBER ROLL PROTECTION
	SWALE
OHL	OVERHEAD LINES
	JOINT POLE
W	WELL
IP	IRON PIPE
PK&S	PK NAIL & SHINER
NT	NOT TAGGED
D.I.	DROP INLET
T.G.	TOP OF GRATE ELEVATION
I.E.	INVERT ELEVATION
PM	PARCEL MAP
RM	RECORD MAP
CP	CONTROL POINT
HB	HOSE BIB
CC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
(C)	EXISTING
(P)	PROPOSED

SCALE: 1"=40'

NOTES:

1 ROCK PRODUCT STOCKPILES SHALL NOT EXCEED 25-FEET HIGH

2 EXISTING ACCESS DRIVE FROM NICASIO VALLEY ROAD, 16-20 FEET WIDE

QUARRY BOUNDARY (TYP)
APPROXIMATE LIMIT OF DISTURBANCE (TYP)
(E) ACCESS ROAD
DAYLIGHT (FILL)
(E) TOPSOIL STOCKPILE
TOE OF CUT
(E) STOCKPILE 1
(E) EQUIPMENT PARKING
(E) WELL
Haz Mat Area
550 Gallon Fuel Tank
Emergency Response Equipment
PAVED VEHICLE SERVICE AREA AND COVERED STORAGE (APPROX 2600 SF)
EXIST. STOCKPILE 1
(E) CRUSHER
(E) SWALE
(E) COMMODITY BINS
(E) BASIN
(E) 12" HDPE WITH VEGETATED INLET AND OUTLET
8' x 20' Storage Container
100' STREAMSIDE CONSERVATION ZONE
HALLECK CREEK
1200 Gallon Septic Tank
810 Gallon Sump Tank
First Aid Supplies
Evacuation Area
(E) PAVED ACCESS AND PARKING AREA (APPROX. 2,500 SF)
(E) SCALE HOUSE & OFFICE
(E) SCALE
Emergency Electrical Shutoff
(E) LEACHFIELD
To Nicasio Valley Road
(E) DUAL 6" PVC
Vehicular Access Route
2

NO.	DATE	REVISION DESCRIPTION	BY	CHK

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NICASIO QUARRY

SITE PLAN

5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: 1"=40'

DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00
SHEET NO.:	2 OF 4

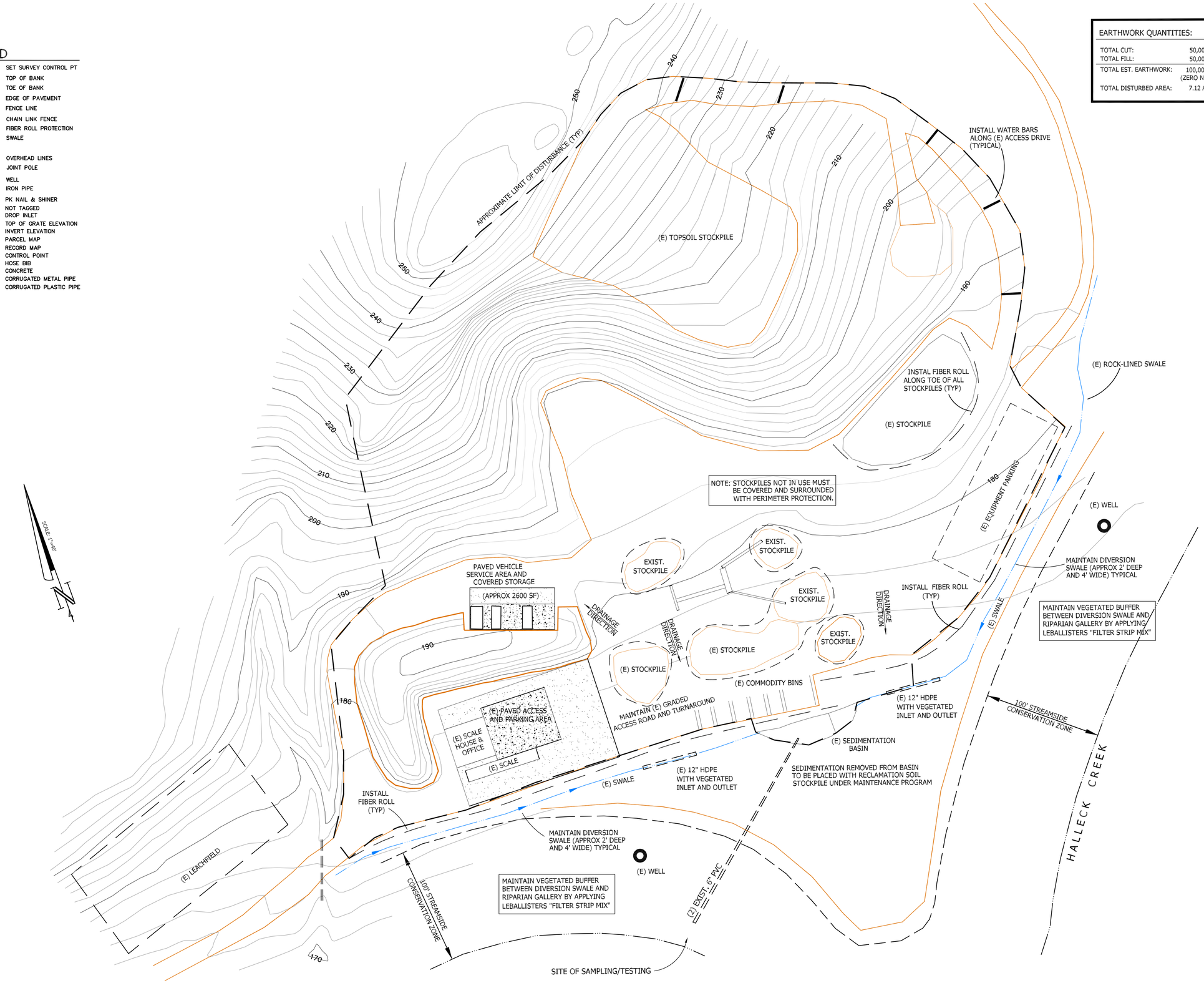
REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SMITH
No. 60906
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

LEGEND

△	SET SURVEY CONTROL PT
	TOP OF BANK
	TOE OF BANK
	EDGE OF PAVEMENT
	FENCE LINE
	CHAIN LINK FENCE
	FIBER ROLL PROTECTION
	SWALE
OHL	OVERHEAD LINES
	JOINT POLE
W	WELL
IP	IRON PIPE
PK&S	PK NAIL & SHINER
NT	NOT TAGGED
D.I.	DROP INLET
T.G.	TOP OF GRATE ELEVATION
I.E.	INVERT ELEVATION
PM	PARCEL MAP
RM	RECORD MAP
CP	CONTROL POINT
HB	HOSE BIB
CC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE

EARTHWORK QUANTITIES:

TOTAL CUT:	50,000 CY
TOTAL FILL:	50,000 CY
TOTAL EST. EARTHWORK:	100,000 CY (ZERO NET FILL)
TOTAL DISTURBED AREA:	7.12 ACRES



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NICASIO QUARRY
SWPPP- EROSION CONTROL PLAN

5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: 1"=40'

DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00

SHEET NO.:

2A OF 4

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SMITH
No. 60906
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

SPECIAL NOTES:

(1) REMOVE ALL WASTE, CONCRETE, PLASTIC AND TRASH FROM SITE.

(2) THE GOAL OF THE PROPOSED SITE REVEGETATION IS TO ACHIEVE AT LEAST 75% HERBACEOUS COVER BY YEAR 3.

(3) VEGETATION COVER AND DENSITY WILL BE EVALUATED USING STEP POINT AND PHOTO MONITORING METHODOLOGY OUTLINED IN THE INTERAGENCY TECHNICAL REFERENCE, SAMPLING VEGETATION ATTRIBUTES: <HTTP://WWW.NRCS.USDA.GOV/INTERNET/FSE_DOCUMENTS/STELPRDB1044175.PDF>

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PLANT SPECIES RICHNESS CAN BE EVALUATED, IF NECESSARY, USING STEP POINT DATA AS POINT INTERCEPT DATA PER THE MODIFIED WHITTAKER APPROACH AS DETAILED AT <HTTP://JORNADA.NMSU.EDU/SITES/JORNADA.NMSU.EDU/FILES/VOLUME_II.PDF>

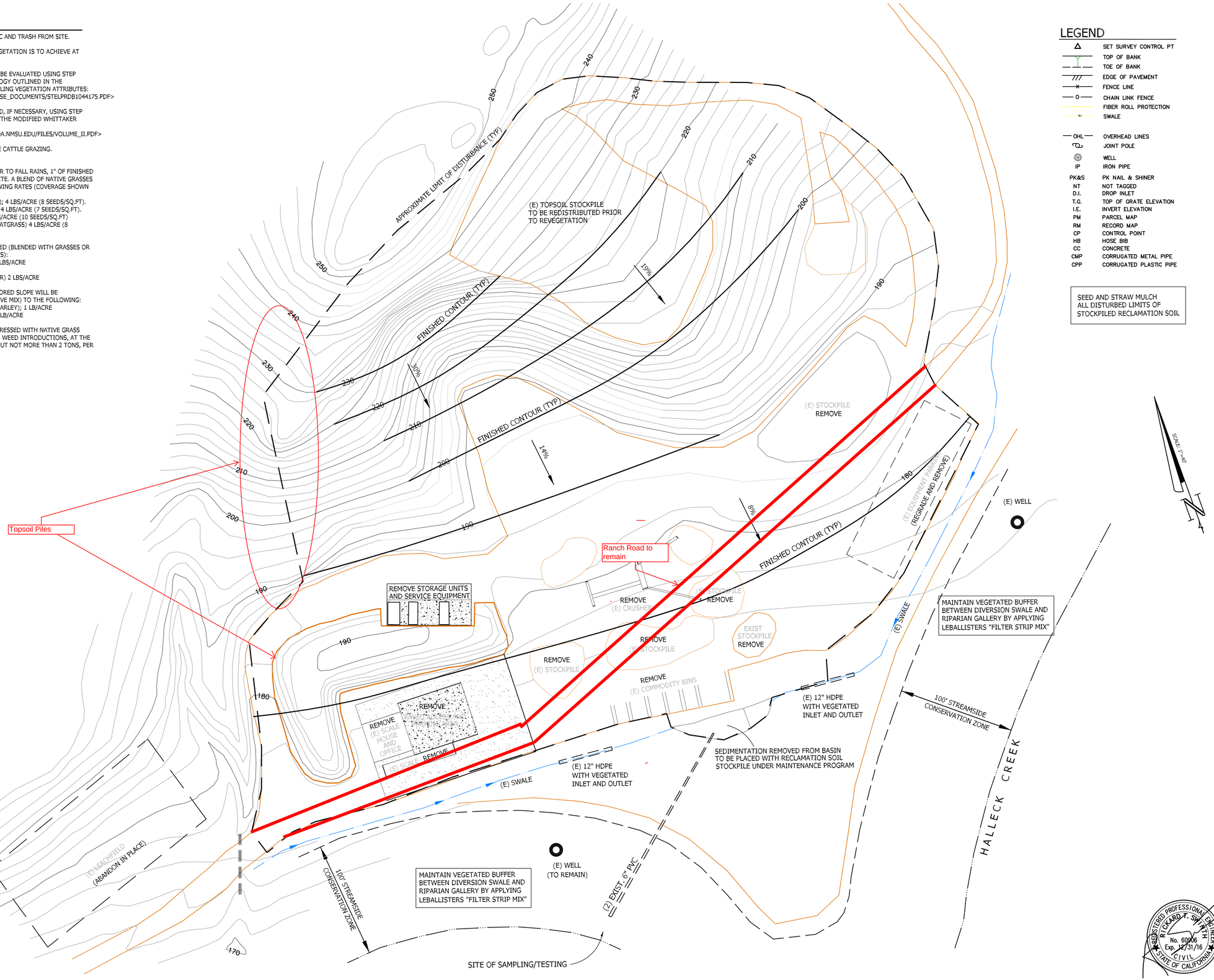
(4) THE END USE OF THE PROPERTY WILL BE CATTLE GRAZING.

(5) REVEGETATION PROCEDURES:
FOLLOWING FINAL SITE GRADING, AND PRIOR TO FALL RAINS, 1" OF FINISHED COMPOST (1" MINUS) WILL BE SPREAD ON SITE. A BLEND OF NATIVE GRASSES AND FORBS WILL BE SEEDED AT THE FOLLOWING RATES (COVERAGE SHOWN IS APPROXIMATE):
1) BROMUS CARINATUS (CALIFORNIA BROME); 4 LBS/ACRE (8 SEEDS/SQ.FT).
2) STIPA PULCHRA (PURPLE NEEDLE GRASS); 4 LBS/ACRE (7 SEEDS/SQ.FT).
3) ELYMUS GLAUCUS (BLUE WILD RYE); 4 LBS/ACRE (10 SEEDS/SQ.FT)
4) DANTHONIA CALIFORNICA (CALIFORNIA OATGRASS) 4 LBS/ACRE (8 SEEDS/SQ.FT).

A BLEND OF NATIVE LEGUMES WILL BE SEEDED (BLENDED WITH GRASSES OR SEPARATELY AS SEEDING EQUIPMENT ALLOWS):
1) LUPINUS BICOLOR (MINIATURE LUPINE) 2 LBS/ACRE
2) LUPINUS NANUS (SKY LUPINE) 2 LBS/ACRE
3) TRIFOLIUM WILLDENOVII (TOMCAT CLOVER) 2 LBS/ACRE

IN ADDITION, THE LOWER 100' OF THE RESTORED SLOPE WILL BE OVER-SEEDED (IE, IN ADDITION TO THE ABOVE MIX) TO THE FOLLOWING:
1) HORDEUM BRACHYANTHERUM (MEADOW BARLEY); 1 LB/ACRE
2) TRIFOLIUM CILIOLATUM (TREE CLOVER) 1 LB/ACRE

FOLLOWING SEEDING, THE SLOPE WILL BE DRESSED WITH NATIVE GRASS STRAW OR RICE STRAW TO AVOID/MINIMIZE WEED INTRODUCTIONS, AT THE RATE OF APPROXIMATELY 1 TON PER ACRE, BUT NOT MORE THAN 2 TONS, PER ACRE.



LEGEND

△	SET SURVEY CONTROL PT
	TOP OF BANK
	TOE OF BANK
	EDGE OF PAVEMENT
	FENCE LINE
O	CHAIN LINK FENCE
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NICASIO QUARRY
RECLAMATION PLAN
5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: AS SHOWN

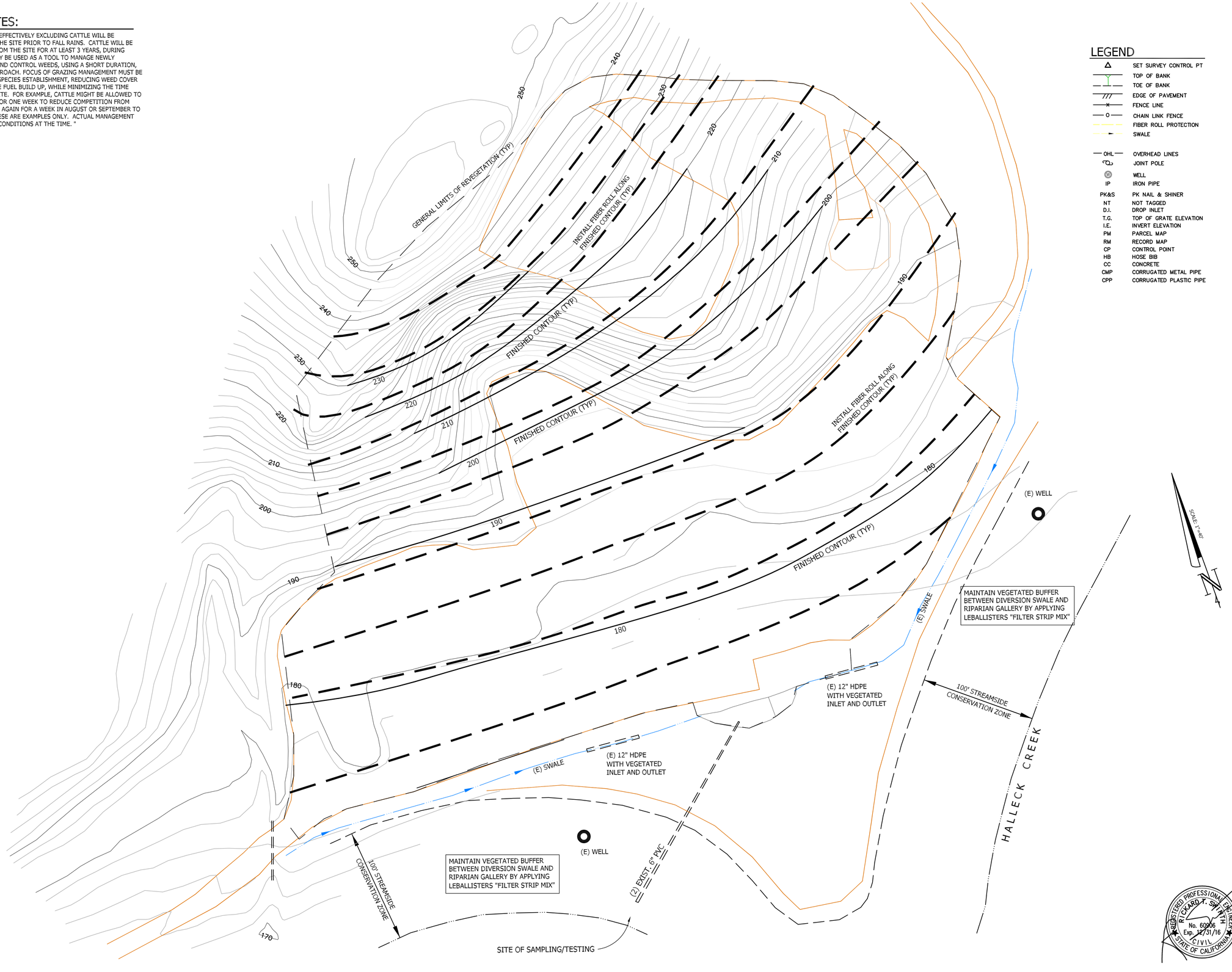
DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00

SHEET NO.:
2B OF 4

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SMITH
No. 60906
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

SPECIAL NOTES:

(1) A FENCE CAPABLE OF EFFECTIVELY EXCLUDING CATTLE WILL BE CONSTRUCTED AROUND THE SITE PRIOR TO FALL RAINS. CATTLE WILL BE GENERALLY EXCLUDED FROM THE SITE FOR AT LEAST 3 YEARS, DURING WHICH TIME GRAZING MAY BE USED AS A TOOL TO MANAGE NEWLY EMERGING VEGETATION AND CONTROL WEEDS, USING A SHORT DURATION, LONG REST INTERVAL APPROACH. FOCUS OF GRAZING MANAGEMENT MUST BE ON SUPPORTING NATIVE SPECIES ESTABLISHMENT, REDUCING WEED COVER AND AVOIDING EXCESSIVE FUEL BUILD UP, WHILE MINIMIZING THE TIME LIVESTOCK ARE ON THE SITE. FOR EXAMPLE, CATTLE MIGHT BE ALLOWED TO GRAZE THE SITE IN MAY FOR ONE WEEK TO REDUCE COMPETITION FROM NON-NATIVE SPECIES AND AGAIN FOR A WEEK IN AUGUST OR SEPTEMBER TO REDUCE FUEL LOAD. THESE ARE EXAMPLES ONLY. ACTUAL MANAGEMENT MUST BE BASED ON SITE CONDITIONS AT THE TIME. "



LEGEND

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NO.	DATE	REVISION DESCRIPTION	BY	CHK

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NICASIO QUARRY

POST GRADING EROSION CONTROL PLAN

5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: AS SHOWN

DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00
SHEET NO.:	2C OF 4

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SMITH
No. 60906
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

GENERAL NOTES

1. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT; EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNERS OR THE ENGINEER.

2. SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND ANY DEFICIENCIES, ERRORS, CONFLICTS OR OMISSIONS IN THESE PLANS AND SPECIFICATIONS OR SHOULD HE BE IN DOUBT AS TO THEIR MEANING OR INTENT, HE SHALL NOTIFY THE ENGINEER FOR A WRITTEN CLARIFICATION, ADDENDUM, ETC. SHOULD HE FAIL TO DO SO BEFORE SUBMITTING A PROPOSAL, HE CANNOT CLAIM ADDITIONAL COMPENSATION FOR WORK REQUIRED TO COMPLETE THE PROJECT.

3. WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF THERE IS A CONFLICT, NOTIFY THE ENGINEER AND OBTAIN A CLARIFICATION. NO DEVIATIONS OR SUBSTITUTIONS SHALL BE ALLOWED WITHOUT OBTAINING WRITTEN APPROVAL FROM THE

4. ALL WORKMANSHIP AND MATERIALS FOR BOTH ONSITE AND OFFSITE IMPROVEMENTS SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE COUNTY OF MARIN, LATEST EDITION OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND STANDARD PLANS. THE ONSITE IMPROVEMENTS SHALL BE INSPECTED BY THE COUNTY OF MARIN PUBLIC WORKS DEPARTMENT

5. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR BEING FAMILIAR WITH THE PROVISIONS AND SHALL HAVE A COPY AVAILABLE AT THE JOB SITE AT ALL TIMES.

6. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT 1-800-642-2444 PRIOR TO START OF ANY CONSTRUCTION.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. LOCATIONS OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.

8. ALL MATERIAL SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF THE COUNTY OF MARIN PUBLIC WORKS DEPARTMENT DIRECTOR.

10. CONTRACTOR SHALL CONFORM TO EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.

11. CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY RELOCATIONS, IF REQUIRED WITH THE APPROPRIATE UTILITY COMPANIES.

12. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES.

13. FOR ANY WORK TO BE PERFORMED ON THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE COUNTY OF MARIN BEFORE START OF WORK.

14. THE CONTRACTOR SHALL NOTIFY THE COUNTY OF MARIN CONSTRUCTION INSPECTOR 48 HOURS BEFORE STARTING WORK. SEE "INSPECTIONS" FOR NOTIFICATIONS AND APPROVALS.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UNDERGROUND SERVICE ALERT (U.S.A.). CALL TOLL-FREE (800) 642-2444 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL UNCOVER EXISTING BURIED UTILITIES WITH UTILITY OWNER TO VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES. BURIED UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS, AND TELEPHONE. ALL UTILITIES CONFLICTING WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED PRIOR TO START OF CONSTRUCTION.

16. THE CONTRACTOR SHALL OBTAIN A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER 5 FEET IN DEPTH.

17. CONSTRUCTION WORK SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH FRIDAY. ON SATURDAYS BETWEEN THE HOURS 8:00 AM AND 7:00 PM. NO CONSTRUCTION ON SUNDAYS.

18. ANY EXCESS MATERIALS SHALL BE CONSIDERED THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

19. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, THE GENERAL CONTRACTOR WILL HALT CONSTRUCTION IMMEDIATELY, NOTIFY THE COUNTY OF DEPARTMENT OF EMERGENCY SERVICES AND IMPLEMENT REMEDIATION AS DIRECTED. THE DISCOVERY OF HAZARDOUS MATERIAL MUST BE LOGGED AND REMOVED UNDER THE GUIDELINES SPECIFIED WITHIN THE PROJECTS HAZMAT REPORT. ONLY THOSE AGENCIES OR INDIVIDUALS NOTED WITHIN THE REPORT MAY DIRECT THE REMOVAL OF SAID MATERIAL.

20. THE GENERAL CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC FLOW ON AFFECTED ROADWAYS DURING NON-WORKING HOURS, AND TO MINIMIZE TRAFFIC RESTRICTION DURING CONSTRUCTION. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW TRAFFIC SAFETY MEASURES IN ACCORDANCE WITH THE CAL TRANS "MANUAL OF TRAFFIC SAFETY CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES." THE COUNTY OF MARIN EMERGENCY SERVICE PROVIDERS SHALL BE NOTIFIED OF PROPOSED CONSTRUCTION SCHEDULED BY THE CONTRACTOR(S). THE PROJECT SPECIFICATIONS WILL REQUIRE THAT THE CONTRACTOR(S) NOTIFY EMERGENCY SERVICE PROVIDERS IN WRITING AT LEAST 24 HOURS IN ADVANCE OF ITS PROPOSED SCHEDULE OF WORK.

21. GENERAL CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, HE SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER, THE ENGINEER AND HIS CONSULTANTS, AND THE COUNTY OF MARIN, AND EACH OF THEIR OFFICERS, EMPLOYEES AND AGENTS.

22. GENERAL CONTRACTOR SHALL INDEPENDENTLY REVIEW GROUND, TOPOGRAPHY, AND TREE CONDITIONS THROUGHOUT THE SITE, AND ASSUME WHOLLY AND UNCONDITIONALLY THE RISK OF COMPLETING THE WORK SET OUT ON THESE PLANS, REGARDLESS OF ROCK, WATER TABLE, OR OTHER CONDITIONS WHICH CONTRACTOR MAY ENCOUNTER IN THE COURSE OF THE WORK.

23. DURING CONSTUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING NOISE, ODORS, DUST AND DEBRIS TO MINIMIZE IMPACTS ON SURROUNDING PROPERTIES AND ROADWAYS. CONTRACTOR SHALL BE RESPONSIBLE THAT ALL CONSTRUCTION EQUIPMENT IS EQUIPPED WITH MANUFACTURER'S APPROVED MUFFLERS BAFFLES. FAILURE TO DO SO MAY RESULT IN THE ISSUANCE OF AN ORDER TO STOP WORK.

24. GENERAL CONTRACTOR MUST BE AWARE AND RESPONSIBLE FOR THE MANAGEMENT AND PROTECTION OF EXISTING MONITORING WELLS.

25. ALL DISTANCES AND DIMENSIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.

26. ALL TIES SHOWN HEREON ARE PERPENDICULAR UNLESS SHOWN OTHERWISE

GRADING NOTES

1. SITE SHALL BE VISUALLY INSPECTED BY THE CONTRACTOR TO DETERMINE THE EXTENT OF CLEARING, GRUBBING AND GRADING WORK TO BE DONE.

2. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE PUBLIC WORKS DIRECTOR OR HIS/HER DESIGNATED REPRESENTATIVE, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL CORRECTIVE MEASURES ARE TAKEN.

3. ANY SPOILS GENERATED BY CONSTRUCTION OF THE NEW ON-SITE AND OFF-SITE IMPROVEMENTS SHALL NOT BE DEPOSITED WITHIN 50 FEET OF THE TOPS OF THE BANKS OF ANY STREAM, POND, OR LAKE; WITHIN THE FLOODWAY OF ANY STREAM; IN THE RIPARIAN ZONE ALONG ANY DRAINAGEWAY; IN ANY MARSH OR WETLAND; IN ANY VERNAL POOL; OR IN ANY OTHER AREA THAT IS DETERMINED BY THE COUNTY OF MARIN TO BE BIOLOGICALLY SENSITIVE. SENSITIVE. SPOILS MUST BE DEPOSITED IN DESIGNATED AREA FOR FUTURE USE DURING RECLAMATION.

4. WATER AND/OR DUST PALLIATIVES SHALL BE APPLIED IN SUFFICIENT QUANTITIES DURING GRADING AND OTHER GROUND DISTURBING ACTIVITIES ON-SITE TO MINIMIZE THE AMOUNT OF DUST PRODUCED.

5. OUTDOOR NOISE PRODUCING ACTIVITIES SHALL BE LIMITED TO WEEKDAYS BETWEEN 7:30 AM AND 4:30 PM.

6. FILL MATERIAL SHALL CONSIST OF NATIVE SOIL FREE FROM ORGANIC MATERIAL AND FROM ROCKS LARGER THAN 6" IN DIAMETER.

7. ALL EXCESS SOIL MATERIAL, STUMPS, AND BOULDERS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ANY ENVIRONMENTAL REGULATIONS AND PERMIT AND RESOURCE MANAGEMENT DEPARTMENT GRADING ORDINANCE AS THEY MAY APPLY.

8. IF CONSTUCTION IS PERFORMED EARLIER THAN MAY 1ST OR LATER THAN OCTOBER 1ST IN ANY GIVEN YEAR, AN APPROVED EROSION CONTROL PLAN DESIGNED BY A CIVIL ENGINEER OR OTHER APPROVED, COMPETENT INDIVIDUAL IS REQUIRED.

9. PERFORM GRADING IN ACCORDANCE WITH THE LATEST EDITION OF APPENDIX CHAPTER 33 OF THE CALIFORNIA BUILDING CODE, APPLICABLE MARIN COUNTY REGULATIONS.

10. EXISTING DRAINAGE COURSES RECEIVING WATER FROM THIS SITE AND LOCATED THROUGHOUT THIS SITE SHALL REMAIN OPEN AND CLEAR OF DEBRIS TO PROPERLY CONVEY STROM WATER. IN ANY EVENT, THE OWNER AND/OR CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.

11. RETAINING WALLS ARE NOT APPROVED UNDER THIS GRADING PERMIT. RETAINING WALLS REQUIRE A SEPARATE BUILDING PERMIT, UNLESS EXEMPTED.

12 THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER UPON DISCOVERING SIGNIFICANT DISCREPANCIES, ERRORS OR OMISSIONS IN THE PLANS. PRIOR TO PROCEEDING, THE OWNER SHALL HAVE THE PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS OR OMISSIONS. THE REVISED PLANS SHALL BE SUBJECT TO REVIEW BY THE CHIEF BUILDING OFFICIAL.

13. IN THE EVENT CULTURAL RESOURCES (I.E., HISTORICAL, ARCHEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED WITHIN A 100 FOOT RADIUS OF THE FIND. THE NORTHWEST INFORMATION CENTER SHALL BE NOTIFIED AT (707) 664-0880. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE COUNTY PER THE ARCHEOLOGIST'S RECOMMENDATIONS. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORONER AT (707) 565-5070.

14. SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IN AFFECTED AREA IMMEDIATELY AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.

15. THE GRADING PERMIT AND AN APPROVED COPY OF THE GRADING PLANS SHALL BE MAINTAINED ON THE PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

16. DRAINAGE FACILITIES AND GRADING SHALL BE INSPECTED BEFORE RECEIVING FINAL APPROVAL. THE CONTRACTOR SHALL CONSULT THE REQUIRED INSPECTIONS NOTES FOR COORDINATION OF INSPECTION REQUESTS.

ARCHAEOLOGICAL NOTE

IN THE EVENT THAT THE ARCHAEOLOGICAL FEATURES SUCH AS POTTERY, ARROWHEADS, MIDDEN OR CULTURALLY MODIFIED SOIL DEPOSITS ARE DISCOVERED AT ANY TIME DURING GRADING, SCRAPING OR EXCAVATION WITHIN THE PROPERTY, ALL WORK SHOULD BE HALTED IN THE VICINITY OF THE FIND AND COUNTY PRMD STAFF SHALL BE NOTIFIED AND A QUALIFIED ARCHAEOLOGIST SHALL BE CONTACTED IMMEDIATELY TO MAKE AN EVALUATION OF THE FIND. ARTIFACTS ASSOCIATED WITH PREHISTORIC SITES INCLUDE HUMANLY MODIFIED STONE, SHELL, BONE OR OTHER CULTURAL MATERIALS SUCH AS CHARCOAL, ASH AND BURNED ROCK INDICATIVE OF FOOD PROCUREMENT OR PROCESSING ACTIVITIES. PREHISTORIC DOMESTIC FEATURES INCLUDE HEARTHS, FIREPITS, OR HOUSE FLOOR DEPRESSIONS WHEREAS TYPICAL MORTUARY FEATURES ARE REPRESENTED BY HUMAN SKELETAL REMAINS. HISTORIC ARTIFACTS POTENTIALLY INCLUDE ALL BY-PRODUCTS OF HUMAN LAND USE GREATER THAN 50 YEARS OF AGE INCLUDING TRASH PITS OLDER THAN 50 YEARS OF AGE. WHEN CONTACTED, A MEMBER OF PRMD PROJECT REVIEW STAFF AND THE ARCHAEOLOGIST SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE RESOURCES AND TO DEVELOP PROPER MITIGATION MEASURES REQUIRED FOR THE DISCOVERY. NO WORK SHALL COMMENCE UNTIL A MITIGATION PLAN IS APPROVED AND COMPLETED SUBJECT TO THE REVIEW AND APPROVAL OF THE ARCHAEOLOGIST AND PROJECT REVIEW STAFF.

IF HUMAN REMAINS ARE ENCOUNTERED, ALL WORK MUST STOP IN THE IMMEDIATE VICINITY OF THE DISCOVERED REMAINS AND PRMD STAFF, COUNTY CORONER AND A QUALIFIED ARCHAEOLOGIST MUST BE NOTIFIED IMMEDIATELY SO THAT AN EVALUATION CAN BE PERFORMED. IF THE REMAINS ARE DEEMED TO BE NATIVE AMERICAN OR PREHISTORIC, THE NATIVE AMERICAN HERITAGE COMMISSION MUST BE CONTACTED BY THE CORONER SO THAT A "MOST LIKELY DESCENDANT" CAN BE DESIGNATED.

GENERAL UNDERGROUND NOTES

1. NO GUARANTEE IS INTENDED THAT UNDERGROUND OBSTRUCTIONS, NOT SHOWN ON THESE PLANS, MAY BE ENCOUNTERED. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE OWNER, THE ENGINEERS, AND THE COUNTY OF MARIN ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTIONS EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THIS PROJECT. PARTICULAR ATTENTION MUST BE PAID TO THE FIBER OPTIC CONDUIT LOCATED ALONG OLD REDWOOD HIGHWAY.

2. THE CONTRACTOR SHALL VERIFY EXISTING INVERTS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. THE PROJECT AND/OR DESIGN ENGINEER MAY ADJUST THE GRADE OF NEW STORM DRAIN CONSTRUCTION BY PLAN REVISION.

3. DISTANCES AND INVERTS ARE TO AND AT THE CENTER OF THE MANHOLES, CLEANOUTS, DROP INLETS, CATCH BASINS, AND YARD DRAINS OR AS MARKED ON THE DRAWINGS.

4. SERVICE LATERALS, OTHER THAN THOSE SHOWN OR NOTED ON THE PLANS, SHALL NOT BE INSTALLED PRIOR TO OBTAINING COUNTY APPROVAL.

EROSION CONTROL NOTES

1. PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE LATEST EDITION OF APPENDIX CHAPTER 33 OF THE CALIFORNIA BUILDING CODE, APPLICABLE MARIN COUNTY REGULATIONS, AND SECTION 20 OF THE CALTRANS STANDARD SPECIFICATIONS.

2. THE APPROVED PLANS SHALL CONFORM WITH THE EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES CONTAINED IN THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS OR AN EQUIVALENT BEST MANAGEMENT PRACTICE:
EROSION AND SEDIMENT CONTROL FIELD MANUAL BY THE SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD. MANUAL OF STANDARDS FOR EROSION & SEDIMENT CONTROL MEASURES BY THE ASSOCIATION OF BAY AREA GOVERNMENTS. CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL BY CALTRANS.
STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK BY THE CALIFORNIA STORMWATER QUALITY ASSOCIATION.

3. IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFRENCED HEREIN OR MANUFACTURES'S RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.

4. THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. CAS000002 WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY DISTURBING LAND EQUAL TO OR GREATER THAN ONE ACRE. CONSTRUCTION ACTIVITIES INCLUDE BUT ARE NOT LIMITED TO CLEARING, GRADING, EXCAVATION, STOCKPILING, AND RECONSTRUCTION OF EXISTING FACILITIES INVOLVING REMOVAL AND REPLACEMENT.

5. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE.

6. THE OWNER IS RESPONSIBLE FOR PREVENTING STORM WATER POLLUTION GENERATED FROM THE CONSTRUCTION SITE YEAR ROUND. THE OWNER MUST IMPLEMENT AND EFFECTIVE COMBINATION OF EROSION PREVENTION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS DURING THE RAINEY SEASON (OCTOBER 15 - APRIL 15).

7. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE OWNER BEFORE FORECASTED STORM EVENTS AND AFTER ACTUAL STORM EVENTS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY. STORM EVENTS PRODUCE AT LEAST 1 INCH OF PRECIPITATION IN A 24 HOUR PERIOD. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT HAVE FAILED OR ARE NO LONGER EFFECTIVE SHALL BE PROMPYLY REPLACED. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.

8. CHANGES TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS. CHANGES SHALL BE NOTED ON THE PLAN WHEN MADE.

9. DISCHARGES OF POTENTAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES,HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER AND CHLORINATED WATER.

10. ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FOLLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF AT THE END OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY.

11. EXPOSED SLOPES SHALL BE PROTECTED BY USING EROSION PREVENTION MEASURES TO THE MAXIMUM EXTENT PRACTICABLE,SUCH AS ESTABLISHING 70% VEGETATION COVERAGE, HYDROSEEDING,STRAW MULCH, GEOTEXTILES, PLASTIC COVERS, BLANKETS OR MATS.

12. WHENEVER IT IS NOT POSSIBLE TO UTILIZE EROSION PREVENTION MEASURES, EXPOSED SLOPES SHALL EMPLOY SEDIMENT CONTROL DEVICES, SUCH AS FIBER ROLLS AND SILT FENCES. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHLL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.

13. SEEDING APPLICATIONS SHALL BE BROADCASTED MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE WORKED INTO THE SOIL BY ROLLING OR TAMPING. IF STRAW IS USED AS MULCH, STRAW SHALL BE DERIVED FROM WHEAT, RICE, OR BARLEY AND BE APPROXIMATELY 6 TO 8 INCHES IN LENGTH. STABILIZATION OF MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OR MECHANICALLY BY CRIMPING OR PUNCHING THE MULCH INTO THE SOIL. EQUIVALENT METHODS AND MATERIALS MAY BE USED ONLY IF THEY ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

14. THE OWNER SHALL PROTECT STORM DRAIN INLETS FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION HAS BEEN COMPLETED.

15. ENERGY DISSIPATERS SHALL BE INSTALLED AT STORM DRAIN OUTLETS, WHICH MAY CONVEY STORM WATER FLOW LEADING TO SOIL EROSION.

16. SOIL AND MATERIAL STOCKPILES SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.

17. SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY, OR AS NECESSARY, AND REGULAR REMOVAL AND PROPER DESPOSAL SHALL BE ARRANGED.

18. A CONCRETE WASHOUT AREA, SUCH AS A TEMPORARY PIT, SHALL BEDESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS AND WASTE BE ALLOWED TO ENTER COUNTY WATERWAYS SUCH AS CREEKS OR STORM DRAINS.

19. PROPER APPLICATION, CLEANING AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.

20. WHEN UTILIZED, TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.

21. APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.

ADDITIONAL GRADING NOTES:

1. PERFORM GRADING IN ACCORDANCE WITH THE LATEST EDITION OF APPENDIX CHAPTER 33 OF THE CALIFORNIA BUILDING CODE, APPLICABLE MARIN COUNTY REGULATIONS.

2. EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THIS SITE AND LOCATED THROUGHOUT THIS SITE SHALL REMAIN OPEN AND CLEAR OF DEBRIS TO PROPERLY CONVEY STORM WATER. IF EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THIS SITE ARE LOCATED IN THE COUNTY RIGHT-OF-WAY AND NEED MAINTENANCE, CONTACT THE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS AT (707) 565-2231 FOR FURTHER ASSISTANCE. IN ANY EVENT, THE OWNER AND/OR CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.

3. RETAINING WALLS ARE NOT APPROVED UNDER THIS GRADING PERMIT. RETAINING WALLS REQUIRE A SEPARATE BUILDING PERMIT, UNLESS EXEMPTED.

4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER UPON DISCOVERING SIGNIFICANT DISCREPANCIES, ERRORS OR OMISSIONS IN THE PLANS. PRIOR TO PROCEEDING, THE OWNER SHALL HAVE THE PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS OR OMISSIONS. THE REVISED PLANS SHALL BE SUBJECT TO REVIEW BY THE CHIEF BUILDING OFFICIAL.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UNDERGROUND SERVICE ALERT (U.S.A.), TOLL FREE AT 1-800-642-2444, AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL UNCOVER RELEVANT UTILITIES TO VERIFY THEIR LOCATION AND ELEVATION. IF UNEXPECTED OR CONFLICTING UTILITIES ARE ENCOUNTERED DURING EXCAVATION, NOTIFY U.S.A., THE UTILITY OWNER AND/OR THE PROJECT ENGINEER IMMEDIATELY. UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS, TELEPHONE AND CABLE/TV.

6. IN THE EVENT CULTURAL RESOURCES (I.E., HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED WITHIN A 100 FOOT RADIUS OF THE FIND. THE NORTHWEST INFORMATION CENTER SHALL BE NOTIFIED AT (707) 664-0880. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE COUNTY PER THE ARCHEOLOGIST'S RECOMMENDATIONS. IF THE HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE COUNTY CORONER AT (707) 565-5070.

7. SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.

8. THE GRADING PERMIT AND AN APPROVED COPY OF THE GRADING PLANS SHALL BE MAINTAINED ON THE PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

9. DRAINAGE FACILITIES AND GRADING SHALL BE INSPECTED BEFORE RECEIVING FINAL APPROVAL. THE CONTRACTOR SHALL CONSULT THE PROJECT JOB CARD FOR COORDINATION OF INSPECTION REQUESTS.

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SWINTH
No. 60906
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

NO.	DATE	REVISION DESCRIPTION	BY	CHK

ENTERRA Associates, Inc.
CONSULTING CIVIL ENGINEERS AND LAND PLANNERS
1275 FOURTH STREET, #240 SANTA ROSA, CA 95404
PH (707) 396-7942 • EMAIL: enterraciv@gmail.com

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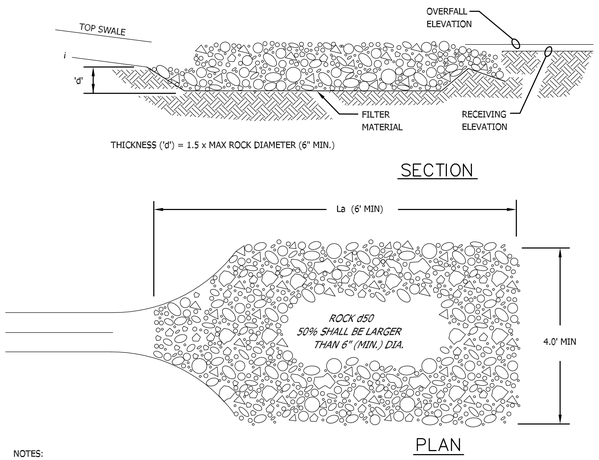
NICASIO QUARRY - SWPPP

NOTES AND DETAILS
5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: AS SHOWN

DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00
SHEET NO.:	3 OF 4



NOTES:
1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN.) GRADED GRAVEL LAYER.

1 ROCK OUTLET FOR SWALE

NOT TO SCALE

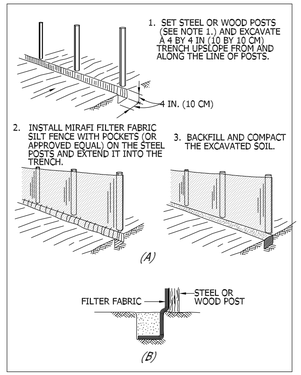
INSTALLATION OF SILT FENCE SEDIMENT BARRIER

1. LAY OUT A SUITABLE FENCE LINE AND SET POSTS ALONG IT. ON SLOPES, ALIGN THE FENCE ALONG THE CONTOUR AS CLOSELY AS POSSIBLE. IN SMALL SWALES, CURVE THE FENCE LINE UPSTREAM AT THE SIDES TO DIRECT THE FLOW TOWARD THE MIDDLE OF THE FENCE. THE SIDES SHOULD BE HIGHER THAN THE CENTER AS ILLUSTRATED IN THE FIGURE AT RIGHT.
SPACE POSTS ON 6' CENTERS AND DRIVE THEM A MINIMUM OF 12 IN (30 CM) INTO THE GROUND. POSTS FOR SILT FENCES CAN BE EITHER 1 1/2" (3.8 CM) MIN. DIA. HARD WOOD OR 1.33 LB/FT (1.97 KG/M) STEEL WITH A MINIMUM LENGTH OF 5 FT (1.5 M). STEEL POSTS MUST HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.

2. FASTEN THE FILTER FABRIC TO THE UPHILL SIDE OF THE FENCE POSTS, AND EXTEND TO 6 TO 8 IN (15 TO 20 CM) INTO THE TRENCH. THE HEIGHT OF THE FENCE SHOULD NOT EXCEED 36 IN (0.9 M). DO NOT STAPLE FABRIC ONTO TREES. CUT THE FILTER FABRIC FROM A CONTINUOUS RILL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, SPLICE THE FILTER CLOTH AT A SUPPORT POST, WITH A MINIMUM 6 IN (15 CM) OVERLAP, AND SECURELY FASTEN BOTH ENDS TO THE POST.

3. BACKFILL THE TRENCH OVER THE TOE OF THE FABRIC AND COMPACT THE SOIL.

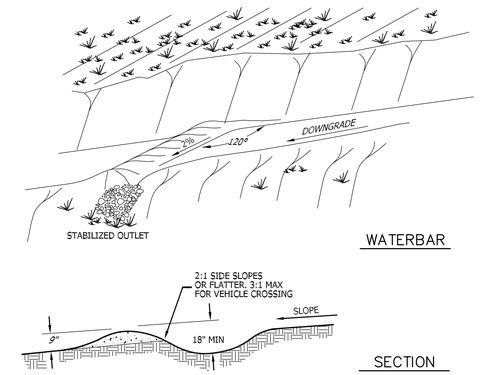
4. PREFABRICATED SILT FENCE WITH POSTS MAY BE USED AS AN ALTERNATE TO SETTING STEEL OR WOOD POSTS.



CONSTRUCTION OF A SILT FENCE. (A) INSTALLATION SEQUENCE. (B) EXTENSION OF FABRIC INTO THE TRENCH.

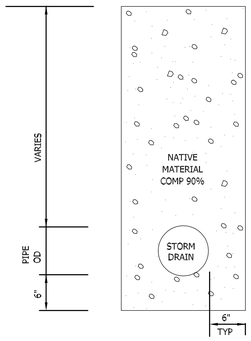
2 SILT FENCE INSTALLATION

NO SCALE



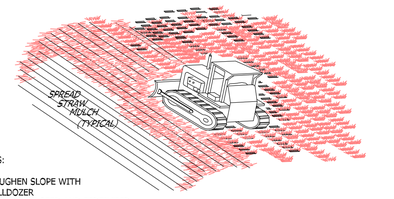
3 WATER BAR

NO SCALE



4 STORM DRAIN TRENCH DETAIL

NO SCALE

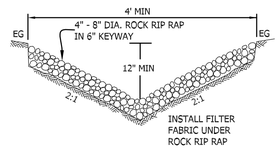


NOTES:
1. ROUGHEN SLOPE WITH BULLDOZER
2. BROADCAST SEED AND FERTILIZER.
3. SPREAD STRAW MULCH 3" THICK. (2 1/2 TONS PER ACRE)
4. PUNCH STRAW MULCH INTO SLOPE BY RUNNING BULLDOZER UP AND AND DOWN SLOPE.

'TRACKING' WITH MACHINERY ON SANDY SOIL PROVIDES ROUGHENING WITHOUT UNDUE COMPACTION.

5 STRAW ANCHORING

NO SCALE



6 ROCK-LINED SWALE

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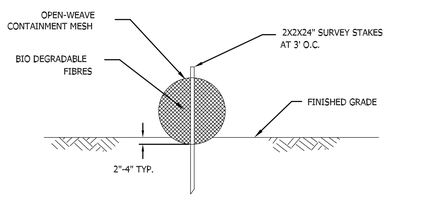

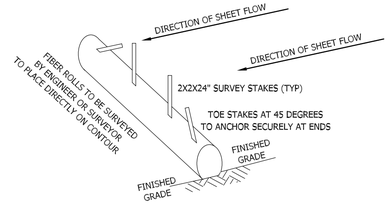

7 FIBER ROLL INSTALLATION

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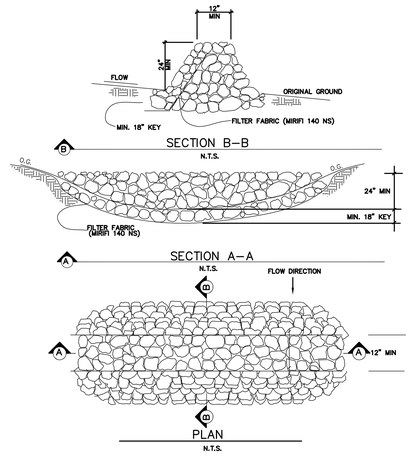

8 ROCK CHECK DAMS

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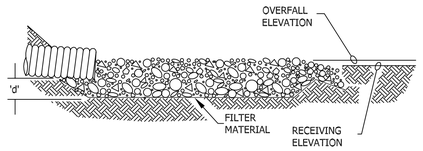
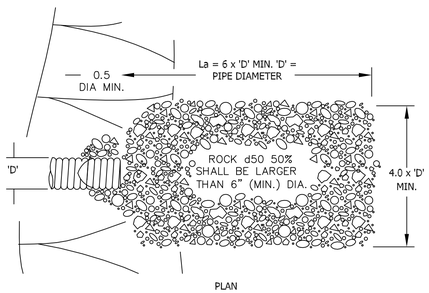


SECTION



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3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN.) GRADED GRAVEL LAYER.

9 ROCK OUTLET

NO SCALE

NO.	DATE	REVISION DESCRIPTION	BY	CHK

ENTERRA Associates, Inc.
CONSULTING CIVIL ENGINEERS AND LAND PLANNERS
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NICASIO QUARRY - SWPPP

NOTES AND DETAILS

5400 NICASIO VALLEY ROAD
NICASIO, CALIFORNIA
APN 121-050-030

SCALE: AS SHOWN

DATE:	2.22.16
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	08.140.00
SHEET NO.:	4 OF 4