### COUNTY OF SANTA CLARA

### General Construction Specifications

### GENERAL CONDITIONS

ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS AND/OR GEOTECHNICAL REPORT PREPARED BY

BUTANO ENGINEERING, INC., PHILIP T. EDWARDS, P.E. DATED NOVEMBER 2016. THIS REPORT IS SUPPLEMENTED BY: 1) THESE PLANS AND SPECIFICATIONS, 2) THE COUNTY OF SANTA CLARA STANDARD DETAILS. 3) THE COUNTY OF SANTA CLARA STANDARD SPECS, 4) STATE OF CALIFORNIA STANDARD DETAILS. 5) STATE OF CALIFORNIA STANDARD SPECIFICATIONS. IN THE EVENT OF CONFLICT THE FORMER SHALL TAKE PRECEDENCE OVER THE LATTER. THE PERFORMANCE AND COMPLETION OF ALL

WORK MUST BE TO THE SATISFACTION OF THE COUNTY. DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE IMPROVEMENTS SHOWN ON THESE PLANS AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE

RESPONSIBLE FOR THEIR CONTINUED MAINTENANCE. DEVELOPER SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERRORS OR OMISSIONS IN THESE PLANS. THE COUNTY SHALL BE AUTHORIZED TO REQUIRE DISCONTINUANCE OF ANY WORK AND SUCH CORRECTION AND MODIFICATION OF PLANS AS MAY BE NECESSARY TO COMPLY WITH COUNTY STANDARDS OR CONDITIONS OF DEVELOPMENT APPROVAL

DEVELOPER SHALL OBTAIN ENCROACHMENT PERMITS FROM THE SANTA CLARA VALLEY WATER DISTRICT AND CALIFORNIA DEPARTMENT OF TRANSPORTATION WHERE NEEDED. COPIES OF THESE PERMITS SHALL BE KEPT AT THE JOB SITE

FOR REVIEW BY THE COUNTY'S INSPECTOR. DEVELOPER SHALL REMOVE OR TRIM ALL TREES TO PROVIDE AN

UNOBSTRUCTED FIFTEEN (15) FOOT VERTICAL CLEARANCE FOR ROADWAY AREA. 5. THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND THAT ARE SHOWN TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.

DEVELOPER SHALL PROVIDE ADEQUATE DUST CONTROL AS REQUIRED BY THE COUNTY INSPECTOR.

ALL PERSONS MUST COMPLY WITH SECTION 4442 OF THE PUBLIC RESOURCES CODE AND SECTION 13005 OF THE HEALTH AND SAFETY CODE RELATING TO THE USE OF SPARK ARRESTERS. UPON DISCOVERING OR UNEARTHING ANY BURIAL SITE AS EVIDENCED BY

HUMAN SKELETAL REMAINS OR ARTIFACTS, THE PERSON MAKING SUCH DISCOVERY SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER AT (4008) 454-2520 AND LAND DEVELOPMENT ENGINEERING OFFICE AT (408) 299-5730. NO FURTHER DISTURBANCE OF THE SITE MAY BE MADE EXCEPT AS AUTHORIZED BY THE LAND DEVELOPMENT OFFICE IN ACCORD WITH PROVISIONS OF THIS ORDINANCE (COUNTY ORDINANCE CODE SECTION B6-18). THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY.

A SEPARATE PERMIT WILL BE REQUIRED FOR THE SEPTIC LINE CONSTRUCTION. ANY DEVIATION FROM THESE APPROVED PLANS SHALL BE RE-APPROVED IN WRITING BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.

### CONSTRUCTION STAKING

THE DEVELOPER'S ENGINEER IS RESPONSIBLE FOR THE INITIAL PLACEMENT AND REPLACEMENT OF CONSTRUCTION GRADE STAKES. THE STAKES ARE TO BE ADEQUATELY IDENTIFIED, LOCATED, STABILIZED, ETC. FOR THE CONVENIENCE OF CONTRACTORS. LATERAL OFFSET OF STAKES SET FOR CURBS AND GUTTERS SHALL NOT EXCEED 2 1/2 FEET FROM BACK OF CURB.

ANY PROPERTY LINE STAKES OR ROAD MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY DEVELOPER'S ENGINEER AND LICENSED LAND SURVEYOR

PROPERTY LINE STAKING MUST BE PERFORMED BY THE PROJECT ENGINEER OR LAND SURVEYOR TO ESTABLISH OR RE-ESTABLISH THE PROJECT BOUNDARY AND SHALL BE INSPECTED BY THE COUNTY INSPECTOR PRIOR TO THE BEGINNING OF THE WORK.

PROPER CONSTRUCTION STAKES SHALL BE SET IN THE FIELD BY THE PROJECT ENGINEER OR LAND SURVEYOR AND VERIFIED BY THE COUNTY INSPECTOR PRIOR TO THE COMMENCEMENT OF GRADING.

### CONSTRUCTION INSPECTION

CONTRACTOR SHALL NOTIFY PERMIT INSPECTION UNIT, SANTA CLARA COUNTY PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE. THE COUNTY REQUIRES A MINIMUM OF 24 HOURS ADVANCE NOTICE FOR

GENERAL INSPECTION, 48 HOURS FOR ASPHALT CONCRETE INSPECTION INSPECTION BY SANTA CLARA COUNTY SHALL BE LIMITED TO INSPECTION OF MATERIALS AND PROCESSES OF CONSTRUCTION TO OBSERVE THEIR COMPLIANCE WITH PLANS & SPECIFICATIONS BUT DOES NOT INCLUDE RESPONSIBILITY FOR THE SUPERINTENDENT OF CONSTRUCTION, SITE CONDITIONS, EQUIPMENT OR PERSONNEL. CONTRACTOR SHALL NOTIFY THE COUNTY LAND DEVELOPMENT INSPECTOR AT PHONE (408) 299-6868 AT LEAST 24 HOURS PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.

DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE MUST SUBMIT WRITTEN REQUEST FOR FINAL INSPECTION AND ACCEPTANCE, SAID REQUEST SHALL BE DIRECTED TO THE INSPECTION OFFICE NOTED ON THE PERMIT FORM.

THE CONTRACTOR SHALL PROVIDE TO THE COUNTY CONSTRUCTION INSPECTOR WITH PAD ELEVATION AND LOCATION CERTIFICATES. PREPARED BY THE PROJECT ENGINEER OR LAND SURVEYOR, PRIOR TO COMMENCEMENT OF THE BUILDING FOUNDATION.

### ITE PREPARATION (CLEARING AND GRUBBING) EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN

PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE)

AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE

B) FROM AREAS AFFECTED BY THE PROPOSED GRADING EXCEPT WHERE NOTED ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO MOVE OR RELOCATE UTILITY POLES AND OTHER OBSTRUCTIONS IN THE WAY OF CONSTRUCTION.

### ITILITY LOCATION. TRENCHING & BACKFILL

CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-277-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND

ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND CONDUITS OR FACILITIES SHALL BE THE INDIVIDUAL CONTRACTORS RESPONSIBILITY. PLAN LOCATIONS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.

ALL UNDERGROUND INSTALLATIONS SHALL BE IN PLACE AND THE TRENCH BACKFILLED AND COMPACTED BEFORE PLACING AGGREGATE BASE MATERIAL OR SURFACE STRUCTURES. SURFACING MAY BE DONE IF THE UTILITY COMPANY CONCERNED INDICATES BY LETTER THAT IT WILL BORE. UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY, GAS AND WATER MAINS SHALL BE INSTALLED

OUTSIDE THE PAVED AREAS. TRENCH BACKFILL IN EXISTING PAVEMENT AREAS SHALL BE SAND MATERIAL IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE SPECIFICATIONS. THE STRUCTURAL SECTION FOR TRENCH REPLACEMENT SHALL CONSIST OF NOT LESS THAN 12 INCHES OF APPROVED AGGREGATE BASE MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 95% AND 4 INCHES OF HOT ASPHALT CONCRETE PLACED IN TWO LIFTS. TRENCH RESTORATION FOR HIGHER TYPE PAVEMENTS SHALL BE MADE IN KIND OR AS

DIRECTED BY THE COUNTY. TRENCH BACKFILL IN NEW CONSTRUCTION AREAS SHALL BE SAND MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 90%. THE REQUIREMENT FOR SELECT MATERIAL MAY BE WAIVED BY COUNTY IF THE NATIVE SOIL IS SUITABLE FOR USE AS TRENCH BACKFILL BUT THE

COMPACTION REQUIREMENTS WILL NOT BE THEREBY WAIVED. BACKFILL AND TRENCH RESTORATION REQUIREMENTS SHALL APPLY AS MINIMUM STANDARDS TO ALL UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

### RETAINING WALLS

AS FOLLOWS:

REINFORCED CONCRETE AND CONCRETE MASONRY UNIT RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING CONTINUAL CONTROL OF THE COUNTY INSPECTOR INSPECTOR AND ENGINEER OF RECORD PRIOR TO POURING THE FOUNDATION AND FORMING THE WALL

SEGMENTAL BLOCK RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR.

### GRADING

EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO A COUNTY APPROVED DISPOSAL SITE. WHERE FILL MATERIAL IS TO BE PLACED ON NATURAL GROUND, IS SHALL BE STRIPPED OF ALL VEGETATION. TO ACHIEVE A PROPER BOND WITH THE FILL MATERIAL, THE SURFACE OF THE GROUND SHALL BE SCARIFIED TO DEPTH OF 6" BEFORE FILL IS PLACED. WHERE NATURAL GROUND IS STEEPER THAN 5:1, IT SHALL BE BENCHED AND THE FILL KEYED IN TO ACHIEVE STABILITY. WHERE NEW FILL IS TO BE PLACED ON EXISTING FILL THE EXISTING FILL SHALL BE REMOVED UNTIL MATERIAL COMPACTED TO 90% RELATIVE COMPACTION IS EXPOSED. THEN THE NEW FILL MATERIAL SHALL BE PLACED AS PER THESE CONSTRUCTION NOTES. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6" IN UNCOMPACTED THICKNESS. BEFORE COMPACTION BEGINS, THE FILL SHALL BE BROUGHT TO A WATER CONTENT THAT WILL PERMIT PROPER COMPACTION BY EITHER 1) AERATING THE FILL IF IT IS TOO WET OR 2) MOISTENING THE FILL WITH WATER IF IT IS TOO DRY. EACH LIFT SHALL BE THOROUGHLY MIXED BEFORE COMPACTION TO ENSURE A UNIFORM DISTRIBUTION OF MOISTURE.

EXCESS CUT MATERIAL SHALL NOT BE SPREAD OR STOCKPILED ON THE SITE. SURPLUS EARTH FILL MATERIAL SHALL BE PLACED IN A SINGLE (8" MAX) THICK LAYER COMPACTED TO WITHSTAND WEATHERING IN THE AREA(S)

DELINEATED ON THE PLAN. 4. NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS.

AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. 6. MAXIMUM CUT SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL. MAXIMUM FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION	CUT (C.Y.)	FILL (C.Y.)	VERT. DEPTH
RESIDENCE	N/A		
ACCESSORY			
STRUCTURE	N/A		
POOL/HARDSCAPE	N/A		
LANDSCAPE	N/A		
DRIVEWAY	N/A		
OFF SITE IMPROVEMENTS	175 C.Y.	220 C.Y.	
TOTAL	175 C.Y.	220 C.Y.	13'

NOTE: FILL VOLUMES INCLUDE 10% SHRINKAGE. EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD.

8. ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE. 9. THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% 10. ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95%

RELATIVE COMPACTION. 11. THE GEOTECHNICAL PLAN REVIEW LETTER MUST BE REVIEWED AND APPROVED BY THE COUNTY GEOLOGIST PRIOR TO FINAL APPROVAL BY THE COUNTY

ENGINEER FOR BUILDING OCCUPANCY. 12. THE PROJECT GEOTECHNICAL ENGINEER SHALL PERFORM COMPACTION TESTING AND PRESENT THE RESULTS TO THE COUNTY ENGINEERING INSPECTOR PRIOR

TO THE CONSTRUCTION OF ANY PAVED AREA. 13. GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICIAL.

14. TOTAL DISTURBED AREA FOR THE PROJECT REMEDIAL GRADING TOTAL 3000

15. WDID NO.\_\_\_\_N/A\_ 16. THE INSPECTOR MAY VERIFY THAT A VALID NOTICE OF INTENT (NOI) HAS BEEN ISSUED BY THE STATE AND THAT A CURRENT AND UP TO DATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS AVAILABLE ON SITE.

### TREE PROTECTION

FOR ALL TREES TO BE RETAINED WITH A CANOPY IN THE DEVELOPMENT AREA OR INTERFACES WITH THE LIMITS OF GRADING FOR ALL PROPOSED DEVELOPMENT ON SITE, THE TREES SHALL BE PROTECTED BY THE PLACEMENT OF RIGID TREE PROTECTIVE FENCING, CONSISTENT WITH THE COUNT INTEGRATED LANDSCAPE GUIDELINES, AND INCLUDE THE FOLLOWING: FENCING SHOULD BE PLACED ALONG THE OUTSIDE EDGE OF THE DRIPLINE

OF THE TREE OR GROVE OF TREES. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE CONSTRUCTION PERIOD AND SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION.

FENCING SHALL BE REPAIRED, AS NECESSARY, TO PROVIDE A PHYSICAL

BARRIER FROM CONSTRUCTION ACTIVITIES. SIGNAGE STATING, "WARNING- THIS FENCING SHALL NOT BE REMOVED WITHOUT PERMISSION FROM THE SANTA CLARA COUNTY PLANNING OFFICE (408) 299-5770. COUNTY OF SANTA CLARA TREE PROTECTION MEASURES MAY BE FOUND AT

http://www.sccplanning.gov." SHALL BE PLACED ON THE TREE PROTECTIVE FENCING UNTIL FINAL OCCUPANCY. 2. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACED AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR. SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

### ACCESS ROADS AND DRIVEWAYS

A) TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF 1. DRIVEWAY LOCATIONS SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS WITH CENTERLINE STATIONING. THE MINIMUM CONCRETE THICKNESS SHALL BE 6 INCHES THROUGHOUT (WITH A MAXIMUM APPROACH SLOPE OF 1 1/4 INCHES

> PER FOOT). 2. ALL DRIVEWAY OR COMMON ACCESS ROAD SECTIONS IN EXCESS OF 15 LONGITUDINAL SLOPE MUST BE PAVED WITH A MINIMUM 2-INCH ASPHALT LIFT OR FULL DEPTH CONCRETE LIFT PRIOR TO ANY COMBUSTIBLE FRAMING. 3. THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES

AND LOCAL RESIDENTS. 4. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THE PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO THE PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.

ALL WORK IN THE COUNTY ROAD RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE ROADS AND AIRPORTS DEPARTMENT. EACH INDIVIDUAL ACTIVITY REQUIRES A SEPARATE PERMIT - I.E. CABLE, ELECTRICAL, GAS. SEWER. WATER. RETAINING WALLS, DRIVEWAY APPROACHES, FENCES, LANDSCAPING, TREE REMOVAL, STORM DRAINAGE IMPROVEMENTS, ETC..

### STREET LIGHTING

PACIFIC GAS & ELECTRIC ELECTROLIER SERVICE FEE SHALL BE PAID BY THE DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE.

### SANITARY SEWER

1. THE SANITARY SEWER AND WATER UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.

CONFORM TO THE SPECIFICATIONS OF THE JURISDICTION INVOLVED. INSPECTION AFTERCONSTRUCTION. OF SANITARY SEWER WORK SHALL BE DONE BY SAID JURISDICTION.

### PORTLAND CEMENT CONCRETE

1. CONCRETE USED FOR STRUCTURAL PURPOSES SHALL BE CLASS "A" (6 SACK PER CUBIC YARD) AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS. CONCRETE PLACED MUST DEVELOP A MINIMUM STRENGTH FACTOR OF 2800 PSI IN A SEVEN-DAY PERIOD. THE CONCRETE MIX DESIGN SHALL BE UNDER THE

### AIR QUALITY, LANDSCAPING AND EROSION CONTROL

. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.

2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL

STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.

4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. THE USE OF DRY POWDER SWEEPING IS PROHIBITED

SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS. THE USE OF DRY POWDER SWEEPING IS PROHIBITED. 6. ALL CONSTRUCTION VEHICLES, EQUIPMENT AND DELIVERY TRUCKS SHALL

HAVE A MAXIMUM IDLING TIME OF 5 MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXIC CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS (CCR)). ENGINES SHALL BE SHUT OFF IF CONSTRUCTION REQUIRES LONGER IDLING TIME UNLESS NECESSARY FOR PROPER OPERATION OF THE VEHICLE.

7. ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES

IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT SHALL BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE RUNNING IN PROPER CONDITION PRIOR TO OPERATION.

8. ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED

9. POST A SIGN THAT IS AT LEAST 32 SQUARE FEET MINIMUM 2 INCHES LETTER HEIGHT VISIBLE NEAR THE ENTRANCE OF CONSTRUCTION SITE THAT IDENTIFIES THE FOLLOWING REQUIREMENTS. OBTAIN ENCROACHMENT PERMIT FOR SIGN FROM ROADS DEPARTMENT OR OTHER APPLICABLE AGENCY IF REQUIRED. A. 15 MILES PER HOUR (MPH) SPEED LIMIT

B. 5 MINUTES MAXIMUM IDLING TIME OF VEHICLES TELEPHONE NUMBER TO CONTACT THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGARDING DUST COMPLAINTS. NOTE PHONE NUMBER OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR POLLUTION COMPLAIN HOTLINE OF 1-800-334-6367 10. ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM

CONDITION CAPABLE OF WITHSTANDING WEATHERING. 11. ALL EXPOSED DISTURBED AREAS SHALL BE SEEDED WITH BROME SEED SPREAD AT THE RATE OF 5 LB. PER 1000 SQUARE FEET (OR APPROVED EQUAL). SEEDING AND WATERING SHALL BE MAINTAINED AS REQUIRED TO ENSURE

12. ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SD8. 13. ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED CONCRETE RIP-RAP. ENERGY DISSIPATERS SHALL BE INSTALLED AT ALL DITCH OUTFALLS. WHERE OUTFALLS ARE NOT INTO AN EXISTING CREEK OR WATER COURSE, RUNOFF SHALL BE RELEASED TO SHEET FLOW.

14. PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED AREAS SHALL BE RESEEDED IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADE SLOPES AND REDUCE THE POTENTIAL FOR EROSION OF THE SUBJECT SITE. 15. PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST

BE INSTALLED AND FIELD APPROVED BY THE COUNTY PLANNING OFFICE PRIOR

TO FINAL APPROVAL BY THE COUNTY ENGINEER, AND FINAL OCCUPANCY RELEASE BY THE BUILDING INSPECTION OFFICE. 16. THE OWNER SHALL PREPARE AND PRESENT A WINTERIZATION REPORT TO THE COUNTY INSPECTOR FOR REVIEW PRIOR TO OCTOBER 15TH OF EVERY YEAR. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL INSTALL AND MAINTAIN CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPS) ON THE PROJECT SITE AND WITHIN THE SANTA CLARA

COUNTY ROAD RIGHT-OF-WAY THROUGHOUT THE DURATION OF THE CONSTRUCTION AND UNTIL THE ESTABLISHMENT OF PERMANENT STABILIZATION AND SEDIMENT CONTROL TO PREVENT THE DISCHARGE OF POLLUTANTS INCLUDING SEDIMENT, CONSTRUCTION MATERIALS, EXCAVATED MATERIALS, AND WASTE INTO THE SANTA CLARA COUNTY RIGHT-OF-WAY. STORM SEWER WATERWAYS, ROADWAY INFRASTRUCTURE. BMPS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: A. PREVENTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE

CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND EQUIPMENT LAYDOWN / STAGING AREAS. B. PREVENTION OF TRACKING OF MUD, DIRT, AND CONSTRUCTION MATERIALS ONTO THE PUBLIC ROAD RIGHT-OF-WAY. C. PREVENTION OF DISCHARGE OF WATER RUN-OFF DURING DRY AND WET

WEATHER CONDITIONS ONTO THE PUBLIC ROAD RIGHT-OF-WAY. 18. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES. INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE

SANTA CLARA COUNTY ROAD RIGHT-OF-WAY. 19. EROSION CONTROL PLAN IS A GUIDE AND SHALL BE AMENDED AS NECESSARY TO PREVENT EROSION AND ILLICIT DISCHARGES ON A YEAR AROUND BASIS, DEPENDING ON THE SEASON, WEATHER, AND FIELD CONDITIONS. EROSION CONTROL MEASURES IN ADDITION TO THOSE NOTED IN THE PERMITTED PLANS MAY BE NECESSARY. FAILURE TO INSTALL SITE SITE AND SITUATIONALY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.

### STORM DRAINAGE AND STORMWATER MANAGEMEN<sup>-</sup>

 DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THE ADEQUACY AND CONTINUED MAINTENANCE OF THESE FACILITIES IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY, CONSISTENT WITH NPDES PERMIT CAS612008 / ORDER NO. R2-2009-0047 AND NPDES

PERMIT CAS000004/ ORDER NO. 2013-0001-DWQ. DROP INLETS SHALL BE COUNTY STANDARD TYPE 5 UNLESS OTHERWISE NOTED ON THE PLANS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF DROP INLETS. WHERE STREET PROFILE GRADE EXCEEDS 6% DROP INLETS SHALL BE SET AT 500 ANGLE CURB LINE TO ACCEPT WATER OR AS SHOWN ON THE PLANS.

WHERE CULVERTS ARE INSTALLED THE DEVELOPER SHALL BE RESPONSIBLE FOR GRADING THE OUTLET DITCH TO DRAIN TO AN EXISTING SWALE OR TO AN OPEN AREA FOR SHEET FLOW. . UPON INSTALLATION OF DRIVEWAY CONNECTIONS, PROPERTY OWNERS SHALL

PROVIDE FOR THE UNINTERRUPTED FLOW OF WATER IN ROADSIDE DITCHES. 5. THE COUNTY SHALL INSPECT UNDERGROUND DRAINAGE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES PRIOR TO BACKFILL.

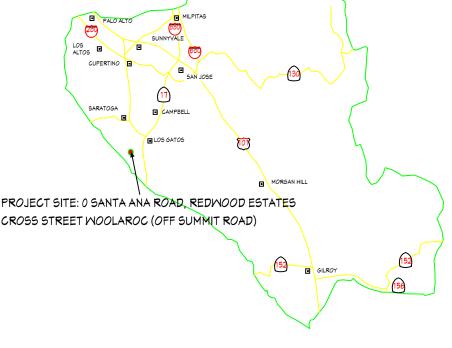
### AS-BUILT PLANS STATEMENT

THIS IS A TRUE COPY OF THE AS-BUILT PLANS. THERE (\_\_\_ WERE) (\_\_\_ WERE NOT) MINOR FIELD CHANGES - MARKED WITH THE SYMBOL (^). THERE (\_\_\_WERE) WERE NOT) PLAN REVISIONS INDICATING SIGNIFICANT CHANGES REVIEWED BY THE COUNTY ENGINEER AND MARKED WITH THE SYMBOL A.

SIGNATURE NOTE: THIS STATEMENT IS TO BE SIGNED BY THE PERSON AUTHORIZED BY THE COUNTY ENGINEER TO PERFORM THE INSPECTION WORK. A REPRODUCIBLE COPYOF ALL MATERIALS AND METHODS OF CONSTRUCTION OF SANITARY SEWERS SHALL THE AS-BUILT PLANS MUST BE FURNISHED TO THE COUNTY ENGINEER

### GEOTECHNICAL ENGINEER OBSERVATION

1. A CONSTRUCTION OBSERVATION LETTER FROM THE RESPONSIBLE GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST DETAILING CONSTRUCTION OBSERVATIONS AND CERTIFYING THAT THE WORK WAS DONE IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL AND GEOLOGIC REPORTS SHALL BE SUBMITTED PRIOR TO THE GRADING COMPLETION AND RELEASE OF THE BOND.



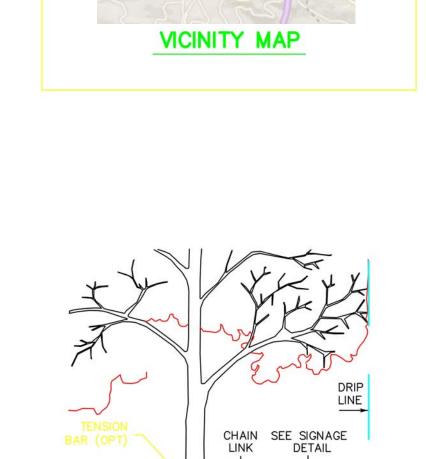
### COUNTY LOCATION

### SURVEY MONUMENT PRESERVATION

- 1. THE LANDOWNER / CONTRACTOR MUST PROTECT AND ENSURE THE PERPETUATION OF SURVEY MONUMENTS AFFECTED BY CONSTRUCTION
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE STAKE, AND FLAG OR OTHERWISE IDENTIFY WITH PAINT OR OTHER MARKINGS ALL PERMANENT SURVEY MONUMENTS OF RECORD AND ANY UNRECORDED MONUMENTS THAT ARE DISCOVERED THAT ARE WITHIN 50 FEET OF THE CONSTRUCTION ACTIVITY.
- 3. THE LANDOWNER, CONTRACTOR AND/OR ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES THAT WILL OR MAY DISTURB AN EXISTING MONUMENT, CORNER STAKE, OR ANY OTHER PERMANENT SURVEYED MONUMENT SHALL CAUSE TO HAVE A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, AUTHORIZED TO PRACTICE SURVEYING, ENSURE THAT A CORNER RECORD AND/OR RECORD OF SURVEY ARE FILED WITH THE COUNTY SURVEYOR'S OFFICE PRIOR TO DISTURBING SAID MONUMENTS AND RESET PERMANENT MONUMENT(S) IN THE SURFACE OF THE NEW CONSTRUCTION OR SET A WITNESS MONUMENT(S) TO PERPETUATE THE LOCATION IF ANY PERMANENT MONUMENT COULD BE DESTROYED, DAMAGED, COVERED, DISTURBED, OR OTHERWISE OBLITERATED. THE LICENSED LAND SURVEYOR OR CIVIL ENGINEER SHALL FILE A CORNER RECORD OR RECORD OF SURVEY WITH COUNTY SURVEYOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.

### BASIS OF BEARINGS

BEARINGS ARE BASED UPON A COMPUTED TIE BETWEEN THE FOUND ORIGINAL STAKE AT LOT 464 BLOCK 1 AND THE FOUND 1" IP AT THE WESTERN CORNER OF LOT 418 BLOCK 15 REDWOOD ESTATES NO. 4 (SHEET 2) RECORDED IN BOOK 'W' OF MAPS AT PAGE 46.



10'-0" MAX

- 1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR
- 2. FENCE SHALL BE MINIMUM 5 FEET TALL CONSTRUCTED OF STURDY MATERIAL
- 3. FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART 4. TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE
- 5. A SIGN THAT INCLUDES THE WORDS, "WARNING: THIS FENCE SHALL NOT BE REMOVED WITHOUT THE EXPRESSED PERMISSION OF THE SANTA CLARA COUNTY PLANNING OFFICE," SHALL BE SECURELY ATTACHED TO THE FENCE

Estates

### EXISTING TREE PROTECTION DETAILS

- CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND ADHERED TO DURING CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
- (CHAIN-LINK OR EQUIVALENT STRENGTH / DURABILITY)
- CONSTRUCTION PERIOD, INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION, REPAIRED AS NECESSARY TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL
- IN A VISUALLY PROMINENT LOCATION.

### COUNTY OF SANTA CLARA LAND DEVELOPMENT ENGINEERING & SURVEYING GRADING / DRAINAGE PERMIT NO.

NO WORK SHALL BE DONE IN THE COUNTY'S RIGHT-OF-WAY WITHUOT AN ENCROACHEMENT PERMIT, INCLUDING THE STAGING OF CONSTRUCTION MATERIAL AND THE PLACEMENT OF PORTABLE TOILETS.

COUNTY OF SANTA CLARA DEPT. OF ROADS AND AIRPORTS

### **ENGINEER'S STATEMENT**

ENCROACHMENT PERMIT NO.

I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH ADOPTED COUNTY STANDARDS, THE APPROVED TENTATIVE MAP (OR PLAN) AND CONDITIONS OF APPROVAL PERTAINING THERETO DATED 2018-49219 C86451

SIGNATURE C86451 Exp. 3/25

### COUNTY ENGINEER'S NOTE

ISSUANCE OF A PERMIT AUTHORIZING CONSTRUCTION DOES NOT RELEASE THE DEVELOPER, PERMITTEE OF ENGINEER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS CONTAINED IN THE PLANS. IF, DURING THE COURSE OF CONSTRUCTION, THE PUBLIC INTEREST REQUIRES A MODIFICATION OF (OR DEPARTURE FROM) THE SPECIFICATIONS OF THE PLANS, THE COUNTY SHALL HAVE THE AUTHORITY TO REQUIRE THE SUSPENSION OF WORK, AND THE NECESSARY MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE MADE.

Darrell K.H. Wong, P.E. 09-30-26 63958 R.C.E. NO. EXPIRATION DATE

### GRADING ABATEMENT PLAN

### LANDS OF THOMAS AND CHERYL **HARGROVE**

### SCOPE OF WORK

1. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK PROPOSED ON THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION COTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION.

### 2. GRADING ABATEMENT OF V1024-0188

A. WITHIN THE 20' ROW - A SMALL PORTION OF THE 20' ROW IS WITHIN THE LIMITS OF GRADING: THE PROPOSED GRADING WILL RESTORE THE ORIGINAL GRADE AND DOESN'T CHANGE ANY DRAINAGE THAT AFFECTS SANTA ANA ROAD OR LINDBERGH DRIVE DRAINAGE.

B. OUTSIDE OF THE 20' ROW - MOST OF THE AREA OF PROPOSED REMEDIAL GRADING; SEE GV-2 FOR LIMITS OF GRADING. NOTE THAT THE 20' ROW SETBACK IS VISIBLE ON THE GRADING PLAN.

**LEGEND** 

DESCRIPTION

**EXISTING** 

**LEGEND ON SHEETS** 

SHEET INDEX CVR COUNTY COVER SHEET

GV-1 EXISTING COND / GENERAL NOTES GV-2 GRADING PLAN

GV-3 CROSS SECTIONS 2024 SURVEY / GV EXISTING CONDITIONS

EC-1 INSTALLED EROSION CONTROL BMP 1 BMP & EC DETAILS

BMP 2 BMP & EC DETAILS 2018 SURVEY / ROW DEDICATION SURVEY WW1 WASTE WATER UPDATED PRELIM

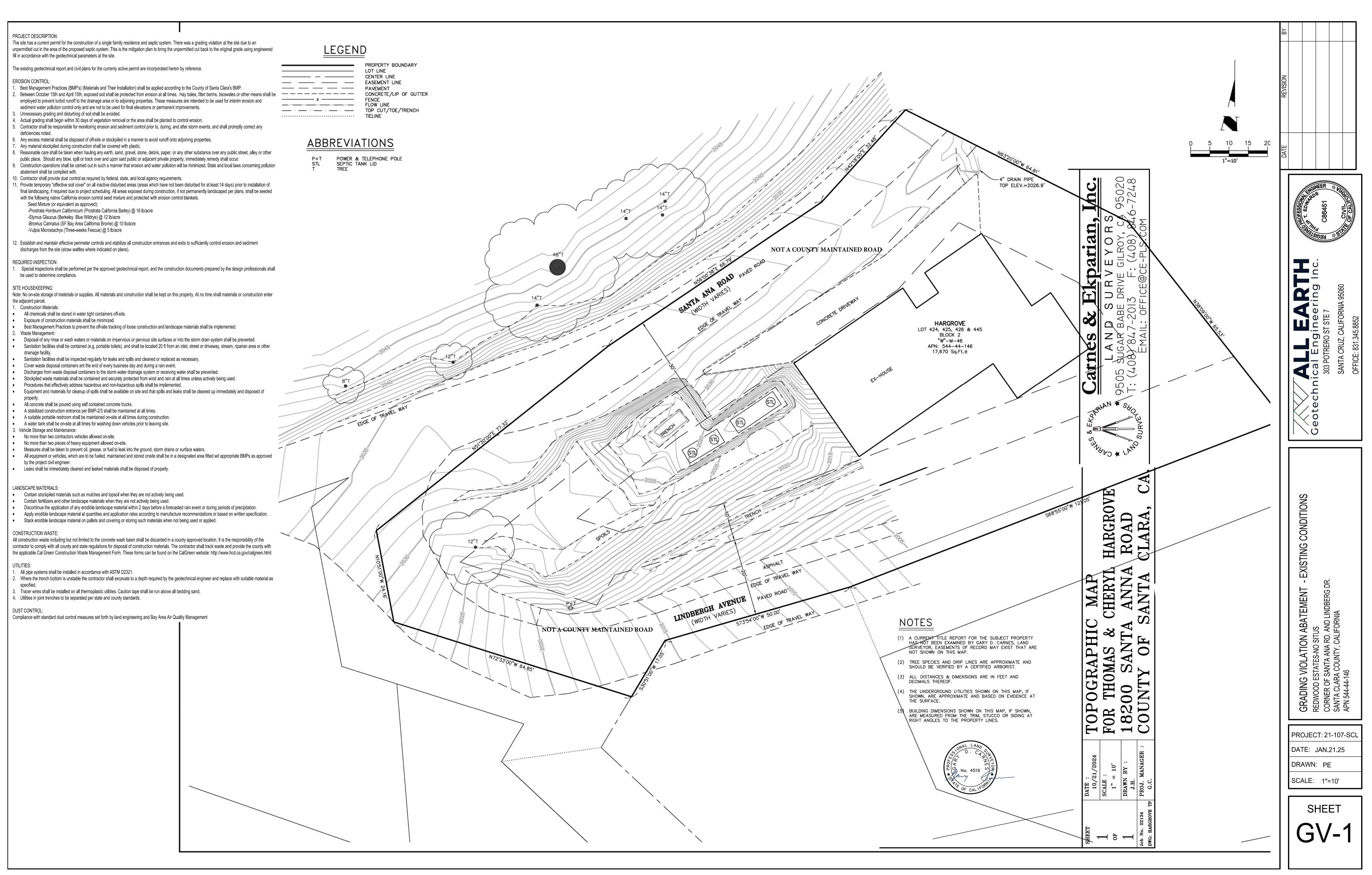
WW2 WASTE WATER UPDATED PRELIM ENGINEER'S NAME: PHILIP T. EDWARDS, P.E.

ALL EARTH GEOTECHNICAL ENGINEERING INC ADDRESS: 303 PROTRERO STREET. STE. 7

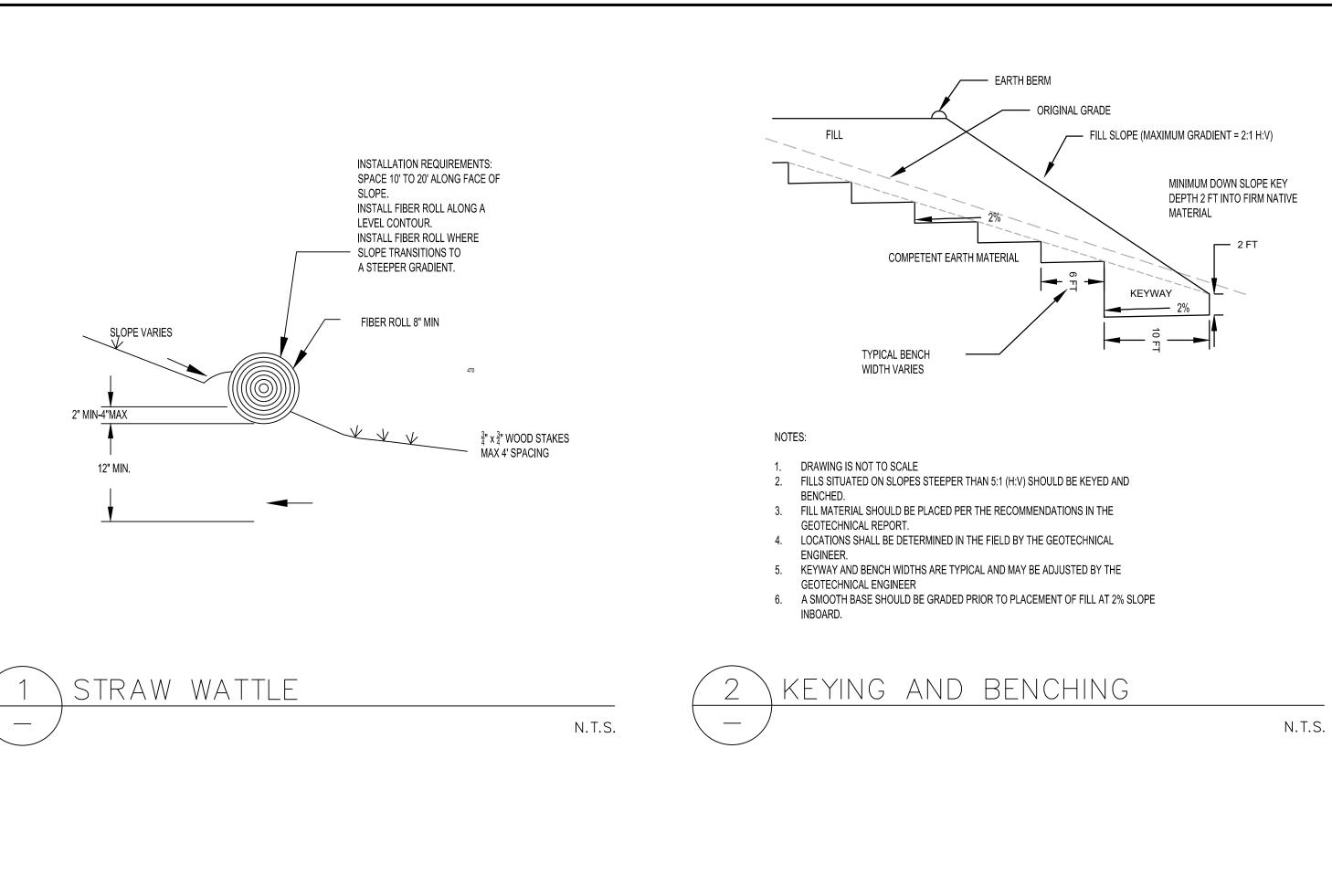
SANTA CRUZ, CA 95060 831-345-8852 PHONE NO

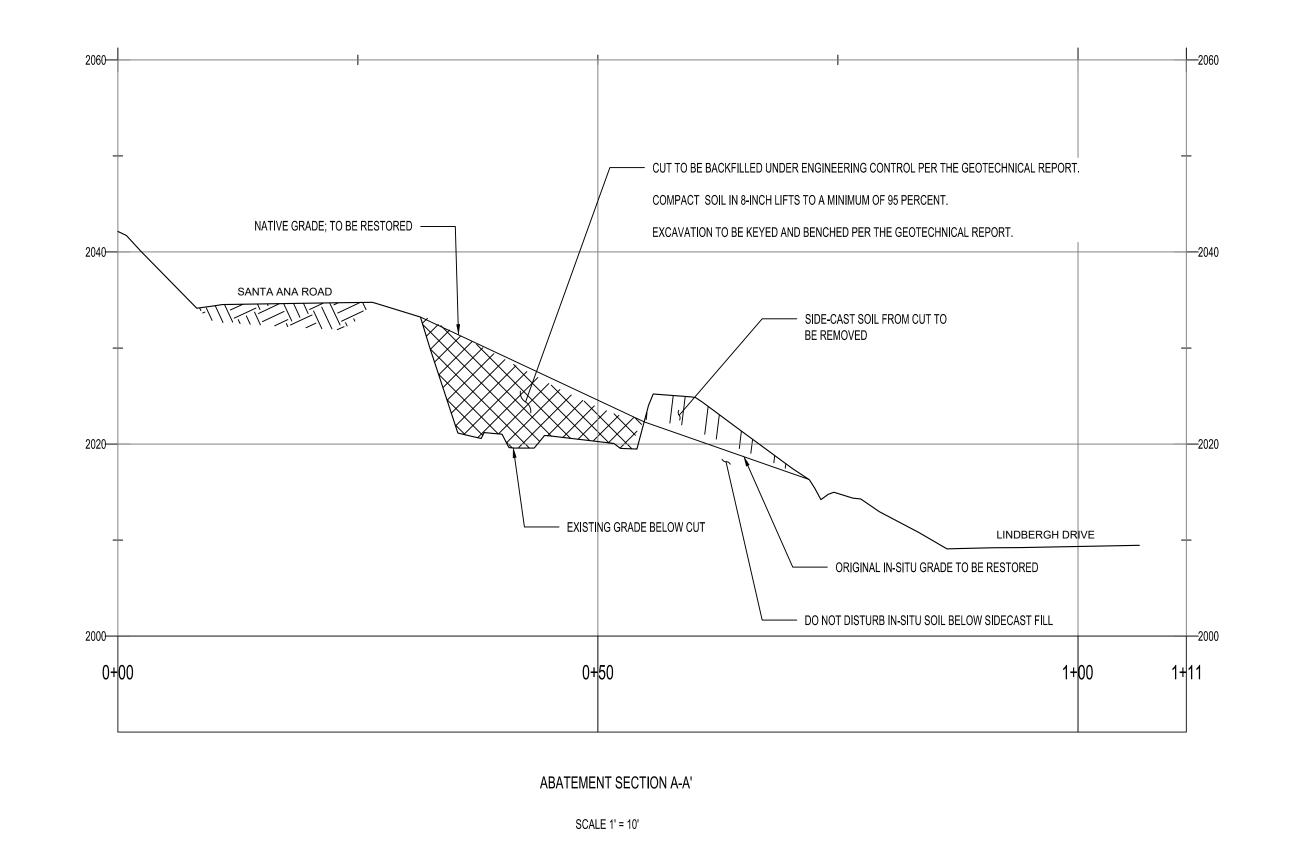
DateRevision 1 Sheet544-44-146 Revision

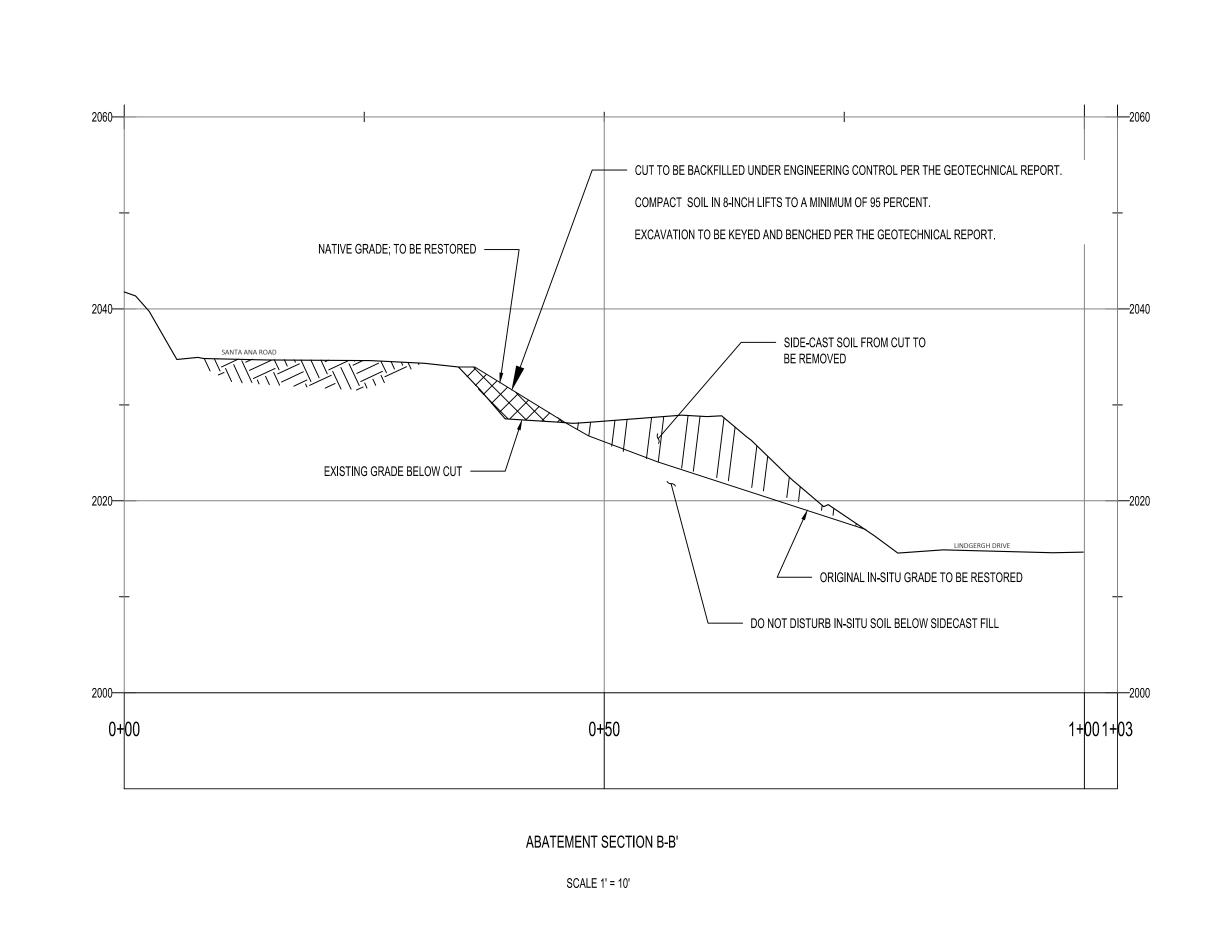
2018-49219 DateRevision 3

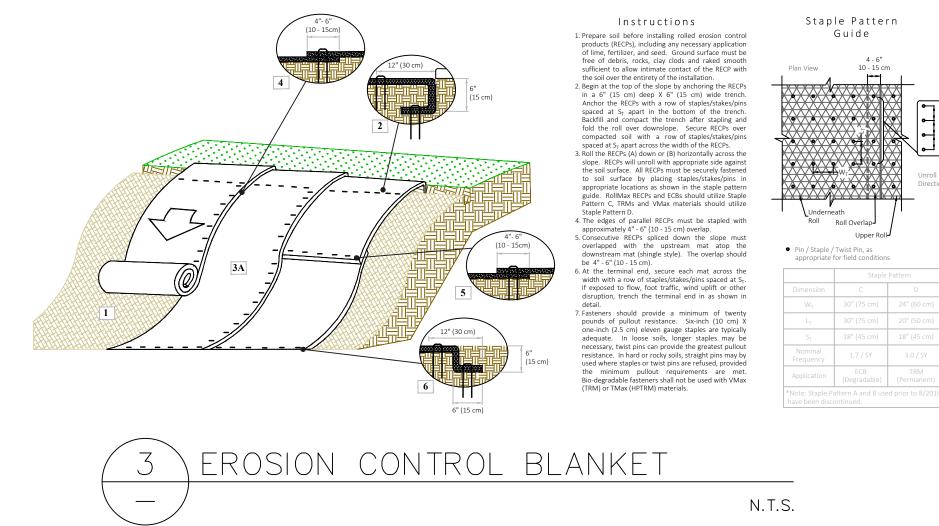


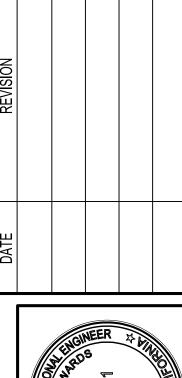














ALL EARRIH Inical Engineering Inc. 303 POTRERO ST STE 7 SANTA CRUZ, CALIFORNIA 95060

ATION ABATEMENT - CROSS SECTIONS S-NO SITUS

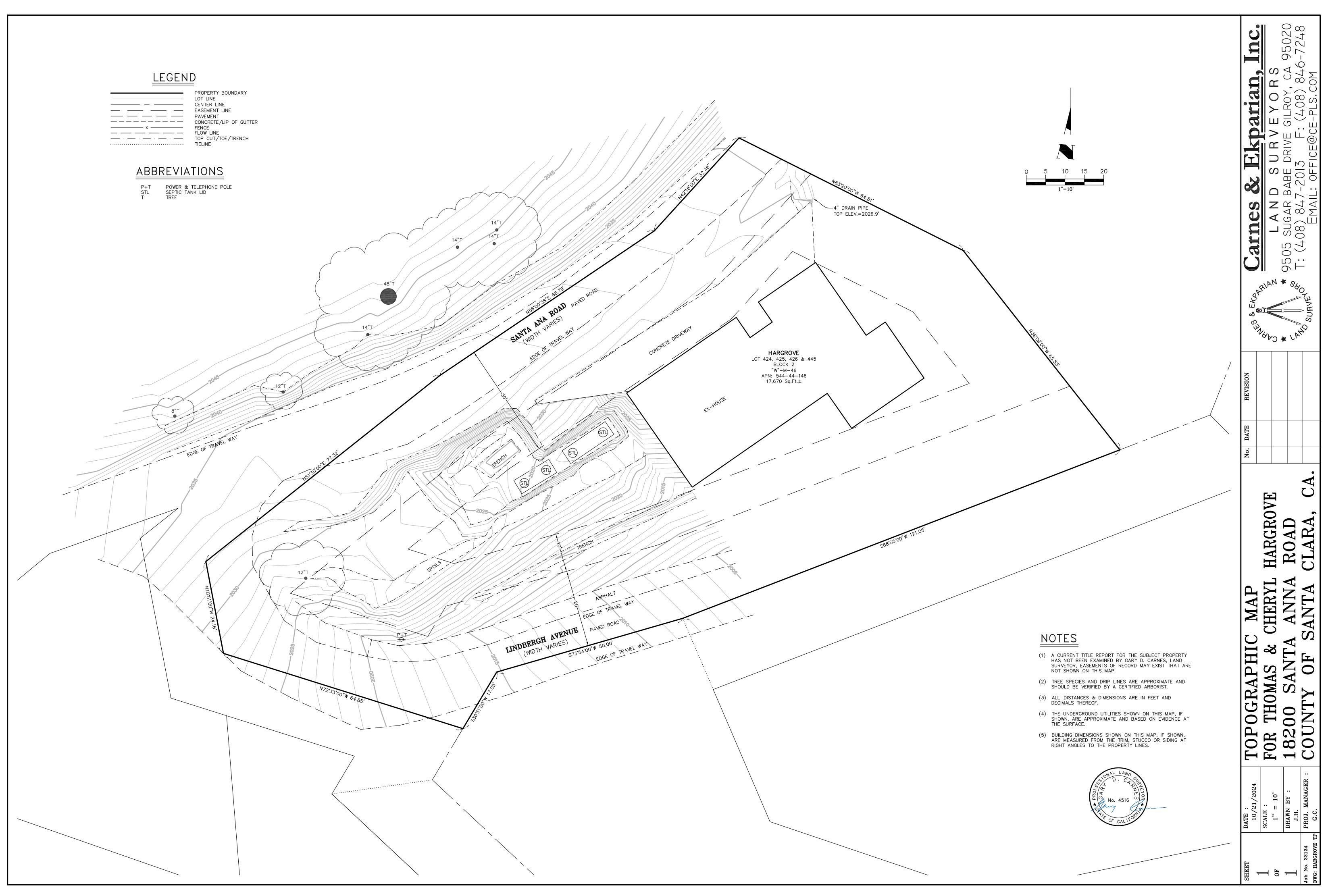
> PROJECT: 21-107-SCL DATE: JAN.21.25

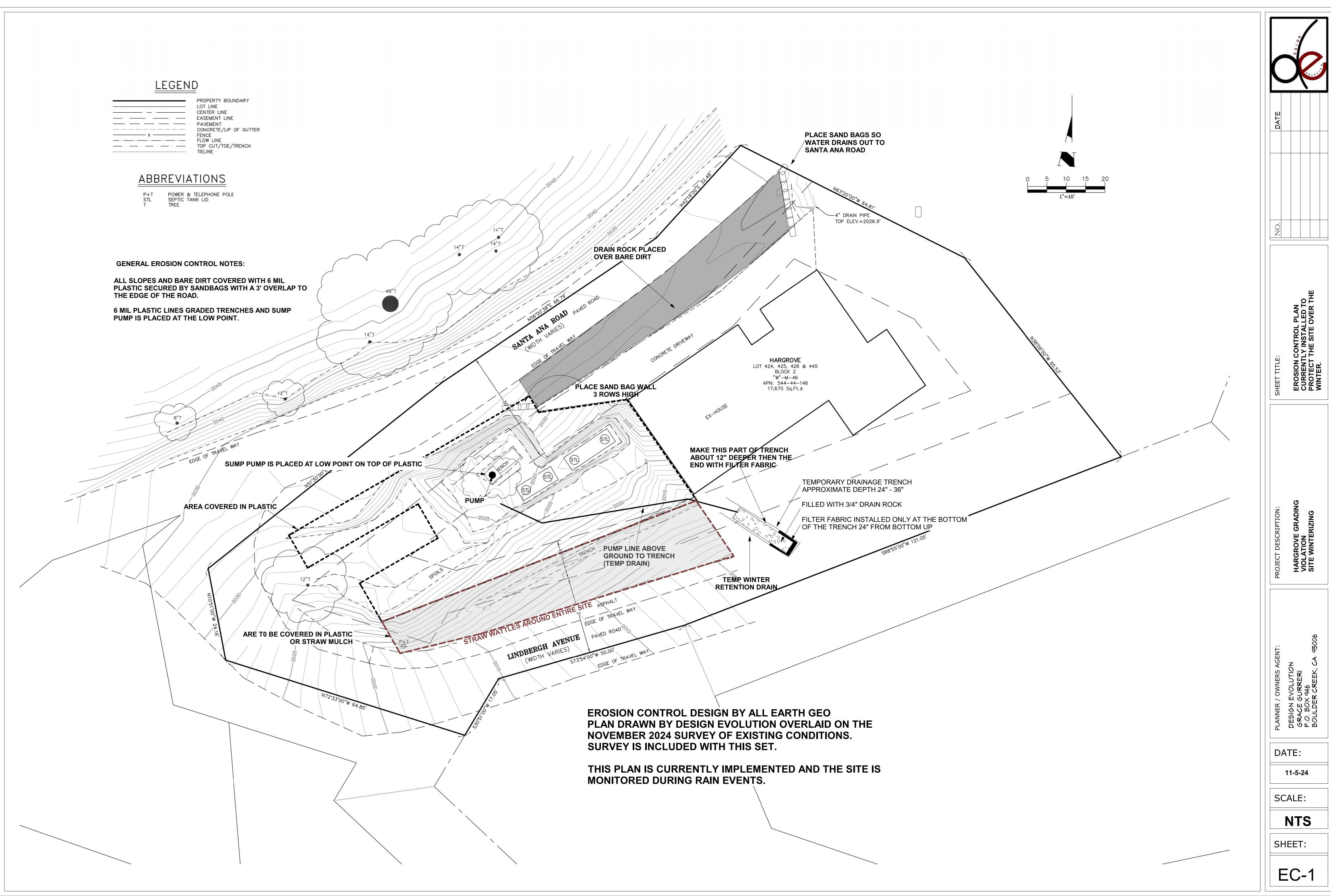
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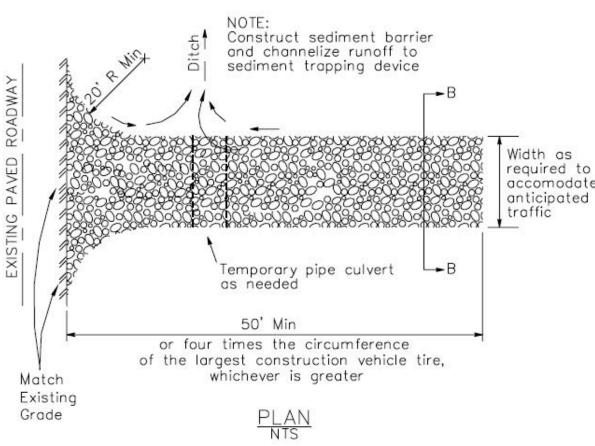
SCALE: 1"=10'

SHEET

SHEET







## Silt Fence CASQA Detail SE-1

# Cross barrier (See note 10) Tomped backfill Slape direction Direction of flow Wood stoke Fabric Toe of slope A) Cross barrier PLAN

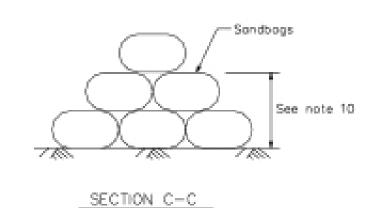
SILT FENCE

### NOTES

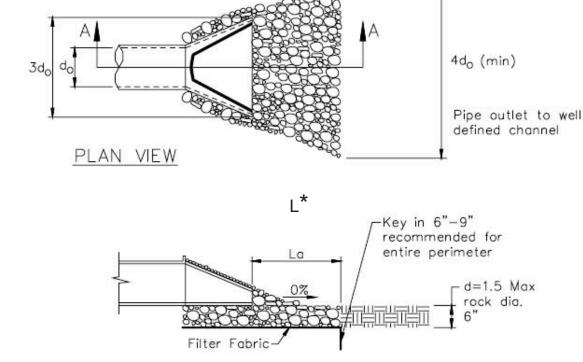
- Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier, in no case shall the reach length exceed 500.
- 2. The last 8'-0" of fence shall be turned up slape.
- 3. Stake dimensions are naminal.
- Dimension may very to fit field condition.
- Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
- Stokes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
- Stokes shall be driven tightly together to prevent potential flow—through of sediment at joint. The tops of the stakes shall be secured with wire.
- For end stake, fence fabria shall be falded around two stakes one full turn and secured with 4 staples.
- 9. Minimum 4 staples per stake. Dimensions shown are typical.
- Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
- Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
- 12. Joining sections shall not be placed at sump locations.
- 13. Sandbag rows and layers shall be offset to eliminate gaps.

# CROSS BARRIER DETAIL

-End detail

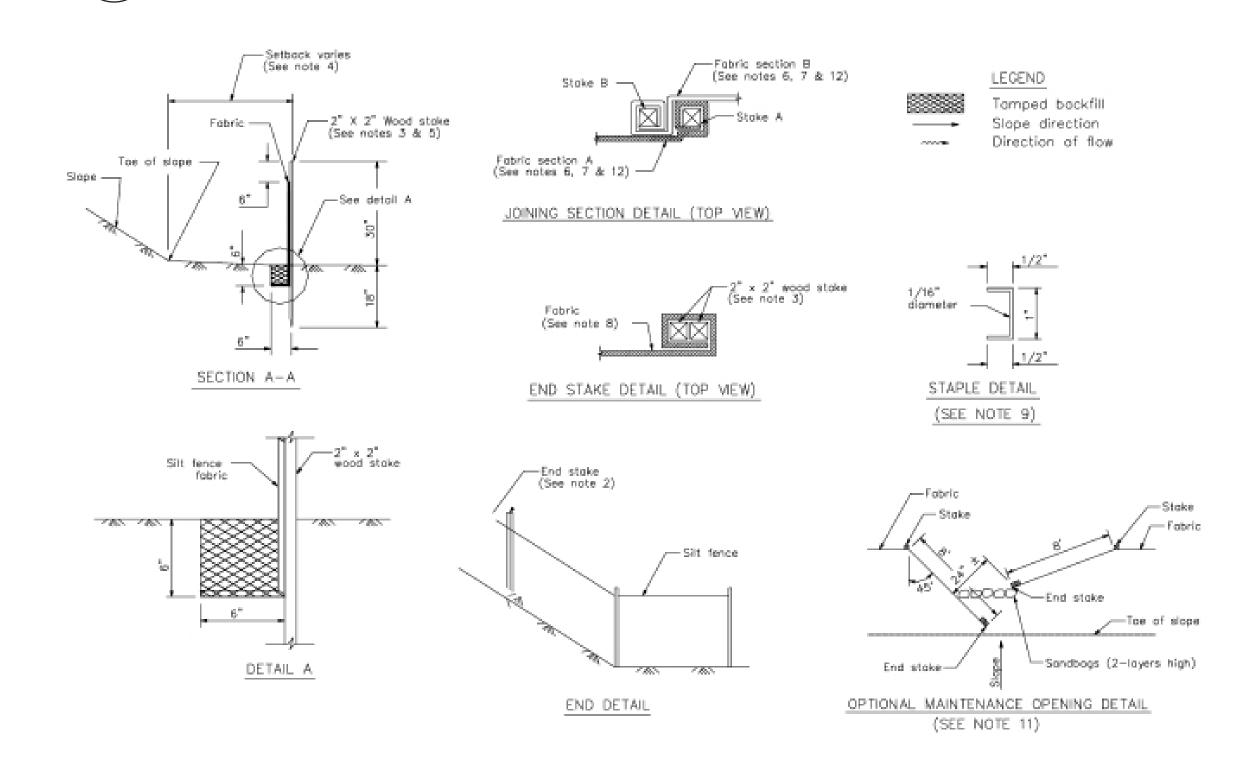


# 4 Velocity Dissipation Devices CASQA Detail EC-10



\* Length per ABAG Design Standards

### Silt Fence



CASQA Detail SE-1

Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.

### STANDARD BEST MANAGEMENT PRACTICE NOTES

- 1. <u>Solid and Demolition Waste Management</u>: Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or latest.
- 2. <u>Hazardous Waste Management</u>: Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
- 3. <u>Spill Prevention and Control</u>: Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
- 4. Vehicle and Construction Equipment Service and Storage: An area shall be designated for the maintenance, where onsite maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C9) or latest.
- 5. Material Delivery, Handling and Storage: In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
- 6. Handling and Disposal of Concrete and Cement: When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
- 7. Pavement Construction Management: Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
- 8. Contaminated Soil and Water Management: Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or latest.
- 9. <u>Sanitary/Septic Water Management</u>: Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or latest.
- 10.<u>Inspection & Maintenance</u>: Areas of material and equipment storage sites and temporary sanitary facilities must be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

### STANDARD EROSION CONTROL NOTES

1. Sediment Control Management

Tracking Prevention & Clean Up: Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.

Storm Drain Inlet and Catch Basin Inlet Protection: All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber roles or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.

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Information

Project

Storm Water Runoff: No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.

<u>Dust Control</u>: The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

Stockpiling: Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures(tarps, straw bales, silt fences, ect.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.

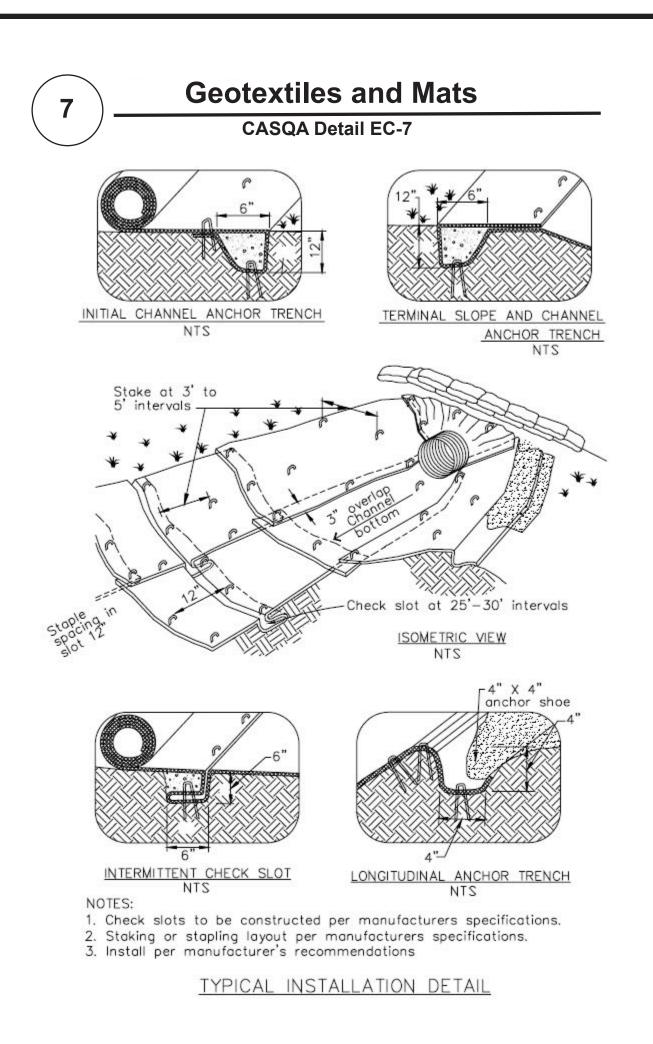
- 2. <u>Erosion Control</u>: During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
- 3. <u>Inspection & Maintenance</u>: Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/ or alternative control measures implemented immediately, within 24 hours of the problem being identified.
- 4. <u>Project Completion</u>: Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
- 5. It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
- 6. Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

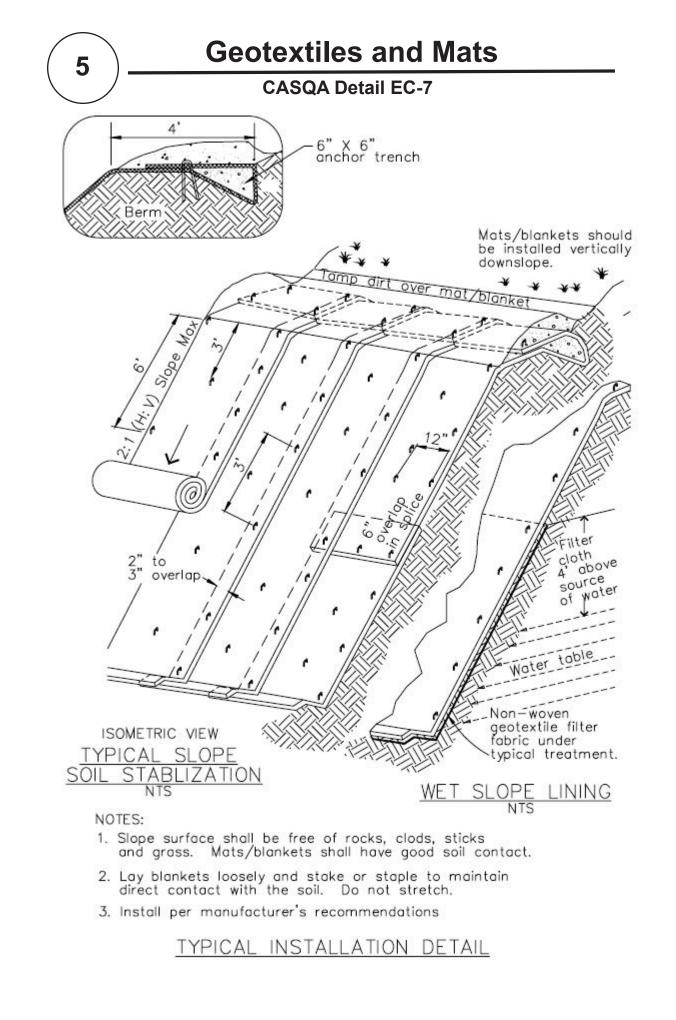
COUNTY 1850 TA CUIVE

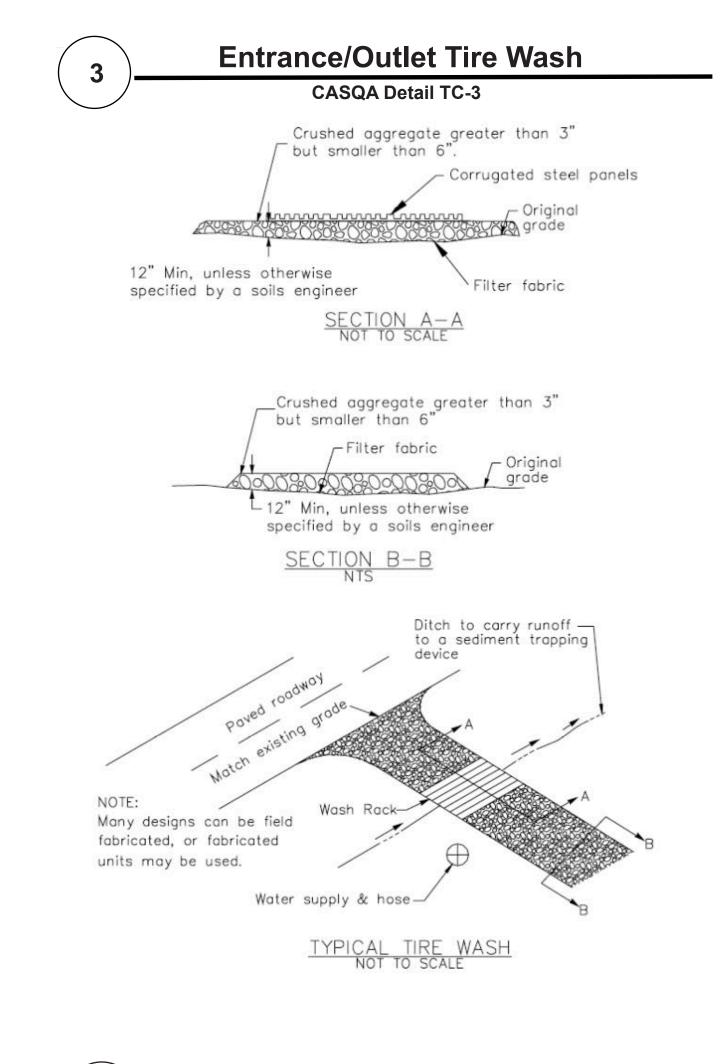
BMP-1

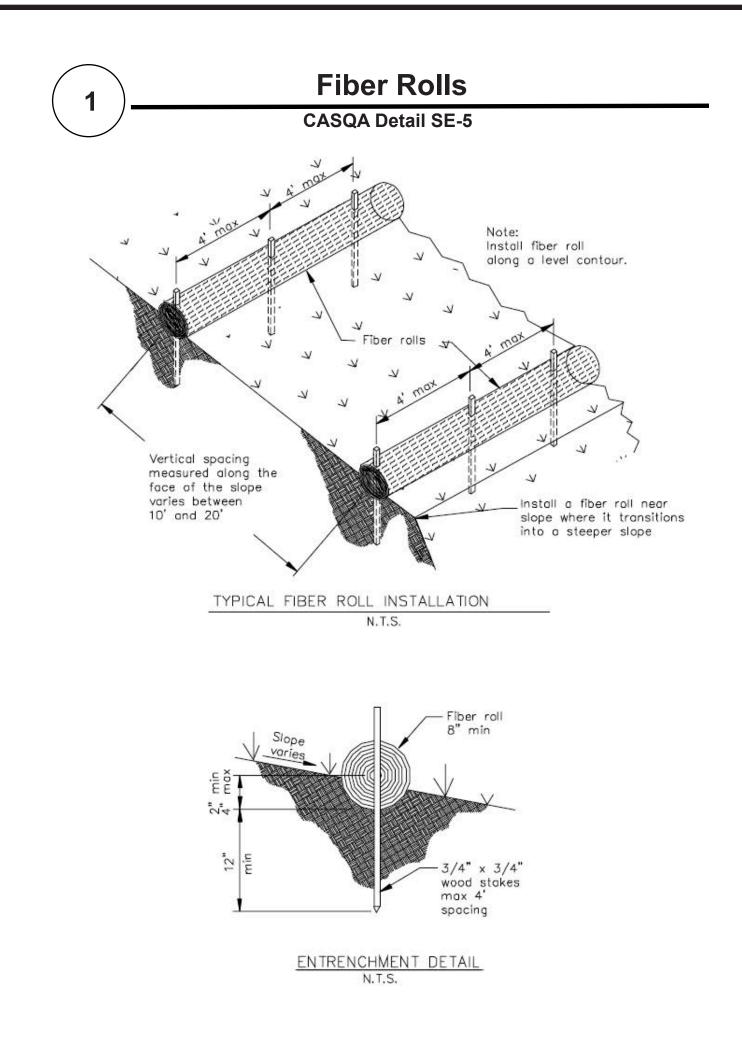
Best Management Practices and Erosion Control Details Sheet 1 County of Santa Clara

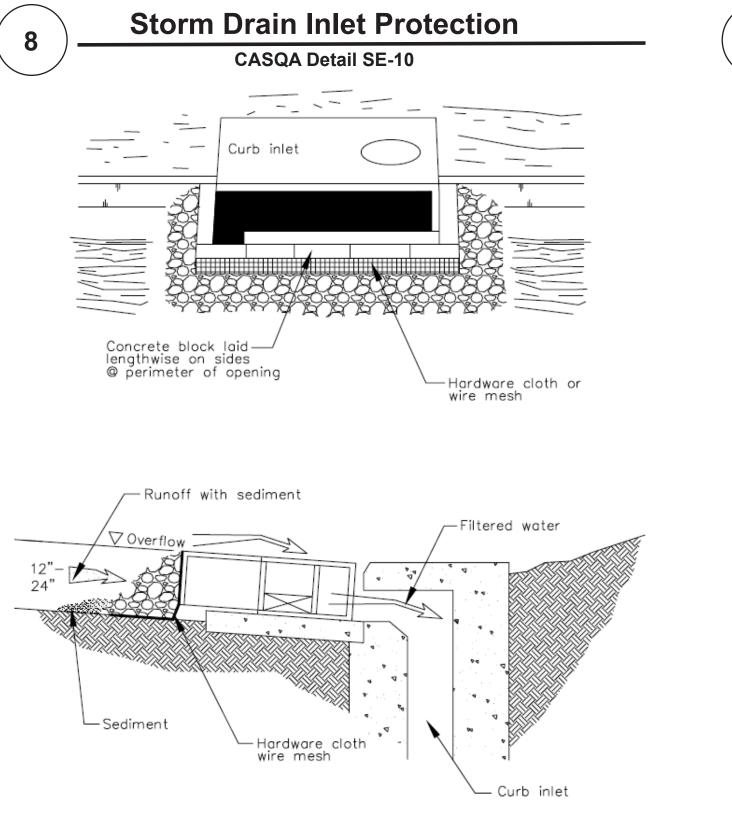








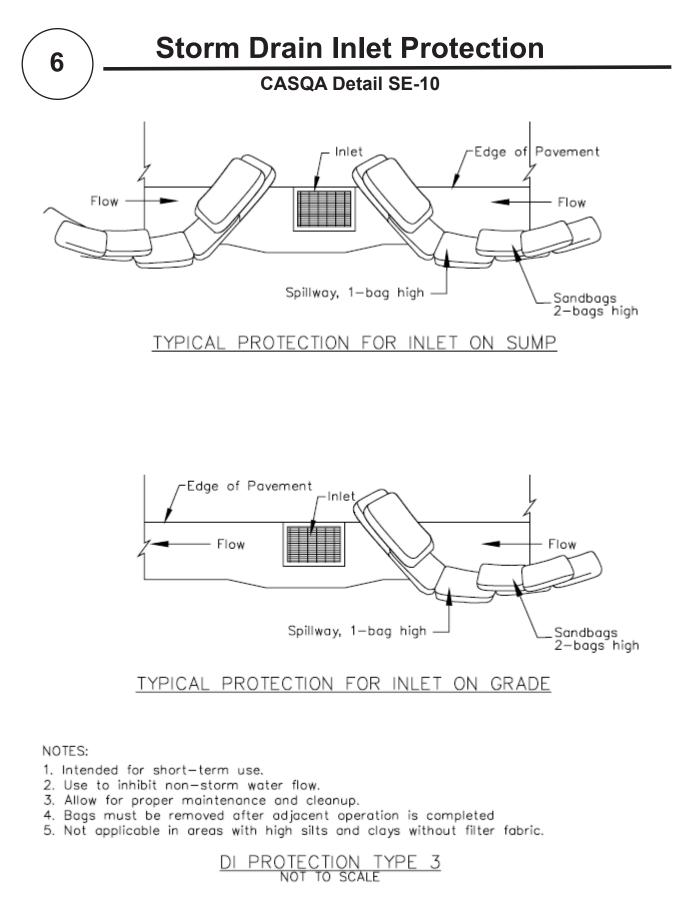


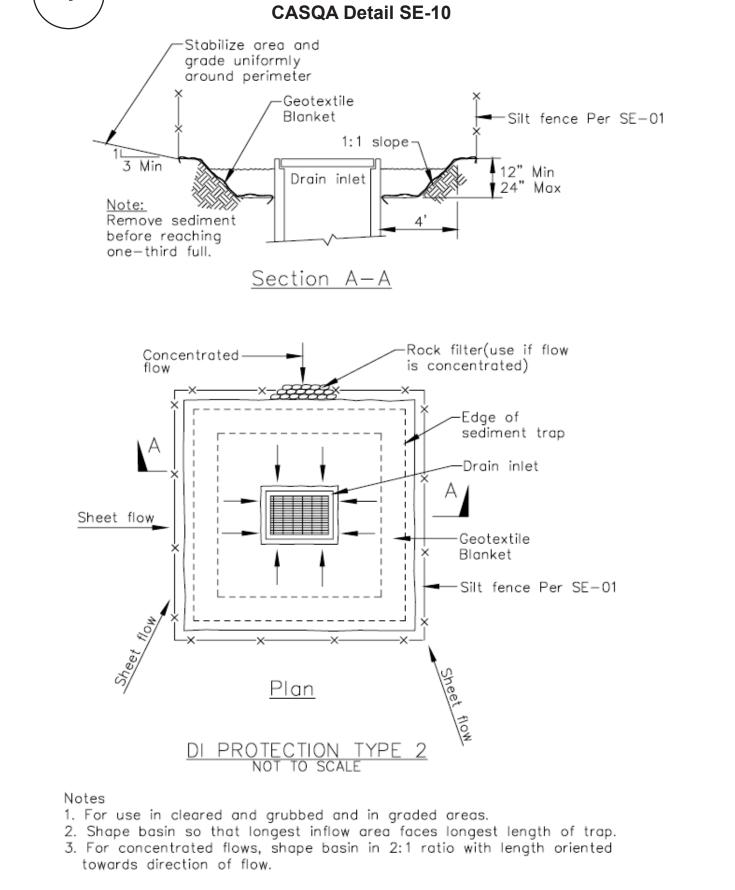


DI PROTECTION - TYPE 4

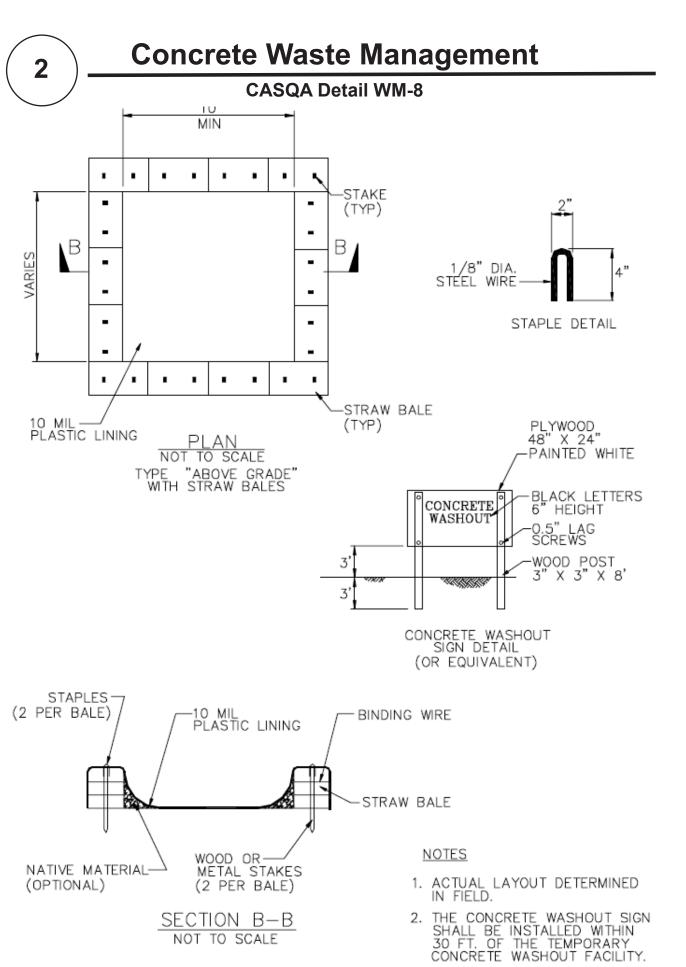
Source for Graphics: California Stormwater BMP Handbook, California

Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.



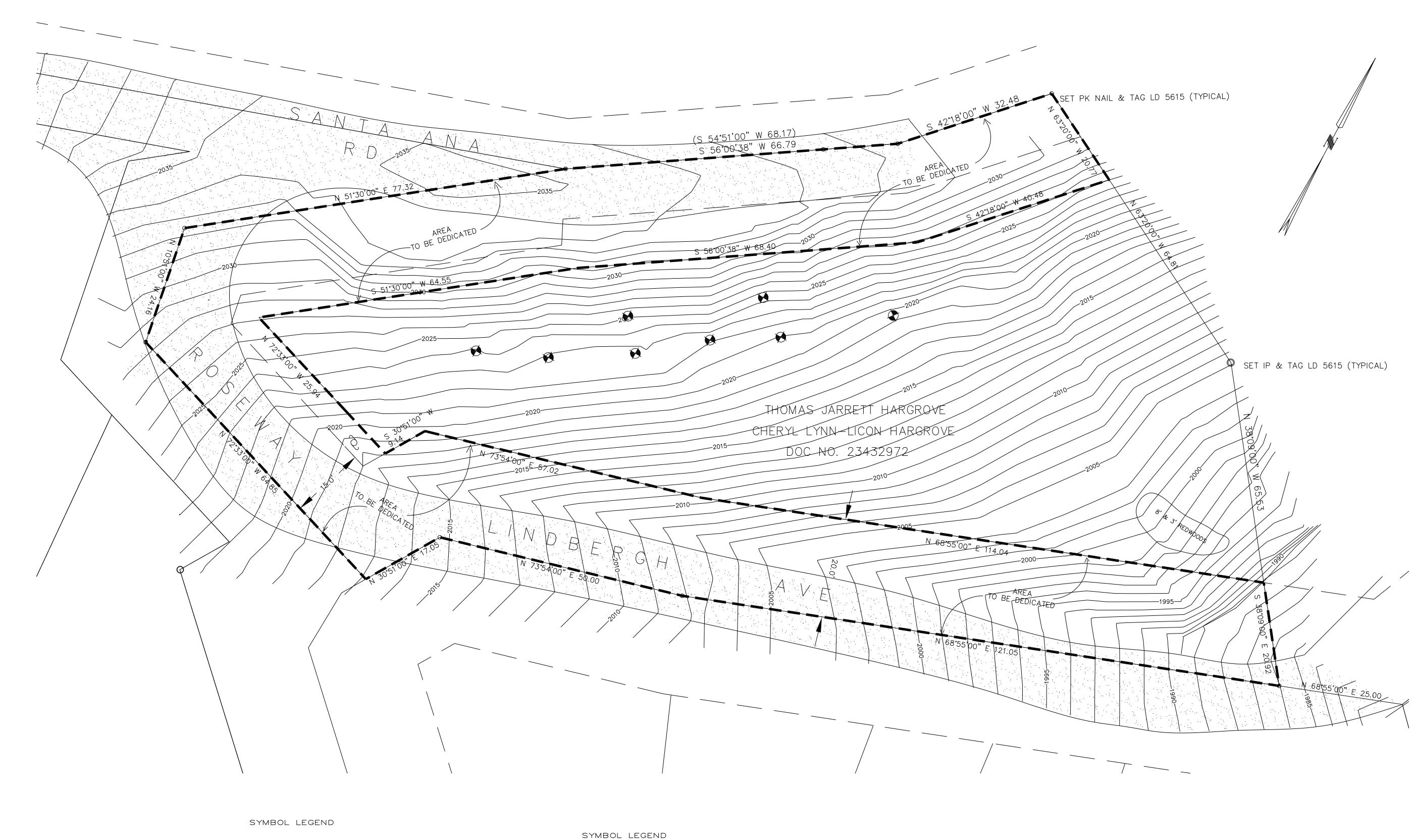


**Storm Drain Inlet Protection** 



Best Management Practices and Erosion Control Details Sheet 2 County of Santa Clara





### LEGEND

### ABBREVIATION LEGEND

ACC/AB ASPHALT BERM

AD BFP BOL BW CB COL	BOLLARD BACK OF WALK CATCH BASIN	HVLT ICV JP MON PL RWD	HIGH VOLTAGE VAULT IRRIGATION CONTROL V JOINT UTILITY POLE MONUMENT PLANTER REDWOOD TREE
CC/CNC COR CPNT	CONCRTE (SPOT ELEVATION) BUILDING CORNER CONTROL POINT DOCUMENT NUMBER ELECTIC BOX ELECTRIC EDGE OF PAVEMENT	SDCO SDMH SDDI SLB SQ FT SSCO SSMH	SQUARE FEET
FDC FL FNC G/GND GV HC HDR	FIRE DEPARTMENT CONNECTION FLOWLINE FENCE GROUND SPOT ELEVATION GATE VALVE HANDICAPPED HEADER BOARD	LITE TC TYP VLT VG WM WV	STREET LIGHT TOP CURB TYPICAL VAULT (UNKOWN UTILIT VALLEY GUTTER WATER METER WATER VALVE

BORING BFP BLOW OFF PREVENTOR CATCH BASIN CLEAN OUT O CO ☐ ELEC ELECTRIC CONTROL BOX ELECTROLIER/SIGNAL POLE FIRE HYDRANT GAS VALVE HOSE BIB HANDICAP PARKING

RAIN WATER LEADER TO UNDERGROUND RAIN WATER LEADER SPLASH SANITARY SEWER MANHOLE STORM DRAIN MANHOLE

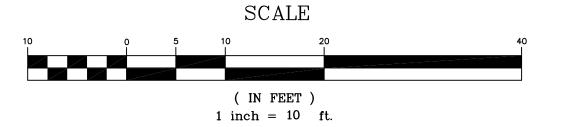
SURVEY CONTROL POINT UTILITY POLE TREE WITH TRUNK DIAMETER

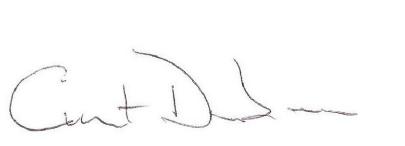
> CONCRETE AREAS ASPHALT PAVED AREAS

• = FD 1" | P, OPEN □ = FD ORIGINAL 2X2 STAKE  $\bigcirc$  = SET 1/2" IP, TAGGED LS 5615 R&M = RECORD AND MEASURED (100) = RECORD DATA PER "W-MAPS-46"
ALL DIMENSIONS IN FEET AND
DECIMALS THEREOF

BASIS OF BEARINGS

BEARINGS ARE BASED UPON A COMPUTED TIE BETWEEN THE FOUND ORIGINAL STAKE AT LOT 464 BLOCK 1 AND THE FOUND 1" IP AT THE WESTERN CORNER OF LOT 418 BLOCK 15 REDWOOD ESTATES NO. 4 (SHEET 2) RECORDED IN BOOK 'W' OF MAPS AT PAGE 46





1" = 10' DATE: NOV 2018 JOB#: 2018-



	OF CALIFORNIA	
PLS 5615		
LAND	SURVEYS, INC.	
D.O. DOV 44.46	T0000040000 05 4070	

MAP NO. 4 REDWOOD ESTATES

SANTA CLARA COUNTY

APPLICANT: HARGROVE

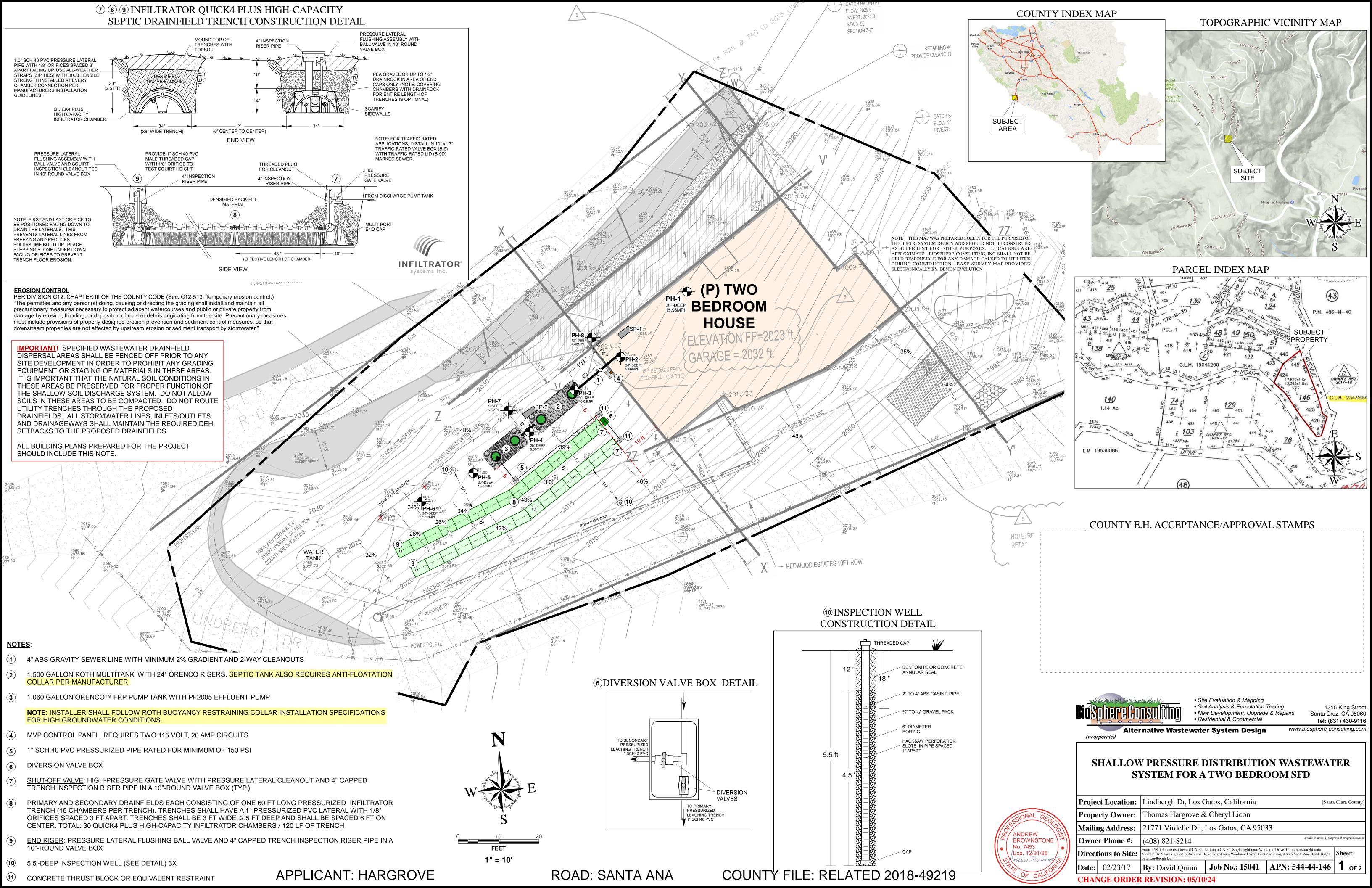
—— 60 —— INDEX ELEVATION CONTOUR —— 59 —— INTERMEDIATE ELEVATION CONTOUR

 $imes_{G}^{222.03}$  spot elevation with description

ROAD: SANTA ANA

COUNTY FILE: RELATED 2018-49219

ALPHA 4444 SCOTTS VALLEY DR. #7 SCOTTS VALLEY, CA 95066 (831) 438-4453 (831) 438-4453 424-426 & 445 BLOCK Z



### PROJECT DESCRIPTION

An onsite wastewater system with pressurized trenches is proposed to serve the development of a proposed 2 bedroom single family dwelling to be constructed on Lindbergh Dr, Los Gatos, in Santa Clara County, California. A 1,500 gallon Roth septic tank and a 500 gallon Orenco FRP pump tank without a baffle is specified. Pressurized trenches are specified in order to meet the slope requirements.

### DESIGN CRITERIA

- The septic system is designed to serve a 2 bedroom single family dwelling generating 300 gallons per day of wastewater. The septic system is designed to treat 300 gallons of water per day.
- The lot is served by a municipal water supply.

TRENCH CONSTRUCTION DESIGN 300 GPD Design Flow for Two Bedroom House 8.3 MPI perc rate =  $0.88 \text{ gal/ft}^2$ 

 $300 \text{ GPD} \div 0.88 \text{ gal/ft}^2 = 341 \text{ ft}^2 \text{ of infiltrative area}$  $341 \text{ ft}^2 \div 4 \text{ ft}^2/\text{ft} = 85.25 \text{ ft of trench}$ 

 $85.25 \text{ ft} \times 0.7 (30\% \text{ infiltrator chamber reduction}) = 60 \text{ft}$ The leachfield therefore consists of 120 LF of leaching trenches, 2.5 ft deep, 3 ft wide, consisting of 30 quick4 Plus High-

Capacity Infiltrator chambers.

### **SPECIFICATIONS**

### . Building Sewer, Septic Tank & Pump Tank

- 1.1. A New 4" ABS building sewer line shall be installed to convey all raw sewage from the proposed 2 bedroom house to the septic tank. All gravity sewer piping must maintain a minimum 2% continues gradient. All wastewater including graywater shall be discharged to the septic tank.
- 1.2. Locate 2-way, 4" ABS cleanout fittings on the building sewer to facilitate snaking and for line location. 1.3. The primary septic tank shall be a 1,500 gallon Roth MultiTank followed by a 1,060 gallon Orenco FRP pump tank
- 1.4. The septic tank shall have an effluent filter (Model: FT-36-04) installed at tank outlet. 1.5. All tanks shall each have two 24" diameter, OSI access risers with fiberglass bolt-down lids. Riser heights will be
- determined by tank burial depth (ideally 12" to 24"). Risers shall be installed 2" above finished grade. Install the access risers with a watertight joint using the adhesives supplied by manufacturer. The tank shall be installed according to the manufacturer's guidelines including anti-flotation specifications.
- 1.6. The hole for the new tanks shall be excavated so that each tank sits level.
- 1.7. Fill the tank with clean water 2" above the joint between the riser and the tank top. Repair any leaks. 1.8. Obtain a watertight tank inspection by DEH with 24 hours notice.
- 1.9. An OSI PF2005 lift pump with EasyPak Pump Package vault shall be installed in the pump tank.
- 1.10. An OSI MVP control panel is specified for float and pump operation.
- 1.11. Float heights are specified in order to supply a minimum of 3 doses per day at design flow conditions.

### . Shallow Pressurized Dispersal Trenches

- 2.1. A high pressure gate valve at the head of each trench shall be installed in order to distribute treated effluent evenly to each of the dispersal trenches.
- 2.2. Primary and Secondary drainfields each consisting of one chambered dispersal trench. Trenches shall be 60'-long, 3'wide, and 2.5'-deep. Each drainfield shall consist of 15 Quick4 Plus High-Capacity Infiltrator Chambers for a combined total of 120 linear feet of trench (30 Quick4 Plus High-Capacity Infiltrator Chambers). Trenches shall be installed in the general location shown on the plan. The floor of each trench shall be level. Installer to scarify trench walls to remove smear and increase surface area for absorption.
- 2.3. Installer shall assure that surface drainage is directed away from the finished dispersal trenches.
- 2.4. The leachfield pressurized pipe shall be 1" SCH40 PVC with 1/8" orifices spaced 3 ft apart.
- 2.5. All pressurized piping shall be SCH40 PVC and labelled according to current UPC requirements "treated wastewater
- do not drink". Pressure piping shall be pressure-rated to 150 psi and solvent welded.
- 2.6. Concrete thrust blocks, or equivalent restraint, shall be provided at sharp changes in piping direction. 2.7. Drainfield shall meet Santa Clara County guidelines for Tree Protection and Preservation for Land Use Applications.

### . Piping Schedule

- 3.1. All piping shall be installed to conform to requirements in the current California Plumbing Code and have a minimum pressure-rating of 150 psi.
- 3.2. The house sewer pipe to the septic tank shall be constructed of 4" ABS and shall include a 2-way clean out fitting near dwelling as shown on the plan.
- 3.3. The pressurized piping from the pump tank to the dispersal trenches shall be 1" Schedule 40 PVC.
- 3.4. The leach field pressurized pipe shall be 1" SCH40 PVC with a gate valve at the head of the lateral and 1/8" orifices spaced 3' apart.

### 4. Installer Qualifications and Responsibilities

- 4.1. The system installer shall be licensed by the State of California, Department of Consumer Affairs, to install septic 4.2. All piping shall conform to the current edition of the California Plumbing Code.
- 4.3. The installer shall be responsible for locating any property lines, underground utilities or piping. Any damage to these facilities shall be the responsibility of the installer.

### 5. Site Clean up and Erosion Control Measures

- 5.1. All excavated areas shall be smoothed and all construction debris shall be removed from the site.
- 5.2. All disturbed soils shall be seeded and mulched. Erosion Control Mix seed shall be used at the coverage recommended on the package for all disturbed soil. 5.3. Straw shall be used to cover all disturbed soil.
- 5.4. PER DIVISION C12, CHAPTER III OF THE COUNTY CODE (Sec. C12-513. Temporary erosion control.) "The permittee and any person(s) doing, causing or directing the grading shall install and maintain all precautionary measures necessary to protect adjacent watercourses and public or private property from damage by erosion, flooding, or deposition of mud or debris originating from the site. Precautionary measures must include provisions of properly designed erosion prevention and sediment control measures, so that downstream properties are not affected by upstream erosion or sediment transport by stormwater."

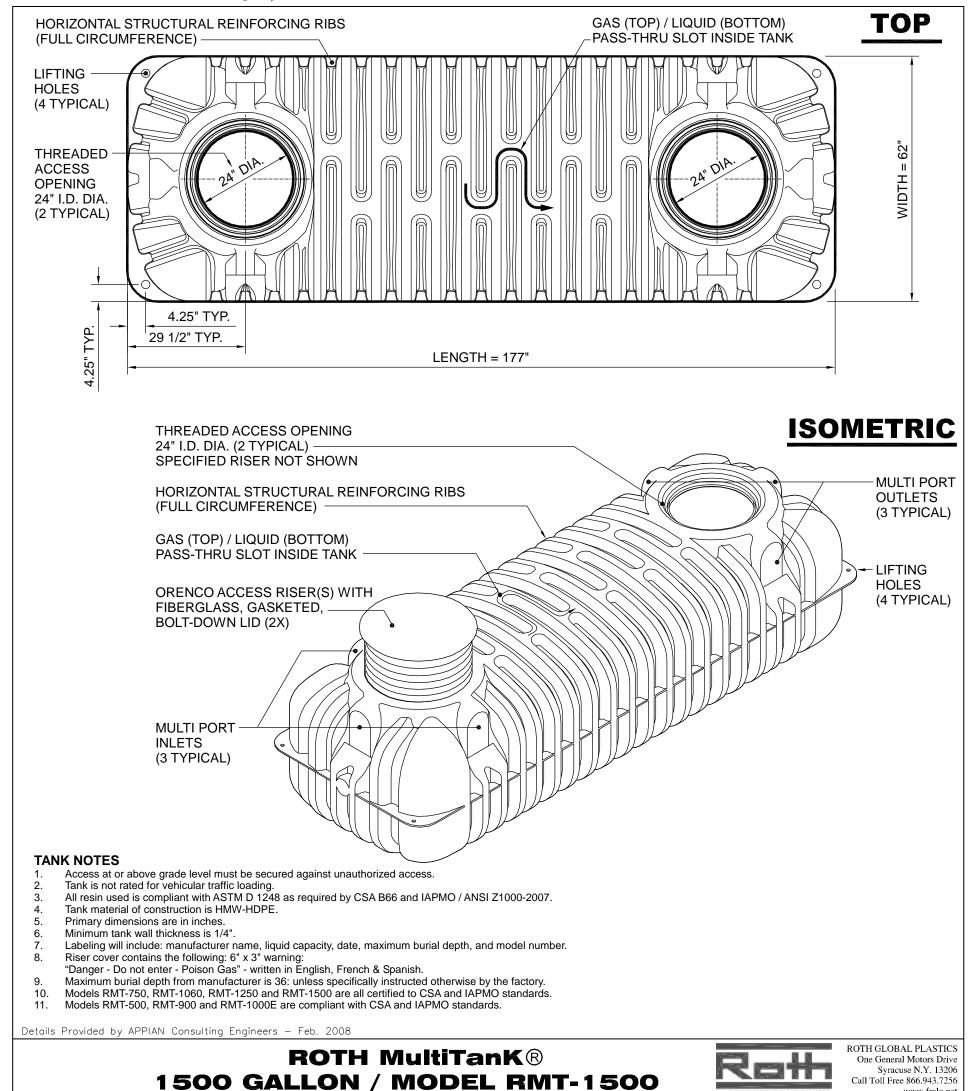
### 5. Final Permitting

- 6.1. Designer to provide As-Built drawing at completion of installation.
- 6.2. Designer to provide final letter for pump system verification.
- 6.3 Construction inspections of the shallow PD system installation should include the items listed below. Pre-construction inspection where the construction staking or marking of the various system components is
- provided and construction procedures discussed;
- Water tightness of septic tank and dosing (pump) tank;
- Layout and excavation of dispersal trenches and piping; Placement of infiltrator chambers;
- Piping installation and hydraulic ("squirt") test of the distribution system;
- Functioning and setting of all control devices; and Final Inspection to verify that all construction elements are in conformance with the approved plans and specifications, all performance wells are installed; and erosion control has been completed.

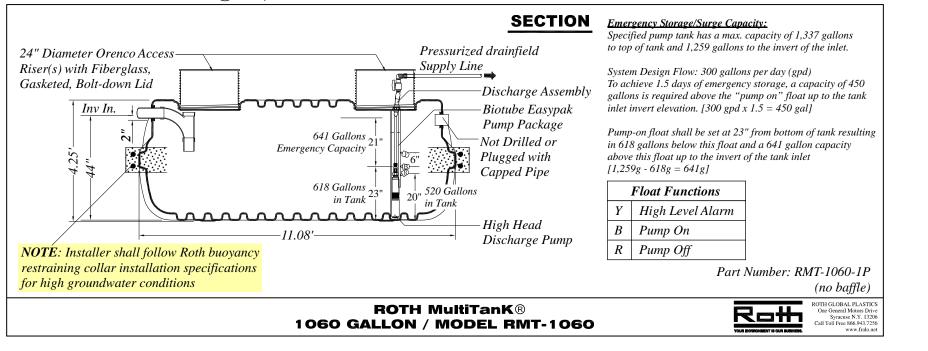
### SOIL PERCOLATION SLIMMARY TABLE 8-6-15

SOILTERCOLATION SUMMART TABLE 6-0-13										
HOLE		1	2	3	4	5	6	7	8	
Stabilized MPI	R	11.40	6.90	7.80	4.90	11.40	3.80	4.00	2.90	ĺ
Adjusted Stabilized MPI	$R_1 = R \times 1.4$		9.66	10.92	6.86	15.96	5.32	5.60	4.06	ł
Avg. Adj. Stabilized MPI	$R_2=(\sum R_1)/$ #Holes									8.34
# Dadrooms:	EOD OFFICE LISE ONLY	TANK SIZE (Col)			Locab Li	no (Et)				

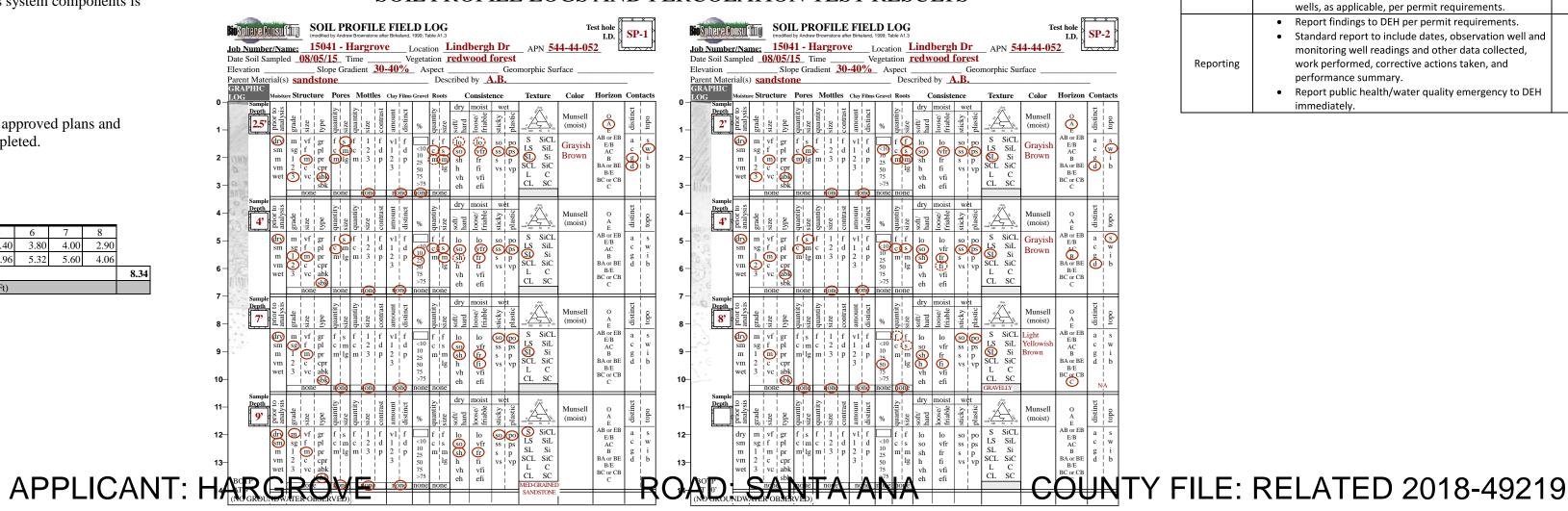
### (2)1,500 GALLON ROTH MULTITANK DETAIL



### (3) 1.060 GALLON PUMP TANK DETAIL



### SOIL PROFILE LOGS AND PERCOLATION TEST RESULTS



### PUMP SELECTION CHART

### **Parameters** Discharge Assembly Size Transport Length Transport Pipe Class

1.00 inches Transport Line Size 1.00 inches Distributing Valve Model Max Elevation Lift Manifold Length feet Manifold Pipe Class Manifold Pipe Size Number of Laterals per Cell Lateral Length Lateral Pipe Class Lateral Pipe Size 1.00 inches Orifice Size Orifice Spacing feet Residual Head feet Flow Meter 'Add-on' Friction Losses feet

### Calculations Minimum Flow Rate per Orifice 0.43 gpm Number of Orifices per Zone Total Flow Rate per Zone Number of Laterals per Zone % Flow Differential 1st/Last Orifice 9.3

Transport Velocity



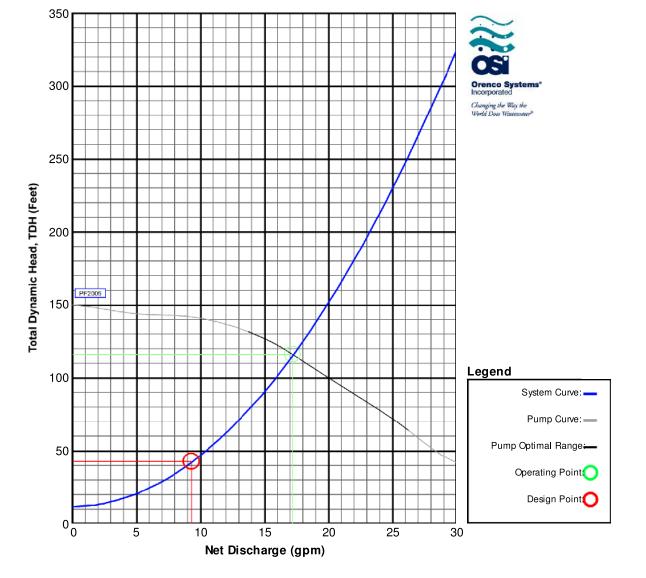
### Pipe Volumes Vol of Transport Line 1.3 gals Vol of Manifold gals Vol of Laterals per Zone gals Total Volume

PF2005 High Head Effluent Pump

11 5/230 V 1Ø 60Hz, 200V 3Ø60Hz

Design Flow Rate Total Dynamic Head

Minimum Pump Requirements



### SYSTEM OPERATION AND MAINTENANCE

- The owner should read and operate the system according to the Orenco pump operation and maintenance
- County Environmental Health will issue an OWTS Annual Operating Permit. This requirement will be placed
- The pressurized trenches shall be automatically flushed one zone at a time every 12 months at a minimum.
- Property owner to follow maintenance requirements outlined in table PD-3 shown on this plan. • The treatment tank is alive with important microorganisms. Do not add any materials (paint thinner, paint, motor oil, unused medicine, etc.) that may disrupt the biologic treatment process. The primary tank should be
- pumped when the total of the scum/sludge thickness is greater than 1/3 of the total liquid level depth. DO NOT ROUTE WATER SOFTENER BACKFLUSH DISCHARGE TO TREATMENT SYSTEM! This discharge may be routed directly to a drainfield trench or an approved dispersal field.
- Repair all plumbing leaks (especially toilet leaks) promptly.

### TABLE PD-3. SHALLOW PRESSURE DISTRIBUTION SYSTEM MANAGEMENT REQUIREMENTS

	WORK	FREQUENCY
Inspection	<ul> <li>Conduct routine visual observations of disposal field and downslope area and surroundings for wet areas, pipe leaks or damage, soil erosion, drainage issues, abnormal vegetation, gophers or other problems.</li> <li>Perform inspections of pump and appurtenances (per O&amp;M manual and Performance Evaluation Guidelines, Part 5 of this Manual).</li> </ul>	Every 6 to 12 months.
Maintenance	<ul> <li>Purge laterals, squirt and balance.</li> <li>Exercise valves to ensure functionality.</li> <li>Perform all maintenance work as recommended by equipment manufacturer for any special valves or other components.</li> <li>Investigate and repair erosion, drainage or other disposal field problems, as needed.</li> <li>Investigate and perform distribution system corrective work, as required.</li> <li>Record work done.</li> </ul>	<ul> <li>Distribution system maintenance annually.</li> <li>Other maintenance as required.</li> </ul>
Water Monitoring & Sampling	<ul> <li>Measure and record water levels in trench observation wells.</li> <li>Measure and record water levels in dispersal field monitoring wells, as applicable, per permit requirements.</li> <li>Obtain and analyze water samples from monitoring wells, as applicable, per permit requirements.</li> </ul>	<ul> <li>Measure trench water levels annually.</li> <li>Other monitoring according to permit conditions, as applicable.</li> </ul>
Reporting	<ul> <li>Report findings to DEH per permit requirements.</li> <li>Standard report to include dates, observation well and monitoring well readings and other data collected, work performed, corrective actions taken, and performance summary.</li> <li>Report public health/water quality emergency to DEH immediately.</li> </ul>	<ul> <li>According to permit conditions, typically every 1 to 2 years, depending on systems size, usage, history, location.</li> </ul>

### COUNTY E.H. ACCEPTANCE/APPROVAL STAMPS

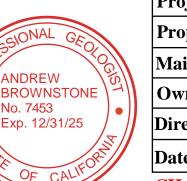
# Alternative Wastewater System Design

### • Site Evaluation & Mapping

• Soil Analysis & Percolation Testing New Development, Upgrade & Repairs

1315 King Street Santa Cruz, CA 95060 Tel: (831) 430-9116 www.biosphere-consulting.com

### SHALLOW PRESSURE DISTRIBUTION WASTEWATER SYSTEM FOR A TWO BEDROOM SFD



roject Location:	Lindbergh Dr, Los Gatos, California [Santa					
roperty Owner:	Thomas Hargrove &	Thomas Hargrove & Cheryl Licon				
ailing Address:	21771 Virdelle Dr.,	Los Gatos, CA 950	)33			
wner Phone #:	(408) 821-8214		email: thomas_j_harg	rove@progressive.		
rections to Site	From 17N, take the exit toward CA-35. Left onto CA-35. Slight right onto Woolaroc Drive. Continue straight onto Virdelle Dr. Sharp right onto Bayview Drive. Right onto Woolaroc Drive. Continue straight onto Santa Ana Road. Right onto Lindbergh Dr.					
ate: 02/23/17	By: David Quinn	Job No.: 15041	APN: 544-44-146	<b>2</b> of:		
HANGE ORDE	R REVISION: 05/10	/24				