

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 XXXXXXXX AND DATED XXXXXX XX, 2019. 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 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. THIS PLAN AUTHORIZES 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 CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER AT (408) 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 66-18).
- 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 CURB 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 PRODUCTION TO 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 ENGINEER 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.

SITE PREPARATION (CLEARING AND GRUBBING)

- EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE AS FOLLOWS:
 - TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE)
 - 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.

UTILITY LOCATION, TRENCHING & BACKFILL

- CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 811 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND UTILITIES.
- 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 UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

RETAINING WALLS

- REINFORCED CONCRETE AND CONCRETE MASONRY UNIT RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING 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 HAULLED 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 KEPT 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.
- NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS.
- THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
- 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
HOUSE & GARAGE	72	0	1.5'
DRIVEWAY	267	0	5.0'
YARD	25	0	5.0'
FILL REMEDIATION	634	178	5.0'
TOTAL	588	178	

- EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP SITE.
- NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD.
 - ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE.
 - THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95%
 - ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION.
 - 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.
 - 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.
 - GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICIAL.
 - TOTAL DISTURBED AREA FOR THE PROJECT: 25,532 SF.
 - VOID NO.
 - 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 COUNTY INTEGRATED LANDSCAPE GUIDELINES, AND INCLUDE THE FOLLOWING:
 - FENCING SHOULD BE PLACED ALONG THE OUTSIDE EDGE OF THE DRILLPIPE 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.
- PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACE AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.
- SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

ACCESS ROADS AND DRIVEWAYS

- 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).
- 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.
- THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES AND LOCAL RESIDENTS.
- 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 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 ELECTROLUER SERVICE FEE SHALL BE PAID BY THE DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE.

SANITARY SEWER

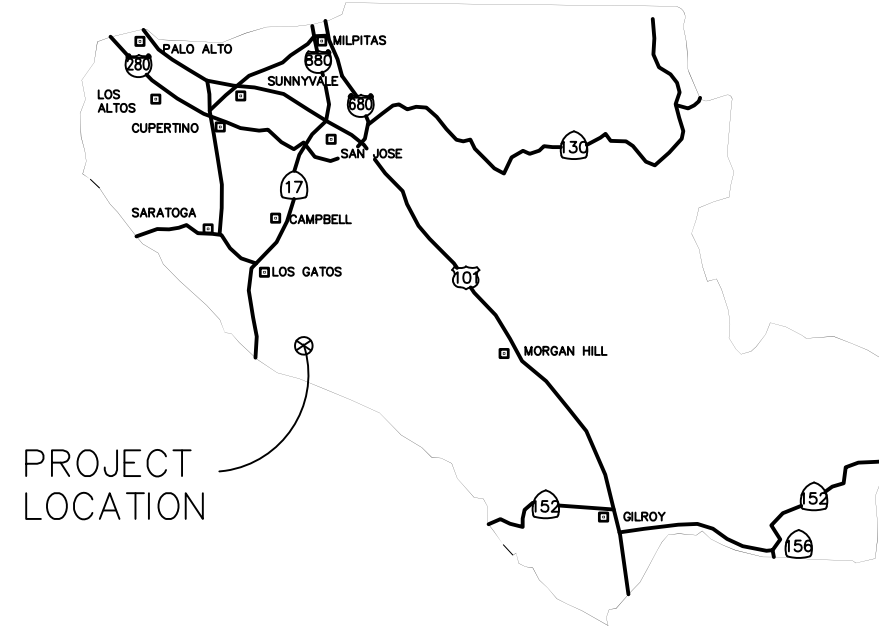
- THE SANITARY SEWER AND WATER UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
- ALL MATERIALS AND METHODS OF CONSTRUCTION OF SANITARY SEWERS SHALL CONFORM TO THE SPECIFICATIONS AND JURISDICTION INVOLVED. INSPECTION OF SANITARY SEWER WORK SHALL BE DONE BY SAID JURISDICTION.

PORTLAND CEMENT CONCRETE

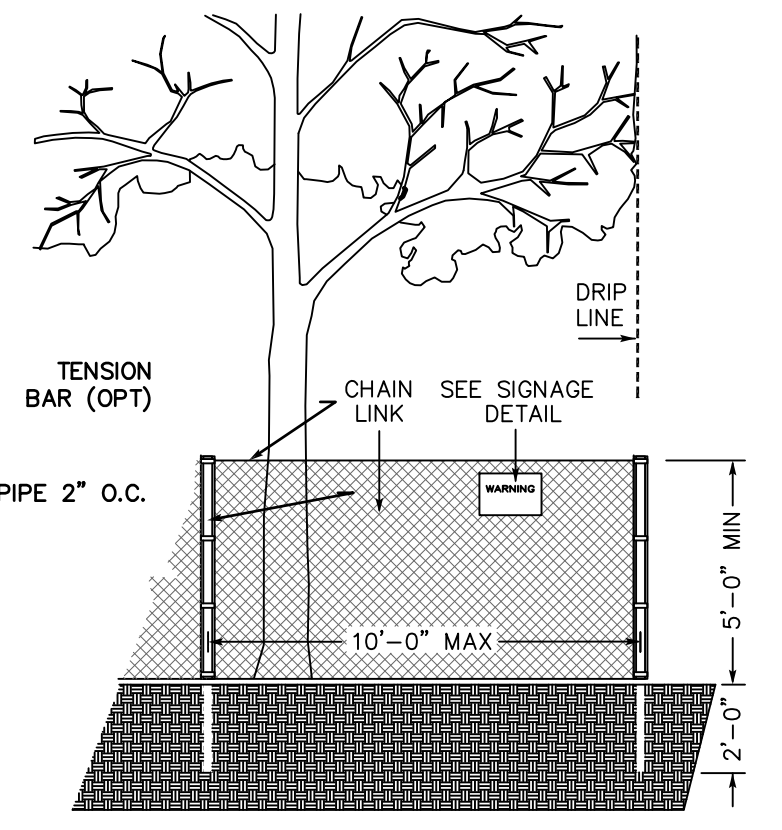
- CONCRETE USED FOR STRUCTURAL PURPOSES SHALL BE CLASS "A" (6 SACK PER CUBIC YARD) AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS. CONCRETE PLACED MUST DEVELOP A MINIMUM STRENGTH FACTOR OF 2800 PSI IN A SEVEN-DAY PERIOD. THE CONCRETE MIX DESIGN SHALL BE UNDER THE CONTINUAL CONTROL OF THE COUNTY INSPECTOR.

AIR QUALITY, LANDSCAPING AND EROSION CONTROL

- WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 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.
- 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.
- 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.
- ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES PER HOUR.
- ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT SHALL BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE OPERATIONAL IN PROPER CONDITION PRIOR TO OPERATION.
- 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.
 - 15 MILES PER HOUR (MPH) SPEED LIMIT
 - 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 COMPLAINT HOTLINE OF 1-800-334-6367.
- ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM CONDITION CAPABLE OF WITHSTANDING WEATHERING.
- 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 GROWTH.
- ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SDB.
- ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED CONCRETE RIP-RAP. ENERGY DISSIPATORS 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.
- PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED AREAS SHALL BE RESEDED 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.
- PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST BE INSTALLED AND MAINTAINED 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:
 - PREVENTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND EQUIPMENT LAYDOWN / STAGING AREAS.
 - PREVENTION OF TRACKING OF MUD, DIRT, AND CONSTRUCTION MATERIALS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
 - PREVENTION OF DISCHARGE OF WATER RUN-OFF DURING DRY AND WET WEATHER CONDITIONS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
- THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES, INCLUDING PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE COUNTY ROAD RIGHT-OF-WAY.
- 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 SITUATIONALLY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.



COUNTY LOCATION MAP



EXISTING TREE PROTECTION DETAILS

- PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PROTECTION MEASURES AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR 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.
- FENCE SHALL BE MINIMUM 5 FEET TALL CONSTRUCTED OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH/ DURABILITY).
- FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART.
- TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE 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 INSPECTION.
- 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 IN A VISUALLY PROMINENT LOCATION.

STORM DRAINAGE AND STORMWATER MANAGEMENT

- DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND 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-DW0.
- 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.
- 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 (Δ). THERE (___) WERE (___) WERE NOT) PLAN REVISIONS INDICATING SIGNIFICANT CHANGES REVIEWED BY THE COUNTY ENGINEER AND MARKED WITH THE SYMBOL Δ.

DATE: 3/13/24 SIGNATURE: [Signature]

NOTE: THIS STATEMENT IS TO BE SIGNED BY THE PERSON AUTHORIZED BY THE COUNTY ENGINEER TO PERFORM THE INSPECTION WORK. A REPRODUCIBLE COPY OF THE AS-BUILT PLANS MUST BE FURNISHED TO THE COUNTY ENGINEER AFTER CONSTRUCTION.

GEOTECHNICAL ENGINEER OBSERVATION

- 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 OF SANTA CLARA DEPT. OF ROADS AND AIRPORTS
ISSUED BY: _____ DATE: _____
ENCROACHMENT PERMIT NO. _____

NO WORK SHALL BE DONE IN THE COUNTY'S RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT, INCLUDING THE STAGING OF CONSTRUCTION MATERIAL AND THE PLACEMENT OF PORTABLE TOILETS.

ENGINEER'S STATEMENT

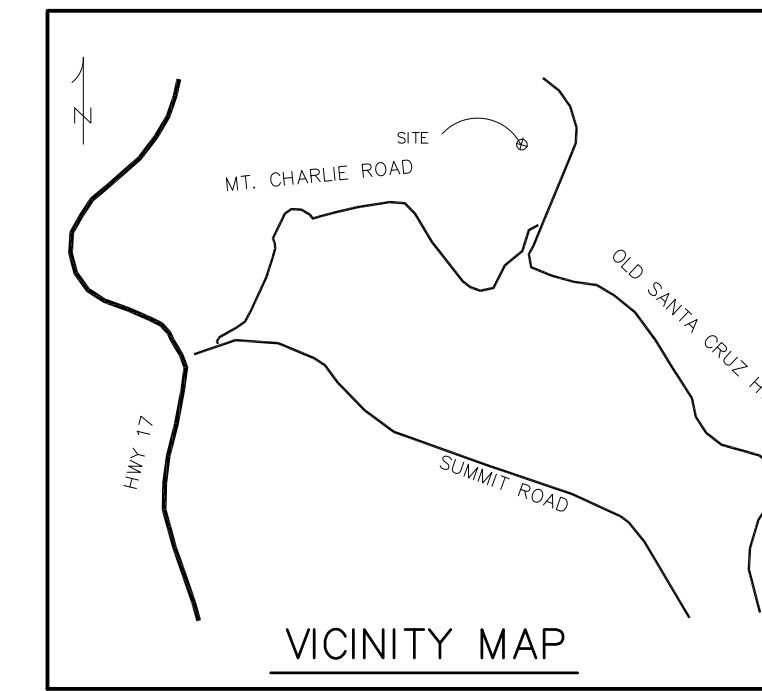
I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH ADOPTED COUNTY STANDARDS, THE APPROVED TENTATIVE MAP (OR PLAN) AND CONDITIONS OF APPROVAL PERTAINING THERETO DATED XXXXX, XX, XXXX FILE NO. XXXXX-XXX-XXX-XXXX.

DATE: 3/13/24 SIGNATURE: [Signature]

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.

DATE: _____ SIGNATURE: CHRISTOPHER L. FREITAS
42,107 3-31-24
R.C.E. NO. EXPIRATION DATE



LEGEND (EXISTING)

- JOINT UTILITY POLE
- PROPERTY LINE
- EASEMENT LINE
- ELEVATION CONTOUR (5' INTERVAL)
- ELEVATION CONTOUR (1' INTERVAL)
- EDGE OF PAVEMENT
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- CENTER LINE OF EXISTING DRIVEWAY

LEGEND (PROPOSED)

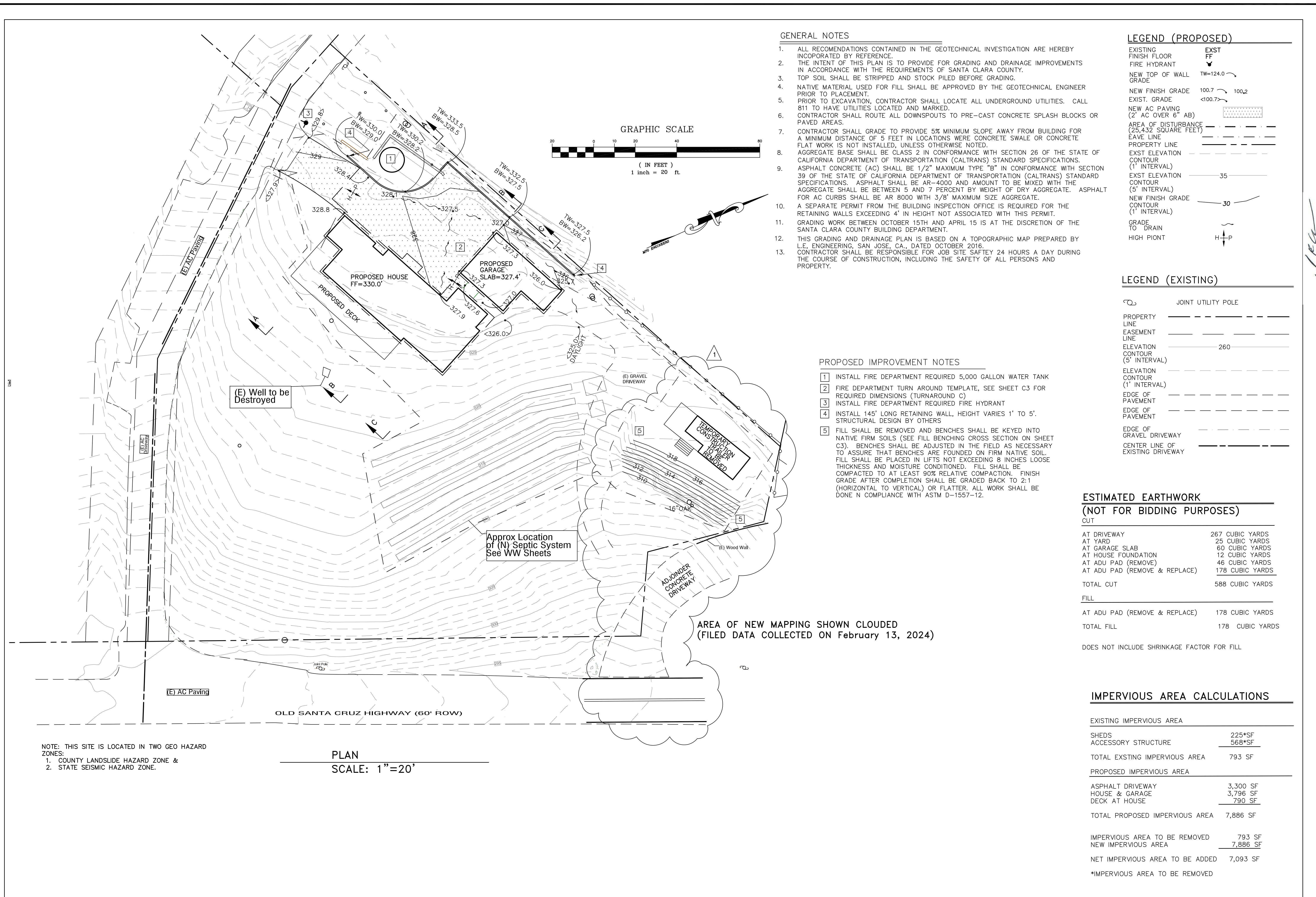
- EXISTING FINISH FLOOR
- FIRE HYDRANT
- NEW TOP OF WALL GRADE
- NEW FINISH GRADE
- EXIST. GRADE
- NEW AC PAVING (2' AC OVER 6" AB)
- AREA OF DISTURBANCE (20,000 SQUARE FEET)
- EAVE LINE
- PROPERTY LINE
- EXIST ELEVATION CONTOUR
- EXIST ELEVATION CONTOUR (2' INTERVAL)
- EXIST ELEVATION CONTOUR (10' INTERVAL)
- NEW FINISH GRADE CONTOUR (2' INTERVAL)
- GRADE TO DRAIN
- HIGH POINT

SHEET INDEX

C1	TITLE SHEET, COUNTY STANDARD NOTES, VICINITY MAP
C2	GRADING & DRAINAGE PLAN
C3	CROSS SECTIONS, DRIVEWAY PROFILE, DETAILS
C4	WATER POLLUTION CONTROL PLAN
C5	TOPOGRAPHIC MAP
BMP-1	SANTA CLARA COUNTY BEST MANAGEMENT PRACTICES & EROSION CONTROL DETAILS SHEET 1
BMP-2	SANTA CLARA COUNTY BEST MANAGEMENT PRACTICES & EROSION CONTROL DETAILS SHEET 2

ENGINEER'S NAME: MICHAEL F. GOODHUE
ADDRESS: PO BOX 1914
APTOS, CA. 95001
PHONE NO. (831) 601-9519
FAX NO. (831) 763-1661

Revision 1	Date	APN	Sheet
Revision 2	Date	558-08-149	C1
Revision 3	Date	Co. File	of 7



- ### GENERAL NOTES
- ALL RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION ARE HEREBY INCORPORATED BY REFERENCE.
 - THE INTENT OF THIS PLAN IS TO PROVIDE FOR GRADING AND DRAINAGE IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF SANTA CLARA COUNTY.
 - TOP SOIL SHALL BE STRIPPED AND STOCK PILED BEFORE GRADING.
 - NATIVE MATERIAL USED FOR FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
 - PRIOR TO EXCAVATION, CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES. CALL 811 TO HAVE UTILITIES LOCATED AND MARKED.
 - CONTRACTOR SHALL ROUTE ALL DOWNSPOUTS TO PRE-CAST CONCRETE SPLASH BLOCKS OR PAVED AREAS.
 - CONTRACTOR SHALL GRADE TO PROVIDE 5% MINIMUM SLOPE AWAY FROM BUILDING FOR A MINIMUM DISTANCE OF 5 FEET IN LOCATIONS WHERE CONCRETE SWALE OR CONCRETE FLAT WORK IS NOT INSTALLED, UNLESS OTHERWISE NOTED.
 - AGGREGATE BASE SHALL BE CLASS 2 IN CONFORMANCE WITH SECTION 26 OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS.
 - ASPHALT CONCRETE (AC) SHALL BE 1/2" MAXIMUM TYPE "B" IN CONFORMANCE WITH SECTION 39 OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS. ASPHALT SHALL BE AR-4000 AND AMOUNT TO BE MIXED WITH THE AGGREGATE SHALL BE BETWEEN 5 AND 7 PERCENT BY WEIGHT OF DRY AGGREGATE. ASPHALT FOR AC CURBS SHALL BE AR 8000 WITH 3/8" MAXIMUM SIZE AGGREGATE.
 - A SEPARATE PERMIT FROM THE BUILDING INSPECTION OFFICE IS REQUIRED FOR THE RETAINING WALLS EXCEEDING 4' IN HEIGHT NOT ASSOCIATED WITH THIS PERMIT.
 - GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15 IS AT THE DISCRETION OF THE SANTA CLARA COUNTY BUILDING DEPARTMENT.
 - THIS GRADING AND DRAINAGE PLAN IS BASED ON A TOPOGRAPHIC MAP PREPARED BY I.E. ENGINEERING, SAN JOSE, CA, DATED OCTOBER 2016.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY 24 HOURS A DAY DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY.

LEGEND (PROPOSED)

EXISTING FINISH FLOOR	EXST
FIRE HYDRANT	FF
NEW TOP OF WALL GRADE	TW=124.0
NEW FINISH GRADE	100.7
EXIST. GRADE	<100.7>
NEW AC PAVING (2" AC OVER 6" AB)	[Symbol]
AREA OF DISTURBANCE (25,432 SQUARE FEET)	[Symbol]
EAVE LINE	[Symbol]
PROPERTY LINE	[Symbol]
EXIST ELEVATION CONTOUR (1' INTERVAL)	[Symbol]
EXIST ELEVATION CONTOUR (5' INTERVAL)	[Symbol]
NEW FINISH GRADE CONTOUR (1' INTERVAL)	[Symbol]
GRADE TO DRAIN	[Symbol]
HIGH POINT	[Symbol]

LEGEND (EXISTING)

JOINT UTILITY POLE	[Symbol]
PROPERTY LINE	[Symbol]
EASEMENT LINE	[Symbol]
ELEVATION CONTOUR (5' INTERVAL)	[Symbol]
ELEVATION CONTOUR (1' INTERVAL)	[Symbol]
EDGE OF PAVEMENT	[Symbol]
EDGE OF GRAVEL DRIVEWAY	[Symbol]
CENTER LINE OF EXISTING DRIVEWAY	[Symbol]

- ### PROPOSED IMPROVEMENT NOTES
- INSTALL FIRE DEPARTMENT REQUIRED 5,000 GALLON WATER TANK
 - FIRE DEPARTMENT TURN AROUND TEMPLATE, SEE SHEET C3 FOR REQUIRED DIMENSIONS (TURNAROUND C)
 - INSTALL FIRE DEPARTMENT REQUIRED FIRE HYDRANT
 - INSTALL 145' LONG RETAINING WALL, HEIGHT VARIES 1' TO 5'. STRUCTURAL DESIGN BY OTHERS
 - FILL SHALL BE REMOVED AND BENCHES SHALL BE KEYED INTO NATIVE FIRM SOILS (SEE FILL BENCHING CROSS SECTION ON SHEET C3). BENCHES SHALL BE ADJUSTED IN THE FIELD AS NECESSARY TO ASSURE THAT BENCHES ARE FOUNDED ON FIRM NATIVE SOIL. FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES LOOSE THICKNESS AND MOISTURE CONDITIONED. FILL SHALL BE COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. FINISH GRADE AFTER COMPLETION SHALL BE GRADED BACK TO 2:1 (HORIZONTAL TO VERTICAL) OR FLATTER. ALL WORK SHALL BE DONE IN COMPLIANCE WITH ASTM D-1557-12.

ESTIMATED EARTHWORK (NOT FOR BIDDING PURPOSES)

CUT	
AT DRIVEWAY	267 CUBIC YARDS
AT YARD	25 CUBIC YARDS
AT GARAGE SLAB	60 CUBIC YARDS
AT HOUSE FOUNDATION	12 CUBIC YARDS
AT ADU PAD (REMOVE)	46 CUBIC YARDS
AT ADU PAD (REMOVE & REPLACE)	178 CUBIC YARDS
TOTAL CUT	588 CUBIC YARDS
FILL	
AT ADU PAD (REMOVE & REPLACE)	178 CUBIC YARDS
TOTAL FILL	178 CUBIC YARDS

DOES NOT INCLUDE SHRINKAGE FACTOR FOR FILL

IMPERVIOUS AREA CALCULATIONS

EXISTING IMPERVIOUS AREA	
SHEDS	225*SF
ACCESSORY STRUCTURE	568*SF
TOTAL EXISTING IMPERVIOUS AREA	793 SF
PROPOSED IMPERVIOUS AREA	
ASPHALT DRIVEWAY	3,300 SF
HOUSE & GARAGE	3,796 SF
DECK AT HOUSE	790 SF
TOTAL PROPOSED IMPERVIOUS AREA	7,886 SF
IMPERVIOUS AREA TO BE REMOVED	793 SF
NEW IMPERVIOUS AREA	7,886 SF
NET IMPERVIOUS AREA TO BE ADDED	7,093 SF

*IMPERVIOUS AREA TO BE REMOVED

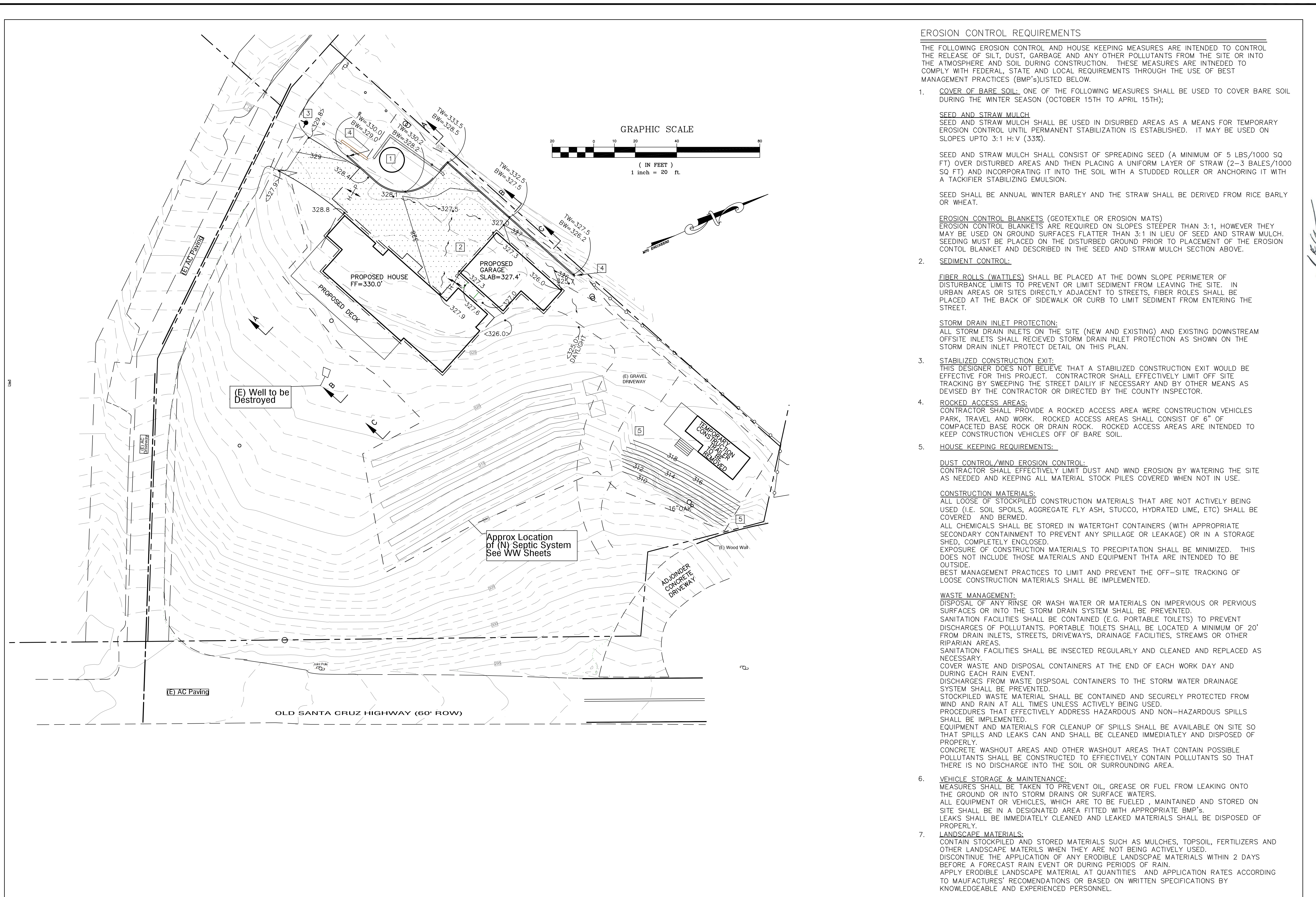
NOTE: THIS SITE IS LOCATED IN TWO GEO HAZARD ZONES:
 1. COUNTY LANDSLIDE HAZARD ZONE &
 2. STATE SEISMIC HAZARD ZONE.

PLAN
 SCALE: 1"=20'

FOR REDUCED PLANS ORIGINAL SCALE IN INCHES

SHEET NAME: DRAWING NAME:

BY	MFG
REVISION	1 RESPOND TO PLAN CHECK COMMENTS
DATE	9/13/24
PROJECT ENGINEER	MFG Engineers, Inc PO BOX 1914 APTOS, CA. 95001 (831) 763-1661 CEL (831) 601-9519
PROJECT ENGINEER	MFG Engineers, Inc PO BOX 1914 APTOS, CA. 95001 (831) 763-1661 CEL (831) 601-9519
DATE	9/23
SCALE	1"=20'
JOB NO.	
SHEET	C2 OF 7



EROSION CONTROL REQUIREMENTS

THE FOLLOWING EROSION CONTROL AND HOUSE KEEPING MEASURES ARE INTENDED TO CONTROL THE RELEASE OF SILT, DUST, GARBAGE AND ANY OTHER POLLUTANTS FROM THE SITE OR INTO THE ATMOSPHERE AND SOIL DURING CONSTRUCTION. THESE MEASURES ARE INTENDED TO COMPLY WITH FEDERAL, STATE AND LOCAL REQUIREMENTS THROUGH THE USE OF BEST MANAGEMENT PRACTICES (BMP'S) LISTED BELOW.

- COVER OF BARE SOIL:** ONE OF THE FOLLOWING MEASURES SHALL BE USED TO COVER BARE SOIL DURING THE WINTER SEASON (OCTOBER 15TH TO APRIL 15TH);

SEED AND STRAW MULCH
SEED AND STRAW MULCH SHALL BE USED IN DISURBED AREAS AS A MEANS FOR TEMPORARY EROSION CONTROL UNTIL PERMANENT STABILIZATION IS ESTABLISHED. IT MAY BE USED ON SLOPES UP TO 3:1 H:V (33%).

SEED AND STRAW MULCH SHALL CONSIST OF SPREADING SEED (A MINIMUM OF 5 LBS/1000 SQ FT) OVER DISTURBED AREAS AND THEN PLACING A UNIFORM LAYER OF STRAW (2-3 BALES/1000 SQ FT) AND INCORPORATING IT INTO THE SOIL WITH A STUDDED ROLLER OR ANCHORING IT WITH A TACKIFIER STABILIZING EMULSION.

SEED SHALL BE ANNUAL WINTER BARLEY AND THE STRAW SHALL BE DERIVED FROM RICE BARLY OR WHEAT.

EROSION CONTROL BLANKETS (GEOTEXTILE OR EROSION MATS)
EROSION CONTROL BLANKETS ARE REQUIRED ON SLOPES STEEPER THAN 3:1, HOWEVER THEY MAY BE USED ON GROUND SURFACES FLATTER THAN 3:1 IN LIEU OF SEED AND STRAW MULCH. SEEDING MUST BE PLACED ON THE DISTURBED GROUND PRIOR TO PLACEMENT OF THE EROSION CONTROL BLANKET AND DESCRIBED IN THE SEED AND STRAW MULCH SECTION ABOVE.
- SEDIMENT CONTROL:**

FIBER ROLLS (WATTLES) SHALL BE PLACED AT THE DOWN SLOPE PERIMETER OF DISTURBANCE LIMITS TO PREVENT OR LIMIT SEDIMENT FROM LEAVING THE SITE. IN URBAN AREAS OR SITES DIRECTLY ADJACENT TO STREETS, FIBER ROLLS SHALL BE PLACED AT THE BACK OF SIDEWALK OR CURB TO LIMIT SEDIMENT FROM ENTERING THE STREET.

STORM DRAIN INLET PROTECTION:
ALL STORM DRAIN INLETS ON THE SITE (NEW AND EXISTING) AND EXISTING DOWNSTREAM OFFSITE INLETS SHALL RECIEVED STORM DRAIN INLET PROTECTION AS SHOWN ON THE STORM DRAIN INLET PROTECT DETAIL ON THIS PLAN.
- STABILIZED CONSTRUCTION EXIT:**
THIS DESIGNER DOES NOT BELIEVE THAT A STABILIZED CONSTRUCTION EXIT WOULD BE EFFECTIVE FOR THIS PROJECT. CONTRACTOR SHALL EFFECTIVELY LIMIT OFF SITE TRACKING BY SWEEPING THE STREET DAILY IF NECESSARY AND BY OTHER MEANS AS DEVISED BY THE CONTRACTOR OR DIRECTED BY THE COUNTY INSPECTOR.
- ROCKED ACCESS AREAS:**
CONTRACTOR SHALL PROVIDE A ROCKED ACCESS AREA WERE CONSTRUCTION VEHICLES PARK, TRAVEL AND WORK. ROCKED ACCESS AREAS SHALL CONSIST OF 6" OF COMPACTED BASE ROCK OR DRAIN ROCK. ROCKED ACCESS AREAS ARE INTENDED TO KEEP CONSTRUCTION VEHICLES OFF OF BARE SOIL.
- HOUSE KEEPING REQUIREMENTS:**

DUST CONTROL/WIND EROSION CONTROL:
CONTRACTOR SHALL EFFECTIVELY LIMIT DUST AND WIND EROSION BY WATERING THE SITE AS NEEDED AND KEEPING ALL MATERIAL STOCK PILES COVERED WHEN NOT IN USE.

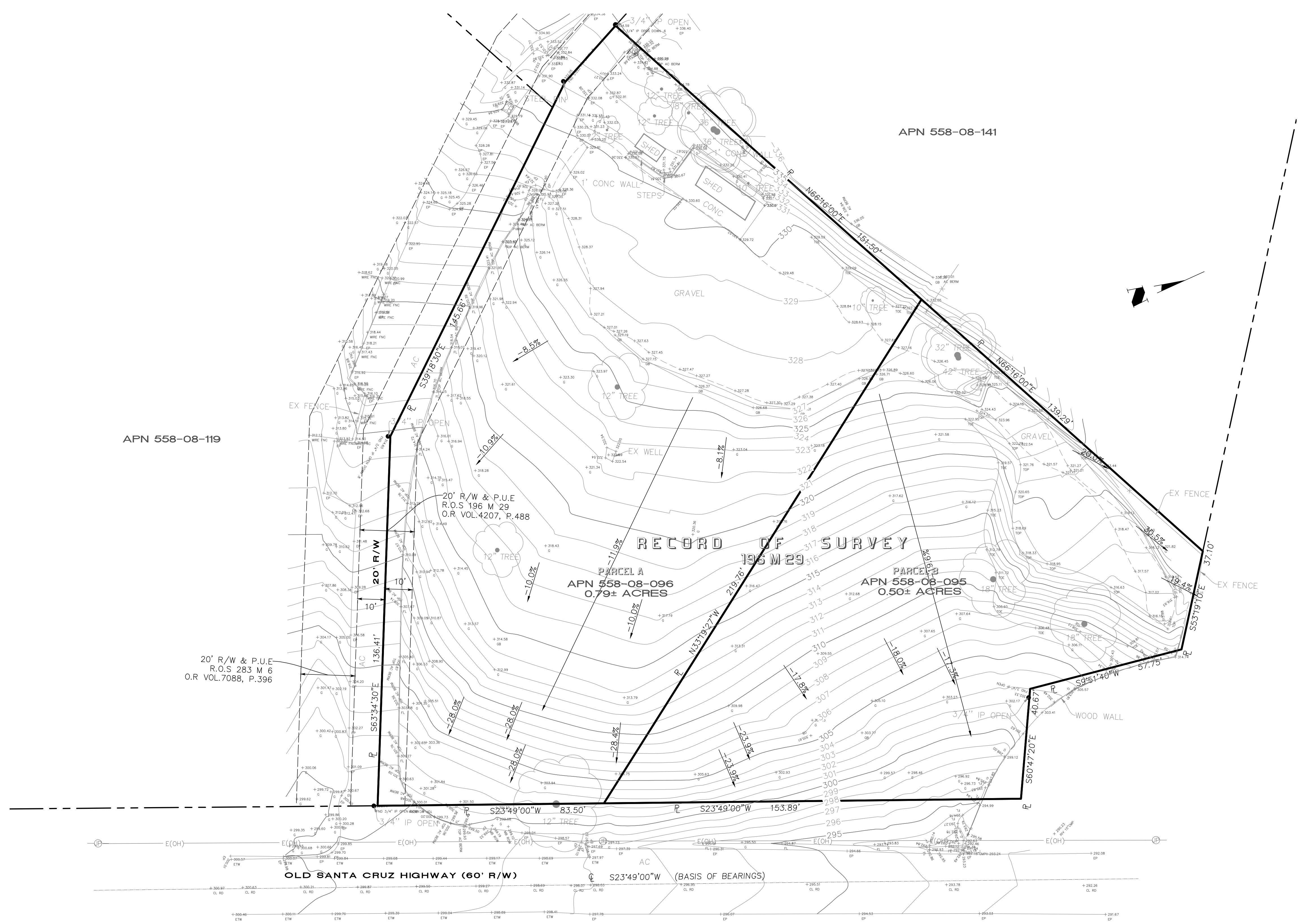
CONSTRUCTION MATERIALS:
ALL LOOSE OF STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL SPOILS, AGGREGATE FLY ASH, STUCCO, HYDRATED LIME, ETC) SHALL BE COVERED AND BERMED.
ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED, COMPLETELY ENCLOSED.
EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE THOSE MATERIALS AND EQUIPMENT THTA ARE INTENDED TO BE OUTSIDE.
BEST MANAGEMENT PRACTICES TO LIMIT AND PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION MATERIALS SHALL BE IMPLEMENTED.

WASTE MANAGEMENT:
DISPOSAL OF ANY RINSE OR WASH WATER OR MATERIALS ON IMPERVIOUS OR PERVIOUS SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
SANITATION FACILITIES SHALL BE CONTAINED (E.G. PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS. PORTABLE TIOLETS SHALL BE LOCATED A MINIMUM OF 20' FROM DRAIN INLETS, STREETS, DRIVEWAYS, DRAINAGE FACILITIES, STREAMS OR OTHER RIPARIAN AREAS.
SANITATION FACILITIES SHALL BE INSECTED REGULARLY AND CLEANED AND REPLACED AS NECESSARY.
COVER WASTE AND DISPOSAL CONTAINERS AT THE END OF EACH WORK DAY AND DURING EACH RAIN EVENT.
DISCHARGES FROM WASTE DISPSOAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM SHALL BE PREVENTED.
STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.
EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE SO THAT SPILLS AND LEAKS CAN AND SHALL BE CLEANED IMMEDIATELY AND DISPOSED OF PROPERLY.
CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT CONTAIN POSSIBLE POLLUTANTS SHALL BE CONSTRUCTED TO EFFECTIVELY CONTAIN POLLUTANTS SO THAT THERE IS NO DISCHARGE INTO THE SOIL OR SURROUNDING AREA.
- VEHICLE STORAGE & MAINTENANCE:**
MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE OR FUEL FROM LEAKING ONTO THE GROUND OR INTO STORM DRAINS OR SURFACE WATERS.
ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED ON SITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMP'S.
LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.
- LANDSCAPE MATERIALS:**
CONTAIN STOCKPILED AND STORED MATERIALS SUCH AS MULCHES, TOPSOIL, FERTILIZERS AND OTHER LANDSCAPE MATERILS WHEN THEY ARE NOT BEING ACTIVELY USED.
DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCPAE MATERIALS WITHIN 2 DAYS BEFORE A FORECAST RAIN EVENT OR DURING PERIODS OF RAIN.
APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURES' RECOMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED PERSONNEL.

FOR REDUCED PLANS ORIGINAL SCALE IN INCHES 0 1 2 3

SHEET NAME: DRAWING NAME:

BY	
REVISION	
DATE	
3/13/24	
PROJECT ENGINEER	<p>MFG Engineers, Inc PO BOX 1914 APTOS, CA. 95001 (831) 763-1661 CEL (831) 601-9519</p>
APN 558-08-149	
GRADING & DRAINAGE PLAN	
22197 OLD SANTA CRUZ HIGHWAY, LOS GATOS, CA	
DRAWN: MFG	
CHECKED: MFG	
DATE: 9/23	
SCALE: 1"=20'	
JOB NO.	
SHEET	
C4 OF 7	



APN 558-08-119

APN 558-08-141

20' R/W & P.U.E
R.O.S 283 M 6
O.R VOL.7088, P.396

20' R/W & P.U.E
R.O.S 196 M 29
O.R VOL.4207, P.488

PARCEL A
APN 558-08-096
0.79± ACRES

PARCEL B
APN 558-08-095
0.50± ACRES

RECORD OF SURVEY
196 M 29

OLD SANTA CRUZ HIGHWAY (60' R/W)
S23°49'00"W (BASIS OF BEARINGS)

AC ASPHALT CONCRETE	EVA VEHICLE ACCESS EASEMENT	PSUE PUBLIC SERVICE UTILITY EASEMENT
AD AREA DRAIN	FC FACE OF CURB	PUE PUBLIC UTILITY EASEMENT
BLDG BUILDING	FD FOUND	PVMT PAVEMENT
BSL BUILDING SETBACK LINE	FG GROUND FINISH GRADE	PVC POLYVINYL CHLORIDE
BW BOTTOM OF WALL/BACK OF WALK	FH FIRE HYDRANT	R RADIUS
CG CURB & GUTTER	FL FLOW LINE	R/W RETAINING WALL
C CENTERLINE	G GARAGE SLAB ELEVATION/GAS LINE	SD STORM DRAIN
CLF CHAIN LINK FENCE	GM GAS METER	SE SLOPE EASEMENT
CO SANITARY SEWER CLEANOUT	INV INVERT	SS SANITARY SEWER/LATERAL
CONC CONCRETE	LIP LIP OF GUTTER	SSE SANITARY SEWER EASEMENT
DI DRAINAGE INLET	LS LANDSCAPED AREA	SW SIDEWALK
DWY DRIVEWAY	MAX MAXIMUM	TC TOP OF CURB
EA EASEMENT	MH MANHOLE	TOE TOE OF BANK
ELEV ELEVATION	MIN MINIMUM	TW TOP OF WALL
EM ELECTRIC METER	MW MONUMENT WELL	W WATER
E(OH) ELECTRIC OVERHEAD	NTS NOT TO SCALE	WLK WALKWAY
EP EDGE OF PAVEMENT	OH OVERHEAD	WM WATER METER
EX EXISTING	P PROPERTY LINE	WV WATER VALVE
	PSE PUBLIC SERVICE EASEMENT	

LEGEND & ABBREVIATIONS

⊕ AREA DRAIN	— 550 CONTOUR	— W — UTILITY
⊕ BENCHMARK	--- 101.70 EASEMENT LINE	⊕ VERTICAL SHORING
— BOUNDARY	— 101.70 EXISTING ELEVATION	⊕ WATER METER
⊕ CATCH BASIN	— FENCE	⊕ WATER VALVE
⊕ CONCRETE	⊕ TREE	⊕ WELL
⊕ DRAINAGE EMITTER	⊕ IRON PIPE	
⊕ MAIL BOX	⊕ GAS METER	
⊕ MONUMENT WELL	⊕ GAS VALVE	
★ PROJECT SITE		
— RIGHT OF WAY		
⊕ SANITARY SEWER CLEAN OUT MANHOLE		
⊕ SANITARY SEWER MANHOLE		
⊕ STORM DRAIN MANHOLE		
⊕ SUMP PUMP		
⊕ ELECTRICAL BOX		
⊕ ELECTRIC METER		

NOTES

- PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE SURFACE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY AND FROM AVAILABLE RECORD DATA. SUBSURFACE OBJECTS, IF ANY, MAY NOT BE SHOWN. SAID SUBSURFACE OBJECTS MAY INCLUDE, BUT ARE NOT LIMITED TO, UNDERGROUND, UTILITY LINES, UTILITY VAULTS, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION.
- DIMENSIONS SHOWN HEREON ARE GROUND DISTANCES IN FEET AND DECIMALS THEREOF.
- NO PROPERTY CORNERS ARE PROPOSED TO BE SET BY THIS SURVEY.
- ASSESSOR'S PARCEL NUMBER: 558-08-096 & 558-08-095
- TREE TRUNK LOCATIONS ARE APPROXIMATE. TREES THAT CROSS A PROPERTY LINE AT GROUND LEVEL SHOULD BE CONSIDERED TO BE JOINTLY OWNED BY THE RESPECTIVE PROPERTY OWNERS. CONSULT AN ARBORIST FOR DETAILS.
- DIMENSIONS FROM HOUSE TO PROPERTY LINE ARE MEASURED FROM THE BUILDING FACE OF THE STRUCTURE, PERPENDICULAR TO THE PROPERTY LINES.

BASIS OF BEARINGS

BEARINGS SHOWN HEREON ARE BASED ON RECORD OF SURVEY RECORDED IN BOOK 196 OF MAPS AT PAGES 29, SANTA CLARA COUNTY RECORDS.

SURVEYOR'S STATEMENT

THIS BOUNDARY SURVEY AND TOPOGRAPHIC MAP WAS PREPARED BY ME OR UNDER MY DIRECTION.

Tom H. Milo
TOM H. MILO
L.S. 6438
10/17/16
DATE



ENGINEERING 598 E Santa Clara St, #270 San Jose, CA 95122 Phone: (408) 806-7187 Fax: (408) 583-4006	DESIGNED: 10/17/16 DRAWN: 10/17/16 SCALE: 1" = 20' CHECKED: 10/17/16	DATE: 10/17/16 DATE: 10/17/16 DATE: 10/17/16	REVISIONS APPD DATE BY DATE	NO.
	BOUNDARY SURVEY AND TOPOGRAPHIC MAP LANDS OF BECK 22197 AND 22199 OLD SANTA CRUZ HIGHWAY 558-08-095 AND 558-08-096 LOS GATOS California PROJECT NO. CONTRACT NO.	DRAWING NO. 1 OF 1 1 FILE NO.	DATE: 10/17/16	DATE: 10/17/16

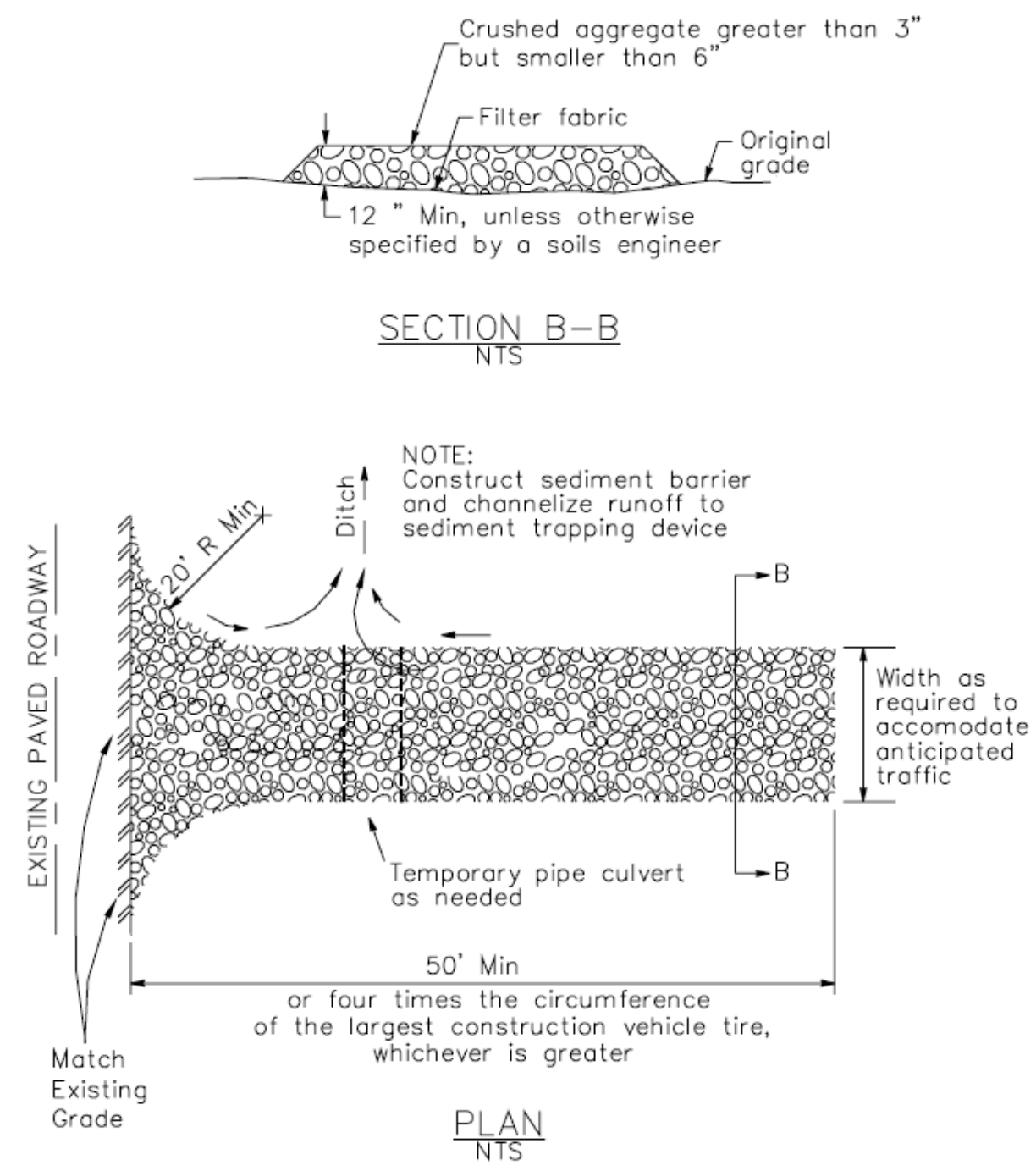
APPLICANT : BECK

ROAD NAME : OLD SANTA CRUZ HIGHWAY

FILE NO : .

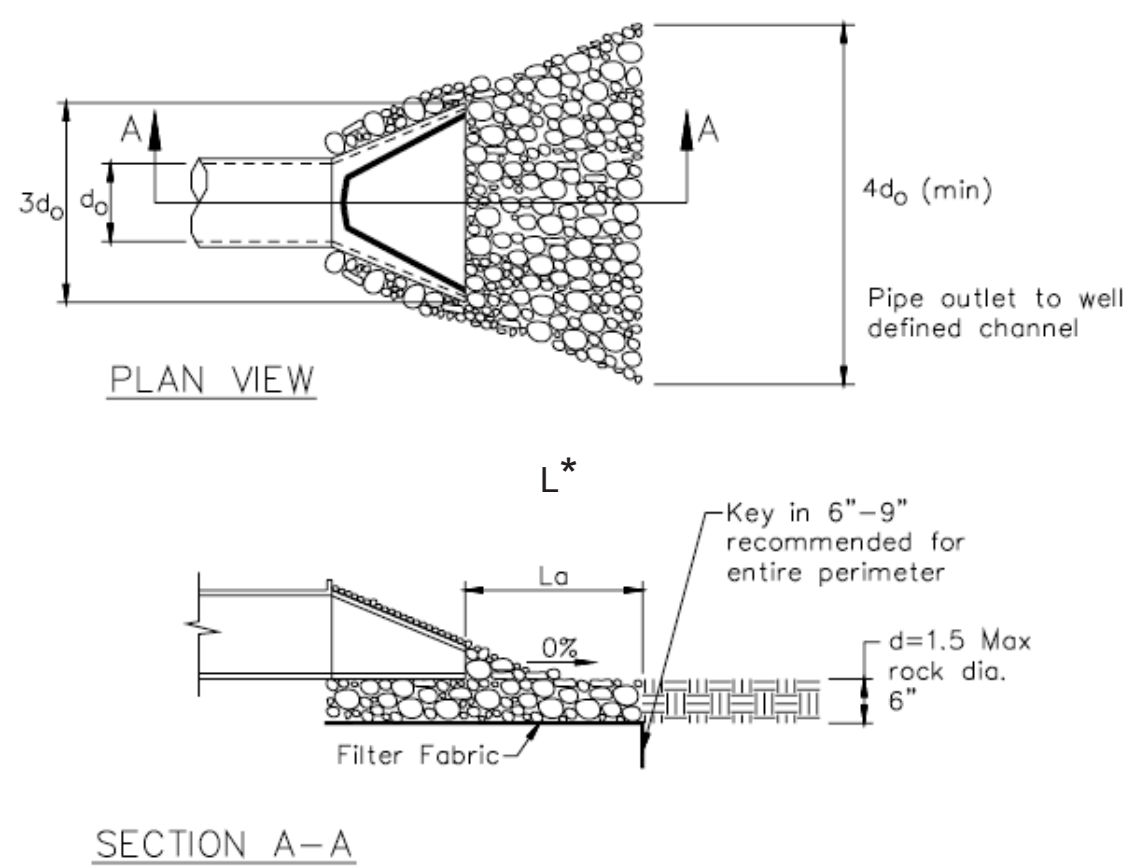
3 Stabilized Construction Entrance/Exit

CASQA Detail TC-1



4 Velocity Dissipation Devices

CASQA Detail EC-10

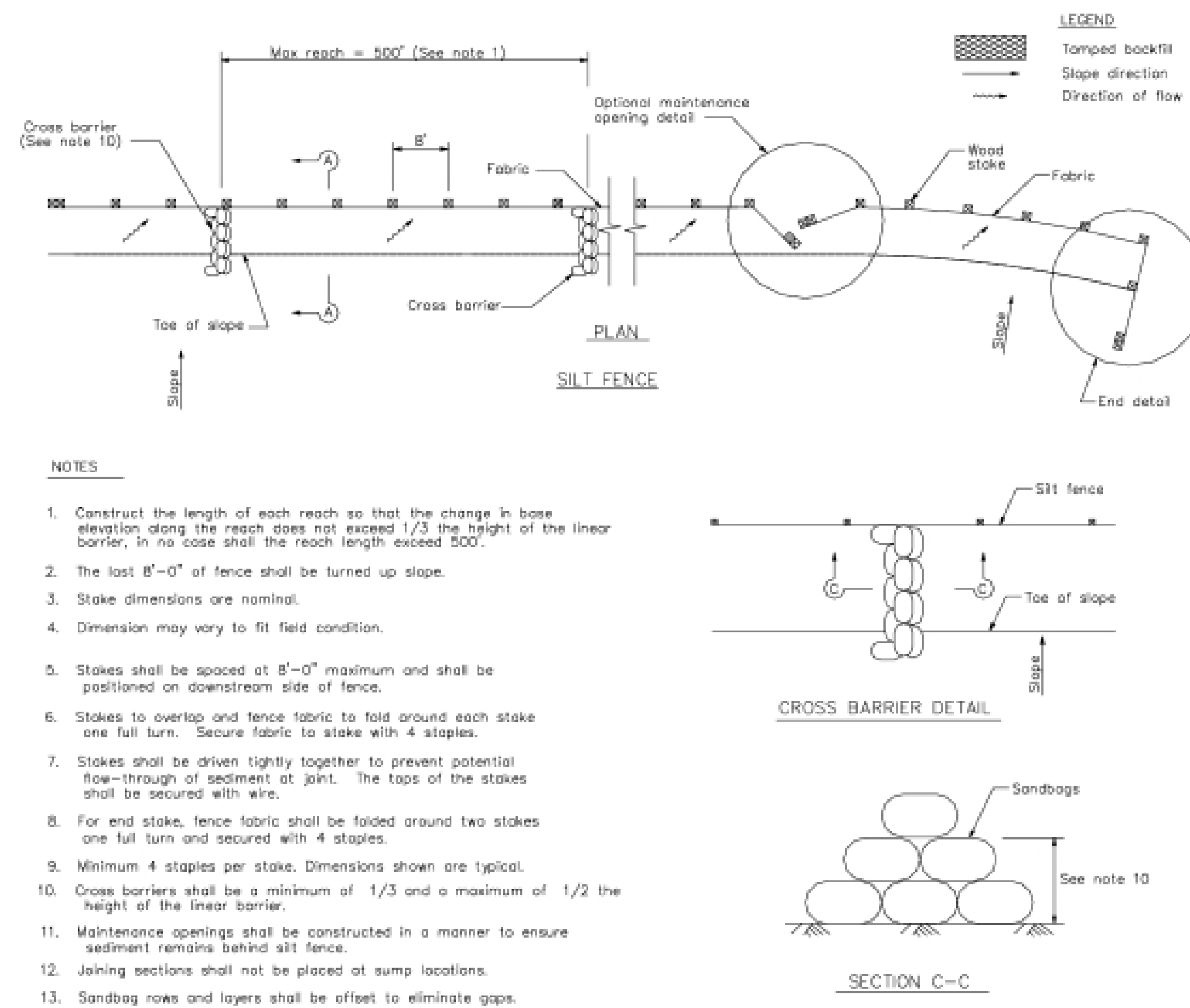


* Length per ABAG Design Standards

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

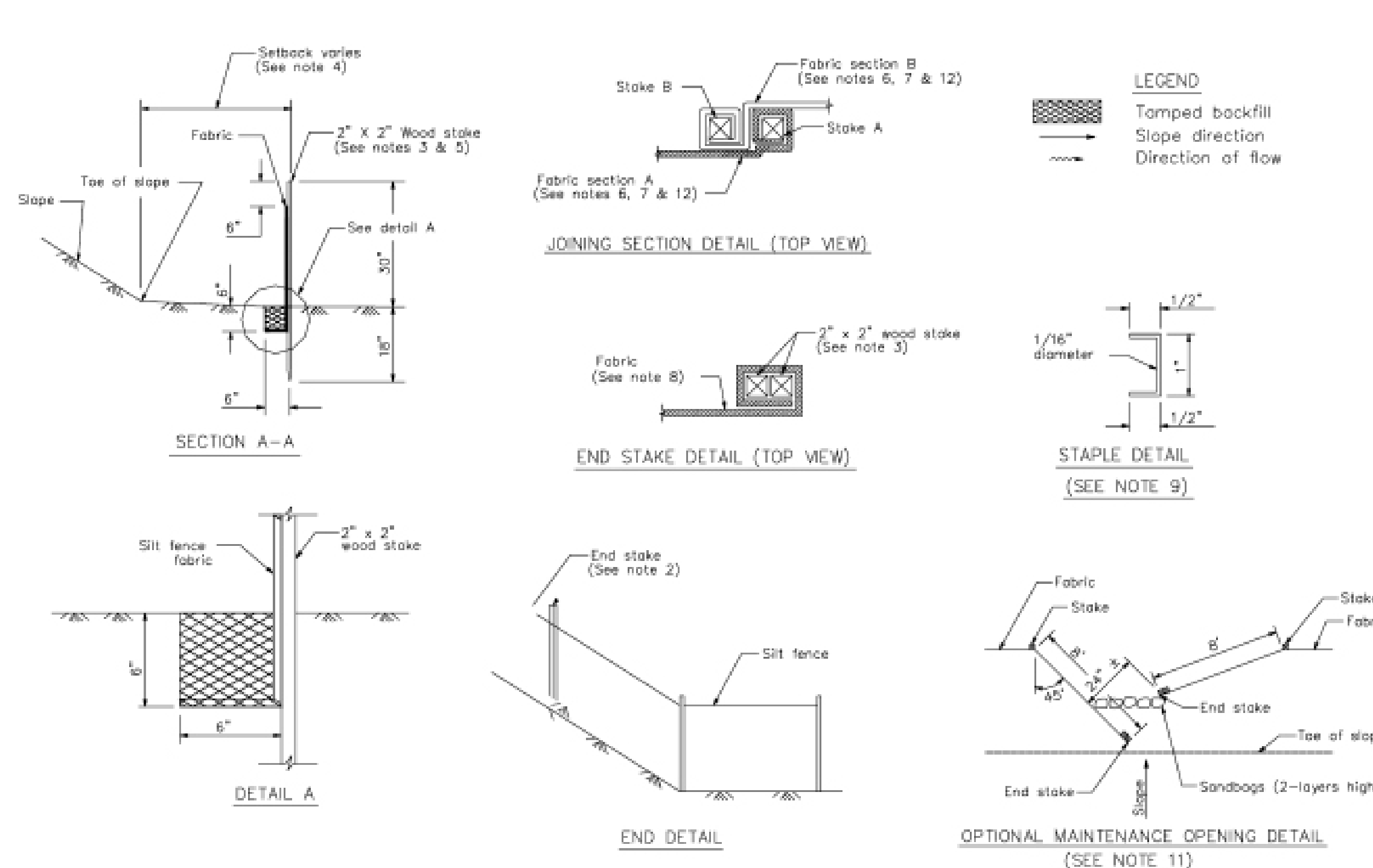
1 Silt Fence

CASQA Detail SE-1



2 Silt Fence

CASQA Detail SE-1



STANDARD BEST MANAGEMENT PRACTICE NOTES

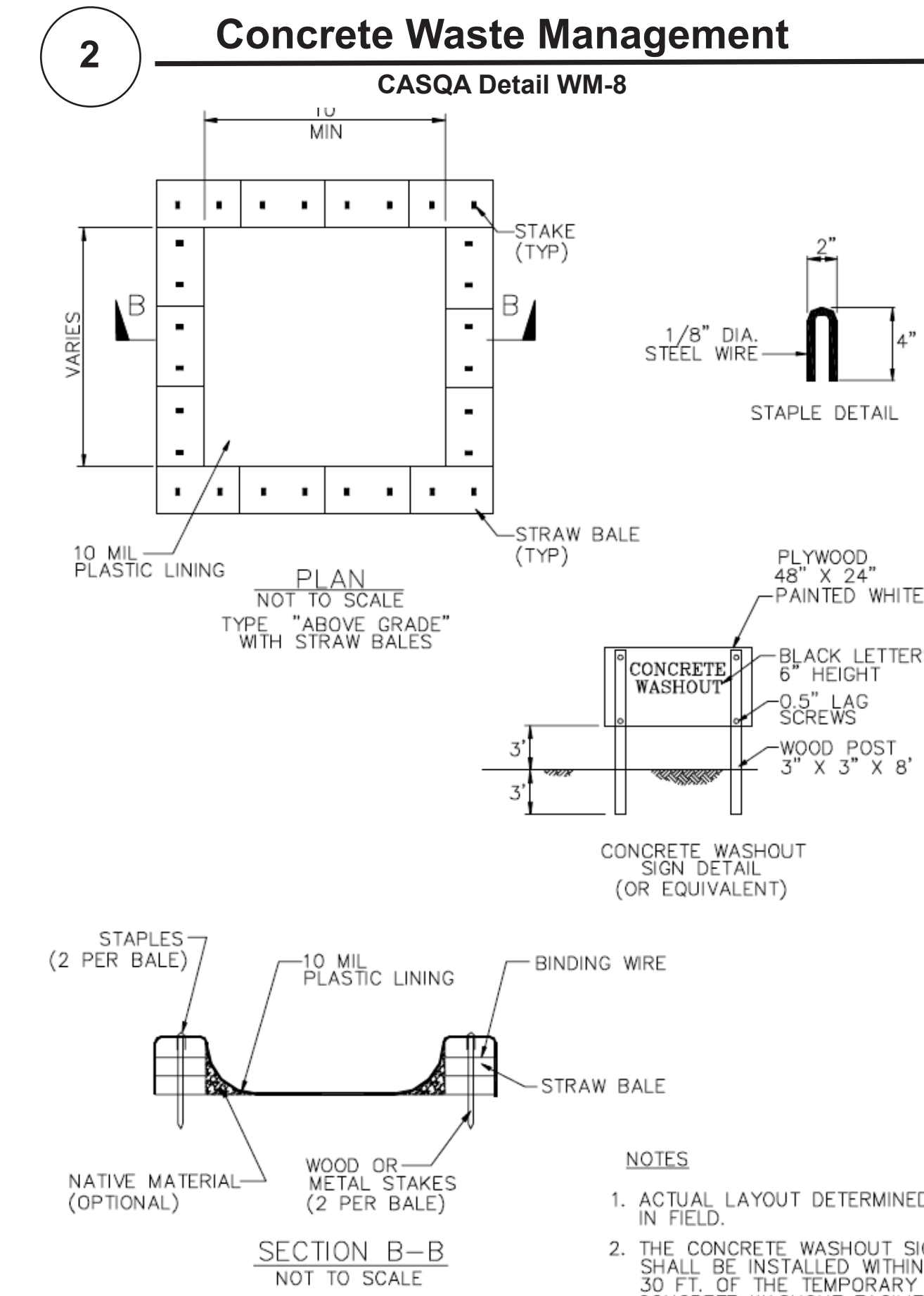
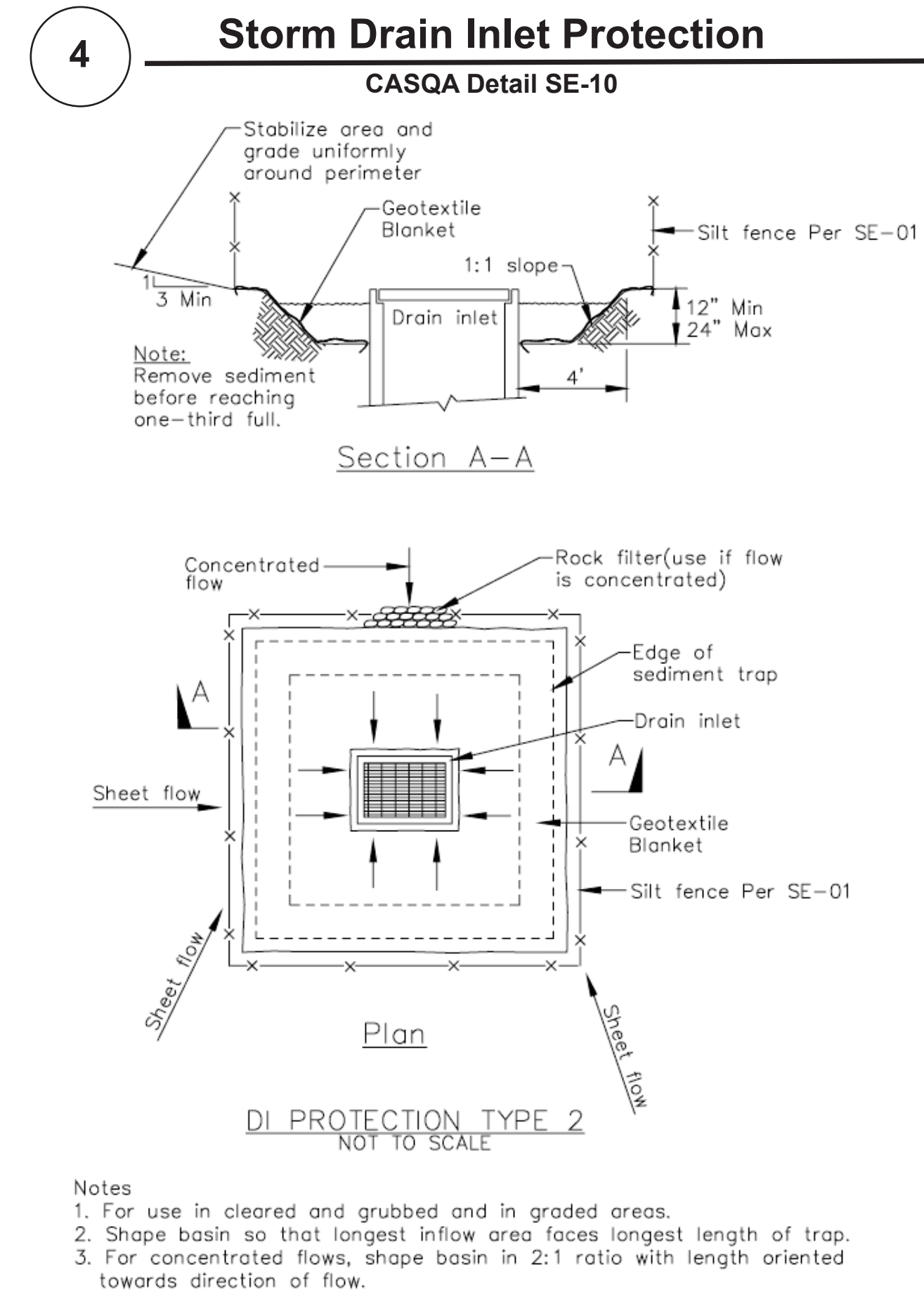
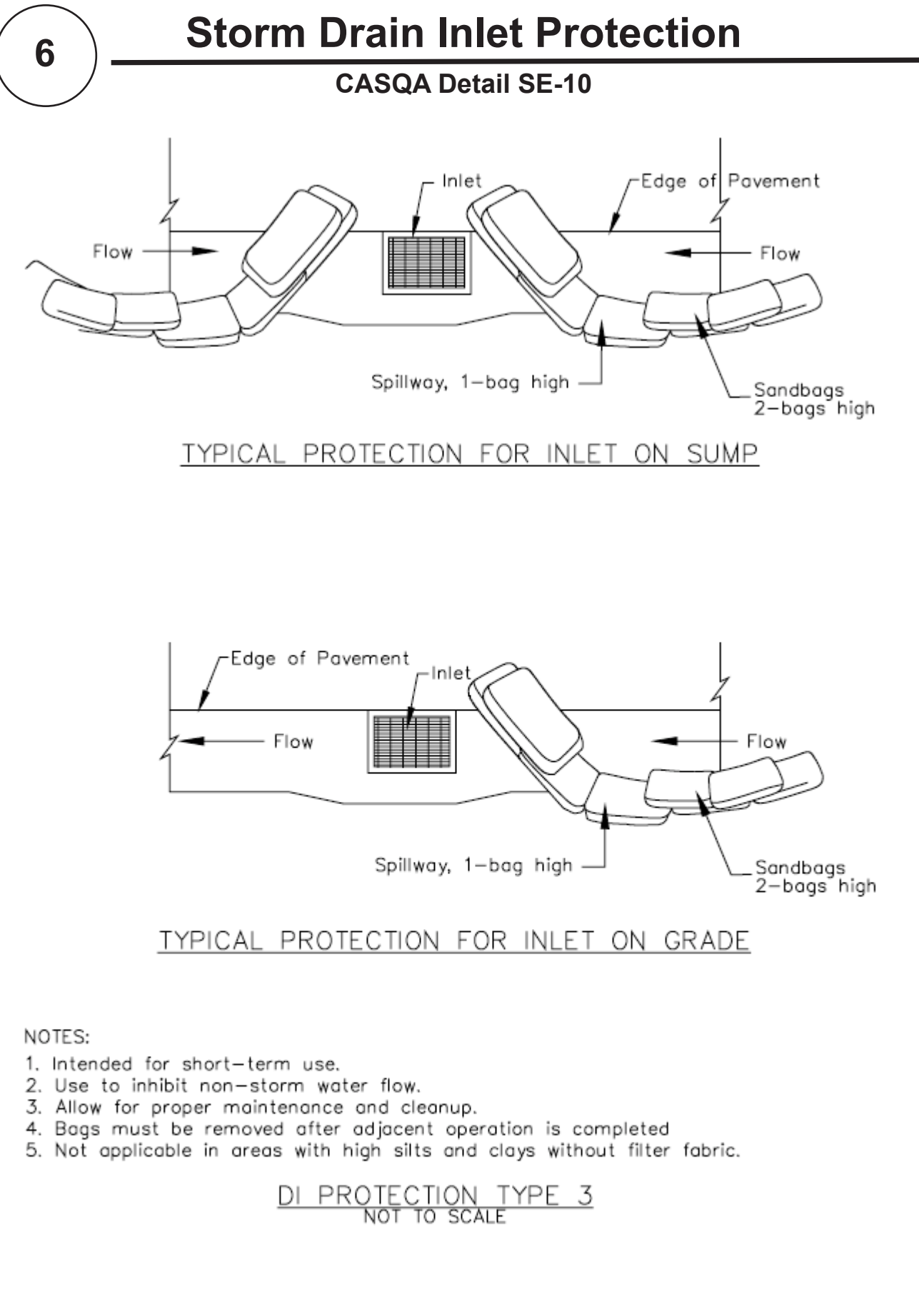
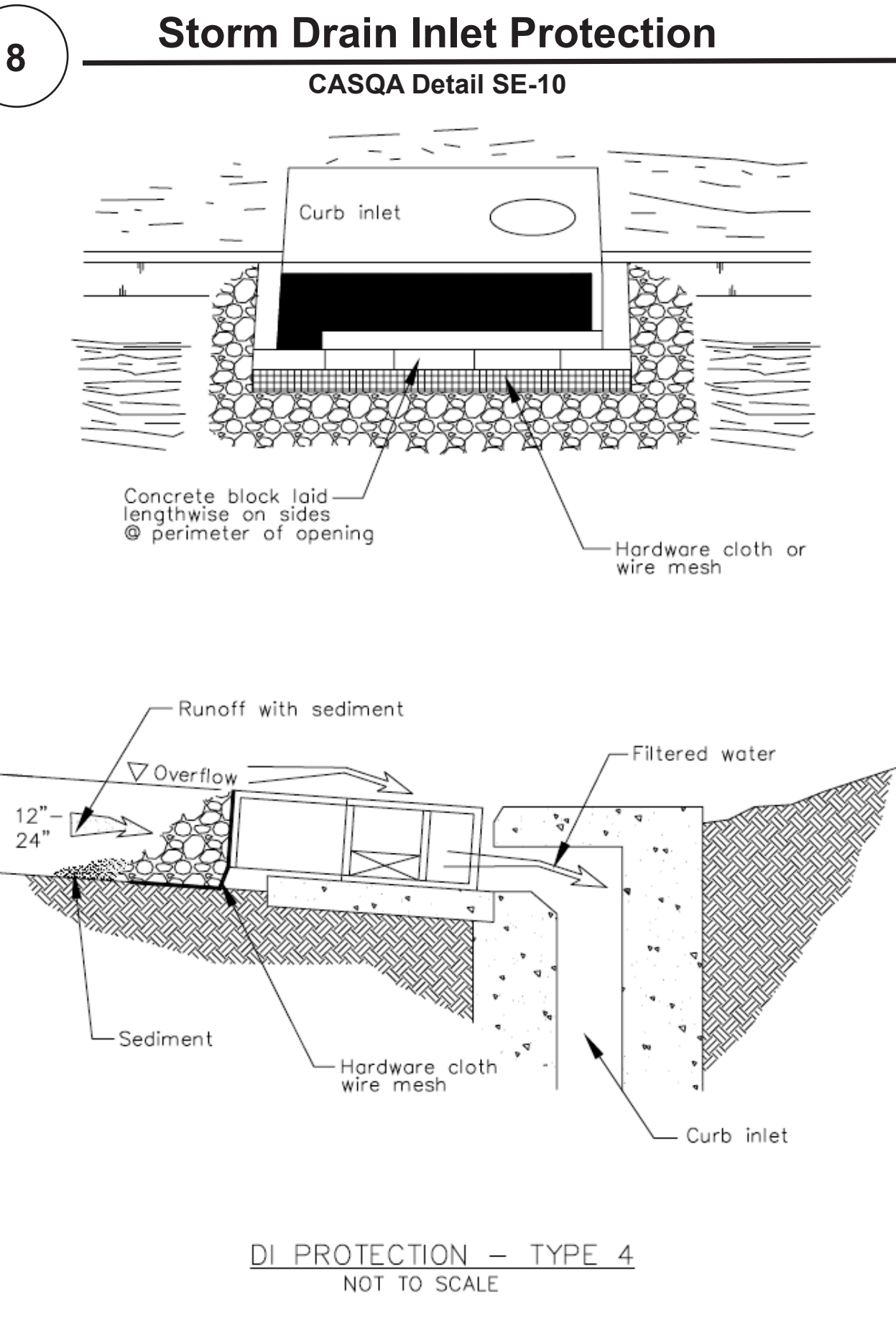
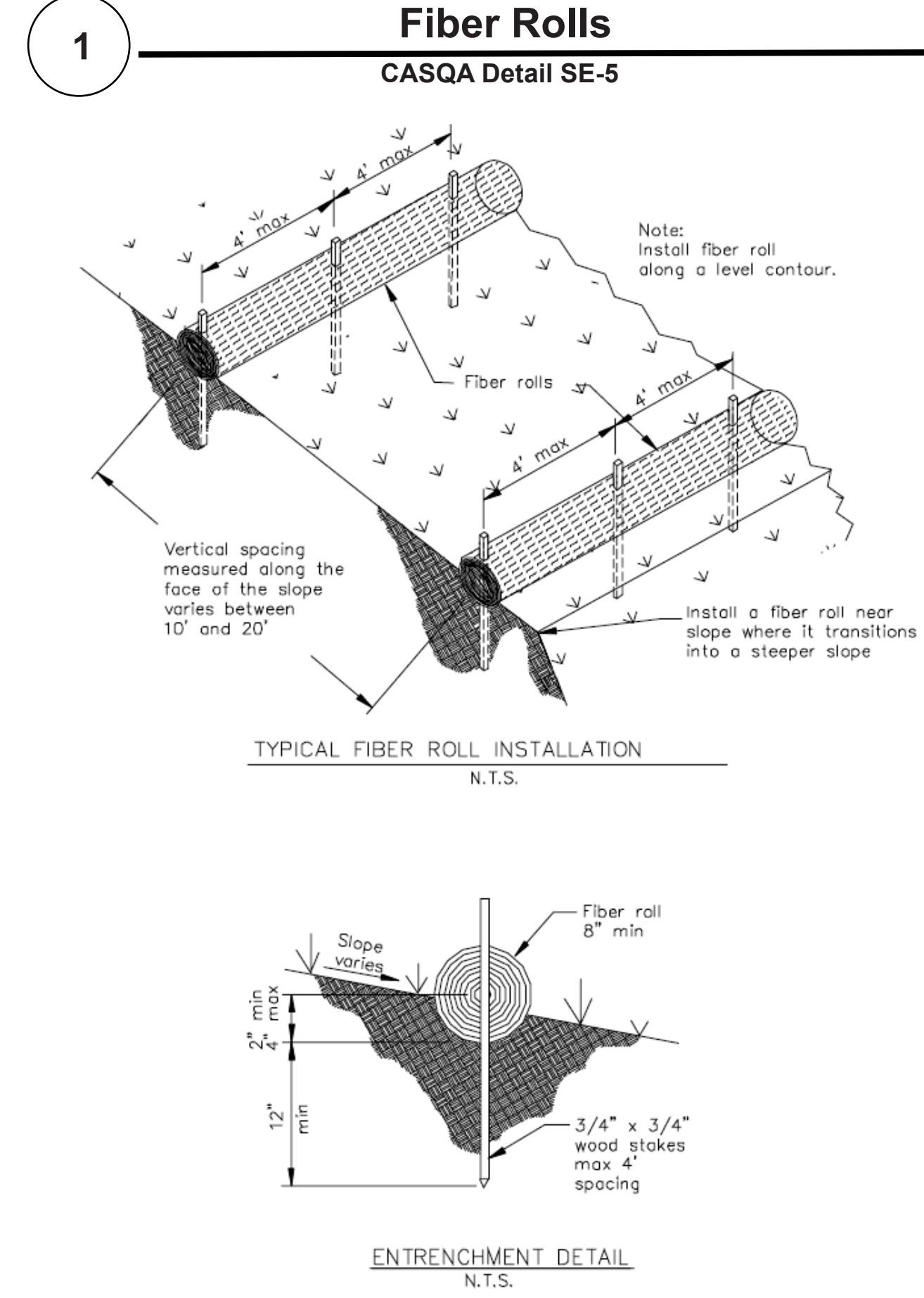
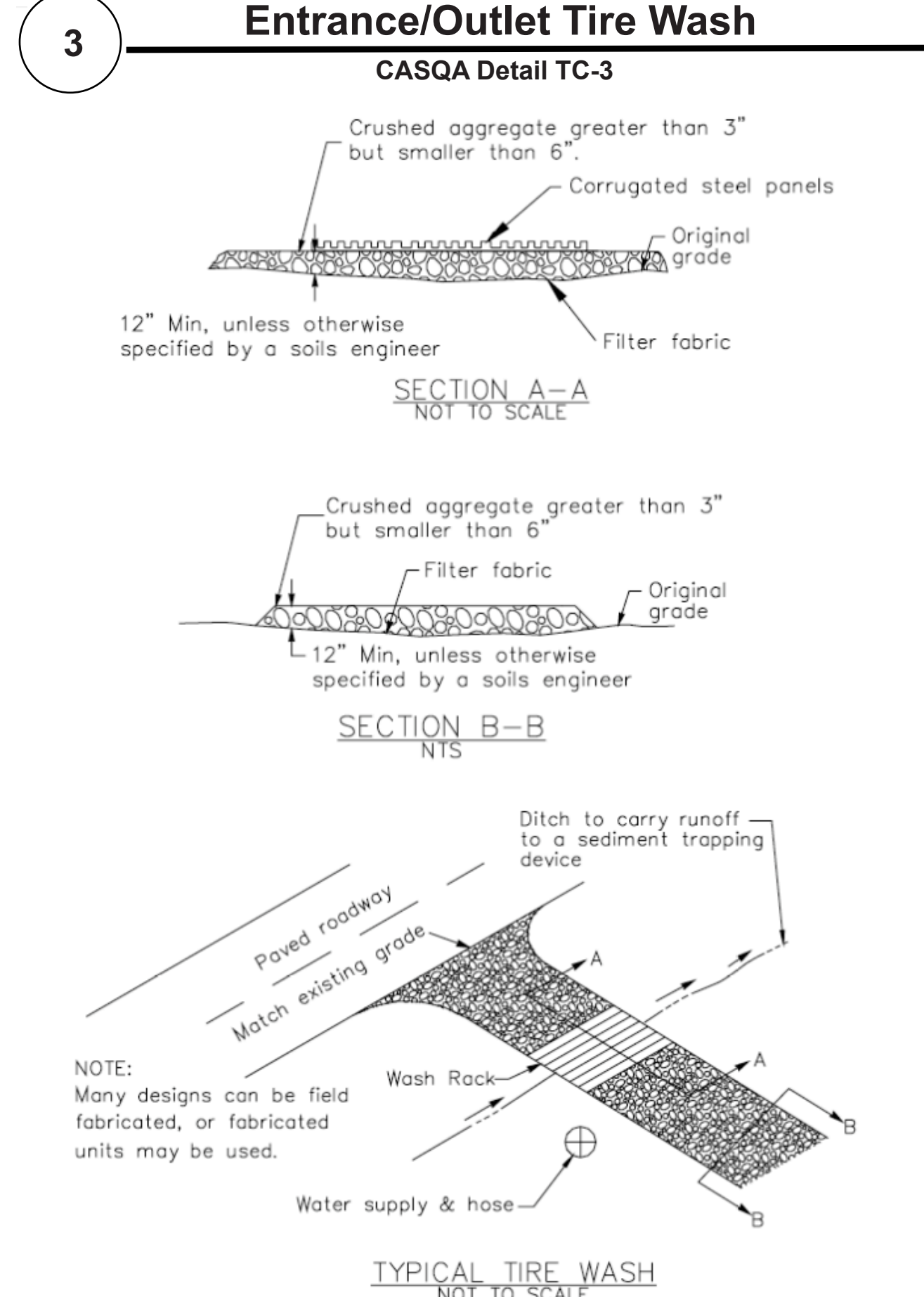
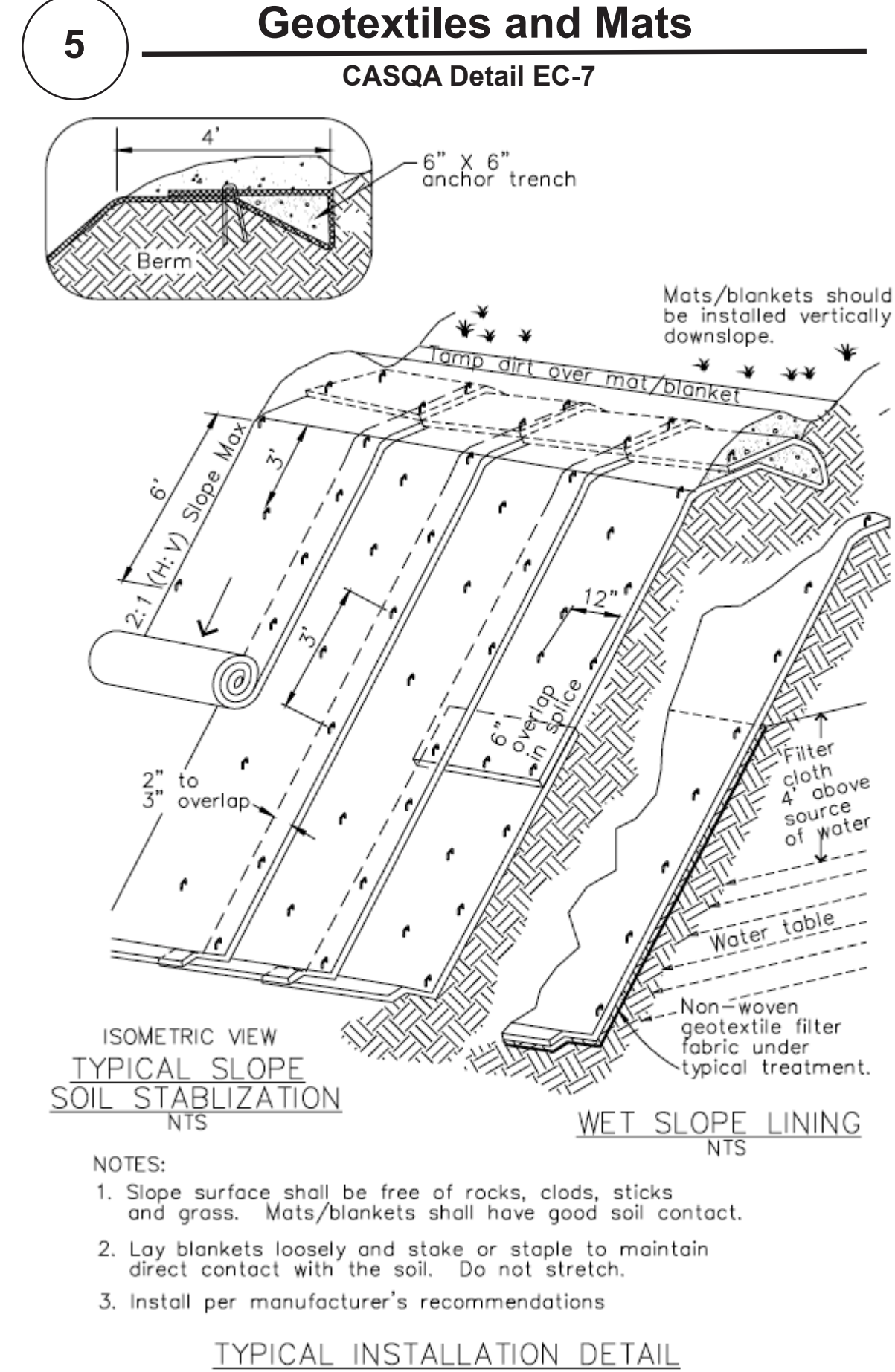
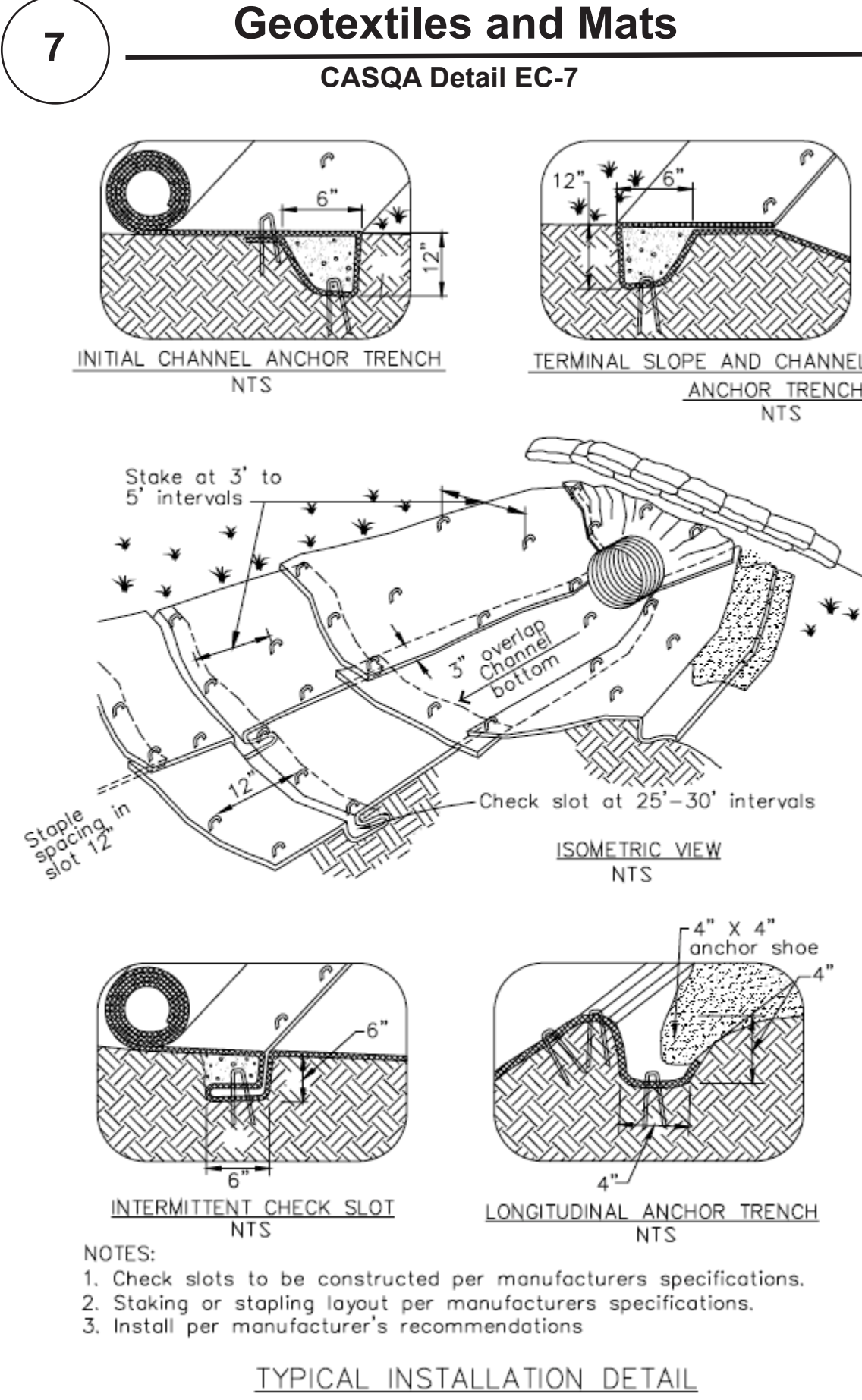
- Solid and Demolition Waste Management:** Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or latest.
- Hazardous Waste Management:** 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.
- Spill Prevention and Control:** 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.
- Vehicle and Construction Equipment Service and Storage:** An area shall be designated for the maintenance, where on-site 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.
- 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.
- 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.
- 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.
- 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.
- Sanitary/Septic Water Management:** 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.
- Inspection & Maintenance:** 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

- 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 rolls 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.
 - 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.
 - Dust Control:** 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, etc.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.
- Erosion Control:** 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.
- Inspection & Maintenance:** 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.
- Project Completion:** 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.
- 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.
- Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

Project Information





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

Project Information



ABBREVIATIONS

∅	DIAMETER	MAX	MAXIMUM
AB	AGGREGATE BASE	MEP	MECHANICAL/ELECTRICAL/PLUMBING
ABDN	ABANDONED	MH	MANHOLE
AC	ACRE, ASPHALT CONCRETE	MIN	MINIMUM
ACP	ASBESTOS CEMENT PIPE	MIPT	MALE IRON PIPE THREAD
ACM	ASBESTOS CONTAINING MATERIAL	MJ	MECHANICAL JOINT
AD	AREA DRAIN	MPVC	MIDPOINT OF VERTICAL CURVE
AGG	AGGREGATE	MON	MONUMENT
ALGN	ALIGNMENT	N	NORTHING COORDINATE
ARV	AIR RELEASE VALVE	(N)	NEW
ASB	AGGREGATE SUBBASE	NC	NORMALLY CLOSED
ASPH	ASPHALT	NIC	NOT IN CONTRACT
		NO	NUMBER
		NTS	NOT TO SCALE
BC	BEGIN CURVE	OHE	OVERHEAD ELECTRIC
BEG	BEGIN	O.R.	OFFICIAL RECORDS
BFP	BACK FLOW PREVENTER		
BLDC	BUILDING CORNER		
BLDG	BUILDING		
BMP	BEST MANAGEMENT PRACTICES	(P)	PROPOSED
BOD	BOTTOM OF DOCK	P	PAVEMENT ELEVATION
BOL	BOLLARD	PA	PLANTER AREA
BSW	BACK OF SIDEWALK	PB	PULL BOX
BVC	BEGIN VERTICAL CURVE	PCC	POINT OF COMPOUND CURVATURE
BW	FINISHED GRADE AT BOTTOM OF WALL		
		PE	PLAIN END
C	CONCRETE OR CIVIL	PE	PEDESTRIAN
CB	CATCH BASIN	PERF	PERFORATED
C&G	CURB AND GUTTER	PH	POT HOLE
CG&SW	CURB, GUTTER & SIDEWALK	PID	POINT ID
CI	CAST IRON OR CURB INLET	PIV	POST INDICATOR VALVE
CIP	CAST IRON PIPE	PL	PROPERTY LINE
CL	CENTERLINE	PM	PARKING METER
CLR	CLEAR	PMH	POWER MANHOLE
CLSM	CONTROLLED LOW-STRENGTH MATERIAL	PO	PUSH-ON
CMN	COMMUNICATION	POC	POINT ON CURVE
CMP	CORRUGATED METAL PIPE	POI	POINT OF INTERSECTION
CO	CLEAN OUT	PP	POWER POLE
COHC	CONCRETE	PRC	POINT OF REVERSE CURVATURE
CONST	CONSTRUCTION OR CONSTRUCT	PRV	PRESSURE REDUCING VALVE
CONF	CONFORM TO EXISTING	PRUE	PRIVATE UTILITY EASEMENT
CSC	CITY OF SANTA CLARA	PT	POINT OF TANGENCY
CU	CUBIC	PUE	PUBLIC UTILITY EASEMENT
CY	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIPE
		R	RIGHT
D=	DELTA (CURVE)	R=	RADIUS (CURVE)
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	RC	RELATIVE COMPACTION
DEMO	DEMOLISH	RCP	REINFORCED CONCRETE PIPE
DEPT	DEPARTMENT	RJ	RESTRAINED JOINT
DET	DETAIL	RP	RADIUS POINT
DI	DROP INLET, DUCTILE IRON	RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
DIA	DIAMETER	RPPA R	REDUCED PRESSURE PRINCIPLE ASSEMBLY
DIP	DUCTILE IRON PIPE	RSC	RECEIVING AND SUPPORT CENTER
DOM	DOMESTIC	RW	RECYCLED WATER
DW	DOMESTIC WATER	R/W, ROW	RIGHT OF WAY
DWG	DRAWING		
		S	SOUTH SLOPE
E	EASTING COORDINATE, ELECTRIC	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EC	END CURVE	SD	STORM DRAIN
EG	EXISTING GRADE	SDCB	STORM DRAIN CATCH BASIN
EL, ELEV	ELEVATION	SDI	STORM DRAIN INLET
ELEC	ELECTRICAL	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SDCO	STORM DRAIN CLEANOUT
EVA	EMERGENCY VEHICLE ACCESS	S.E.D.	SEE ELECTRICAL DRAWINGS
EX, EXIST.	EXISTING	SF	SILT FENCE
(E)		SG	SUBGRADE
(F)	FUTURE	SHLDR	SHOULDER
FA	FIRE ALARM	SH	SHEET
FC, FC	FACE OF CURB	SL	STREETLIGHT
FD	FOUND	S.L.D.	SEE LANDSCAPE DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION	SMH	SIGNAL MANHOLE
FF, FFE	FINISHED FLOOR ELEVATION	S.M.D	SEE MECHANICAL DRAWINGS
FG	FINISH GRADE	S.P.D	SEE PLUMBING DRAWINGS
FH	FIRE HYDRANT	SS	SANITARY SEWER
FIPT	FEMALE IRON PIPE THREAD	S.S.D.	SEE STRUCTURAL DRAWINGS
FL	FLOW LINE, FLANGE	SSD	SUBSURFACE DRIP
FLG	FLANGE	SSCO	SANITARY SEWER CLEANOUT
FM	FLOWMETER/FORCE MAIN	SSFM	SANITARY SEWER FORCE MAIN
FOUND	FOUNDATION	SSMH	SANITARY SEWER MANHOLE
FS	FINISHED SURFACE	SSPS	SANITARY SEWER PUMP STATION
FT	FOOT, FEET	STA	STATION
FW	FIRE WATER	STD	STANDARD
		STL	STEEL
G	GAS, GROUND ELEVATION	S/W	SIDEWALK
GB	GRADE BREAK	SVP	SILICON VALLEY POWER
GI	GALVANIZED IRON		
GRD, G	GROUND	T	TELEPHONE
GV	GATE VALVE	TC	TOP OF CURB
		TD	TRENCH DRAIN
HMA	HOT MIX ASPHALT	TEL	TELEPHONE
HORIZ	HORIZONTAL	TEMP	TEMPORARY
HT	HEIGHT	TCF	TOP FACE OF CURB
HP	HIGH POINT	THK	THICK
		TOD	TOP OF DOCK
INV	INVERT	TOE	TOE OF SLOPE
INST	INSTALL	TW, TOW	TOP OF WALL
IRR	IRRIGATION	TS	TOP OF SLAB
		TYP	TYPICAL
JP	JOINT POLE	UON	UNLESS OTHERWISE NOTED
JT	JOINT TRENCH	U/G	UNDERGROUND
		VC	VERTICAL CURVE
L	LEFT		
L=	LENGTH (CURVE)		
LF	LINEAR FEET		
LAT	LATERAL		
LIP	LIP OF GUTTER	W	WEST, WATER
LP	LIGHT POLE, LOW POINT	WM	WATER METER
LPFH	FIRE HYDRANT	WV	WATER VALVE
LS	LANDSCAPE	WWF	WELDED WIRE FABRIC
LSA	LANDSCAPE ARCHITECT	W/	WITH
MA	MEDICAL AIR	YDS	YARDS

CIVIL SYMBOLS LEGEND

SURVEY TOPO AND SITE IMPROVEMENTS		ANNOTATION	
— 6" CURB & GUTTER	SDLO	①	KEYNOTE
— EDGE OF AC PAVEMENT	— E	①	DEMOLITION NOTE
— 6" VERTICAL CURB	— FL	1	DETAIL NUMBER
— DW — DOMESTIC WATER MAIN	— FM — FORCE MAIN	1	SHEET NUMBER ON WHICH DETAIL APPEARS
— E — ELECTRIC LINE	— G — GAS LINE	1	SECTION LETTER
— FL — FLUSH LINE	— IRR — IRRIGATION LINE	1	SHEET NUMBER ON WHICH SECTION APPEARS
— FM — FORCE MAIN	— OH — OVERHEAD WIRES		
— G — GAS LINE	— OHE — OVERHEAD ELECTRIC		
— IRR — IRRIGATION LINE	— OHT — OVERHEAD TELEPHONE		
— OH — OVERHEAD WIRES	— RW — RECYCLED WATER		
— OHE — OVERHEAD ELECTRIC	— SS — SANITARY SEWER LINE		
— OHT — OVERHEAD TELEPHONE	— SD — STORM DRAIN LINE		
— RW — RECYCLED WATER	— SL — STREET LIGHT CONDUIT		
— SS — SANITARY SEWER LINE	— C — TELECOMMUNICATIONS		
— SD — STORM DRAIN LINE	— TEL — TELEPHONE LINE		
— SL — STREET LIGHT CONDUIT	— TV — TELEVISION LINE		
— C — TELECOMMUNICATIONS	— W — WATER LINE		
— TEL — TELEPHONE LINE	— UGE — UNDERGROUND ELECTRIC		
— TV — TELEVISION LINE	— TRENCH DRAIN		
— W — WATER LINE	— METAL BEAM GUARD RAIL		
— UGE — UNDERGROUND ELECTRIC	— SILT FENCE		
— TRENCH DRAIN	— CHAIN LINK FENCE		
— METAL BEAM GUARD RAIL	— FLOW LINE		
— SILT FENCE	— # — CONTOUR ELEVATION LINE		
— CHAIN LINK FENCE	— CENTER LINE		
— FLOW LINE	— PROPERTY LINE		
— # — CONTOUR ELEVATION LINE	— MONUMENT LINE		
— CENTER LINE	— EASEMENT LINE		
— PROPERTY LINE	— FINISH GRADE		
— MONUMENT LINE	— SURFACE DRAINAGE SLOPE		
— EASEMENT LINE	— SPOT ELEVATION		
— FINISH GRADE	— GRADE BREAK		
— SURFACE DRAINAGE SLOPE	— LIMIT OF WORK/GRADING		
— SPOT ELEVATION	— IRRIGATION BOX		
— GRADE BREAK	— GAS METER		
— LIMIT OF WORK/GRADING	— GAS VALVE		
— IRRIGATION BOX	— WATER METER		
— GAS METER	— WATER VALVE		
— GAS VALVE	— WATER METER OR BFP		
— WATER METER	— FIRE HYDRANT		
— WATER VALVE	— FIRE DEPARTMENT CONNECTION		
— WATER METER OR BFP	— WATER TAPPING SADDLE		
— FIRE HYDRANT	— SEWER MANHOLE		
— FIRE DEPARTMENT CONNECTION	— SEWER CLEANOUT		
— WATER TAPPING SADDLE	— SEWER LAMP HOLE		
— SEWER MANHOLE	— SEWER VENT		
— SEWER CLEANOUT	— STORM DRAIN MANHOLE		
— SEWER LAMP HOLE	— CATCH BASIN		
— SEWER VENT	— CURB INLET		
— STORM DRAIN MANHOLE	— DRAINAGE INLET		
— CATCH BASIN			
— CURB INLET			
— DRAINAGE INLET			

GENERAL SHEET NOTES

- ABBREVIATIONS AND SYMBOLS ON THIS SHEET APPLY ONLY TO THE CIVIL DRAWINGS. REFER TO OTHER DISCIPLINES FOR APPLICABLE ABBREVIATIONS AND SYMBOLS NOT PROVIDED HERE.
- THIS IS A STANDARD ABBREVIATION AND LEGEND SHEET. THEREFORE, SOME ABBREVIATIONS AND LEGEND SYMBOLS MAY APPEAR ON THIS SHEET AND MAY NOT BE UTILIZED ON THIS PROJECT.
- DO NOT SCALE DRAWINGS.
- ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE CURRENTLY REQUIRED VERSION OF THE FOLLOWING CODE:
 - CALIFORNIA BUILDING CODE
 - CALIFORNIA PLUMBING CODE
 - CALIFORNIA MECHANICAL CODE
 - CALIFORNIA ELECTRICAL CODE
 - ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES
- NOTHING ON THE ENCLOSED DRAWINGS IS TO BE CONSTRUED AS REQUIRING OR PERMITTING WORK THAT IS CONTRARY TO THE CODES, ORDINANCES, OR REGULATIONS DESCRIBED ABOVE.
- ANY DEVIATIONS FROM THE PROPOSED PLANS SHALL BE DISCUSSED WITH THE PROJECT ENGINEER PRIOR TO MAKING CHANGES IN THE FIELD.

INDEX

WASTEWATER SHEETS		
NO.	SHEET	TITLE
1	WW 1	COVER SHEET
2	WW 2	EXISTING SITE LAYOUT
3	WW 3	WASTEWATER SYSTEM PLAN
4	WW 4	WASTEWATER SYSTEM SCHEMATIC AND DETAILS
5	WW 5	WASTEWATER SYSTEM SPECIFICATIONS (AND EROSION CONTROL NOTES)

PROJECT DESIGN AND OPERATION NOTES

DESIGN FLOWS, VOLUMES, AND TREATMENT
 FACILITY TYPE: RESIDENTIAL
 UNIT FLOW BASIS: # OF BEDROOMS
 # OF UNITS: (N) 3 BEDROOM + 1 OFFICE EQUIV. SFD
 DESIGN FLOWS: 525 GPD
 TREATMENT CATEGORY: CONVENTIONAL TANK WITH ALTERNATIVE DISPOSAL (PRESSURE DOSED LEACHFIELDS)
 NEW SEPTIC TANK VOLUME: 1,500 GALLONS AT FLOW LINE
 NEW PUMP TANK VOLUME: 1,500 GALLON
 TOTAL HYDRAULIC VOLUME OF TREATMENT SYSTEM: 3,000 GALLONS
 WASTEWATER STRENGTH: DOMESTIC RESIDENTIAL STRENGTH
 DOMESTIC STRENGTH DEFINITION: <220 MG/L BOD, <60 MG/L TSS, <60 MG/L TN

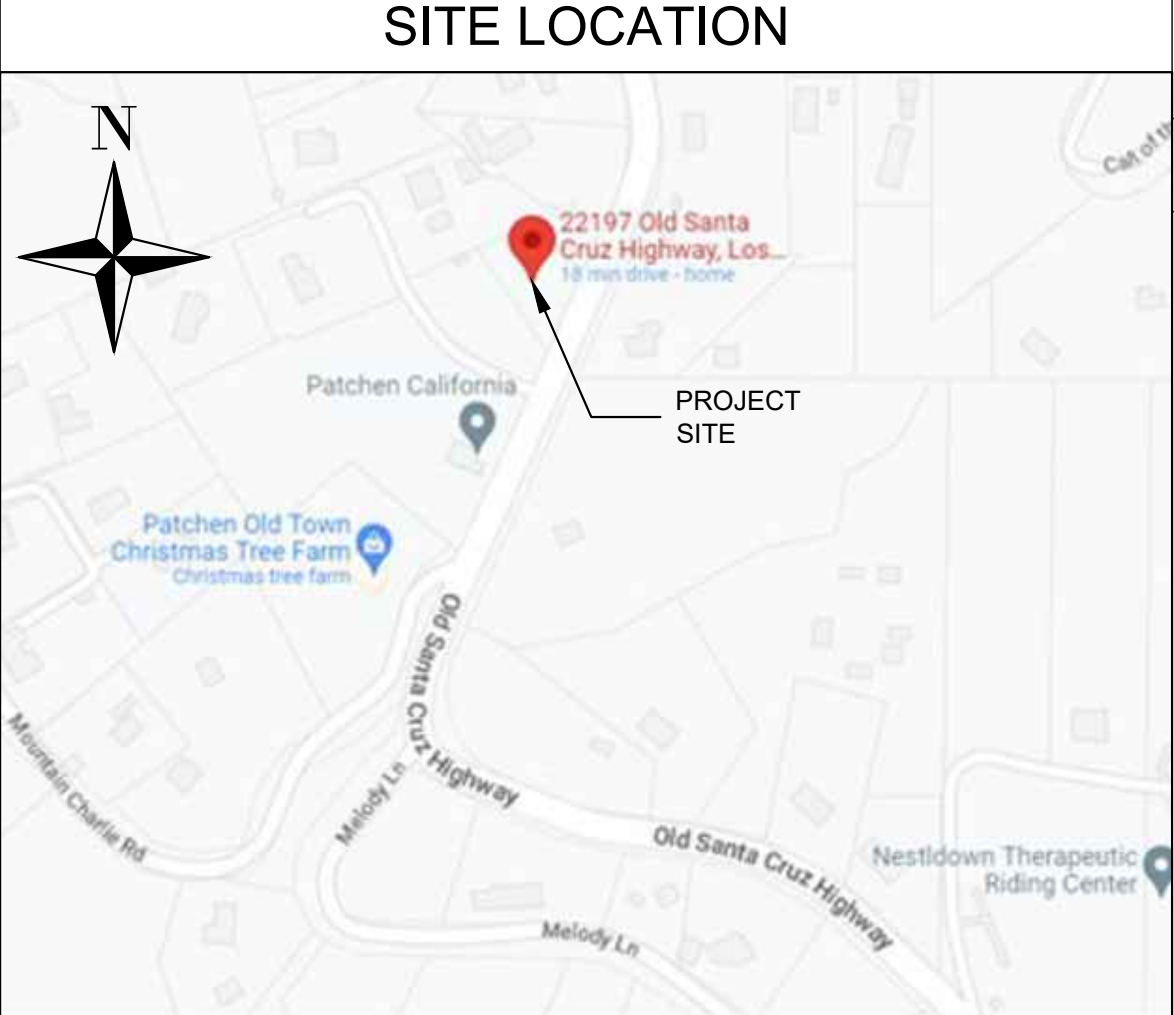
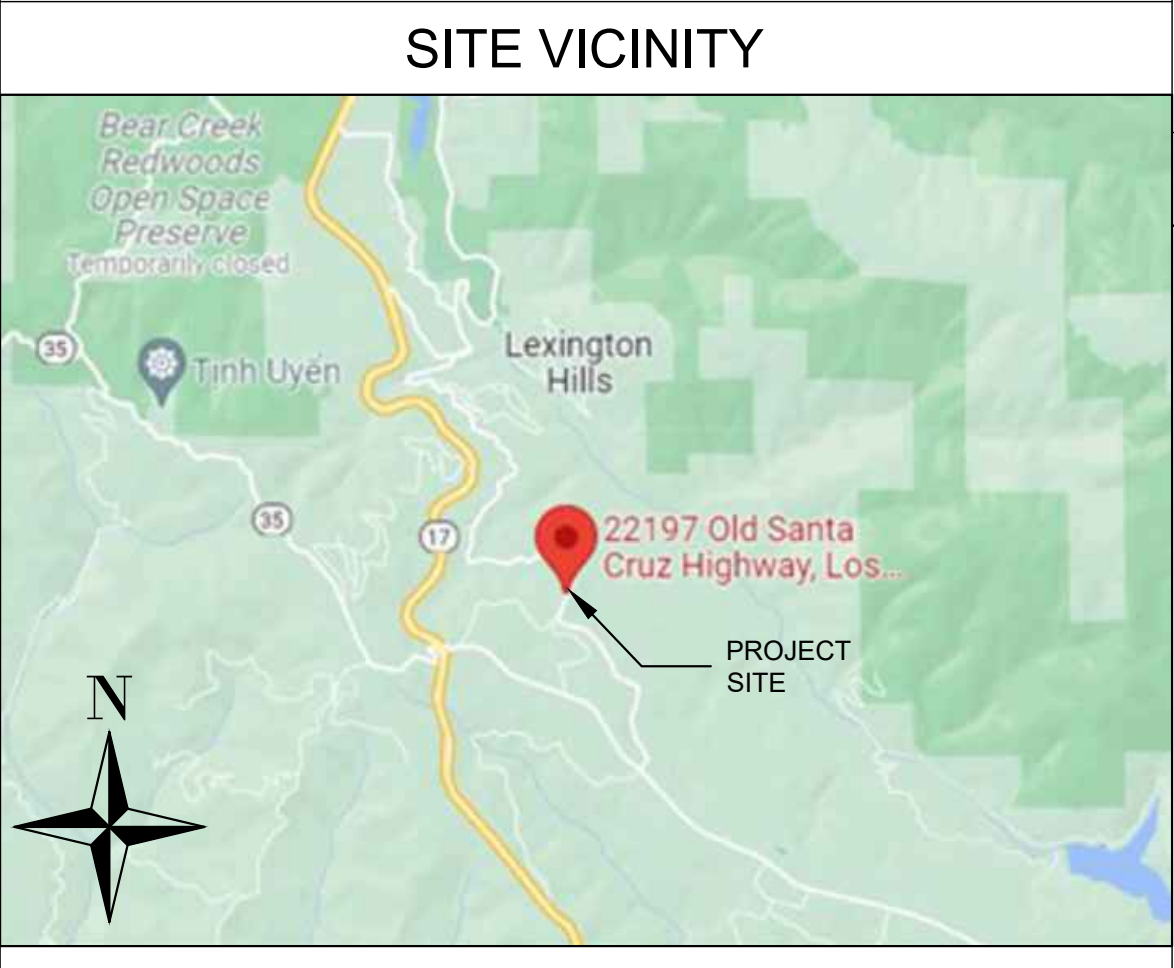
SOIL TESTING RESULTS AND DISPOSAL DESIGN
 ON JULY 7, 2017, THE COUNTY OF SANTA CLARA DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH) OBSERVED FOUR (4) TEST PITS ON THE SUBJECT PROPERTY (2 PER ORIGINAL LOT, WHICH ARE TO BE COMBINED INTO A SINGLE LOT). THE LOCATIONS OF THE TEST PITS WERE EXCAVATED BELOW THE PROPOSED DISPOSAL AREA AND ARE PROVIDED ON THE PROJECT DESIGN PLANS. THE RESULTS ARE PRESENTED IN ATTACHMENT 1 OF THE PROJECT FEASIBILITY REPORT.
 TO GET A BETTER REPRESENTATION OF THE SOILS IN WHICH THE SYSTEM WILL BE INSTALLED, ADDITIONAL TEST PITS WERE EXCAVATED CLOSER TO THE PROPOSED DISPOSAL AREA, ON NOVEMBER 29, 2022, MYER ENGINEERING AND DESIGN OBSERVED THE SOIL CHARACTERISTICS OF THREE (3) ADDITIONAL TEST PITS EXCAVATED TO DEPTHS OF 10.0', 6.0', AND 6.5' BELOW GROUND LEVEL (BGL). THE LOCATIONS OF THE TESTS PIT ARE PROVIDED ON THE PROJECT DESIGN PLANS. THE FOLLOWING SOIL PROFILES WERE OBSERVED:
 TEST PIT 5 (MYER TP-1) LOCATED ON APN 558-08-095 ELEVATION 1,520' ABOVE SEA LEVEL
 0'-16' BGL: LOOSE DARK BROWN SANDY LOAM
 16'-3.0' BGL: DARK BROWN LOAM, MORE COMPACT THAN ABOVE.
 3.0'-8.0' BGL: BROWN SANDY LOAM
 8.0'-8.5' BGL: MOTTLED SANDSTONE
 8.5'-10.0' BGL: MOTTLED SANDY LOAM
 END DIG AT 10.0'. GROUNDWATER WAS NOT ENCOUNTERED
 TEST PIT 6 (MYER TP-2) LOCATED ON APN 558-08-095 ELEVATION 1,520' ABOVE SEA LEVEL
 0'-12' BGL: LOOSE DARK BROWN SANDY LOAM
 12'-3.0' BGL: DARK BROWN CLAY LOAM
 3.0'-5.0' BGL: BROWN CLAY LOAM
 5.0'-6.0' BGL: DAMP SANDY LOAM (MOTTLED AT 6')
 END DIG AT 6.0'. GROUNDWATER WAS NOT ENCOUNTERED
 TEST PIT 7 (MYER TP-3) LOCATED BETWEEN TWO PARCELS NEAR PROPERTY LINE.
 0'-3.0' BGL: LOOSE BROWN SANDY LOAM
 3.0'-4.0' BGL: LOOSE TAN SANDY LOAM
 4.0'-6.5' BGL: SANDY LOAM TRANSITIONING TO SANDY LOAM CONTAINING FRACTURED SANDSTONE WITH MOTTLING AT 6' END DIG AT 6.5'. GROUNDWATER WAS NOT ENCOUNTERED

SITE PERCOLATION TEST:
 ADJUSTED STABILIZED MPI: R X 1.4 =
 TEST HOLE #1 (P-1): DEPTH = 2.0', RATE = 120 MPI X 1.4 = 168 MPI
 TEST HOLE #2 (P-2): DEPTH = 3.0', RATE = 34.2 MPI X 1.4 = 47.88 MPI
 TEST HOLE #3 (P-3): DEPTH = 3.0', RATE = 34.2 MPI X 1.4 = 47.88 MPI
 TEST HOLE #4 (P-4): DEPTH = 3.0', RATE = 9.6 MPI X 1.4 = 13.44 MPI
 TEST HOLE #5 (P-5): DEPTH = 2.0', RATE = 8 MPI X 1.4 = 11.2 MPI
 TEST HOLE #6 (P-6): DEPTH = 3.0', RATE = 60 MPI X 1.4 = 84 MPI
 AVERAGE ADJUSTED STABILIZED RATE = 62 MPI
 AVERAGE ADJUSTED STABILIZED RATE, EXCLUDING P-1 = 40.8 MPI

DESIGN AREA APPLICATION RATE: 0.8 GPD/SF
 REQUIRED EFFECTIVE LEACHING AREA: 900 SF X 2
 DESIGN PRIMARY EFFECTIVE LEACHING AREA: 900 SF
 DESIGN SECONDARY EFFECTIVE AREA: 900 SF
 DESIGN TRENCH GEOMETRY: 6 X 3W X 3D (2' EFFECTIVE) X 100'L
 MAX EFFECTIVE AREA/LF: 35F/LF

WATER SUPPLY: PRIVATE WELL

OWNER IS RESPONSIBLE FOR GENERAL OPERATION AND MAINTENANCE OF THE WASTEWATER SYSTEM
 THE SEPTIC/WASTEWATER SYSTEM SHALL BE INSTALLED BY A QUALIFIED PROFESSIONAL.



PROJECT DESCRIPTION

GENERAL: (N) SEPTIC SYSTEM
 BASIS: (N) SFD

JUSTIFICATION FOR DESIGN SUMMARY (SEE PROJECT DESIGN AND OPERATION NOTES ON THIS SHEET FOR ADDITIONAL INFORMATION):

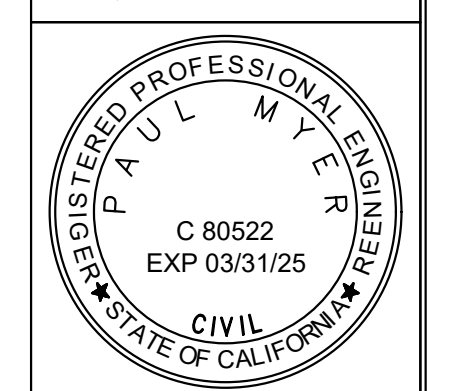
THE SITE SOILS WITHIN THE PROPOSED DISPOSAL AREA GENERALLY CONSIST OF DARK BROWN SANDY LOAM TO A DEPTH OF APPROXIMATELY 3' BGL, UNDERLAIN BY SANDY CLAY LOAM WITH FRACTURED SANDSTONE AND MOTTLING FROM 6' TO 8' BGL, OVER A LAYER OF SANDY CLAY LOAM TO A DEPTH OF AT LEAST 10'. GROUNDWATER WAS NOT ENCOUNTERED HOWEVER MOTTLING AND INDICATORS OF GROUNDWATER WERE ENCOUNTERED DEPTHS BETWEEN 6' AND 8' BGL. THE AVERAGE STABILIZED PERCOLATION RATE IN THE UPPER 3' OF SOIL WAS 62 MPI OVER THE SITE AS A WHOLE, INDICATING RELATIVELY SLOW PERCOLATION WITHIN THE CLAY LOAM UPPER SITE SOILS. HOWEVER, MYER ENGINEERING RECOMMENDS INSTALLATION OF THE DISPOSAL SYSTEM SET BACK AT LEAST 15' FROM THE SLOWER SOILS ENCOUNTERED IN PERCOLATION TEST HOLE P-1. THE AVERAGE STABILIZED PERCOLATION RATE IN THE UPPER 3' OF SOIL, EXCLUDING THE SLOWER SOIL RATES FOUND ADJACENT TO P-1 WAS 40.8 MPI. IN ORDER TO MEET THE REQUIREMENTS FOR GROUNDWATER SEPARATION, MYER ENGINEERING RECOMMENDS INSTALLATION OF AN ALTERNATIVE INCLUDING PRESSURE DOSED SAND TRENCH LEACHFIELDS INSTALLED TO A MAXIMUM DEPTH OF 3' BGL.

COVER SHEET

Patchen Christmas Tree Farm Site
 Improvement Project
 22197 OLD SANTA CRUZ HWY
 Los Gatos CA 95033
 APN: 558-08-149

CLIENT
 JIM BECK AND
 KELLEY
 FREDERICKS

MYER ENGINEERING, INC.
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 PAUL MYER, MS, PE
 1796 LAUREL GLEN RD.
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 paul@myerengineering.com



Drawn By	Checked By
PEM	PEM
Project No.	Scale
202162	AS SHOWN
Date	
	MAR 2024
Sheet No.	

WW1
 1 OF 5

PEM 3/21/2024 MTE_Patchen_QMIS_Plane_REV3.dwg

No.	Revision/Issue	Date

APN 558-08-119

APN 558-08-141

20' R/W & P.U.E.
R.O.S 283 M 6
O.R VOL.7088, P.396

PARCEL A
APN 558-08-096
0.79± ACRES

PARCEL B
APN 558-08-095
0.50± ACRES

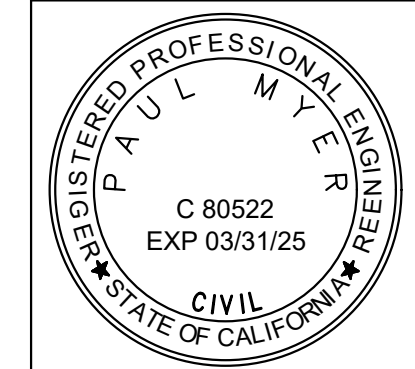


WASTEWATER SYSTEM PLAN

Patchen Christmas Tree Farm Site
 Improvement Project
 22197 OLD SANTA CRUZ HWY
 Los Gatos CA 95033
 APN: 558-08-149

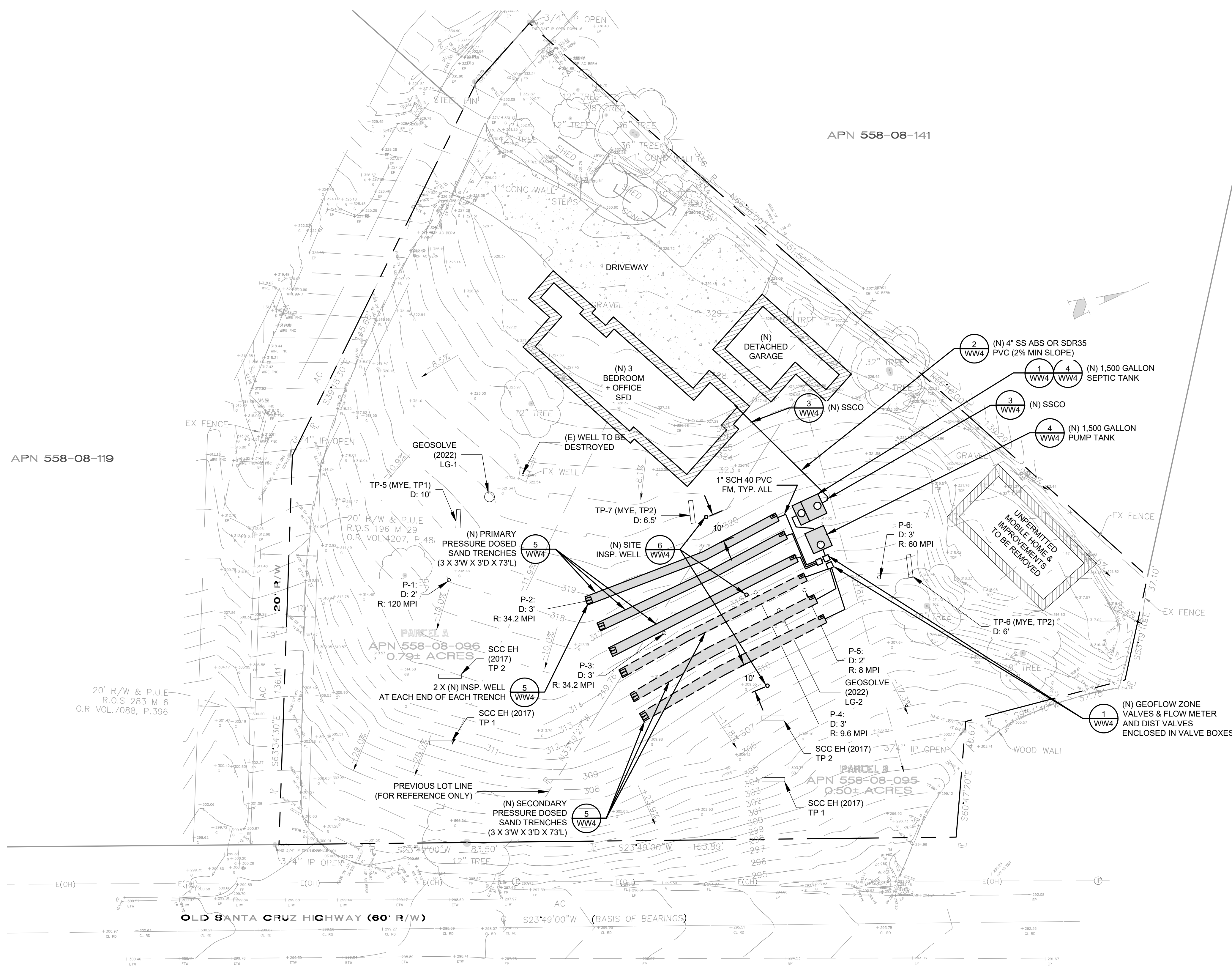
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 paul@myerengineering.com



Drawn By: PEM
 Checked By: PEM
 Project No.: 202162
 Scale: AS SHOWN
 Date: MAR 2024
 Sheet No.:

WW3
 3 OF 5



Number of bedrooms	4+1 = 5	Total square footage of living space	3,586
Septic tank size	1,500 GAL	Installed drainfield	657 SQFT x 2
		Expansion drainfield	657 SQFT
Elevation of highest drainfield (ft)	318'		
Elevation of pump off (ft)	311'		
Total lift (Ft Head)	= 7' (A)		

TIGHT LINE
 Diameter of tight line (inches) 1"
 Length of tight line from pump to upper drainfield (ft) 35' (B)

No. of Fittings	Pipe Length Equivalent (ft)	Total Pipe Equivalent (ft)
4 90° standard elbow	X 2.25'	= 9'
4 45° standard elbow	X	=
90° long radius elbow	X	=
other fittings	X	=
4 gate valve (fully open)	X 0.6	= 2.4
1 check valve (conventional swing)	X 1	= 1
		TOTAL = 12.4' (C)

Total Length of Pipe = B + C = 52.4' (D)

CALCULATIONS:
 Friction Loss in Pipes and Fittings:
 (D/100 ft) x 42.38' (friction loss per chart) = 14.8' (E) Head in Feet

Required Pump Size:
 7' (A) + 14.8' (E) = 21.8' (F) Total Pumping Head in Feet + HEAD THROUGH LEACHFIELD PIPES + 1' HEAD AT END OF LEACHFIELD + 1' HEADLOSS THROUGH FLOW METER + 1' HEADLOSS THROUGH VALVES = 73'

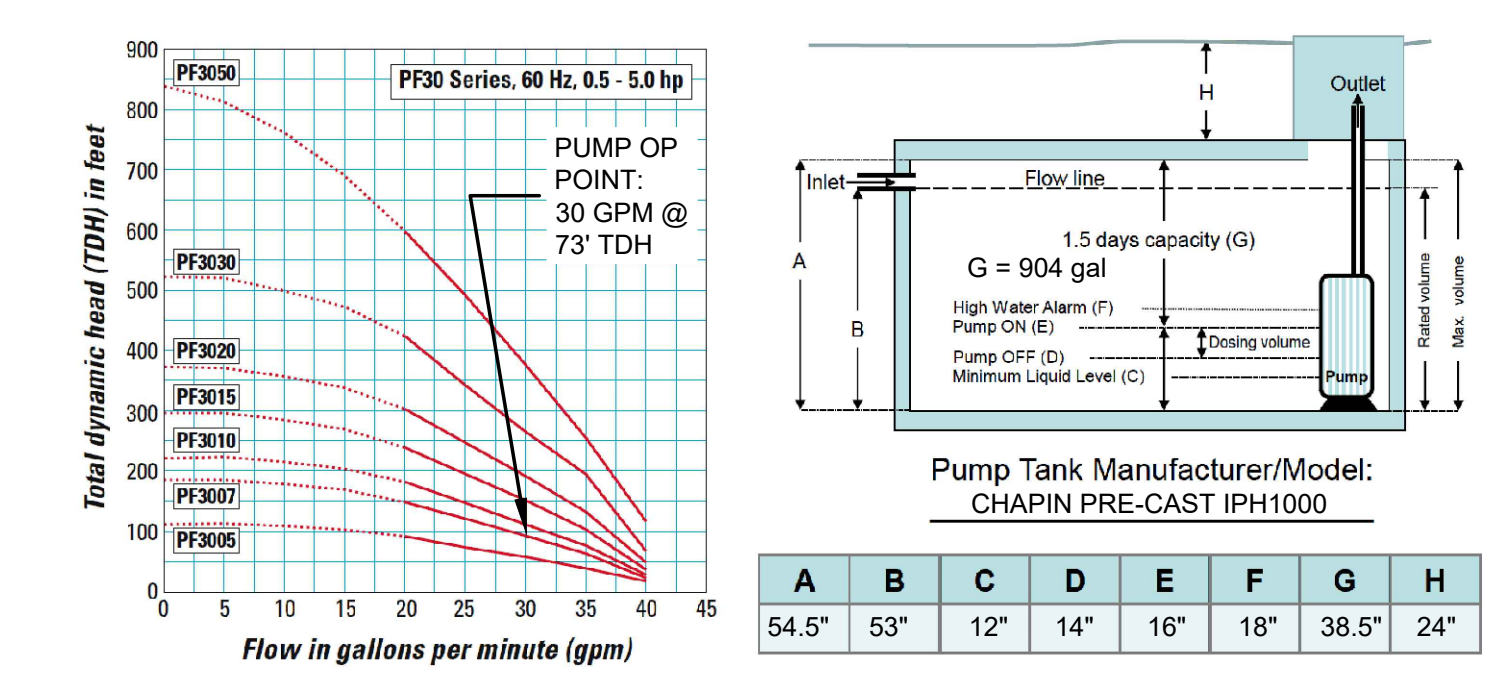
Pump Size:
 (F) versus GPM = Pump Size (refer to pump curve)

Pump Model: (Attach Pump Curve)
 30 GPM at 73' (G) (ft of head: from pump curve) Manufacturer/Model: ORENCO PF3007

Required Capacity in Gallons
 Dosing Volume: 47 GAL
 Storage Capacity (1 1/2 days): 904 GAL
 Pump Displacement: 8 GAL
 Volume from tank bottle to pump base: 35 GAL
 Total tank capacity: 1,286 GAL MAX

Pump Tank Information
 Manufacturer: CHAPIN PRE-CAST Size 1,286 GAL MAX Gallons per inch 23.5 GAL AVERAGE

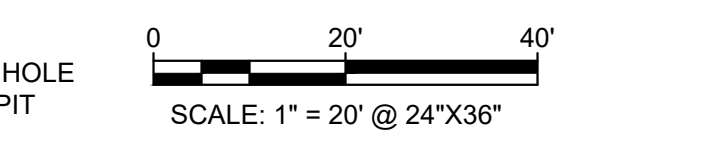
2 OWTS CALCULATIONS (PUMP SYSTEM SIZING)
 SCALE: NA



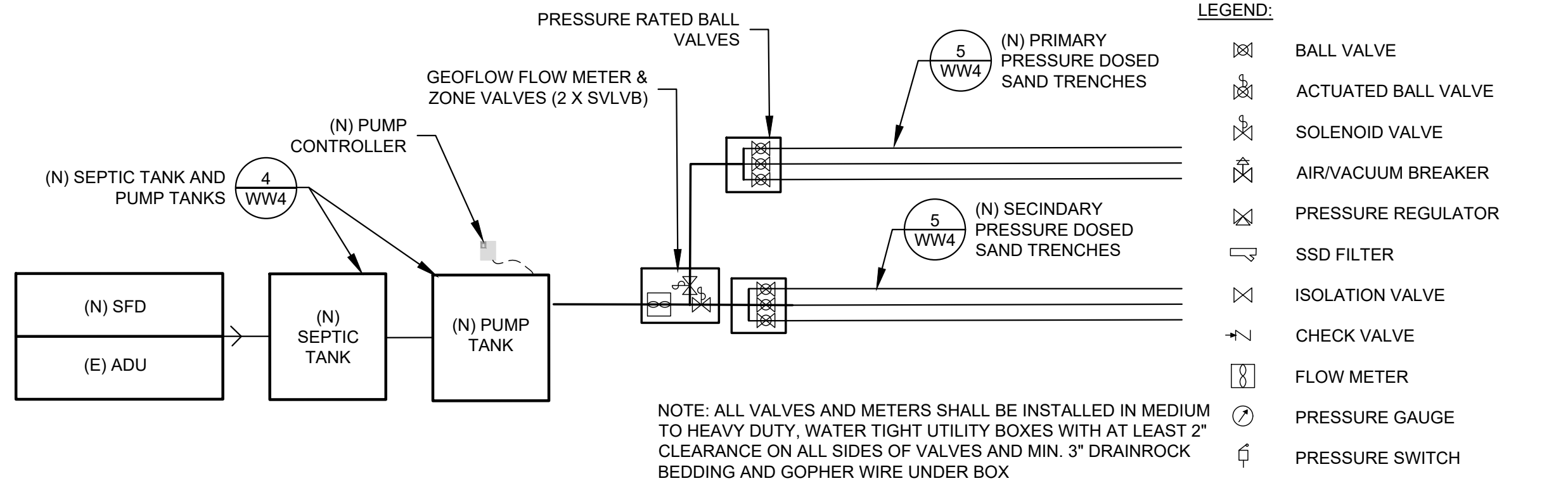
3 PUMP SYSTEM DETAILS
 SCALE: AS DIMENSIONED

1 OWTS PLAN
 SCALE: 1" = 20'

SOIL TESTING LEGEND:
 P-# PERCOLATION TEST HOLE
 TP-# SOIL PROFILE TEST PIT

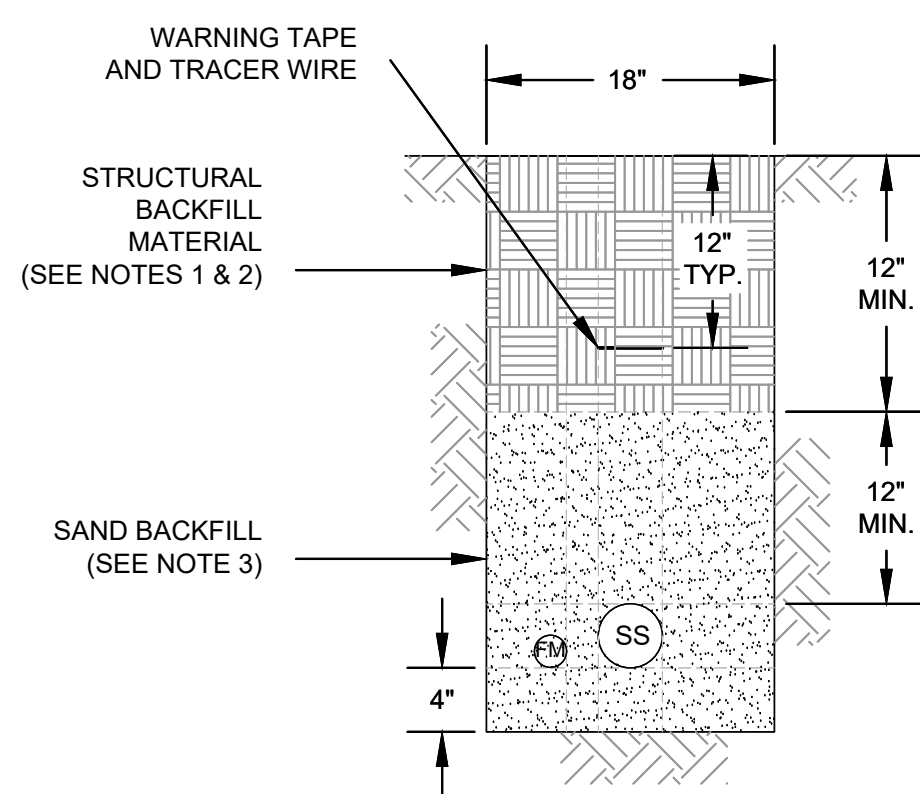


No.	Revision/Issue	Date



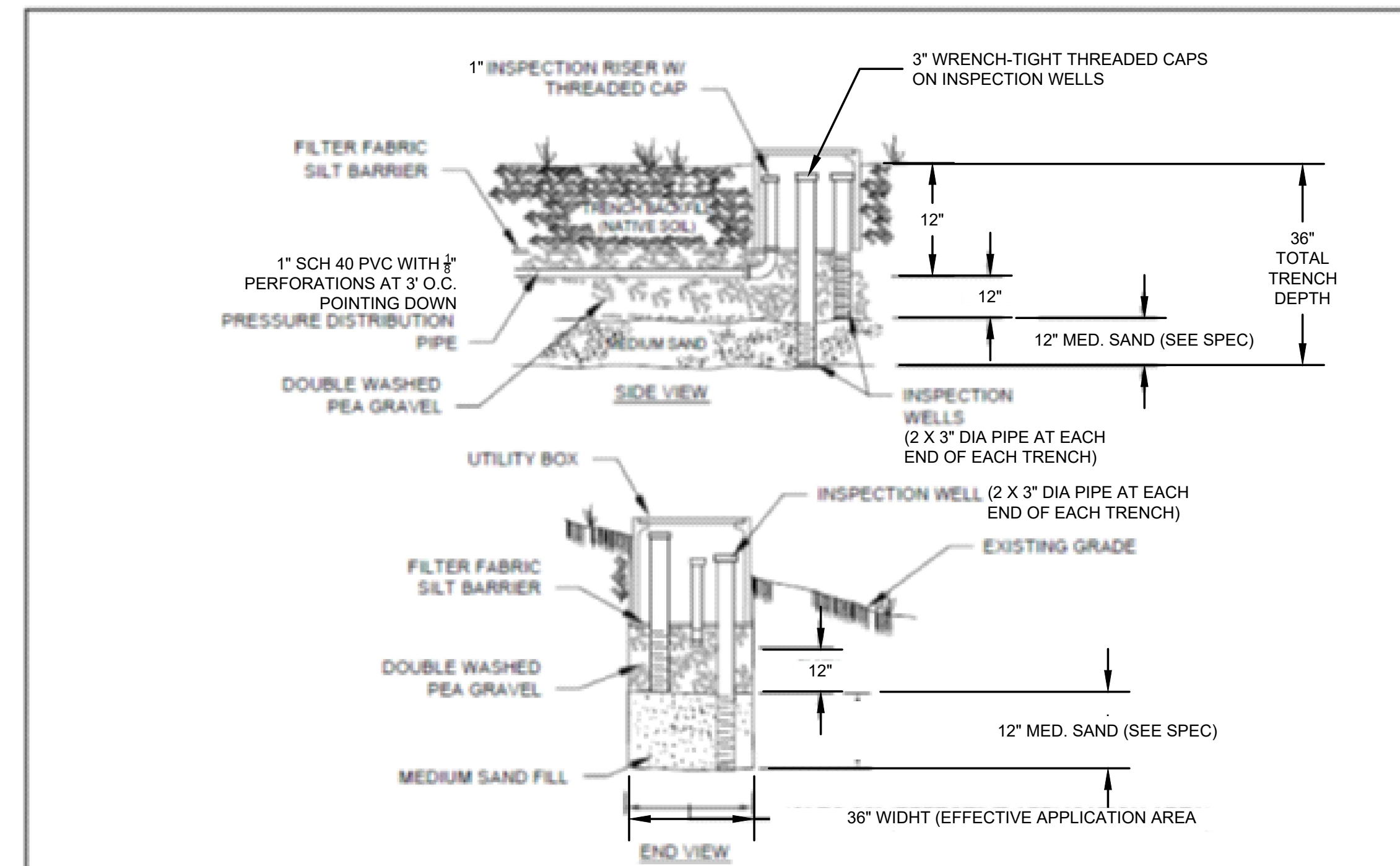
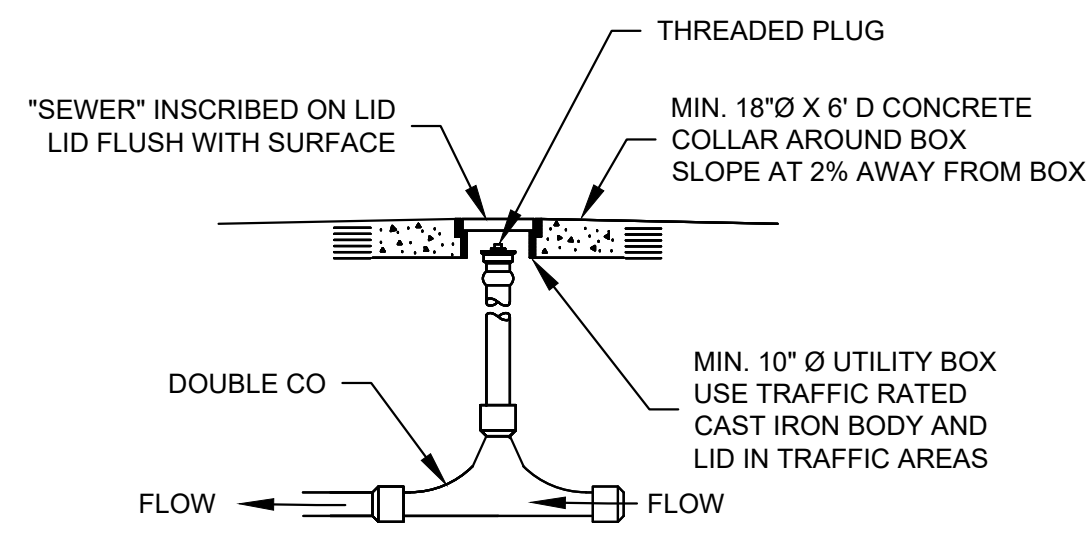
1 WASTEWATER TREATMENT AND DISPOSAL SYSTEM SCHEMATIC

SCALE: AS DIMENSIONED



2 SS UTILITY TRENCH DETAIL

SCALE: AS DIMENSIONED



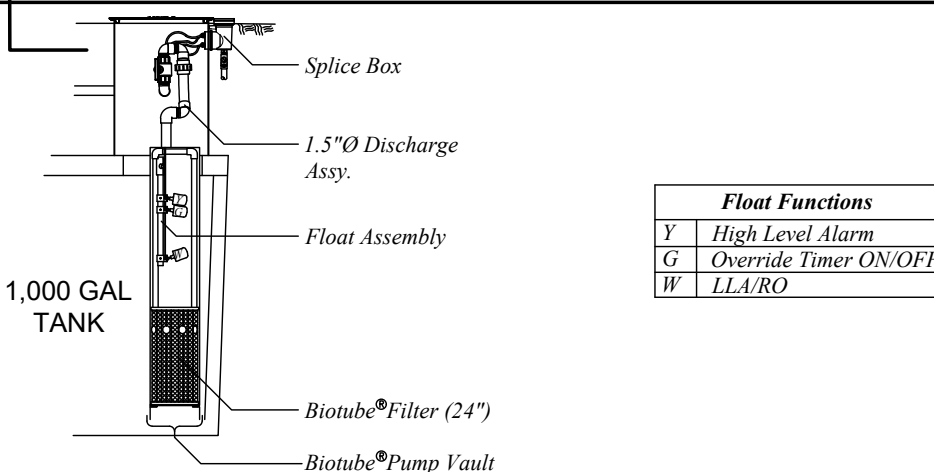
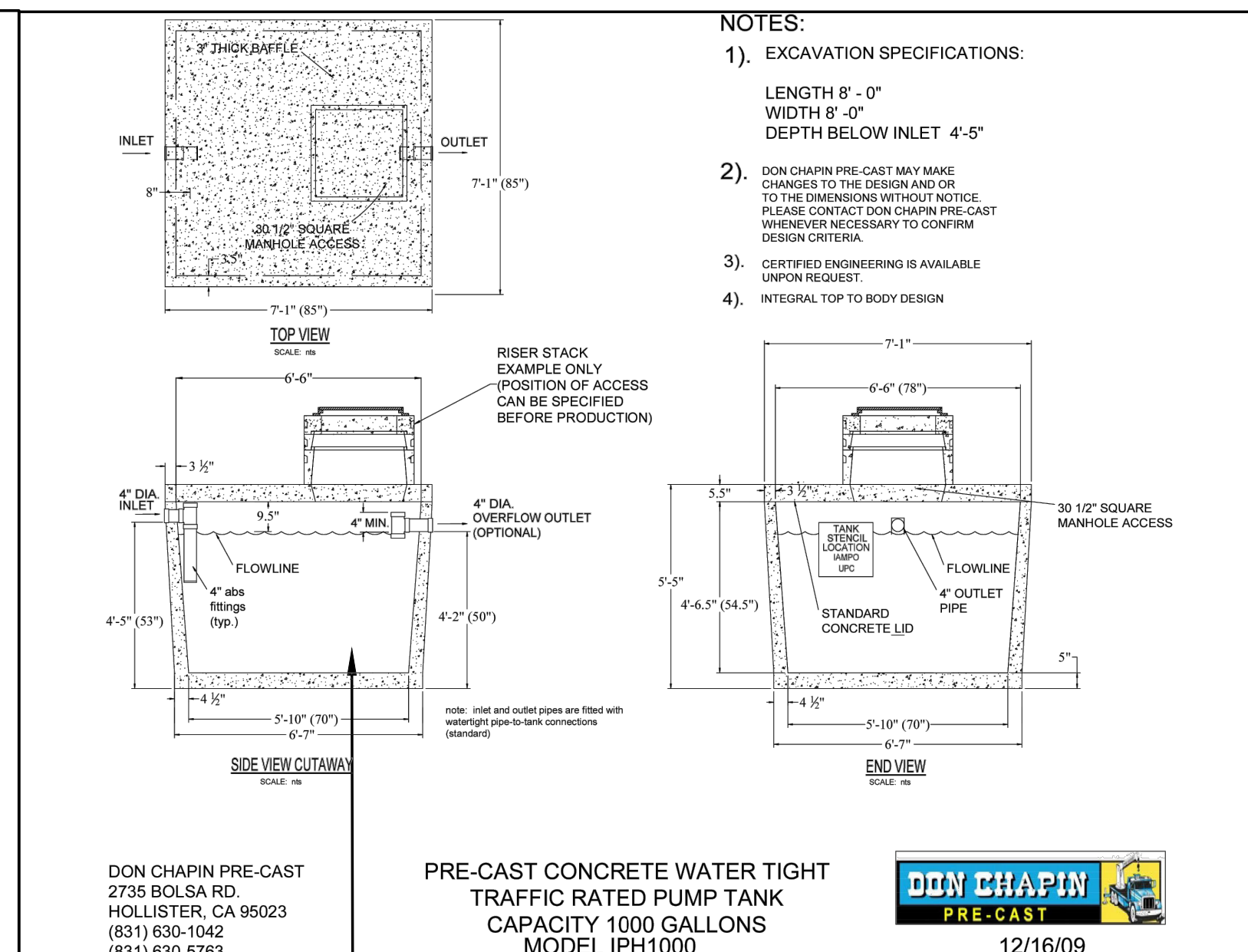
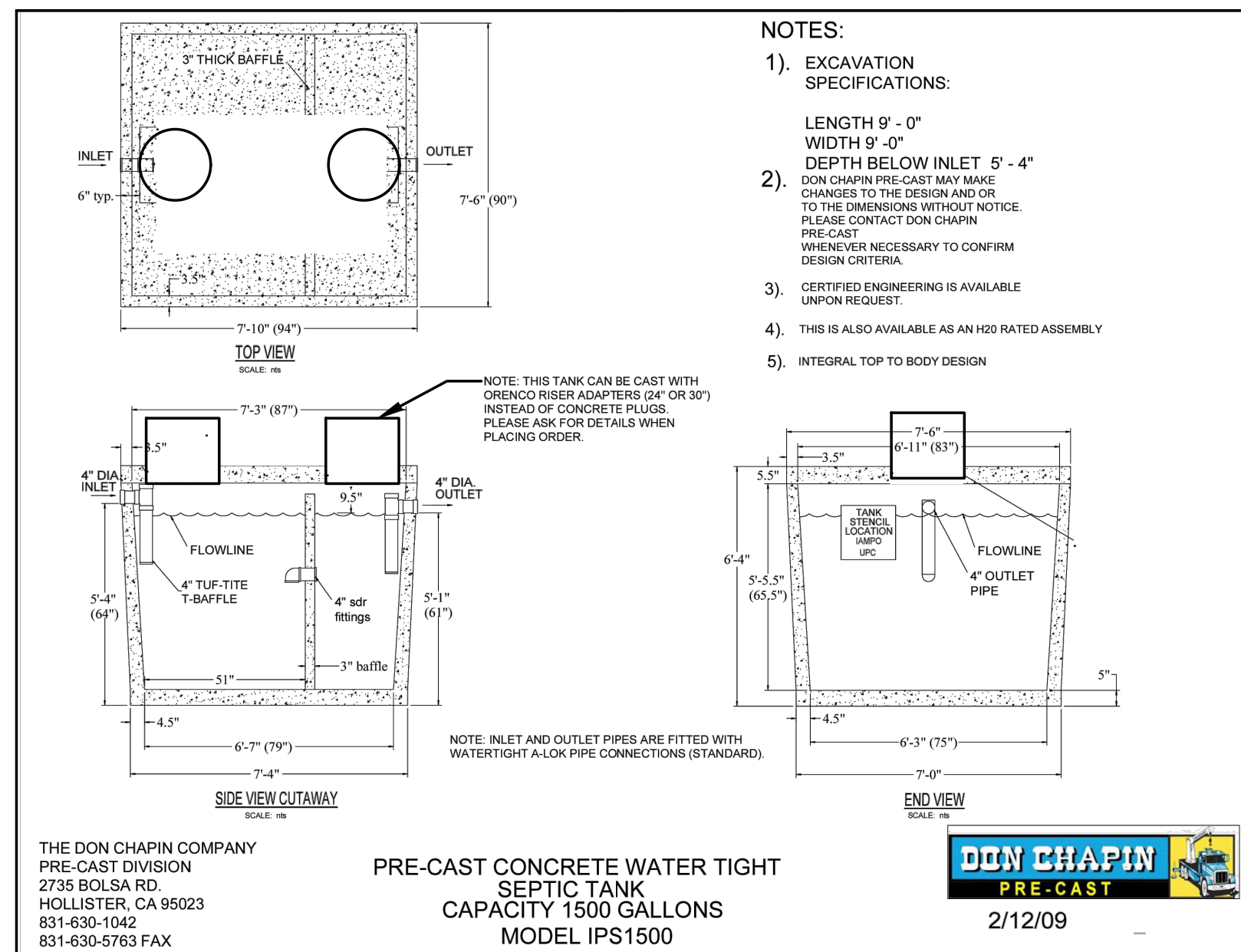
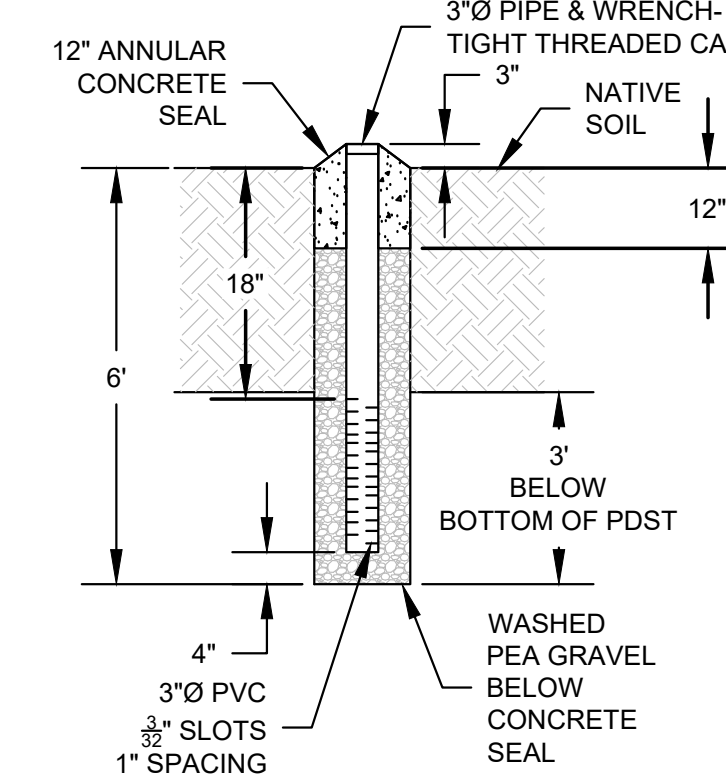
a. Sand Specifications. The sand media shall be a medium to coarse sand that meets the following gradation specifications:

Sieve Size	Percent Passing
3/8	100
#4	90 - 100
#10	62 - 100
#16	45 - 82
#30	25 - 55
#50	5 - 20
#60	0 - 10
#100	0 - 4
#200	0 - 2

Documentation of laboratory sieve analysis results for the proposed sand fill material shall be supplied to DEH to verify conformance with the above specifications.

5 PRESSURE DOSED SAND TRENCHES (PDSTs)

SCALE: AS DIMENSIONED



4 1,500 GAL SEPTIC TANK AND 1,000 GAL PUMP TANK (CHAPIN PRE-CAST OR EQUIV)

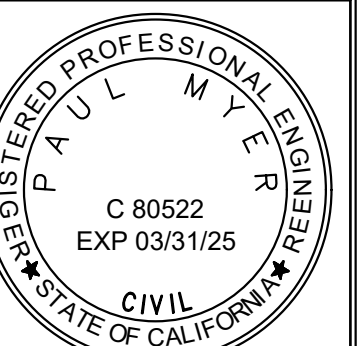
SCALE: AS DIMENSIONED

WASTEWATER SYSTEM SCHEMATIC AND DETAILS

Patchen Christmas Tree Farm Site
Improvement Project
22197 OLD SANTA CRUZ HWY
Los Gatos CA 95033
APN: 558-08-149

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Drawn By: PEM
Checked By: PEM
Project No.: 202162
Scale: AS SHOWN
Date: MAR 2024

Sheet No. **WW4**
4 OF 5

No.	Revision/Issue	Date

GENERAL SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS ARE FOR THE INSTALLATION OF THE ENHANCED WASTEWATER TREATMENT SYSTEM AT THE LOCATION SPECIFIED IN THE BORDER OF THESE DESIGN PLANS. THE ACCOMPANIED PLANS PRESENT THE GENERAL LAYOUT, PLUMBING CONFIGURATION, AND CONSTRUCTION DETAILS.

MATERIAL SPECIFICATIONS

THE FOLLOWING ARE MATERIAL SPECIFICATIONS FOR THE WASTEWATER SYSTEM COMPONENTS. ALL MATERIALS USED FOR THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AND AS DESCRIBED IN THE ACCOMPANIED PLANS OR AN ENGINEER APPROVED EQUIVALENT.

- 1. SUBSURFACE TANKS
THE SUBSURFACE TANKS INCLUDE THE 1,500 GALLON CONCRETE WATER-TIGHT SEPTIC TANK (TREATMENT TANK) AND THE 1,000 GALLON CONCRETE WATER-TIGHT PUMP TANK.
1.1. DIMENSIONS, FITTING SIZES AND LOCATIONS, AND OPTIONAL ACCESSORIES SHALL BE INCLUDED AS SHOWN ON TANK DRAWINGS. THE TANK SHALL BE WATERTIGHT AND TESTED IN THE FIELD AFTER INSTALLATION.
1.2. PRODUCT STORAGE. THE SUBSURFACE TANKS SHALL BE CAPABLE OF STORING SEPTAGE LIMITED TO THE COLLECTION AND STORAGE OF HUMAN SOLID OR LIQUID ORGANIC WASTE.
1.3. PIPING. SDR35 PVC PIPE, SCHEDULE 40 PVC PIPE, OR ABS PIPE SHALL BE USED FOR INLET AND OUTLET PIPING AS SHOWN ON DRAWINGS. ALL PIPING SHALL BE FACTORY SEALED TO ENABLE FIELD TIGHTNESS TESTING WITH AT LEAST ONE PIPE OPENING PROVIDED WITH A THREADED FITTING FOR CONNECTING A PRESSURE TEST MANIFOLD.
1.4. ACCESS OPENINGS. ALL ACCESS OPENINGS SHALL BE 30 INCHES IN DIAMETER OR LARGER AS SHOWN ON THE PLANS. SHALL BE MANUFACTURED OF FIBERGLASS, CONCRETE OR CAST IRON WITH RESPECT TO SPECIFIED TRAFFIC RATING. LOCATIONS SHALL BE AS SHOWN ON TANK DRAWINGS. EACH MANHOLE SHALL HAVE A WATERTIGHT RISER TO FINISH GRADE.
1.5. RISERS. RISERS SHALL BE REQUIRED FOR ACCESS TO INTERNAL VAULTS AND ACCESS INTO THE TANKS FOR SEPTAGE PUMPING. RISERS SHALL BE CONSTRUCTED WITH WATERTIGHT SEALS PROVIDED. RISERS SHALL BE A MINIMUM OF 30" IN NOMINAL DIAMETER WHEN THE DEPTH OF BURY IS 36" OR GREATER. TO ENSURE PRODUCT COMPATIBILITY, RISERS, LIDS, AND ATTACHMENT COMPONENTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER AND, WHERE APPLICABLE, SHALL BE FACTORY EQUIPPED WITH THE FOLLOWING:
1.5.1. ADHESIVE. WHEN BONDING TO THE RISER RINGS, AN EPOXY PROVIDED BY THE MANUFACTURER SHALL BE USED. ADHESIVES AND SEALANTS SHALL BE WATERPROOF, CORROSION RESISTANT, AND APPROVED FOR THE INTENDED APPLICATION. THE RISER-TO-TANK CONNECTION SHALL BE WATERTIGHT AND STRUCTURALLY SOUND. THE RISER-TO-TANK CONNECTION SHALL BE CAPABLE OF WITHSTANDING A VERTICAL UPLIFT OF 5,000 POUNDS TO PREVENT RISER SEPARATION DUE TO TANK SETTLEMENT, FROST HEAVE, AND VEHICLE TRAFFIC OVER THE TANK.
1.5.2. LIDS. ONE LID SHALL BE FURNISHED WITH EACH ACCESS RISER. LIDS SHALL BE WATERPROOF, CORROSION RESISTANT, AND UV RESISTANT. LIDS SHALL BE FLAT, WITH NO NOTICEABLE UPWARD DOME. LIDS SHALL NOT ALLOW WATER TO POND ON THEM. LIDS SHALL FORM A WATERTIGHT SEAL WITH THE TOP OF RISER. TRAFFIC-RATED LIDS SHALL BE CAPABLE OF WITHSTANDING A TRUCK WHEEL LOAD (36 SQUARE INCHES) OF 2500 POUNDS FOR 60 MINUTES WITH A MAXIMUM VERTICAL DEFLECTION OF 1/12". LIDS SHALL BE PROVIDED WITH TAMPER-RESISTANT STAINLESS STEEL FASTENERS AND A TOOL FOR FASTENER REMOVAL. TAMPER-RESISTANT FASTENERS INCLUDE RECESSED DRIVES, SUCH AS HEX, TORX, AND SQUARE. FASTENERS THAT CAN BE REMOVED WITH COMMON SCREWDRIVERS, SUCH AS SLOTTED AND PHILLIPS, OR FASTENERS THAT CAN BE REMOVED WITH STANDARD TOOLS, SUCH AS PLIERS OR CRESCENT WRENCHES, ARE NOT CONSIDERED TAMPER-RESISTANT. TO PREVENT A TRIPPING HAZARD, FASTENERS SHALL NOT EXTEND ABOVE THE SURFACE OF THE LID.
1.5.3. RISER INSTALLATION. RISER INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

- 2. PIPING AND FITTINGS
THE TYPE OF PIPE MATERIALS AND FITTINGS SHALL BE AS DESIGNATED ON THE PLANS AND SHALL COMPLY WITH THE FOLLOWING:
2.1. FITTINGS AND COUPLINGS
THE FITTINGS AND COUPLINGS FOR PVC PIPES SHALL BE THREADED OR SLIP-FITTED TAPERED SOCKET SOLVENT WELD. THREADED ADAPTERS SHALL BE PROVIDED WITH SOCKET PIPE FOR CONNECTIONS TO THREADED PIPE.
3. VALVES

- 3.1. GENERAL
VALVES SHALL BE OF THE SIZE, TYPE, AND CAPACITY DESIGNATED ON THE PLANS OR IN THE SPECIFICATIONS AND SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED HEREIN. ALL VALVES ON PRESSURIZED PORTIONS OF THE SYSTEM SHALL BE CAPABLE OF SATISFACTORY PERFORMANCE AT WORKING PRESSURE OF 150 PSI. ALL VALVES ON GRAVITY PORTIONS OF THE SYSTEM SHALL BE RATED FOR AT LEAST TWICE THE ESTIMATED STATIC HEAD ABOVE THE VALVE. VALVES SHALL BE DESIGNED TO PERMIT DISASSEMBLY TO REPLACE SEALING COMPONENTS WITHOUT REMOVAL OF THE VALVE BODY FROM THE PIPELINE, SUCH AS TRUE UNION BALL VALVES AND CHECK VALVES.
4. PUMP SYSTEMS
ALL PUMP SYSTEMS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. IF THERE IS A CONFLICT BETWEEN MANUFACTURER RECOMMENDATIONS, AND THE DESIGN PLANS, THE PROJECT ENGINEER SHALL BE CONTACTED FOR APPROVAL OF INSTALLATION CONFIGURATION.

- 5. ADDITIONAL COMPONENTS
ALL COMPONENTS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. IF THERE IS A CONFLICT BETWEEN MANUFACTURER RECOMMENDATIONS, AND THE DESIGN PLANS, THE PROJECT ENGINEER SHALL BE CONTACTED FOR APPROVAL OF INSTALLATION CONFIGURATION.
6. LEACHFIELDS
THE LEACHFIELD SYSTEM SHALL PROVIDE ADDITIONAL TREATMENT AND DISPOSAL OF THE WASTEWATER. THE SYSTEM SHALL BE CONSTRUCTED AS SHOWN ON PLANS.

- 6.1. CLEAN DRAIN ROCK
THE DRAIN ROCK SHALL BE LOCATED AS SHOWN IN THE ACCOMPANYING PLANS. THE ROCK SHALL BE CLEAN, DOUBLE WASHED GRAVEL RANGING FROM 3/4" TO 1-1/2" WITH FINES LESS THAN 1%.
6.2. FILTER FABRIC
THE FILTER FABRIC SHALL BE PLACED ON TOP OF THE GRAVEL ROCK BED. THE FABRIC SHALL BE A GEOTEXTILE SYNTHETIC FILTER FABRIC SUCH AS MIRAFI 1100N, DUPONT TYPAR (4 OR 6 OZ/SQ YD), OR APPROVED EQUIVALENT. THE FABRIC SHALL COVER AN AREA SUCH THAT IT EXTENDS 1 FOOT BEYOND THE TRENCH IN EACH DIRECTION.

- 6.3. SOIL COVER
THE SOIL COVER SHALL BE PLACED OVER THE LEACHFIELDS TO REDUCE EROSION AND SLOPE INSTABILITY. THE SOIL SHALL BE A SANDY LOAM TO INCREASE THE POTENTIAL FOR AIR THROUGH THE DEPTH OF THE SOIL. THE SOIL SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION IN LANDSCAPE AREAS AND 95% RELATIVE COMPACTION IN DRIVEWAYS AND ROADWAYS.
6.4. SAND
PLEASE SEE THE SAND SPECIFICATION PROVIDED ON THE DETAILS SHEET OF THIS PLAN SET.

CONSTRUCTION SPECIFICATIONS

THE CONSTRUCTION OF THE PROJECT SHALL CONFORM TO THE PLANS AND FOLLOWING SPECIFICATIONS. ALL NECESSARY CONSTRUCTION PERMITS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF ALL SITE WORK.

- 1. PRECONSTRUCTION CONFERENCE
THE CONTRACTOR SHALL HAVE A PRECONSTRUCTION MEETING WITH THE ENGINEER AND OWNER AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF SITE WORK. THE ENGINEER SHALL BE CONTACTED 48 HOURS PRIOR TO THE MEETING CONFERENCE. THE MEETING SHOULD BE CONDUCTED TO REVIEW THE DESIGN, MATERIAL, AND CONSTRUCTION SPECIFICATIONS. ALL CONTRACTOR PROPOSED REVISIONS IN THE DESIGN SHALL BE APPROVED BY THE ENGINEER. THE INSTALLATION MUST BE INSPECTED BY THE ENGINEER FOR CONFORMANCE TO THE DESIGN.
2. STAKING
THE CONTRACTOR WILL PROVIDE SUFFICIENT HORIZONTAL AND VERTICAL CONTROL FOR INSTALLATION OF THE WORK AT DATUM POINTS NECESSARY TO ESTABLISH ALIGNMENT AND GRADE. THE PROTECTION AND CARE OF THE STAKES ONCE SET, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. EXCAVATION
ALL EXCAVATION WORK SHALL BE MADE TO THE LINES, GRADES AND DIMENSIONS SHOWN IN THE

ACCOMPANIED PLANS. EXCAVATIONS SHALL BE PERFORMED IN THE DAY AND IN A MANNER THAT MINIMIZES EROSION, FLOODING AND SEDIMENTATION. EXCAVATED SOILS THAT ARE TO BE STOCKPILED ON-SITE SHALL BE PLACED IN A LOCATION AND MANNER THAT MINIMIZES EROSION AND CONTROLS SEDIMENTATION.

THE CONTRACTOR SHALL TAKE EXTRA PRECAUTION WHERE EXCAVATION EQUIPMENT MAY ENCOUNTER EXISTING UNDERGROUND UTILITIES AND OTHER FACILITIES OF ANY NATURE. CONTRACTOR SHALL PERSON HIS OPERATION IN SUCH A MANNER AND SHALL EXERCISE THE GREATEST OF CARE SO AS NOT TO INJURE IN ANY MANNER EXISTING UNDERGROUND UTILITIES, MAINS OR FACILITIES OF ANY NATURE. SHOULD THE CONTRACTOR INJURE, BREAK OR DAMAGE EXISTING UNDERGROUND UTILITIES, MAINS, OR FACILITIES OF ANY NATURE IN ANY MANNER, THEY SHALL REPAIR THE SAME AT THEIR OWN EXPENSE. IF IT DOES NOT APPEAR FEASIBLE THAT THE CONTRACTOR CAN MAKE NEEDED REPAIRS, THEN SUCH REPAIRS SHALL BE MADE BY THE OWNER AND THE CONTRACTOR SHALL BE CHARGED FOR SUCH REPAIRS.

- 4. POLLUTION CONTROL
4.1. WATER POLLUTION
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PERMITTING REQUIREMENTS RELEVANT TO THE CONSTRUCTION OF THE PROJECT ARE MET AT ALL TIMES. ACTIONS BY THE CONTRACTOR, THE SUBCONTRACTORS OR EMPLOYEES THEREOF RESULTING IN NONCOMPLIANCE OF PERMITTING REQUIREMENTS MAY BE GROUNDS FOR TERMINATION OF THIS CONTRACT.
4.2. NOISE POLLUTION
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP NOISE POLLUTION, DUE TO THESE CONSTRUCTION ACTIVITIES, AS LOW AS POSSIBLE.
4.3. SOIL CONTAMINATION
THE CONTRACTOR SHALL NOT ALLOW REGULATED MATERIALS TO SPILL ON THE PROJECT SITE. ANY SPILLAGE OR REGULATED MATERIALS RESULTING FROM THE CONTRACTOR'S OPERATION SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4.4. STORAGE OF REGULATED MATERIALS
THE STORAGE AND USE OF ANY REGULATED MATERIALS SHALL MEET ALL REQUIREMENTS OF LOCAL, STATE, AND FEDERAL REGULATORY AGENCIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY THE REQUIREMENTS OF ANY REGULATORY AGENCY FOR THE STORAGE, MONITORING, USAGE, TRANSPORTATION, SAFETY, REPORTING, OR ANY OTHER REQUIREMENTS REGARDING THE MANAGEMENT OF REGULATED MATERIALS ON AND OFF THE PROJECT SITE.

- 5. SITE WORK
5.1. MOBILIZATION
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PREPARATORY WORK AND PLACEMENT OF MATERIALS IN A STAGING AREA REQUIRED FOR CONSTRUCTION OPERATIONS INCLUDING, BUT NOT LIMITED TO, THOSE NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES, AND INCIDENTALS TO THE PROJECT SITE; FOR THE ESTABLISHMENT OF FACILITIES NECESSARY FOR WORK ON THE PROJECT; PROVIDING POLLUTION CONTROL MEASURES; AND FOR ALL OTHER WORK AND OPERATIONS WHICH MUST BE PERFORMED.
THE CONTRACTOR SHALL PROVIDE MATERIALS, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR PROPER COMPLETION OF THE WORK OF THIS SECTION, AS SELECTED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE COUNTY.
5.2. CLEARING AND GRUBBING
CLEAR THE SITE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THIS SECTION. CLEARING AND GRUBBING SHALL CONSIST OF ALL WORK INCLUDING, BUT NOT LIMITED TO, SALVAGED MATERIALS REMOVAL, PROVIDING AND INSTALLING EROSION CONTROL, AND PLACEMENT OF TREES, TREE BRANCHES, TREE STUMPS, BRUSH, ROOTS, BOULDERS, SHRUBS, SEDIMENT, AND ALL OBJECTIONABLE MATERIALS IN AN AGREED UPON LOCATION ADJACENT TO THE WORK SITE.

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH THE WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

- 6. DELETERIOUS MATERIALS
MATERIALS CONTAINING AN EXCESS OF 5% (BY WEIGHT) OF VEGETATION OR OTHER DELETERIOUS MATTER MAY BE UTILIZED IN AREAS OF LANDSCAPING OR OTHER NON-STRUCTURAL FILLS. DELETERIOUS MATERIAL INCLUDES ALL VEGETATIVE AND NON-MINERAL MATTER, AND ALL NON-REDUCIBLE STONE, RUBBLE AND/OR MINERAL MATTER OF GREATER THAN 6 INCHES.
7. UTILITY TRENCHES
A. A SELECT, NONCORROSIVE, GRANULAR, EASILY COMPACTED MATERIAL SHOULD BE USED AS BEDDING AND SHADING IMMEDIATELY AROUND UTILITY PIPES. THE SITE SOILS MAY BE USED FOR TRENCH BACKFILL ABOVE THE SELECT MATERIAL. IF OBTAINING COMPACTION IS DIFFICULT WITH THE SITE SOILS, USE OF A MORE EASILY COMPACTED SAND MAY BE DESIRABLE. THE UPPER FOOT OF BACKFILL IN LANDSCAPED OR OTHER OPEN AREAS SHOULD CONSIST OF NATIVE MATERIAL TO REDUCE THE POTENTIAL FOR SEEPAGE OF WATER INTO THE BACKFILL.
B. TRENCH BACKFILL IN THE UPPER 12 INCHES OF SUBGRADE BENEATH AREAS TO RECEIVE PAVEMENT SHOULD BE COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY. TRENCH BACKFILL IN OTHER AREAS SHOULD BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY. JETTING OF UTILITY TRENCH BACKFILL SHOULD NOT BE ALLOWED.

- 8. PIPE INSTALLATION
8.1. GENERAL
PIPE SHALL BE JOINED BY SOCKET TYPE SOLVENT-WELDED FITTINGS OR THREADED FITTINGS. PLASTIC PIPE SHALL BE CUT SQUARE, EXTERNALLY CHAMFERED APPROXIMATELY 10 TO 15 DEGREES, AND ALL BURRS AND FINIS REMOVED. SOLVENT-WELDED JOINTS SHALL BE MADE IN ACCORDANCE WITH ASTM D 2855. THE SOLVENT RECOMMENDED BY THE MANUFACTURER SHALL BE USED.

CARE SHALL BE EXERCISED IN ASSEMBLING A PIPELINE WITH SOLVENT WELDED JOINTS SO THAT STRESS ON PREVIOUSLY MADE JOINTS IS AVOIDED. HANDLING OF THE PIPES FOLLOWING JOINTING, SUCH AS LOWERING THE ASSEMBLED PIPELINE INTO THE TRENCH, SHALL NOT OCCUR PRIOR TO THE SET TIMES SPECIFIED BY THE MANUFACTURER. SOLVENTS SHALL BE APPLIED TO PIPE ENDS IN SUCH A MANNER THAT NO MATERIAL IS DEPOSITED ON THE INTERIOR SURFACE OF THE PIPE OR EXTRUDED INTO THE INTERIOR OF THE PIPE DURING JOINTING. EXCESS CEMENT ON THE EXTERIOR OF THE JOINT SHALL BE WIPED CLEAN IMMEDIATELY AFTER ASSEMBLY.

THREADED PIPE JOINTS SHALL BE MADE USING TEFLON TAPE OR OTHER APPROVED JOINTING MATERIAL. SOLVENT SHALL NOT BE USED WITH THREADED JOINTS. PLASTIC PIPE WHICH HAS BEEN KICKED, SCARRED, OR OTHERWISE DAMAGED SHALL BE REMOVED AND REPLACED. PLASTIC PIPE SHALL BE SNAKED FROM SIDE TO SIDE IN THE TRENCH TO ALLOW 1 FOOT OF EXPANSION AND CONTRACTION PER 100 FEET OF STRAIGHT RUN. THE PIPELINE SHALL NOT BE EXPOSED TO WATER FOR 24 HOURS AFTER THE LAST SOLVENT-WELDED JOINT IS MADE.

- 8.2 GRAVITY PIPE
GRAVITY PIPE FOR WASTEWATER SHALL PROVIDE 2 FT VERTICAL AND 10 FT HORIZONTAL CLEARANCE FROM WATER LINES, AND SHALL CROSS SUCH LINES AS NEARLY AS POSSIBLE TO 90 DEGREES, IF CROSSING CAN NOT BE AVOIDED.
PIPE SLOPES SHALL NOT BE LESS THAN 2% FOR 4"Ø PIPE. PIPES SHALL ENTER AND LEAVE CONNECTIONS AS CLOSE TO PARALLEL AS POSSIBLE, BUT IN NO WAY TO EXCEED AN ANGLE OF 45°. 90° TEE CONNECTIONS ARE NOT ALLOWED.

8.3 GENERAL TRENCHING
EXCAVATION OF PIPE TRENCHES SHALL FOLLOW NEAT AND PARALLEL LINES, WITH TRENCH WIDTH, IN GENERAL, TO BE ONE FOOT, WITH SUCH WIDENING, AS REQUIRED TO PLACE VALVES AND FITTINGS WITH A MINIMUM OF 4 INCH CLEARANCE TO TRENCH WALL. THE TRENCH SHALL BE NO LESS THAN 24 INCHES DEEP, EXCEPT WHEN IT IS NECESSARY, TO AVOID UNDERGROUND OBSTRUCTIONS OR ROCKY CONDITIONS. IN ALL CASES, THE PIPE SHALL BE PLACED ON A BEDDING OF IMPORTED OR NATIVE MATERIAL PROVIDING CONTINUOUS SUPPORT THROUGHOUT ITS LENGTH.

BACKFILL FOR THE PIPE TO THE TOP OF THE PIPE PLUS 4 INCHES SHALL BE SELECTED OR IMPORTED SANDY MATERIAL, FREE OF STONE, CLAY, LIMBS OR OTHER DELETERIOUS MATERIALS IN EXCESS OF 1/2 INCH MAXIMUM DIMENSION, PLACED AND TAMPED AND/OR PADDED ABOUT THE PIPE TO ENSURE PROPER BEDDING PRIOR TO COMPLETION OF TRENCH FILL. THE REMAINING BACKFILL SHALL BE PLACED AT 90% RELATIVE COMPACTION.

- 9. FLUSHING AND TESTING
AFTER COMPLETION, ALL PIPELINES SHALL BE THOROUGHLY FLUSHED TO REMOVE DIRT, SCALE, OR OTHER MATERIAL. AFTER FLUSHING, THE LINE SHALL BE PRESSURE TESTED. ALL EQUIPMENT, MATERIALS AND LABOR NECESSARY TO PERFORM THE TESTS SHALL BE FURNISHED BY THE CONTRACTOR AND ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE OWNER OR ENGINEER.

THE CONTRACTOR SHALL PERFORM A TEST TO DEMONSTRATE THAT THE TANKS AND BASINS ARE WATER TIGHT. THE INLET AND OUTLET PIPES OF THE TANKS SHALL BE CAPPED AND THE TANKS SHALL BE COMPLETELY FILLED WITH WATER. THE WATER LEVEL SHALL REMAIN CONSTANT FOR MORE THAN 24 HOURS, OR DURATION BY THE REVIEWING AGENCY JURISDICTION, WHICHEVER IS GREATER, TO DETERMINE IF IT IS WATER TIGHT.

- 10. OPERATIONAL TEST
THE PERFORMANCE OF ALL COMPONENTS OF THE SYSTEMS SHALL BE EVALUATED BY THE CONTRACTOR. DURING THE TEST PERIOD AND AT LEAST 15 DAYS PRIOR TO FINAL INSPECTION, THE SYSTEM SHALL OPERATE SATISFACTORILY DURING SUCH PERIOD. ALL NECESSARY REPAIRS, REPLACEMENTS, AND ADJUSTMENTS SHALL BE MADE UNTIL ALL EQUIPMENT, ELECTRICAL WORK, CONTROLS, AND INSTRUMENTATION ARE FUNCTIONING IN ACCORDANCE WITH THE CONTRACTORS DOCUMENTS OR MANUFACTURER SPECIFICATIONS.
11. AS-BUILT DRAWINGS
THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A SET OF AS-BUILT DRAWINGS OF THE LAYOUT AND CONSTRUCTION OF THE SYSTEM.
12. OTHER ITEMS
ANY PROCEDURES NOT NOTED OR INCLUDED IN THE ENGINEERING PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
13. CONSTRUCTION INSPECTION
13.1. AT A MINIMUM, INSPECTION OF THE DRIP DISPERSAL SYSTEM INSTALLATION SHOULD INCLUDE THE FOLLOWING. THIS IS IN ADDITION TO INSPECTION WORK REQUIRED FOR THE TREATMENT SYSTEM. JOINT INSPECTION BY THE DESIGNER, CONTRACTOR, AND DEH MAY BE REQUIRED.
13.1.1. PRE-CONSTRUCTION INSPECTION WHERE THE CONSTRUCTION STAKING OR MARKING OF THE DRIP LINES, SUPPLY AND RETURN PIPING, PUMP SYSTEM AND APPURTENANCES IS PROVIDED AND CONSTRUCTION PROCEDURES DISCUSSED.
13.1.2. WATER TIGHTNESS OF EFFLUENT DOSING (PUMP) TANK.
13.1.3. DRIP FIELD LAYOUT, PIPING MATERIALS AND INSTALLATION, AND ALL ASSOCIATED VALVES AND CONNECTIONS;
13.1.4. HYDRAULIC TESTING OF THE DRIP SYSTEM.
13.1.5. FUNCTIONING AND SETTING OF ALL CONTROL DEVICES; AND
13.1.6. FINAL INSPECTION TO VERIFY THAT ALL CONSTRUCTION ELEMENTS ARE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS, AND MANUFACTURE RECOMMENDATIONS; ALL INSPECTION WELLS ARE INSTALLED, AND EROSION CONTROL HAS BEEN COMPLETED.
14. MANAGEMENT REQUIREMENTS
14.1. RECOMMENDED MINIMUM PROCEDURES AND FREQUENCY FOR INSPECTION, MAINTENANCE, MONITORING AND REPORTING ACTIVITIES FOR SUBSURFACE DRIP DISPERSAL SYSTEMS ARE OUTLINED IN TABLE DD-2.
15. OPERATING PERMITS (PER SANTA CLARA COUNTY ORDINANCE SECTION B11-92)

15.1. (A) IN ADDITION TO AN INSTALLATION PERMIT, AN OPERATING PERMIT IS REQUIRED FOR ALL ALTERNATIVE OWTS, INCLUDING THOSE INSTALLED IN CONNECTION WITH THE REPAIR OR UPGRADE OF EXISTING OWTS AS WELL AS THOSE FOR NEW CONSTRUCTION. GENERAL REQUIREMENTS PERTAINING TO OPERATING PERMITS ARE AS FOLLOWS:

- 15.1.1. (1) THE OPERATING PERMIT WILL BE ISSUED BY THE DIRECTOR FOLLOWING: A. COMPLETION OF CONSTRUCTION OF THE ALTERNATIVE OWTS; B. SATISFACTORY COMPLIANCE WITH THE INSTALLATION PERMIT REQUIREMENTS; AND C. PAYMENT OF APPLICABLE FEES. OPERATING PERMITS ARE NON-TRANSFERABLE.
15.1.2. (2) AFTER INITIAL ISSUANCE, THE OPERATING PERMIT IS REQUIRED TO BE RENEWED PERIODICALLY. THE STANDARD RENEWAL PERIOD BEING ONE YEAR. THE DIRECTOR MAY ESTABLISH CONDITIONS ALLOWING THE TIME PERIOD BETWEEN RENEWALS TO BE EXTENDED FOR CERTAIN TYPES OF OWTS BASED ON A RECORD OF FAVORABLE PERFORMANCE OR OTHER FACTORS WARRANTING A REDUCTION IN SYSTEM OVERSIGHT BY THE DIRECTOR. THE DIRECTOR MAY ADJUST THE RENEWAL PERIOD. THE PERMIT SHALL BE PRESCRIBED BY THE DIRECTOR IN THE ONSITE SYSTEMS MANUAL. OPERATING PERMITS MUST ALSO BE RENEWED AT THE TIME OF CHANGE IN PROPERTY OWNERSHIP.
15.1.3. (3) OPERATING PERMITS ARE INTENDED TO SERVE AS THE BASIS FOR VERIFYING THE ADEQUACY OF ALTERNATIVE OWTS PERFORMANCE AND ENSURING ON-GOING MAINTENANCE PERMIT CONDITIONS SHALL INCLUDE MONITORING AND INSPECTION REQUIREMENTS, PERMIT DURATION, AND OTHER PROVISIONS AS PRESCRIBED BY THE DIRECTOR IN THE ONSITE SYSTEMS MANUAL OR AS DEEMED APPROPRIATE BY THE DIRECTOR ON A CASE-BY-CASE BASIS.
15.1.4. (4) RENEWAL OF AN OPERATING PERMIT REQUIRES A PAYMENT OF THE APPLICABLE FEES, UPON RECEIPT OF NOTICE FROM THE DIRECTOR, AND SUBMISSION OF THE RESULTS OF REQUIRED SYSTEM INSPECTION AND MONITORING.
15.1.5. (5) FAILURE TO PAY THE REQUIRED FEE OR SUBMIT THE SPECIFIED MONITORING AND INSPECTION INFORMATION, OR FAILURE TO UNDER TAKE ANY REQUIRED CORRECTIVE WORK SPECIFIED BY THE DIRECTOR MAY BE CAUSE FOR ISSUANCE OF A CITATION, PENALTY FEES, NON-RENEWAL AND/OR REVOCATION OF THE OPERATING PERMIT BY THE DIRECTOR. THE DIRECTOR MAY PLACE A LIEN ON THE PROPERTY FOR RECOVERY OF ANY ASSOCIATED ABATEMENT COSTS AND UNPAID FEES.
15.1.6. (6) A CERTIFIED COPY OF THE FOLLOWING SHALL BE RECORDED AGAINST THE PROPERTY IN THE OFFICE OF THE COUNTY RECORDER: (A) INITIAL OPERATING PERMIT ISSUED FOR THE SYSTEM; B. REISSUANCE OF OPERATING PERMIT TO NEW OWNERS; AND C. NOTICES OF WITHDRAWAL OF ANY OPERATING PERMIT.
15.2. (B) OTHER USES OF OPERATING PERMITS. AN OPERATING PERMIT MAY ALSO BE UTILIZED FOR CIRCUMSTANCES OTHER THAN ALTERNATIVE OWTS, SUCH AS FOR MAINTENANCE PERMIT FLOW TIPS (> 2,500 GPD), IN CONNECTION WITH HOLDING TANK EXEMPTIONS OR WHERE, IN THE OPINION OF THE DIRECTOR, THE TYPE, SIZE, LOCATION OR OTHER ASPECTS OF A PARTICULAR OWTS INSTALLATION WARRANT THE ADDITIONAL LEVEL OF OVERSIGHT PROVIDED BY AN OPERATING PERMIT. IN SUCH CASES, THE ISSUANCE AND SCOPE OF OPERATING PERMITS WILL BE DETERMINED IN ACCORDANCE WITH THE GENERAL REQUIREMENTS LISTED IN SECTION B11-92(A)(1) THROUGH (A)(6) ABOVE, AND ANY ADDITIONAL REQUIREMENTS PRESCRIBED BY THE DIRECTOR IN THE ONSITE SYSTEMS MANUAL FOR PARTICULAR CIRCUMSTANCES.

- 16. PERFORMANCE MONITORING AND REPORTING.
16.1. (A) A MONITORING PROGRAM WILL BE ESTABLISHED FOR EACH ALTERNATIVE OWTS AS A CONDITION OF THE OPERATING PERMIT AT THE TIME OF PERMIT ISSUANCE, AND MAY BE AMENDED AT THE TIME OF PERMIT RENEWAL. SAID MONITORING SHALL BE PERFORMED TO ENSURE THAT THE ALTERNATIVE OWTS IS FUNCTIONING SATISFACTORILY TO PROTECT PUBLIC HEALTH AND SAFETY. THE MONITORING PROGRAM WILL BE IN ACCORDANCE WITH GUIDELINES IN THE ONSITE SYSTEMS MANUAL AND MAY ALSO INCORPORATE RECOMMENDATIONS OF THE SYSTEM DESIGNER, MANUFACTURER, OR THIRD-PARTY REVIEWER.

- 16.2. (B) MONITORING REQUIREMENTS WILL VARY DEPENDING UPON THE SPECIFIC TYPE OF ALTERNATIVE OWTS IN ACCORDANCE WITH GUIDELINES IN THE ONSITE SYSTEMS MANUAL.
16.3. (C) THE REQUIRED FREQUENCY OF MONITORING WILL BE IN ACCORDANCE WITH GUIDELINES IN THE ONSITE SYSTEMS MANUAL. MONITORING FREQUENCY MAY BE INCREASED IF, IN THE OPINION OF THE DIRECTOR, SYSTEM PROBLEMS ARE EXPERIENCED.
16.4. (D) MONITORING OF ALTERNATIVE OWTS SHALL BE CONDUCTED BY OR UNDER THE SUPERVISION OF ONE OF THE FOLLOWING:
16.4.1. (1) REGISTERED CIVIL ENGINEER;
16.4.2. (2) PROFESSIONAL GEOLOGIST;
16.4.3. (3) REGISTERED ENVIRONMENTAL HEALTH SPECIALIST; OR
16.4.4. (4) OTHER ONSITE WASTEWATER MAINTENANCE PROVIDER REGISTERED WITH THE DEPARTMENT OF ENVIRONMENTAL HEALTH AND MEETING QUALIFICATIONS AS ESTABLISHED IN THE ONSITE SYSTEMS MANUAL. REGISTRATION SHALL ENTAIL:
16.4.4.1. A. DOCUMENTATION OF REQUIRED QUALIFICATIONS;
16.4.4.2. B. PARTICIPATION IN ANNUAL TRAINING/REVIEW CONDUCTED BY THE DIRECTOR; AND
16.4.4.3. C. PAYMENT OF AN ANNUAL FEE ESTABLISHED BY THE BOARD OF SUPERVISORS.
16.4.4.4. ADDITIONALLY, THE DIRECTOR MAY REQUIRE THIRD-PARTY OR COUNTY MONITORING OF ANY ALTERNATIVE OWTS WHERE DEEMED NECESSARY BECAUSE OF SPECIAL CIRCUMSTANCES, SUCH AS THE COMPLEXITY OF THE SYSTEM OR THE SENSITIVE NATURE OF THE SITE. THE COSTS FOR SUCH ADDITIONAL MONITORING WOULD BE THE RESPONSIBILITY OF THE OWNER.

- 16.5. (E) MONITORING RESULTS SHALL BE SUBMITTED TO THE DIRECTOR IN ACCORDANCE WITH REPORTING GUIDELINES PROVIDED IN THE ONSITE SYSTEMS MANUAL. THE MONITORING REPORT SHALL BE SIGNED BY THE PARTY RESPONSIBLE FOR THE MONITORING. NOTWITHSTANDING FORMAL MONITORING REPORTS, THE DIRECTOR SHALL BE NOTIFIED IMMEDIATELY OF ANY SYSTEM PROBLEMS OBSERVED DURING SYSTEM INSPECTION AND MONITORING THAT THREATEN PUBLIC HEALTH OR WATER QUALITY.
16.6. (F) IN ADDITION TO REGULAR INSPECTION AND MONITORING ACTIVITIES, POST-SEISMIC INSPECTION AND EVALUATION OF ALTERNATIVE OWTS LOCATED IN HIGH-RISK SEISMIC AREAS WILL BE REQUIRED IN THE EVENT OF AN EARTHQUAKE CAUSING SIGNIFICANT GROUND SHAKING IN THE REGION, AS DETERMINED BY THE DIRECTOR IN CONSULTATION WITH THE COUNTY GEOLOGIST. THE DIRECTOR WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICES WHEN SUCH INSPECTIONS ARE REQUIRED. THOSE CONDUCTING THE INSPECTIONS WILL BE REQUIRED TO REPORT THE INSPECTION RESULTS TO THE DIRECTOR. THE PURPOSE OF SUCH INSPECTIONS WILL BE TO ASSESS AND DOCUMENT ANY DAMAGE TO THE OWTS AND TO IMPLEMENT CORRECTIVE MEASURES, AS NEEDED, IN A TIMELY MANNER. POST-SEISMIC INSPECTION SHALL BE IN ACCORDANCE WITH REQUIREMENTS PRESCRIBED BY THE DIRECTOR, IN CONSULTATION WITH THE COUNTY GEOLOGIST, AND CONTAINED IN THE ONSITE SYSTEMS MANUAL.
16.7. (G) THE DIRECTOR WILL, FROM TIME-TO-TIME, COMPARE AND REVIEW MONITORING AND INSPECTION RESULTS FOR ALTERNATIVE OWTS AND, AT LEAST EVERY TWO YEARS, WILL PROVIDE A SUMMARY OF RESULTS TO THE SAN FRANCISCO BAY AND CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARDS. BASED ON THIS REVIEW, THE DIRECTOR MAY REQUIRE CORRECTIVE ACTION FOR SPECIFIC PROPERTIES OR CERTAIN TYPES OF ALTERNATIVE OWTS, OR GENERAL CHANGES IN MONITORING AND INSPECTION REQUIREMENTS.

EROSION CONTROL NOTES:

GENERAL THE CONTRACTOR SHALL INSTALL, MAINTAIN AND INSPECT EROSION CONTROL AND TEMPORARY STORMWATER CONTROL MEASURES TO CONTROL SEDIMENT AND RUNOFF IN ACCORDANCE WITH THESE PLANS AND THE LOCAL JURISDICTION.

- 1.1. THE CONSTRUCTION OF THIS PROJECT IS NOT EXPECTED TO OCCUR DURING THE WINTER SEASON (OCTOBER 15TH THROUGH APRIL 15TH).
1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL BMP INSTALLATION AND MAINTENANCE.
1.3. ALL GRADING SHALL CONFORM TO THE LOCAL GRADING ORDINANCE, EROSION CONTROL ORDINANCES, AND CALIFORNIA BUILDING CODE.
1.4. ALL DISTURBED SURFACES SHALL BE PREPARED AND MAINTAINED TO CONTROL EROSION AND TO ESTABLISH NATIVE OR NATURALIZED VEGETATION COMPATIBLE WITH THE AREA. THIS CONTROL SHALL CONSIST OF: A. EFFECT TEMPORARY PLANTING SUCH AS RYE GRASS, SOME OTHER FAST-GERMINATION SEED, AND MULCHING WITH STRAW AND/OR OTHER SLOPE STABILIZATION MATERIAL; B) PERMANENT PLANTING OF NATIVE OR NATURALIZED DROUGHT RESISTANT SPECIES OF SHRUBS, TREES, OR OTHER VEGETATION, PURSUANT TO THE COUNTY'S LANDSCAPE CRITERIA, WHEN THE PROJECT IS COMPLETED; C) MULCHING, FERTILIZING, WATERING OR OTHER METHODS MAY BE REQUIRED TO ESTABLISH NEW VEGETATION, ON SLOPES LESS THAN 20%, TOPSOIL SHOULD BE STOCKPILED AND REAPPLIED.

SEED AND MULCH. ALL AREAS ON- AND OFF-SITE EXPOSED DURING CONSTRUCTION ACTIVITIES, IF NOT PERMANENTLY LANDSCAPED PER PLAN, SHALL BE PROTECTED BY MULCHING AND/OR HAND BROADCASTING OF THE FOLLOWING STERIL, WEED FREE, SEED MIX AND INCORPORATED OVER ALL DISTURBED SLOPES:
BROMUS CARINATUS 10#/ACRE
LEYMUS TRITICOIDES 8#/AC.
HORDEUM BRACHYANTHERUM 5#/AC.
FESTUCA RUBRA 8#/AC.
DESCHAMPSIA CESPIPTOSA 8#/AC.

THE MIX/APPLICATION SHALL ALSO CONTAIN:
-FERTILIZER (6-3-3) SHALL BE HAND BROADCAST AND INCORPORATED AT 30-LB/ACRE OVER ENTIRE AREA.
-MYCORRHIZAL FUNGI SHALL BE ADDED AT 50 LB/AE.
-IF HYDROSEEDING, ADD MULCH AND TACKIFIER TO ABOVE.

ALL EXCAVATED MATERIAL SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.

CONCRETE WASHOUT. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. THE CONCRETE WASHOUT FACILITY SHALL BE BELOW GRADE AND CONSTRUCTED WITH A MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FEET. TEMPORARY CONCRETE FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. THE WASHOUT SHALL HAVE A 10 MIL POLYETHYLENE PLASTIC LINER. WHEN CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE AND MATERIALS FOR THE WASHOUT SHALL BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE CONCRETE WASHOUT SHOULD BE BACKFILLED AND REPAIRED.

OTHER PROVISIONS. IF CONSTRUCTION OCCURS BETWEEN OCTOBER 15TH AND APRIL 15TH, EXPOSED SOIL NOT INVOLVED IN IMMEDIATE CONSTRUCTION ACTIVITY SHALL BE PROTECTED FROM EROSION AT ALL TIMES. AFTER APRIL 15TH, EROSION CONTROL MEASURES SHALL BE IN PLACE DURING INCLEMENT WEATHER.

EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE BY THE CONTRACTOR UNTIL NATIVE VEGETATION HAS BEEN ESTABLISHED AND PROVIDES NECESSARY SLOPE COVER (MINIMUM 70% COVER).

WASTEWATER SYSTEM SPECIFICATIONS

Patchen Christmas Tree Farm Site Improvement Project
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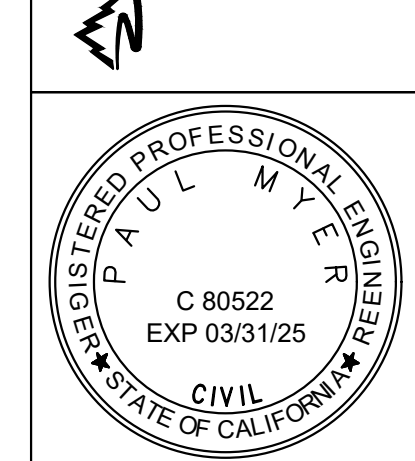


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