COUNTY OF SANTA CLARA
GENERAL CONSTRUCTION SPECIFICATIONS

GENERAL CONDITIONS

1. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS AND/OR GEOTECHNICAL REPORT PREPARED BY _____ AND DATED_____ 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.
2. DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE IMPROVEMENTS SHOWN ON THESE PLANS AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THEIR CONTINUED MAINTENANCE.
3. 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.
4. 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.
5. DEVELOPER SHALL REMOVE OR TRIM ALL TREES TO PROVIDE AN UNOBSTRUCTED FIFTEEN (15) FOOT VERTICAL CLEARANCE FOR ROADWAY AREA.
6. THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND THAT ARE SHOWN TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.
7. DEVELOPER SHALL PROVIDE ADEQUATE DUST CONTROL AS REQUIRED BY THE COUNTY INSPECTOR.
8. 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.
9. UPON DISCOVERING OR UNEARTHING ANY BURIAL SITE AS EVIDENCED BY HUMAN SKELETAL REMAINS OR ARTIFACTS, THE PERSON MAKING SUCH DISCOVERY SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER AT (4008) 454-2520 AND LAND DEVELOPMENT ENGINEERING OFFICE AT (408) 299-5730. NO FURTHER DISTURBANCE OF THE SITE MAY BE MADE EXCEPT AS AUTHORIZED BY THE LAND DEVELOPMENT OFFICE IN ACCORD WITH PROVISIONS OF THIS ORDINANCE (COUNTY ORDINANCE CODE SECTION B6-18).
10. THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY. A SEPARATE PERMIT WILL BE REQUIRED FOR THE SEPTIC LINE CONSTRUCTION.
11. ANY DEVIATION FROM THESE APPROVED PLANS SHALL BE RE-APPROVED IN WRITING BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.

CONSTRUCTION STAKING

1. THE DEVELOPER'S ENGINEER IS RESPONSIBLE FOR THE INITIAL PLACEMENT AND REPLACEMENT OF CONSTRUCTION GRADE STAKES. THE STAKES ARE TO BE ADEQUATELY IDENTIFIED, LOCATED, STABILIZED, ETC. FOR THE CONVENIENCE OF CONTRACTORS. LATERAL OFFSET OF STAKES SET FOR CURBS AND GUTTERS SHALL NOT EXCEED 2 1/2 FEET FROM BACK OF CURB.
2. ANY PROPERTY LINE STAKES OR ROAD MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY DEVELOPER'S ENGINEER AND LICENSED LAND SURVEYOR.
3. 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.
4. 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

1. CONTRACTOR SHALL NOTIFY PERMIT INSPECTION UNIT, SANTA CLARA COUNTY PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
2. THE COUNTY REQUIRES A MINIMUM OF 24 HOURS ADVANCE NOTICE FOR GENERAL INSPECTION, 48 HOURS FOR ASPHALT CONCRETE INSPECTION.
3. INSPECTION BY SANTA CLARA COUNTY SHALL BE LIMITED TO INSPECTION OF MATERIALS AND PROCESSES OF CONSTRUCTION TO OBSERVE THEIR COMPLIANCE WITH PLANS & SPECIFICATIONS BUT DOES NOT INCLUDE RESPONSIBILITY FOR THE SUPERINTENDENT OF CONSTRUCTION, SITE CONDITIONS, EQUIPMENT OR PERSONNEL. CONTRACTOR SHALL NOTIFY THE COUNTY LAND DEVELOPMENT INSPECTOR AT PHONE (408) 299-6868 AT LEAST 24 HOURS PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
4. 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.
5. 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)

1. EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE AS FOLLOWS:
   A) TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE)
   B) FROM AREAS AFFECTED BY THE PROPOSED GRADING EXCEPT WHERE NOTED ON THE PLANS.
2. 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

1. CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-277-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND UTILITIES.
2. 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.
3. 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.
4. 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.
5. 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.
6. BACKFILL AND TRENCH RESTORATION REQUIREMENTS SHALL APPLY AS MINIMUM STANDARDS TO ALL UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

RETAINING WALLS

1. 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.
2. SEGMENTAL BLOCK RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR.

GRADING

1. EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO A COUNTY APPROVED DISPOSAL SITE. WHERE FILL MATERIAL IS TO BE PLACED ON NATURAL GROUND, IS SHALL BE STRIPPED OF ALL VEGETATION. TO ACHIEVE A PROPER BOND WITH THE FILL MATERIAL, THE SURFACE OF THE GROUND SHALL BE SCARIFIED TO DEPTH OF 6" BEFORE FILL IS PLACED. WHERE NATURAL GROUND IS STEEPER THAN 5:1, IT SHALL BE BENCHED AND THE FILL KEYED IN TO ACHIEVE STABILITY. WHERE NEW FILL IS TO BE PLACED ON EXISTING FILL THE EXISTING FILL SHALL BE REMOVED UNTIL MATERIAL COMPACTED TO 90% RELATIVE COMPACTION IS EXPOSED. THEN THE NEW FILL MATERIAL SHALL BE PLACED AS PER THESE CONSTRUCTION NOTES. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6" IN UNCOMPACTED THICKNESS. BEFORE COMPACTION BEGINS, THE FILL SHALL BE BROUGHT TO A WATER CONTENT THAT WILL PERMIT PROPER COMPACTION BY EITHER 1) AERATING THE FILL IF IT IS TOO WET OR 2) MOISTENING THE FILL WITH WATER IF IT IS TOO DRY. EACH LIFT SHALL BE THOROUGHLY MIXED BEFORE COMPACTION TO ENSURE A UNIFORM DISTRIBUTION OF MOISTURE.
2. EXCESS CUT MATERIAL SHALL NOT BE SPREAD OR STOCKPILED ON THE SITE.
3. SURPLUS EARTH FILL MATERIAL SHALL BE PLACED IN A SINGLE (8" MAX) THICK LAYER COMPACTED TO WITHSTAND WEATHERING IN THE AREA(S) DELINEATED ON THE PLAN.
4. NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS.
5. THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
6. MAXIMUM CUT SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL. MAXIMUM FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION	CUT (C.Y.)	FILL (C.Y.)	VERT. DEPTH
RESIDENCE	26	198	10'
ACCESSORY STRUCTURE	–	–	–
POOL/HARDSCAPE	–	–	–
LANDSCAPE	–	–	–
DRIVEWAY	688	590	10'
OFF SITE IMPROVEMENTS	–	–	–
TOTAL	714	788	

NOTE: FILL VOLUMES INCLUDE 10% SHRINKAGE.
EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP SITE.

7. NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD.
8. ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE.
9. THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95%
10. ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION.
11. THE GEOTECHNICAL PLAN REVIEW LETTER MUST BE REVIEWED AND APPROVED BY THE COUNTY GEOLOGIST PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER FOR BUILDING OCCUPANCY.
12. THE PROJECT GEOTECHNICAL ENGINEER SHALL PERFORM COMPACTION TESTING AND PRESENT THE RESULTS TO THE COUNTY ENGINEERING INSPECTOR PRIOR TO THE CONSTRUCTION OF ANY PAVED AREA.
13. GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICIAL.
14. TOTAL DISTURBED AREA FOR THE PROJECT _____SF.
15. WDID NO._____
16. THE INSPECTOR MAY VERIFY THAT A VALID NOTICE OF INTENT (NOI) HAS BEEN ISSUED BY THE STATE AND THAT A CURRENT AND UP TO DATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS AVAILABLE ON SITE.

TREE PROTECTION

1. 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:
   A. FENCING SHOULD BE PLACED ALONG THE OUTSIDE EDGE OF THE DRIPLINE OF THE TREE OR GROVE OF TREES.
   B. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE CONSTRUCTION PERIOD AND SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION.
   C. FENCING SHALL BE REPAIRED, AS NECESSARY, TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES.
   D. SIGNAGE STATING, "WARNING- THIS FENCING SHALL NOT BE REMOVED WITHOUT PERMISSION FROM THE SANTA CLARA COUNTY PLANNING OFFICE (408) 299-5770. COUNTY OF SANTA CLARA TREE PROTECTION MEASURES MAY BE FOUND AT http://www.sccplanning.gov." SHALL BE PLACED ON THE TREE PROTECTIVE FENCING UNTIL FINAL OCCUPANCY.
2. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACED AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.
3. SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

ACCESS ROADS AND DRIVEWAYS

1. DRIVEWAY LOCATIONS SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS WITH CENTERLINE STATIONING. THE MINIMUM CONCRETE THICKNESS SHALL BE 6 INCHES THROUGHOUT (WITH A MAXIMUM APPROACH SLOPE OF 1 1/4 INCHES PER FOOT).
2. ALL DRIVEWAY OR COMMON ACCESS ROAD SECTIONS IN EXCESS OF 15 LONGITUDINAL SLOPE MUST BE PAVED WITH A MINIMUM 2-INCH ASPHALT LIFT OR FULL DEPTH CONCRETE LIFT PRIOR TO ANY COMBUSTIBLE FRAMING.
3. THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES AND LOCAL RESIDENTS.
4. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THE PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO THE PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.
5. 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

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

SANITARY SEWER

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

PORTLAND CEMENT CONCRETE

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

AIR QUALITY, LANDSCAPING AND EROSION CONTROL

1. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
3. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
5. SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
6. ALL CONSTRUCTION VEHICLES, EQUIPMENT AND DELIVERY TRUCKS SHALL HAVE A MAXIMUM IDLING TIME OF 5 MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXIC CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS (CCR)). ENGINES SHALL BE SHUT OFF IF CONSTRUCTION REQUIRES LONGER IDLING TIME UNLESS NECESSARY FOR PROPER OPERATION OF THE VEHICLE.
7. ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES PER HOUR.
8. 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 RUNNING IN PROPER CONDITION PRIOR TO OPERATION.
9. POST A SIGN THAT IS AT LEAST 32 SQUARE FEET MINIMUM 2 INCHES LETTER HEIGHT VISIBLE NEAR THE ENTRANCE OF CONSTRUCTION SITE THAT IDENTIFIES THE FOLLOWING REQUIREMENTS. OBTAIN ENCROACHMENT PERMIT FOR SIGN FROM ROADS DEPARTMENT OR OTHER APPLICABLE AGENCY IF REQUIRED.
   A. 15 MILES PER HOUR (MPH) SPEED LIMIT
   B. 5 MINUTES MAXIMUM IDLING TIME OF VEHICLES
   C. TELEPHONE NUMBER TO CONTACT THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGARDING DUST COMPLAINTS. NOTE PHONE NUMBER OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR POLLUTION COMPLAIN HOTLINE OF 1-800-334-6367.
10. ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM CONDITION CAPABLE OF WITHSTANDING WEATHERING.
11. ALL EXPOSED DISTURBED AREAS SHALL BE SEEDED WITH BROME SEED SPREAD AT THE RATE OF 5 LB. PER 1000 SQUARE FEET (OR APPROVED EQUAL). SEEDING AND WATERING SHALL BE MAINTAINED AS REQUIRED TO ENSURE GROWTH.
12. ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SD8.
13. ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED CONCRETE RIP-RAP. ENERGY DISSIPATERS SHALL BE INSTALLED AT ALL DITCH OUTFALLS. WHERE OUTFALLS ARE NOT INTO AN EXISTING CREEK OR WATER COURSE, RUNOFF SHALL BE RELEASED TO SHEET FLOW.
14. PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED AREAS SHALL BE RESEEDED IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADE SLOPES AND REDUCE THE POTENTIAL FOR EROSION OF THE SUBJECT SITE.
15. PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST BE INSTALLED AND FIELD APPROVED BY THE COUNTY PLANNING OFFICE PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER, AND FINAL OCCUPANCY RELEASE BY THE BUILDING INSPECTION OFFICE.
16. THE OWNER SHALL PREPARE AND PRESENT A WINTERIZATION REPORT TO THE COUNTY INSPECTOR FOR REVIEW PRIOR TO OCTOBER 15TH OF EVERY YEAR.
17. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL INSTALL AND MAINTAIN CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPS) ON THE PROJECT SITE AND WITHIN THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY THROUGHOUT THE DURATION OF THE CONSTRUCTION AND UNTIL THE ESTABLISHMENT OF PERMANENT STABILIZATION AND SEDIMENT CONTROL TO PREVENT THE DISCHARGE OF POLLUTANTS INCLUDING SEDIMENT, CONSTRUCTION MATERIALS, EXCAVATED MATERIALS, AND WASTE INTO THE SANTA CLARA COUNTY RIGHT-OF-WAY, STORM SEWER WATERWAYS, ROADWAY INFRASTRUCTURE. BMPS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING;
   A. PREVENTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND EQUIPMENT LAYDOWN / STAGING AREAS.
   B. PREVENTION OF TRACKING OF MUD, DIRT, AND CONSTRUCTION MATERIALS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
   C. PREVENTION OF DISCHARGE OF WATER RUN-OFF DURING DRY AND WET WEATHER CONDITIONS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
18. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY.
19. EROSION CONTROL PLAN IS A GUIDE AND SHALL BE AMENDED AS NECESSARY TO PREVENT EROSION AND ILLICIT DISCHARGES ON A YEAR AROUND BASIS, DEPENDING ON THE SEASON, WEATHER, AND FIELD CONDITIONS. EROSION CONTROL MEASURES IN ADDITION TO THOSE NOTED IN THE PERMITTED PLANS MAY BE NECESSARY. FAILURE TO INSTALL SITE SITE AND SITUATIONALLY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.

STORM DRAINAGE AND STORMWATER MANAGEMENT

1. DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THE ADEQUACY AND CONTINUED MAINTENANCE OF THESE FACILITIES IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY, CONSISTENT WITH NPDES PERMIT CAS612008 / ORDER NO. R2-2009-0047 AND NPDES PERMIT CAS000004/ ORDER NO. 2013-0001-DWQ.
2. 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.
3. 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.
4. UPON INSTALLATION OF DRIVEWAY CONNECTIONS, PROPERTY OWNERS SHALL PROVIDE FOR THE UNINTERRUPTED FLOW OF WATER IN ROADSIDE DITCHES.
5. THE COUNTY SHALL INSPECT UNDERGROUND DRAINAGE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES PRIOR TO BACKFILL.

AS-BUILT PLANS STATEMENT

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

_____ _____
DATE SIGNATURE

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

GRADING AND DRAINAGE PLAN
APN 558-08-147
22045 OLD SANTA CRUZ HWY
LOS GATOS, CALIFORNIA 95033

SHEET INDEX

C1.0	GRADING TITLE SHEET
C1.1	EASEMENT PLAN
C1.2	TREE REMOVAL PLAN
C2.1	DRIVEWAY/SITE PLAN
C2.2	GRADING AND DRAINAGE PLAN
C3.0	EROSION CONTROL PLAN/SITE PLAN
C3.1	EROSION CONTROL PLAN
C4.0	SECTIONS
C4.1	DRIVEWAY PROFILE
C4.2	GRADING SECTIONS (PRIVATE ROAD)
C5.1	DETAILS
C5.2	DETAILS
C6.1	EROSION CONTROL DETAILS
C6.2	EROSION CONTROL DETAILS
C7.1	SEPTIC SYSTEM PLAN
L1	LANDSCAPE PLAN

SCOPE OF WORK

1. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK PROPOSED ON THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION CONTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION.
2. GRADE DRIVEWAY, TURNAROUND, AND HOUSE SITE.
3. INSTALL DRAINAGE FACILITIES.
4. BUILD RETAINING WALLS, GRADING IMPROVEMENTS.
5. CONSTRUCT RETAINING WALLS, PAVED DRIVEWAY, ACCESS ROAD, AND TURNAROUND.
6. SEED ALL DISTURBED AREAS.

SURVEY MONUMENT PRESERVATION

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

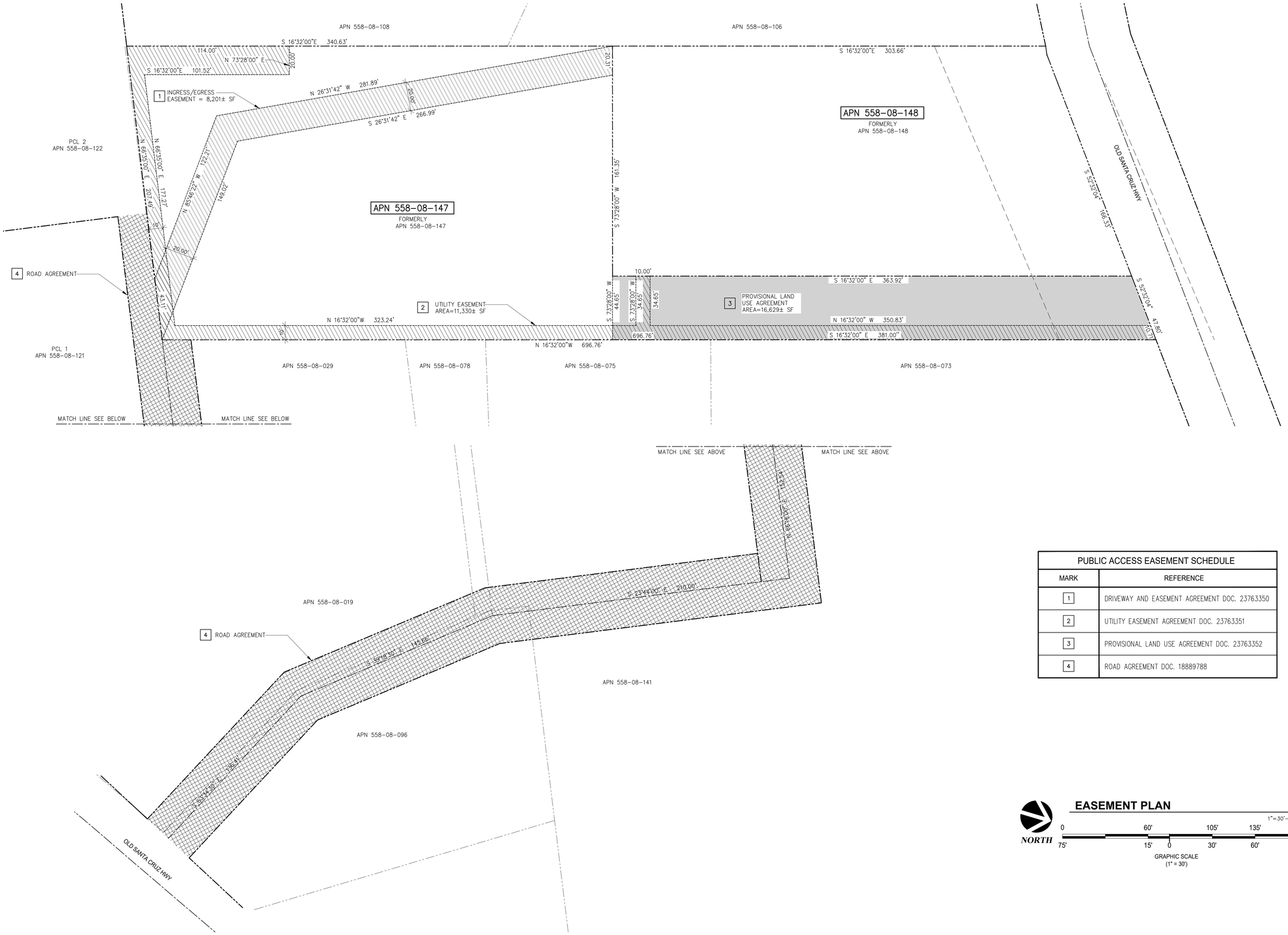
NOTICE TO CONTRACTORS

CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 800-227-2600 A MINIMUM OF 24 HOURS OF THE LOCATION OF UNDERGROUND UTILITIES.

NOTE:

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

CONSULTING ENG



PUBLIC ACCESS EASEMENT SCHEDULE	
MARK	REFERENCE
1	DRIVEWAY AND EASEMENT AGREEMENT DOC. 23763350
2	UTILITY EASEMENT AGREEMENT DOC. 23763351
3	PROVISIONAL LAND USE AGREEMENT DOC. 23763352
4	ROAD AGREEMENT DOC. 18889788

EASEMENT PLAN

NORTH

1"=30'-0"

0 60' 105' 135' 165'

75' 15' 0 30' 60' 90'

GRAPHIC SCALE
(1" = 30')

ARNOLD ENGINEERING ASSOCIATES, INC.
1255 TREAT BOULEVARD, SUITE 300
WALNUT CREEK, CALIFORNIA 94597
T: 415-786-9622
email: info@aeaengineering.com
web: www.aeaengineering.com

STAMP

REGISTERED PROFESSIONAL ENGINEER ANDREW E. ARNOLD No. C 68537 Exp. 06-30-22 CIVIL STATE OF CALIFORNIA

MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

EASMENT PLAN

DATE February 14, 2020

SCALE AS SHOWN

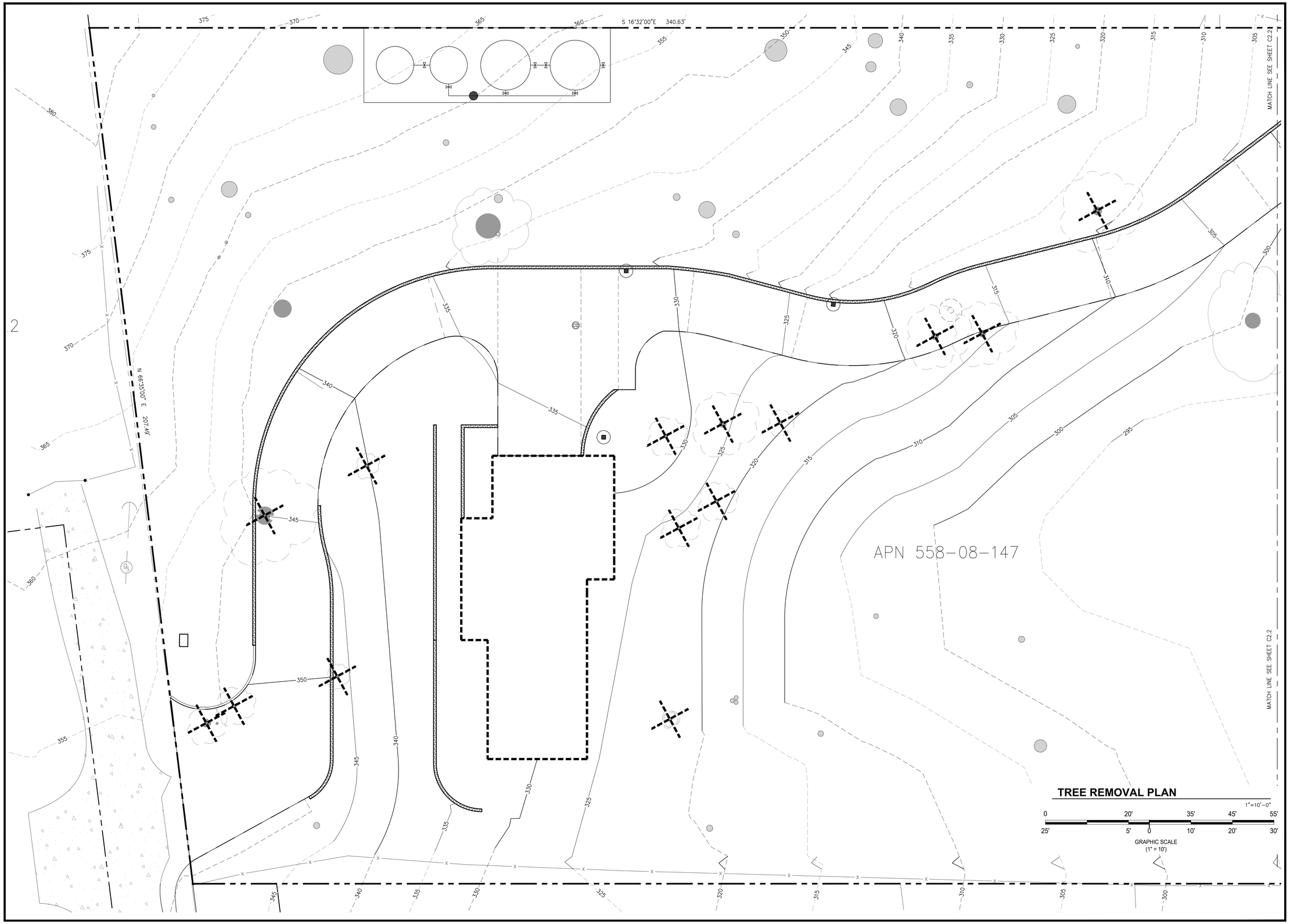
DRAWN SC/AA

JOB 05-20

SHEET

C1.1

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.



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No. C 68537
Exp. 06-30-22
CIVIL
STATE OF CALIFORNIA

MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

TREE REMOVAL PLAN

DATE February 14, 2020

SCALE AS SHOWN

DRAWN SC/AA

JOB 05-20

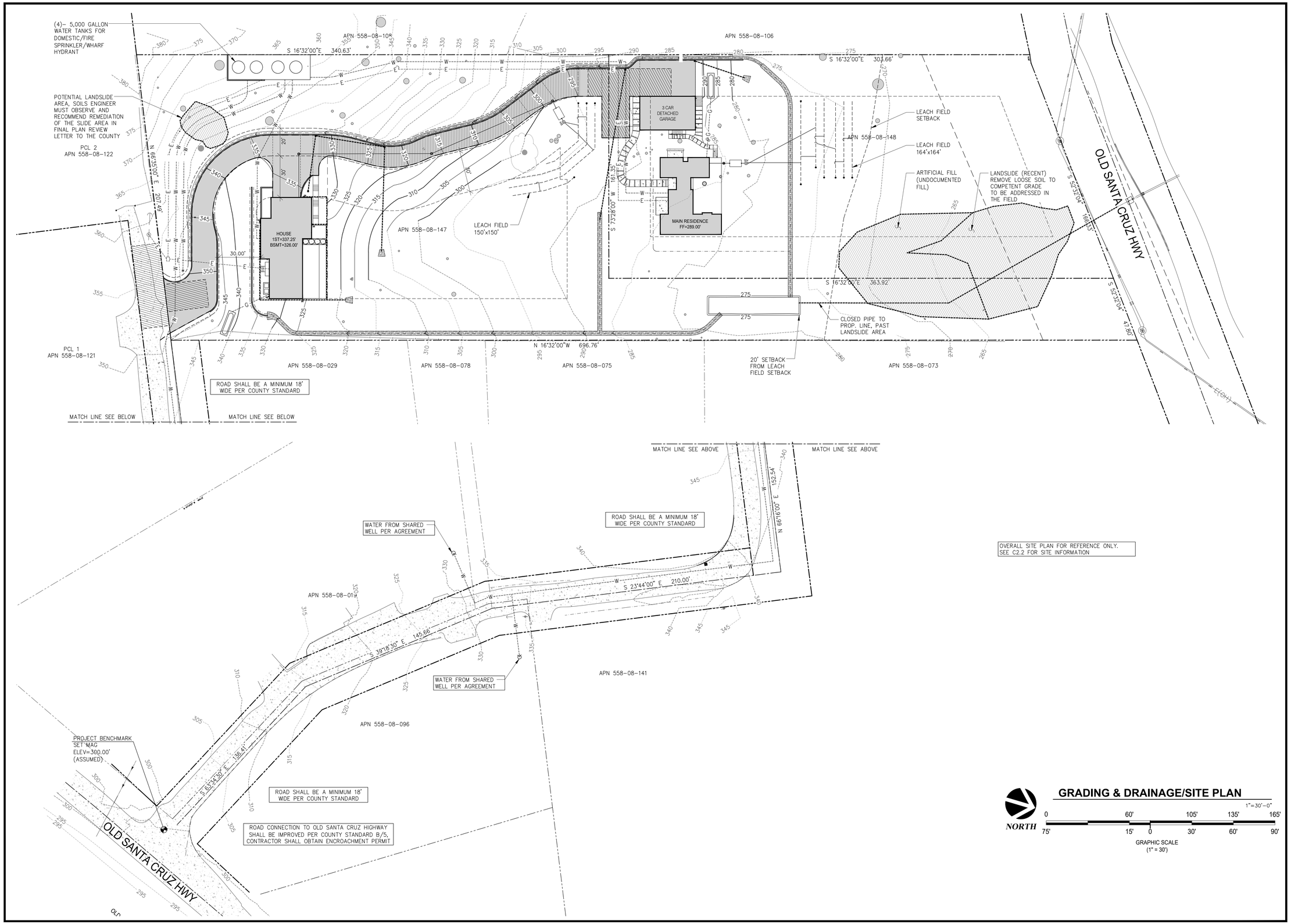
SHEET

C1.2

APPLICANT:

ROAD NAME: OLD SANTA CRUZ HIGHWAY

COUNTY FILE NO.



GRADING & DRAINAGE/SITE PLAN

ARNOLD ENGINEERING ASSOCIATES, INC.
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MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

GRADING & DRAINAGE/ SITE PLAN

DATE February 14, 2020

SCALE AS SHOWN

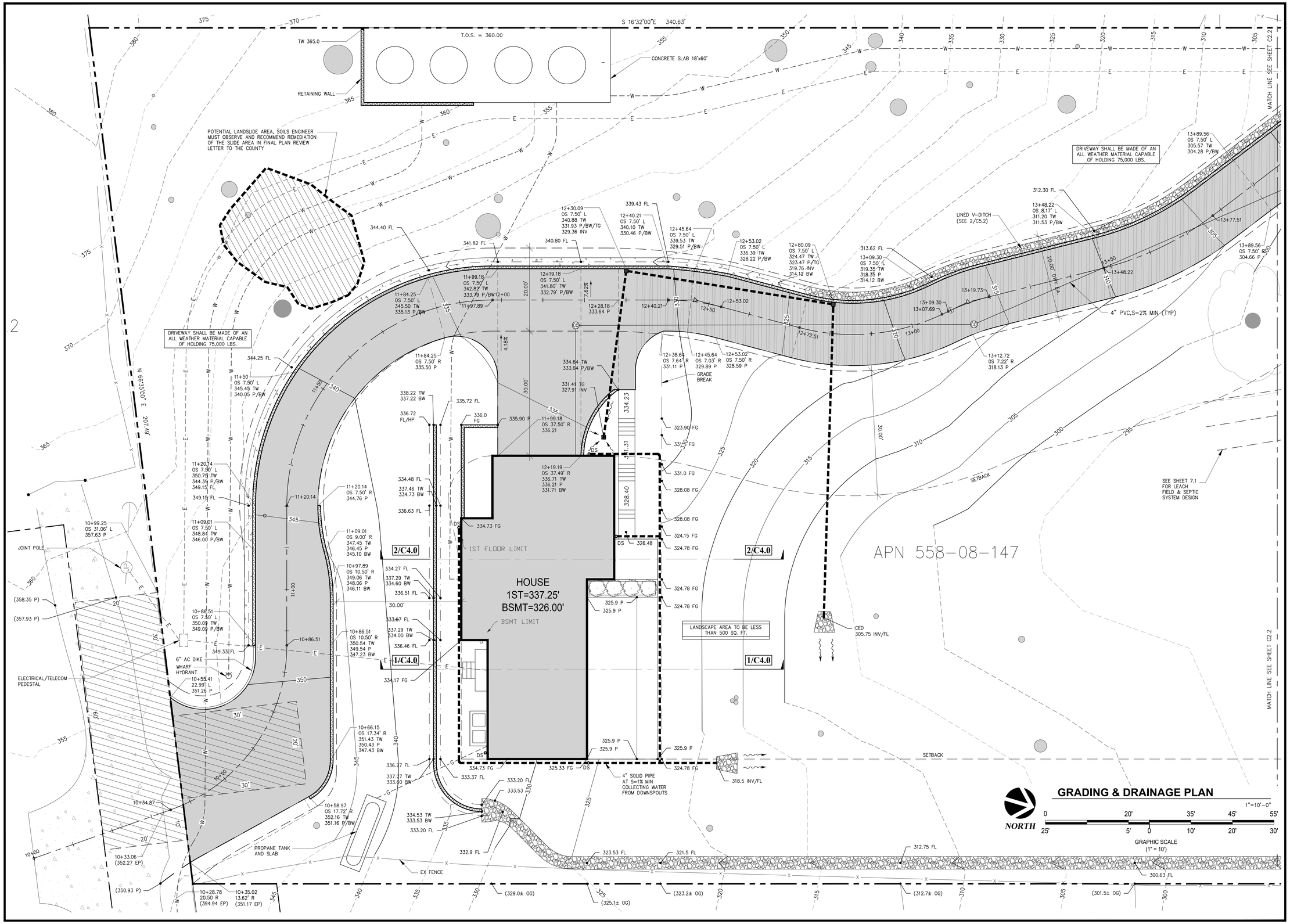
DRAWN SC/AA

JOB 05-20

SHEET

C2.1

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.



APPLICANT:

ROAD NAME: OLD SANTA CRUZ HIGHWAY

COUNTY FILE NO.

ARNOLD ENGINEERING ASSOCIATES, INC.
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APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

GRADING & DRAINAGE PLAN

DATE February 14, 2020

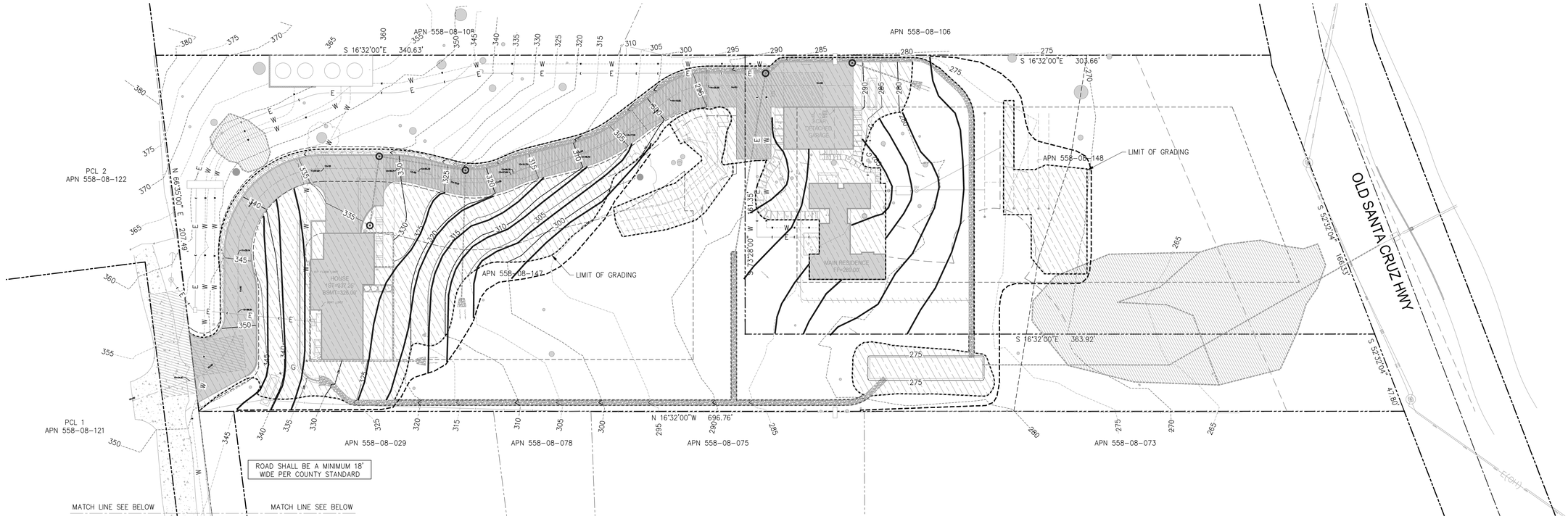
SCALE AS SHOWN

DRAWN SC/AA

JOB 05-20

SHEET

C2.2



OVERALL SITE PLAN FOR REFERENCE ONLY.
SEE C3.1 FOR SITE INFORMATION

APN	DISTURBED AREA (SF)
558-08-147	29,574
558-08-148	10,517

NORTH

EROSION CONTROL/SITE PLAN

1"=30'-0"

0 60' 105' 135' 165'

75' 15' 0 30' 60' 90'

GRAPHIC SCALE
(1" = 30')

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SHEET TITLE

EROSION CONTROL/SITE PLAN

DATE February 14, 2020

SCALE AS SHOWN

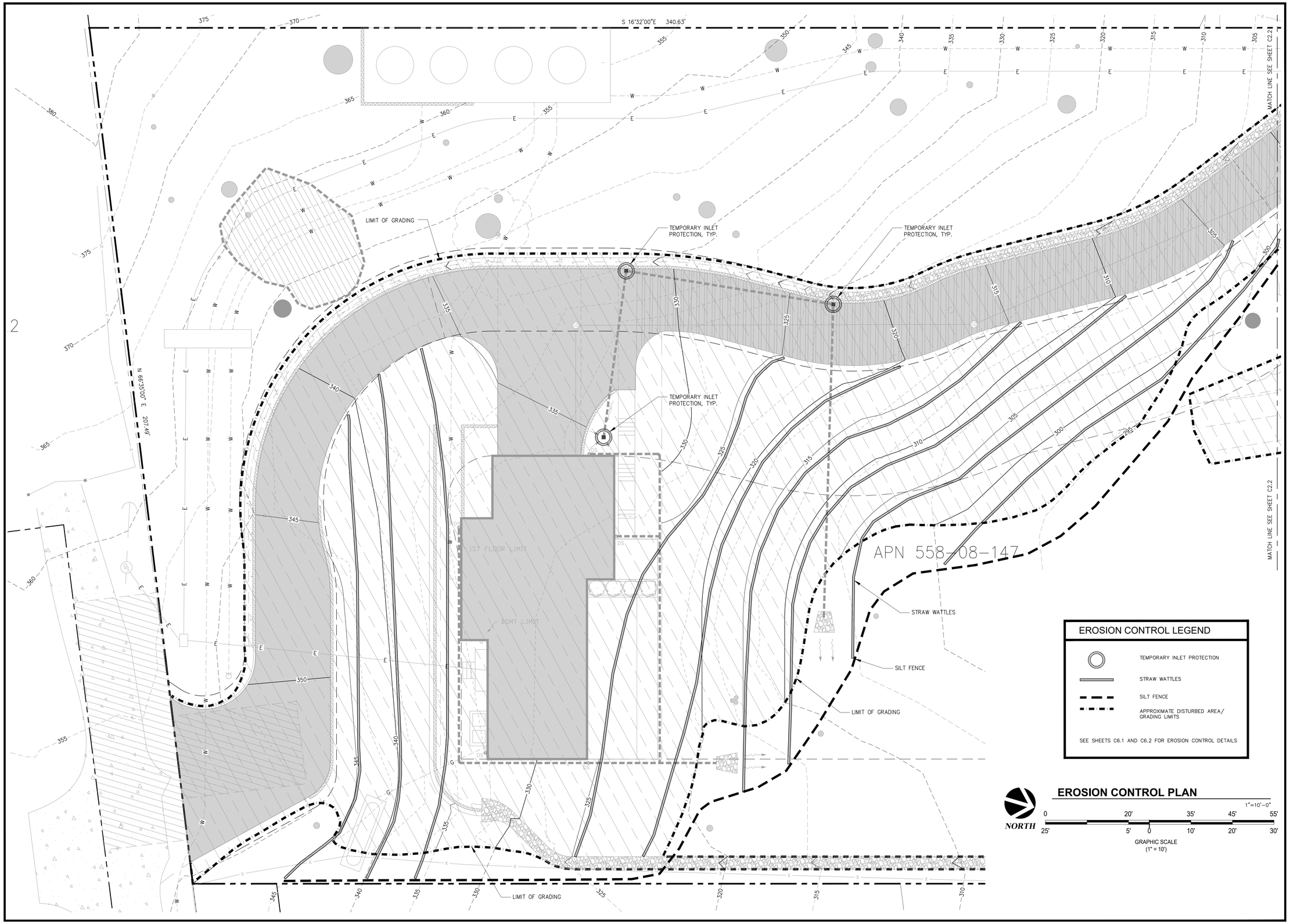
DRAWN SC/AA

JOB 05-20

SHEET

C3.0

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.



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APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

EROSION CONTROL PLAN

DATE February 14, 2020

SCALE AS SHOWN

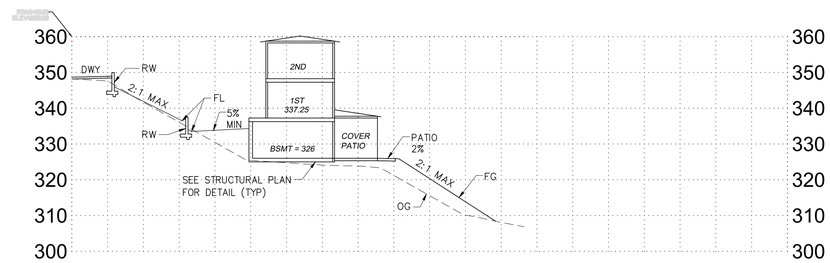
DRAWN SC/AA

JOB 05-20

SHEET

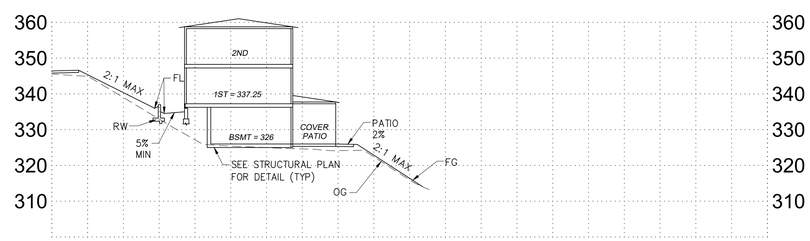
C3.1

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.



1 **SECTION**

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'



2 **SECTION**

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'

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CIVIL

MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
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PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

SECTIONS

DATE February 14, 2020

SCALE AS SHOWN

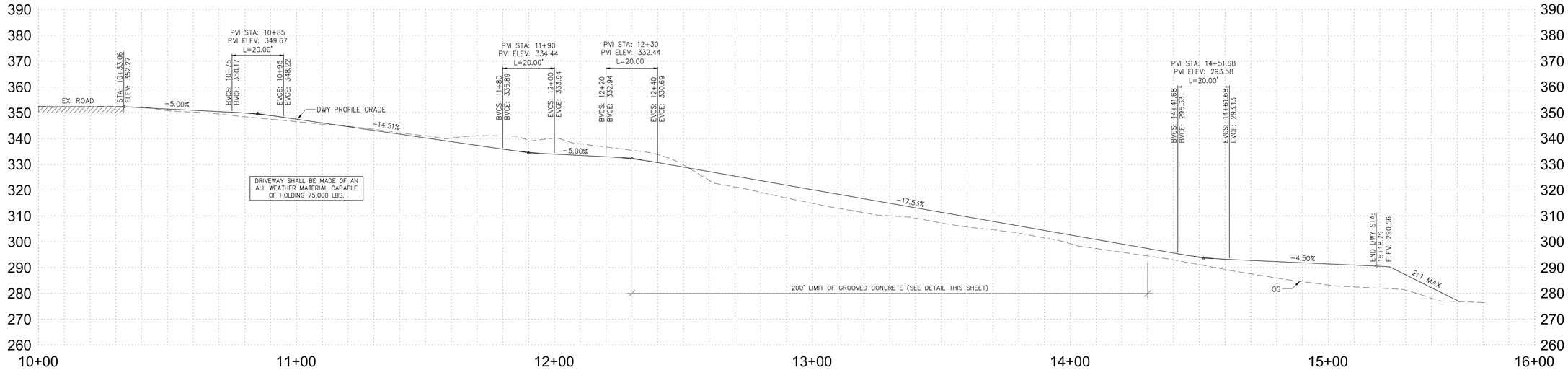
DRAWN SC/AA

JOB 05-20

SHEET

C4.0

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.

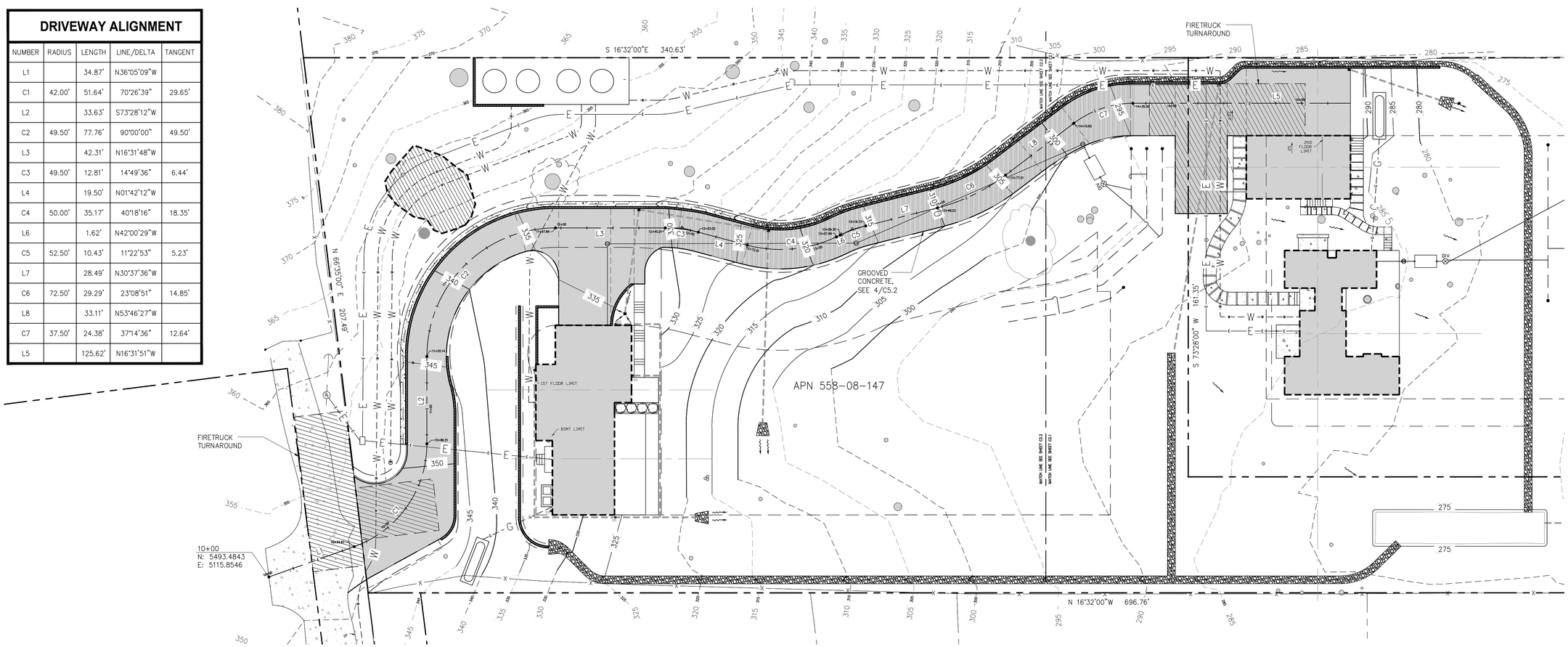


DRIVEWAY PROFILE

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'

DRIVEWAY ALIGNMENT

NUMBER	RADIUS	LENGTH	LINE/DELTA	TANGENT
L1		34.87'	N36°05'09"W	
C1	42.00'	51.64'	70°26'39"	29.65'
L2		33.63'	S73°28'12"W	
C2	49.50'	77.76'	90°00'00"	49.50'
L3		42.31'	N16°31'48"W	
C3	49.50'	12.81'	14°49'36"	6.44'
L4		19.50'	N01°42'12"W	
C4	50.00'	35.17'	40°18'16"	18.35'
L6		1.62'	N42°00'29"W	
C5	52.50'	10.43'	11°22'53"	5.23'
L7		28.49'	N30°37'36"W	
C6	72.50'	29.29'	23°08'51"	14.85'
L8		33.11'	N53°46'27"W	
C7	37.50'	24.38'	37°14'36"	12.64'
L5		125.62'	N16°31'51"W	



DRIVEWAY ALIGNMENT PLAN

SCALE: 1" =30'

APPLICANT:

ROAD NAME: OLD SANTA CRUZ HIGHWAY

COUNTY FILE NO.

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MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

DRIVEWAY PLAN/ PROFILE

DATE February 14, 2020

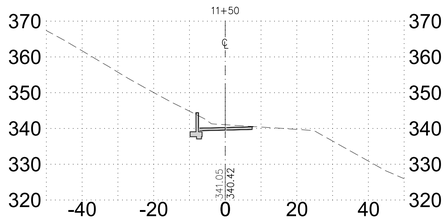
SCALE AS SHOWN

DRAWN SC/AA

JOB 05-20

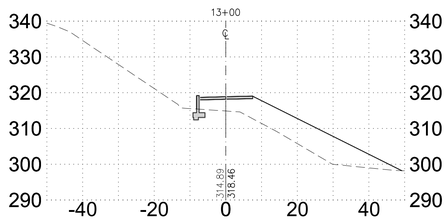
SHEET

C4.1



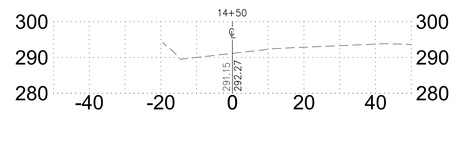
11+50

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'



13+00

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'



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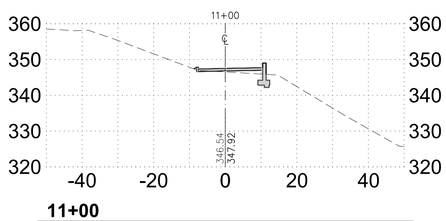

11+00

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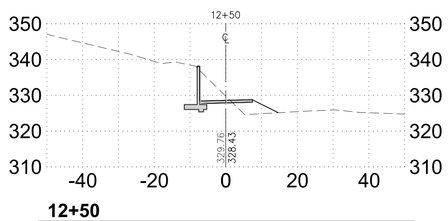

12+50

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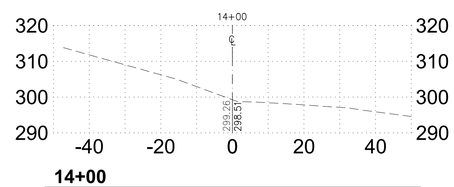
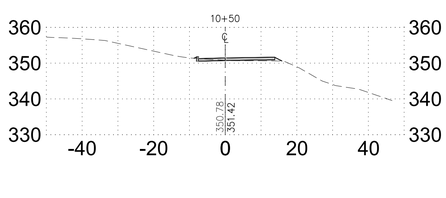


14+00

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'



10+50

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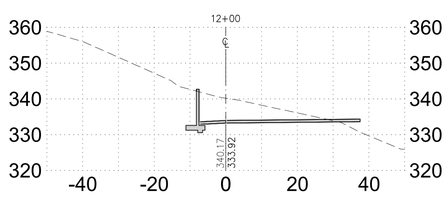

12+00

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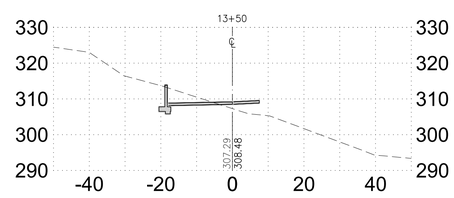
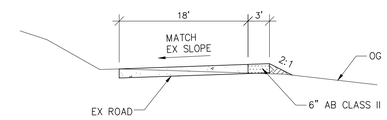


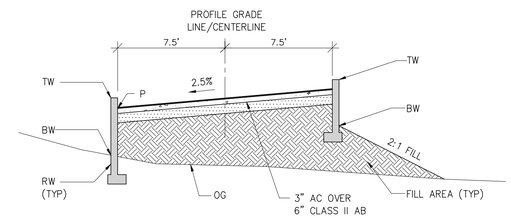
13+50

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" =20'



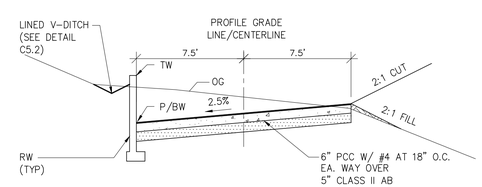
DRIVEWAY WIDENING

NTS



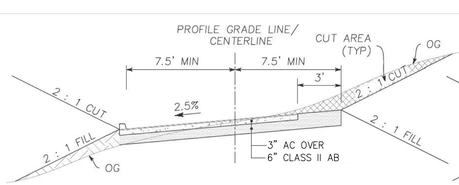
DRIVEWAY TYPICAL SECTIONS

FROM STA: 10+86.51 TO 10+20.14
NTS



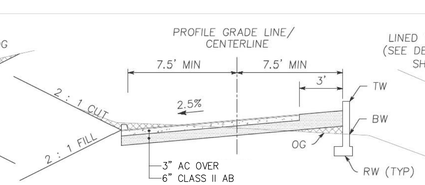
DRIVEWAY TYPICAL SECTIONS

FROM STA: 12+32.30 TO 14+31.77
NTS



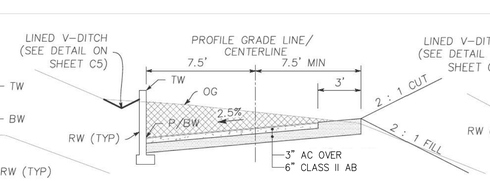
DRIVEWAY TYPICAL SECTIONS

FROM STA: 10+33.06 TO STA: 10+58.97
NTS



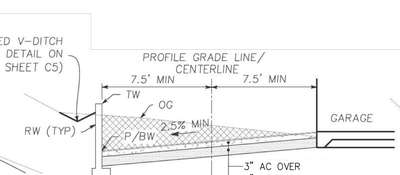
DRIVEWAY TYPICAL SECTIONS

FROM STA: 10+58.97 TO STA: 10+86.51
NTS



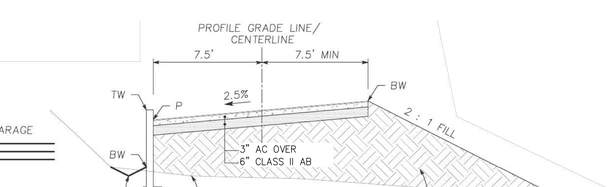
DRIVEWAY TYPICAL SECTIONS

FROM STA: 10+20.14 TO STA: 11+99.18
NTS



DRIVEWAY TYPICAL SECTIONS

FROM STA: 11+99.18 TO STA: 12+32.30
FROM STA: 14+78.70 TO END DWY
NTS



DRIVEWAY TYPICAL SECTIONS

FROM STA: 14+31.77 TO STA: 14+78.70
NTS

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STAMP

REGISTERED PROFESSIONAL ENGINEER
ANDREW E. ARNOLD
No. C 68537
Exp. 06-30-22
CIVIL
STATE OF CALIFORNIA

MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

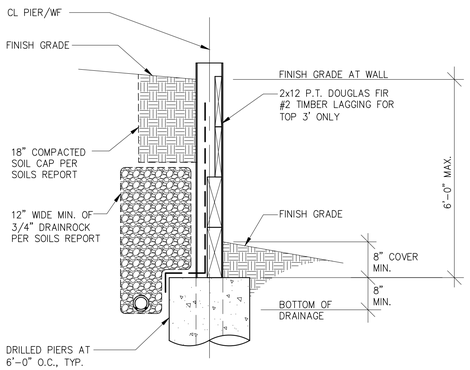
GRADING SECTIONS

DATE	February 14, 2020
SCALE	AS SHOWN
DRAWN	SC/AA
JOB	05-20

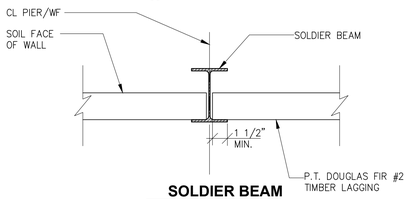
SHEET

C4.2

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.

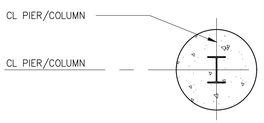


D SECTION

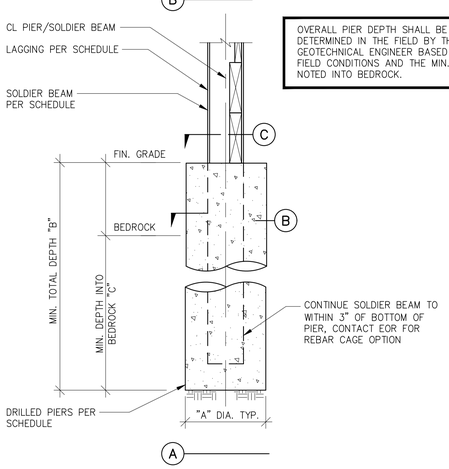


SOLDIER BEAM AT LAGGING

C PLAN



B PLAN



OVERALL PIER DEPTH SHALL BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER BASED ON THE FIELD CONDITIONS AND THE MIN. DEPTHS NOTED INTO BEDROCK.

RETAINING WALL SCHEDULE

	SOLDIER PILES				LAGGING	
WALL HT.	PIER DIAMETER "A"	PIER DEPTH "B"	PIER DEPTH "C"	WIDE FLANGE	DISTANCE FROM TOP OF WALL	PRESSURE TREATED LUMBER SIZE
10.0'	24" DIA. 6'-0" O.C.	23'-0"	10'-0"	W14x53	FROM 7'-0" TO 10'-0"	12x6 D.F. No. 1
7.5'	18" DIA. 6'-0" O.C.	20'-0"	5'-0"	W12x35	FROM 3'-0" TO 6'-0"	12x4 D.F. No. 1
5.0'	18" DIA. 6'-0" O.C.	18'-0"	5'-0"	W8x31	FROM 3'-0" TO 5'-0"	12x4 D.F. No. 1

12 DRILLED PIERS AT SOLDIER PILE RET. WALL 3/4"=1'-0"

1. MATERIALS

A. CONCRETE

1. REINFORCING STEEL:

a. BARS: ASTM A615, GRADE 60 FOR #4 BARS & LARGER
ASTM A615 GRADE 40 FOR #3 BARS & SMALLER

b. WELDED BARS: ASTM A706, GRADE 60.

c. ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY MARKED 'NOT REINFORCED'.

2. CONCRETE CLASSES: SEE SPECIFICATIONS FOR REQUIREMENTS.

	USE	WT	STRENGTH AT 28 DAYS
A	FOUNDATIONS, SPREAD FOOTINGS, SLABS-ON-GRADE	145 PCF	2500 PSI

NOTE: USE 3/4" LIMESTONE CONCRETE AGGREGATE OR APPROVED EQUAL.

3. MINIMUM CONCRETE COVER FOR REINFORCING STEEL:

a. SURFACES PLACED AGAINST EARTH 3"

b. FORMED SURFACES BELOW GRADE 2"

c. SURFACES EXPOSED TO WEATHER 2"

d. BEAM AND COLUMN BARS (INCLUDING STIRRUPS OR TIES) 1-1/2"

e. EXTERIOR WALL AT EXTERIOR FACE 1-1/2"

f. SLABS AND WALLS NOT EXPOSED TO WEATHER 1"

4. FIELD BENDING REINFORCING:

a. FIELDING BENDING/STRAIGHTENING SHALL BE LIMITED TO BARS NO. 6 AND SMALLER AND SHALL BE BENT NO MORE THAN ONCE.

b. PREVIOUSLY UNBENT BAR SIZES NO. 5 AND SMALLER MAY BE BENT/STRAIGHTEN WITHOUT HEAT.

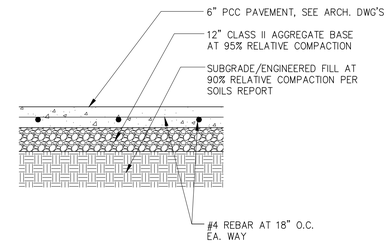
c. CONFORM TO ACI 318 REQUIREMENTS FOR FIELD BENDING REINFORCING.

B. STEEL

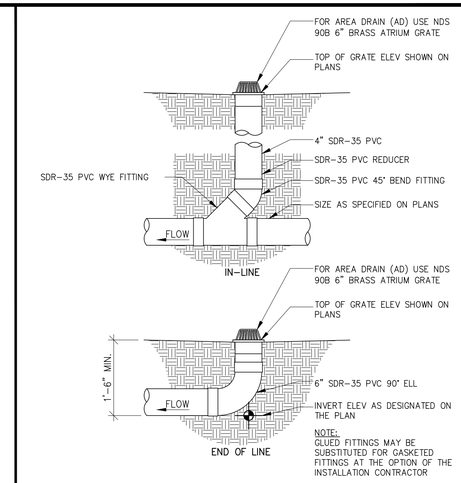
1. SHAPES AND PLATES: ASTM A992 GRADE 50.

2. ALL EXPOSED STRUCTURAL STEEL SHALL BE GALVANIZED/PAINTED AND SEALED.

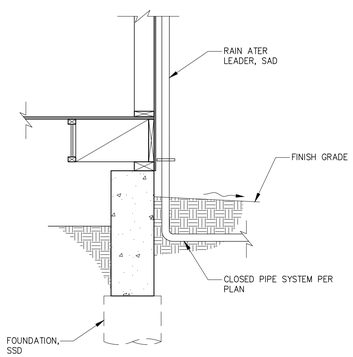
8 STRUCTURAL SPECIFICATIONS



4 CONCRETE SLAB AT DRIVEWAY NTS

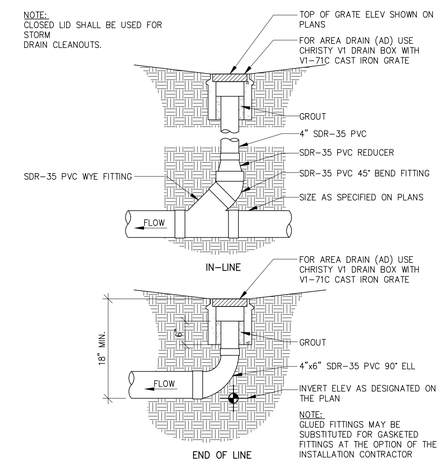


1 LANDSCAPE AREA DRAIN (NDS-90B) NTS

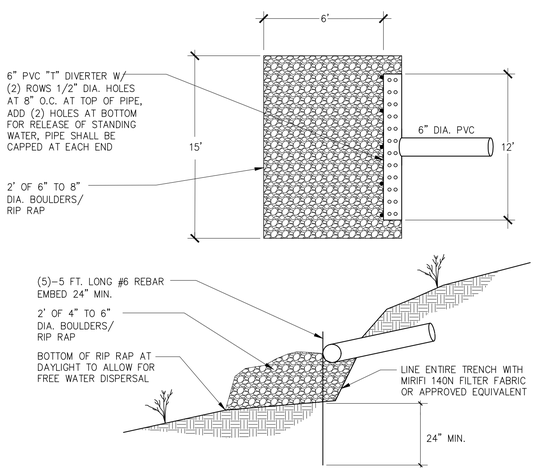


5 DOWNSPOUTS NTS

NOTE:
CLOSED LID SHALL BE USED FOR STORM DRAIN CLEANOUTS.

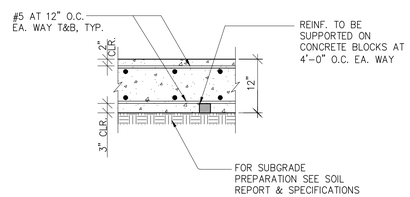


2 HARDSCAPE AREA DRAIN (V-1) NTS

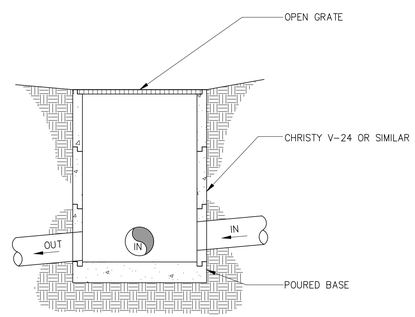


9 ENERGY DISSIPATER DETAIL NTS

SEE GEOTECHNICAL REPORT FOR ALL RECOMMENDATIONS ON SUBGRADE PREPARATION FOR POURING OF SLAB AND TREATMENT OF SOIL FOR THE NEW STRUCTURE.



6 MAT SLAB AT WATER TANKS NTS



3 DRAIN INLET/CATCH BASIN NTS

ARNOLD ENGINEERING ASSOCIATES, INC.
1255 TREAT BOULEVARD, SUITE 300
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DETAILS

DATE February 14, 2020

SCALE AS SHOWN

DRAWN SC/AA

JOB 05-20

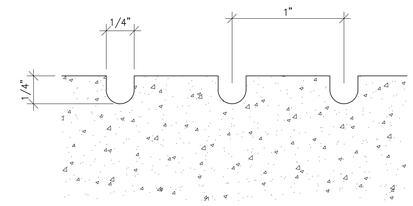
SHEET

C5.1

APPLICANT:

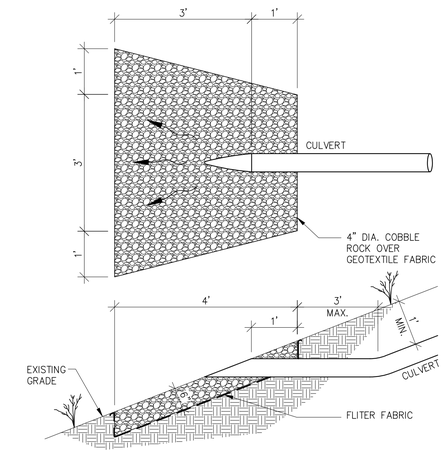
ROAD NAME: OLD SANTA CRUZ HIGHWAY

COUNTY FILE NO.



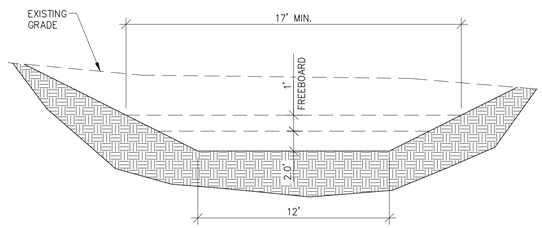
4 DRIVEWAY GROOVING DETAIL

NTS



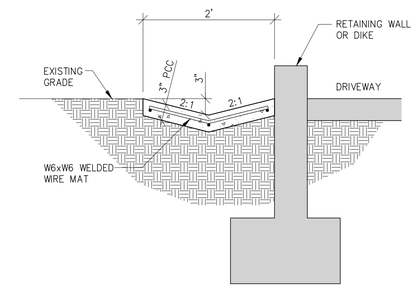
1 COBBLE ROCK ENERGY DISSIPATOR

NTS



5 RETENTION DETAIL

NTS

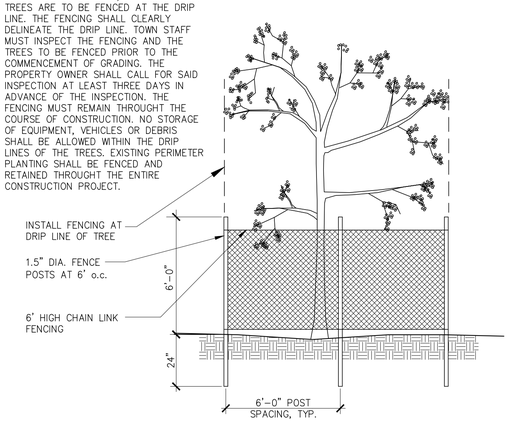


2 LINED V-DITCH DETAIL

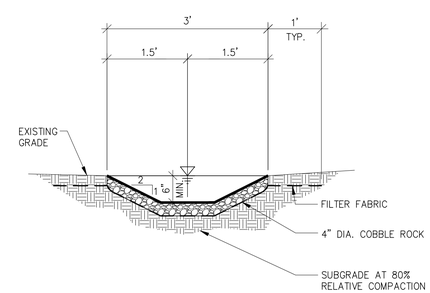
NTS

TREE PROTECTION NOTE:

PRIOR TO ANY GRADING, ALL SIGNIFICANT TREES ARE TO BE FENCED AT THE DRIP LINE. THE FENCING SHALL CLEARLY DELINEATE THE DRIP LINE. TOWN STAFF MUST INSPECT THE FENCING AND THE TREES TO BE FENCED PRIOR TO THE COMMENCEMENT OF GRADING. THE PROPERTY OWNER SHALL CALL FOR SAID INSPECTION AT LEAST THREE DAYS IN ADVANCE OF THE INSPECTION. THE FENCING MUST REMAIN THROUGHT THE COURSE OF CONSTRUCTION. NO STORAGE OF EQUIPMENT, VEHICLES OR DEBRIS SHALL BE ALLOWED WITHIN THE DRIP LINES OF THE TREES. EXISTING PERIMETER PLANTING SHALL BE FENCED AND RETAINED THROUGHT THE ENTIRE CONSTRUCTION PROJECT.



12 TREE PROTECTION DETAIL



3 ROCK RIPRAP SWALE DETAIL

NTS

APPLICANT:

ROAD NAME: OLD SANTA CRUZ HIGHWAY

COUNTY FILE NO.

ARNOLD ENGINEERING ASSOCIATES, INC.
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Exp. 06-30-22
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SHEET TITLE

DETAILS

DATE February 14, 2020

SCALE AS SHOWN

DRAWN SC/AA

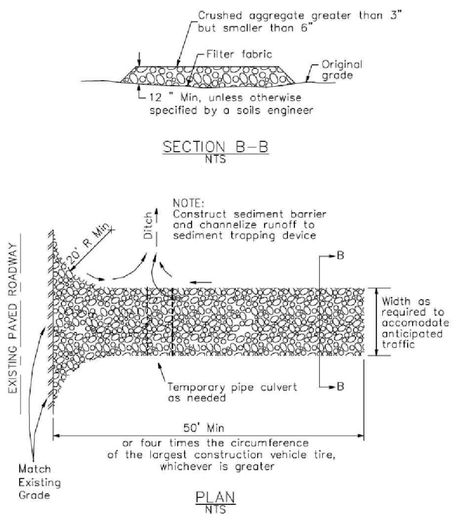
JOB 05-20

SHEET

C5.2

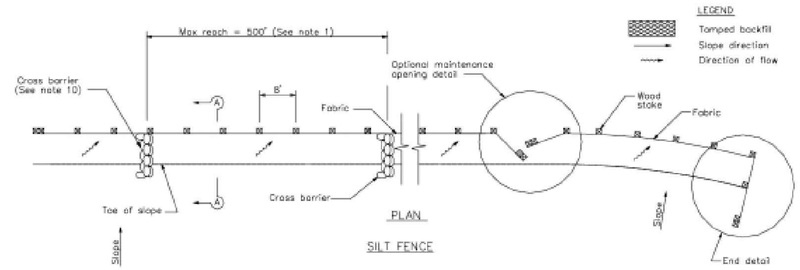
3 Stabilized Construction Entrance/Exit

CASQA Detail TC-1



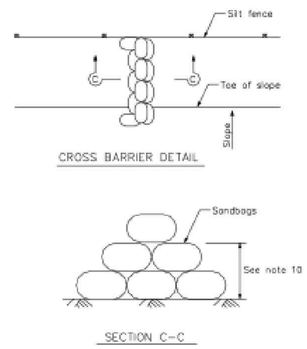
1 Silt Fence

CASQA Detail SE-1



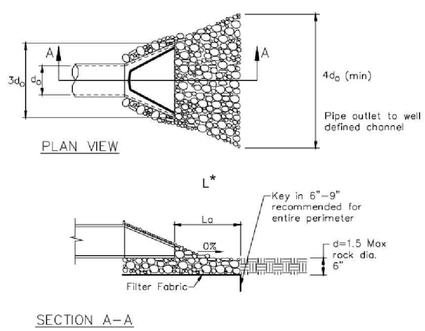
NOTES

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



4 Velocity Dissipation Devices

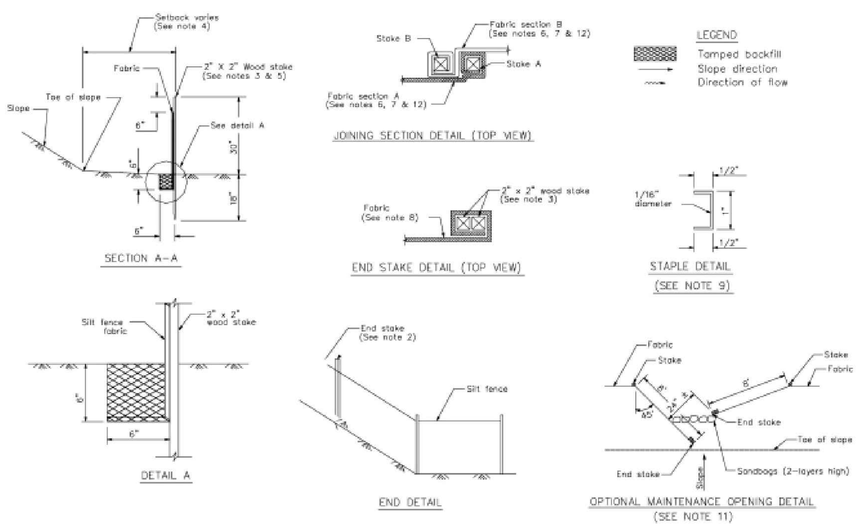
CASQA Detail EC-10



* Length per ABAG Design Standards

2 Silt Fence

CASQA Detail SE-1



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

STANDARD BEST MANAGEMENT PRACTICE NOTES

1. 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.
2. 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.
3. 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.
4. 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.
5. Material Delivery, Handling and Storage: In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
6. Handling and Disposal of Concrete and Cement: When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
7. Pavement Construction Management: Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
8. Contaminated Soil and Water Management: Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or latest.
9. 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.
10. 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

1. Sediment Control Management:

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

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

   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, ect.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.
2. 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.
3. 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.
4. 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.
5. It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
6. Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

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EROSION CONTROL DETAILS

DATE: February 14, 2020

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DRAWN: SC/AA

JOB: 05-20

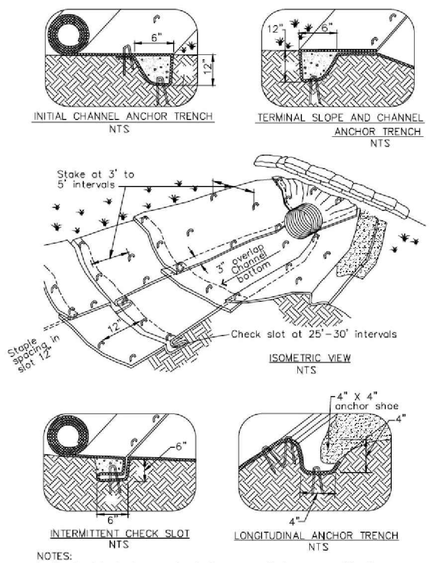
SHEET

C6.1

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.

7 Geotextiles and Mats

CASQA Detail EC-7

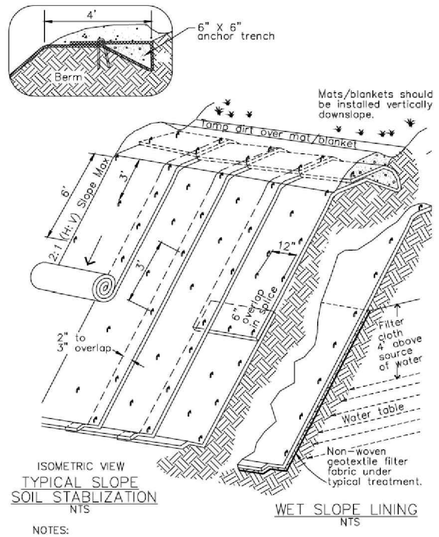


NOTES:
1. Check slots to be constructed per manufacturers specifications.
2. Staking or stapling layout per manufacturers specifications.
3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL

5 Geotextiles and Mats

CASQA Detail EC-7

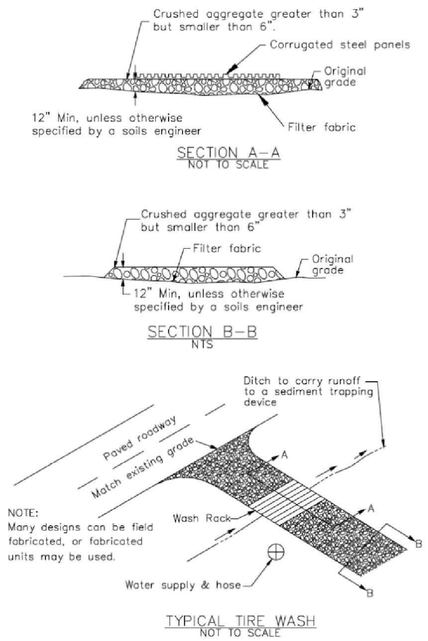


NOTES:
1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blankets shall have good soil contact.
2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL

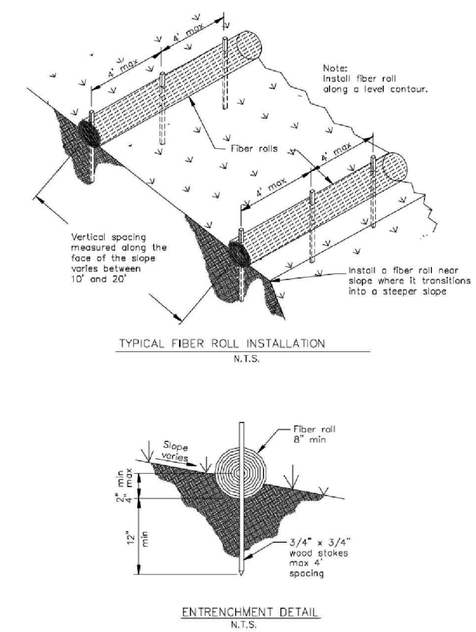
3 Entrance/Outlet Tire Wash

CASQA Detail TC-3



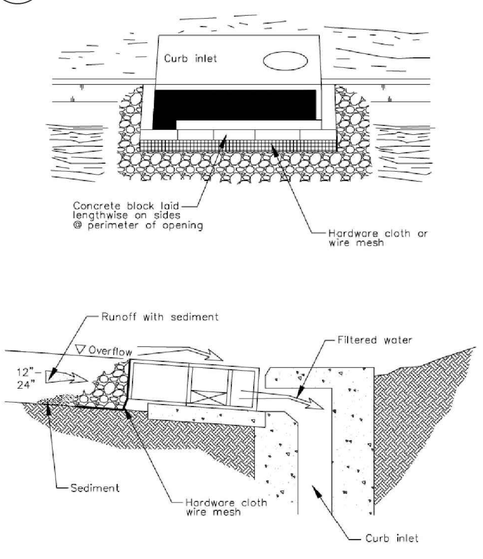
1 Fiber Rolls

CASQA Detail SE-5



8 Storm Drain Inlet Protection

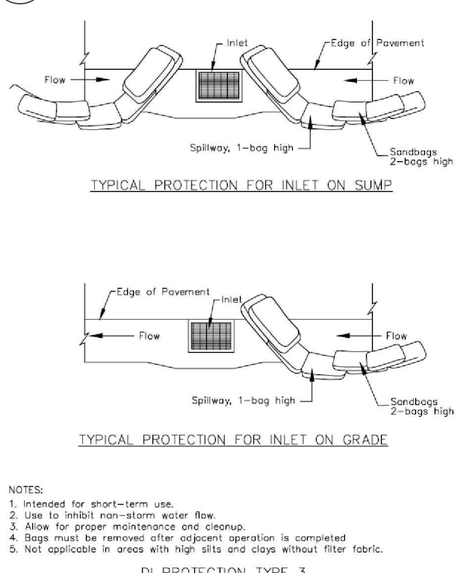
CASQA Detail SE-10



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

6 Storm Drain Inlet Protection

CASQA Detail SE-10

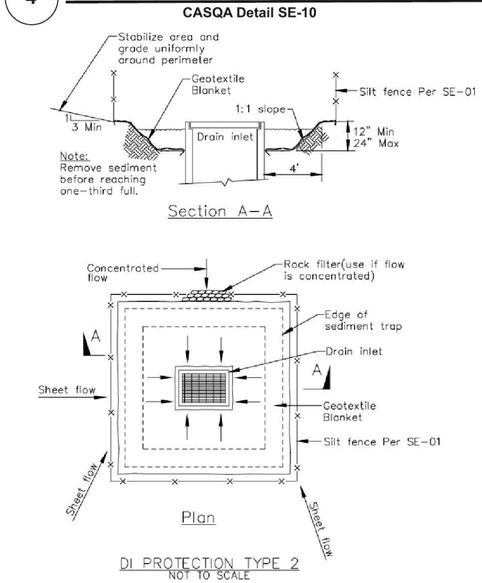


NOTES:
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE

4 Storm Drain Inlet Protection

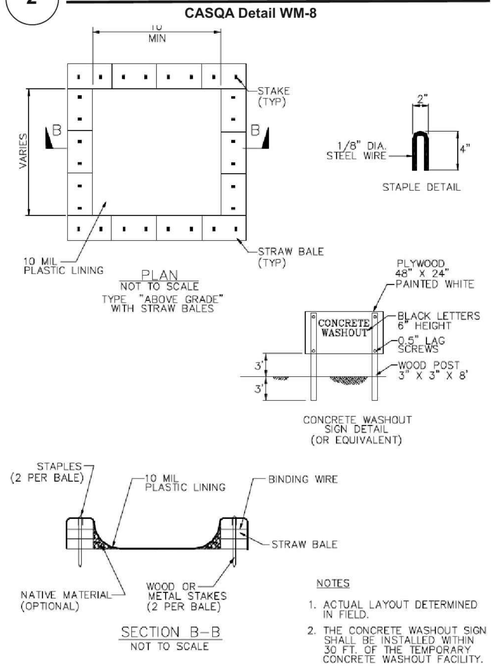
CASQA Detail SE-10



Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.

2 Concrete Waste Management

CASQA Detail WM-8



NOTES
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

ARNOLD ENGINEERING ASSOCIATES, INC.
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STAMP

REGISTERED PROFESSIONAL ENGINEER ANDREW E. ARNOLD No. C 68537 Exp. 06-30-22 CIVIL STATE OF CALIFORNIA

MARK	REVISIONS	DATE
	SUBMITTAL	02/14/20
	SOILS UPDATE	06/25/21

PROJECT TITLE

MILLER-CAUICH RESIDENCE
22045 OLD SANTA CRUZ HWY
LOS GATOS, CA 95033
APN: 558-08-147
(FORMERLY 558-08-111)

SHEET TITLE

EROSION CONTROL DETAILS

DATE February 14, 2020

SCALE AS SHOWN

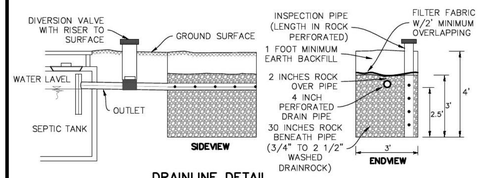
DRAWN SC/AA

JOB 05-20

SHEET

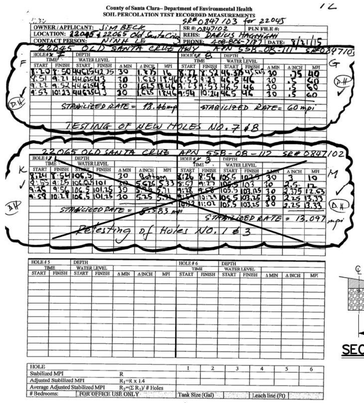
C6.2

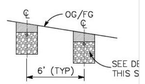
APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.



DRAINLINE DETAIL

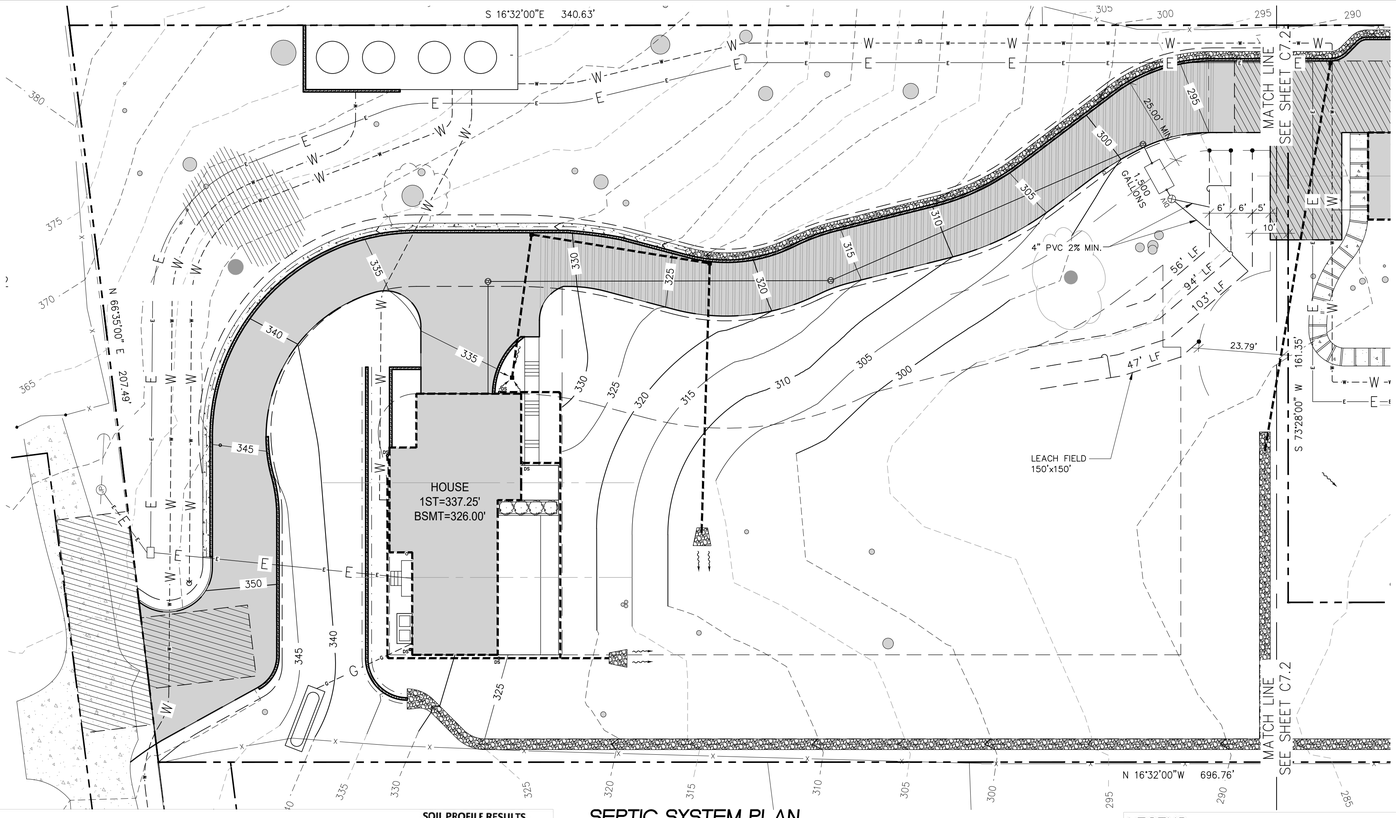
NTS


County of Santa Clara– Department of Environmental Health
SOIL PERCOLATION TEST RECORDED MEASUREMENTS



SECTION R–R

1"=10'



SEPTIC SYSTEM PLAN

LEGEND

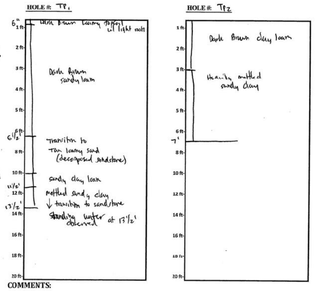
4" PVC SOLID PIPE

4" PVC PERFORATED PIPE

SOIL PROFILE RESULTS CONVENTIONAL SYSTEMS

SR #: 558-08-111 DATE OF INSPECTION: 6/26/15
APN #: OWNER: Jim Beck
APPLICANT: Nick Le
SITE ADDRESS: 22045 Old Santa Cruz Hwy, L.G.
CONDUCTED BY: CHECKED BY: Dennis Hughright

HOLE #: TP1

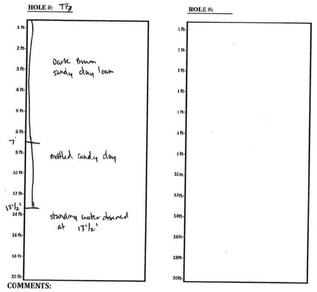


COMMENTS:

SOIL PROFILE RESULTS CONVENTIONAL SYSTEMS

SR #: 558-08-111 DATE OF INSPECTION: 6/26/15
APN #: OWNER: Jim Beck
APPLICANT: Nick Le
SITE ADDRESS: 22045 Old Santa Cruz Hwy, L.G.
CONDUCTED BY: CHECKED BY: Dennis H

HOLE #: TP2

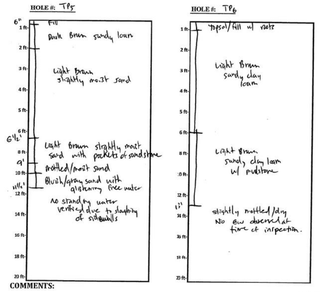


COMMENTS:

SOIL PROFILE RESULTS CONVENTIONAL SYSTEMS

SR #: 847103 DATE OF INSPECTION: 7/21/15
APN #: 558-08-111 OWNER: Jim Beck
APPLICANT: Nick Le
SITE ADDRESS: 22045 old Santa Cruz Hwy, L.G.
CONDUCTED BY: CHECKED BY: Dennis Hughright

HOLE #: TP5



COMMENTS:

TABLE 3–4. CONVENTIONAL OWTS DISPERSAL TRENCH DESIGN

PARAMETER	REQUIREMENT
Trench length	Determined based on design flow and percolation rate; see below Recommended maximum of 100' per trench
Trench width	18 inches minimum; 36 inches maximum
Trench Depth	2.5 feet minimum; 8 feet maximum
Minimum cover over rock, in inches*	12 inches
Depth of rock under pipe (minimum)*	12 inches
Depth of rock over pipe (minimum)*	2 inches
Size of rock *	¾ to 2½ inches
Spacing of trenches, center to center, in feet, minimum	2 times the depth of rock below pipe; 6 feet minimum, plus 1–foot additional spacing for every 5% increase in dispersal area ground slope above 20%

*OTHER MATERIALS MAY BE SUBSTITUTED FOR DRAINROCK IN THE DISPERSAL TRENCHES IF IT IS DETERMINED BY THE DIRECTOR THAT THE MATERIAL WILL SERVE THE SAME FUNCTION AS DRAINROCK AS FOLLOWS: 1) SUPPORT THE TRENCH SIDEWALLS AND MAINTAIN THE INTEGRITY OF THE INFILTRATIVE SURFACE; AND 2) PROVIDE ADEQUATE STORAGE FOR SEPTIC TANK EFFLUENT SURGES. THE MAXIMUM DEPTH AND SPACING BETWEEN TRENCHES MAY NOT BE MODIFIED. MATERIALS APPROVED AS DRAINROCK SUBSTITUTES MUST PROVIDE EQUIVALENT EFFECTIVE INFILTRATIVE SURFACE CONSISTENT WITH TRENCH SIZING REQUIREMENTS PER PARAGRAPH E3 BELOW. REDUCTION IN TRENCH SIZING REQUIREMENTS, UP TO 30%, MAY BE APPROVED BY THE DIRECTOR FOR IAPMO–CERTIFIED DISPERSAL SYSTEMS.

*TABLE 1, STANDARD WASTEWATER APPLICATION RATES–SEPTIC TANK EFFLUENT

Percolation Rate (MPI)	Application Rate (gdp/ft²)
16	0.70
17	0.68
18	0.67
19	0.65

*TABLE 3–1
WASTEWATER DESIGN FLOWS FOR SINGLE FAMILY RESIDENCES AND SECOND UNITS

No. of Bedrooms	Design Flow (gal/day)
1	150
2	300
3	450
4	525
5	600
6	675
>6	+75 per bedroom

*COUNTY OF SANTA CLARA – DEH ONSITE SYSTEM MANUAL – MAY 2014

DISPERSAL TRENCH LENGTH CALCULATIONS

REFERENCE

SANTA CLARA COUNTY ONSITE SYSTEM MANUAL (OSM), MAY 2014

WASTEWATER DESIGN FLOW (WWDF)

HOUSE NO. BEDROOM = 5

FROM TABLE 3–1 OSM

5 BEDROOM HOUSE = 600 GAL/DAY

WWDF = 600 GAL/DAY

STANDARD WASTEWATER APPLICATION RATES (SWAR)

AVERAGE ADJUSTED PERCOLATION RATE = 17.73 MPI

FROM TABLE 1 OSM WITH 18 MPI:

SWAR = 0.67

TRENCH LENGTH CALCULATIONS

$$L = \frac{Q}{RA}$$

L = TRENCH LENGTH;
Q = DESIGN WASTEWATER FLOW (GPD)
R = SWAR (GPD/SF)
A = TOTAL INFILTRATIVE AREA PER LINEAL FOOT OF TRENCH (SF)

WITH LEACHFIELD AREA GROUND SLOPE < 20% & SOIL PERCOLATION RATE BETWEEN 5 AND 60 MPI

USE INFILTRATIVE SURFACE OF 8 SF

$$L = \frac{600}{(0.67)8} = 111.94' \text{ ; USE } 112'$$

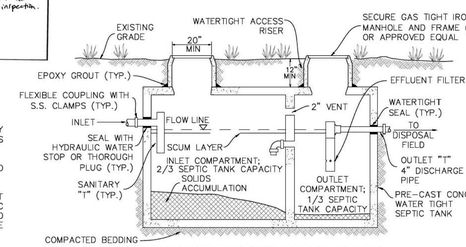
SEPTIC SYSTEM CONSTRUCTION NOTES

A. PROJECT REQUIREMENTS

1. SYSTEM TO SERVE A NEW 5 BEDROOM, 2,000 SF HOUSE. INSTALLATION OF SYSTEM TO CONFORM TO SANTA CLARA COUNTY SEWAGE DISPOSAL ORDINANCE. CALL SANTA CLARA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH 24 HOURS MIN. PRIOR TO START OF WORK AT (408)–918–3400.
2. SEWAGE DISPOSAL SYSTEM CONSISTS OF A 1,500 GALLON SEPTIC TANK WITH WATERTIGHT ACCESS RISERS TO GRADE; A BULL–RUN DIVERSION VALVE; AND TWO 112 LF X 112 LF DISPERSAL FIELD OF 36" WIDE BY 30" DEEP DRAINROCK BED WITH INSPECTION RISERS TO GRADE. THE DISPERSAL FIELDS SHALL BE INTERCONNECTED WITH A DIVERSION VALVE. THE VALVE MUST BE CAPABLE OF DIRECTING THE SEPTIC TANK EFFLUENT TO ONE DISPERSAL FIELD AT A TIME.
3. GROUND SLOPE OF DISPERSAL FIELD #1 & DISPERSAL FIELD #2 IS APPROXIMATELY 15%. DISPERSAL FIELDS SHALL BE INSTALLED LEVEL AND ON CONTOURS AS SHOWN ON PLAN. EXCESS SOIL FROM LEACHFIELD CONSTRUCTION SHALL BE SPREAD ON SITE AT A DEPTH OF 8" MAX OR BE REMOVED OFF–SITE.
4. THE DIVERSION VALVE SHALL BE OPERATED ANNUALLY TO ROTATE THE USE OF DISPERSAL FIELDS TO EXTEND THE LIFE OF THE SEPTIC SYSTEM.
5. MARK CAPS OF ALL BULL RUN VALVES (DV) AND RISERS (R) WITH A PERMANENT MARKER OR LABEL.
6. SWIMMING POOLS OR SPAS MUST NOT BE DRAINED OR BACKWASHED INTO THE SEPTIC SYSTEM.
7. AVOID PLANTING TREES IN DISPERSAL FIELD OR CLOSE TO SEPTIC TANK.
8. GARBAGE DISPOSAL IS NOT RECOMMENDED. IF THEY ARE INSTALLED, THEY SHOULD BE USED SPARINGLY OR NOT AT ALL.
9. THE SOLIDS THAT ACCUMULATE IN THE SEPTIC TANK SHOULD BE REMOVED BY PUMPING EVERY 3–5 YEARS TO PREVENT SOLIDS FROM ENTERING AND CLOGGING THE DISPERSAL FIELD.
10. ALL WORK TO BE PERFORMED BY AN APPROPRIATELY LICENSED CONTRACTOR.
11. PRIOR TO STARTING CONSTRUCTION, CONTRACTOR SHALL CONTACT USA AT 1–800–227–2600 TO LOCATE ALL UNDERGROUND UTILITIES.

B. SEPTIC TANK REQUIREMENTS

1. MINIMUM CAPACITY. SEPTIC TANKS MUST HAVE A MINIMUM CAPACITY OF FIFTEEN HUNDRED(1,500) GALLONS OR TWICE THE PEAK DAILY WASTEWATER FLOW FOR THE FACILITY SERVED, WHICHEVER IS GREATER. MINIMUM SEPTIC TANK CAPACITY FOR ASSISTED CARE FACILITIES SHALL BE EQUAL TO THREE TIMES THE PEAK DAILY WASTEWATER FLOW.
2. TWO COMPARTMENTS. SEPTIC TANKS MUST BE OF TWO–COMPARTMENT CONSTRUCTION, WITH THE FIRST COMPARTMENT EQUAL TO TWO–THIRDS THE TOTAL TANK VOLUME. THE COMPARTMENTS MUST BE SEPARATED BY A BAFFLE OR EQUIVALENT ARRANGEMENT.
3. MATERIALS. SEPTIC TANKS MUST BE WATERTIGHT, PROPERLY VENTED AND CONSTRUCTED OF REINFORCED CONCRETE, HEAVYWEIGHT REINFORCED CONCRETE BLOCKS, FIBERGLASS OR OTHER DURABLE, NON–CORRODIBLE MATERIALS AS APPROVED BY THE DIRECTOR. SEPTIC TANKS SHALL BE DESIGNED TO WITHSTAND ANY ANTICIPATED WEIGHT PLACED ABOVE IT. ALL SEPTIC TANKS SHALL BE LISTED AND APPROVED BY IAPMO OR AN ANSI ACCREDITED TESTING ORGANIZATION. EXCEPTION TO THISREQUIREMENT MAY BE GRANTED WHERE STRUCTURAL DESIGN CALCULATIONS FOR THE SEPTIC TANK ARE PROVIDED BY A CALIFORNIA REGISTERED CIVIL ENGINEER.
4. ACCESS OPENINGS. ACCESS TO EACH SEPTIC TANK COMPARTMENT MUST BE PROVIDED BY A MANHOLE OPENING AT LEAST TWENTY INCHES IN DIAMETER.
5. ACCESS RISERS. A RISER MUST EXTEND FROM EACH MANHOLE OPENING TO OR ABOVE THE SURFACE OF THE GROUND. THE RISER MUST BE OF A SIZE LARGER THAN THE MANHOLE OPENING, BE BOTH GAS– AND WATER–TIGHT, BE CONSTRUCTED OF DURABLE MATERIAL AND EQUIPPED WITH A SECURE COVER.
6. EFFLUENT FILTER. THE OUTLET OF THE SEPTIC TANK SHALL BE FITTED WITH AN EFFLUENT FILTER CAPABLE OF SCREENING SOLIDS IN EXCESS THREE–SIXTEENTHS (3/16) OF AN INCH IN DIAMETER AND CONFORMING TO NSF/ANSI STANDARD 46 OR AS OTHERWISE APPROVED BY THE DIRECTOR.
7. TANK CONNECTIONS. ALL CONNECTIONS FROM BUILDING TO SEPTIC TANK MUST CONFORM TO CONSTRUCTION STANDARDS AS REQUIRED BY THE COUNTY BUILDING OFFICIAL.
8. WATER–TIGHTNESS TESTING. ALL NEW SEPTIC TANK INSTALLATIONS AND MODIFICATIONS TO EXISTING SEPTIC TANKS SHALL UNDERGO WATER–TIGHTNESS TESTING AS FOLLOWS:
A) NEW TANKS. FOR NEW TANK INSTALLATIONS, THE TESTING SHALL BE DONE WITH THE RISERS IN PLACE AND THE INLET AND OUTLET PIPES PLUGGED. THE TANK SHALL BE FILLED WITH WATER TO A LEVEL EXTENDING A MINIMUM OF TWO (2) INCHES INTO THE RISERS, AND MONITORED FOR A 1– HOUR PERIOD, WITH NO MEASURABLE DROP IN THE WATER LEVEL.
B) EXISTING TANKS. FOR EXISTING TANKS, THE TANK SHALL BE FILLED WITH WATER TO A LEVEL EVEN WITH THE INVERT OF THE OUTLET PIPE, AND MONITORED FOR A 1–HOUR PERIOD, WITH NO MEASURABLE DROP IN WATER LEVEL. HOWEVER, IN CASES WHERE THERE THE GROUNDWATER LEVEL IS KNOWN OR ESTIMATED TO RISE ABOVE THE LEVEL OF THE OUTLET PIPE DURING ANY TIME OF THE YEAR, THE WATER–TIGHTNESS TEST SHALL BE CONDUCTED FOLLOWING THE PROCEDURE FOR NEW TANK INSTALLATIONS; I.E., BY FILLING THE TANK WITH WATER INTO THE RISERS.



TYPICAL SEPTIC TANK CROSS–SECTION

NTS

CONCRETE TANKS MUST BE USED WHERE POSSIBLE. ALTERNATIVE MATERIALS ARE APPROVED ON A SITE SPECIFIC BASIS. THE DEPARTMENT OF ENVIRONMENTAL HEALTH MAINTAINS A LIST OF APPROVED SEPTIC TANKS.

C. PIPE REQUIREMENTS

1. SOLID PIPE, JOINTS AND CONNECTIONS. SOLID (NON–PERFORATED) PIPE FOR OWTS MUST CONFORM TO THE STANDARDS OF THE MOST RECENT EDITION OF THE UNIFORM PLUMBING CODE, WHICH IS ADOPTED BY REFERENCE INTO THE COUNTY'S BUILDING ORDINANCES. PIPE DIAMETER MUST BE FOUR INCHES. ALL SOLID PIPE JOINTS AND CONNECTIONS MUST BE GLUED, CEMENTED OR MADE WITH AN ELASTOMERIC SEAL SO AS TO BE WATERTIGHT.
2. TIGHTLINES UNDER RESIDENTIAL DRIVEWAY. TIGHTLINES IN RESIDENTIAL TRAFFIC AREAS MUST BE INSTALLED WITH SCHEDULE 40 PVC. AN ALTERNATIVE IS TO SLEEVE (I.E., DOUBLE PIPE) THE THIN WALL TIGHTLINE PIPE WITHIN AN OUTER PIPE CONSISTING OF SCHEDULE 40 PVC, ABS OR SUITABLE ALTERNATIVE AND RATED BY THE UNIFORM PLUMBING CODE.
3. DISTRIBUTION PIPE. PERFORATED PIPE FOR CONVENTIONAL OWTS DISPERSAL SYSTEMS MUST CONFORM TO THE MOST RECENT EDITION OF THE UNIFORM PLUMBING CODE, WHICH IS ADOPTED BY REFERENCE INTO THE COUNTY'S BUILDING ORDINANCES. THE PIPE DIAMETER MUST BE FOUR INCHES.

D. DISPERSAL SYSTEM REQUIREMENTS

1. TRENCH CONSTRUCTION.
A) TRENCHES MUST BE PLACED IN UNDISTURBED EARTH, IN AN ACCESSIBLE AREA, AND SHALL NOT BE COVERED BY PAVING OR OTHER IMPERMEABLE OR COMPACTED SURFACE. NATURAL TOPOGRAPHY SHALL NOT BE GRADED TO MODIFY SLOPE.
B) THE BOTTOM OF A TRENCH MUST BE LEVEL, WITH A VARIATION OF NO MORE THAN 2 INCHES PER 100 LINEAL FEET OF TRENCH; TRENCHES SHALL BE ALIGNED PARALLEL TO THE GROUND SURFACE CONTOURS TO THE GREATEST EXTENT PRACTICABLE.
C) ADJACENT TRENCHES ON SLOPES MUST BE CONNECTED WITH A WATERTIGHT OVERFLOW LINE ("RELIEF LINE") IN A MANNER THAT ALLOWS EACH TRENCH TO BE FILLED WITH SEWAGE EFFLUENT TO THE DEPTH OF THE ROCK BEFORE THE SEWAGE FLOWS TO THE NEXT LOWER TRENCH. ALTERNATIVELY, A DISTRIBUTION BOX (D–BOX) MAY BE USED TO EQUALLY DIVIDE THE FLOW AMONGST THE TRENCHES, PROVIDED THE PROPOSED D–BOX IS OF A DESIGN APPROVED AND LISTED BY THE DEH PER PART 3.1.E (MATERIALS AND EQUIPMENT) OF THIS MANUAL. FOR SYSTEMS LOCATED ON SITES HAVING SLOPES OF LESS THAN 5%, A "GRID" DESIGN MAY BE USED IN ACCORDANCE WITH GUIDELINES PROVIDED UNDER AT THE END OF THIS SECTION (E.3.F).
D) TRENCHES MUST NOT BE EXCAVATED WHEN THE SOIL IS SO WET THAT SMEARING OR COMPACTION OCCURS.
E) IN CLAY SOILS WHEN GLAZING OCCURS, THE TRENCH SURFACES MUST BE SCARIFIED TO THE DEPTH OF THE GLAZING AND THE LOOSE MATERIAL REMOVED.
F) ROCK MATERIAL IN THE TRENCH MUST BE WASHED AND FREE OF FINES, AND MUST BE COVERED WITH AN APPROVED FILTER FABRIC SILT BARRIER (GEOTEXTILE) PRIOR TO BACKFILLING WITH NATURAL EARTH.
G) A CAPPED INSPECTION RISER SHALL BE INSTALLED WITHIN EACH TRENCH TO PROVIDE A MEANS OF OBSERVING THE EFFLUENT LEVEL IN THE TRENCH.
H) EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOLLOWING INSTALLATION PER REQUIREMENTS OF SECTION B11–83(C) FOR ANY CONVENTIONAL DISPERSAL SYSTEM WHERE: (1) GROUND SLOPE EXCEEDS 20%; (2) ABOVE–GRADE COVER FILL IS ADDED; (3) DESIGN FLOW EXCEEDS 1,000 GPD; OR (4) A GRADING AND/OR DRAINAGE PERMIT IS REQUIRED FOR PROJECT SITE DEVELOPMENT PER DIVISION C12, CHAPTER III OF THE COUNTY CODE. THE PLAN SUBMITTAL FOR THE OWTS SHALL INCLUDE AN EROSION CONTROL PLAN IN ACCORDANCE WITH REQUIREMENTS OF ORDINANCE SECTION B11–83(C).

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web: www.aeaengineering.com

STAMP

REGISTERED PROFESSIONAL ENGINEER ANDREW E. ARNOLD No. C 68537 Exp. 06-30-22 CIVIL STATE OF CALIFORNIA

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JOB 05-20

SHEET

C7.1

APPLICANT: ROAD NAME: OLD SANTA CRUZ HIGHWAY COUNTY FILE NO.