Sheet Number:

C5.10

# IMPROVEMENT PLANS FOR

# HIGHLAND ESTATES - LOT 5 TICONDEROGA DRIVE

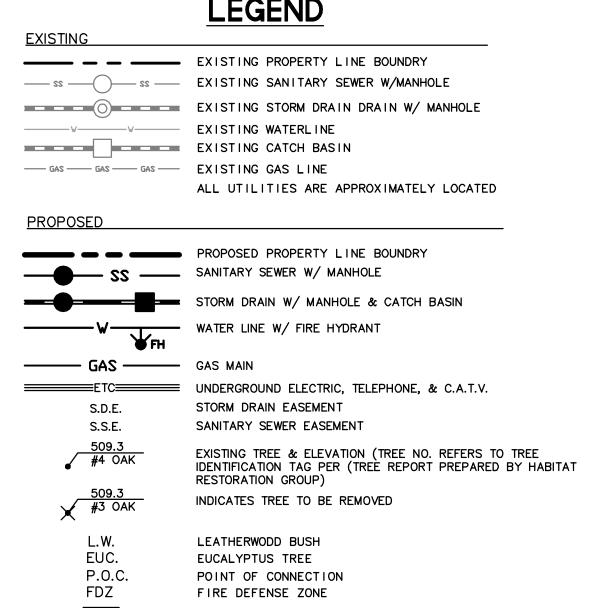
# **EARTHWORK**

CUT				1,740	CY		
SLOPE	MITIGATION	<b>EXPORT</b>	CREDIT	520	CY		
FILL				0	CY		
NET				1,220	CY	CUT	

## **EARTHWORK NOTES:**

- 1. THE QUANTITIES SHOWN ABOVE EXCLUDE EARTHWORK FROM GEOTECHNICAL SLOPE REMEDIATION ACTIVITIES PER CONDITION OF APPROVAL ITEM NO. 4.M, INCLUDING SITE STRIPPING, EARTHWORK SWELLING AND SHRINKAGE FACTORS ASSOCIATED WITH GEOTECHNICAL SLOPE REMEDIATION MITIGATION.
- 2. THE EARTHWORK QUANTITIES SHOWN ABOVE ARE IN-PLACE QUANTITIES AND HAVE BEEN ESTIMATED BY THE ENGINEER WITH THE FOLLOWING ASSUMPTIONS:
- A. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SITE STRIPPINGS.
- C. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR FILL SHRINKAGE FACTORS.
- D. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR UTILITY TRENCHING AND SPOILS.
- E. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SOIL STABILIZATION FACTORS AND LANDSCAPING
- 2. ACTUAL QUANTITIES MAY VARY DUE TO FIELD CONDITIONS OR CONSTRUCTION TECHNIQUES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES BASED UPON APPROVED PLANS AND INDEPENDENT CALCULATIONS.

# **LEGEND**

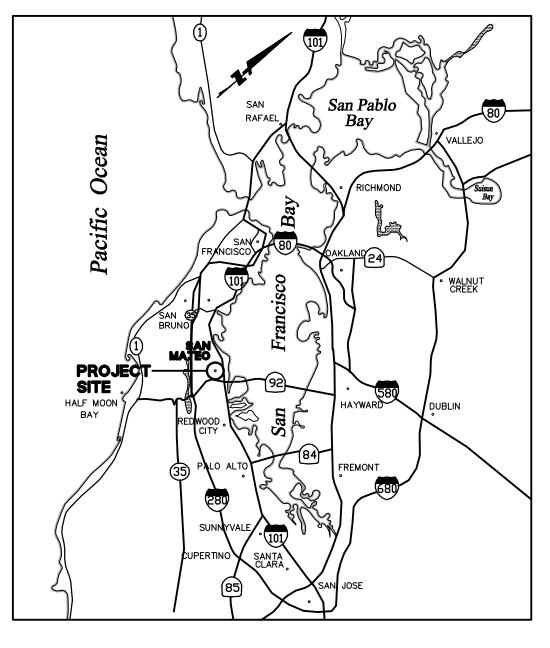


# **ABBREVIATIONS**

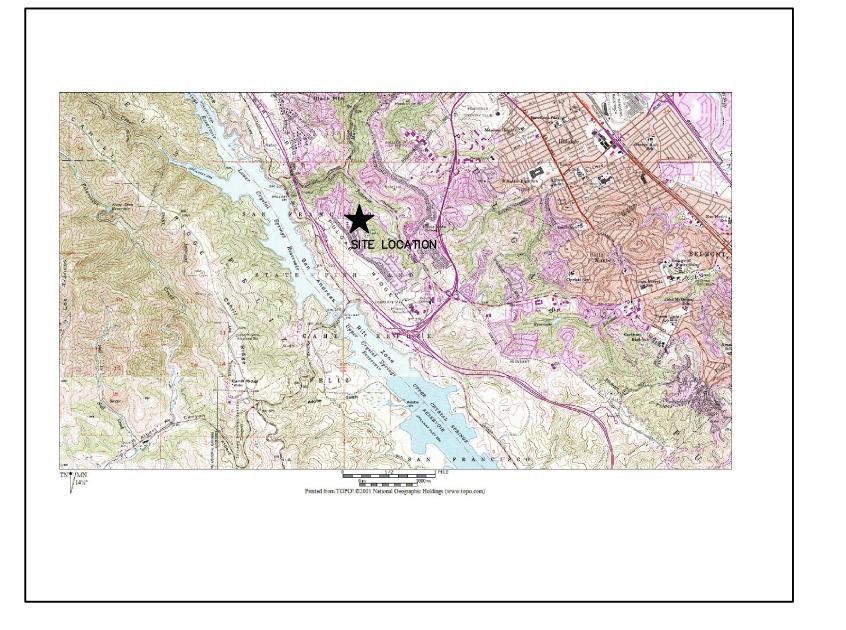
FLOW-THROUGH PLANTER. PROPOSED FOR TREATMENT OF ROOF AND DRIVEWAY STORM WATER RUNOFF.

AC	ASPHALTIC CONCRETE	L	LENGTH
BEG	BEGINNING BAY LAUREL BUILDING CORNER BOTTOM GRADE AT BOTTOM OF WALL BACK OF WALK CATCH BASIN CENTERLINE CHAIN LINK FENCE CORRUGATED METAL PIPE	LF LC	LINEAR FEET
BL BLDG COR BOT BOW BW	BAT LAUREL	LG NIC	LIP OF GUTTER
BLUG CUR	BUILDING CURNER	NIC	NOT IN CONTRACT
BOIL	BUITUM	Ü	OAK TREE
BOM	GRADE AT BOTTOM OF WALL	P	PEPPER TREE
RM	BACK OF WALK	PD	PLANNED DEVELOPMENT
CB CL	CATCH BASIN	PINE	PINE TREE
CL	CENTERLINE CHARLES FELICE	PUE	PUBLIC UTILITY EASEMENT
CLF	CHAIN LINK FENCE	PVC	POLYVINYL CHLORIDE PIPE
CMP	CORRUGATED METAL PIPE	RCP	REINFORCED CONCRETE PIPE
• • • • • • • • • • • • • • • • • • • •	022: 00 :	RDW	REDWOOD TREE
CONC	CONCRETE	RET WALL	RETAINING WALL
CU	COPPER	ROW	RIGHT OF WAY
DG			
DI	DRAIN INLET	RWL	RAIN WATER LEADER
DW	DOMESTIC WATER	S	SLOPE
EG	EXISTING GRADE	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDCB	STORM DRAIN CATCH BASIN
EUC	EUCALYPTUS TREE	SDCO	STORM DRAIN CLEANOUT
EX, (E)	DRAIN INLET DOMESTIC WATER EXISTING GRADE EDGE OF PAVEMENT EUCALYPTUS TREE EXISTING FACE OF CURB FINISH FLOOR FINISH GRADE FLOW TUROUGH BLANTER	SDDI	STORM DRAIN DROP INLET
FC, FÓC	FACE OF CURB	SDMH	STORM DRAIN MANHOLE
FF	FINISH FLOOR	SS	SANITARY SEWER
FG	FINISH GRADE	SSC0	SANITARY SEWER CLEAN OUT
FL	FLOW LINE	SSMH	SANITARY SEWER MANHOLE
FL FNC FTP	FENCE	T	TREE
FTP	FLOW THROUGH PLANTER FIRE WATER	10	TOP OF CURB
FW	FIRE WATER	TOE	TOE OF SLOPE
GB	ODADE DDEAK	TOD	TOP OF SLOPE
GFF	GRADE BREAK GARAGE FINISH FLOOR GAS METER GROUND SHOT GRATE	TOW	TOP OF WALL
GM	GAS METER	TYP	TYPICAL
GND	GROUND SHOT	UB	UTILITY BOX
GR	GRATE	VC	VERTICAL CURVE
GRAVFI	EDGE OF GRAVEL ROAD	VCP	VITRIFIED CLAY PIPE
GRAVEL GW	GUY WRE	W	WATER
INV	INVERT	WM	WATER METER
JP	JOINT POLE	WV	WATER VALVE
<b>V</b> I	JOHN TOLL	•••	<u>-</u>

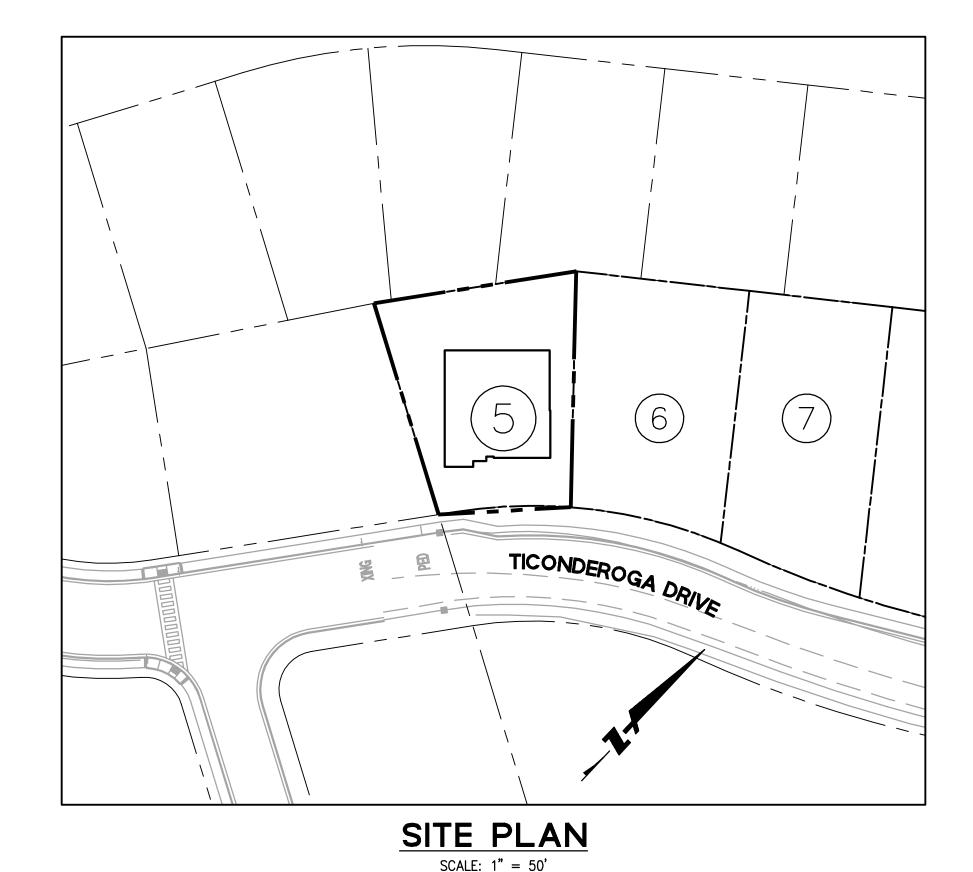
# COUNTY OF SAN MATEO, CALIFORNIA



VICINITY MAP



LOCATION MAP



# PROJECT DATA

LOT AREA: 10,191 SF **EXISTING LAND USE:** UNDEVELOPED LAND PROPOSED USE: RESIDENTIAL (LOT 5) **EXISTING ZONE:** RMD - RESOURCE MANAGEMENT DISTRICT PROPOSED ZONE: PROPOSED USE: 1 RESIDENTIAL LOT OWNER: TICONDEROGA PARTNERS, A CALIFORNIA LIMITED LIABILITY CORPORATION

> C/O THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582 ATTN: JACK CHAMBERLAIN THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582

> > (408) 245-4600

CITY OF SAN MATEO & CRYSTAL SPRINGS COUNTY

ATTN: JACK CHAMBERLAIN **CIVIL ENGINEER:** BKF ENGINEERS 255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065

(650) 482-6300 CORNERSTONE EARTH GROUP **GEOTECHNICAL ENGINEER:** 1259 OAKMEAD PARKWAY SUNNYVALE, CA 94085

**WATER SUPPLY:** CAL WATER SERVICE 341 N. DELAWARE STREET SAN MATEO, CA 94401-1808 (650) 343–1808

SANITATION DISTRICT **GAS & ELECTRIC** TELEPHONE:

FIRE PROTECTION: CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION CABLE: STORM DRAINAGE: COUNTY OF SAN MATEO CITY OF SAN MATEO

TOPOGRAPHIC BASE MAP: AERO-GEODIC COROP. JOB NO. 950168 DATE OF PHOTOGRAPHY 9/18/87

EROSION CONTROL POINT OF CONTACT: NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: (650) 322-5800

CELL #: (650) 444-3089 EMAIL: noel@nexgenbuilders.com SHEET INDEX

# **DESCRIPTION**

**DEVELOPER:** 

**SEWAGE DISPOSAL:** 

TITLE SHEET C5.20 GENERAL NOTES SITE AND CLEARING, CONSTRUCTION AND GRADING PLANS C5.40 UTILITY PLAN AND CROSS SECTION EROSION CONTROL PLANS EROSION CONTROL DETAILS AND NOTES

C5.70 CONSTRUCTION DETAILS C5.71 CONSTRUCTION DETAILS LOGISTICS PLAN CASQA STANDARD DETAILS

C5.91 GEOTECHNICAL MITIGATION PLAN (LOTS 5 TO 8) GEOTECHNICAL MITIGATION CROSS SECTIONS (LOTS 5 TO 8)

# **ENGINEER'S STATEMENT**

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY DIRECTION.

ROLAND N.V. HAGA R.C.E NO. 43971 BKF ENGINEERS

JONATHAN TANG P.E. NO. 67726

BKF ENGINEERS

DATE

# **ENGINEER OF WORK**

I HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE STATE OF CALIFORNIA, BUSINESS & PROFESSIONAL CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.



- PERFORM WORK IN CONFORMANCE WITH THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL ENGINEERING REPORT TITLED "UPDATED GEOTECHNICAL INVESTIGATION, HIGHLAND ESTATES LOTS 5 THROUGH 11, TICONDEROGA DRIVE/COBBLEHILL PLACE/COWPENS WAY, SAN MATEO COUNTY, CALIFORNIA" PREPARED BY CORNERSTONE EARTH GROUP, DATED OCTOBER 30, 2015. GRADING WORK WILL BE SUBJECT TO APPROVAL OF GEOTECHNICAL ENGINEER.
- ARRANGE FOR REQUIRED INSPECTIONS BY COUNTY ENGINEER. NO DELAY OF WORK CLAIM WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO ARRANGE FOR REQUIRED COUNTY INSPECTIONS IN ADVANCE. PROVIDE NOTICE TO COUNTY ENGINEER A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF REQUIRED INSPECTIONS.
- 4. REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED IN WRITING BY ENGINEER, WHO WILL OBTAIN APPROVAL FROM COUNTY ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED ITEMS. REVISIONS SHALL BE ACCURATELY SHOWN ON REVISED PLANS, WHICH SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND COUNTY ENGINEER PRIOR TO INSTALLATION OF THE IMPROVEMENTS.
- 5. REPLACE OR REPAIR EXISTING UTILITIES, IMPROVEMENTS OR FEATURES DAMAGED, REMOVED, OR DISTURBED BY CONSTRUCTION TO THEIR ORIGINAL CONDITION, WHETHER SHOWN ON PLANS OR NOT.
- 6. REPLACE STREET MONUMENTS, LOT CORNERS PIPES AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION. MONUMENTS SHALL BE SET BY A SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- PREPARE TRAFFIC CONTROL PLAN AND OBTAIN APPROVAL FROM COUNTY ENGINEER BEFORE COMMENCING WORK. PROVIDE FLAG MEN, CONES, BARRICADES AND OTHER TRAFFIC CONTROL MEASURES NECESSARY TO PROVIDE SAFE LANE CLOSURE IN

CONFORMANCE WITH CALTRANS STANDARDS AND AS APPROVED BY COUNTY

- 8. PEDESTRIAN TRAFFIC CONTROL TO BE PROVIDED WHEN EXISTING SIDEWALKS CANNOT BE MAINTAINED DURING CONSTRUCTION.
- 9. DO NOT LEAVE TRENCHES OPEN OVERNIGHT IN EXISTING STREET AREAS. BACKFILL OR COVER OPEN TRENCHES AT THE END OF WORK EVERY WORK DAY.
- 10. PREPARE SHORING PLAN AND SUBMIT TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL. ADEQUATELY SHORE EXCAVATIONS TO PREVENT EARTH FROM SLIDING OR SETTLING AND TO PROTECT EXISTING ADJACENT IMPROVEMENTS FROM DAMAGE. DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE SHORING IN CONFORMANCE WITH APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND OSHA WHERE EXCAVATIONS ARE 5 FEET OR MORE IN
- 11. IMPLEMENT CONSTRUCTION DUST CONTROL MEASURES TO REDUCE PARTICULATE GENERATION TO A LESS THAN SIGNIFICANT LEVEL. PROVIDE DUST CONTROL IN CONFORMANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT MINIMUM REQUIREMENTS. IMPLEMENT THE FOLLOWING CONSTRUCTION PRACTICES EXCEPT WHEN IT IS RAINING.
- 11.A. WATER ACTIVE EXTERIOR SOIL AREAS AT LEAST TWICE DAILY.
- 11.B. COVER TRUCKS HAULING SOIL, SAND AND OTHER LOOSE MATERIAL OR PROVIDE 2 FEET OF FREEBOARD.
- 11.C. PAVE, APPLY WATER THREE TIMES DAILY OR APPLY NON-TOXIC SOIL STABILIZER ON UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING
- 11.D. SWEEP PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS DAILY.
- 11.E. APPLY HYDROSEED OR NON-TOXIC SOIL STABILIZER TO INACTIVE CONSTRUCTION AREAS.
- 11.F. ENCLOSE, COVER, WATER TWICE DAILY OR APPLY NON-TOXIC SOIL STABILIZER TO EXPOSED SOIL STOCKPILES.
- 11.G. INSTALL SANDBAGS AND OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 11.H. LIMIT TRAFFIC SPEED ON UNPAVED ROADS TO 15 MPH.
- 11.I. REPLANT VEGETATION IN DISTURBED AREAS AS QUICKLY AS POSSIBLE.
- 12. KEEP STREETS CLEAN OF DIRT, MUD AND OTHER CONSTRUCTION DEBRIS. CLEAN AND SWEEP STREETS ON A DAILY BASIS DURING THE WORK WEEK.
- 13. SHOULD IT APPEAR THAT THE WORK IS NOT SUFFICIENTLY DETAILED OR SPECIFIED IN CONSTRUCTION DOCUMENTS, NOTIFY ENGINEER AND OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK IN QUESTION.
- 14. CONSTRUCTION STAKING SHALL BE DONE BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- 15. IF BKF ENGINEERS IS RETAINED TO PROVIDE CONSTRUCTION STAKING SERVICES, CONTRACTOR WILL BE PROVIDED WITH ONE SET OF SURVEY STAKES FOR LAYOUT PURPOSES. PRESERVE AND PROTECT THESE STAKES UNTIL THEY ARE NO LONGER NEEDED. RESTAKING SHALL BE AT CONTRACTOR'S EXPENSE.
- 16. MATCH EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK, ADJACENT LANDSCAPE AND OTHER IMPROVEMENTS WITH SMOOTH TRANSITION TO AVOID ABRUPT OR APPARENT CHANGES IN GRADES, CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 17. VISIT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND OVERALL PROJECT REQUIREMENT PRIOR TO BIDDING PROJECT.
- 18. OBTAIN AND PAY FOR PERMITS AND LICENSES AS REQUIRED TO PERFORM WORK WITHIN THE COUNTY OF SAN MATEO PRIOR TO START OF WORK, PERMITS MAY INCLUDE ENCROACHMENT PERMIT FOR WORK WITHIN COUNTY RIGHT-OF-WAY AND GRADING/UTILITY PERMIT.
- 19. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC AND PEDESTRIAN CONTROL DURING CONSTRUCTION.
- 20. OBTAIN APPROVAL OF IMPORT SOIL MATERIAL FROM GEOTECHNICAL ENGINEER PRIOR TO DISTRIBUTING MATERIAL OVER SITE.
- 21. PROTECT ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES FROM DAMAGE BY CONTRACTOR'S OPERATIONS. REPAIR, REPLACE OR CLEAN ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES TO SATISFACTION OF OWNER.
- 22. MAINTAIN AND MANAGE CONSTRUCTION MATERIALS, EQUIPMENT AND VEHICLES AT THE CONSTRUCTION SITE.
- 23. NOTIFY COUNTY ENGINEER A MINIMUM OF 24 HOURS PRIOR TO STARTING WORK ON OFF-SITE DRAINAGE AND SEWER FACILITIES, GRADING, PAVING, OR WORK IN THE COUNTY RIGHT-OF-WAY.
- 24. MAKE EFFORTS TO MINIMIZE CONSTRUCTION NOISE.

- 24.A. MAINTAIN EQUIPMENT USED ON SITE IN GOOD MECHANICAL CONDITION TO MINIMIZE NOISE CREATED BY FAULTY OR POORLY MAINTAINED ENGINE, DRIVE-TRAIN AND OTHER COMPONENTS.
- 24.B. EQUIPMENT EXCEEDING 110 DBA MEASURED 25 FEET FROM THE PIECE OF EQUIPMENT WILL NOT BE ALLOWED ON SITE.
- 24.C. SELECT APPROPRIATE EQUIPMENT TO MINIMIZE NOISE GENERATION. USE THE FOLLOWING TECHNIQUES TO MINIMIZE NOISE GENERATION SUBJECT TO EQUIPMENT AVAILABILITY AND COST CONSIDERATIONS. USE SCRAPERS AS MUCH AS POSSIBLE FOR EARTH REMOVAL, RATHER THAN NOISIER LOADERS AND HAUL TRUCKS. USE BACKHOES FOR BACKFILLING AS IT IS QUIETER THAN DOZERS OR LOADERS. USE MOTOR GRADERS RATHER THAN BULLDOZERS FOR FINAL GRADING.

### II. EXISTING CONDITIONS

- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED UPON A FIELD TOPOGRAPHIC SURVEY OF THE PROJECT SITE BY BKF ENGINEERS, DATED JUNE 2009. ACTUAL CONDITIONS ENCOUNTERED ON SITE MAY VARY FROM THOSE SHOWN ON THE PLANS. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND CONDUCT THEIR OWN INVESTIGATIONS TO UNDERSTAND AND VERIFY EXISTING CONDITIONS AT THE SITE.
- 2. EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM RECORD INFORMATION KNOWN TO THE ENGINEER AND FIELD SURVEY OF ABOVE GRADE FEATURES. THESE PLANS ARE NOT MEANT TO BE A FULL CATALOG OF EXISTING SUBSURFACE CONDITIONS. CONDUCT FIELD INVESTIGATION TO VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES, WHETHER SHOWN ON PLANS OR NOT, PRIOR TO START OF EXCAVATION. IF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS ARE DISCOVERED, NOTIFY ENGINEER IMMEDIATELY AND REQUEST DISCREPANCY BE RESOLVED.
- VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AFFECTING UTILITIES. POTHOLE WHERE NEEDED TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES.
- 4. CONTACT USA (UNDERGROUND SERVICES ALERT) AT 1-800-227-2600, AND AFFECTED UTILITY COMPANIES A MINIMUM OF 2 WORKING DAYS PRIOR TO STARTING WORK TO REQUEST UTILITIES BE MARKED.

### III. DEMOLITION

- REMOVE FROM SITE AND DISPOSE OF IN LAWFUL MANNER EXISTING STRUCTURES, UTILITIES, AND OTHER FEATURES NOT REMOVED DURING DEMOLITION OR ROUGH GRADING AND ENCOUNTERED DURING WORK ON SITE.
- 1.A. REMOVE WOOD OR CONCRETE STRUCTURES, SLABS, FOOTINGS, GRADE BEAMS. DECKS, DOCKS, AND OTHER SIMILAR STRUCTURES.
- REMOVE LANDSCAPING, UTILITIES AND IRRIGATION LINES AS SPECIFIED BY GEOTECHNICAL ENGINEER.
- REMOVE ABANDONED IN-GROUND STRUCTURES, SUCH AS CULVERTS, UTILITY VAULTS, AND FOUNDATIONS AS SPECIFIED BY GEOTECHNICAL ENGINEER.

## IV. DEWATERING

- 1. DEWATER AREAS COVERED WITH STANDING WATER PRIOR TO PLACEMENT OF FILL.
- 2. DISPOSE OF WATER FROM DEWATERING OPERATION IN CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

# v. Utilities

- 1. DO NOT OPERATE WATER VALVES OR OTHER WATER DISTRICT FACILITIES. REQUIRED 10. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO OPERATION WILL BE PERFORMED BY UTILITY DISTRICT PERSONNEL ONLY. NOTIFY UTILITY DISTRICT 2 WORKING DAYS PRIOR TO REQUIRING FACILITY OPERATION.
- 2. PROVIDE MINIMUM 12 INCH VERTICAL CLEARANCE BETWEEN ADJACENT UTILITY PIPES 11. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR. AT UTILITY CROSSINGS UNLESS OTHERWISE NOTED.
- 3. COMPLETE ELECTRIC, GAS, TELEPHONE. CABLE AND OTHER JOINT TRENCH WORK IN CONFORMANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY PROVIDER. NOTIFY UTILITY PROVIDER MINIMUM 2 WORKING DAYS PRIOR TO COMMENCING WORK. IF EXISTING WATER, SEWER, GAS OR OTHER UTILITY SERVICES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, NOTIFY UTILITY OWNER IMMEDIATELY.
- 4. PROTECT UTILITIES FROM DAMAGE CAUSED BY CONTRACTOR'S WORK.
- 5. PROVIDE UTILITY STRUCTURES IN PAVED AREAS SUITABLE FOR H-20 LOADING.
- 6. PIPE LENGTHS SHOWN ON PLANS ARE FOR ENGINEERING CALCULATIONS ONLY AND ARE NOT INTENDED AS BID QUANTITIES OR FOR ORDERING MATERIALS.
- CONSTRUCT GRAVITY FLOW UTILITIES FROM DOWNSTREAM CONNECTION POINT TO UPSTREAM TERMINUS.
- 8. COORDINATE WITH COUNTY OF SAN MATEO AND CRYSTAL SPRINGS SANITATION DISTRICT FOR INSPECTION OF WORK ON DISTRICT FACILITIES.
- 9. ALL WATER LATERALS AND SERVICES SHALL BE INSTALLED TO THE STANDARDS OF THE CALIFORNIA WATER SERVICE COMPANY. EXISTING WATER MAINS OR LATERALS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND TESTED TO THE SATISFACTION OF THE WATER COMPANY.

# VI. EARTHWORK AND GRADING

- OFF-SITE IMPORT FILL MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
- 2. TOPSOIL, ROOTS, VEGETABLE MATTER, TRASH AND DEBRIS WILL NOT BE CONSIDERED ACCEPTABLE FILL MATERIAL.
- 3. REMOVE DEBRIS FROM AREAS OF EARTHWORK PRIOR TO PLACING FILL OR STARTING GRADING OPERATIONS.
- 4. PLACE AND COMPACT FILL MATERIAL AS RECOMMENDED IN GEOTECHNICAL REPORT. PLACE FILL MATERIAL IN MAXIMUM 8 INCH UNCOMPACTED THICKNESS. COMPACTION BY FLOODING, PONDING OR JETTING WILL NOT BE PERMITTED.
- 5. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES.

# VII RECORD DRAWINGS

1. KEEP ACCURATE RECORD OF THE FINAL LOCATION, ELEVATION AND DESCRIPTION OF WORK ON A COPY OF THE FINAL APPROVED CONSTRUCTION DOCUMENTS. NOTE THE LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS ENCOUNTERED THAT VARY FROM THE LOCATIONS SHOWN ON THE IMPROVEMENT PLANS. PROVIDE COPY OF RECORD INFORMATION TO OWNER AT COMPLETION OF PROJECT AND WHEN REQUESTED.

# VII. STATEMENT OF RESPONSIBILITY

 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD BOTH DESIGN PROFESSIONAL AND THE COUNTY OF SAN MATEO HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF EITHER THE DESIGN PROFESSIONAL OR THE COUNTY OF SAN MATEO, RESPECTIVELY.

### IX. UNAUTHORIZED CHANGES AND USES

1. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND REQUIRE WRITTEN APPROVAL OF THE COUNTY ENGINEER AND THE PREPARER OF THESE PLANS.

# X. DRAWING LANGUAGE

 NOTES AND CALLOUTS ON DRAWINGS MAY USE IMPERATIVE LANGUAGE. REQUIREMENTS EXPRESSED IMPERATIVELY ARE TO BE PERFORMED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

### CONDITIONS OF APPROVAL NOTES

### CONSTRUCTION NOTES

- THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 5. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 6. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 7. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 8. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 9. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 12. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 13. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 14. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 15. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.

### 16. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.

# NOISE NOTES

- 1. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 2. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 3. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS.
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING, PRIOR TO CONSTRUCTION; THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDINATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE; THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED: A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUCTION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

# **ASBESTOS NOTES**

- 1. IF NATURALLY OCCURRING ASBESTOS IS IDENTIFIED AT THE SITE, A SITE HEALTH AND SAFETY (H&S) PLAN INCLUDING METHODS FOR CONTROL OF AIRBORNE DUST SHALL BE PREPARED. THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE COUNTY OF SAN MATEO PRIOR TO GRADING IN AREAS UNDERLAIN BY SERPENTINE-BEARING SOILS OR BEDROCK AND NATURALLY OCCURRING ASBESTOS. THE H&S PLAN SHALL STRICTLY CONTROL DUST-GENERATING EXCAVATION AND COMPACTION OF MATERIAL CONTAINING NATURALLY OCCURRING ASBESTOS. THE PLAN SHALL ALSO IDENTIFY SITE-MONITORING ACTIVITIES DEEMED NECESSARY DURING CONSTRUCTION (E.G., AIR MONITORING). WORKER MONITORING SHALL ALSO BE PERFORMED AS APPROPRIATE. THE PLAN SHALL DEFINE PERSONAL PROTECTION METHODS TO BE USED BY CONSTRUCTION WORKERS. ALL WORKER PROTECTION AND MONITORING SHALL COMPLY WITH PROVISIONS OF THE MINING SAFETY AND HEALTH ADMINISTRATION (MSHA) GUIDELINES, CALIFORNIA DIVISION OF OCCUPA-TIONAL SAFETY AND HEALTH (DOSH), AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 2. IF NATURALLY OCCURRING ASBESTOS IS FOUND AT THE SITE, A SOIL MANAGEMENT PLAN SHALL BE DEVELOPED AND APPROVED BY THE COUNTY PLANNING DEPARTMENT TO PROVIDE DETAILED DESCRIPTIONS OF THE CONTROL AND DISPOSITION OF SOILS CONTAINING NATURALLY OCCURRING ASBESTOS. SERPENTINE MATERIAL PLACED AS FILL SHALL BE SUFFICIENTLY BURIED IN ORDER TO PREVENT EROSION BY WIND OR SURFACE WATER RUNOFF, OR EXPOSURE TO FUTURE HUMAN ACTIVITIES, SUCH AS LANDSCAPING OR SHALLOW TRENCHES. ADDITIONALLY, THE BAAQMD SHALL BE NOTIFIED PRIOR TO THE START OF ANY EXCAVATION IN AREAS CONTAINING NATURALLY OCCURRING ASBESTOS.

### **GRADING NOTES**

1. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 15 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED. IN WRITING. BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.

### TREE PROTECTION NOTES

THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS. SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A SAW OR TOPPERS. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL TIMES.

# VEGETATION REMOVAL/REPLACEMENT NOTES

- VEGETATION REMOVED IN AREAS OUTSIDE OF BUILDING FOOTPRINTS, DRIVEWAYS, AND CONSTRUCTION ACCESS AREAS SHALL BE REPLACED WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, IMMEDIATELY AFTER GRADING IS COMPLETE IN THAT AREA. PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION TO THE CURRENT PLANNING SECTION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.
- 2. THE APPLICANT SHALL REPLACE ALL VEGETATION REMOVED IN ALL AREAS NOT COVERED BY CONSTRUCTION WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, ONCE CONSTRUCTION IS COMPLETED. PRIOR TO THE CURRENT PLANNING SECTION'S FINAL APPROVAL OF ANY BUILDING PERMIT, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.

# DUST CONTROL NOTES

- 1. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED. TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 2. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION. AND THE

# REGIONAL WATER QUALITY CONTROL BOARD. DISCOVERY OF HUMAN REMAINS NOTE

1. THE APPLICANT AND CONTRACTORS MUST BE PREPARED TO CARRY OUT THE REQUIREMENTS OF CALIFORNIA STATE LAW WITH REGARD TO THE DISCOVERY OF HUMAN REMAINS DURING CONSTRUCTION, WHETHER HISTORIC OR PREHISTORIC. IN THE EVENT THAT ANY HUMAN REMAINS ARE ENCOUNTERED DURING SITE DISTURBANCE, ALL GROUND-DISTURBING WORK SHALL CEASE IMMEDIATELY AND THE COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY. IF THE CORONER DETERMINES THE REMAINS TO BE NATIVE AMERICAN, THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED WITHIN 24 HOURS. A QUALIFIED ARCHAEOLOGIST, IN CONSULTATION WITH THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL RECOMMEND SUBSEQUENT MEASURES FOR DISPOSITION OF THE REMAINS.

# GEOTECHNICAL INSPECTION NOTE

PRIOR TO ISSUANCE OF BUILDING PERMITS, THE PROJECT GEOTECHNICAL CONSULTANT SHALL FIELD INSPECT (AND INVESTIGATE, AS NEEDED) ALL PROPOSED DRAINAGE DISCHARGE LOCATIONS AND VERIFY THAT PROPOSED DRAINAGE DESIGNS ARE ACCEPTABLE FROM A SLOPE STABILITY/EROSION PERSPECTIVE OR RECOMMEND APPROPRIATE MODIFICATIONS.

# MITIGATION AQ-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING BAAQMD RECOMMENDED AND ADDITIONAL PM10 REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS: THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT). WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 2. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT. OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.

- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 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 THE CONSTRUCTION SITES.
- 4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 8. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 9. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 10. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE
- 11. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 12. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 13. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.

# MITIGATION NOI-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING NOISE REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS:
- 2. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 3. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAUL- ICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 4. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING. PRIOR TO CONSTRUCTION: THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDI- NATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE: THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED; A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUC-TION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

CHRISTMAS

THE PROJECT BENCHMARK IS THE TOP OF AN IRON PIPE, ELEVATION OF 538.23, LOCATED WITHIN A MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINES OF COBBLEHILL PLACE AND NEW BRUNSWICK DRIVE IN SAN MATEO, CALIFORNIA. THE ELEVATION SHOWN IN BASED UPON A SURVEY BY BKF ENGINEERS IN MARCH OF 2011 AND IS BASED UPON AN ASSUMED ELEVATION.

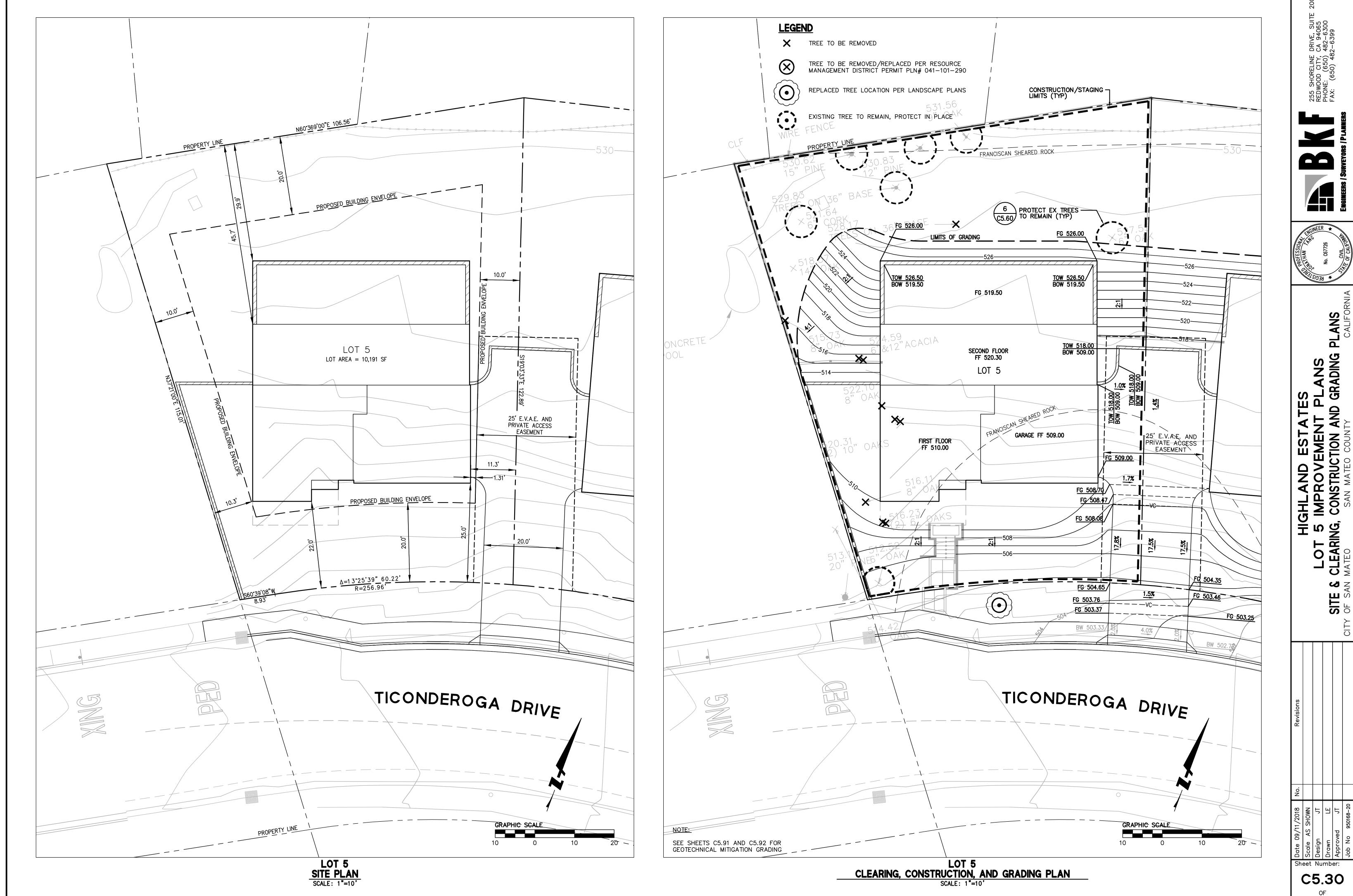
# **BASIS OF BEARINGS:**

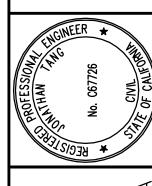
THE BEARING NORTH 76° 09' 00" EAST OF THE CENTERLINE OF COBBLE HILL PLACE AS SHOWN ON TRACT MAP NO. 723. THE HIGHLANDS, RECORDED ON AUGUST 26TH, 1955, IN VOLUME 43 OF MAPS AT PAGES 23-25, SAN MATEO COUNTY RECORDS.

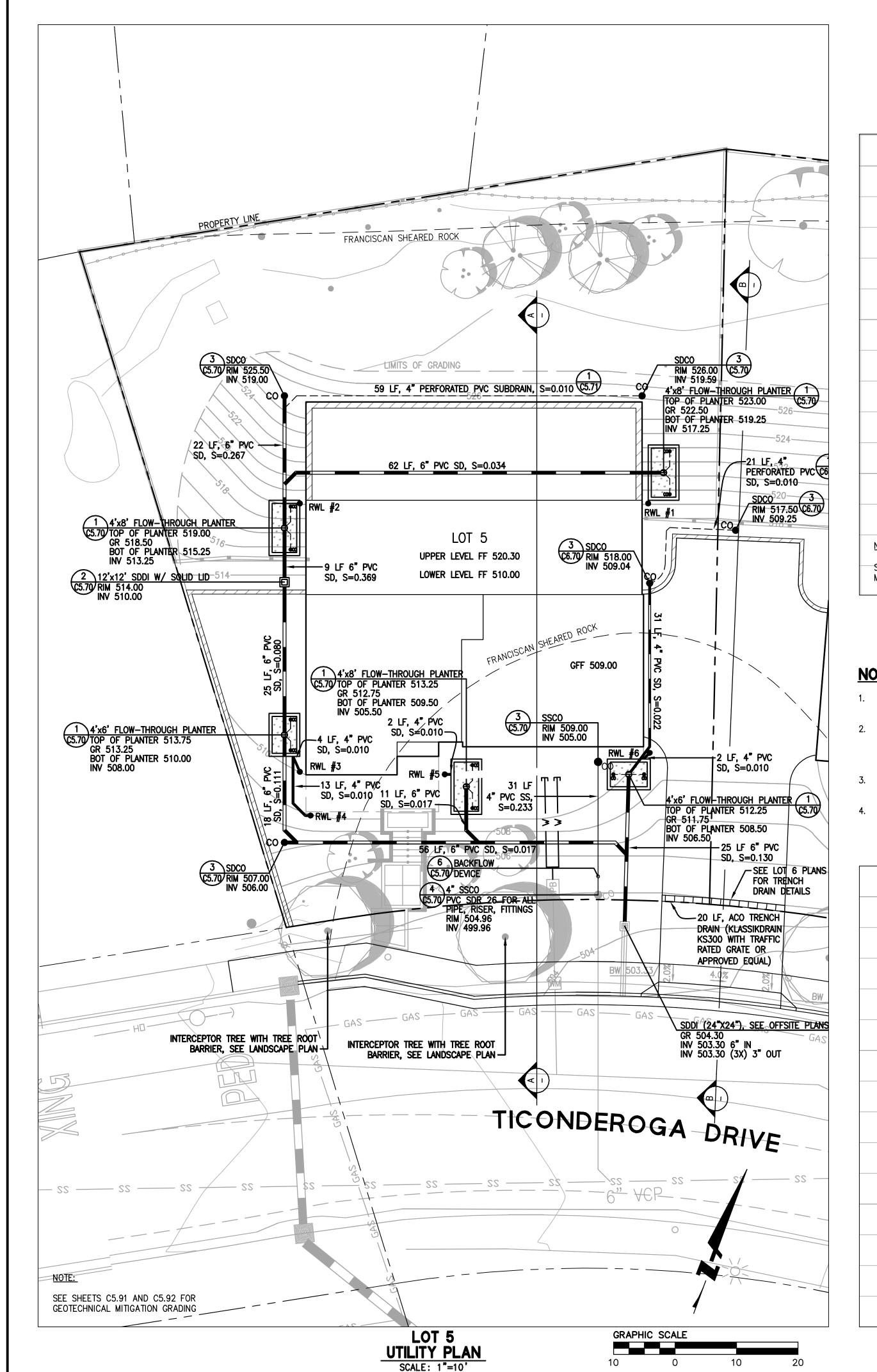


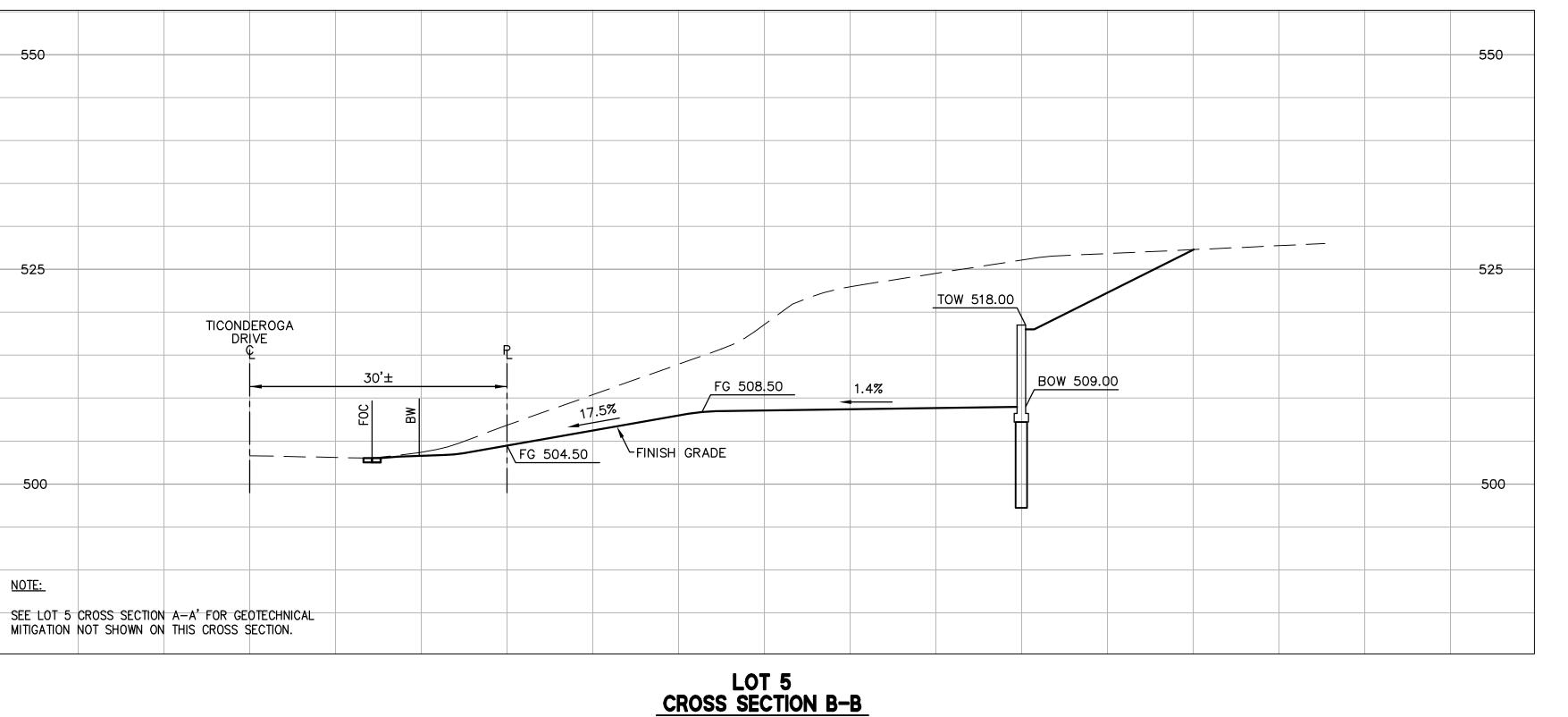
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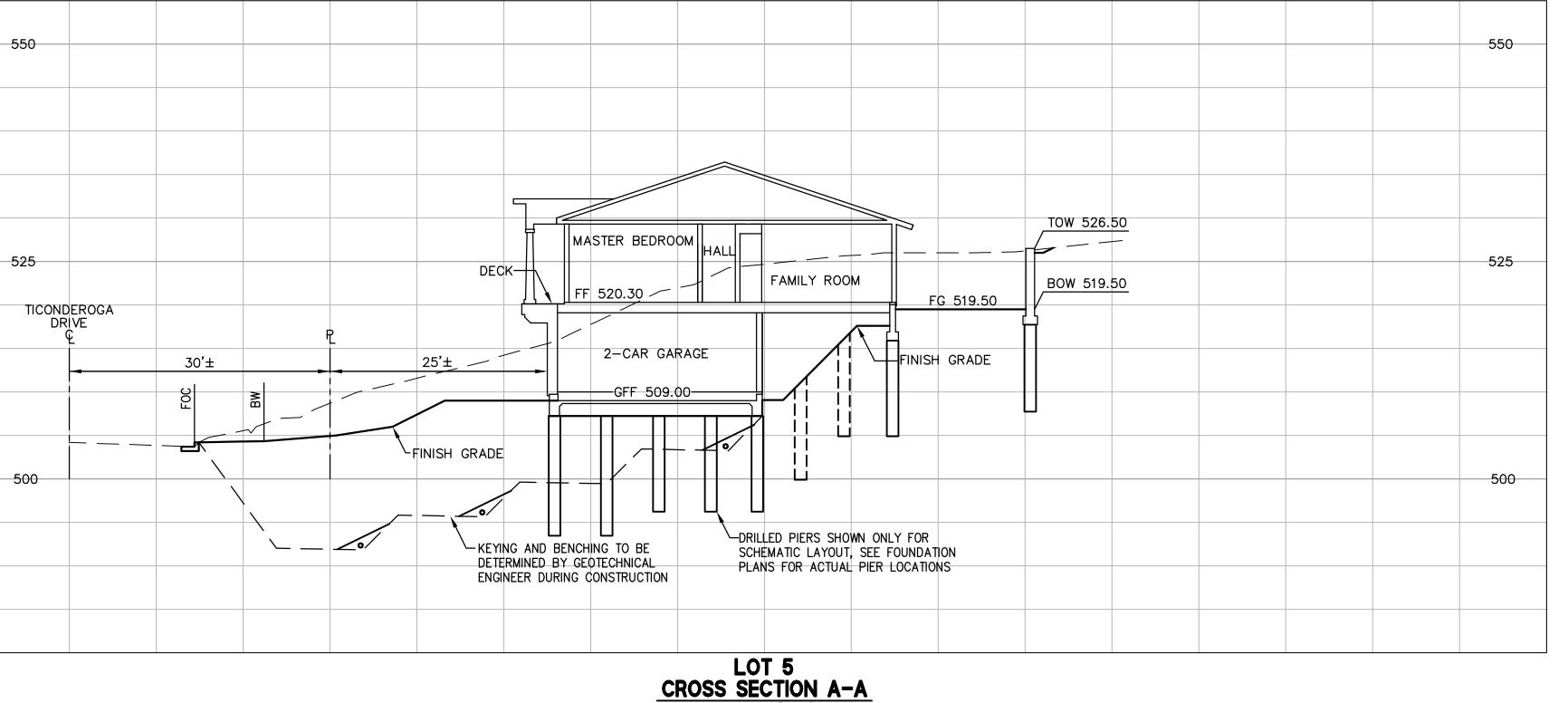




SCALE: 1"=10'

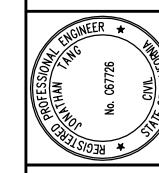
# **NOTES:**

- 1. PER THE GEOTECHNICAL REPORT, UNDOCUMENTED FILL WAS MAPPED AT LOT 5 AND IF THIS FILL IS TO BE LEFT IN PLACE DURING HOUSE AND DRIVEWAY GRADING, IT SHOULD BE REMOVED AND REPLACED AS PROPERLY COMPACTED ENGINEERED FILL.
- 2. PER THE GEOTECHNICAL REPORT, ALL EXISTING FILLS SHOULD BE COMPLETELY REMOVED FROM WITHIN PROPOSED HOUSE FOOTPRINT AND DRIVEWAY AREAS AND TO A LATERAL DISTANCE OF AT LEAST 5 FEET BEYOND THE EDGE OF THE IMPROVEMENTS OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LAWFUL MANNER.
- PER THE GEOTECHNICAL REPORT, GEOTECHNICAL MITIGATION GRADING WILL BE PERFORMED ON LOT 5, SEE SHEETS C5.91 AND C5.92 FOR GRADING DETAILS OF THE MITIGATION
- 4. PER THE GEOTECHNICAL REPORT, ALL BUILDING AND RETAINING WALLS SHOULD BE SUPPORTED ON DRILLED PIERS. THE FOUNDATION SHOWN ON THIS PLAN ARE SCHEMATIC. REFER TO THE PROJECT STRUCTURAL PLANS FOR DETAILS ON THE DRILLED PIERS.



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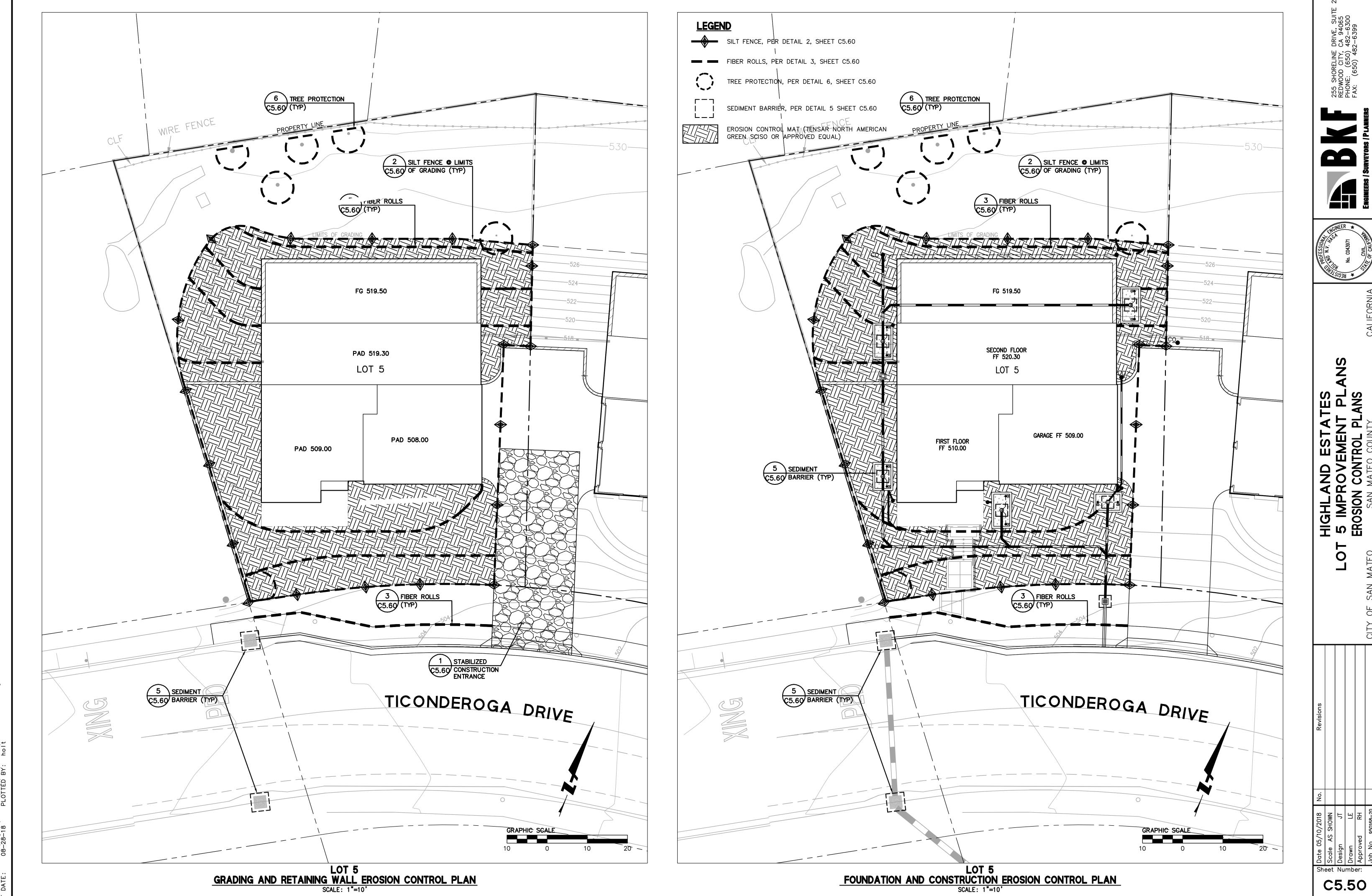
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PLANS SECTION

HIGHLAND
OT 5 IMPROVE
UTILITY PLAN AND
TEO SAN MATEO

Sheet Number: C5.40 OF



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**EROSION CONTROL NOTES** 

- THE INTENT OF THESE PLANS IS TO PROVIDE THE INITIAL CONCEPT FOR INTERIM EROSION CONTROL. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
- 5. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROAD CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- 6. BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR AROUND.
- DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
- 8. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- 9. THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 10. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 11. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 12. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 13. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 14. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 15. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 16. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 17. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- 18. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED
- UNLESS ALTERNATIVE MEASURES ARE USED. 19. SEED MIX FOR REVEGETATION AND HYDROSEEDING:
- NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL
- 30% BLUE WILDRYE 30% MEADOW BARLEY
- 20% ZORRO FESCUE 10% PURPLE NEEDLE GRASS
- 10% CALIFORNIA NATIVE WILDFLOWERS
- APPLY AT 40 POUNDS PER ACRE MINIMUM
- 20. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 21. DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
- 22. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 23. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 24. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 25. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 26. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 27. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
- 28. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 1 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED, IN WRITING, BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.
- 29. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF STRAW BALES OR COIR NETTING, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND REVEGETATING DISTURBED AREAS WITH VEGETATION THAT IS COMPATIBLE WITH THE SURROUNDING ENVIRONMENT.
- 30. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST THROUGH APRIL 30TH AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

- CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
- USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAINING ALL NECESSARY PERMITS.
- 33. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A
- DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED. DELINEATE WITH FIELD MARKERS CLEARING LIMITS, SETBACKS, AND DRAINAGE

COURSES.

- 35. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- 36. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
- 37. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
- 38. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
- 39. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST. OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 40. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION, AND THE REGIONAL WATER QUALITY CONTROL BOARD.
- 41. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
- 42. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
- STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE
- HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS, EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
- 45. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
- 46. EROSION CONTROL POINT OF CONTACT: NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: 650-322-5800 CELL #: 650-444-3089 EMAIL: noel@nexgenbuilders.com
- SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- 48. AREAS DELINEATED ON PLANS FOR PARKING, CLEARING & GRUBBING, STORAGE, ETC. SHALL NOT BE ENLARGED OR "RUN OVER."
- 49. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS
- 50. DUST CONTROL IS REQUIRED YEAR-ROUND.

ON-SITE DURING THE "OFF-SEASON."

- 51. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
- 52. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.
- 53. TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

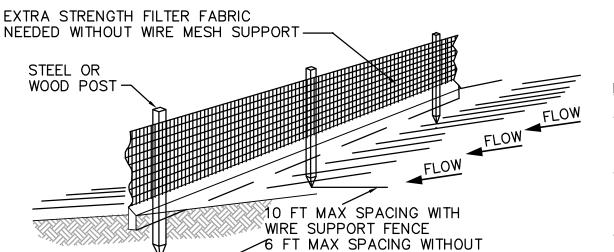
## WIDTH AS REQUIRED TO **ACCOMMODATE** ANTICIPATED TRAFFIC EXISTING PAVED ROADWAY -4"-6" CRUSHED AGGREGATE MINIMUM 12" THICK MATCH -50' MINIMUM EXISTING OR FOUR TIMES THE CIRCUMFERENCE OF THE LARGEST CONSTRUCTION GRADE VEHICLE TIRE, WHICHEVER IS GREATER <u>PLAN</u> 4"-6" CRUSHED **AGGREGATE** 12" MIN.--GEO-TEXTILE FABRIC SECTION A-A

1. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY.

NTS

- 2. WHEELS SHALL BE CLEAN PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN. DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
- 3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 4" TO 6" STONE.
- 4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12".
- 5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- 6. THE LENGTH OF THE PAD SHALL NOT BE LESS THAN 50'

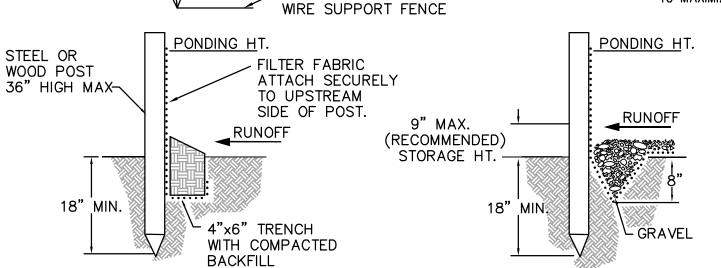
# STABILIZED CONSTRUCTION ENTRANCE



INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

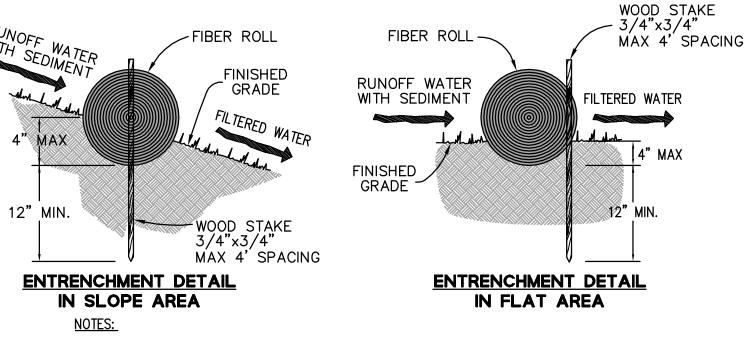
TO MAXIMIZE PONDING EFFICIENCY.

REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTI Y STABILIZED. 3. SILT FENCE SHALL BE PLACED ON SLOPE



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL **ALTERNATE DETAIL** TRENCH WITH GRAVEL



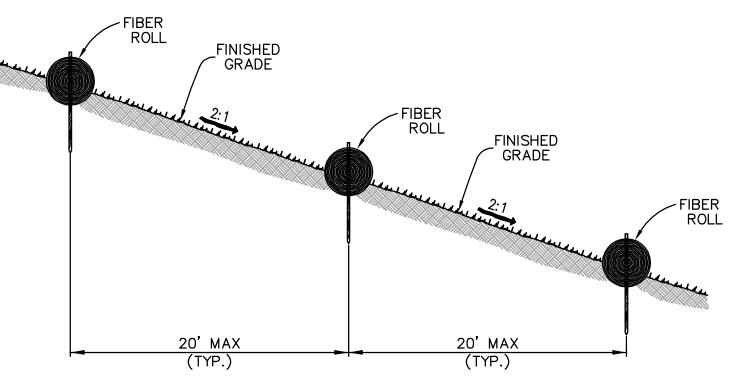


1. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH. 3" TO 4" DEEP. DUG ON CONTOUR.

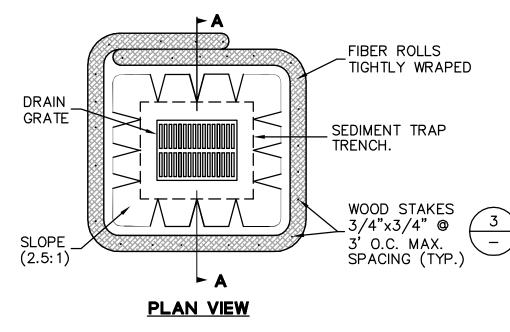
RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

2. ADJACENT ROLLS SHALL TIGHTLY ABUT.





FIBER ROLL INSTALLATION ON SLOPE TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)

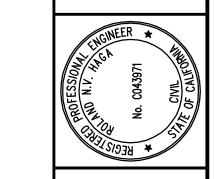


- PONDING HEIGHT STRAW FIBER ROLLS EMBED FIBER ROLL 3"-4" INTO SOIL. PROVIDE 1' WIDE BY 6 -DEEP SEDIMENT TRAP SECTION A-A TRENCH AROUND INLET

EXISTING TREE

TO REMAIN

- 1. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX. 8" DIA. AND 20 - 30 FT. LONG.)
- FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3" - 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
- 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.



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SEDIMENT BARRIER

(TIME FRAME: AREA DRAINS — BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION

CURB INLETS - BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)

1. THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.

2. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE.

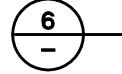
3. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS.

SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED.

5. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A

6. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION.

7. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL



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# TREE PROTECTION FENCE NTS

# CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) STANDARD DETAIL REFERENCES

— PROTECTIVE

FENCING

(CALIFORNIA STORMWATER BMP HANDBOOK CONSTRUCTION, DATED NOVEMBER 2009) NOTE: ALTHOUGH SPECIFIC LOCATIONS FOR SPECIFIC BMPS ARE SHOWN ON THESE PLANS. IT IS INTENDED FOR THE CONTRACTOR TO APPLY APPROPRIATE BMPS WHEN NECESSARY TO MEET FIELD CONDITIONS.

# **EROSION CONTROL BMPS:**

DRIPLINE

(PROTECTED ROOT ZONE)

TREE PROTECTION FENCE

- SCHEDULING PRESERVATION OF EXISTING VEGETATION EC-3HYDRAULIC MULCH
- EC-4 HYDROSEEDING EC-5 SOIL BINDERS
- EC-6 STRAW MULCH EC-7 GEOTEXTILES & MATS
- WOOD MULCHING
- EC-9 EARTH DIKES AND DRAINAGE SWALES
- EC-10 VELOCITY DISSIPATION DEVICES EC-11 SLOPE DRAINS
- EC-12 STREAMBANK STABILIZATION EC-14 COMPOST BLANKETS
- EC-15 SOIL PREPARATION/ROUGHENING
- EC-16 NON-VEGETATIVE STABILIZATION

# TEMPORARY SEDIMENT CONTROL BMPS:

- SE-1 SILT FENCE SEDIMENT BASIN SE-2
- SEDIMENT TRAP SE-3CHECK DAM SE-4
- FIBER ROLLS SE-5 GRAVEL BAG BERM SE-6
- STREET SWEEPING AND VACUUMING SE-7
- SANDBAG BARRIER SE-8 SE-9 STRAW BALE BARRIER
- SE-10 STORM DRAIN INLET PROTECTION
- SE-11 ACTIVE TREATMENT SYSTEMS
- SE-12 TEMPORARY SILT DIKE
- SE-13 COMPOST SOCKS AND BERMS SE-14 BIOFILTER BAGS
- <u>WIND EROSION CONTROL BMPS:</u>
- WIND EROSION CONTROL

# TEMPORARY TRACKING CONTROL BMPS:

- TC-1 STABILIZED CONSTRUCTION
- ENTRANCE/EXIT TC-2 STABILIZED CONSTRUCTION ROADWAY

# TC-3 ENTRANCE/OUTLET TIRE WASH

NON-STORMWATER MANAGEMENT BMPS:

WATER CONSERVATION PRACTICES DEWATERING OPERATIONS

PAVING AND GRINDING OPERATIONS

TEMPORARY STREAM CROSSING CLEAR WATER DIVERSION

ILLICIT CONNECTION/DISCHARGE POTABLE WATER/IRRIGATION

VEHICLE AND EQUIPMENT CLEANING VEHICLE AND EQUIPMENT FUELING

NS-10 VEHICLE AND EQUIPMENT MAINTENANCE NS-11 PILE DRIVING OPERATIONS

NS-12 CONCRETE CURING NS-13 CONCRETE FINISHING NS-14 MATERIAL AND EQUIPMENT USE

NS-15 DEMOLITION ADJACENT TO WATER

NS-16 TEMPORARY BATCH PLANTS WASTE MANAGEMENT & MATERIALS POLLUTION

CONTROL BMPS: MATERIAL DELIVERY AND STORAGE

MATERIAL USE STOCKPILE MANAGEMENT

SPILL PREVENTION AND CONTROL SOLID WASTE MANAGEMENT

CONTAMINATED SOIL MANAGEMENT WM-8 CONCRETE WASTE MANAGEMENT

WM-9 SANITARY/SEPTIC WASTE MANAGEMENT WM-10 LIQUID WASTE MANAGEMENT

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HAZARDOUS WASTE MANAGEMENT

Sheet Number:

HIGHLAND
5 IMPROV
5 I

Sheet Number:

C5.70

OF

SCALE: NONE DATE: 8/06 REVISED: \_\_\_\_\_

FOR CAST IRON CLEANOUT BODY, USE
— EITHER BRASS OR PVC PLUG. FOR PVC CLEANOUT BODY, USE PVC PLUG. WYE AND RISER SHALL BE THE SAME PIPE MATERIAL AS THE PORTION OF THE CHRISTY B9 UTILITY BOX OR LATERAL WHICH EQUAL. LID TO BE CHRISTY B9D CONNECTS TO THE OR FL9D, MARKED SEWER, OR SEWER MAIN; EXCEPT EQUAL (SEE NOTE 1) THE UPPER-MOST 3 FEET OF A VCP RISER NO HUB COUPLING SHALL BE CAST IRON. 4 BAND WITH STAINLESS STEEL TRANSITION SECTION-SHEAR RING

SAN MATEO COUNTY DEPARTMENT

OF

PUBLIC WORKS

REDWOOD CITY

CALIFORNIA

-45" WYE BRANCH TYPICAL SEWER CLEANOUT & FLOW BOX DETAIL - NEW CONSTRUCTION FOR CAST IRON CLEANOUT BODY, USE EITHER BRASS OR PVC PLUG. FOR PVC CLEANOUT BODY, USE PVC PLUG. WYE AND RISER SHALL

BE THE SAME PIPE MATERIAL AS THE CHRISTY B9 UTILITY BOX OR PORTION OF THE EQUAL, LID TO BE CHRISTY B9D LATERAL WHICH OR FL9D, MARKED SEWER, OR CONNECTS TO THE EQUAL. (SEE NDTE 1) SEWER MAIN; EXCEPT THE UPPER-MOST 3 FEET OF A VCP RISER SHALL BE CAST IRON. 4 BAND WITH STAINLESS STEEL SHEAR RING ADJUSTABLE REPAIR COUPLING (ARC) WITH CONTINUOUS 45° WYE BRANCH -STAINLESS STEEL SHEAR RING. TYPICAL SEWER CLEANOUT &

BOX DETAIL - REPLACEMENT . WHEN BOX IS SUBJECT TO TRAFFIC LOADING, PROVIDE CAST IRON LID.

2. BOX TO BE PLACED SUCH THAT CLEANOUT CAP CAN BE EASILY REMOVED, SEE ILLUSTRATION. 3. PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING LATERAL FROM THE PROPERTY STRUCTURE TO DISTRICT MAIN. DISTRICT PROVIDES COURTESY SERVICE FROM DISTRICT STANDARD PROPERTY LINE CLEANOUT TO THE MAIN.
4. SDR-26 WYE, RISER, CLEANOUT BODY AND CAP CAN BE USED ONLY WHEN LATERAL FROM PROPERTY LINE TO MAIN LINE IS REPLACED WITH SDR-26. 5. WHEN ENTIRE LATERAL IS REPLACED, LATERAL FROM PROPERTY LINE CLEANOUT TO MAIN LINE SHALL HAVE A

14-1-UF GUAGE MINIMUM SINGLE CONDUCTOR TRACER WIRE TAPED TO THE ENTIRE LENGTH OF THE PIPE. CONSTRUCTION OF A STANDARD CLEANOUT REQUIRES MULTIPLE INSPECTIONS BY DISTRICT PERSONEL: 1. FIRST INSPECTION - TO INSPECT WYE AND RISER, WYE AND RISER MUST BE EXPOSED.

SAN MATEO COUNTY

2. SECOND INSPECTION - TO INSPECT PLACEMENT OF BOX, LID AND LOCATION OF CLEANOUT WITHIN BOX

DRAWN BY: N.M.

APPROVED BY:

IF NEEDED

CHECK BY: A.M.S.
APPROVED BY: N.R.C.

SAN MATEO COUNTY DRIVEWAY PLAN AND PROFILE VIEWS

SAN MATEO COUNTY DEPARTMENT

PUBLIC WORKS

REDWOOD CITY

CALIFORNIA

CENTERLINE OF RIGHT OF WAY

**DRIVEWAY PLAN VIEW** 

EXISTING GROUND

EXISTING GROUND

**DRIVEWAY PROFILE VIEW** 

D-7

- CENTERLINE OF RIGHT OF WAY

SCALE: NONE

CONTOUR INTERVALS

PROPOSED DRIVEWAY SLOPE

(20% MAX.)

GARAGE PAD —

UPHILL OR DOWNHILL -

- GARAGE PAD

DATE: <u>6/95</u>

REVISED: \_\_\_\_\_

DRAWN BY: N.M.A.

CHECK BY: \_\_\_\_\_J.A.L.

APPROVED BY: N.R.C.

COUNTY STANDARD STREET SECTION

WIDTH VARIES DEPENDENT ON ZONING - 22' TO 40

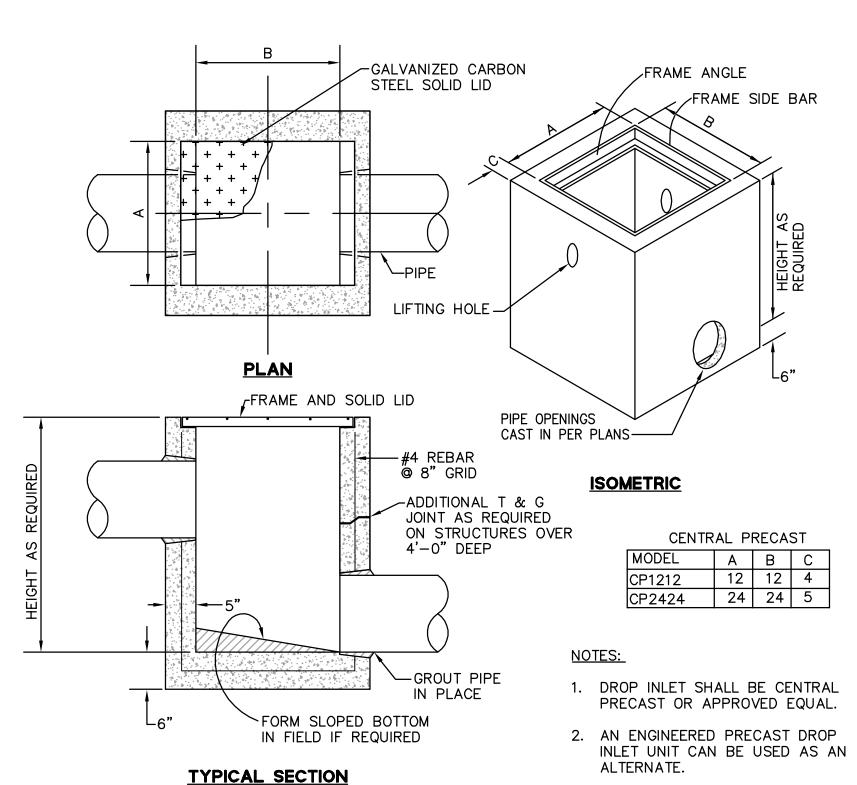
WHEN EXISTING STANDARD CURB, GUTTER AND/OR SIDEWALK DO NOT EXIST, THE DRIVEWAY ELEVATION

AT THE FUTURE PROPERTY LINE SHALL BE EQUAL

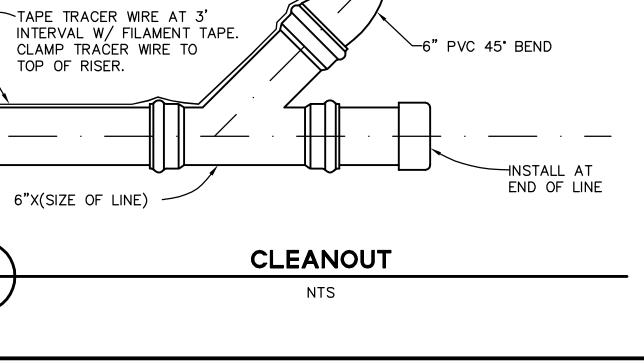
FUTURE STREET GRADES HAVE BEEN ESTABLISHED

TO THE EXISTING CENTERLINE ELEVATION UNLESS

BY THE COUNTY.







SAN MATEO COUNTY DEPARTMENT

OF

PUBLIC WORKS

REDWOOD CITY

CALIFORNIA

NON-PERFORATED

REMOVE STANDARD -

FINISH GRADE

VALVE OPENS TO A ALLOW

WASTE WATER TO FLOW

VALVE CLOSES BY ITS

OWN WEIGHT TO PREVENT

WASTEWATER FROM FLOWING

BACK TO HOUSE LATERAL.

INTO SEWER MAIN;

CLEANOUT PLUG

BACKWATER

OVERFLOW DEVICE

- HINGE POINT

TO SEWER MAIN

OVERFLOW AND BACKFLOW DEVICE DETAIL

SAN MATEO COUNTY

OVERFLOW AND BACKFLOW DEVICE DETAIL

BACKFLOW DEVICE

CHRISTY "F8" VALVE BOX W/ "F8D" REINFORCED -

CONCRETE LID OR

APPROVED EQUAL

NOTE: ALL PVC PIPE

TOP OF RISER.

6"X(SIZE OF LINE)

\_

TO BE SDR 26.

OVERFLOW

TO BUILDING

DATE: <u>6/95</u>

REVISED: \_\_\_\_\_

ALUMINUM CONE

~ 3" OR 3-1/2" N.P.T.

OR PLAIN END

NOTE: LOCATION OF DEVICE TO APPROVAL OF

NOTE: LOCATION OF DEVICE APPROVAL OF

—FINISHED GRADE IN LANDSCAPE AREA

-6" PVC RISER W/ CAP

ISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION

DISTRICT AND BUILDING

DEPARTMENT PRIOR

TO INSTALLATION

DRAWN BY: N.M.A.

APPROVED BY: N.R.C.

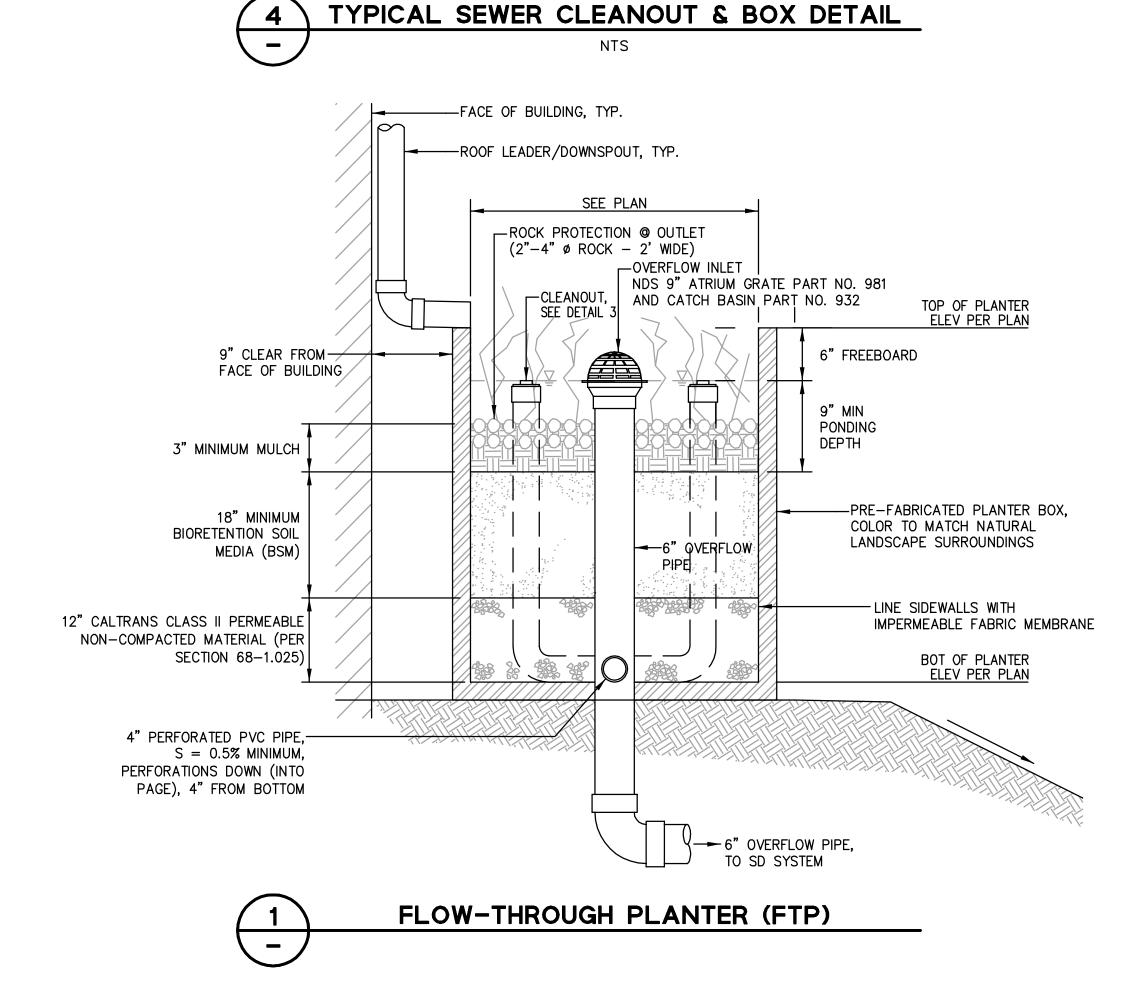
CHECK BY:

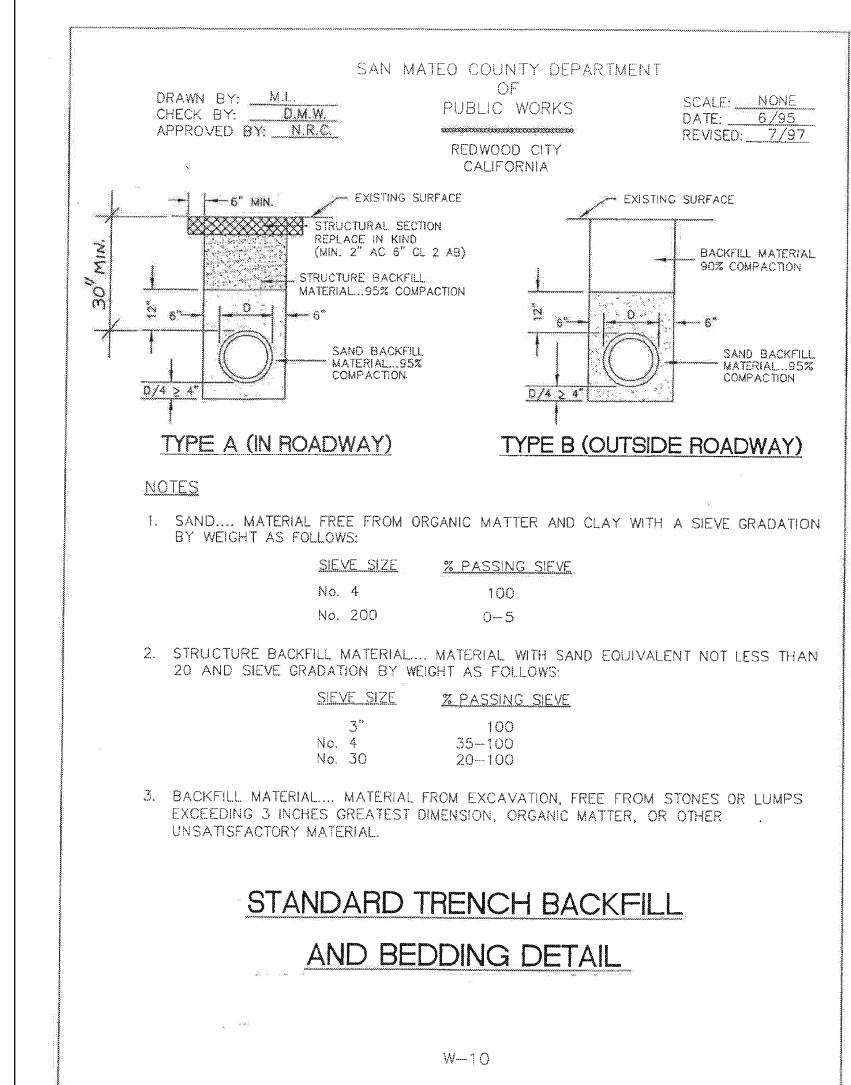
UPSTREAM

STRUCTURE -

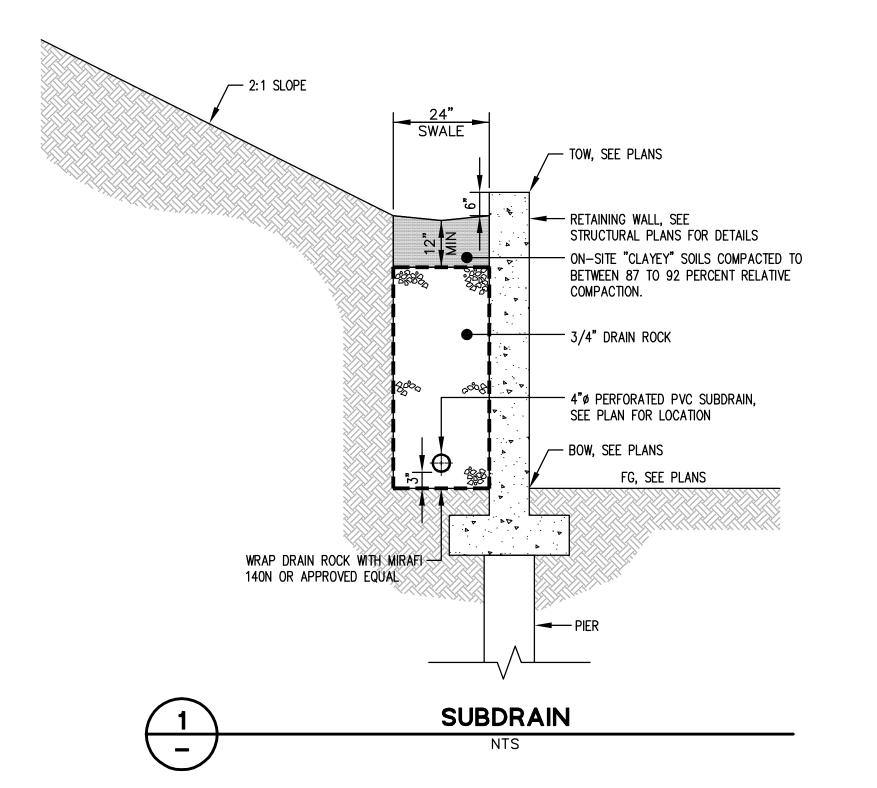


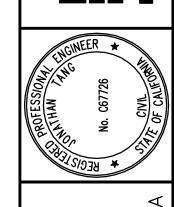






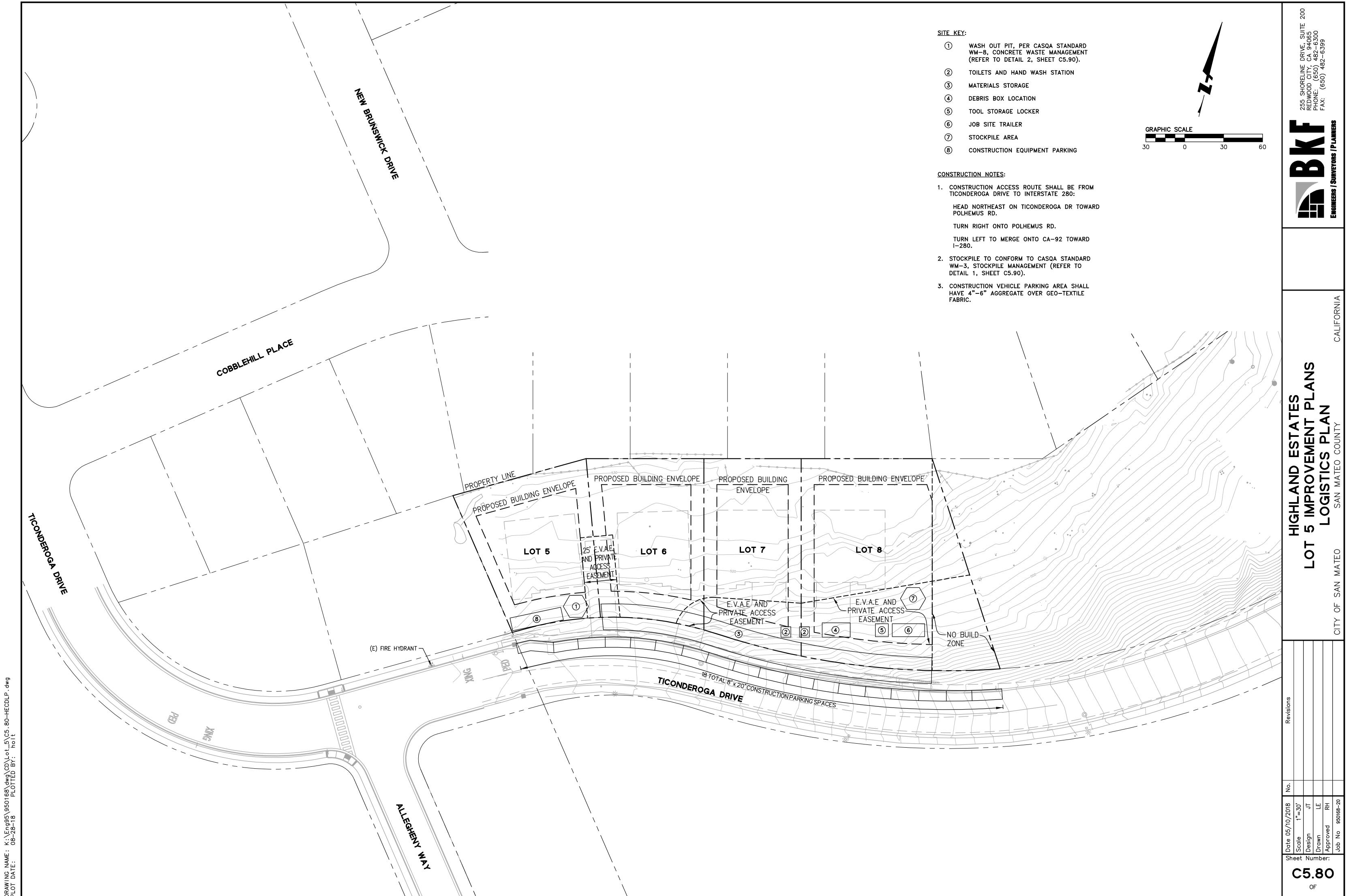
SAN MATEO COUNTY
STANDARD TRENCH BACKFILL & BEDDING DETAIL NTS





HIGHLAND ESTATES
T 5 IMPROVEMENT PLAI
CONSTRUCTION DETAILS
SAN MATEO COUNTY O T O

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Potential Alternatives

Materials Pollution Control

Targeted Constituents Description and Purpose Stockpile management procedures and practices are designed Sediment to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete Metals (AC), asphalt concrete rubble, aggregate base, aggregate sub Bacteria base or pre-mixed aggregate, asphalt minder (so called "cold Oil and Grease mix" asphalt), and pressure treated wood. Organics

Suitable Applications Implement in all projects that stockpile soil and other loose materials.

Limitations

January 2011

 Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.

Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.

Plastic sheeting breaks down faster in sunlight.

 The use of plastic materials should be avoided when feasible and photodegradable plastics should not be used.

Implementation Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Construction www.casqa.org

### WM-3 **Stockpile Management**

 On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.

All stockpiles are required to be protected immediately if they are not scheduled to be used

WM-3

 Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.

 Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.

 Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.

Place bagged materials on pallets and under cover.

Ensure that stockpile coverings are installed securely to protect from wind and rain.

 Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows: Soil stockpiles

 Cover and project soil stockpiles with soil stabilization measures and a temporary perimeter sediment barrier at all times.

 Consider temporary vegetation for topsoil piles that will be stockpiled for extended periods. Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble,

aggregate base, or aggregate sub base Provide covers and protect these stockpiles with a temporary perimeter sediment barrier at

Stockpiles of "cold mix"

 Cover cold mix stockpiles and place them on plastic sheeting (or comparable material) and surround the stockpiles with a berm all times.

Stockpiles of fly ash, stucco, hydrated lime

 Cover stockpiles of materials that may raise the pH of runoff (i.e., basic materials) with plastic and surround the stockpiles with a berm at all times.

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# **Stockpile Management**

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate)

WM-3

■ Cover treated wood with plastic sheeting (or comparable material) and surround with a berm at all times.

Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

### Inspection and Maintenance

■ Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning
- Sediment shall be removed when it reaches one-third of the barrier height.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

January 2011 Construction www.casqa.org

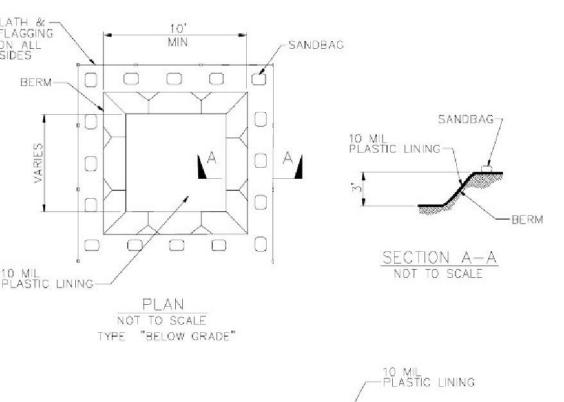
# WATERPROOF PLASTIC MEMBRANE-SECURE WITH ANCHORS OR WEIGHTS TO PREVENT WIND OR RAIN FROM DISTURBING STOCKPILE -STACKED GRAVEL BAGS SILT — FENCE PLACED AROUND THE BASE OF STOCKPILE

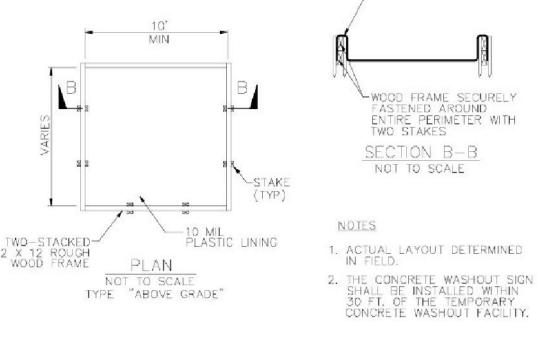
STOCKPILE COVERING (PER CASQA STANDARD WM-3, STOCKPILE MANAGEMENT, SEE LEFT)
NTS

# WM-3 - STOCKPILE MANAGEMENT

# NTS

### Concrete Waste Management **WM-8**





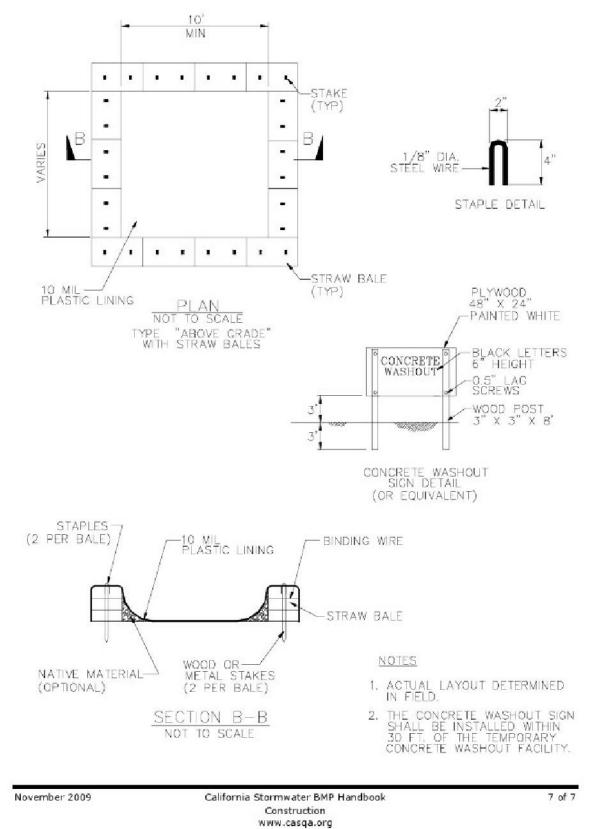
Construction

www.casqa.org

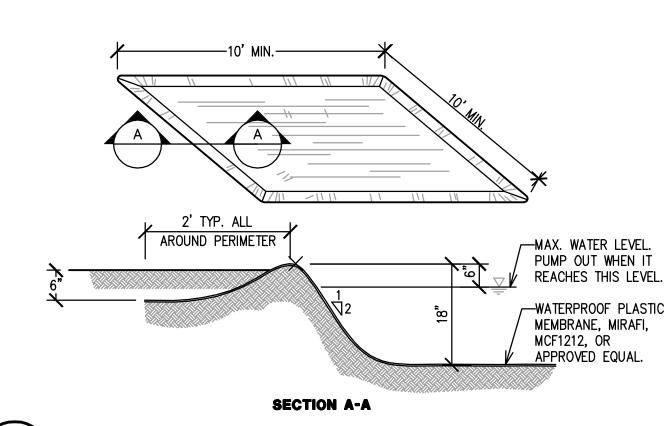
November 2009

California Stormwater BMP Handbook

# Concrete Waste Management

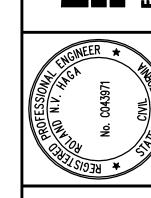


**WM-8** 

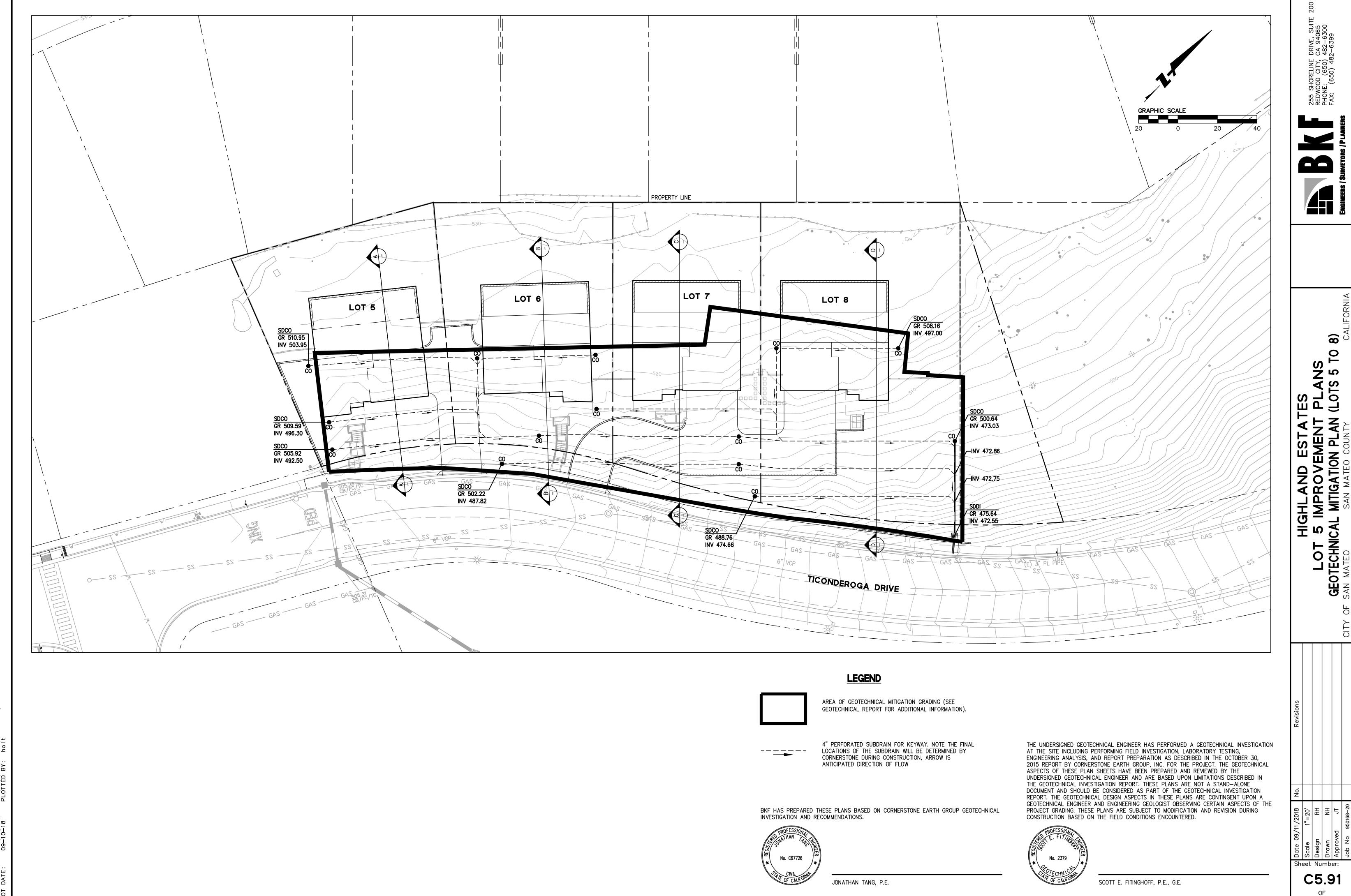


**TEMPORARY WASHOUT PIT** (PER CASQA STANDARD WM-8, CONCRETE WASTE MANAGEMENT, SEE LEFT)
NTS

WM-8 - CONCRETE WASTE MANAGEMENT



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GEOTECHNICA

CORNERSTONE EARTH GROUP

FLOW RATE (ASTM D-4491):

500

— FINISH

-REMOVE ANY FILL REMAINING IF ENCOUNTERED

AFTER MAKING CUT

FOR FINISHED

GRADING.

DRILLED PIERS SHOWN ONLY FOR

ADJUST PIPE LOCATION IN FIELD TO BE OUTSIDE

THE LOCATION OF DRILLED PIERS

SCHEMATIC LAYOUT, SEE FOUNDATION

PLANS FOR ACTUAL PIER LOCATIONS

GRADE

GRAB STRENGTH (ASTM D-4632):

MASS PER UNIT AREA (ASTM D-4751):

PUNCTURE STRENGTH (ASTM D-4833):

APPARENT OPENING SIZE (ASTM D-4751):

DETAIL 1, SHEET C5.92, TYP. C-C CROSS SECTION

GRADE

-APPROXIMATE SLOPE MITIGATION

D-D CROSS SECTION

SCALE: 1"=10"

4" PERORATED SUBDRAIN, SEE DETAIL 1, SHEET C5.92, TYP.

SCALE: 1"=10"

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

PERORATED SUBDRAIN, SEE

EXISTING -GROUND

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

ESTIMATED TOP OF-

SHEARED ROCK

OUTSIDE THE LOCATION OF DRILLED PIERS

LOT 8 RESIDENCE

# COMPACTED-FILL 7////// SOLID COLLECTOR COMPACTED CLAY-BACKFILL

180 LBS.

5 OZ/YD

80 LBS.

80 GAL/MIN/FT

70-100 U.S. STD. SIEVE

DETAIL 1 - TYPICAL BENCH AND KEYWAY SUBDRAIN

THIS AREA MAY HAVE ACTIVE SEEPAGE DURING CONSTRUCTION.

2. COLLECTOR PIPE SHOULD BE 6" PERFORATED PIPE, SUCH AS SDR-35 OR SDR-23.5 OR APPROVED EQUIVALENT (SEE DETAIL 1 NOTE 5 UNDER "DRAINAGE MATERIAL") 3. PIPE FITTINGS FOR CLEAN-OUTS AND OTHER 90° BENDS IN THE SUBDRAIN SYSTEM

(EXCEPT THE CONNECTION BETWEEN THE 4"PERFORATED PIPES AND 6" COLLECTION PIPES) SHOULD BE "SWEEP 90'S" OR OTHER APPROVED EQUIVALENT.

4. CONTRACTOR TO PROVIDE ALL INCIDENTAL FITTINGS IN THEIR BID PRICE TO CONSTRUCT THE SUBDRAIN SYSTEM. NOT ALL INCIDENTAL FITTINGS ARE SHOWN ON THESE PLANS.

5. FINAL SUBDRAIN LAYOUT AND PLACEMENT TO BE DETERMINED BY GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.

# DETAIL 2 - SOLID COLLECTOR PIPE DETAIL

BKF HAS PREPARED THESE PLANS BASED ON CORNERSTONE EARTH GROUP GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS.



JONATHAN TANG, P.E.

THE UNDERSIGNED GEOTECHNICAL ENGINEER HAS PERFORMED A GEOTECHNICAL INVESTIGATION AT THE SITE INCLUDING PERFORMING FIELD INVESTIGATION, LABORATORY TESTING, ENGINEERING ANALYSIS, AND REPORT PREPARATION AS DESCRIBED IN THE OCTOBER 30, 2015 REPORT BY CORNERSTONE EARTH GROUP, INC. FOR THE PROJECT. THE GEOTECHNICAL ASPECTS OF THESE PLAN SHEETS HAVE BEEN PREPARED AND REVIEWED BY THE UNDERSIGNED GEOTECHNICAL ENGINEER AND ARE BASED UPON LIMITATIONS DESCRIBED THE GEOTECHNICAL INVESTIGATION REPORT. THESE PLANS ARE NOT A STAND-ALONE DOCUMENT AND SHOULD BE CONSIDERED AS PART OF THE GEOTECHNICAL INVESTIGATION REPORT. THE GEOTECHNICAL DESIGN ASPECTS IN THESE PLANS ARE CONTINGENT UPON A GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST OBSERVING CERTAIN ASPECTS OF THE PROJECT GRADING. THESE PLANS ARE SUBJECT TO MODIFICATION AND REVISION DURING CONSTRUCTION BASED ON THE FIELD CONDITIONS ENCOUNTERED.



SCOTT E. FITINGHOFF, P.E., G.E.

Sheet Number:

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525

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TICONDEROGA

DRIVE

C5.92 OF

Sheet Number:

C6.10

# IMPROVEMENT PLANS FOR

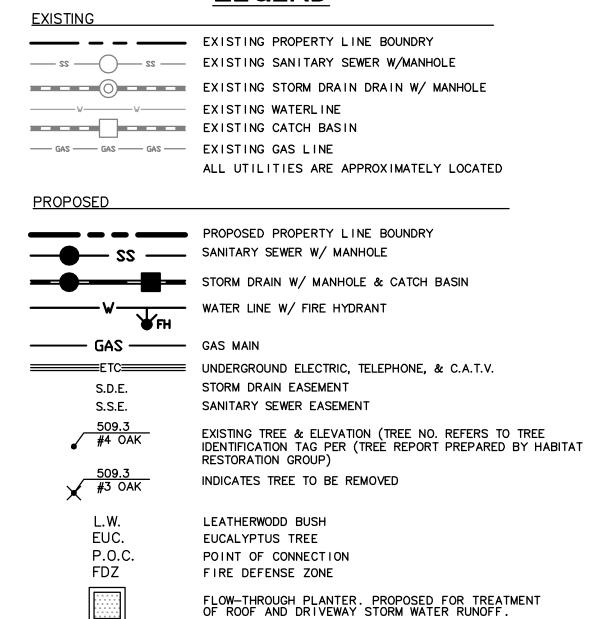
# HIGHLAND ESTATES - LOT 6 TICONDEROGA DRIVE

# **EARTHWORK**

# 2,030 CY SLOPE MITIGATION EXPORT CREDIT 580 CY 1,220 CY CUT

- 2. ACTUAL QUANTITIES MAY VARY DUE TO FIELD CONDITIONS OR CONSTRUCTION TECHNIQUES.

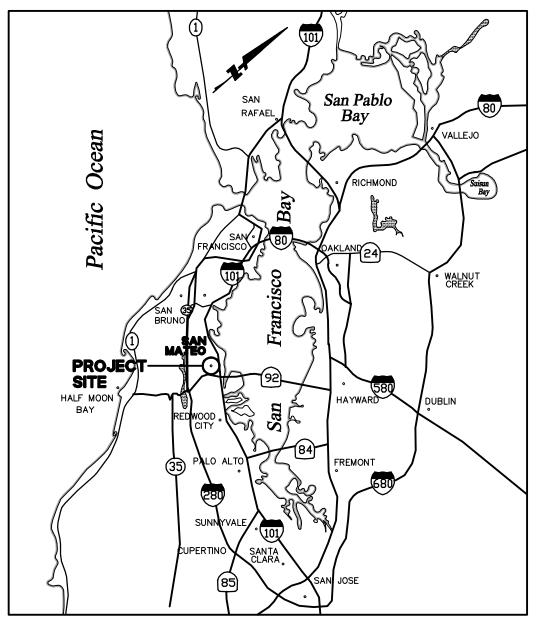
# **LEGEND**



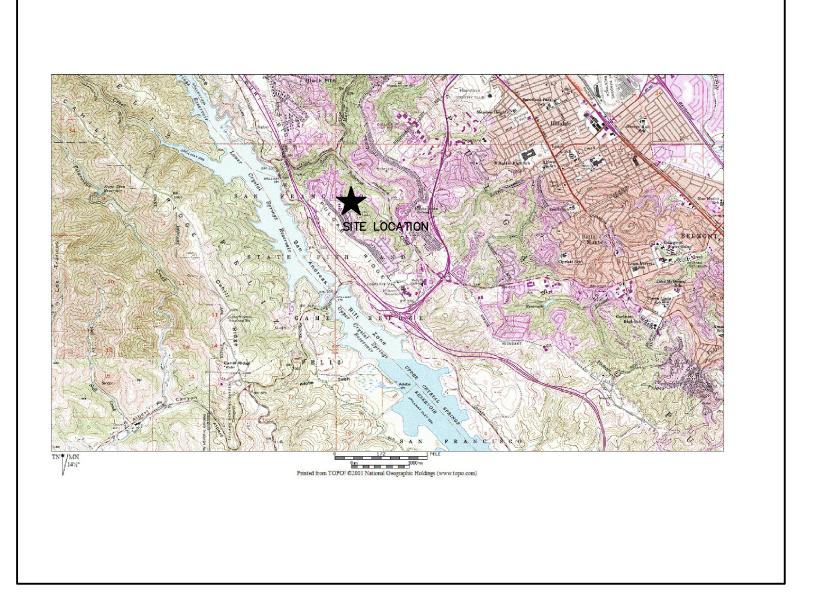
# **ABBREVIATIONS**

AC	ASPHALTIC CONCRETE	L	LENGTH
BEG	REGINNING	l F	LINEAR FEET
BL	BAY LAURFI	l G	LIP OF GUTTER
BLDG COR	DITILINING CODNED	NIC	NOT IN CONTRACT
BOT	BUILDING CORNER BOTTOM	0	OAK TREE
BOW	GRADE AT BOTTOM OF WALL	P	PEPPER TREE
BW	BACK OF WALK	PD	PLANNED DEVELOPMENT
CB	CATCH BASIN	PINF	PINE TREE
CL	BOTTOM GRADE AT BOTTOM OF WALL BACK OF WALK CATCH BASIN CENTERLINE CHAIN LINK FENCE	PLIF	PUBLIC UTILITY EASEMENT
CLF	CHAIN LINK FENCE	PVC	POLYVINYL CHLORIDE PIPE
CMP			
CO	CLEANOUT	RDW	REDWOOD TREE
CONC	CONCRETE	RFT WALL	RETAINING WALL
CU	COPPER	ROW	RIGHT OF WAY
DG	CLEANOUT CONCRETE COPPER DECOMPOSED GRANITE DRAIN INLET	RPR	REDUCED PRESSURE BACKFLOW
DI	DRAIN INLET	RWI	RAIN WATER LEADER
DW	DOMESTIC WATER	5	SLOPE
EG	FXISTING GRADE	SD	STORM DRAIN
FD	FDGE OF PAVEMENT	SDCB	STORM DRAIN CATCH BASIN
FUC	FUCALYPTUS TREF	SDCO	CTODA DDAIN OLEANOUT
EUC EX, (E) FC, FOC FF	DRAIN INLET DOMESTIC WATER EXISTING GRADE EDGE OF PAVEMENT EUCALYPTUS TREE EXISTING FACE OF CURB FINISH FLOOR FINISH GRADE FLOW LINE FENCE	SDDL	STORM DRAIN DROP INLET
EC FOC	FACE OF CURB	SDMH	STORM DRAIN MANHOLE
FF .	FINISH FLOOR	SS	SANITARY SEWER
FG	FINISH GRADE	SSCO	SANITARY SEWER CLEAN OUT
FL	FLOW LINE	SSMH	SANITARY SEWER MANHOLE
FNC	FENCE	T	TREE
FTP	FLOW THROUGH PLANTER	TC	TOP OF CURB
FW	FLOW THROUGH PLANTER FIRE WATER	TOE	TOE OF SLOPE
GB	FIRE WATER GRADE BREAK	TOP	TOP OF SLOPE
GFF	GARAGE FINISH FLOOR		TOP OF WALL
GM	GAS METER	TYP	TYPICAL
GND	GROUND SHOT	UB	UTILITY BOX
GR	GRATE	VC	VERTICAL CURVE
GRAVEL	EDGE OF GRAVEL ROAD	VCP	VITRIFIED CLAY PIPE
GW	GUY WIRE	W	WATER
INV	INVERT	WM	WATER METER
JP	JOINT POLE	WV	WATER VALVE

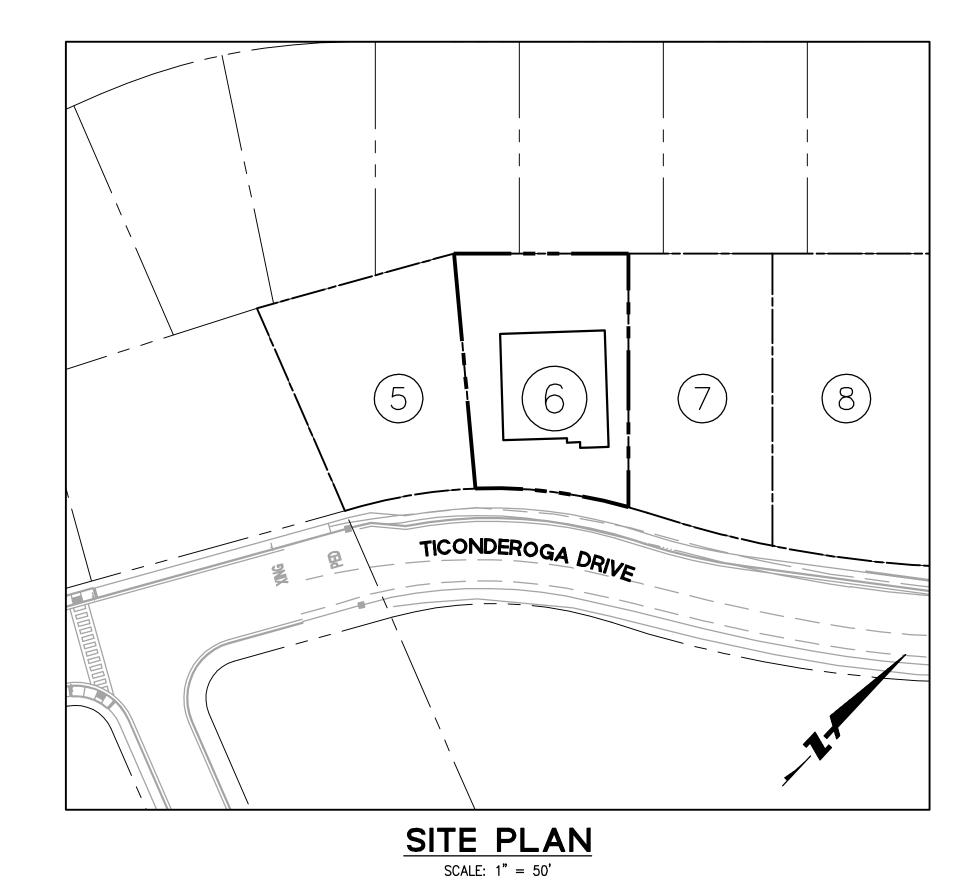
# COUNTY OF SAN MATEO, CALIFORNIA



VICINITY MAP



**LOCATION MAP** 



# PROJECT DATA

11100201	
LOT AREA:	10,648 SF
EXISTING LAND USE:	UNDEVELOPED LAND
PROPOSED USE:	RESIDENTIAL (LOT 6)
EXISTING ZONE:	RMD - RESOURCE MANAGEMENT DISTRICT
PROPOSED ZONE:	R-1
PROPOSED USE:	1 RESIDENTIAL LOT
OWNER:	TICONDEROGA PARTNERS, A CALIFORNIA LIMITED LIABILITY CORPORATION
	C/O THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582 ATTN: JACK CHAMBERLAIN
DEVELOPER:	THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582 ATTN: JACK CHAMBERLAIN
CIVIL ENGINEER:	BKF ENGINEERS 255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065 (650) 482-6300
GEOTECHNICAL ENGINEER:	CORNERSTONE EARTH GROUP 1259 OAKMEAD PARKWAY SUNNYVALE, CA 94085 (408) 245–4600
WATER SUPPLY:	CAL WATER SERVICE 341 N. DELAWARE STREET SAN MATEO, CA 94401-1808 (650) 343-1808
SEWAGE DISPOSAL:	CITY OF SAN MATEO & CRYSTAL SPRINGS COUNT SANITATION DISTRICT
GAS & ELECTRIC	PG&E
TELEPHONE:	AT&T
FIRE PROTECTION:	CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
0.171	00110107

CITY OF SAN MATEO

AERO-GEODIC COROP.

225 DEMETER STREET

DATE OF PHOTOGRAPHY 9/18/87

EAST PALO ALTO, CA 94303

PHONE #: (650) 322-5800

EMAIL: noel@nexgenbuilders.com

CELL #: (650) 444-3089

NOEL CHAMBERLAIN, NEXGEN BUILDERS INC.

# SHEET INDEX

STORM DRAINAGE:

**DESCRIPTION** 

TOPOGRAPHIC BASE MAP:

**EROSION CONTROL POINT OF CONTACT:** 

C6.10	TITLE SHEET
C6.20	GENERAL NOTES
C6.30	SITE AND CLEARING, CONSTRUCTION AND GRADING PLANS
C6.40	UTILITY PLAN AND CROSS SECTION
C6.50	EROSION CONTROL PLANS
C6.60	EROSION CONTROL DETAILS AND NOTES
C6.70	CONSTRUCTION DETAILS
C6.71	CONSTRUCTION DETAILS
C6.80	LOGISTICS PLAN
C6.90	CASQA STANDARD DETAILS
C6.91	GEOTECHNICAL MITIGATION PLAN (LOTS 5 TO 8)
C6.92	GEOTECHNICAL MITIGATION CROSS SECTIONS (LOTS 5 TO 8)

# **ENGINEER'S STATEMENT**

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY DIRECTION.

ROLAND N.V. HAGA R.C.E NO. 43971 BKF ENGINEERS

# **ENGINEER OF WORK**

I HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE STATE OF CALIFORNIA, BUSINESS & PROFESSIONAL CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

JONATHAN TANG P.E. NO. 67726 BKF ENGINEERS

# DATE



### I. GENERAL NOTES

NOTES:

- WORK SHALL CONFORM TO THE COUNTY OF SAN MATEO PUBLIC WORKS STANDARD DRAWINGS FOR PUBLIC IMPROVEMENTS, REVISED SEPTEMBER 2007 AND THE SAN MATEO COUNTY SEWER AND SANITATION DISTRICTS STANDARD SPECIFICATIONS. DATED JUNE 1995.
- PERFORM WORK IN CONFORMANCE WITH THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL ENGINEERING REPORT TITLED "UPDATED GEOTECHNICAL INVESTIGATION, HIGHLAND ESTATES LOTS 5 THROUGH 11, TICONDEROGA DRIVE/COBBLEHILL PLACE/COWPENS WAY, SAN MATEO COUNTY, CALIFORNIA" PREPARED BY CORNERSTONE EARTH GROUP, DATED OCTOBER 30, 2015. GRADING WORK WILL BE SUBJECT TO APPROVAL OF GEOTECHNICAL ENGINEER.
- ARRANGE FOR REQUIRED INSPECTIONS BY COUNTY ENGINEER. NO DELAY OF WORK CLAIM WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO ARRANGE FOR REQUIRED COUNTY INSPECTIONS IN ADVANCE. PROVIDE NOTICE TO COUNTY ENGINEER A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF REQUIRED INSPECTIONS.
- 4. REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED IN WRITING BY ENGINEER, WHO WILL OBTAIN APPROVAL FROM COUNTY ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED ITEMS. REVISIONS SHALL BE ACCURATELY SHOWN ON REVISED PLANS, WHICH SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND COUNTY ENGINEER PRIOR TO INSTALLATION OF THE IMPROVEMENTS.
- 5. REPLACE OR REPAIR EXISTING UTILITIES, IMPROVEMENTS OR FEATURES DAMAGED, REMOVED, OR DISTURBED BY CONSTRUCTION TO THEIR ORIGINAL CONDITION, WHETHER SHOWN ON PLANS OR NOT.
- 6. REPLACE STREET MONUMENTS, LOT CORNERS PIPES AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION. MONUMENTS SHALL BE SET BY A SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- PREPARE TRAFFIC CONTROL PLAN AND OBTAIN APPROVAL FROM COUNTY ENGINEER BEFORE COMMENCING WORK. PROVIDE FLAG MEN, CONES, BARRICADES AND OTHER TRAFFIC CONTROL MEASURES NECESSARY TO PROVIDE SAFE LANE CLOSURE IN

CONFORMANCE WITH CALTRANS STANDARDS AND AS APPROVED BY COUNTY

- 8. PEDESTRIAN TRAFFIC CONTROL TO BE PROVIDED WHEN EXISTING SIDEWALKS CANNOT BE MAINTAINED DURING CONSTRUCTION.
- 9. DO NOT LEAVE TRENCHES OPEN OVERNIGHT IN EXISTING STREET AREAS. BACKFILL OR COVER OPEN TRENCHES AT THE END OF WORK EVERY WORK DAY.
- 10. PREPARE SHORING PLAN AND SUBMIT TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL. ADEQUATELY SHORE EXCAVATIONS TO PREVENT EARTH FROM SLIDING OR SETTLING AND TO PROTECT EXISTING ADJACENT IMPROVEMENTS FROM DAMAGE. DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE SHORING IN CONFORMANCE WITH APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND OSHA WHERE EXCAVATIONS ARE 5 FEET OR MORE IN
- 11. IMPLEMENT CONSTRUCTION DUST CONTROL MEASURES TO REDUCE PARTICULATE GENERATION TO A LESS THAN SIGNIFICANT LEVEL. PROVIDE DUST CONTROL IN CONFORMANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT MINIMUM REQUIREMENTS. IMPLEMENT THE FOLLOWING CONSTRUCTION PRACTICES EXCEPT WHEN IT IS RAINING.
- 11.A. WATER ACTIVE EXTERIOR SOIL AREAS AT LEAST TWICE DAILY.
- 11.B. COVER TRUCKS HAULING SOIL, SAND AND OTHER LOOSE MATERIAL OR PROVIDE 2 FEET OF FREEBOARD.
- 11.C. PAVE, APPLY WATER THREE TIMES DAILY OR APPLY NON-TOXIC SOIL STABILIZER ON UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING
- 11.D. SWEEP PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS DAILY.
- 11.E. APPLY HYDROSEED OR NON-TOXIC SOIL STABILIZER TO INACTIVE CONSTRUCTION AREAS.
- 11.F. ENCLOSE, COVER, WATER TWICE DAILY OR APPLY NON-TOXIC SOIL STABILIZER TO EXPOSED SOIL STOCKPILES.
- 11.G. INSTALL SANDBAGS AND OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 11.H. LIMIT TRAFFIC SPEED ON UNPAVED ROADS TO 15 MPH.
- 11.I. REPLANT VEGETATION IN DISTURBED AREAS AS QUICKLY AS POSSIBLE.
- 12. KEEP STREETS CLEAN OF DIRT, MUD AND OTHER CONSTRUCTION DEBRIS. CLEAN AND SWEEP STREETS ON A DAILY BASIS DURING THE WORK WEEK.
- 13. SHOULD IT APPEAR THAT THE WORK IS NOT SUFFICIENTLY DETAILED OR SPECIFIED IN CONSTRUCTION DOCUMENTS, NOTIFY ENGINEER AND OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK IN QUESTION.
- 14. CONSTRUCTION STAKING SHALL BE DONE BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- 15. IF BKF ENGINEERS IS RETAINED TO PROVIDE CONSTRUCTION STAKING SERVICES, CONTRACTOR WILL BE PROVIDED WITH ONE SET OF SURVEY STAKES FOR LAYOUT PURPOSES. PRESERVE AND PROTECT THESE STAKES UNTIL THEY ARE NO LONGER NEEDED. RESTAKING SHALL BE AT CONTRACTOR'S EXPENSE.
- 16. MATCH EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK, ADJACENT LANDSCAPE AND OTHER IMPROVEMENTS WITH SMOOTH TRANSITION TO AVOID ABRUPT OR APPARENT CHANGES IN GRADES, CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 17. VISIT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND OVERALL PROJECT REQUIREMENT PRIOR TO BIDDING PROJECT.
- 18. OBTAIN AND PAY FOR PERMITS AND LICENSES AS REQUIRED TO PERFORM WORK WITHIN THE COUNTY OF SAN MATEO PRIOR TO START OF WORK, PERMITS MAY INCLUDE ENCROACHMENT PERMIT FOR WORK WITHIN COUNTY RIGHT-OF-WAY AND GRADING/UTILITY PERMIT.
- 19. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC AND PEDESTRIAN CONTROL DURING CONSTRUCTION.
- 20. OBTAIN APPROVAL OF IMPORT SOIL MATERIAL FROM GEOTECHNICAL ENGINEER PRIOR TO DISTRIBUTING MATERIAL OVER SITE.
- 21. PROTECT ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES FROM DAMAGE BY CONTRACTOR'S OPERATIONS. REPAIR, REPLACE OR CLEAN ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES TO SATISFACTION OF OWNER.
- 22. MAINTAIN AND MANAGE CONSTRUCTION MATERIALS, EQUIPMENT AND VEHICLES AT THE CONSTRUCTION SITE.
- 23. NOTIFY COUNTY ENGINEER A MINIMUM OF 24 HOURS PRIOR TO STARTING WORK ON OFF-SITE DRAINAGE AND SEWER FACILITIES, GRADING, PAVING, OR WORK IN THE COUNTY RIGHT-OF-WAY.
- 24. MAKE EFFORTS TO MINIMIZE CONSTRUCTION NOISE.

- 24.A. MAINTAIN EQUIPMENT USED ON SITE IN GOOD MECHANICAL CONDITION TO MINIMIZE NOISE CREATED BY FAULTY OR POORLY MAINTAINED ENGINE, DRIVE-TRAIN AND OTHER COMPONENTS.
- 24.B. EQUIPMENT EXCEEDING 110 DBA MEASURED 25 FEET FROM THE PIECE OF EQUIPMENT WILL NOT BE ALLOWED ON SITE.
- 24.C. SELECT APPROPRIATE EQUIPMENT TO MINIMIZE NOISE GENERATION. USE THE FOLLOWING TECHNIQUES TO MINIMIZE NOISE GENERATION SUBJECT TO EQUIPMENT AVAILABILITY AND COST CONSIDERATIONS. USE SCRAPERS AS MUCH AS POSSIBLE FOR EARTH REMOVAL, RATHER THAN NOISIER LOADERS AND HAUL TRUCKS. USE BACKHOES FOR BACKFILLING AS IT IS QUIETER THAN DOZERS OR LOADERS. USE MOTOR GRADERS RATHER THAN BULLDOZERS FOR FINAL GRADING.

## II. EXISTING CONDITIONS

CONDITIONS AT THE SITE.

- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED UPON A FIELD TOPOGRAPHIC SURVEY OF THE PROJECT SITE BY BKF ENGINEERS, DATED JUNE 2009. ACTUAL CONDITIONS ENCOUNTERED ON SITE MAY VARY FROM THOSE SHOWN ON THE PLANS. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND CONDUCT THEIR OWN INVESTIGATIONS TO UNDERSTAND AND VERIFY EXISTING
- 2. EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM RECORD INFORMATION KNOWN TO THE ENGINEER AND FIELD SURVEY OF ABOVE GRADE FEATURES. THESE PLANS ARE NOT MEANT TO BE A FULL CATALOG OF EXISTING SUBSURFACE CONDITIONS. CONDUCT FIELD INVESTIGATION TO VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES, WHETHER SHOWN ON PLANS OR NOT, PRIOR TO START OF EXCAVATION. IF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS ARE DISCOVERED, NOTIFY ENGINEER IMMEDIATELY AND REQUEST DISCREPANCY BE RESOLVED.
- VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AFFECTING UTILITIES. POTHOLE WHERE NEEDED TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES.
- 4. CONTACT USA (UNDERGROUND SERVICES ALERT) AT 1-800-227-2600, AND AFFECTED UTILITY COMPANIES A MINIMUM OF 2 WORKING DAYS PRIOR TO STARTING WORK TO REQUEST UTILITIES BE MARKED.

# III. DEMOLITION

- REMOVE FROM SITE AND DISPOSE OF IN LAWFUL MANNER EXISTING STRUCTURES, UTILITIES, AND OTHER FEATURES NOT REMOVED DURING DEMOLITION OR ROUGH GRADING AND ENCOUNTERED DURING WORK ON SITE.
- 1.A. REMOVE WOOD OR CONCRETE STRUCTURES, SLABS, FOOTINGS, GRADE BEAMS. DECKS, DOCKS, AND OTHER SIMILAR STRUCTURES.
- REMOVE LANDSCAPING, UTILITIES AND IRRIGATION LINES AS SPECIFIED BY GEOTECHNICAL ENGINEER.
- REMOVE ABANDONED IN-GROUND STRUCTURES, SUCH AS CULVERTS, UTILITY VAULTS, AND FOUNDATIONS AS SPECIFIED BY GEOTECHNICAL ENGINEER.

# IV. DEWATERING

- 1. DEWATER AREAS COVERED WITH STANDING WATER PRIOR TO PLACEMENT OF FILL.
- 2. DISPOSE OF WATER FROM DEWATERING OPERATION IN CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

# v. Utilities

- 1. DO NOT OPERATE WATER VALVES OR OTHER WATER DISTRICT FACILITIES. REQUIRED 10. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO OPERATION WILL BE PERFORMED BY UTILITY DISTRICT PERSONNEL ONLY. NOTIFY UTILITY DISTRICT 2 WORKING DAYS PRIOR TO REQUIRING FACILITY OPERATION.
- 2. PROVIDE MINIMUM 12 INCH VERTICAL CLEARANCE BETWEEN ADJACENT UTILITY PIPES 11. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR. AT UTILITY CROSSINGS UNLESS OTHERWISE NOTED.
- 3. COMPLETE ELECTRIC, GAS, TELEPHONE. CABLE AND OTHER JOINT TRENCH WORK IN CONFORMANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY PROVIDER. NOTIFY UTILITY PROVIDER MINIMUM 2 WORKING DAYS PRIOR TO COMMENCING WORK. IF EXISTING WATER, SEWER, GAS OR OTHER UTILITY SERVICES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, NOTIFY UTILITY OWNER IMMEDIATELY.
- 4. PROTECT UTILITIES FROM DAMAGE CAUSED BY CONTRACTOR'S WORK.
- 5. PROVIDE UTILITY STRUCTURES IN PAVED AREAS SUITABLE FOR H-20 LOADING.
- 6. PIPE LENGTHS SHOWN ON PLANS ARE FOR ENGINEERING CALCULATIONS ONLY AND ARE NOT INTENDED AS BID QUANTITIES OR FOR ORDERING MATERIALS.
- CONSTRUCT GRAVITY FLOW UTILITIES FROM DOWNSTREAM CONNECTION POINT TO UPSTREAM TERMINUS.
- 8. COORDINATE WITH COUNTY OF SAN MATEO AND CRYSTAL SPRINGS SANITATION
- DISTRICT FOR INSPECTION OF WORK ON DISTRICT FACILITIES. 9. ALL WATER LATERALS AND SERVICES SHALL BE INSTALLED TO THE STANDARDS OF THE CALIFORNIA WATER SERVICE COMPANY. EXISTING WATER MAINS OR LATERALS

DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND TESTED TO THE

# VI. EARTHWORK AND GRADING

SATISFACTION OF THE WATER COMPANY.

- OFF-SITE IMPORT FILL MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
- 2. TOPSOIL, ROOTS, VEGETABLE MATTER, TRASH AND DEBRIS WILL NOT BE CONSIDERED ACCEPTABLE FILL MATERIAL.
- 3. REMOVE DEBRIS FROM AREAS OF EARTHWORK PRIOR TO PLACING FILL OR STARTING GRADING OPERATIONS.
- 4. PLACE AND COMPACT FILL MATERIAL AS RECOMMENDED IN GEOTECHNICAL REPORT. PLACE FILL MATERIAL IN MAXIMUM 8 INCH UNCOMPACTED THICKNESS. COMPACTION BY FLOODING, PONDING OR JETTING WILL NOT BE PERMITTED.
- 5. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES.

# VII RECORD DRAWINGS

1. KEEP ACCURATE RECORD OF THE FINAL LOCATION, ELEVATION AND DESCRIPTION OF WORK ON A COPY OF THE FINAL APPROVED CONSTRUCTION DOCUMENTS. NOTE THE LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS ENCOUNTERED THAT VARY FROM THE LOCATIONS SHOWN ON THE IMPROVEMENT PLANS. PROVIDE COPY OF RECORD INFORMATION TO OWNER AT COMPLETION OF PROJECT AND WHEN REQUESTED.

# VII. STATEMENT OF RESPONSIBILITY

 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD BOTH DESIGN PROFESSIONAL AND THE COUNTY OF SAN MATEO HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF EITHER THE DESIGN PROFESSIONAL OR THE COUNTY OF SAN MATEO, RESPECTIVELY.

### IX. UNAUTHORIZED CHANGES AND USES

1. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND REQUIRE WRITTEN APPROVAL OF THE COUNTY ENGINEER AND THE PREPARER OF THESE PLANS.

# X. DRAWING LANGUAGE

 NOTES AND CALLOUTS ON DRAWINGS MAY USE IMPERATIVE LANGUAGE. REQUIREMENTS EXPRESSED IMPERATIVELY ARE TO BE PERFORMED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

### CONDITIONS OF APPROVAL NOTES

# CONSTRUCTION NOTES

CONSTRUCTION SITES.

ROADS TO 15 MILES PER HOUR.

- THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.

AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.

- 5. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 6. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE
- 7. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING
- 8. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 9. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION
- AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE). EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED
- 12. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 13. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 14. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 15. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS. 16. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS

# GUSTS) EXCEEDS 25 MILES PER HOUR. NOISE NOTES

- 1. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 2. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 3. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS.
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING, PRIOR TO CONSTRUCTION; THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDINATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE; THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED: A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUCTION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

### **ASBESTOS NOTES**

- 1. IF NATURALLY OCCURRING ASBESTOS IS IDENTIFIED AT THE SITE, A SITE HEALTH AND SAFETY (H&S) PLAN INCLUDING METHODS FOR CONTROL OF AIRBORNE DUST SHALL BE PREPARED. THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE COUNTY OF SAN MATEO PRIOR TO GRADING IN AREAS UNDERLAIN BY SERPENTINE-BEARING SOILS OR BEDROCK AND NATURALLY OCCURRING ASBESTOS. THE H&S PLAN SHALL STRICTLY CONTROL DUST-GENERATING EXCAVATION AND COMPACTION OF MATERIAL CONTAINING NATURALLY OCCURRING ASBESTOS. THE PLAN SHALL ALSO IDENTIFY SITE-MONITORING ACTIVITIES DEEMED NECESSARY DURING CONSTRUCTION (E.G., AIR MONITORING). WORKER MONITORING SHALL ALSO BE PERFORMED AS APPROPRIATE. THE PLAN SHALL DEFINE PERSONAL PROTECTION METHODS TO BE USED BY CONSTRUCTION WORKERS. ALL WORKER PROTECTION AND MONITORING SHALL COMPLY WITH PROVISIONS OF THE MINING SAFETY AND HEALTH ADMINISTRATION (MSHA) GUIDELINES, CALIFORNIA DIVISION OF OCCUPA-TIONAL SAFETY AND HEALTH (DOSH), AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 2. IF NATURALLY OCCURRING ASBESTOS IS FOUND AT THE SITE, A SOIL MANAGEMENT PLAN SHALL BE DEVELOPED AND APPROVED BY THE COUNTY PLANNING DEPARTMENT TO PROVIDE DETAILED DESCRIPTIONS OF THE CONTROL AND DISPOSITION OF SOILS CONTAINING NATURALLY OCCURRING ASBESTOS. SERPENTINE MATERIAL PLACED AS FILL SHALL BE SUFFICIENTLY BURIED IN ORDER TO PREVENT EROSION BY WIND OR SURFACE WATER RUNOFF, OR EXPOSURE TO FUTURE HUMAN ACTIVITIES, SUCH AS LANDSCAPING OR SHALLOW TRENCHES. ADDITIONALLY, THE BAAQMD SHALL BE NOTIFIED PRIOR TO THE START OF ANY EXCAVATION IN AREAS CONTAINING NATURALLY OCCURRING ASBESTOS.

### **GRADING NOTES**

1. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 15 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED. IN WRITING. BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.

### TREE PROTECTION NOTES

THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS. SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A SAW OR TOPPERS. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL TIMES.

# VEGETATION REMOVAL/REPLACEMENT NOTES

- VEGETATION REMOVED IN AREAS OUTSIDE OF BUILDING FOOTPRINTS, DRIVEWAYS, AND CONSTRUCTION ACCESS AREAS SHALL BE REPLACED WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, IMMEDIATELY AFTER GRADING IS COMPLETE IN THAT AREA. PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION TO THE CURRENT PLANNING SECTION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.
- 2. THE APPLICANT SHALL REPLACE ALL VEGETATION REMOVED IN ALL AREAS NOT COVERED BY CONSTRUCTION WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, ONCE CONSTRUCTION IS COMPLETED. PRIOR TO THE CURRENT PLANNING SECTION'S FINAL APPROVAL OF ANY BUILDING PERMIT, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.

# DUST CONTROL NOTES

- 1. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED. TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 2. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION. AND THE

# REGIONAL WATER QUALITY CONTROL BOARD. DISCOVERY OF HUMAN REMAINS NOTE

1. THE APPLICANT AND CONTRACTORS MUST BE PREPARED TO CARRY OUT THE REQUIREMENTS OF CALIFORNIA STATE LAW WITH REGARD TO THE DISCOVERY OF HUMAN REMAINS DURING CONSTRUCTION, WHETHER HISTORIC OR PREHISTORIC. IN THE EVENT THAT ANY HUMAN REMAINS ARE ENCOUNTERED DURING SITE DISTURBANCE, ALL GROUND-DISTURBING WORK SHALL CEASE IMMEDIATELY AND THE COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY. IF THE CORONER DETERMINES THE REMAINS TO BE NATIVE AMERICAN, THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED WITHIN 24 HOURS. A QUALIFIED ARCHAEOLOGIST, IN CONSULTATION WITH THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL RECOMMEND SUBSEQUENT MEASURES FOR DISPOSITION OF THE REMAINS.

# GEOTECHNICAL INSPECTION NOTE

PRIOR TO ISSUANCE OF BUILDING PERMITS, THE PROJECT GEOTECHNICAL CONSULTANT SHALL FIELD INSPECT (AND INVESTIGATE, AS NEEDED) ALL PROPOSED DRAINAGE DISCHARGE LOCATIONS AND VERIFY THAT PROPOSED DRAINAGE DESIGNS ARE ACCEPTABLE FROM A SLOPE STABILITY/EROSION PERSPECTIVE OR RECOMMEND APPROPRIATE MODIFICATIONS.

# MITIGATION AQ-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING BAAQMD RECOMMENDED AND ADDITIONAL PM10 REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS: THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT). WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 2. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT. OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.

- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 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 THE CONSTRUCTION SITES.
- 4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 8. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 9. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 10. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE
- 11. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 12. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 13. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.

# MITIGATION NOI-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING NOISE REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS:
- 2. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 3. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAUL- ICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 4. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS.
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING. PRIOR TO CONSTRUCTION: THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDI- NATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE: THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED; A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUC-TION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

THE PROJECT BENCHMARK IS THE TOP OF AN IRON PIPE, ELEVATION OF 538.23, LOCATED WITHIN A MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINES OF COBBLEHILL PLACE AND NEW BRUNSWICK DRIVE IN SAN MATEO, CALIFORNIA. THE ELEVATION SHOWN IN BASED UPON A SURVEY BY BKF ENGINEERS IN MARCH OF 2011 AND IS BASED UPON AN ASSUMED ELEVATION.

# **BASIS OF BEARINGS:**

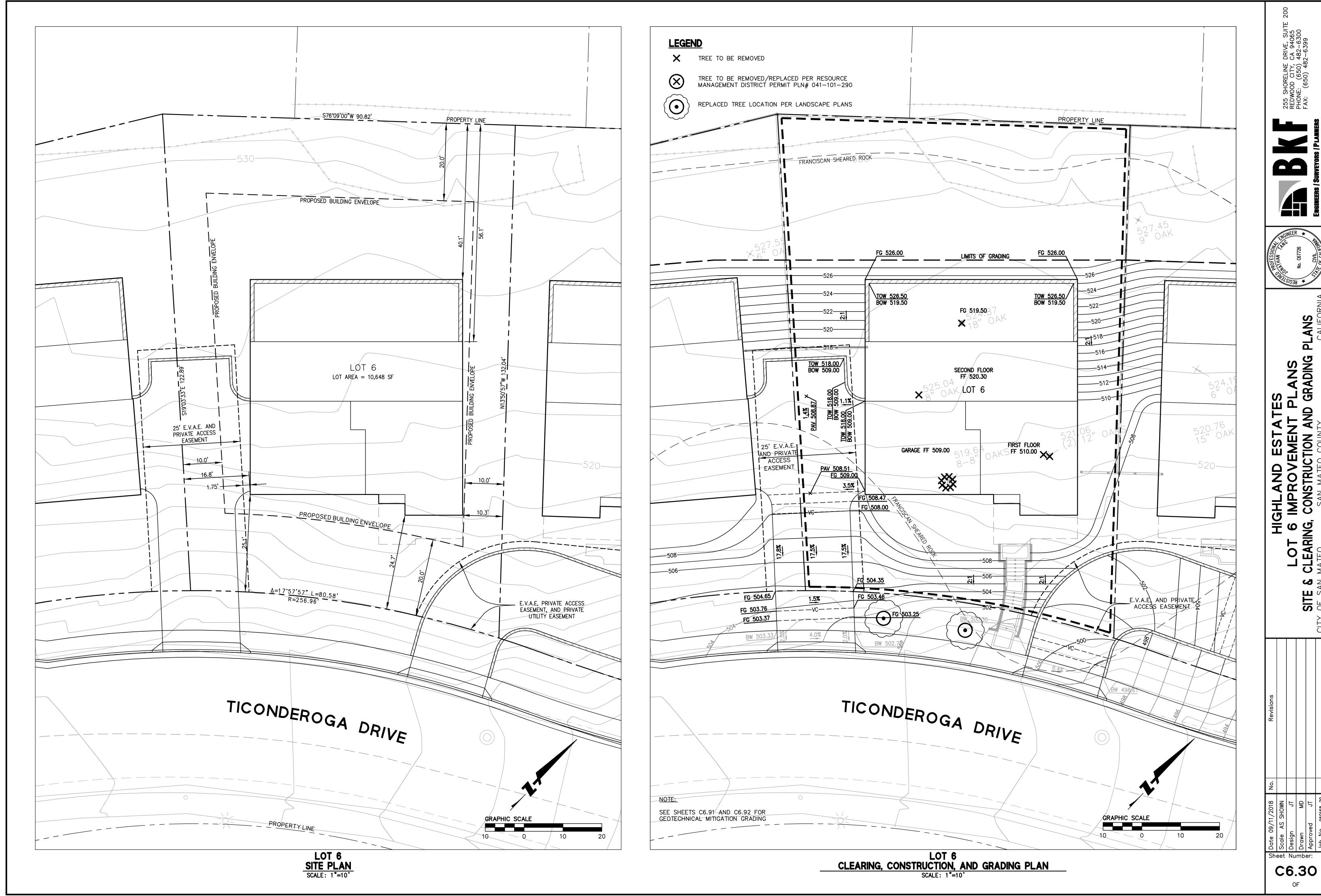
THE BEARING NORTH 76° 09' 00" EAST OF THE CENTERLINE OF COBBLE HILL PLACE AS SHOWN ON TRACT MAP NO. 723. THE HIGHLANDS, RECORDED ON AUGUST 26TH, 1955, IN VOLUME 43 OF MAPS AT PAGES 23-25, SAN MATEO COUNTY RECORDS.

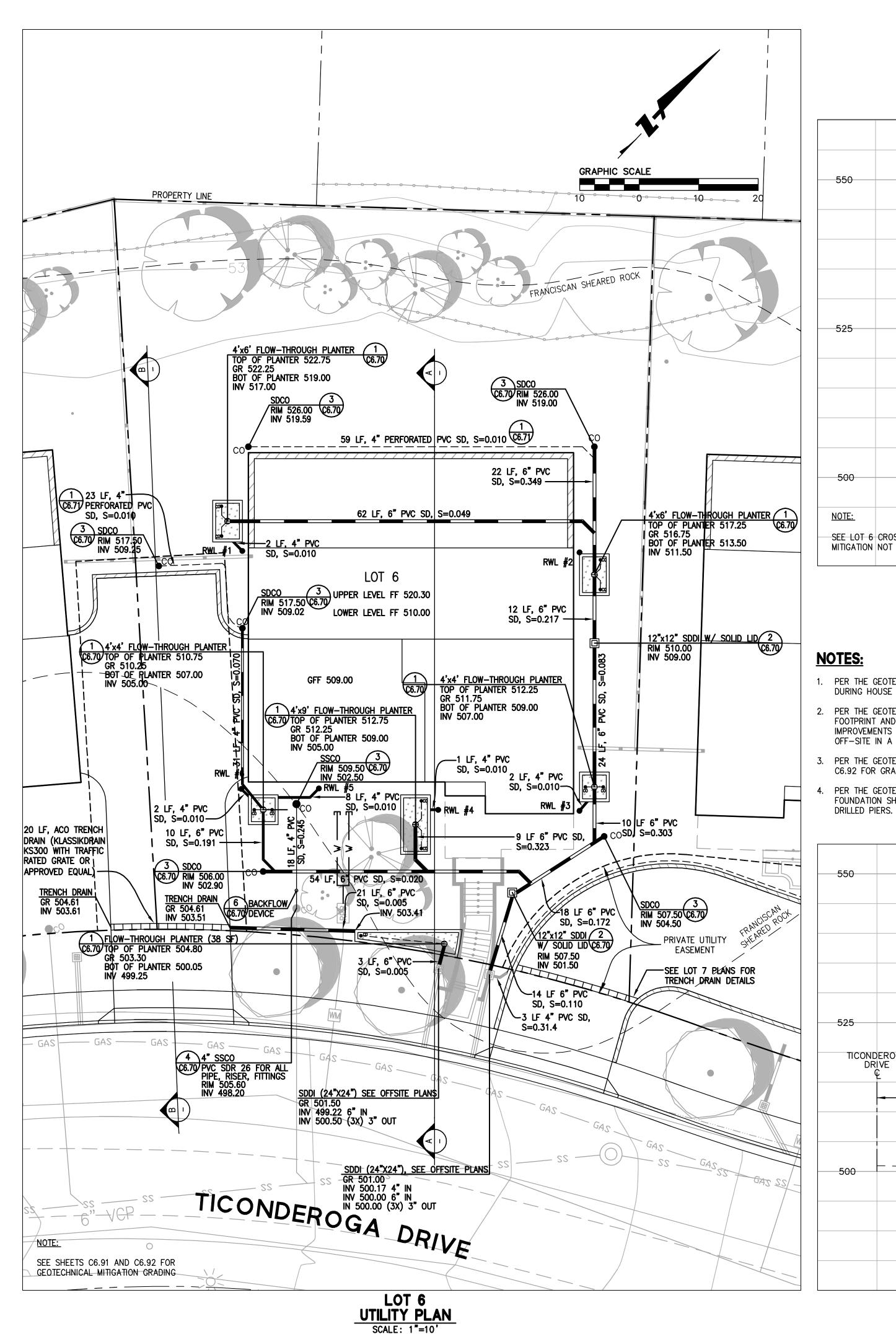


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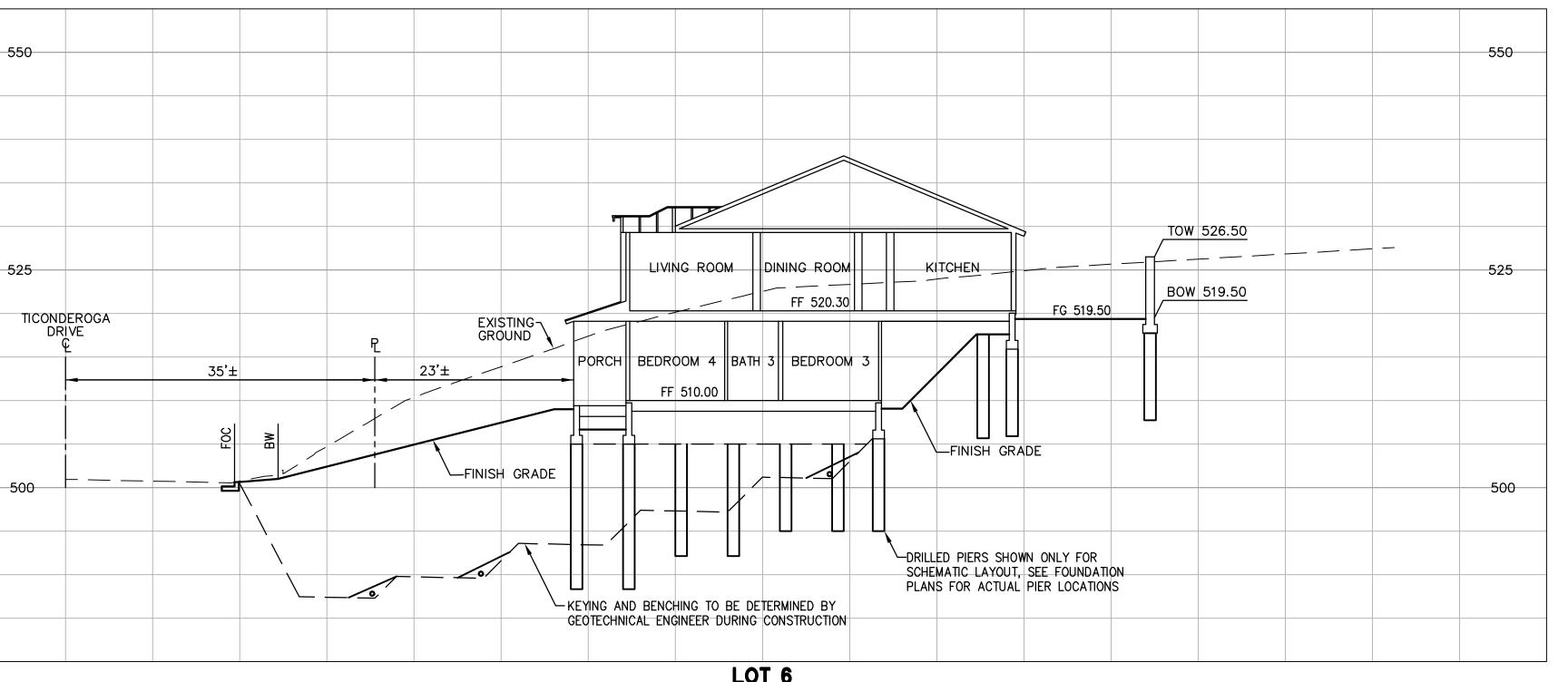
OF





SCALE: 1"=10'

- 1. PER THE GEOTECHNICAL REPORT, UNDOCUMENTED FILL WAS MAPPED AT LOT 5 AND IF THIS FILL IS TO BE LEFT IN PLACE DURING HOUSE AND DRIVEWAY GRADING, IT SHOULD BE REMOVED AND REPLACED AS PROPERLY COMPACTED ENGINEERED FILL.
- 2. PER THE GEOTECHNICAL REPORT, ALL EXISTING FILLS SHOULD BE COMPLETELY REMOVED FROM WITHIN PROPOSED HOUSE FOOTPRINT AND DRIVEWAY AREAS AND TO A LATERAL DISTANCE OF AT LEAST 5 FEET BEYOND THE EDGE OF THE IMPROVEMENTS OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF—SITE IN A LAWFUL MANNER.
- 3. PER THE GEOTECHNICAL REPORT, GEOTECHNICAL MITIGATION GRADING WILL BE PERFORMED ON LOT 6, SEE SHEETS C6.91 AND C6.92 FOR GRADING DETAILS OF THE MITIGATION
- 4. PER THE GEOTECHNICAL REPORT, ALL BUILDING AND RETAINING WALLS SHOULD BE SUPPORTED ON DRILLED PIERS. THE FOUNDATION SHOWN ON THIS PLAN ARE SCHEMATIC. REFER TO THE PROJECT STRUCTURAL PLANS FOR DETAILS ON THE DRILLED PIERS



LOT 6
CROSS SECTION A-A
SCALE: 1"=10'

TION
CALIFORNIA

C

HIGHLAND ESTATES

LOT 6 IMPROVEMENT PLAN

UTILITY PLAN AND CROSS SECTION

AN MATEO SAN MATEO COUNTY

No. Revisions CITY

Date 09/11/2018 No.

Scale AS SHOWN

Design RH

Drawn NH

Approved JT

Job No 950168-20

**C6.40**OF

C6.50 OF

LOT 6
FOUNDATION AND CONSTRUCTION EROSION CONTROL PLAN
SCALE: 1\*=10'

TICONDEROGA DRIVE

2 SILT FENCE © LIMITS C6.60 OF GRADING (TYP)

FG 519.50

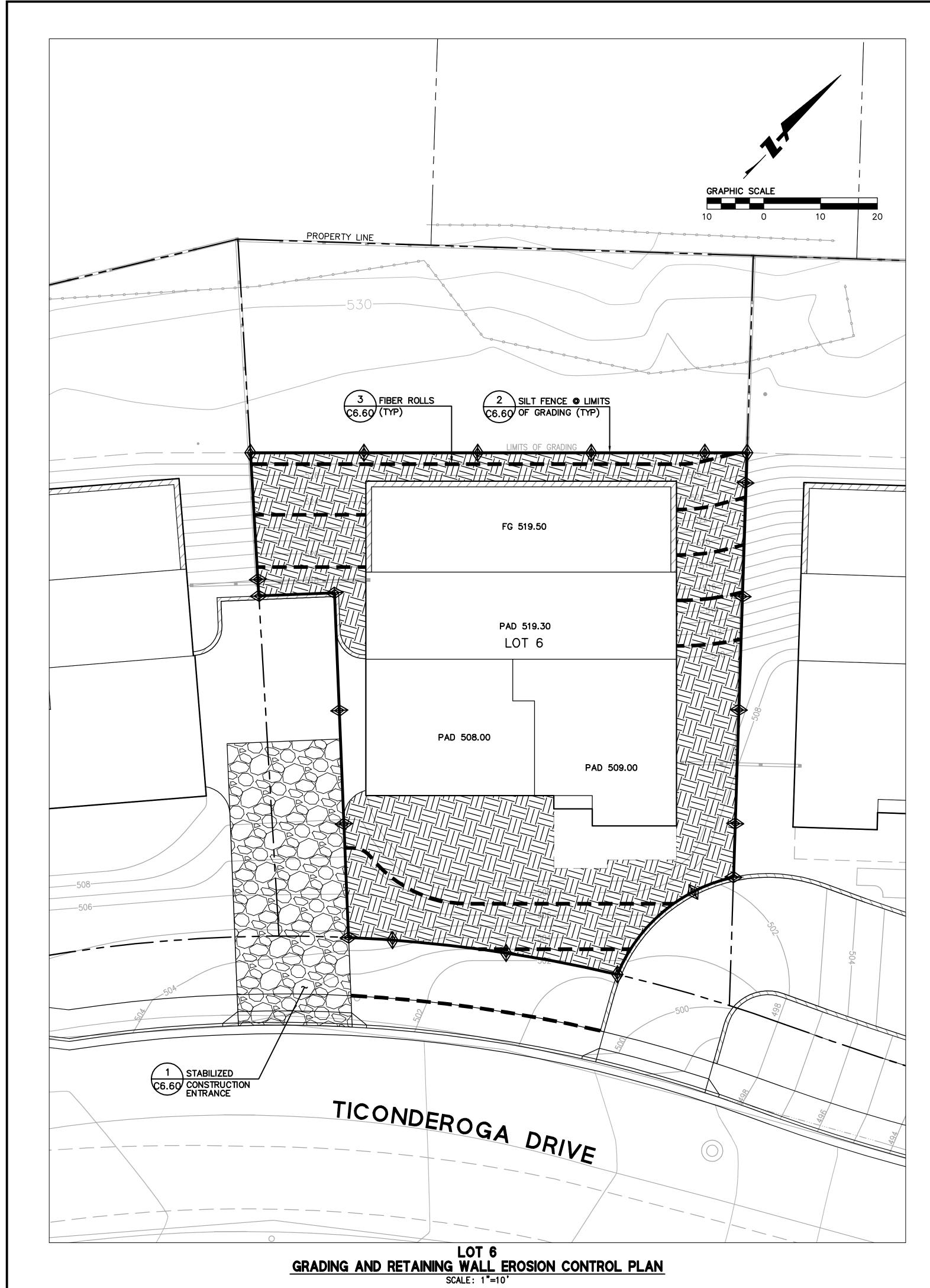
SECOND FLOOR FF 520.30

GARAGE FF 509.00

5 SEDIMENT

C6.60 BARRIER (TYP)

FIRST FLOOR FF 510.00



<u>LEGEND</u> SILT FENCE, PER DETAIL 2, SHEET C6.60

FIBER ROLLS, PER DETAIL 3, SHEET C6.60

TREE PROTECTION, PER DETAIL 6, SHEET C6.60

SEDIMENT BARRIER, PER DETAIL 5 SHEET C6.60

EROSION CONTROL MAT (TENSAR NORTH AMERICAN GREEN SCISO OR APPROVED EQUAL)

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SETTLING AND STORAGE ARE NOT REDUCED.

- THE INTENT OF THESE PLANS IS TO PROVIDE THE INITIAL CONCEPT FOR INTERIM EROSION CONTROL. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
- 5. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROAD CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- 6. BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR AROUND.
- DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
- 8. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- 9. THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 10. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 11. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 12. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 13. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 14. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 15. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 16. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 17. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- 18. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED UNLESS ALTERNATIVE MEASURES ARE USED.
- 19. SEED MIX FOR REVEGETATION AND HYDROSEEDING: NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL
  - 30% BLUE WILDRYE 30% MEADOW BARLEY 20% ZORRO FESCUE 10% PURPLE NEEDLE GRASS
- 10% CALIFORNIA NATIVE WILDFLOWERS APPLY AT 40 POUNDS PER ACRE MINIMUM
- 20. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 21. DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
- 22. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 23. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 24. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 25. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 26. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 27. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
- 28. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 1 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED, IN WRITING, BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.
- 29. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF STRAW BALES OR COIR NETTING, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND REVEGETATING DISTURBED AREAS WITH VEGETATION THAT IS COMPATIBLE WITH THE SURROUNDING ENVIRONMENT.
- 30. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST THROUGH APRIL 30TH AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

- CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
- USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAINING ALL NECESSARY PERMITS.
- 33. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A
- DELINEATE WITH FIELD MARKERS CLEARING LIMITS, SETBACKS, AND DRAINAGE

DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED.

COURSES.

- 35. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- 36. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
- 37. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
- 38. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
- 39. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST. OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 40. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION, AND THE REGIONAL WATER QUALITY CONTROL BOARD.
- 41. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
- 42. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
- STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE
- HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS, EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
- 45. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
- 46. EROSION CONTROL POINT OF CONTACT: NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: 650-322-5800 CELL #: 650-444-3089 EMAIL: noel@nexgenbuilders.com
- SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- 48. AREAS DELINEATED ON PLANS FOR PARKING, CLEARING & GRUBBING, STORAGE, ETC. SHALL NOT BE ENLARGED OR "RUN OVER."
- 49. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS
- 50. DUST CONTROL IS REQUIRED YEAR-ROUND.

MAX

12" MIN.

**ENTRENCHMENT DETAIL** 

IN SLOPE AREA

ON-SITE DURING THE "OFF-SEASON."

- 51. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
- 52. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.
- 53. TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

FIBER ROLL

WOOD STAKE

2. ADJACENT ROLLS SHALL TIGHTLY ABUT.

3/4"x3/4"

MAX 4' SPACING

FINISHED

FILTERED WATER

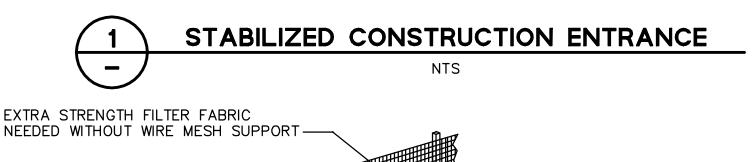
GRADE

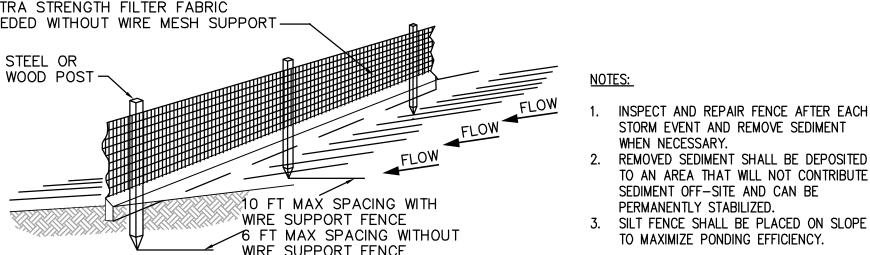
## WIDTH AS REQUIRED TO **ACCOMMODATE** ANTICIPATED TRAFFIC EXISTING PAVED ROADWAY -4"-6" CRUSHED AGGREGATE MINIMUM 12" THICK MATCH -50' MINIMUM EXISTING OR FOUR TIMES THE CIRCUMFERENCE OF THE LARGEST CONSTRUCTION GRADE VEHICLE TIRE, WHICHEVER IS GREATER <u>PLAN</u> 4"-6" CRUSHED **AGGREGATE** 12" MIN.--GEO-TEXTILE FABRIC SECTION A-A

1. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY.

NTS

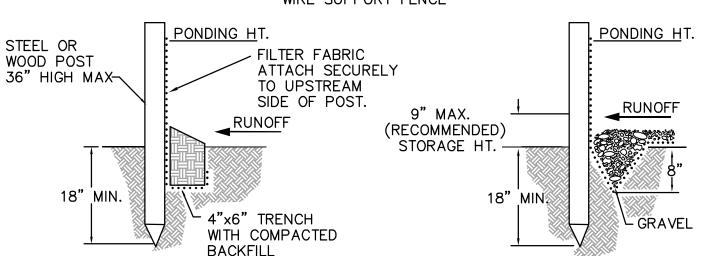
- 2. WHEELS SHALL BE CLEAN PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN. DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
- 3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 4" TO 6" STONE.
- 4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12".
- 5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- 6. THE LENGTH OF THE PAD SHALL NOT BE LESS THAN 50'





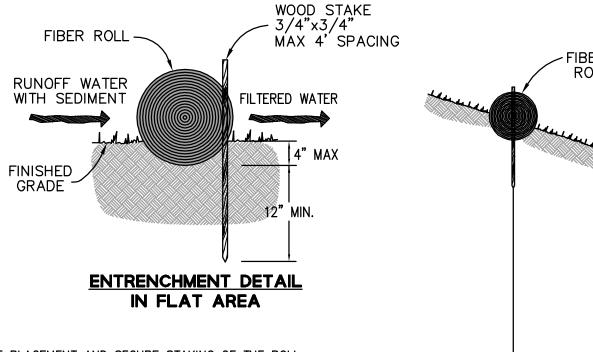
INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTI Y STABILIZED.

TO MAXIMIZE PONDING EFFICIENCY.



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL **ALTERNATE DETAIL** TRENCH WITH GRAVEL

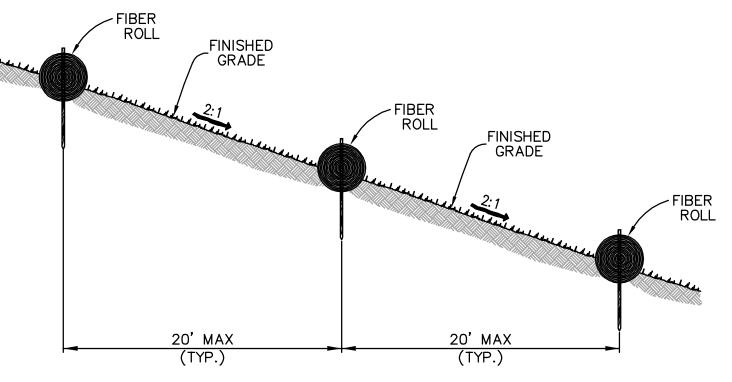
# SILT FENCE NTS



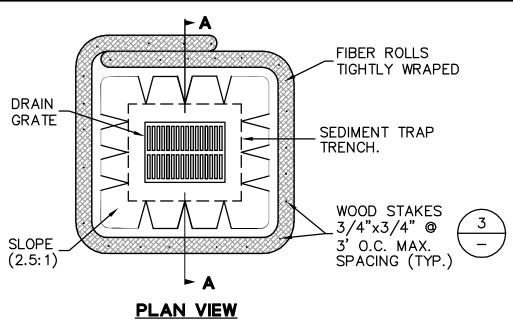
1. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH. 3" TO 4" DEEP. DUG ON CONTOUR.

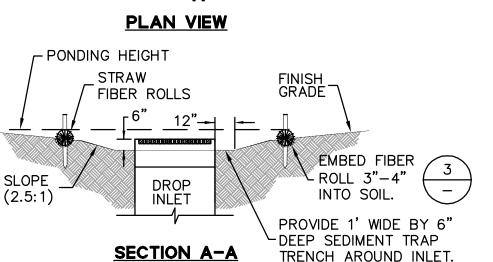
RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.





FIBER ROLL INSTALLATION ON SLOPE TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)





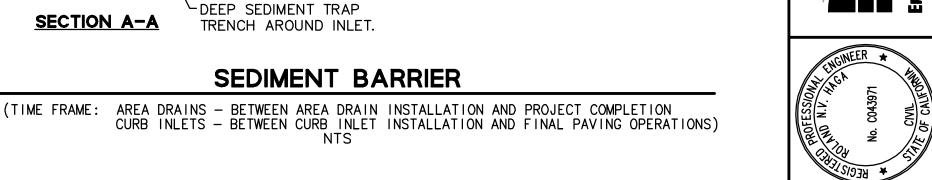
EXISTING TREE

— PROTECTIVE

FENCING

TO REMAIN

- 1. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX. 8" DIA. AND 20 - 30 FT. LONG.)
- FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3" - 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
- 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.



SEDIMENT BARRIER

1. THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.

2. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE.

3. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS.

SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED.

5. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A

6. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION.

7. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL

DRIPLINE

(PROTECTED ROOT ZONE)

TREE PROTECTION FENCE

5

# TREE PROTECTION FENCE NTS

# CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) STANDARD DETAIL REFERENCES

NOTE: ALTHOUGH SPECIFIC LOCATIONS FOR SPECIFIC BMPS ARE SHOWN ON THESE PLANS. IT IS INTENDED FOR THE CONTRACTOR TO APPLY APPROPRIATE BMPS WHEN NECESSARY TO MEET FIELD CONDITIONS.

(CALIFORNIA STORMWATER BMP HANDBOOK CONSTRUCTION, DATED NOVEMBER 2009)

# **EROSION CONTROL BMPS:**

- SCHEDULING PRESERVATION OF EXISTING VEGETATION EC-3HYDRAULIC MULCH
- EC-4 HYDROSEEDING EC-5 SOIL BINDERS EC-6 STRAW MULCH
- EC-7 GEOTEXTILES & MATS
- WOOD MULCHING
- EC-9 EARTH DIKES AND DRAINAGE SWALES EC-10 VELOCITY DISSIPATION DEVICES
- EC-11 SLOPE DRAINS EC-12 STREAMBANK STABILIZATION
- EC-14 COMPOST BLANKETS
- EC-15 SOIL PREPARATION/ROUGHENING EC-16 NON-VEGETATIVE STABILIZATION

# TEMPORARY SEDIMENT CONTROL BMPS:

- SE-1 SILT FENCE SEDIMENT BASIN SE-2
- SEDIMENT TRAP SE-3CHECK DAM SE-4
- FIBER ROLLS SE-5 GRAVEL BAG BERM
- SE-6 STREET SWEEPING AND VACUUMING SE-7
- SANDBAG BARRIER SE-8
- SE-9 STRAW BALE BARRIER
- SE-10 STORM DRAIN INLET PROTECTION
- SE-11 ACTIVE TREATMENT SYSTEMS SE-12 TEMPORARY SILT DIKE
- SE-13 COMPOST SOCKS AND BERMS
- SE-14 BIOFILTER BAGS
- WIND EROSION CONTROL

<u>WIND EROSION CONTROL BMPS:</u>

# TC-3 ENTRANCE/OUTLET TIRE WASH

TC-1 STABILIZED CONSTRUCTION

ENTRANCE/EXIT

TEMPORARY TRACKING CONTROL BMPS:

NON-STORMWATER MANAGEMENT BMPS: WATER CONSERVATION PRACTICES

TC-2 STABILIZED CONSTRUCTION ROADWAY

- DEWATERING OPERATIONS
- PAVING AND GRINDING OPERATIONS
- TEMPORARY STREAM CROSSING CLEAR WATER DIVERSION
- ILLICIT CONNECTION/DISCHARGE
- POTABLE WATER/IRRIGATION VEHICLE AND EQUIPMENT CLEANING
- VEHICLE AND EQUIPMENT FUELING
- NS-10 VEHICLE AND EQUIPMENT MAINTENANCE NS-11 PILE DRIVING OPERATIONS
- NS-12 CONCRETE CURING NS-13 CONCRETE FINISHING
- NS-14 MATERIAL AND EQUIPMENT USE NS-15 DEMOLITION ADJACENT TO WATER
- NS-16 TEMPORARY BATCH PLANTS

### WASTE MANAGEMENT & MATERIALS POLLUTION CONTROL BMPS:

- MATERIAL DELIVERY AND STORAGE
- MATERIAL USE
- STOCKPILE MANAGEMENT
- SPILL PREVENTION AND CONTROL SOLID WASTE MANAGEMENT
- HAZARDOUS WASTE MANAGEMENT CONTAMINATED SOIL MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT

WM-9 SANITARY/SEPTIC WASTE MANAGEMENT WM-10 LIQUID WASTE MANAGEMENT

OF



C6.60

Sheet Number:

Sheet Number:

C6.70

OF

SAN MATEO COUNTY DEPARTMENT OF DRAWN BY: N.M.A. PUBLIC WORKS CHECK BY: DATE: <u>6/95</u> APPROVED BY: N.R.C. REVISED: \_\_\_\_\_ REDWOOD CITY CALIFORNIA NON-PERFORATED ALUMINUM CONE UPSTREAM BACKWATER STRUCTURE -OVERFLOW REMOVE STANDARD -~ 3" OR 3-1/2" N.P.T. CLEANOUT PLUG OR PLAIN END FINISH GRADE TO BUILDING OVERFLOW DEVICE NOTE: LOCATION OF DEVICE TO APPROVAL OF DISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION - HINGE POINT VALVE OPENS TO A ALLOW WASTE WATER TO FLOW INTO SEWER MAIN; VALVE CLOSES BY ITS OWN WEIGHT TO PREVENT WASTEWATER FROM FLOWING

BACK TO HOUSE LATERAL.

NOTE: LOCATION OF DEVICE APPROVAL OF

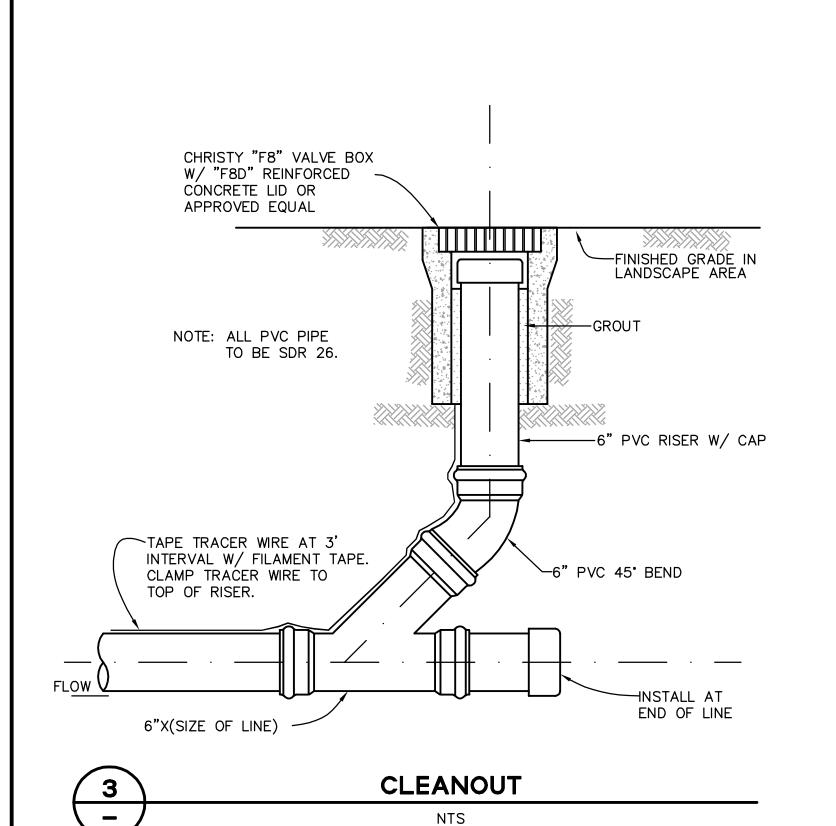
ISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION

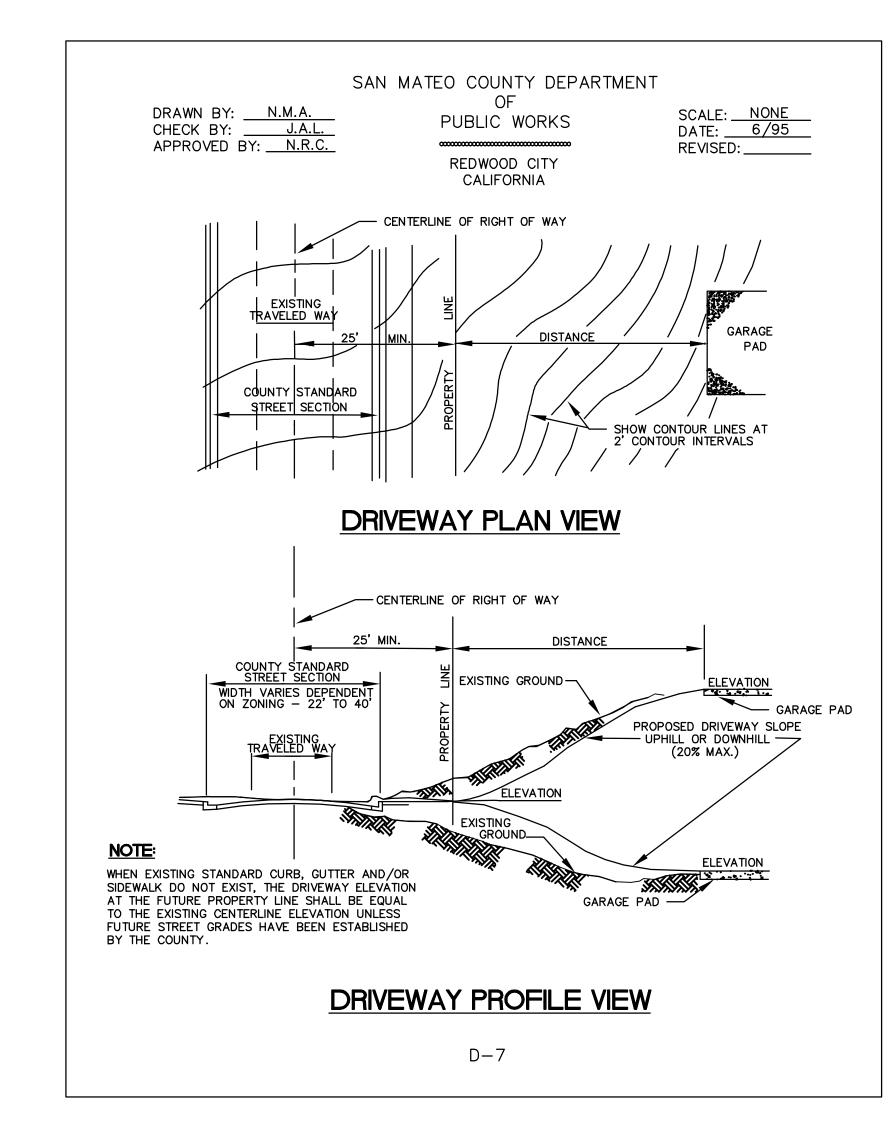
SAN MATEO COUNTY OVERFLOW AND BACKFLOW DEVICE DETAIL

OVERFLOW AND BACKFLOW DEVICE DETAIL

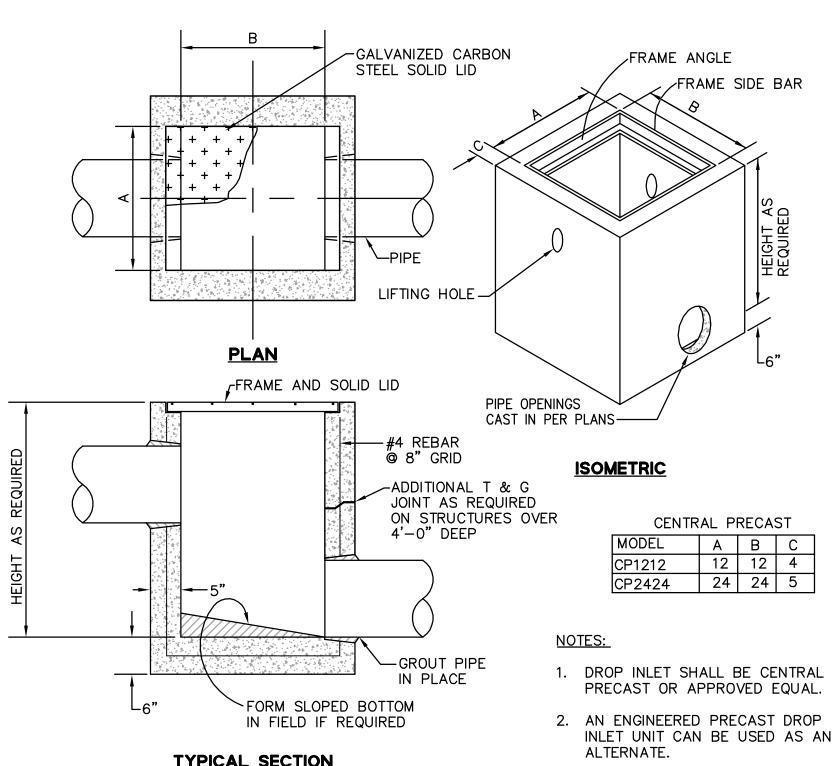
TO SEWER MAIN

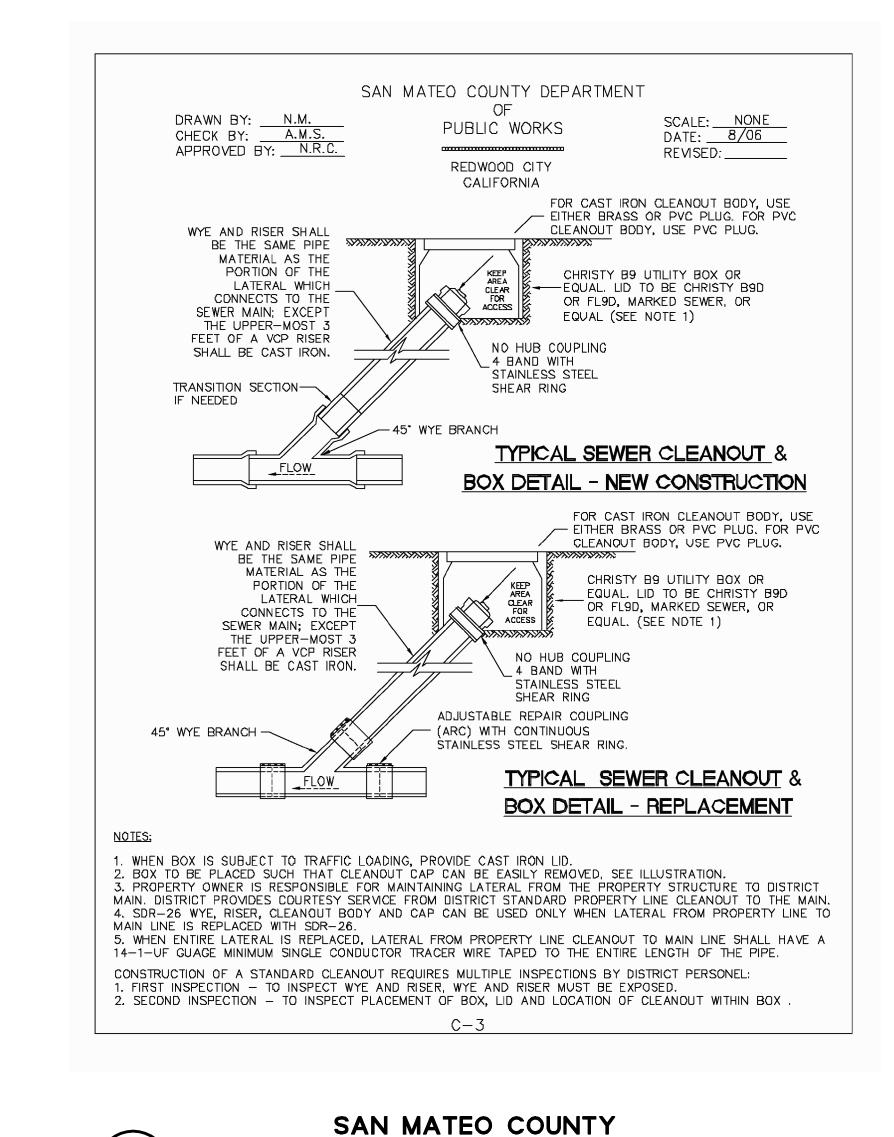
BACKFLOW DEVICE

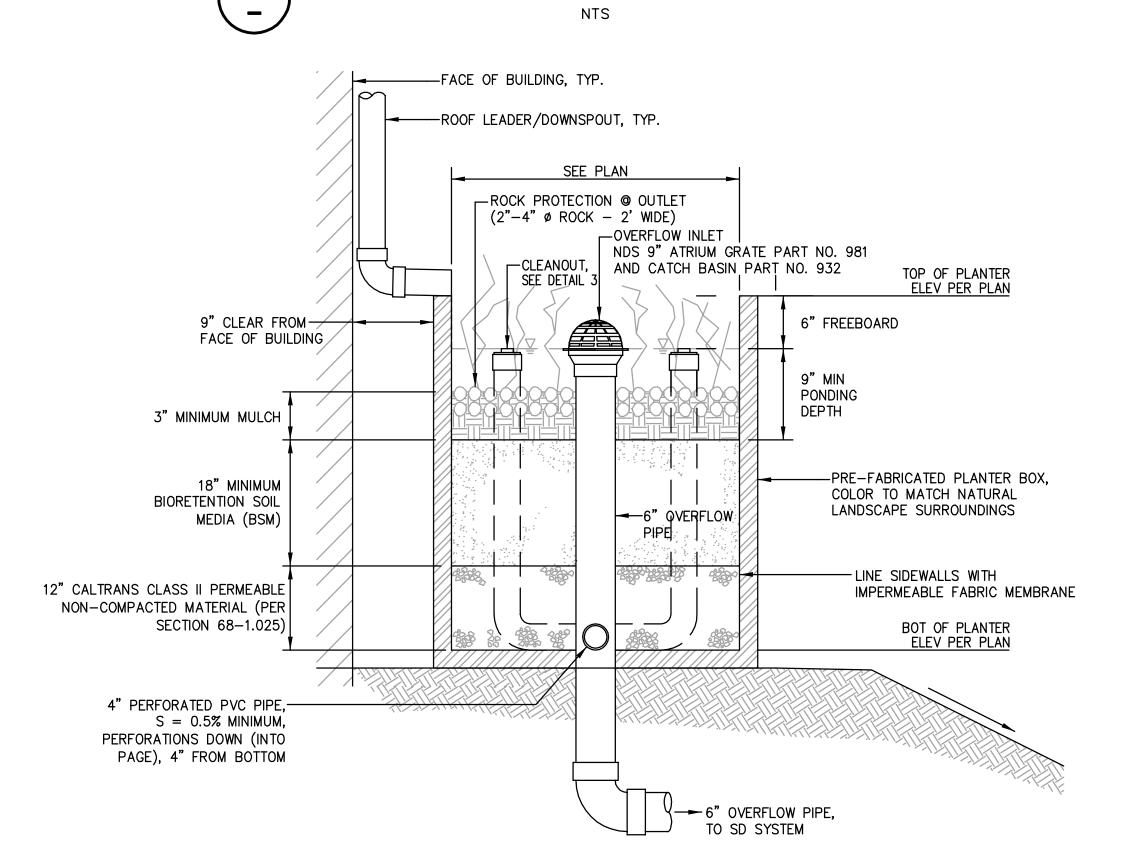




SAN MATEO COUNTY DRIVEWAY PLAN AND PROFILE VIEWS

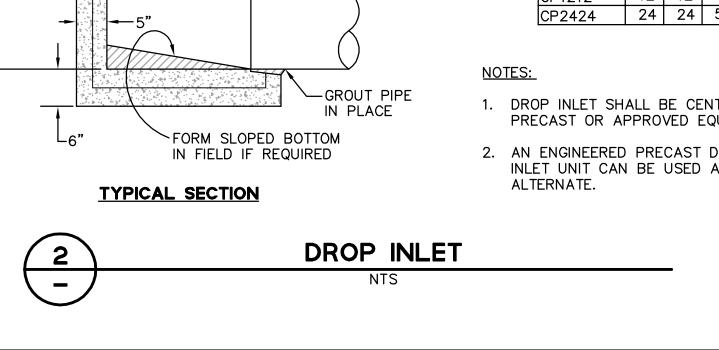






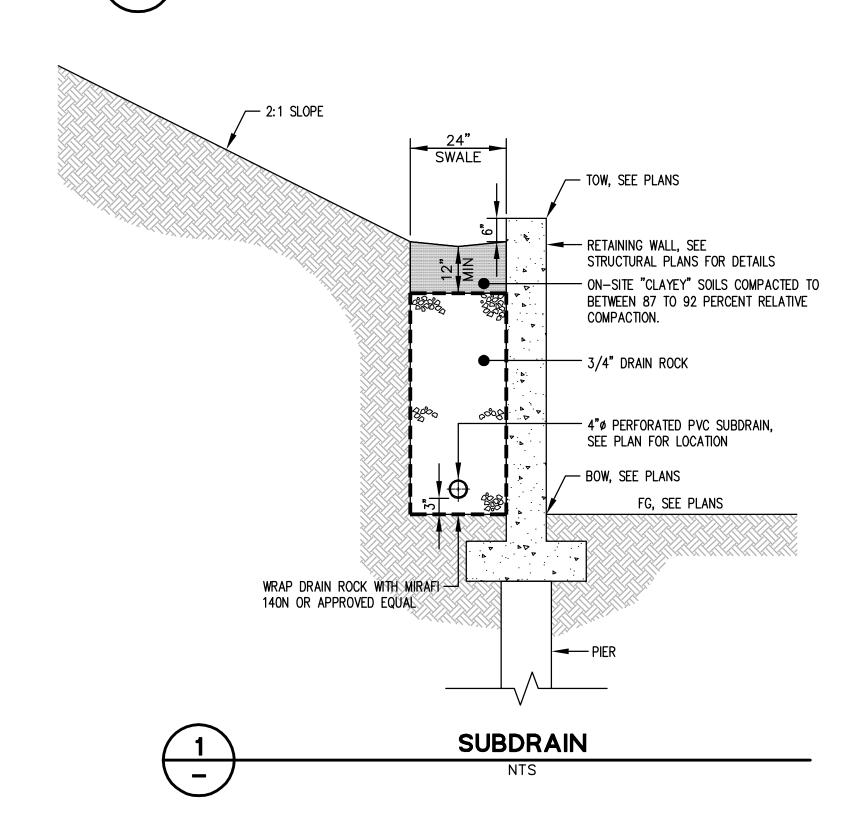
FLOW-THROUGH PLANTER (FTP)

TYPICAL SEWER CLEANOUT & BOX DETAIL

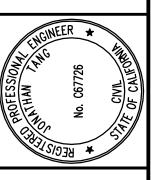


SAN MATEO COUNTY
STANDARD TRENCH BACKFILL & BEDDING DETAIL

NTS

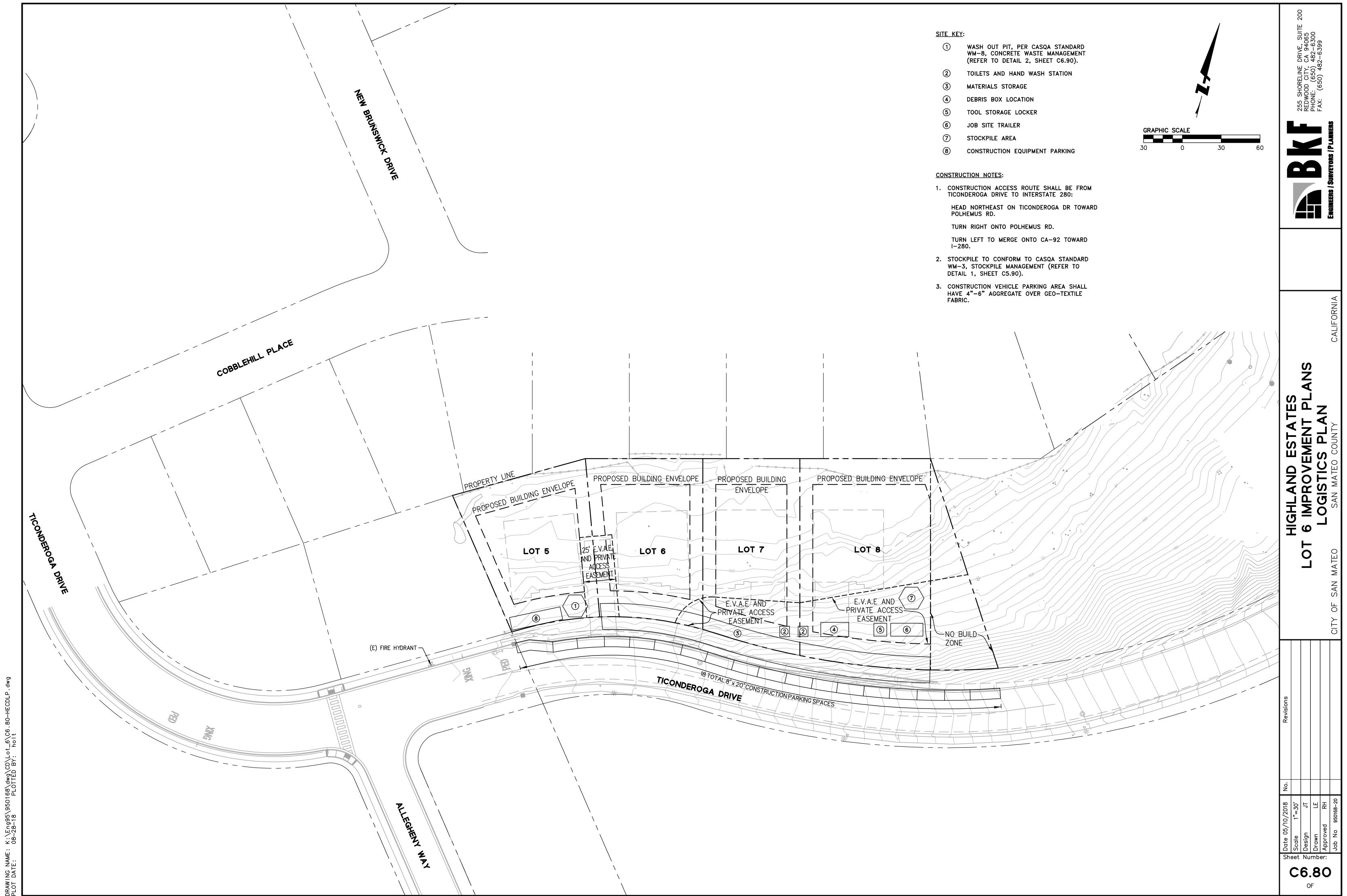


SAN MATEO COUNTY DEPARTMENT OF DRAWN BY: M.L.
CHECK BY: D.M.W. SCALE: NONE DATE: 6/95 PUBLIC WORKS APPROVED BY: N.R.C. REVISED: 7/97 REDWOOD CITY CALIFORNIA - 5" MIN. EXISTING SURFACE EXISTING SURFACE STRUCTURAL SECTION REDU ACE IN KIND REPLACE IN KIND (MIN. 2" AC 6" CL 2 AB) BACKFILL MATERIAL 90% COMPACTION STRUCTURE BACKFILL
MATERIAL...95% COMPACTION SAND BACKFILL MATERIAL...95% COMPACTION SAND BACKFILL
MATERIAL...95%
COMPACTION TYPE A (IN ROADWAY) TYPE B (OUTSIDE ROADWAY) 1. SAND ... MATERIAL FREE FROM ORGANIC MATTER AND CLAY WITH A SIEVE GRADATION BY WEIGHT AS FOLLOWS: SIEVE SIZE % PASSING SIEVE No. 4 100 No. 200 0 - 52. STRUCTURE BACKFILL MATERIAL ... MATERIAL WITH SAND EQUIVALENT NOT LESS THAN 20 AND SIEVE GRADATION BY WEIGHT AS FOLLOWS: Z PASSING SIEVE 100 No. 4 35-100 No. 30 20-100 3. BACKFILL MATERIAL .... MATERIAL FROM EXCAVATION, FREE FROM STONES OR LUMPS EXCEEDING 3 INCHES GREATEST DIMENSION, ORGANIC MATTER, OR OTHER UNSATISFACTORY MATERIAL. STANDARD TRENCH BACKFILL AND BEDDING DETAIL W-10



5 O

C6.71 OF



Non-Storm water Management Control Waste Management and Materials Pollution Control

Primary Category Secondary Category

Targeted Constituents

Potential Alternatives

Sediment

Metals

Bacteria

Organics

November 2009

Oil and Grease

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

January 2011

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of plastic materials should be avoided when feasible and photodegradable plastics should not be used.

Implementation Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Construction www.casqa.org

# **Stockpile Management**

- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- All stockpiles are required to be protected immediately if they are not scheduled to be used

WM-3

- Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows: Soil stockpiles

- Cover and project soil stockpiles with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Consider temporary vegetation for topsoil piles that will be stockpiled for extended periods. Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble,
- aggregate base, or aggregate sub base Provide covers and protect these stockpiles with a temporary perimeter sediment barrier at

Stockpiles of "cold mix"

 Cover cold mix stockpiles and place them on plastic sheeting (or comparable material) and surround the stockpiles with a berm all times.

Stockpiles of fly ash, stucco, hydrated lime

 Cover stockpiles of materials that may raise the pH of runoff (i.e., basic materials) with plastic and surround the stockpiles with a berm at all times.

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# **Stockpile Management**

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate)

WM-3

■ Cover treated wood with plastic sheeting (or comparable material) and surround with a berm at all times.

### Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

### Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning
- Sediment shall be removed when it reaches one-third of the barrier height.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

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**WM-8** 

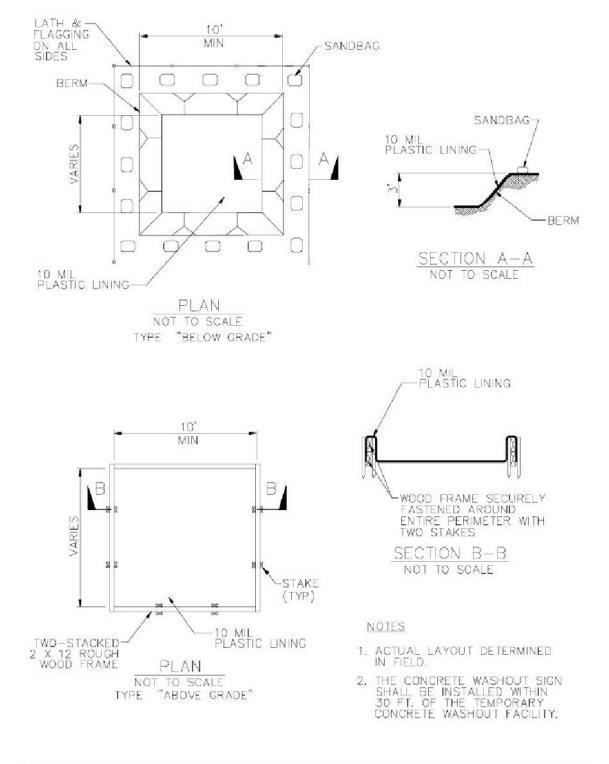
# WATERPROOF PLASTIC MEMBRANE-SECURE WITH ANCHORS OR WEIGHTS TO PREVENT WIND OR RAIN FROM DISTURBING STOCKPILE -STACKED GRAVEL BAGS SILT — FENCE PLACED AROUND THE BASE OF STOCKPILE

STOCKPILE COVERING (PER CASQA STANDARD WM-3, STOCKPILE MANAGEMENT, SEE LEFT)
NTS

# WM-3 - STOCKPILE MANAGEMENT

NTS

Concrete Waste Management **WM-8** 

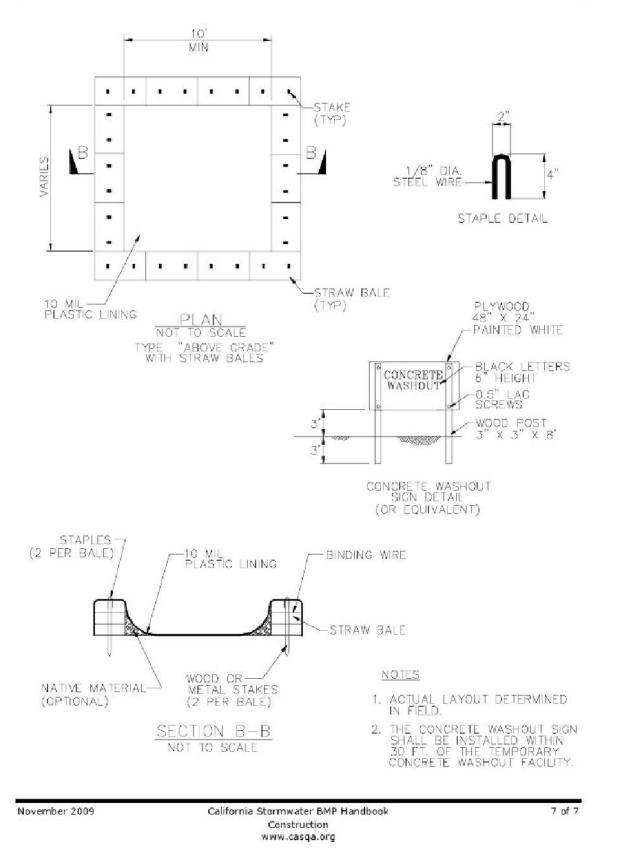


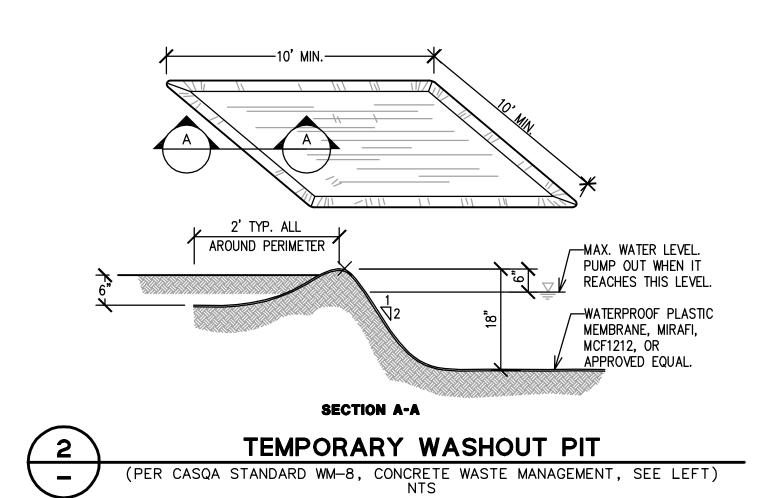
California Stormwater BMP Handbook

Construction

www.casqa.org

Concrete Waste Management

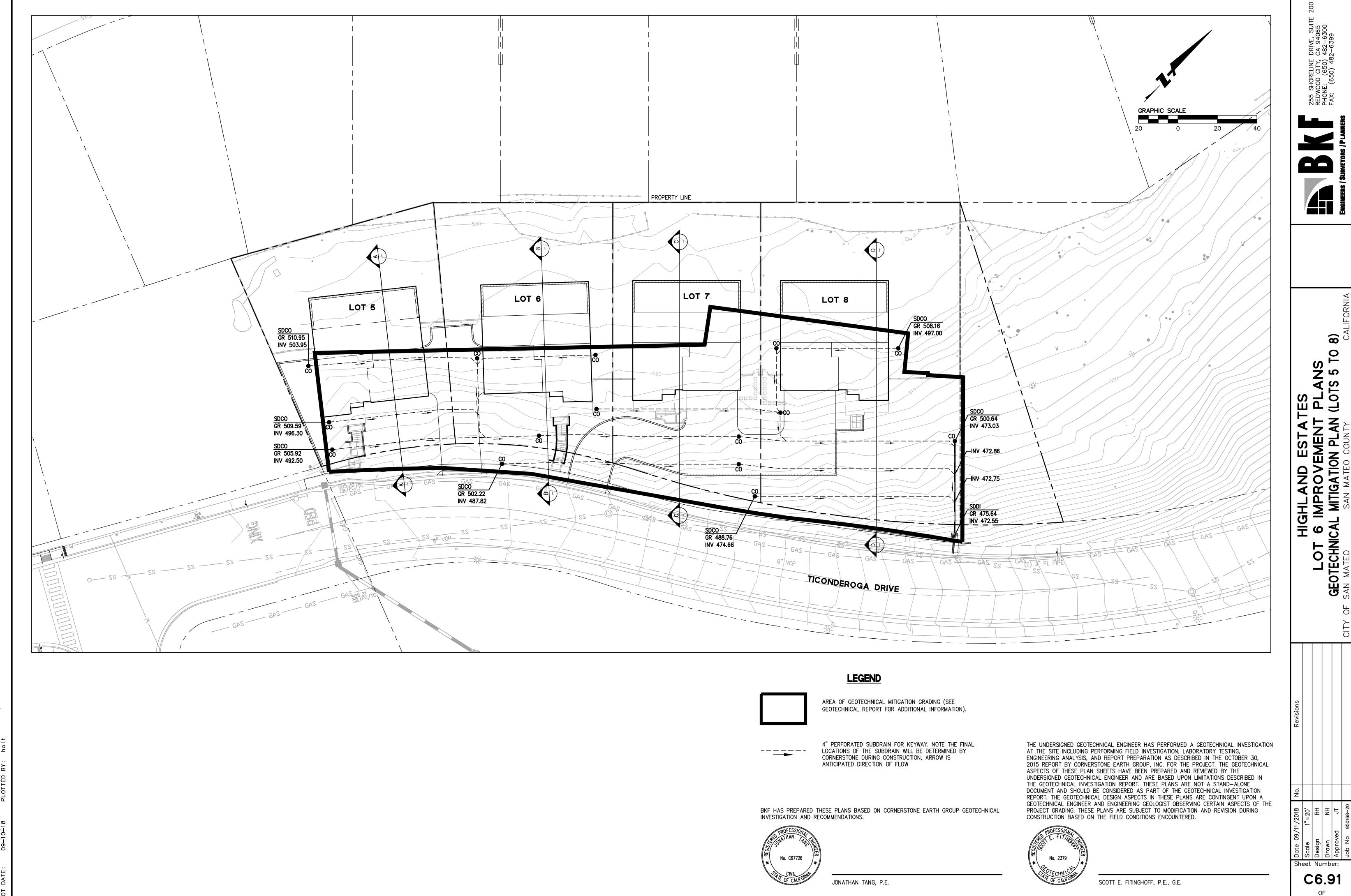




WM-8 - CONCRETE WASTE MANAGEMENT

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TIONS

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GEOTECHNICA

— FINISH

-REMOVE ANY FILL REMAINING IF ENCOUNTERED

AFTER MAKING CUT

FOR FINISHED

GRADING.

DRILLED PIERS SHOWN ONLY FOR

ADJUST PIPE LOCATION IN FIELD TO BE OUTSIDE

THE LOCATION OF DRILLED PIERS

SCHEMATIC LAYOUT, SEE FOUNDATION

PLANS FOR ACTUAL PIER LOCATIONS

GRADE

PLANS FOR ACTUAL PIER LOCATIONS OUTSIDE THE LOCATION OF DRILLED PIERS CORNERSTONE EARTH GROUP -KEYING AND BENCHING TO BE DETERMINED BY

LOT 8 RESIDENCE

GEOTECHNICAL ENGINEER DURING CONSTRUCTION

C-C CROSS SECTION SCALE: 1"=10"

GRADE

-APPROXIMATE SLOPE MITIGATION

D-D CROSS SECTION

SCALE: 1"=10"

4" PERORATED SUBDRAIN, SEE DETAIL 1, SHEET C6.92, TYP.

PERORATED SUBDRAIN, SEE

DETAIL 1, SHEET C6.92, TYP.

EXISTING -GROUND

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

ESTIMATED TOP OF-

SHEARED ROCK

AVERAGE ROLL VALUES UNLESS OTHERWISE SPECIFIED BY

No. C67726

GRAB STRENGTH (ASTM D-4632): MASS PER UNIT AREA (ASTM D-4751): APPARENT OPENING SIZE (ASTM D-4751): FLOW RATE (ASTM D-4491): PUNCTURE STRENGTH (ASTM D-4833):

500

180 LBS. 5 OZ/YD 70-100 U.S. STD. SIEVE 80 GAL/MIN/FT 80 LBS.

DETAIL 1 - TYPICAL BENCH AND KEYWAY SUBDRAIN

COMPACTED-FILL 7////// SOLID COLLECTOR COMPACTED CLAY-BACKFILL

JONATHAN TANG, P.E.

THIS AREA MAY HAVE ACTIVE SEEPAGE DURING CONSTRUCTION.

- 2. COLLECTOR PIPE SHOULD BE 6" PERFORATED PIPE, SUCH AS SDR-35 OR SDR-23.5 OR APPROVED EQUIVALENT (SEE DETAIL 1 NOTE 5 UNDER "DRAINAGE MATERIAL")
- 3. PIPE FITTINGS FOR CLEAN-OUTS AND OTHER 90° BENDS IN THE SUBDRAIN SYSTEM (EXCEPT THE CONNECTION BETWEEN THE 4"PERFORATED PIPES AND 6" COLLECTION PIPES) SHOULD BE "SWEEP 90'S" OR OTHER APPROVED EQUIVALENT.
- 4. CONTRACTOR TO PROVIDE ALL INCIDENTAL FITTINGS IN THEIR BID PRICE TO CONSTRUCT THE
- SUBDRAIN SYSTEM. NOT ALL INCIDENTAL FITTINGS ARE SHOWN ON THESE PLANS. 5. FINAL SUBDRAIN LAYOUT AND PLACEMENT TO BE DETERMINED BY GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.

# DETAIL 2 - SOLID COLLECTOR PIPE DETAIL

BKF HAS PREPARED THESE PLANS BASED ON CORNERSTONE EARTH GROUP GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS.



THE UNDERSIGNED GEOTECHNICAL ENGINEER HAS PERFORMED A GEOTECHNICAL INVESTIGATION AT THE SITE INCLUDING PERFORMING FIELD INVESTIGATION, LABORATORY TESTING, ENGINEERING ANALYSIS, AND REPORT PREPARATION AS DESCRIBED IN THE OCTOBER 30, 2015 REPORT BY CORNERSTONE EARTH GROUP, INC. FOR THE PROJECT. THE GEOTECHNICAL ASPECTS OF THESE PLAN SHEETS HAVE BEEN PREPARED AND REVIEWED BY THE UNDERSIGNED GEOTECHNICAL ENGINEER AND ARE BASED UPON LIMITATIONS DESCRIBED THE GEOTECHNICAL INVESTIGATION REPORT. THESE PLANS ARE NOT A STAND-ALONE DOCUMENT AND SHOULD BE CONSIDERED AS PART OF THE GEOTECHNICAL INVESTIGATION REPORT. THE GEOTECHNICAL DESIGN ASPECTS IN THESE PLANS ARE CONTINGENT UPON A GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST OBSERVING CERTAIN ASPECTS OF THE PROJECT GRADING. THESE PLANS ARE SUBJECT TO MODIFICATION AND REVISION DURING CONSTRUCTION BASED ON THE FIELD CONDITIONS ENCOUNTERED.



SCOTT E. FITINGHOFF, P.E., G.E.

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475

525

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TICONDEROGA

DRIVE

C6.92 OF

Sheet Number:

Sheet Number:

C7.10

# IMPROVEMENT PLANS FOR

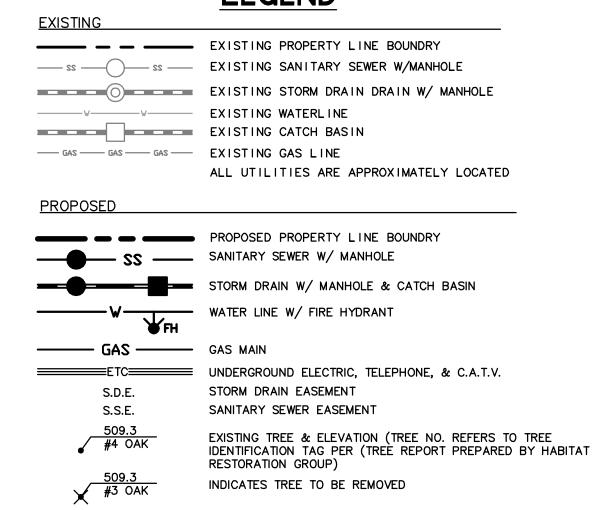
# HIGHLAND ESTATES - LOT 7 TICONDEROGA DRIVE

# **EARTHWORK**

# 2,170 CY SLOPE MITIGATION EXPORT CREDIT 660 CY 1,470 CY CUT

- 1. THE QUANTITIES SHOWN ABOVE EXCLUDE EARTHWORK FROM GEOTECHNICAL SLOPE REMEDIATION ACTIVITIES PER CONDITION OF APPROVAL ITEM NO. 4.M, INCLUDING SITE STRIPPING, EARTHWORK SWELLING AND SHRINKAGE FACTORS ASSOCIATED WITH GEOTECHNICAL SLOPE REMEDIATION MITIGATION.
- 2. THE EARTHWORK QUANTITIES SHOWN ABOVE ARE IN-PLACE QUANTITIES AND HAVE
- A. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SITE STRIPPINGS
- B. THE UNIT PAD SECTION IS ASSUMED TO BE A 12" THICK CONCRETE SECTION. C. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR FILL SHRINKAGE FACTORS. D. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR UTILITY TRENCHING AND SPOILS.
- E. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SOIL STABILIZATION FACTORS AND LANDSCAPING PLANTING SOILS. F. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR RETAINING WALLS AND BUILDING FOOTINGS AND BACKFILL
- 2. ACTUAL QUANTITIES MAY VARY DUE TO FIELD CONDITIONS OR CONSTRUCTION TECHNIQUES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES BASED UPON APPROVED PLANS AND INDEPENDENT CALCULATIONS.

# **LEGEND**



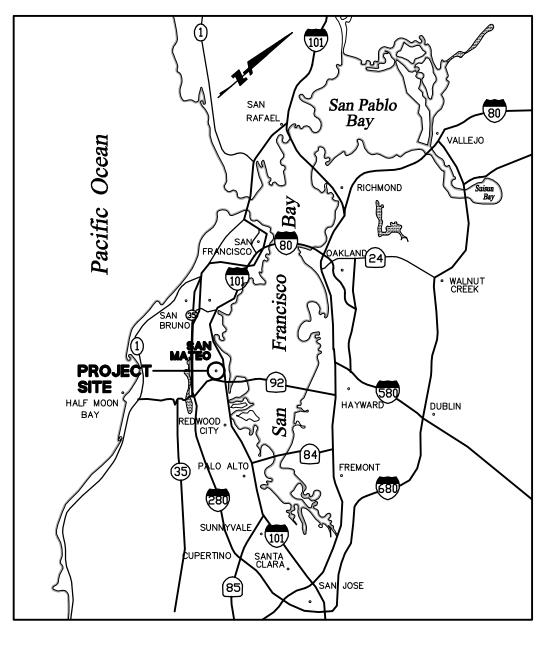
# **ABBREVIATIONS**

FLOW-THROUGH PLANTER. PROPOSED FOR TREATMENT OF ROOF AND DRIVEWAY STORM WATER RUNOFF.

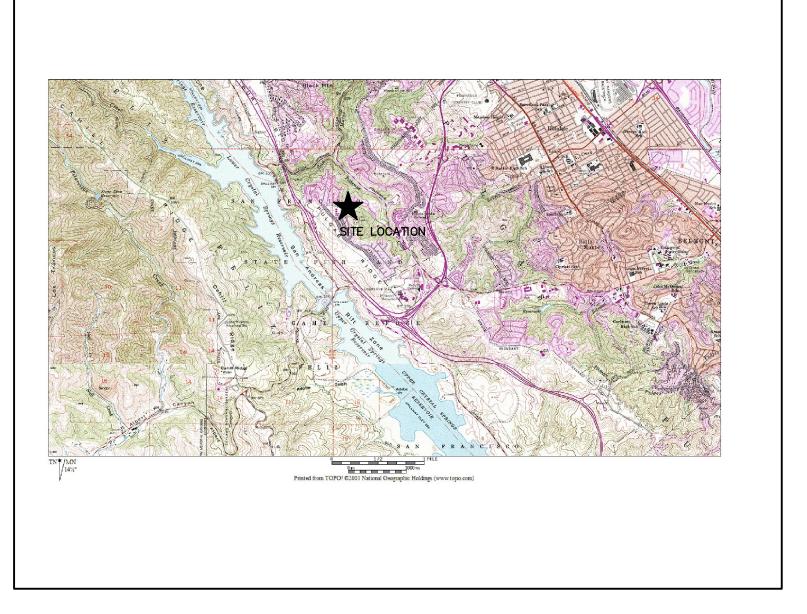
LEATHERWODD BUSH **EUCALYPTUS TREE** POINT OF CONNECTION FIRE DEFENSE ZONE

JP JOINT POLE WV WATER VALVE	AC BEG BL BLDG COR BOW BW CB CLF COO COU DG DI DW EGP EUX, FOC FF FG FNC FFF FW GBF GM GR GR GW IND	BOTTOM GRADE AT BOTTOM OF WALL BACK OF WALK CATCH BASIN CENTERLINE CHAIN LINK FENCE CORRUGATED METAL PIPE CLEANOUT CONCRETE COPPER DECOMPOSED GRANITE DRAIN INLET DOMESTIC WATER EXISTING GRADE EDGE OF PAVEMENT EUCALYPTUS TREE EXISTING FACE OF CURB FINISH FLOOR FINISH GRADE FLOW LINE FENCE FLOW THROUGH PLANTER FIRE WATER GRADE BREAK GARAGE FINISH FLOOR GAS METER GROUND SHOT GRATE	PD PINE PUE PVC RCP RDW RET WALL ROW RPB RWL S SD SDCO SDDI SDMH SS SSCO SSMH T TC TOE TOP TOW TYP	PLANNED DEVELOPMENT PINE TREE PUBLIC UTILITY EASEMENT POLYVINYL CHLORIDE PIPE REINFORCED CONCRETE PIPE REDWOOD TREE RETAINING WALL RIGHT OF WAY REDUCED PRESSURE BACKFLOW RAIN WATER LEADER SLOPE STORM DRAIN STORM DRAIN CATCH BASIN STORM DRAIN CLEANOUT STORM DRAIN DROP INLET STORM DRAIN MANHOLE SANITARY SEWER SANITARY SEWER CLEAN OUT SANITARY SEWER MANHOLE TREE TOP OF CURB TOE OF SLOPE TOP OF WALL TYPICAL
	*	· · · · · · <del></del>		

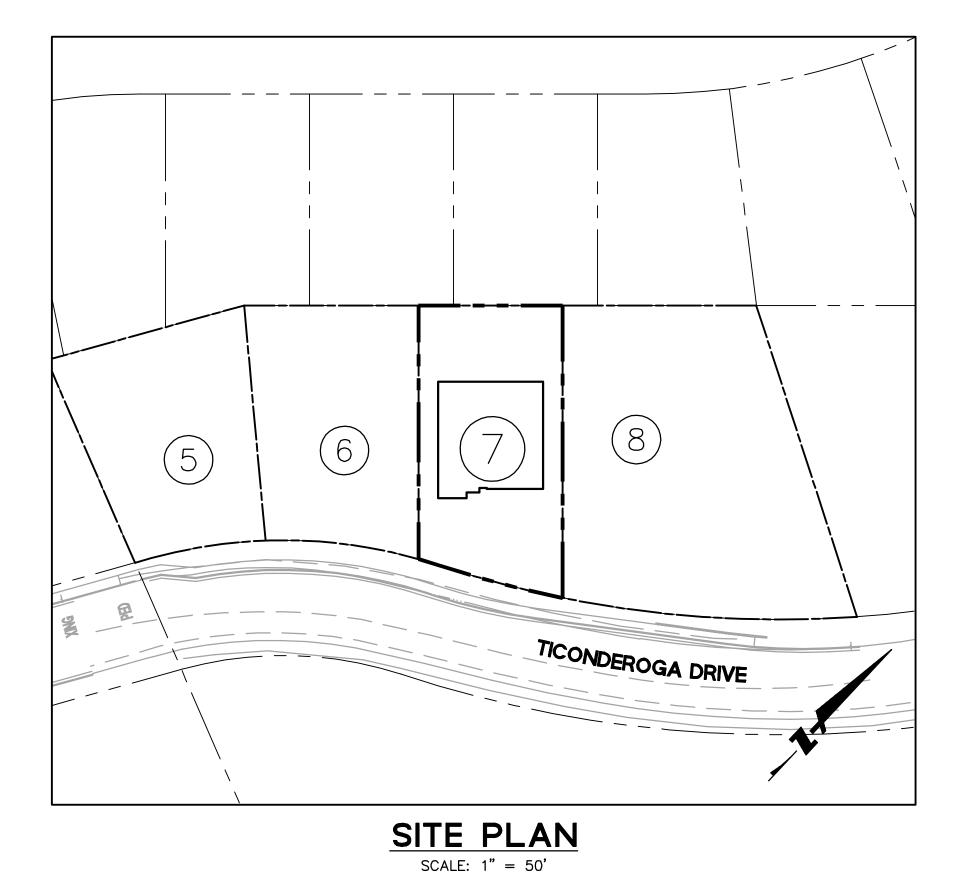
# COUNTY OF SAN MATEO, CALIFORNIA



VICINITY MAP



**LOCATION MAP** 



# 1 RESIDENTIAL LOT TICONDEROGA PARTNERS, A CALIFORNIA

10,720 SF

UNDEVELOPED LAND

RESIDENTIAL (LOT 7)

RMD - RESOURCE MANAGEMENT DISTRICT

PROJECT DATA

SITE AREA:

OWNER:

**DEVELOPER:** 

**EXISTING LAND USE:** 

PROPOSED USE:

**EXISTING ZONE:** 

PROPOSED ZONE: PROPOSED USE:

> LIMITED LIABILITY CORPORATION C/O THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582 ATTN: JACK CHAMBERLAIN THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070

> > 255 SHORELINE DRIVE, SUITE 200

(650) 595-5582 ATTN: JACK CHAMBERLAIN **CIVIL ENGINEER:** BKF ENGINEERS

REDWOOD CITY, CA 94065 (650) 482-6300 CORNERSTONE EARTH GROUP GEOTECHNICAL ENGINEER:

1259 OAKMEAD PARKWAY SUNNYVALE, CA 94085 (408) 245-4600 WATER SUPPLY: CAL WATER SERVICE 341 N. DELAWARE STREET

SAN MATEO, CA 94401-1808 (650) 343–1808 SEWAGE DISPOSAL: CITY OF SAN MATEO & CRYSTAL SPRINGS COUNTY SANITATION DISTRICT

GAS & ELECTRIC **TELEPHONE:** 

**FIRE PROTECTION:** CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

**STORM DRAINAGE:** COUNTY OF SAN MATEO CITY OF SAN MATEO AERO-GEODIC COROP. TOPOGRAPHIC BASE MAP:

DATE OF PHOTOGRAPHY 9/18/87 **EROSION CONTROL POINT OF CONTACT:** NOEL CHAMBERLAIN, NEXGEN BUILDERS INC.

225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: (650) 322-5800 CELL #: (650) 444-3089 EMAIL: noel@nexgenbuilders.com

JOB NO. 950168

# SHEET INDEX

SHEET NO DESCRIPTION

C7.10	TITLE SHEET
C7.20	GENERAL NOTES
C7.30	SITE AND CLEARING, CONSTRUCTION AND GRADING PLANS
C7.40	UTILITY PLAN AND CROSS SECTION
C7.50	EROSION CONTROL PLANS
C7.60	EROSION CONTROL DETAILS AND NOTES
C7.70	CONSTRUCTION DETAILS
C7.71	CONSTRUCTION DETAILS
C7.80	LOGISTICS PLAN
C7.90	CASQA STANDARD DETAILS
C7.91	GEOTECHNICAL MITIGATION PLAN (LOTS 5 TO 8)

# **ENGINEER'S STATEMENT**

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY DIRECTION.

GEOTECHNICAL MITIGATION CROSS SECTIONS (LOTS 5 TO 8)

ROLAND N.V. HAGA R.C.E NO. 43971 BKF ENGINEERS

DATE

I HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE STATE OF CALIFORNIA, BUSINESS & PROFESSIONAL CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

JONATHAN TANG P.E. NO. 67726 BKF ENGINEERS

# **ENGINEER OF WORK**



### I. GENERAL NOTES

NOTES:

- WORK SHALL CONFORM TO THE COUNTY OF SAN MATEO PUBLIC WORKS STANDARD DRAWINGS FOR PUBLIC IMPROVEMENTS, REVISED SEPTEMBER 2007 AND THE SAN MATEO COUNTY SEWER AND SANITATION DISTRICTS STANDARD SPECIFICATIONS. DATED JUNE 1995.
- PERFORM WORK IN CONFORMANCE WITH THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL ENGINEERING REPORT TITLED "UPDATED GEOTECHNICAL INVESTIGATION, HIGHLAND ESTATES LOTS 5 THROUGH 11, TICONDEROGA DRIVE/COBBLEHILL PLACE/COWPENS WAY, SAN MATEO COUNTY, CALIFORNIA" PREPARED BY CORNERSTONE EARTH GROUP, DATED OCTOBER 30, 2015. GRADING WORK WILL BE SUBJECT TO APPROVAL OF GEOTECHNICAL ENGINEER.
- ARRANGE FOR REQUIRED INSPECTIONS BY COUNTY ENGINEER. NO DELAY OF WORK CLAIM WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO ARRANGE FOR REQUIRED COUNTY INSPECTIONS IN ADVANCE. PROVIDE NOTICE TO COUNTY ENGINEER A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF REQUIRED INSPECTIONS.
- 4. REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED IN WRITING BY ENGINEER, WHO WILL OBTAIN APPROVAL FROM COUNTY ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED ITEMS. REVISIONS SHALL BE ACCURATELY SHOWN ON REVISED PLANS, WHICH SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND COUNTY ENGINEER PRIOR TO INSTALLATION OF THE IMPROVEMENTS.
- 5. REPLACE OR REPAIR EXISTING UTILITIES, IMPROVEMENTS OR FEATURES DAMAGED, REMOVED, OR DISTURBED BY CONSTRUCTION TO THEIR ORIGINAL CONDITION, WHETHER SHOWN ON PLANS OR NOT.
- 6. REPLACE STREET MONUMENTS, LOT CORNERS PIPES AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION. MONUMENTS SHALL BE SET BY A SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- PREPARE TRAFFIC CONTROL PLAN AND OBTAIN APPROVAL FROM COUNTY ENGINEER BEFORE COMMENCING WORK. PROVIDE FLAG MEN, CONES, BARRICADES AND OTHER TRAFFIC CONTROL MEASURES NECESSARY TO PROVIDE SAFE LANE CLOSURE IN

CONFORMANCE WITH CALTRANS STANDARDS AND AS APPROVED BY COUNTY

- 8. PEDESTRIAN TRAFFIC CONTROL TO BE PROVIDED WHEN EXISTING SIDEWALKS CANNOT BE MAINTAINED DURING CONSTRUCTION.
- 9. DO NOT LEAVE TRENCHES OPEN OVERNIGHT IN EXISTING STREET AREAS. BACKFILL OR COVER OPEN TRENCHES AT THE END OF WORK EVERY WORK DAY.
- 10. PREPARE SHORING PLAN AND SUBMIT TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL. ADEQUATELY SHORE EXCAVATIONS TO PREVENT EARTH FROM SLIDING OR SETTLING AND TO PROTECT EXISTING ADJACENT IMPROVEMENTS FROM DAMAGE. DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE SHORING IN CONFORMANCE WITH APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND OSHA WHERE EXCAVATIONS ARE 5 FEET OR MORE IN
- 11. IMPLEMENT CONSTRUCTION DUST CONTROL MEASURES TO REDUCE PARTICULATE GENERATION TO A LESS THAN SIGNIFICANT LEVEL. PROVIDE DUST CONTROL IN CONFORMANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT MINIMUM REQUIREMENTS. IMPLEMENT THE FOLLOWING CONSTRUCTION PRACTICES EXCEPT WHEN IT IS RAINING.
- 11.A. WATER ACTIVE EXTERIOR SOIL AREAS AT LEAST TWICE DAILY.
- 11.B. COVER TRUCKS HAULING SOIL, SAND AND OTHER LOOSE MATERIAL OR PROVIDE 2 FEET OF FREEBOARD.
- 11.C. PAVE, APPLY WATER THREE TIMES DAILY OR APPLY NON-TOXIC SOIL STABILIZER ON UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING
- 11.D. SWEEP PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS DAILY.
- 11.E. APPLY HYDROSEED OR NON-TOXIC SOIL STABILIZER TO INACTIVE CONSTRUCTION AREAS.
- 11.F. ENCLOSE, COVER, WATER TWICE DAILY OR APPLY NON-TOXIC SOIL STABILIZER TO EXPOSED SOIL STOCKPILES.
- 11.G. INSTALL SANDBAGS AND OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 11.H. LIMIT TRAFFIC SPEED ON UNPAVED ROADS TO 15 MPH.
- 11.I. REPLANT VEGETATION IN DISTURBED AREAS AS QUICKLY AS POSSIBLE.
- 12. KEEP STREETS CLEAN OF DIRT, MUD AND OTHER CONSTRUCTION DEBRIS. CLEAN AND SWEEP STREETS ON A DAILY BASIS DURING THE WORK WEEK.
- 13. SHOULD IT APPEAR THAT THE WORK IS NOT SUFFICIENTLY DETAILED OR SPECIFIED IN CONSTRUCTION DOCUMENTS, NOTIFY ENGINEER AND OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK IN QUESTION.
- 14. CONSTRUCTION STAKING SHALL BE DONE BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- 15. IF BKF ENGINEERS IS RETAINED TO PROVIDE CONSTRUCTION STAKING SERVICES, CONTRACTOR WILL BE PROVIDED WITH ONE SET OF SURVEY STAKES FOR LAYOUT PURPOSES. PRESERVE AND PROTECT THESE STAKES UNTIL THEY ARE NO LONGER NEEDED. RESTAKING SHALL BE AT CONTRACTOR'S EXPENSE.
- 16. MATCH EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK, ADJACENT LANDSCAPE AND OTHER IMPROVEMENTS WITH SMOOTH TRANSITION TO AVOID ABRUPT OR APPARENT CHANGES IN GRADES, CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 17. VISIT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND OVERALL PROJECT REQUIREMENT PRIOR TO BIDDING PROJECT.
- 18. OBTAIN AND PAY FOR PERMITS AND LICENSES AS REQUIRED TO PERFORM WORK WITHIN THE COUNTY OF SAN MATEO PRIOR TO START OF WORK, PERMITS MAY INCLUDE ENCROACHMENT PERMIT FOR WORK WITHIN COUNTY RIGHT-OF-WAY AND GRADING/UTILITY PERMIT.
- 19. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC AND PEDESTRIAN CONTROL DURING CONSTRUCTION.
- 20. OBTAIN APPROVAL OF IMPORT SOIL MATERIAL FROM GEOTECHNICAL ENGINEER PRIOR TO DISTRIBUTING MATERIAL OVER SITE.
- 21. PROTECT ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES FROM DAMAGE BY CONTRACTOR'S OPERATIONS. REPAIR, REPLACE OR CLEAN ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES TO SATISFACTION OF OWNER.
- 22. MAINTAIN AND MANAGE CONSTRUCTION MATERIALS, EQUIPMENT AND VEHICLES AT THE CONSTRUCTION SITE.
- 23. NOTIFY COUNTY ENGINEER A MINIMUM OF 24 HOURS PRIOR TO STARTING WORK ON OFF-SITE DRAINAGE AND SEWER FACILITIES, GRADING, PAVING, OR WORK IN THE COUNTY RIGHT-OF-WAY.
- 24. MAKE EFFORTS TO MINIMIZE CONSTRUCTION NOISE.

- 24.A. MAINTAIN EQUIPMENT USED ON SITE IN GOOD MECHANICAL CONDITION TO MINIMIZE NOISE CREATED BY FAULTY OR POORLY MAINTAINED ENGINE, DRIVE-TRAIN AND OTHER COMPONENTS.
- 24.B. EQUIPMENT EXCEEDING 110 DBA MEASURED 25 FEET FROM THE PIECE OF EQUIPMENT WILL NOT BE ALLOWED ON SITE.
- 24.C. SELECT APPROPRIATE EQUIPMENT TO MINIMIZE NOISE GENERATION. USE THE FOLLOWING TECHNIQUES TO MINIMIZE NOISE GENERATION SUBJECT TO EQUIPMENT AVAILABILITY AND COST CONSIDERATIONS. USE SCRAPERS AS MUCH AS POSSIBLE FOR EARTH REMOVAL, RATHER THAN NOISIER LOADERS AND HAUL TRUCKS. USE BACKHOES FOR BACKFILLING AS IT IS QUIETER THAN DOZERS OR LOADERS. USE MOTOR GRADERS RATHER THAN BULLDOZERS FOR FINAL GRADING.

## II. EXISTING CONDITIONS

- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED UPON A FIELD TOPOGRAPHIC SURVEY OF THE PROJECT SITE BY BKF ENGINEERS, DATED JUNE 2009. ACTUAL CONDITIONS ENCOUNTERED ON SITE MAY VARY FROM THOSE SHOWN ON THE PLANS. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND CONDUCT THEIR OWN INVESTIGATIONS TO UNDERSTAND AND VERIFY EXISTING CONDITIONS AT THE SITE.
- 2. EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM RECORD INFORMATION KNOWN TO THE ENGINEER AND FIELD SURVEY OF ABOVE GRADE FEATURES. THESE PLANS ARE NOT MEANT TO BE A FULL CATALOG OF EXISTING SUBSURFACE CONDITIONS. CONDUCT FIELD INVESTIGATION TO VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES, WHETHER SHOWN ON PLANS OR NOT, PRIOR TO START OF EXCAVATION. IF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS ARE DISCOVERED, NOTIFY ENGINEER IMMEDIATELY AND REQUEST DISCREPANCY BE RESOLVED.
- VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AFFECTING UTILITIES. POTHOLE WHERE NEEDED TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES.
- 4. CONTACT USA (UNDERGROUND SERVICES ALERT) AT 1-800-227-2600, AND AFFECTED UTILITY COMPANIES A MINIMUM OF 2 WORKING DAYS PRIOR TO STARTING WORK TO REQUEST UTILITIES BE MARKED.

# III. DEMOLITION

- REMOVE FROM SITE AND DISPOSE OF IN LAWFUL MANNER EXISTING STRUCTURES, UTILITIES, AND OTHER FEATURES NOT REMOVED DURING DEMOLITION OR ROUGH GRADING AND ENCOUNTERED DURING WORK ON SITE.
- 1.A. REMOVE WOOD OR CONCRETE STRUCTURES, SLABS, FOOTINGS, GRADE BEAMS. DECKS, DOCKS, AND OTHER SIMILAR STRUCTURES.
- REMOVE LANDSCAPING, UTILITIES AND IRRIGATION LINES AS SPECIFIED BY GEOTECHNICAL ENGINEER.
- REMOVE ABANDONED IN-GROUND STRUCTURES, SUCH AS CULVERTS, UTILITY VAULTS, AND FOUNDATIONS AS SPECIFIED BY GEOTECHNICAL ENGINEER.

# IV. DEWATERING

- 1. DEWATER AREAS COVERED WITH STANDING WATER PRIOR TO PLACEMENT OF FILL.
- 2. DISPOSE OF WATER FROM DEWATERING OPERATION IN CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

# v. Utilities

- 1. DO NOT OPERATE WATER VALVES OR OTHER WATER DISTRICT FACILITIES. REQUIRED 10. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO OPERATION WILL BE PERFORMED BY UTILITY DISTRICT PERSONNEL ONLY. NOTIFY UTILITY DISTRICT 2 WORKING DAYS PRIOR TO REQUIRING FACILITY OPERATION.
- 2. PROVIDE MINIMUM 12 INCH VERTICAL CLEARANCE BETWEEN ADJACENT UTILITY PIPES 11. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR. AT UTILITY CROSSINGS UNLESS OTHERWISE NOTED.
- 3. COMPLETE ELECTRIC, GAS, TELEPHONE. CABLE AND OTHER JOINT TRENCH WORK IN CONFORMANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY PROVIDER. NOTIFY UTILITY PROVIDER MINIMUM 2 WORKING DAYS PRIOR TO COMMENCING WORK. IF EXISTING WATER, SEWER, GAS OR OTHER UTILITY SERVICES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, NOTIFY UTILITY OWNER IMMEDIATELY.
- 4. PROTECT UTILITIES FROM DAMAGE CAUSED BY CONTRACTOR'S WORK.
- 5. PROVIDE UTILITY STRUCTURES IN PAVED AREAS SUITABLE FOR H-20 LOADING.
- 6. PIPE LENGTHS SHOWN ON PLANS ARE FOR ENGINEERING CALCULATIONS ONLY AND ARE NOT INTENDED AS BID QUANTITIES OR FOR ORDERING MATERIALS.
- CONSTRUCT GRAVITY FLOW UTILITIES FROM DOWNSTREAM CONNECTION POINT TO UPSTREAM TERMINUS.
- 8. COORDINATE WITH COUNTY OF SAN MATEO AND CRYSTAL SPRINGS SANITATION DISTRICT FOR INSPECTION OF WORK ON DISTRICT FACILITIES.
- 9. ALL WATER LATERALS AND SERVICES SHALL BE INSTALLED TO THE STANDARDS OF THE CALIFORNIA WATER SERVICE COMPANY. EXISTING WATER MAINS OR LATERALS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND TESTED TO THE SATISFACTION OF THE WATER COMPANY.

# VI. EARTHWORK AND GRADING

- OFF-SITE IMPORT FILL MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
- 2. TOPSOIL, ROOTS, VEGETABLE MATTER, TRASH AND DEBRIS WILL NOT BE CONSIDERED ACCEPTABLE FILL MATERIAL.
- 3. REMOVE DEBRIS FROM AREAS OF EARTHWORK PRIOR TO PLACING FILL OR STARTING GRADING OPERATIONS.
- 4. PLACE AND COMPACT FILL MATERIAL AS RECOMMENDED IN GEOTECHNICAL REPORT. PLACE FILL MATERIAL IN MAXIMUM 8 INCH UNCOMPACTED THICKNESS. COMPACTION BY FLOODING, PONDING OR JETTING WILL NOT BE PERMITTED.
- 5. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES.

# VII RECORD DRAWINGS

1. KEEP ACCURATE RECORD OF THE FINAL LOCATION, ELEVATION AND DESCRIPTION OF WORK ON A COPY OF THE FINAL APPROVED CONSTRUCTION DOCUMENTS. NOTE THE LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS ENCOUNTERED THAT VARY FROM THE LOCATIONS SHOWN ON THE IMPROVEMENT PLANS. PROVIDE COPY OF RECORD INFORMATION TO OWNER AT COMPLETION OF PROJECT AND WHEN REQUESTED.

# VII. STATEMENT OF RESPONSIBILITY

 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD BOTH DESIGN PROFESSIONAL AND THE COUNTY OF SAN MATEO HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF EITHER THE DESIGN PROFESSIONAL OR THE COUNTY OF SAN MATEO, RESPECTIVELY.

### IX. UNAUTHORIZED CHANGES AND USES

1. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND REQUIRE WRITTEN APPROVAL OF THE COUNTY ENGINEER AND THE PREPARER OF THESE PLANS.

# X. DRAWING LANGUAGE

 NOTES AND CALLOUTS ON DRAWINGS MAY USE IMPERATIVE LANGUAGE. REQUIREMENTS EXPRESSED IMPERATIVELY ARE TO BE PERFORMED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

### CONDITIONS OF APPROVAL NOTES

## CONSTRUCTION NOTES

- THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 5. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 6. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 7. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 8. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 9. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 12. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 13. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 14. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 15. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS. 16. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS

# GUSTS) EXCEEDS 25 MILES PER HOUR.

- NOISE NOTES 1. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN
- 2. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.

ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.

- 3. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS.
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING, PRIOR TO CONSTRUCTION; THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDINATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE; THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED: A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUCTION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

### **ASBESTOS NOTES**

- 1. IF NATURALLY OCCURRING ASBESTOS IS IDENTIFIED AT THE SITE, A SITE HEALTH AND SAFETY (H&S) PLAN INCLUDING METHODS FOR CONTROL OF AIRBORNE DUST SHALL BE PREPARED. THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE COUNTY OF SAN MATEO PRIOR TO GRADING IN AREAS UNDERLAIN BY SERPENTINE-BEARING SOILS OR BEDROCK AND NATURALLY OCCURRING ASBESTOS. THE H&S PLAN SHALL STRICTLY CONTROL DUST-GENERATING EXCAVATION AND COMPACTION OF MATERIAL CONTAINING NATURALLY OCCURRING ASBESTOS. THE PLAN SHALL ALSO IDENTIFY SITE-MONITORING ACTIVITIES DEEMED NECESSARY DURING CONSTRUCTION (E.G., AIR MONITORING). WORKER MONITORING SHALL ALSO BE PERFORMED AS APPROPRIATE. THE PLAN SHALL DEFINE PERSONAL PROTECTION METHODS TO BE USED BY CONSTRUCTION WORKERS. ALL WORKER PROTECTION AND MONITORING SHALL COMPLY WITH PROVISIONS OF THE MINING SAFETY AND HEALTH ADMINISTRATION (MSHA) GUIDELINES, CALIFORNIA DIVISION OF OCCUPA-TIONAL SAFETY AND HEALTH (DOSH), AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 2. IF NATURALLY OCCURRING ASBESTOS IS FOUND AT THE SITE, A SOIL MANAGEMENT PLAN SHALL BE DEVELOPED AND APPROVED BY THE COUNTY PLANNING DEPARTMENT TO PROVIDE DETAILED DESCRIPTIONS OF THE CONTROL AND DISPOSITION OF SOILS CONTAINING NATURALLY OCCURRING ASBESTOS. SERPENTINE MATERIAL PLACED AS FILL SHALL BE SUFFICIENTLY BURIED IN ORDER TO PREVENT EROSION BY WIND OR SURFACE WATER RUNOFF, OR EXPOSURE TO FUTURE HUMAN ACTIVITIES, SUCH AS LANDSCAPING OR SHALLOW TRENCHES. ADDITIONALLY, THE BAAQMD SHALL BE NOTIFIED PRIOR TO THE START OF ANY EXCAVATION IN AREAS CONTAINING NATURALLY OCCURRING ASBESTOS.

### **GRADING NOTES**

1. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 15 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED. IN WRITING. BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.

### TREE PROTECTION NOTES

THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS. SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A SAW OR TOPPERS. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL TIMES.

# VEGETATION REMOVAL/REPLACEMENT NOTES

- VEGETATION REMOVED IN AREAS OUTSIDE OF BUILDING FOOTPRINTS, DRIVEWAYS, AND CONSTRUCTION ACCESS AREAS SHALL BE REPLACED WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, IMMEDIATELY AFTER GRADING IS COMPLETE IN THAT AREA. PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION TO THE CURRENT PLANNING SECTION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.
- 2. THE APPLICANT SHALL REPLACE ALL VEGETATION REMOVED IN ALL AREAS NOT COVERED BY CONSTRUCTION WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, ONCE CONSTRUCTION IS COMPLETED. PRIOR TO THE CURRENT PLANNING SECTION'S FINAL APPROVAL OF ANY BUILDING PERMIT, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.

# DUST CONTROL NOTES

- 1. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED. TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 2. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION. AND THE

# REGIONAL WATER QUALITY CONTROL BOARD. DISCOVERY OF HUMAN REMAINS NOTE

1. THE APPLICANT AND CONTRACTORS MUST BE PREPARED TO CARRY OUT THE REQUIREMENTS OF CALIFORNIA STATE LAW WITH REGARD TO THE DISCOVERY OF HUMAN REMAINS DURING CONSTRUCTION, WHETHER HISTORIC OR PREHISTORIC. IN THE EVENT THAT ANY HUMAN REMAINS ARE ENCOUNTERED DURING SITE DISTURBANCE, ALL GROUND-DISTURBING WORK SHALL CEASE IMMEDIATELY AND THE COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY. IF THE CORONER DETERMINES THE REMAINS TO BE NATIVE AMERICAN, THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED WITHIN 24 HOURS. A QUALIFIED ARCHAEOLOGIST, IN CONSULTATION WITH THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL RECOMMEND SUBSEQUENT MEASURES FOR DISPOSITION OF THE REMAINS.

# GEOTECHNICAL INSPECTION NOTE

PRIOR TO ISSUANCE OF BUILDING PERMITS, THE PROJECT GEOTECHNICAL CONSULTANT SHALL FIELD INSPECT (AND INVESTIGATE, AS NEEDED) ALL PROPOSED DRAINAGE DISCHARGE LOCATIONS AND VERIFY THAT PROPOSED DRAINAGE DESIGNS ARE ACCEPTABLE FROM A SLOPE STABILITY/EROSION PERSPECTIVE OR RECOMMEND APPROPRIATE MODIFICATIONS.

# MITIGATION AQ-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING BAAQMD RECOMMENDED AND ADDITIONAL PM10 REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS: THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT). WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 2. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT. OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.

- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 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 THE CONSTRUCTION SITES.
- 4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 8. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 9. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 10. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE
- 11. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 12. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 13. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.

# MITIGATION NOI-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING NOISE REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS:
- 2. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 3. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAUL- ICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 4. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING. PRIOR TO CONSTRUCTION: THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDI- NATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE: THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED; A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUC-TION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS

ADJACENT TO THE SITE.

THE PROJECT BENCHMARK IS THE TOP OF AN IRON PIPE, ELEVATION OF 538.23, LOCATED WITHIN A MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINES OF COBBLEHILL PLACE AND NEW BRUNSWICK DRIVE IN SAN MATEO, CALIFORNIA. THE ELEVATION SHOWN IN BASED UPON A SURVEY BY BKF ENGINEERS IN MARCH OF 2011 AND IS BASED UPON AN ASSUMED ELEVATION.

# **BASIS OF BEARINGS:**

THE BEARING NORTH 76° 09' 00" EAST OF THE CENTERLINE OF COBBLE HILL PLACE AS SHOWN ON TRACT MAP NO. 723. THE HIGHLANDS, RECORDED ON AUGUST 26TH, 1955, IN VOLUME 43 OF MAPS AT PAGES 23-25, SAN MATEO COUNTY RECORDS.

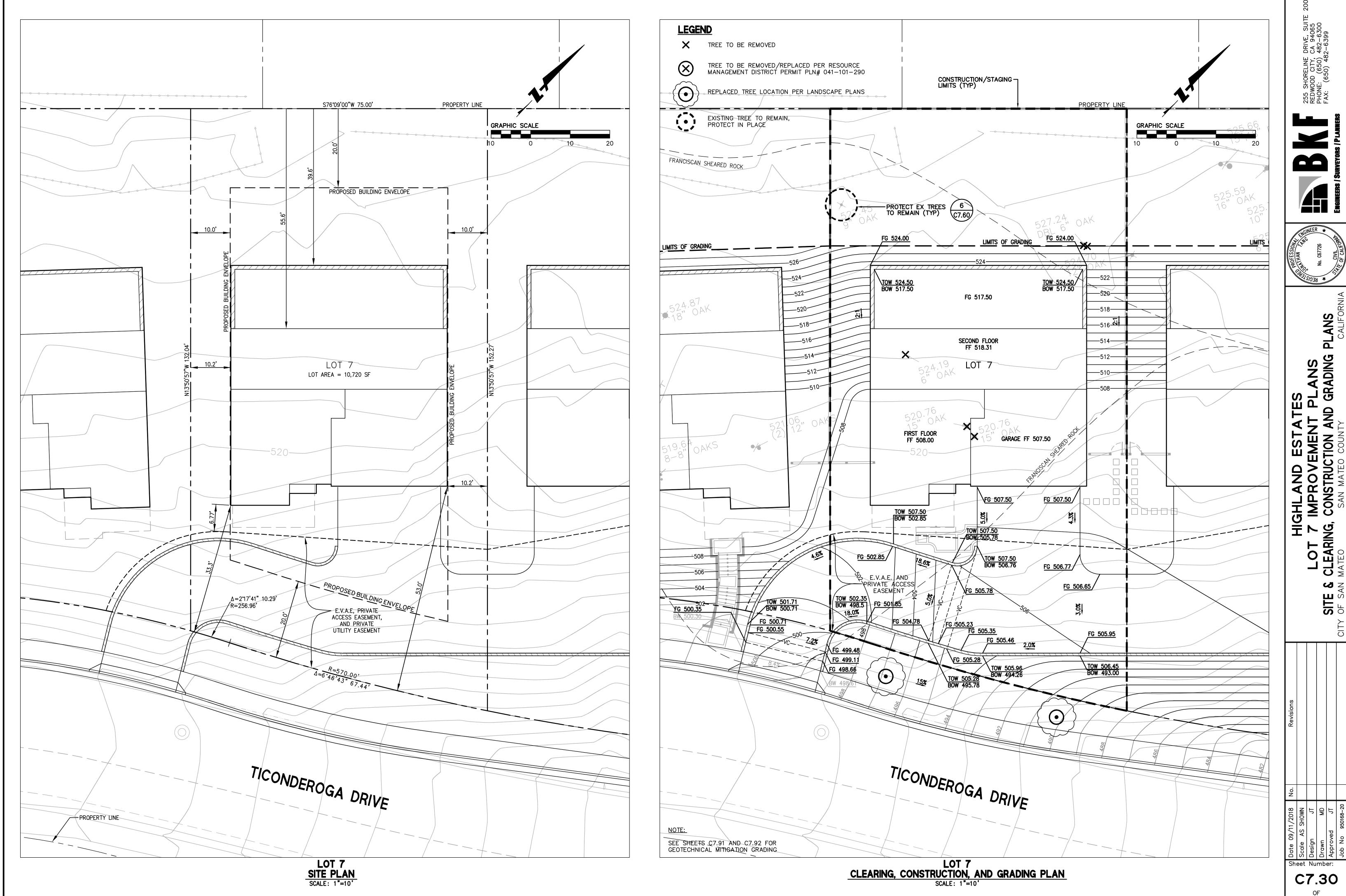


Call before you dig.

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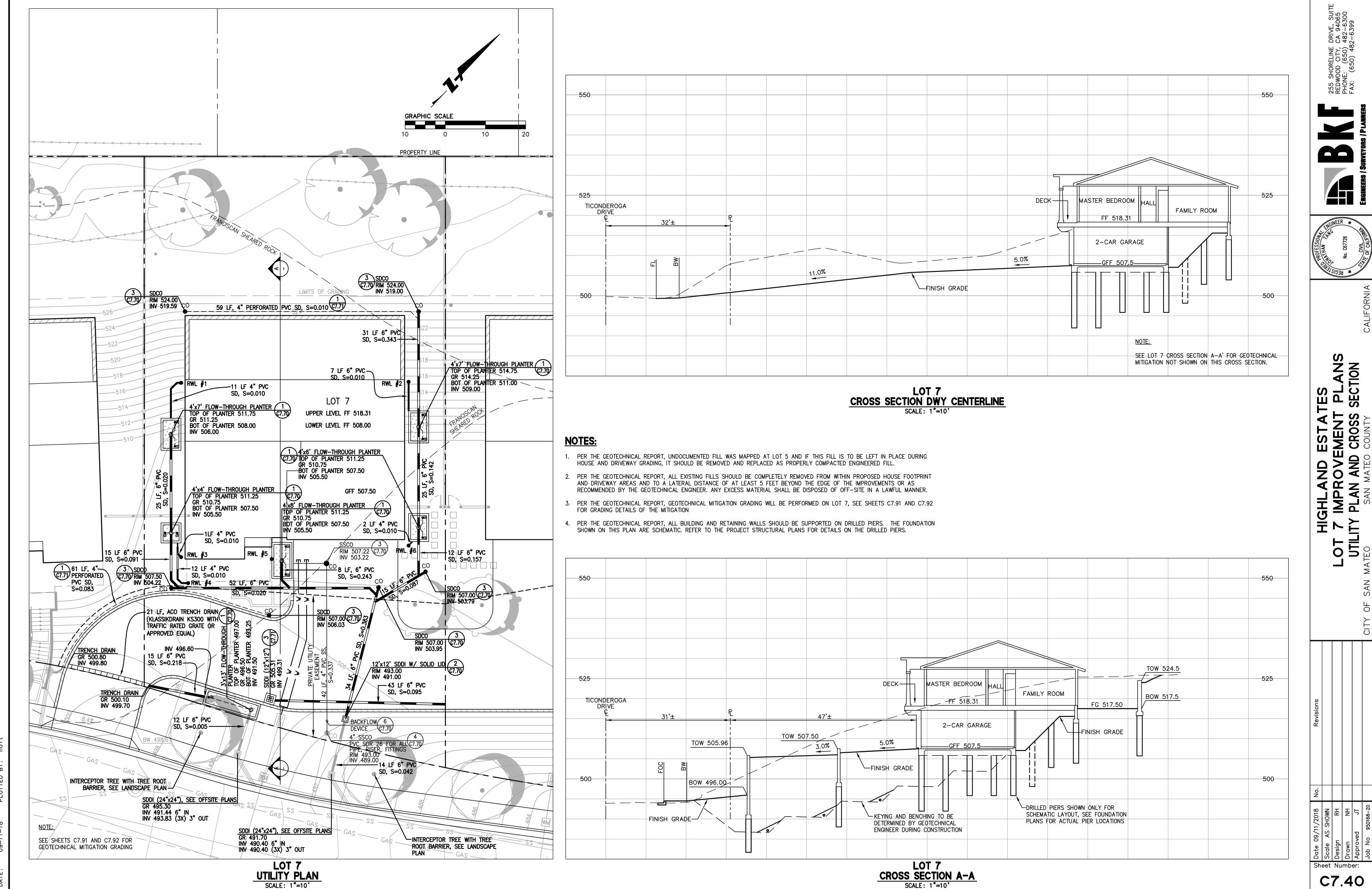
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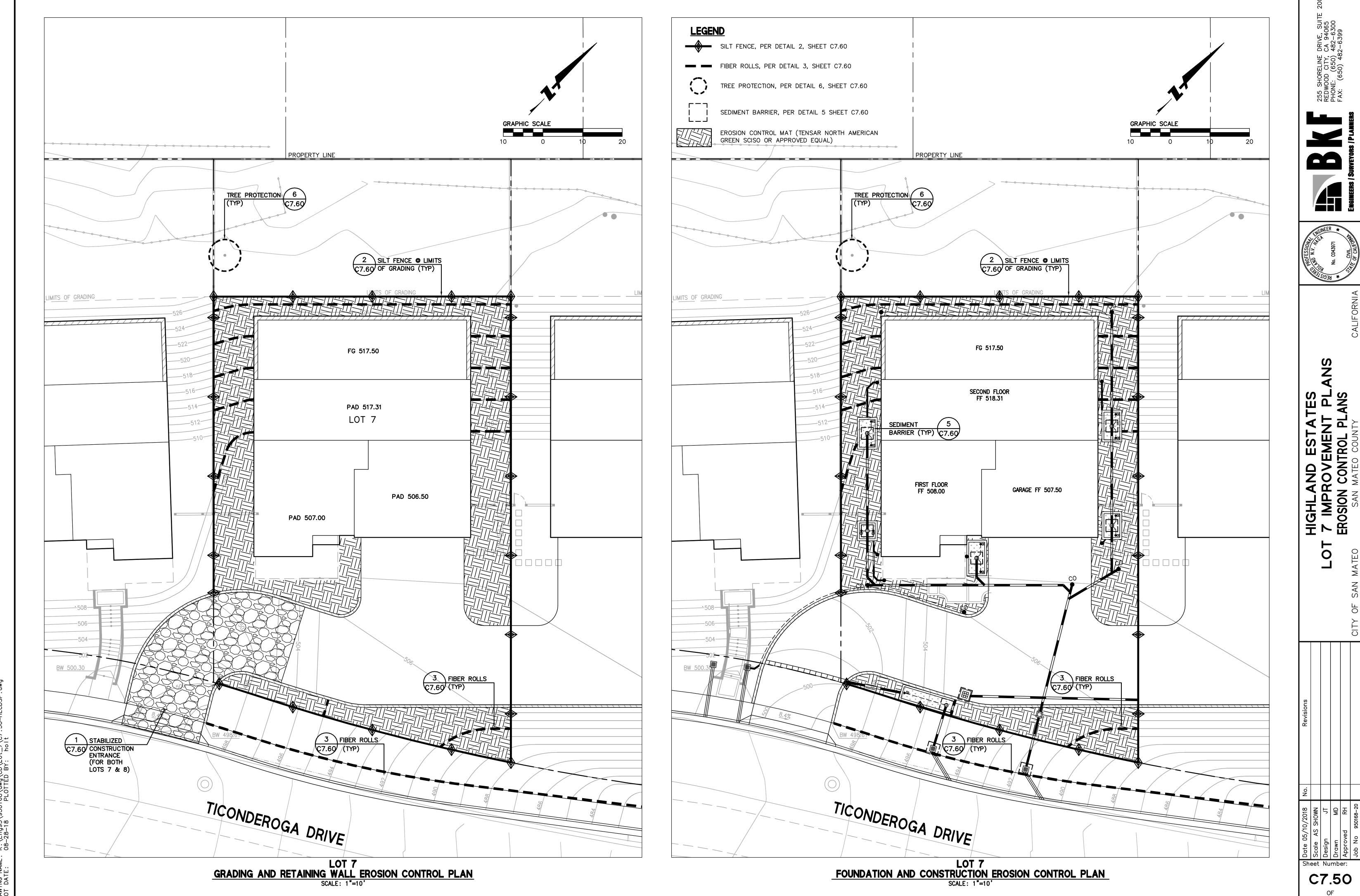


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- THE INTENT OF THESE PLANS IS TO PROVIDE THE INITIAL CONCEPT FOR INTERIM EROSION CONTROL. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
- 5. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROAD CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- 6. BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR AROUND.
- DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
- 8. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- 9. THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 10. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 11. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 12. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 13. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 14. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 15. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 16. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 17. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- 18. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED UNLESS ALTERNATIVE MEASURES ARE USED.
- 19. SEED MIX FOR REVEGETATION AND HYDROSEEDING:

NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL

- 30% BLUE WILDRYE 30% MEADOW BARLEY
- 10% PURPLE NEEDLE GRASS 10% CALIFORNIA NATIVE WILDFLOWERS

20% ZORRO FESCUE

- APPLY AT 40 POUNDS PER ACRE MINIMUM
- 20. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 21. DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
- 22. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 23. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 24. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 25. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 26. INSTALL WND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 27. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
- 28. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 1 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED, IN WRITING, BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.
- 29. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF STRAW BALES OR COIR NETTING, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND REVEGETATING DISTURBED AREAS WITH VEGETATION THAT IS COMPATIBLE WITH THE SURROUNDING ENVIRONMENT.
- 30. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST THROUGH APRIL 30TH AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

- CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
- USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAINING ALL NECESSARY PERMITS.
- 33. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED.
- DELINEATE WITH FIELD MARKERS CLEARING LIMITS, SETBACKS, AND DRAINAGE

COURSES.

- 35. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- 36. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
- 37. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
- 38. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
- 39. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST. OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 40. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION, AND THE REGIONAL WATER QUALITY CONTROL BOARD.
- 41. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
- 42. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
- STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE
- HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS, EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
- 45. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
- 46. EROSION CONTROL POINT OF CONTACT: NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: 650-322-5800 CELL #: 650-444-3089 EMAIL: noel@nexgenbuilders.com
- SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- 48. AREAS DELINEATED ON PLANS FOR PARKING, CLEARING & GRUBBING, STORAGE, ETC. SHALL NOT BE ENLARGED OR "RUN OVER."
- 49. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS
- 50. DUST CONTROL IS REQUIRED YEAR-ROUND.

ON-SITE DURING THE "OFF-SEASON."

- 51. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
- 52. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.
- 53. TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

## WIDTH AS REQUIRED TO **ACCOMMODATE** ANTICIPATED TRAFFIC EXISTING PAVED ROADWAY -4"-6" CRUSHED AGGREGATE MINIMUM 12" THICK MATCH -50' MINIMUM EXISTING OR FOUR TIMES THE CIRCUMFERENCE OF THE LARGEST CONSTRUCTION GRADE VEHICLE TIRE, WHICHEVER IS GREATER <u>PLAN</u> 4"-6" CRUSHED **AGGREGATE** 12" MIN.--GEO-TEXTILE FABRIC

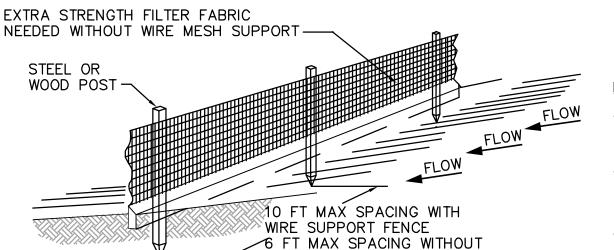
1. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY.

SECTION A-A

NTS

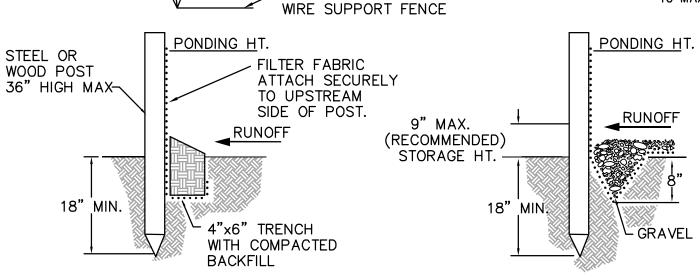
- 2. WHEELS SHALL BE CLEAN PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN. DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
- 3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 4" TO 6" STONE.
- 4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12".
- 5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- 6. THE LENGTH OF THE PAD SHALL NOT BE LESS THAN 50'

# STABILIZED CONSTRUCTION ENTRANCE



INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. REMOVED SEDIMENT SHALL BE DEPOSITED

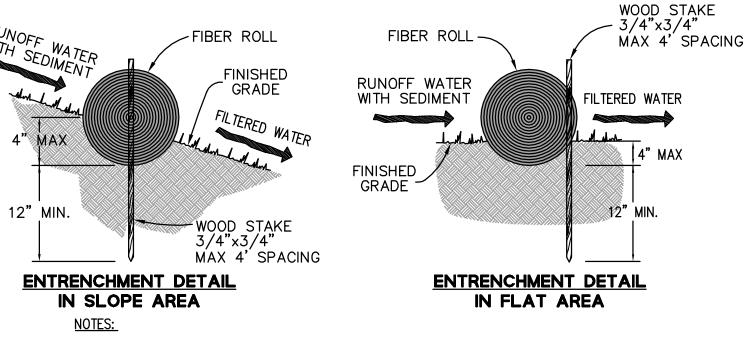
TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTI Y STABILIZED. 3. SILT FENCE SHALL BE PLACED ON SLOPE TO MAXIMIZE PONDING EFFICIENCY.



# STANDARD DETAIL TRENCH WITH NATIVE BACKFILL

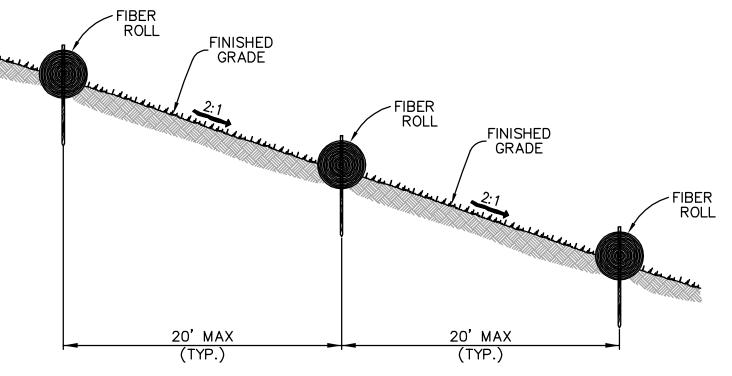
**ALTERNATE DETAIL** TRENCH WITH GRAVEL



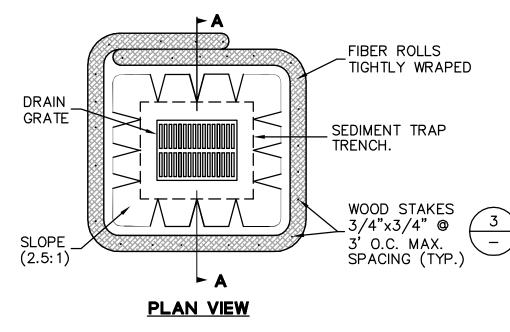


- FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH. 3" TO 4" DEEP. DUG ON CONTOUR.
- RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.



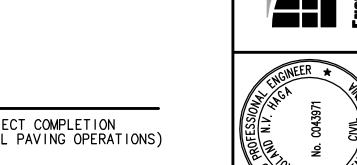


FIBER ROLL INSTALLATION ON SLOPE TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)



- PONDING HEIGHT STRAW FIBER ROLLS EMBED FIBER ROLL 3"-4" INTO SOIL. PROVIDE 1' WIDE BY 6 -DEEP SEDIMENT TRAP

- 1. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX. 8" DIA. AND 20 - 30 FT. LONG.)
- FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3" - 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
- 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.



1. THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.

4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE.

FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS.

NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED.

7. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL

# CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) STANDARD DETAIL REFERENCES

(CALIFORNIA STORMWATER BMP HANDBOOK CONSTRUCTION, DATED NOVEMBER 2009) NOTE: ALTHOUGH SPECIFIC LOCATIONS FOR SPECIFIC BMPS ARE SHOWN ON THESE PLANS, IT IS INTENDED FOR THE CONTRACTOR TO APPLY APPROPRIATE BMPS WHEN NECESSARY

- GEOTEXTILES & MATS
- WOOD MULCHING
- EC-11 SLOPE DRAINS
- EC-14 COMPOST BLANKETS
- EC-16 NON-VEGETATIVE STABILIZATION

# TEMPORARY SEDIMENT CONTROL BMPS:

- SE-2 SEDIMENT BASIN
- FIBER ROLLS
- SANDBAG BARRIER SE-8
- SE-9 STRAW BALE BARRIER
- SE-11 ACTIVE TREATMENT SYSTEMS
- SE-12 TEMPORARY SILT DIKE

# WIND EROSION CONTROL BMPS:

WIND EROSION CONTROL

SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS

5. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A

6. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS

TREE PROTECTION FENCE NTS

TO MEET FIELD CONDITIONS.

- SCHEDULING PRESERVATION OF EXISTING VEGETATION HYDRAULIC MULCH
- EARTH DIKES AND DRAINAGE SWALES
- EC-12 STREAMBANK STABILIZATION

- SILT FENCE SE-1
- SE-3SE-4 CHECK DAM SE-5
- STREET SWEEPING AND VACUUMING SE-7
- SE-10 STORM DRAIN INLET PROTECTION
- SE-13 COMPOST SOCKS AND BERMS SE-14 BIOFILTER BAGS

# TEMPORARY TRACKING CONTROL BMPS:

TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT TC-2 STABILIZED CONSTRUCTION ROADWAY

# NON-STORMWATER MANAGEMENT BMPS:

TC-3 ENTRANCE/OUTLET TIRE WASH

- WATER CONSERVATION PRACTICES DEWATERING OPERATIONS
- PAVING AND GRINDING OPERATIONS TEMPORARY STREAM CROSSING CLEAR WATER DIVERSION
- NS-6 ILLICIT CONNECTION/DISCHARGE NS-7 POTABLE WATER/IRRIGATION VEHICLE AND EQUIPMENT CLEANING
- VEHICLE AND EQUIPMENT FUELING NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
- NS-11 PILE DRIVING OPERATIONS NS-12 CONCRETE CURING NS-13 CONCRETE FINISHING
- NS-14 MATERIAL AND EQUIPMENT USE NS-15 DEMOLITION ADJACENT TO WATER NS-16 TEMPORARY BATCH PLANTS
- WASTE MANAGEMENT & MATERIALS POLLUTION CONTROL BMPS:
- MATERIAL DELIVERY AND STORAGE MATERIAL USE STOCKPILE MANAGEMENT
- SPILL PREVENTION AND CONTROL SOLID WASTE MANAGEMENT
- HAZARDOUS WASTE MANAGEMENT CONTAMINATED SOIL MANAGEMENT WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY/SEPTIC WASTE MANAGEMENT WM-10 LIQUID WASTE MANAGEMENT

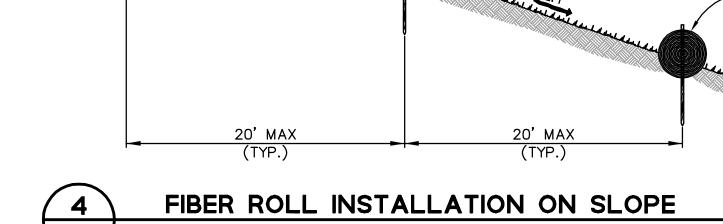
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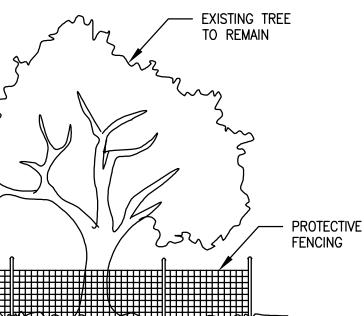
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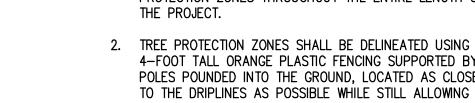


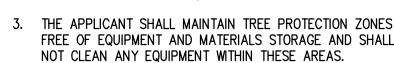
2. ADJACENT ROLLS SHALL TIGHTLY ABUT.



SECTION A-A TRENCH AROUND INLET SEDIMENT BARRIER 5 (TIME FRAME: AREA DRAINS — BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION CURB INLETS - BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)







SHOULD NOT NEED SUMMER IRRIGATION.

DRIPLINE

(PROTECTED ROOT ZONE)

TREE PROTECTION FENCE

# **EROSION CONTROL BMPS:**

EC-4 HYDROSEEDING EC-5 SOIL BINDERS STRAW MULCH

EC-10 VELOCITY DISSIPATION DEVICES

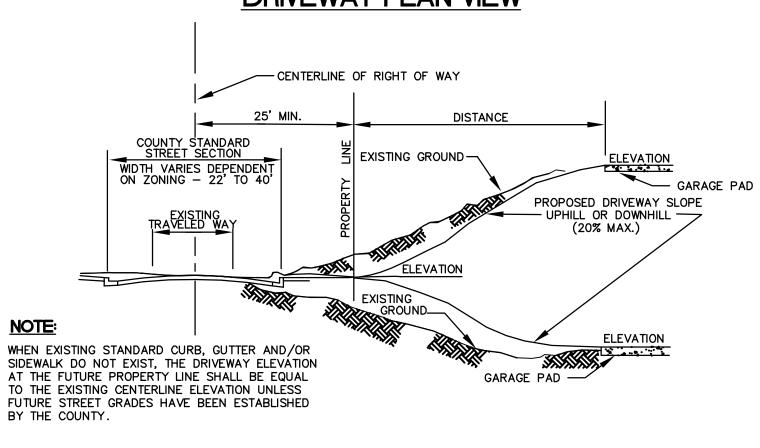
# EC-15 SOIL PREPARATION/ROUGHENING

- SEDIMENT TRAP
- GRAVEL BAG BERM SE-6

Sheet Number: C7.60 OF

SAN MATEO COUNTY DEPARTMENT DRAWN BY: N.M.A. SCALE: NONE PUBLIC WORKS CHECK BY: \_\_\_\_\_J.A.L. DATE: <u>6/95</u> APPROVED BY: N.R.C. REVISED: \_\_\_\_\_ REDWOOD CITY CALIFORNIA CENTERLINE OF RIGHT OF WAY

CONTOUR INTERVALS **DRIVEWAY PLAN VIEW** 



**DRIVEWAY PROFILE VIEW** 

D-7

OVERFLOW AND BACKFLOW DEVICE DETAIL

SAN MATEO COUNTY DEPARTMENT

OF

PUBLIC WORKS

REDWOOD CITY

CALIFORNIA

NON-PERFORATED

REMOVE STANDARD -

FINISH GRADE

VALVE OPENS TO A ALLOW

WASTE WATER TO FLOW

VALVE CLOSES BY ITS

OWN WEIGHT TO PREVENT

WASTEWATER FROM FLOWING

BACK TO HOUSE LATERAL.

INTO SEWER MAIN;

CLEANOUT PLUG

BACKWATER

OVERFLOW DEVICE

- HINGE POINT

TO SEWER MAIN

BACKFLOW DEVICE

OVERFLOW

TO BUILDING

DATE: <u>6/95</u>

REVISED: \_\_\_\_\_

ALUMINUM CONE

~ 3" OR 3-1/2" N.P.T.

OR PLAIN END

NOTE: LOCATION OF DEVICE TO APPROVAL OF

NOTE: LOCATION OF DEVICE APPROVAL OF

ISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION

DISTRICT AND BUILDING

DEPARTMENT PRIOR

TO INSTALLATION

DRAWN BY: N.M.A.

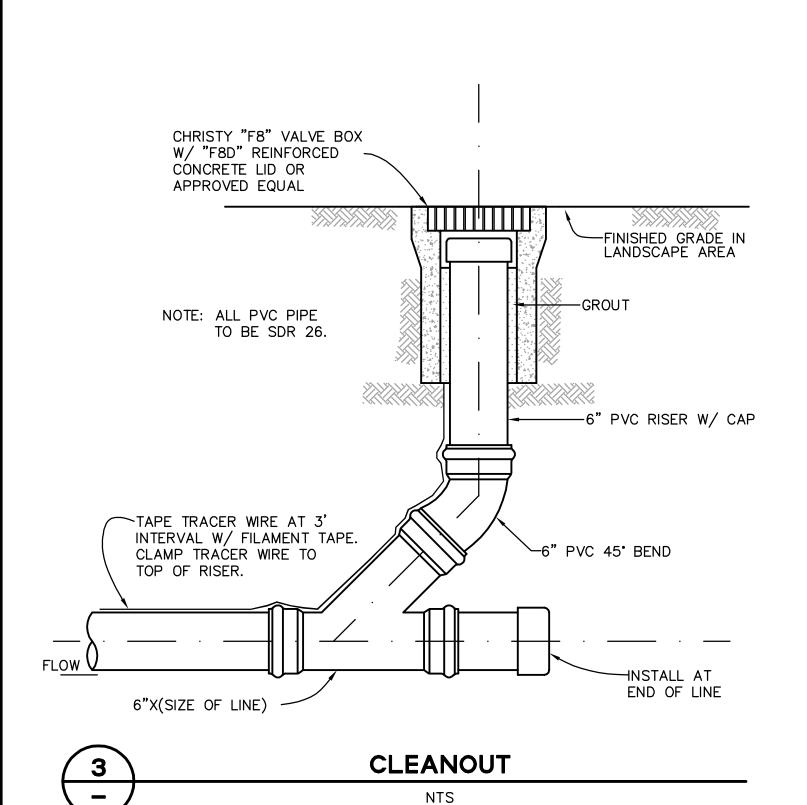
APPROVED BY: N.R.C.

CHECK BY:

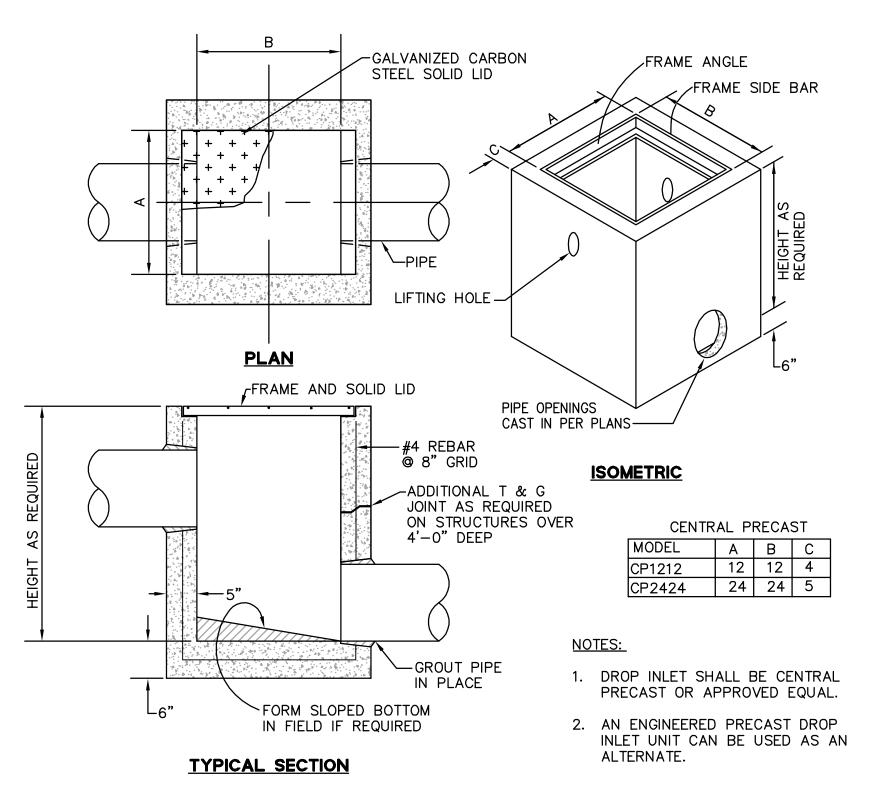
UPSTREAM

STRUCTURE -

SAN MATEO COUNTY OVERFLOW AND BACKFLOW DEVICE DETAIL



# SAN MATEO COUNTY DRIVEWAY PLAN AND PROFILE VIEWS



DROP INLET NTS

# SAN MATEO COUNTY TYPICAL SEWER CLEANOUT & BOX DETAIL

2. BOX TO BE PLACED SUCH THAT CLEANOUT CAP CAN BE EASILY REMOVED, SEE ILLUSTRATION.

CONSTRUCTION OF A STANDARD CLEANOUT REQUIRES MULTIPLE INSPECTIONS BY DISTRICT PERSONEL:

2. SECOND INSPECTION - TO INSPECT PLACEMENT OF BOX, LID AND LOCATION OF CLEANOUT WITHIN BOX

1. FIRST INSPECTION - TO INSPECT WYE AND RISER, WYE AND RISER MUST BE EXPOSED.

3. PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING LATERAL FROM THE PROPERTY STRUCTURE TO DISTRICT

MAIN. DISTRICT PROVIDES COURTESY SERVICE FROM DISTRICT STANDARD PROPERTY LINE CLEANOUT TO THE MAIN.
4. SDR-26 WYE, RISER, CLEANOUT BODY AND CAP CAN BE USED ONLY WHEN LATERAL FROM PROPERTY LINE TO

5. WHEN ENTIRE LATERAL IS REPLACED, LATERAL FROM PROPERTY LINE CLEANOUT TO MAIN LINE SHALL HAVE A 14-1-UF GUAGE MINIMUM SINGLE CONDUCTOR TRACER WIRE TAPED TO THE ENTIRE LENGTH OF THE PIPE.

SAN MATEO COUNTY DEPARTMENT

DRAWN BY: N.M.

APPROVED BY:

CHECK BY: A.M.S.
APPROVED BY: N.R.C.

WYE AND RISER SHALL BE THE SAME PIPE MATERIAL AS THE PORTION OF THE

LATERAL WHICH

FLOW

WYE AND RISER SHALL

BE THE SAME PIPE MATERIAL AS THE

PORTION OF THE

CONNECTS TO THE

SEWER MAIN; EXCEPT

SHALL BE CAST IRON.

THE UPPER-MOST 3 FEET OF A VCP RISER

LATERAL WHICH

. WHEN BOX IS SUBJECT TO TRAFFIC LOADING, PROVIDE CAST IRON LID.

CONNECTS TO THE

SEWER MAIN; EXCEPT

THE UPPER-MOST 3 FEET OF A VCP RISER

SHALL BE CAST IRON.

TRANSITION SECTION-

IF NEEDED

45° WYE BRANCH -

MAIN LINE IS REPLACED WITH SDR-26.

OF

PUBLIC WORKS

REDWOOD CITY

CALIFORNIA

NO HUB COUPLING

4 BAND WITH

SHEAR RING

ADJUSTABLE REPAIR COUPLING

STAINLESS STEEL SHEAR RING.

(ARC) WITH CONTINUOUS

STAINLESS STEEL

4 BAND WITH STAINLESS STEEL

SHEAR RING

-45" WYE BRANCH

SCALE: NONE DATE: 8/06

FOR CAST IRON CLEANOUT BODY, USE
— EITHER BRASS OR PVC PLUG. FOR PVC

CLEANOUT BODY, USE PVC PLUG.

CHRISTY B9 UTILITY BOX OR

OR FL9D, MARKED SEWER, OR

EQUAL. LID TO BE CHRISTY B9D

EQUAL (SEE NOTE 1)

TYPICAL SEWER CLEANOUT &

BOX DETAIL - NEW CONSTRUCTION

FOR CAST IRON CLEANOUT BODY, USE EITHER BRASS OR PVC PLUG. FOR PVC

CLEANOUT BODY, USE PVC PLUG.

EQUAL. (SEE NDTE 1)

TYPICAL SEWER CLEANOUT &

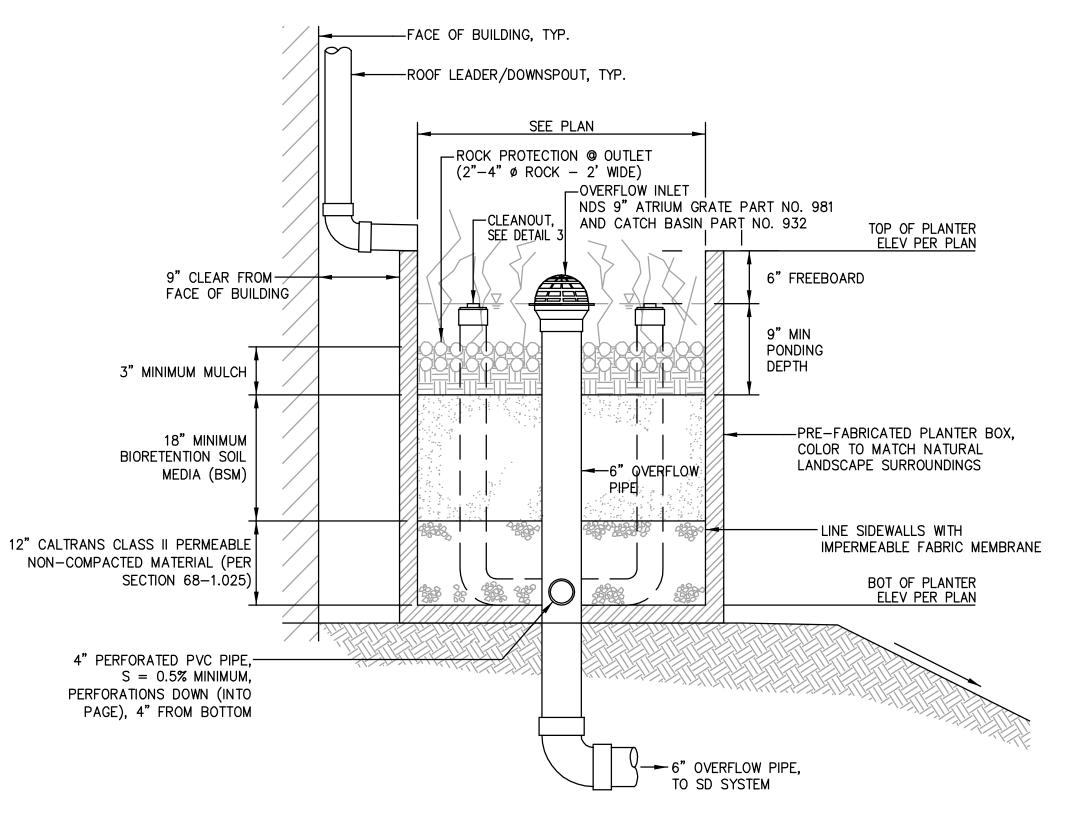
BOX DETAIL - REPLACEMENT

CHRISTY B9 UTILITY BOX OR

EQUAL, LID TO BE CHRISTY B9D

OR FL9D, MARKED SEWER, OR

REVISED: \_\_\_\_\_



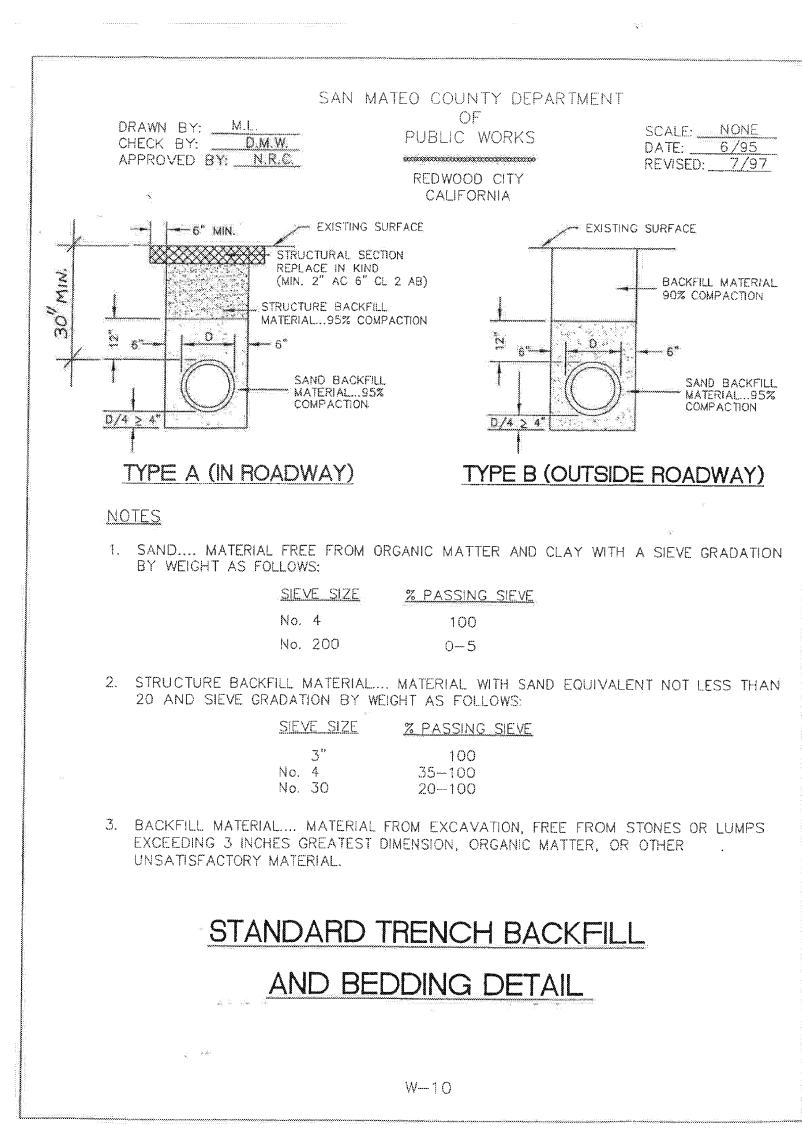
FLOW-THROUGH PLANTER (FTP)

Sheet Number:

C7.70 OF

Sheet Number: C7.71

OF



SAN MATEO COUNTY STANDARD TRENCH BACKFILL & BEDDING DETAIL

NTS

SUBDRAIN

— TOW, SEE PLANS

COMPACTION.

— 3/4" DRAIN ROCK

— BOW, SEE PLANS

— RETAINING WALL, SEE

STRUCTURAL PLANS FOR DETAILS

- 4"ø PERFORATED PVC SUBDRAIN,

FG, SEE PLANS

SEE PLAN FOR LOCATION

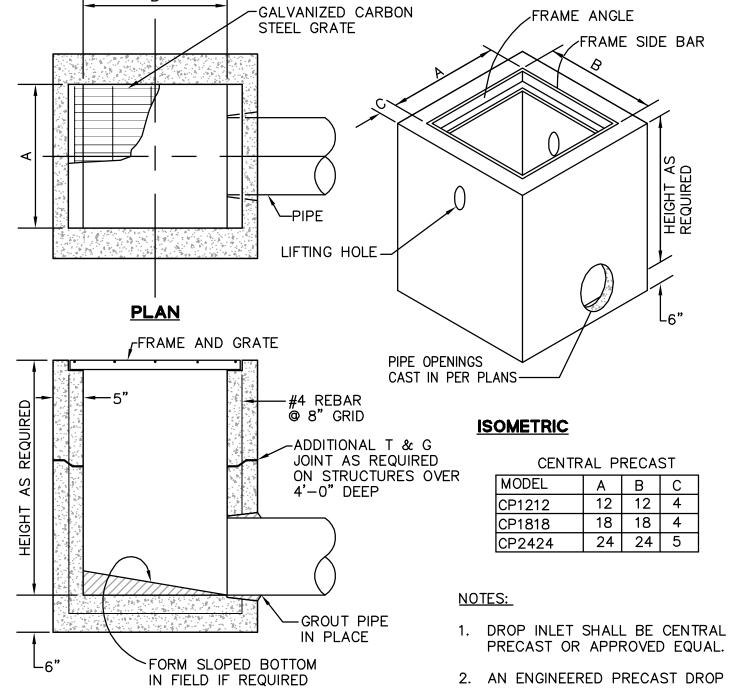
ON-SITE "CLAYEY" SOILS COMPACTED TO BETWEEN 87 TO 92 PERCENT RELATIVE

SWALE -

\_\_\_\_ 2:1 SLOPE

WRAP DRAIN ROCK WITH MIRAFI-

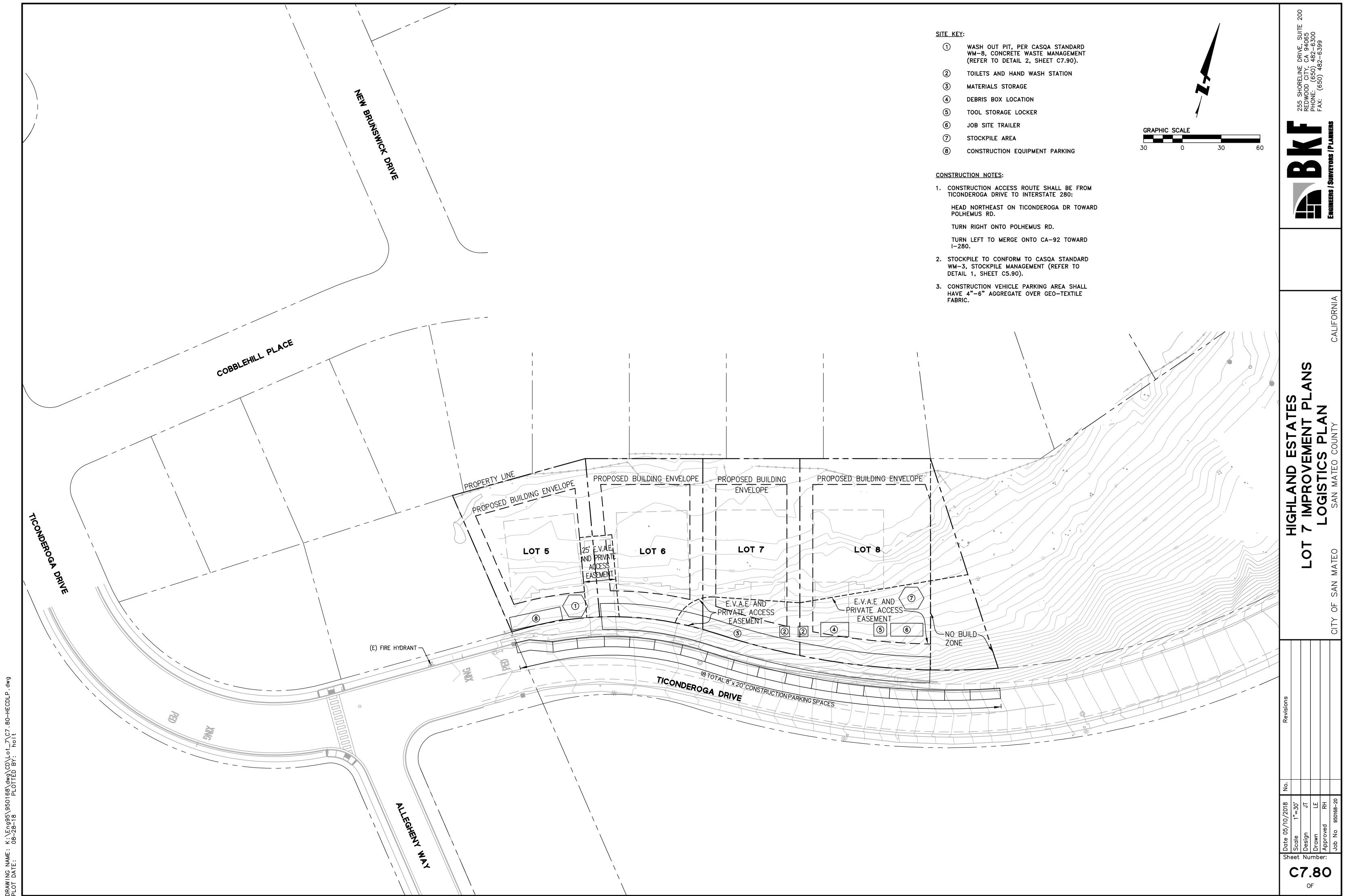
140N OR APPROVED EQUAL



AN ENGINEERED PRECAST DROP INLET UNIT CAN BE USED AS AN ALTERNATE.

DROP INLET

TYPICAL SECTION



Metals

Bacteria

Organics

Oil and Grease

Potential Alternatives

### Targeted Constituents Description and Purpose Sediment

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

### Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

### Limitations

January 2011

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of plastic materials should be avoided when feasible and photodegradable plastics should not be used.

Implementation Protection of stockpiles is a year-round requirement. To properly manage stockpiles:



Construction www.casqa.org

### WM-3 **Stockpile Management**

- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- All stockpiles are required to be protected immediately if they are not scheduled to be used

WM-3

- Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

# Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows: Soil stockpiles

- Cover and project soil stockpiles with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Consider temporary vegetation for topsoil piles that will be stockpiled for extended periods. Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble,
- aggregate base, or aggregate sub base Provide covers and protect these stockpiles with a temporary perimeter sediment barrier at

### Stockpiles of "cold mix"

 Cover cold mix stockpiles and place them on plastic sheeting (or comparable material) and surround the stockpiles with a berm all times.

### Stockpiles of fly ash, stucco, hydrated lime

 Cover stockpiles of materials that may raise the pH of runoff (i.e., basic materials) with plastic and surround the stockpiles with a berm at all times.

January 2011 Construction www.casqa.org

# **Stockpile Management**

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate)

WM-3

■ Cover treated wood with plastic sheeting (or comparable material) and surround with a berm at all times.

### Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

### Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning
- Sediment shall be removed when it reaches one-third of the barrier height.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

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**WM-8** 

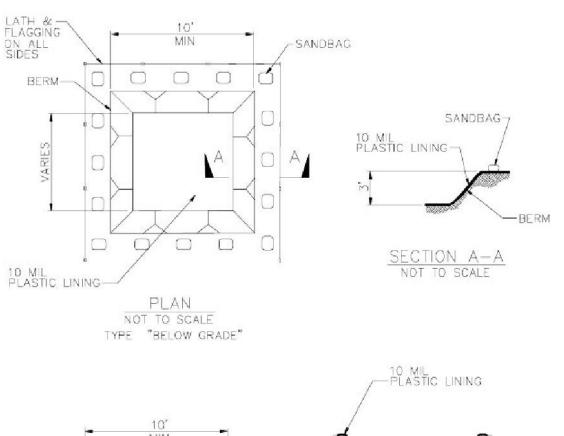
# WATERPROOF PLASTIC MEMBRANE-SECURE WITH ANCHORS OR WEIGHTS TO PREVENT WIND OR RAIN FROM DISTURBING STOCKPILE -STACKED GRAVEL BAGS SILT — FENCE PLACED AROUND THE BASE OF STOCKPILE

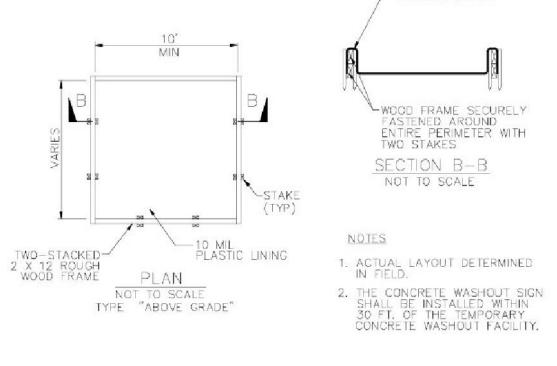
STOCKPILE COVERING (PER CASQA STANDARD WM-3, STOCKPILE MANAGEMENT, SEE LEFT)
NTS

# WM-3 - STOCKPILE MANAGEMENT

# NTS

### Concrete Waste Management **WM-8**



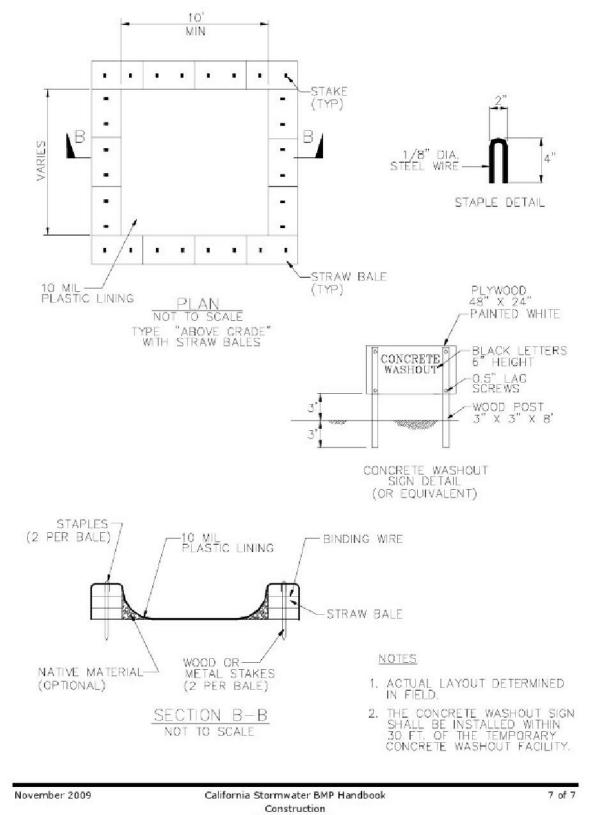


California Stormwater BMP Handbook

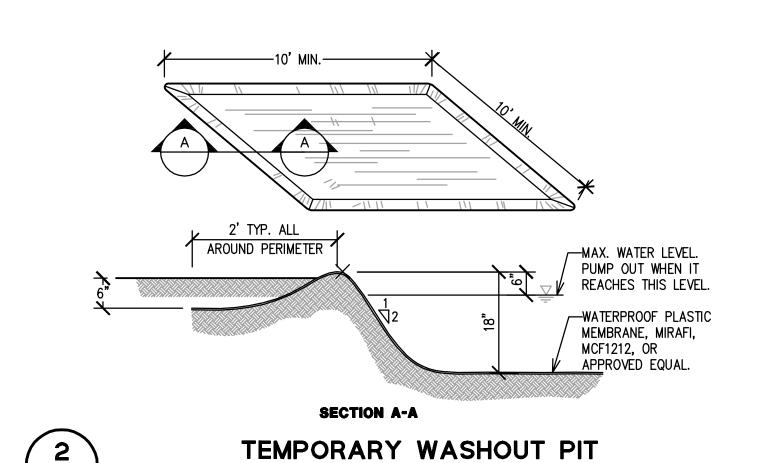
Construction

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Concrete Waste Management



www.casqa.org



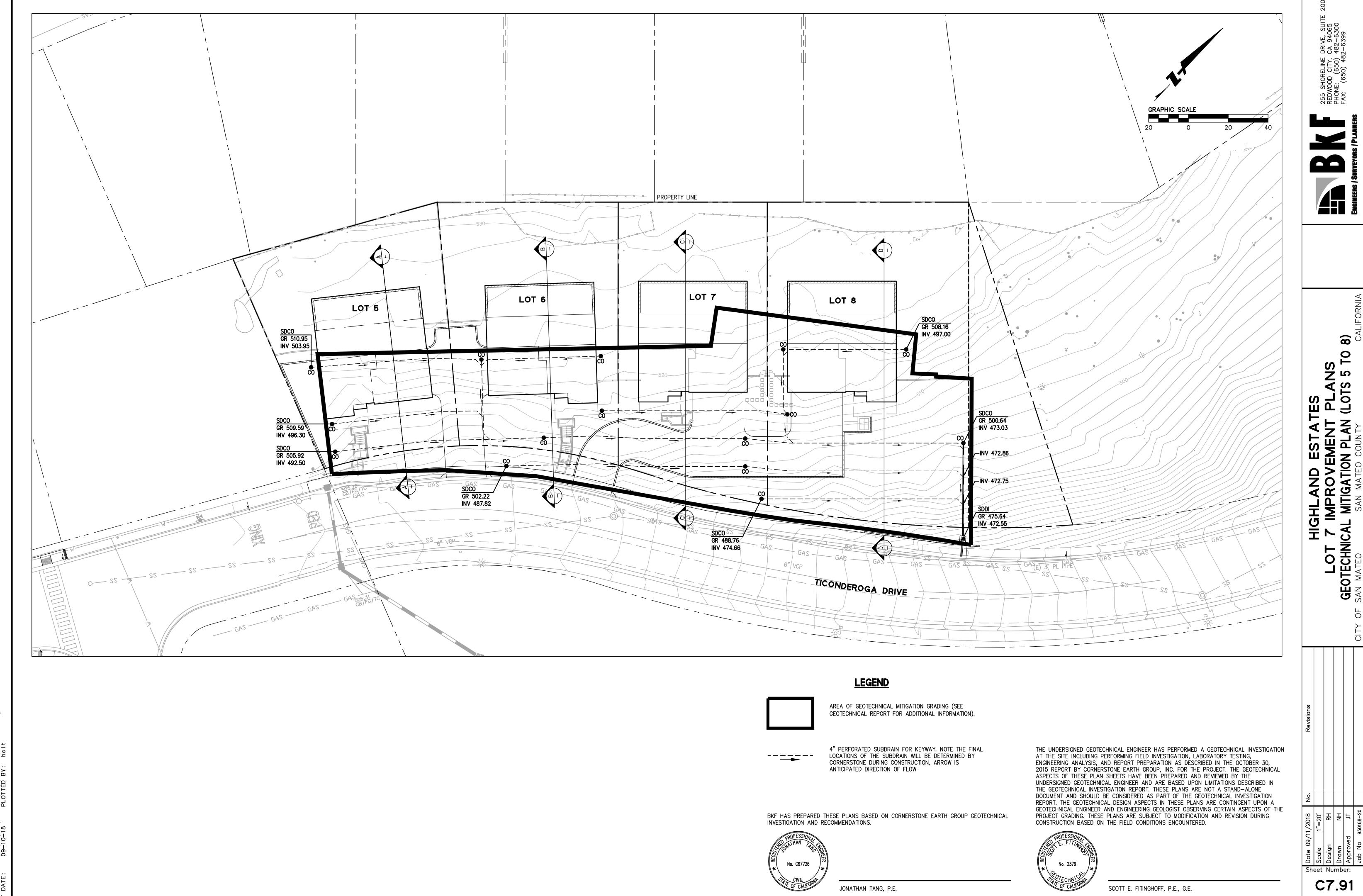
(PER CASQA STANDARD WM-8, CONCRETE WASTE MANAGEMENT, SEE LEFT)
NTS

WM-8 - CONCRETE WASTE MANAGEMENT

Sheet Number:

C7.90 OF

November 2009



OF

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10

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TIONS

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GEOTECHNICA

DETAIL 1, SHEET C7.92, TYP. C-C CROSS SECTION SCALE: 1"=10"

PERORATED SUBDRAIN, SEE

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

K:\Eng95\950168\dwg\CD\! 09-11-18 PLOTTED BY

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

LOT 8 RESIDENCE 525 - FINISH GRADE -REMOVE ANY FILL REMAINING IF ENCOUNTERED AFTER MAKING CUT GRADE TICONDEROGA FOR FINISHED DRIVE GRADING. EXISTING -GROUND 500 500 LORILLED PIERS SHOWN ONLY FOR SCHEMATIC LAYOUT, SEE FOUNDATION PLANS FOR ACTUAL PIER LOCATIONS ADJUST PIPE LOCATION IN FIELD TO BE OUTSIDE THE LOCATION OF DRILLED PIERS ESTIMATED TOP OF-SHEARED ROCK -APPROXIMATE SLOPE MITIGATION 475 4" PERORATED SUBDRAIN, SEE DETAIL 1, SHEET C7.92, TYP.

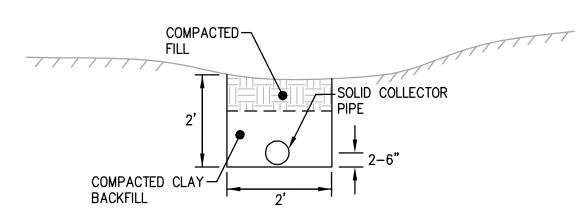
> D-D CROSS SECTION SCALE: 1"=10'

AVERAGE ROLL VALUES UNLESS OTHERWISE SPECIFIED BY CORNERSTONE EARTH GROUP

GRAB STRENGTH (ASTM D-4632): MASS PER UNIT AREA (ASTM D-4751): APPARENT OPENING SIZE (ASTM D-4751): FLOW RATE (ASTM D-4491): PUNCTURE STRENGTH (ASTM D-4833):

180 LBS. 5 OZ/YD 70-100 U.S. STD. SIEVE 80 GAL/MIN/FT 80 LBS.

# DETAIL 1 - TYPICAL BENCH AND KEYWAY SUBDRAIN



THIS AREA MAY HAVE ACTIVE SEEPAGE DURING CONSTRUCTION.

- 2. COLLECTOR PIPE SHOULD BE 6" PERFORATED PIPE, SUCH AS SDR-35 OR SDR-23.5 OR APPROVED EQUIVALENT (SEE DETAIL 1 NOTE 5 UNDER "DRAINAGE MATERIAL")
- 3. PIPE FITTINGS FOR CLEAN-OUTS AND OTHER 90° BENDS IN THE SUBDRAIN SYSTEM (EXCEPT THE CONNECTION BETWEEN THE 4"PERFORATED PIPES AND 6" COLLECTION PIPES)
- SHOULD BE "SWEEP 90'S" OR OTHER APPROVED EQUIVALENT. 4. CONTRACTOR TO PROVIDE ALL INCIDENTAL FITTINGS IN THEIR BID PRICE TO CONSTRUCT THE
- SUBDRAIN SYSTEM. NOT ALL INCIDENTAL FITTINGS ARE SHOWN ON THESE PLANS. 5. FINAL SUBDRAIN LAYOUT AND PLACEMENT TO BE DETERMINED BY GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.

# DETAIL 2 - SOLID COLLECTOR PIPE DETAIL

BKF HAS PREPARED THESE PLANS BASED ON CORNERSTONE EARTH GROUP GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS.



JONATHAN TANG, P.E.

THE UNDERSIGNED GEOTECHNICAL ENGINEER HAS PERFORMED A GEOTECHNICAL INVESTIGATION AT THE SITE INCLUDING PERFORMING FIELD INVESTIGATION, LABORATORY TESTING, ENGINEERING ANALYSIS, AND REPORT PREPARATION AS DESCRIBED IN THE OCTOBER 30, 2015 REPORT BY CORNERSTONE EARTH GROUP, INC. FOR THE PROJECT. THE GEOTECHNICAL ASPECTS OF THESE PLAN SHEETS HAVE BEEN PREPARED AND REVIEWED BY THE UNDERSIGNED GEOTECHNICAL ENGINEER AND ARE BASED UPON LIMITATIONS DESCRIBED THE GEOTECHNICAL INVESTIGATION REPORT. THESE PLANS ARE NOT A STAND-ALONE DOCUMENT AND SHOULD BE CONSIDERED AS PART OF THE GEOTECHNICAL INVESTIGATION REPORT. THE GEOTECHNICAL DESIGN ASPECTS IN THESE PLANS ARE CONTINGENT UPON A GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST OBSERVING CERTAIN ASPECTS OF THE PROJECT GRADING. THESE PLANS ARE SUBJECT TO MODIFICATION AND REVISION DURING CONSTRUCTION BASED ON THE FIELD CONDITIONS ENCOUNTERED.



SCOTT E. FITINGHOFF, P.E., G.E.

Sheet Number:

C7.92 OF

Sheet Number:

C8.10

# IMPROVEMENT PLANS FOR

# HIGHLAND ESTATES - LOT 8 TICONDEROGA DRIVE

## **EARTHWORK**

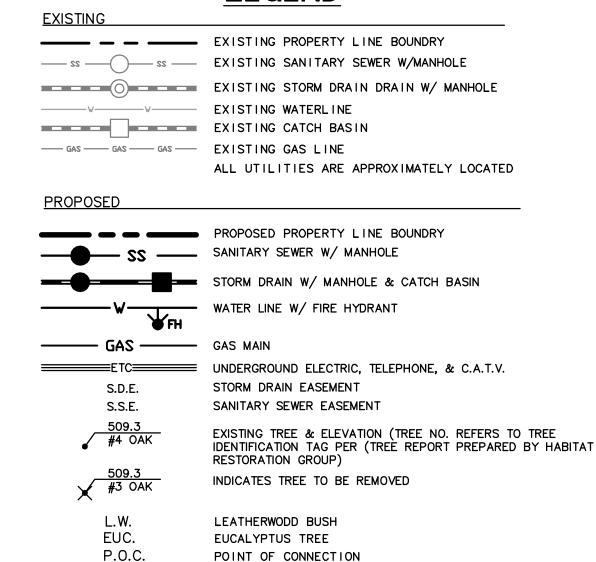
## 2,080 CY SLOPE MITIGATION EXPORT CREDIT 1120 CY 770 CY CUT

- 1. THE QUANTITIES SHOWN ABOVE EXCLUDE EARTHWORK FROM GEOTECHNICAL SLOPE REMEDIATION ACTIVITIES PER CONDITION OF APPROVAL ITEM NO. 4.M, INCLUDING SITE STRIPPING, EARTHWORK SWELLING AND SHRINKAGE FACTORS ASSOCIATED WITH GEOTECHNICAL SLOPE REMEDIATION MITIGATION.
- 2. THE EARTHWORK QUANTITIES SHOWN ABOVE ARE IN-PLACE QUANTITIES AND HAVE
- A. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SITE STRIPPINGS
- B. THE UNIT PAD SECTION IS ASSUMED TO BE A 12" THICK CONCRETE SECTION. C. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR FILL SHRINKAGE FACTORS. D. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR UTILITY TRENCHING AND SPOILS.
- F. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR RETAINING WALLS AND BUILDING FOOTINGS AND BACKFILL

E. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SOIL STABILIZATION FACTORS AND

2. ACTUAL QUANTITIES MAY VARY DUE TO FIELD CONDITIONS OR CONSTRUCTION TECHNIQUES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES BASED UPON APPROVED PLANS AND INDEPENDENT CALCULATIONS.

## **LEGEND**

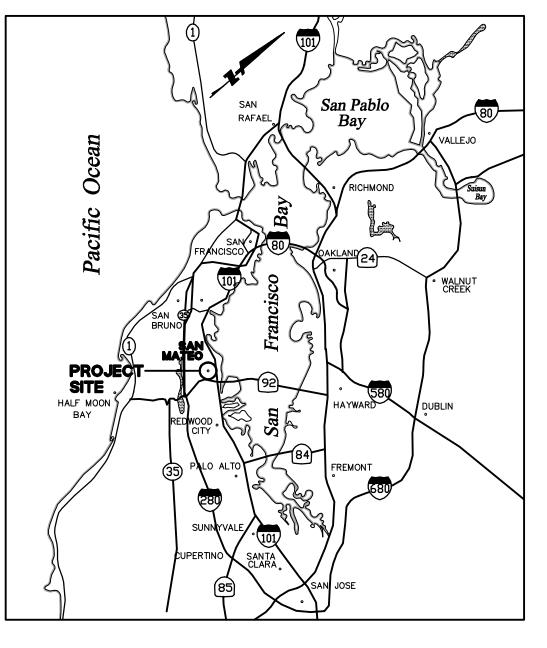


## **ABBREVIATIONS**

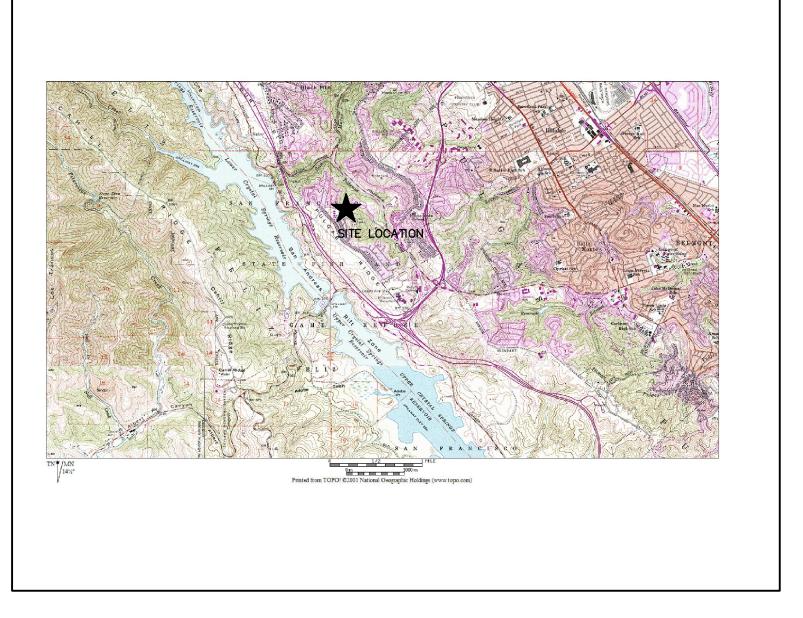
FLOW-THROUGH PLANTER. PROPOSED FOR TREATMENT OF ROOF AND DRIVEWAY STORM WATER RUNOFF.

FIRE DEFENSE ZONE

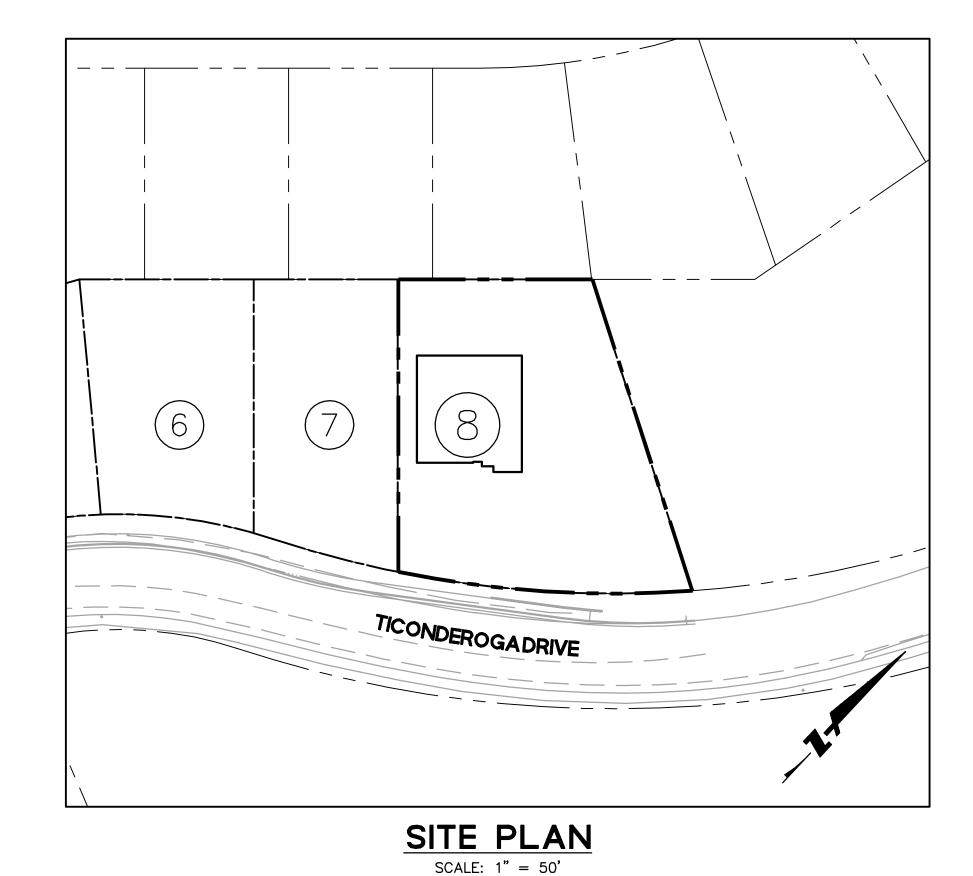
# COUNTY OF SAN MATEO, CALIFORNIA



VICINITY MAP



**LOCATION MAP** 



## PROJECT DATA

<u>: ::••=•</u> :	<del></del>
SITE AREA:	20,394 SF
EXISTING LAND USE:	UNDEVELOPED LAND
PROPOSED USE:	RESIDENTIAL (LOT 8)
EXISTING ZONE:	RMD - RESOURCE MANAGEMENT DISTRICT
PROPOSED ZONE:	R-1
PROPOSED USE:	1 RESIDENTIAL LOT
DWNER:	TICONDEROGA PARTNERS, A CALIFORNIA LIMITED LIABILITY CORPORATION

C/O THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582 ATTN: JACK CHAMBERLAIN THE CHAMBERLAIN GROUP 655 SKYWAY, SUITE 230 SAN CARLOS, CA 94070 (650) 595-5582

ATTN: JACK CHAMBERLAIN **CIVIL ENGINEER:** BKF ENGINEERS 255 SHORELINE DRIVE, SUITE 200

> REDWOOD CITY, CA 94065 (650) 482-6300 CORNERSTONE EARTH GROUP 1259 OAKMEAD PARKWAY SUNNYVALE, CA 94085 (408) 245-4600

**WATER SUPPLY:** CAL WATER SERVICE 341 N. DELAWARE STREET SAN MATEO, CA 94401-1808 (650) 343–1808

SEWAGE DISPOSAL: CITY OF SAN MATEO & CRYSTAL SPRINGS COUNTY SANITATION DISTRICT

GAS & ELECTRIC TELEPHONE:

**FIRE PROTECTION:** CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

**STORM DRAINAGE:** COUNTY OF SAN MATEO CITY OF SAN MATEO

JOB NO. 950168 DATE OF PHOTOGRAPHY 9/18/87 **EROSION CONTROL POINT OF CONTACT:** 

NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: (650) 322-5800 CELL #: (650) 444-3089 EMAIL: noel@nexgenbuilders.com

AERO-GEODIC COROP.

## SHEET INDEX

SHEET NO DESCRIPTION

C8.91

**DEVELOPER:** 

GEOTECHNICAL ENGINEER:

TOPOGRAPHIC BASE MAP:

C8.10	TITLE SHEET
C8.20	GENERAL NOTES
C8.30	SITE AND CLEARING, CONSTRUCTION AND GRADING PLANS
C8.40	UTILITY PLAN AND CROSS SECTION
C8.50	EROSION CONTROL PLANS
C8.60	EROSION CONTROL DETAILS AND NOTES
C8.70	CONSTRUCTION DETAILS
C8.71	CONSTRUCTION DETAILS
C8.80	LOGISTICS PLAN
C8.90	CASQA STANDARD DETAILS

GEOTECHNICAL MITIGATION PLAN (LOTS 5 TO 8)

GEOTECHNICAL MITIGATION CROSS SECTIONS (LOTS 5 TO 8)

# **ENGINEER'S STATEMENT**

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY DIRECTION.

ROLAND N.V. HAGA R.C.E NO. 43971 BKF ENGINEERS

I HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE STATE OF CALIFORNIA, BUSINESS & PROFESSIONAL CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

JONATHAN TANG P.E. NO. 67726 BKF ENGINEERS

DATE





#### I. GENERAL NOTES

NOTES:

- WORK SHALL CONFORM TO THE COUNTY OF SAN MATEO PUBLIC WORKS STANDARD DRAWINGS FOR PUBLIC IMPROVEMENTS, REVISED SEPTEMBER 2007 AND THE SAN MATEO COUNTY SEWER AND SANITATION DISTRICTS STANDARD SPECIFICATIONS. DATED JUNE 1995.
- PERFORM WORK IN CONFORMANCE WITH THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL ENGINEERING REPORT TITLED "UPDATED GEOTECHNICAL INVESTIGATION, HIGHLAND ESTATES LOTS 5 THROUGH 11, TICONDEROGA DRIVE/COBBLEHILL PLACE/COWPENS WAY, SAN MATEO COUNTY, CALIFORNIA" PREPARED BY CORNERSTONE EARTH GROUP, DATED OCTOBER 30, 2015. GRADING WORK WILL BE SUBJECT TO APPROVAL OF GEOTECHNICAL ENGINEER.
- ARRANGE FOR REQUIRED INSPECTIONS BY COUNTY ENGINEER. NO DELAY OF WORK CLAIM WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO ARRANGE FOR REQUIRED COUNTY INSPECTIONS IN ADVANCE. PROVIDE NOTICE TO COUNTY ENGINEER A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF REQUIRED INSPECTIONS.
- 4. REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED IN WRITING BY ENGINEER, WHO WILL OBTAIN APPROVAL FROM COUNTY ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED ITEMS. REVISIONS SHALL BE ACCURATELY SHOWN ON REVISED PLANS, WHICH SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND COUNTY ENGINEER PRIOR TO INSTALLATION OF THE IMPROVEMENTS.
- 5. REPLACE OR REPAIR EXISTING UTILITIES, IMPROVEMENTS OR FEATURES DAMAGED, REMOVED, OR DISTURBED BY CONSTRUCTION TO THEIR ORIGINAL CONDITION, WHETHER SHOWN ON PLANS OR NOT.
- 6. REPLACE STREET MONUMENTS, LOT CORNERS PIPES AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION. MONUMENTS SHALL BE SET BY A SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- PREPARE TRAFFIC CONTROL PLAN AND OBTAIN APPROVAL FROM COUNTY ENGINEER BEFORE COMMENCING WORK. PROVIDE FLAG MEN, CONES, BARRICADES AND OTHER TRAFFIC CONTROL MEASURES NECESSARY TO PROVIDE SAFE LANE CLOSURE IN

CONFORMANCE WITH CALTRANS STANDARDS AND AS APPROVED BY COUNTY

- 8. PEDESTRIAN TRAFFIC CONTROL TO BE PROVIDED WHEN EXISTING SIDEWALKS CANNOT BE MAINTAINED DURING CONSTRUCTION.
- 9. DO NOT LEAVE TRENCHES OPEN OVERNIGHT IN EXISTING STREET AREAS. BACKFILL OR COVER OPEN TRENCHES AT THE END OF WORK EVERY WORK DAY.
- 10. PREPARE SHORING PLAN AND SUBMIT TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL. ADEQUATELY SHORE EXCAVATIONS TO PREVENT EARTH FROM SLIDING OR SETTLING AND TO PROTECT EXISTING ADJACENT IMPROVEMENTS FROM DAMAGE. DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE SHORING IN CONFORMANCE WITH APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND OSHA WHERE EXCAVATIONS ARE 5 FEET OR MORE IN
- 11. IMPLEMENT CONSTRUCTION DUST CONTROL MEASURES TO REDUCE PARTICULATE GENERATION TO A LESS THAN SIGNIFICANT LEVEL. PROVIDE DUST CONTROL IN CONFORMANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT MINIMUM REQUIREMENTS. IMPLEMENT THE FOLLOWING CONSTRUCTION PRACTICES EXCEPT WHEN IT IS RAINING.
- 11.A. WATER ACTIVE EXTERIOR SOIL AREAS AT LEAST TWICE DAILY.
- 11.B. COVER TRUCKS HAULING SOIL, SAND AND OTHER LOOSE MATERIAL OR PROVIDE 2 FEET OF FREEBOARD.
- 11.C. PAVE, APPLY WATER THREE TIMES DAILY OR APPLY NON-TOXIC SOIL STABILIZER ON UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING
- 11.D. SWEEP PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS DAILY.
- 11.E. APPLY HYDROSEED OR NON-TOXIC SOIL STABILIZER TO INACTIVE CONSTRUCTION AREAS.
- 11.F. ENCLOSE, COVER, WATER TWICE DAILY OR APPLY NON-TOXIC SOIL STABILIZER TO EXPOSED SOIL STOCKPILES.
- 11.G. INSTALL SANDBAGS AND OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 11.H. LIMIT TRAFFIC SPEED ON UNPAVED ROADS TO 15 MPH.
- 11.I. REPLANT VEGETATION IN DISTURBED AREAS AS QUICKLY AS POSSIBLE.
- 12. KEEP STREETS CLEAN OF DIRT, MUD AND OTHER CONSTRUCTION DEBRIS. CLEAN AND SWEEP STREETS ON A DAILY BASIS DURING THE WORK WEEK.
- 13. SHOULD IT APPEAR THAT THE WORK IS NOT SUFFICIENTLY DETAILED OR SPECIFIED IN CONSTRUCTION DOCUMENTS, NOTIFY ENGINEER AND OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK IN QUESTION.
- 14. CONSTRUCTION STAKING SHALL BE DONE BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA.
- 15. IF BKF ENGINEERS IS RETAINED TO PROVIDE CONSTRUCTION STAKING SERVICES, CONTRACTOR WILL BE PROVIDED WITH ONE SET OF SURVEY STAKES FOR LAYOUT PURPOSES. PRESERVE AND PROTECT THESE STAKES UNTIL THEY ARE NO LONGER NEEDED. RESTAKING SHALL BE AT CONTRACTOR'S EXPENSE.
- 16. MATCH EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK, ADJACENT LANDSCAPE AND OTHER IMPROVEMENTS WITH SMOOTH TRANSITION TO AVOID ABRUPT OR APPARENT CHANGES IN GRADES, CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 17. VISIT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND OVERALL PROJECT REQUIREMENT PRIOR TO BIDDING PROJECT.
- 18. OBTAIN AND PAY FOR PERMITS AND LICENSES AS REQUIRED TO PERFORM WORK WITHIN THE COUNTY OF SAN MATEO PRIOR TO START OF WORK, PERMITS MAY INCLUDE ENCROACHMENT PERMIT FOR WORK WITHIN COUNTY RIGHT-OF-WAY AND GRADING/UTILITY PERMIT.
- 19. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC AND PEDESTRIAN CONTROL DURING CONSTRUCTION.
- 20. OBTAIN APPROVAL OF IMPORT SOIL MATERIAL FROM GEOTECHNICAL ENGINEER PRIOR TO DISTRIBUTING MATERIAL OVER SITE.
- 21. PROTECT ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES FROM DAMAGE BY CONTRACTOR'S OPERATIONS. REPAIR, REPLACE OR CLEAN ADJOINING PREMISES, TREES, LANDSCAPING, UTILITIES, SIDEWALKS, STREETS AND OTHER FEATURES TO SATISFACTION OF OWNER.
- 22. MAINTAIN AND MANAGE CONSTRUCTION MATERIALS, EQUIPMENT AND VEHICLES AT THE CONSTRUCTION SITE.
- 23. NOTIFY COUNTY ENGINEER A MINIMUM OF 24 HOURS PRIOR TO STARTING WORK ON OFF-SITE DRAINAGE AND SEWER FACILITIES, GRADING, PAVING, OR WORK IN THE COUNTY RIGHT-OF-WAY.
- 24. MAKE EFFORTS TO MINIMIZE CONSTRUCTION NOISE.

- 24.A. MAINTAIN EQUIPMENT USED ON SITE IN GOOD MECHANICAL CONDITION TO MINIMIZE NOISE CREATED BY FAULTY OR POORLY MAINTAINED ENGINE, DRIVE-TRAIN AND OTHER COMPONENTS.
- 24.B. EQUIPMENT EXCEEDING 110 DBA MEASURED 25 FEET FROM THE PIECE OF EQUIPMENT WILL NOT BE ALLOWED ON SITE.
- 24.C. SELECT APPROPRIATE EQUIPMENT TO MINIMIZE NOISE GENERATION. USE THE FOLLOWING TECHNIQUES TO MINIMIZE NOISE GENERATION SUBJECT TO EQUIPMENT AVAILABILITY AND COST CONSIDERATIONS. USE SCRAPERS AS MUCH AS POSSIBLE FOR EARTH REMOVAL, RATHER THAN NOISIER LOADERS AND HAUL TRUCKS. USE BACKHOES FOR BACKFILLING AS IT IS QUIETER THAN DOZERS OR LOADERS. USE MOTOR GRADERS RATHER THAN BULLDOZERS FOR FINAL GRADING.

#### II. EXISTING CONDITIONS

- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED UPON A FIELD TOPOGRAPHIC SURVEY OF THE PROJECT SITE BY BKF ENGINEERS, DATED JUNE 2009. ACTUAL CONDITIONS ENCOUNTERED ON SITE MAY VARY FROM THOSE SHOWN ON THE PLANS. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND CONDUCT THEIR OWN INVESTIGATIONS TO UNDERSTAND AND VERIFY EXISTING CONDITIONS AT THE SITE.
- 2. EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM RECORD INFORMATION KNOWN TO THE ENGINEER AND FIELD SURVEY OF ABOVE GRADE FEATURES. THESE PLANS ARE NOT MEANT TO BE A FULL CATALOG OF EXISTING SUBSURFACE CONDITIONS. CONDUCT FIELD INVESTIGATION TO VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES, WHETHER SHOWN ON PLANS OR NOT, PRIOR TO START OF EXCAVATION. IF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS ARE DISCOVERED, NOTIFY ENGINEER IMMEDIATELY AND REQUEST DISCREPANCY BE RESOLVED.
- VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AFFECTING UTILITIES. POTHOLE WHERE NEEDED TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES.
- 4. CONTACT USA (UNDERGROUND SERVICES ALERT) AT 1-800-227-2600, AND AFFECTED UTILITY COMPANIES A MINIMUM OF 2 WORKING DAYS PRIOR TO STARTING WORK TO REQUEST UTILITIES BE MARKED.

#### III. DEMOLITION

- REMOVE FROM SITE AND DISPOSE OF IN LAWFUL MANNER EXISTING STRUCTURES, UTILITIES, AND OTHER FEATURES NOT REMOVED DURING DEMOLITION OR ROUGH GRADING AND ENCOUNTERED DURING WORK ON SITE.
- 1.A. REMOVE WOOD OR CONCRETE STRUCTURES, SLABS, FOOTINGS, GRADE BEAMS. DECKS, DOCKS, AND OTHER SIMILAR STRUCTURES.
- REMOVE LANDSCAPING, UTILITIES AND IRRIGATION LINES AS SPECIFIED BY GEOTECHNICAL ENGINEER.
- REMOVE ABANDONED IN-GROUND STRUCTURES, SUCH AS CULVERTS, UTILITY VAULTS, AND FOUNDATIONS AS SPECIFIED BY GEOTECHNICAL ENGINEER.

#### IV. DEWATERING

- 1. DEWATER AREAS COVERED WITH STANDING WATER PRIOR TO PLACEMENT OF FILL.
- 2. DISPOSE OF WATER FROM DEWATERING OPERATION IN CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

#### v. Utilities

- 1. DO NOT OPERATE WATER VALVES OR OTHER WATER DISTRICT FACILITIES. REQUIRED 10. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO OPERATION WILL BE PERFORMED BY UTILITY DISTRICT PERSONNEL ONLY. NOTIFY UTILITY DISTRICT 2 WORKING DAYS PRIOR TO REQUIRING FACILITY OPERATION.
- 2. PROVIDE MINIMUM 12 INCH VERTICAL CLEARANCE BETWEEN ADJACENT UTILITY PIPES 11. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR. AT UTILITY CROSSINGS UNLESS OTHERWISE NOTED.
- 3. COMPLETE ELECTRIC, GAS, TELEPHONE. CABLE AND OTHER JOINT TRENCH WORK IN CONFORMANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY PROVIDER. NOTIFY UTILITY PROVIDER MINIMUM 2 WORKING DAYS PRIOR TO COMMENCING WORK. IF EXISTING WATER, SEWER, GAS OR OTHER UTILITY SERVICES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, NOTIFY UTILITY OWNER IMMEDIATELY.
- 4. PROTECT UTILITIES FROM DAMAGE CAUSED BY CONTRACTOR'S WORK.
- 5. PROVIDE UTILITY STRUCTURES IN PAVED AREAS SUITABLE FOR H-20 LOADING.
- 6. PIPE LENGTHS SHOWN ON PLANS ARE FOR ENGINEERING CALCULATIONS ONLY AND ARE NOT INTENDED AS BID QUANTITIES OR FOR ORDERING MATERIALS.
- CONSTRUCT GRAVITY FLOW UTILITIES FROM DOWNSTREAM CONNECTION POINT TO UPSTREAM TERMINUS.
- 8. COORDINATE WITH COUNTY OF SAN MATEO AND CRYSTAL SPRINGS SANITATION DISTRICT FOR INSPECTION OF WORK ON DISTRICT FACILITIES.
- 9. ALL WATER LATERALS AND SERVICES SHALL BE INSTALLED TO THE STANDARDS OF THE CALIFORNIA WATER SERVICE COMPANY. EXISTING WATER MAINS OR LATERALS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND TESTED TO THE SATISFACTION OF THE WATER COMPANY.

#### VI. EARTHWORK AND GRADING

- OFF-SITE IMPORT FILL MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
- 2. TOPSOIL, ROOTS, VEGETABLE MATTER, TRASH AND DEBRIS WILL NOT BE CONSIDERED ACCEPTABLE FILL MATERIAL.
- 3. REMOVE DEBRIS FROM AREAS OF EARTHWORK PRIOR TO PLACING FILL OR STARTING GRADING OPERATIONS.
- 4. PLACE AND COMPACT FILL MATERIAL AS RECOMMENDED IN GEOTECHNICAL REPORT. PLACE FILL MATERIAL IN MAXIMUM 8 INCH UNCOMPACTED THICKNESS. COMPACTION BY FLOODING, PONDING OR JETTING WILL NOT BE PERMITTED.
- 5. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES.

#### VII RECORD DRAWINGS

1. KEEP ACCURATE RECORD OF THE FINAL LOCATION, ELEVATION AND DESCRIPTION OF WORK ON A COPY OF THE FINAL APPROVED CONSTRUCTION DOCUMENTS. NOTE THE LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS ENCOUNTERED THAT VARY FROM THE LOCATIONS SHOWN ON THE IMPROVEMENT PLANS. PROVIDE COPY OF RECORD INFORMATION TO OWNER AT COMPLETION OF PROJECT AND WHEN REQUESTED.

#### VII. STATEMENT OF RESPONSIBILITY

 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD BOTH DESIGN PROFESSIONAL AND THE COUNTY OF SAN MATEO HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF EITHER THE DESIGN PROFESSIONAL OR THE COUNTY OF SAN MATEO, RESPECTIVELY.

#### IX. UNAUTHORIZED CHANGES AND USES

1. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND REQUIRE WRITTEN APPROVAL OF THE COUNTY ENGINEER AND THE PREPARER OF THESE PLANS.

#### X. DRAWING LANGUAGE

 NOTES AND CALLOUTS ON DRAWINGS MAY USE IMPERATIVE LANGUAGE. REQUIREMENTS EXPRESSED IMPERATIVELY ARE TO BE PERFORMED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

#### CONDITIONS OF APPROVAL NOTES

#### CONSTRUCTION NOTES

- THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 5. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 6. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 7. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 8. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 9. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION
- AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE). EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED

ROADS TO 15 MILES PER HOUR.

- 12. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 13. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 14. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 15. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS. 16. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS

#### GUSTS) EXCEEDS 25 MILES PER HOUR. NOISE NOTES

- 1. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 2. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 3. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS.
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING, PRIOR TO CONSTRUCTION; THE PROJECT SPONSOR SHALL DESIGNATE A "DISTURBANCE COORDINATOR" WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE; THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED: A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUCTION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS ADJACENT TO THE SITE.

#### **ASBESTOS NOTES**

- 1. IF NATURALLY OCCURRING ASBESTOS IS IDENTIFIED AT THE SITE, A SITE HEALTH AND SAFETY (H&S) PLAN INCLUDING METHODS FOR CONTROL OF AIRBORNE DUST SHALL BE PREPARED. THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE COUNTY OF SAN MATEO PRIOR TO GRADING IN AREAS UNDERLAIN BY SERPENTINE-BEARING SOILS OR BEDROCK AND NATURALLY OCCURRING ASBESTOS. THE H&S PLAN SHALL STRICTLY CONTROL DUST-GENERATING EXCAVATION AND COMPACTION OF MATERIAL CONTAINING NATURALLY OCCURRING ASBESTOS. THE PLAN SHALL ALSO IDENTIFY SITE-MONITORING ACTIVITIES DEEMED NECESSARY DURING CONSTRUCTION (E.G., AIR MONITORING). WORKER MONITORING SHALL ALSO BE PERFORMED AS APPROPRIATE. THE PLAN SHALL DEFINE PERSONAL PROTECTION METHODS TO BE USED BY CONSTRUCTION WORKERS. ALL WORKER PROTECTION AND MONITORING SHALL COMPLY WITH PROVISIONS OF THE MINING SAFETY AND HEALTH ADMINISTRATION (MSHA) GUIDELINES, CALIFORNIA DIVISION OF OCCUPA-TIONAL SAFETY AND HEALTH (DOSH), AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 2. IF NATURALLY OCCURRING ASBESTOS IS FOUND AT THE SITE, A SOIL MANAGEMENT PLAN SHALL BE DEVELOPED AND APPROVED BY THE COUNTY PLANNING DEPARTMENT TO PROVIDE DETAILED DESCRIPTIONS OF THE CONTROL AND DISPOSITION OF SOILS CONTAINING NATURALLY OCCURRING ASBESTOS. SERPENTINE MATERIAL PLACED AS FILL SHALL BE SUFFICIENTLY BURIED IN ORDER TO PREVENT EROSION BY WIND OR SURFACE WATER RUNOFF, OR EXPOSURE TO FUTURE HUMAN ACTIVITIES, SUCH AS LANDSCAPING OR SHALLOW TRENCHES. ADDITIONALLY, THE BAAQMD SHALL BE NOTIFIED PRIOR TO THE START OF ANY EXCAVATION IN AREAS CONTAINING NATURALLY OCCURRING ASBESTOS.

#### **GRADING NOTES**

1. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 15 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED. IN WRITING. BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.

#### TREE PROTECTION NOTES

THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS. SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A SAW OR TOPPERS. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL TIMES.

#### VEGETATION REMOVAL/REPLACEMENT NOTES

- VEGETATION REMOVED IN AREAS OUTSIDE OF BUILDING FOOTPRINTS, DRIVEWAYS, AND CONSTRUCTION ACCESS AREAS SHALL BE REPLACED WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, IMMEDIATELY AFTER GRADING IS COMPLETE IN THAT AREA. PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION TO THE CURRENT PLANNING SECTION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.
- 2. THE APPLICANT SHALL REPLACE ALL VEGETATION REMOVED IN ALL AREAS NOT COVERED BY CONSTRUCTION WITH DROUGHT-TOLERANT, NON-INVASIVE PLANTS, ONCE CONSTRUCTION IS COMPLETED. PRIOR TO THE CURRENT PLANNING SECTION'S FINAL APPROVAL OF ANY BUILDING PERMIT, THE APPLICANT SHALL SUBMIT PHOTOGRAPHS DEMONSTRATING COMPLIANCE WITH THIS CONDITION, SUBJECT TO REVIEW AND APPROVAL BY THE COMMUNITY DEVELOPMENT DIRECTOR.

#### DUST CONTROL NOTES

- 1. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED. TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 2. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION. AND THE

#### REGIONAL WATER QUALITY CONTROL BOARD. DISCOVERY OF HUMAN REMAINS NOTE

1. THE APPLICANT AND CONTRACTORS MUST BE PREPARED TO CARRY OUT THE REQUIREMENTS OF CALIFORNIA STATE LAW WITH REGARD TO THE DISCOVERY OF HUMAN REMAINS DURING CONSTRUCTION, WHETHER HISTORIC OR PREHISTORIC. IN THE EVENT THAT ANY HUMAN REMAINS ARE ENCOUNTERED DURING SITE DISTURBANCE, ALL GROUND-DISTURBING WORK SHALL CEASE IMMEDIATELY AND THE COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY. IF THE CORONER DETERMINES THE REMAINS TO BE NATIVE AMERICAN, THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED WITHIN 24 HOURS. A QUALIFIED ARCHAEOLOGIST, IN CONSULTATION WITH THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL RECOMMEND SUBSEQUENT MEASURES FOR DISPOSITION OF THE REMAINS.

#### GEOTECHNICAL INSPECTION NOTE

PRIOR TO ISSUANCE OF BUILDING PERMITS, THE PROJECT GEOTECHNICAL CONSULTANT SHALL FIELD INSPECT (AND INVESTIGATE, AS NEEDED) ALL PROPOSED DRAINAGE DISCHARGE LOCATIONS AND VERIFY THAT PROPOSED DRAINAGE DESIGNS ARE ACCEPTABLE FROM A SLOPE STABILITY/EROSION PERSPECTIVE OR RECOMMEND APPROPRIATE MODIFICATIONS.

### MITIGATION AQ-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING BAAQMD RECOMMENDED AND ADDITIONAL PM10 REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS: THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT). WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 2. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT. OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.

- 3. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 4. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 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 THE CONSTRUCTION SITES.
- 4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 8. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 9. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 10. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE
- 11. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 12. INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 13. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.

## MITIGATION NOI-1

- THE PROJECT APPLICANT SHALL REQUIRE THAT THE FOLLOWING NOISE REDUCTION PRACTICES BE IMPLEMENTED BY INCLUDING THEM IN THE CONTRACTOR CONSTRUCTION DOCUMENTS:
- 2. EQUIPMENT AND TRUCKS USED FOR PROJECT GRADING AND CONSTRUCTION WOULD UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES (E.G., IMPROVED EXHAUST MUFFLERS, EQUIPMENT REDESIGN, USE OF INTAKE SILENCERS, DUCTS, ENGINE ENCLOSURES, AND ACOUSTICALLY-ATTENUATING SHIELDS OR SHROUDS) IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS.
- 3. EQUIPMENT USED FOR PROJECT GRADING AND CONSTRUCTION WOULD BE HYDRAUL- ICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS AND PAVEMENT BREAKERS) WHEREVER POSSIBLE TO AVOID NOISE ASSOCIATED WITH COMPRESSED AIR EXHAUST FROM PNEUMATICALLY-POWERED TOOLS. COMPRESSED AIR EXHAUST SILENCERS WOULD BE USED ON OTHER EQUIPMENT. OTHER QUIETER PROCEDURES WOULD BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT WHENEVER FEASIBLE.
- 4. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. SATURDAY HOURS (8:00 AM TO 5:00 PM) ARE PERMITTED UPON THE DISCRETION OF COUNTY APPROVAL BASED ON INPUT FROM NEARBY RESIDENTS AND BUSINESSES. SATURDAY CONSTRUCTION (8:00 AM TO 5:00 PM) WOULD BE ALLOWED ONCE THE BUILDINGS ARE FULLY ENCLOSED. NOISE GENERATING GRADING AND CONSTRUCTION ACTIVITIES SHALL NOT OCCUR AT ANY TIME ON SUNDAYS, THANKSGIVING AND CHRISTMAS
- RESIDENTIAL PROPERTY OWNERS WITHIN 200 FEET OF PLANNED CONSTRUCTION AREAS SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING. PRIOR TO CONSTRUCTION: THE PROJECT SPONSOR SHALL DESIGNATE A 'DISTURBANCE COORDI- NATOR' WHO SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS REGARDING CONSTRUCTION NOISE: THE COORDINATOR (WHO MAY BE AN EMPLOYEE OF THE DEVELOPER OR GENERAL CONTRACTOR) SHALL DETERMINE THE CAUSE OF THE COMPLAINT AND SHALL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED; A TELEPHONE NUMBER OF THE NOISE DISTURBANCE COORDINATOR SHALL BE CONSPICUOUSLY POSTED AT THE CONSTRUC-TION SITE FENCE AND ON THE NOTIFICATION SENT TO NEIGHBORS

ADJACENT TO THE SITE.

THE PROJECT BENCHMARK IS THE TOP OF AN IRON PIPE, ELEVATION OF 538.23, LOCATED WITHIN A MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINES OF COBBLEHILL PLACE AND NEW BRUNSWICK DRIVE IN SAN MATEO, CALIFORNIA. THE ELEVATION SHOWN IN BASED UPON A SURVEY BY BKF ENGINEERS IN MARCH OF 2011 AND IS BASED UPON AN ASSUMED ELEVATION.

# **BASIS OF BEARINGS:**

THE BEARING NORTH 76° 09' 00" EAST OF THE CENTERLINE OF COBBLE HILL PLACE AS SHOWN ON TRACT MAP NO. 723. THE HIGHLANDS, RECORDED ON AUGUST 26TH, 1955, IN VOLUME 43 OF MAPS AT PAGES 23-25, SAN MATEO COUNTY RECORDS.

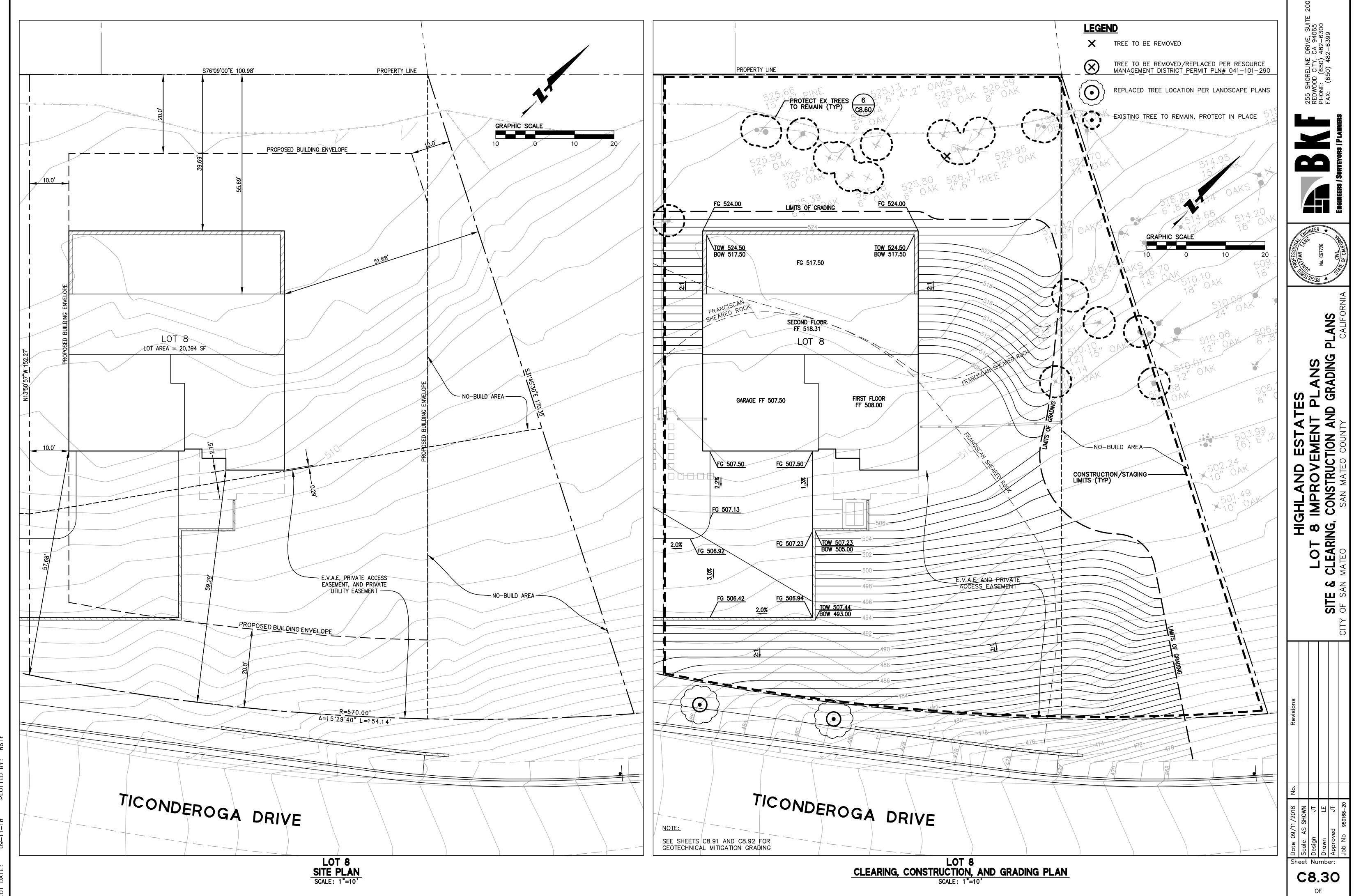


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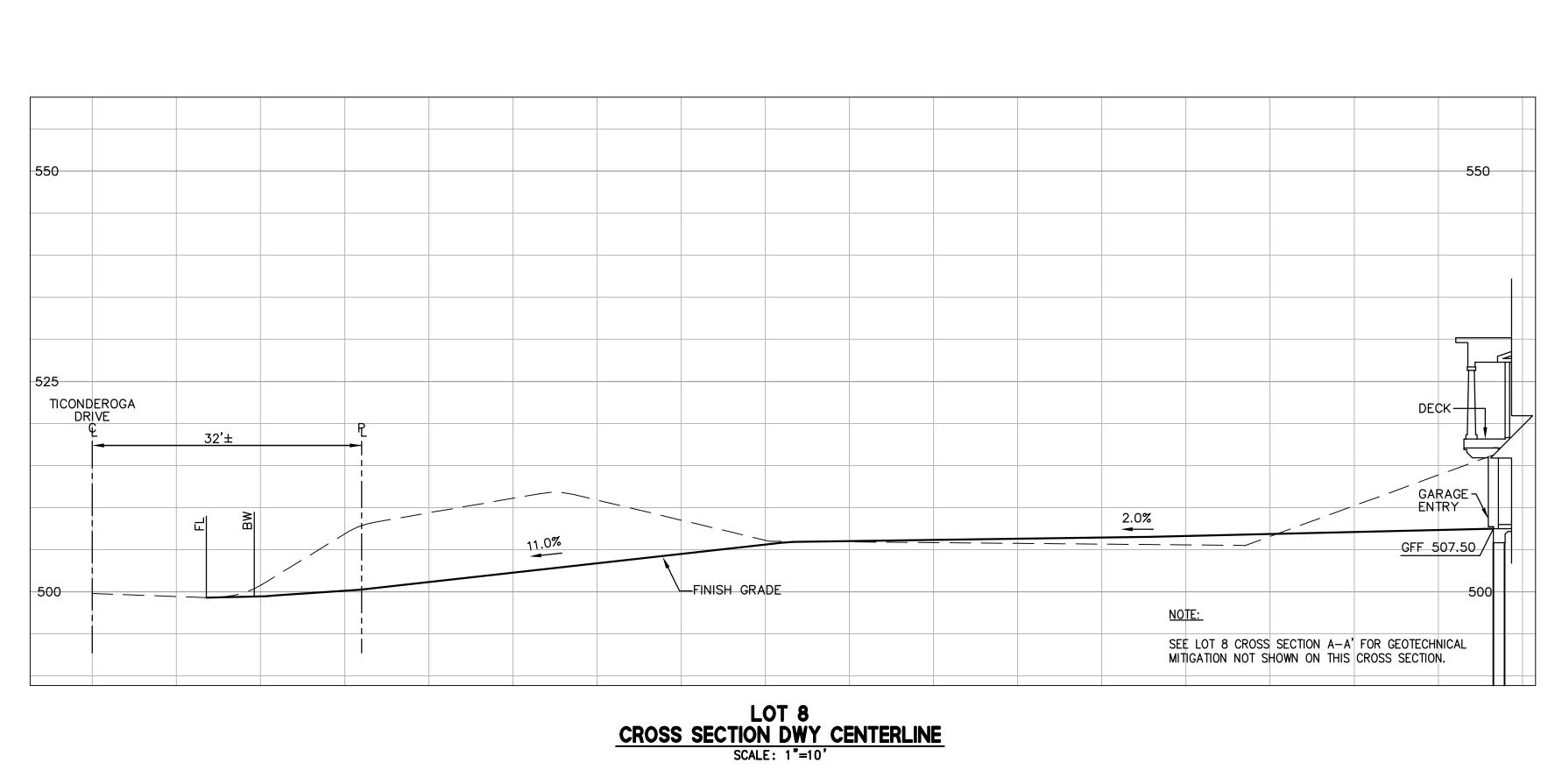
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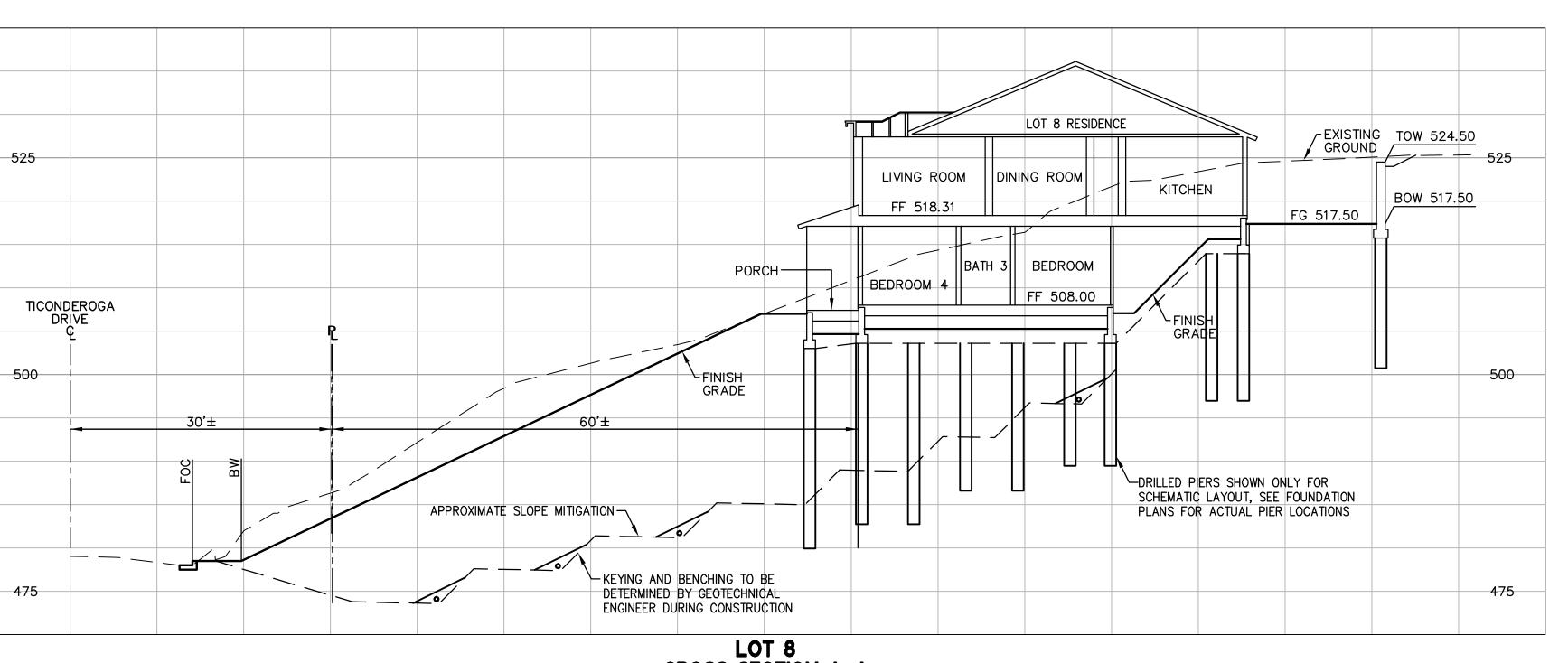
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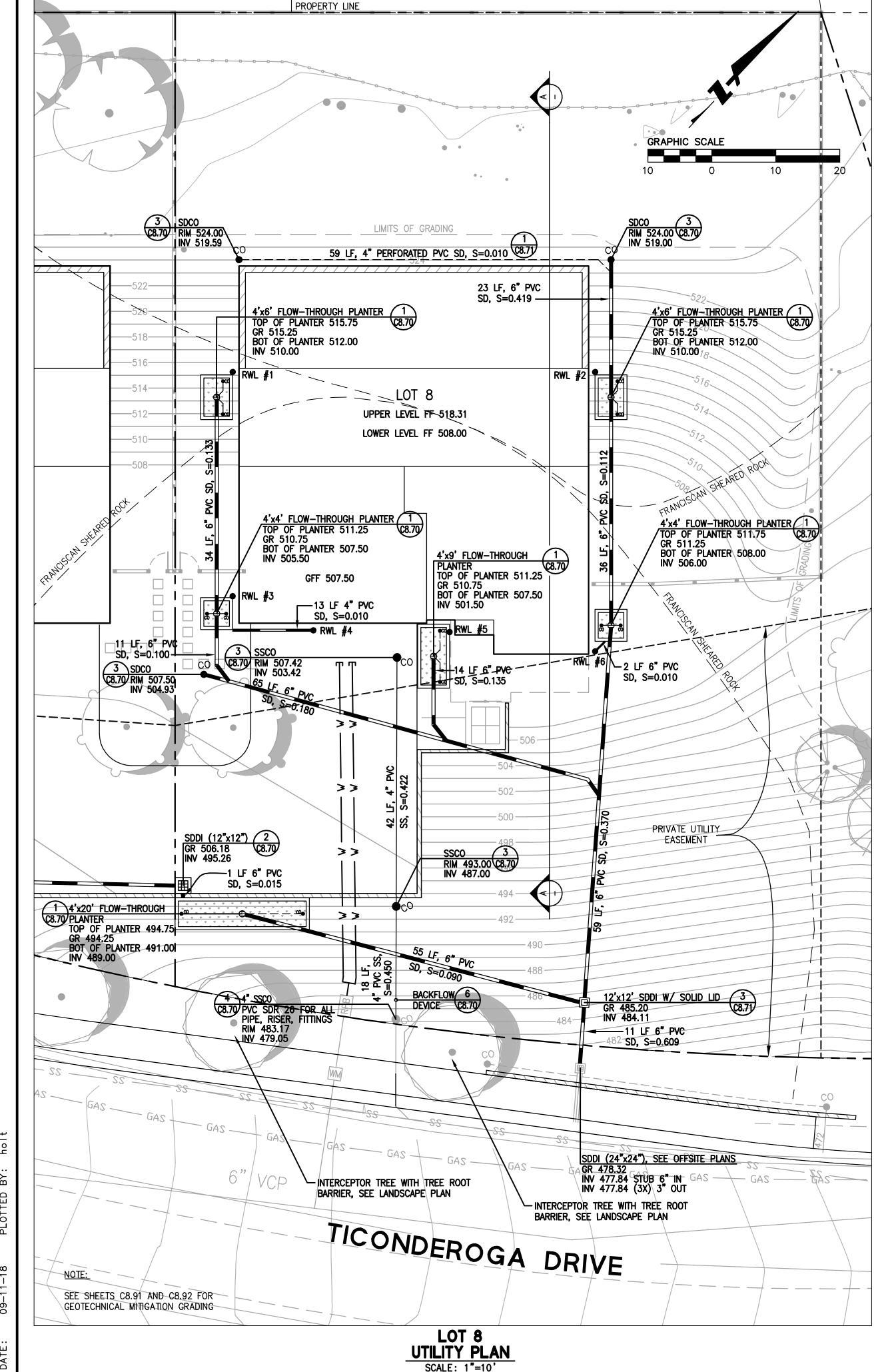
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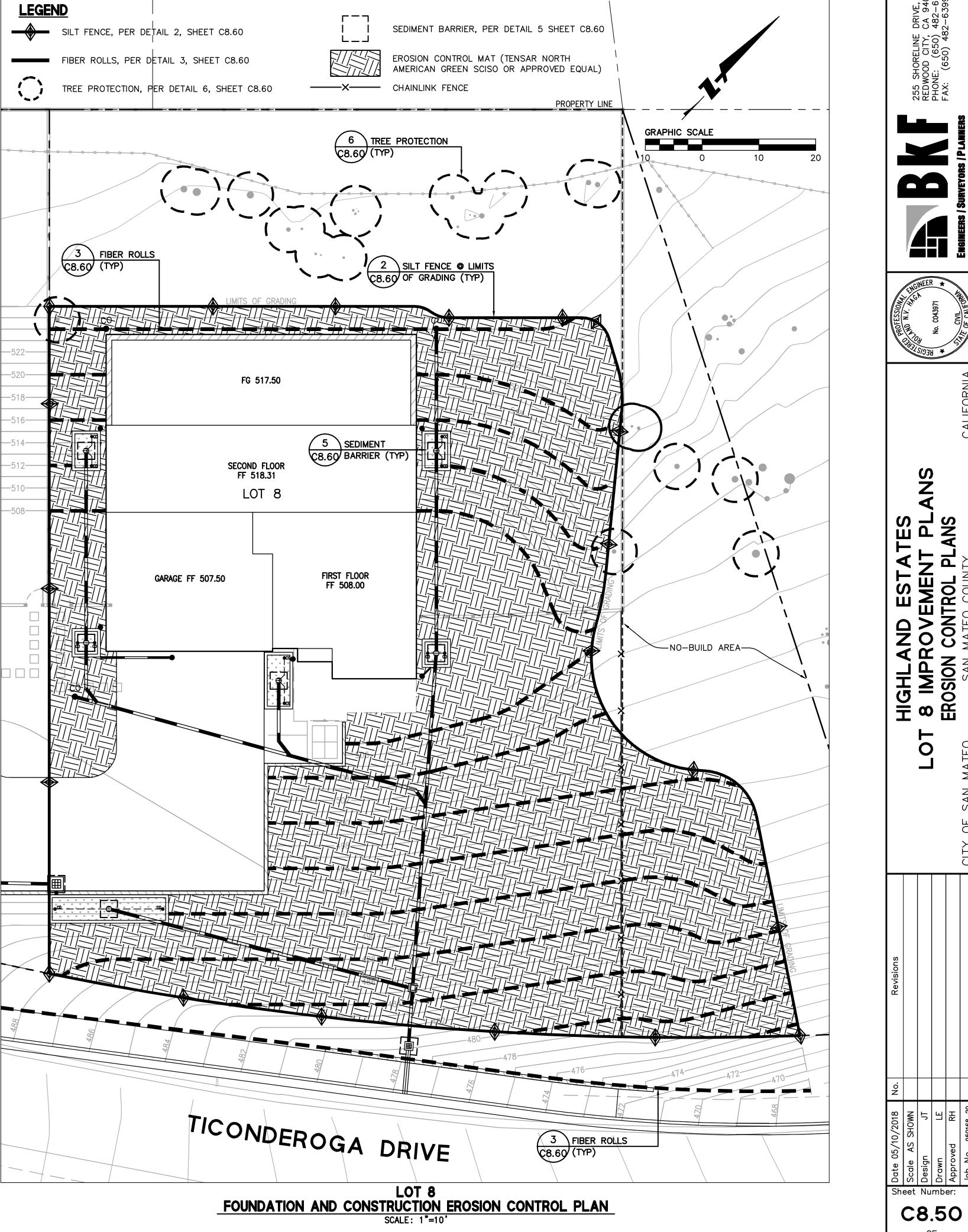


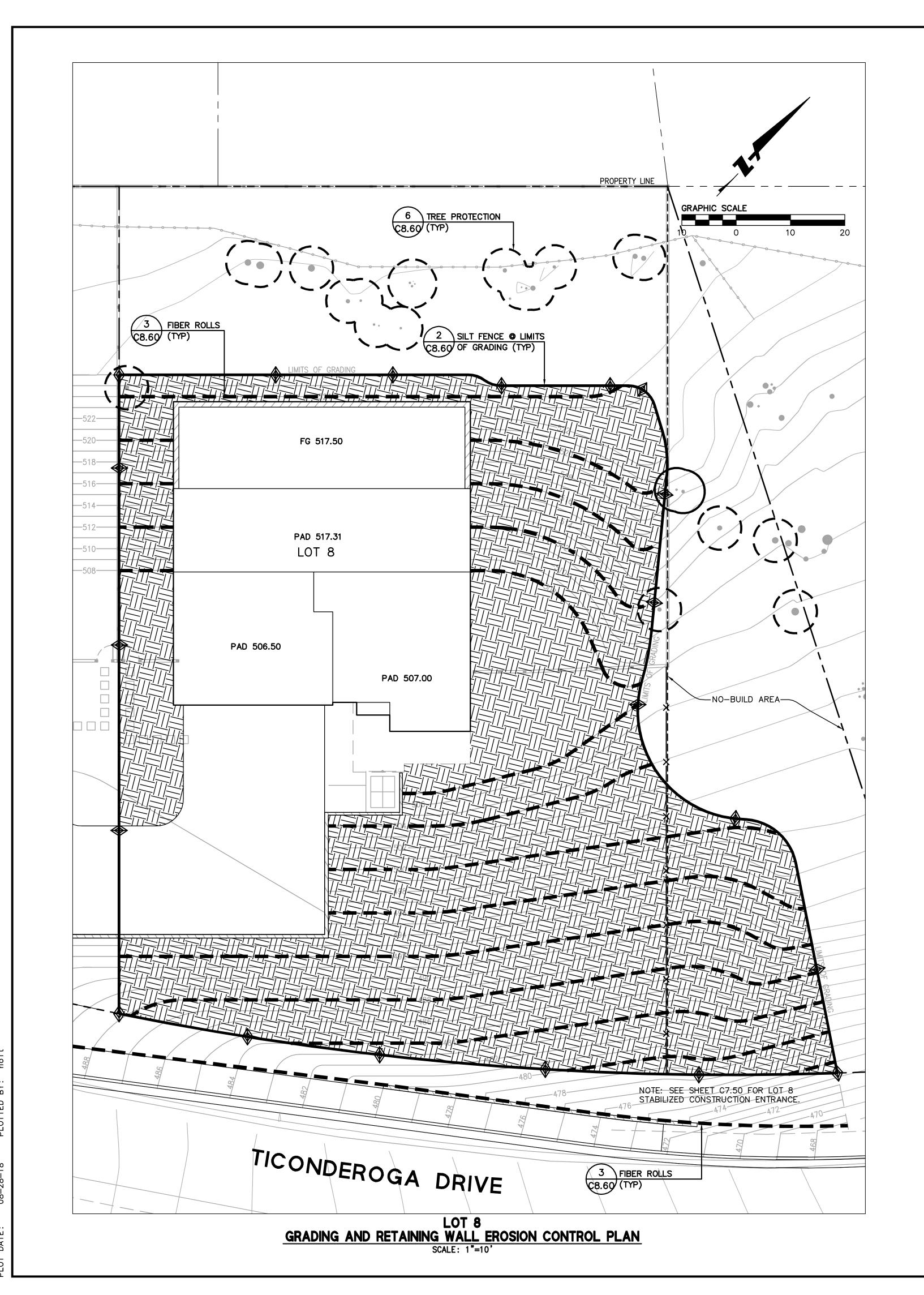
- 1. PER THE GEOTECHNICAL REPORT, UNDOCUMENTED FILL WAS MAPPED AT LOT 5 AND IF THIS FILL IS TO BE LEFT IN PLACE
- 2. PER THE GEOTECHNICAL REPORT, ALL EXISTING FILLS SHOULD BE COMPLETELY REMOVED FROM WITHIN PROPOSED HOUSE FOOTPRINT AND DRIVEWAY AREAS AND TO A LATERAL DISTANCE OF AT LEAST 5 FEET BEYOND THE EDGE OF THE IMPROVEMENTS OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LAWFUL MANNER.
- 3. PER THE GEOTECHNICAL REPORT, GEOTECHNICAL MITIGATION GRADING WILL BE PERFORMED ON LOT 8, SEE SHEETS C8.91 AND C8.92 FOR GRADING DETAILS OF THE MITIGATION
- 4. PER THE GEOTECHNICAL REPORT, ALL BUILDING AND RETAINING WALLS SHOULD BE SUPPORTED ON DRILLED PIERS. THE FOUNDATION SHOWN ON THIS PLAN ARE SCHEMATIC. REFER TO THE PROJECT STRUCTURAL PLANS FOR DETAILS ON THE DRILLED PIERS.





LOT 8
CROSS SECTION A-A SCALE: 1"=10'





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- THE INTENT OF THESE PLANS IS TO PROVIDE THE INITIAL CONCEPT FOR INTERIM EROSION CONTROL. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
- 5. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROAD CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- 6. BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR AROUND.
- DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
- 8. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- 9. THE FIRST PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY. THE REMAINDER OF CONSTRUCTION EQUIPMENT (70 PERCENT), WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL BE REQUIRED TO USE EMULSIFIED FUELS.
- 10. THE SECOND PHASE OF CONSTRUCTION SHALL REQUIRE 30 PERCENT OF CONSTRUCTION EQUIPMENT TO MEET TIER 2 EPA CERTIFICATION STANDARDS FOR CLEAN TECHNOLOGY AND 50 PERCENT TO MEET TIER 1 EPA CERTIFICATION STANDARDS. THE REMAINING 20 PERCENT OF CONSTRUCTION EQUIPMENT, WHICH WOULD CONSIST OF OLDER TECHNOLOGIES, SHALL USE EMULSIFIED FUELS.
- 11. FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CARB LEVEL THREE VERIFIED CONTROL DEVICES.
- 12. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- 13. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 14. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 15. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
- 16. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
- 17. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
- 18. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED
- 19. SEED MIX FOR REVEGETATION AND HYDROSEEDING:
- NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL

UNLESS ALTERNATIVE MEASURES ARE USED.

- 30% BLUE WILDRYE 30% MEADOW BARLEY 20% ZORRO FESCUE 10% PURPLE NEEDLE GRASS
- 10% CALIFORNIA NATIVE WILDFLOWERS

APPLY AT 40 POUNDS PER ACRE MINIMUM

- 20. ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.). LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 21. DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
- 22. LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- 23. INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- 24. REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- 25. INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- 26. INSTALL WND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- 27. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
- 28. NO GRADING SHALL BE ALLOWED DURING THE WINTER SEASON (OCTOBER 1 TO APRIL 30) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED, IN WRITING, BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.
- 29. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF STRAW BALES OR COIR NETTING, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND REVEGETATING DISTURBED AREAS WITH VEGETATION THAT IS COMPATIBLE WITH THE SURROUNDING ENVIRONMENT.
- 30. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST THROUGH APRIL 30TH AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

- CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
- USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAINING ALL NECESSARY PERMITS.
- 33. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A
- DELINEATE WITH FIELD MARKERS CLEARING LIMITS, SETBACKS, AND DRAINAGE

DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED.

COURSES.

- 35. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- 36. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
- 37. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
- 38. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
- 39. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST. OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
- 40. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION, AND THE REGIONAL WATER QUALITY CONTROL BOARD.
- 41. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
- 42. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
- STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE
- HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS, EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
- 45. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
- 46. EROSION CONTROL POINT OF CONTACT: NOEL CHAMBERLAIN, NEXGEN BUILDERS INC. 225 DEMETER STREET EAST PALO ALTO, CA 94303 PHONE #: 650-322-5800 CELL #: 650-444-3089 EMAIL: noel@nexgenbuilders.com
- SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- 48. AREAS DELINEATED ON PLANS FOR PARKING, CLEARING & GRUBBING, STORAGE, ETC. SHALL NOT BE ENLARGED OR "RUN OVER."
- 49. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS
- 50. DUST CONTROL IS REQUIRED YEAR-ROUND.

ON-SITE DURING THE "OFF-SEASON."

- 51. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
- 52. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.
- 53. TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

#### WIDTH AS REQUIRED TO **ACCOMMODATE** ANTICIPATED TRAFFIC EXISTING PAVED ROADWAY -4"-6" CRUSHED AGGREGATE MINIMUM 12" THICK MATCH -50' MINIMUM EXISTING OR FOUR TIMES THE CIRCUMFERENCE OF THE LARGEST CONSTRUCTION GRADE VEHICLE TIRE, WHICHEVER IS GREATER <u>PLAN</u> 4"-6" CRUSHED **AGGREGATE** 12" MIN.--GEO-TEXTILE FABRIC

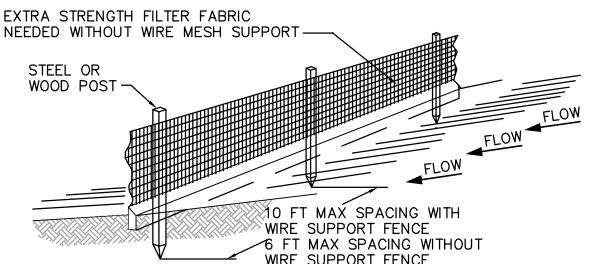
1. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY.

SECTION A-A

NTS

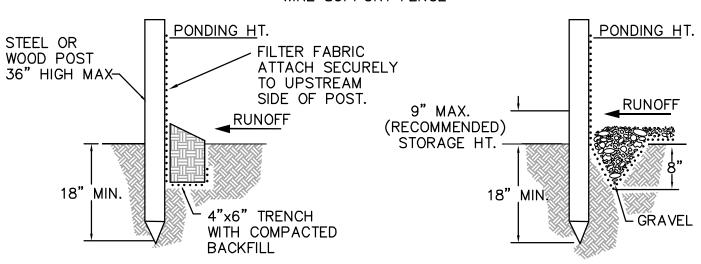
- 2. WHEELS SHALL BE CLEAN PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN. DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
- 3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 4" TO 6" STONE.
- 4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12".
- 5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- 6. THE LENGTH OF THE PAD SHALL NOT BE LESS THAN 50'

# STABILIZED CONSTRUCTION ENTRANCE



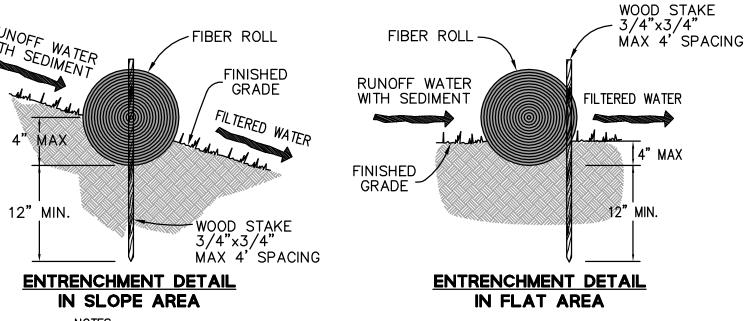
INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE

SEDIMENT OFF-SITE AND CAN BE PERMANENTI Y STABILIZED. 3. SILT FENCE SHALL BE PLACED ON SLOPE TO MAXIMIZE PONDING EFFICIENCY.



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL **ALTERNATE DETAIL** TRENCH WITH GRAVEL

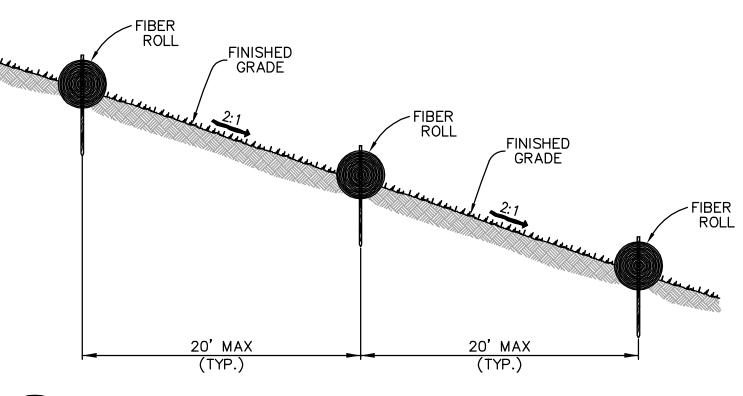




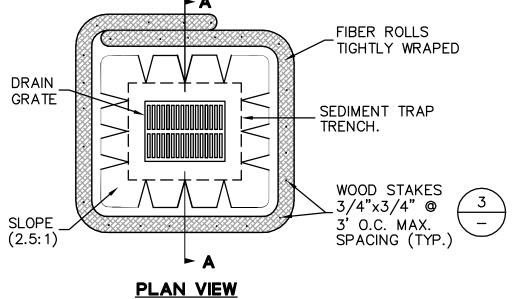
 FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH. 3" TO 4" DEEP. DUG ON CONTOUR.

NTS

- 2. ADJACENT ROLLS SHALL TIGHTLY ABUT. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
  - FIBER ROLL



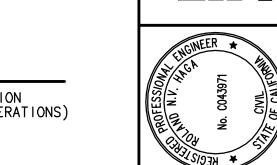
FIBER ROLL INSTALLATION ON SLOPE TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)



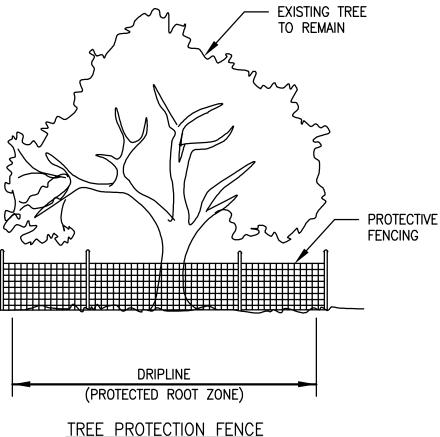
- PONDING HEIGHT STRAW FIBER ROLLS

EMBED FIBER ROLL 3"-4" INTO SOIL. PROVIDE 1' WIDE BY 6 -DEEP SEDIMENT TRAP SECTION A-A

- 1. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX. 8" DIA. AND 20 - 30 FT. LONG.)
- FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3" - 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
- 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.



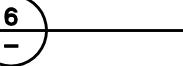
(TIME FRAME: AREA DRAINS — BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION CURB INLETS - BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)



SEDIMENT BARRIER

TRENCH AROUND INLET

- 1. THE APPLICANT SHALL ESTABLISH AND MAINTAIN TREE PROTECTION ZONES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.
- 2. TREE PROTECTION ZONES SHALL BE DELINEATED USING 4-FOOT TALL ORANGE PLASTIC FENCING SUPPORTED BY POLES POUNDED INTO THE GROUND, LOCATED AS CLOSE TO THE DRIPLINES AS POSSIBLE WHILE STILL ALLOWING ROOM FOR CONSTRUCTION/GRADING TO SAFELY CONTINUE.
- 3. THE APPLICANT SHALL MAINTAIN TREE PROTECTION ZONES FREE OF EQUIPMENT AND MATERIALS STORAGE AND SHALL NOT CLEAN ANY EQUIPMENT WITHIN THESE AREAS.
- SHOULD ANY LARGE ROOTS OR LARGE MASSES OF ROOTS NEED TO BE CUT, THE ROOTS SHALL BE INSPECTED BY A CERTIFIED ARBORIST OR REGISTERED FORESTER PRIOR TO CUTTING. ANY ROOT CUTTING SHALL BE MONITORED BY AN ARBORIST OR FORESTER AND DOCUMENTED.
- 5. ROOTS TO BE CUT SHOULD BE SEVERED CLEANLY WITH A
- 6. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION.
- 7. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL



5

TREE PROTECTION FENCE

NTS

#### CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) STANDARD DETAIL REFERENCES

(CALIFORNIA STORMWATER BMP HANDBOOK CONSTRUCTION, DATED NOVEMBER 2009) NOTE: ALTHOUGH SPECIFIC LOCATIONS FOR SPECIFIC BMPS ARE SHOWN ON THESE PLANS, IT IS INTENDED FOR THE CONTRACTOR TO APPLY APPROPRIATE BMPS WHEN NECESSARY TO MEET FIELD CONDITIONS.

#### **EROSION CONTROL BMPS:**

- SCHEDULING PRESERVATION OF EXISTING VEGETATION HYDRAULIC MULCH
- EC-4 HYDROSEEDING
- EC-5 SOIL BINDERS STRAW MULCH
- GEOTEXTILES & MATS
- WOOD MULCHING EARTH DIKES AND DRAINAGE SWALES
- EC-10 VELOCITY DISSIPATION DEVICES
- EC-11 SLOPE DRAINS EC-12 STREAMBANK STABILIZATION EC-14 COMPOST BLANKETS
- EC-15 SOIL PREPARATION/ROUGHENING EC-16 NON-VEGETATIVE STABILIZATION

#### TEMPORARY SEDIMENT CONTROL BMPS:

- SILT FENCE SE-1
- SE-2 SEDIMENT BASIN SEDIMENT TRAP SE-3
- SE-4 CHECK DAM
- SE-5 FIBER ROLLS GRAVEL BAG BERM SE-6
- STREET SWEEPING AND VACUUMING SE-7
- SANDBAG BARRIER SE-8
- SE-9 STRAW BALE BARRIER
- SE-10 STORM DRAIN INLET PROTECTION SE-11 ACTIVE TREATMENT SYSTEMS
- SE-12 TEMPORARY SILT DIKE
- SE-13 COMPOST SOCKS AND BERMS
- SE-14 BIOFILTER BAGS

WIND EROSION CONTROL BMPS:

WIND EROSION CONTROL

#### TEMPORARY TRACKING CONTROL BMPS:

- TC-1 STABILIZED CONSTRUCTION
- ENTRANCE/EXIT

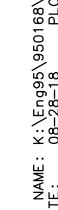
TC-2 STABILIZED CONSTRUCTION ROADWAY

TC-3 ENTRANCE/OUTLET TIRE WASH

#### NON-STORMWATER MANAGEMENT BMPS:

- WATER CONSERVATION PRACTICES
- DEWATERING OPERATIONS PAVING AND GRINDING OPERATIONS
- TEMPORARY STREAM CROSSING CLEAR WATER DIVERSION
- NS-6 ILLICIT CONNECTION/DISCHARGE NS-7 POTABLE WATER/IRRIGATION
- VEHICLE AND EQUIPMENT CLEANING
- VEHICLE AND EQUIPMENT FUELING NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
- NS-11 PILE DRIVING OPERATIONS NS-12 CONCRETE CURING
- NS-13 CONCRETE FINISHING NS-14 MATERIAL AND EQUIPMENT USE
- NS-15 DEMOLITION ADJACENT TO WATER NS-16 TEMPORARY BATCH PLANTS
- WASTE MANAGEMENT & MATERIALS POLLUTION
- CONTROL BMPS: MATERIAL DELIVERY AND STORAGE
- MATERIAL USE
- STOCKPILE MANAGEMENT
- SPILL PREVENTION AND CONTROL
- SOLID WASTE MANAGEMENT
- HAZARDOUS WASTE MANAGEMENT CONTAMINATED SOIL MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
- WM-10 LIQUID WASTE MANAGEMENT

C8.60 OF



Sheet Number:

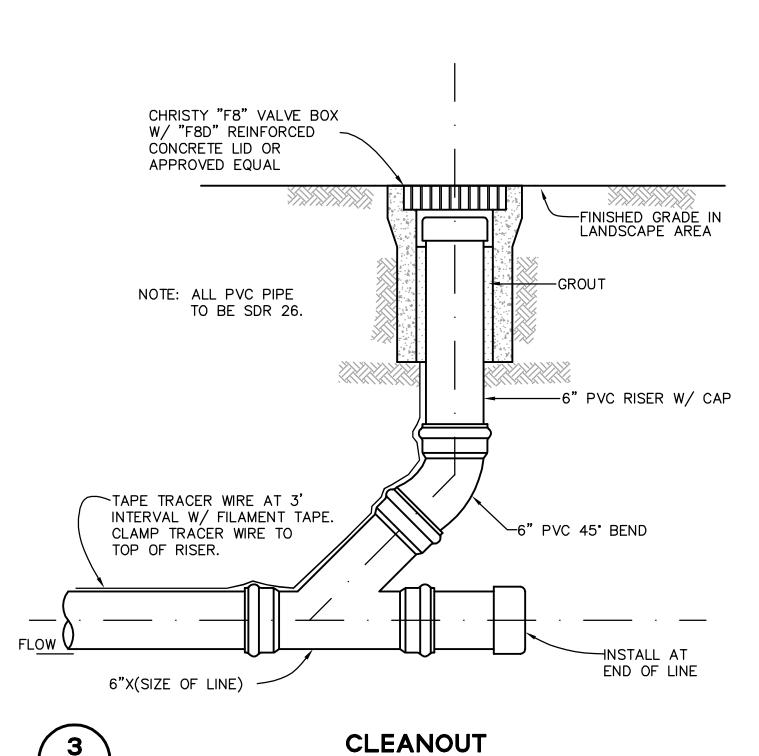
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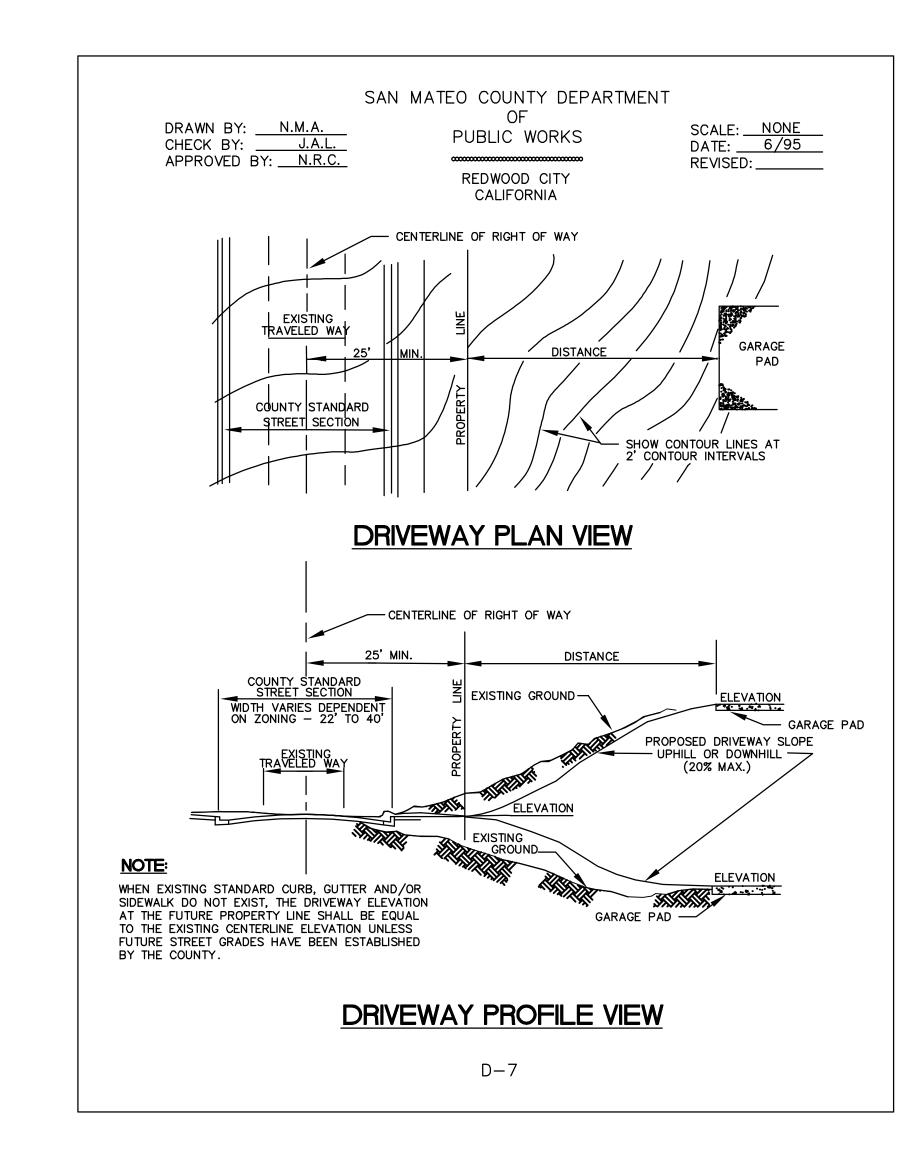
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OF

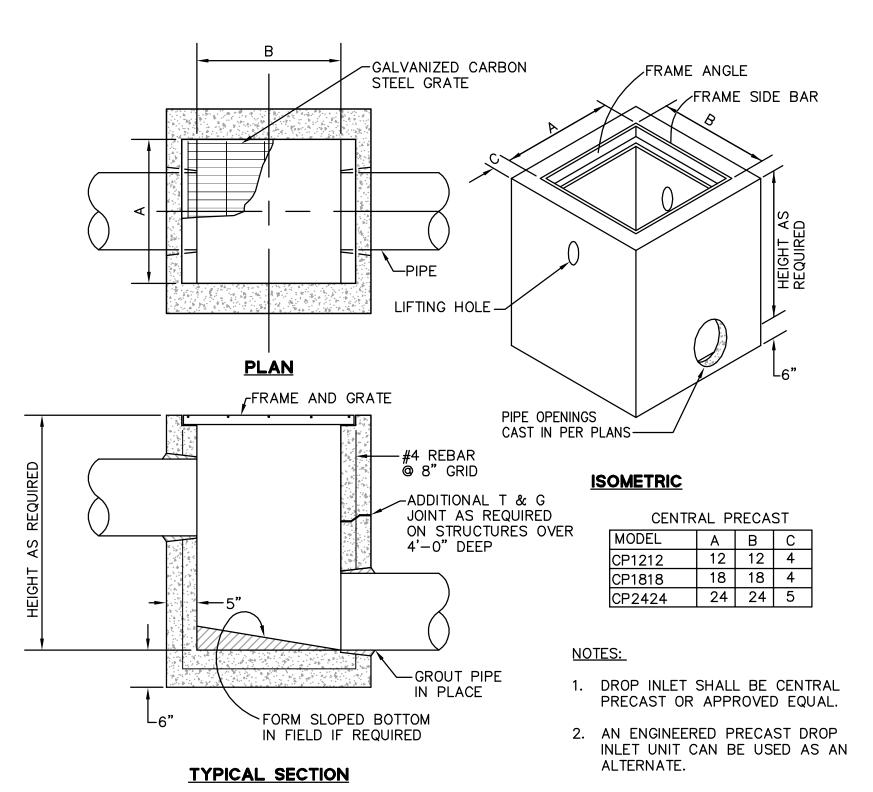
SAN MATEO COUNTY DEPARTMENT OF DRAWN BY: N.M.A. PUBLIC WORKS CHECK BY: DATE: <u>6/95</u> APPROVED BY: N.R.C. REVISED: \_\_\_\_\_ REDWOOD CITY CALIFORNIA NON-PERFORATED ALUMINUM CONE UPSTREAM BACKWATER STRUCTURE -OVERFLOW REMOVE STANDARD -~ 3" OR 3-1/2" N.P.T. CLEANOUT PLUG OR PLAIN END FINISH GRADE TO BUILDING OVERFLOW DEVICE NOTE: LOCATION OF DEVICE TO APPROVAL OF DISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION - HINGE POINT VALVE OPENS TO A ALLOW WASTE WATER TO FLOW INTO SEWER MAIN; VALVE CLOSES BY ITS OWN WEIGHT TO PREVENT WASTEWATER FROM FLOWING BACK TO HOUSE LATERAL. TO SEWER MAIN NOTE: LOCATION OF DEVICE APPROVAL OF ISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION BACKFLOW DEVICE OVERFLOW AND BACKFLOW DEVICE DETAIL

## SAN MATEO COUNTY OVERFLOW AND BACKFLOW DEVICE DETAIL

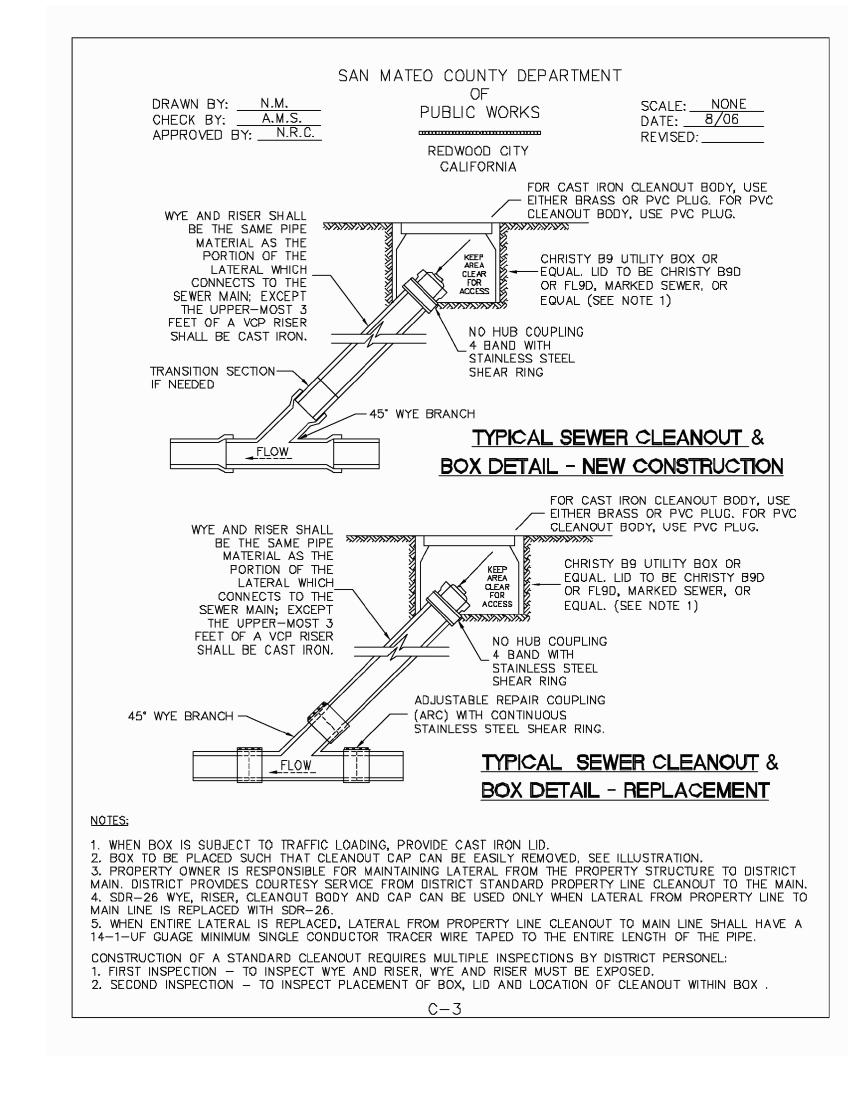




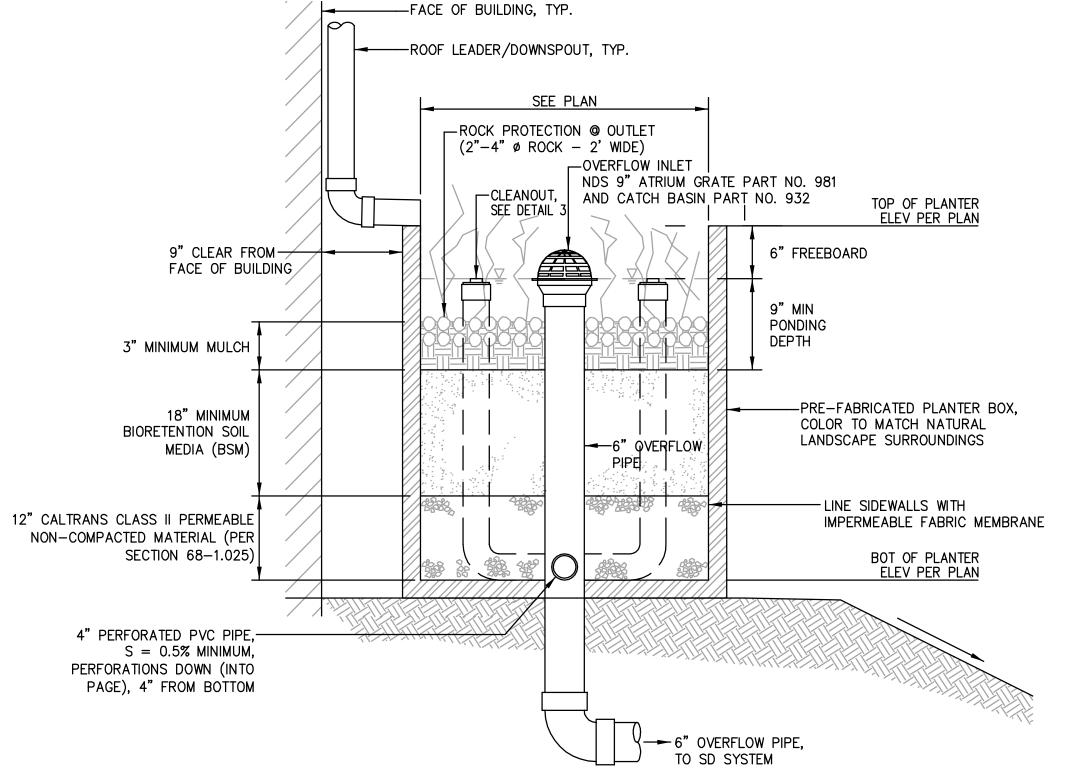
# SAN MATEO COUNTY DRIVEWAY PLAN AND PROFILE VIEWS



DROP INLET NTS





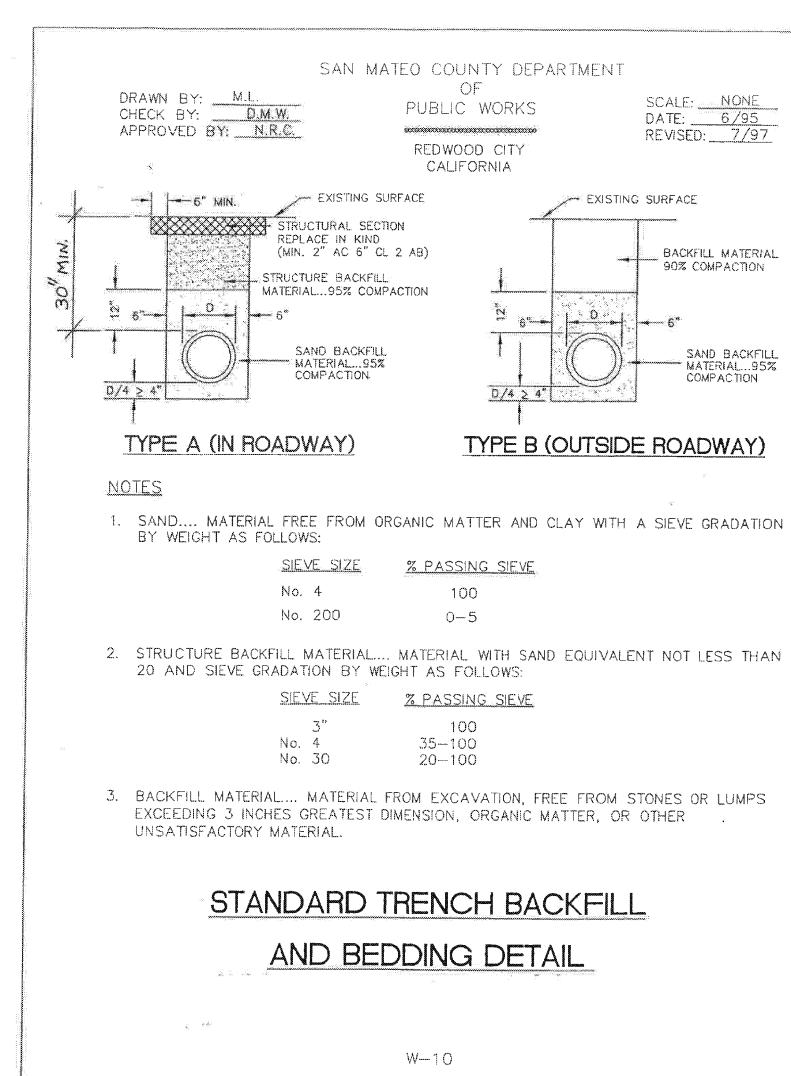


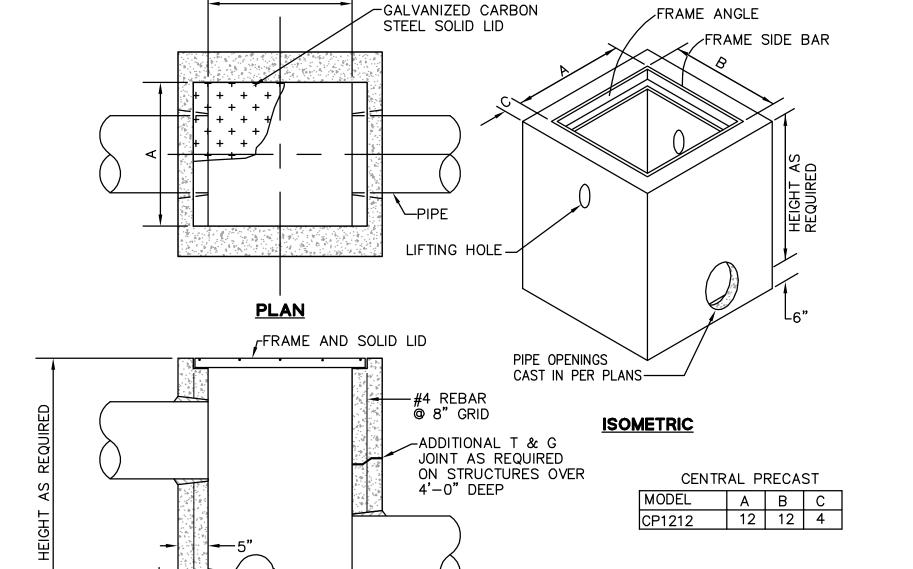
FLOW-THROUGH PLANTER (FTP)

\_ NTS

HIGHLAND EST T 8 IMPROVEME CONSTRUCTION SAN MATEO COUL 50

Sheet Number: C8.71





-GROUT PIPE

IN PLACE

NOTES: 1. DROP INLET SHALL BE CENTRAL PRECAST OR APPROVED EQUAL.

AN ENGINEERED PRECAST DROP INLET UNIT CAN BE USED AS AN ALTERNATE.

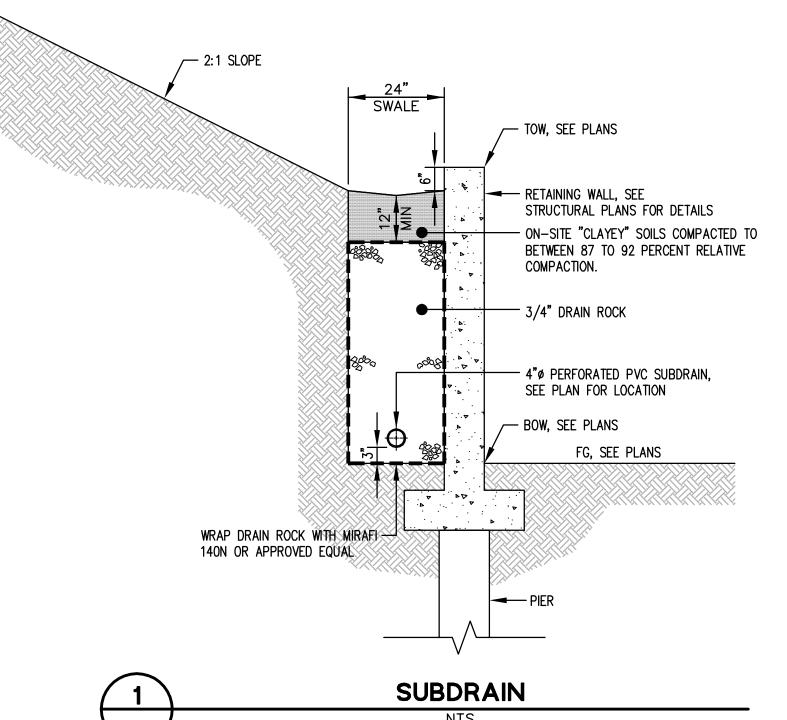
TYPICAL SECTION

FORM SLOPED BOTTOM

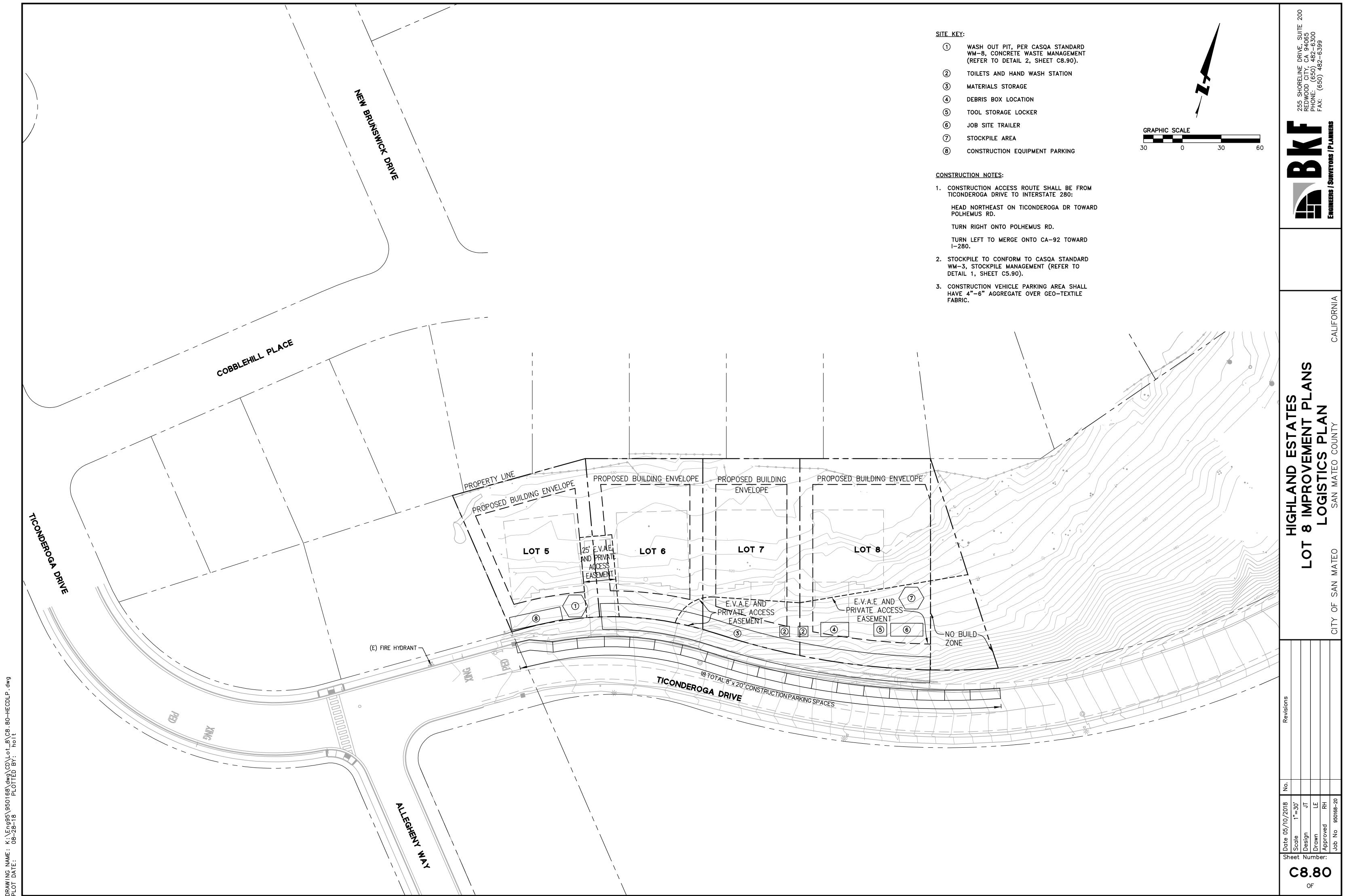
IN FIELD IF REQUIRED

DROP INLET

SAN MATEO COUNTY STANDARD TRENCH BACKFILL & BEDDING DETAIL NTS



OF



Targeted Constituents

Potential Alternatives

Sediment

Metals

Bacteria

Organics

Oil and Grease

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

January 2011

 Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.

Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.

Plastic sheeting breaks down faster in sunlight.

 The use of plastic materials should be avoided when feasible and photodegradable plastics should not be used.

Implementation Protection of stockpiles is a year-round requirement. To properly manage stockpiles:



Construction www.casqa.org

#### WM-3 **Stockpile Management**

 On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.

All stockpiles are required to be protected immediately if they are not scheduled to be used

 Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.

WM-3

 Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.

 Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.

Place bagged materials on pallets and under cover.

Ensure that stockpile coverings are installed securely to protect from wind and rain.

 Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows: Soil stockpiles

 Cover and project soil stockpiles with soil stabilization measures and a temporary perimeter sediment barrier at all times.

 Consider temporary vegetation for topsoil piles that will be stockpiled for extended periods. Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble,

aggregate base, or aggregate sub base Provide covers and protect these stockpiles with a temporary perimeter sediment barrier at

Stockpiles of "cold mix"

 Cover cold mix stockpiles and place them on plastic sheeting (or comparable material) and surround the stockpiles with a berm all times.

Stockpiles of fly ash, stucco, hydrated lime

 Cover stockpiles of materials that may raise the pH of runoff (i.e., basic materials) with plastic and surround the stockpiles with a berm at all times.

January 2011

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#### **Stockpile Management**

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate)

WM-3

■ Cover treated wood with plastic sheeting (or comparable material) and surround with a berm at all times.

Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

 All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.

■ Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.

■ The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

#### Inspection and Maintenance

■ Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

 It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).

Repair and/or replace perimeter controls and covers as needed to keep them functioning

Sediment shall be removed when it reaches one-third of the barrier height.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

January 2011 Construction www.casqa.org

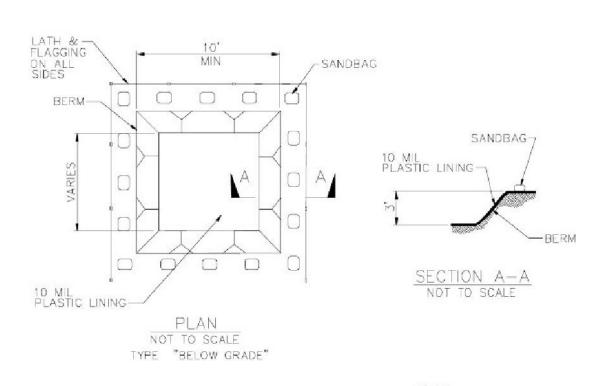
# WATERPROOF PLASTIC MEMBRANE-SECURE WITH ANCHORS OR WEIGHTS TO PREVENT WIND OR RAIN FROM DISTURBING STOCKPILE -STACKED GRAVEL BAGS SILT — FENCE PLACED AROUND THE BASE OF STOCKPILE

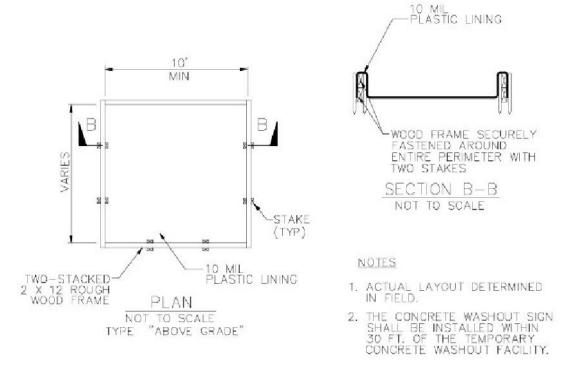
STOCKPILE COVERING (PER CASQA STANDARD WM-3, STOCKPILE MANAGEMENT, SEE LEFT)
NTS

#### WM-3 - STOCKPILE MANAGEMENT

#### NTS

#### Concrete Waste Management **WM-8**





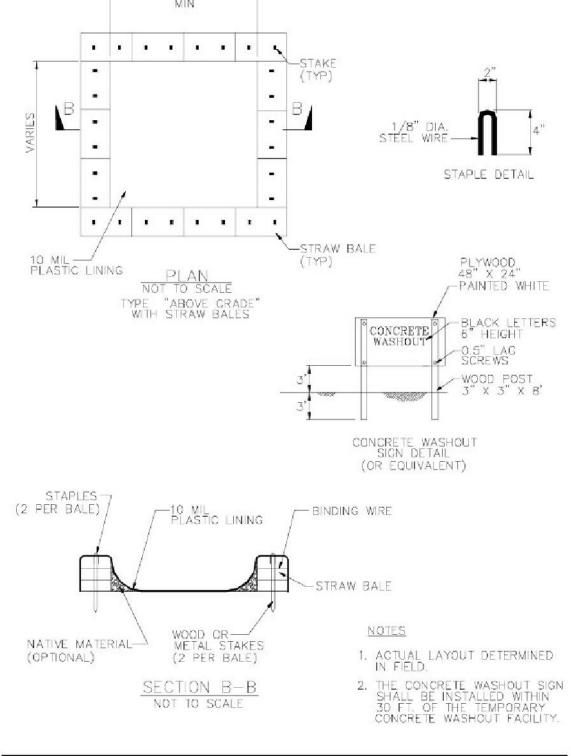
California Stormwater BMP Handbook

Construction

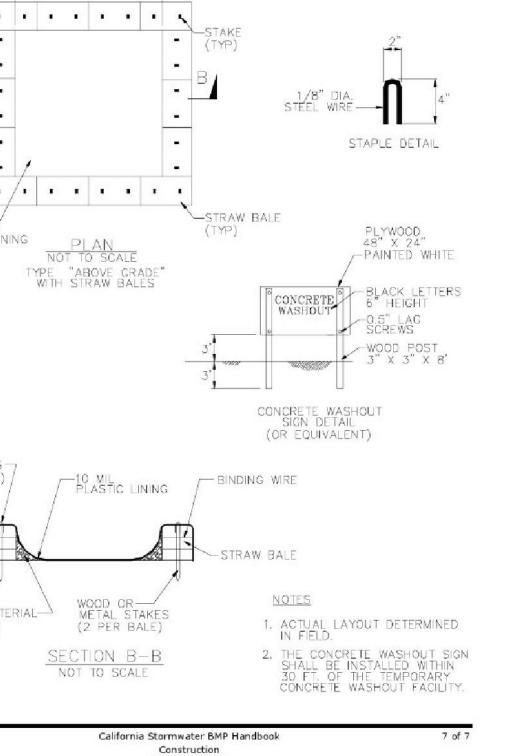
November 2009

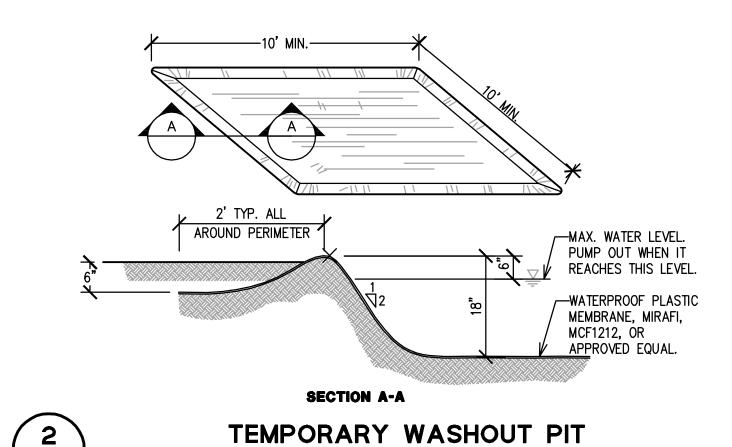
www.casqa.org

#### Concrete Waste Management **WM-8**



www.casqa.org

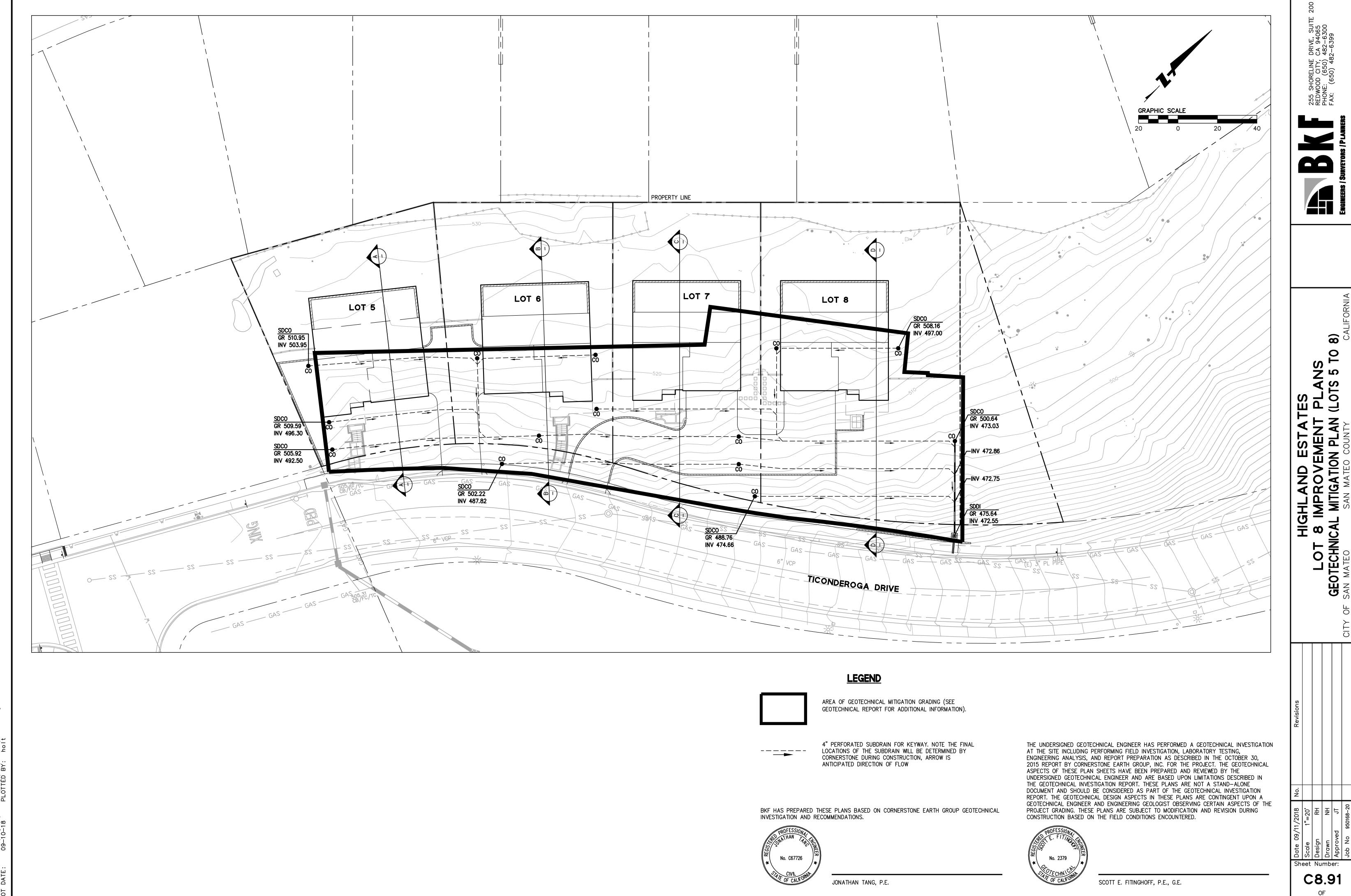




(PER CASQA STANDARD WM-8, CONCRETE WASTE MANAGEMENT, SEE LEFT)
NTS

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November 2009



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GEOTECHNICA

CORNERSTONE EARTH GROUP

FLOW RATE (ASTM D-4491):

500

— FINISH

-REMOVE ANY FILL REMAINING IF ENCOUNTERED

AFTER MAKING CUT

FOR FINISHED

GRADING.

DRILLED PIERS SHOWN ONLY FOR

ADJUST PIPE LOCATION IN FIELD TO BE OUTSIDE

THE LOCATION OF DRILLED PIERS

SCHEMATIC LAYOUT, SEE FOUNDATION

PLANS FOR ACTUAL PIER LOCATIONS

GRADE

GRAB STRENGTH (ASTM D-4632):

MASS PER UNIT AREA (ASTM D-4751):

PUNCTURE STRENGTH (ASTM D-4833):

APPARENT OPENING SIZE (ASTM D-4751):

PLANS FOR ACTUAL PIER LOCATIONS

LOT 8 RESIDENCE

PERORATED SUBDRAIN, SEE DETAIL 1, SHEET C8.92, TYP.

> C-C CROSS SECTION SCALE: 1"=10"

EXISTING -GROUND

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

ESTIMATED TOP OF-

SHEARED ROCK

GRADE

-APPROXIMATE SLOPE MITIGATION

D-D CROSS SECTION

SCALE: 1"=10"

4" PERORATED SUBDRAIN, SEE DETAIL 1, SHEET C8.92, TYP.

-KEYING AND BENCHING TO BE DETERMINED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION

OUTSIDE THE LOCATION OF DRILLED PIERS

COMPACTED-FILL 7////// SOLID COLLECTOR COMPACTED CLAY-BACKFILL

180 LBS.

5 OZ/YD

80 LBS.

80 GAL/MIN/FT

70-100 U.S. STD. SIEVE

DETAIL 1 - TYPICAL BENCH AND KEYWAY SUBDRAIN

THIS AREA MAY HAVE ACTIVE SEEPAGE DURING CONSTRUCTION. 2. COLLECTOR PIPE SHOULD BE 6" PERFORATED PIPE, SUCH AS SDR-35 OR SDR-23.5 OR

> APPROVED EQUIVALENT (SEE DETAIL 1 NOTE 5 UNDER "DRAINAGE MATERIAL") 3. PIPE FITTINGS FOR CLEAN-OUTS AND OTHER 90° BENDS IN THE SUBDRAIN SYSTEM (EXCEPT THE CONNECTION BETWEEN THE 4"PERFORATED PIPES AND 6" COLLECTION PIPES) SHOULD BE "SWEEP 90'S" OR OTHER APPROVED EQUIVALENT.

4. CONTRACTOR TO PROVIDE ALL INCIDENTAL FITTINGS IN THEIR BID PRICE TO CONSTRUCT THE SUBDRAIN SYSTEM. NOT ALL INCIDENTAL FITTINGS ARE SHOWN ON THESE PLANS.

5. FINAL SUBDRAIN LAYOUT AND PLACEMENT TO BE DETERMINED BY GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.

DETAIL 2 - SOLID COLLECTOR PIPE DETAIL

BKF HAS PREPARED THESE PLANS BASED ON CORNERSTONE EARTH GROUP GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS.



JONATHAN TANG, P.E.

THE UNDERSIGNED GEOTECHNICAL ENGINEER HAS PERFORMED A GEOTECHNICAL INVESTIGATION AT THE SITE INCLUDING PERFORMING FIELD INVESTIGATION, LABORATORY TESTING, ENGINEERING ANALYSIS, AND REPORT PREPARATION AS DESCRIBED IN THE OCTOBER 30, 2015 REPORT BY CORNERSTONE EARTH GROUP, INC. FOR THE PROJECT. THE GEOTECHNICAL ASPECTS OF THESE PLAN SHEETS HAVE BEEN PREPARED AND REVIEWED BY THE UNDERSIGNED GEOTECHNICAL ENGINEER AND ARE BASED UPON LIMITATIONS DESCRIBED THE GEOTECHNICAL INVESTIGATION REPORT. THESE PLANS ARE NOT A STAND-ALONE DOCUMENT AND SHOULD BE CONSIDERED AS PART OF THE GEOTECHNICAL INVESTIGATION REPORT. THE GEOTECHNICAL DESIGN ASPECTS IN THESE PLANS ARE CONTINGENT UPON A GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST OBSERVING CERTAIN ASPECTS OF THE PROJECT GRADING. THESE PLANS ARE SUBJECT TO MODIFICATION AND REVISION DURING CONSTRUCTION BASED ON THE FIELD CONDITIONS ENCOUNTERED.



SCOTT E. FITINGHOFF, P.E., G.E.

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