IMPROVEMENT PLANS FOR

HIGHLAND ESTATES - LOT 9 COBBLEHILL PLACE

COUNTY OF SAN MATEO, CALIFORNIA

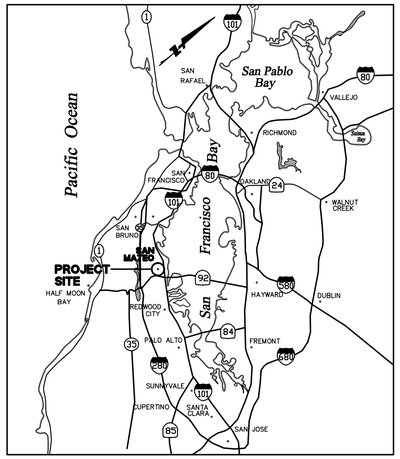
SHEET INDEX

EARTHWORK

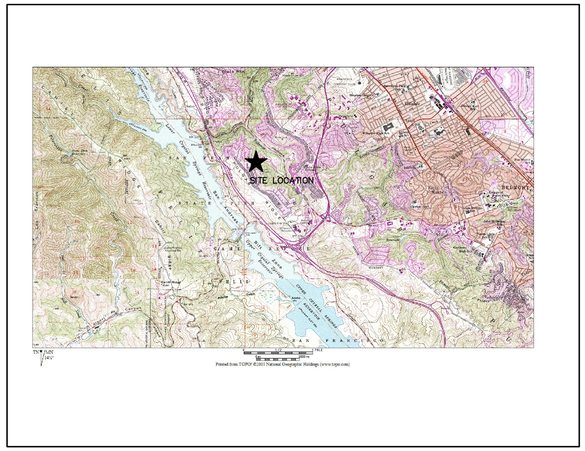
CUT	140	CY
FILL	1800	CY
NET	1660	CY FILL

EARTHWORK NOTES:

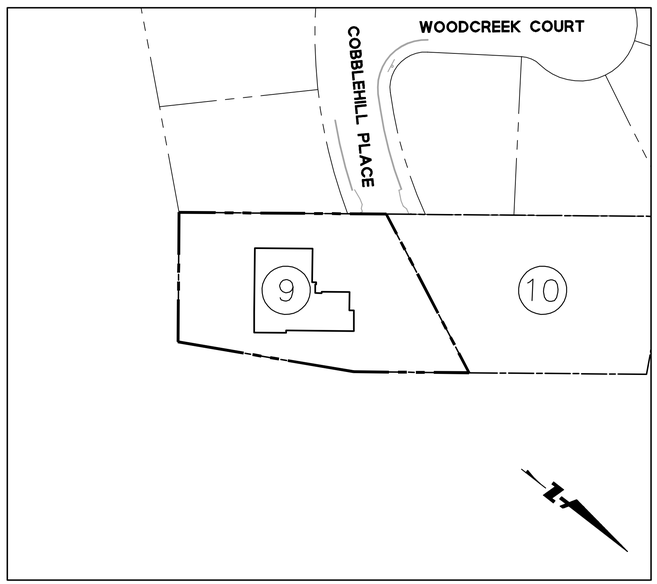
1. THE EARTHWORK QUANTITIES SHOWN ABOVE ARE IN-PLACE QUANTITIES AND HAVE BEEN ESTIMATED BY THE ENGINEER WITH THE FOLLOWING ASSUMPTIONS:
   A. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SITE STRIPINGS.
   B. THE UNIT PAD SECTION IS ASSUMED TO BE A 12" THICK CONCRETE SECTION.
   C. EARTHWORK QUANTITIES DO 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.



VICINITY MAP
NTS



LOCATION MAP
NTS



SITE PLAN
SCALE: 1" = 50'

PROJECT DATA

SITE AREA:	17,997 SF
EXISTING LAND USE:	UNDEVELOPED LAND
PROPOSED USE:	RESIDENTIAL (LOT 9)
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 COUNTY SANITATION DISTRICT
GAS & ELECTRIC	PG&E
TELEPHONE:	AT&T
FIRE PROTECTION:	CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CABLE:	COMCAST
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

ENGINEER'S STATEMENT

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE.

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

DATE

REGISTERED PROFESSIONAL ENGINEER
ROLAND N.V. HAGA
No. C043971
CIVIL
STATE OF CALIFORNIA

255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
PHONE: (650) 482-6300
FAX: (650) 482-6399

BKF ENGINEERS / SURVEYORS / PLANNERS

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
TITLE SHEET
CITY OF SAN MATEO — SAN MATEO COUNTY — CALIFORNIA

Revisions	No.

Date	11/29/2016
Scale	NTS
Design	JT
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OF

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PLOT DATE: 11-29-16
PLOTTED BY: trat

NOTES:

I. GENERAL NOTES

1. 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.
2. 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.
3. 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.
7. 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 ENGINEER.
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 DEPTH.
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 AREAS.

    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

1. 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.
3. 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

1. 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.

    1.B. REMOVE LANDSCAPING, UTILITIES AND IRRIGATION LINES AS SPECIFIED BY GEOTECHNICAL ENGINEER.

    1.C. 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 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 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.
7. 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

1. 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

1. 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

1. 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

1. 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.
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).
10. 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.
11. 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.
4. 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

1. 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

1. 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

1. 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.

LEGEND

EXISTING

— — —	EXISTING PROPERTY LINE BOUNDRY
— SS — ○ — SS —	EXISTING SANITARY SEWER W/MANHOLE
◎	EXISTING STORM DRAIN DRAIN W/ MANHOLE
— W — W —	EXISTING WATERLINE
□	EXISTING CATCH BASIN
— GAS — GAS — GAS —	EXISTING GAS LINE
	ALL UTILITIES ARE APPROXIMATELY LOCATED

PROPOSED

— — —	PROPOSED PROPERTY LINE BOUNDRY
— ● — SS —	SANITARY SEWER W/ MANHOLE
— ● — ■ —	STORM DRAIN W/ MANHOLE & CATCH BASIN
— W — FH	WATER LINE W/ FIRE HYDRANT
— GAS —	GAS MAIN
═ETC═	UNDERGROUND ELECTRIC, TELEPHONE, & C.A.T.V.
S.D.E.	STORM DRAIN EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
509.3 #4 OAK	EXISTING TREE & ELEVATION (TREE NO. REFERS TO TREE IDENTIFICATION TAG PER (TREE REPORT PREPARED BY HABITAT RESTORATION GROUP)
509.3 #3 OAK	INDICATES TREE TO BE REMOVED
L.W.	LEATHERWODD BUSH
EUC.	EUCALYPTUS TREE
P.O.C.	POINT OF CONNECTION
FDZ	FIRE DEFENSE ZONE
▨	FLOW–THROUGH PLANTER. PROPOSED FOR TREATMENT OF ROOF AND DRIVEWAY STORM WATER RUNOFF.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	L	LENGTH
BEG	BEGINNING	LF	LINEAR FEET
BL	BAY LAUREL	LG	LIP OF GUTTER
BLDG COR	BUILDING CORNER	NIC	NOT IN CONTRACT
BOT	BOTTOM	O	OAK TREE
BOW	GRADE AT BOTTOM OF WALL	P	PEPPER TREE
BW	BACK OF WALK	PD	PLANNED DEVELOPMENT
CB	CATCH BASIN	PINE	PINE TREE
CL	CENTERLINE	PUE	PUBLIC UTILITY EASEMENT
CLF	CHAIN LINK FENCE	PVC	POLYVINYL CHLORIDE PIPE
CMP	CORRUGATED METAL PIPE	RCP	REINFORCED CONCRETE PIPE
CO	CLEANOUT	RDW	REDWOOD TREE
CONC	CONCRETE	RET WALL	RETAINING WALL
CU	COPPER	ROW	RIGHT OF WAY
DG	DECOMPOSED GRANITE	RPB	REDUCED PRESSURE BACKFLOW
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)	EXISTING	SDDI	STORM DRAIN DROP INLET
FC, 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	FIRE WATER	TOE	TOE OF SLOPE
GB	GRADE BREAK	TOP	TOP OF SLOPE
GFF	GARAGE FINISH FLOOR	TOW	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

BENCHMARK:

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.

811
Know what's below.
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BKF
ENGINEERS / SURVEYORS / PLANNERS

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ROLAND N.V. HAGA
No. C043971

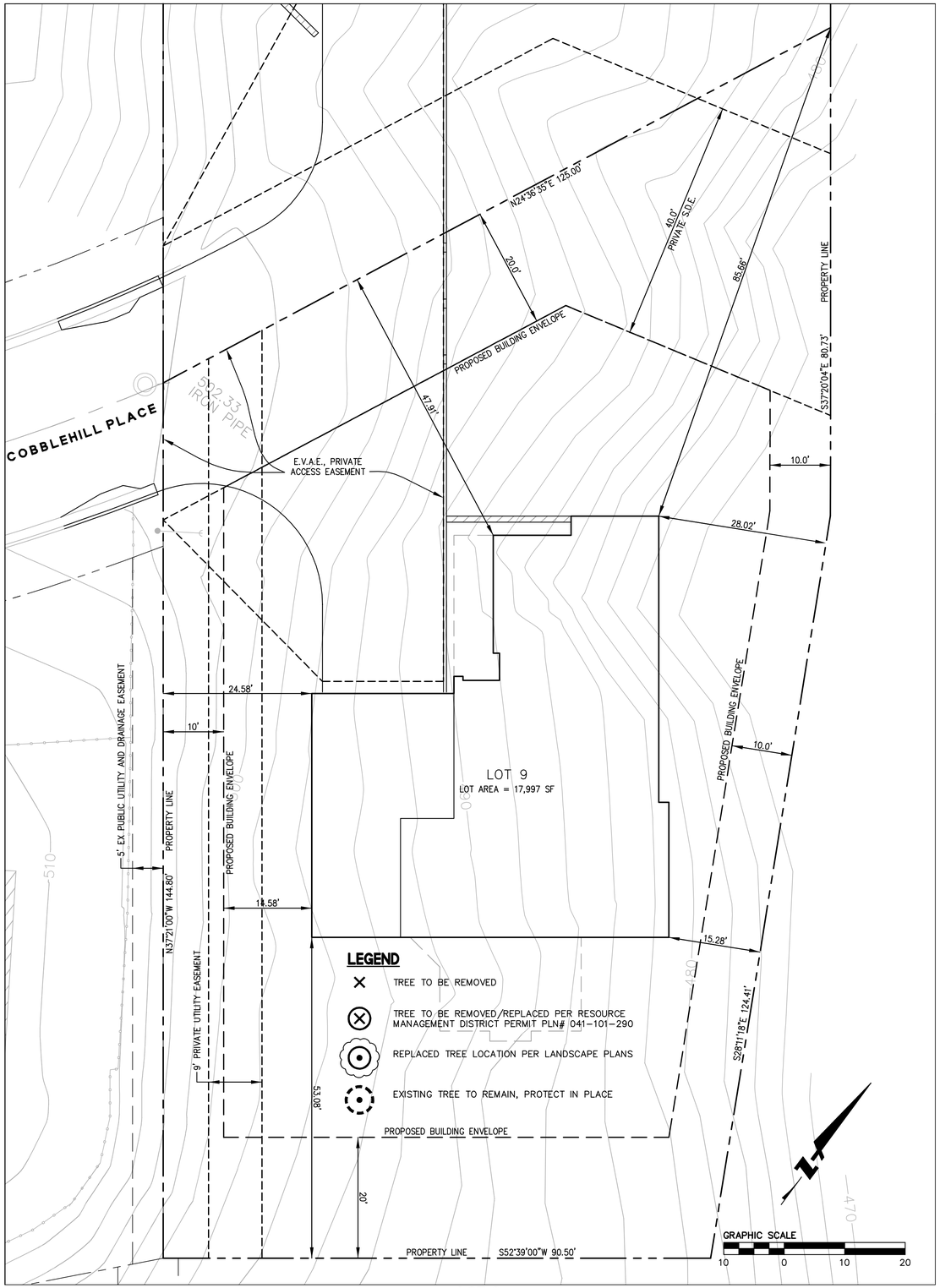
HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
GENERAL NOTES, LEGEND AND ABBREVIATIONS
CITY OF SAN MATEO
SAN MATEO COUNTY
CALIFORNIA

No.	Revisions

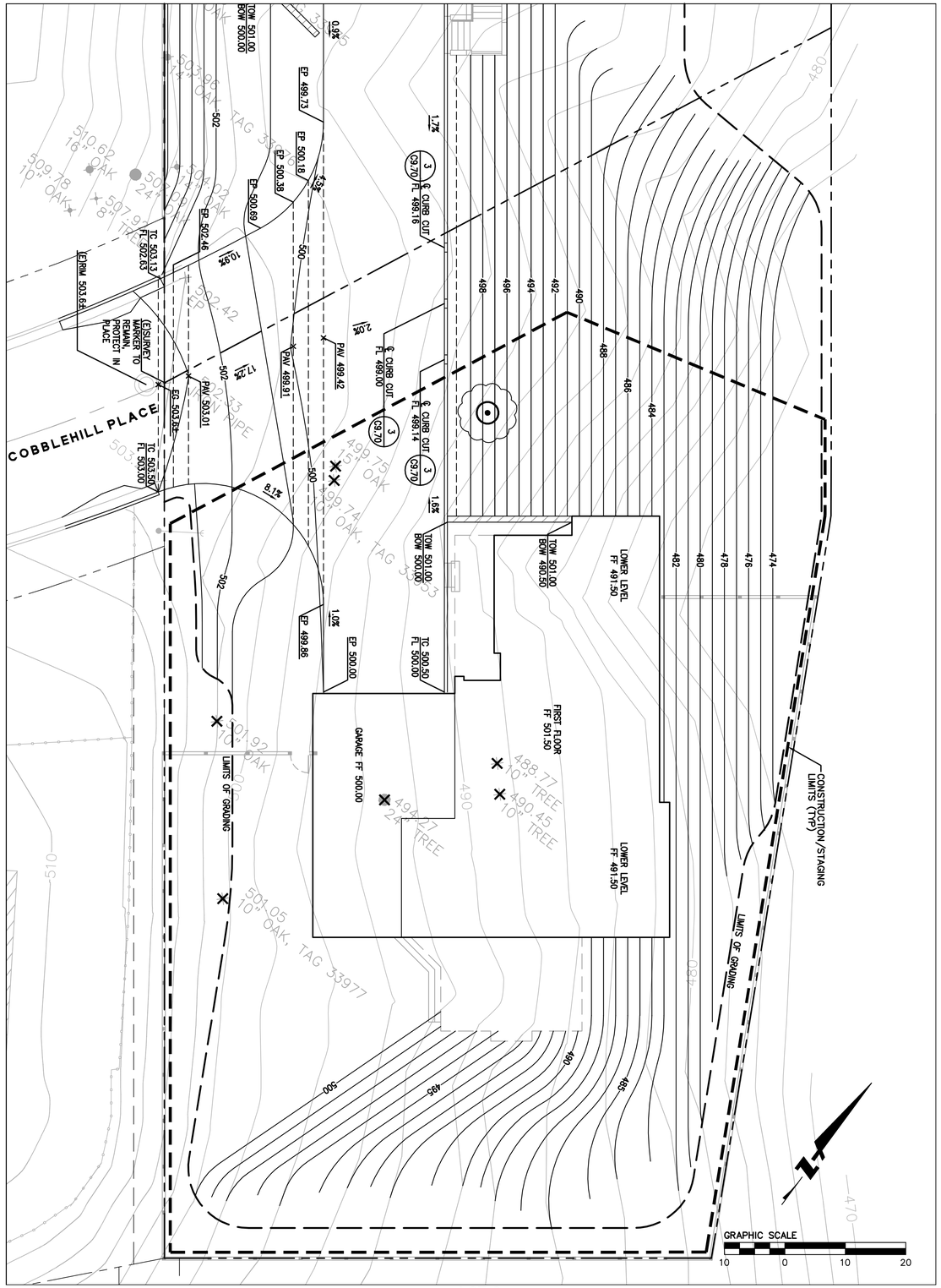
Date 11/29/2016
Scale NTS
Design JT
Drawn LE
Approved RH
Job No 950168-20

Sheet Number:
C9.20
OF

DRAWING NAME: K:\Eng95\950168\dwg\CD\Lot_9\C9.20-HECDNT.dwg
PLOT DATE: 11-29-16 PLOTTED BY: trat



LOT 9
SITE PLAN
SCALE: 1"=10'



LOT 9
CLEARING, CONSTRUCTION, AND GRADING PLAN
SCALE: 1"=10'

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PLOT DATE: 12-02-16 PLOTTED BY: tang

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REGISTERED PROFESSIONAL ENGINEER RICHARD A. HAYASHI No. 043971 CIVIL STATE OF CALIFORNIA

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
SITE & CLEARING, CONSTRUCTION AND GRADING PLANS
CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

No.	Revisions

Date 11/29/2016
Scale AS SHOWN
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Approved RH
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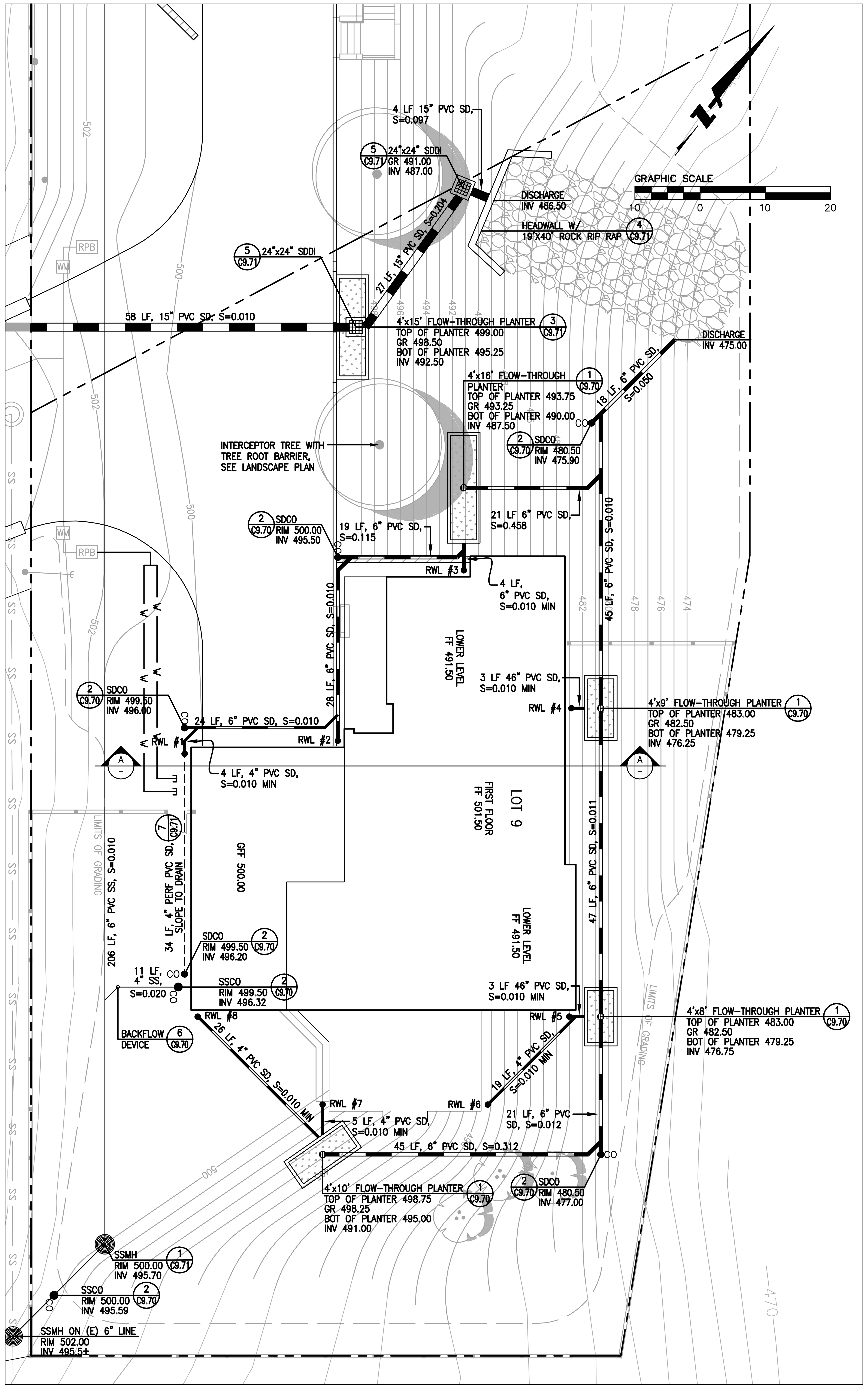
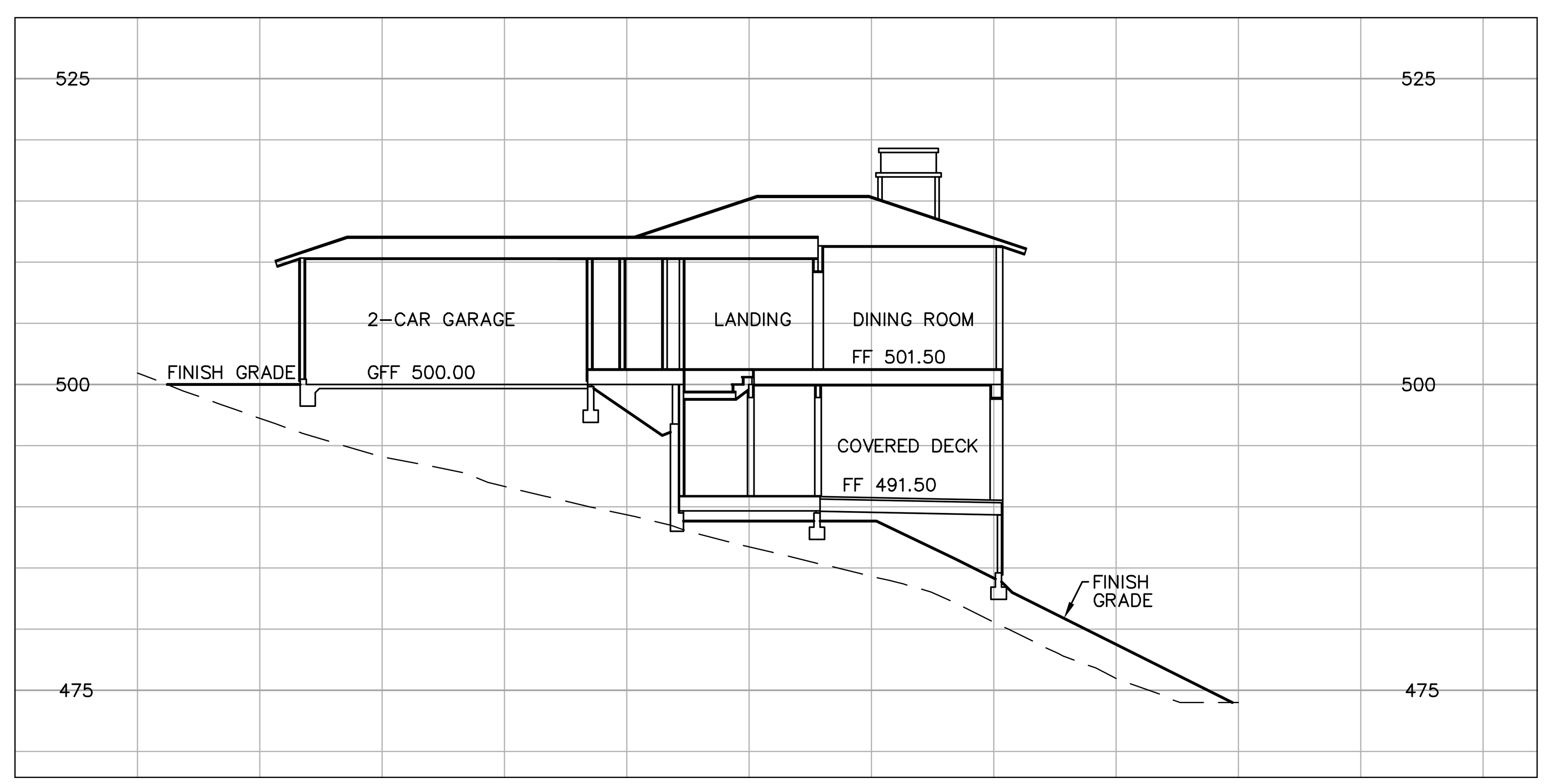


LOT 9
UTILITY PLAN
SCALE: 1"=10'



LOT 9
CROSS SECTION A-A
SCALE: 1"=10'

NOTES:

1. PER THE GEOTECHNICAL REPORT, UNDOCUMENTED FILL WAS MAPPED AT LOT 9 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 2 FEET BEYOND THE EDGE OF THE IMPROVEMENTS. ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LAWFUL MANNER.
3. 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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HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
UTILITY PLAN AND CROSS SECTION

CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

Date	11/29/2016
Scale	AS SHOWN
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Job No	950168-20

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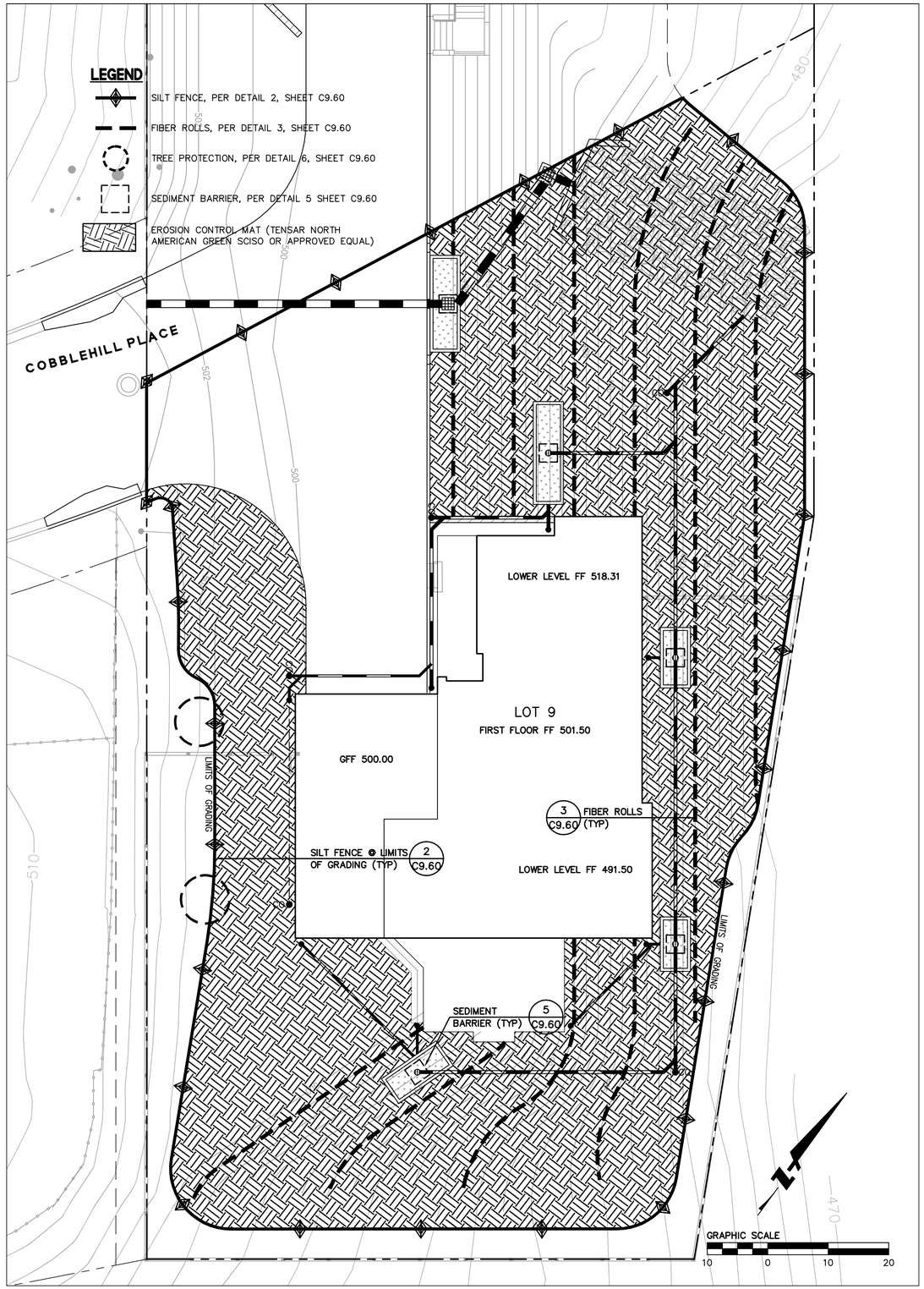
PLOT DATE: 12-02-16 PLOTTED BY: tang

LOT 9
GRADING AND RETAINING WALL EROSION CONTROL PLAN
SCALE: 1"=10'



LOT 9
FOUNDATION AND CONSTRUCTION EROSION CONTROL PLAN
SCALE: 1"=10'

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PLOTTED BY: tang

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HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
EROSION CONTROL PLANS

CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

No.	Revisions

Date 11/29/2016
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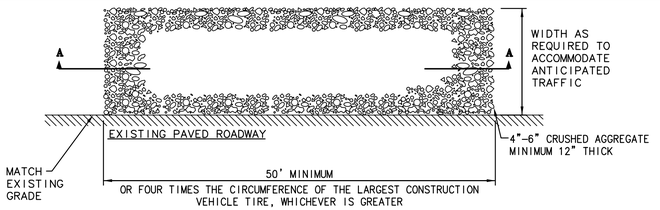
EROSION CONTROL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. ALTHOUGH SPECIFIC LOCATIONS FOR SEDIMENT CONTROL FACILITIES ARE SHOWN ON THESE PLANS, IT IS INTENDED THIS EROSION CONTROL PLAN BE MODIFIED WHEN NECESSARY TO MEET FIELD CONDITIONS. BASIN AND TRAP SIZES AND ELEVATIONS MAY BE ADJUSTED AS LONG AS THE MINIMUM AREAS AND DEPTHS FOR SEDIMENT SETTLING AND STORAGE ARE NOT REDUCED.
3. 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.
4. 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.
7. 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

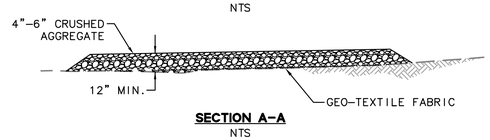
    30% BLUE WILDRYE
    30% MEADOW BARLEY
    20% ZORRO FESCUE
    10% PURPLE NEEDLE GRASS
    10% CALIFORNIA NATIVE WILDFLOWERS

    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 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.
29. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 15 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.
31. 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.
32. 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.
34. 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.
43. STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE PIPE.
44. 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
47. 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 ON-SITE DURING THE "OFF-SEASON."
50. DUST CONTROL IS REQUIRED YEAR-ROUND.
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.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15 AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.



PLAN
NTS

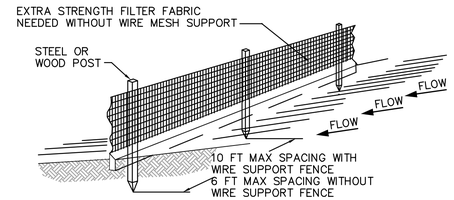


SECTION A-A
NTS

NOTES:

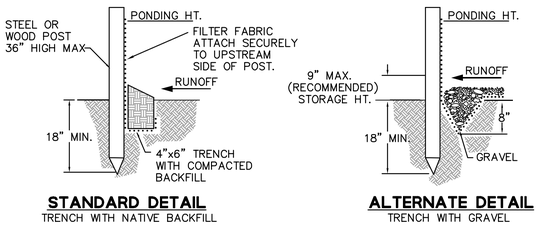
1. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT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

1 — STABILIZED CONSTRUCTION ENTRANCE
NTS



NOTES:

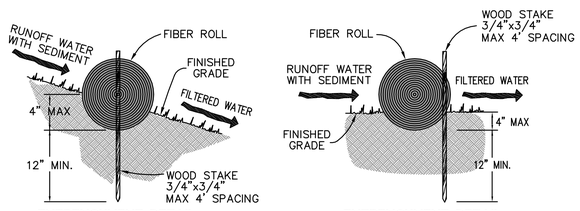
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE TO MAXIMIZE PONDING EFFICIENCY.



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

2 — SILT FENCE
NTS



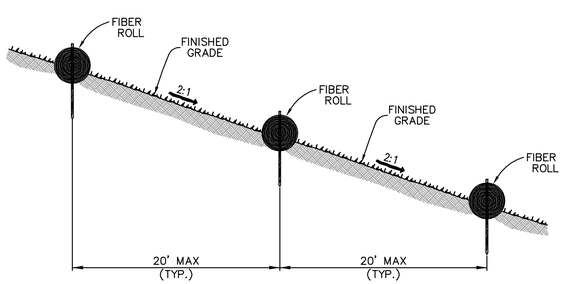
ENTRENCHMENT DETAIL IN SLOPE AREA

ENTRENCHMENT DETAIL IN FLAT AREA

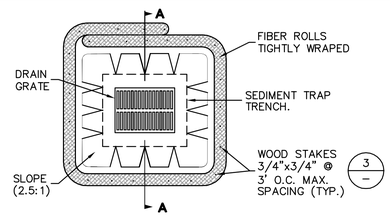
NOTES:

1. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, DUG ON CONTOUR.
2. ADJACENT ROLLS SHALL TIGHTLY ABUT.
3. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

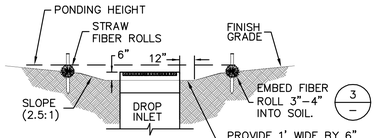
3 — FIBER ROLL
NTS



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



PLAN VIEW

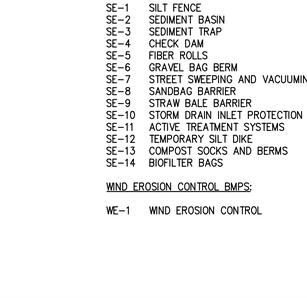


SECTION A-A

NOTES:

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.)
2. 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.

5 — SEDIMENT BARRIER
(TIME FRAME: AREA DRAINS – BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION
CURB INLETS – BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)
NTS



TREE PROTECTION FENCE

NOTES:

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.
4. 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 SAW OR TOPPERS.
6. NORMAL IRRIGATION SHALL BE MAINTAINED, BUT OAKS SHOULD NOT NEED SUMMER IRRIGATION.
7. THE ABOVE INFORMATION SHALL BE ON-SITE AT ALL TIMES.

6 — 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:

EC-1 SCHEDULING
EC-2 PRESERVATION OF EXISTING VEGETATION
EC-3 HYDRAULIC MULCH
EC-4 HYDROSEEDING
EC-5 SOIL BINDERS
EC-6 STRAW MULCH
EC-7 GEOTEXTILES & MATS
EC-8 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
SE-2 SEDIMENT BASIN
SE-3 SEDIMENT TRAP
SE-4 CHECK DAM
SE-5 FIBER ROLLS
SE-6 GRAVEL BAG BERM
SE-7 STREET SWEEPING AND VACUUMING
SE-8 SANDBAG BARRIER
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:

WE-1 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:

NS-1 WATER CONSERVATION PRACTICES
NS-2 DEWATERING OPERATIONS
NS-3 PAVING AND GRINDING OPERATIONS
NS-4 TEMPORARY STREAM CROSSING
NS-5 CLEAR WATER DIVERSION
NS-6 ILLICIT CONNECTION/DISCHARGE
NS-7 POTABLE WATER/IRRIGATION
NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 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:

WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE
WM-3 STOCKPILE MANAGEMENT
WM-4 SPILL PREVENTION AND CONTROL
WM-5 SOLID WASTE MANAGEMENT
WM-6 HAZARDOUS WASTE MANAGEMENT
WM-7 CONTAMINATED SOIL MANAGEMENT
WM-8 CONCRETE WASTE MANAGEMENT
WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
WM-10 LIQUID WASTE MANAGEMENT

255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
PHONE: (650) 482-6300
FAX: (650) 482-6399

BKF ENGINEERS | SURVEYORS | PLANNERS

REGISTERED PROFESSIONAL ENGINEER MATTHEW T. HARA No. 043971 CIVIL STATE OF CALIFORNIA

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
EROSION CONTROL DETAILS AND NOTES

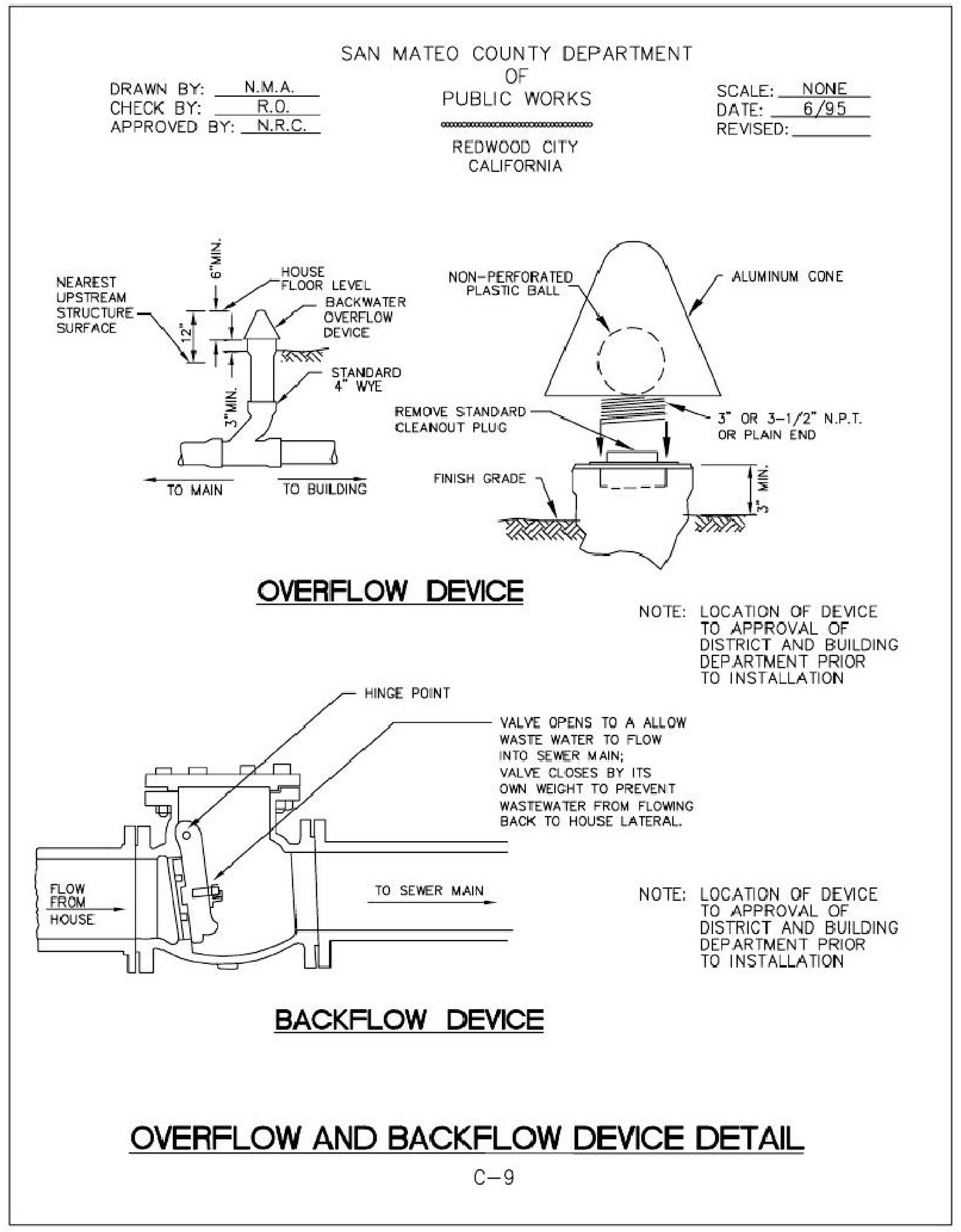
CITY OF SAN MATEO — SAN MATEO COUNTY — CALIFORNIA

No.	Revisions

Date 11/29/2016
Scale AS SHOWN
Design JT
Drawn LE
Approved RH
Job No 950168-20

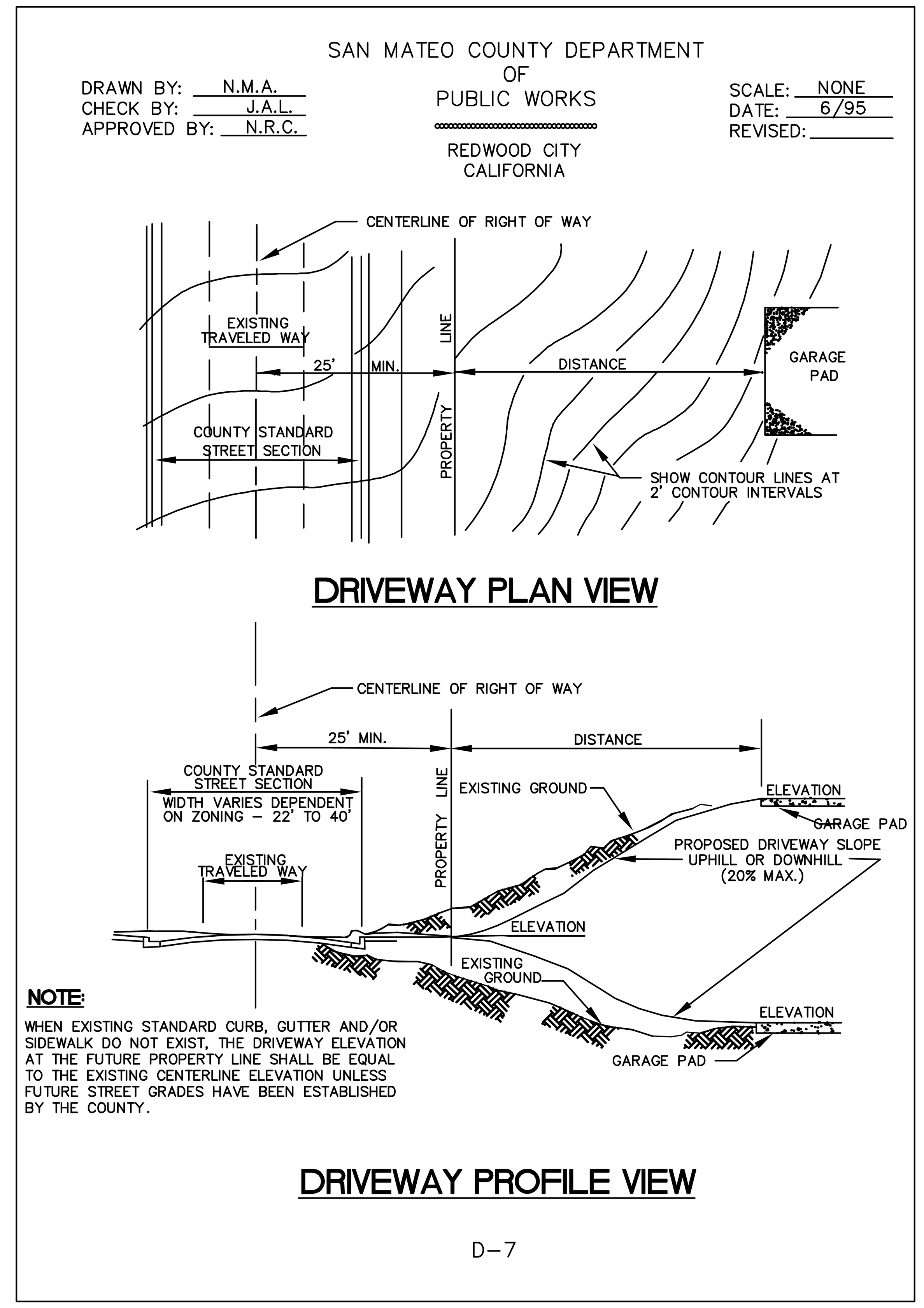
Sheet Number:
C9.60
OF

DRAWING NAME: K:\Eng95\950168\dwg\CD\Lot_9\C9.60-HECDEC.dwg
PLOT DATE: 11-29-16
PLOTTED BY: trat



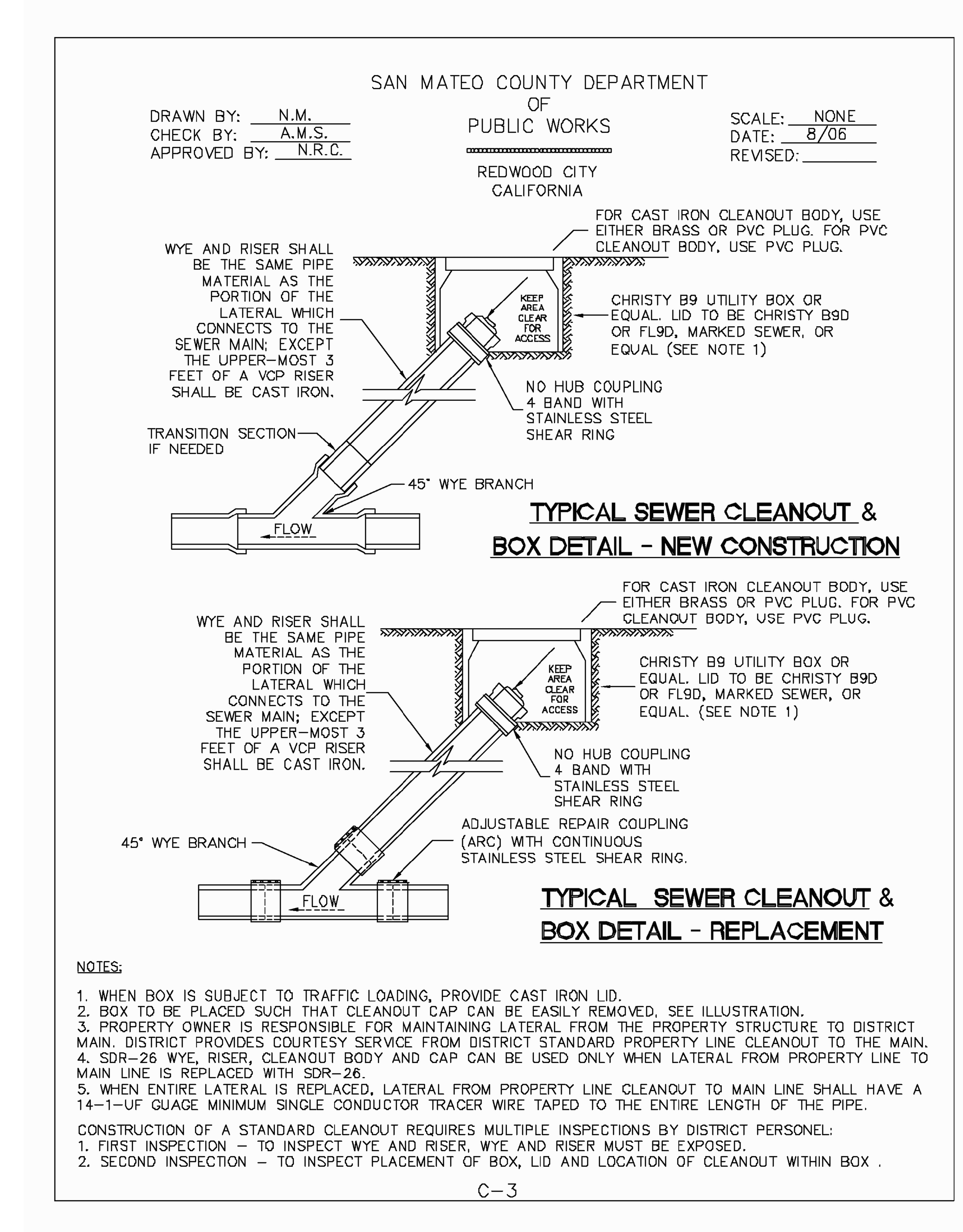
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA
DRAWN BY: N.M.A.
CHECK BY: R.O.
APPROVED BY: N.R.C.
SCALE: NONE
DATE: 6/95
REVISED:
NEAREST UPSTREAM STRUCTURE SURFACE
HOUSE FLOOR LEVEL
BACKWATER OVERFLOW DEVICE
STANDARD 4" WYE
TO MAIN
TO BUILDING
NON-PERFORATED PLASTIC BALL
ALUMINUM CONE
REMOVE STANDARD CLEANOUT PLUG
3" OR 3-1/2" N.P.T. OR PLAIN END
FINISH GRADE
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.
FLOW FROM HOUSE
TO SEWER MAIN
NOTE: LOCATION OF DEVICE TO APPROVAL OF DISTRICT AND BUILDING DEPARTMENT PRIOR TO INSTALLATION
BACKFLOW DEVICE
OVERFLOW AND BACKFLOW DEVICE DETAIL
C-9

6 SAN MATEO COUNTY
OVERFLOW AND BACKFLOW DEVICE DETAIL
NTS



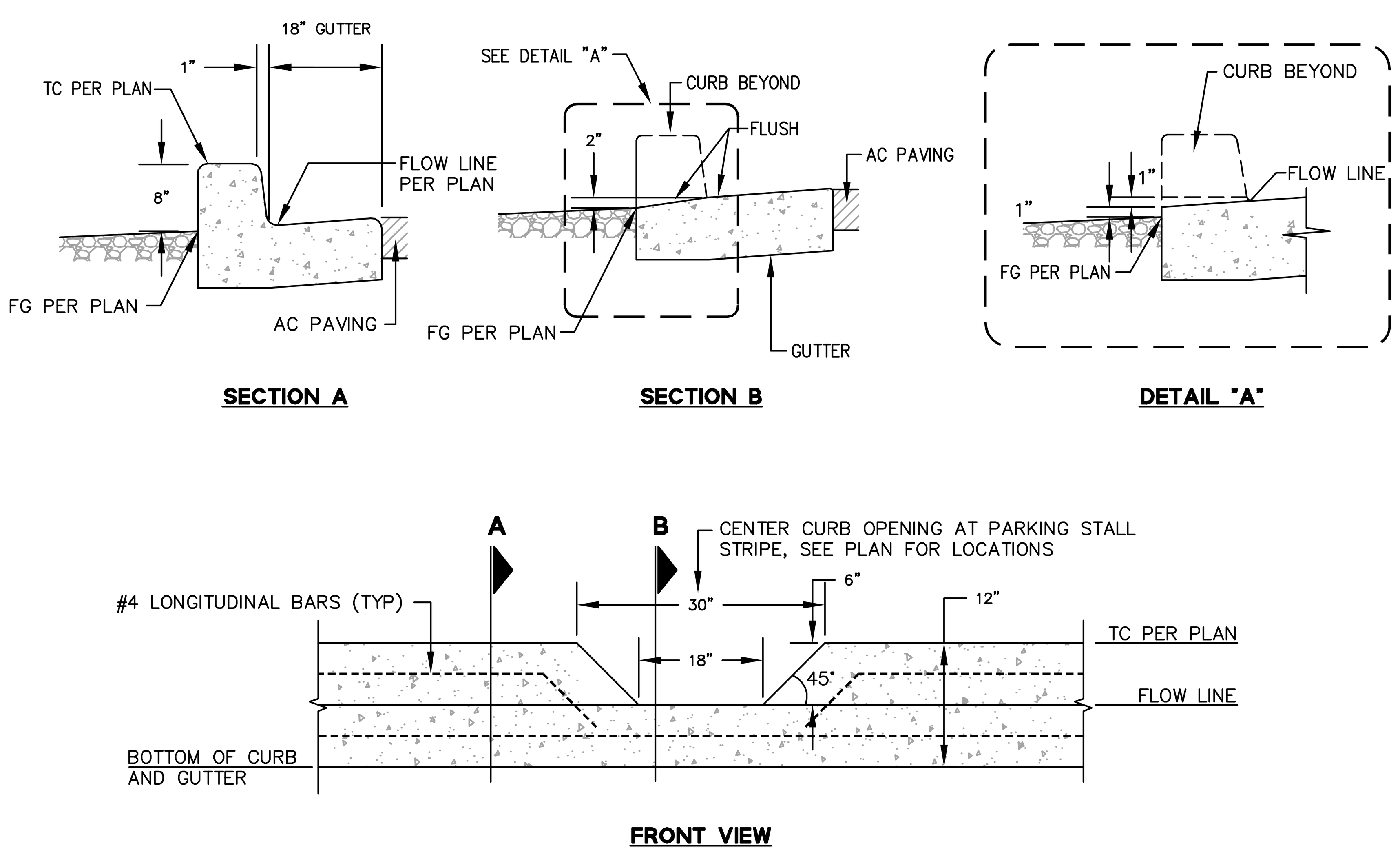
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA
DRAWN BY: N.M.A.
CHECK BY: J.A.L.
APPROVED BY: N.R.C.
SCALE: NONE
DATE: 6/95
REVISED:
CENTERLINE OF RIGHT OF WAY
EXISTING TRAVELED WAY
25' MIN
DISTANCE
GARAGE PAD
COUNTY STANDARD STREET SECTION
PROPERTY LINE
SHOW CONTOUR LINES AT 2' CONTOUR INTERVALS
DRIVEWAY PLAN VIEW
CENTERLINE OF RIGHT OF WAY
25' MIN.
DISTANCE
COUNTY STANDARD STREET SECTION
WIDTH VARIES DEPENDENT ON ZONING - 22' TO 40'
EXISTING GROUND
ELEVATION
GARAGE PAD
PROPOSED DRIVEWAY SLOPE UPHILL OR DOWNHILL (20% MAX.)
EXISTING TRAVELED WAY
NOTE:
WHEN EXISTING STANDARD CURB, GUTTER AND/OR SIDEWALK DO NOT EXIST, THE DRIVEWAY ELEVATION AT THE FUTURE PROPERTY LINE SHALL BE EQUAL TO THE EXISTING CENTERLINE ELEVATION UNLESS FUTURE STREET GRADES HAVE BEEN ESTABLISHED BY THE COUNTY.
DRIVEWAY PROFILE VIEW
D-7

5 SAN MATEO COUNTY
DRIVEWAY PLAN AND PROFILE VIEWS
NTS



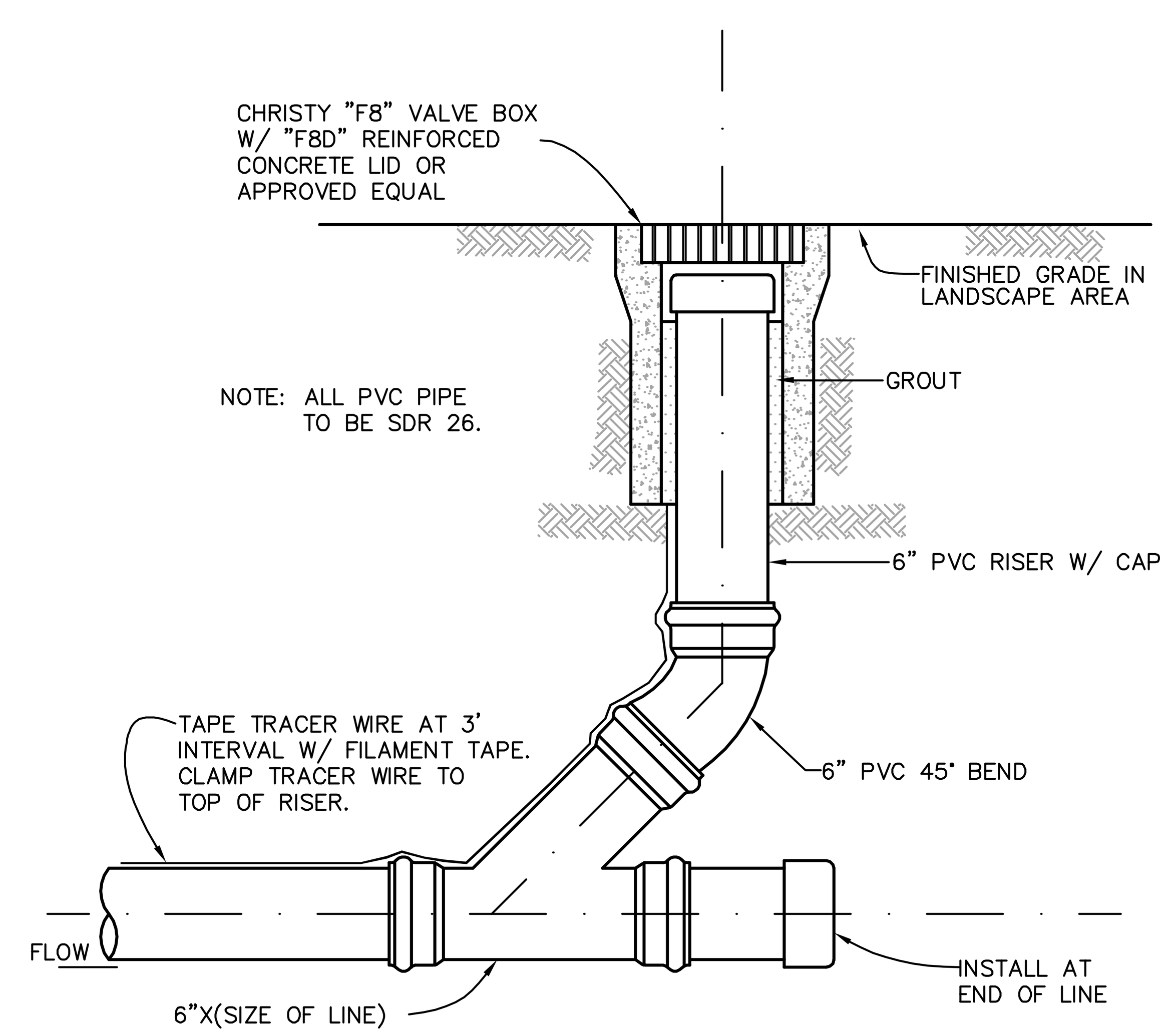
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA
DRAWN BY: N.M.
CHECK BY: A.M.S.
APPROVED BY: N.R.C.
SCALE: NONE
DATE: 8/06
REVISED:
FOR CAST IRON CLEANOUT BODY, USE EITHER BRASS OR PVC PLUG. FOR PVC CLEANOUT BODY, USE PVC PLUG.
WYE AND RISER SHALL BE THE SAME PIPE MATERIAL AS THE PORTION OF THE LATERAL WHICH CONNECTS TO THE SEWER MAIN; EXCEPT THE UPPER-MOST 3 FEET OF A VCP RISER SHALL BE CAST IRON.
CHRISTY B9 UTILITY BOX OR EQUAL. LID TO BE CHRISTY B9D OR FL9D, MARKED SEWER, OR EQUAL (SEE NOTE 1)
NO HUB COUPLING 4 BAND WITH STAINLESS STEEL SHEAR RING
TRANSITION SECTION IF NEEDED
45° WYE BRANCH
FLOW
TYPICAL SEWER CLEANOUT & BOX DETAIL - NEW CONSTRUCTION
ADJUSTABLE REPAIR COUPLING (ARC) WITH CONTINUOUS STAINLESS STEEL SHEAR RING.
TYPICAL SEWER CLEANOUT & BOX DETAIL - REPLACEMENT
NOTES:
1. 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.
2. SECOND INSPECTION - TO INSPECT PLACEMENT OF BOX, LID AND LOCATION OF CLEANOUT WITHIN BOX.
C-3

4 SAN MATEO COUNTY
TYPICAL SEWER CLEANOUT & BOX DETAIL
NTS



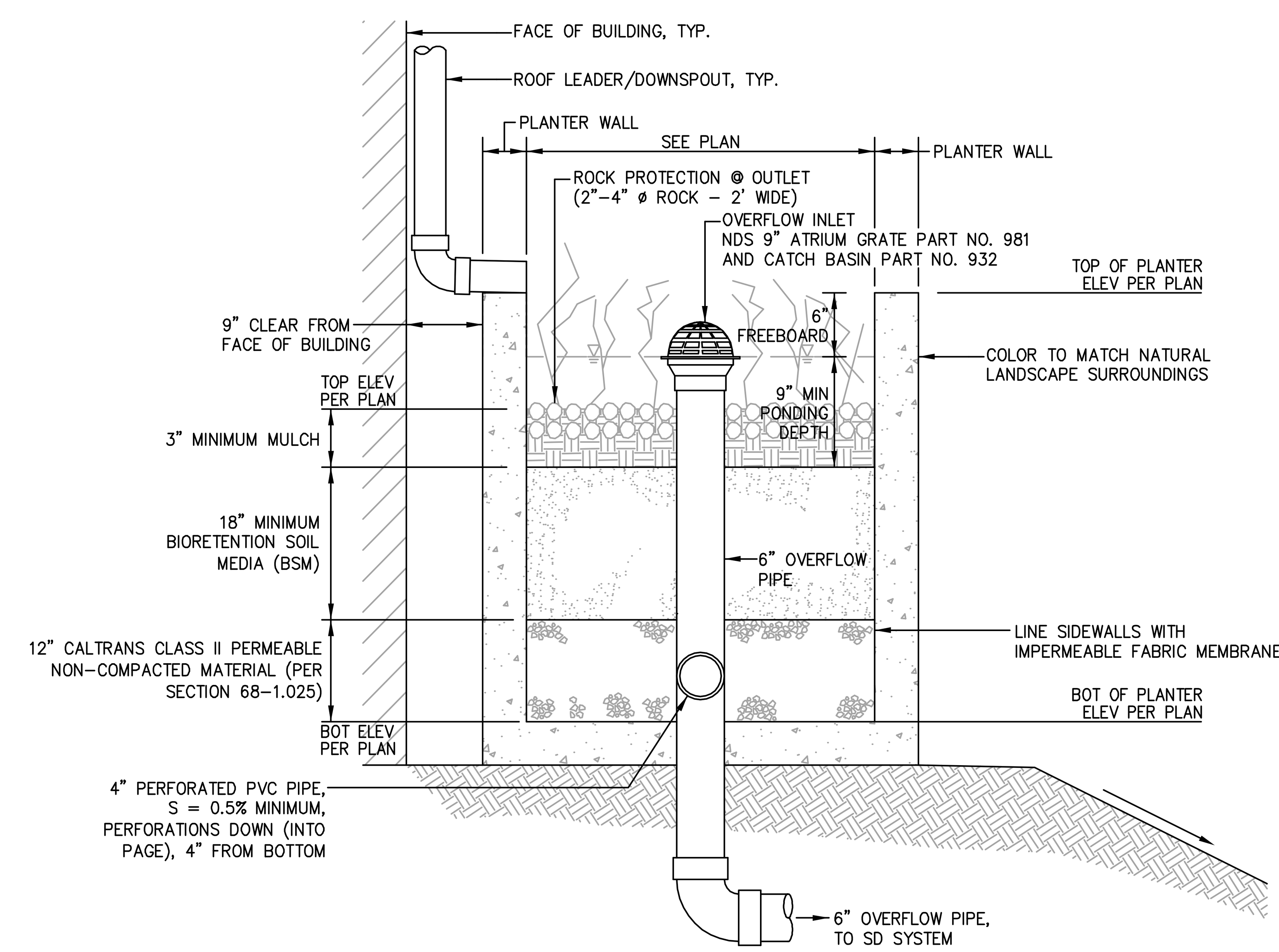
18" GUTTER
TC PER PLAN
1"
FLOW LINE PER PLAN
8"
FG PER PLAN
AC PAVING
SEE DETAIL "A"
CURB BEYOND
FLUSH
2"
AC PAVING
FG PER PLAN
GUTTER
CURB BEYOND
FLOW LINE
FG PER PLAN
SECTION A
SECTION B
DETAIL "A"
A
B
CENTER CURB OPENING AT PARKING STALL STRIPE, SEE PLAN FOR LOCATIONS
#4 LONGITUDINAL BARS (TYP)
30"
6"
12"
18"
45°
TC PER PLAN
FLOW LINE
BOTTOM OF CURB AND GUTTER
FRONT VIEW

3 CURB CUT
NTS



CHRISTY "F8" VALVE BOX W/ "F8D" REINFORCED CONCRETE LID OR APPROVED EQUAL
FINISHED GRADE IN LANDSCAPE AREA
NOTE: ALL PVC PIPE TO BE SDR 26.
GROUT
6" PVC RISER W/ CAP
TAPE TRACER WIRE AT 3' INTERVAL W/ FILAMENT TAPE. CLAMP TRACER WIRE TO TOP OF RISER.
6" PVC 45° BEND
FLOW
INSTALL AT END OF LINE
6"X(SIZE OF LINE)

2 CLEANOUT
NTS



FACE OF BUILDING, TYP.
ROOF LEADER/DOWNSPOUT, TYP.
PLANTER WALL
SEE PLAN
PLANTER WALL
ROCK PROTECTION @ OUTLET (2"-4" ø ROCK - 2' WIDE)
OVERFLOW INLET NDS 9" ATRIUM GRATE PART NO. 981 AND CATCH BASIN PART NO. 932
TOP OF PLANTER ELEV PER PLAN
9" CLEAR FROM FACE OF BUILDING
6" FREEBOARD
COLOR TO MATCH NATURAL LANDSCAPE SURROUNDINGS
TOP ELEV PER PLAN
9" MIN PONDING DEPTH
3" MINIMUM MULCH
18" MINIMUM BIORETENTION SOIL MEDIA (BSM)
6" OVERFLOW PIPE
12" CALTRANS CLASS II PERMEABLE NON-COMPACTED MATERIAL (PER SECTION 68-1.025)
LINE SIDEWALLS WITH IMPERMEABLE FABRIC MEMBRANE
BOT OF PLANTER ELEV PER PLAN
BOT ELEV PER PLAN
4" PERFORATED PVC PIPE, S = 0.5% MINIMUM, PERFORATIONS DOWN (INTO PAGE), 4" FROM BOTTOM
6" OVERFLOW PIPE, TO SD SYSTEM

1 FLOW-THROUGH PLANTER (FTP)
NTS

DRAWING NAME: K:\Eng95\950168\dwg\CD\Lot_9\C9.70-HECDDT.dwg
PLOT DATE: 11-29-16 PLOTTED BY: trot

255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
PHONE: (650) 482-6300
FAX: (650) 482-6399
BKF
ENGINEERS / SURVEYORS / PLANNERS

REGISTERED PROFESSIONAL ENGINEER No. C043971 CIVIL STATE OF CALIFORNIA

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
CONSTRUCTION DETAILS

CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

Revisions

No.

Date	11/29/2016
Scale	AS SHOWN
Design	JT
Drawn	LE
Approved	RH
Job No	950168-20

Sheet Number:
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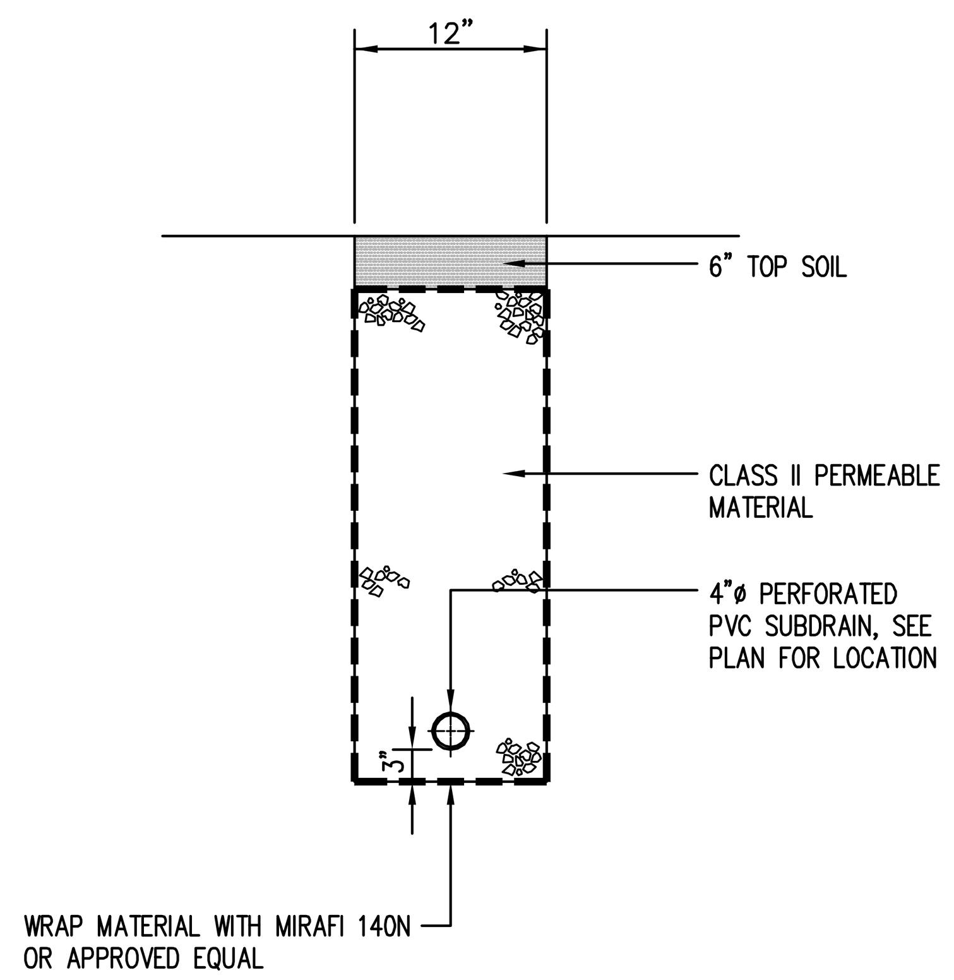
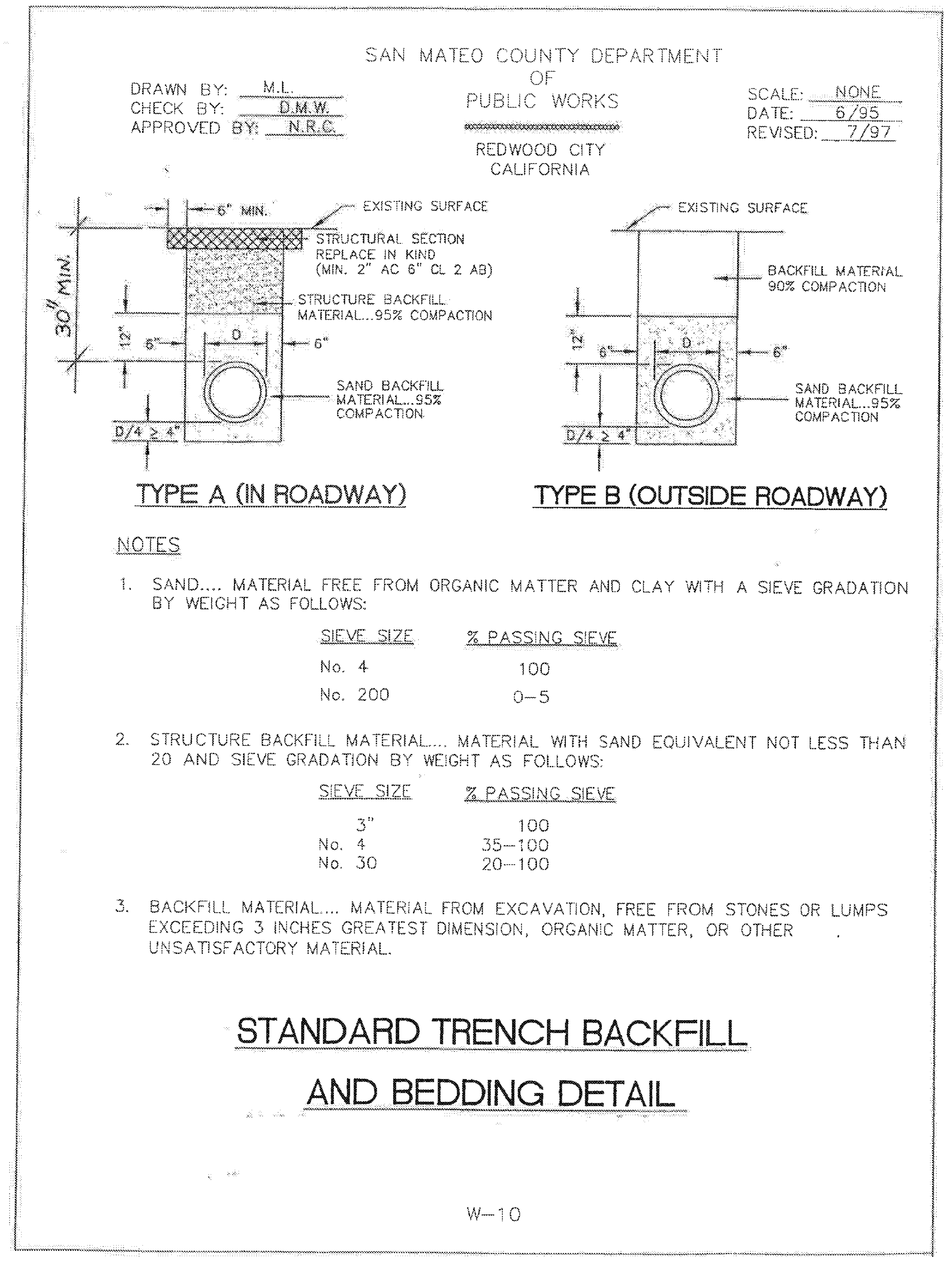
OF



7 — SUBDRAIN
NTS


SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

DRAWN BY: M.L.
CHECK BY: D.M.W.
APPROVED BY: N.R.C.

SCALE: NONE
DATE: 6/95
REVISED: 7/97

TYPE A (IN ROADWAY)

TYPE B (OUTSIDE ROADWAY)

NOTES

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	0–5

2. STRUCTURE BACKFILL MATERIAL.... MATERIAL WITH SAND EQUIVALENT NOT LESS THAN 20 AND SIEVE GRADATION BY WEIGHT AS FOLLOWS:

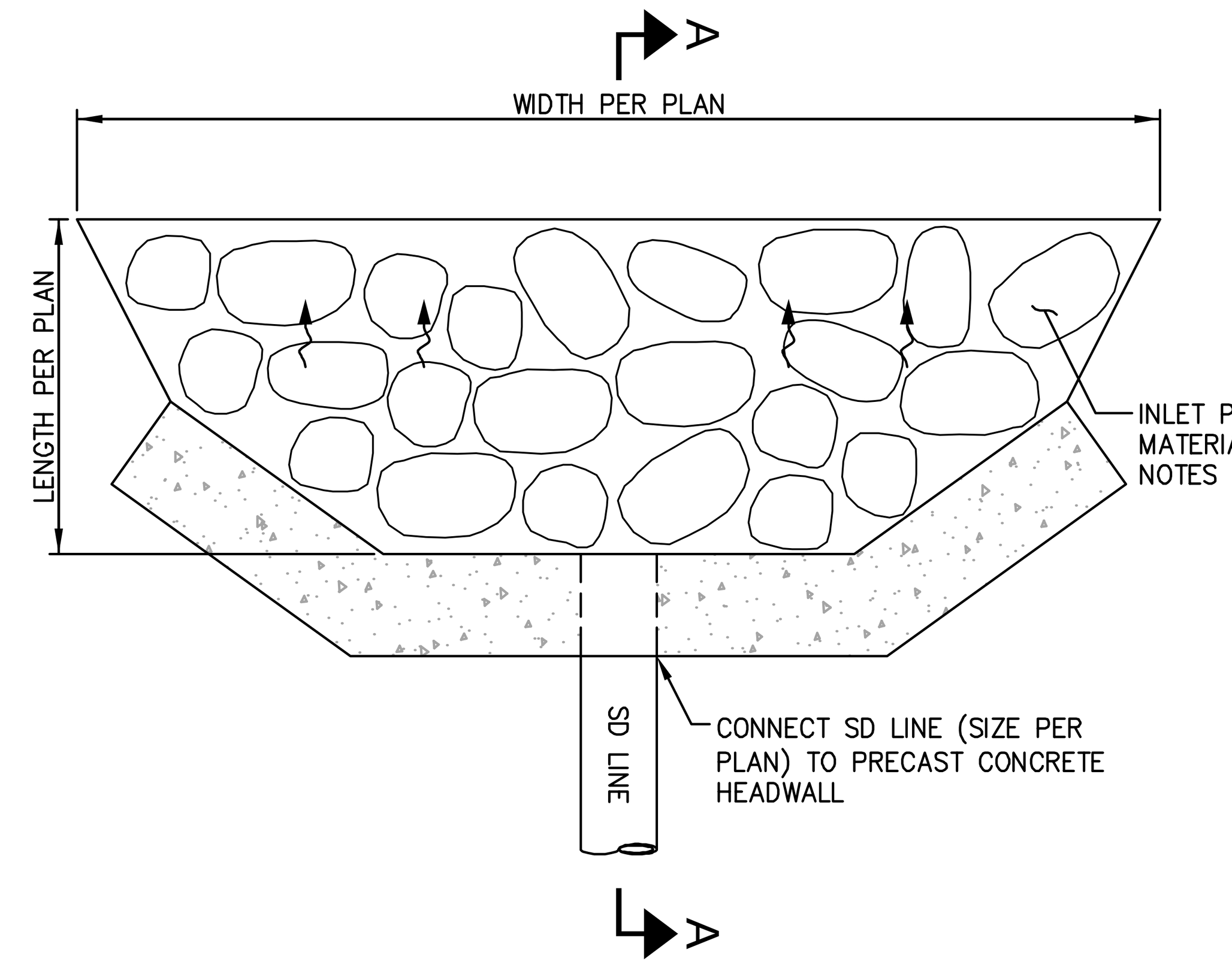
SIEVE SIZE	% PASSING SIEVE
3"	100
No. 4	35–100
No. 30	20–100

3. BACKFILL MATERIAL.... MATERIAL FROM EXCAVATION, FREE FROM STONES OR LUMPS EXCEEDING 3 INCHES GREATEST DIMENSION, ORGANIC MATTER, OR OTHER UNSATISFACTORY MATERIAL.

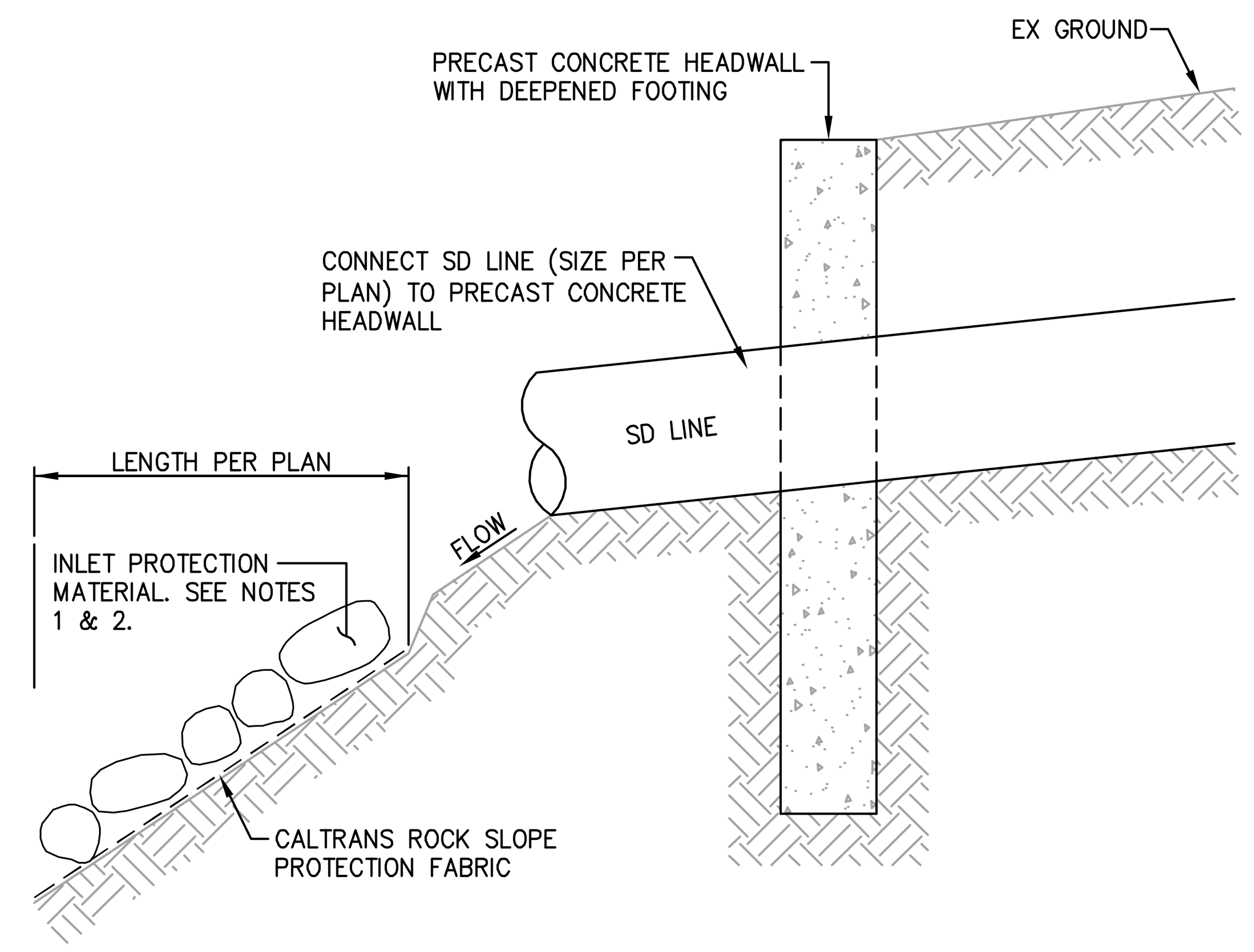
STANDARD TRENCH BACKFILL AND BEDDING DETAIL

W–10

6 — SAN MATEO COUNTY STANDARD TRENCH BACKFILL & BEDDING DETAIL
NTS



PLAN VIEW



SECTION A–A

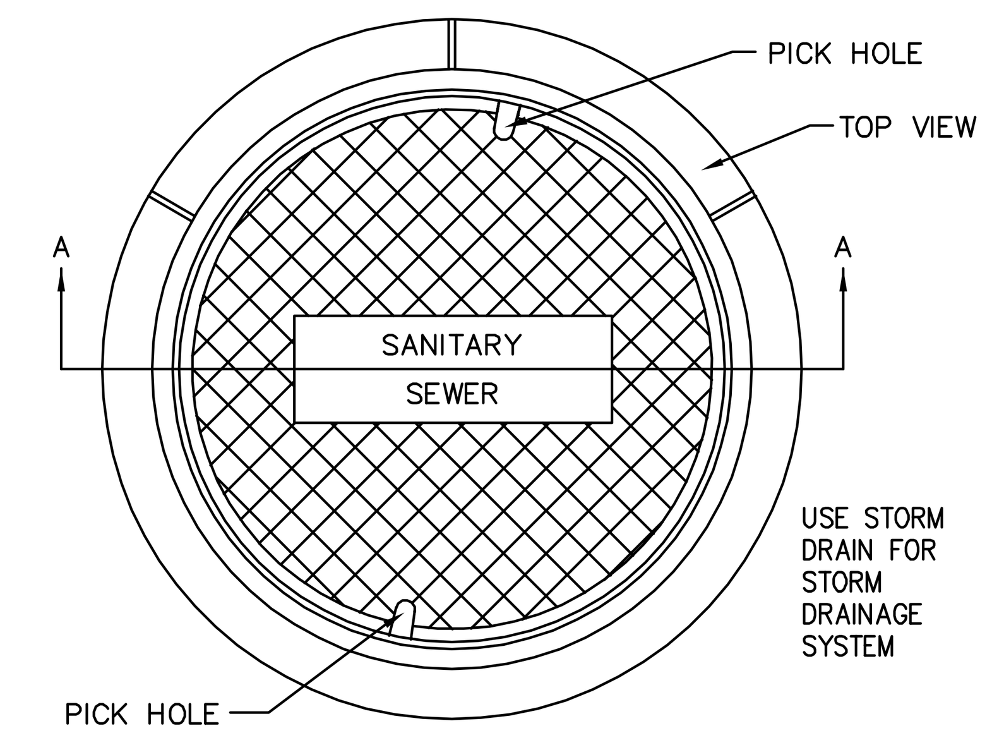
NOTES:

1. AREA OF ROCK RIP-RAP OUTFALL/EROSION PROTECTION IN ACCORDANCE WITH FEDERAL HIGHWAY ADMINISTRATION (FHWA) HEC–14.
2. OUTFALL PROTECTION MATERIAL:

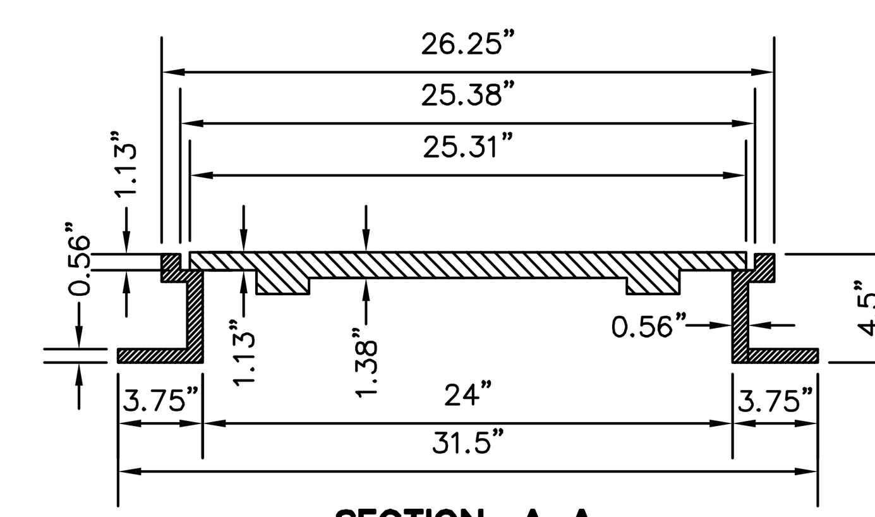
–CALTRANS ROCK SLOPE PROTECTION FABRIC WITH NO. 2 BACKING CONFORMING TO SECTION 72 OF THE CALTRANS STANDARD SPECIFICATIONS.

–CALTRANS NO. 2 TO BE ~8" SIZE ANGULAR ROCK (25 LBS, TYP.) BROWN TO DARK BROWN/BLACK IN COLOR.

4 — INLET PROTECTION
NTS



PLAN

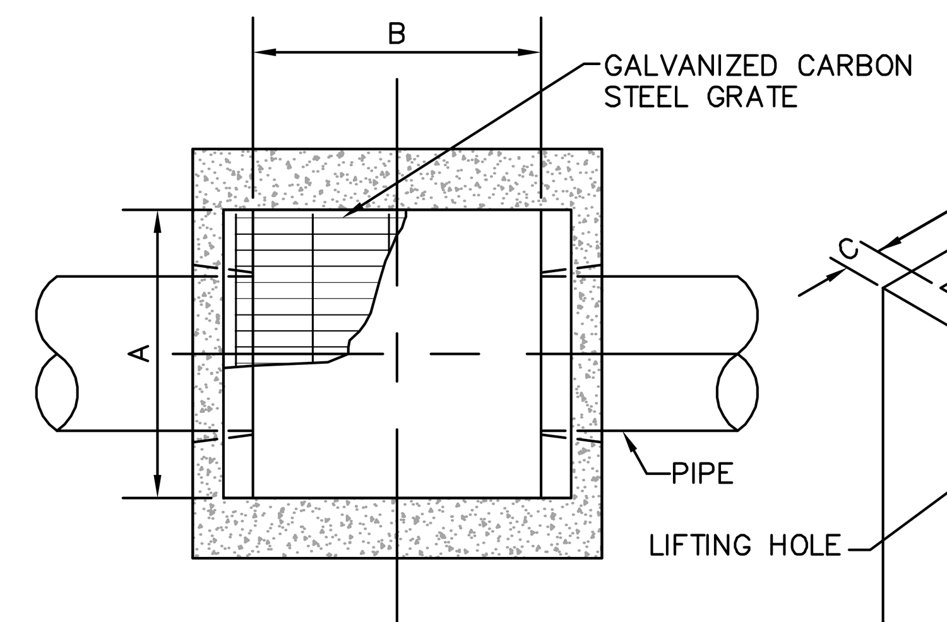


SECTION A–A

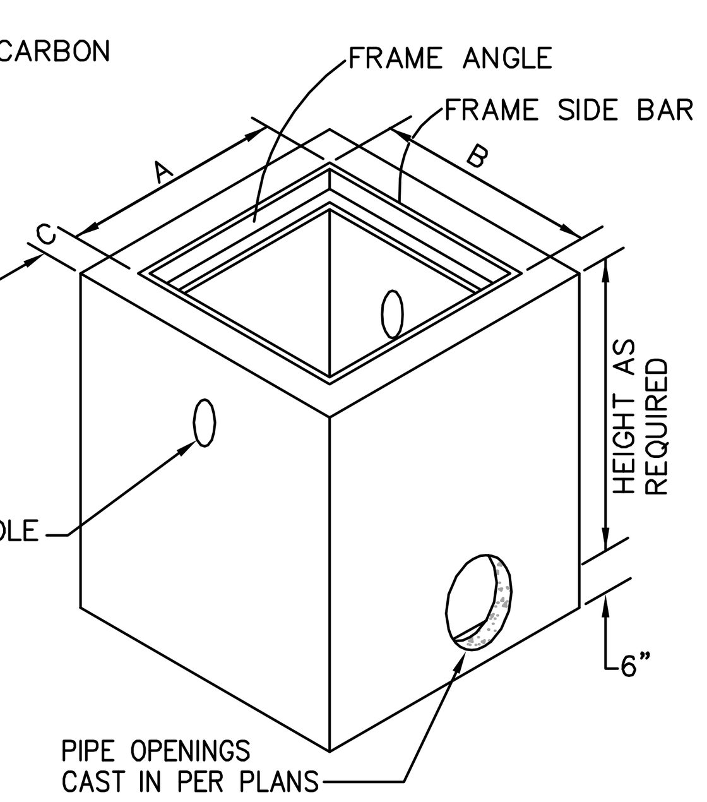
NOTES:

1. ALL MATERIAL USED IN MANUFACTURING SHALL CONFORM TO A.S.T.M. A48, CLASS 30.
2. ALL CASTINGS TO BE COMPLETELY CLEANED AND PAINTED WITH ASPHALTIC VARNISH, AFTER MANUFACTURE.
3. USE PHOENIX P–1090, D&L SUPPLY A–1024, OR EQUAL.

2 — MANHOLE FRAME AND COVER
NTS



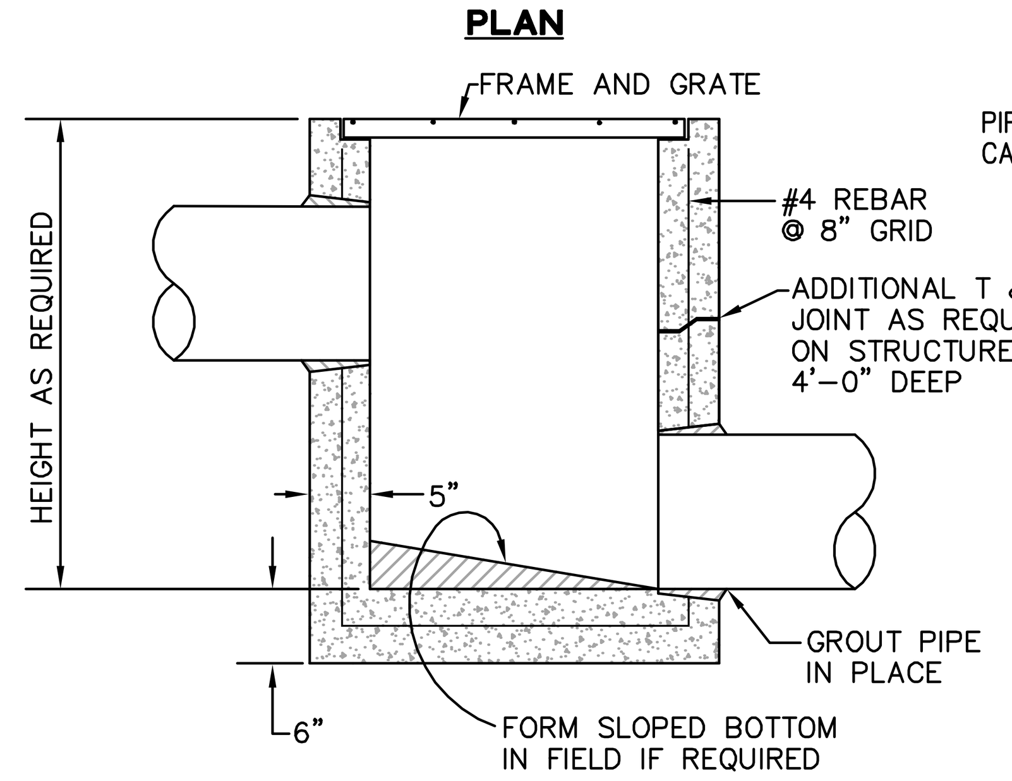
PLAN



ISOMETRIC

CENTRAL PRECAST

MODEL	A	B	C
CP1212	12	12	4
CP1818	18	18	4
CP2424	24	24	5

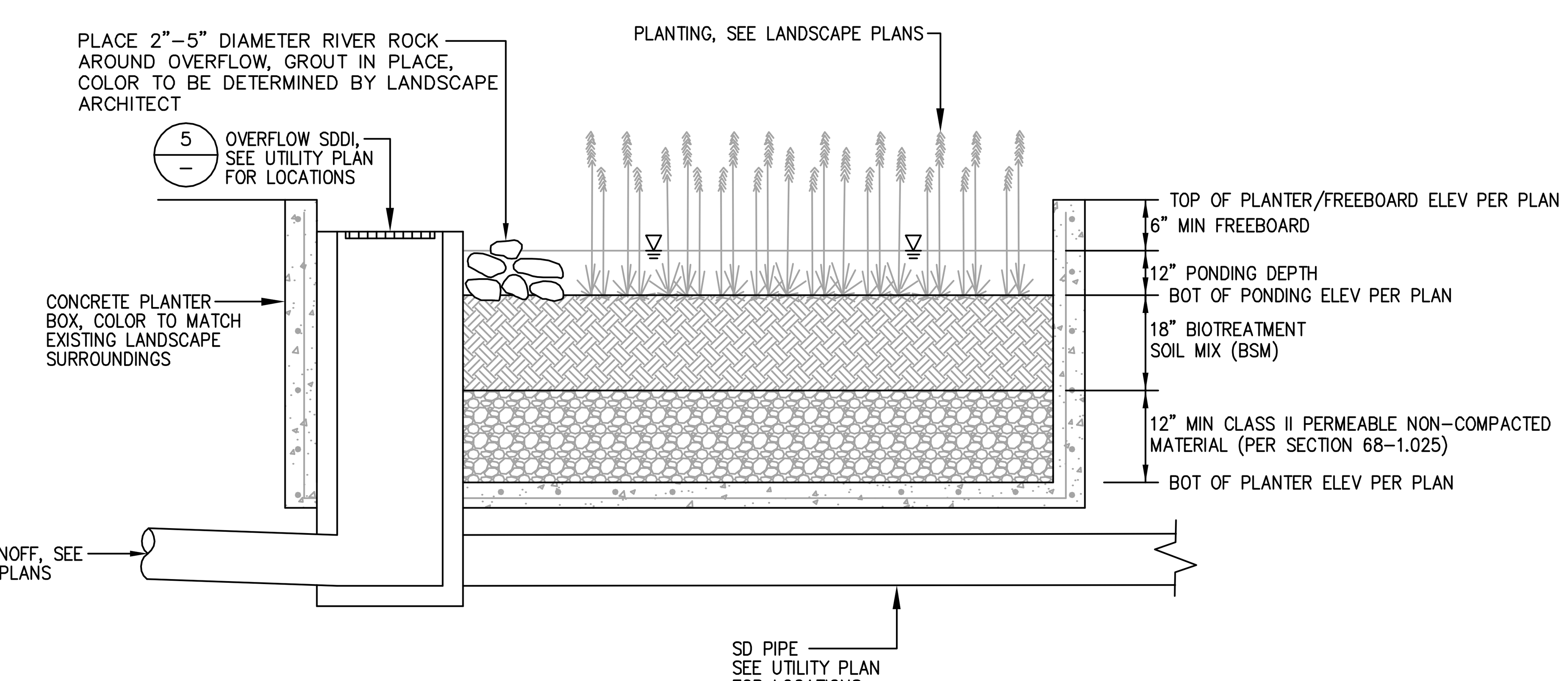


TYPICAL SECTION

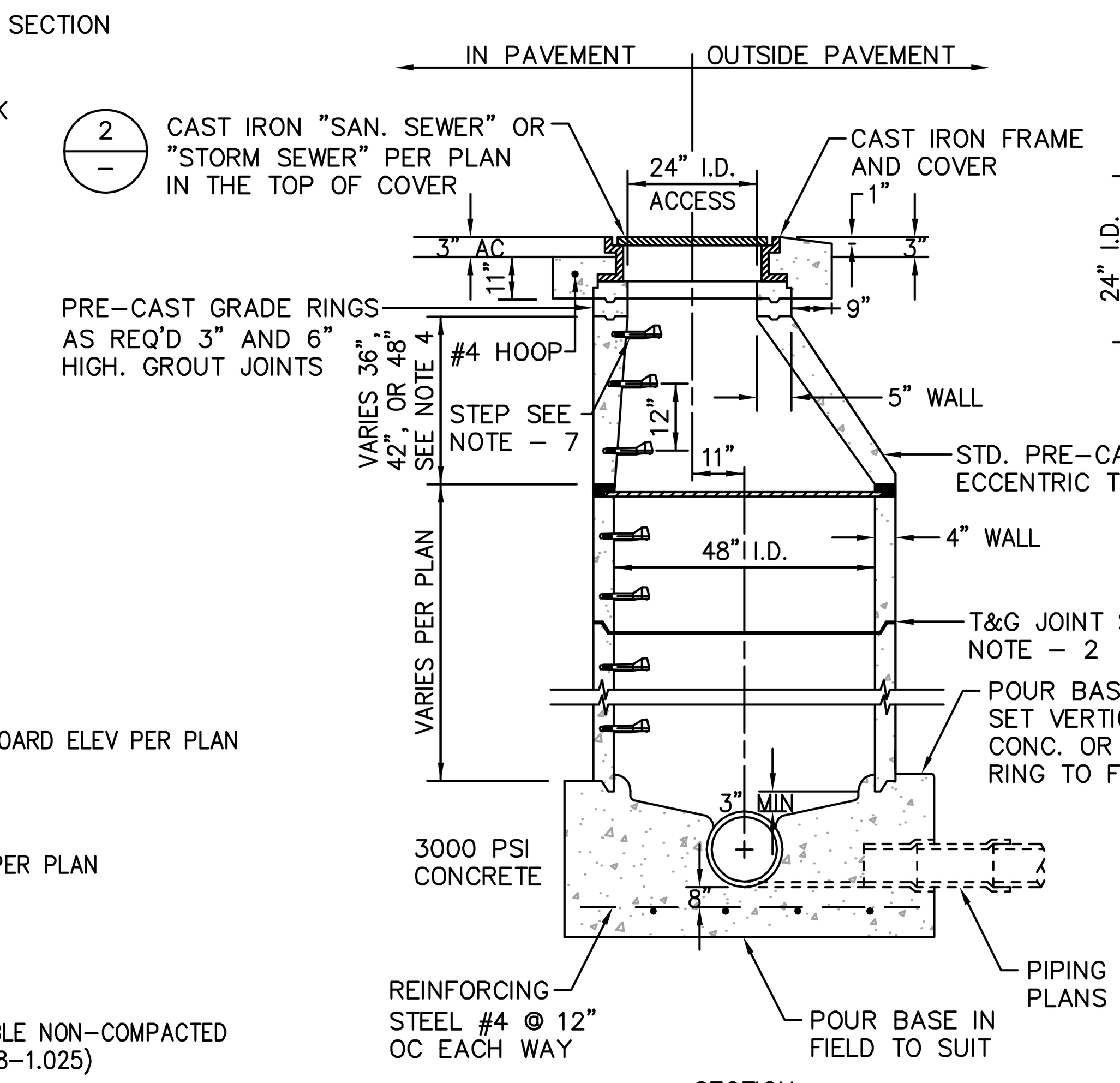
NOTES:

1. DROP INLET SHALL BE CENTRAL PRECAST OR APPROVED EQUAL.
2. AN ENGINEERED PRECAST DROP INLET UNIT CAN BE USED AS AN ALTERNATE.

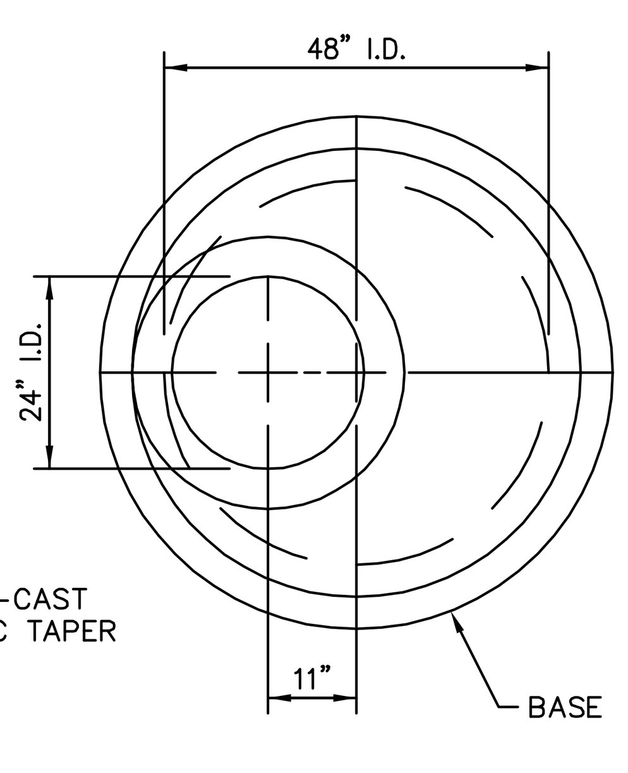
5 — DROP INLET
NTS



3 — AT-GRADE FLOW-THROUGH PLANTER
NTS



SECTION



PLAN VIEW

NOTES:

1. PRE-CAST MANHOLE MATERIAL SHALL BE MANUFACTURED TO ASTM SPECIFICATION C478.
2. GROUT JOINTS WITH 1:3 MORTAR MIX OR USE RAM-NEK JOINT COMPOUND.
3. A 36" TAPER MAY BE COMBINED WITH A 12" VERTICAL TO FORM A 48" TAPER SECTION.
4. ALL CONCRETE JOINTS SHALL BE LEANED, WETTED, AND MORTARED PRIOR TO SETTING THE NEXT SECTION. THE JOINTS SHALL BE PACKED, TOWELLED AND BRUSHED WHILE THE MORTAR IS PLASTIC.
5. MANHOLE SHALL BE SET TO GRADE SUBSEQUENT TO PLACING AC OR RCC.
6. XYPEX CONCENTRATE/CRYSTALLINE COATING ON INTERIOR CONCRETE SURFACES.
7. STEPS NOT REQUIRED IN MANHOLES 3.5 FEET OR LESS IN DEPTH.

1 — MANHOLE (PIPES 6" TO 21")
NTS

BKF ENGINEERS / SURVEYORS / PLANNERS
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FAX: (650) 482-6399

REGISTERED PROFESSIONAL ENGINEER ROLAND N.V. HAGA No. C043971 CIVIL STATE OF CALIFORNIA

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
CONSTRUCTION DETAILS

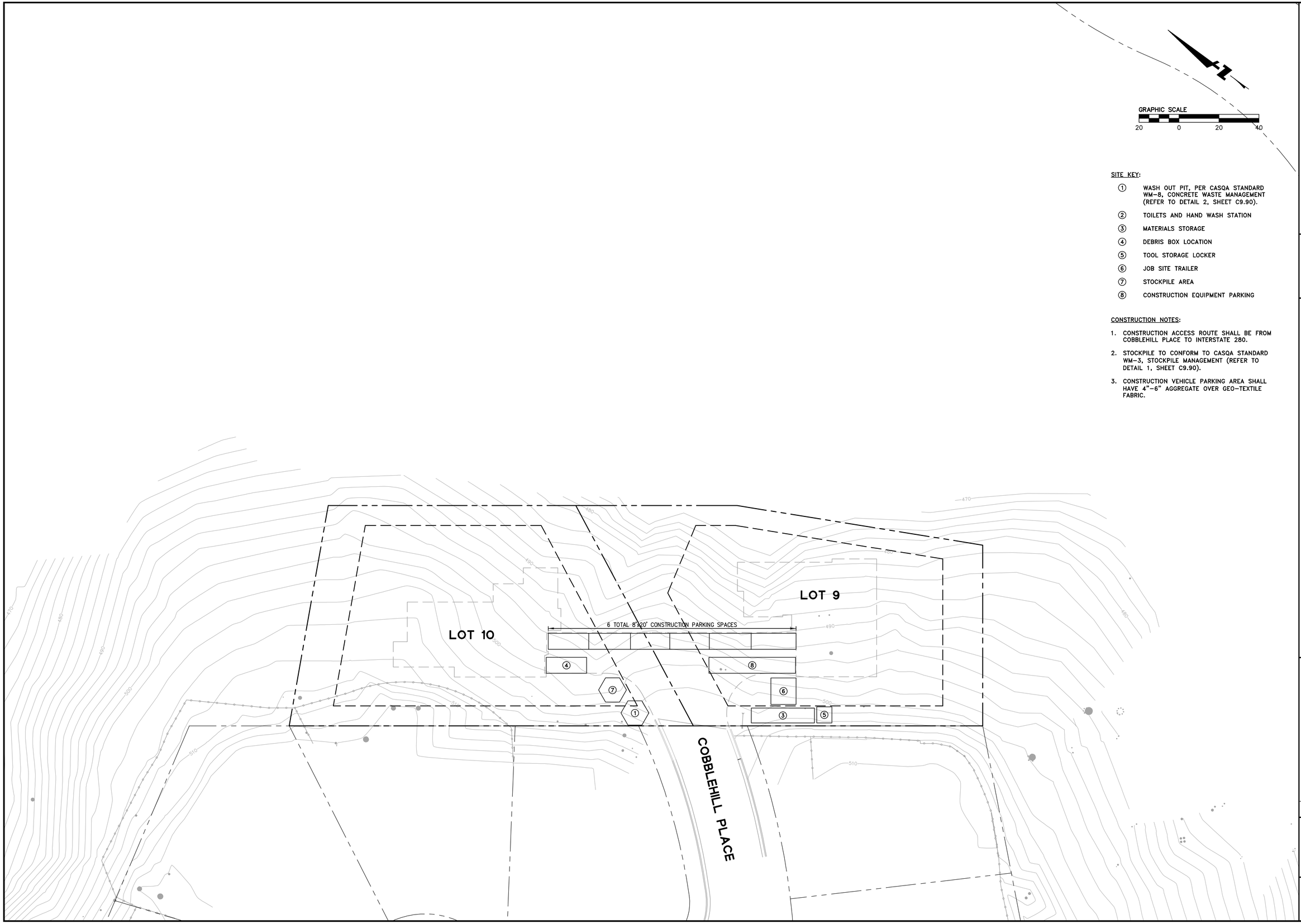
CITY OF SAN MATEO — SAN MATEO COUNTY — CALIFORNIA

No.	Revisions

Date 11/29/2016
Scale AS SHOWN
Design JT
Drawn LE
Approved RH
Job No 950168-20

Sheet Number: C9.71 OF

DRAWING NAME: K:\Eng95\950168\dwg\CD\Lot_9\C9.71-HECDDT.dwg
PLOT DATE: 12-02-16 PLOTTED BY: tang



SITE KEY:

1. WASH OUT PIT, PER CASQA STANDARD WM-8, CONCRETE WASTE MANAGEMENT (REFER TO DETAIL 2, SHEET C9.90).
2. TOILETS AND HAND WASH STATION
3. MATERIALS STORAGE
4. DEBRIS BOX LOCATION
5. TOOL STORAGE LOCKER
6. JOB SITE TRAILER
7. STOCKPILE AREA
8. CONSTRUCTION EQUIPMENT PARKING

CONSTRUCTION NOTES:

1. CONSTRUCTION ACCESS ROUTE SHALL BE FROM COBBLEHILL PLACE TO INTERSTATE 280.
2. STOCKPILE TO CONFORM TO CASQA STANDARD WM-3, STOCKPILE MANAGEMENT (REFER TO DETAIL 1, SHEET C9.90).
3. CONSTRUCTION VEHICLE PARKING AREA SHALL HAVE 4"-6" AGGREGATE OVER GEO-TEXTILE FABRIC.

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REGISTERED PROFESSIONAL ENGINEER RUSSELL M. HAGA No. 043971 CIVIL STATE OF CALIFORNIA

HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
LOGISTICS PLAN

CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

Revisions	No.

Date 11/29/2016
Scale 1"=20'
Design JT
Drawn LE
Approved RH
Job No 950168-20

Sheet Number:
C9.80
OF

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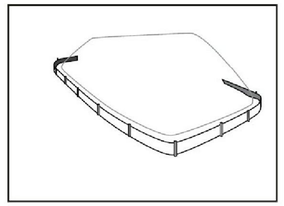
PLOT DATE: 11-29-16 PLOTTED BY: trat

Stockpile Management WM-3



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ Primary Category
☒ Secondary Category

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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

- 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:

Stockpile Management WM-3

- 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 within 14 days.
- 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 all times.

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.

Stockpile Management WM-3

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

- 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.

Costs

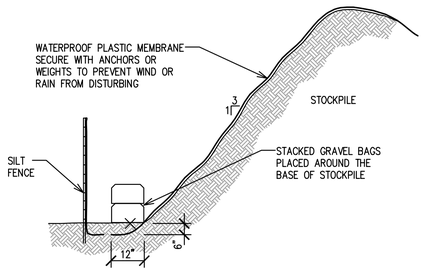
For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

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

References

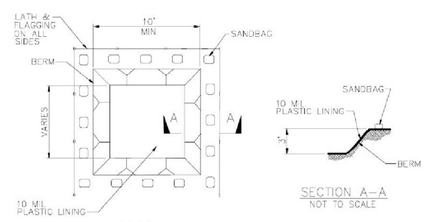
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.



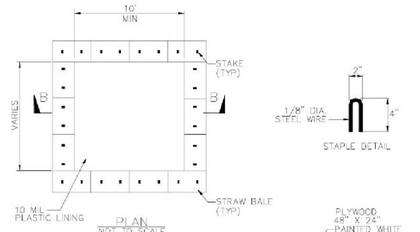
1 – STOCKPILE COVERING
(PER CASQA STANDARD WM-3, STOCKPILE MANAGEMENT, SEE LEFT)
NTS

WM-3 – STOCKPILE MANAGEMENT
NTS

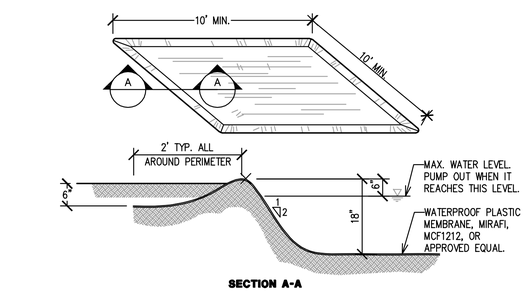
Concrete Waste Management WM-8



Concrete Waste Management WM-8



WM-8 – CONCRETE WASTE MANAGEMENT
NTS



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

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HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
CASQA STANDARD DETAILS

CITY OF SAN MATEO SAN MATEO COUNTY CALIFORNIA

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