

Revisions	
No.	
Date	
Scale	
Design	JT
Drawn	MD
Approved	RH/JT
Job No	90168-20

Date	10/8/2018
Scale	NTS
Design	JT
Drawn	MD
Approved	RH/JT
Job No	90168-20
Sheet Number:	<b>C9.10</b>
OF	

# IMPROVEMENT PLANS FOR HIGHLAND ESTATES - LOT 9 COBBLEHILL PLACE

## COUNTY OF SAN MATEO, CALIFORNIA

### EARTHWORK

CUT	140	CY
FILL	1800	CY
NET	1660	CY FILL

#### EARTHWORK NOTES:

- THE EARTHWORK QUANTITIES SHOWN ABOVE ARE IN-PLACE QUANTITIES AND HAVE BEEN ESTIMATED BY THE ENGINEER WITH THE FOLLOWING ASSUMPTIONS:
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SITE STRIPPINGS.
  - THE UNIT PAD SECTION IS ASSUMED TO BE A 12" THICK CONCRETE SECTION.
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR FILL SHRINKAGE FACTORS.
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR UTILITY TRENCHING AND SPOILS.
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SOIL STABILIZATION FACTORS AND LANDSCAPING PLANTING SOILS.
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR RETAINING WALLS AND BUILDING FOOTINGS AND BACKFILL.
  - EARTHWORK QUANTITIES DO NOT ACCOUNT FOR OVER-EXCAVATION AND COMPACTION OF UNDOCUMENTED FILL IN THE DRIVEWAY AND GARAGE AREAS.
- 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.

### 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

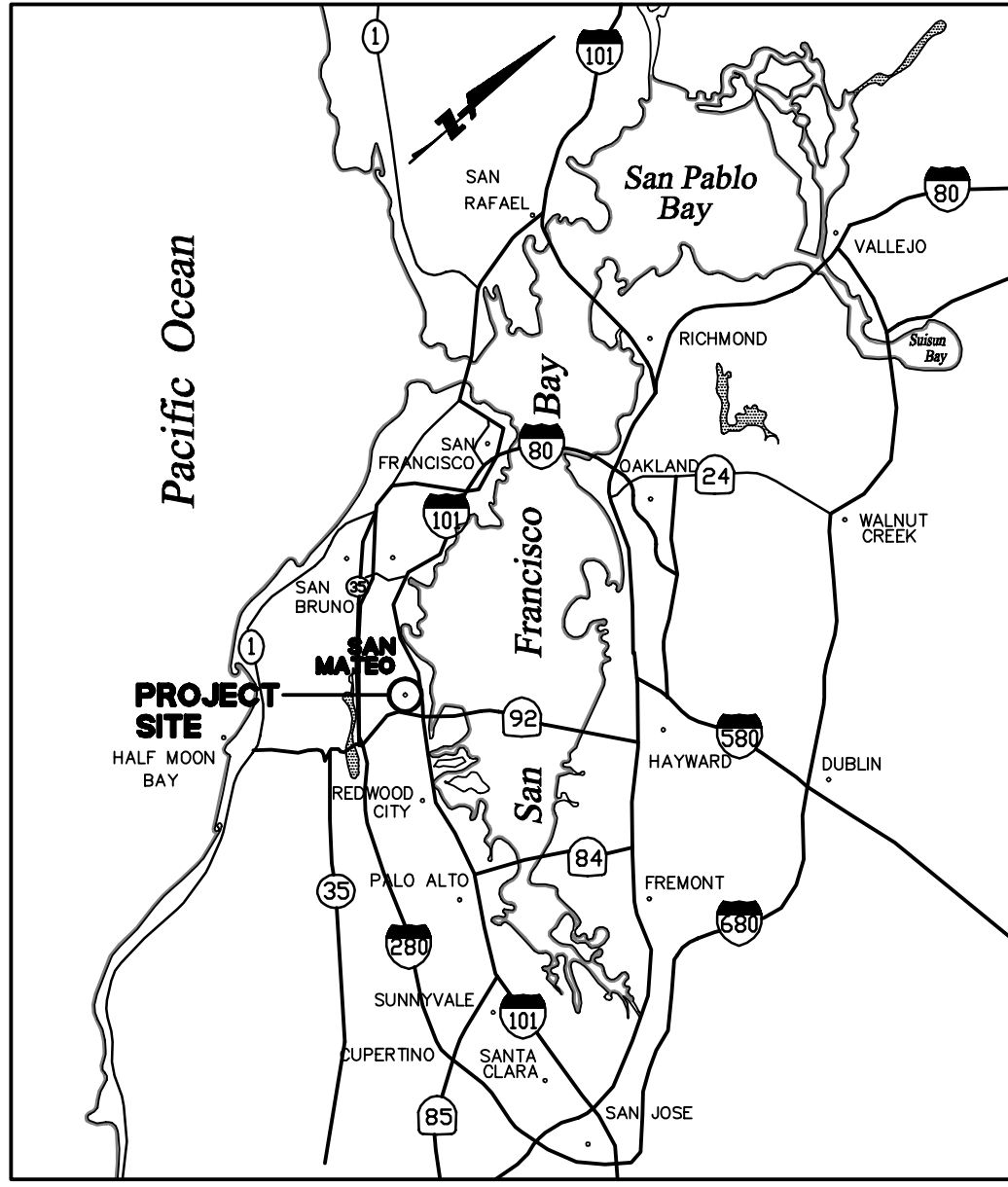
**SEWAGE DISPOSAL:** CITY OF SAN MATEO & CRYSTAL SPRINGS COUNTY SANITATION DISTRICT

**GAS & ELECTRIC:** PG&E  
**TELEPHONE:** AT&T  
**FIRE PROTECTION:** CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

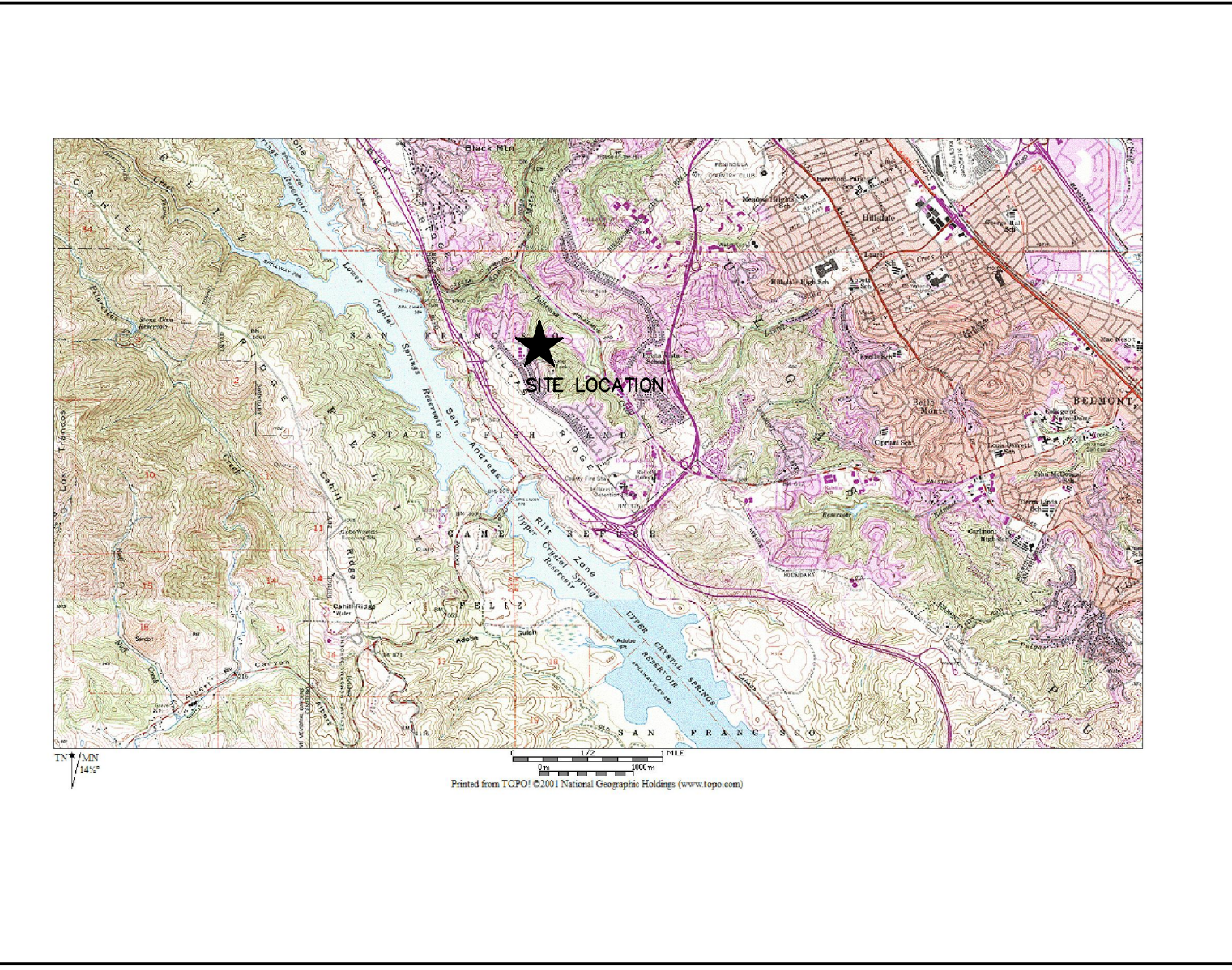
**CABLE:** COMCAST  
**STORM DRAINAGE:** COUNTY OF SAN MATEO  
 CITY OF SAN MATEO

**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



VICINITY MAP  
NTS



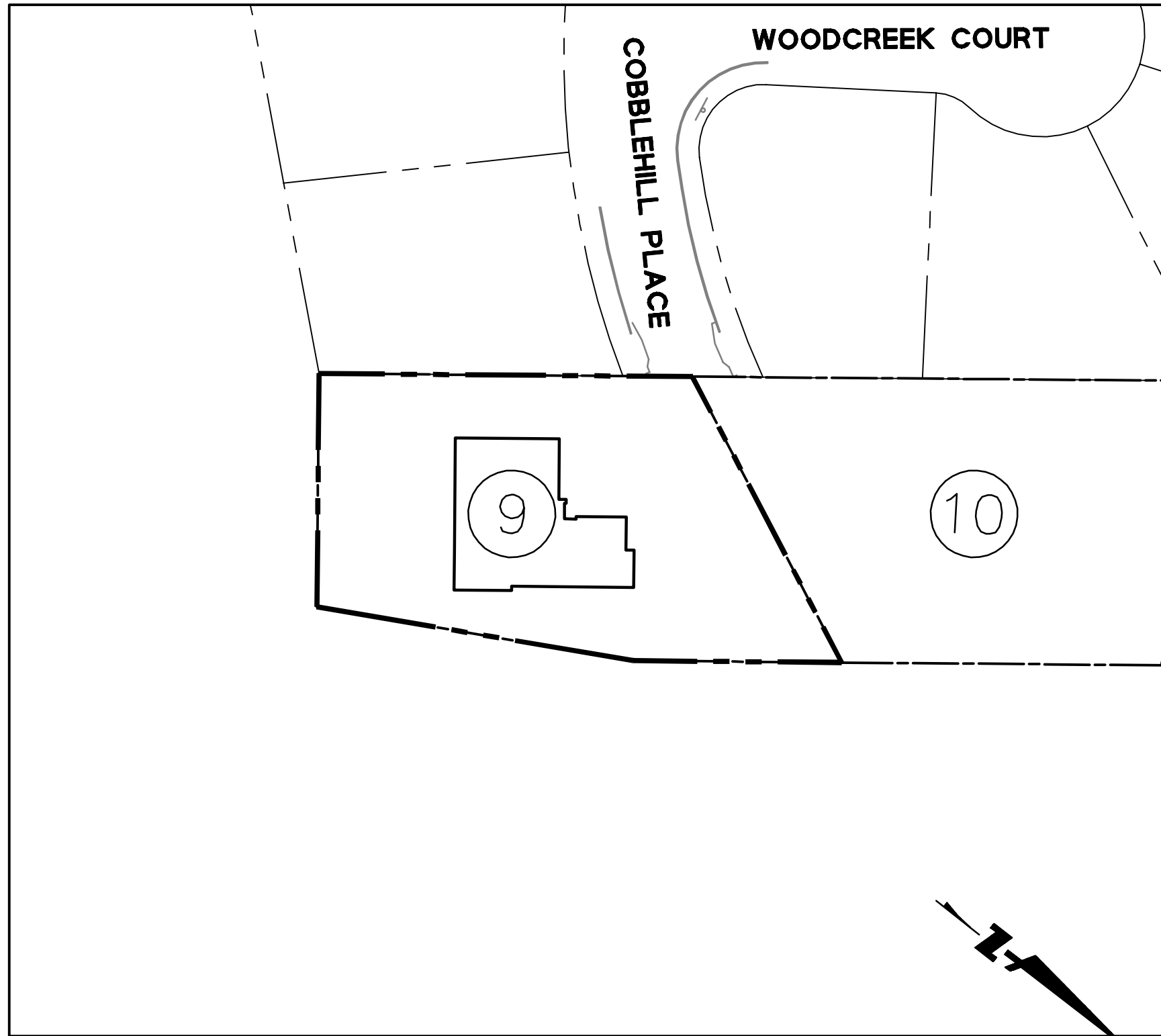
LOCATION MAP  
NTS

### LEGEND

EXISTING	
---	EXISTING PROPERTY LINE BOUNDARY
SS	EXISTING SANITARY SEWER W/MANHOLE
---	EXISTING STORM DRAIN DRAIN W/ MANHOLE
---	EXISTING WATERLINE
---	EXISTING CATCH BASIN
---	EXISTING GAS LINE
ALL UTILITIES ARE APPROXIMATELY LOCATED	
PROPOSED	
---	PROPOSED PROPERTY LINE BOUNDARY
SS	SANITARY SEWER W/ MANHOLE
---	STORM DRAIN W/ MANHOLE & CATCH BASIN
---	WATER LINE W/ FIRE HYDRANT
---	GAS MAIN
---	UNDERGROUND ELECTRIC, TELEPHONE, & C.A.T.V.
S.D.E.	STORM DRAIN EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
509.3	EXISTING TREE & ELEVATION (TREE NO. REFERS TO TREE IDENTIFICATION TAG PER (TREE REPORT PREPARED BY HABITAT RESTORATION GROUP)
X	INDICATES TREE TO BE REMOVED
L.W.	LEATHERWOOD 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	TOF	TOP OF SLOPE
GM	GARAGE FINISH FLOOR	TOW	TOP OF WALL
GG	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



SITE PLAN  
SCALE: 1" = 50'

### SHEET INDEX

SHEET NO	DESCRIPTION
C9.10	TITLE SHEET
C9.20	GENERAL NOTES
C9.30	SITE AND CLEARING, CONSTRUCTION AND GRADING PLANS
C9.40	UTILITY PLAN AND CROSS SECTION
C9.50	EROSION CONTROL PLANS
C9.60	EROSION CONTROL DETAILS AND NOTES
C9.70	CONSTRUCTION DETAILS
C9.71	CONSTRUCTION DETAILS
C9.80	LOGISTICS PLAN
C9.90	CASQA STANDARD DETAILS
C9.91	GEOTECHNICAL MITIGATION PLAN (LOTS 9 AND 10)
C9.92	GEOTECHNICAL MITIGATION KEYING AND BENCHING PLAN (LOTS 9 AND 10)
C9.93	GEOTECHNICAL MITIGATION CROSS SECTIONS (LOTS 9 AND 10)

### ENGINEER'S STATEMENT

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY DIRECTION.

*Roland N.V. Haga* 10/8/2018  
 ROLAND N.V. HAGA  
 P.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* 10/8/2018  
 JONATHAN TANG  
 P.E. NO. 67726  
 BKF ENGINEERS



**RECORD DRAWINGS**  
 THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. BKF ENGINEERS HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED HEREIN AS A RESULT. BKF ENGINEERS DOES NOT ASSUME ANY RESPONSIBILITY FOR THE FIELD MODIFICATIONS TO THE PLANS.

BY: *Jonathan Tang* DATE: 7/20/22

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...
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...

- 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...

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...
3. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AFFECTING UTILITIES...

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.

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.

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...

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...

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...

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...
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.

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 SILENCERS...
3. THE GRADING AND CONSTRUCTION ACTIVITY WOULD BE KEPT TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY...

MITIGATION AQ-1

- 1. 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...

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...
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...

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 DRIP LINES 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...
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...

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...
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...

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...
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...

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 GRADING-DISTURBING WORK SHALL CEASE IMMEDIATELY AND THE COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY...
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 SILENCERS...

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.

MITIGATION AQ-1

- 1. 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...

- 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.
2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
3. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES.
5. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS.
6. HYDROSEED OR APPLY NON-TOXIC SOIL STABILIZERS TO INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE).
7. 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

- 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 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...
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...
5. 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...

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 IS 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.

RECORD DRAWINGS
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BY: [Signature] DATE: 7/20/22

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

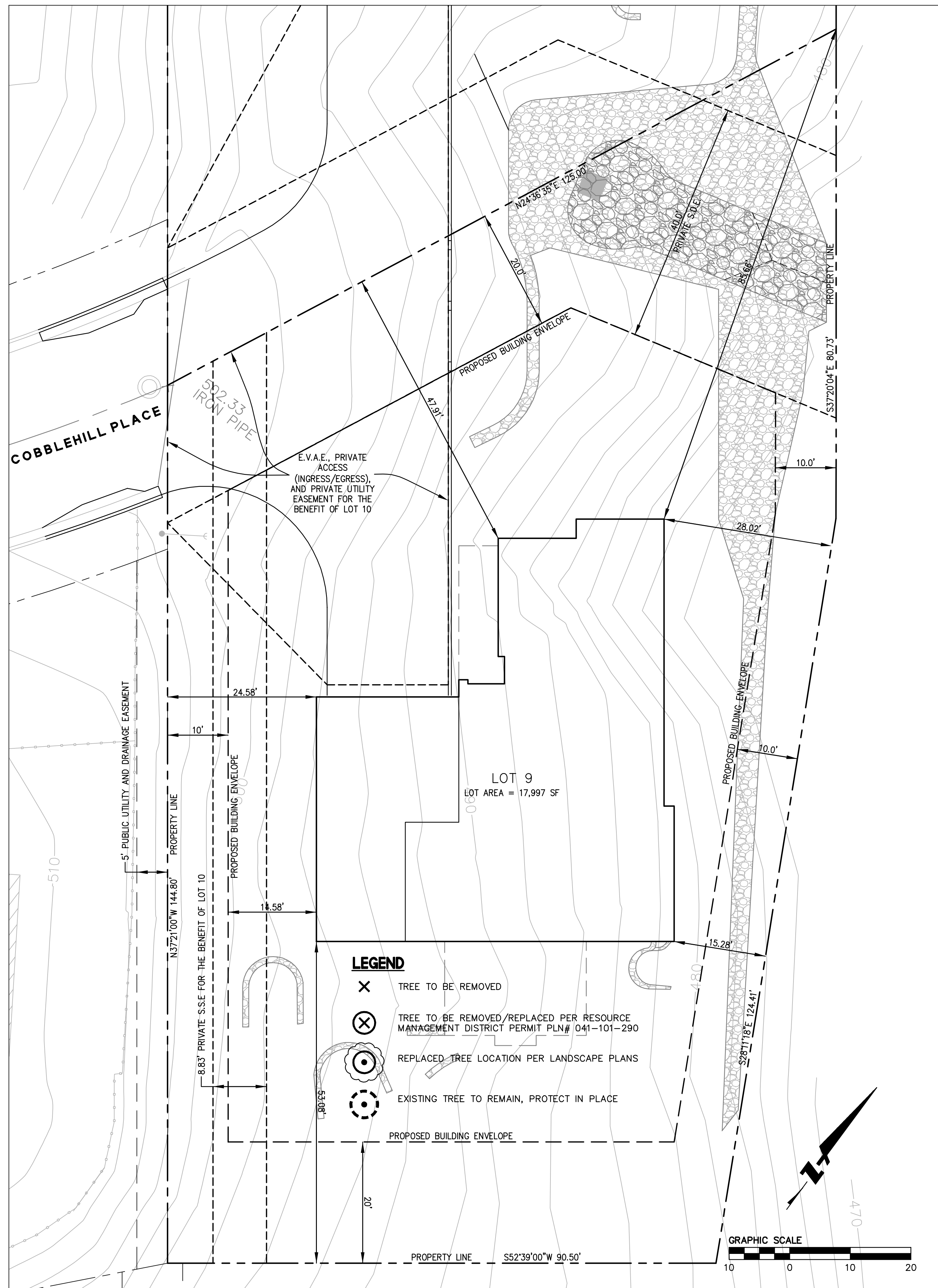


CALIFORNIA
HIGHLAND ESTATES
LOT 9 IMPROVEMENT PLANS
GENERAL NOTES
CITY OF SAN MATEO COUNTY
SAN MATEO COUNTY

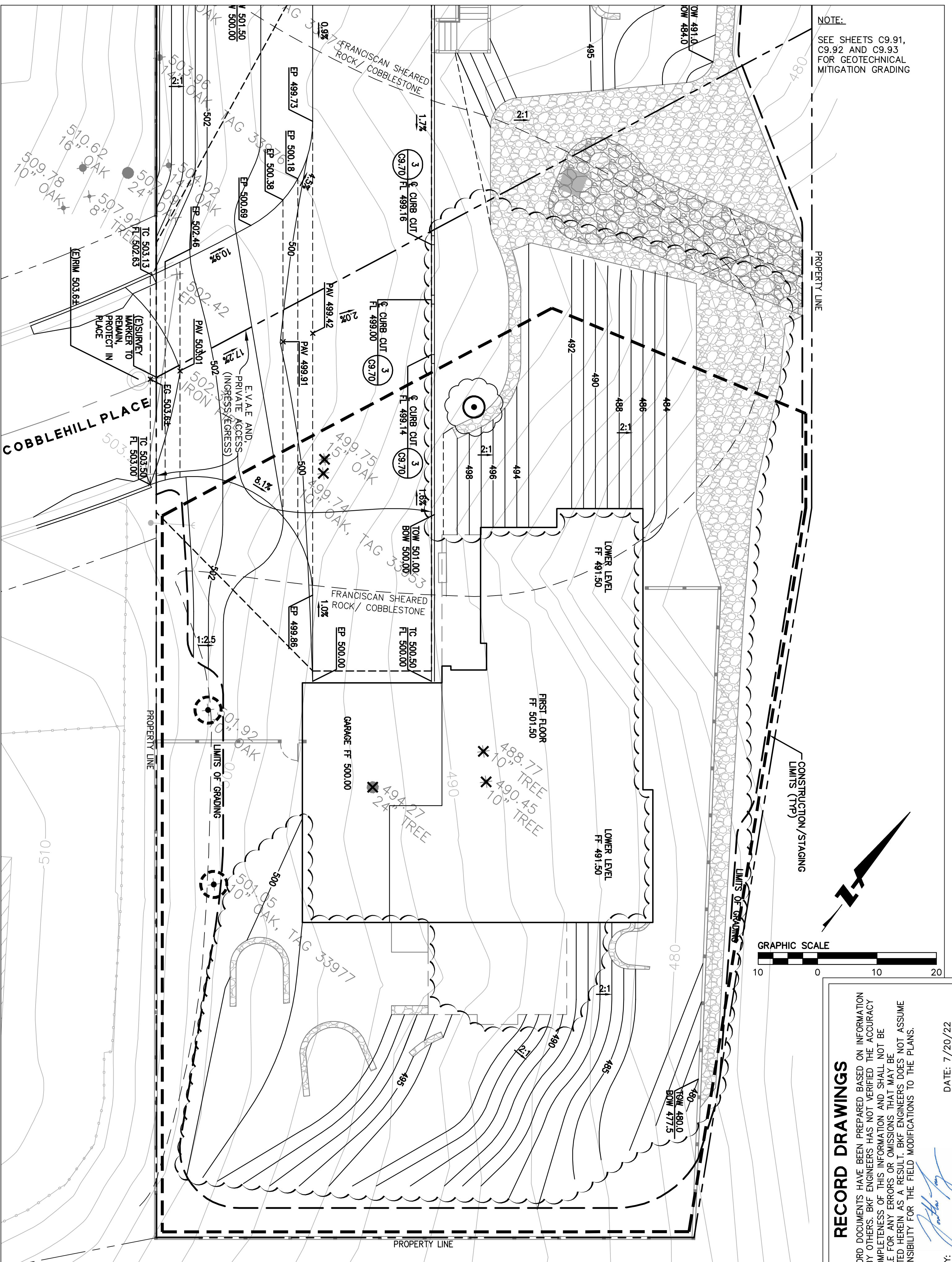
Table with columns: Revisions, No., Date, Scale, NTS, Design, JT, Drawn, LE, Approved, RH/JT, Job No, 95068-20



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 PLOT DATE: 07-20-22  
 PLOTTED BY: hoi.t



**LOT 9  
 SITE PLAN**  
 SCALE: 1"=10'



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

**NOTE:**  
 SEE SHEETS C9.91,  
 C9.92 AND C9.93  
 FOR GEOTECHNICAL  
 MITIGATION GRADING

**RECORD DRAWINGS**  
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BY: [Signature]  
 DATE: 7/20/22

Date	Scale	Design	Drawn	Approved	Job No.
10/8/2018	AS SHOWN	JT	LE	RH/JT	950168-20

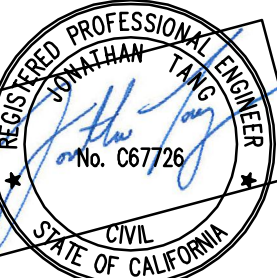
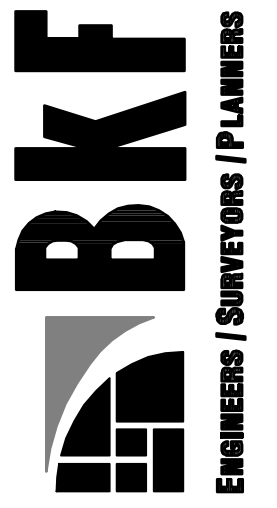
Revisions

Sheet Number: **C9.30**



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

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



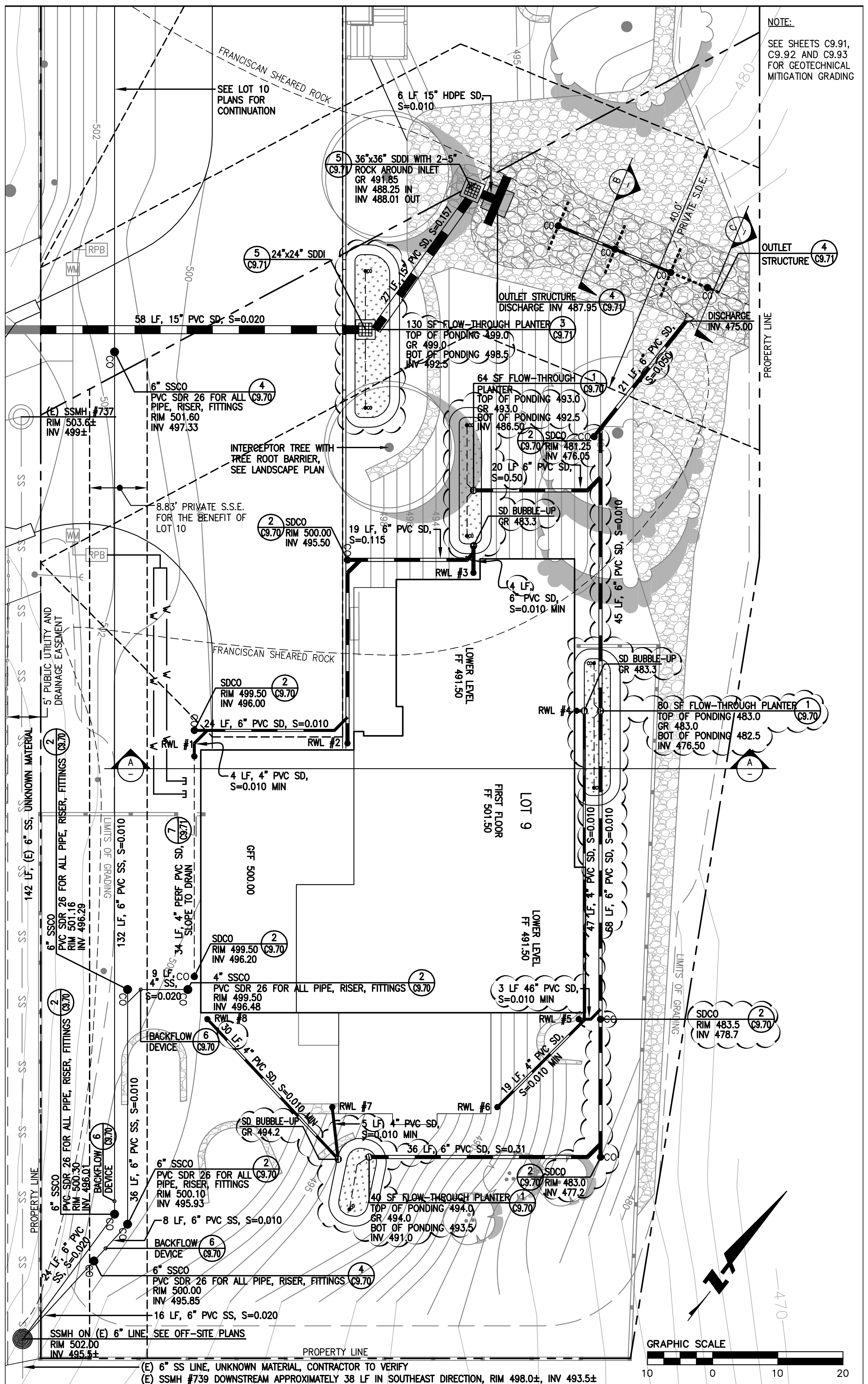
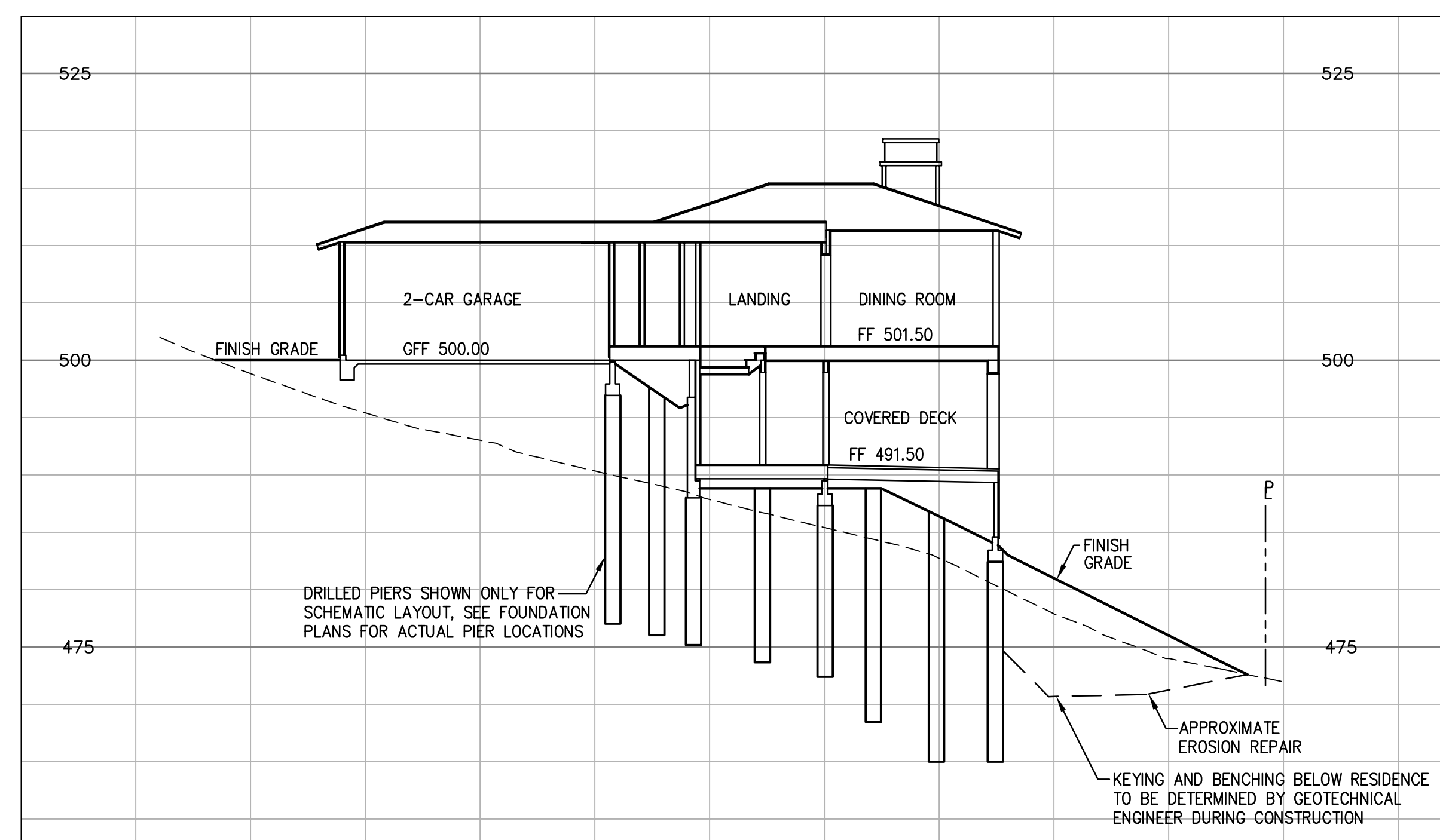
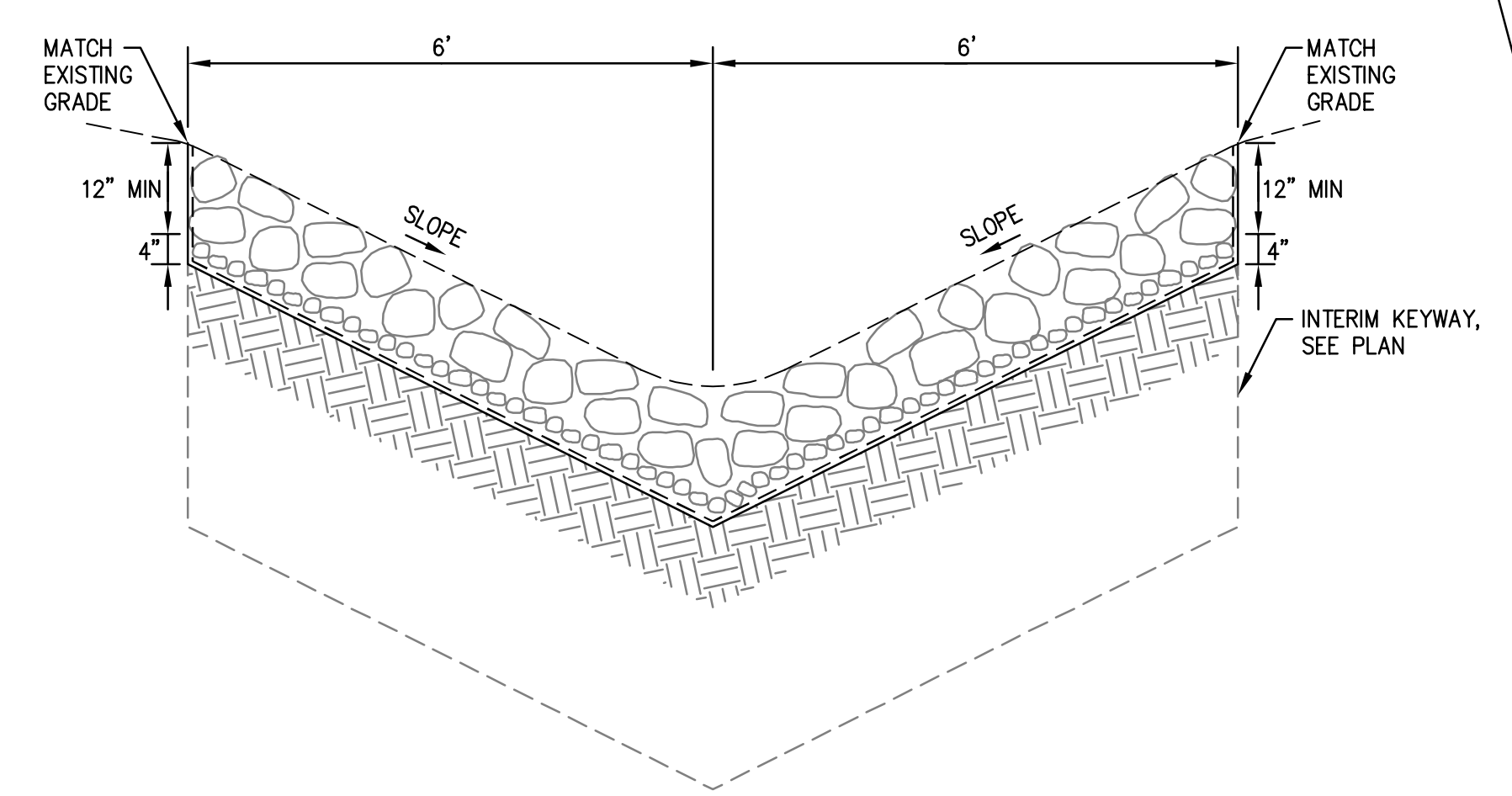
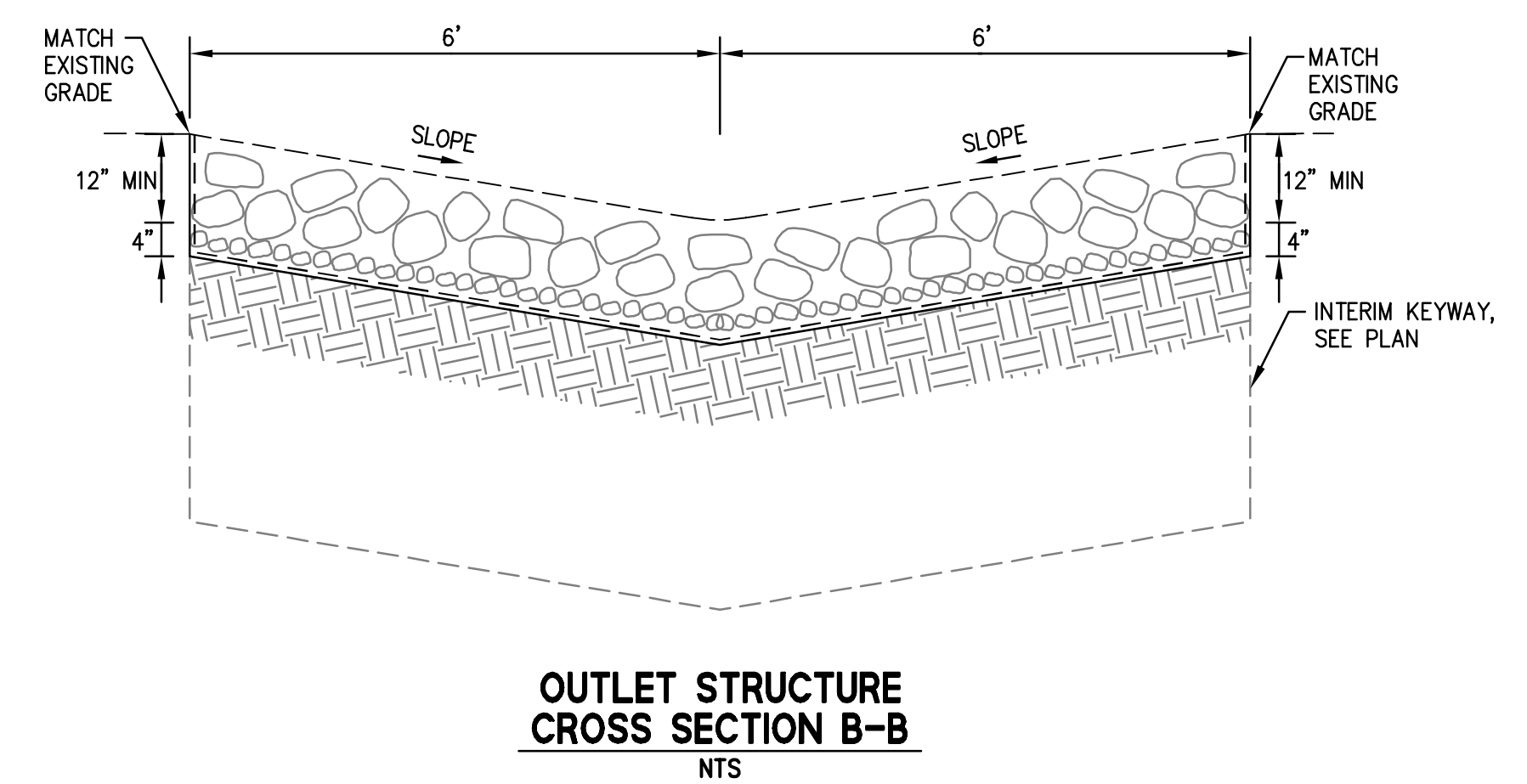
HIGHLAND ESTATES  
 LOT 9 IMPROVEMENT PLANS  
 UTILITY PLAN AND CROSS SECTION  
 SAN MATEO COUNTY

**CRYSTAL SPRINGS COUNTY SANITATION DISTRICT NOTES:**

1. THE PROPERTY/EASEMENT LINE CLEANOUT MUST BE PLACED IN A LOCATION THAT PROVIDES EASY ACCESS FOR MAINTENANCE EQUIPMENT AND IS OUTSIDE OF ANY ENCLOSURES. A MINIMUM OF 6' IS REQUIRED BETWEEN THE PROPERTY LINE CLEANOUT AND STRUCTURE.
2. THE PLANS INDICATE THAT THE LOWEST FINISHED FLOOR ELEVATION OF THE PROPOSED MAIN RESIDENCE WILL BE LESS THAN ONE (1) FOOT HIGHER THAN THE RIM ELEVATION OF THE NEAREST UPSTREAM SANITARY SEWER MANHOLE. A BACKFLOW PREVENTION OR OVERFLOW DEVICE MUST BE INSTALLED IMMEDIATELY UPSTREAM OF THE REQUIRED CLEANOUT NEAR THE PROPERTY LINE TO PREVENT BACKFLOW OF SEWAGE INTO THE BUILDING/PROPERTY.
3. SANITARY SEWER CONNECTION AND TESTING MUST BE MADE IN THE PRESENCE OF A SEWER DISTRICT REPRESENTATIVE. THIS NOTE SHALL BE ADDED TO THE PLANS.
4. THE SEWER DISTRICT OFFICE SHALL BE CONTACTED (650-363-4100) TO SCHEDULE INSPECTIONS. INSPECTIONS MUST BE SCHEDULED A MINIMUM OF ONE WORKING DAY PRIOR TO THE INSPECTION. NO INSPECTIONS SHALL OCCUR ON FRIDAYS, WEEKENDS OR HOLIDAYS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH THE SEWER DISTRICT.
5. A VIDEO INSPECTION OF THE SEWER MAIN (MANHOLE TO MANHOLE) WHERE THE NEW LATERAL CONNECTS TO THE SEWER DISTRICT MAIN SHALL BE PERFORMED BY THE APPLICANT OR CONTRACTOR AND SUBMITTED TO THE SEWER DISTRICT FOR REVIEW AFTER LATERAL CONNECTION HAS BEEN MADE. THE VIDEO INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS DESCRIBED IN THE SPECIAL PROVISIONS FOR CLOSED CIRCUIT TELEVISION INSPECTION OF SANITARY SEWER MAINS (A COPY CAN BE OBTAINED FROM OUR WEBSITE AT [HTTP://PUBLICWORKS.SMCGOV.ORG/SEWER-SERVICES](http://PUBLICWORKS.SMCGOV.ORG/SEWER-SERVICES)). THE SEWER DISTRICT WILL REVIEW THE VIDEO INSPECTION TO DETERMINE WHETHER THE WORK PERFORMED IS ACCEPTABLE. ALL UNACCEPTABLE WORK SHALL BE CORRECTED TO THE SEWER DISTRICT'S SATISFACTION AT THE APPLICANT'S EXPENSE.
6. CARE MUST BE TAKEN TO PROTECT THE EXISTING SEWER DISTRICT FACILITIES WHEN A NEW SEWER LATERAL AND CONNECTION IS INSTALLED. ANY DAMAGES TO THE SEWER DISTRICT FACILITIES DURING THE INSTALLATION OF THE NEW LATERAL SHALL BE REPAIRED BY THE APPLICANT PER THE SEWER DISTRICT STANDARD DETAILS AND AT THE APPLICANT'S EXPENSE. THE SEWER DISTRICT MUST BE NOTIFIED OF ANY DAMAGES TO THE SANITARY SEWER FACILITIES AND ANY REPAIRS MUST BE INSPECTED BY A SEWER DISTRICT REPRESENTATIVE.
7. LATERAL CONNECTION TO THE EXISTING MANHOLE SHALL BE MADE BY CORE DRILLING A HOLE IN THE MANHOLE WALL APPROPRIATELY SIZED FOR THE SEWER LATERAL PIPE. THE ANNULAR SPACE BETWEEN THE WALL AND PIPE SHALL BE PLUGGED WITH MORTAR CEMENT. AFTER THE ANNULAR SPACE HAS BEEN PLUGGED, THE INTERIOR OF THE ENTIRE MANHOLE SHALL BE COATED WITH AN APPROVED WATERPROOFING MATERIAL APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS.
8. THE CONTRACTOR MUST REMOVE AND DISPOSE OF ALL CONSTRUCTION DEBRIS IN THE MANHOLE AFTER THE LATERAL CONNECTION HAS BEEN MADE. CARE MUST BE TAKEN TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE SEWER SYSTEM DURING THE INSTALLATION OF THE NEW SEWER LATERAL CONNECTION. IF THE SEWER DISTRICT DISCOVERED THAT CONSTRUCTION DEBRIS HAS ENTERED THE SEWER SYSTEM, THE APPLICANT WILL BE RESPONSIBLE TO CLEAN AND TELEVIEW THE DOWNSTREAM PORTIONS OF THE SEWER MAINS AS DETERMINED BY THE SEWER DISTRICT TO THE SEWER DISTRICT'S SATISFACTION. SANITARY SEWER SERVICE SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY (E.G. PUMPS, ETC.) TO MAINTAIN THIS SERVICE DURING CONSTRUCTION.

**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 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 9, SEE SHEETS C9.91 AND C9.92 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 9  
 UTILITY PLAN  
 SCALE: 1"=10'**

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

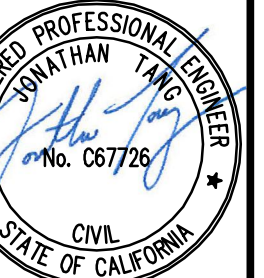
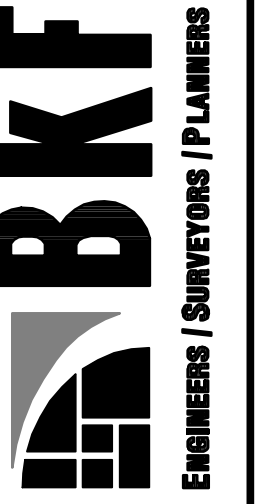
**RECORD DRAWINGS**

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BY: DATE: 7/20/22

No.	Revisions
1	AS-BUILT - 5/17/2022
2	Design
3	Drawn
4	Approved RH/JT
5	Job No. 95068-20

Date: 10/8/2018  
 Scale: AS SHOWN  
 Sheet Number: **C9.40**  
 OF



CALIFORNIA

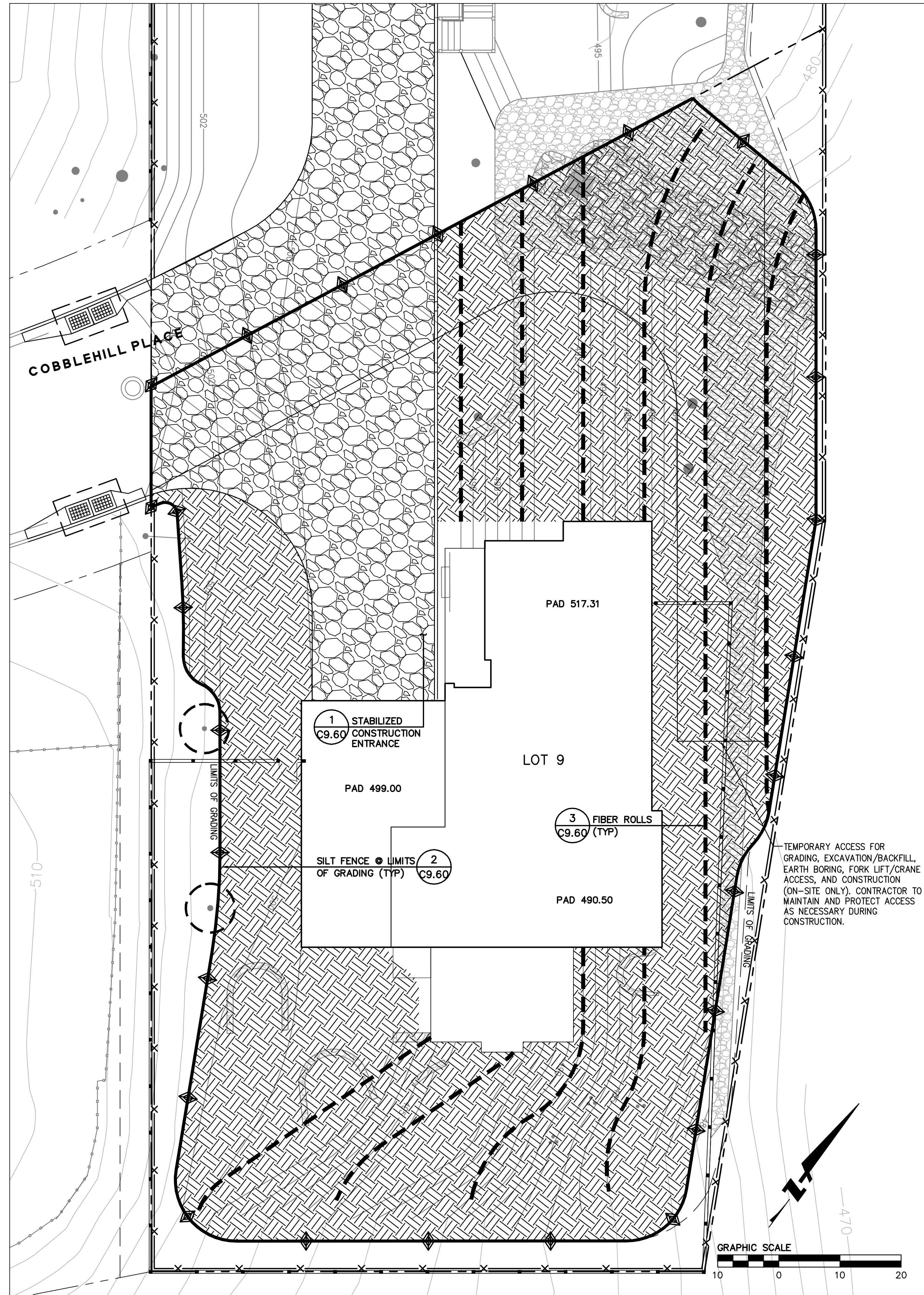
HIGHLAND ESTATES  
LOT 9 IMPROVEMENT PLANS  
EROSION CONTROL PLANS

SAN MATEO COUNTY

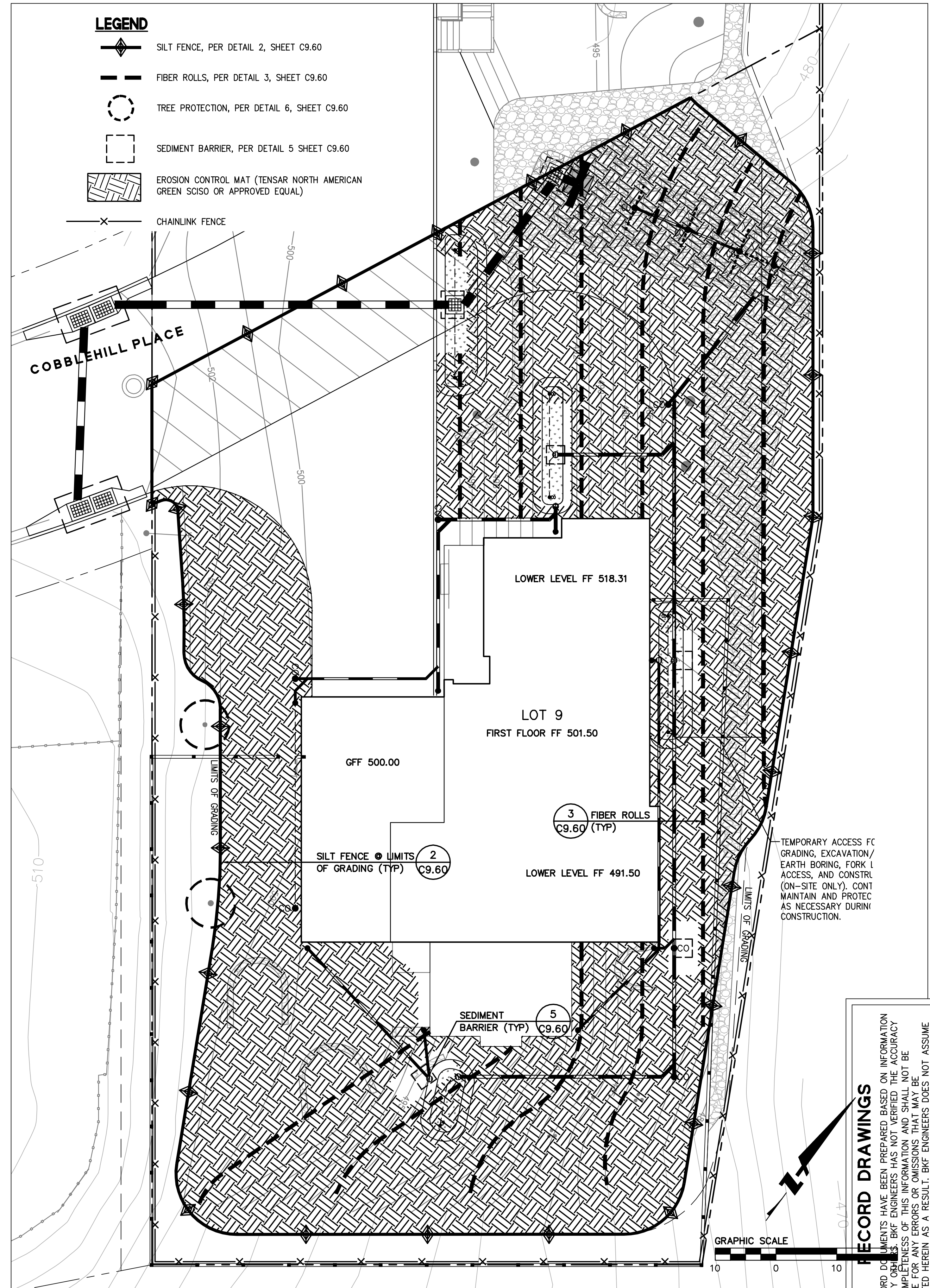
CITY OF SAN MATEO

Date	No.	Revisions
10/8/2018		Scale AS SHOWN
		Design RH
		Drawn RH
		Approved RH/JT
		Job No 90168-20

Sheet Number:  
**C9.50**  
OF



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



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

- LEGEND**
- SILT FENCE, PER DETAIL 2, SHEET C9.60
  - FIBER ROLLS, PER DETAIL 3, SHEET C9.60
  - TREE PROTECTION, PER DETAIL 6, SHEET C9.60
  - SEDIMENT BARRIER, PER DETAIL 5 SHEET C9.60
  - EROSION CONTROL MAT (TENSAR NORTH AMERICAN GREEN SCISO OR APPROVED EQUAL)
  - CHAINLINK FENCE

**RECORD DRAWINGS**

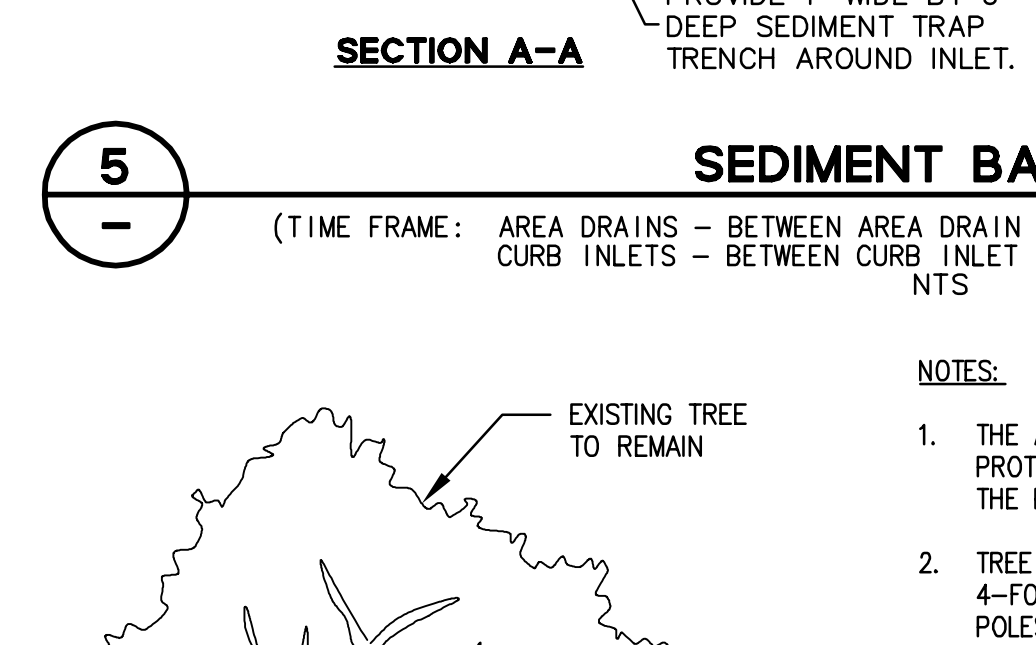
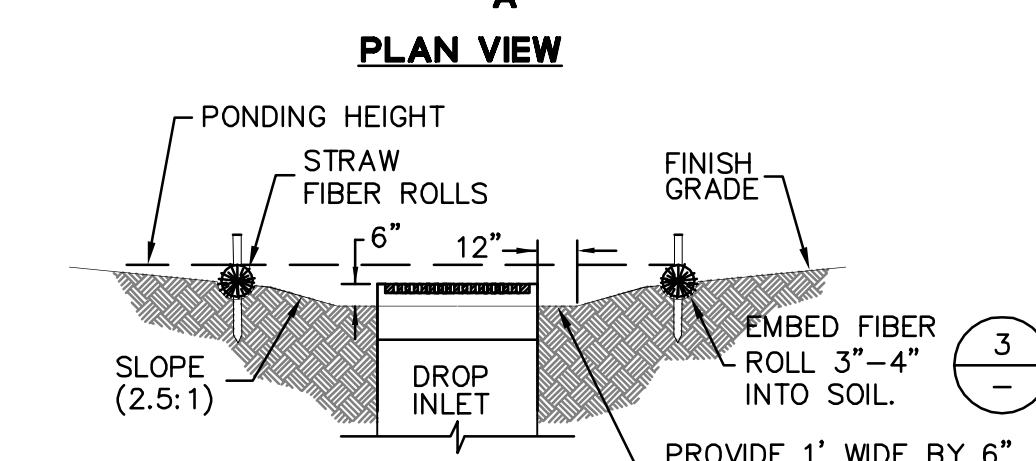
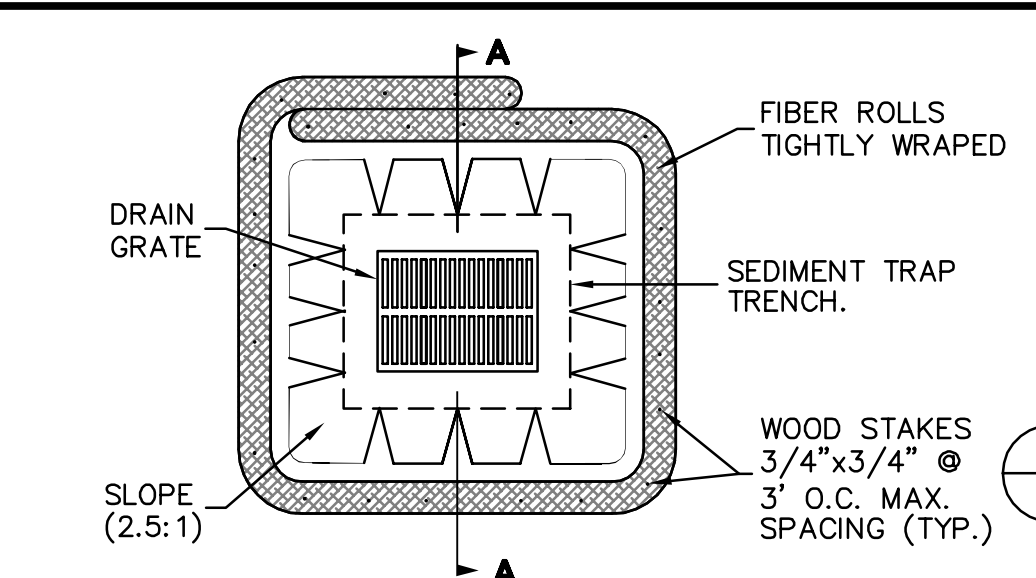
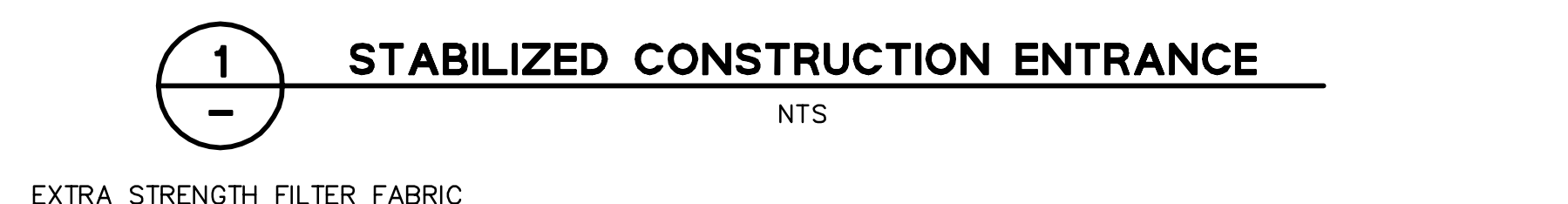
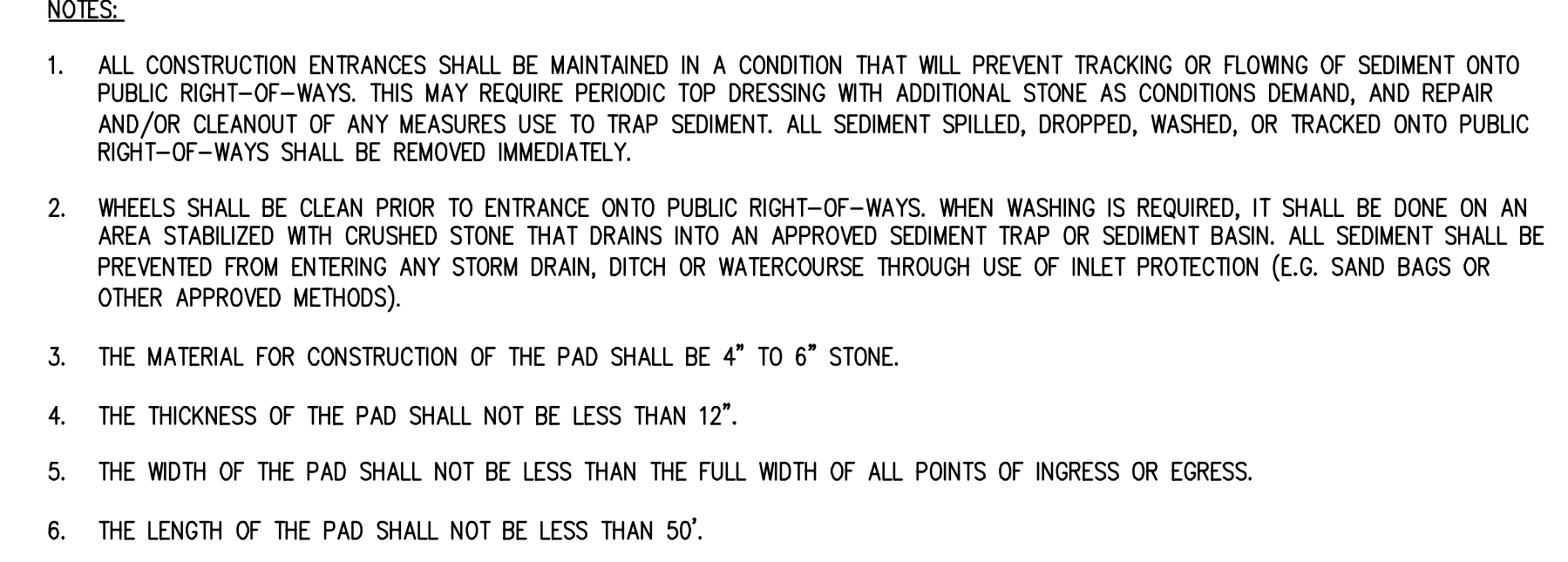
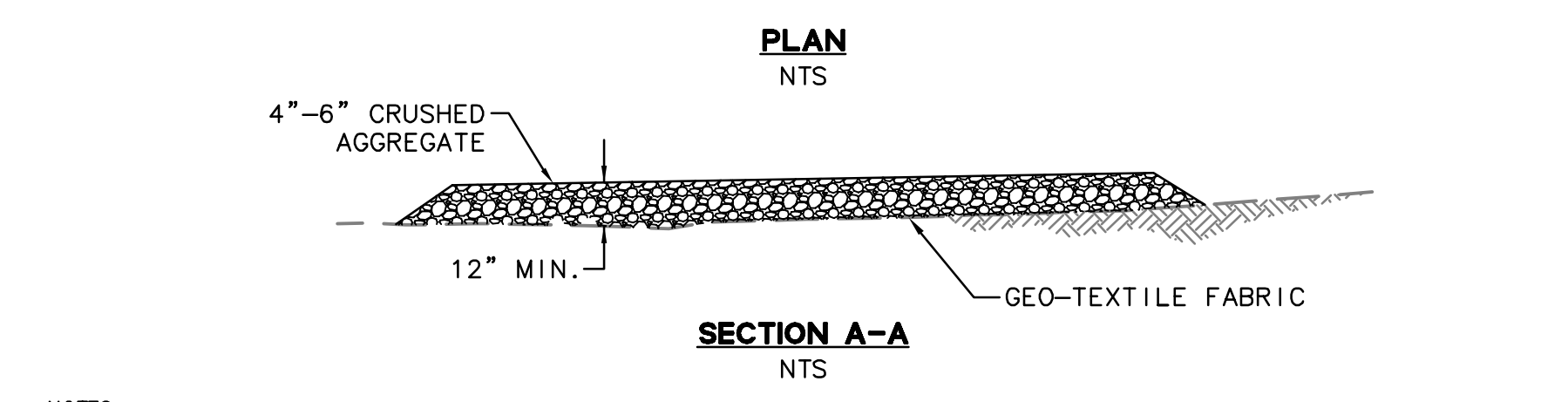
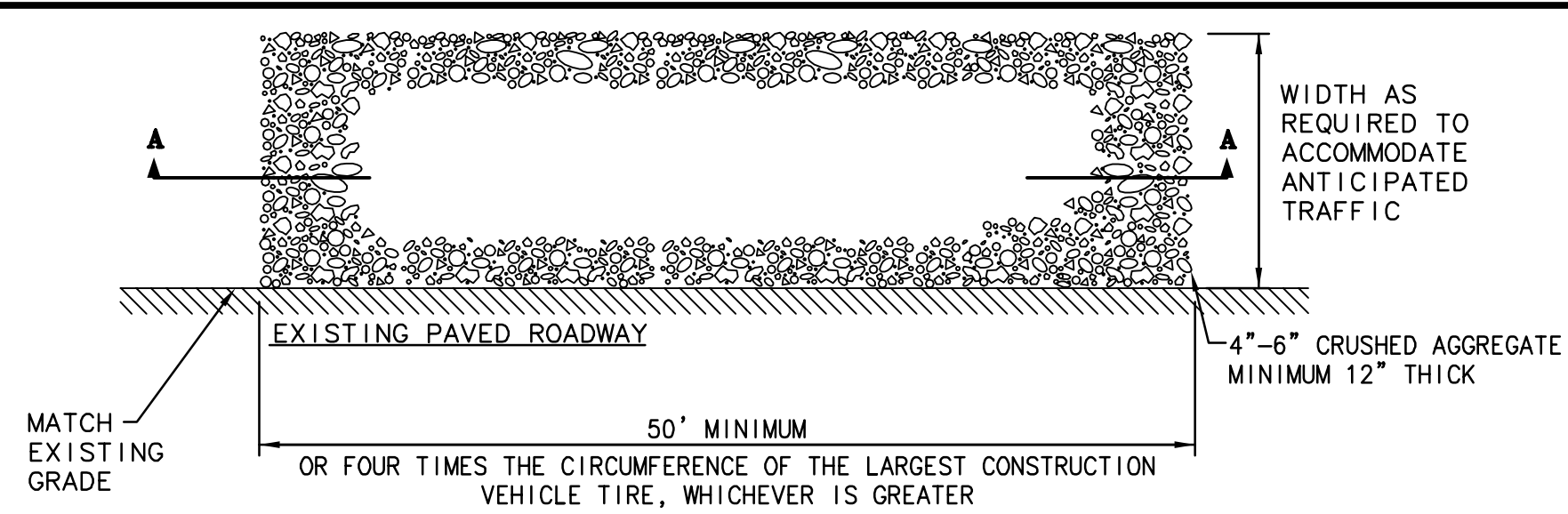
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BY: DATE: 7/20/22

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PLOT DATE: 07-20-22 PLOTTED BY: tboit

**EROSION CONTROL NOTES**

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- FOR ALL LARGER VEHICLES, INCLUDING CEMENT MIXERS OR OTHER DEVICES THAT MUST BE DELIVERED BY LARGE TRUCKS, VEHICLES SHALL BE EQUIPPED WITH CAB LEVEL THREE VERIFIED CONTROL DEVICES.
- 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.
- 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.
- 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).
- TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED UNLESS ALTERNATIVE MEASURES ARE USED.
- SEED MIX FOR REVEGETATION AND HYDROSEEDING:  
NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL  
  
30% BLUE WILDORYE  
30% MEADOW BARLEY  
20% ZORRO FESCUE  
10% PURPLE NEEDLE GRASS  
10% CALIFORNIA NATIVE WILDFLOWERS
- APPLY AT 40 POUNDS PER ACRE MINIMUM. HAND WATER AS RECOMMENDED BY SEED SUPPLIER TO ESTABLISH GERMINATION AND VEGETATION GROWTH. OVERSEED AND/OR REPLANT AS NEEDED TO MAINTAIN COVER AS REQUIRED.
- DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
- LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR.
- INSTALL SANDBAGS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
- REPLANT VEGETATION IN DISTURBED AREAS AS SOON AS POSSIBLE.
- INSTALL WHEEL WASHERS FOR ALL EXITING TRUCKS OR WASH OFF THE TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE.
- INSTALL WIND BREAKS AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS.
- SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
- 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.
- 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 COR NETTING, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND REVEGETATING DISTURBED AREAS WITH VEGETATION THAT IS COMPATIBLE WITH THE SURROUNDING ENVIRONMENT.
- STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER. 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.
- 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.
- PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
- LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
- LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
- 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.
- 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.
- IF NO WORK HAS PROCEEDED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
- 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 SPILLS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCLOSED 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 PIPE.
- HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS. EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
- GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
- 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@negenbuilders.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.
- AREAS DELINEATED ON PLANS FOR PARKING, CLEARING & GRUBBING, STORAGE, ETC. SHALL NOT BE ENLARGED OR "RUN OVER."
- CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS ON-SITE DURING THE "OFF-SEASON."
- DUST CONTROL IS REQUIRED YEAR-ROUND.
- EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
- 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.
- TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.
- AVOID SOIL COMPACTION IN EXISTING AND PROPOSED LANDSCAPED AREAS. ALL EQUIPMENT OR STOCKPIILING SHOULD BE LOCATED AWAY FROM ALL PROPOSED LANDSCAPING TO REDUCE COMPACTION.



- NOTES:**
- 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.
  - 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.

- 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.

**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:	TEMPORARY TRACKING CONTROL BMPs:
EC-1 SCHEDULING	TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
EC-2 PRESERVATION OF EXISTING VEGETATION	TC-2 STABILIZED CONSTRUCTION ROADWAY
EC-3 HYDRAULIC MULCH	TC-3 ENTRANCE/OUTLET TIRE WASH
EC-4 HYDROSEEDING	
EC-5 SOIL BINDERS	<b>NON-STORMWATER MANAGEMENT BMPs:</b>
EC-6 STRAW MULCH	NS-1 WATER CONSERVATION PRACTICES
EC-7 GEOTEXTILES & MATS	NS-2 DEWATERING OPERATIONS
EC-8 WOOD MULCHING	NS-3 PAVING AND GRINDING OPERATIONS
EC-9 EARTH DIKES AND DRAINAGE SWALES	NS-4 TEMPORARY STREAM CROSSING
EC-10 VELOCITY DISSIPATION DEVICES	NS-5 CLEAR WATER DIVERSION
EC-11 SLOPE DRAINS	NS-6 ILLIOT CONNECTION/DISCHARGE
EC-12 STREAMBANK STABILIZATION	NS-7 POTABLE WATER/IRRIGATION
EC-14 COMPOST BLANKETS	NS-8 VEHICLE AND EQUIPMENT CLEANING
EC-15 SOIL PREPARATION/ROUGHENING	NS-9 VEHICLE AND EQUIPMENT FUELING
EC-16 NON-VEGETATIVE STABILIZATION	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

TEMPORARY SEDIMENT CONTROL BMPs:	WASTE MANAGEMENT & MATERIALS POLLUTION CONTROL BMPs:
SE-1 SILT FENCE	WM-1 MATERIAL DELIVERY AND STORAGE
SE-2 SEDIMENT BASIN	WM-2 MATERIAL USE
SE-3 SEDIMENT TRAP	WM-3 STOCKPILE MANAGEMENT
SE-4 CHECK DAM	WM-4 SPILL PREVENTION AND CONTROL
SE-5 FIBER ROLLS	WM-5 SOLID WASTE MANAGEMENT
SE-6 GRAVEL BAG BERM	WM-6 HAZARDOUS WASTE MANAGEMENT
SE-7 STREET SWEEPING AND VACUUMING	WM-7 CONTAMINATED SOIL MANAGEMENT
SE-8 SANDBAG BARRIER	WM-8 CONCRETE WASTE MANAGEMENT
SE-9 STRAW BALE BARRIER	WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
SE-10 STORM DRAIN INLET PROTECTION	WM-10 LIQUID WASTE MANAGEMENT
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

**RECORD DRAWINGS**

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DATE: 7/20/22

BY: *[Signature]*

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PLOT DATE: 07-20-22

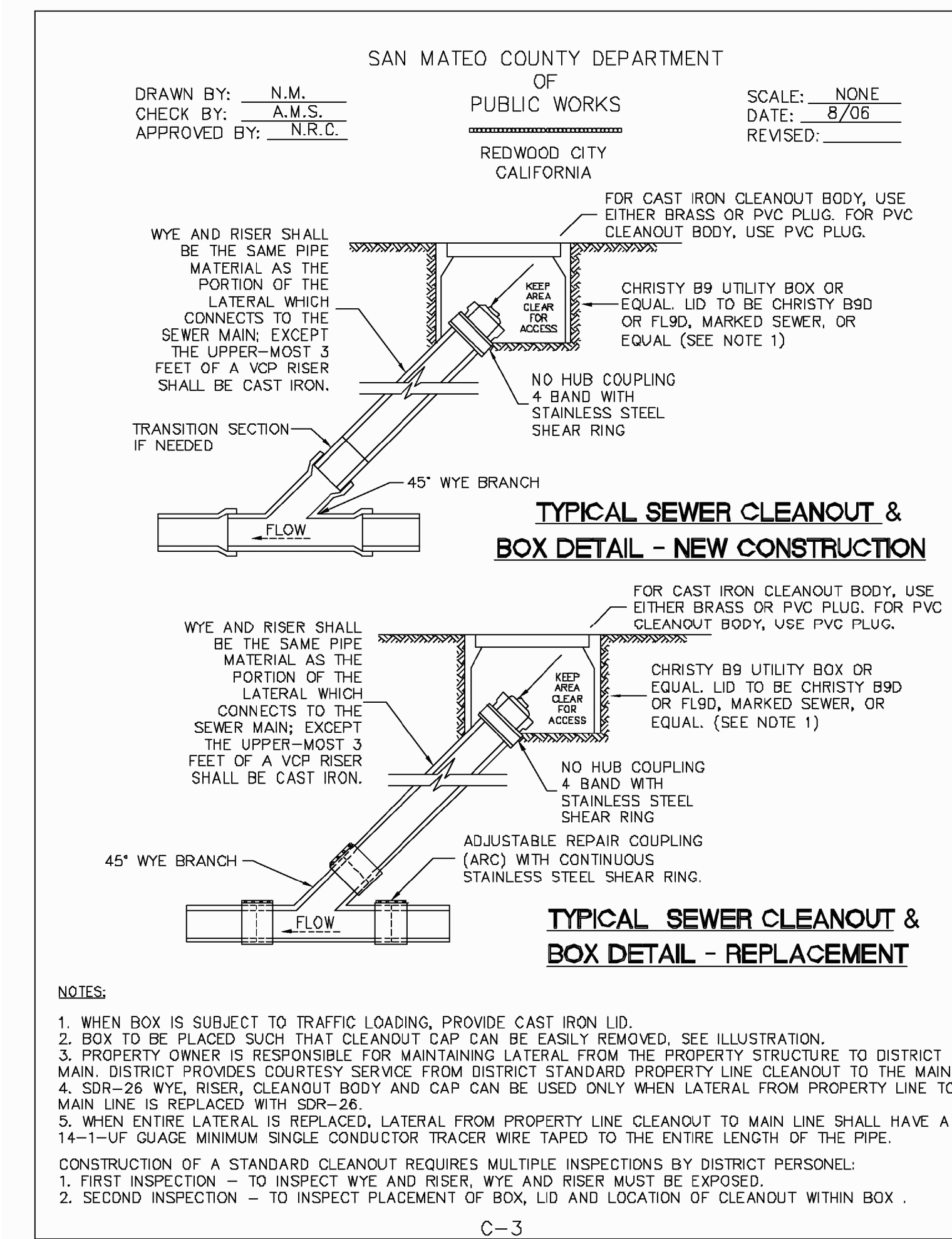
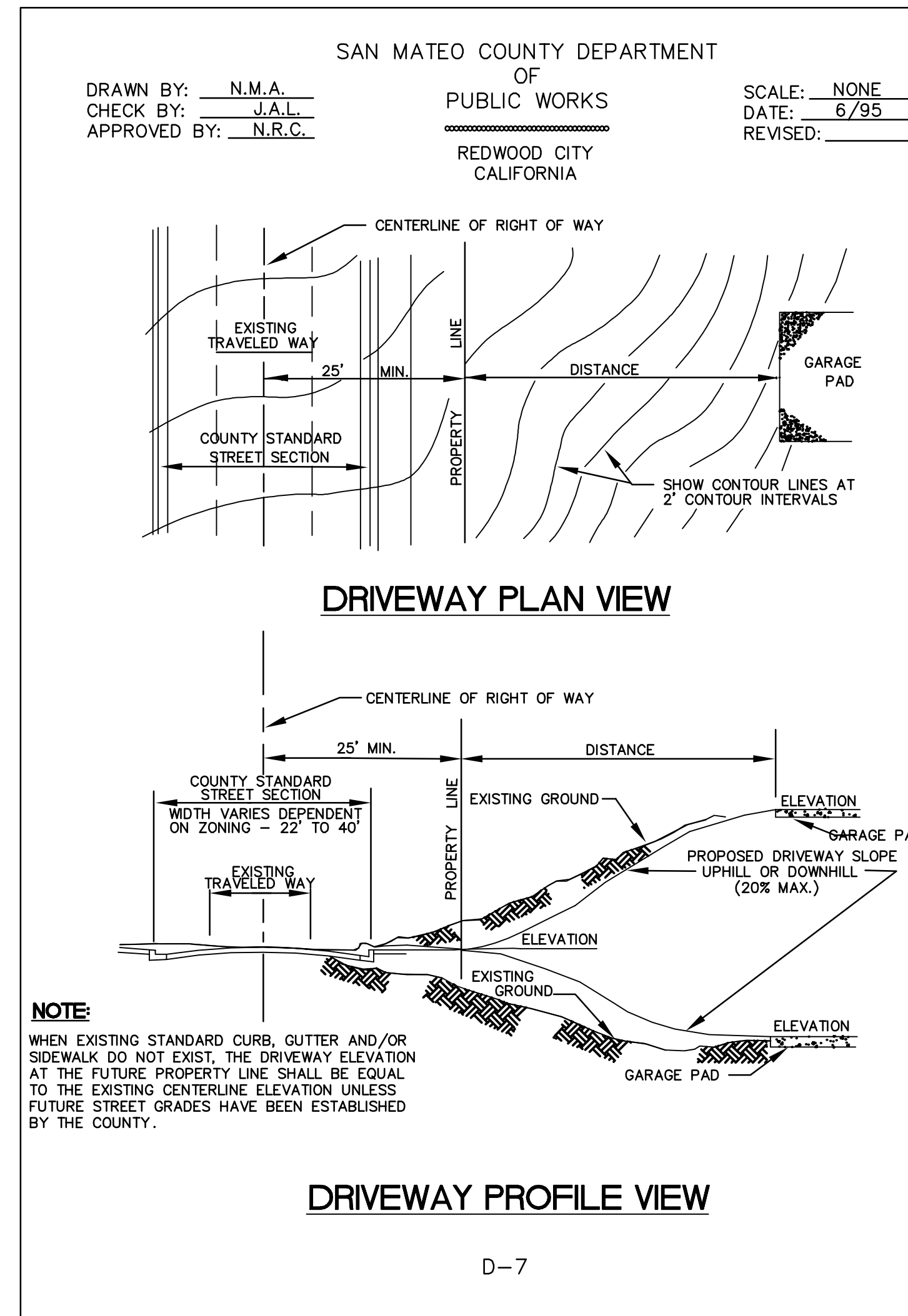
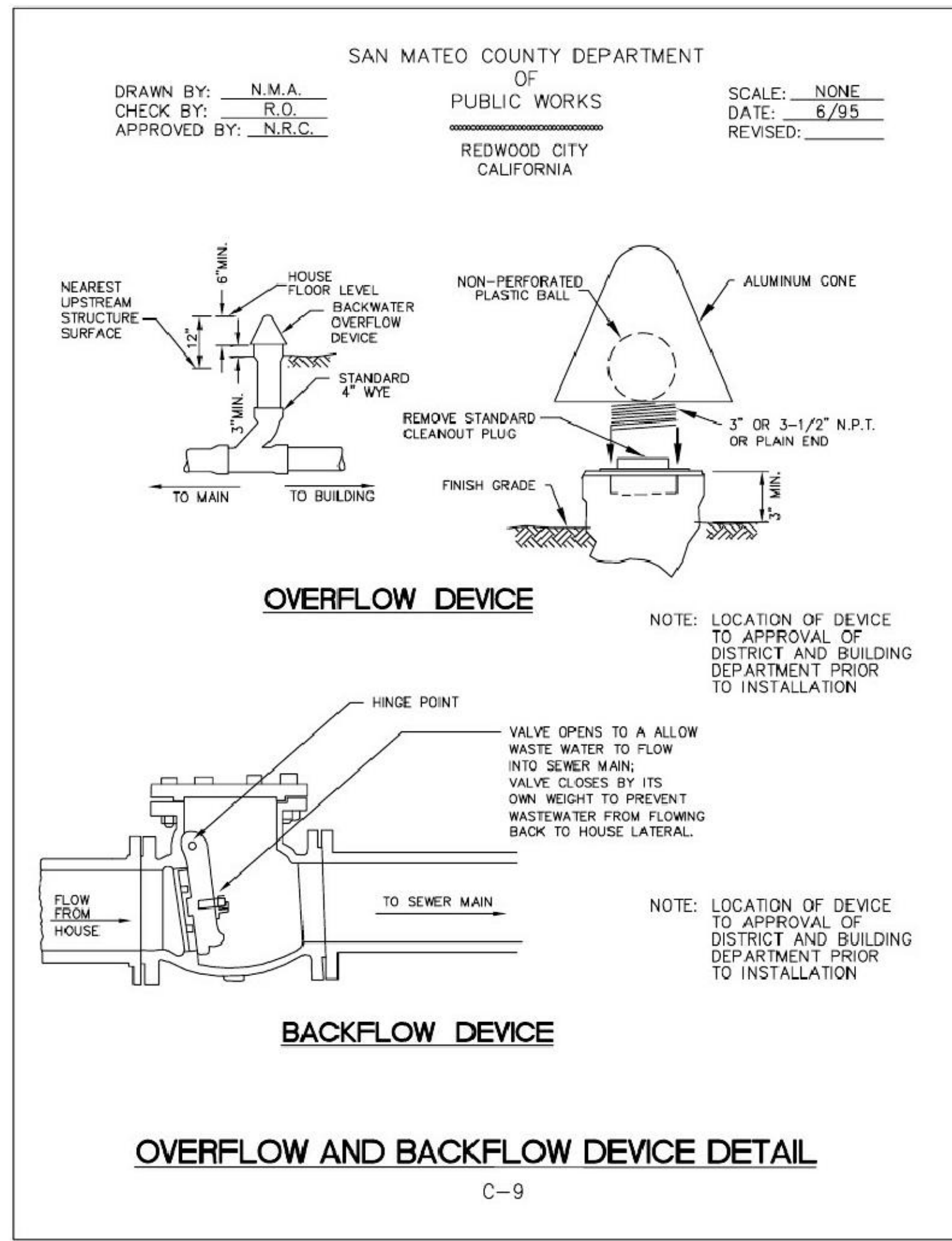
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Revisions

No.	Description

Sheet Number: **C9.60**

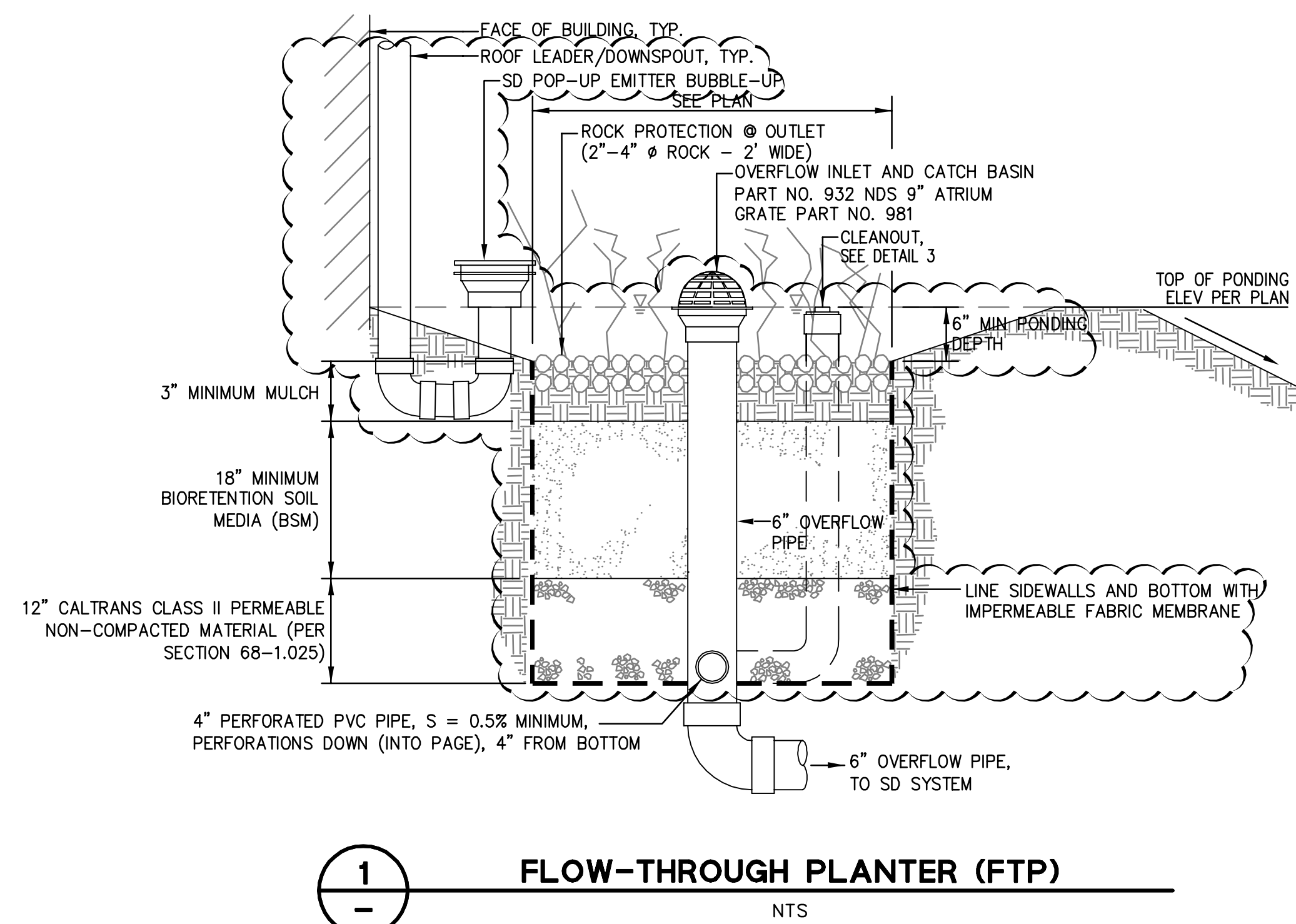
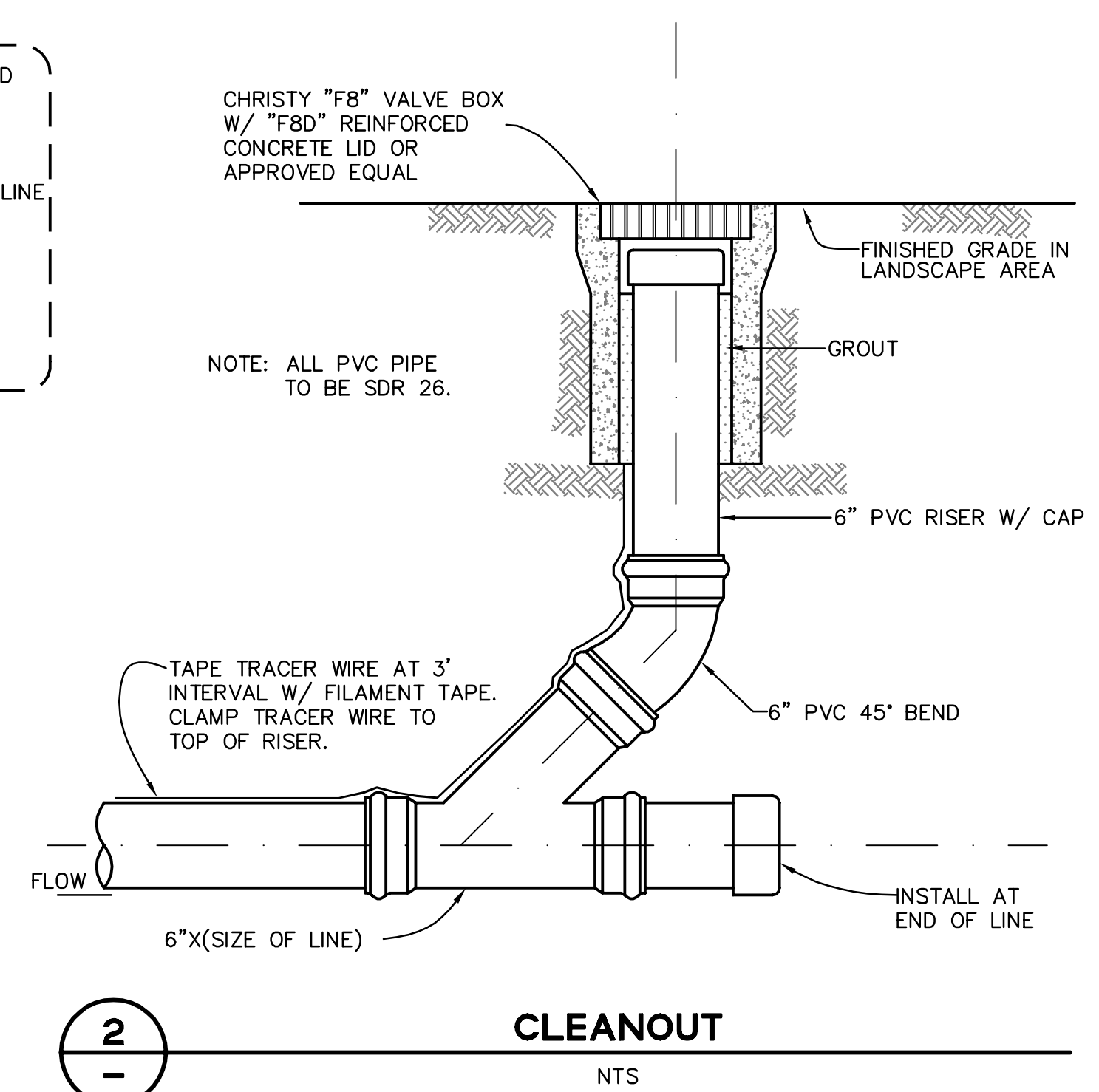
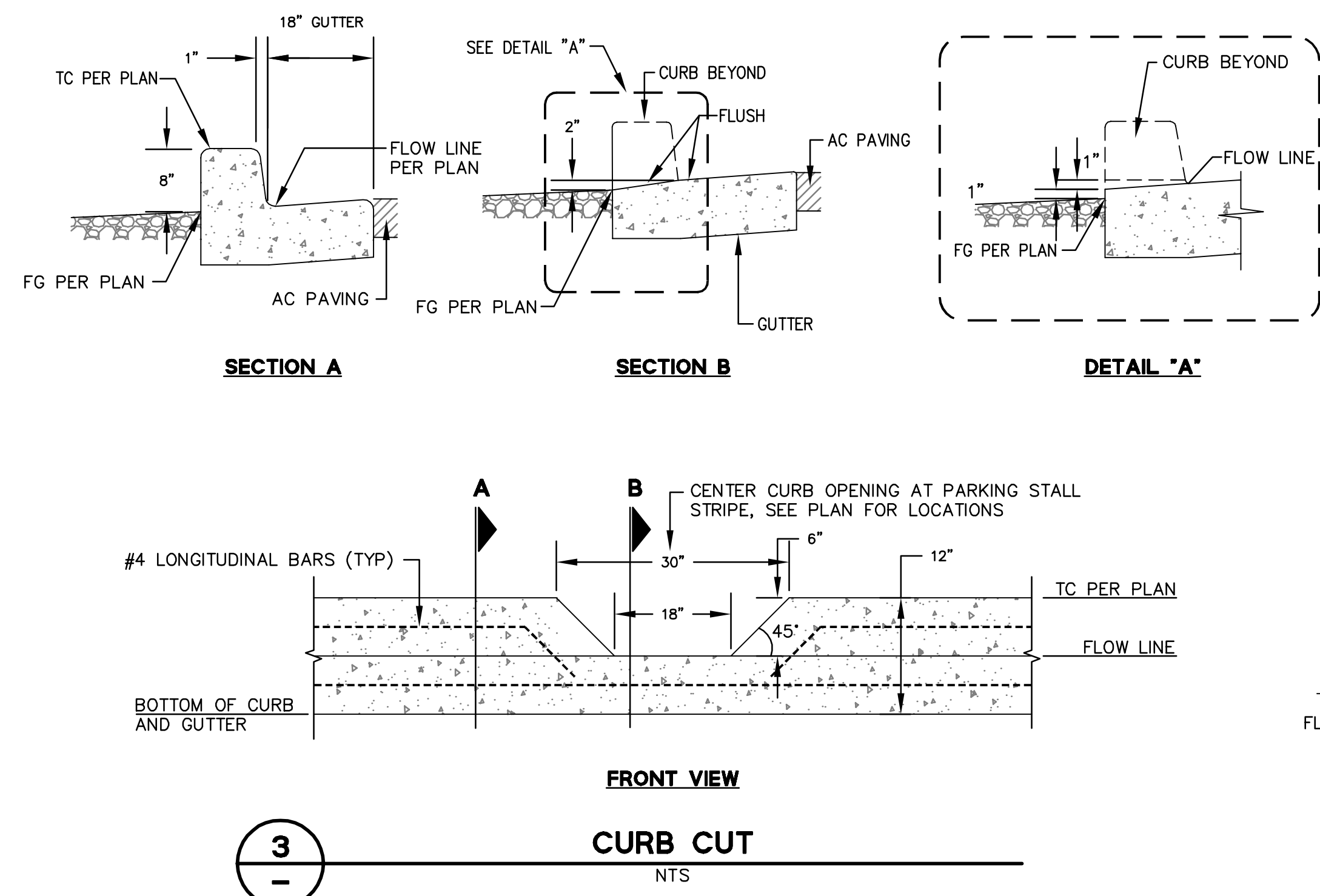
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**6 SAN MATEO COUNTY OVERFLOW AND BACKFLOW DEVICE DETAIL**  
 NTS

**5 SAN MATEO COUNTY DRIVEWAY PLAN AND PROFILE VIEWS**  
 NTS

**4 SAN MATEO COUNTY TYPICAL SEWER CLEANOUT & BOX DETAIL**  
 NTS



**RECORD DRAWINGS**

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BY: *[Signature]* DATE: 7/20/22

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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. C67726  
 CIVIL  
 STATE OF CALIFORNIA

CALIFORNIA

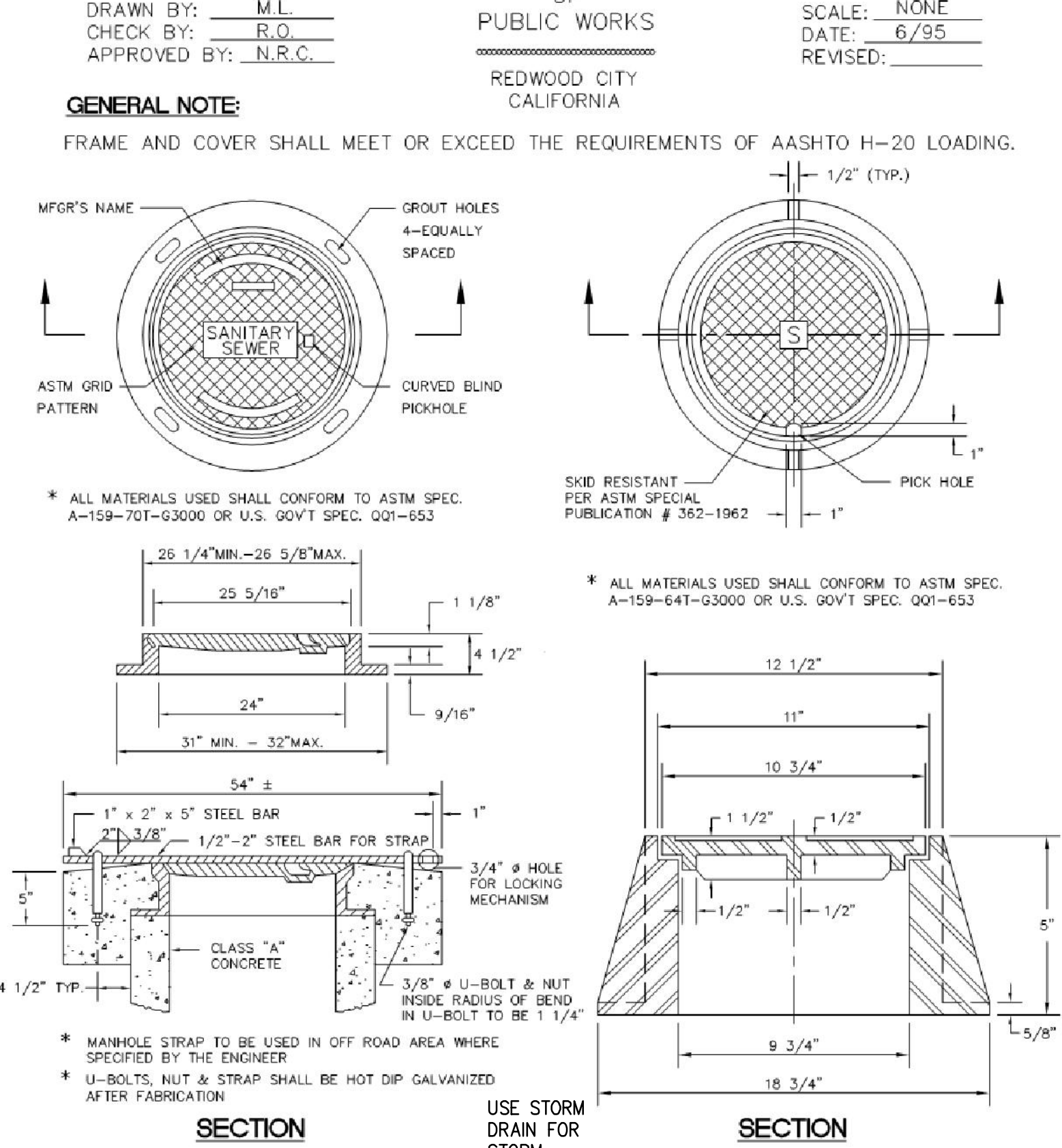
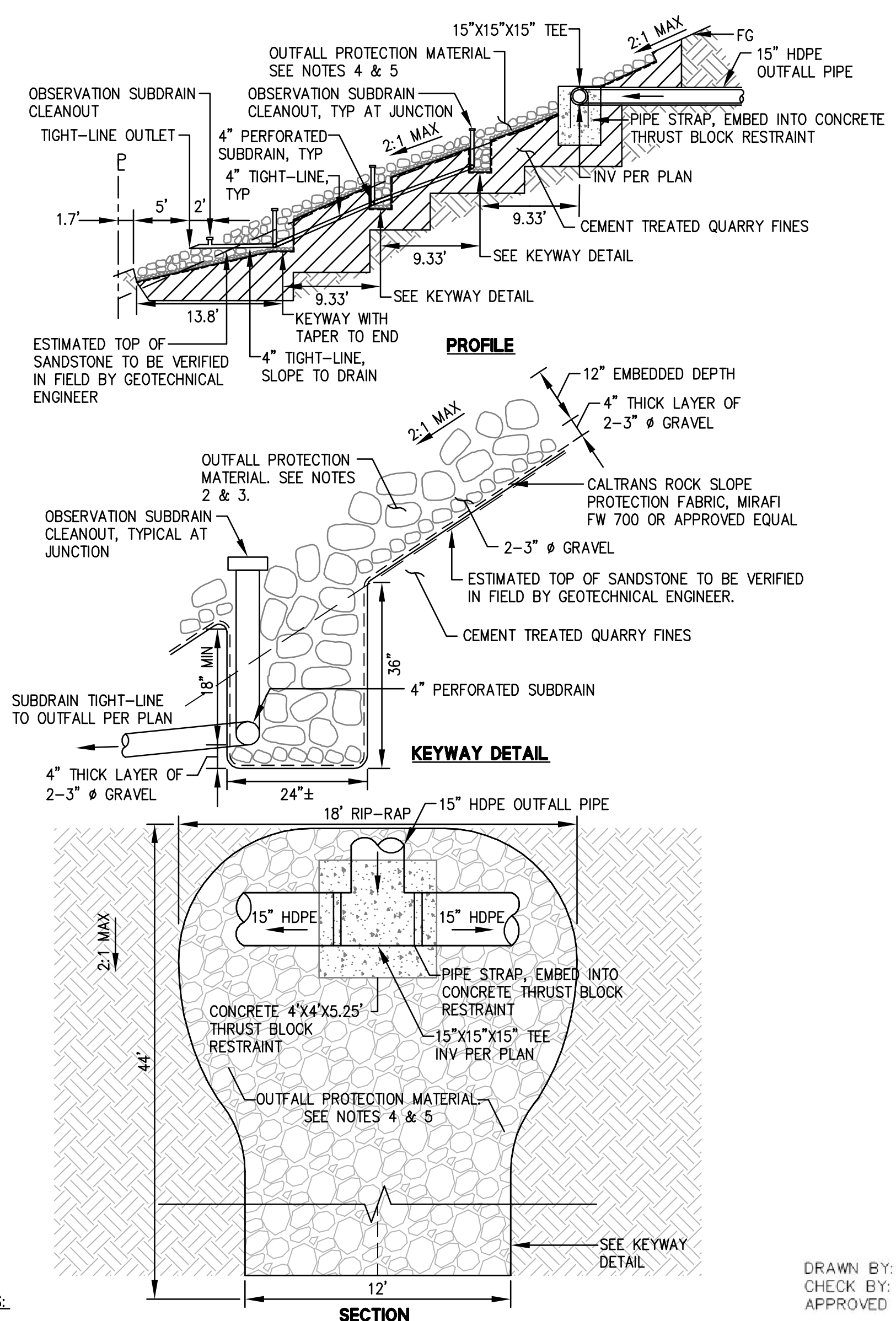
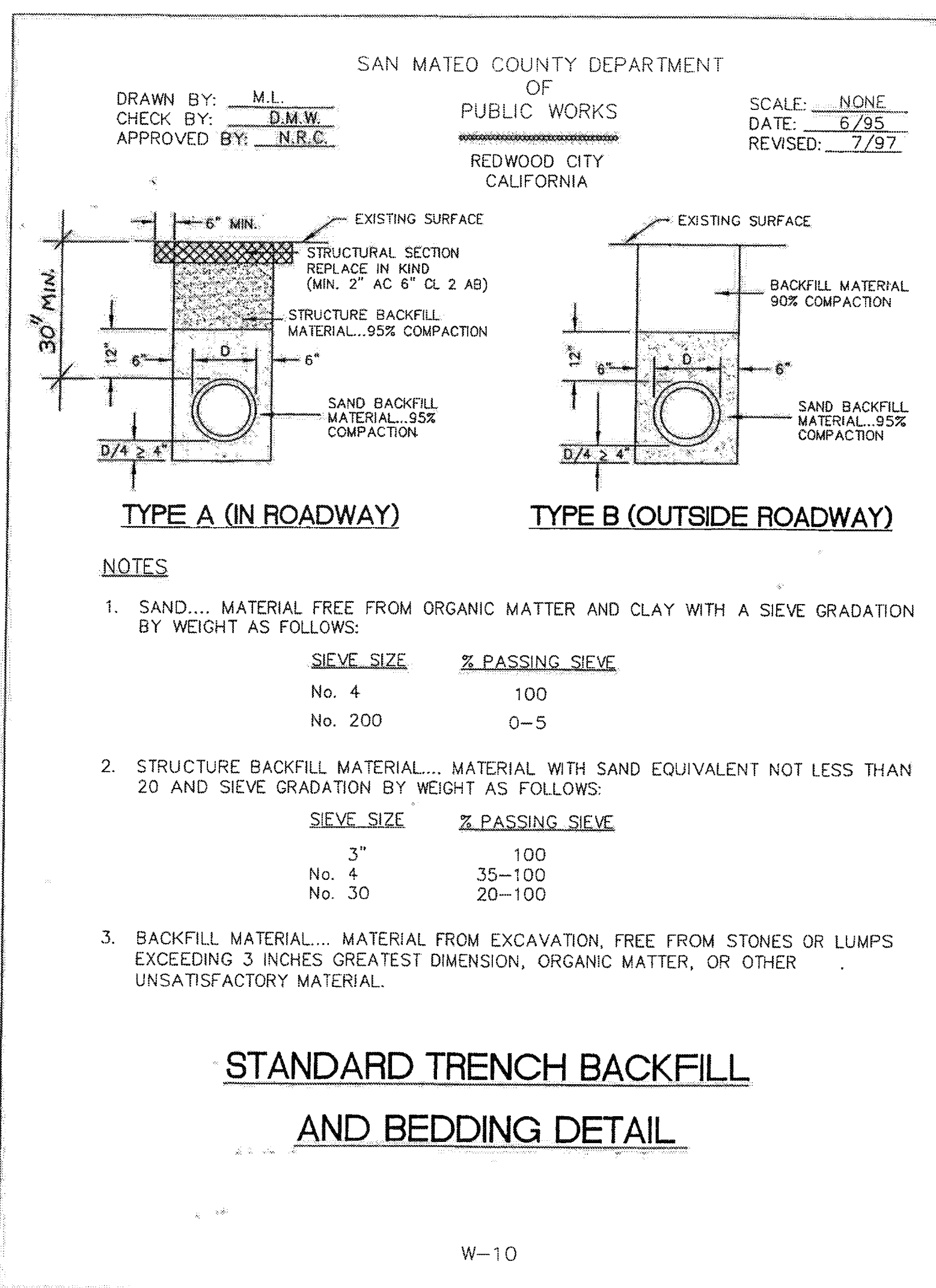
**HIGHLAND ESTATES LOT 9 IMPROVEMENT PLANS CONSTRUCTION DETAILS**  
 SAN MATEO COUNTY

No.	Revisions
AS-BUILT	5/17/2022

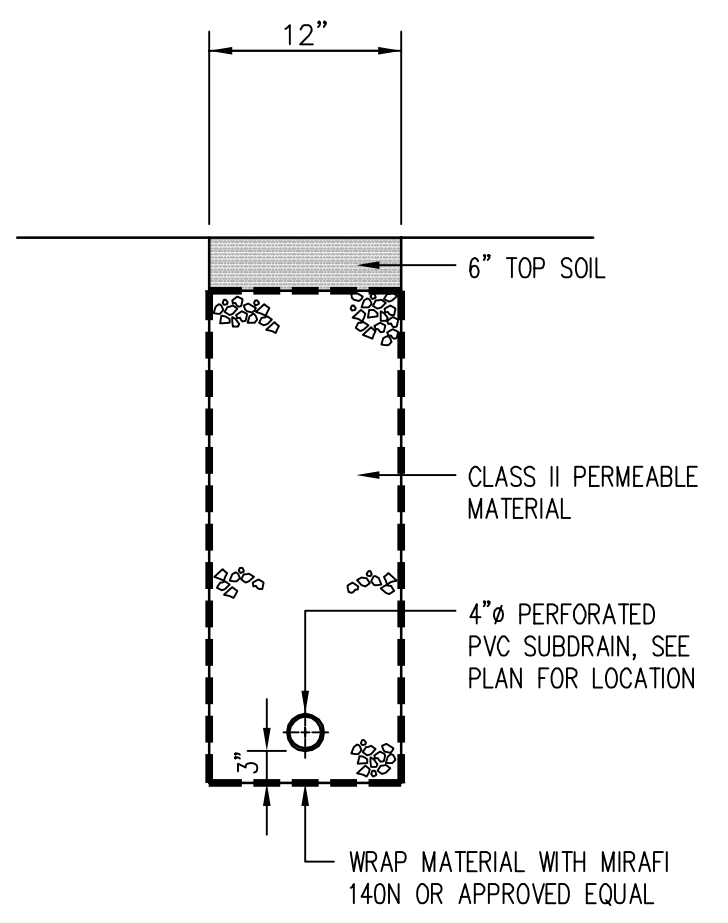
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 Approved: RH/JT  
 Job No: 95068-20

Sheet Number: **C9.70**  
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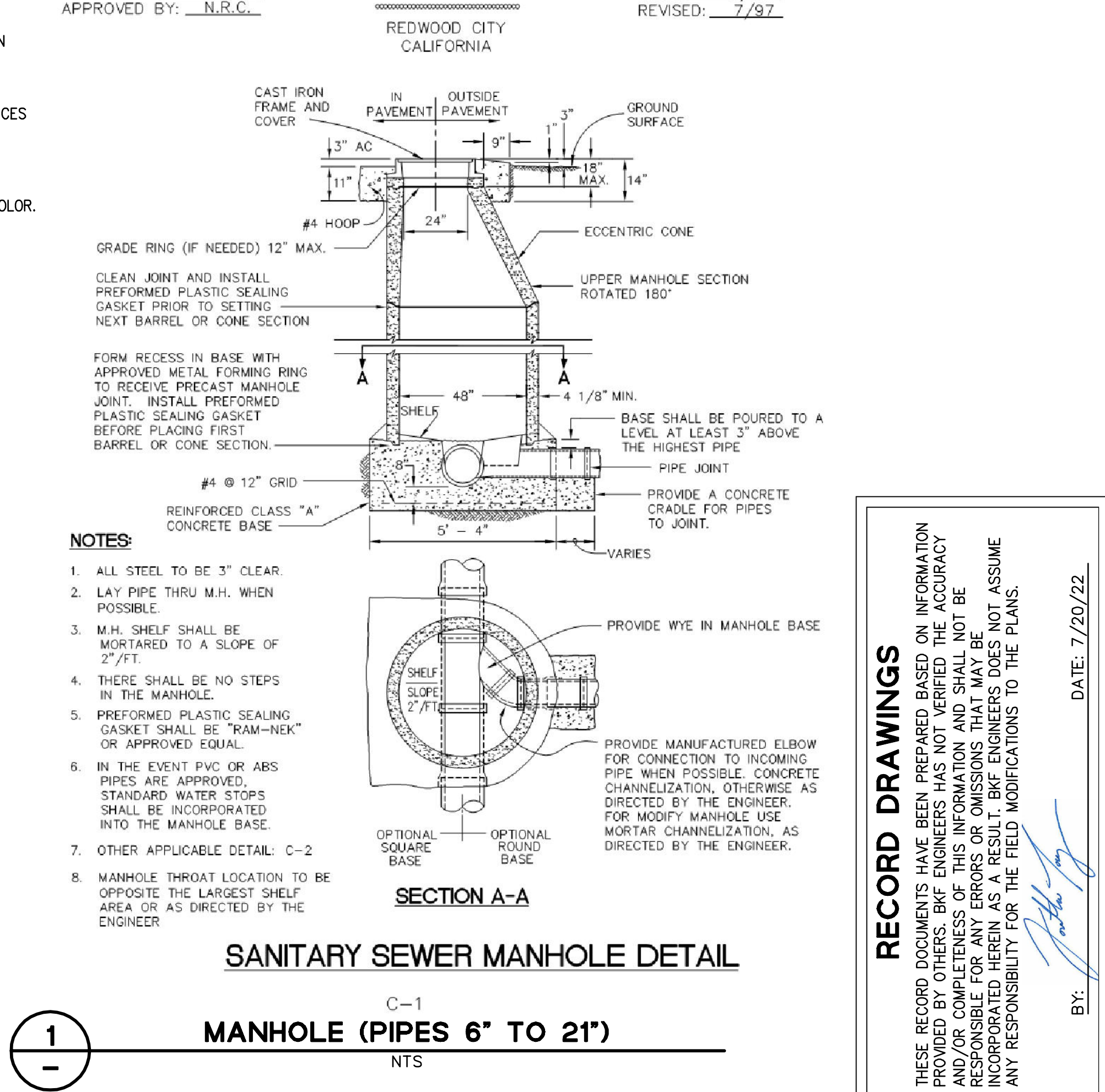
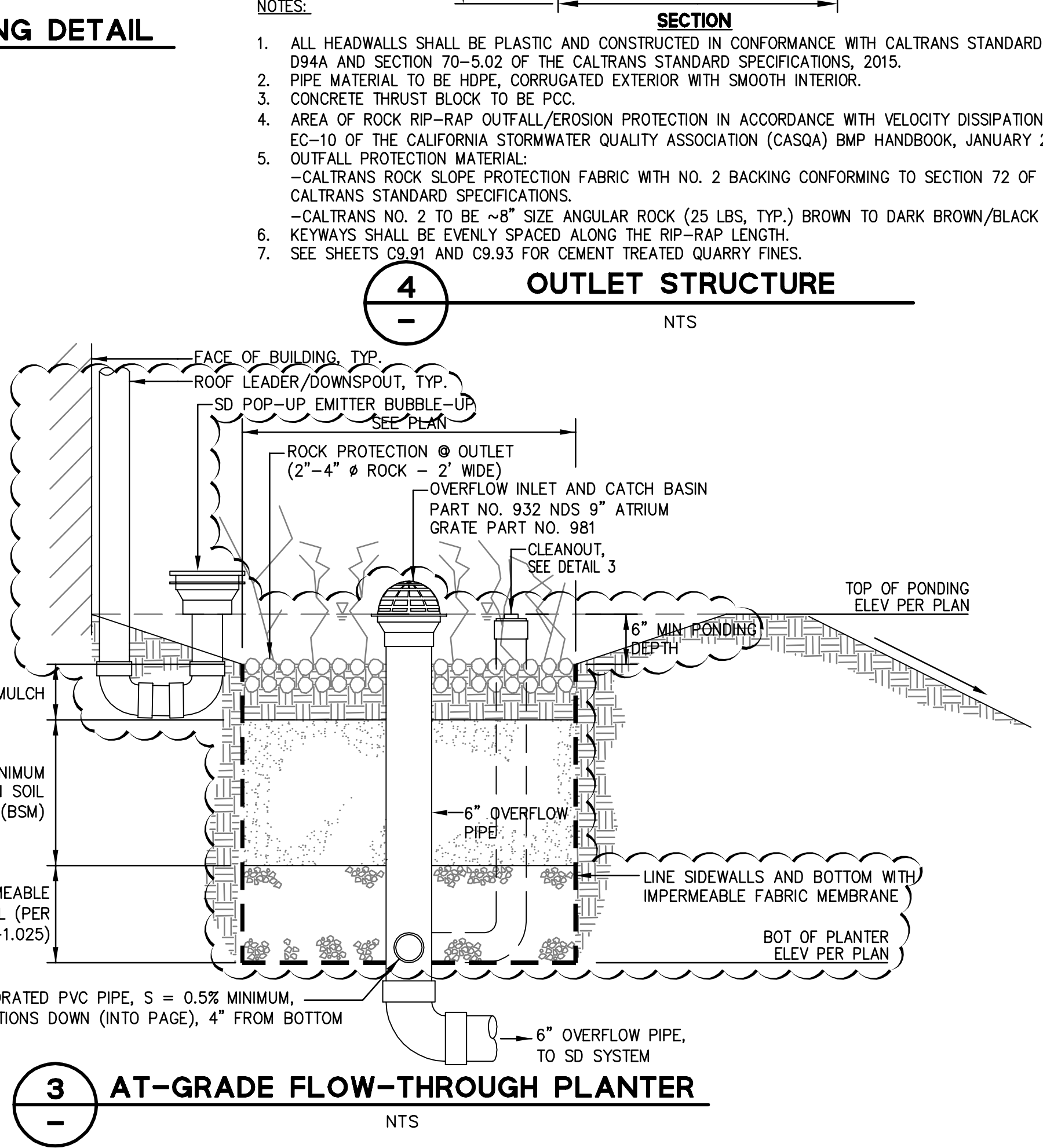
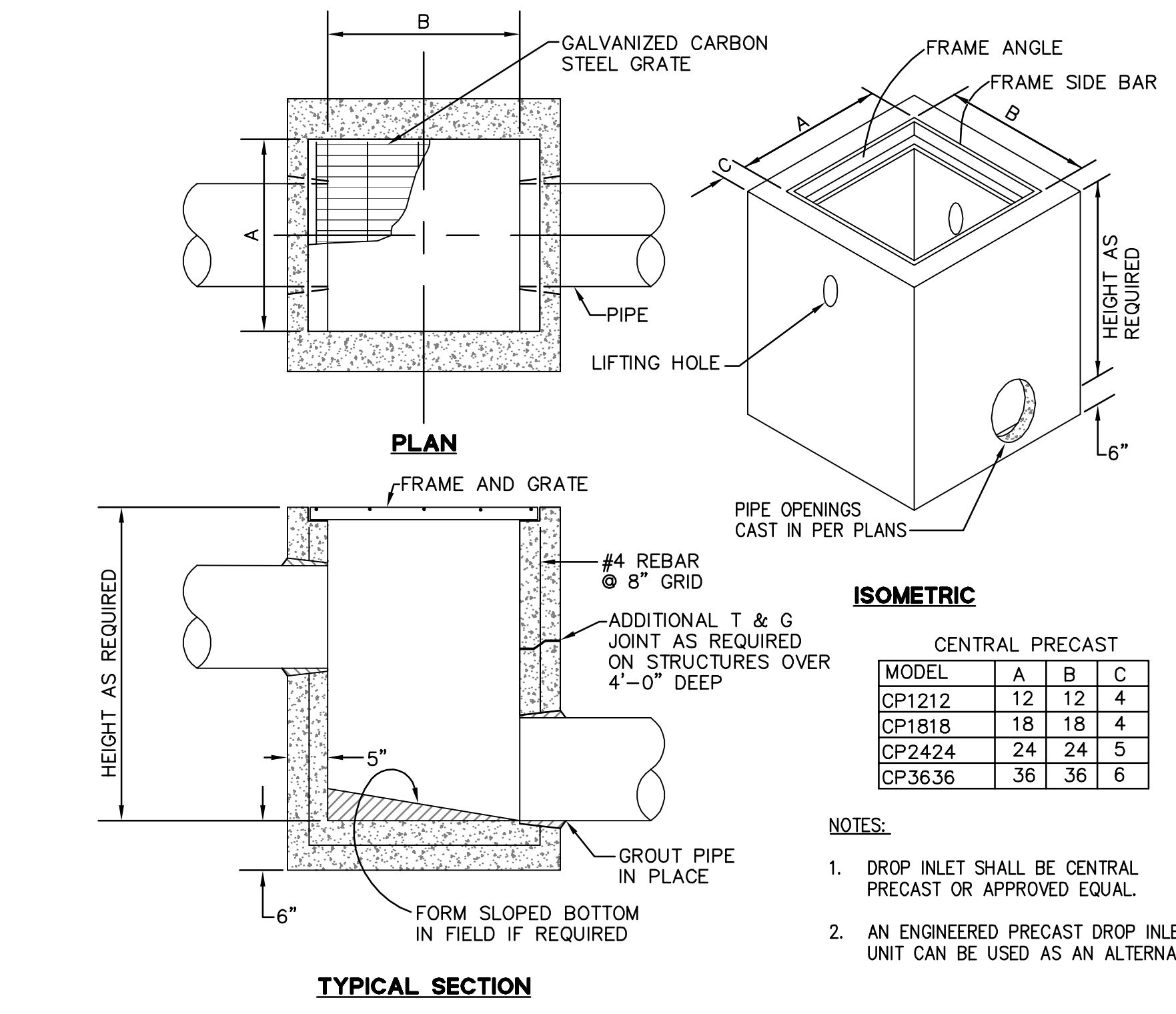
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Approved	RH/JT	Job No	90168-20
Sheet Number	C9.71		



**7**  
 SUBDRAIN  
 NTS



**6**  
 STANDARD TRENCH BACKFILL & BEDDING DETAIL  
 NTS



**RECORD DRAWINGS**

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 DATE: 7/20/22

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 PLOTTED BY: hoi1





HIGHLAND ESTATES  
LOT 9 IMPROVEMENT PLANS  
LOGISTICS PLAN  
SAN MATEO COUNTY

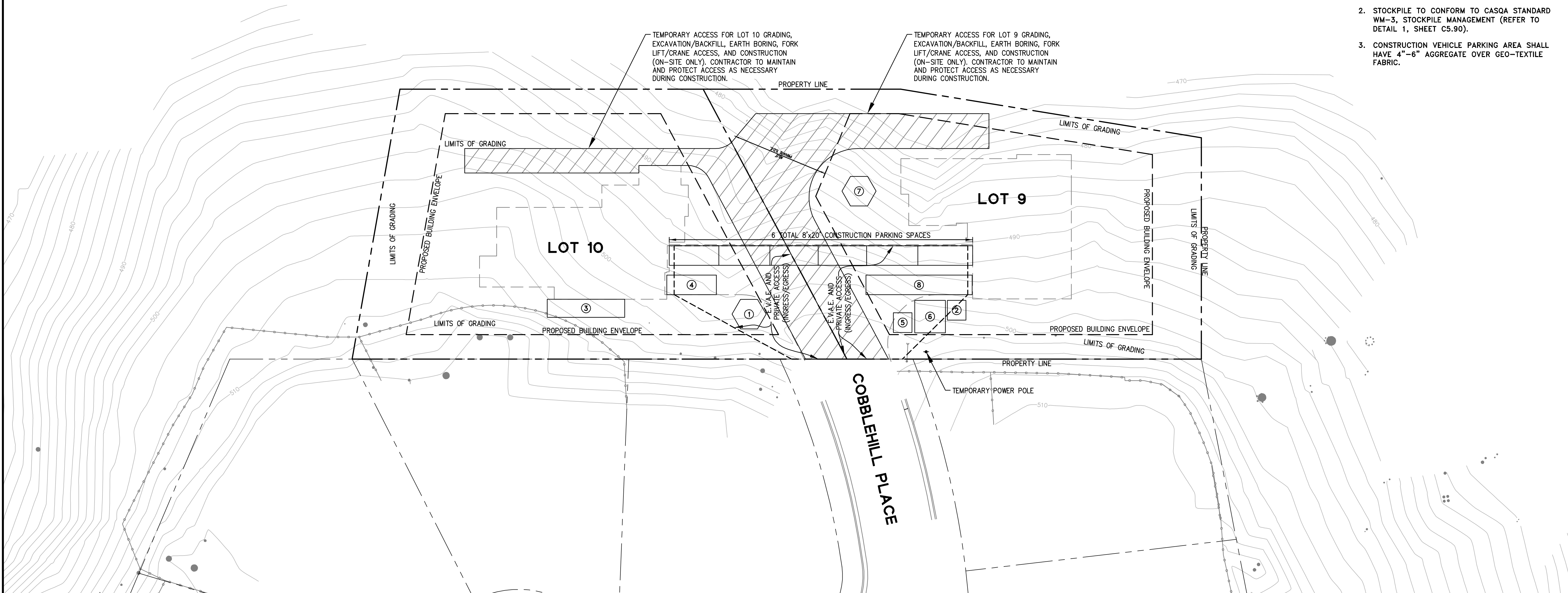


SITE KEY:

- 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
- TEMPORARY CONSTRUCTION ACCESS

CONSTRUCTION NOTES:

1. CONSTRUCTION ACCESS ROUTE SHALL BE FROM COBBLEHILL PLACE TO INTERSTATE 280:  
HEAD SOUTHWEST ON COBBLEHILL PL TOWARD WOODCREEK CT.  
TURN LEFT ONTO TICONDEROGA DR.  
TURN RIGHT ONTO POLHEMUS RD.  
TURN LEFT TO MERGE ONTO CA-92 TOWARD I-280.
2. STOCKPILE TO CONFORM TO CASQA STANDARD WM-3, STOCKPILE MANAGEMENT (REFER TO DETAIL 1, SHEET C5.90).
3. CONSTRUCTION VEHICLE PARKING AREA SHALL HAVE 4"-6" AGGREGATE OVER GEO-TEXTILE FABRIC.



TEMPORARY ACCESS FOR LOT 10 GRADING, EXCAVATION/BACKFILL, EARTH BORING, FORK LIFT/Crane ACCESS, AND CONSTRUCTION (ON-SITE ONLY). CONTRACTOR TO MAINTAIN AND PROTECT ACCESS AS NECESSARY DURING CONSTRUCTION.

TEMPORARY ACCESS FOR LOT 9 GRADING, EXCAVATION/BACKFILL, EARTH BORING, FORK LIFT/Crane ACCESS, AND CONSTRUCTION (ON-SITE ONLY). CONTRACTOR TO MAINTAIN AND PROTECT ACCESS AS NECESSARY DURING CONSTRUCTION.

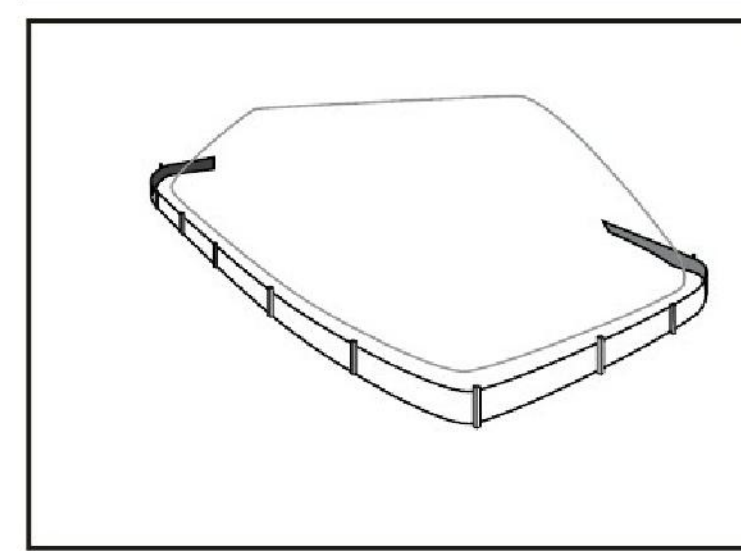
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Revisions	
No.	Date
	10/8/2018
	Scale 1"=20'
	Design JT
	Drawn LF
	Approved RH/JT
	Job No 950168-20

Date	10/8/2018	Revisions	
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Approved	RH/JT		
Job No.	90168-20		
Sheet Number:	<b>C9.90</b>		
	OF		

**Stockpile Management**

**WM-3**



**Categories**

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

**Legend:**  
 Primary Category  
 Secondary Category

**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 binder (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:

**Targeted Constituents**

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input checked="" type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

**Potential Alternatives**  
 none



**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 1.4 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 protect 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 at 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.

**WM-3 - STOCKPILE MANAGEMENT**  
 NTS

**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.

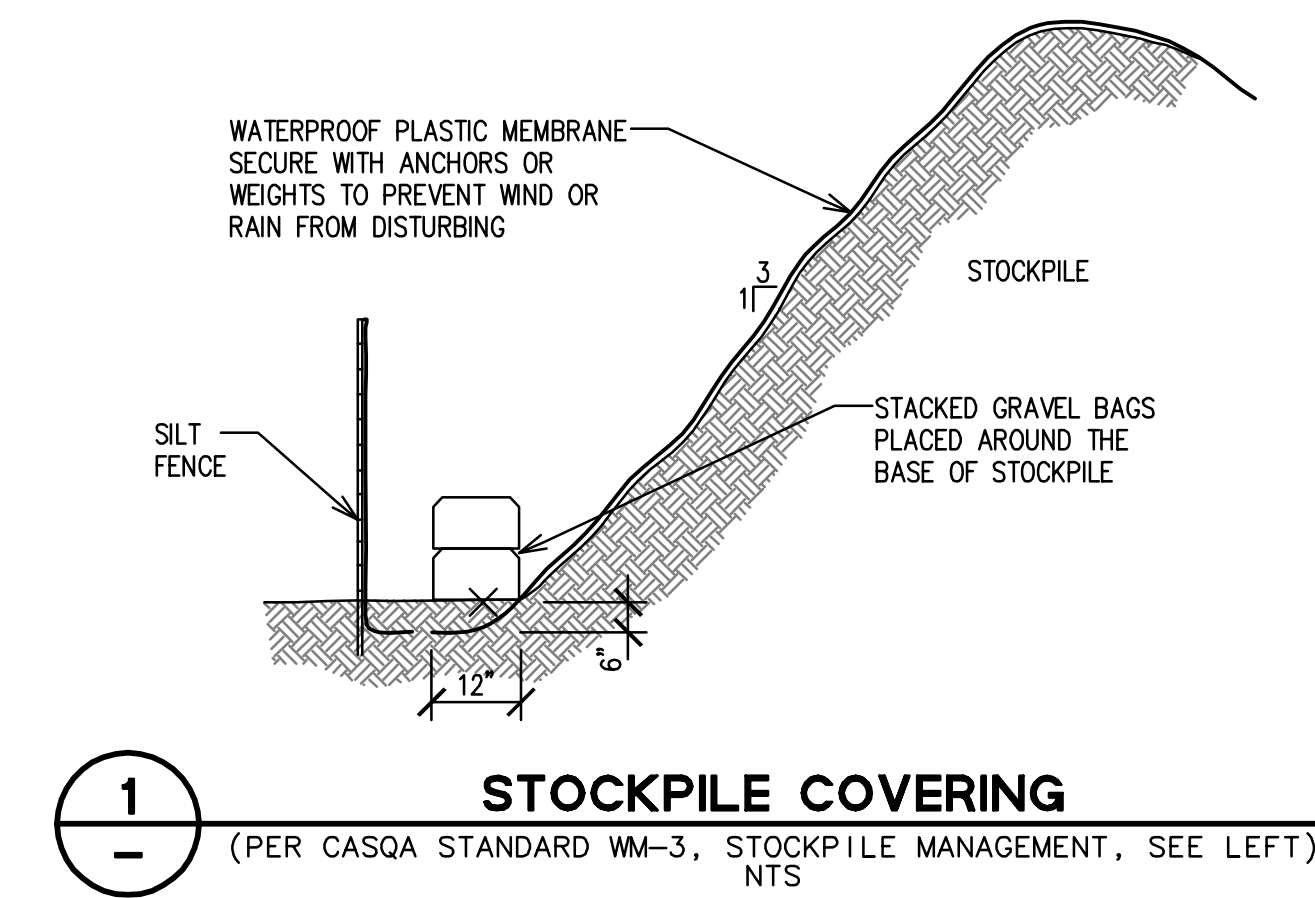
**Protection of Active Stockpiles**  
 Active stockpiles of the identified materials should be protected as follows:

- 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.)

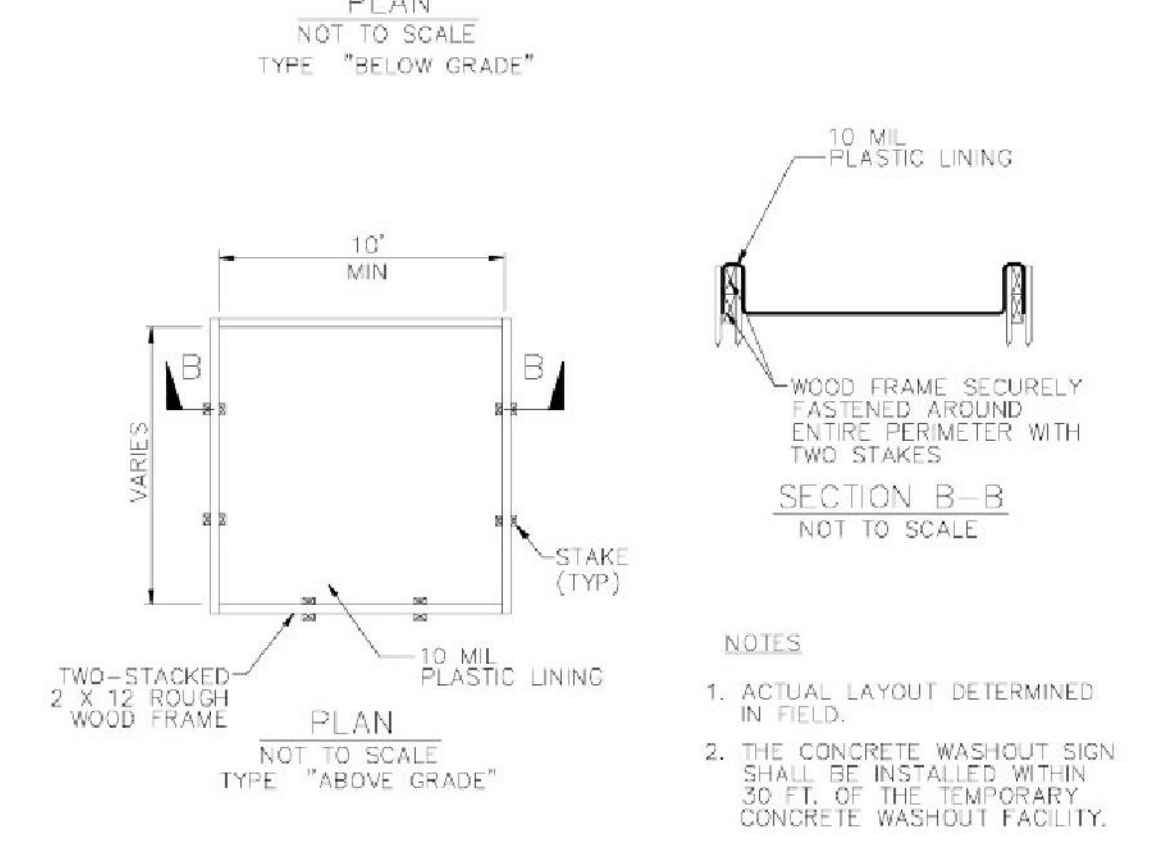
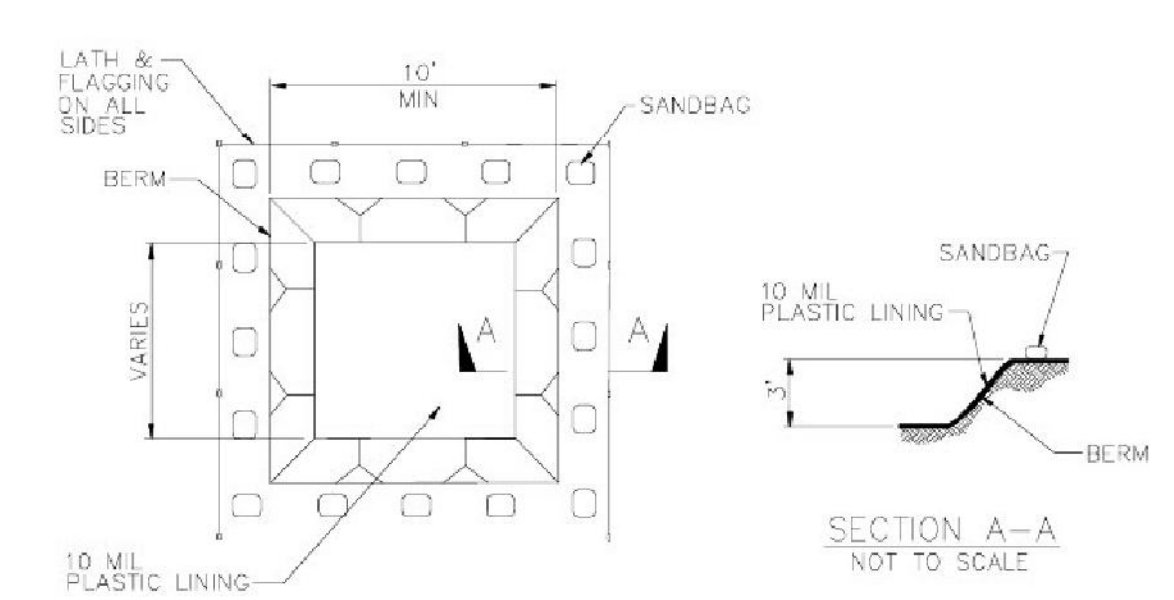
- Inspection and Maintenance**
- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the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



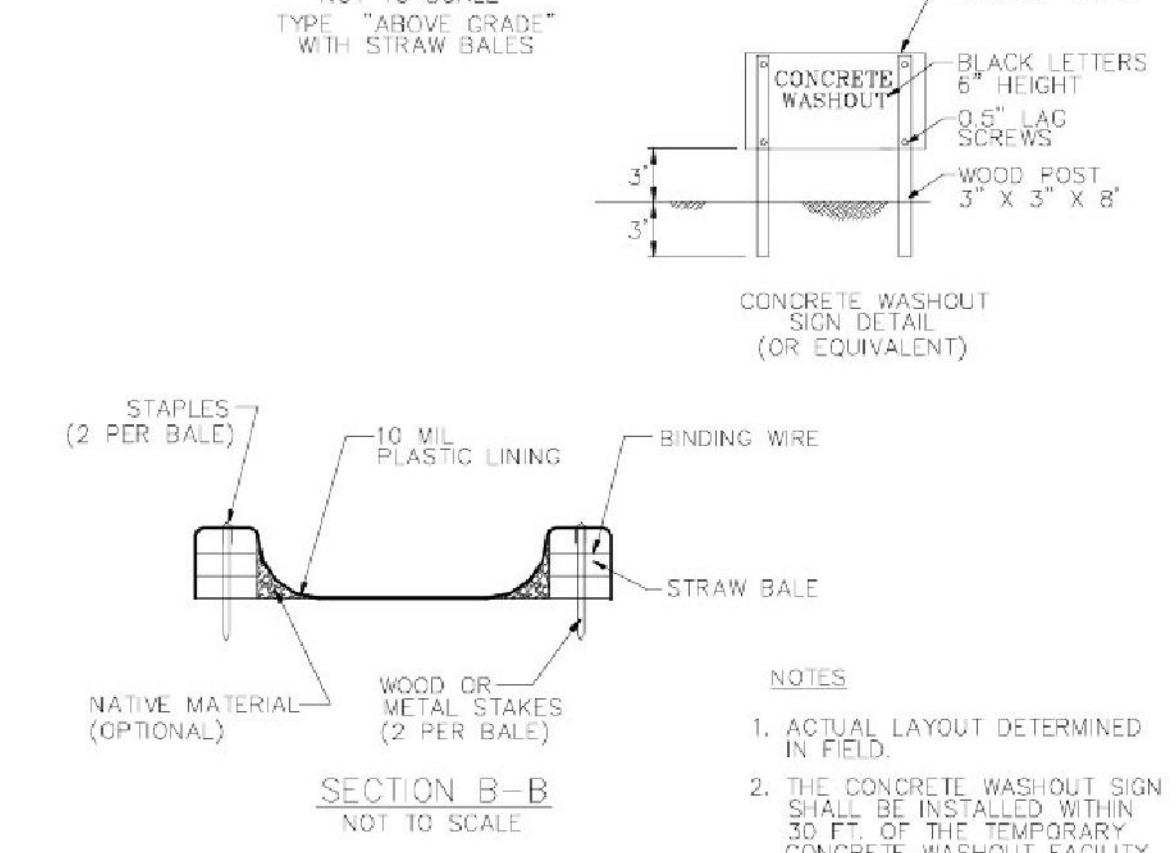
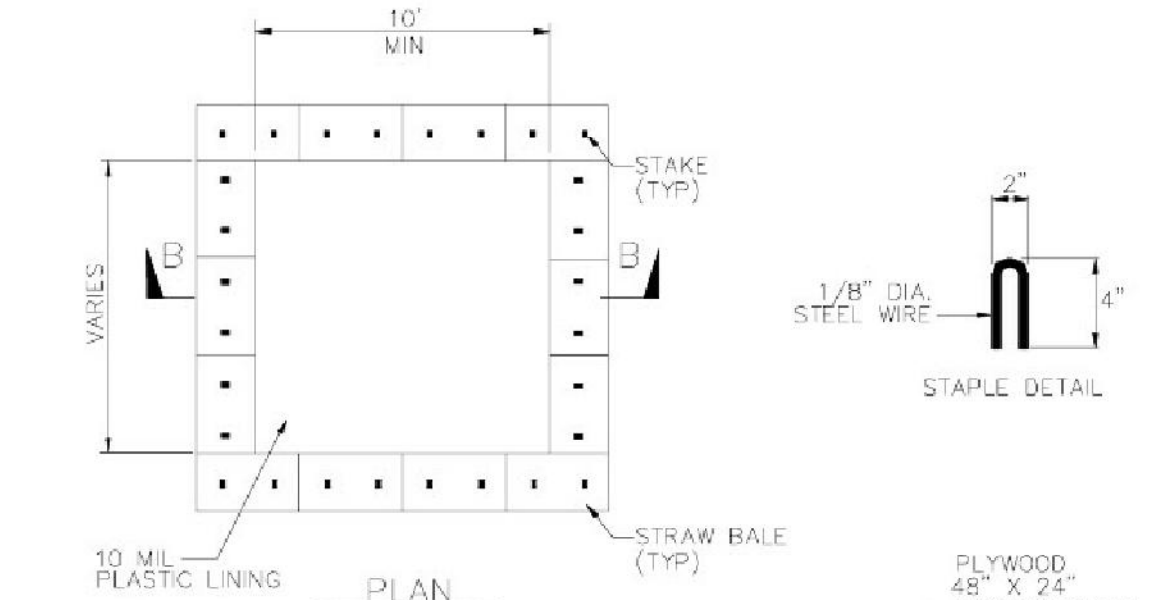
**Concrete Waste Management**

**WM-8**

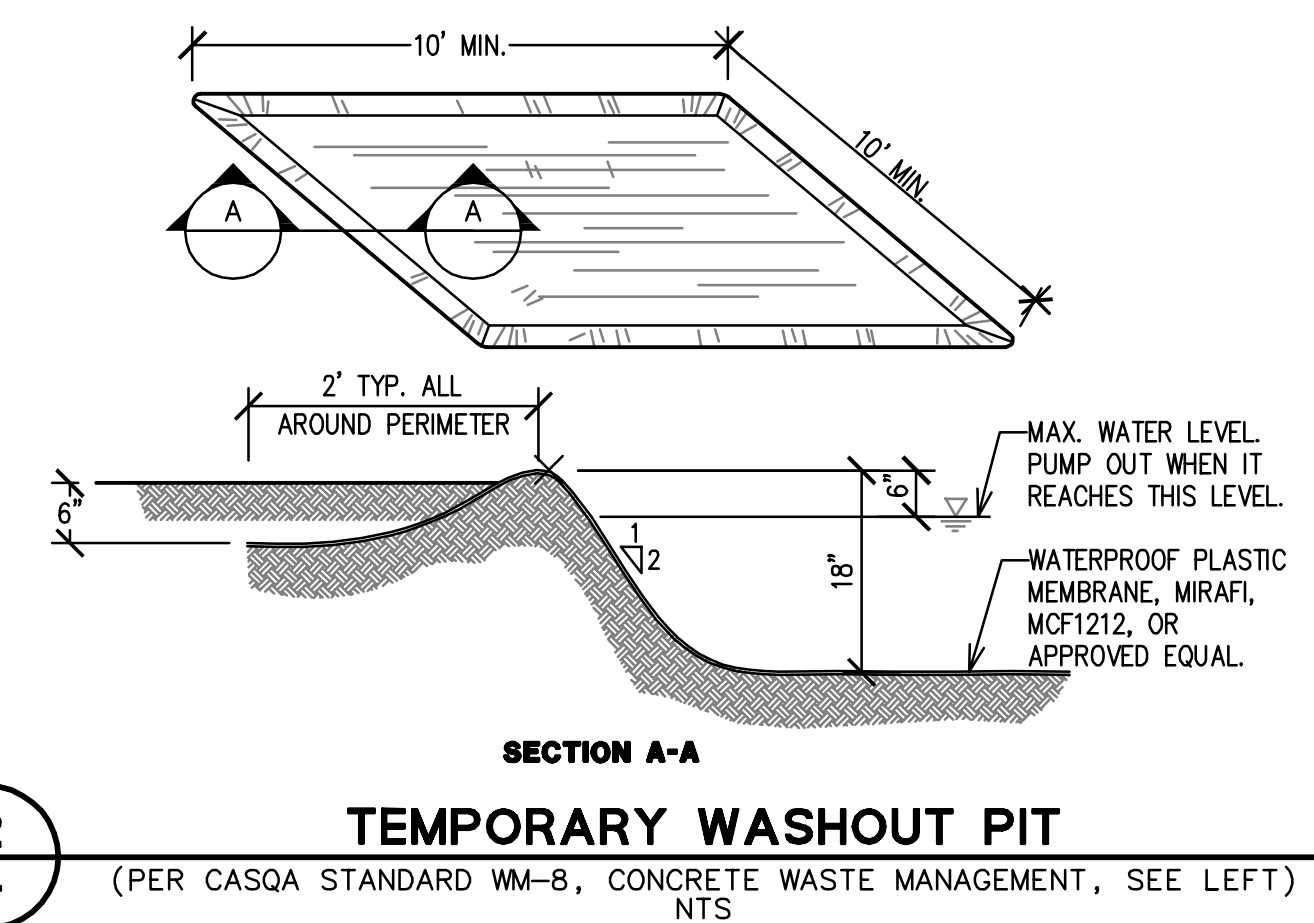


**Concrete Waste Management**

**WM-8**



**WM-8 - CONCRETE WASTE MANAGEMENT**  
 NTS



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

**RECORD DRAWINGS**

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BY: *[Signature]* DATE: 7/20/22