

INDEX OF SHEETS

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GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE COUNTY OF SANTA CRUZ DESIGN CRITERIA, THE STATE STANDARD PLANS AND THE APPLICABLE PROVISIONS OF THE STATE STANDARD SPECIFICATIONS.
2. THERE SHALL BE NO CHANGES IN THE APPROVED IMPROVEMENT PLANS WITHOUT PRIOR APPROVAL BY THE SANTA CRUZ COUNTY DEPARTMENT OF PUBLIC WORKS.
3. PLEASE CALL "UNDERGROUND SERVICE ALERT" (U.S.A.) AT 811 or 800-227-2600 BEFORE DIGGING.
4. 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 APPROVED BY TRANSPORTATION ENGINEERING.
5. THE 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; THAT 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 DESIGN PROFESSIONAL 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 DESIGN PROFESSIONAL.
6. THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE AT THE TIME THE CONTRACT IS AWARDED.

ABBREVIATIONS

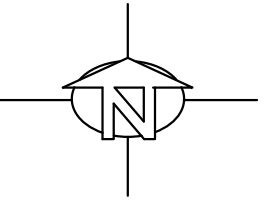
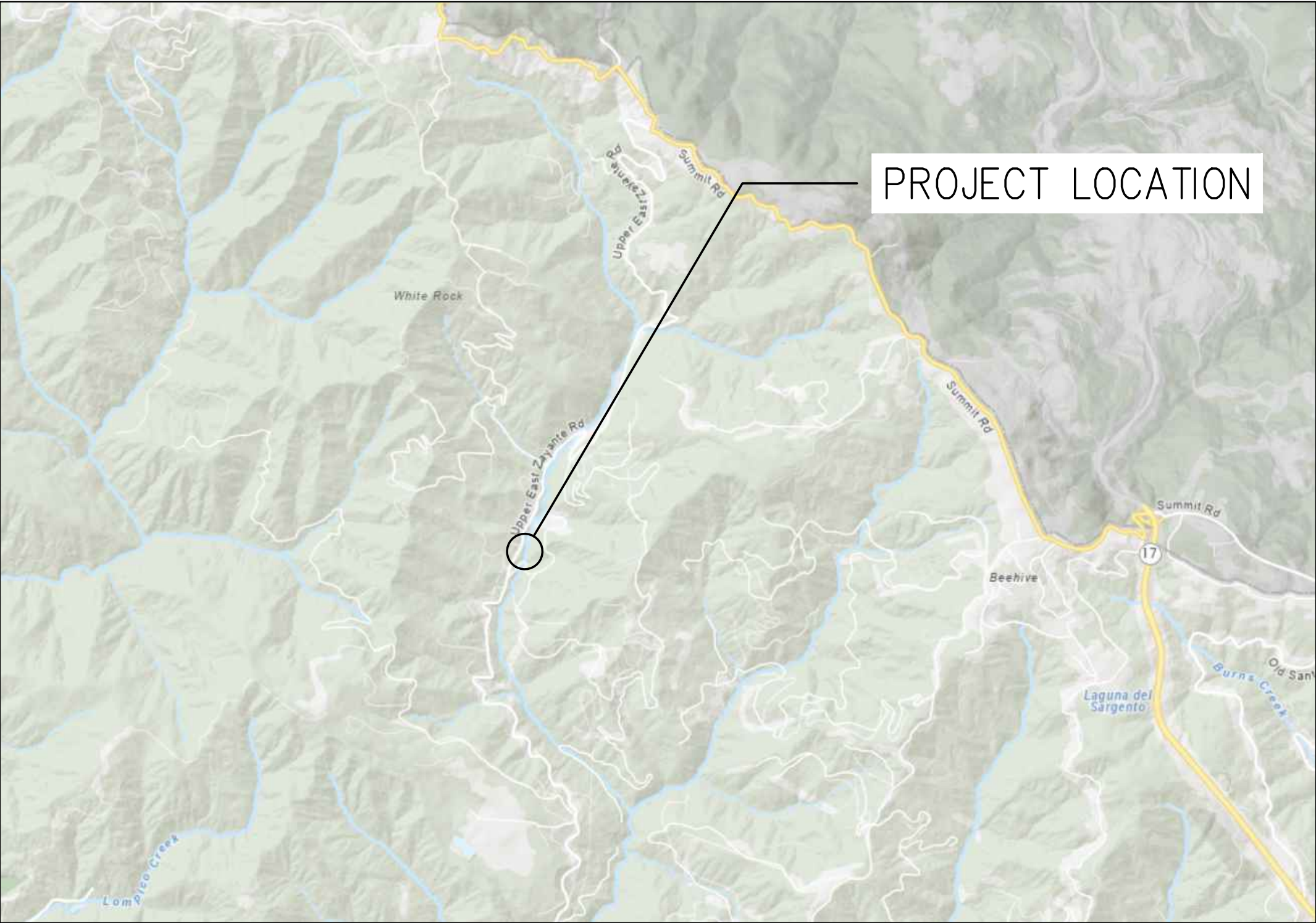
ABBREVIATIONS LISTED IN CALTRANS STANDARD PLANS ALSO APPLY

A.B.	AGGREGATE BASE	KIP	1000 POUNDS FORCE
AC	ASPHALT CONCRETE	MBGR	METAL BEAM GUARD RAIL
APN	ASSESSOR'S PARCEL NUMBER	MIN	MINIMUM
APPROX	APPROXIMATE	N	NORTH
BOT	BOTTOM	(n)	NEW
BP	BOTTOM CONCRETE PIER	O.C.	ON CENTER
CL	CENTER LINE	OH	OVERHEAD
CL	CONTROL LINE	PERF	PERFORATED
CONC	CONCRETE	PG&E	PACIFIC GAS AND ELECTRIC
CONN	CONNECTION	PM	POST MILE
CONST	CONSTRUCTION	PRIN	PRINCIPAL
CP	CONTROL POINT	PT	POINT
DIA	DIAMETER	PVC	POLY VINYL CHLORIDE
E	EAST	RD	ROAD
(E), EXIST	EXISTING	REINF	REINFORCED
EA	EACH	RT	RIGHT
EL, ELEV	ELEVATION	R/W	RIGHT OF WAY
ENGR	ENGINEER	S	SOUTH
EP	EDGE OF PAVEMENT	SEC	SECTION
EST	ESTIMATE	SHT	SHEET
EXCAV	EXCAVATE, EXCAVATION	S.S.	SANDSTONE
FD	FOUND	STA	STATION
FT	FOOT, FEET	TP	TOP CONCRETE PIER
FTG	FOOTING	TYP	TYPICAL
GEN	GENERAL	U.B.	UNBONDED
GRD	GRADE	W	WEST
HDPE	HIGH DENSITY POLYETHYLENE	W/	WITH
HT	HEIGHT	&	AND
INV	INVERT	@	AT
IP	IRON PIPE	1ST	FIRST
JP	JOINT POLE	<	LESS THAN
		#	POUND

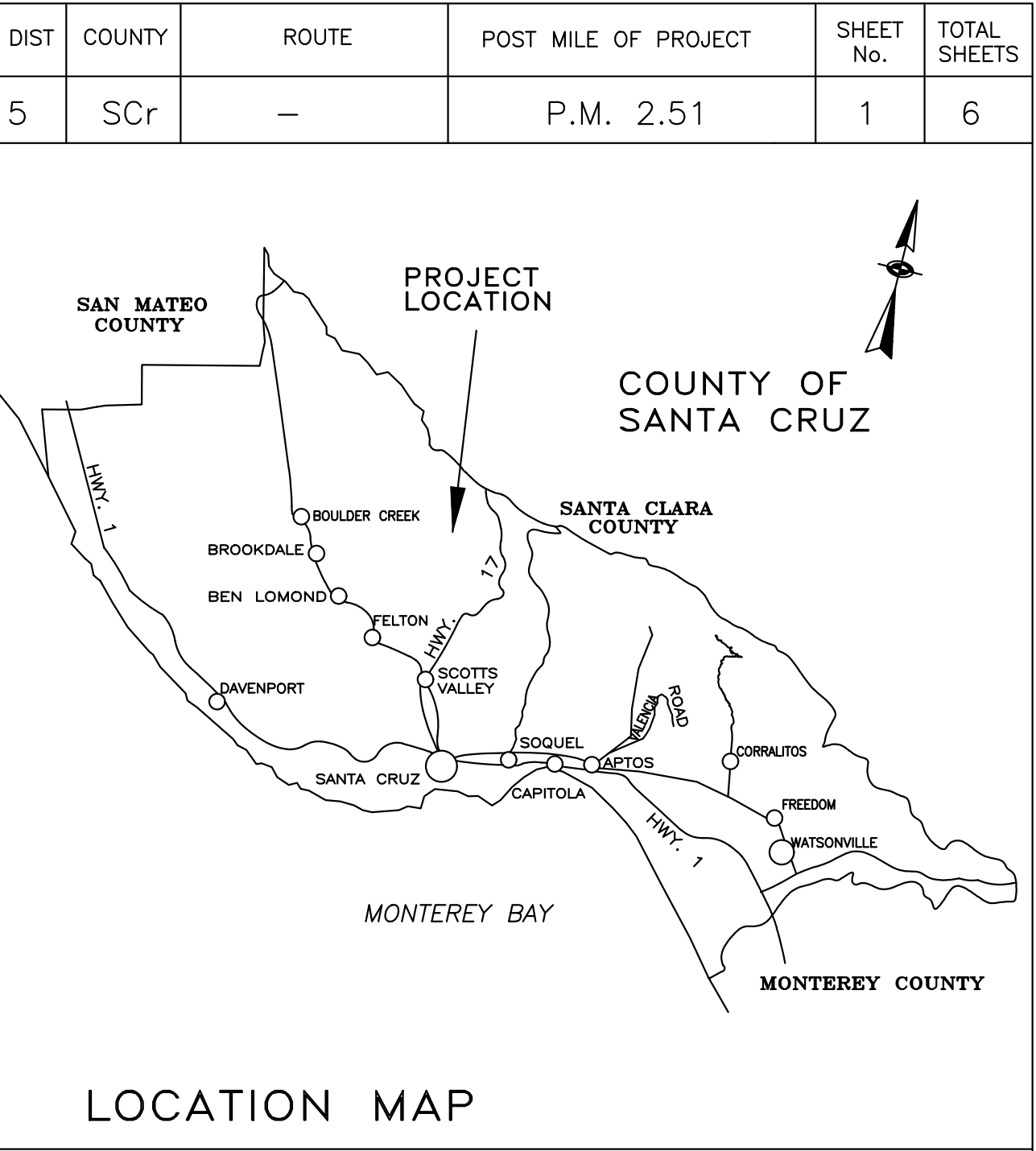
COUNTY OF SANTA CRUZ
DEPARTMENT OF PUBLIC WORKS

PROJECT PLANS FOR CONSTRUCTION ON
UPPER EAST ZAYANTE RD. PM 2.51
STORM DAMAGE REPAIR PROJECT
FEDERAL PROJECT ER – 15J7 (150)
DISASTER No. CA 23-1

To be supplemented by CalTrans Standard Plans dated 2024



VICINITY MAP
NOT TO SCALE



Design Engineer
Tyler Decker

REGISTERED PROFESSIONAL ENGINEER
TYLER J. DECKER
No. 96807
Exp. 12-31-2026
CIVIL
STATE OF CALIFORNIA

Senior Design Engineer
Joel LaCagnina

Assistant Director of Public Works
Transportation Division
Steve Wiesner

Director of Public Works
Matthew J. Machado

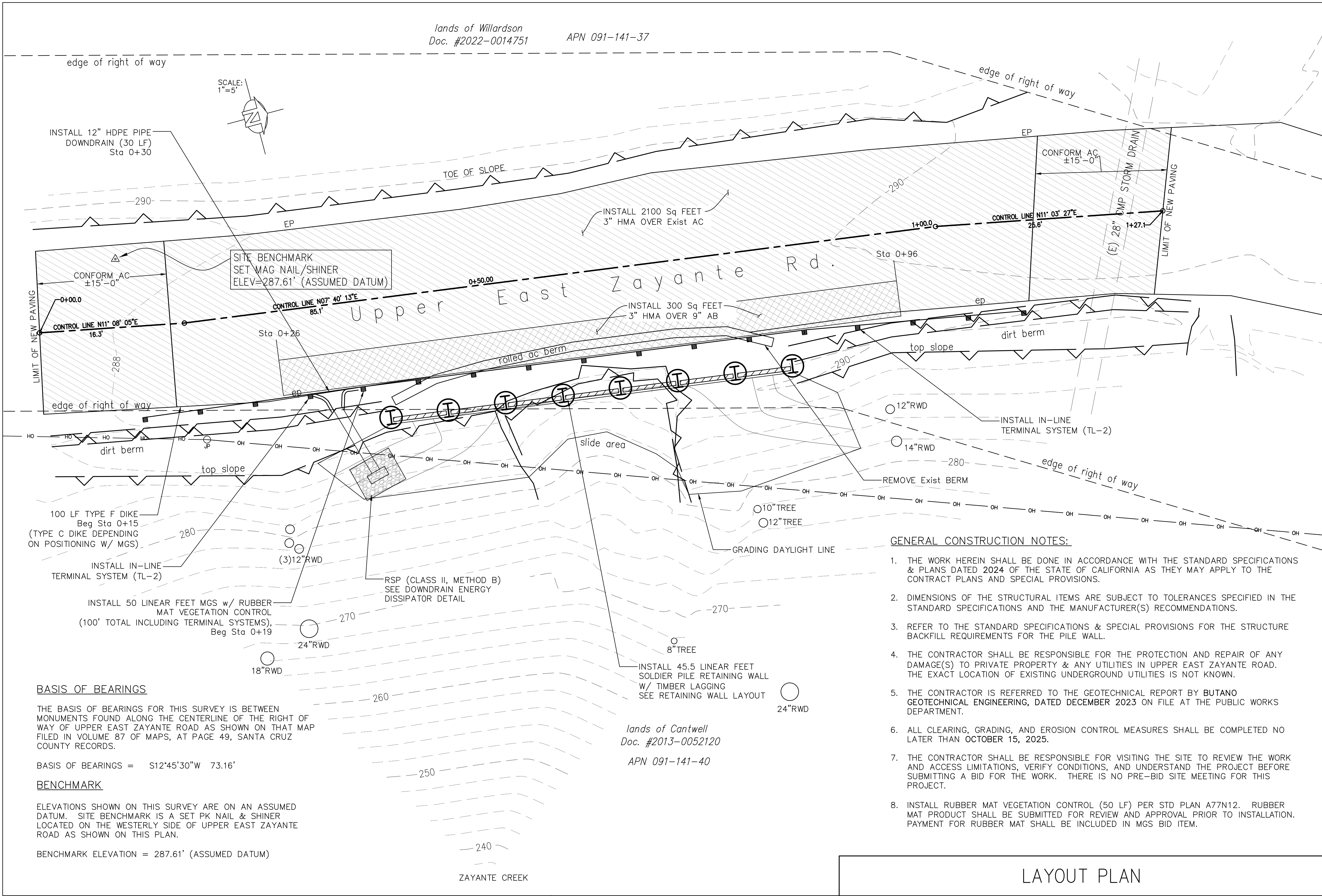
Chair, Board of Supervisors

Date approved by Board of Supervisors

Reviewed by:		Reviewed by:		Reviewed by:	
Greg Martin		Alex Sandoval		Carisa Duran	
Traffic Engineer		Road Superintendent		Construction Engineer	

lands of Willardson
Doc. #2022-0014751

APN 091-141-37

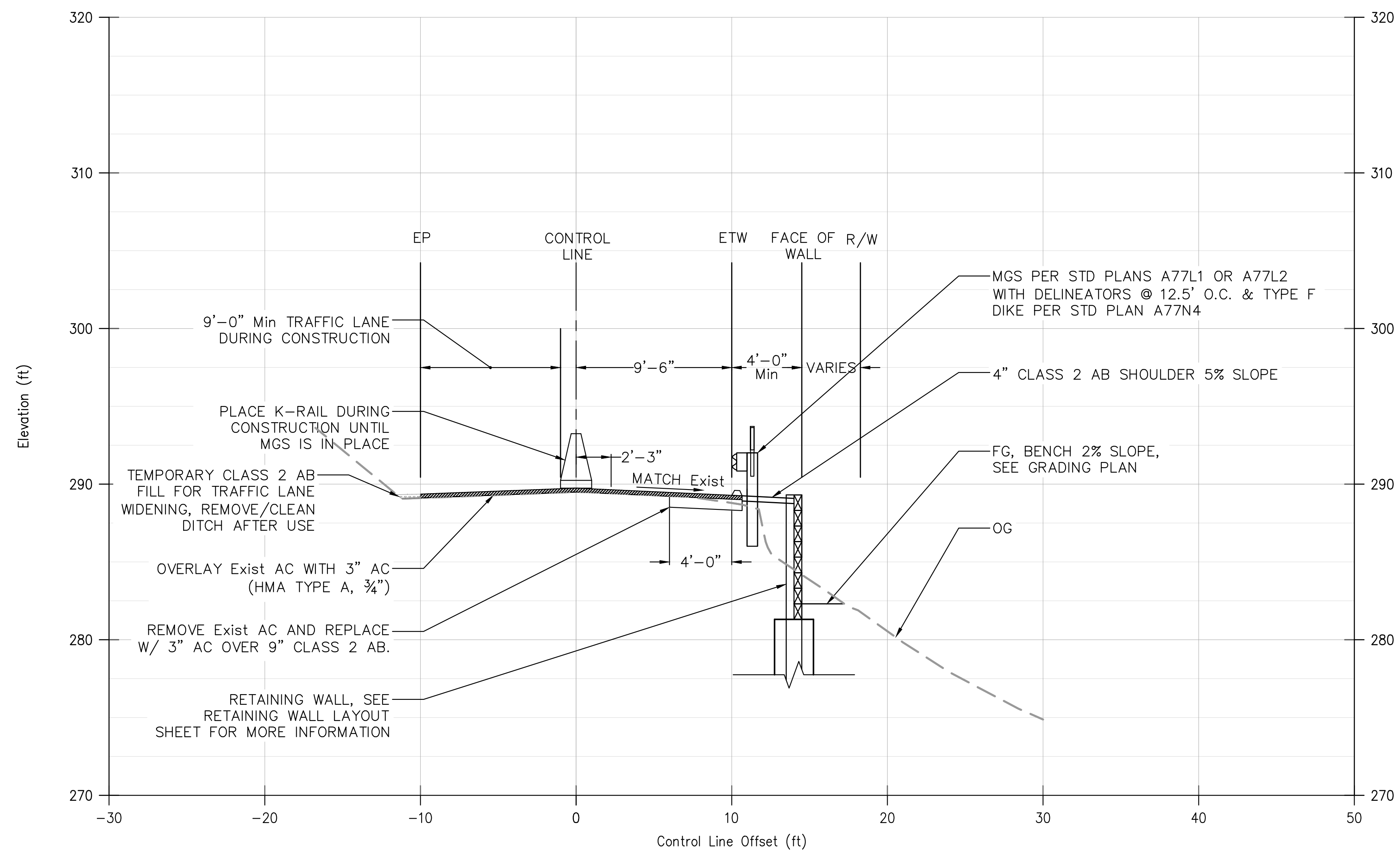


GENERAL CONSTRUCTION NOTES:

1. THE WORK HEREIN SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS & PLANS DATED 2024 OF THE STATE OF CALIFORNIA AS THEY MAY APPLY TO THE CONTRACT PLANS AND SPECIAL PROVISIONS.
2. DIMENSIONS OF THE STRUCTURAL ITEMS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS AND THE MANUFACTURER(S) RECOMMENDATIONS.
3. REFER TO THE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS FOR THE STRUCTURE BACKFILL REQUIREMENTS FOR THE PILE WALL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGE(S) TO PRIVATE PROPERTY & ANY UTILITIES IN UPPER EAST ZAYANTE ROAD. THE EXACT LOCATION OF EXISTING UNDERGROUND UTILITIES IS NOT KNOWN.
5. THE CONTRACTOR IS REFERRED TO THE GEOTECHNICAL REPORT BY BUTANO GEOTECHNICAL ENGINEERING, DATED DECEMBER 2023 ON FILE AT THE PUBLIC WORKS DEPARTMENT.
6. ALL CLEARING, GRADING, AND EROSION CONTROL MEASURES SHALL BE COMPLETED NO LATER THAN OCTOBER 15, 2025.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE TO REVIEW THE WORK AND ACCESS LIMITATIONS, VERIFY CONDITIONS, AND UNDERSTAND THE PROJECT BEFORE SUBMITTING A BID FOR THE WORK. THERE IS NO PRE-BID SITE MEETING FOR THIS PROJECT.
8. INSTALL RUBBER MAT VEGETATION CONTROL (50 LF) PER STD PLAN A77N12. RUBBER MAT PRODUCT SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. PAYMENT FOR RUBBER MAT SHALL BE INCLUDED IN MGS BID ITEM.

LAYOUT PLAN

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TYPICAL SECTION
1" = 5'

TYPICAL SECTION

[illegible]

GENERAL NOTES:

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION WITH CALIFORNIA AMENDMENTS

LIVE LOAD: 250 PSF

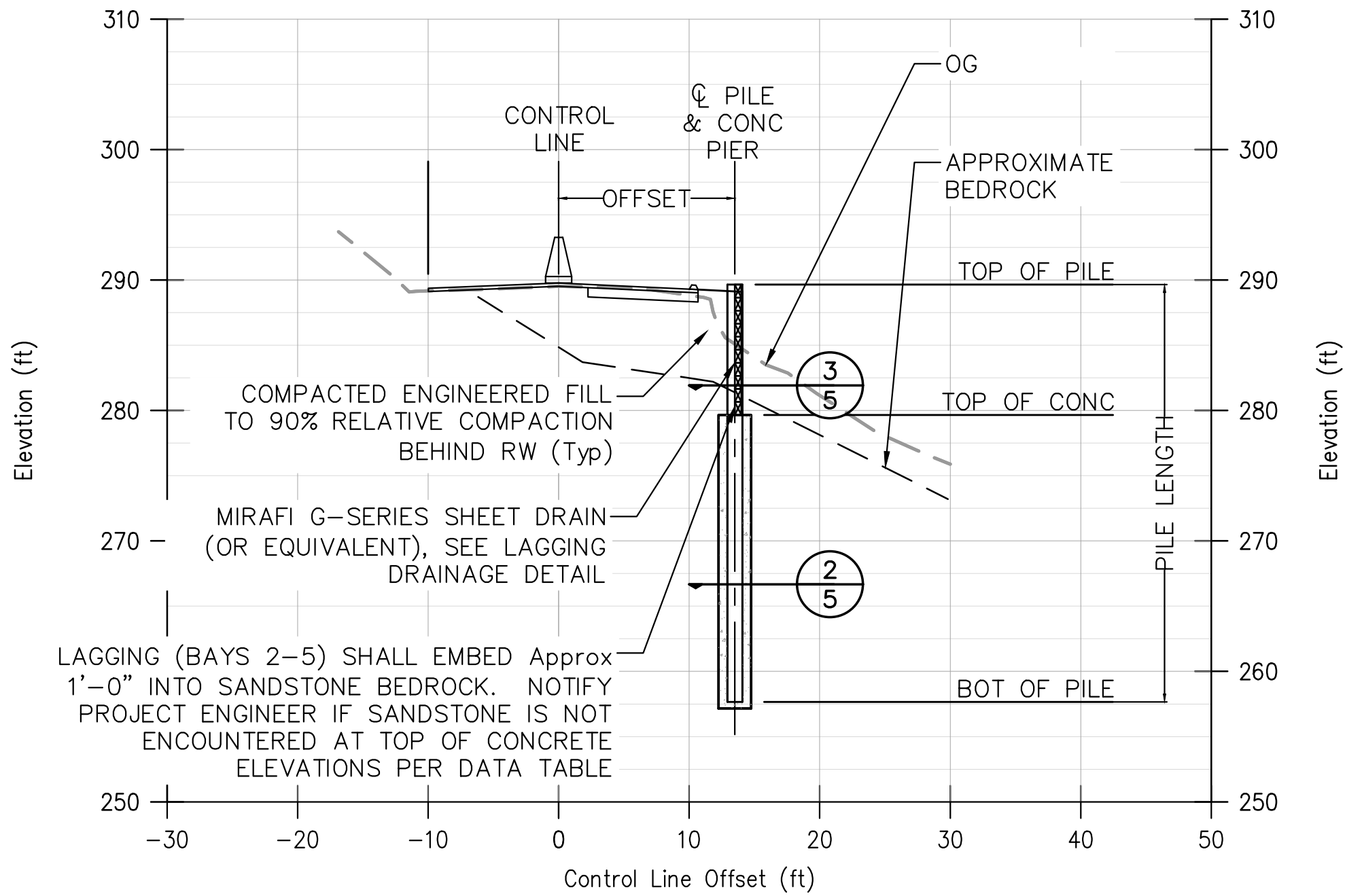
SOIL PARAMETERS: LATERAL EARTH PRESSURES (EFP)
ACTIVE PRESSURE = 40 PSF/FT
PASSIVE PRESSURE = 400 PSF/FT ACTING OVER 2.5 PIER DIAMETERS,
APPLICABLE WHERE 8FT OF SANDSTONE BEDROCK COVERS PIER

SEISMIC PARAMETERS: $P_{EQ} = 10H^2$ AT 0.6H ABOVE BASE OF RETAINED HEIGHT
(H= HEIGHT OF LAGGING)

STEEL SOLDIER PILES: ASTM A992 GR. 50

CONCRETE: $f'_c = 3600$ PSI (Min)

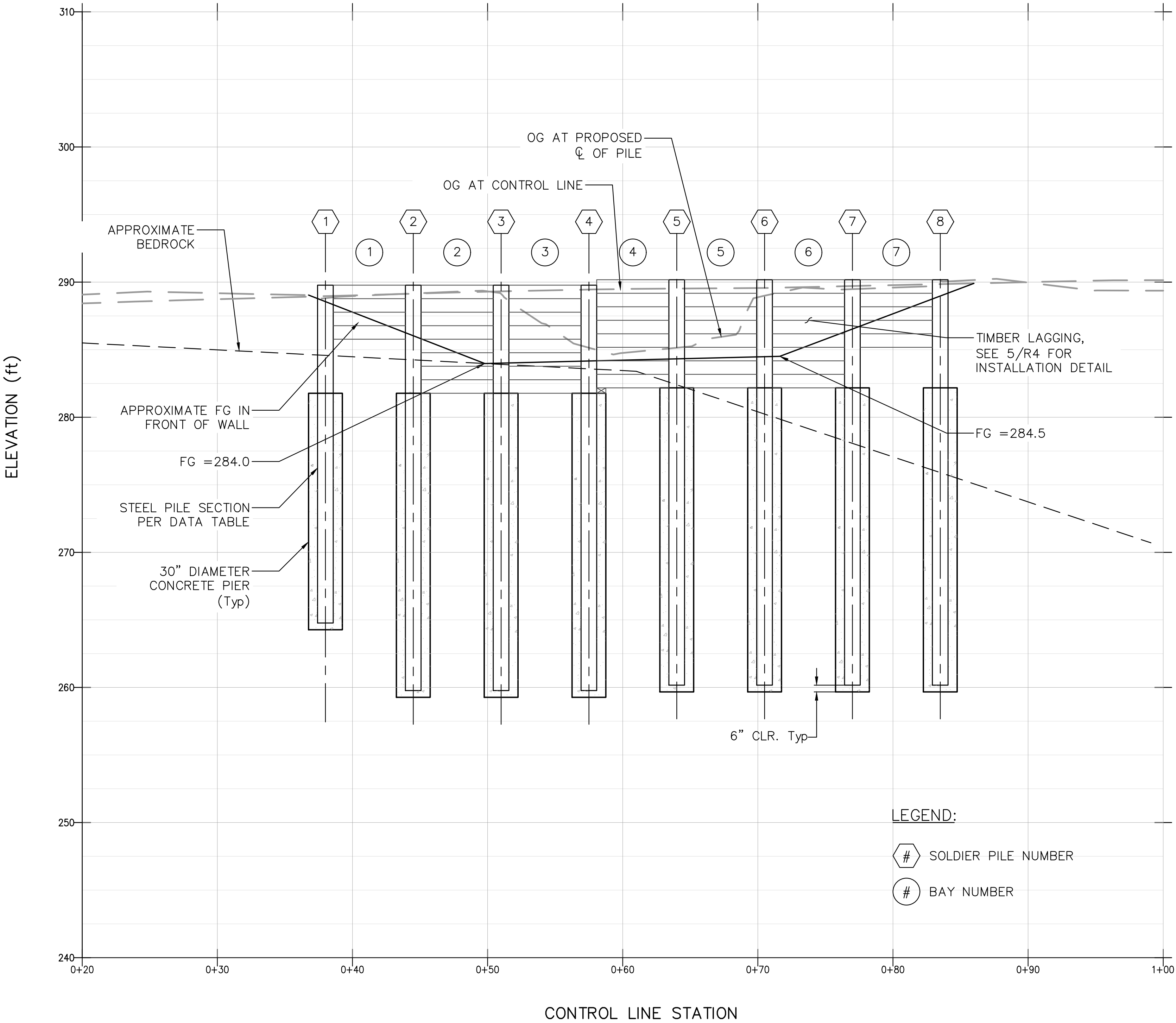
TIMBER LAGGING: 6x12 DOUGLAS FIR No. 1, $f_b = 1350$ PSI, TREATED FULL SAWN



SOLDIER PILE WALL SECTION
1"=10'

SOLDIER PILE DATA TABLE							
PILE No.	STATION	OFFSET (FT)	PILE LENGTH (FT)	TOP OF PILE ELEVATION (FT)	TOP OF CONC (FT)	BOT OF PILE ELEVATION (FT)	STEEL PILE SECTION
1	0+38.0	13.5	25	289.8	281.8	264.8	W14x82
2	0+44.5	13.5	30	289.8	281.8	259.8	W14x82
3	0+51.0	13.5	30	289.8	281.8	259.8	W14x82
4	0+57.5	13.5	30	289.8	281.8	259.8	W14x82
5	0+64.0	13.5	30	290.2	282.2	260.2	W14x82
6	0+70.5	13.5	30	290.2	282.2	260.2	W14x82
7	0+77.0	13.5	30	290.2	282.2	260.2	W14x82
8	0+83.5	13.5	30	290.2	282.2	260.2	W14x82

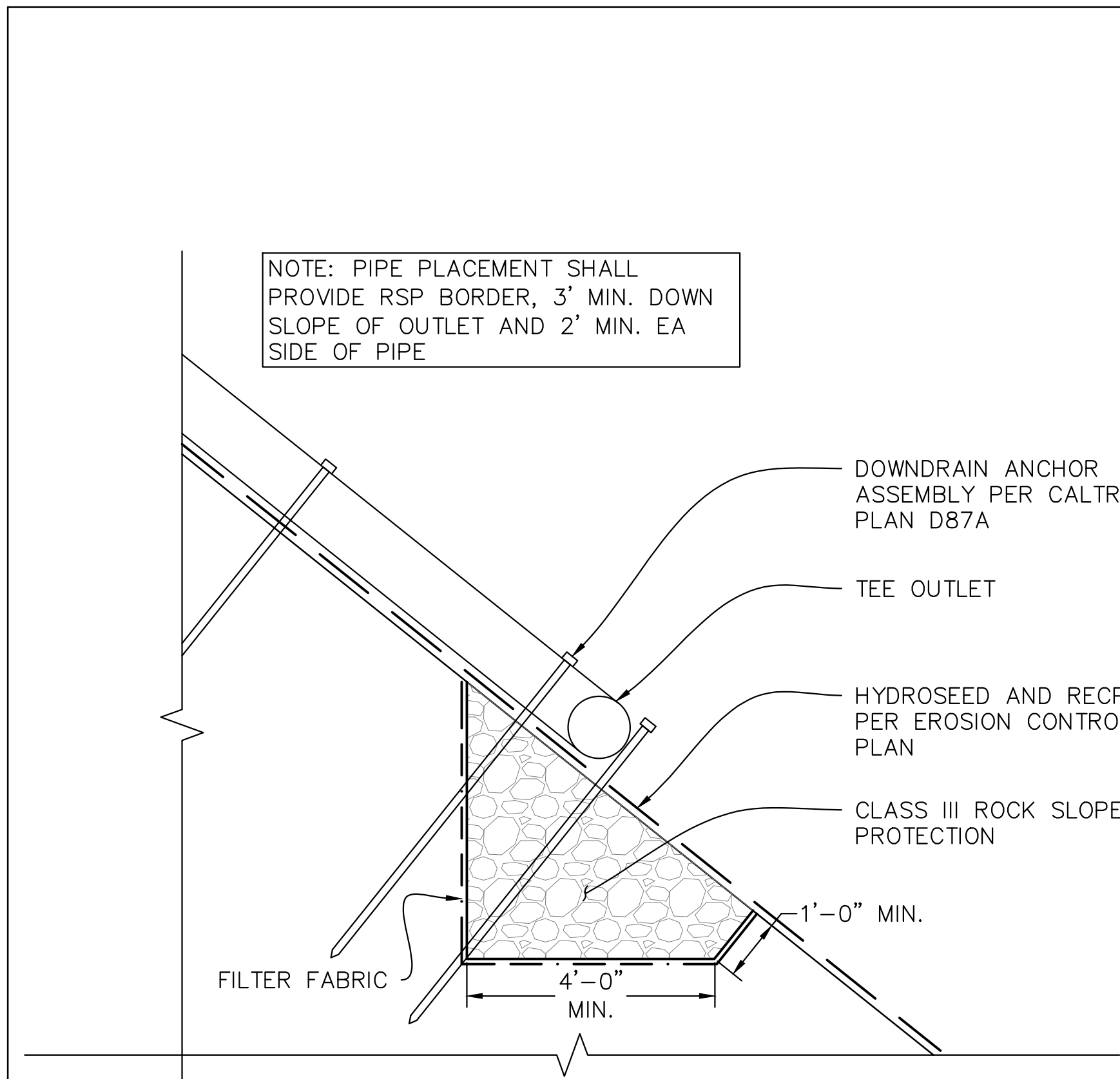
LAGGING DATA TABLE	
BAY No.	No. OF BOARDS
1	4
2	8
3	8
4	8
5	8
6	8
7	5



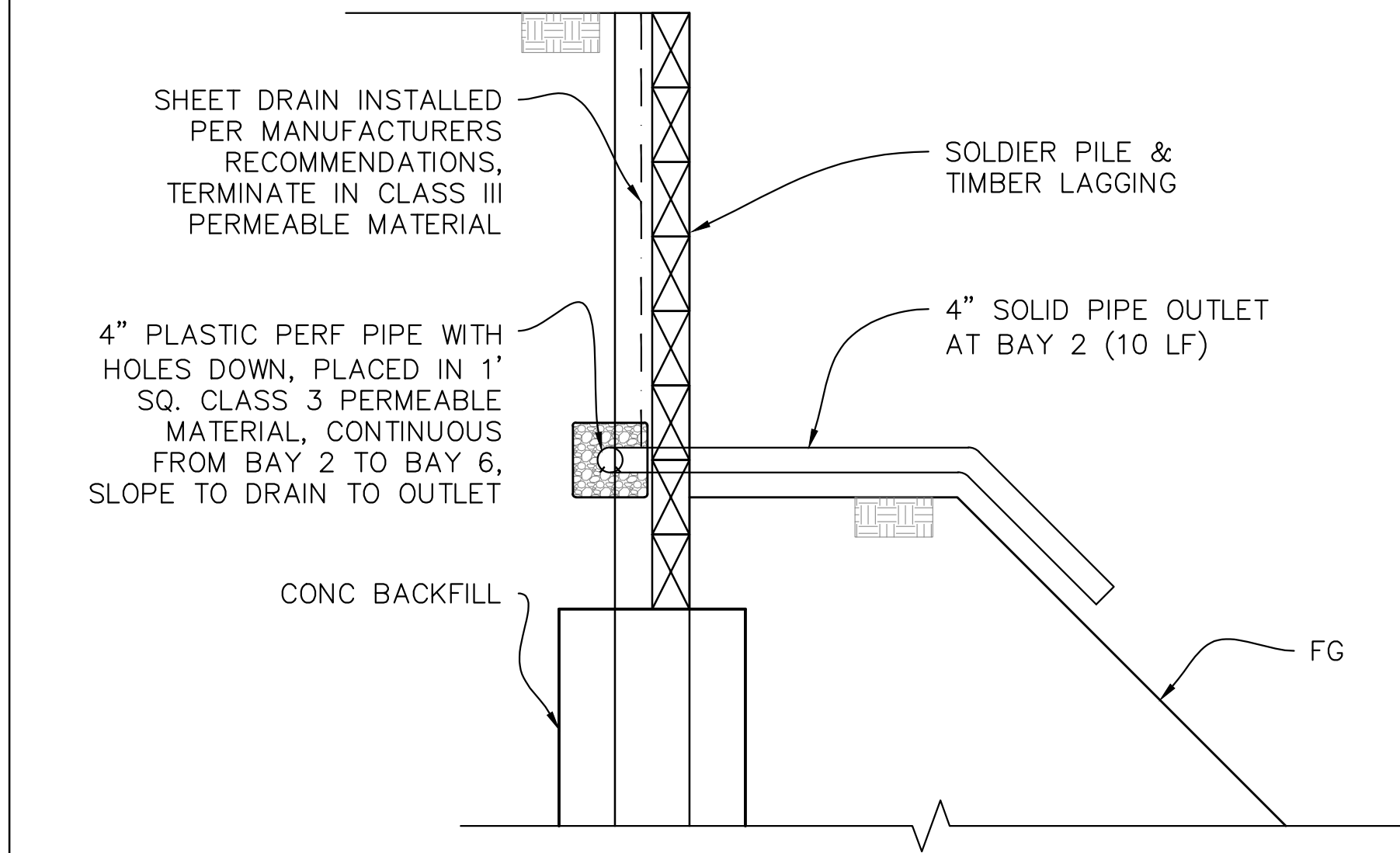
SOLDIER PILE WALL ELEVATION
1"=5'

RETAINING WALL LAYOUT

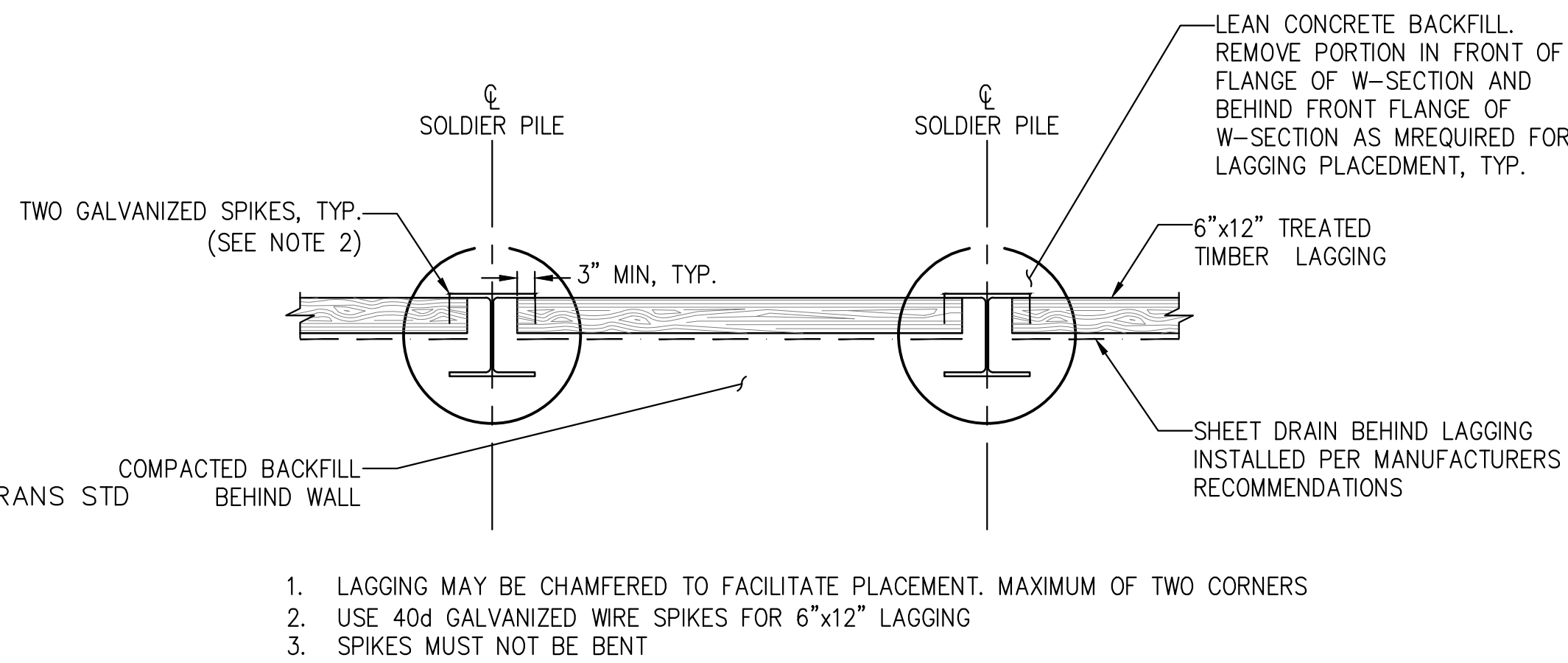
BY	
REVISION	
DATE	
<div>REGISTERED PROFESSIONAL ENGINEER TYLER J. DECKER No. 96807 Exp. 12-31-2028 CIVIL STATE OF CALIFORNIA</div>	
PROJECT ENGINEER	TYLER DECKER
COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS	UPPER E. ZAYANTE RD. PM 2.51 STORM DAMAGE REPAIR PROJECT
DRAWN: TJD	
CHECKED:	
DATE: 11/6/2023	
SCALE:	
JOB NO. P42581	
SHEET	
4	OF 6



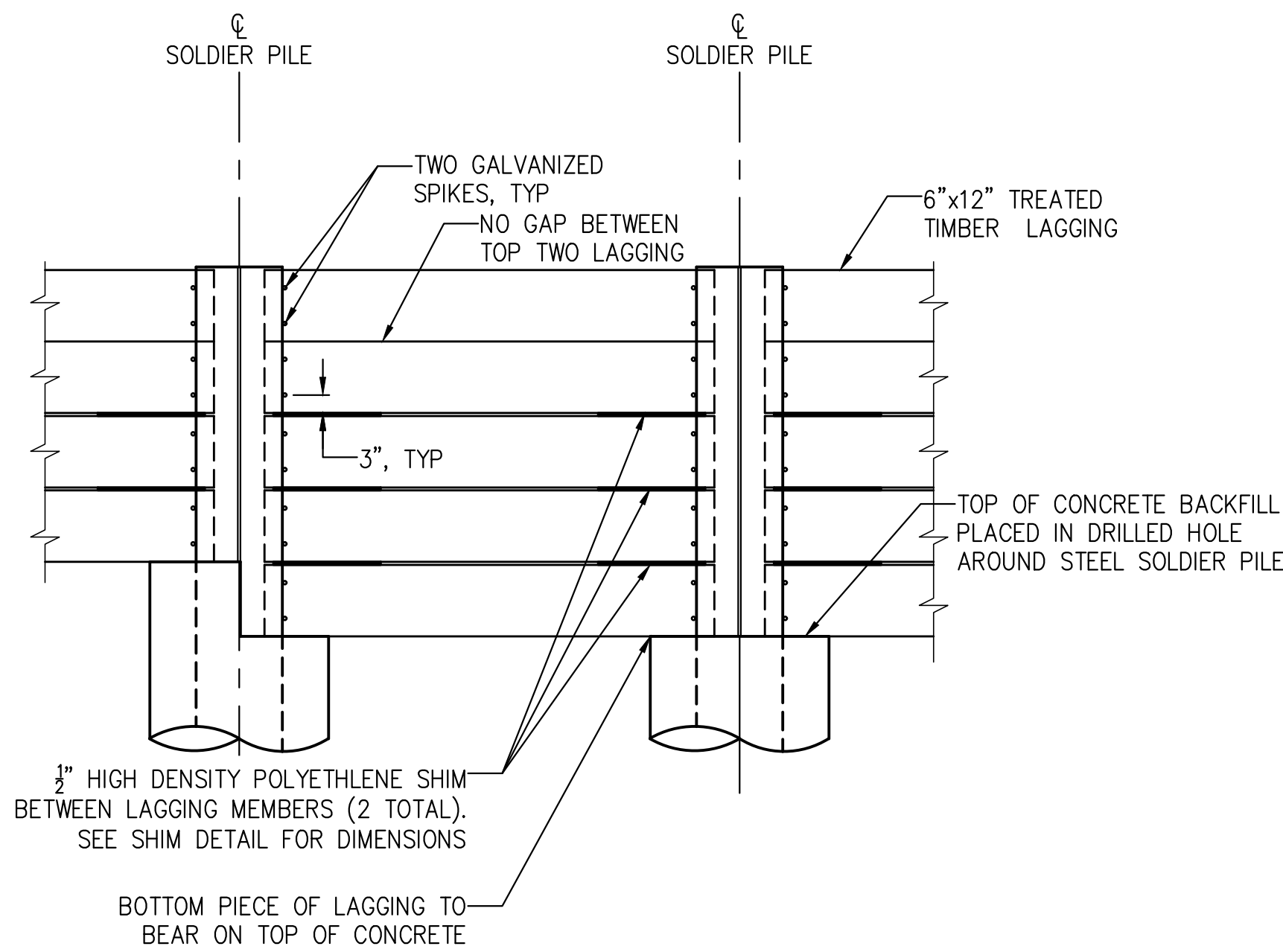
7 DOWNDRAIN ENERGY DISSIPATOR
NO SCALE



6 LAGGING DRAINAGE DETAIL
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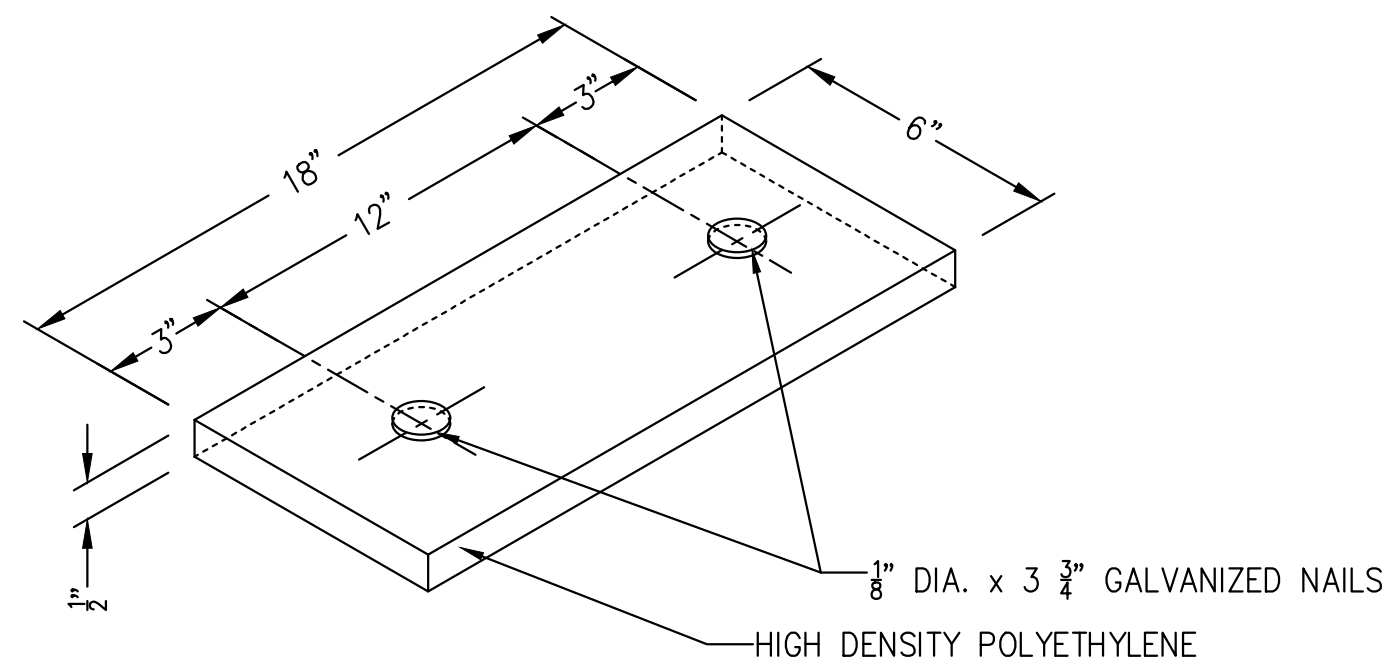


PLAN

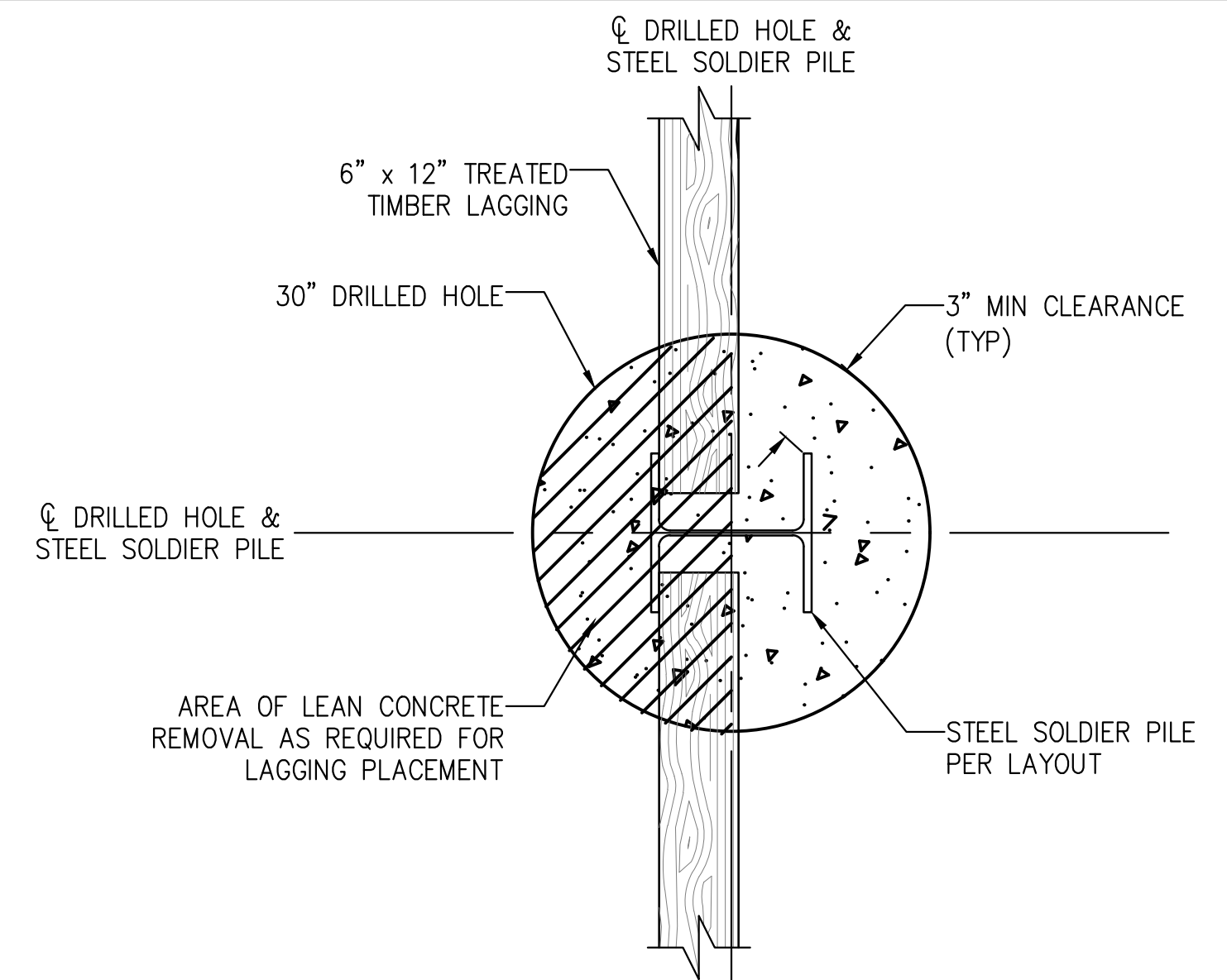


ELEVATION

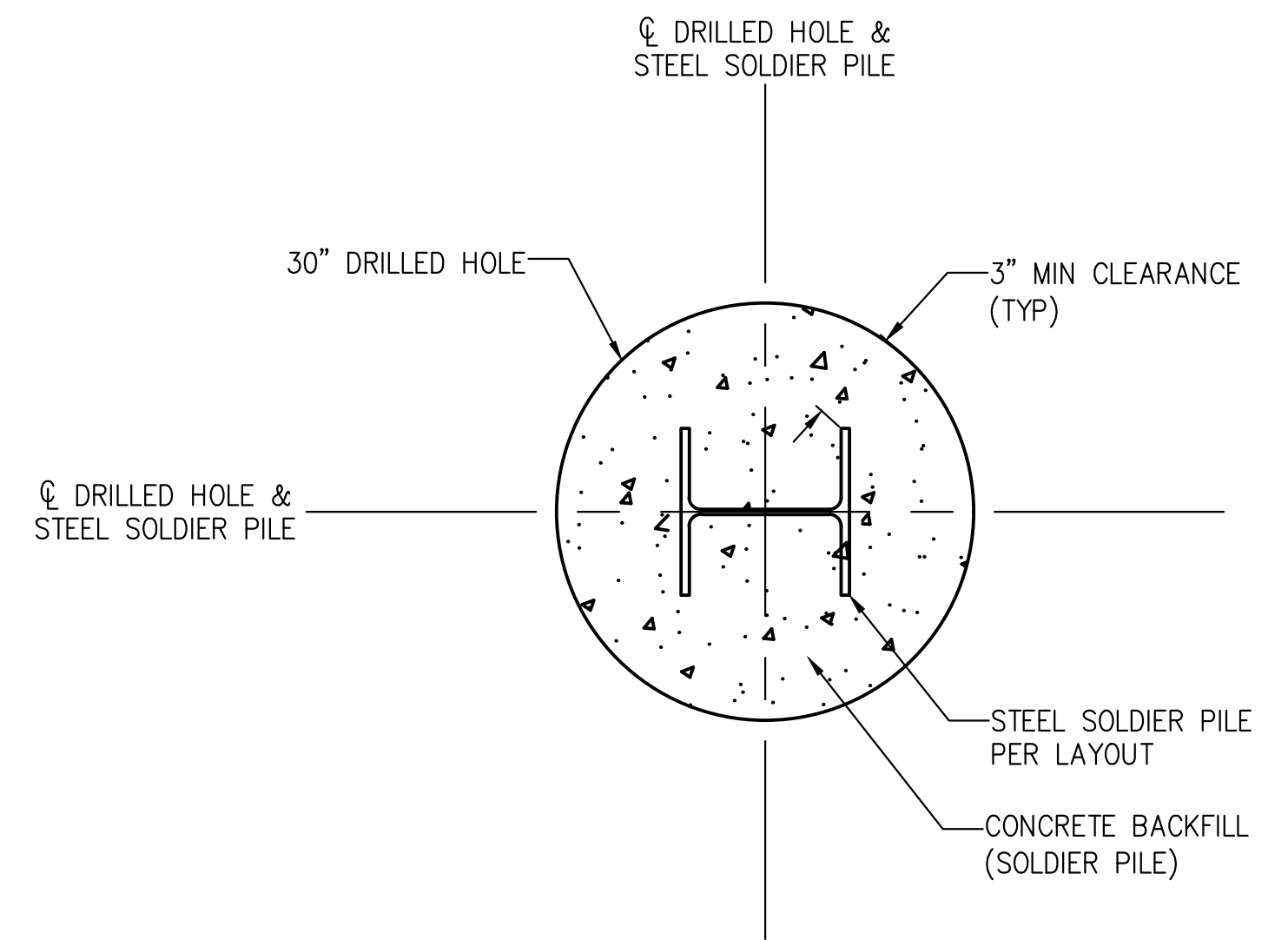
5 TYPICAL TIMBER LAGGING CONSTRUCTION
NO SCALE



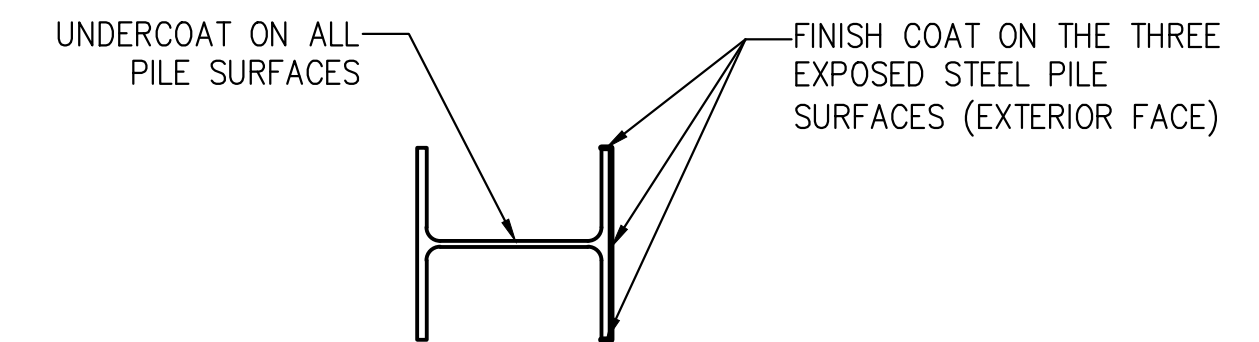
4 SHIM DETAIL
NO SCALE



3 TYPICAL LAGGING OVER CONCRETE PIER
NO SCALE



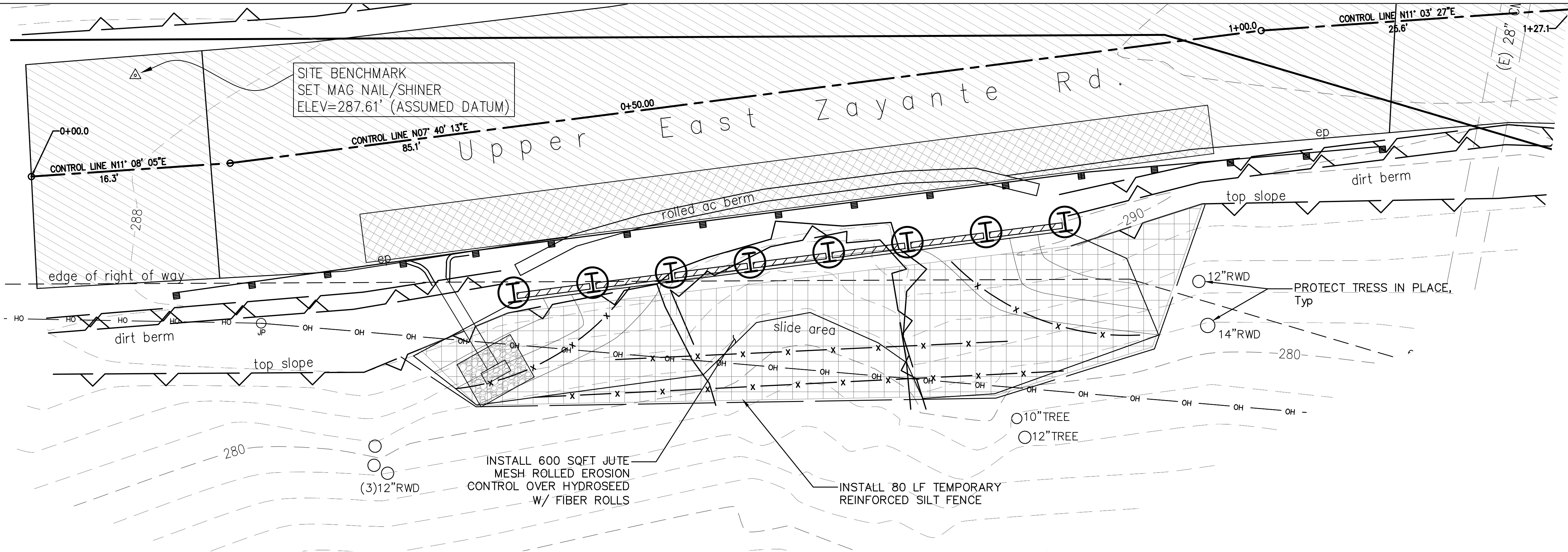
2 TYPICAL STEEL SOLDIER PILE SECTION
NO SCALE



1 LIMITS OF CLEAN AND PAINT STEEL SOLDIER PLIES
NO SCALE

RETAINING WALL LAYOUT

BY	
REVISION	
DATE	
REGISTERED PROFESSIONAL ENGINEER TYLER J. DECKER No. 96807 Exp. 12-31-2028 CIVIL STATE OF CALIFORNIA	
PROJECT ENGINEER	TYLER DECKER
COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS	UPPER E. ZAYANTE RD. PM 2.51 STORM DAMAGE REPAIR PROJECT
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5 OF 6	

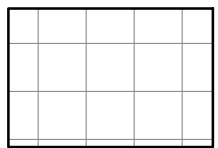


PLAN VIEW
1" = 5'

EROSION CONTROL NOTES:

1. PLACE TEMPORARY REINFORCED SILT FENCE AS DESCRIBED IN THE CONTRACT DOCUMENTS.
2. ON ALL DISTURBED SOIL AREAS, PLACE HYDROSEED, ROLLED EROSION CONTROL FABRIC (JUTE MESH) AND FIBER ROLLS AS DESCRIBED IN THE CONTRACT DOCUMENTS.
3. ALL OPERATIONS SHALL CONFORM TO REQUIREMENTS OF THE COUNTY EROSION CONTROL ORDINANCE. THE DESIRED END RESULT OF THE PROPOSED MEASURE IS TO CONTROL SITE EROSION AND TO PREVENT SEDIMENT TRANSPORT OFF THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ANY ADDITIONAL MEASURES TO MEET THIS GOAL ARE BEING MET. SILT FENCES AND GRAVEL OR SAND BAGS SHALL BE USED TO PREVENT SILT RUNOFF.
4. DISTURBANCE TO NATURAL VEGETATION SHALL BE MINIMIZED WITHIN AREA OF CONSTRUCTION.
5. BETWEEN OCTOBER 1 AND MAY 1, ALL DISTURBED EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION SUCH PROTECTION SHALL CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF PROJECT ANY EXPOSED SOIL ON DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.
6. LOCATIONS FOR EROSION CONTROL INSTALLATIONS ARE APPROXIMATE AND SHOULD BE ADJUSTED IN THE FIELD AS NECESSARY AND APPROVED BY THE ENGINEER.

LEGEND



HYDROSEED (600 ft²) - Entire slope shall have rolled erosion control product (jute mesh) with 26.6 oz/sq-yd density and 39% open area. Remove loose material as directed by the engineer. Jute mesh shall be included in Hydroseed bid item.

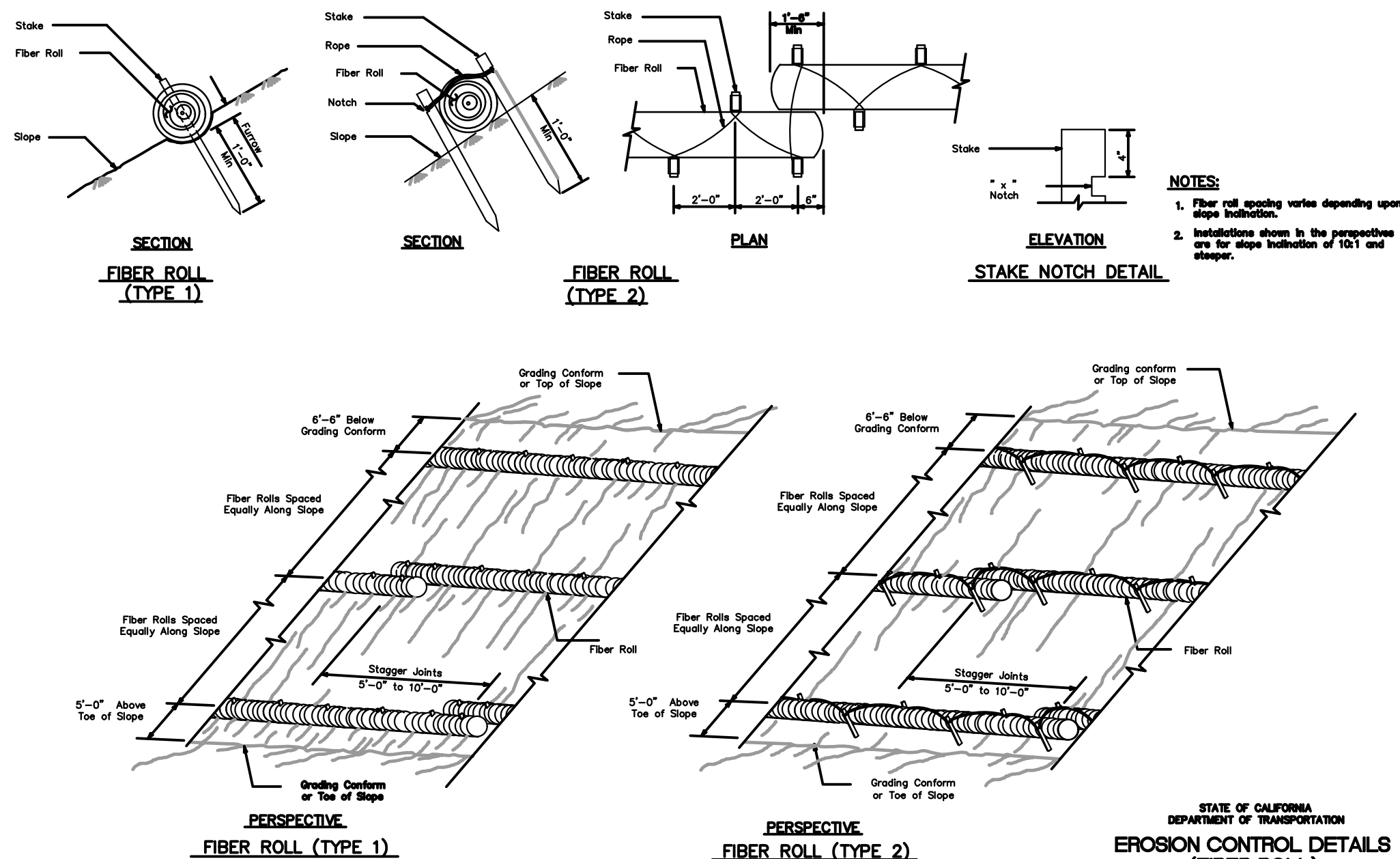
— x — x — FIBER ROLL (120 LF)

SEED MIX

BOTANICAL NAME	COMMON NAME	LB PURE LIVE SEED PER ACRE
BROMUS CARINATUS	CALIFORNIA BROME	25
EYMUS GLAUCUS	BLUE WILD RYE	10
VULPIA MICROSTACHYS	SMALL FESCUE	6
TRIFOLIUM WILDENOVII	TOMCAT CLOVER	4
HORDEUM BRACHYANTHERUM	CALIFORNIA MEADOW BARLEY	25

EROSION CONTROL

ITEM	MATERIAL		APPLICATION RATE
	DESCRIPTION	TYPE	
HYDROSEED	SEED	SEED MIX	70 LB/ACRE
	FIBER	WOOD	2000 LB/ACRE
	NATURAL SLOW RELEASE FERTILIZER	GRANULAR	800 LB/ACRE
	TACKIFIER	PSYLLIUM	100 LB/ACRE



EROSION CONTROL & REVEGETATION

PROJECT ENGINEER

TYLER DECKER

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS
UPPER E. ZAYANTE RD. PM 2.51
STORM DAMAGE REPAIR PROJECT

DRAWN: TJD
CHECKED:
DATE: 11/6/2023
SCALE:
JOB NO. P42581

SHEET
6 OF 6



REVISION
DATE