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GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO CONTRACT SPECIAL PROVISIONS, THE COUNTY OF SANTA CRUZ DESIGN CRITERIA (DECEMBER 2022 EDITION), THE STANDARD SPECIFICATIONS AND STANDARD PLANS DATED 2018 OF THE STATE OF CALIFORNIA.
- THERE SHALL BE NO CHANGES IN THE APPROVED IMPROVEMENT PLANS WITHOUT PRIOR APPROVAL BY THE ENGINEER.
- PLEASE CALL "UNDERGROUND SERVICE ALERT" (U.S.A.) AT 811 OR 800-227-2600 BEFORE DIGGING.
- THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER.
- 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 CONTINUOUSLY AND NOT 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 OF THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.
- THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE ISSUED BY THE STATE OF CALIFORNIA AT THE TIME THE CONTRACT IS AWARDED.
- LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

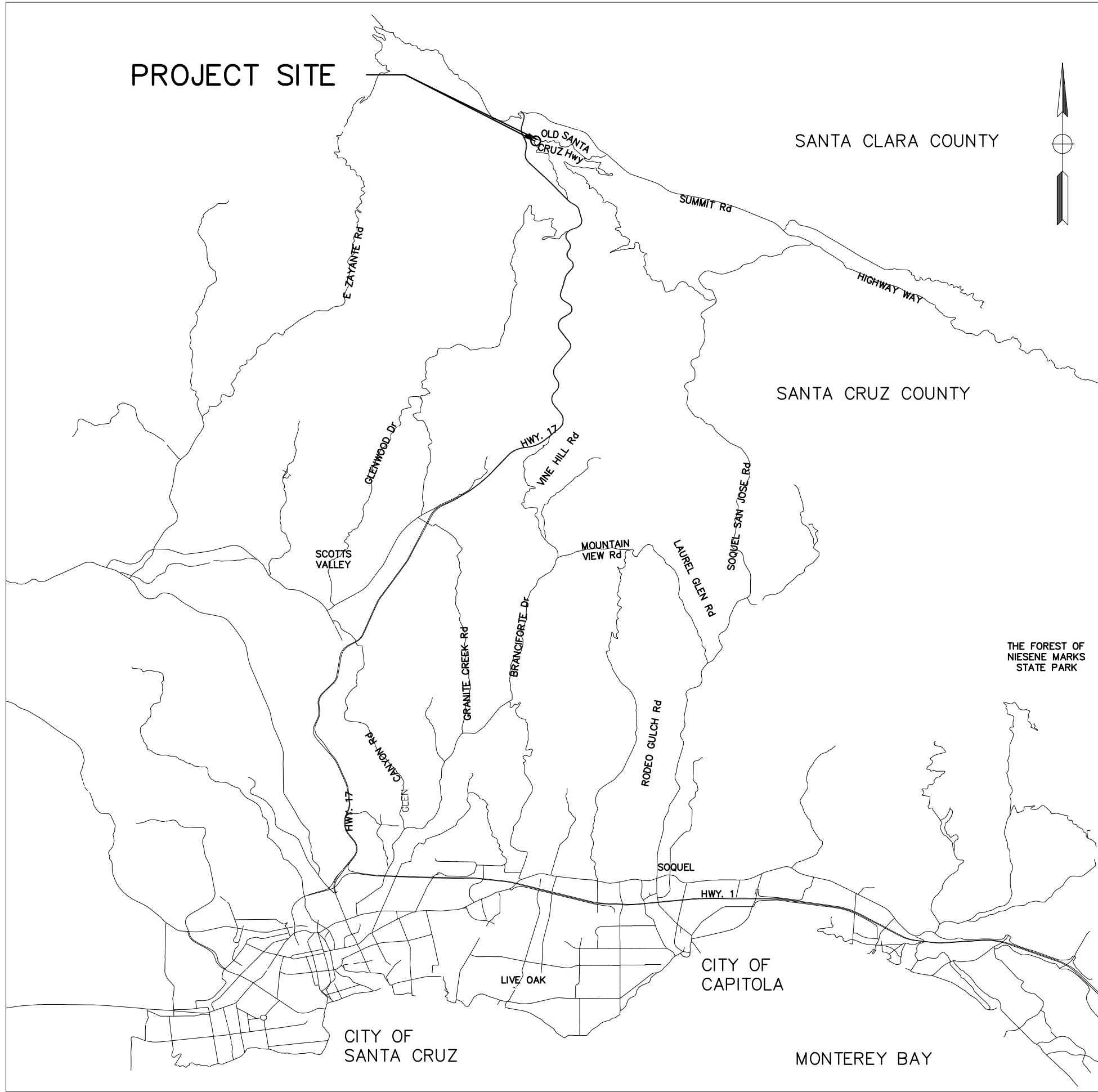
ABBREVIATION

AKTS	ALTERNATIVE IN-LINE TERMINAL SYSTEM
CA MUTCD	CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
CL	CENTERLINE
CO	CLEANOUT
EA	EACH
KV	KILOVOLT
P.P.P	PERFORATED PLASTIC PIPE
RWL/L	RETAINING WALL LAYOUT LINE
STA, Sta	STATION
Std, Std.	STANDARD
TOW	TOP OF WALL

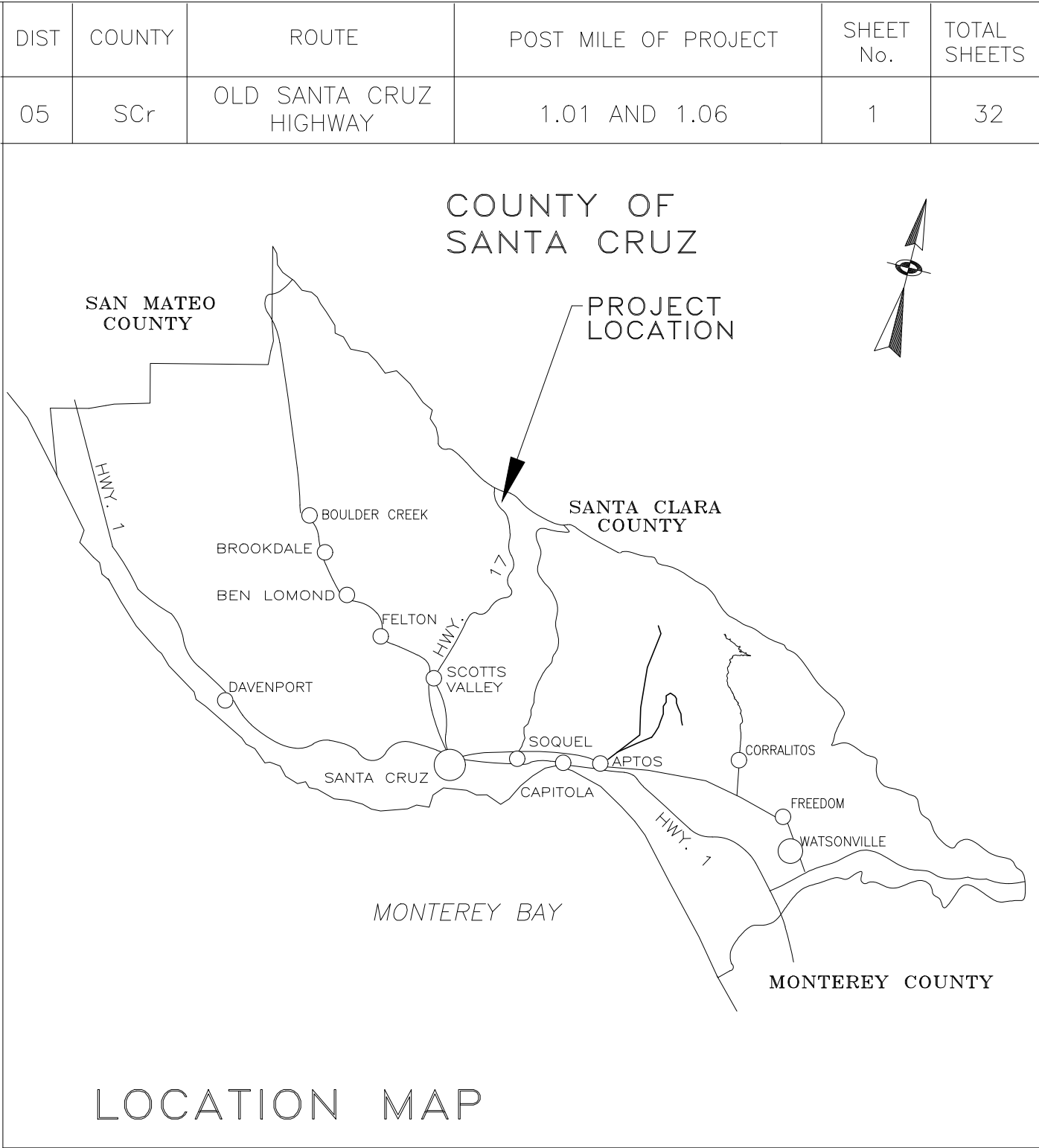
COUNTY OF SANTA CRUZ
DEPARTMENT OF PUBLIC WORKS

PROJECT PLANS FOR CONSTRUCTION ON
OLD SANTA CRUZ HIGHWAY
STORM DAMAGE REPAIR PROJECT
PM 1.01 AND 1.06
FEMA PA-09-CA-4308-PW-00485

To be supplemented by CalTrans Standard Plans dated 2018



VICINITY MAP
NOT TO SCALE



Snehalatha Pavuluri
Design Engineer
Snehalatha Pavuluri



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 Traffic Engineer		ALEX SANDOVAL Road Superintendent		KATIE BEACH Construction Engineer	

FINAL BID SET

County Job No. P76753, P76754

NOTES:

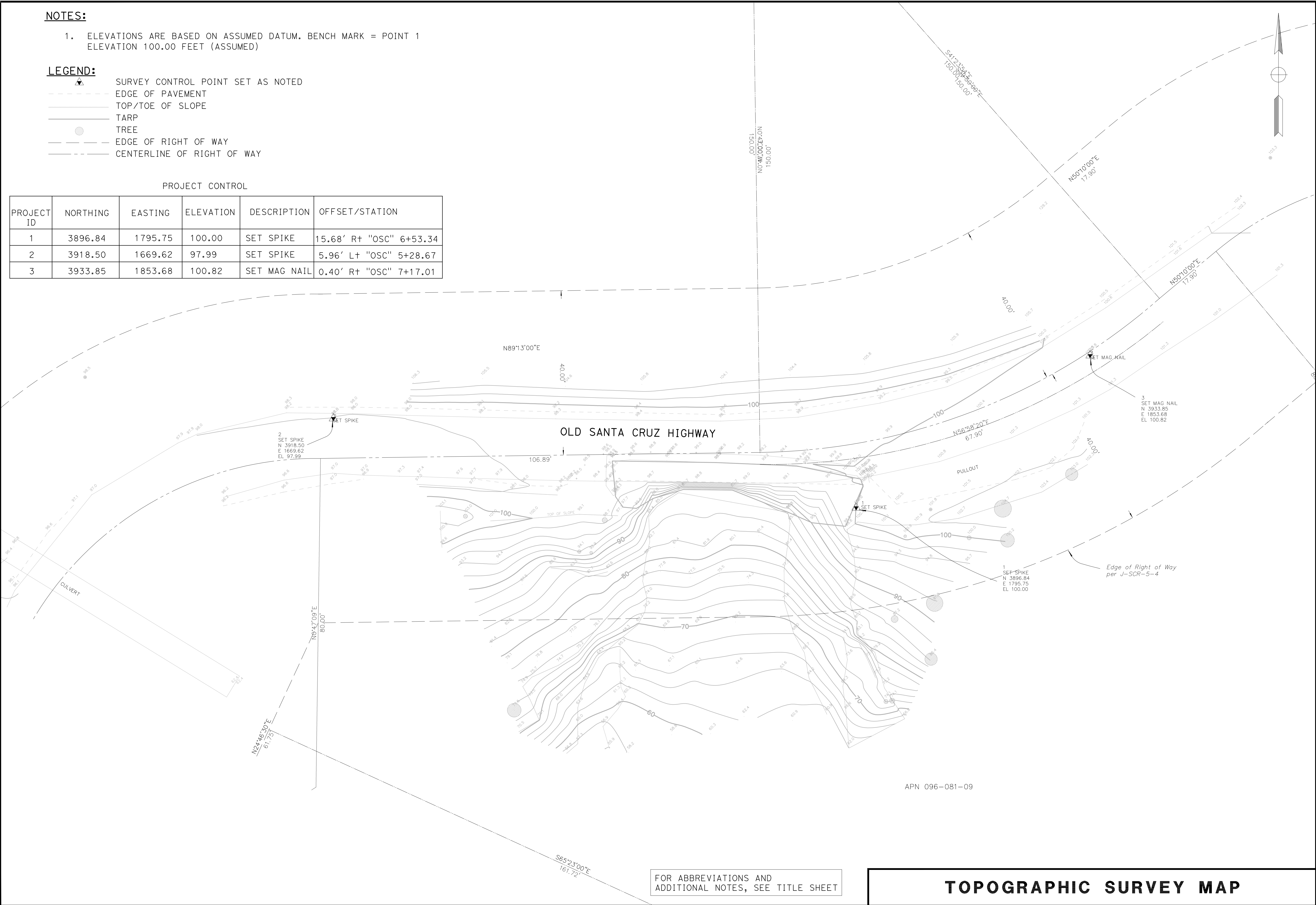
1. ELEVATIONS ARE BASED ON ASSUMED DATUM. BENCH MARK = POINT 1
ELEVATION 100.00 FEET (ASSUMED)

LEGEND:

- ▲ SURVEY CONTROL POINT SET AS NOTED
- - - - - EDGE OF PAVEMENT
——— TOP/TOE OF SLOPE
——— TARP
● TREE
- - - - - EDGE OF RIGHT OF WAY
——— CENTERLINE OF RIGHT OF WAY

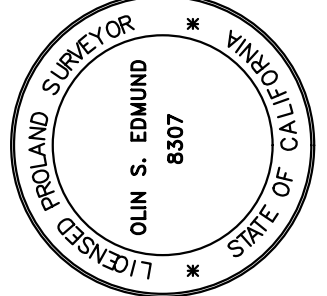
PROJECT CONTROL

PROJECT ID	NORTHING	EASTING	ELEVATION	DESCRIPTION	OFFSET/STATION
1	3896.84	1795.75	100.00	SET SPIKE	15.68' R+ "OSC" 6+53.34
2	3918.50	1669.62	97.99	SET SPIKE	5.96' L+ "OSC" 5+28.67
3	3933.85	1853.68	100.82	SET MAG NAIL	0.40' R+ "OSC" 7+17.01



FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

TOPOGRAPHIC SURVEY MAP

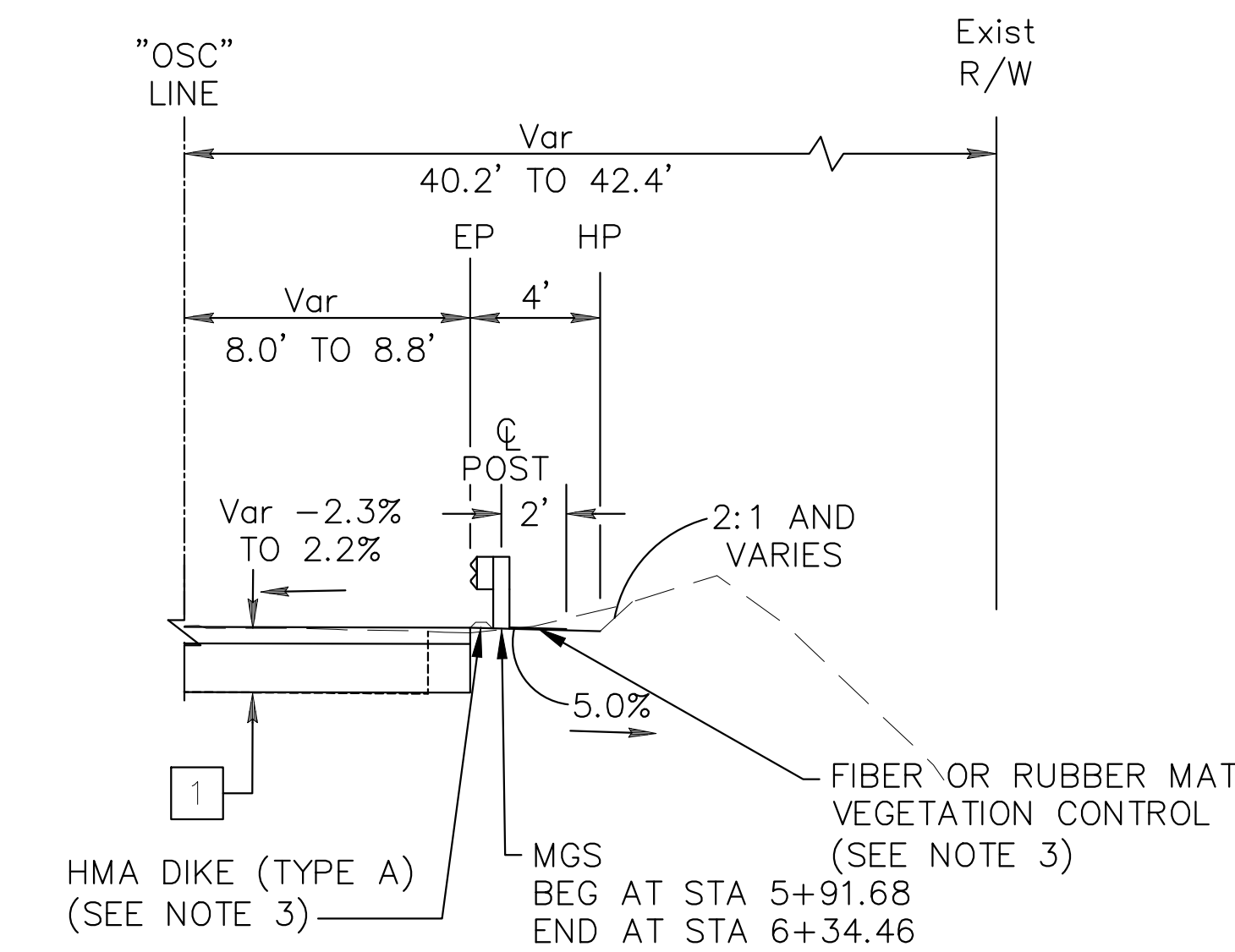
BY	REVISION	DATE	
PROJECT ENGINEER			OLIN S. EDMUND
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS			OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT
DRAWN:S.HUYNH			
CHECKED:S.PAVULURI			
DATE:4/3/2025			
SCALE:1"=10'			
JOB NO. 320166			
SHEET			
2 OF 17			

NOTES:

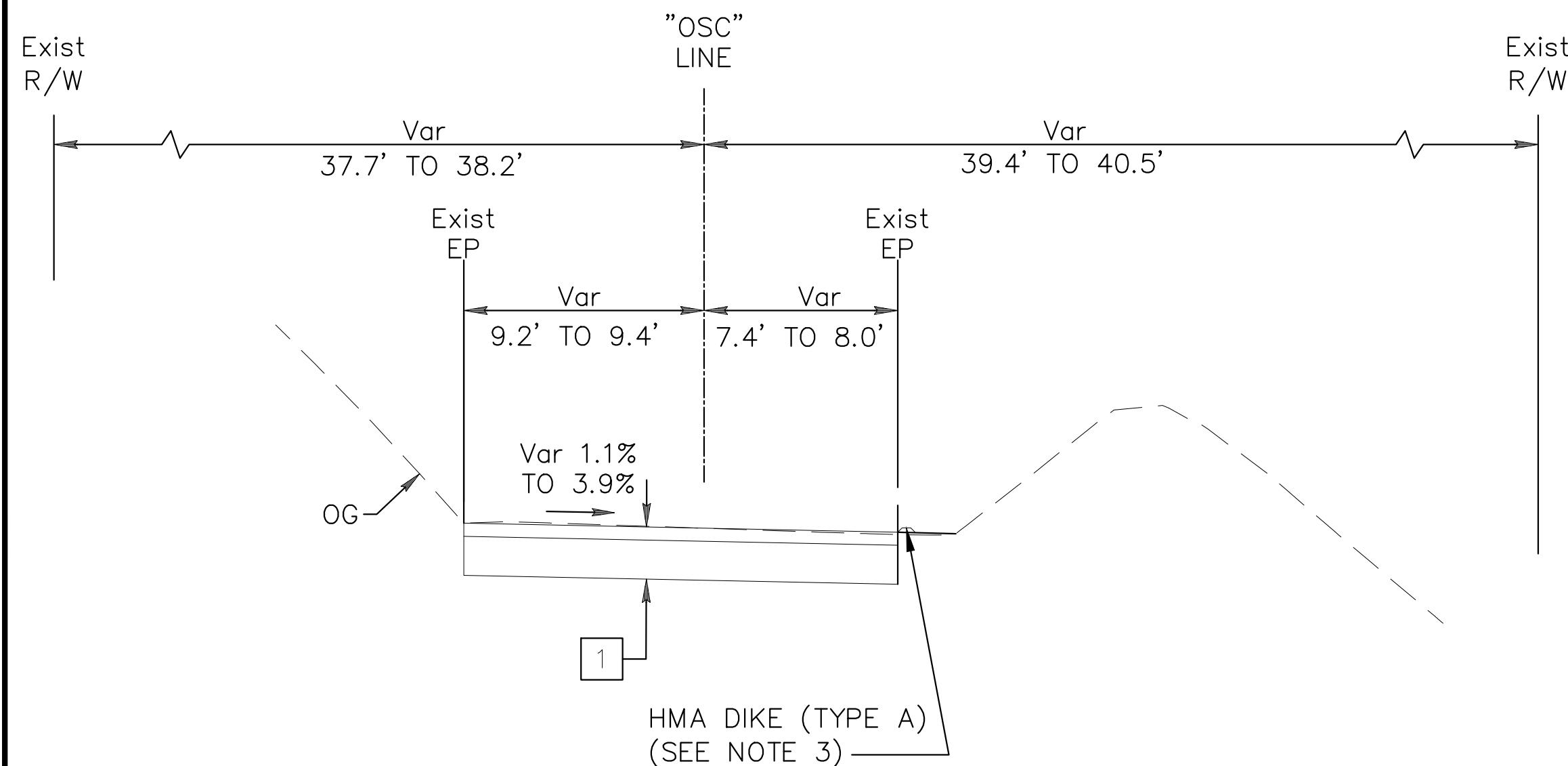
1. FINAL GRADES OF THE PAVEMENT (STRUCTURAL SECTIONS) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR MIDWEST GUARDRAIL SYSTEM LIMITS, SEE LAYOUT SHEET.
3. FOR HMA DIKE (TYPE A) AND FIBER OR RUBBER MAT VEGETATION CONTROL LIMITS, SEE LAYOUT SHEET.

TYPICAL PAVEMENT
STRUCTURE SECTIONS

1 0.25' HMA (TYPE A)
0.75' CI 2 AB



"OSC" 5+67.24 TO "OSC" 5+94.15

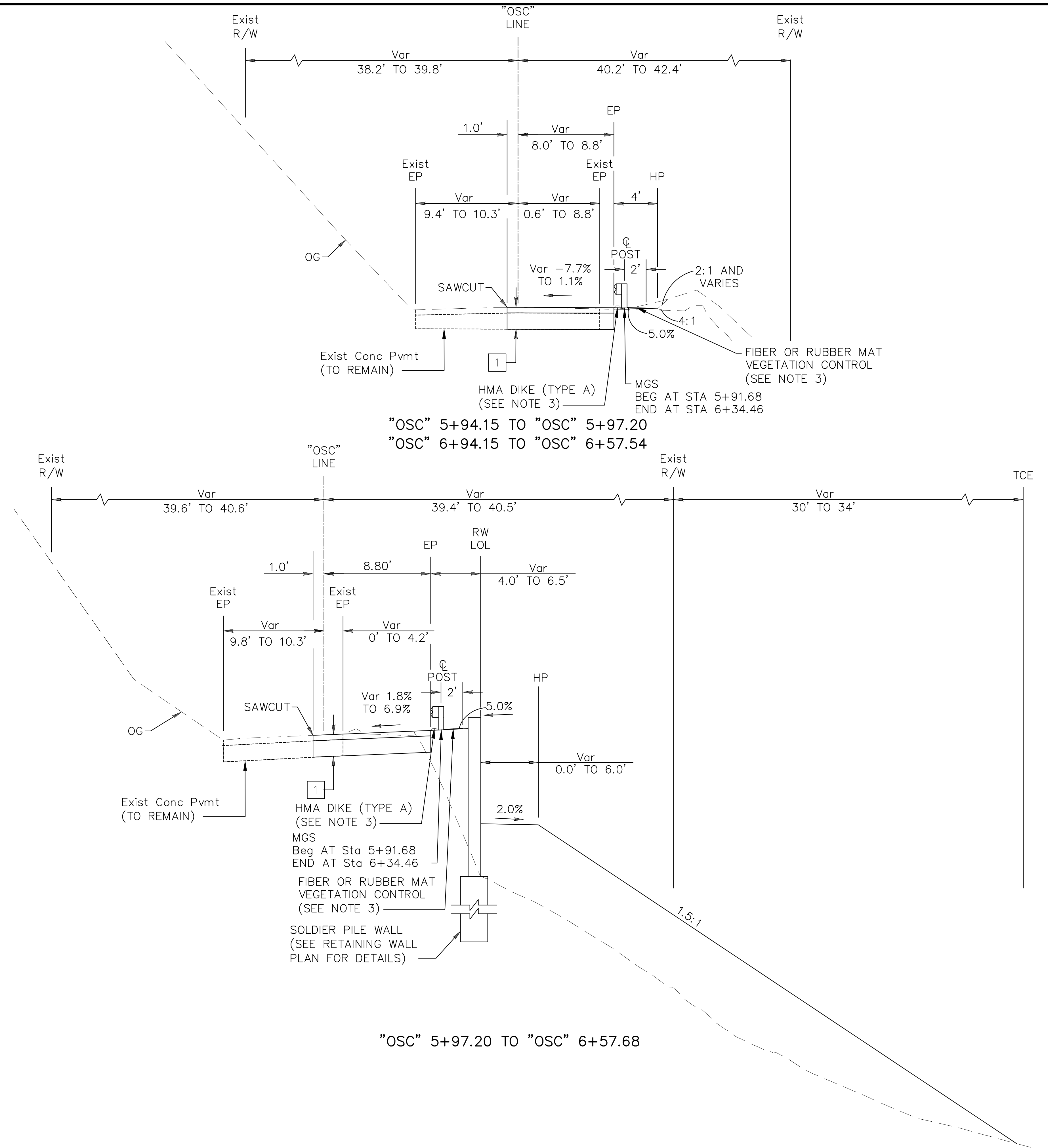


"OSC" 5+57.24 TO "OSC" 5+67.24

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

OLD SANTA CRUZ HWY

TYPICAL CROSS SECTIONS

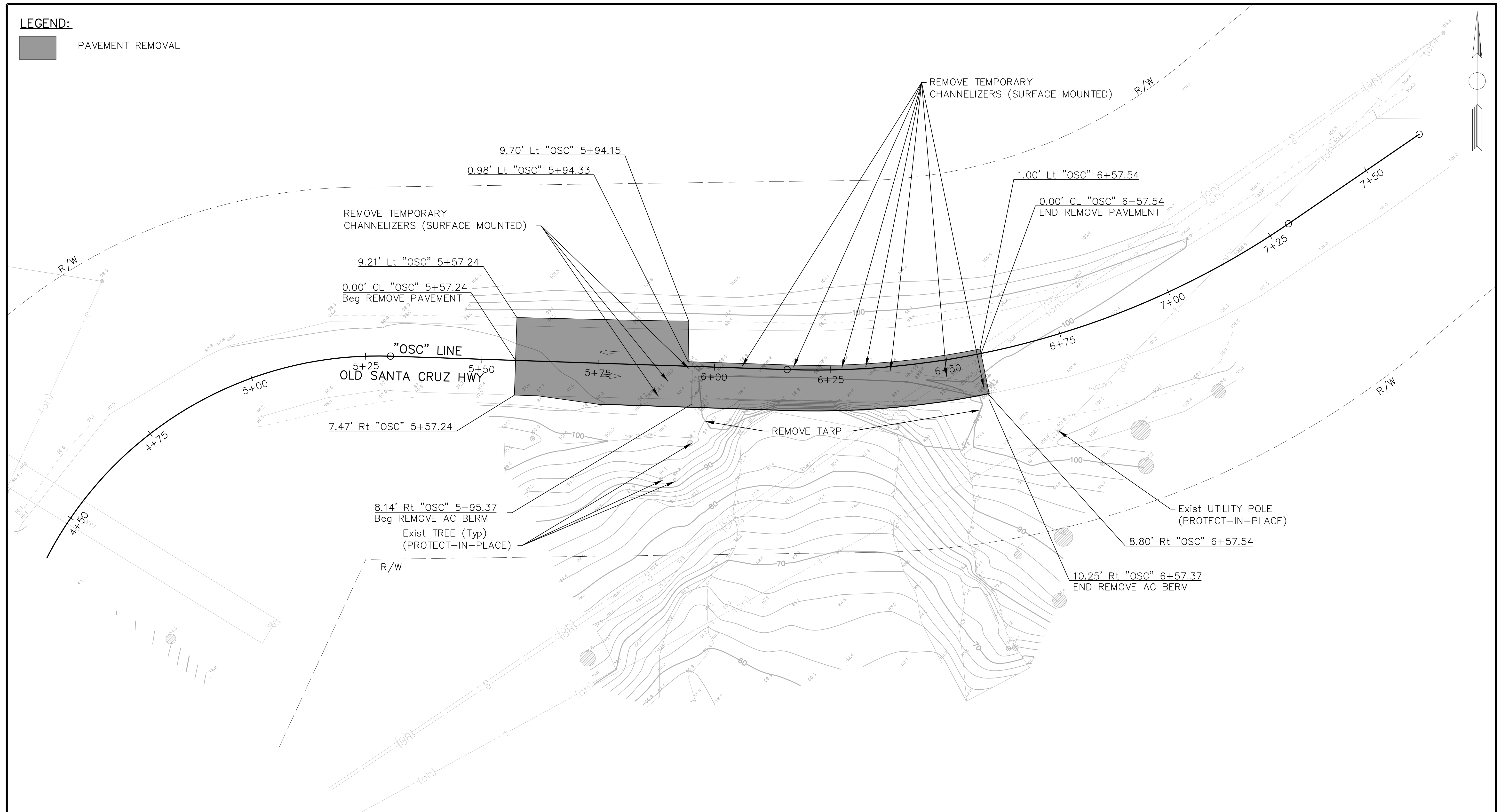


"OSC" 5+97.20 TO "OSC" 6+57.68

BY	
REVISION	
DATE	
 REGISTERED PROFESSIONAL ENGINEER PAVULURI SNEHALATHA NO. 074187 EXPIRATION DATE 08/31/25 STATE OF TEXAS	
PROJECT ENGINEER	SNEHALATHA PAVULURI
COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS	OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT
DRAWN: S.HUYNH	
CHECKED: S.PAVULURI	
DATE: 4/3/2025	
SCALE: NONE	
JOB NO. 320166	
SHEET	3 OF 17

LEGEND:

PAVEMENT REMOVAL



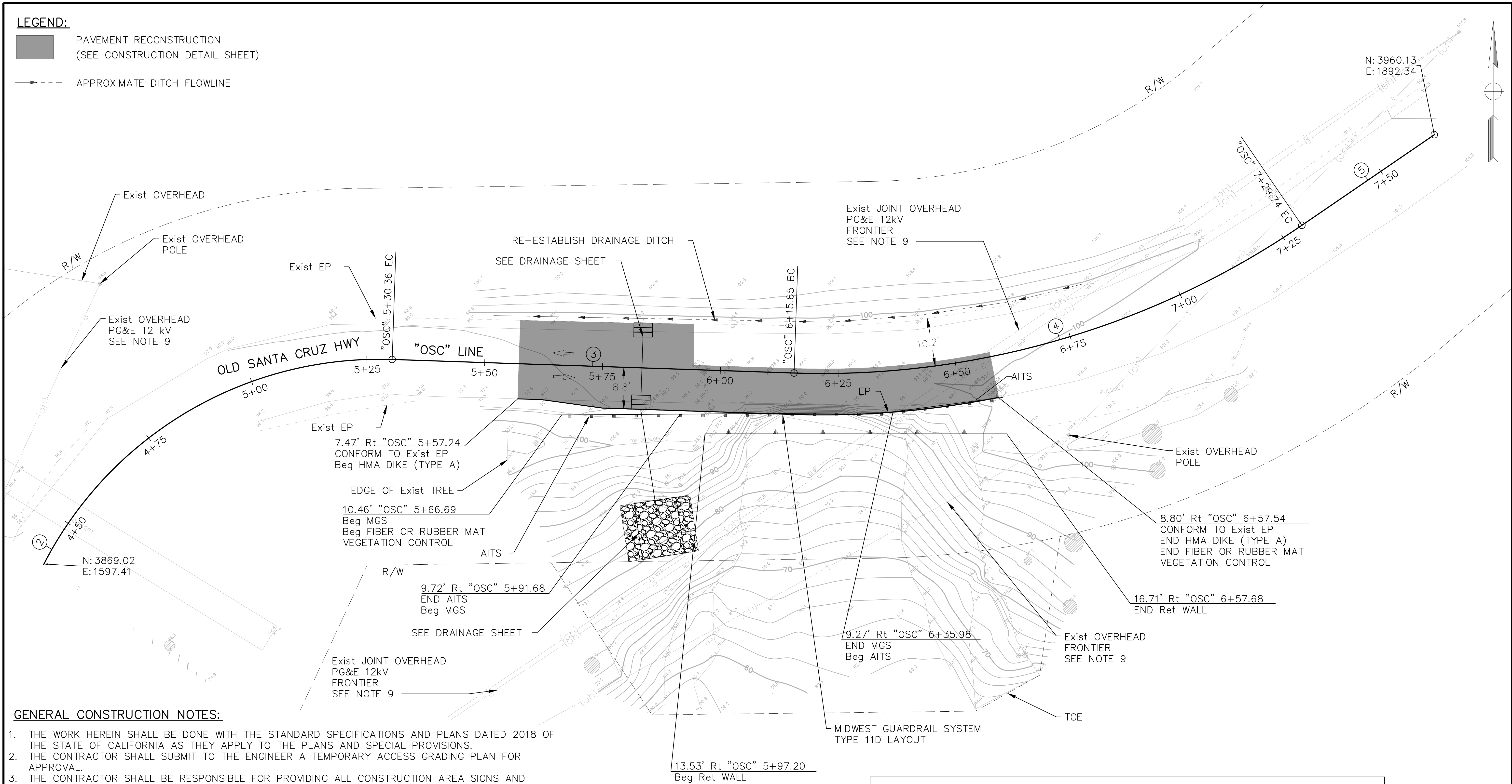
FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

REMOVAL PLAN

DRAWN: S. HUYNH			PROJECT ENGINEER SNEHALATHA PAVULURI	DATE REVISION BY
CHECKED: S. PAVULURI				
DATE: 4/3/2025				
SCALE: 1"=10'				
JOB NO. 320166				
SHEET				
4 OF 17				

LEGEND:

- PAVEMENT RECONSTRUCTION
(SEE CONSTRUCTION DETAIL SHEET)
- APPROXIMATE DITCH FLOWLINE



GENERAL CONSTRUCTION NOTES:

1. THE WORK HEREIN SHALL BE DONE WITH THE STANDARD SPECIFICATIONS AND PLANS DATED 2018 OF THE STATE OF CALIFORNIA AS THEY APPLY TO THE PLANS AND SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A TEMPORARY ACCESS GRADING PLAN FOR APPROVAL.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION AREA SIGNS AND TRAFFIC CONTROL DEVICES. PAYMENT FOR THIS ITEM IS INCLUDED IN CONSTRUCTION AREA SIGNS ITEM 120090 AND TRAFFIC CONTROL SYSTEM ITEM 120100.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE EXACT LOCATIONS AND DEPTHS OF EXISTING UTILITIES. LOCATION SHOWN ON THE PLANS IS APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
5. BEFORE ANY EXCAVATION, THE CONTRACTOR SHALL LOCATE AND PROTECT PUBLIC AND PRIVATE UNDERGROUND UTILITIES.
6. THE CONTRACTOR SHALL PROTECT EXISTING HIGHWAY FACILITIES AND FEATURES, MAILBOXES, TREES AND LANDSCAPING AREA.
7. MGS DELINEATION SHALL BE PER CALTRANS Std PLAN RSP A77N4. DELINEATORS SHALL BE INSTALLED ON EACH STEEL POST. THE MGS POST SPACING TO BE 6'-3" CENTER TO CENTER, EXCEPT AS OTHERWISE NOTED.
8. LIMITS OF MGS SYSTEM SHOWN ON PLAN SHEETS ARE APPROXIMATE AND SHOULD BE FIELD ADJUSTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. CONTRACTOR TO VERIFY OVERHEAD UTILITY LINE LOCATIONS. EXISTING OVERHEAD UTILITY LINES TO REMAIN IN PLACE DURING CONSTRUCTION. MAINTAIN SAFE CLEARANCE FROM THE OVERHEAD UTILITY LINES. IF NECESSARY, THE CONTRACTOR SHALL DEVELOP MEANS AND METHODS TO WORK AROUND THE EXISTING OVERHEAD UTILITY LINES, NO ADDITIONAL COMPENSATION IS DUE TO THIS CONTRACTOR FOR THIS WORK.

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

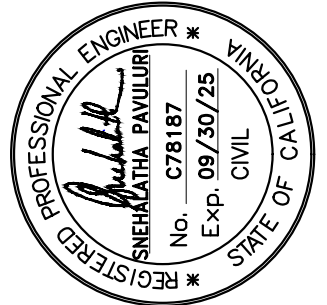
CONTROL LINE DATA							
CONTROL LINE SEGMENT	BEGIN Sta	END Sta	R	DELTA	L	T	BEARING
②	3+56.73	5+30.36	80.00'	124°21'05"	173.63'	151.58'	
③	5+30.36	6+15.65			85.30'		S88°04'08"E
④	6+15.65	7+29.74	180.00'	36°18'51"	114.08'	59.03'	
⑤	7+29.74	7+63.79			34.05'		N55°37'00"E

LAYOUT PLAN

BY

REVISION

DATE



PROJECT ENGINEER

SNEHALATHA PAVULURI

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S.HUYNH

CHECKED: S.PAVULURI

DATE: 4/3/2025

SCALE: 1"=10'

JOB NO. 320166

SHEET

5 OF 17

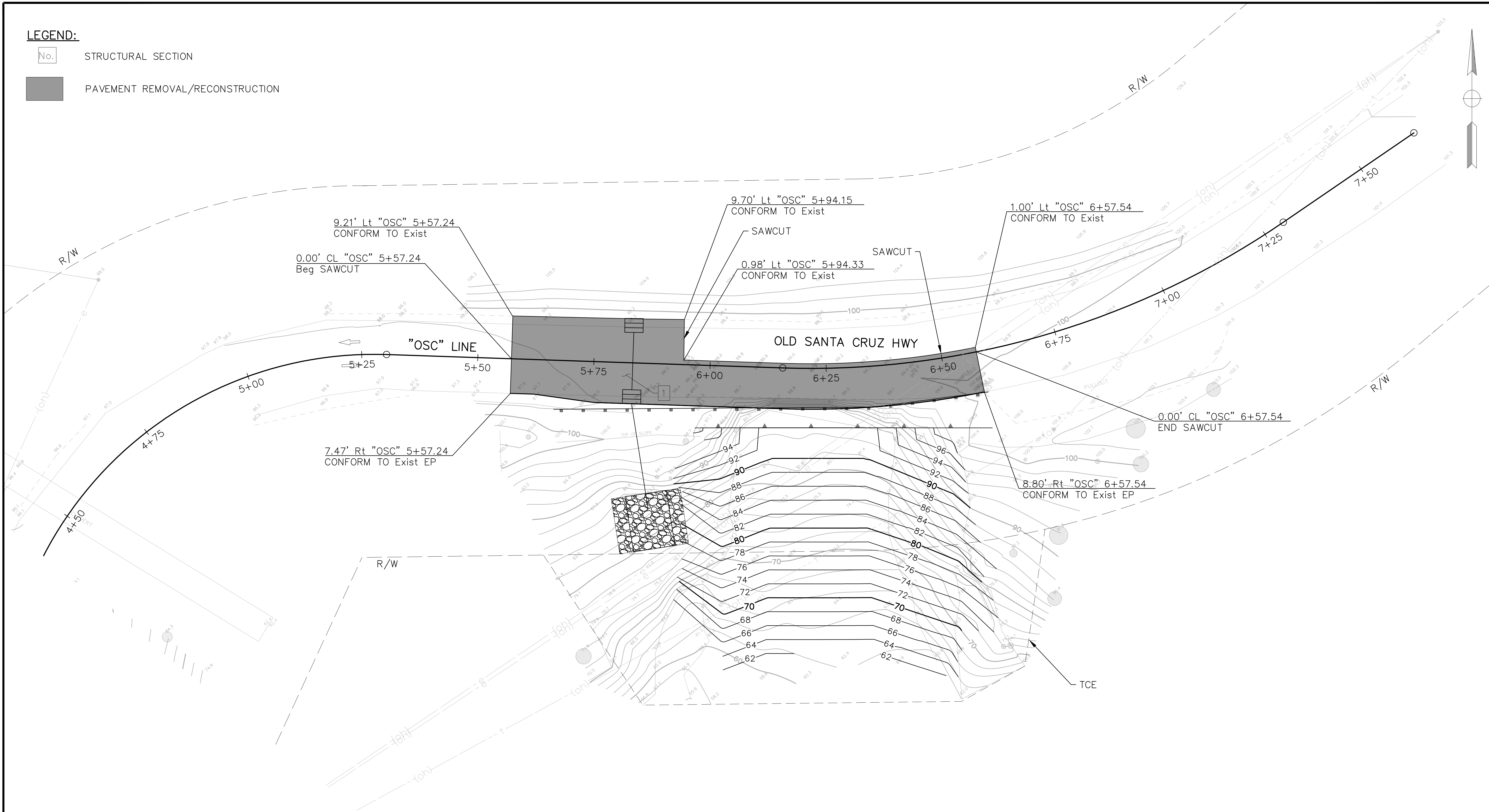
LEGEND:

No.

STRUCTURAL SECTION



PAVEMENT REMOVAL/RECONSTRUCTION

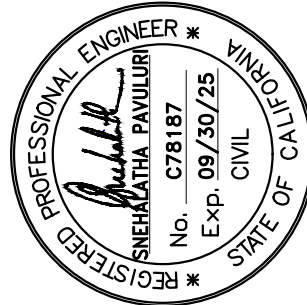


NOTE:

1. ADJUSTMENT OF PAVEMENT REPLACEMENT LIMITS AND EXTENT OF THE EXISTING REPAIRS MAY BE NECESSARY TO RESTORE ROADWAY SECTION. FINAL DETERMINATION SHALL BE MADE BY THE RESIDENT ENGINEER.

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

CONSTRUCTION DETAIL



PROJECT ENGINEER

SNEHALATHA PAVULURI

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S.HUYNH

CHECKED: S.PAVULURI

DATE: 4/3/2025

SCALE: 1"=10'

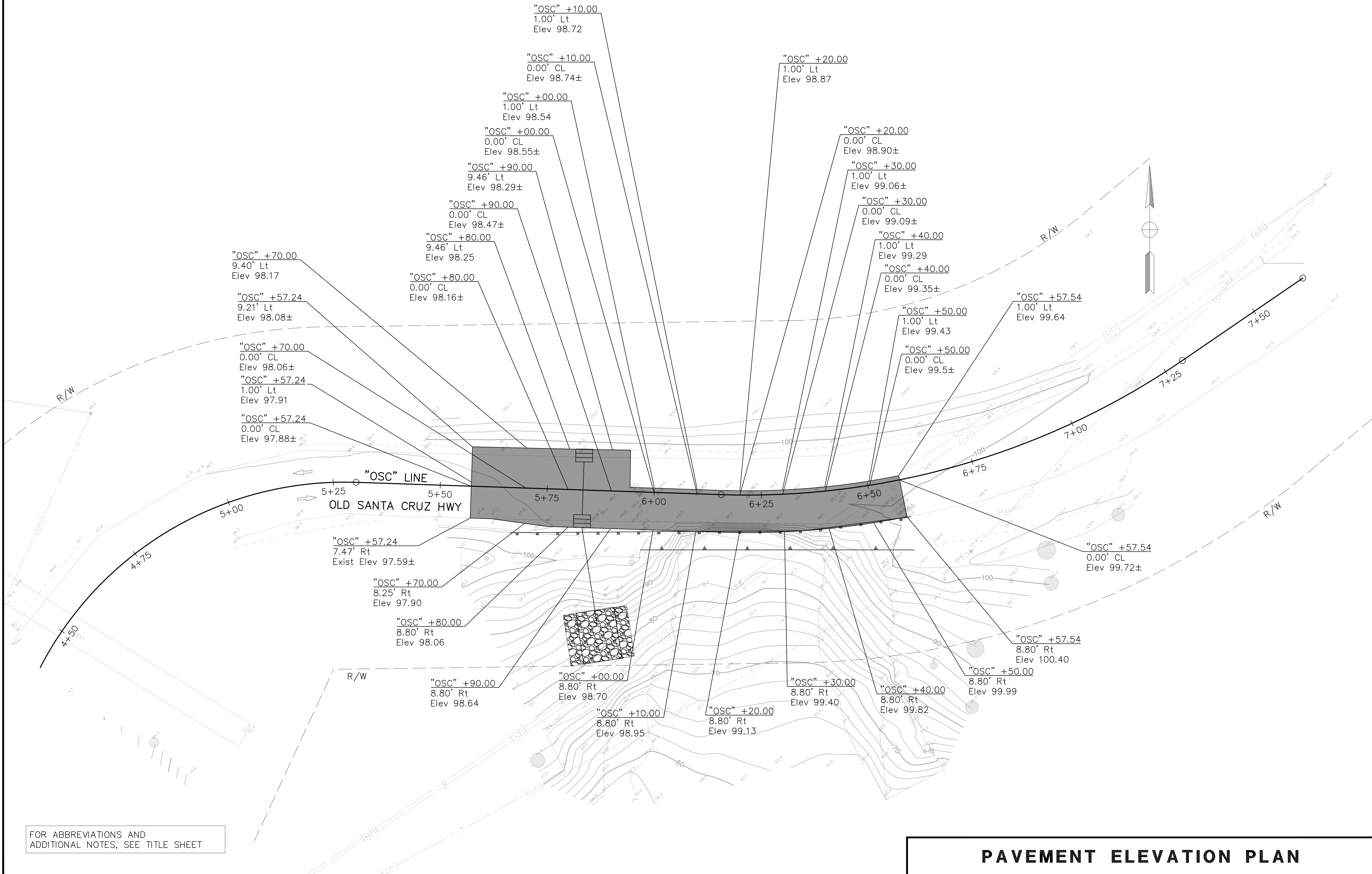
JOB NO. 320166

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LEGEND:

PAVEMENT REMOVAL/RECONSTRUCTION



FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

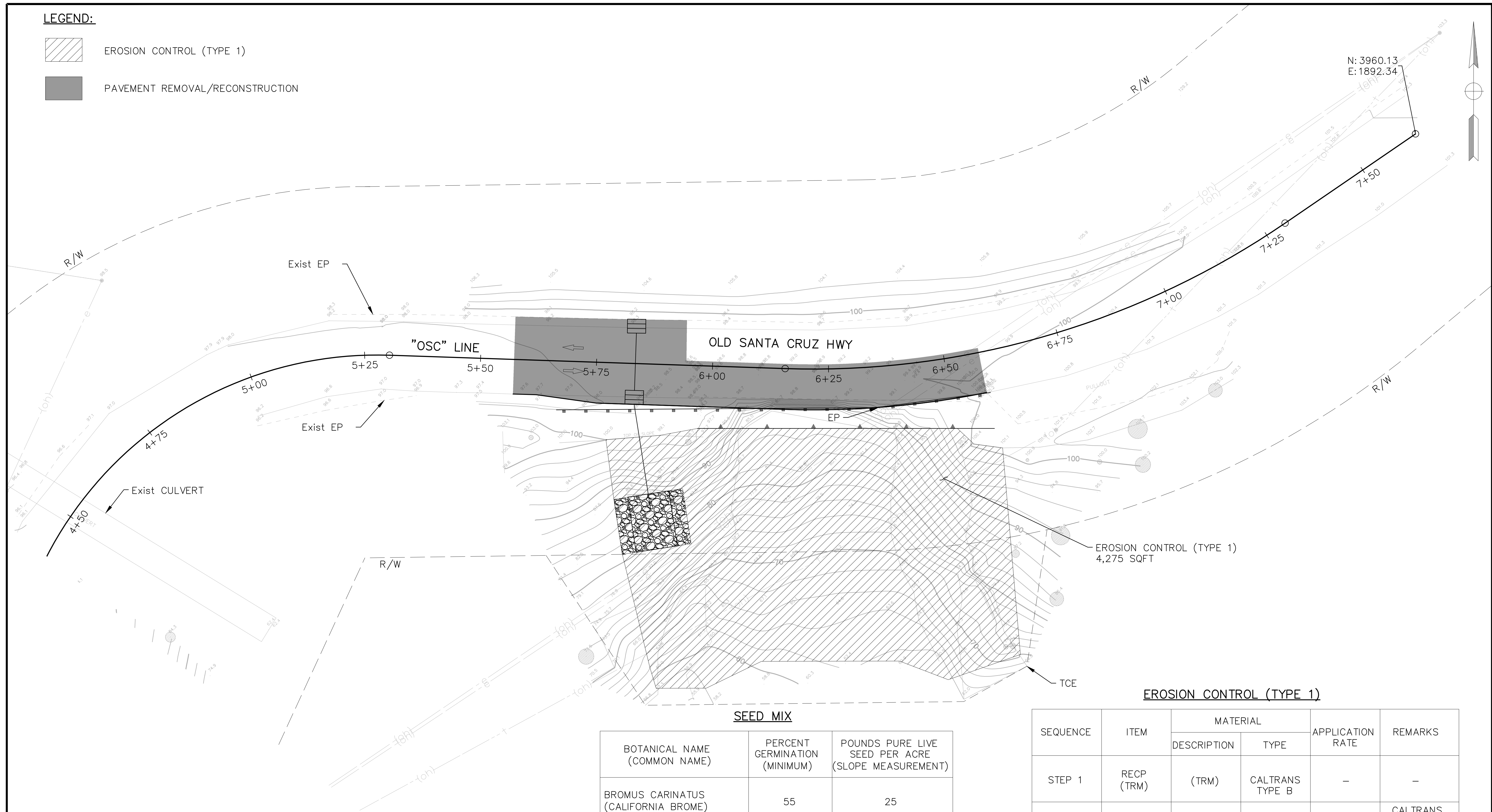
PAVEMENT ELEVATION PLAN

COUNTY OF SANTA CRUZ — DEPARTMENT OF PUBLIC WORKS		PROJECT ENGINEER		DATE	REVISION	BY
OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT		SNEHALATHA PAVULURI				
DRAWN: S.HUYNH						
CHECKED: S.PAVULURI						
DATE: 4/3/2025						
SCALE: 1"=10'						
JOB NO. 320166						
SHEET						
7 OF 17						

LEGEND:

EROSION CONTROL (TYPE 1)

PAVEMENT REMOVAL/RECONSTRUCTION



SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
BROMUS CARINATUS (CALIFORNIA BROME)	55	25
HORDEUM DRACHYANTHERUM (MEADOW BARLEY)	56	10
ELYMUS GLAUCUS (BLUE WILDRYE)	53	6
ELYMUS GLAUCUS (BEARDLESS WILDRYE)	53	4
JUNCUS BUFONIUS (COMMON TOAD RUSH)	70	25

EROSION CONTROL (TYPE 1)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	RECP (TRM)	(TRM)	CALTRANS TYPE B	—	—
STEP 2	FIBER ROLL	FIBER ROLL	8" TO 10" Dia.	—	CALTRANS TYPE 1 FIBER ROLL INSTALLATION
STEP 3	HYDROMULCH	SEED	SEE MIX	70 LB/AC	—
		FIBER	WOOD	1000 LB/AC	—
		TACKIFIER	PSYLLIUM	125 LB/AC	—
		FERTILIZER	—	800 LB/AC	—

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

EROSION CONTROL PLAN

BY

REVISION

DATE

REGISTERED PROFESSIONAL ENGINEER
SNEHALATHA PAVULURI
No. 08187
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S.HUYNH
CHECKED: S.PAVULURI
DATE: 4/3/2025
SCALE: 1"=10'
JOB NO. 320166

SHEET

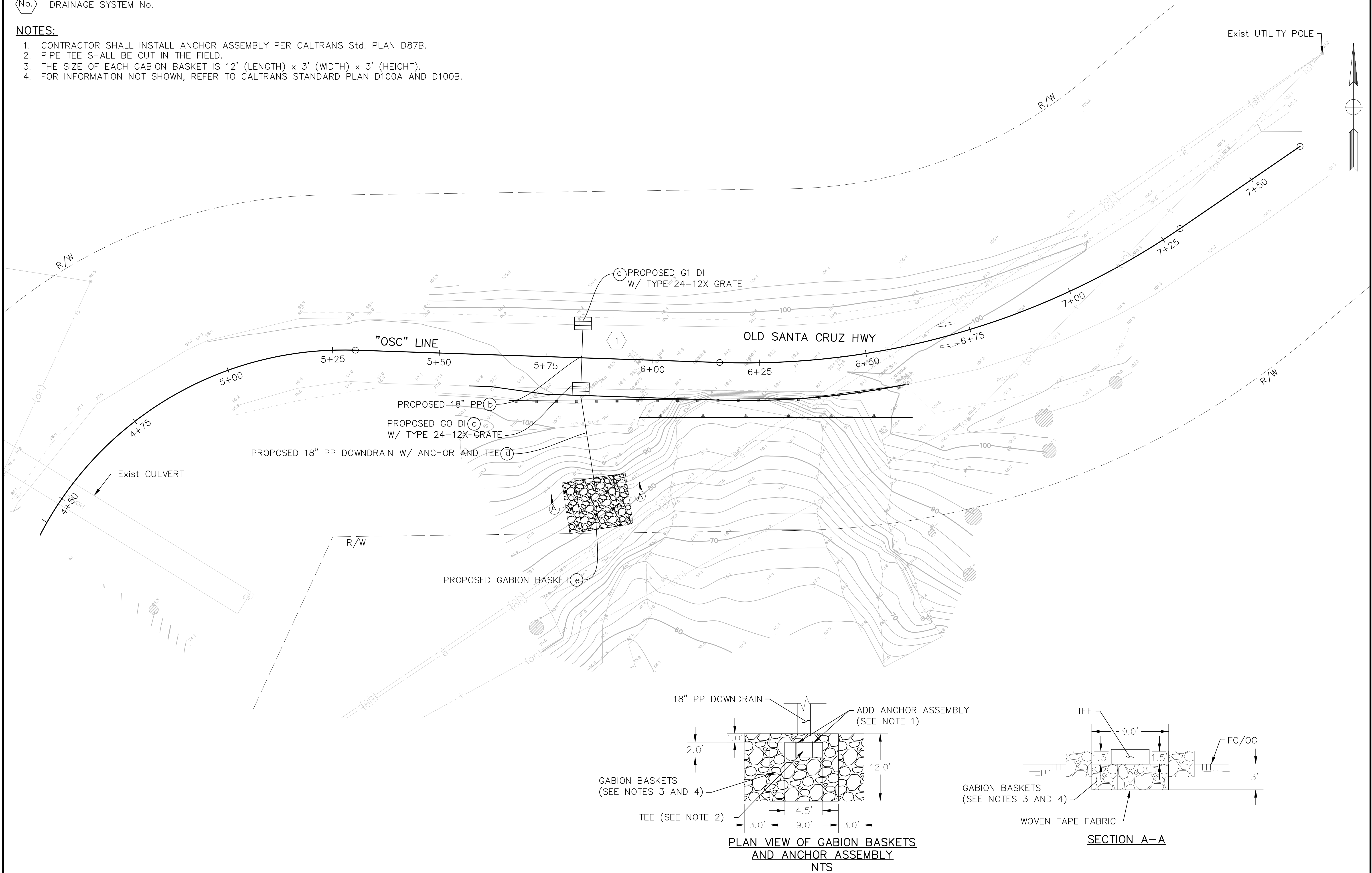
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LEGEND:

No. DRAINAGE SYSTEM No.

NOTES:

1. CONTRACTOR SHALL INSTALL ANCHOR ASSEMBLY PER CALTRANS Std. PLAN D87B.
2. PIPE TEE SHALL BE CUT IN THE FIELD.
3. THE SIZE OF EACH GABION BASKET IS 12' (LENGTH) x 3' (WIDTH) x 3' (HEIGHT).
4. FOR INFORMATION NOT SHOWN, REFER TO CALTRANS STANDARD PLAN D100A AND D100B.



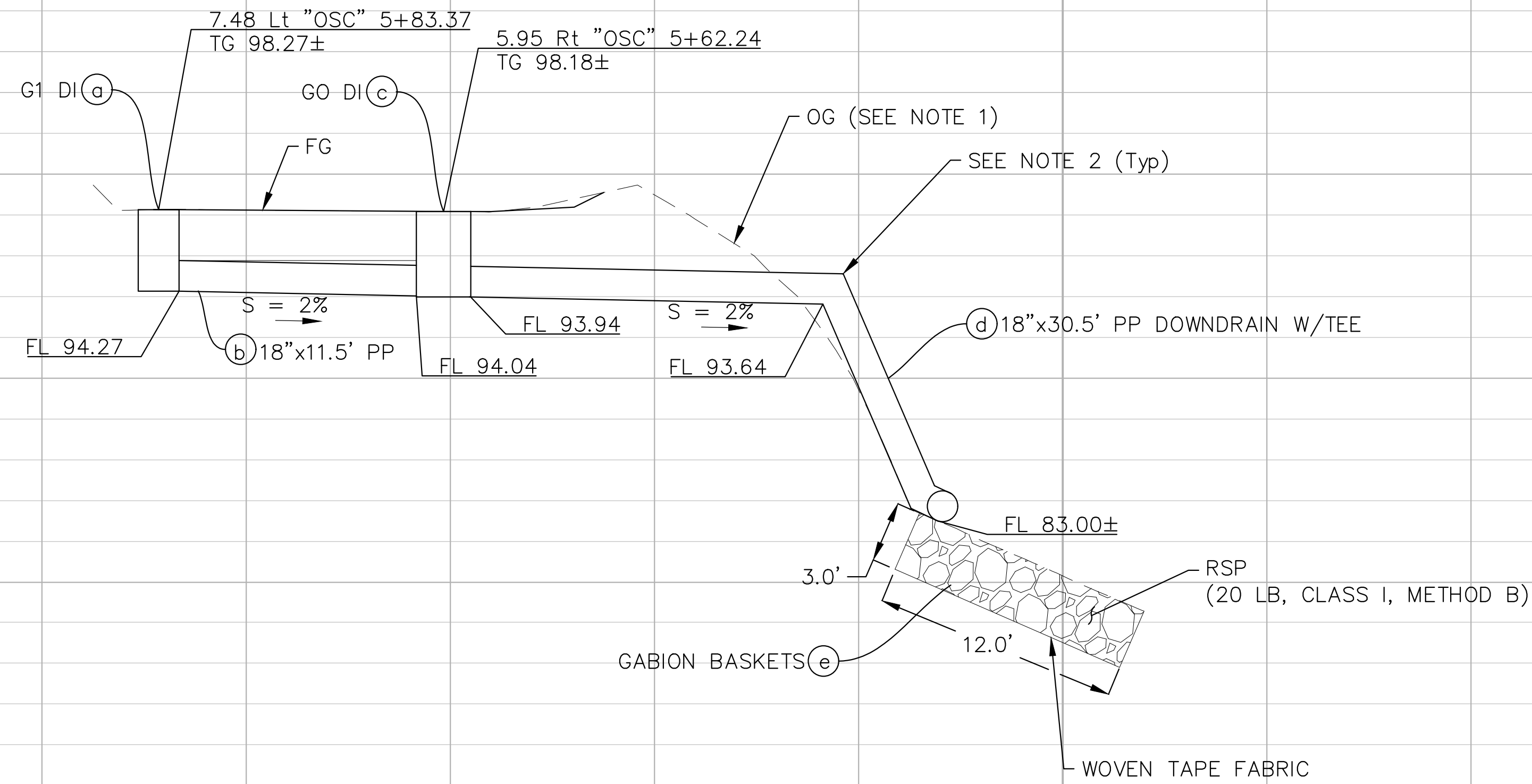
FOR ABBREVIATIONS AND ADDITIONAL NOTES, SEE TITLE SHEET

DRAINAGE PLAN

								
			PROJECT ENGINEER					
			SNEHALATHA PAVULURI					
			COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS					
			OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT					
DRAWN: S. HUYNH								
CHECKED: S.PAVULURI								
DATE: 4/3/2025								
SCALE: 1"=10'								
JOB NO. 320166								
SHEET								
9 OF 17								

NOTES:

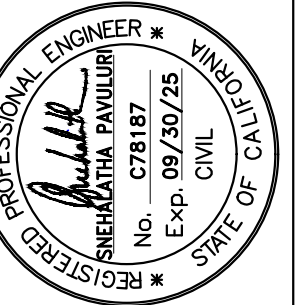
1. THE CONTRACTOR SHALL VERIFY AND ADJUST ELEVATIONS AS NEEDED
AND AS APPROVED BY THE ENGINEER PRIOR TO DRAINAGE INSTALLATION.
2. FABRICATED ELBOW MUST BE FIELD CUT TO FIT.



FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

DRAINAGE SYSTEM 1

DRAINAGE PROFILE



PROJECT ENGINEER

SNEHALATHA PAVULURI

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S. HUYNH

CHECKED: S. PAVULURI

DATE: 4/3/2025

SCALE: AS SHOWN

JOB NO. 320166

SHEET

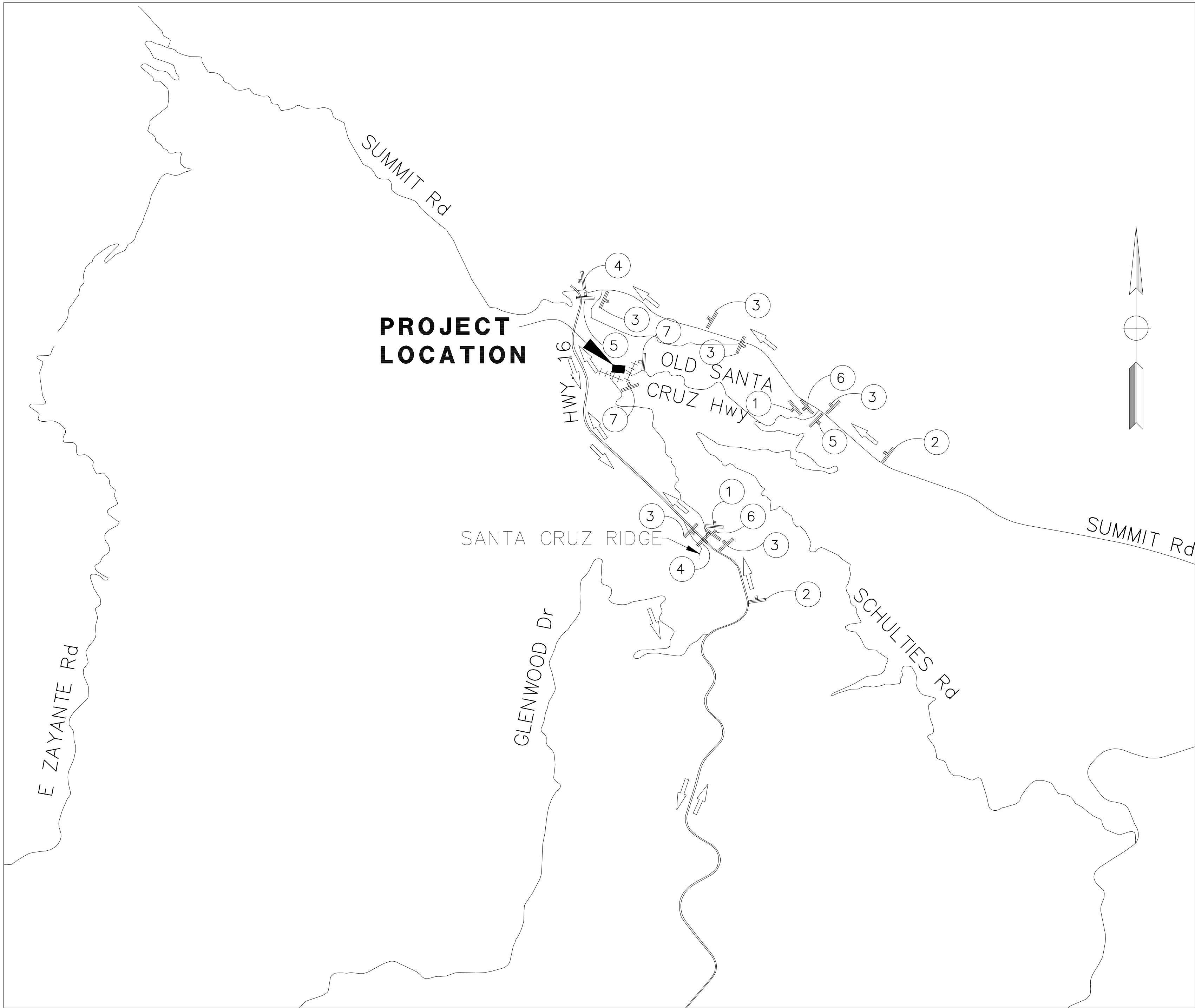
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NOTES:

1. THIS PLAN IS ACCURATE FOR DETOUR PLAN ONLY.
2. EXACT SIGN AND BARRICADE LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. INSTALL SIGNS TWO WEEKS BEFORE THE COMMENCEMENT OF CONSTRUCTION. DETOUR SIGNS SHALL BE COVERED TILL THE START OF CONSTRUCTION.

LEGEND:

- ➔ DIRECTION OF TRAVEL
⏏ DETOUR SIGN
⊗ SIGN NUMBER
++ TYPE III BARRICADE



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE (INCHES)	SIGN IMAGE	SIGN MESSAGE	POST SIZE	QUANTITY
1	R11-3a	60 x 30		ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
2	W20-2	36 x 36		DETOUR AHEAD	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
3	SC9 (CA)	36 x 36		DETOUR (UP ARROW)	1-4" x 6"	6
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
4	M4-9	30 x 24		DETOUR (WITH Lt ARROW)	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
5	M4-9	30 x 24		DETOUR (WITH Rt ARROW)	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
6	M4-8a	24 x 18		END DETOUR	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
7	SC5-3 (CA) (MOD)	48 x 60		ROAD CLOSED XX XX XX THRU XX XX XX X AM - X PM	2-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

DETOUR PLAN

BY

REVISION

DATE

PROJECT ENGINEER

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS

SNEHALATHA PAVULURI

OLD SANTA CRUZ HWY P.M. 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S. HUYNH

CHECKED: S.PAVULURI

DATE: 4/3/2025

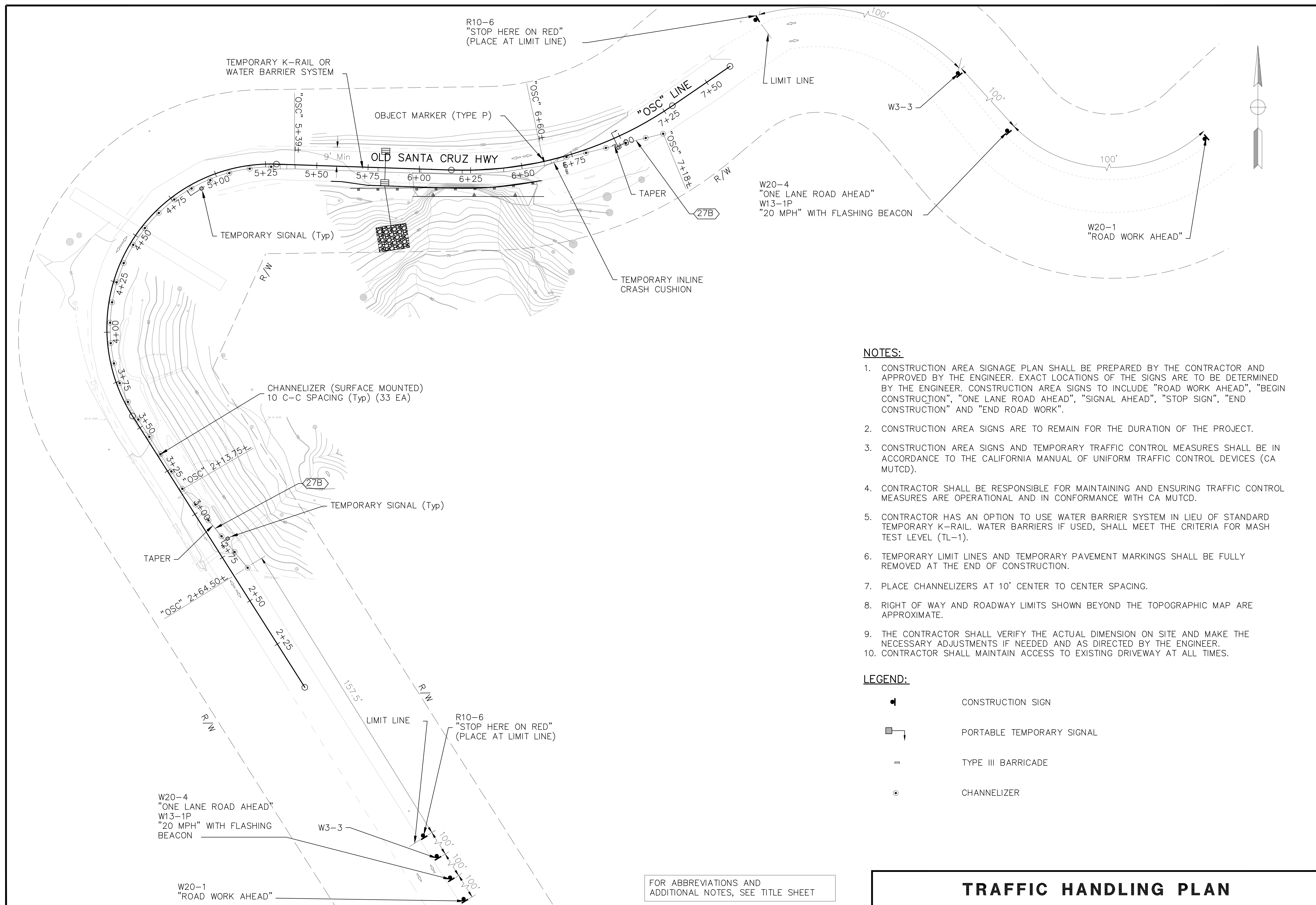
SCALE: NO SCALE

JOB NO. 320166

SHEET

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OF 17



TRAFFIC HANDLING PLAN

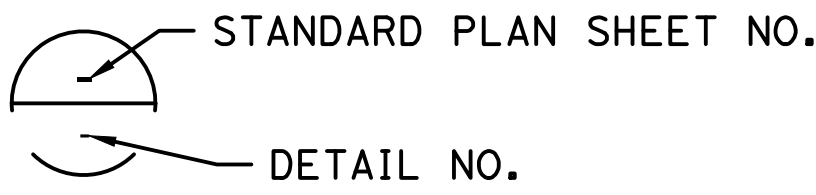
	DATE	REVISION	BY
PROJECT ENGINEER SNEHALATHA PAVULURI			
COUNTY OF SANTA CRUZ — DEPARTMENT OF PUBLIC WORKS OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT			
DRAWN: S.HUYNH CHECKED: S.PAVULURI DATE: 4/3/2025 SCALE: 1" = 20' JOB NO. 320166 SHEET 12 OF 17			

STANDARD PLANS DATED 2018

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 1 OF 2)
A10H	LEGEND - ROCK

INDEX OF PLANS

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2	RETAINING WALL DETAILS No. 1
3	RETAINING WALL DETAILS No. 2
4	RETAINING WALL DETAILS No. 3
5	SUB HORIZONTAL GROUND ANCHOR DETAILS

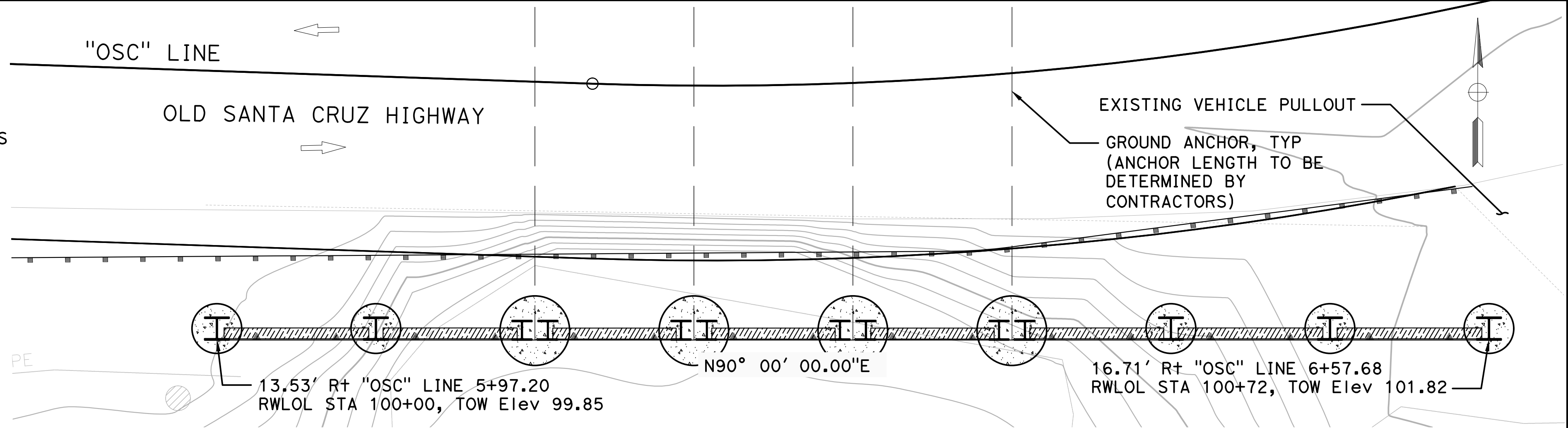


GENERAL NOTES:

DESIGN:	AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 6TH EDITION WITH CALIFORNIA AMENDMENTS, CALTRANS TRENCHING AND SHORING MANUAL, AUGUST 2011
LIVE LOAD:	250 PSF EQUIVALENT 2 FEET SOIL WEIGHT
SOIL PARAMETERS:	FOR DETERMINATION OF DESIGN LATERAL EARTH PRESSURES) BACKFILL AND RETAINED EARTH SOIL WEIGHT = 125 PCF FRICTION ANGLE = 34° ACTIVE PRESSURE COEFFICIENT $K_a = 0.283$
SEISMIC PARAMETER:	$K_h = 0.500$
STEEL SOLDIER PILES AND PLATES:	ASTM A572/A572M, GRADE 50MIN
STRUCTURAL TIMBER:	TREATED DOUGLAS FIR, GRADE NO. 1 OR BETTER TIMBER TO BE FULL SAWN
PRESTRESSING STEEL (GROUND ANCHORS):	FDL = FACTORED DESIGN LOAD ON GROUND ANCHOR (kips) FTL = FACTORED TEST LOAD (kips) LL = LOCK-OFF LOAD (kips) f_{pu} = MINIMUM ULTIMATE TENSILE STRENGTH OF GROUND ANCHOR STEEL (ksi) A_s (Min) = MINIMUM CROSS SECTIONAL AREA OF STEEL IN GROUND ANCHOR (SQUARE INCH) STEEL = ASTM DESIGNATION: A416 (HS Strands) A_s (Min) = $\frac{1.0 \text{ FTL}}{0.75 f_{pu}}$ STEEL = ASTM DESIGNATION: A722 (HS Bars) A_s (Min) = $\frac{1.0 \text{ FTL}}{0.80 f_{pu}}$ FDL = 80 Kips FTL = 135 Kips LL = 45 Kips

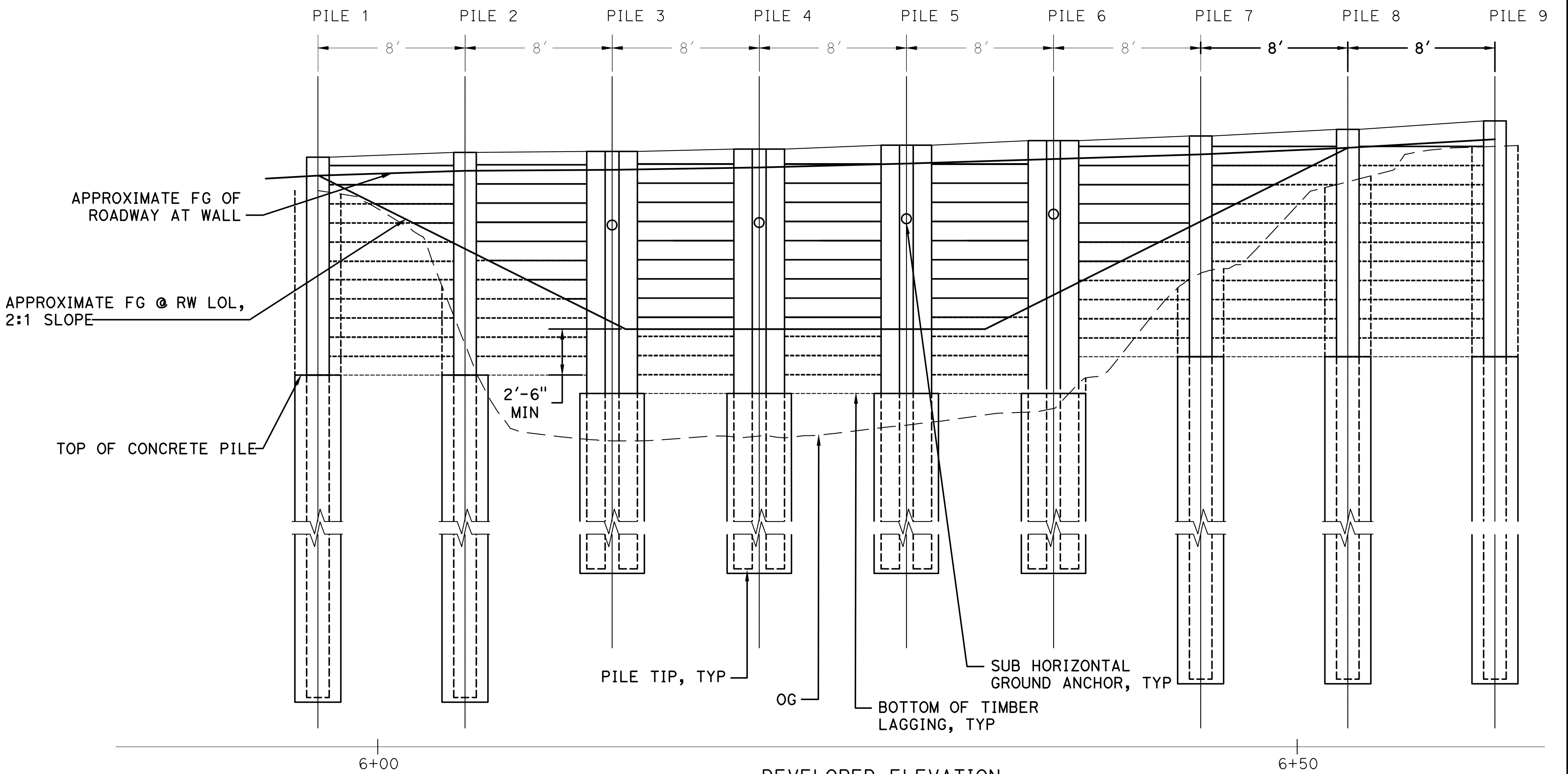
QUANTITIES

STRUCTURE EXCAVATION (SOLDIER PILE WALL)	16	CY
STRUCTURE BACKFILL (SOLDIER PILE WALL)	47	CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	45	CY
LEAN CONCRETE BACKFILL (ENGMET)	7	CY
GROUND ANCHOR (SUBHORIZONTAL)	4	EA
STEEL SOLDIER PILE (HP12X53)	234	LF
STEEL SOLDIER PILE (HP14X102)	180	LF
30" DRILLED HOLE	157	LF
42" DRILLED HOLE	57	LF
TIMBER LAGGING	5	MFBM
CLEAN AND PAINT STEEL SOLDIER PILING	1	LS
MINOR CONCRETE (MINOR STRUCTURE)	3	CY



PLAN

1" = 4'



DEVELOPED ELEVATION

HORIZ 1" = 4'

VERT 1" = 4'

RW LOL STATION	100+00.00	100+08.00	100+16.00	100+32.00	100+40.00	100+48.00	100+56.00	100+64.00	100+72.00
TOP OF WALL ELEV	99.85	100.11	100.16	100.29	100.50	100.75	101.00	101.36	101.82
ANCHOR ELEVATION @ RW LOL	-	-	96.16	96.29	96.50	96.75	-	-	-
TOP OF CONCRETE PILE ELEV	88.00	88.00	87.00	87.00	87.00	87.00	89.00	89.00	89.00
PILE TIP ELEVATION	64.00	64.00	71.00	71.00	71.00	71.00	65.00	65.00	65.00
PILE SECTION & NO. PILES	1 - HP 14X102	1 - HP 14X102	2 - HP 12X53	2 - HP 12X53	2 - HP 12X53	2 - HP 12X53	1 - HP 14X102	1 - HP 14X102	1 - HP 14X102
DRILLED HOLE DIAMETER	30"	30"	42"	42"	42"	42"	30"	30"	30"

RETAINING WALL GENERAL PLAN

BY

REVISION

DATE

PROJECT ENGINEER

MARK PHILIPPS

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.01
STORM DAMAGE REPAIR PROJECT

DRAWN: S. HUYNH

CHECKED: M. PHILIPPS

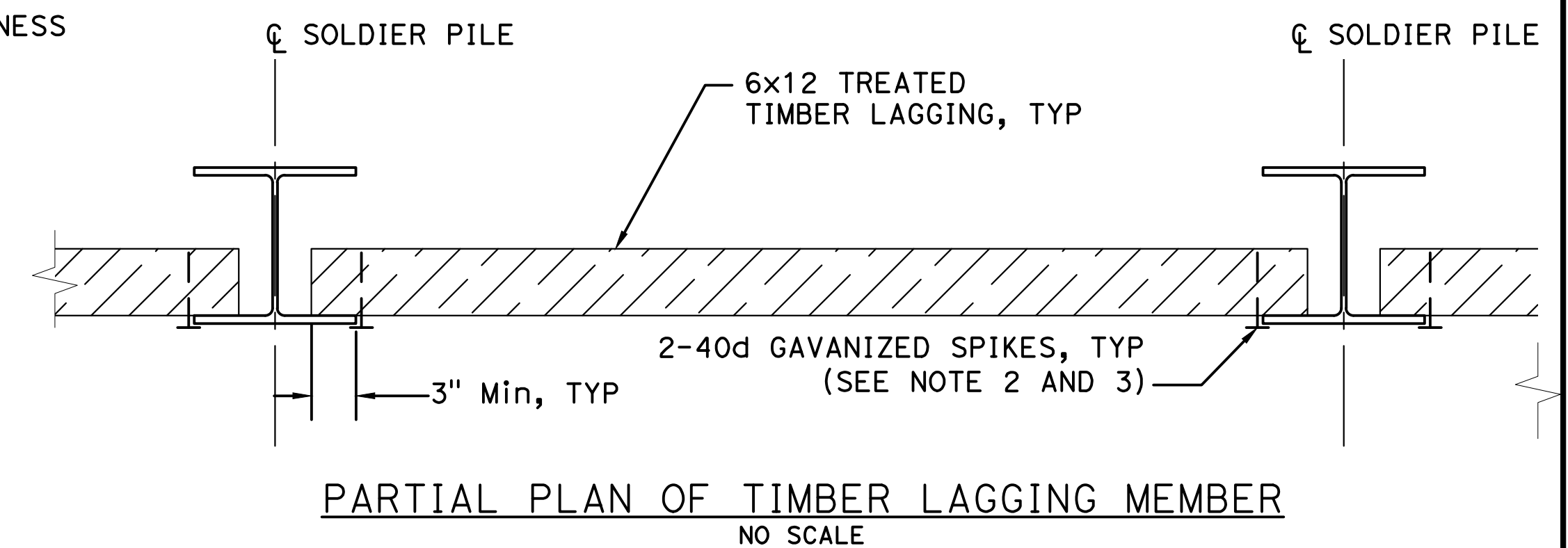
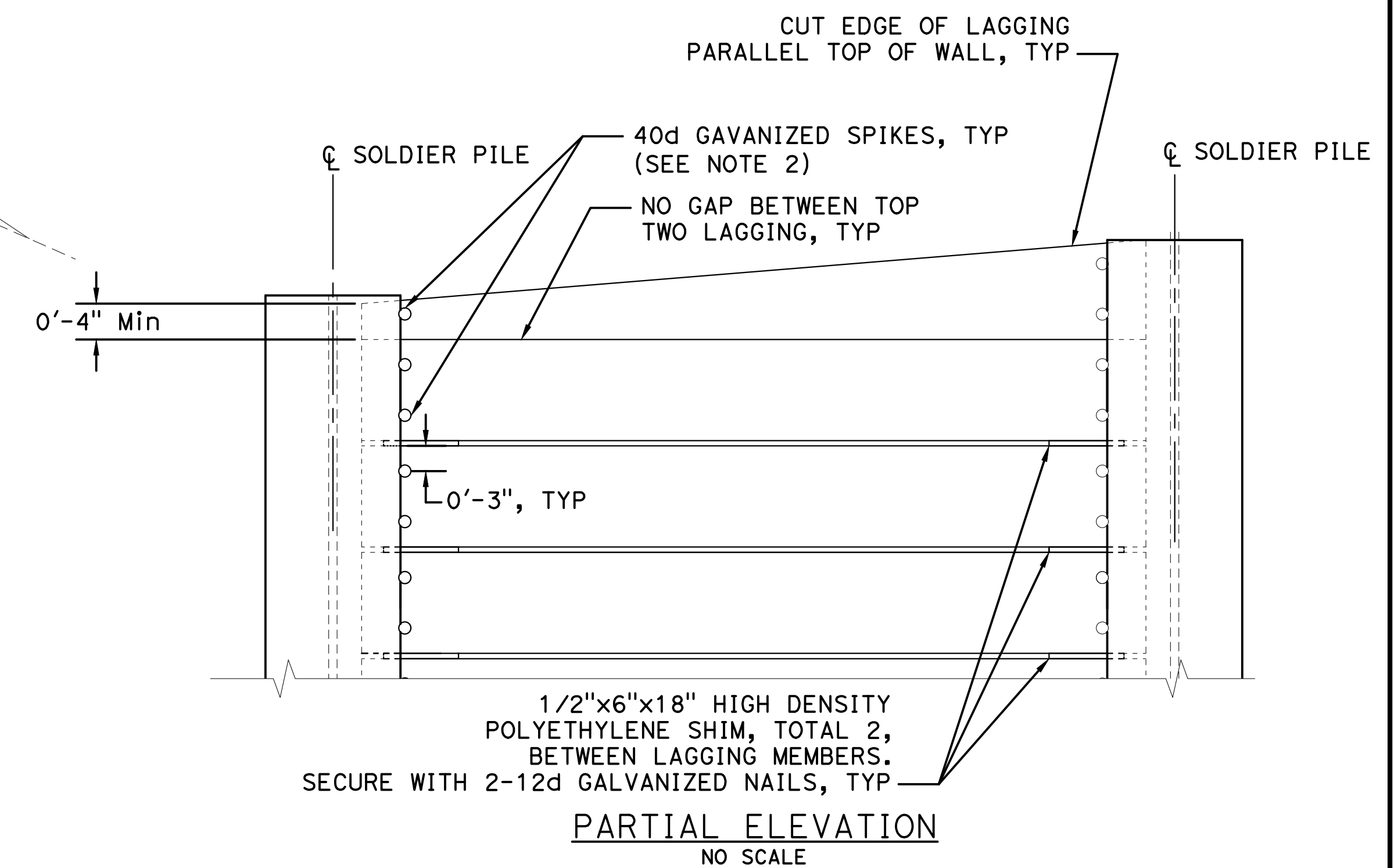
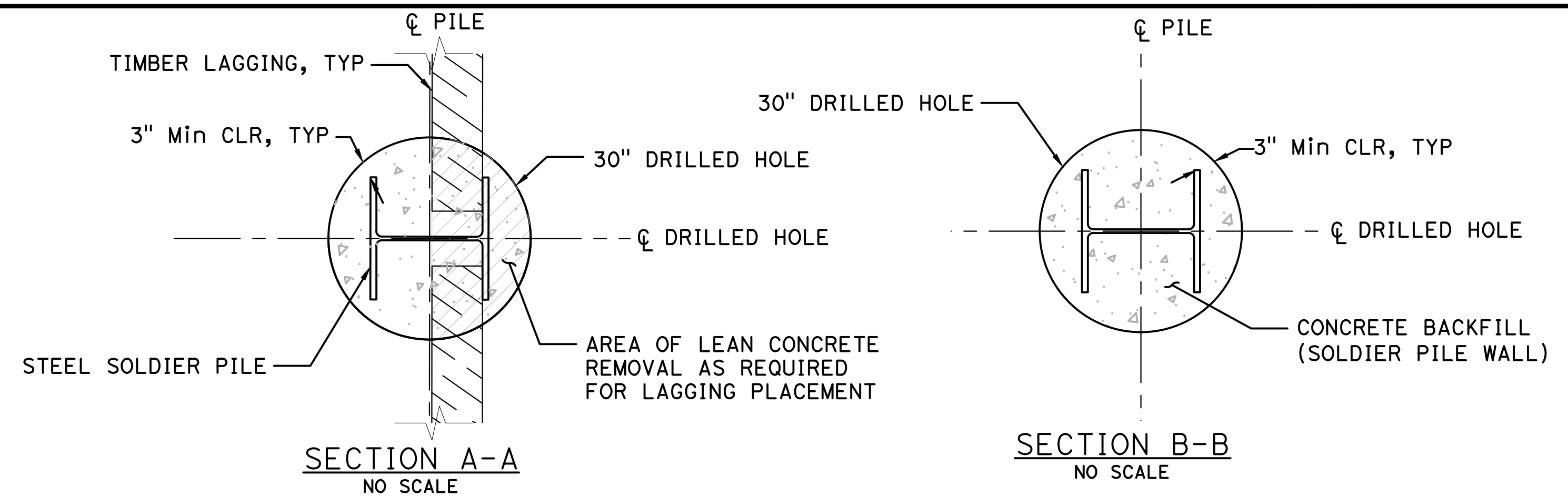
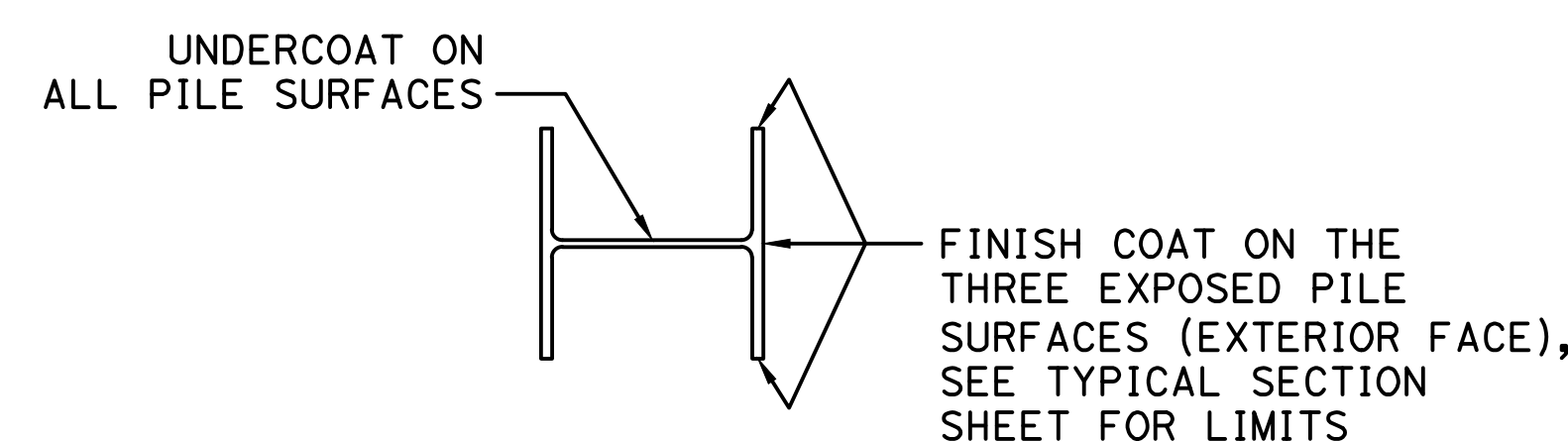
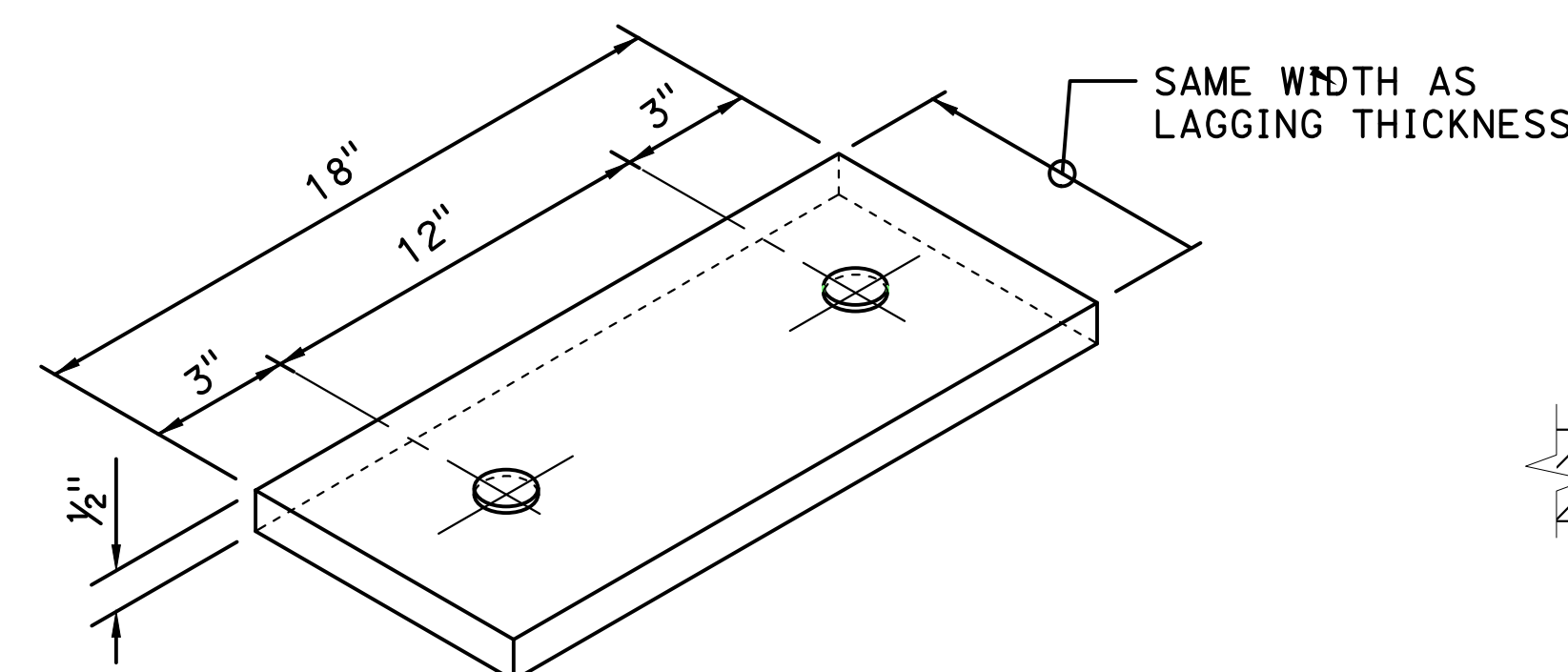
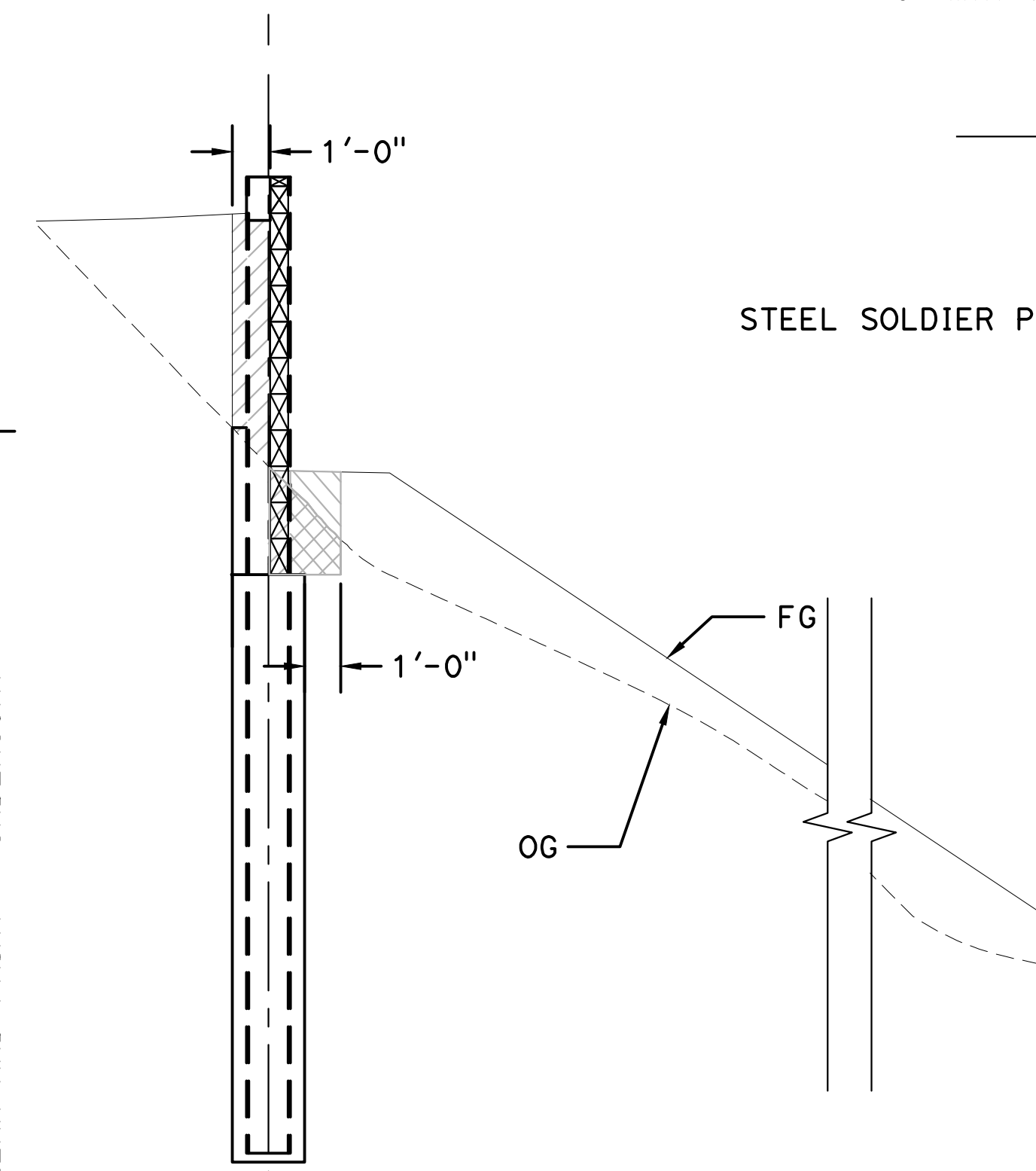
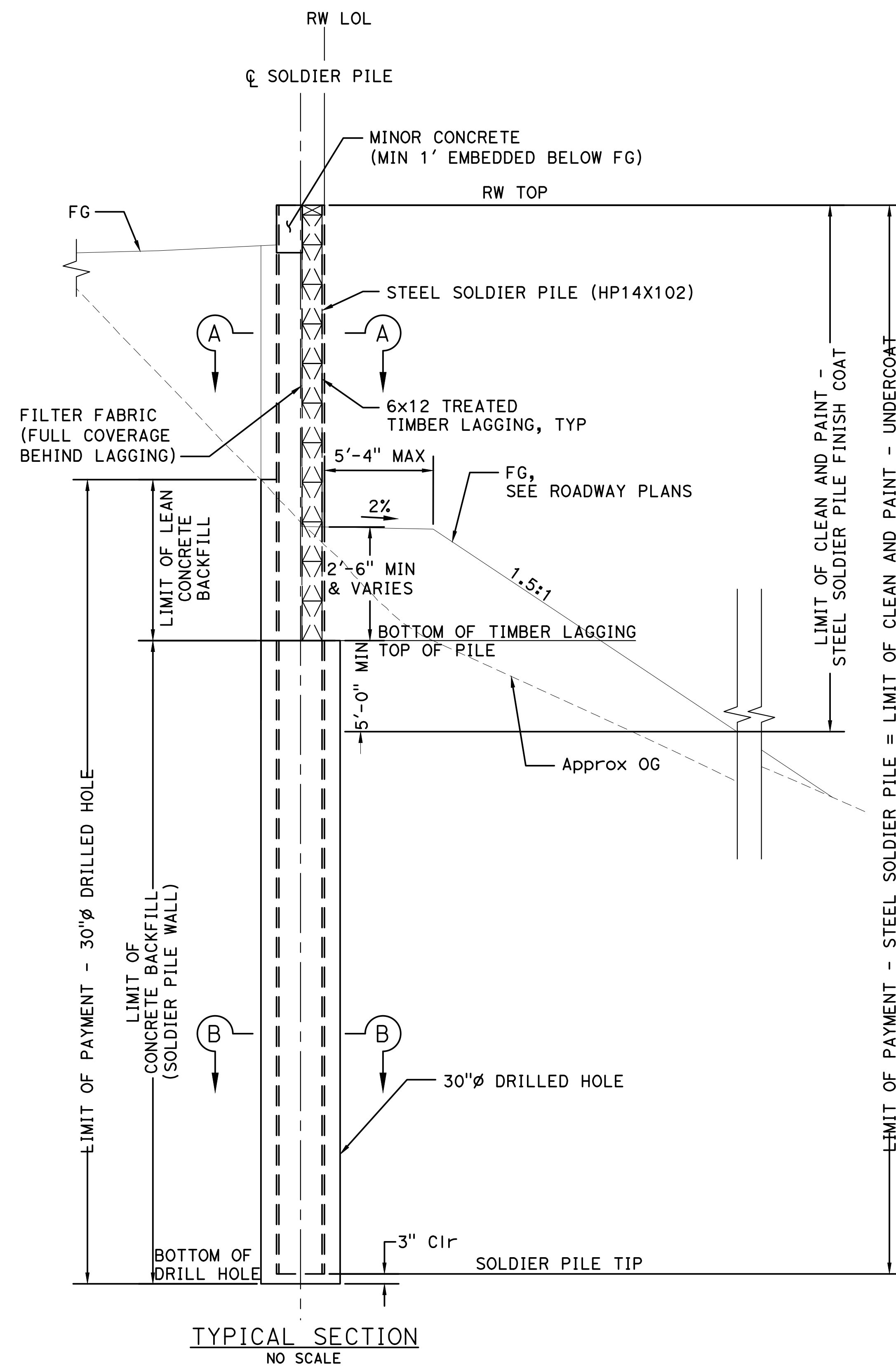
DATE: 4/3/2025

SCALE: NONE

JOB NO. 320166

SHEET

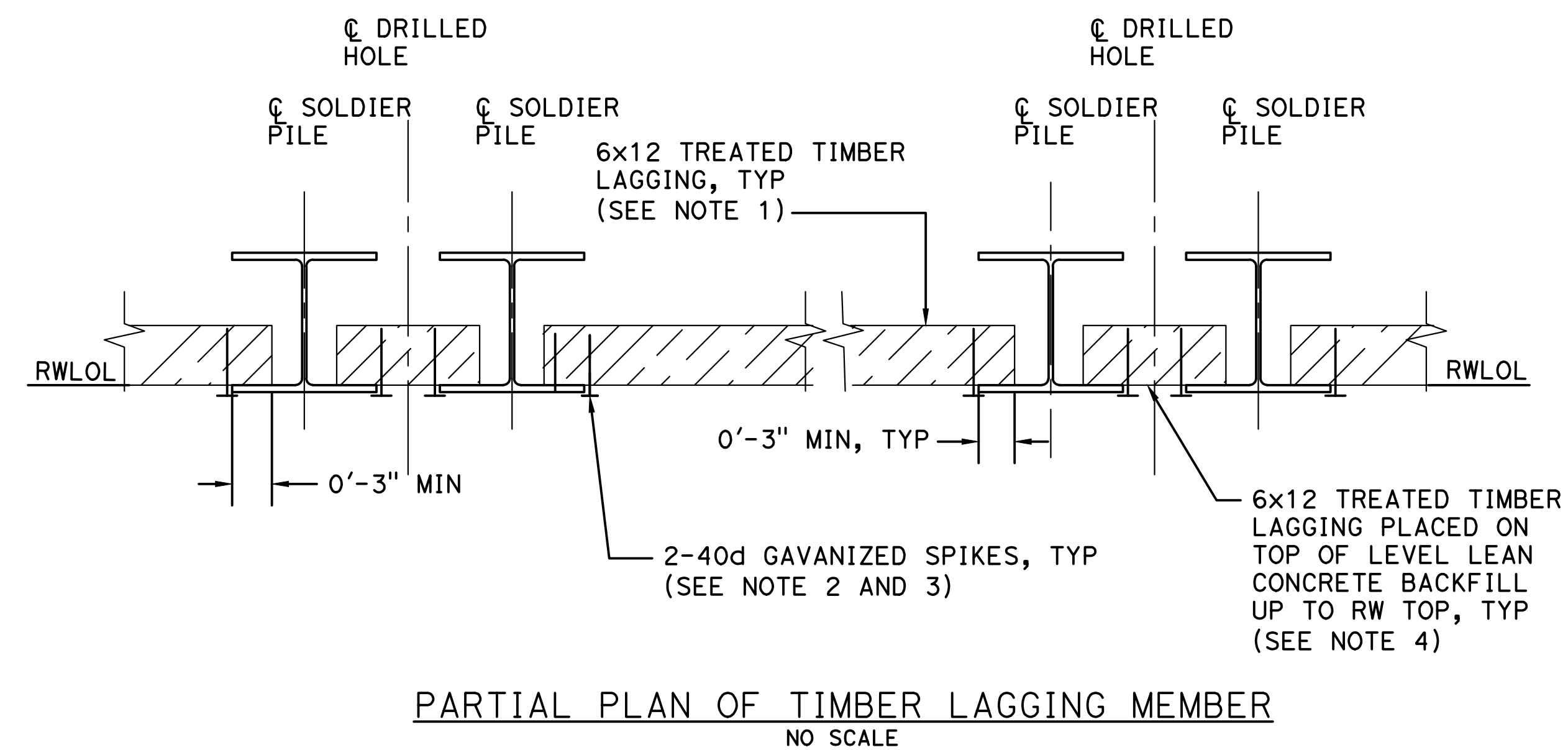
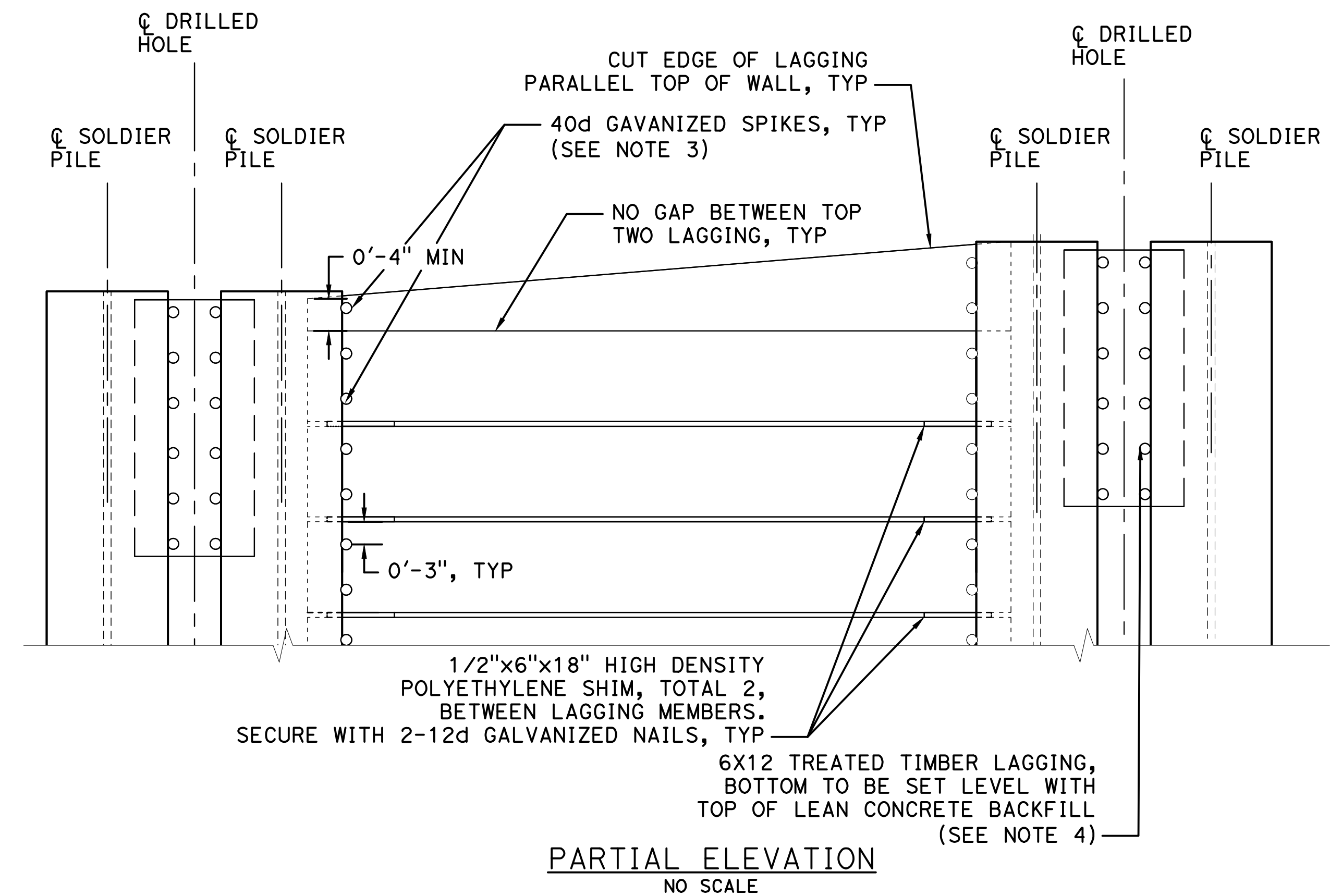
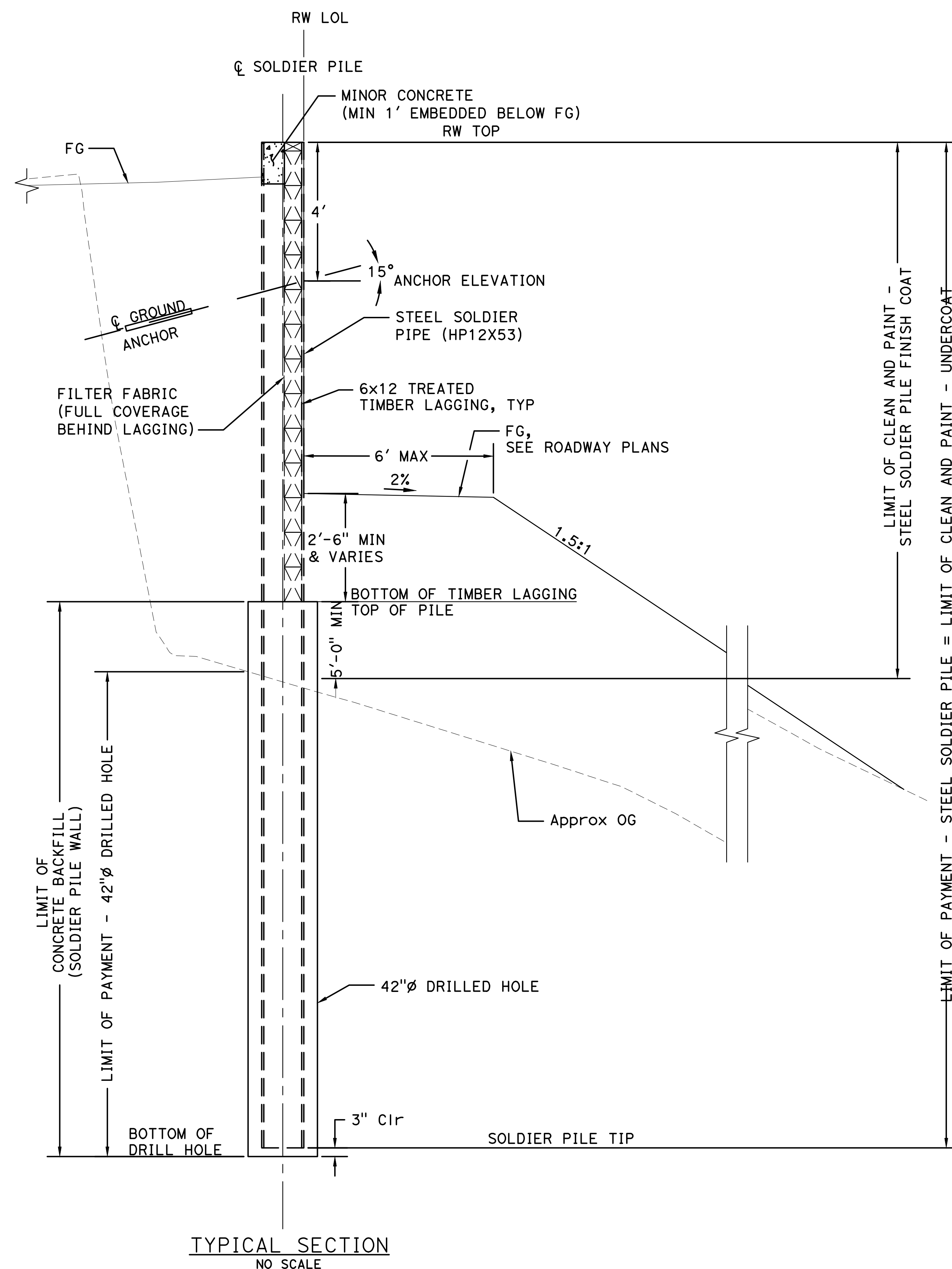
13 OF 17



1. NO CLIPPING OF TIMBER LAGGING CORNERS ALLOWED. LAGGING CORNERS MAY BE CHAMFERED TO FACILITATE PLACEMENT. MAX 2 CORNERS PER LAGGING.
2. USE 40d GALV WIRE SPIKES FOR INSTALLATION OF 6 X 12 LAGGING, AS NEEDED. ALTERNATIVE METHODS OF LAGGING INSTALLATION PRIOR TO BACKFILL PLACEMENT MAY BE USED AS DETERMINED BY THE CONTRACTOR.
3. SPIKES MUST NOT BE BENT.

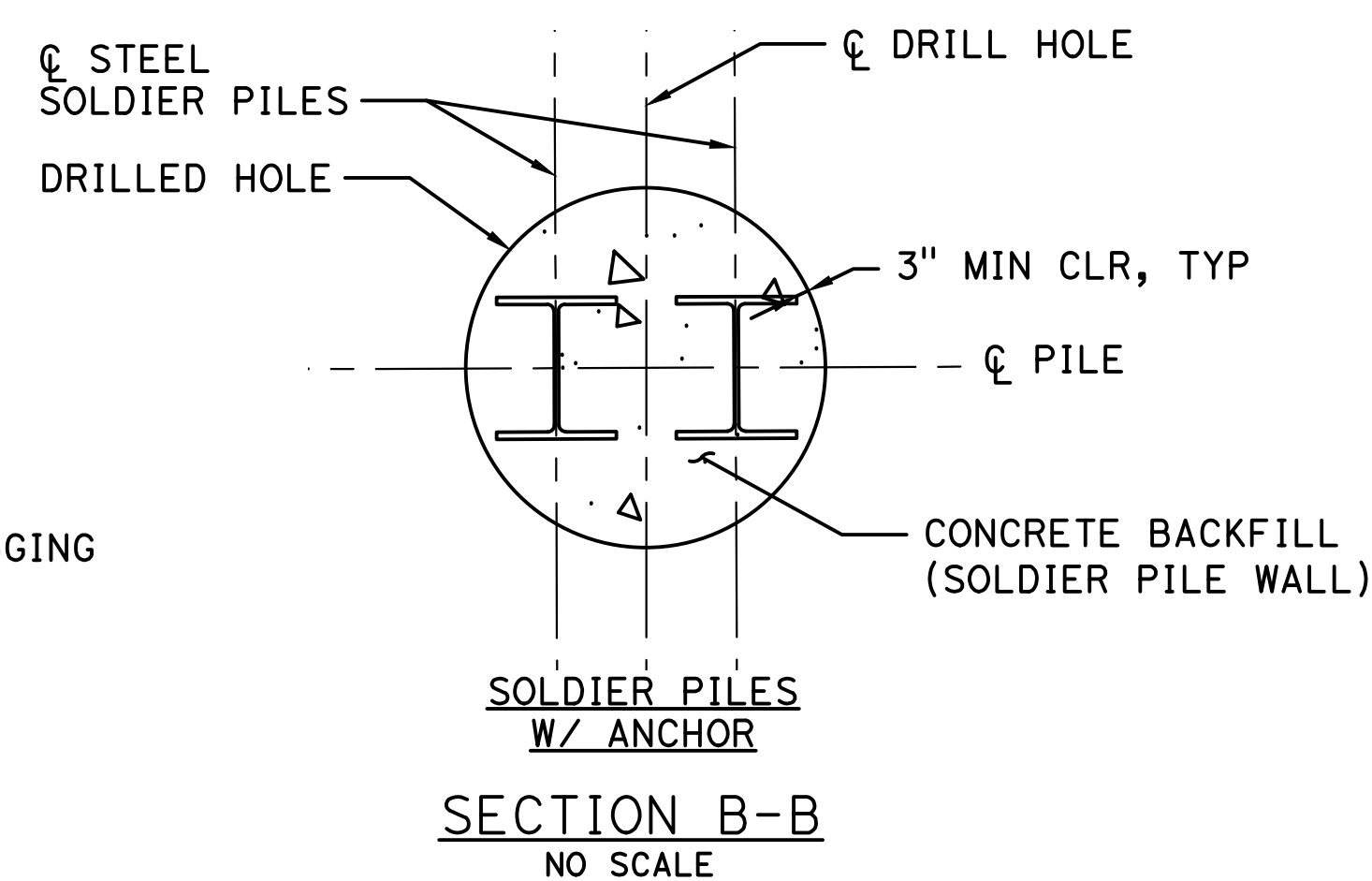
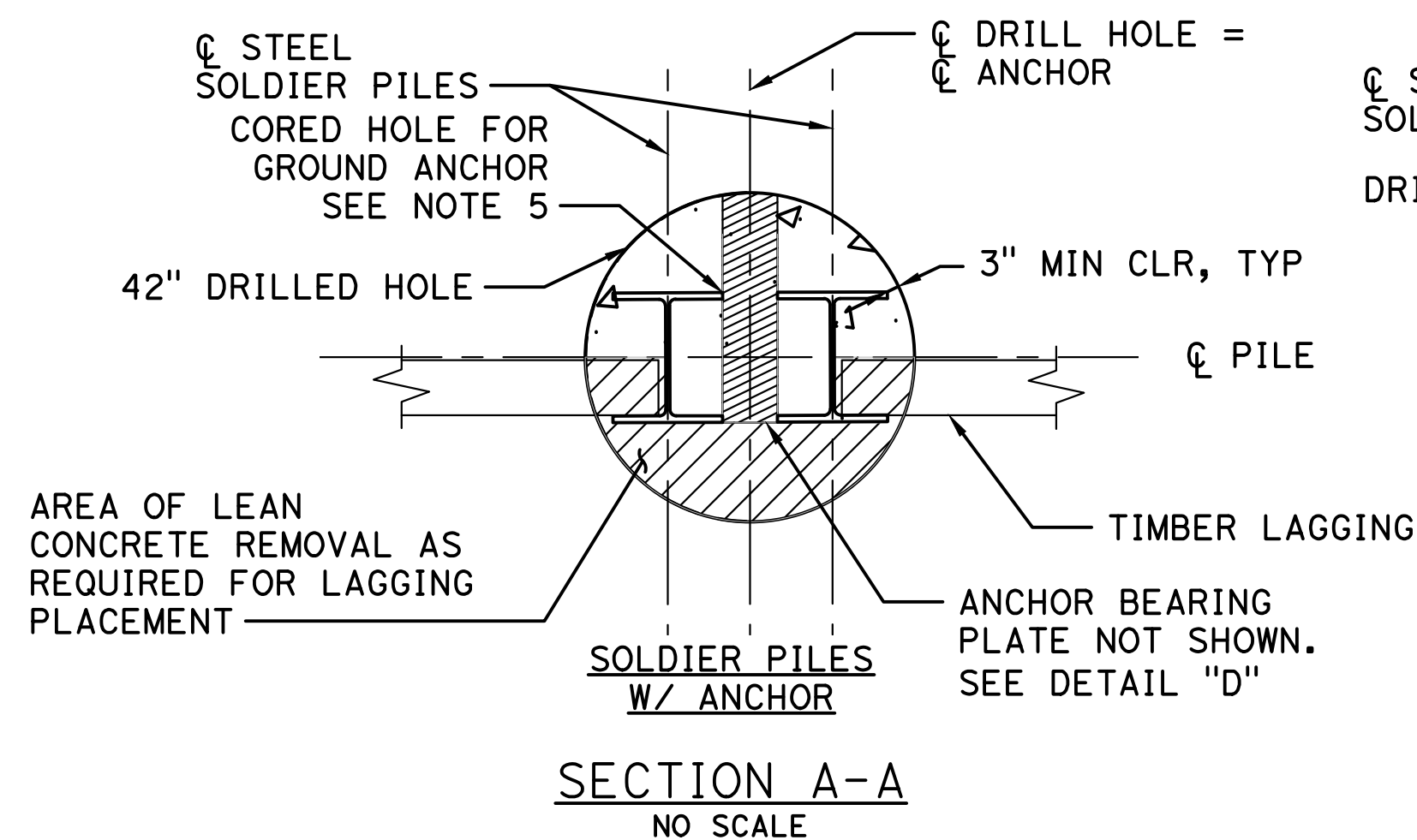
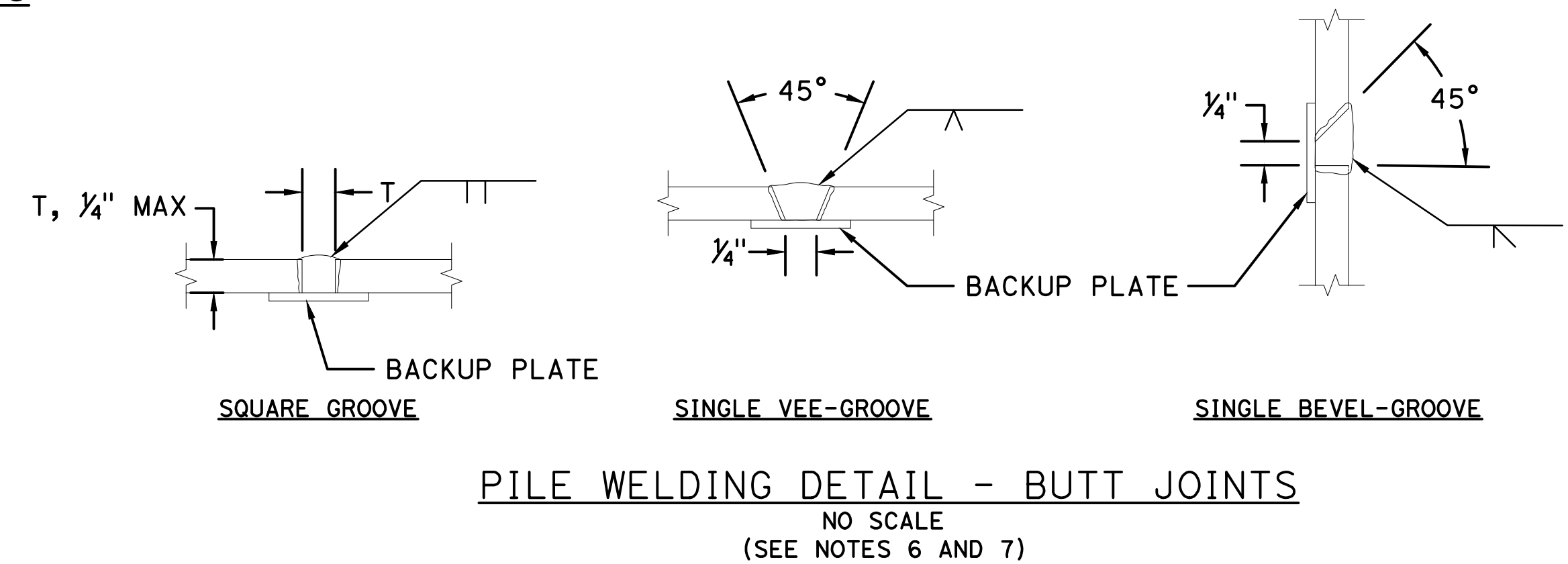
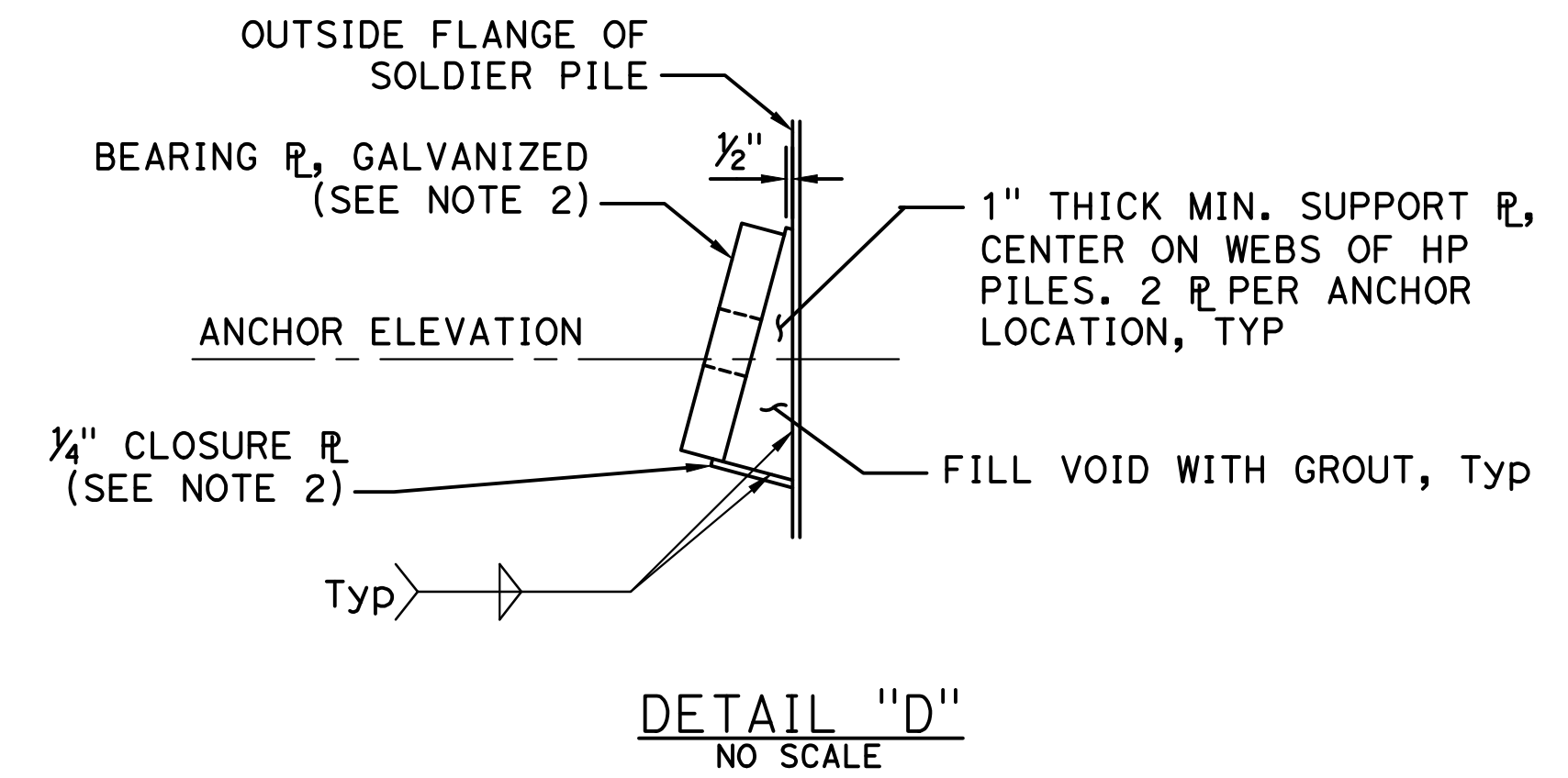
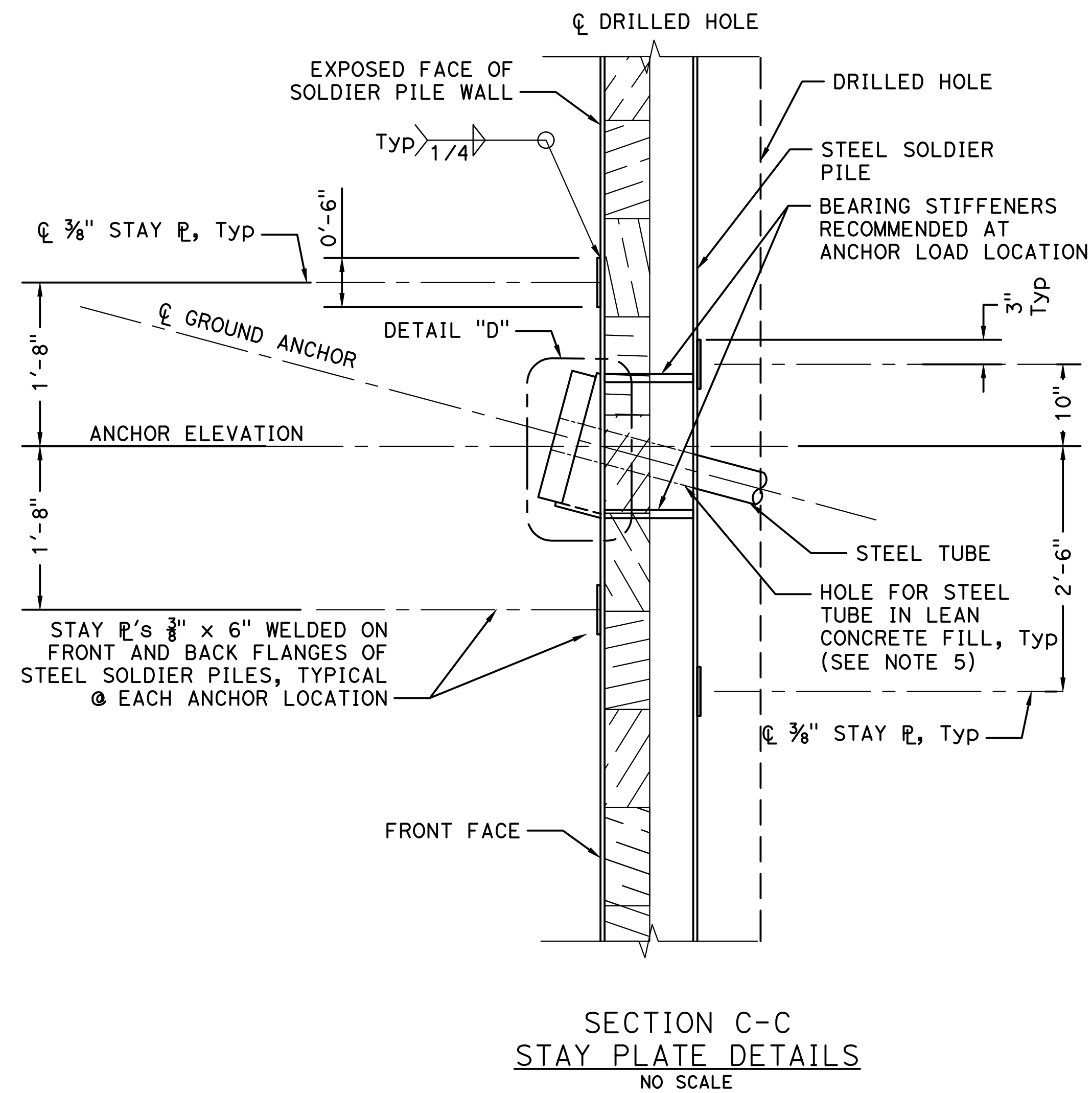
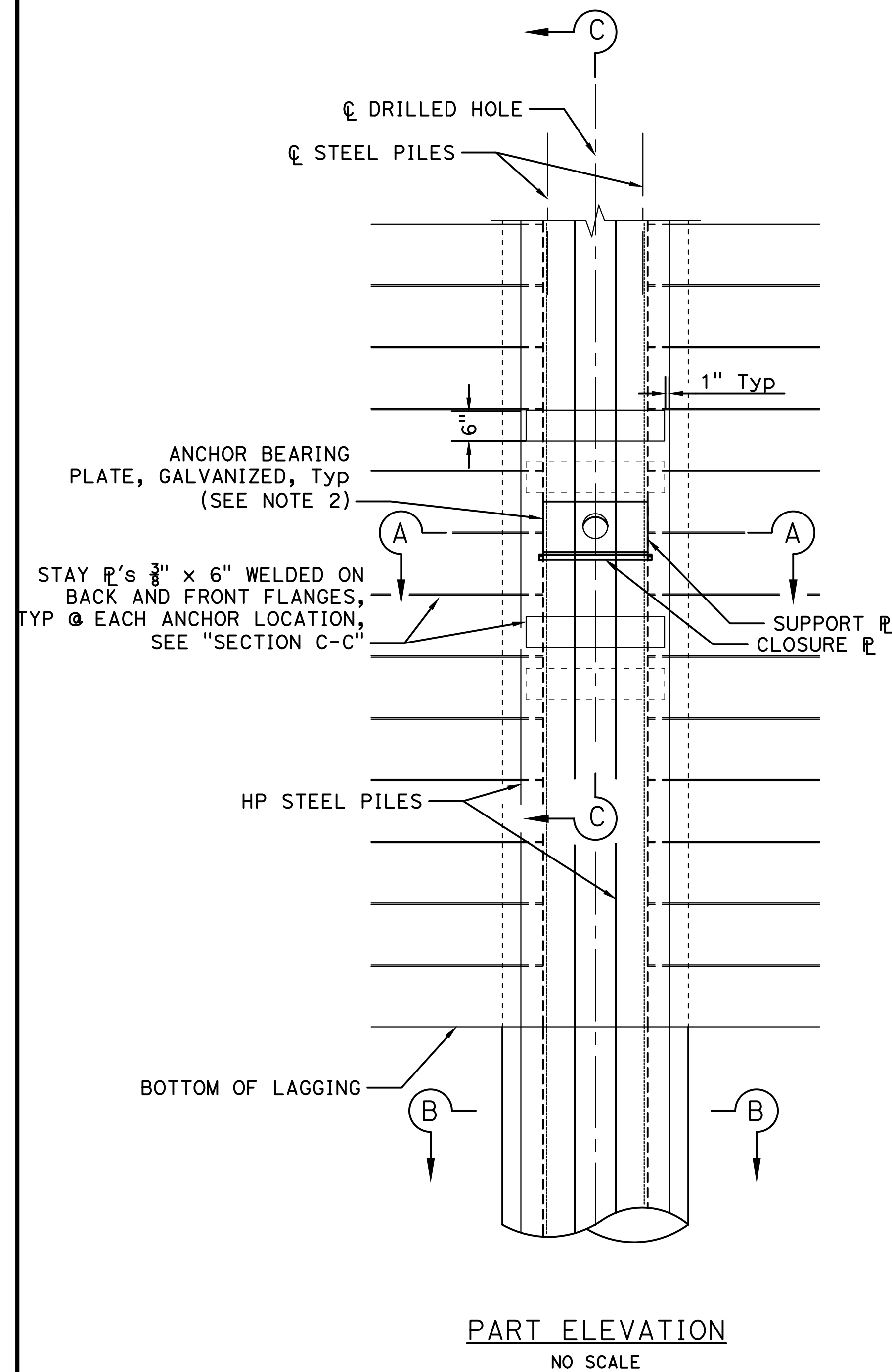
RETAINING WALL DETAILS No. 1

BY				
REVISION				
DATE				
PROJECT ENGINEER	MARK PHILLIPS			
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS	OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT			
DRAWN: S. HUYNH				
CHECKED: M. PHILLIPS				
DATE: 4/3/2025				
SCALE: NONE				
JOB NO. 320166				
SHEET				
14	OF 17			



1. LAGGING CORNERS MAY BE CHAMFERED TO FACILITATE PLACEMENT. MAX 2 CORNERS PER LAGGING.
2. USE 40D GALV WIRE SPIKES FOR INSTALLATION OF 6 X 12 LAGGING, AS NEEDED. ALTERNATIVE METHODS OF LAGGING INSTALLATION PRIOR TO BACKFILL PLACEMENT MAY BE USED AS DETERMINED BY THE CONTRACTOR.
3. SPIKES MUST NOT BE BENT.
4. AS AN ALTERNATIVE, CONTRACTOR MAY FILL BETWEEN SOLDIER PILES IN A SINGLE DRILLED HOLE WITH LEAN CONCRETE BACKFILL UP TO LIMITS OF MINOR CONCRETE.

RETAINING WALL DETAILS No. 2



NOTES:

1. STAY PLATES SHALL BE INSTALLED PRIOR TO PLACEMENT OF STEEL SOLDIER PILES IN DRILLED HOLES.
2. DESIGN OF BEARING AND SUPPORT PLATES TO BE DETERMINED BY CONTRACTOR, AS WELL AS ANY STIFFENER PLATES BETWEEN FLANGES AS NECESSARY. CLOSURE PLATES SHALL BE WELDED TO BOTTOM OF SUPPORT PLATE, AND EXTEND 1/2" MINIMUM OR MORE AS NEEDED BELOW BEARING PLATE TO PROVIDE ADEQUATE TEMPORARY SUPPORT OF BEARING PLATE PRIOR TO STRESSING.
3. SUPPORT, CLOSURE, AND STIFFENER PLATES TO RECEIVE SAME UNDERCOAT TREATMENT AS SOLDIER PILES.
4. A MINIMUM OF 4 STAY PLATE AS SHOWN IN "SECTION C-C" TO BE WELDED AT SOLDIER PILES.
5. GAP BETWEEN PILE SECTION SHALL NOT EXCEED 2" LARGER THAN THE CORED HOLE REQUIRED FOR THE STEEL TUBE OF GROUND ANCHORAGE SYSTEM.
6. SINGLE VEE-GROOVE AND SQUARE GROOVE PERMITTED FOR ALL POSITIONS.
7. SINGLE BEVEL-GROOVE PERMITTED FOR HORIZONTAL JOINTS ONLY.

RETAINING WALL DETAILS No. 3

RETAINING WALL PLANS SHEET 4 OF 5

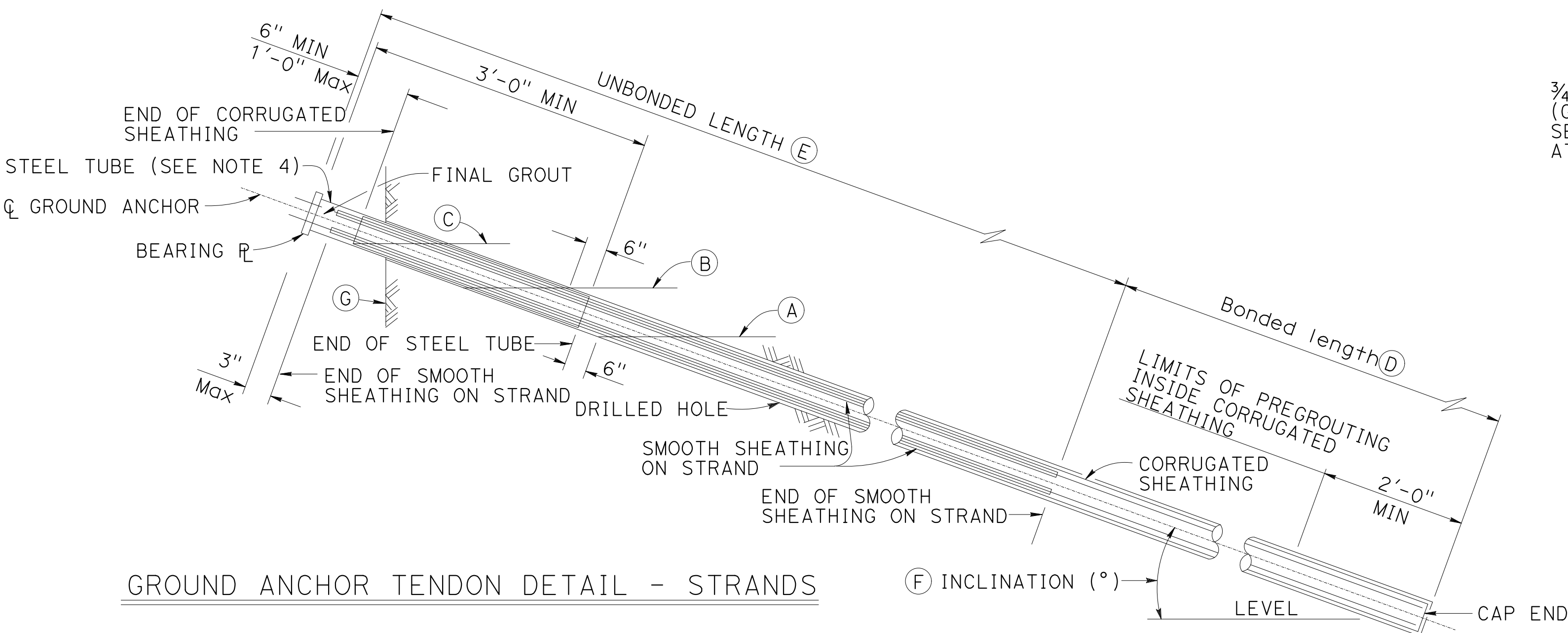
BY				
REVISION				
DATE				
PROJECT ENGINEER	MARK PHILLIPS			
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS	OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT			
DRAWN: S. HUYNH				
CHECKED: W. PHILLIPS				
DATE: 4/3/2025				
SCALE: NONE				
JOB NO. 320166				
SHEET				
16	OF 17			

NOTES:

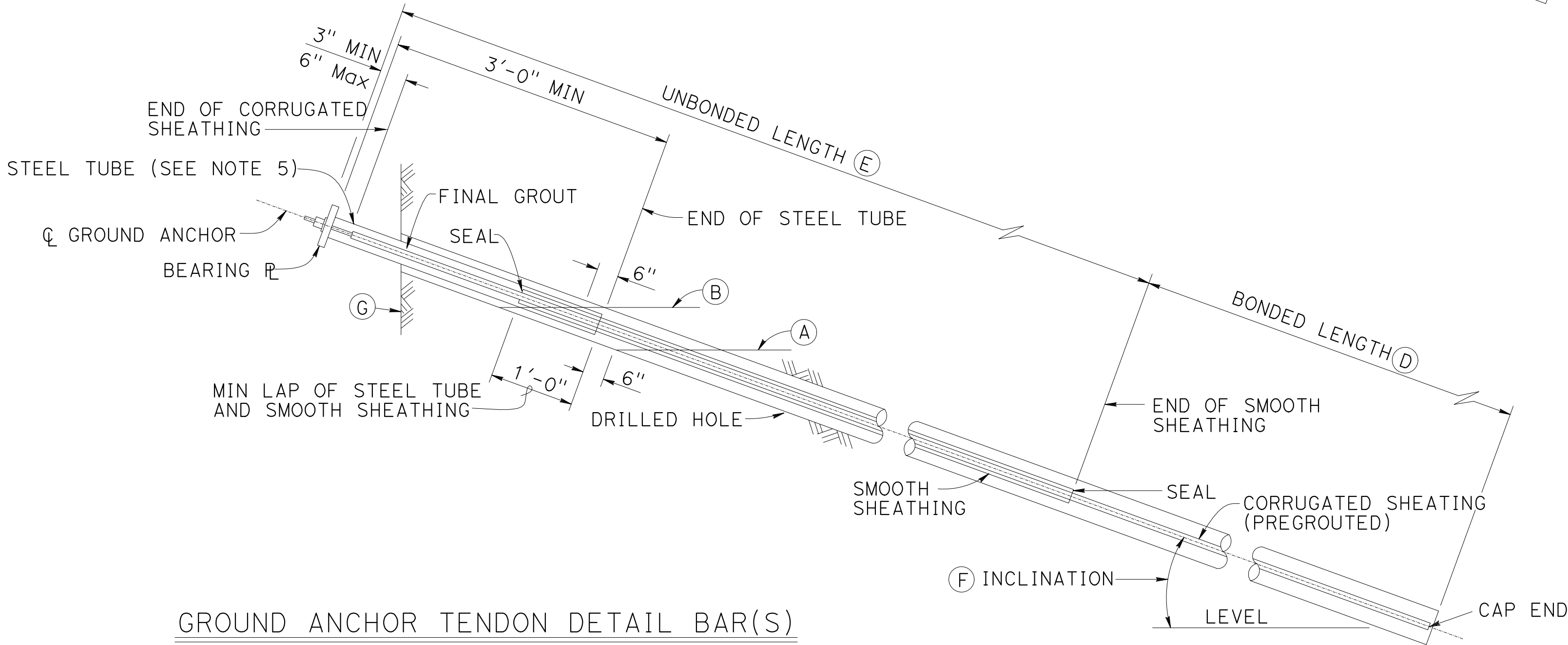
- (A) Level of initial grouting for drilled hole 6" in diameter or smaller
- (B) Level of secondary grouting
- (C) Level of initial grouting, inside corrugated sheathing
- (D) Bonded length shall be determined by the contractor
- (E) For unbonded length, use 15'-0"
- (F) For inclination, see Retaining Wall Sheets
- (G) Face of Wall Excavation

NOTES:

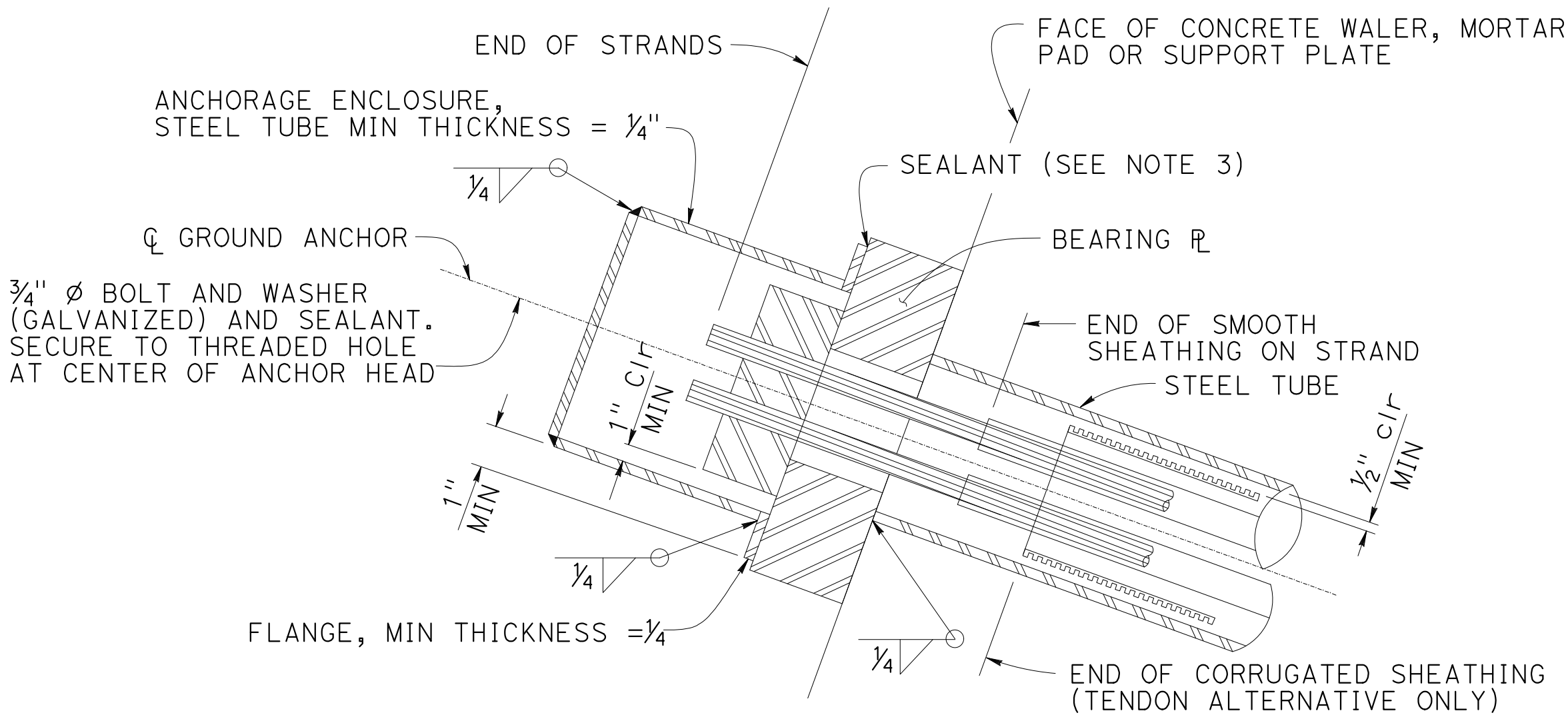
1. Anchorage enclosure shall only be used when anchor head assembly is not enclosed in concrete.
2. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
3. Silicone sealant to cover full width of flange.
4. Steel tube (MIN thickness = 1/4") welded to bearing plate. Galvanize assembly after fabrication
5. Steel tube welded to bearing plate. Inside diameter of steel tube (MIN thickness = 1/4") to be 1" greater than outside diameter of smooth sheathing.
6. Galvanize assembly after fabrication.
7. For other wall details, see Retaining Wall Sheets



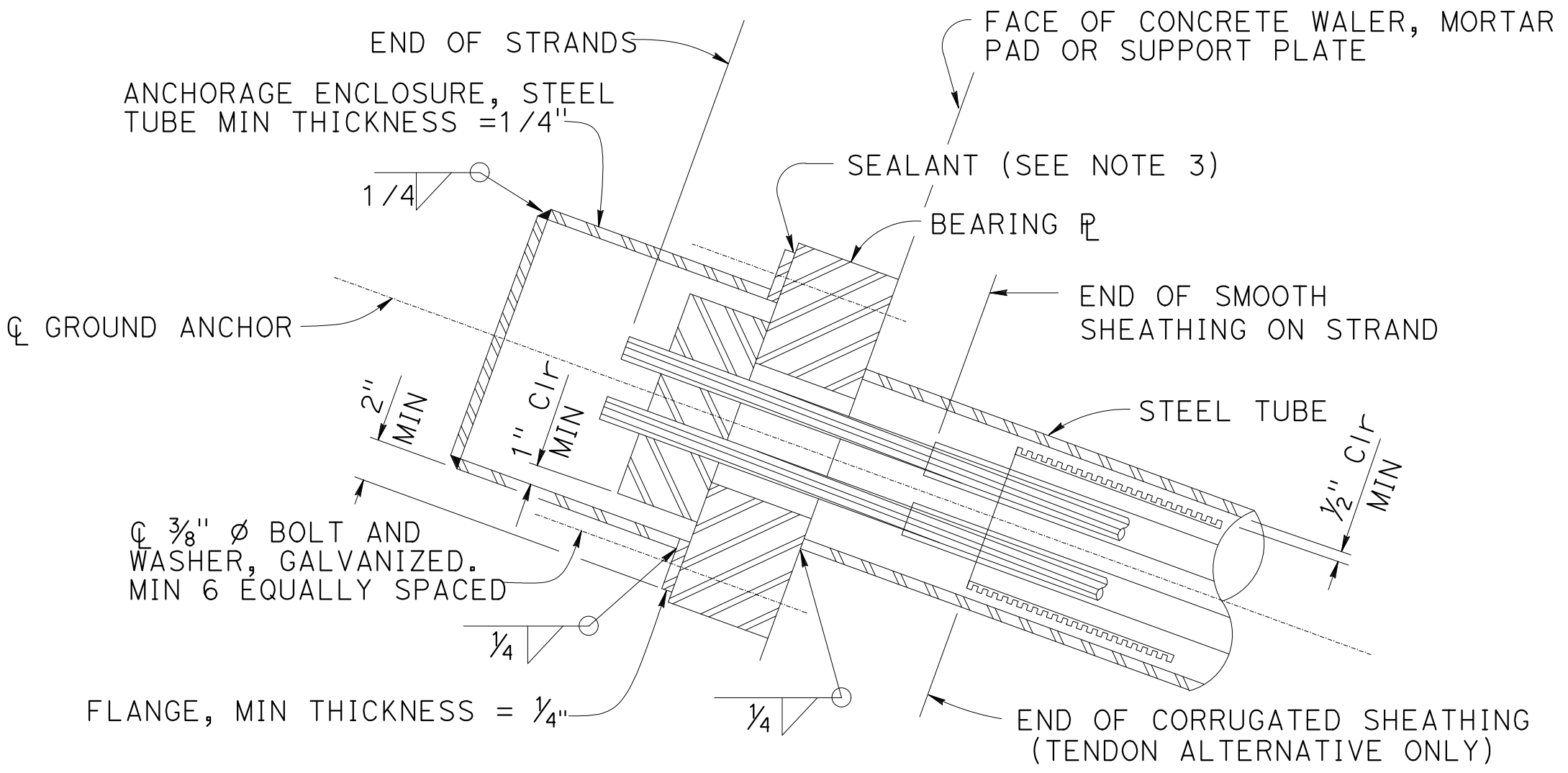
GROUND ANCHOR TENDON DETAIL - STRANDS



GROUND ANCHOR TENDON DETAIL BAR(S)



ALTERNATIVE X



ALTERNATIVE Y

ANCHORAGE ENCLOSURE DETAILS

NO SCALE

SUB HORIZONTAL
GROUND ANCHOR DETAILS

RETAINING WALL PLANS SHEET 5 OF 5

BY	
REVISION	
DATE	
PROFESSIONAL ENGINEER MARK ROBERT PHILLIPPS REG. NO. 06/20/2018 CIVIL STATE OF CALIFORNIA	
PROJECT ENGINEER	MARK PHILLIPPS
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS	OLD SANTA CRUZ HWY PM 1.01 STORM DAMAGE REPAIR PROJECT
DRAWN: S. HUYNH	
CHECKED: M. PHILLIPPS	
DATE: 4/3/2025	
SCALE: NONE	
JOB NO. 320166	
SHEET	
17	OF 17

NOTES:

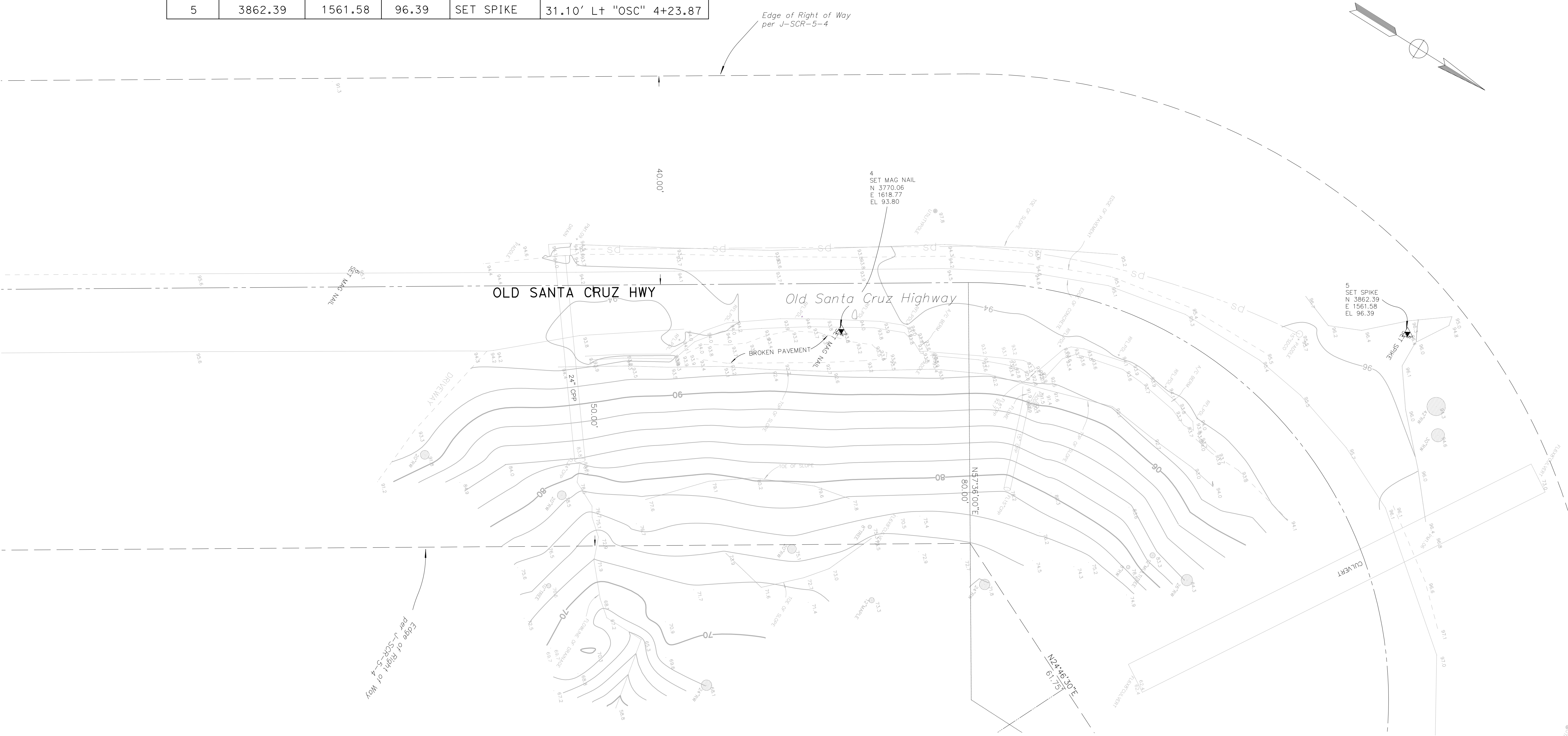
1. ELEVATIONS ARE BASED ON ASSUMED DATUM. BENCH MARK = POINT 1 SET SPIKE. ELEVATION 100.00 FEET (ASSUMED)

PROJECT CONTROL

PROJECT ID	NORTHING	EASTING	ELEVATION	DESCRIPTION	OFFSET/STATION
4	3770.16	1618.77	93.80	SET MAG NAIL	4.47' R+ "OSC" 3+30.87
5	3862.39	1561.58	96.39	SET SPIKE	31.10' L+ "OSC" 4+23.87

LEGEND:

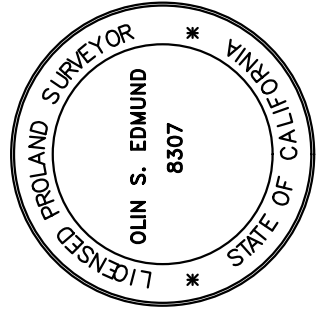
-  SURVEY CONTROL POINT SET AS NOTED
 EDGE OF PAVEMENT
 TOP/TOE OF SLOPE
 TREE
 CENTERLINE OF RIGHT OF WAY
 EDGE OF RIGHT OF WAY



FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

TOPOGRAPHIC SURVEY MAP

DATE	REVISION	BY



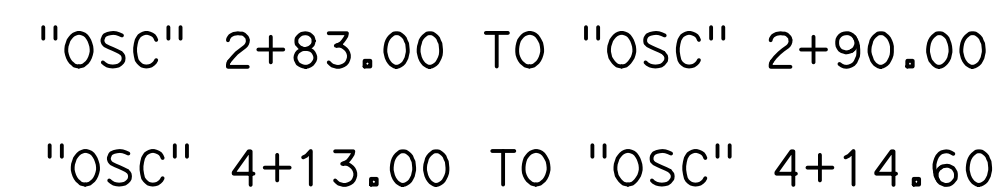
PROJECT ENGINEER
OLIN S. EDMUND

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS
OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT

DRAWN: S. HUYNH
CHECKED: S. PAVULURI
DATE: 4/3/2025
SCALE: 1"=10'
JOB NO. 320166
SHEET

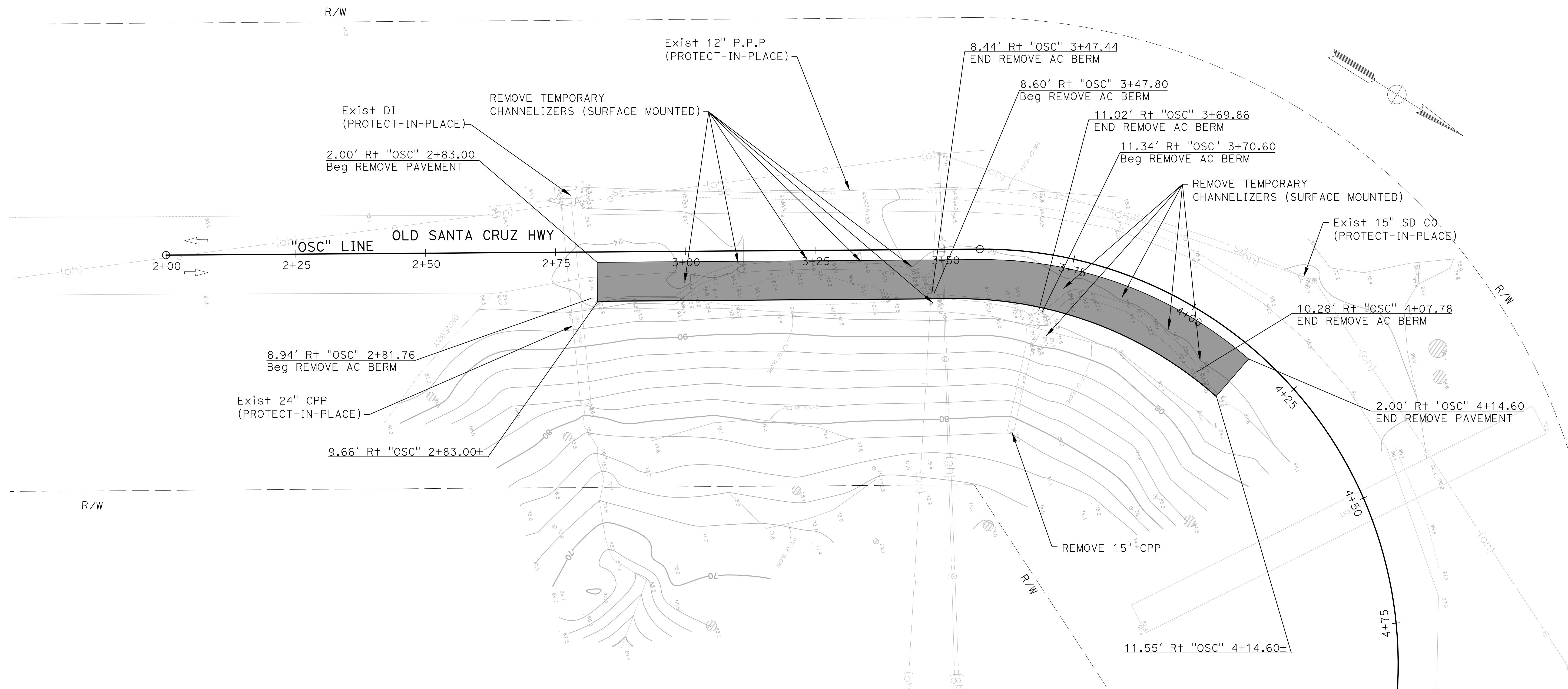
1. FINAL ELEVATIONS OF THE PAVEMENT (STRUCTURAL SECTIONS) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR MIDWEST GUARDRAIL SYSTEM LIMITS AND HMA DIKE TYPE AND LIMITS, SEE LAYOUT SHEET.
3. FOR FIBER OR RUBBER MAT VEGETATION CONTROL, SEE LAYOUT SHEET.

1 — 0.25' HMA (TYPE A)
0.75' CI 2 AB



TYPICAL CROSS SECTIONS

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS		PROJECT ENGINEER		DATE		REVISION		BY	
OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT		SNEHALATHA PAVULURI							
DRAWN: S. HUYNH									
CHECKED: S. PAVULURI									
DATE: 4/3/2025									
SCALE: NONE									
JOB NO. 320166									
SHEET									
3 OF 16									

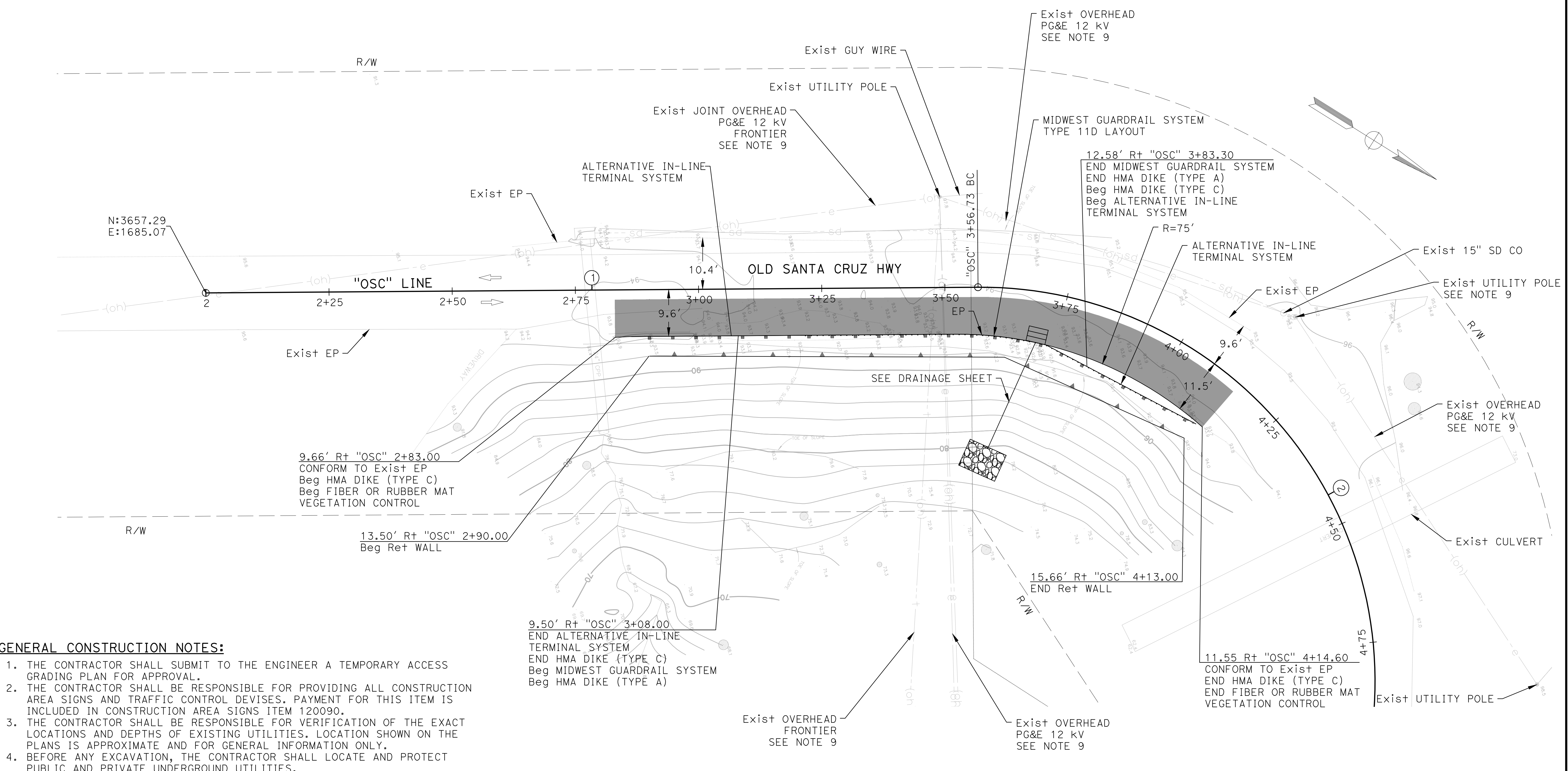
 PAVEMENT REMOVAL

REMOVAL PLAN

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS		PROJECT ENGINEER	
OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT		SNEHALATHA PAVULURI	
DRAWN: S.HUYNH			
CHECKED: S.PAVULURI			
DATE: 4/3/2025			
SCALE: 1"=10'			
JOB NO. 320166			
SHEET			
4 OF 16			

LEGEND:

PAVEMENT RECONSTRUCTION
(SEE CONSTRUCTION DETAIL SHEET)



- GENERAL CONSTRUCTION NOTES:
1. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A TEMPORARY ACCESS GRADING PLAN FOR APPROVAL.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION AREA SIGNS AND TRAFFIC CONTROL DEVICES. PAYMENT FOR THIS ITEM IS INCLUDED IN CONSTRUCTION AREA SIGNS ITEM 120090.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE EXACT LOCATIONS AND DEPTHS OF EXISTING UTILITIES. LOCATION SHOWN ON THE PLANS IS APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
 4. BEFORE ANY EXCAVATION, THE CONTRACTOR SHALL LOCATE AND PROTECT PUBLIC AND PRIVATE UNDERGROUND UTILITIES.
 5. THE CONTRACTOR SHALL PROTECT EXISTING HIGHWAY FACILITIES AND FEATURES, MAILBOXES, TREES AND LANDSCAPING AREA.
 6. LIMITS OF MGS SYSTEM SHOWN ON PLAN SHEETS ARE APPROXIMATE AND SHOULD BE FIELD ADJUSTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
 7. MIDWEST GUARDRAIL SYSTEM (MGS) DELINEATION SHALL BE PER CALTRANS Std. PLAN A77N4 AND RSP A77P2. DELINEATORS SHALL BE INSTALLED ON EACH STEEL POST. THE MGS POST SPACING TO BE 6'-3" CENTER TO CENTER, EXCEPT AS OTHERWISE NOTED.
 8. ALTERNATIVE IN-LINE TERMINAL SYSTEM LOCATION SHALL BE DETERMINED BY THE ENGINEER.
 9. CONTRACTOR TO VERIFY EXISTING OVERHEAD UTILITY LINE LOCATIONS. EXISTING OVERHEAD UTILITY LINES TO REMAIN IN PLACE DURING CONSTRUCTION. MAINTAIN SAFE CLEARANCE FROM THE OVERHEAD UTILITY LINES. IF NECESSARY, THE CONTRACTOR SHALL DEVELOP MEANS AND METHODS TO WORK AROUND THE EXISTING OVERHEAD UTILITY LINES, NO ADDITIONAL COMPENSATION IS DUE TO THIS CONTRACTOR FOR THIS WORK.

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

CONTROL LINE DATA							
CONTROL LINE SEGMENT	BEGIN Sta	END Sta	R	DELTA	L	T	BEARING
①	2+00.00	3+56.73			156.73'		N32°25'13"W
②	3+56.73	5+30.36	80.00'	124°21'05"	173.63'	151.58'	

LAYOUT PLAN

BY				
REVISION				
DATE				
REGISTERED PROFESSIONAL ENGINEER SNEHALATHA PAVULURI No. 09/20/25 CIVIL STATE OF CALIF.				
PROJECT ENGINEER		SNEHALATHA PAVULURI		
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS		OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT		
DRAWN: S.HUYNH				
CHECKED: S.PAVULURI				
DATE: 4/3/2025				
SCALE: 1"=10'				
JOB NO. 320166				
SHEET				
5 OF 16				

No. STRUCTURAL SECTION

R/W

R/W

"025" LINE

OLD SANTA CRUZ HWY

"OSC" +83.00
2.00' R+
Elev 93.90±

"OSC" +90.00
2.00' R+
Elev 93.94±

"OSC" +00.0
2.00' R+
Elev 94.00

```

"OSC" +10.00
2.00' Rt
Elev 94.13

```

$$\frac{\text{"OSC" } +20.00}{2.00' \text{ Rt}} \\ \text{Elev } 93.91$$

"OSC" +30.00
2.00' Rt
Elev 93.89

"OSC" +40.00
2.00' Rt
Elev 93.94

"OSC" +50.00
2.00' Rt
Elev 93.85±

"OSC" +60.00
2.00' R+
Elev 93.88±

```

"OSC" +80.00
-----
2.00' R+
Elev 94.17±

```

"OSC" +00.00
2.00' R+
Elev 94.41±

"OSC" +10.00
2.00' R+
Elev 94.52±

"OSC" +14.60
2.00' Rt
Elev 94.70±

"OSC" +83.00
9.66' R+
Elev 93.68

"OSC" +90.00
9.50' R+
Elev 93.80

"OSC" +00.00
9.50' Rt
Elev 93.75

"OSC" +10.00
9.50' R+
Elev 93.66

"OSC" +20.00
9.50' R+
93.59

"OSC" +30.00
9.50' Rt
Elev 93.52

"OSC" +40.00
9.50' Rt
Elev 93.45

"OSC" +50.00
9.50' R+
Elev 93.38

"OSC" +60.00
9.83' R+
Elev 93.37

"OSC" +70.00
10.34' R+
Elev 93.06

~~"OSC" +80.00
 10.76' R+
 Elev 93.29~~

"OSC" +90.00
11.10' R+
Elev 93.52

"OSC" +00.00
11.35' R+
Elev 93.74

"OSC" +14.60
11.55' Rt
Exist Elev 93.92±

"OSC" +10.00
11.51' R+
Elev 93.97

PROJECT ENGINEER

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS

**OLD SANTA CRUZ HWY PM 1.06
STORM DAMAGE REPAIR PROJECT**

DRAWN: S.HUYNH

CHECKED: S.PAVULURI

DATE:4/3/2025

SCALE: 1"=10'

JOB NO. 320166

SHEET

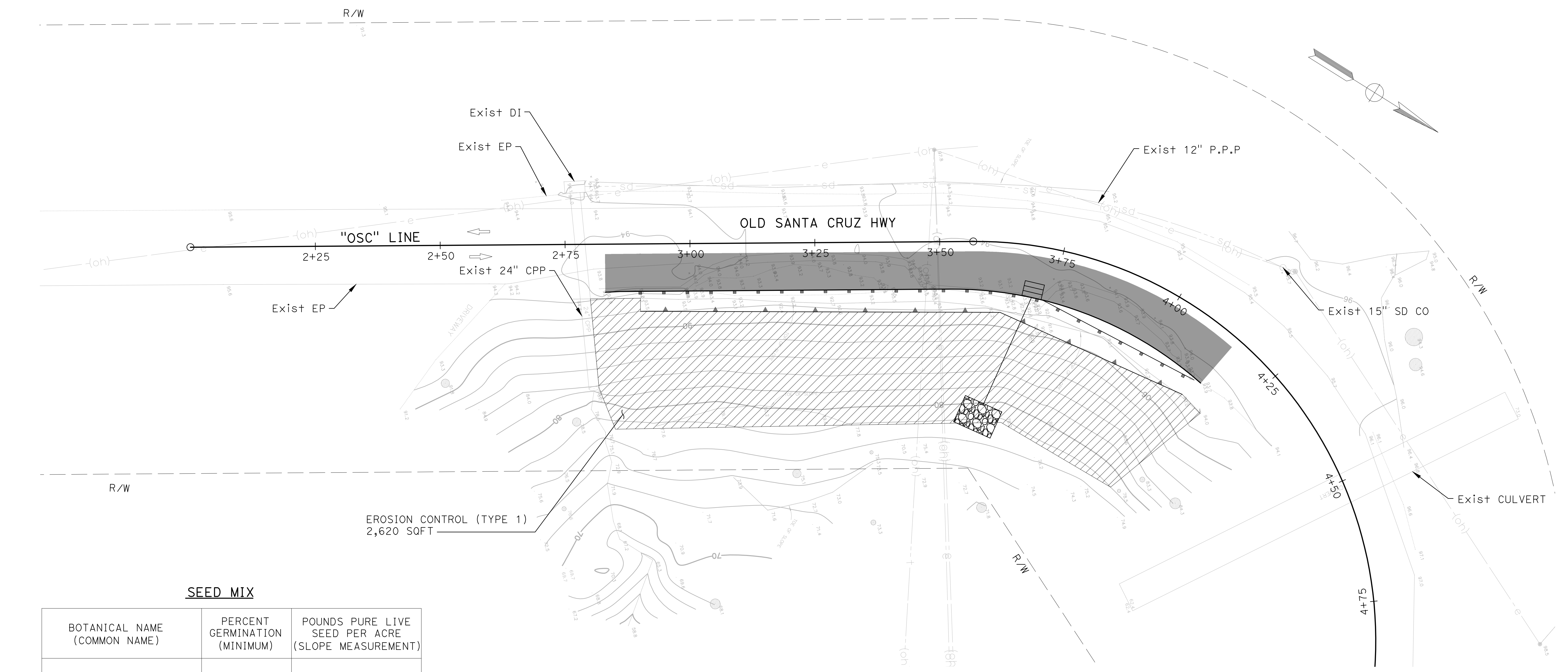
7 OF 16

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

PAVEMENT ELEVATION PLAN

LEGEND:

- EROSION CONTROL (TYPE 1)
- PAVEMENT REMOVAL/RECONSTRUCTION



SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
BROMUS CARINATUS (CALIFORNIA BROME)	55	25
HORDEUM DRACHYANTHERUM (MEADOW BARLEY)	56	10
ELYMUS GLAUCUS (BLUE WILDRYE)	53	6
ELYMUS GLAUCUS (BEARDLESS WILDRYE)	53	4
JUNCUS BUFONIUS (COMMON TOAD RUSH)	70	25

EROSION CONTROL (TYPE 1)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	RECP (TRM)	(TRM)	CALTRANS TYPE B	-	-
STEP 2	FIBER ROLL	FIBER ROLL	8" TO 10" Dia.	-	CALTRANS TYPE 1 FIBER ROLL INSTALLATION
STEP 3	HYDROMULCH	SEED	SEE MIX	70 LB/AC	-
		FIBER	WOOD	1000 LB/AC	-
		TACKIFIER	PSYLLIUM	125 LB/AC	-
		FERTILIZER	-	800 LB/AC	-

FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

EROSION CONTROL

BY

REVISION

DATE

PROFESSIONAL ENGINEER
SNEHALATHA PAVULURI
NO. 09/20/25
CIVIL
STATE OF CALIF.

PROJECT ENGINEER
SNEHALATHA PAVULURI

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS

OLD SANTA CRUZ HWY PM 1.06

STORM DAMAGE REPAIR PROJECT

DRAWN: S. HUYNH

CHECKED: S. PAVULURI

DATE: 2/7/2022

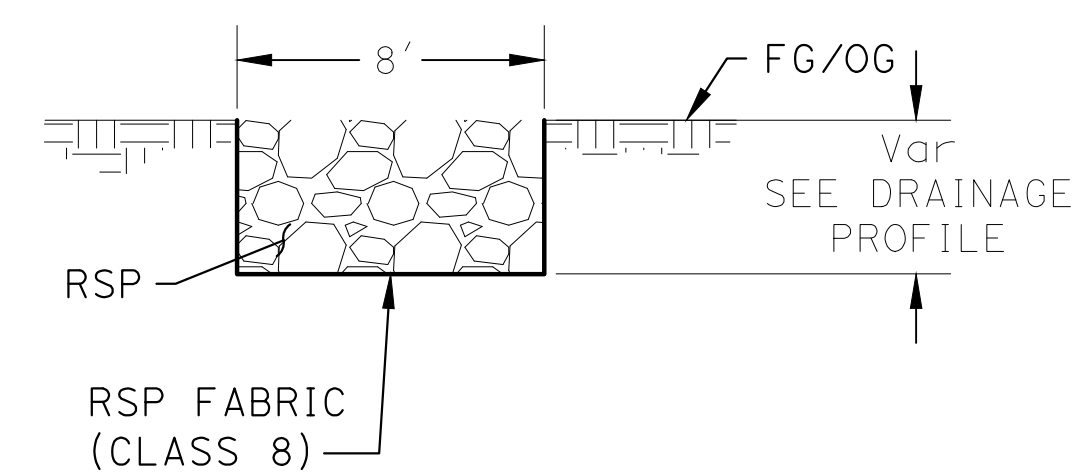
SCALE: 1"=10'

JOB NO. 320166

SHEET
8 OF 16

No. DRAINAGE SYSTEM No.

1. CONTRACTOR SHALL INSTALL ANCHOR ASSEMBLY PER CALTRANS S+D. PLAN D87B.
2. PIPE TEE SHALL BE CUT IN THE FIELD.



18" PP DOWNDRAIN

ADD ANCHOR ASSEMBLY (SEE NOTE 1)

2.0'

RSP

6.0'

RSP FABRIC (CLASS 8)

TEE (SEE NOTE 2)

4.5'

8.0'

Detailed description: This is a cross-sectional diagram of a trench wall assembly. At the top, a 18" PP DOWNDRAIN is shown with a break symbol. Below it, an ADD ANCHOR ASSEMBLY is indicated. The wall itself is composed of RSP (Reinforced Structural Polymer) fabric (Class 8) and a TEE (Trench Edge Element). The total height of the wall is 6.0'. The width of the wall is 8.0', with a 4.5' section on the right side. A 2.0' dimension is shown for the upper portion of the wall. The diagram includes various callouts and dimensions to specify the construction details.

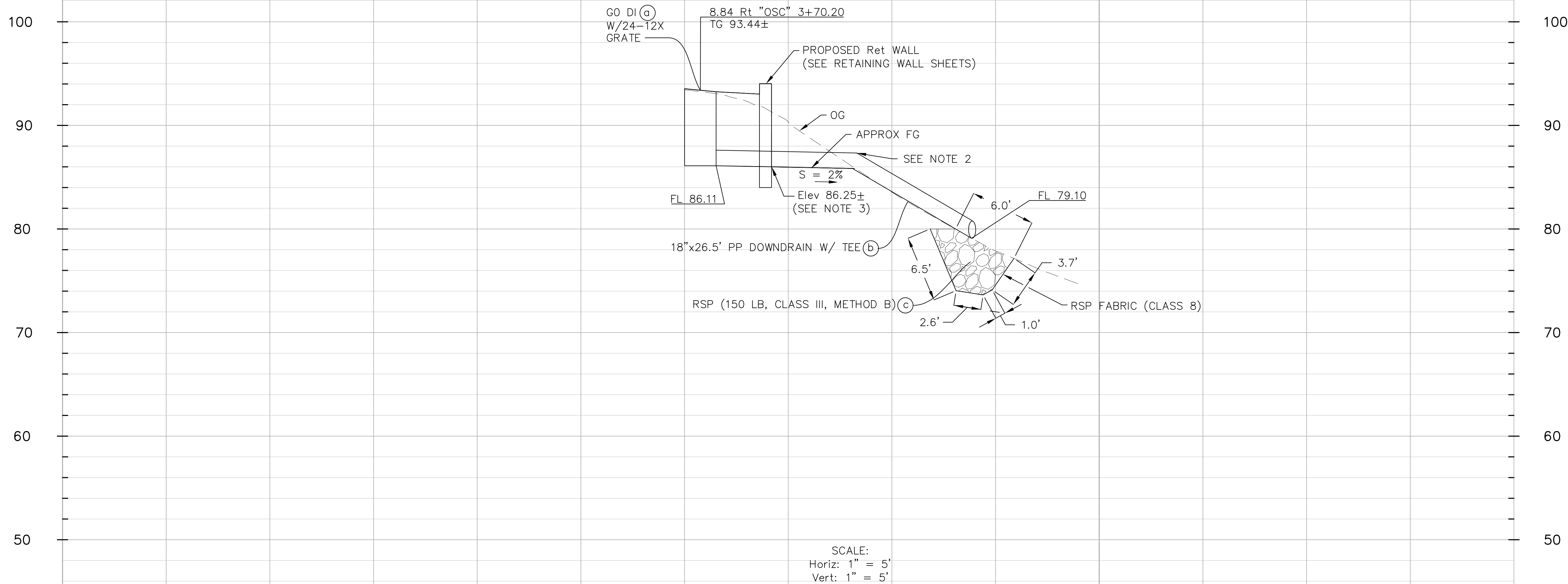
PLAN VIEW OF RSP AND
ANCHOR ASSEMBLY
NTS

DRAINAGE PLAN

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT	PROJECT ENGINEER SNEHALATHA PAVULURI		DATE	REVISION	BY
DRAWN: S. HUYNH					
CHECKED: S. PAVULURI					
DATE: 4/3/2025					
SCALE: 1" = 10'					
JOB NO. 320166					
SHEET					
9 OF 16					

NOTES:

1. THE CONTRACTOR SHALL VERIFY AND ADJUST ELEVATIONS AS NEEDED AND AS APPROVED BY THE ENGINEER PRIOR TO DRAINAGE INSTALLATION.
2. SEE RETAINING WALL PLANS FOR LAGGING OPENING INFORMATION .

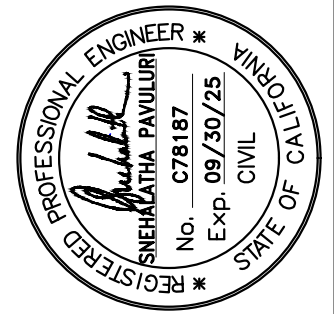


FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

DRAINAGE SYSTEM 1

DRAINAGE PROFILE

DATE	REVISION	BY



PROJECT ENGINEER
SNEHALATHA PAVULURI

COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS
OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT

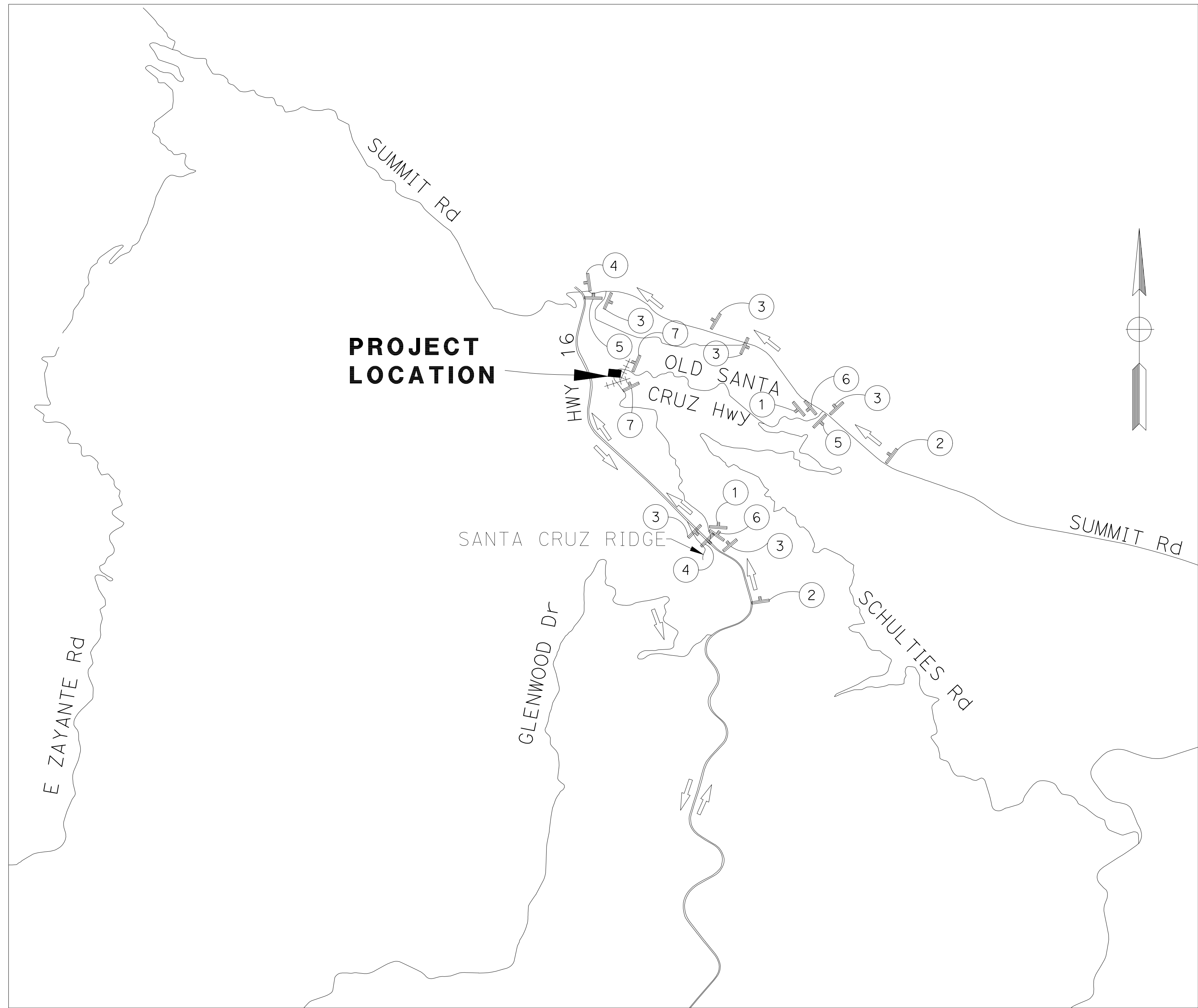
DRAWN: S.HUYNH
CHECKED: S.PAVULURI
DATE: 4/3/2025
SCALE: 1"=10'
JOB NO. 320166
SHEET
10 OF 16

NOTES:

1. THIS PLAN IS ACCURATE FOR DETOUR PLAN ONLY.
2. EXACT SIGN AND BARRICADE LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. INSTALL SIGNS TWO WEEKS BEFORE THE COMMENCEMENT OF CONSTRUCTION. DETOUR SIGNS SHALL BE COVERED TILL THE START OF CONSTRUCTION.

LEGEND:

- ➡ DIRECTION OF TRAVEL
⏏ DETOUR SIGN
⊗ SIGN NUMBER
++ TYPE III BARRICADE



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE (INCHES)	SIGN IMAGE	SIGN MESSAGE	POST SIZE	QUANTITY
1	R11-3a	60 x 30		ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
2	W20-2	36 x 36		DETOUR AHEAD	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
3	SC9 (CA)	36 x 36		DETOUR (UP ARROW)	1-4" x 6"	6
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
4	M4-9	30 x 24		DETOUR (WITH L+ ARROW)	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
5	M4-9	30 x 24		DETOUR (WITH R+ ARROW)	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
6	M4-8a	24 x 18		END DETOUR	1-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		
7	SC6-4 (CA) (MOD)	48 x 60		ROAD CLOSED XX XX XX THRU XX XX XX X AM - X PM	2-4" x 6"	2
	D3-1	VARIES x 12		OLD SANTA CRUZ HWY		

FOR ABBREVIATIONS AND ADDITIONAL NOTES, SEE TITLE SHEET

DETOUR PLAN

BY

REVISION

DATE

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS

DRAWN: S. HUYNH
CHECKED: S. PAVULURI
DATE: 4/3/2025
SCALE: NO SCALE
JOB NO. 320166
SHEET 11 OF 16

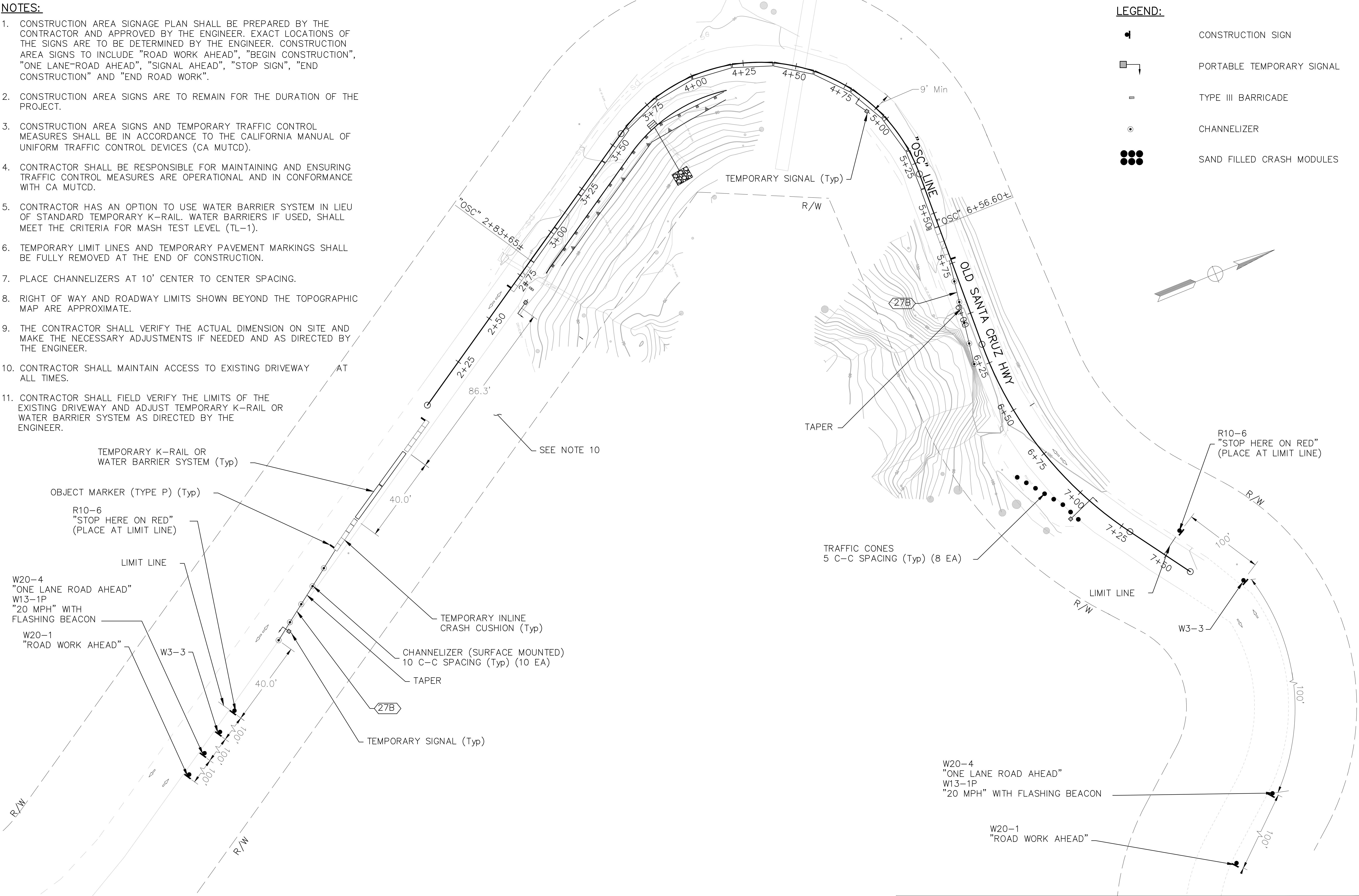
PROJECT ENGINEER

PROJECT ENGINEER
SNEHALATHA PAVULURI

OLD SANTA CRUZ HWY P.M. 1.06
STORM DAMAGE REPAIR PROJECT

NOTES:

1. CONSTRUCTION AREA SIGNAGE PLAN SHALL BE PREPARED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. EXACT LOCATIONS OF THE SIGNS ARE TO BE DETERMINED BY THE ENGINEER. CONSTRUCTION AREA SIGNS TO INCLUDE "ROAD WORK AHEAD", "BEGIN CONSTRUCTION", "ONE LANE-ROAD AHEAD", "SIGNAL AHEAD", "STOP SIGN", "END CONSTRUCTION" AND "END ROAD WORK".
2. CONSTRUCTION AREA SIGNS ARE TO REMAIN FOR THE DURATION OF THE PROJECT.
3. CONSTRUCTION AREA SIGNS AND TEMPORARY TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE TO THE CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND ENSURING TRAFFIC CONTROL MEASURES ARE OPERATIONAL AND IN CONFORMANCE WITH CA MUTCD.
5. CONTRACTOR HAS AN OPTION TO USE WATER BARRIER SYSTEM IN LIEU OF STANDARD TEMPORARY K-RAIL. WATER BARRIERS IF USED, SHALL MEET THE CRITERIA FOR MASH TEST LEVEL (TL-1).
6. TEMPORARY LIMIT LINES AND TEMPORARY PAVEMENT MARKINGS SHALL BE FULLY REMOVED AT THE END OF CONSTRUCTION.
7. PLACE CHANNELIZERS AT 10' CENTER TO CENTER SPACING.
8. RIGHT OF WAY AND ROADWAY LIMITS SHOWN BEYOND THE TOPOGRAPHIC MAP ARE APPROXIMATE.
9. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSION ON SITE AND MAKE THE NECESSARY ADJUSTMENTS IF NEEDED AND AS DIRECTED BY THE ENGINEER.
10. CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING DRIVEWAY AT ALL TIMES.
11. CONTRACTOR SHALL FIELD VERIFY THE LIMITS OF THE EXISTING DRIVEWAY AND ADJUST TEMPORARY K-RAIL OR WATER BARRIER SYSTEM AS DIRECTED BY THE ENGINEER.



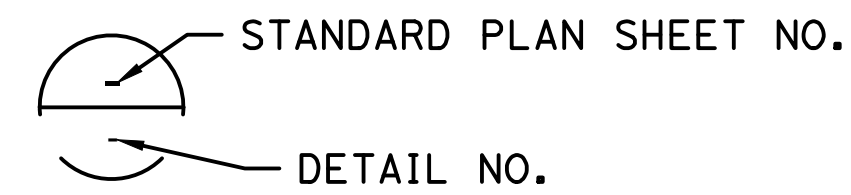
FOR ABBREVIATIONS AND
ADDITIONAL NOTES, SEE TITLE SHEET

TRAFFIC HANDLING PLAN

BY				
REVISION				
DATE				
PROJECT ENGINEER		SNEHALATHA PAVULURI		
COUNTY OF SANTA CRUZ – DEPARTMENT OF PUBLIC WORKS		OLD SANTA CRUZ HWY PM 1.06 STORM DAMAGE REPAIR PROJECT		
DRAWN: S.HUYNH				
CHECKED: S.PAVULURI				
DATE: 4/3/2025				
SCALE: 1"=20'				
JOB NO. 320166				
SHEET				
12 OF 16				

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 1 OF 2)
A10H	LEGEND - ROCK

<u>SHEET NO.</u>	<u>TITLE</u>
1	RETAINING WALL GENERAL PLAN No.1
2	RETAINING WALL GENERAL PLAN No.2
3	RETAINING WALL DETAILS No. 1
4	RETAINING WALL DETAILS No. 2



DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 6TH EDITION
WITH CALIFORNIA AMENDMENTS, CALTRANS TRENCHING AND
SHORING MANUAL, AUGUST 2011

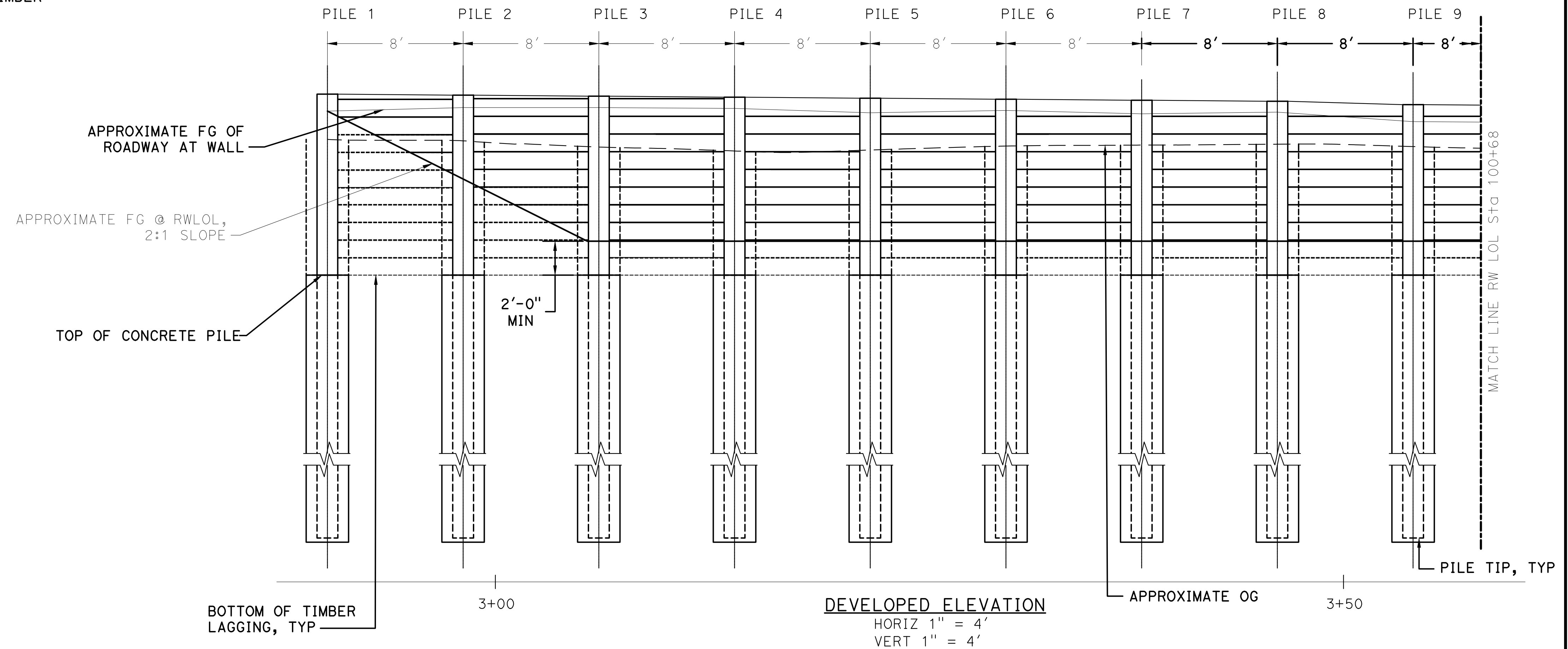
LIVE LOAD: 250 PSF EQUIVALENT 2 FEET SOIL WEIGHT

SOIL PARAMETERS:	FOR DETERMINATION OF DESIGN LATERAL EARTH PRESSURES) BACKFILL AND RETAINED EARTH SOIL WEIGHT = 125 PCF FRICTION ANGLE = 32° ACTIVE PRESSURE COEFFICIENT $K_a = 0.307$
SEISMIC PARAMETER:	$K_h = 0.500$

STEEL SOLDIER
PILES AND PLATES: ASTM A572/A572M, GRADE 50MIN

STRUCTURAL TIMBER: TREATED DOUGLAS FIR, GRADE NO. 1 OR BETTER TIMBER
TO BE FULL SAWN

STRUCTURE EXCAVATION (SOLDIER PILE WALL)	65	CY
STRUCTURE BACKFILL (SOLDIER PILE WALL)	38	CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	71	CY
LEAN CONCRETE BACKFILL (ENGMET)	22	CY
STEEL SOLDIER PILE (HP14X89)	540	LF
30" DRILLED HOLE	510	LF
TIMBER LAGGING	7	MFBM
CLEAN AND PAINT STEEL SOLDIER PILING	1	LUMP SUM
MINOR CONCRETE (MINOR STRUCTURE)	5	CY

[illegible]

RETAINING WALL GENERAL PLAN No. 1

RETAINING WALL PLANS SHEET 1 OF 4

PROJECT ENGINEER

COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS

**OLD SANTA CRUZ HWY PM 1.06
STORM DAMAGE REPAIR PROJECT**

RAWN: S.HUYNH

CHECKED: M. PHILIPPS

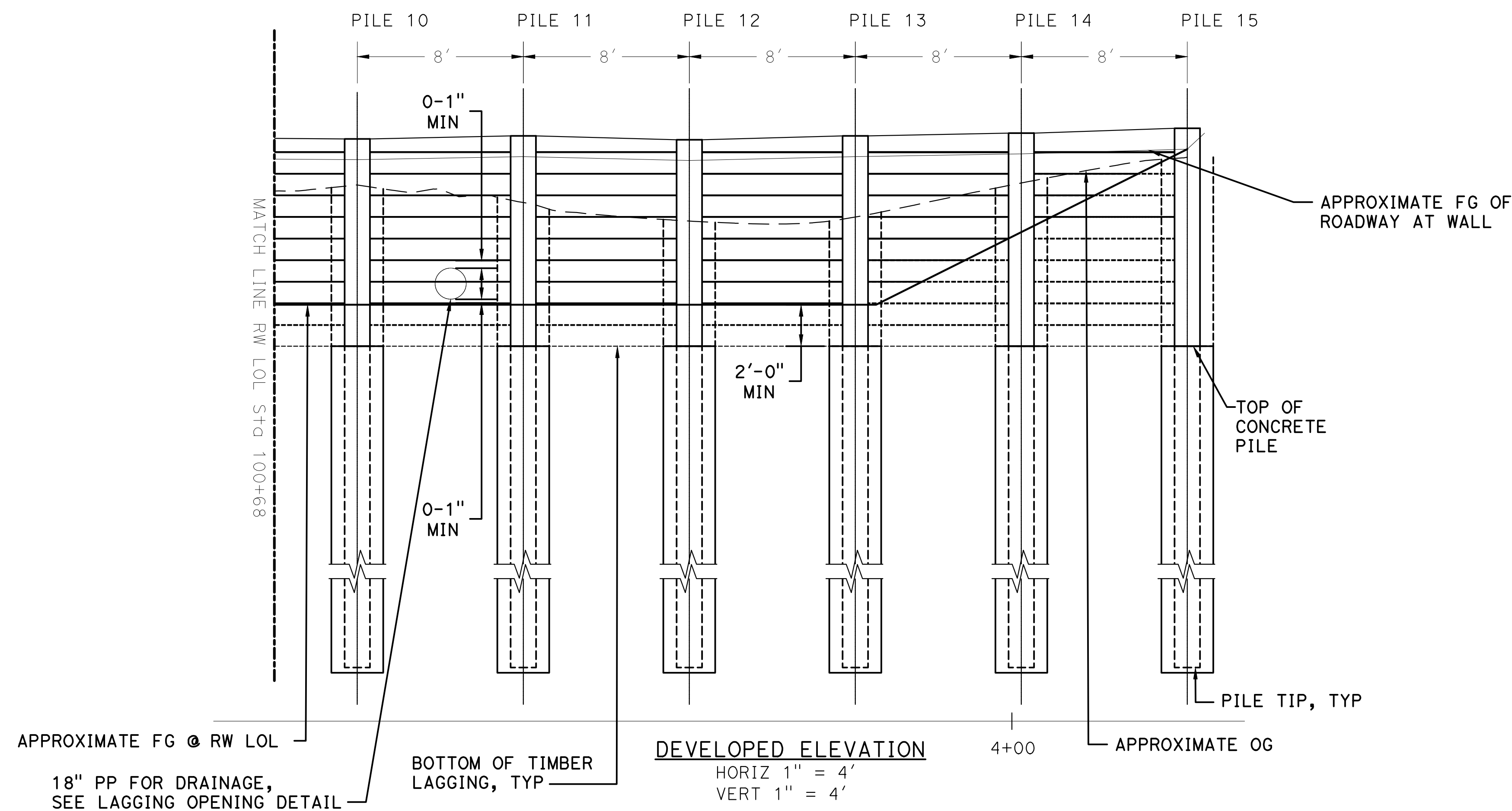
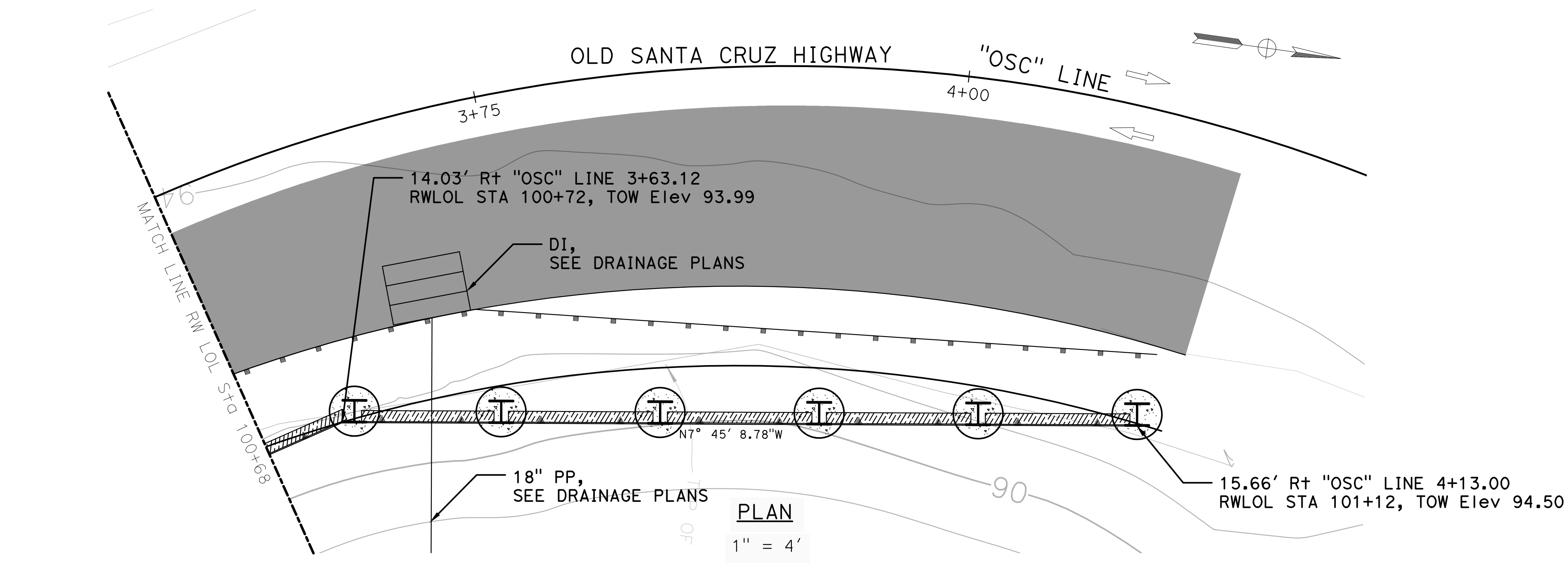
DATE: 4/3/2025

SCALE:NONE

DB NO. 320166

SHEET

13 OF 16

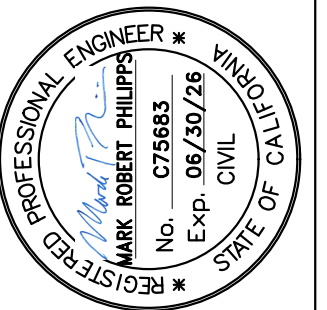


RW LOL STATION	100+72.00	100+80.00	100+88.00	100+96.00	101+04.00	101+12.00
TOP OF WALL ELEV	93.99	94.14	93.95	94.14	94.27	94.50
ANCHOR ELEVATION @ RW LOL	-	-	-	-	-	-
TOP OF CONCRETE PILE ELEV	84.00	84.00	84.00	84.00	84.00	84.00
PILE TIP ELEVATION	58.00	58.00	58.00	58.00	58.00	58.00
PILE SECTION & NO. PILES	1 - HP 14X89	1 - HP 14X89	1 - HP 14X89	1 - HP 14X89	1 - HP 14X89	1 - HP 14X89
DRILLED HOLE DIAMETER	30"	30"	30"	30"	30"	30"

RETAINING WALL GENERAL PLAN No. 2

RETAINING WALL PLANS SHEET 2 OF 4

BY	REVISION	DATE

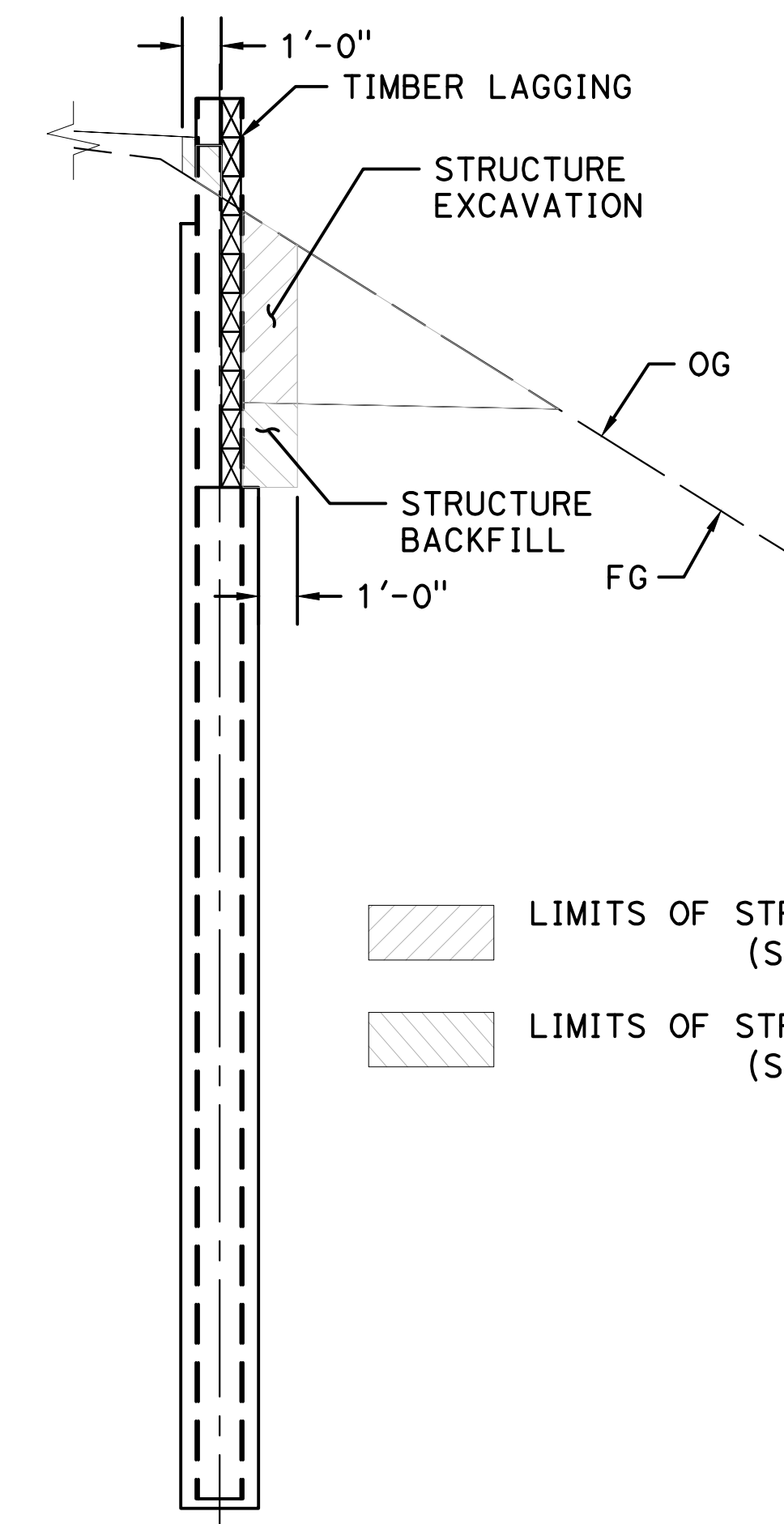
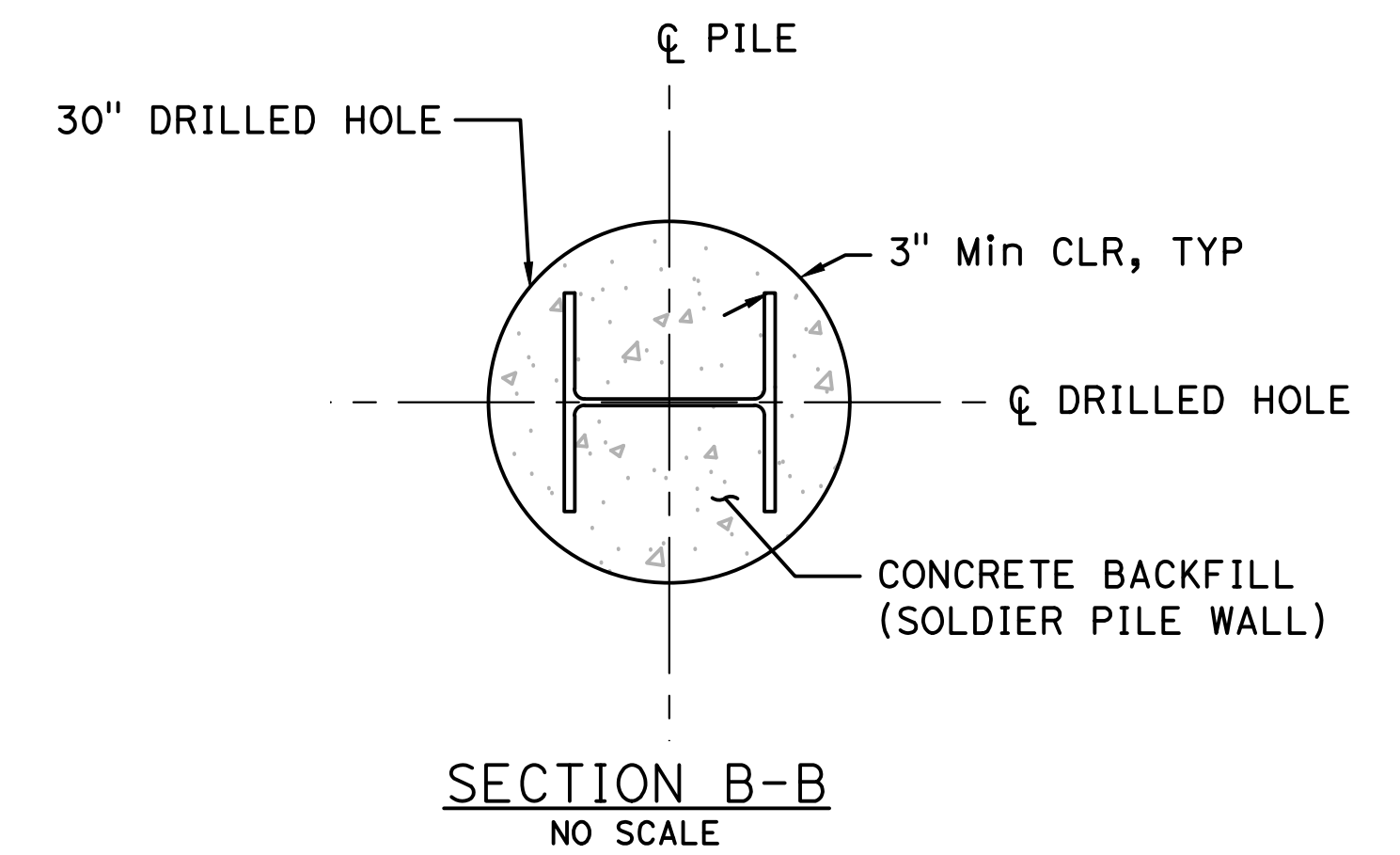
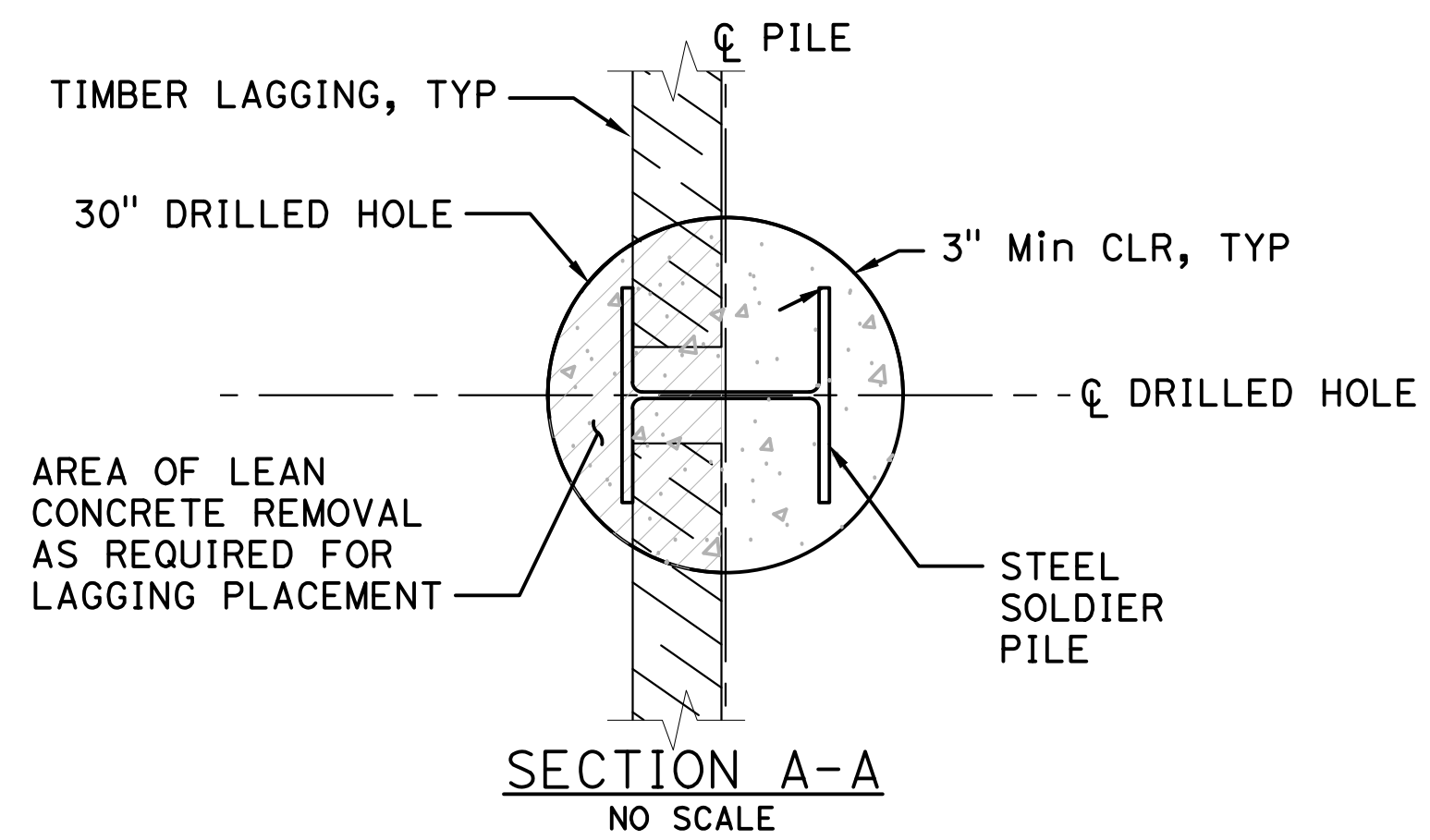
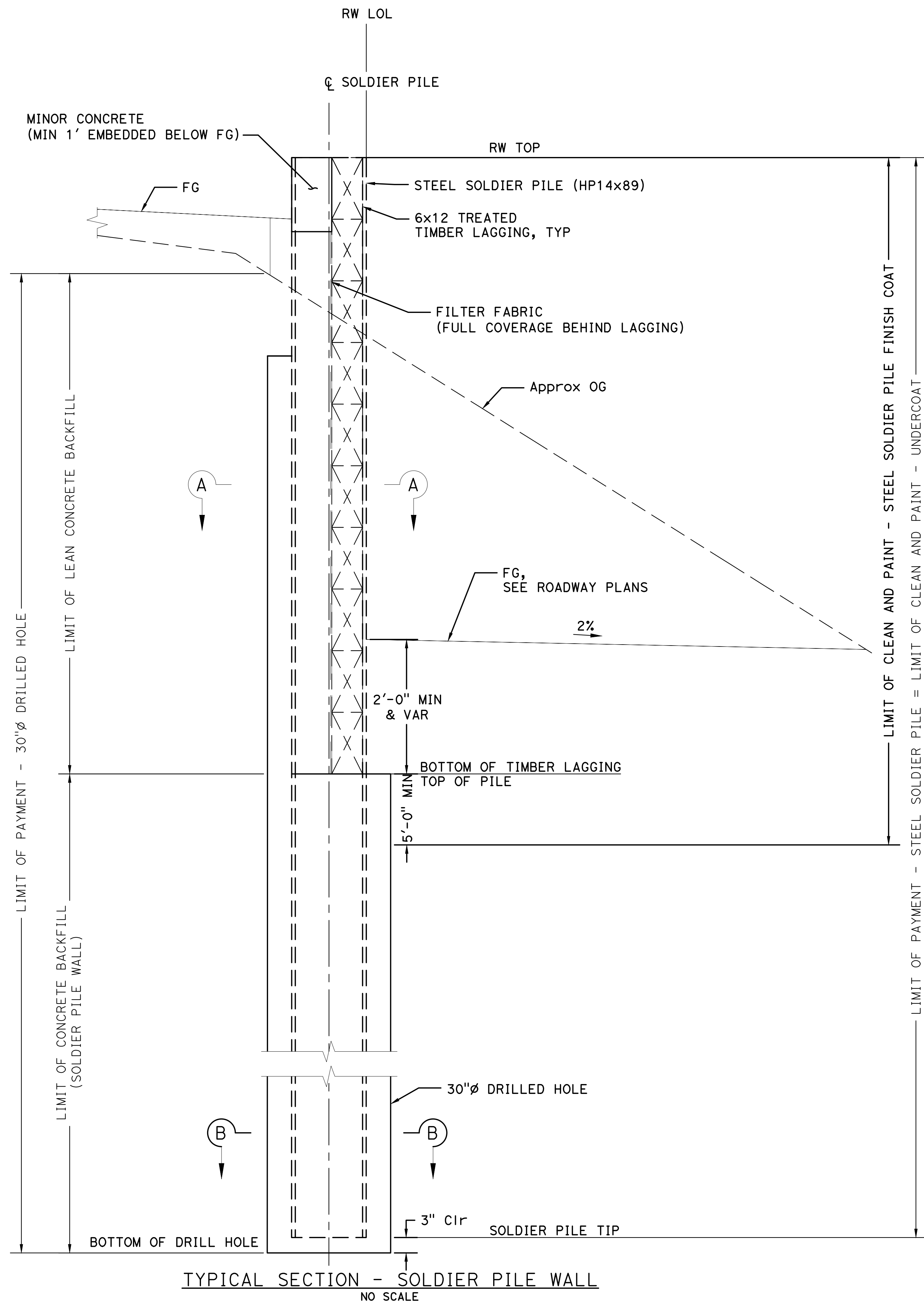


PROJECT ENGINEER
MARK PHILIPPS

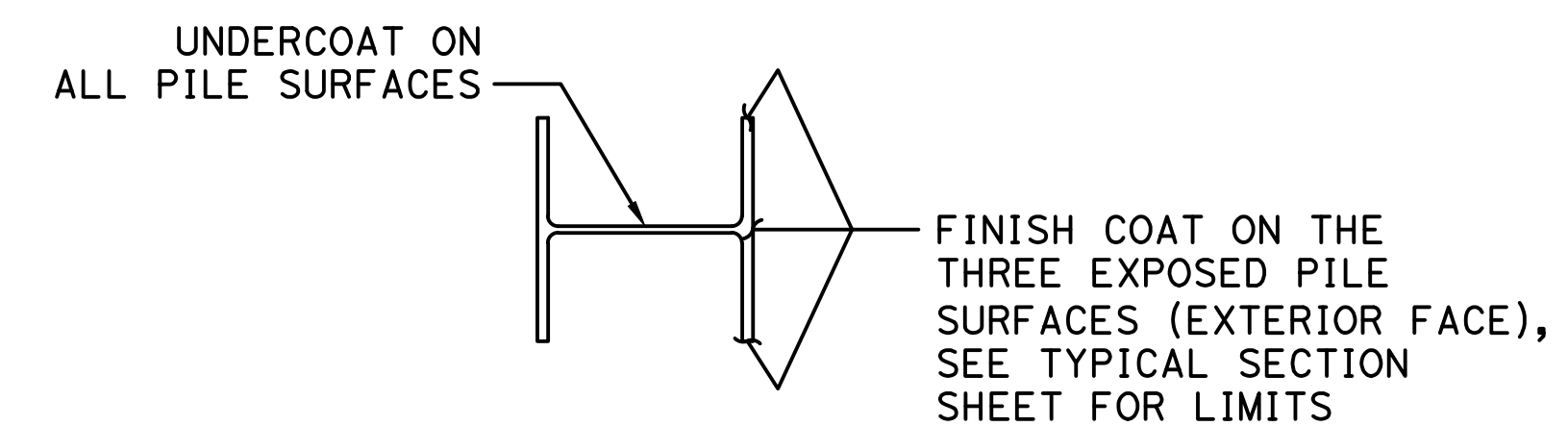
COUNTY OF SANTA CRUZ - DEPARTMENT OF PUBLIC WORKS
**OLD SANTA CRUZ HWY PM 1.06
STORM DAMAGE REPAIR PROJECT**

DRAWN: S. HUYNH
CHECKED: M. PHILIPPS
DATE: 4/3/2025
SCALE: NONE
JOB NO. 320166
SHEET

14 OF 16

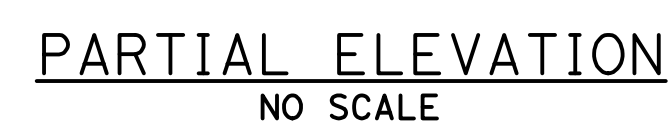


- LIMITS OF STRUCTURE EXCAVATION (SOLDIER PILE WALL)
- LIMITS OF STRUCTURE BACKFILL (SOLDIER PILE WALL)



RETAINING WALL DETAILS No. 1

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RETAINING WALL DETAIL No. 2