

COUNTY ROAD PROJECT No. 2626
HARPER ESTUARY BARRIER CORRECTION

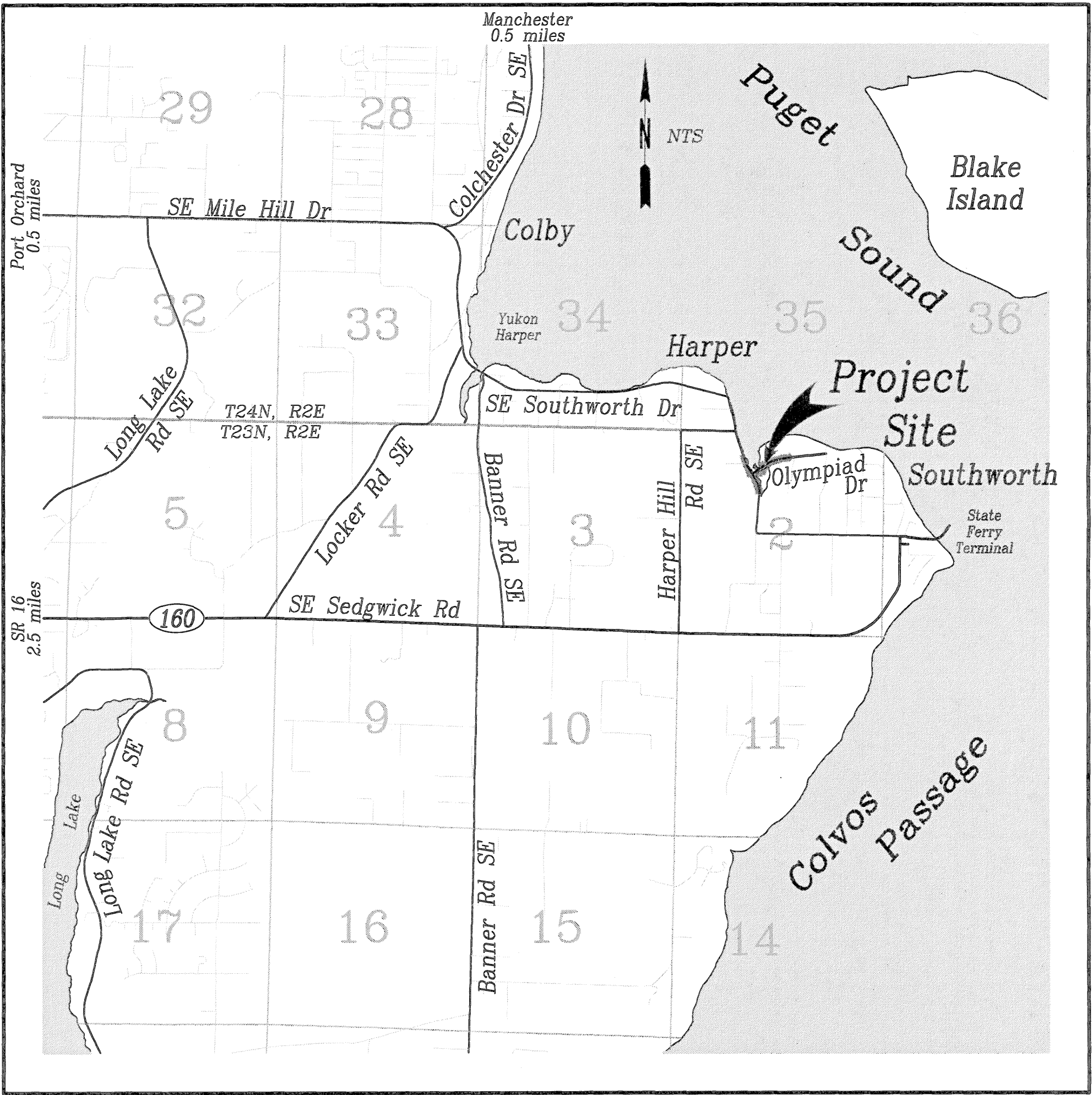
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

FEDERAL AID #: PROTECT-2018(064)

CONTRACT TA #: 7797

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VICINITY MAP



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BID SET

APPROVED FOR CONSTRUCTION:

9/26/25
DATE

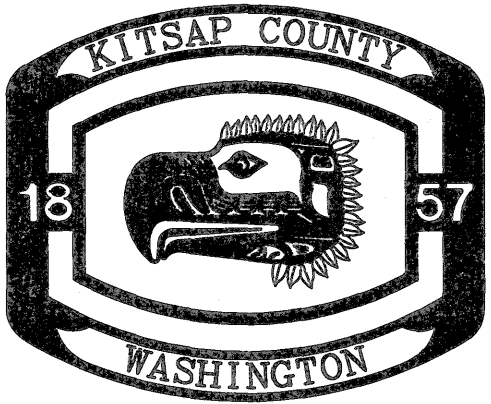
JOSEPH P. RUTAN, P.E., COUNTY ENGINEER

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Oran Root, Commissioner
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614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
COVER SHEET

SDAP #: _____

DATE
08/08/25
Sheet
G01
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Plotted: Aug 07, 2025 - 6:52pm
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Layout Name: G02
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LEGEND

DESCRIPTION	EXISTING	PROPOSED
BUILDING		
BURIED CABLE		
BURIED POWER		
BURIED TELEPHONE		
CLEARING LIMITS		
CONSTRUCTION CENTERLINE		
CONTOUR INTERMEDIATE		
CONTOUR INDEX		
DITCH		
EASEMENT		
EDGE OF PAVEMENT		
EDGE OF GRAVEL ROAD OR DRIVE		
FENCE		
FIBER OPTIC		
GAS		
GOV MEANDER LINE		
GUARDRAIL		
HIGH VISIBILITY FENCE		
LANE STRIPING		
MEAN HIGHER HIGH WATER		
ORDINARY HIGH WATER		
OVERHEAD COMM		
OVERHEAD POWER		
OVERHEAD POWER & CABLE		
OVERHEAD POWER & TELEPHONE		
OVERHEAD POWER, CABLE, & TELEPHONE		
OVERHEAD TELEPHONE		
PIPE REMOVAL		
PROPERTY LINE		
QUARTER SECTION LINE		
RETAINING WALL		
ROADWAY CENTERLINE		
RIGHT-OF-WAY CENTERLINE		
RIGHT-OF-WAY MARGIN		
SANITARY FORCE MAIN		
SANITARY SEWER (GRAVITY)		
SECTION LINE		
SILT FENCE		
STORM DRAIN ABANDONMENT		
STORM PIPE/CULVERT		
THREAD OF CHANNEL		
TOE OF SLOPE TOPOGRAPHY		
TOP OF SLOPE TOPOGRAPHY		
UNDERGROUND COMM		
UNDERGROUND POWER		
VEGETATION		
WATER		
WETLAND		
CREEK OR STREAMBED		
ASPHALT PAVEMENT		
CONCRETE SURFACE		
GRAVEL SURFACE		
RIPRAP		
STREAMBED GRAVEL		
STREAMBED SEDIMENT		

DESCRIPTION	EXISTING	PROPOSED
BOLLARD		
CATCH BASIN / MANHOLE		
COMMUNICATION HANDHOLE		
CLEAN OUT		
COUPLING		
FIRE HYDRANT		
LUMINAIRE		
MAILBOX		
MONUMENT IN CASE		
ORDINARY HIGH WATER FLAG		
POTHOLE LOCATION		
POWER TRANSFORMER		
PROPERTY CORNER		
ROCKERY WALL		
SANITARY MANHOLE		
SIGN		
SIGNED DETOUR ROUTE		
SPRINKLER HEAD		
STORM DRAIN INLET PROTECTION		
SURVEY CONTROL POINT		
SURVEY MONUMENT		
SURVEY SYMBOL		
TAX PARCEL NUMBER		
TAX PARCEL OWNER		
TEE		
TELEPHONE MANHOLE		
TEST PIT/SOIL SAMPLE		
THRUST BLOCK		
TRAFFIC HANDHOLE		
TREE		
TREE REMOVAL		
TYPE III BARRICADE		
UTILITY POLE		
WATER FOUNTAIN		
WATER METER		
WATER VALVE		
LOG BARRIER		

SEE APPLICABLE
DISCIPLINE FOR
ADDITIONAL LEGEND

ABBREVIATIONS

AC	ASBESTOS CONCRETE	SW	SOUTHWEST
AP	ANGLE POINT	SYMM.	SYMMETRICAL
APPROX.	APPROXIMATE	TEL	TELEPHONE
ASSY	ASSEMBLY	TEMP.	TEMPORARY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	TESC	TEMP. EROSION & SEDIMENT CONTROL
BK.	BACK	TOC	TOP OF CURB
BLDG	BUILDING	T.O.W.	TOP OF WALL
B.O.F.	BOTTOM OF FOOTING	TYP.	TYPICAL
B.O.W.	BOTTOM OF WALL	VERT.	VERTICAL
BRG	BEARING	W	WEST
BTM	BOTTOM	W/	WITH
BTWN	BETWEEN	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BVCE	BEGIN VERTICAL CURVE ELEVATION	YR.	YEAR
BVCS	BEGIN VERTICAL CURVE STATION		
CB	CATCH BASIN		
CCP	CONCRETE CYLINDER PIPE		
C.G.	CENTER OF GRAVITY		
C.I.P	CAST IN PLACE		
C	CENTERLINE		
CLR	CLEARANCE		
CMP	CORRUGATED METAL PIPE		
CO	CLEAN OUT		
COMM	COMMUNICATION		
CONC	CONCRETE		
CONST.	CONSTRUCTION		
CONT.	CONTINUE OR CONTINUOUS		
CPEP	CORRUGATED POLYETHYLENE PIPE		
CSBG	CRUSHED SURFACING BASE COURSE		
CSL	CROSSHOLE SONIC LOGGING		
CSTC	CRUSHED SURFACING TOP COURSE		
CTRL	CONTROL		
DI	DUCTILE IRON		
DIAM.	DIAMETER		
DWG	DRAWING		
DWY	DRIVEWAY		
E	EAST		
EA	EACH		
ELEV. OR EL.	ELEVATION		
EMBED.	EMBEDMENT		
ESMT	EASEMENT		
EVCE	END VERTICAL CURVE ELEVATION		
EVCS	END VERTICAL CURVE STATION		
EXIST.	EXISTING		
EXP.	EXPANSION		
FD	FOUND		
FG	FINISH GRADE		
FIG.	FIGURE		
FL	FLOW LINE (ELEVATION) OR FLANGE		
FOC	FACE OF CURB		
FT	FOOT OR FEET		
FTG.	FOOTING		
GALV.	GALVANIZED		
G.E. OR GR EL.	GRATE ELEVATION		
GIR.	GIRDER		
GRVL	GRAVEL		
GRW	GEOSYNTHETIC RETAINING WALL		
HDPE	HIGH DENSITY POLYETHYLENE		
HMA	HOT MIX ASPHALT		
HORZ.	HORIZONTAL		
HP	HIGH PRESSURE OR HIGH POINT		
ID	INSIDE DIAMETER		
IE	INVERT ELEVATION		
JT.	JOINT		
KC	KITSAP COUNTY		
LBS.	POUNDS		
LF	LINEAR FEET		
LT	LEFT		
LVC	LENGTH OF VERTICAL CURVE		
MAX.	MAXIMUM		
MH	MANHOLE		
MHW	MEAN HIGH WATER		
MHHW	MEAN HIGH HIGH WATER		
MIC	MONUMENT IN CASE		
MIN.	MINIMUM		
N	NORTH		
NE	NORTHEAST		
NO.	NUMBER		
NW	NORTHWEST		
O.C.	ON CENTER		
O.D.	OUTSIDE DIAMETER		
OHL	OVERHEAD LINE		
OHW	ORDINARY HIGH WATER		
PAVT	PAVEMENT		
PC	POINT OF CURVATURE		
PCC	POINT OF COMPOUND CURVE		
PCPS	PRECAST/PRESTRESS		
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN		
P.E.	PLAIN END OR POLYETHYLENE		
PI	POINT OF INTERSECTION		
PP	POLYPROPYLENE		
P	PROPERTY OR PLATE		
PRC	POINT OF REVERSE CURVE		
PROP.	PROPOSED		
P.S.	PRE-STRESS		
PSI	POUND PER SQUARE INCH		
P.T.	POST-TENSION		
PT	POINT OF TANGENCY OR POINT		
PVC	POLYVINYL CHLORIDE		
PVI	POINT OF VERTICAL INTERSECTION		
R	RADIUS		
RCW	REINFORCED CONCRETE WALL		
REF.	REFERENCE		
REINF.	REINFORCED		
RGS	RIGID GALVANIZED STEEL		
RJ	RESTRAINED JOINT		
RT	RIGHT		
R/W	RIGHT-OF-WAY		
S	SOUTH		
SD	STORM DRAIN		
SDMH	STORM DRAIN MANHOLE		
SE	SOUTHEAST		
SHT	SHEET		
SFA	SPACE OR SPACING		
SPEC.	SPECIFICATIONS		
SS	SANITARY SEWER		
SSMH	SANITARY SEWER MANHOLE		
STA.	STATION		
STD	STANDARD		
STIRR.	STIRRUPS		

TIDAL DATUMS

TIDAL DATUM ARE FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) STATION 9447130 IN SEATTLE, WA. MEAN HIGHER HIGH WATER (MHHW) ELEVATION IS APPROXIMATELY 5.44 FT NGVD29.

NOAA STATION(FT)	MLLW(FT)	NGVD29
19.3	11.4	5.4
7.9	0.0	-5.9
0.0	-7.9	-13.9

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED:	COUNTY
DESIGNED:	—
DRAWN:	—
CHECKED:	—
CRP No.	2626
DATE:	08/08/25

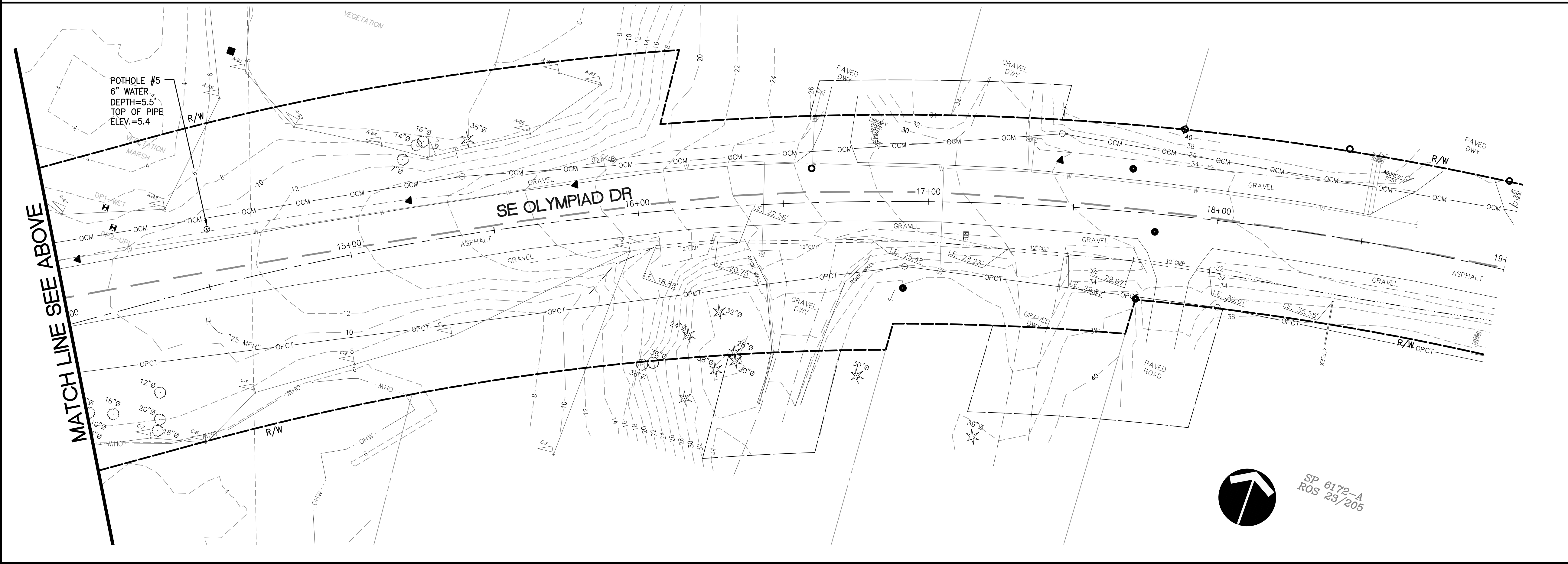
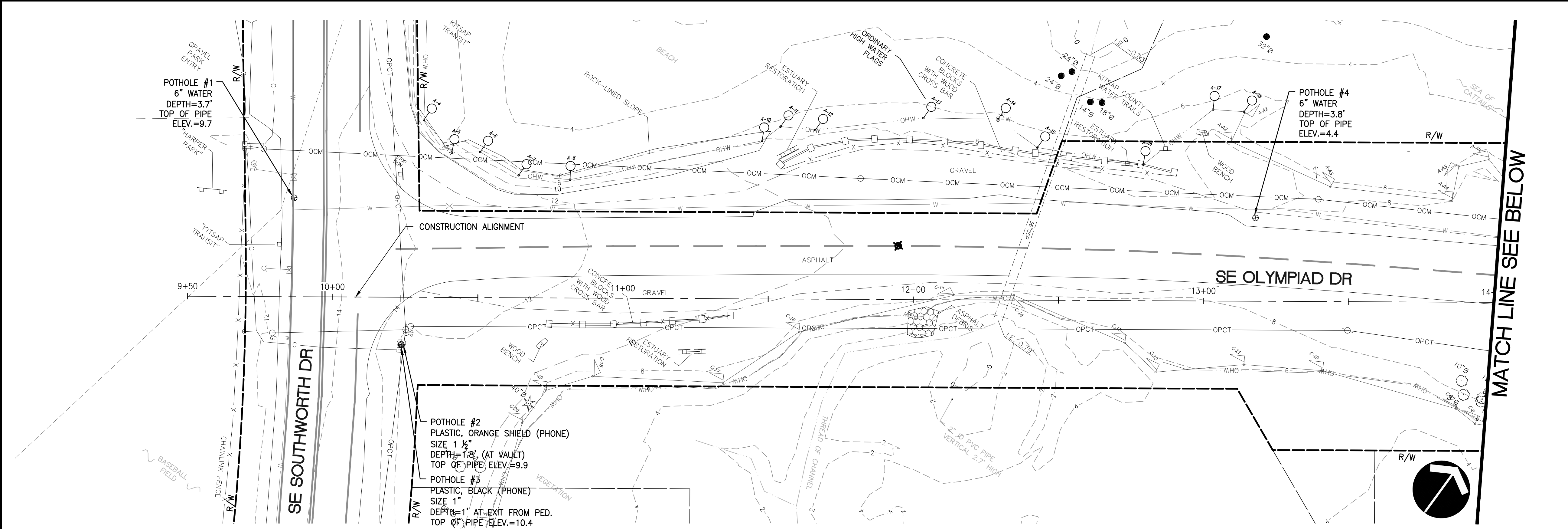


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HARPER ESTUARY BARRIER
CORRECTION
LEGEND AND
ABBREVIATIONS
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

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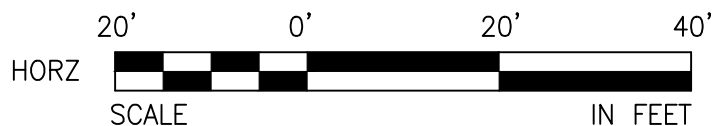
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SURVEY NOTES

1. SURVEY CONTROL WAS ESTABLISHED BY KITSAP COUNTY FOR THE HARPER ESTUARY BRIDGE PROJECT DATED FEBRUARY 2015.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE - NAD83(1991).
3. VERTICAL DATUM: NGVD29, BASED OFF OF NOAA POINT "TIDAL HARPER 5" WITH A PUBLISHED ELEVATION OF 9.623 FEET.
4. ORIGINAL TOPOGRAPHIC AND PLANIMETRIC MAPPING DATA IS BY KITSAP COUNTY DATED FROM FEBRUARY 2015-MAY 2015, AND SE OLYMPIAD DR ALIGNMENT WAS REVISED IN DECEMBER 2015. ADDITIONAL TOPOGRAPHIC COMPLETED BY KITSAP COUNTY IN AUGUST 2016 AND NOVEMBER 2023.
5. RIGHT-OF-WAY, EASEMENT AND PARCEL LINES ESTABLISHED AND SUPPLIED BY KITSAP COUNTY.

SEE DWG RW01 FOR SURVEY CONTROL TABLE

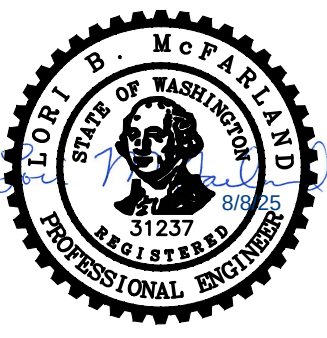


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LORI B. MCFARLAND
REGISTERED PROFESSIONAL ENGINEER
31237



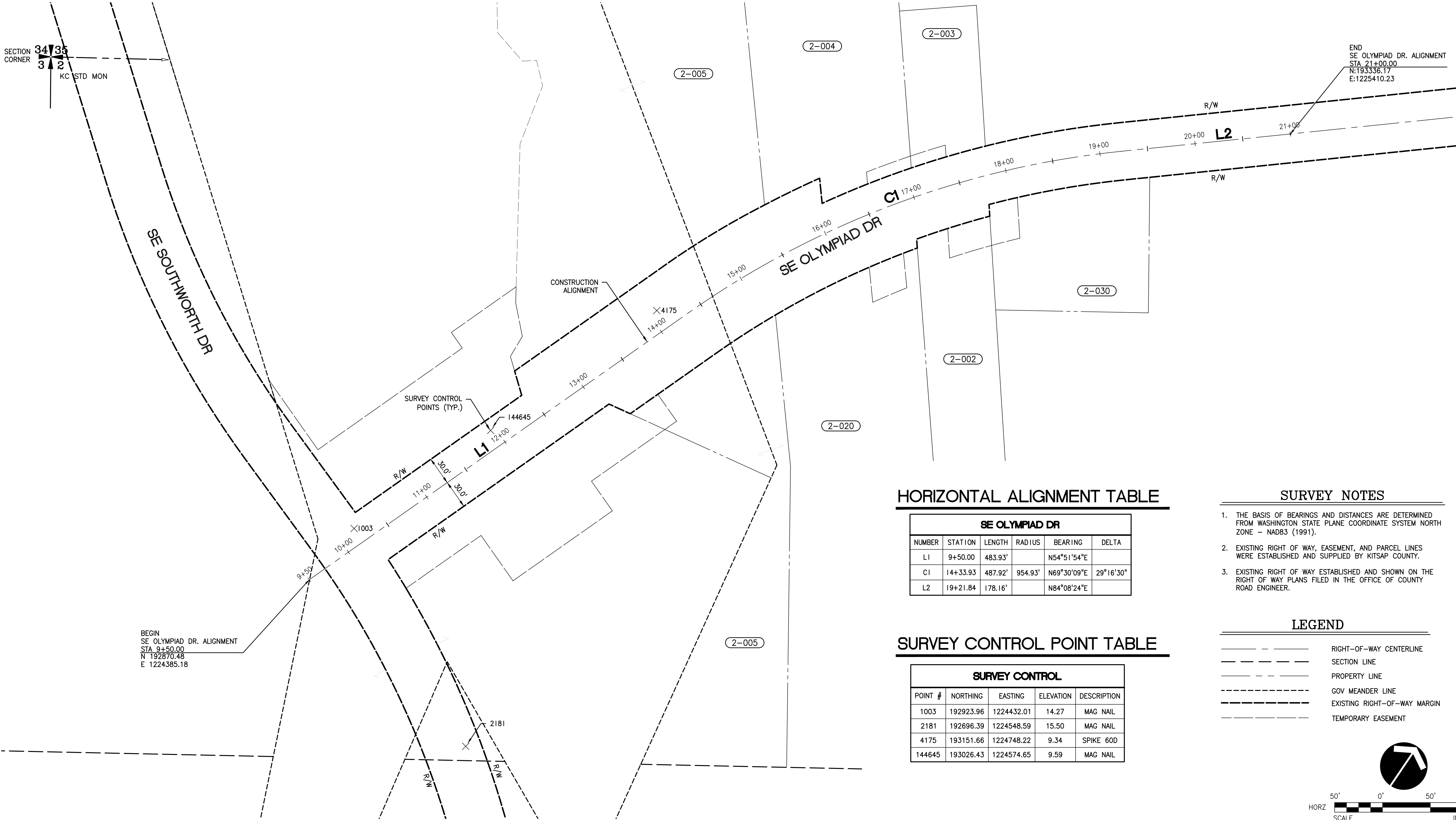
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HARPER ESTUARY BARRIER
CORRECTION
EXISTING CONDITIONS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
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56

A PORTION OF SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.



HORIZONTAL ALIGNMENT TABLE

SE OLYMPIAD DR					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L1	9+50.00	483.93'		N54°51'54"E	
C1	14+33.93	487.92'	954.93'	N69°30'09"E	29°16'30"
L2	19+21.84	178.16'		N84°08'24"E	

SURVEY CONTROL POINT TABLE

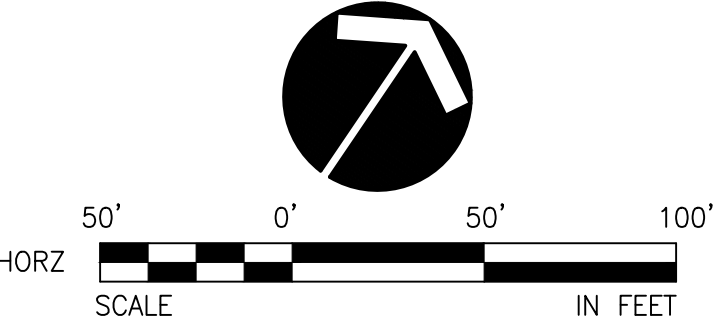
SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1003	192923.96	1224432.01	14.27	MAG NAIL
2181	192696.39	1224548.59	15.50	MAG NAIL
4175	193151.66	1224748.22	9.34	SPIKE 60D
144645	193026.43	1224574.65	9.59	MAG NAIL

SURVEY NOTES

- THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM NORTH ZONE - NAD83 (1991).
- EXISTING RIGHT OF WAY, EASEMENT, AND PARCEL LINES WERE ESTABLISHED AND SUPPLIED BY KITSAP COUNTY.
- EXISTING RIGHT OF WAY ESTABLISHED AND SHOWN ON THE RIGHT OF WAY PLANS FILED IN THE OFFICE OF COUNTY ROAD ENGINEER.

LEGEND

- RIGHT-OF-WAY CENTERLINE
- SECTION LINE
- PROPERTY LINE
- GOV MEANDER LINE
- EXISTING RIGHT-OF-WAY MARGIN
- TEMPORARY EASEMENT



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
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CRP No. 2626
DATE: 08/08/25

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LOUIE B. MCFARLAND

STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
51237

KITSAP COUNTY

1857

WASHINGTON

KITSAP COUNTY

DEPT. OF PUBLIC WORKS

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HARPER ESTUARY BARRIER
CORRECTION

SURVEY CONTROL
AND CONSTRUCTION ALIGNMENT

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET

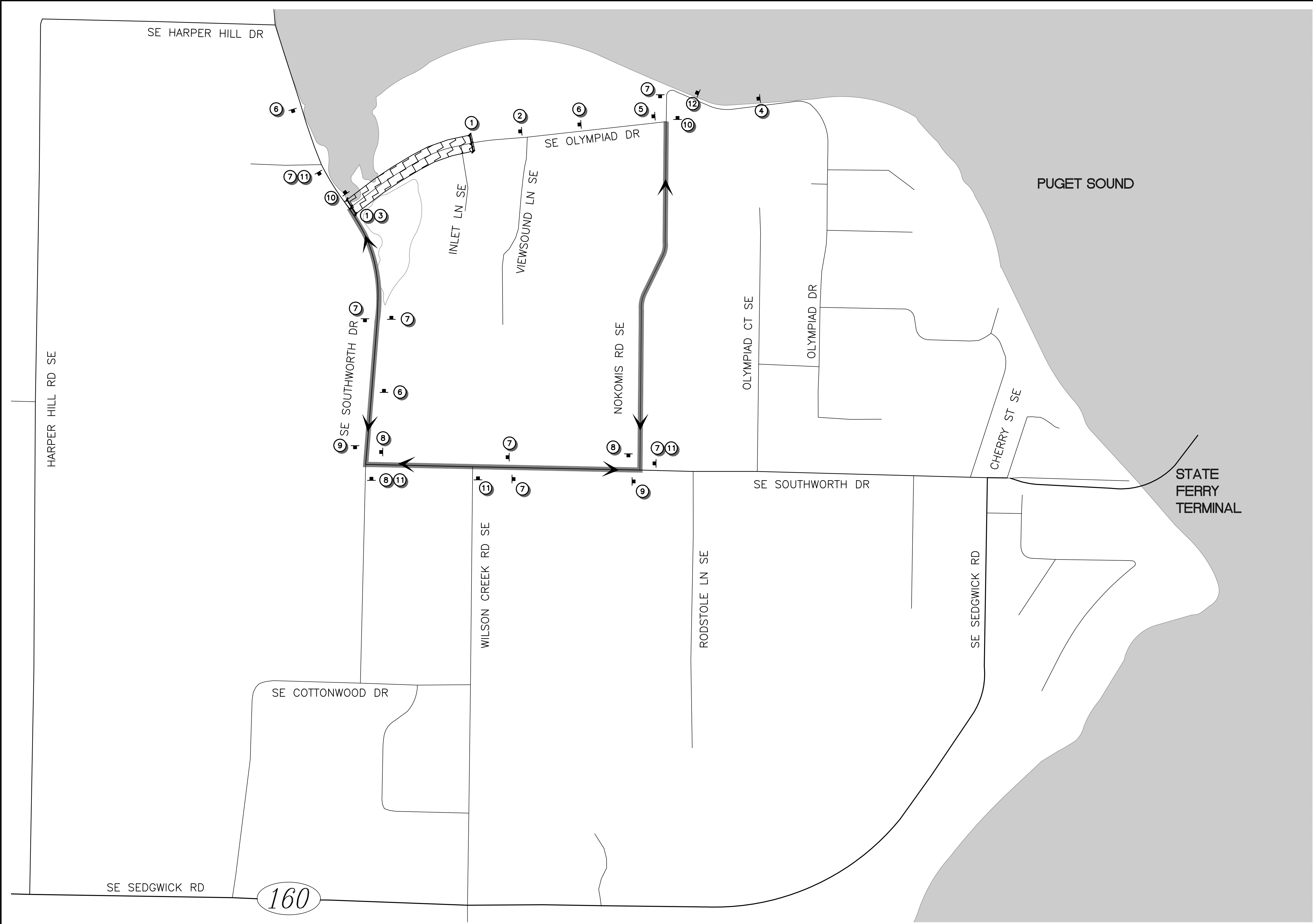
RW01

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DETOUR CONSTRUCTION NOTES

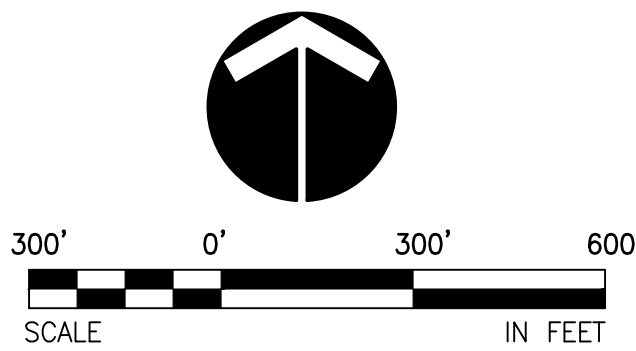
1. INSTALL R11-2 "ROAD CLOSED" AND PLAQUE "CONSTRUCTION ACCESS ONLY" WITH TYPE III BARRICADE.
2. INSTALL W20-3 "ROAD CLOSED AHEAD".
3. INSTALL M4-10 "DETOUR".
4. INSTALL W20-2 "DETOUR AHEAD".
5. INSTALL R11-4 "ROAD CLOSED TO THRU TRAFFIC".
6. INSTALL W20-1 "ROAD WORK AHEAD".
7. INSTALL M4-9 "DETOUR" (UP) WITH D3-101 "SE OLYMPIAD DR".
8. INSTALL M4-9R "DETOUR ARROW" (RIGHT) WITH D3-101 "SE OLYMPIAD DR".
9. INSTALL M4-9L "DETOUR ARROW" (LEFT) WITH D3-101 "SE OLYMPIAD DR".
10. INSTALL M4-8a "END DETOUR".
11. INSTALL R11-3 (MODIFIED) "SE OLYMPIAD DR CLOSED AT SE SOUTHWORTH DR (DATE) TO (DATE) ALTERNATE ROUTE ADVISED".
12. INSTALL R11-3 (MODIFIED) "SE OLYMPIAD DR CLOSED AT NOKOMIS DR SE (DATE) TO (DATE) ALTERNATE ROUTE ADVISED". INSTALL ONE WEEK PRIOR TO CLOSURE.

DETOUR GENERAL NOTES

1. SIGN SPACING SHALL BE AS FOLLOWS:
25/30 MPH - 200'
35/40 MPH - 350'
2. SIGN POSITIONS SHOWN ARE NOT TO SCALE.
3. SEE WASHINGTON STATE "SIGN FABRICATION MANUAL" FOR CODE REFERENCES.
4. EXISTING MARKINGS IN CONFLICT WITH THE PROPOSED CHANNELIZATION SHALL BE REMOVED.

LEGEND

- ROAD/LANE CLOSED AREA
- SIGNED DETOUR ROUTE
- TYPE III BARRICADE
- SIGN



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED:
DRAWN:
CHECKED:
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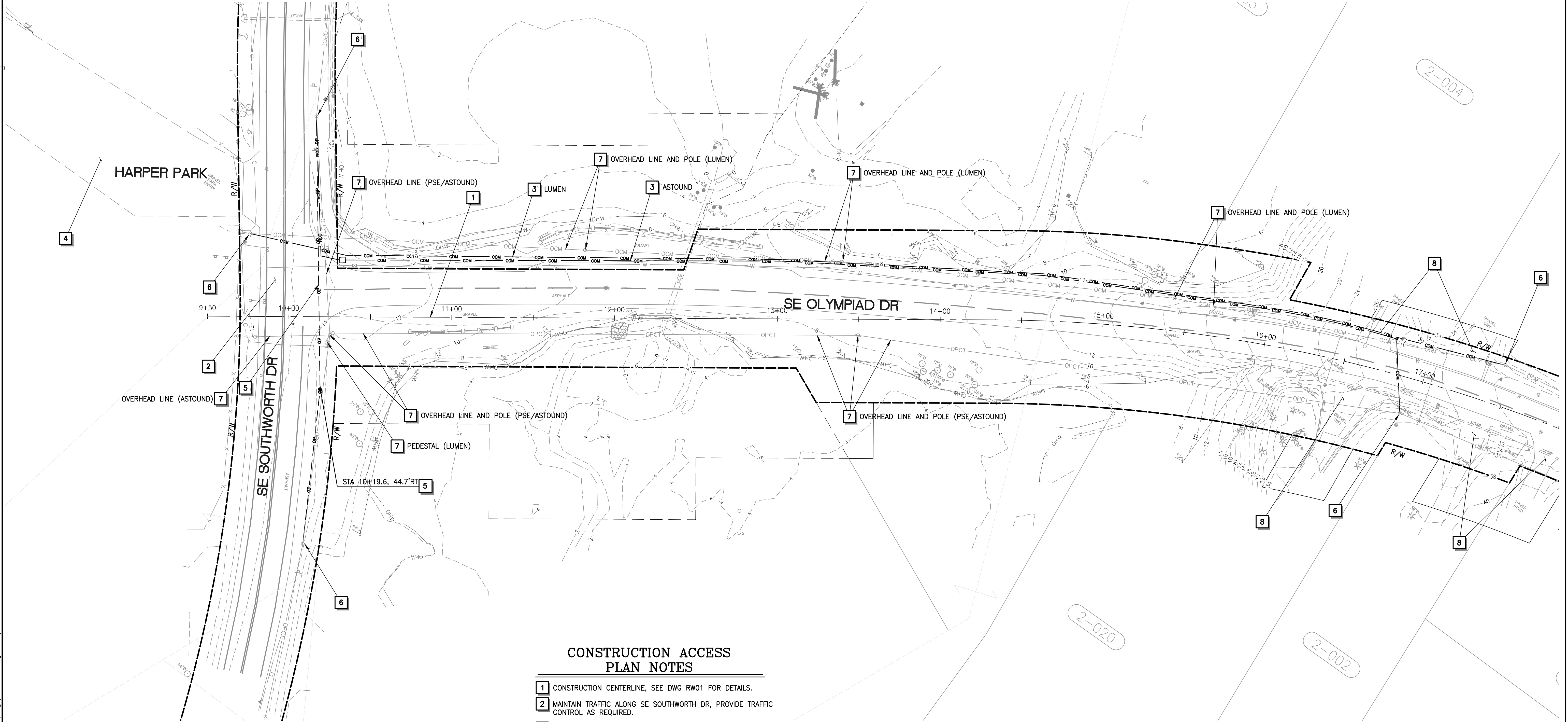
HARPER ESTUARY BARRIER CORRECTION DETOUR PLAN

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
ST01
5
OF
56

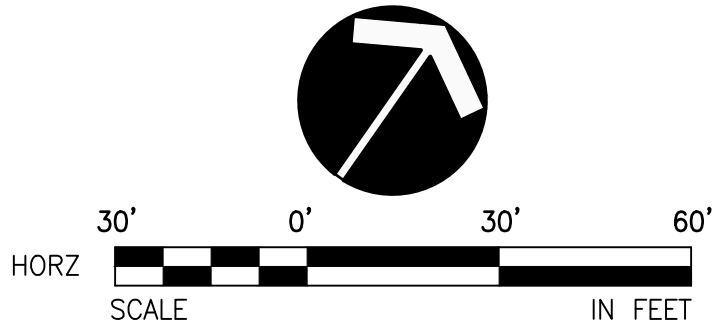
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C510W360
C510U620
C510G421
T510X800
T510X370
Unresolved
C510N031
C510G460

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CONSTRUCTION ACCESS PLAN NOTES

- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 MAINTAIN TRAFFIC ALONG SE SOUTHWORTH DR, PROVIDE TRAFFIC CONTROL AS REQUIRED.
- 3 TEMPORARY GROUND LAY CONDUITS INSTALLED BY OTHERS, APPROXIMATE LOCATION SHOWN. PROTECT DURING CONSTRUCTION.
- 4 SUGGESTED TEMPORARY STAGING AREA FOR CONSTRUCTION AT GRAVEL PARKING AREA. ACCESS TO PARK AND TRAILS AND 50% OF THE PARKING AREA SHALL REMAIN OPEN AND AVAILABLE FOR PUBLIC USE. RESTORE DISTURBED AREA TO ITS ORIGINAL OR BETTER SURFACE CONDITION WHEN CONSTRUCTION IS COMPLETE. STAGING PLAN MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 5 APPROXIMATE LOCATION OF RELOCATED POLE AND OVERHEAD POWER LINE BY OTHERS. PROTECT DURING CONSTRUCTION.
- 6 PROTECT EXISTING UTILITY POLE.
- 7 EXISTING UTILITY TO BE RELOCATED/REMOVED BY OTHERS.
- 8 ALLOW ACCESS TO LOCAL DRIVEWAYS.



REVISIONS			
No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25

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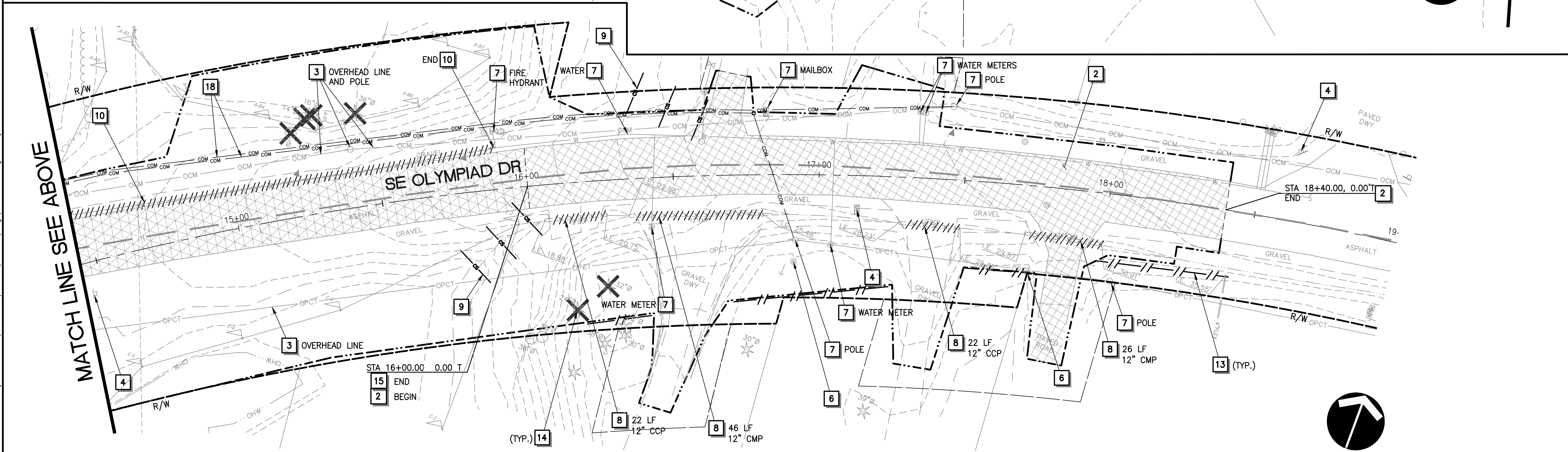
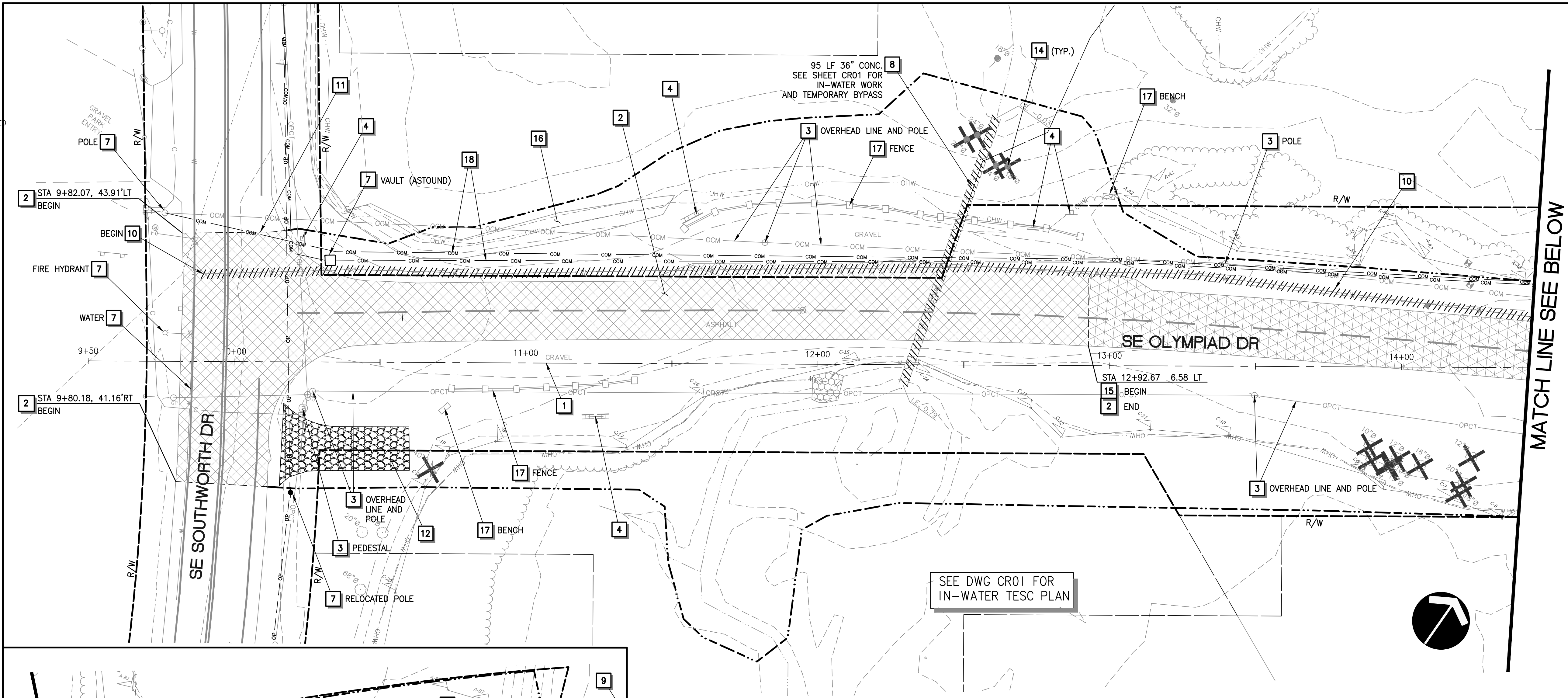
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**HARPER ESTUARY BARRIER
CORRECTION**
CONSTRUCTION ACCESS PLAN

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
ST02
6
OF
56

XREF LIST
Ltscale: 1
Resolved
TBLK
C510R270
HARPER
C510N031
C510G460
WDFW_PROPOSED



TESC CONSTRUCTION NOTES

- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 SAWCUT AND REMOVE EXISTING PAVEMENT.
- 3 EXISTING UTILITY TO BE REMOVED/RELOCATED BY OTHERS.
- 4 SEE SIGNING AND STRIPING PLANS (DWG CH01) FOR SIGN REMOVAL/RELOCATION.
- 5 INSTALL HIGH VISIBILITY SILT FENCE WITH BACKUP SUPPORT PER WSDOT STD PLAN I-30.16-00.
- 6 EXISTING SURVEY MONUMENT OR PROPERTY CORNER TO BE REMOVED AND REPLACED. CONTRACTOR SHALL COORDINATE WITH KITSAP COUNTY PRIOR TO REMOVAL. KITSAP COUNTY WILL REPLACE ALL DISTURBED MONUMENTS.
- 7 EXISTING FEATURES OR STRUCTURES TO REMAIN, PROTECT DURING CONSTRUCTION.
- 8 REMOVE EXISTING DRAINAGE PIPES OR STRUCTURES.
- 9 INSTALL A MINIMUM OF THREE COMPOST SOCKS ON SLOPE PER WSDOT STD. PLAN I-30.40-01, EXTENDING A MINIMUM OF 5' BEYOND TOP EDGE OF DITCH.
- 10 EXISTING WATER MAIN TO BE REMOVED, SEE DWG UT01 FOR DETAILS.
- 11 EXISTING PAVEMENT WITHIN SE SOUTHWORTH DRIVE (OUTSIDE OF ROAD CLOSURE AREA) SHALL NOT BE REMOVED UNTIL FINAL PAVING IS READY TO BE COMMENCED.
- 12 CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE PER WSDOT STD. PLAN I-80.10-02.
- 13 INSTALL HIGH VISIBILITY FENCE PER WSDOT STD. PLAN I-10.10-01.
- 14 REMOVE EXISTING TREE(S).
- 15 PULVERIZE EXISTING PAVEMENT TO FULL DEPTH. PULVERIZED PAVEMENT SHALL BE RE-SHAPED AND COMPACTED TO 95% AND BE USED AS BASE.
- 16 REMOVE EXISTING RIPRAP.
- 17 REMOVE EXISTING FEATURE.
- 18 PROTECT TEMPORARY GROUND LAY CONDUITS, SEE DWG ST02 FOR DETAILS.

TESC GENERAL NOTES

1. CATCH BASIN INLET PROTECTION SHALL BE PROVIDED AND MAINTAINED AT ALL EXISTING AND PROPOSED CATCH BASIN PRIOR TO AND FOR THE DURATION OF CONSTRUCTION OPERATIONS. PROPOSED CATCH BASINS AND PROTECTION MEASURES NOT SHOWN IN PLAN FOR CLARITY.
2. LOCATION OF TESC MEASURES ARE APPROXIMATE AND SHALL BE FIELD LOCATED TO ACCOMMODATE SITE CONDITIONS AND WORK SCHEDULE.
3. ALL TREES NOT INDICATED FOR REMOVAL SHALL BE PROTECTED.
4. ORDINARY HIGH WATER (OHW) ALSO REPRESENTS WETLAND BOUNDARY.

LEGEND

- HIGH VISIBILITY FENCE
- - - CLEARING LIMITS
- COMPOST SOCK
- //// PIPE REMOVAL
- PAVEMENT/CONCRETE REMOVAL
- PAVEMENT PULVERIZING
- STABILIZED CONSTRUCTION ENTRANCE
- XX TREE REMOVAL



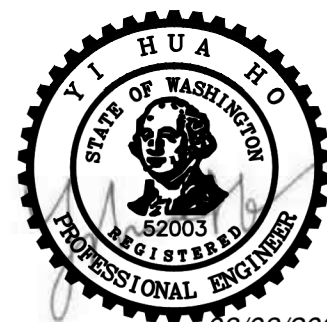
REVISIONS

No.	BY	DATE	DESCRIPTION

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CHECKED: GSL
CRP No. 2626
DATE: 08/08/25



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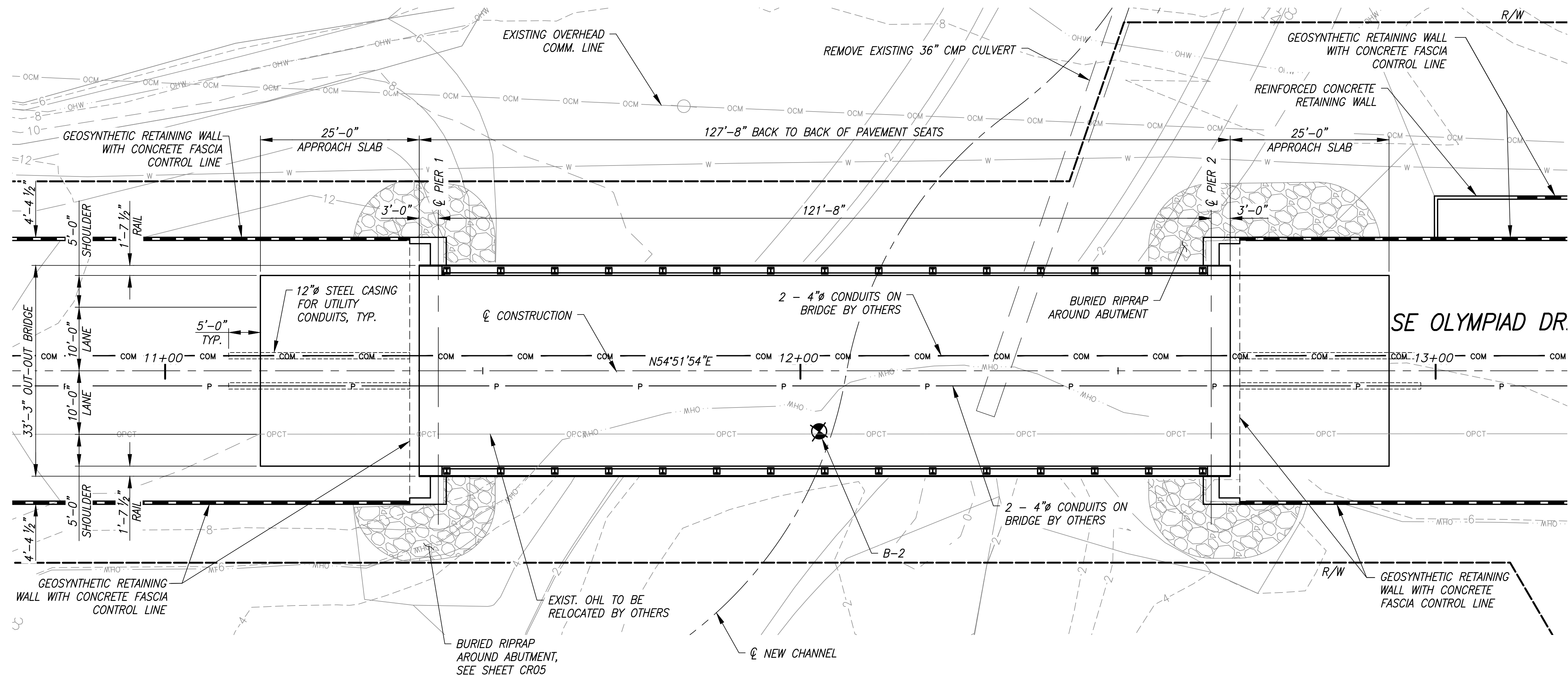
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HARPER ESTUARY BARRIER CORRECTION TESC AND DEMOLITION PLAN

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

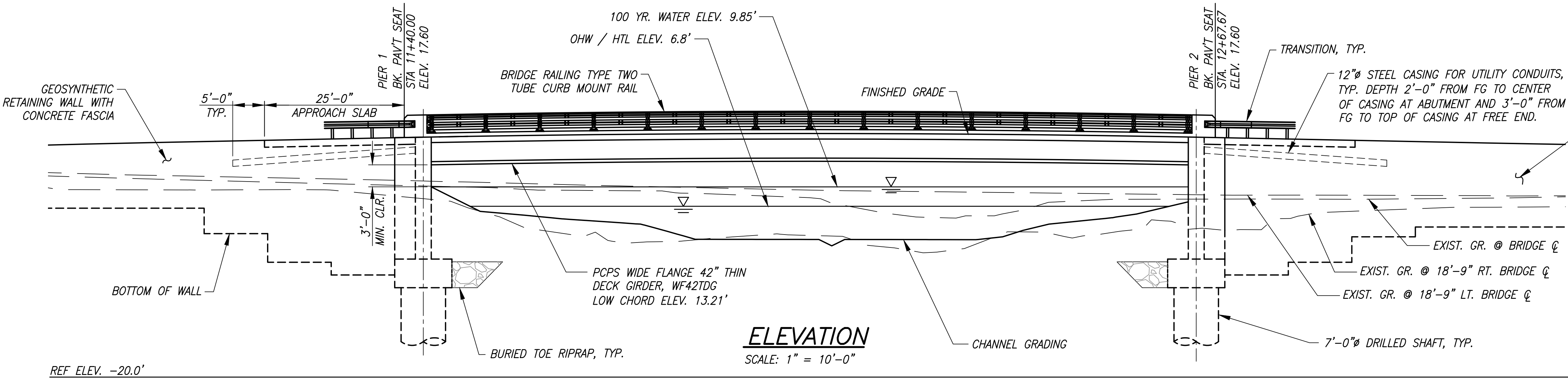
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Plotted: Aug 07, 2025 - 6:56pm
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Layout Name: B01



PLAN

SCALE: 1" = 10'-0"
BEARING OF PIERS NORMAL TO CONSTRUCTION ϕ



ELEVATION

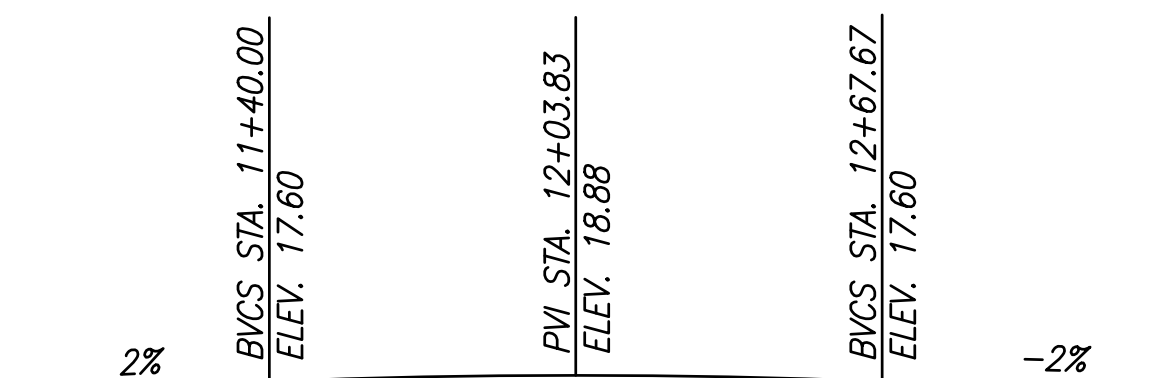
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GENERAL NOTES

- ALL MATERIAL AND WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" 2025 EDITION AND SPECIAL PROVISIONS.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR LOAD & RESISTANCE FACTOR DESIGN PER "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION" AND THE WSDOT BRIDGE DESIGN MANUAL. THE STRUCTURE HAS BEEN DESIGNED FOR HL-93 LIVE LOAD. A 50 PSF ALLOWANCE FOR FUTURE ASPHALT OVERLAY HAS BEEN INCLUDED.
- SEISMIC DESIGN HAS BEEN CONDUCTED IN ACCORDANCE WITH THE AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN. SEISMIC DESIGN CRITERIA: $A_s = 0.488G$, $SDI = .603$, $SDS = 1.134$ (7% EXCEEDANCE IN 75 YEARS), SITE CLASSIFICATION "D", AND SEISMIC DESIGN CATEGORY D. SEISMIC DESIGN INCLUDES LIQUEFACTION AND LATERAL SPREAD FORCES PER GEOTECHNICAL REPORT.
- UNLESS OTHERWISE SHOWN ON PLANS, CONCRETE COVER MEASURED FROM FACE OF CONCRETE TO THE NEAREST EDGE OF ANY REINFORCEMENT BAR SHALL BE 2".
- ALL DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY OR VERTICALLY UNLESS NOTED OTHERWISE.
- CONSTRUCTION JOINTS WILL BE ALLOWED ONLY AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER.
- PROVIDE CONCRETE CLASS AS FOLLOWS: ROADWAY DECK - CLASS 4000D, DRILLED SHAFTS - CLASS 4000P, APPROACH SLABS - CLASS 4000A AND ALL OTHER CONCRETE TO BE CLASS 4000 UNLESS NOTED OTHERWISE.
- PROVIDE REINFORCING STEEL ACCORDING TO ASTM A706 GRADE 60 OR ASTM A615 GRADE 60. FIELD BENT AND WELDED REINFORCING AND ALL REINFORCING IN DRILLED SHAFTS SHALL CONFORM TO ASTM A706. UNLESS NOTED OTHERWISE, MINIMUM LAP SPLICE LENGTHS SHALL BE AS FOLLOWS:

#4 BAR = 2'-0" #4 ∇ BAR = 2'-6"
#5 BAR = 2'-0" #5 ∇ BAR = 3'-0"
#6 BAR = 2'-3" #6 ∇ BAR = 3'-9"
#7 BAR = 2'-9" #7 ∇ BAR = 4'-3"
#8 BAR = 3'-3" #8 ∇ BAR = 4'-9"
#9 BAR = 4'-2" #9 ∇ BAR = 5'-6"
#10 BAR = 5'-3" #10 ∇ BAR = 6'-0"
#11 BAR = 6'-6"

∇ DENOTES EPOXY COATED BARS.

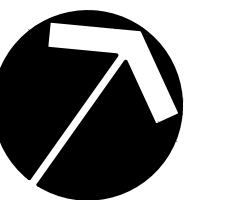


FINISH GRADE PROFILE

AT ϕ CONSTRUCTION

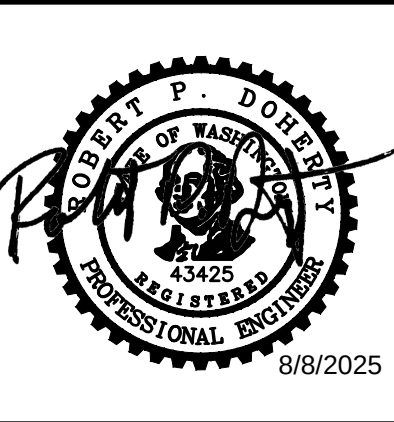
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DATUM
NGVD29



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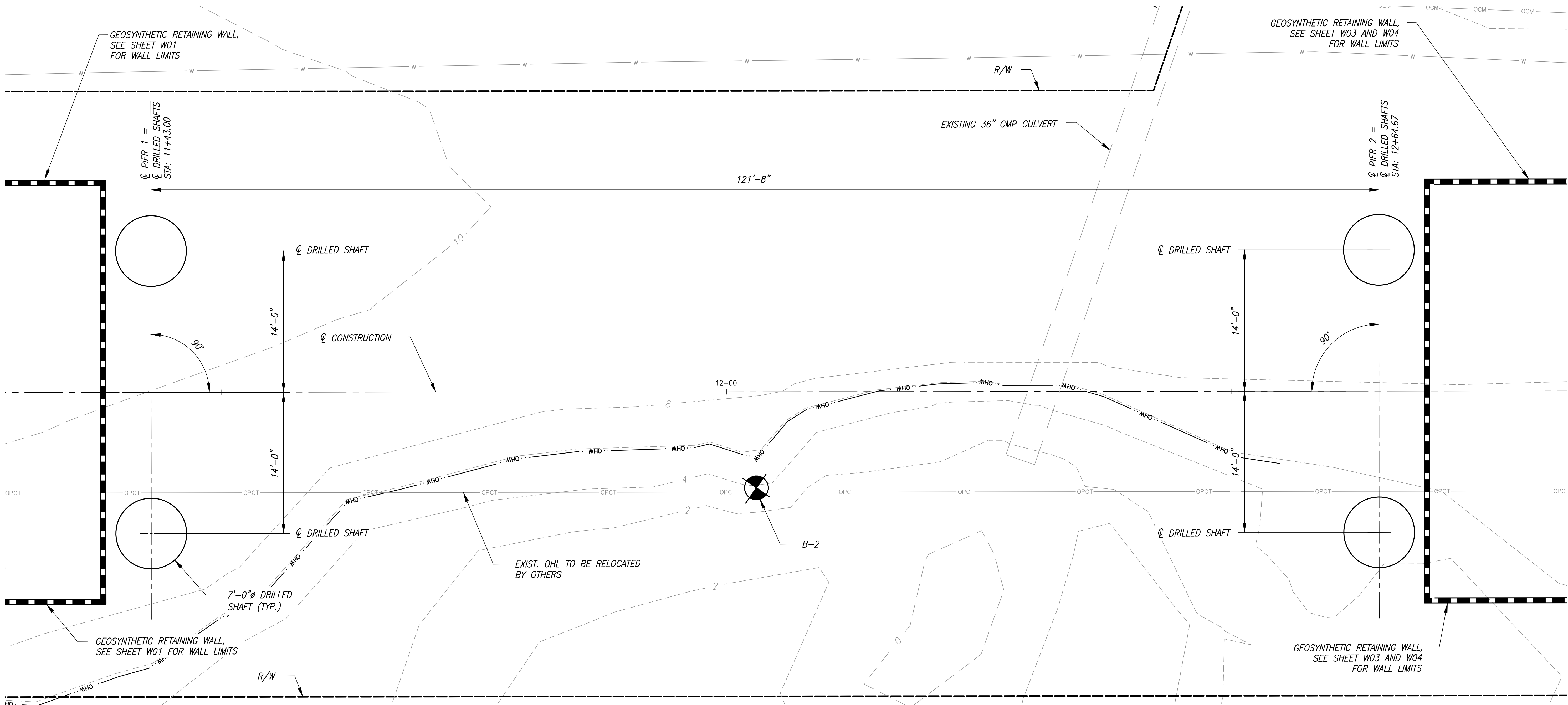
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PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
BRIDGE LAYOUT

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
B01
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Layout Name: B02

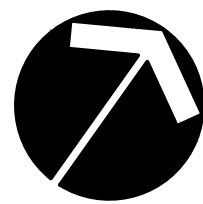


FOUNDATION LAYOUT

SCALE: 1" = 5'-0"
*SEE SUMMARY OF SUBSURFACE CONDITIONS AND BORING LOGS.

NOMINAL SHAFT RESISTANCE, UNFACTORED (KIPS)				
		END BEARING RESISTANCE	SKIN FRICTION RESISTANCE	UPLIFT RESISTANCE
SERVICE LIMIT STATE	PIER 1	1700	2900	2900
	PIER 2	1700	2900	2900
STRENGTH LIMIT STATE	PIER 1	1700	2900	2900
	PIER 2	1700	2900	2900
EXTREME EVENT LIMIT STATE	PIER 1	1700	2500	2500
	PIER 2	1700	2500	2500

SHAFT RESISTANCE FACTORS				
LIMIT STATE		RESISTANCE FACTOR,		
		BEARING RESISTANCE		UPLIFT, ϕ_{UP}
		TIP	SIDE	
SERVICE LIMIT STATE	PIER 1	0.40	0.55	0.40
STRENGTH LIMIT STATE	PIER 1	1.0	1.0	1.0
EXTREME EVENT LIMIT STATE	PIER 1	1.0	1.0	1.0



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				CRP No. 2626
				DATE: 08/08/25

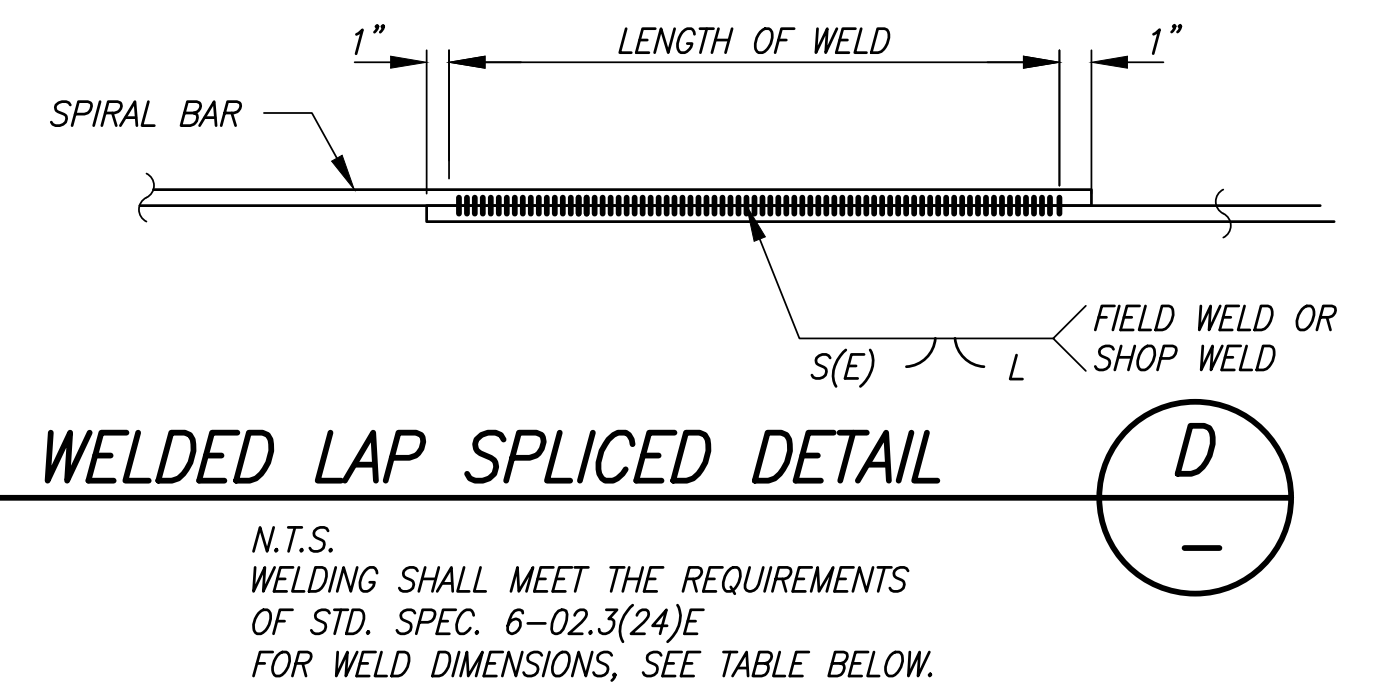
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HARPER ESTUARY BARRIER CORRECTION
FOUNDATION LAYOUT

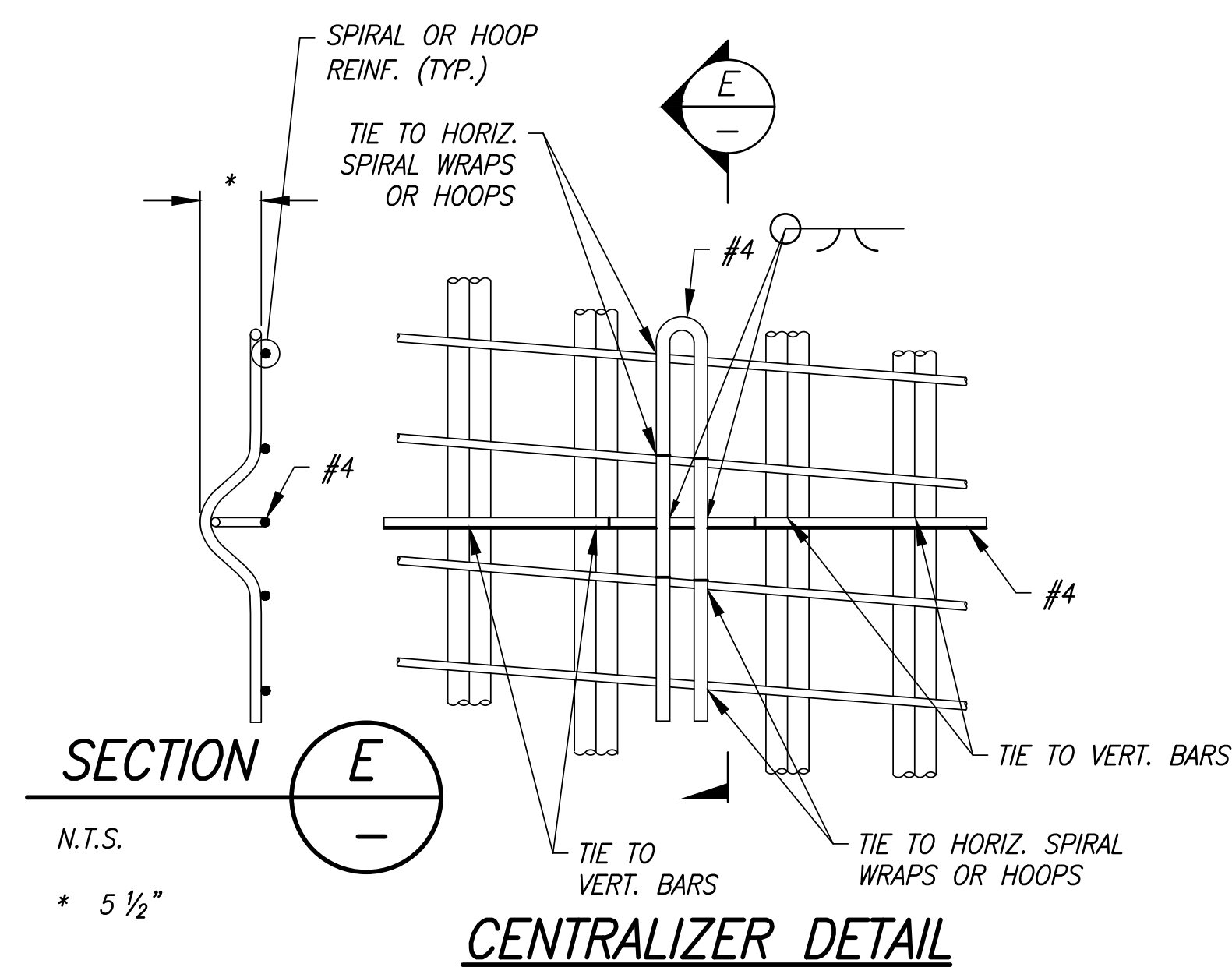
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

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OF
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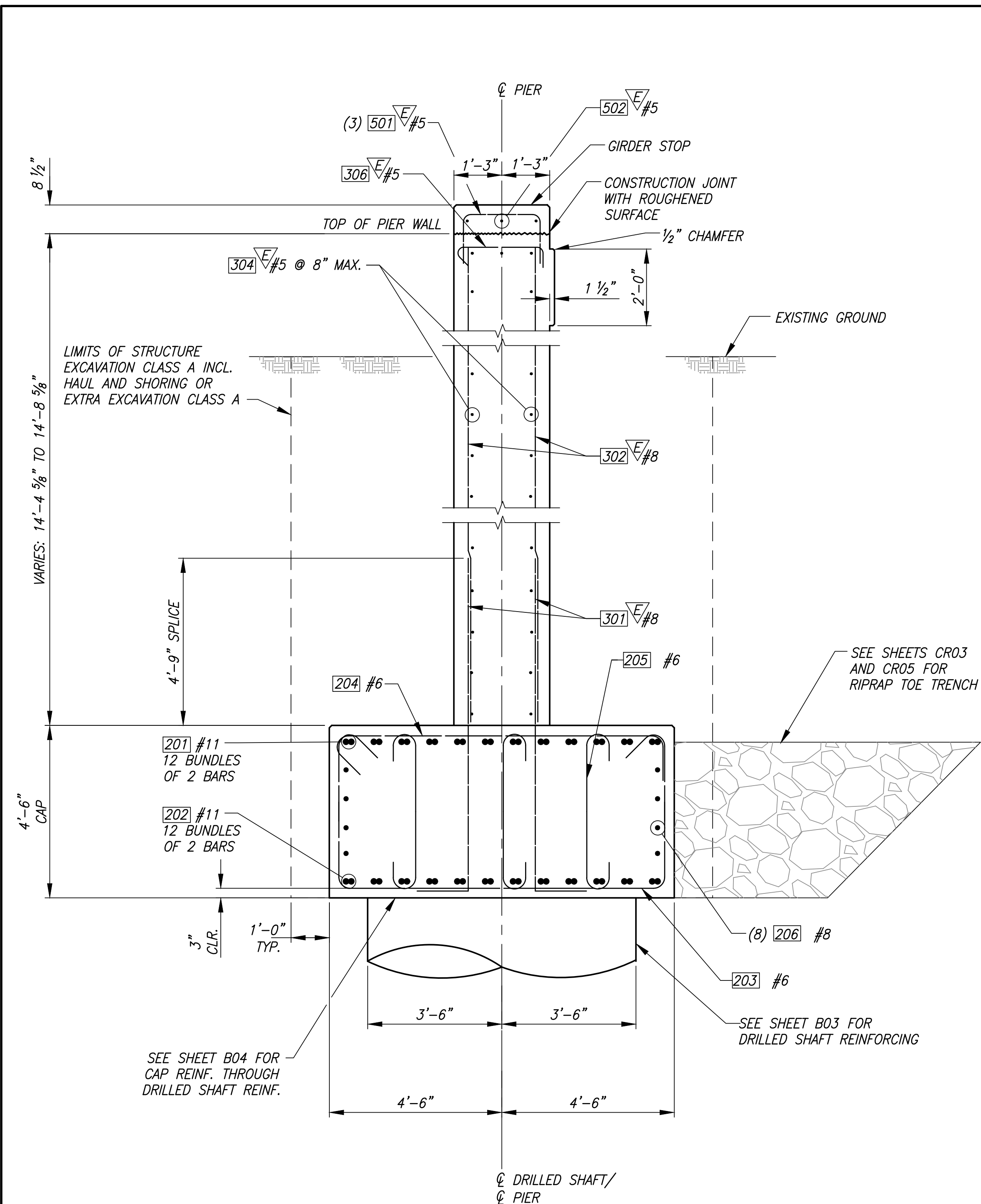


CENTRALIZER NOTES:

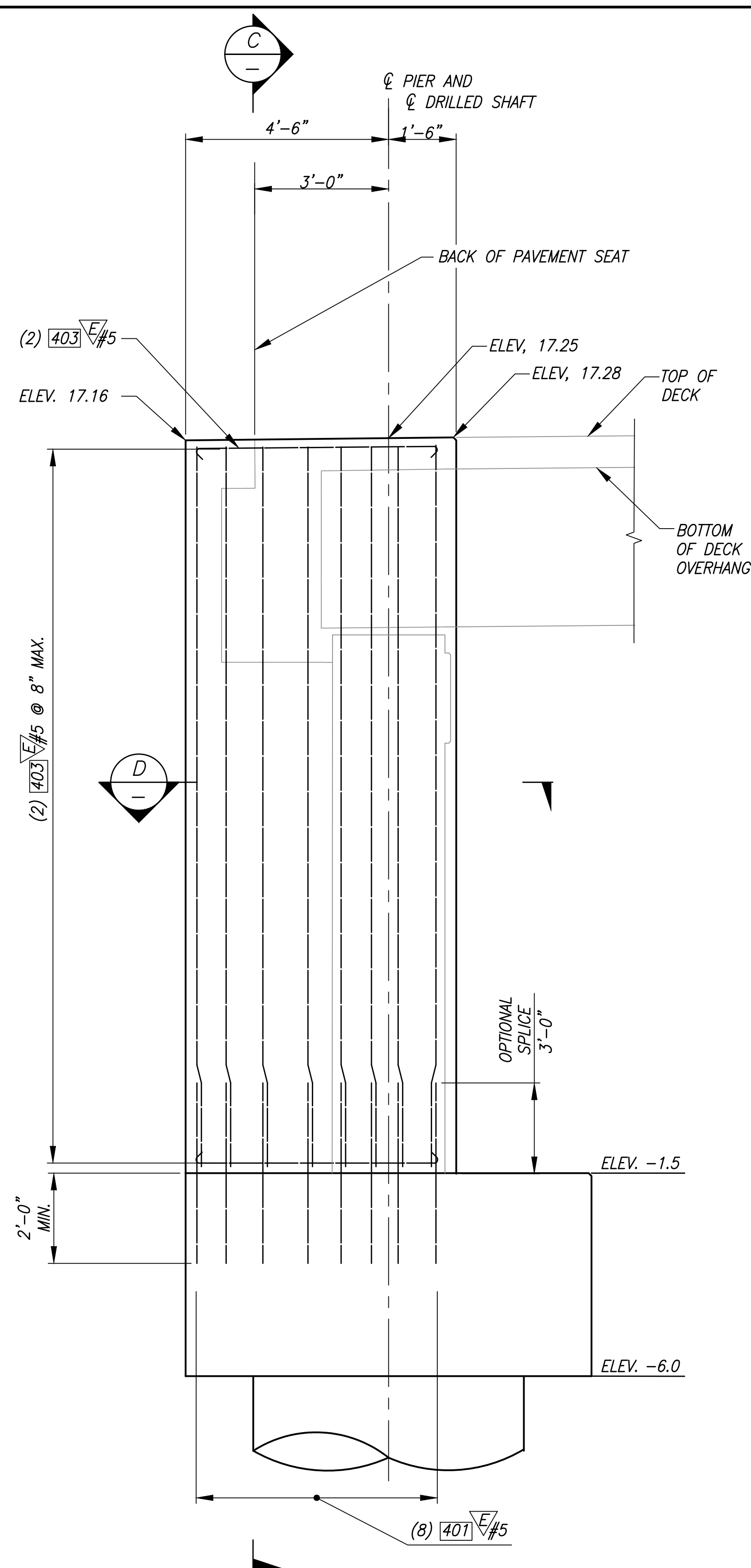
1. CENTRALIZERS SHALL BE EPOXY COATED OR PAINTED WITH INORGANIC ZINC AFTER FABRICATION.
2. EACH LEG SHALL BE TIED TO TWO VERTICAL BAR BUNDLES AND TWO SPIRAL WRAPS OR HOOPS.
3. SEE STD. SPEC. 6-19.3(5)B FOR SPACING.



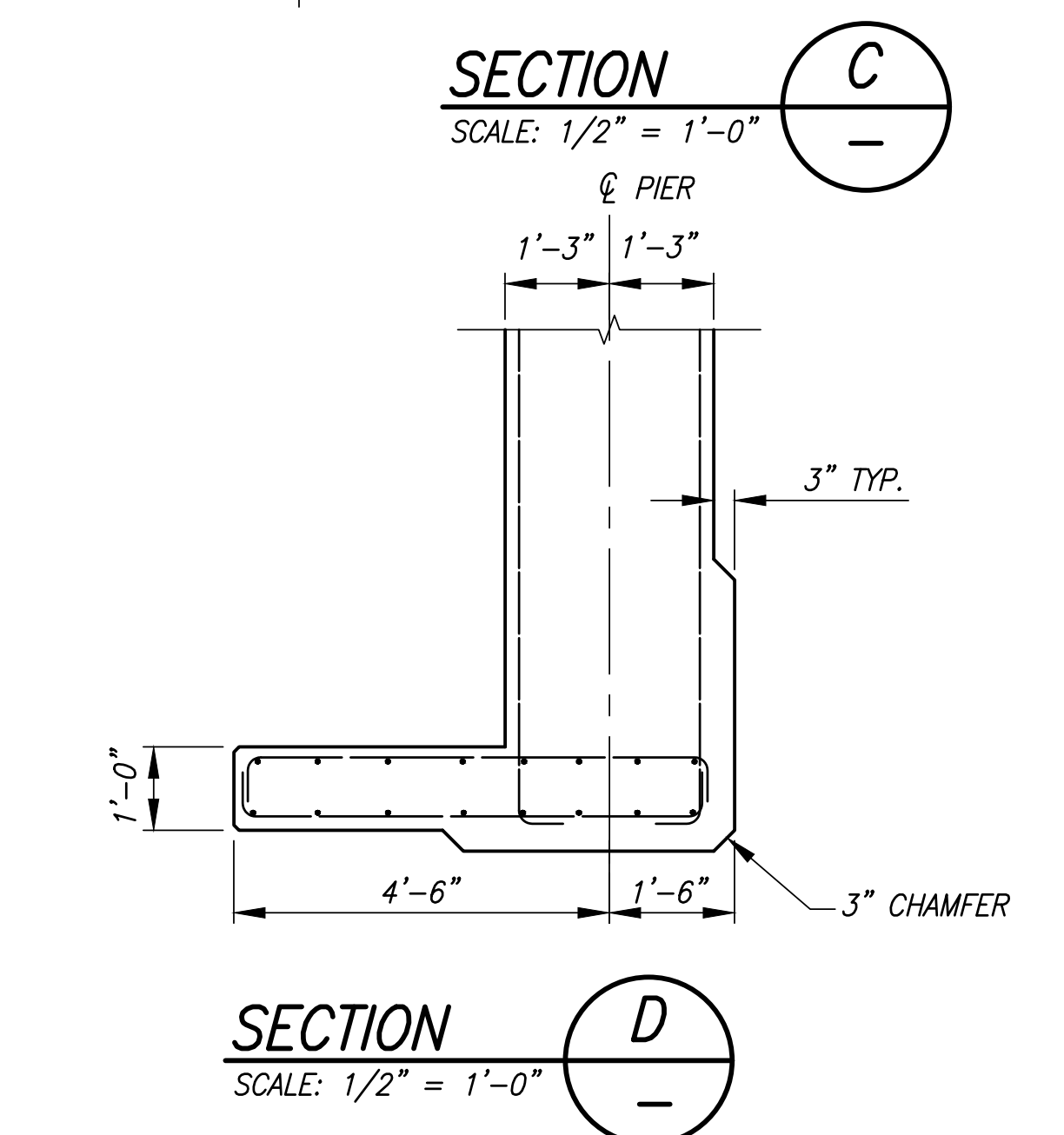
 11241 Willows Road NE, Suite 200 Redmond, WA 98052 425.822.4446 www.otak.com		 KITSAP COUNTY DEPT. OF PUBLIC WORKS 614 DIVISION STREET MS-26 PORT ORCHARD, WA 98366 TEL:(360) 337-5777 FAX:(360) 337-4867	<i>HARPER ESTUARY BARRIER CORRECTION</i> DRILLED SHAFT DETAILS KITSAP COUNTY, WASHINGTON SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.	SHEET B03 10 OF 56
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SECTION A
SCALE: 1/2" = 1'-0" B04



CURTAIN WALL ELEVATION B
SCALE: 1/2" = 1'-0" B04



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				CRP No. 2626
				DATE: 08/08/25



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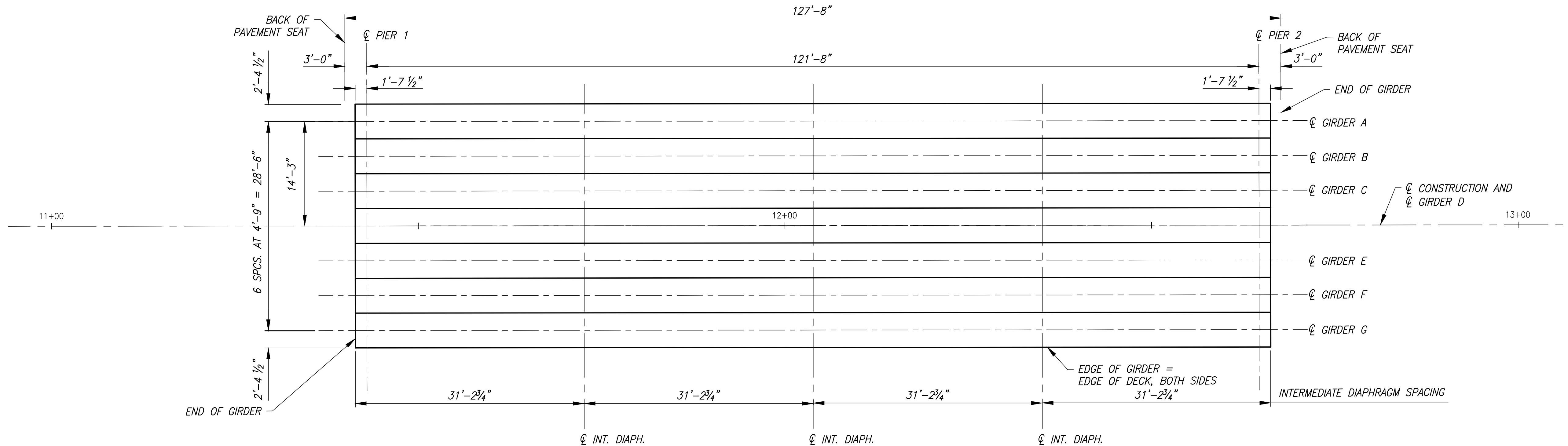
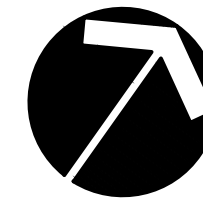


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HARPER ESTUARY BARRIER
CORRECTION
PIERS 1 AND 2 DETAILS

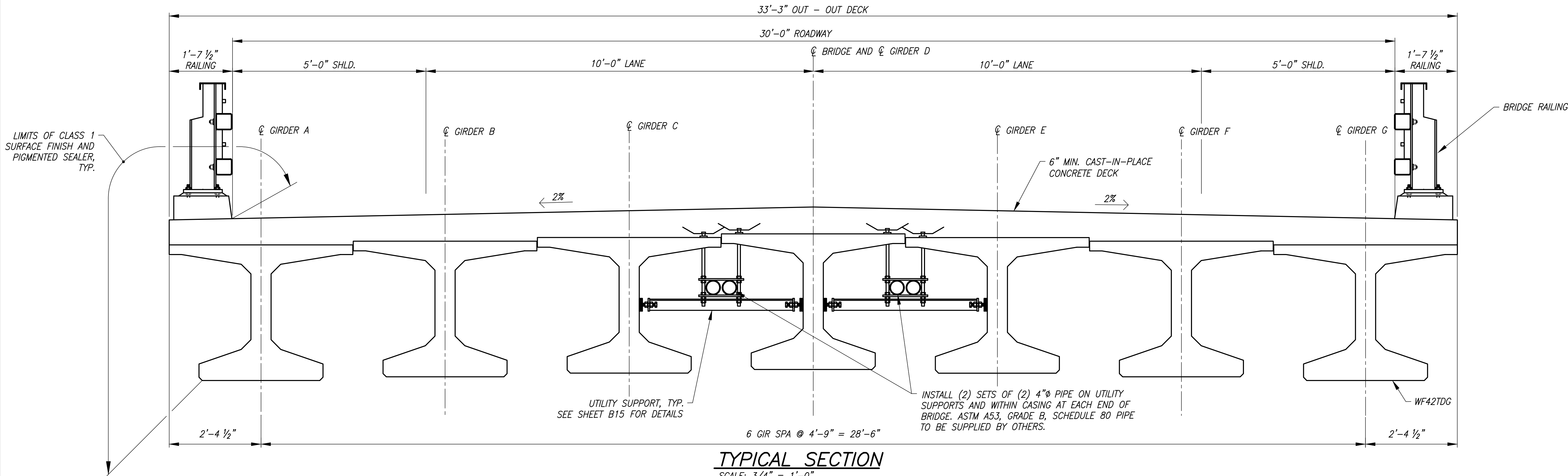
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
305
12
OF
56



FRAMING PLAN

SCALE: 1" = 8'-0"



TYPICAL SECTION

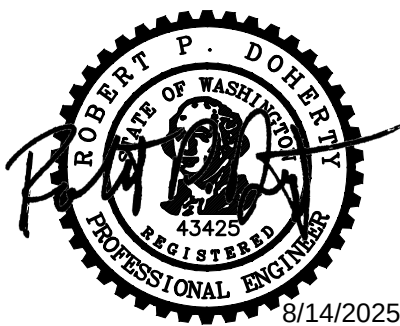
SCALE: 3/4" = 1'-0"

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ROBERT P. DOHERTY
43425
REGISTERED PROFESSIONAL ENGINEER
8/14/2025



KITSAP COUNTY
WASHINGTON

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HARPER ESTUARY BARRIER
CORRECTION
FRAMING PLAN AND TYPICAL SECTION

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

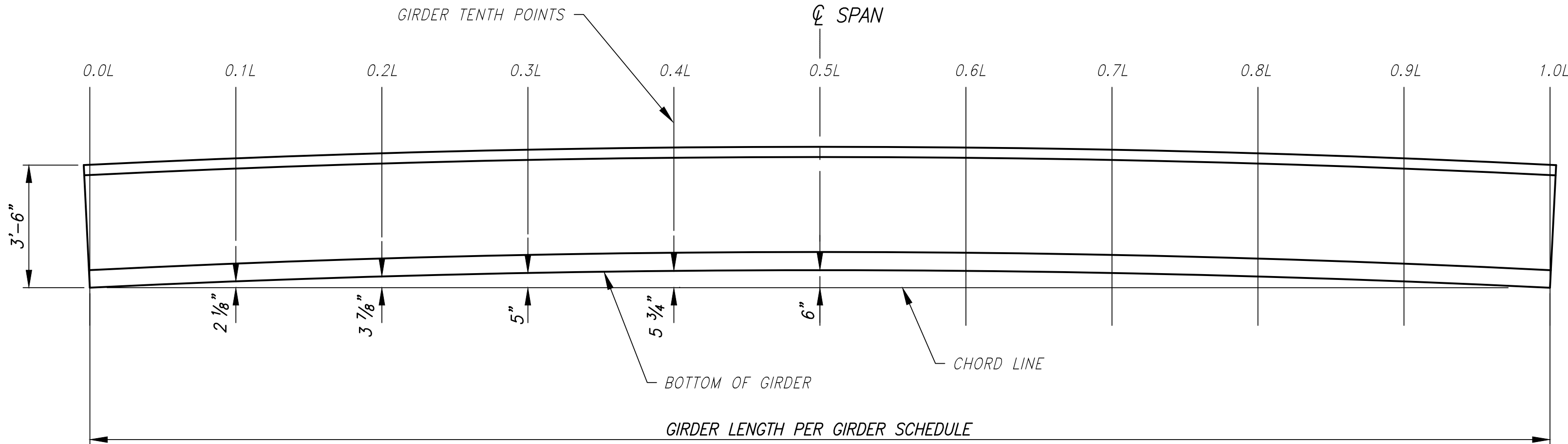
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OF
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Layout Name: B08
ahmed.kayanda

GIRDER SCHEDULE

SPAN	GIRDER	GIRDER SERIES	TOP FLANGE WIDTH "W"	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	INT. DIAPHRAGM TYPE (FULL OR PARTIAL)	GIRDER END DETAILS						MIN. CONC. COMP. STRENGTH		NUMBER OF STRANDS (SEE GIRDER NOTE 2)			LOCATION OF C.G. STRANDS			STRAIGHT STRANDS TO EXTEND				"A" DIMENSIONS AT ϵ BEARINGS	DECK SCREED CAMBER "C"	MIDSPAN VERTICAL DEFLECTION "D"		REINFORCEMENT DETAILS						SHIPPING AND HANDLING DETAILS					
						END 1 TYPE	END 2 TYPE	L_d	θ_1	θ_2	P_1	P_2	ϕ 28-DAYS F'_C (KSI)	ϕ RELEASE F'_C (KSI)	STRAIGHT	HARPED	TEMPORARY	E	F_ϵ	F_0	END 1		END 2			ϕ LOWER BOUND 40 DAYS	ϕ UPPER BOUND 120 DAYS	ZONE 1		ZONE 2		ZONE 3		L	L1	L2	K_s MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT	W_{cc} MINIMUM SHIPPING SUPPORT CNTR-TO-CNTR WHEEL SPACING	
																					STRANDS	EXTENSION LENGTH	STRANDS					EXTENSION LENGTH	SPACINGS	LENGTH	SPACINGS	LENGTH	SPACINGS						LENGTH
1	A-G	WF42TDG	4'-9"	124'-11"	FULL	A	A	N/A	90	90	1'-7 1/2"	1'-7 1/2"	9.5	7.5	32	12	0	3"	3 3/4"	11 5/8"	1 TO 14	1'-6"	1 TO 14	1'-6"	8"	2 1/2"	8 1/8"	11 3/8"	2 1/2"	2'-0"	6"	12'-0"	9"	4'-6"	3'-0"	3'-6"	3'-6"	40000 KIP-IN/RAD	6'-0"



GIRDER PRECAMBER DIAGRAM

GIRDER NOTES

- PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
- ALL PRETENSIONED AND TEMPORARY STRANDS SHALL BE 0.6" ϕ AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI.
- GIRDER SHALL BE FABRICATED WITH AN UPWARD CAMBER AS SHOWN IN THE GIRDER PRECAMBER DIAGRAM, THIS SHEET.
- PRECAMBER DIMENSIONS SHOWN ARE MEASURED FROM THE CHORDED LINE BETWEEN GIRDER ENDS AT GIRDER TENTH POINTS AND SHALL BE MIRRORED ABOUT ϵ SPAN. GIRDER SHALL HAVE RADIAL ARC BETWEEN POINTS SHOWN.
- ALL STRAND LOCATIONS SHALL BE MEASURED FROM THE BOTTOM OF THE GIRDER. STRAND VERTICAL ALIGNMENT SHALL BE PARALLEL TO BOTTOM FLANGE.
- CAMBER DIMENSIONS SHOWN ARE PRIOR TO STRAND RELEASE.
- REFER TO SHEET B14 FOR SCREED SETTING DIMENSIONS.
- SEE DECK REINFORCING PLAN AND SECTION AND UTILITY ATTACHMENT DETAILS SHEET FOR BLOCKOUTS FOR UTILITY SUPPORTS.

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HARPER ESTUARY BARRIER
CORRECTION

WF THIN DECK GIRDER
DETAIL 1 OF 4

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
B08

15
OF
56

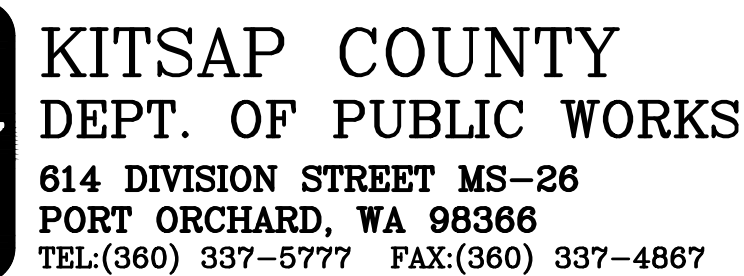
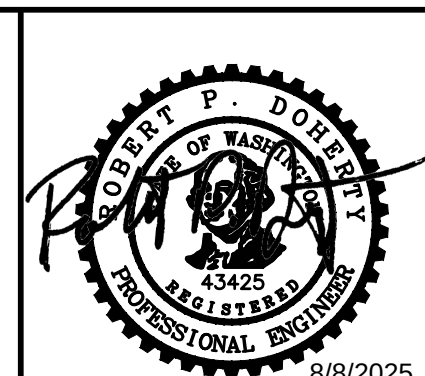


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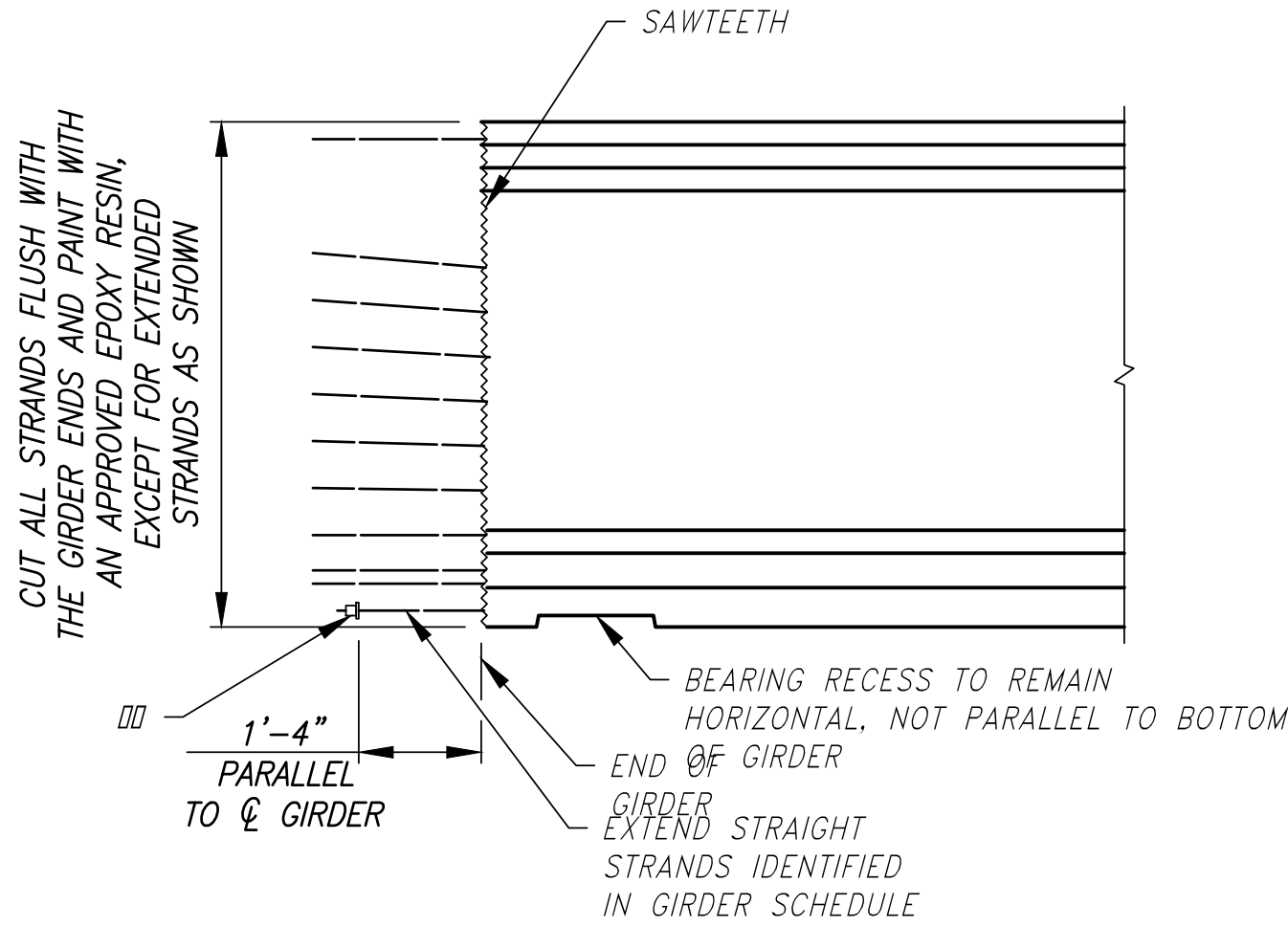
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CRP No.	2626
DATE:	08/08/25

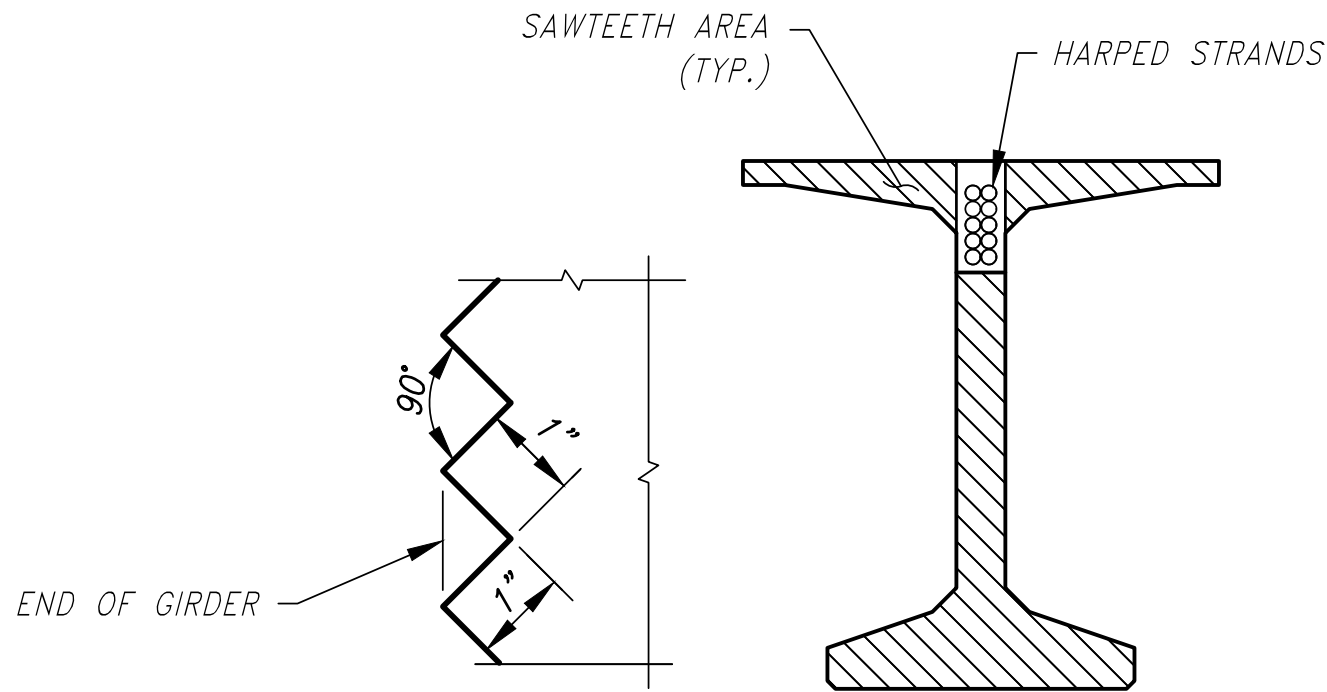


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OF
56

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Layout Name: B10
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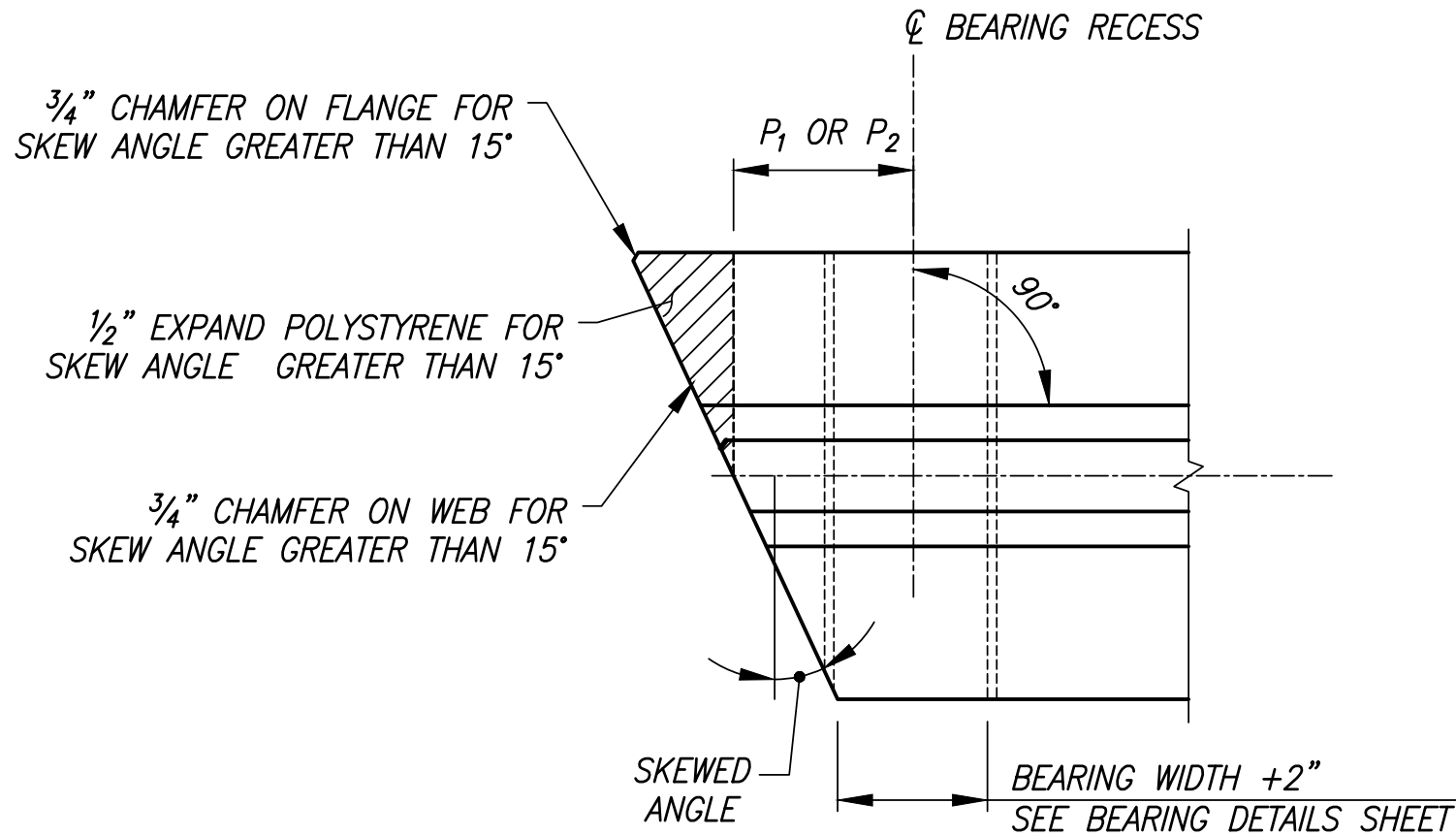


END TYPE A

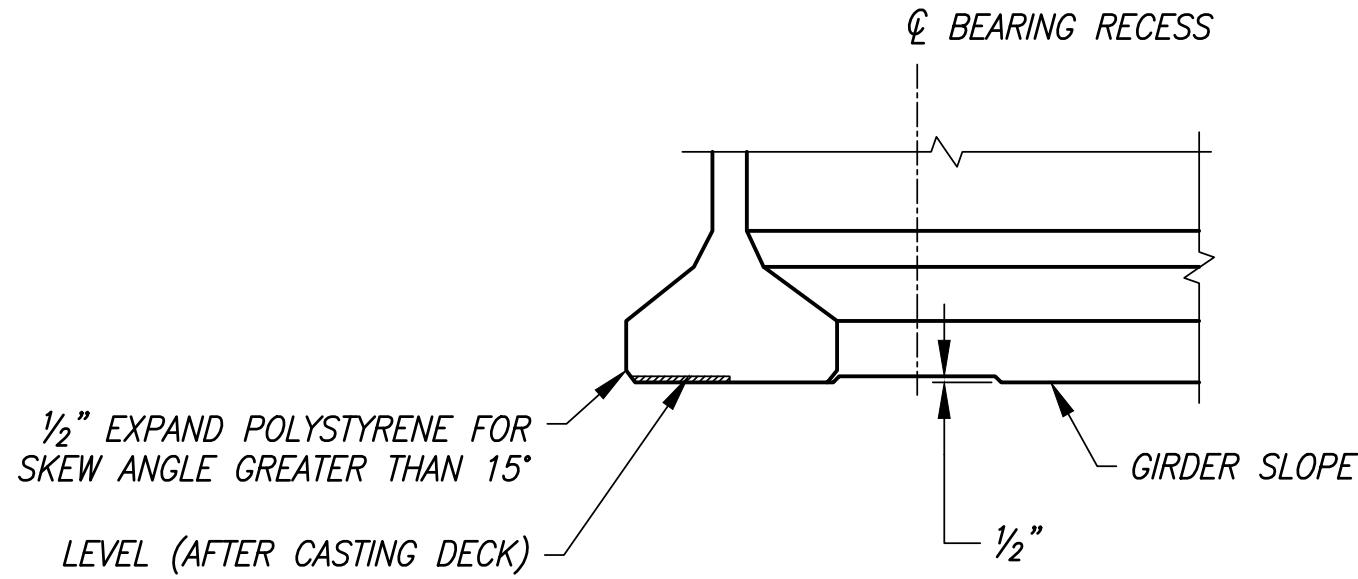


SAWTEETH DETAIL

SAWTEETH SHALL BE FULL WIDTH OVER AREA SHOWN



PLAN



ELEVATION

BEARING RECESS AND BOTTOM FLANGE SPALL PROTECTION DETAIL

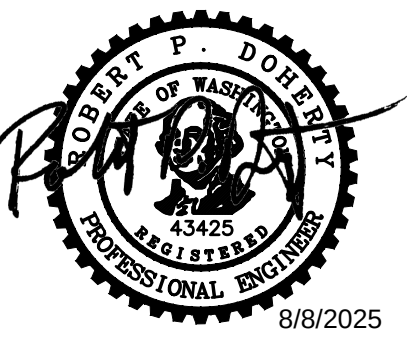
1 1 1/16" MIN. STRAND CHUCK OR ASTM A108 2 3/4" x 1 1/8" STRAND ANCHOR. ANCHOR STRAND WITH WEDGES BEFORE ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.

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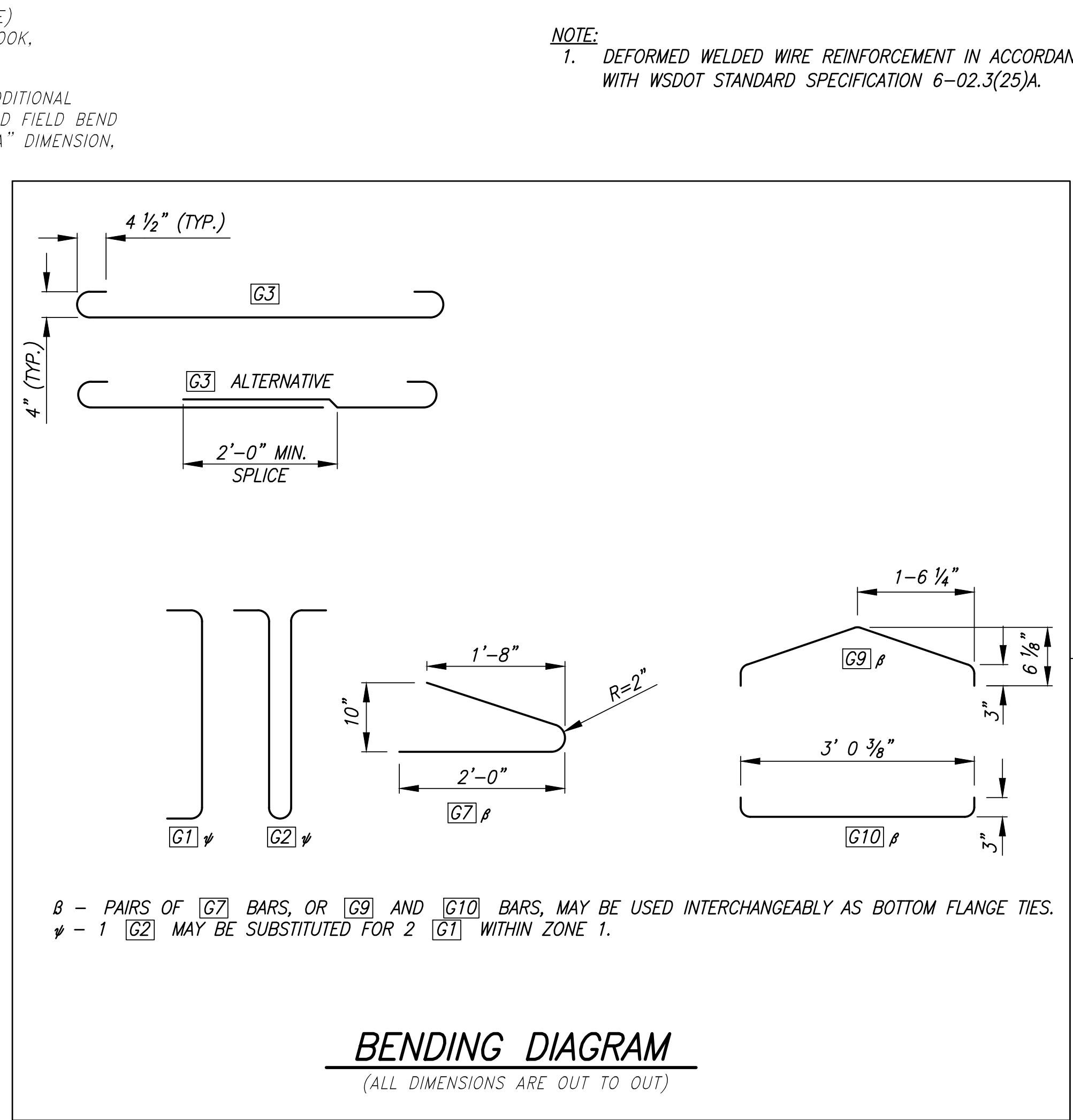
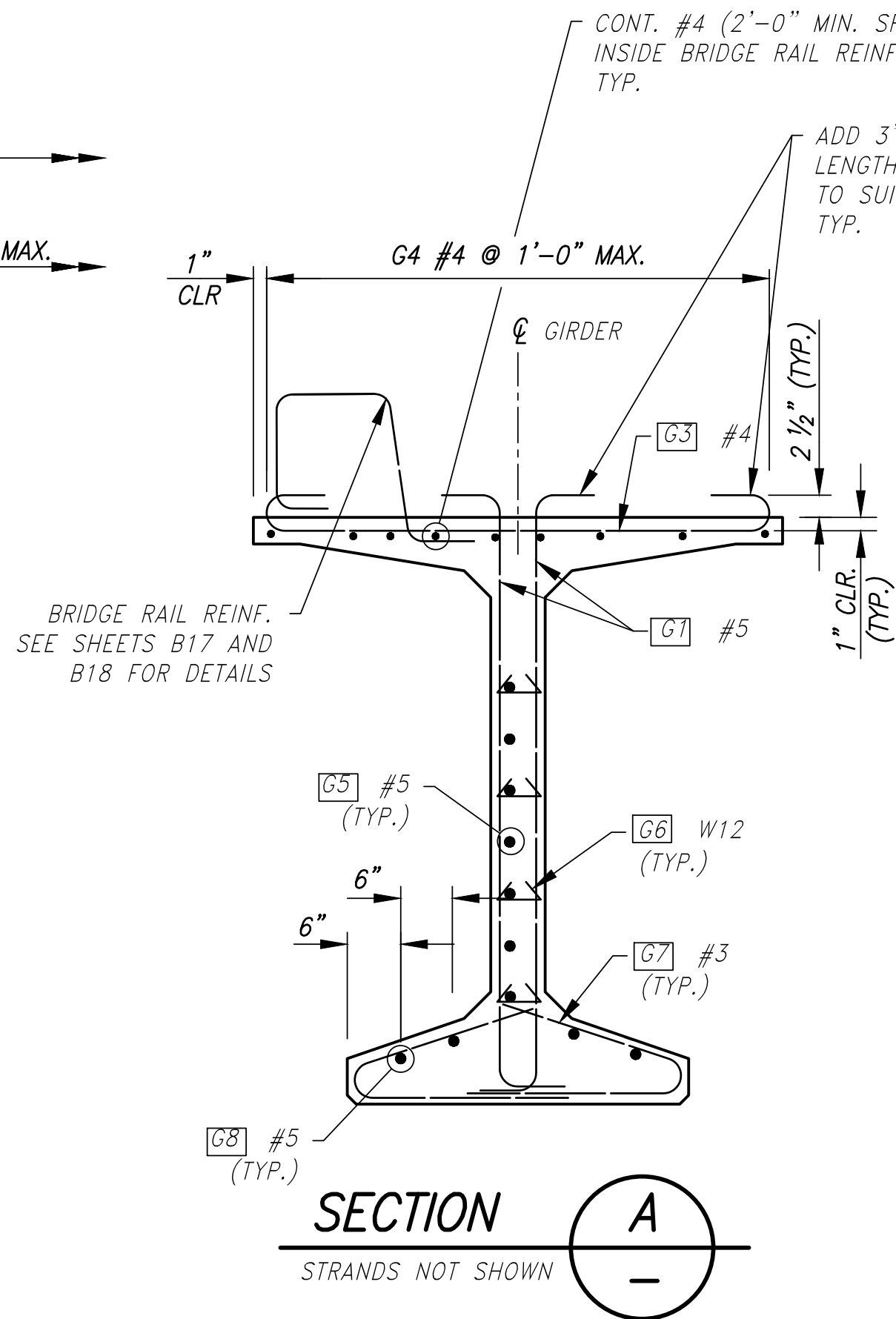
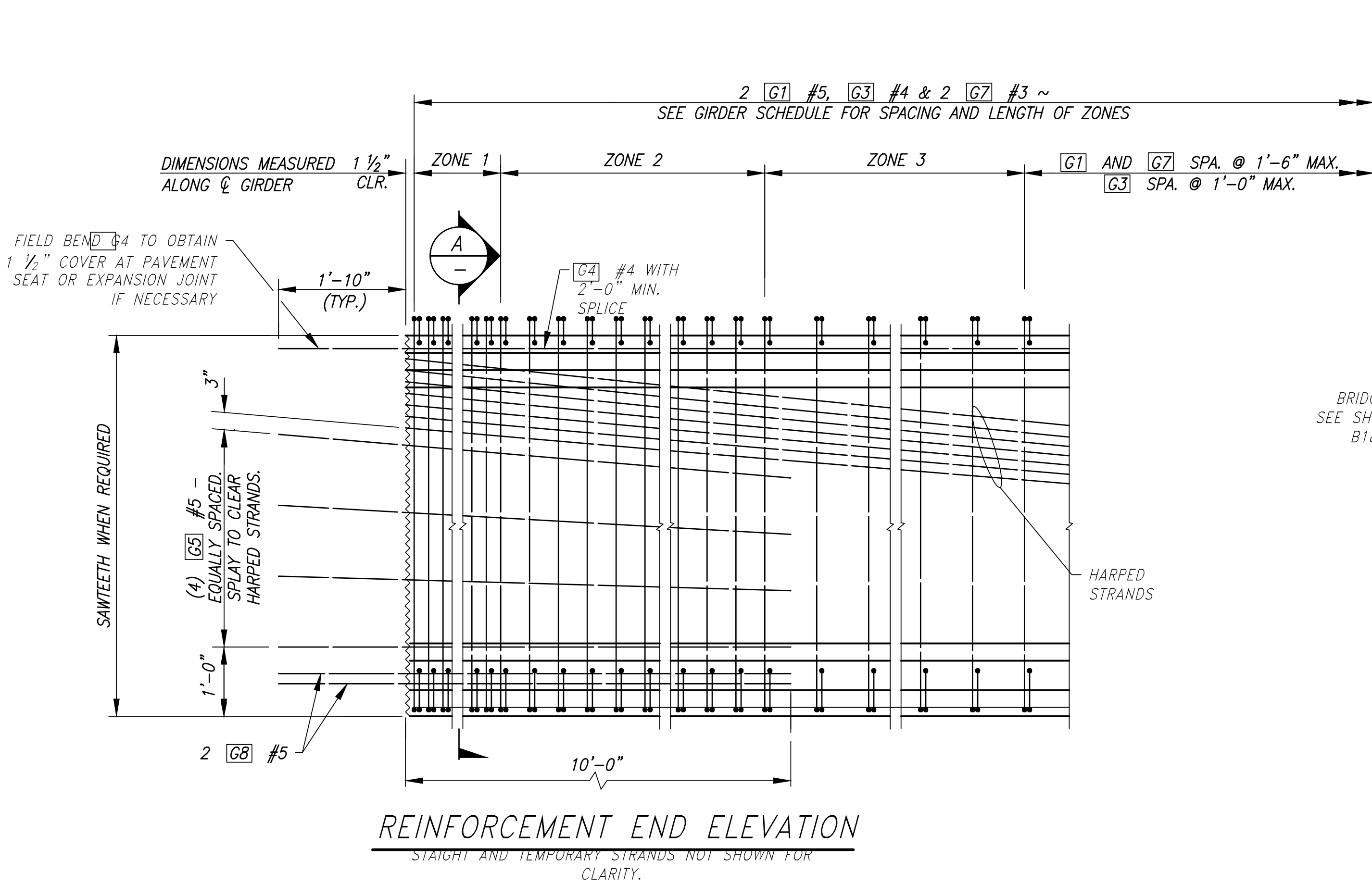


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HARPER ESTUARY BARRIER
CORRECTION
WF THIN DECK GIRDER
DETAIL 3 OF 4
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
B10
17
OF
56

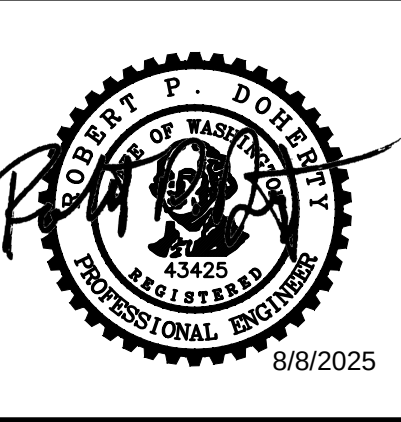
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Layout Name: B11
ahmed.kayanda



NOTE:
1. DEFORMED WELDED WIRE REINFORCEMENT IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 6-02.3(25)A.

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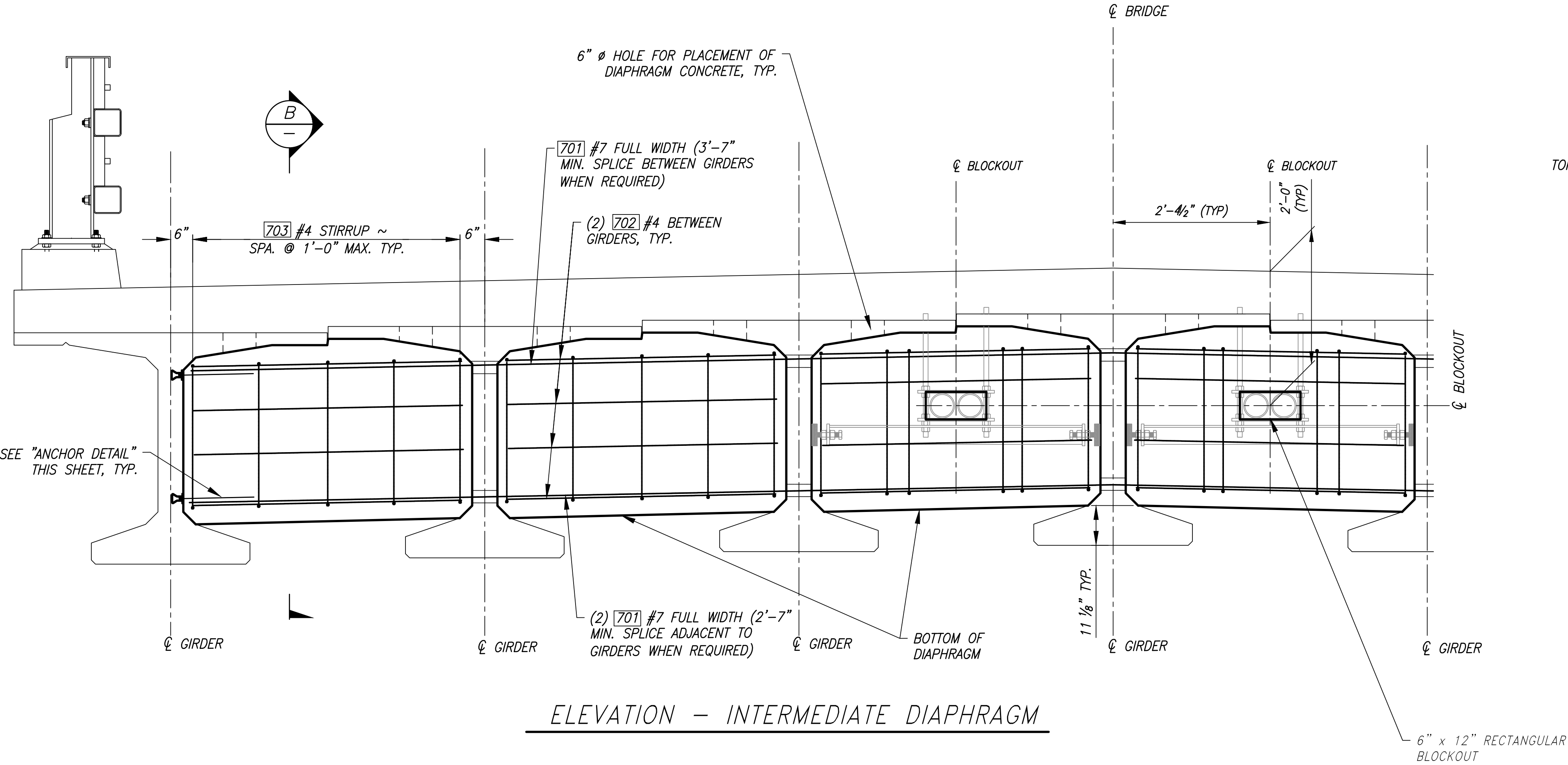


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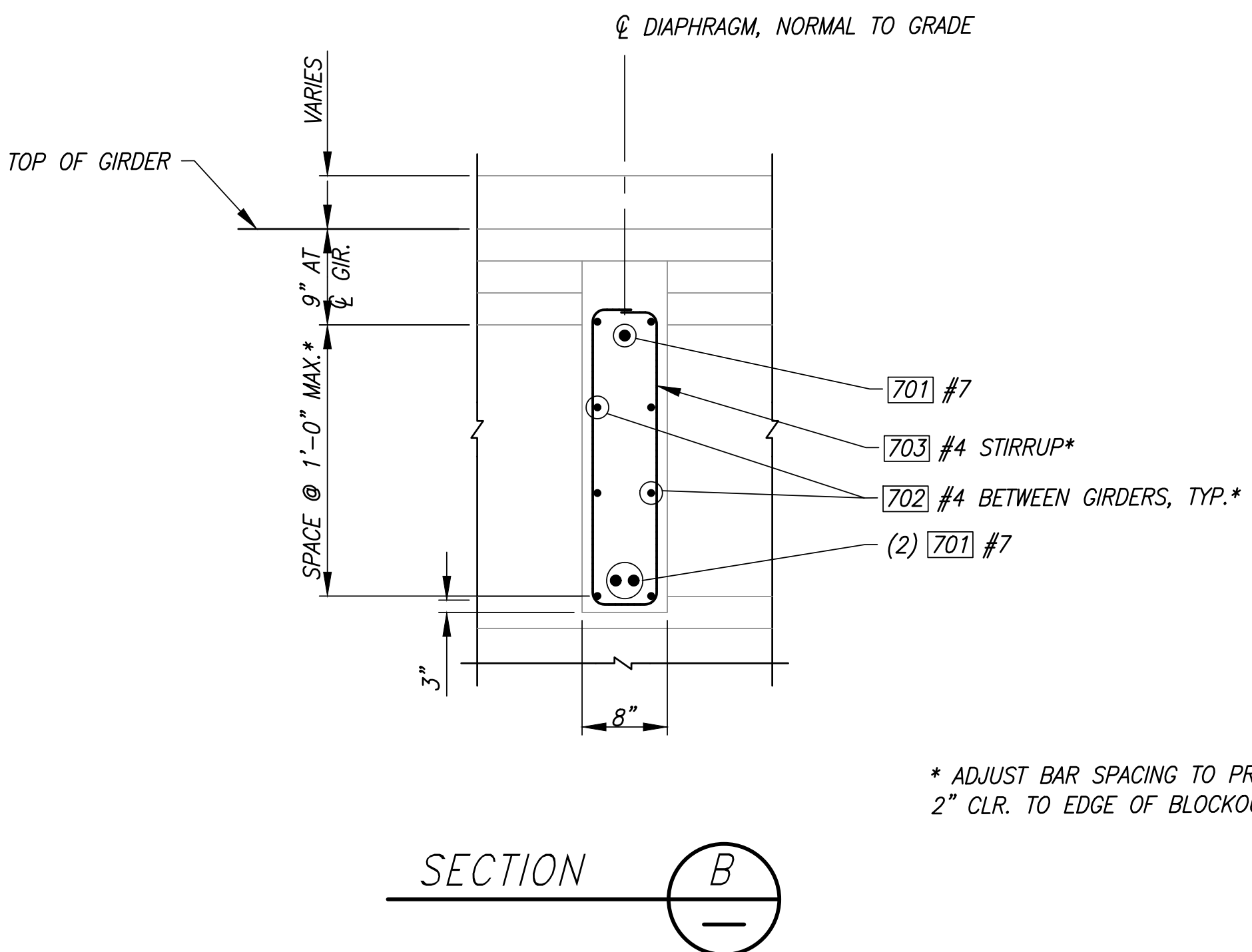
**HARPER ESTUARY BARRIER
CORRECTION**
**WF THIN DECK GIRDER
DETAIL 4 OF 4**
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
B11
18
OF
56

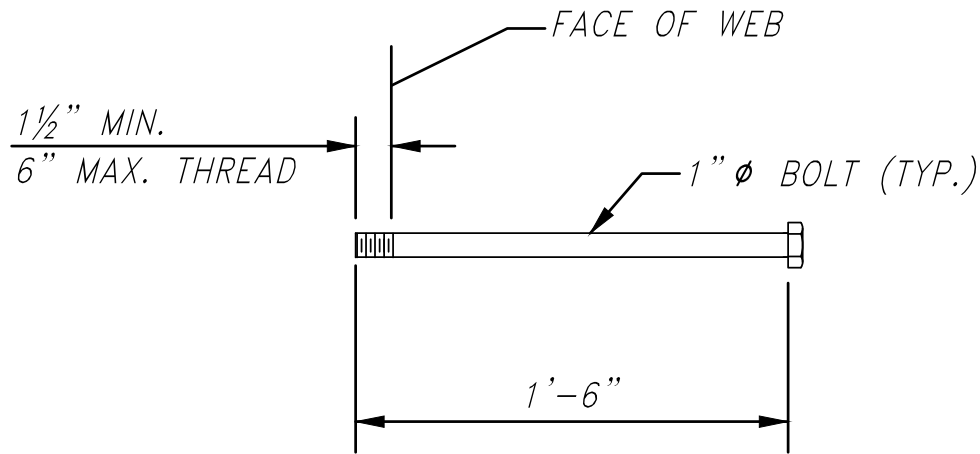
Plotted: Aug 07, 2025 - 7:01 pm
ahmed.kayanda
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Layout Name: B13



ELEVATION – INTERMEDIATE DIAPHRAGM



SECTION B



ANCHOR DETAIL
ASTM A-307

NOTES:

- 1. GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED.
- 2. IT MAY BE NECESSARY TO THREAD REINFORCING BARS THROUGH HOLES IN GIRDERS PRIOR TO PLACING EXTERIOR GIRDERS.
- 3. WITHIN BLOCKOUTS, WRAP EACH CONDUIT WITH 1/8" BUTYL RUBBER SHEET AND THEN FILL VOID SPACE WITH NON-SHRINK GROUT.

REVISIONS			
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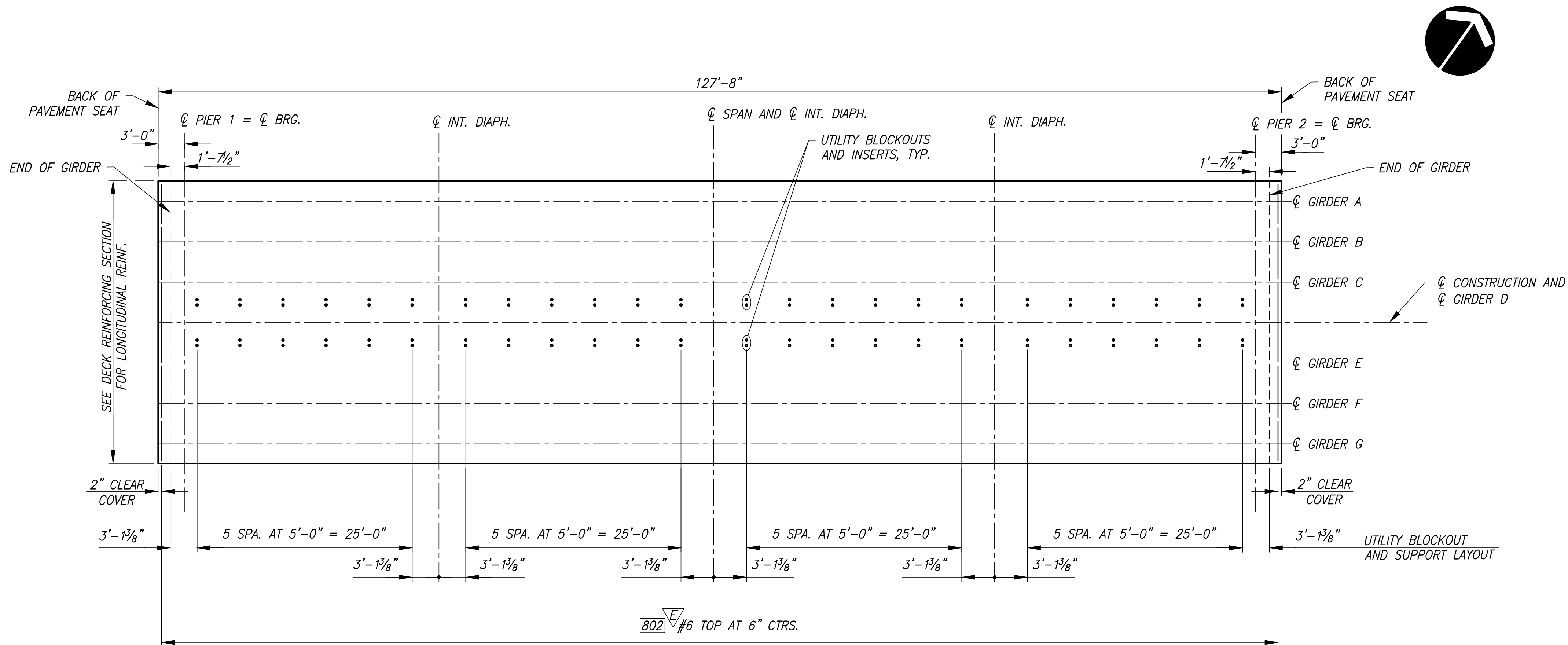
KITSAP COUNTY
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614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
INTERMEDIATE DIAPHRAGM DETAILS

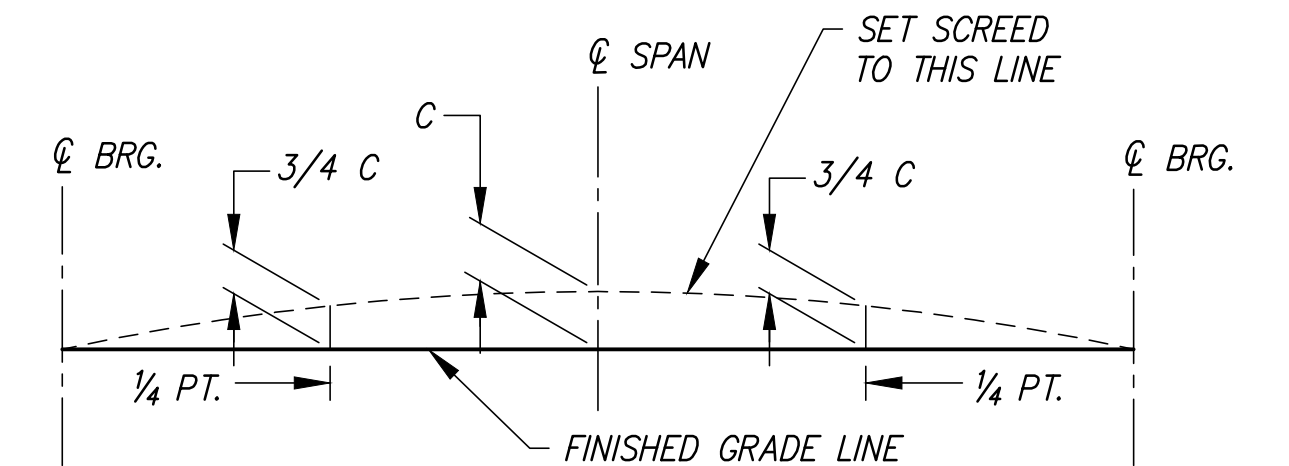
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
B13
20
OF
56

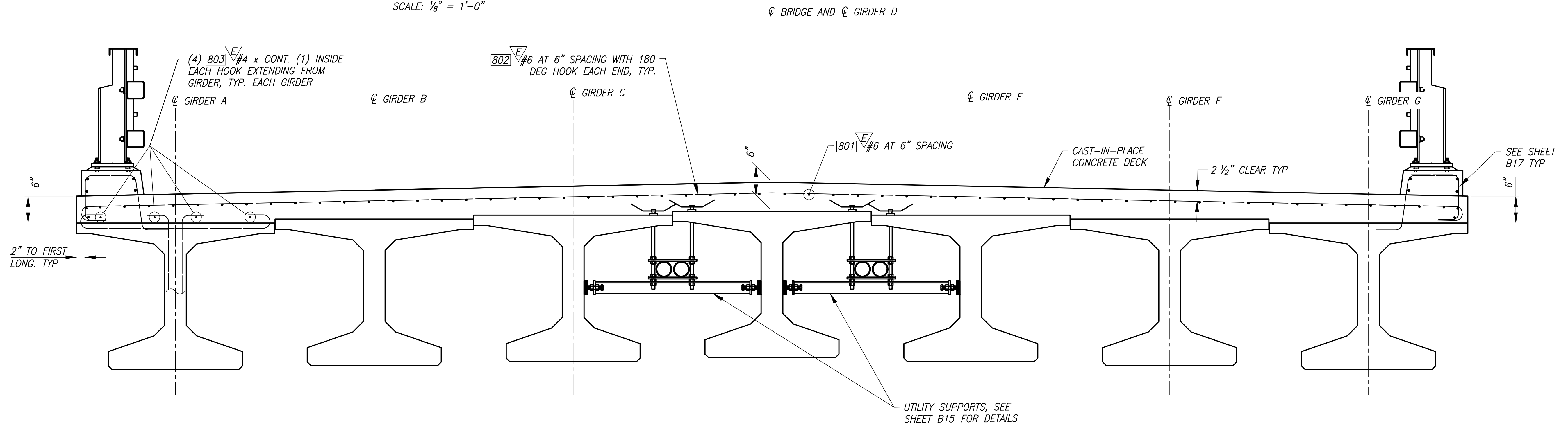
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Layout Name: B14
Mat: OConnell



DECK REINFORCING PLAN
SCALE: 1/8" = 1'-0"



SCREED SETTING DIMENSIONS
FOR DIMENSION "C" SEE GIRDER SCHEDULE



DECK REINFORCING SECTION
SCALE: 3/4" = 1'-0"

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43425
8/14/2025

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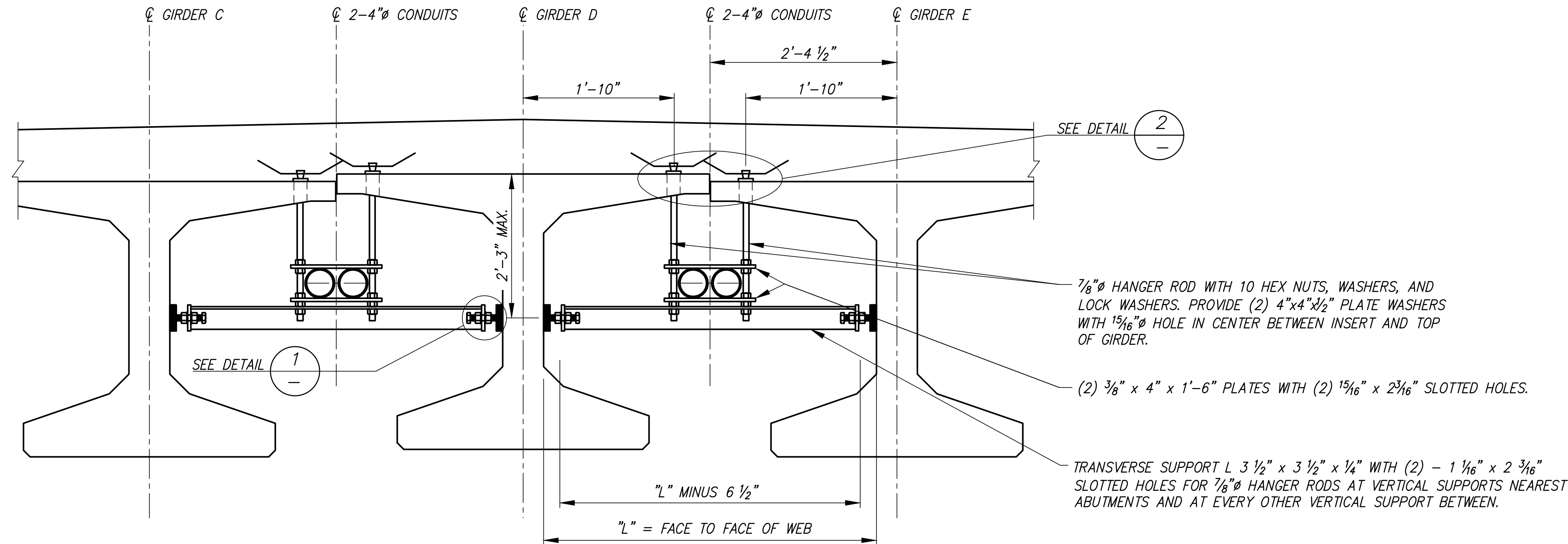
HARPER ESTUARY BARRIER CORRECTION

DECK REINFORCING PLAN AND SECTION

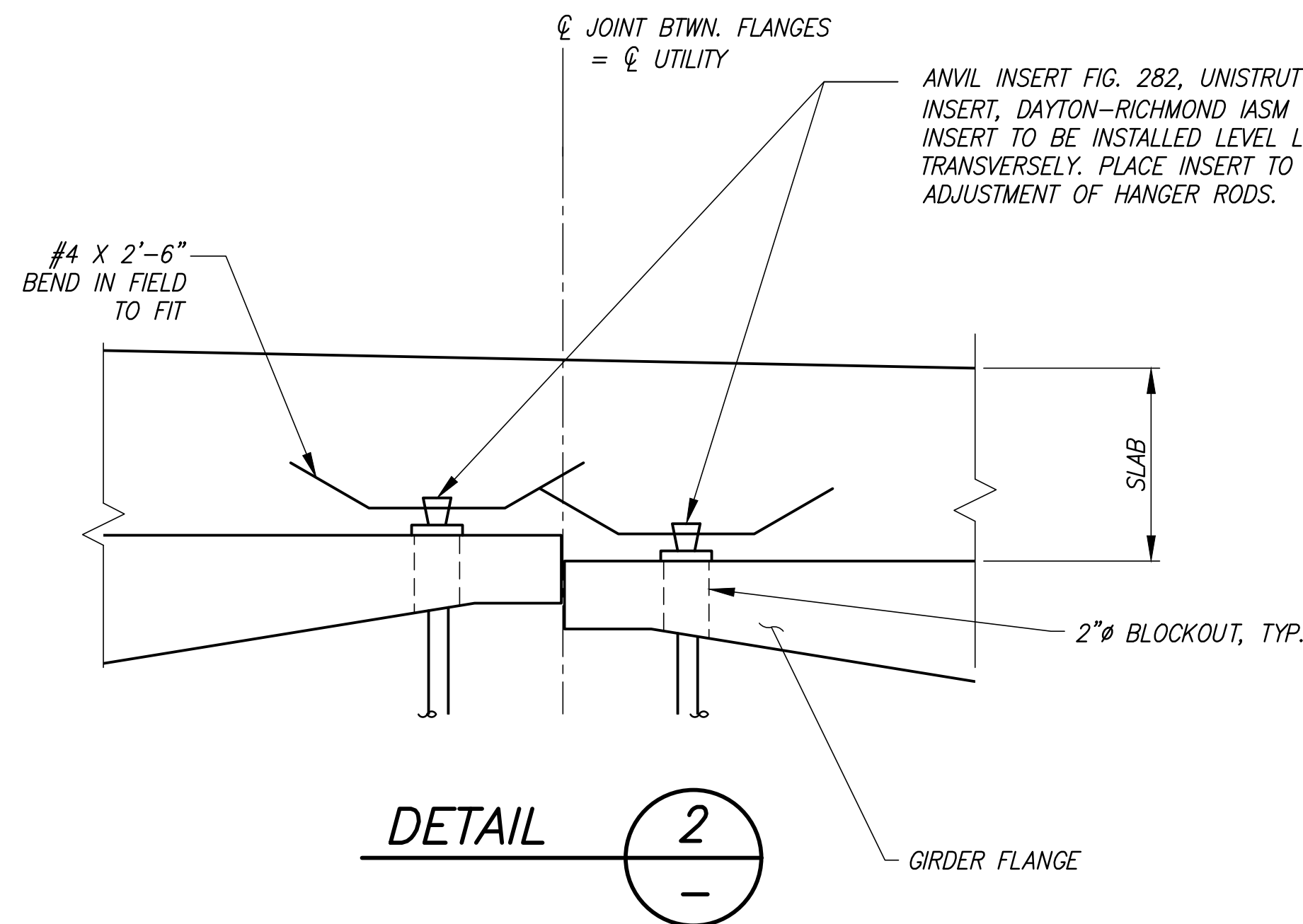
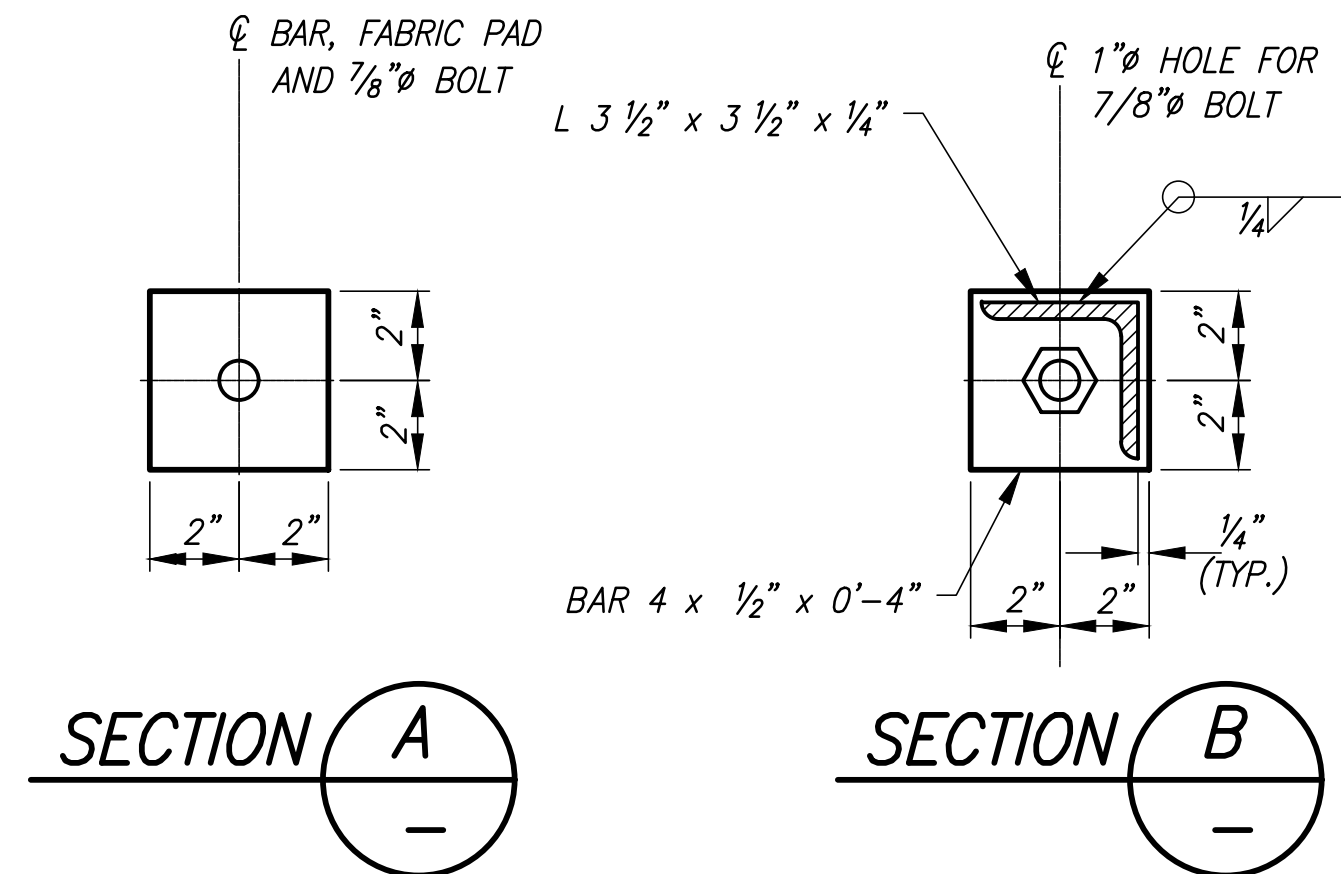
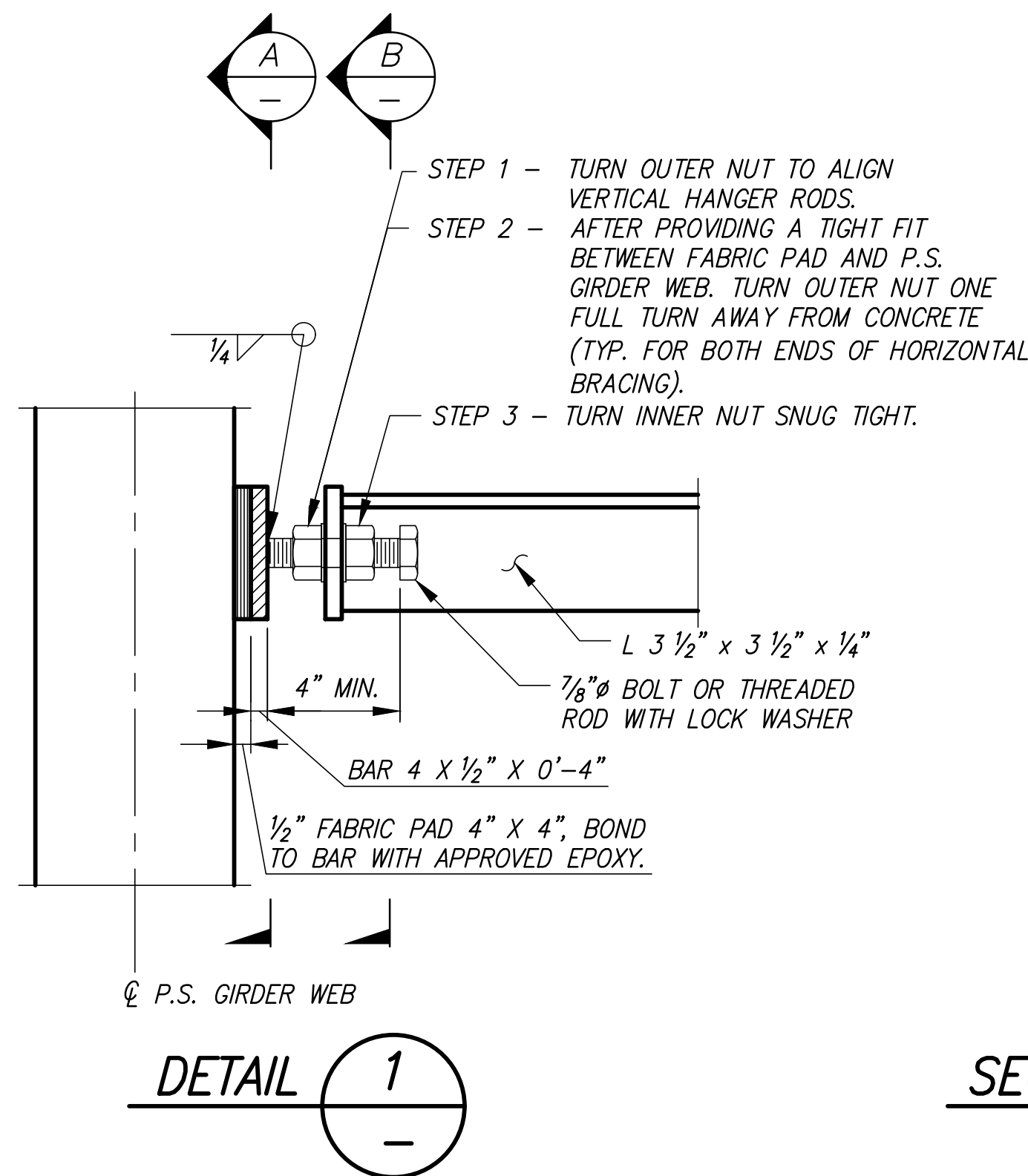
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

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OF
56

Plotted: Aug 14, 2025 - 7:36pm
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Layout Name: B15
Matt OConnell



UTILITY SUPPORT



UTILITY SUPPORT NOTES

1. ALL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION PER AASHTO M 111 OR AASHTO M 232.
2. PROVIDE STEEL PLATES AND SHAPES ACCORDING TO ASTM A36.
3. PROVIDE HANGER RODS ACCORDING TO ASTM F1554, GRADE 105 AND SUPPLEMENTAL REQUIREMENTS S2, S3, AND S4 WITH NUTS ACCORDING TO ASTM A563, GRADE DH OR AASHTO M292 (ASTM A194), GRADE 2H AND WASHERS ACCORDING TO ASTM F436.
4. PROVIDE BOLTS ACCORDING TO ASTM A307, GRADE A OR B WITH NUTS ACCORDING TO ASTM A563, GRADE A.

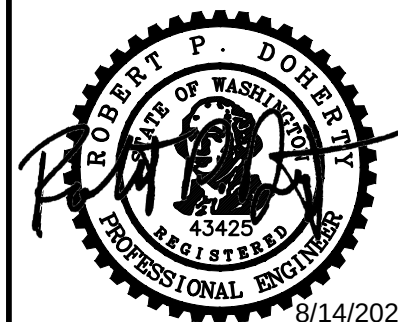
REVISIONS

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CRP No.	2626
DATE:	08/08/25



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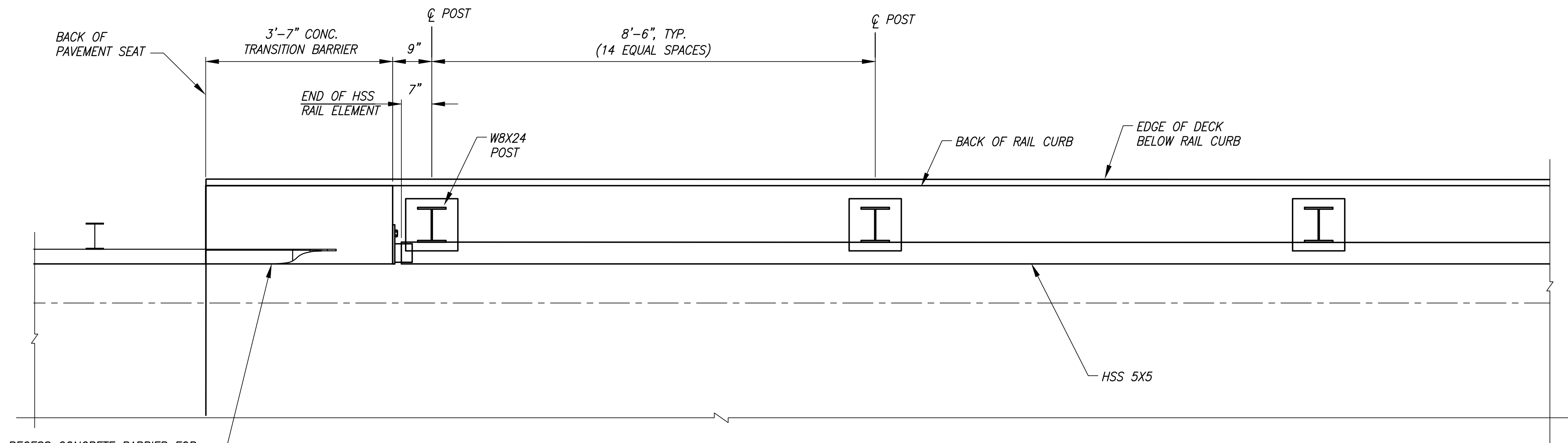
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HARPER ESTUARY BARRIER CORRECTION UTILITY ATTACHMENT DETAILS

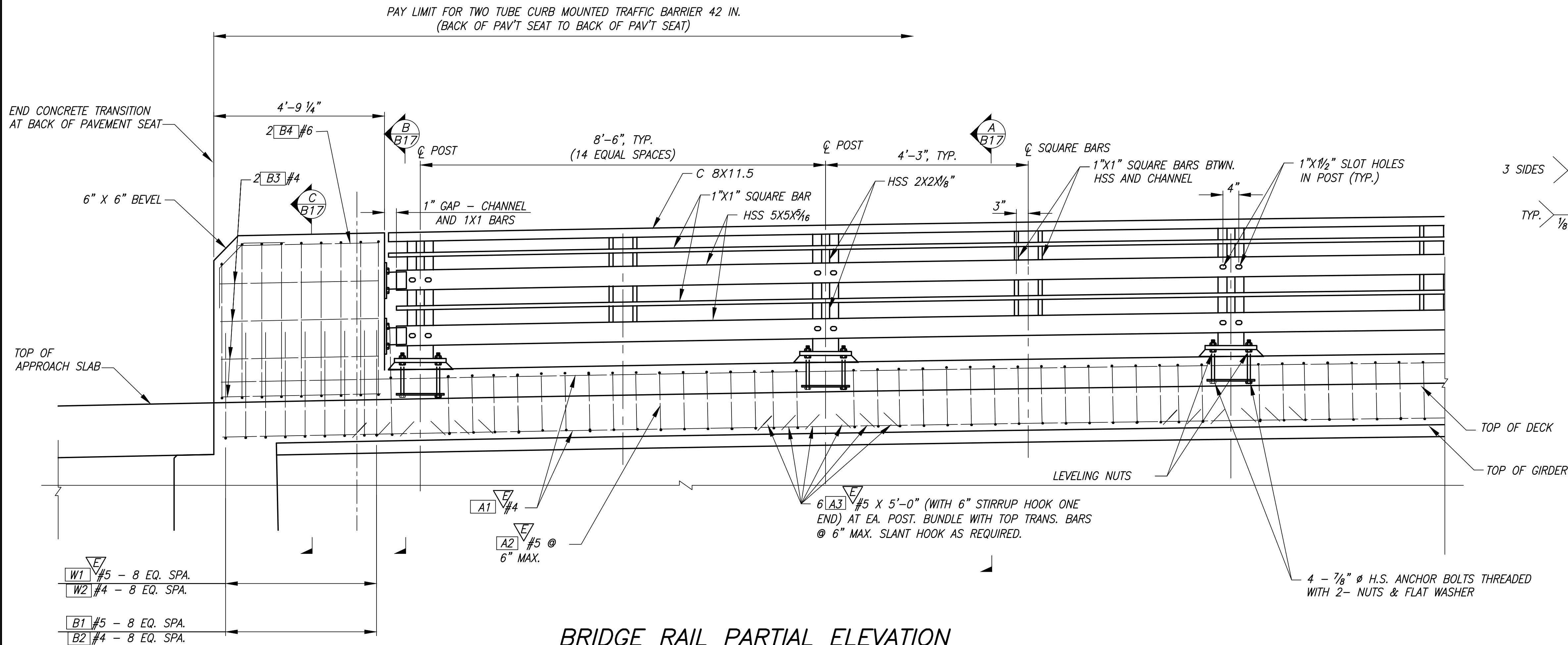
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

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OF
56

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ahmed.kayanda
8/8/2025 7:02am



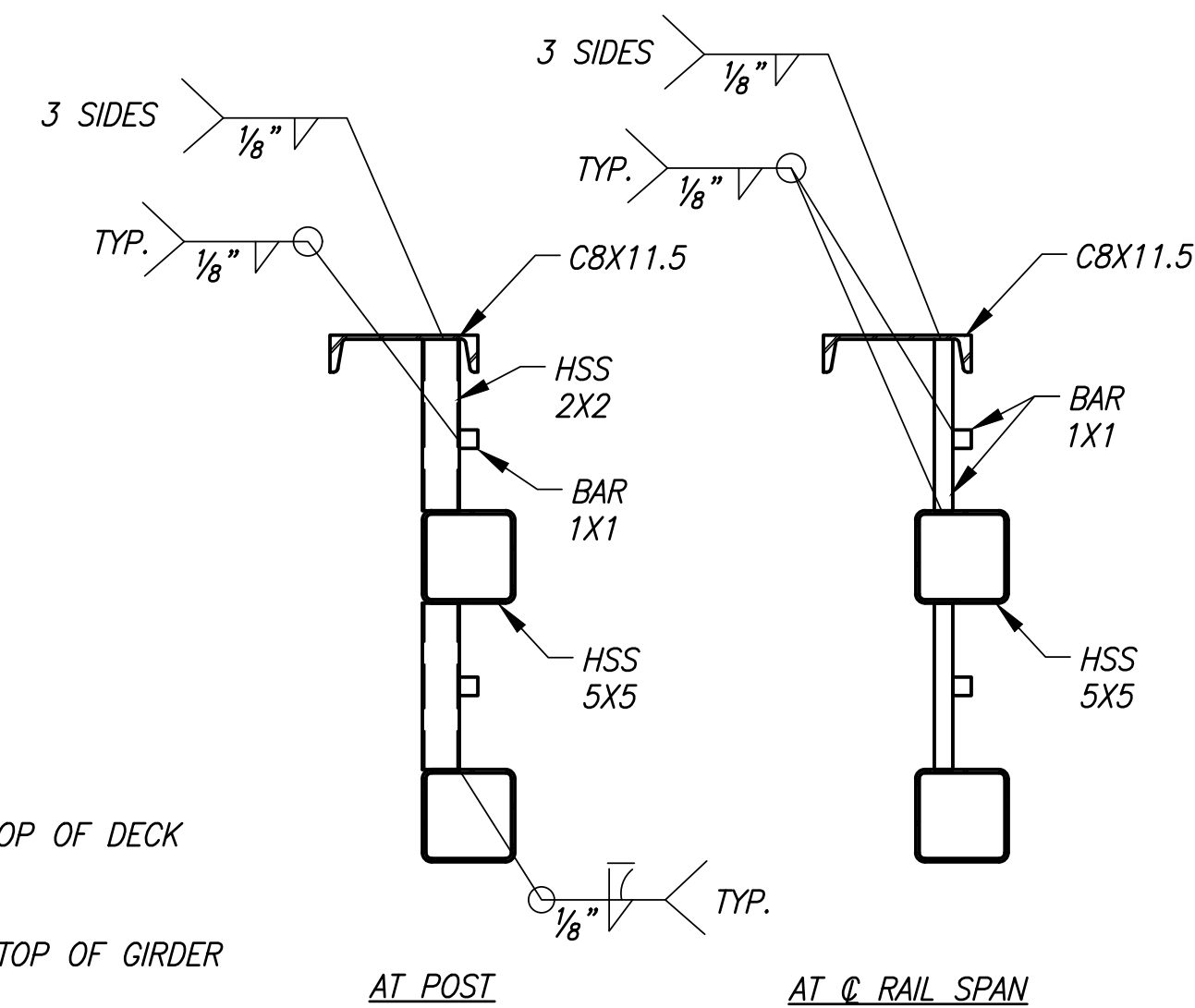
BRIDGE RAIL PARTIAL PLAN



BRIDGE RAIL PARTIAL ELEVATION

BRIDGE RAIL NOTES:

1. RAIL ELEMENTS FOR THE HSS SHALL CONFORM TO ASTM SPECIFICATION A500 GRADE B, A618 OR A501.
2. STEEL SHAPES, PLATES, AND BARS SHALL CONFORM TO ASTM SPECIFICATION A36 UNLESS NOTED OTHERWISE.
3. HIGH STRENGTH ANCHOR BOLTS SHALL CONFORM TO ASTM SPECIFICATION F1554 GRADE 105.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A706 OR AASHTO M31 (ASTM A615) GRADE 60.
5. PROVIDE CONCRETE CLASS 4000.
6. FABRICATE RAILING TO THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE STRUCTURE. POSTS SHALL BE INSTALLED PLUMB.
7. HOT-DIP GALVANIZE ALL STRUCTURAL PLATES, SHAPES AND BARS PER ASTM A123 FASTENERS PER ASTM A153. HOT-DIP GALVANIZE ALL COMPONENTS AFTER FABRICATION, EXCEPT AS NOTED.
8. APPLY PIGMENTED SEALER TO EXPOSED FACES OF CONCRETE CURB AND TRANSITION BARRIER.
9. CONTRACTOR SHALL SUBMIT RAIL FABRICATION AND ERECTION DETAILS TO ENGINEER FOR REVIEW.

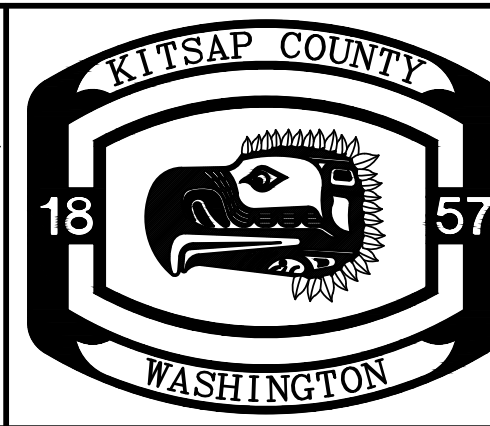
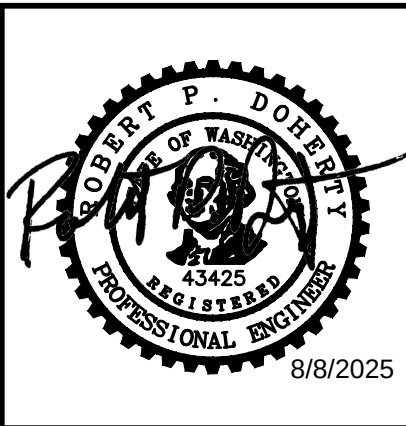


RAIL WELDING

- NOTES:
1. GRIND WELDS FLUSH WHERE IN CONTACT WITH W POST.
 2. SEE SHEET B18 FOR ADDITIONAL WELDING DETAILS.

REVISIONS			
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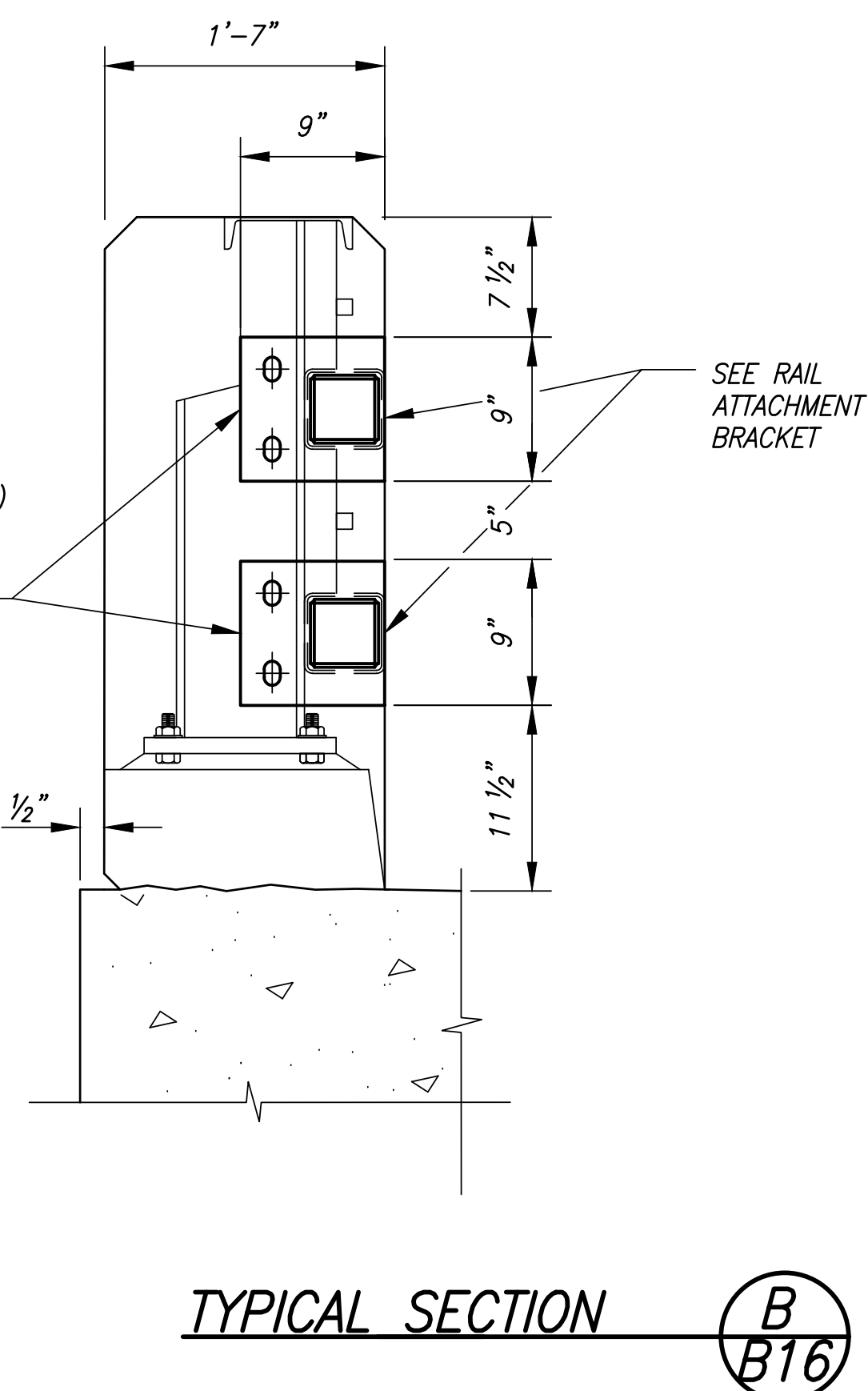
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HARPER ESTUARY BARRIER CORRECTION
BRIDGE RAIL DETAILS (1 OF 2)

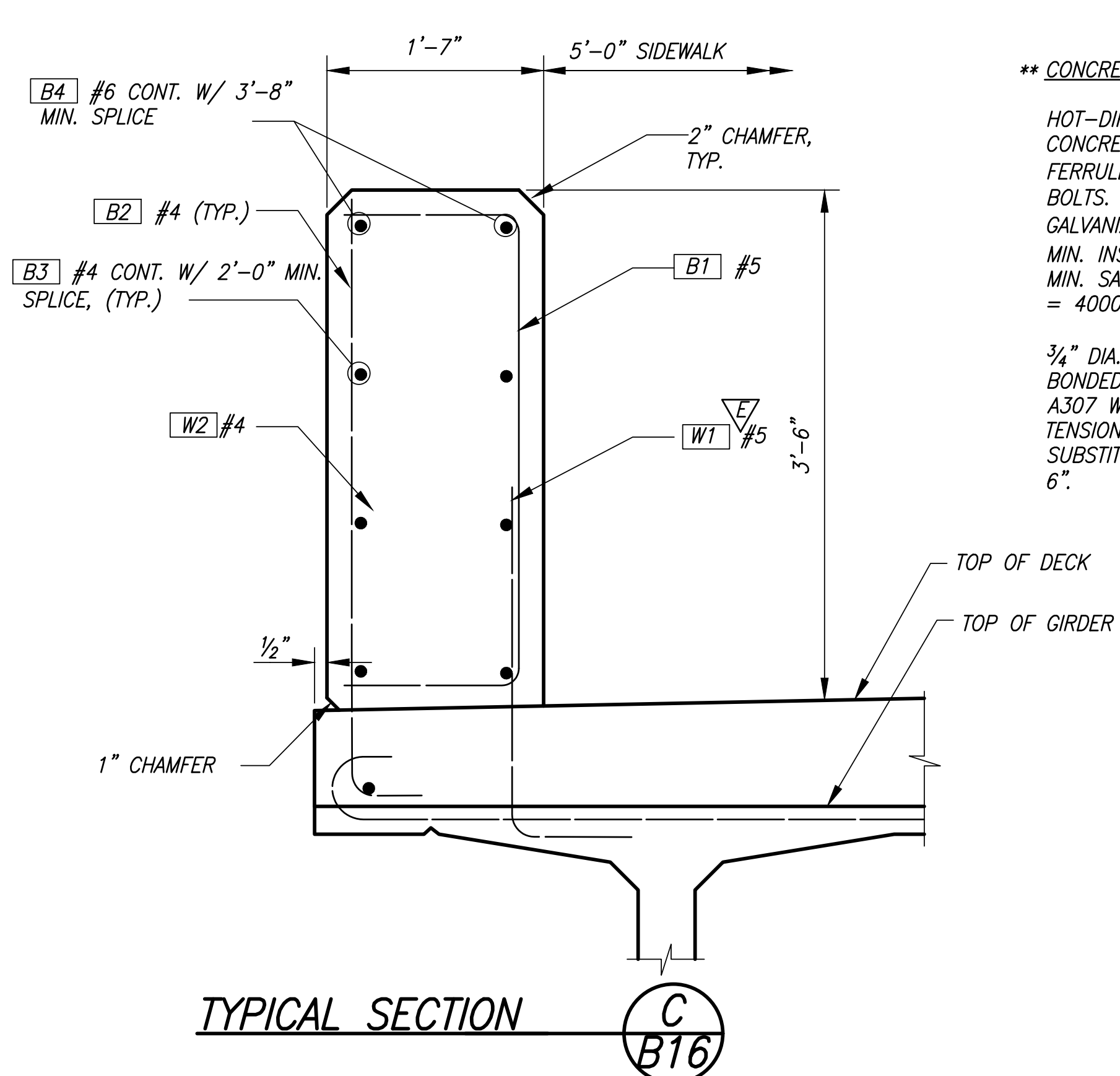
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

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OF
56

TYPICAL SECTION A
B16



TYPICAL SECTION B
B16



TYPICAL SECTION C
B16

**** CONCRETE INSERTS**

HOT-DIP GALVANIZED EXPANDED COIL
CONCRETE INSERTS WITH CLOSED-BACK
FERRULE THREADED TO RECEIVE $\frac{3}{4}"$ Ø
BOLTS. GR.36 (ASTM A307, HOT DIP
GALVANIZED)
MIN. INSERT LENGTH = $\frac{4}{2}"$
MIN. SAFE WORKING LOAD IN TENSION
= 4000 LBS

3/4" DIA. FULLY THREADED RESIN
BONDED ANCHORS CONFORMING TO
A307 WITH A SAFE WORKING LOAD IN
TENSION OF 4000 LBS. MAY BE
SUBSTITUTED. MIN. EMBED. SHALL BE
6".

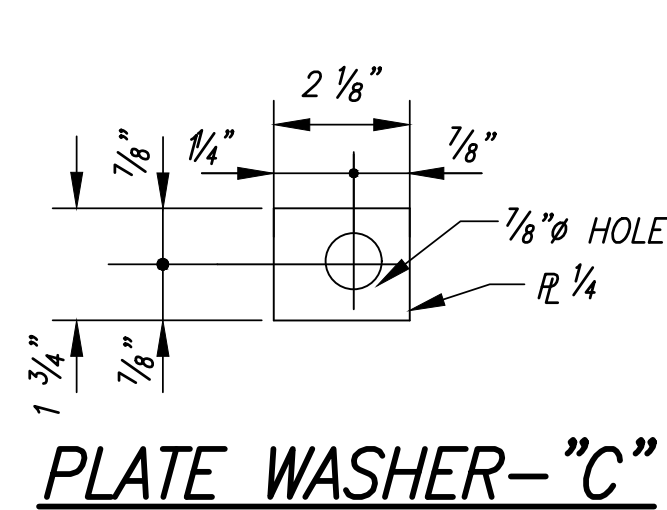
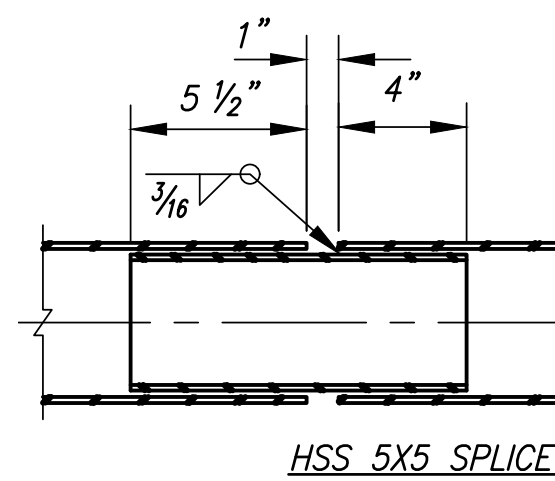
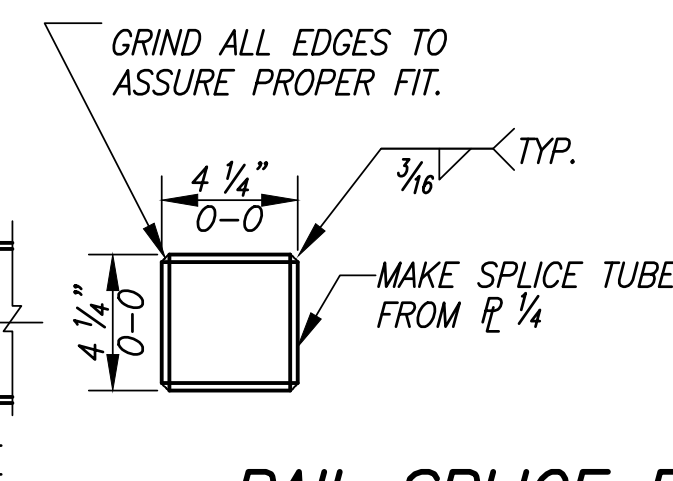


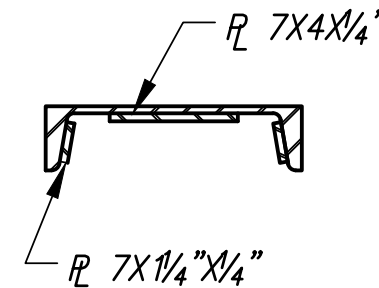
PLATE WASHER—"C"



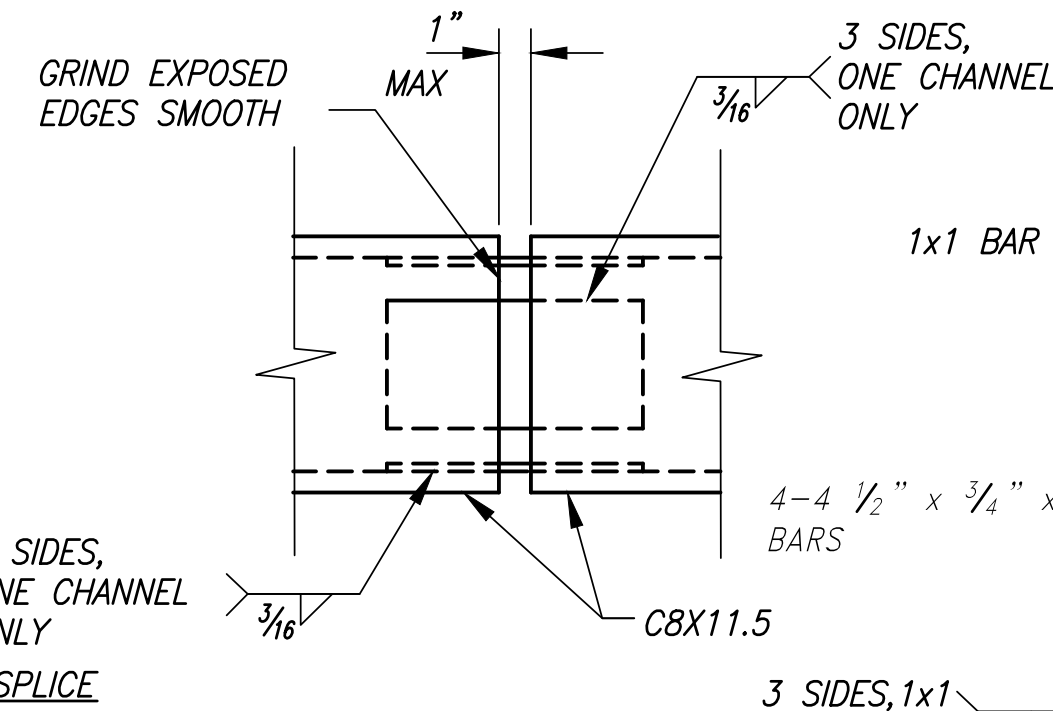
HSS 5X5 SPLICE



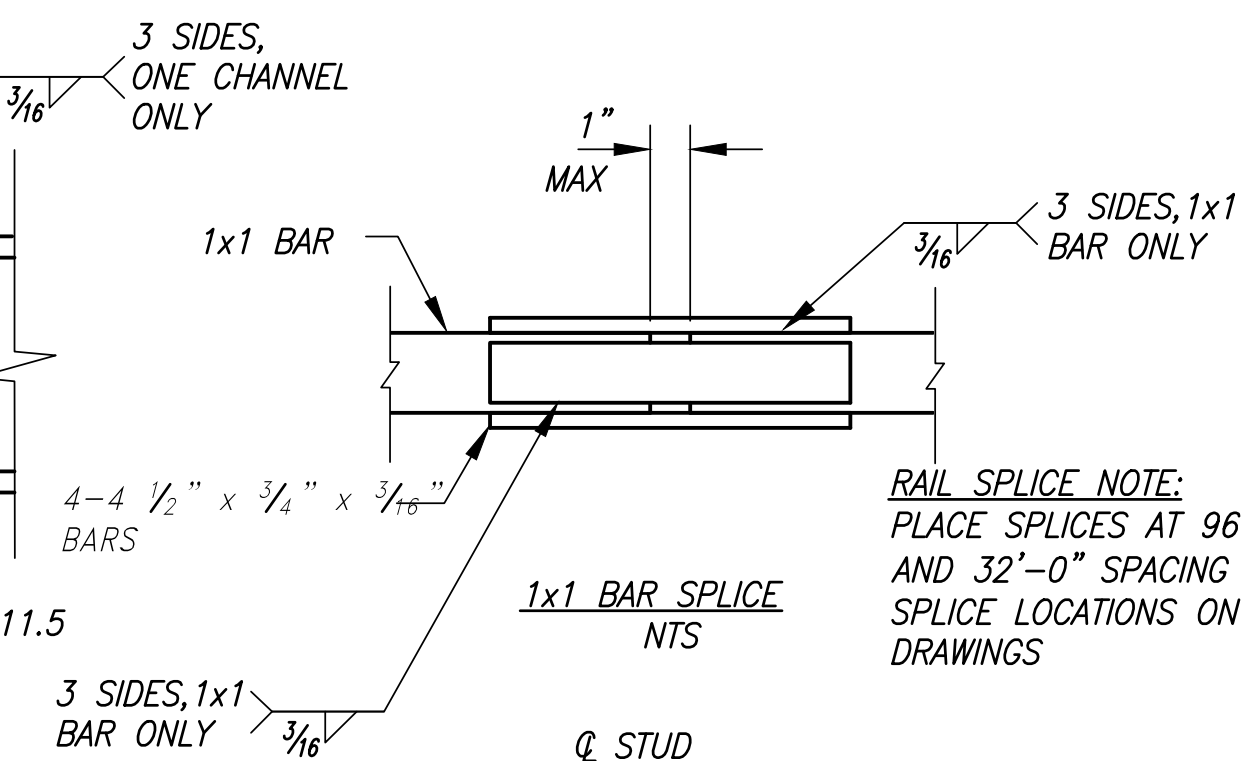
RAIL SPLICE DETAILS



C8X11.5 SPLICE

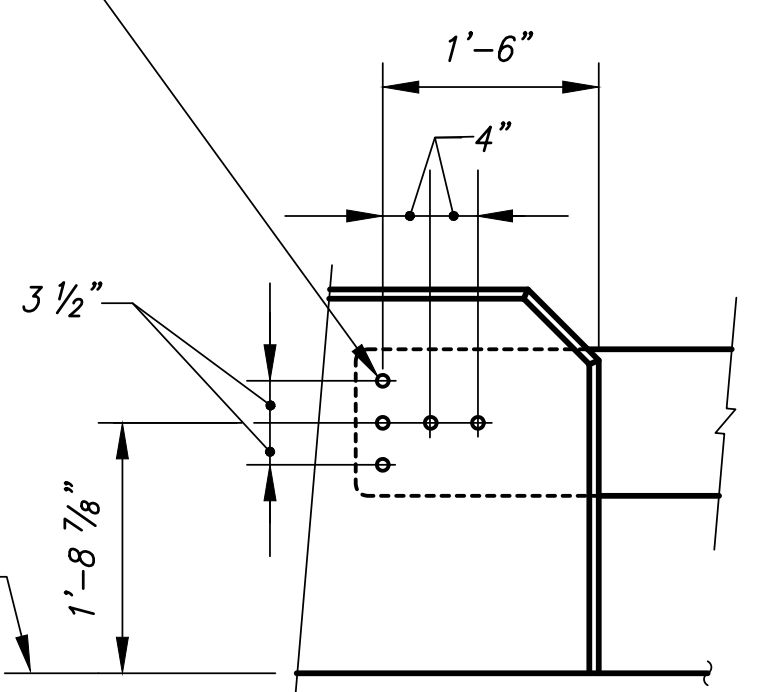


C8X11.5 SPLICE

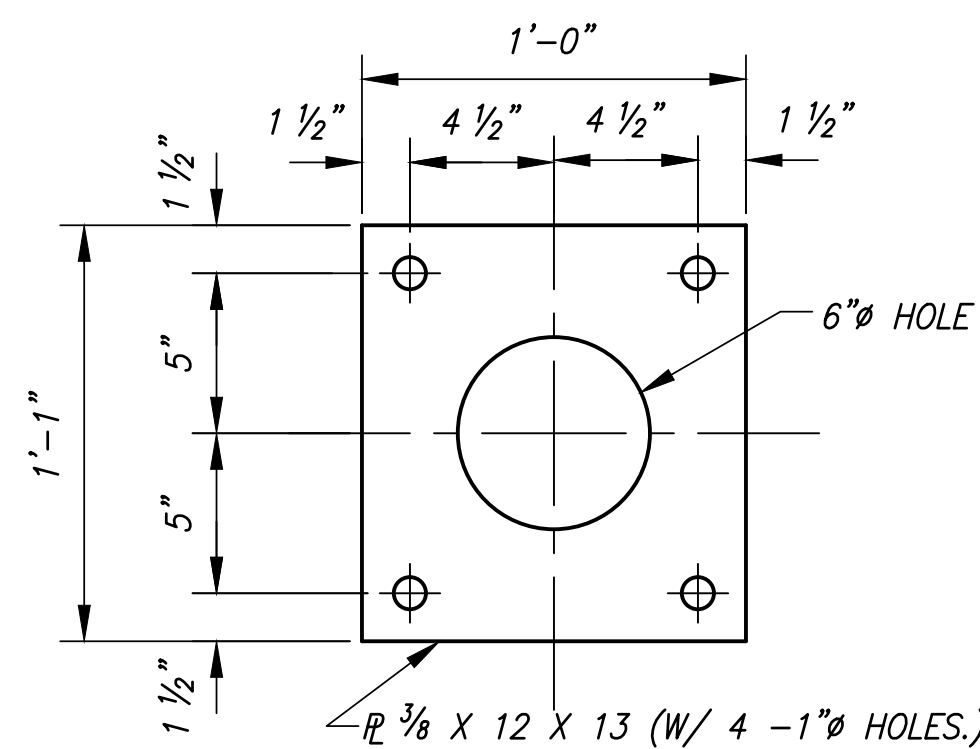


RAIL SPLICE NOTE:
PLACE SPLICES AT 96'-0" SPACING MAX
AND 32'-0" SPACING MIN. INDICATE
SPLICE LOCATIONS ON FABRICATION
DRAWINGS

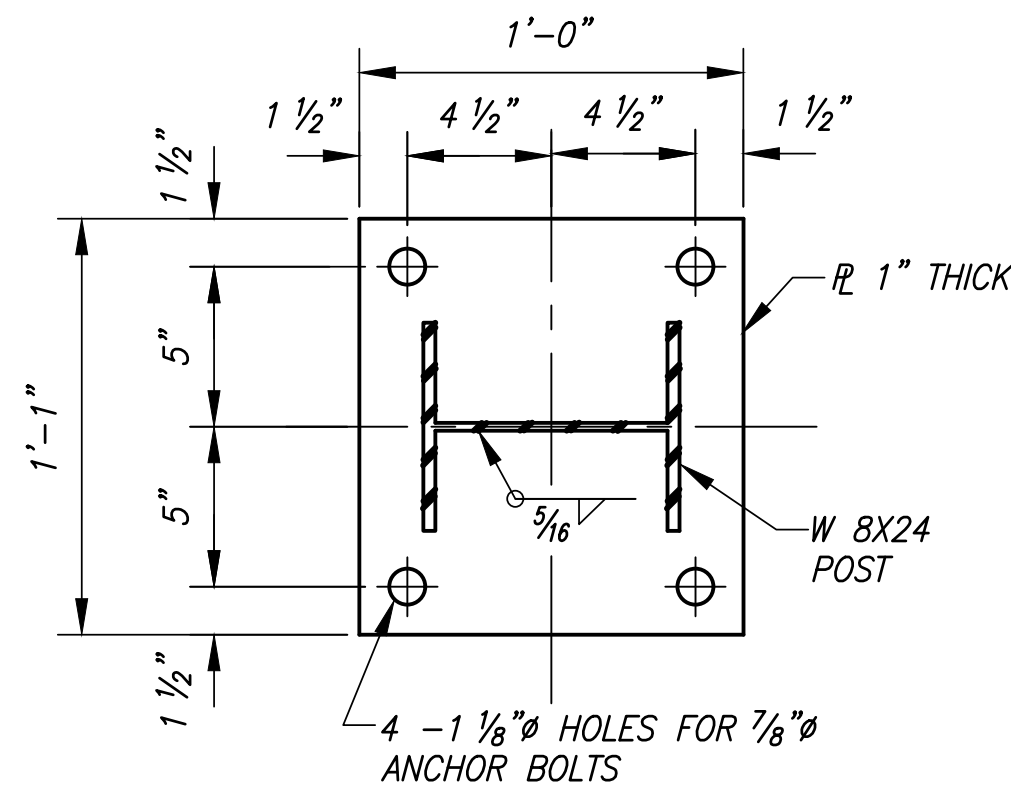
PROVIDE 5 - $\frac{7}{8}$ " ϕ ROCKET/KOHLER F-50.
LANCASTER MALLEABLE, OR
DAYTON/RICHMOND F-62 FLARED THIN
SLAB FERRULE INSERTS OR APPROVED
EQUAL (TYP.). RESIN-BONDED ANCHORS
MAY BE SUBSTITUTED.



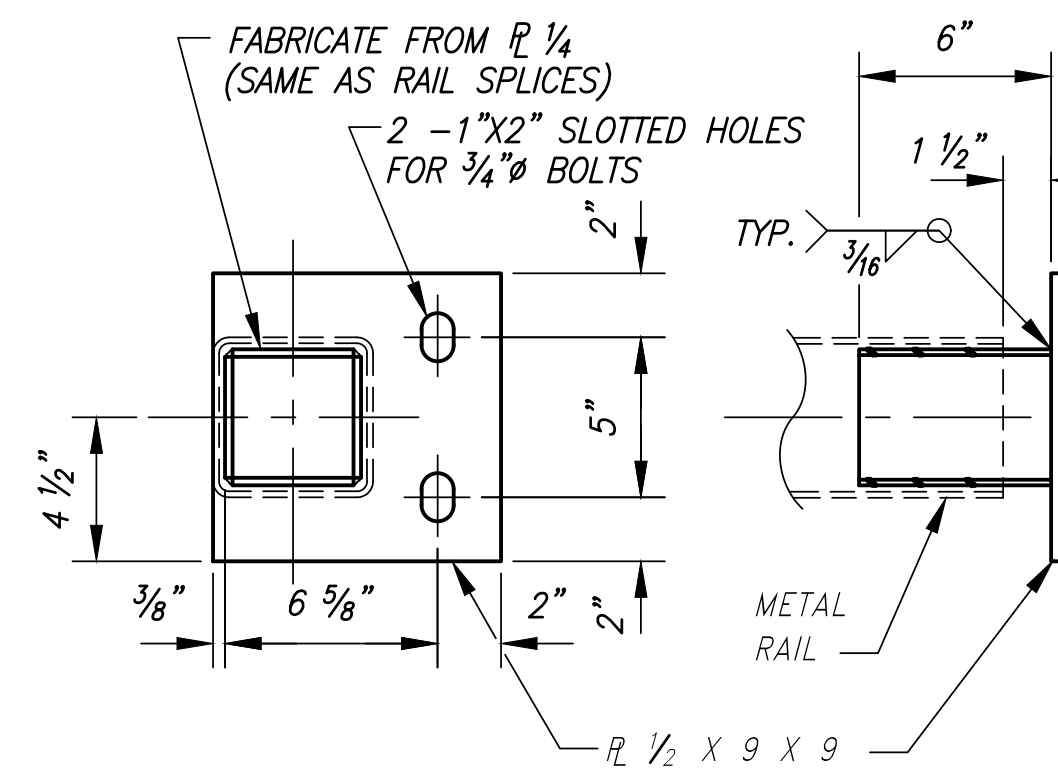
W-BEAM END SECTION DESIGN "F" (SEE STD.
PLAN C-7)



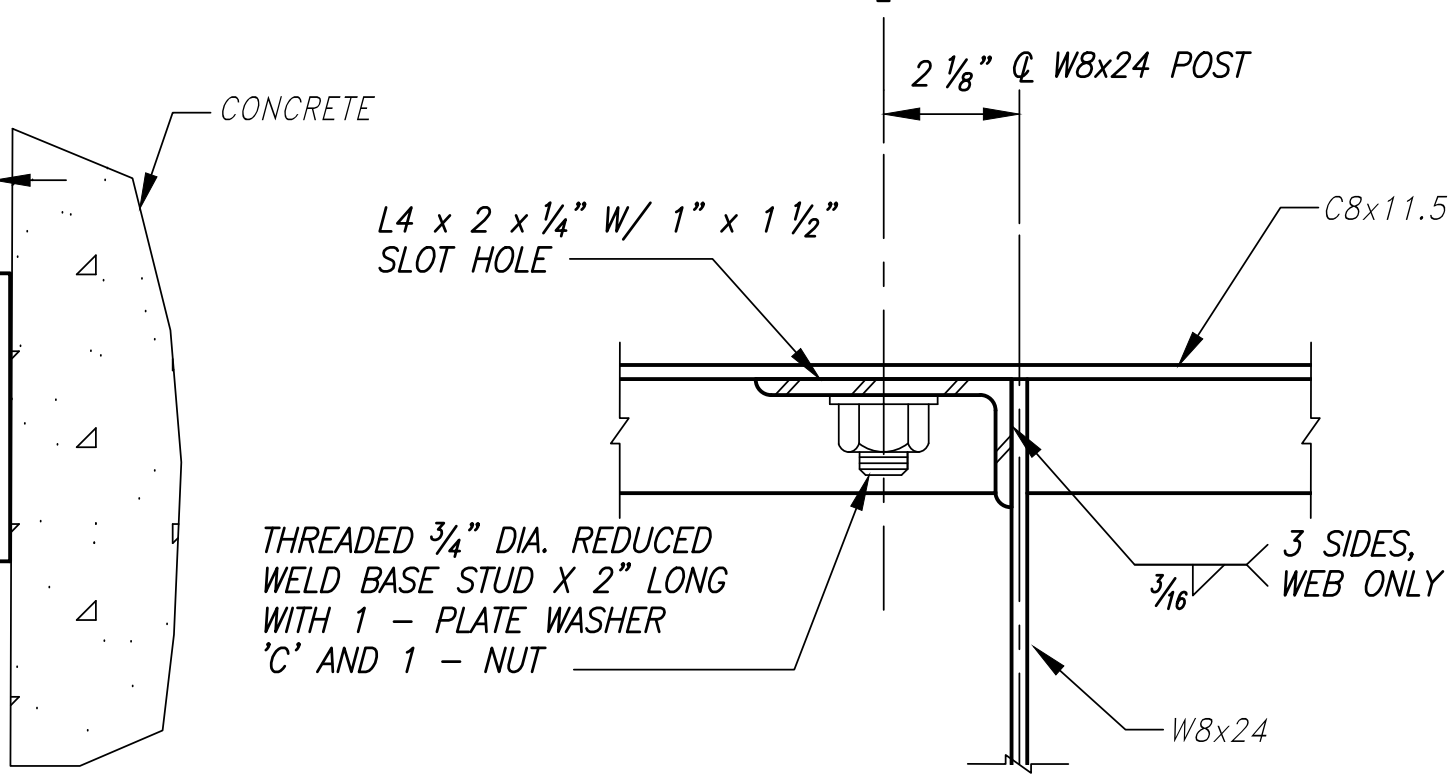
ANCHOR PLATE DETAILS



BASE PLATE DETAILS



RAIL ATTACHMENT BRACKET



C8x11.5 ATTACHMENT BRACKET

TOP OF
ROADWAY

W-BEAM END SECTION DESIGN "F" (SEE STD.
PLAN C-7)

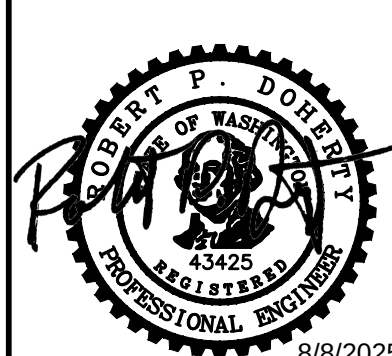
OUTSIDE ELEVATION -
CONCRETE BARRIER TO
GUARDRAIL CONNECTION
EACH END OF BRIDGE RAIL

REVISIONS			
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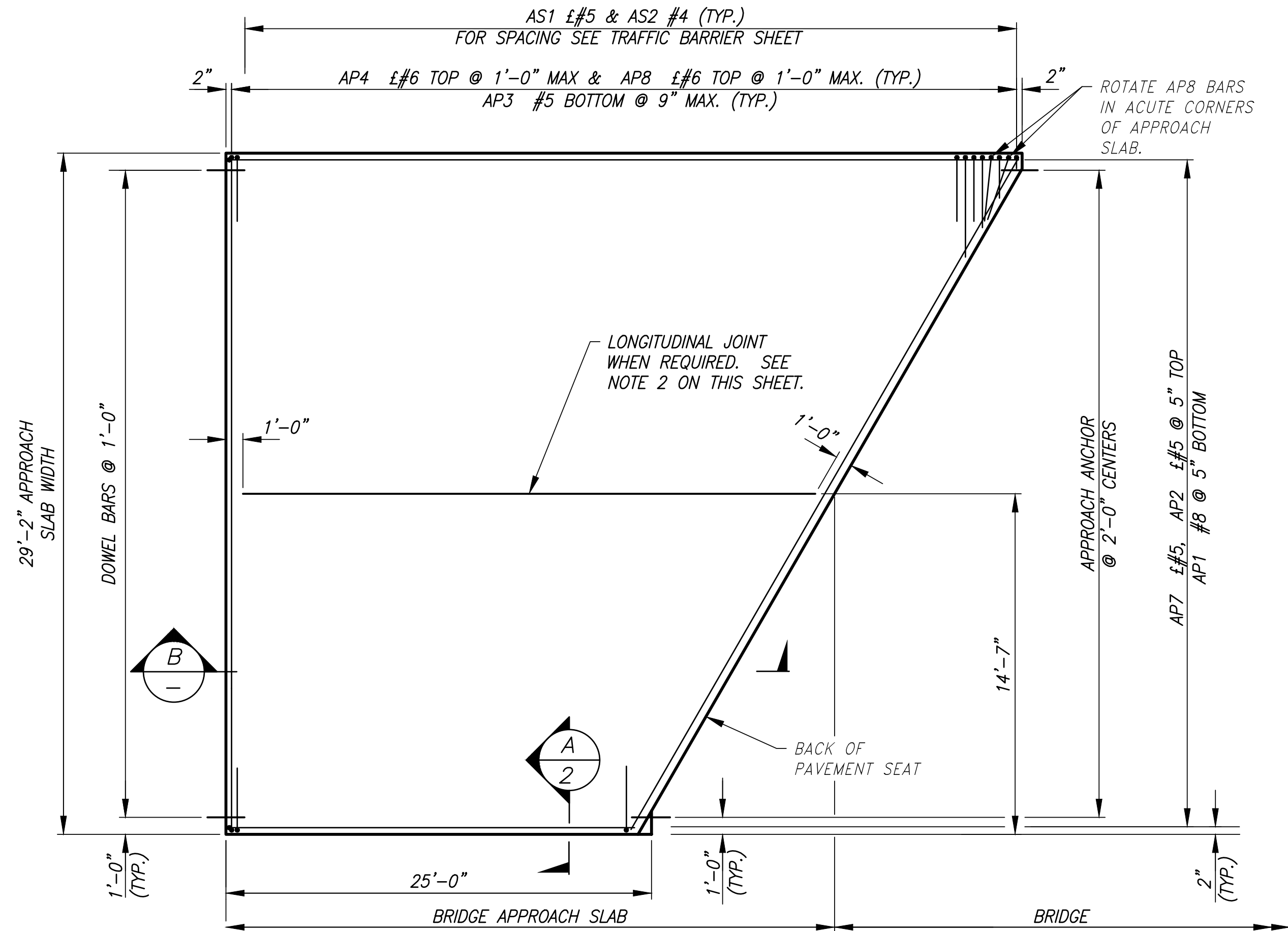
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HARPER ESTUARY BARRIER
CORRECTION
BRIDGE RAIL DETAILS (2 OF 2)

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

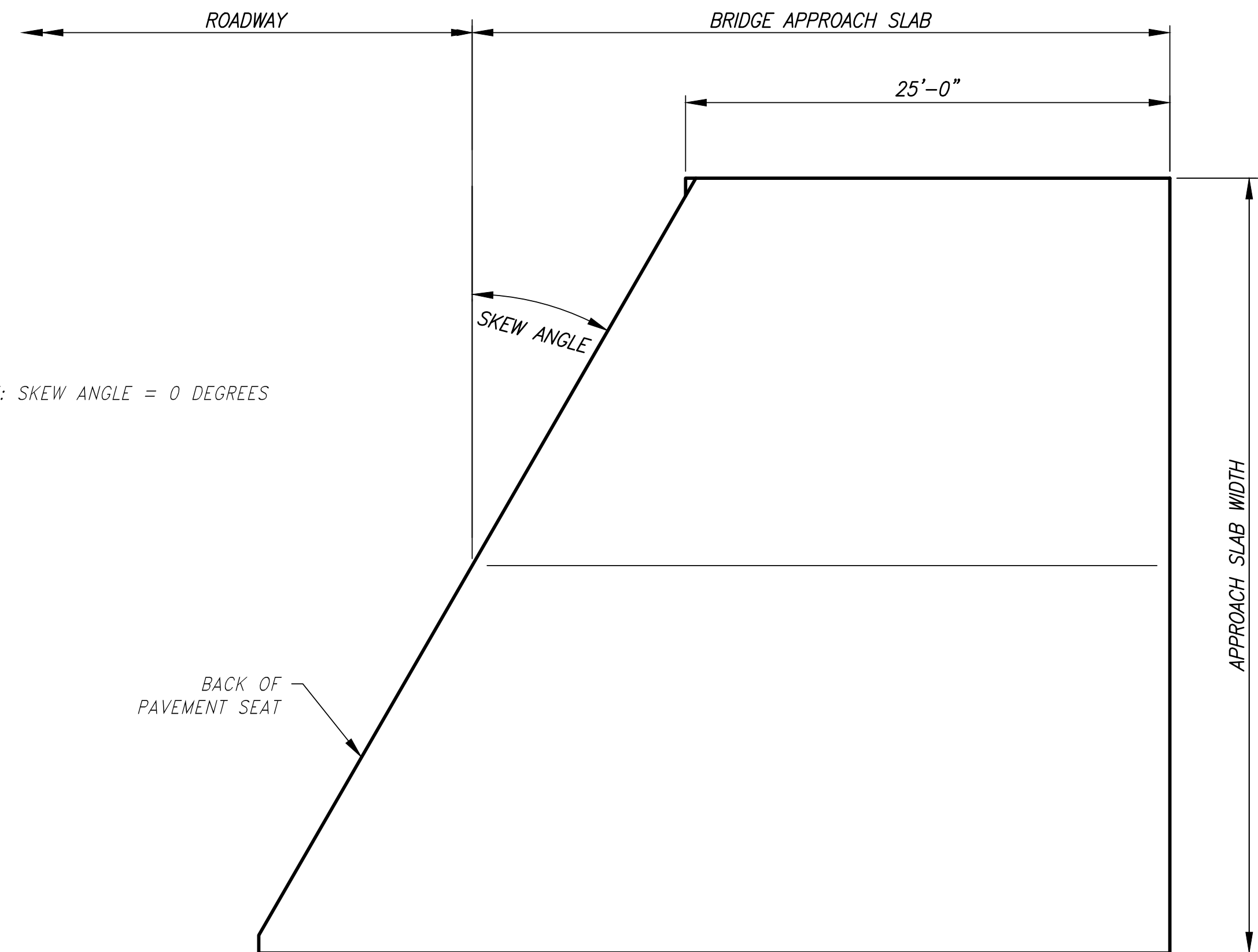
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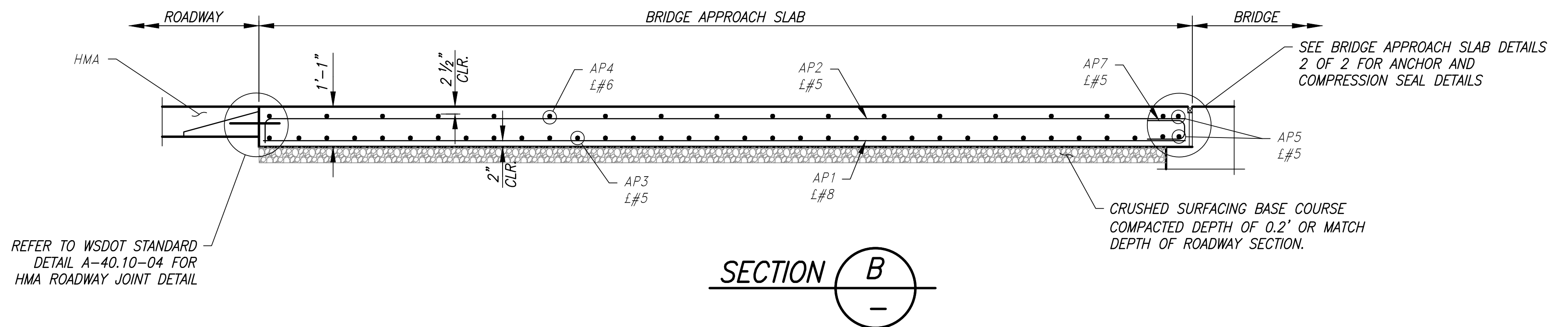
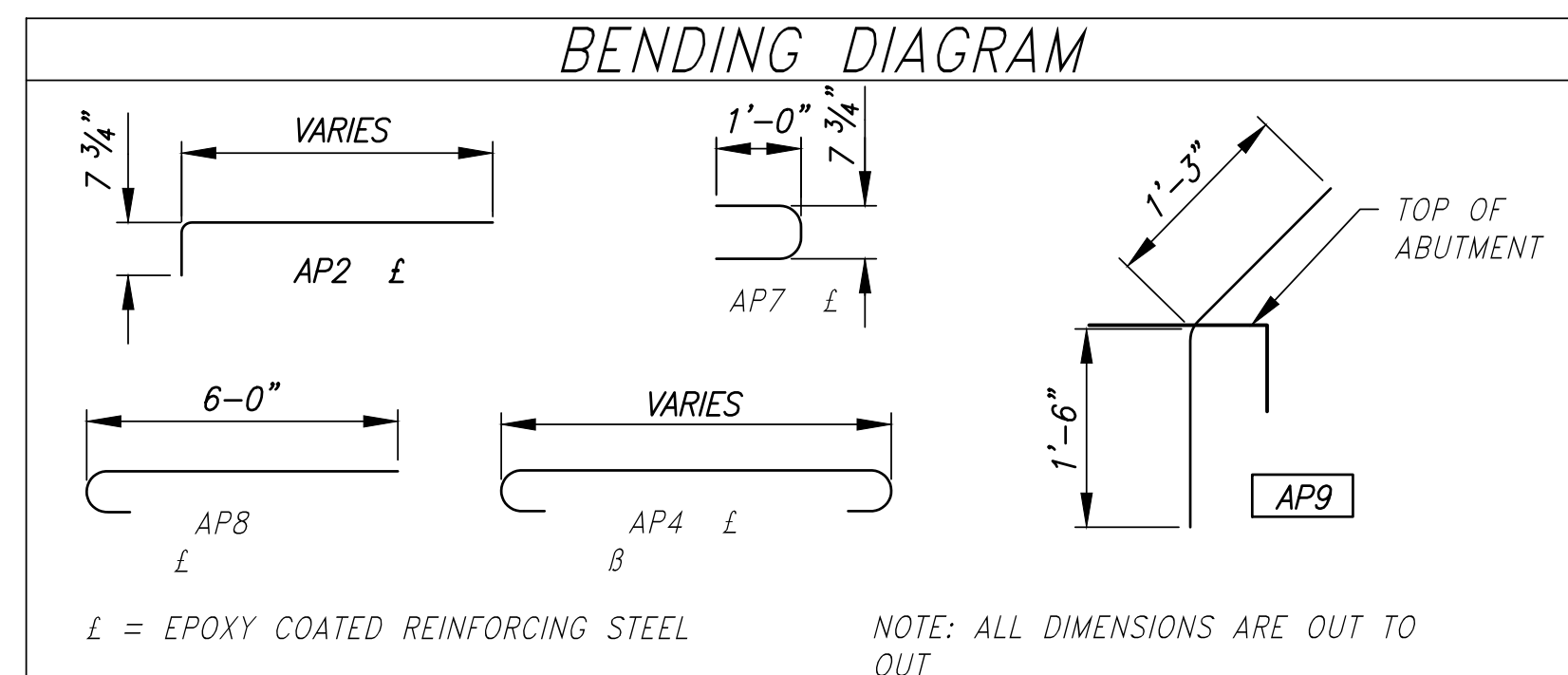
AP4 HOOKS ARE ONLY REQUIRED AT THE TRAFFIC BARRIER EDGE.

PLAN



NOTES:

- ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE $\frac{1}{2}$ " RADIUS EXCEPT AT LONGITUDINAL JOINTS AND ADJACENT TO L-TYPE ABUTMENTS.
- LONGITUDINAL JOINTS SHALL BE PLACED ON LANE LINES AND SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH STD. SPEC. SECTION 5-05.3(8). JOINTS MAY BE EITHER A SAWCUT CRACK CONTROL JOINT OR A CONSTRUCTION JOINT. SAWCUT JOINTS SHALL TERMINATE 1'-0" BEFORE REACHING EDGE OF SLAB AND MUST BE SAW CUT AS SOON AS POSSIBLE AFTER PLACEMENT OF CONCRETE. SEE "LONGITUDINAL JOINT DETAIL" ON BRIDGE APPROACH SLAB DETAILS 2 OF 3.
- THE MINIMUM LAP SPLICE OF $\#5$ IS 2'-0", $\#5$ IS 2'-6", $\#6$ IS 3'-0", AND $\#8$ IS 3'-3". ALL LAP SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF REBAR IS SPLICED AT THE SAME LOCATION. LAP SPLICES SHALL BE LOCATED WITHIN THE MIDDLE HALF OF THE BRIDGE APPROACH SLAB. OPTIONAL SPLICES ARE ALLOWED FOR AP4 $\#6$.
- FOR TRAFFIC BARRIER DETAILS, INCLUDING ANY BRIDGE APPROACH SLAB BLOCKOUT INFORMATION, SEE TRAFFIC BARRIER SHEETS.



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HARPER ESTUARY BARRIER CORRECTION

APPROACH SLAB DETAILS (1 OF 2)

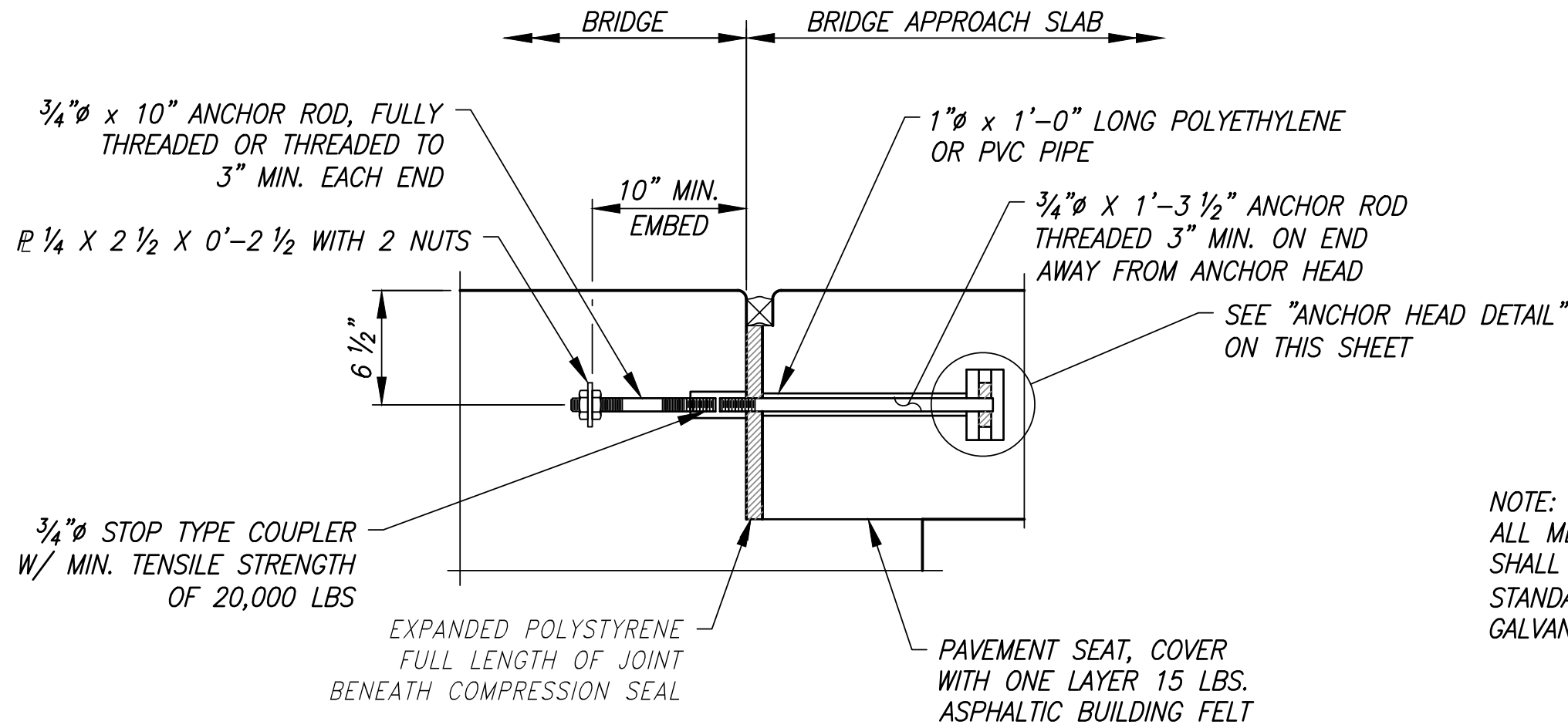
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET

B18

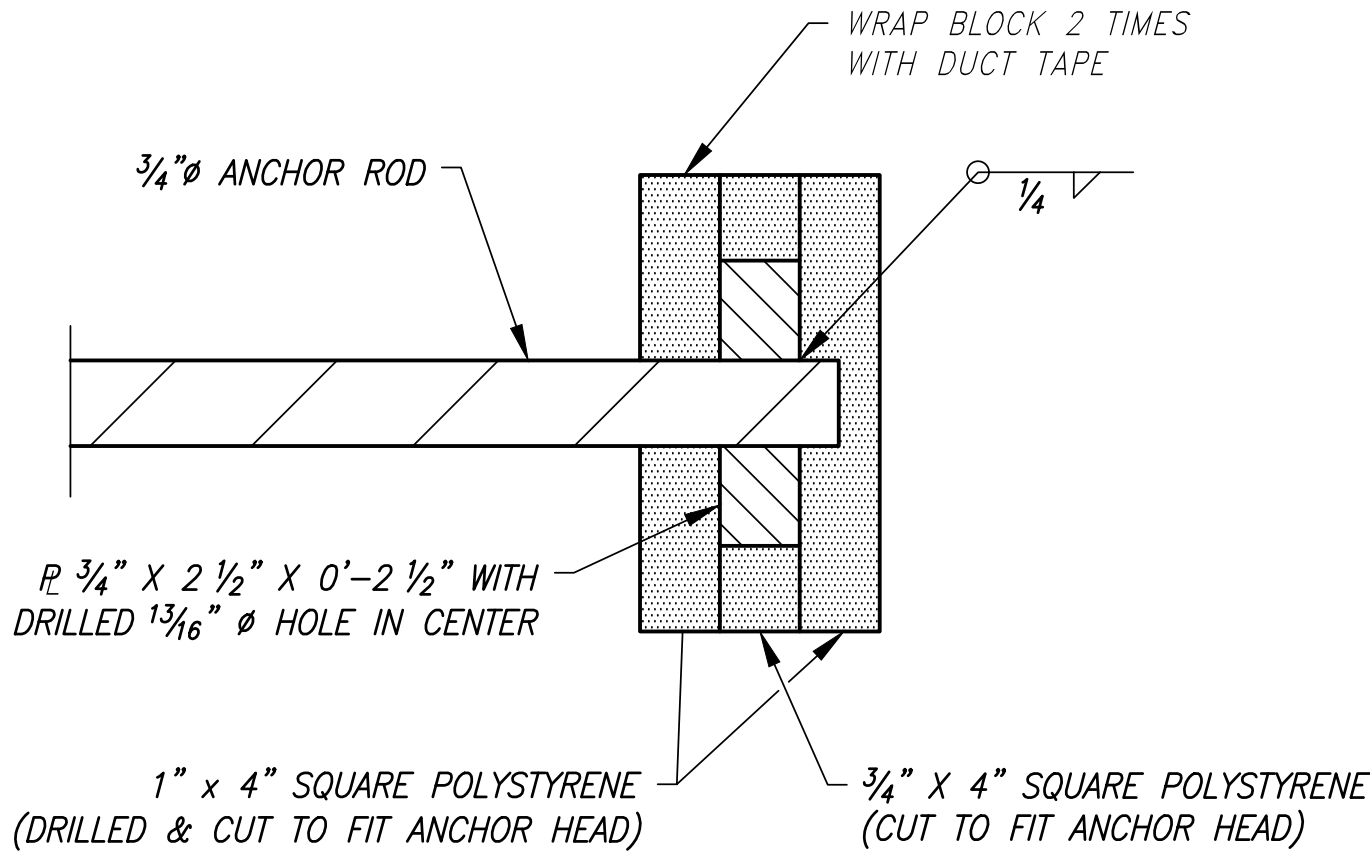
25 OF 56

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Layout Name: B19
ahmed.kayanda



APPROACH ANCHOR – METHOD A

NOTE:
ALL METAL PARTS OF THE APPROACH EXPANSION ANCHOR SHALL RECEIVE ONE COAT OF PAINT CONFORMING TO STANDARD SPECIFICATION SECTION 9-08.1(2)F OR BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

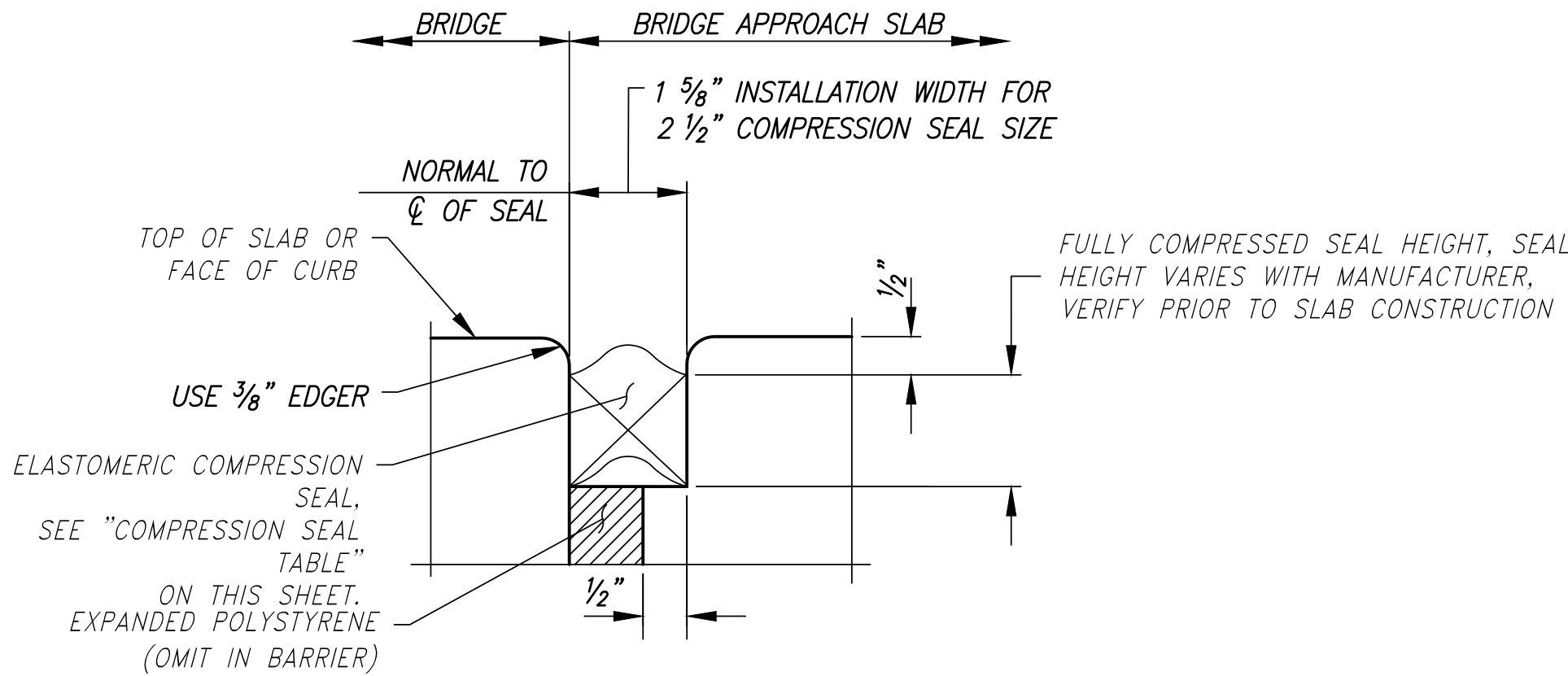


ANCHOR HEAD DETAIL

COMPRESSION SEAL TABLE

D.S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-2502	2 1/2	WA-250	2 1/2

TESTING SHALL BE PER ASTM D 2628 PRIOR TO USE.



COMPRESSION SEAL DETAIL

EXPANSION JOINT AT BACK OF PAVEMENT SEAT

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REGISTERED PROFESSIONAL ENGINEER
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HARPER ESTUARY BARRIER
CORRECTION
APPROACH SLAB DETAILS (2 OF 2)

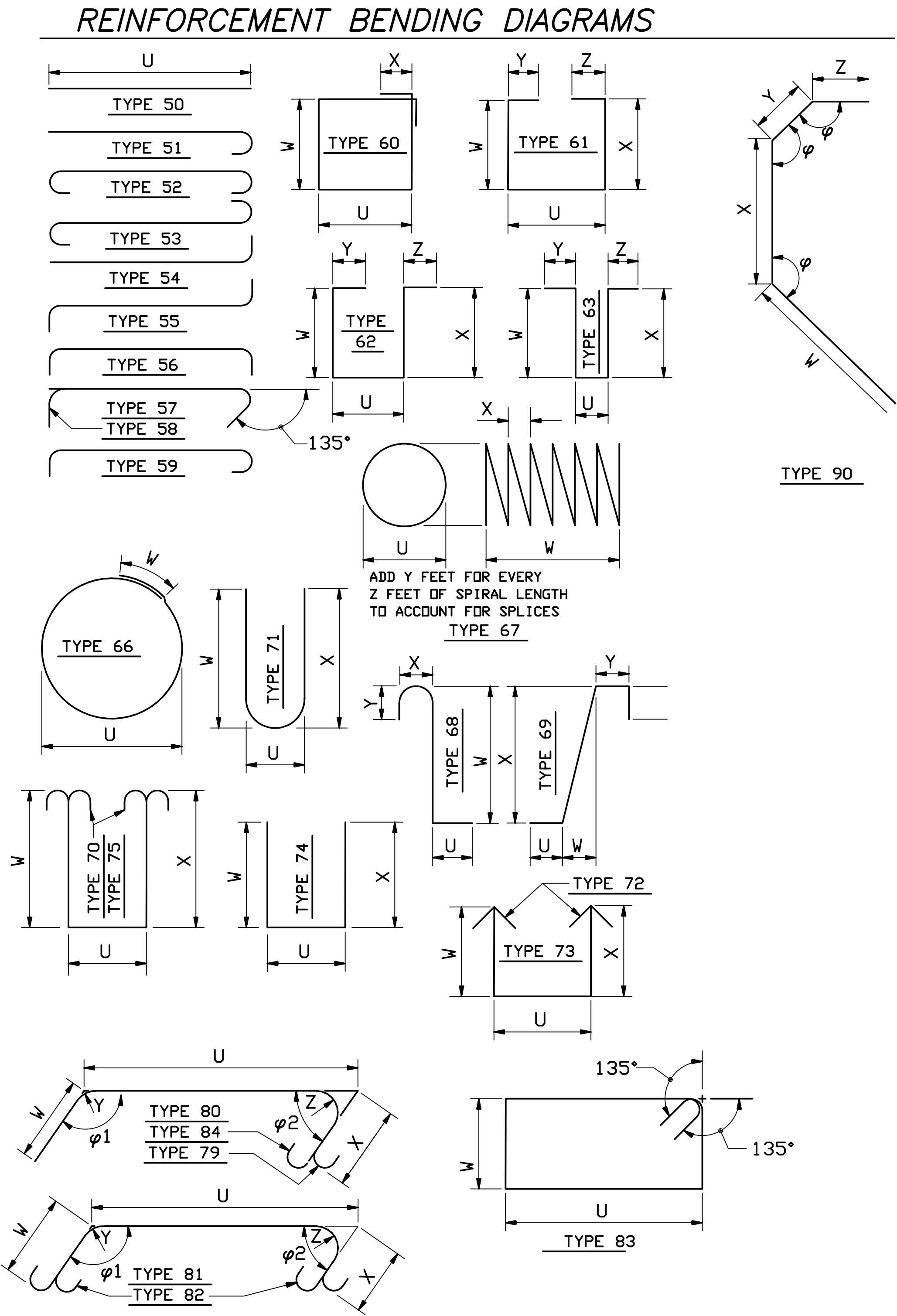
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26
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56

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F=BAR TO BE FIELD WELDED
T=TRANSVERSE, S=SEISMIC
E=BAR IS TO BE EPOXY COATED
V=BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE TO AND THE FOLLOWING LINE

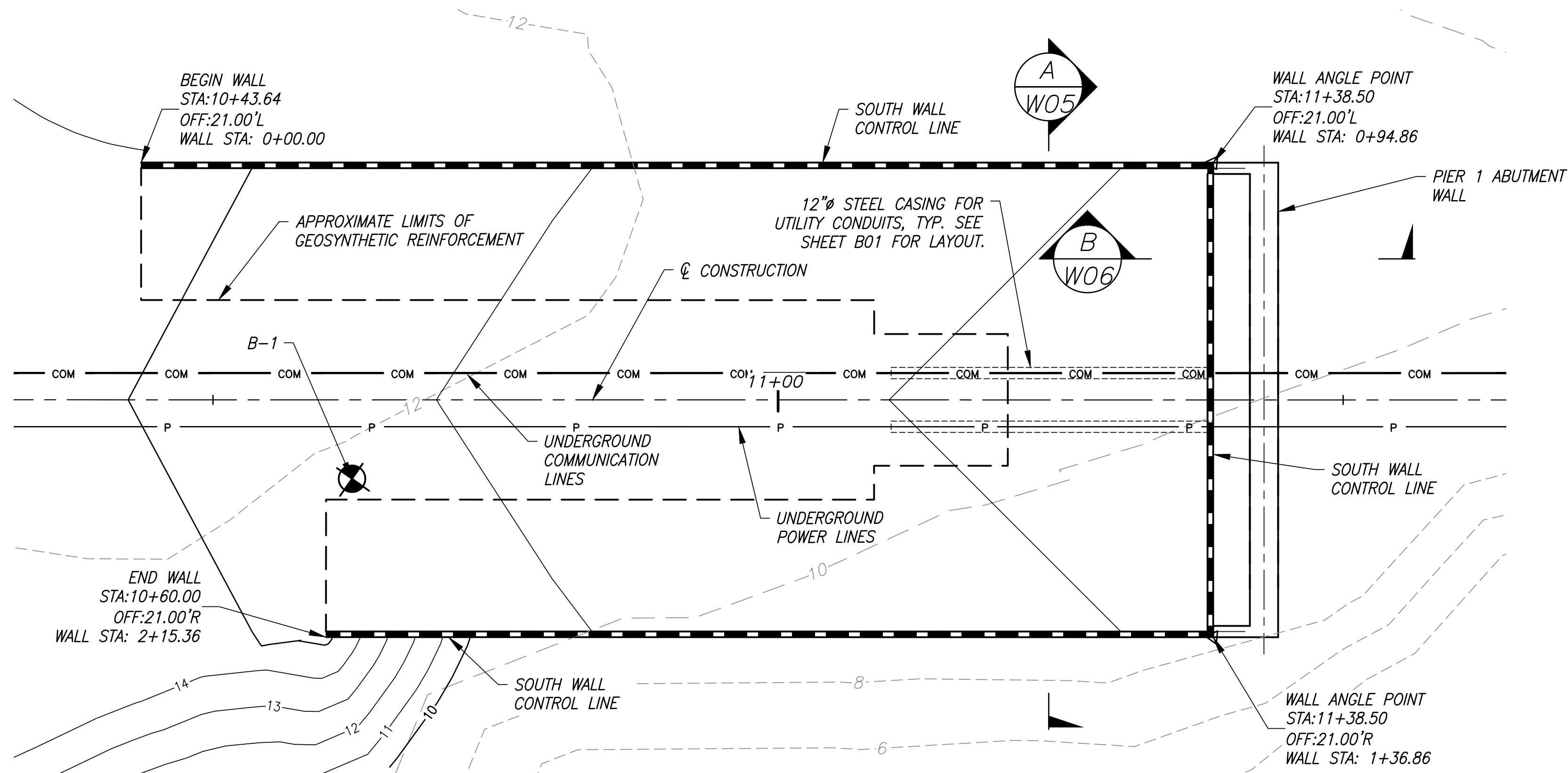
MARK NO	LOCATION	SIZE	NO REQ'D	BEND TYPE	TIE OR STIR.	F.LD. WELD	EPOXY COAT.	VARIES	NO. EACH	DIMENSIONS (Out to Out)														LENGTH		WEIGHT
										U		W		X		Y		Z		φ1	φ2					
										Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	Deg.	Deg.	Ft.	In.			
	DRILLED SHAFTS																									
101A	Vertical	14	48	50						60	0.0											60	0.0		22032	
101B	Vertical	14	48	50						57	0.0											57	0.0		20830	
101C	Vertical	14	48	50						17	0.0											17	0.0		6242	
101D	Vertical	14	48	50						20	0.0											20	0.0		7344	
102	Supplemental Vertical - Short	14	48	51						27	9.0											29	11.0		10981	
103	Supplemental Vertical - Long	14	48	51						34	9.0											36	11.0		13552	
104	Spiral - Cap	7	4	67						6	0.0	3	0.0	0	6.0	0	0.0	0	0.0			111	9.0		914	
105	Spiral - Shaft Upper	7	4	67						6	0.0	30	10.5	0	6.0	0	0.0	0	0.0			1150	3.0		9404	
106	Spiral - Shaft Lower	6	4	67						6	0.0	42	6.0	0	9.0	0	0.0	0	0.0			1057	10.0		6356	
	SHAFT CAPS																									
201	Top Longitudinal	11	48	56						42	0.0											45	4.0		11554	
202	Bottom Longitudinal	11	48	56						42	0.0											45	4.0		11554	
203	Bottom Stirrup	6	164	72	T					8	6.0	4	0.0	4	0.0							17	6.0		4303	
204	Top Stirrup	6	164	58	T					8	6.0											9	12.0		2459	
205	Ties	6	556	52						4	0.0											5	4.0		4488	
206	Side Longitudinal	8	16	56						42	0.0											44	3.0		1890	
	ABUTMENT WALLS																									
301	Longitudinal Bottom	8	260	54			E			9	4.0											10	5.0		7260	
302	Longitudinal Top - Center	8	204	50			E			14	1.0											14	1.0		7657	
303	Longitudinal Top - End	8	48	50			E			18	5.0											18	5.0		2360	
304	Horizontal Bottom	5	96	56			E			42	2.0											43	7.0		4363	
305	Horizontal Top	5	48	56			E			4	2.0											5	7.0		279	
306	Top Tie	5	130	58	T		E			2	3.0											3	1.0		417	
	CURTAIN WALLS																									
401	Longitudinal - Bottom	5	64	50			E			5	0.0											5	0.0		334	
402	Longitudinal - Top	5	64	50			E			18	5.0											18	5.0		1229	
403	Horizontal	5	232	56			E			5	8.0											7	1.0		1711	
	GIRDER STOPS																									
501	Longitudinal	5	36	74			E			2	3.0	2	0.0	2	0.0							5	12.0		225	
502	Transverse	5	36	74			E			1	0.0	2	0.0	2	0.0							4	9.0		180	
	END DIAPHRAGMS																									
601	Longitudinal #6	6	8	56						32	9.0											34	5		414	
602	Longitudinal #4	4	20	56						33	0.0											34	1		456	
603	Stirrup Type 1	4	72	73	T					0	10.0	3	8.0	3	8.0							8	9		397	
604	Stirrup Type 2	4	72	68	T					1	8.0	2	8.0	0	6.0	0	6.0					5	0		228	
605	Tie	4	72	58	T					1	11.0											2	6		115	
	INTERMEDIATE DIAPHRAGMS																									
701	Continuous Longitudinal	7	9	56						27	6.0											29	6		542	
702	Longitudinal	4	144	56						3	9.0											4	10		469	
703	Stirrups	4	180	56						2	2.0											3	3		396	
	DECK																									
801	Longitudinal	6	198	50			E			45	0.0											45	0.0		13383	
802	Transverse	6	255	52			E			33	0.0											34	4.0		13166	
803	Longitudinal	4	112	50			E			33	9.0											33	9.0		2525	



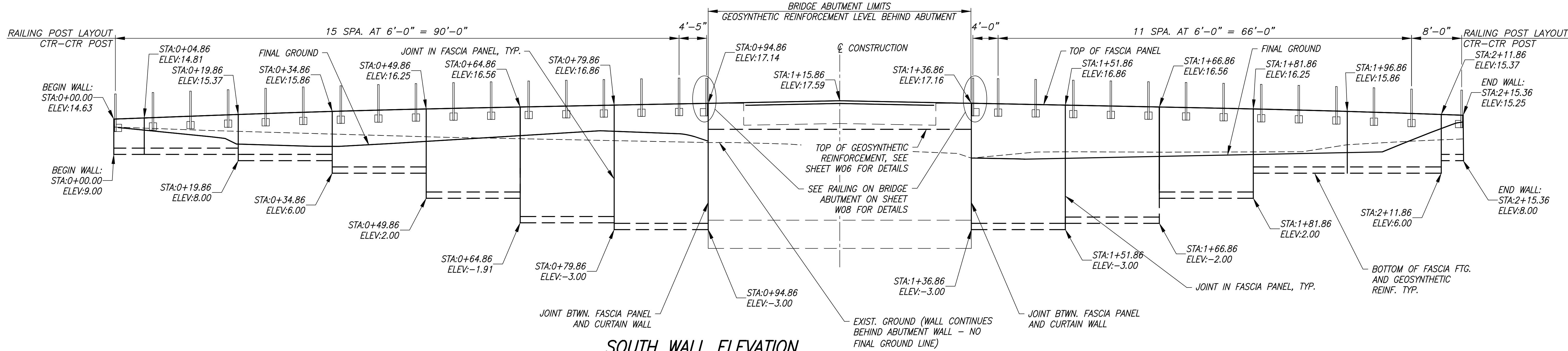
- NOTES:
- BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAS NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.
 - THE BARLIST TABLE IS PROVIDED FOR REFERENCE ONLY, AND REINF. DETAILS SHALL BE DETERMINED BY CONTRACTOR FROM THE PLANS.

REVISIONS				SURVEYED: COUNTY	 11241 Willows Road NE, Suite 200 Redmond, WA 98052 425.822.4446 www.otak.com	 KITSAP COUNTY DEPT. OF PUBLIC WORKS 614 DIVISION STREET MS-26 PORT ORCHARD, WA 98366 TEL:(360) 337-5777 FAX:(360) 337-4867	HARPER ESTUARY BARRIER CORRECTION BARLIST KITSAP COUNTY, WASHINGTON SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.	SHEET B20 27 OF 56
No.	BY	DATE	DESCRIPTION	DESIGNED: MO				
				DRAWN: MO				
				CHECKED: RPD				
				CRP No. 2626				
				DATE: 08/08/25				

Plotted: Aug 07, 2025 - 7:04pm
O:\PROJECT\32500\32510.Dwg\05_W01-W04.dwg Layout Name: W01
ahmed.kayanda



SOUTH WALL PLAN
SCALE: 1/8" = 1'-0"



SOUTH WALL ELEVATION
SCALE: 1/8" = 1'-0"

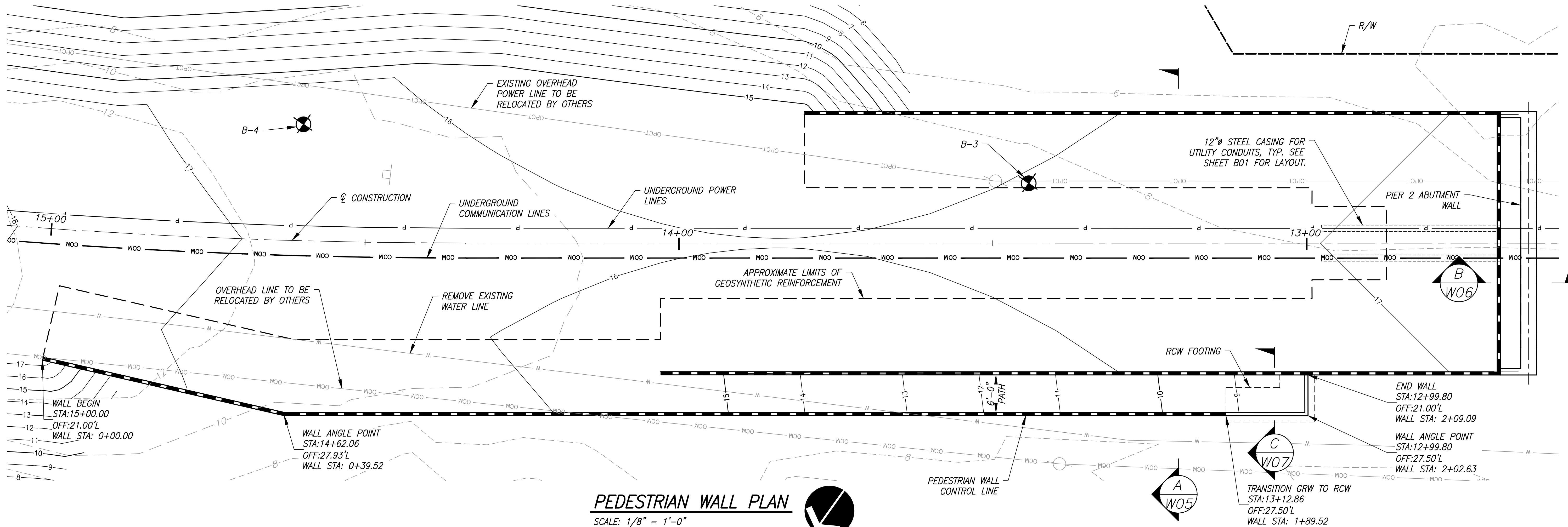
- NOTE:**
1. FINAL GROUND ELEVATION SHOWN FOR WALL EMBEDMENT REFERENCE ONLY. REFER TO CHANNEL GRADING SHEETS FOR FINAL GROUND ELEVATIONS.
 2. WALL ELEVATION SHOWN WITH WALL STATIONS ONLY. SEE WALL PLAN FOR WALL STATIONING AND $\mathcal{C}$ CONSTRUCTION STATIONING.

WALL NOTES

1. GEOSYNTHETIC RETAINING WALL WITH CONCRETE FASCIA SHALL BE CONSTRUCTED PER WSDOT STANDARD PLANS D-3.09-00 AND D-3.11-03.
2. FASCIA PANEL SHALL NOT BE INSTALLED UNTIL A MINIMUM OF 14 DAYS AFTER FULL HEIGHT OF GEOSYNTHETIC REINFORCEMENT, REINFORCED WALL BACKFILL, AND ROADWAY EMBANKMENT FILL ARE IN PLACE AND COMPACTED TO THE TOP OF GEOSYNTHETIC REINFORCEMENT ON BOTH SIDES OF BACK-TO-BACK WALLS.
3. FASCIA PANEL SHALL NOT BE INSTALLED WITHIN 100 FEET, MEASURED ALONG CONSTRUCTION CENTERLINE, OF A PORTION OF WALL WHERE THE GEOSYNTHETIC REINFORCEMENT AND ROADWAY EMBANKMENT FILL HAVE NOT BEEN COMPLETED AND IN PLACE FOR LESS THAN 14 DAYS.
4. SEE SUMMARY OF SUBSURFACE CONDITIONS AND BORING LOGS.
5. OFFSETS ARE SHOWN TO FACE OF FORMLINER. SMOOTH FINISH WILL PROTRUDE 1" FROM OFFSET VALUE SHOWN.
6. GRW = GEOSYNTHETIC RETAINING WALL
RCW = REINFORCED CONCRETE WALL
7. WALLS ARE DESIGNED USING THE FOLLOWING:
 - 7.1. WALL IS SETTLEMENT CONTROLLED AND THE DESIGN ASSUMES LESS THAN 6 INCHES OF SETTLEMENT OCCURRING WITHIN 2 WEEKS AFTER LOAD IS APPLIED.
 - 7.2. NOMINAL BEARING RESISTANCE = 8.5 KIPS PER SQUARE FOOT.
 - 7.3. STRENGTH BEARING RESISTANCE FACTOR = 0.45.
 - 7.4. EXTREME EVENT BEARING RESISTANCE FACTOR = 1.0.

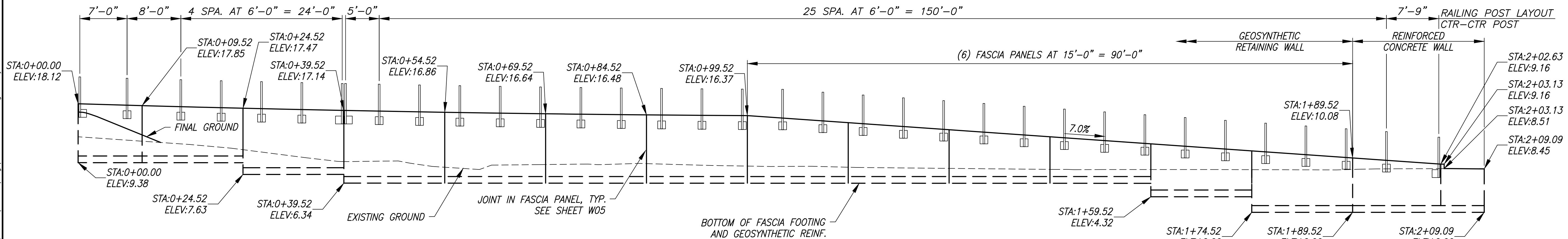
REVISIONS				SURVEYED: COUNTY	 Otak 11241 Willows Road NE, Suite 200 Redmond, WA 98052 425.822.4446 www.otak.com	 ROBERT P. DOHERTY 43425 REGISTERED PROFESSIONAL ENGINEER 8/8/2025	 KITSAP COUNTY DEPT. OF PUBLIC WORKS 614 DIVISION STREET MS-28 PORT ORCHARD, WA 98366 TEL:(360) 337-5777 FAX:(360) 337-4867	HARPER ESTUARY BARRIER CORRECTION SOUTH WALL PLAN AND ELEVATION KITSAP COUNTY, WASHINGTON SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.	SHEET W01 28 OF 56
No.	BY	DATE	DESCRIPTION	DESIGNED: MO					
				DRAWN: MO					
				CHECKED: RPD					
				CRP No. 2626					
				DATE: 08/08/25					

Plotted: Aug 07, 2025 - 7:04pm
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Layout Name: W02
ahmed.kayanda



PEDESTRIAN WALL PLAN

SCALE: 1/8" = 1'-0"
STATIONING RUNNING RIGHT TO LEFT



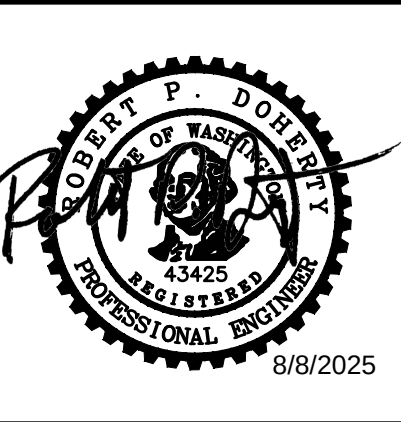
PEDESTRIAN WALL ELEVATION

SCALE: 1/8" = 1'-0"
STATIONING RUNNING RIGHT TO LEFT

- NOTE:**
1. FINAL GROUND ELEVATION SHOWN FOR WALL EMBEDMENT REFERENCE ONLY. REFER TO CHANNEL GRADING SHEETS FOR FINAL GROUND ELEVATIONS.
 2. WALL ELEVATION SHOWN WITH WALL STATIONS ONLY. SEE WALL PLAN FOR WALL STATIONING AND $\mathcal{C}$ CONSTRUCTION STATIONING.

REVISIONS			
No.	BY	DATE	DESCRIPTION

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DESIGNED: MO
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CHECKED: RPD
CRP No. 2626
DATE: 08/08/25



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HARPER ESTUARY BARRIER CORRECTION
PEDESTRIAN WALL PLAN AND ELEVATION
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W02
29
OF
56

Plotted: Aug 07, 2025 - 7:04pm C:\PROJECT\32500\32510.Dwg\05_W01-W04.dwg Layout Name: W03

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- NOTE:**
1. FINAL GROUND ELEVATION SHOWN FOR WALL EMBEDMENT REFERENCE ONLY. REFER TO CHANNEL GRADING SHEETS FOR FINAL GROUND ELEVATIONS.
 2. WALL ELEVATION SHOWN WITH WALL STATIONS ONLY. SEE WALL PLAN FOR WALL STATIONING AND C CONSTRUCTION STATIONING.

REVISIONS			
No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: MO
DRAWN: MO
CHECKED: RPD
CRP No. 2626
DATE: 08/08/25

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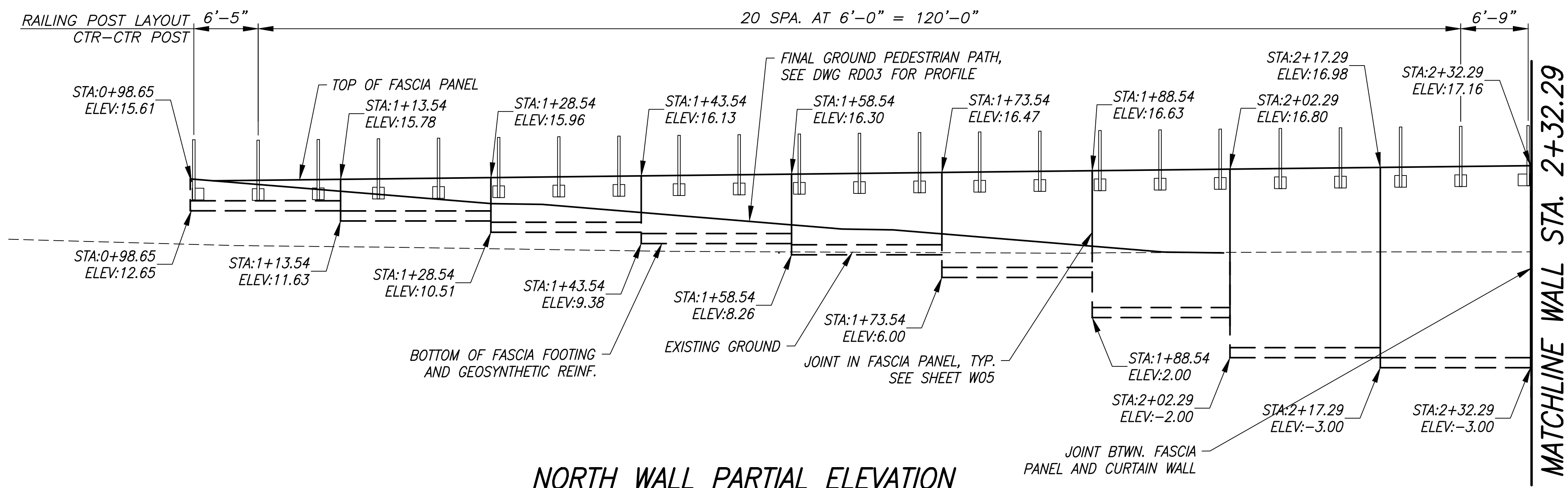
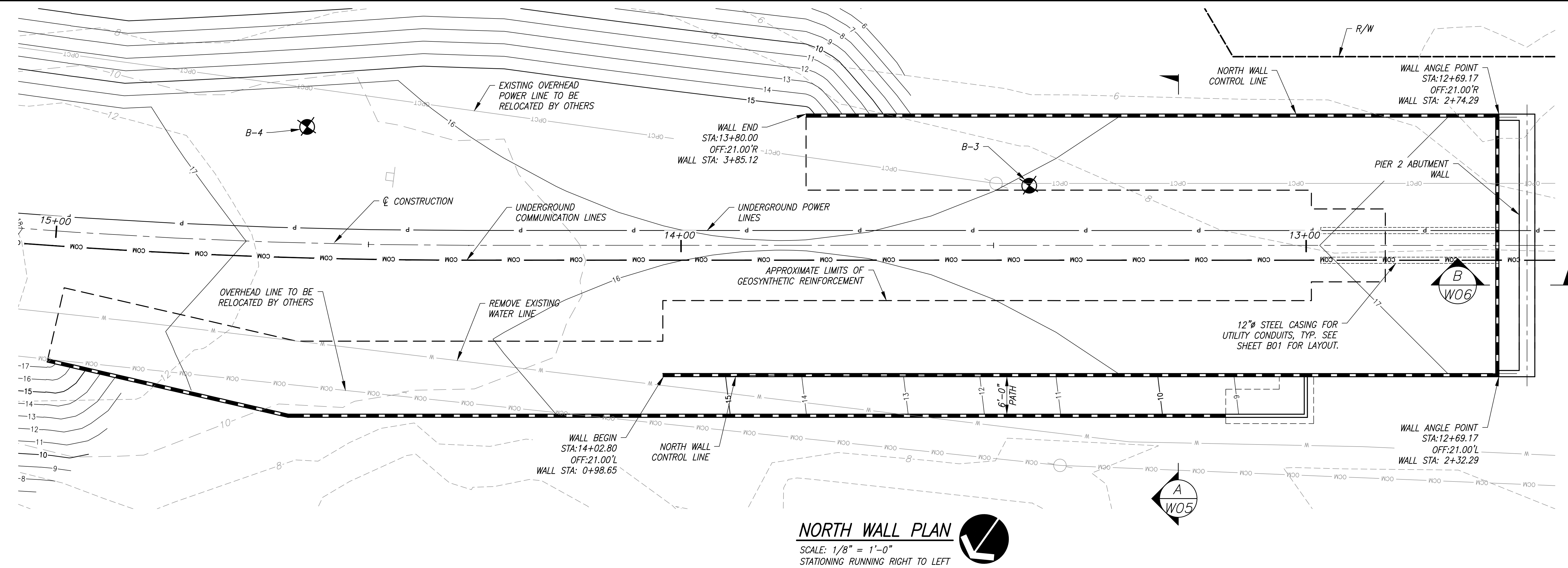
ROBERT P. DOHERTY
43425
REGISTERED PROFESSIONAL ENGINEER
8/8/2025

KITSAP COUNTY
18 57
WASHINGTON

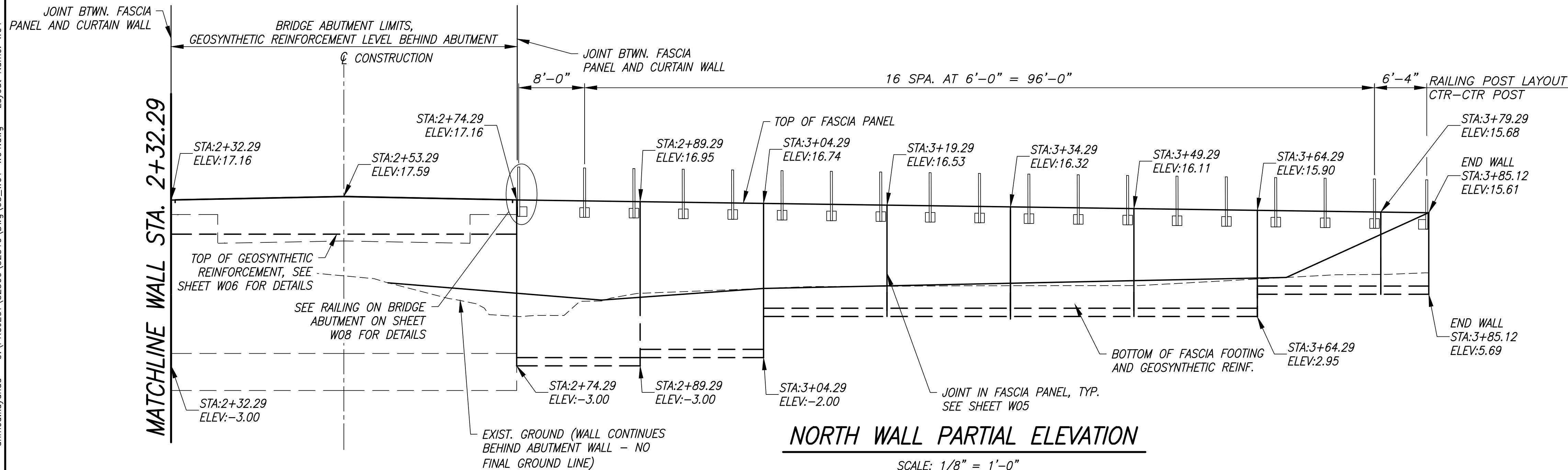
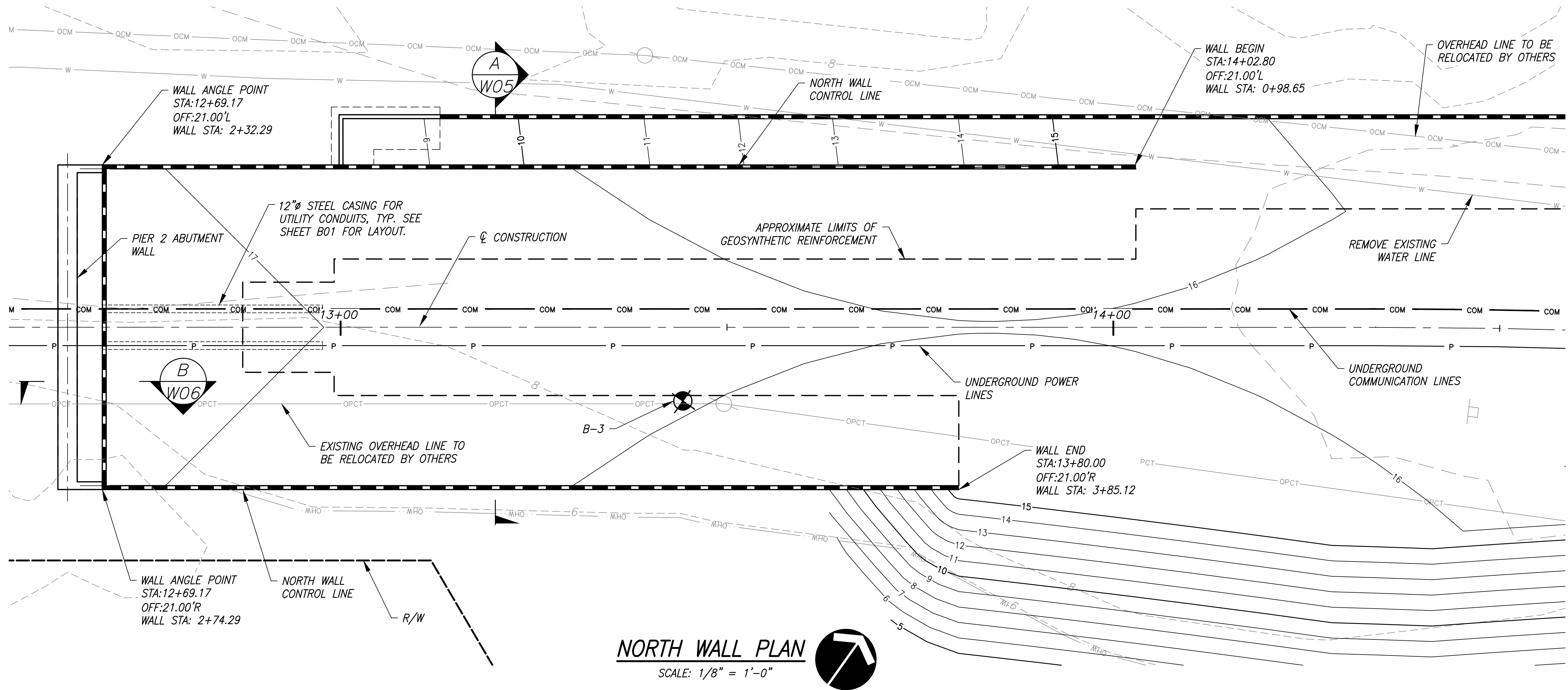
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HARPER ESTUARY BARRIER
CORRECTION
NORTH WALL
PLAN AND ELEVATION (1 OF 2)
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W03
30
OF
56



Plotted: Aug 07, 2025 - 7:04pm
ahmed.kayanda
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Layout Name: W04



- NOTE:**
1. FINAL GROUND ELEVATION SHOWN FOR WALL EMBEDMENT REFERENCE ONLY. REFER TO CHANNEL GRADING SHEETS FOR FINAL GROUND ELEVATIONS.
 2. WALL ELEVATION SHOWN WITH WALL STATIONS ONLY. SEE WALL PLAN FOR WALL STATIONING AND $\mathcal{C}$ CONSTRUCTION STATIONING.

REVISIONS			
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DESIGNED: MO
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CRP No. 2626
DATE: 08/08/25

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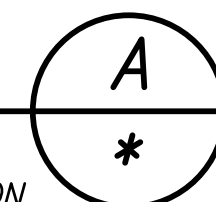
ROBERT P. DOHERTY
REGISTERED PROFESSIONAL ENGINEER
43425
8/8/2025

KITSAP COUNTY
18 57
WASHINGTON

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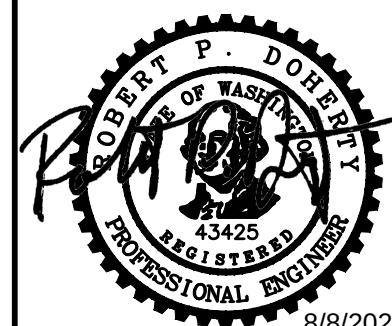
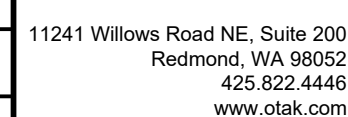
HARPER ESTUARY BARRIER CORRECTION
NORTH WALL
PLAN AND ELEVATION (2 OF 2)
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W04
31
OF
56



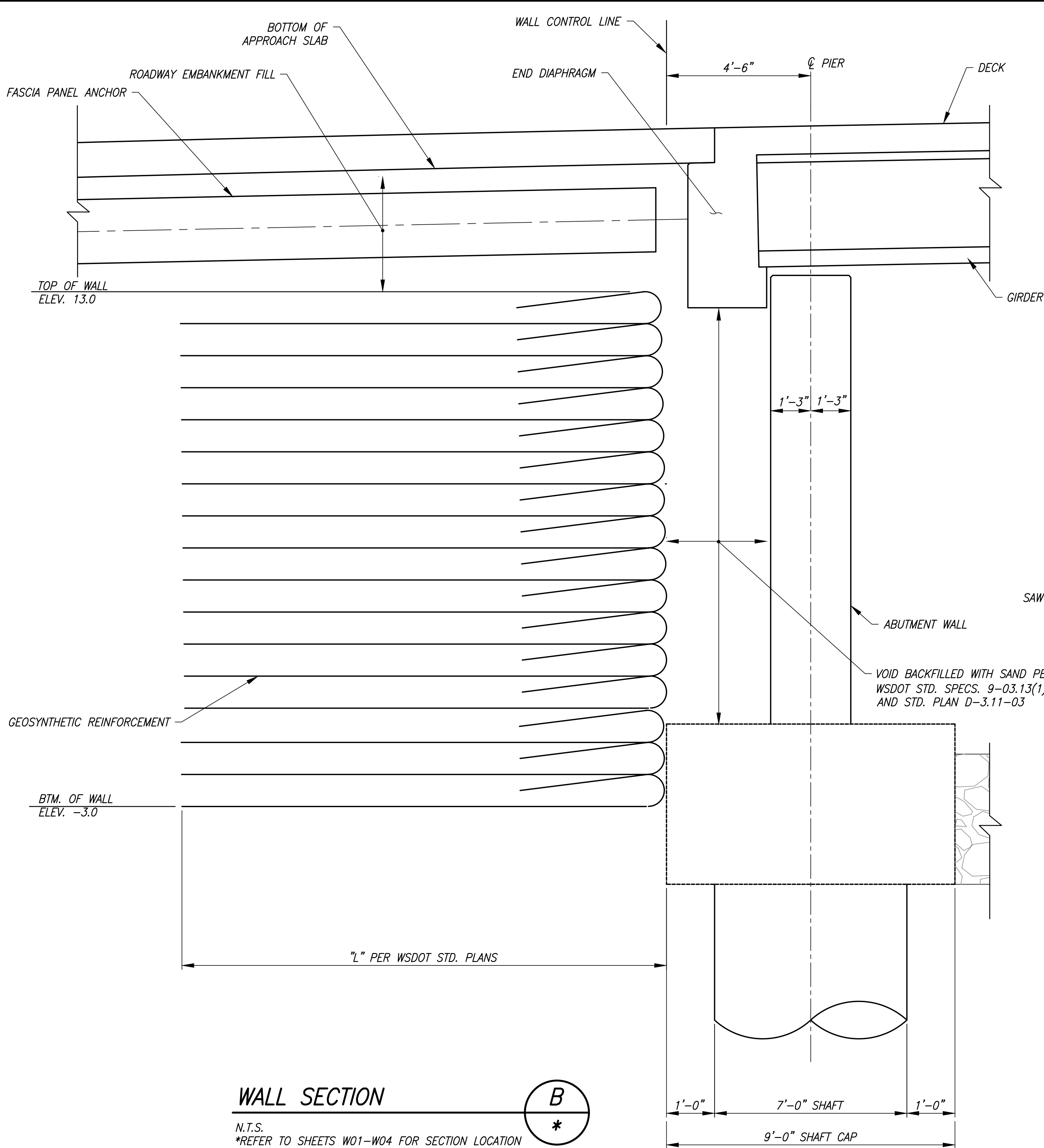
HEET
W05
32
OF
56

REVISIONS				SURVEYED: COUNTY
No.	BY	DATE	DESCRIPTION	DESIGNED: MO
				DRAWN: MO
				CHECKED: RPD
				CRP No. 2626
				DATE: 08/08/25



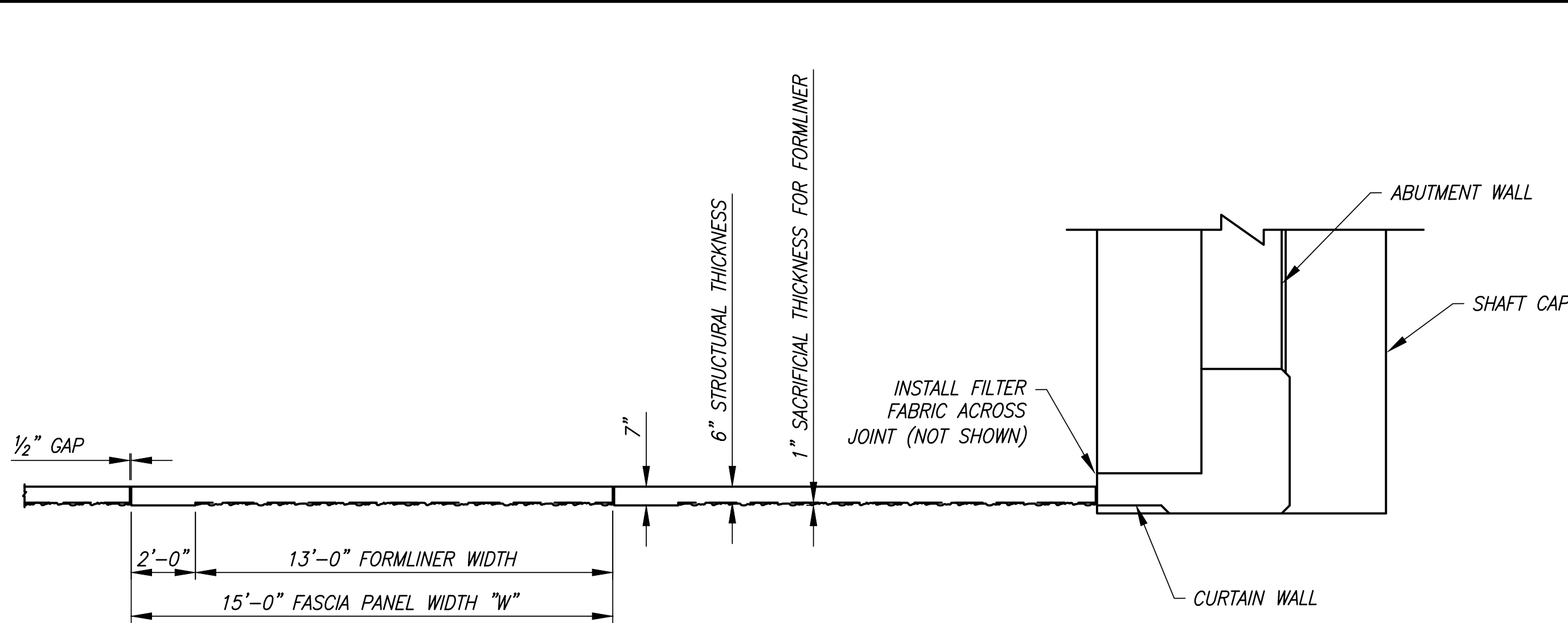
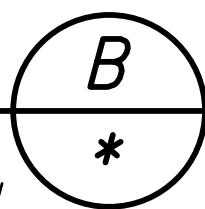
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Layout Name: W06
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WALL SECTION

N.T.S.
*REFER TO SHEETS W01-W04 FOR SECTION LOCATION



CONCRETE FASCIA PANEL PLAN

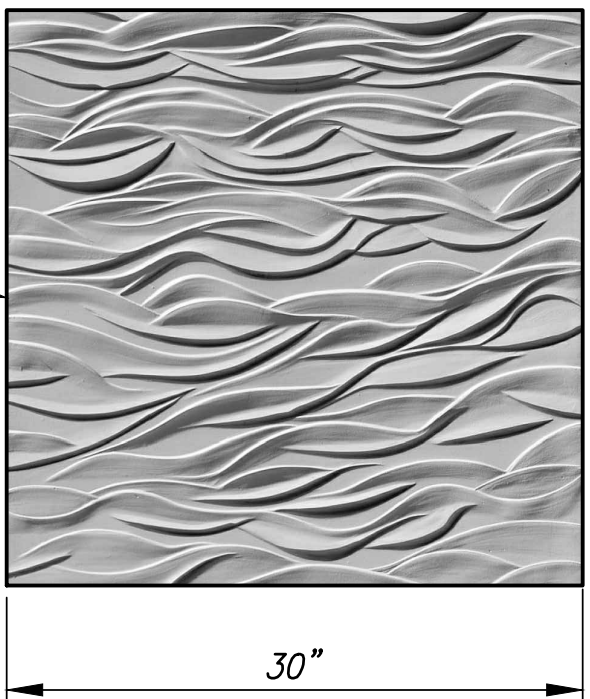
N.T.S.
SHOWN AT TYPICAL BRIDGE CORNER. SIMILAR
AT RCW. PROVIDE FORMLINER ON RCW.

1/4" THK. x 1/2" DEPTH
SAWCUT OR FORMED JOINT

TOP PORTION 7" THK. SMOOTH

SIDE PORTION 7"
THK. SMOOTH

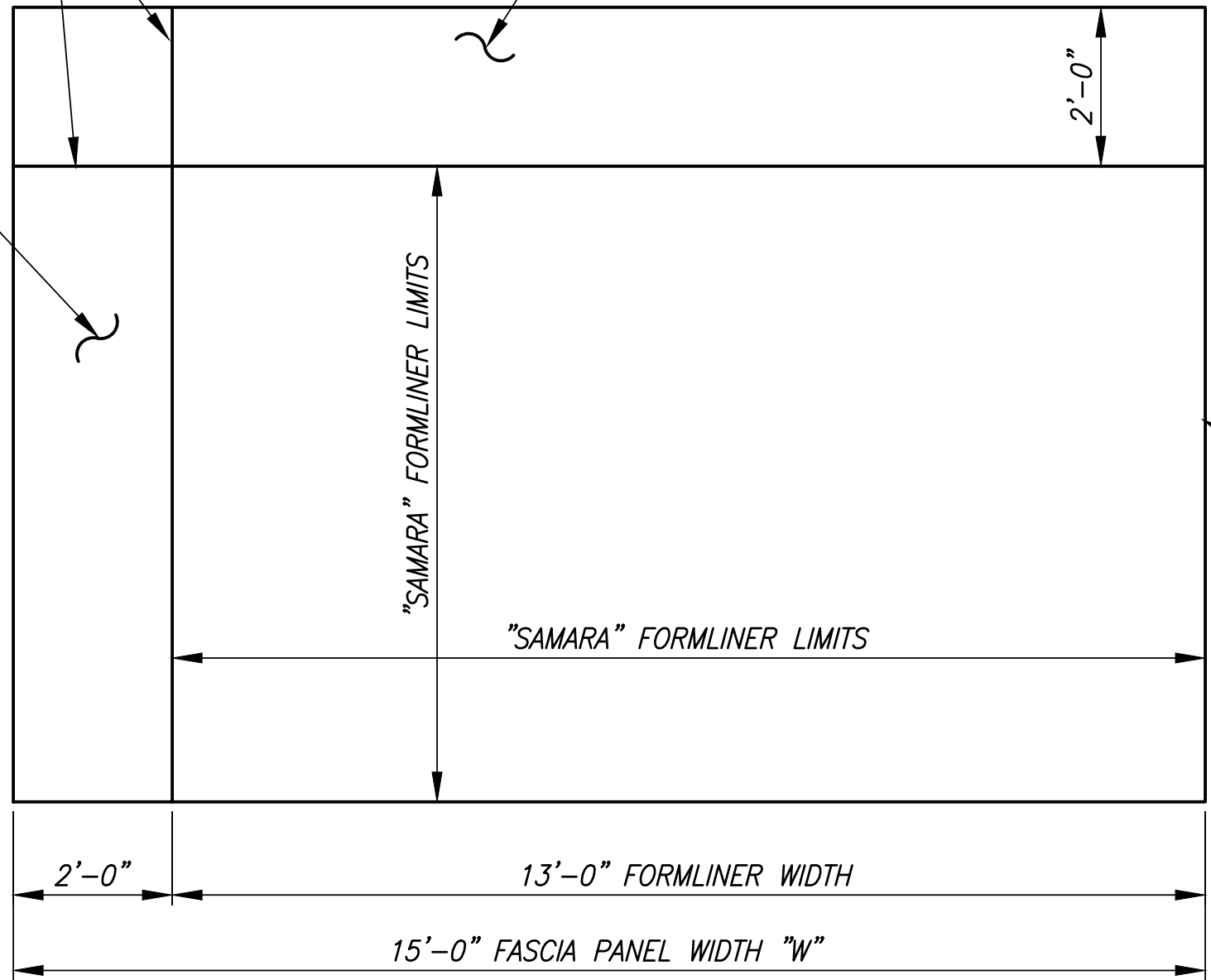
"SAMARA" FORMLINER SAMPLE,
ACTUAL SIZE OF IMAGE ~ 30" x 30",
MAXIMUM AMPLITUDE ~ 0.8"



FORMLINER DETAIL

N.T.S.

TEXTURED CONCRETE EDGE
PLACED AGAINST CURTAIN WALL
AT EACH BRIDGE CORNER

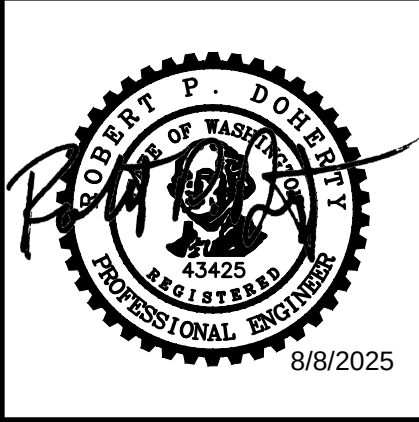


CONCRETE FASCIA PANEL ELEVATION WITH FORMLINER FINISH

- N.T.S.
FORMLINER NOTES:
1. PROVIDE SURFACES FINISH AND FORMLINER TO GEOSYNTHETIC RETAINING WALL FASCIA PANELS AND FACE OF REINFORCED CONCRETE RETAINING WALL.
 2. PROVIDE CLASS 1 SURFACE FINISH TO 2'-0" BORDER WITHOUT FORMLINER.
 3. FORMLINER SHALL BE ORIENTED AS SHOWN.
 4. FORMLINERS SHALL BE SIZED TO MINIMIZE JOINTS TO THE MAXIMUM EXTENT FEASIBLE. NO JOINTS WILL BE ALLOWED WITHIN THE TYPICAL 13'-0" WIDE BY 10'-0" HIGH DIMENSIONS SHOWN. IF JOINTS ARE NEEDED OUTSIDE OF THESE LIMITS, THEY SHALL BE LOCATED BELOW GROUND TO THE EXTENT POSSIBLE.
 5. PANEL HEIGHT AND WIDTH VARY, MAINTAIN COSTANT 2'-0" BORDER WITHOUT FORMLINER AND VARY FORMLINER DIMENSIONS AS NEEDED.

REVISIONS			
No.	BY	DATE	DESCRIPTION

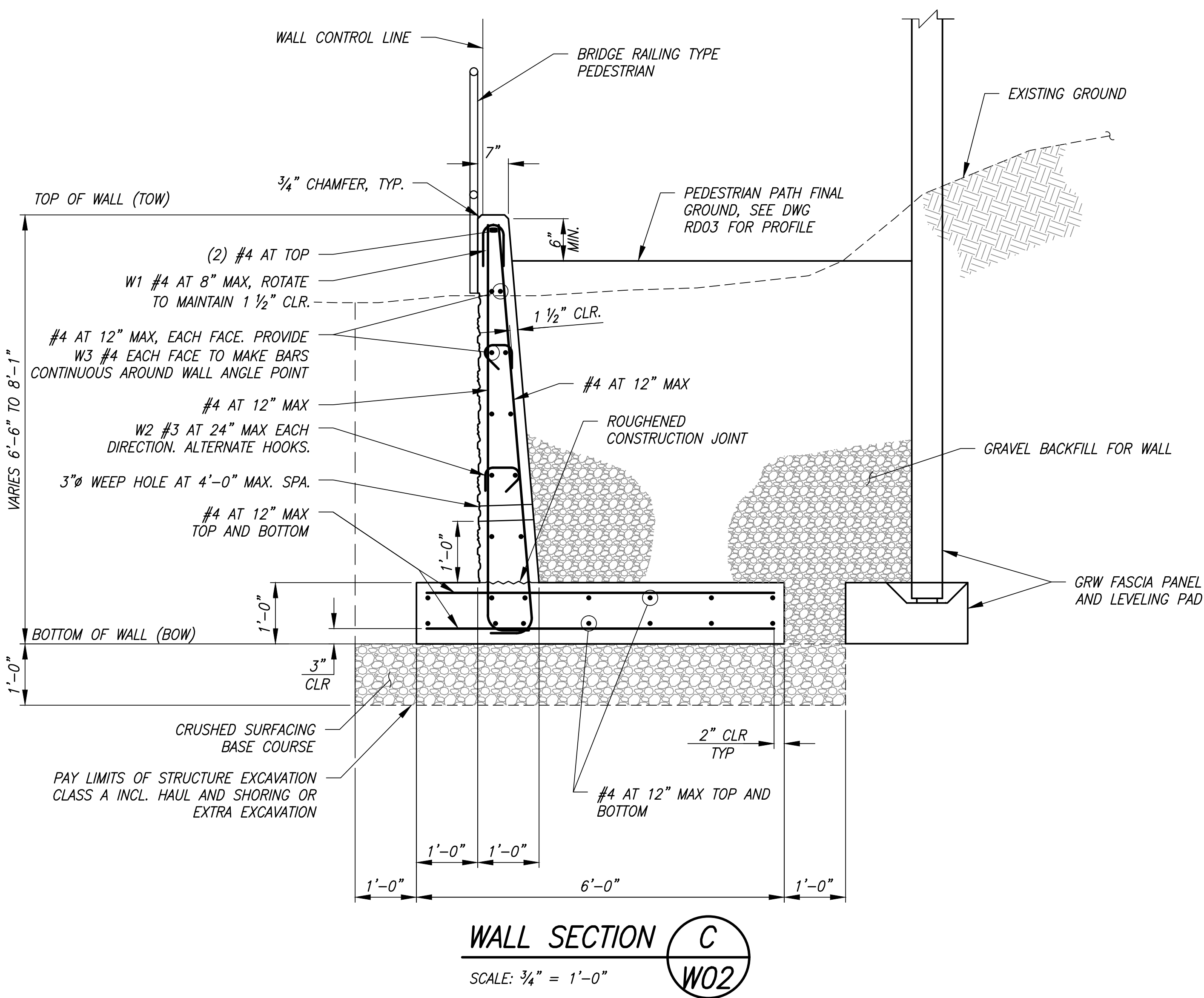
SURVEYED: COUNTY
DESIGNED: MO
DRAWN: MO
CHECKED: RPD
CRP No. 2626
DATE: 08/08/25



HARPER ESTUARY BARRIER
CORRECTION
RETAINING WALL
SECTION AND DETAILS (2 OF 3)
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W06
33
OF
56

Plotted: Aug 07, 2025 - 7:06pm
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Layout Name: W07



REVISIONS			
No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
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ROBERT P. DOHERTY
REGISTERED PROFESSIONAL ENGINEER
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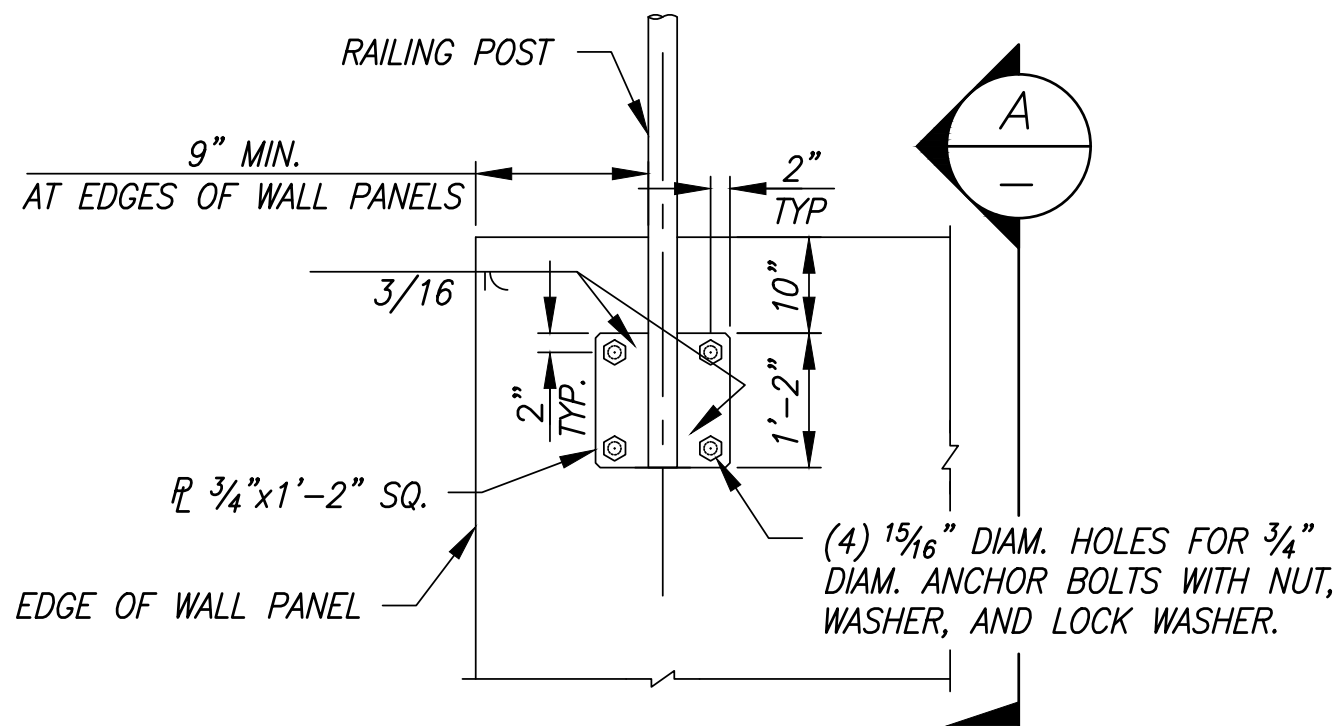
KITSAP COUNTY
WASHINGTON

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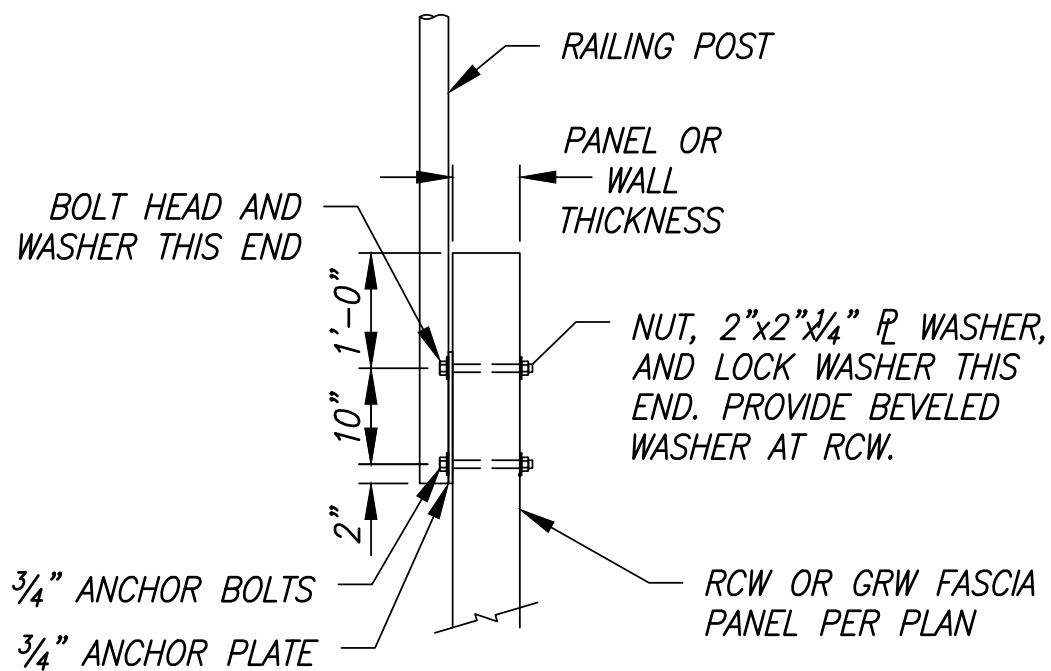
HARPER ESTUARY BARRIER
CORRECTION
RETAINING WALL
SECTION AND DETAILS (3 OF 3)
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W07
34
OF
56

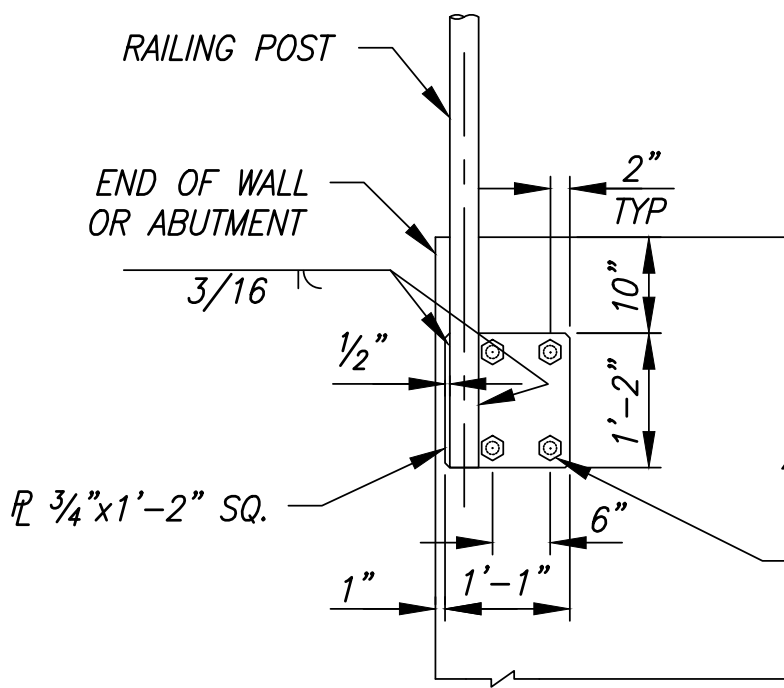
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ahmed.kayanda
Layout Name: W08



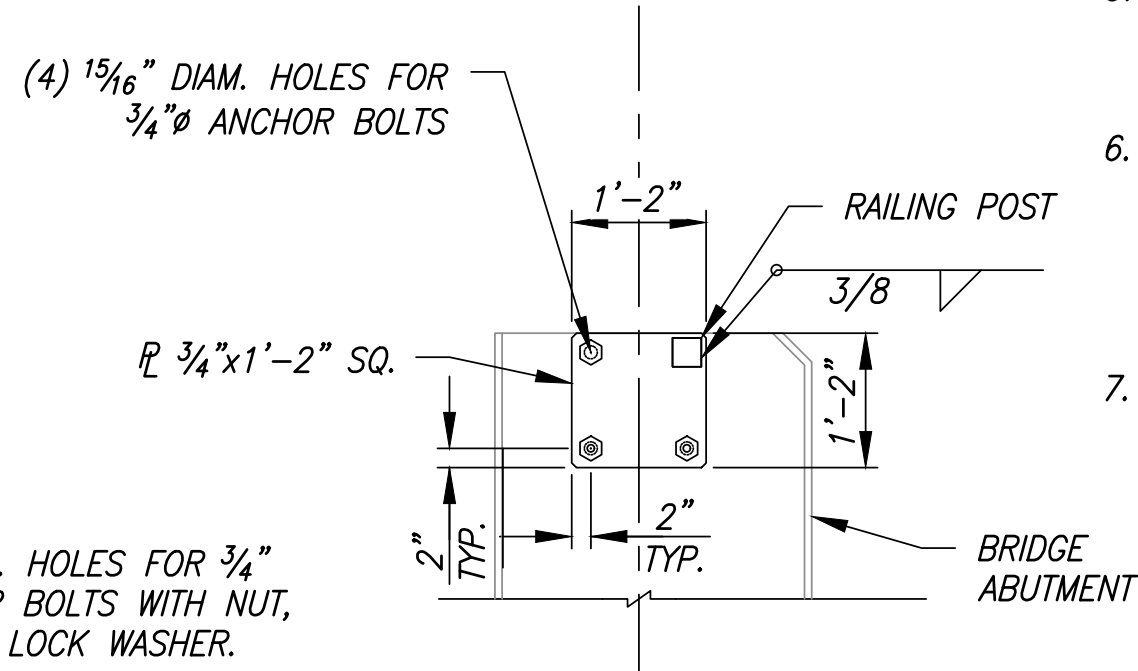
**TYPICAL POST
ATTACHMENT DETAIL**



**SECTION
A**



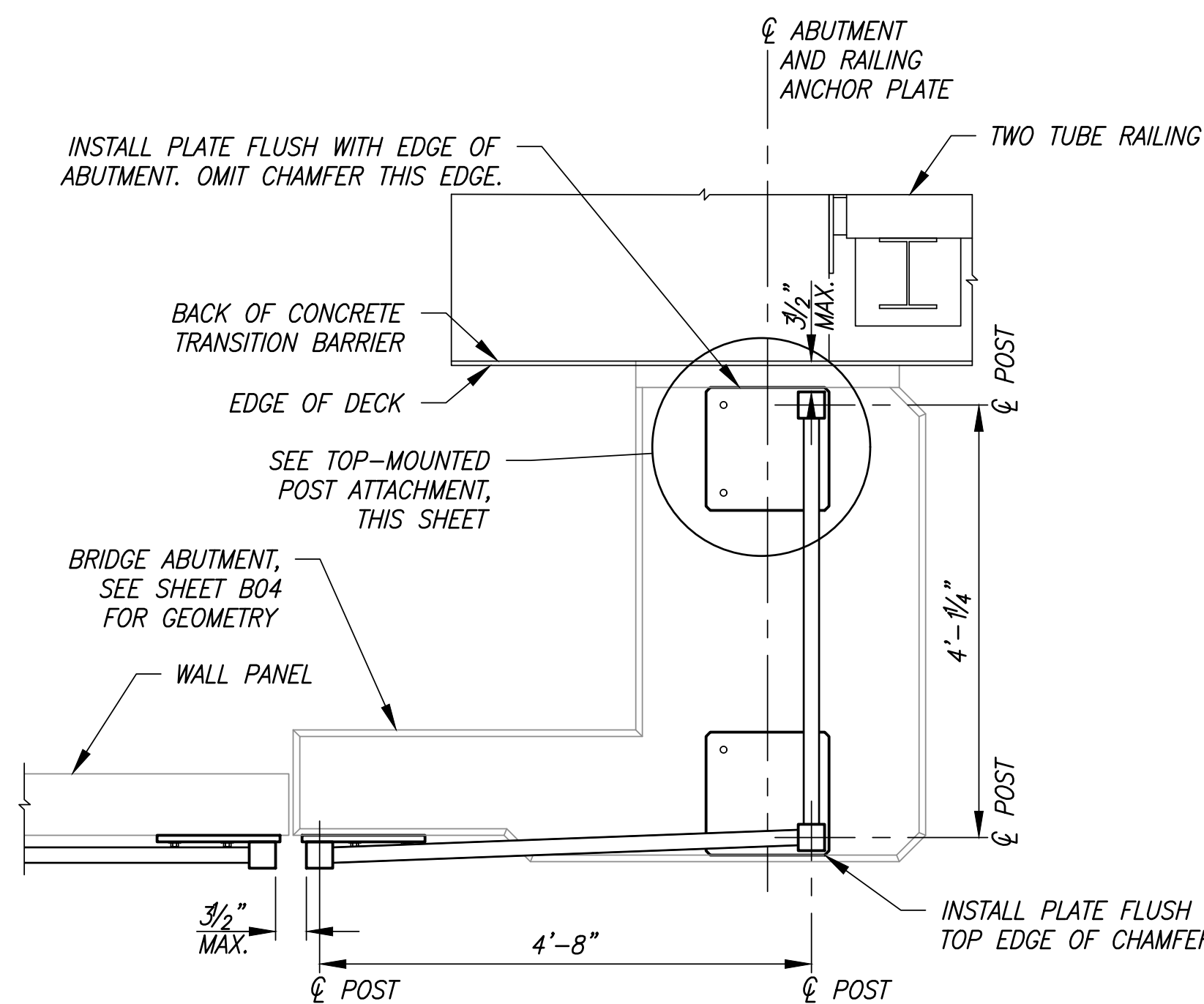
**END POST
ATTACHMENT DETAIL**



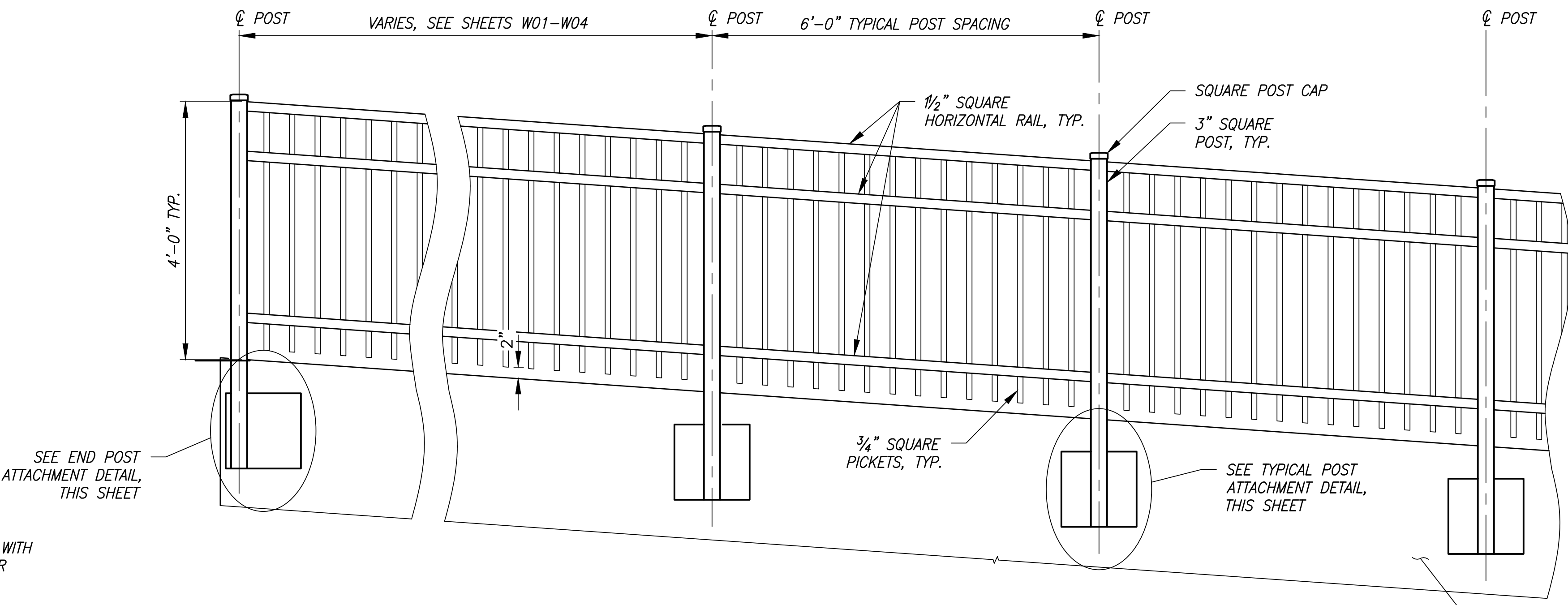
**TOP-MOUNTED POST
ATTACHMENT DETAIL**

RAILING NOTES

1. RAILING IS DESIGNED FOR FALL PROTECTION AND LOADING IN ACCORDANCE WITH WAC 296-880 AND AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
2. INSTALL ALL POSTS NORMAL TO GRADE IN THE LONGITUDINAL DIRECTION AND PLUMB IN THE TRANSVERSE DIRECTION.
3. ALL STEEL PARTS, EXCEPT FOR STAINLESS STEEL FASTENERS, SHALL BE HOT DIP GALVANIZED AND POWDER COATED AFTER FABRICATION.
4. PROVIDE STEEL PLATES FOR RAILING ANCHOR PLATES CONFORMING TO ASTM A36. PROVIDE 1/2" RADIUS ON EACH CORNER OF ANCHOR POSTS.
5. PROVIDE STEEL MEMBERS FOR POSTS, RAILS, AND PICKETS WITH A MINIMUM YIELD STRENGTH OF 45 KSI. FENCE POSTS, RAILS, AND PICKETS SHALL BE SCHEDULE 40 SQUARE STEEL.
6. PROVIDE STAINLESS STEEL BOLTS, NUTS, WASHERS, AND PLATE WASHERS USING TYPE 304 STAINLESS STEEL. PROVIDE ANCHOR BOLTS CONFORMING TO ASTM F593 TYPE A OR BETTER. PROVIDE NUTS CONFORMING TO ASTM F593 TYPE A OR BETTER. PROVIDE WASHERS CONFORMING TO THE GEOMETRIC REQUIREMENTS OF ASME B18.21.1.
7. FIELD COAT EXPOSED FASTENERS WITH TWO COATS OF PAINT AFTER INSTALLATION. PAINT COLOR SHALL MATCH RAILING COLOR AS CLOSELY AS POSSIBLE.



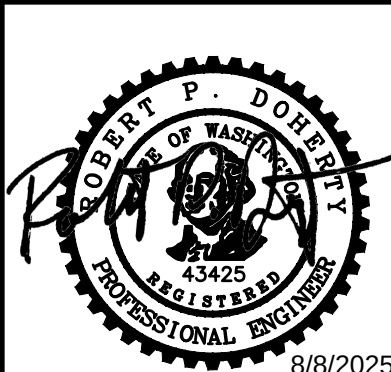
RAILING ON BRIDGE ABUTMENT
SCALE: 3/4" = 1'-0"



BRIDGE RAILING TYPE PEDESTRIAN ELEVATION
SCALE: 3/4" = 1'-0"

CONCRETE RETAINING WALL OR GEOSYNTHETIC
RETAINING WALL FASCIA PANEL.

REVISIONS				SURVEYED: COUNTY
No.	BY	DATE	DESCRIPTION	DESIGNED: MO
				DRAWN: MO
				CHECKED: RPD
				CRP No. 2626
				DATE: 08/08/25



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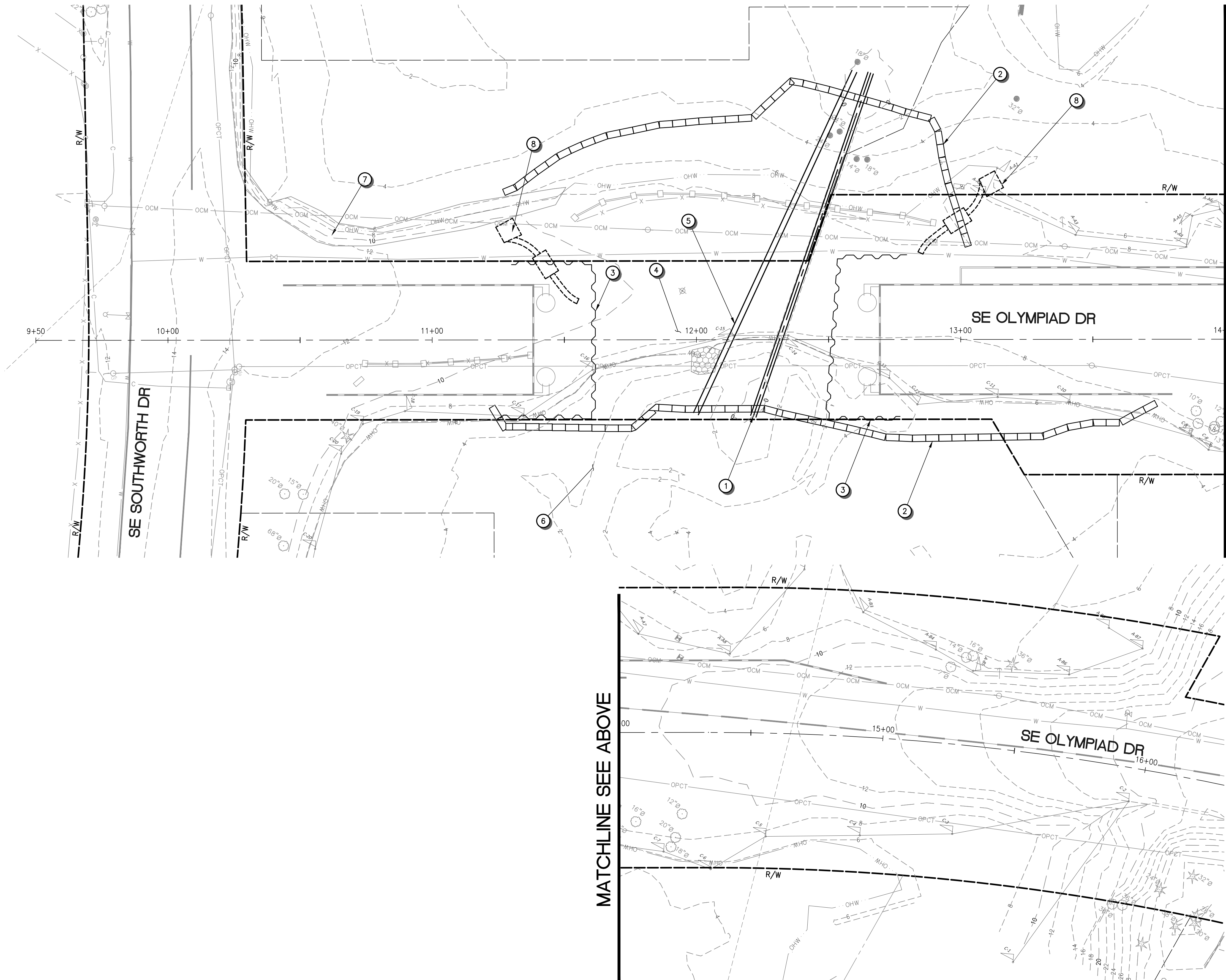
**HARPER ESTUARY BARRIER
CORRECTION
RAILING DETAILS**

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
W08
35
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510B190
C510R270
C510R900
C510R510
T510X800

Plotted: Aug 07, 2025 - 7:06pm
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IN-WATER WORK TESC PLAN NOTES

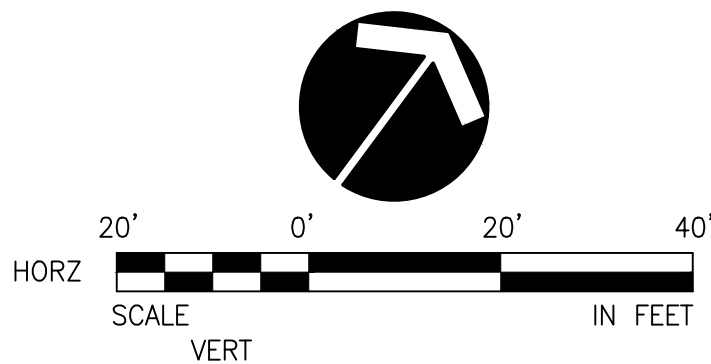
1. INSTALL TEMPORARY STORM DRAIN PIPE THROUGH EXISTING 36" CONC. CULVERT TO THE APPROXIMATE LOCATION SHOWN.
2. CONSTRUCT TEMPORARY ISOLATION SYSTEM. LOCATION SHOWN IS APPROXIMATE, CONTRACTOR SHALL FIELD LOCATE TO ACCOMMODATE SITE CONDITIONS. ADDITIONAL STAGES MAY BE NEEDED. SEE DETAIL ON SHEET CR05 FOR SUGGESTED TEMPORARY ISOLATION BERM.
3. INSTALL SHEETPILE COFFERDAM. LOCATION SHOWN IS APPROXIMATE, CONTRACTOR SHALL FIELD LOCATE TO ACCOMMODATE SITE CONDITIONS AND WORK SEQUENCE.
4. EXCAVATE CHANNEL WITH EXISTING PIPE IN PLACE.
5. INSTALL TEMPORARY DIVERSION PIPE FOR REMOVAL OF EXISTING 36" CONC. PIPE.
6. EXCAVATE CHANNEL UPSTREAM OF TEMPORARY ISOLATION AND BYPASS SYSTEM DURING LOW TIDES.
7. PLACE SHORELINE SLOPE PROTECTION BELOW OHW PER SHEET CR02 DURING LOW TIDES.
8. PROVIDE TEMPORARY PUMP SYSTEM FOR DEWATERING AS NEEDED, APPROXIMATE LOCATION SHOWN. DISCHARGE TO SEDIMENT FILTER BAG OR OTHER APPROVED TESC MEASURE. SEE SPECIFICATIONS FOR DEWATERING REQUIREMENTS

IN-WATER WORK TESC PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL SUBMIT THE TEMPORARY BYPASS AND ISOLATION SYSTEM PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL. THE TEMPORARY BYPASS SYSTEM AND ISOLATION BERM SHOWN ON PLAN IS SUGGESTED ONLY.
2. THE TEMPORARY BYPASS AND ISOLATION SYSTEM PLAN SHALL MEET ALL PERMIT REQUIREMENTS.
3. FISH EXCLUSION AND FISH REMOVAL SHALL BE PERFORMED DURING IN-WATER WINDOW IN ACCORDANCE WITH THE WASHINGTON DEPARTMENT OF FISH AND WILDLIFE HPA.

LEGEND

- ISOLATION BERM
- COFFERDAM



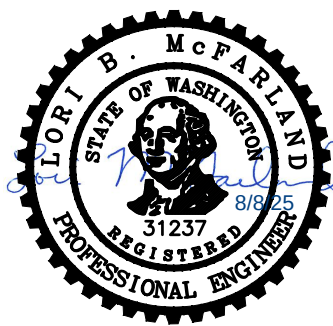
MATCHLINE SEE ABOVE

MATCHLINE SEE BELOW

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25

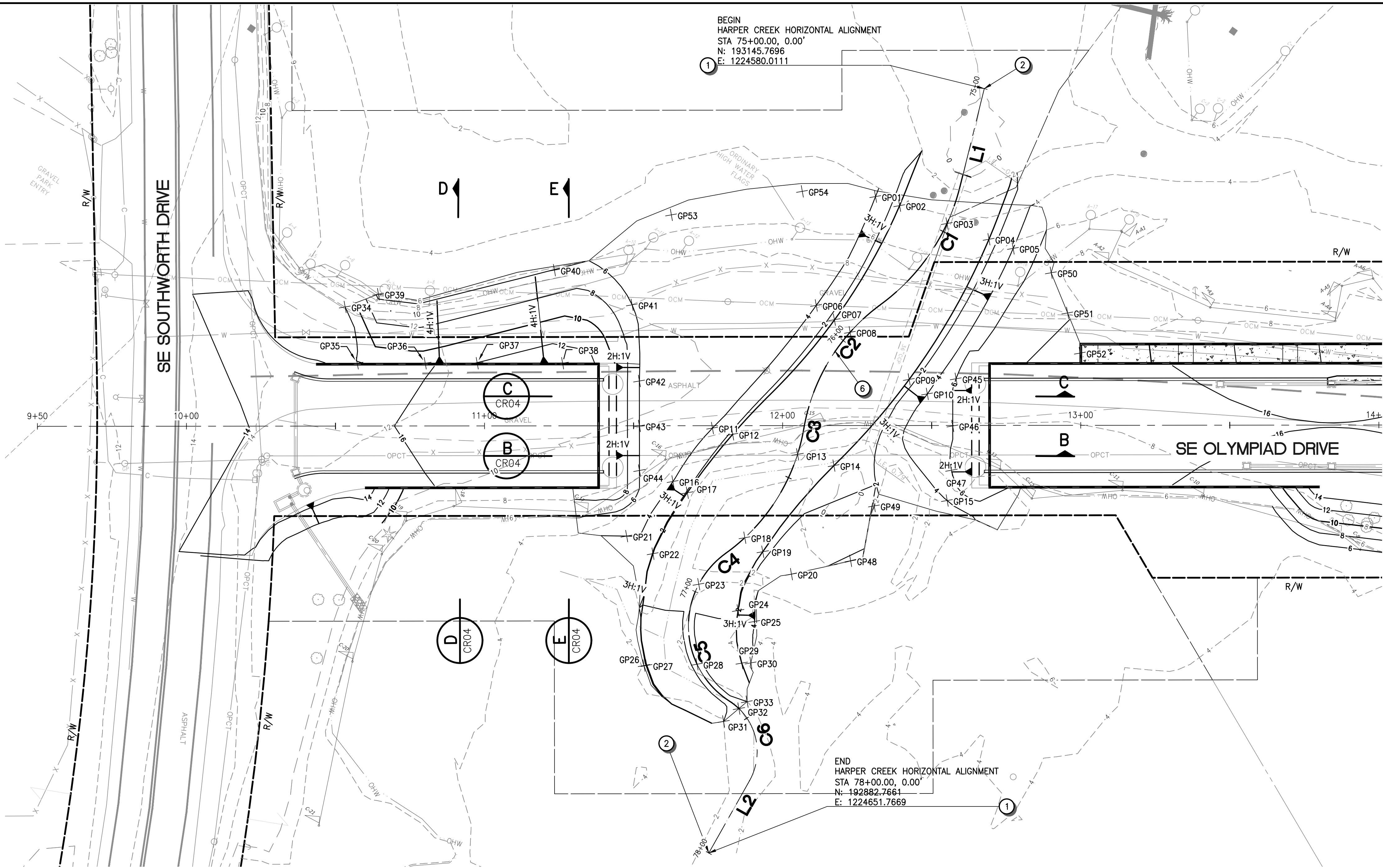


KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

HARPER ESTUARY BARRIER
CORRECTION
HARPER CREEK
IN-WATER WORK TESC PLAN
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CR01
36
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510R270
C510R900
T510X800
HARPER
C510R510
T510X370
C510G432
WDFW_PROPOSED
C510G461
C510U630
C510G275
C510W360
Unresolved
32510 CHNL.GPDG
WDFW_HARPER BASE



CREEK GRADING GENERAL NOTES

- ELEVATIONS SHOWN ON GRADING PLAN ARE FINISHED GRADE. EXCAVATION WILL BE REQUIRED BELOW FINISHED GRADE TO PLACE STREAMBED SEDIMENT AND STREAMBED GRAVEL. SEE SHEET CR03 FOR HARPER CREEK STREAMBED STABILIZATION PLAN.

CREEK GRADING CONSTRUCTION NOTES

- CONSTRUCTION CENTERLINE.
- TRANSITION GRADING TO EXISTING CHANNEL.
- INSTALL 12" OF STREAMBED GRAVEL, SEE SHEET CR03 FOR EXTENTS.
- INSTALL 12" OF STREAMBED SEDIMENT, SEE SHEET CR03 FOR EXTENTS.
- INSTALL IN-WATER WORK TESC, SEE SHEET CR01.
- CONSTRUCT LOW FLOW CHANNEL PER DETAIL ON SHEET CR05.

HARPER CREEK
HORIZONTAL ALIGNMENT TABLE

NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L1	75+00.00	33.78'		S21°08'43"E	
C1	75+33.78	48.78'	70.00'	S1°10'49"E	39°55'47"
C2	75+82.56	50.12'	65.00'	S3°18'11"E	44°10'31"
C3	76+32.68	50.68'	65.00'	S3°03'09"E	44°40'34"
C4	76+83.36	58.52'	30.00'	S36°35'54"E	111°46'03"
C5	76+83.36	58.52'	30.00'	S36°35'54"E	111°46'03"
C6	77+41.88	30.30'	20.00'	S49°04'57"E	86°47'57"
L2	77+72.18	27.82'		S5°40'58"E	

GRADING POINTS

POINT	NORTHING	EASTING	ELEV.
GP01	193095.2	1224571.0	4.0
GP02	193097.3	1224579.3	1.1
GP03	193101.6	1224595.8	0.1
GP04	193105.3	1224610.3	1.1
GP05	193107.5	1224618.7	4.0
GP06	193053.9	1224575.7	4.0
GP07	193053.4	1224583.4	1.4
GP08	193053.0	1224590.2	0.4
GP09	193051.4	1224615.4	1.4
GP10	193051.0	1224623.2	4.0

GRADING POINTS

POINT	NORTHING	EASTING	ELEV.
GP11	193000.2	1224570.8	4.0
GP12	193002.3	1224577.6	1.6
GP13	193009.4	1224599.3	0.6
GP14	193013.3	1224611.4	1.6
GP15	193025.5	1224649.2	4.0
GP16	192977.9	1224570.3	4.0
GP17	192977.6	1224576.4	1.9
GP18	192976.3	1224600.9	0.8
GP19	192975.9	1224608.5	1.8
GP20	192975.3	1224620.7	2.7

GRADING POINTS

POINT	NORTHING	EASTING	ELEV.
GP21	192954.0	1224568.1	4.0
GP22	192954.2	1224578.7	1.9
GP23	192954.6	1224597.2	1.0
GP24	192955.0	1224613.0	2.0
GP25	192955.2	1224619.7	4.0
GP26	192921.7	1224597.8	1.8
GP27	192922.3	1224598.6	2.1
GP28	192932.3	1224612.1	1.1
GP29	192941.3	1224624.2	2.2
GP30	192943.1	1224626.7	3.2

GRADING POINTS

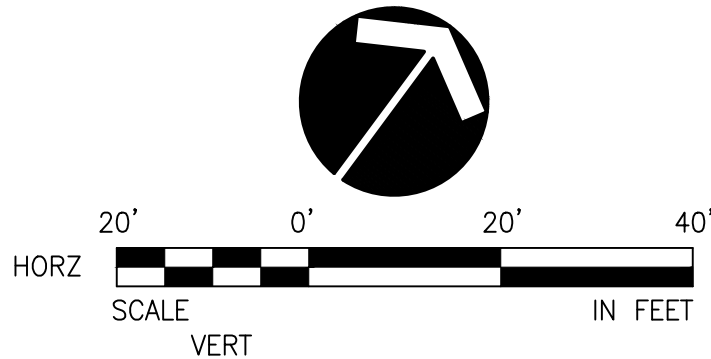
POINT	NORTHING	EASTING	ELEV.
GP31	192921.7	1224630.5	2.0
GP32	192928.2	1224632.2	1.2
GP33	192931.7	1224633.1	2.0
GP34	192962.6	1224446.6	12.0
GP35	192949.5	1224460.8	12.3
GP36	192962.6	1224479.5	12.2
GP37	192972.6	1224493.8	12.0
GP38	192989.1	1224517.2	13.2
GP39	192972.5	1224453.3	5.6
GP40	193013.0	1224497.0	6.0

GRADING POINTS

POINT	NORTHING	EASTING	ELEV.
GP41	193018.5	1224525.0	6.0
GP42	192999.0	1224541.7	6.0
GP43	192986.7	1224550.4	6.0
GP44	192974.4	1224559.0	6.0
GP45	193060.7	1224628.2	6.0
GP46	193047.1	1224636.4	6.0
GP47	193034.7	1224644.6	6.0
GP48	192990.3	1224634.4	2.0
GP49	193010.0	1224630.3	2.0
GP50	193108.1	1224633.9	7.7

GRADING POINTS

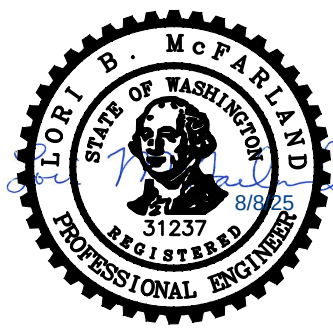
POINT	NORTHING	EASTING	ELEV.
GP51	193100.2	1224646.1	8.0
GP52	193091.6	1224657.3	8.5
GP53	193050.8	1224518.4	5.1
GP54	193082.5	1224549.9	4.8



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
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CRP No. 2626
DATE: 08/08/25

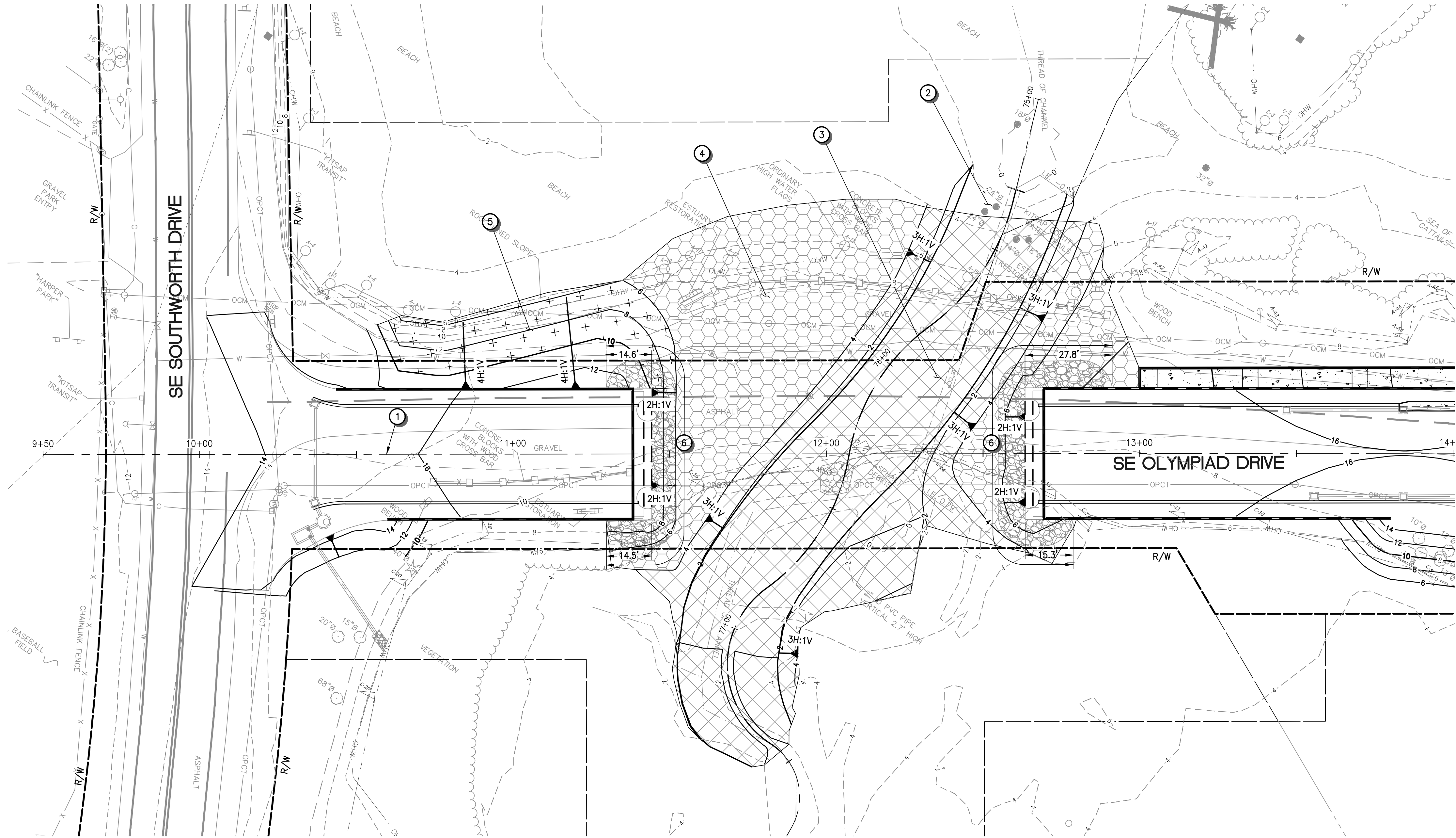


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614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
HARPER CREEK
GRADING PLAN
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CR02
37
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510R270
C510R900
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HARPER
C510R510
T510X370
C510G432
WDFW_PROPOSED
C510G461
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32510 CHNL.GPDG
WDFW_HARPER BASE



STREAMBED STABILIZATION CONSTRUCTION NOTES

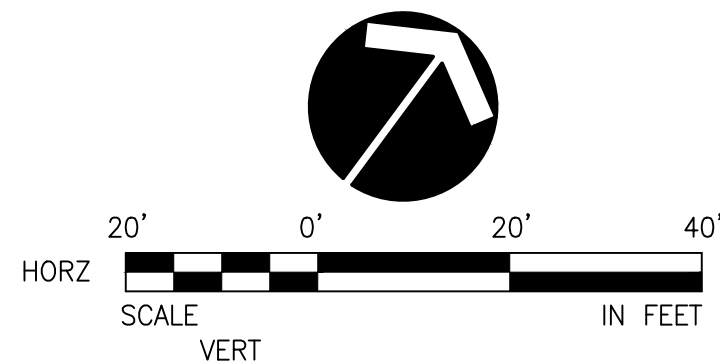
- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 NO ADDITIONAL EXCAVATION FOR PLACEMENT OF STREAMBED GRAVEL OR SEDIMENT REQUIRED.
- 3 INSTALL 12" OF STREAMBED GRAVEL. TOP OF GRAVEL SHALL MATCH FINISHED GRADE ELEVATIONS.
- 4 INSTALL 12" OF STREAMBED SEDIMENT. TOP OF SEDIMENT SHALL MATCH FINISHED GRADE ELEVATIONS.
- 5 CONSTRUCT SHORELINE SLOPE PROTECTION PER DETAIL ON SHEET CR04.
- 6 CONSTRUCT RIPRAP TOE TRENCH PER DETAIL ON SHEET CR04. STREAMBED SEDIMENT IS NOT SHOWN ABOVE RIPRAP TRENCH AREAS FOR CLARITY. STREAMBED SEDIMENT IS REQUIRED ABOVE RIPRAP TRENCH AREAS.

STREAMBED STABILIZATION GENERAL NOTES

1. EXCAVATION IS REQUIRED BELOW FINISHED GRADE FOR REPLACEMENT OF STREAMBED MATERIALS, UNLESS OTHERWISE NOTED.

LEGEND

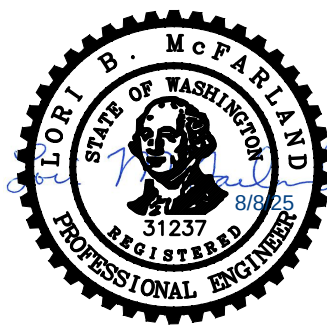
- | | |
|--|----------------------------|
| | STREAMBED SEDIMENT |
| | STREAMBED GRAVEL |
| | RIPRAP TOE TRENCH (BURIED) |
| | SHORELINE SLOPE PROTECTION |



REVISIONS

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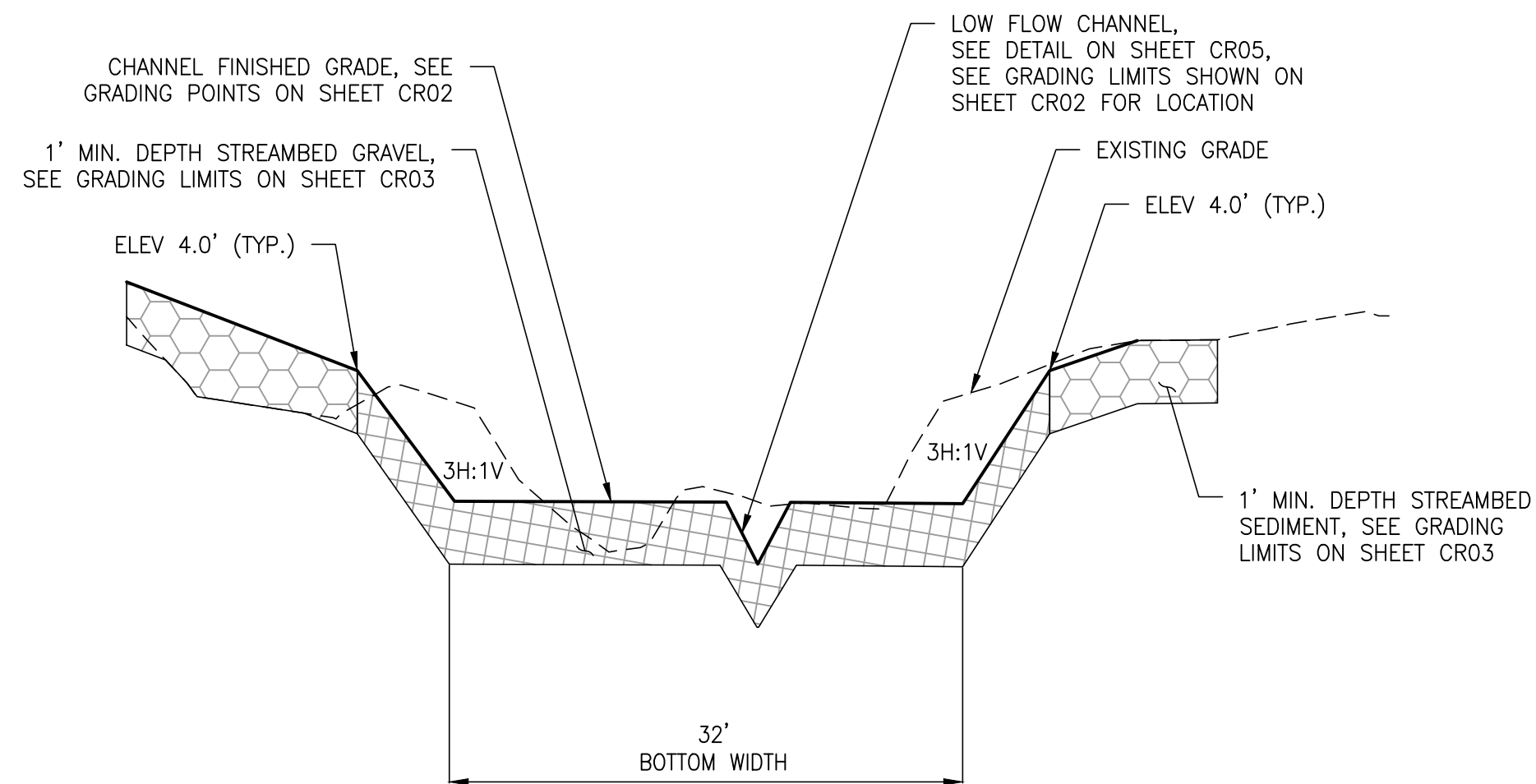
HARPER ESTUARY BARRIER
CORRECTION
HARPER CREEK
STREAMBED STABILIZATION PLAN
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CR03
38
OF
56


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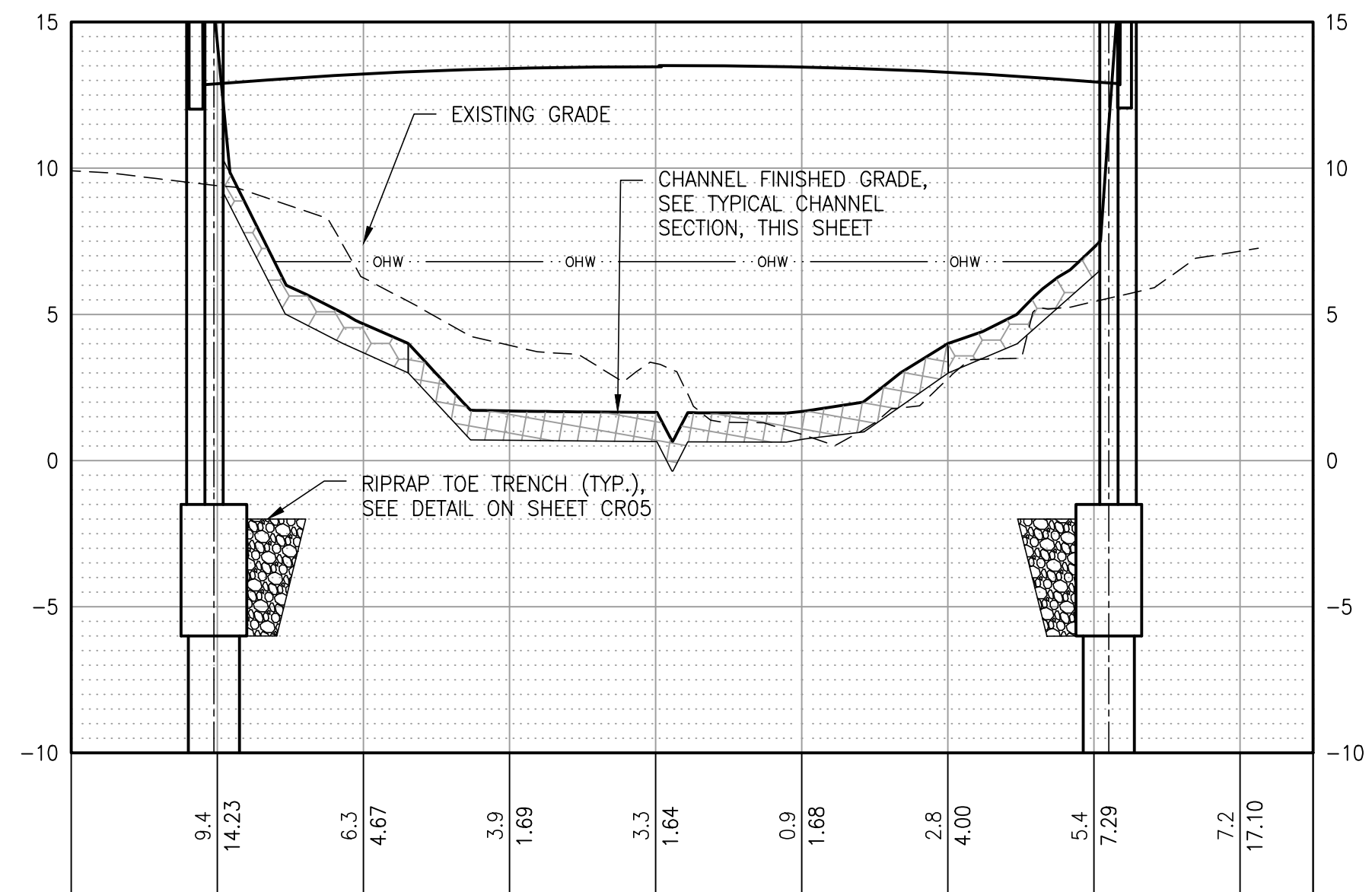
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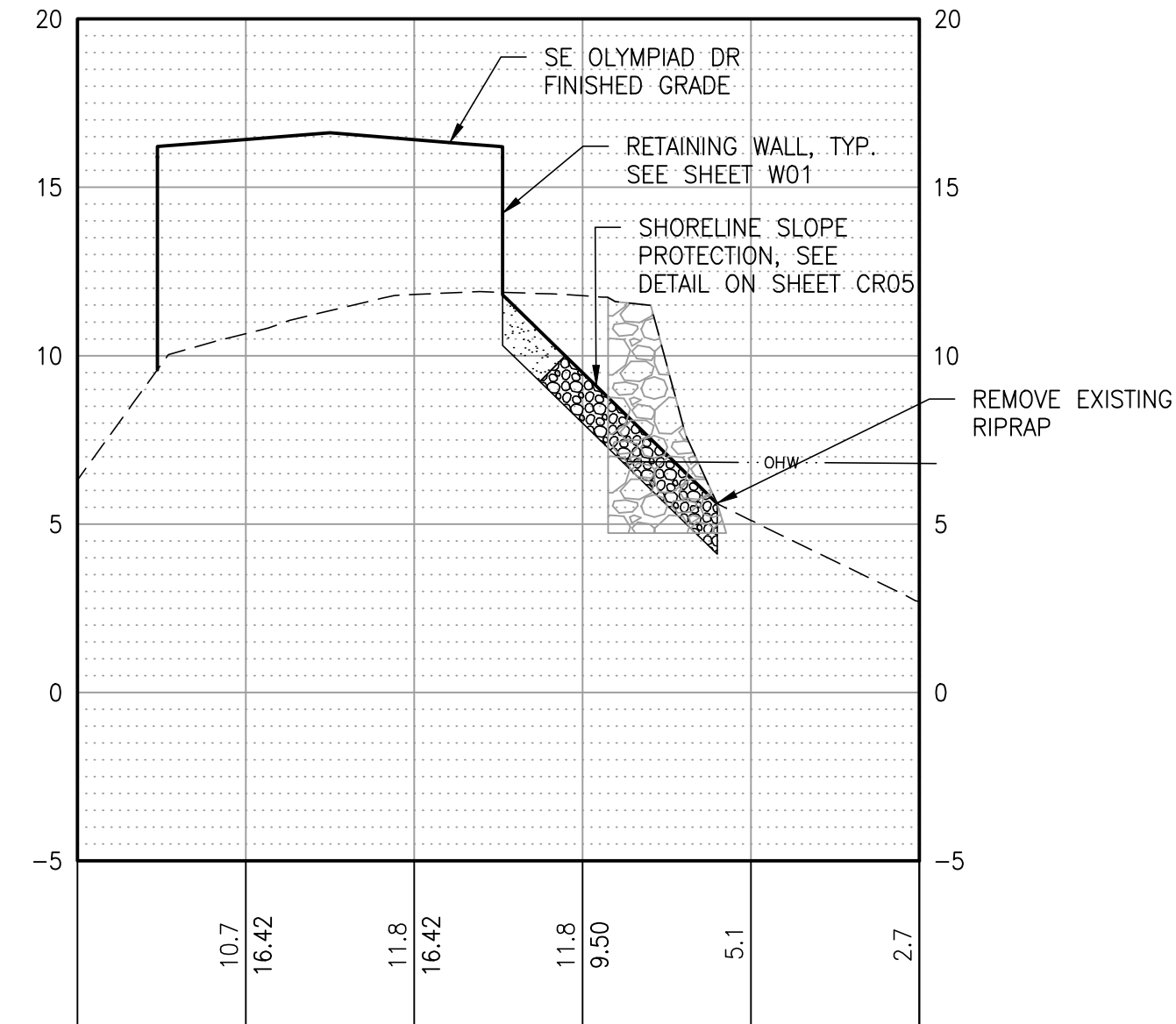
TYPICAL CHANNEL SECTION

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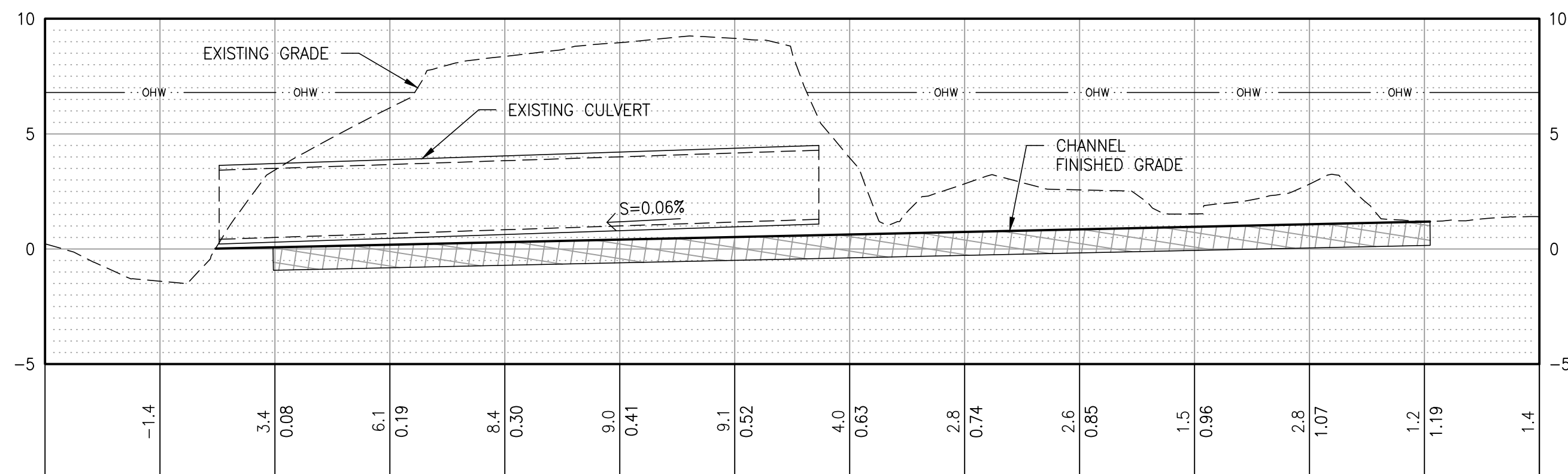
B HARPER CREEK GRADING SECTION

CR02



D SHORELINE SLOPE PROTECTION SECTION

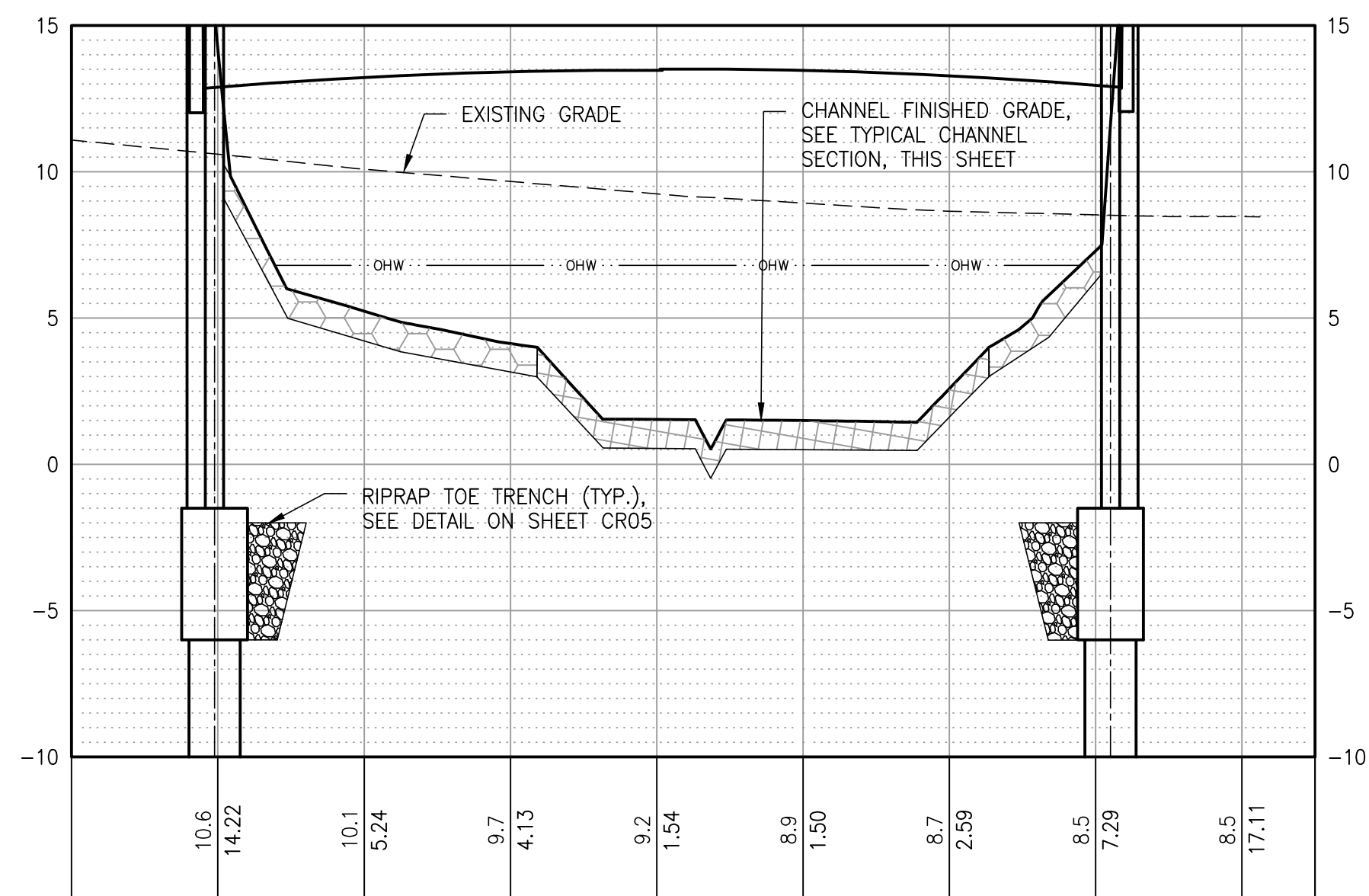
CR02



NOTES:

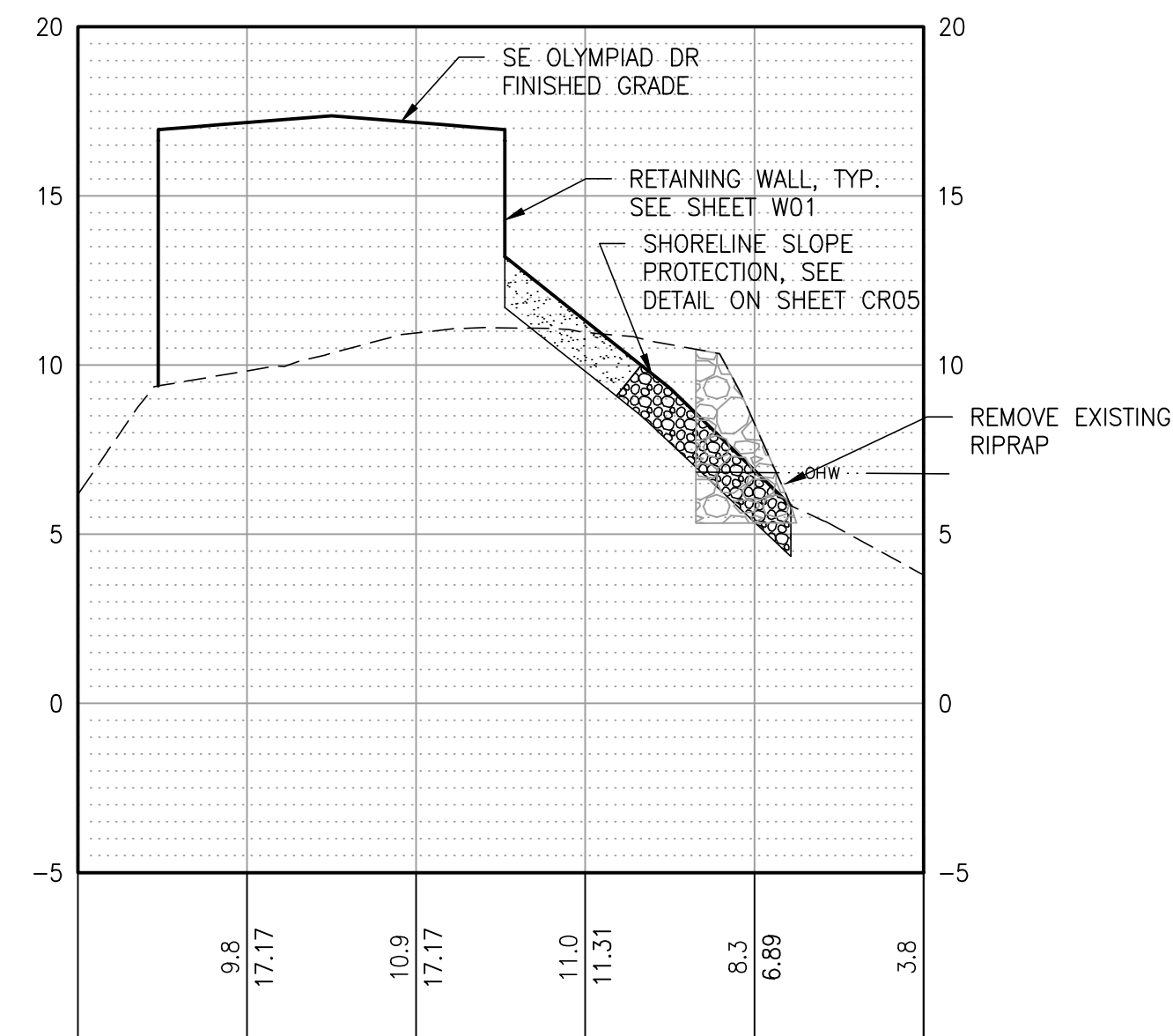
1. EXISTING CULVERT SHOWN FOR REFERENCE ONLY. EXISTING CULVERT DOES NOT FOLLOW CHANNEL ALIGNMENT.

HARPER CREEK LOW FLOW CHANNEL PROFILE



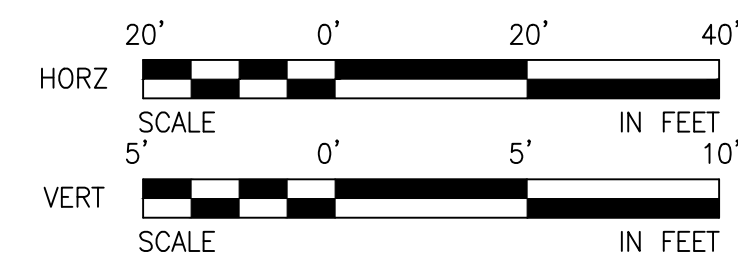
(c) HARPER CREEK GRADING SECTION

CR02



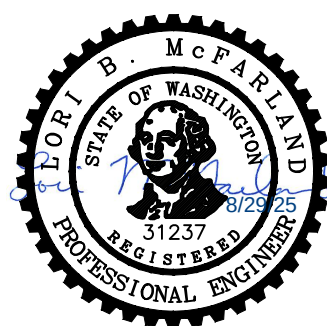
E SHORELINE SLOPE PROTECTION SECTION

CRO:



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No.	BY	DATE	DESCRIPTION	DESIGNED: DAS
				DRAWN: SNG
				CHECKED: GSL
				CRP No. 2826
				DATE: 08/08/25

SURVEYED:	COUNTY
DESIGNED:	DAS
DRAWN:	SNG
CHECKED:	GSL
CRP No.	2626
DATE:	08/08/25



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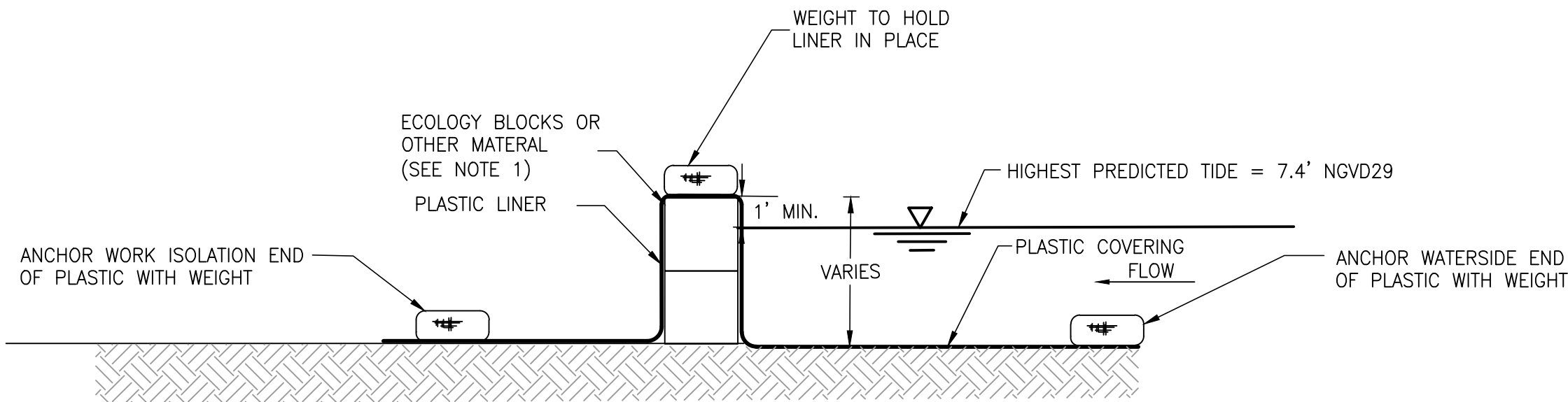
HARPER ESTUARY BARRIER
CORRECTION

HARPER CREEK GRADING SECTIONS

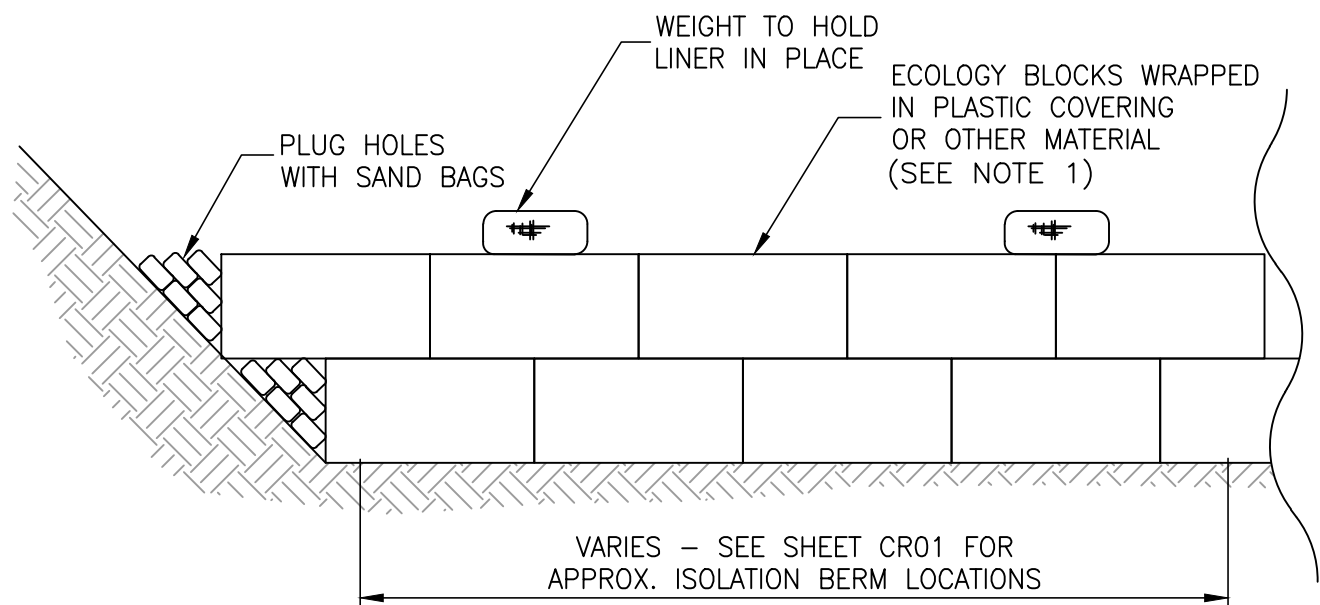
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CR04
39
OF
56

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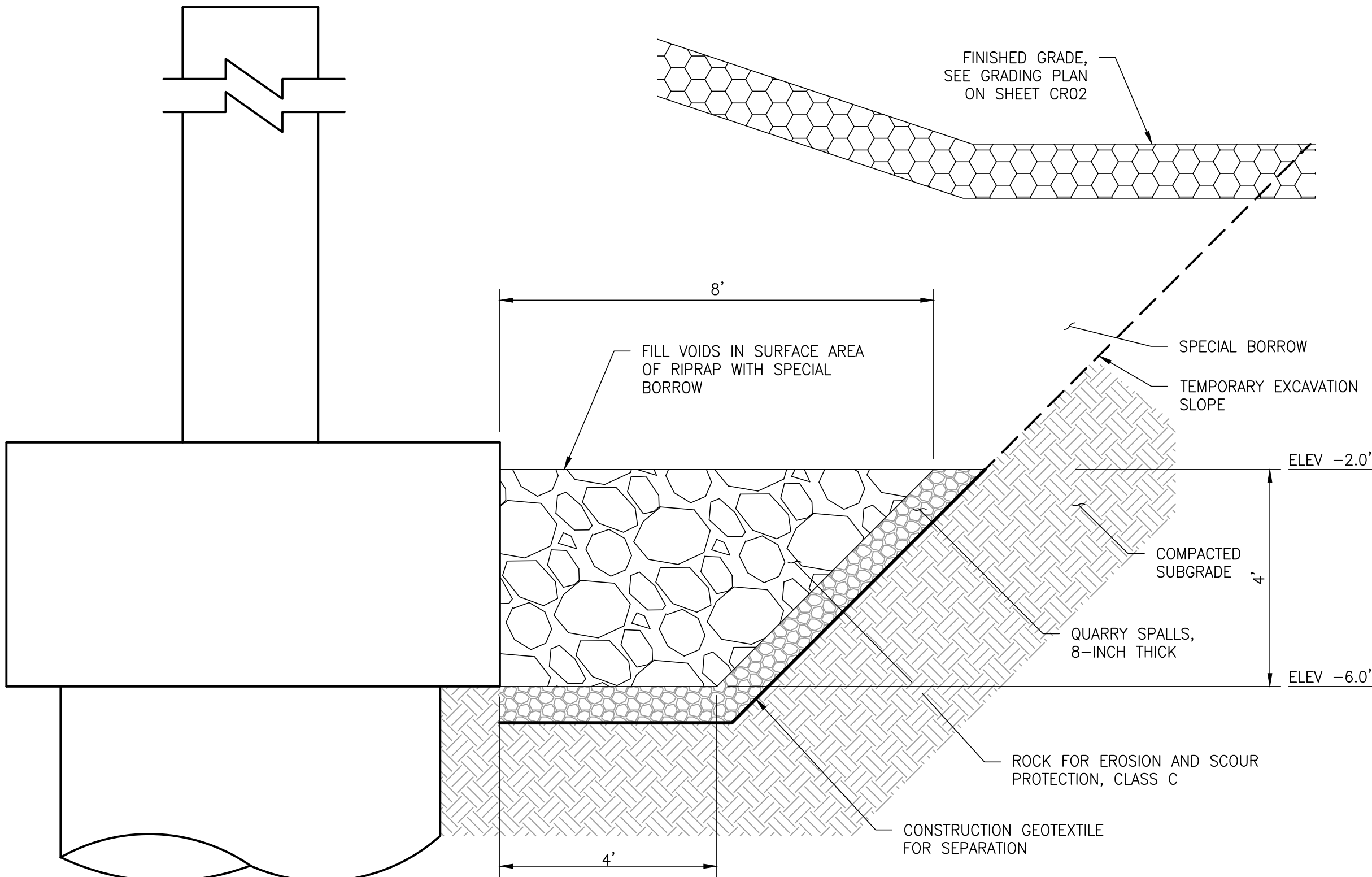
SIDE VIEW



FRONT VIEW

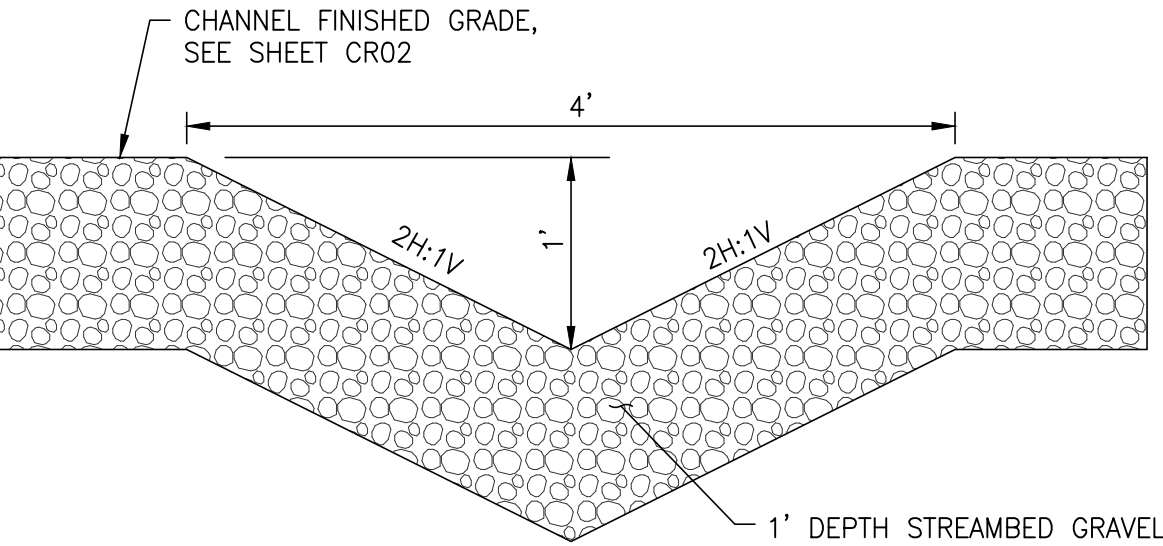
TEMPORARY ISOLATION BERM

NOT TO SCALE



RIPRAP TOE TRENCH

NOT TO SCALE



LOW FLOW CHANNEL

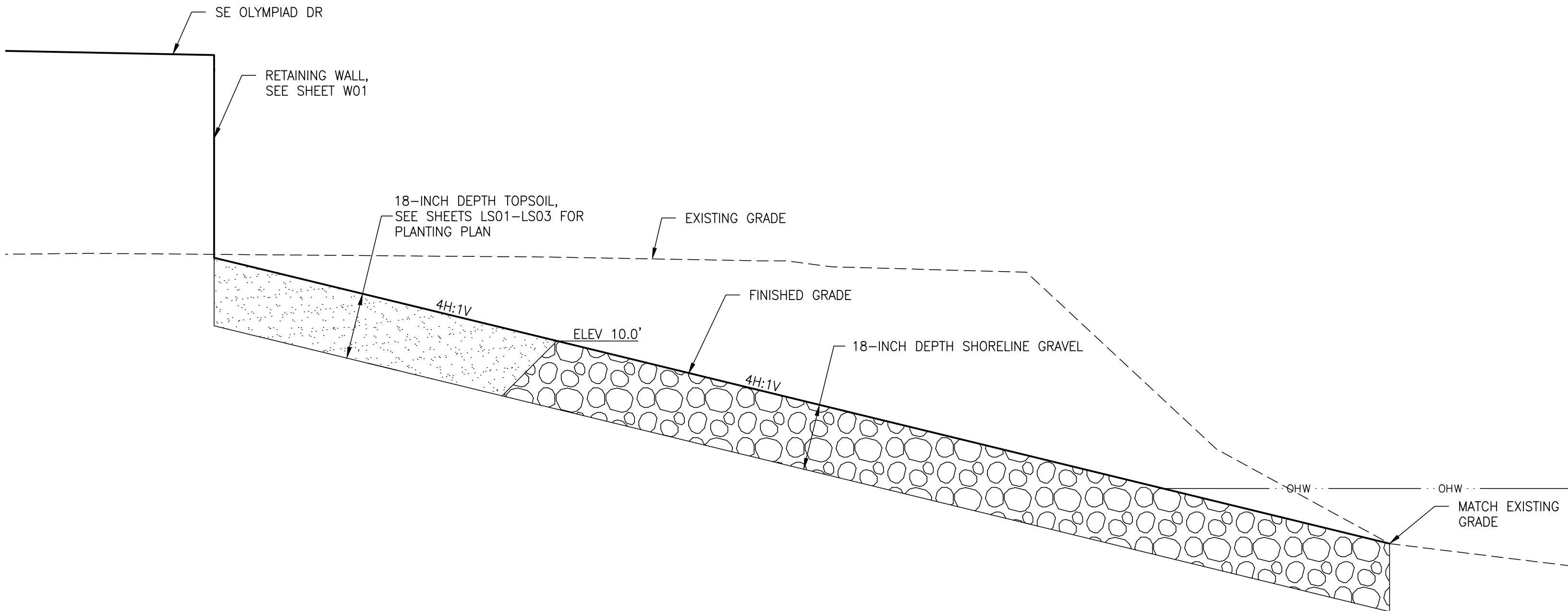
NOT TO SCALE

CONSTRUCTION SEQUENCE

1. INSTALL ISOLATION BERMS USING ECOLOGY BLOCKS, GRAVEL BAGS, WATER-FILLED BLADDERS, OR OTHER APPROVED MATERIALS. CONTRACTOR TO PROPOSE METHOD AND MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION.
2. EXCAVATE TO FINAL GRADE
3. INSTALL STREAMBED GRAVEL
4. REMOVE ISOLATION BERM

% BY VOLUME	MATERIAL
75%	STREAMBED SEDIMENT (WSDOT 9-03.11(1))
25%	4-INCH STREAMBED COBBLES (WSDOT 9-03.11(4))

STREAMBED GRAVEL GRADATION



SHORELINE SLOPE PROTECTION

NOT TO SCALE

REVISIONS

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CRP No. 2626
DATE: 08/08/25



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614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

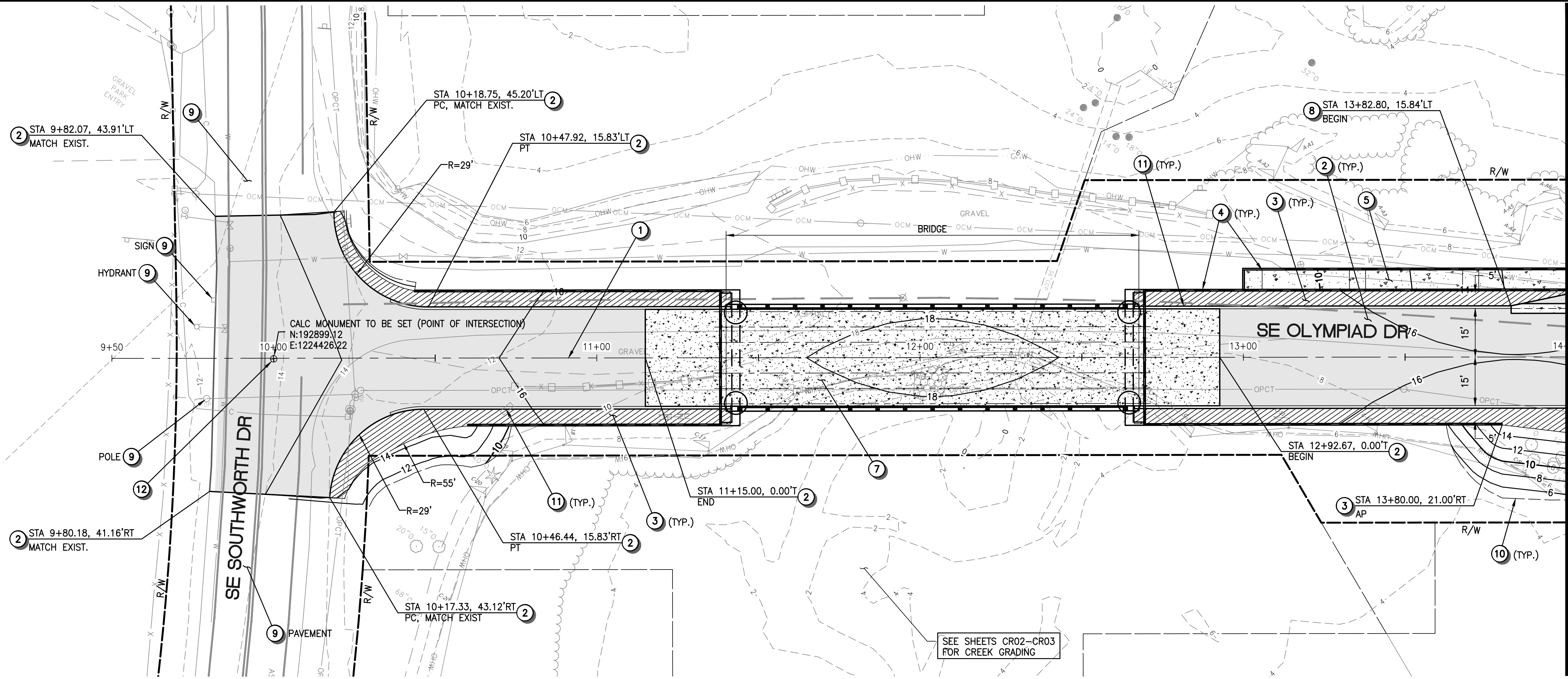
HARPER ESTUARY BARRIER
CORRECTION

HARPER CREEK
GRADING DETAILS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CR05
40
OF
56

XREF LIST
Ltscale: 1
Resolved
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C510R270
C510R900
T510X800
HARPER
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C510O420
C510W360
C510U630



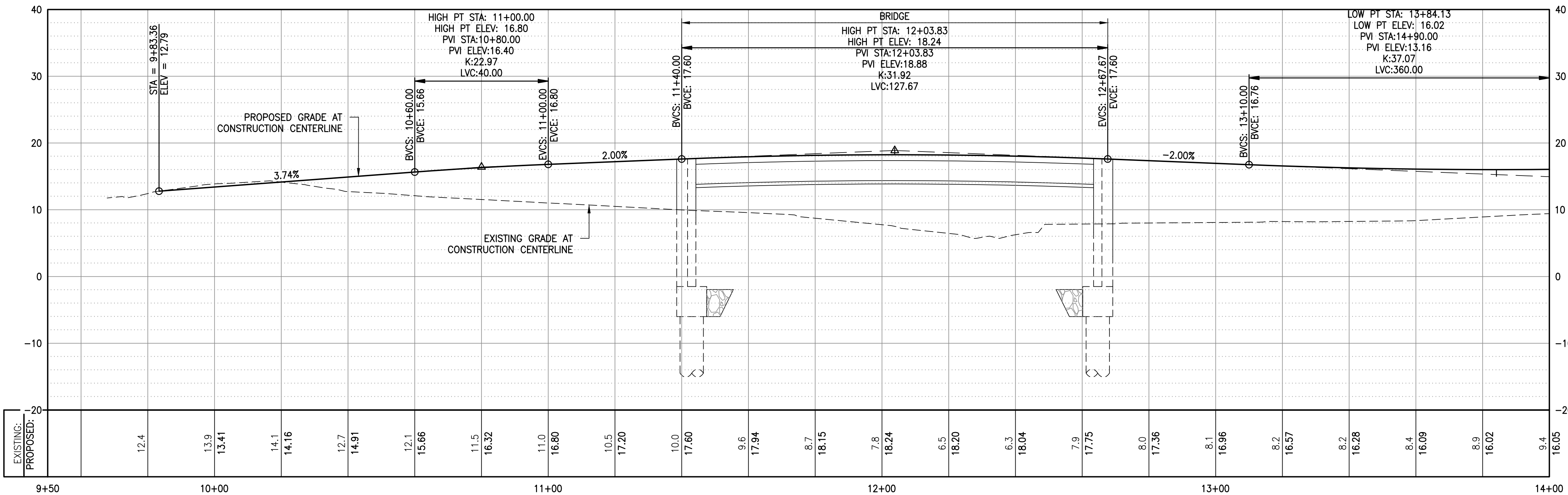
MATCHLINE SEE SHEET RD02

ROADWAY CONSTRUCTION NOTES

- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 CONSTRUCT ASPHALT CONCRETE PAVEMENT PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 3 INSTALL GRAVEL SHOULDER PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 4 RETAINING WALL, SEE WALL PLANS (DWG W01-W07) FOR DETAILS.
- 5 CONSTRUCT PEDESTRIAN PATH CEMENT CONCRETE PAVEMENT, PER DETAIL ON DWG RD03 AND RD04, LIMITS PER PLAN.
- 6 RECONSTRUCT DRIVEWAY PER DRIVEWAY SECTION ON DWG RD04. SEE DWG RD05 FOR LAYOUT.
- 7 BRIDGE, SEE BRIDGE PLANS (DWG B01) FOR DETAILS.
- 8 CONSTRUCT CEMENT CONC. VALLEY GUTTER PER DETAIL ON DWG RD04.
- 9 EXISTING FEATURES OR STRUCTURES TO REMAIN, PROTECT DURING CONSTRUCTION.
- 10 APPROX. GRADING LIMITS.
- 11 EXTRUDED CURB, SEE CH01 FOR LAYOUT.
- 12 INSTALL CASED MONUMENTS PER DETAIL ON DWG RD04. COORDINATE WITH KITSAP COUNTY SURVEYOR TO VERIFY THE LOCATION PRIOR TO INSTALLATION.

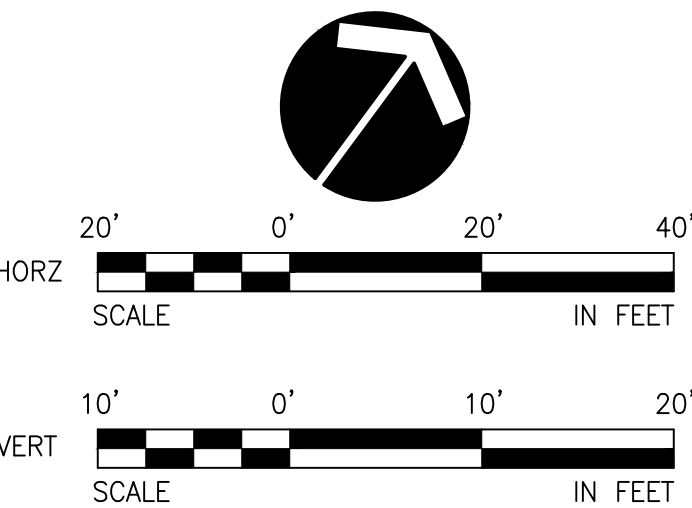
ROADWAY GENERAL NOTES

1. ALL DIMENSIONS, STATION AND OFFSET REFERENCES ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.



LEGEND

- ASPHALT CONCRETE PAVEMENT
- CEMENT CONCRETE PAVEMENT
- GRAVEL SHOULDER
- RETAINING WALL



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: EH
DRAWN: AK
CHECKED: TP
CRP No. 2626
DATE: 08/08/25



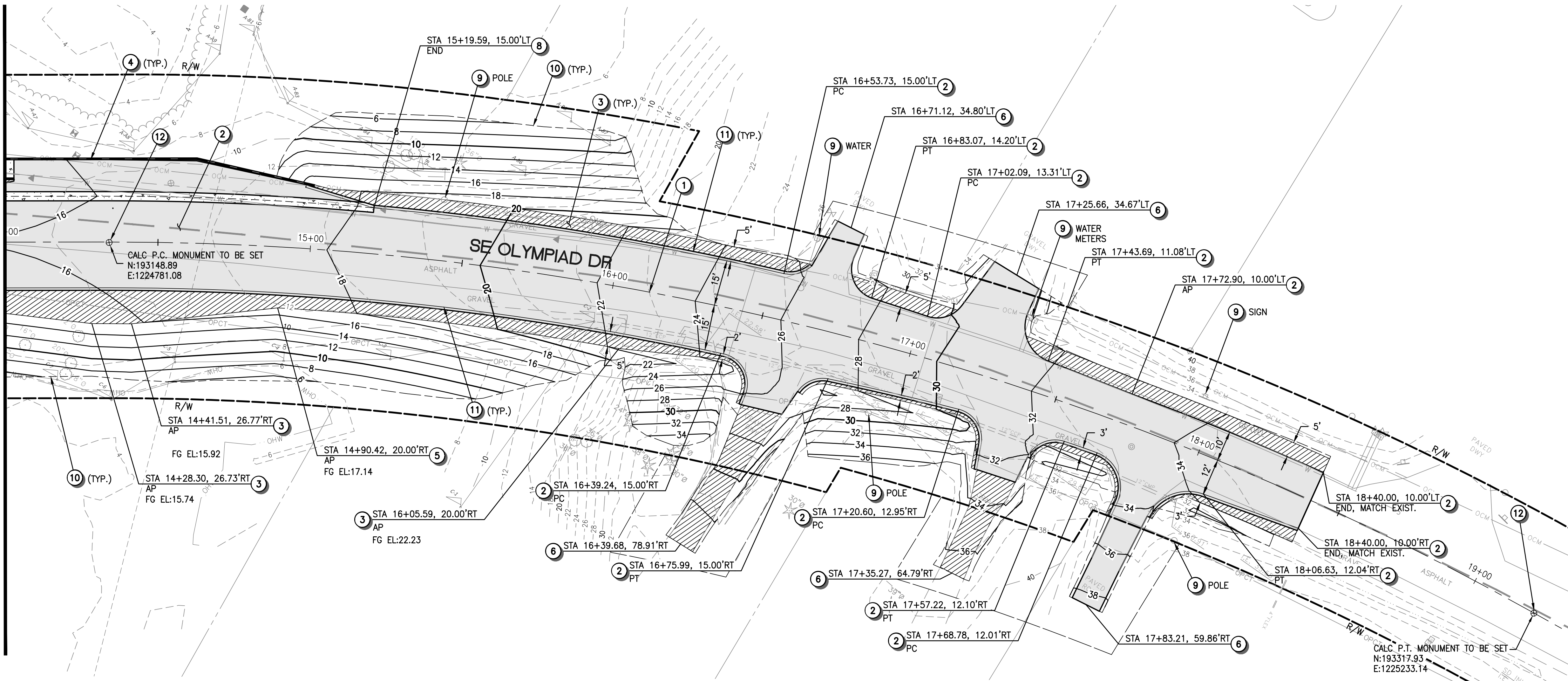
KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
ROADWAY
PLAN AND PROFILE
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
RD01
41
OF
56

XREF LIST
Ltscale: 1
Resolved
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C510R270
C510R900
T510X800
HARPER
C510N030
T510X370
C510G430
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C510R510
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WDFW_PROPOSED
C510G420
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C510U630

MATCHLINE SEE SHEET RD01



ROADWAY CONSTRUCTION NOTES

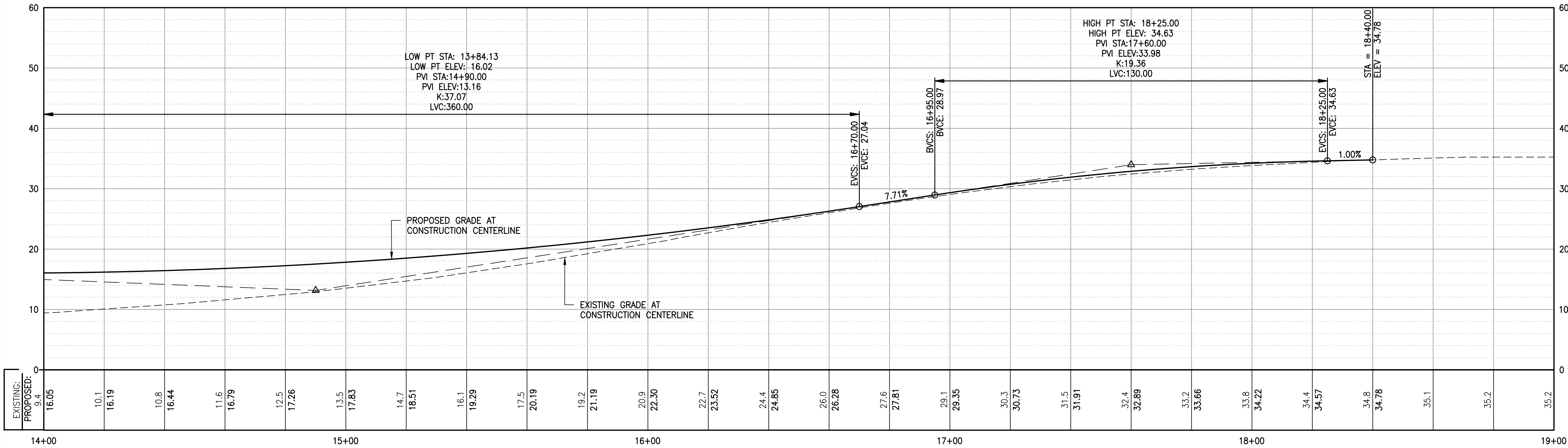
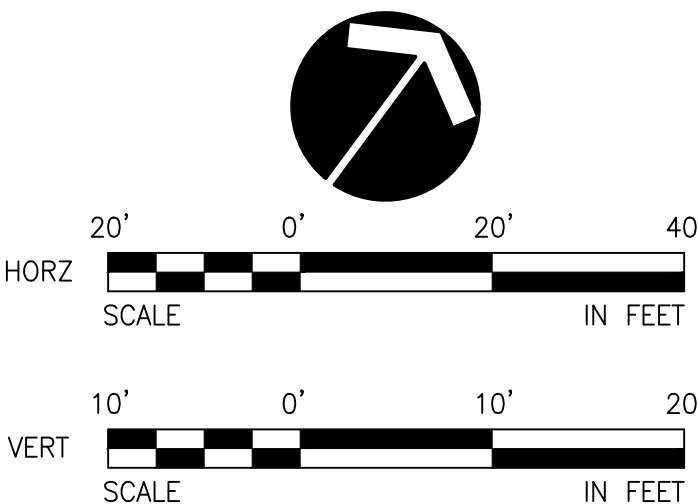
- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 CONSTRUCT ASPHALT CONCRETE PAVEMENT PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 3 INSTALL GRAVEL SHOULDER PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 4 RETAINING WALL, SEE WALL PLANS (DWG W01-W07) FOR DETAILS.
- 5 CONSTRUCT PEDESTRIAN PATH CEMENT CONCRETE PAVEMENT, PER DETAIL ON DWG RD03 AND RD04, LIMITS PER PLAN.
- 6 RECONSTRUCT DRIVEWAY PER DRIVEWAY SECTION ON DWG RD04. SEE DWG RD05 FOR LAYOUT.
- 7 BRIDGE, SEE BRIDGE PLANS (DWG B01) FOR DETAILS.
- 8 CONSTRUCT CEMENT CONC. VALLEY GUTTER PER DETAIL ON DWG RD04.
- 9 EXISTING FEATURES OR STRUCTURES TO REMAIN, PROTECT DURING CONSTRUCTION.
- 10 APPROX. GRADING LIMITS.
- 11 EXTRUDED CURB, SEE CH01 FOR LAYOUT.
- 12 INSTALL CASED MONUMENTS PER DETAIL ON DWG RD04. COORDINATE WITH KITSAP COUNTY SURVEYOR TO VERIFY THE LOCATION PRIOR TO INSTALLATION.

ROADWAY GENERAL NOTES

1. ALL DIMENSIONS, STATION AND OFFSET REFERENCES ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.

LEGEND

- ASPHALT CONCRETE PAVEMENT
- CEMENT CONCRETE PAVEMENT
- GRAVEL SHOULDER
- RETAINING WALL



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: EH
DRAWN: AK
CHECKED: TP
CRP No. 2626
DATE: 08/08/25

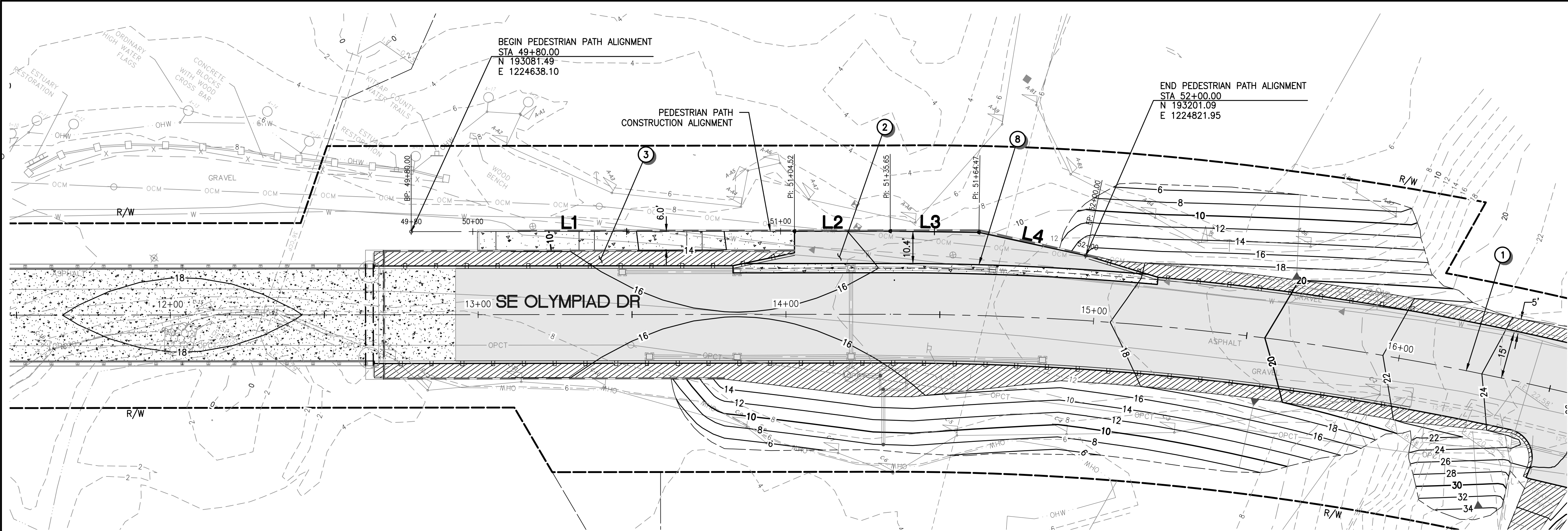


KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-28
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

HARPER ESTUARY BARRIER
CORRECTION
ROADWAY
PLAN AND PROFILE
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
RD02
42
OF
56

XREF LIST
Ltscale: 1
Resolved
TBLK
C510R270
T510X800
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T510X370
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C510G432
WDFW_PROPOSED
C510W360
C510R510
C510U630
C510R901
C510G420
Unresolved
C510G430



ROADWAY CONSTRUCTION NOTES

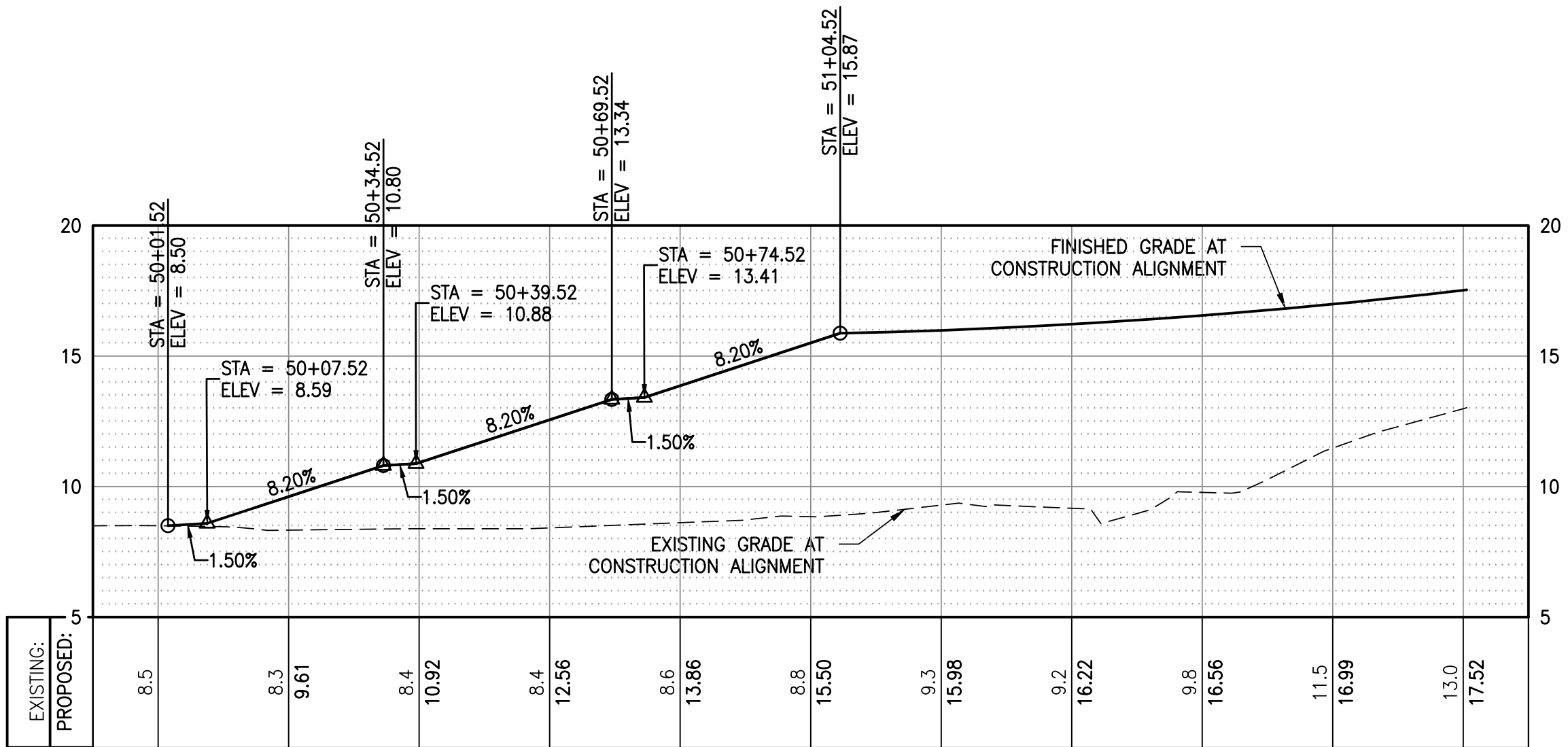
- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 CONSTRUCT ASPHALT CONCRETE PAVEMENT PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 3 INSTALL GRAVEL SHOULDER PER ROADWAY SECTION ON DWG RD04, LIMITS PER PLAN.
- 4 RETAINING WALL, SEE WALL PLANS (DWG W01-W07) FOR DETAILS.
- 5 CONSTRUCT PEDESTRIAN PATH CEMENT CONCRETE PAVEMENT, PER DETAIL ON DWG RD03 AND RD04, LIMITS PER PLAN.
- 6 RECONSTRUCT DRIVEWAY PER DRIVEWAY SECTION ON DWG RD04. SEE DWG RD05 FOR LAYOUT.
- 7 BRIDGE, SEE BRIDGE PLANS (DWG B01) FOR DETAILS.
- 8 CONSTRUCT CEMENT CONC. VALLEY GUTTER PER DETAIL ON DWG RD04.
- 9 EXISTING FEATURES OR STRUCTURES TO REMAIN, PROTECT DURING CONSTRUCTION.
- 10 APPROX. GRADING LIMITS.
- 11 EXTRUDED CURB, SEE CH01 FOR LAYOUT.
- 12 INSTALL CASED MONUMENTS PER DETAIL ON DWG RD04. COORDINATE WITH KITSAP COUNTY SURVEYOR TO VERIFY THE LOCATION PRIOR TO INSTALLATION.

ROADWAY GENERAL NOTES

1. ALL DIMENSIONS, STATION AND OFFSET REFERENCES ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.

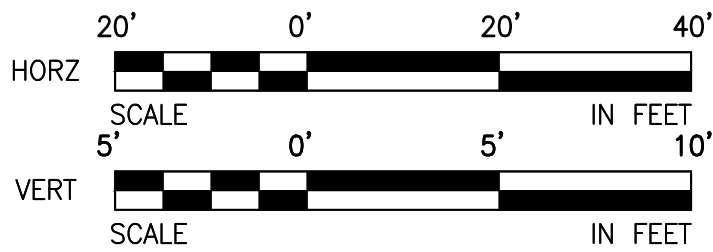
PEDESTRIAN PATH ALIGNMENT TABLE

NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L1	49+80.00	124.52'		N54°51'54"E	
L2	51+04.52	31.13'		N54°51'54"E	
L3	51+35.65	28.82'		N55°41'19"E	
L4	51+64.47	35.53'		N67°10'12"E	



LEGEND

- ASPHALT CONCRETE PAVEMENT
- CEMENT CONCRETE PAVEMENT
- GRAVEL SHOULDER
- RETAINING WALL



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
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DATE: 08/08/25



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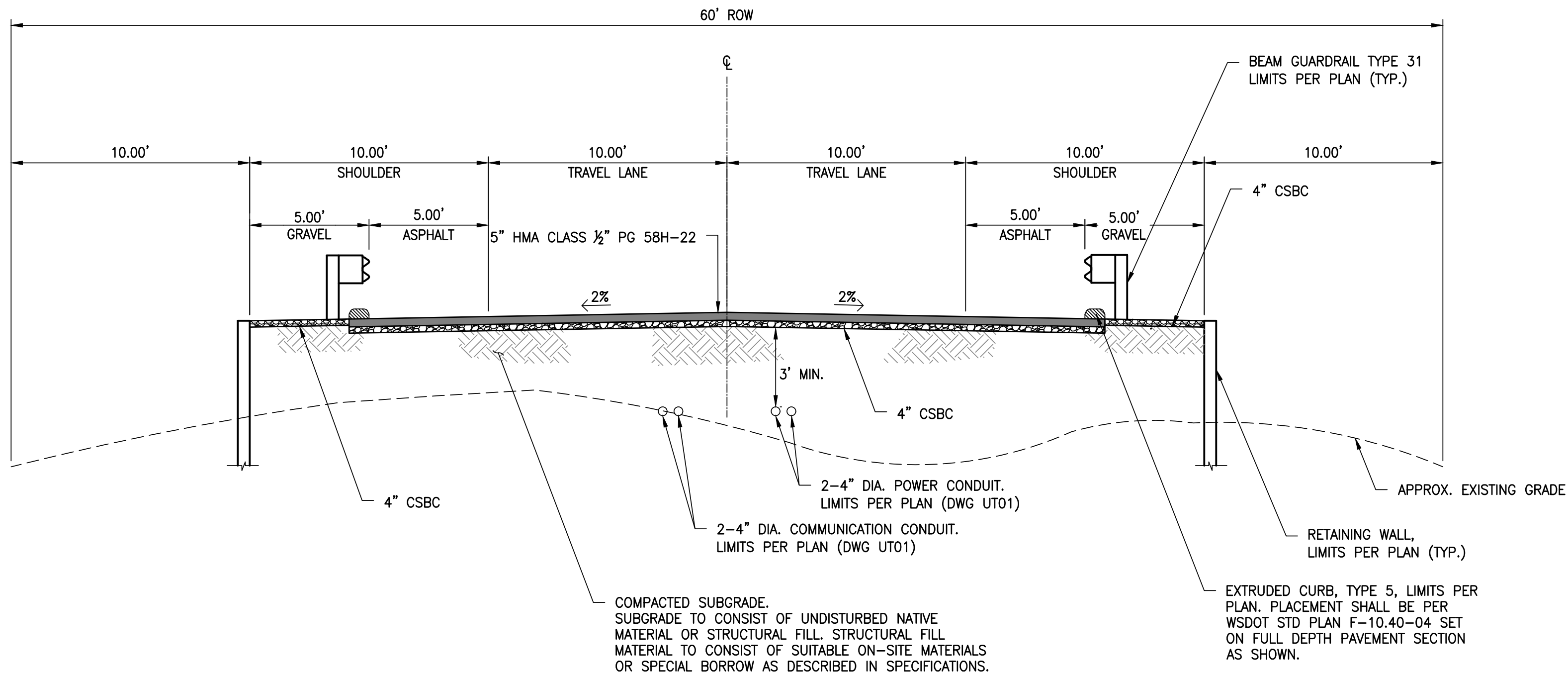
KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

HARPER ESTUARY BARRIER CORRECTION PEDESTRIAN PATH

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

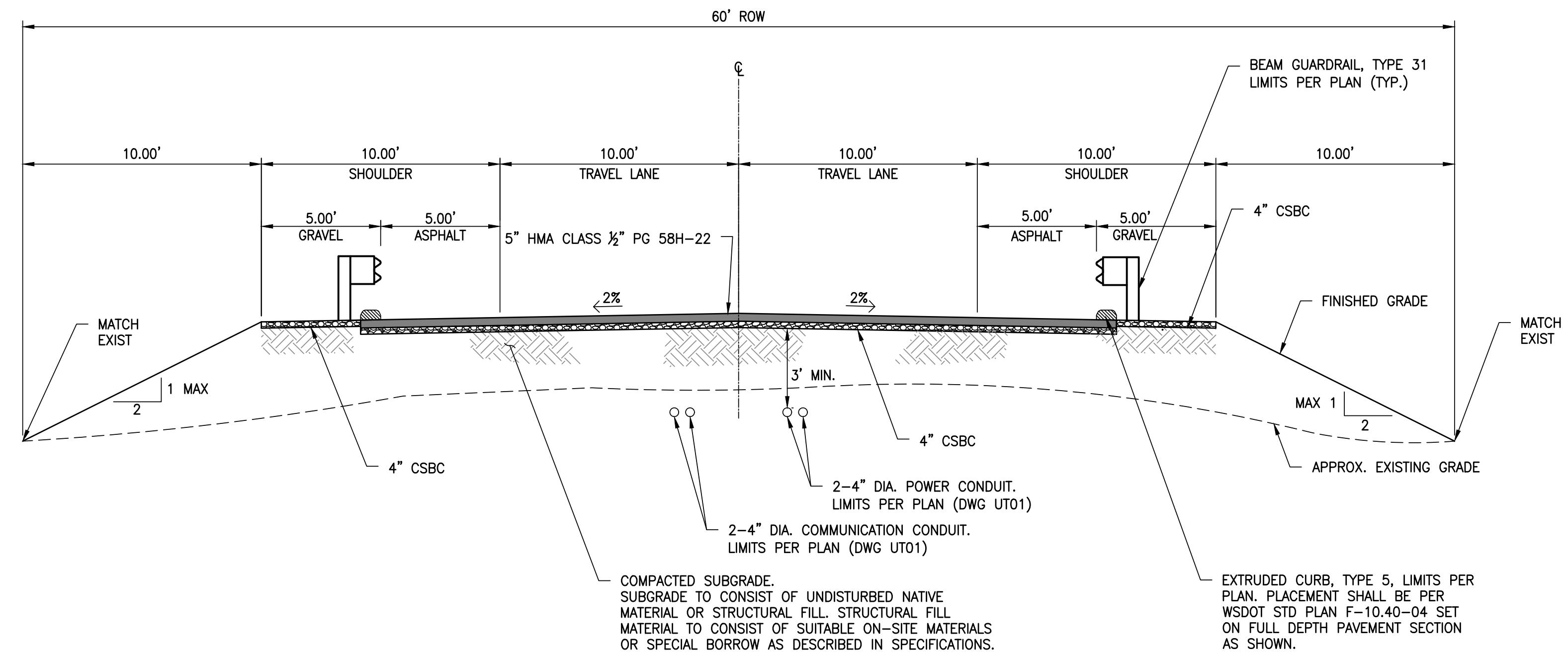
SHEET
RD03
43
OF
56

XREF LIST
Ltscale: 20
Resolved
TTBLK



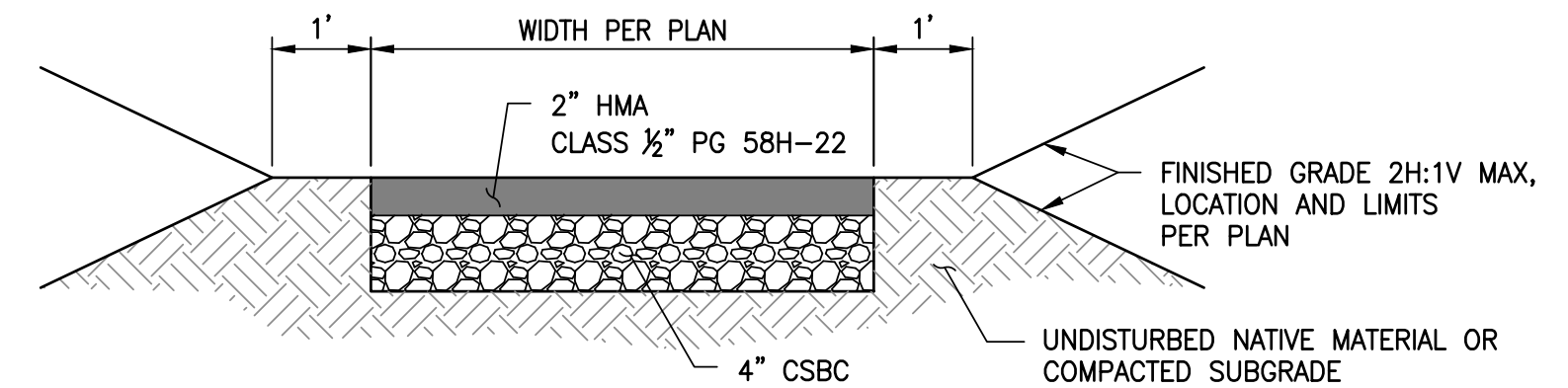
ROADWAY SECTION WITH RETAINING WALL

NOT TO SCALE
STA 10+40 TO STA 11+40
STA 12+70 TO STA 13+80



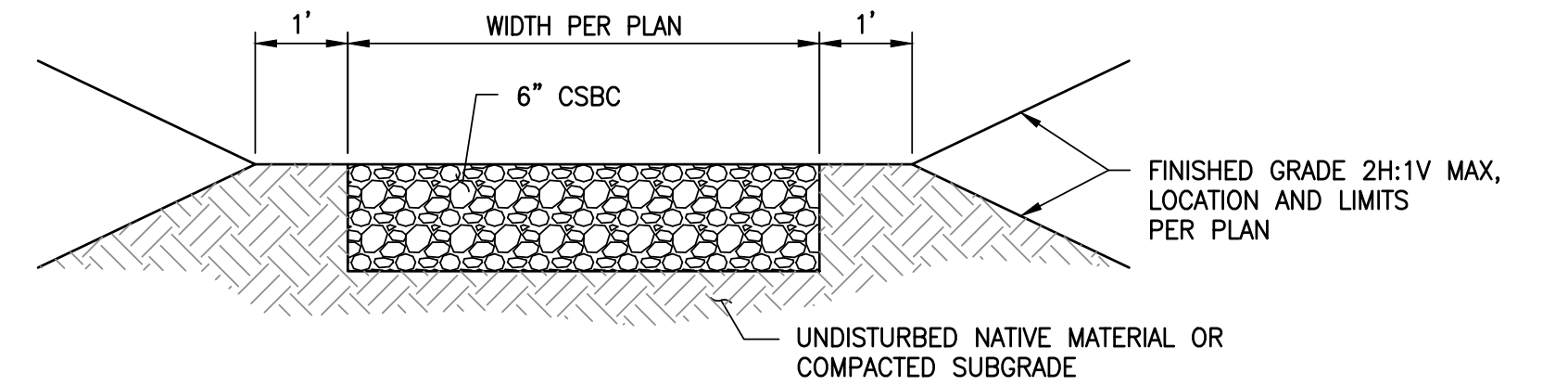
ROADWAY SECTION WITH 2:1 SLOPE GRADING

NOT TO SCALE
STA 13+80 TO STA 18+40



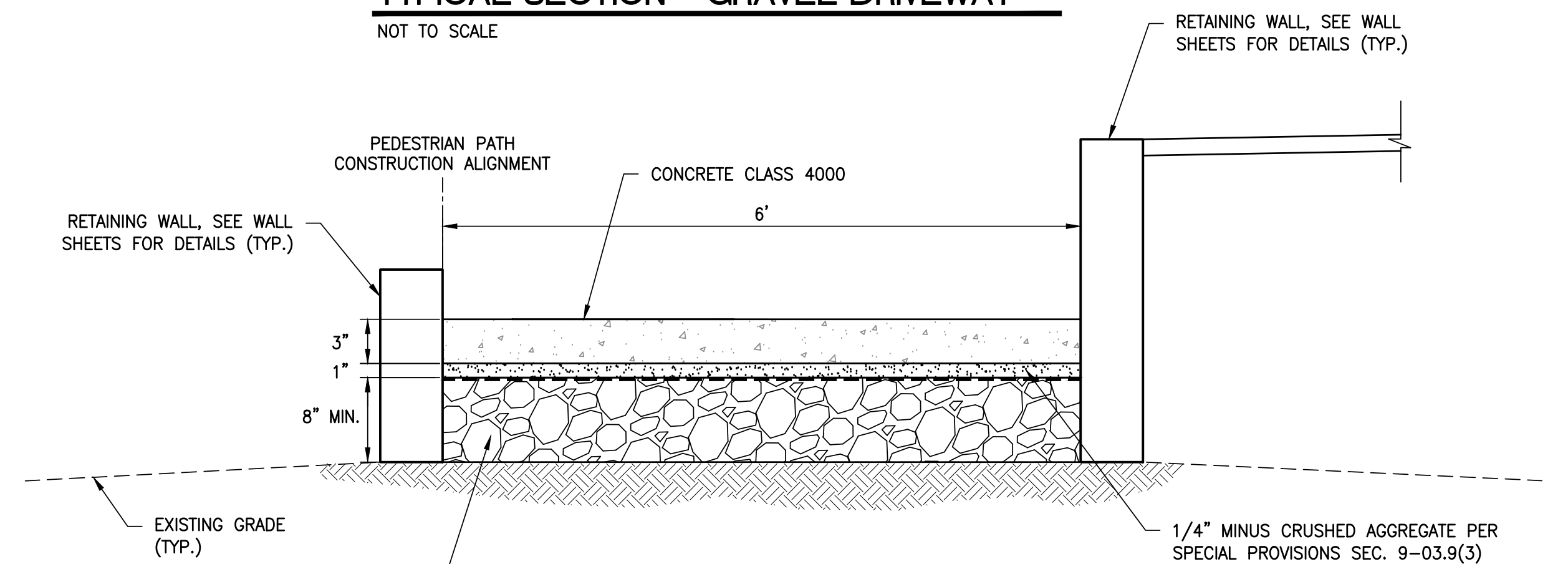
TYPICAL SECTION - ASPHALT DRIVEWAY

NOT TO SCALE



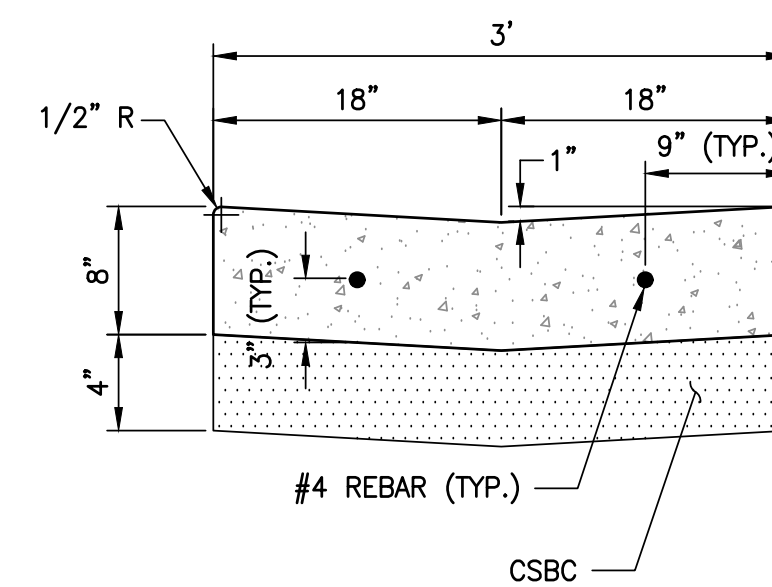
TYPICAL SECTION - GRAVEL DRIVEWAY

NOT TO SCALE



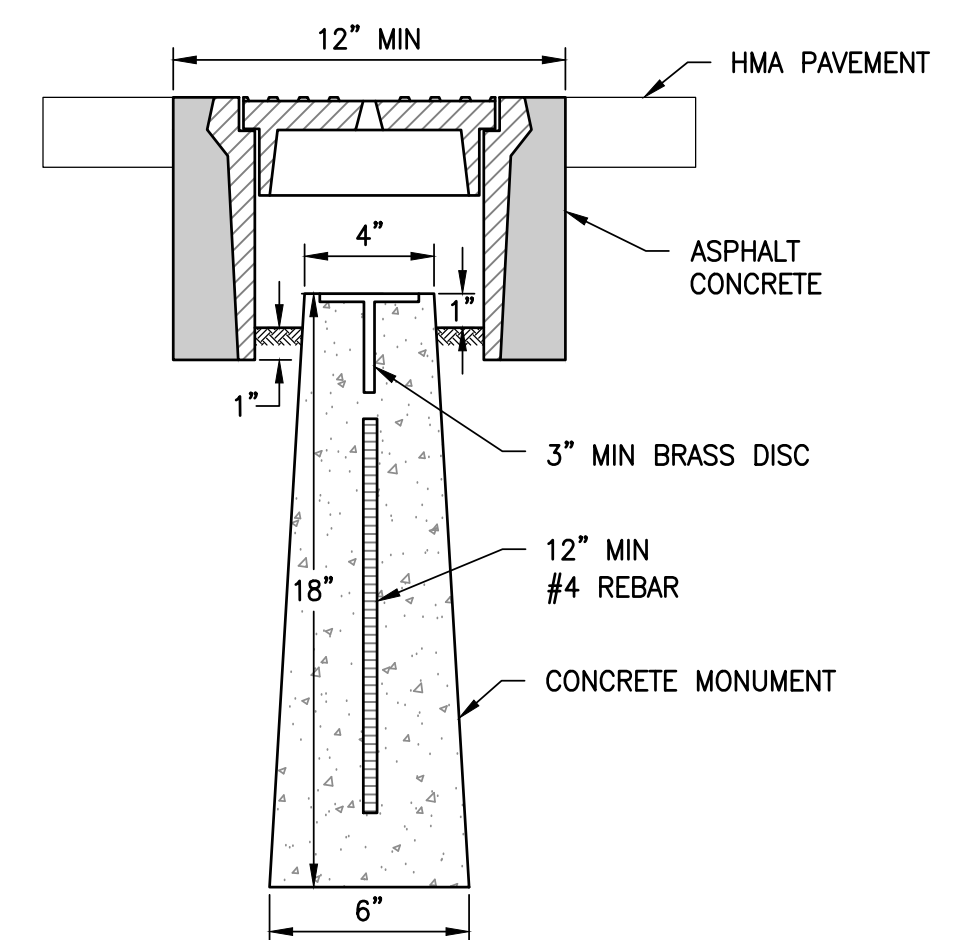
TYPICAL SECTION - PEDESTRIAN PATH

NOT TO SCALE



CEMENT CONCRETE VALLEY GUTTER

NOT TO SCALE



CASED MONUMENTS

NOT TO SCALE

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: EH
DRAWN: AK
CHECKED: TP
CRP No. 2626
DATE: 08/08/25



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08/08/2025



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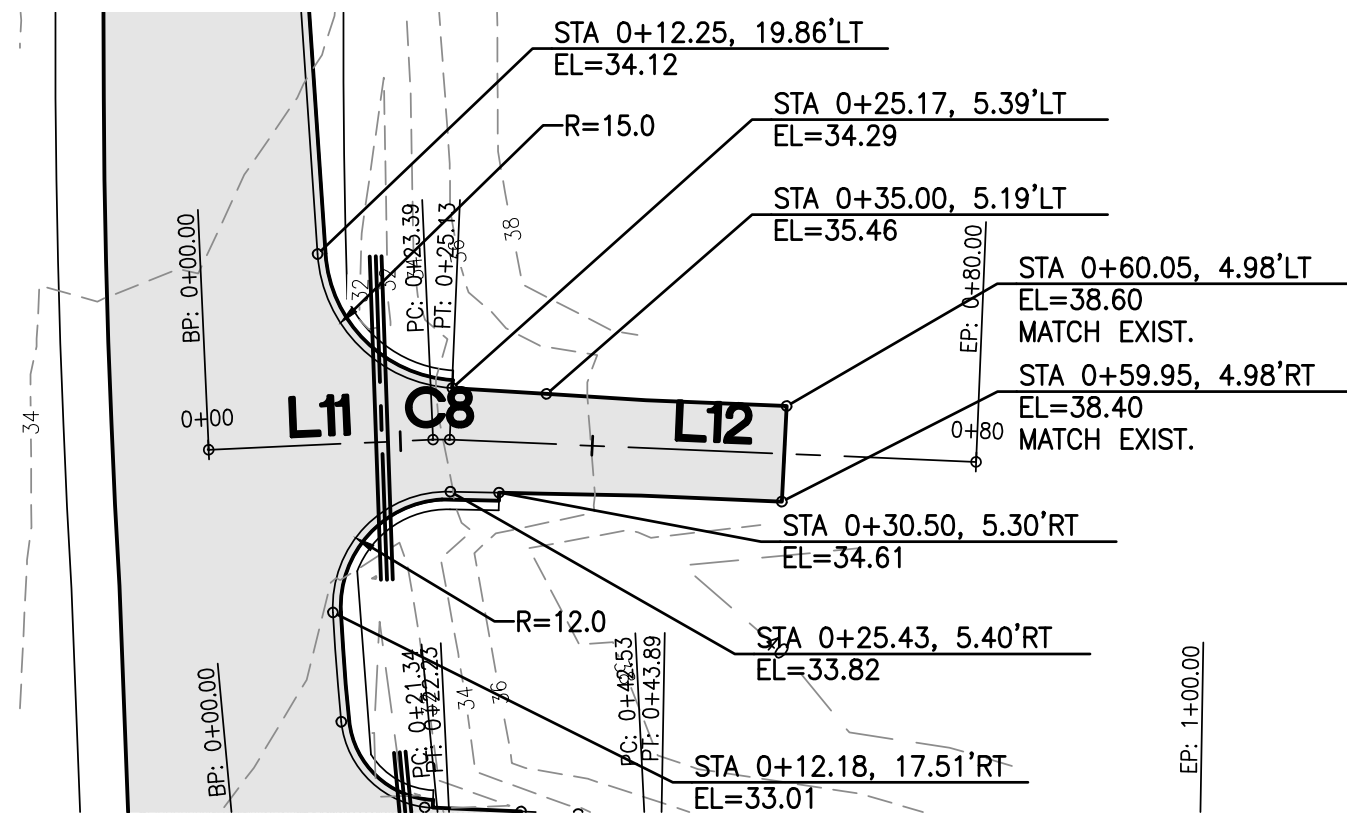
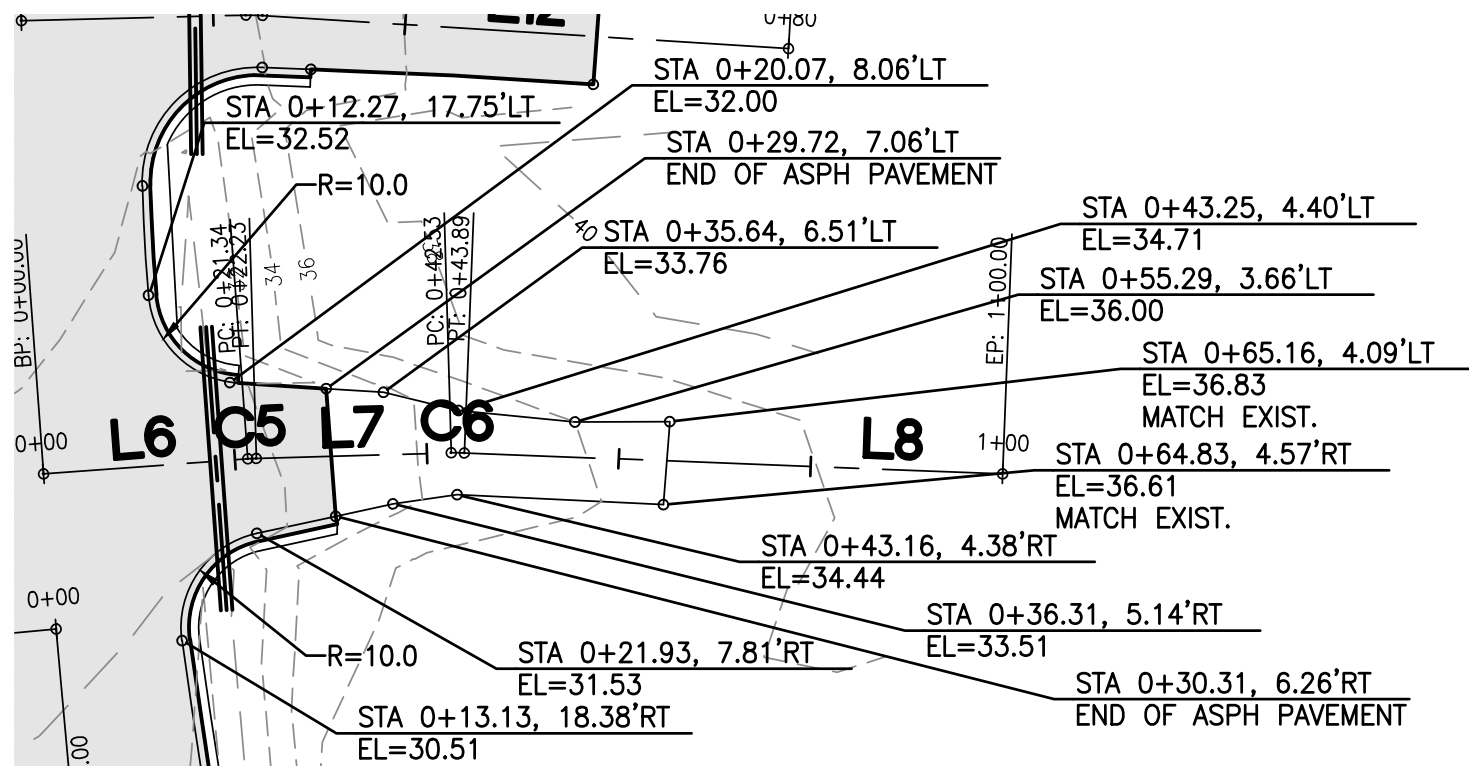
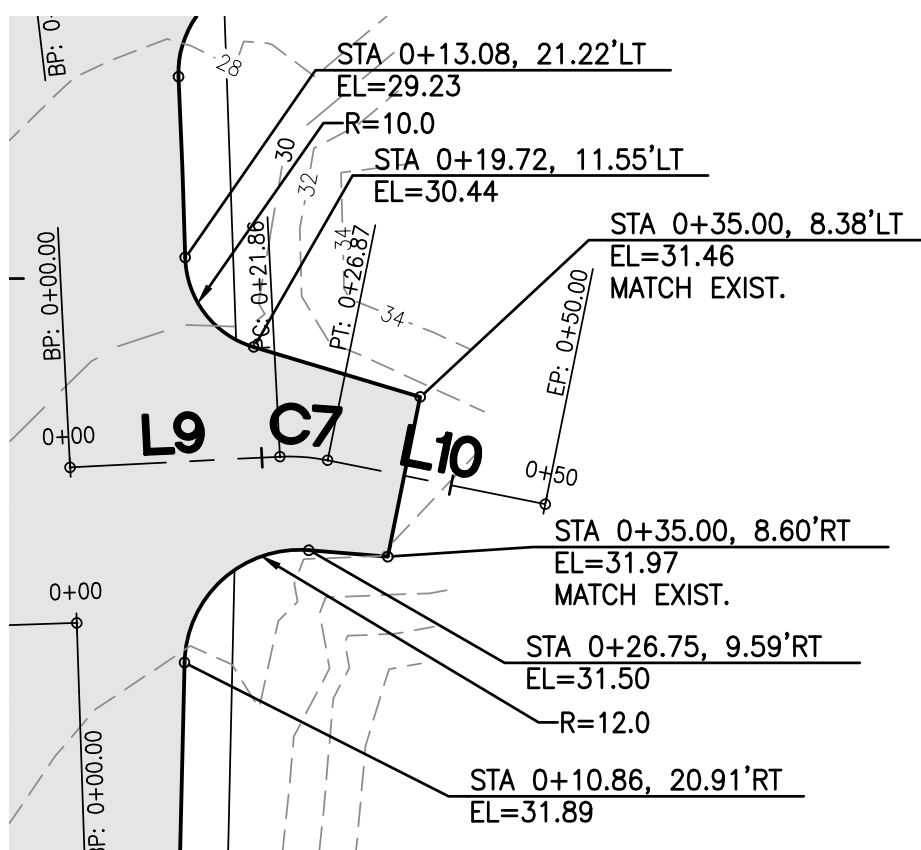
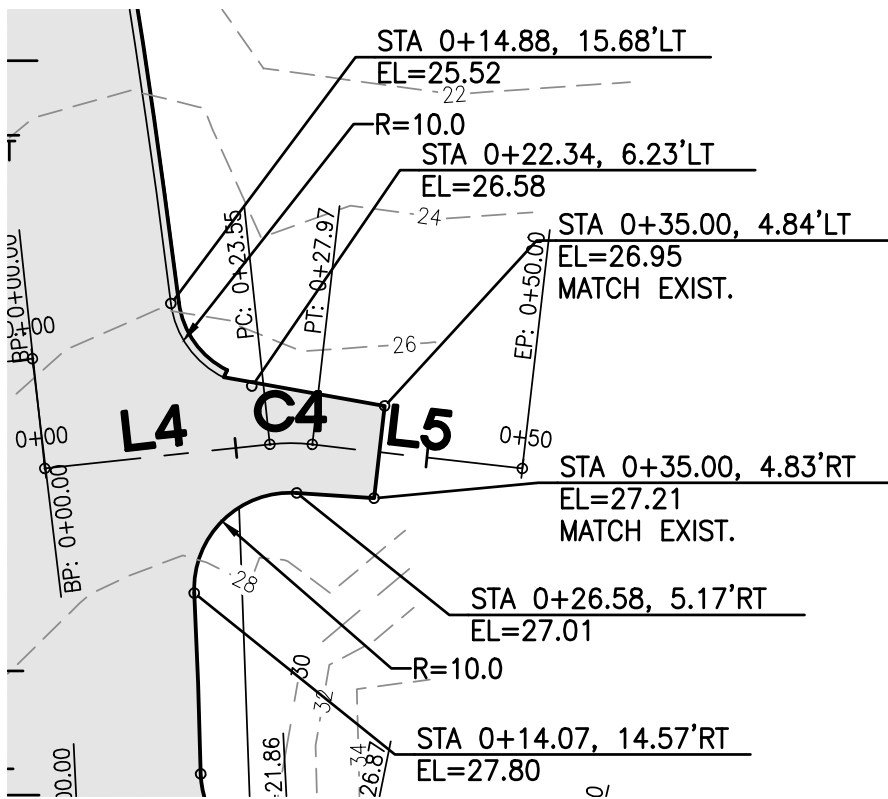
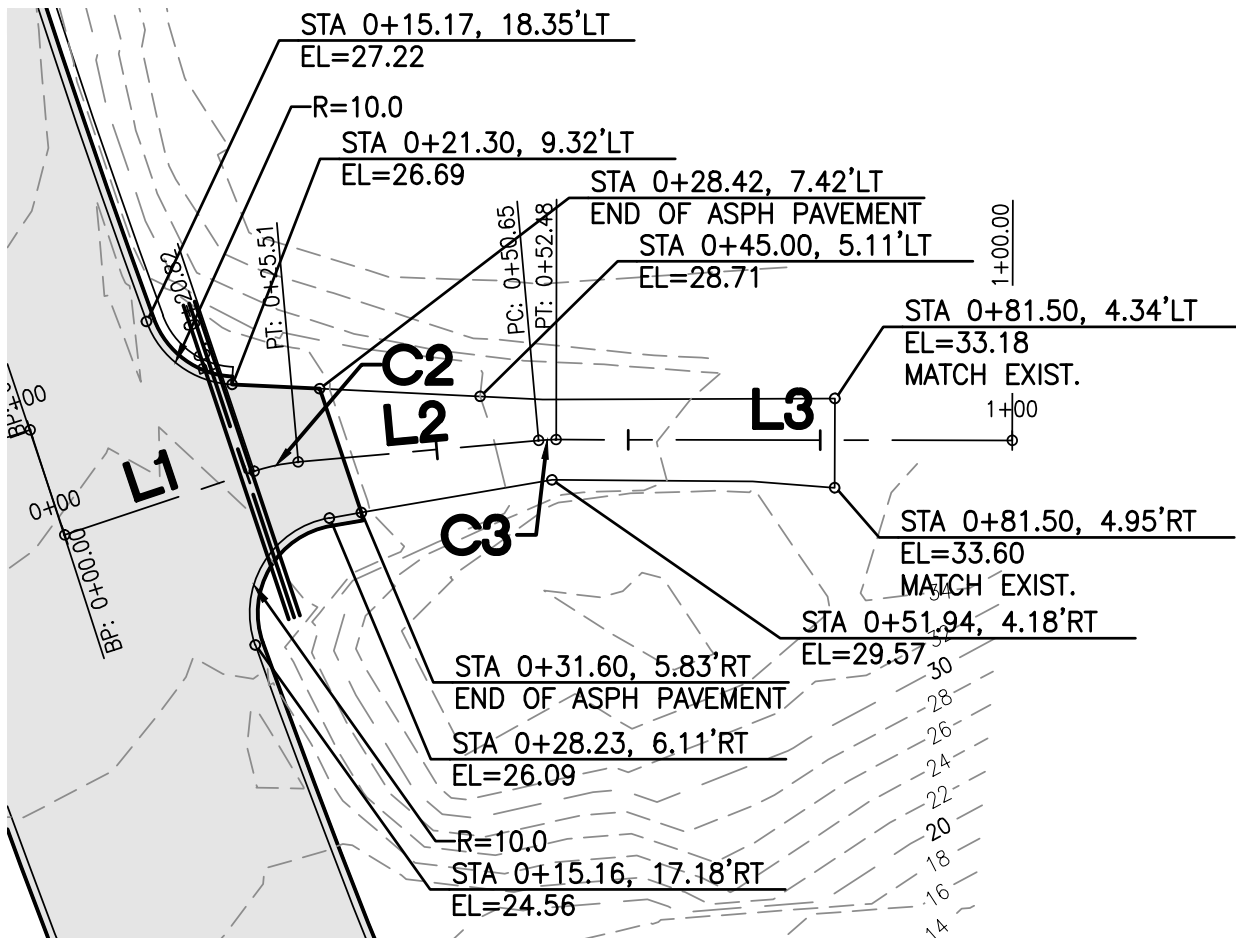
HARPER ESTUARY BARRIER CORRECTION TYPICAL SECTIONS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
RD04
44
OF
56

Plotted: Aug 07, 2025 - 7:15pm C:\PROJECT\32500\32510\Draw\08_RD04.dwg Layout Name: RD04 ahmed.kayanda

XREF LIST
Ltscale: 20
Resolved
TTBLK
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C510R510
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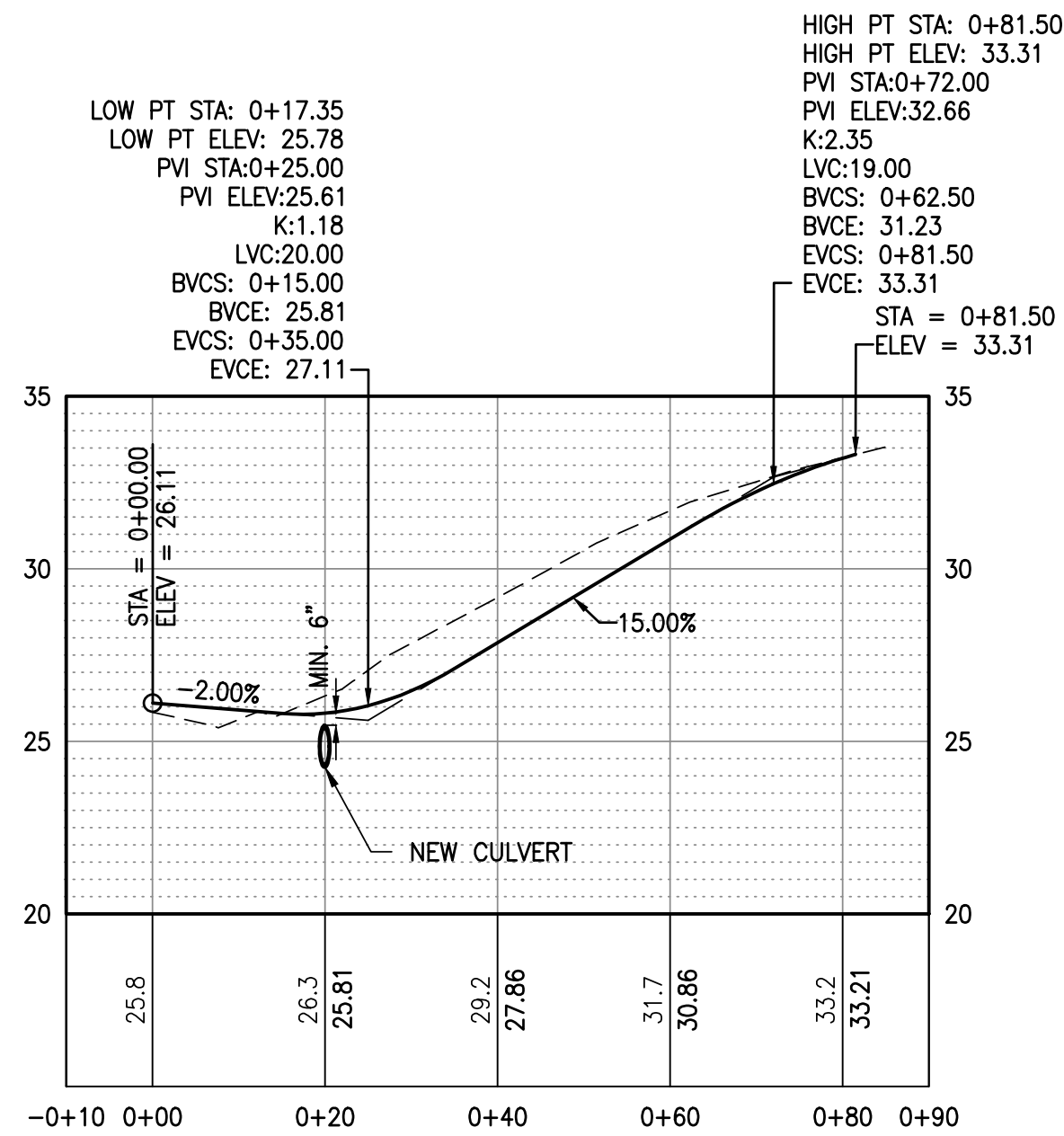
DWY 16+58 RT					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L1	0+00.00	20.82'		S21°42'41"E	
C2	0+20.82	4.69'	20.00'	S14°59'15"E	13°26'53"
L2	0+25.51	25.14'		S8°15'48"E	
C3	0+50.65	1.83'	20.00'	S5°38'42"E	5°14'11"
L3	0+52.48	47.52'		S3°01'37"E	

DWY 16+70 LT					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L4	0+00.00	23.55'		N21°01'13"W	
C4	0+23.55	4.42'	20.00'	N14°40'58"W	12°40'30"
L5	0+27.97	22.03'		N8°20'43"W	

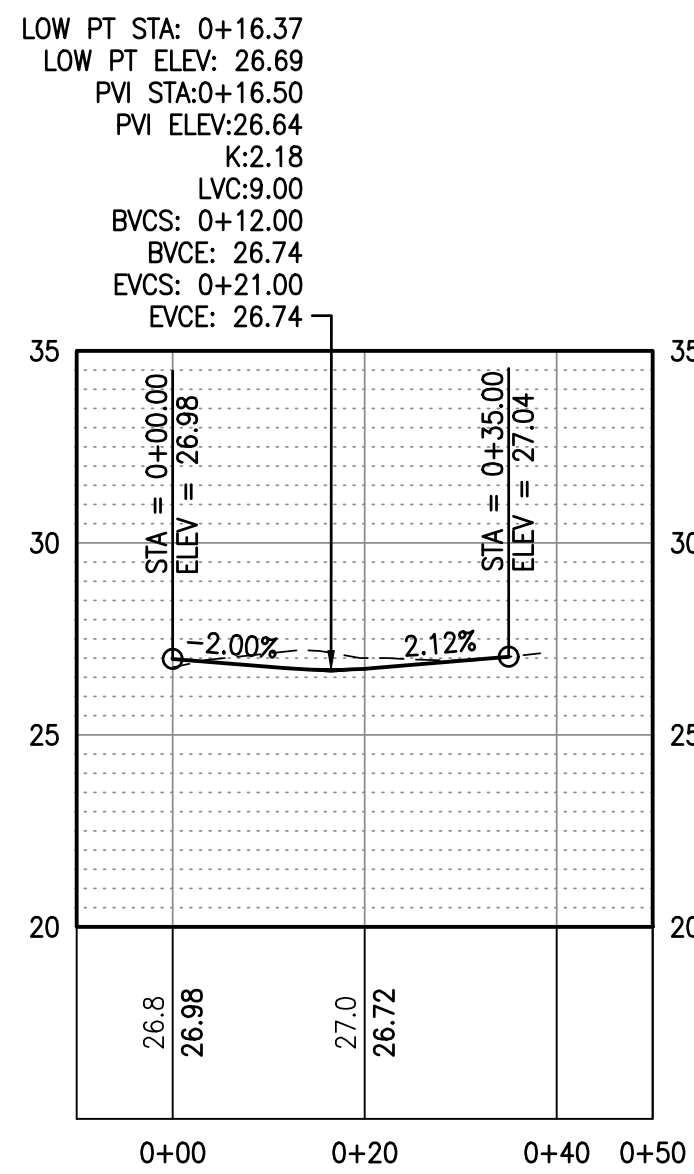
DWY 17+23 LT					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L9	0+00.00	21.86'		N17°47'23"W	
C7	0+21.86	5.00'	20.00'	N10°37'17"W	14°20'12"
L10	0+26.87	23.13'		N3°27'11"W	

DWY 17+39 RT					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L6	0+00.00	21.34'		S16°48'59"E	
C5	0+21.34	0.89'	20.00'	S15°32'18"E	2°33'22"
L7	0+22.23	20.30'		S14°15'37"E	
C6	0+42.53	1.36'	20.00'	S12°19'09"E	3°52'55"
L8	0+43.89	56.11'		S10°22'42"E	

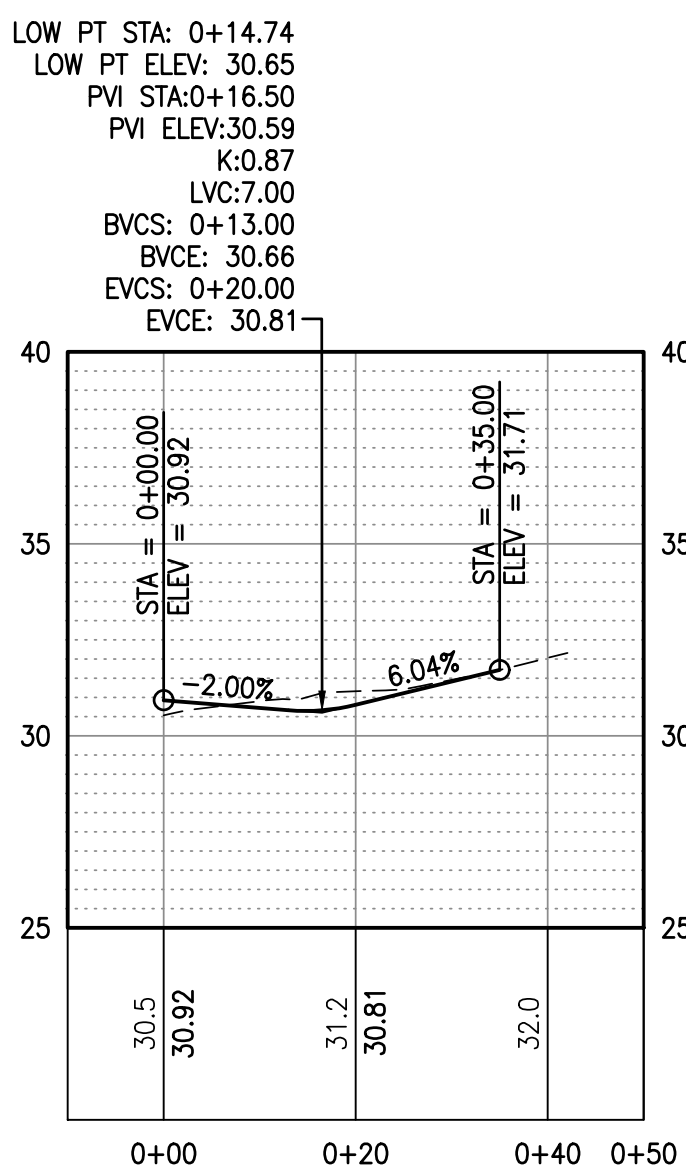
DWY 17+87 RT					
NUMBER	STATION	LENGTH	RADIUS	BEARING	DELTA
L11	0+00.00	23.39'		S13°58'46"E	
C8	0+23.39	1.74'	20.00'	S11°29'28"E	4°58'36"
L12	0+25.13	54.87'		S9°00'11"E	



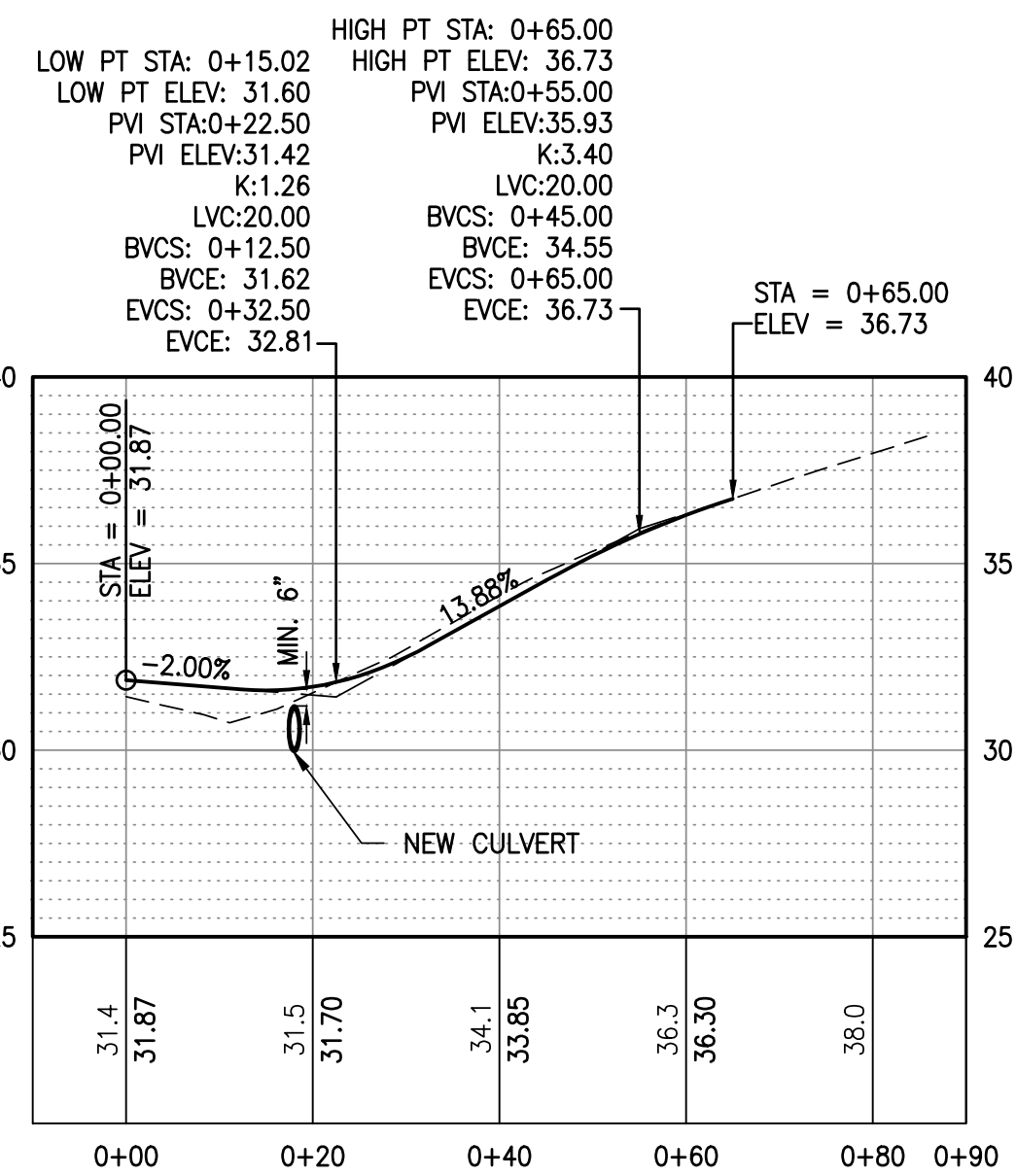
DRIVEWAY AT STA 16+58 RT



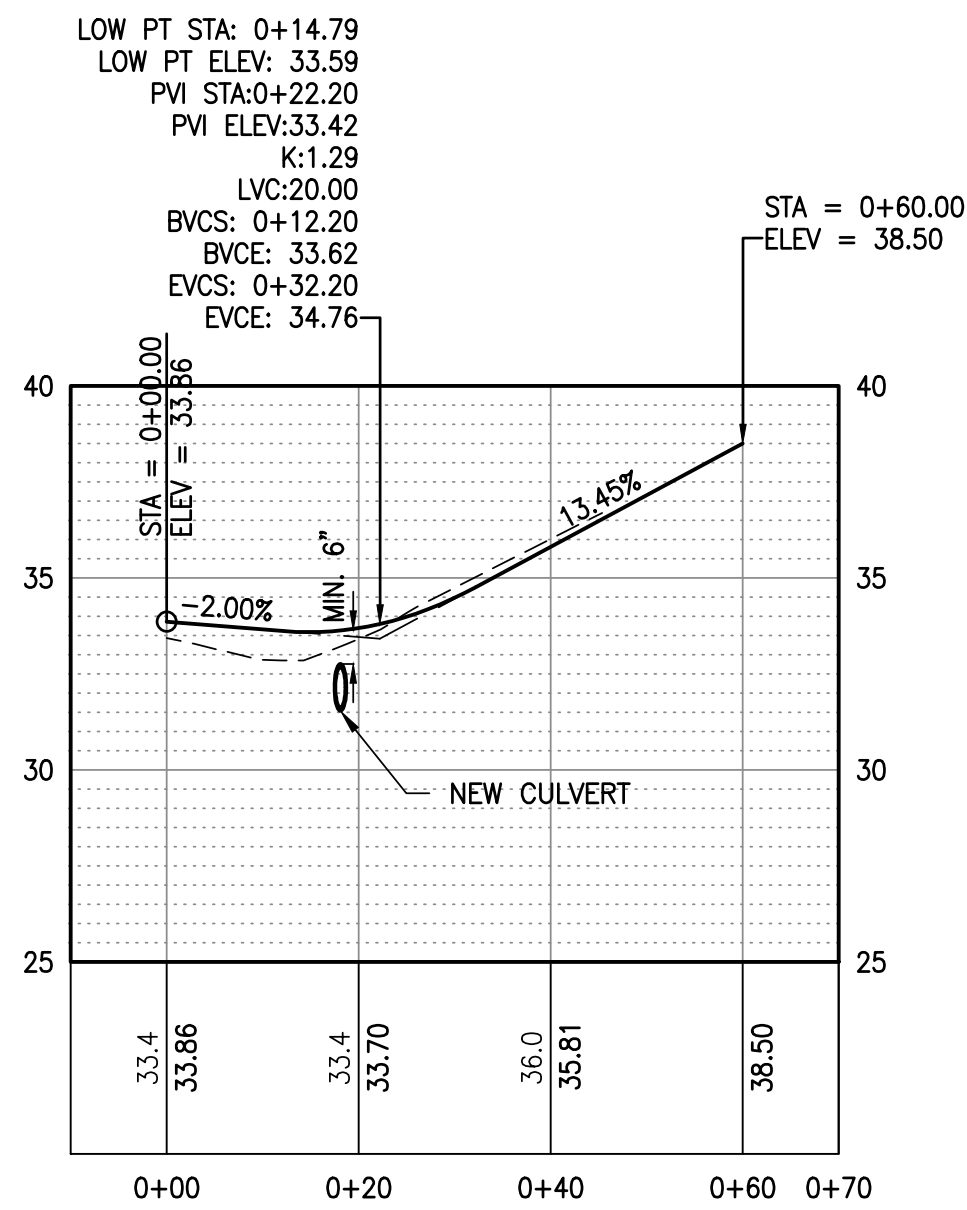
DRIVEWAY AT STA 16+70 LT



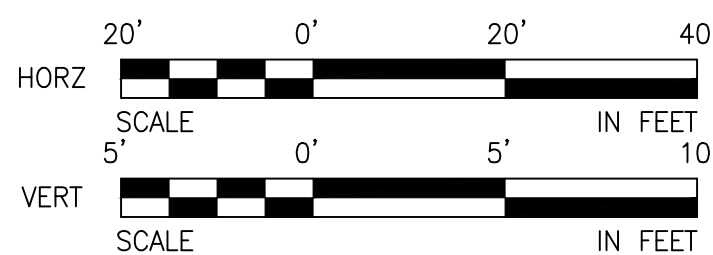
DRIVEWAY AT STA 17+23 LT



DRIVEWAY AT STA 17+39 RT



DRIVEWAY AT STA 17+87 RT



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: EH
DRAWN: AK
CHECKED: TP
CRP No. 2626
DATE: 08/08/25

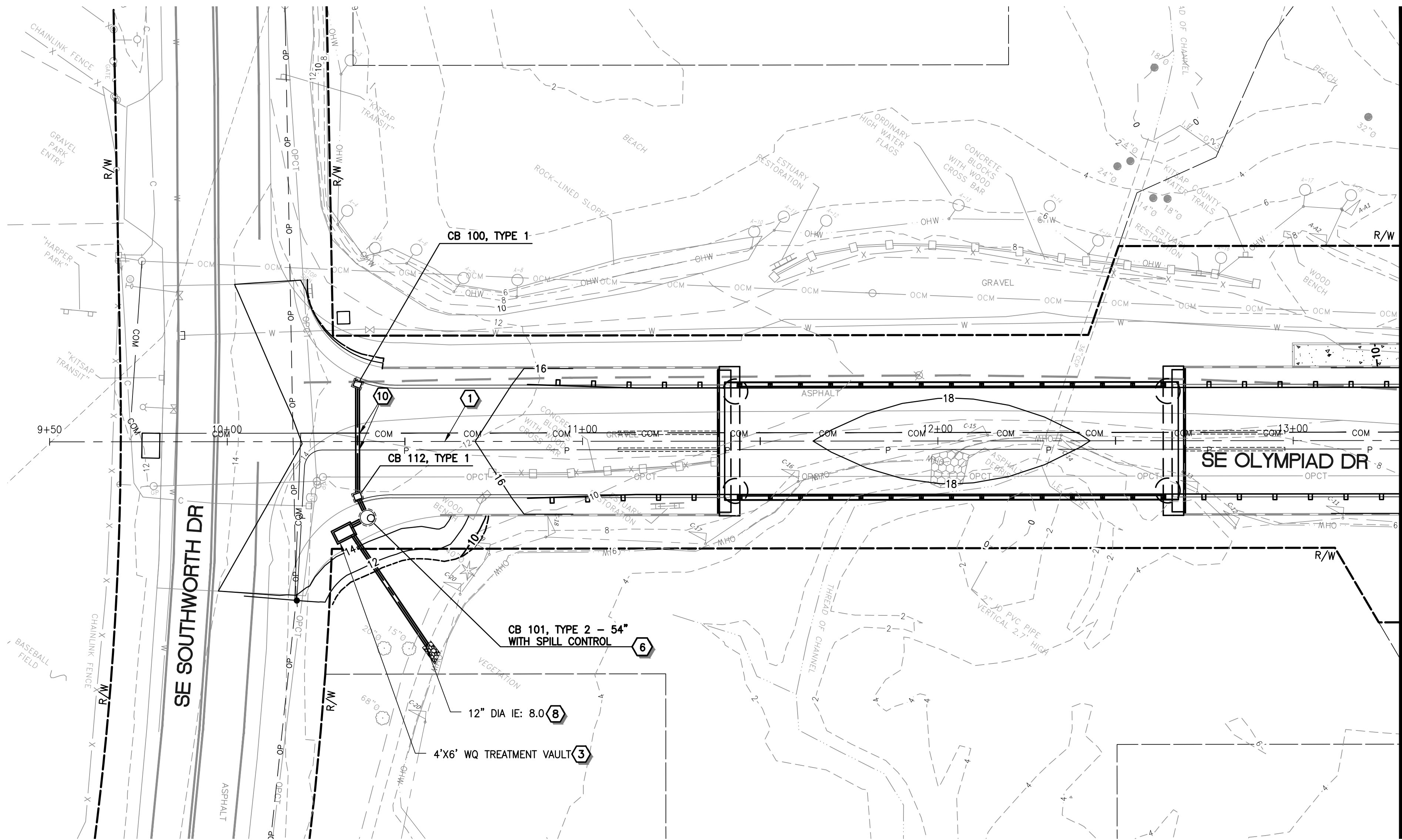


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614 DIVISION STREET MS-28
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
DRIVEWAY PLAN AND
PROFILE
KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
RD05
45
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510R270
C510R900
T510X800
HARPER
C510R510
T510X370
C510N032
C510G432
C510U630
Unresolved
C510N030
VicMap
Section Sub Detail
Parcel Overview Detail
Right-of-way Detail



MATCHLINE SEE SHEET DD02

DRAINAGE CONSTRUCTION NOTES

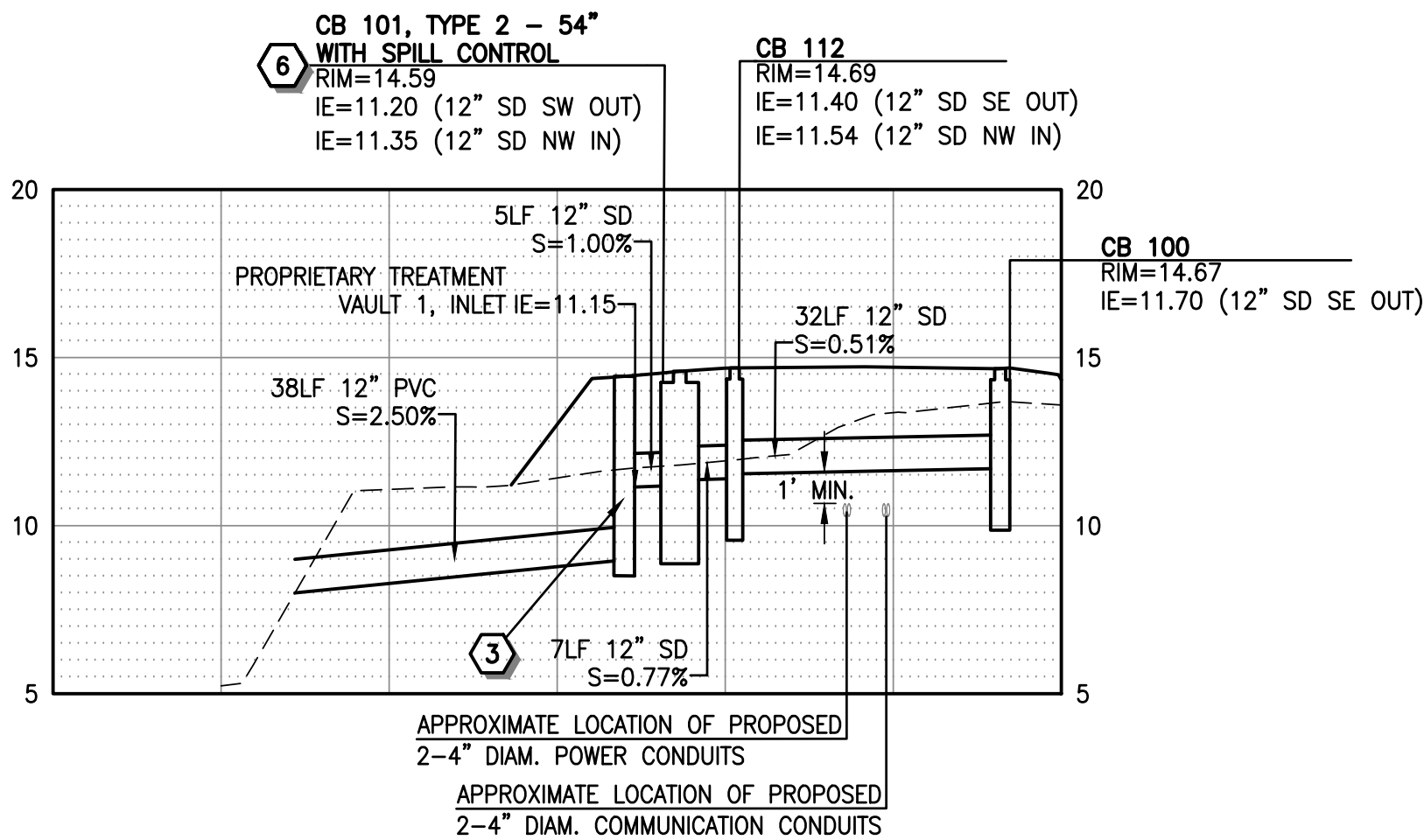
1. CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
2. CONSTRUCT DRAINAGE DITCH PER DETAIL ON DWG DD03.
3. CONSTRUCT WATER QUALITY TREATMENT VAULT 1 PER SPECIAL PROVISIONS SEC. 7-06. SEE DWG DD04 FOR DETAILS.
4. CONSTRUCT CULVERT INLET/OUTLET PROTECTION PER DETAIL ON DWG DD03.
5. CONSTRUCT WATER QUALITY TREATMENT VAULT 2 PER SPECIAL PROVISIONS SEC. 7-06. SEE DWG DD04 FOR DETAILS.
6. CONSTRUCT WSDOT TYPE 2 CATCH BASIN WITH SPILL CONTROL PER DETAIL ON DWG DD03.
7. CONSTRUCT DITCH WITH CHECK DAMS PER DETAIL ON DWG DD05.
8. CONSTRUCT ESTUARY OUTLET PROTECTION PER DETAIL ON DWG DD03.
9. CONSTRUCT WSDOT TYPE 1 CATCH BASIN WITH VALLEY GUTTER INLET FRAME AND GRATE PER DETAIL ON DWG DD05.
10. COORDINATE WITH UTILITY AGENCIES TO INSTALL CONDUITS MAINTAINING MIN. 12-INCH VERTICAL CLEARANCE AT STORM CROSSING LOCATION.

DRAINAGE GENERAL NOTES

1. STORM DRAIN (SD) PIPE SHALL BE PROFILE WALL PVC STORM SEWER PIPE, UNLESS NOTED OTHERWISE.
2. ALL CATCH BASIN INLETS SHALL HAVE RECTANGULAR LOCKING VANED GRATES PER DETAIL ON SHEET DD05, UNLESS NOTED OTHERWISE.
3. SEE DWG DD03 FOR STRUCTURE PLACEMENT DETAIL.
4. SEE DWGS DD01-DD02 FOR PIPE PROFILES.
5. ALL CATCH BASINS SHALL BE WSDOT STD. PLAN B-5.20-03 TYPE 1, UNLESS OTHERWISE NOTED.
6. PIPE LENGTHS SHOWN ARE FROM CENTER OF CATCH BASIN TO CENTER OF CATCH BASIN.

LEGEND

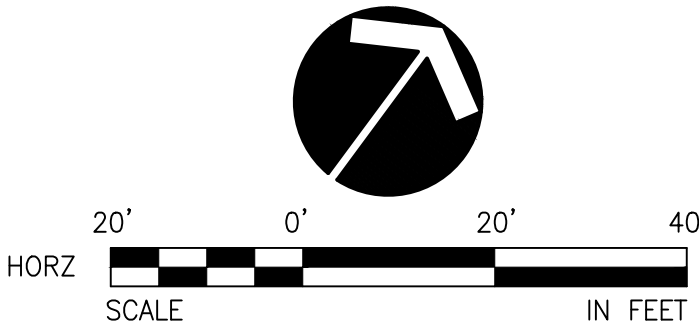
- STORM PIPE
- CATCH BASIN
- CULVERT INLET/OUTLET PROTECTION, PER DETAIL ON DWG DD03
- DRAINAGE DITCH
- COMPOST SOCK CHECK DAM PER DETAIL ON DWG DD03



CB 100 TO CB 101

STORM STRUCTURE DATA				
STRUCTURE NAME	TYPE	STATION (OFFSET)	RIM ELEVATION	IE
CB 100	TYPE 1	STATION: 10+36.69 OFFSET: 16.15' LT	14.67'	12" OUT 11.70' SE
CB 101	TYPE 2 - 54" WITH SPILL CONTROL	STATION: 10+39.46 OFFSET: 21.37' RT	14.59'	12" IN 11.35' NW 12" OUT 11.20' SW
CB 102	TYPE 1	STATION: 13+46.83 OFFSET: 13.82' LT	15.93'	12" OUT 12.90' NE
CB 103	TYPE 1	STATION: 13+55.65 OFFSET: 13.67' RT	15.85'	12" OUT 12.80' NE
CB 104	TYPE 1	STATION: 13+84.14 OFFSET: 13.81' LT	15.74'	12" IN 12.71' SW 12" OUT 12.60' NE
CB 105	TYPE 1	STATION: 13+84.13 OFFSET: 13.85' RT	15.74'	12" IN 12.65' SW 12" OUT 12.50' NE

STORM STRUCTURE DATA				
STRUCTURE NAME	TYPE	STATION (OFFSET)	RIM ELEVATION	IE
CB 106	TYPE 1	STATION: 14+21.14 OFFSET: 15.00' LT	15.90'	12" IN 12.41' SW 12" IN 12.93' NE 12" OUT 12.30' SE
CB 107	TYPE 1	STATION: 14+84.07 OFFSET: 13.60' RT	17.09'	12" OUT 14.00' SW
CB 110	TYPE 2 - 54" WITH SPILL CONTROL	STATION: 14+21.14 OFFSET: 19.64' RT	15.81'	12" IN 11.95' NW 12" OUT 11.00' NE
CB 111	TYPE 1	STATION: 14+66.65 OFFSET: 14.99' LT	16.64'	12" OUT 13.60' SW
CB 112	TYPE 1	STATION: 10+36.70 OFFSET: 15.45' RT	14.69'	12" IN 11.54' NW 12" OUT 11.40' SE
CB 113	TYPE 1	STATION: 14+21.14 OFFSET: 13.69' RT	15.93'	12" IN 12.31' SW 12" IN 12.14' NW 12" OUT 12.31' SE



REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25



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DEPT. OF PUBLIC WORKS
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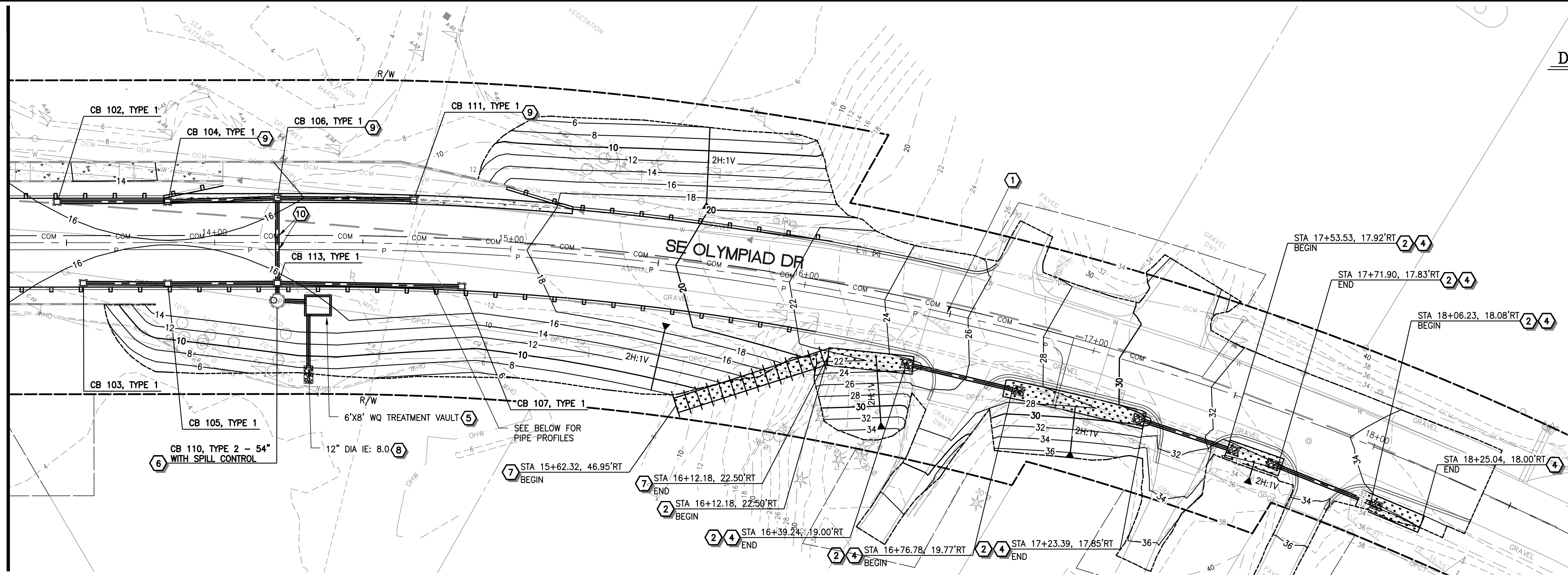
HARPER ESTUARY BARRIER
CORRECTION
DRAINAGE PLAN AND PROFILE

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
DD01
46
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510R270
C510R900
T510X800
HARPER
C510R510
T510X370
C510N032
C510G432
C510U630
Unresolved
C510N030
VicMap
Section Sub Detail
Parcel Overview Detail
Right-of-way Detail

MATCHLINE SEE SHEET DD01



DRAINAGE CONSTRUCTION NOTES

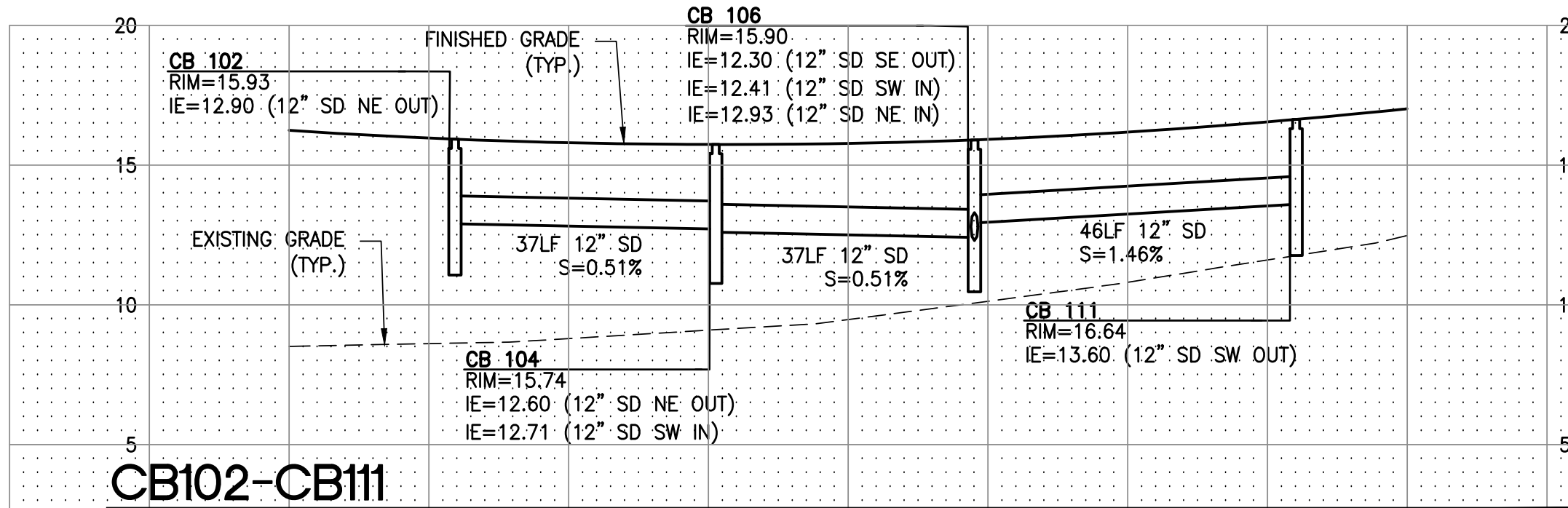
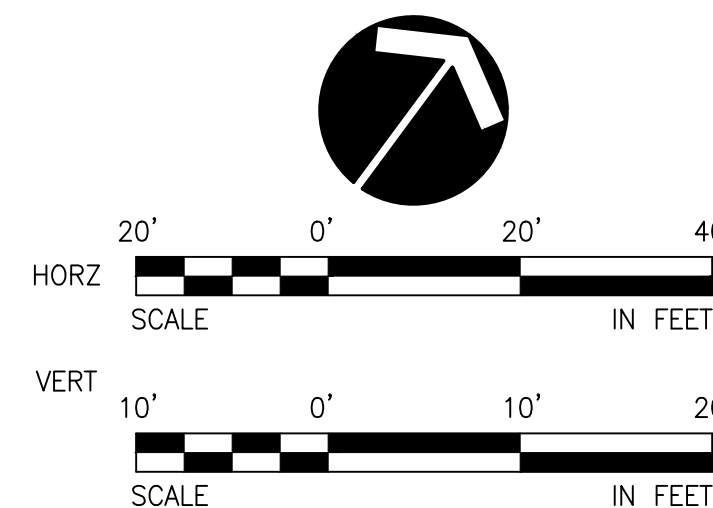
- 1 CONSTRUCTION CENTERLINE, SEE DWG RW01 FOR DETAILS.
- 2 CONSTRUCT DRAINAGE DITCH PER DETAIL ON DWG DD03.
- 3 CONSTRUCT WATER QUALITY TREATMENT VAULT 1 PER SPECIAL PROVISIONS SEC. 7-06. SEE DWG DD04 FOR DETAILS.
- 4 CONSTRUCT CULVERT INLET/OUTLET PROTECTION PER DETAIL ON DWG DD03.
- 5 CONSTRUCT WATER QUALITY TREATMENT VAULT 2 PER SPECIAL PROVISIONS SEC. 7-06. SEE DWG DD04 FOR DETAILS.
- 6 CONSTRUCT WSDOT TYPE 2 CATCH BASIN WITH SPILL CONTROL PER DETAIL ON DWG DD03.
- 7 CONSTRUCT DITCH WITH CHECK DAMS PER DETAIL ON DWG DD05.
- 8 CONSTRUCT ESTUARY OUTLET PROTECTION PER DETAIL ON DWG DD03.
- 9 CONSTRUCT WSDOT TYPE 1 CATCH BASIN WITH VALLEY GUTTER INLET FRAME AND GRATE PER DETAIL ON DWG DD05.
- 10 COORDINATE WITH UTILITY AGENCIES TO INSTALL CONDUITS MAINTAINING MIN. 12-INCH VERTICAL CLEARANCE AT STORM CROSSING LOCATION.

DRAINAGE GENERAL NOTES

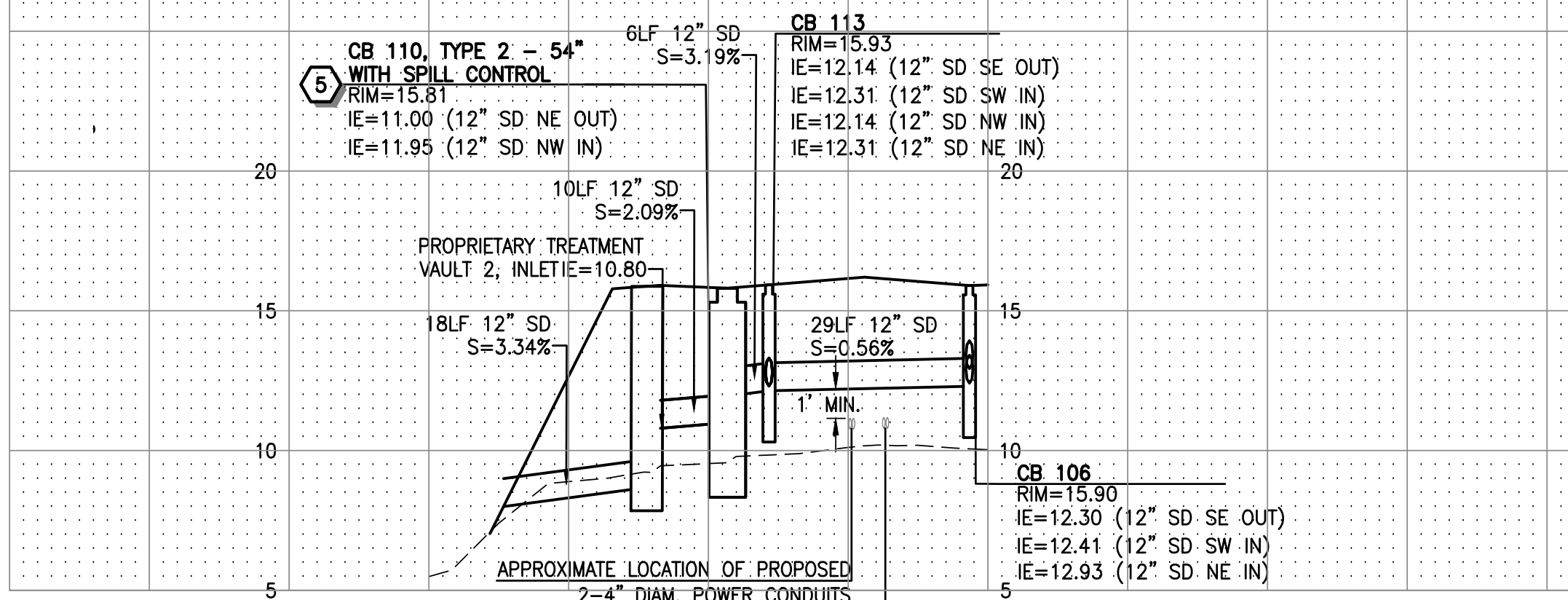
1. STORM DRAIN (SD) PIPE SHALL BE PROFILE WALL PVC STORM SEWER PIPE, UNLESS NOTED OTHERWISE.
2. ALL CATCH BASIN INLETS SHALL HAVE RECTANGULAR LOCKING VANED GRATES PER DETAIL ON SHEET DD05, UNLESS NOTED OTHERWISE.
3. SEE DWG DD03 FOR STRUCTURE PLACEMENT DETAIL.
4. SEE DWGS DD01-DD02 FOR PIPE PROFILES.
5. ALL CATCH BASINS SHALL BE WSDOT STD. PLAN B-5.20-03 TYPE 1, UNLESS OTHERWISE NOTED.
6. PIPE LENGTHS SHOWN ARE FROM CENTER OF CATCH BASIN TO CENTER OF CATCH BASIN.

LEGEND

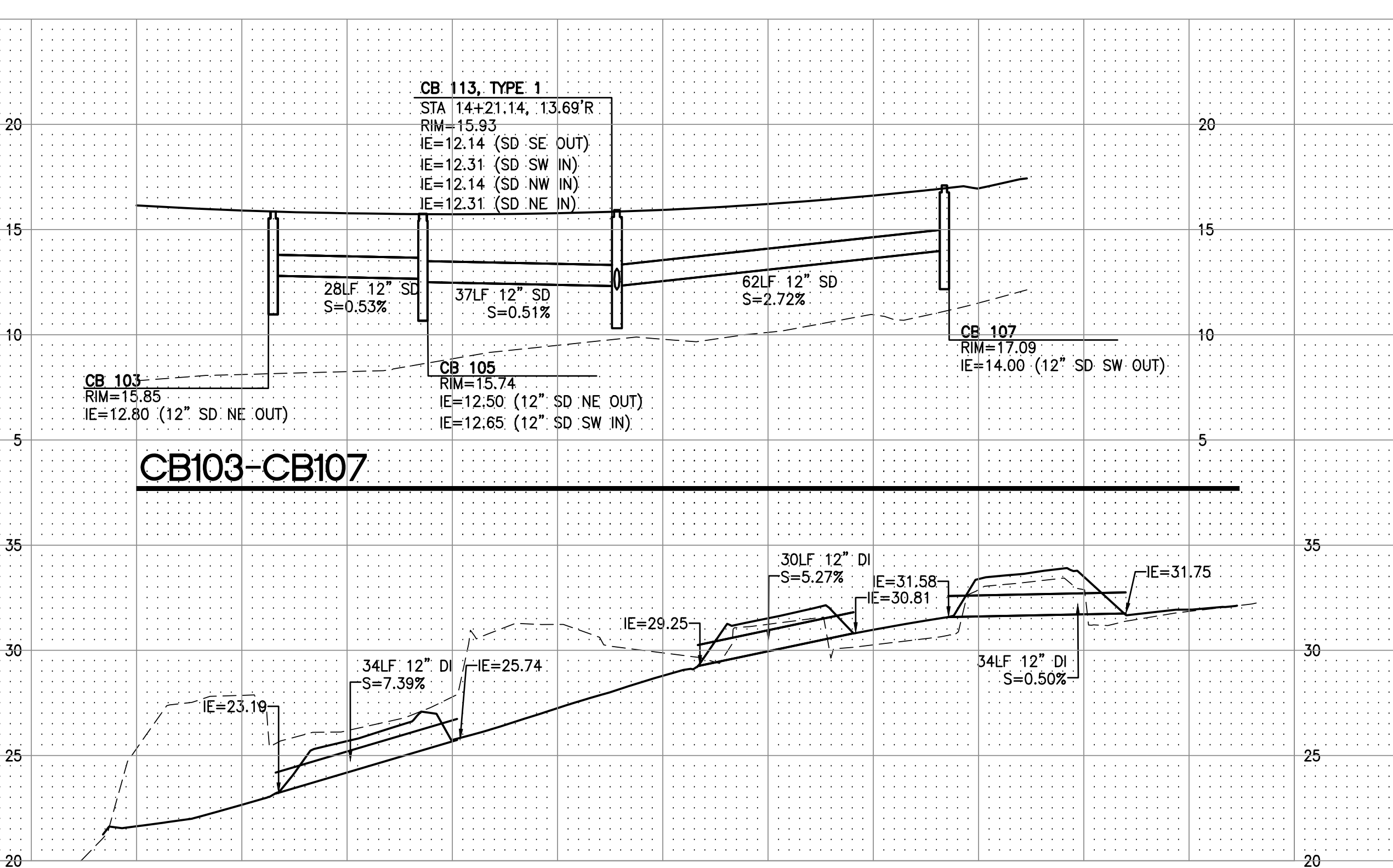
- STORM PIPE
- CATCH BASIN
- CULVERT INLET/OUTLET PROTECTION, PER DETAIL ON DWG DD03
- DRAINAGE DITCH
- COMPOST SOCK CHECK DAM PER DETAIL ON DWG DD03



CB102-CB111



CB106-CB110



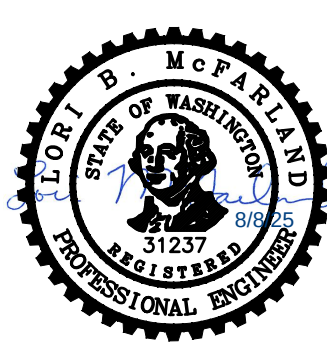
CB103-CB107

DITCH AND DRIVEWAY CULVERT PROFILE

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25



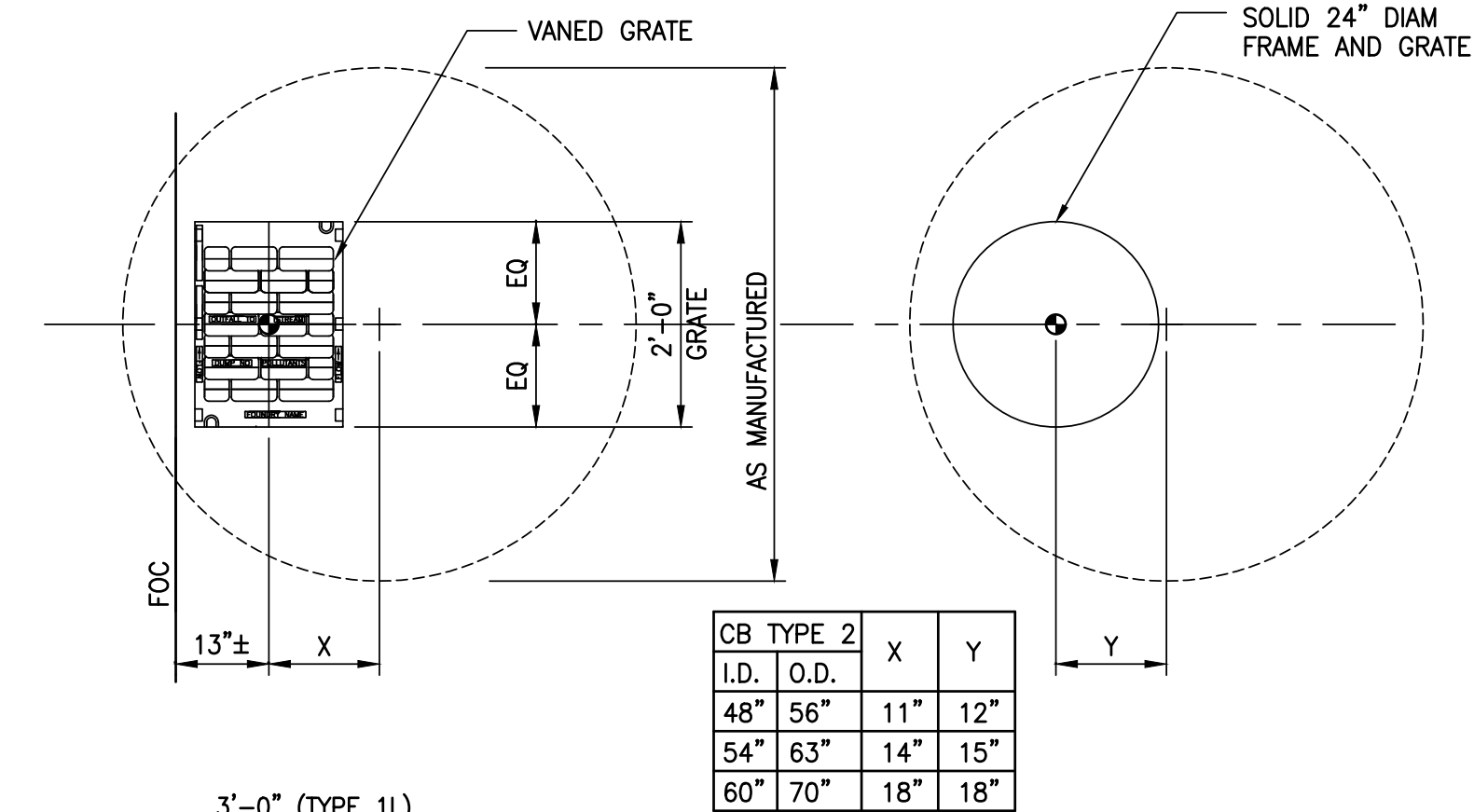
KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

HARPER ESTUARY BARRIER CORRECTION DRAINAGE PLAN AND PROFILE

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
DD02
47
OF
56

XREF LIST
Ltscale: 1
Resolved
TBLK
C5100432
C510R270
HARPER
T510X800
C510U630
C510R510
C510G950
Unresolved
C510U900
VicMap
Section Sub Detail
Parcel Overview Detail
Right-of-way Detail



CB TYPE	2	X	Y
I.D.	O.D.		
48"	56"	11"	12"
54"	63"	14"	15"
60"	70"	18"	18"

TYPE 2

KEY

- CENTER OF GRATE
- CENTER OF STRUCTURE

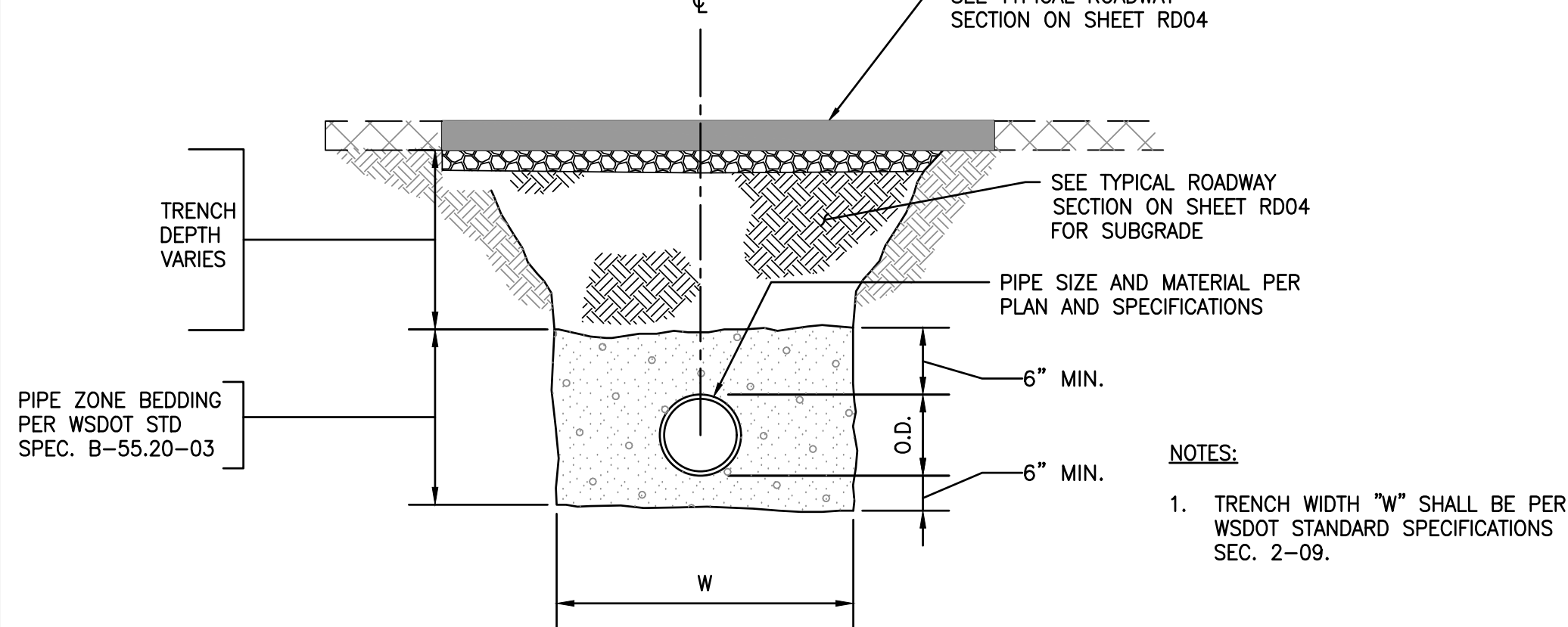
NOTES:

- CENTER OF GRATE = CENTER OF STRUCTURE FOR TYPE 1 AND TYPE 1L STRUCTURES ONLY.
- SPECIFIED NORTHING AND EASTING OR STATION AND OFFSET REFERENCE CENTER OF STRUCTURE FOR ALL DRAINAGE FACILITIES, UNLESS NOTED OTHERWISE.
- RIM ELEVATION AND STATION/OFFSET OR NORTHING/EASTING REFERENCES ARE TO CENTER OF STRUCTURE.

TYPE 1 & TYPE 1L

STRUCTURE PLACEMENT DETAIL

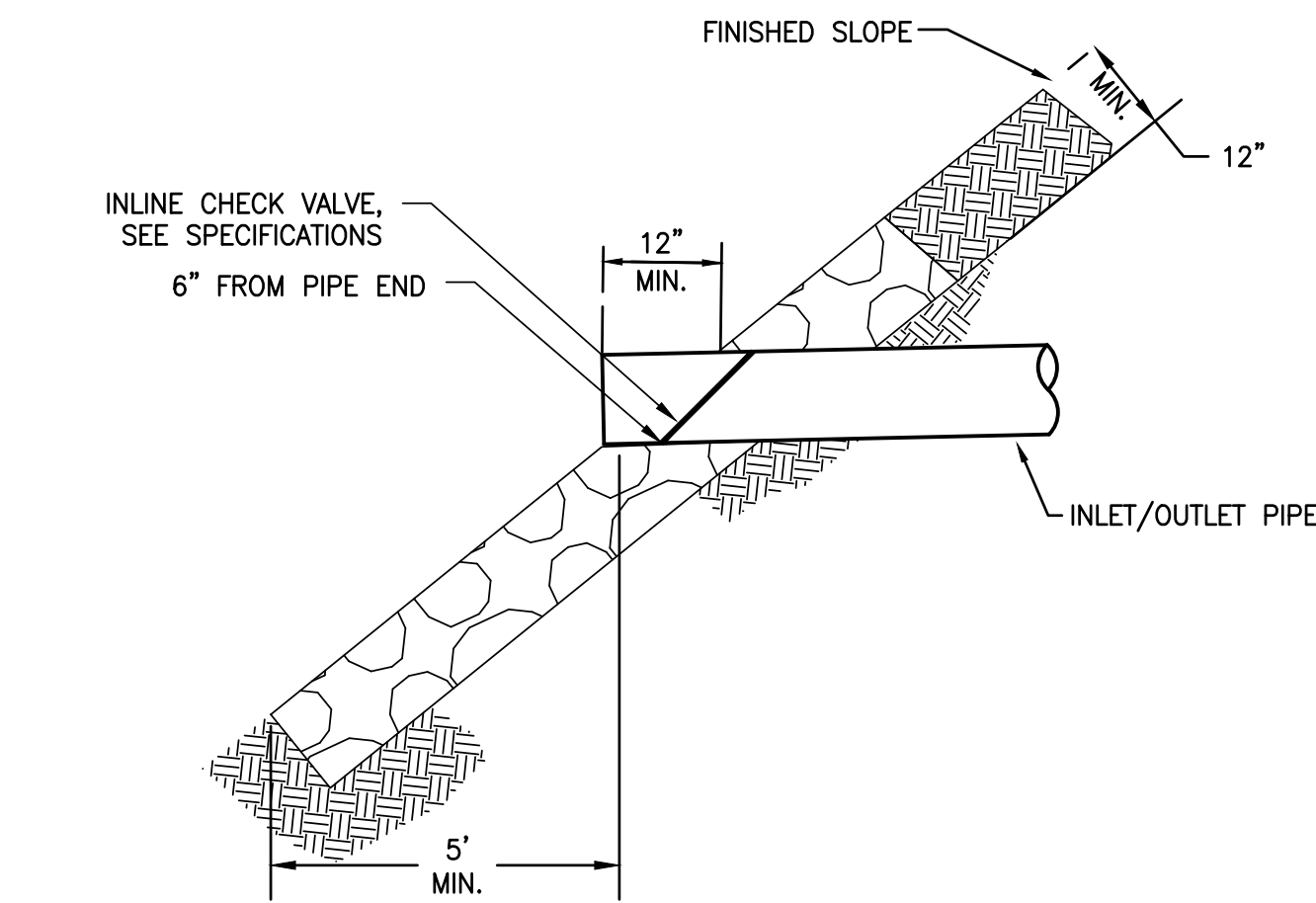
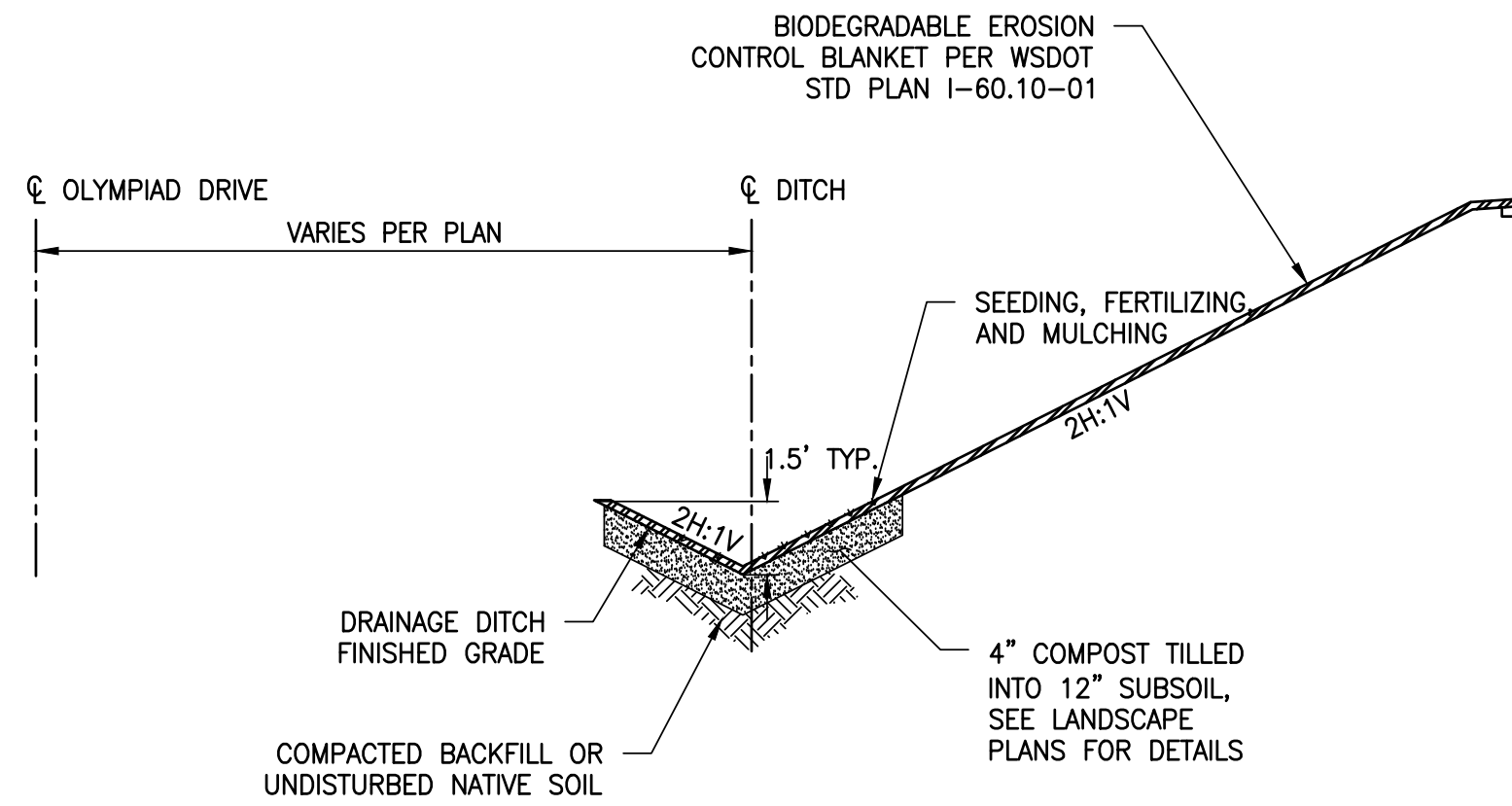
NOT TO SCALE



TYPICAL TRENCH

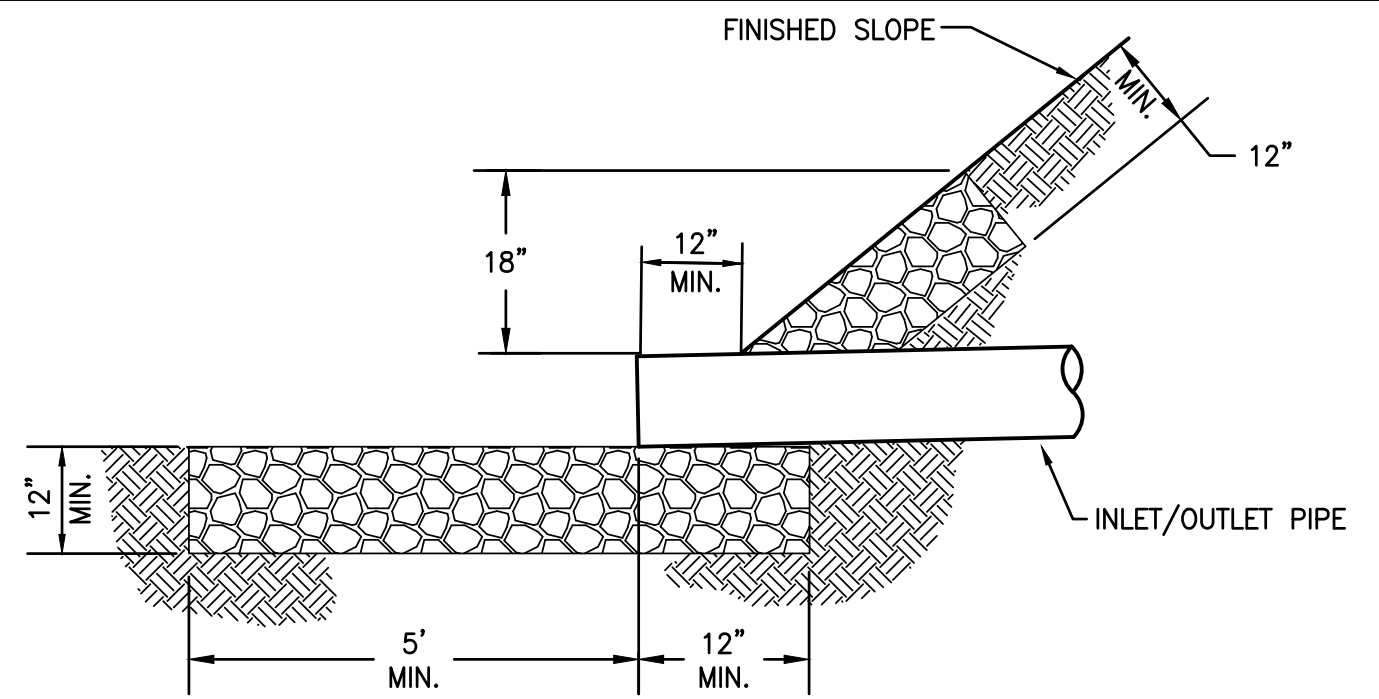
NOT TO SCALE

TYPICAL DRAINAGE DITCH SECTION

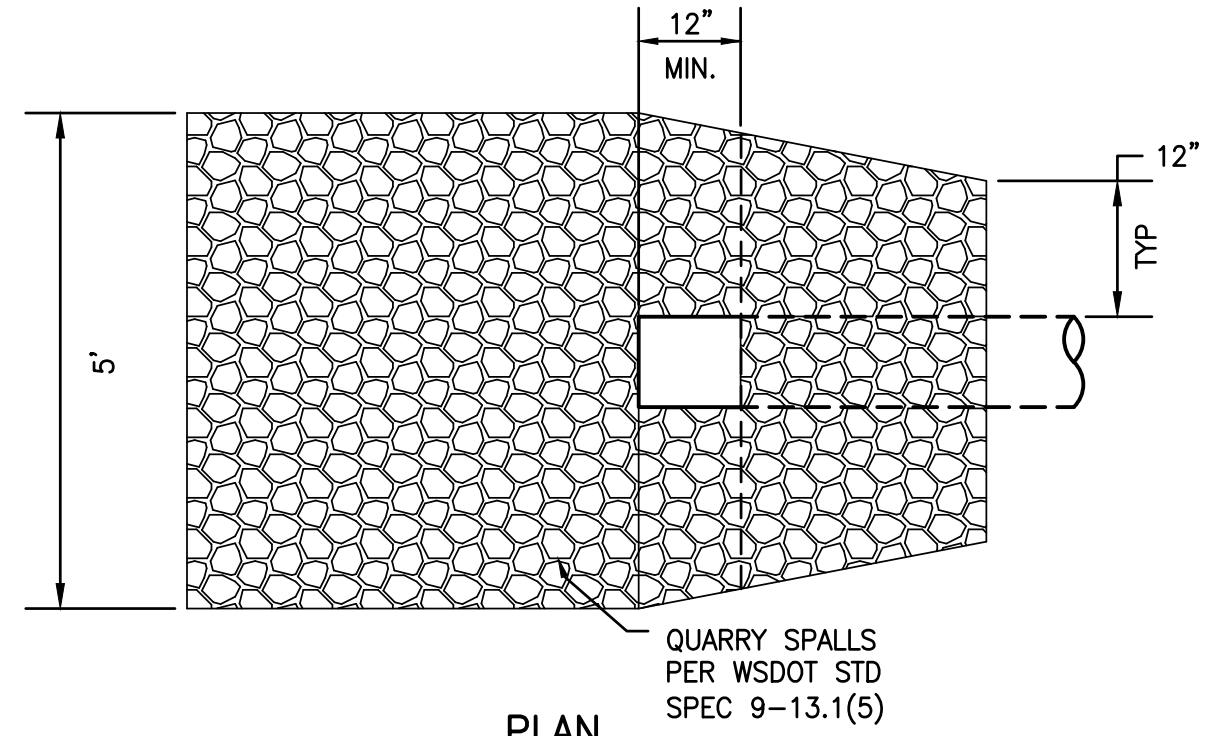


ESTUARY OUTLET PROTECTION WITH IN-LINE CHECK VALVE

NOT TO SCALE

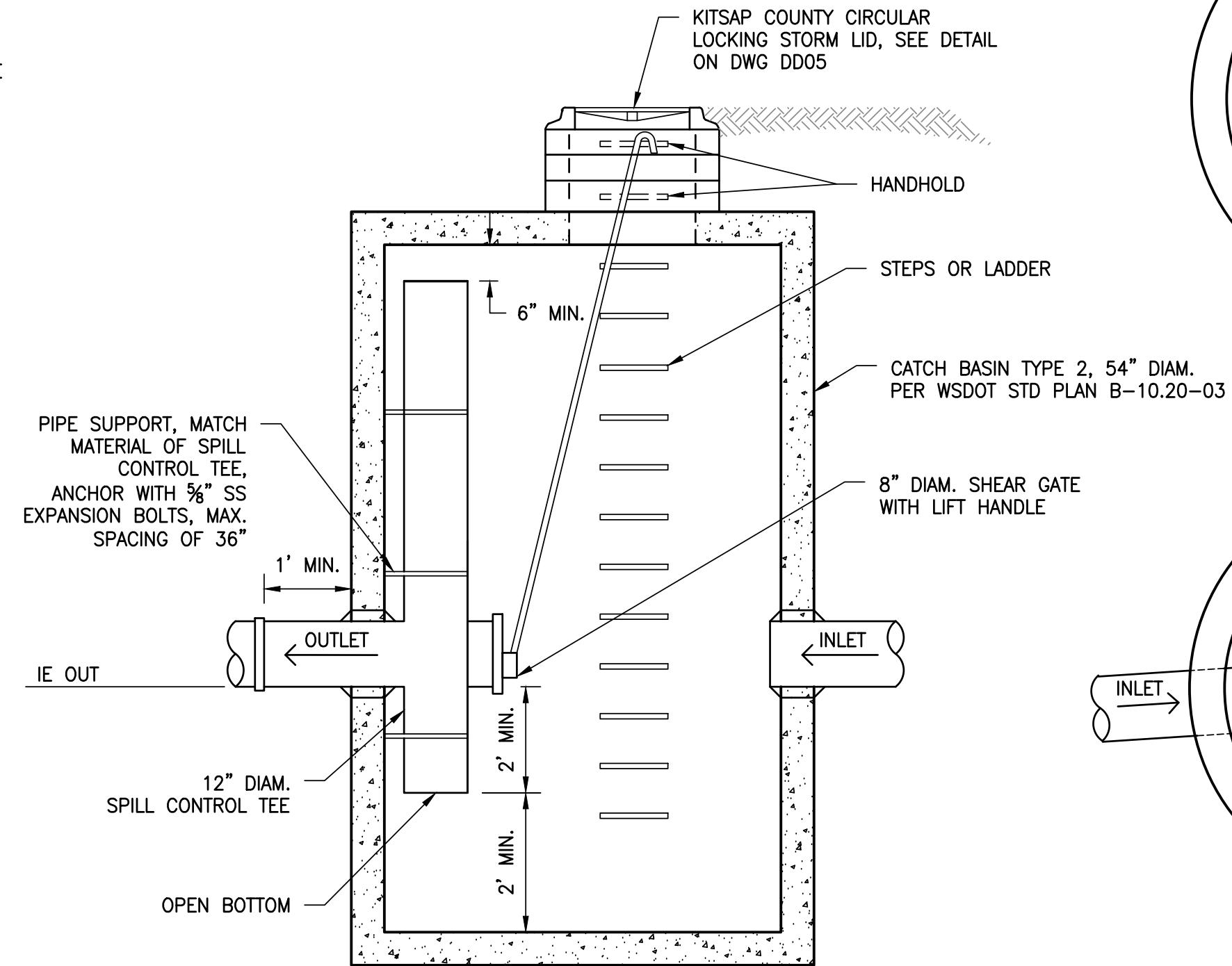


SECTION

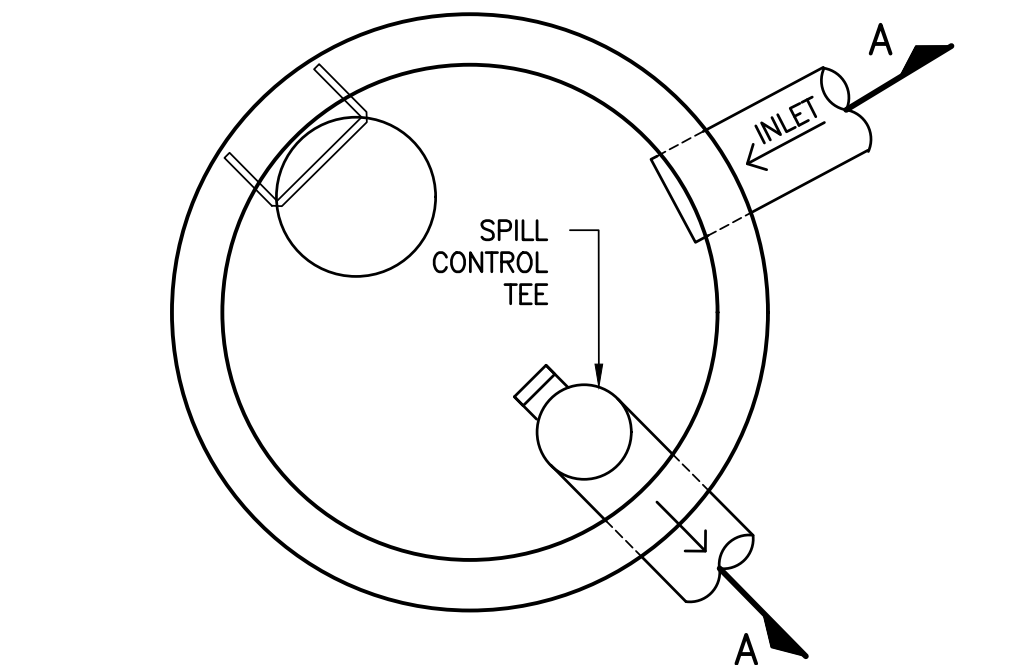


CULVERT INLET/OUTLET PROTECTION

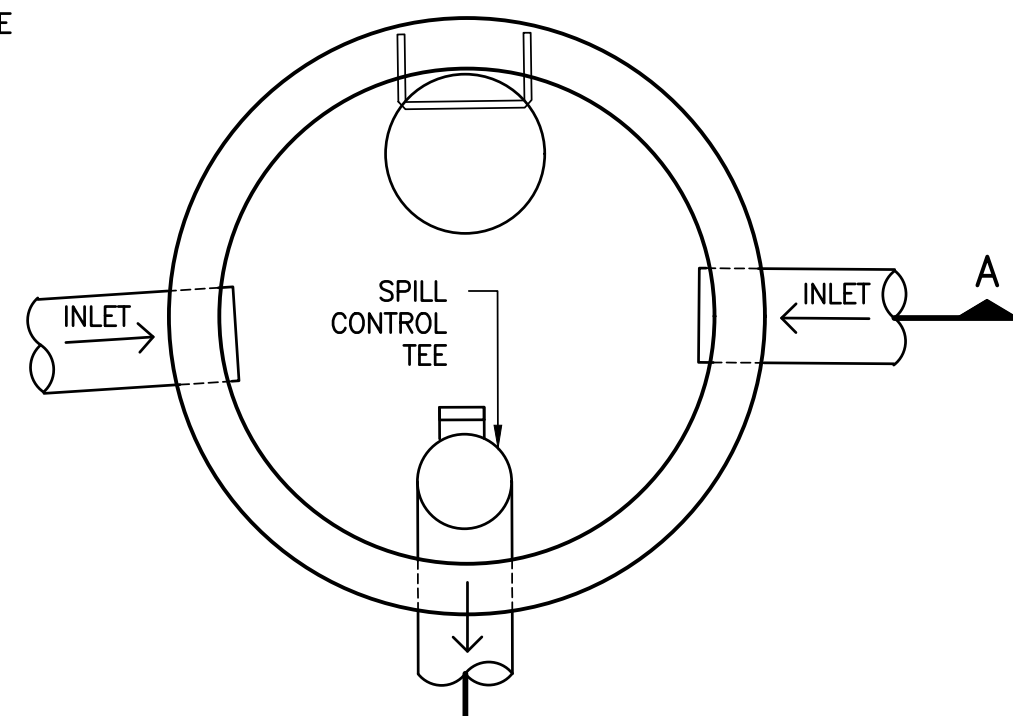
NOT TO SCALE



SECTION A-A



CB101 PLAN



CB110 PLAN

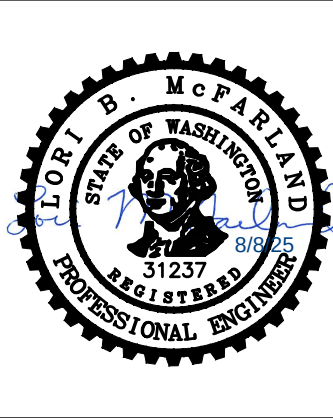
CATCH BASIN TYPE 2 WITH SPILL CONTROL

NOT TO SCALE

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25



KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-28
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

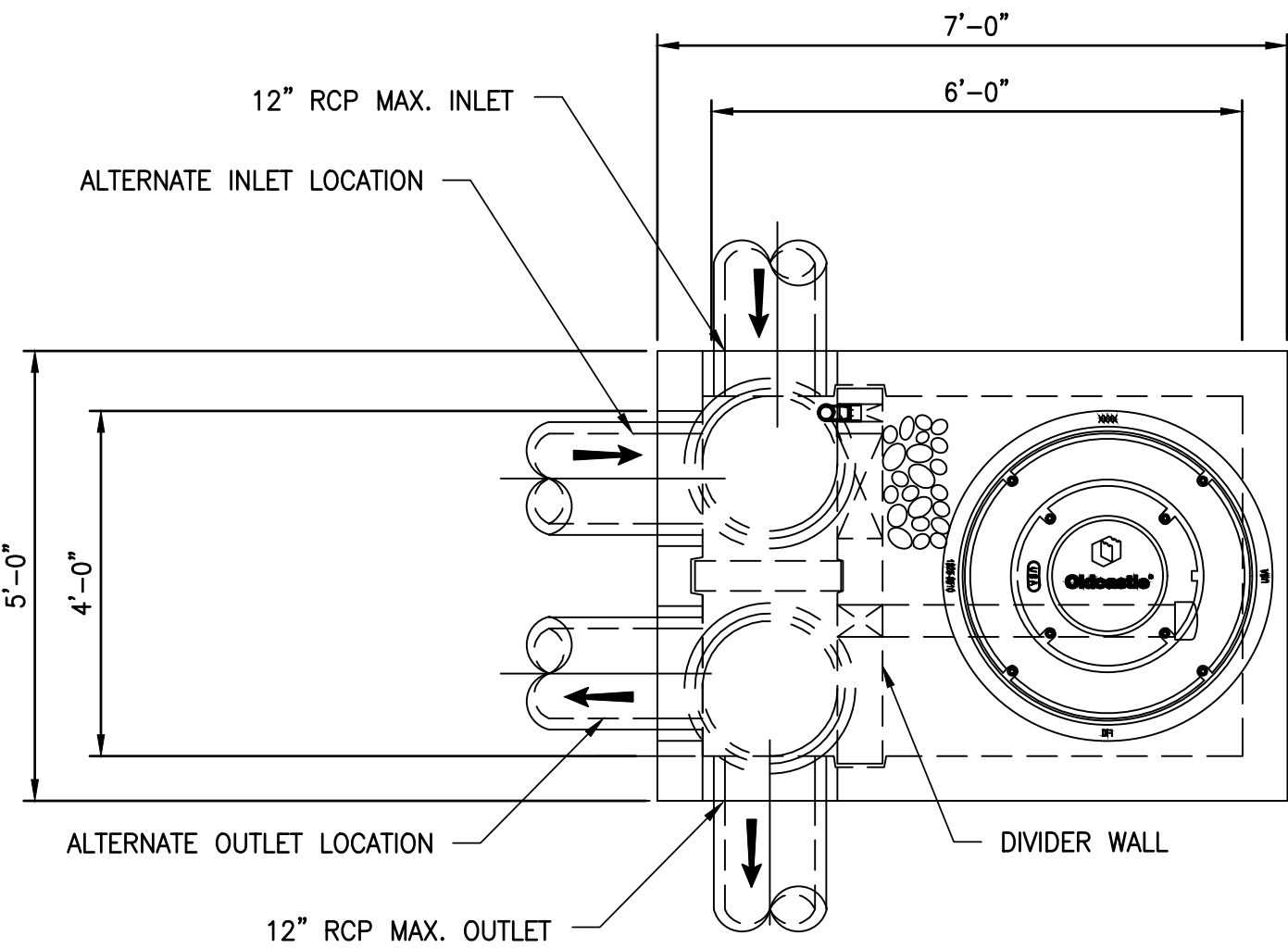
HARPER ESTUARY BARRIER
CORRECTION
DRAINAGE DETAILS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

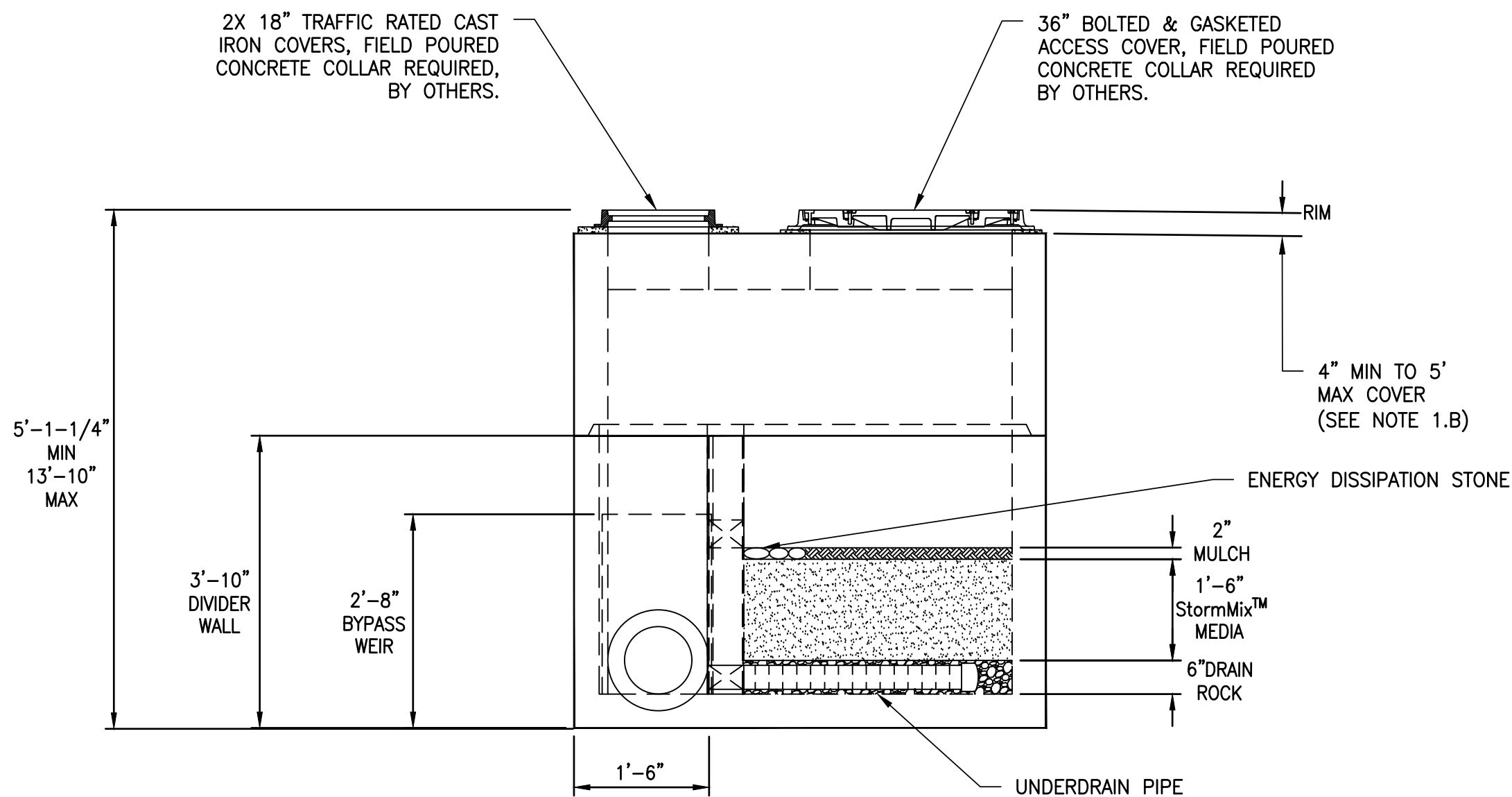
SHEET
DD03
48
OF
56

XREF LIST
Ltscale: 20
Resolved
TBLK
C510B190
C510R270
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C510RS10
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Plotted: Aug 08, 2025 - 4:05pm
O:\PROJECT\32500\32510\Draw\09_DD03-DD04.dwg
Layout Name: DD04
ahmed.kayanda

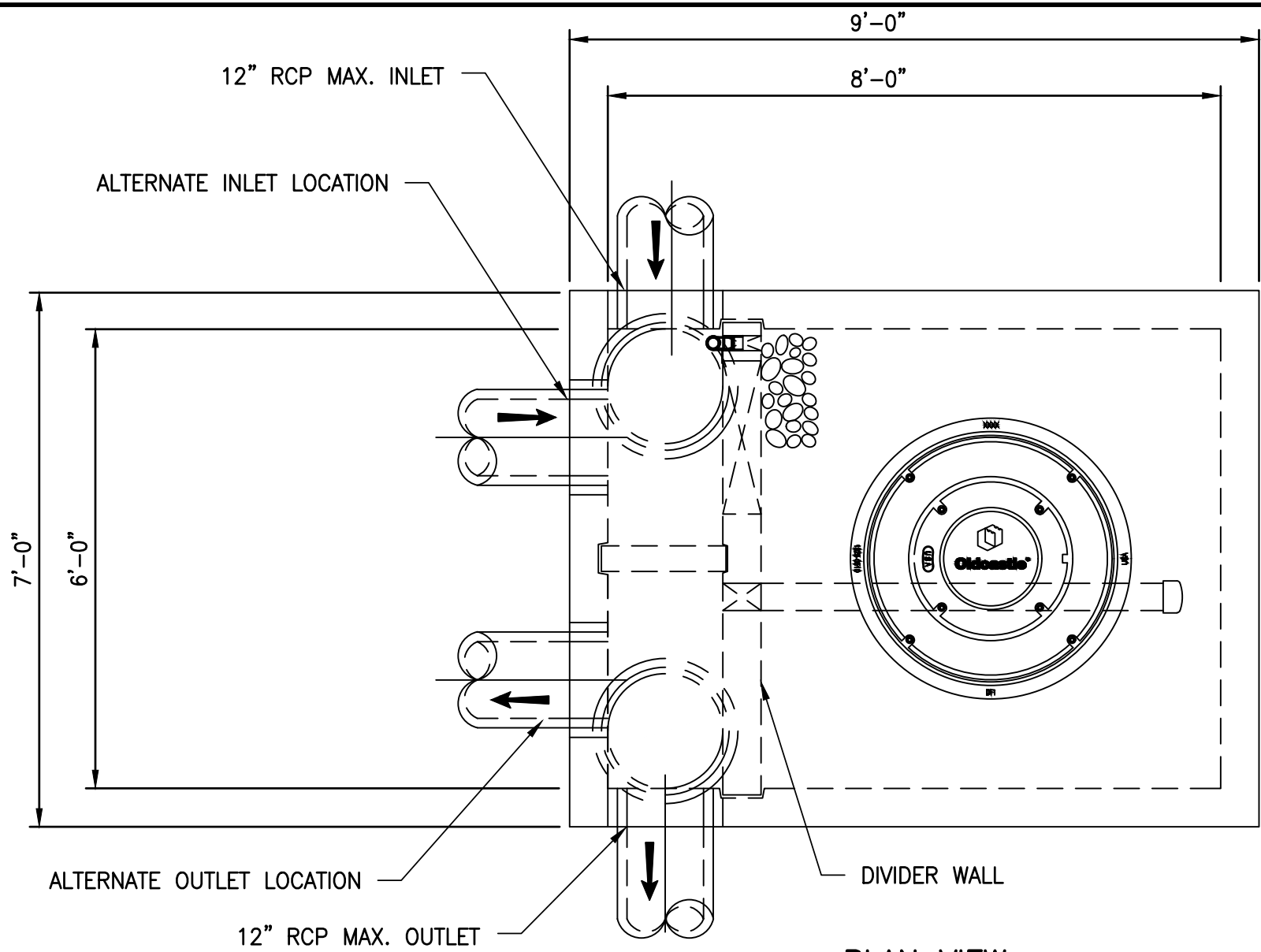


PLAN VIEW

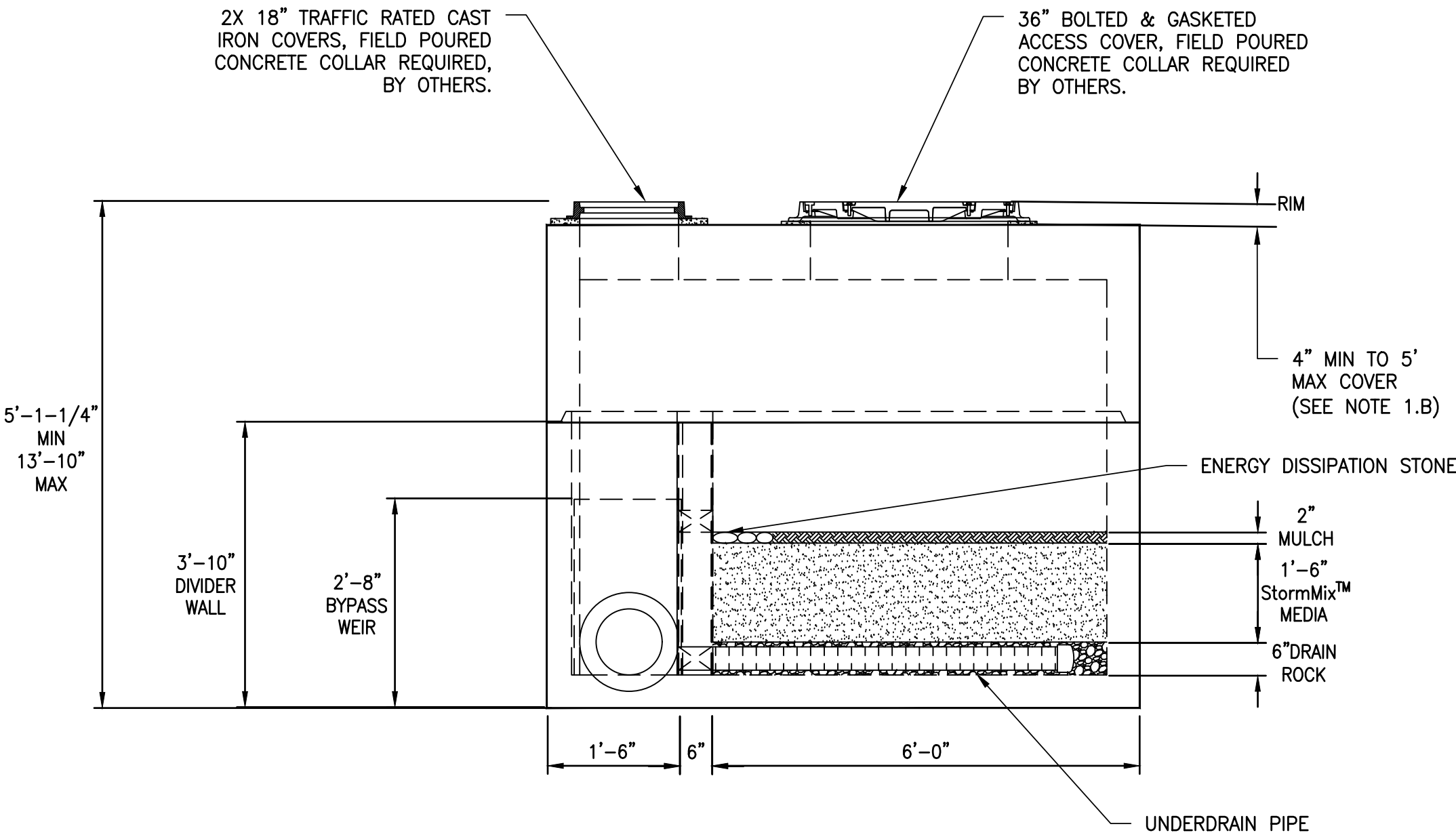


ELEVATION VIEW

WATER QUALITY TREATMENT VAULT 1 (OLDCASTLE BIPOD BPU-46IB, OR APPROVED EQUAL)



PLAN VIEW



ELEVATION VIEW

WATER QUALITY TREATMENT VAULT 2 (OLDCASTLE BIPOD BPU-68IB, OR APPROVED EQUAL)

NOTES:

- DESIGN LOADINGS:
A. AASHTO HS-20-44 (WITH IMPACT)
B. DESIGN SOIL COVER: 5'-0" MAXIMUM
C. ASSUMED WATER TABLE: BELOW BASE OF PRECAST (ENGINEER-OF-RECORD TO CONFIRM SITE WATER TABLE ELEVATION)
D. LATERAL EARTH PRESSURE: 45 PCF (DRAINED)
E. LATERAL LIVE LOAD SURCHARGE: 80 PSF (APPLIED TO 8'-0" BELOW GRADE)
F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALLS, PIERS, OR FOUNDATIONS.
- CONCRETE 28-DAY MINIMUM COMPRESSIVE STRENGTH: 5,000 PSI MINIMUM.
- REINFORCING: REBAR, ASTM A615/A706, GRADE 60
- CEMENT: ASTM C150
- REQUIRED ALLOWABLE SOIL BEARING CAPACITY: 2,500 PSF
- REFERENCE STANDARD:
A.ASTM C890
B.ASTM C913
C.ACI 318-14
- THIS STRUCTURE IS DESIGNED TO THE PARAMETERS NOTED HEREIN. ENGINEER-OF-RECORD SHALL VERIFY THAT NOTED PARAMETERS MEET OR EXCEED PROJECT REQUIREMENTS. IF DESIGN PARAMETERS ARE INCORRECT, REVIEWING ENGINEER/AUTHORITY SHALL NOTIFY OLDCASTLE INFRASTRUCTURE UPON REVIEW.
- INLET AND OUTLET HOLES WILL BE FACTORY CORED/CAST PER PLANS AND CUSTOMER REQUIREMENTS. INLET AND OUTLET LOCATIONS CAN BE MIRRORED.
- CONTRACTOR RESPONSIBLE TO VERIFY ALL SIZES, LOCATIONS, AND ELEVATIONS OF OPENINGS.
- CONTRACTOR RESPONSIBLE TO ENSURE ADEQUATE BEARING SURFACE IS PROVIDED (I.E. COMPACTED AND LEVEL PER PROJECT SPECIFICATIONS).
- SECTION HEIGHTS, SLAB/WALL THICKNESSES, AND KEYWAYS ARE SUBJECT TO CHANGE AS REQUIRED FOR SITE REQUIREMENTS AND/OR DUE TO PRODUCT AVAILABILITY AND PRODUCTION FACILITY CONSTRAINTS.
- MAXIMUM PICK WEIGHTS:
A.TOP: XX,XXX LBS
B.BASE: XX,XXX LBS
(* COMBINED WEIGHT OF BASE INCLUDES BYPASS WEIR, DIVIDER WALL, ROCK & MEDIA)
- INTERNALS SHALL CONSIST OF UNDERDRAIN PIPE, ROCK, STORMMIX MEDIA, MULCH, DIVIDER WALL, BYPASS WEIR AND OPTIONAL DRAIN DOWN.



Oldcastle Infrastructure™ A CMI COMPANY		
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BioPod™ Biofilter System		(STANDARD)
Underground Vault with Internal Bypass		
CUSTOMER —		
PROJECT NAME —		
SHEET NAME Specifier Drawing	REVISION —	SHEET 1 OF 1

WATER QUALITY TREATMENT VAULT DETAILS

NOT TO SCALE

NOTES:

- CONTRACTOR SHALL PROVIDE TYPE 3E WORKING DRAWINGS FOR ENGINEER APPROVAL FOR WATER QUALITY TREATMENT VAULTS.
- WATER QUALITY TREATMENT VAULTS SHALL CONFORM TO PROJECT SPECIAL PROVISIONS FOR APPROVED EQUAL.

REVISIONS				SURVEYED: COUNTY
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				DRAWN: AK
				CHECKED: GSL
				CRP No. 2626
				DATE: 08/08/25



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Redmond, WA 98052
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HARPER ESTUARY BARRIER CORRECTION

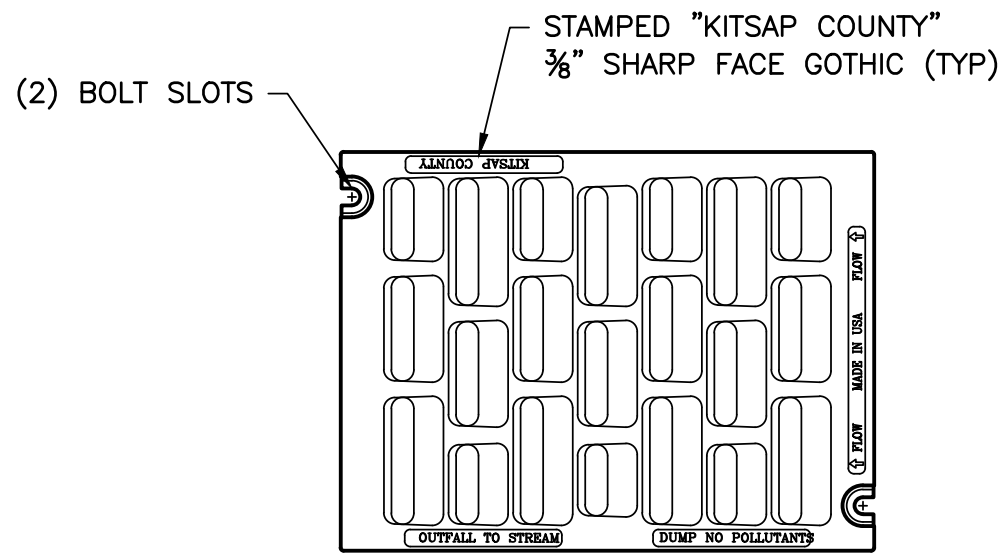
DRAINAGE DETAILS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
DD04

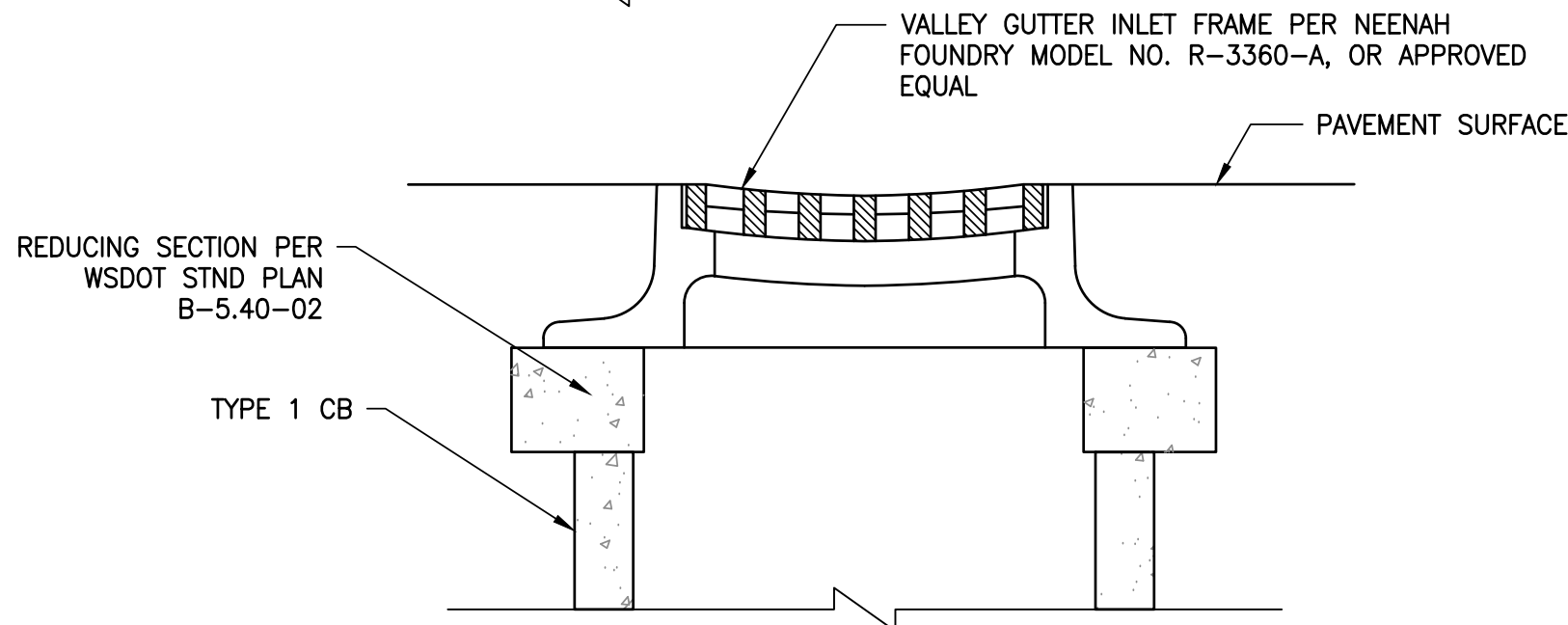
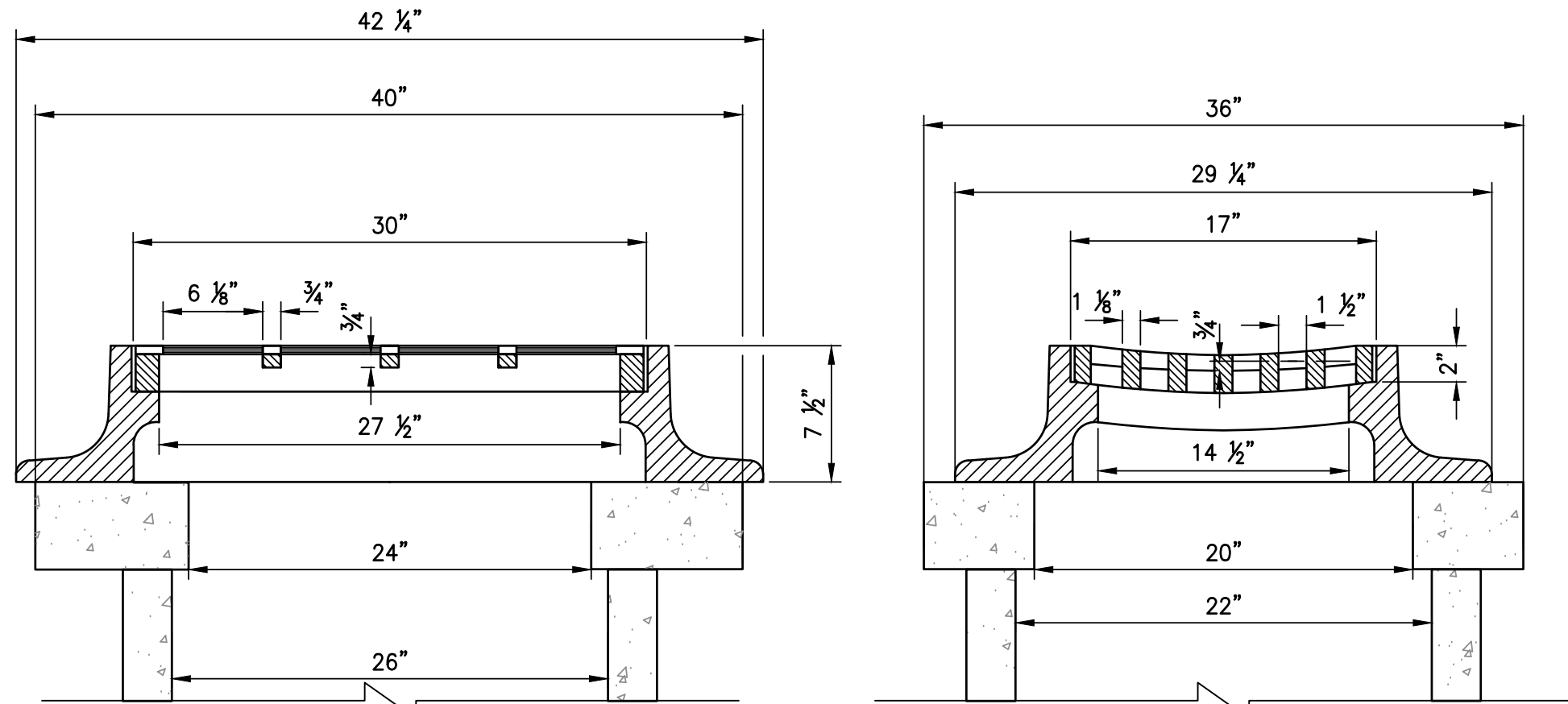
49
OF
56

XREF LIST
Ltscale: 1
Resolved
TBLK
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HARPER
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C510R510
C510G950
Unresolved
C510U900
VicMap
Section Sub Detail
Parcel Overview Detail
Right-of-way Detail



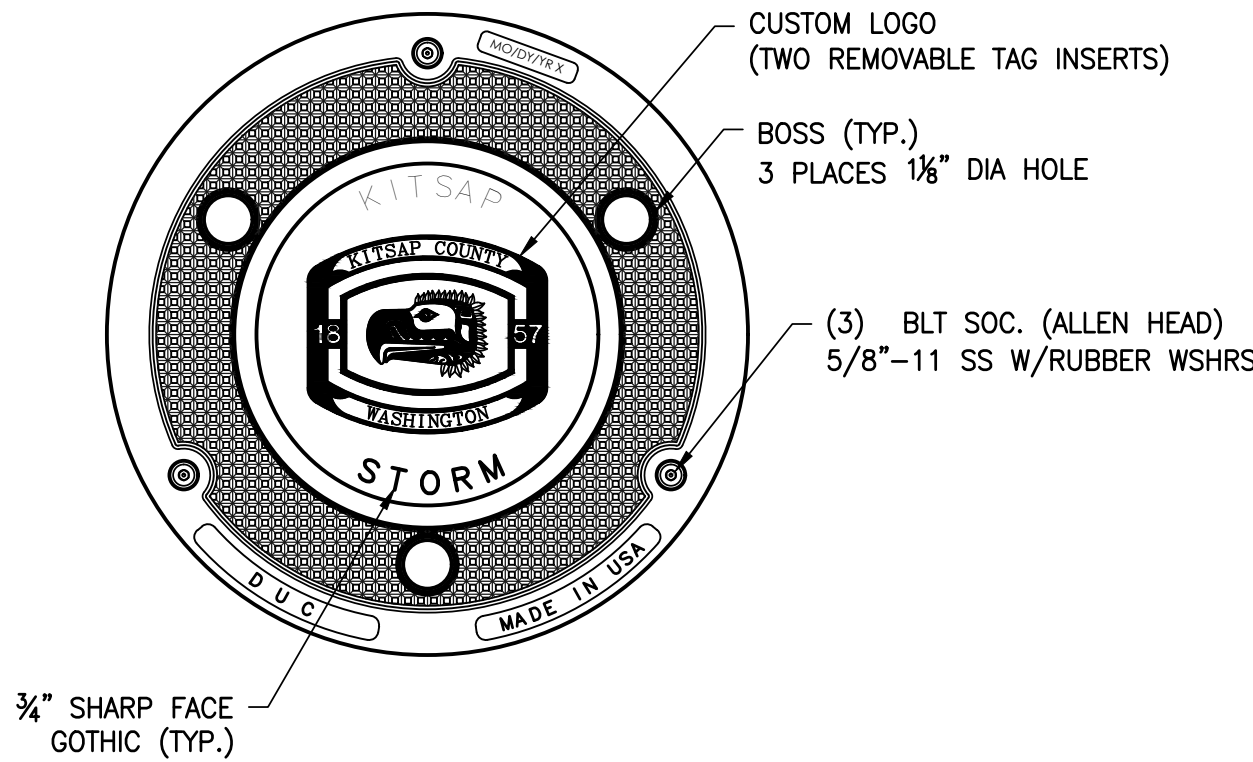
KITSAP COUNTY RECTANGULAR LOCKING VANED GRATE

NOT TO SCALE



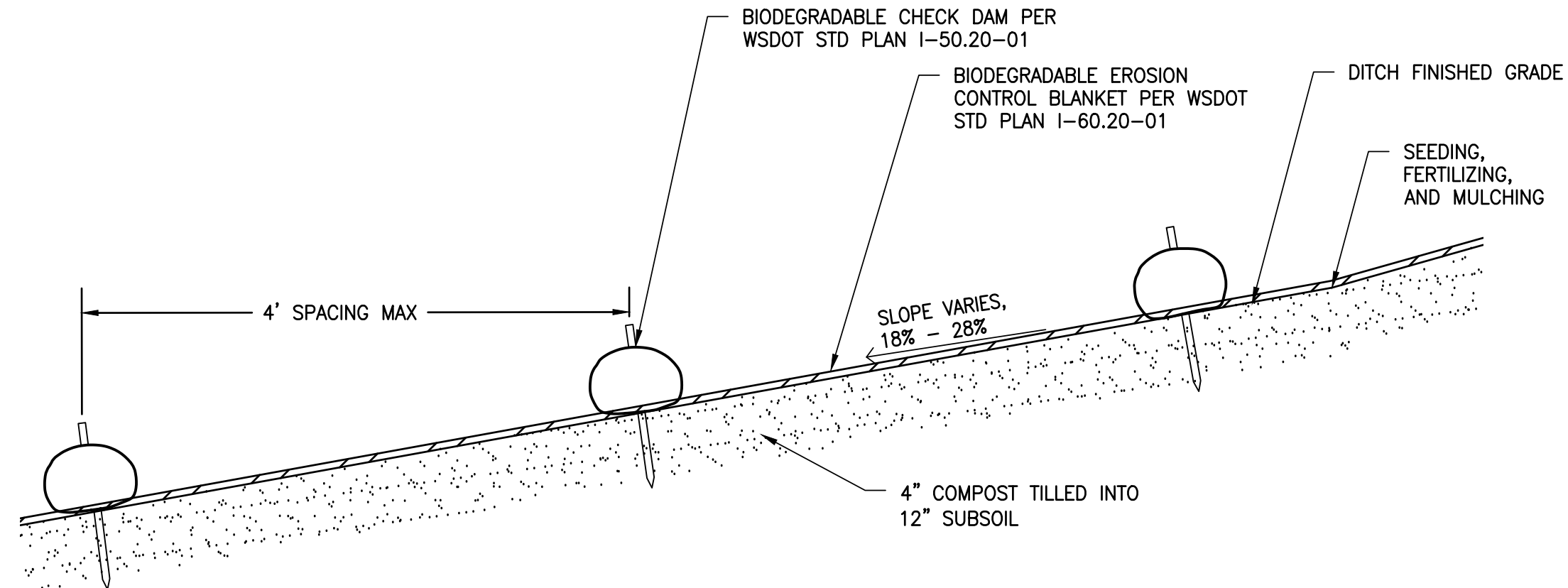
VALLEY GUTTER INLET FRAME AND GRATE

NTS

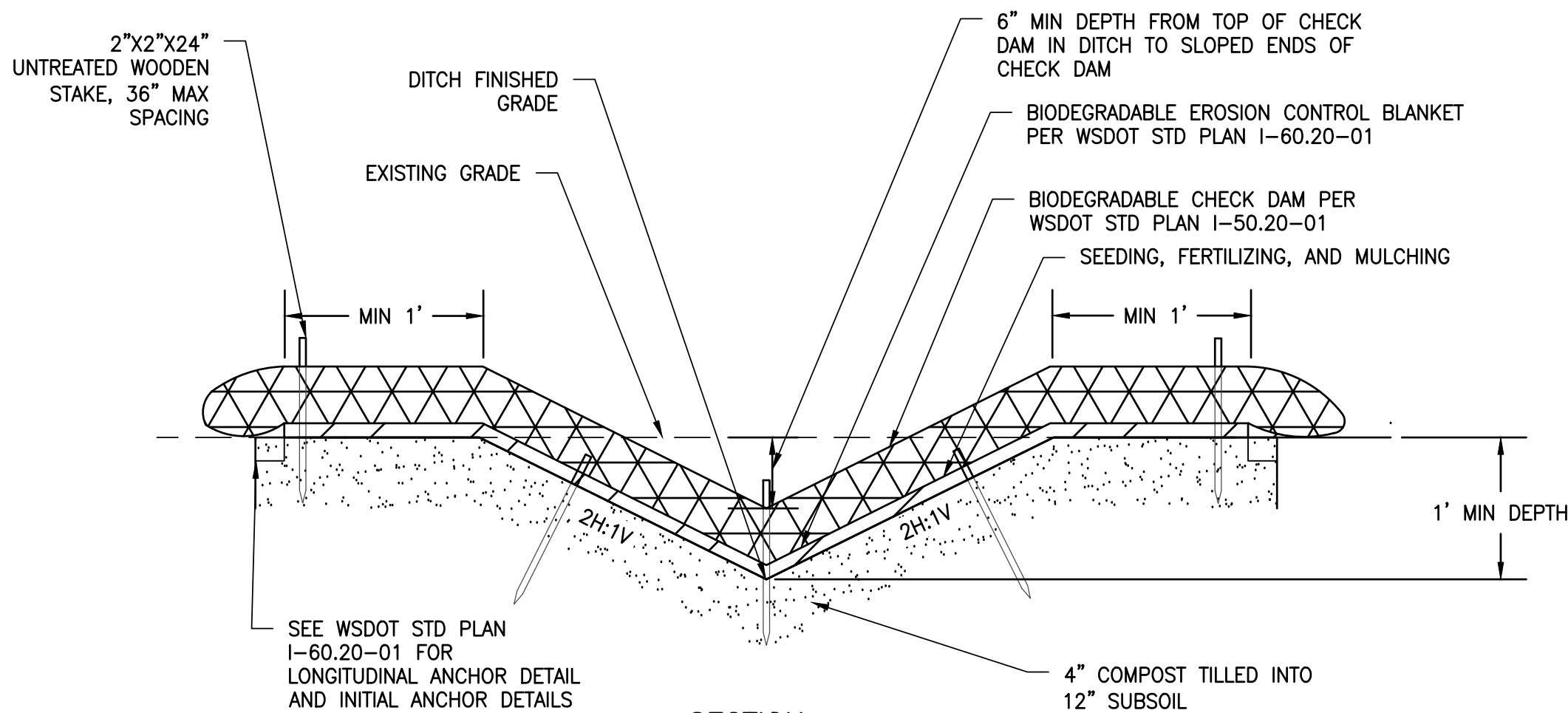


KITSAP COUNTY CIRCULAR LOCKING STORM LID

NOT TO SCALE



PROFILE



SECTION

NOTE: BIODEGRADABLE CHECK DAM SHALL BE COMPOST SOCK PER WSDOT SECTION 9-14.6(6)

DITCH WITH CHECK DAMS

NOT TO SCALE

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED: DAS
DRAWN: AK
CHECKED: GSL
CRP No. 2626
DATE: 08/08/25



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DEPT. OF PUBLIC WORKS
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HARPER ESTUARY BARRIER CORRECTION DRAINAGE DETAILS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

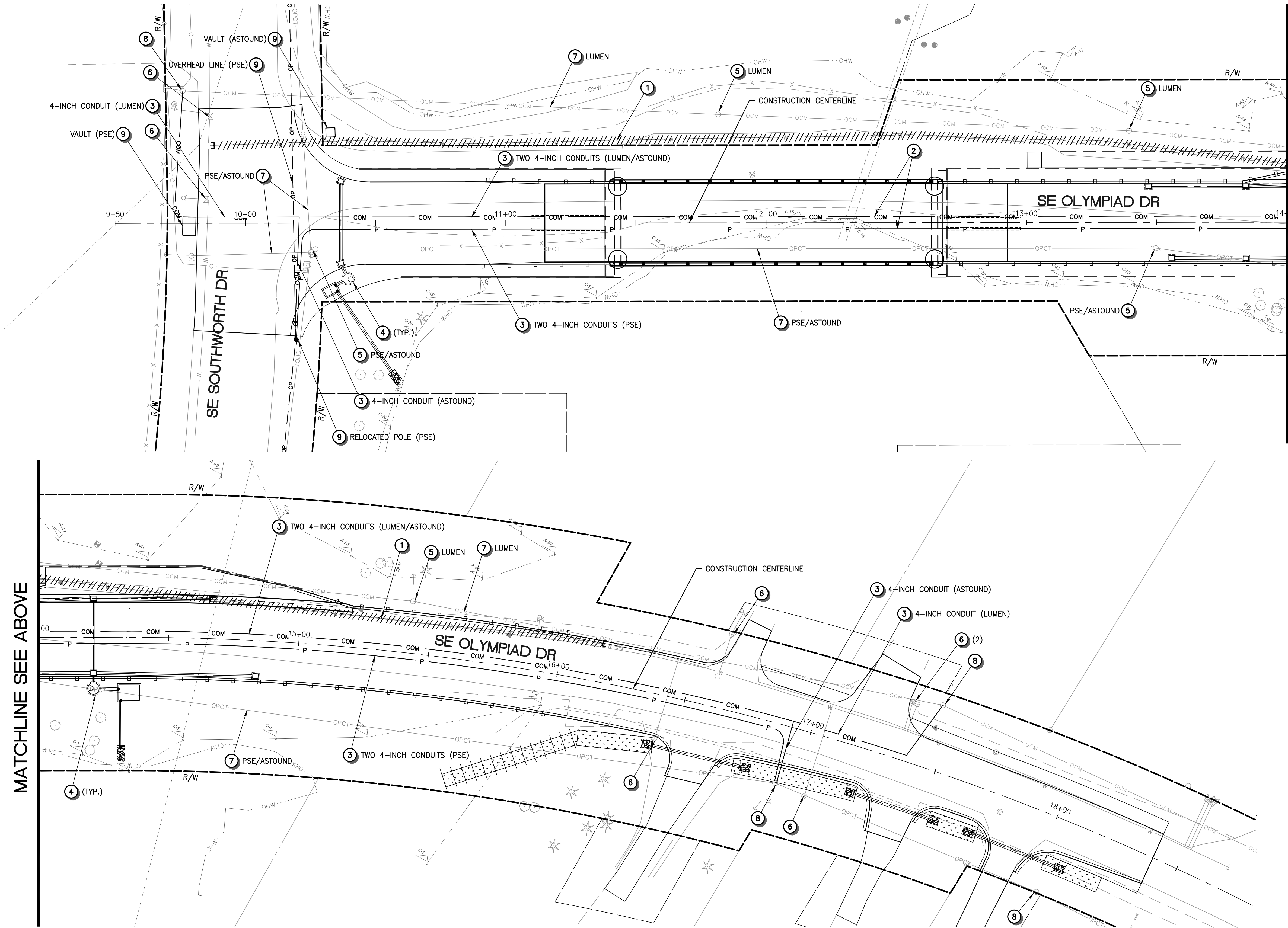
SHEET
DD05
50
OF
56

Plotted: Aug 08, 2025 - 4:06pm
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ahmed.kayanda

XREF LIST
Ltscale: 20
Resolved
TBLK
C510R270
T510X800
HARPER
C510R510
C510N030
T510X370
C510U920
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C510U620

Plotted: Aug 08, 2025 - 4:07pm
O:\PROJECT\32500\32510\Draw\10_UT01.dwg
Layout Name: UT01
ahmed.kayanda

MATCHLINE SEE ABOVE



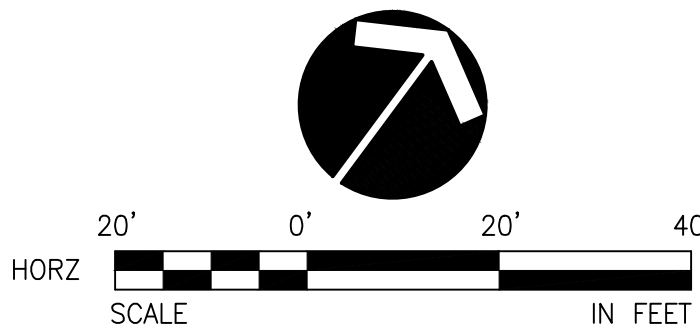
MATCHLINE SEE BELOW

UTILITY CONSTRUCTION NOTES

- 1 REMOVE EXISTING 6" AC WATER MAIN.
- 2 SEE BRIDGE PLANS FOR UTILITY HANGERS AND ABUTMENT SLEEVES.
- 3 NEW UNDERGROUND CONDUITS TO BE INSTALLED BY OTHERS.
- 4 NEW STORM DRAINAGE SYSTEM, SEE DWG DD01-DD02 FOR DETAILS.
- 5 UTILITY POLE TO BE REMOVED BY OTHERS.
- 6 ADJUST EXISTING VALVE/METER BOX TO FINISHED GRADE.
- 7 OVERHEAD FACILITIES TO BE REMOVED BY OTHERS.
- 8 EXISTING UTILITY POLE TO REMAIN, PROTECT DURING CONSTRUCTION.
- 9 NEW UTILITY FACILITY TO BE INSTALLED BY OTHERS.

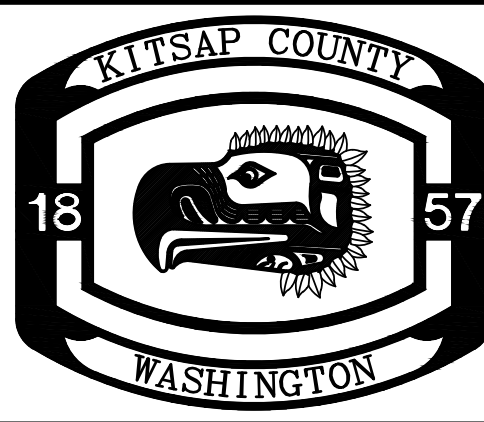
UTILITY GENERAL NOTES

1. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE EXISTING UTILITIES.
2. RELOCATED UTILITIES SHOWN HEREIN ARE ANTICIPATED LOCATION ONLY. UTILITY AGENCIES TO DETERMINE FINAL LOCATION, GRADES, AND TIMING OF CONSTRUCTION WORK. CONTRACTOR SHALL COORDINATE WITH UTILITY AGENCIES AND FIELD VERIFY EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THESE PLANS AND THE RELOCATED UTILITY.
3. CONTRACTOR TO VERIFY WITH MANCHESTER WATER DISTRICT (MWD) THE LIMIT OF CAPPED AC WATER MAIN PRIOR TO REMOVAL.
4. CONTRACTOR SHALL INSTALL BRIDGE HANGARS AND SLEEVES/KNOCKOUTS AT BRIDGE ABUTMENTS. UTILITY AGENCIES WILL INSTALL THEIR OWN CONDUITS AND WIRING, INCLUDING TRENCHING, CONDUIT INSTALL AND WIRING IN ROADBED. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND UTILITY AGENCIES ON THE WORK TIMING AND COOPERATE WITH THE UTILITY RELOCATION WORK. COORDINATE WITH UTILITY AGENCIES TO PROVIDE MIN. 12-INCH VERTICAL CLEARANCE AT STORM DRAIN CROSSING LOCATIONS.



REVISIONS			
No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
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DATE: 08/08/25



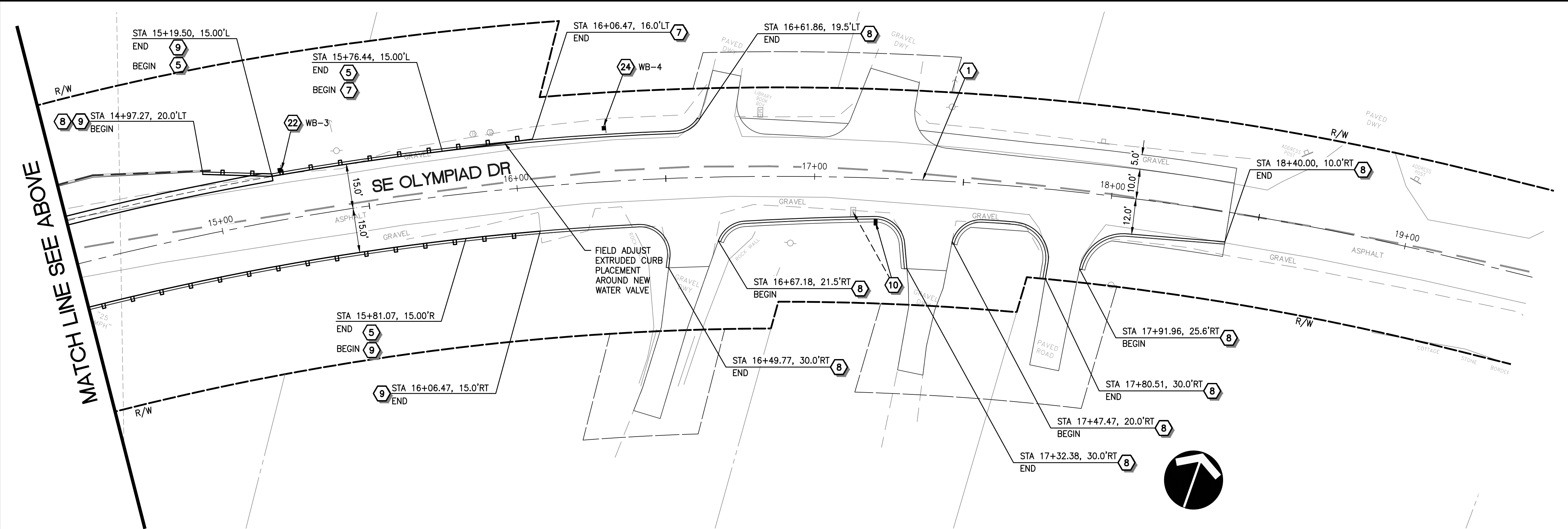
KITSAP COUNTY
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614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
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HARPER ESTUARY BARRIER
CORRECTION
UTILITY RELOCATION PLAN

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
UT01
51
OF
56

Plotted: Aug 08, 2025 - 4:07pm ahmed.kayanda O:\PROJECT\32500\32510\Dwg\11_CH01.dwg Layout Name: CH01



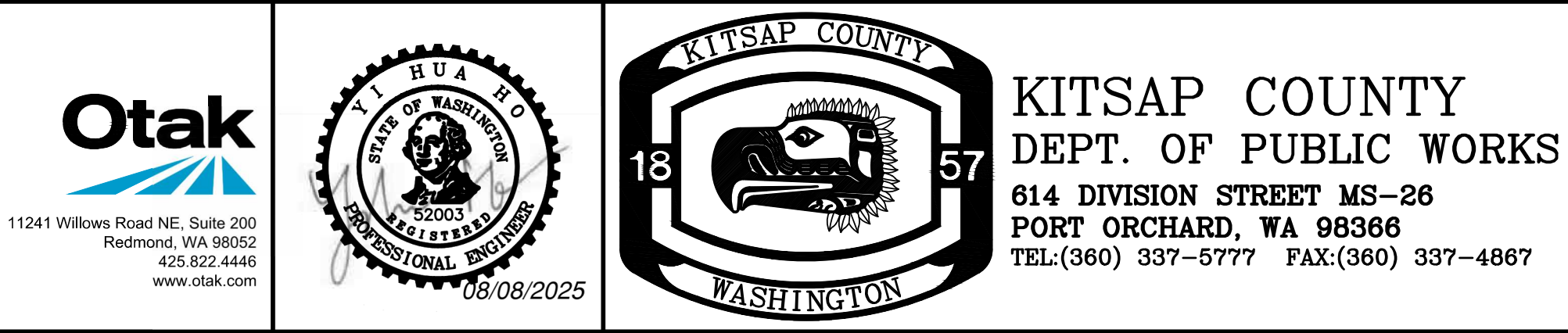
- ① CONSTRUCTION CENTERLINE, SEE DWG #### FOR DETAILS.
- ② INSTALL PLASTIC STOP LINE PER WSDOT STD PLANS M-24.60-04 AND M-15.10-02. STOP LINE SHALL BE 18-INCH WIDE.
- ③ INSTALL PAINTED DOUBLE YELLOW CENTER LINE PER WSDOT STD PLAN M-20.10-04.
- ④ INSTALL PLASTIC WHITE WIDE LANE PER WSDOT STD PLAN M-20.10-04.
- ⑤ INSTALL BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10-09, LIMITS PER PLAN.
- ⑥ INSTALL BEAM GUARDRAIL TRANSITION SECTION TYPE 24 PER BRIDGE RAILING DETAILS DWG B17 AND WSDOT STD PLAN C-23.30-01.
- ⑦ INSTALL BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD C-22.45-06.
- ⑧ INSTALL EXTRUDED CURB TYPE 5 PER WSDOT STD PLAN F-10.42-00, SEE DWG RD04 FOR DETAIL.
- ⑨ INSTALL BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70-01.
- ⑩ RELOCATE EXIST. MAILBOX WITH NEW MAILBOX SUPPORT TYPE 2 PER WSDOT STD PLAN H-70.20-02.

- 21 REMOVE EXISTING SIGN AND RETURN TO THE COUNTY.
- 22 INSTALL SPEED LIMIT 25 SIGN, R2-1 (24"x30").
- 23 INSTALL NO PARKING LOADING ZONE, R7-6 (12"x18").
- 24 INSTALL NO PARKING ANY TIME SIGN, R7-102 (12"x18").
- 25 INSTALL STOP SIGN, R1-1 (30"x30").
- 26 INSTALL "SE OLYMPIAD DR" SIGN, D3-103 (VARIES X 9").
- 27 INSTALL "SE SOUTH WORTH DR" SIGN, D3-102 (VARIES X 9").

1. SIGNS SHALL BE INSTALLED PER KITSAP COUNTY STD PLAN TYPE ST-2 SIGN SUPPORT.
2. ALL SIGNS SHALL BE INSTALLED TO FACE ONCOMING TRAFFIC (AS SHOWN) UNLESS OTHERWISE NOTED.
3. SEE WASHINGTON STATE "SIGN FABRICATION MANUAL" FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS.
4. SEE SIGN SCHEDULE ON CH02 FOR SIGN LOCATION DETAILS.

A horizontal scale bar with alternating black and white segments. The segments are labeled 20', 0', 20', and 40' from left to right. Below the bar, the text 'SCALE' is centered under the first 20' segment, and 'IN FEET' is centered under the final 40' segment. The word 'HORZ' is positioned to the left of the scale bar.

SURVEYED:	COUNTY
DESIGNED:	EH
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CHECKED:	TP
CRP No.	2626
DATE:	08/08/25



KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
CH01
52
OF
56

XREF LIST

Ltscale: 1

Resolved

TBLK
C510R270
C510N034
C510R510
C510R380
T510X800
HARPER
WDFW_PROPOSED

SIGN NO.	STATION	OFFSET	SIGN TYPE	SIGN SIZE		REMARKS
				W (In.)	H (In.)	
EB-1	11+12	18' RT	R2-1	24	30	SPEED LIMIT 25
WB-1A	10+26	24' LT	R1-1	30	30	STOP
WB-1B	10+26	24' LT	D3-102	VAR.	9	SE SOUTHWORTH DR
WB-1C	10+26	24' LT	D3-102	VAR.	9	SE OLYMPIAD DR (FACING NORTH)
WB-1D	10+26	24' LT	D3-102	VAR.	9	SE OLYMPIAD DR (FACING SOUTH)
WB-2	14+33	26' LT	R7-6	12	18	NO PARKING LOADING ZONE (DOUBLE HEADED ARROW)
WB-3	15+23	17' LT	R2-1	24	30	SPEED LIMIT 25
WB-4	16+30	18' LT	R7-102	12	18	NO PARKING ANY TIME (DOUBLE HEADED ARROW)

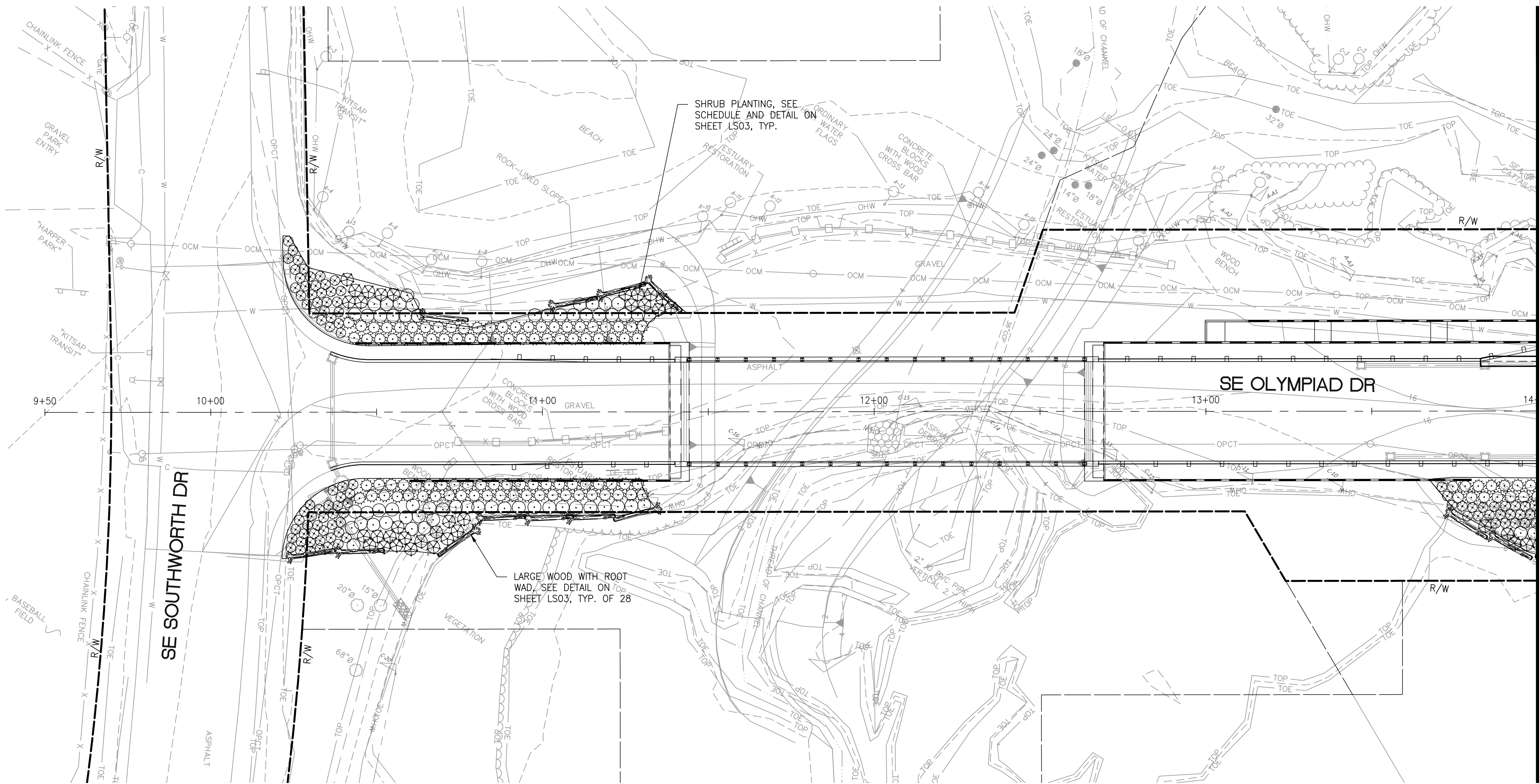
SIGNING NOTES:
1. SIGN CLEARANCE FROM BOTTOM OF SIGN - 7' ABOVE SHOULDER AND 6' MIN. FROM
EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.

SIGN SCHEDULE

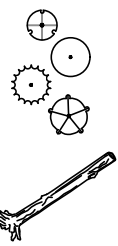
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eva.ho

REVISIONS				SURVEYED: COUNTY	Otak 11241 Willows Road NE, Suite 200 Redmond, WA 98052 425.822.4446 www.otak.com	Y I H U A H O STATE OF WASHINGTON 52003 REGISTERED PROFESSIONAL ENGINEER 08/08/2025	KITSAP COUNTY 1857 WASHINGTON KITSAP COUNTY DEPT. OF PUBLIC WORKS 614 DIVISION STREET MS-26 PORT ORCHARD, WA 98366 TEL:(360) 337-5777 FAX:(360) 337-4867	HARPER ESTUARY BARRIER CORRECTION SIGN SCHEDULE KITSAP COUNTY, WASHINGTON SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.	SHEET CH02 53 OF 56
No.	BY	DATE	DESCRIPTION	DESIGNED: EH					
				DRAWN: AK					
				CHECKED: TP					
				CRP No. 2626					
				DATE: 08/08/25					

XREF LIST
Ltscale: 20
Resolved
TTBLK
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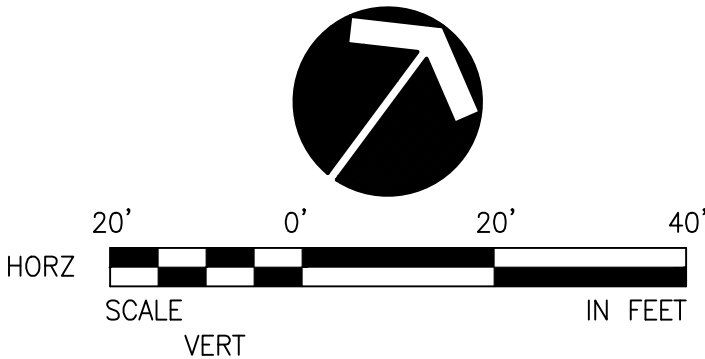


LEGEND



SHRUB PLANTINGS; SEE SHEET LS03 FOR SCHEDULE & DETAIL
LARGE WOOD WITH ROOT WAD ATTACHED - SEE SHEET LS03 FOR SCHEDULE & DETAIL

MATCHLINE SEE SHEET LS02



REVISIONS			
No.	BY	DATE	DESCRIPTION

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STATE OF WASHINGTON
BERNARD JAY SCHNEIDER
LANDSCAPE ARCHITECT
8/8/2025

KITSAP COUNTY
WASHINGTON

KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

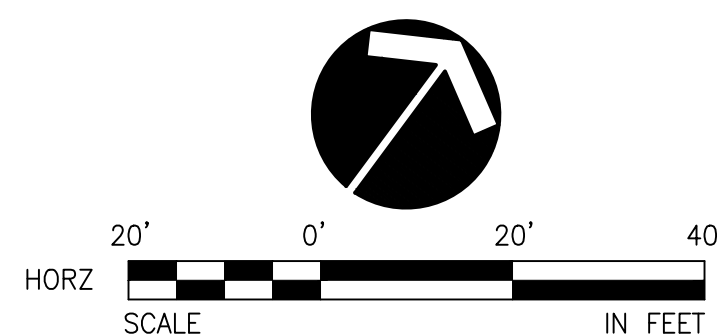
HARPER ESTUARY BARRIER
CORRECTION
LANDSCAPE PLAN

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
LS01
54
OF
56



SEEDING/FERTILIZING/MULCHING WITH EROSION
CONTROL SEED MIX - SEE SHEET LS03 FOR
SCHEDULE



SHEET
LS02
55
OF
56

Plotted: Aug 08, 2025 - 9:36am O:\PROJECT\32500\32510\Draw\15_L501-L503.dwg Layout Name: L503 ben.schneider

PLANTING SCHEDULE

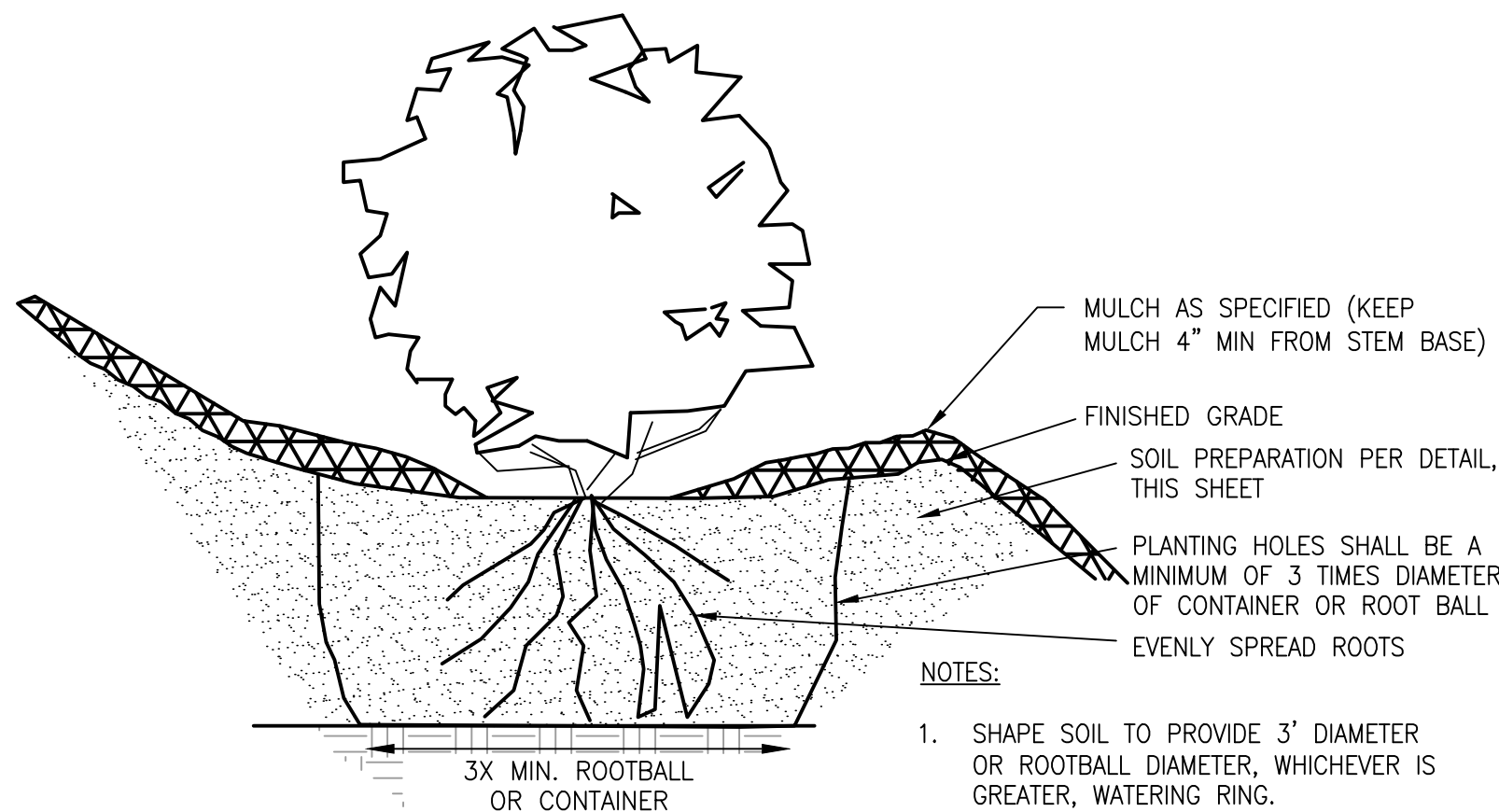
SYMBOL	QTY	BOTANICAL NAME / COMMON NAME	SIZE/SPACING
TOTAL SHRUB PLANTING AREA: 13,451 SF			
	239	GAULTHERIA SHALLON / SALAL	1 GAL. CONT.; 3' O.C.
	201	HOLODISCUS DISCOLOR / OCEAN SPRAY	1 GAL. CONT.; 4' O.C.
	263	ROSA NUTKANA / NOOTKA ROSE	1 GAL. CONT.; 4' O.C.
	326	SALIX HOOKERIANA / HOOKER WILLOW	LIVE STAKES; 4' O.C.

OTHER

	28	LARGE WOOD WITH ROOT WAD ATTACHED; SPECIES SHALL BE CONIFEROUS; UNANCHORED IN PLACE; MINIMUM 12" DBH X 15' LENGTH; INSTALL PERPENDICULAR TO SLOPE GRADIENT AS SHOWN; ENGINEER TO DIRECT PLACEMENT AT TIME OF CONSTRUCTION
	5,200 SF	SEEDING/FERTILIZING/MULCHING WITH EROSION CONTROL SEED MIX

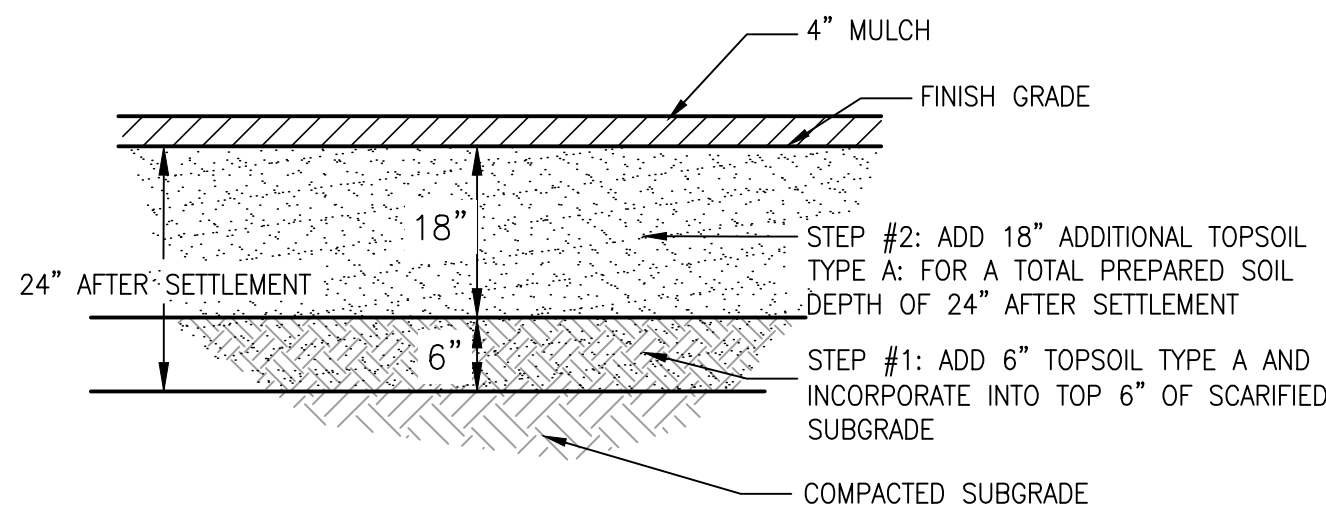
PLANTING NOTE

- AREAS BELOW ELEVATION 6.8' WILL NOT BE PLANTED; THESE LOCATIONS WILL BE ALLOWED TO REVEGETATE THROUGH NATURAL RECRUITMENT.



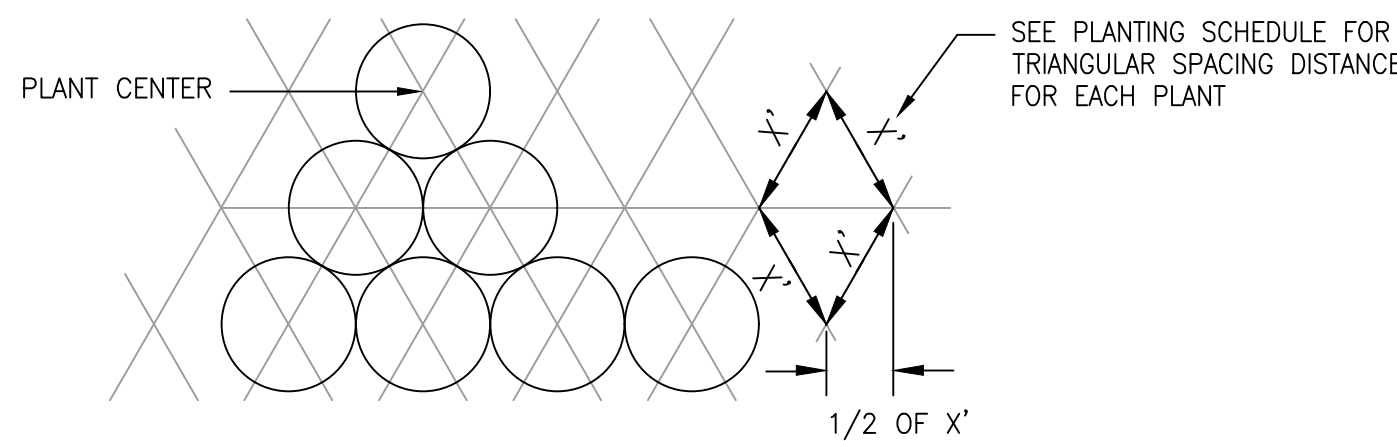
SHRUB PLANTING DETAIL

NOT TO SCALE



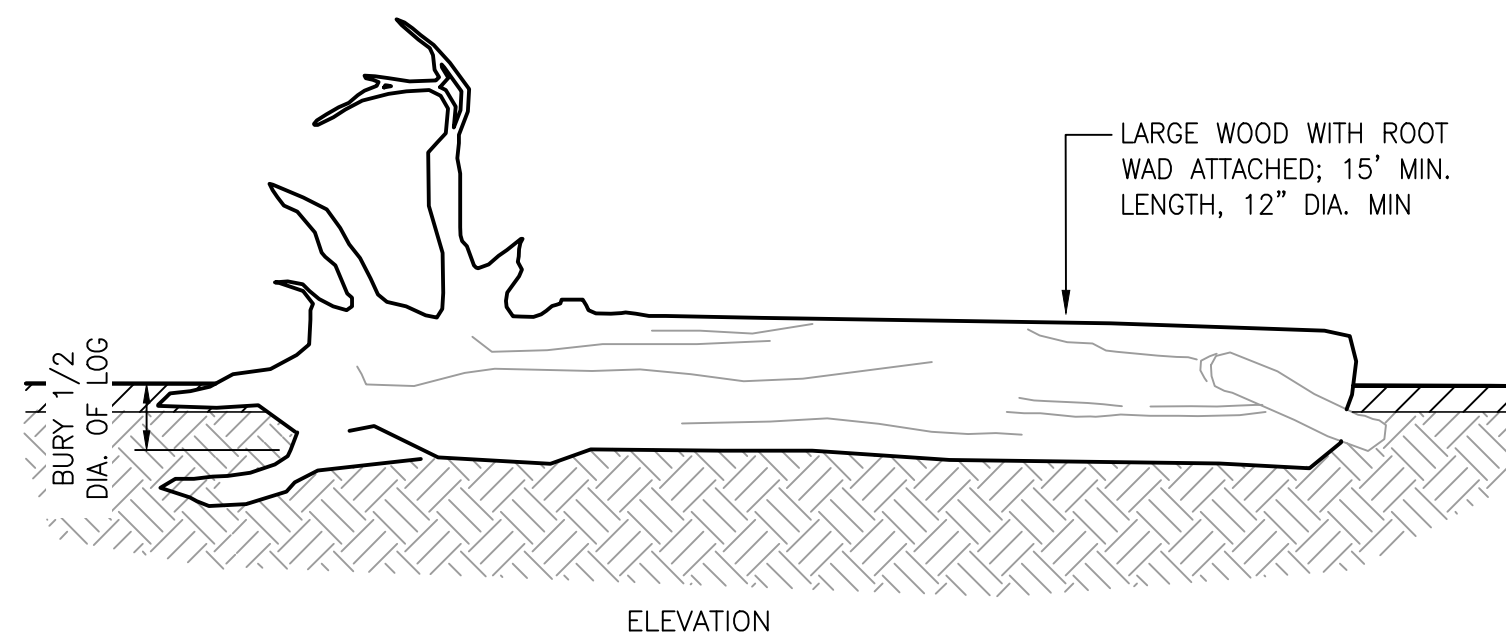
SOIL PREPARATION FOR SHRUBS + LIVE STAKES

NOT TO SCALE



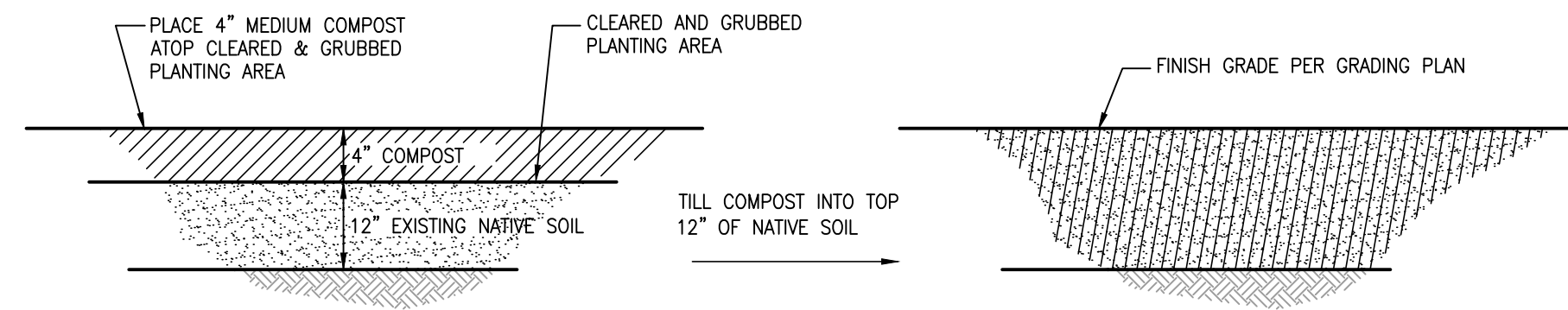
TRIANGULAR SPACING DIAGRAM

NOT TO SCALE



LARGE WOOD WITH ROOT WAD DETAIL

NOT TO SCALE

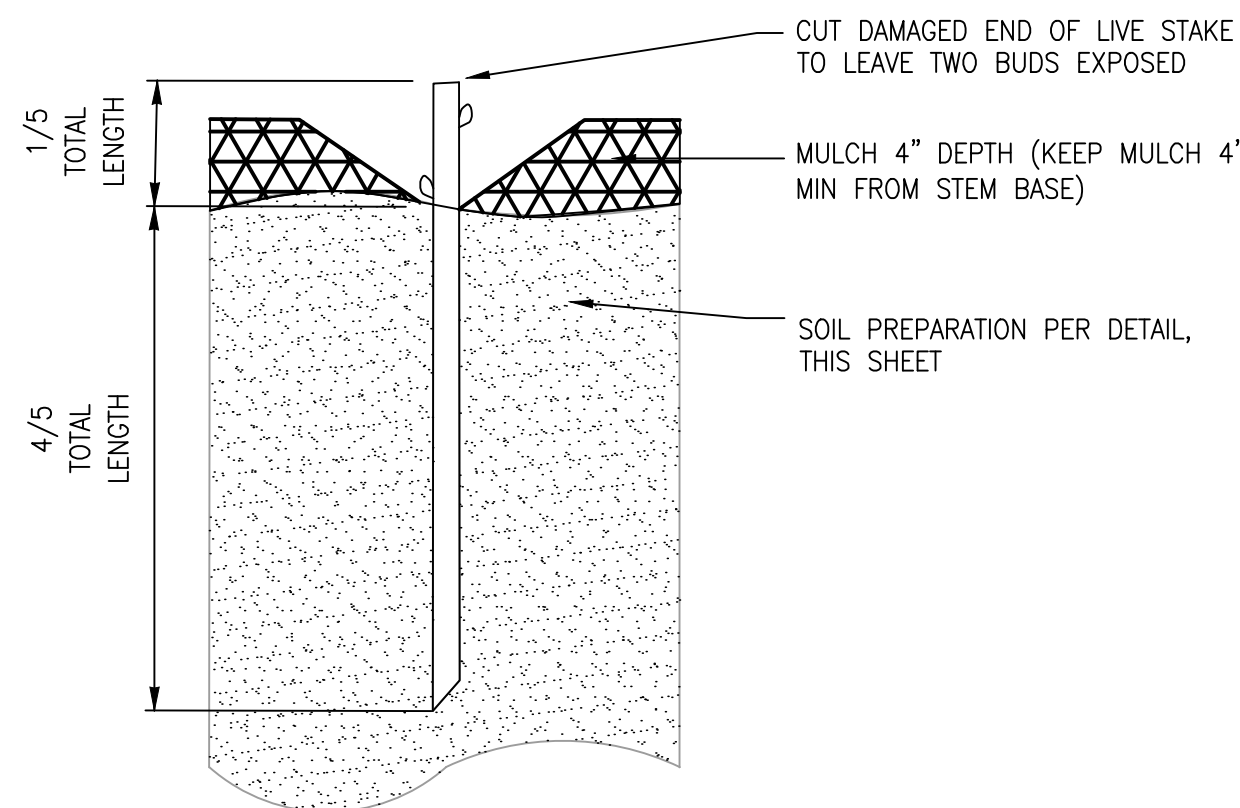


SOIL PREPARATION FOR SEEDED AREAS

NOT TO SCALE

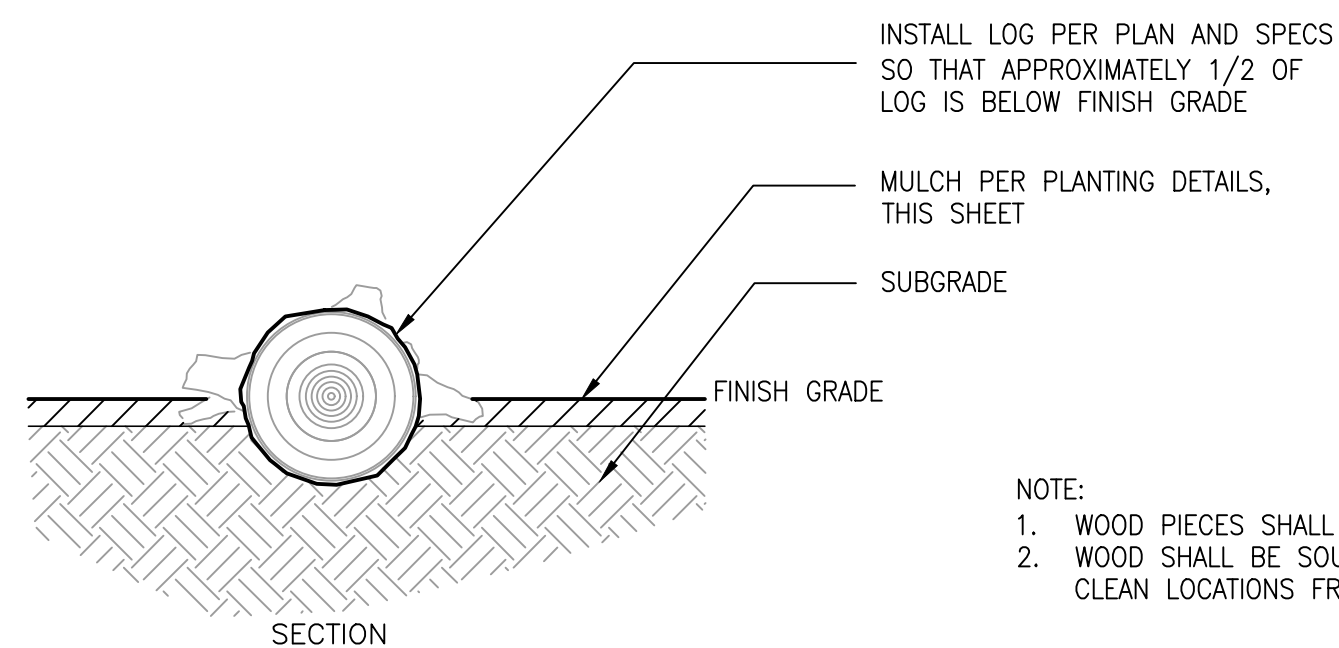
LIVE STAKE INSTALLATION NOTES:

- KEEP LIVE STAKES MOIST/WET IN BUCKETS OR WET BURLAP SACKS. ON HOT DAYS, KEEP STAKES IN THE SHADE UNTIL YOU PLANT THEM.
- IN HARD GROUND, USE AN IRON BAR OR STAR DRILL TO PREPARE THE HOLES FOR THE LIVE STAKE.
- PLACE LIVE STAKE IN PREPARED HOLE; DO NOT USE AXE OR SLEDGE FOR DRIVING LIVE STAKES.
- AVOID STRIPPING BARK OR BRUISING LIVE STAKES DURING INSTALLATION.
- BURY 4/5 OF LIVE STAKE LENGTH.
- AFTER LIVE STAKE IS PLACED IN GROUND, CUT DAMAGED END OF LIVE STAKE TO LEAVE AT LEAST TWO BUDS EXPOSED, MIN.
- FILL VOID AROUND LIVE STAKE WITH SOIL.



LIVE STAKE PLANTING DETAIL

NOT TO SCALE



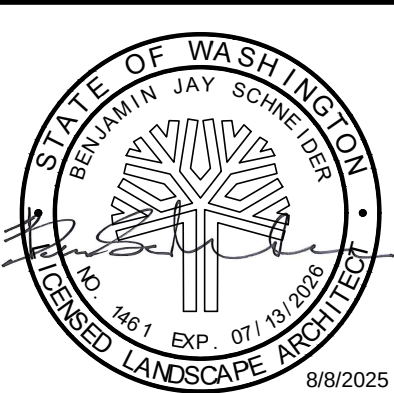
NOTE:

- WOOD PIECES SHALL BE CONIFEROUS SPECIES (50% MIN.).
- WOOD SHALL BE SOURCED LOCALLY AND SOURCED FROM CLEAN LOCATIONS FREE OF INVASIVE SPECIES

REVISIONS

No.	BY	DATE	DESCRIPTION

SURVEYED: COUNTY
DESIGNED:
DRAWN:
CHECKED:
CRP No. 2626
DATE: 08/08/25



KITSAP COUNTY
DEPT. OF PUBLIC WORKS
614 DIVISION STREET MS-26
PORT ORCHARD, WA 98366
TEL:(360) 337-5777 FAX:(360) 337-4867

HARPER ESTUARY BARRIER CORRECTION LANDSCAPE DETAILS

KITSAP COUNTY, WASHINGTON
SECTION 2, TOWNSHIP 23 NORTH, RANGE 2 EAST, W.M.

SHEET
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