

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
P-111399
PROJECT PLANS

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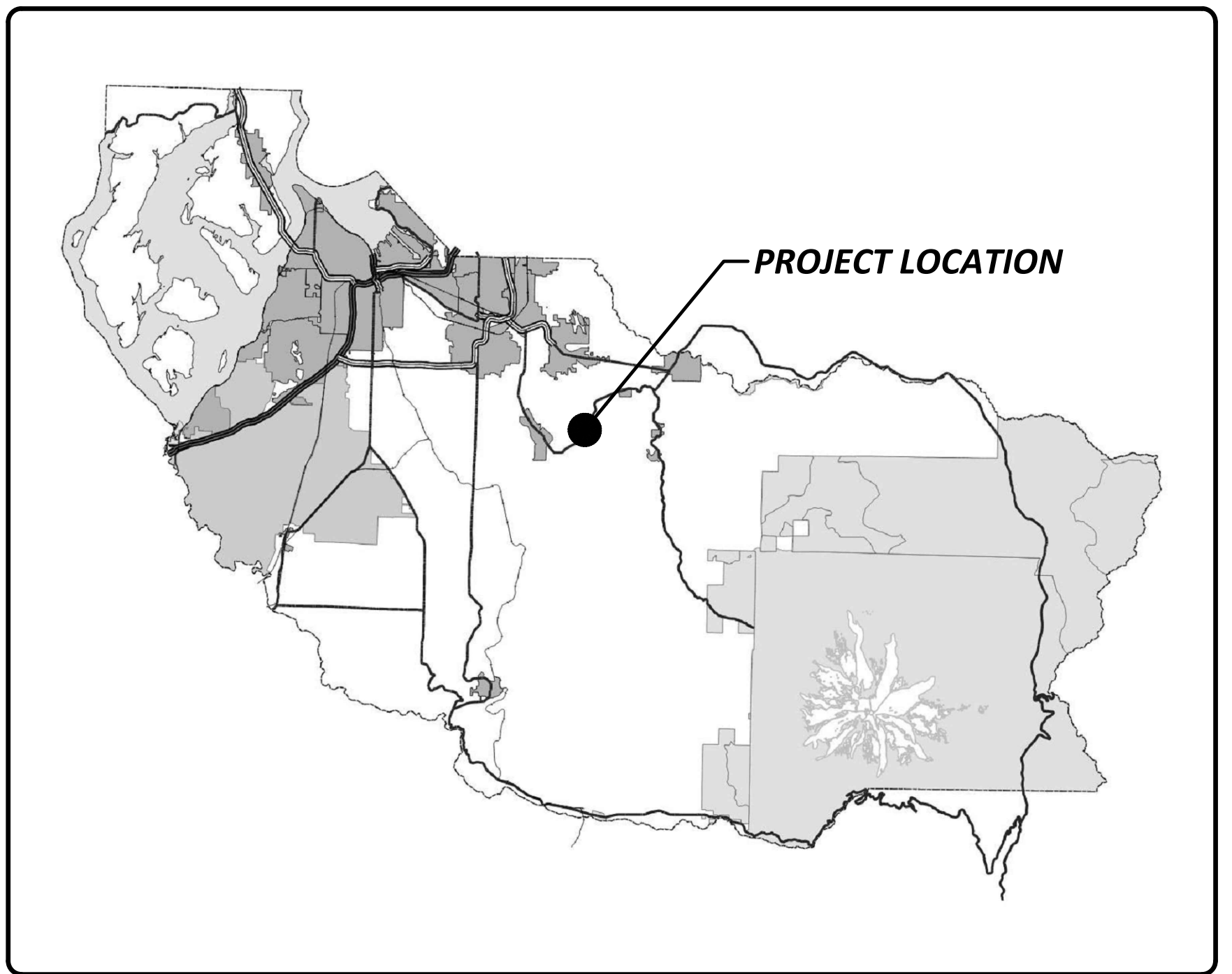
PROJECT LICENSED PROFESSIONAL CERTIFICATES

AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
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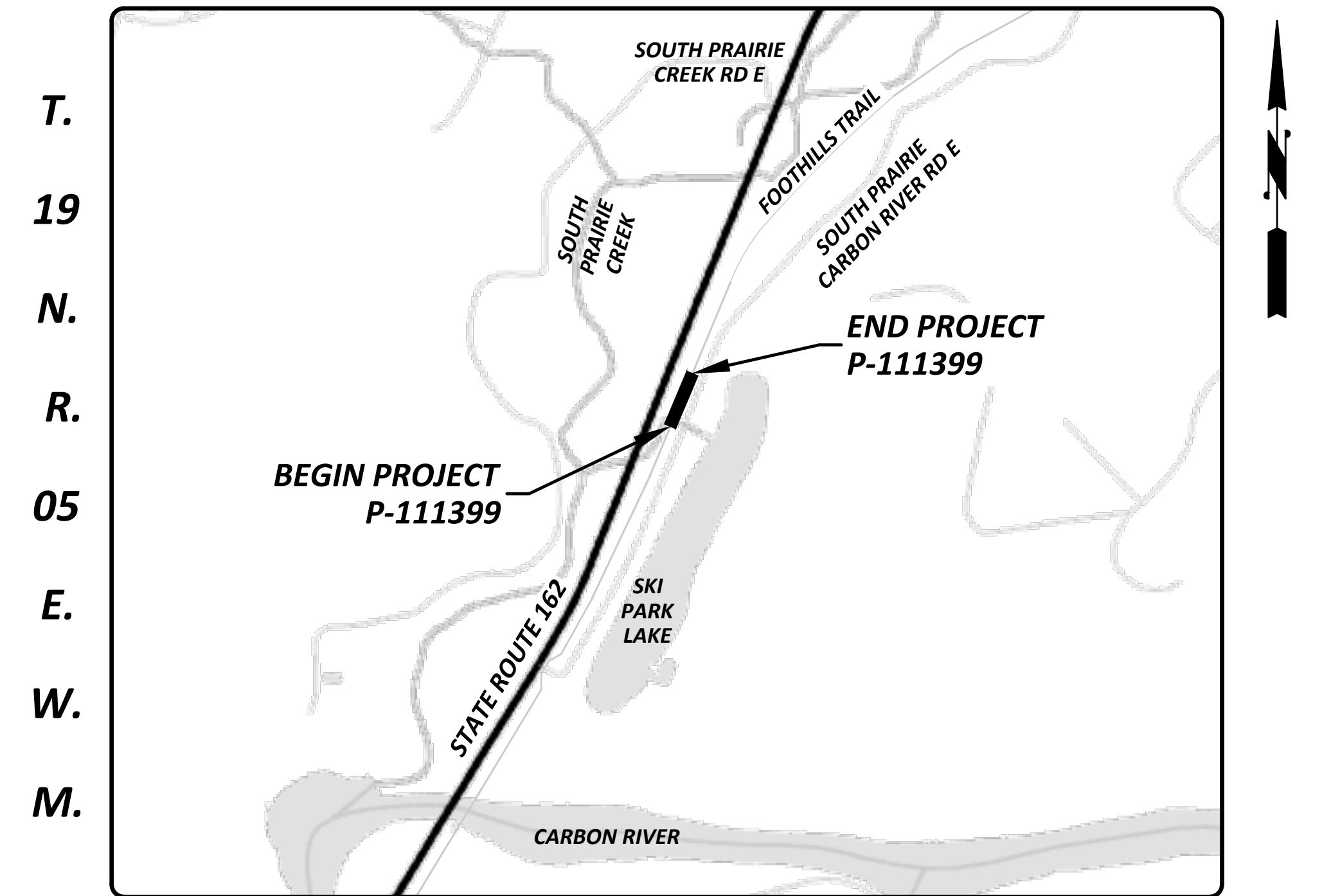
NOTE: THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE. THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

APPROVED BY:

LETTICIA M. NEAL, P.E.
COUNTY ENGINEER



LOCATION MAP



VICINITY MAP

Drawing: P:\0-111399-ERR\RT27195-E-SKI PARK\GIRDER REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANS\PLANS\COVER SHEET.DWG
Layout: COVER_SHEET Plot Date: Jul 23, 2026 Time: 7:42:35 AM By: AEDMARZ



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Layout: ROADWAY\SECTION Plot Date: Jul 22, 2026 Time: 12:57:54 PM By: AEDWARZ

ITEM NO.	TOTAL QUANTITY	SUB-TOTAL SECTION 1-07.2(1) OF STANDARD SPECS	SUB-TOTAL SECTION 1-07.2(2) OF STANDARD SPECS	UNIT	ITEM
PREPARATION					
1	LUMP SUM	LUMP SUM		L.S.	MOBILIZATION
2	LUMP SUM	LUMP SUM		L.S.	CLEARING AND GRUBBING
3	EST. 25,000	EST. 25,000		DOLLAR	REMOVING SHAFT OBSTRUCTIONS
4	LUMP SUM	LUMP SUM		L.S.	REMOVING EXISTING BRIDGE NO. PRT27195-E
GRADING					
5	10	10		C.Y.	ROADWAY EXCAVATION INCL. HAUL
6	55	55		C.Y.	EMBANKMENT COMPACTION
DRAINAGE					
7	100	100		C.Y.	CHANNEL EXCAVATION INCL. HAUL
8	LUMP SUM	LUMP SUM		L.S.	TEMPORARY STREAM DIVERSION
9	LUMP SUM	LUMP SUM		L.S.	FISH EXCLUSION
STRUCTURE					
10	140	140		C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL
11	LUMP SUM	LUMP SUM		L.S.	SHORING OR EXTRA EXCAVATION CL. A
12	40	40		C.Y.	GRAVEL BACKFILL FOR WALL
13	148	148		L.F.	CONSTRUCTING 5 FT. DIAM SHAFT
14	10,197	10,197		LB.	ST. REINF. BAR FOR SUBSTRUCTURE
15	45	45		C.Y.	CONC. CLASS 4000 FOR SUBSTRUCTURE
16	3	3		EACH	QA SHAFT TEST
17	LUMP SUM	LUMP SUM		L.S.	SUPERSTRUCTURE NO. PRT27195-E
18	39	39		L.F.	EXPANSION JOINT SYSTEM COMPRESSION SEAL - SUPERSTR.
19	277	277		S.Y.	WATERPROOF MEMBRANE BR. NO. PRT27195-E
20	410	410		L.F.	BRIDGE RAILING
21	410	410		L.F.	PRECAST CONC. CURB
SURFACING					
22	15	15		TON	CRUSHED SURFACING BASE COURSE
HOT MIX ASPHALT					
23	63	63		L.F.	HMA JOINT SEAL AT BRIDGE END
24	65	65		TON	HMA CL. 1/2 IN. PG 58H-22
EROSION CONTROL AND ROADSIDE PLANTING					
25	20	20		DAY	ESC LEAD
26	720	720		S.Y.	STABILIZED CONSTRUCTION ENTRANCE
27	650	650		L.F.	SILT FENCE
28	EST. 5,000	EST. 5,000		DOLLAR	EROSION/WATER POLLUTION CONTROL
29	100	100		S.Y.	SEEDING AND FERTILIZING BY HAND
30	150	150		S.Y.	TOPSOIL TYPE A
31	21	21		EACH	PSIPE WESTERN RED CEDAR (THUJA PLICATA) 2 GAL.
32	21	21		EACH	PSIPE SITKA SPRUCE (PICEA SITCHENSIS) 2 GAL.
33	87	87		EACH	PSIPE SALMONBERRY (RUBUS SPECTABILIS) 1 GAL.
34	87	87		EACH	PSIPE RED OSIER DOGWOOD (CORNUS SERICEA) 1 GAL.
35	87	87		EACH	PSIPE PACIFIC WILLOW (SALIX LASIANDRA) 1 GAL.
36	1,044	1,044		EACH	PSIPE SLOUGH SLEDGE (CAREX OBNUPTA) PLUG
37	303	303		EACH	BARK OR WOOD CHIP MULCH RINGS
38	1,200	1,200		S.Y.	STRAW MULCH

ITEM NO.	TOTAL QUANTITY	SUB-TOTAL SECTION 1-07.2(1) OF STANDARD SPECS	SUB-TOTAL SECTION 1-07.2(2) OF STANDARD SPECS	UNIT	ITEM
TRAFFIC					
39	LUMP SUM	LUMP SUM		L.S.	PERMANENT SIGNING
40	LUMP SUM	LUMP SUM		L.S.	PROJECT TEMPORARY TRAFFIC CONTROL
41	EST. 1,250	EST. 1,250		DOLLAR	WORK ZONE SAFETY CONTINGENCY
OTHER ITEMS					
42	LUMP SUM	LUMP SUM		L.S.	UTILITY COORDINATION
43	LUMP SUM	LUMP SUM		L.S.	STRUCTURE SURVEYING
44	LUMP SUM	LUMP SUM		L.S.	ROADWAY SURVEYING
45	LUMP SUM	LUMP SUM		L.S.	GRAVITY BLOCK WALL
46	LUMP SUM	LUMP SUM		L.S.	TRIMMING AND CLEANUP
47	EST. 5,000	EST. 5,000		DOLLAR	REIMBURSEMENT FOR THIRD PARTY DAMAGE
48	EST. 5,000	EST. 5,000		DOLLAR	MINOR CHANGE
49	LUMP SUM	LUMP SUM		L.S.	SPCC PLAN
50	LUMP SUM	LUMP SUM		L.S.	FDC PLAN

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMEYER, P.E., S.E.

CHECKED BY: A. SCHILDMEYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED	



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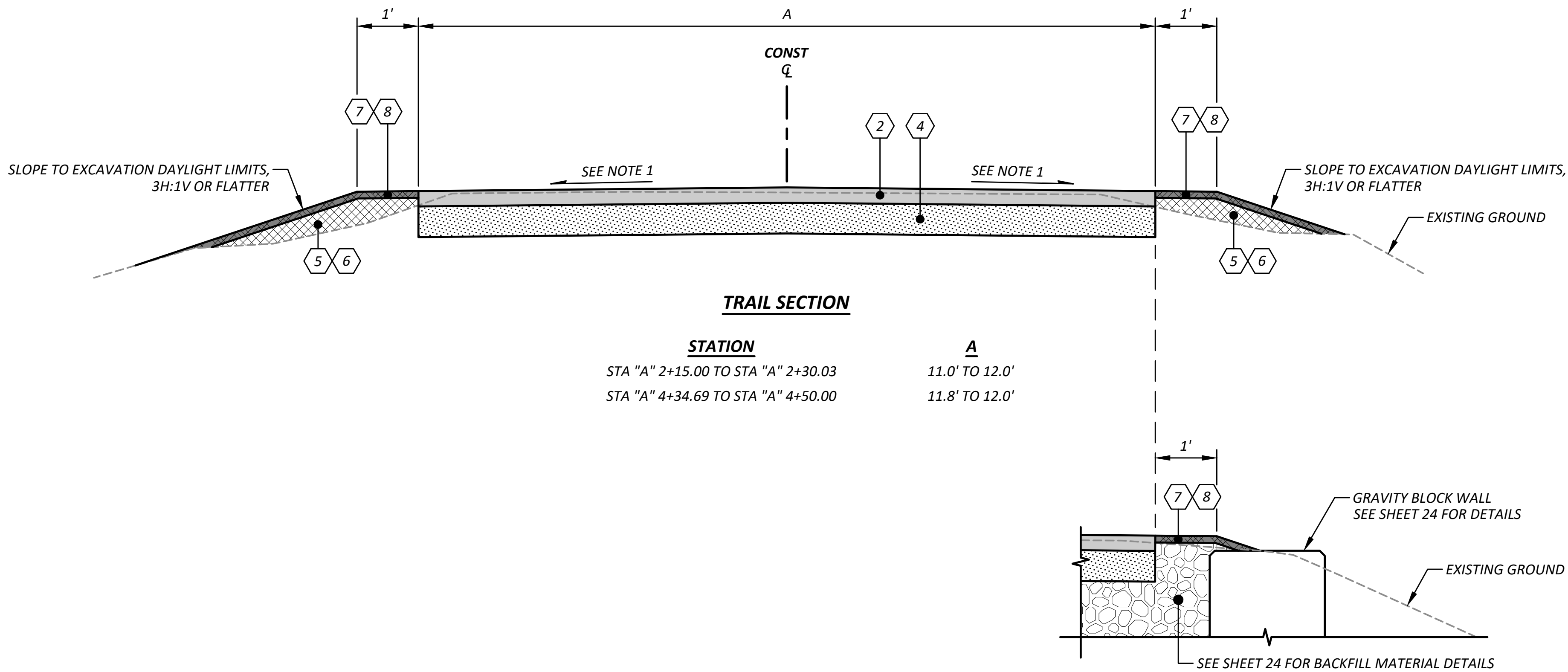
SEE COVER SHEET
DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
SUMMARY OF QUANTITIES
P-111399

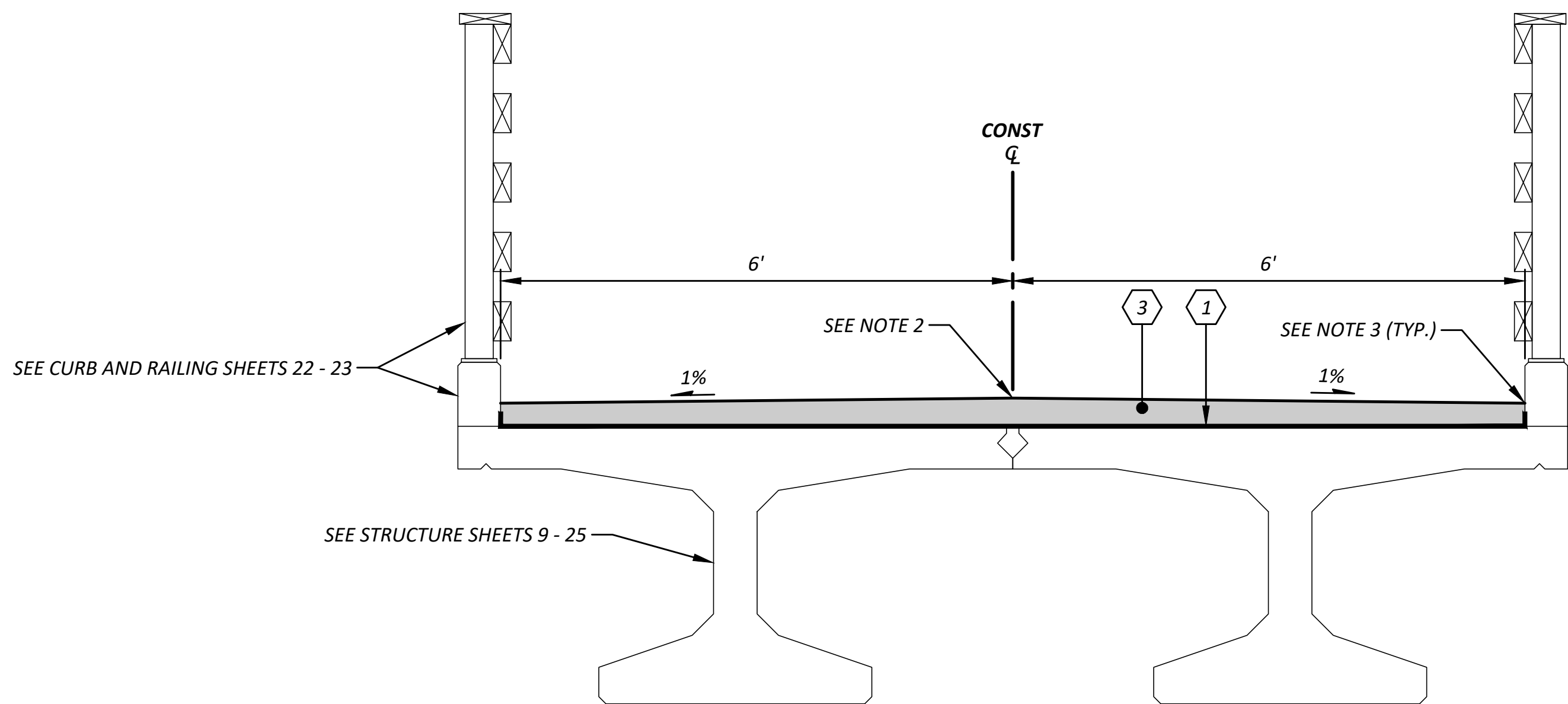
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Layout: ROADWAYSECTION Plot Date: Jul 22, 2026 Time: 12:58:11 PM By: AEDWARZ



GENERAL NOTES:

- WARP ROADWAY SECTION TO TRANSITION FROM BRIDGE OVERLAY SLOPE TO EXISTING TRAIL SLOPE AT THE MATCH POINT.
- DEPTH OF HMA SHALL BE 4" AT THE BRIDGE CENTERLINE.
- WARP HMA SURFACE FOR SMOOTH TRANSITION AT CURB SCUPPERS.



SURFACING LEGEND:

- 1 WATERPROOF MEMBRANE BR. NO. PRT27195-E
- 2 HMA CL.1/2 IN. PG58H-22 - 0.25' COMPACTED DEPTH
- 3 HMA CL.1/2 IN. PG58H-22 - DEPTH VARIES (SEE NOTE 2)
- 4 CRUSHED SURFACING BASE COURSE - 0.50' COMPACTED DEPTH
- 5 EMBANKMENT COMPACTION - DEPTH VARIES
- 6 NATIVE MATERIAL OR GRAVEL BACKFILL FOR WALL - DEPTH VARIES
- 7 TOPSOIL TYPE A - 0.17 COMPACTED DEPTH
- 8 SEEDING AND FERTILIZING BY HAND

DRAWN BY: A. EDWARDS, P.E.

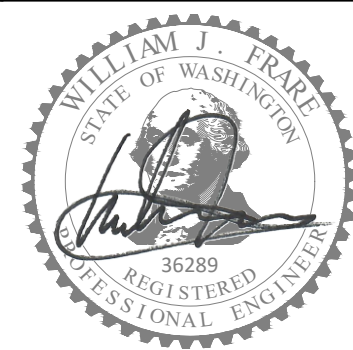
DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED	

Pierce County
Office of the County Engineer
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2702 South 42nd Street, Suite 109
Tacoma, Washington 98409
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SEE COVER SHEET
FOR DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
TRAIL SECTIONS
P-111399

SHEET

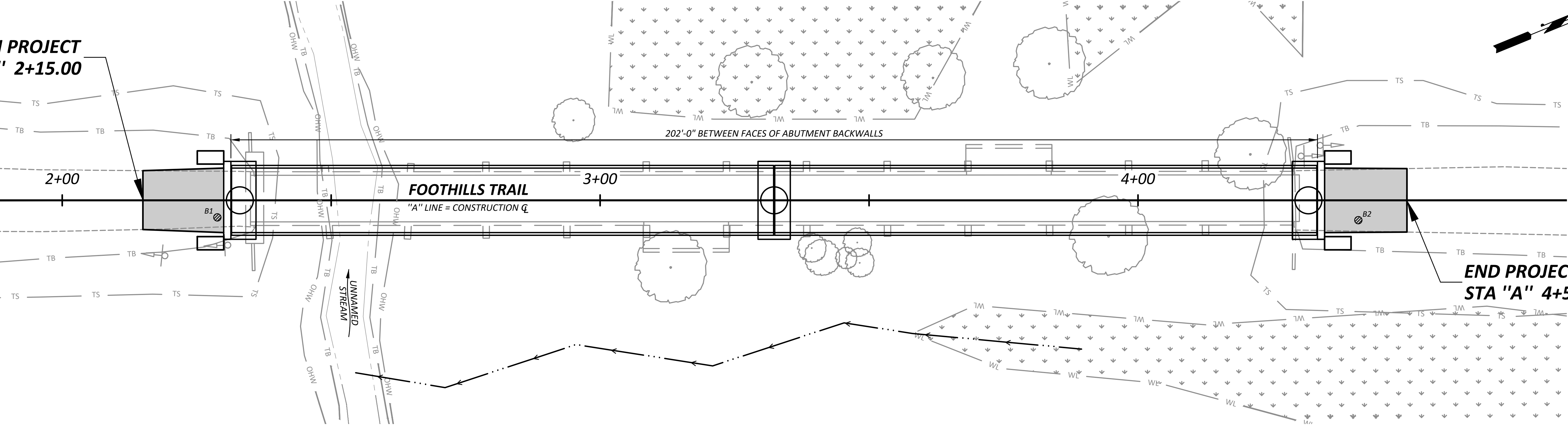
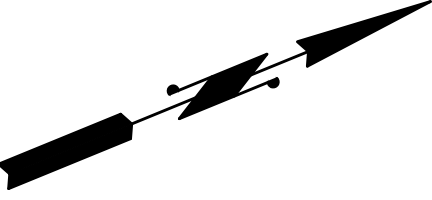
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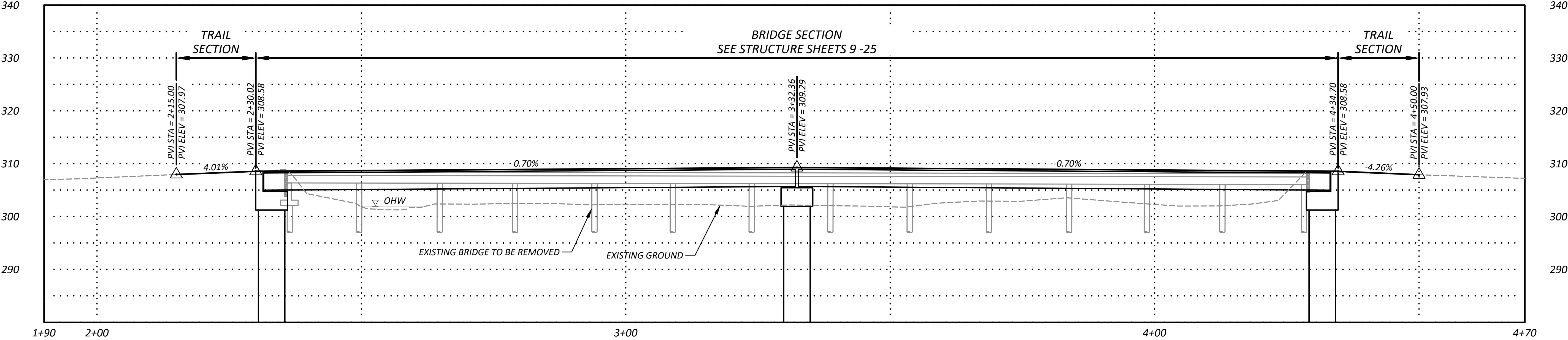
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Layout: PLAN & PROFILE Plot Date: Jul 22, 2026 Time: 12:59:44 PM By: AEDWARZ

BEGIN PROJECT
STA "A" 2+15.00



END PROJECT
STA "A" 4+50.00



DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



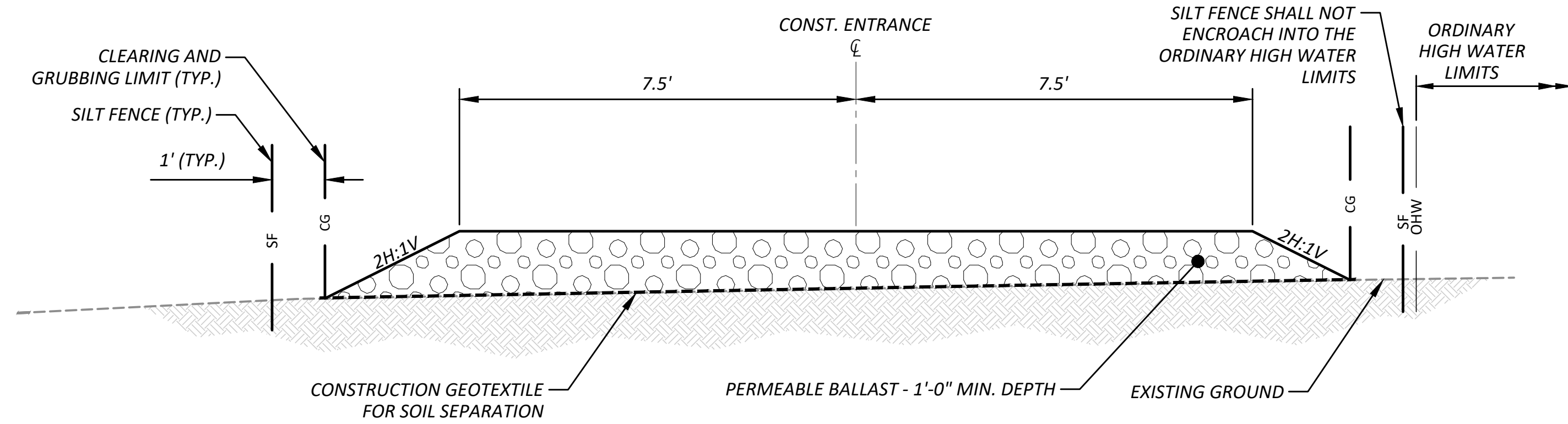
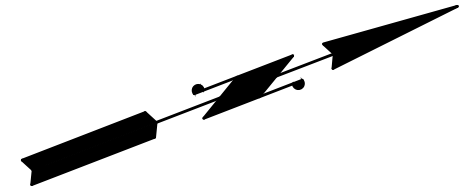
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DATE

**BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)**
PLAN & PROFILE
P-111399

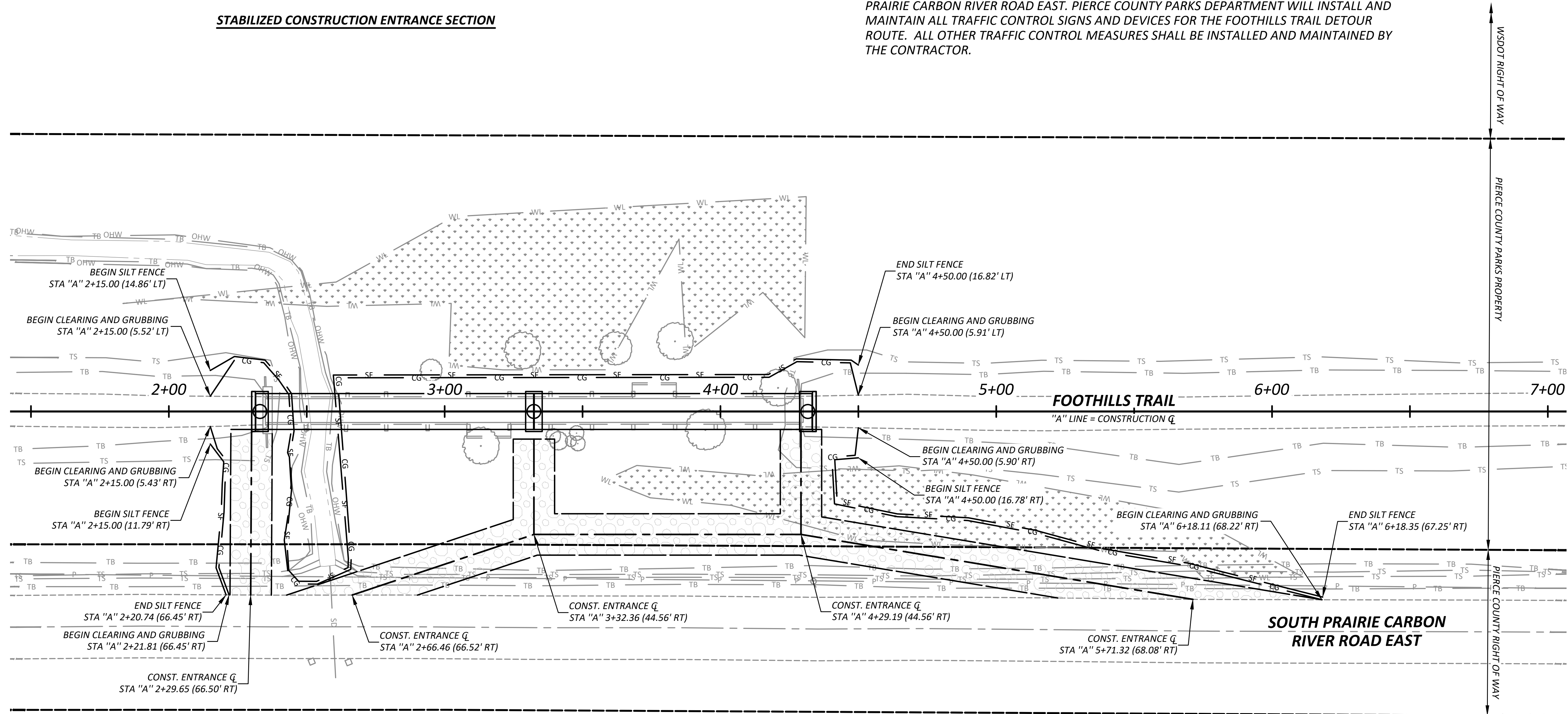
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STABILIZED CONSTRUCTION ENTRANCE SECTION

GENERAL NOTES:

1. FOR GENERAL CLEARING AND GRUBBING, SEE SPECIAL PROVISION "CLEARING, GRUBBING, AND ROADSIDE CLEANUP" SECTION 3-01. FOR CLEARING AND GRUBBING WITHIN THE LIMITS OF THE STABILIZED CONSTRUCTION ENTRANCE, SEE SPECIAL PROVISION "STABILIZED CONSTRUCTION ENTRANCE."
2. STRAW MULCH SHALL BE PLACED ON ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE PLANTED OR SEEDED AS DIRECTED BY THE ENGINEER.
4. SEE PIERCE COUNTY STANDARD DRAWINGS:
 - PC.L2.1 "SILT FENCE"
 - PC.M2.3 "STRAW MULCH"
5. DURING CONSTRUCTION, FOOTHILLS TRAIL PEDESTRIAN TRAFFIC WILL DETOUR ONTO SOUTH PRAIRIE CARBON RIVER ROAD EAST. PIERCE COUNTY PARKS DEPARTMENT WILL INSTALL AND MAINTAIN ALL TRAFFIC CONTROL SIGNS AND DEVICES FOR THE FOOTHILLS TRAIL DETOUR ROUTE. ALL OTHER TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.



DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMEYER, P.E., S.E.

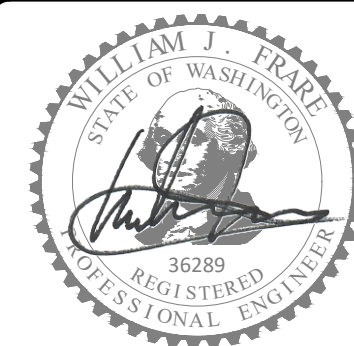
CHECKED BY: A. SCHILDMEYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



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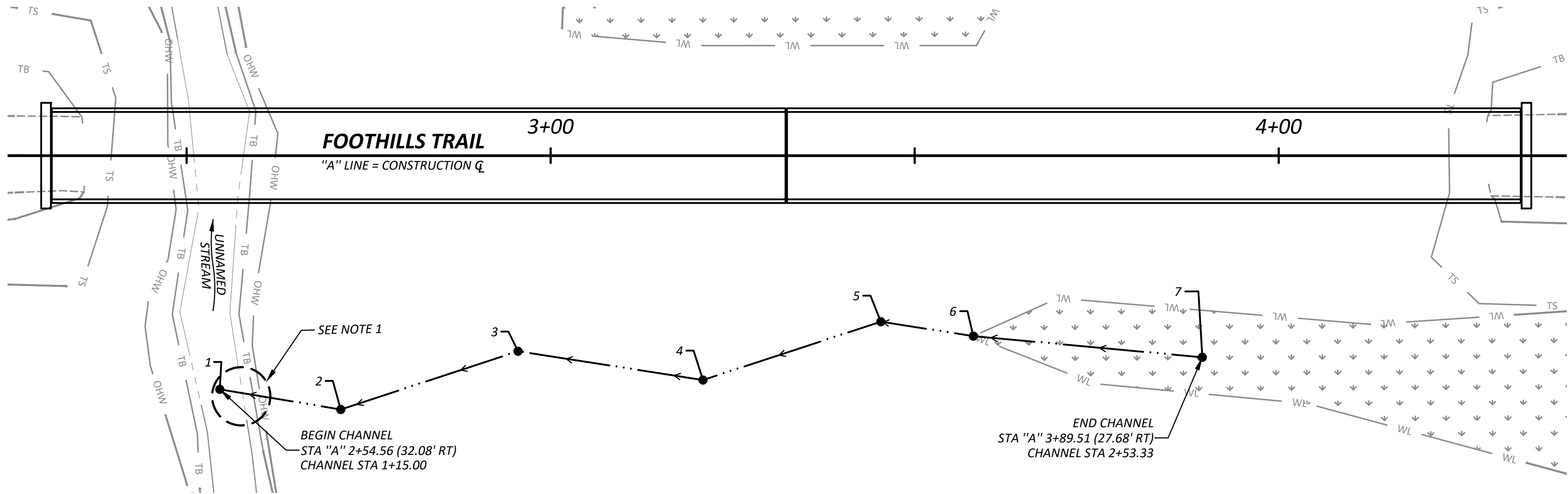
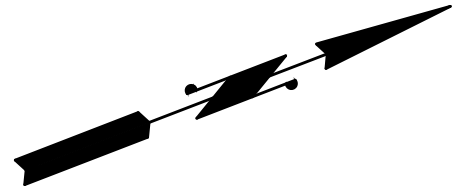


SEE COVER SHEET
DATE
WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
STAGING PLAN
P-111399

SHEET
6
OF
25

Drawing: P:\0-111399-BRRT27195-E-SKI PARK\BRIDGE\REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANS\STAGING PLAN.DWG
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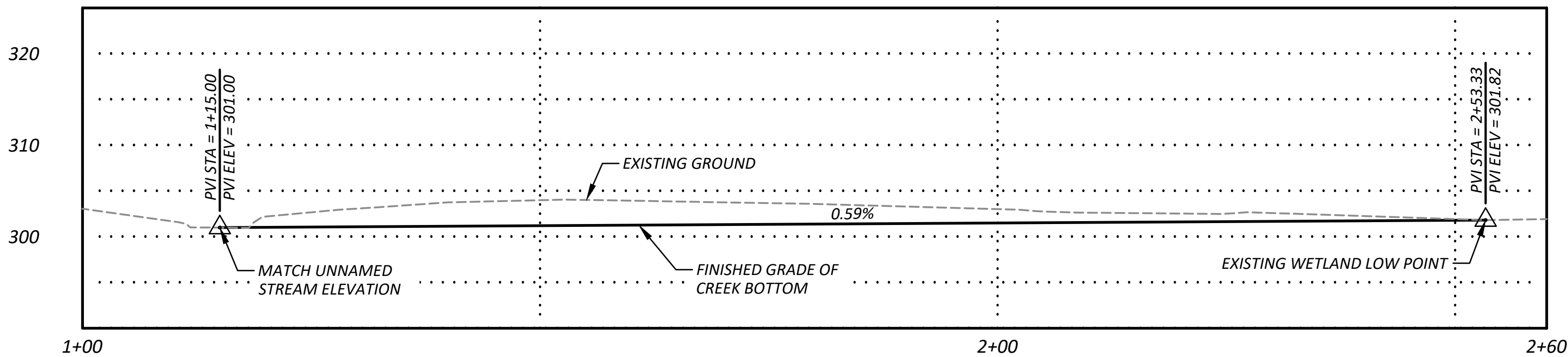


PLAN VIEW

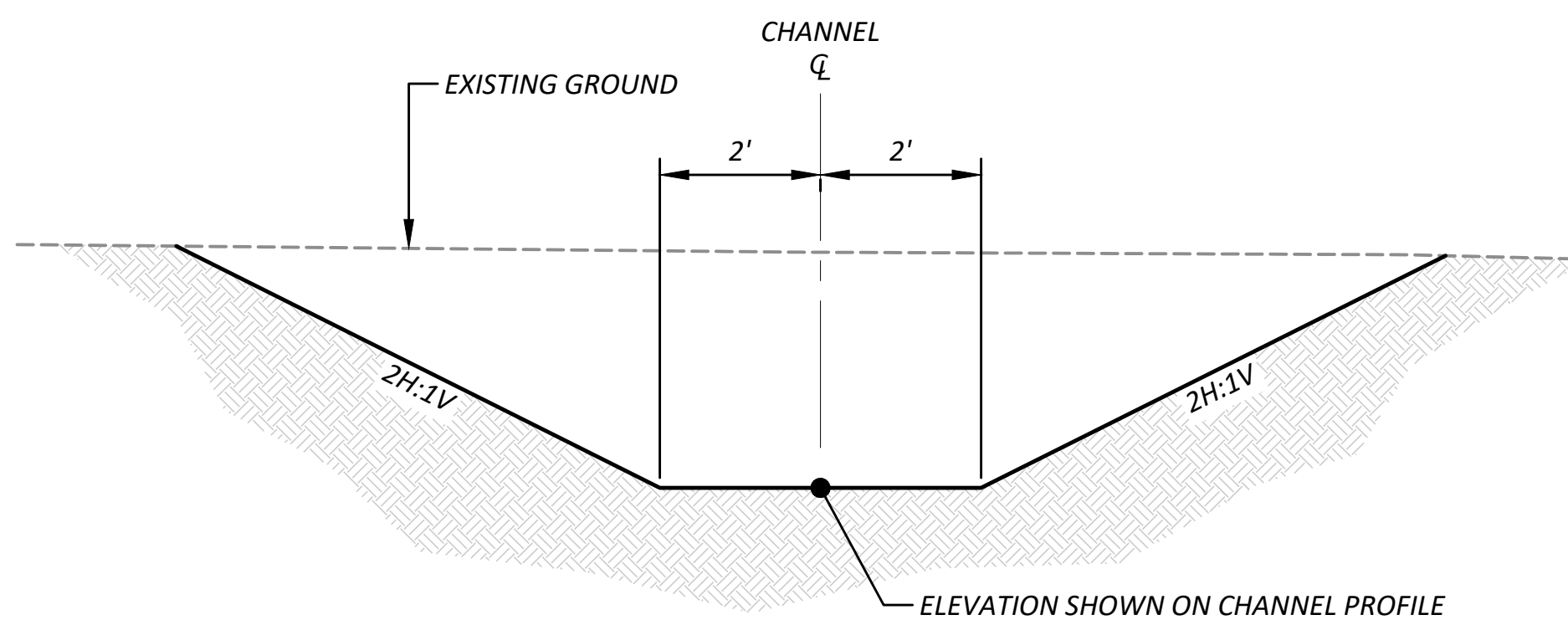
GENERAL NOTES:

1. WORK TO CONNECT THE MITIGATION CHANNEL TO THE UNNAMED STREAM SHALL ONLY OCCUR DURING THE DATES IDENTIFIED IN THE HYDRAULIC PROJECT APPROVAL PROVIDED IN THE CONTRACT DOCUMENTS.

CHANNEL ALIGNMENT		
POINT #	"A" STATION	OFFSET
1	2+19.56	32.08' RT
2	2+36.17	34.85' RT
3	2+60.52	26.85' RT
4	2+85.92	30.80' RT
5	3+10.36	22.80' RT
6	3+23.06	24.77' RT
7	3+54.51	27.68' RT



CHANNEL PROFILE
ALONG CHANNEL CENTERLINE



MITIGATION CHANNEL SECTION

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

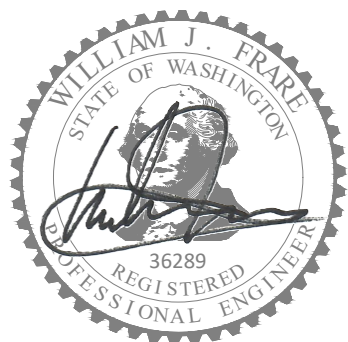
REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



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SEE COVER SHEET
DATE

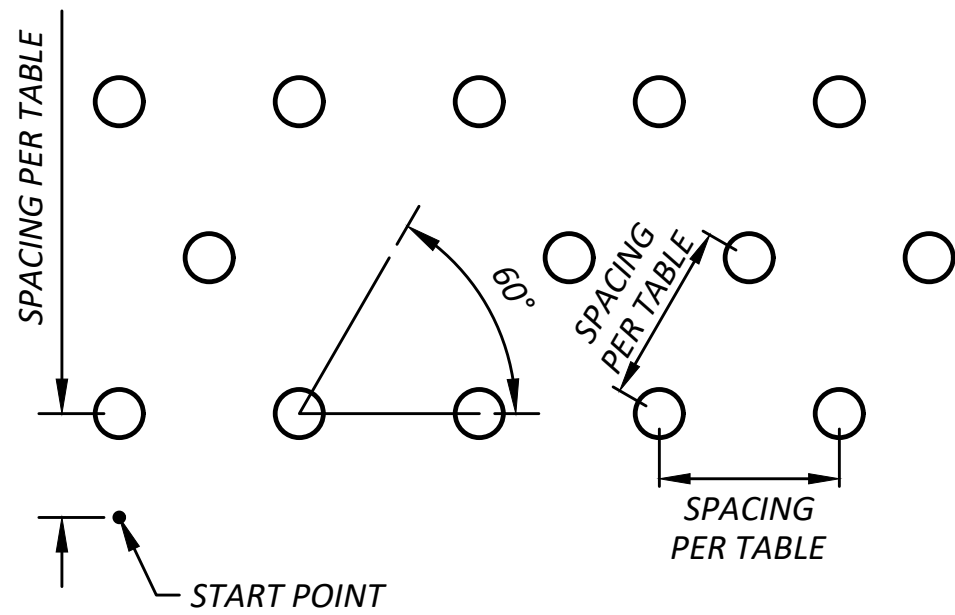
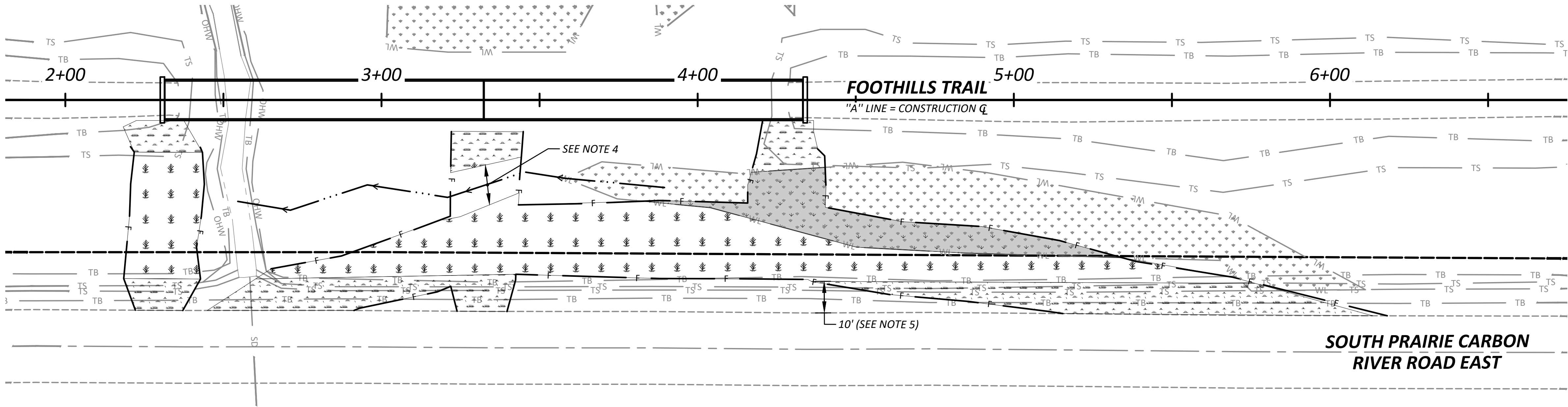
WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
MITIGATION CHANNEL PLAN
P-111399

SHEET
7
OF
25

Drawing: P:\P-111399-50RRT7195E-SKIPARKBRIDGE\REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANSHEETS\P-111399_MITIGATIONCHANNELPLAN.DWG
Layout: CHANNELPLAN Plot Date: Jul 22, 2026 Time: 10:20:05 PM By: AEDWARZ

Drawing: P:\0-111399-50RRT27195-E-SKIPARK\BDRIDGE\REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANS\11399_PLANTINGPLAN.DWG
Layout: PLANTINGPLAN Plot Date: Jul. 22, 2026 Time: 10:51:11 PM By: AEDWAR2



TRIANGULAR SPACING DETAIL

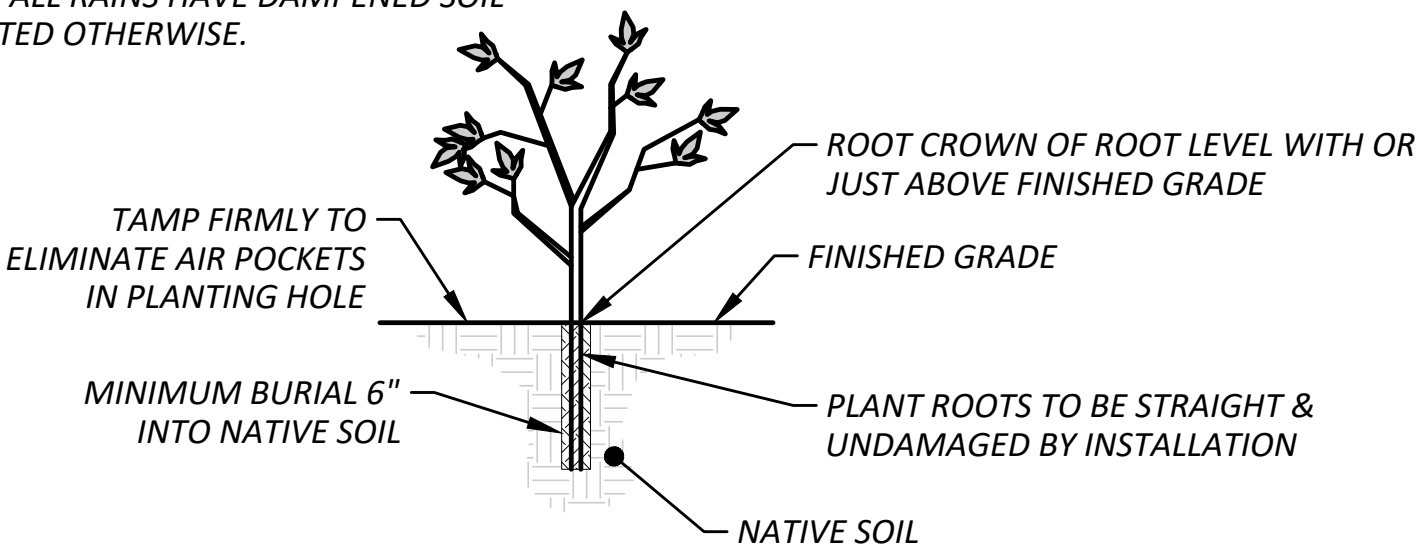
NOT TO SCALE

NOTES:

1. START FIRST ROW OF PLANTING AT 1/2 THE PERPENDICULAR SPACING BETWEEN ROWS.
2. ALL PLANT SPACING SHALL BE EQUIDISTANT UNLESS OTHERWISE SPECIFIED.

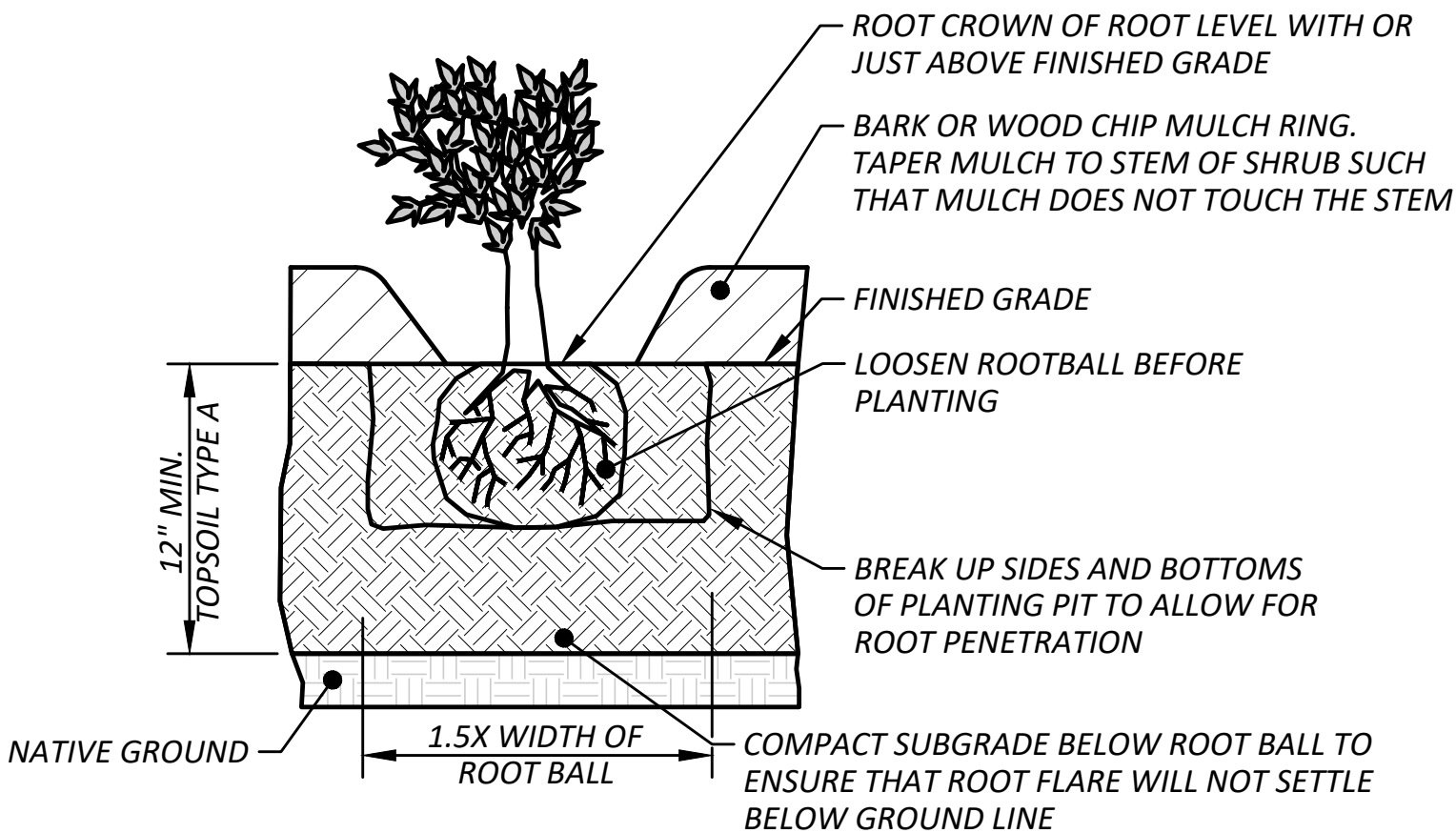
NOTES:

1. CREATE PLANTING HOLE BY DRIVING STEEL SPIKE INTO SOIL & WORKING SPIKE TO WIDEN HOLE.
2. PLANT AFTER FALL RAINS HAVE DAMPENED SOIL UNLESS DIRECTED OTHERWISE.



PLUG PLANTING DETAIL

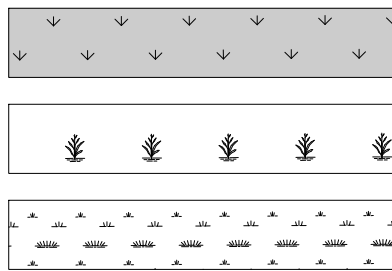
NOT TO SCALE



SHRUB/TREE PLANTING DETAIL

NOT TO SCALE

PLANTING LEGEND



PLANTING AREA A

PLANTING AREA B

PLANTING AREA C

PLANTING NOTES:

1. ALL DISTURBED AREAS FOR STAGING AND ACCESS AND OTHER CONSTRUCTION ACTIVITIES SHALL BE PLANTED AS DIRECTED BY THE ENGINEER.
2. ALL DISTURBED AREAS OUTSIDE STAGING AND ACCESS LIMITS SHALL BE GRADED AS DIRECTED BY THE ENGINEER.
3. CONTRACTOR SHALL REMOVE ALL INVASIVE SPECIES (REED CANARY GRASS AND BLACKBERRY BUSHES) WITHIN THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER.
4. ALL PLANTING SHALL BE OUTSIDE THE TOP OF BANK LIMITS OF THE WETLAND MITIGATION CHANNEL.
5. TREES SHALL NOT BE PLANTED WITHIN 10 FEET OF THE BRIDGE OR THE EDGE OF PAVEMENT OF SOUTH PRAIRIE CARBON RIVER ROAD EAST.
6. ADDITIONAL TREES TO BE PLANTED WITHIN CLEARING AND GRUBBING LIMITS AS DIRECTED BY THE ENGINEER.

PLANT SCHEDULE

TYPE	COMMON NAME	LATIN NAME	SIZE	SPACING*	PLANTING AREA	QUANTITY
HERBACEOUS	SLOUGH SEDGE	CAREX OBNUPTA	PLUG	1 FT. O.C.	A	1,044
TREE	WESTERN REDCEDAR	THUJA PLICATA	2-GALLON	12 FT. O.C.	B	18
					SEE NOTES 5 & 6	3
TREE	SITKA SPRUCE	PICEA SITCHENSIS	2-GALLON	12 FT. O.C.	B	18
					SEE NOTES 5 & 6	3
SHRUB	SALMONBERRY	RUBUS SPECTABILIS	1-GALLON	5.5 FT. O.C.	B	54
					C	33
SHRUB	RED OSIER DOGWOOD	CORNUS SERICEA	1-GALLON	5.5 FT. O.C.	B	54
					C	33
SHRUB	PACIFIC WILLOW	SALIX LASIANDRA	1-GALLON	5.5 FT. O.C.	B	54
					C	33

* SPACING IS APPROXIMATE. FINAL LOCATION AND SPACING OF PLANTS TO BE DETERMINED BY THE ENGINEER AS NECESSARY.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED

Pierce County

PLANNING & PUBLIC WORKS

Office of the County Engineer
Tacoma Mall Plaza
2702 South 42nd Street, Suite 109
Tacoma, Washington 98409
An APWA Accredited Agency

WILLIAM J. FRARE
REGISTERED PROFESSIONAL ENGINEER
36289
SEE COVER SHEET
DATE
WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
PLANTING PLAN
P-111399

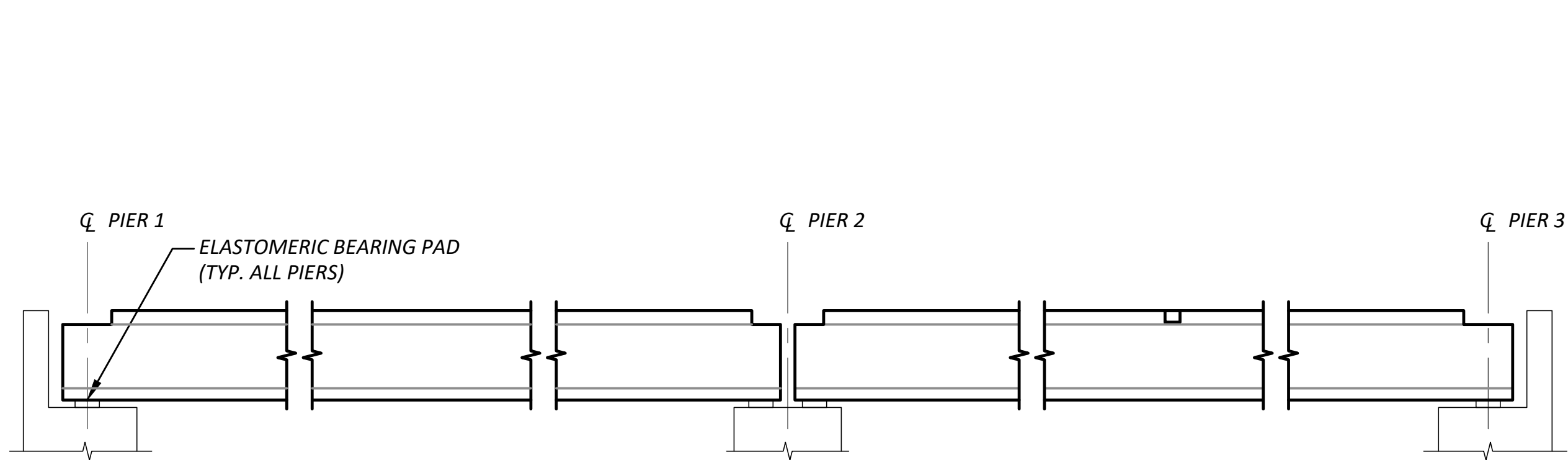
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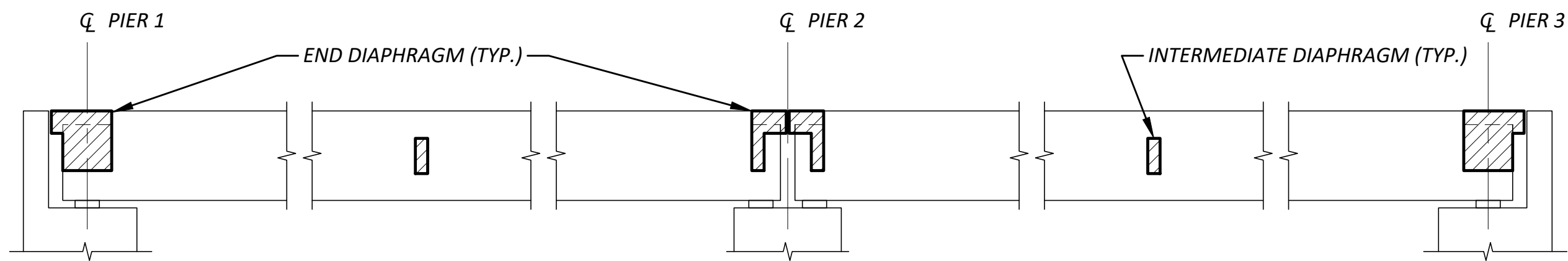
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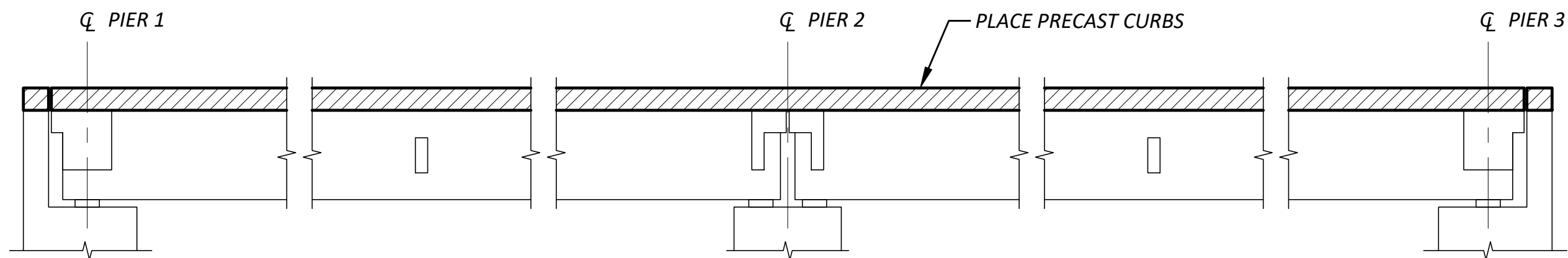
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Layout: FOUNDATIONPLAN Plot Date: Jul 22, 2026 Time: 1:04:25 PM By: AEDWAR2



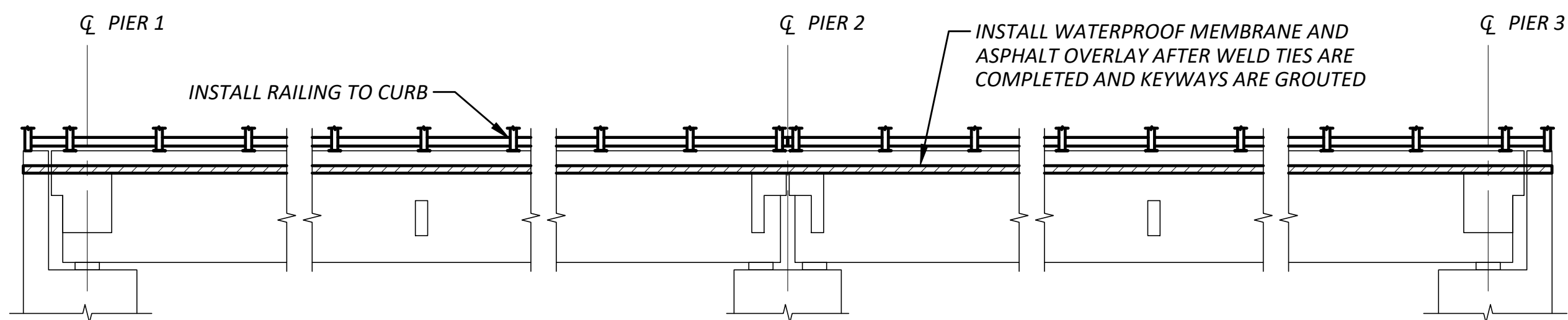
STAGE 1 - SET GIRDERS IN PLACE
INSTALL TEMPORARY BRACING FOR ERECTION IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F4



STAGE 2 - CAST DIAPHRAGMS
INSTALL TEMPORARY BRACING FOR DIAPHRAGMS IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F5

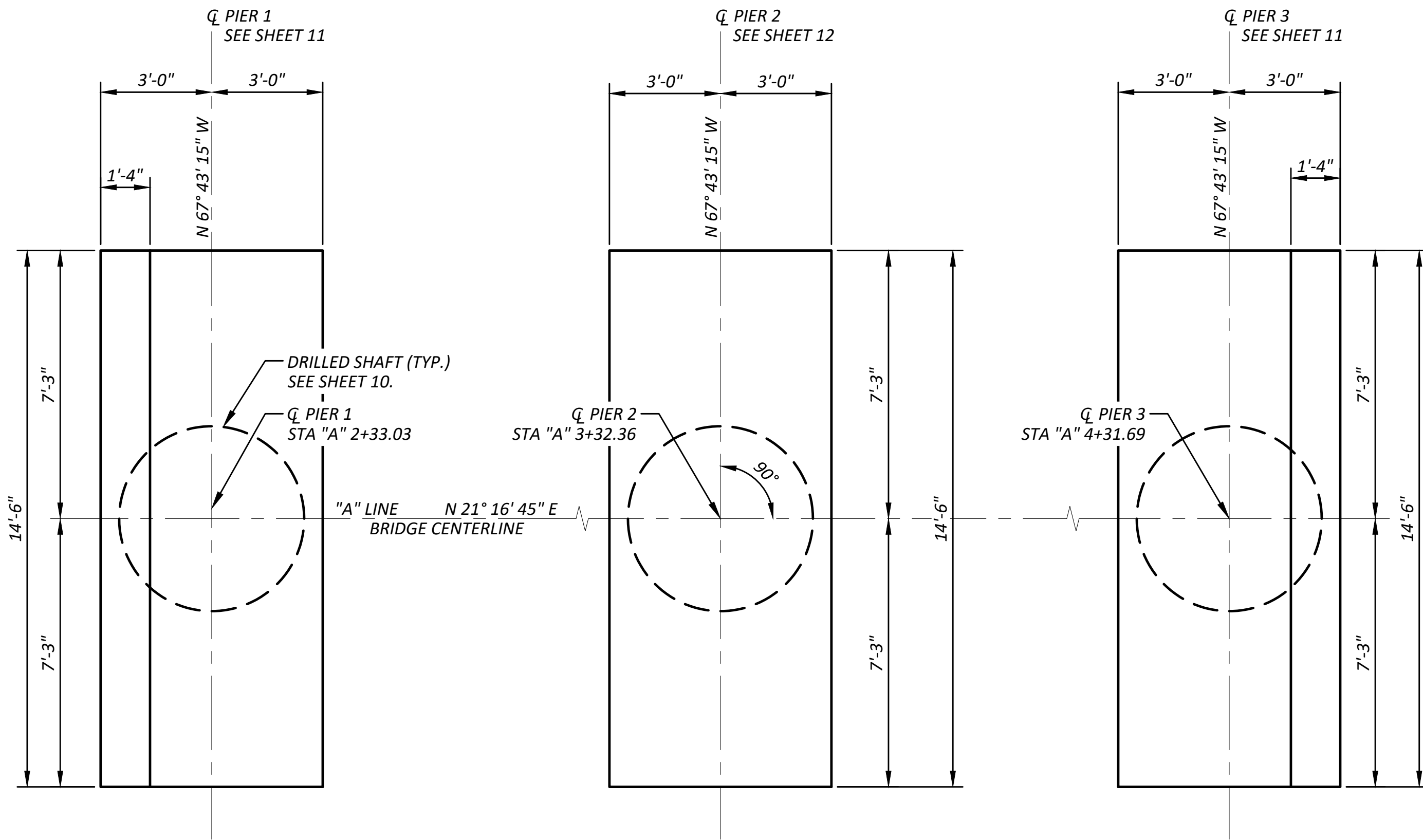


STAGE 3 - INSTALL PRECAST CURB

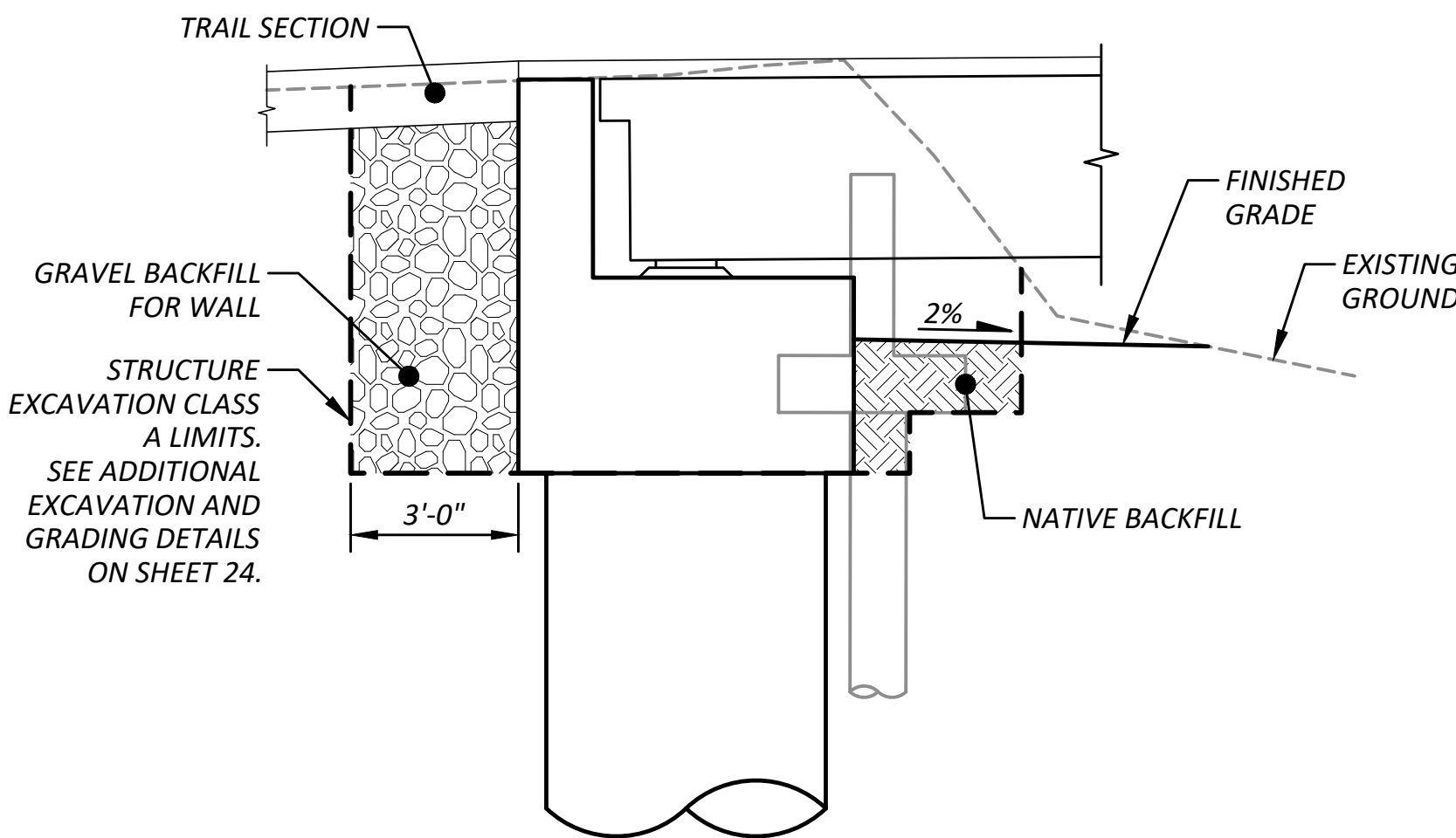


STAGE 4 - PLACE WATERPROOF MEMBRANE AND ASPHALT OVERLAY AND INSTALL RAILING

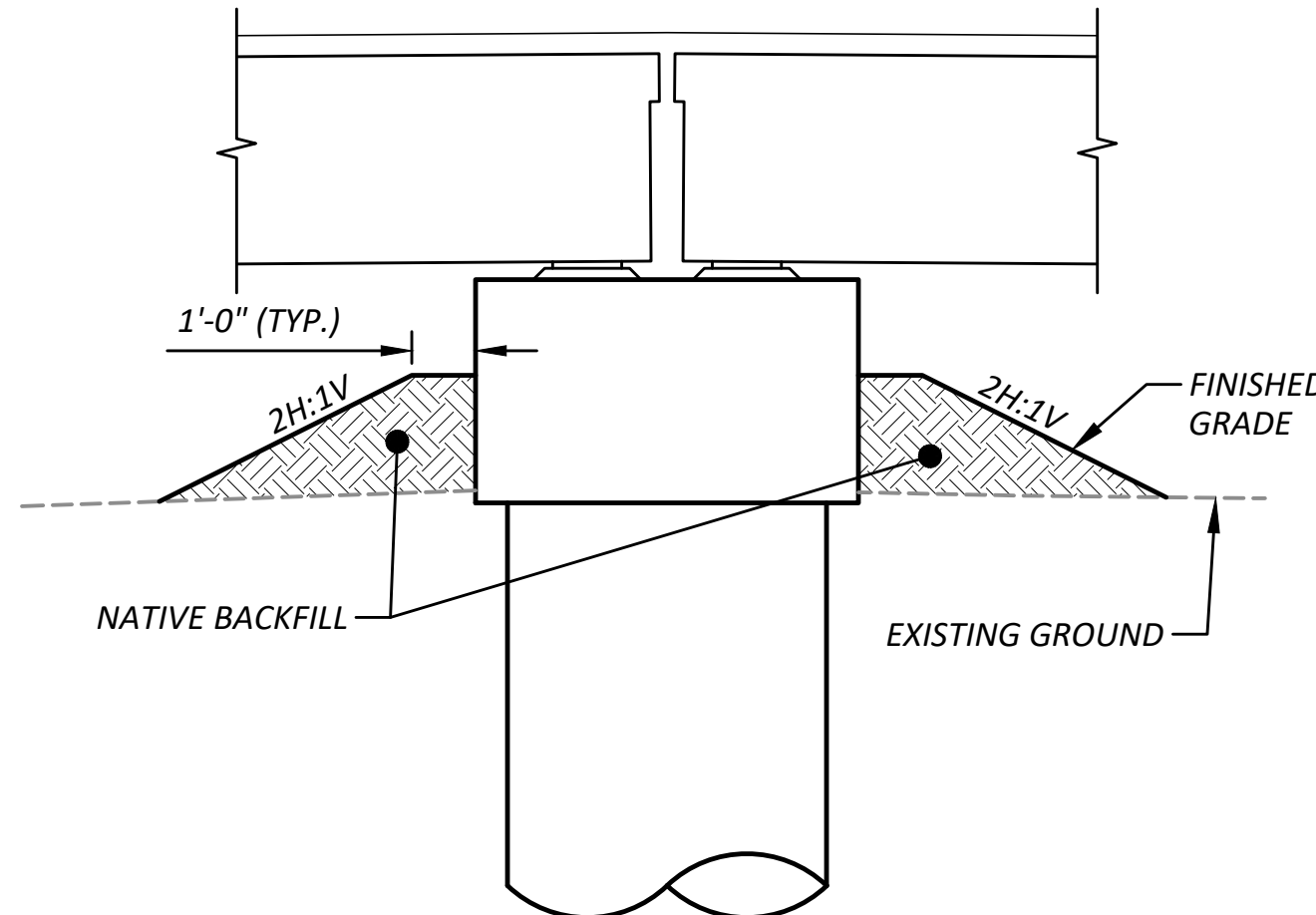
CONSTRUCTION SEQUENCE - SUPERSTRUCTURE



FOUNDATION PLAN



PIER 1 & 3



PIER 2

BACKFILL PLACEMENT DETAIL

DRAWN BY: A. EDWARDS, P.E.

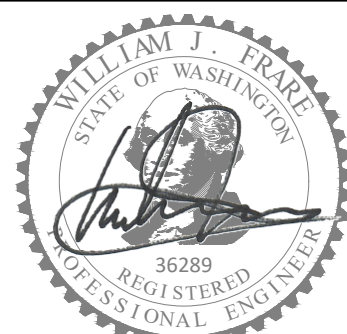
DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED	

Pierce County
Office of the County Engineer
Tacoma Mall Plaza
2702 South 42nd Street, Suite 109
Tacoma, Washington 98409
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SEE COVER SHEET
FOR DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
FOUNDATION PLAN AND CONSTRUCTION SEQUENCE

P-111399

SHEET

9

OF

25



F SECTION - LOOKING BACK ON STATIONING

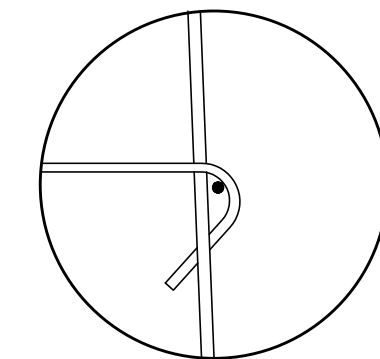
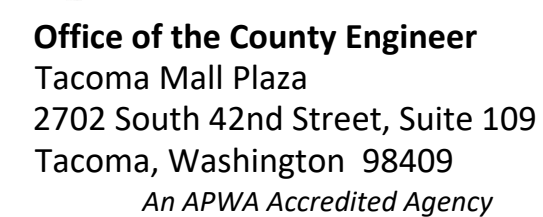


Diagram illustrating the reinforcement layout for a rectangular slab. The slab dimensions are 24' x 24'. The reinforcement consists of a grid of bars. A callout indicates the bar size is W4 #4. A dimension line indicates the spacing is approximately 12" based on horizontal bar spacing. Another dimension line indicates the spacing is approximately 24" based on vertical bar spacing.

Structural drawing showing a pier and bearing assembly. The top view indicates a pier width of 3'-0" (TYP.) and a bearing width of 1'-3". The side view shows a pier height of 3' EQUAL SPA. Reinforcement details include #9 bars (P6, P7, P8, P9), #6 bars (P10, P11), and #6 ties (P12).

SECTION
TYPICAL BOTH PIERS

REVIEWED BY: B. NORTON, P.E.

[illegible]

P-111399

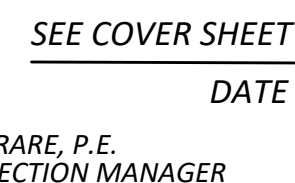
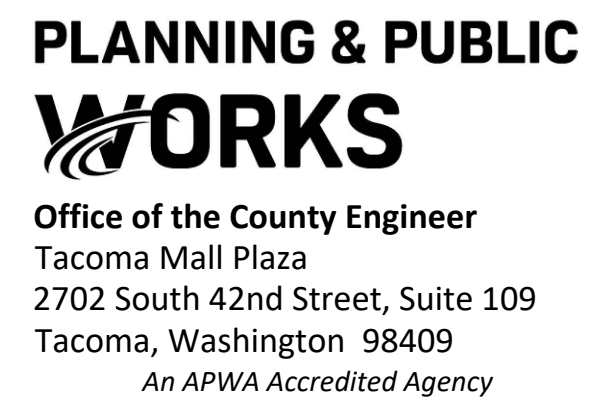
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Layout: PIER2 Plot Date: Jul. 22, 2026 Time: 1:06:43 PM By: AEDWAR2



REVIEWED BY: B. NORTON, P.E.

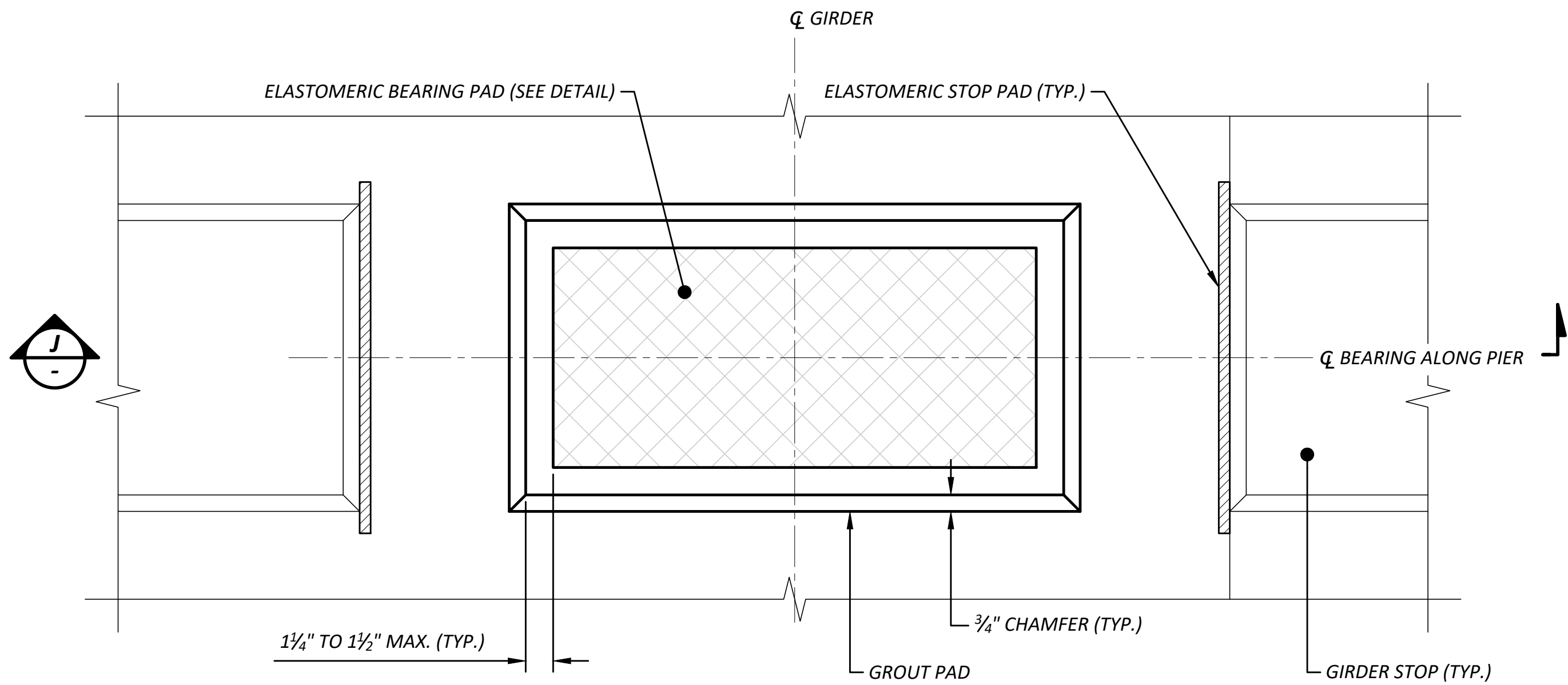
NO.	DATE	REVISION	BY	APPROVED



13

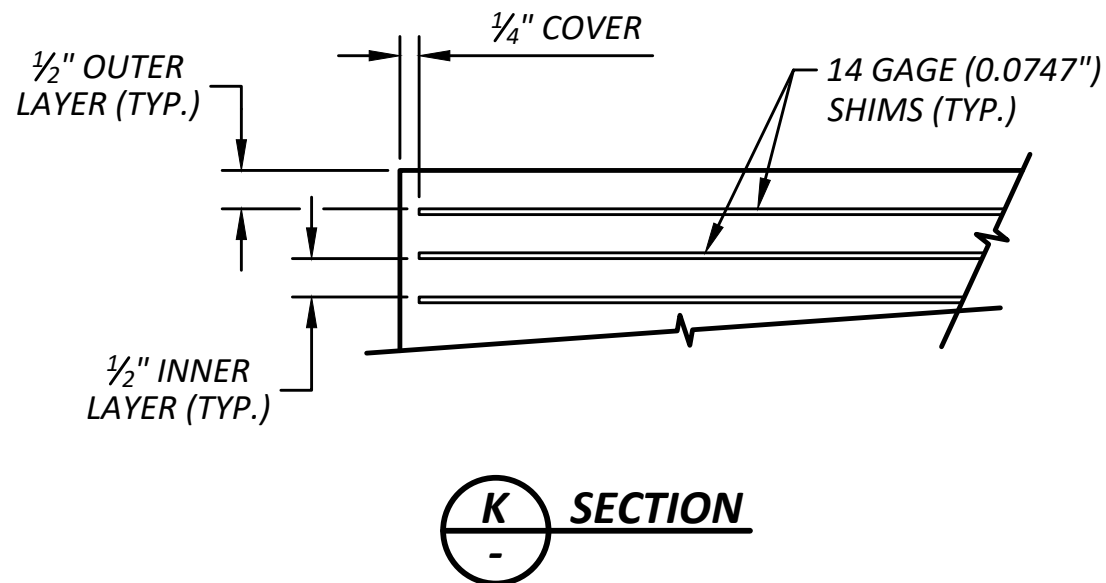
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Layout: BEARINGDETAILS Plot Date: Jul 22, 2026 Time: 1:08:04 PM By: AEDWAR2

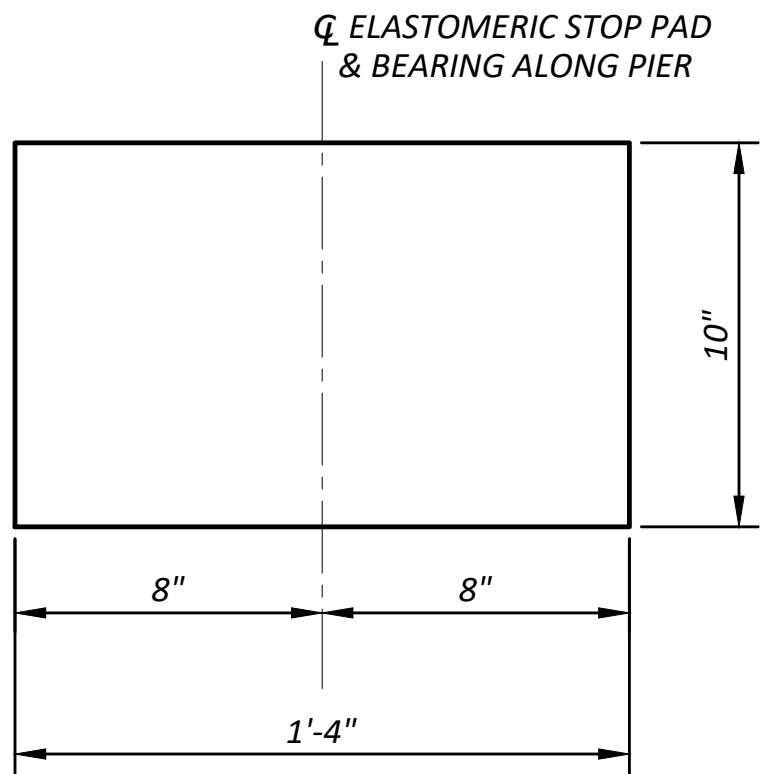


GROUT PAD DETAIL

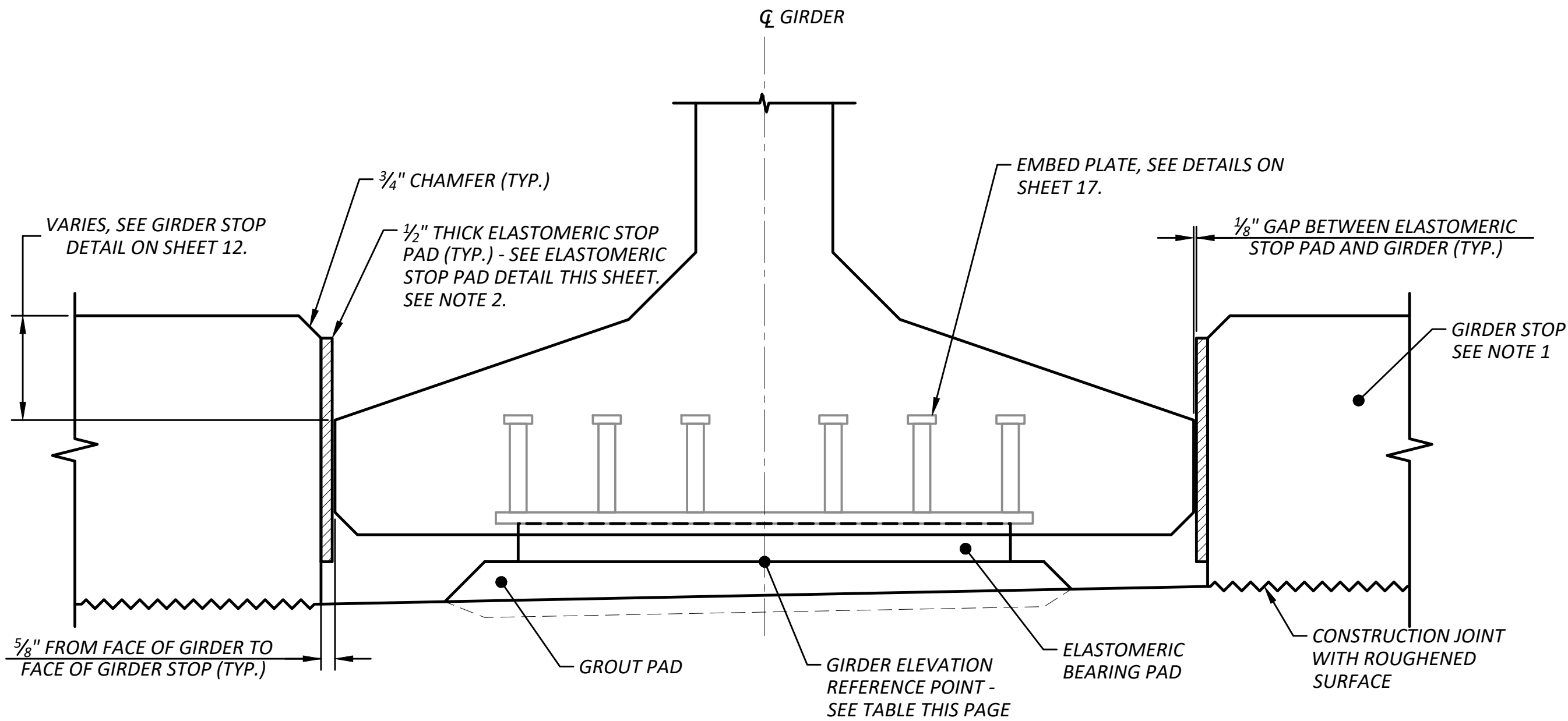
BEARING DESIGN TABLE (UNFACTORED)	
DEAD LOAD REACTION	66 KIP
LIVE LOAD REACTION (W/O IMPACT)	53 KIP
UNLOADED HEIGHT	2.80 IN.
LOADED HEIGHT (DL)	2.78 IN.
SHEAR MODULUS AT 73° F	165 PSI
NUMBER OF SHIMS	4



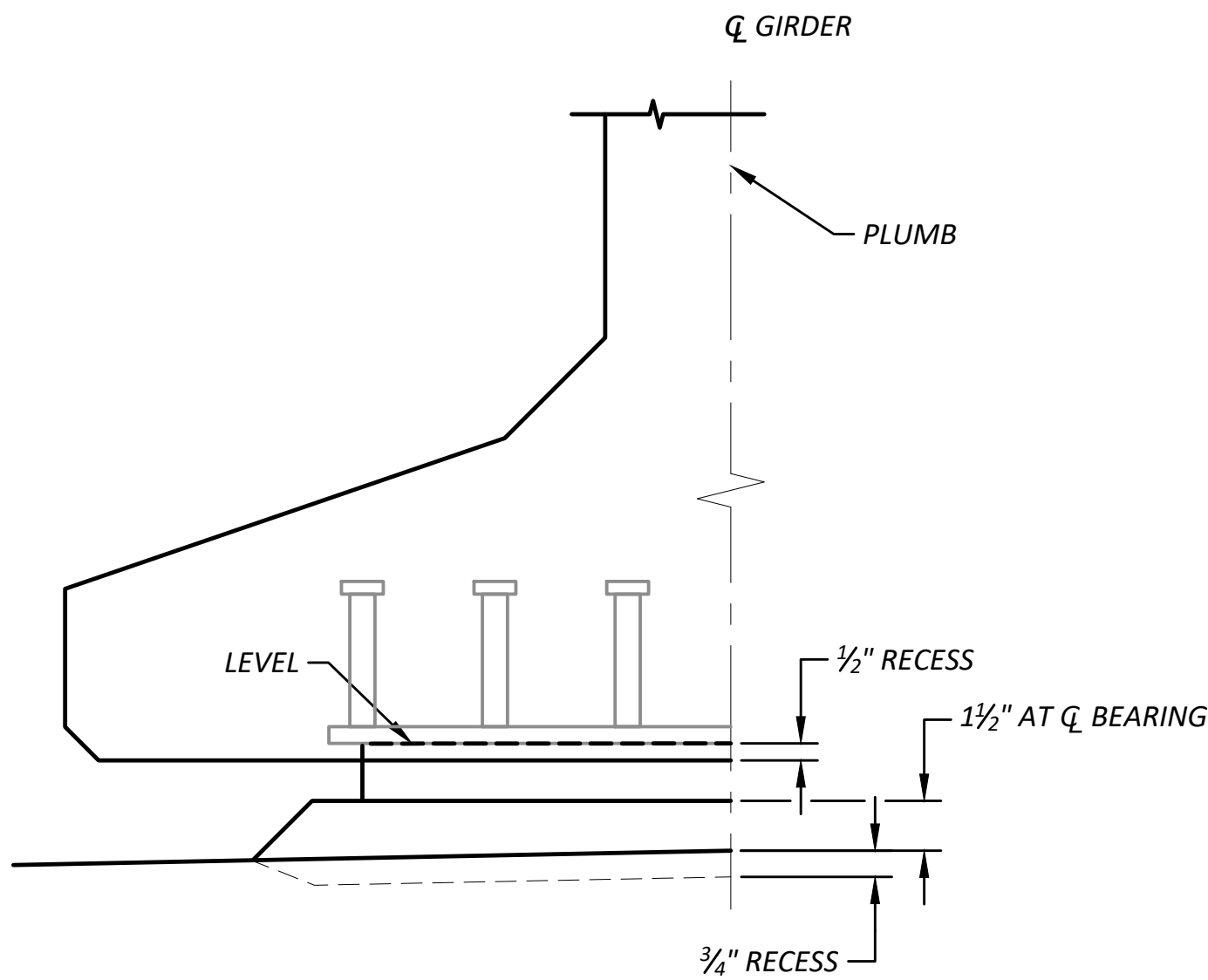
BEARING PAD DETAIL
LAMINATED ELASTOMERIC BRG. PAD



ELASTOMERIC STOP PAD DETAIL



J SECTION



GROUT PAD ELEVATION

GIRDER ELEVATIONS			
GIRDER	PIER 1	PIER 2 (SPANS 1 & 2)	PIER 3
A	304.83	305.51	304.83
B	304.83	305.51	304.83

NOTES:

- GIRDER STOPS SHALL BE CONSTRUCTED AFTER GIRDER PLACEMENT.
- THE ELASTOMERIC GIRDER STOP PADS SHALL BE BONDED TO THE GIRDER STOPS WITH AN APPROVED ADHESIVE.
- FINAL GROUT PAD ELEVATIONS MAY CHANGE BASED UPON FINAL APPROVED GIRDER SHOP PLANS.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED

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Tacoma, Washington 98409
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SEE COVER SHEET
FOR DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
BEARING DETAILS
P-111399

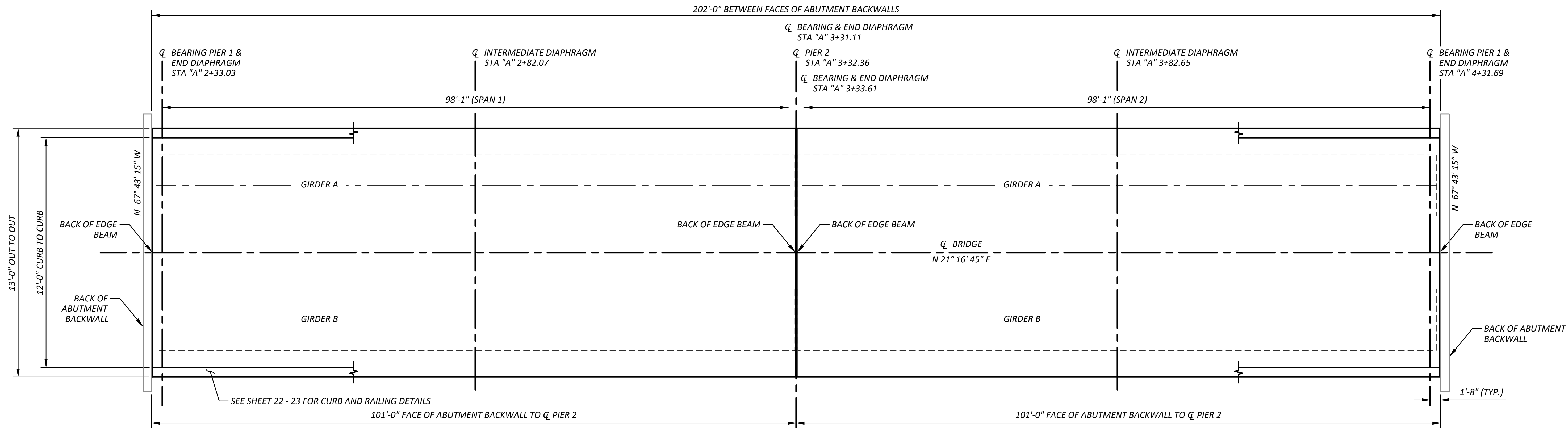
SHEET

14

OF

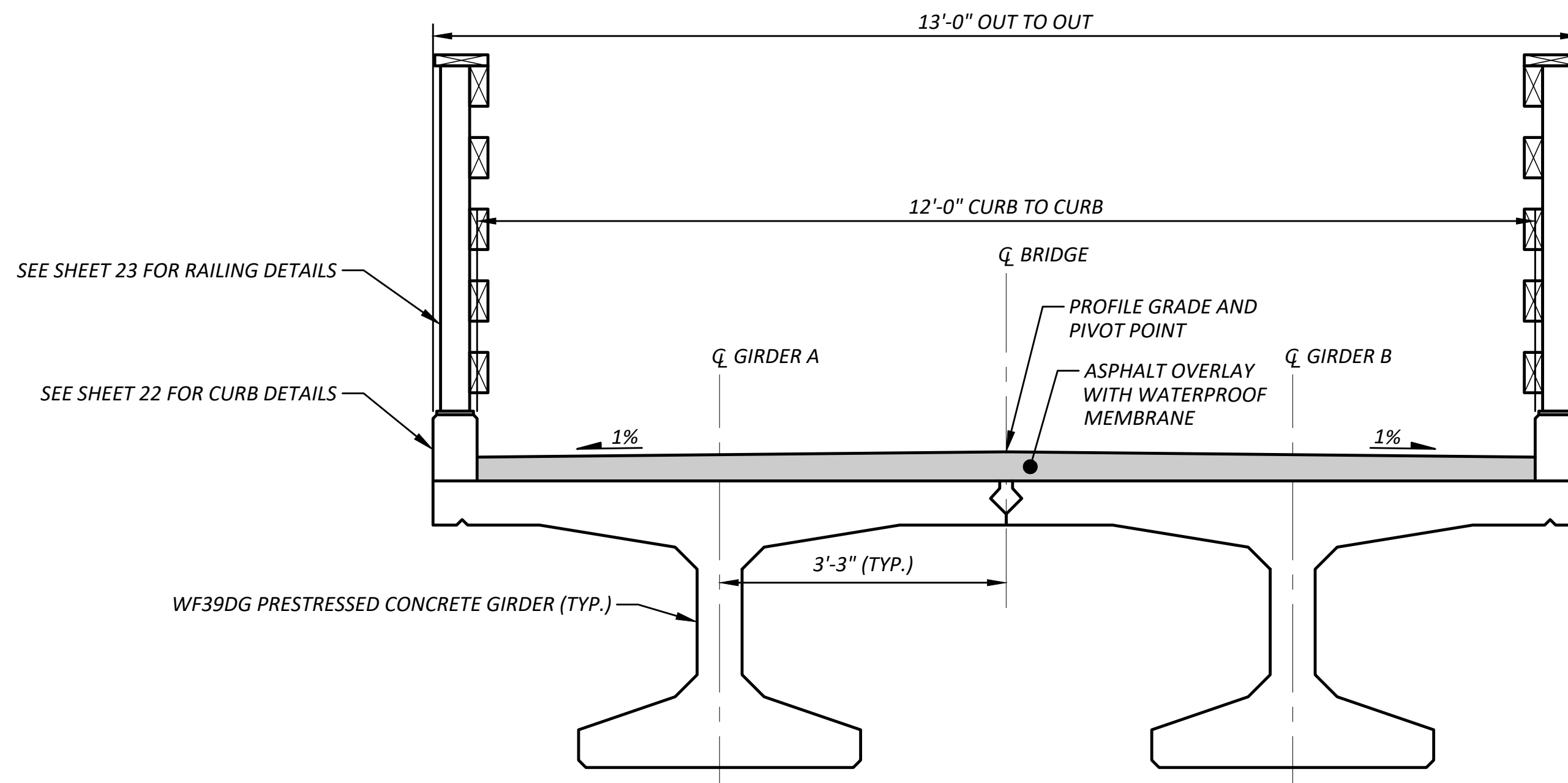
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Layout: FRAMINGPLAN Plot Date: Jul 22, 2026 Time: 1:08:54 PM By: AEDWAR2



PLAN VIEW

NOT TO SCALE



TYPICAL SECTION

LOOKING AHEAD ON STATIONING

DRAWN BY: A. EDWARDS, P.E.

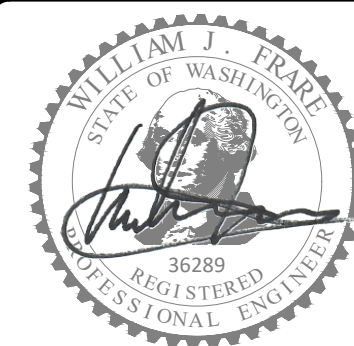
DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED	

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SEE COVER SHEET
FOR DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)

FRAMING PLAN

P-111399

SHEET

15

OF

25



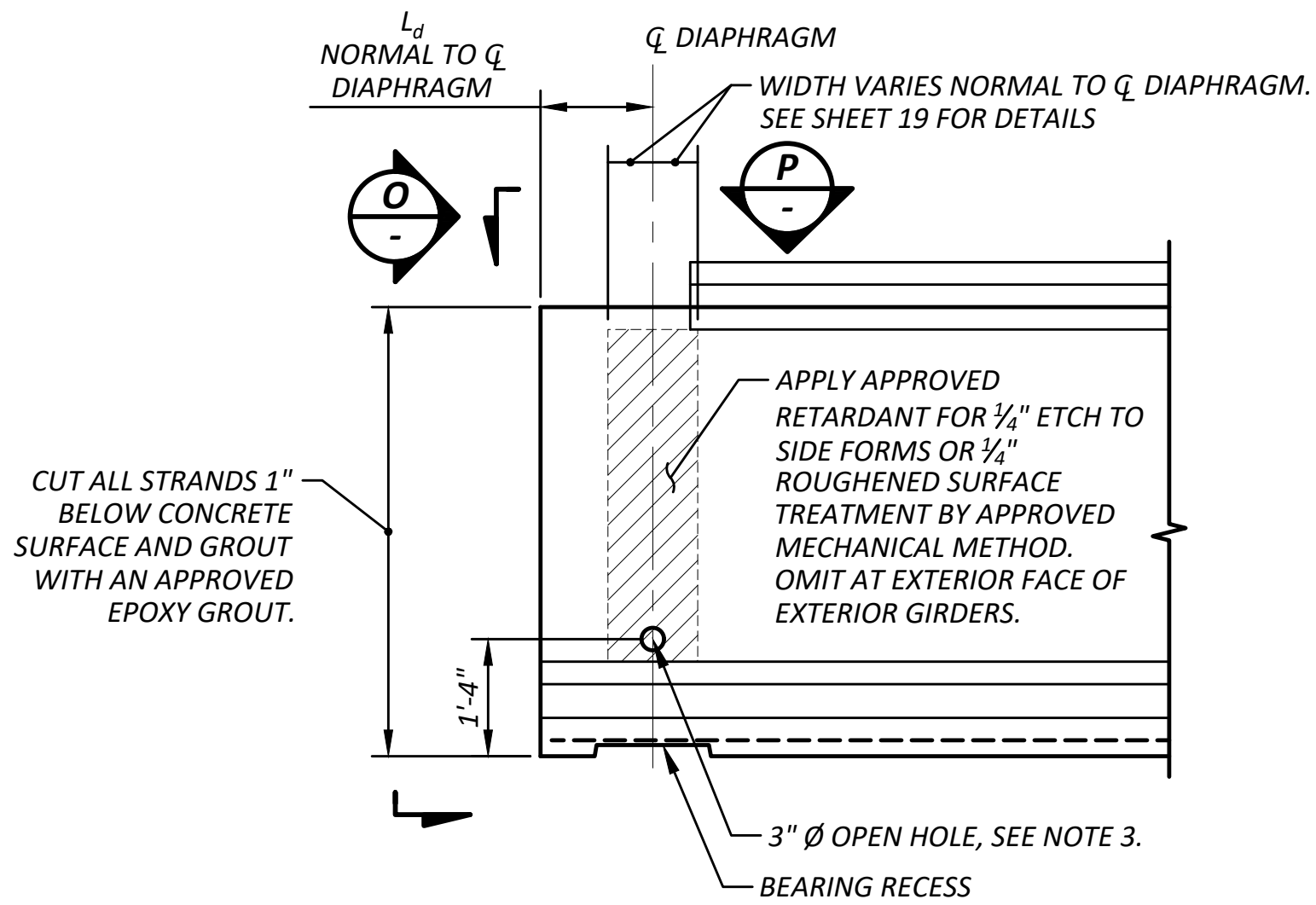
1. AT EXTERIOR SIDE OF EXTERIOR GIRDERS, PROVIDE MIN $1\frac{1}{8}$ " I.D. SCH 40 HOT DIP GALVANIZED SLEEVE FOR 1" THRU BOLTS THE ENTIRE LENGTH OF THE GIRDER FOR CURB ATTACHMENT. SEE SHEETS 22 & 23 FOR SPACING AND LOCATION OF SLEEVES.

[illegible]

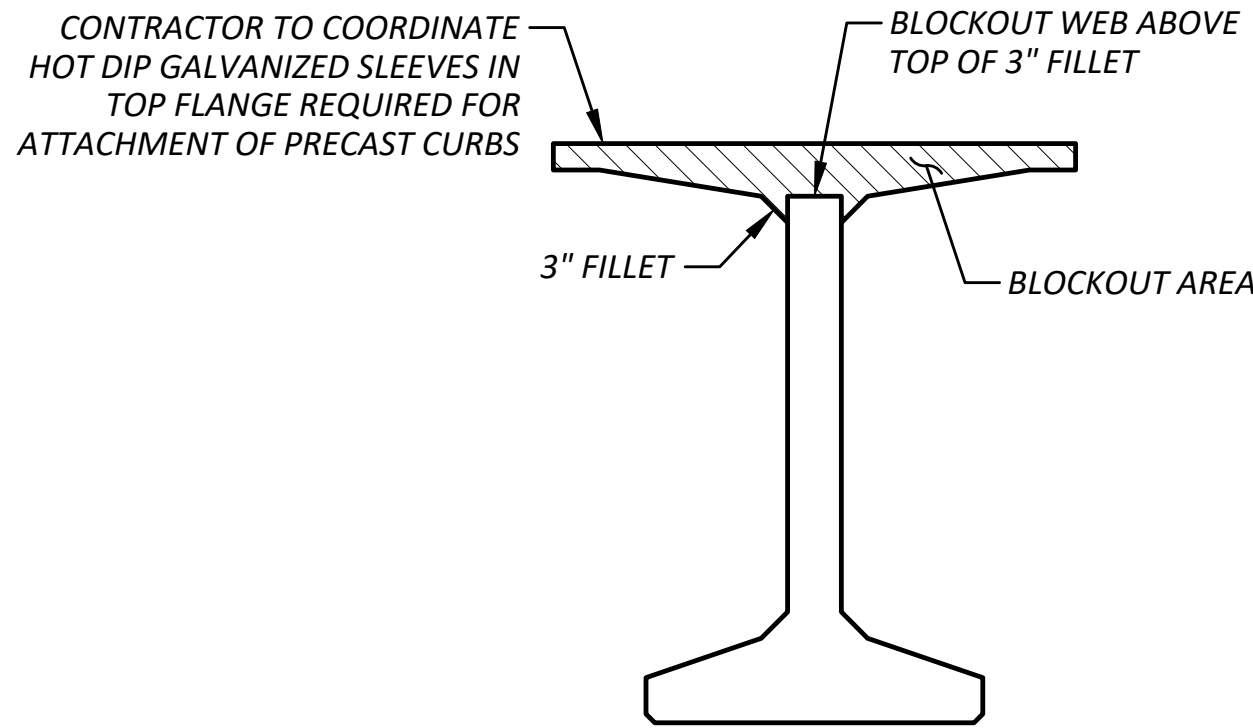
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Layout: GIRDERDETAILS(1) Plot Date: Jul. 22, 2026 Time: 1:04:48 PM By: AEDWAR2

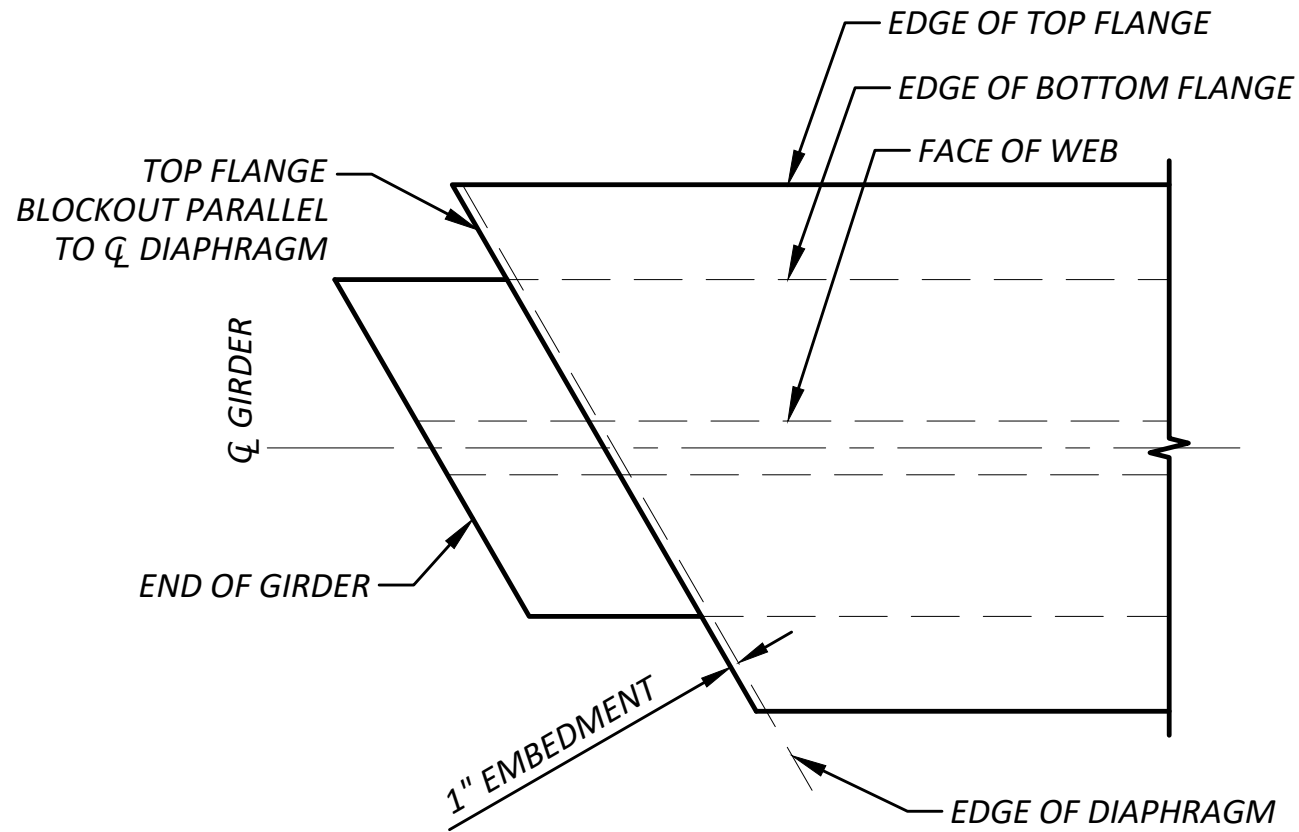
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Layout: GIRDERDETAILS(2) Plot Date: Jul 22, 2026 Time: 11:126 PM By: AEDWARZ



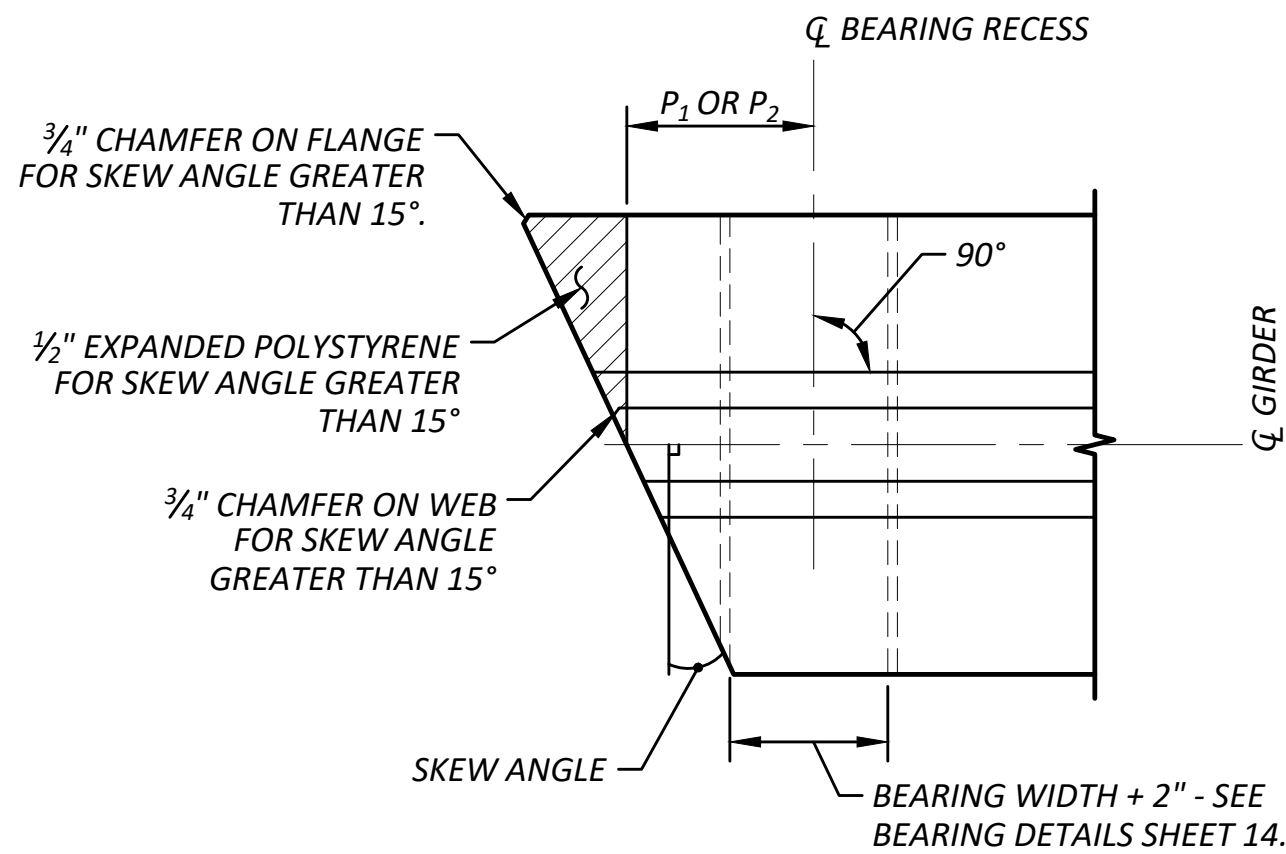
END TYPE B



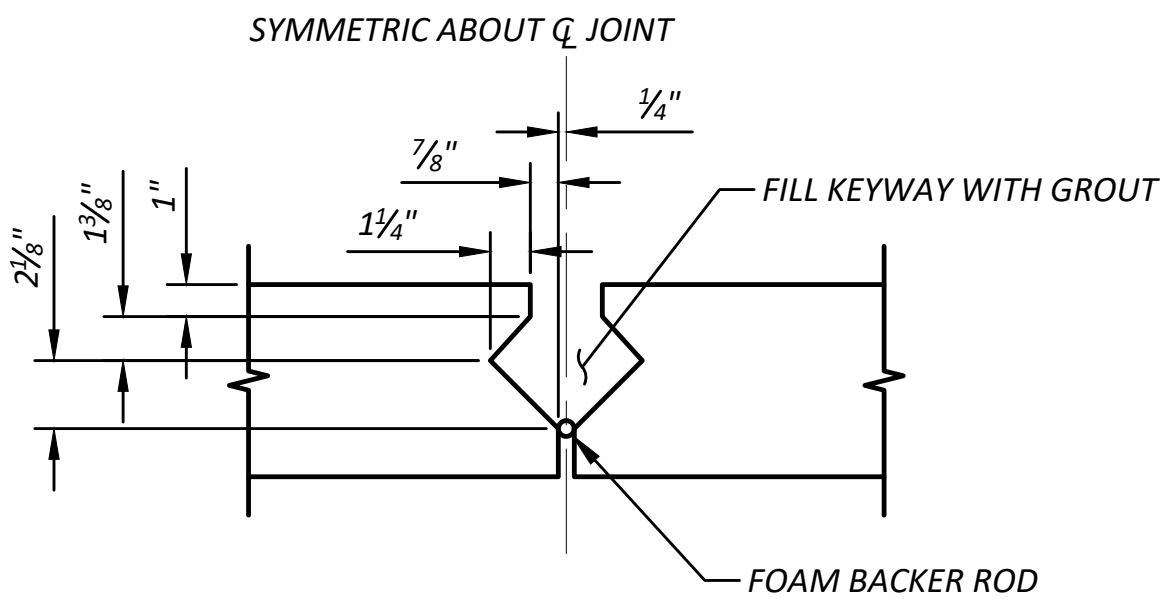
O DETAIL



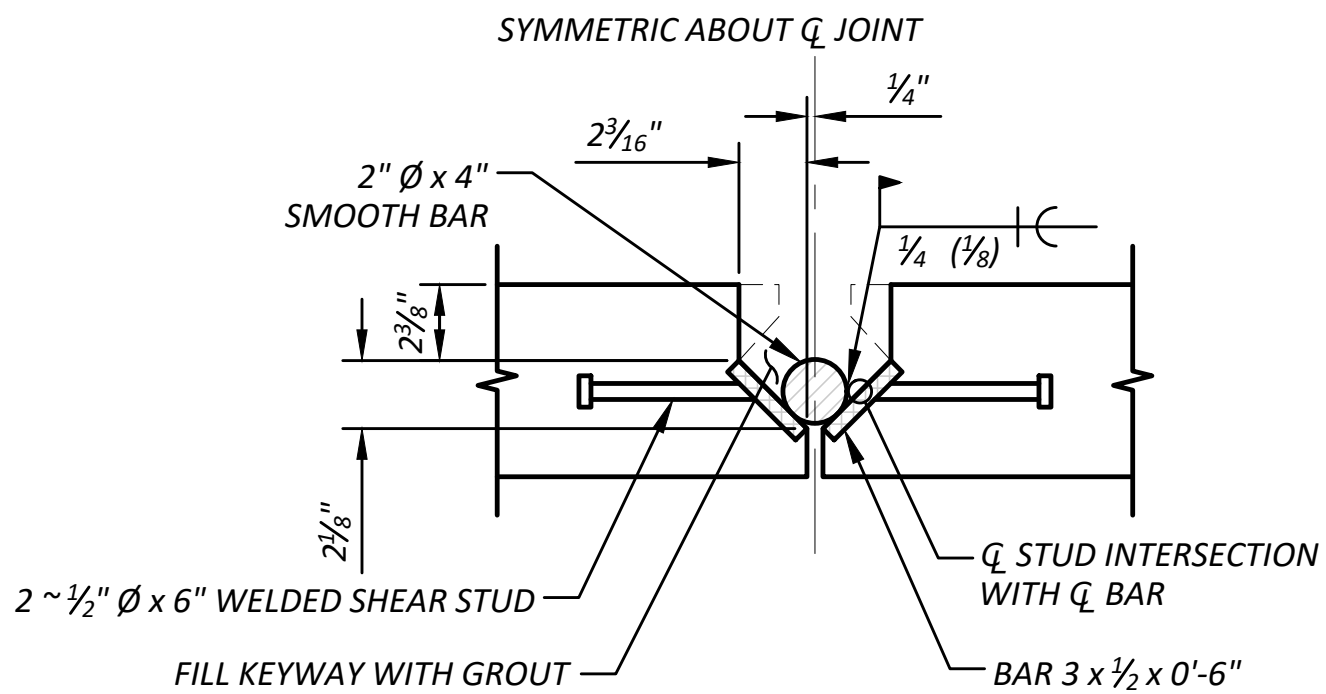
P DETAIL



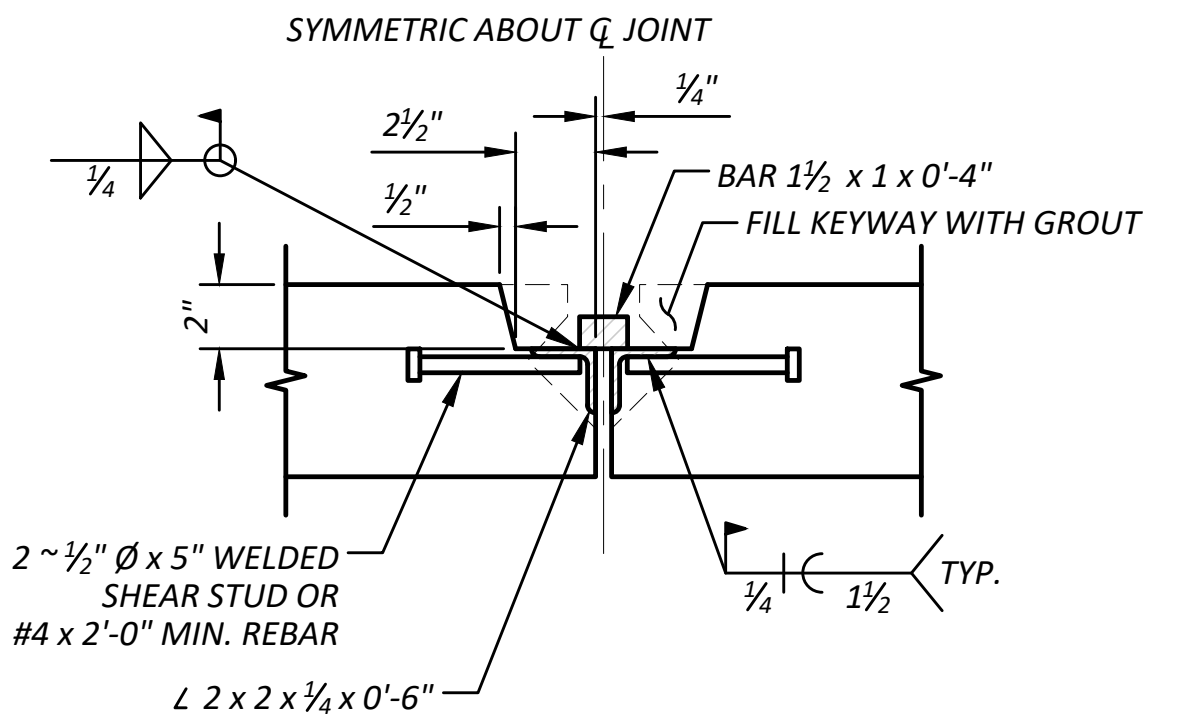
PLAN



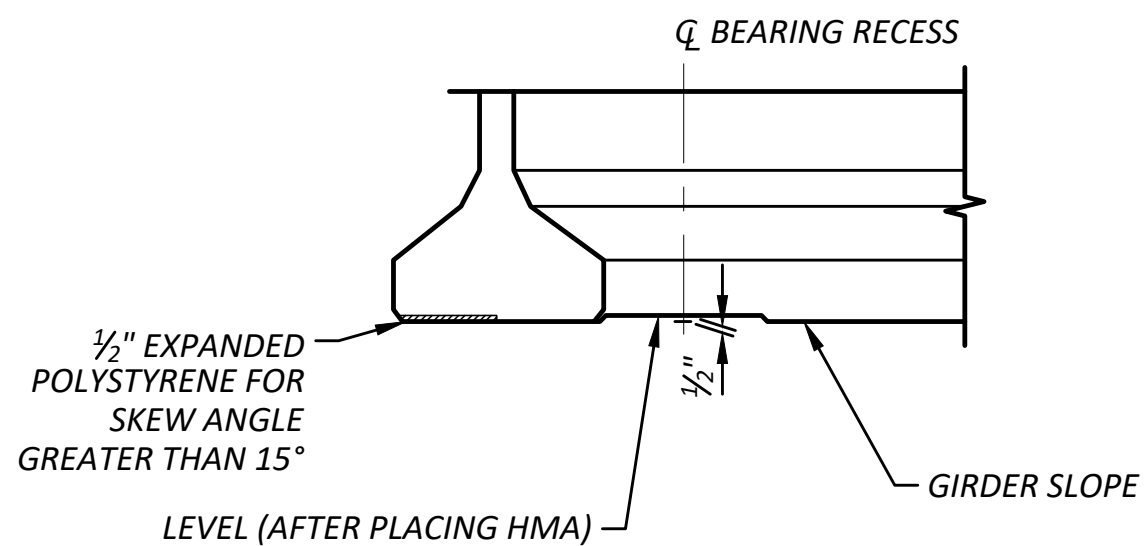
KEYWAY DETAIL



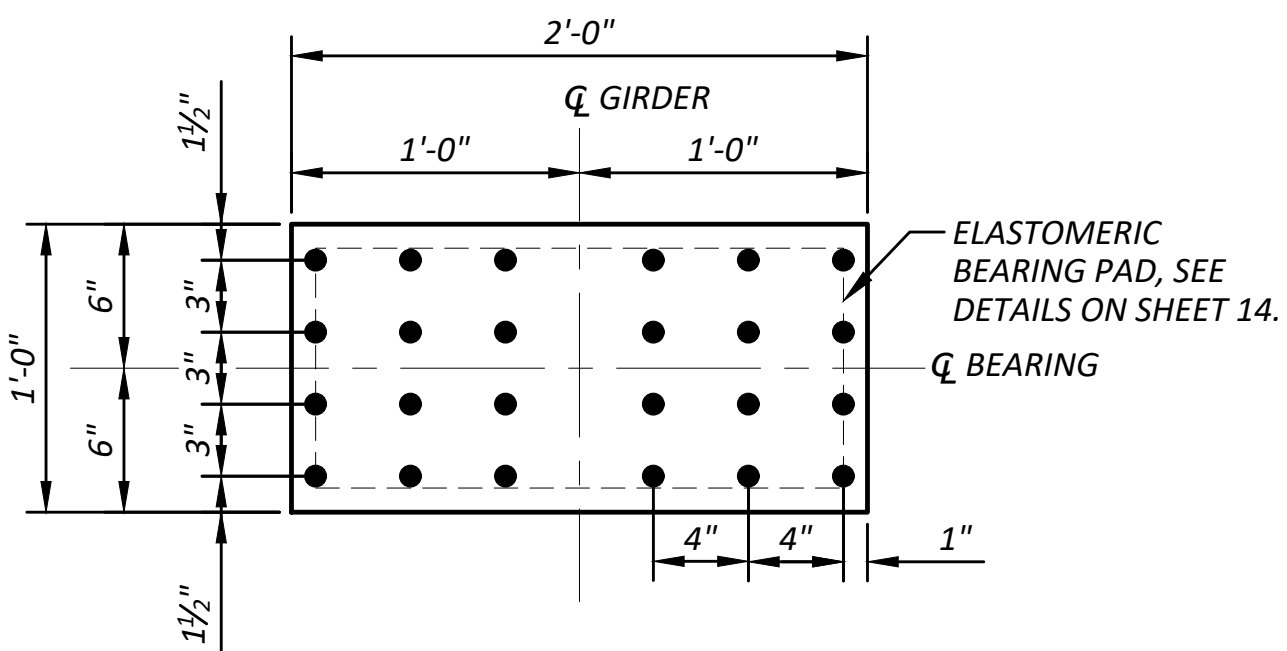
WELD TIE DETAIL



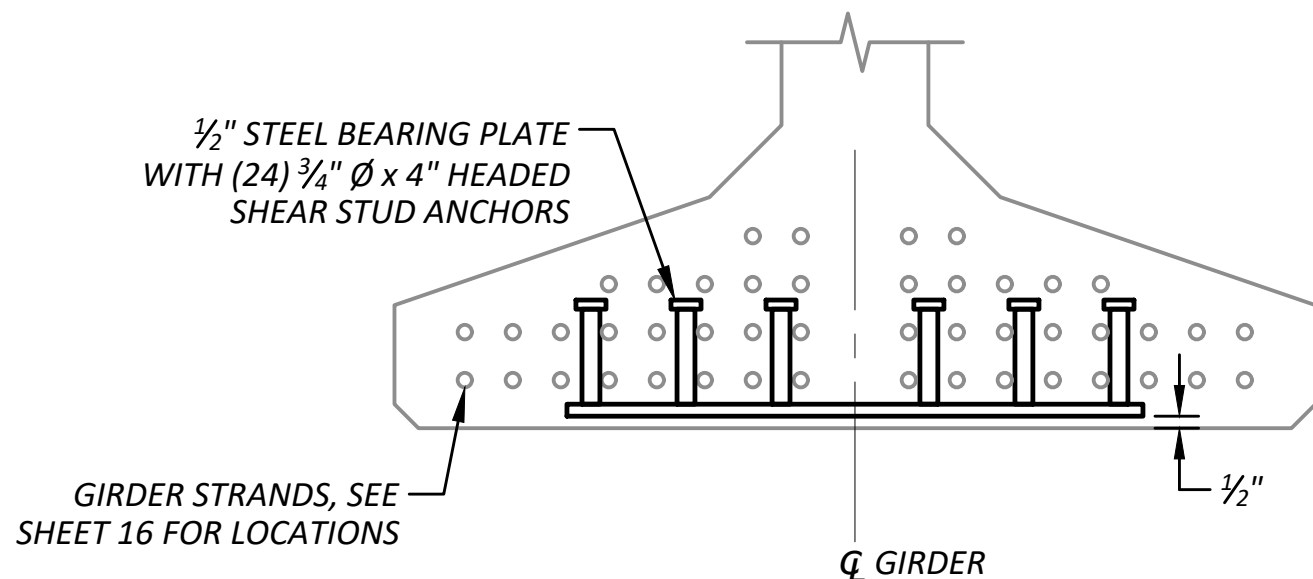
ALTERNATE WELD TIE DETAIL



ELEVATION



EMBED PLATE PLAN



EMBED PLATE ELEVATION

BEARING RECESS AND BOTTOM FLANGE SPALL PROTECTION DETAIL

BEARING RECESS FORMS SHALL BE CONSTRUCTED AND FASTENED TO AVOID GIRDER DAMAGE DURING STRAND RELEASE.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMEYER, P.E., S.E.

CHECKED BY: A. SCHILDMEYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED

Pierce County

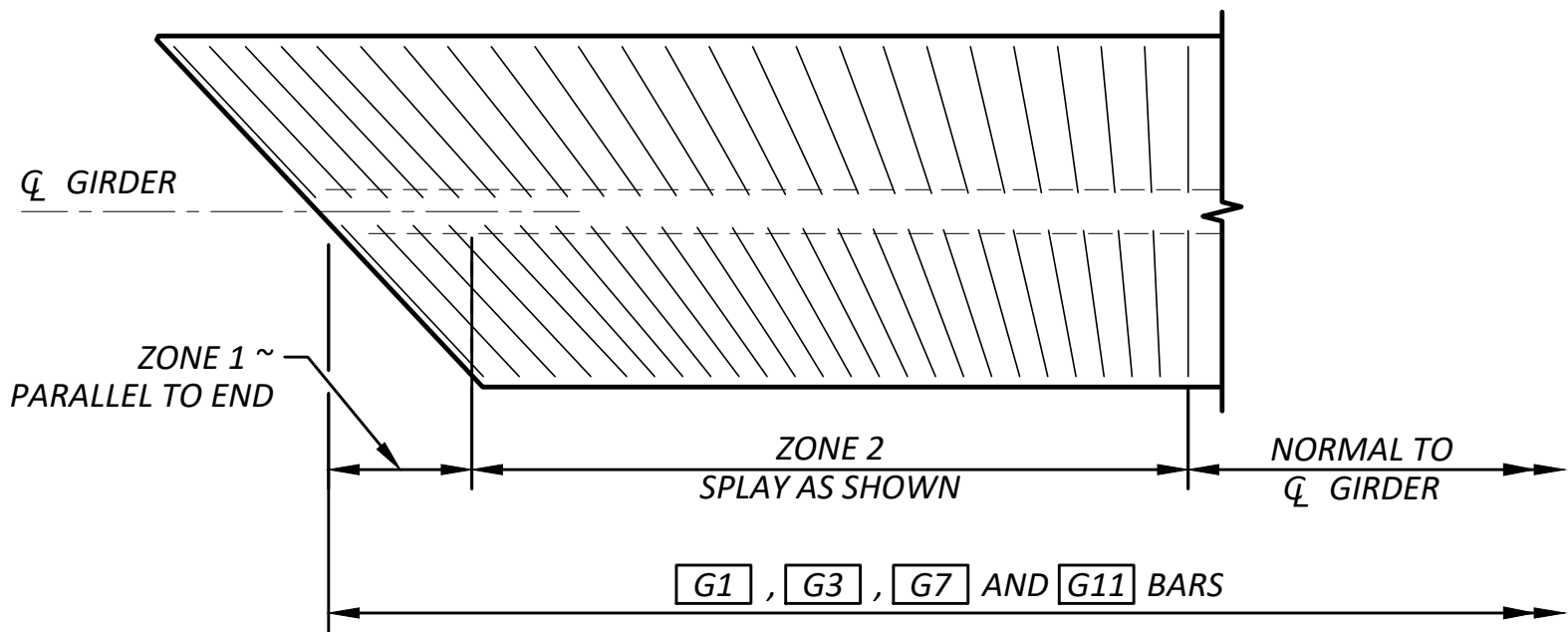
PLANNING & PUBLIC WORKS

Office of the County Engineer
Tacoma Mall Plaza
2702 South 42nd Street, Suite 109
Tacoma, Washington 98409
An APWA Accredited Agency

WILLIAM J. FRARE
REGISTERED PROFESSIONAL ENGINEER
36289
SEE COVER SHEET
DATE
WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

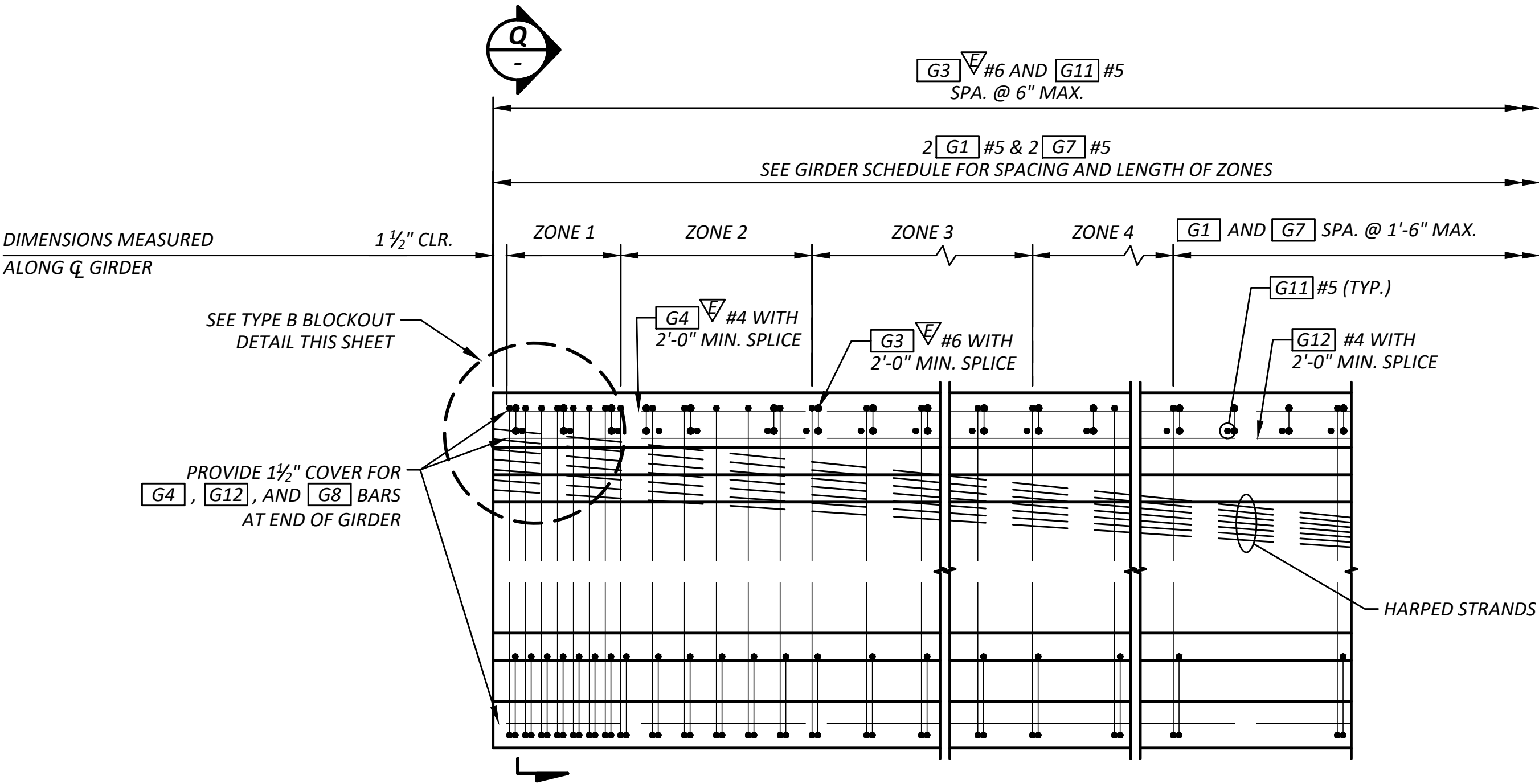
BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
GIRDER DETAILS
P-111399

Drawing: P:\P-111390-BRRT27195-E-SKIPARK\BRIDGE\REPLACE\MENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANSHEETS\P-111399_GIRDERDETAILS.DWG
Layout: GIRDERDETAILS(3) Plot Date: Jul 22, 2026 Time: 11:21:13 PM By: AEDWAR2



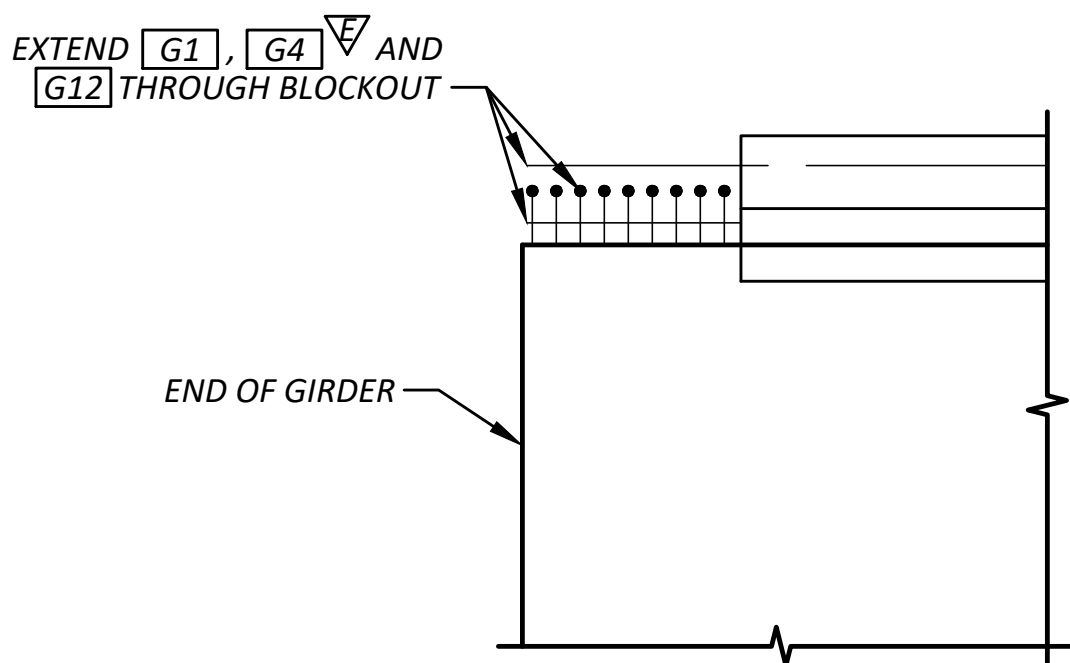
TRANSVERSE REINFORCING AT SKEWED ENDS - PLAN

LENGTHS OF G3, G7 AND G11 VARY WITH SKEW.
ONLY TRANSVERSE REINFORCEMENT SHOWN.

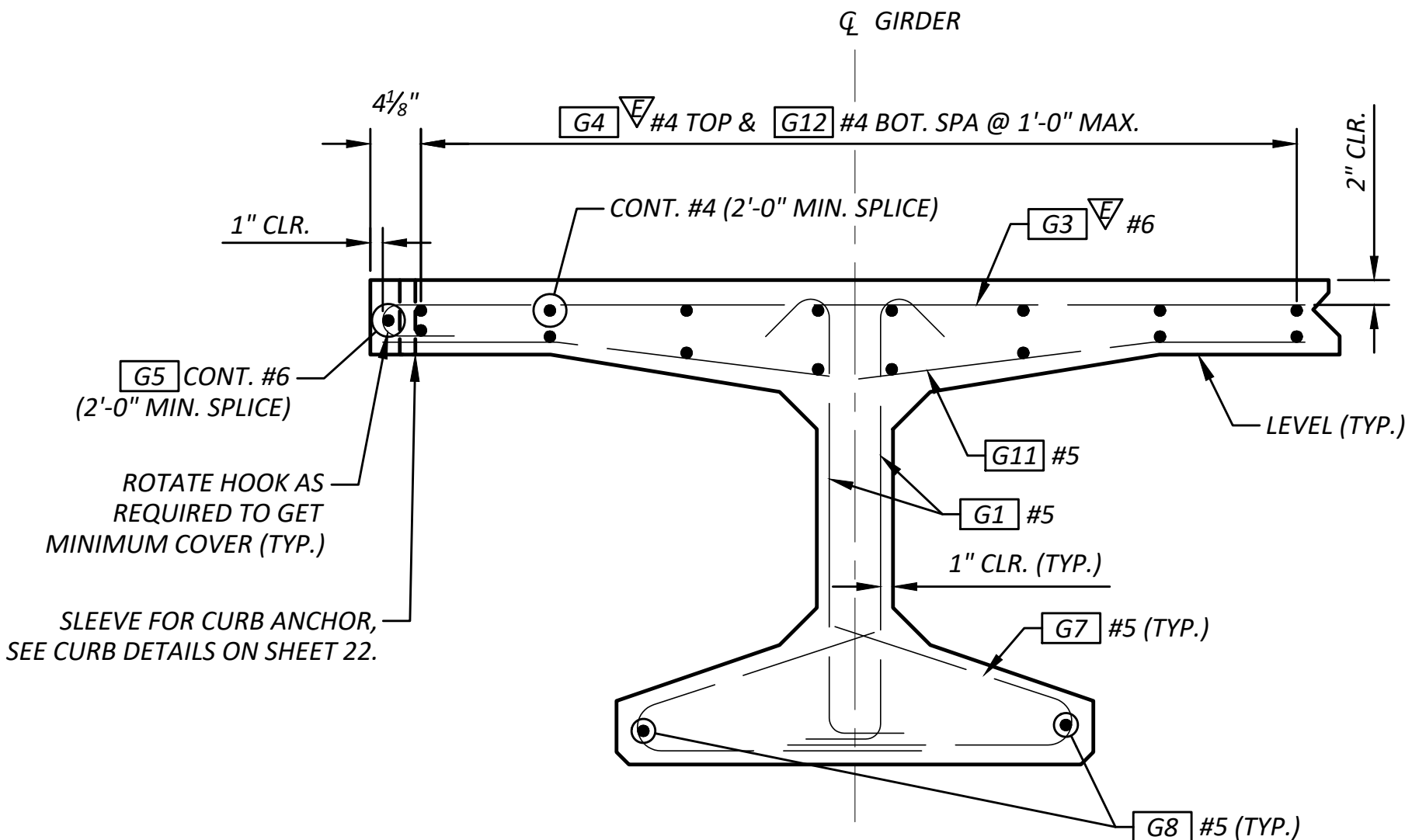


REINFORCEMENT END ELEVATION

STRAIGHT AND TEMPORARY STRANDS NOT SHOWN FOR CLARITY



END TYPE B BLOCKOUT



SECTION

STRANDS NOT SHOWN

GIRDER NOTES:

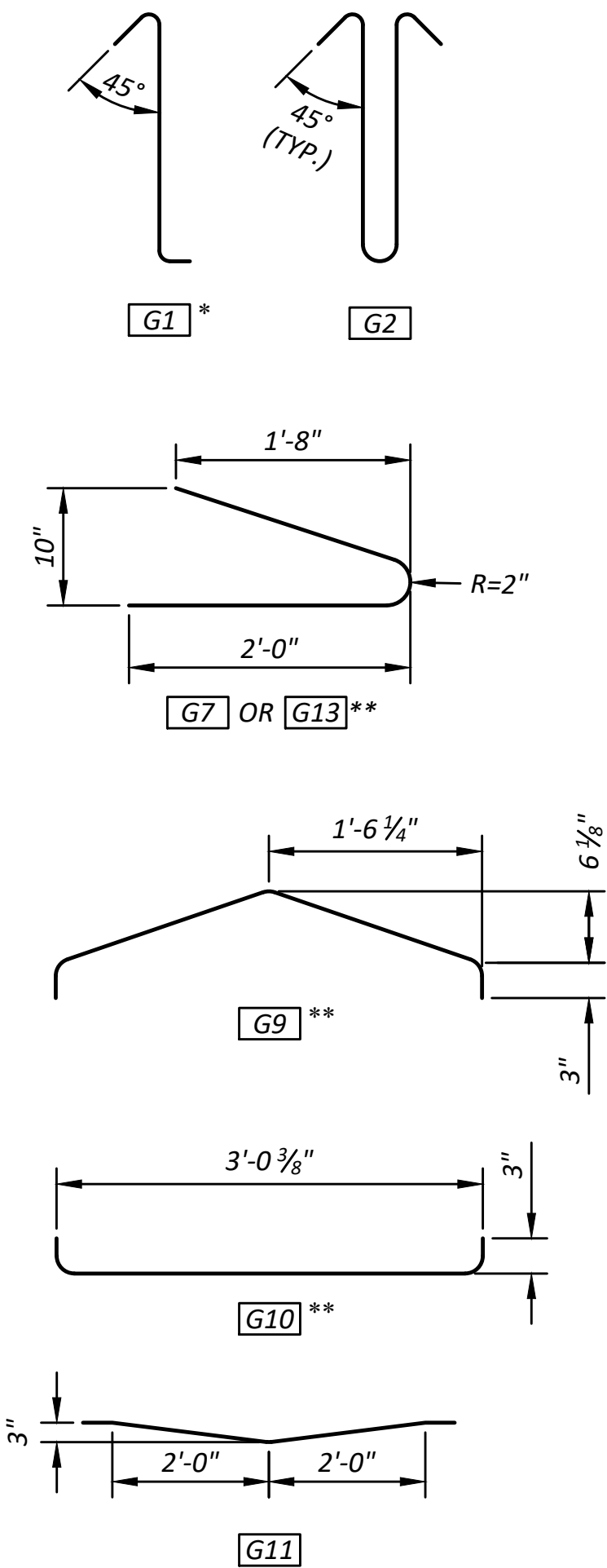
- PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
- ALL PRESTRESSED AND TEMPORARY STRANDS SHALL BE 0.6" Ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI (43.94 KIPS PER STRAND).
- STRUCTURAL STEEL SHAPES AND ASSEMBLIES SHALL BE ASTM A36. THEY SHALL BE PAINTED WITH A PRIMER COAT IN ACCORDANCE WITH STD. SPEC. 6-07.3(9). WELD TIES SHALL BE PAINTED WITH A FIELD PRIMER COAT OF AN ORGANIC ZINC PAINT AFTER FIELD WELDING.

REINFORCEMENT NOTES:

- DEFORMED WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR MILD REINFORCEMENT IN ACCORDANCE WITH STANDARD SPECIFICATION 6-02.3(25)A.

BENDING DIAGRAM

(ALL DIMENSIONS ARE OUT TO OUT)



* 1 G2 MAY BE SUBSTITUTED FOR 2 G1 WITHIN ZONE 1.

** PAIRS OF G7 BARS, OR G9 AND G10 BARS MAY BE USED INTERCHANGEABLY AS BOTTOM FLANGE TIES.

GIRDER SCHEDULE

SPAN	GIRDER	GIRDER SERIES	TOP FLANGE WIDTH W	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	GIRDER END DETAILS							MIN. CONC. COMP. STRENGTH		NUMBER OF STRANDS (SEE GIRDER NOTE 2)		LOCATION OF C.G. STRANDS			STRAIGHT STRANDS TO EXTEND		MIDSPAN VERTICAL DEFLECTION D		GIRDER SCHEDULE								SHIPPING AND HANDLING DETAILS					
					END 1 TYPE	END 2 TYPE	L _d	θ ₁	θ ₂	P ₁	P ₂	@ 28 DAYS F _C (KSI)	@ RELEASE F _{CI} (KSI)	STRAIGHT	HARPED	E	F _Q	F _O	END 1	END 2			ZONE 1	ZONE 2		ZONE 3		ZONE 4		MAXIMUM MIDSPAN VERTICAL DEFLECTION AT SHIPPING	L	L ₁	L ₂	K _θ MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT	W _{CC} MINIMUM SHIPPING SUPPORT CNTR. TO CNTR. WHEEL SPACING	
																					SPACING	LENGTH		SPACING	LENGTH	SPACING	LENGTH	SPACING	LENGTH							
					1	A - B	WF39DG	6'-6"	100'-1"	B	B	1'-0"	90	90	1'-0"	1'-0"	6.0	5.0	20	8	2'-3/8"	4"	7"	0	0	1 1/4"	2 7/8"	1 3/4"	1'-2"	3 1/2"	1'-9"	6"	12'-0"	9"	4'-6"	3 1/4"
2	A - B	WF39DG	6'-6"	100'-1"	B	B	1'-0"	90	90	1'-0"	1'-0"	6.0	5.0	20	8	2'-3/8"	4"	7"	0	0	1 1/4"	2 7/8"	1 3/4"	1'-2"	3 1/2"	1'-9"	6"	12'-0"	9"	4'-6"	3 1/4"	3'-0"	3'-3"	3'-3"	40,000 KIP-IN/RAD	6'-0"

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.



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WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)

GIRDER DETAILS

P-111399

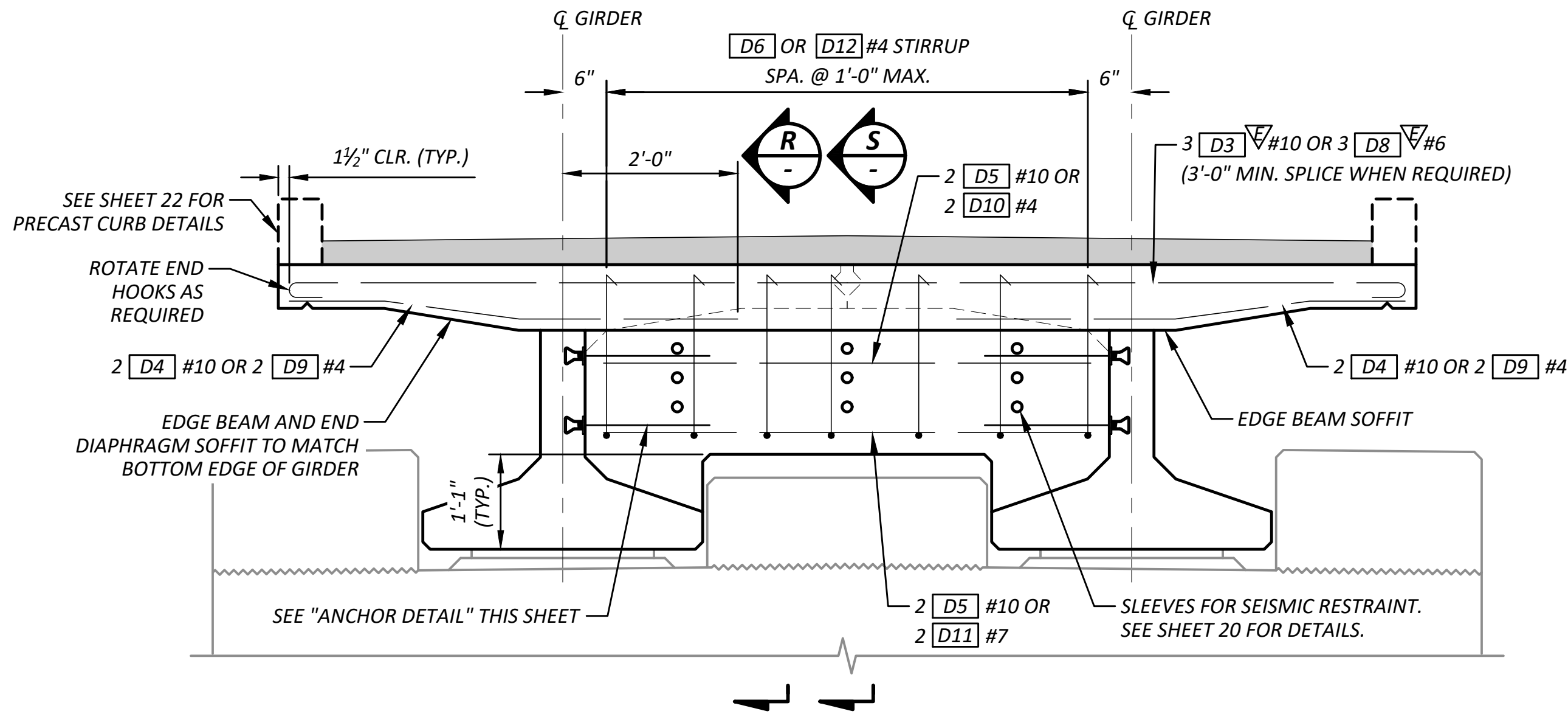
SHEET

18

OF

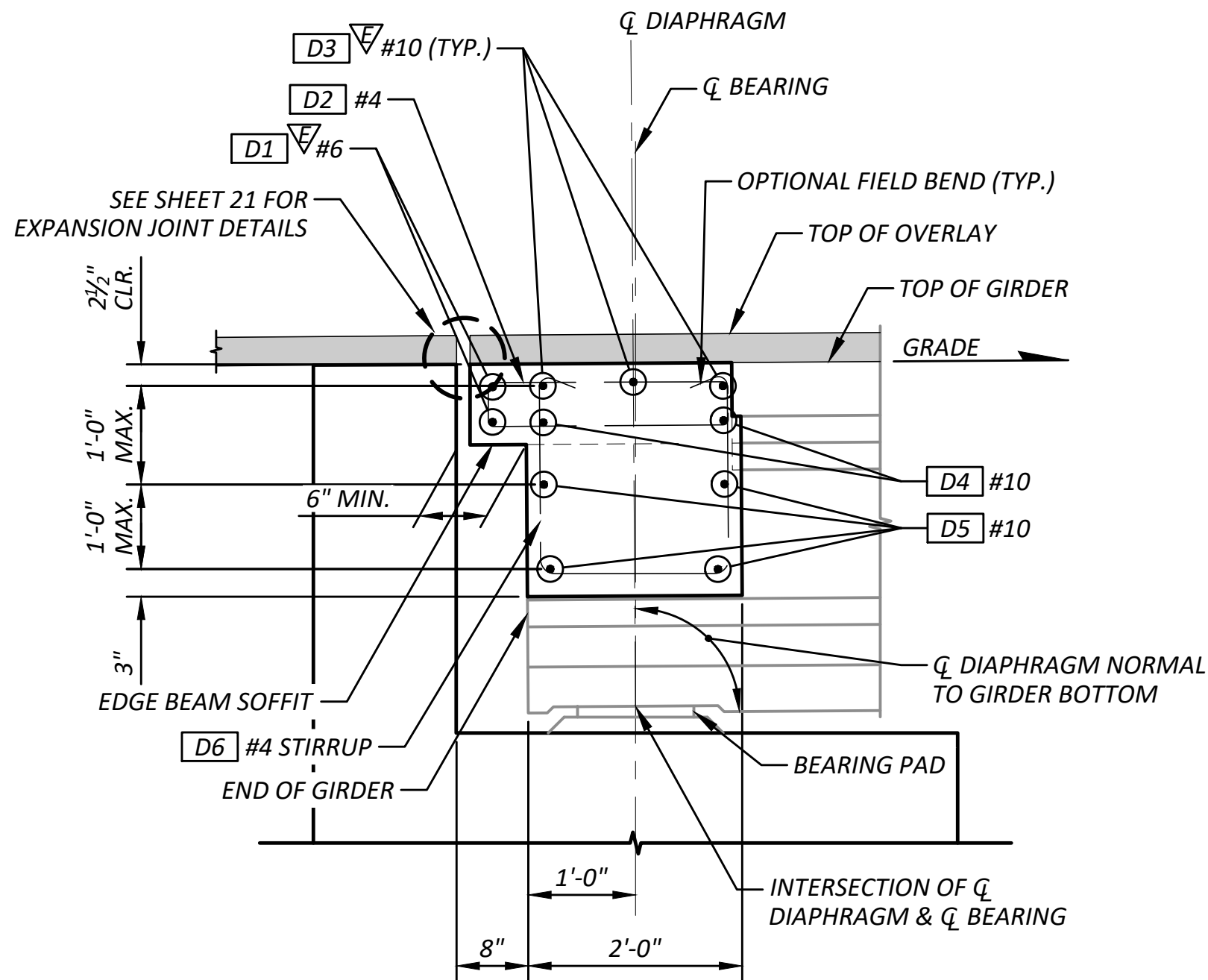
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Drawing: P:\0-111399-5R\07195E-SK\PAK\BRIDGE\REPLACE\MENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANSHEETS\0-111399_DIAPHRAGMDETAILS.DWG
Layout: DIAPHRAGMDETAILS Plot Date: Jul. 22, 2026 Time: 1:13:35 PM By: AEDWARZ



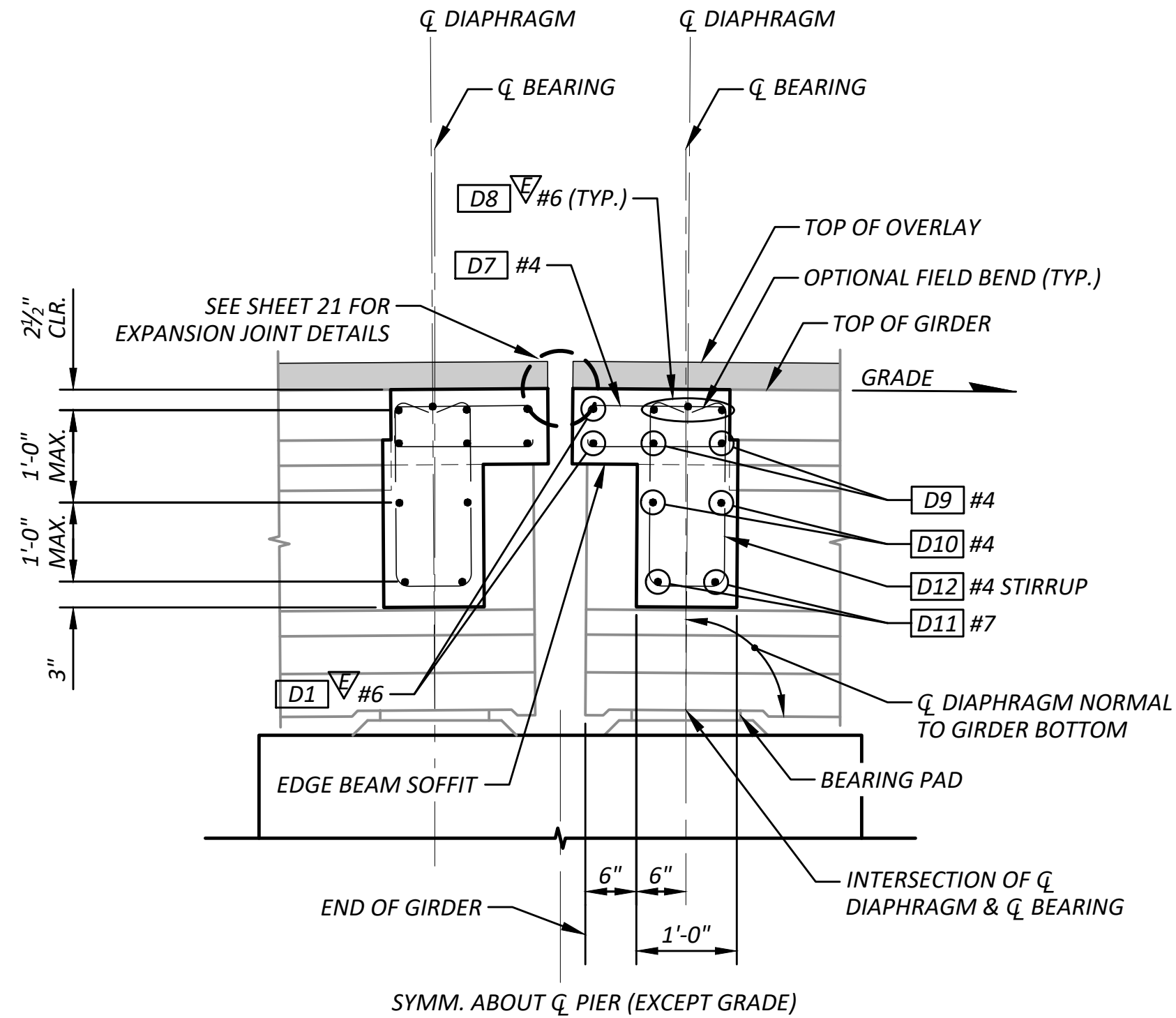
ELEVATION - END DIAPHRAGM

DIMENSIONS ARE ALONG $\bar{C}$ DIAPHRAGM



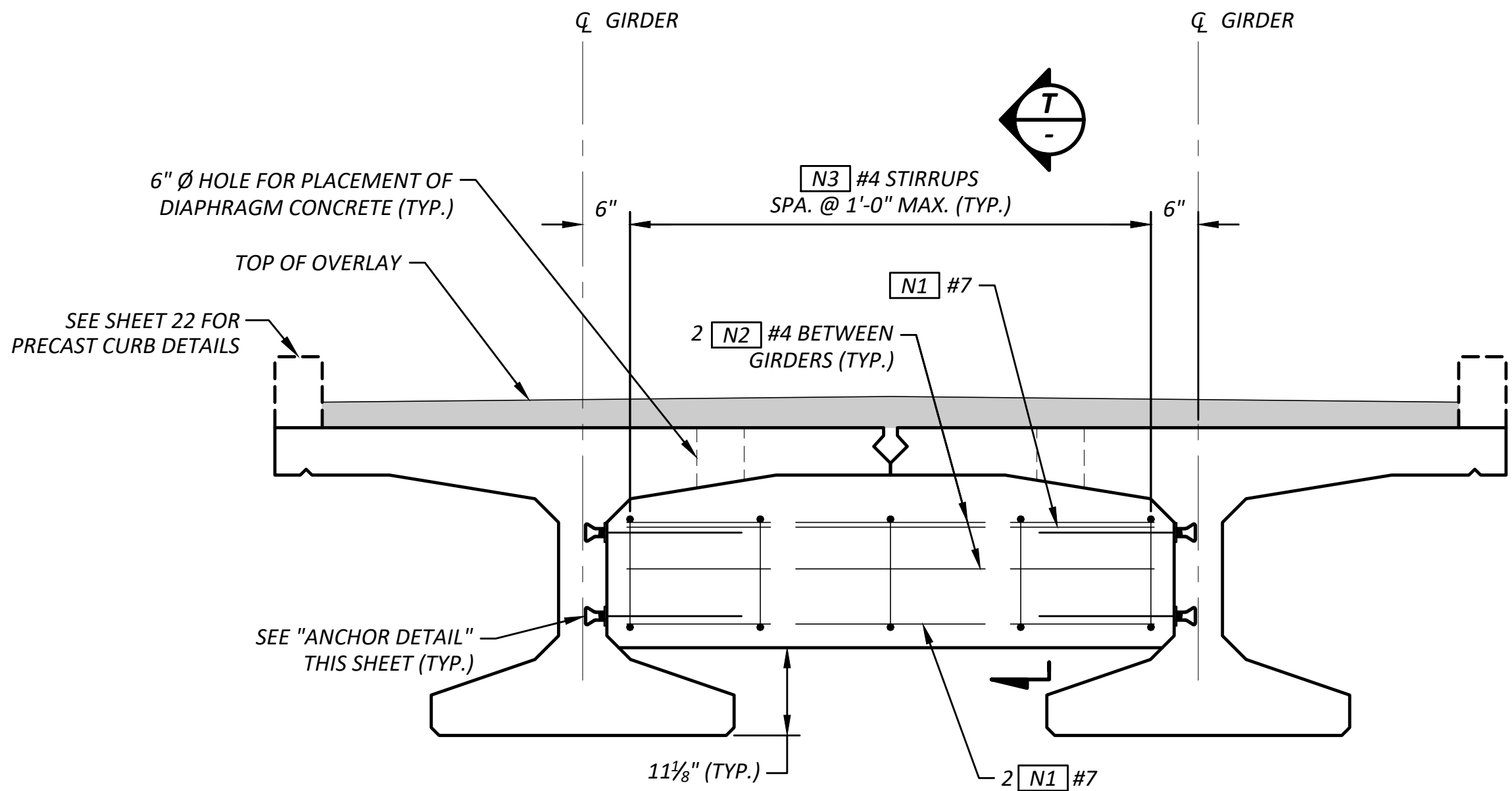
SECTION - PIERS 1 & 3

ALL LONGITUDINAL DIMENSIONS ARE NORMAL TO PIER WALL



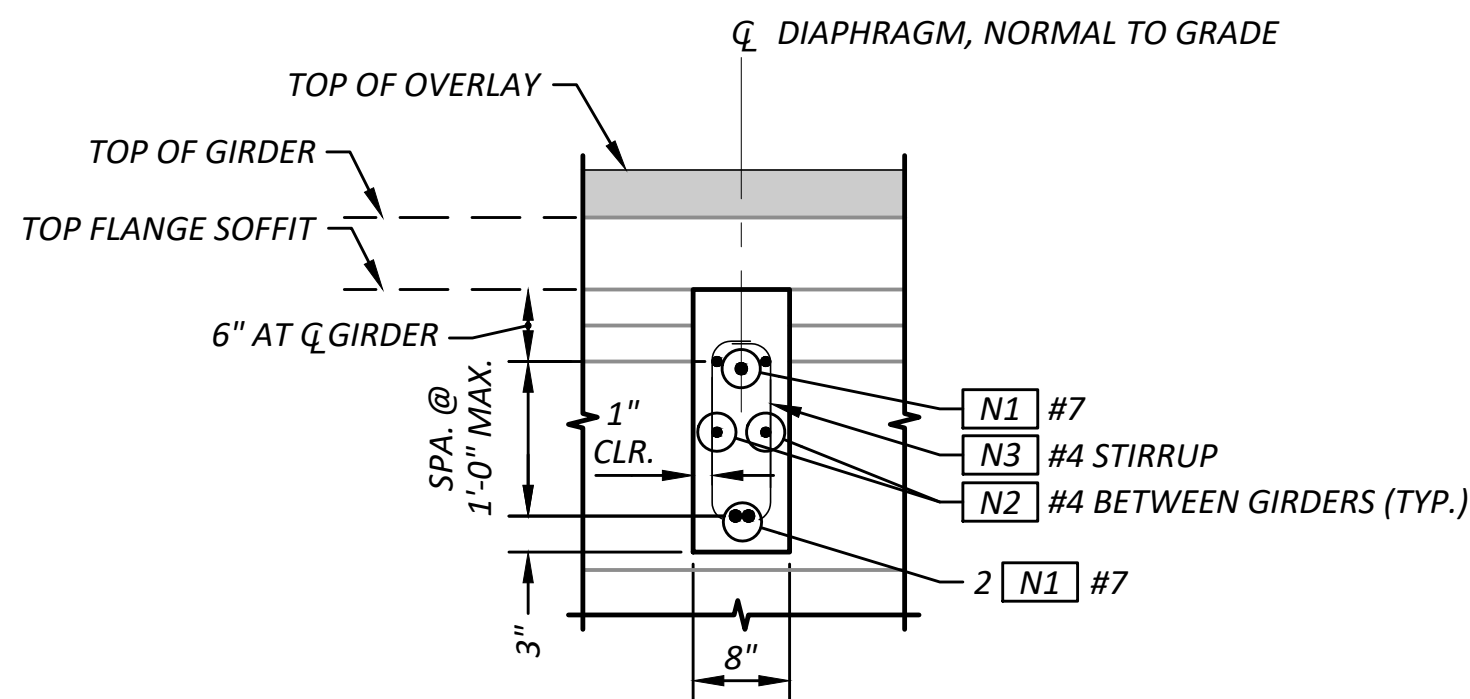
SECTION - PIER 2

DIMENSIONS ARE ALONG $\bar{C}$ DIAPHRAGM

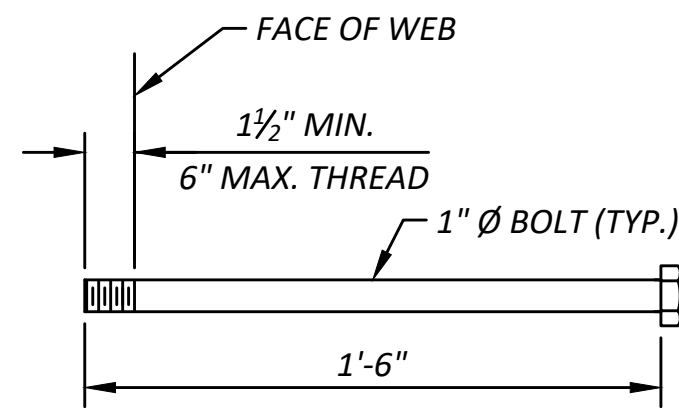


ELEVATION - INTERMEDIATE DIAPHRAGM

DIMENSIONS ARE ALONG DIAPHRAGM



SECTION - INTERMEDIATE DIAPHRAGM



ANCHOR DETAIL

ASTM A-307

DIAPHRAGM NOTES:

- GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED.
- IT MAY BE NECESSARY TO THREAD REINFORCING BARS THROUGH HOLES IN GIRDERS PRIOR TO PLACING EXTERIOR GIRDERS.
- LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
- FOR CONCRETE PLACEMENT PROCEDURE SEE "FOUNDATION PLAN AND CONSTRUCTION SEQUENCE" SHEET 9.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



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FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
DIAPHRAGM DETAILS
P-111399

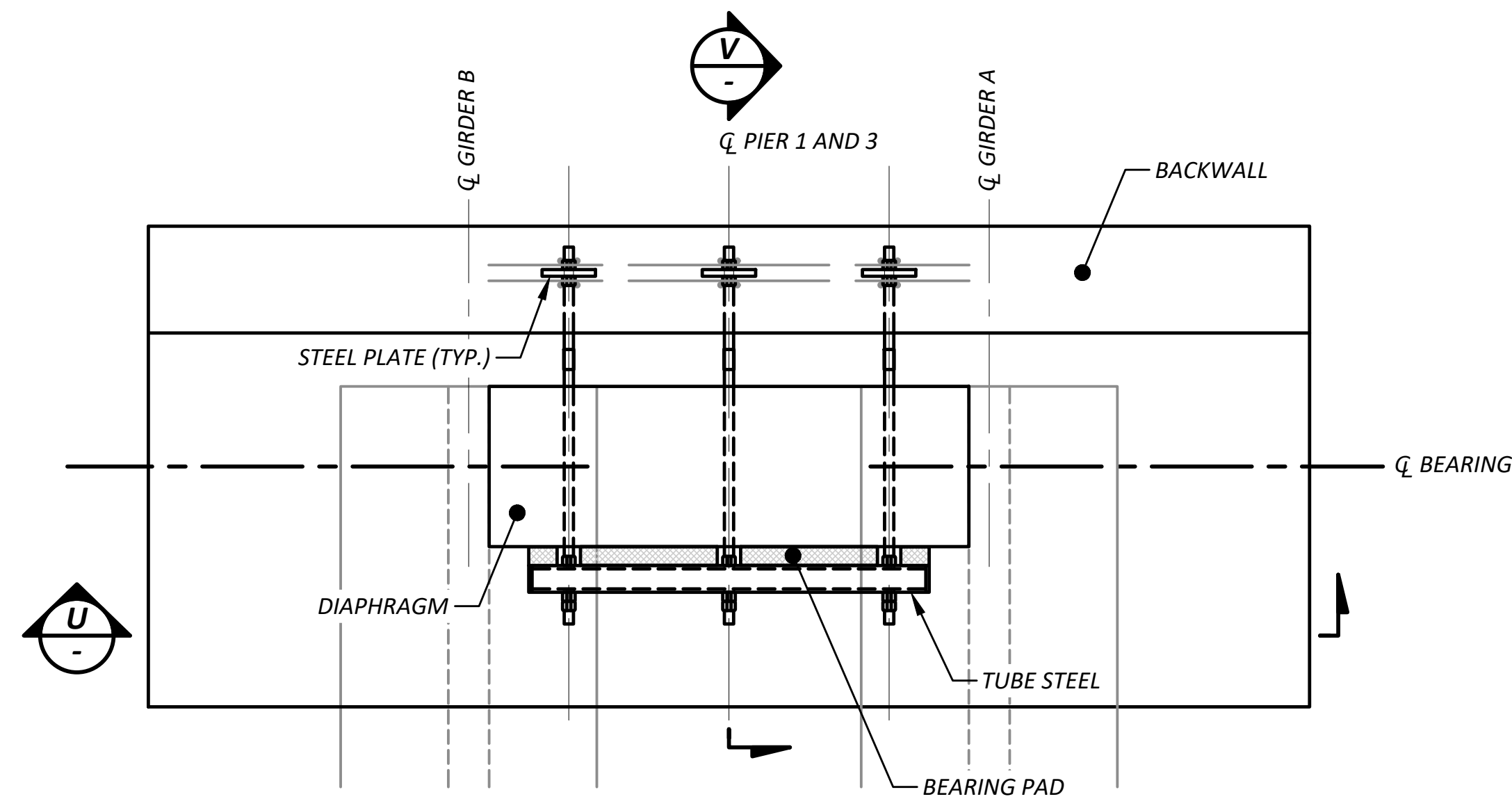
SHEET

19

OF

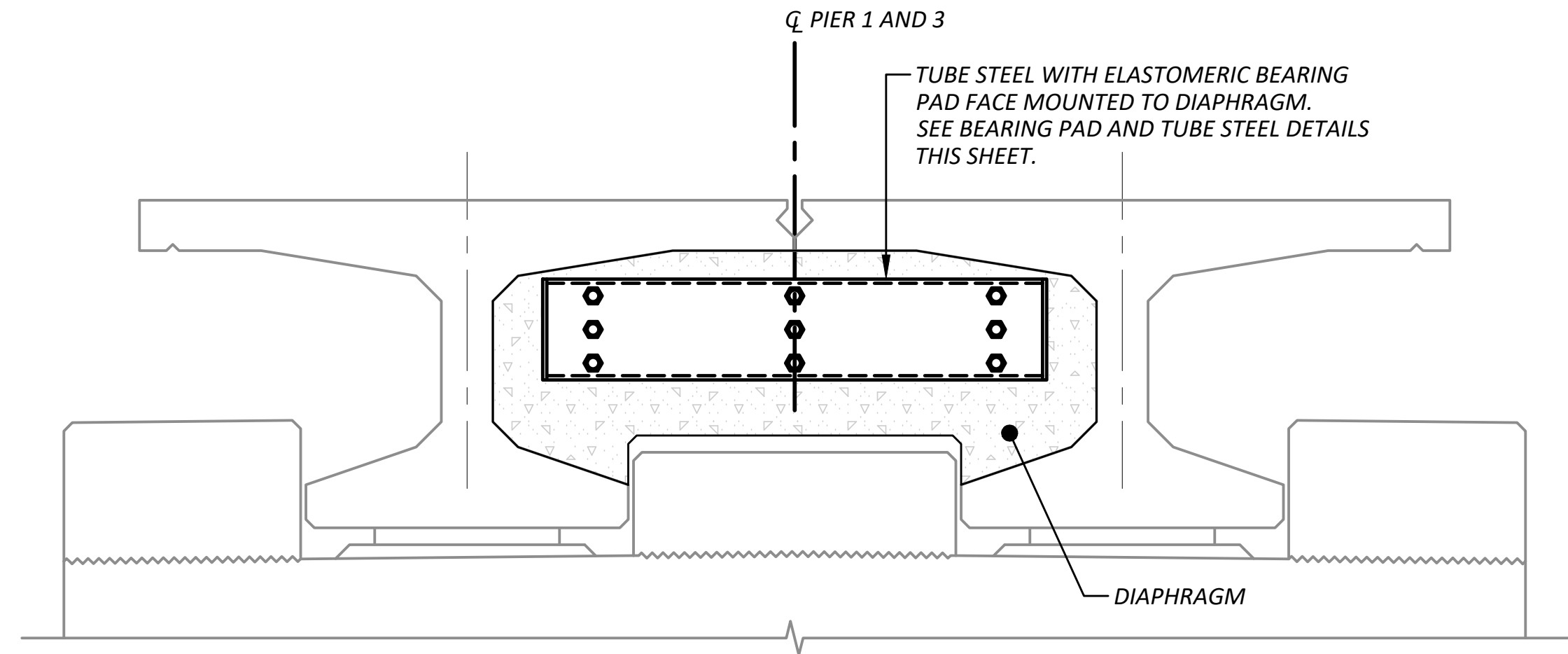
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Drawing: P:\P-111399-5RR\RT7195E-SKIPARK\BRIDGE\REPLACE\MENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANS\PIERS\PIER ELEVATION.DWG
Layout: SEISMIC RESTRAINT Plot Date: Jul 22, 2026 Time: 1:15:07 PM By: AEDWARZ

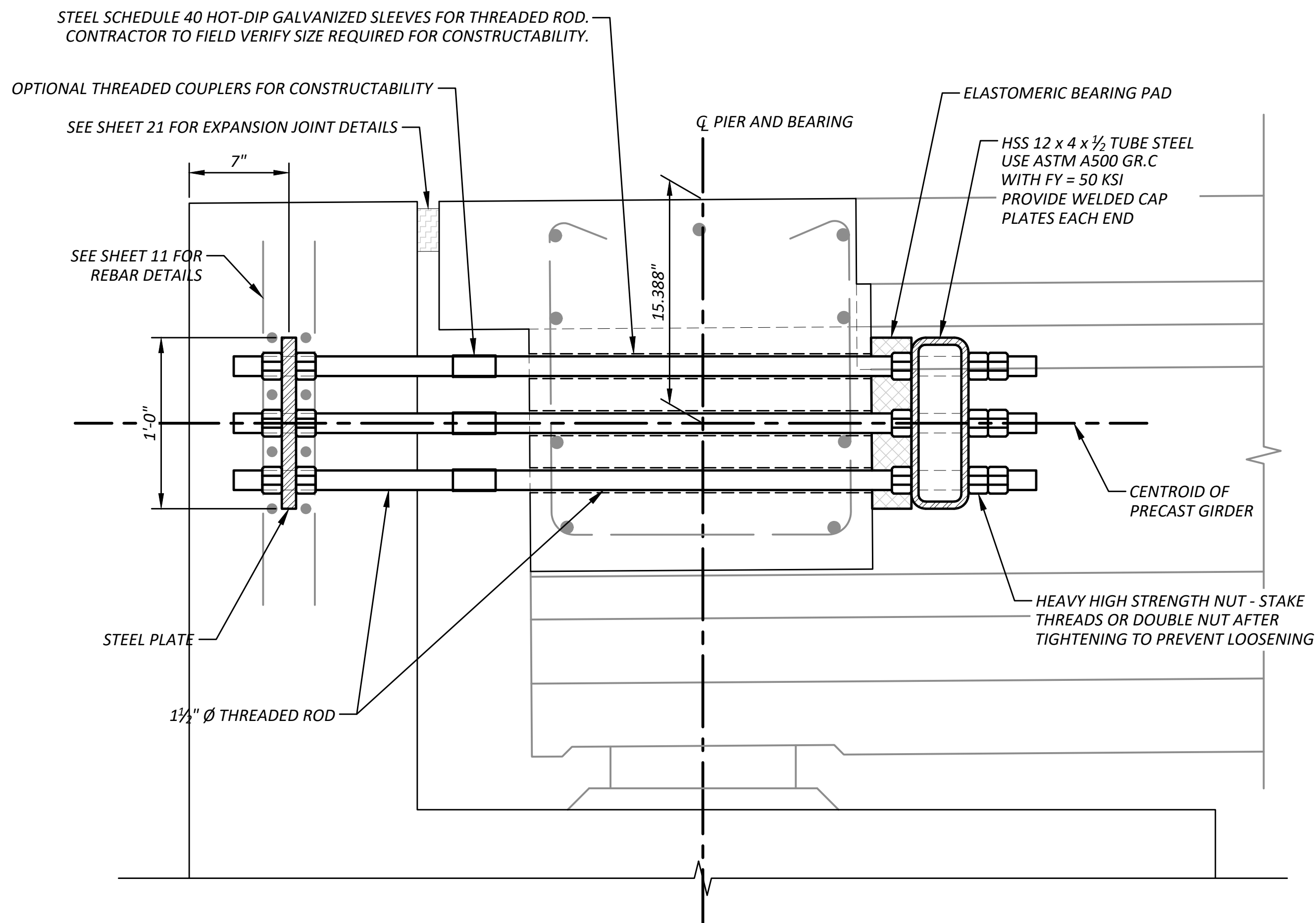


PIER 1 & 3 PLAN

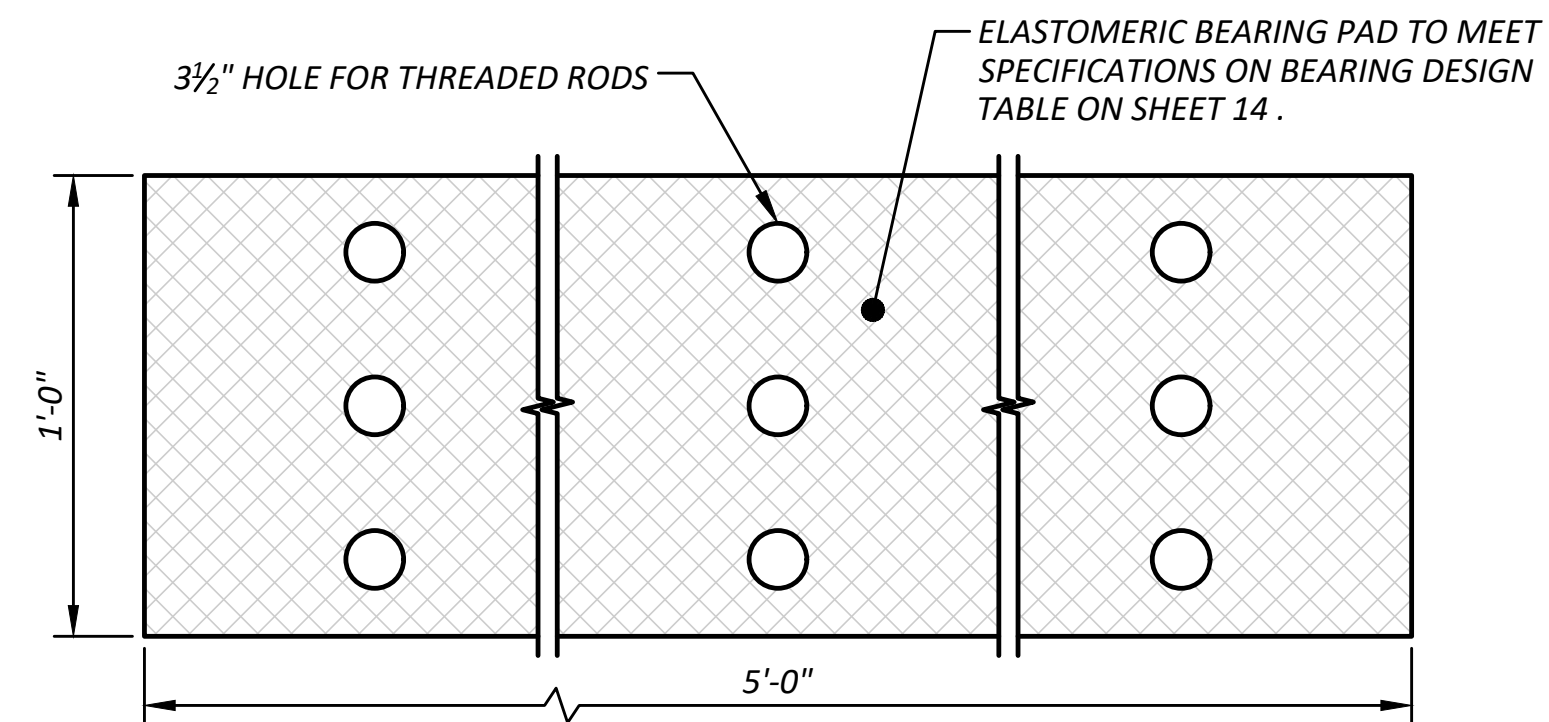
PIER 1 SHOWN, PIER 3 SIMILAR



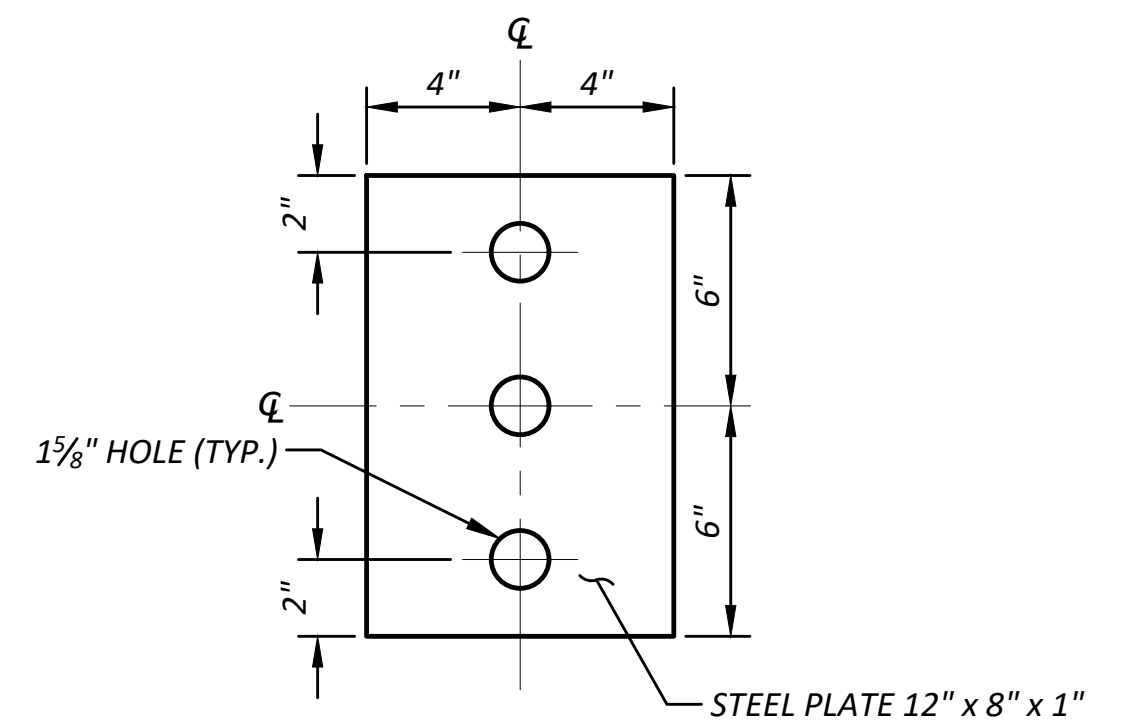
U SECTION
LOOKING BACK ON STATIONING



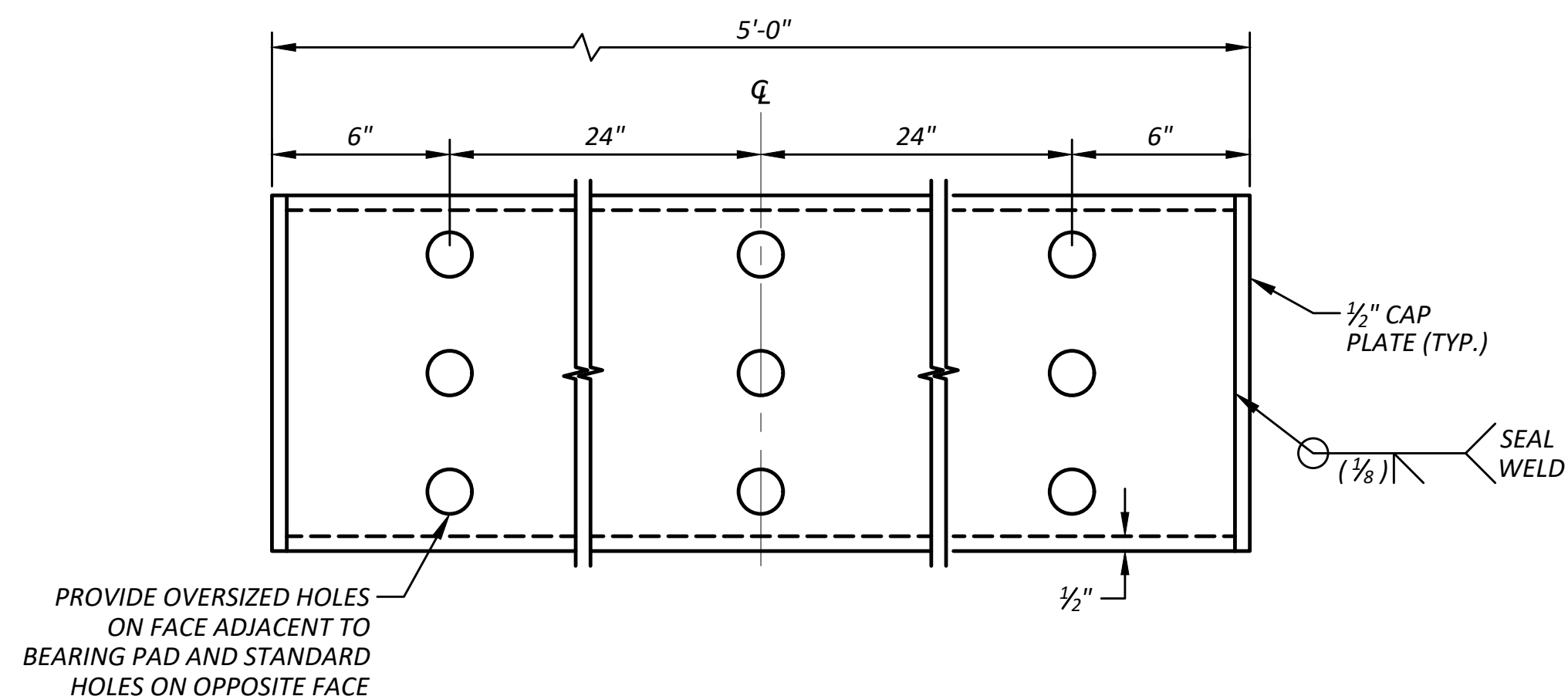
V SECTION
TYPICAL BOTH PIERS



BEARING PAD DETAIL



STEEL PLATE DETAIL



TUBE STEEL DETAIL

GENERAL NOTES:

1. ALL THREADED RODS SHALL BE ASTM F1554 GRADE 55 THREADED RODS.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

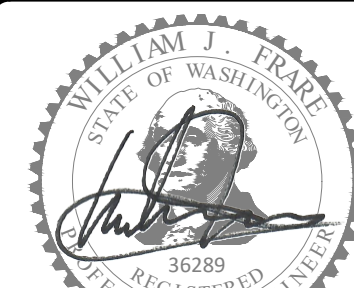
CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



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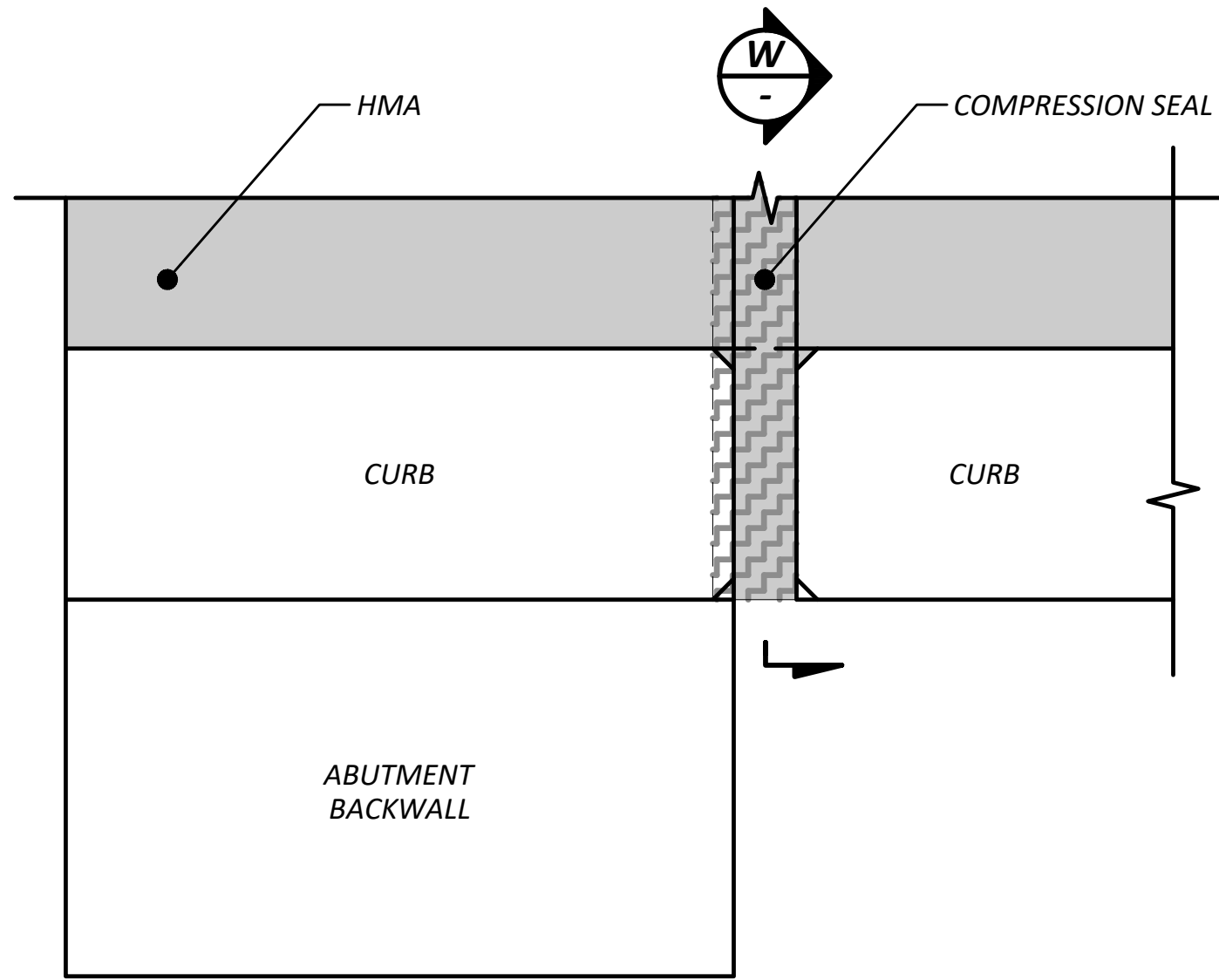


SEE COVER SHEET
DATE
WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

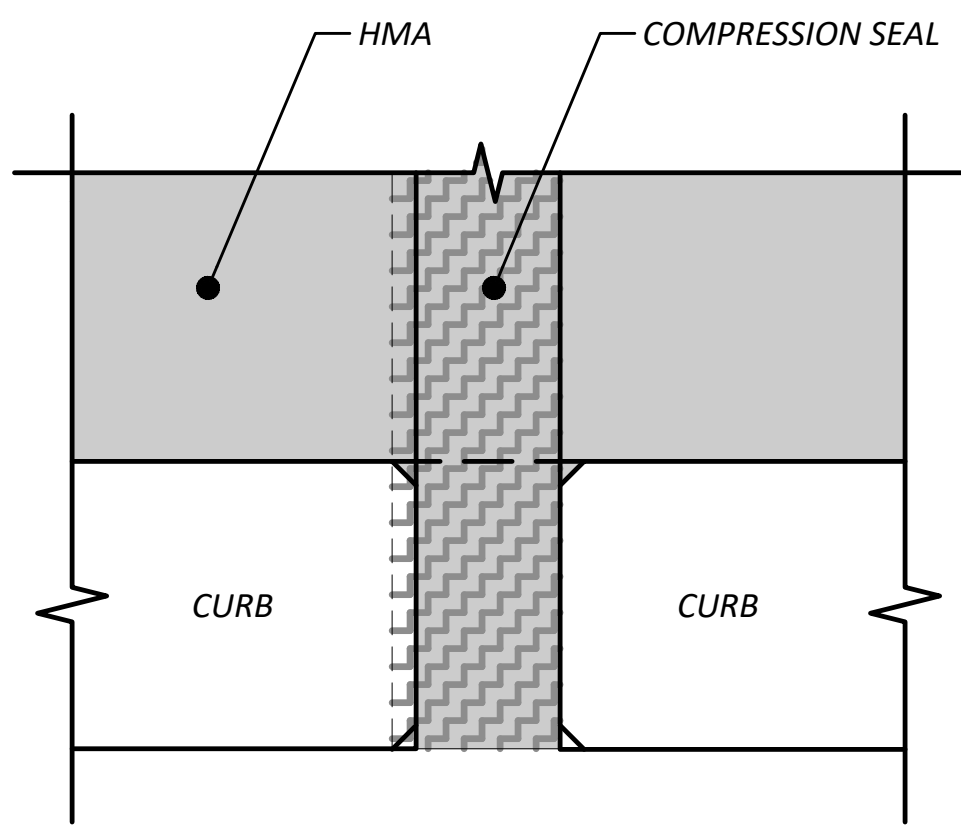
BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
SEISMIC RESTRAINER DETAILS
P-111399

SHEET
20
OF
25

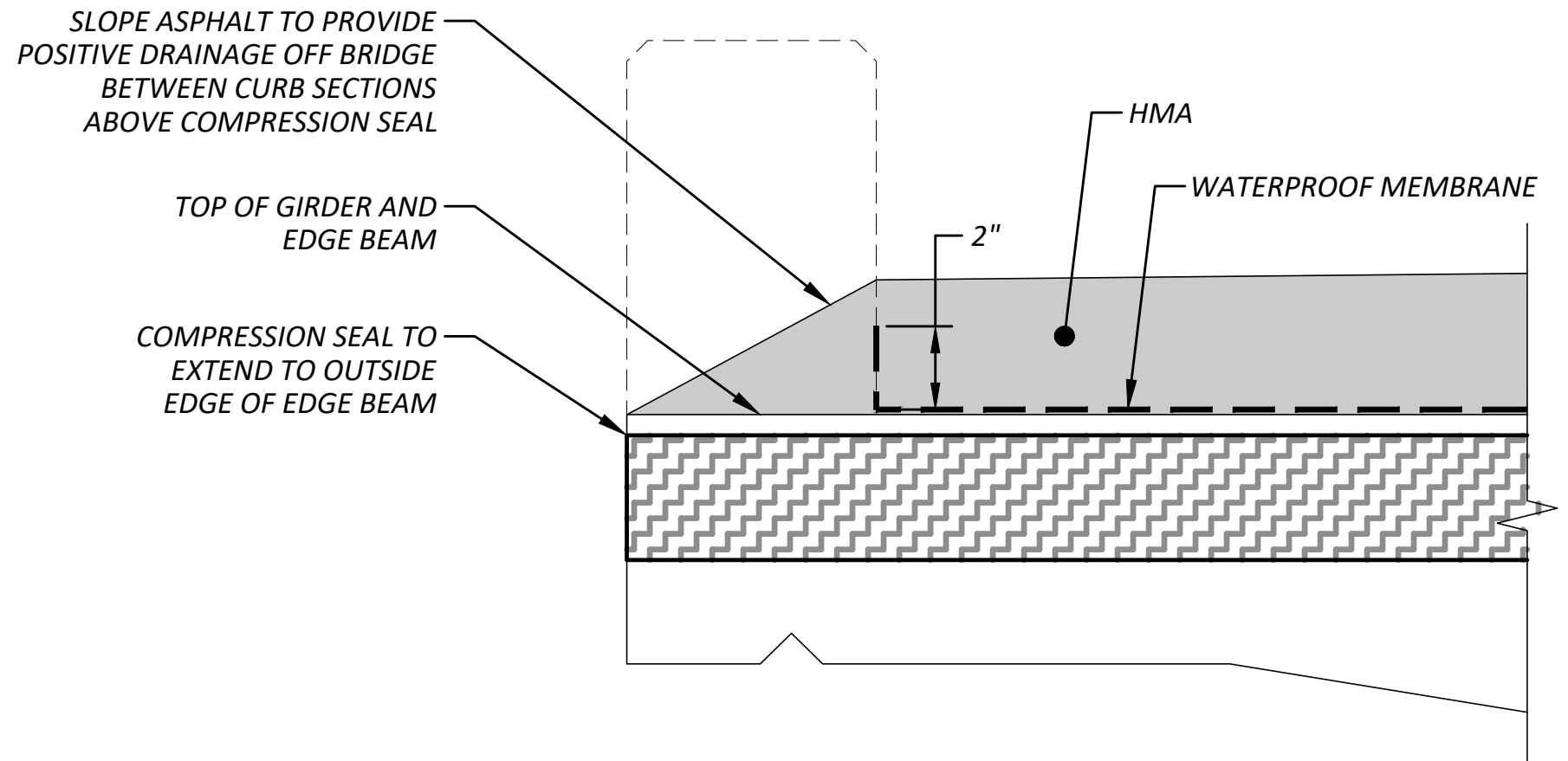
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Layout: JOINTDETAILS Plot Date: Jul 22, 2026 Time: 1:15:45 PM By: AEDWAR2



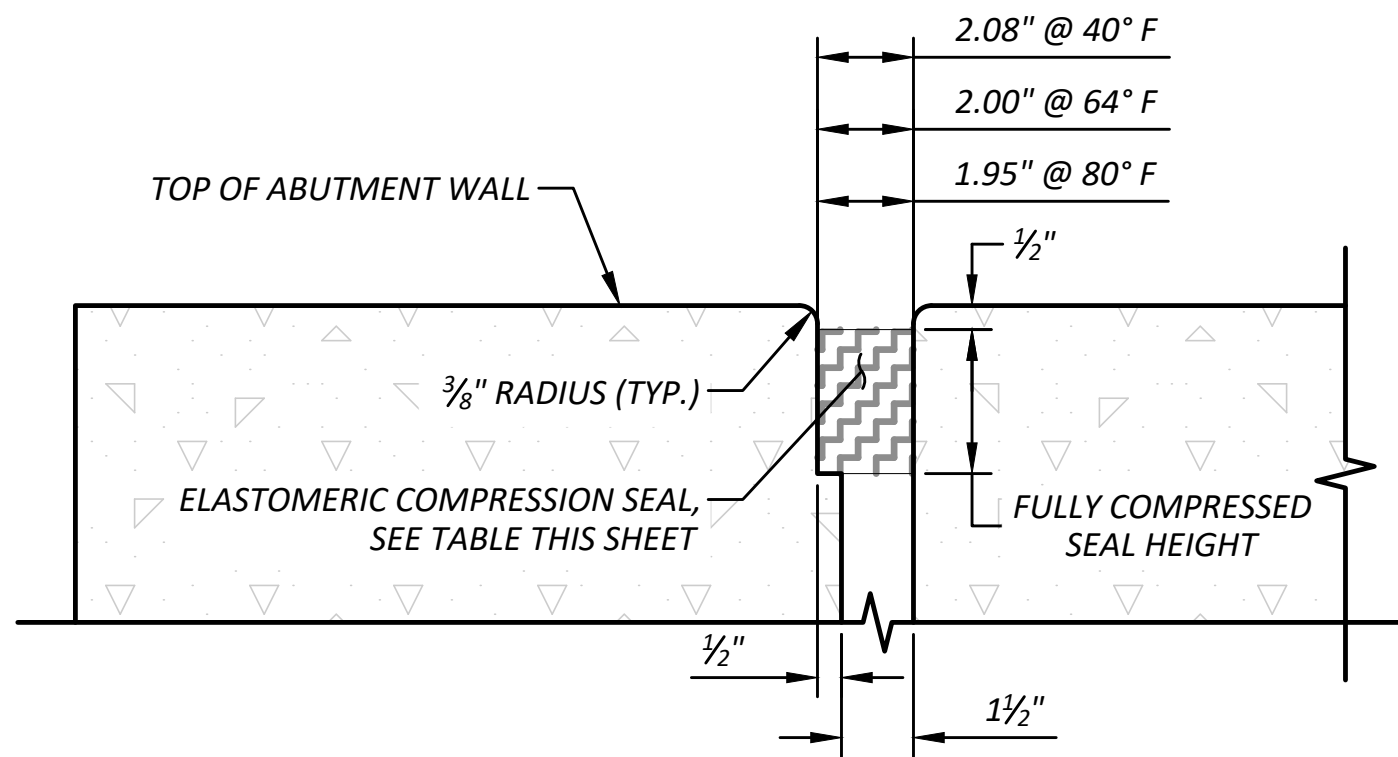
EXPANSION JOINT PLAN VIEW - PIERS 1 & 3



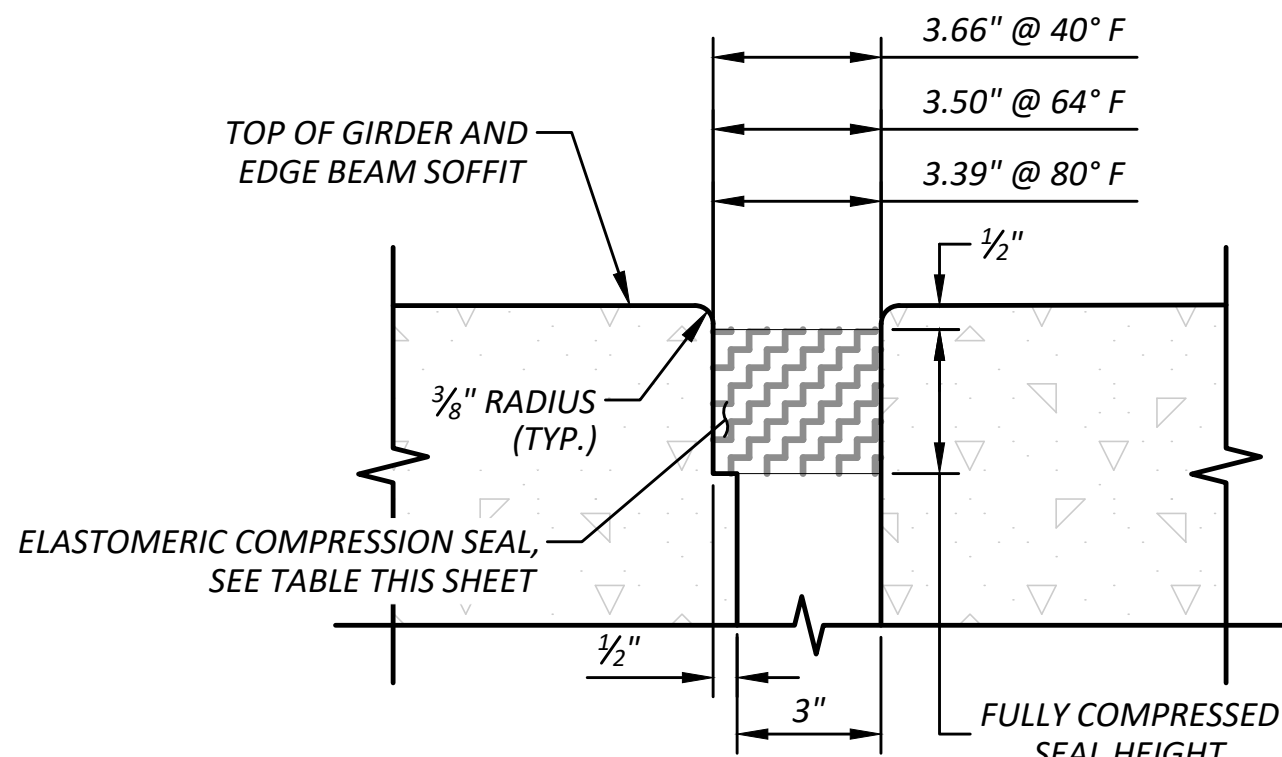
EXPANSION JOINT PLAN VIEW - PIER 2



SECTION
TYPICAL ALL JOINTS



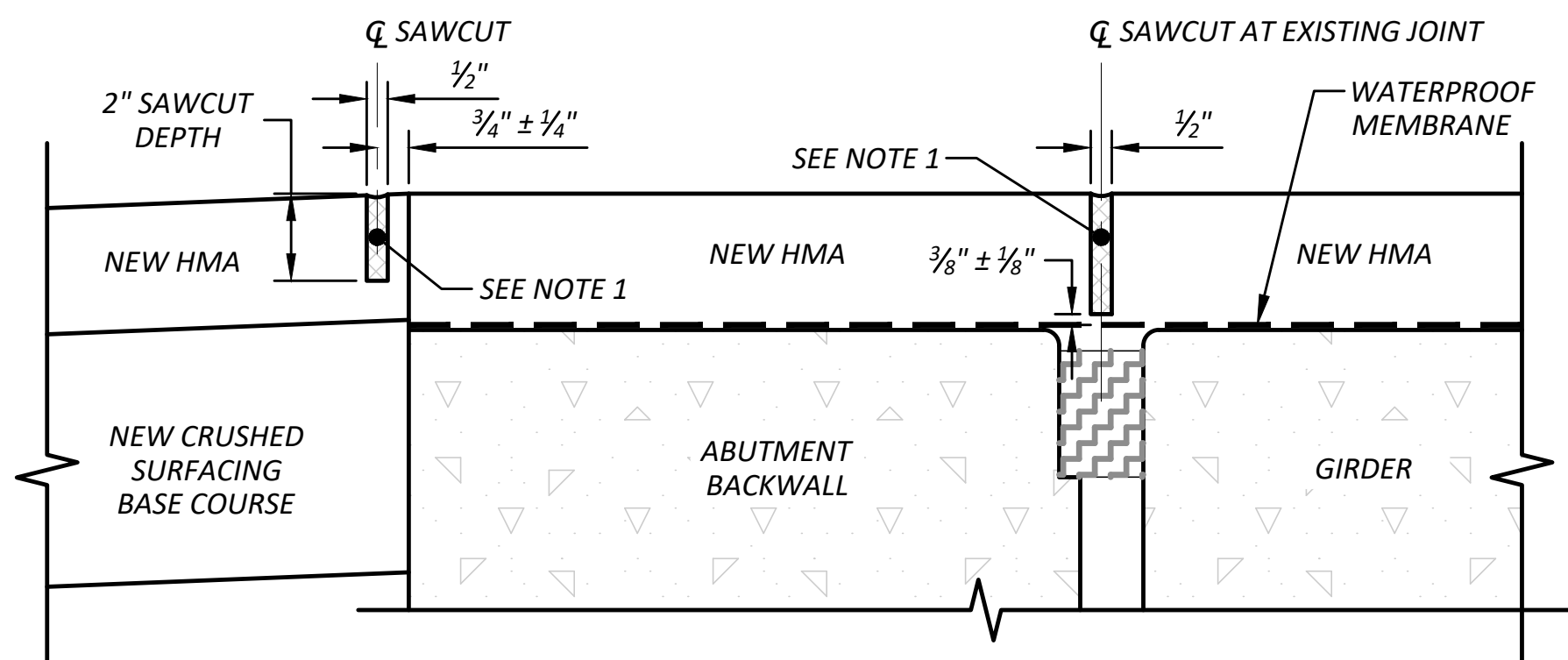
COMPRESSION SEAL - PIERS 1 & 3



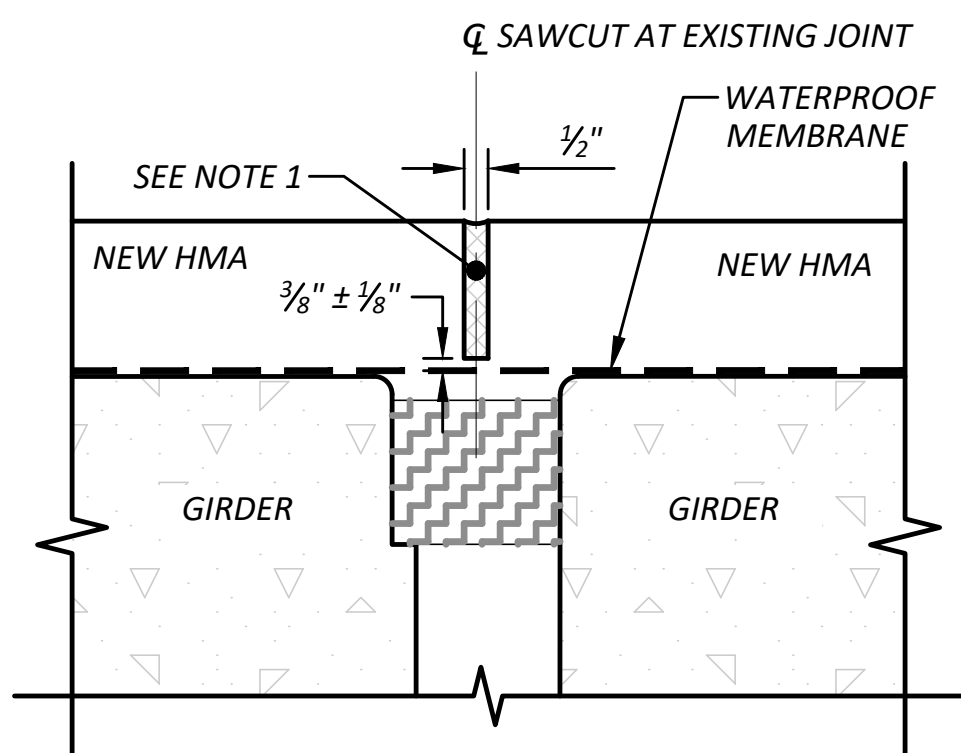
COMPRESSION SEAL - PIER 2

COMPRESSION SEAL TABLE			
D.S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-2000	2"	WA-200	2"
CV-3500	3 1/2"	WA-350	3 1/2"

NOTE: TESTING SHALL BE PER ASTM D2628 PRIOR TO USE OF ANY COMPRESSION SEAL.



PAVING JOINT SEAL - PIERS 1 & 3



PAVING JOINT SEAL - PIER 2

NOTES:

- JOINTS SHALL BE SAWCUT AND SEALED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 5-03.3(4).
- FOR COMPRESSION SEAL DETAILS THE ITEM "EXPANSION JOINT COMPRESSION SEAL" SHALL BE USED FOR PAYMENT.
- FOR PAVING JOINT SEAL DETAILS THE ITEM "HMA JOINT SEAL AT BRIDGE END" SHALL BE USED FOR PAYMENT.

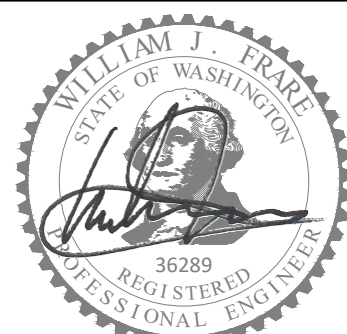
DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

Pierce County
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Tacoma Mall Plaza
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WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
EXPANSION JOINT DETAILS
P-111399

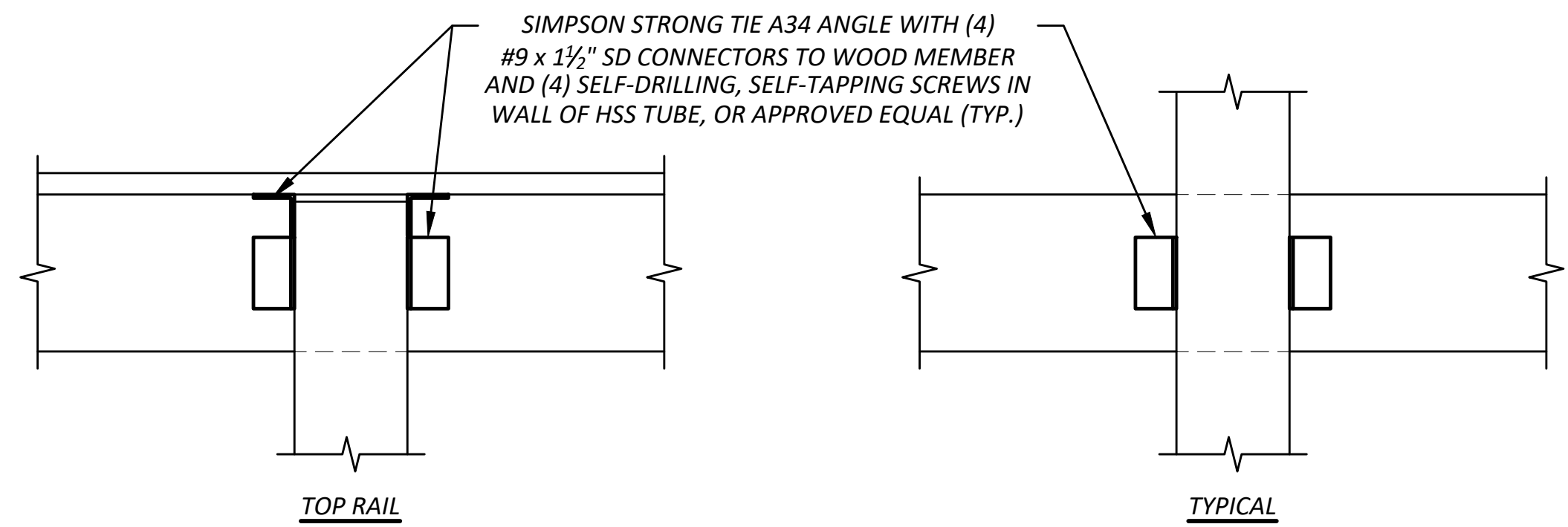
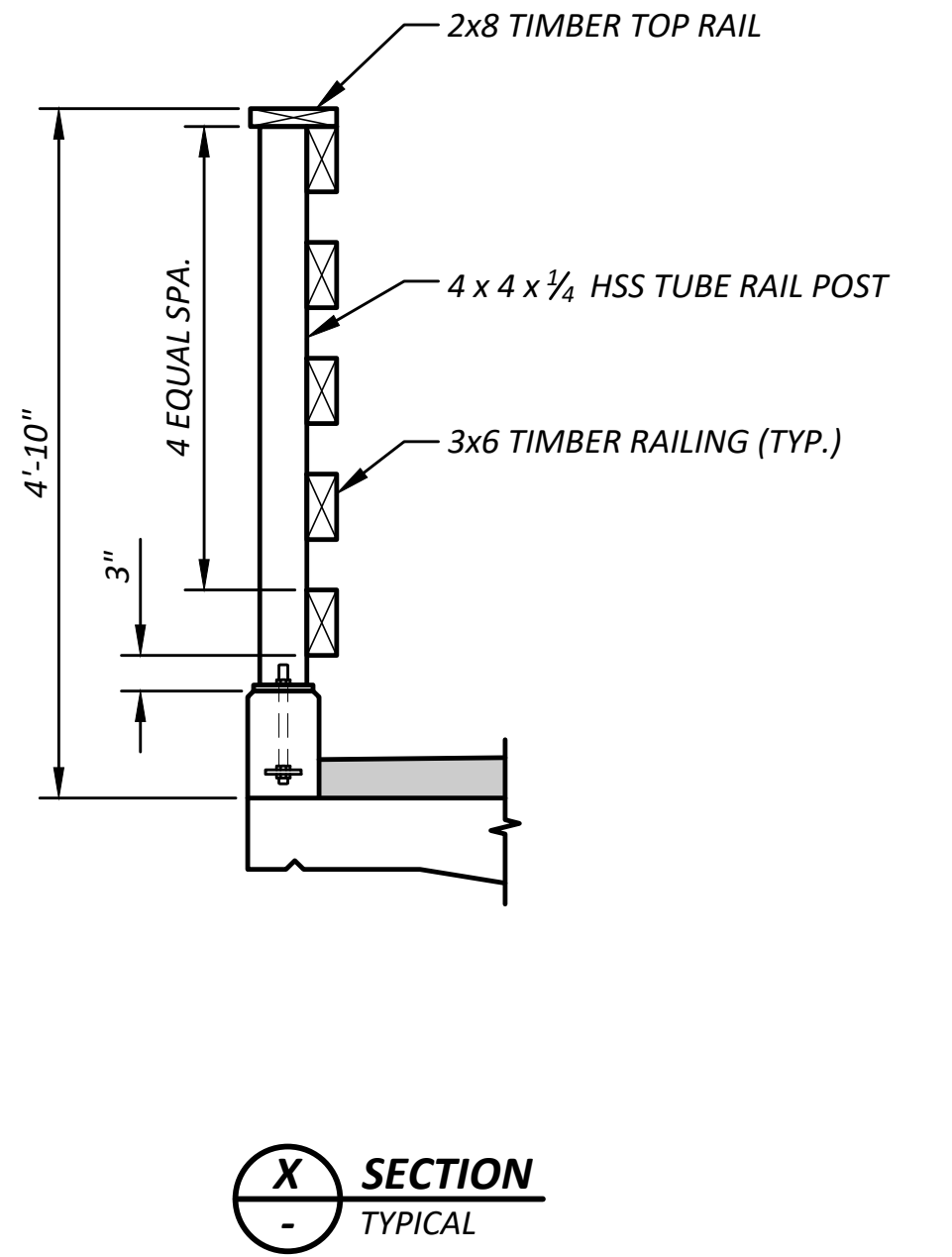
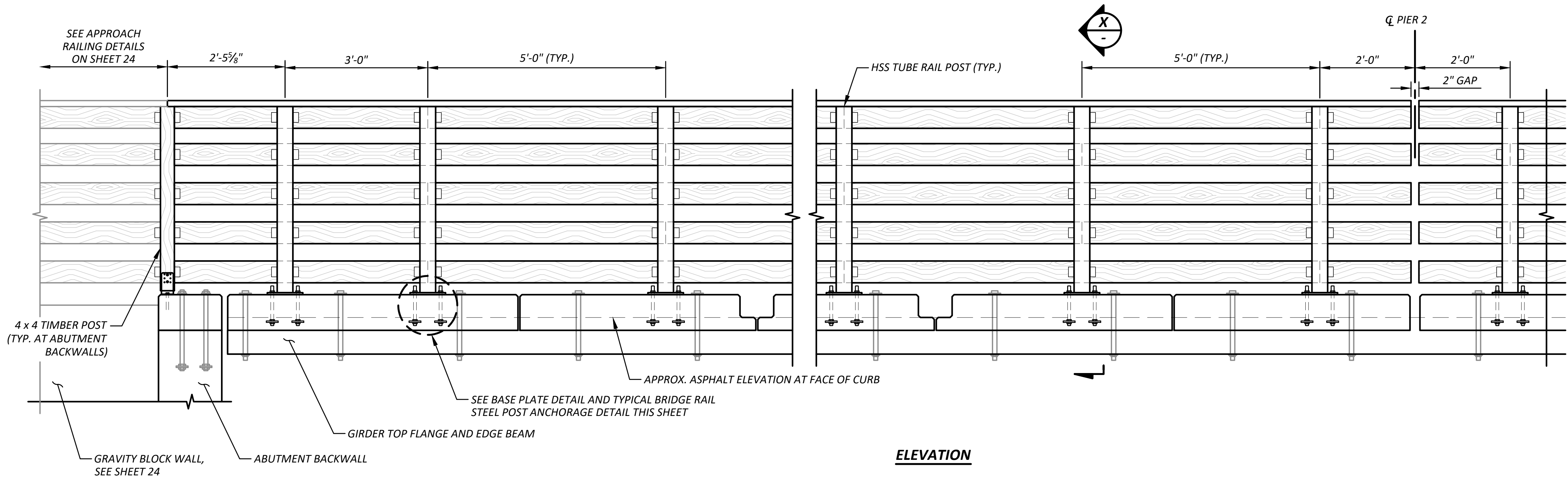
SHEET

21

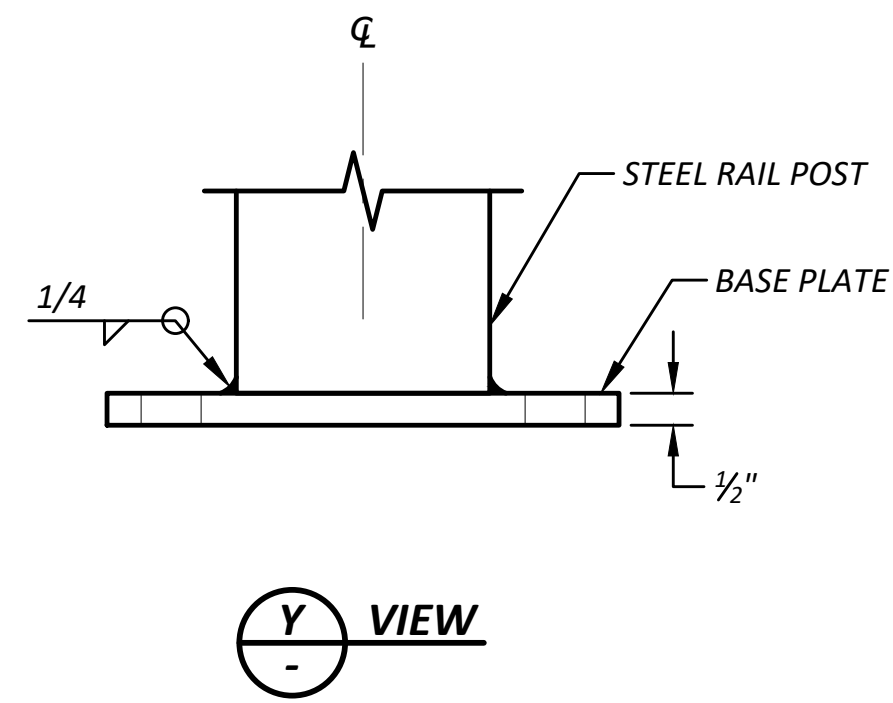
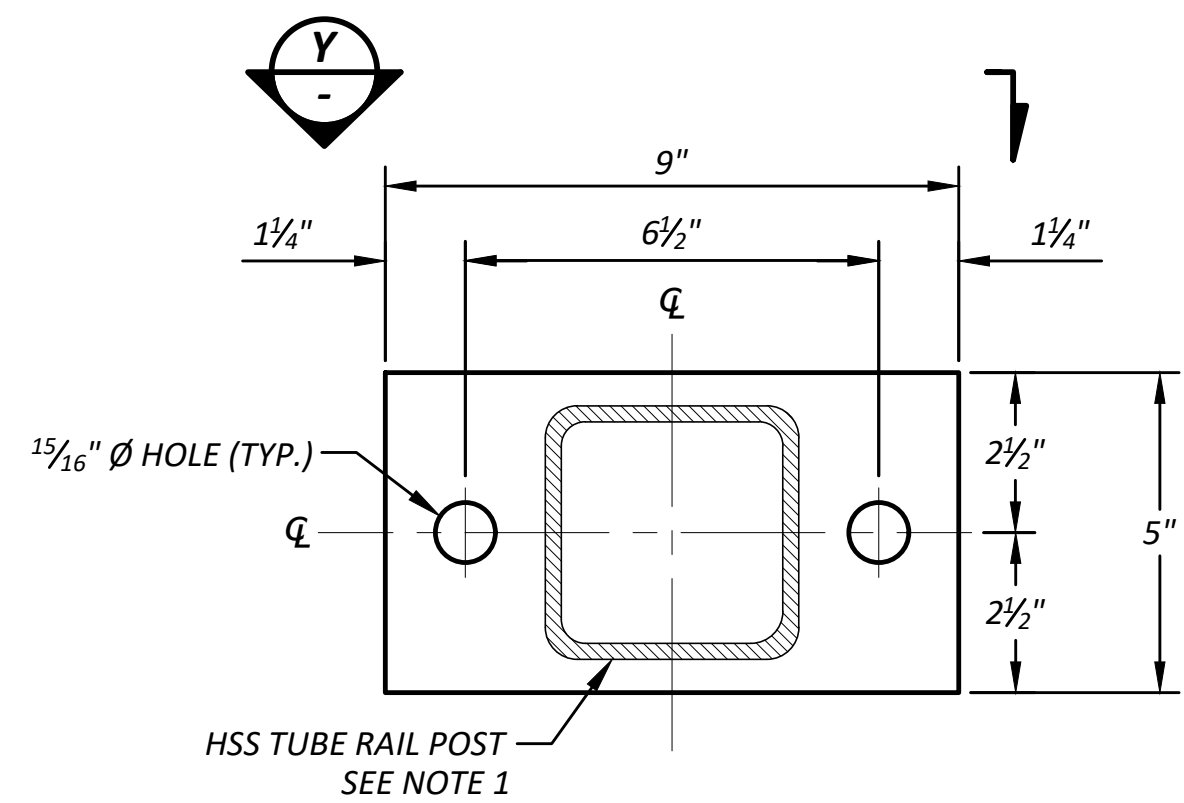
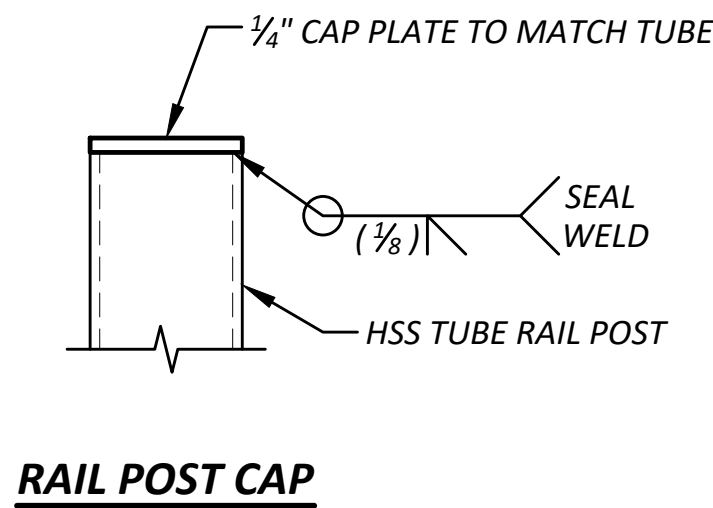
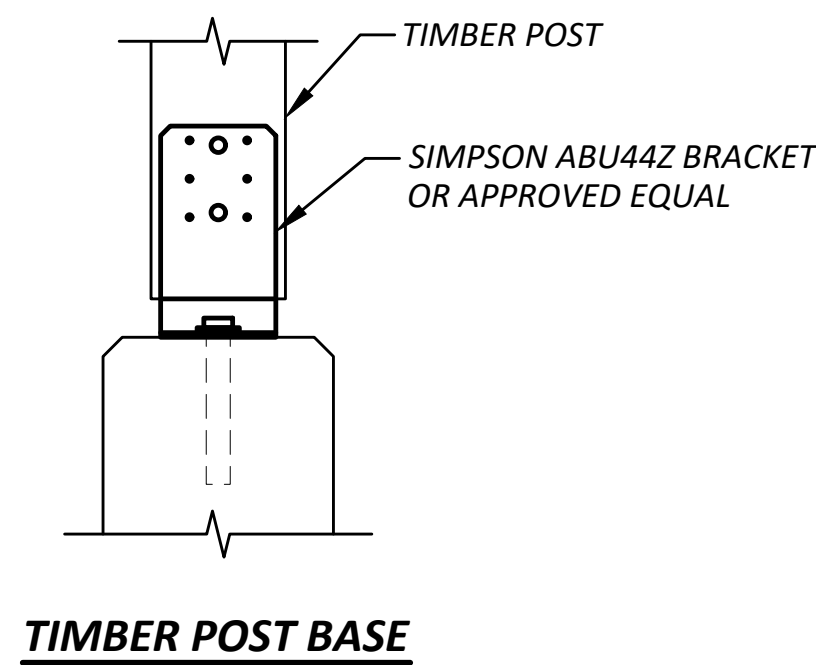
OF

25

Drawing: P:\P-111309-5R\RT27195-E-SK\PAK\BRIDGE\REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANS\DETAILS\P-111309_RAILINGDETAILS.DWG
Layout: RAILINGDETAILS Plot Date: Jul 22, 2026 Time: 11:17:41 PM By: AEDWAR2

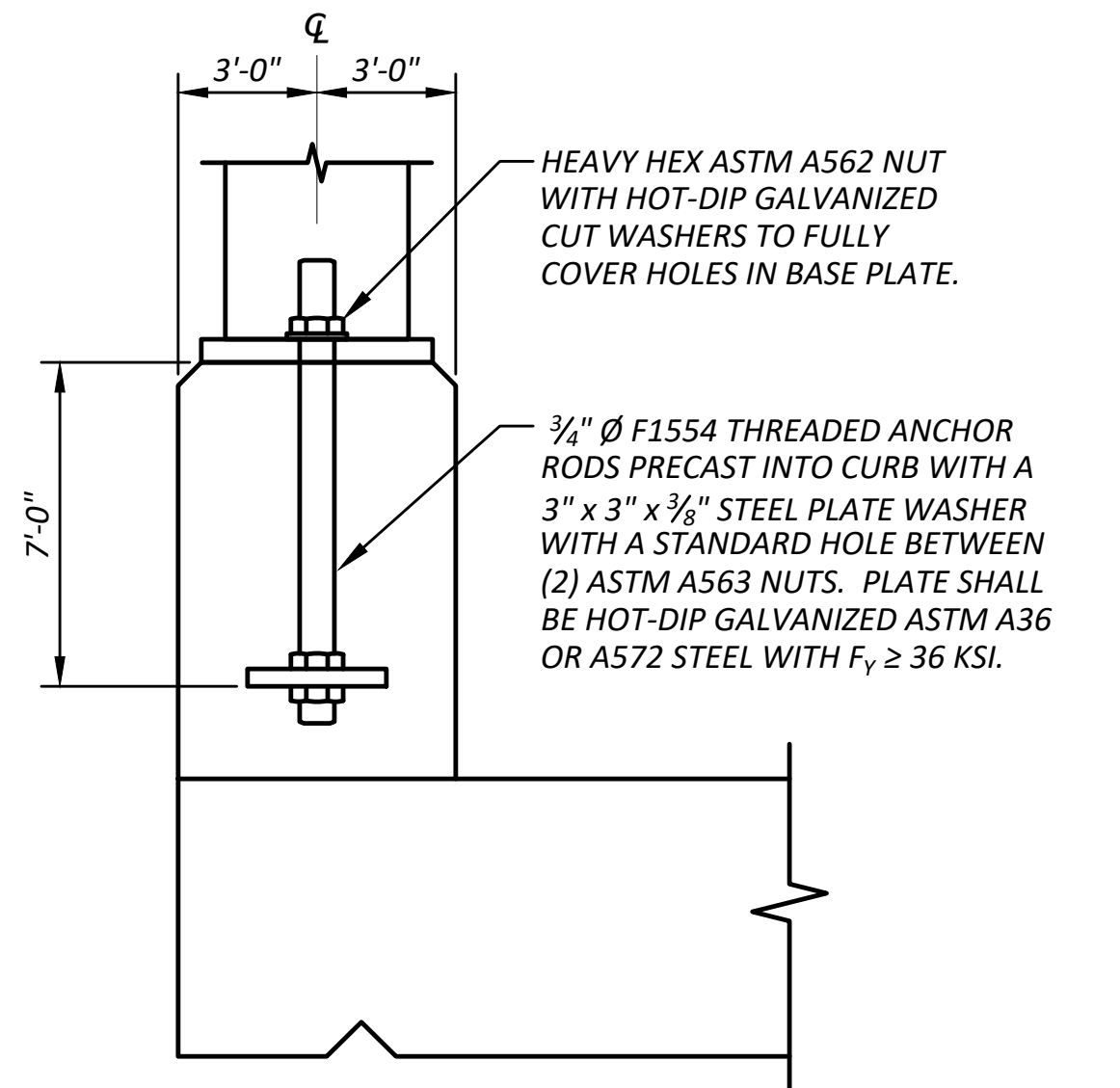


RAIL CONNECTION DETAILS



NOTES:

- ALL STEEL RAIL POST ASSEMBLIES, INCLUDING BASE PLATES AND CAP PLATES SHALL BE HOT-DIP GALVANIZED AS AN ASSEMBLY. CONTRACTOR TO COORDINATE REQUIREMENTS FOR PRESSURE RELIEF HOLES IN TUBE, IF REQUIRED, FOR GALVANIZING.



DRAWN BY: A. EDWARDS, P.E.

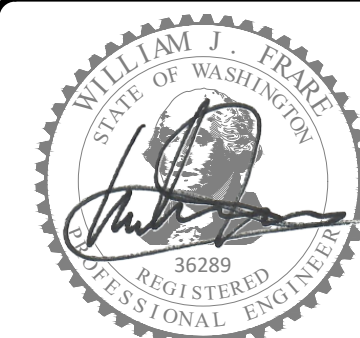
DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED

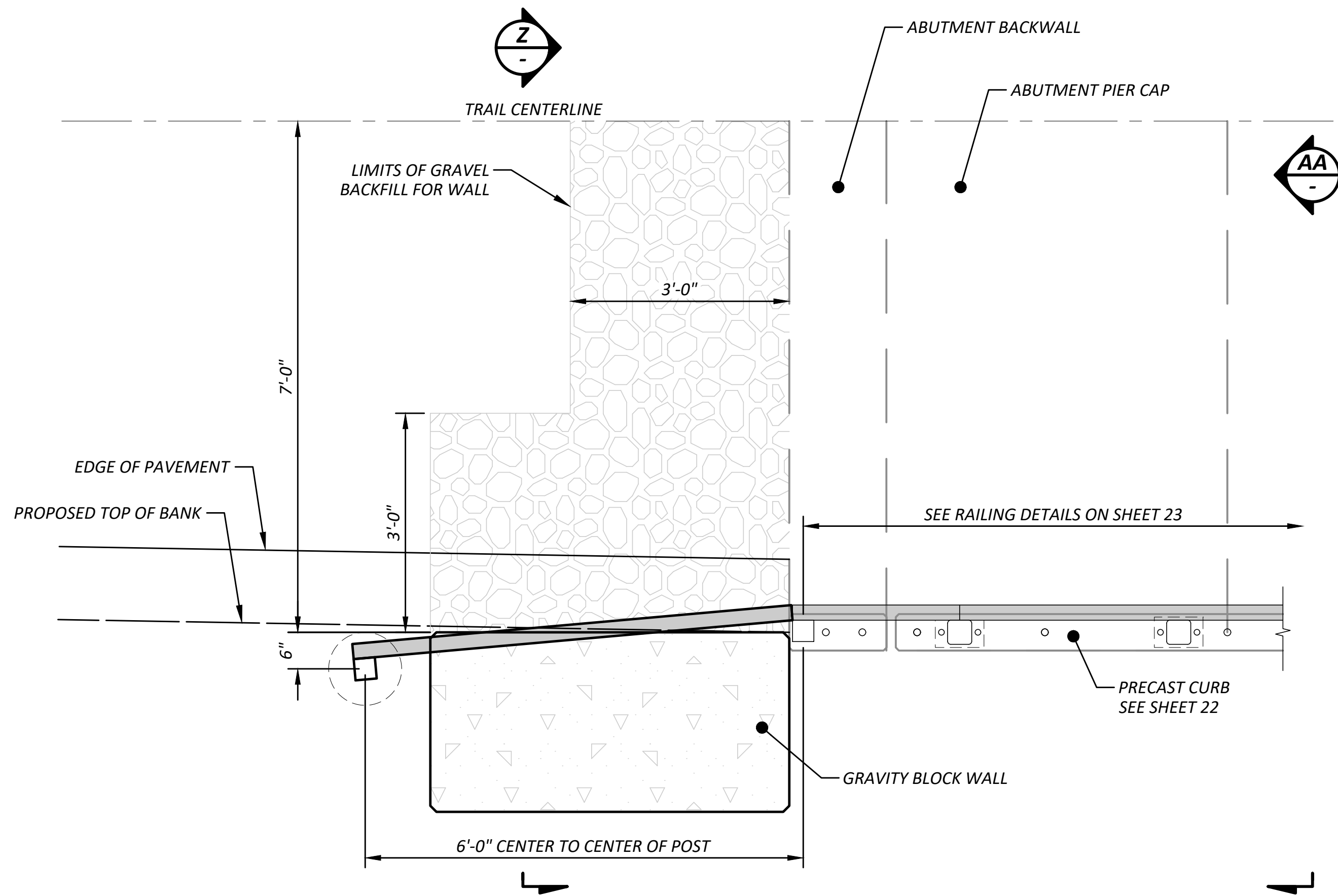
 **Pierce County**
Office of the County Engineer
Tacoma Mall Plaza
2702 South 42nd Street, Suite 109
Tacoma, Washington 98409
An APWA Accredited Agency

 **WILLIAM J. FRARE, P.E.**
FIELD ENGINEERING SECTION MANAGER
SEE COVER SHEET FOR DATE

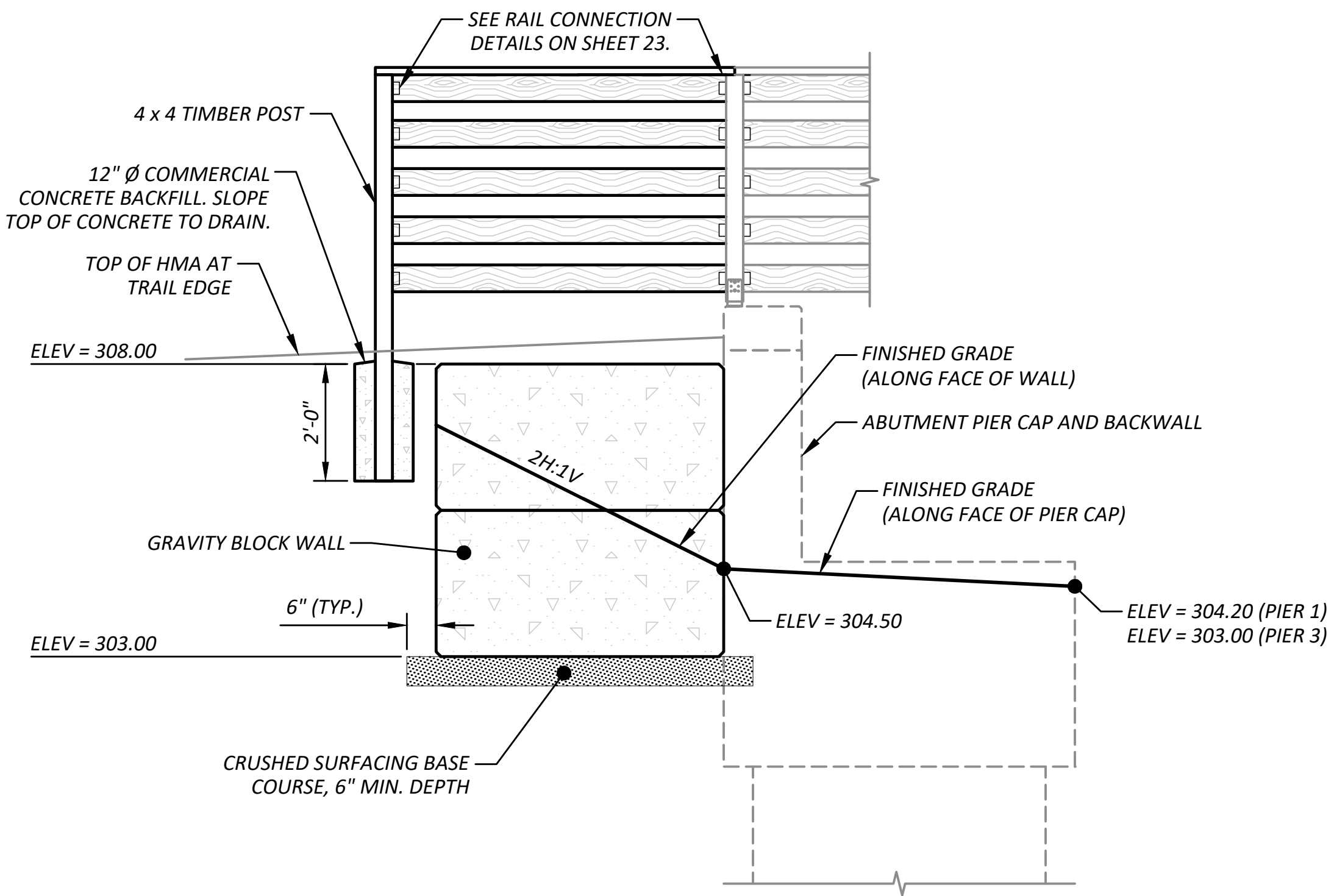
BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
RAILING DETAILS
P-111399

SHEET
23
OF
25

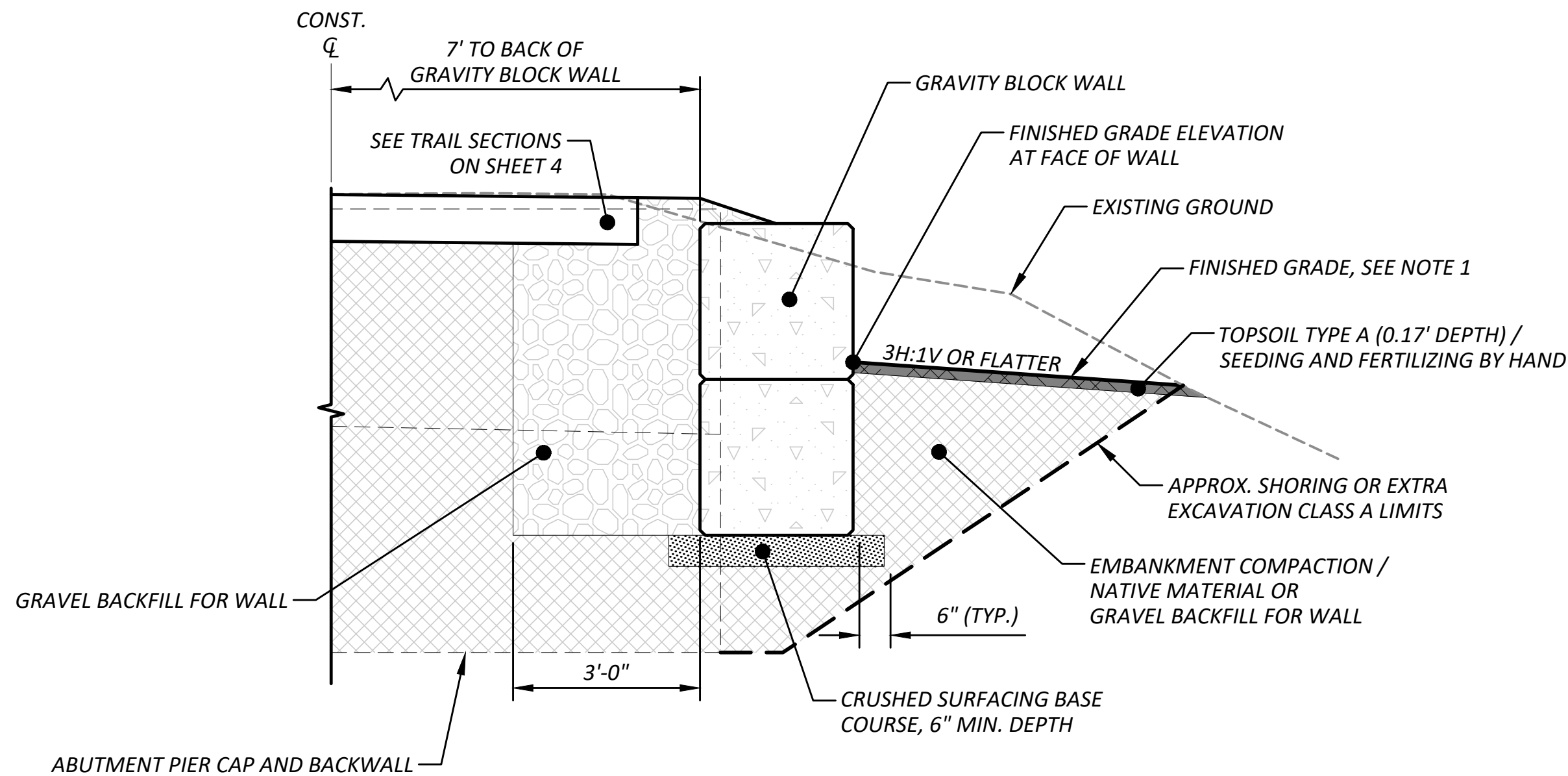
Drawing: P:\P-111399-BRIDGE\BRIDGE\DETAILS\CONSTRUCTION\PLANS\DETAILS.DWG
Layout: WALLDETAILS Plot Date: Jul 22, 2026 Time: 1:18:33 PM By: AEDWAR2



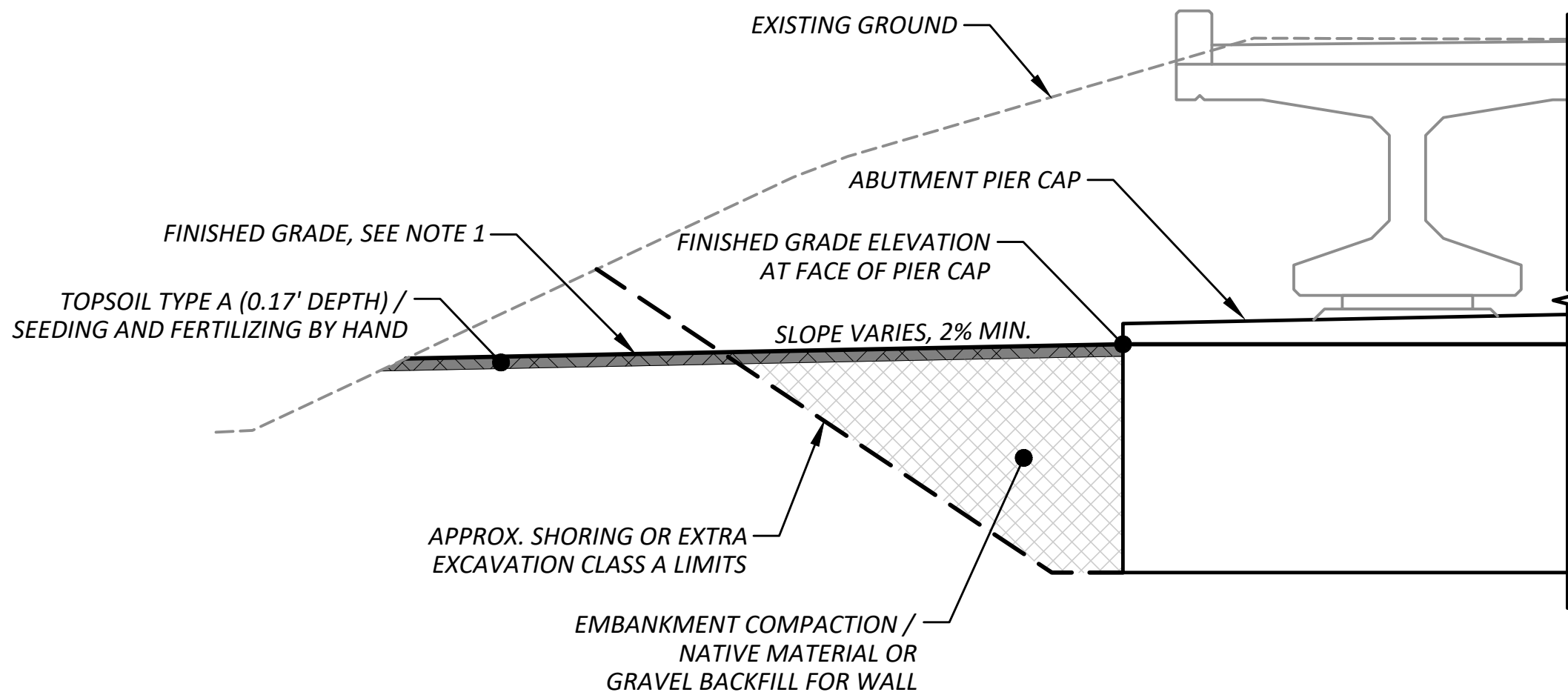
PLAN VIEW
TYPICAL AT ALL CORNERS OF THE BRIDGE



ELEVATION
TYPICAL



Z SECTION
TYPICAL



AA SECTION
TYPICAL

GENERAL NOTES:

1. FINISHED GRADE SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ABUTMENT PIER CAPS AND GRAVITY BLOCK WALLS. ADDITIONAL EXCAVATION AS REQUIRED TO PROVIDE POSITIVE DRAINAGE SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

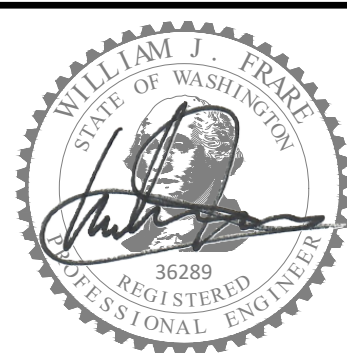
CHECKED BY: A. SCHILDMAYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED



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Tacoma, Washington 98409
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SEE COVER SHEET
FOR DATE

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)
GRAVITY BLOCK WALL DETAILS
P-111399

SHEET

24

OF

25

Drawing: P:\P-111399-RRPT77195E-SKIPARKBRIDGE\REPLACEMENT\BRIDGE\DRAWINGS\CONSTRUCTION\PLANSHEETS\P-111399_REBARLIST.DWG
Layout: REBAR LIST Plot Date: Jul. 22, 2026 Time: 1:19:14 PM By: AEDWAR2

S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES

E = BAR TO BE EPOXY COATED

T = TIE OR STIRRUP, SP = SPIRAL.

- V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE

MARK NO.	LOCATION	SIZE	NO. REQ'D	BEND TYPE	TIE, STIR. OR SPIRAL	EPOXY CTD.	SUBSTR.	VARIES	NO. EACH	DIMENSIONS (OUT TO OUT)												LENGTH		WEIGHT					
										U		W		X		Y		Z		Ø1	Ø2								
										FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	DEG.	DEG.	FT.	IN.	LBS.					
	DRILLED SHAFTS																												
S1	PIER 1 VERTICAL	11	28	50						45	0														45	0	6,694		
S2	PIER 1 SPIRAL	6	1	67	SP					4	0	45	0	0	6										1,113	4	1,672		
S3	PIER 2 & 3 VERTICAL	11	56	50						50	0														50	0	14,876		
S4	PIER 2 & 3 SPIRAL	6	2	67	SP					4	0	50	0	0	6										1,237	0	3,716		
S5	PIER 1,2 & 3 VERTICAL	7	60	50						4	4														4	4	531		
S6	PIER 1,2 & 3 SPIRAL	6	3	67	SP					2	6	4	4	0	6										66	4	299		
	PIER CAPS																												
P1	PIER 1,3 TRANSVERSE TOP & BOTTOM	8	28	56			S			14	2														16	10	1,258		
P2	PIER 1,3 TRANSVERSE SIDES	5	4	50			S			14	2														14	2	59		
P3	PIER 1,3 TIES	6	48	60	T		S			5	8	2	10	1	10										15	0	1,081		
P4	PIER 1,3 TIES	6	96	58	T		S			2	10														4	10	697		
P5	PIER 1,3 TIES	6	96	58	T		S			5	8														7	8	1,105		
P6	PIER 2 TRANSVERSE TOP	9	11	56			S			14	2														17	4	648		
P7	PIER 2 TRANSVERSE BOTTOM	8	11	56			S			14	2														16	10	494		
P8	PIER 2 TRANSVERSE SIDES	5	4	50			S			14	2														14	2	59		
P9	PIER 2 TIES	6	30	58	T		S			5	8	2	10	1	10										7	8	345		
P10	PIER 2 TIES	6	120	58	T		S			2	10														4	10	871		
P11	PIER 2 TIES	6	60	58	T		S			5	8														7	8	691		
	PIER WALLS																												
W1	PIER 1,3 WALL VERTICAL N.F. & F.F.	7	120	54			S			6	4														7	6	1,840		
W2	PIER 1,3 WALL HORIZONTAL	5	16	50			S			14	2														14	2	236		
W3	PIER 1,3 STIRRUP	5	30	74			S			1	0	0	10	0	10										2	8	83		
W4	PIER 1,3 WALL TIE	4	90	58			S			1	0														2	4	140		
W5	PIER 1,3 WALL HORIZONTAL	5	16	50			S			6	0														6	0	100		
W6	PIER 1,3 WALL VERTICAL	5	24	50			S			2	2														2	2	54		
	GIRDER STOPS																												
G1	EXTERIOR GIRDER STOP	5	54	54			S			2	0														2	10	160		
G2	EXTERIOR GIRDER STOP	7	18	54			S			2	4														3	6	129		
G3	EXTERIOR GIRDER STOP HOOPS	4	12	60			S			2	0	0	9												4	0	32		
G4	INTERIOR GIRDER STOP	5	30	54			S			2	0														2	10	89		
G5	INTERIOR GIRDER STOP HOOPS	4	6	60			S			2	10	0	9												5	8	23		
	END DIAPHRAGMS																												
D1	PIER 1,2 & 3 TRANSVERSE	6	4	52		E				12	9														65	0	391		
D2	PIER 1,3 TIE	4	52	74	T					0	5	2	3	2	3										4	11	171		
D3	PIER 1,3 TRANSVERSE	10	6	50		E				12	9														12	9	329		
D4	PIER 1,3 TRANSVERSE	10	4	90						1	1	1	6	2	6	0	3								9	1	157		
D5	PIER 1,3 TRANSVERSE	10	8	50						5	8														5	8	195		
D6	PIER 1,3 STIRRUP	4	14	72	S					1	9	1	9	1	9										30	8	287		
D7	PIER 2 TIE	4	52	74	T					0	5	1	5	1	5										3	3	113		
D8	PIER 2 TRANSVERSE	6	6	50		E				12	9														12	9	115		
D9	PIER 2 TRANSVERSE	4	4	90						1	1	1	6	2	6	0	3								9	1	24		
D10	PIER 2 TRANSVERSE	4	4	50						12	9														12	9	34		
D11	PIER 2 TRANSVERSE	7	4	50						12	9														12	9	104		
D12	PIER 2 STIRRUP	4	4	72	S					0	9	1	9	1	9										29	8	79		

NOTE:

REBAR LISTS ARE PROVIDED AS A CONVENIENCE FOR THE CONTRACTOR AND ARE TO BE USED AT THEIR OWN RISK.

DRAWN BY: A. EDWARDS, P.E.

DESIGNED BY: A. SCHILDMAYER, P.E., S.E.

CHECKED BY: A. SCHILDMEYER, P.E., S.E.

REVIEWED BY: B. NORTON, P.E.

NO.	DATE	REVISION	BY	APPROVED

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DATE _____

WILLIAM J. FRARE, P.E.
FIELD ENGINEERING SECTION MANAGER

BRIDGE #PRT27195-E
FOOTHILLS TRAIL / SKI PARK (FORESTED DRAINAGE)

REBAR LIST

P-111399

SHEET

25

OF

25

S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES

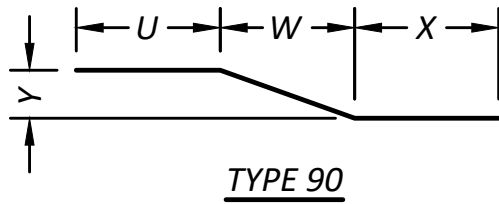
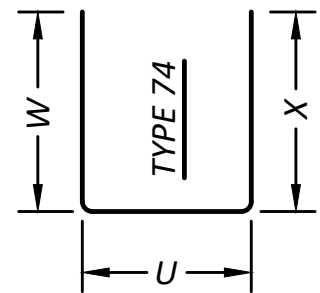
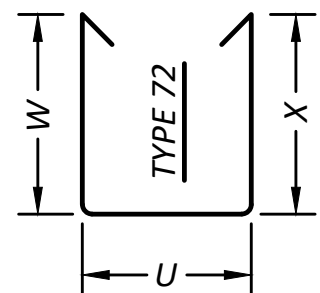
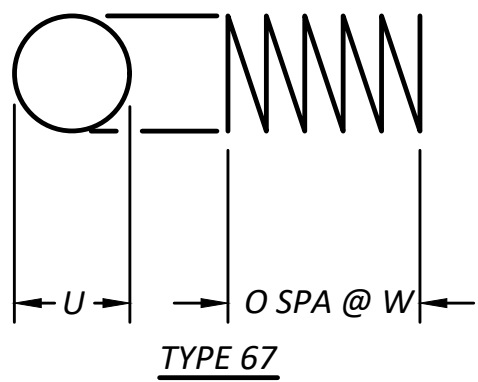
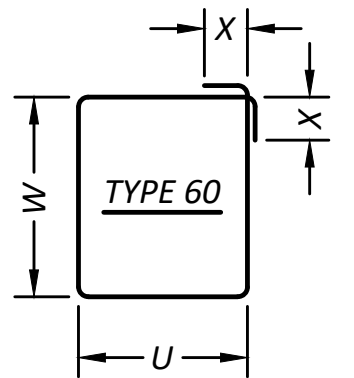
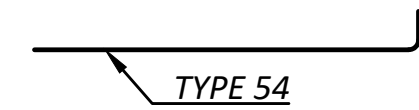
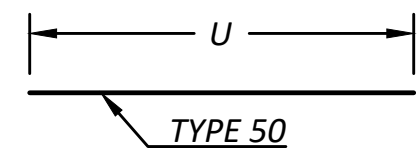
E = BAR TO BE EPOXY COATED

T = TIE OR STIRRUP, SP = SPIRAL-

- V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE

MARK NO.	LOCATION	SIZE	NO. REQ'D	BEND TYPE	TIE, STIR. OR SPIRAL	EPOXY CTD.	SUBSTR.	VARIES	NO. EACH	DIMENSIONS (OUT TO OUT)																LENGTH		WEIGHT
										U		W		X		Y		Z		Ø1	Ø2							
										FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	DEG.	DEG.	FT.	IN.	LBS.				
	INTERMEDIATE DIAPHRAGMS																											
N1	TRANSVERSE	7	10	50							5	8												5	8		116	
N2	TRANSVERSE	4	4	50							5	8												5	8		15	
N3	STIRRUP	4	10	60	S						0	5	1	3										0	10		6	

BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)



NOTE:

BENDS FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAVE NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.