

**SPECIFICATIONS**

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017.

**DESIGN LOADING**

Live Load ..... HL - 93 Modified for Strength I

**TRAFFIC DATA**

Current (2018) AADT.....	1,740
Future (2038) AADT.....	2,090
DHV - % of AADT.....	10%
Design Hour Volume.....	209
% Heavy Trucks (AADT).....	10%
% Heavy Trucks (%DHV).....	4%
Directional Distribution (DHV).....	60%
18 kip Equivalent P 2.0.....	72
18 kip Equivalent P 2.5.....	69
Design Speed (mph).....	45

**HYDROLOGIC DATA**

Drainage Area.....	16.20 SQ. MI.
Design Discharge (Q50).....	1488 CFS
Check Discharge (Q100).....	1724 CFS
Head Water Elevation (Q1.1).....	184.56 FT
Head Water Elevation (Q10).....	186.91 FT
Head Water Elevation (Q25).....	187.55 FT
Head Water Elevation (Q50).....	188.02 FT
Head Water Elevation (Q100).....	188.51 FT
Discharge Velocity (Q1.1).....	2.55 FPS
Discharge Velocity (Q10).....	5.50 FPS
Discharge Velocity (Q25).....	6.34 FPS
Discharge Velocity (Q50).....	6.95 FPS
Discharge Velocity (Q100).....	7.57 FPS

**MATERIALS**

Concrete:	
Curbs.....	Class "LP"
Precast.....	Class "P"
Seals.....	Class "S"
All Other.....	Class "A"
Reinforcing Steel:	
Plain Reinforcing Steel.....	ASTM 615/A615M, Grade 60
Stainless Reinforcing Steel.....	ASTM A955, Grade 75
Glass Fiber Reinforced Polymer (GFRP).....	ASTM D7957
CT Girder:	
Tensile Strength.....	ASTM D3039
Shear Strength.....	ASTM D7078

**BASIC DESIGN STRESSES**

Concrete Class "LP".....	f'c = 5,000 psi
Concrete Class "P".....	f'c = 6,000 psi
	f'ci = 4,500 psi
Concrete Class "A".....	f'c = 4,000 psi
Plain Reinforcing Steel.....	f y = 60,000 psi
Stainless Reinforcing Steel.....	f y = 75,000 psi
Glass Fiber Reinforced Polymer:	
#5 Bar.....	f fu = 105,000 psi
Minimum Elastic Modulus.....	Ef = 6,700,000 psi
Minimum Nominal Design Tensile Strain.....	ε fu = 1.226%
CT Girder:	
Ultimate Tensile Stress	
Zone 1.....	74,000 psi
Zone 2.....	118,000 psi
Zone 3.....	120,000 psi
Zone 4.....	103,000 psi
Ultimate Tensile Strain.....	0.010in/in
Ultimate Shear Stress.....	10,000 psi

**STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION**



**HAMPDEN  
PENOBSCOT COUNTY  
TWIN BRIDGE  
OVER  
WEST BRANCH  
SOUADABSCOOK STREAM  
ROUTE 69  
STATE PROJECT NO. 18959.00  
PROJECT LENGTH 0.11 mi  
BRIDGE NO. 5315**

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**UTILITIES**

Versant Power Co.  
Charter Communications  
Hampden Telephone

**MAINTENANCE OF TRAFFIC**

Construct on-site Special Detour with alternating one-way traffic controlled with temporary traffic signals.

<b>CONCRETE DECK SUPERSTRUCTURE</b>	<b>CT GIRDERS</b>

<b>PROJECT LOCATION:</b>	In Hampden on Route 69 (Carmel Road North) 140' North of the Intersection of Meadow Road With Route 69 Latitude 44°42'43.2" N Longitude 68° 57'3.6" W
<b>PROGRAM AREA:</b>	Bridge Program
<b>OUTLINE OF WORK:</b>	Bridge Replacement with 605 feet of approach work, including 595 feet of full depth construction and 100+ feet of side road reconstruction.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]*  
DATE: 12-3-2020

COMMISSIONER: *[Signature]*  
CHIEF ENGINEER: *[Signature]*

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	MICHAEL WRIGHT
DESIGNER	ADAM STOCKIN
CONSULTANT	WSP
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 018959.00

TWIN BRIDGE  
WEST BRANCH SOUADABSCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY

TITLE SHEET

SHEET NUMBER

1

OF 37

Date: 11/19/2020  
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Division: BRIDGE  
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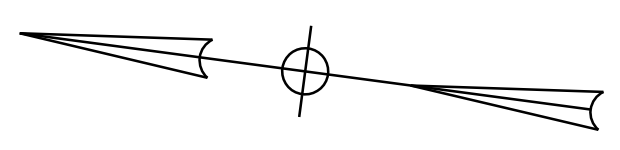


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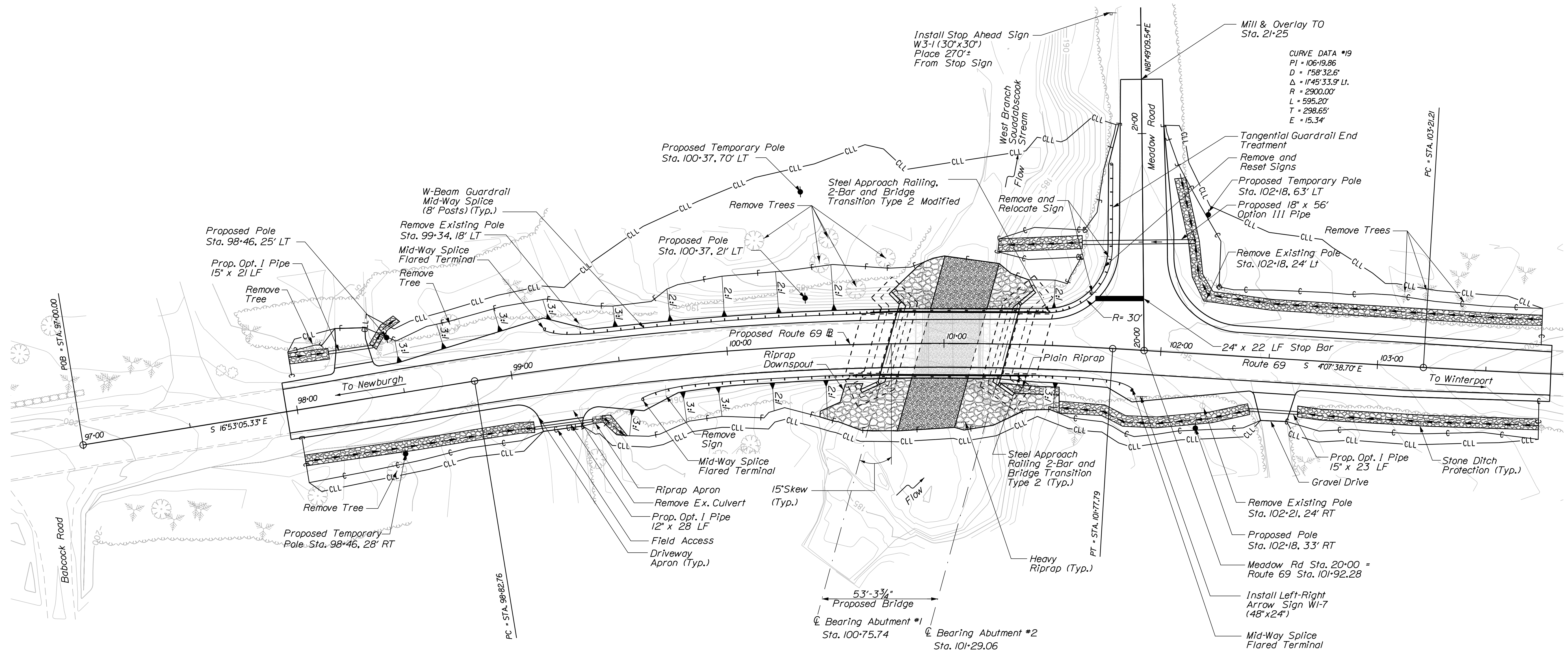


CURB TABLE				
STATION/OFFSET FROM	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE
100+63.3, 14.2' RT	100+70.3, 14.2' RT	7.00'	-	T2
100+71.6, 14.6' LT	100+78.6, 14.6' LT	7.00'	-	T2
101+26.8, 14.3' RT	101+33.8, 14.3' RT	7.00'	-	T2
101+33.9, 14.7' LT	101+40.9, 14.7' LT	7.00'	-	T2

T2 = Terminal Curb Type 2

ITEM 606.1301 - 3' W-Beam Guardrail - Midway Splice Single Faced	LF	100.0
STA 99+55.6 TO STA 100+55.6 LT		50.0
STA 99+96.5 TO STA 100+46.5 RT		
ITEM 606.1304 - 3' W-Beam Guardrail - Midway Splice - Over 15' Radius	LF	37.5
STA 101+57.2 TO STA 20+48.4 LT, R = 30'		
ITEM 606.1305 - 3' W-Beam Guardrail - Midway Splice Flared Terminal	EA	1
STA 99+18.1 TO STA 99+55.6 LT		1
STA 99+59.0 TO STA 99+96.5 RT		1
STA 101+50.6 TO STA 101+88.1 RT		1
ITEM 606.1306 - 3' W-Beam Guardrail - Midway Splice Tangent Terminal	EA	1
STA 20+48.4 TO STA 20+85.9 LT		1

ITEM 606.1722 - Bridge Transition - Type 2	EA	1
STA 100+55.6 TO STA 100+76.8 LT		1
STA 100+46.5 TO STA 100+68.2 RT		1
STA 101+36.2 TO STA 101+57.2 LT (Modified)		1
STA 101+28.9 TO STA 101+50.6 RT		1

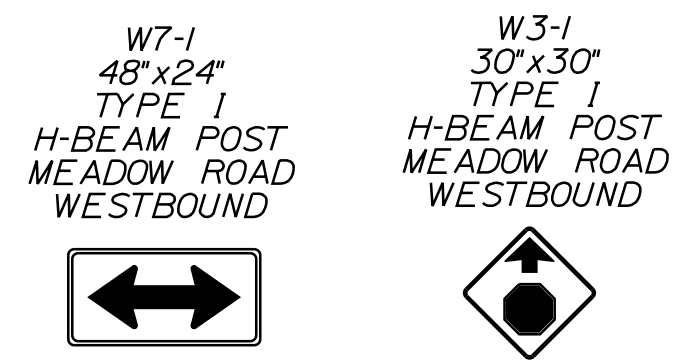
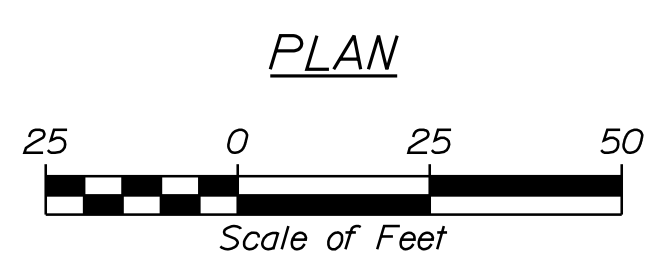


CURVE DATA #18	
PI	100+30.89
D	419'27.2'
Δ	12°45'26.6\" Rt.
R	1325.00'
L	295.02'
T	148.12'
E	8.25'

ITEM 201.23 - Removing Single Tree Top Only	
ITEM 201.24 - Removing Stump	
STA 98+11.81, 28.76' LT	19' Pine
STA 98+40.75, 35.20' RT	16' Cherry
STA 99+75.72, 27.66' LT	12' Maple, Clump
STA 100+15.96, 49.92' LT	16' Maple
STA 100+44.09, 38.13' LT	24' Maple, Twin
STA 100+48.53, 49.32' LT	17' Maple, Triple
STA 100+50.12, 25.47' LT	13' Elm
STA 100+73.78, 39.49' LT	13' Maple
STA 103+10.61, 34.22' LT	30' Pine
STA 103+25.50, 35.65' LT	16' Hemlock
STA 103+38.16, 31.38' LT	16' Hemlock

ITEM 627.18 - 12\" Solid White Pavement Marking	LF	44
24\" Stop Bar STA 20+24 LT		

ITEM 627.733 - 4\" White or Yellow Painted Pavement Marking Line	LF	1170
STA 97+95 TO STA 103+80, D/SL		370
STA 97+95 TO STA 101+65, LT, SWSL		585
STA 97+95 TO STA 103+80, RT, SWSL		165
STA 102+15 TO STA 103+90, LT, SWSL		220
STA 20+15 TO STA 21+25, D/SL		110
STA 20+15 TO STA 21+25, LT, SWSL		110
STA 20+15 TO STA 21+25, RT, SWSL		110



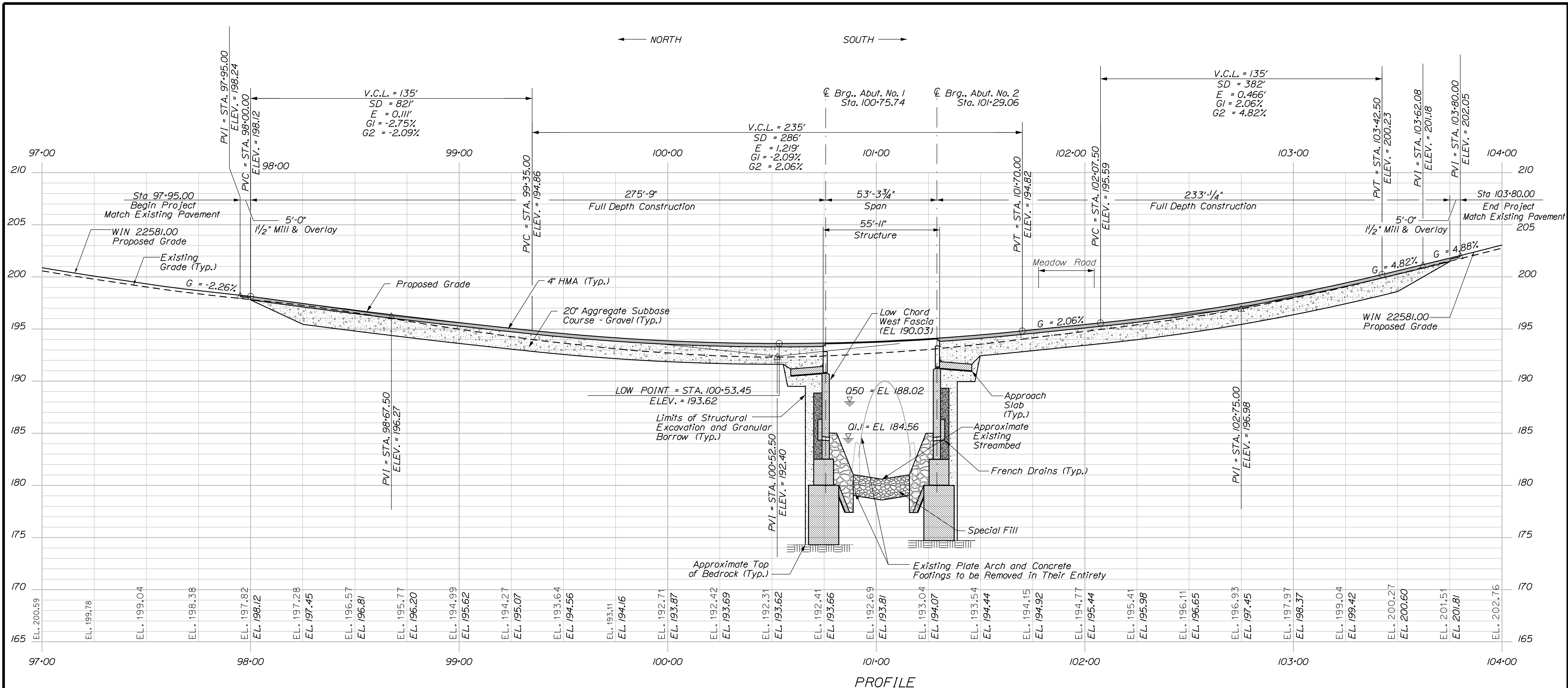
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TWIN BRIDGE WEST BRANCH SOUADABSCOOK STREAM HAMPDEN PENOBSCOT COUNTY GENERAL PLAN	SHEET NUMBER <b>3</b>	OF 37

Date: 11/18/2020

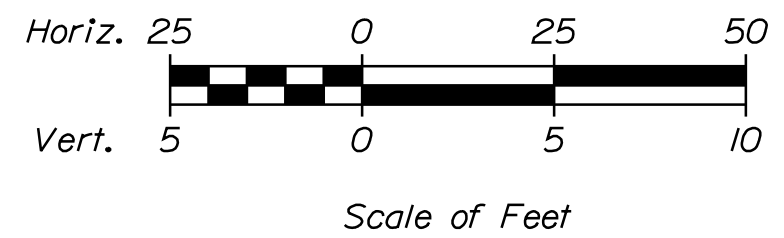
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SUPERELEVATION TABLE - ROUTE 69				
LT. SHOULDER	LT. TRAVELWAY	STATION	RT. TRAVELWAY	RT. SHOULDER
START				
-2.0%	0.9%	98+00	-2.0%	-2.0%
-2.0%	1.7%	98+25	-2.0%	-2.0%
-2.0%	2.6%	98+50	-2.6%	-2.6%
-2.0%	3.4%	98+75	-3.4%	-3.4%
-2.0%	4.2%	99+00	-4.2%	-4.2%
-1.3%	4.8%	99+18.32	-4.8%	-4.8%
-1.0%	4.8%	99+25	-4.8%	-4.8%
0.0%	4.8%	99+50	-4.8%	-4.8%
1.0%	4.8%	99+75	-4.8%	-4.8%
2.0%	4.8%	100+00	-4.8%	-4.8%
3.0%	4.8%	100+25	-4.8%	-4.8%
4.0%	4.8%	100+50	-4.8%	-4.8%
4.8%	4.8%	100+75	-4.8%	-4.8%
TO				
4.8%	4.8%	101+35	-4.8%	-4.8%
4.5%	4.8%	101+42.23	-4.8%	-4.8%
4.2%	4.6%	101+50	-4.6%	-4.6%
3.2%	3.8%	101+75	-3.8%	-3.8%
2.2%	3.0%	102+00	-3.0%	-3.0%
1.2%	2.2%	102+25	-2.2%	-2.2%
0.2%	1.4%	102+50	-1.4%	-2.0%
-0.8%	0.7%	102+75	-0.7%	-2.0%
-1.8%	-0.1%	103+00	0.1%	-2.0%
-2.0%	-0.2%	103+05	0.2%	-2.0%
-2.0%	-0.7%	103+25	0.7%	-2.0%
-2.0%	-1.3%	103+50	1.3%	-2.0%
-2.0%	-1.7%	103+75	1.7%	-2.0%



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

018959-00

WIN  
18959.00

BRIDGE No. 5315

BRIDGE PLANS

PROJ. MANAGER

DATE

DESIGN-DETAILED

DATE

CHECKED-REVIEWED

DATE

DESIGNS-DETAILED

DATE

REVISIONS 1

DATE

REVISIONS 2

DATE

REVISIONS 3

DATE

REVISIONS 4

DATE

FIELD CHANGES

DATE

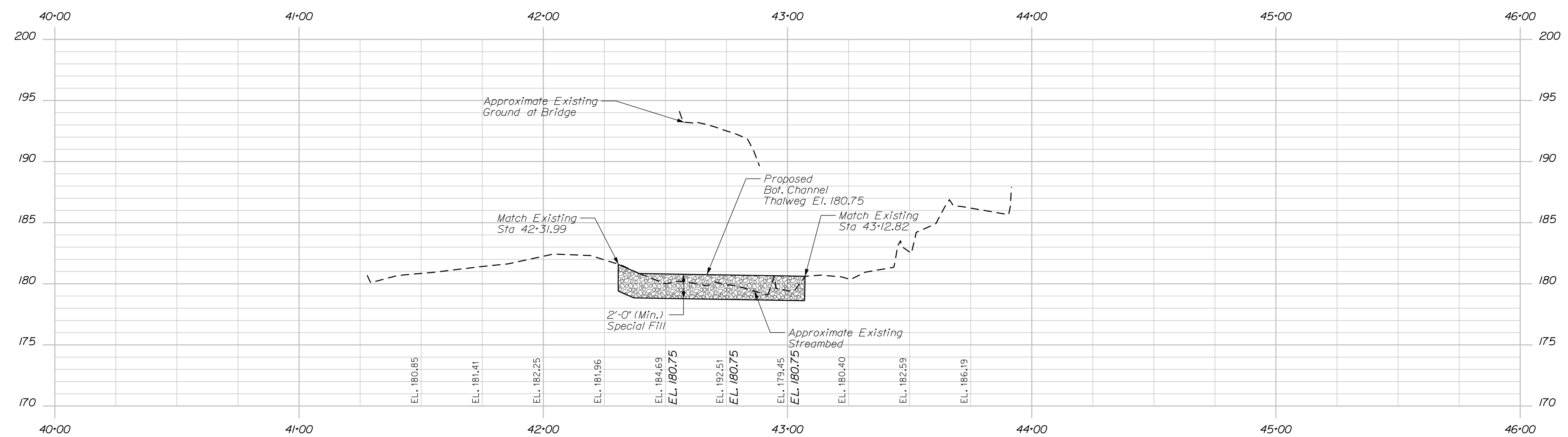
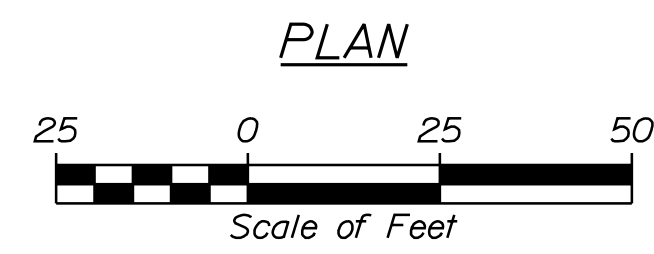
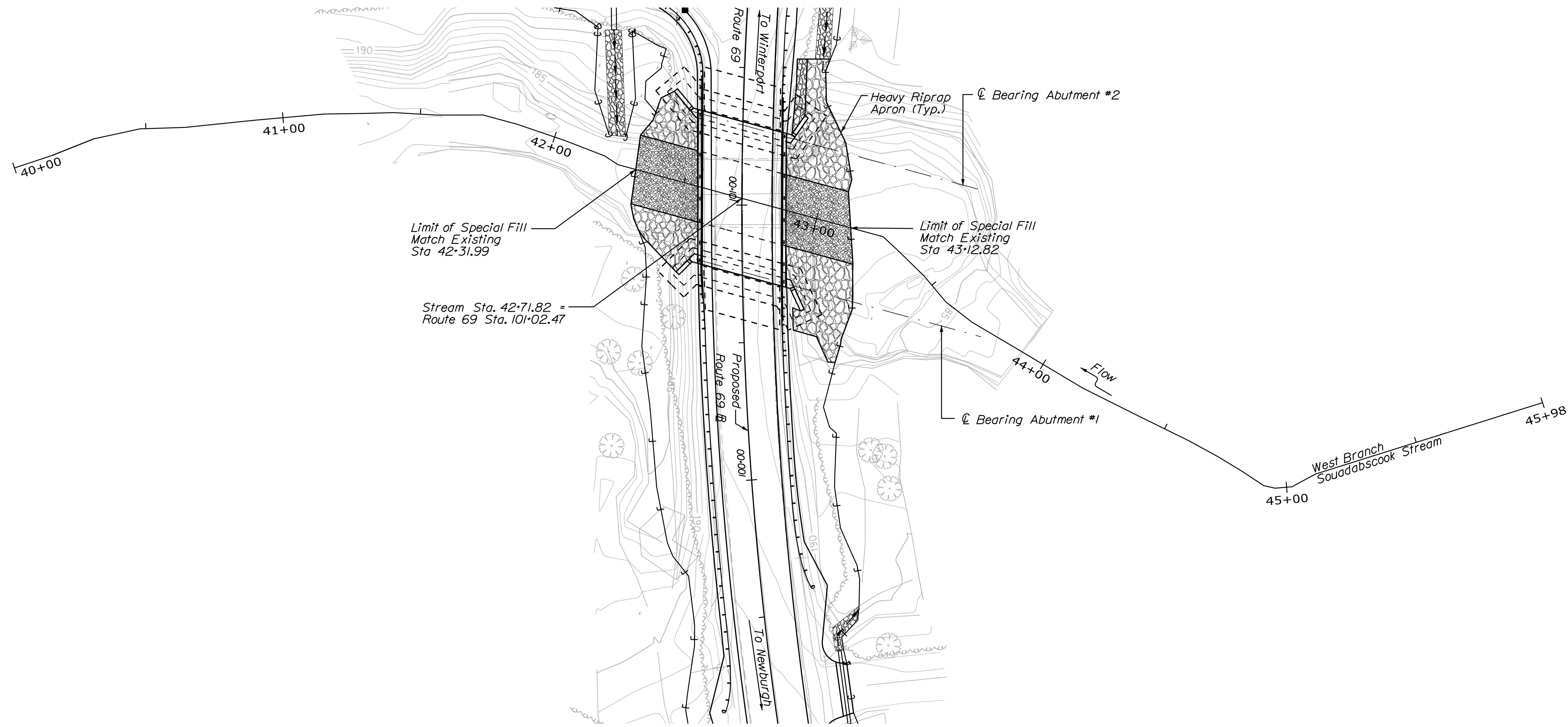
WEST BRANCH SOUADABSCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY

ROUTE 69 PROFILE

SHEET NUMBER

4

OF 37



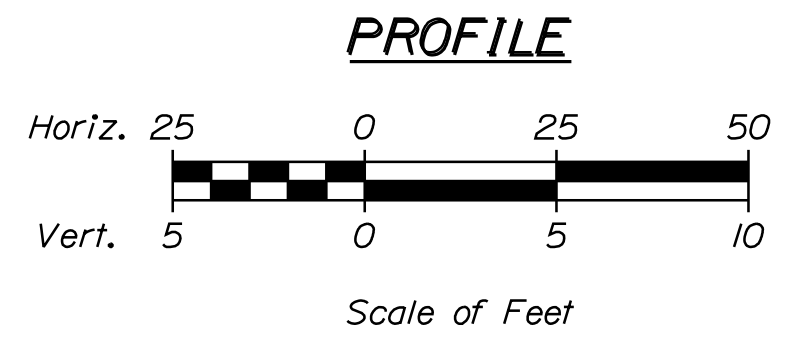
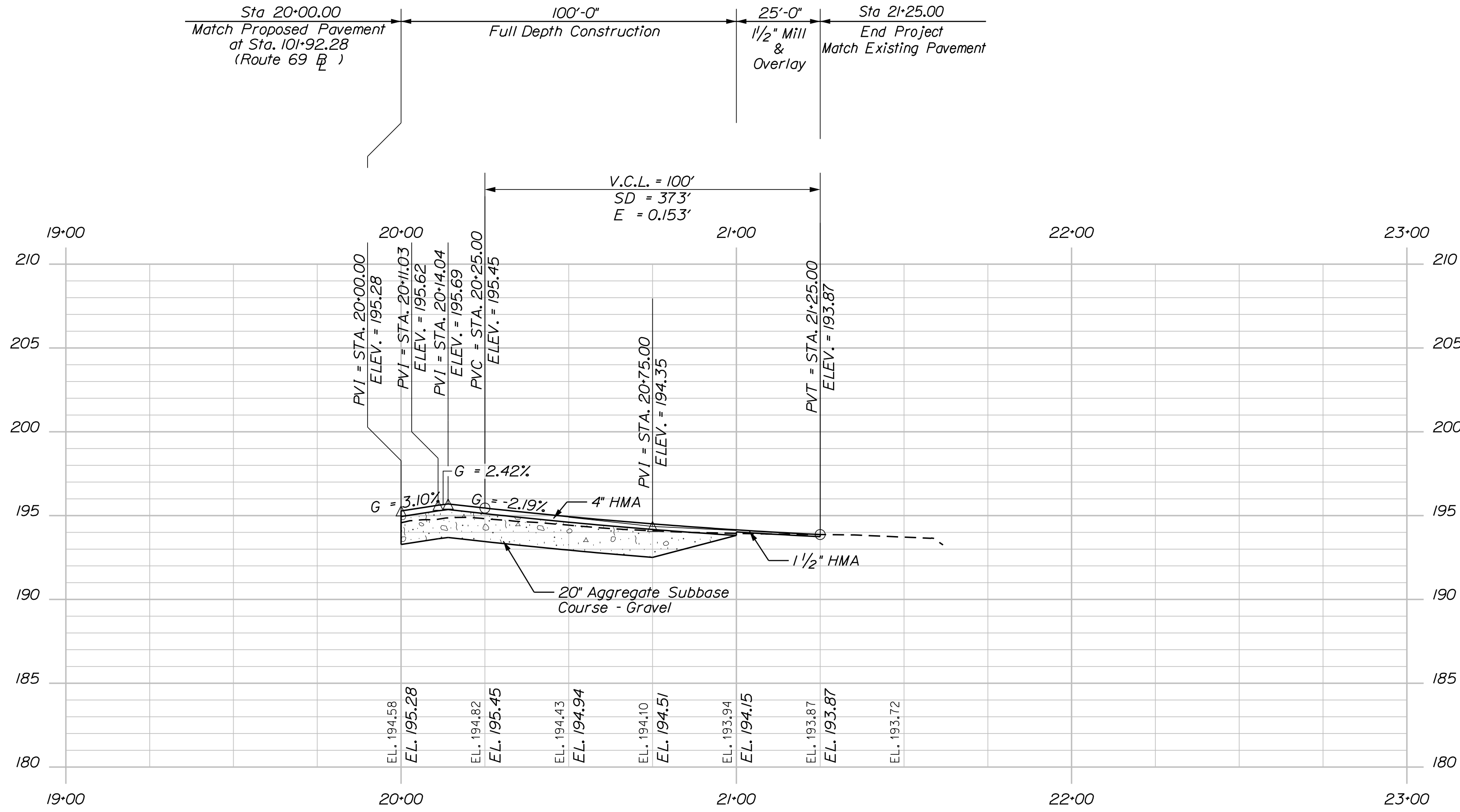
PROFILE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
018959.00  
WIN  
18959.00  
BRIDGE No. 5315  
BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	KLH	KLH	10/2020
CHECKED-REVIEWED	TCH	AMS	10/2020
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

TWIN BRIDGE  
WEST BRANCH SOUADABSCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY  
STREAM PLAN AND PROFILE

SHEET NUMBER  
**5**  
OF 37



SHEET NUMBER

6

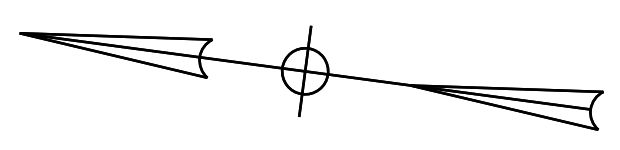
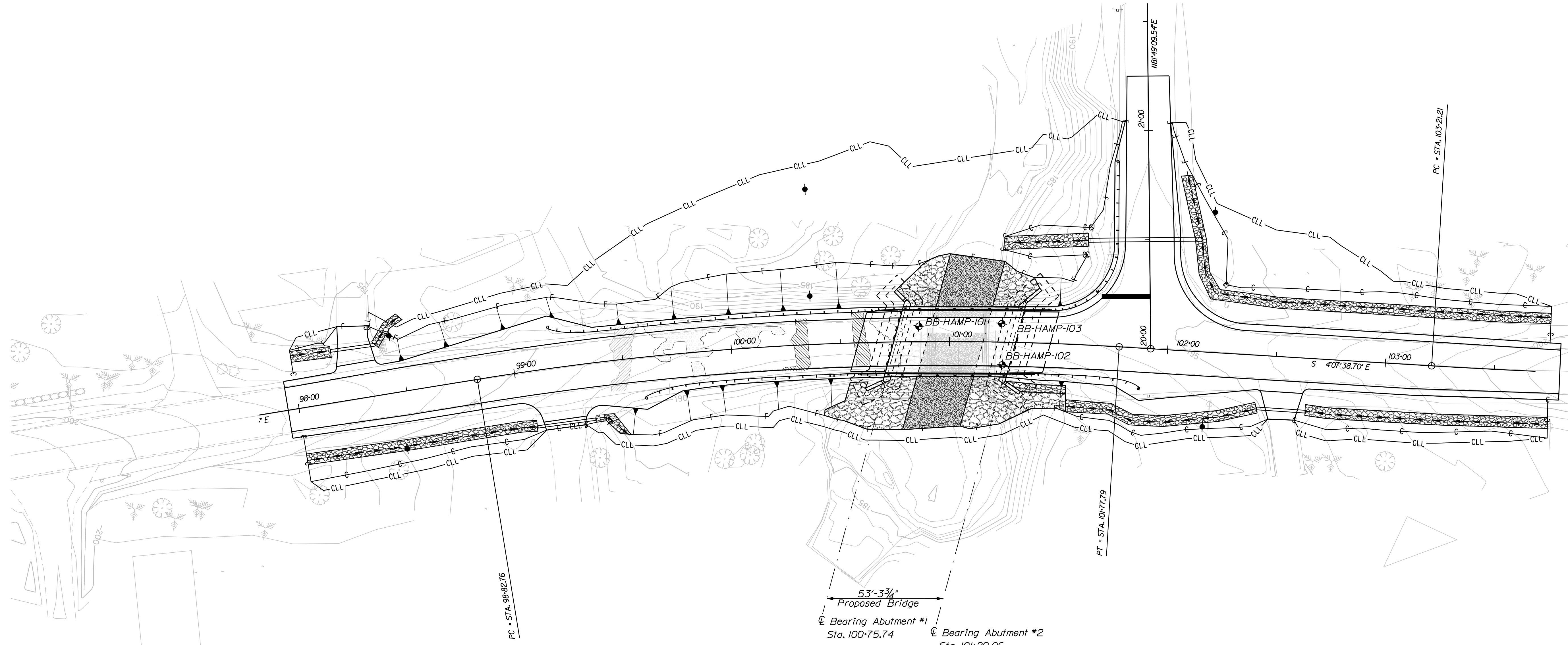
OF 37

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY  
MEADOW ROAD PROFILE

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	KLH	KLH	10/2020
CHECKED-REVIEWED	TCH	AMS	10/2020
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE  
P.E. NUMBER  
DATE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
018959.00  
BRIDGE No. 5315  
WIN  
18959.00  
BRIDGE PLANS



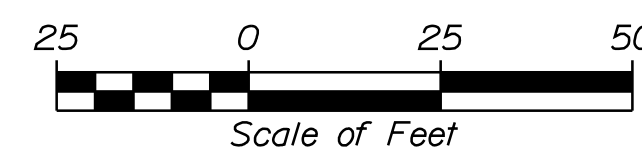
**LEGEND**

- Cased Washed Borings
- Possible Former Bridge Abutments
- Possible Former Retaining Wall
- Possible Shallow Bedrock or Unknown Buried Objects
- Unknown Buried Objects

**BORING LOCATION PLAN**

Note:  
Geophysical survey information prepared by Hager-Richter titled  
"Geophysical Survey Twin Bridge #5315 West Branch Souadabscook  
Stream ME Route 69 Hampden, Maine" dated October 14, 2020

**PLAN**



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

018959.00

WIN

BRIDGE No. 5315

BRIDGE PLANS

DESIGN DATE  
1/2020

BY  
KJH  
AMS

DATE  
1/2020

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER

M. WIGHT

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

TWIN BRIDGE  
WEST BRANCH SOUADABSCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY

SHEET NUMBER

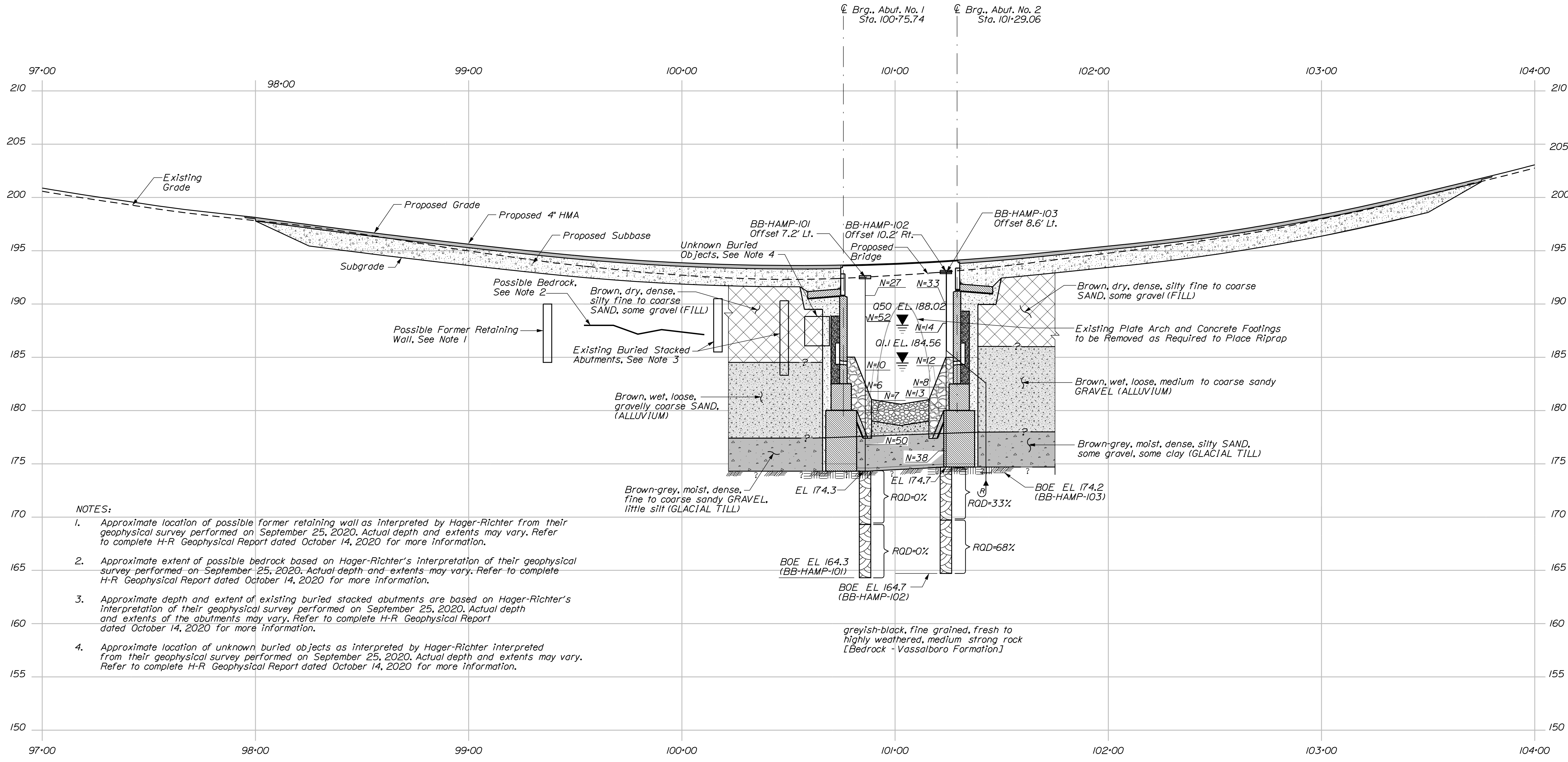
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Date: 11/3/2020

Username:

Division: BRIDGE

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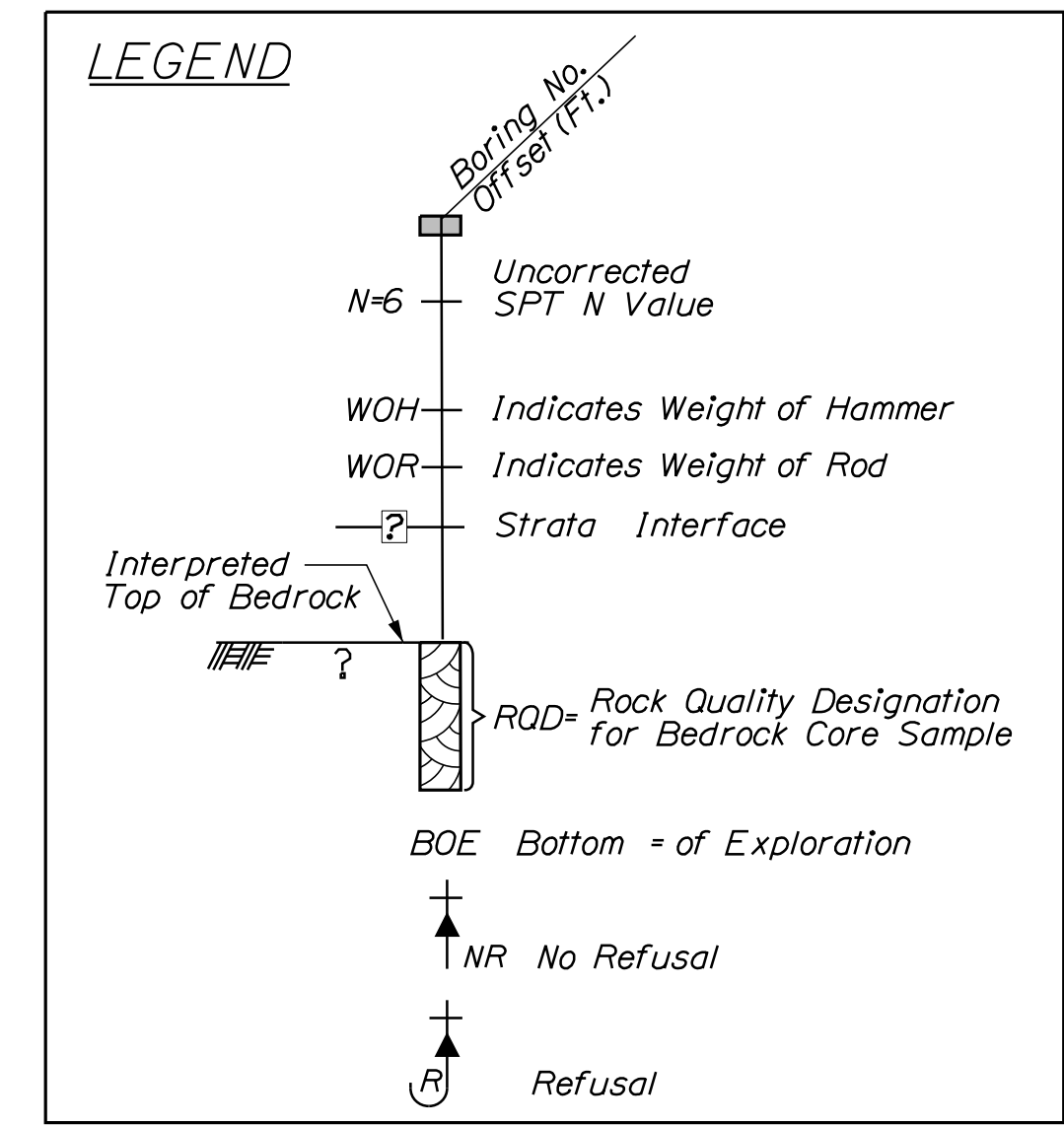
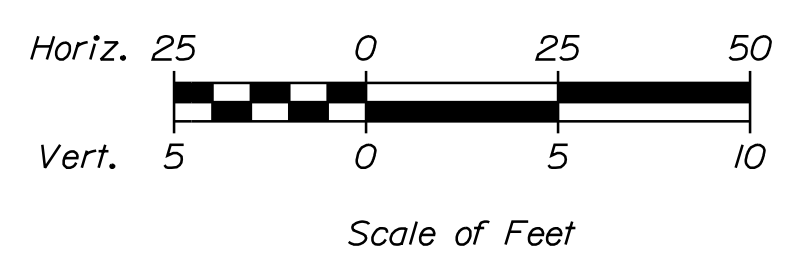


**NOTES:**

1. Approximate location of possible former retaining wall as interpreted by Hager-Richter from their geophysical survey performed on September 25, 2020. Actual depth and extents may vary. Refer to complete H-R Geophysical Report dated October 14, 2020 for more information.
2. Approximate extent of possible bedrock based on Hager-Richter's interpretation of their geophysical survey performed on September 25, 2020. Actual depth and extents may vary. Refer to complete H-R Geophysical Report dated October 14, 2020 for more information.
3. Approximate depth and extent of existing buried stacked abutments are based on Hager-Richter's interpretation of their geophysical survey performed on September 25, 2020. Actual depth and extents of the abutments may vary. Refer to complete H-R Geophysical Report dated October 14, 2020 for more information.
4. Approximate location of unknown buried objects as interpreted by Hager-Richter interpreted from their geophysical survey performed on September 25, 2020. Actual depth and extents may vary. Refer to complete H-R Geophysical Report dated October 14, 2020 for more information.

**Note:**  
 This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil and bedrock transitions may vary and are probably more erratic. Stratigraphy was interpreted to be non-horizontal. For more specific information, refer to the exploration logs and the geotechnical report.

**INTERPRETIVE SUBSURFACE PROFILE**



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		018959.00	
BRIDGE No. 5315		WIN 18959.00	
PROJECT MANAGER		DATE	
DESIGN-DETAILED	EC	9/2020	SIGNATURE
CHECKED-REVIEWED	AGP	9/2020	P.E. NUMBER
DESIGN-DETAILED			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
TWIN BRIDGE WEST BRANCH SOUADABCOOK STREAM HAMPDEN PENOBSCOT COUNTY INTERPRETIVE SUBSURFACE PROFILE			
SHEET NUMBER <b>8</b> OF 37			

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Twin Bridge #5315 Over West Branch Souabascook Stream Hamden, Maine		Boring No.: BB-HAMP-101							
Driller: New England Boring Contractors		Elevation (ft.): 192.8		Auger ID/OD: NA-4"							
Operator: Tom Schaefer		Datum: NAVD 88		Sampler: Standard Split Spoon							
Logged By: TRM		Rig Type: Mobile B53		Hammer Wt/Fall: 140 lbs./20"							
Date Start/Finish: 5/16/17 7:55 AM - 1:30 PM		Drilling Method: Cased Wash		Core Barrel: 1-78" - NQ							
Boring Location: Sta. 100+86.1, 7.2FT L.		Casing ID/OD: 4" x 4"		Water Level*: See Remarks							
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cablehead <input type="checkbox"/>		Core Barrel: 1-78" - NQ							
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Blows (6 in.) (SPT) or RQD (%)	Nonconnected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								192.8		8" of asphalt.	
1	1D	24.14.4	1.00 - 3.00	15.14/13/21	27	27		192.8		1D: Brown, dry, medium dense, fine to coarse SAND, some gravel, little silt; quartz rock fragments (FILL).	#412731 A-1-aSM WC: 6.4%
2	2D	24.14.4	3.00 - 5.00	5.21/31/25	52	52		192.8		2D: Brown, dry, very dense, fine to coarse SAND, some angular gravel, little silt; quartz fragments (FILL).	
3	3D	24.3.6	8.00 - 10.00	6.5/5.9	10	10		184.3		Cobble at 7 bgs.	
4	4D	24.6	10.00 - 12.00	3/4/2.3	6	6		184.3		3D: Brown, wet, loose, fine to coarse SAND, some sub-angular gravel, some silt (ALLUVIUM).	
5	5D	24.7.2	12.00 - 14.00	3/3/4.7	7	7		184.3		4D: Brown, wet, loose, gravelly, coarse SAND, trace silt, 2" piece of rounded gravel (ALLUVIUM).	
6	6D	24.18	15.00 - 17.00	21/20.30(5.1*)	50	50		177.8		5D: 3" Spoon: Brown, wet, loose, gravelly, medium to coarse SAND, trace silt, 0.5" to 1" gravel, sub-angular to sub-rounded (ALLUVIUM).	#412732 A-1-aSP WC: 11.5%
7	R1	52.832.8	18.50 - 22.90	RQD = 0%				174.3		6D: 3" spoon: Brown-gray, moist, dense, fine to coarse sandy GRAVEL, little silt; white quartz bedrock fragments (GLACIAL TILL).	#412733 A-1-aGM WC: 8.4%
8								174.3		Top of Bedrock at 18.5ft bgs.	
9	R2	67.257.2	22.90 - 28.50	RQD = 0%				164.3		R1: Bedrock: Greyish black (N2), fine grained, fresh to slightly weathered (W1-W2), medium strong rock (R3), PHYLLITE, discontinuity spacing is extremely close to closely spaced (<20 mm to 80 mm), dipping 55 to 85 degrees relative to horizontal axis, discontinuity surfaces are planar to curved to stepped, texture is smooth to very rough, trace pyrite [Vassalboro Formation]. Core Times (min:sec) 18.5' - 19.5' (1:29) 19.5' - 20.5' (1:20) 20.5' - 21.5' (2:10) 21.5' - 22.5' (2:08) 22.5' - 23.5' (1:41) Recovery 100% R2: Bedrock: Greyish black (N2), fine grained, fresh to highly weathered (W1-W4) with highly weathered zone from 26.8 feet to 28.5 feet below ground surface, medium weak rock (R3), weathered zone is very weak rock (R1), PHYLLITE, spacing is extremely close to closely spaced (<20 mm to 100 mm), dipping 85 to 90 degrees relative to horizontal axis, discontinuity surfaces are planar to stepped, texture is smooth to very rough, trace pyrite and iron staining in joints [Vassalboro Formation]. Core Times (min:sec) 22.9' - 23.9' (1:53) 23.9' - 24.9' (1:37) 24.9' - 25.9' (1:19) 25.9' - 26.9' (1:59) 26.9' - 27.9' (1:51) 27.9' - 28.5' (1:32) Recovery 85%	
10								164.3		Bottom of Exploration at 28.5 feet below ground surface.	
<b>Remarks:</b> - Borehole collapsed to 6.2 bgs. after casing was removed. Water was absent from hole. Water level based on observed saturation of soil samples. - Boring backfilled with gravelly cuttings and 30 lbs of cold patch. - Elevation based on base map data provided by WSP.											
Stratification lines represent approximate boundaries between soil types, transitions may be gradual.											Boring No.: BB-HAMP-101

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Twin Bridge #5315 Over West Branch Souabascook Stream Hamden, Maine		Boring No.: BB-HAMP-102							
Driller: New England Boring Contractors		Elevation (ft.): 192.2		Auger ID/OD: NA-4"							
Operator: Tom Schaefer		Datum: NAVD 88		Sampler: Standard Split Spoon							
Logged By: TRM		Rig Type: Mobile B53		Hammer Wt/Fall: 140 lbs./20"							
Date Start/Finish: 5/15/17 8:30 AM - 2:45 PM		Drilling Method: Cased Wash		Core Barrel: 1-78" - NQ							
Boring Location: Sta. 101+24.3, 10.2FT R.		Casing ID/OD: 4" x 4"		Water Level*: See Remarks							
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cablehead <input type="checkbox"/>		Core Barrel: 1-78" - NQ							
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Blows (6 in.) (SPT) or RQD (%)	Nonconnected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								191.3		8" of asphalt.	
1	1D	24.12	1.00 - 3.00	14.12/21/28	33	33		191.3		1D: Brown, dry, dense, fine to coarse SAND, some gravel, little silt (FILL).	
2	2D	24.12	3.00 - 5.00	26/7/7.5	14	14		191.3		2D: Brown, dry, medium dense, silty fine to medium SAND, some gravel (FILL).	
3	3D	24.4.8	7.00 - 9.00	6/6/6.4	12	12		185.2		3D: Brown, wet, medium dense, gravelly coarse SAND, some silt, angular (ALLUVIUM).	
4	4D	24.8.8	9.00 - 11.00	6/5/3.3	8	8		185.2		4D: Brown, wet, loose, medium to coarse SANDY GRAVEL, little silt, angular gravel (ALLUVIUM).	
5	5D	24.3.6	11.00 - 13.00	9/8/5.5	13	13		185.2		5D: Brown, wet, medium dense, medium to coarse SANDY GRAVEL, trace silt, rock fragments, angular gravel (ALLUVIUM). 3" spoon used to collect additional sample material.	#412734 A-1-aGM WC: 9.4%
6	6D	24.16.8	15.00 - 17.00	12/19/19.81	38	38		177.2		6D: Brown-grey, moist, dense, silty SAND, some gravel, some clay, cobbles (GLACIAL TILL). 3" to 4" cobble at 16' in spoon. Milky grey wash from 15' to 17' bgs.	#412735 A-1-aGM WC: 7.7%
7	R1	60.50	17.50 - 22.50	RQD = 33%				174.2		Top of Bedrock at 17.5 bgs.	#306502 Sp. 11473 psi
8								174.2		R1: Bedrock: Medium dark grey (N4), fine grained, fresh (W1), medium strong rock (R3), PHYLLITE, discontinuity spacing is extremely close to moderately spaced (<20 mm to 460 mm), dipping 55 to 85 degrees relative to horizontal axis, discontinuity surfaces are planar to curved to stepped, texture is smooth to rough [Vassalboro Formation]. Core Times (min:sec) 17.5' - 18.5' (1:20) 18.5' - 19.5' (1:25) 19.5' - 20.5' (1:26) 20.5' - 21.5' (1:50) 21.5' - 22.5' (2:08) Recovery 83%	
9								174.2		R2: Bedrock: Medium dark grey (N4), fine grained, fresh (W1), medium strong rock (R3), PHYLLITE, discontinuity spacing is very close to moderately spaced, dipping 55 to 85 degrees relative to horizontal axis, discontinuity surfaces are planar to curved, texture is smooth to rough, white seam observed at about 25.5 feet below ground surface [Vassalboro Formation]. Core Times (min:sec) 22.5' - 23.5' (1:32) 23.5' - 24.5' (1:13) 24.5' - 25.5' (1:05) 25.5' - 26.5' (1:06) 26.5' - 27.5' (1:04) Recovery 93%	
10								174.2		Bottom of Exploration at 27.5 feet below ground surface.	
<b>Remarks:</b> - Borehole collapse to 5.2 bgs. after casing was removed. Water was absent from the hole. Water level based on observed saturation of soil samples. - Boring backfilled with cuttings and 3 bgs of all purpose gravel (Quakrete) and 20 lbs cold patch. - Elevation based on base map data provided by WSP.											
Stratification lines represent approximate boundaries between soil types, transitions may be gradual.											Boring No.: BB-HAMP-102

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Twin Bridge #5315 Over West Branch Souabascook Stream Hamden, Maine		Boring No.: BB-HAMP-103							
Driller: New England Boring Contractors		Elevation (ft.): 193.5		Auger ID/OD: NA-4"							
Operator: Tom Schaefer		Datum: NAVD 88		Sampler: NA							
Logged By: TRM		Rig Type: Mobile B53		Hammer Wt/Fall: NA							
Date Start/Finish: 5/16/2017 1:55 PM - 2:30 PM		Drilling Method: SSA		Core Barrel: NA							
Boring Location: Sta. 101+23.8, 8.0FT L.		Casing ID/OD: NA		Water Level*: Not Observed							
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cablehead <input type="checkbox"/>		Core Barrel: NA							
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Blows (6 in.) (SPT) or RQD (%)	Nonconnected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								192.8		8" of asphalt.	
1								192.8		Overburden above till layer suspected to be composed of fill and alluvium similar to borings BB-HAMP-101 and BB-HAMP-102	
2								192.8			
3								192.8			
4								192.8			
5								192.8			
6								192.8			
7								192.8			
8								192.8			
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21								192.8			
22								192.8			
23								192.8			
24								192.8			
25								192.8			
<b>Remarks:</b> - No samples were taken. - Boring collapse to 4.4' upon removal of auger. - Finished with cuttings and 30 lbs of cold patch.											
Stratification lines represent approximate boundaries between soil types, transitions may be gradual.											Boring No.: BB-HAMP-103

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

TWIN BRIDGE  
WEST BRANCH SOUADABSCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY

BORING LOGS

018959.00  
WIN 18959.00

BRIDGE No. 5315  
BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	LEC	WEG	9/2020
CHECKED-REVIEWED	ADP	RIG	9/2020
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FIELD CHANGES			

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SHEET NUMBER **9** OF 37

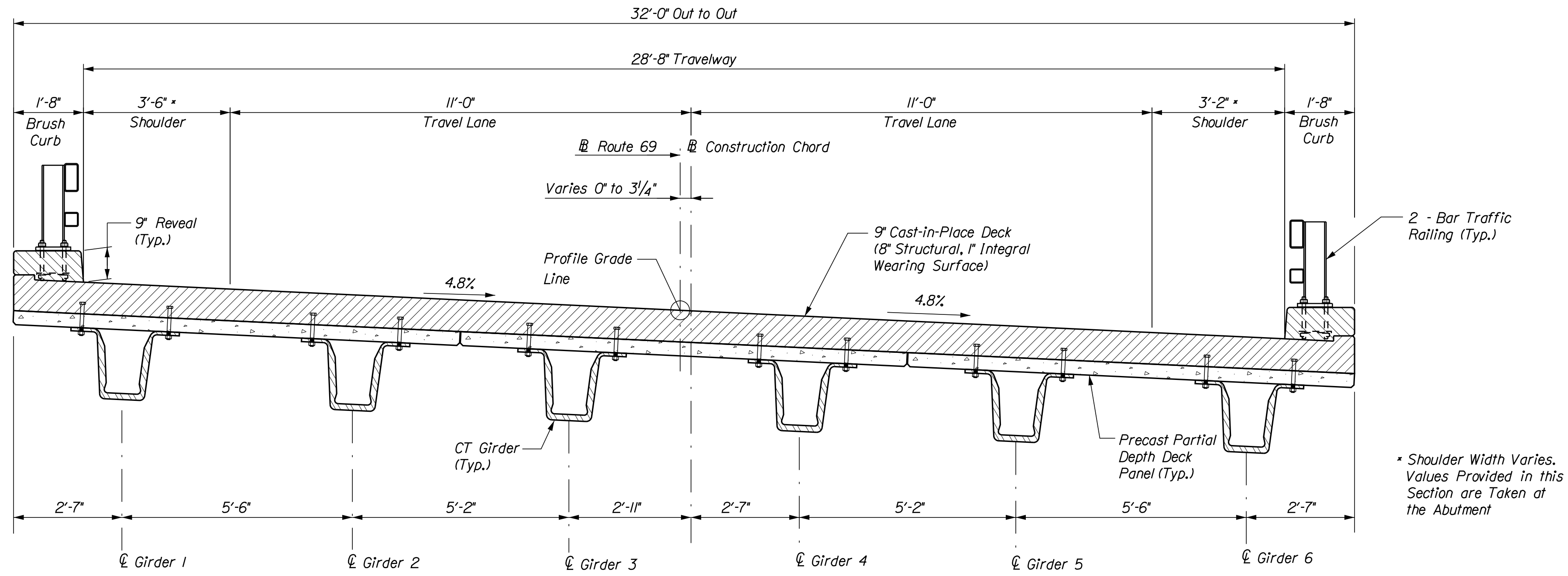


Date: 11/19/2020

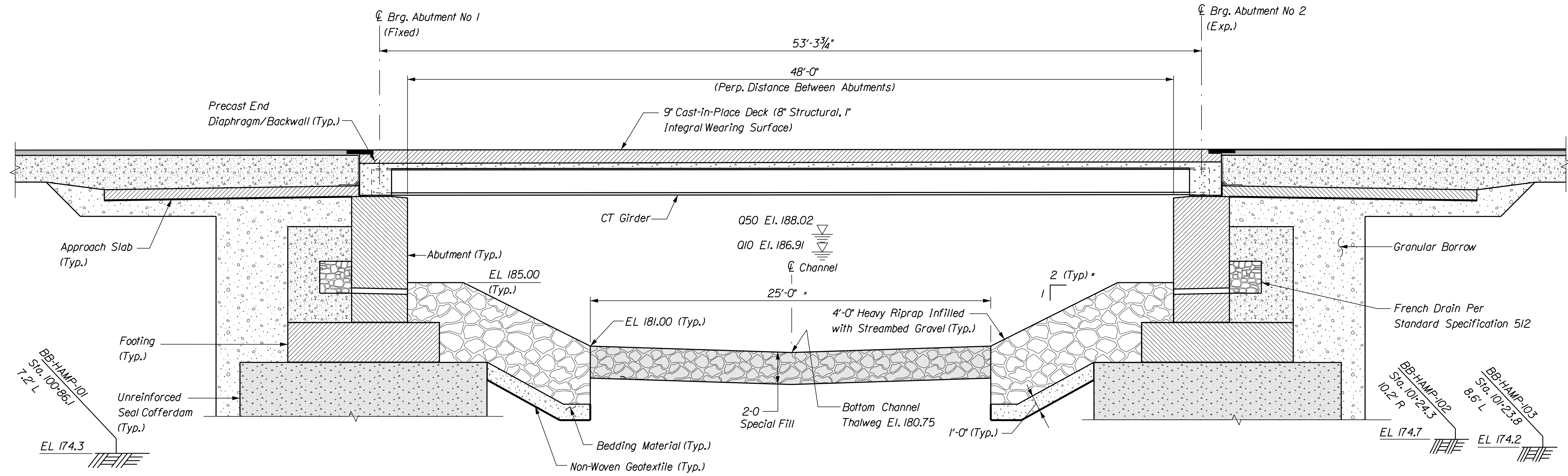
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TRANSVERSE SECTION



PROPOSED BRIDGE LONGITUDINAL SECTION

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
018959.00  
WIN  
18959.00  
BRIDGE No. 5315  
BRIDGE PLANS

DESIGN DETAILED	DATE
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PROJ. MANAGER	M. WIGHT	BY	DATE
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TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY  
TYPICAL BRIDGE SECTION

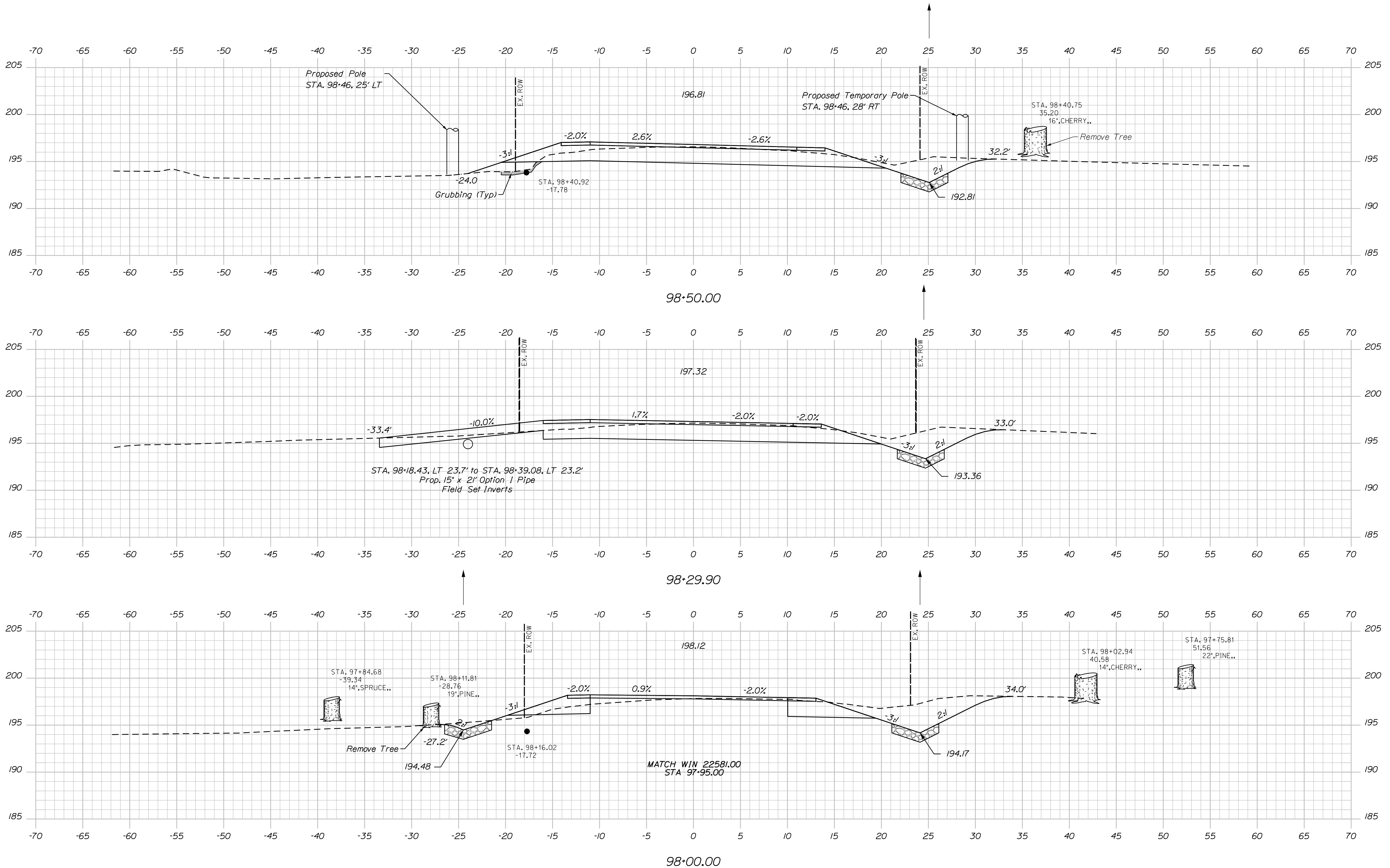
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HAMPDEN W. SQUADABCOOK STREAM PENOBSCOT COUNTY		BRIDGE NO. 6315 WIN 18959.00	
TWIN BRIDGE OVER ME-69		CROSS SECTIONS	
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OF 37		BRIDGE PLANS	

PROJ. MANAGER	M. WIGHT	DATE	BY	DATE
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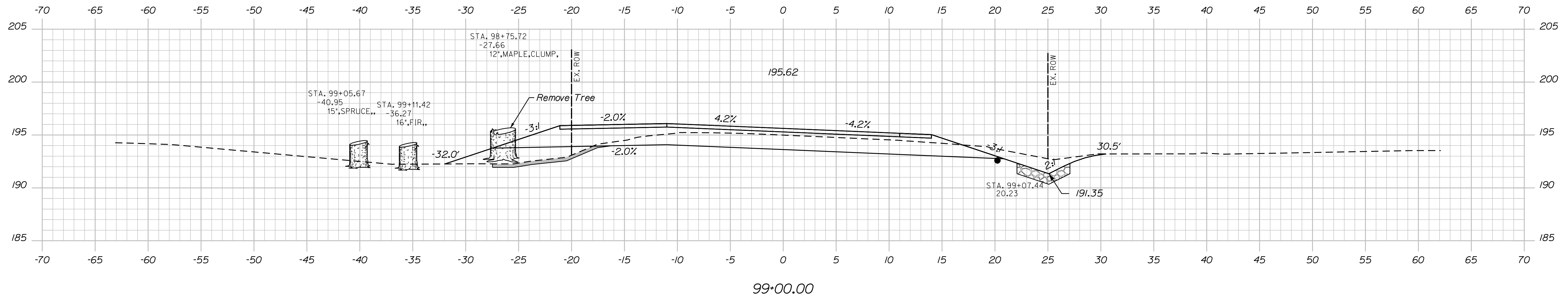
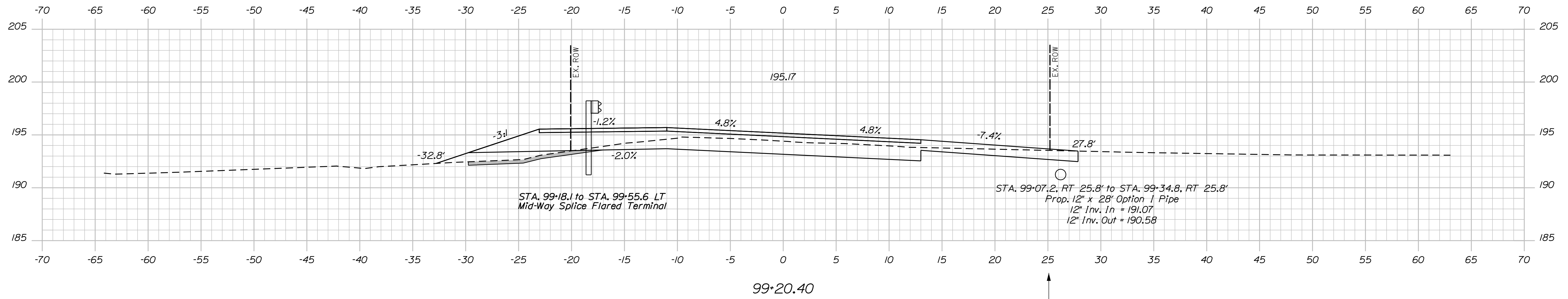
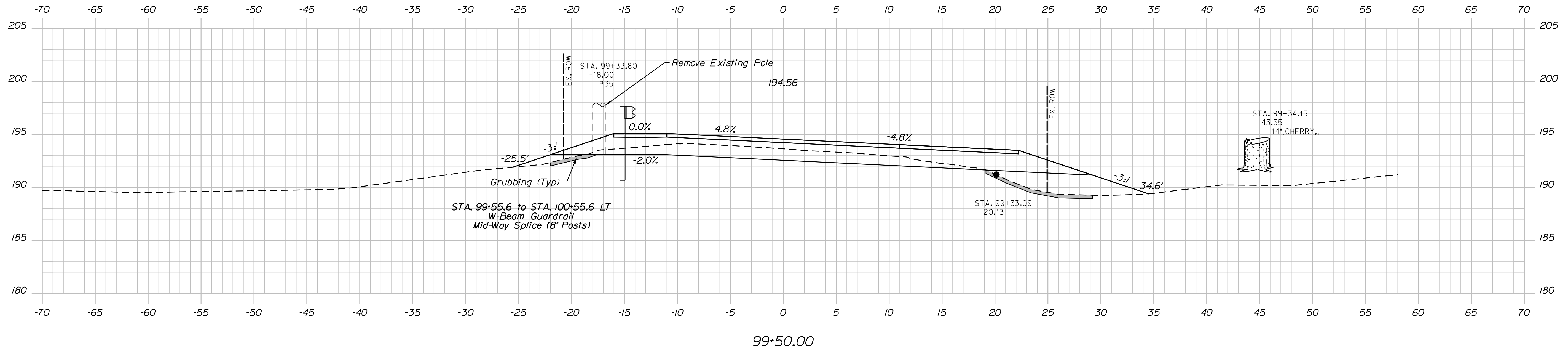
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TWIN BRIDGE  
WEST BRANCH SQUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
CROSS SECTIONS

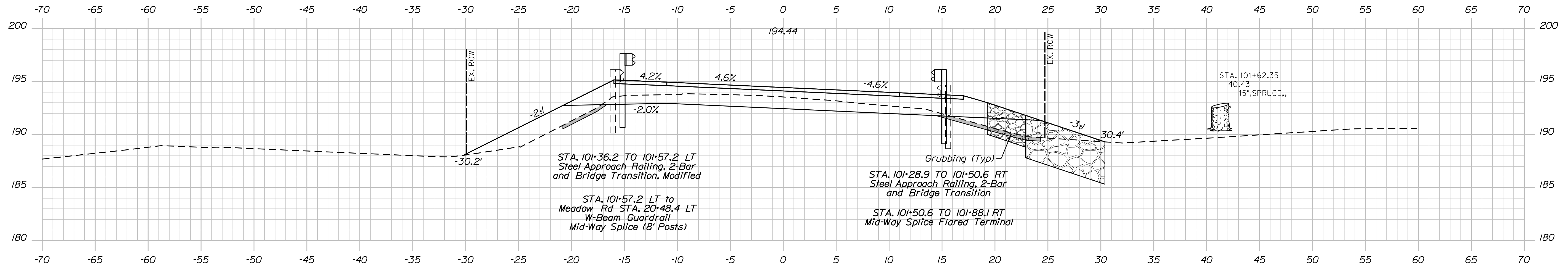
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Date: 11/18/2020

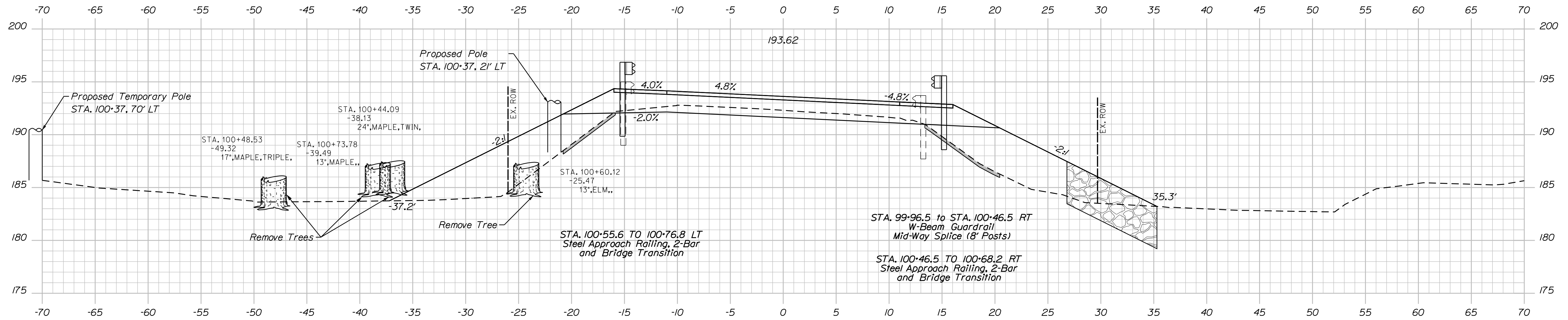
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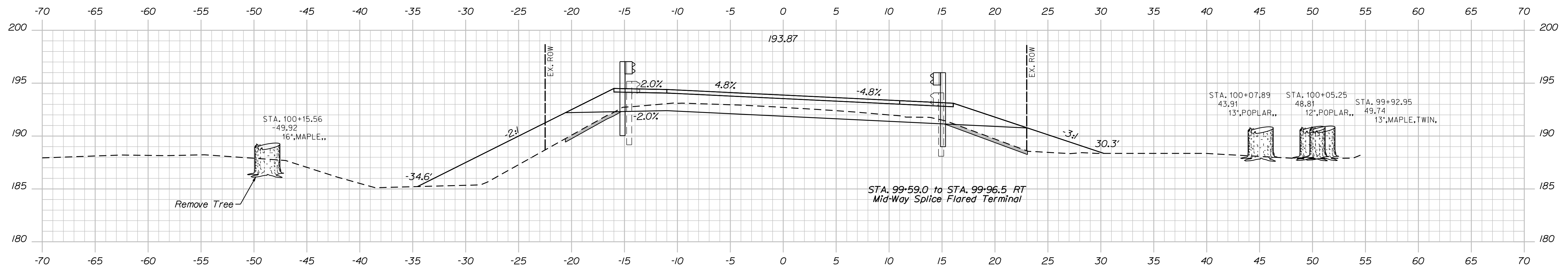
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STATE OF MAINE  
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KJH

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M. WEIGHT

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TWIN BRIDGE  
WEST BRANCH SQUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY

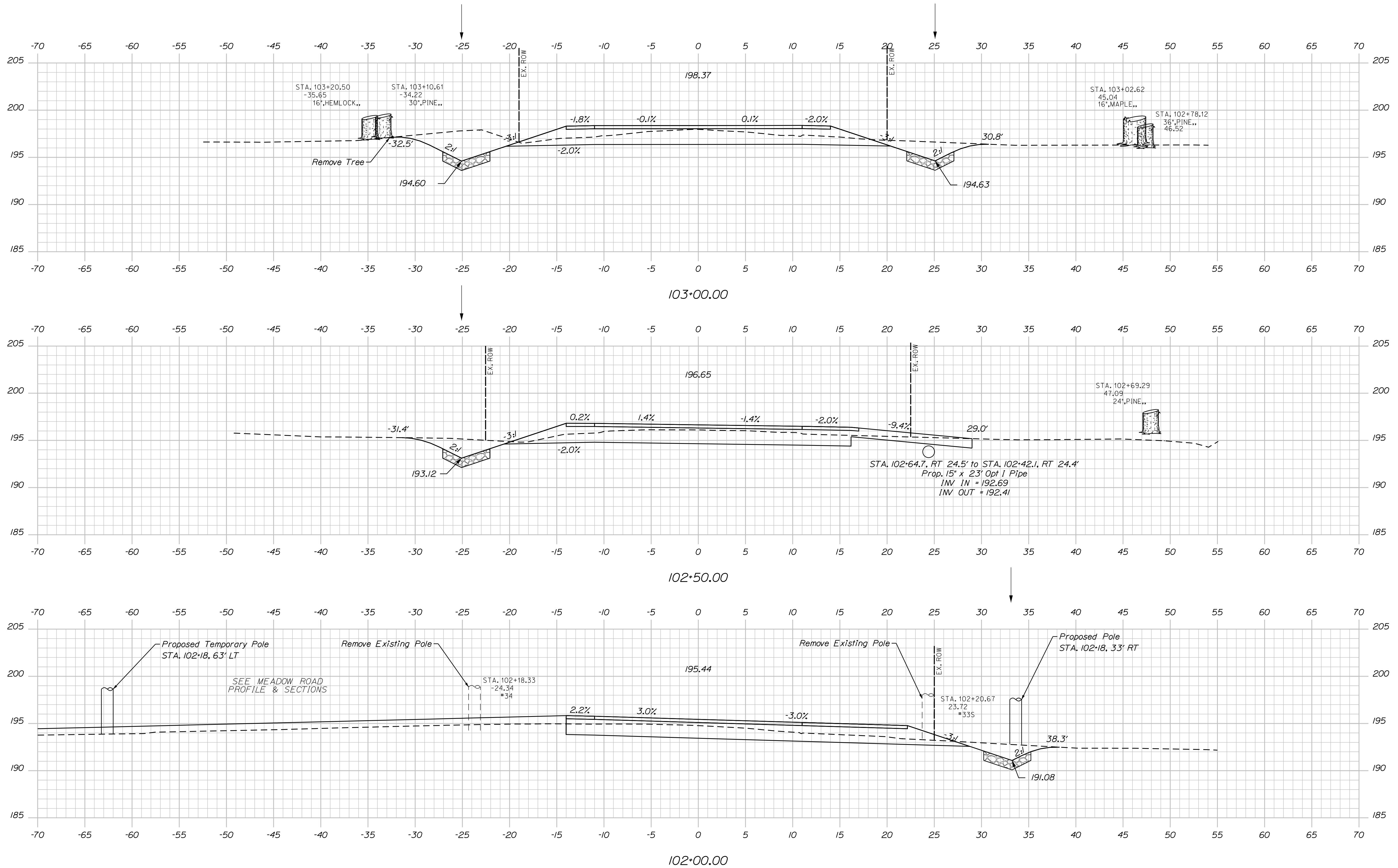
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BRIDGE PLANS

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CHECKED/REVIEWED	AMS	10/2020
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TWIN BRIDGE  
WEST BRANCH SQUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
CROSS SECTIONS

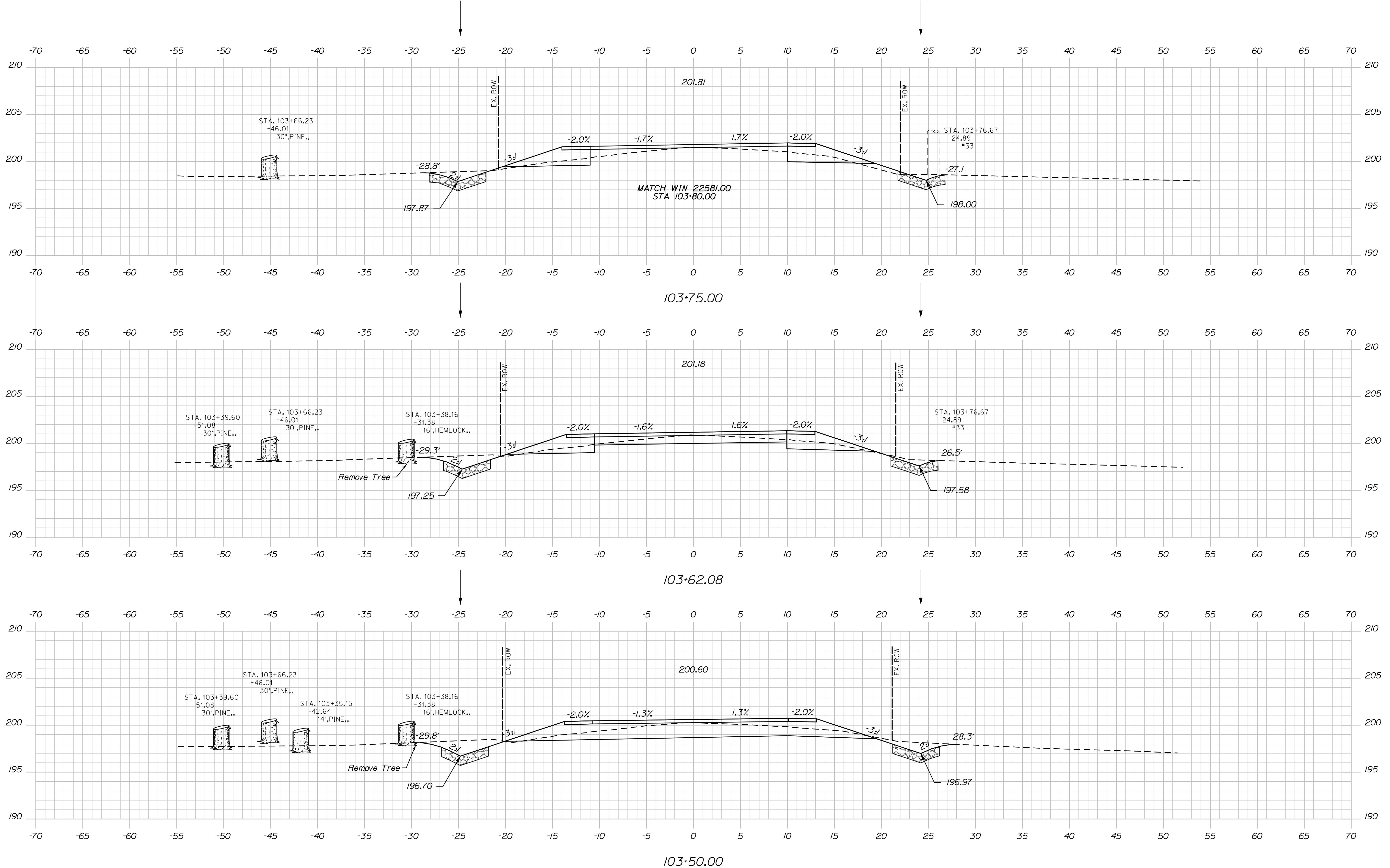
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STATE OF MAINE  
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BRIDGE NO. 6315  
HIGHERWAY PLANS

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10/2020

BY  
KJH  
AMS

M. WIGHT  
KJH  
AMS

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DESIGN-DETAILED

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TWIN BRIDGE  
WEST BRANCH SQUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY

SHEET NUMBER

16

OF 37

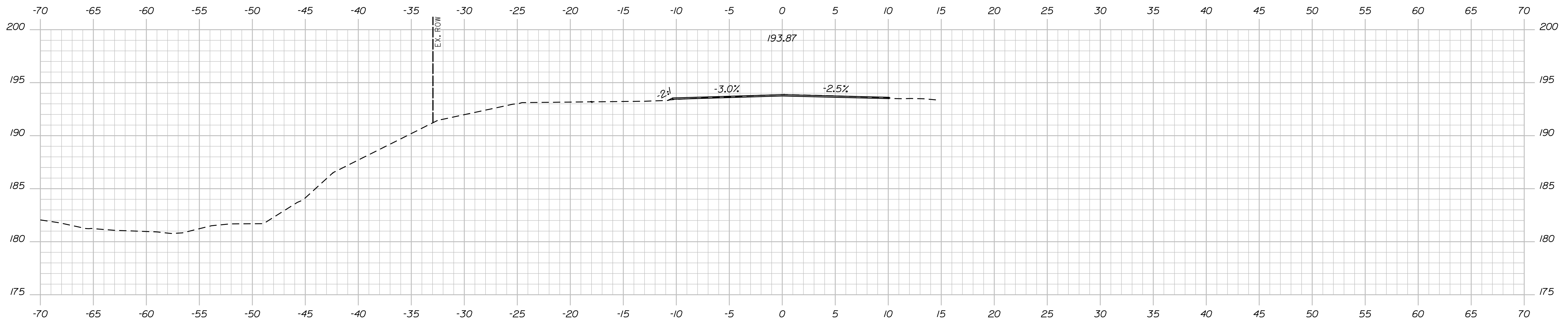
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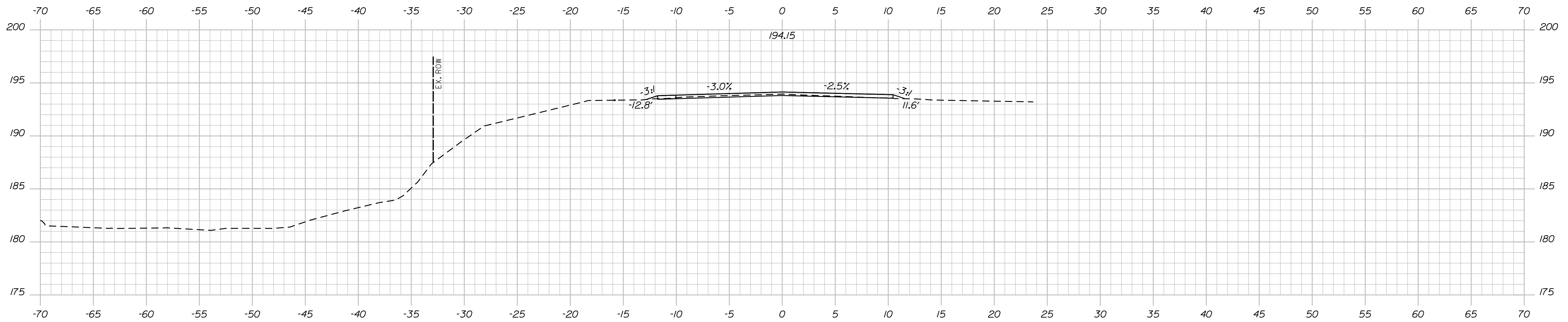
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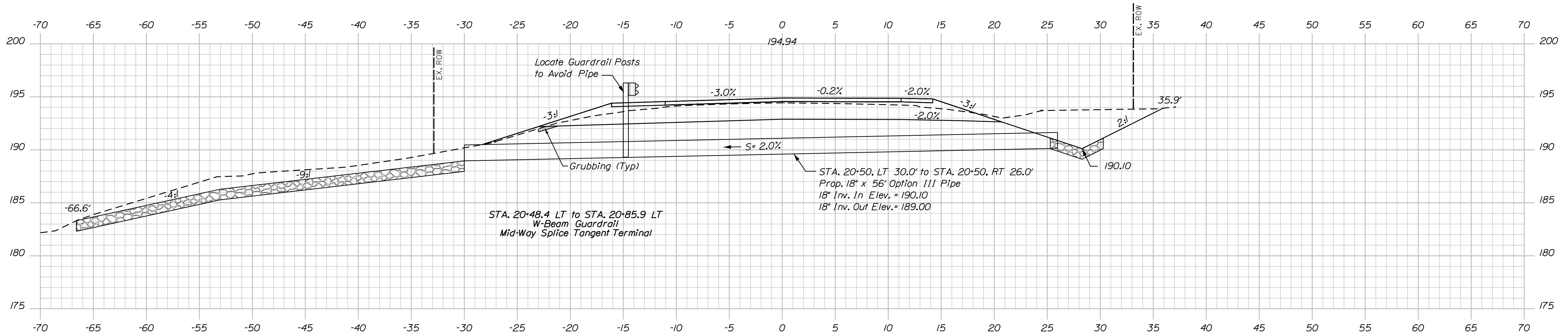
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DEPARTMENT OF TRANSPORTATION  
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BRIDGE NO. 6315  
BRIDGE PLANS

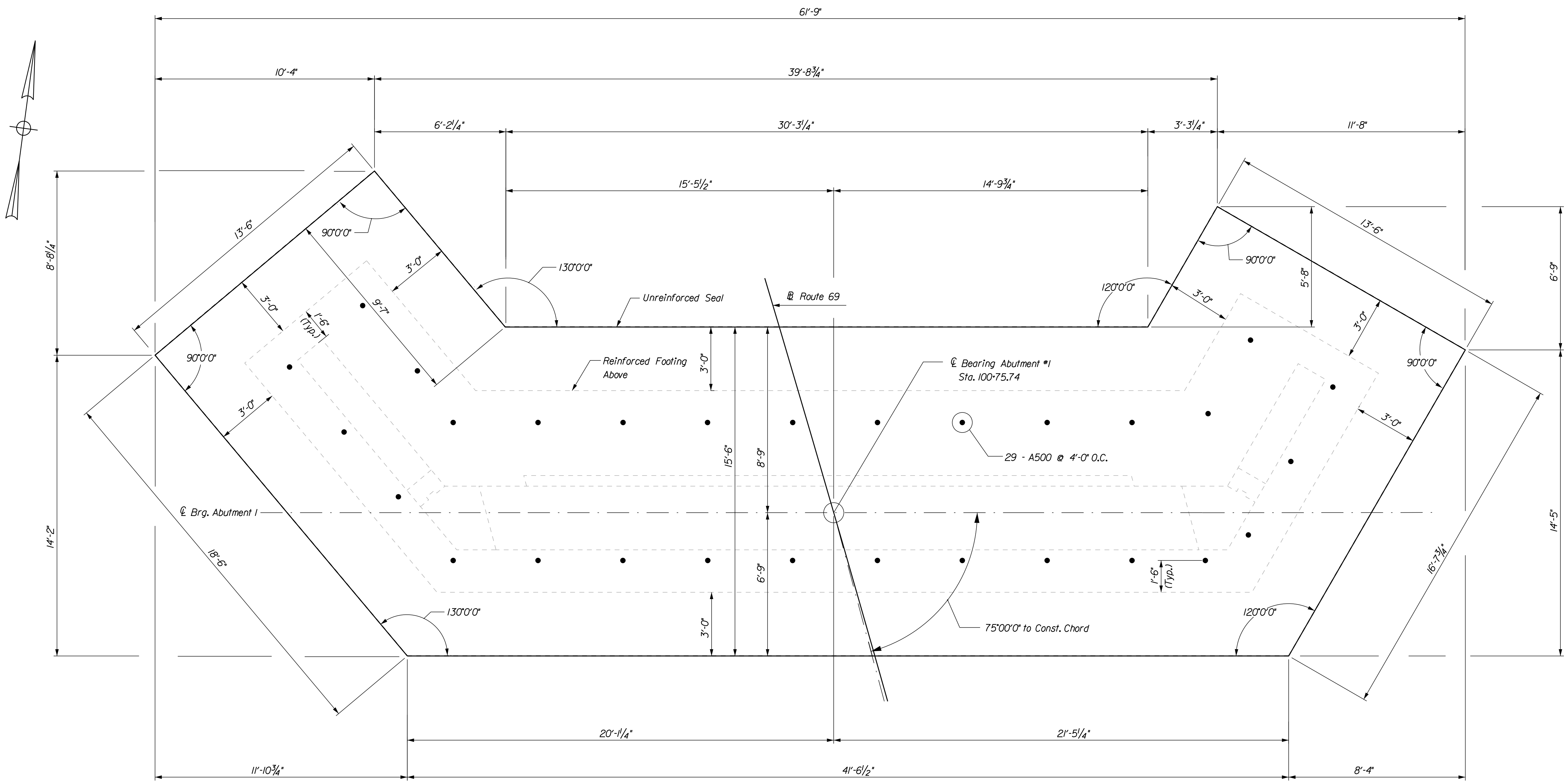
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FIELD CHANGES			

TWIN BRIDGE  
WEST BRANCH SQUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
CROSS SECTIONS  
MEADOW ROAD

SHEET NUMBER

17

OF 37



**ABUTMENT 1 SEAL PLAN**

**SEAL COFFERDAM NOTES**

1. The seal concrete placement dimensions represent the minimum seal size necessary to meet the design requirements and are not based on the use of any particular sheet pile section.
2. The horizontal pay limit for seal concrete shall be to the dimensions shown on the plans. No additional payment will be made for concrete placed outside these limits.
3. When sheet piling is used for seal cofferdams, appropriate rolled corners shall be used, and the inside face of the sheet piling shall be at or outside of the seal concrete dimensions shown.
4. The depth of the seal is set for a water elevation of 186.91 ft. If the water elevation at the time of construction is higher, the depth of the seal shall be adjusted.
5. The method of placing dowels in the seal concrete shall be approved by the Resident. The anchoring material shall be one of the products listed on the MaineDOT Qualified Products List of Grout Materials.
6. Seal concrete shall be placed on bedrock cleaned of weathered rock, loose fractured bedrock, boulders and soil. Where the bedrock surface slope exceeds 4H:1V, the bedrock surface shall be benched in level steps or made completely level.
7. The top of bedrock is shown at boring locations only. The bedrock surface may vary in nature, slope and degree of fracturing. Actual rock elevations may vary. After the foundation excavation is complete and all unsound bedrock is removed, the Contractor shall obtain foundation bedrock elevations and review them with the Department prior to placing the seals.

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	EC	WEG	9/2020
CHECKED-REVIEWED	APR	RIG	9/2020
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FIELD CHANGES			

TWIN BRIDGE	WEST BRANCH SOUADABSCOOK STREAM
HAMPDEN	PENOBSCOT COUNTY
ABUTMENT No.1 SEAL PLAN	

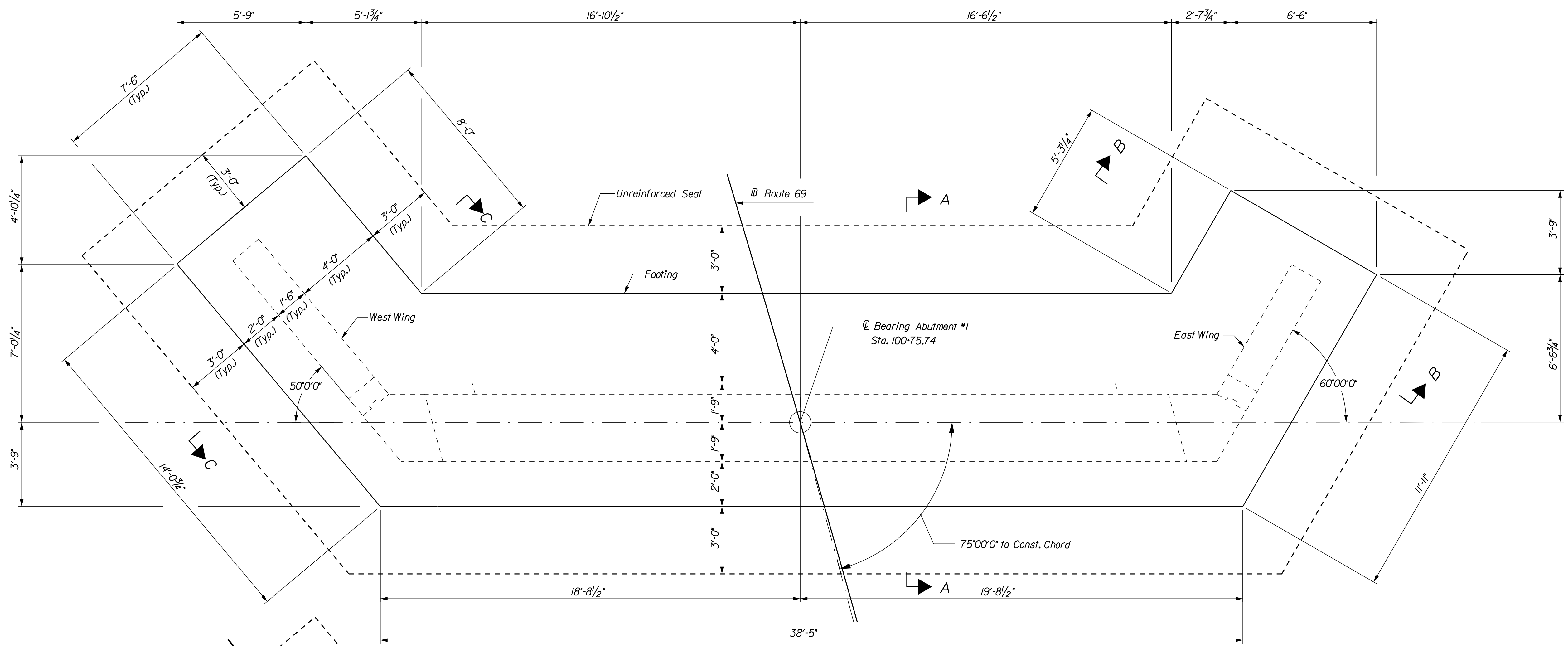
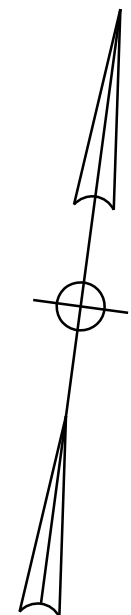
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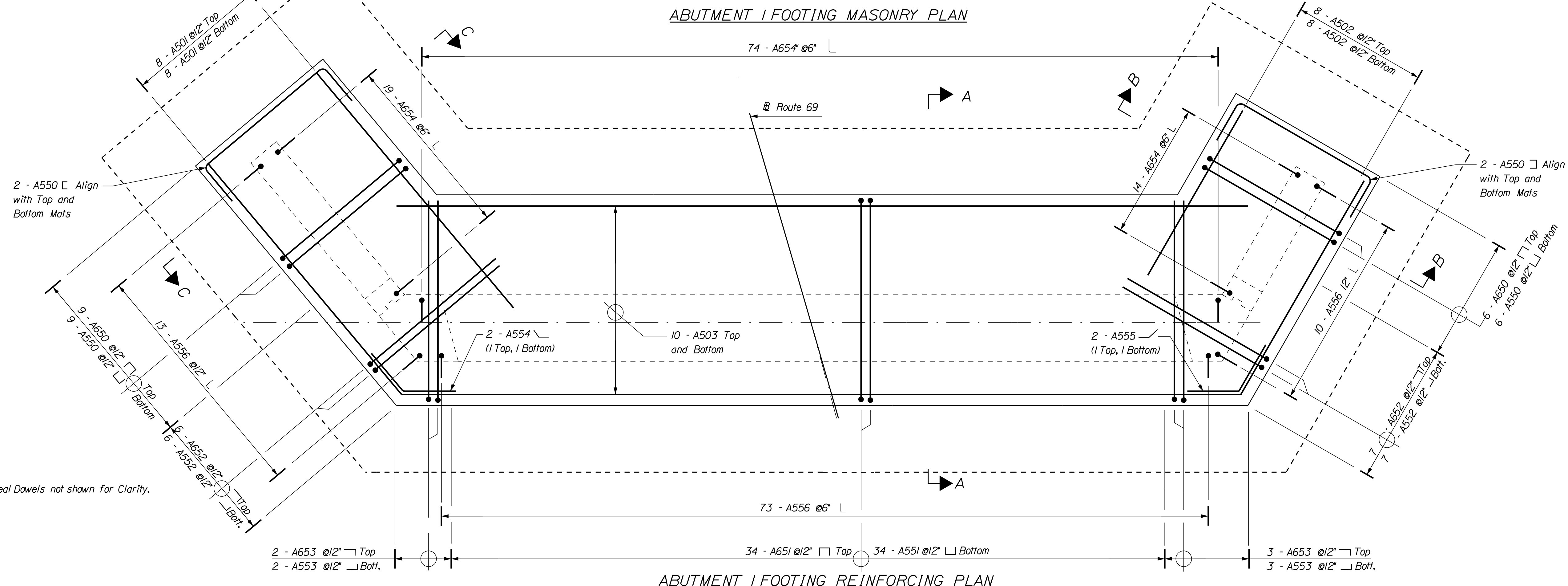
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ABUTMENT I FOOTING MASONRY PLAN



ABUTMENT I FOOTING REINFORCING PLAN

Note: Seal Dowels not shown for clarity.

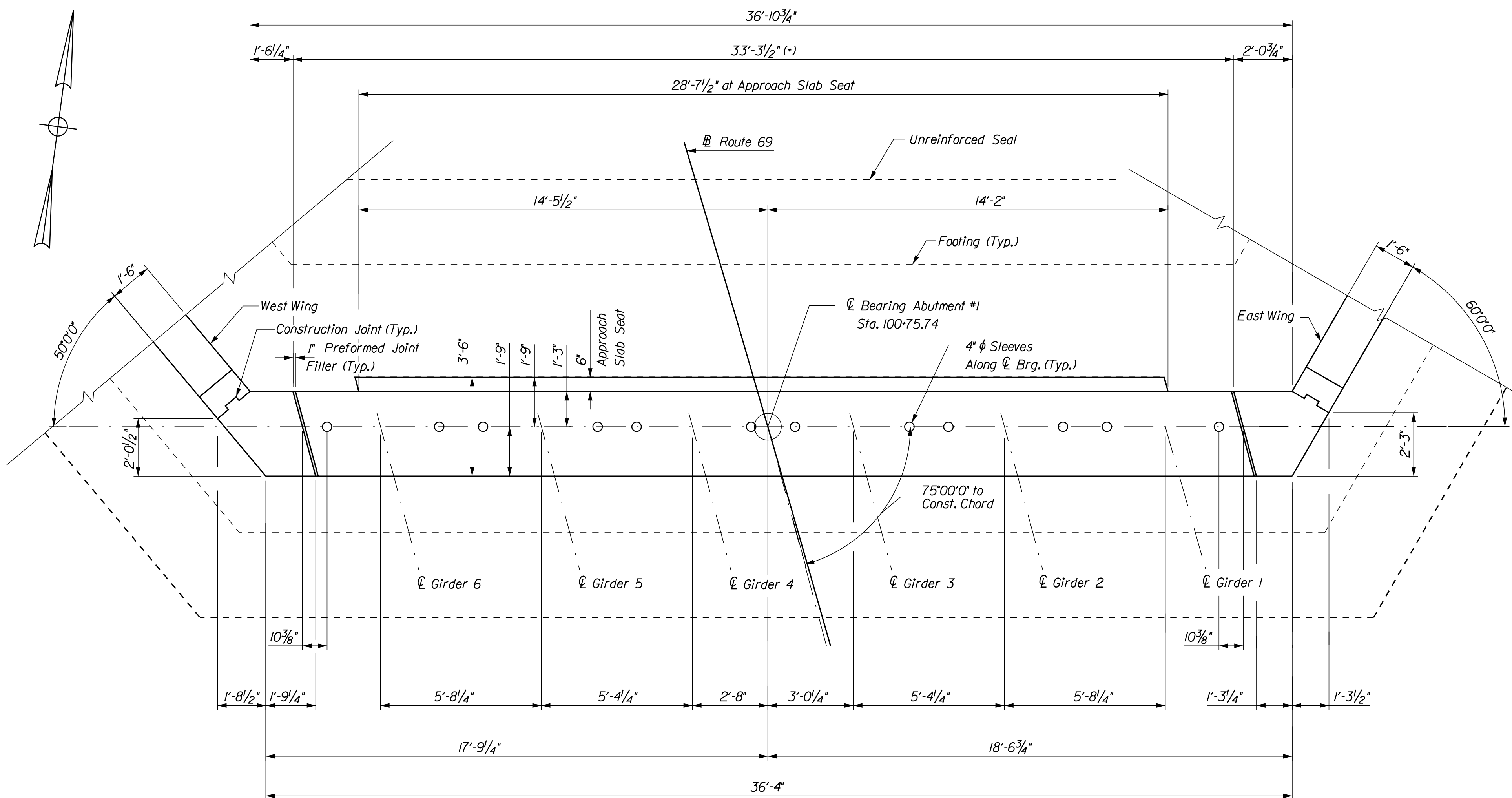
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BY		DATE		DATE	
M. WIGHT		9/2020		9/2020	
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REVISIONS 4		FIELD CHANGES		FIELD CHANGES	
TWIN BRIDGE					
WEST BRANCH SOUADABCOOK STREAM					
HAMPDEN PENOBSCOT COUNTY					
ABUTMENT No. 1 FOOTING					
SHEET NUMBER					
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OF 37					

Date: 11/19/2020

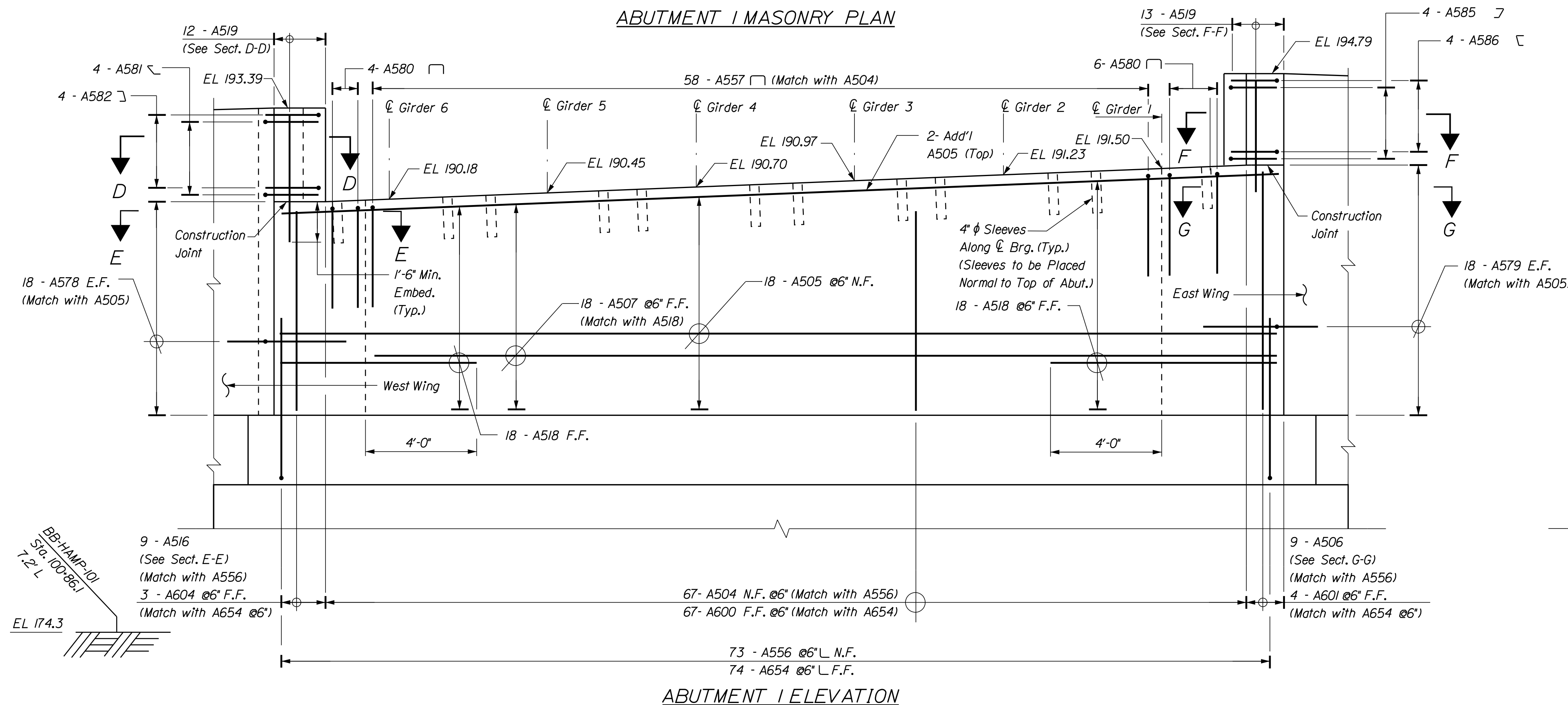
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Division: BRIDGE

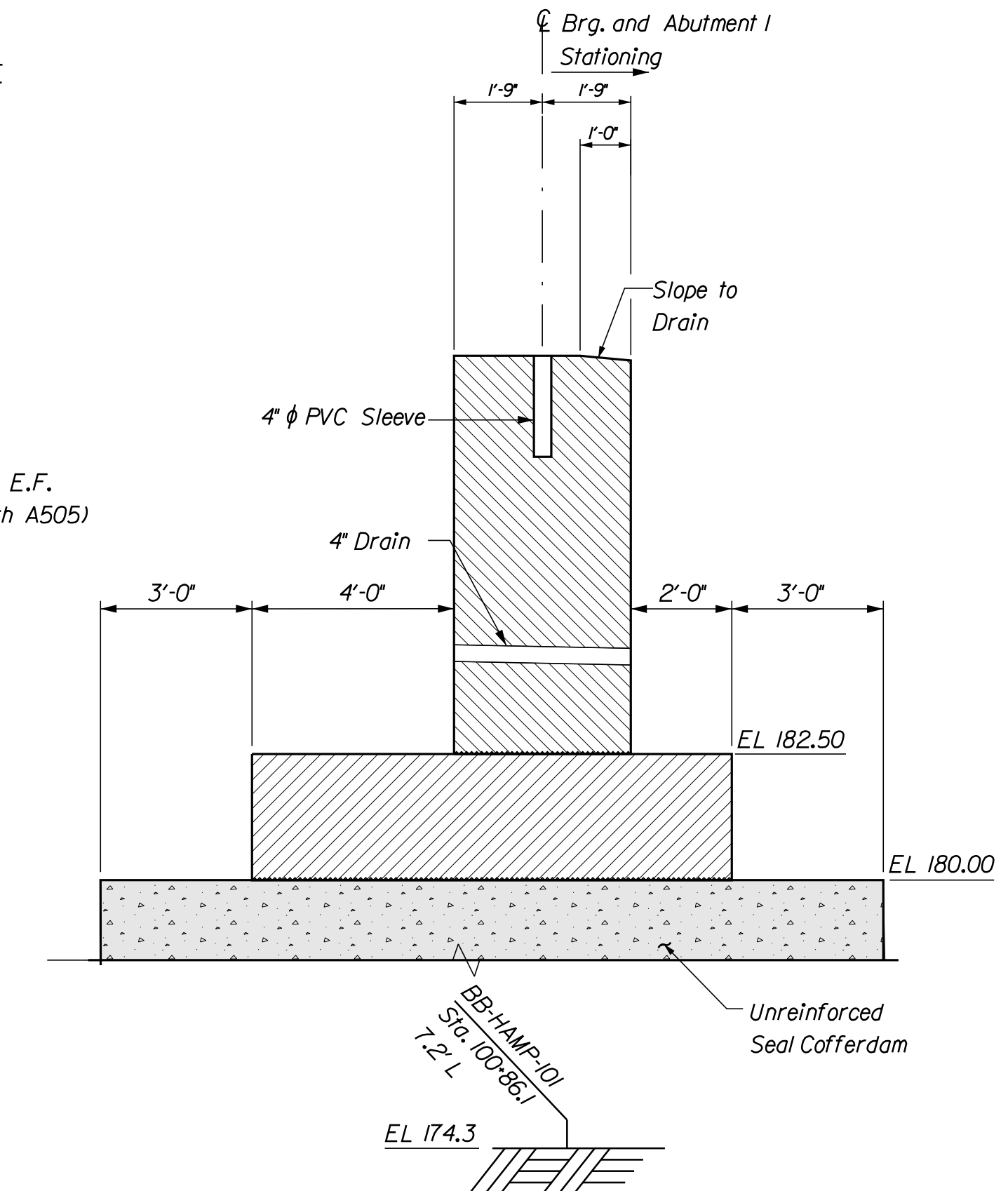
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ABUTMENT I MASONRY PLAN



ABUTMENT I ELEVATION



TYPICAL ABUTMENT I MASONRY SECTION

ABUTMENT NOTES

1. Reinforcing steel shall have a minimum cover of 2 inches in the walls and 3 inches cover in the footings unless otherwise noted.
2. Cover joints where waterstops are not required in accordance with the Standard Details.
3. Place 4 inch diameter drains in breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.
4. Construct French Drains behind the abutments and wingwalls in accordance with Standard Specifications Section 512, French Drains.
5. Abutments, wingwalls, and their footings shall be backfilled with Granular Borrow. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.
6. The maximum factored applied Bearing pressure is 8.62 ksf at Abutment 1 and 8.56 Ksf at Abutment 2 (Strength limit state).
7. Structural Earth Excavation required more than 12 inches below the bottom of the structure will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.
8. Roughen the surface of the Seal within the Footing limits and the Footing within the Stem limits to a 1/4" min. profile.
9. Cheekwall to be constructed after the placement of the CT Girder Units.
10. Preformed Joint Filler shall be installed along the full surface between the End Diaphragm and Cheekwalls. Payment for Preformed Joint Filler shall be incidental to Item 502.219, "Structural Concrete, Abutments and Retaining Walls."
11. 4" Diameter Sleeves at Abutment 1 and Dowel Bars at Abutment 2 shall be placed normal to the top of Abutment.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
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WIN  
18959.00  
BRIDGE No. 5315  
BRIDGE PLANS

DATE	BY	DATE	BY
9/2020	WEC	9/2020	RUC
	EC		ASP
	DESIGN DETAILED		DESIGN DETAILED
	DESIGN REVIEWED		DESIGN REVIEWED
	REVISIONS 1		REVISIONS 1
	REVISIONS 2		REVISIONS 2
	REVISIONS 3		REVISIONS 3
	REVISIONS 4		REVISIONS 4
	FIELD CHANGES		FIELD CHANGES

PROJ. MANAGER	DATE	DATE	DATE

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
ABUTMENT No. 1

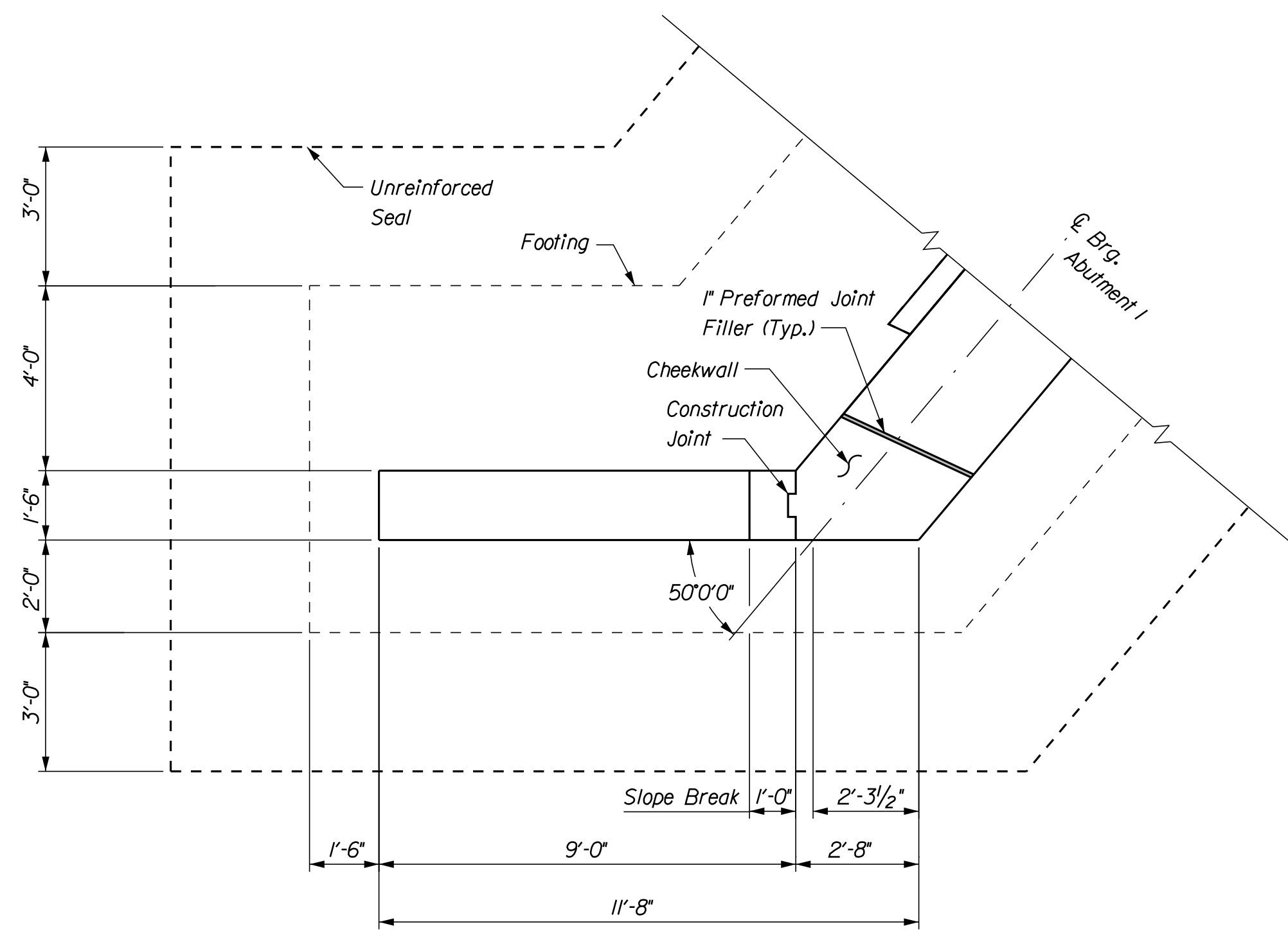
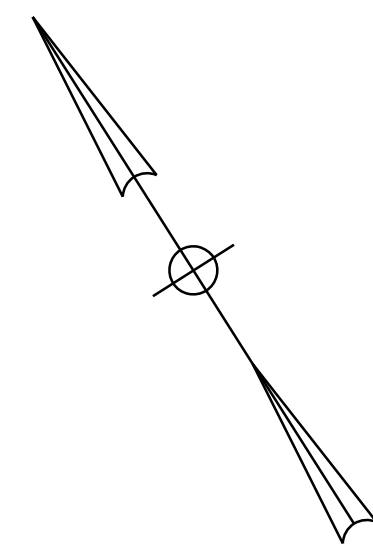
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Date: 11/19/2020

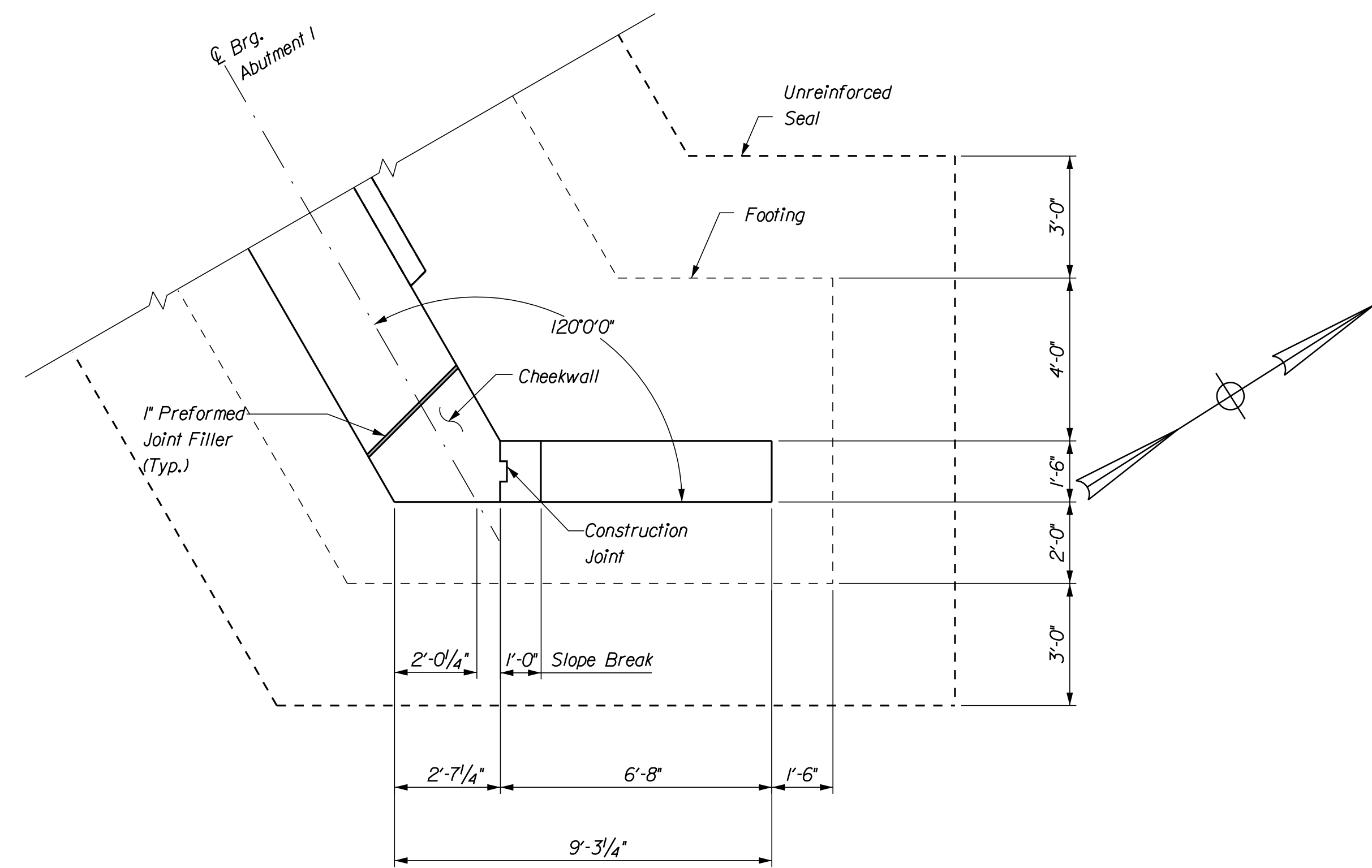
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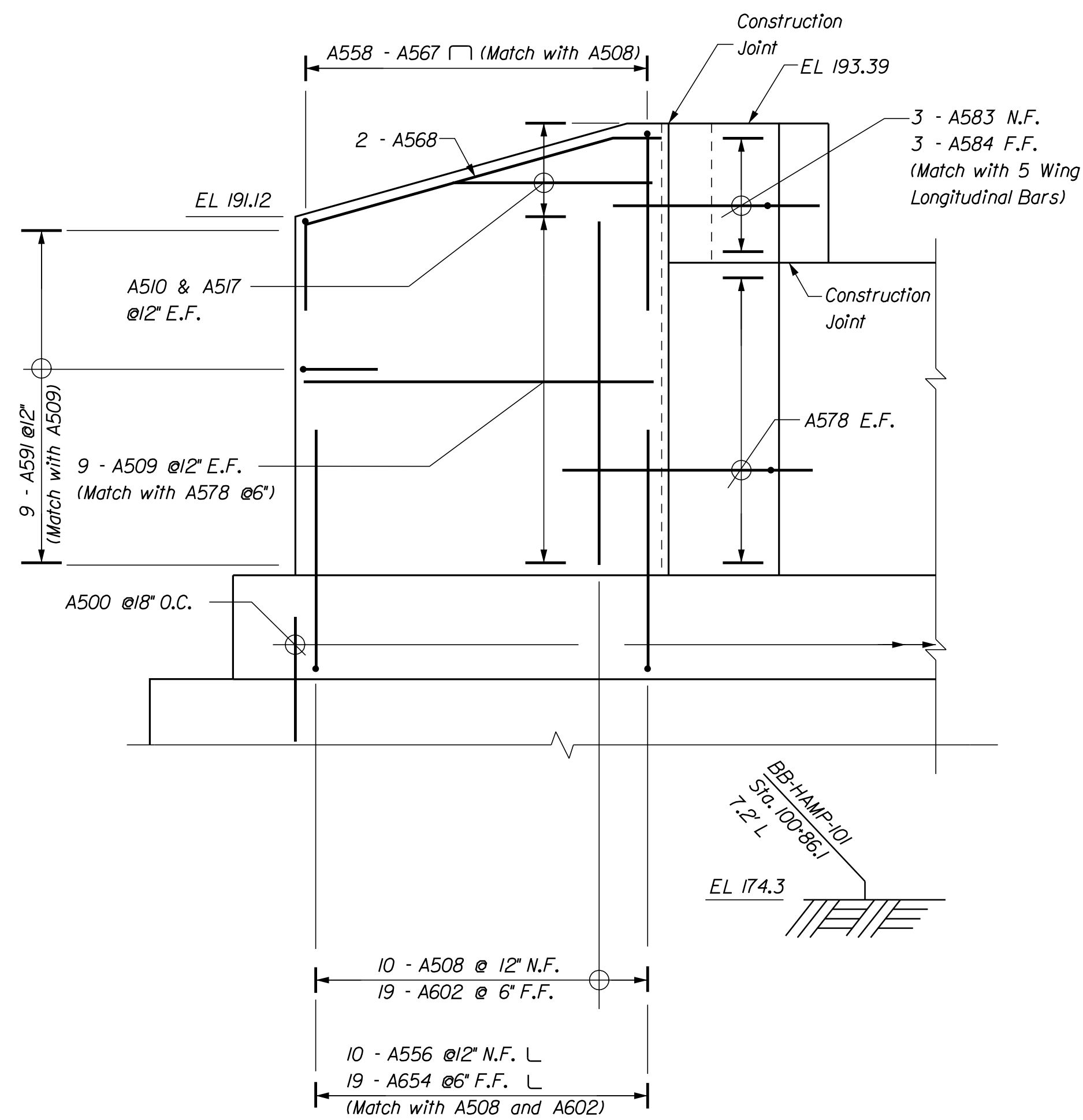
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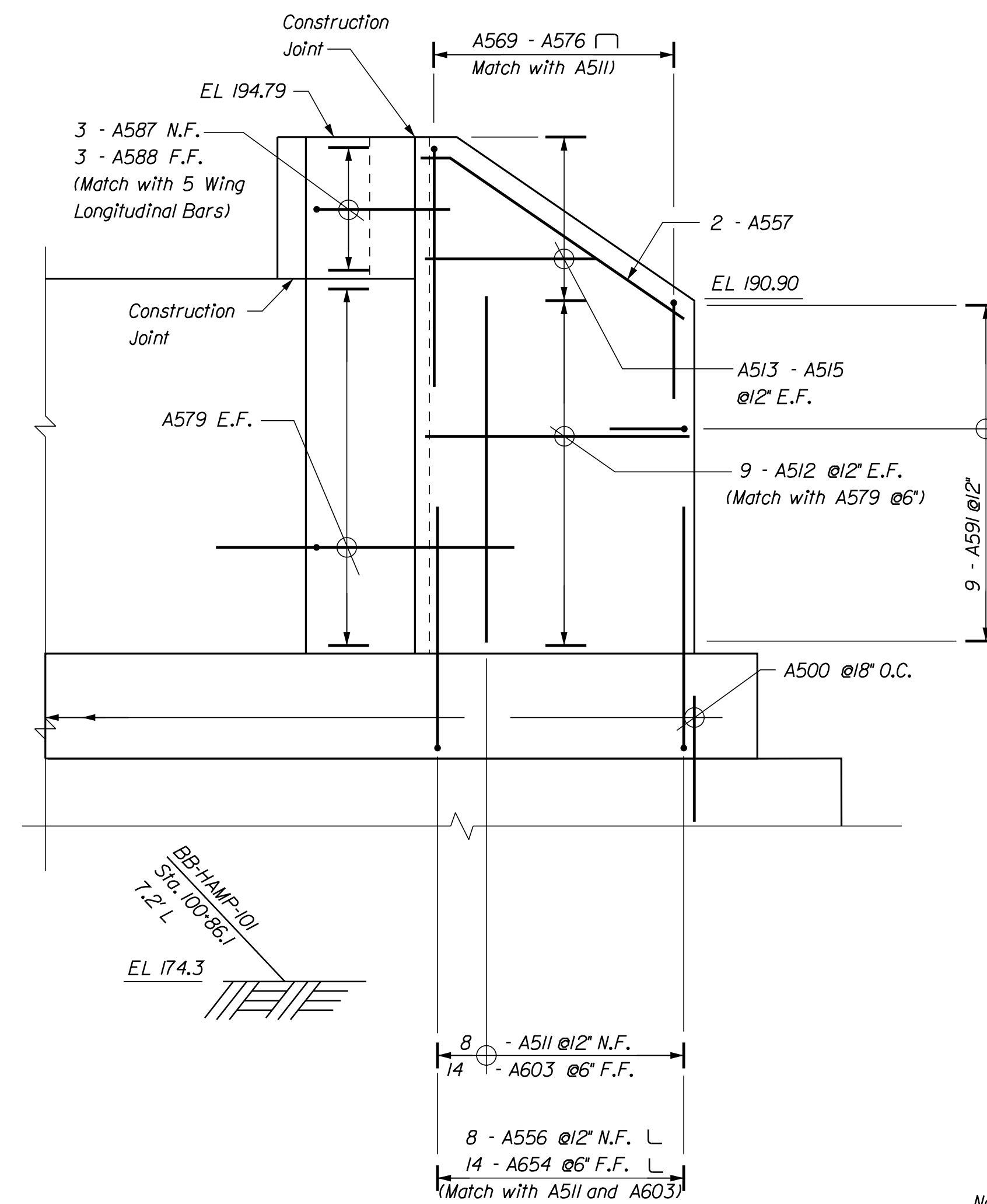
ABUTMENT I WEST WINGWALL PLAN



ABUTMENT I EAST WINGWALL PLAN



ABUTMENT I WEST WINGWALL ELEVATION



ABUTMENT I EAST WINGWALL ELEVATION

Note: For Counts and Layout of L bars see Footing Reinforcing Plans.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
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BRIDGE No. 5315  
BRIDGE PLANS

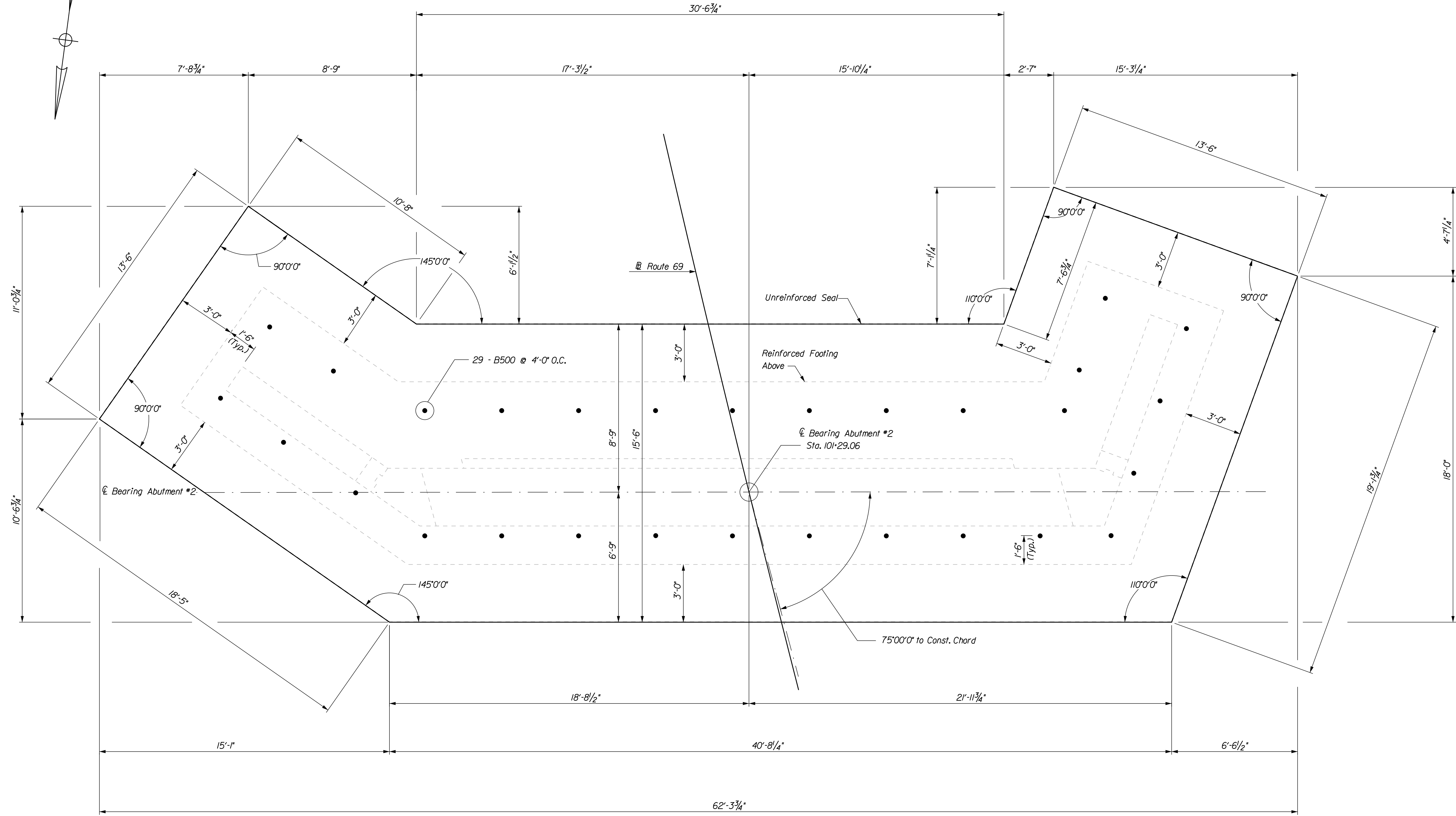
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
ABUTMENT No. 1 WINGWALL

SHEET NUMBER

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ABUTMENT 2 SEAL PLAN

DESIGNED	DATE
CHECKED	DATE
DESIGNED	DATE
DESIGNED	DATE
REVISIONS 1	DATE
REVISIONS 2	DATE
REVISIONS 3	DATE
REVISIONS 4	DATE
FIELD CHANGES	DATE

PROJ. MANAGER	M. WIGHT	BY	DATE
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REVISIONS 4			
FIELD CHANGES			

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY  
ABUTMENT No. 2 SEAL PLAN

SHEET NUMBER

22

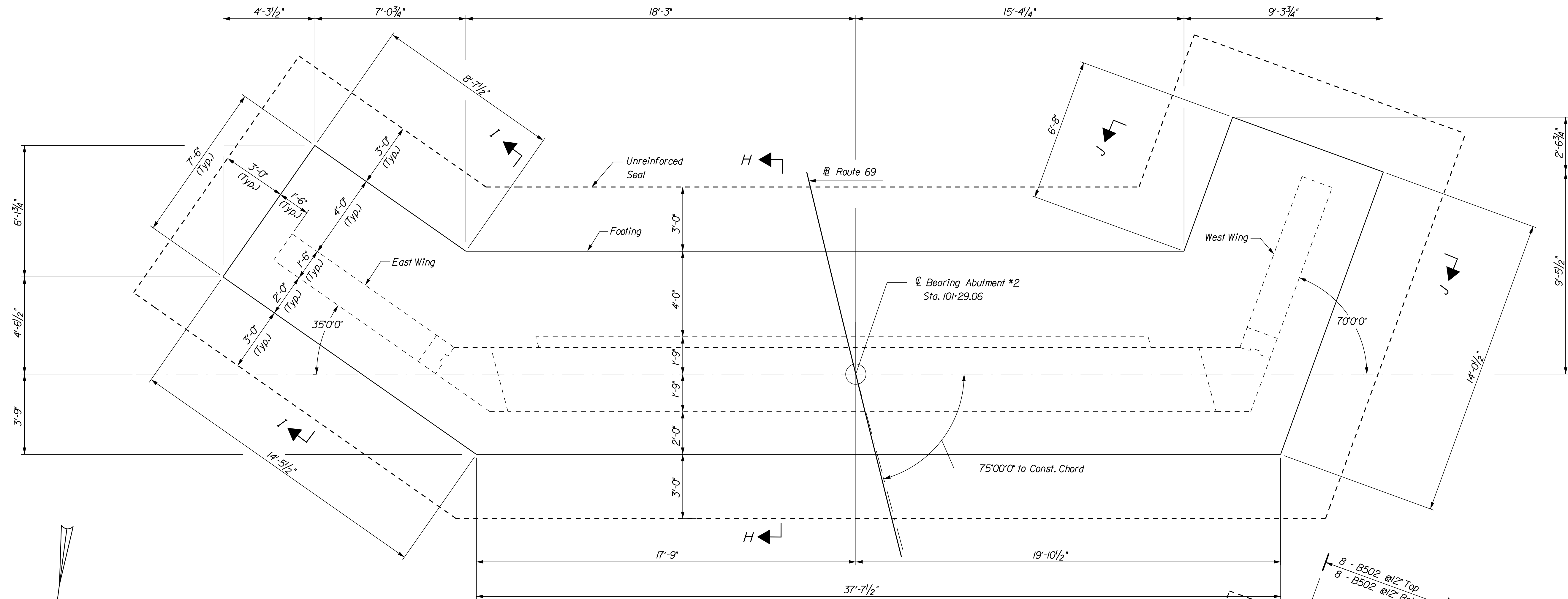
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Date: 11/2/2020

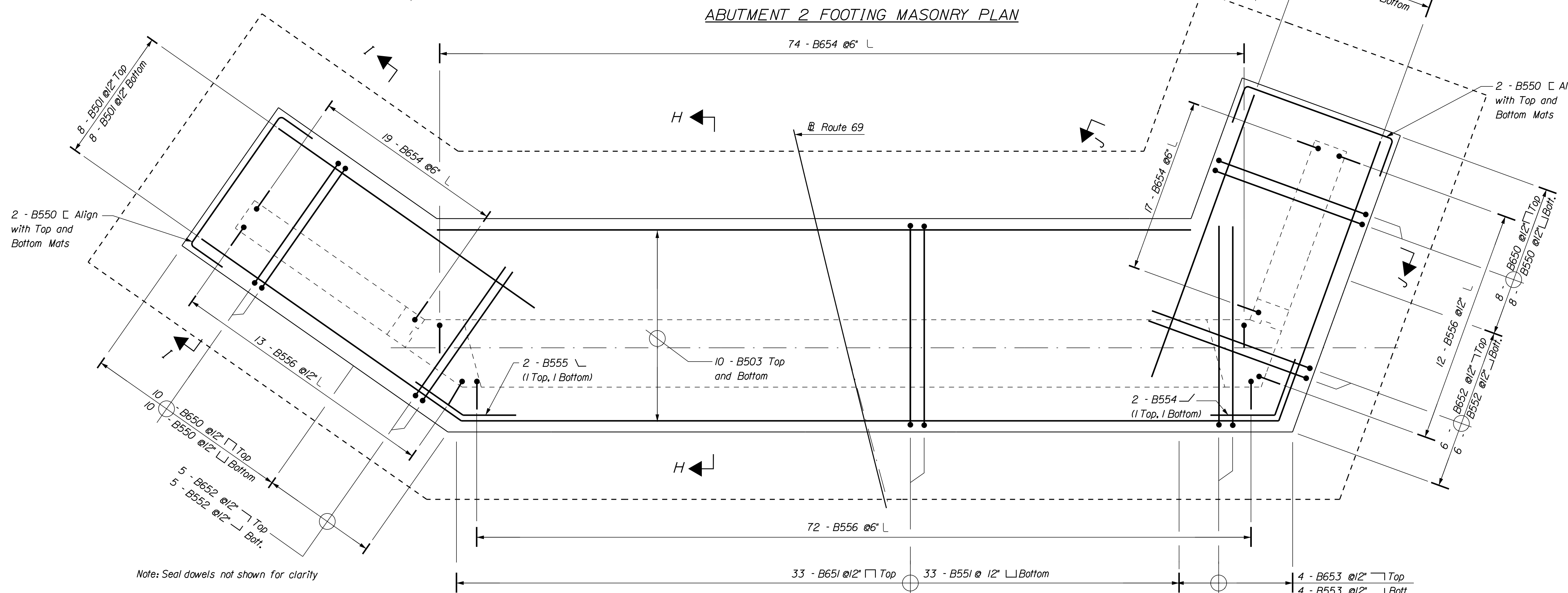
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Division: BRIDGE

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ABUTMENT 2 FOOTING MASONRY PLAN



ABUTMENT 2 FOOTING REINFORCING PLAN

Note: Seal dowels not shown for clarity

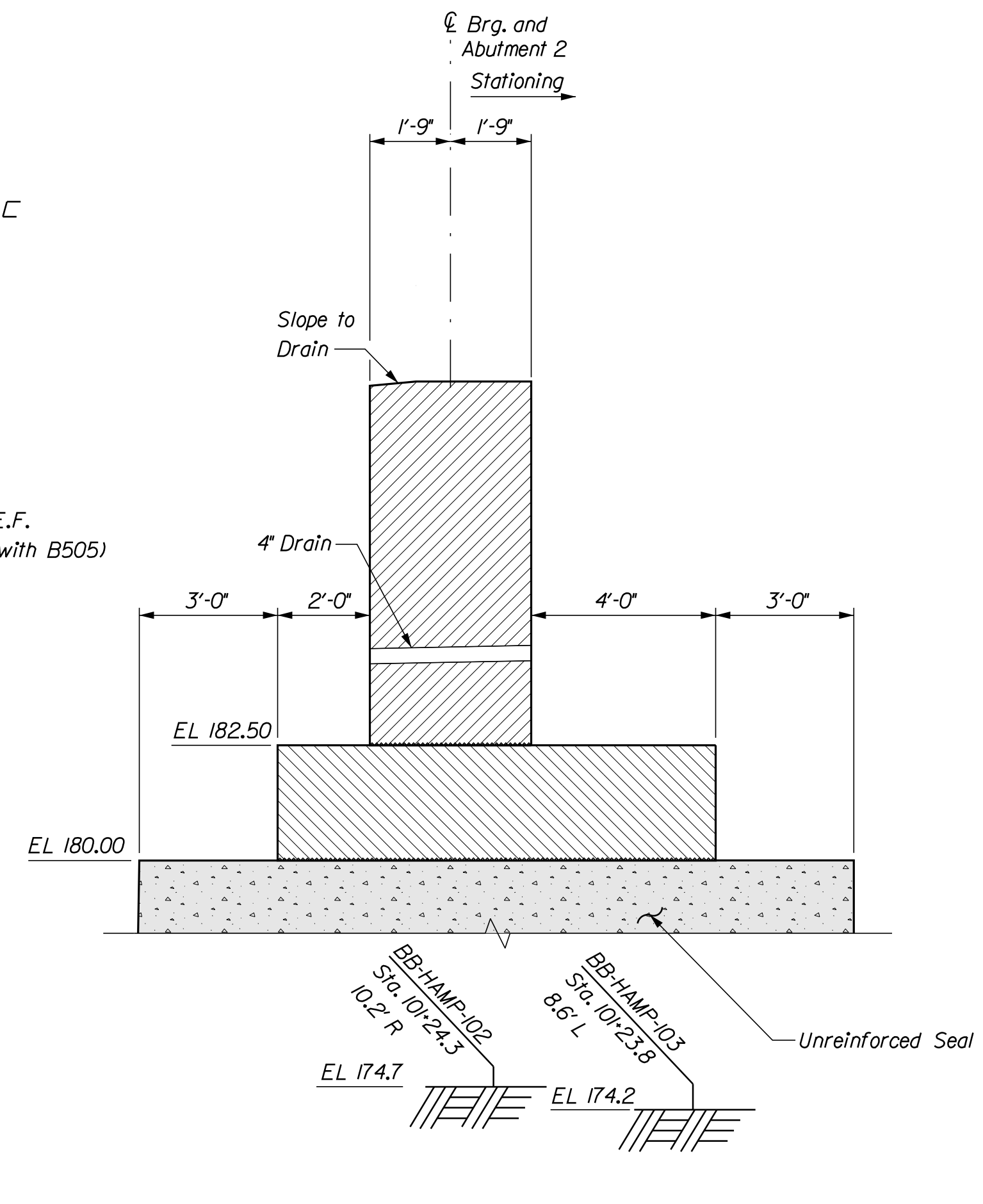
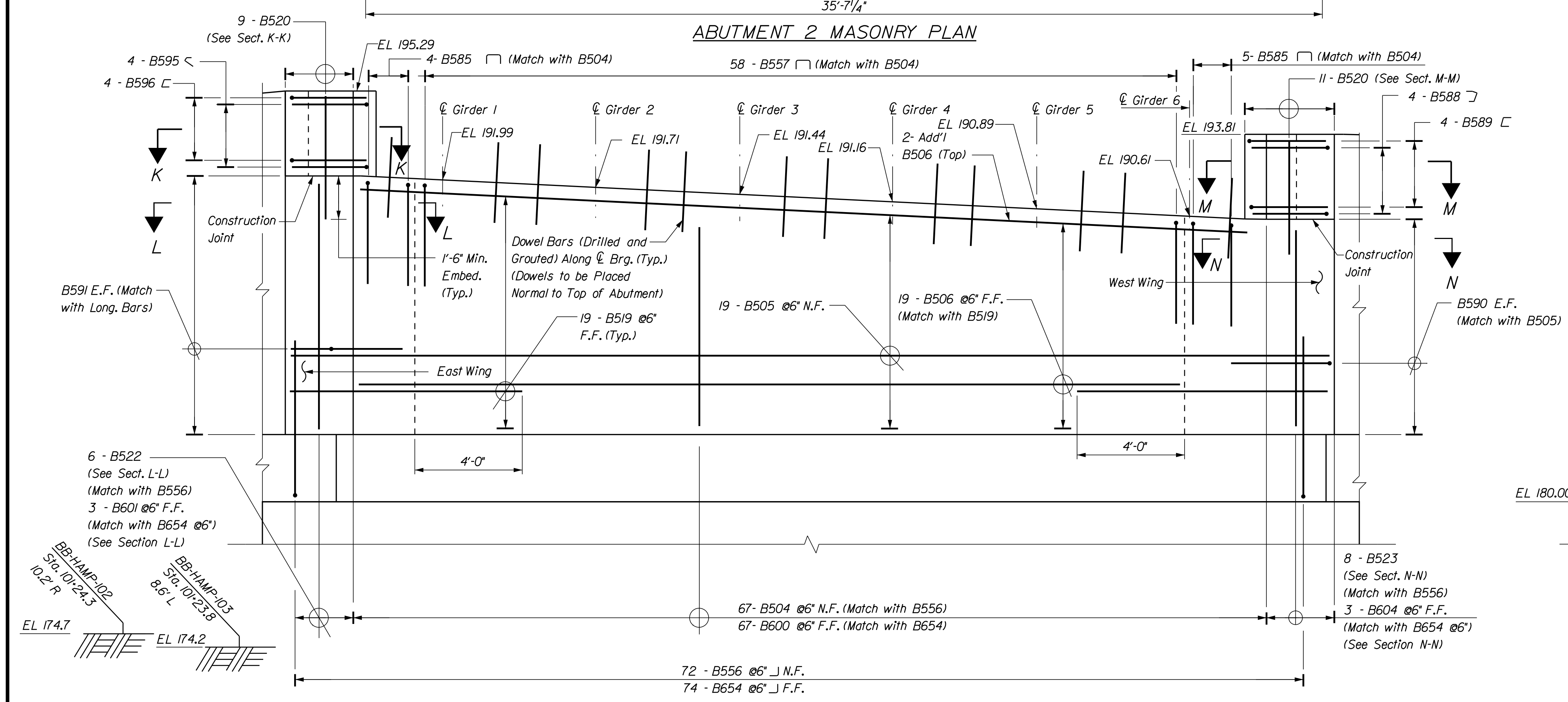
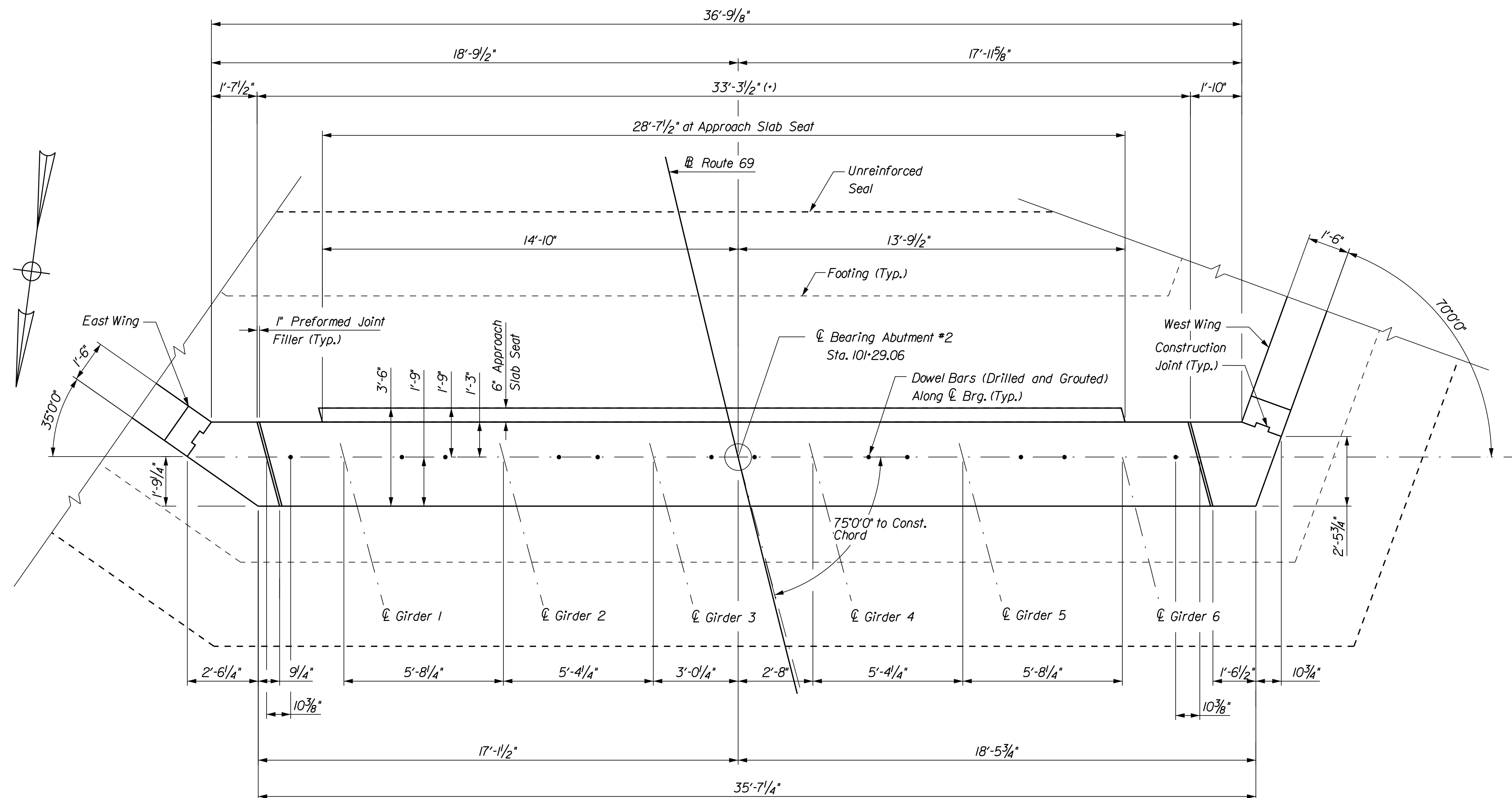
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CHECKED/REVIEWED	9/2020	R/G	
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REVISIONS 2			DATE
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REVISIONS 4			
FIELD CHANGES			
TWIN BRIDGE			
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HAMPDEN PENOBSCOT COUNTY			
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Date: 11/19/2020

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Division: BRIDGE

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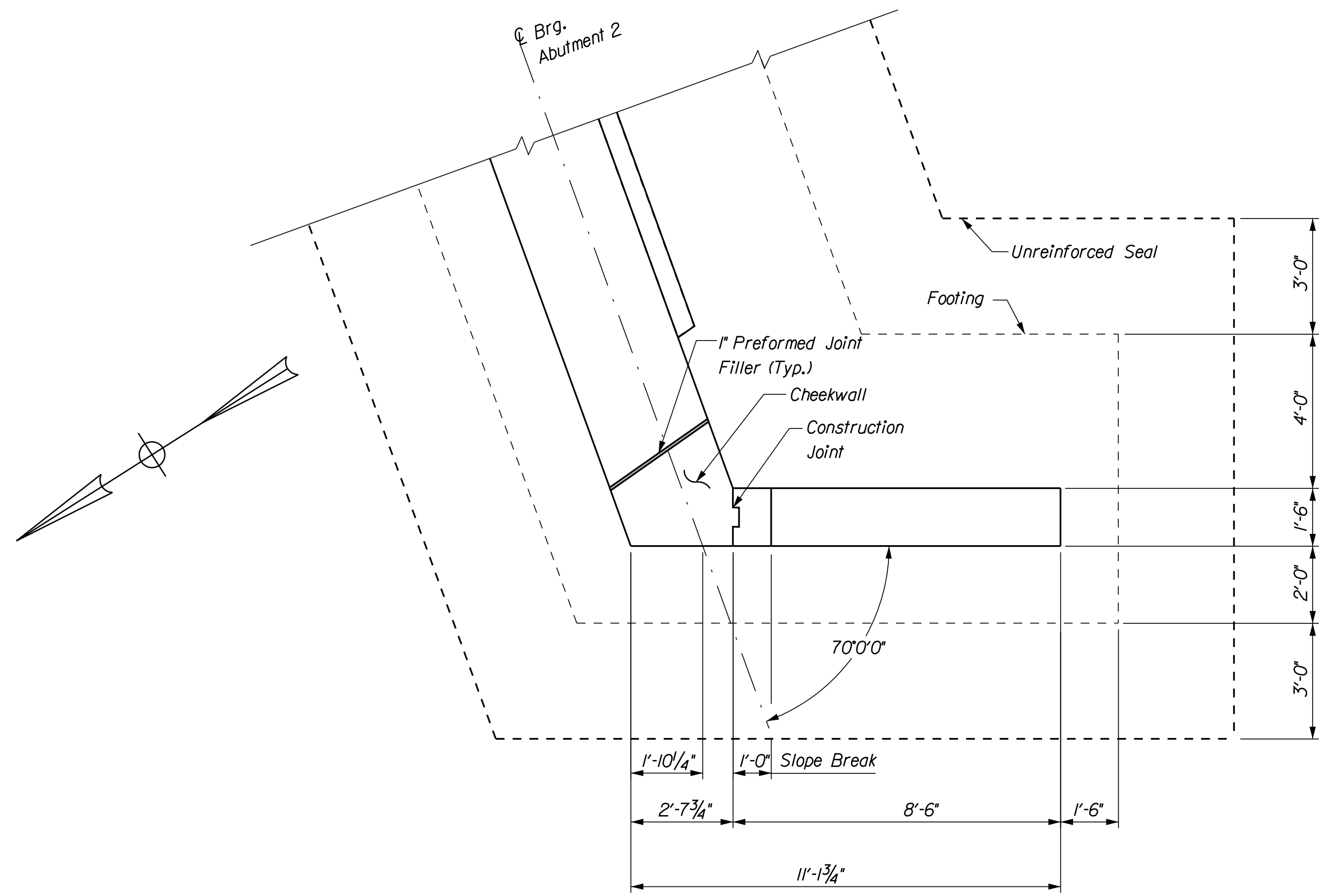
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Date: 11/19/2020

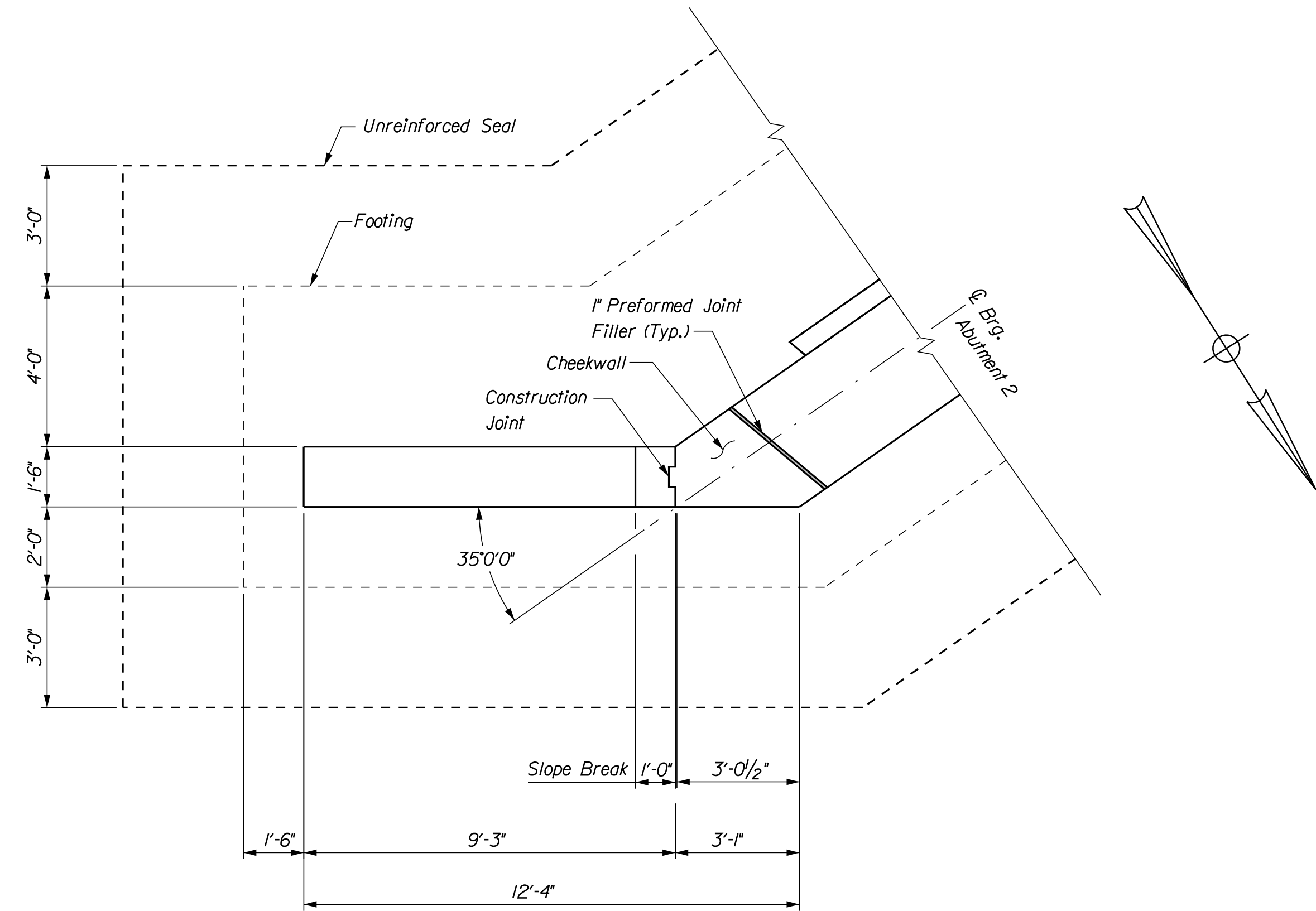
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Division: BRIDGE

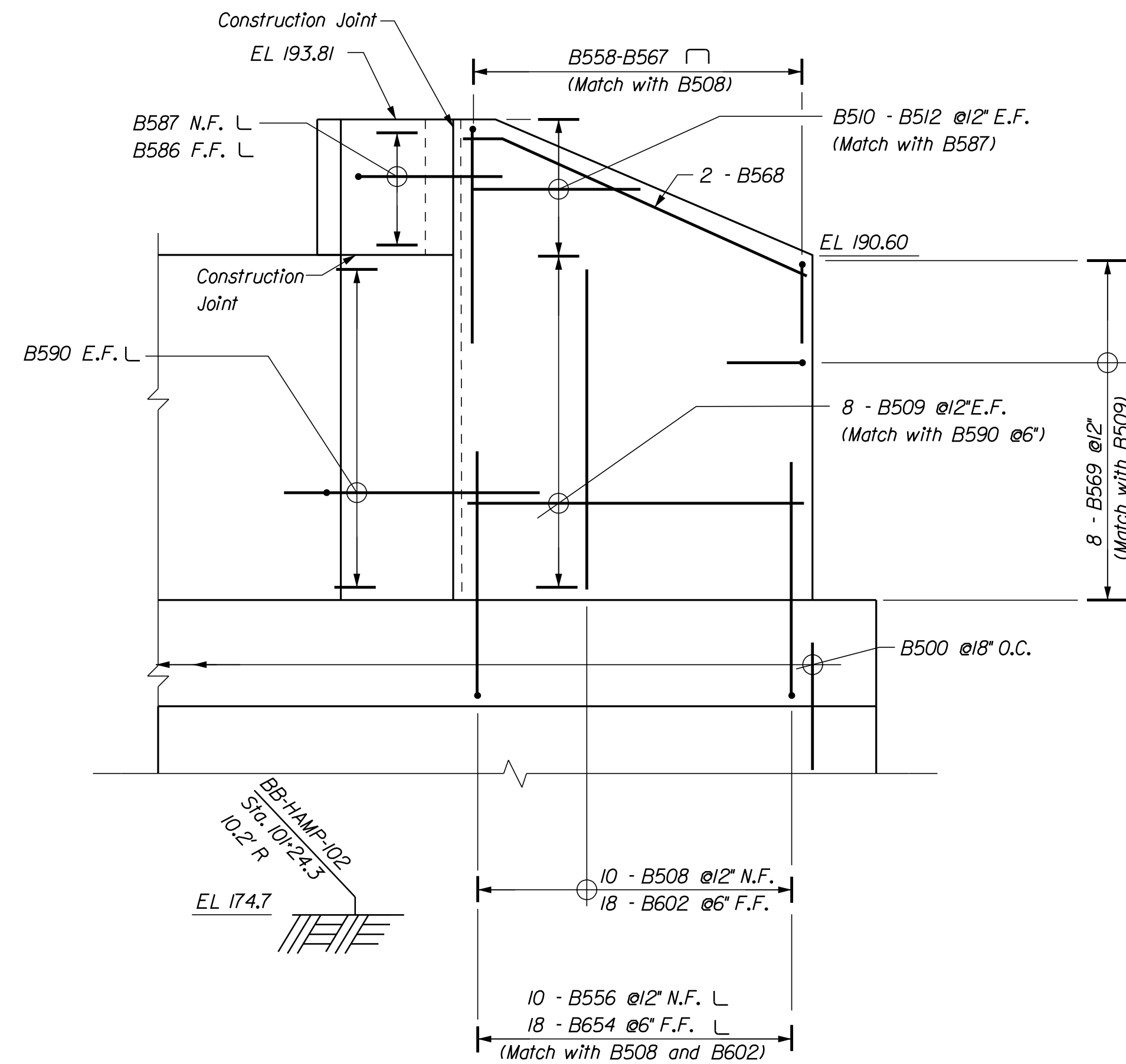
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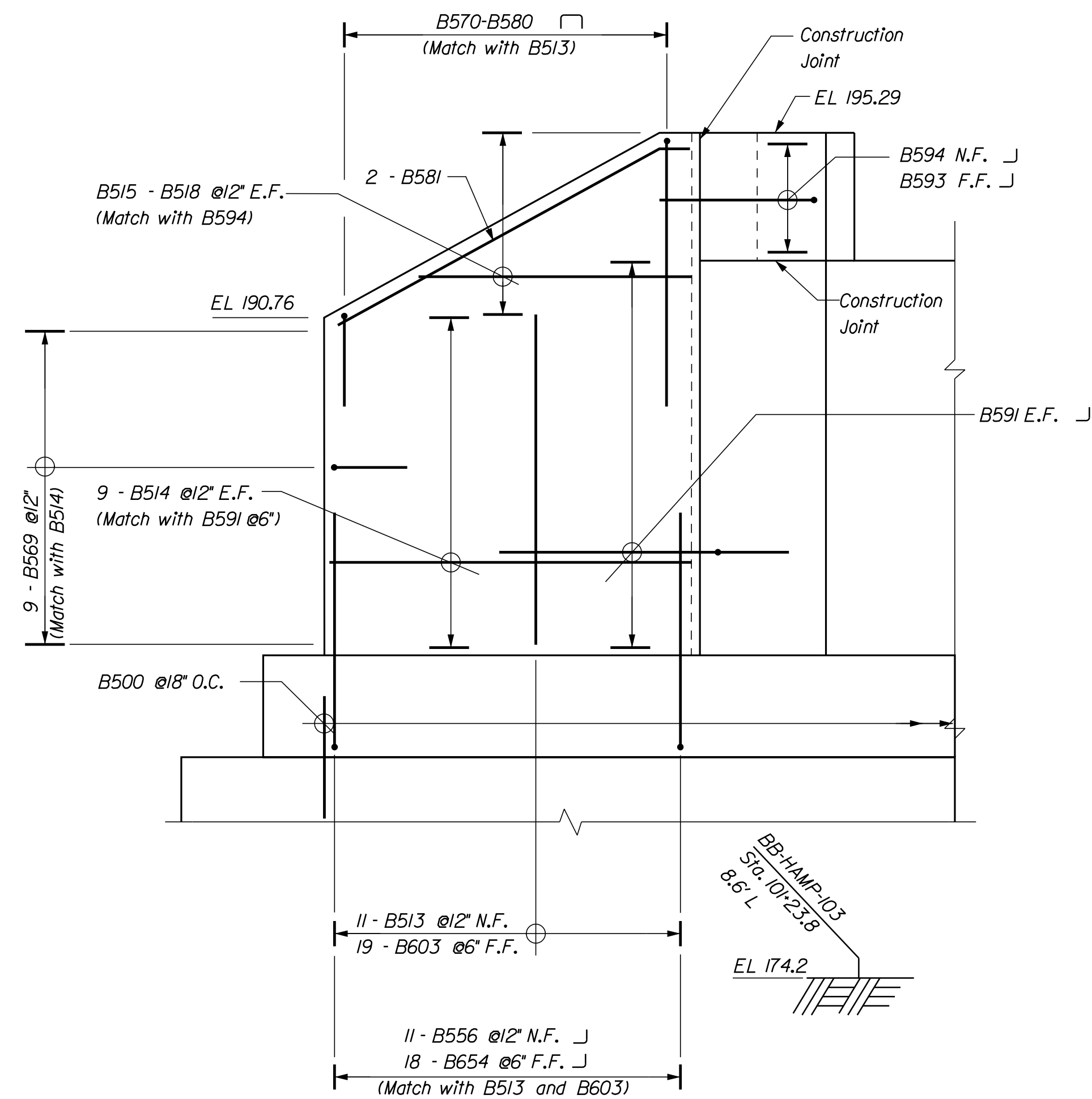
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ABUTMENT 2 EAST WINGWALL PLAN



ABUTMENT 2 WEST WINGWALL ELEVATION



ABUTMENT 2 EAST WINGWALL ELEVATION

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
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BRIDGE No. 5315  
BRIDGE PLANS

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SIGNATURE  
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DESIGN-DETAILED  
DESIGN-DETAILED  
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REVISIONS 3  
REVISIONS 4  
FIELD CHANGES

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY  
ABUTMENT No. 2 WINGWALL

SHEET NUMBER

25

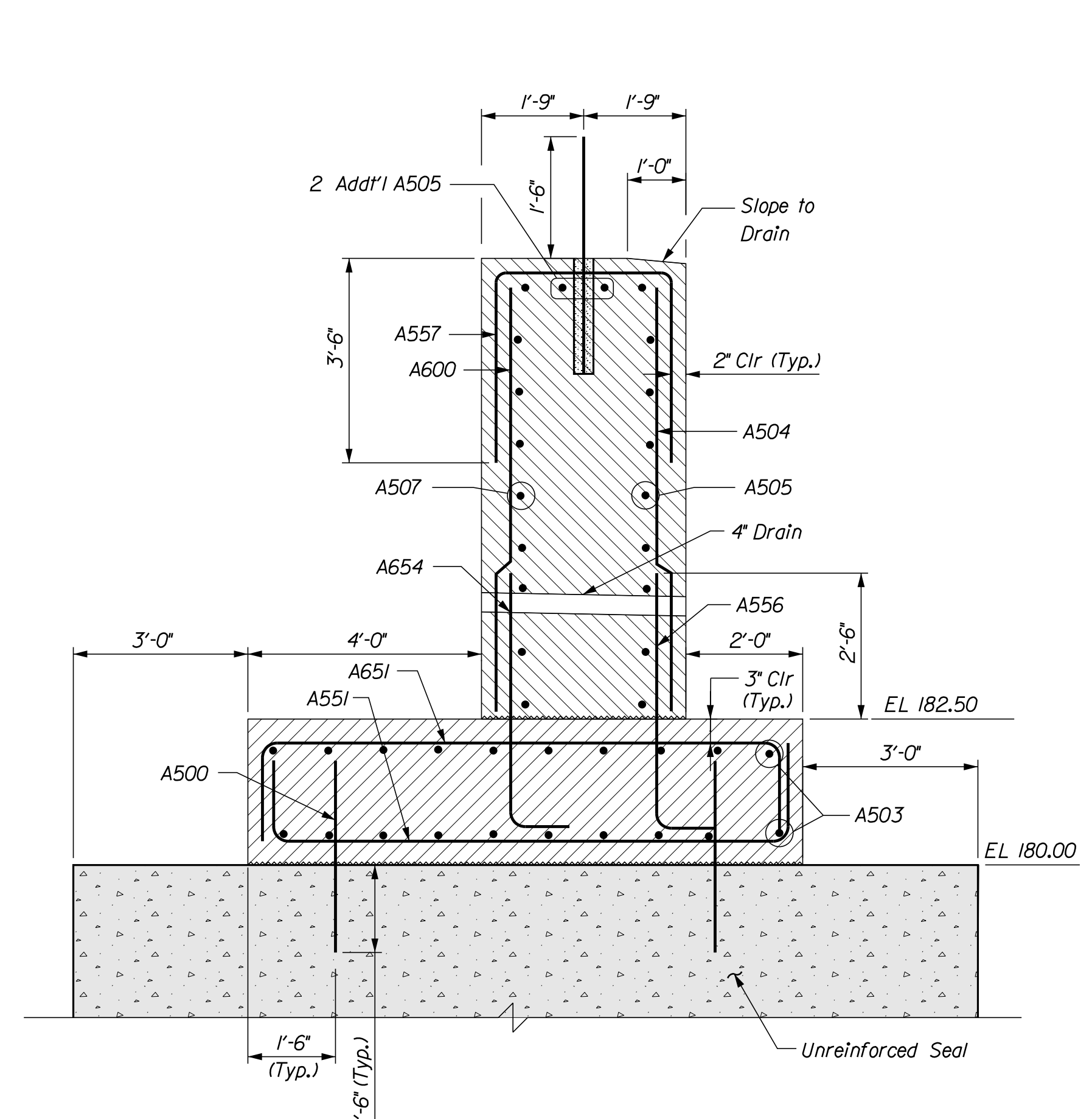
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Date: 11/3/2020

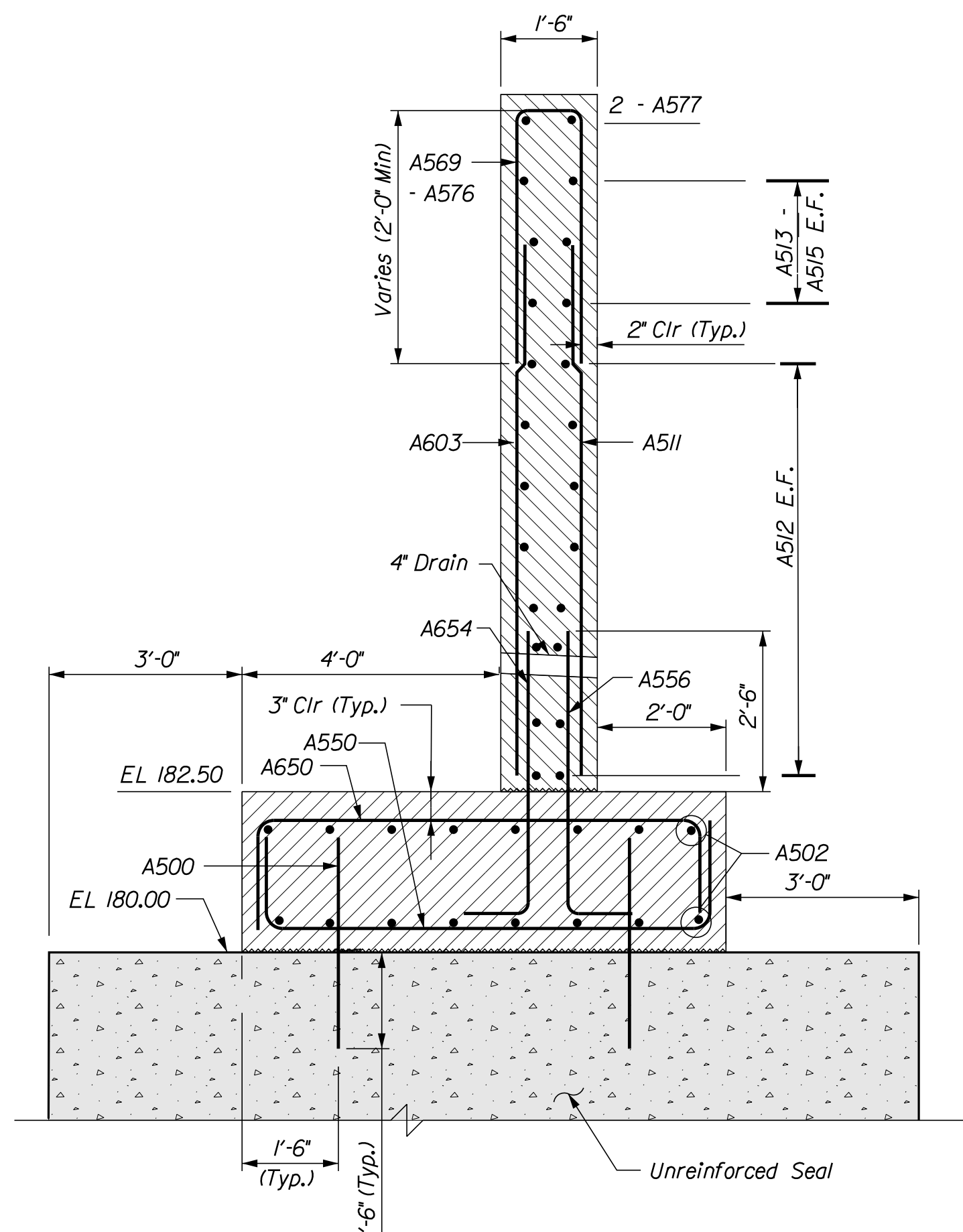
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Division: BRIDGE

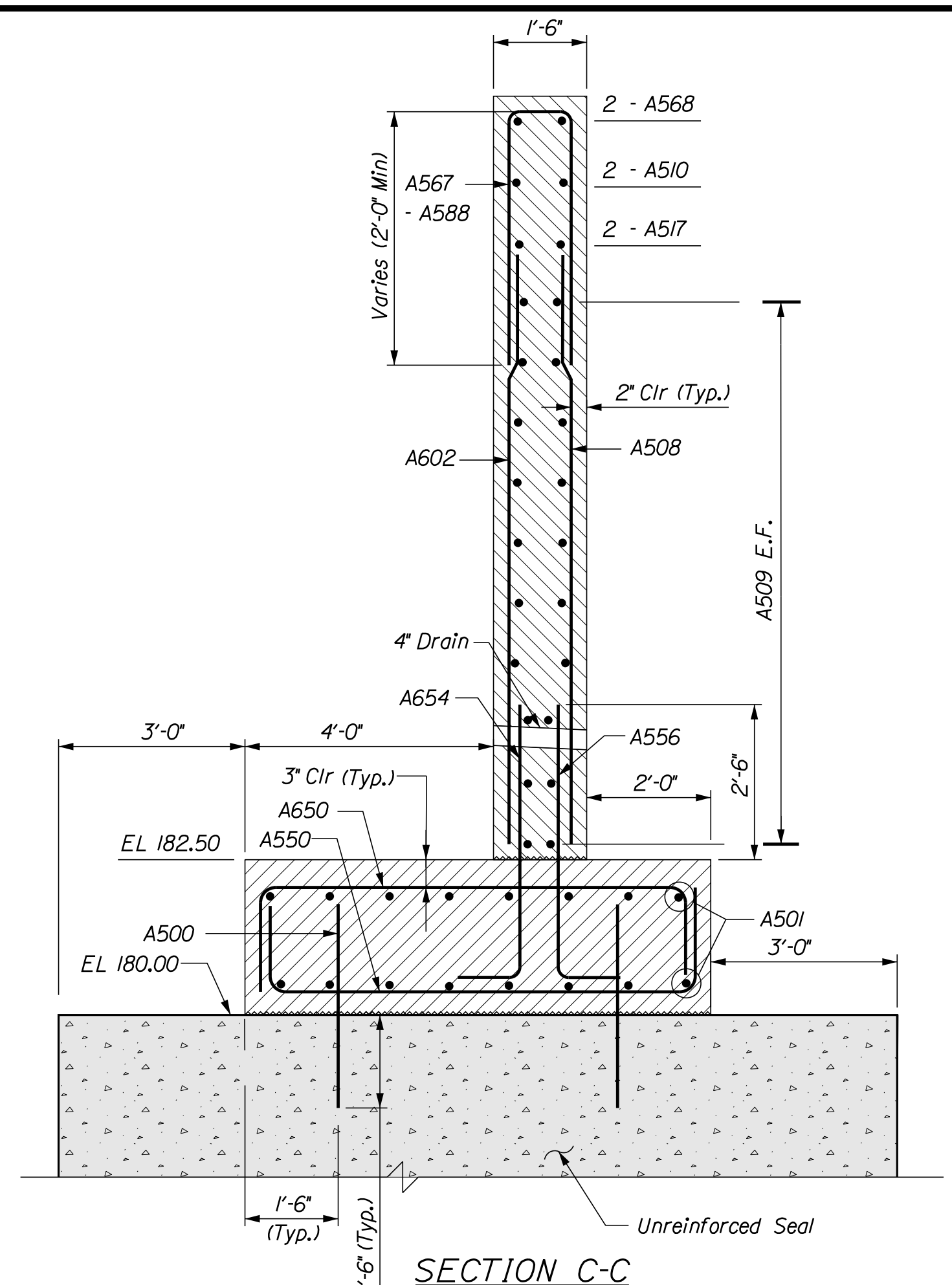
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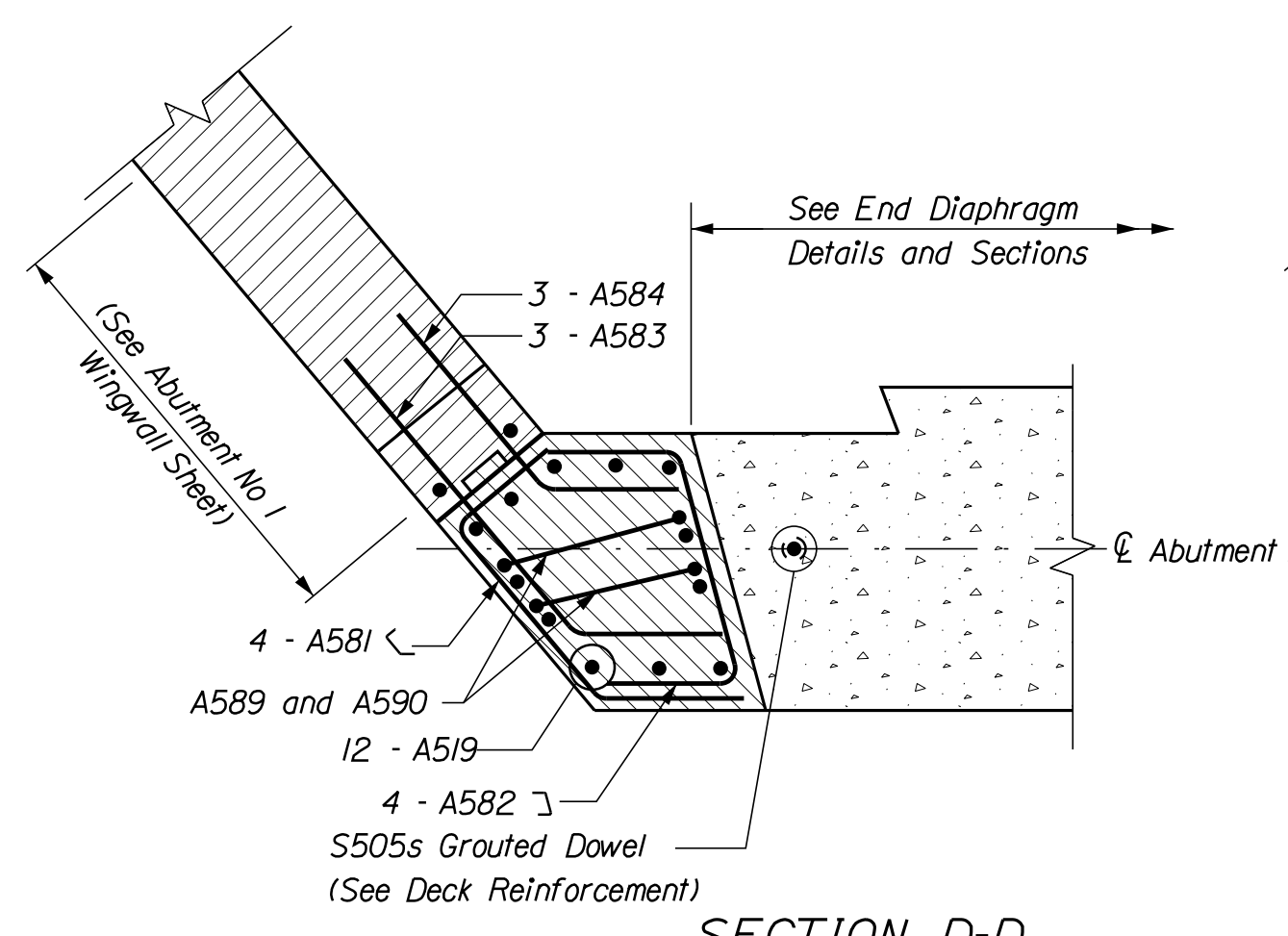
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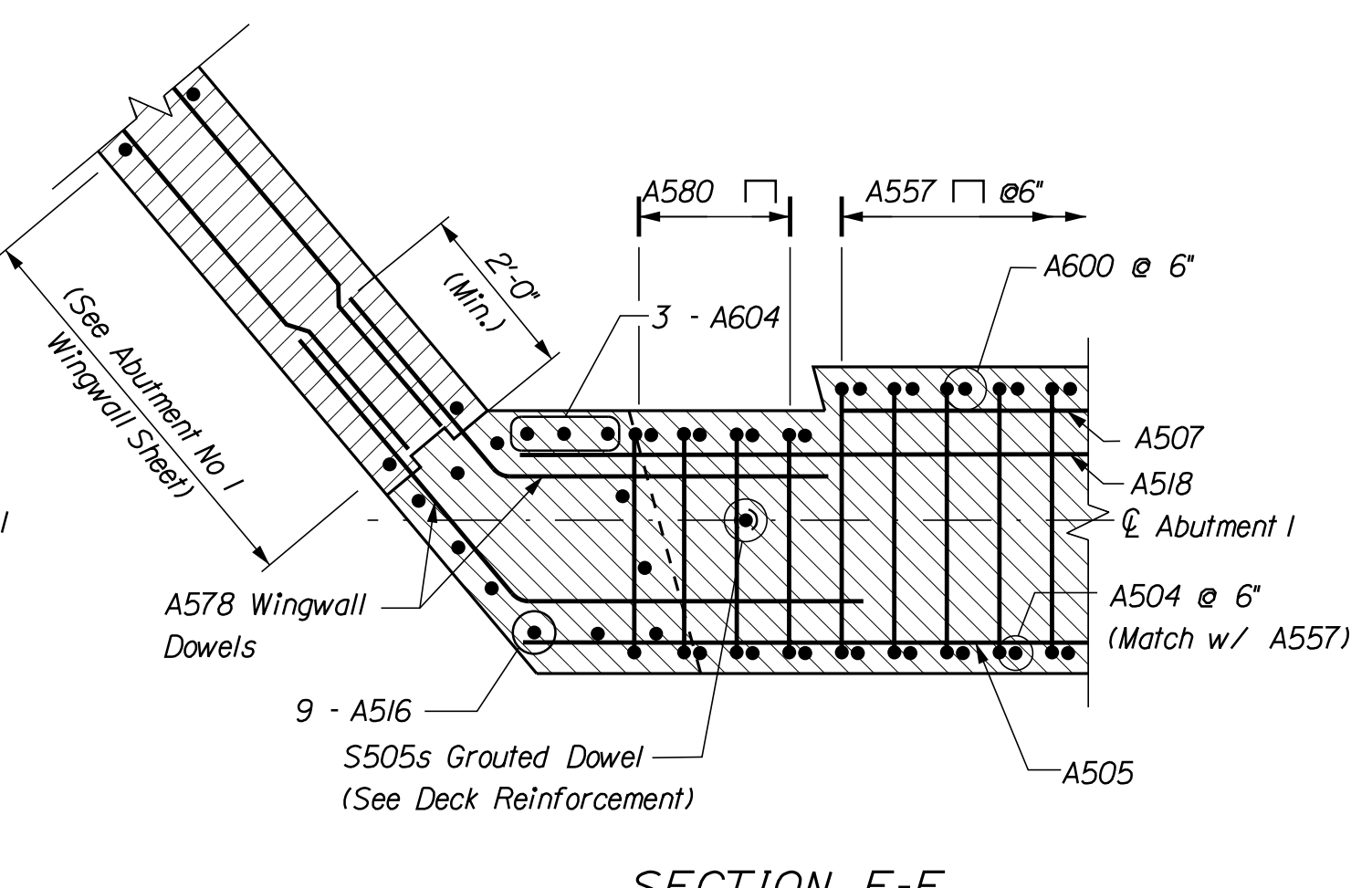
SECTION B-B



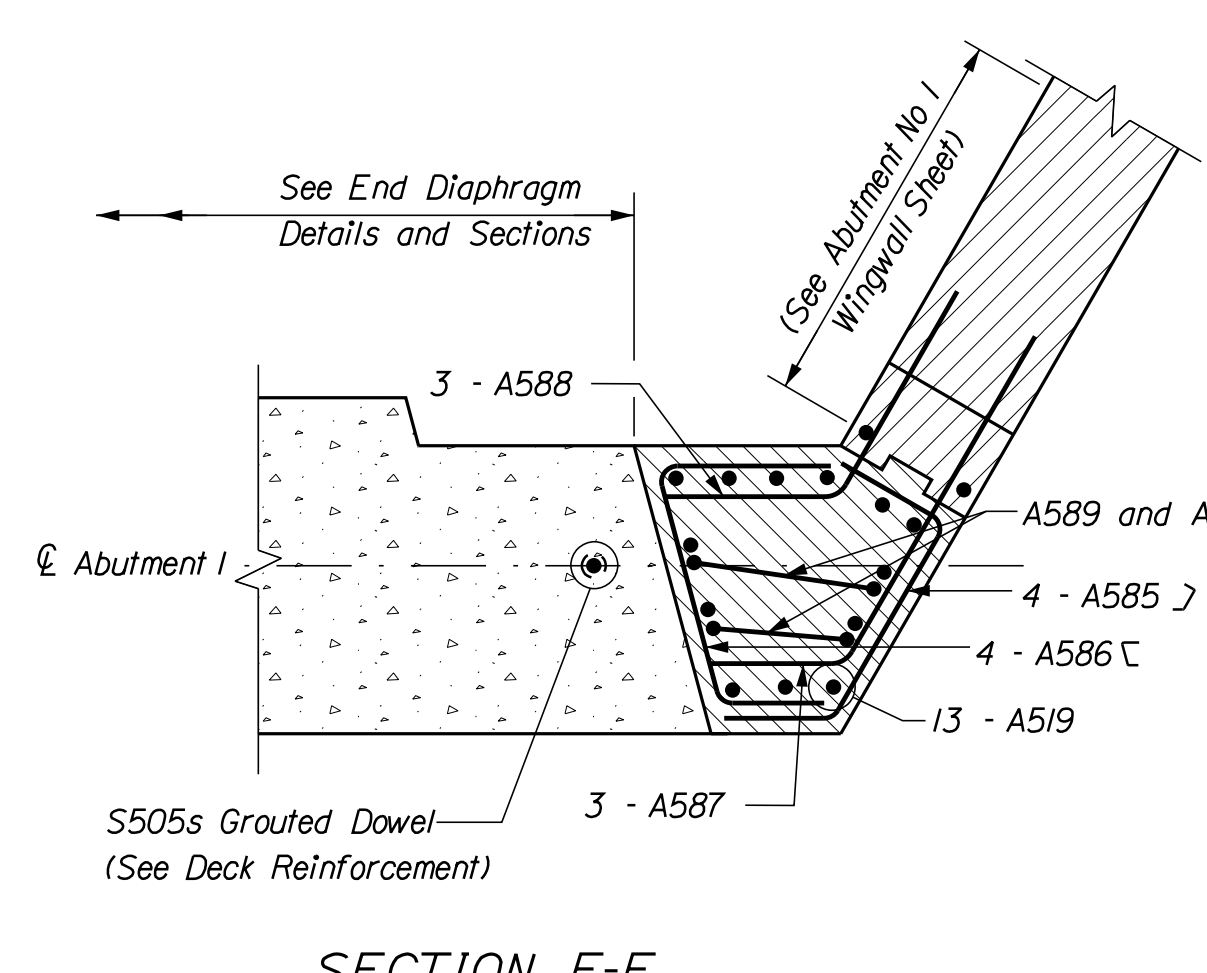
SECTION C-C



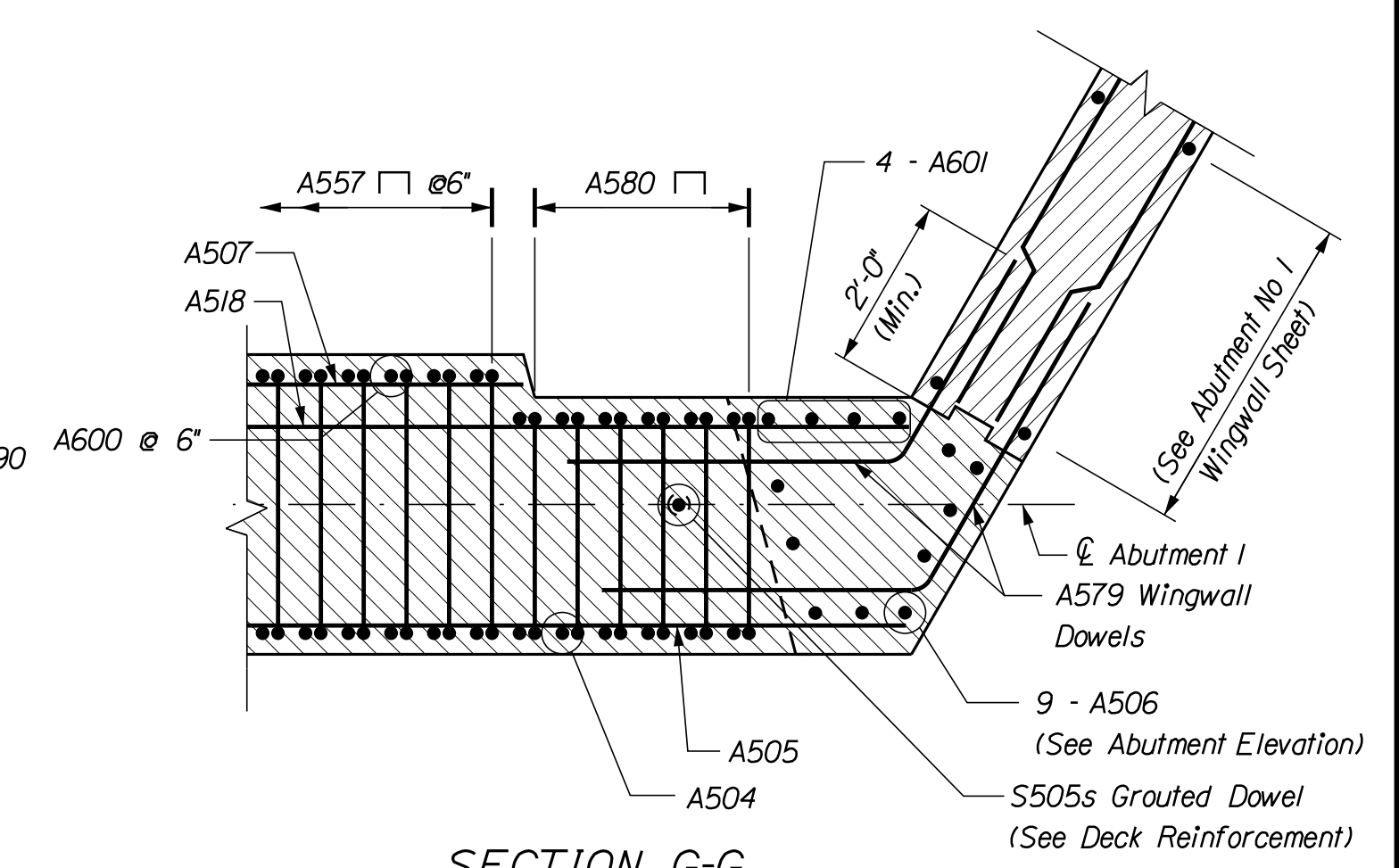
SECTION D-D



SECTION E-E



SECTION F-F



SECTION G-G

LEGEND:  
 N.F. = Near Face  
 F.F. = Far Face  
 E.F. = Each Face

Notes:  
 1. Sections are Schematic. Total number of longitudinal bars shown may differ from total count.  
 2. Bars A589 and A590 are intended to be placed with the top of the U bar parallel to the top of the cheekwall with 2" cover.

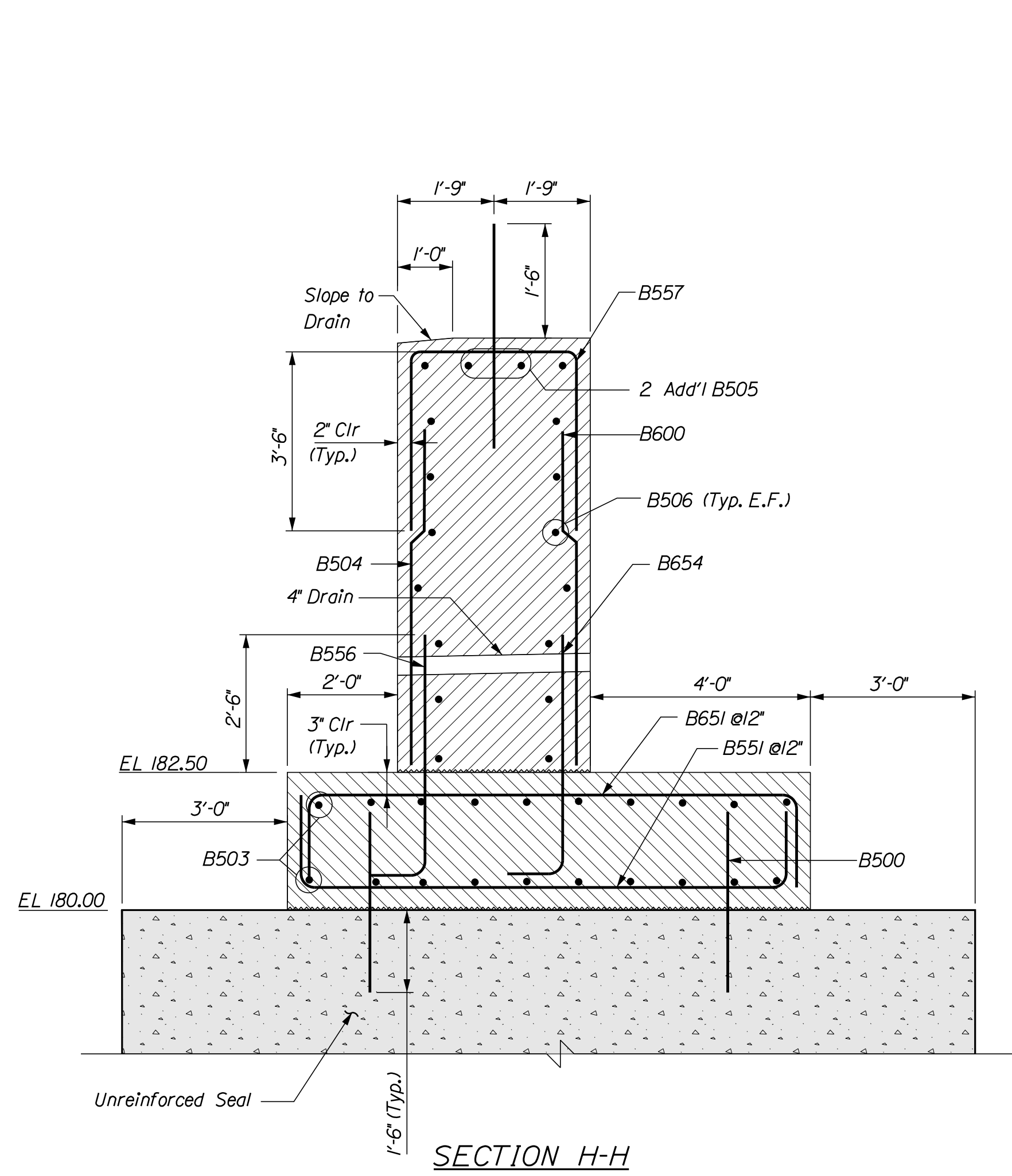
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TWIN BRIDGE WEST BRANCH SOUADABCOOK STREAM HAMPDEN PENOBSCOT COUNTY		BRIDGE No. 5315	
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PROJ. MANAGER	BY	DATE	SIGNATURE
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OF 37			

Date: 11/3/2020

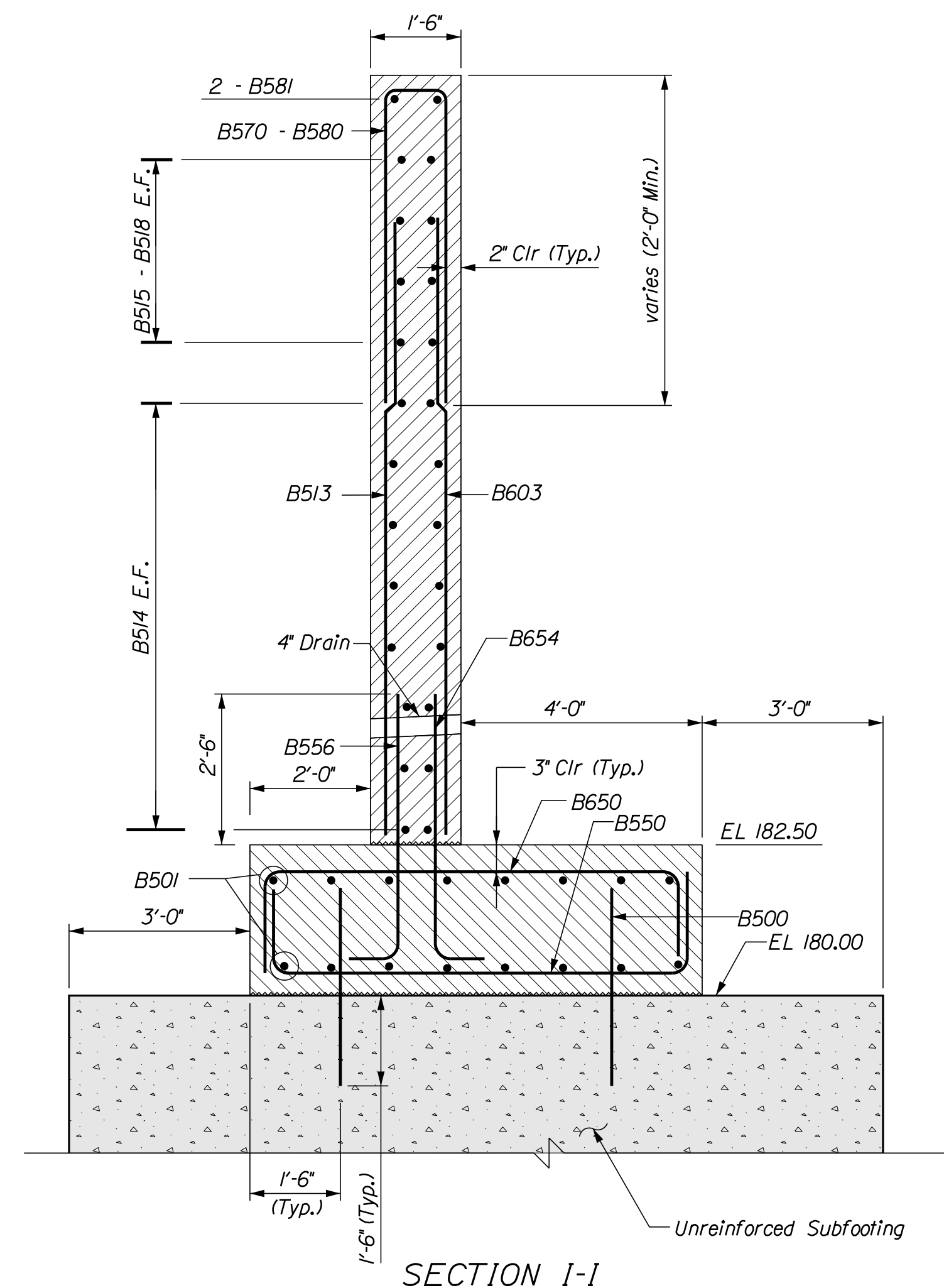
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Division: BRIDGE

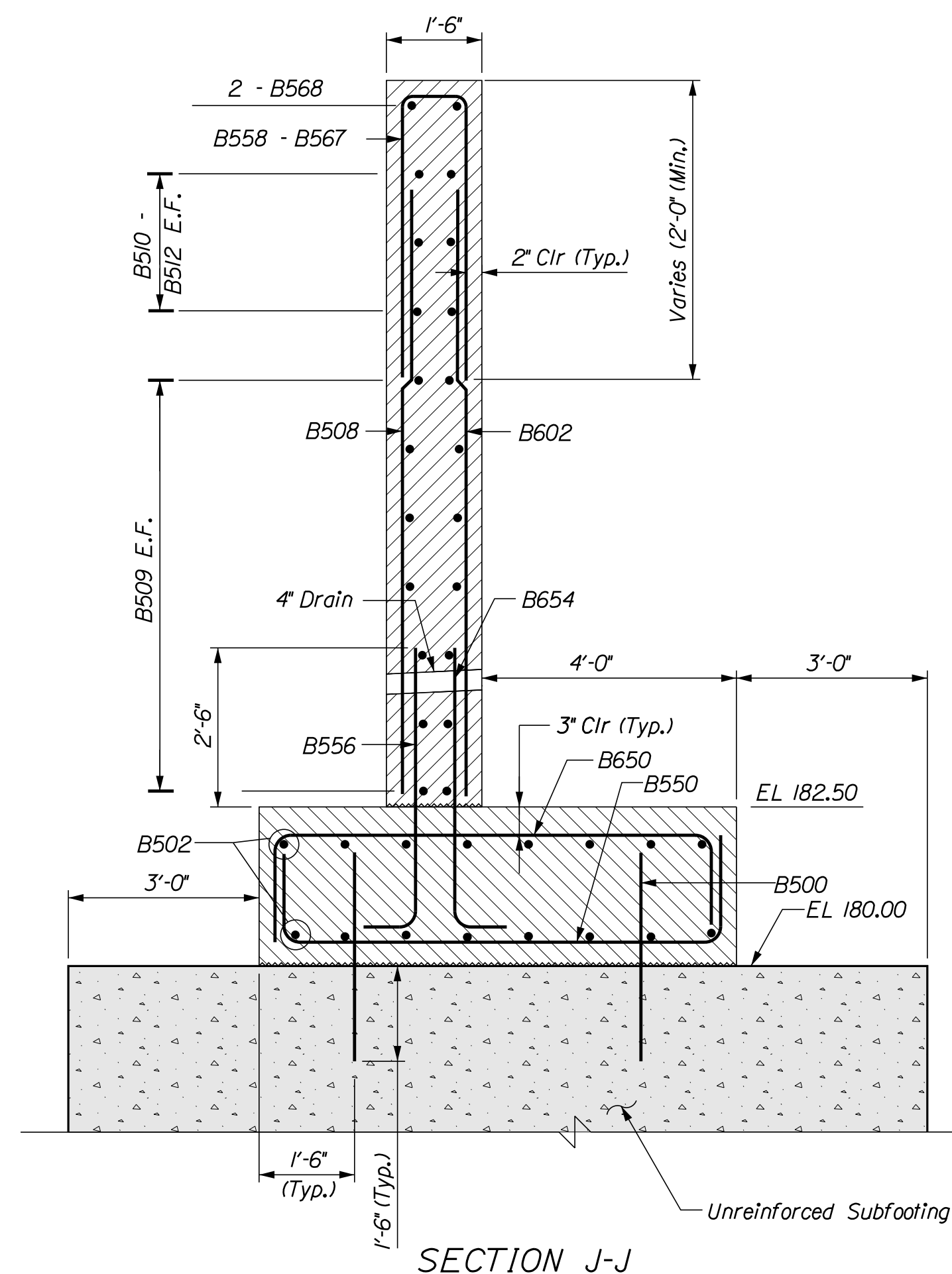
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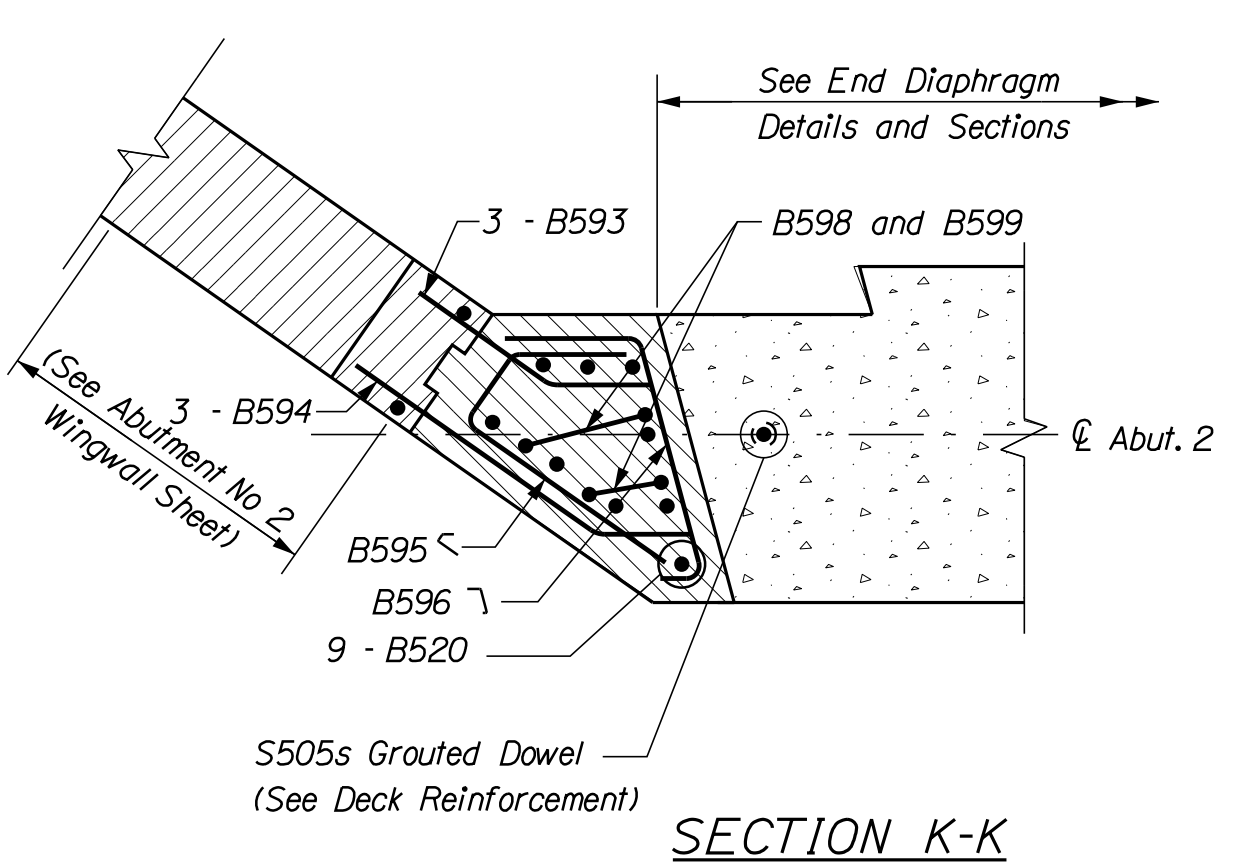
SECTION H-H



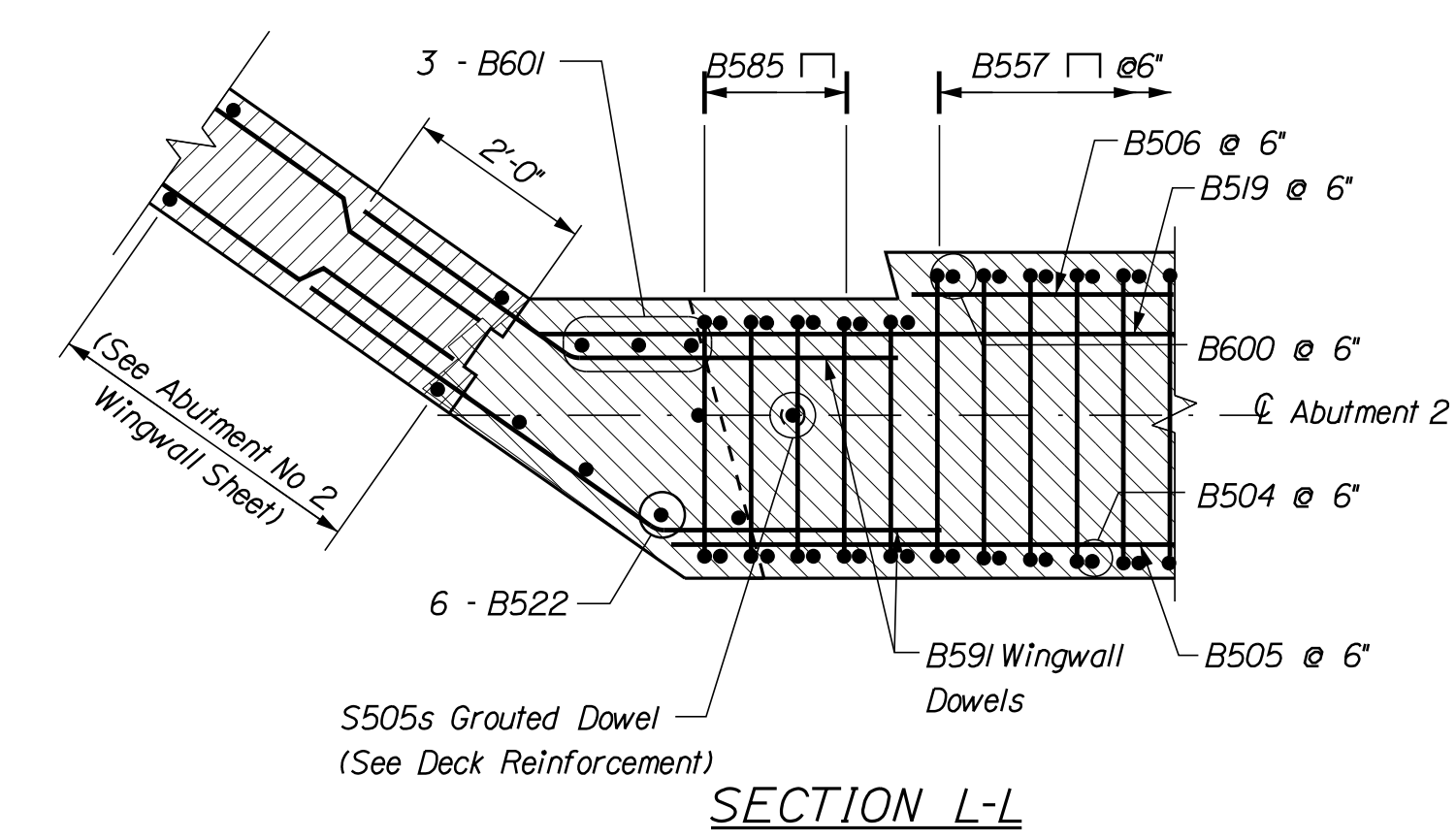
SECTION I-I



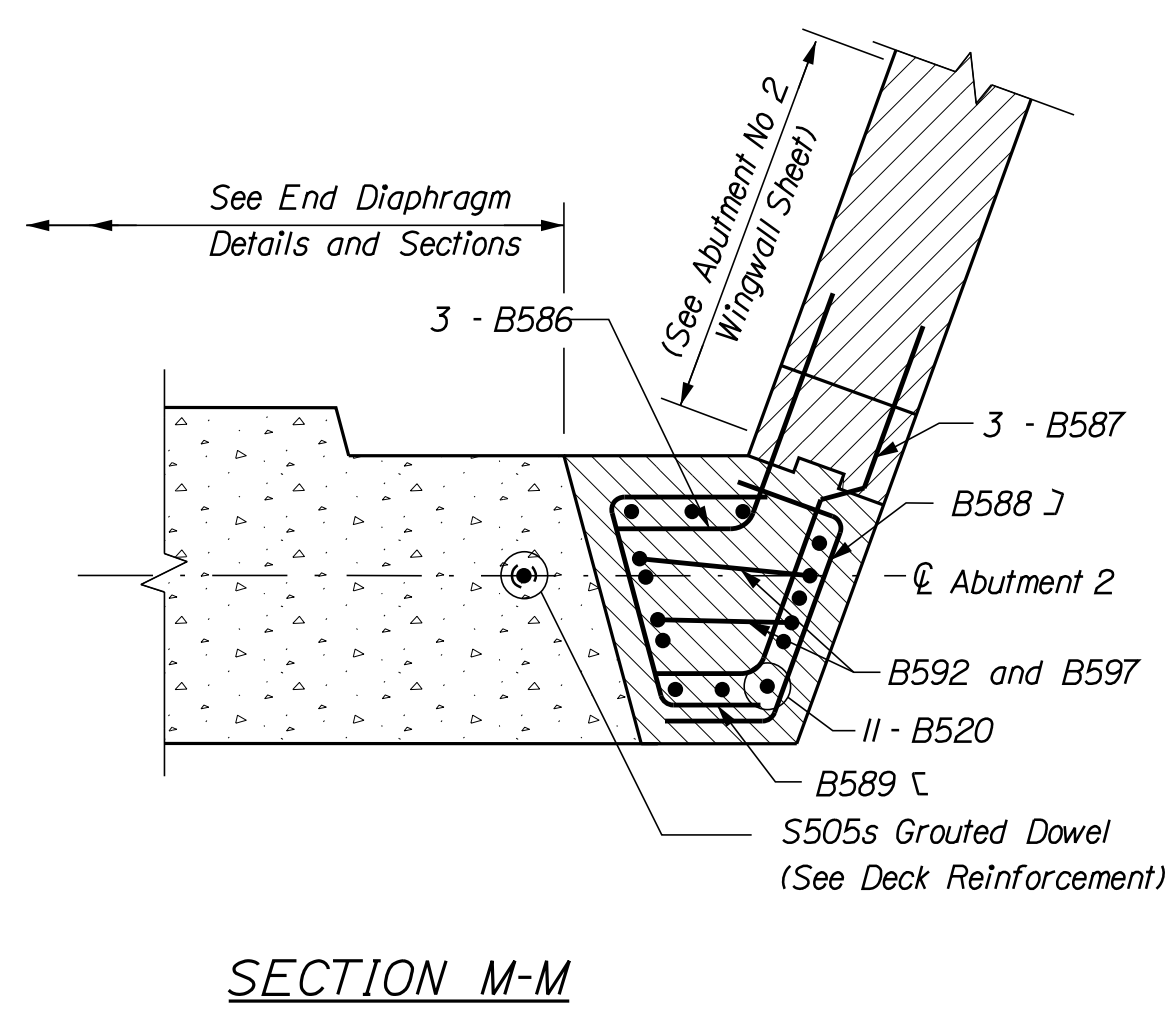
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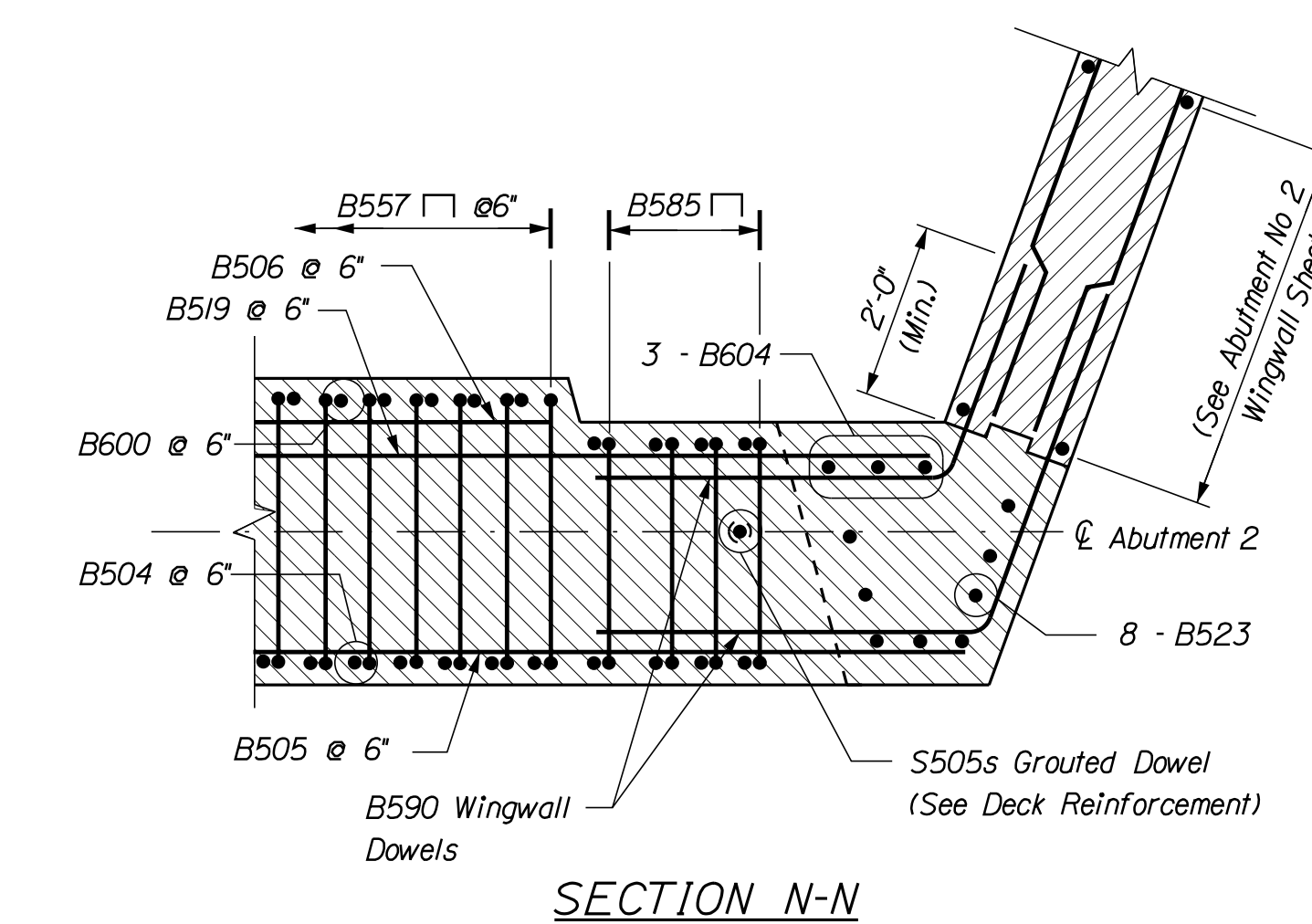
SECTION K-K



SECTION L-L



SECTION M-M



SECTION N-N

LEGEND:  
 N.F. = Near Face  
 F.F. = Far Face  
 E.F. = Each Face

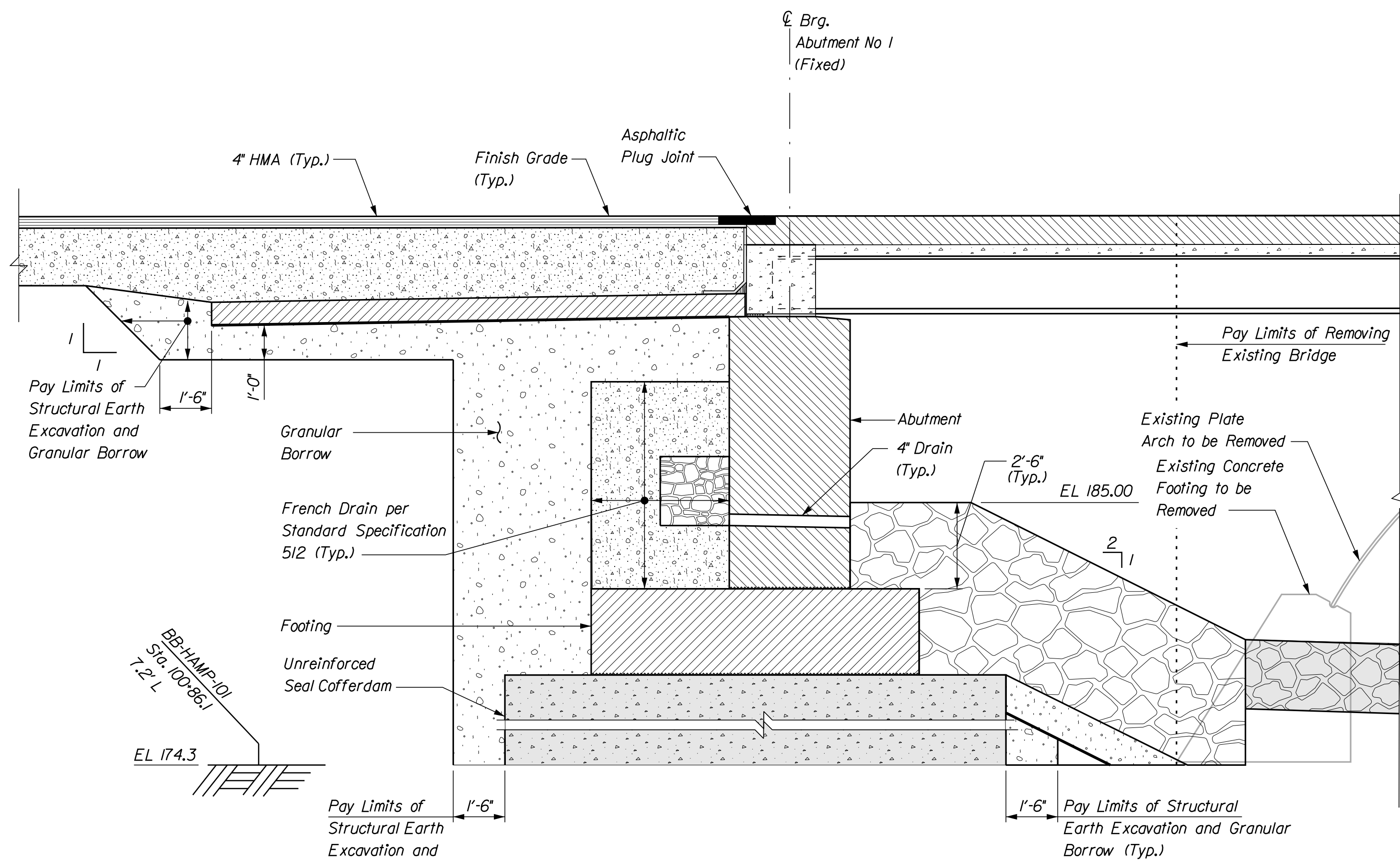
Notes:  
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 2. Bars B592 and B597 - B599 are intended to be placed with the top of the U bar parallel to the top of the cheekwall with 2" cover.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		018959.00	
TWIN BRIDGE		WEST BRANCH SOUADABCOOK STREAM		HAMPDEN PENOBSCOT COUNTY	
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BY		DATE		DATE	
M. WIGHT		9/2020		9/2020	
EC		WEG		RIG	
AP		AP		AP	
DESIGN DETAILED		DESIGN DETAILED		DESIGN DETAILED	
REVISIONS 1		REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2		REVISIONS 2	
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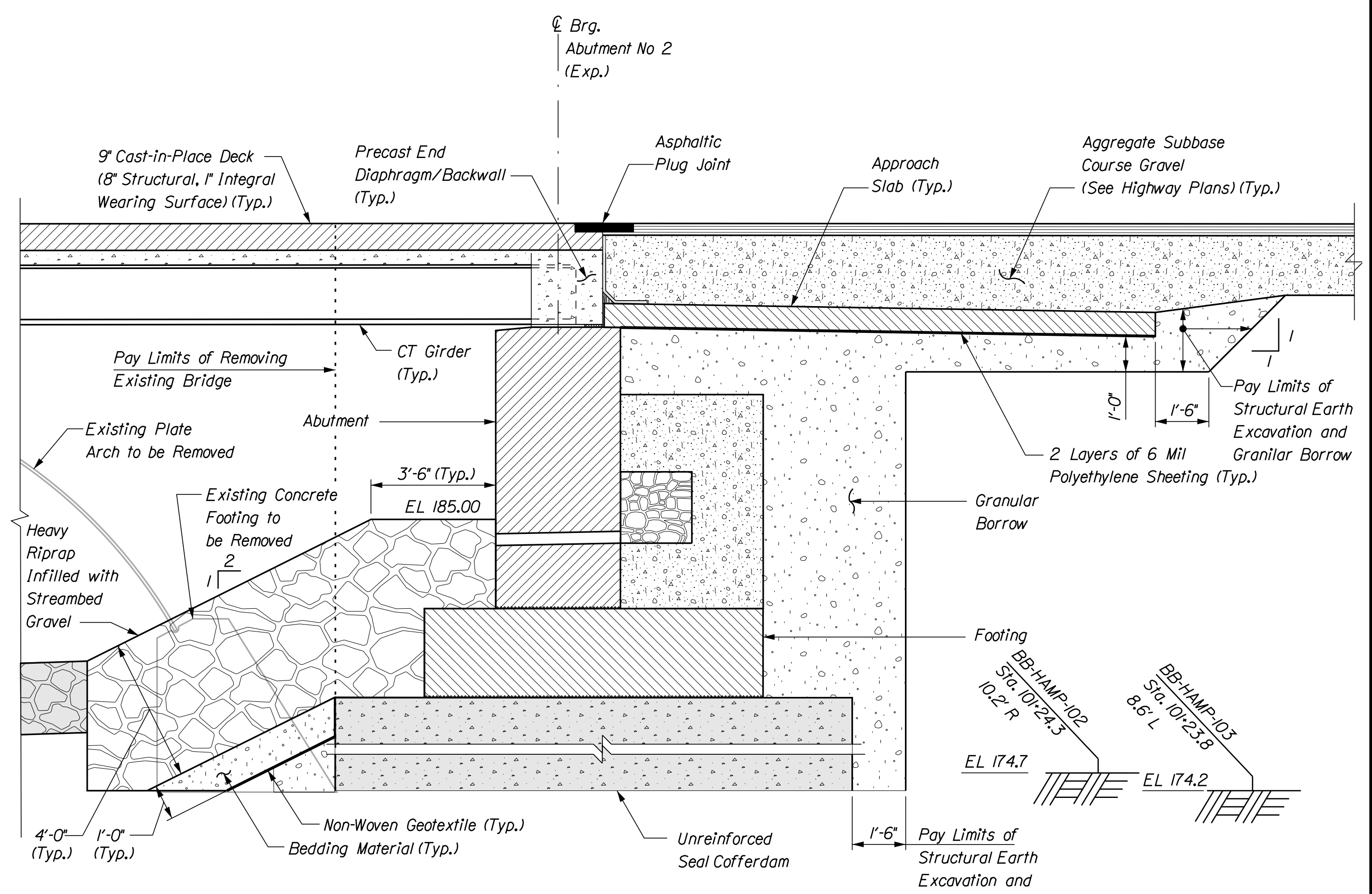
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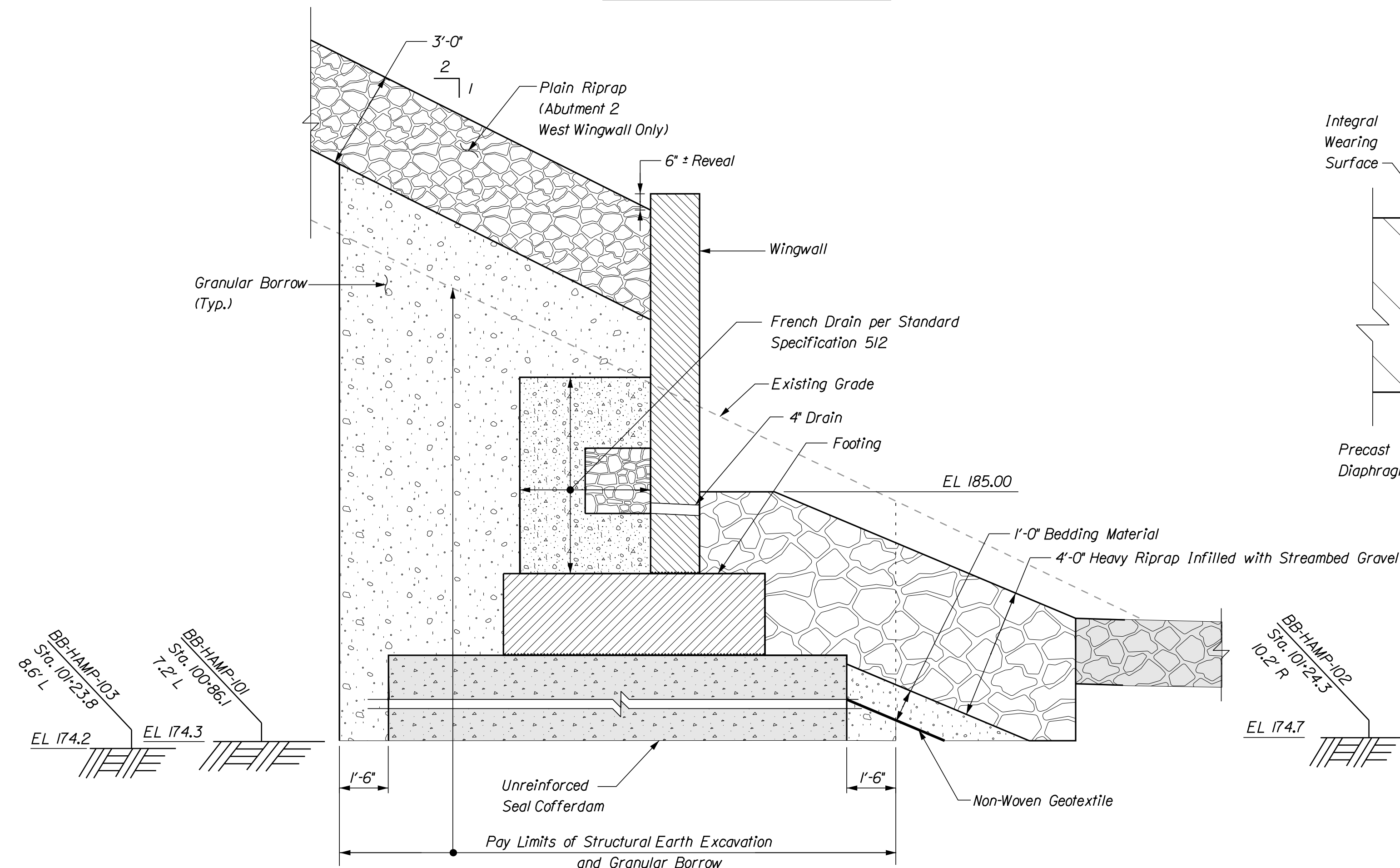
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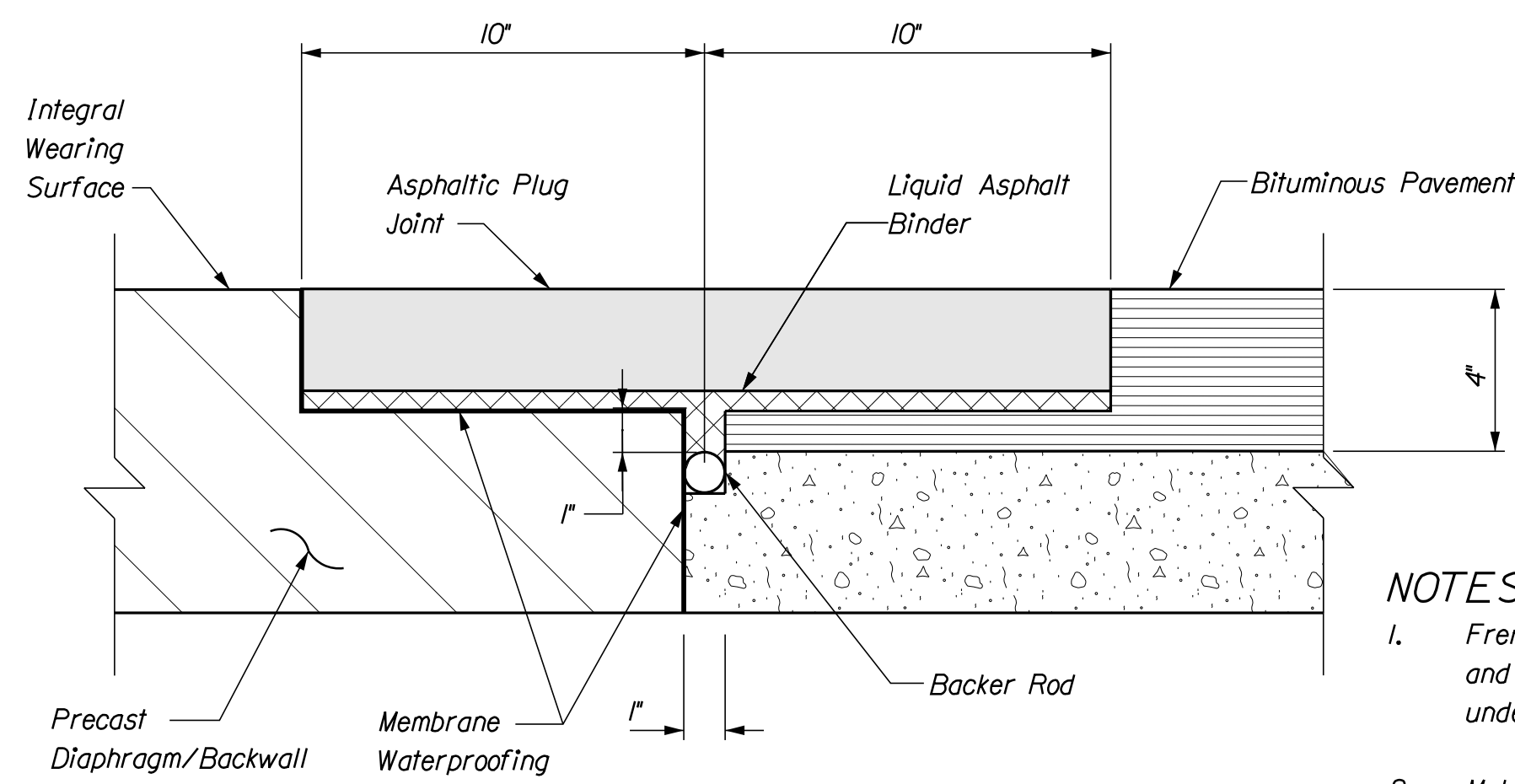
ABUTMENT No. 1 SECTION



ABUTMENT No. 2 SECTION



TYPICAL WINGWALL SECTION  
(Abutment 2 West Wingwall Shown, others Similar)



ASPHALTIC PLUG JOINT DETAIL

NOTES:

- French drains shall be provided behind the limits of the wingwalls and stemwalls. French drains shall terminate behind bedding material under plain or heavy riprap at the ends of the wings.
- Material to be removed between the physical limits of the existing structure and the proposed limits of Structural Earth Excavation shall be incidental to Item 202.19, "Removing Existing Bridge." If portions of the existing structure to be removed are within the pay limits for Structural Earth Excavation, no additional payment shall be made and removal shall be included in Item 202.19.
- Asphaltic plug joints shall be provided at the beginning and end of the bridge between curbs.
- All cut or trimmed asphalt edges shall be cleaned and tacked/prime coated prior to placing the Asphaltic Plug Joint, in conformance with the manufacturers instructions.
- Install two layers of 6 mil polyethylene sheeting under approach slabs. Payment will be considered incidental to Item 502.31 Structural Concrete Approach Slabs.
- Streambed Gravel is defined in Special Provision Section 203 - Special Fill - Streambed Material. Streambed Gravel placed within the heavy riprap slope protection will not be measured separately for payment, but will be considered incidental to other items.

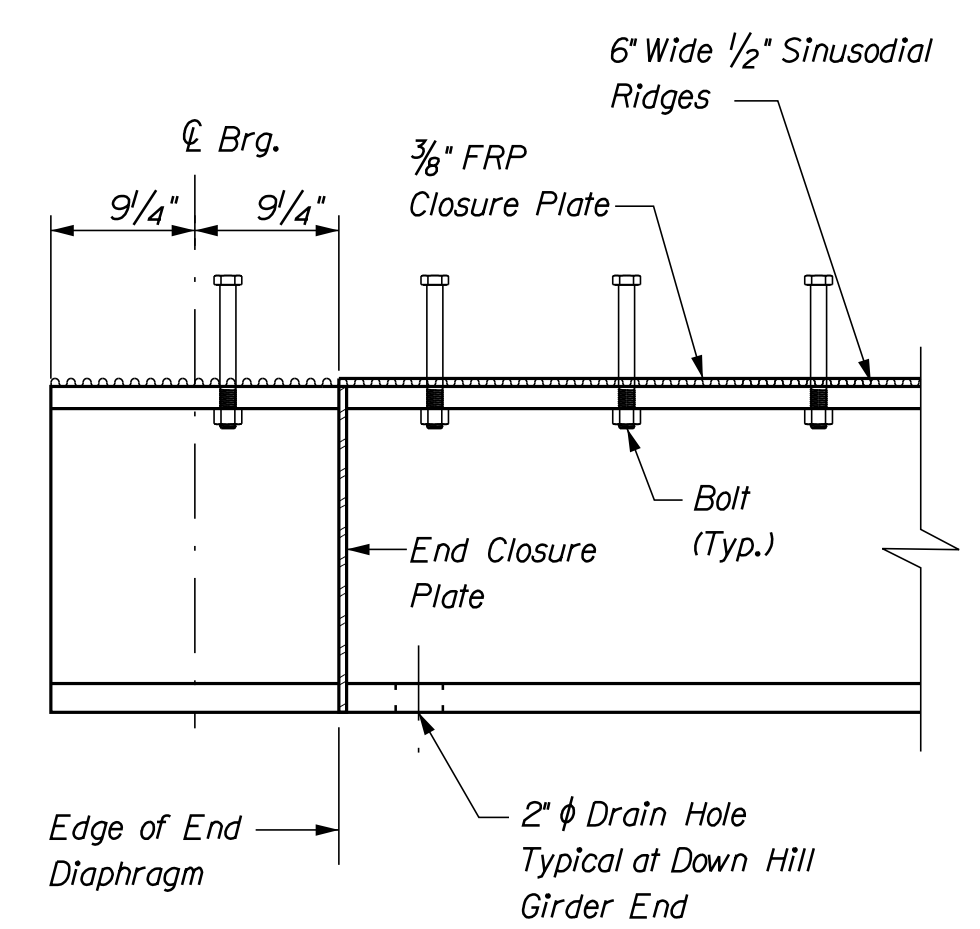
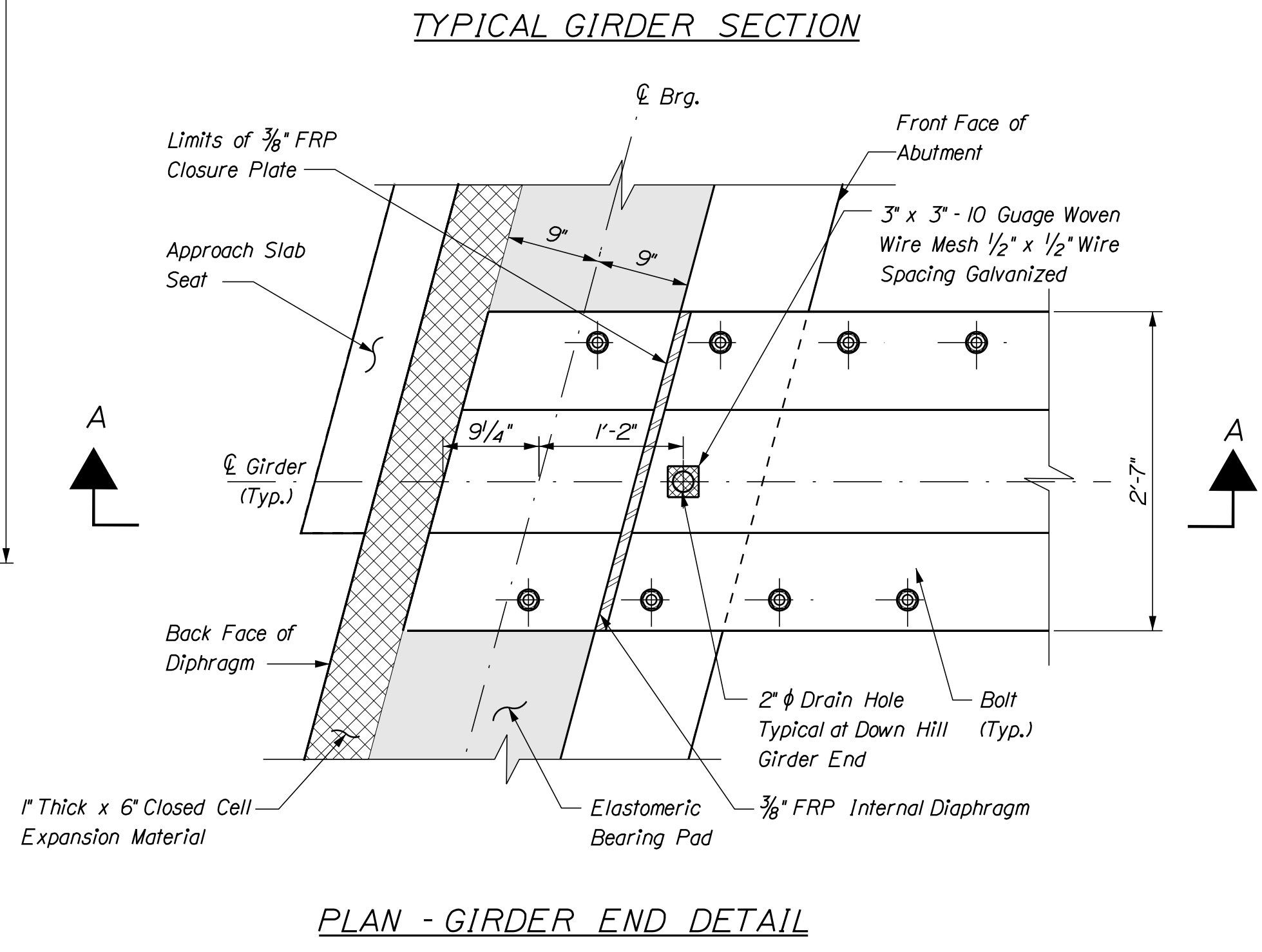
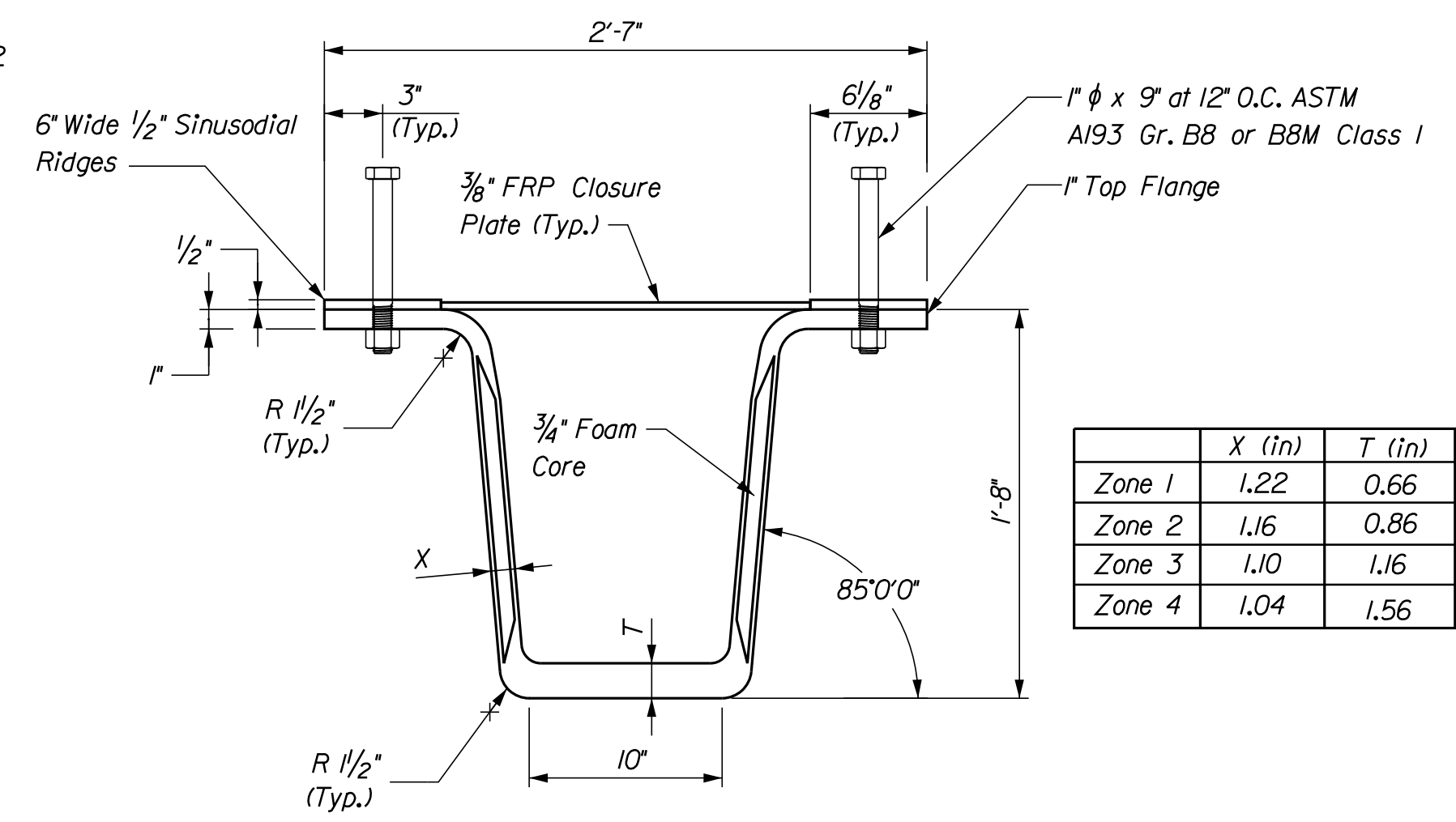
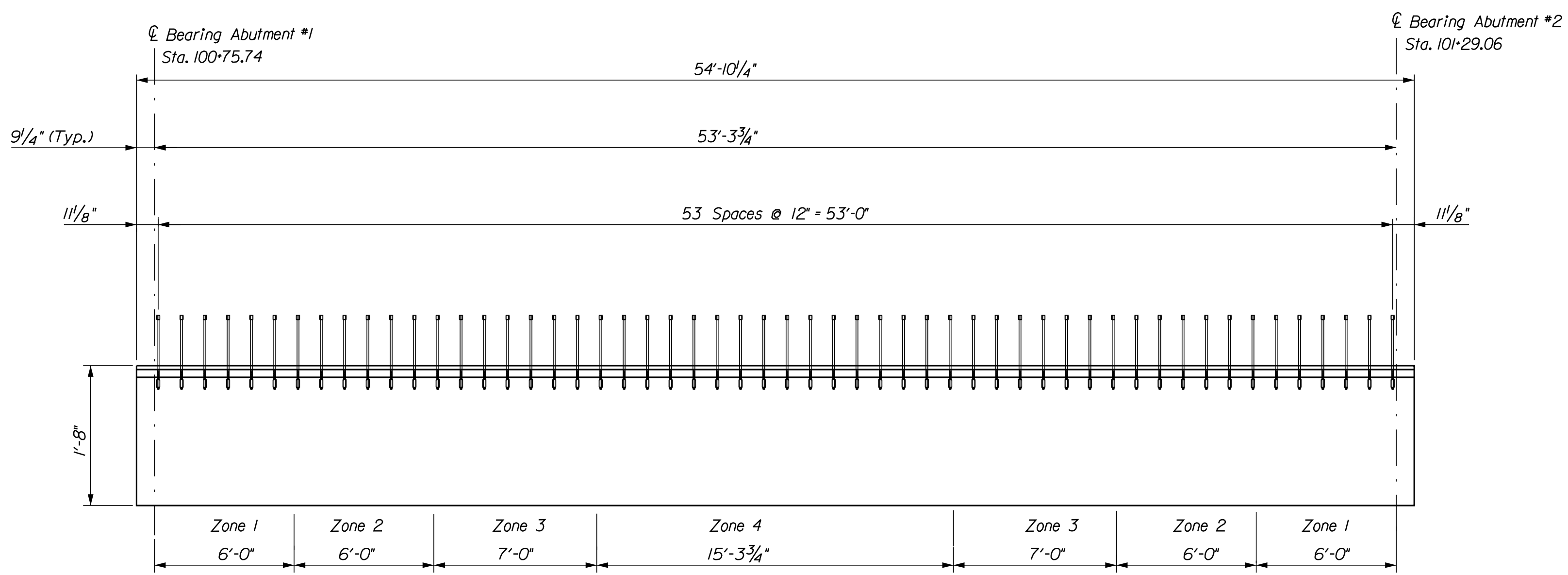
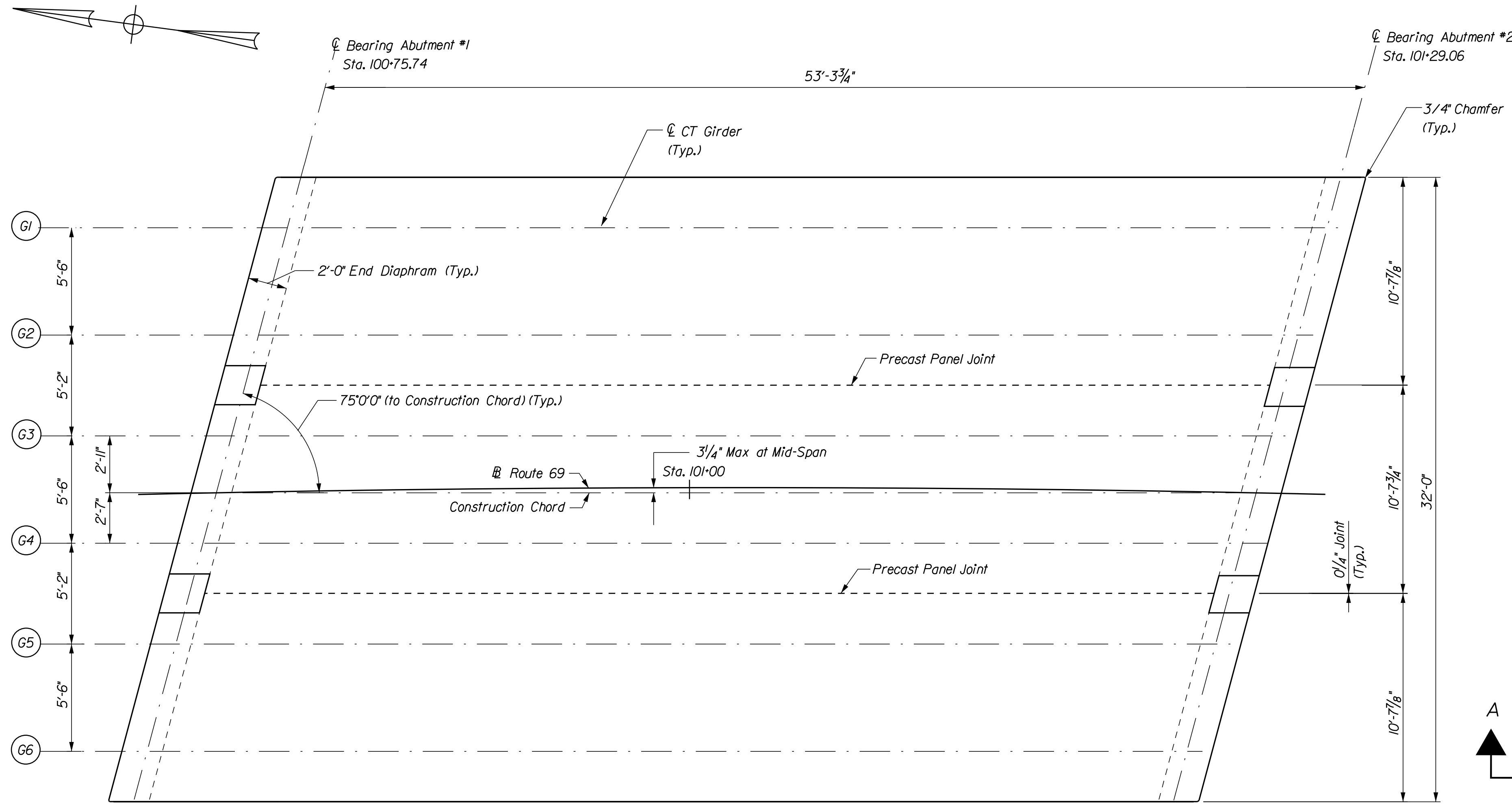
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SHEET NUMBER		28		OF 37		BRIDGE No. 5315		WIN 18959.00	

Date: 11/2/2020

Username:

Division: BRIDGE

Filename: ... \029\_Framing Plan.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

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BRIDGE No. 5315

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY

FRAMING PLAN

PROJ. MANAGER	DATE	BY	DATE	REVISIONS	FIELD CHANGES
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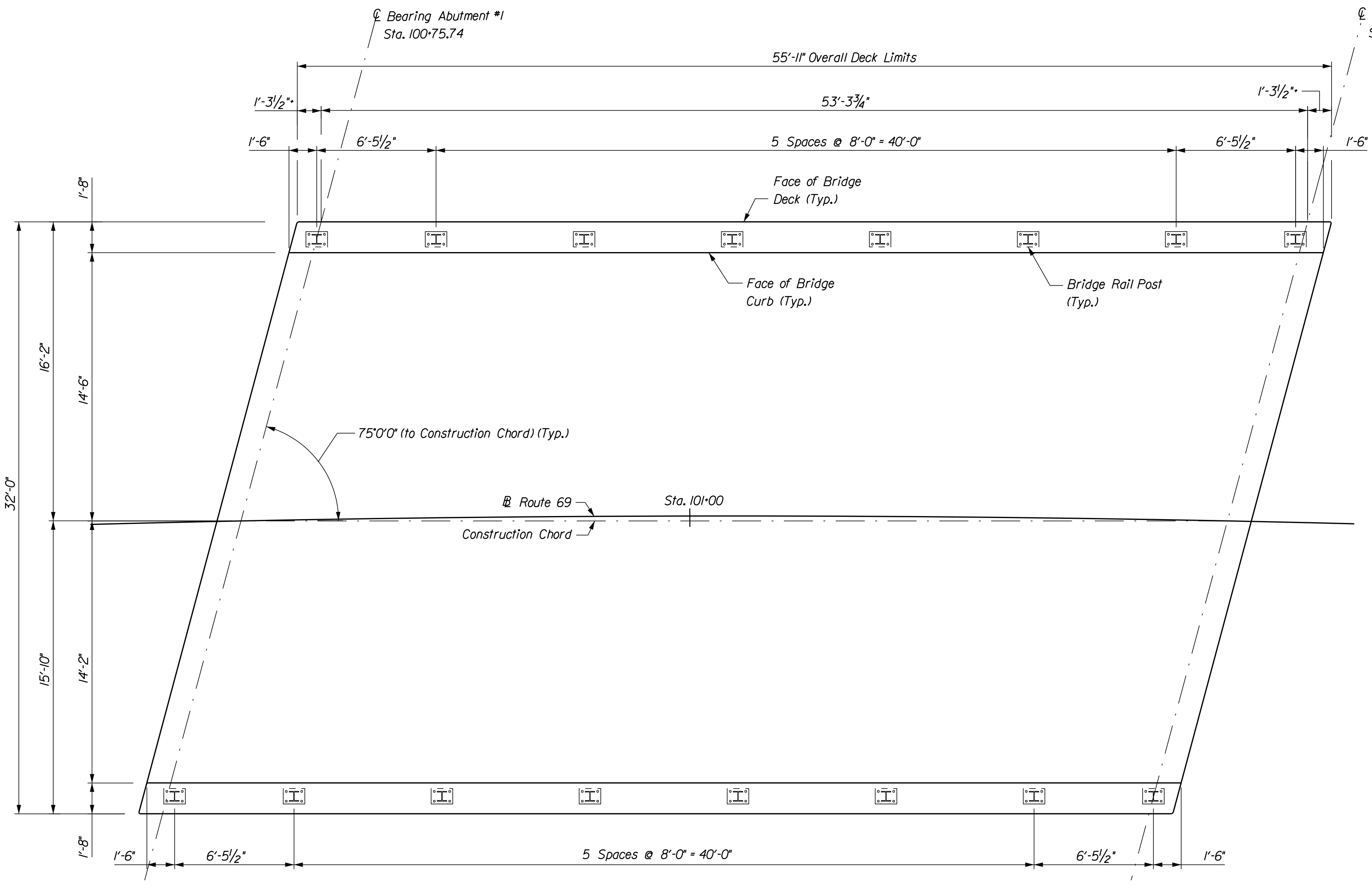
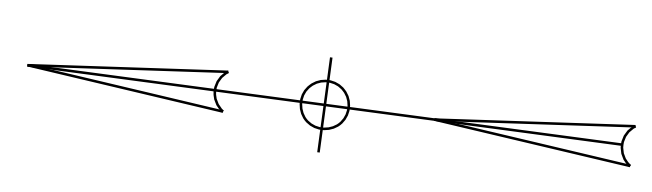
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Date: 11/2/2020

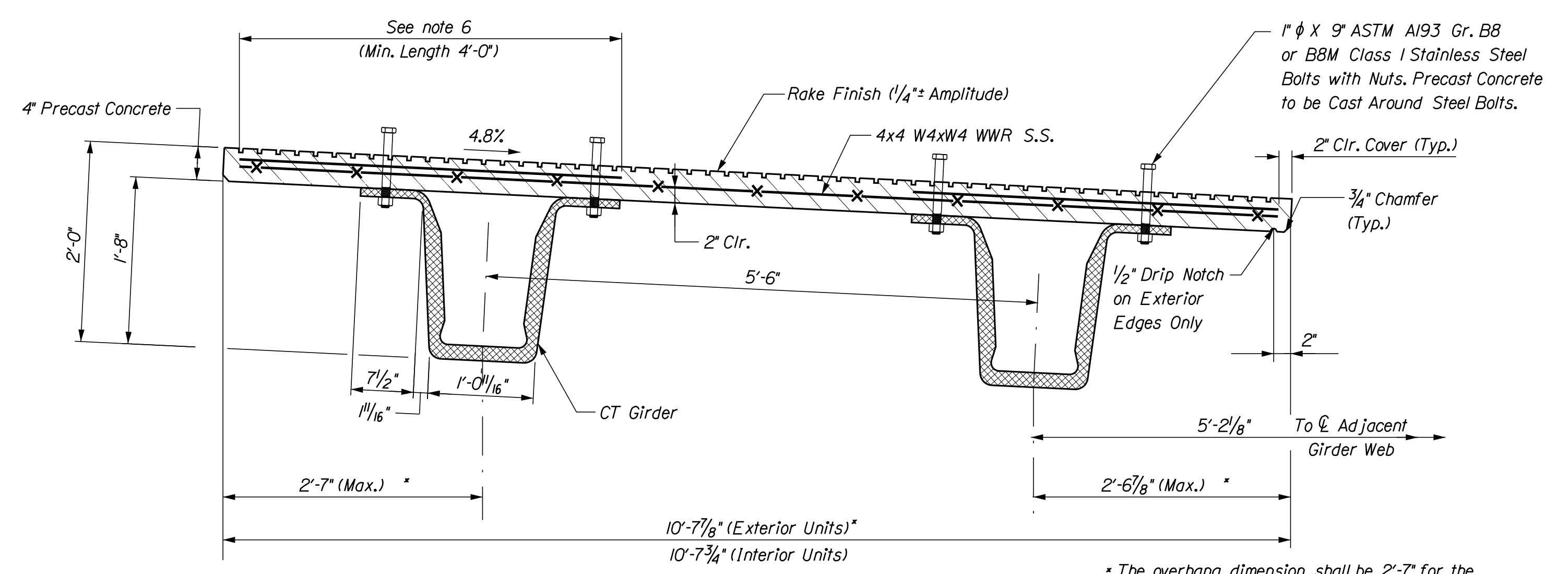
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Division: BRIDGE

Filename: ... \030\_Superstructure Plan.dgn



**SUPERSTRUCTURE PLAN**



**TYPICAL SECTION PRECAST BRIDGE UNIT**

\* The overhang dimension shall be 2'-7" for the overhang on the exterior panels. All interior overhangs shall be 2'-6 5/8" to allow for the gap between panels.

**SUPERSTRUCTURE NOTES**

- Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
- Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
- The superstructure slab concrete and end diaphragm concrete for each span shall be placed continuously and shall be kept plastic until the entire placement has been made.
- Transverse dimensions noted on the superstructure plan are measured to the construction chord. Painted shoulder widths will vary.
- Prefabricated Bridge Units (PBU's) shall consist of 2 CT Girders with attached partial depth precast slab panel. PBU's shall be shipped to the site as a completely assembled unit. PBU's shall be protected from damage during shipping and erection. The Contractor shall submit an erection plan for approval prior to construction.
- Additional reinforcement is required in the overhangs of the partial depth precast panels. Two options are available to meet this requirement: Use #3 Stainless steel bars at 5" on center placed on top of the welded wire reinforcement (WWR), or use nested W4.0 Stainless Steel Wires at 4" on center between the full length WWR.
- The gap between adjacent precast deck panels shall be plugged with contractor selected joint filler or sealant system prior to the deck pour.
- Saw cut grooving of the concrete wearing surfaces shall be performed in accordance with the Standard Specifications in the longitudinal direction.

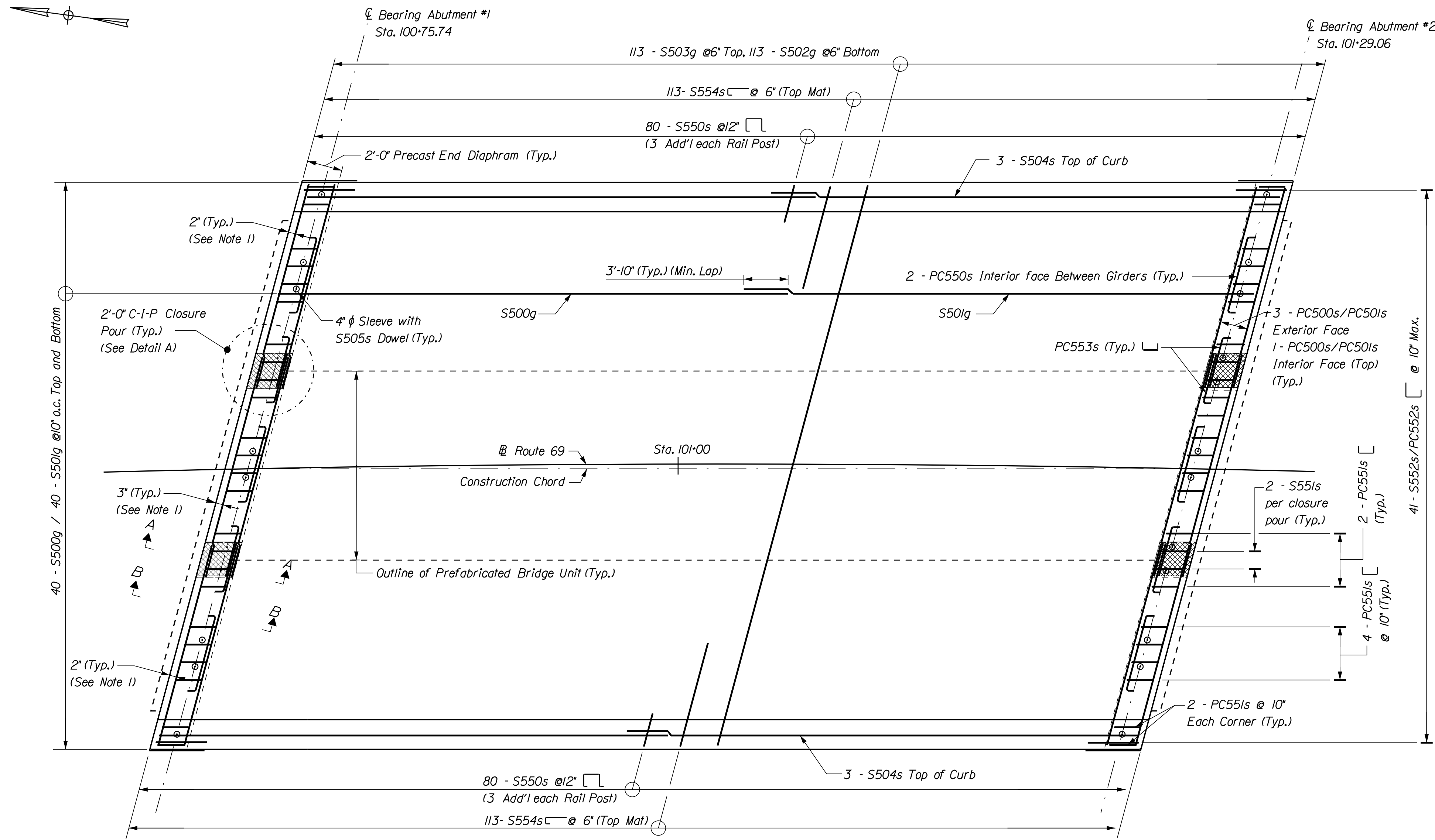
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SHEET NUMBER		BRIDGE PLANS	
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Date: 11/19/2020

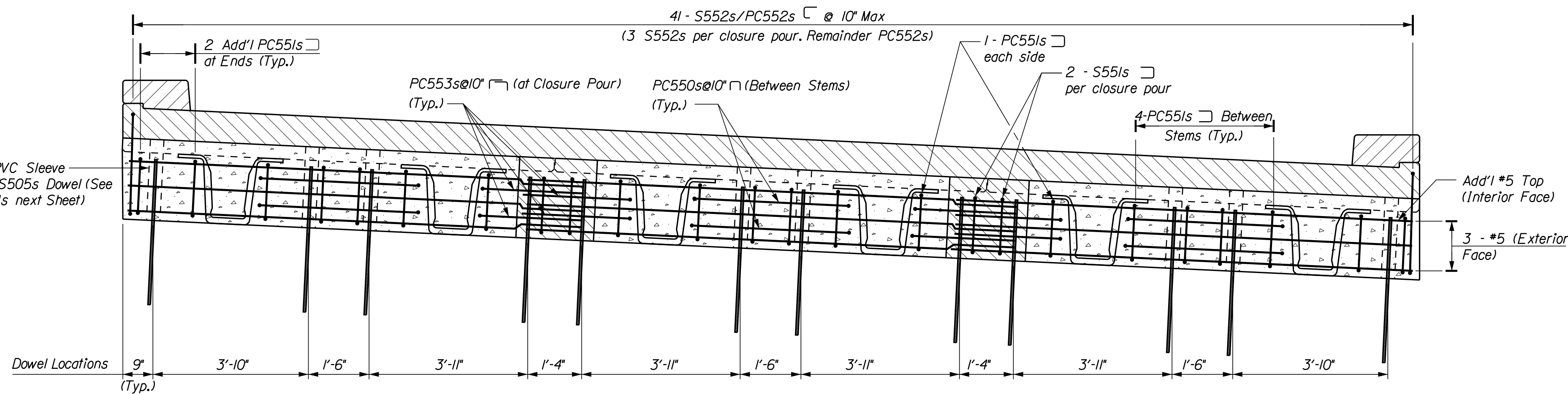
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Division: BRIDGE

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DECK REINFORCING PLAN



END DIAPHRAM REINFORCING SECTION

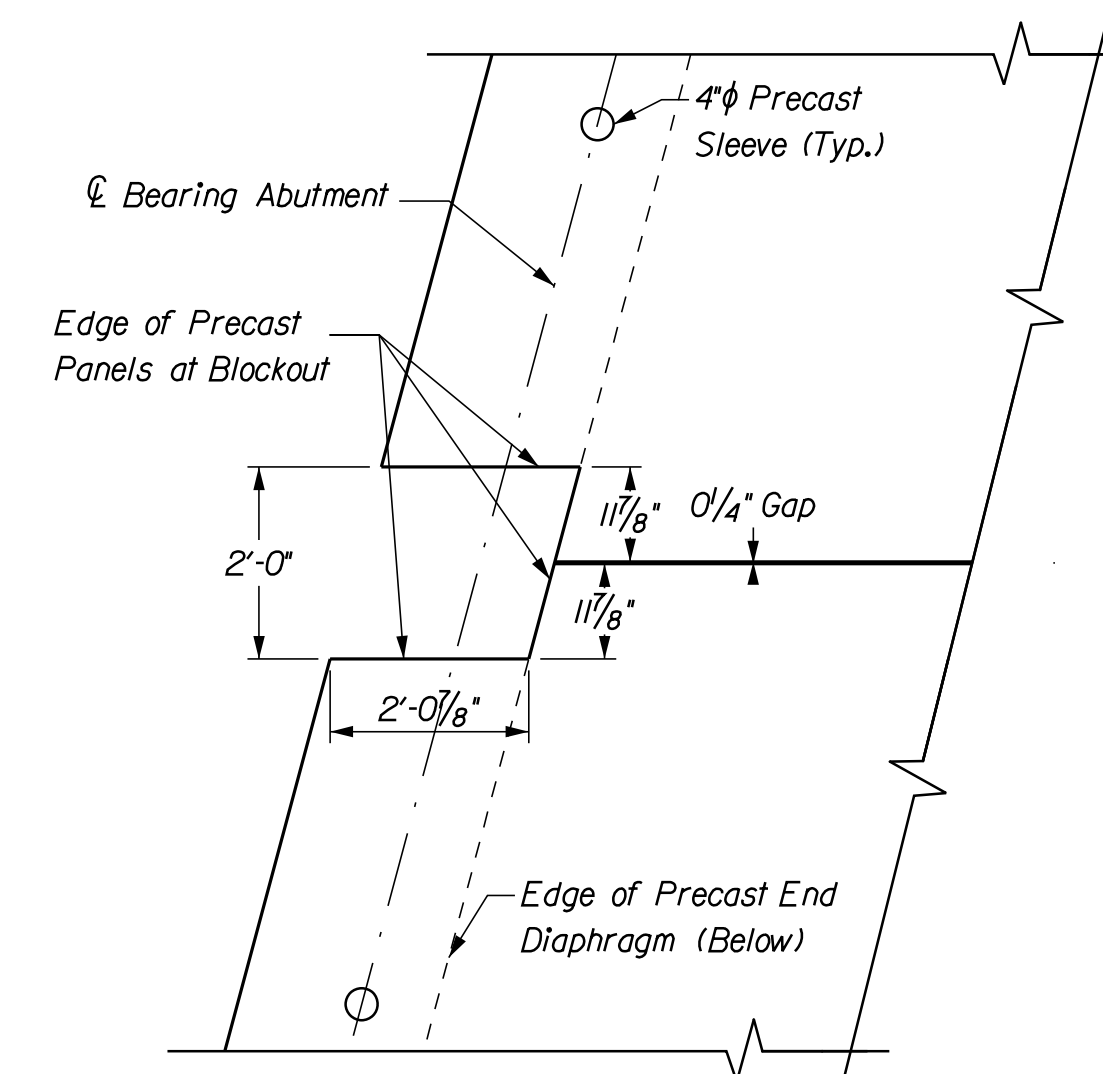
(Note: Deck Reinforcing not shown for Clarity)

NOTES

1. The cover for PC500 & PC50l in the precast end diaphragms shall be 2" to all faces on the exterior units and 3" on the interior units. All other bars in the precast end diaphragms shall have 1/2" clear cover to all faces unless noted otherwise.
2. Sleeves in the closure pour regions for the dowel bars shall be included at Abutment No. 2 only.
3. Contractor to stagger the splices on the S500g and S500l bars by alternately flipping which bar is at one end of the bridge.

ELASTOMERIC BEARING PAD NOTES

1. Neoprene pads shall be either polychloroprene or natural polyisoprene with a 60 Shore A durometer hardness and shall conform to the requirements of Section 18.2 of the LRF Bridge Construction Specifications, Third Edition. Neoprene pads will not be paid for directly but will be considered incidental to related construction items.
2. Neoprene pad seams perpendicular to the centerline of bearing will be allowed provided that the seams are located approximately halfway between girder centerlines.



DETAIL A

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
018959.00  
WIN  
18959.00  
BRIDGE No. 5315  
BRIDGE PLANS

DESIGN	DATE	BY	DATE
Detailed	9/2020	WEG	9/2020
Checked		AIT	
Reviewed			
Designs			
Revisions			
1			
2			
3			
4			
Field Changes			

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN  
PENOBSCOT COUNTY

DECK REINFORCING PLAN

SHEET NUMBER

31

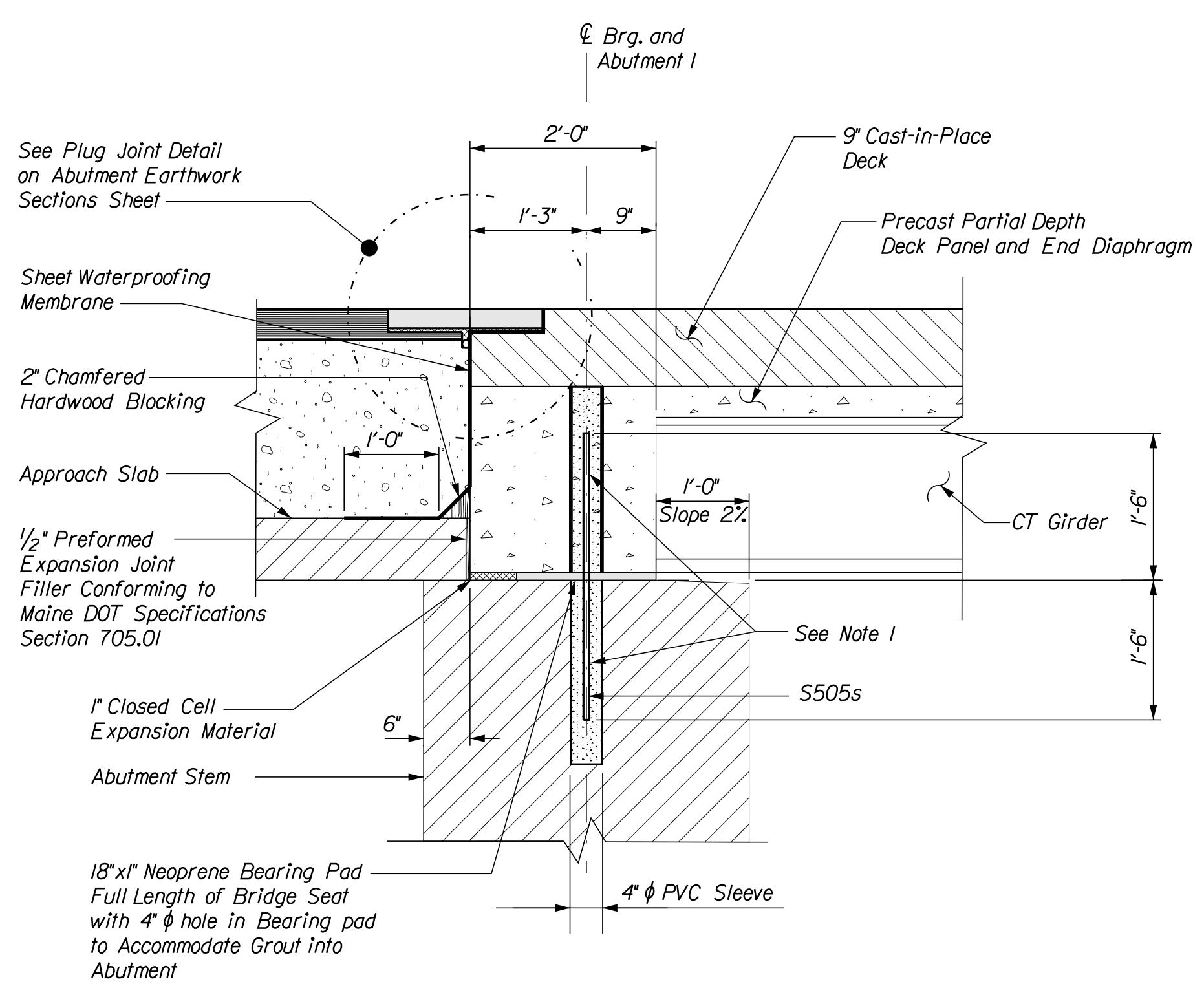
OF 37

Date: 11/2/2020

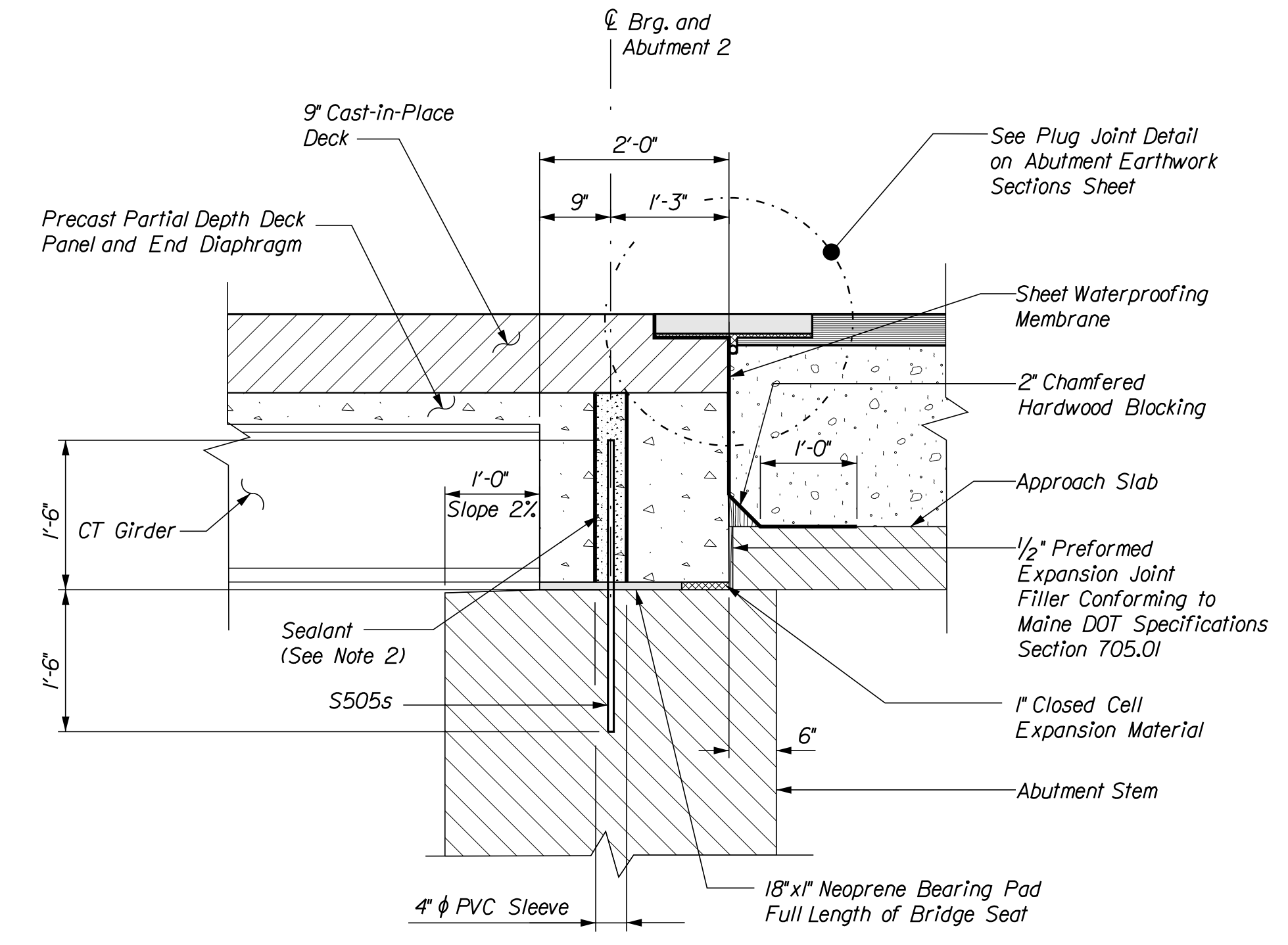
Username:

Division: BRIDGE

Filename: ... \032\_Deck Reinforcing Details.dgn



**ABUTMENT 1  
END MASONRY DETAIL**

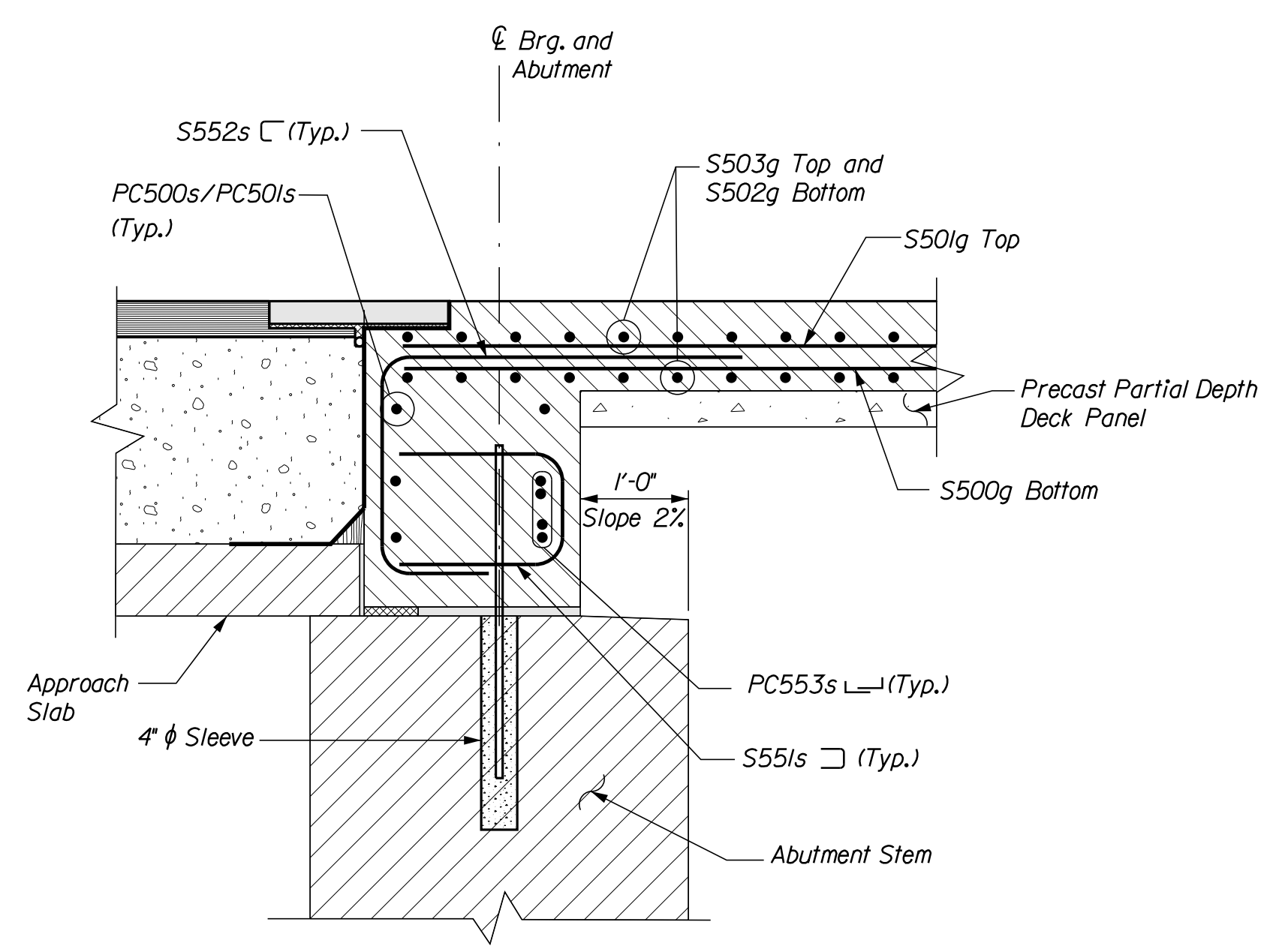


**ABUTMENT 2  
END MASONRY DETAIL**

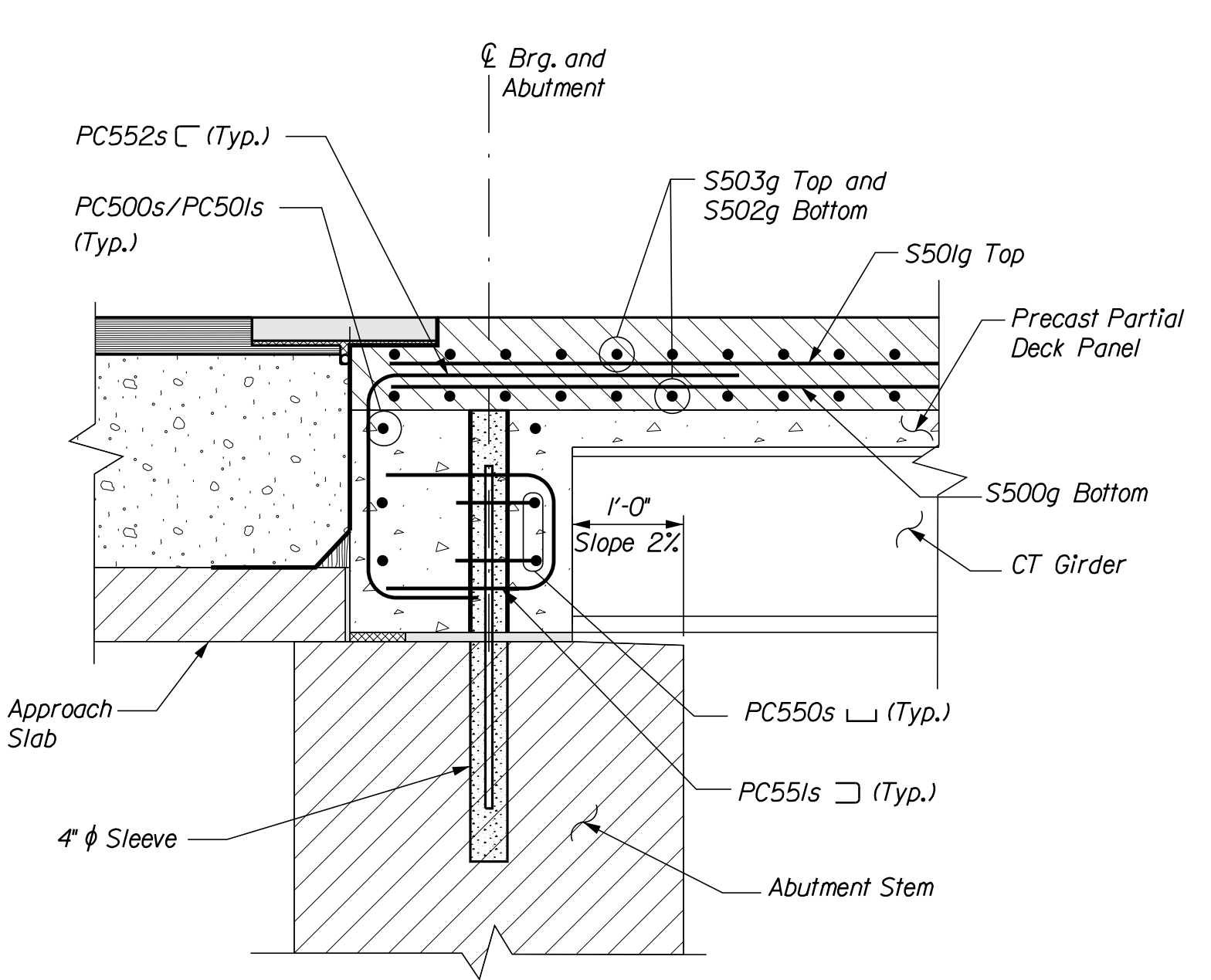
Note: Sleeves shall be included in the closure pours at Abutment No. 2 only.

**NOTES:**

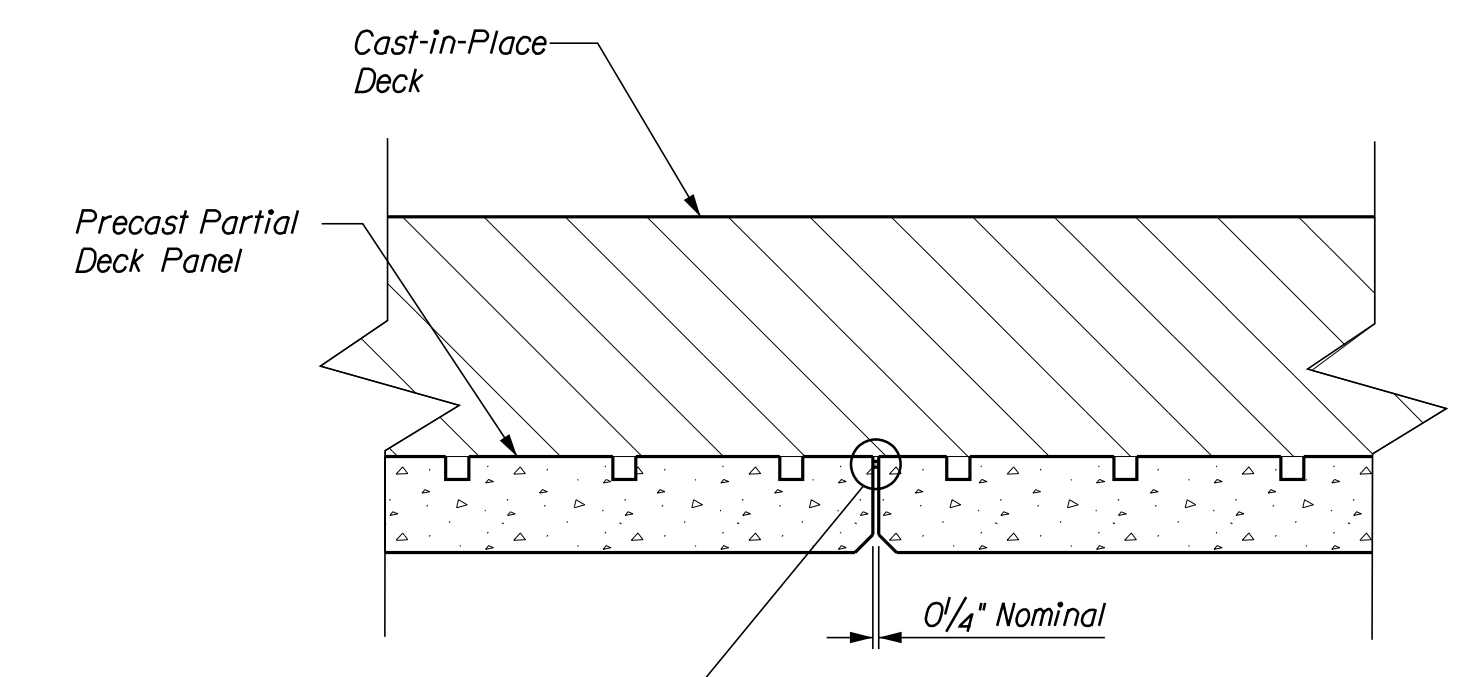
1. At abutment 1, dowels shall be grouted into the sleeves. Sleeves shall be cast into the abutment and the prefabricated bridge unit end diaphragm.
2. At abutment 2, dowel bars shall be drilled and grouted into the abutment. The annular space of the PVC sleeves in the end diaphragms shall be filled with a joint sealant after placement of the PBU on the abutment seat. The sealant shall be one of the polyurethane based products listed on the MaineDOT Qualified Products List of Pour-In-Place Joint Sealant. Payment for all labor and materials will not be made directly and will be considered incidental to the related contract items.
3. Payment for sheet waterproofing membrane, closed cell foam, and hardwood blocks will not be made directly and shall be considered incidental to related contract items.



**SECTION A-A END DIAPHRAGM  
REINFORCING AT CLOSURE POUR**  
(Abutment 1 Shown, Abutment 2 Similar)



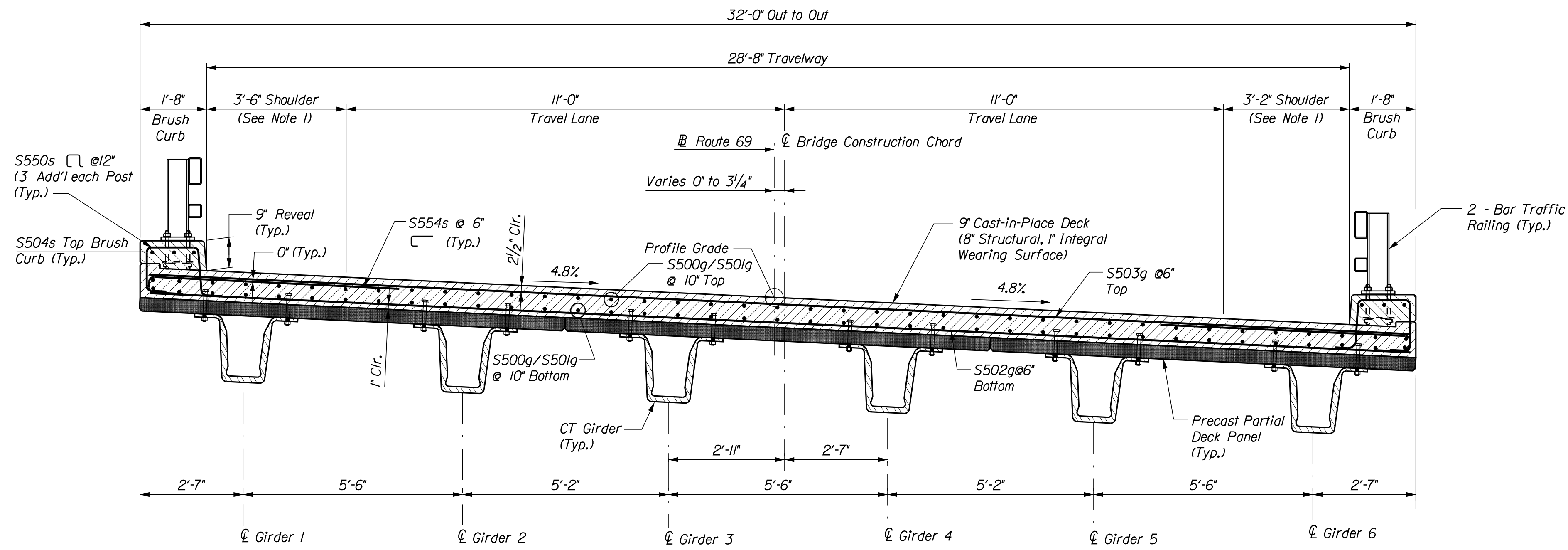
**SECTION B-B REINFORCING  
AT PRECAST DIAPHRAGM**  
(Abutment 1 Shown, Abutment 2 Similar)



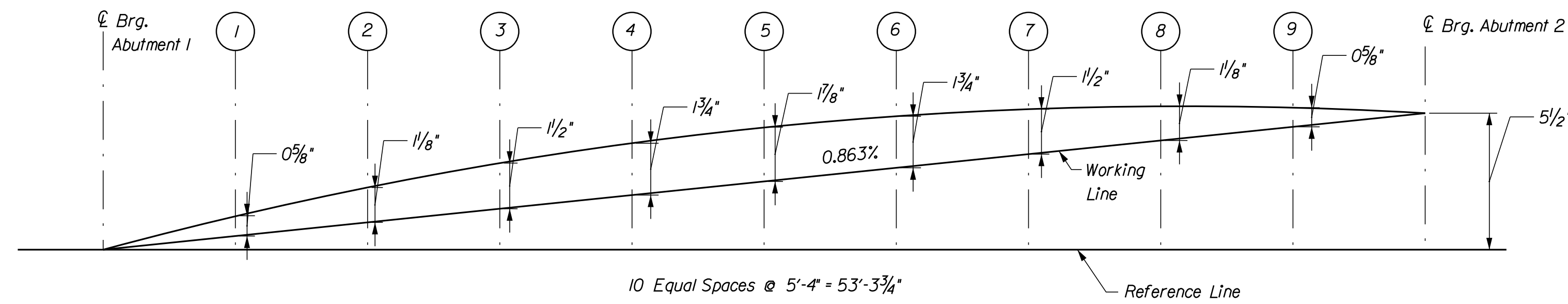
Contractor Selected Preformed Joint Filler or Sealant System Adequate to Contain the Cast-in-Place Deck Concrete During Placement. Foam Backer Rod Shown. Flexible Sealant Strip or Similar may be Required

**PRECAST JOINT DETAIL**

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE PLANS	
		018959.00		WIN 18959.00	
		BRIDGE No. 5315			
PROJ. MANAGER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER
DESIGN DETAILED: AIT	9/2020	WFC	9/2020		
CHECKED/REVIEWED: AIT		AIT			
DESIGNS DETAILED:					
DESIGNS DETAILED:					
REVISIONS 1:					
REVISIONS 2:					
REVISIONS 3:					
REVISIONS 4:					
FIELD CHANGES					
TWIN BRIDGE					
WEST BRANCH SOUADABCOOK STREAM					
HAMPDEN PENOBSCOT COUNTY					
DECK REINFORCING DETAILS					
SHEET NUMBER					
32					
OF 37					



TRANSVERSE SECTION



CAMBER DIAGRAM

TOP OF PRECAST ELEVATIONS (FT)						
GIRDER	Span - 1/5th Points					Brg. Abut. 2
	Brg. Abut. 1	1	2	3	4	
G1	193.57	193.68	193.78	193.88	193.97	194.07
G2	193.30	193.40	193.50	193.60	193.69	193.78
G3	193.05	193.15	193.24	193.34	193.43	193.52
G4	192.78	192.87	192.97	193.06	193.15	193.23
G5	192.53	192.62	192.71	192.80	192.88	192.97
G6	192.26	192.35	192.45	192.53	192.61	192.68

CALCULATED BEAM DEFLECTIONS (IN)											
	Brg. Abut. 1	1	2	3	4	5	6	7	8	9	Brg. Abut. 2
MODULE DEAD LOAD	0.00	0.29	0.54	0.73	0.84	0.88	0.84	0.73	0.54	0.29	0.00
FLUID CONCRETE DEAD LOAD	0.00	0.55	1.01	1.35	1.57	1.64	1.57	1.35	1.01	0.55	0.00
SUPERIMPOSED DEAD LOAD	0.00	0.04	0.07	0.10	0.12	0.12	0.12	0.10	0.07	0.04	0.00
VERTICAL CURVE ORDINATE	0.00	-0.27	-0.48	-0.63	-0.72	-0.75	-0.72	-0.63	-0.48	-0.27	0.00
TOTAL	0.00	0.61	1.14	1.55	1.80	1.88	1.80	1.55	1.14	0.61	0.00

Notes:

- The shoulder widths will vary. Values indicated on the transverse section are the shoulder widths at the abutments.
- Camber ordinates are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
- The top surface of the precast shall be raked to a surface roughness of 1/4 inch, except at the fifth point increments along the centerline of each beam. At these locations a flattened area of sufficient size shall be left to facilitate taking elevations.

PROJ. MANAGER	DATE	BY	M. WIGHT	DATE
DESIGN DETAILED AIT	9/2020	WFC		
CHECKED/REVIEWED AIT	9/2020	AIT		
DESIGN DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

TWIN BRIDGE  
WEST BRANCH SOUADABCOOK STREAM  
HAMPDEN PENOBSCOT COUNTY  
TRANSVERSE SECTION  
& DEFLECTIONS

SHEET NUMBER

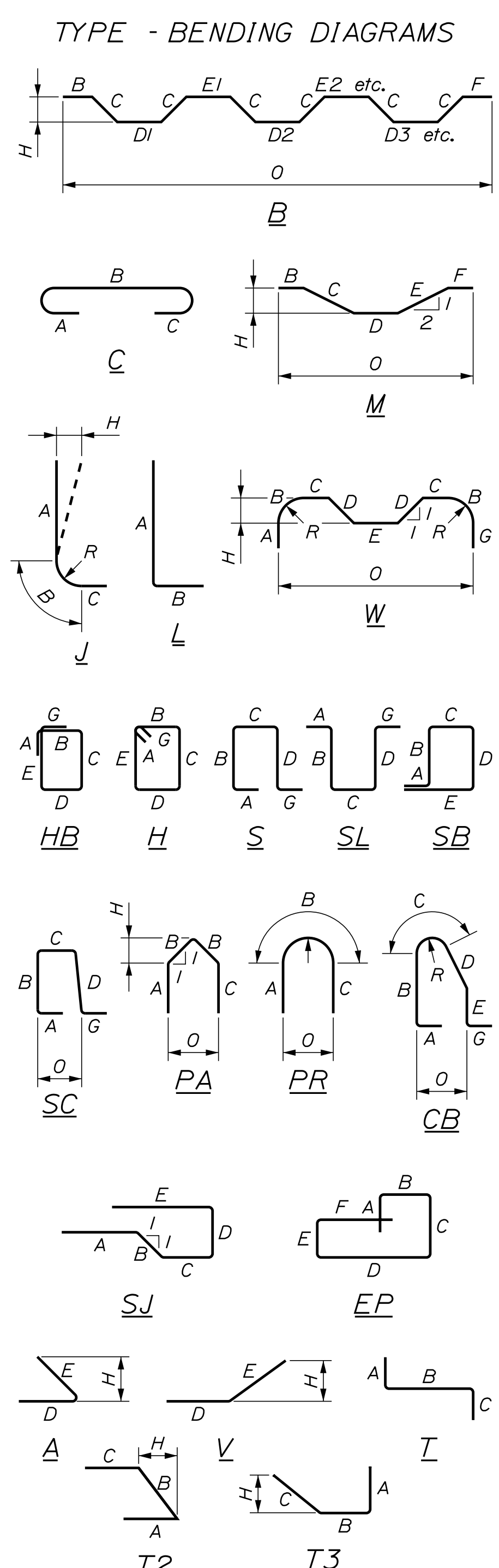
33

Date: 11/19/2020

Username:

Filename: ... \034\_Reinforcing Schedule 1 of 2.dgn Division: BRIDGE

STRAIGHT BARS							BENT BARS																				
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION					
Superstructure							Approach Slab - Plain							Superstructure - Stainless Steel													
S500g	80	32'-4"	Longitudinal Deck	AS50I	32	28'-2"	Transverse	S550s	160	5'-1"	SC	10"	1'-2"	1'-4"	1'-2"	-	-	10"	-	1'-5"	-	Curb Stirrups					
S501g	80	27'-1"	Longitudinal Deck	AS60I	110	15'-0"	Longitudinal	S551s	8	5'-1"	S	0"	1'-9"	1'-9"	1'-9"	-	-	-	-	-	-	End Diaphragm Stirrups					
S502g	113	32'-9/2"	Bottom Transverse Deck					S552s	12	7'-3"	S	10"	2'-4"	4'-3"	-	-	-	-	-	-	-	Diaphragm to Deck Stirrups					
S503g	113	32'-9/2"	Top Transverse Deck					S554s	224	7'-1 1/2"	C	5"	6'-6"	-	-	-	-	-	-	-	-	Deck Overhang					
S504s	12	29'-8"	Brush Curb																								
S505s	24	3'-0"	Seat Dowels																								
Precast Superstructure							Precast Superstructure - Stainless Steel																				
PC500s	16	11'-9/2"	End Diaphragm Ext. Units					PC550s	12	5'-7 1/2"	S	-	10"	4'-1 1/2"	10"	-	-	-	-	-	-	Precast Transverse Stirrups					
PC501s	8	12'-9/2"	End Diaphragm Int. Units					PC551s	40	5'-1"	S	-	1'-9"	1'-9"	1'-9"	-	-	-	-	-	-	Precast End Diaphragm Stirrups					
								PC552s	70	7'-3"	S	10"	2'-4"	4'-3"	-	-	-	-	-	-	-	Diaphragm to Deck Stirrups					
								PC553s	16	3'-7"	L	2'-9"	10"	-	-	-	-	-	-	-	-	Precast-Closure Pour					
Abutment No. 1							Abutment No. 1																				
A500	29	3'-0"	Seal-Footing Dowel Bars					A550	19	11'-0"	S	-	2'-0"	7'-0"	2'-0"	-	-	-	-	-	-	WW Ftg. Transverse Bottom					
A501	16	13'-9"	West Wingwall Ftg. Longitudinal					A551	34	13'-0"	S	-	2'-0"	9'-0"	2'-0"	-	-	-	-	-	-	Abutment Ftg. Transverse Bottom					
A502	16	11'-8"	East Wingwall Ftg. Longitudinal					A552	13	9'-0"	L	7'-0"	2'-0"	-	-	-	-	-	-	-	-	WW Ftg. Transverse Bottom					
A503	20	38'-1"	Abutment Ftg. Longitudinal					A553	5	11'-0"	L	9'-0"	2'-0"	-	-	-	-	-	-	-	-	Abutment Ftg. Transverse Bottom					
A504	67	7'-4"	Abutment NF Vertical Bars					A554	2	4'-0"	V	-	-	-	2'-0"	2'-0"	-	-	1'-7"	-	-	West WW and Abut. Splice Steel					
A505	20	36'-0"	Abutment Stem Longitudinal Bars					A555	2	4'-0"	V	-	-	-	2'-0"	2'-0"	-	-	1'-9"	-	-	East WW and Abut. Splice Steel					
A506	9	9'-1"	Abutment Stem East Vertical Bars					A556	96	5'-9"	L	4'-9"	1'-0"	-	-	-	-	-	-	-	-	FF Stem and Ftg.					
A507	18	28'-3"	Stem Longitudinal Bars					A557	58	10'-2"	S	-	3'-6"	3'-2"	3'-6"	-	-	-	-	-	-	Abutment Stem Top					
A508	10	8'-3"	West WW NF Vertical Bars					A558	1	5'-2"	S	-	2'-0"	1'-2"	2'-0"	-	-	-	-	-	-	West WW Stem Top					
A509	18	8'-8"	West WW Stem Longitudinal Bars					A559	1	5'-8"	S	-	2'-3"	1'-2"	2'-3"	-	-	-	-	-	-	West WW Stem Top					
A510	2	2'-9"	West WW Stem Longitudinal Bars					A560	1	6'-2"	S	-	2'-6"	1'-2"	2'-6"	-	-	-	-	-	-	West WW Stem Top					
A511	8	8'-1"	East WW NF Vertical Bars					A561	1	6'-8"	S	-	2'-9"	1'-2"	2'-9"	-	-	-	-	-	-	West WW Stem Top					
A512	18	6'-4"	East WW Stem Longitudinal Bars					A562	1	7'-2"	S	-	3'-0"	1'-2"	3'-0"	-	-	-	-	-	-	West WW Stem Top					
A513	2	2'-2"	West WW Stem Longitudinal Bars					A563	1	7'-8"	S	-	3'-3"	1'-2"	3'-3"	-	-	-	-	-	-	West WW Stem Top					
A514	2	3'-7"	West WW Stem Longitudinal Bars					A564	1	8'-2"	S	-	3'-6"	1'-2"	3'-6"	-	-	-	-	-	-	West WW Stem Top					
A515	2	5'-0"	West WW Stem Longitudinal Bars					A565	1	8'-8"	S	-	3'-9"	1'-2"	3'-9"	-	-	-	-	-	-	West WW Stem Top					
A516	9	7'-8"	Abutment Stem West Vertical Bars					A566	1	9'-2"	S	-	4'-0"	1'-2"	4'-0"	-	-	-	-	-	-	West WW Stem Top					
A517	2	6'-3"	West WW Longitudinal Bars					A567	1	9'-8"	S	-	4'-3"	1'-2"	4'-3"	-	-	-	-	-	-	West WW Stem Top					
A518	36	8'-2"	Abutment Stem Longitudinal Bar					A568	2	11'-1"	V	-	-	-	0'-9"	8'-2"	-	-	2'-2"	-	-	West WW Top Longitudinal Bars					
A519	25	4'-9"	Cheekwall Vertical Bars					A569	1	5'-2"	S	-	2'-0"	1'-2"	2'-0"	-	-	-	-	-	-	East WW Stem Top					
A600	67	7'-4"	Abutment FF Vertical Bars					A570	1	6'-2"	S	-	2'-6"	1'-2"	2'-6"	-	-	-	-	-	-	East WW Stem Top					
A601	4	9'-1"	Abutment Stem East Vertical Bars					A571	1	7'-4"	S	-	3'-1"	1'-2"	3'-1"	-	-	-	-	-	-	East WW Stem Top					
A602	19	8'-3"	West WW FF Vertical Bars					A572	1	8'-6"	S	-	3'-8"	1'-2"	3'-8"	-	-	-	-	-	-	East WW Stem Top					
A603	14	8'-1"	East WW FF Vertical Bars					A573	1	9'-8"	S	-	4'-3"	1'-2"	4'-3"	-	-	-	-	-	-	East WW Stem Top					
A604	3	7'-8"	Abutment Stem West Vertical Bars					A574	1	10'-10"	S	-	4'-10"	1'-2"	4'-10"	-	-	-	-	-	-	East WW Stem Top					
								A575	1	11'-10"	S	-	5'-4"	1'-2"	5'-4"	-	-	-	-	-	-	East WW Stem Top					
								A576	1	13'-0"	S	-	5'-11"	1'-2"	5'-11"	-	-	-	-	-	-	East WW Stem Top					
								A577	2	7'-6"	V	-	-	-	0'-9"	6'-9"	-	-	3'-10"	-	-	East WW Top Longitudinal Bars					
								A578	36	8'-1"	V	-	-	-	3'-6"	4'-7"	-	-	3'-6"	-	-	Stem to WW Corner Bars					
								A579	36	8'-0"	V	-	-	-	3'-6"	4'-6"	-	-	3'-11"	-	-	Stem to WW Corner Bars					
								A580	10	9'-8"	S	-	3'-6"	2'-8"	3'-6"	-	-	-	-	-	-	U-Bar Abutment Stem Top					
								A581	4	4'-11"	T3	1'-2"	2'-4"	1'-5"	-	-	-	-	1'-1"	-	-	West Cheekwall					
								A582	4	5'-5"	T2	1'-5"	2'-8"	1'-4"	-	-	-	-	0'-8"	-	-	West Cheekwall					
								A583	3	6'-0"	V	-	-	-	1'-5"	4'-7"	-	-	3'-6"	-	-	West Cheekwall					
								A584	3	3'-6"	V	-	-	-	1'-5"	2'-1"	-	-	1'-7"	-	-	West Cheekwall					
								A585	4	5'-4"	T3	2'-4"	1'-3"	1'-9"	-	-	-	-	0'-11"	-	-	East Cheekwall					
								A586	4	5'-5"	T2	1'-9"	2'-8"	1'-0"	-	-	-	-	0'-8"	-	-	East Cheekwall					
								A587	3	5'-6"	V	-	-	-	1'-0"	4'-6"	-	-	3'-11"	-	-	East Cheekwall					
								A588	3	4'-0"	V	-	-	-	1'-11"	2'-1"	-	-	1'-9"	-	-	East Cheekwall					
								A589	2	5'-8"	S	-	2'-0"	1'-8"	2'-0"	-	-	-	-	-	-	Cheekwall Top					
								A590	2	6'-1"	S	-	2'-0"	2'-1"	2'-0"	-	-	-	-	-	-	Cheekwall Top					
								A591	18	5'-2"	S	-	2'-0"	1'-2"	2'-0"	-	-	-	-	-	-	Wingwall End U-Bars					
								A650	15	11'-0"	S	-	2'-0"	7'-0"	2'-0"	-	-	-	-	-	-	WW Ftg. Top Transverse					
								A651	34	13'-0"	S	-	2'-0"	9'-0"	2'-0"	-	-	-	-	-	-	Abutment Ftg. Top Transverse					
								A652	13	9'-0"	L	7'-0"	2'-0"	-	-	-	-	-	-	-	-	WW Ftg. Top Transverse					
								A653	5	11'-0"	L	9'-0"	2'-0"	-	-	-	-	-	-	-	-	Abutment Ftg. Top Transverse					
								A654	107	5'-9"	L	4'-9"	1'-0"	-	-	-	-	-	-	-	-	Abutment FF Stem and Ftg.					



All dimensions are out-to-out of bar.  
 Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.  
 Reinforcing Bar: ASTM A 615/A 615M, Grade 60

**GENERAL NOTES**

- The first two digits following the letter(s) of the mark indicate the size of the bar:  
 Mark "A502" = bar size #5  
 Mark "P805" = bar size #8  
 Mark "S650" = bar size #6
- Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case will be based on crank bars as scheduled on the plans.
- Bar marks ending with an "e" indicate epoxy coating required. Bar marks ending with an "s" indicate stainless steel bar is required. Bar marks ending with a "g" indicate Glass Fiber Reinforced Polymer (GFRP) bar is required.

**STATE OF MAINE**  
**DEPARTMENT OF TRANSPORTATION**  
**018959.00**  
**WIN**  
**18959.00**  
 BRIDGE No. 5315  
 BRIDGE PLANS

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**TWIN BRIDGE**  
**WEST BRANCH SOUADABCOOK STREAM**  
**PENOBSCOT COUNTY**  
**REINFORCING SCHEDULE**  
**1 OF 2**

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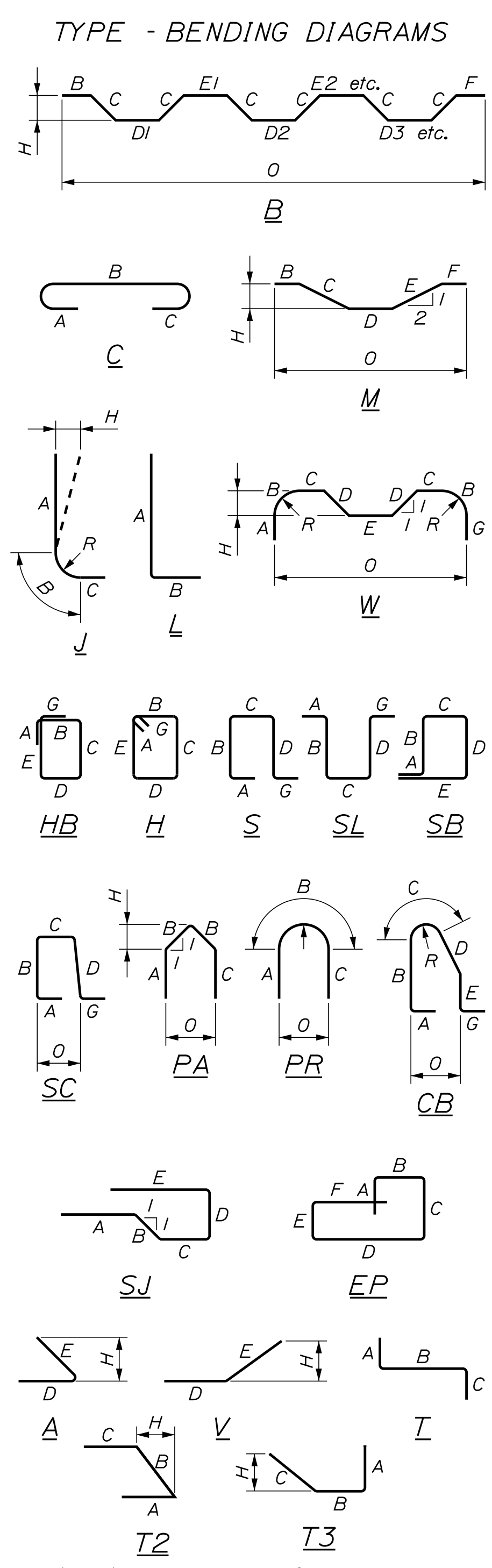
SHEET NUMBER  
**34**  
 OF 37

Date: 11/3/2020

Username:

Filename: ... \035\_Reinforcing Schedule 2 of 2.dgn Division: BRIDGE

STRAIGHT BARS				BENT BARS																		
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
Abutment No. 2				Abutment No. 2																		
B500	29	3'-0"	Seal-Footing Dowel Bars	B550	22	11'-0"	S			2'-0"	7'-0"	2'-0"										WW Ftg. Transverse Bottom
B501	16	14'-2"	East Wingwall Ftg. Longitudinal	B551	33	13'-0"	S			2'-0"	9'-0"	2'-0"										Abutment Ftg. Transverse Bottom
B502	16	13'-9"	West Wingwall Ftg. Longitudinal	B552	11	9'-0"	L			2'-0"												WW Ftg. Transverse Bottom
B503	20	37'-3"	Abutment Ftg. Longitudinal	B553	4	11'-0"	L	7'-0"	2'-0"													Abutment Ftg. Transverse Bottom
B504	67	7'-9"	Abutment NF Vertical Bars	B554	2	4'-0"	V	9'-0"				2'-0"	2'-0"					1'-11"				West WW and Abut. Splice Steel
B505	19	37'-2"	Abutment Stem NF Longitudinal	B555	2	4'-0"	V					2'-0"	2'-0"					1'-2"				East WW and Abut. Splice Steel
B506	19	28'-4"	Abutment Stem FF Longitudinal	B556	97	5'-9"	L			1'-0"												NF Stem and Ftg.
B508	10	7'-9"	West WW NF Vertical Bars	B557	58	10'-2"	S	4'-9"	3'-6"	3'-2"	3'-6"											Abutment Stem Top
B509	16	8'-2"	West WW Stem Longitudinal Bars	B558	1	5'-2"	S			2'-0"	1'-2"	2'-0"										West WW Stem Top
B510	2	7'-9"	West WW Stem Longitudinal Bars	B559	1	5'-10"	S			2'-4"	1'-2"	2'-4"										West WW Stem Top
B511	2	5'-5"	West WW Stem Longitudinal Bars	B560	1	6'-8"	S			2'-9"	1'-2"	2'-9"										West WW Stem Top
B512	2	3'-1"	West WW Longitudinal Bars	B561	1	7'-4"	S			3'-1"	1'-2"	3'-1"										West WW Stem Top
B513	11	8'-0"	East WW NF Vertical Bars	B562	1	8'-0"	S			3'-5"	1'-2"	3'-5"										West WW Stem Top
B514	18	8'-11"	East WW Stem Longitudinal Bars	B563	1	8'-8"	S			3'-9"	1'-2"	3'-9"										West WW Stem Top
B515	2	7'-1"	East WW Stem Longitudinal Bars	B564	1	9'-6"	S			4'-2"	1'-2"	4'-2"										West WW Stem Top
B516	2	5'-3"	East WW Stem Longitudinal Bars	B565	1	10'-2"	S			4'-6"	1'-2"	4'-6"										West WW Stem Top
B517	2	3'-5"	East WW Stem Longitudinal Bars	B566	1	10'-10"	S			4'-10"	1'-2"	4'-10"										West WW Stem Top
B518	2	1'-8"	East WW Longitudinal Bars	B567	1	11'-8"	S			5'-3"	1'-2"	5'-3"										West WW Stem Top
B519	38	8'-5"	Abutment FF Longitudinal Bars	B568	2	8'-9"	V					0'-9"	8'-0"						3'-1"			West WW Top Longitudinal Bars
B520	20	4'-9"	Cheekwall Vertical Bars	B569	16	5'-2"	S			2'-0"	1'-2"	2'-0"										Wingwall End U-Bars
B522	6	9'-7"	Abutment Stem East Vertical Bars	B570	1	5'-2"	S			2'-0"	1'-2"	2'-0"										East WW Stem Top
B523	8	8'-1"	Abutment Stem West Vertical Bars	B571	1	6'-0"	S			2'-5"	1'-2"	2'-5"										East WW Stem Top
B600	67	7'-9"	Abutment FF Vertical Bars	B572	1	7'-0"	S			2'-11"	1'-2"	2'-11"										East WW Stem Top
B601	3	9'-7"	Abutment Stem East Vertical Bars	B573	1	7'-10"	S			3'-4"	1'-2"	3'-4"										East WW Stem Top
B602	18	7'-9"	West WW FF Vertical Bars	B574	1	8'-10"	S			3'-10"	1'-2"	3'-10"										East WW Stem Top
B603	19	8'-0"	East WW FF Vertical Bars	B575	1	9'-8"	S			4'-3"	1'-2"	4'-3"										East WW Stem Top
B604	3	8'-1"	Abutment Stem West Vertical Bars	B576	1	10'-8"	S			4'-9"	1'-2"	4'-9"										East WW Stem Top
				B577	1	11'-6"	S			5'-2"	1'-2"	5'-2"										East WW Stem Top
				B578	1	12'-4"	S			5'-7"	1'-2"	5'-7"										East WW Stem Top
				B579	1	13'-4"	S			6'-1"	1'-2"	6'-1"										East WW Stem Top
				B580	1	14'-2"	S			6'-6"	1'-2"	6'-6"										East WW Stem Top
				B581	2	10'-0"	V					0'-9"	9'-3"						4'-5"			East WW Top Longitudinal Bars
				B585	9	9'-8"	S			3'-6"	2'-8"	3'-6"										Abutment Stem Tops
				B586	3	3'-9"	V					1'-8"	2'-1"						1'-11"			West WW and Abutment Splice
				B587	3	5'-9"	V					1'-3"	4'-6"						4'-3"			West WW and Abutment Splice
				B588	4	4'-9"	T3	1'-3"	2'-3"	1'-3"									1'-2"			West Cheekwall Transverse Bar
				B589	4	5'-3"	T2	1'-4"	2'-8"	1'-3"									0'-8"			West Cheekwall Transverse Bar
				B590	38	8'-0"	V					3'-6"	4'-6"						4'-3"			West WW and Abutment Splice
				B591	38	8'-6"	V					3'-6"	5'-0"						2'-10"			East WW and Abutment Splice
				B592	1	5'-9"	S			2'-0"	1'-9"	2'-0"										West Cheekwall Top
				B593	3	3'-2"	V					1'-5"	1'-9"						1'-0"			East WW and Abutment Splice
				B594	3	5'-3"	V					0'-6"	4'-9"						2'-9"			East WW and Abutment Splice
				B595	4	5'-4"	T3	2'-10"	1'-2"	1'-4"									1'-1"			East Cheekwall Transverse Bar
				B596	4	4'-6"	T2	0'-5"	2'-8"	1'-5"									0'-8"			East Cheekwall Transverse Bar
				B597	1	6'-3"	S			2'-0"	2'-3"	2'-0"										West Cheekwall Top
				B598	1	5'-2"	S			2'-0"	1'-2"	2'-0"										East Cheekwall Top
				B599	1	5'-9"	S			2'-0"	1'-9"	2'-0"										East Cheekwall Top
				B650	18	11'-0"	S			2'-0"	7'-0"	2'-0"										WW Ftg. Top Transverse
				B651	33	13'-0"	S			2'-0"	9'-0"	2'-0"										Abutment Ftg. Top Transverse
				B652	11	9'-0"	L	7'-0"	2'-0"													WW Ftg. Top Transverse
				B653	4	11'-0"	L	9'-0"	2'-0"													Abutment Ftg. Top Transverse
				B654	110	5'-9"	L	4'-9"	1'-0"													Abutment FF Stem and Ftg.



All dimensions are out-to-out of bar.  
 Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A 615/A 615M, Grade 60

- GENERAL NOTES**
- The first two digits following the letter(s) of the mark indicate the size of the bar:  
 Mark "A502" = bar size #5  
 Mark "P805" = bar size #8  
 Mark "S650" = bar size #6
  - Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case will be based on crank bars as scheduled on the plans.
  - Bar marks ending with an "e" indicate epoxy coating required. Bar marks ending with an "s" indicate stainless steel bar is required. Bar marks ending with a "g" indicate Glass Fiber Reinforced Polymer (GFRP) bar is required.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 018959.00  
 WIN  
 18959.00  
 BRIDGE No. 5315  
 BRIDGE PLANS

PROJ. MANAGER	DATE	BY	DATE	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	CHECKED-REVIEWED
	1/2020	TWP	1/2020																				

TWIN BRIDGE  
 WEST BRANCH SOUADABCOOK STREAM  
 PENOBSCOT COUNTY  
**REINFORCING SCHEDULE**  
 2 OF 2

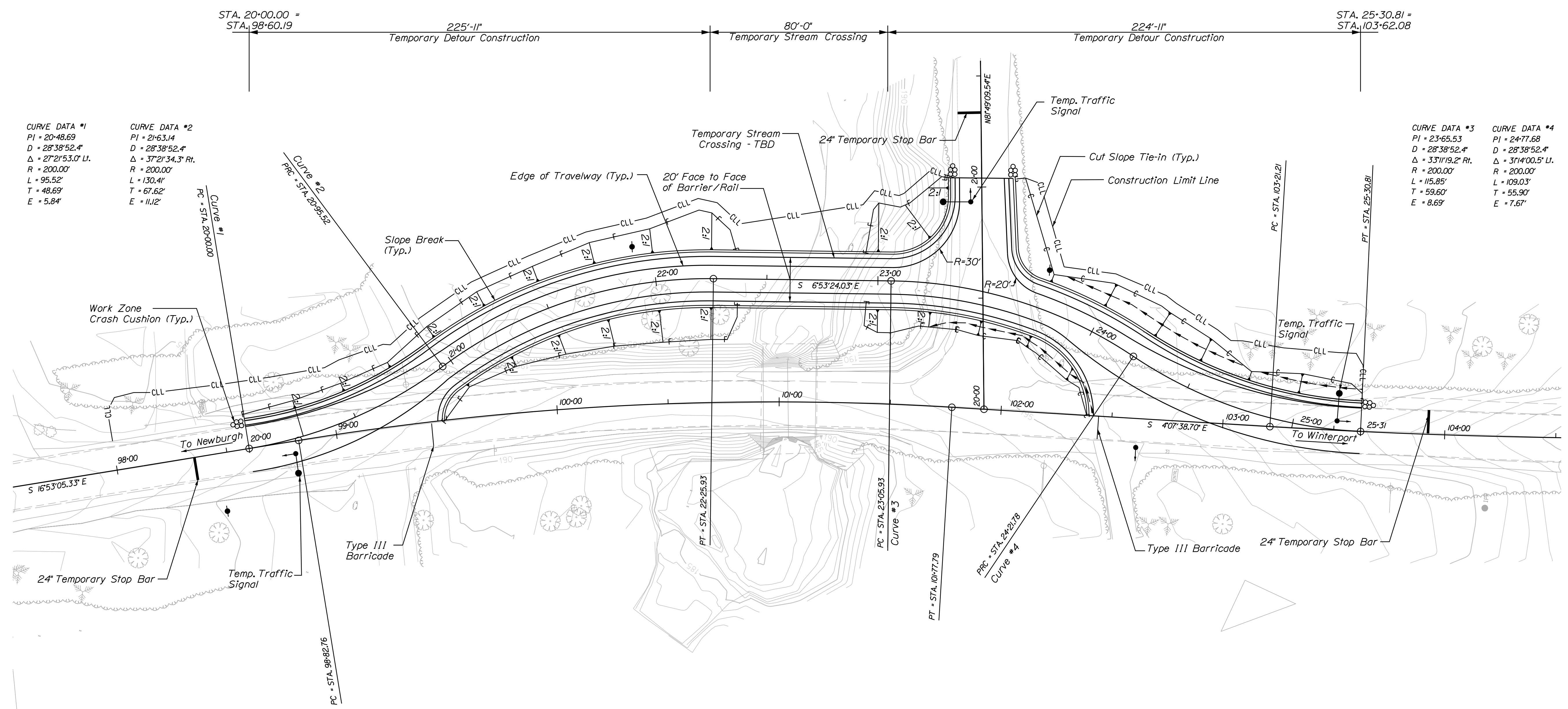
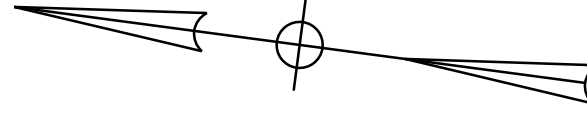
SHEET NUMBER  
**35**  
 OF 37

Date: 11/20/2020

Username:

Division:

Filename: ... \18959\CAD\036\_Detour Plan.dgn

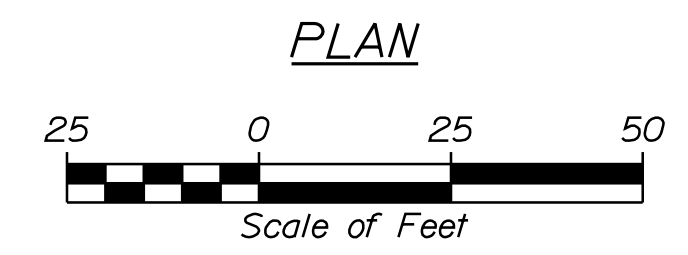


CURVE DATA #1  
 PI = 20+48.69  
 D = 28°38'52.4"  
 Δ = 27°21'53.0" Lt.  
 R = 200.00'  
 L = 95.52'  
 T = 48.69'  
 E = 5.84'

CURVE DATA #2  
 PI = 21+63.14  
 D = 28°38'52.4"  
 Δ = 37°21'34.3" Rt.  
 R = 200.00'  
 L = 130.41'  
 T = 67.62'  
 E = 11.12'

CURVE DATA #3  
 PI = 23+65.53  
 D = 28°38'52.4"  
 Δ = 33°11'19.2" Rt.  
 R = 200.00'  
 L = 115.85'  
 T = 59.60'  
 E = 8.69'

CURVE DATA #4  
 PI = 24+77.68  
 D = 28°38'52.4"  
 Δ = 31°14'00.5" Lt.  
 R = 200.00'  
 L = 109.03'  
 T = 55.90'  
 E = 7.67'



NOTE: THIS DETOUR PLAN IS CONCEPTUAL AND FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTINUOUS AND EFFECTIVE TRAFFIC CONTROL AS WELL AS THE SUBMISSION OF A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH SECTION 652. THE DESIGN OF THE DETOUR IS THE RESPONSIBILITY OF THE CONTRACTOR.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		018959.00	
TWIN BRIDGE WEST BRANCH SOUADABSCOOK STREAM HAMPDEN PENOBSCOT COUNTY		WIN 18959.00	
CONCEPTUAL DETOUR PLAN		BRIDGE No. 5315 BRIDGE PLANS	
SHEET NUMBER		36	
OF 37			

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	KLH	KLH	11/20/20
CHECKED-REVIEWED	TCH	AMS	11/20/20
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DATE	SIGNATURE	P.E. NUMBER	DATE

Town, County, State \_\_\_\_\_  
 Approx. Property Lines \_\_\_\_\_  
 Existing Right of Way \_\_\_\_\_  
 Limits of Wrought Portion \_\_\_\_\_  
 Control Of Access \_\_\_\_\_  
 New Right of Way \_\_\_\_\_  
 New Easement \_\_\_\_\_  
 New Temporary Rights \_\_\_\_\_  
 New R/W Within Existing R/W \_\_\_\_\_

New R/W Along Existing R/W \_\_\_\_\_  
 Building \_\_\_\_\_  
 Trees Conifer \_\_\_\_\_  
 Tree Line \_\_\_\_\_  
 Water Edge \_\_\_\_\_  
 Ledge \_\_\_\_\_  
 Fence \_\_\_\_\_  
 Sign \_\_\_\_\_

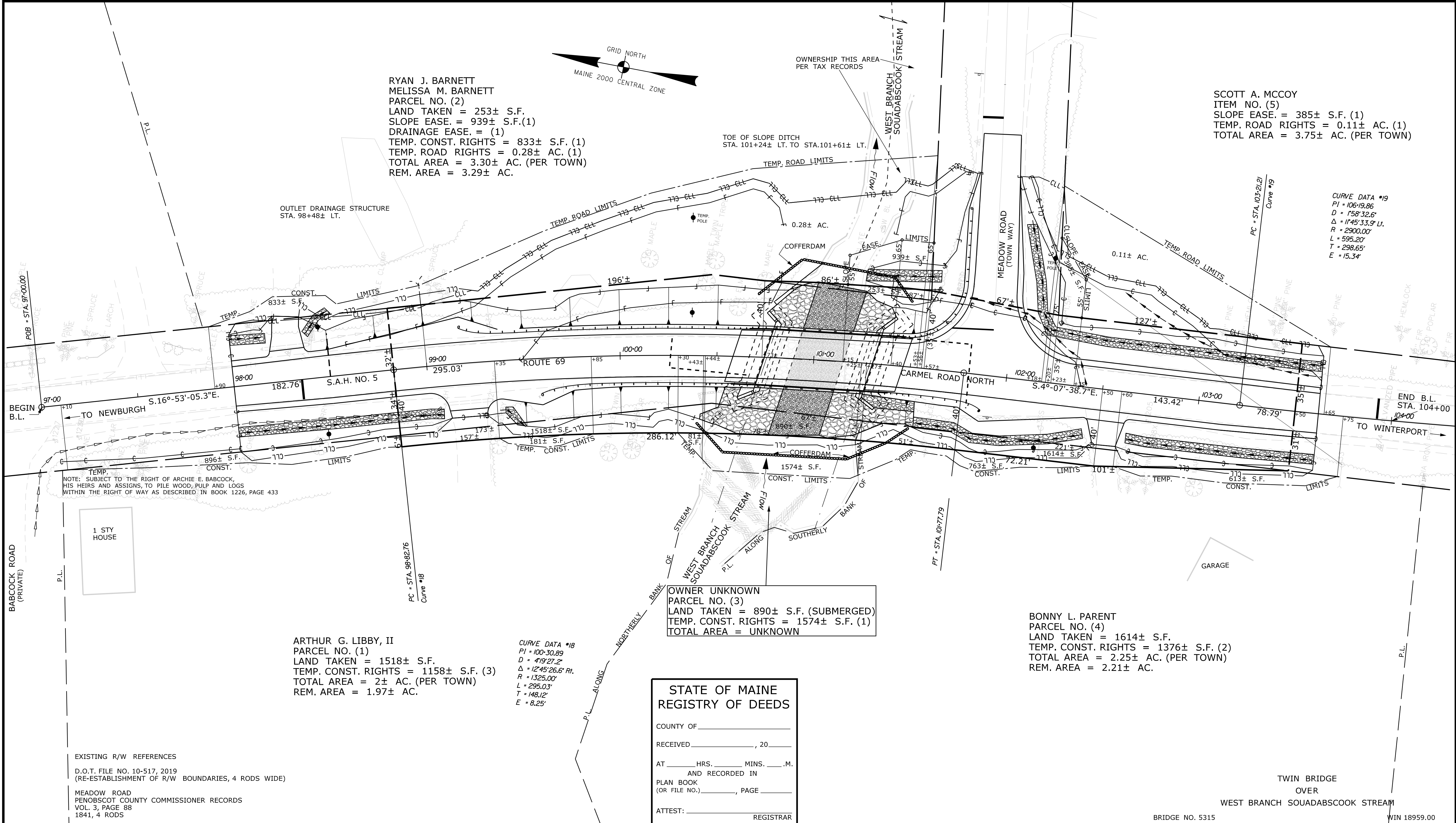
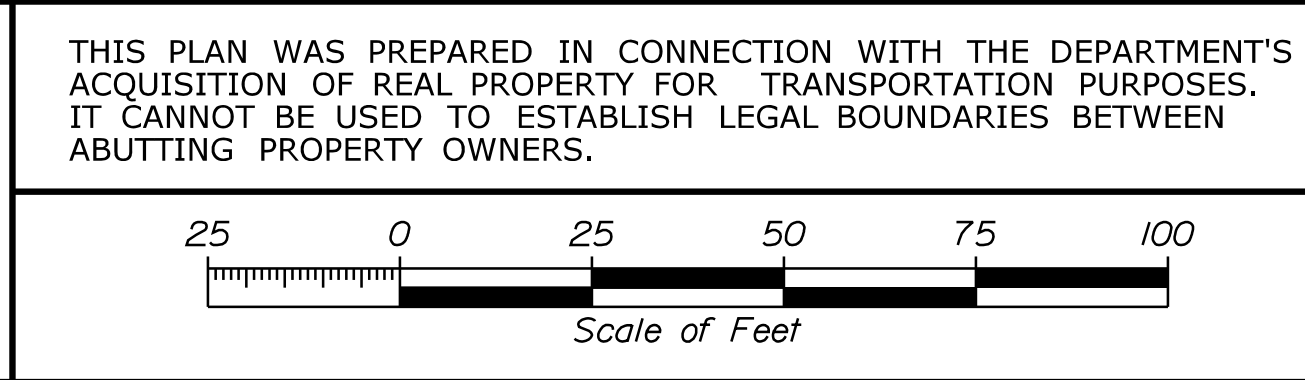
Clearing Limit Line \_\_\_\_\_  
 Deciduous \_\_\_\_\_  
 Bush Line \_\_\_\_\_  
 Rock/Boulder \_\_\_\_\_  
 Flag Pole \_\_\_\_\_  
 BARB WIRE \_\_\_\_\_  
 STOCKADE \_\_\_\_\_  
 WELL \_\_\_\_\_  
 Mailbox \_\_\_\_\_

**PLAN LEGEND**  
 Existing Proposed  
 Sanitary Sewer \_\_\_\_\_  
 Telephone Line \_\_\_\_\_  
 Electric Line \_\_\_\_\_  
 Water Line \_\_\_\_\_  
 Underdrain Line \_\_\_\_\_  
 Gas Line \_\_\_\_\_  
 Guardrail \_\_\_\_\_  
 Culvert \_\_\_\_\_

Travelled Way \_\_\_\_\_  
 Ditch \_\_\_\_\_  
 Catch Basin \_\_\_\_\_  
 Manhole \_\_\_\_\_  
 Sewer Manhole \_\_\_\_\_  
 Utility Pole \_\_\_\_\_  
 Fire Hydrant \_\_\_\_\_  
 Curbing \_\_\_\_\_

Cut Line \_\_\_\_\_  
 Stonewall \_\_\_\_\_  
 Baseline \_\_\_\_\_  
 Monument \_\_\_\_\_  
 Iron Rod Found \_\_\_\_\_  
 Replacement Pin Set \_\_\_\_\_

STATE OF MAINE  
 REGISTRY OF DEEDS  
 COUNTY \_\_\_\_\_  
 RECEIVED \_\_\_\_\_  
 at \_\_\_\_\_ h \_\_\_\_\_ m \_\_\_\_\_ M and recorded in  
 Plan Book \_\_\_\_\_, Page \_\_\_\_\_  
 Attest: \_\_\_\_\_ REGISTER



EXISTING R/W REFERENCES  
 D.O.T. FILE NO. 10-517, 2019  
 (RE-ESTABLISHMENT OF R/W BOUNDARIES, 4 RODS WIDE)  
 MEADOW ROAD  
 PENOBSCOT COUNTY COMMISSIONER RECORDS  
 VOL. 3, PAGE 88  
 1841, 4 RODS

NO.	DATE	REVISIONS	DESCRIPTION	BY

PLAN FILED IN	PLAN BOOK	PAGE	COUNTY RECORD
NO.	GRANTOR	INSTRUMENT	DATE

BRUCE A. VAN NOTE  
 COMMISSIONER  
 JOYCE NOEL TAYLOR  
 CHIEF ENGINEER  
 DATE \_\_\_\_\_

STATE AID HIGHWAY NO. 5  
 ROUTE 69 CARMEL ROAD NORTH  
 HAMPDEN PENOBSCOT COUNTY  
 STATE PROJECT NO. 18959.00

SHEET NUMBER  
**37**  
 OF 37

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN	G.L.L.	P.A.B.
FINAL RIGHT OF WAY	BDM	BDM
AREAS	BDM	BDM

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460  
 HAMPDEN  
 RIGHT OF WAY MAP

Filename: ... \00\ROW\MSTA001\_RWPLAN1.dgn  
 Division: ROW  
 Username: Betina.Martin  
 Date: 11/9/2020