

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

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

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2022) AADT 4,800
Future (2042) AADT 5,280
DHV - % of AADT 11%
Design Hour Volume 581
Heavy Trucks (% of AADT) 4%
Heavy Trucks (% of DHV) 1%
Directional Distribution (% of DHV) 64%
18 kip Equivalent P 2.0 54
18 kip Equivalent P 2.5 52
Design Speed (mph) 25

MATERIALS

Concrete:
Curbs, Sidewalks & Transition Barriers Class "LP"
Interface of Right Moment Slab with Abutment No. 1 Class "Fill"
All Other Class "A"

Reinforcing Steel:
Low-Carbon Chromium Reinforcing ASTM A1035, Grade 100
Glass Fiber Reinforcing Polymer (GFRP) ASTM D7957

Structural Steel:
All Material (except as noted) ASTM A 709, Grade 50 (metallized/galvanized)
High Strength Bolts ASTM F3125, Grade A325, Type 1 (galvanized)

CT Girder
Tensile Strength ASTM D3039
Shear Strength ASTM D7078

BASIC DESIGN STRESSES

Concrete:
Class "LP" f'c = 5,000 psi
Class "Fill" f'c = 3,000 psi
Class "A" f'c = 4,000 psi

Reinforcing Steel:
Low-Carbon Chromium Reinforcing f y = 100,000 psi
Glass Fiber Reinforcing Polymer (GFRP) f fu = 100,000 psi
Minimum Elastic Modulus E f = 6,500,000 psi
Minimum Nominal Design Tensile Strain: ε f u = 1.1%

Structural Steel:
ASTM A 709, Grade 50 F y = 50,000 psi
ASTM A 709, Grade 36 F y = 36,000 psi
ASTM F 3125, Grade A 325 F μ = 120,000 psi

CT Girder:
Ultimate Tensile Stress 120,000 psi
Ultimate Tensile Strain 0.010 in/in
Ultimate Shear Stress 10,000 psi

UTILITIES

Consolidated Communications
City of Augusta (Street Lighting)
Greater Augusta Utility District (Combined Sewer)

AUGUSTA
KENNEBEC COUNTY
RINES HILL BRIDGE
OVER
OLD MAINE
CENTRAL RAILROAD
WATER STREET
STATE PROJECT NO. 21872.00
PROJECT LENGTH 0.085 mi.
BRIDGE NO. 3528

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MAINTENANCE OF TRAFFIC

Maintain one lane of northbound traffic during staged construction. Detour southbound traffic. Maintain one sidewalk for pedestrian traffic across bridge during construction. Pedestrian and bus traffic will be closed below the bridge during construction. Access to City parking lots will be maintained at all times.

PROJECT LOCATION	In the City of Augusta, Rines Hill Bridge (#3528) over the old Maine Central Railroad, located on Water Street approximately 0.24 miles north easterly from Memorial Circle. 44°18'45" N, 69°46'31" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge superstructure replacement with 387' of approach work, including transitions.

WIN: 21872.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER:

CHIEF ENGINEER:

DATE
11-10-22
11-10-2022

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIGNATURE

P.E. NUMBER
12582

DATE
10/19/22

PROJECT INFORMATION
PROGRAM
BRIDGE PROGRAM
PROJECT MANAGER
ANDREW LATHE
DESIGNER
SARAH WILLIAMS
CONSULTANT
STANTEC
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

AUGUSTA
RINES HILL BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 84

Date:10/18/2022

Username: kwight

Division: BRIDGE

Filename: \\00\BRIDGE\WSTA\001_Title.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR (255 CY)	1	LS
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	360	CY
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	1	EA
202.202	REMOVING PAVEMENT SURFACE	1440	SY
202.31	PROFILE MILLING CONCRETE WEARING SURFACE	338	SY
203.20	COMMON EXCAVATION	490	CY
203.25	GRANULAR BORROW	730	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	860	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	410	CY
403.2081	HOT MIX ASPHALT - 12.5 MM (POLYMER MODIFIED)	160	T
403.209	HOT MIX ASPHALT - 9.5 MM (SIDEWALKS, DRIVES, & INCIDENTALS)	39	T
403.211	HOT MIX ASPHALT - SHIM	36	T
403.213	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE)	58	T
403.2131	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE POLYMER MODIFIED)	260	T
409.15	BITUMINOUS TACK COAT - APPLIED	113	G
502.21	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	620	CY
502.45	STRUCTURAL CONCRETE APPROACH SLAB	58	CY
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (79 CY)	1	LS
502.565	CONCRETE FILL	3	CY
503.17	MECHANICAL/WELDED SPLICE	68	EA
507.0834	WYOMING STEEL BRIDGE RAILING, MODIFIED (508 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (56 SY)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (557 SY)	1	LS
518.60	REPAIR OF VERTICAL SURFACES < 8 IN.	652	SF
518.61	REPAIR OF VERTICAL SURFACES ≥ 8 IN.	10	CY
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	PORTABLE CONCRETE BARRIER, TYPE I (520 LF)	1	LS
526.305	TEMPORARY CONCRETE BARRIER, BRACED TYPE I (200 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	2	EA
527.34	WORK ZONE CRASH CUSHIONS	2	UN
603.159	12 INCH CULVERT PIPE OPTION III	16	LF
603.175	18 INCH REINFORCED CONCRETE PIPE CLASS III	45	LF
604.072	CATCH BASIN TYPE A-C	1	EA
604.164	REBUILDING CATCH BASIN	1	EA
604.166	REBUILDING MANHOLE	1	EA
604.18	ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	3	EA
606.1301	31"W-BEAM GUARDRAIL, MID-WAY SPLICE - SINGLE FACED	12.50	LF
606.1307	BRIDGE TRANSITION (ASYMMETRICAL) - TYPE 1A	1	EA
606.259	ANCHORAGE ASSEMBLY	1	EA
607.17	CHAIN LINK FENCE - 6'	20	LF
609.11	VERTICAL CURB TYPE I	81	LF
609.12	VERTICAL CURB TYPE I-CIRCULAR	19	LF
609.221	TERMINAL CURB TYPE I	15	LF
609.26	CURB TRANSITION SECT B-TYPE I	1	EA
609.38	RESET CURB TYPE I	311	LF
613.319	EROSION CONTROL BLANKET	22	SY
615.07	LOAM	18	CY
618.14	SEEDING METHOD NUMBER 2	2	UN
619.12	MULCH	2	UN
619.14	EROSION CONTROL MIX	10	CY
626.11	PRECAST CONCRETE JUNCTION BOX	3	EA
626.21	METALLIC CONDUIT	60	LF
626.22	NON-METALLIC CONDUIT	464	LF
626.36	REMOVE OR MODIFY CONCRETE FOUNDATION	6	EA
626.411	18 INCH DIAMETER FOUNDATION	33	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	700	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	500	SF
627.77	REMOVING PAVEMENT MARKINGS	1100	SF
627.78	TEMPORARY 4" PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	3600	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL-PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	10	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	10	HR
634.160	HIGHWAY LIGHTING	1	LS
634.712	ORNAMENTAL LIGHT, INSTALL ONLY	1	EA
634.72	RELOCATE ORNAMENTAL LIGHTING	1	LS
639.18	FIELD OFFICE, TYPE A	1	EA
645.103	DEMOUNT GUIDE SIGN	3	EA
645.108	DEMOUNT POLE	3	EA
645.113	REINSTALL GUIDE SIGN	3	EA
645.118	REINSTALL POLE	3	EA
652.312	TYPE III BARRICADES	16	EA
652.33	DRUM	25	EA
652.34	CONE	25	EA
652.35	CONSTRUCTION SIGNS	196	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGERS	240	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	3	EA
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
803.01	TEST PITS	2	EA

ESTIMATED QUANTITIES - ITEMS SPECIFIC TO THE STEEL GIRDER ALTERNATE 1			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGES (148 CY)	1	LS
503.19	LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED	52900	LB
503.20	LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING	52900	LB
504.702	STRUCTURAL STEEL FABRICATED & DELIVERED, WELDED (88779 LB)	1	LS
504.71	STRUCTURAL STEEL ERECTION (88779 LB)	1	LS
505.08	SHEAR CONNECTORS (1490 EA)	1	LS
506.9104	THERMAL SPRAY COATING (SHOP APPLIED)	1	LS
523.52	BEARING INSTALLATION	16	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	8	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	8	EA
530.30	GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	61700	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	61700	LF

ESTIMATED QUANTITIES - ITEMS SPECIFIC TO THE CT GIRDER ALTERNATE 2			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGES (169 CY)	1	LS
503.19	LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED	52500	LB
503.20	LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING	52500	LB
509.743	COMPOSITE TUB GIRDER, FABRICATION & DELIVERY (520 LF)	1	LS
509.744	COMPOSITE TUB GIRDER, ERECTION (520 LF)	1	LS
523.52	BEARING INSTALLATION	16	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	8	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	8	EA
530.30	GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	61150	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	61150	LF

ESTIMATED QUANTITIES - CITY OF AUGUSTA			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
910.301	SPECIAL WORK (UTILITY CONDUIT - CITY OF AUGUSTA)	1	LS

ESTIMATED QUANTITIES - CONSOLIDATED COMMUNICATIONS			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	14	CY
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	1	EA
403.2081	HOT MIX ASPHALT - 12.5 MM (POLYMER MODIFIED)	5	T
403.209	HOT MIX ASPHALT - 9.5 MM (SIDEWALKS, DRIVES, & INCIDENTALS)	13	T
403.211	HOT MIX ASPHALT - SHIM	8	T
403.213	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE)	17	T
403.2131	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE POLYMER MODIFIED)	5	T
409.15	BITUMINOUS TACK COAT - APPLIED	14	G
461.131	TEMPORARY PAVEMENT	14	T
502.45	STRUCTURAL CONCRETE APPROACH SLAB	15	CY
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (3 CY)	1	LS
604.158	UTILITY VAULT	1	EA
629.05	HAND LABOR, STRAIGHT TIME	8	HR
652.38	FLAGGERS	192	HR
659.10	MOBILIZATION	1	LS
803.01	TEST PITS	1	EA
910.301	SPECIAL WORK -(UTILITY CONDUIT- CC- APPROACHES ONLY)	1	LS
910.301	SPECIAL WORK -(UTILITY CONDUIT - CC - BRIDGE ONLY)	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN
21872.00

BRIDGE NO. 3528
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGNS-DETAILED
DESIGNS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
KJW
TMM

DATE
OCT 2022
OCT 2022

SIGNATURE

P.E. NUMBER

DATE

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2
OF 84



GENERAL NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.
2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
3. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
4. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.
5. Place loam 4 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
6. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item No. 619.14, Erosion Control Mix.
7. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
8. Protective Coating for Concrete Surfaces shall be applied to the following areas:

All exposed surfaces of concrete curb and sidewalks, Fascias down to the drip notch, All exposed surfaces of Concrete Transition Barriers, Concrete wearing surfaces, Top of abutment backwalls and to one foot below the top of backwalls on the back side.
9. Seeding Method No. 2 shall be utilized on all slopes unless otherwise noted.
10. Existing utilities shown on the plans and cross sections are approximate. It is the Contractor's responsibility to verify utility locations.
11. Place a 24-in. wide strip of Erosion Control Blanket on the sideslopes, behind the wingwalls.
12. The clearing limits as shown on the Plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.
13. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
14. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
15. The project geotechnical report titled: Geotechnical Design Report, Rines Hill Bridge No. 3528 over Old Maine Central Railroad, September 2022, may be accessed at the MaineDOT web address.
16. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidders' or Contractor's interpretations of, or conclusions drawn from, the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between the boring locations.
17. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

18. The existing bridge and existing pedestrian railing shall be removed by and become the property of the Contractor. The steel portions of the existing bridge are coated with a lead-based paint system. The Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, the Contractor is solely responsible for the care, custody and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.

19. This project includes two superstructure bid alternates: steel girders and composite tub (CT) girders. Only one superstructure alternate shall be bid and constructed.

20. Any necessary cutting of catch basins to allow for proposed pipe connections will not be paid for separately and will be considered incidental to related Contract items.

21. Any damage to the slopes caused by the Contractor's equipment, personnel, or operations shall be repaired to the satisfaction of the Resident. All work, equipment, and materials required to make repairs shall be at no cost to the Department.

22. Roadway slab limits are approximate and based on existing plans and Ground Penetrating Radar results from the subsurface investigation. Exact extents of existing roadway slab are unknown and shall be verified with test pits as directed by the Resident.

23. The existing buried railroad tracks shall remain in place. Any damage to the rails caused by the Contractor's equipment, personnel, or operations shall be repaired to the satisfaction of the Resident. All work, equipment, and materials required to make repairs shall be at no cost to the Department.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION													
BRIDGE NO. 3528 WIN 21872.00 BRIDGE PLANS													
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY		PROJ. MANAGER	A. Lathe	BY	DATE								
GENERAL NOTES		DESIGN-DETAILED	K.L.W.	K.L.W.	OCT 2022	SIGNATURE							
		CHECKED-REVIEWED	S.W.	T.W.	OCT 2022								
		DESIGN-DETAILED									P.E. NUMBER		
		REVISIONS 1											DATE
		REVISIONS 2											
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													
SHEET NUMBER													
3													
OF 84													

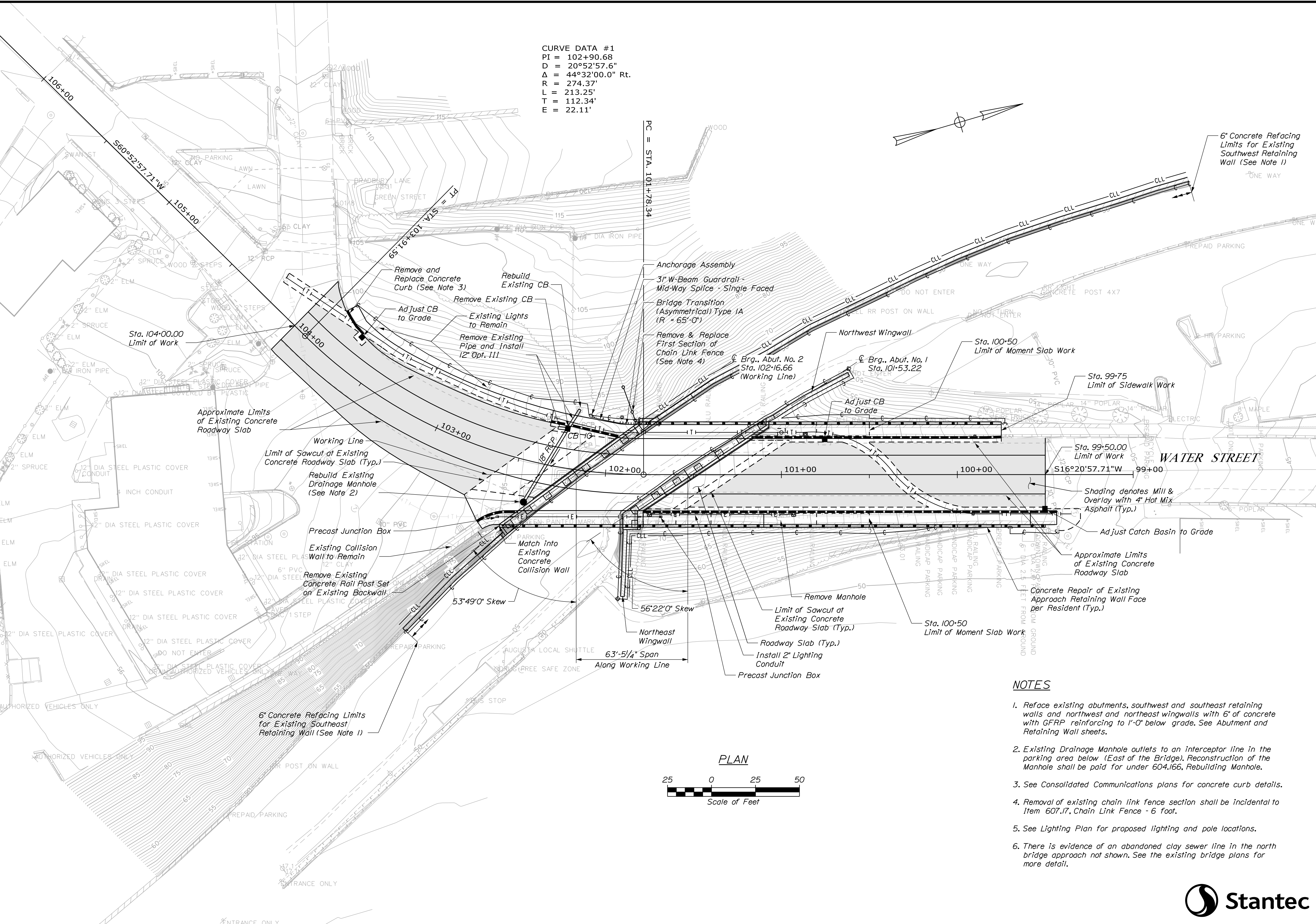
Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

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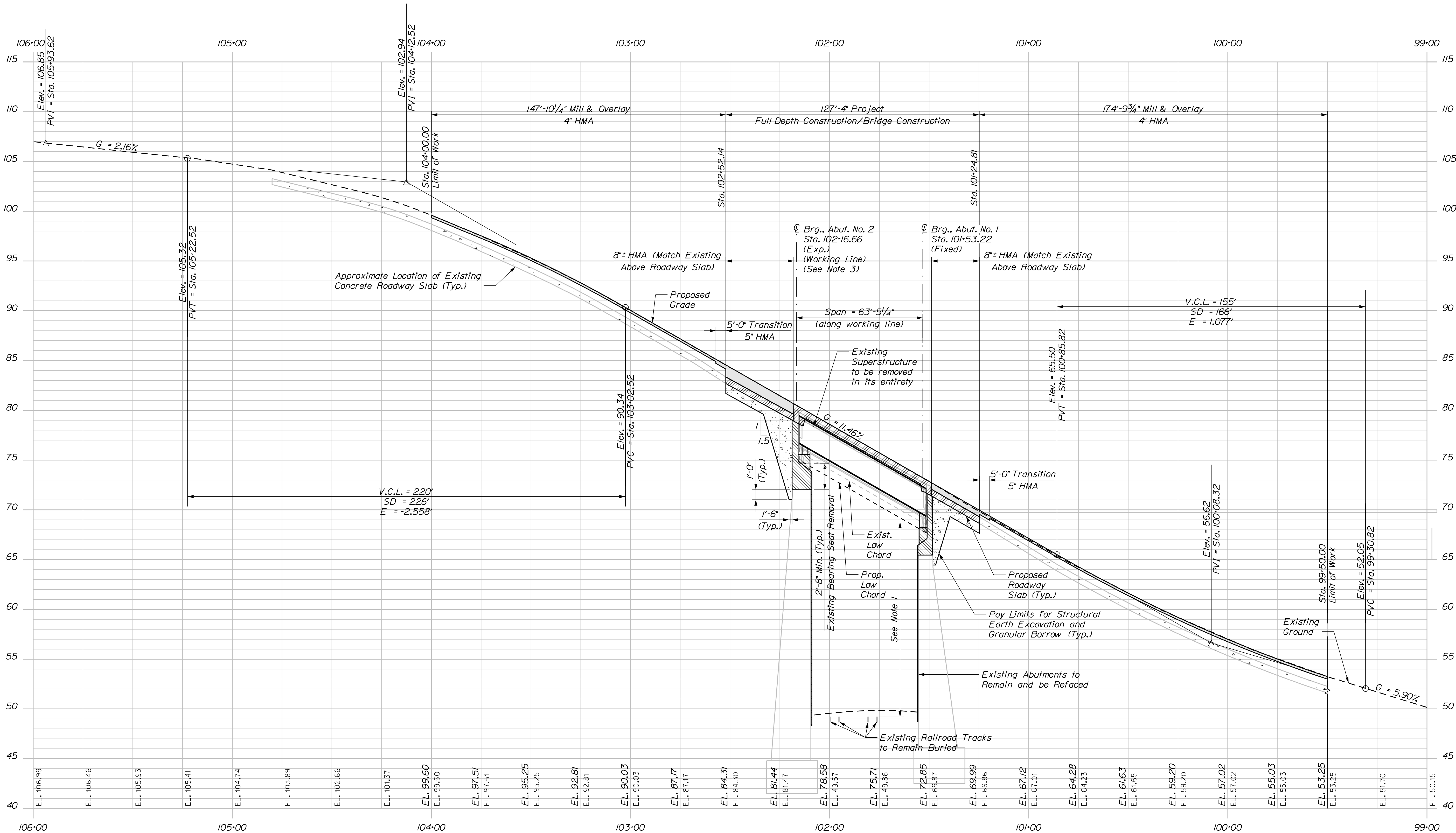
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Δ = 44°32'00.0" Rt.
R = 274.37'
L = 213.25'
T = 112.34'
E = 22.11'



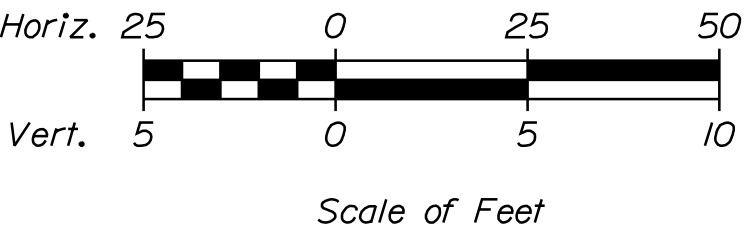
NOTES

1. Reface existing abutments, southwest and southeast retaining walls and northwest and northeast wingwalls with 6" of concrete with GFRP reinforcing to 1'-0" below grade. See Abutment and Retaining Wall sheets.
2. Existing Drainage Manhole outlets to an interceptor line in the parking area below (East of the Bridge). Reconstruction of the Manhole shall be paid for under 604.166, Rebuilding Manhole.
3. See Consolidated Communications plans for concrete curb details.
4. Removal of existing chain link fence section shall be incidental to Item 607.17, Chain Link Fence - 6 foot.
5. See Lighting Plan for proposed lighting and pole locations.
6. There is evidence of an abandoned clay sewer line in the north bridge approach not shown. See the existing bridge plans for more detail.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE PLANS	
RINES HILL BRIDGE		OLD MAINE CENTRAL RAILROAD		AUGUSTA	
Kennebec County		GENERAL PLAN		SHEET NUMBER	
4		21872.00		WIN	
BRIDGE NO. 3528		DATE		OF 84	
PROJECT MANAGER		BY		SIGNATURE	
DESIGN-DETAILED		K.L.W.		P.E. NUMBER	
CHECKED-REVIEWED		T.W.M.		DATE	
DESIGNS-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					



PROFILE - WATER STREET

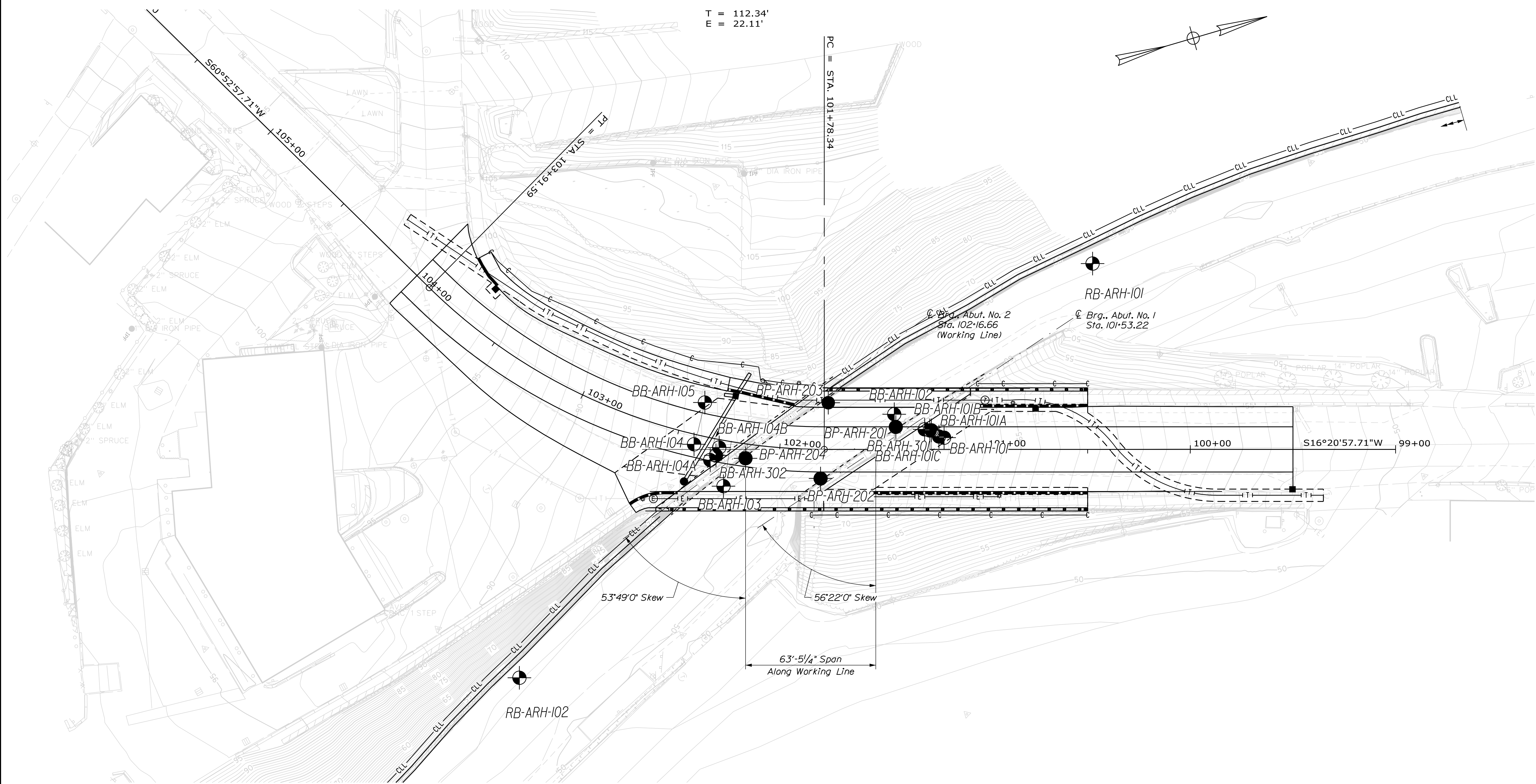


NOTES:

- The existing vertical clearance to the ϕ of the northerly rail is 18'-5.75", per the 1939 existing plans. Assuming the future rails are at elevation 49.50 (similar to existing), the proposed vertical clearance to the ϕ of a future single track, offset 12'-0" from Abutment No. 2, is 18'-4".
- Steel superstructure bid alternate shown, CT girder similar.
- See superstructure plan for working line and centerline construction layout geometry.



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE	P.E. NUMBER	DATE	PROJ. MANAGER	BY	DATE
				DESIGN-DETAILED	KLW	OCT 2022
				CHECKED-REVIEWED	TWM	OCT 2022
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	DESIGN-DETAILED					
	REVISIONS 1					
	REVISIONS 2					
	REVISIONS 3					
SHEET NUMBER 5 OF 84	BRIDGE PLANS			BRIDGE NO. 3528	WIN	21872.00



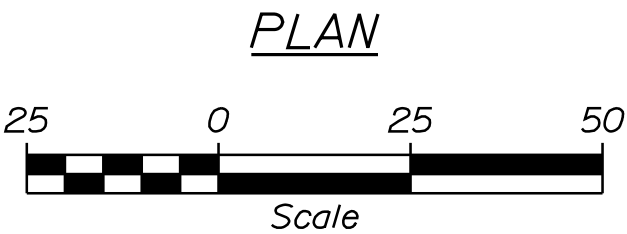
T = 112.34'
E = 22.11'

NOTES

- 1) Base map developed from electronic files (bridge.dgn, Contours.dgn, Text.dgn, Topo.dgn, and Alignments.dgn) provided by Stantec on September 13, 2022.
- 2) The as-drilled locations of the preliminary test borings and probes (100 series) were surveyed by MEDOT and provided by Stantec in an electronic file (021872.00 BORINGS 8 AUG 17.csv) on December 13, 2017. The supplementary test borings and probes (200 & 300 series) were measured from existing features.
- 3) BB-ARH-100 and RB-ARH-100 series borings were performed by New England Boring Contractors and observed by GZA personnel between July 10 and 27, 2017.
- 4) BP-ARH-200 series probes and BB-ARH-300 series borings were performed by New England Boring Contractors and observed by GZA personnel between April 15 and 17, 2019.

BORING LOCATION PLAN LEGEND

- BB-ARH-302 As-drilled location and designation of 300 series borings/abutment cores.
- BP-ARH-204 As-drilled location and designation of 200 series probes/footing cores
- BB-ARH-105 As-drilled location and designation of 100 series bridge boring or probe (explorations with labels A through C are auger probes, others are cased wash borings)
- RB-ARH-102 As-drilled location and designation of 100 series retaining wall boring



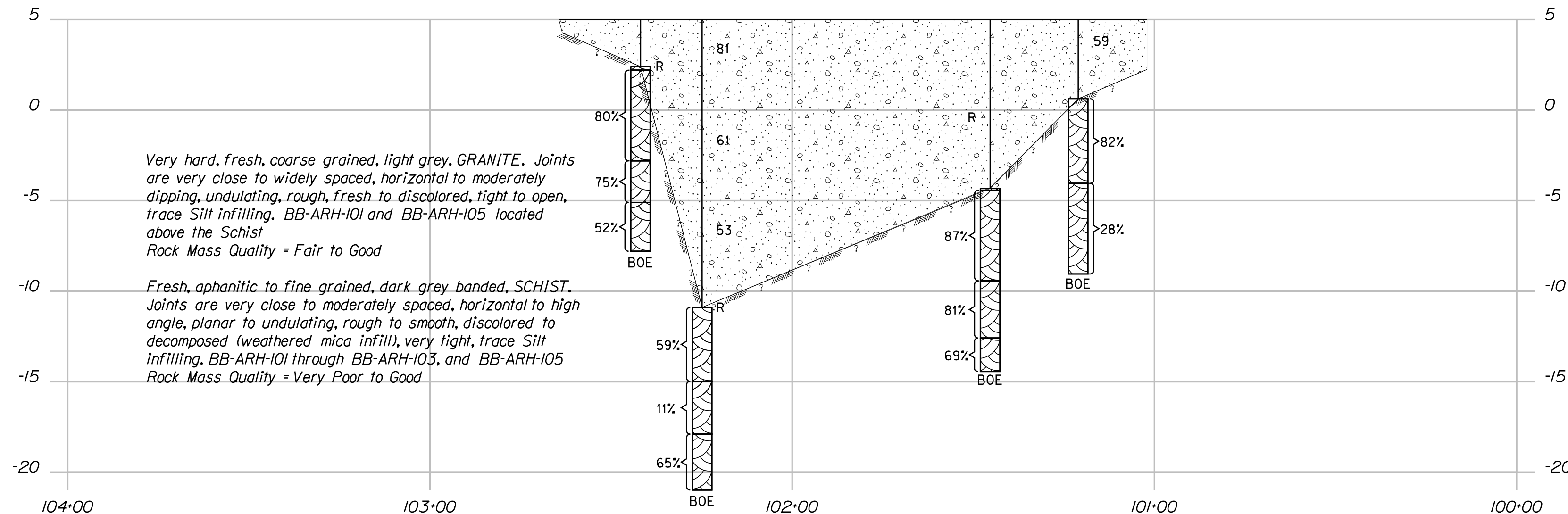
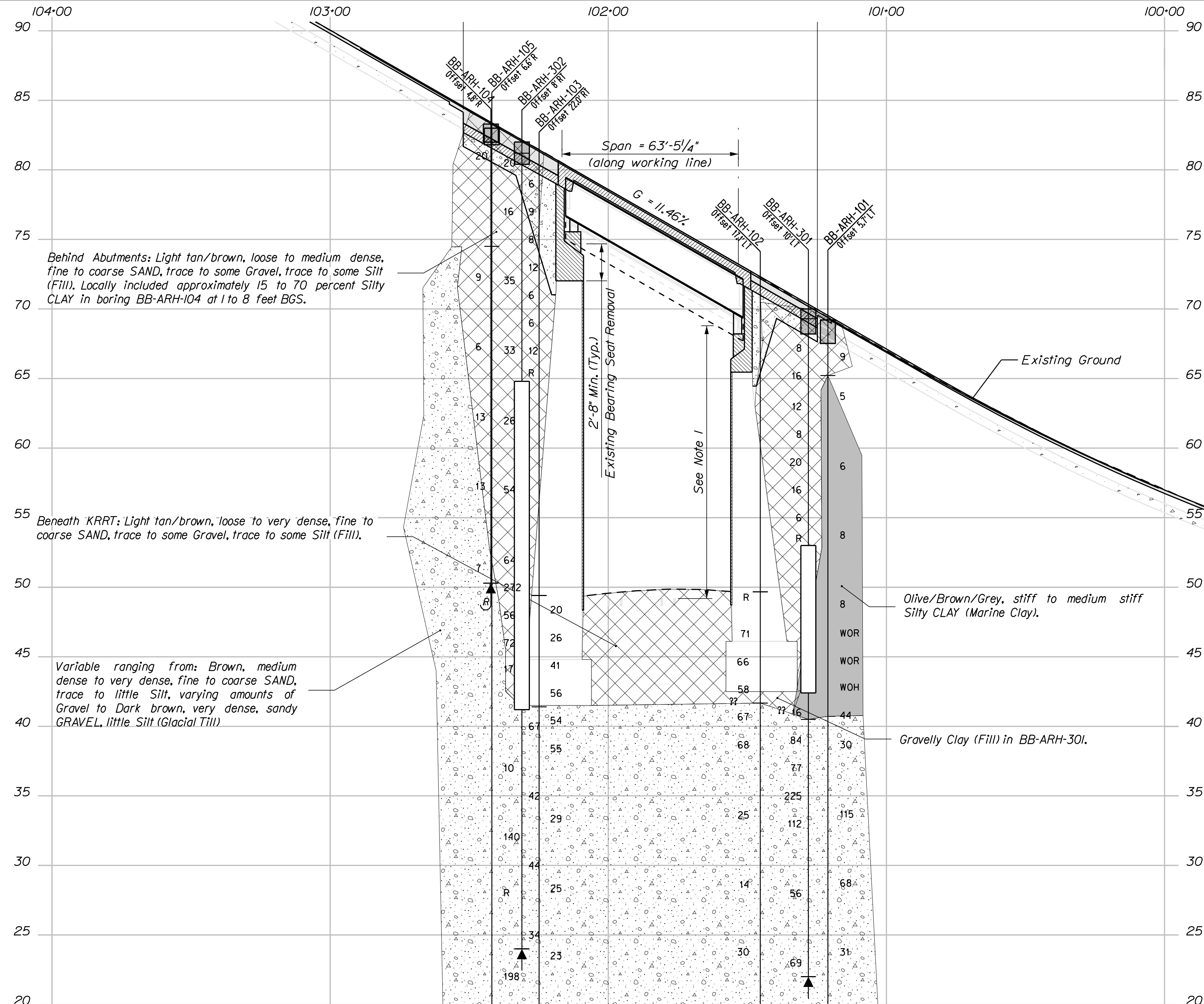
PLAN



PREPARED BY:

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 3528		WIN 21872.00		BRIDGE PLANS	
RINES HILL BRIDGE OVER OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY		BORING LOCATION PLAN		SHEET NUMBER 6 OF 84		DATE 10/18/2022	
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGNS-DETAILED DESIGNS-1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		BY A. LATHE N. WILLIAMS A. BLAISDELL C. SNOW		DATE OCT 2022 OCT 2022		SIGNATURE P.E. NUMBER DATE	
STATE OF MAINE Andrew R. Blaisdell 10957 PROFESSIONAL ENGINEER							

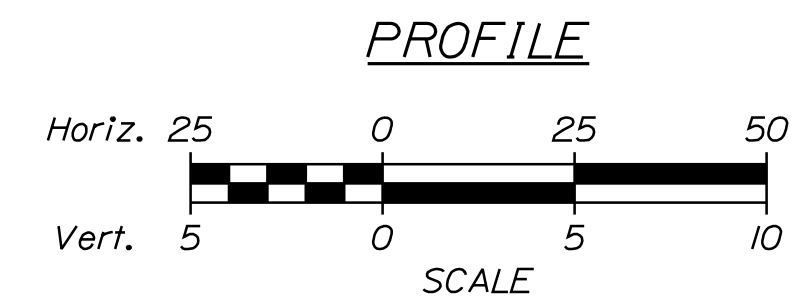
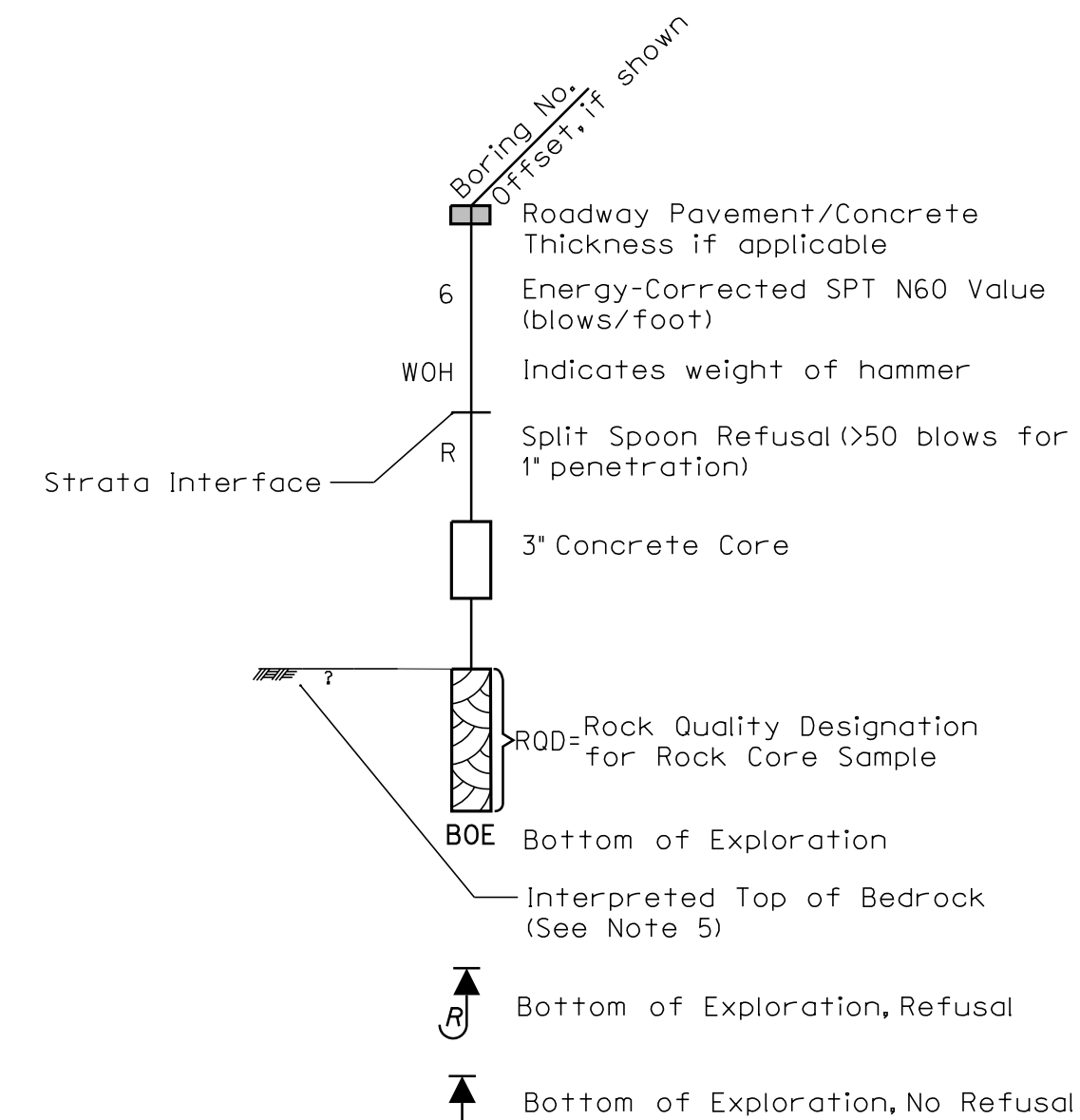
ELEVATION (FT, NAVD88)



NOTES

- 1) Profile developed from electronic file 005_Profile.dgn provided by Stantec on September 19, 2022.
- 2) The as-drilled locations of the BB-ARH-100 series borings were surveyed by MEDOT and provided by Stantec in an electronic file (021872.00 BORINGS 8 AUG 17.csv) on December 13, 2017. The BB-ARH-300 series borings were measured from existing features.
- 3) BB-ARH-100 series borings were performed by New England Boring Contractors and observed by GZA personnel between July 10 and 27, 2017. BB-ARH-300 series borings were performed by New England Boring Contractors and observed by GZA personnel between April 15 and 17, 2019.
- 4) BB-ARH-200 series probes and cores drilled at and through the toe of the abutments are not shown for simplicity, but the shape of the toe and depth of footing consider the data.
- 5) 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 transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.
- 6) Abutment Outlines are oriented along the alignment. The profile of each abutment will vary as a function of height of the abutments, and should be considered approximate.

INTERPRETIVE SUBSURFACE PROFILE LEGEND



PREPARED BY:



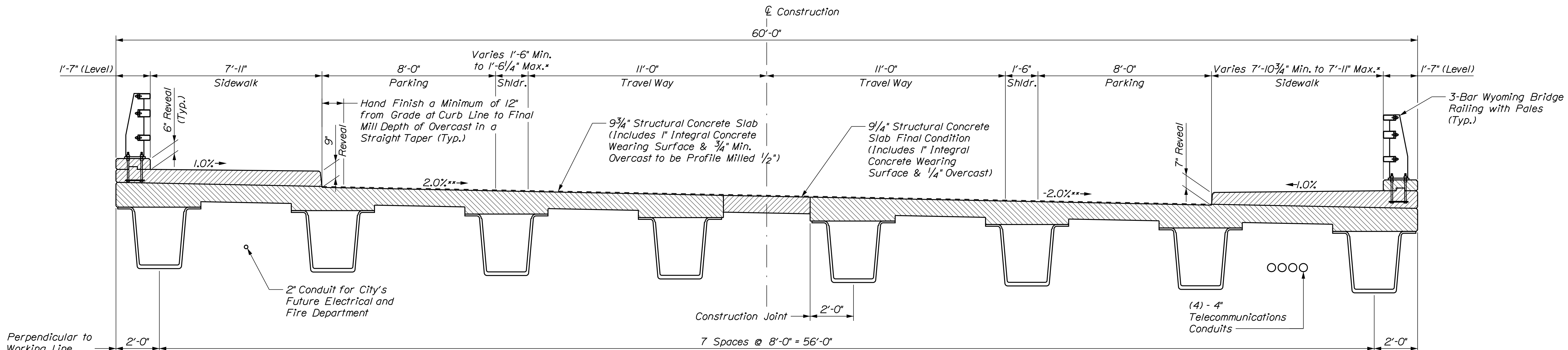
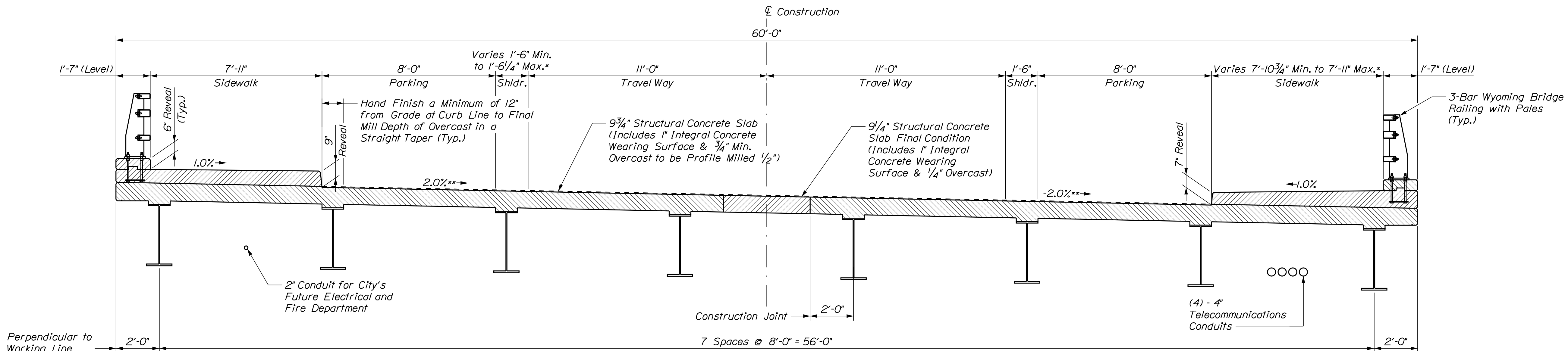
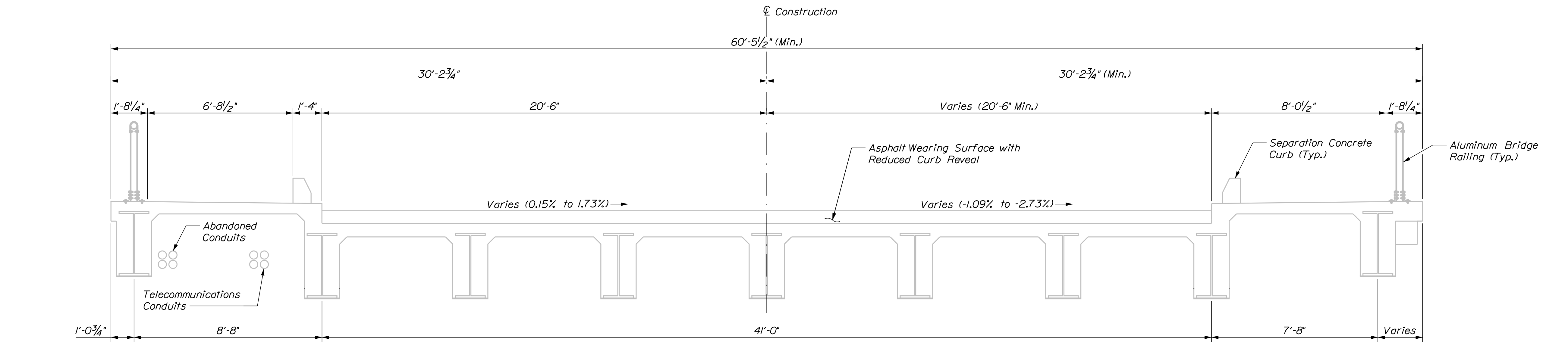
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 3528		WIN 21872.00		BRIDGE PLANS	
RINES HILL BRIDGE OVER OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY		INTERPRETIVE SUBSURFACE PROFILE		SHEET NUMBER 7 OF 84			
DATE OCT 2022		BY N. WILLIAMS C. SNOW		SIGNATURE Andrew R. Blaisdell 10957 PROFESSIONAL ENGINEER 10/18/2022		P.E. NUMBER DATE	
DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		DATE OCT 2022		SIGNATURE Andrew R. Blaisdell 10957 PROFESSIONAL ENGINEER 10/18/2022		P.E. NUMBER DATE	

Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

Filename: ...\\00\\BRIDGE\\MSTA\\012_BTtyp.dgn



STATE OF MAINE	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	WIN
	21872.00
	BRIDGE NO. 3528

PROJ. MANAGER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
A. Lathe	OCT 2022	KLW	OCT 2022			
CHECKED-REVIEWED		KLW				
DESIGNED-REVIEWED		TWM				
DESIGNED-REVIEWED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

RINES HILL BRIDGE	BRIDGE TYPICAL SECTIONS
OLD MAINE CENTRAL RAILROAD	
AUGUSTA	
KENNEBEC COUNTY	

SHEET NUMBER	12
	OF 84

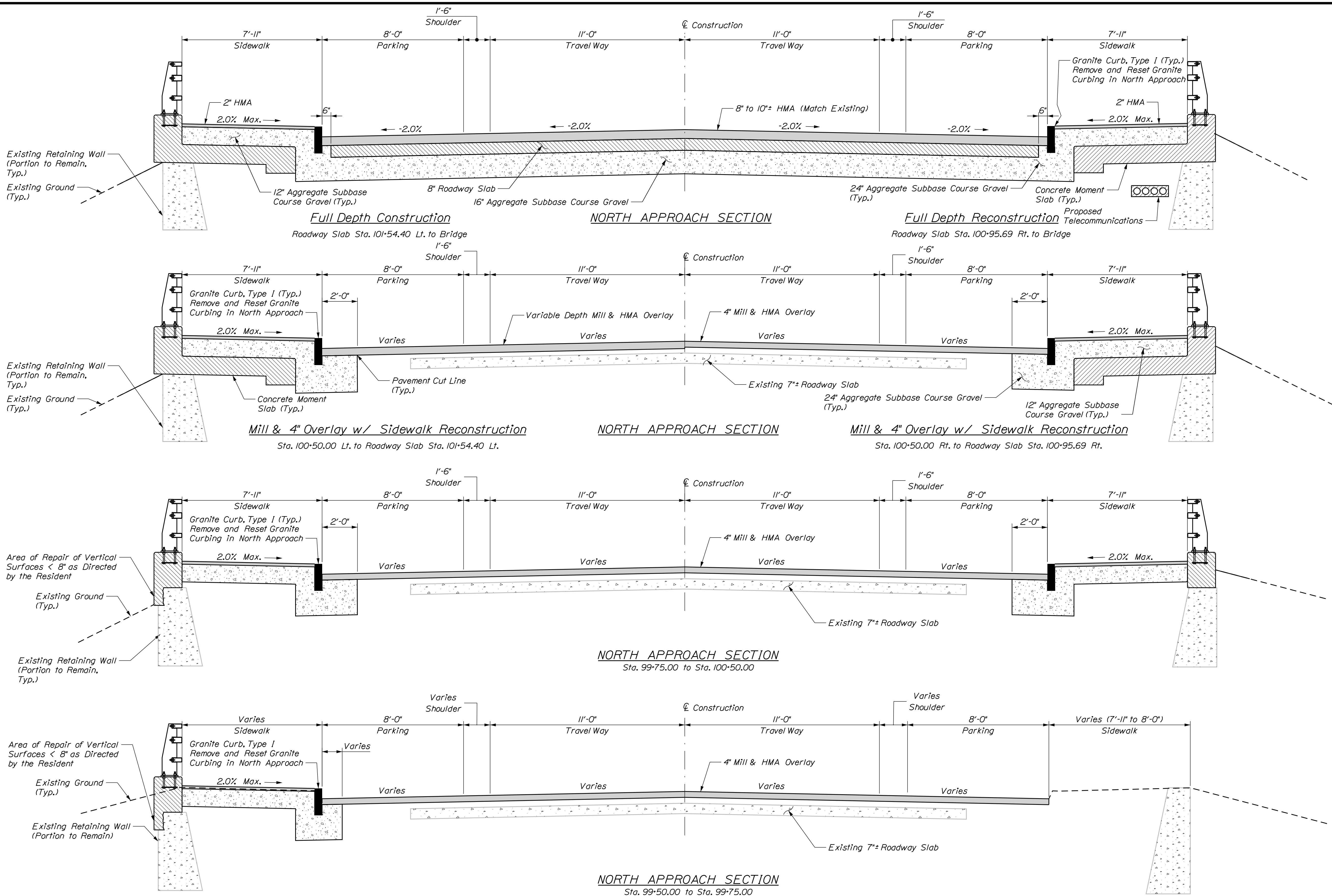


Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

Filename: ...\\000\BRIDGE\MSTA\013_Typ1.dgn



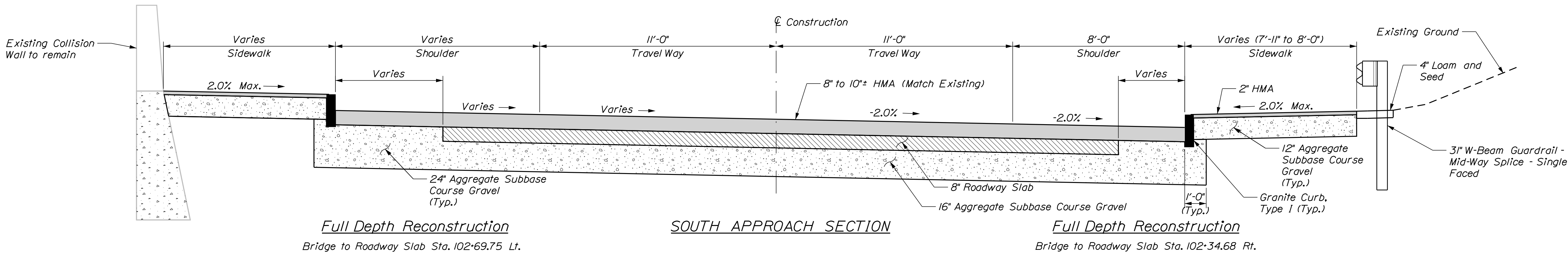
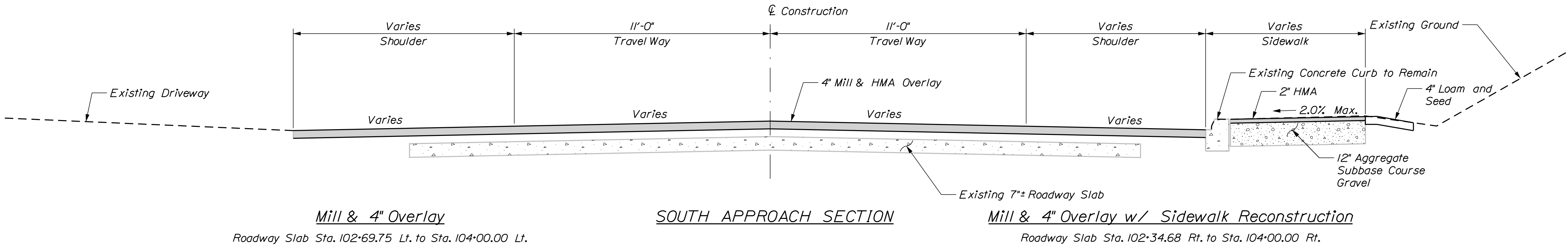
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 3528		WIN 21872.00		BRIDGE PLANS	
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	DESIGN-DETAILED	PLP	THG	OCT 2022	SIGNATURE	P.E. NUMBER	DATE
	CHECKED-REVIEWED	LEM	TWM	OCT 2022			
	DESIGNS-DETAILED						
	REVISIONS 1						
APPROACH TYPICAL SECTIONS (1 OF 2)		REVISIONS 2					
SHEET NUMBER		REVISIONS 3					
13		REVISIONS 4					
OF 84		FIELD CHANGES					

Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

Filename: ... \00\BRIDGE\MSTA\014_Typ2.dgn



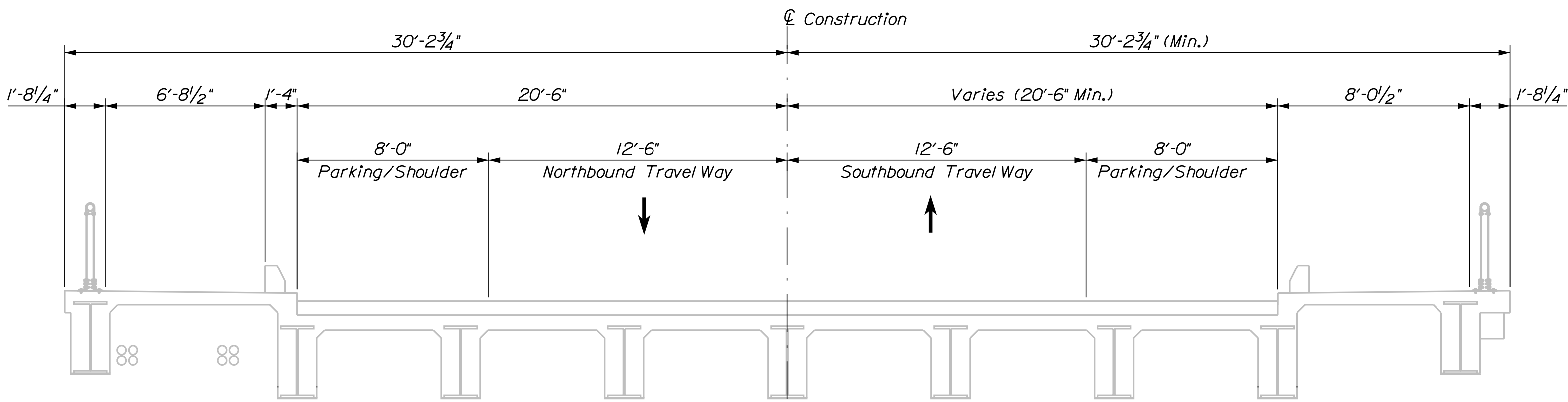
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 3528
WIN 21872.00
BRIDGE PLANS

PROJ. MANAGER	A. Lathe	BY	DATE
DESIGN-DETAILED	PLP	THG	OCT 2022
CHECKED-REVIEWED	LEM	TWM	OCT 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

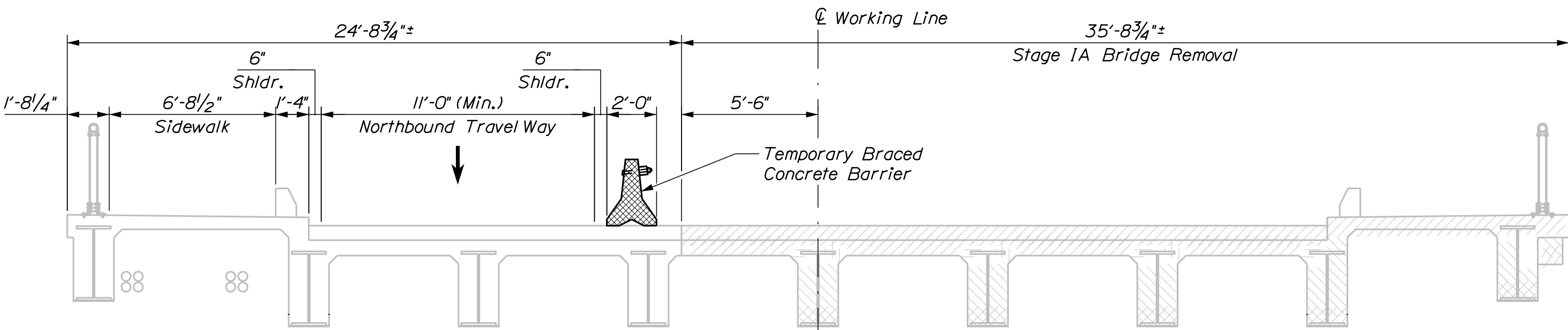
RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA KENNEBEC COUNTY
APPROACH TYPICAL SECTIONS (2 OF 2)

SHEET NUMBER
14
OF 84



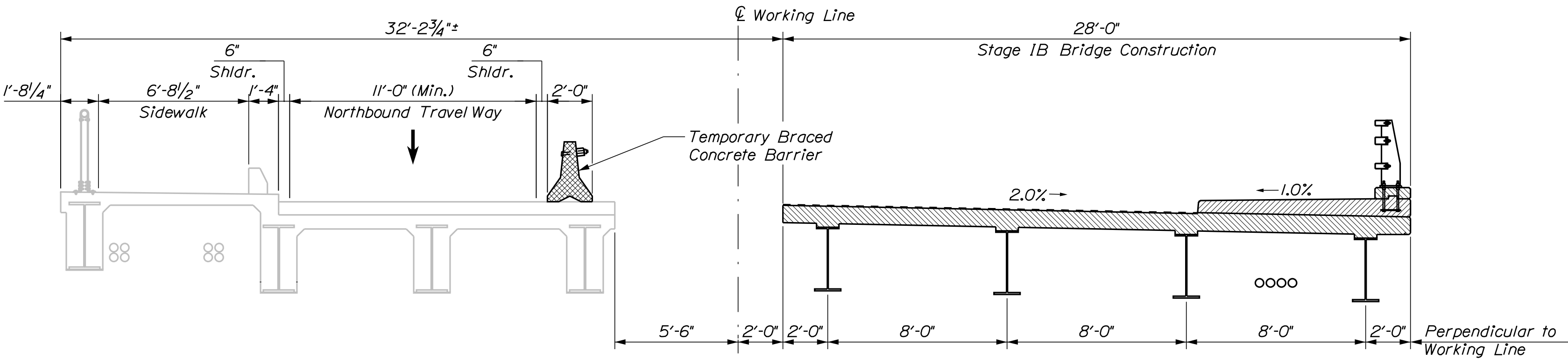


EXISTING CONDITION



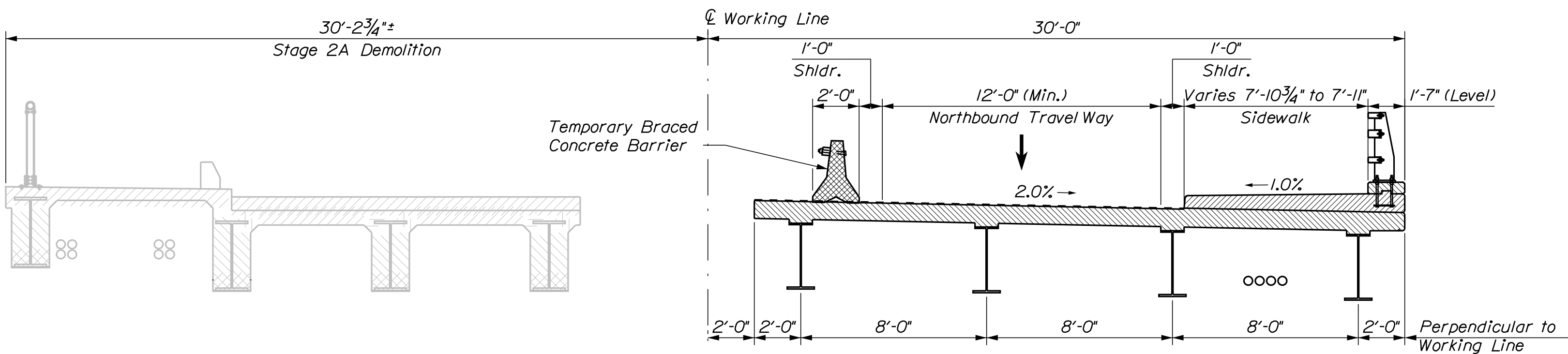
STAGE 1A

1. Detour southbound traffic and shift northbound traffic to east side of bridge.
2. Demolish west side of bridge.



STAGE 1B

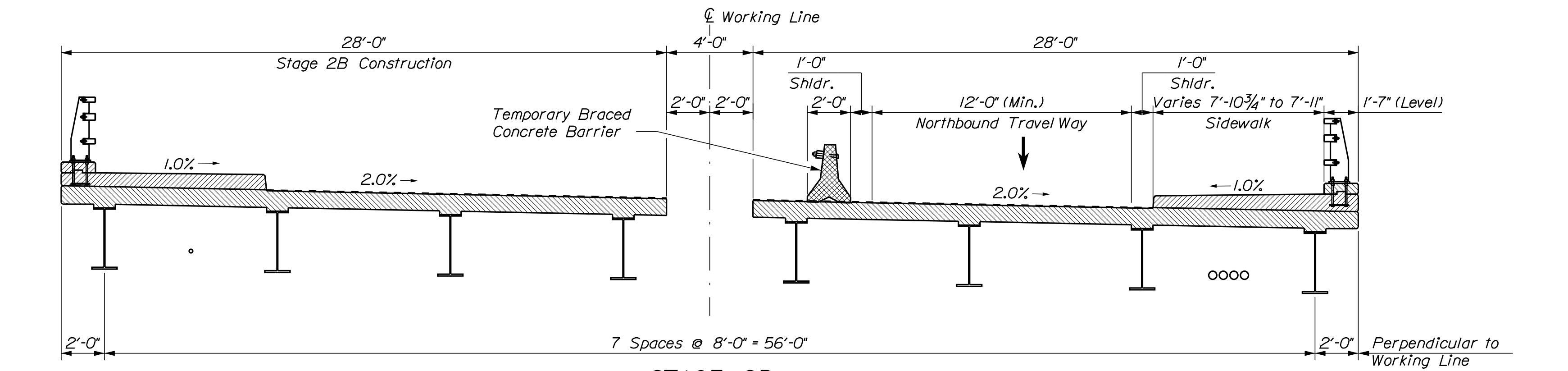
1. Reconstruct west side of bridge to limits shown.



STAGE 2A

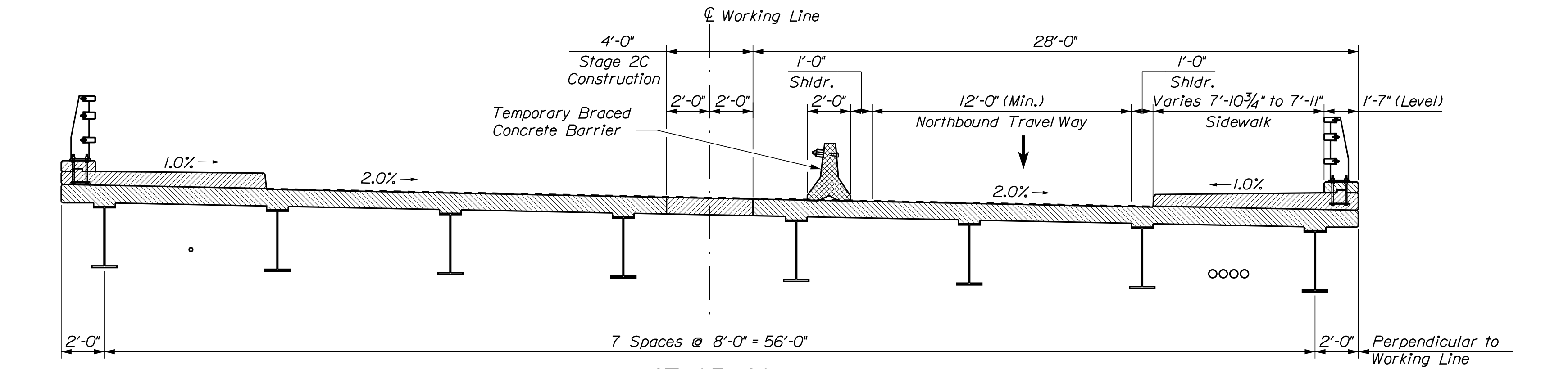
1. Shift northbound traffic to west side of bridge.
2. Demolish east side of bridge.

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	KLW	OCT 2022
CHECKED-REVIEWED	TWM	OCT 2022
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		



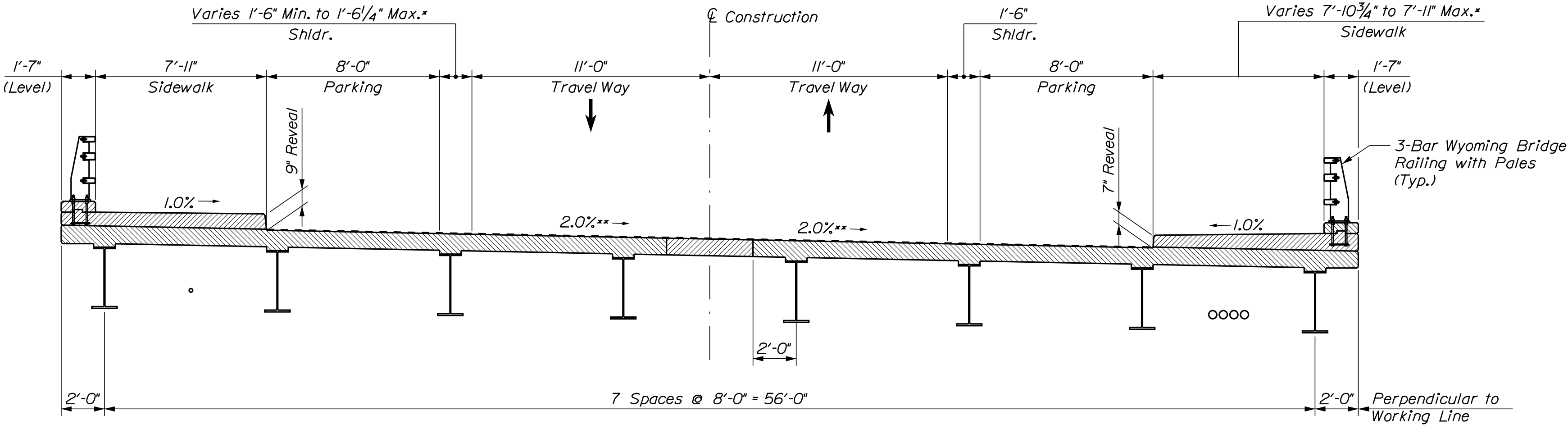
STAGE 2B

1. Reconstruct east side of bridge to limits shown.



STAGE 2C

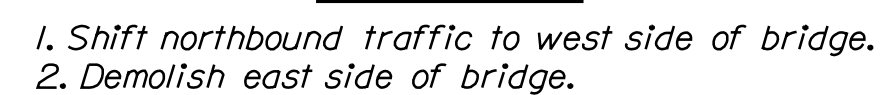
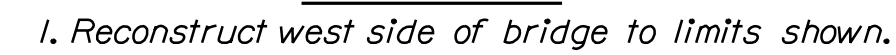
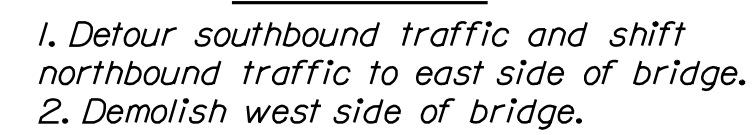
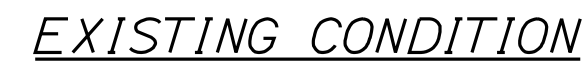
1. Closure Pour.

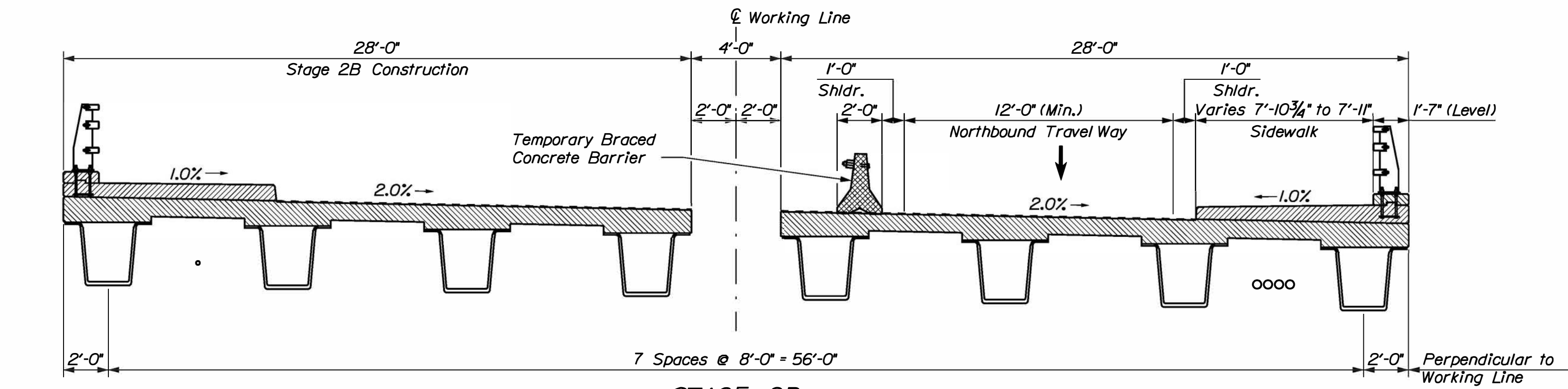


PROPOSED CONDITION

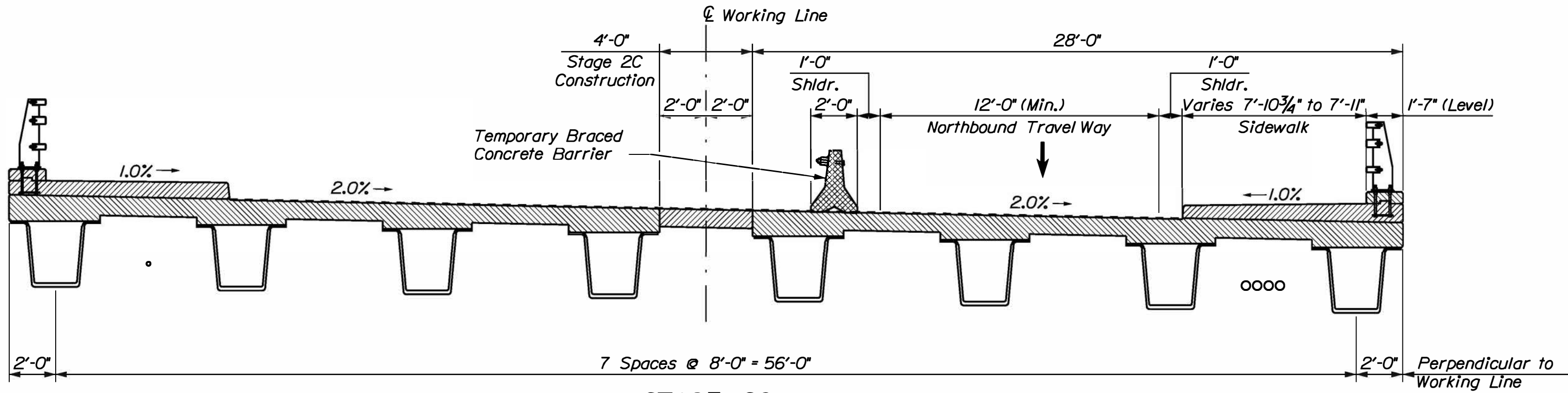
*within limited full bridge width section (Sta. 101+78.63 to 101+80.72)
**about the Working Line

PROJ. MANAGER	DATE	BY	DATE	SIGNATURE
DESIGN-DETAILED	10/20/2022	KLW	10/20/2022	
CHECKED-REVIEWED	10/20/2022	TWM	10/20/2022	
DESIGN-DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

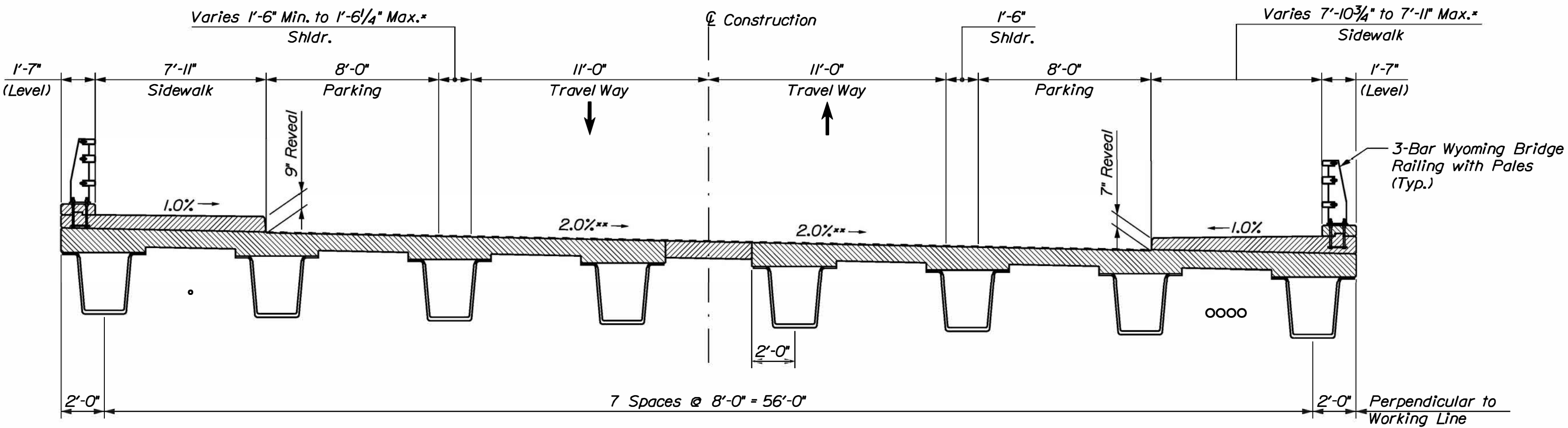




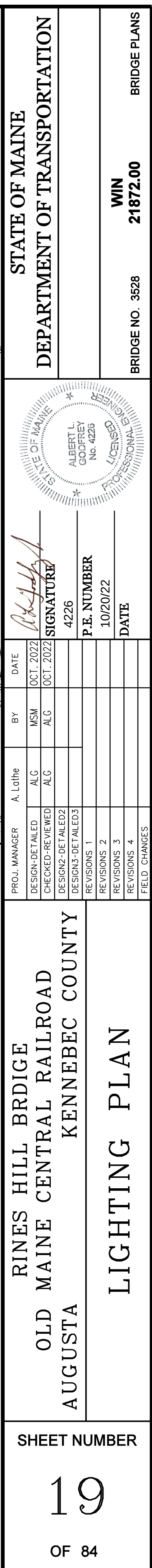
STAGE 2B
1. Reconstruct east side of bridge to limits shown.



STAGE 2C
1. Closure Pour.



PROPOSED CONDITION
*within limited full bridge width section (Sta. 101+78.63 to 101+80.72)
**about the Working Line



LIGHTING CONSTRUCTION NOTES

1. SCOPE OF WORK - REMOVE AND REINSTALL EXISTING ORNAMENTAL LIGHTING, INSTALL NEW ORNAMENTAL LIGHTING FURNISHED BY OTHERS, AND FURNISH AND INSTALL UNDER-BRIDGE LIGHTING AS SHOWN ON THESE PLANS. FURNISH AND INSTALL CONDUIT, FOUNDATIONS, WIRING, AND RELATED HARDWARE. REMOVE EXISTING LIGHTING AND FOUNDATIONS WHERE NOTED ON PLANS.

2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO APPLICABLE PROVISIONS OF THE CURRENT EDITIONS OF THE MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND STANDARD DETAILS, NATIONAL ELECTRICAL CODE (N.E.C.) AND ANY REQUIREMENTS OF THE POWER COMPANY.

3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO ENSURE AWARENESS OF SITE CONDITIONS THAT COULD AFFECT THE BID FOR LIGHTING ITEMS.

4. THE CONTRACTOR SHALL FIELD VERIFY POLE LOCATIONS TO AVOID NATURAL AND BUILT SITE FEATURES THAT WOULD CONFLICT WITH PROPER INSTALLATION OF POLE FOUNDATIONS.

5. EXISTING ORNAMENTAL LIGHTING BEYOND THE PROJECT LIMITS IS INTENDED TO REMAIN ACTIVE DURING CONSTRUCTION OF THIS PROJECT UNLESS OTHERWISE APPROVED BY THE MAINEDOT RESIDENT AND THE CITY OF AUGUSTA.

6. THE EXISTING LIGHTING SYSTEM VOLTAGE IS 120/208V. THE LIGHTING CONTROL CABINET AND POWER SOURCE FOR ORNAMENTAL AND WALL PACK LIGHTING ON AND SOUTH OF THE BRIDGE IS LOCATED AT 403 WATER STREET ON THE EAST SIDE OF THE STREET JUST NORTH OF MEMORIAL CIRCLE. THE LIGHTING CONTROL CABINET AND POWER SOURCE FOR ORNAMENTAL LIGHTING NORTH OF THE BRIDGE IS LOCATED AT IWINTHROP STREET ON THE WEST SIDE OF WATER STREET ADJACENT TO THE WIPFLI OFFICE BUILDING.

7. EXISTING ORNAMENTAL LIGHT POLES AND LUMINAIRES NOTED TO BE DEMOUNTED AND REINSTALLED ON NEW FOUNDATIONS SHALL BE CAREFULLY REMOVED AND PROTECTED FROM DAMAGE IN STORAGE AND REINSTALLATION. PAYMENT FOR DEMOUNTING, STORING, AND REINSTALLING EXISTING ORNAMENTAL LIGHTING HARDWARE WILL BE MADE UNDER ITEM 634.72. SEE SPECIAL PROVISIONS.

8. EXISTING FOUNDATIONS FOR ORNAMENTAL LIGHTING POLES NOTED TO BE DEMOUNTED AND REINSTALLED SHALL BE REMOVED AS DIRECTED. PAYMENT FOR REMOVAL OF FOUNDATIONS WILL BE MADE UNDER ITEM 626.36. ABANDON EXISTING CONDUIT CONNECTED TO THE OLD FOUNDATIONS.

9. NEW FOUNDATIONS FOR ORNAMENTAL LIGHTING SHALL BE 18-INCH DIAMETER 5.5 FEET LONG. SEE STANDARD DETAIL 626(01) FOR REQUIREMENTS.

10. THE POLE, FIXTURE, AND ORNAMENTAL BASE FOR NEW ORNAMENTAL LIGHT #10 SHOWN ON THE PLANS WILL BE FURNISHED BY THE CITY OF AUGUSTA FOR INSTALLATION BY THE CONTRACTOR. SEE SPECIAL PROVISION FOR ITEM 634.712.

11. INSTALL UNDER-BRIDGE WALL PACK LIGHTING AT THE LOCATION SHOWN ON THE LIGHTING PLAN.

12. SECURELY ATTACH WALLPACK LIGHTING UNIT AT STATED MOUNTING HEIGHT TO STANDARD EXTERIOR WET LOCATION RATED WALL-MOUNT ELECTRICAL JUNCTION BOX INSTALLED ON THE VERTICAL FACE OF BRIDGE ABUTMENT NO. 2.

13. WALLPACK LIGHTING UNIT SHALL BE HOLOPHANE WALLPACK LED FIXTURE, CATALOG NUMBER HLWPC2 P20 40K AS T2M GYSDP 70CRI A0 DF TP, OR APPROVED EQUAL.

14. WALLPACK LIGHTING UNIT SHALL BE WET LOCATION LISTED. LIGHT ENGINE HOUSING SHALL BE IP66 RATED. UNIT SHALL BE RATED FOR -40 DEGREES FAHRENHEIT MINIMUM AMBIENT TEMPERATURE. LIGHTING COLOR TEMPERATURE SHALL BE 4000K. OPTICS SHALL BE TYPE 2 MEDIUM DISTRIBUTION WITH B-U-G RATING OF I-O-I. HOUSING SHALL HAVE GRAY THERMOSET POWDERCOAT FINISH AND HAVE TAMPER RESISTANT HARDWARE. UNIT SHALL BE DOUBLE FUSED. UNIT SHALL HAVE 20KV/10KA SURGE PROTECTION OR BETTER. WALLPACK LIGHTING UNIT SHALL HAVE FIELD-ADJUSTABLE OUTPUT. MAXIMUM ILLUMINATION UNDER THE BRIDGE SHALL BE 2.0 FOOTCANDLES.

15. SNUG-TIGHT CONDITION OF ANCHOR BOLTS FOR NEW AND REINSTALLED ORNAMENTAL LIGHTING POLES SHALL BE DEFINED AS BETWEEN 20 AND 30 PERCENT OF THE VERIFICATION TORQUE VALUE DETERMINED BY THE FORMULA IN FHWA PUBLICATION NHI 05-036. ADDITIONAL TIGHTENING BEYOND SNUG-TIGHT CONDITION SHALL BE DONE IN ACCORDANCE WITH SECTION 634.05 OF THE MAINEDOT STANDARD SPECIFICATIONS.

16. NEW BURIED CONDUIT FOR LIGHTING SHALL BE 2 INCH MINIMUM DIAMETER PVC CONDUIT RATED AT SCHEDULE 80 OR GREATER.

17. NEW EXPOSED CONDUIT FOR WALL PACK LIGHTING SHALL BE 1-1/2" GALVANIZED STEEL. CONDUIT SHALL BE ATTACHED TO THE OUTSIDE VERTICAL FACE OF BRIDGE ABUTMENT NO. 2 WITH APPROVED HARDWARE. CONDUIT SHALL BE SUPPORTED SUCH THAT MAXIMUM DEFLECTION BETWEEN SUPPORTS SHALL NOT EXCEED L/180. CONDUIT ATTACHED TO BRIDGE ABUTMENT NO. 2 SHALL BE OFFSET FROM CONCRETE A MINIMUM OF TWO INCHES.

18. BUSHINGS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.

19. PULL WIRE SHALL BE INSTALLED IN ALL NEW CONDUIT.

20. ALL EXPOSED RIGID CONDUIT FITTINGS AND HARDWARE SHALL BE GALVANIZED, EXCEPT NON-CONDUCTIVE BUSHINGS FOR CONNECTION OF RIGID METAL CONDUIT TO ANY ALUMINUM COMPONENTS.

21. SECONDARY CIRCUIT WIRING SHALL BE STRANDED COPPER XHHW-2. ALL WIRING SHALL BE NO. 8 AWG OR LARGER WIRE SIZE.

22. THE WIRE IN CONDUITS SHALL BE CONTINUOUS WITH NO SPLICES BETWEEN POLES EXCEPT AS NOTED HEREIN. NEW WIRING FROM POLE 8 TO THE JUNCTION BOX AT THE NORTHEAST END OF THE PROJECT MAY BE SPLICED AT THE JUNCTION BOX.

23. CAP AND/OR SEAL EXPOSED ENDS OF CONDUIT TO PREVENT INTRUSION OF MOISTURE OR RODENTS.

24. NO BREAKAWAY DEVICES WILL BE REQUIRED FOR NEW OR REINSTALLED ORNAMENTAL LIGHT POLES ON THIS PROJECT.

25. ALL NEW AND REINSTALLED LIGHT POLES SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

26. ALL NEW FOUNDATIONS FOR ORNAMENTAL LIGHT STANDARDS SHALL HAVE A GROUND ROD LOCATED IN OR ADJACENT TO THE FOUNDATION THAT IS BONDED TO THE GROUNDING CONDUCTOR. THE GROUND WIRE FOR THE GROUND ROD SHALL EXIT THROUGH A HALF-INCH DIAMETER CONDUIT IN THE FOUNDATION. PAYMENT FOR GROUND RODS AND GROUND WIRE CONDUIT IN FOUNDATIONS SHALL BE INCLUDED IN ITEM 634.160, HIGHWAY LIGHTING.

27. SEE SECTION 634 SPECIAL PROVISIONS FOR REQUIREMENTS FOR DEMOUNTING AND REINSTALLING EXISTING ORNAMENTAL LIGHTING AND FOR INSTALLING NEW ORNAMENTAL LIGHTING. ONE NEW ORNAMENTAL LIGHTING POLE AND FIXTURE WILL BE INSTALLED. IT WILL BE FURNISHED BY THE CITY OF AUGUSTA FOR INSTALLATION BY THE CONTRACTOR.

28. PAYMENT UNDER ITEM 626.21, METALLIC CONDUIT, WILL INCLUDE OFFSET BRACKETS AND OTHER BRIDGE ABUTMENT ATTACHMENT HARDWARE, BUSHINGS, FITTINGS, DRAINS, PULL WIRE, AND OTHER NECESSARY HARDWARE RELATED TO THE CONDUIT, INCLUDING ANY HARDWARE NECESSARY TO CONNECT TO EXISTING CONDUIT THROUGH THE CONCRETE COLLISION WALL.

29. PAYMENT UNDER ITEM 626.22 WILL INCLUDE BUSHINGS, FITTINGS, PULL WIRE, AND OTHER NECESSARY HARDWARE RELATED TO THE CONDUIT, INCLUDING CONNECTIONS TO EXISTING CONDUIT.

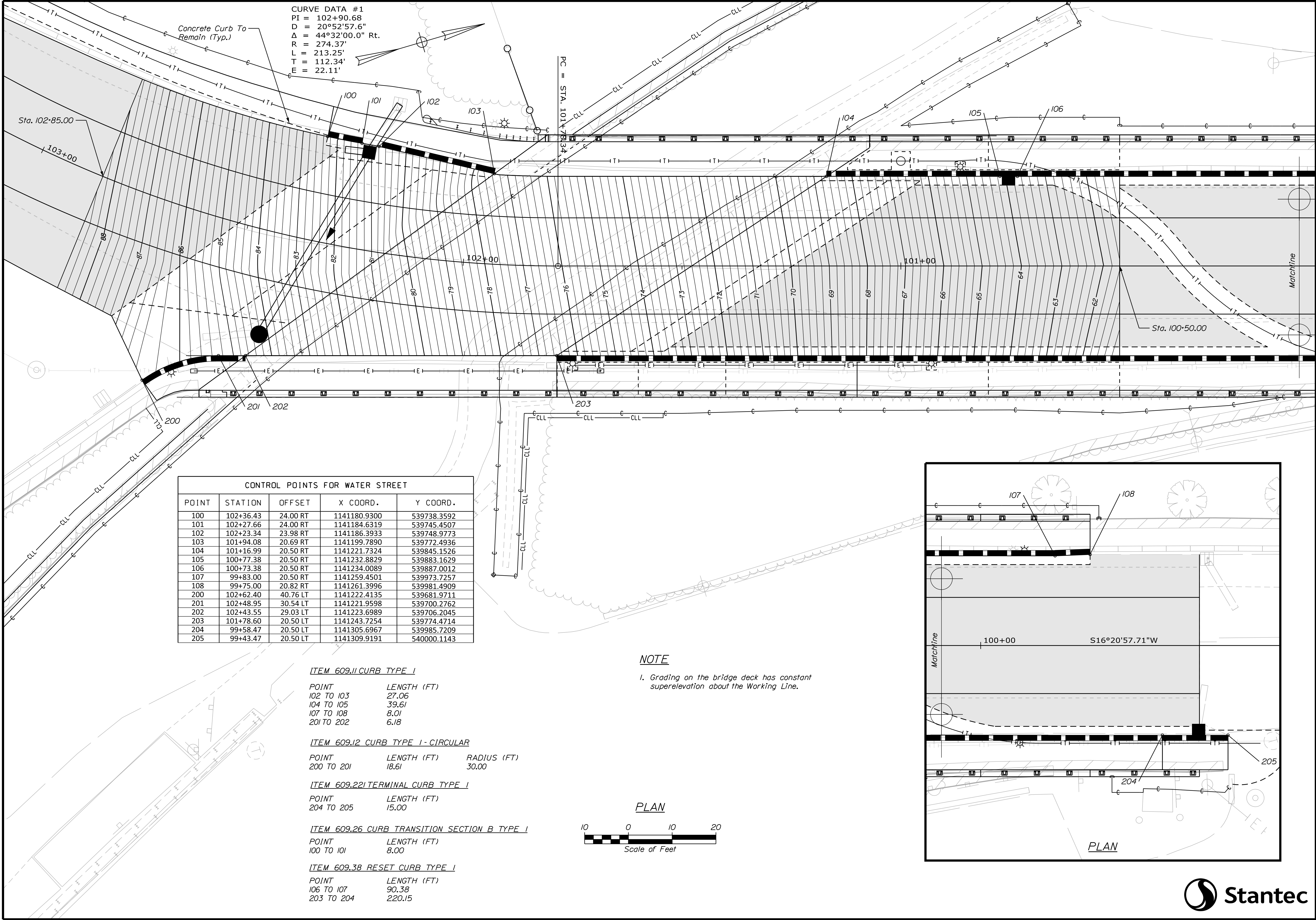
30. PAYMENT UNDER ITEM 634.160, HIGHWAY LIGHTING, WILL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONING LIGHTING SYSTEM AS SHOWN ON THE PLANS EXCEPT THOSE ITEMS TO BE PAID UNDER OTHER RELATED BID ITEMS IN THE CONTRACT. PAYMENT UNDER ITEM 634.160 ALSO WILL INCLUDE THE LIGHT FIXTURE, SURFACE-MOUNT ELECTRICAL JUNCTION BOXES AND ASSOCIATED HARDWARE REQUIRED FOR INSTALLATION OF UNDER-BRIDGE WALL PACK LIGHTING.

31. CURING BOXES AND ALL REQUIRED CONCRETE TESTING LABOR, MATERIALS, AND EQUIPMENT FOR LIGHTING FOUNDATIONS WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER SECTION 626 FOUNDATION ITEMS.

32. STATIONING SHOWN FOR LIGHTING RELATED ITEMS IS APPROXIMATE AND MAY BE ADJUSTED BY THE RESIDENT IN THE FIELD IN CONSULTATION WITH THE ENGINEER.

33. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL FURNISH TO MAINEDOT AND THE CITY OF AUGUSTA ONE SET EACH OF AS-BUILT PLANS FOR FUTURE REFERENCE AND SYSTEM MAINTENANCE.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION			BRIDGE NO. 3528	WIN 21872.00	BRIDGE PLANS		
RINES HILL BRDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	PROJ. MANAGER	A. LaHe	BY	DATE	SIGNATURE 4226	P.E. NUMBER 10/20/22	DATE
	DESIGN-DETAILED	ALG	MSM	OCT 2022			
LIGHTING NOTES	CHECKED-REVIEWED	ALG	ALG	OCT 2022			
	DESIGN-DETAILED						
	REVISIONS 1						
	REVISIONS 2						
	REVISIONS 3						
	REVISIONS 4						
	FIELD CHANGES						
SHEET NUMBER					20		
					OF 84		



CONTROL POINTS FOR WATER STREET				
POINT	STATION	OFFSET	X COORD.	Y COORD.
100	102+36.43	24.00 RT	1141180.9300	539738.3592
101	102+27.66	24.00 RT	1141184.6319	539745.4507
102	102+23.34	23.98 RT	1141186.3933	539748.9773
103	101+94.08	20.69 RT	1141199.7890	539772.4936
104	101+16.99	20.50 RT	1141221.7324	539845.1526
105	100+77.38	20.50 RT	1141232.8829	539883.1629
106	100+73.38	20.50 RT	1141234.0089	539887.0012
107	99+83.00	20.50 RT	1141259.4501	539973.7257
108	99+75.00	20.82 RT	1141261.3996	539981.4909
200	102+62.40	40.76 LT	1141222.4135	539681.9711
201	102+48.95	30.54 LT	1141221.9598	539700.2762
202	102+43.55	29.03 LT	1141223.6989	539706.2045
203	101+78.60	20.50 LT	1141243.7254	539774.4714
204	99+58.47	20.50 LT	1141305.6967	539985.7209
205	99+43.47	20.50 LT	1141309.9191	540000.1143

ITEM 609.11 CURB TYPE 1

POINT	LENGTH (FT)
102 TO 103	27.06
104 TO 105	39.61
107 TO 108	8.01
201 TO 202	6.18

ITEM 609.12 CURB TYPE 1 - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)
200 TO 201	18.61	30.00

ITEM 609.221 TERMINAL CURB TYPE 1

POINT	LENGTH (FT)
204 TO 205	15.00

ITEM 609.26 CURB TRANSITION SECTION B TYPE 1

POINT	LENGTH (FT)
100 TO 101	8.00

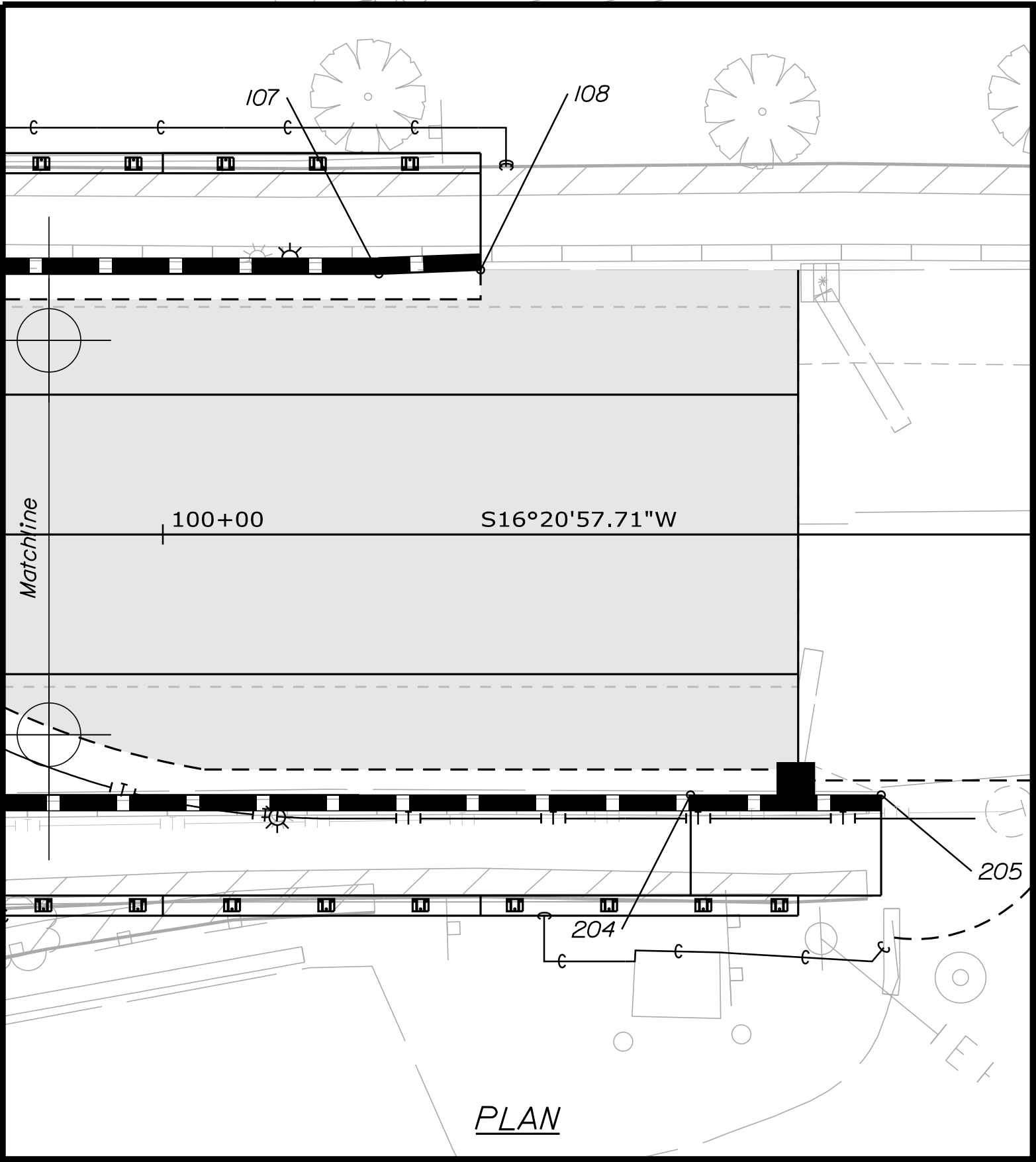
ITEM 609.38 RESET CURB TYPE 1

POINT	LENGTH (FT)
106 TO 107	90.38
203 TO 204	220.15

NOTE

1. Grading on the bridge deck has constant superelevation about the Working Line.

PLAN



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGNED-DETAILED
DESIGNED-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
OCT 2022
OCT 2022

BY
THG
TMM

SIGNATURE

P.E. NUMBER

DATE

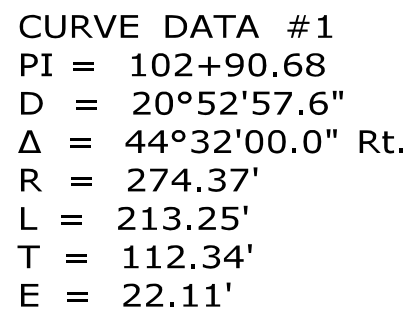
RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

GRADING AND CURBING
PLAN

SHEET NUMBER

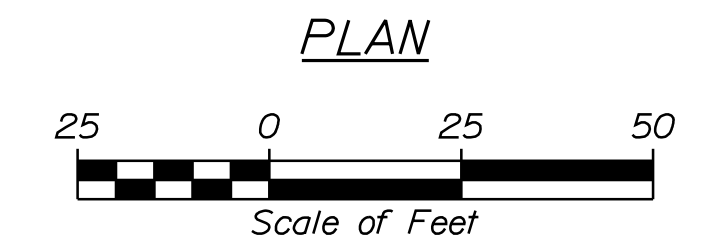
21

OF 84



1. All proposed work shall be in conformance with the "Manual on Uniform Traffic Control Devices for Streets and Highways" and "Standard Highway Signs", U.S.D.O.T., F.H.W.A., latest edition.
2. The Contractor shall remove all existing pavement markings that conflict with proposed markings (incidental to the Contract).
3. Proposed sign locations, offset and height shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), latest edition.

SWL	Solid White Line (4")
DYSL	Double Yellow Solid Line (4")



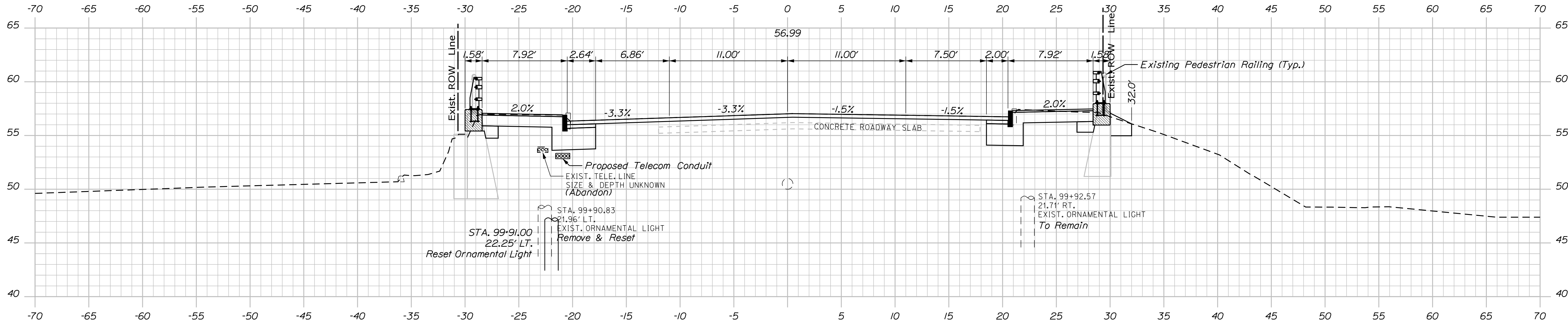
SHEET NUMBER 22 OF 84	RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	PROJ. MANAGER		A. LaRue	BY	DATE
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		CHECKED-REVIEWED		S.W.	T.W.W.	OCT 2022
		DESIGN2-DETAILED2				
		DESIGN3-DETAILED3				
	SIGNING AND STRIPING PLAN	REVISIONS 1				P.E. NUMBER
		REVISIONS 2				
		REVISIONS 3				
		REVISIONS 4				DATE
		FIELD CHANGES				
						STATE OF MAINE DEPARTMENT OF TRANSPORTATION
						WIN 21872.00
		BRIDGE NO. 3528				HIGHWAY PLANS

Date:10/24/2022

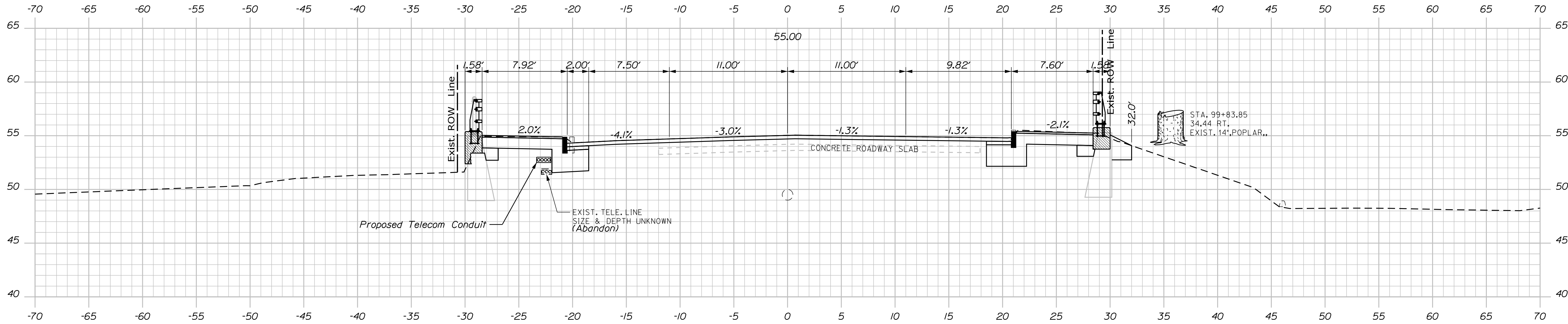
Username: sjwilliams

Division: BRIDGE

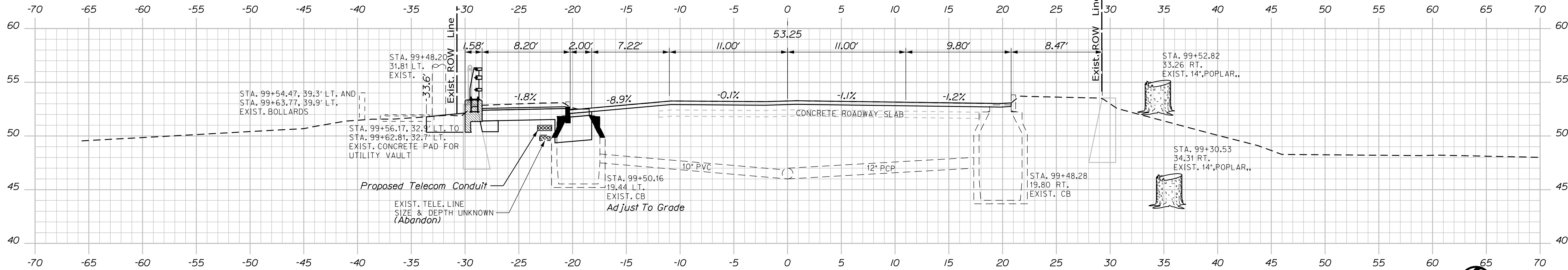
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100+00.00



99+75.00



99+50.00



Sta. 99+50.00 to Sta. 100+00.00

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	THG	OCT 2022
CHECKED-REVIEWED	TWM	OCT 2022
DESIGN-DETAILED		
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	THG	OCT 2022
CHECKED-REVIEWED	TWM	OCT 2022
DESIGN-DETAILED		
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

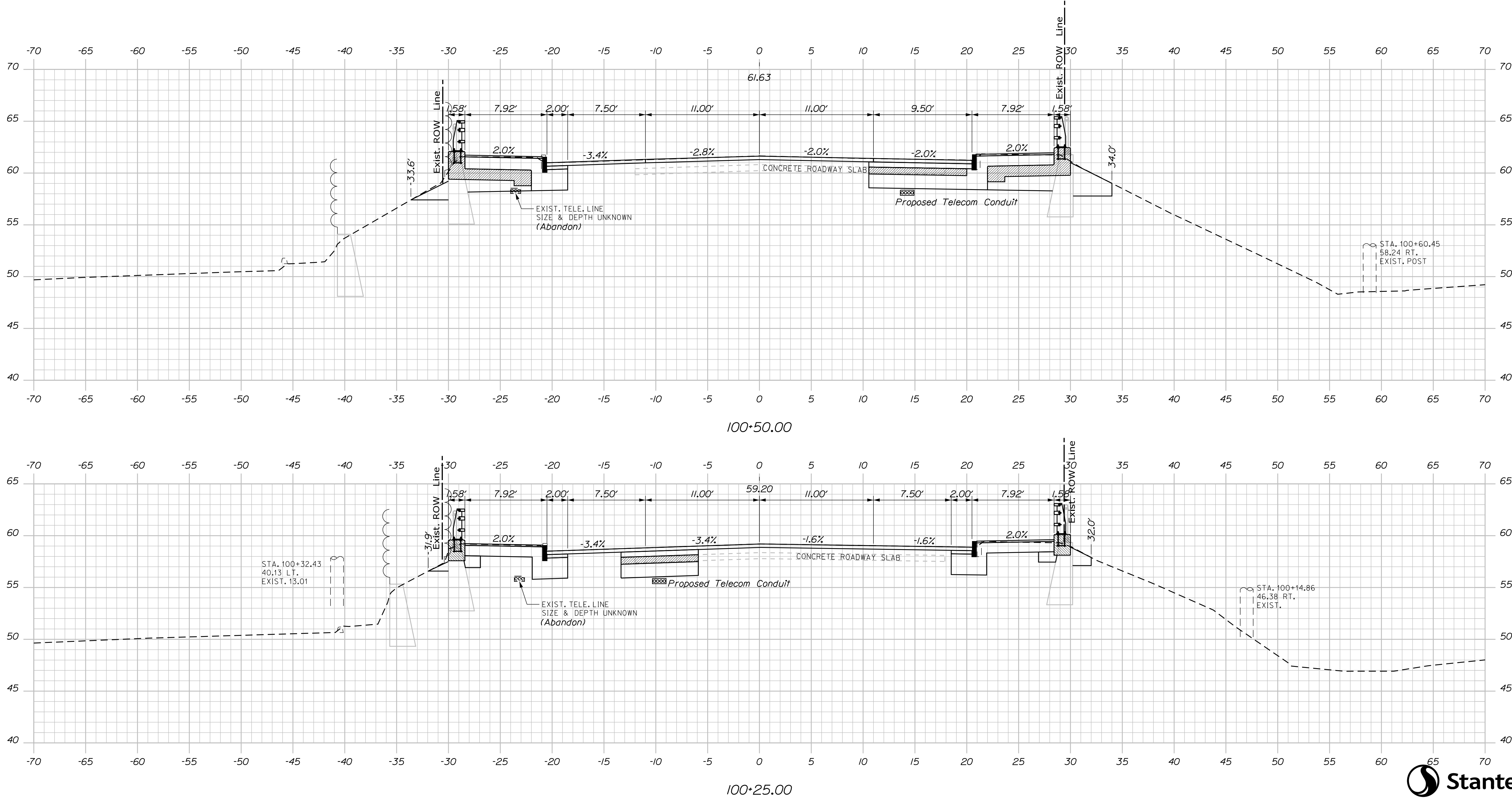
RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY
CROSS SECTIONS

Date:10/24/2022

Username: sjwilliams

Division: BRIDGE

Filename: ... \BRIDGE\MSTA023-031_Xsect.dgn



Sta. 100+25.00 to Sta. 100+50.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
	BRIDGE NO. 3528	WIN
	21872.00	

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	THG	OCT 2022
CHECKED-REVIEWED	TWM	OCT 2022
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	
CROSS SECTIONS	

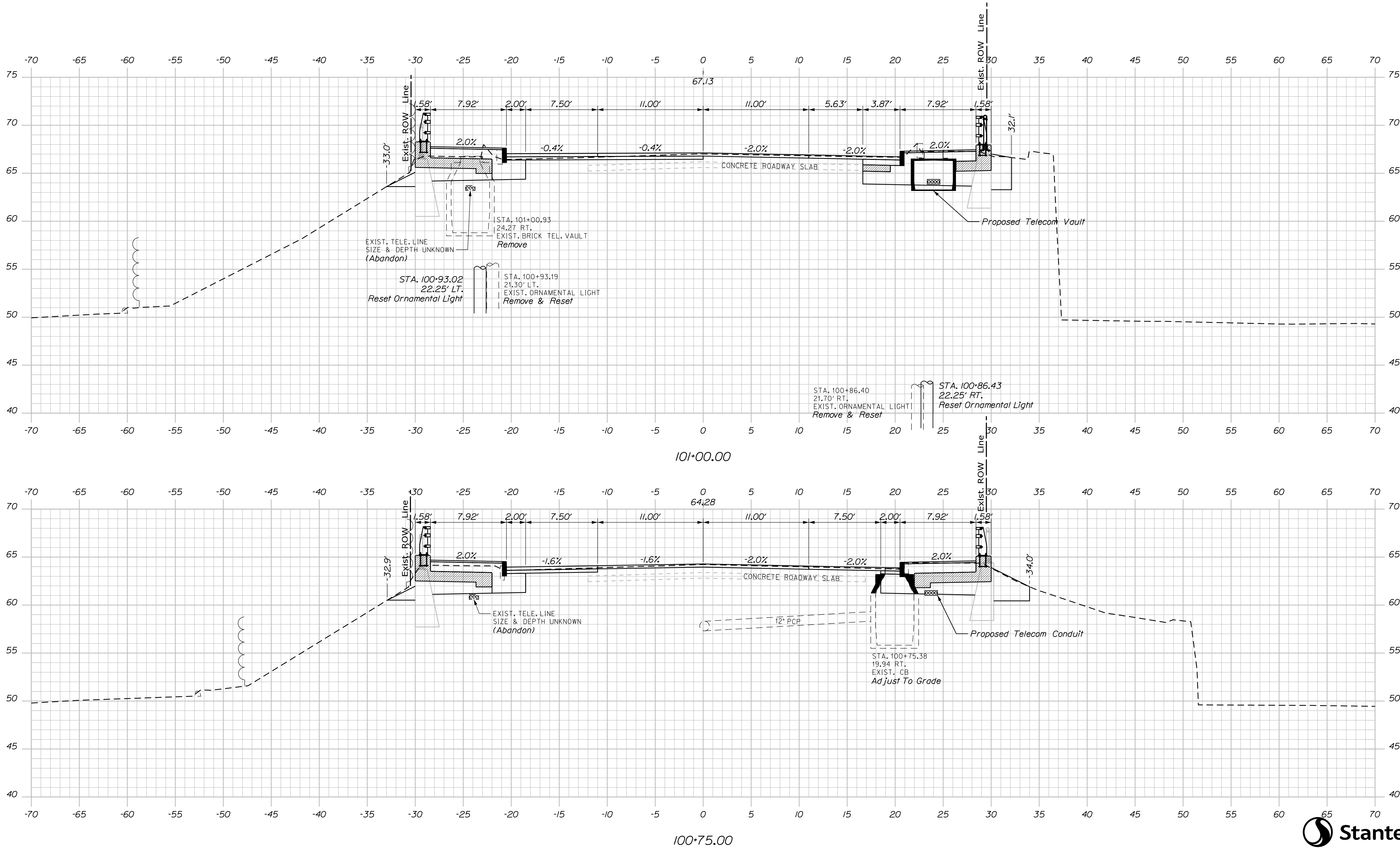
SHEET NUMBER
24
OF 84

Date:10/24/2022

Username: sjwilliams

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\023-031_Xsect.dgn



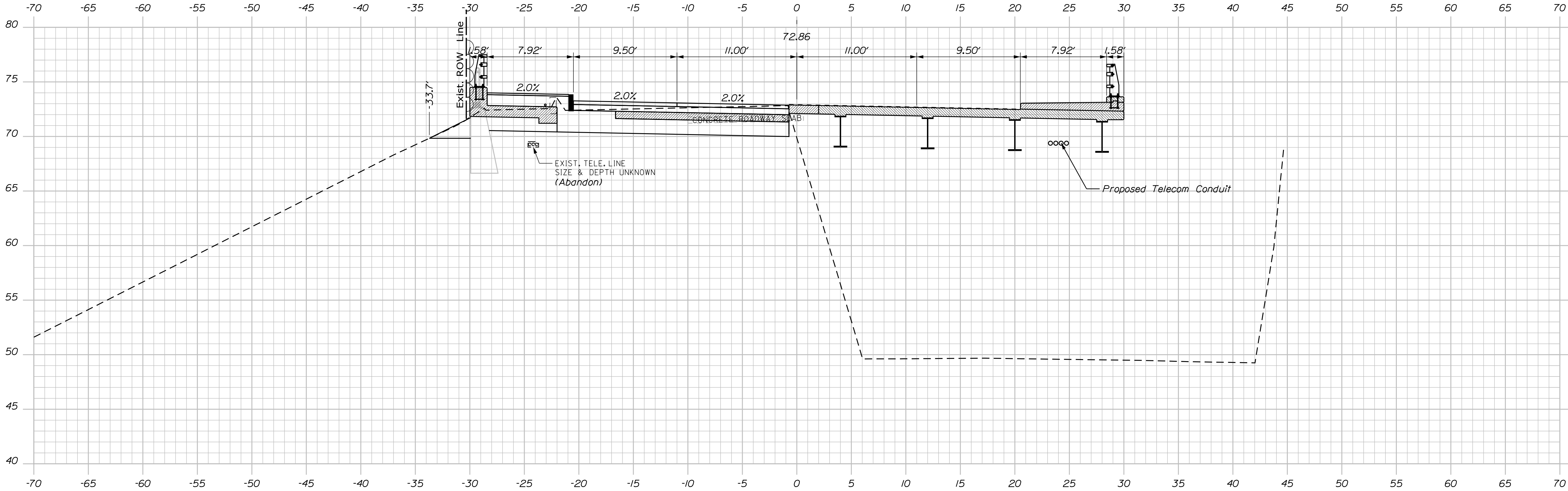
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		WIN		21872.00		BRIDGE NO. 3528		HIERARCHY PLANS	
RINES HILL BRIDGE		OLD MAINE CENTRAL RAILROAD		AUGUSTA		KENNEBEC COUNTY		CROSS SECTIONS		SHEET NUMBER	
25		OF 84		DATE		SIGNATURE		P.E. NUMBER		DATE	
PROJ. MANAGER		BY		DATE		DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED	
A. Lotte		THG		OCT 2022		PLP		THG		OCT 2022	
DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		REVISIONS 5		REVISIONS 6	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	

Date:10/24/2022

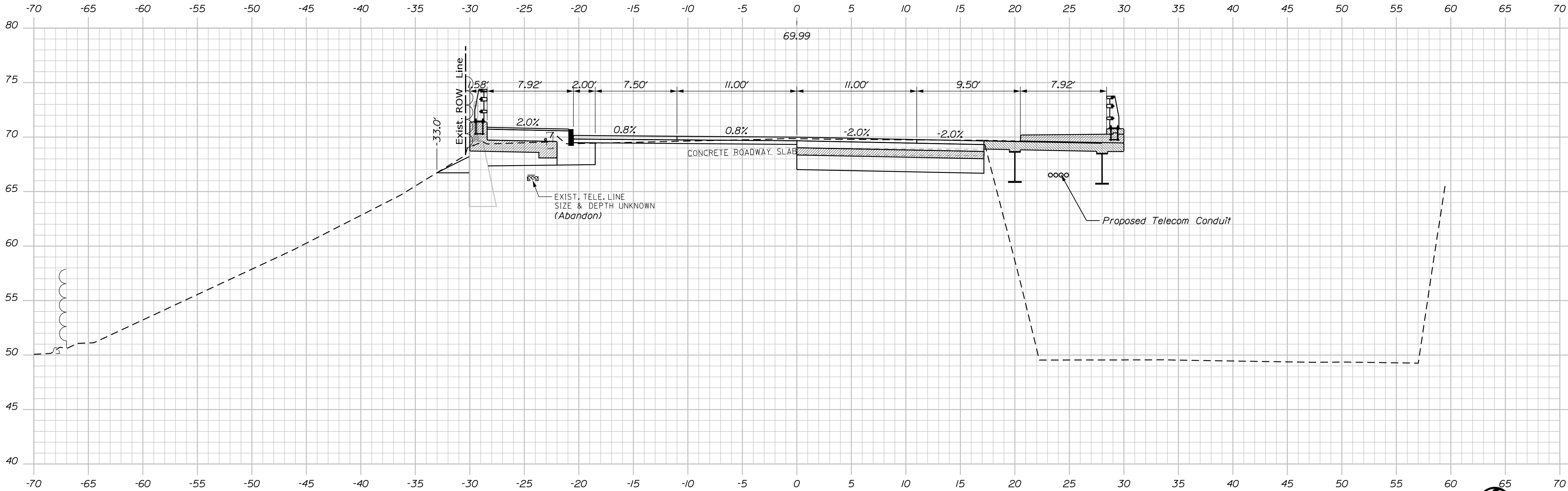
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Division: BRIDGE

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101+50.00



101+25.00

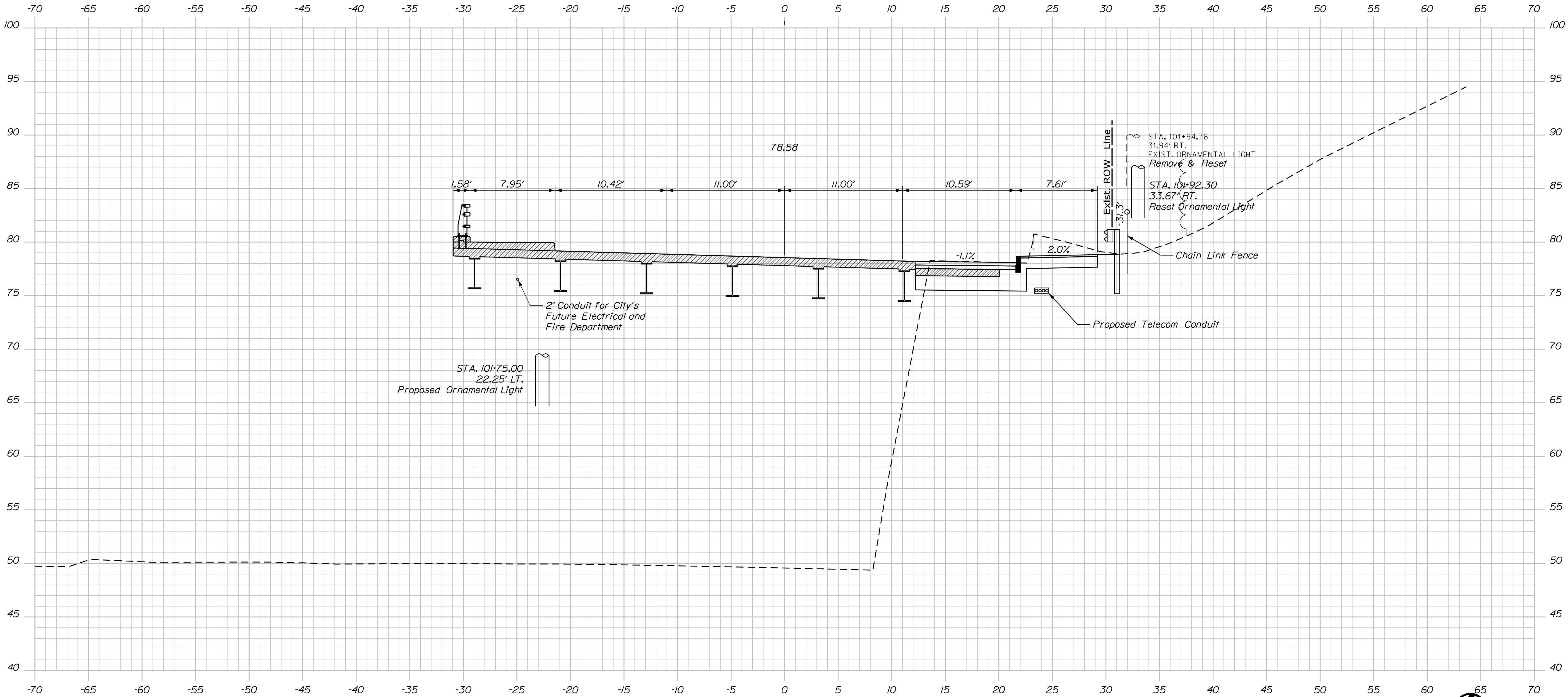


PROJ. MANAGER	BY	DATE
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CHECKED-REVIEWED	TWW	OCT 2022
DESIGN-DETAILED		
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS



102+00.00



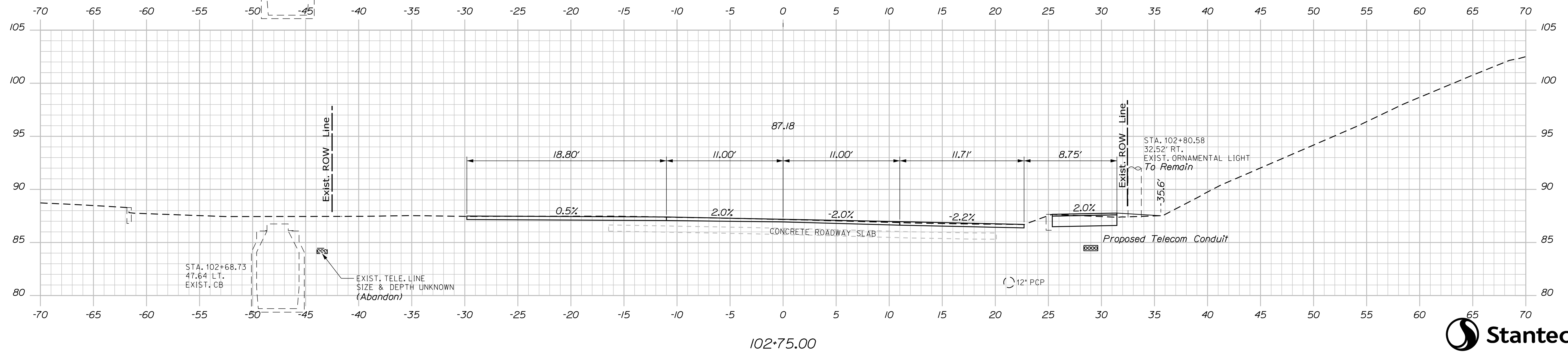
PROJ. MANAGER	A. Lotte	BY	DATE
DESIGN-DETAILED	PLP	THG	OCT 2022
CHECKED-REVIEWED	LEM	TWM	OCT 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

Filename: ... \BRIDGE\MSTA\023-031_Xsect.dgn



BRIDGE NO. 3528

WIN

21872.00

HIERNDL PLANS

RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

30

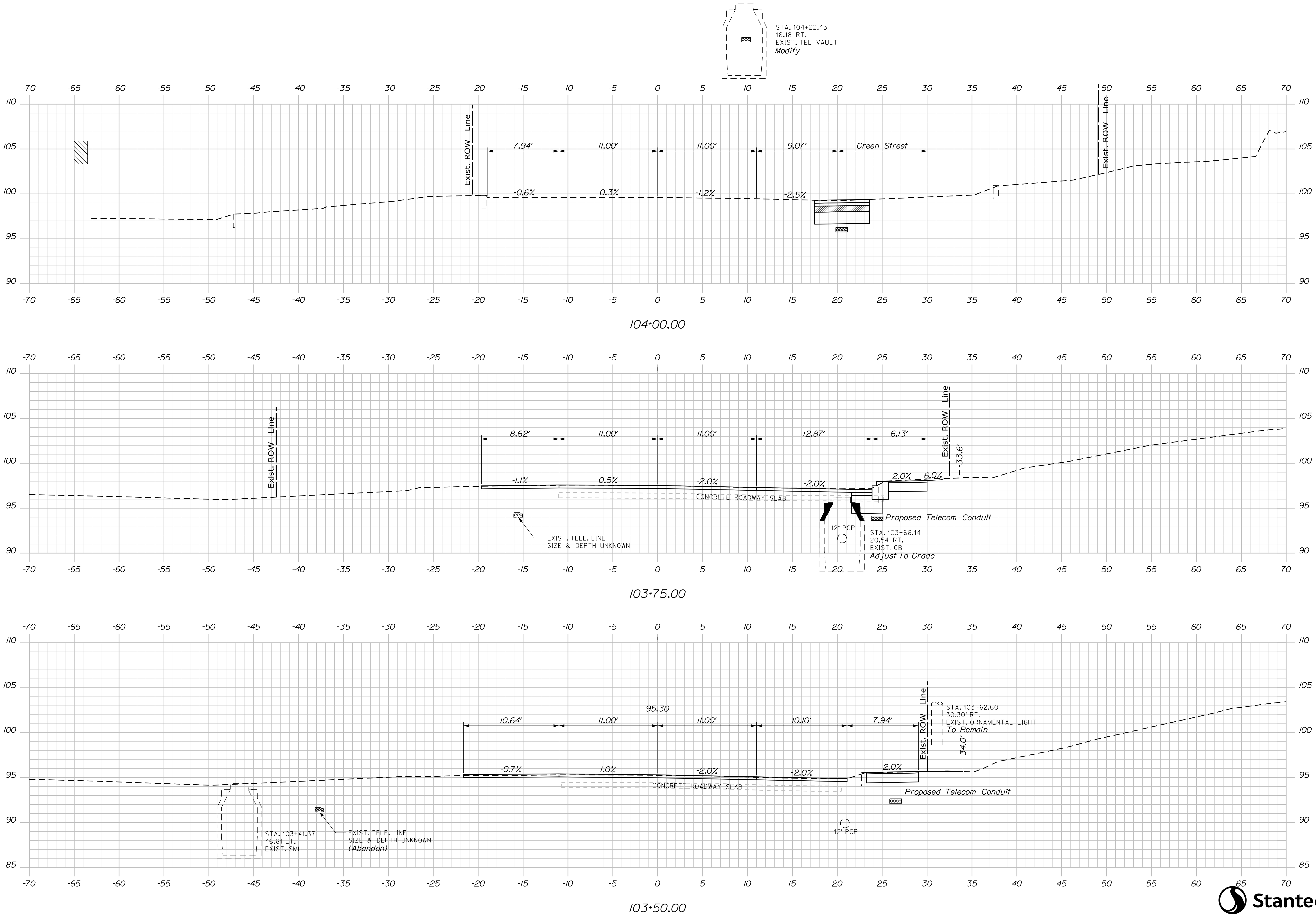
OF 84

Date:10/24/2022

Username: sjwilliams

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\023-031_Xsect.dgn



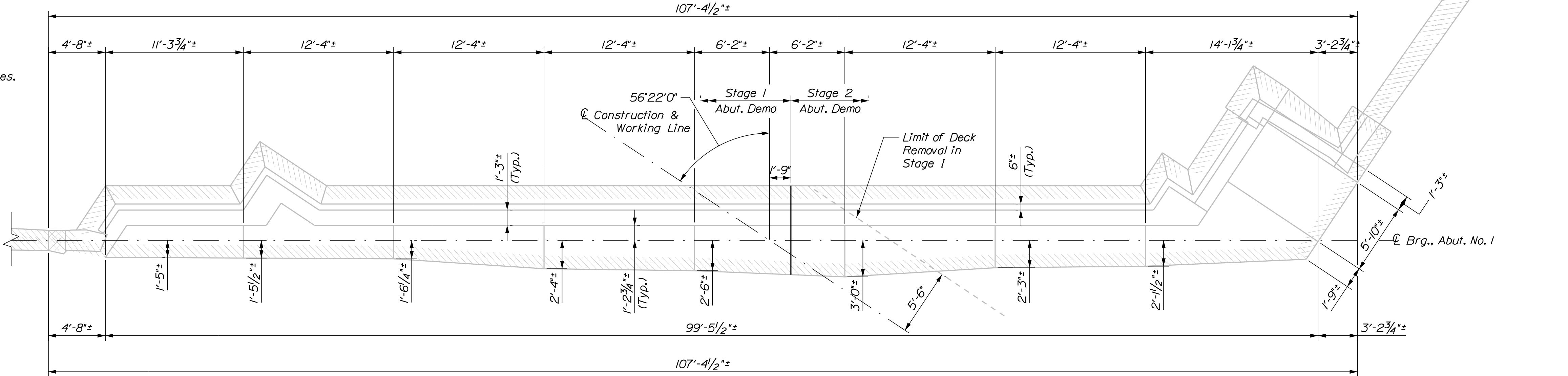
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE		P.E. NUMBER	DATE
	THG	OCT 2022		
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	CHECKED-REVIEWED	LEM	DESIGN-DETAILED	LEM
	DESIGN-DETAILED		REVISIONS 1	
	REVISIONS 2		REVISIONS 3	
	REVISIONS 4		REVISIONS 5	
CROSS SECTIONS	FIELD CHANGES			
	SHEET NUMBER			
31				
OF 84				

LEGEND

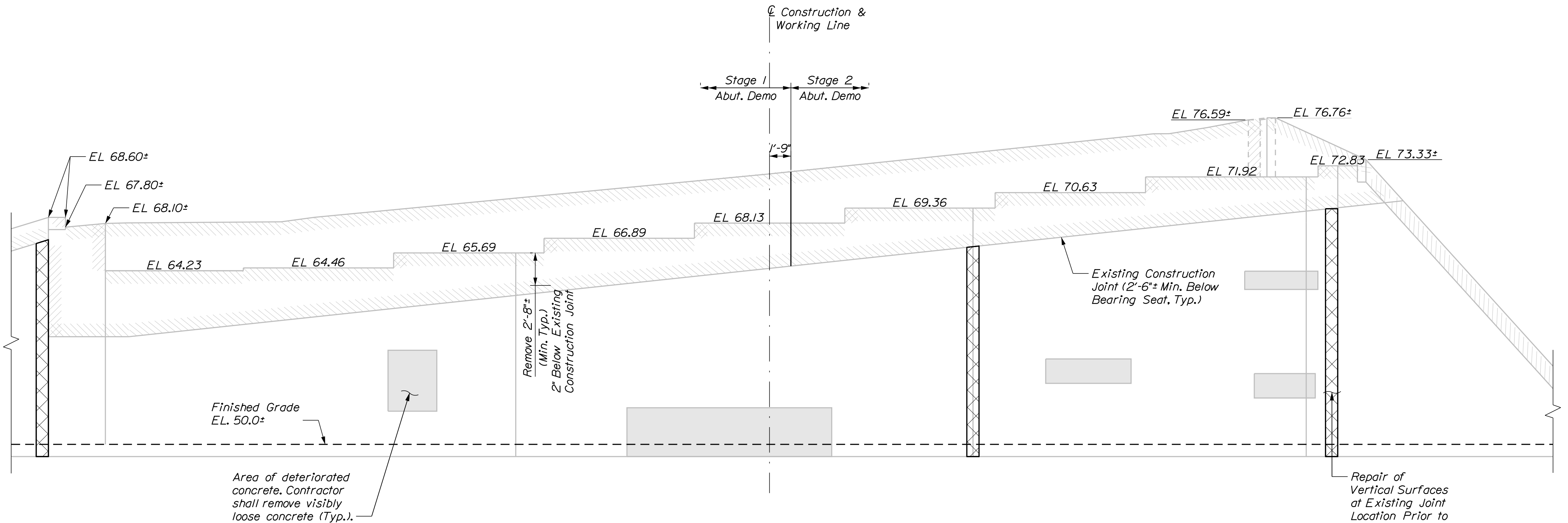
- Areas of Moderate to Severe Distress/Spalls (No concrete repair anticipated in these areas. Contractor shall remove any visible loose concrete prior to refacing.)
- Repair of Vertical Surfaces
- Remove Existing Concrete

NOTE

1. See Sheet 38 for repair notes.



PLAN - ABUTMENT NO. 1



ELEVATION - ABUTMENT NO. 1

Note: Existing bearing seat elevations based on 2019 LIDAR survey.

Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

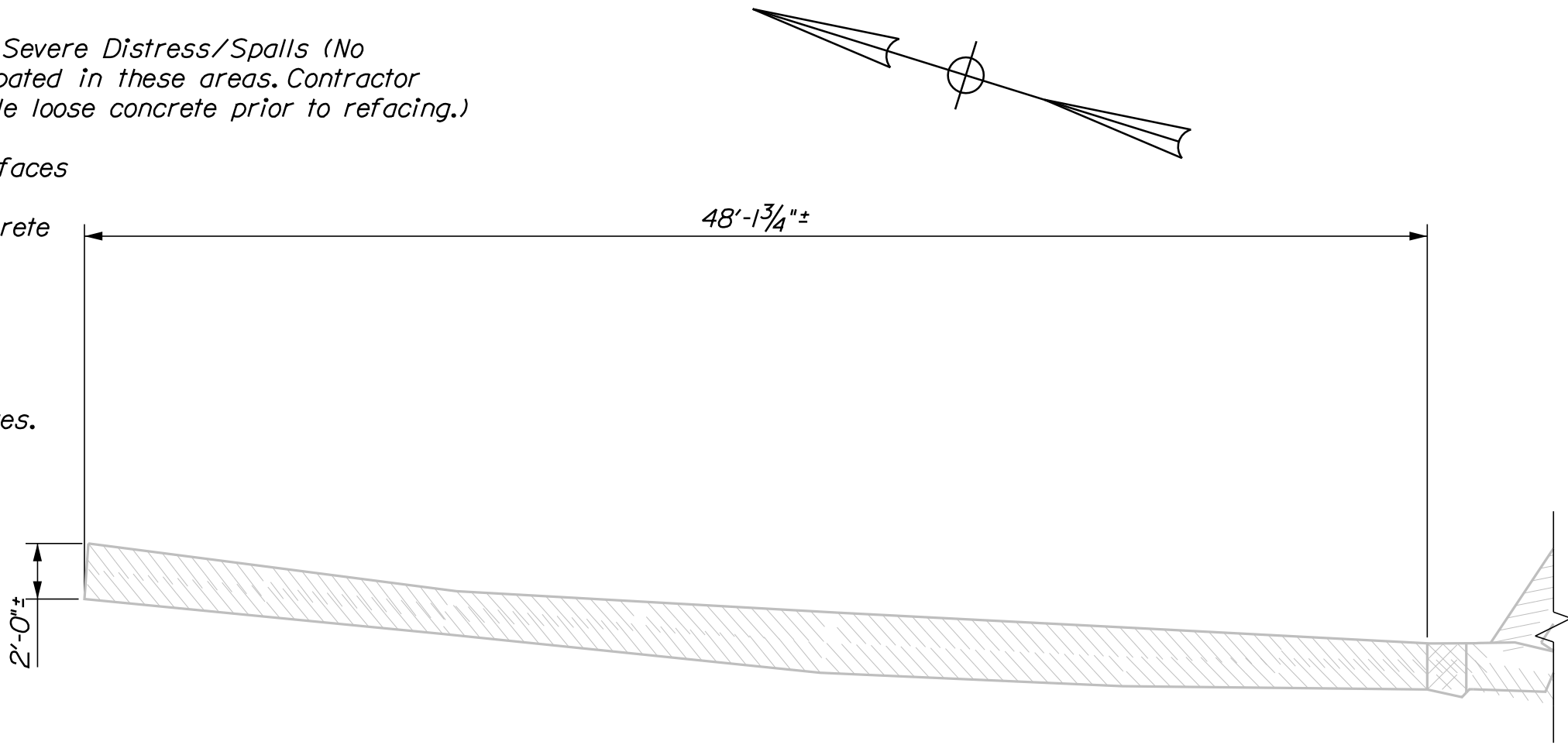
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LEGEND

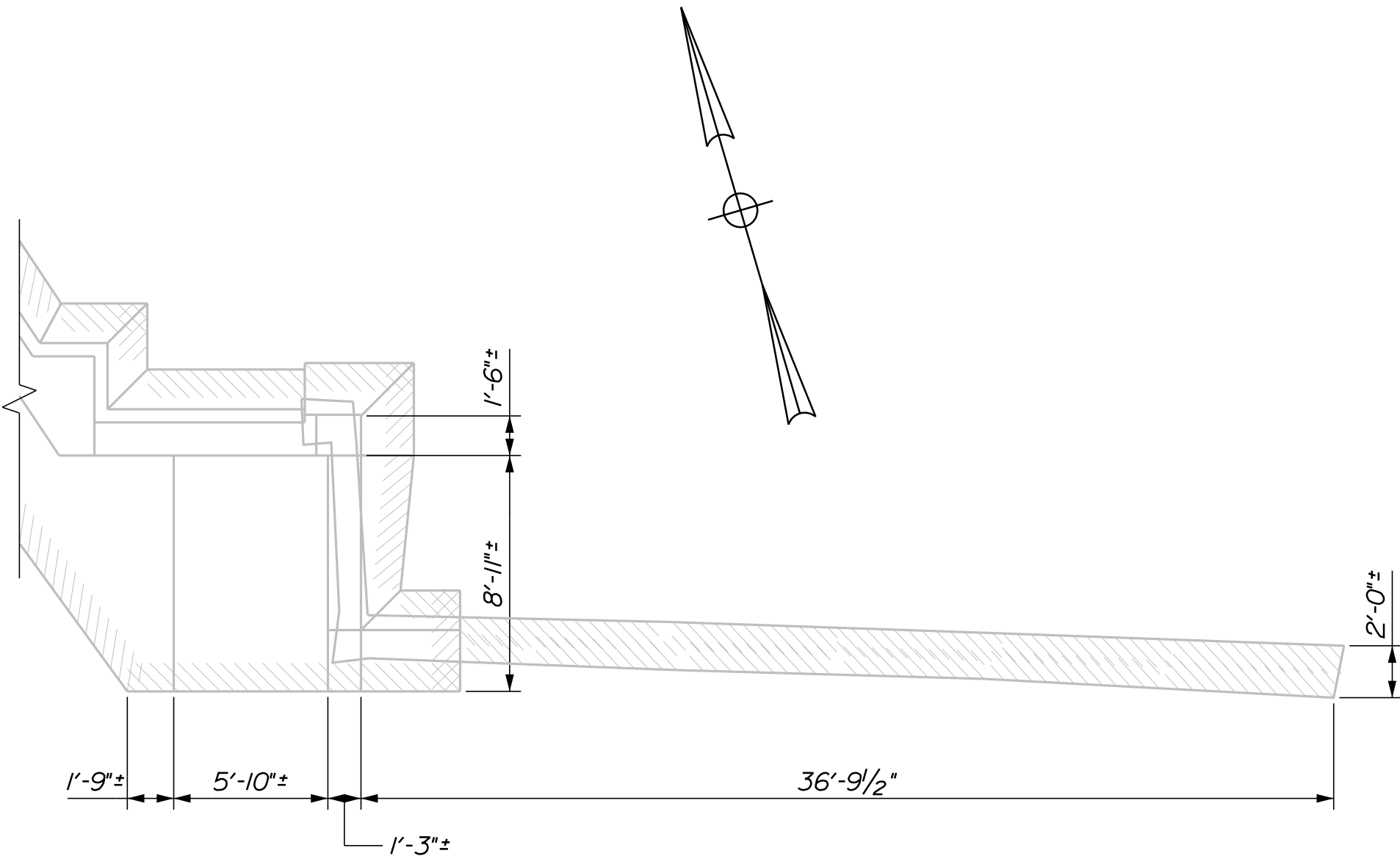
- Areas of Moderate to Severe Distress/Spalls (No concrete repair anticipated in these areas. Contractor shall remove any visible loose concrete prior to refacing.)
- Repair of Vertical Surfaces
- Remove Existing Concrete

NOTE

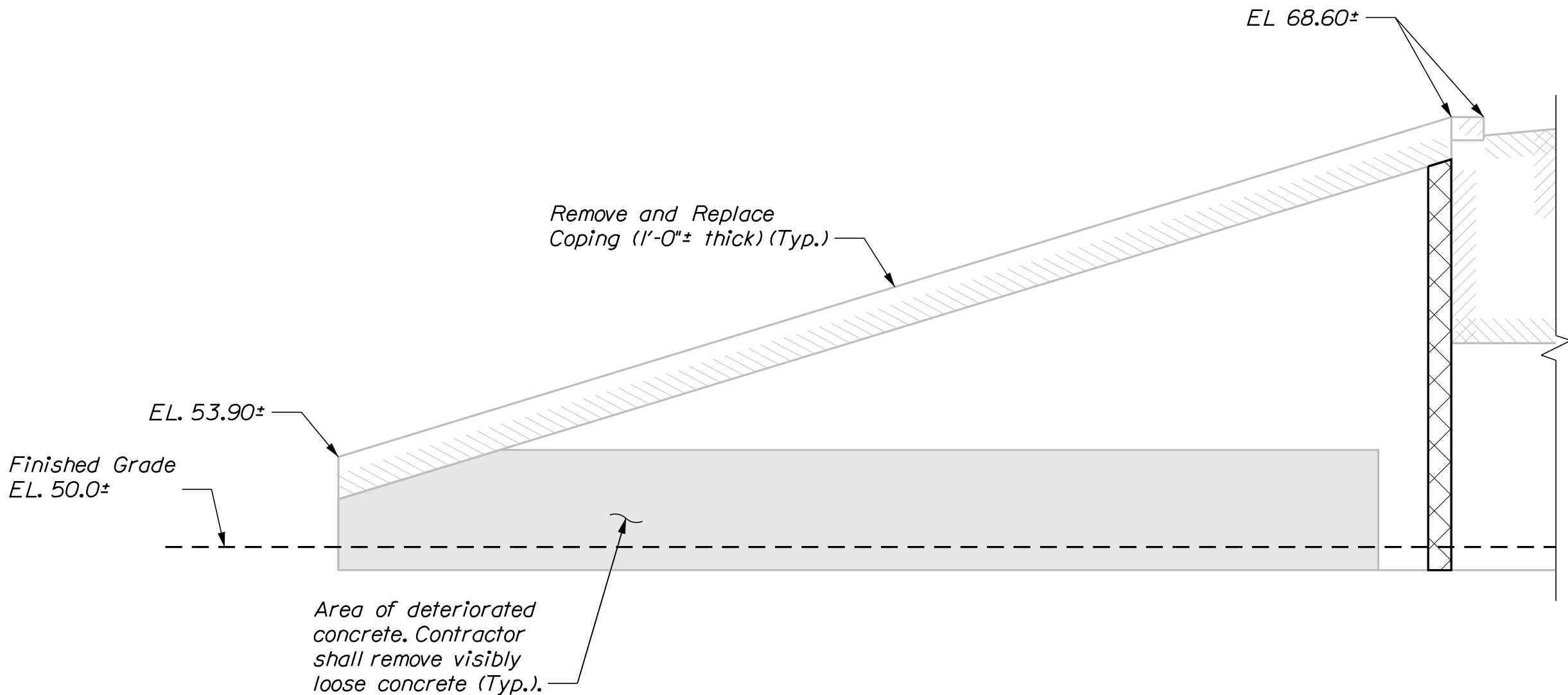
1. See Sheet 38 for repair notes.



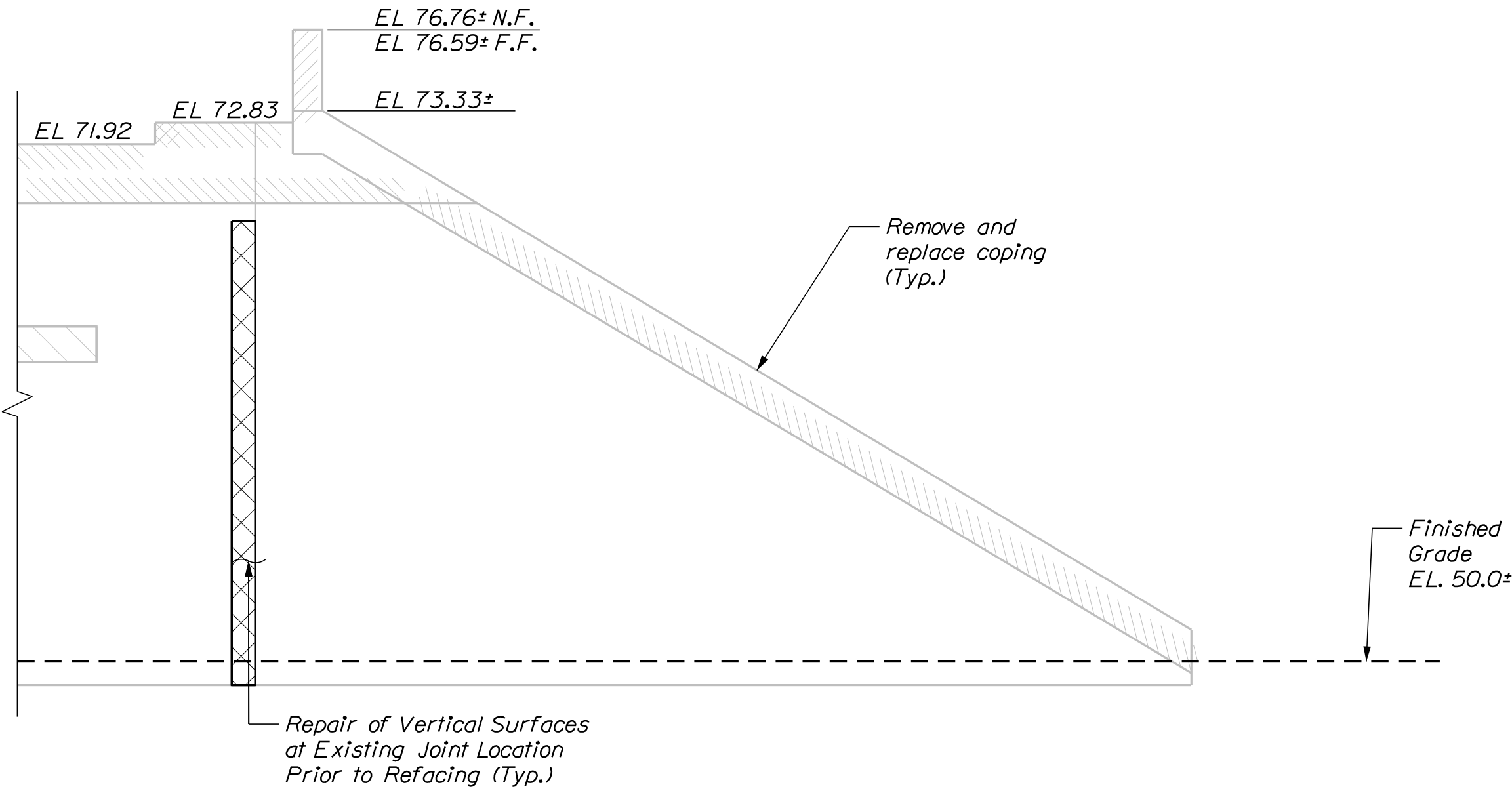
PLAN - NORTHWEST WINGWALL



PLAN - NORTHEAST WINGWALL



ELEVATION - NORTHWEST WINGWALL



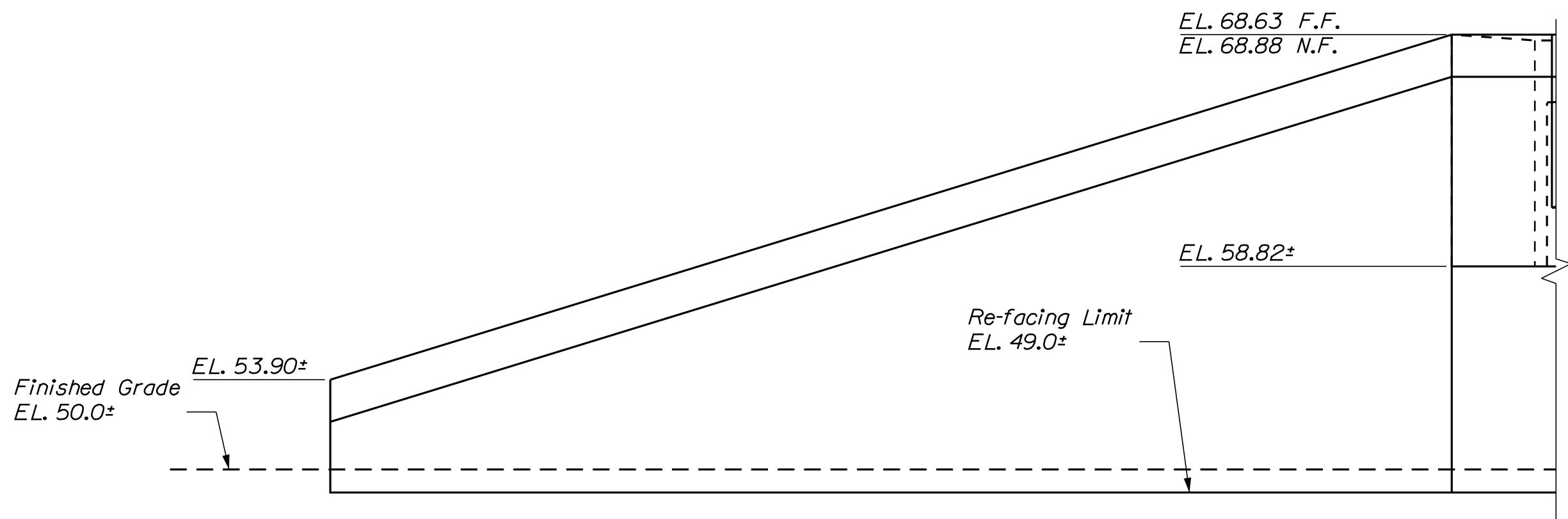
ELEVATION - NORTHEAST WINGWALL

SHEET NUMBER										RINES HILL BRIDGE										PROJ. MANAGER										A. Lothe										BY										DATE										STATE OF MAINE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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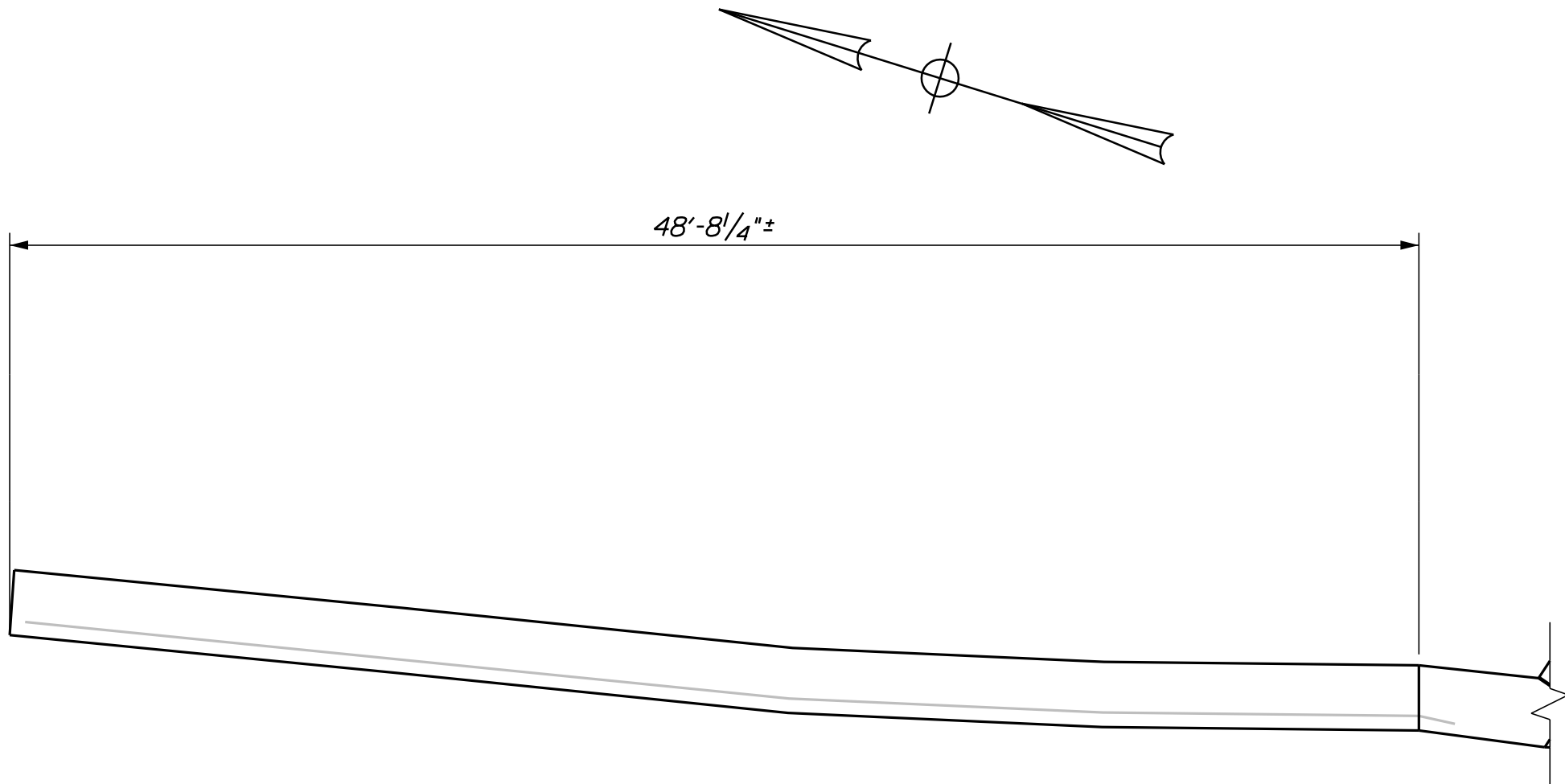
1. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.
2. Cover joints where waterstops are not required in accordance with Standard Detail 502(01).
3. Adjust reinforcing to avoid conflict with utilities. Field bend bars as necessary.



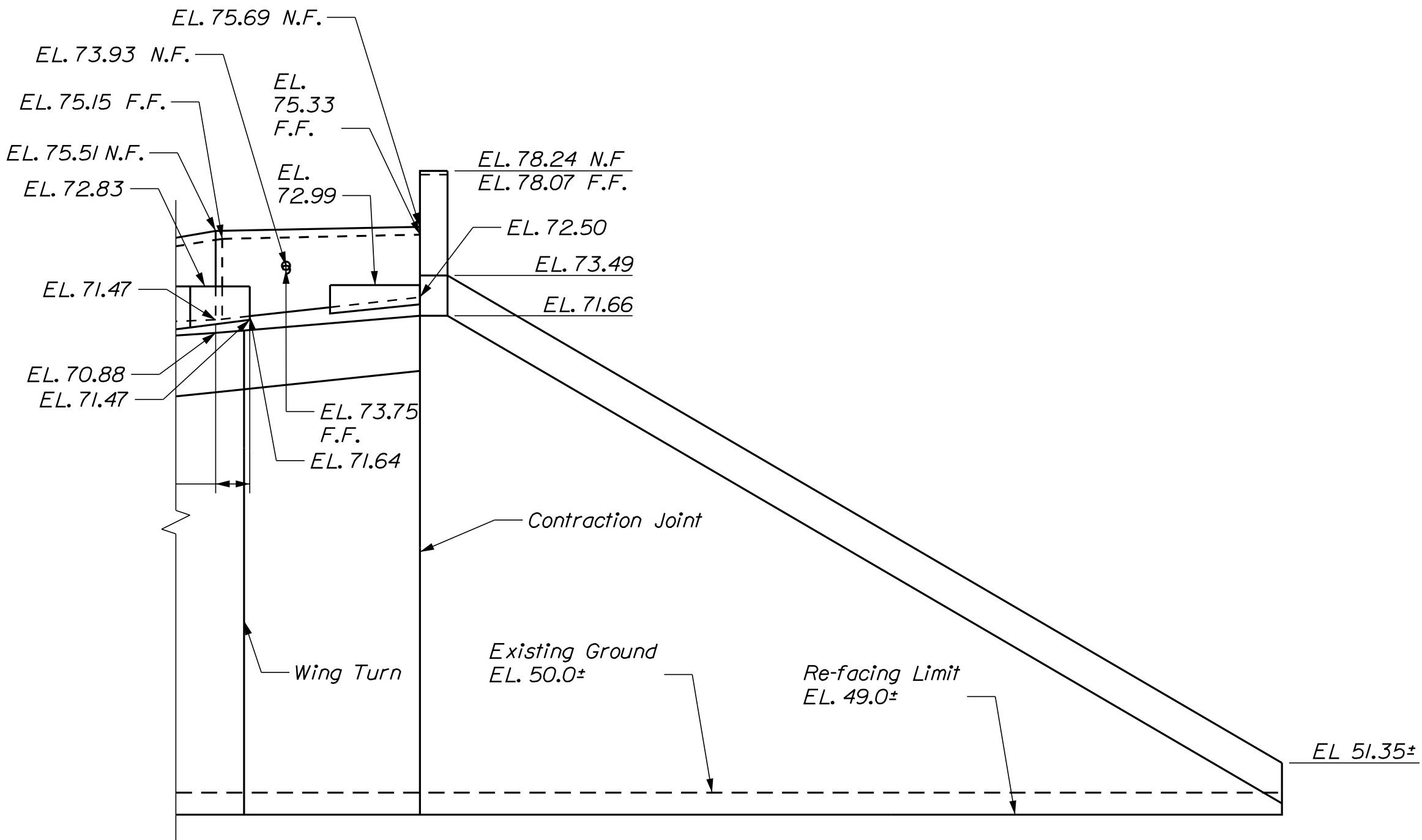
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CHECKED-REVIEWED	SJW	TWM	OCT 2022
DESIGNED-DETAILED	DZ		
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DESIGNS 2			
DESIGNS 3			
DESIGNS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			



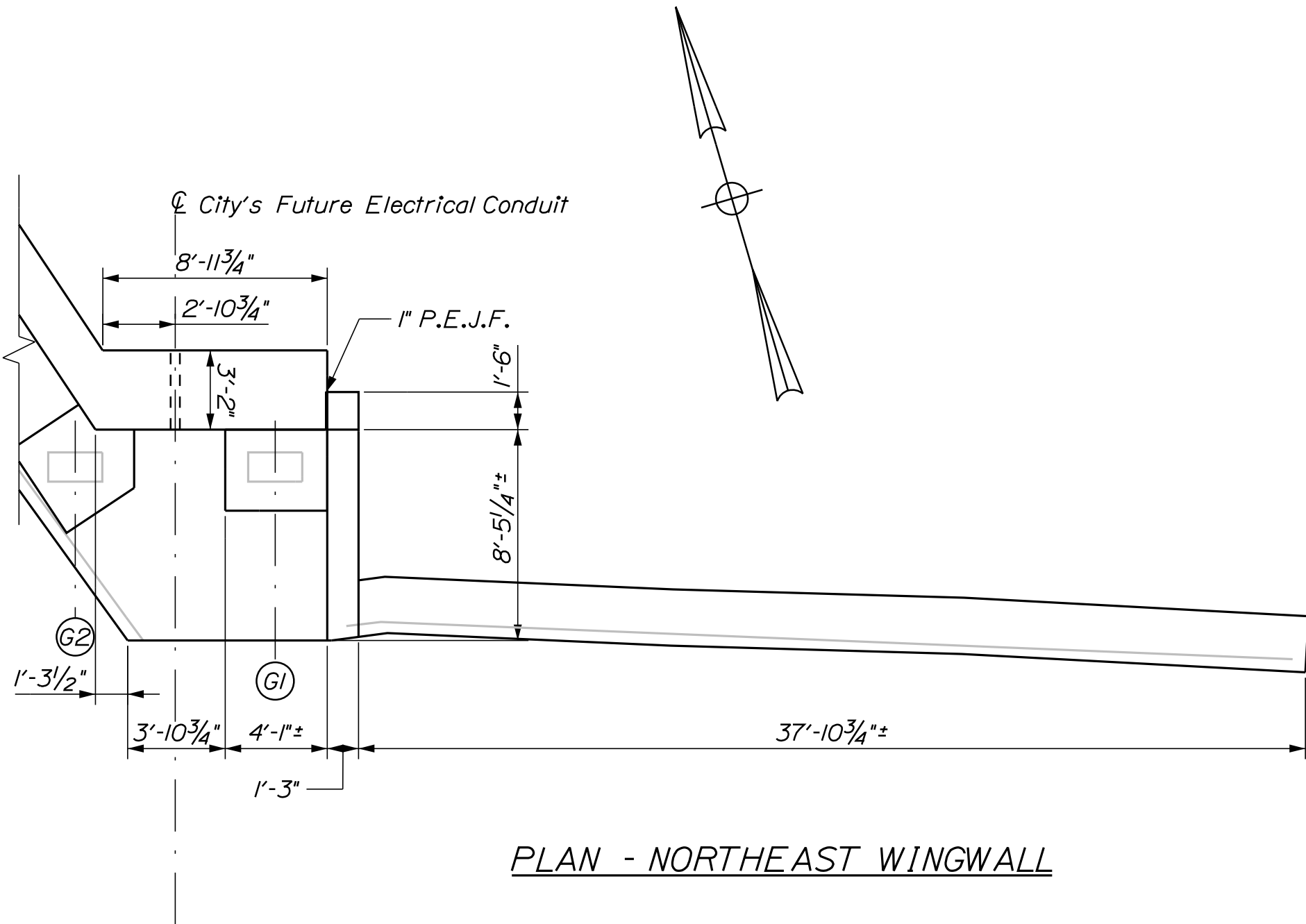
ELEVATION - NORTHWEST WINGWALL



PLAN - NORTHWEST WINGWALL



ELEVATION - NORTHEAST WINGWALL



PLAN - NORTHEAST WINGWALL

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BRIDGE PLANS

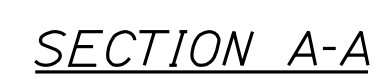
THE

SHEET NUMBER

F 84







SECTION B-B

Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

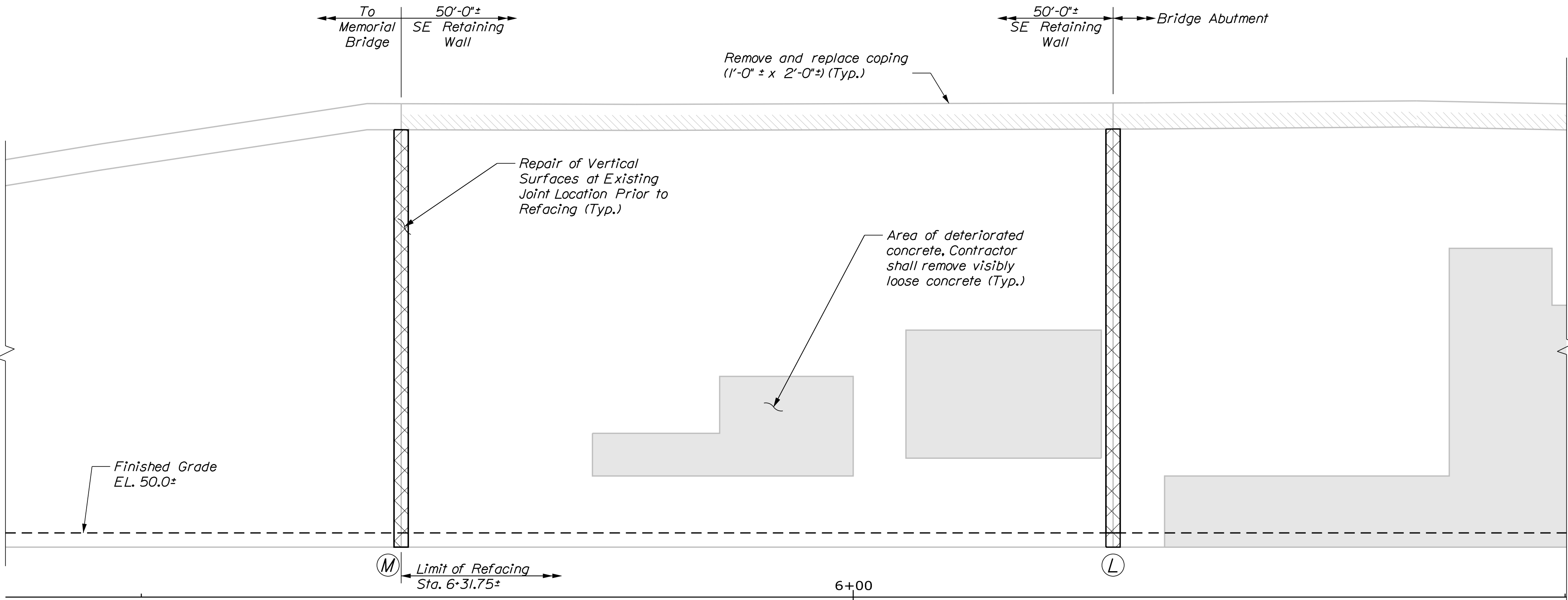
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LEGEND

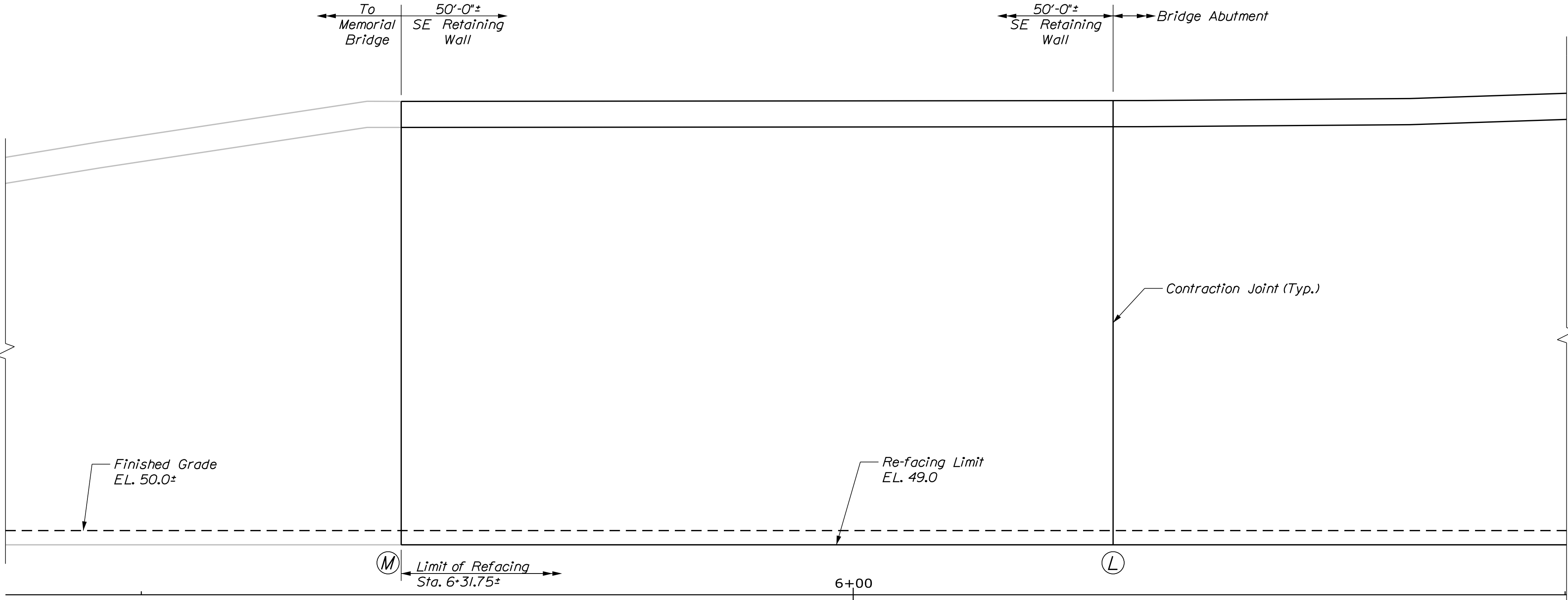
- Areas of Moderate to Severe Distress/Spalls (No concrete repair anticipated in these areas. Contractor shall remove any visible loose concrete prior to refacing.)
- Repair of Vertical Surfaces
- Remove Existing Concrete

NOTES

- Retaining wall and abutment repair work is limited to existing vertical contraction joints where repair is necessary for refacing formwork, construction and joints. The work shall include the removal of unsound concrete, placement and curing of repair material and surficial excavation to perform repairs up to 12" below grade. The work shall be paid for under items Items 518.60 Repair of Vertical Surfaces < 8 in and 518.61 Repair of Vertical Surfaces > 8 in. See Sheet 49 for concrete repair details at vertical wall joints.
- The Contractor shall provide staging or another acceptable means of access along the retaining wall and abutments that will allow the Resident to safely perform a detailed concrete inspection of the existing vertical joints. This work shall be incidental to Item 518.60 and 518.61, Repair of Vertical Surfaces.
- The repair areas shown are based on a field inspection performed in August 2017. Final repair areas at the existing vertical joints shall be determined and agreed upon in the field by the Contractor and the Resident in accordance with Section 518. The total quantity of the estimated repairs includes an additional 25% for undetermined locations.
- Existing contraction joints shown are approximate along the length of the south retaining wall and abutment. Proposed refacing contraction joints shall be located to coincide with the existing joints and shall be verified by the Contractor in the field prior to the work. The Contractor shall verify refacing reinforcing lengths.
- Removal of loose concrete in wall refacing areas shall be incidental to 518 concrete repair items.
- See Sheet 50 for typical retaining wall sections.



ELEVATION - SOUTHEAST RETAINING WALL - REMOVAL & REPAIR



ELEVATION - SOUTHEAST RETAINING WALL - RECONSTRUCTION



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN 21872.00
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
KLW
TMM

DATE
OCT 2022
OCT 2022

SIGNATURE
P.E. NUMBER
DATE

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

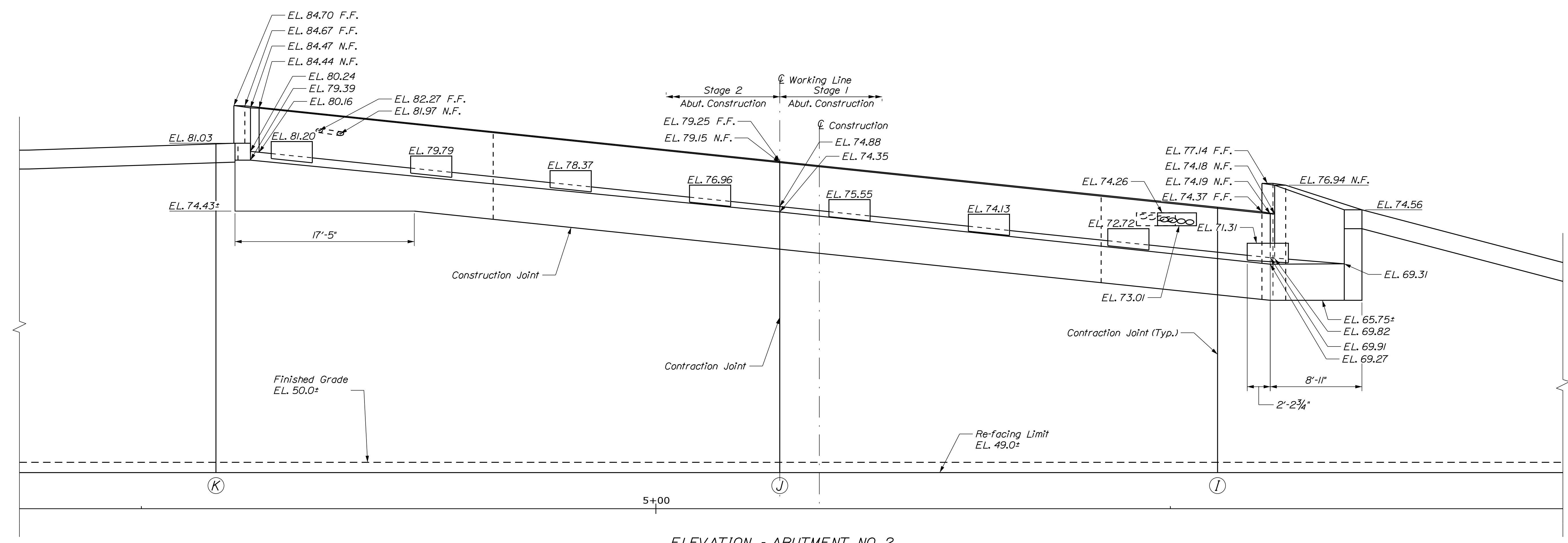
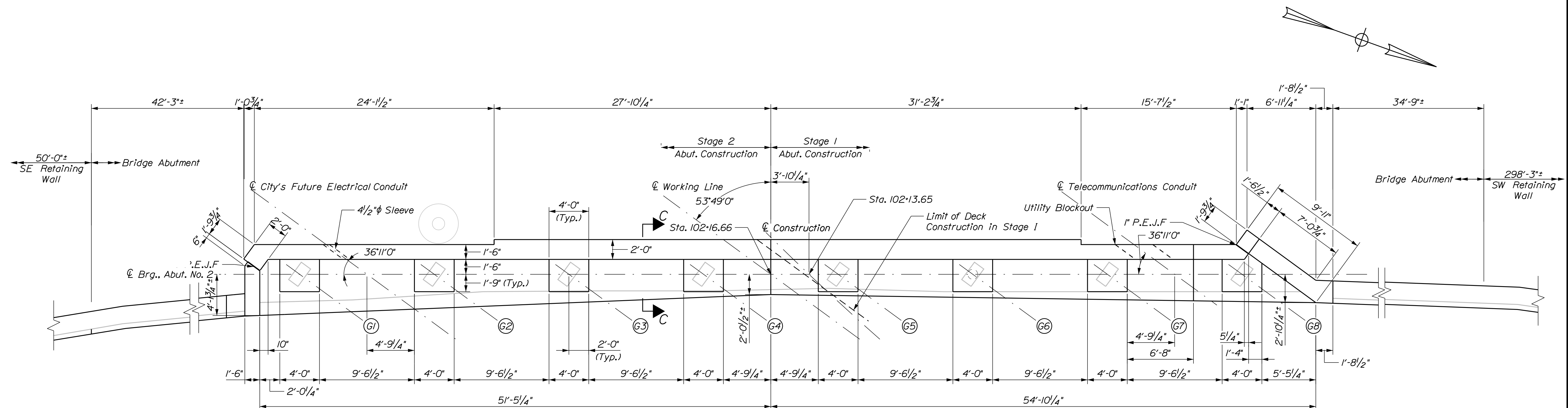
SOUTHEAST RETAINING WALL

SHEET NUMBER

39
OF 84



Filename: ... \MSTA\041_Exist_Abut2.dgn



ABUTMENT 2 - PLAN - SOUTHEAST CORNER

ABUTMENT 2 - PLAN - SOUTHWEST CORNER

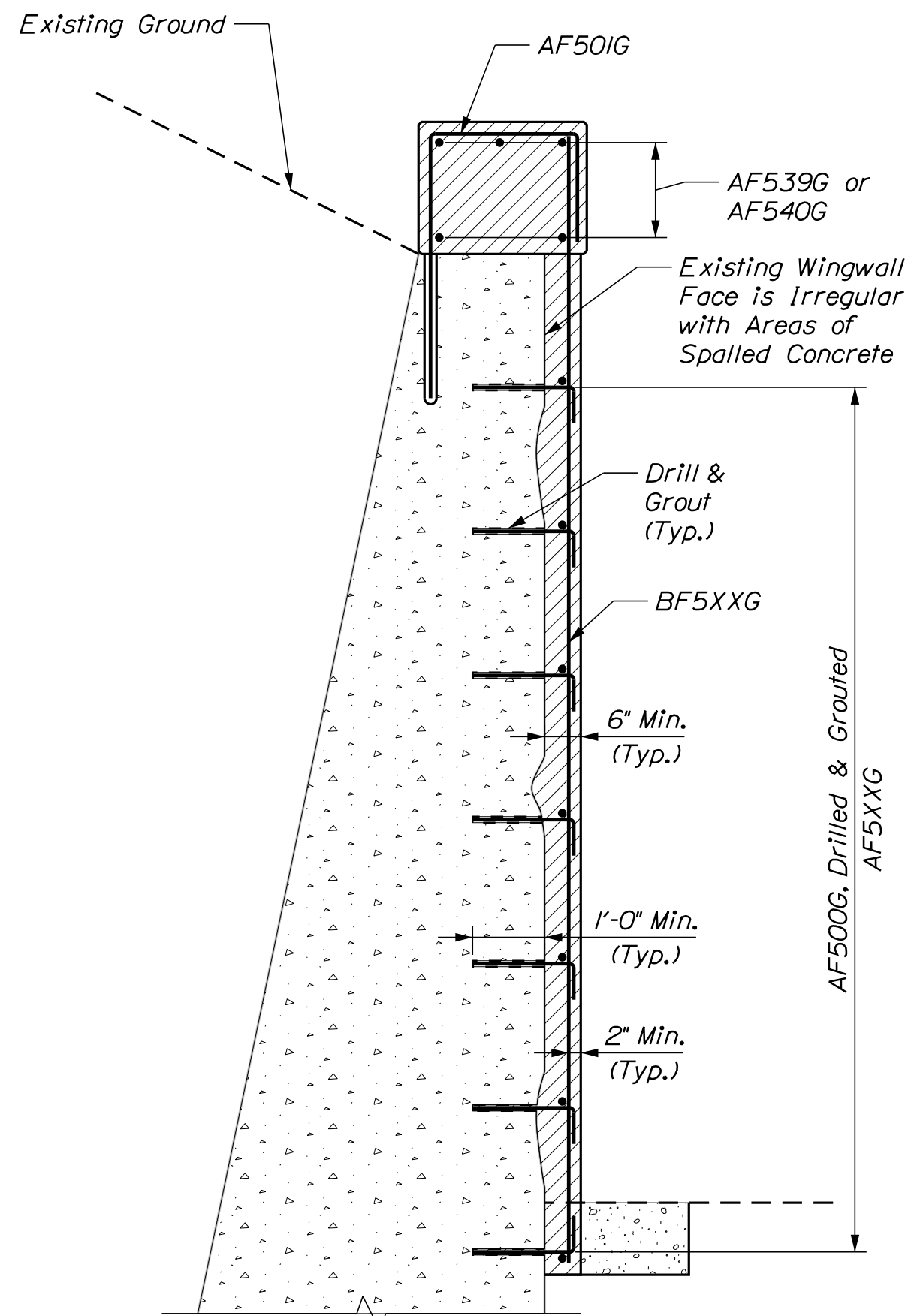
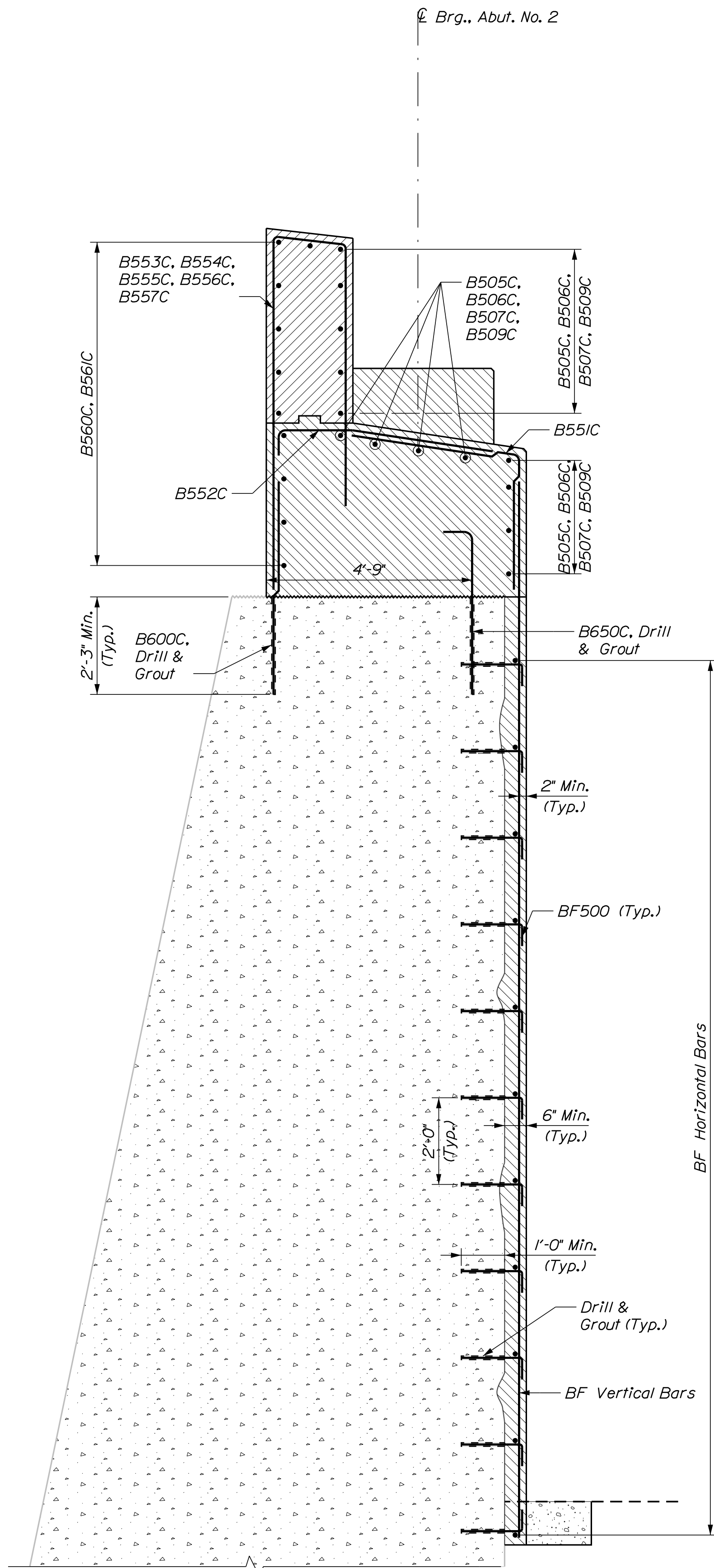
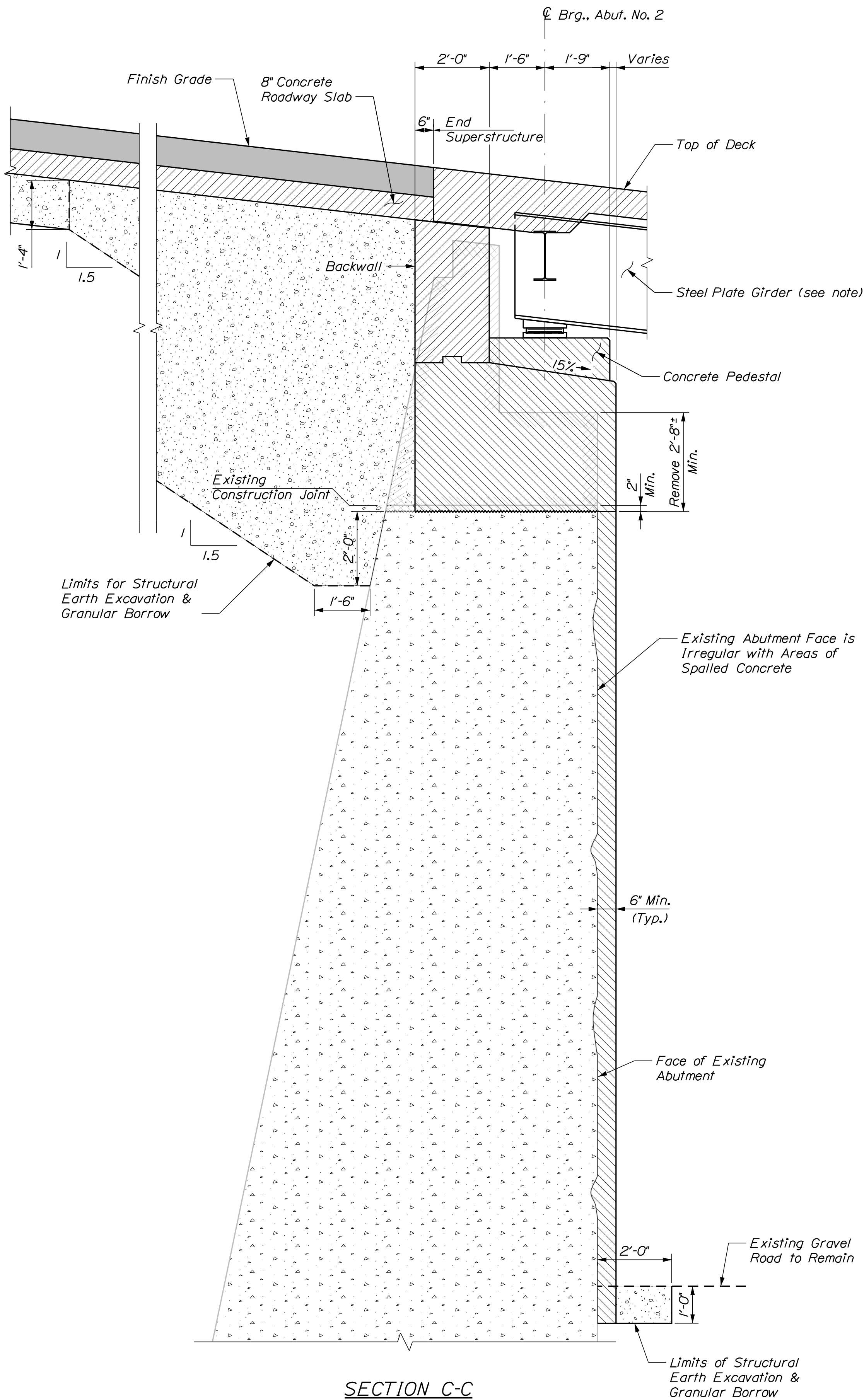
SOUTHWEST WINGWALL ELEVATION

~PLAN~

~ELEVATION~

~SECTION~

BEARING PEDESTAL DETAILS



Note: Steel superstructure shown, CT girder similar

STATE OF MAINE DEPARTMENT OF TRANSPORTATION					SIGNATURE
BRIDGE NO. 3528				WIN 21872.00	BRIDGE PLANS

RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY ABUTMENT NO. 2 SECTIONS	PROJ. MANAGER	A. Lothe	BY	DATE
	DESIGN-DETAILED	LSF	LSF	OCT. 2022
	CHECKED-REVIEWED	SW	TWM	OCT. 2022
	DESIGN2-DETAILED2			
	DESIGN3-DETAILED3			
	REVISIONS 1			
	REVISIONS 2			
	REVISIONS 3			
	REVISIONS 4			
	FIELD CHANGES			

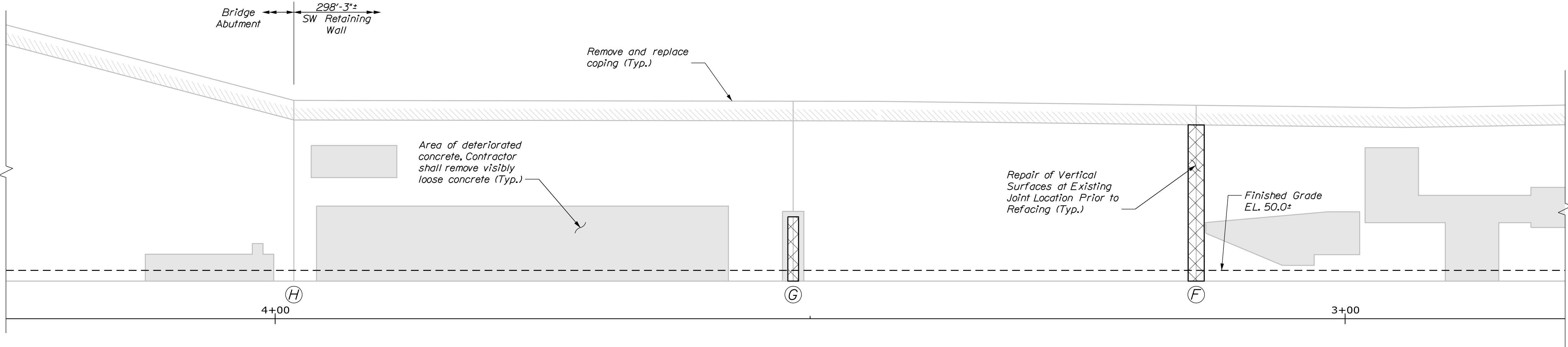
SHEET NUMBER	45
OF 84	

Date:10/21/2022

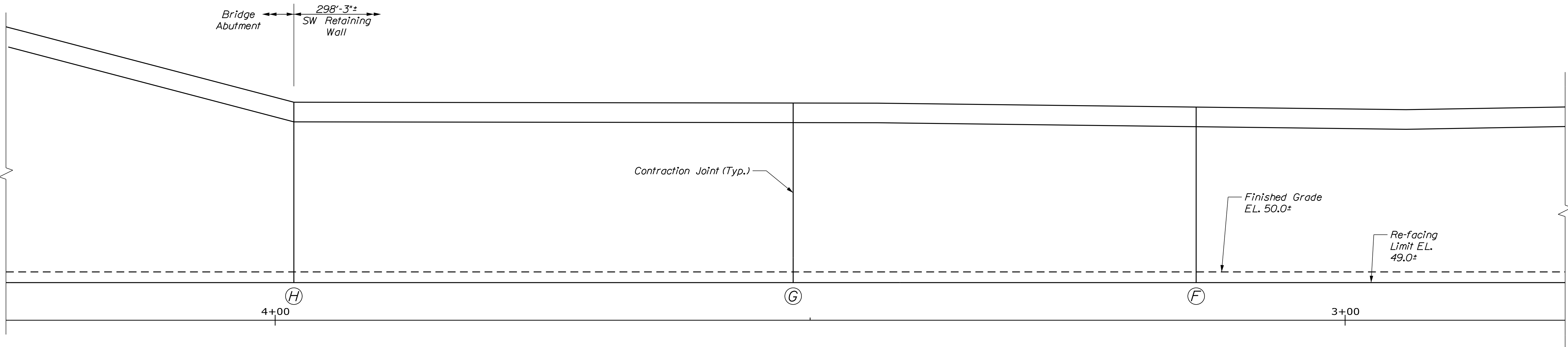
Username: sjwilliams

Division: BRIDGE

Filename: ... \MSTAO46_SW_RetainingWall.dgn



ELEVATION - SOUTHWEST RETAINING WALL - REMOVAL & REPAIR



ELEVATION - SOUTHWEST RETAINING WALL - RECONSTRUCTION



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE		DATE
	P.E. NUMBER		DATE
	BRIDGE NO. 3528		BRIDGE PLANS
WIN		21872.00	
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY SOUTHWEST RETAINING WALL (1 OF 3)			
SHEET NUMBER 46 OF 84			

Date:10/21/2022

Username: sjwilliams

Division: BRIDGE

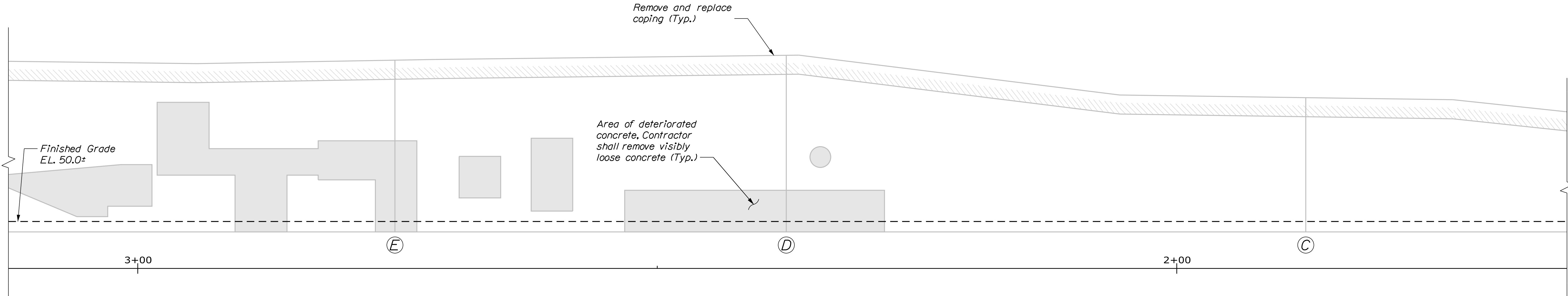
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LEGEND

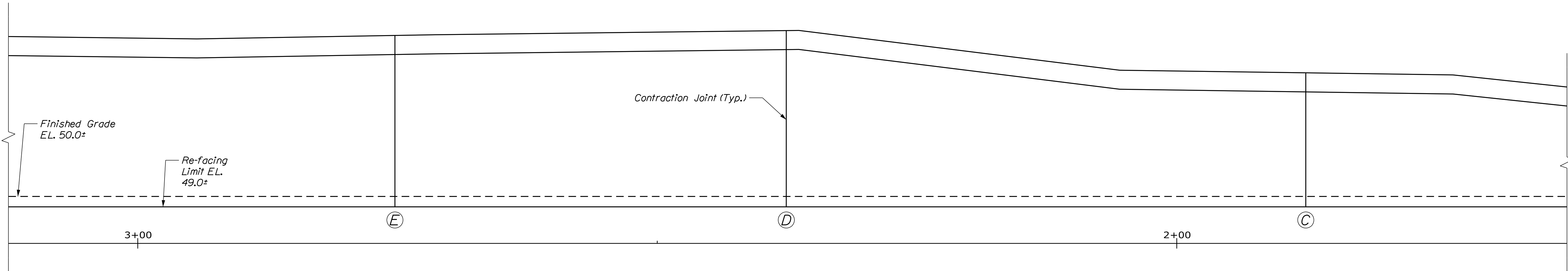
- Areas of Moderate to Severe Distress/Spalls (No concrete repair anticipated in these areas. Contractor shall remove any visible loose concrete prior to refacing.)
- Repair of Vertical Surfaces
- Remove Existing Concrete

NOTE

1. See Sheet 38 for Notes.



ELEVATION - SOUTHWEST RETAINING WALL - REMOVAL & REPAIR



ELEVATION - SOUTHWEST RETAINING WALL - RECONSTRUCTION



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

SOUTHWEST RETAINING
WALL (2 OF 3)

SHEET NUMBER
47
OF 84

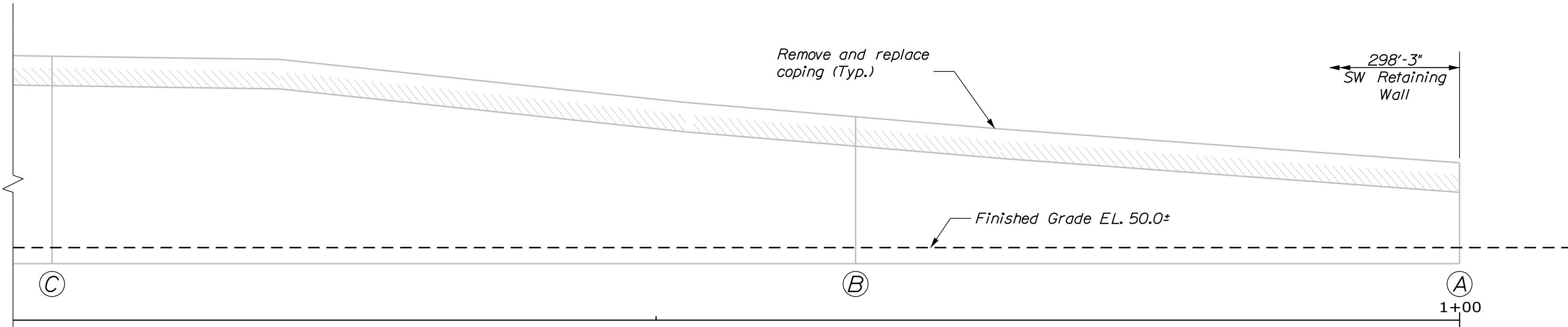
DESIGNED	DATE	BY	DATE
CHECKED	OCT 2022	KLW	OCT 2022
DESIGNED	OCT 2022	TWM	OCT 2022
REVISIONS	SIGNATURE		
1	P.E. NUMBER		
2	DATE		
3			
4			
FIELD CHANGES			

LEGEND

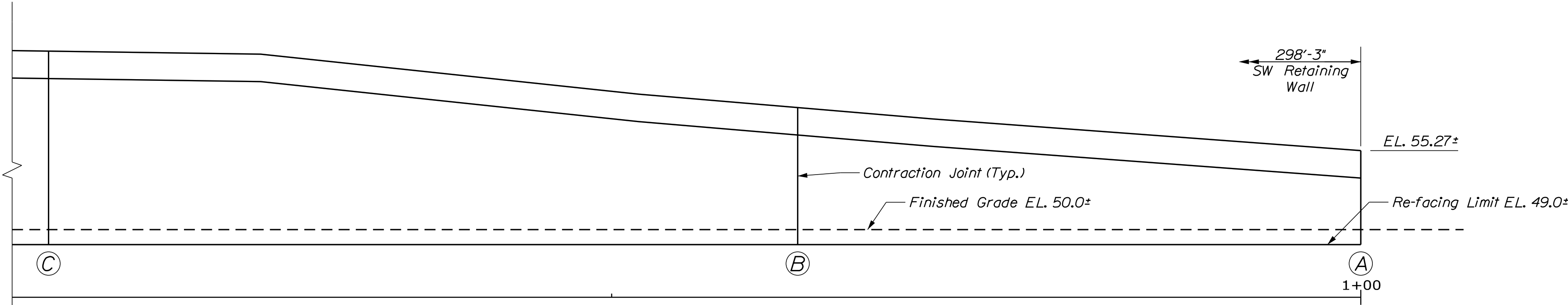
- Areas of Moderate to Severe Distress/Spalls (No concrete repair anticipated in these areas. Contractor shall remove any visible loose concrete prior to refacing.)
- Repair of Vertical Surfaces
- Remove Existing Concrete

NOTE

1. See Sheet 38 for Notes.



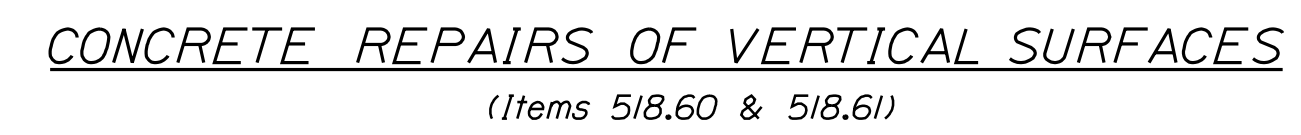
ELEVATION - SOUTHWEST RETAINING WALL - REMOVAL & REPAIR



ELEVATION - SOUTHWEST RETAINING WALL - RECONSTRUCTION

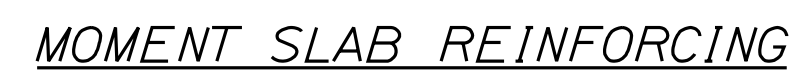
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE			
	P.E. NUMBER			
	DATE			
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY		PROJ. MANAGER	A. Lothe	BY
SOUTH WEST RETAINING WALL (3 OF 3)		DESIGN-DETAILED	K.L.W.	KLW
		CHECKED-REVIEWED	S.J.W.	T.W.
		DESIGN-DETAILED		
		REVISIONS 1		
		REVISIONS 2		
SHEET NUMBER		REVISIONS 3		
48		REVISIONS 4		
		FIELD CHANGES		
OF 84		BRIDGE NO. 3528		
		WIN 21872.00		
		BRIDGE PLANS		

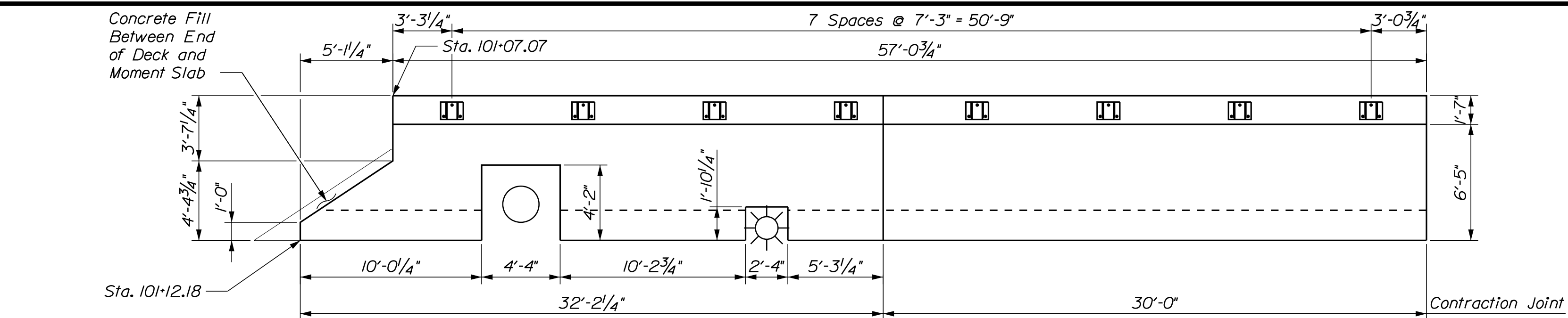




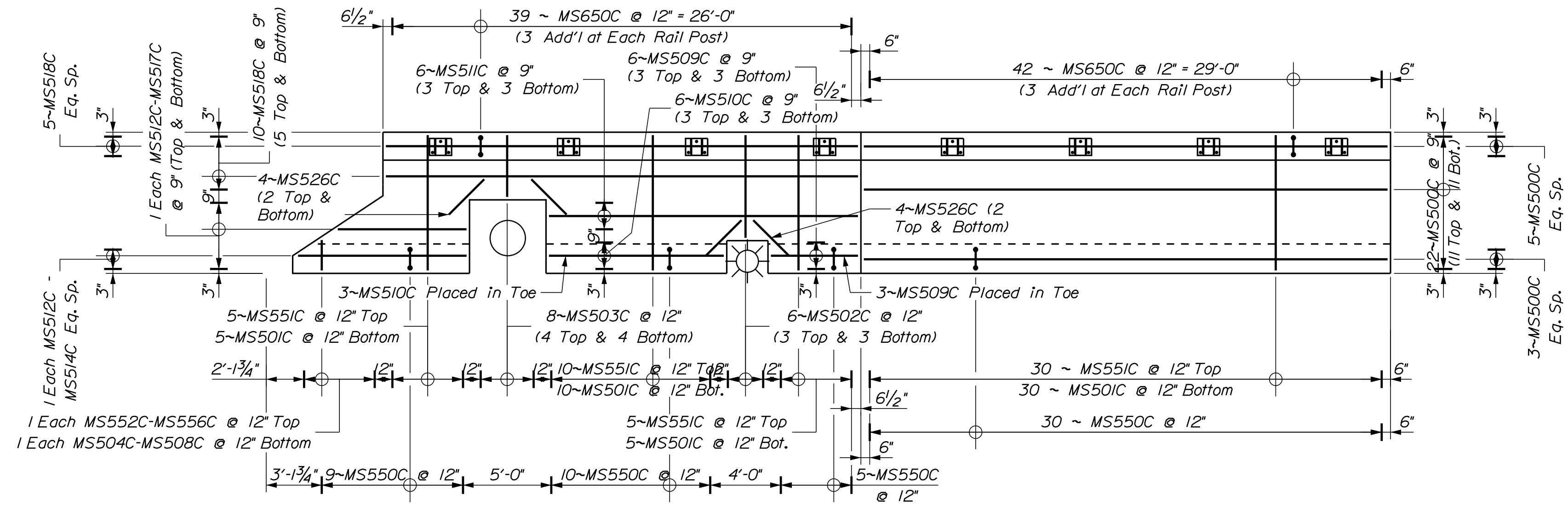
SHEET NUMBER 50 OF 84	RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY						
	RETAINING WALL DETAILS						
	PROJ. MANAGER		A. Lothe	BY	DATE		
	DESIGN-DETAILED	LSF	LSF	OCT 2022			
	CHECKED-REVIEWED	SJM	TMM	OCT 2022	SIGNATURE		
	DESIGN-DETAILED02						
	DESIGN-DETAILED03				P.E. NUMBER		
	REVISONS 1						
	REVISONS 2						
	REVISONS 3						
	REVISONS 4				DATE		
	FIELD CHANGES						
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 3528 WIN 21872.00 BRIDGE PLANS					

Filename: ... \MSTA\051_Moment_Slab.dgn

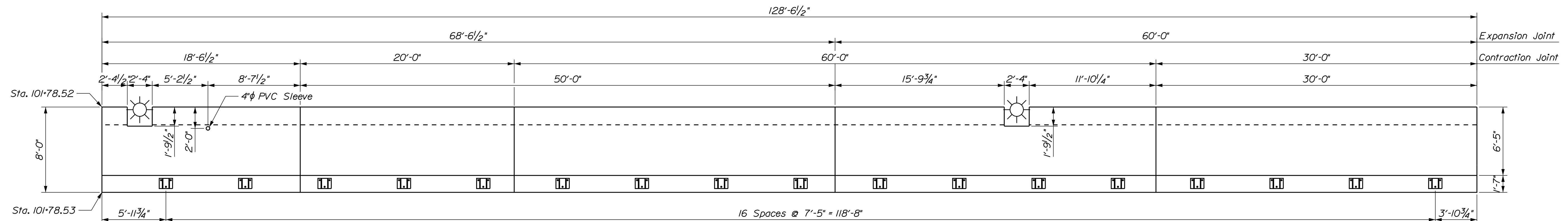




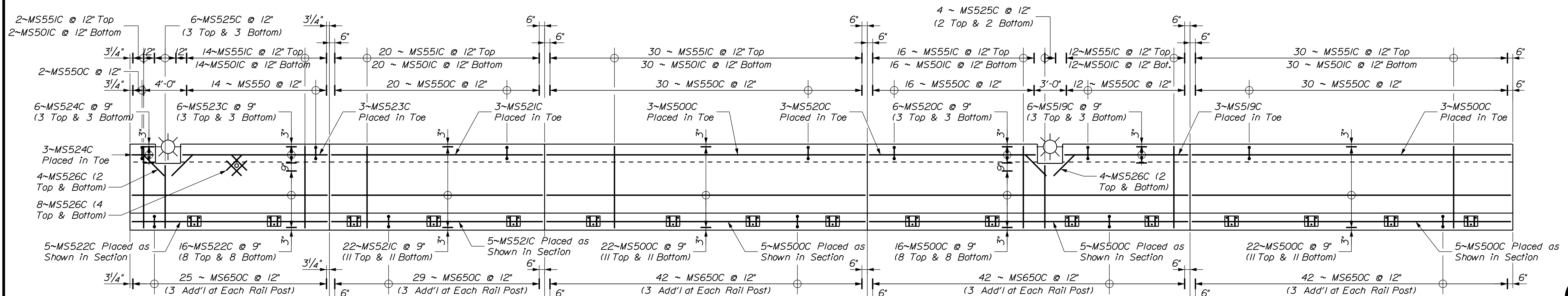
RIGHT MOMENT SLAB PLAN



RIGHT MOMENT SLAB REINFORCING PLAN



LEFT MOMENT SLAB PLAN

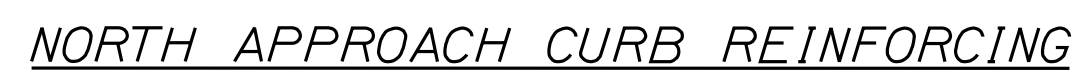


LEFT MOMENT SLAB REINFORCING PLAN

MOMENT SLAB NOTES:

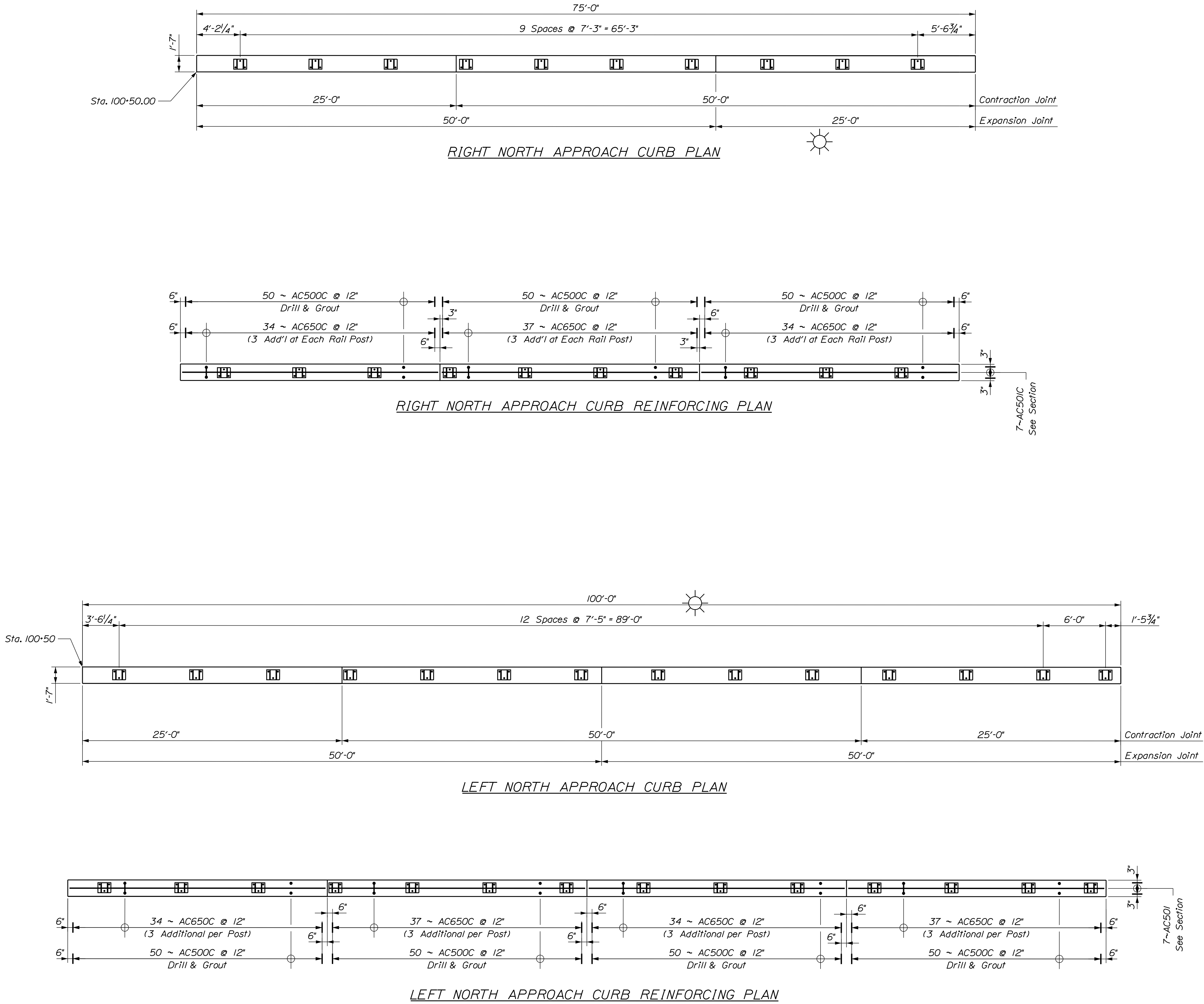
1. Reinforcing shall have a minimum concrete cover of 2 inches in the curb and footings unless otherwise noted.
2. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
3. All measurements are along exposed face of wall unless noted otherwise.
4. Concrete in Moment Slab will be paid for under Item 502.21, "Structural Concrete Abutments and Retaining Walls."
5. Concrete in Moment Slab Curbs will be paid for under Item 502.49, "Structural Concrete Curb and Sidewalks" and shall be Class "LP" concrete.
6. MS650C shall be placed perpendicular to grade.
7. Provide 1" Polystyrene at moment slab interface with the Utility Vault and Light Foundations. No separate payment will be made but shall be considered Incidental to related Contract Items.

Filename: ... \BRIDGE\MSTA\053_North_Curb.dgn



- 1. Reinforcing shall have a minimum concrete cover of 2 inches in the curb unless otherwise noted.*
- 2. Cover joints where waterstops are not required in accordance with Standard Details Section 502.*
- 3. All measurements are along exposed face of wall unless noted otherwise.*
- 4. Concrete in North Approach Curbs will be paid for under Item 502.49, "Structural Concrete Curb and Sidewalks" and shall be Class "LP" concrete.*
- 5. AC650C shall be placed perpendicular to grade.*





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

SHEET NUMBER
54
OF 84

BRIDGE NO. 3528

BRIDGE PLANS

WIN
21872.00

DATE
OCT 2022

BY
K.L.W.

PROJ. MANAGER
A. Lathe

DESIGNED-DETAILED
K.L.W.

CHECKED-REVIEWED
S.J.W.

DESIGNED-DETAILED
S.J.W.

REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

SIGNATURE

P.E. NUMBER

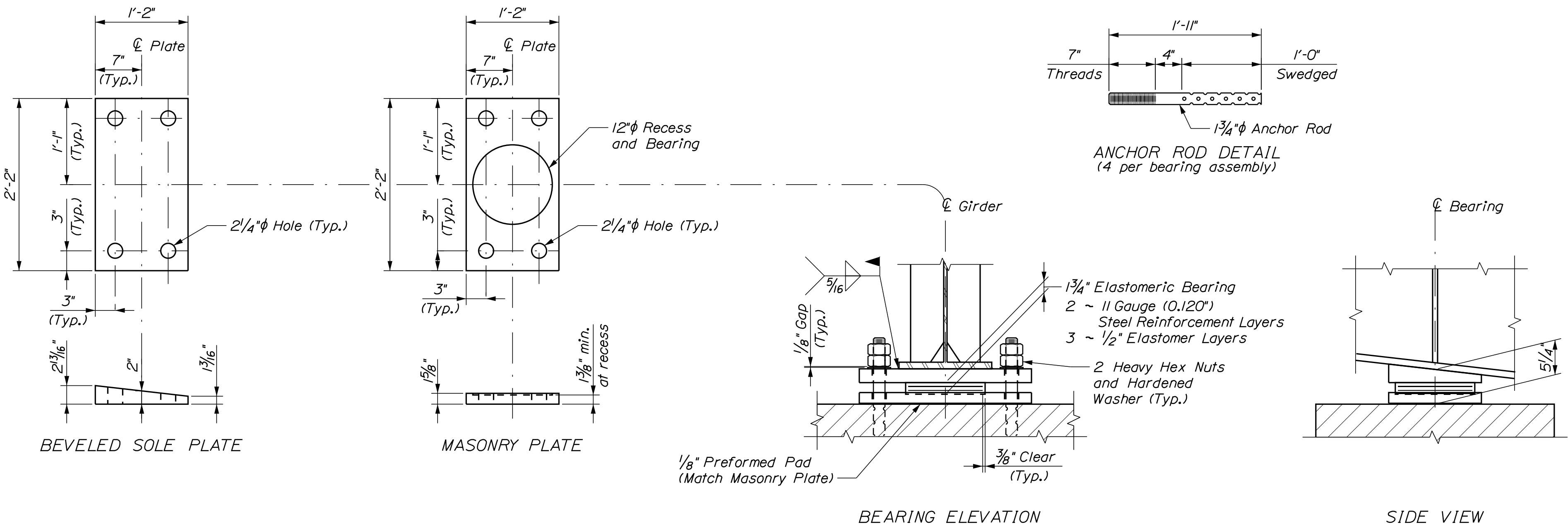
DATE

Date:10/21/2022

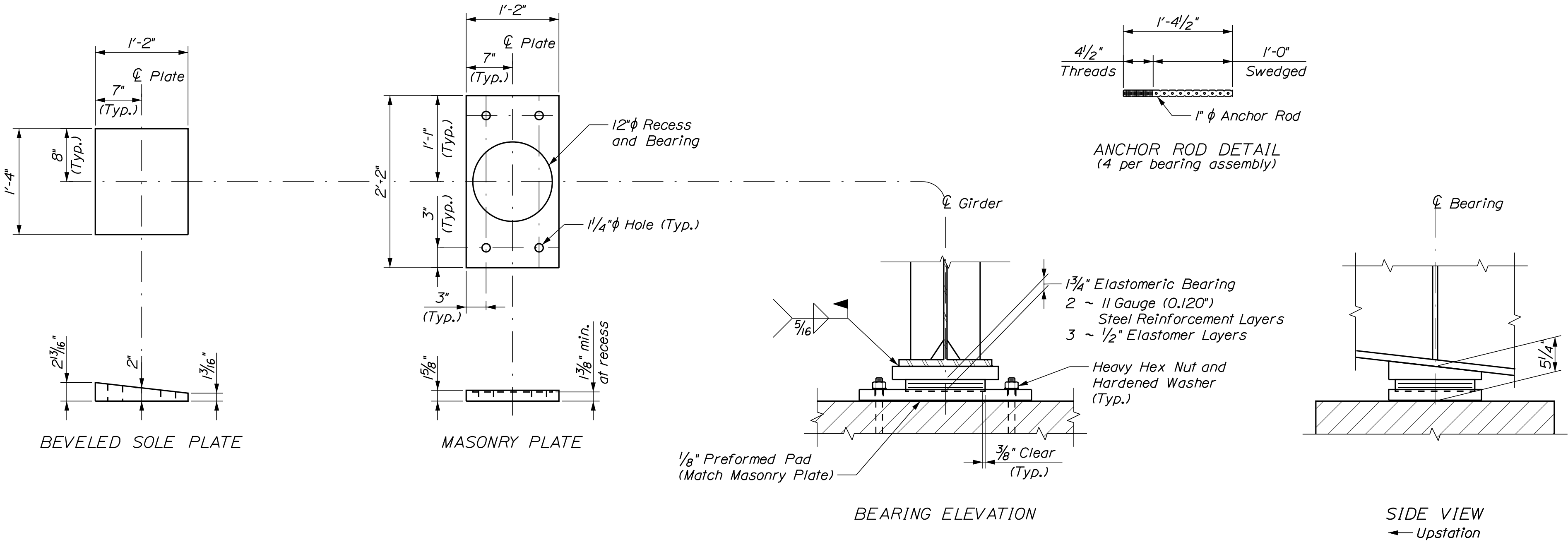
Username: sjwilliams

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\055_Bearings.dgn



FIXED BEARING ASSEMBLY
(8 Assemblies Required)

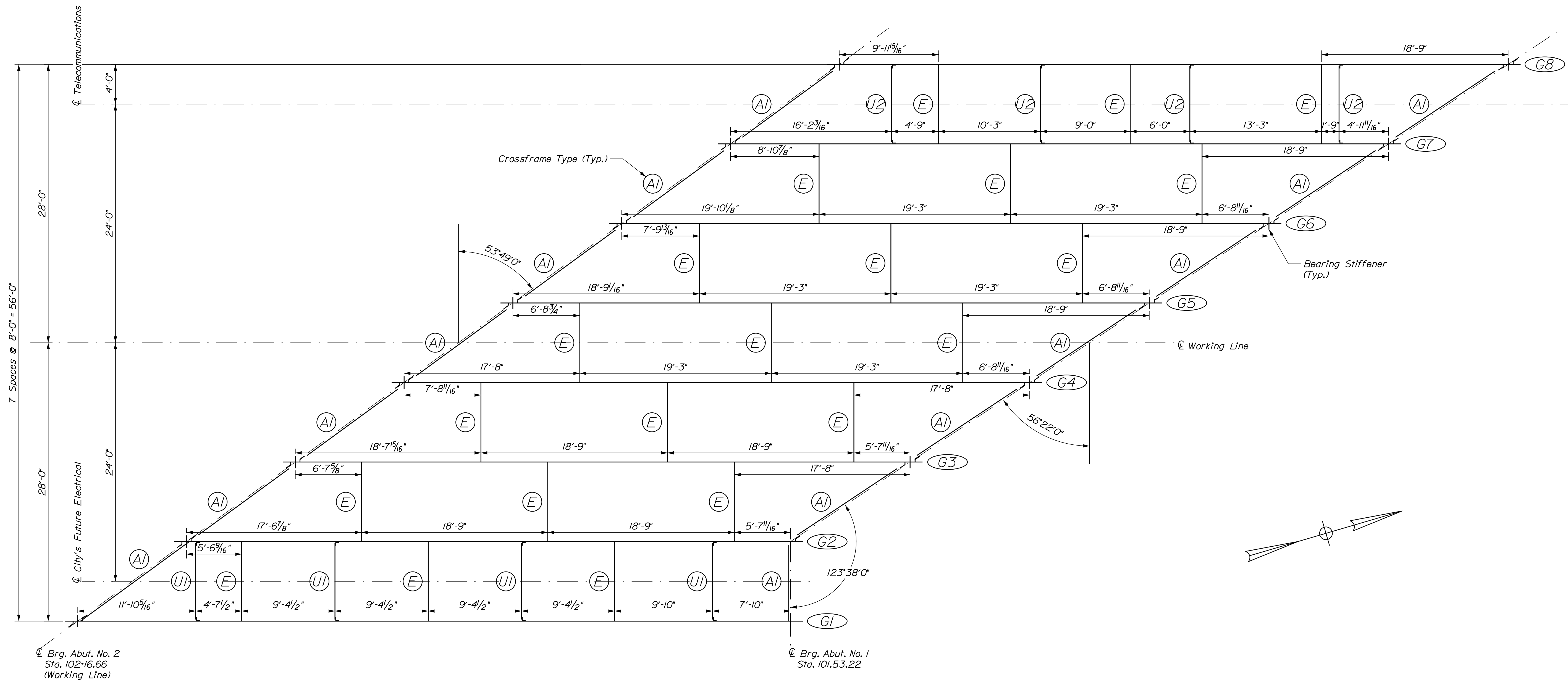


EXPANSION BEARING ASSEMBLY
(8 Assemblies Required)

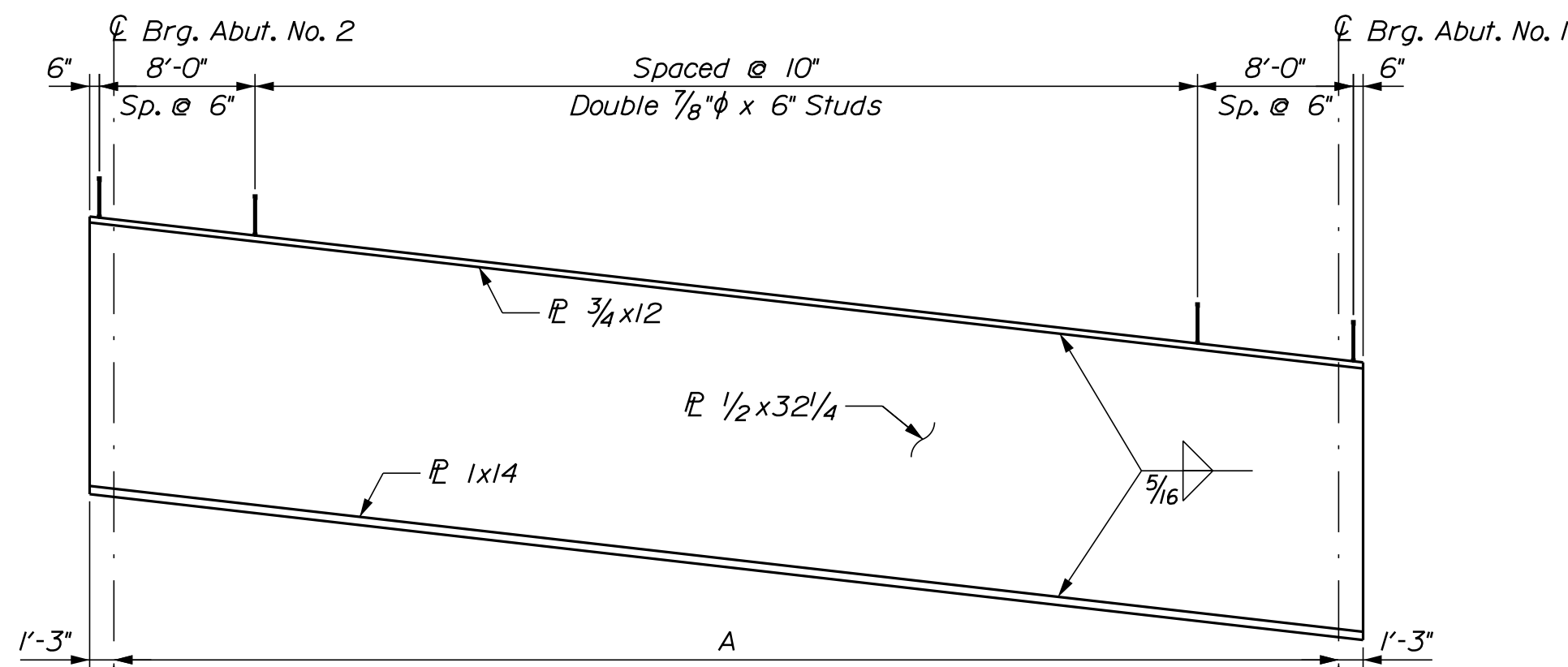
ELASTOMERIC BEARING NOTES

1. The shear modulus of the elastomer shall be 150 psi.
2. Vulcanization of the elastomer to the masonry and sole plates shall be done during the primary mold process.
3. Masonry and sole plates shall meet the requirements of ASTM A 709, Grade 50. Anchor rods shall meet the requirements of ASTM F 1554, Grade 105 and shall be swaged on the embedded portion of the rod.
4. Masonry and sole plates shall be galvanized in accordance with Section 506. Anchor rods, washers, and nuts shall be galvanized to ASTM A 153 or ASTM B 695, Class 50, Type I.
5. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.
6. Bearings shall be covered during shipping and at any time prior to installation that the bearings may be exposed to sunlight.
7. The bearings are designed so that the superstructure may be erected when the ambient air temperature is within the range of 65 °F and 90 °F. If the ambient air temperature is outside this range, the bearings shall be reset as directed by the Resident.
8. After the sole plate assembly is in its final position, weld it to the beam bottom flange. Welds shall terminate 1/4" from the edge of plate. Touch-up shall be performed in accordance with Section 506.
9. All necessary precautions shall be taken to protect bearing components from field weld flash and spatter. Heat from welding operations shall be controlled such that steel adjacent to the elastomer does not exceed 200 °F. The temperature shall be verified by the use of temperature indicating crayons or other suitable means.
10. Upset the threads on the anchor rods after assembly of the bearing.
11. The "Bearing Design Load" for each bearing, as noted in Standard Specifications Subsection 523.23, is 105 kips for the Service I load combination without impact.
12. The Contractor shall not weld the girders to the sole plate until after all adjustments have been made in accordance with Standard Specification Section 523.094.

RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY										PROJ. MANAGER		A. Lothe		BY		DATE		STATE OF MAINE DEPARTMENT OF TRANSPORTATION			
BEARING DETAILS STEEL GIRDERS										DESIGN-DETAILED		DOT		DOT		OCT 2022		SIGNATURE			
										CHECKED-REVIEWED		KLW		TMM		OCT 2022					
										DESIGN2-DETAILED2											
										DESIGN3-DETAILED3											
										REVISIONS 1						P.E. NUMBER					
										REVISIONS 2								WIN 21872.00			
										REVISIONS 3						DATE					
										REVISIONS 4											
										FIELD CHANGES											
SHEET NUMBER										BRIDGE NO. 3528										BRIDGE PLANS	
55																					
OF 84																					

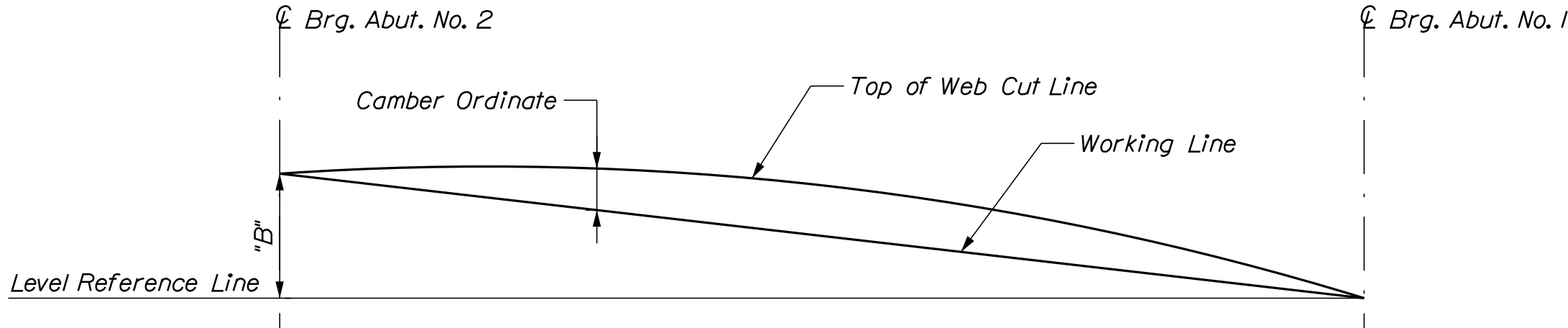


FRAMING PLAN
(Dimensions are horizontal)

GIRDER ELEVATION

Girder	A
G1	71'-7 ¹ / ₈ "
G2	60'-8 ⁹ / ₁₆ "
G3	61'-9 ⁵ / ₈ "
G4	62'-10 ¹ / ₁₆ "
G5	63'-11 ³ / ₄ "
G6	65'-0 ³ / ₁₆ "
G7	66'-1 ⁷ / ₈ "
G8	67'-2 ¹³ / ₁₆ "

GIRDER	"B" (FT)
G1	8.21
G2	6.96
G3	7.08
G4	7.21
G5	7.34
G6	7.45
G7	7.58
G8	7.71



CAMBER DIAGRAM

BOTTOM OF SLAB ELEVATIONS											
GIRDER	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	76.46	77.35	78.23	79.09	79.94	80.77	81.59	82.38	83.16	83.92	84.68
G2	76.30	77.04	77.78	78.50	79.21	79.92	80.61	81.28	81.95	82.61	83.26
G3	74.77	75.52	76.27	77.01	77.73	78.45	79.15	79.84	80.52	81.19	81.85
G4	73.23	73.99	74.74	75.49	76.23	76.95	77.67	78.37	79.07	79.75	80.44
G5	71.69	72.46	73.23	73.99	74.75	75.48	76.21	76.93	77.63	78.33	79.02
G6	70.15	70.95	71.75	72.53	73.30	74.05	74.79	75.51	76.22	76.92	77.61
G7	68.61	69.43	70.24	71.04	71.82	72.59	73.34	74.07	74.79	75.50	76.20
G8	67.08	67.90	68.71	69.52	70.31	71.09	71.85	72.60	73.34	74.06	74.78

CAMBER ORDINATES (INCHES)											
GIRDER	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	0"	0 ⁷ / ₈ "	1 ¹ / ₁₆ "	2 ¹ / ₄ "	2 ⁵ / ₈ "	2 ³ / ₁₆ "	2 ⁵ / ₈ "	2 ¹ / ₄ "	1 ¹ / ₁₆ "	0 ⁷ / ₈ "	0"
G2	0"	0 ⁹ / ₁₆ "	1 ¹ / ₁₆ "	1 ⁷ / ₁₆ "	1 ¹ / ₁₆ "	1 ³ / ₄ "	1 ¹ / ₁₆ "	1 ⁷ / ₁₆ "	1 ¹ / ₁₆ "	0 ⁹ / ₁₆ "	0"
G3	0"	0 ⁹ / ₁₆ "	1 ¹ / ₈ "	1 ⁹ / ₁₆ "	1 ³ / ₁₆ "	1 ³ / ₈ "	1 ⁹ / ₁₆ "	1 ¹ / ₈ "	1 ¹ / ₈ "	0 ⁹ / ₁₆ "	0"
G4	0"	0 ¹ / ₂ "	1"	1 ⁵ / ₁₆ "	1 ⁹ / ₁₆ "	1 ⁵ / ₈ "	1 ⁹ / ₁₆ "	1 ⁵ / ₁₆ "	1"	0 ¹ / ₂ "	0"
G5	0"	0 ⁹ / ₁₆ "	1 ¹ / ₁₆ "	1 ⁷ / ₁₆ "	1 ¹ / ₁₆ "	1 ³ / ₄ "	1 ¹ / ₁₆ "	1 ⁷ / ₁₆ "	1 ¹ / ₁₆ "	0 ⁹ / ₁₆ "	0"
G6	0"	0 ¹ / ₁₆ "	1 ³ / ₈ "	1 ⁷ / ₈ "	2 ³ / ₁₆ "	2 ⁵ / ₁₆ "	2 ³ / ₁₆ "	1 ⁷ / ₈ "	1 ³ / ₈ "	0 ¹ / ₁₆ "	0"
G7	0"	0 ³ / ₄ "	1 ¹ / ₁₆ "	2"	2 ³ / ₈ "	2 ¹ / ₁₆ "	2 ³ / ₈ "	2"	1 ¹ / ₁₆ "	0 ³ / ₄ "	0"
G8	0"	0 ¹ / ₁₆ "	1 ⁵ / ₁₆ "	1 ³ / ₄ "	2 ¹ / ₁₆ "	2 ³ / ₁₆ "	2 ¹ / ₁₆ "	1 ³ / ₄ "	1 ⁵ / ₁₆ "	0 ¹ / ₁₆ "	0"

DEAD LOAD DEFLECTIONS (INCHES)												
GIRDER	Dead Load Component	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	Steel Dead Load	0.00	0.12	0.23	0.31	0.36	0.38	0.36	0.31	0.23	0.12	0.00
	Fluid Dead Load	0.00	0.65	1.24	1.70	1.99	2.09	1.99	1.70	1.24	0.65	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.03	-0.04	-0.04	-0.04	-0.04	-0.04	-0.03	-0.01	0.00
	Superimposed Dead Load	0.00	0.12	0.22	0.30	0.35	0.37	0.35	0.30	0.22	0.12	0.00
G2	Steel Dead Load	0.00	0.06	0.12	0.16	0.19	0.20	0.19	0.16	0.12	0.06	0.00
	Fluid Dead Load	0.00	0.45	0.85	1.16	1.36	1.43	1.36	1.16	0.85	0.45	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.05	0.10	0.14	0.16	0.17	0.16	0.14	0.10	0.05	0.00
G3	Steel Dead Load	0.00	0.07	0.12	0.17	0.20	0.21	0.20	0.17	0.12	0.07	0.00
	Fluid Dead Load	0.00	0.48	0.91	1.24	1.45	1.53	1.45	1.24	0.91	0.48	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.06	0.11	0.15	0.17	0.18	0.17	0.15	0.11	0.06	0.00
G4	Steel Dead Load	0.00	0.07	0.13	0.18	0.21	0.23	0.21	0.18	0.13	0.07	0.00
	Fluid Dead Load	0.00	0.39	0.74	1.01	1.18	1.24	1.18	1.01	0.74	0.39	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.06	0.12	0.16	0.19	0.19	0.19	0.16	0.12	0.06	0.00
G5	Steel Dead Load	0.00	0.08	0.14	0.20	0.23	0.24	0.23	0.20	0.14	0.08	0.00
	Fluid Dead Load	0.00	0.42	0.79	1.08	1.27	1.33	1.27	1.08	0.79	0.42	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.07	0.13	0.17	0.20	0.21	0.20	0.17	0.13	0.07	0.00
G6	Steel Dead Load	0.00	0.08	0.15	0.21	0.25	0.26	0.25	0.21	0.15	0.08	0.00
	Fluid Dead Load	0.00	0.58	1.09	1.50	1.75	1.84	1.75	1.50	1.09	0.58	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.03	-0.03	-0.04	-0.03	-0.03	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.07	0.13	0.18	0.22	0.23	0.22	0.18	0.13	0.07	0.00
G7	Steel Dead Load	0.00	0.09	0.16	0.22	0.26	0.28	0.26	0.22	0.16	0.09	0.00
	Fluid Dead Load	0.00	0.62	1.17	1.60	1.88	1.97	1.88	1.60	1.17	0.62	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.08	0.15	0.21	0.24	0.26	0.24	0.21	0.15	0.08	0.00
G8	Steel Dead Load	0.00	0.09	0.17	0.24	0.28	0.29	0.28	0.24	0.17	0.09	0.00
	Fluid Dead Load	0.00	0.51	0.96	1.32	1.54	1.62	1.54	1.32	0.96	0.51	0.00
	Milled Surface Dead Load	0.00	-0.01	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02	-0.01	0.00
	Superimposed Dead Load	0.00	0.10	0.18	0.25	0.29	0.30	0.29	0.25	0.18	0.10	0.00

STRUCTURAL STEEL NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile. The Fluid Dead Load deflections include full deck overcast thickness and Milled Surface Dead Load is expected upward deflection after profile milling.

2. No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet or 10 percent of the span length (whichever is greater) from the points of maximum negative moment or maximum positive moment. Butt weld splices in flanges shall be not less than one foot from transverse butt welds in the web plates and no transverse web or flange butt welds shall be located within one foot of other transverse welds (e.g. connection plates to web welds) on either flange or web. No transverse butt weld splices will be allowed in areas of stress reversal.

3. Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall not be less than 20 feet in length unless otherwise shown on the plans.

4. Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.

5. Cross frame, diaphragm or utility support connection plates may be either plumb or normal to the top flange.

6. Connection plates shall be 1/2" minimum thickness. Connection plates shall be 7" minimum width.

7. All bolts, nuts, and washers shall be hot dip galvanized with ASTM A153.

8. Ends of girder webs shall be vertical under full dead load after deck milling.

9. Bolted diaphragms or utility support connections shall be made using inch diameter, ASTM F3125, Grade A325 Type 1 high strength bolts. Hole size shall be 1/16" diameter. The minimum edge distance shall be 1 1/2" unless otherwise shown. Oversized or short-slotted holes are not permitted. Bolt threads shall be excluded from the shear plane of diaphragm or utility support connections.

10. At the Contractor's option, the diaphragms and utility supports may be hot dip galvanized in accordance with the Standard Specifications Section 506, Shop Applied Protective Coating, as approved by the Resident. Payment will be considered incidental to Item 506.9104, Thermal Spray Coating (Shop Applied), no separate payment will be made.

11. The intermediate diaphragms between Stage I and Stage II deck slab placements shall not be installed until 72 hours following Stage II deck slab placement.

12. The intermediate diaphragms between Stage I and Stage II must be in place and bolts tightened prior to proceeding with the closure deck slab placement.

13. See Consolidated Communications plans for Crossframe Type U2 details.

14. At the Contractor's option, all Structural Steel may be Hot-Dipped Galvanized in accordance with Standard Specifications Section 506, Shop Applied Protective Coating, as approved by the Resident. Payment will be considered incidental to Item 506.9104, Thermal Spray Coating (Shop Applied), no separate payment will be made.

15. Structural steel was designed with a vertical construction load of 50 lb/sf and a lateral wind velocity during construction of 80 mph.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA KENNEBEC COUNTY

SHEET NUMBER
57
OF 84

BRIDGE NO. 3528
WIN 21872.00
BRIDGE PLANS

DATE
OCT 2022
SIGNATURE
P.E. NUMBER
DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
A. Lathe
K.L.W.
T.M.W.

DATE
OCT 2022
OCT 2022

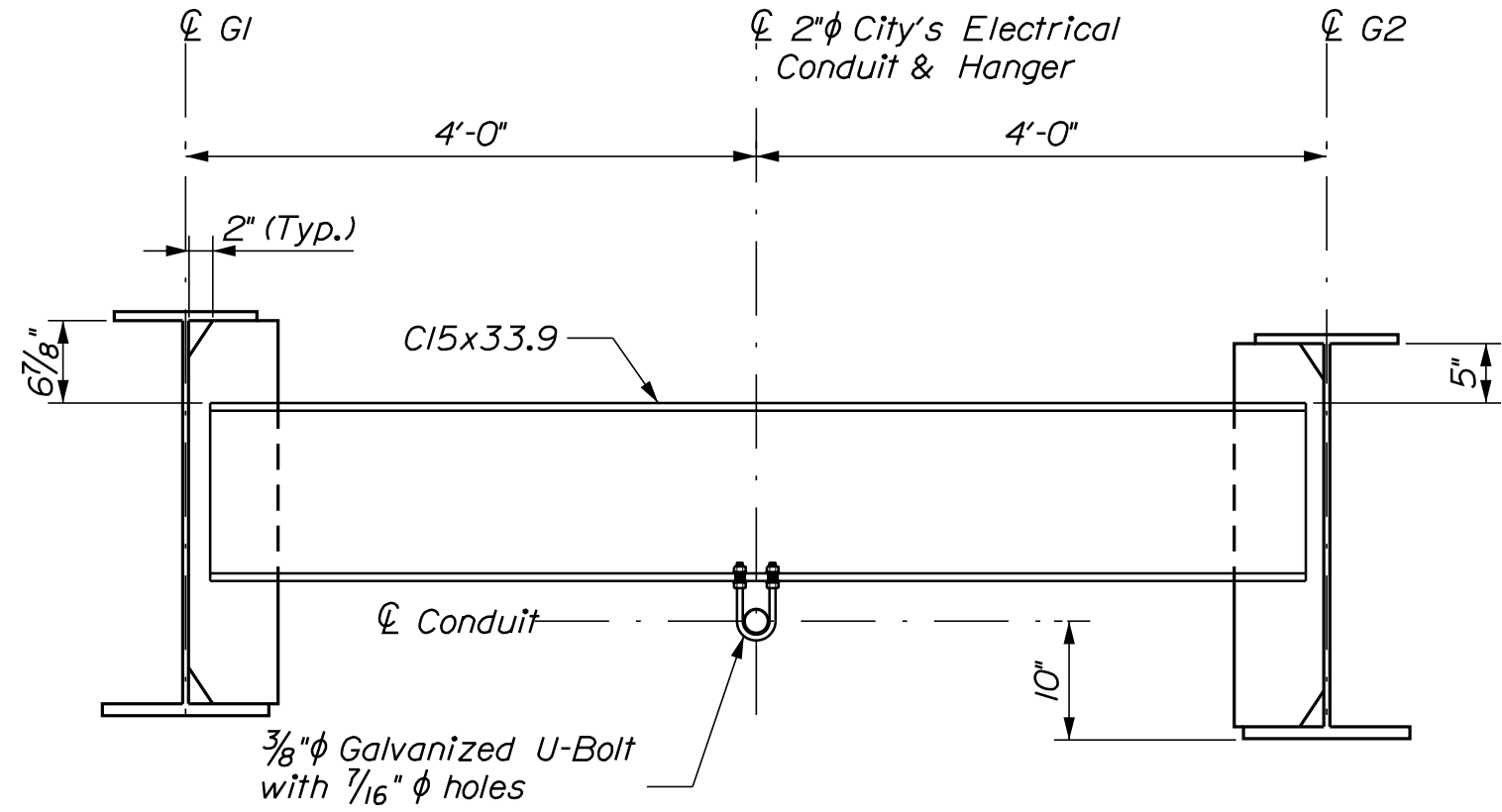
STRUCTURAL STEEL DETAILS
STEEL GIRDERS

Date:10/21/2022

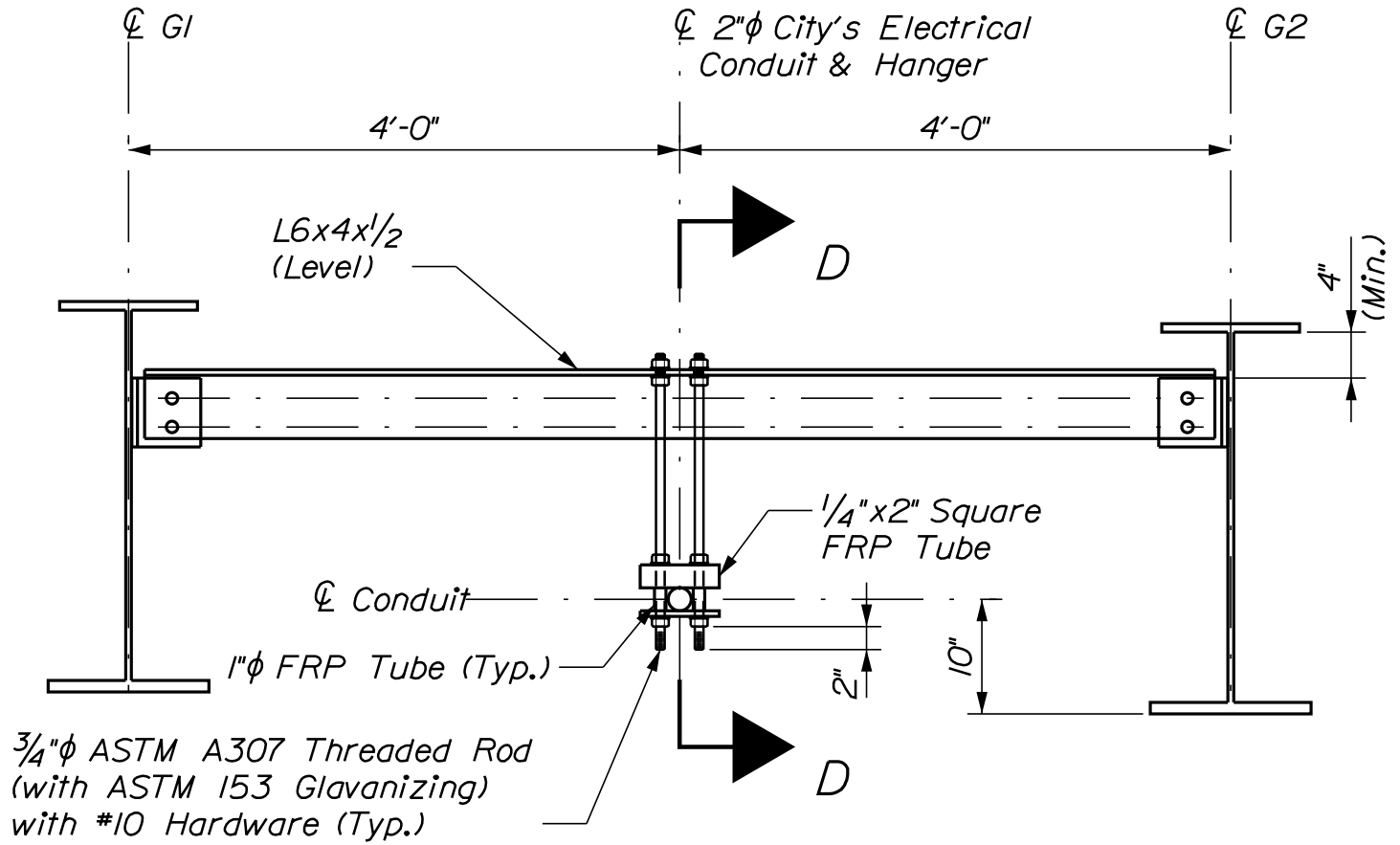
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Division: BRIDGE

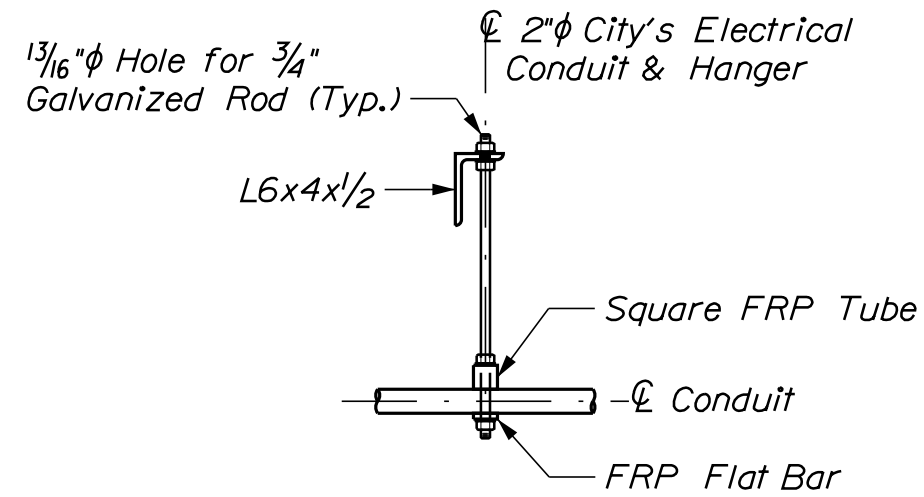
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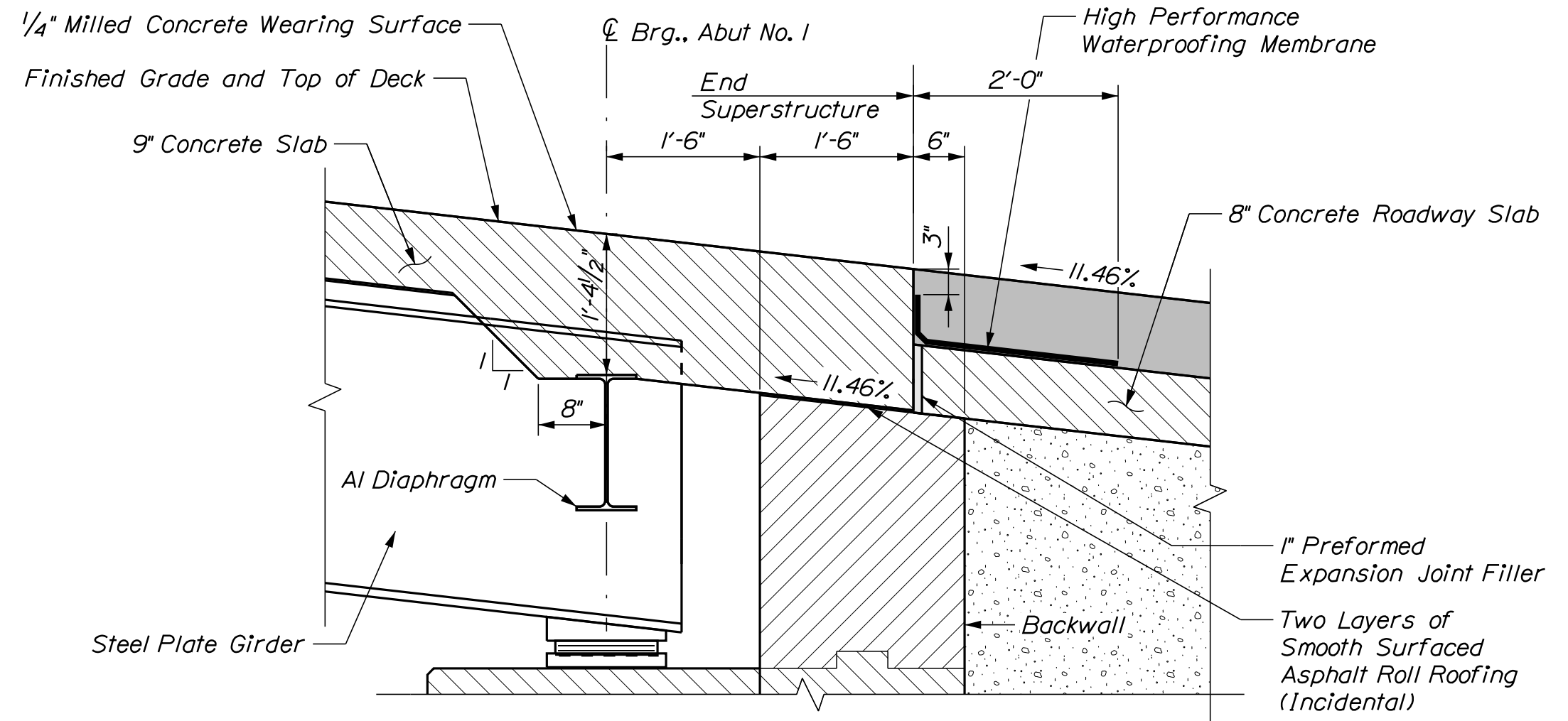
CROSSFRAME TYPE E
See "Typical Weld Details" & Notes on Standard Detail 504(07)
Bay 1 Shown, Other Bays Similar. See Standard Detail 504(02)



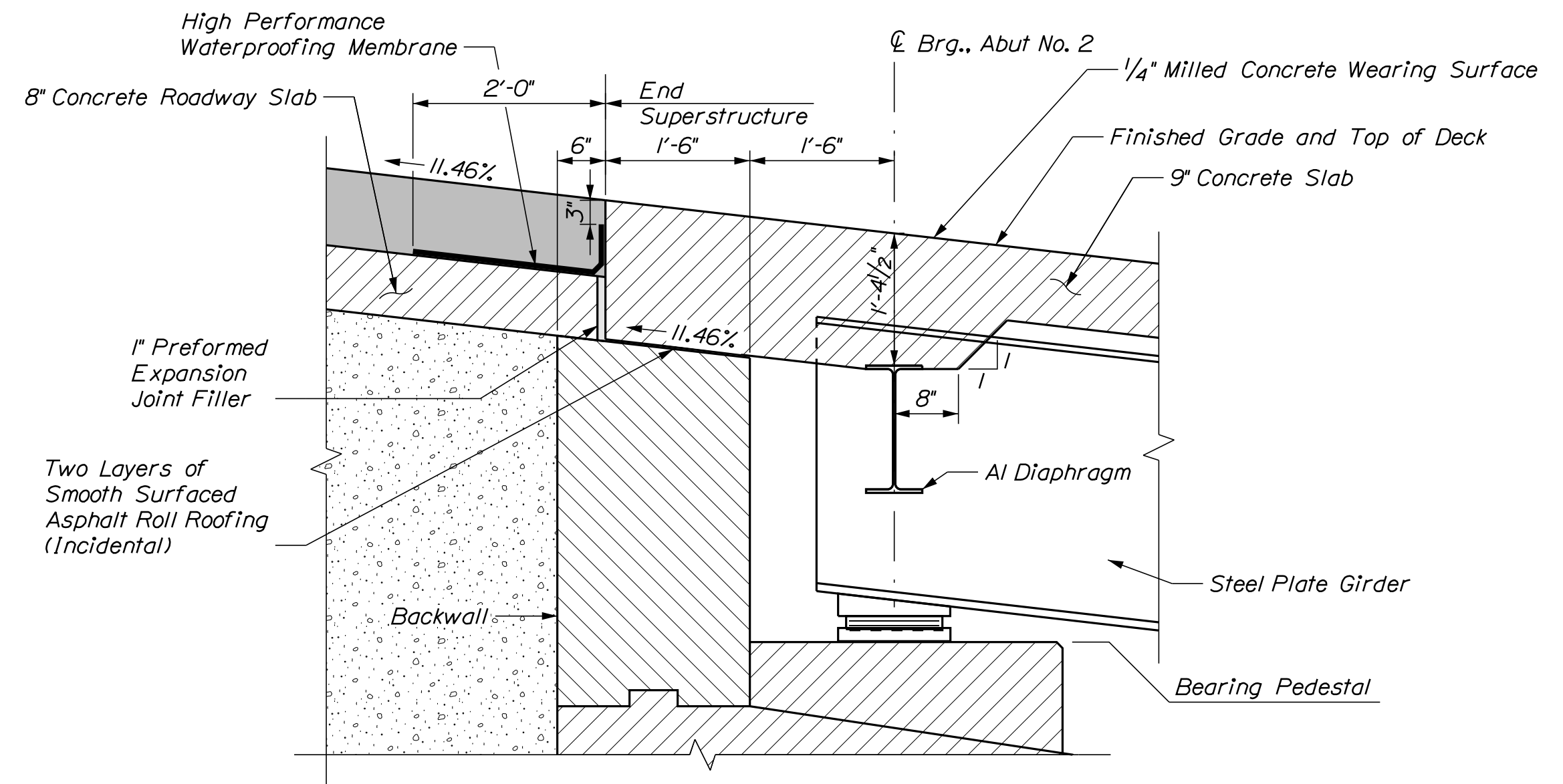
CROSSFRAME TYPE UI
See "Typical Weld Details" & Notes on Standard Detail 504(07)



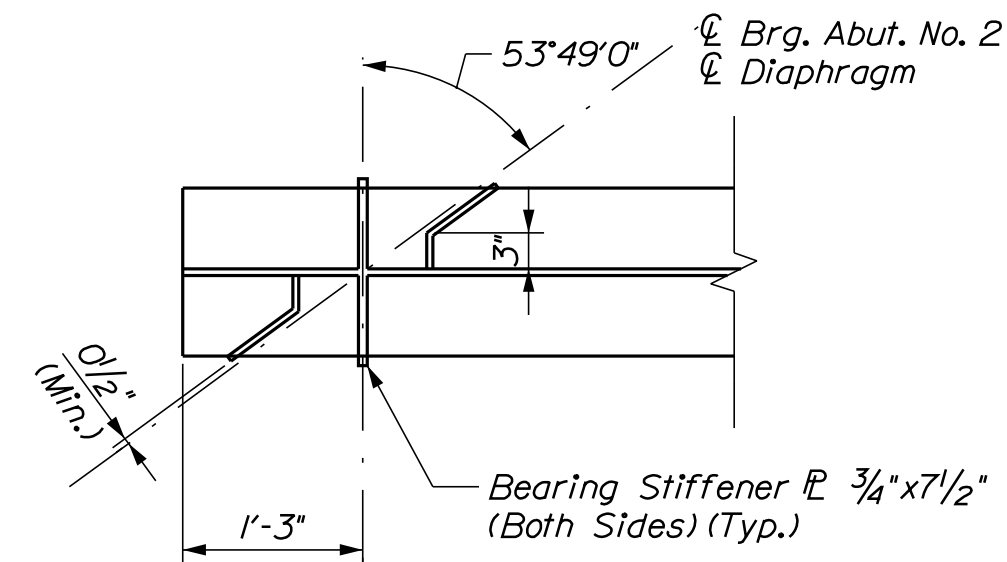
SECTION D-D



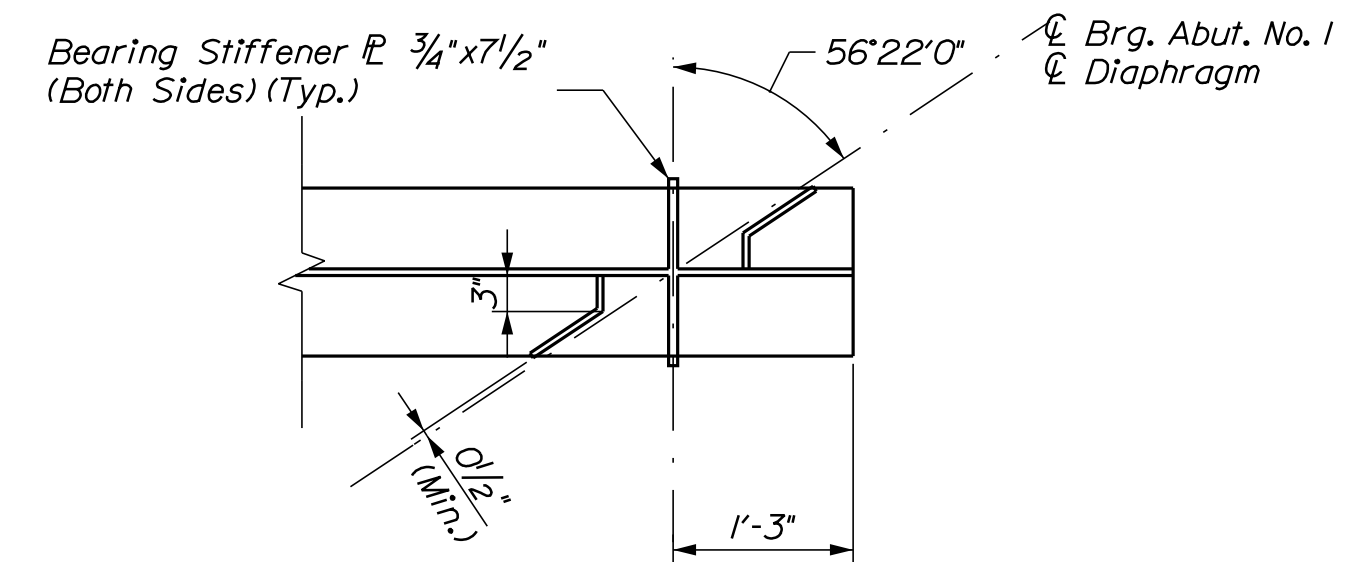
SECTION A-A
Dimensions Perpendicular to $\perp$ Brg.
Grade Parallel to $\perp$ Construction
Section Cut Shown on Abutment No. 1 Reconstruction Sheet



SECTION C-C
Dimensions Perpendicular to $\perp$ Brg.
Grade Parallel to $\perp$ Construction
Section Cut Shown on Abutment No. 2 Reconstruction Sheet



BEARING STIFFENER DETAIL
Abutment No. 2



BEARING STIFFENER DETAIL
Abutment No. 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
A. Lathe	K.W.	T.W.	OCT 2022	K.W.	OCT 2022			
DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED						
REVISIONS 1	REVISIONS 2	REVISIONS 3						
REVISIONS 4	REVISIONS 5	REVISIONS 6						
FIELD CHANGES								

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY
FRAMING DETAILS
STEEL GIRDERS

SHEET NUMBER

58

OF 84



1. The theoretical blocking used for design of the structure is 3 inches at the centerline of bearing of the abutments. Refer to Standard Detail 502(03) for blocking details.

2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.

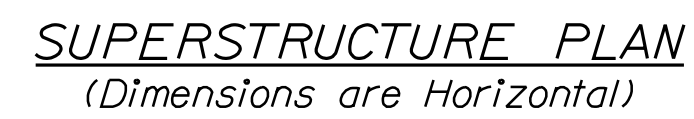
4. The superstructure slab concrete for each phase shall be placed continuously and shall be kept plastic until the entire placement has been made.

5. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb or sidewalk concrete.

6. The Contractor shall field verify the gap between the southeast transition barrier and existing collision wall is a maximum of 4".

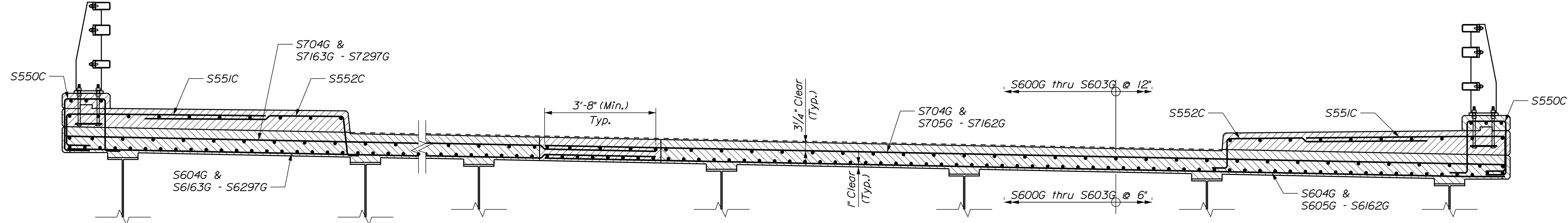
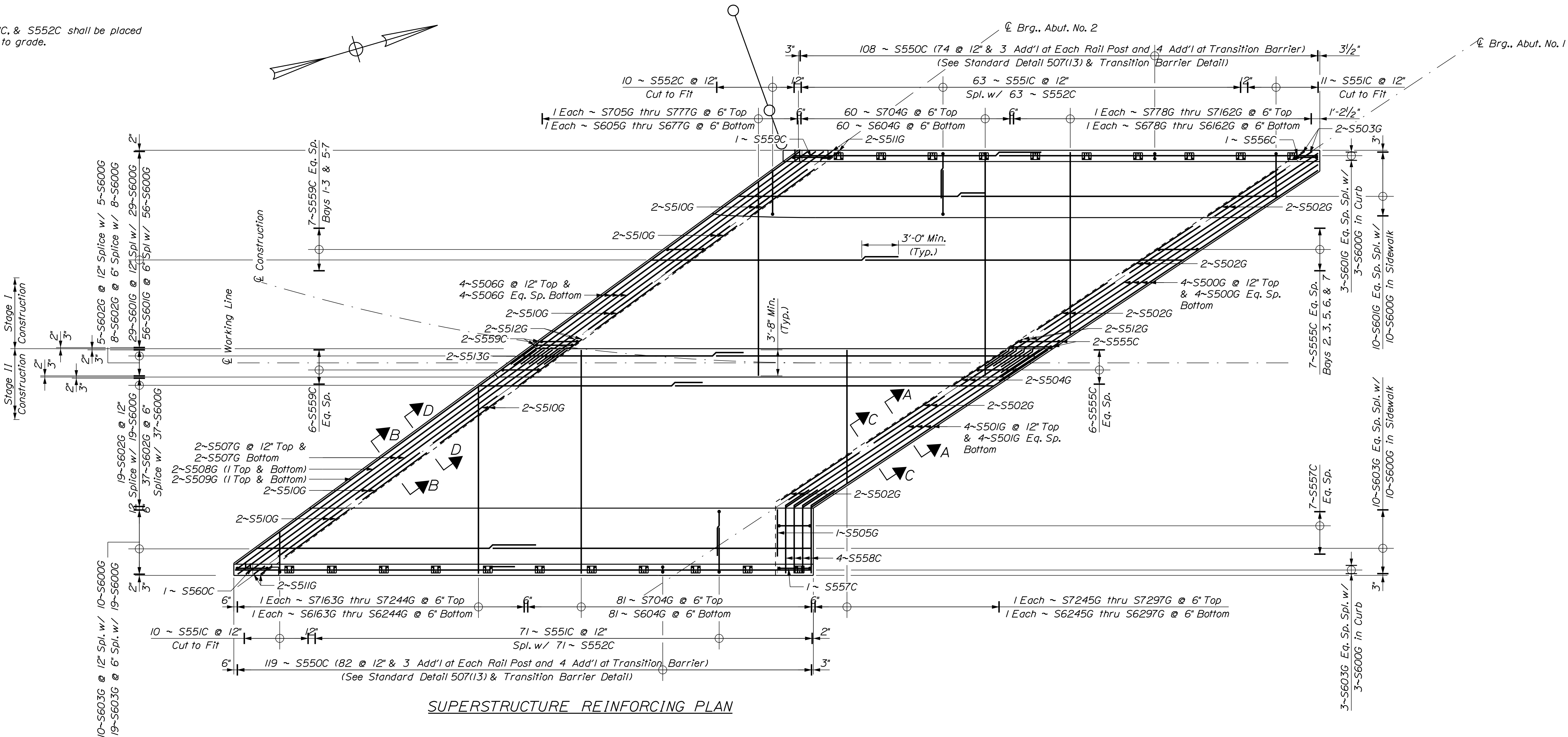
7. Integral concrete wearing surface shall have a milled finish. Overcasting and Milling shall be paid for under Item 202.31, Profile Milling Concrete Wearing Surface.

8. The use of precast concrete deck panels will not be allowed on this project.



NOTES

1. S550C, S551C, & S552C shall be placed perpendicular to grade.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
K.L.W.
T.M.W.

DATE
OCT 2022
OCT 2022

SIGNATURE
P.E. NUMBER
DATE

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

SUPERSTRUCTURE REINF.
PLAN - STEEL GIRDERS

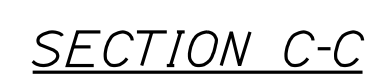
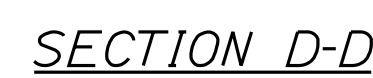
SHEET NUMBER

60

OF 84



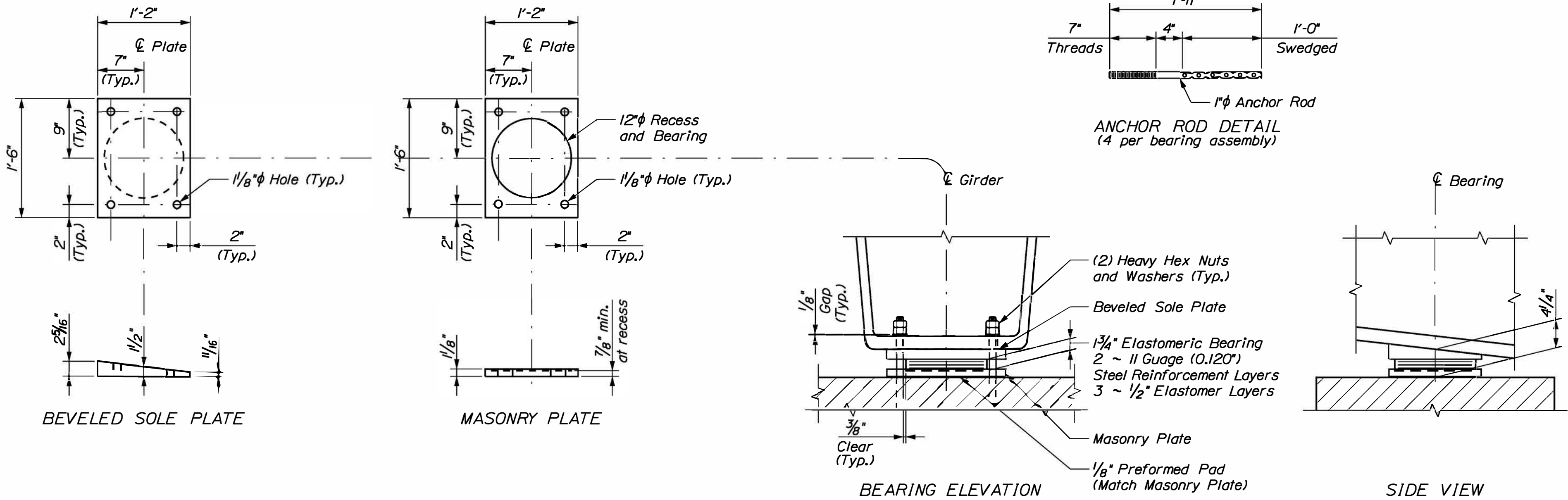
1. S550C, S551C, & S552C shall be placed perpendicular to grade.



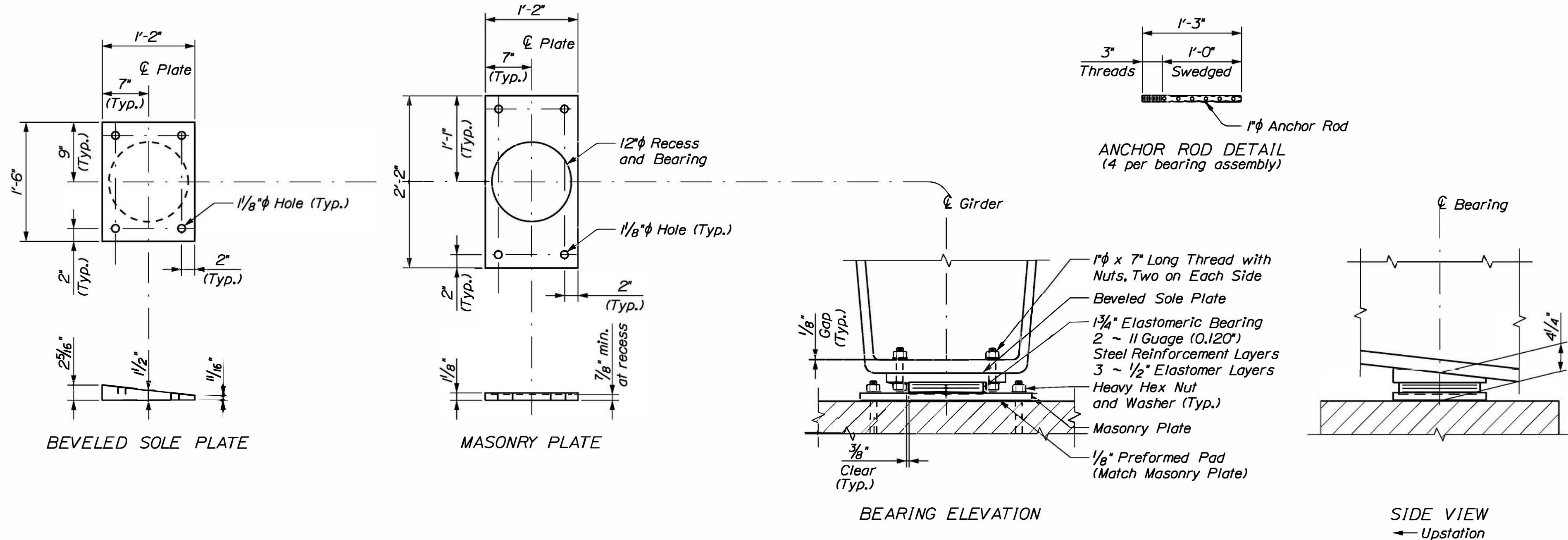
DESIGN-DETAILED	KLW	KLW	OCT 2022
CHECKED-REVIEWED	SJW	TWM	OCT 2022
DESIGNED-DETAILED	DZ		
DESIGNS-DET AILED D3			
REVISED 1			
REVISED 2			
REVISED 3			
REVISED 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

MINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA KENNEBEC COUNTY
SUPERSTRUCTURE DETAILS
STEEL GIRDS

SHEET NUMBER



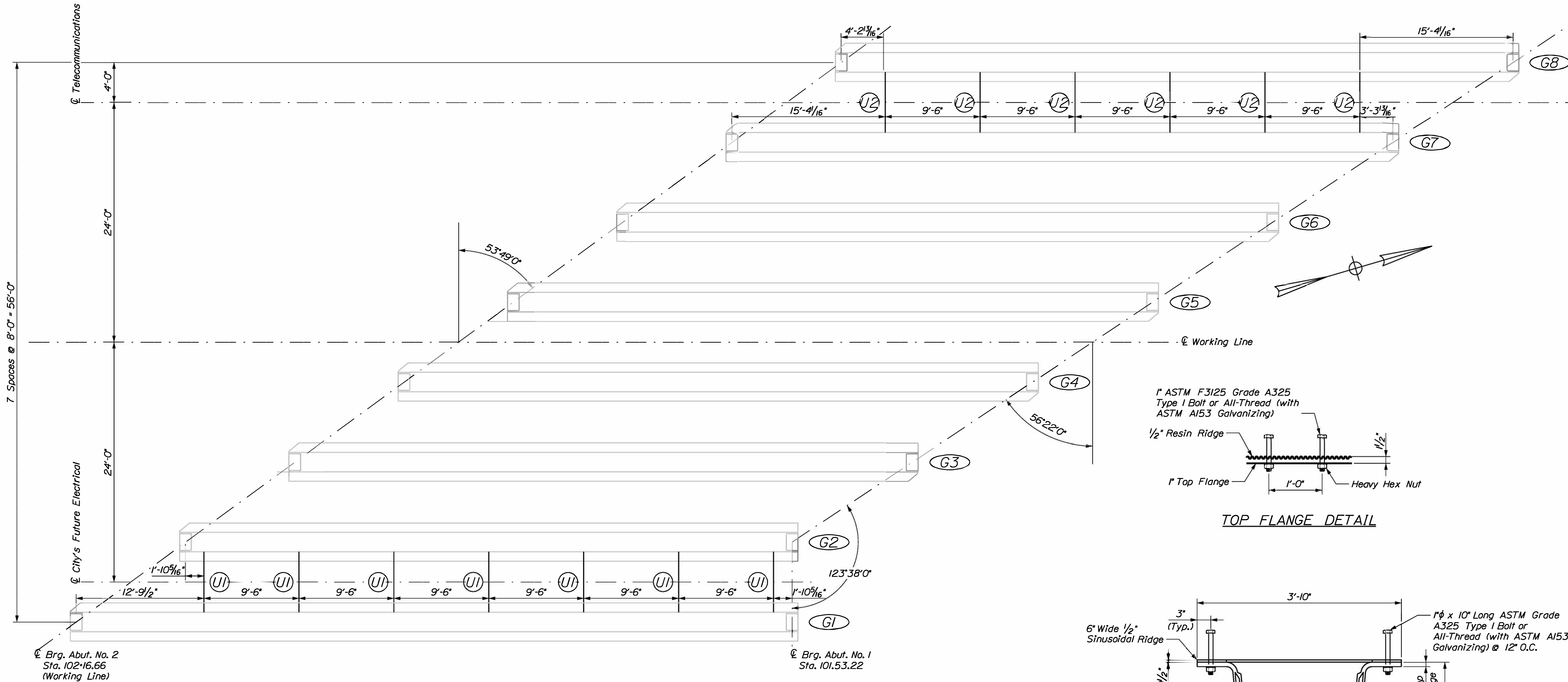
FIXED BEARING ASSEMBLY
(8 Assemblies Required)



EXPANSION BEARING ASSEMBLY
(8 Assemblies Required)

ELASTOMERIC BEARING NOTES

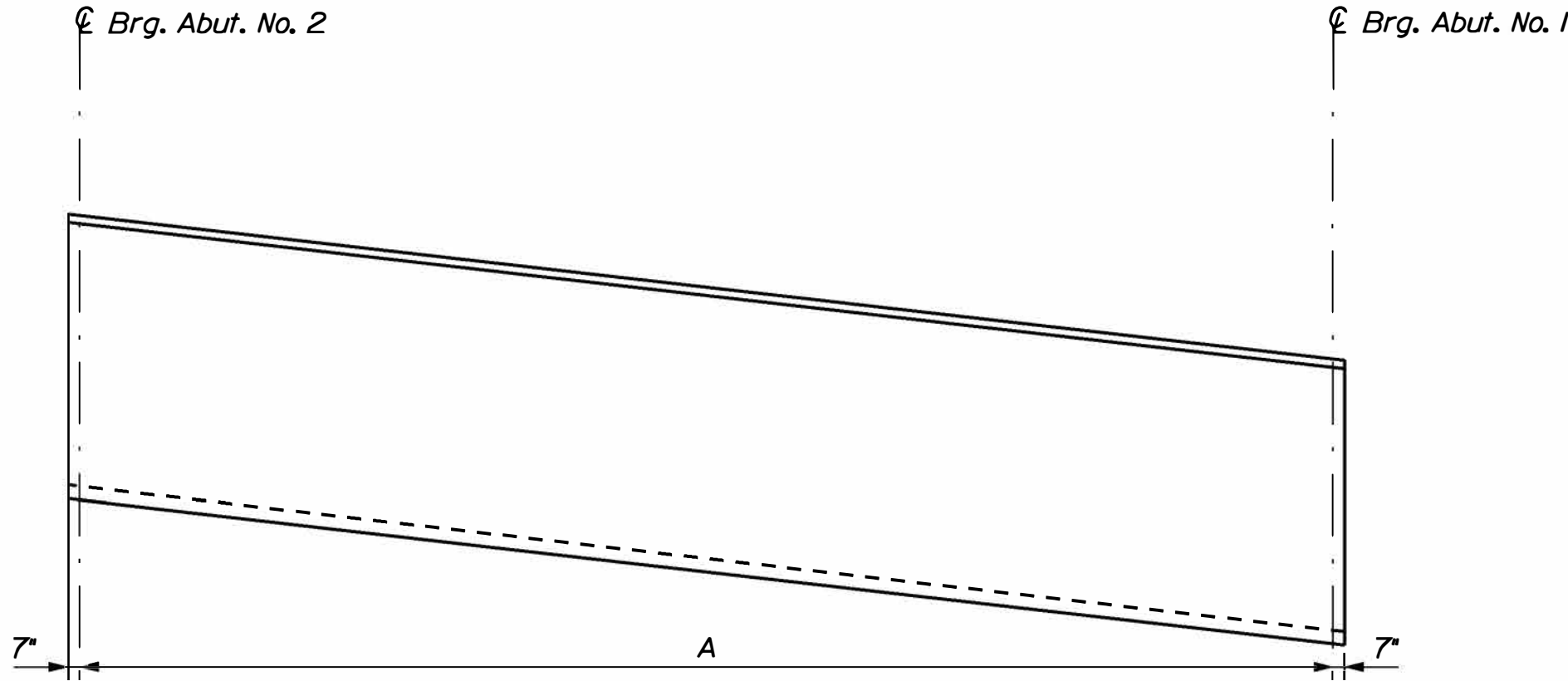
1. The shear modulus of elastomer shall be 150 psi.
2. Vulcanizing of the elastomer to the masonry and sole plates shall be done during the primary mold process.
3. Masonry and sole plates shall meet the requirements of ASTM A709, Grade 50 and shall be galvanized in accordance with Section 506.
4. Anchor rods shall meet the requirements of ASTM F1554 Grade 105 and shall be swaged on the embedded portion of the rod.
5. Anchor rods, washers, and nuts shall be galvanized in accordance with ASTM A153 or ASTM B695 Class 50, Type I.
6. All bearings shall be marked prior to shipping with a direction arrow that points upstation.
7. Bearings shall be covered during shipping and at any time prior to installation that the bearings may be exposed to sunlight.
8. The bearings are designed so that the superstructure may be erected with the ambient air temperature is within the range of 65°F to 90°F. If the ambient air temperature is outside this range, the bearings shall be reset as directed by the Resident.
9. The "Bearing Design Load" for each bearing, as noted in Standard Specifications Subsection 523.23 is 129 kips for the Service I load combination without impact.
10. The elastomer shall have a nominal hardness of 60 on the Shore A scale.
11. Steel reinforcing plates shall meet the requirements of ASTM A36.
12. All thread should meet ASTM F3125 Grade A325 Type I and be galvanized in accordance with ASTM A153.
13. Upset the threads on the anchor rods after assembly of the bearing.



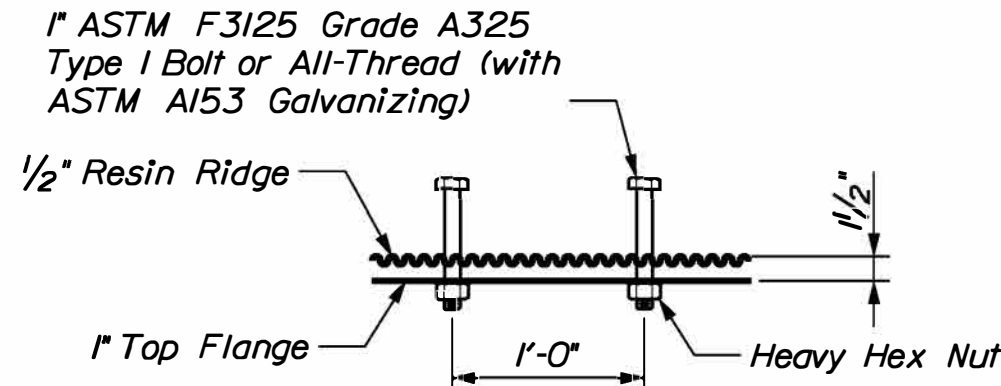
NOTES

- 1. Camber ordinates are computed to compensate for all dead load deflections and for the finished grade profile.
- 2. For bottom of slab elevations and dead load deflections table see sheet "Girder Details - CT Girder". The Fluid Dead Load deflections include deck overcast full thickness and Milled Surface Dead Load is expected upward deflection after profile milling.
- 3. All materials and workmanship required for the Utility Supports shall be paid for under 910 Special Work Items.

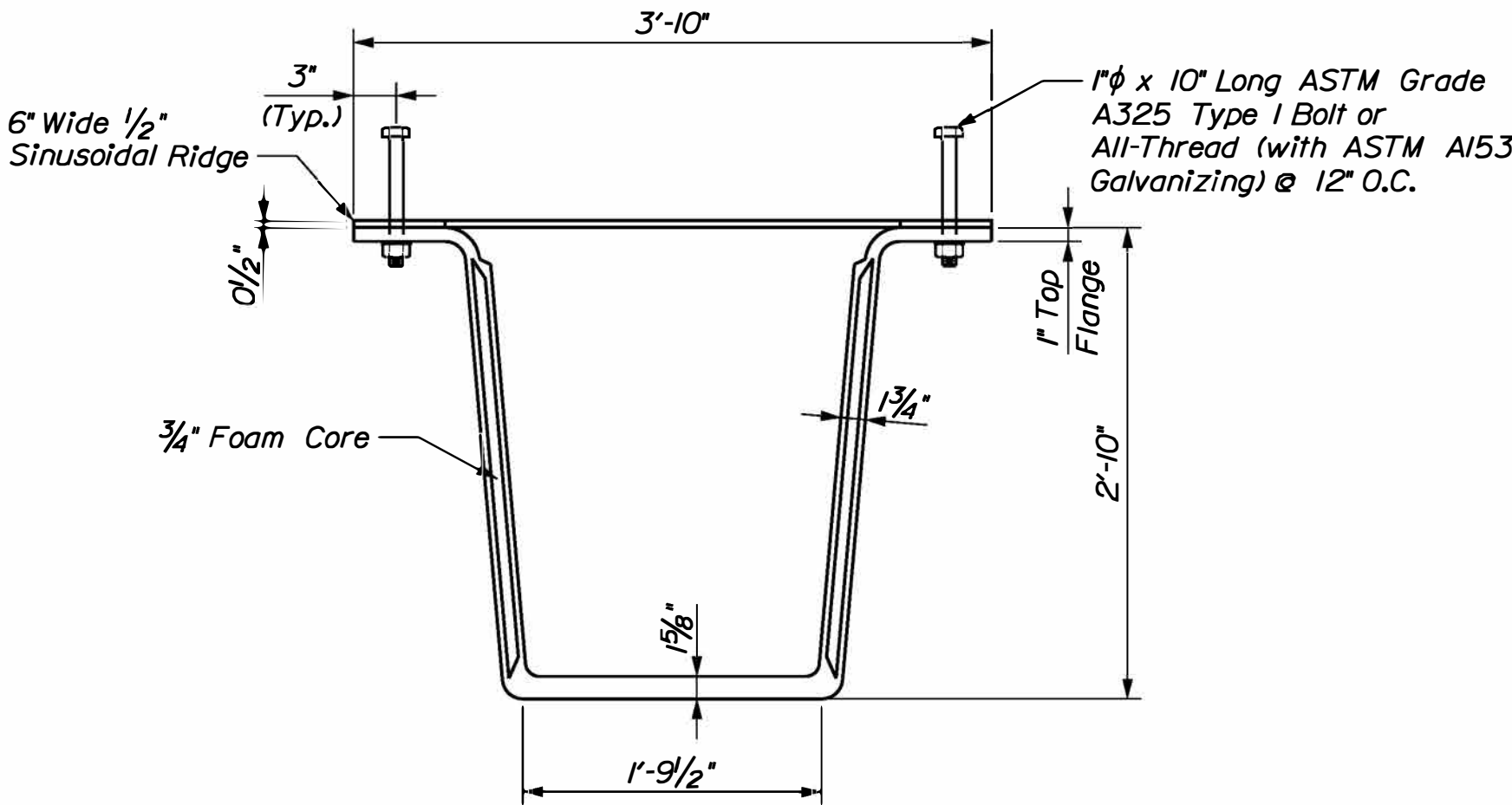
FRAMING PLAN
(Dimensions are horizontal)



GIRDER ELEVATION



TOP FLANGE DETAIL



GIRDER SECTION

Girder	A
G1	71'-7 1/8"
G2	60'-8 3/16"
G3	61'-9 3/16"
G4	62'-10 1/16"
G5	63'-11 3/16"
G6	65'-0 3/16"
G7	66'-1 1/8"
G8	67'-2 3/16"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROFESSIONAL ENGINEER
TIMOTHY ANDREW KENNEDY
No. 15271

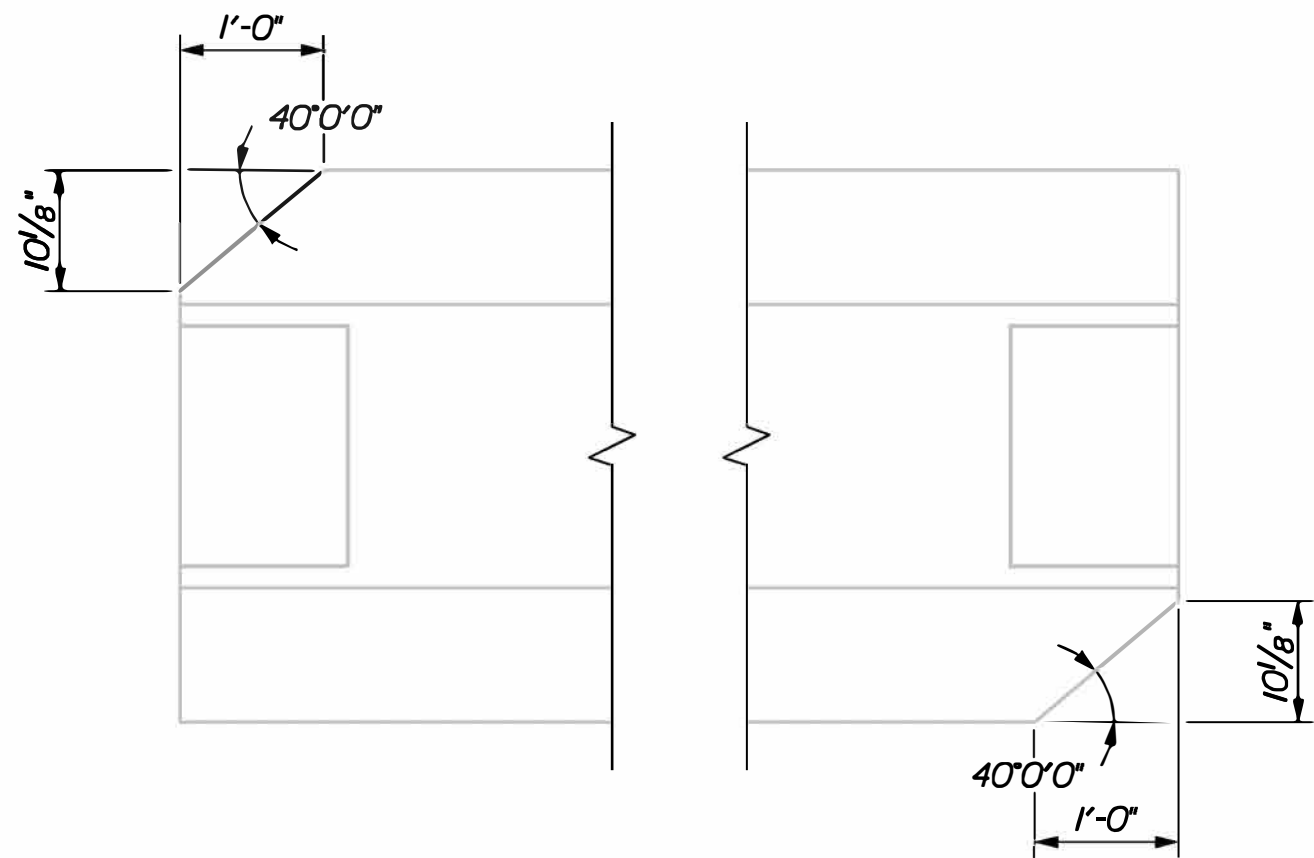
DESIGNER

PROJECT: RINES HILL BRIDGE
LOCATION: OLD MAINE CENTRAL RAILROAD
COUNTY: KENNEBEC COUNTY
CITY: AUGUSTA

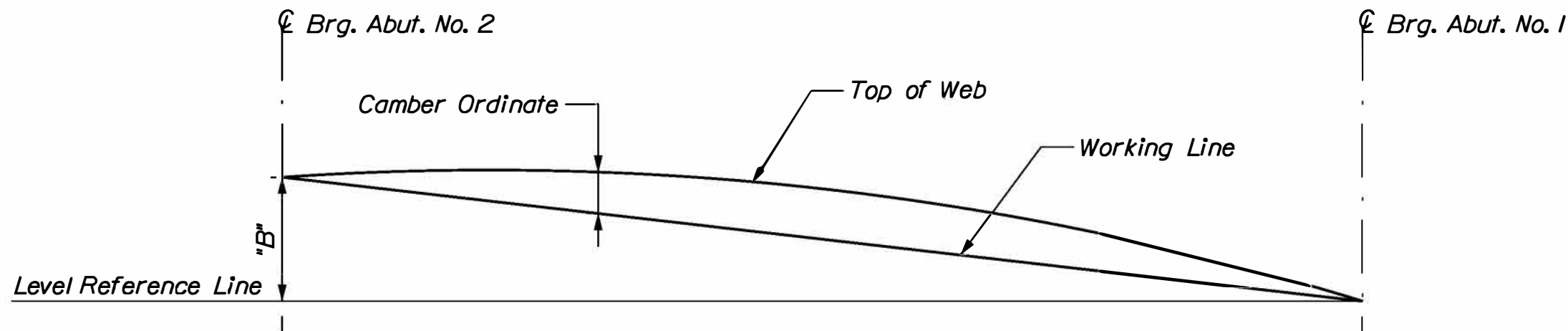
FRAMING PLAN
CT GIRDERS

SHEET NUMBER
63
OF 84

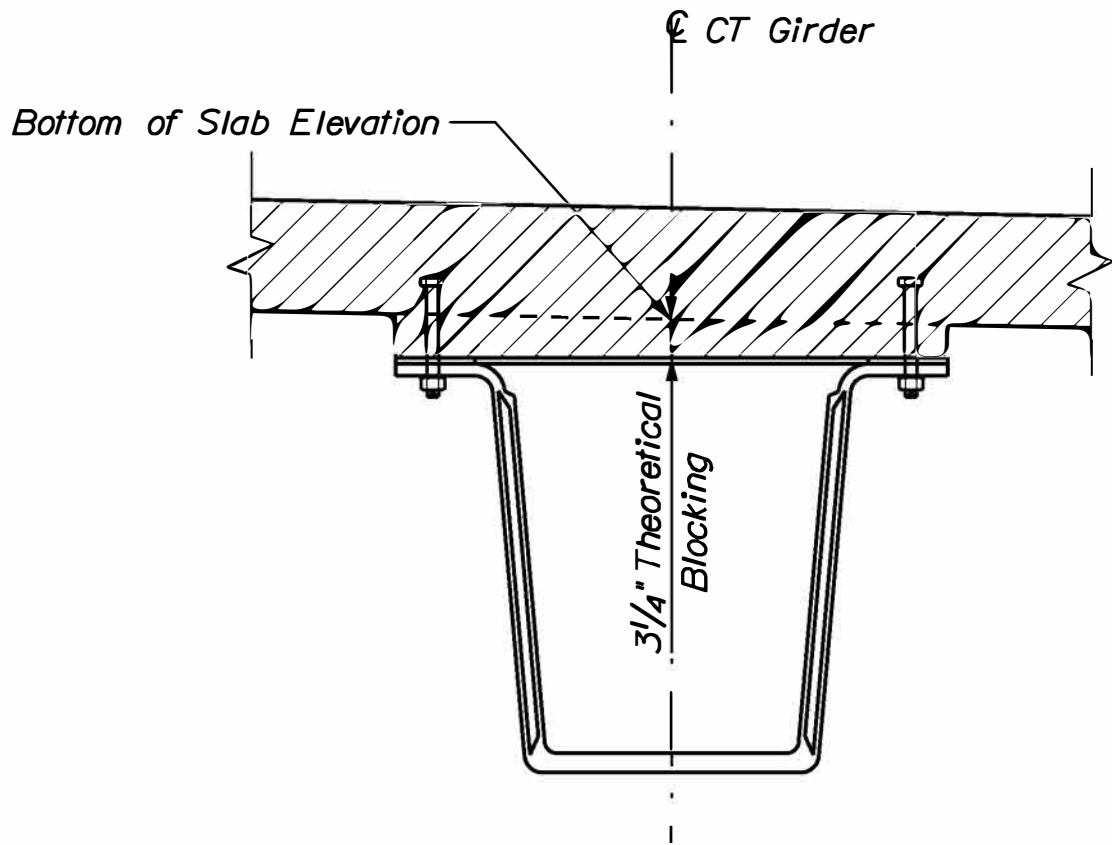
BRIDGE NO. 3528
WIN 21872.00
BRIDGE PLANS



FLANGE CLIP DETAIL
Abutment No. 1: G3 - G8
Abutment No. 2: G1 - G8



CAMBER DIAGRAM



SLAB HAUNCH & BLOCKING DETAIL
Theoretical blocking is for reference only, and shall not be used for setting forms. Blocking dimension for construction shall be determined using the "Bottom of Slab Elevations" table.

GIRDER	"B" (FT)
G1	8.21
G2	6.96
G3	7.08
G4	7.21
G5	7.34
G6	7.45
G7	7.58
G8	7.71

BOTTOM OF SLAB ELEVATIONS											
GIRDER	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	76.46	77.41	78.35	79.26	80.14	80.98	81.78	82.54	83.28	83.98	84.68
G2	76.30	77.08	77.85	78.60	79.34	80.05	80.73	81.39	82.03	82.65	83.26
G3	74.76	75.56	76.35	77.12	77.87	78.59	79.28	79.95	80.60	81.23	81.85
G4	73.22	74.02	74.81	75.58	76.34	77.07	77.78	78.47	79.13	79.79	80.43
G5	71.69	72.50	73.30	74.09	74.86	75.61	76.33	77.03	77.70	78.37	79.02
G6	70.15	71.00	71.84	72.66	73.46	74.22	74.95	75.65	76.32	76.97	77.61
G7	68.61	69.48	70.34	71.18	71.99	72.76	73.50	74.21	74.89	75.55	76.19
G8	67.07	67.94	68.79	69.63	70.44	71.23	71.99	72.71	73.42	74.10	74.78

CAMBER ORDINATES (INCHES)											
GIRDER	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	0	1 3/4	3 5/16	4 9/16	5 7/8	5 7/8	5 3/8	4 9/16	3 7/16	1 3/4	0
G2	0	1 1/8	2 1/8	2 7/8	3 3/8	3 3/16	3 3/8	2 7/8	2 1/8	1 1/8	0
G3	0	1 3/16	2 1/4	3 1/16	3 3/8	3 3/16	3 3/8	3 1/16	2 1/4	1 3/16	0
G4	0	1 1/16	1 5/16	2 1/16	3 1/8	3 5/16	3 1/8	2 1/16	1 5/16	1 1/16	0
G5	0	1 1/8	2 1/16	2 7/8	3 3/16	3 1/2	3 3/16	2 7/8	2 1/16	1 1/8	0
G6	0	1 1/16	2 1/16	3 1/16	4 3/8	4 9/16	4 3/8	3 1/16	2 1/16	1 1/16	0
G7	0	1 1/2	2 7/8	3 5/16	4 7/8	4 9/16	4 7/8	3 5/16	2 7/8	1 1/2	0
G8	0	1 5/16	2 1/2	3 1/16	4	4 3/16	4	3 1/16	2 1/2	1 5/16	0

DEAD LOAD DEFLECTIONS (INCHES)												
GIRDER	Dead Load Component	℄ Brg. Abut. No. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	CT DL	0.00	0.23	0.43	0.59	0.69	0.72	0.69	0.59	0.43	0.23	0.00
	Fluid DL	0.00	1.45	2.74	3.75	4.40	4.62	4.40	3.75	2.74	1.45	0.00
	Superimposed DL	0.00	0.10	0.19	0.26	0.30	0.32	0.30	0.26	0.19	0.10	0.00
	Milled Surface DL	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	-0.02	-0.01	0.00
G2	CT DL	0.00	0.12	0.22	0.30	0.35	0.37	0.35	0.30	0.22	0.12	0.00
	Fluid DL	0.00	0.95	1.80	2.47	2.89	3.03	2.89	2.47	1.80	0.95	0.00
	Superimposed DL	0.00	0.05	0.09	0.13	0.15	0.16	0.15	0.13	0.09	0.05	0.00
	Milled Surface DL	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00
G3	CT DL	0.00	0.12	0.24	0.32	0.38	0.40	0.38	0.32	0.24	0.12	0.00
	Fluid DL	0.00	1.02	1.92	2.63	3.08	3.24	3.08	2.63	1.92	1.02	0.00
	Superimposed DL	0.00	0.05	0.10	0.13	0.15	0.16	0.15	0.13	0.10	0.05	0.00
	Milled Surface DL	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00
G4	CT DL	0.00	0.13	0.25	0.34	0.40	0.42	0.40	0.34	0.25	0.13	0.00
	Fluid DL	0.00	0.85	1.61	2.20	2.58	2.71	2.58	2.20	1.61	0.85	0.00
	Superimposed DL	0.00	0.05	0.10	0.14	0.16	0.17	0.16	0.14	0.10	0.05	0.00
	Milled Surface DL	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.00
G5	CT DL	0.00	0.14	0.27	0.37	0.43	0.45	0.43	0.37	0.27	0.14	0.00
	Fluid DL	0.00	0.90	1.71	2.34	2.74	2.88	2.74	2.34	1.71	0.90	0.00
	Superimposed DL	0.00	0.06	0.11	0.15	0.18	0.18	0.18	0.15	0.11	0.06	0.00
	Milled Surface DL	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.00
G6	CT DL	0.00	0.15	0.28	0.39	0.46	0.48	0.46	0.39	0.28	0.15	0.00
	Fluid DL	0.00	1.23	2.32	3.18	3.72	3.91	3.72	3.18	2.32	1.23	0.00
	Superimposed DL	0.00	0.06	0.12	0.16	0.19	0.20	0.19	0.16	0.12	0.06	0.00
	Milled Surface DL	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.00
G7	CT DL	0.00	0.16	0.30	0.41	0.48	0.51	0.48	0.41	0.30	0.16	0.00
	Fluid DL	0.00	1.30	2.47	3.38	3.96	4.16	3.96	3.38	2.47	1.30	0.00
	Superimposed DL	0.00	0.07	0.13	0.18	0.21	0.22	0.21	0.18	0.13	0.07	0.00
	Milled Surface DL	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00
G8	CT DL	0.00	0.17	0.32	0.44	0.51	0.54	0.51	0.44	0.32	0.17	0.00
	Fluid DL	0.00	1.09	2.06	2.82	3.30	3.46	3.30	2.82	2.06	1.09	0.00
	Superimposed DL	0.00	0.07	0.14	0.19	0.22	0.23	0.22	0.19	0.14	0.07	0.00
	Milled Surface DL	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROFESSIONAL ENGINEER
TIMOTHY ANDREW KENNEDY
No. 15271

SIGNATURE

P.E. NUMBER
10121 / 2022
DATE
10/20/2022

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

GIRDER DETAILS
CT GIRDERS

SHEET NUMBER
64
OF 84

CROSSFRAME TYPE U2

SECTION B-B

CROSSFRAME TYPE UI

SECTION D-D

SECTION A-A

Dimensions Perpendicular to $\mathcal{Q}$ Brg.
Grade Parallel to $\mathcal{Q}$ Construction
Section Cut Shown on Abutment No. 1 Reconstruction Sheet

SECTION C-C

*Dimensions Perpendicular to C Brg.
Grade Parallel to C Construction
Section Cut Shown on Abutment No. 2 Reconstruction Sheet*

1. The theoretical blocking used for design of the structure is $3\frac{1}{4}$ inches at the centerline of bearing of the abutments.

2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

4. The superstructure slab concrete shall be placed continuously and shall be kept plastic until the entire placement has been made.

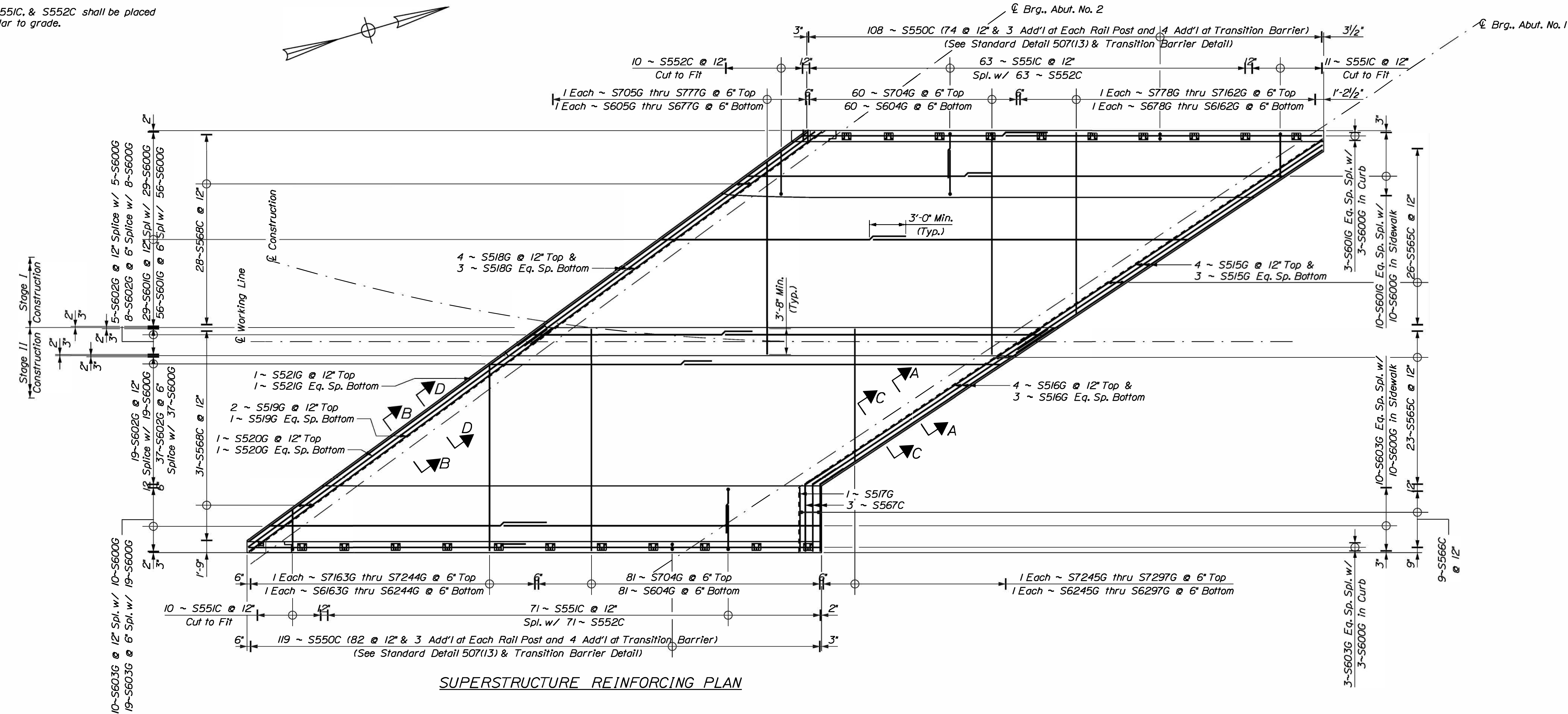
6. The Contractor shall field verify the gap between the southeast transition barrier and existing collision wall is a maximum of 4".

8. The use of precast concrete deck panels will not be allowed on this project.

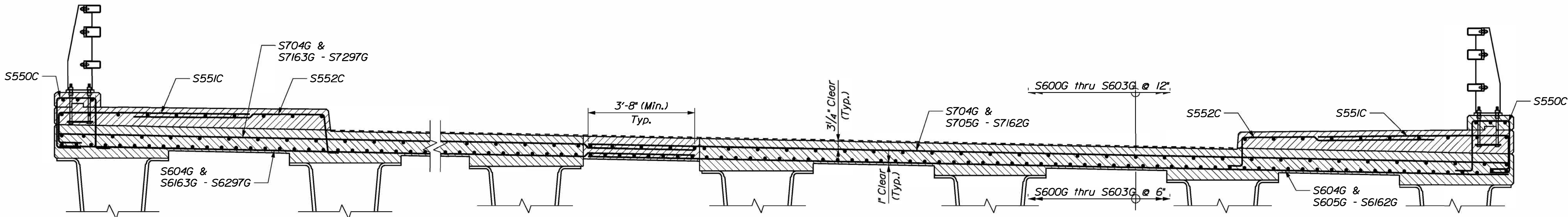


NOTES

1. S550C, S551C, & S552C shall be placed perpendicular to grade.



SUPERSTRUCTURE REINFORCING PLAN



TRANSVERSE REINFORCING SECTION
Final Deck Section After Milling Procedure

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE PLANS	
PROJECT: RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA, KENNEBEC COUNTY		BRIDGE NO. 3528	
SHEET NUMBER 67		WIN 21872.00	
SUPERSTRUCTURE REINF. PLAN - CT GIRDERS		DATE: 10/21/2022	
DESIGNER: A. Lothe		CHECKED: P. Chen	
BY: K. Wright		DATE: OCT 2022	
T. Kerasiotes		SIGNATURE: [Signature]	
P.E. NUMBER: 10121		DATE: 10/21/2022	
REVISIONS: 1		FIELD CHANGES: 1	
REVISIONS: 2		FIELD CHANGES: 2	
REVISIONS: 3		FIELD CHANGES: 3	
REVISIONS: 4		FIELD CHANGES: 4	

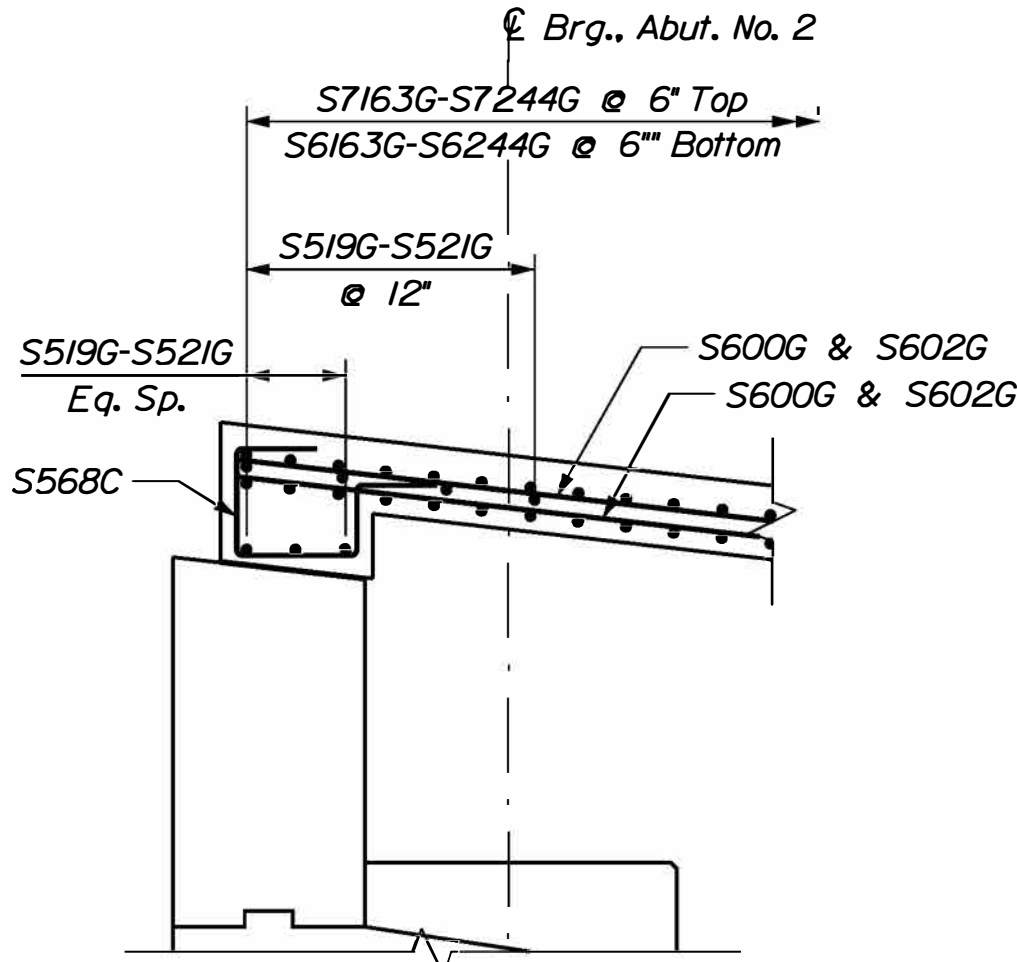
Date:10/20/2022

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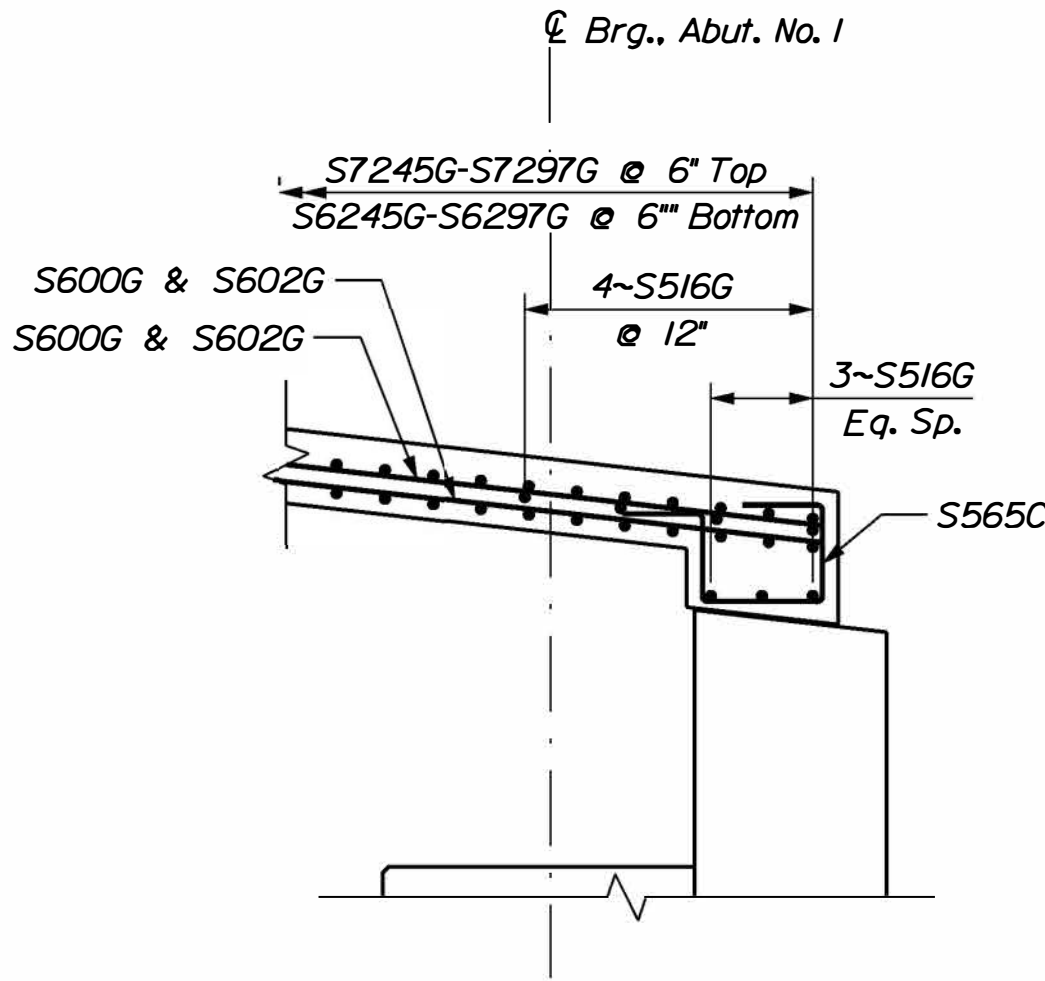
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NOTES

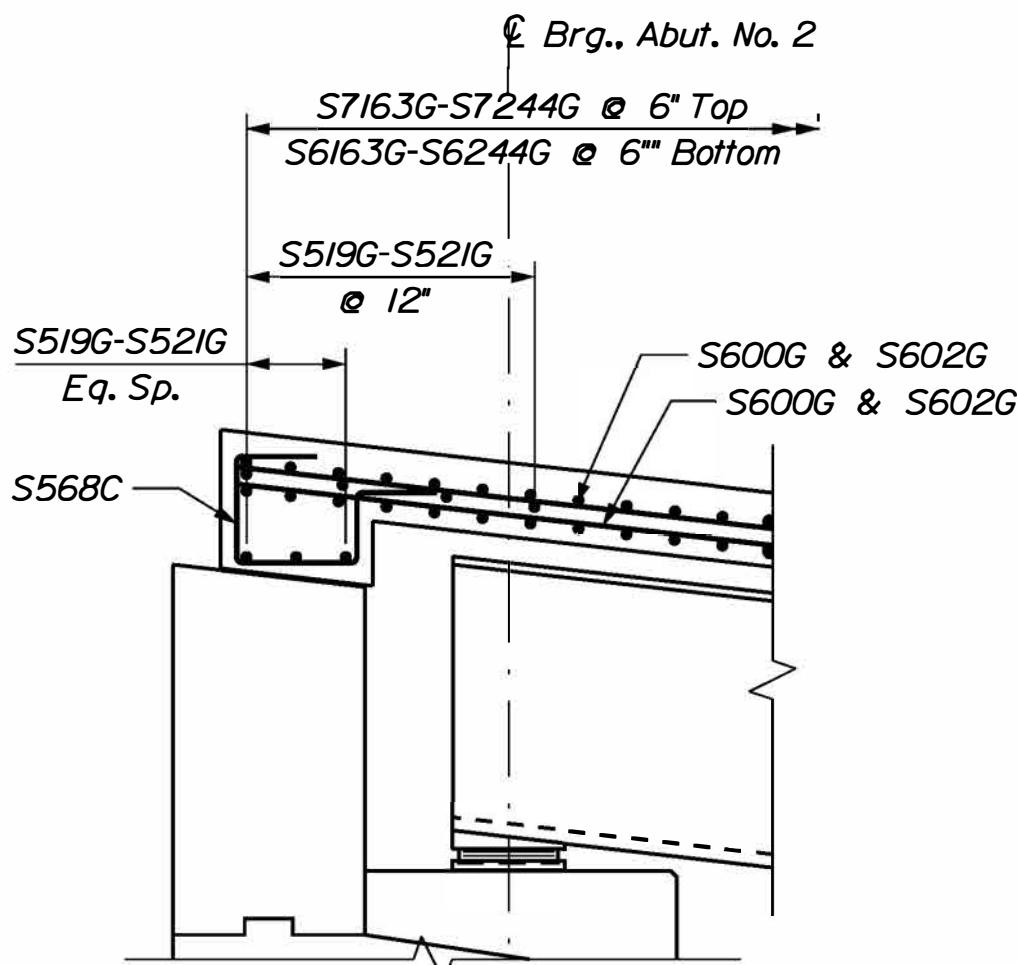
1. S550C, S551C, & S552C shall be placed perpendicular to grade.



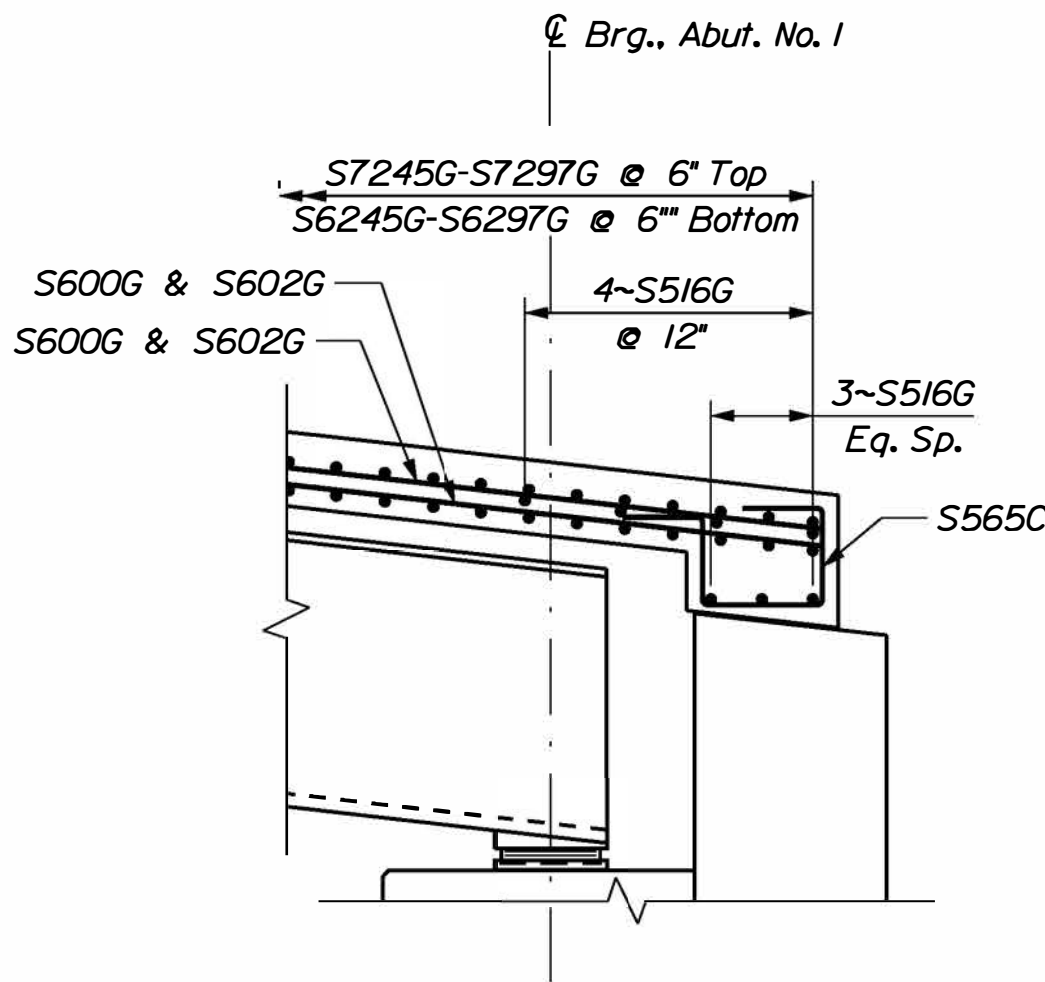
SECTION B-B



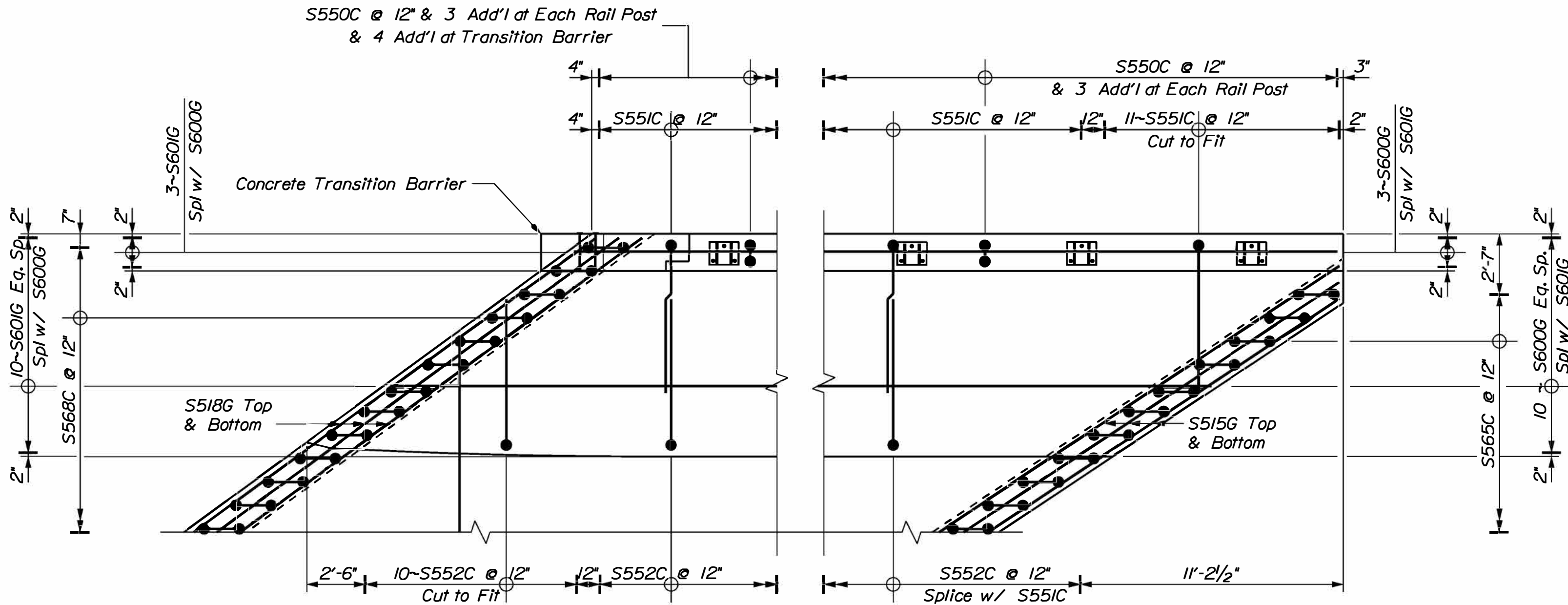
SECTION A-A



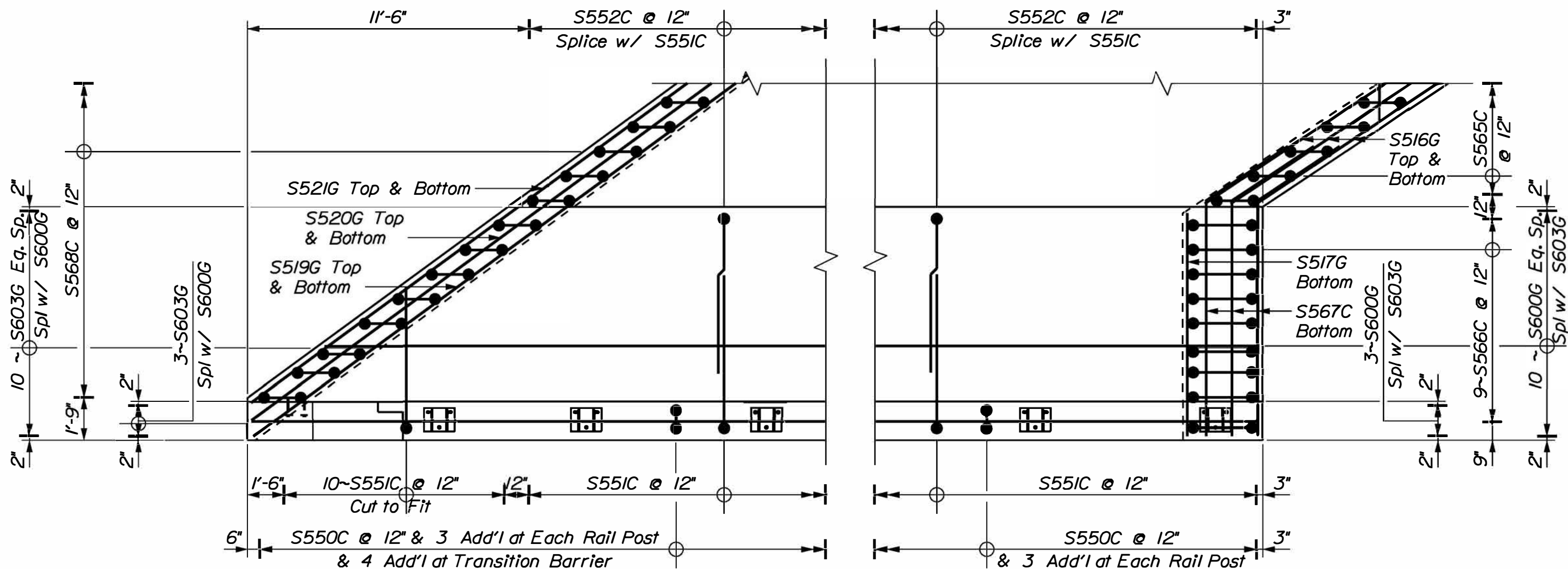
SECTION D-D



SECTION C-C



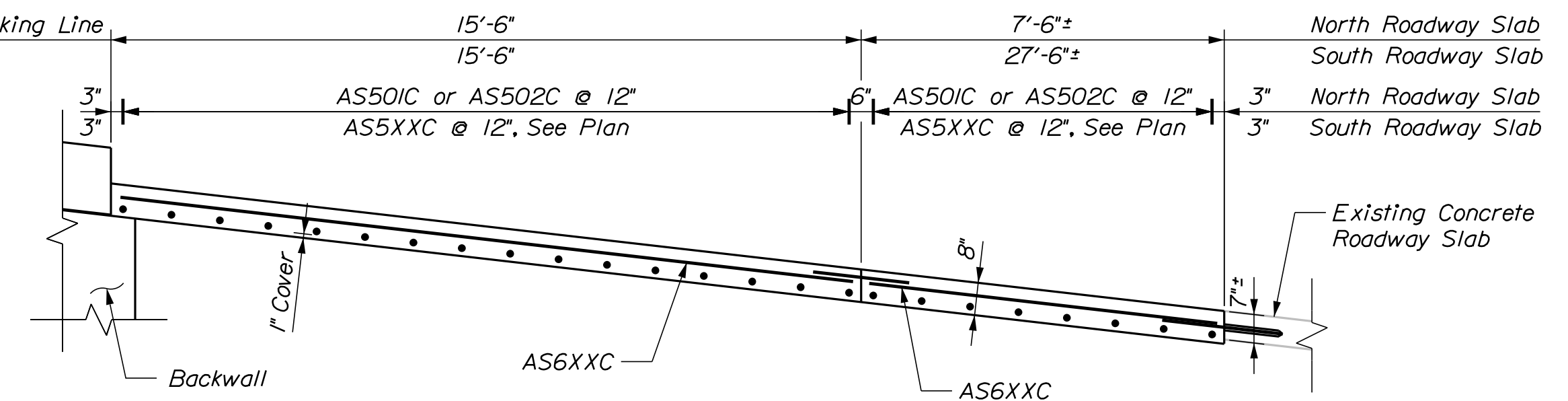
WEST SUPERSTRUCTURE REINFORCING DETAIL



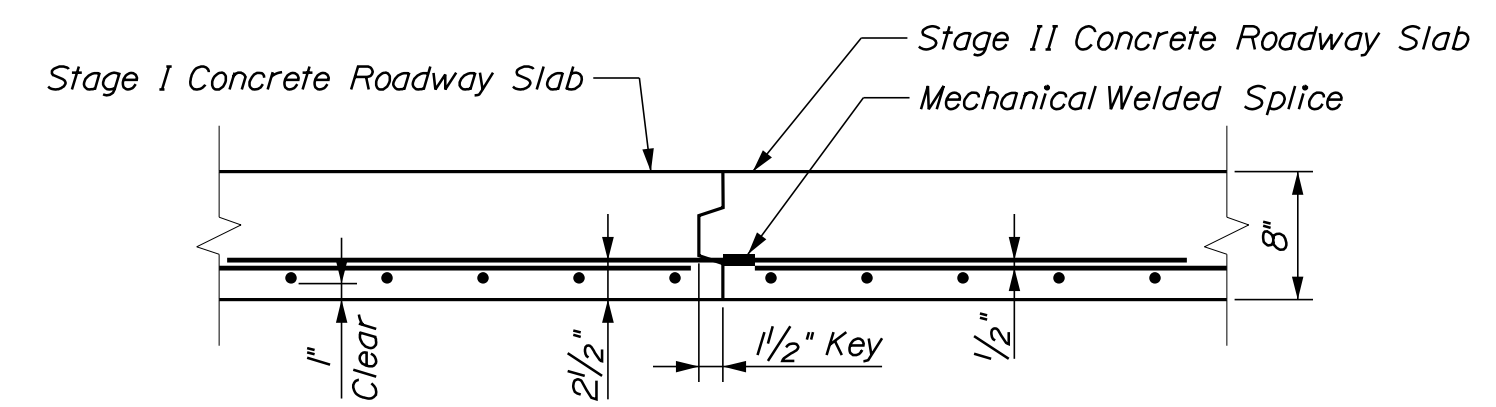
EAST SUPERSTRUCTURE REINFORCING DETAIL



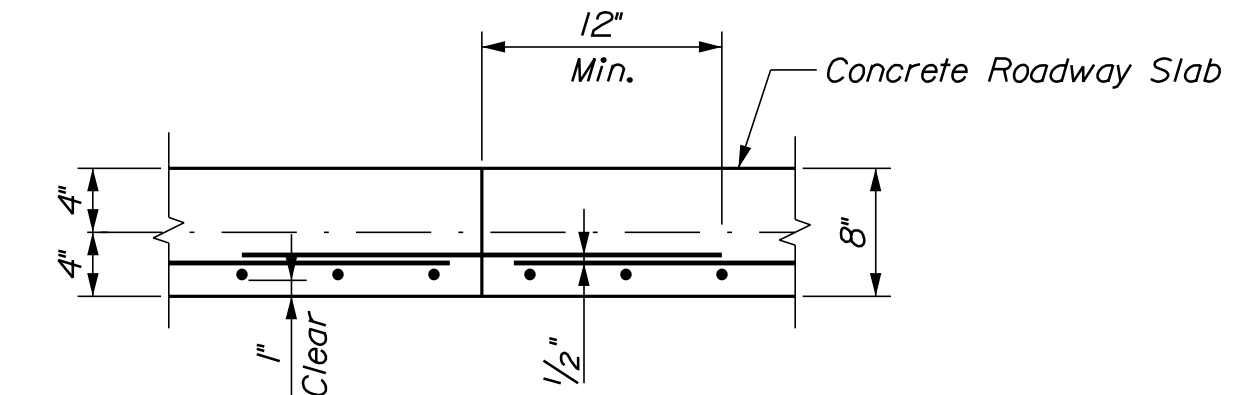
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 3528		WIN 21872.00		1 RIDGE PLANS	
PROJ. MANAGER A. Lothe		BY K. Wright T. Kereson		DATE OCT 2022 OCT 2022		SIGNATURE P.E. NUMBER DATE	
DESIGN-DETAILED P. Chen		CHECKED-REVIEWED A. Diba		DESIGN-DETAILED P. Chen		SIGNATURE P.E. NUMBER DATE	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	
RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY				SUPERSTRUCTURE DETAILS CT GIRDERS			
SHEET NUMBER 68				OF 84			



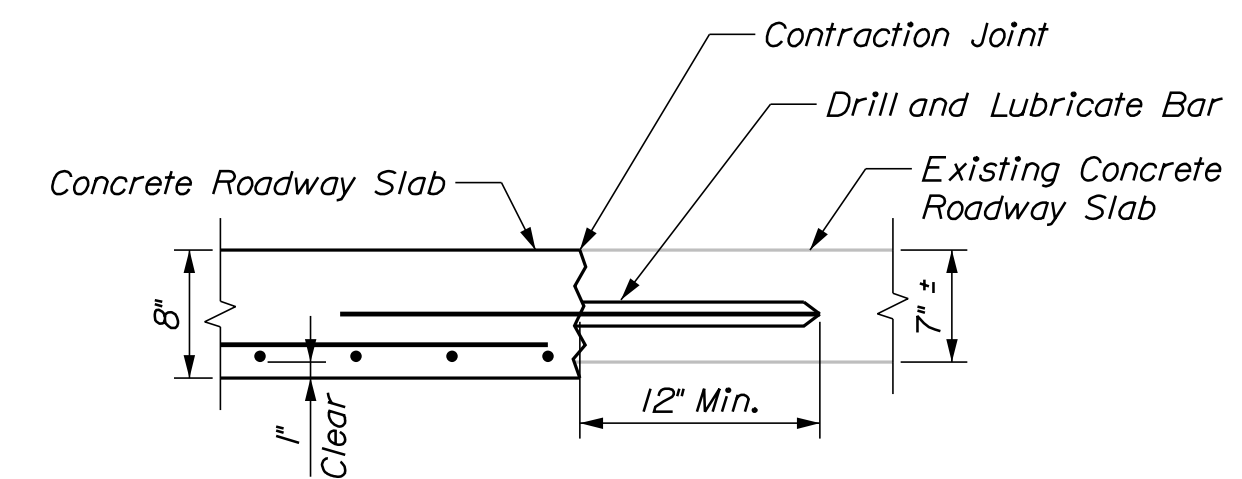
Note: Pavement not shown for clarity.



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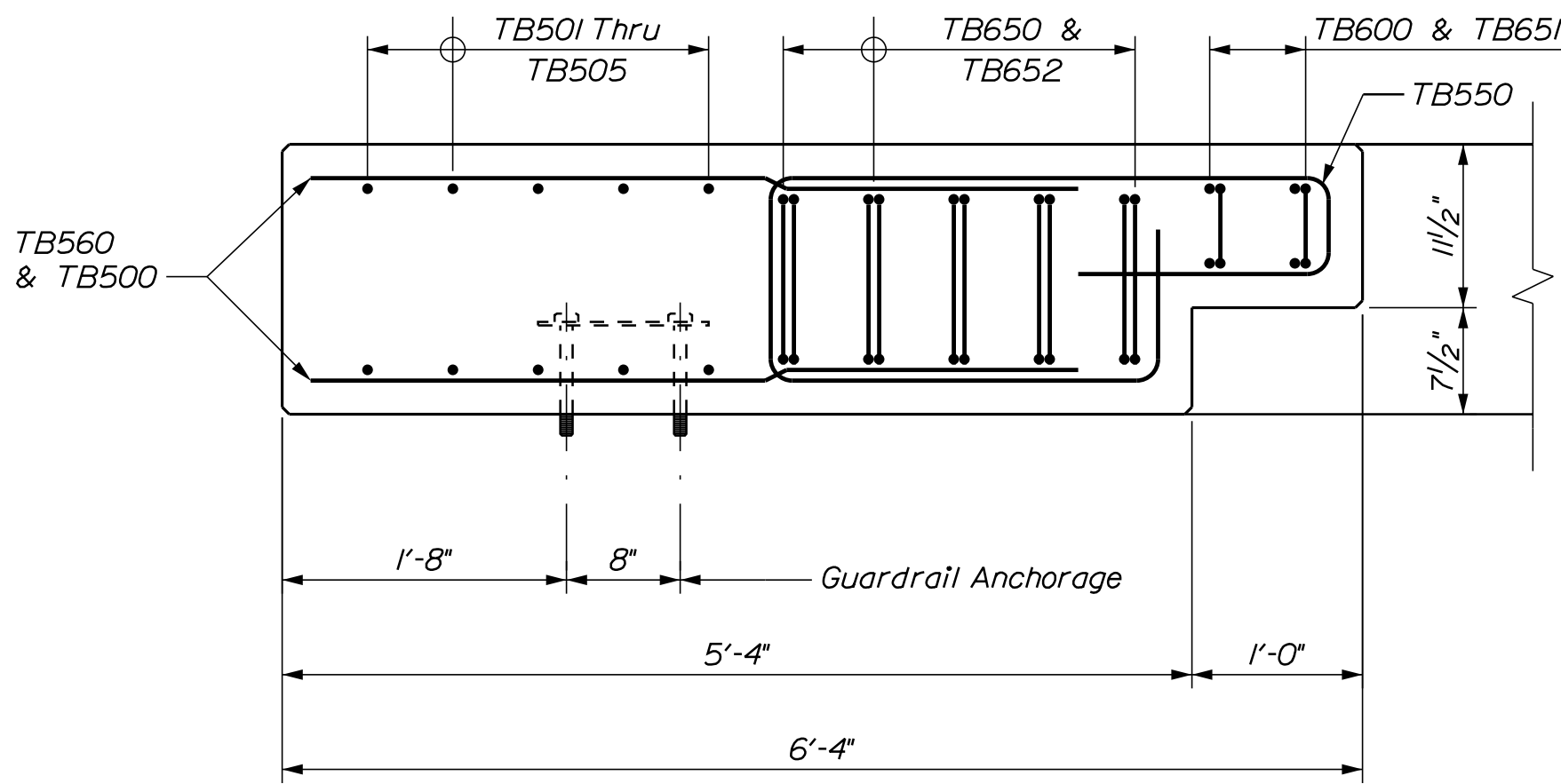


Note: Pavement not shown for clarity.

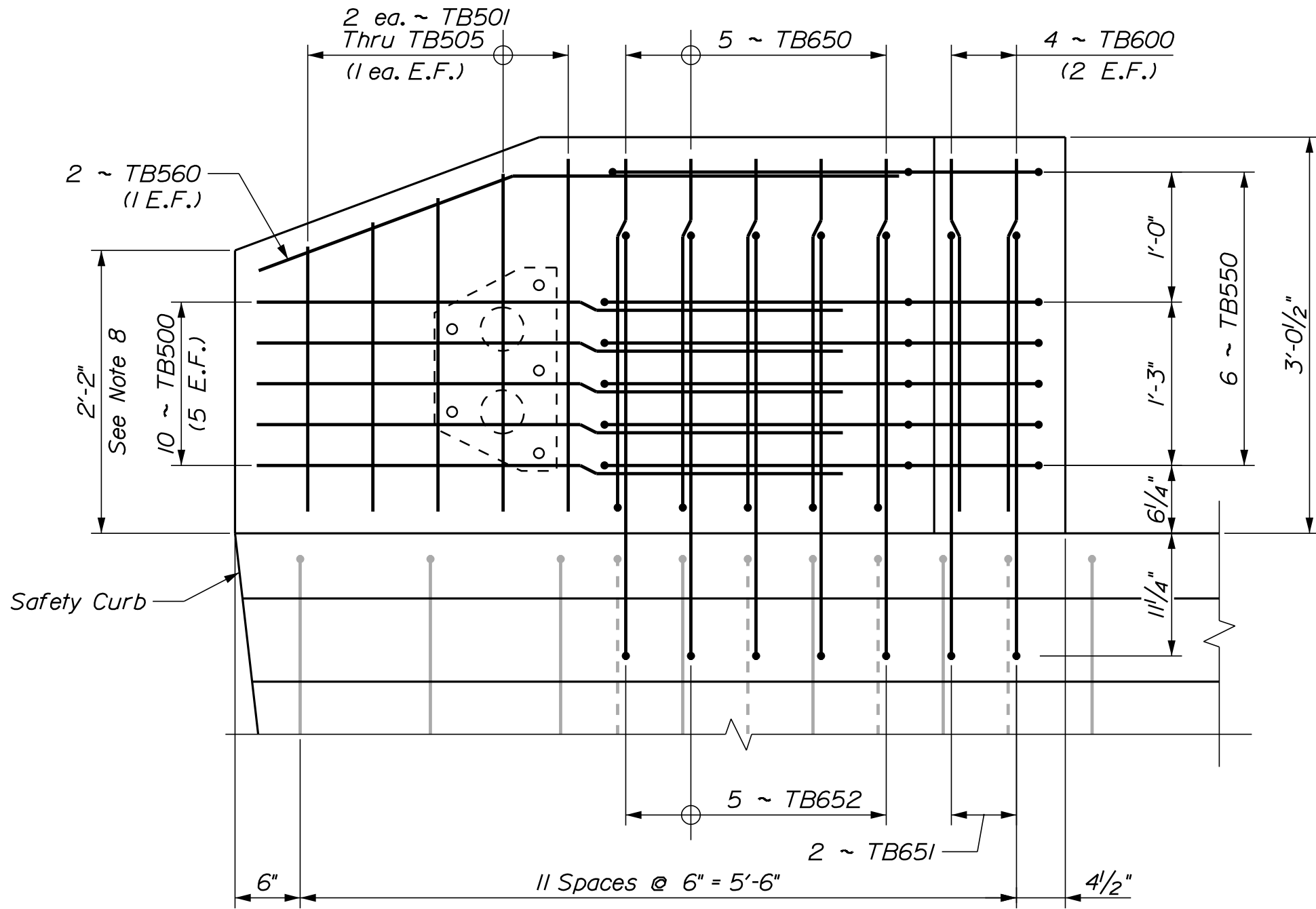


Note: Pavement not shown for clarity.

1. Existing concrete roadway slab condition and reinforcing is unknown, Contractor shall verify prior to drilling and grouting bars.
2. Concrete Roadway Slab will be paid for under Item 502.45 Structural Concrete Approach Slab.

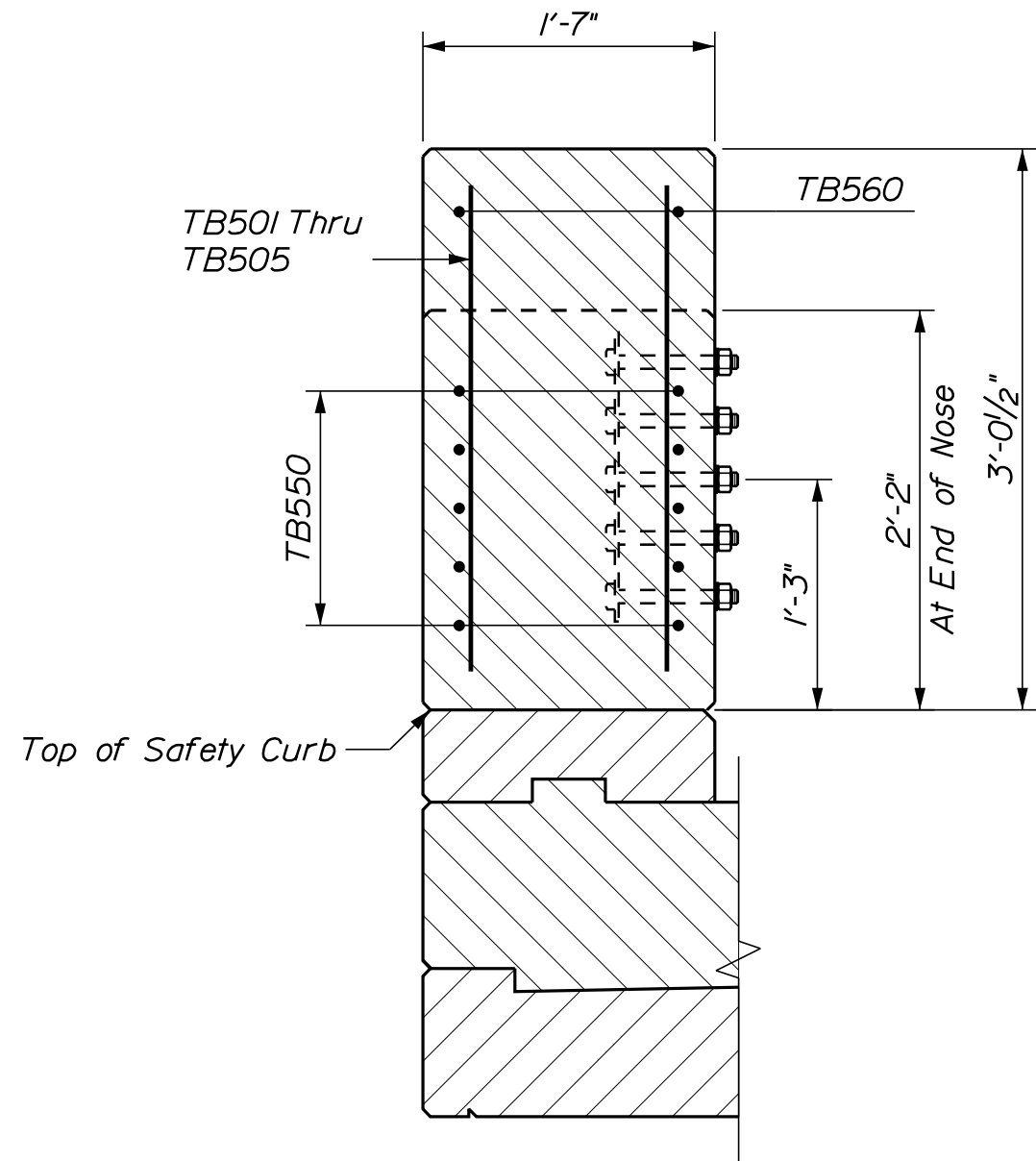


PLAN - CONCRETE TRANSITION BARRIER
ON SIDEWALK

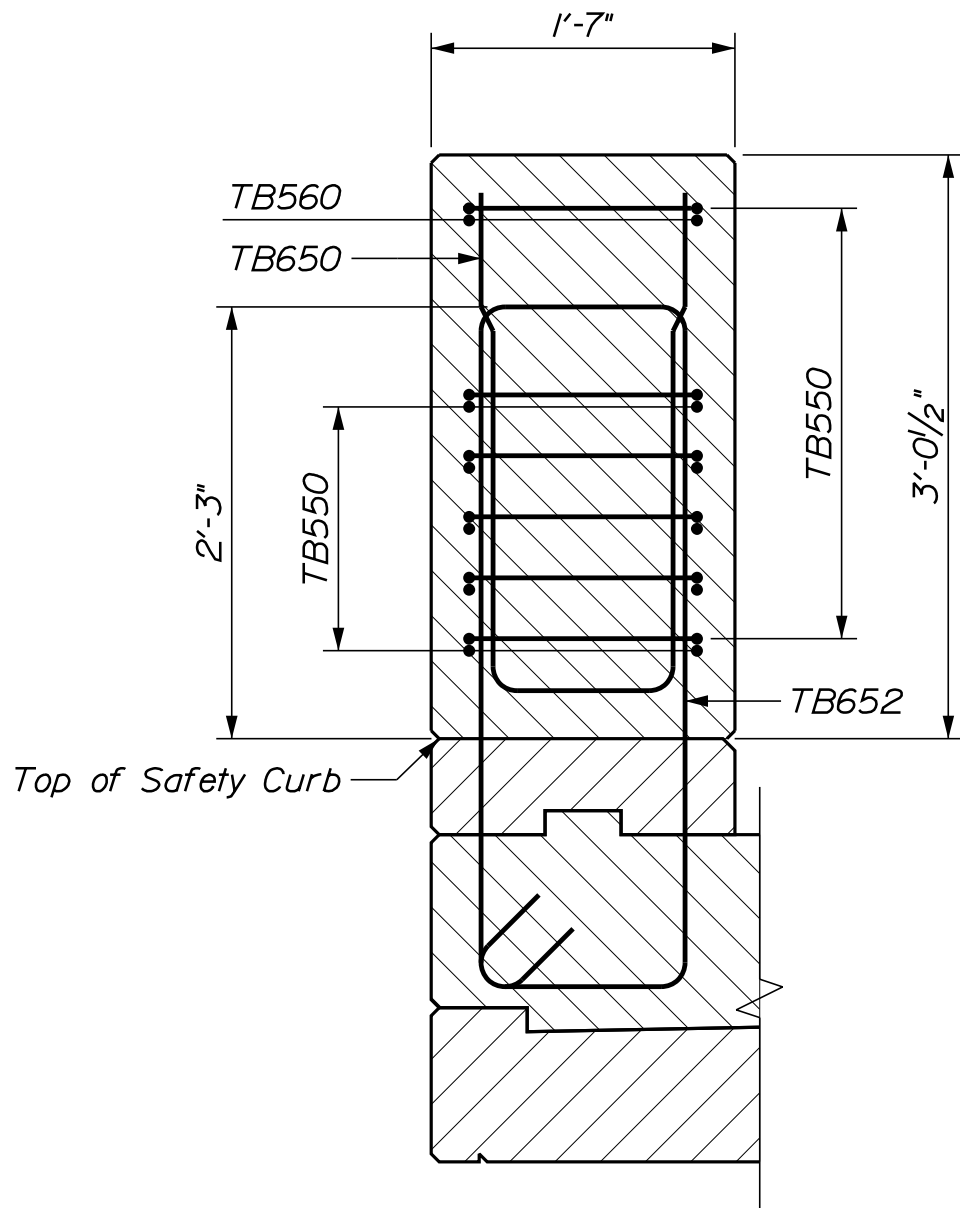


ELEVATION - CONCRETE TRANSITION BARRIER
ON SIDEWALK

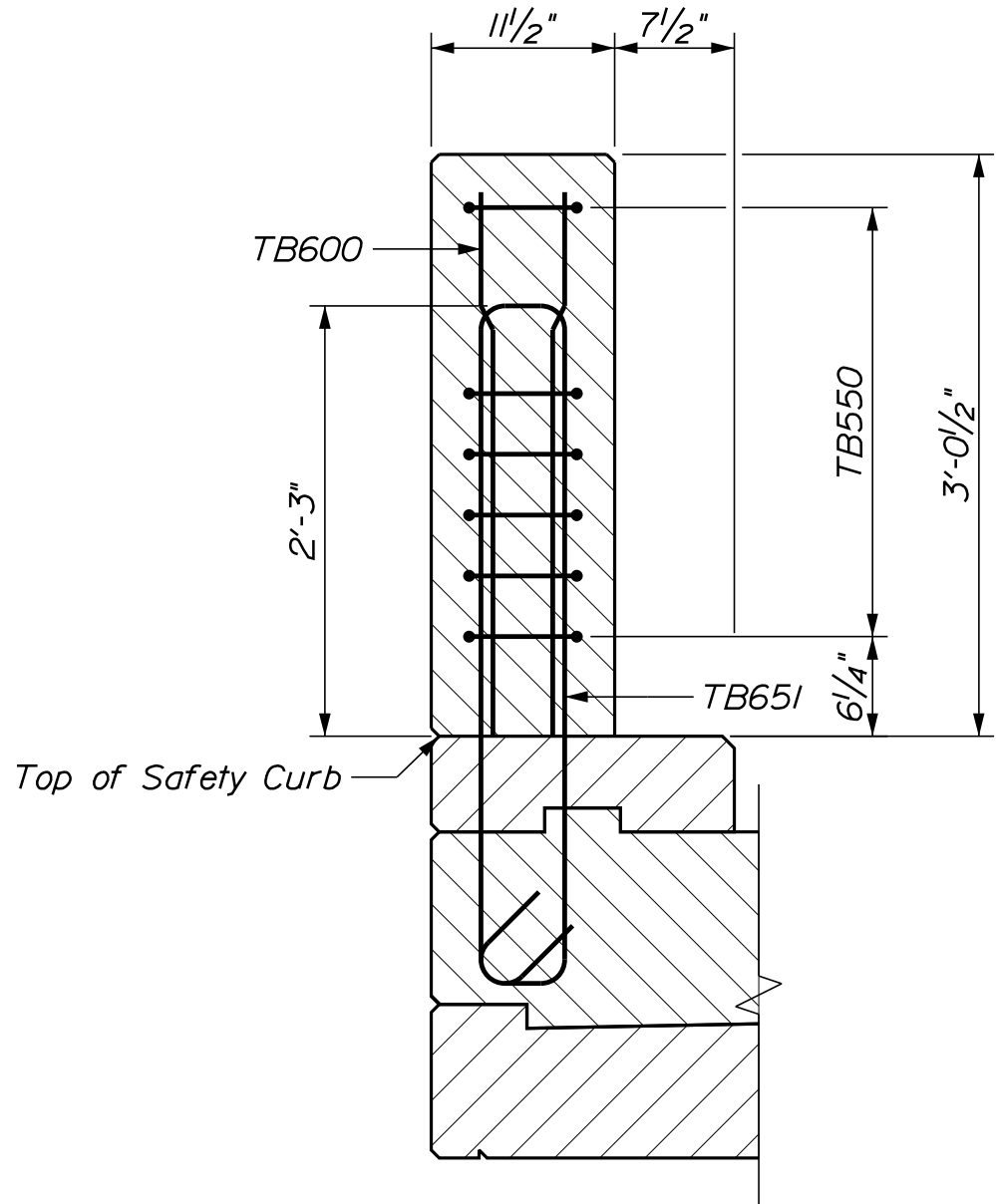
Note: Transition barrier shall be set perpendicular to curb on longitudinal grade.
Southwest shown, Southeast similar



BARRIER SECTION AT NOSE



BARRIER SECTION AT STEM



BARRIER SECTION AT RECESS

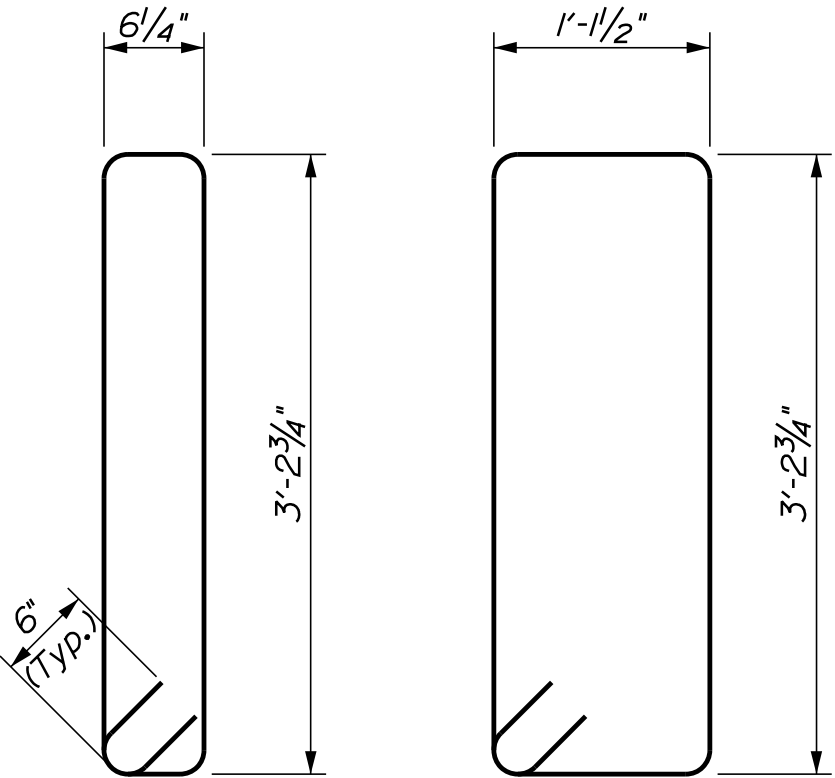
TRANSITION BARRIER NOTES

1. All work and materials shall conform to the requirements of Standard Detail Section 526, Permanent Concrete Barrier.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches.
3. The quantities of reinforcing bars shown are for one transition barrier only.
4. Payment for the guardrail anchorage is considered incidental to the transition barrier pay item.
5. After installation of the guardrail is complete, upset the threads on the anchor bolts in 3 places around each bolt, at the junction of the nut and exposed thread, with a center punch or similar tool. Payment for nuts will be considered incidental to the guardrail pay item.
6. The height of transition barriers shall be measured perpendicular to the top of safety curb.
7. The guardrail anchorage is only required for the southwest transition barrier.
8. Contractor shall field verify the nose of the southeast transition barrier aligns with the top of the existing concrete collision wall.

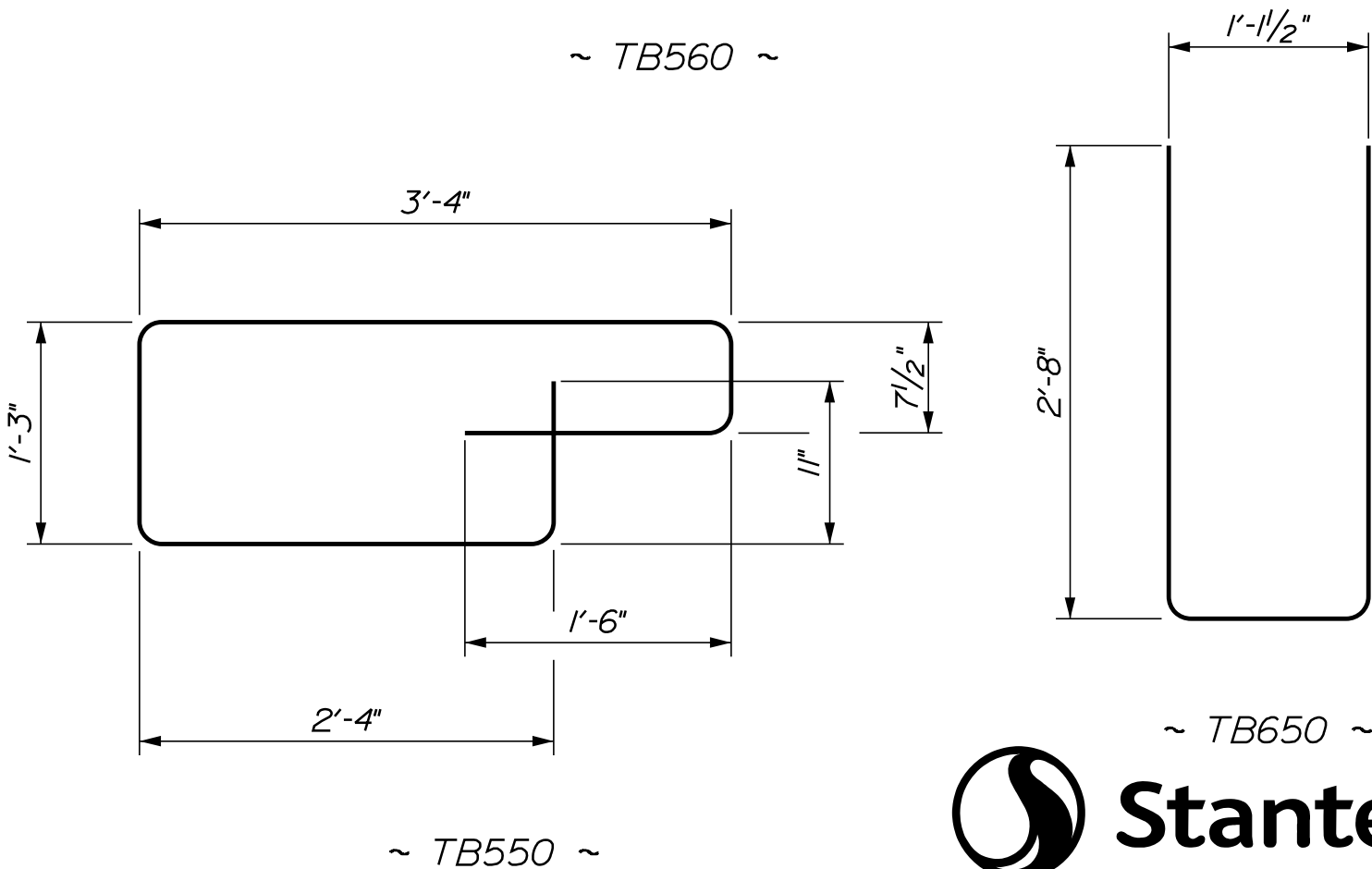
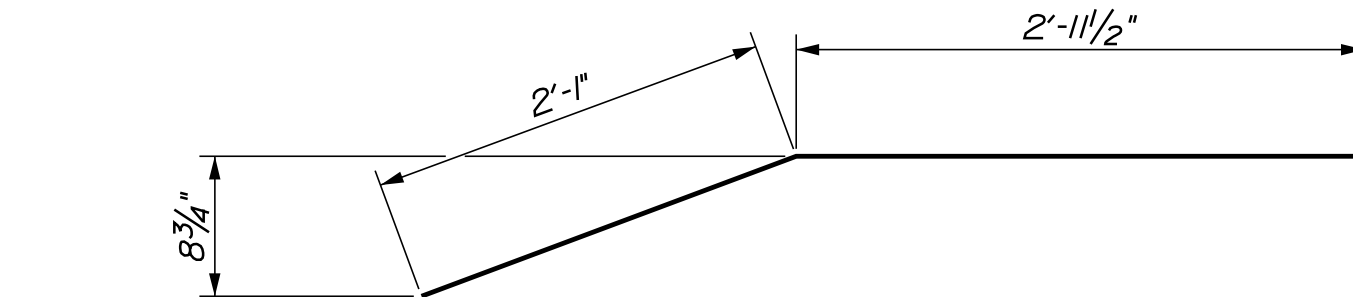
MATERIALS

Concrete Class "LP"
Low-Carbon Chromium Reinforcing ASTM A 1035, Grade 100
Spacer Plate ASTM A 709/A 709 M, Grade 50
Anchor Bolts ASTM A 325M, Type 1

REINFORCING STEEL SCHEDULE



Mark	Qty.	Length
TB500	10	4'-6"
TB501	2	2'-0 1/2"
TB502	2	2'-2 3/4"
TB503	2	2'-5"
TB504	2	2'-7"
TB505	2	2'-8 1/2"
TB550	6	9'-8 1/4"
TB560	2	5'-0 1/2"
TB600	4	2'-8 1/2"
TB650	5	6'-4 1/4"
TB651	2	8'-6"
TB652	5	9'-8 1/2"



PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
	K.L.W.	T.M.W.	OCT 2022		OCT 2022			

Date: 10/21/2022

Username: sjwilliams

Division: BRIDGE

Filename: ... \MSTA\071_Railing_Details_1.dgn

Rail Bars	ASTM A 500, Grade B
Rail Post Plates & Bases	ASTM A 572, Grade 50
Rail Bar Splice Sleeves	ASTM A 572, Grade 50
Anchor & Reinforcement Assemblies	ASTM A 36
Plate Washers	ASTM A 36
Anchor Bolts	ASTM F3125, Grade A325, or ASTM A 449, or ASTM F 1554, Grade 105
Rail Bolts	ASTM A 36
Nuts for Rail Bolts	ASTM A 563
Splice Bolts	ASTM F3125, Grade A325
Lock Washers	ANSI/ASME B18.21.1-1994

WYOMING BRIDGE RAILING ELEVATION

TYPICAL RAILING SECTION AT SIDEWALK
Pale Panel Not Shown for Clarity

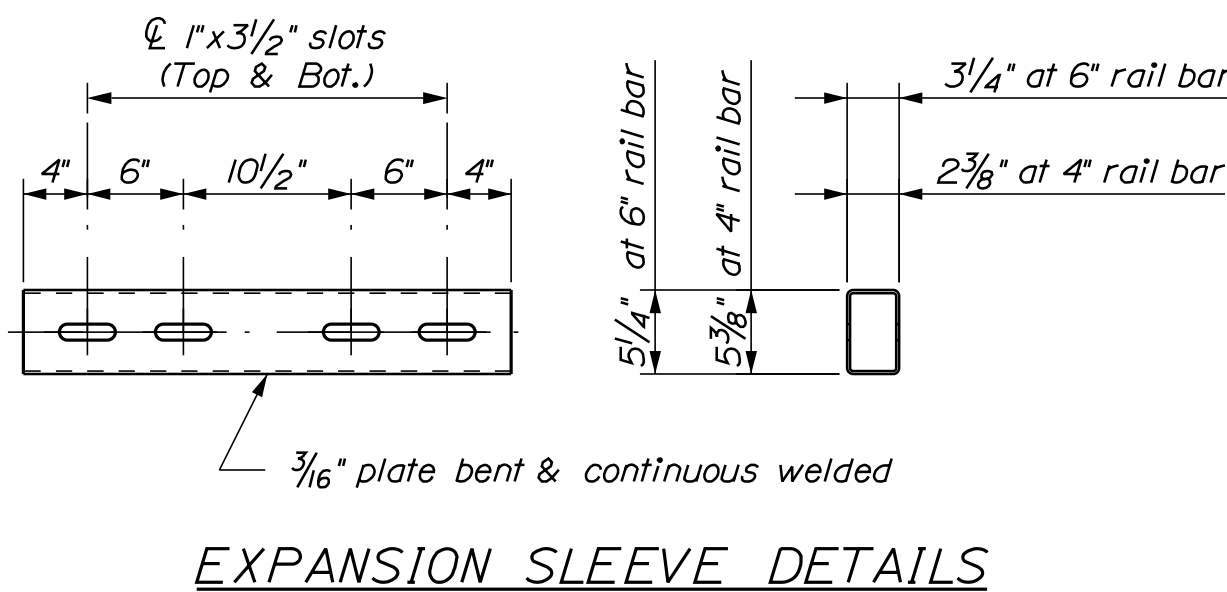
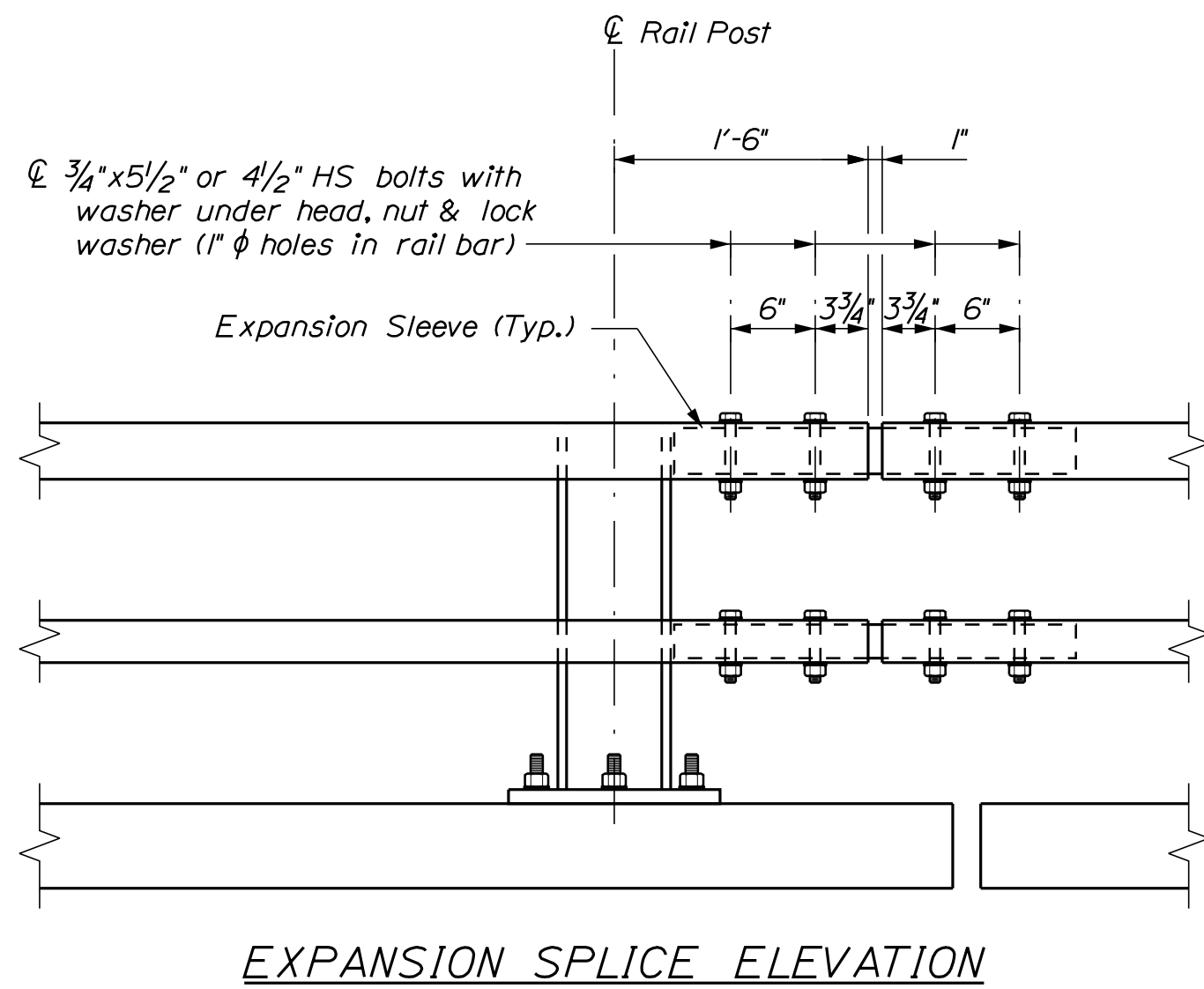
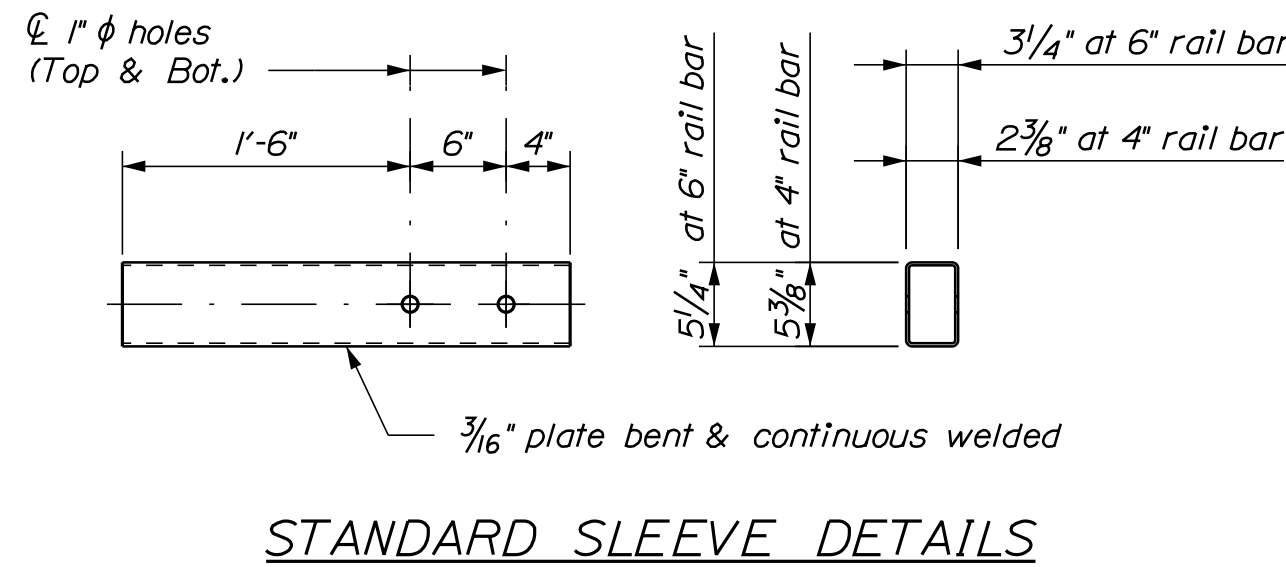
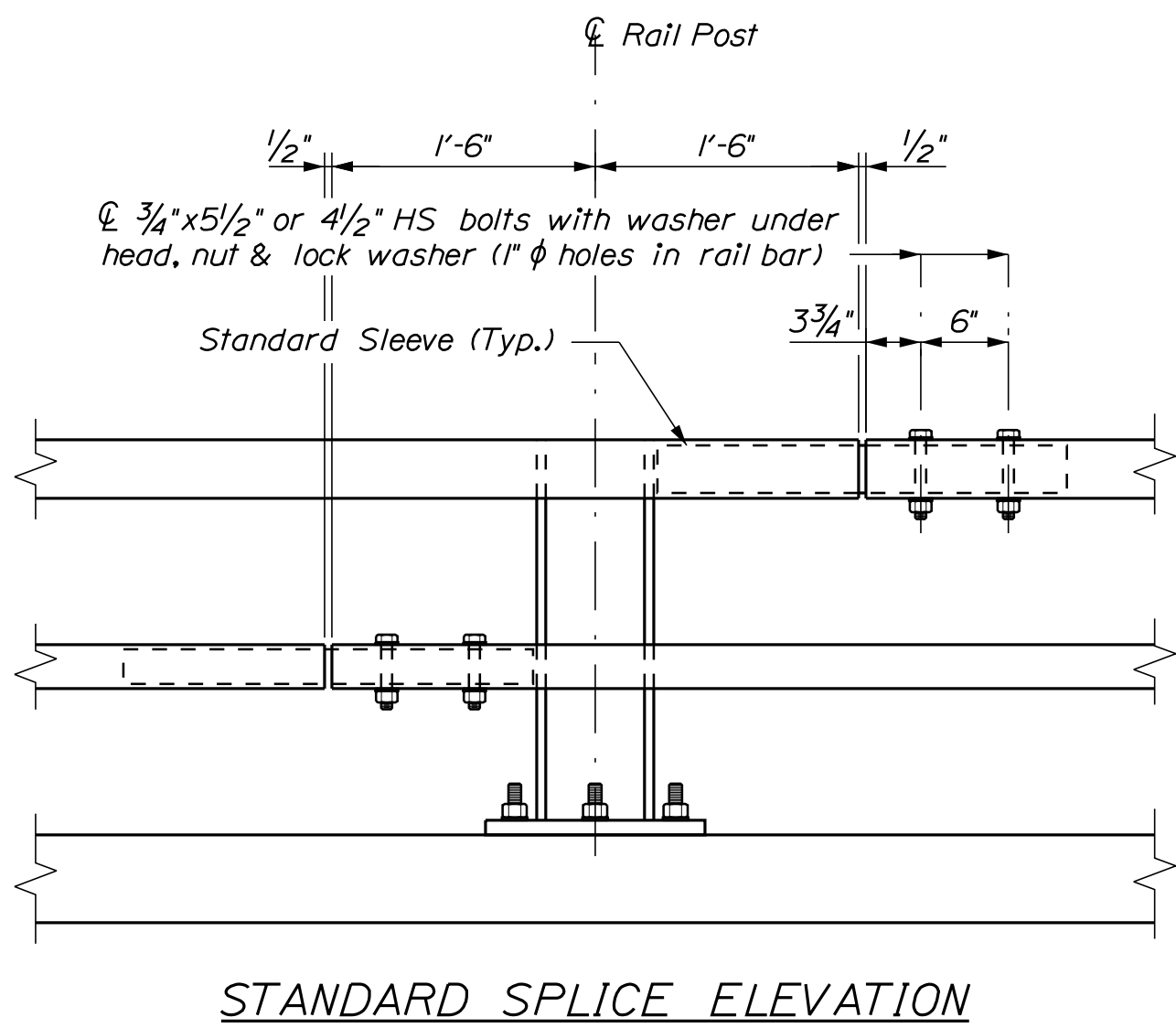
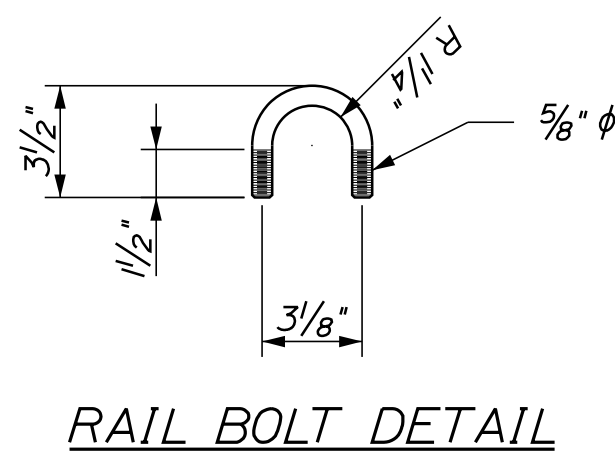
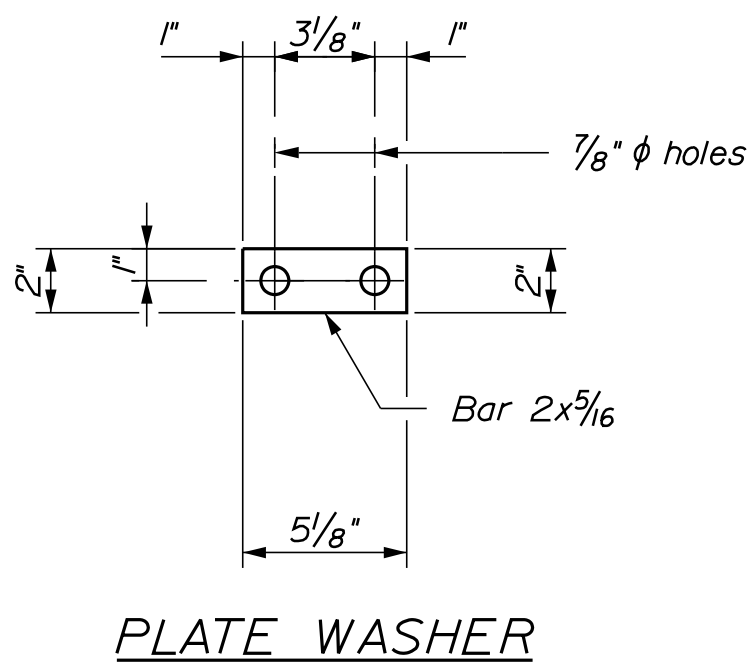
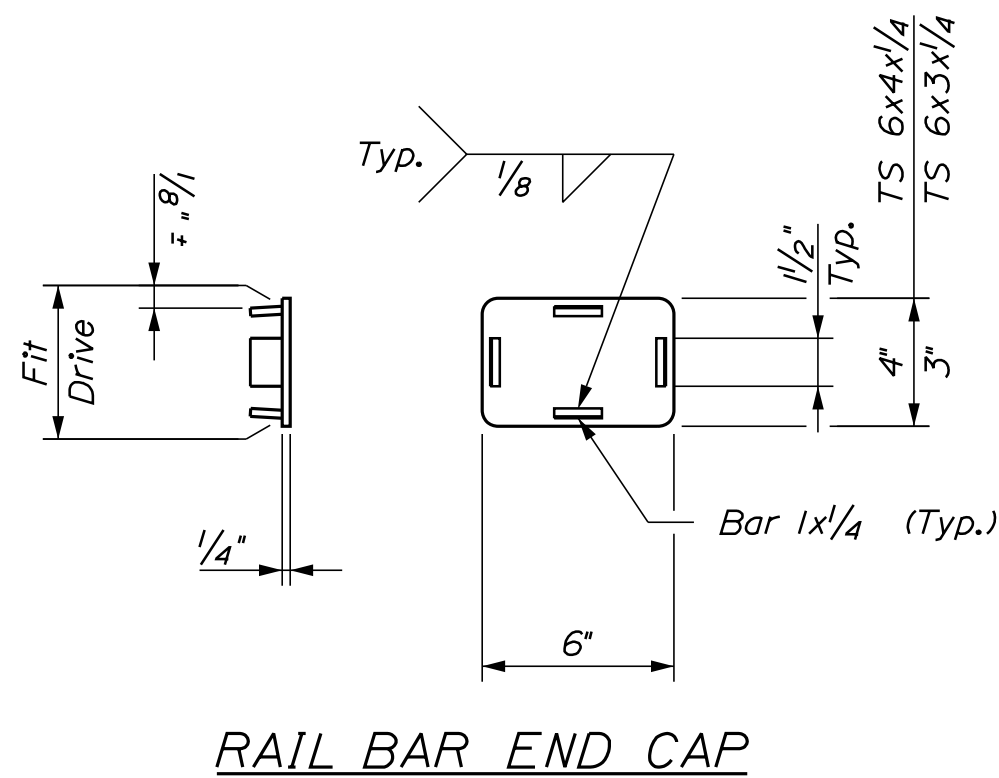
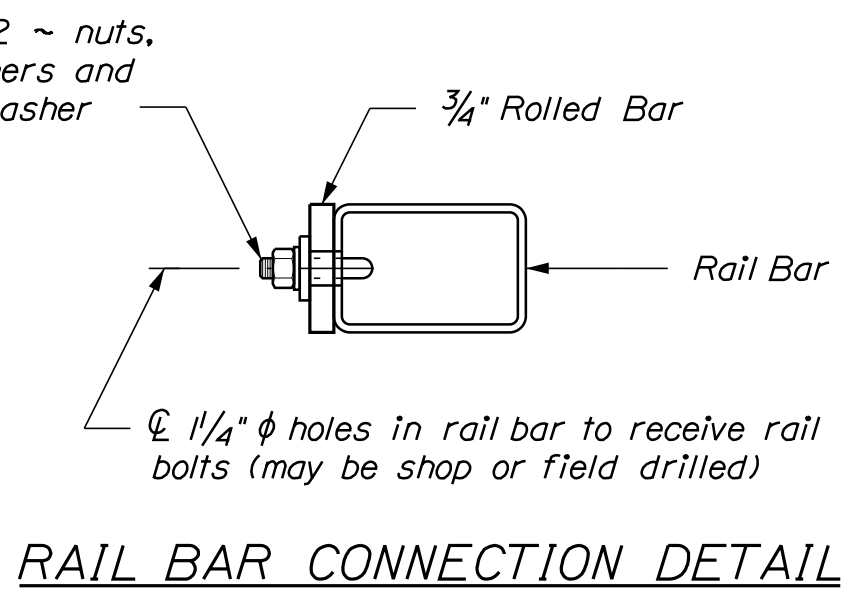
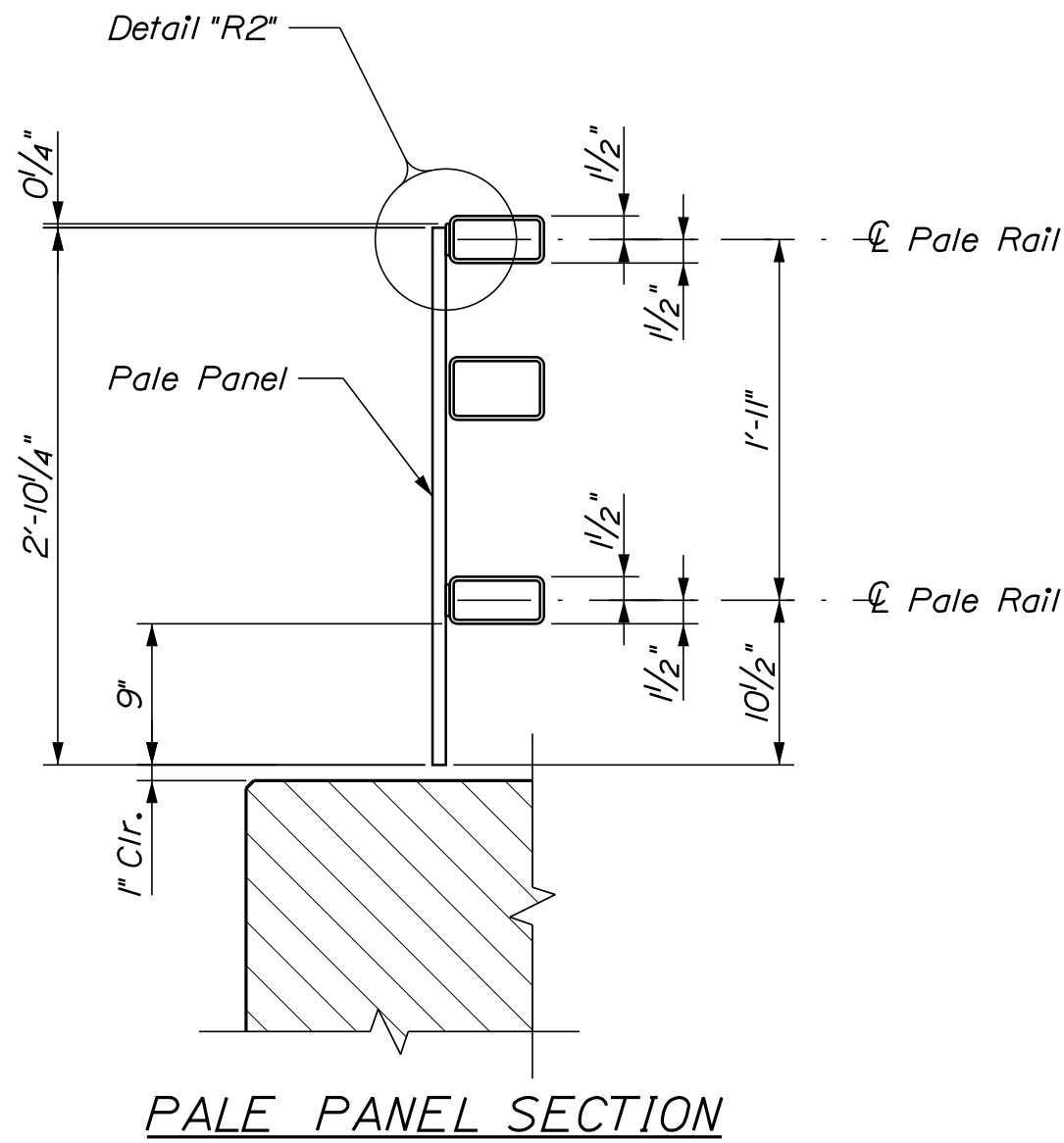
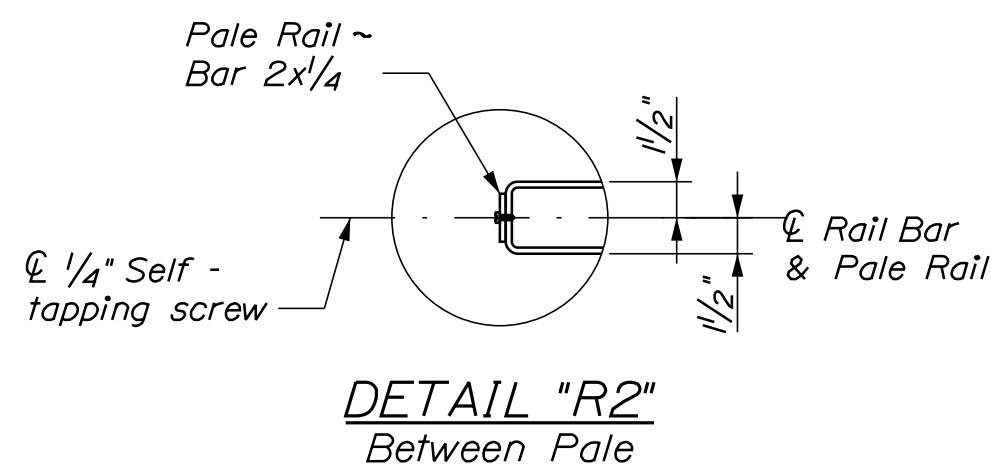
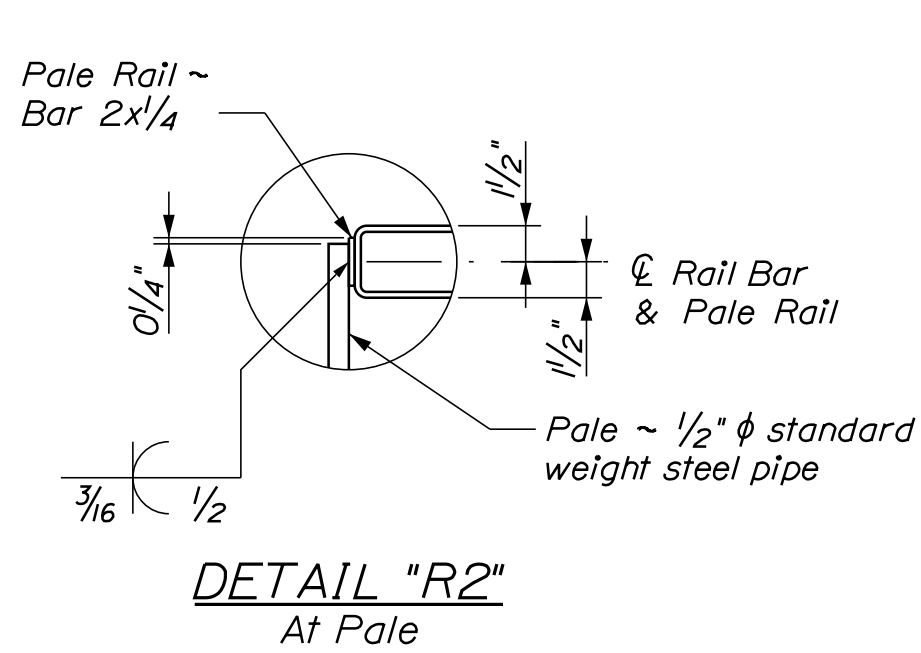
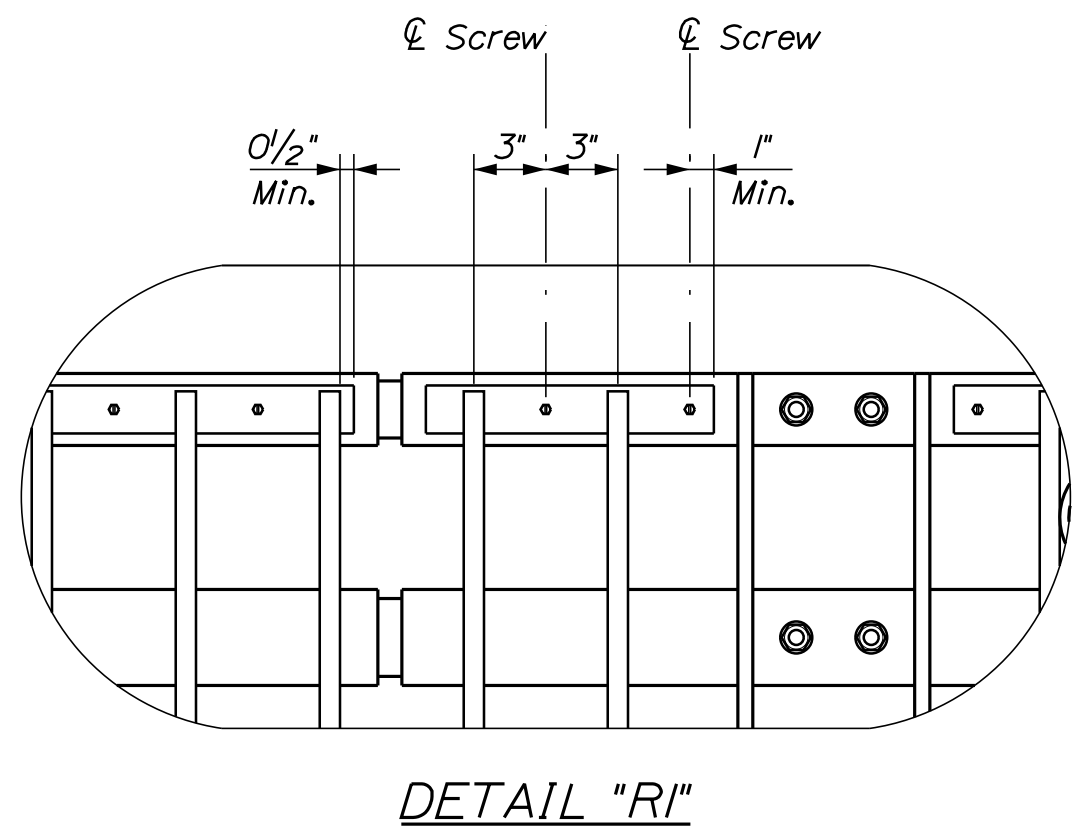
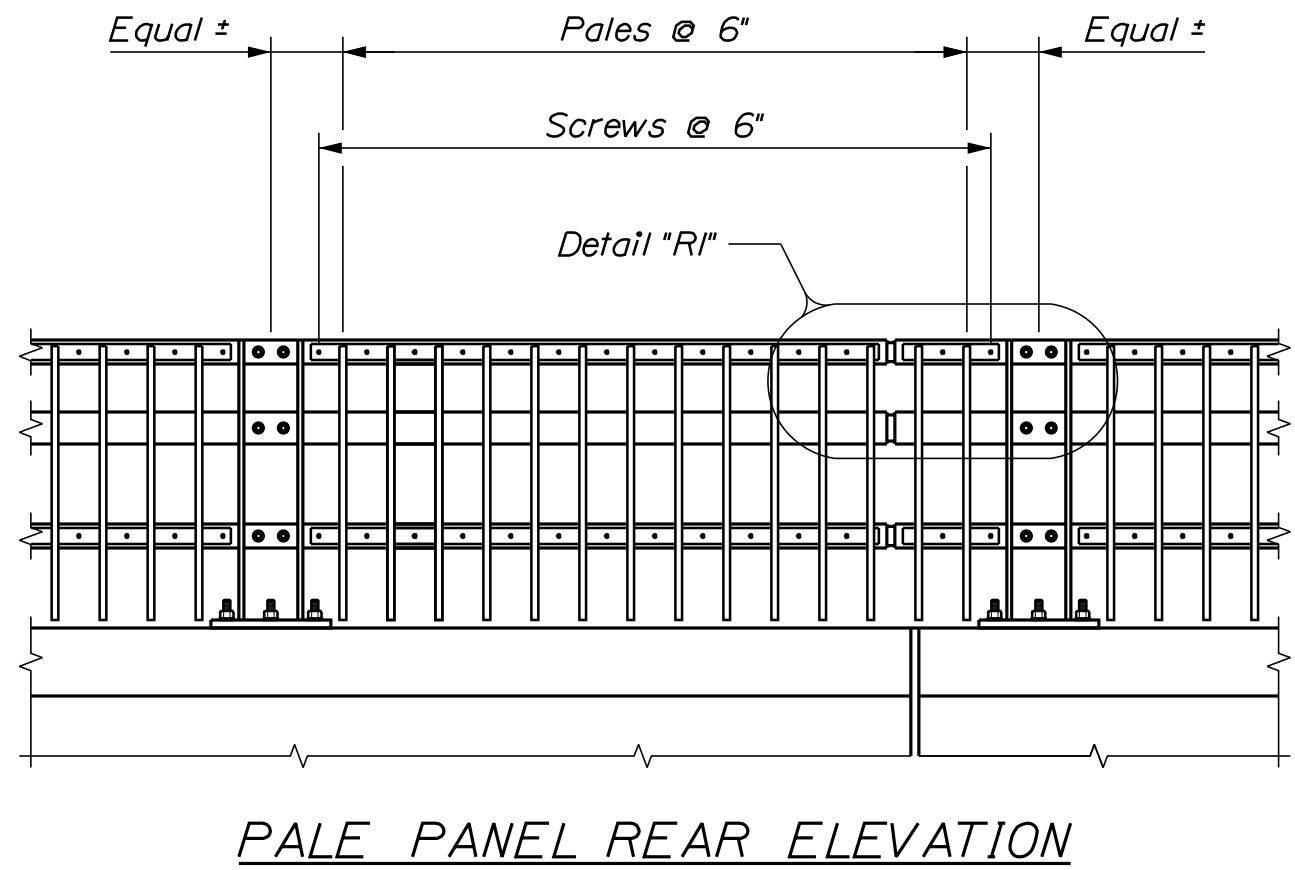
RAIL POST FRONT ELEVATION

RAIL POST SIDE ELEVATION

ANCHOR PLATE PLAN

RAIL POST PLAN

RAIL POST WELD DETAIL



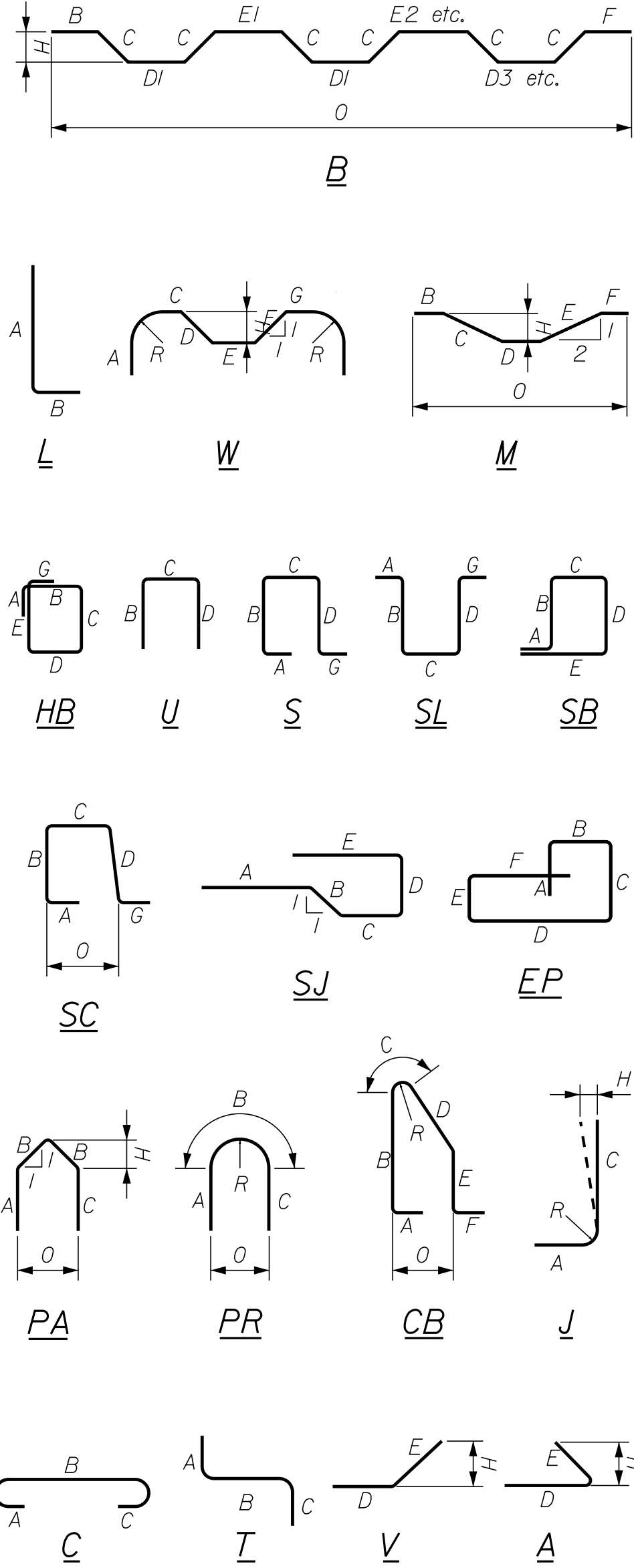
STRAIGHT BARS								BENT BARS															
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
ABUTMENT NO. 1								ABUTMENT NO. 1															
A505C	21	34'-10"	Horizontal (NF, FF, mid)	AF580G	1	15'-3 1/4"	NE Wing Horizontal	A551C	89	6'-8"	V				2'-2"	4'-6"			4'-5 1/2"				Seat Transverse
A506C	22	19'-8"	Horizontal (NF, FF, mid)	AF581G	1	11'-10 1/4"	NE Wing Horizontal	A552C	89	5'-11 5/8"	BS	7"	1'-10"	3'-6 5/8"	0"				6 1/4"	5'-4 1/8"			Seat Transverse
A507C	22	16'-2"	Horizontal (NF, FF, mid)	AF582G	1	8'-5 1/4"	Horizontal (NF, FF, mid)	A553C	4	20'-0"	U		9'-5"	1'-2"	9'-5"								Backwall
A508C	12	26'-3"	Seat Horizontal (NF, FF, mid)	AF583G	1	3'-5"	NE Wing Horizontal	A554C	89	14'-2 3/4"	SI3		6'-8 1/4"	1'-8 1/4"	5'-10 1/4"			0"	1'-8"	3 3/8"			Backwall
A509C	9	18'-6"	Seat Horizontal (F.F.)	AF584G	4	21'-11 1/4"	NE Wing Vertical	A555C	10	13'-9"	SI3		5'-10 1/4"	2'-10 1/4"	5'-0 1/2"			0"	2'-10"	4 1/4"			Backwall
A510C	11	4'-4"	NW Wing Horizontal	AF585G	11	23'-11"	NE Wing Vertical & Coping	A556C	4	5'-6 1/4"	V				3'-3"	2'-3 1/4"			1'-10 3/4"				NW Cheekwall
A511C	28	8'-7"	NE Backwall Horizontal	AF586G	1	23'-1 1/2"	NE Wing Vertical	A557C	4	6'-6"	V				3'-3"	3'-3"			2'-8 1/2"				NW Cheekwall
A512C	4	9'-2"	NE Cheekwall Vertical	AF587G	1	21'-11 1/4"	NE Wing Vertical	A558C	5	20'-8"	U		9'-5"	1'-10"	9'-5"								NW Wing
A513C	2	8'-5 3/4"	NE Cheekwall Vertical	AF588G	1	20'-9 1/4"	NE Wing Vertical	A559C	1	20'-1 1/2"	U		9'-5"	1'-3 1/2"	9'-5"								NW Wing
A514C	2	7'-8 1/2"	NE Cheekwall Vertical	AF589G	1	19'-7 1/4"	NE Wing Vertical	A560C	11	5'-7 3/4"	V				4'-1"	1'-6 3/4"			1'-4 3/4"				NW Wing
A515C	2	6'-11"	NE Cheekwall Vertical	AF590G	1	18'-5 1/4"	NE Wing Vertical	A561C	16	6'-6"	V				3'-3"	3'-3"			2'-8 1/2"				NE Backwall Turn
A516C	2	6'-1 1/2"	NE Cheekwall Vertical	AF591G	1	17'-3 1/4"	NE Wing Vertical	A562C	10	5'-4"	L	2'-10"	2'-6"										Seat Transverse
A517C	2	5'-4 1/4"	NE Cheekwall Vertical	AF592G	1	16'-1 1/4"	NE Wing Vertical	A563C	10	11'-10"	L	11'-3"	7"										NE Cheekwall
A518C	2	4'-7"	NE Cheekwall Vertical	AF593G	1	14'-11 1/4"	NE Wing Vertical	A564C	2	13'-5"	U		6'-4 1/2"	8"	6'-4 1/2"								Pedestal
A519C	2	3'-9 1/2"	NE Cheekwall Vertical	AF594G	1	13'-9 1/4"	NE Wing Vertical	A565C	64	10'-9"	U		4'-0"	2'-9"	4'-0"								Pedestal
A520C	8	2'-9"	NE Cheekwall Vertical	AF595G	1	12'-7 1/4"	NE Wing Vertical	A566C	16	11'-6"	U		4'-0"	3'-6"	4'-0"								Pedestal Ties
A521C	8	2'-9"	Electrical Conduit Blockout	AF596G	1	11'-5 1/4"	NE Wing Vertical	A567C	32	13'-9"	HB		2'-11"	3'-8"	2'-11"	3'-8"		7"					Utility Blockout
				AF597G	1	10'-3"	NE Wing Vertical	A568C	4	6'-3"	V				3'-1 1/2"	3'-1 1/2"			2'-2 1/2"				Utility Blockout
A600C	105	5'-0"	Connection to Existing Abut.	AF598G	1	9'-1"	NE Wing Vertical	A569C	4	6'-4 1/2"	V				3'-10"	2'-6 1/2"			1'-9 1/2"				Connection to Existing Abut
				AF599G	1	7'-11"	NE Wing Vertical																
ABUTMENT NO. 1 FACING								ABUTMENT NO. 1 FACING															
AF505G	1	4'-7"	NW Wing Vertical	AF5101G	1	5'-7"	NE Wing Vertical	AF500G	685	2'-1"	L	1'-6"	7"										Facing Anchors
AF506G	1	5'-1 1/2"	NW Wing Vertical	AF5102G	1	4'-5"	NE Wing Vertical	AF501G	45	7'-4"	U		3'-8"	2'-0"	1'-8"								Coping
AF507G	1	5'-9"	NW Wing Vertical	AF5103G	1	3'-3"	NE Wing Vertical	AF502G	10	0"	V												NW Wing
AF508G	1	6'-4"	NW Wing Vertical	AF5104G	1	2'-1"	NE Wing Vertical	AF503G	10	6'-0"	V				3'-0"	3'-0"			4'-9"				NE Wing Turn
AF509G	1	6'-11 3/4"	NW Wing Vertical																				
AF510G	1	7'-7"	NW Wing Vertical																				
AF511G	1	8'-2 1/2"	NW Wing Vertical																				
AF512G	1	8'-10"	NW Wing Vertical																				
AF513G	1	9'-5 1/4"	NW Wing Vertical																				
AF514G	1	10'-0 3/4"	NW Wing Vertical																				
AF515G	1	10'-8"	NW Wing Vertical																				
AF516G	1	11'-3 1/2"	NW Wing Vertical																				
AF517G	1	11'-10 3/4"	NW Wing Vertical																				
AF518G	1	12'-6 1/4"	NW Wing Vertical																				
AF519G	1	13'-1 1/2"	NW Wing Vertical																				
AF520G	1	13'-9"	NW Wing Vertical																				
AF521G	1	14'-4 1/4"	NW Wing Vertical																				
AF522G	1	14'-11 3/4"	NW Wing Vertical																				
AF523G	1	15'-7"	NW Wing Vertical																				
AF524G	1	16'-2 1/2"	NW Wing Vertical																				
AF525G	1	16'-10"	NW Wing Vertical																				
AF526G	1	17'-5 1/4"	NW Wing Vertical																				
AF527G	1	18'-0 3/4"	NW Wing Vertical																				
AF528G	1	18'-8"	NW Wing Vertical																				
AF529G	1	19'-3 1/2"	NW Wing Vertical																				
AF530G	2	26'-8 1/2"	NW Wing Horizontal																				
AF531G	2	21'-7"	NW Wing Horizontal																				
AF532G	1	22'-8 3/4"																					



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		
End of Deck - Steel Girder Alt Only						Superstructure						Superstructure																
S500G	8	54'-0"	End of Deck - Stage I			S659G	1	11'-9"	Bottom Transverse - Stage I			S550C	227	6'-1"	S	10"	1'-7"	1'-3"	1'-7"			10"						Curb
S501G	8	40'-1"	End of Deck - Stage II			S660G	1	11'-4"	Bottom Transverse - Stage I			S551C	155	8'-5"	U		10"	1'-0"	6'-7"									Sidewalk
S502G	10	12'-0"	End of Deck - Stage I & II			S661G	1	11'-0"	Bottom Transverse - Stage I			S552C	144	8'-7 1/2"	T	10"	1'-2 1/2"	6'-7"										Sidewalk
S503G	2	2'-1"	End of Deck - Stage I			S662G	1	10'-8"	Bottom Transverse - Stage I																			
S504G	2	9'-3"	End of Deck - Stage II			S663G	1	10'-3"	Bottom Transverse - Stage I			End of Deck - Steel Girder Alt Only																
S505G	1	6'-8"	End of Deck - Stage II			S664G	1	9'-11"	Bottom Transverse - Stage I			S555C	43	9'-6"	SJ	10"	1'-0"	5'-10"	1'-0"	10"								
S506G	8	51'-4"	End of Deck - Stage I			S665G	1	9'-6"	Bottom Transverse - Stage I			S556C	1	6'-9"	SJ	10"	1'-0"	3'-1"	1'-0"	10"								
S507G	4	53'-7"	End of Deck - Stage II			S666G	1	9'-2"	Bottom Transverse - Stage I			S557C	8	8'-5"	SJ	10"	1'-0"	4'-9"	1'-0"	10"								
S508G	2	52'-7"	End of Deck - Stage II			S667G	1	8'-10"	Bottom Transverse - Stage I			S558C	4	13'-6"	V				9'-6"	4'-0"			3'-4"					
S509G	2	51'-11"	End of Deck - Stage II			S668G	1	8'-5"	Bottom Transverse - Stage I			S559C	51	9'-3"	SJ	10"	1'-0"	5'-6"	1'-1"	10"								
S510G	12	11'-3"	End of Deck - Stage I & II			S669G	1	8'-1"	Bottom Transverse - Stage I			S560C	1	8'-5"	SJ	10"	1'-0"	4'-8"	1'-1"	10"								
S511G	4	1'-11"	End of Deck - Stage I & II			S670G	1	7'-8"	Bottom Transverse - Stage I																			
S512G	4	6'-6"	End of Deck - Stage I			S671G	1	7'-4"	Bottom Transverse - Stage I			End of Deck - CT Girder Alt Only																
S513G	2	8'-9"	End of Deck - Stage II			S672G	1	7'-0"	Bottom Transverse - Stage I			S565C	49	5'-4"	S	10"	10"	2'-1"	9"			10"						
						S673G	1	6'-7"	Bottom Transverse - Stage I			S566C	9	6'-0"	S	10"	8"	2'-10"	10"			10"						
End of Deck - CT Girder Alt Only						S674G	1	6'-3"	Bottom Transverse - Stage I			S567C	3	13'-6"	V				9'-6"	4'-0"			3'-4"					
S515G	7	52'-3"	End of Deck - Stage I			S675G	1	5'-11"	Bottom Transverse - Stage I			S568C	59	5'-2"	S	10"	1'-0"	1'-11"	7"			10"						
S516G	7	40'-1"	End of Deck - Stage II			S676G	1	5'-6"	Bottom Transverse - Stage I																			
S517G	1	9'-0"	End of Deck - Stage II			S677G	1	5'-2"	Bottom Transverse - Stage I																			
S518G	7	51'-4"	End of Deck - Stage I			S578G	1	31'-4"	Bottom Transverse - Stage I																			
S519G	3	53'-7"	End of Deck - Stage II			S679G	1	31'-0"	Bottom Transverse - Stage I																			
S520G	2	52'-6"	End of Deck - Stage II			S680G	1	30'-8"	Bottom Transverse - Stage I																			
S521G	2	52'-0"	End of Deck - Stage II			S681G	1	30'-4"	Bottom Transverse - Stage I																			
						S682G	1	30'-0"	Bottom Transverse - Stage I																			
Superstructure						S683G	1	29'-8"	Bottom Transverse - Stage I																			
S600G	209	45'-3"	Top & Bottom Longitudinal			S684G	1	29'-4"	Bottom Transverse - Stage I																			
S601G	98	35'-2"	Top & Bottom Longitudinal			S685G	1	29'-0"	Bottom Transverse - Stage I																			
S602G	69	31'-10"	Top & Bottom Longitudinal			S686G	1	28'-8"	Bottom Transverse - Stage I																			
S603G	42	39'-9"	Top & Bottom Longitudinal			S687G	1	28'-4"	Bottom Transverse - Stage I																			
S604G	141	31'-8"	Bottom Transverse - Stage I & II			S688G	2	27'-8"	Bottom Transverse - Stage I																			
S505G	1	31'-6"	Bottom Transverse - Stage I			S689G	1	27'-4"	Bottom Transverse - Stage I																			
S606G	1	31'-1"	Bottom Transverse - Stage I			S690G	1	27'-0"	Bottom Transverse - Stage I																			
S607G	1	30'-9"	Bottom Transverse - Stage I			S691G	1	26'-8"	Bottom Transverse - Stage I																			
S608G	1	30'-5"	Bottom Transverse - Stage I			S692G	1	26'-4"	Bottom Transverse - Stage I																			
S609G	1	30'-0"	Bottom Transverse - Stage I			S693G	1	26'-0"	Bottom Transverse - Stage I																			
S610G	1	29'-8"	Bottom Transverse - Stage I			S694G	1	25'-8"	Bottom Transverse - Stage I																			
S611G	1	29'-3"	Bottom Transverse - Stage I			S695G	1	25'-4"	Bottom Transverse - Stage I																			
S612G	1	28'-11"	Bottom Transverse - Stage I			S696G	1	25'-0"	Bottom Transverse - Stage I																			
S613G	1	28'-7"	Bottom Transverse - Stage I			S697G	1	24'-8"	Bottom Transverse - Stage I																			
S614G	1	28'-2"	Bottom Transverse - Stage I			S698G	1	24'-4"	Bottom Transverse - Stage I																			
S615G	1	27'-10"	Bottom Transverse - Stage I			S699G	1	24'-0"	Bottom Transverse - Stage I																			
S616G	1	27'-5"	Bottom Transverse - Stage I			S6100G	1	23'-8"	Bottom Transverse - Stage I																			
S617G	1	27'-1"	Bottom Transverse - Stage I			S6101G	1	23'-4"	Bottom Transverse - Stage I																			
S618G	1	26'-9"	Bottom Transverse - Stage I			S6102G	1	23'-0"	Bottom Transverse - Stage I																			
S619G	1	26'-4"	Bottom Transverse - Stage I			S6103G	1	22'-8"	Bottom Transverse - Stage I																			
S620G	1	26'-0"	Bottom Transverse - Stage I			S6104G	1	22'-4"	Bottom Transverse - Stage I																			
S621G	1	25'-8"	Bottom Transverse - Stage I			S6105G	1	22'-0"	Bottom Transverse - Stage I																			
S622G	1	25'-3"	Bottom Transverse - Stage I			S6106G	1	21'-8"	Bottom Transverse - Stage I																			
S623G	1	24'-11"	Bottom Transverse - Stage I			S6107G	1	21'-4"	Bottom Transverse - Stage I																			
S624G	1	24'-6"	Bottom Transverse - Stage I			S6108G	1	21'-0"	Bottom Transverse - Stage I																			
S625G	1	24'-2"	Bottom Transverse - Stage I			S6109G	1	20'-8"	Bottom Transverse - Stage I																			
S626G	1	23'-10"	Bottom Transverse - Stage I			S6110G	1	20'-4"	Bottom Transverse - Stage I																			
S627G	1	23'-5"	Bottom Transverse - Stage I			S6111G	1	20'-0"	Bottom Transverse - Stage I																			
S628G	1	23'-1"	Bottom Transverse - Stage I			S6112G	1	19'-8"	Bottom Transverse - Stage I																			
S629G	1	22'-8"	Bottom Transverse - Stage I			S6113G	1	19'-4"	Bottom Transverse - Stage I																			
S630G	1	22'-4"	Bottom Transverse - Stage I			S6114G	1	19'-0"	Bottom Transverse - Stage I																			
S631G	1	22'-0"	Bottom Transverse - Stage I			S6115G	1	18'-8"	Bottom Transverse - Stage I																			
S632G	1	21'-7"	Bottom Transverse - Stage I			S6116G	1	18'-4"	Bottom Transverse - Stage I																			
S633G	1	21'-3"	Bottom Transverse - Stage I			S6117G	1	18'-0"	Bottom Transverse - Stage I																			
S634G	1	20'-10"	Bottom Transverse - Stage I			S6118G	1	17'-8"	Bottom Transverse - Stage I																			
S635G	1	20'-6"	Bottom Transverse - Stage I			S6119G	1	17'-4"	Bottom Transverse - Stage I																			
S636G	1	20'-2"	Bottom Transverse - Stage I			S6120G	1	17'-0"	Bottom Transverse - Stage I																			
S637G	1	19'-9"	Bottom Transverse - Stage I			S6121G	1	16'-8"	Bottom Transverse - Stage I																			
S638G	1	19'-5"	Bottom Transverse - Stage I			S6122G	1	16'-4"	Bottom Transverse - Stage I																			
S639G	1	19'-1"	Bottom Transverse - Stage I			S6123G	1	16'-0"	Bottom Transverse - Stage I																			
S640G	1	18'-8"	Bottom Transverse - Stage I			S6124G	1	15'-8"	Bottom Transverse - Stage I																			
S641G	1	18'-4"	Bottom Transverse - Stage I			S6125G	1	15'-4"	Bottom Transverse - Stage I																			
S642G	1	17'-11"	Bottom Transverse - Stage I			S6126G	1	15'-0"	Bottom Transverse - Stage I																			
S643G	1	17'-7"	Bottom Transverse - Stage I			S6127G	1	14'-8"	Bottom Transverse - Stage I																			
S644G	1	17'-3"	Bottom Transverse - Stage I			S6128G	1	14'-4"	Bottom Transverse - Stage I																			
S645G	1	16'-10"	Bottom Transverse - Stage I			S6129G	1	14'-0"	Bottom Transverse - Stage I																			
S646G	1	16'-6"	Bottom Transverse - Stage I			S6130G	1	13'-8"	Bottom Transverse - Stage I																			
S647G	1	16'-1"	Bottom Transverse - Stage I			S6131G	1	13'-4"	Bottom Transverse - Stage I																			
S648G	1	15'-9"	Bottom Transverse - Stage I			S6132G	1	13'-0"	Bottom Transverse - Stage I																			
S649G	1	15'-5"	Bottom Transverse - Stage I			S6133G	1	12'-8"	Bottom Transverse - Stage I																			
S650G	1	15'-0"	Bottom Transverse - Stage I			S6134G	1	12'-4"	Bottom Transverse - Stage I																			
S651G	1	14'-8"	Bottom Transverse - Stage I			S6135G	1	12'-0"	Bottom Transverse - Stage I																			
S652G	1	14'-3"	Bottom Transverse - Stage I			S6136G	1	11'-8"	Bottom Transverse - Stage I																			
S653G	1	13'-11"	Bottom Transverse - Stage I			S6137G	1	11'-4"	Bottom Transverse - Stage I																			
S654G	1	13'-7"	Bottom Transverse - Stage I			S6138G	1	11'-0"	Bottom Transverse - Stage I																			
S655G	1	13'-2"	Bottom Transverse - Stage I			S6139G	1	10'-8"	Bottom Transverse - Stage I																			
S656G	1	12'-10"	Bottom Transverse - Stage I			S6140G	1	10'-4"	Bottom Transverse - Stage I																			
S657G	1	12'-6"	Bottom Transverse - Stage I			S6141G	1	10'-4"	Bottom Transverse - Stage I																			
S658G	1	12'-1"	Bottom Transverse - Stage I			S6142G	1	10'-0"	Bottom Transverse - Stage I																			
MARK	QTY.	LENGTH	LOCATION			MARK	QTY.	LENGTH	LOCATION			MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		

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
Roadway Slab				Roadway Slab																		
AS501C	24	30'-11"	N Slab Bott Transverse - Phase I	AS585C	1	25'-1"	S Slab Bott Transverse - Phase II															
AS502C	24	38'-2"	N Slab Bott Transverse - Phase II	AS586C	1	25'-3"	S Slab Bott Transverse - Phase II															
AS503C	1	29'-5"	S Slab Bott Transverse - Phase I	AS587C	1	25'-5"	S Slab Bott Transverse - Phase II															
AS504C	1	29'-7"	S Slab Bott Transverse - Phase I	AS588C	1	25'-8"	S Slab Bott Transverse - Phase II															
AS505C	1	29'-10"	S Slab Bott Transverse - Phase I	AS589C	1	25'-10"	S Slab Bott Transverse - Phase II															
AS506C	1	30'-0"	S Slab Bott Transverse - Phase I	AS590C	1	26'-0"	S Slab Bott Transverse - Phase II															
AS507C	1	30'-2"	S Slab Bott Transverse - Phase I																			
AS508C	1	30'-4"	S Slab Bott Transverse - Phase I	AS600C	193	2'-6"	Longitudinal Dowel Rods															
AS509C	1	30'-7"	S Slab Bott Transverse - Phase I	AS601C	78	14'-10"	N Slab Bott Longitudinal															
AS510C	1	30'-9"	S Slab Bott Transverse - Phase I	AS602C	78	6'-10"	N Slab Bott Longitudinal															
AS511C	1	30'-11"	S Slab Bott Transverse - Phase I	AS603C	102	23'-0"	S Slab Bott Longitudinal															
AS512C	1	31'-1"	S Slab Bott Transverse - Phase I	AS604C	1	21'-4"	S Slab Bott Longitudinal															
AS513C	1	31'-3"	S Slab Bott Transverse - Phase I	AS605C	1	19'-1"	S Slab Bott Longitudinal															
AS514C	1	31'-6"	S Slab Bott Transverse - Phase I	AS606C	1	16'-9"	S Slab Bott Longitudinal															
AS515C	1	31'-8"	S Slab Bott Transverse - Phase I	AS607C	1	14'-6"	S Slab Bott Longitudinal															
AS516C	1	31'-10"	S Slab Bott Transverse - Phase I	AS608C	1	12'-2"	S Slab Bott Longitudinal															
AS517C	1	32'-0"	S Slab Bott Transverse - Phase I	AS609C	1	9'-11"	S Slab Bott Longitudinal															
AS518C	1	32'-3"	S Slab Bott Transverse - Phase I	AS610C	1	7'-7"	S Slab Bott Longitudinal															
AS519C	1	32'-4"	S Slab Bott Transverse - Phase I	AS611C	1	5'-4"	S Slab Bott Longitudinal															
AS520C	1	32'-6"	S Slab Bott Transverse - Phase I	AS612C	1	3'-0"	S Slab Bott Longitudinal															
AS521C	1	32'-8"	S Slab Bott Transverse - Phase I	AS613C	1	2'-8"	S Slab Bott Longitudinal															
AS522C	1	32'-11"	S Slab Bott Transverse - Phase I	AS614C	1	4'-11"	S Slab Bott Longitudinal															
AS523C	1	33'-1"	S Slab Bott Transverse - Phase I	AS615C	1	7'-3"	S Slab Bott Longitudinal															
AS524C	1	33'-3"	S Slab Bott Transverse - Phase I	AS616C	1	9'-6"	S Slab Bott Longitudinal															
AS525C	1	33'-5"	S Slab Bott Transverse - Phase I	AS617C	1	11'-10"	S Slab Bott Longitudinal															
AS526C	1	33'-7"	S Slab Bott Transverse - Phase I	AS618C	1	14'-1"	S Slab Bott Longitudinal															
AS527C	1	33'-10"	S Slab Bott Transverse - Phase I	AS619C	1	16'-5"	S Slab Bott Longitudinal															
AS528C	1	34'-0"	S Slab Bott Transverse - Phase I	AS620C	1	18'-9"	S Slab Bott Longitudinal															
AS529C	1	34'-2"	S Slab Bott Transverse - Phase I	AS621C	1	21'-0"	S Slab Bott Longitudinal															
AS530C	1	34'-4"	S Slab Bott Transverse - Phase I	AS622C	106	12'-9"	S Slab Bott Longitudinal															
AS531C	1	34'-7"	S Slab Bott Transverse - Phase I	AS623C	1	11'-7"	S Slab Bott Longitudinal															
AS532C	1	34'-9"	S Slab Bott Transverse - Phase I	AS624C	1	9'-3"	S Slab Bott Longitudinal															
AS533C	1	34'-11"	S Slab Bott Transverse - Phase I	AS625C	1	7'-0"	S Slab Bott Longitudinal															
AS534C	1	35'-1"	S Slab Bott Transverse - Phase I	AS626C	1	4'-8"	S Slab Bott Longitudinal															
AS535C	1	35'-4"	S Slab Bott Transverse - Phase I	AS627C	1	2'-4"	S Slab Bott Longitudinal															
AS536C	1	35'-6"	S Slab Bott Transverse - Phase I	AS628C	1	2'-2"	S Slab Bott Longitudinal															
AS537C	1	35'-8"	S Slab Bott Transverse - Phase I	AS629C	1	4'-5"	S Slab Bott Longitudinal															
AS538C	1	35'-10"	S Slab Bott Transverse - Phase I	AS630C	1	6'-9"	S Slab Bott Longitudinal															
AS539C	1	36'-1"	S Slab Bott Transverse - Phase I	AS631C	1	9'-0"	S Slab Bott Longitudinal															
AS540C	1	36'-3"	S Slab Bott Transverse - Phase I	AS632C	1	11'-4"	S Slab Bott Longitudinal															
AS541C	1	36'-5"	S Slab Bott Transverse - Phase I																			
AS542C	1	36'-7"	S Slab Bott Transverse - Phase I																			
AS543C	1	36'-10"	S Slab Bott Transverse - Phase I																			
AS544C	1	37'-0"	S Slab Bott Transverse - Phase I																			
AS545C	1	37'-2"	S Slab Bott Transverse - Phase I																			
AS546C	1	37'-5"	S Slab Bott Transverse - Phase I																			
AS547C	1	18'-1"	S Slab Bott Transverse - Phase II																			
AS548C	1	18'-3"	S Slab Bott Transverse - Phase II																			
AS549C	1	18'-5"	S Slab Bott Transverse - Phase II																			
AS550C	1	18'-8"	S Slab Bott Transverse - Phase II																			
AS551C	1	18'-10"	S Slab Bott Transverse - Phase II																			
AS552C	1	19'-0"	S Slab Bott Transverse - Phase II																			
AS553C	1	19'-2"	S Slab Bott Transverse - Phase II																			
AS554C	1	19'-3"	S Slab Bott Transverse - Phase II																			
AS555C	1	19'-5"	S Slab Bott Transverse - Phase II																			
AS556C	1	19'-9"	S Slab Bott Transverse - Phase II																			
AS557C	1	19'-11"	S Slab Bott Transverse - Phase II																			
AS558C	1	20'-2"	S Slab Bott Transverse - Phase II																			
AS559C	1	20'-4"	S Slab Bott Transverse - Phase II																			
AS560C	1	20'-6"	S Slab Bott Transverse - Phase II																			
AS561C	1	20'-8"	S Slab Bott Transverse - Phase II																			
AS562C	1	20'-10"	S Slab Bott Transverse - Phase II																			
AS563C	1	21'-1"	S Slab Bott Transverse - Phase II																			
AS564C	1	21'-3"	S Slab Bott Transverse - Phase II																			
AS565C	1	21'-5"	S Slab Bott Transverse - Phase II																			
AS566C	1	21'-7"	S Slab Bott Transverse - Phase II																			
AS567C	1	21'-10"	S Slab Bott Transverse - Phase II																			
AS568C	1	22'-0"	S Slab Bott Transverse - Phase II																			
AS569C	1	22'-2"	S Slab Bott Transverse - Phase II																			
AS570C	1	22'-4"	S Slab Bott Transverse - Phase II																			
AS571C	1	22'-7"	S Slab Bott Transverse - Phase II																			
AS572C	1	22'-9"	S Slab Bott Transverse - Phase II																			
AS573C	1	22'-11"	S Slab Bott Transverse - Phase II																			
AS574C	1	23'-1"	S Slab Bott Transverse - Phase II																			
AS575C	1	23'-2"	S Slab Bott Transverse - Phase II																			
AS576C	1	23'-5"	S Slab Bott Transverse - Phase II																			
AS577C	1	23'-7"	S Slab Bott Transverse - Phase II																			
AS578C	1	23'-9"	S Slab Bott Transverse - Phase II																			
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AS580C	1	24'-2"	S Slab Bott Transverse - Phase II																			
AS581C	1	24'-4"	S Slab Bott Transverse - Phase II																			
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AS583C	1	24'-8"	S Slab Bott Transverse - Phase II																			
AS584C	1	24'-11"	S Slab Bott Transverse - Phase II																			
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

TYPE - BENDING DIAGRAMS



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.

Plain Reinforcing Steel: ASTM A615, Grade 60
Stainless Steel Reinforcing: ASTM A955, Grade 75
Glass Fiber Reinforced Polymer: ASTM D7957
Low-Carbon Chromium Steel: ASTM A1035, Type CS Grade 100

GENERAL NOTES

1. The first digit(s) following the letter(s) of the mark indicate the size of the bar:

Mark "A502" = bar size #5
Mark "S650" = bar size #6
Mark "P805" = bar size #8
Mark "PI404" = bar size #14

2. The lower case letter following the bar number indicated the material of the bar.

"A500b", b = (Black) Plain Steel
"A550s", s = Stainless Steel
"S500g", g = Glass Fiber Reinforced Polymer
"P510c", c = Low-carbon Chromium Steel

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

RINES HILL BRIDGE

OLD MAINE CENTRAL RAILROAD

AUGUSTA

KENNEBEC COUNTY

REINFORCING SCHEDULE

SHEET NUMBER

78

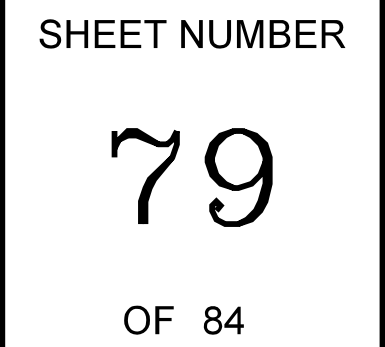
OF 84

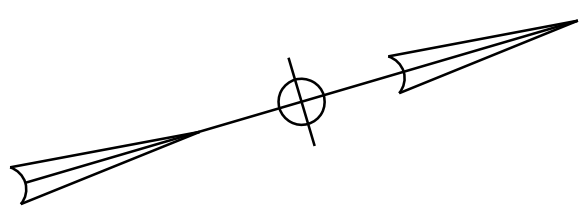
BRIDGE NO. 3528

WIN

21872.00

BRIDGE PLANS







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

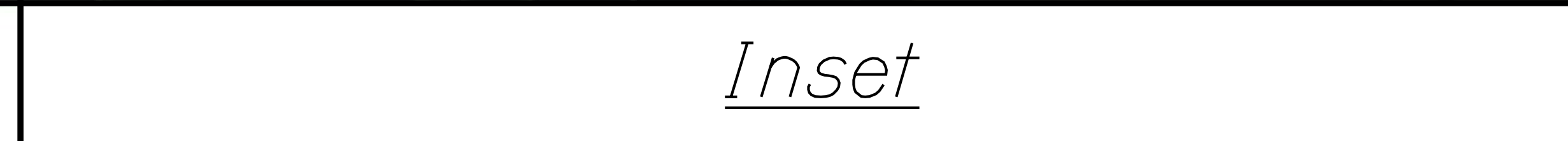
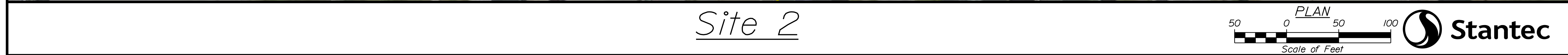
RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

DETOUR OVERVIEW

SHEET NUMBER
81
OF 84

Stantec

PROJ. MANAGER	A. Lotte	BY	DATE
DESIGN-DETAILED	PLP	THG	OCT 2022
CHECKED-REVIEWED	LEM	TWM	OCT 2022
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



82 OF 84	SHEET NUMBER	RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY				PROJ. MANAGER	A. LaRoche	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
						DESIGN-DETAILED	R.P.	THC	OCT 2022		
						CHECKED-REVIEWED	LEW	TWM	OCT 2022		SIGNATURE
						DESIGN2-DETAILED2					
						DESIGN3-DETAILED3			P.E. NUMBER		
						REVIEWS 1					
DETOUR SIGNING PLAN						REVIEWS 2					
						REVIEWS 3					
						REVIEWS 4			DATE		
						FIELD CHANGES					
BRIDGE NO. 3528										WIN 21872.00	BRIDGE PLANS

ID NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		NOMINAL AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER		
CS-6	60"	30"		TEXT DIMENSIONS SHALL CONFORM TO 2004 EDITION- STANDARD HIGHWAY SIGNS- 2012 SUPPLEMENT			1	WHITE	BLACK	12.50	12.50
D3-1	40"	12"					5	GREEN	WHITE	3.33	16.66
M4-8	24"	12"					3	ORANGE	BLACK	2.00	6.00
M4-8a	24"	18"					1	ORANGE	BLACK	3.00	3.00
M4-10 R	48"	18"					2	ORANGE	BLACK	6.00	12.00
M4-10 L	48"	18"					1	ORANGE	BLACK	6.00	6.00
M6-1 L	21"	15"					2	WHITE	BLACK	2.19	4.38
M6-1 R	21"	15"					2	WHITE	BLACK	2.19	4.38
M6-3	21"	15"					1	WHITE	BLACK	2.19	2.19
R3-1	24"	24"					2	WHITE	BLACK RED	4.00	8.00
R3-2	24"	24"					2	WHITE	BLACK RED	4.00	8.00
R5-1	30"	30"					2	WHITE	BLACK RED	6.25	12.50
R9-9	24"	12"					3	WHITE	BLACK	2.00	4.00

ID NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		NOMINAL AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER		
R9-11 L	24"	18"		TEXT DIMENSIONS SHALL CONFORM TO 2004 EDITION- STANDARD HIGHWAY SIGNS- 2012 SUPPLEMENT			1	WHITE	BLACK	3.00	3.00
R9-11 R	24"	18"					1	WHITE	BLACK	3.00	3.00
R11-2	48"	30"					2	WHITE	BLACK	10.00	10.00
R11-2	48"	30"					3	WHITE	BLACK	10.00	30.00
W1-4L	36"	36"					1	ORANGE	BLACK	9.00	9.00
W20-1	36"	36"					2	ORANGE	BLACK	9.00	18.00
W20-2	36"	36"					1	ORANGE	BLACK	9.00	9.00
W20-3	36"	36"					1	ORANGE	BLACK	9.00	9.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT: RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA KENNEBEC COUNTY

MAINTENANCE OF TRAFFIC
SIGN SUMMARY

SHEET NUMBER
83
OF 84

PROJ. MANAGER
A. Lothe

CHECKED-REVIEWED
PLP
THG
TMM

DESIGN-DETAILED
DESIGNS-DETAILED
DESIGNS-DETAILED

REVISIONS
1
2
3
4

DATE
OCT 2022
OCT 2022

BY
THG
TMM

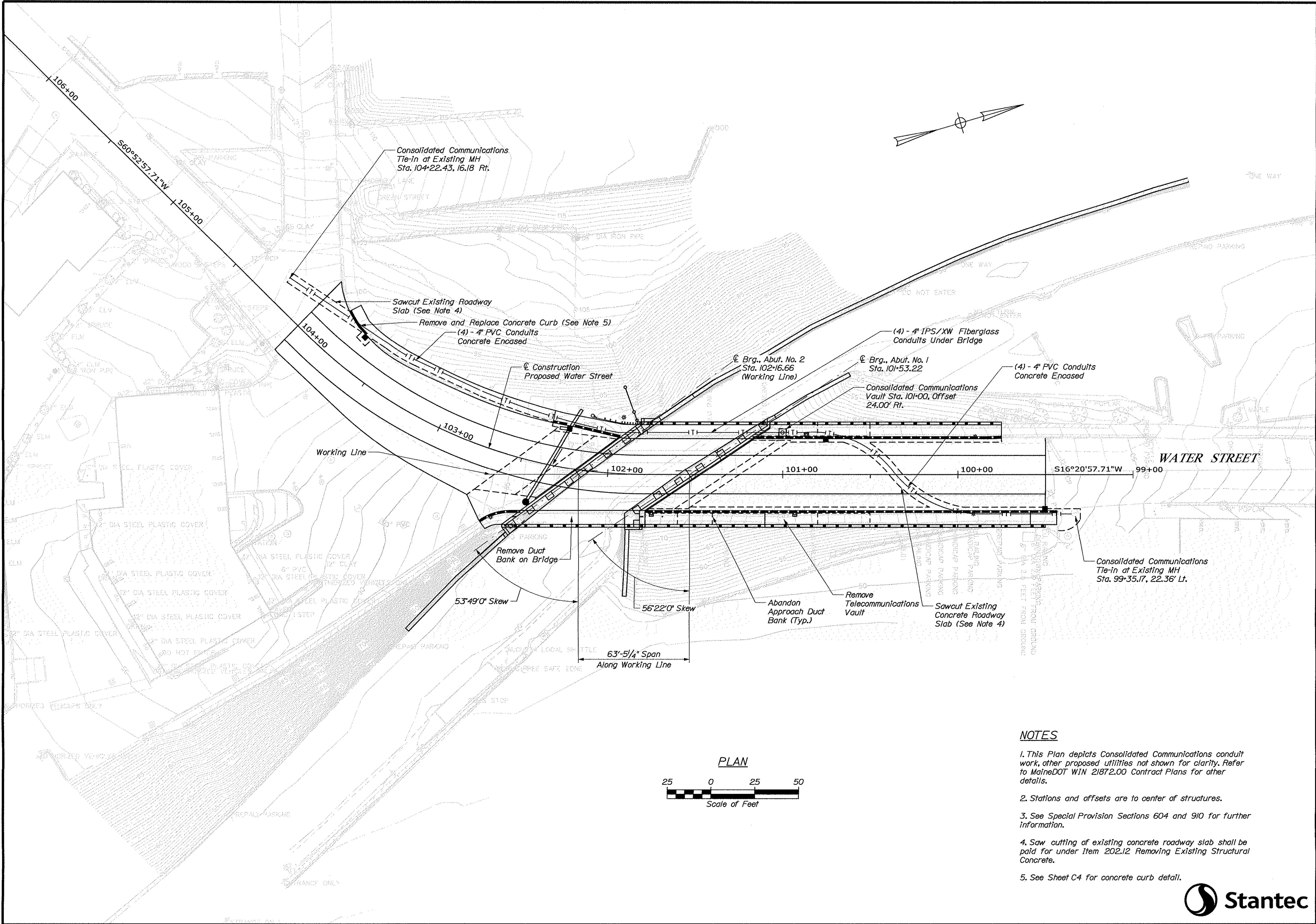
DATE
OCT 2022

SIGNATURE

P.E. NUMBER

DATE

BRIDGE NO. 3528
WIN
21872.00
BRIDGE PLANS

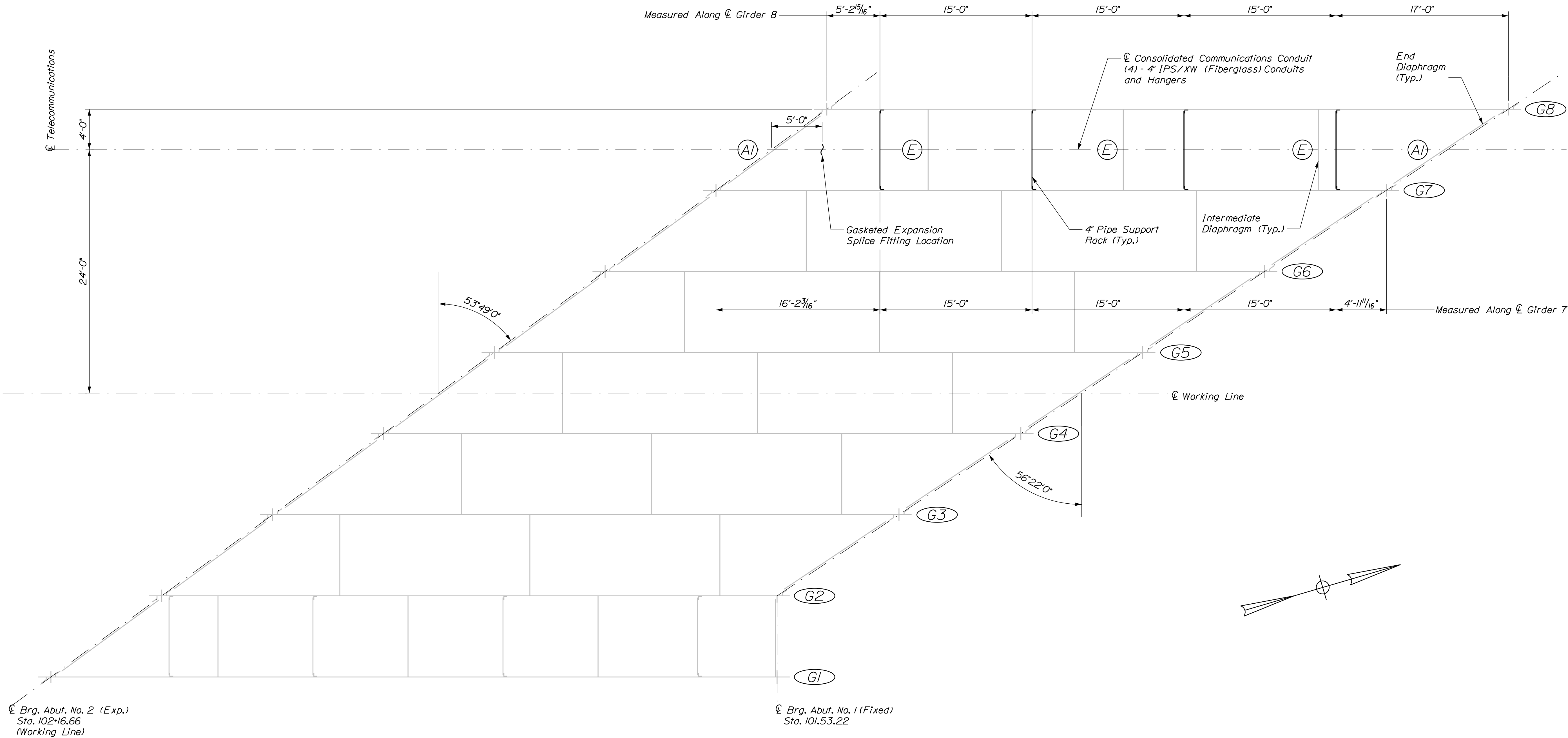


NOTES

1. This Plan depicts Consolidated Communications conduit work, other proposed utilities not shown for clarity. Refer to MaineDOT WIN 21872.00 Contract Plans for other details.
2. Stations and offsets are to center of structures.
3. See Special Provision Sections 604 and 910 for further information.
4. Saw cutting of existing concrete roadway slab shall be paid for under Item 202.12 Removing Existing Structural Concrete.
5. See Sheet C4 for concrete curb detail.



RINES HILL BRIDGE OLD MAINE CENTRAL RAILROAD AUGUSTA KENNEBEC COUNTY	SHEET NUMBER C1 OF C4	
	CONSOLIDATED COMMUNICATIONS	
Stantec Consulting Services Inc. 2211 CONGRESS ST., PORTLAND, ME 04102 Tel. 207.887.3448 Fax 207.883.3376		
Professional Engineer Sarah J. Williams 13582 10/20/22		
BRIDGE NO. 3528 WIN 21872.00 BRIDGE PLANS		



UTILITY SUPPORT PLAN

2211 CONGRESS ST., PORTLAND, ME 04102
Tel. 207.887.3448 Fax 207.883.3376

CONSOLIDATED COMMUNICATIONS

BRIDGE NO. 3528WIN21872.00BRIDGE PLANS

PROJ. MANAGER

CHECKED-REVIEWED K.L.W.

DESIGNED-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

BY

S.J.W.

T.W.

DATE

OCT 2022

OCT 2022

SIGNATURE

P.E. NUMBER

DATE

RINES HILL BRIDGE

OLD MAINE CENTRAL RAILROAD

AUGUSTA

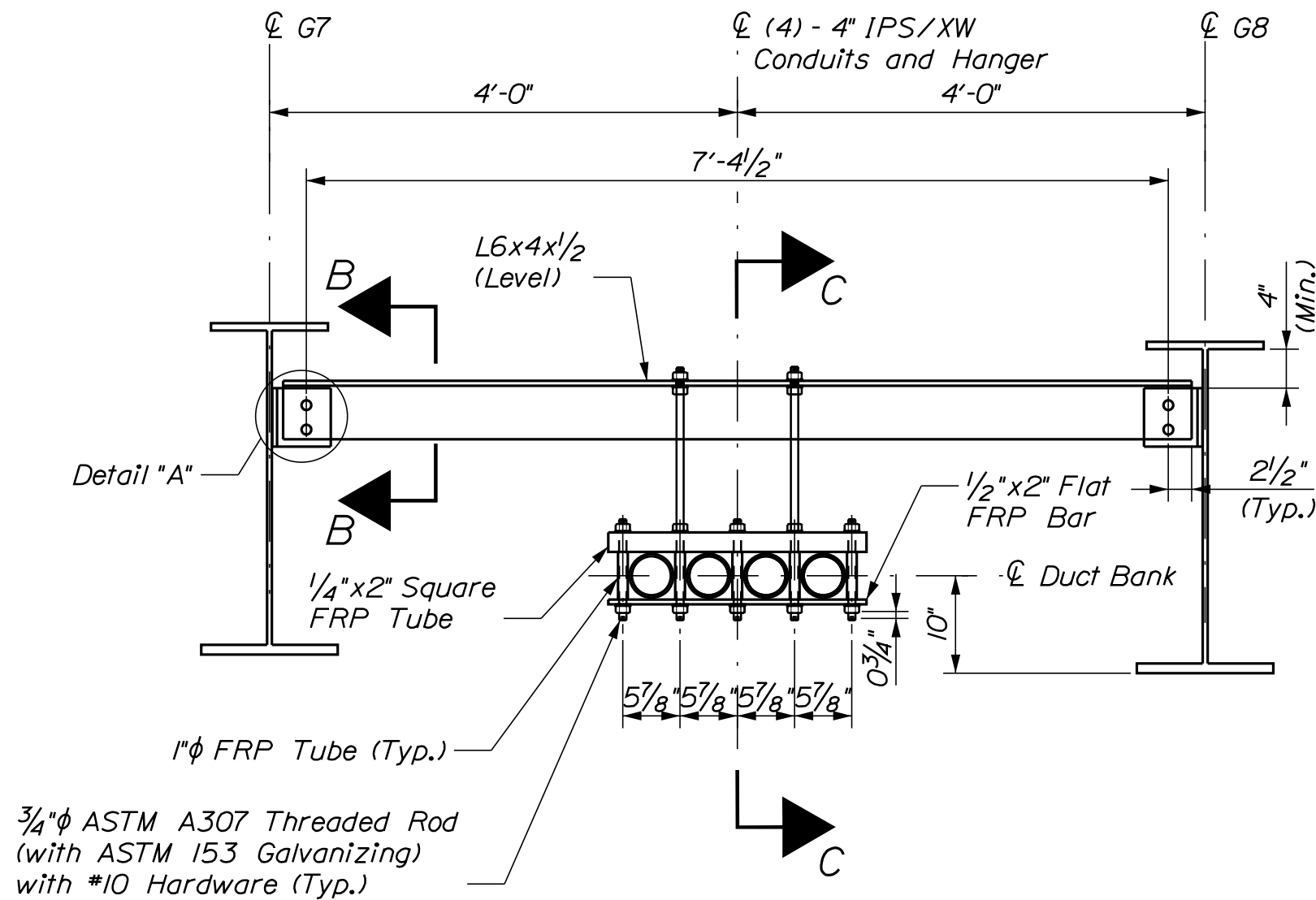
KENNEBEC COUNTY

UTILITY SUPPORT PLAN

SHEET NUMBER

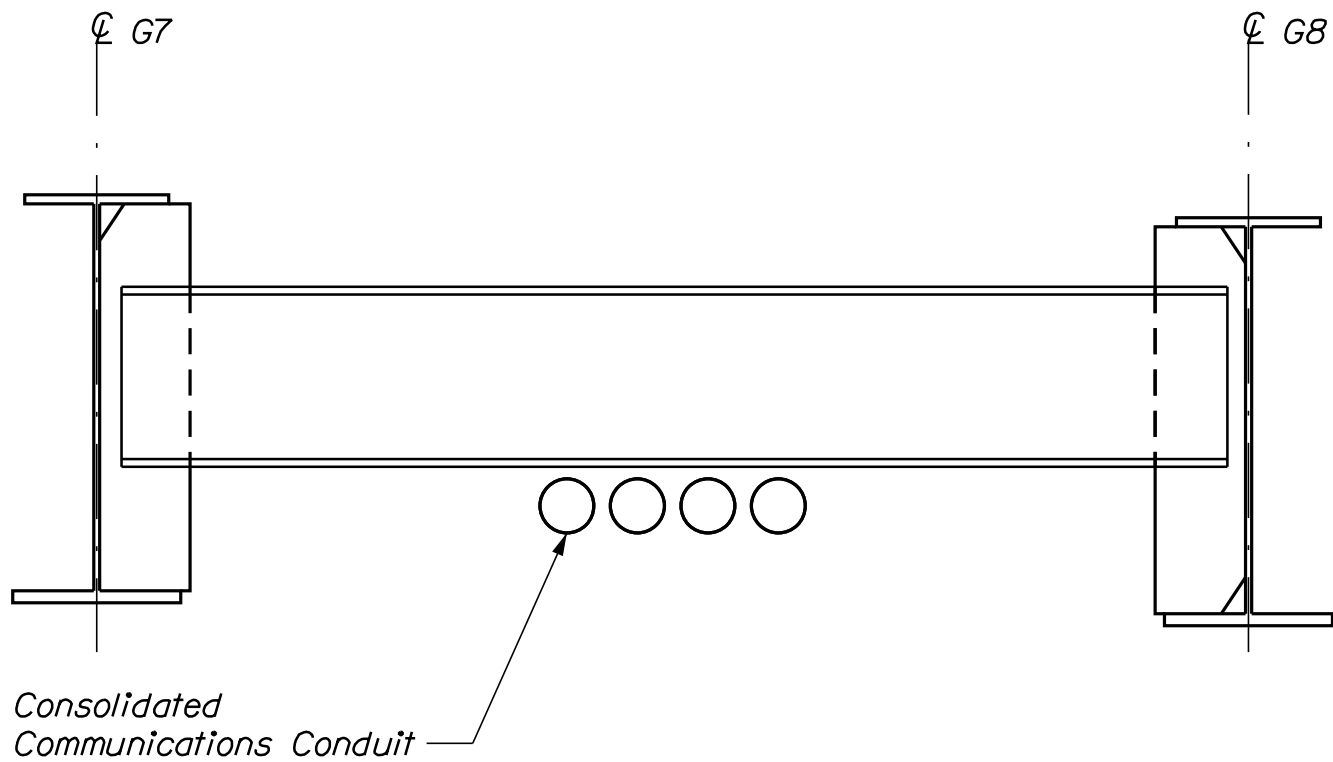
C2

OF C4

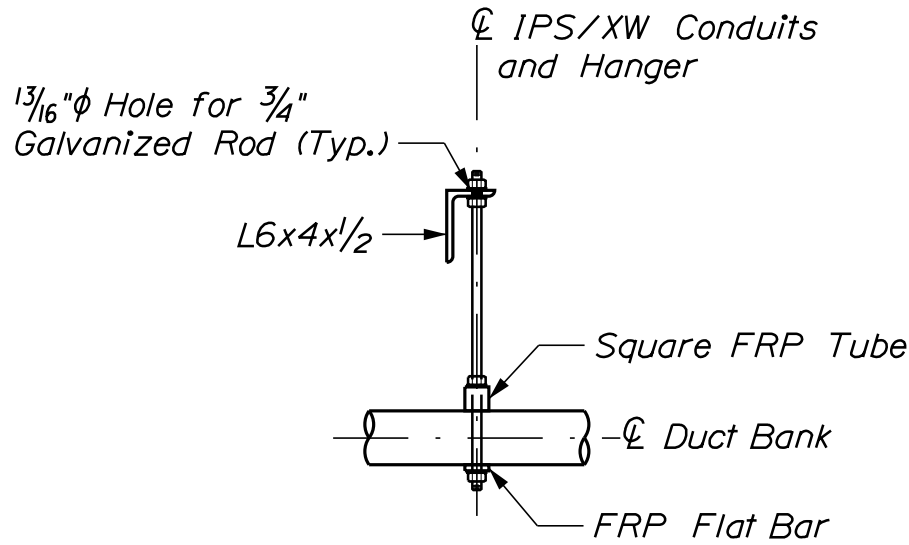


3/4" ϕ ASTM A307 Threaded Rod (with ASTM 153 Galvanizing) with #10 Hardware (Typ.)

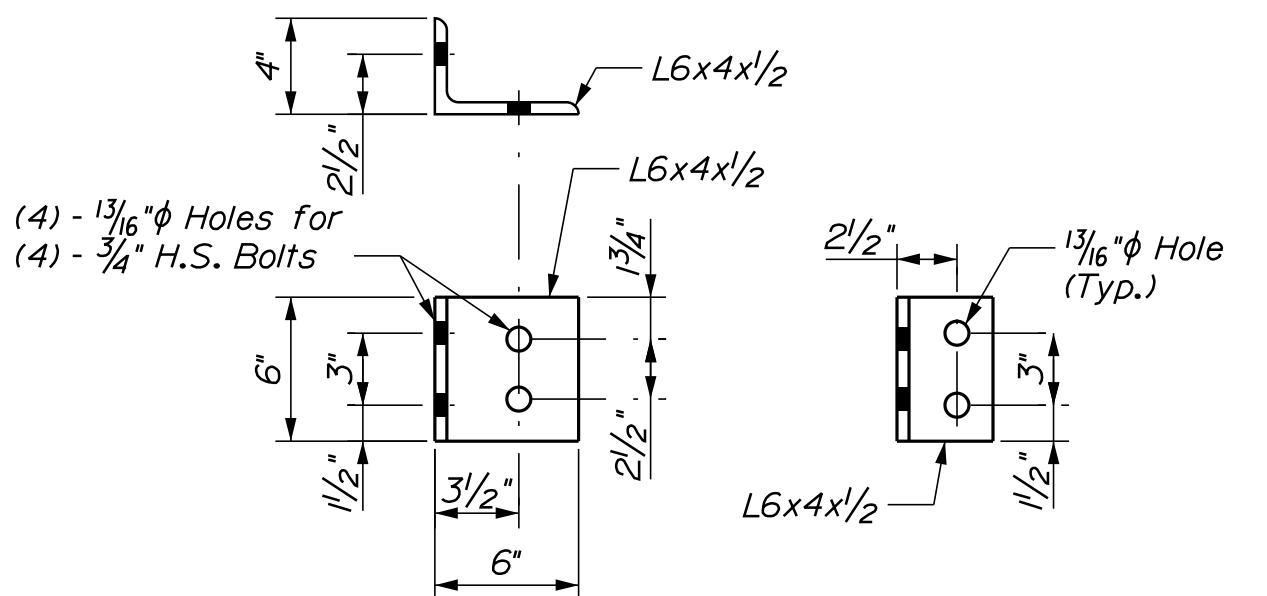
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(4 Total)



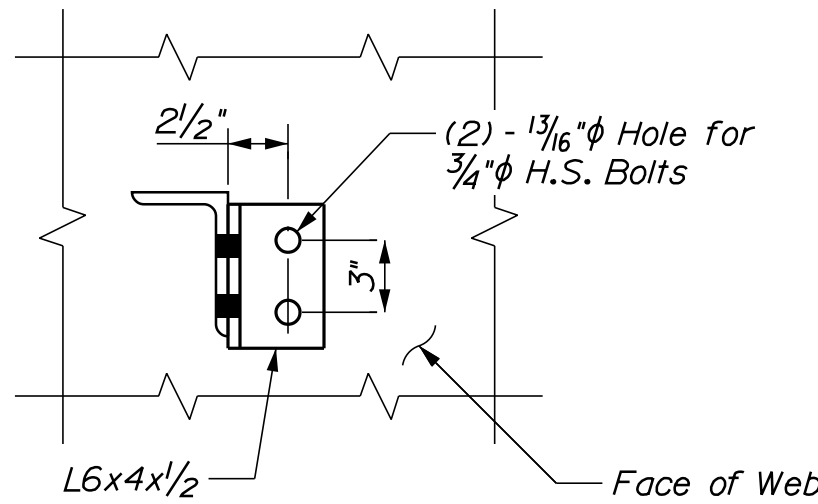
DIAPHRAGM TYPE E
(Type E shown, Type A1 similar)



SECTION C-C



DETAIL "A"



SECTION B-B

NOTES

1. All conduits located under the bridge shall be run in free air and suspended by their individual rack assemblies and shall be of the type specified on the drawings.
2. Conduits run under the bridge shall have expansion joints as shown.
3. These drawings are based on available bridge design drawings. Contractor shall verify all dimensions before fabrication and installation of conduits and supports.
4. Fiberglass duct supports are designed for a maximum cable load of 8.0 lbs per foot per 4" duct and a duct self-weight of 2.4 lbs per foot and hanger weight of 16.5 lbs. The total unfactored conduit load at a support is 650 lbs maximum.
5. 4" straight couplings shall be installed as required.
6. The Contractor is required to comply with all nationally accepted safety practices, OSHA and any other safety requirements imposed by the Owner, Agency or any other parties which may have jurisdiction over safety.
7. All connections between duct sections, expansion joints, adapters and couplings are to be bonded. Refer to manufacturer's instructions for bonding procedures.
8. Cap the ends of the ducts if the underground portion of the work is not done at the same time as the bridge portion.
9. All attachment rods, spacer rods, nuts, lock and flat washers to be zinc coated.
10. This design is for the express purpose for use on the bridge over the Old Maine Central Railroad in Augusta, Maine.
11. Hanger Assembly to be set level.
12. All hardware and rods to be hot dip galvanized.
13. See MaineDOT WIN 21872.00 Contract Plans for additional bridge and approach roadway details.
14. The steel superstructure utility supports on the bridge are detailed on this sheet. See WIN 21872.00 Contract Plans for CT girder utility support details on the bridge.
15. Concrete roadway slab shall be replaced in trench areas to match depth of existing roadway slab, match the size and spacing of existing reinforcing and shall be paid for under Item 502.45 Structural Concrete Approach Slab.

Stantec Consulting Services Inc.

2211 CONGRESS ST., PORTLAND, ME 04102

Tel. 207.887.3448 Fax 207.883.3376

CONSOLIDATED COMMUNICATIONS

BRIDGE NO. 3528
WIN 21872.00
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE
	SJW	SJW	OCT 2022	TWM	OCT 2022
	DESIGN-DETAILED	DESIGN-DETAILED			
	REVISIONS 1	REVISIONS 2			
	REVISIONS 3	REVISIONS 4			
	FIELD CHANGES				

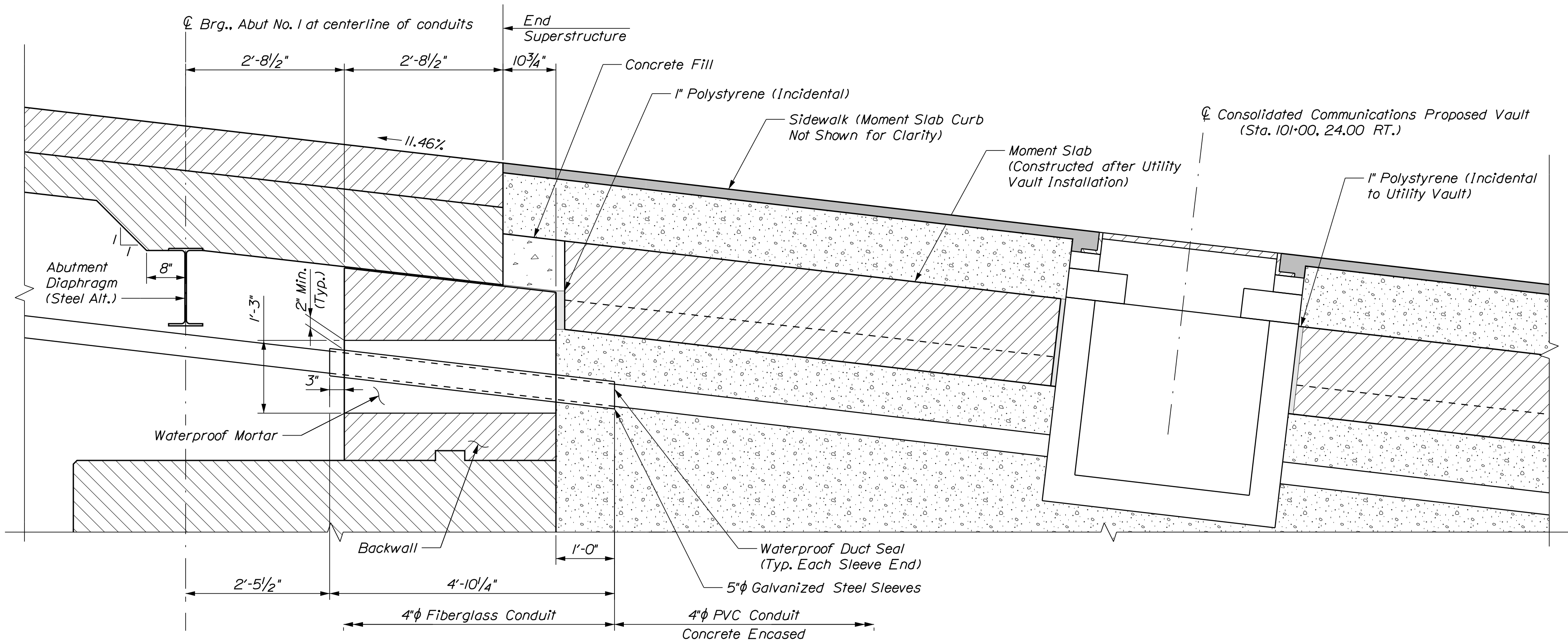
RINES HILL BRIDGE
OLD MAINE CENTRAL RAILROAD
AUGUSTA
KENNEBEC COUNTY

UTILITY SUPPORT DETAILS 1

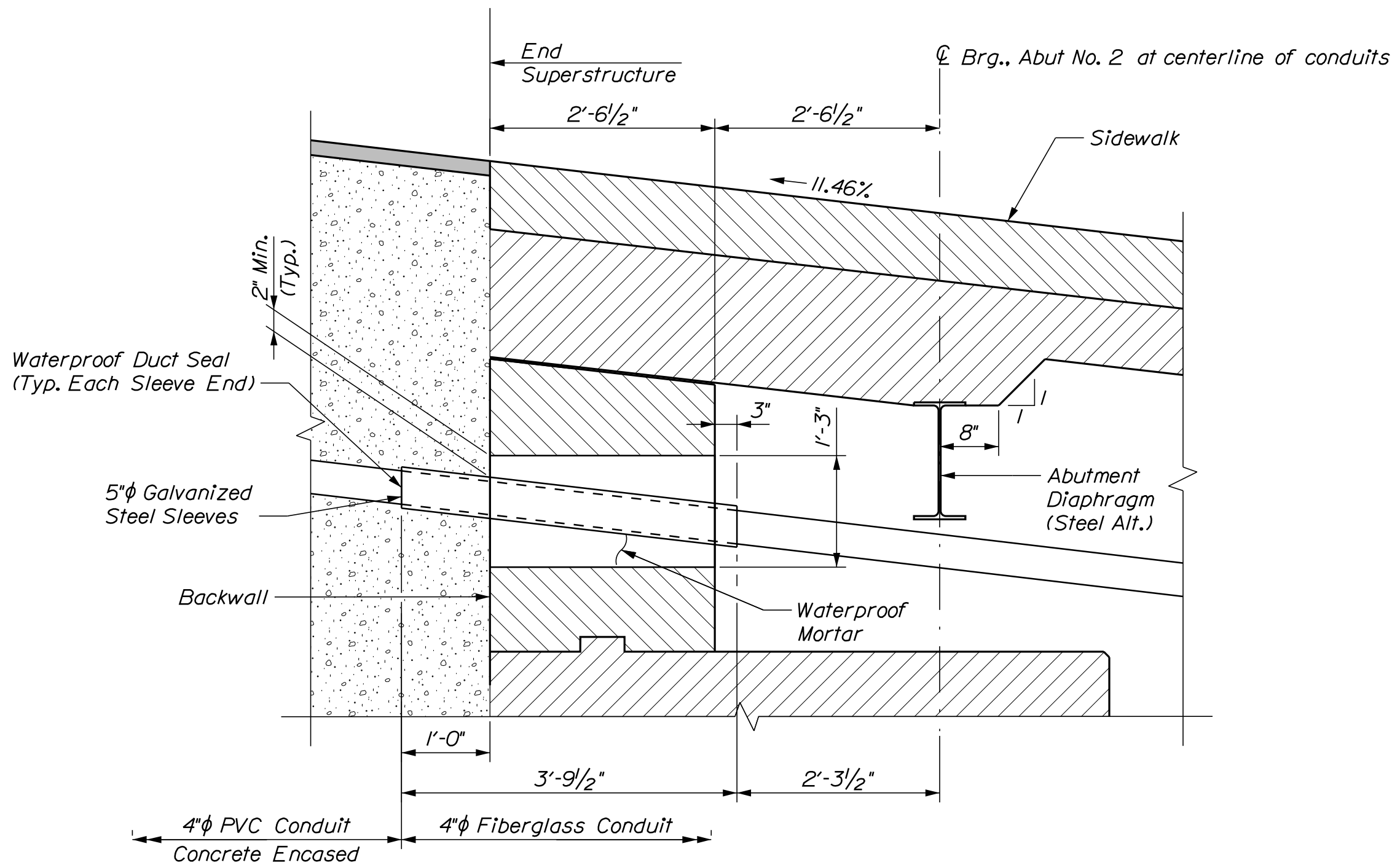
SHEET NUMBER

C3

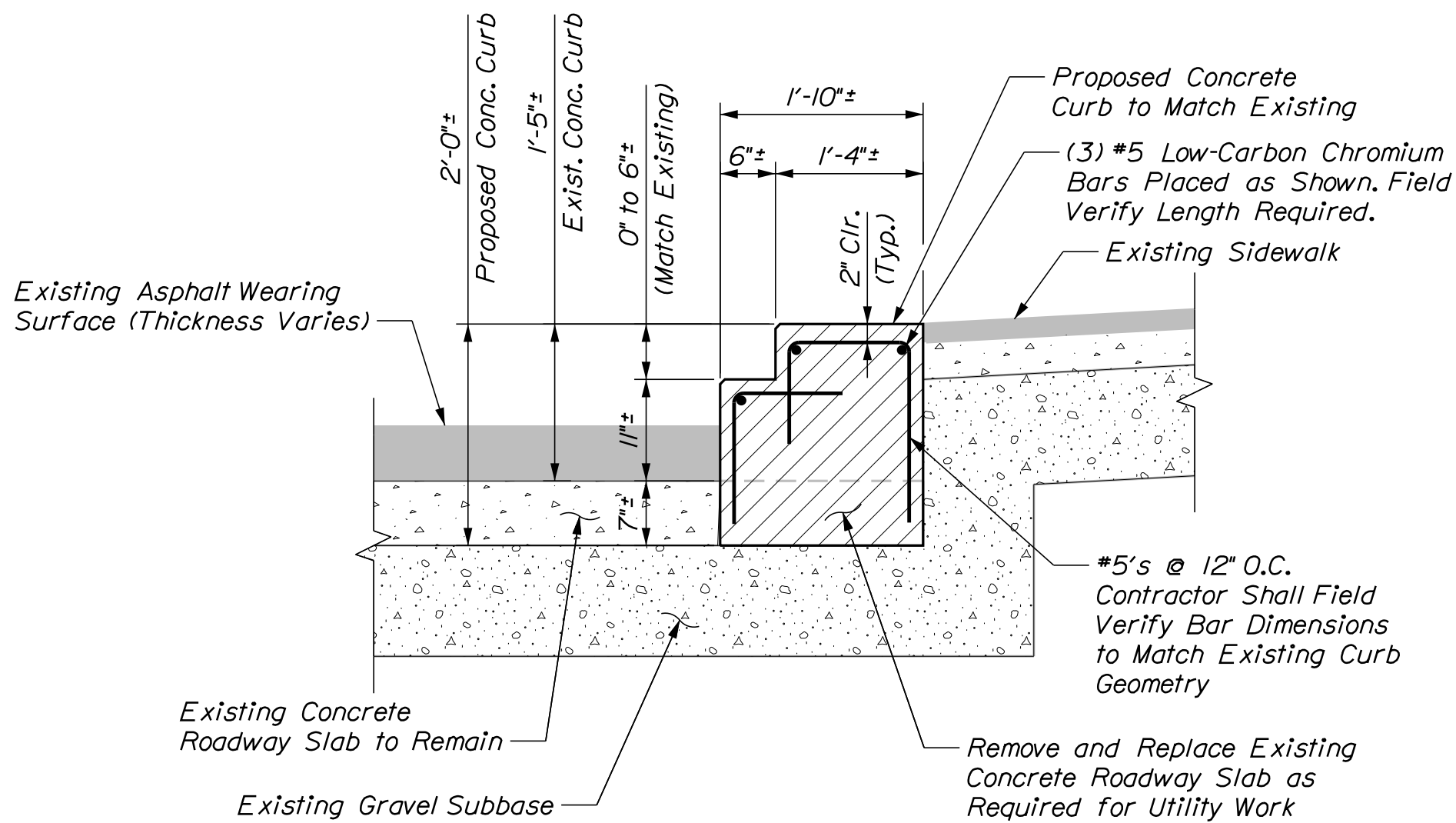
OF C4



ABUTMENT NO. 1
Shown Along $\varnothing$ Ductbank & Conduit
Superstructure Not Shown for Clarity



ABUTMENT NO. 2
Shown Along $\varnothing$ Ductbank & Conduit
Superstructure Not Shown for Clarity

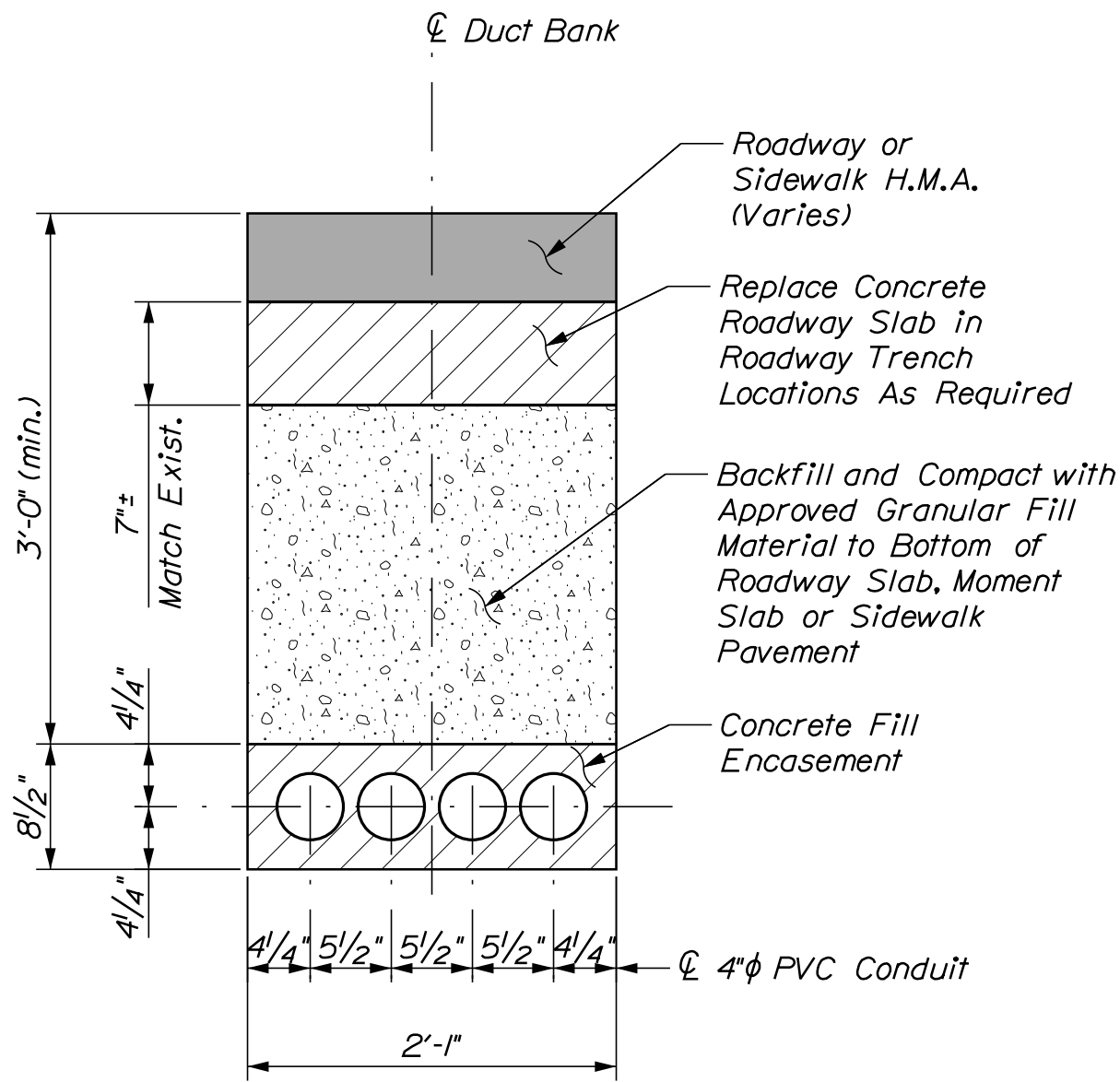


CONCRETE CURB DETAIL

Note: Proposed concrete curb shall be paid for under Item 502.49 Structural Concrete Curbs and Sidewalks. Reinforcing and protective coating (to match existing) for the concrete curb is incidental to Item 502.49 and no separate payment will be made.

NOTES

1. Consolidated Communications fiberglass conduits stop 1 foot beyond the backwall and shall be encased in concrete beyond this limit. After entering the concrete they shall be housed in 4" PVC conduits and sealed. Total Consolidated Communications run is approximately 485 feet.
2. All sleeves running through the abutment backwalls shall be cast-in-place or run through existing block-outs then sealed off with a waterproof mortar when finally completed.
3. Cap the ends of the ducts if the underground portion of the work is not done at the same time as the bridge portion.
4. The steel superstructure is shown on this sheet. See WIN 21872.00 Contract Plans for CT girder utility support details on the bridge. Backwall and approach details shown in this sheet for the utility relocation are for both superstructure bid alternatives.
5. See Sheet C3 for additional notes.
6. Concrete Fill paid for by WIN 21872.00. See Moment Slab Details.



SECTION - APPROACH CONDUIT TRENCH