

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Tenth Edition 2024.

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

HYDROLOGIC DATA

	THORNE BROOK	SPAULDING BROOK
Drainage Area	0.95 sq mi.	1.77 sq mi
Design Discharge (Q50)	95 cfs	130 cfs
Check Discharge (Q100)	110 cfs	150 cfs
Headwater Elevation (Q1.1)	176.55 ft	176.21 ft
Headwater Elevation (Q25)	178.77 ft	178.57 ft
Headwater Elevation (Q50)	179.11ft	178.94 ft
Headwater Elevation (Q100)	179.43 ft	179.30 ft
Discharge Velocity (Q1.1)	1.50 fps	1.26 fps
Discharge Velocity (Q50)	3.21 fps	3.78 fps
Discharge Velocity (Q100)	3.48 fps	4.16 fps

AUGUSTA
KENNEBEC COUNTY
SPAULDING BROOK BRIDGE
OVER
SPAULDING BROOK
AND
THORNE BROOK BRIDGE
OVER
THORNE BROOK
ROUTE 17
PROJECT NOS. 02312600 & 02644400
BRIDGE NOS. 2790 & 2850

LIST OF DRAWINGS

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General Plan & Profile (Spaulding Brook Bridge (#2790))	4
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UTILITIES

Buckeye Partners LP	Firstlight
Central Maine Power Company	Greater Augusta Utility District
Charter Communications	Maine Electric Power Company
Consolidated Communications	Unitil Gas

TRAFFIC DATA

Current (2023) AADT	10,080
Future (2043) AADT	11,090
DHV - % of AADT	11
Design Hour Volume	1220
Heavy Trucks (% of AADT)	6
Heavy Trucks (% of DHV)	4
Directional Distribution (% of DHV)	55
18 kip Equivalent P 2.0	148
18 kip Equivalent P 2.5	141
Design Speed (mph)	45

MAINTENANCE OF TRAFFIC

Daily lane closures permitted to be maintained by flagger-controlled alternating one-way traffic. Two-way traffic will be maintained during non-working hours.

PROJECT LOCATION	Route 17, approximately 1800 feet easterly of Cony Rd intersection. Lat./Long. 44°18'4.89" N 69°44'11.6" W
PROGRAM AREA	Highway - Minor Spans
OUTLINE OF WORK	Sliplining and Riprap Aprons

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		6-11-26
CHIEF ENGINEER: <i>[Signature]</i>		6-11-26

STATE OF MAINE PROFESSIONAL ENGINEER Em D. Brewer No. 19345	SIGNATURE 19345	P.E. NUMBER 0510612026	DATE
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PROJECT INFORMATION	BRIDGE PROGRAM
PROGRAM	BRIAN NICHOLS
PROJECT MANAGER	BRIAN NICHOLS
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

AUGUSTA SPAULDING & THORNE BRIDGES	TITLE SHEET
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SHEET NUMBER
1
OF 5

02312600 & 02644400 WINS 23126.00 & 26444.00

Date:5/4/2026

Username: Brian.Nichols

Division: BRIDGE

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

ESTIMATED QUANTITIES					
ITEM NO.	DESCRIPTION	QUANTITY			UNIT
		23126.00	26444.00	Total	
203.20	COMMON EXCAVATION	11	11	22	CY
203.23/8	DISPOSAL OF SPECIAL WASTE	51	103	154	T
203.25	GRANULAR BORROW	10		10	CY
502.57	ANNULAR SPACE GROUTING	60	60	120	CY
509.202	CULVERT SLIPLINING (BRIDGE NO. 2790) (72 LF)	1		1	LS
509.202	CULVERT SLIPLINING (BRIDGE NO. 2580) (72 LF)		1	1	LS
511.07	COFFERDAM: UPSTREAM (BRIDGE NO. 2790)	1		1	LS
511.07	COFFERDAM: DOWNSTREAM (BRIDGE NO. 2790)	1		1	LS
511.07	COFFERDAM: UPSTREAM (BRIDGE NO. 2580)		1	1	LS
511.07	COFFERDAM: DOWNSTREAM (BRIDGE NO. 2580)		1	1	LS
610.08	PLAIN RIPRAP	75	70	145	CY
613.319	EROSION CONTROL BLANKET	100	100	200	SY
615.07	LOAM	10	10	20	CY
618.14	SEEDING METHOD NUMBER 2	1	1	2	UN
619.12	MULCH	1	1	2	UN
619.14	EROSION CONTROL MIX	20	20	40	CY
620.58	EROSION CONTROL GEOTEXTILE	135	130	265	SY
629.05	HAND LABOR, STRAIGHT TIME	20	20	40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	20	40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	20	40	HR
639.19	FIELD OFFICE TYPE B	0.5	0.5	1	EA
652.312	TYPE III BARRICADE	6	6	12	EA
652.33	DRUM	20	20	40	EA
652.34	CONE	50	50	100	EA
652.35	CONSTRUCTION SIGNS	200	200	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	0.5	0.5	1	LS
652.38	FLAGGER	300	300	600	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	0.5	0.5	1	LS
659.10	MOBILIZATION	0.5	0.5	1	LS

GENERAL CONSTRUCTION NOTES

1. Payment for any clearing required to perform the Work shall be considered incidental to related Contract Items.
2. Payment for removal and replacement of any existing guardrail required to perform the work shall be considered incidental to related Contract Items. Any guardrail that is damaged or removed by the Contractor shall be replaced in kind at no additional cost to the Department.
3. Payment for equipment, labor and materials to access the work, as well as to re-establish original ground, shall be considered incidental to related Contract Items.
4. Project information referred to below may be accessed at the following MaineDOT web address:
http://www.maine.gov/mdot/contractors/
5. 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.
6. The Existing ROW Map from 1988 may be accessed at the MaineDOT web address.
7. Reports on hydrology and/or hydraulics applicable to the bridge site may be accessed at the MaineDOT web address. The reports are based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.
8. The project preliminary geotechnical reports dated February 26, 2026 listed below may be accessed at the MaineDOT web address:
Preliminary Geotechnical Report for Spaulding Brook Bridge No. 2790
Preliminary Geotechnical Report for Thorne Brook Bridge No. 2850
9. 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.
11. This project was originally scoped as Bridge Culvert Replacement. The Preliminary Geotechnical Design Reports provided are being shared to convey the data received from the subsurface investigation prior to the change to the proposed Bridge Culvert Rehabilitation. Any reference in these reports to a Bridge Culvert Replacement are no longer applicable.
12. Repair of sideslope erosion present on the upstream end of Spaulding Brook Bridge (*2790) shall be paid for as Item No. 203.25, Granular Borrow and Item No. 610.08, Riprap.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02312600 & 02644400

WINS
23126.00 & 26444.00
BRIDGE NO. 2790
BRIDGE NO. 2850
BRIDGE PLANS

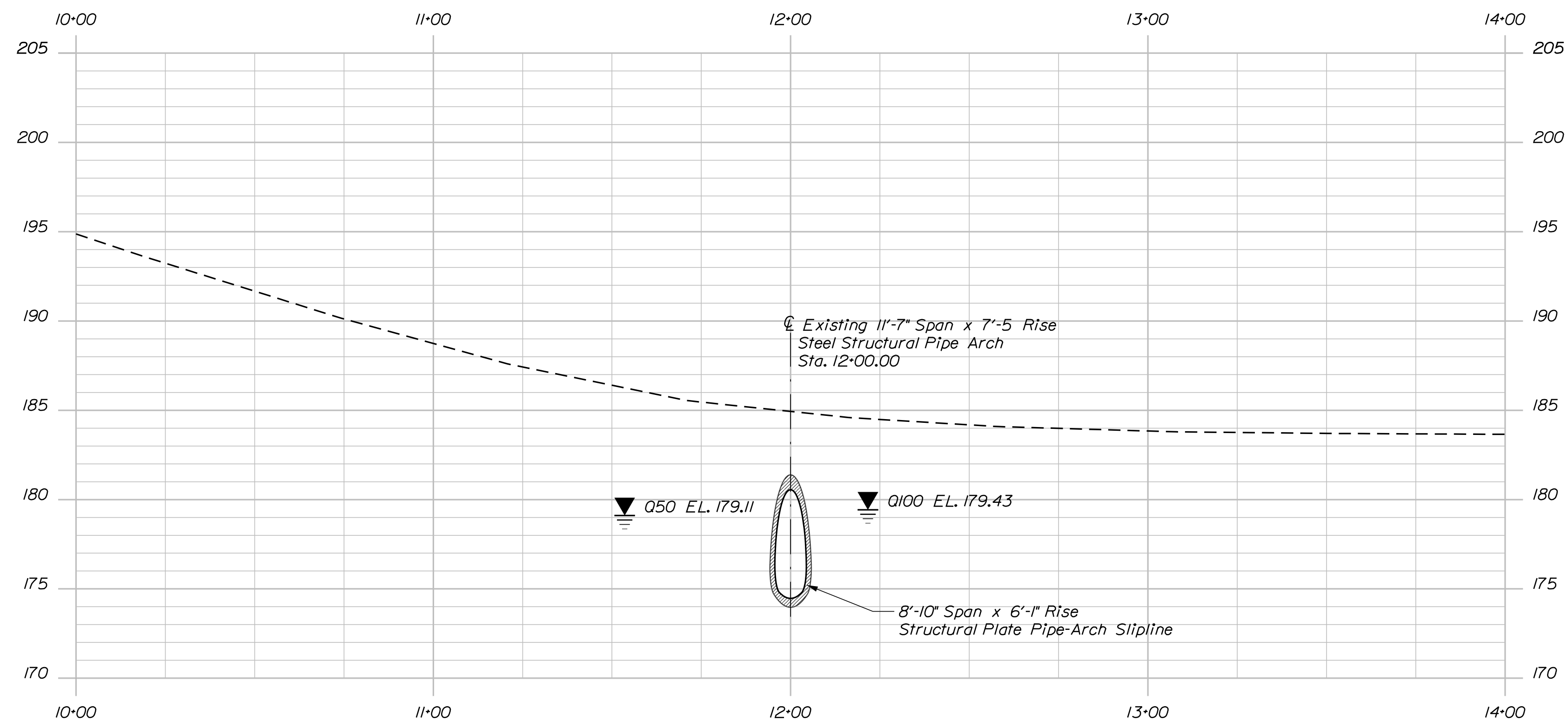
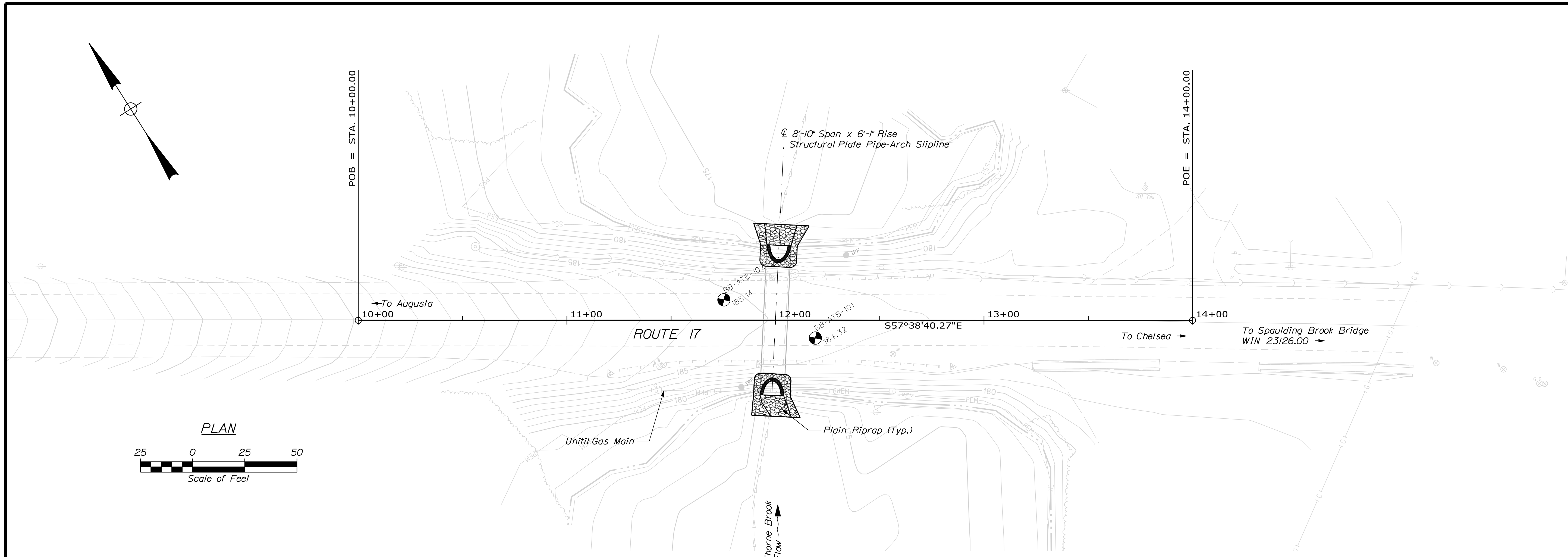
SPAULDING & THORNE BROOK BRIDGES
SPAULDING BROOK & THORNE BROOKS
AUGUSTA
KENNEBEC COUNTY

ESTIMATED QUANTITIES

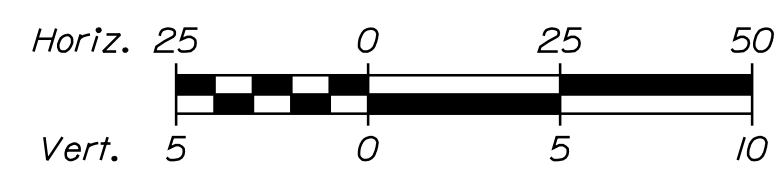
SHEET NUMBER

2

OF 5

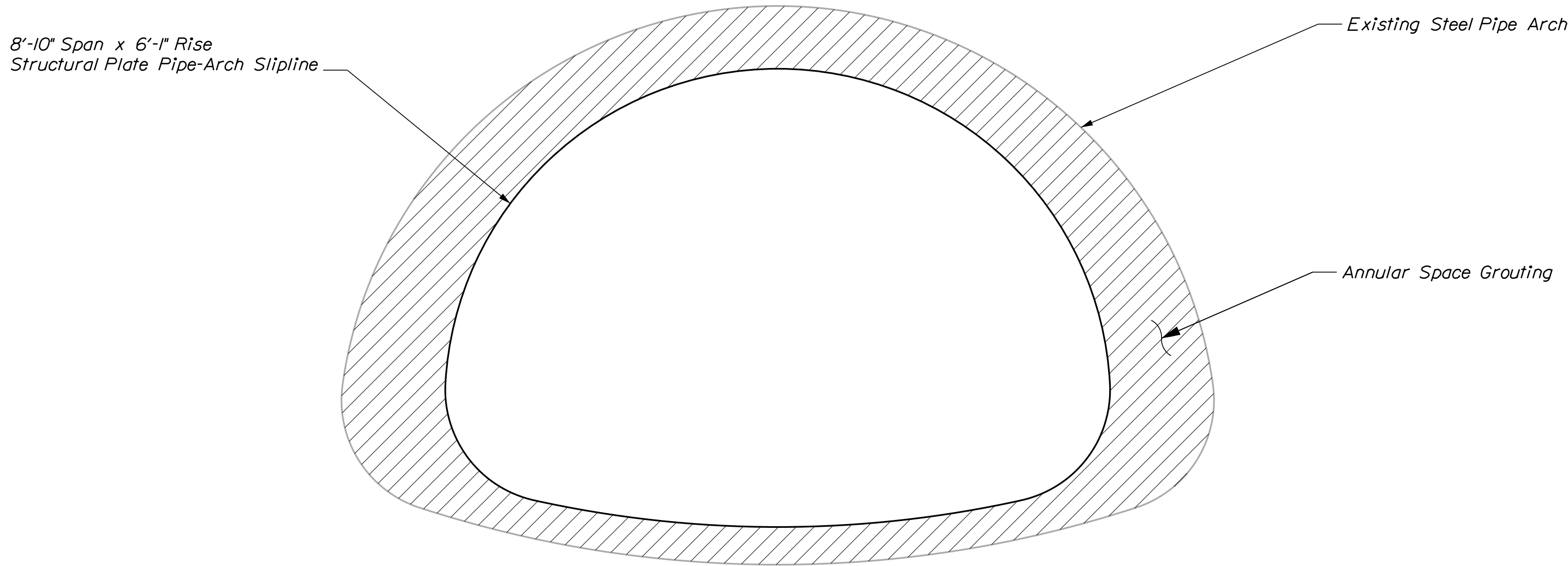
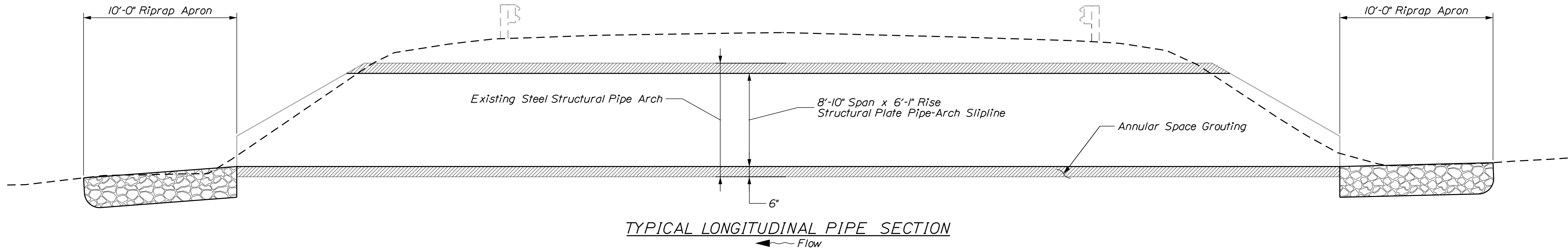


PROFILE



Scale of Feet

SHEET NUMBER 3 OF 5	SPAULDING BROOK BRIDGE THORNE BROOK AUGUSTA KENNEBEC COUNTY GENERAL PLAN & PROFILE	PROJ. MANAGER	BRIAN NICHOLSON	BY	DATE
		DESIGN-DETAILED	BIN	BIN	MAY 2026
		CHECKED-REVIEWED	EDB	EDB	MAY 2026
		DESIGN2-DETAILED2			SIGNATURE
		DESIGN3-DETAILED3			P.E. NUMBER
		REVISIONS 1			
		REVISIONS 2			
		REVISIONS 3			
		REVISIONS 4			DATE
		FIELD CHANGES			
		STATE OF MAINE DEPARTMENT OF TRANSPORTATION 02644400 WIN 26444.00 BRIDGE NO. 2850 BRIDGE PLANS			



PIPE ARCH SLIPLINE SECTION

STRUCTURAL PLATE STRUCTURE NOTES

1. Install one 8'-10' span by 6'-1" rise Structural Plate Pipe Arch Sliplining at each bridge. Plates shall be 0.280 inch thick.
2. Ends shall be cut on a 1.75:1 bevel normal to the end skew of the existing pipe arches.
3. Riprap adjacent to the pipe shall be carefully placed so as not to damage the pipe and so that the finished slope will match the ends of the pipe. Any extra labor, material or equipment used will be considered incidental to Item No. 610.08, Plain Riprap. Any damage done to the structure during construction shall be repaired or replaced as determined by the Resident at the Contractor's expense.
4. Place a 24-in. wide strip of Temporary Erosion Control Blanket along the top of the riprap and over the structure, typical at both ends.

SPAULDING & THORNE BROOK BRIDGES SPAULDING & THORNE BROOKS AUGUSTA	STATE OF MAINE DEPARTMENT OF TRANSPORTATION				BRIDGE NO. 2790 BRIDGE NO. 2850		BRIDGE PLANS	
	02312600 & 02644400				WINS 23126.00 & 26144.00		BRIDGE PLANS	
	DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES				DATE MAY 2026 MAY 2026		SIGNATURE P.E. NUMBER DATE	

SHEET NUMBER

5

OF 5