

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2019) AADT	2,160
Future (2039) AADT	2,380
DHV - % of AADT	13%
Design Hour Volume	309
Heavy Trucks (% of AADT)	9%
Heavy Trucks (% of DHV)	8%
Directional Distribution (% of DHV)	61%
18 kip Equivalent P 2.0	134
18 kip Equivalent P 2.5	128
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	8.1 sq mi
Design Discharge (Q50)	523.3 cfs
Check Discharge (Q100)	613.3 cfs
Headwater Elevation (Q1.1)	534.1 ft
Headwater Elevation (Q25)	536.6 ft
Headwater Elevation (Q50)	537.0 ft
Headwater Elevation (Q100)	537.5 ft
Discharge Velocity (Q1.1)	4.7 fps
Discharge Velocity (Q50)	8.9 fps
Discharge Velocity (Q100)	9.3 fps

MATERIALS

Concrete:	
Precast	Class "P"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Welded Wire Reinforcement	ASTM A 185/A 185M or ASTM A 497/A 497M

BASIC DESIGN STRESSES

Concrete	f 'c = 4,000 psi Min.
Precast Concrete	f 'c = 5,000 psi Min.
Reinforcing Steel	f y = 60,000 psi

LIST OF DRAWINGS

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CARIBOU-LIMESTONE
AROOSTOOK COUNTY
GREENLAW BROOK NO. 2 BRIDGE
OVER
GREENLAW BROOK
WEST GATE ROAD
FEDERAL AID PROJECT NO. STP-02169(600)
PROJECT LENGTH 0.149 mi.
BRIDGE NO. 5625

UTILITIES

Versant Power
Consolidated Communications of Northern New England Company, LLC
FirstLight

MAINTENANCE OF TRAFFIC

Bridge will be closed to traffic during construction with traffic detoured.



PROJECT LOCATION	Sawyer Road, 0.20 mile North of Junction 89 46° 54' 55" N, 67° 55' 42" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge Culvert Replacement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE
4-3-23

COMMISSIONER: *John A. Burgess*
CHIEF ENGINEER: *Julie Noel Taylor*

STATE OF MAINE
ENGINEER
JOHN A. BURGESS
#5745

SIGNATURE
John A. Burgess

5745

P.E. NUMBER
03-20-2023

DATE

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	JASON STETSON
DESIGNER	JACK BURGESS
CONSULTANT	THORNTON TOMASETTI
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

STP-2169(600)

WIN 021696.00

CARIBOU-LIMESTONE
GREENLAW BROOK NO. 2 BRIDGE

TITLE SHEET

SHEET NUMBER

1

OF 32

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.202	REMOVING PAVEMENT SURFACE	860	SY
203.20	COMMON EXCAVATION	2,800	CY
203.25	GRANULAR BORROW	2,260	CY
203.33	SPECIAL FILL	680	CY
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE & MINOR STRUCTURES BELOW GRADE	50	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	2,150	CY
403.208	HOT MIX ASPHALT, 12.5mm NOM. MAX. SIZE	310	T
403.213	HOT MIX ASPHALT, 12.5mm NOM. MAX. SIZE (BASE & INTERMEDIATE BASE COURSE)	400	T
409.15	BITUMINOUS TACK COAT - APPLIED	130	G
508.13	SHEET WATERPROOFING MEMBRANE (430 SY)	1	LS
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (320 SY)	1	LS
526.301	TEMPORARY CONCRETE BARRIER, TYPE I (40 LF)	1	LS
534.71	PRECAST CONCRETE BOX CULVERT (625 CY)	1	LS
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)	1,038	LF
606.1305	31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL (31" HEIGHT)	3	EA
606.1306	31" W-BEAM GUARDRAIL - MID-WAY SPLICE TANGENT TERMINAL (31" HEIGHT)	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
610.08	PLAIN RIPRAP	500	CY
610.18	STONE DITCH PROTECTION	10	CY
610.210	STREAM CHANNEL ROCK	475	CY
610.212	STREAMBED ROCK FEATURES	70	CY
613.319	EROSION CONTROL BLANKET	37	SY
615.07	LOAM	170	CY
618.14	SEEDING METHOD NUMBER 2	30	UN
619.12	MULCH	30	UN
619.14	EROSION CONTROL MIX	25	CY
620.58	EROSION CONTROL GEOTEXTILE	700	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	3,136	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE, TYPE B	1	EA
652.312	TYPE III BARRICADES	4	EA
652.33	DRUM	20	EA
652.34	CONE	20	EA
652.35	CONSTRUCTION SIGNS	263	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGERS	240	HR
652.41	PORTABLE - CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.
2. 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.
3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
4. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
5. 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.
6. All embankment material, except as otherwise shown, placed below EL. 537.00 shall be Granular Borrow meeting the requirements of Subsection 703.19, Granular Borrow, for Material for Underwater Backfill, with the additional requirement that the maximum particle size be limited to 4 inches.
7. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Item No. 304.10, Aggregate Subbase Course - Gravel.
8. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
9. 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.
10. Place a 24-in. wide strip of Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
11. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
12. Two Reflectorized Flexible G.R. Markers (Item 606.353) will be installed at each guardrail end.
13. Where it is apparent that runoff will cause continual erosion, Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed. Payment will be made under the appropriate Contract items.
14. Protective Coating for Concrete Surfaces shall be applied to the following areas:
- On all concrete headwalls and vertical concrete box wall surfaces that are exposed, and to limit lines one foot beyond intersections of concrete surfaces with the ground.

15. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
16. 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.
17. 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.
18. The project geotechnical report titled: Geotechnical Design Report for the replacement of Greenlaw Brook No. 2 Bridge, Soils Report 2023-05, dated February 21, 2023 may be accessed at the MaineDOT web address.
19. 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.
20. 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.
21. The Contractor will be responsible for maintaining all existing mailboxes to ensure that the mail will be deliverable. Payment for this work will be considered incidental to the Contract. No separate payment will be made.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-2169(600)

WIN
021696.00
BRIDGE PLANS

GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE AROOSTOOK COUNTY

QUANTITIES AND GENERAL
CONSTRUCTION NOTES

PROJ. MANAGER J. STETSON
DESIGN-DETAILED E. BROWNELL
CHECKED-REVIEWED B. WELCH
DESIGN-DETAILED D
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
3-20-23
3-20-23

BY
D. BURGESS
J. BURGESS

SIGNATURE

P.E. NUMBER

DATE

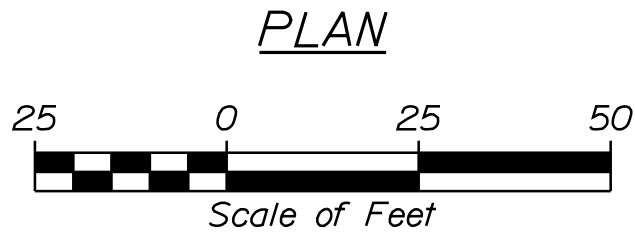
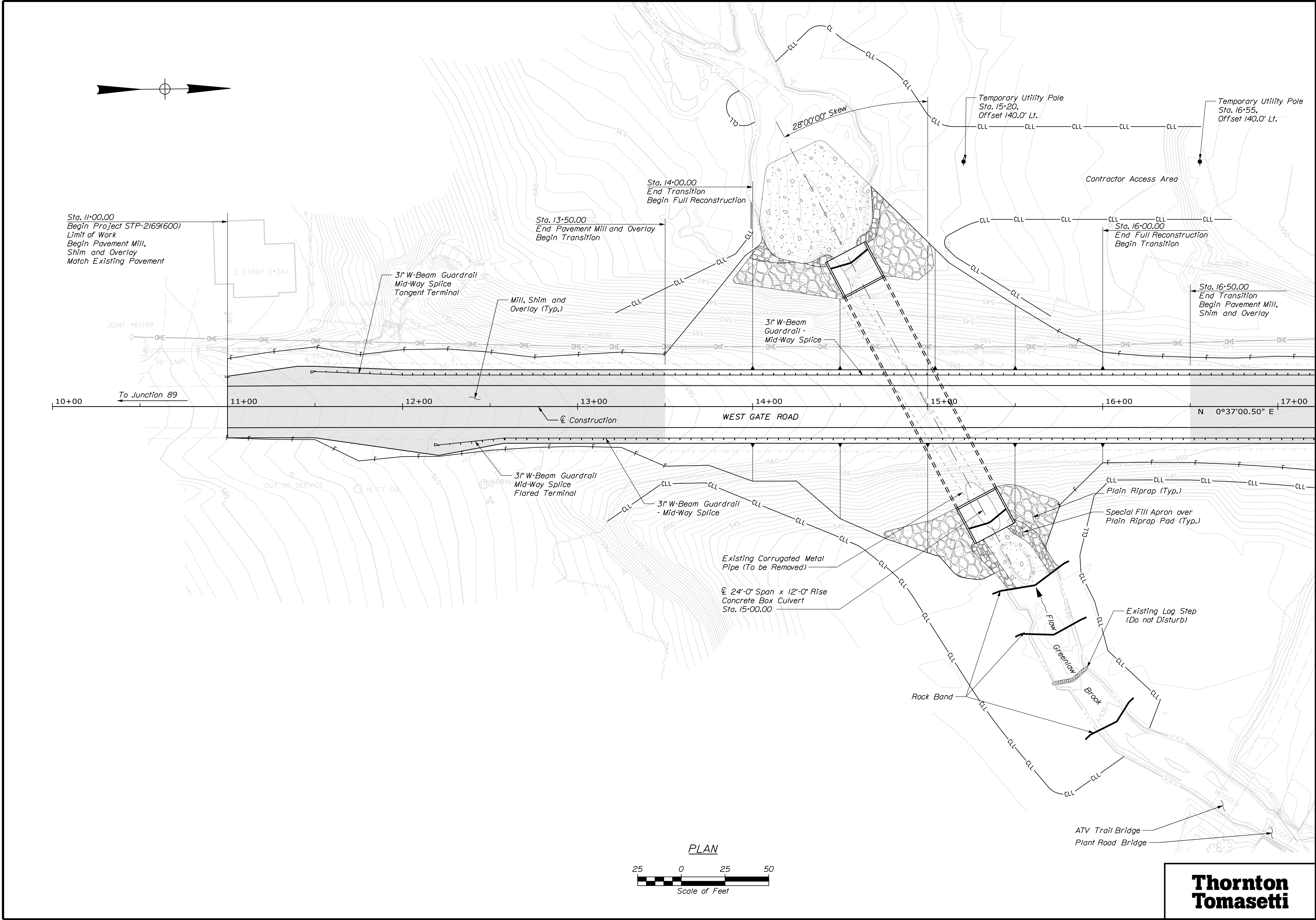
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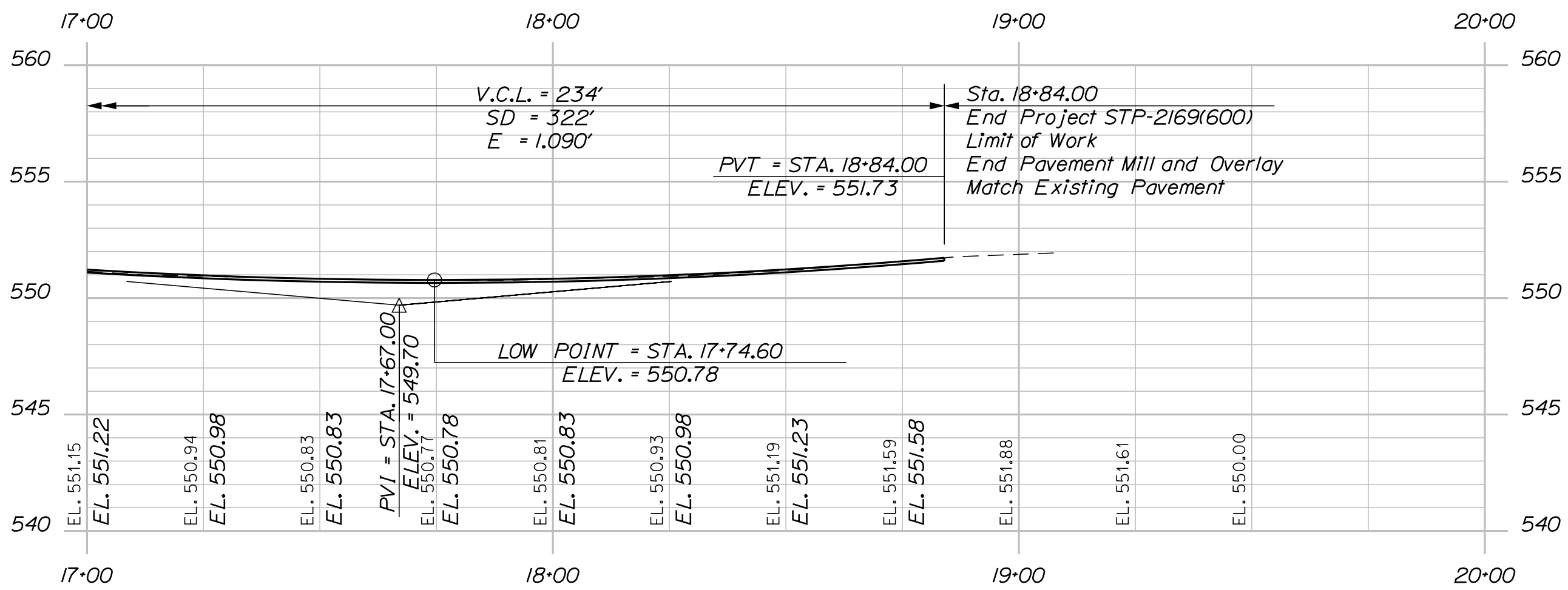
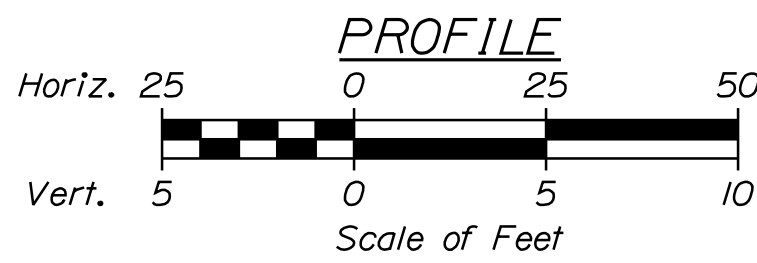
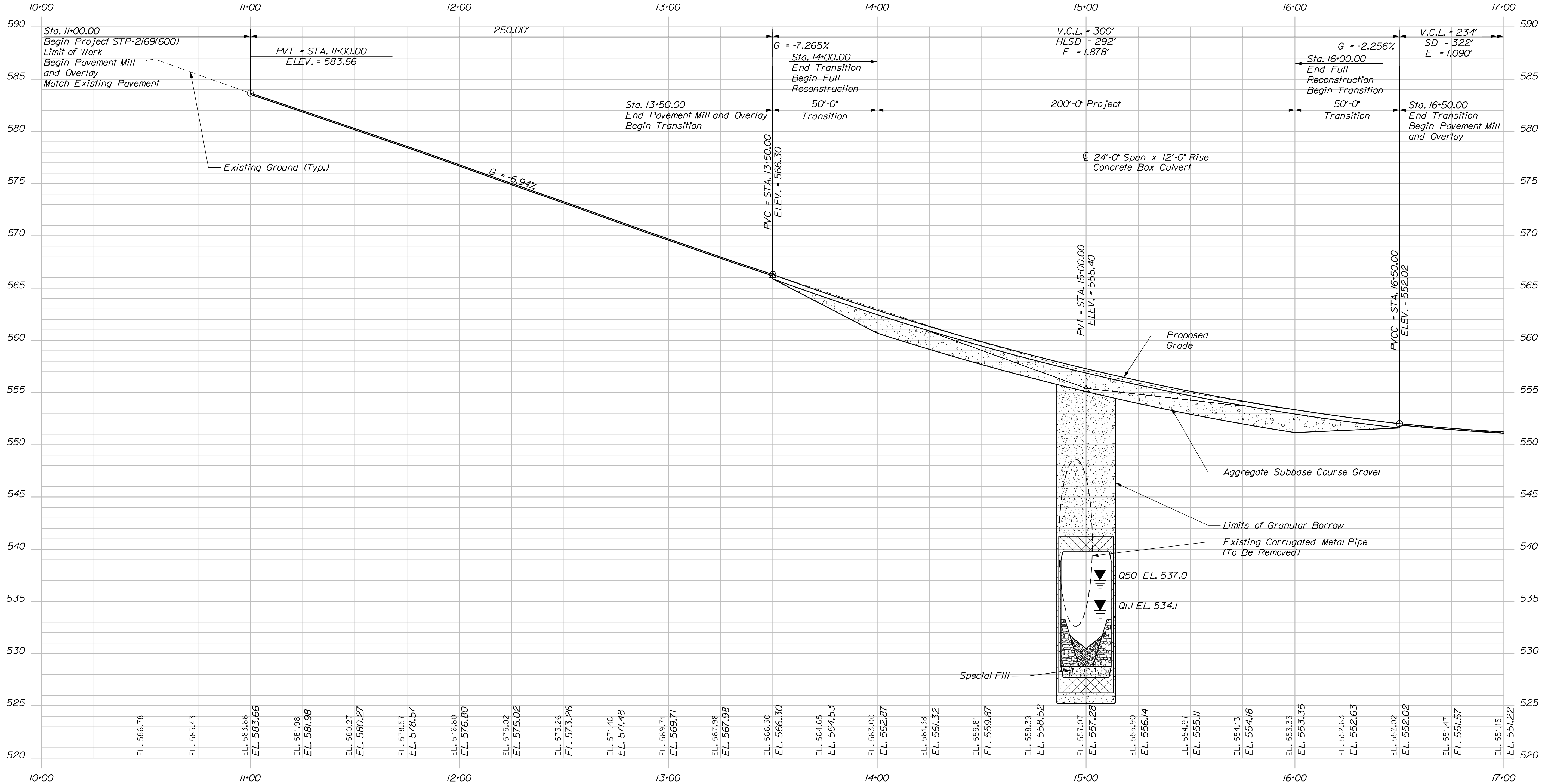
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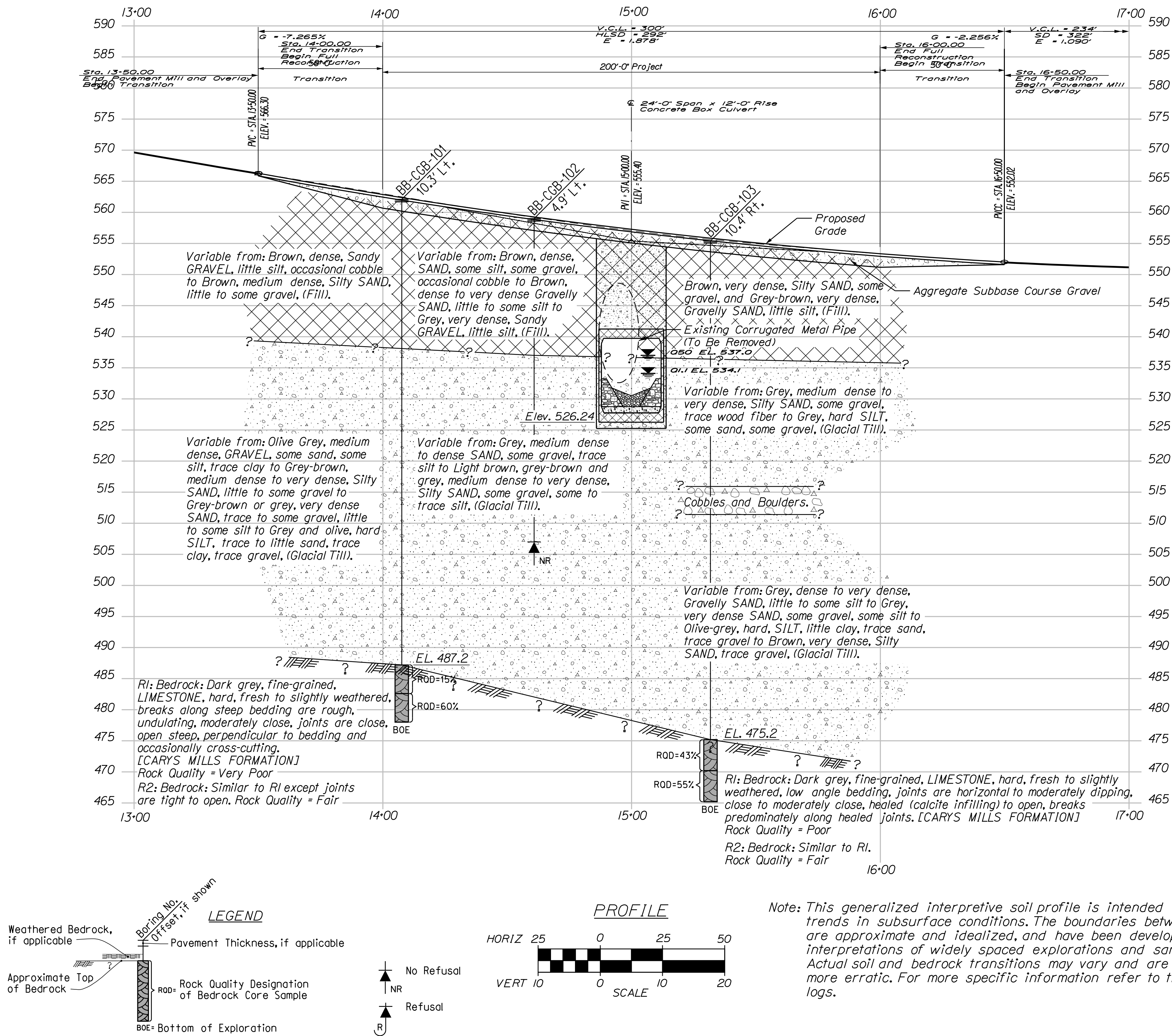
**Thornton
Tomasetti**

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		STP-2169(600)		WIN		021696.00		BRIDGE PLANS	
PROJECT		DATE		SIGNATURE		P.E. NUMBER		DATE		FIELD CHANGES	
GREENLAW BROOK NO. 2 BRIDGE		BY		DATE		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED	
GREENLAW BROOK		J. STETSON		3-20-23		E. BROWNELL		D. BURGESS		J. BURGESS	
CARIBOU-LIMESTONE AROOSTOOK COUNTY		CHECKED-REVIEWED		3-20-23		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED	
GENERAL PLAN		REVISIONS 1				REVISIONS 2		REVISIONS 3		REVISIONS 4	
		REVISIONS 1				REVISIONS 2		REVISIONS 3		REVISIONS 4	
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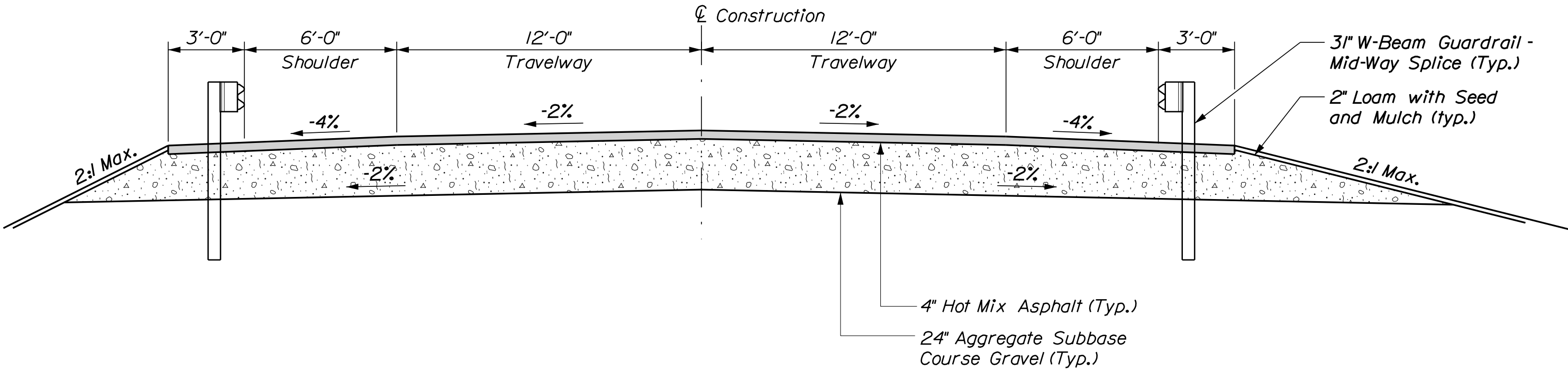
**Thornton
Tomasetti**

STATE OF MAINE		DATE	
DEPARTMENT OF TRANSPORTATION		BY	
STP-2169(600)		J. BURNESS	
WIN		J. BURNESS	
021696.00		J. BURNESS	
5625		J. BURNESS	
BRIDGE PLANS		J. BURNESS	
SIGNATURE		DATE	
P.E. NUMBER		DATE	
DATE		DATE	
FIELD CHANGES		DATE	
GREENLAW BROOK NO. 2 BRIDGE		DATE	
GREENLAW BROOK		DATE	
CARIBOU-LIMESTONE AROOSTOOK COUNTY		DATE	
PROFILE		DATE	
SHEET NUMBER		DATE	
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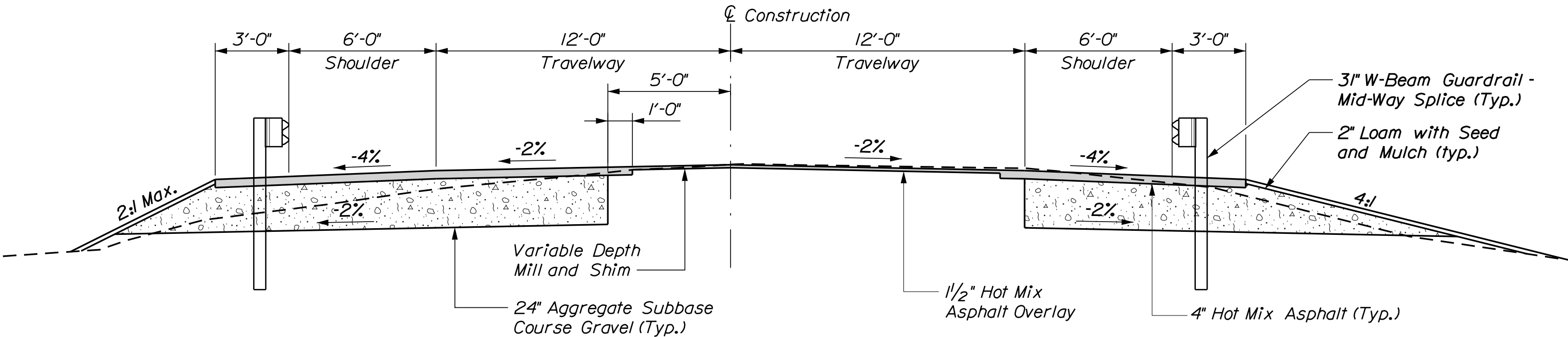


PROJ. MANAGER	DATE	BY	DATE	SIGNATURE
CHECKED-REVIEWED	L. KRIVINSKI	FEB 2023	T. WHITE	FEB 2023
DESIGN-DETAILED	J. MAHAN			
DESIGN-DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

Maine Department of Transportation										Project: Greenlaw Brook No. 2 Bridge										Boring No.: BB-CGB-102																			
Soil/Rock Exploration Log										196251 Caribou West Gate Road																													
US CUSTOMARY UNITS										Location: Caribou - Limestone, Maine										WIN: 21696.00																			
Driller: MainDOT					Elevation (ft.): 555.0					Auger ID/OD: 5" Solid Stem					Operator: Travis/Jones/Rick					Datum: NAVD88					Sampler: Standard Split Spoon														
Logged By: B. Wilder					Rig Type: CME 45C					Hammer Wt./Fall: 140lb/30"					Core Barrel: NQ-2"					Drilling Method: Closed Wash Boring					Core Barrel: NQ-2"														
Date Start/Finish: 7/12/2017-7/13/2017					Boring Location: 14465.8, 4.9 ft LT.					Casing ID/OD: NH-3"					Water Level: 22.0 ft bgs.																								
Hammer Efficiency Factor: 0.854										Hammer Type: Automatic 80										Hydraulic 10										Rope & Cathead 10									
Definitions: B = Rock Core Sample S = Split Spoon Sample SS = Solid Stem Auger SSA = Solid Stem Auger U = Thin Wall Tube Sample W = Weight of 140 lb. Hammer N = Field Vane Shear Test PP = Pocket Penetrometer NRC = Weight of Rock or Casing N = Unconfined Compressive Strength (psf) N = Unconfined Compressive Strength (ps																																							



FULL DEPTH RECONSTRUCTION
 Not to Scale



Note:
 Extend box shoulder as necessary from
 Sta. 11+25 to Sta. 13+50, left side only and
 from Sta. 16+50 to Sta. 17+25, right side only.

MILL, SHIM AND OVERLAY
 WITH BOX SHOULDER
 Not to Scale

NOTES

1. The pavement, base and subbase depths as shown are intended to be nominal.
2. Embankment grading presented on cross sections represents final finished grade elevation (top of loam to be placed).

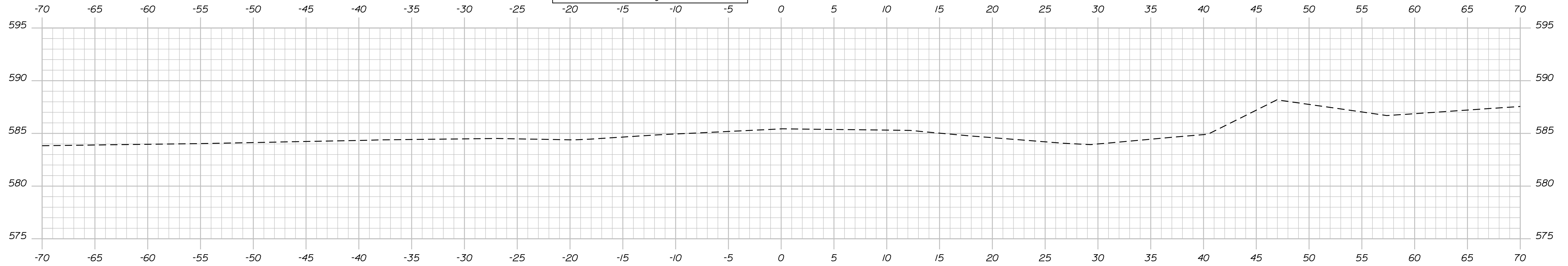
GREENLAW BROOK NO.2 BRIDGE GREENLAW BROOK CARIBOU-LIMESTONE AROOSTOOK COUNTY				PROJ. MANAGER J. STETSON		BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS				DESIGN-DETAILED E. BROWNELL		D. BURGESS	3-20-23	SIGNATURE	STP-2169(600)
				CHECKED-REVIEWED B. WELCH		J. BURGESS	3-20-23		
				DESIGN2-DETAILED2					
				DESIGN3-DETAILED3					
				REVISIONS 1					
				REVISIONS 2				P.E. NUMBER	
				REVISIONS 3					
				REVISIONS 4					
				FIELD CHANGES					
							DATE	WIN	BRIDGE PLANS
								021696.00	
								5625	

OF 32

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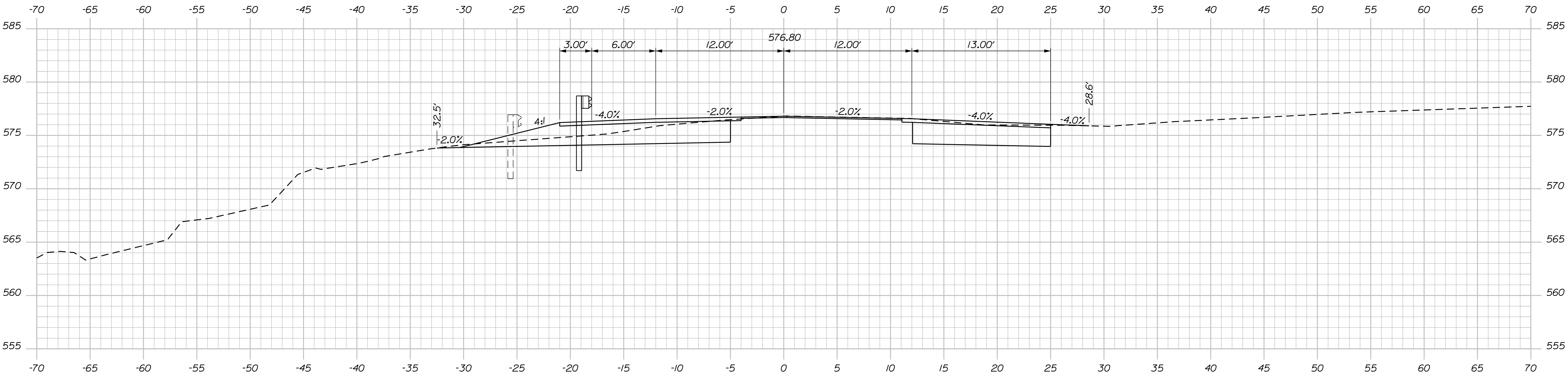
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Date:3/20/2023

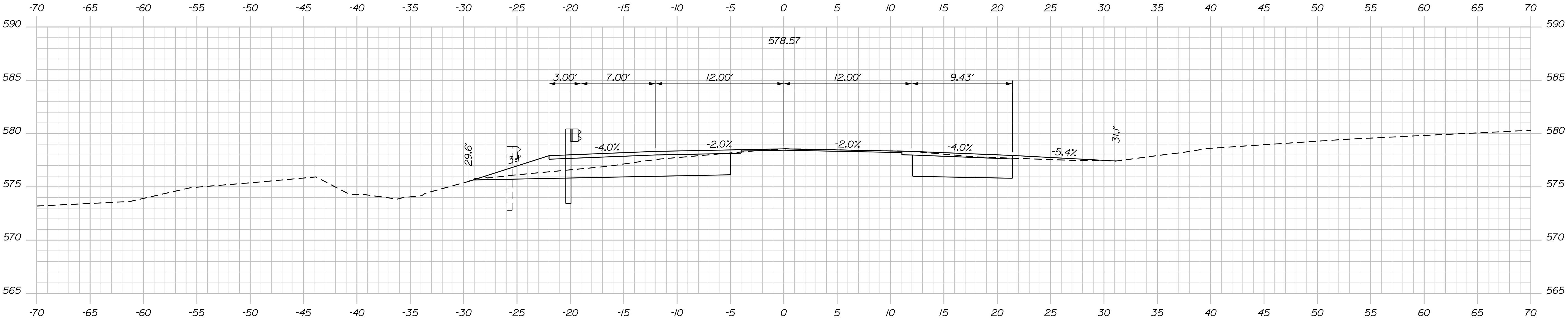
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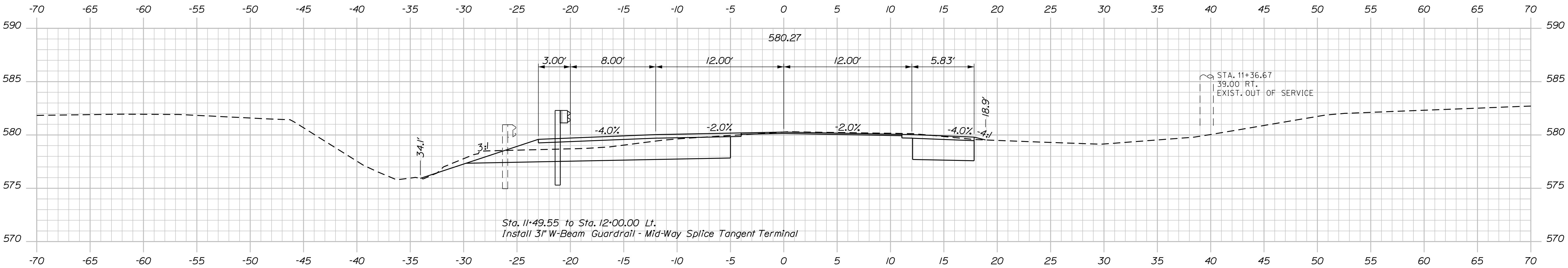
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Sta. 12+00.00 to Sta. 17+75.00 Lt.
Install 31" W-Beam Guardrail - Mid-Way Splice



11+75.00



Sta. 11+49.55 to Sta. 12+00.00 Lt.
Install 31" W-Beam Guardrail - Mid-Way Splice Tangent Terminal

11+50.00

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

STP-2169(600)

WIN

021696.00

BRIDGE PLANS

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	E. BROWNELL	D.BURGESS	3-20-23
CHECKED-REVIEWED	B.WELCH	D.BURGESS	3-20-23
SIGNATURE			
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

GREENLAW BROOK NO. 2 BRIDGE

GREENLAW BROOK

CARIBOU-LIMESTONE AROOSTOOK COUNTY

CROSS SECTIONS

SHEET NUMBER

11

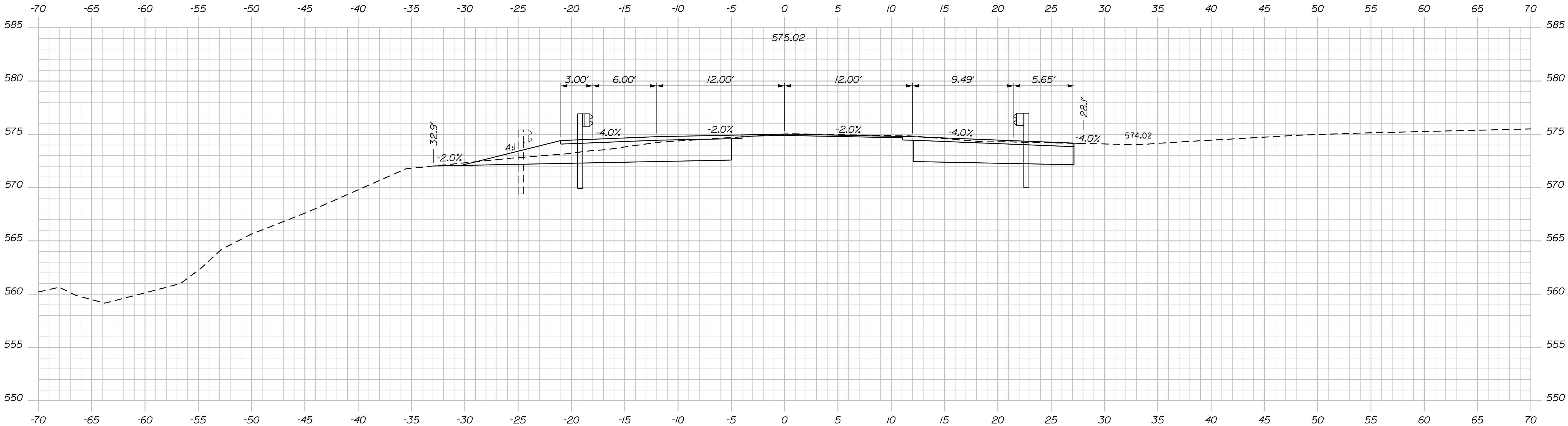
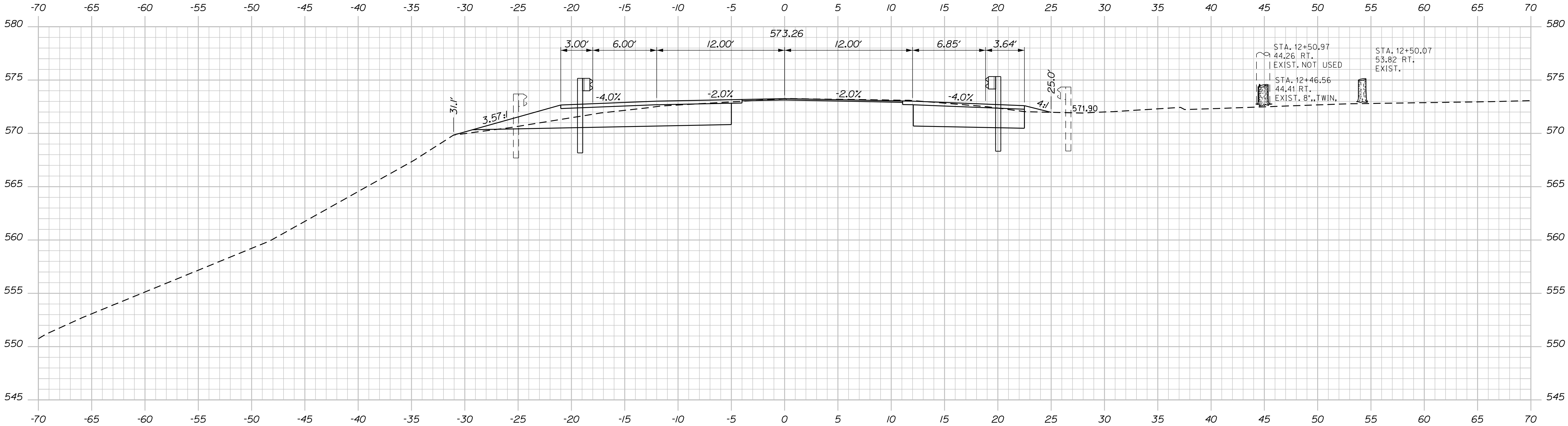
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Division: BRIDGE

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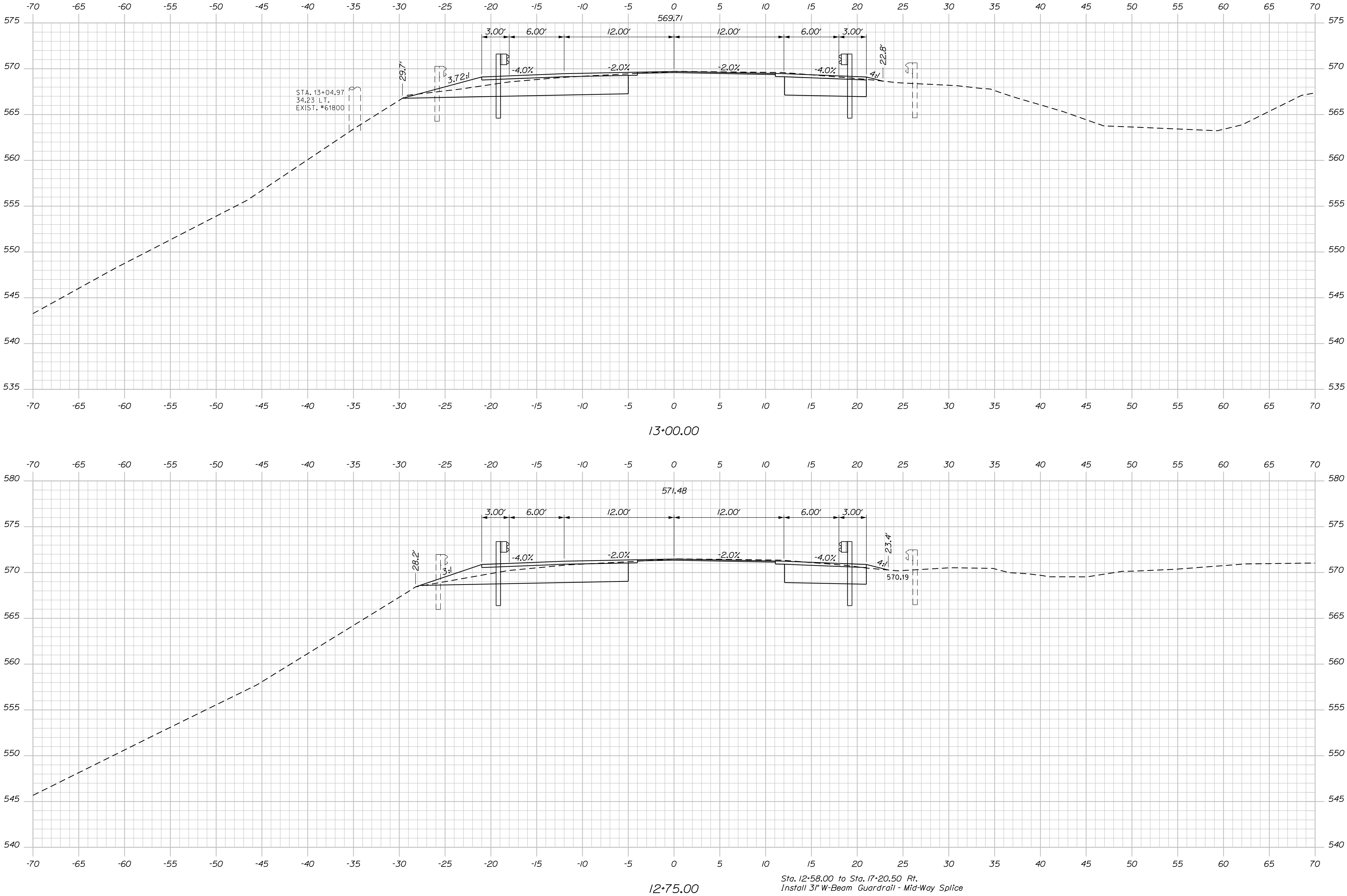
Sta. 12+20.71 to 12+58.00 Rt.
Install 3" W-Beam Guardrail - Mid-Way Splice Flared Terminal

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STP-2169(600)	
	WIN	021696.00
	5625	BRIDGE PLANS

PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	J. STETSON E. BROWNELL D. BURGESS J. BURGESS	BY DATE 3-20-23 3-20-23	SIGNATURE
GREENLAW BROOK NO. 2 BRIDGE GREENLAW BROOK CARIBOU-LIMESTONE AROOSTOOK COUNTY	P.E. NUMBER	DATE	DATE

CROSS SECTIONS	
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SHEET NUMBER	
12	
OF 32	



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2169(600)

WIN
021696.00

BRIDGE PLANS

PROJ. MANAGER
J. STETSON

DESIGN-DETAILED
E. BROWNELL

CHECKED-REVIEWED
D. BURGESS

DESIGN-DETAILED
J. BURGESS

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE
3-20-23

DATE
3-20-23

DATE
3-20-23

DATE
3-20-23

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3-20-23

SIGNATURE

P.E. NUMBER

DATE

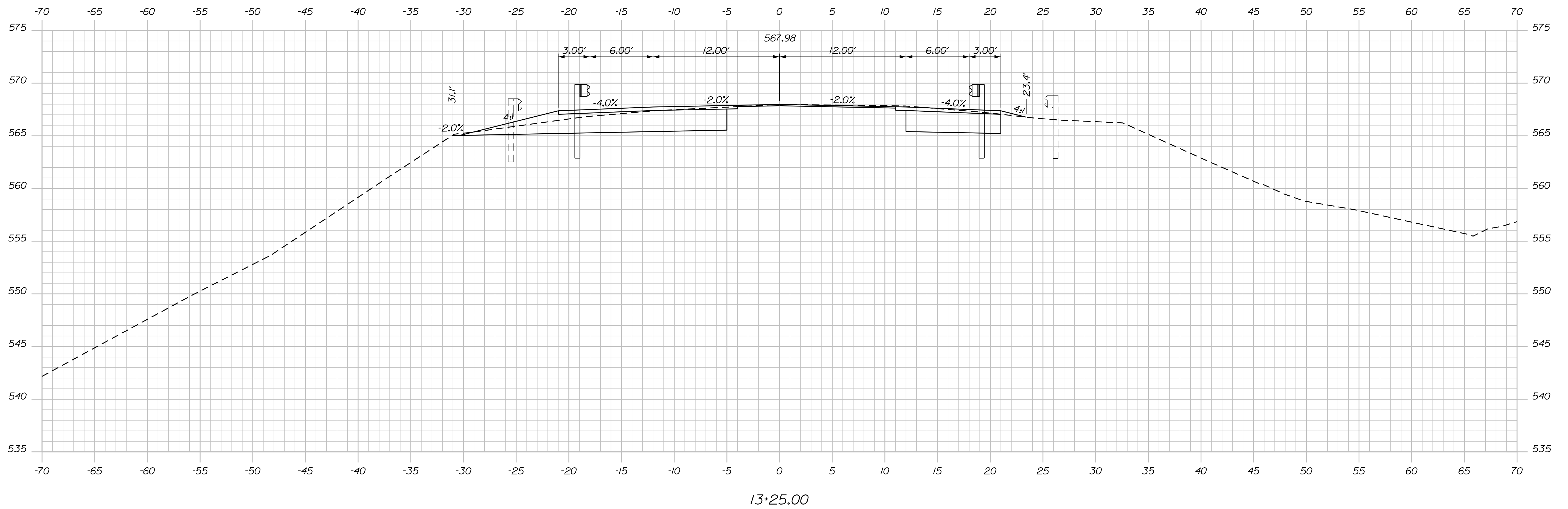
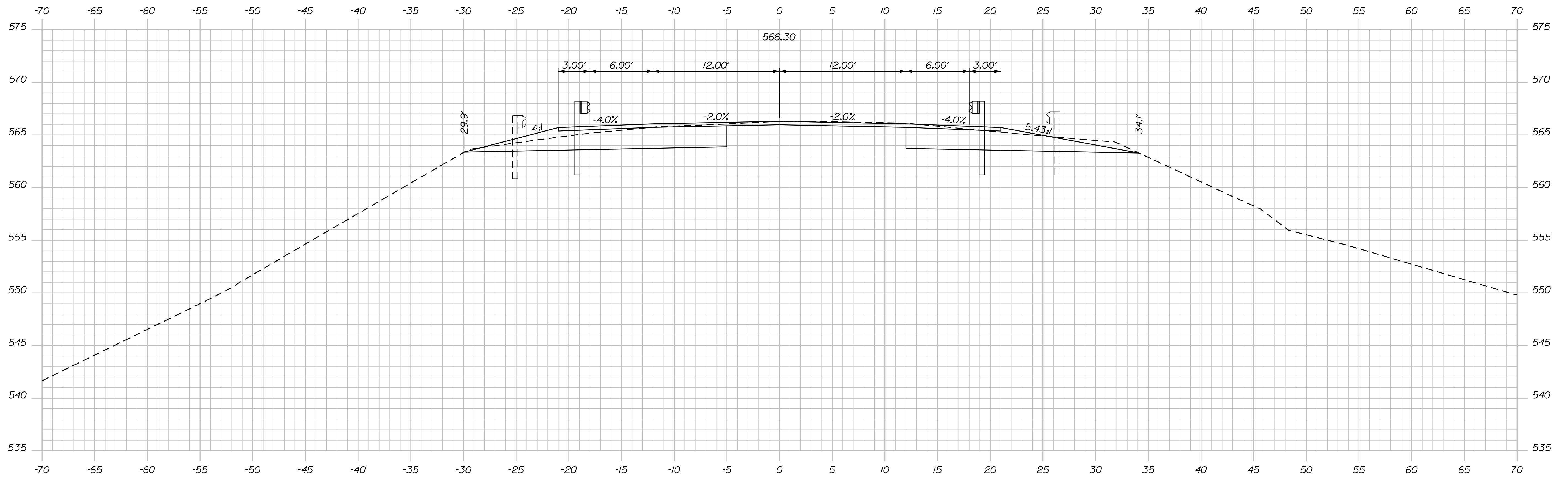
GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE AROOSTOOK COUNTY

CROSS SECTIONS

SHEET NUMBER

13

OF 32



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIP-2169(600)

WIN
021696.00
BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE _____

DESIGN-DETAILED	E. BROWNELL	D.BURGESS	3-20-23
CHECKED-REVIEWED	B. WELCH	J.BURGESS	3-20-23
DESIGN2-DETAILED2	-----	-----	-----

DESIGN-DETAILED	-----
REVISIONS 1	-----
REVISIONS 2	-----

REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES		

GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE ABOOSTOOK COUNTY

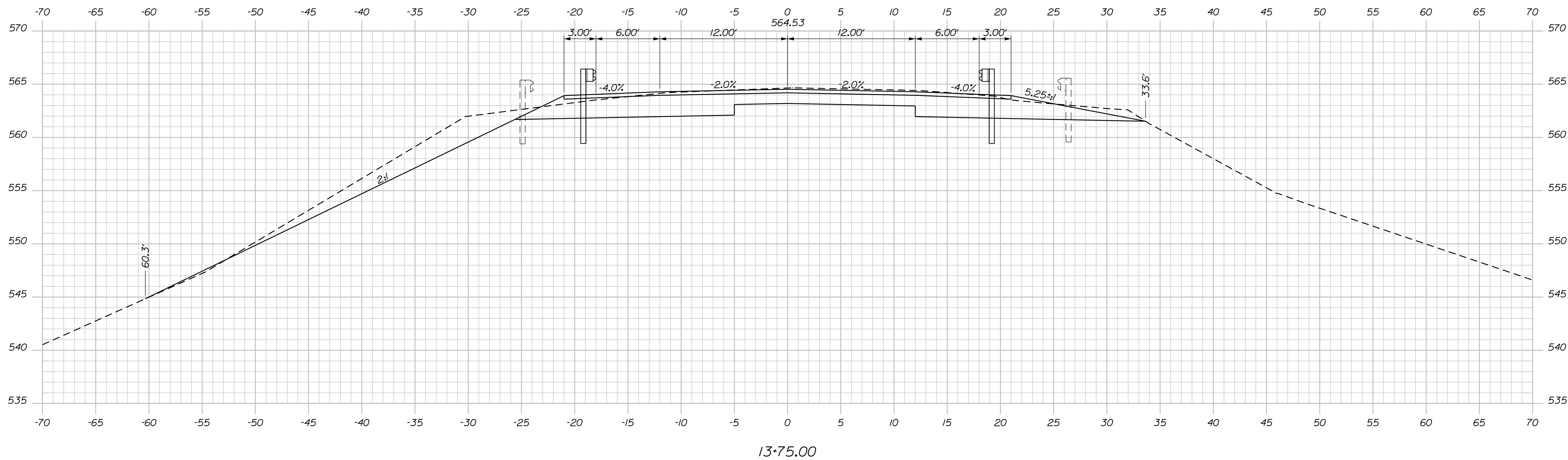
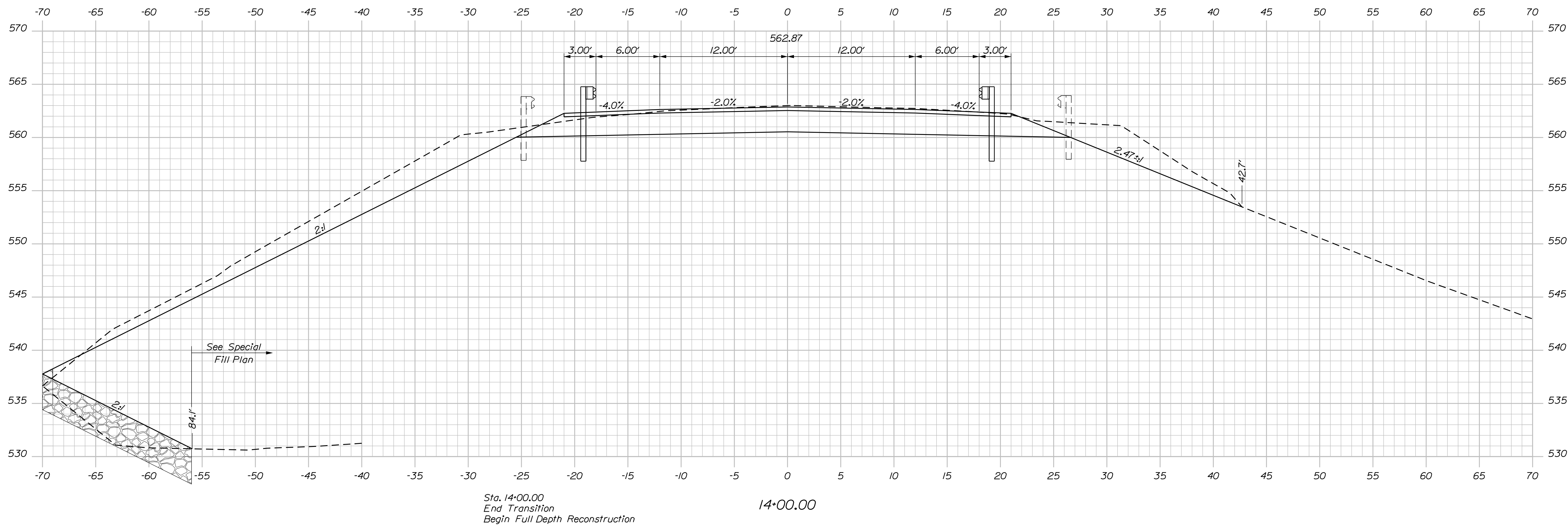
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SHEET NUMBER

14

OF 32

Sta. 13+25.00 to Sta. 13+50.00

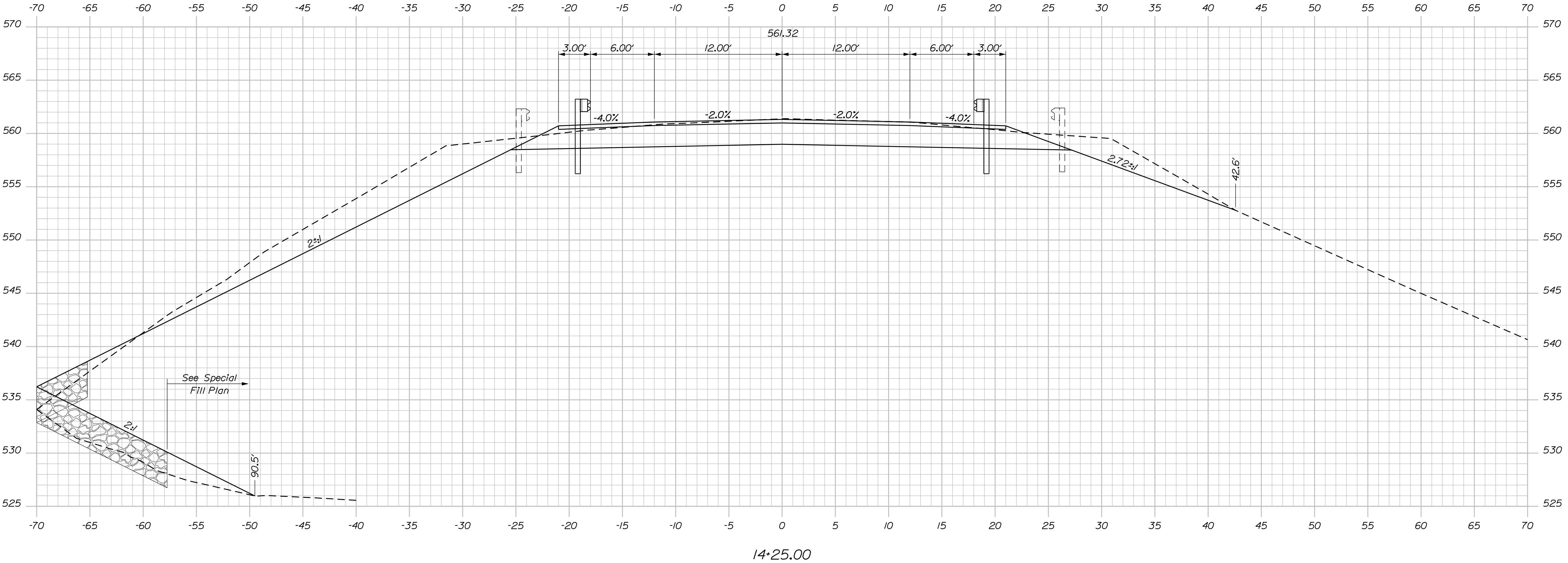
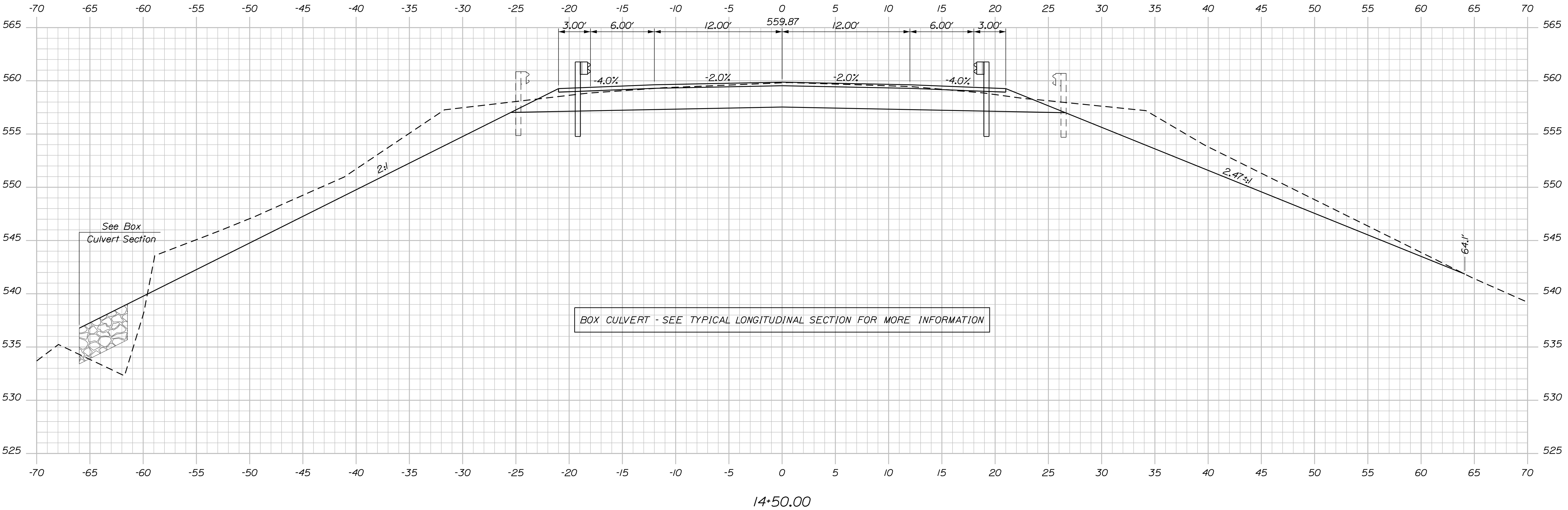


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Username: common

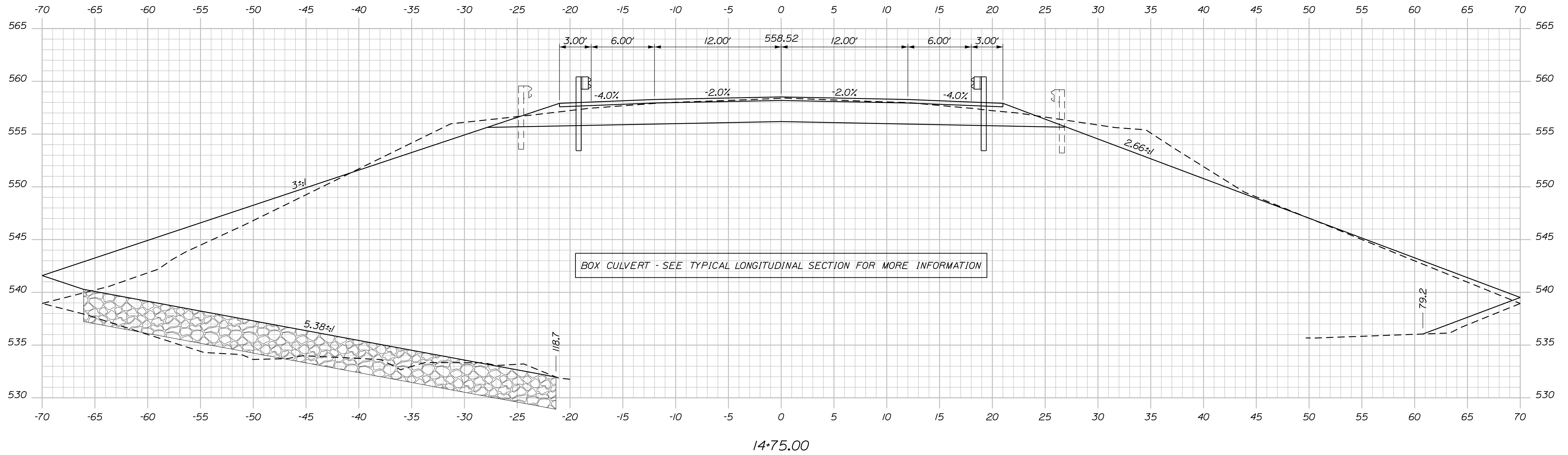
Division: BRIDGE

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PROJ. MANAGER	J. STETSON	BY	D. BURGESS	DATE	3-20-23
CHECKED-DETAILED	E. BROWNELL		J. BURGESS	SIGNATURE	3-20-23
DESIGN-DETAILED				P.E. NUMBER	
REVISIONS 1				DATE	
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

Filename: ... \00\BRIDGE\MSTA\010_Xsect.dgn



SHEET NUMBER

17

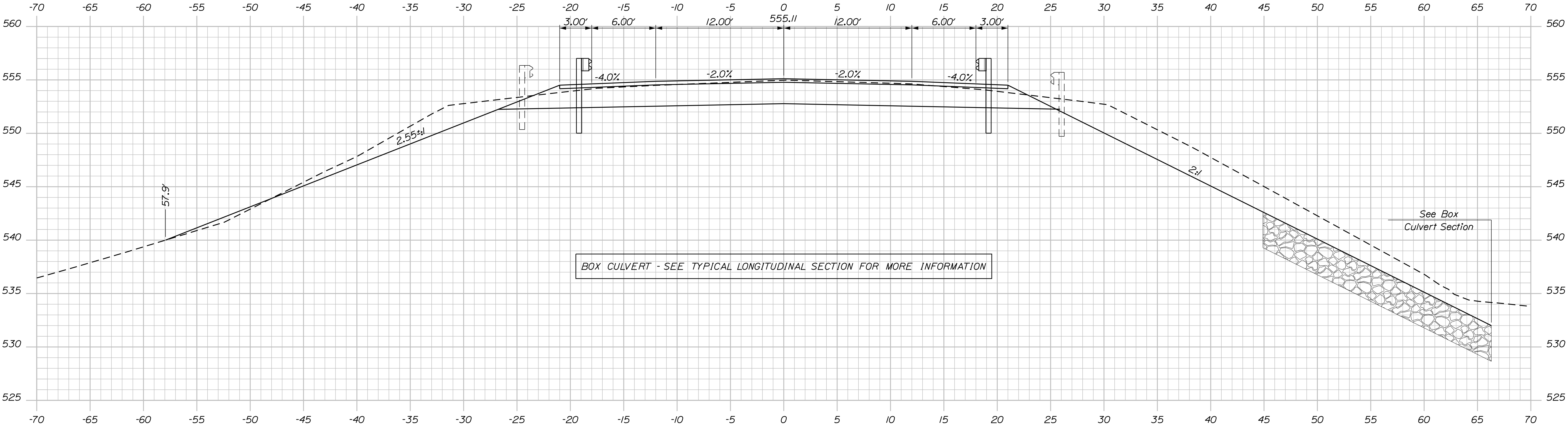
OF 32

Date:3/20/2023

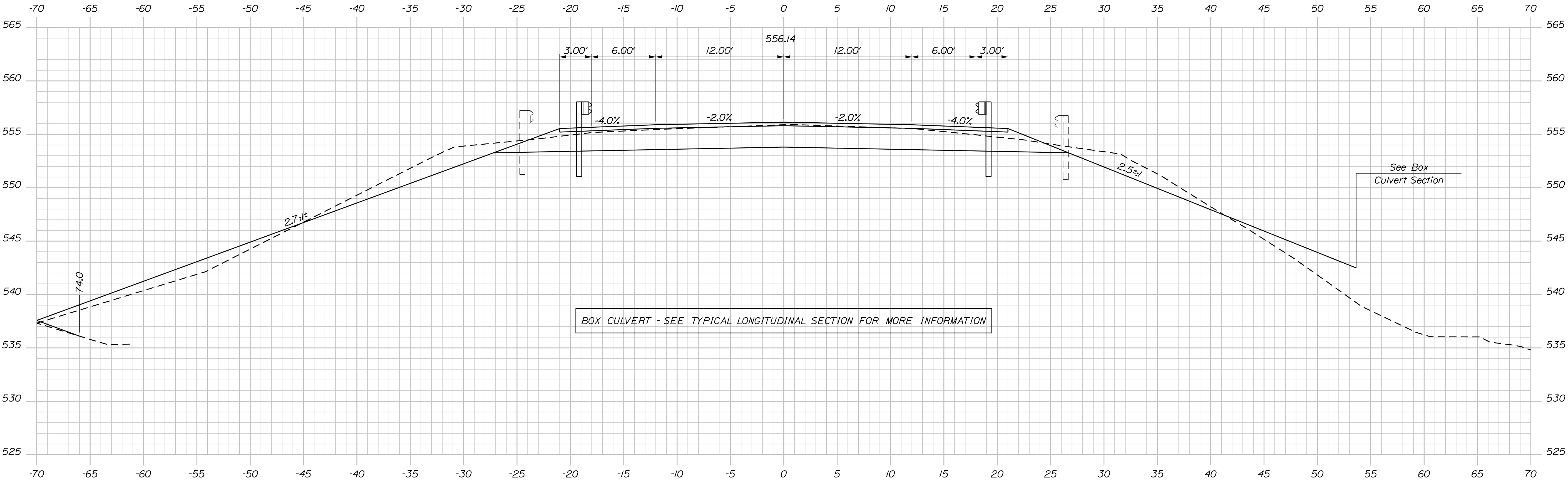
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Division: BRIDGE

Filename: ...\\00\\BRIDGE\\MSTA\\010_Xsect.dgn



15+50.00



15+25.00

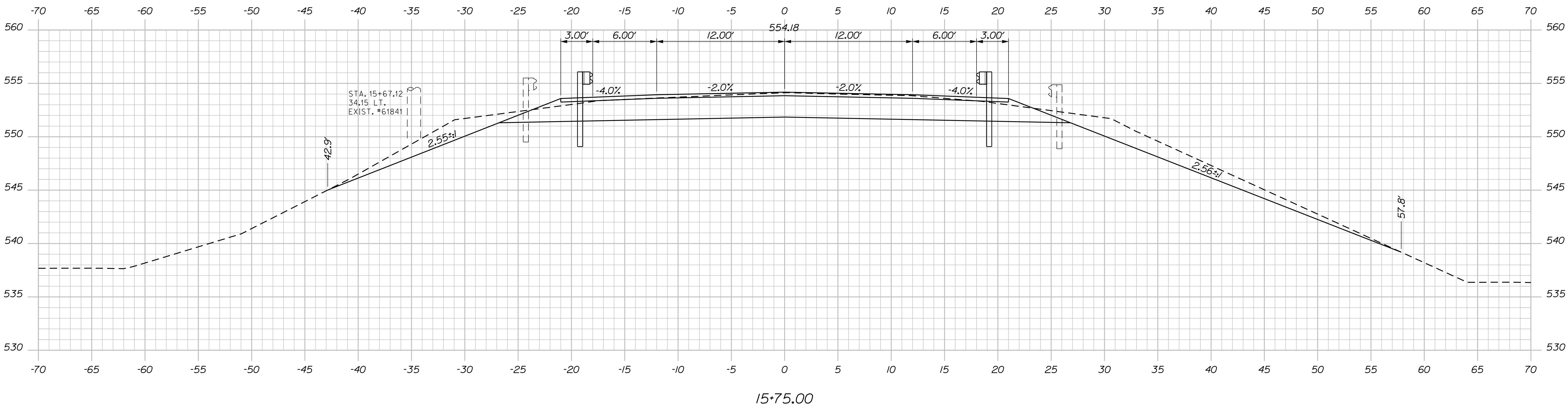
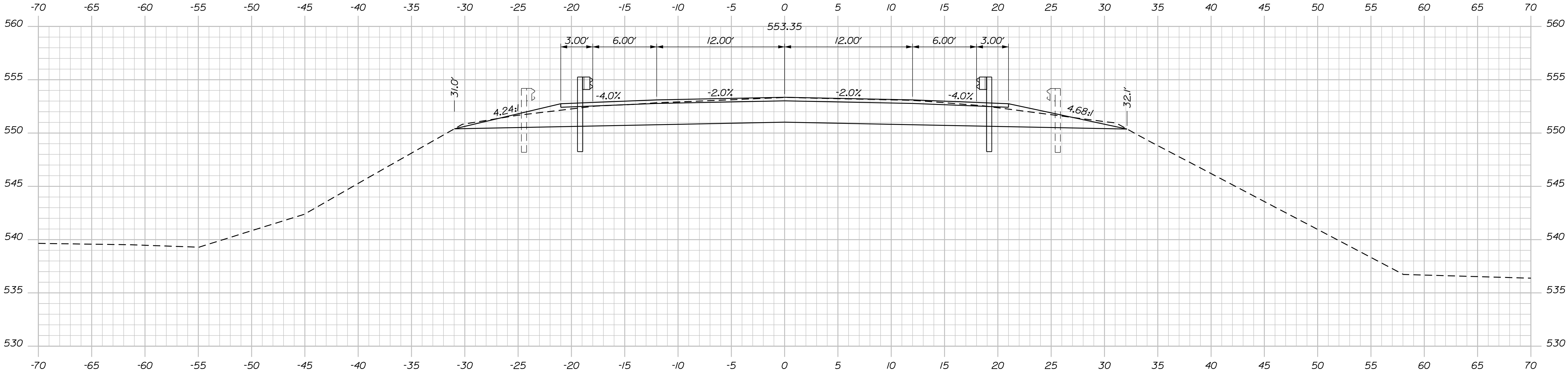
DESIGNED-DETAILED E. BROWNELL	DATE 3-20-23	BY D. BURGESS	SIGNATURE
CHECKED-REVIEWED B. WELCH		J. BURGESS	P.E. NUMBER
DESIGNS-DETAILED			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Date: 3/20/2023

Username: common

Division: BRIDGE

Filename: ... \00\BRIDGE\MSTA\010_Xsect.dgn



PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-Detailed	E. BROWNELL	D.BURGESS	3-20-23
CHECKED-REVIEWED	B.WELCH	J.BURGESS	3-20-23
DESIGN-Detailed			SIGNATURE
DESIGN-Detailed			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			DATE
FIELD CHANGES			

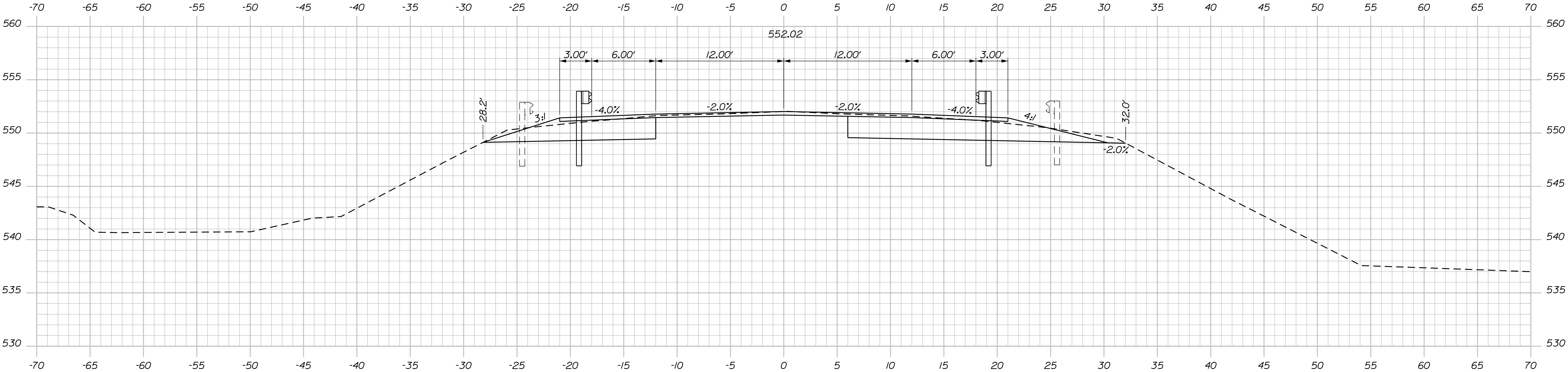
GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE AROOSTOOK COUNTY
CROSS SECTIONS

Date: 3/20/2023

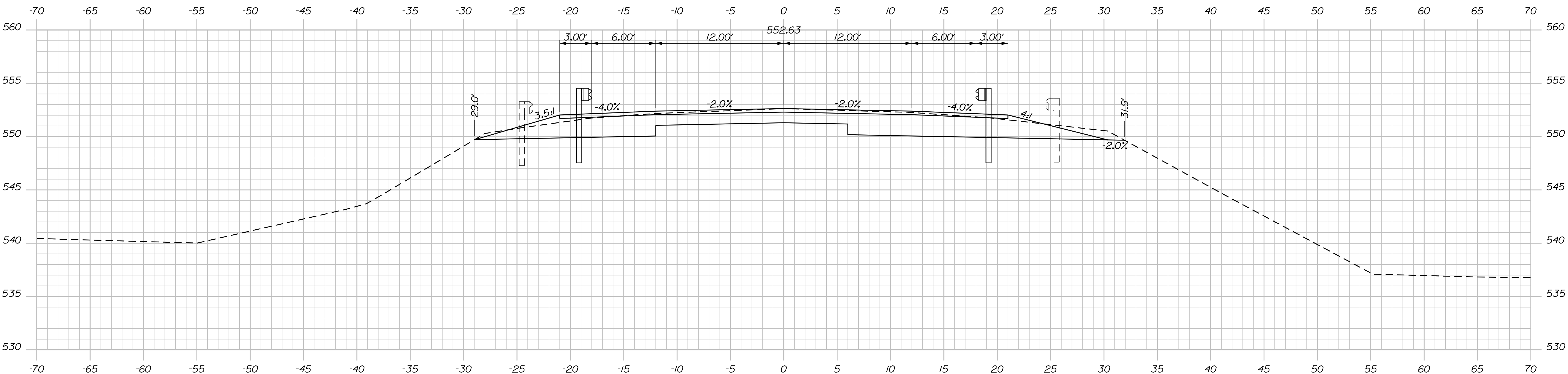
Username: common

Division: BRIDGE

Filename: ... \00\BRIDGE\MSTA\010_Xsect.dgn



Sta. 16+50.00
End Transition
Begin Pavement, Mill, Shim and Overlay



16+25.00

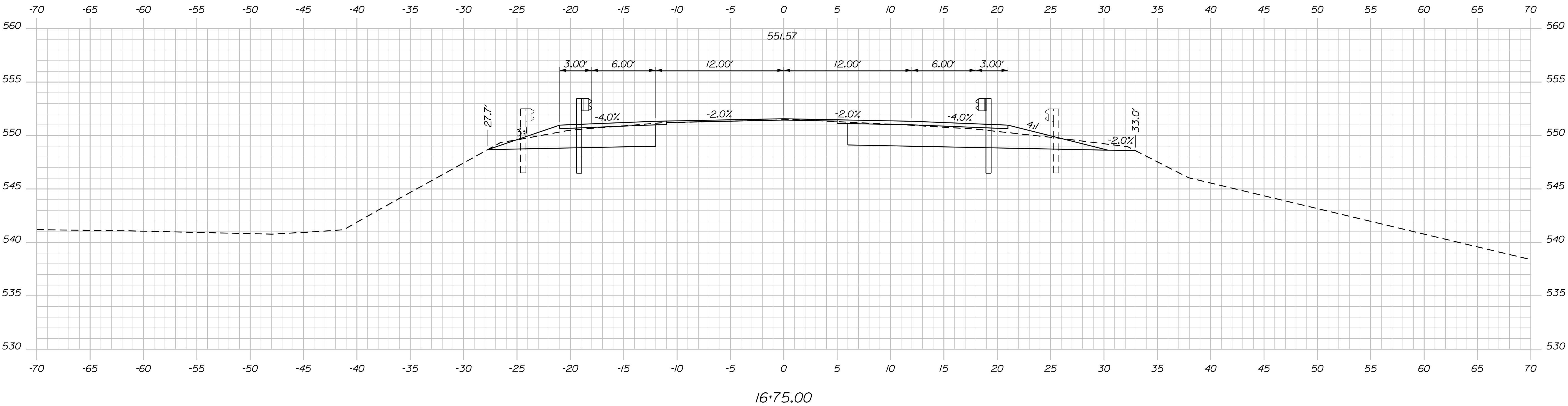
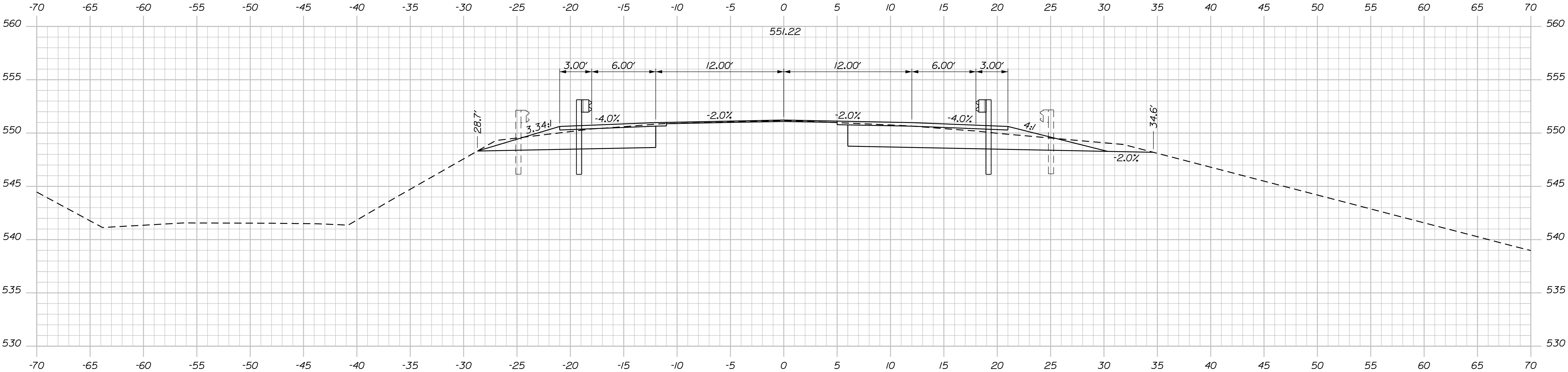
PROJ. MANAGER	J. STETSON	BY	D. BURGESS	DATE	3-20-23
CHECKED-DETAILED	E. BROWNELL	DESIGNED	J. BURGESS	SIGNATURE	
DESIGNED-DETAILED	B. WELCH	REVISIONS		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4			
FIELD CHANGES					

Date: 3/20/2023

Username: common

Division: BRIDGE

Filename: ...\\00\\BRIDGE\\MSTA\\010_Xsect.dgn



PROJ. MANAGER	J. STETSON	BY	D.BURGESS	DATE	3-20-23
CHECKED-DETAILED	E. BROWNELL	CHECKED-REVIEWED	B. WELCH	DESIGNED-DETAILED	J. BURGESS
REVISIONS 1		REVISIONS 2		REVISIONS 3	
REVISIONS 4		FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE AROOSTOOK COUNTY

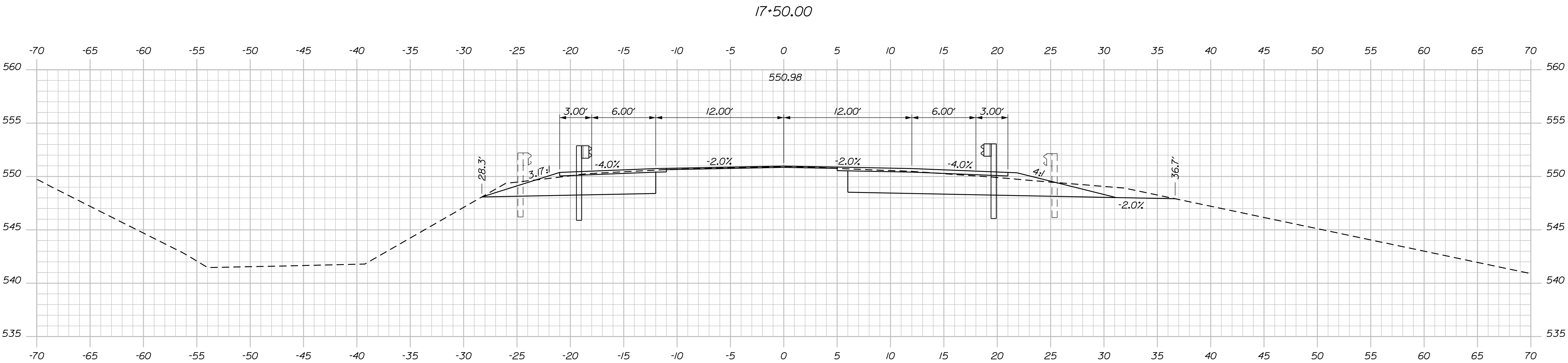
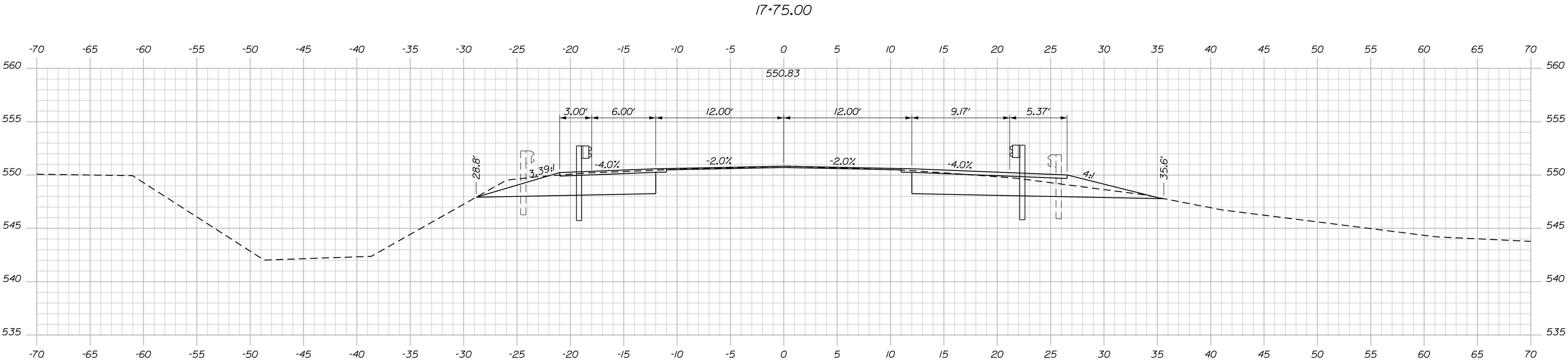
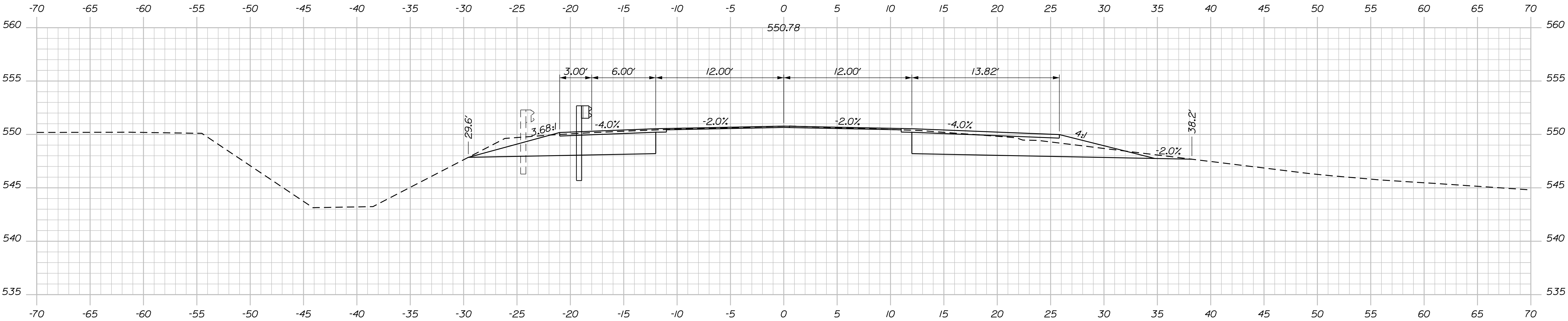
CROSS SECTIONS

Date:3/20/2023

Username: common

Division: BRIDGE

Filename: ...\\00\\BRIDGE\\MSTA\\010_Xsect.dgn



Sta. 17+20.50 to Sta. 17+57.78 Rt.
Install 3" W-Beam Guardrail - Mid-Way Splice Flared Terminal

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE	
	P.E. NUMBER	
	DATE	

STP-2169(600)	
WIN	021696.00
5625	BRIDGE PLANS

GREENLAW BROOK NO. 2 BRIDGE GREENLAW BROOK CARIBOU-LIMESTONE AROOSTOOK COUNTY	
CROSS SECTIONS	

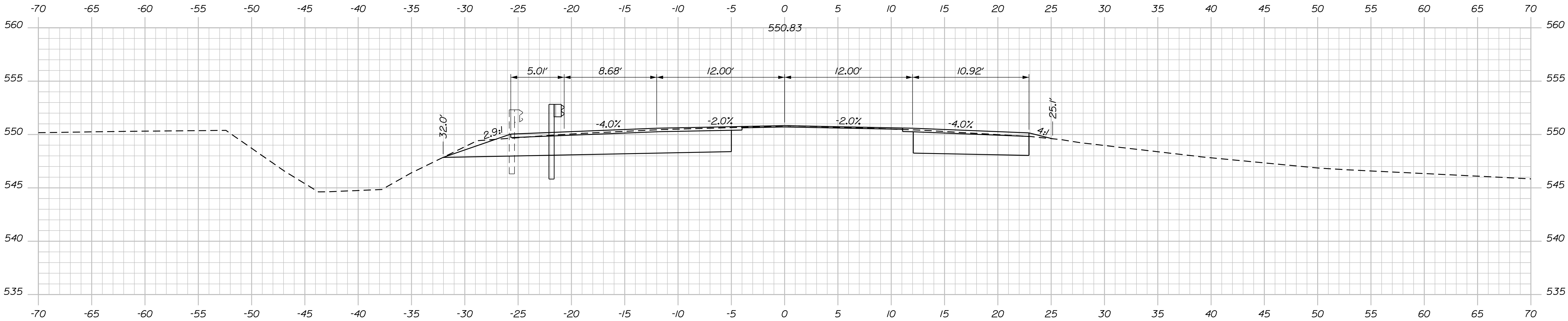
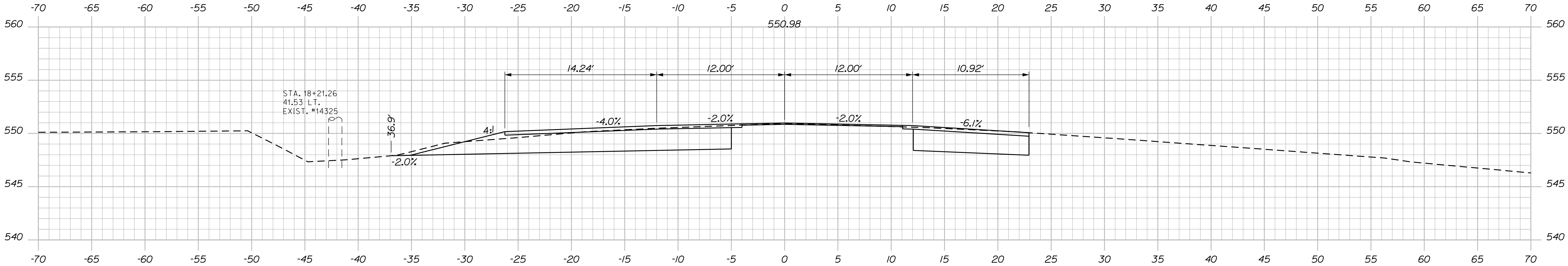
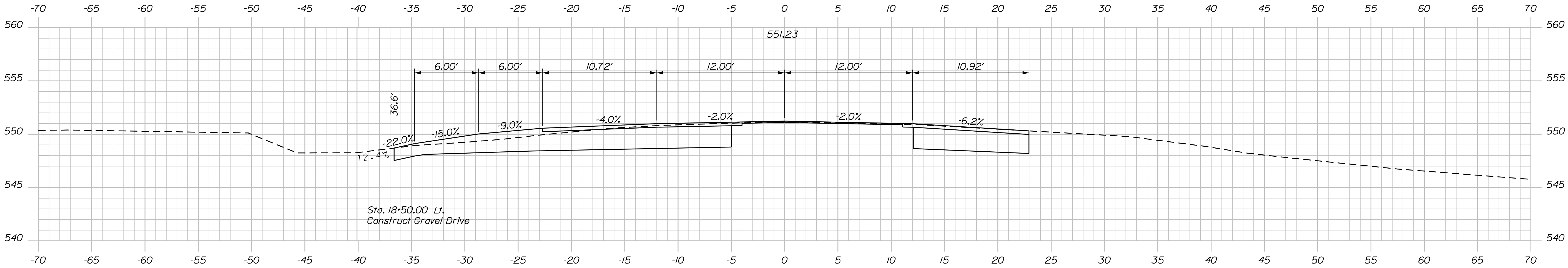
SHEET NUMBER	
22	
OF 32	

Date:3/20/2023

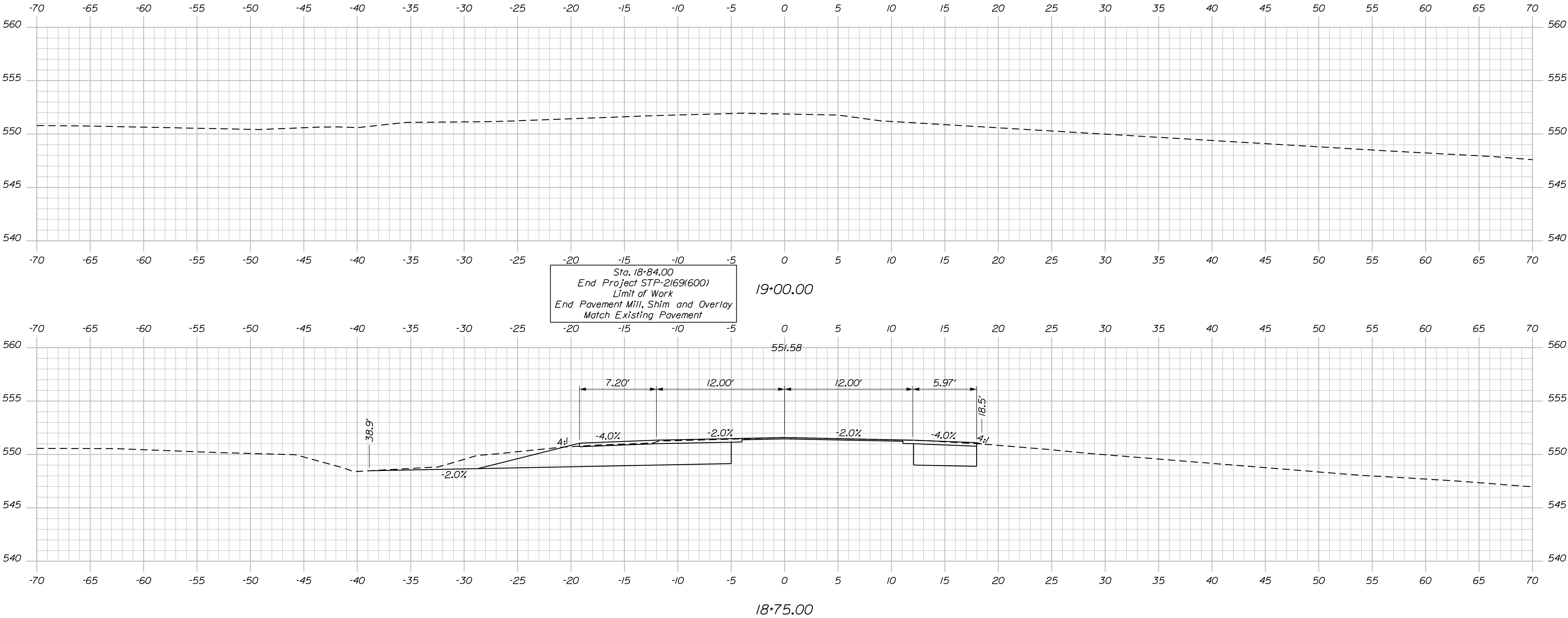
Username: common

Division: BRIDGE

Filename: ...\\00\\BRIDGE\\MSTA\\010_Xsect.dgn



PROJ. MANAGER	J. STETSON	BY	D.BURGESS	DATE	3-20-23
DESIGN-DETAILED	E. BROWNELL	CHECKED-REVIEWED	J.BURGESS	DATE	3-20-23
DESIGN-DETAILED2				SIGNATURE	
DESIGN-DETAILED3				P.E. NUMBER	
REVISIONS 1				DATE	
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	DATE		SIGNATURE
	BY	DATE	
	P.E. NUMBER		
STP-2169(600)		DATE	
WIN		DATE	
021696.00		5625	
BRIDGE PLANS			

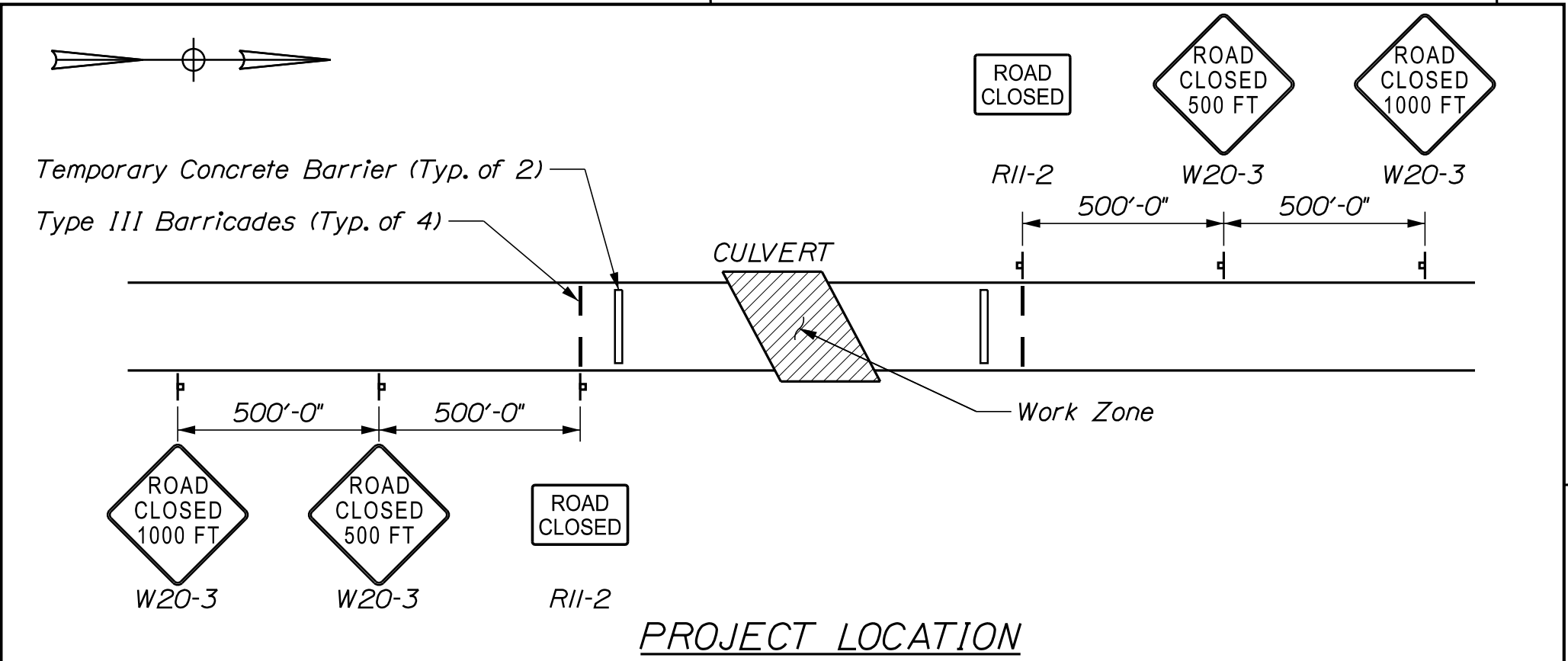
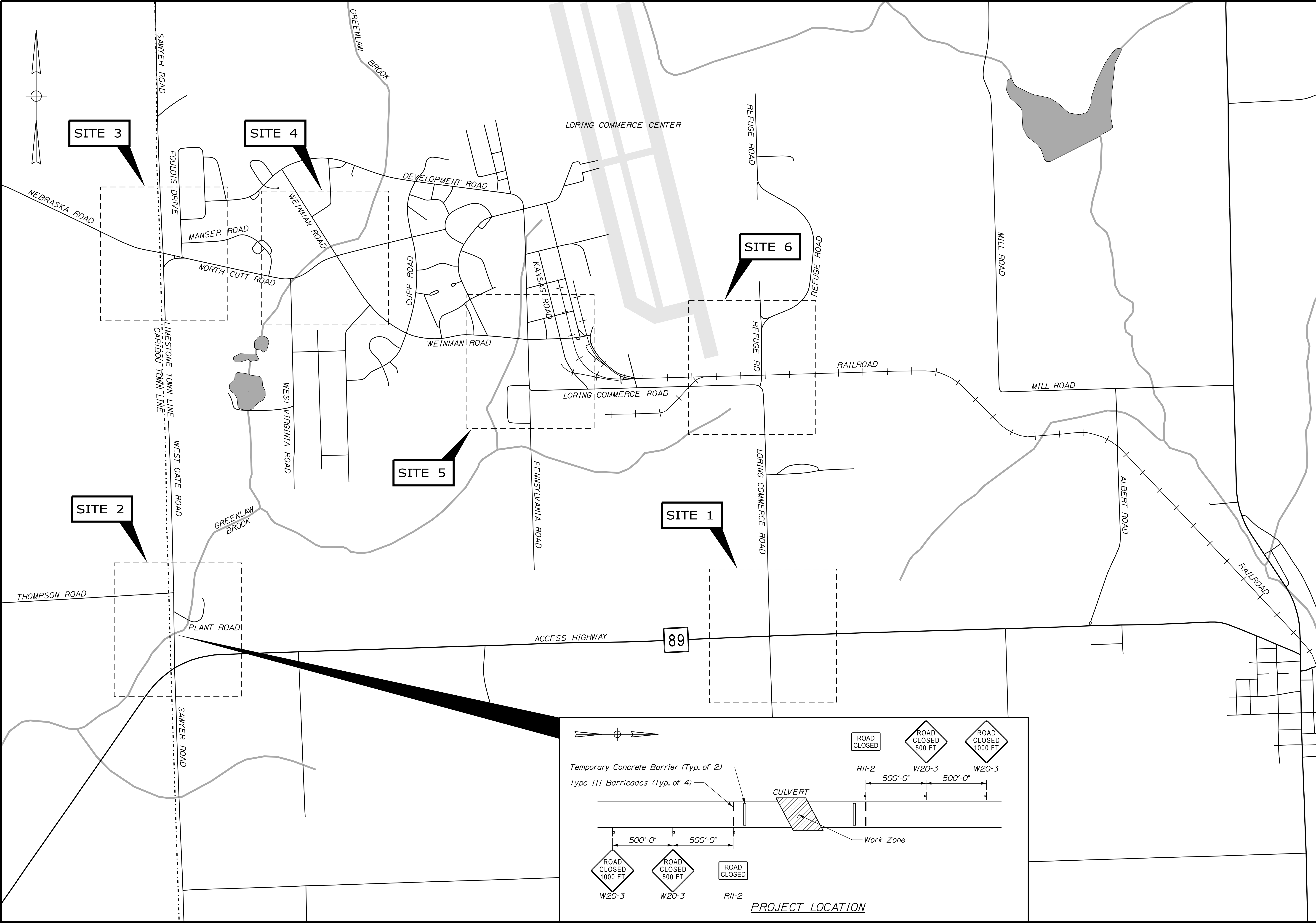
GREENLAW BROOK NO. 2 BRIDGE
GREENLAW BROOK
CARIBOU-LIMESTONE AROOSTOOK COUNTY

CROSS SECTIONS

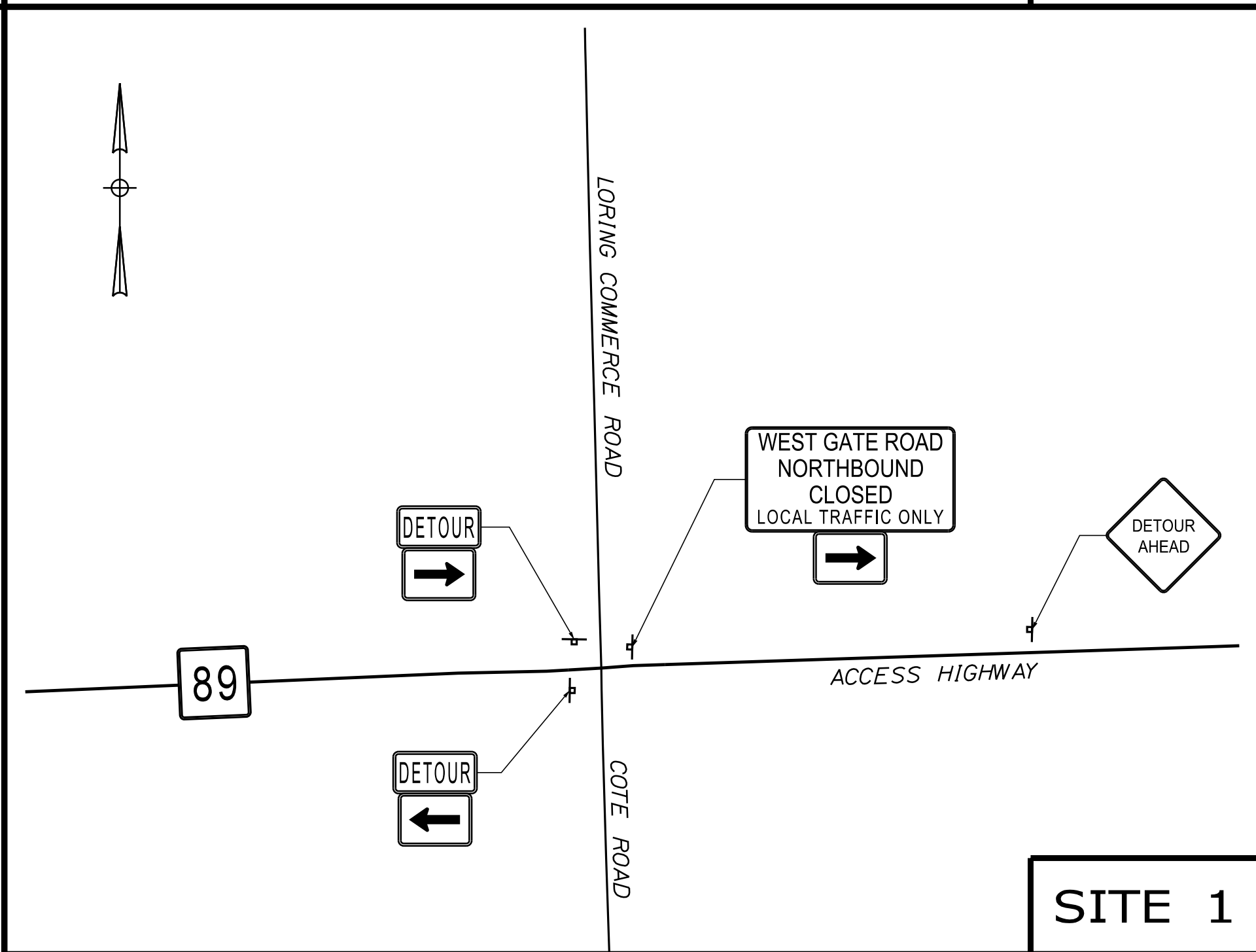
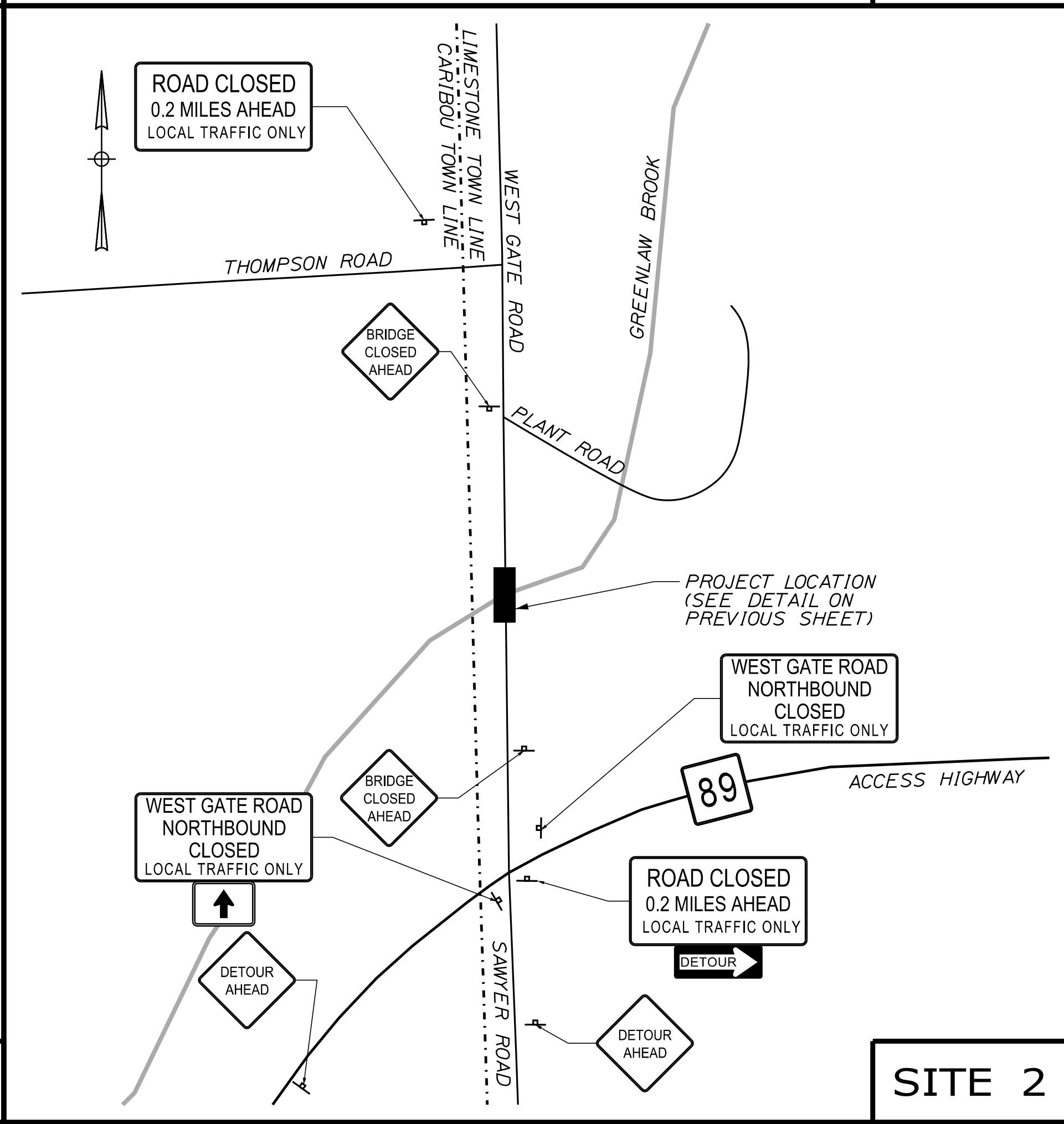
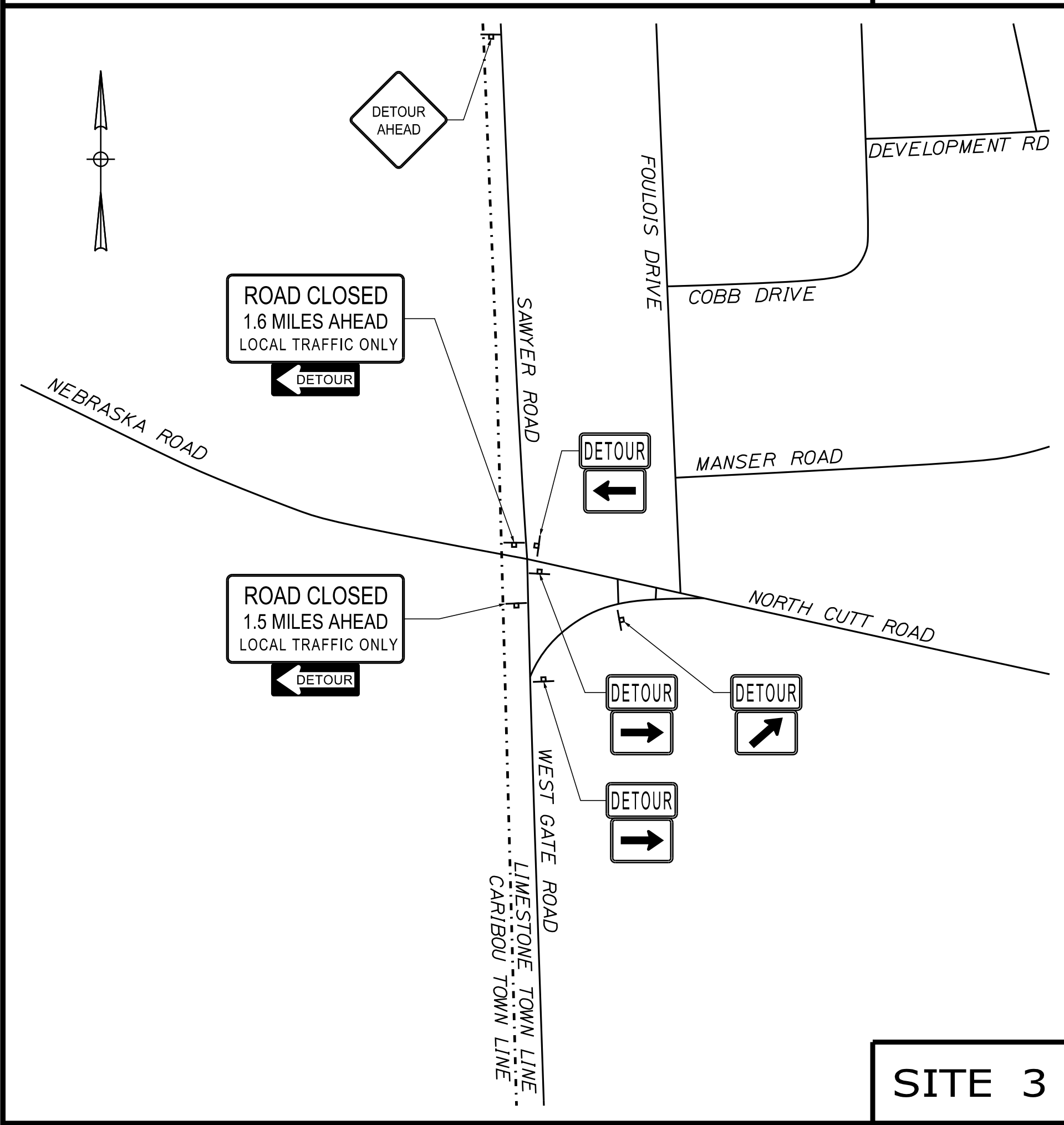
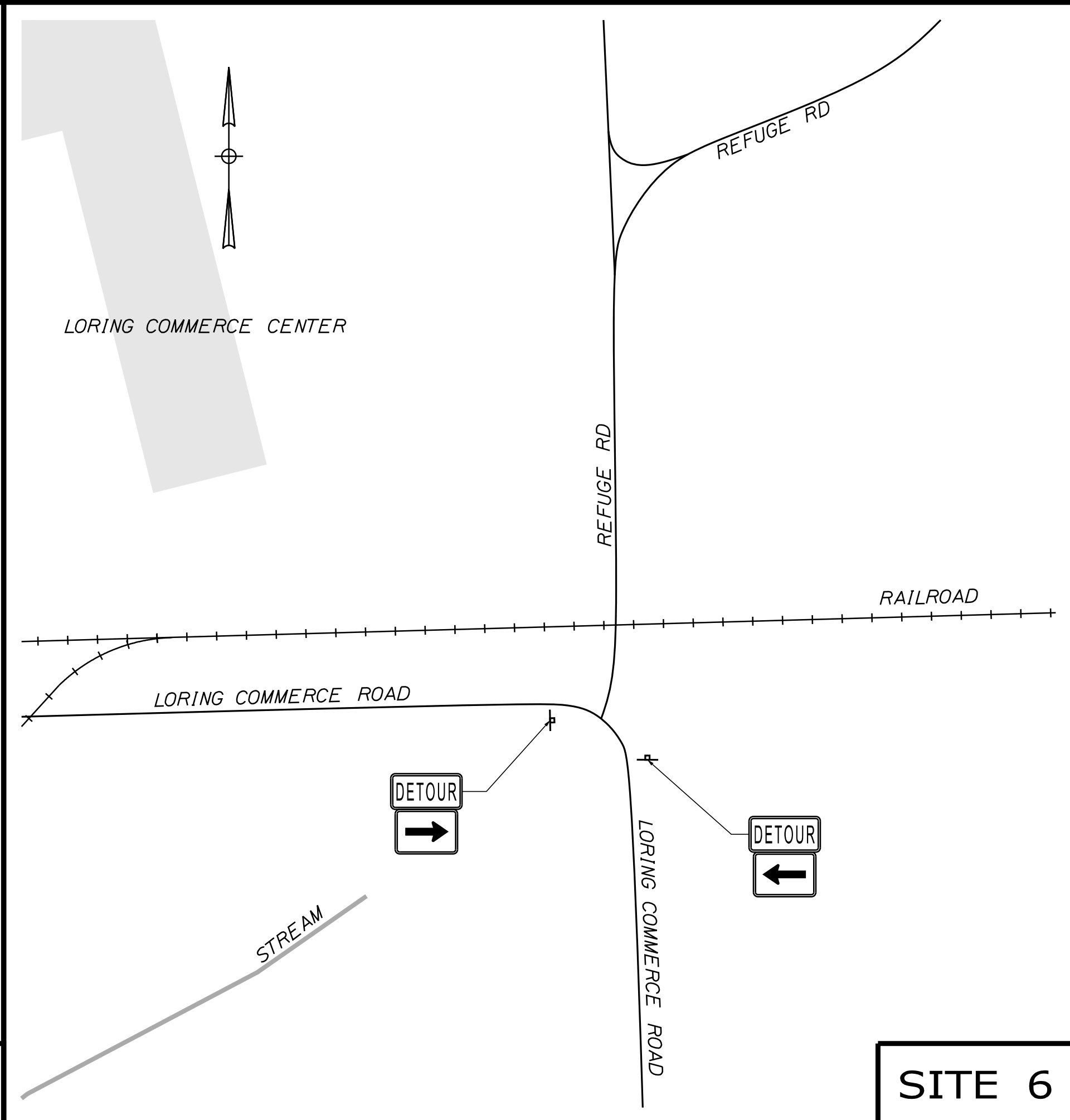
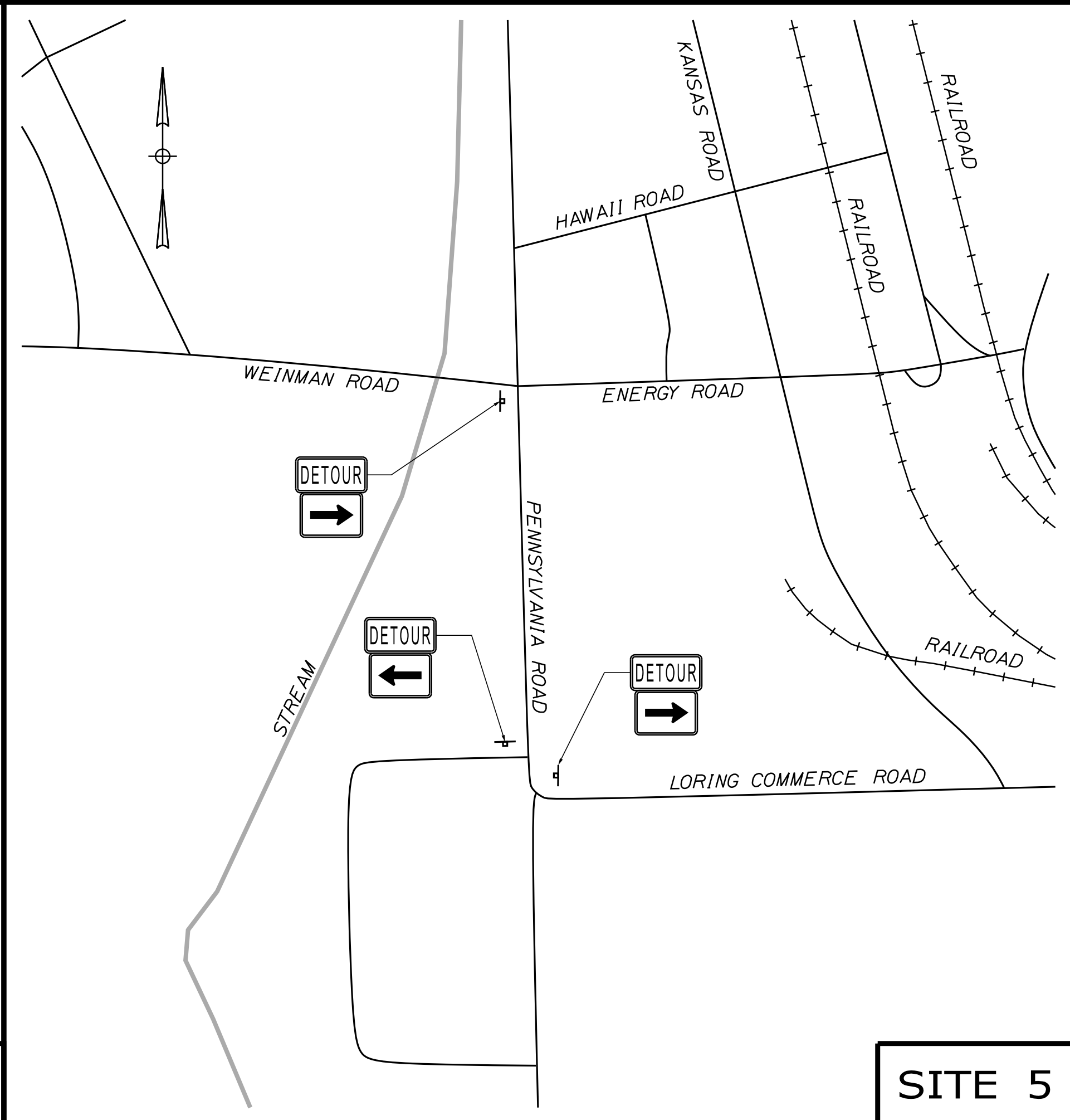
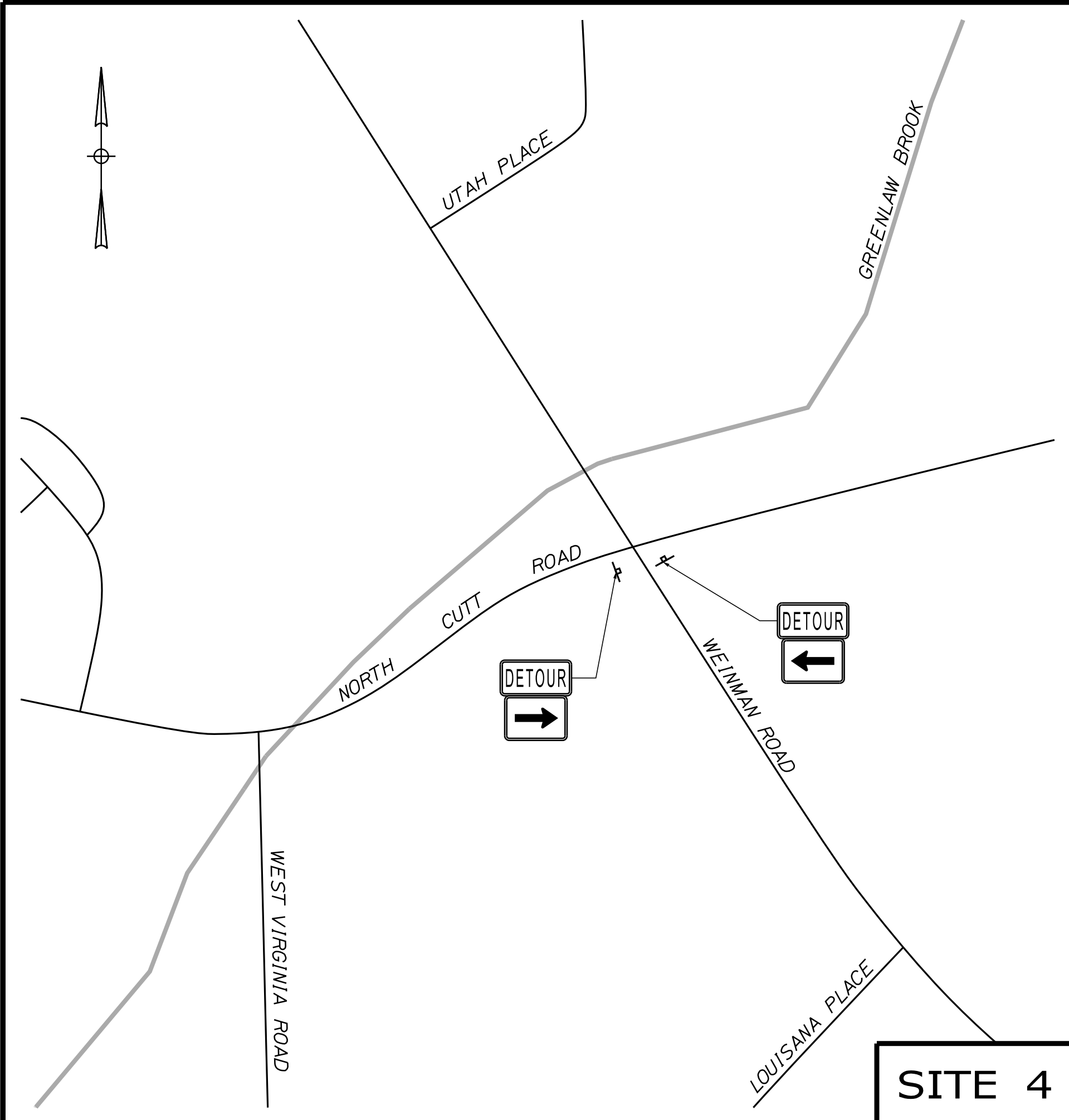
SHEET NUMBER

24

OF 32



STATE OF MAINE		DATE	
DEPARTMENT OF TRANSPORTATION		BY	
STP-2169(600)		SIGNATURE	
WIN		P.E. NUMBER	
021696.00		DATE	
5625		FIELD CHANGES	
HIERARCHY PLANS		DESIGN-DETAILED	
		CHECKED-REVIEWED	
		DESIGN-DETAILED	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		FIELD CHANGES	
GREENLAW BROOK NO. 2 BRIDGE		PROJ. MANAGER	
GREENLAW BROOK		DESIGN-DETAILED	
CARIBOU-LIMESTONE AROOSTOOK COUNTY		CHECKED-REVIEWED	
ROADWAY DETOUR		DESIGN-DETAILED	
OVERALL PLAN		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		FIELD CHANGES	
SHEET NUMBER		DATE	
25		3/20/23	
OF 32		3/20/23	



Notes:

1. Proposed sign locations are approximate and shall be determined in the field and approved by the Resident.

2. Information shown reflects signage for detour plans only. Contractor shall be responsible for all other signage and devices related to maintenance of traffic activities.

3. All temporary signs shall be in compliance with the "Manual of Uniform Traffic Control Devices for Streets and Highways", Latest Edition.

4. Existing signs that could conflict with the detour signs shall be covered for the duration of the detour.

Thornton Tomasetti

SHEET NUMBER				26				OF 32			
GREENLAW BROOK NO. 2 BRIDGE GREENLAW BROOK CARIBOU-LIMESTONE AROOSTOOK COUNTY ROADWAY DETOUR SIGNING PLAN				PROJ. MANAGER	J. STEINSON	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2169(600) WIN 021696.00 5625 HIERARCHY PLANS			
				DESIGN-DETAILED	E. BROWNELL	D. BURGESS	3-20-23				
				CHECKED-REVIEWED	B. WELCH	J. BURGESS	3-20-23				
				DESIGN2-DETAILED2			SIGNATURE				
				DESIGN3-DETAILED3			P.E. NUMBER				
				REVISIONS 1				DATE			
				REVISIONS 2							
				REVISIONS 3							
				REVISIONS 4							
				FIELD CHANGES							

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	COLOR		NUMBER OF SIGNS REQUIRED	AREA IN SQ. FT.	
	WIDTH	HEIGHT		BACK- GROUND	LEGEND BORDER		NOMINAL AREA	TOTAL AREA
CS-1	48"	30"	WEST GATE ROAD NORTHBOUND CLOSED LOCAL TRAFFIC ONLY	ORANGE	BLACK	3	10	30
CS-4	36"	36"	BRIDGE CLOSED AHEAD	ORANGE	BLACK	2	9	18
M4-8	24"	12"	DETOUR	ORANGE	BLACK	13	2	26
M4-8A	24"	18"	END DETOUR	ORANGE	BLACK	2	3	6
M4-10R	48"	18"	DETOUR	ORANGE	BLACK	1	6	6
M4-10L	48"	18"	DETOUR	ORANGE	BLACK	2	6	12
M6-1R	21"	15"		WHITE	BLACK	8	2.2	17.6
M6-1L	21"	15"		WHITE	BLACK	5	2.2	11
M6-2R	21"	15"		WHITE	BLACK	1	2.2	2.2
M6-3	21"	15"		WHITE	BLACK	1	2.2	2.2
R11-2	48"	30"	ROAD CLOSED	ORANGE	BLACK	2	10	20
R11-3B	48"	30"	ROAD CLOSED 0.2 MILES AHEAD LOCAL TRAFFIC ONLY	ORANGE	BLACK	4	10	40
W20-2	36"	36"	DETOUR AHEAD	ORANGE	BLACK	4	9	36
W20-3	36"	36"	ROAD CLOSED 500 FT	ORANGE	BLACK	2	9	18
W20-3	36"	36"	ROAD CLOSED 1000 FT	ORANGE	BLACK	2	9	18

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

STP-2169(600)

WIN 021696.00

5625

BRIDGE PLANS

PROJ. MANAGER

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

JUSTETSON

E. BROWNELL

B. WELCH

BY

D. BURGESS

J. BURGESS

DATE

3/20/23

3/20/23

SIGNATURE

P.E. NUMBER

DATE

GREENLAW BROOK NO. 2 BRIDGE

GREENLAW BROOK

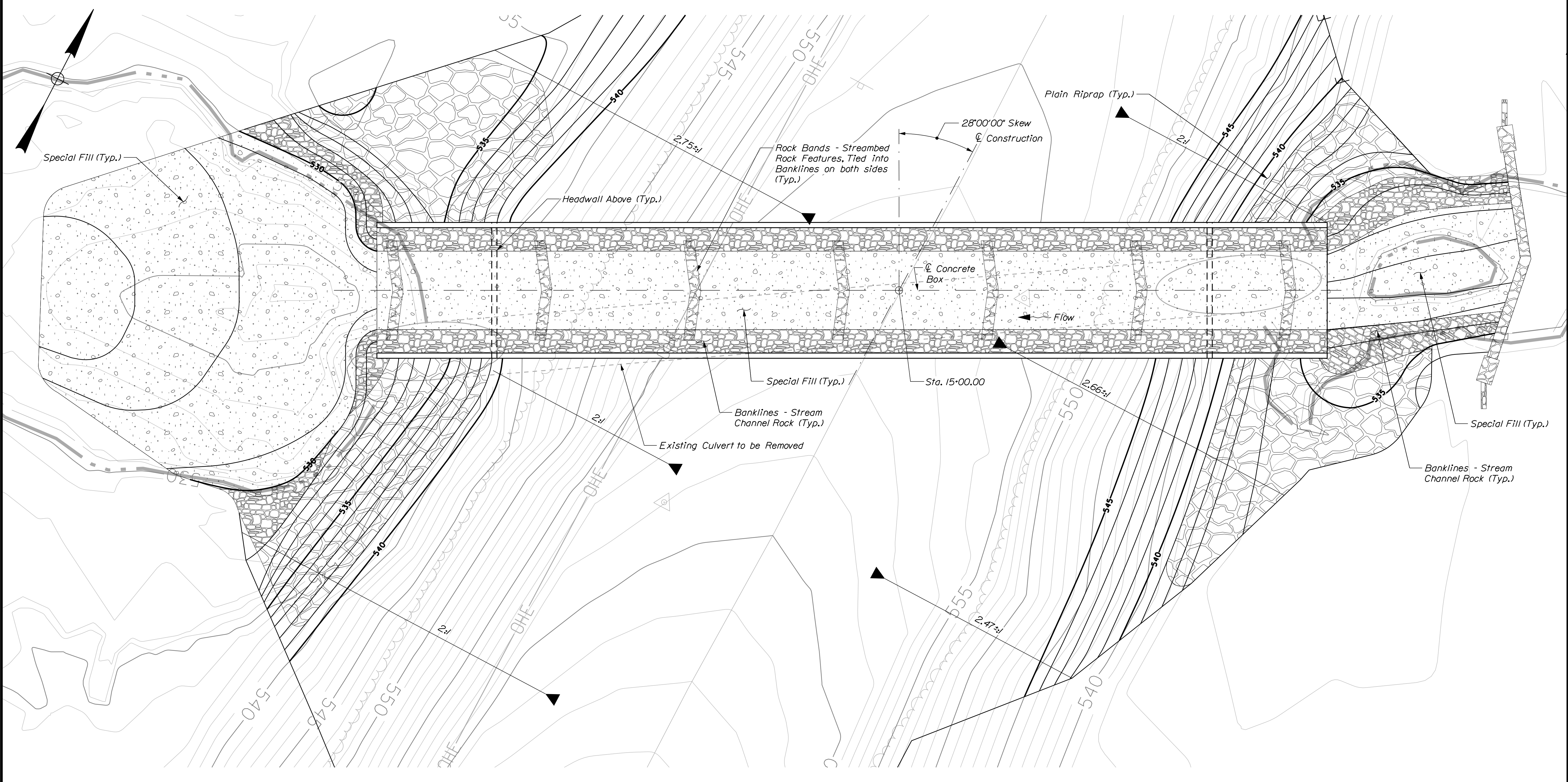
CARIBOU - LIMESTONE AROOSTOOK COUNTY

SIGN SUMMARY

SHEET NUMBER

27

OF 32



STREAMBED PLAN

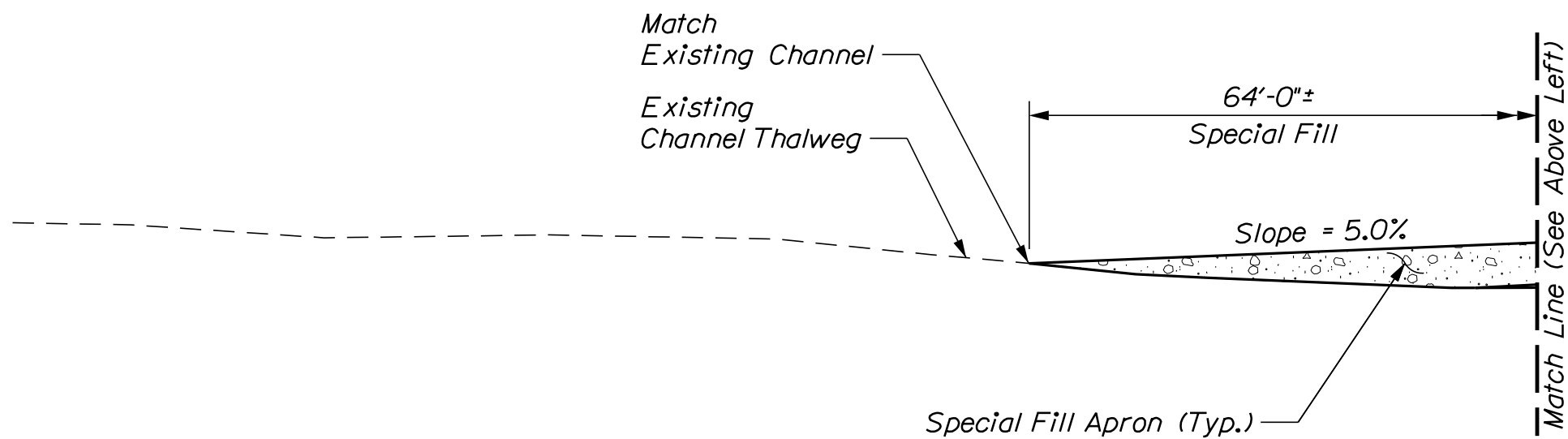
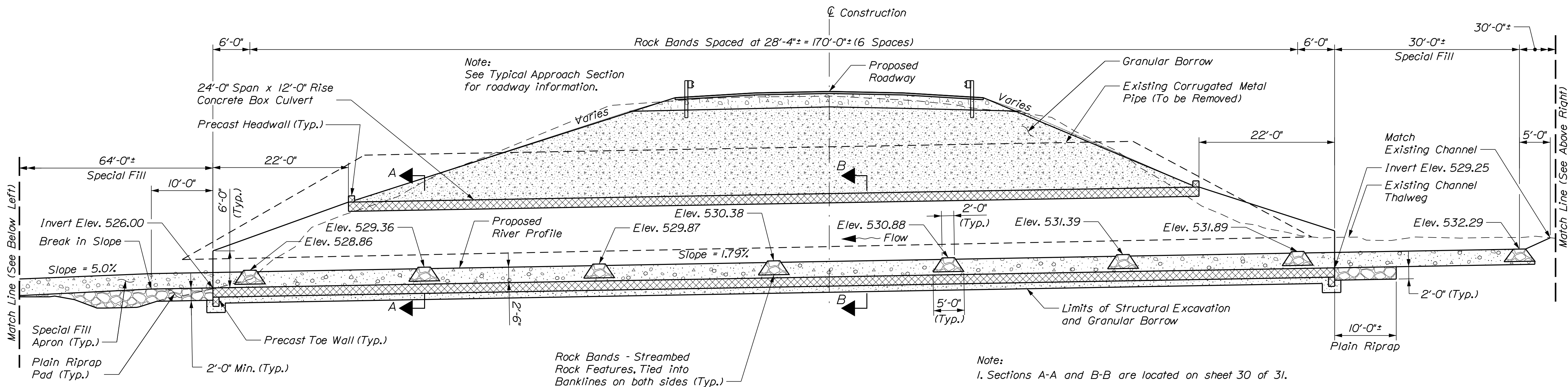


STREAMBED CONSTRUCTION NOTES

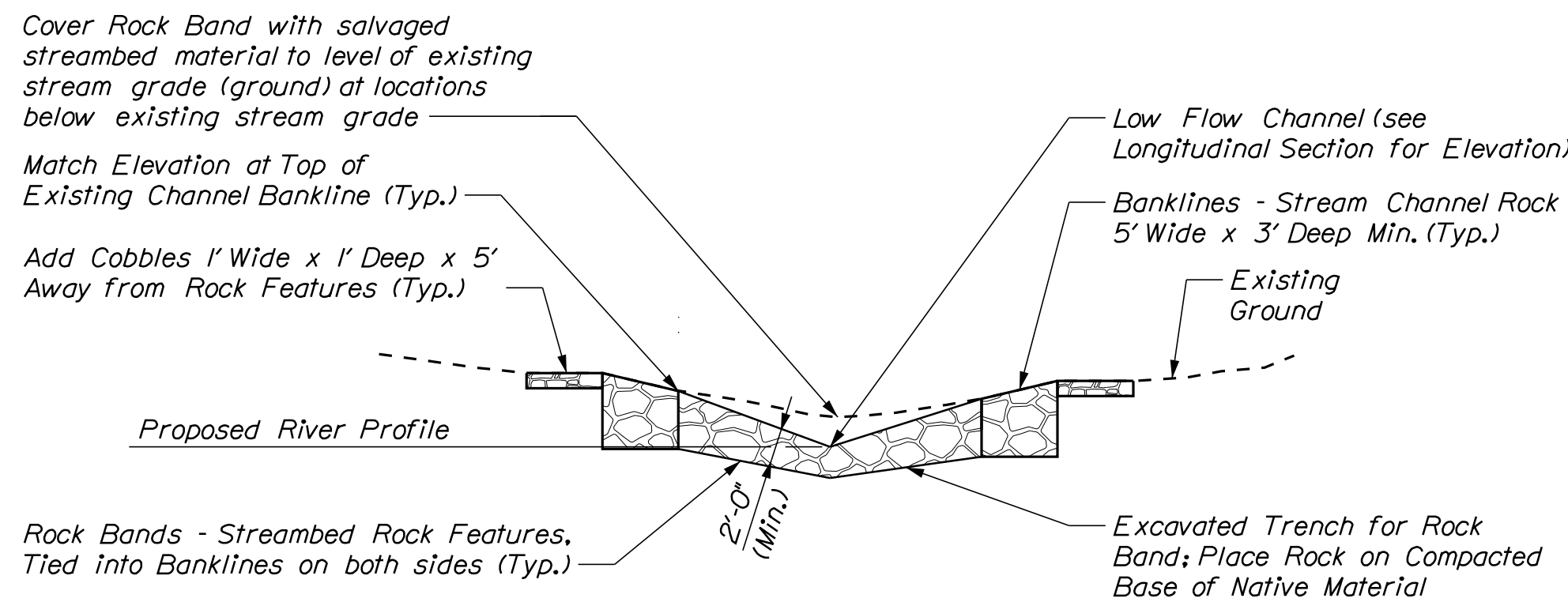
1. Voids in the riprap aprons shall be infilled with Granular Borrow, or other material approved by the Resident, water-in and tamped before covering with special fill.
2. Voids in riprap placed around the inlet and outlet shall be infilled up to the elevation of the existing banklines with granular borrow or other material approved by the Resident, water-in and tamped before covering with streamchannel rock.
3. Layout and configuration for special fill, rock bands, and banklines shall be approved by the Resident and MaineDOT Environmental staff.
4. Voids in the streambed material, bankline stone and rock bands shall be filled and sealed so that water remains on the surface of the channel, stays between the banklines and does not pipe through the stone. Refer to Special Provisions 203 and 610.

Thornton
Tomasetti

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
STP-2169(600)		WIN	
021696.00		5625	
BRIDGE PLANS			
GREENLAW BROOK NO. 2 BRIDGE		SHEET NUMBER	
GREENLAW BROOK		28	
CARIBOU-LIMESTONE AROOSTOOK COUNTY		OF 32	
STREAMBED PLAN			
PROJ. MANAGER J. STETSON		DATE	
DESIGN-DETAILED E. BROWNELL		3-20-23	
CHECKED-REVIEWED B. WELCH		SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



TYPICAL PLAN VIEW AT ROCK BAND



Thornton
Tomasetti

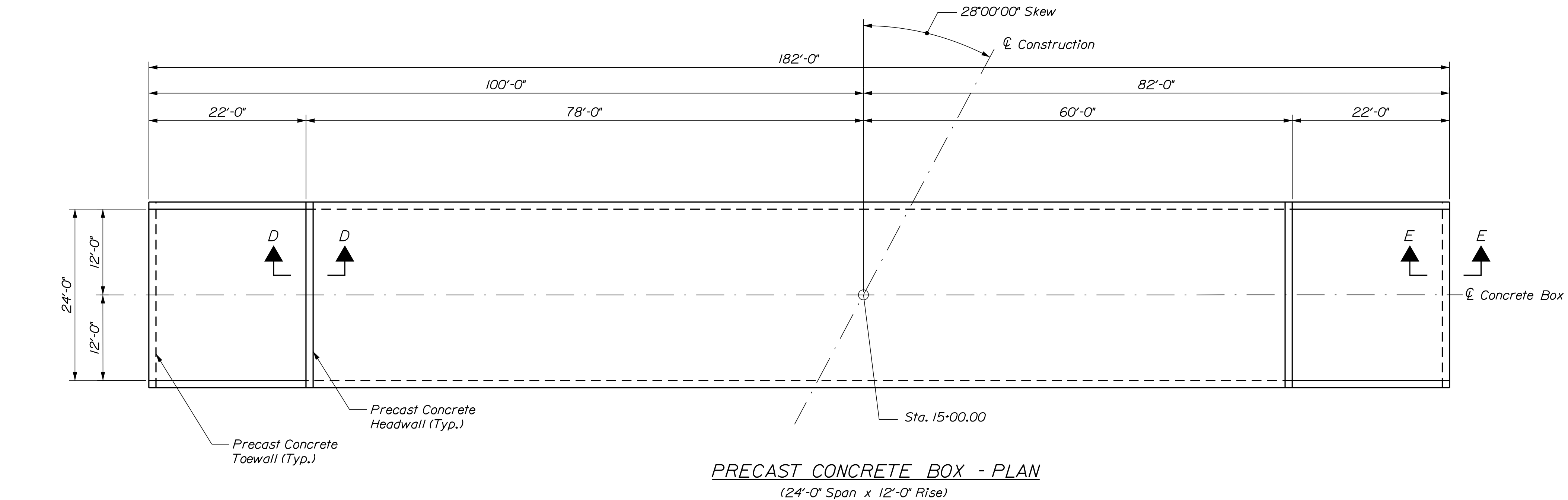
PROJ. MANAGER	J. STETSON	BY	DATE	
DESIGN-DETAILED	E. BROWNELL	D. BURGESS	3-20-23	SIGNATURE
CHECKED-REVIEWED	B. WELCH			
DESIGN-DETAILED				
REVISIONS 1				P.E. NUMBER
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				DATE
FIELD CHANGES				

Date: 3/20/2023

Username: common

Division: BRIDGE

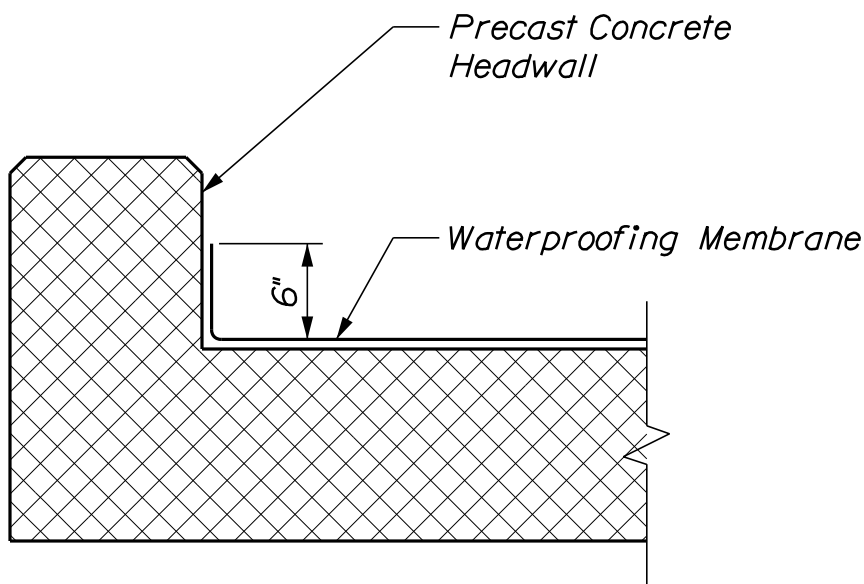
Filename: ... \MSTA\030_Box Culvert.dgn



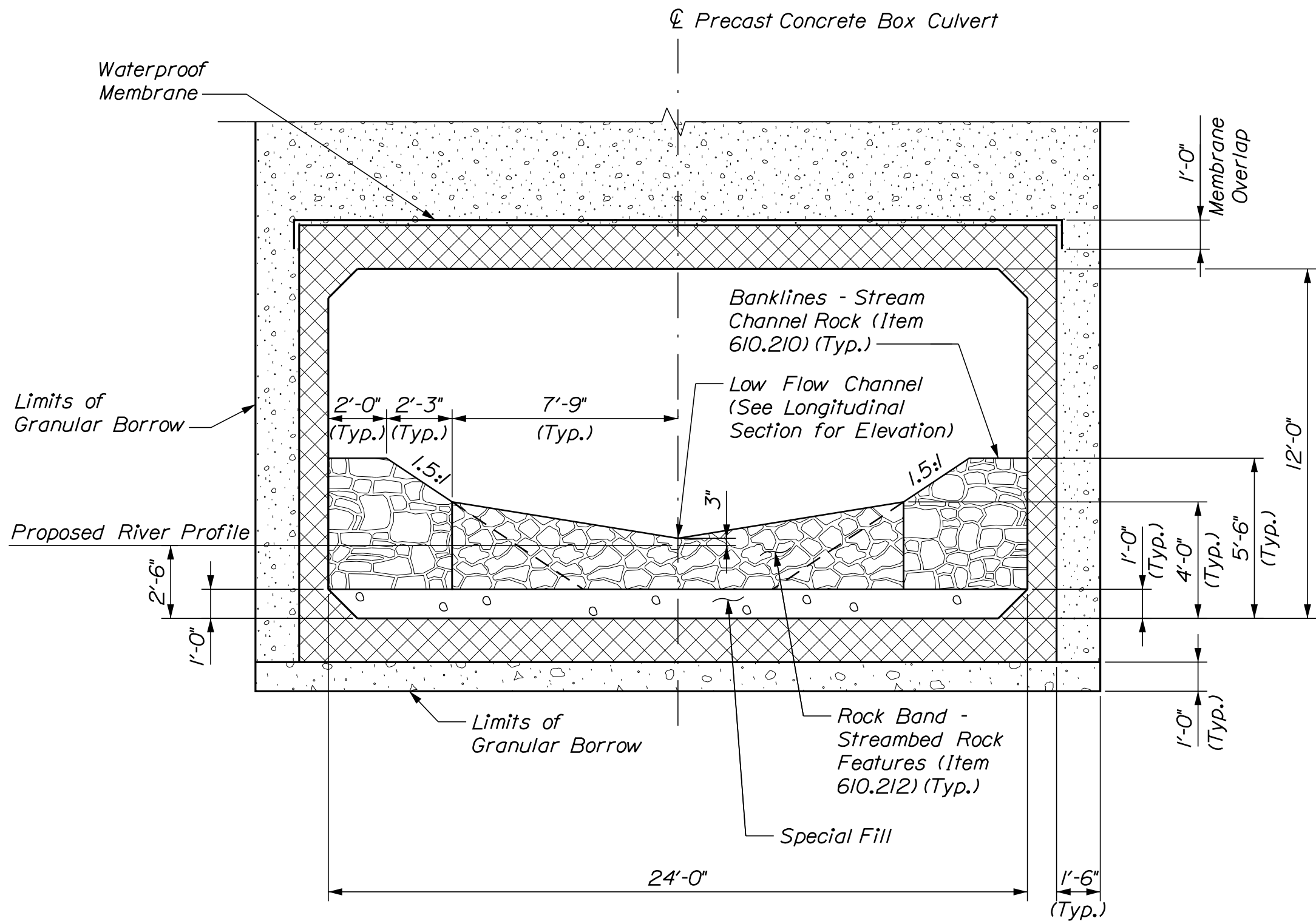
PRECAST CONCRETE BOX - PLAN
(24'-0" Span x 12'-0" Rise)

PRECAST CONCRETE BOXES NOTES

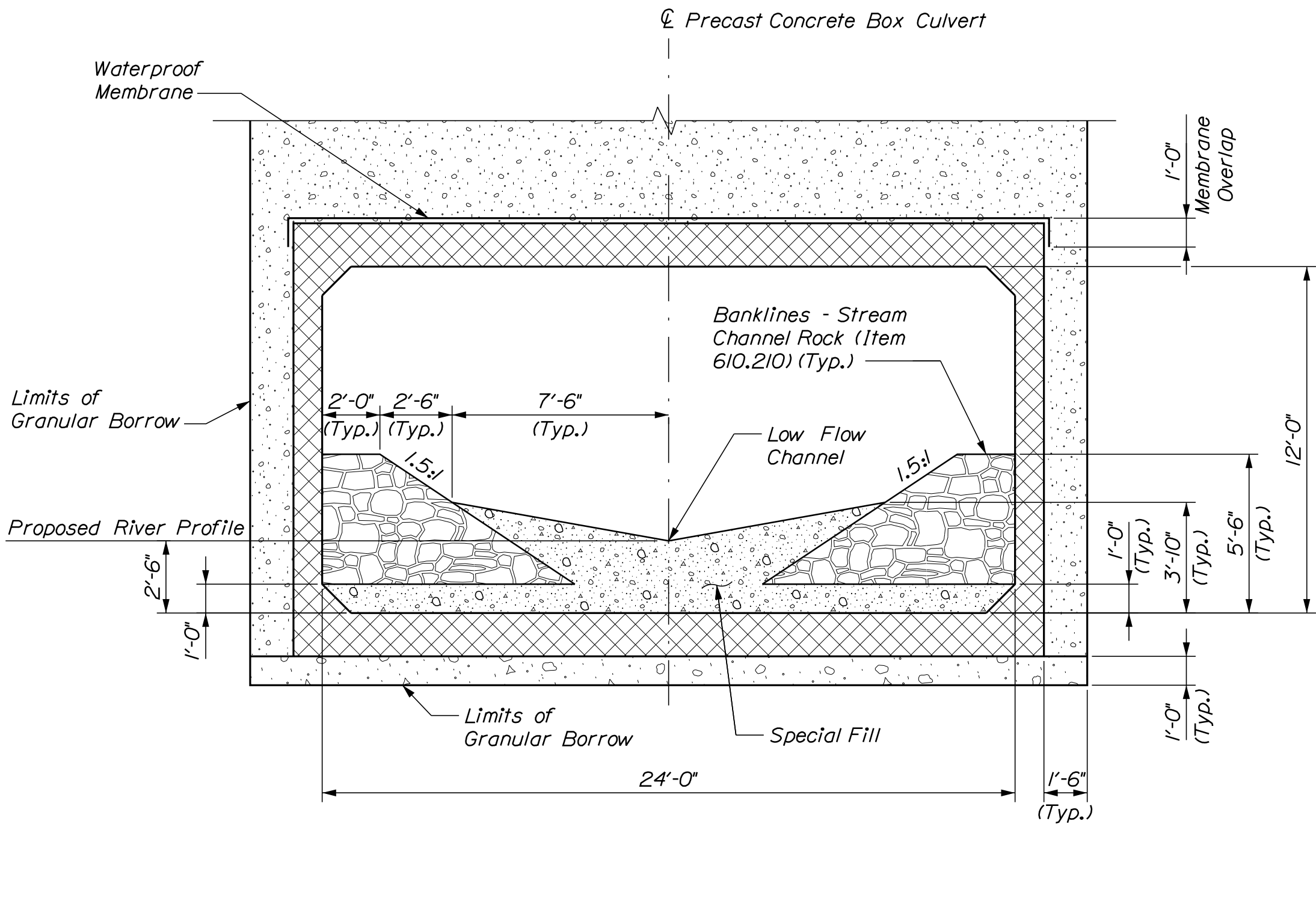
1. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches over the top of the units.
2. Install standard membrane waterproofing over the top and to 12 inches down the exterior sides of the precast units.
3. Construction, handling, and assembly of precast units shall be in accordance with Standard Specifications Section 534, Precast Structural Concrete, and with the manufacturer's specifications as applicable.
4. At the Contractor's option, "Clamshell" concrete box culvert may be used. Seam height shall allow for placement of full height of banklines as shown.



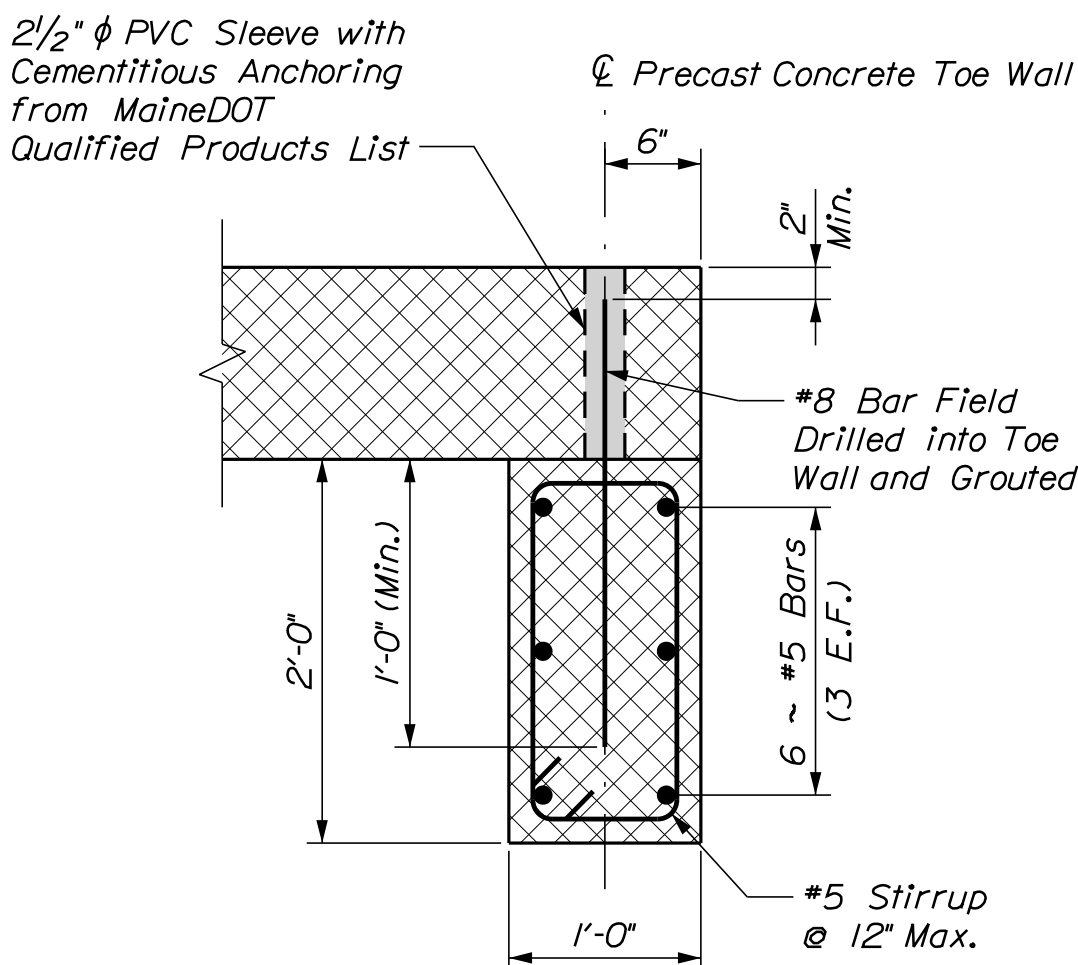
HEADWALL DETAIL
SECTION D-D



TYPICAL CONCRETE BOX SECTION AT ROCK BAND
SECTION A-A



TYPICAL CONCRETE BOX SECTION AT SPECIAL FILL
SECTION B-B



PRECAST CONCRETE TOE WALL DETAIL
SECTION E-E

Thornton
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STATE OF MAINE	STP-2169(600)	WIN	021696.00
DEPARTMENT OF TRANSPORTATION			BRIDGE PLANS
			5625

PROJ. MANAGER	J. STETSON	BY	D. BURGESS	DATE	3-20-23
DESIGN-DETAILED	E. BROWNELL	CHECKED-REVIEWED	B. WELCH	SIGNATURE	
DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4			
FIELD CHANGES					

GREENLAW BROOK NO. 2 BRIDGE	BOX CULVERT PLAN AND DETAILS
GREENLAW BROOK	
CARIBOU-LIMESTONE AROOSTOOK COUNTY	

SHEET NUMBER	30
	OF 32

[illegible]

Date:3/21/2023

Username: TerriLBlair

Division: ROW

Filename: ...\\00\\ROW\\MSTA\\002_RWPLAN2.dgn

