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 ..... Maine Legal Loads

TRAFFIC DATA

	Route 155	I-95 NB	I-95 SB
Current (2021) AADT	2450	3550	3760
Future (2041) AADT	2700	3910	4140
DHV - % of AADT	13%	11%	11%
Design Hour Volume	351	430	455
Heavy Trucks (% of AADT)	9%	19%	20%
Heavy Trucks (% of DHV)	7%	9%	12%
Directional Distribution (% of DHV)	58%	100%	100%
18 kip Equivalent P 2.0	223	1175	1109
18 kip Equivalent P 2.5	213	1120	1057
Design Speed (mph)	40 MPH	75 MPH	75 MPH

MATERIALS

Concrete:
- Curbs ..... Class "LP"
- All Other ..... Class "A"

Reinforcing Steel:
- Low-Carbon Chromium ..... ASTM A1035-CS, Grade 100
- Plain ..... ASTM A 615/A 615M, Grade 60

Structural Steel:
- All Material (except as noted) ..... ASTM A 709, Grade 50, Painted
- High Strength Bolts ..... ASTM F 3125, Grade A 325, Type 1

BASIC DESIGN STRESSES

Concrete:
- Class A ..... f 'c = 4000 psi
- Class LP ..... f 'c = 5000 psi

Reinforcing Steel (Plain) ..... f y = 60,000 psi
Reinforcing Steel (Low-Carbon Chromium) ..... f y = 100,000 psi

Structural Steel:
- ASTM A 709, Grade 50, Painted ..... F y = 50,000 psi
- ASTM F 3125, Grade A 325, Type 1 ..... F μ = 120,000 psi

HOWLAND
PENOBSCOT COUNTY
ROUTE 155/I-95 BRIDGE
OVER
I-95

STATE ROUTE 155
FEDERAL AID PROJECT NO. 2563114
PROJECT LENGTH 0.11 mi.
BRIDGE NO. 6068

LIST OF DRAWINGS

UTILITIES

Versant Power
GoNetspeed
Spectrum
Interstate Lighting

MAINTENANCE OF TRAFFIC

Route 155 - Staged construction with alternating one-way traffic using temporary traffic signals.

I-95 - Singe lane closures allowed for specific work activities.

PROJECT LOCATION	Route 155/I-95 Bridge (#6068) over I-95 Located 0.26 of a mile East of Maxfield Road Lat./Long. 45° 14' 09.82" N 68° 40' 37.85" W
OUTLINE OF WORK	Bridge Deck Replacement

WIN 25631.14
2563114

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
APPROVED	
COMMISSIONER:	8-21-24
CHIEF ENGINEER:	8-14-2024

STATE OF MAINE * THERESA D. McAULIFFE No. 13046 LICENSED PROFESSIONAL ENGINEER *

SIGNATURE	P.E. NUMBER	DATE
	13046	8/12/24

PROJECT INFORMATION

PROGRAM	Bridge Program
PROJECT MANAGER	Julie Brask
DESIGNER	
CONSULTANT	MCFARLAND JOHNSON, INC.
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

HOWLAND
ROUTE 155 / I-95 BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 31

Username: emorrison Date:8/12/2024
Division:
Filename:\Sheet Files\001_Title.dgn

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
202.10	REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR (480 CY)	1	LS
202.12	REMOVE EXISTING STRUCTURAL CONCRETE	79	CY
202.13	REMOVE EXISTING RAILINGS (RETAINED BY DEPARTMENT)	840	LF
202.202	REMOVING PAVEMENT SURFACE	440	SY
203.20	COMMON EXCAVATION	160	CY
203.25	GRANULAR BORROW	85	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	110	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	140	CY
403.2081	HOT MIX ASPHALT - 12.5 MM (POLYMER MODIFIED)	180	T
403.211	HOT MIX ASPHALT - SHIM	6	T
403.2131	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE, POLYMER MODIFIED)	220	T
409.15	BITUMINOUS TACK COAT, APPLIED	220	G
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	57	CY
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES (350 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (23 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (55 CY)	1	LS
502.77	FRP BRIDGE DRAIN, TYPE E	4	EA
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	9500	LB
503.13	REINFORCING STEEL, PLACING	9500	LB
503.17	MECHANICAL/WELDED SPLICE	1700	EA
503.19	LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED AND DELIVERED	970	LB
503.20	LOW-CARBON CHROMIUM REINFORCEMENT, PLACING	970	LB
504.70	STRUCTURAL STEEL FABRICATED AND DELIVERED (400 LB)	1	LS
504.71	STRUCTURAL STEEL ERECTION (400 LB)	1	LS
505.08	SHEAR CONNECTORS (6350 EA)	1	LS
506.1775	FIELD PAINTING, NEW AND EXISTING STEEL WITH ZINC RICH PAINT (10 SF)	1	LS
507.0821	STEEL BRIDGE RAILING, 3 BAR (870 LF)	1	LS
507.0822	STEEL APPROACH RAILING: 3-BAR	4	EA
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (1380 SY)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (530 SY)	1	LS
518.60	REPAIR OF VERTICAL SURFACES < 8 INCHES	8	SF
521.23	EXPANSION DEVICE - FINGER JOINT	1	EA
523.52	BEARING INSTALLATION	10	EA
523.5551	POT OR DISC BEARINGS, FIXED	5	EA
523.5552	POT OR DISC BEARINGS, EXPANSION	5	EA
524.301	TEMPORARY STRUCTURAL SUPPORT (APPROACHES)	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT (BEARING REPLACEMENT)	1	LS
524.40	PROTECTIVE SHIELD	1	LS
526.301	PORTABLE CONCRETE BARRIER, TYPE I (450 LF)	1	LS
526.304	PORTABLE CONCRETE BARRIER, ANCHORED TYPE 1 (460 LF)	1	LS
526.305	TEMPORARY CONCRETE BARRIER, BRACED TYPE I (460 LF)	1	LS
527.33	TRUCK MOUNTED ATTENUATOR	2	EA
527.34	WORK ZONE CRASH CUSHIONS	2	UN
606.1301	31" W-BEAM GUARDRAIL, MID-WAY SPLICE-SINGLE FACED	370	LF
606.1305	31" W-BEAM GUARDRAIL, MID-WAY SPLCE FLARED TERMINAL	1	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	14	EA
607.183	CHAIN LINK SNOW FENCE 33 INCH (320 LF)	1	LS
610.08	PLAIN RIPRAP	5	CY
613.319	EROSION CONTROL BLANKET	140	SY
615.07	LOAM	8	CY
618.14	SEEDING METHOD NUMBER 2	2	UN
619.12	MULCH	2	UN
619.14	EROSION CONTROL MIX	5	CY
627.511	TEMPORARY PAVEMENT LINE TAPE, YELLOW OR WHITE	240	SF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	2400	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	210	SF
627.77	REMOVING EXISTING PAVEMENT MARKING	800	SF
629.05	HAND LABOR, STRAIGHT TIME	25	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	5	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	5	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	25	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	25	HR

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
631.22	FRONT END LOADER (INCLUDING OPERATOR)	25	HR
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.30	FLASHING ARROW	2	EA
652.33	DRUM	100	EA
652.34	CONE	10	EA
652.35	CONSTRUCTION SIGNS	440	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGERS	320	HR
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

PROJ. MANAGER	J. BRASK	
DESIGN-DETAILED	S. LINDSLEY	08-24
CHECKED-REVIEWED	D. WHITE	08-24
DESIGN2-DETAILED2	J. FITZ	08-24
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BY / DATE

E. MORRISON 08-24
B. COLBURN 08-24
N. EDMAN 08-24

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 31

Filename: ...\0xx_Quantities_1.dgn Division: Username: emorrison Date:8/12/2024

GENERAL CONSTRUCTION NOTES

1. Approximate Right-Of-Way lines were developed from record plans and are shown on the Plans. All work shall be performed within the existing Right-Of-Way.

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. Approximate existing drainage and utility information locations were developed from record plans and are shown on the Plans.

4. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

5. Existing signs within the Project limits shall be removed and reset as directed by the Resident. Payment for removal and reinstallation of existing signs will be considered incidental to the Contract. No separate payment will be made.

6. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

7. 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.

8. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by 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 Pay Item 619.14, Erosion Control Mix.

10. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each leading end section of beam guardrail.

11. Where it is apparent that runoff will cause continual erosion, Erosion Control Blanket, seeded gutters, or riprap downspouts shall be constructed after paving and shoulder work is completed. Payment will be made under the appropriate Contract Items.

12. Protective Coating for Concrete Surfaces shall be applied to the following areas:

    All exposed surfaces of concrete curbs.
    Fascias down to the drip notch.
    Top of abutment backwalls and wingwalls.
    All exposed surfaces of Pier caps and columns, and
    Exposed surfaces of vertical walls against earth.

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. 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 Specification 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 and Time.

16. The Contractor shall submit Bridge Demolition Plans to the Resident at least 10 business days prior to the start of demolition work. The plan shall outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge deck, portions of abutments and wingwalls, and identified diaphragms and bearings. No work related to the removal of the bridge deck shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Demolition Plans for appropriateness and completeness. Payment for all work necessary for developing, submitting and finalizing the Bridge Demolition Plans will be considered incidental to the appropriate bridge removal pay items.

17. The existing bridge components to be removed shall be removed by and become the property of the Contractor. The steel portions of the existing bridges may be coated with a lead-based paint system. The Contractor is responsible for the containment, proper management and disposal of hazardous waste generated by the process of demolishing the existing decks, modifications of structural steel, and installation of shear studs. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to these processes. Once the existing bridge components are removed, the Contractor is solely responsible for the care, custody, and control of the components of the existing bridges and any hazardous water 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 bridges will be considered incidental to the bridge removal pay items.

18. Where a joint between new pavement and existing pavement is called for on the Plans, the existing pavement shall be sawcut along a smooth line to a neat, even, vertical joint as directed by the Resident. Broken or raveled edges will not be permitted. All work necessary for the preparation of this joint will be considered incidental to the related Contract Items.

19. All existing delineators and mile marker posts on Interstate 95 which are impacted shall be removed and reset. Payment for removing and resetting delineators and mile marker posts shall be incidental to the Contract.

20. Relocating existing ground mounted signs during traffic control phasing will not be measured but shall be considered incidental to the various Contract Items. Signs temporarily relocated within 30' of an active travel way shall have breakaway devices or be protected with portable concrete barrier. Temporary sign supports shall meet the requirements of Specification Section 652.

21. Payment for connections of proposed guardrail to existing guardrail will be considered incidental to related Contract Items.

22. The Resident shall be informed a minimum of two weeks prior to the removal of any survey monuments from the Project. Monuments shall be carefully salvaged by the Contractor and will remain the property of the Department.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

PROJ. MANAGER	J. BRASK	BY	DATE
DESIGN-DETAILED	S. LINDSLEY	E. MORRISON	08-24
CHECKED-REVIEWED	D. WHITE	B. COLBURN	08-24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN	08-24
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

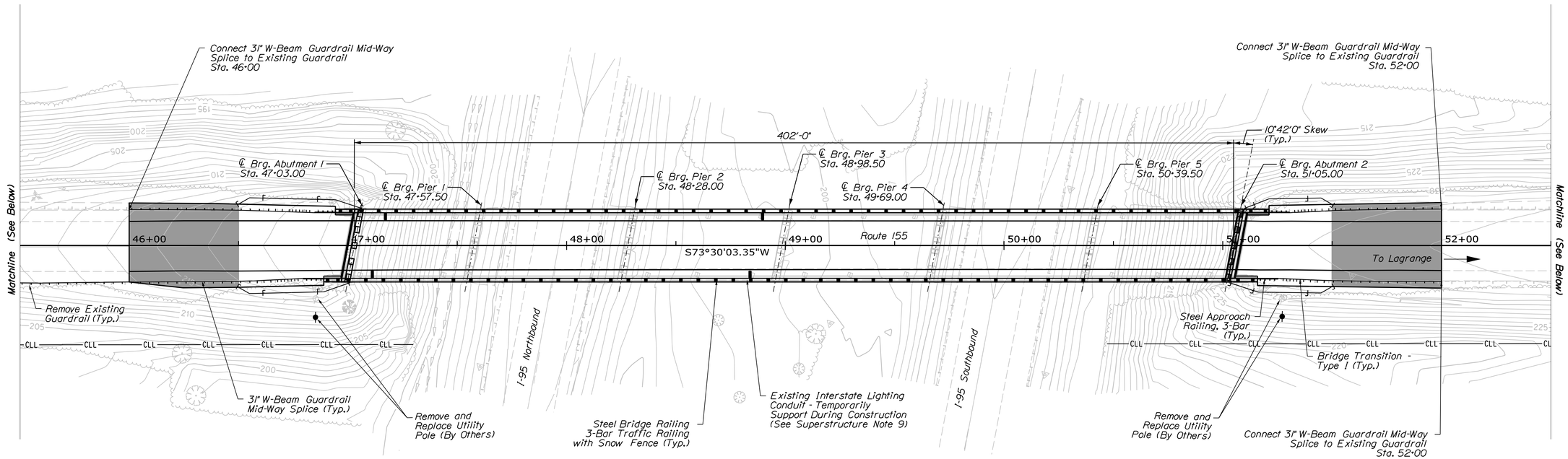
ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

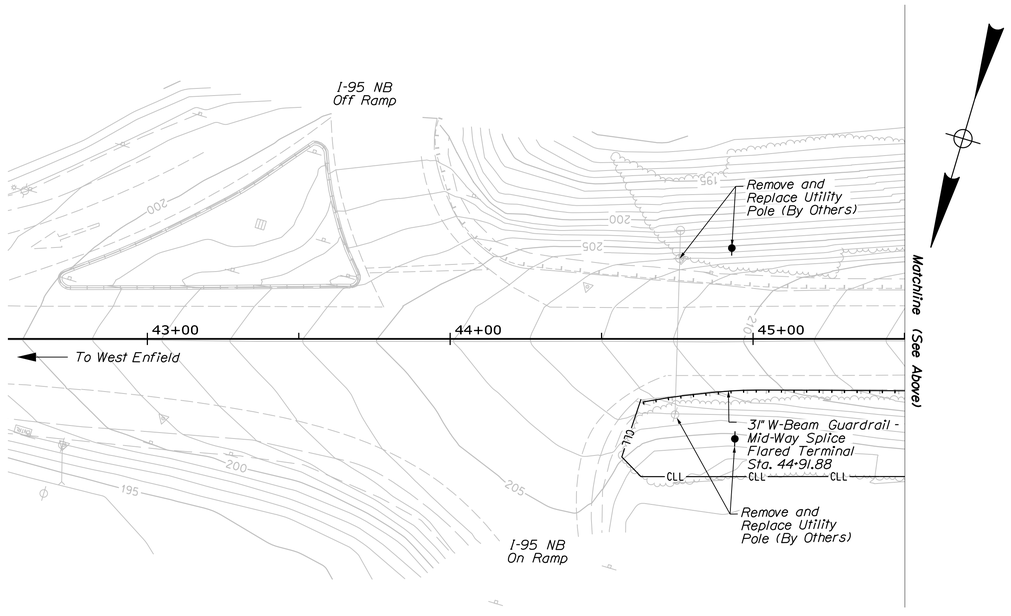
GENERAL NOTES

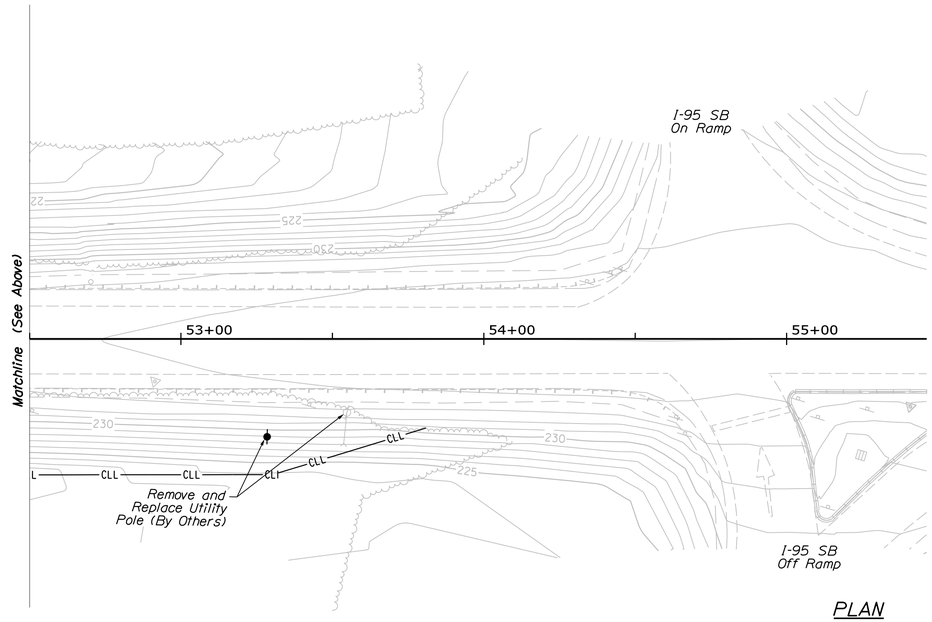
SHEET NUMBER

3

OF 31







PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

GENERAL PLAN

SHEET NUMBER

4

OF 31

600' Total Project

Sta 46+50.00 Begin Transition
3" Mill and Overlay
1.5" Mill and Overlay
Sta 46+00.00 Match Existing Pavement Limit of Work
25'
25'
50.17' Transition
Sta 47+00.17 End Transition Begin Project
407.83' Bridge Deck Replacement
Sta 51+08.00 End Project Begin Transition
42' Transition
Sta 51+50.00 End Transition
3" Mill and Overlay
1.5" Mill and Overlay
25'
25'
Sta 52+00.00 Match Existing Pavement Limit of Work

E = -2.193'
SD = 602'
V.C.L. = 540'

PVC = STA. 46+60.00
ELEV. = 217.19

PVI = STA. 46+00.00
ELEV. = 214.45

PVI = STA. 49+30.00
ELEV. = 229.53

PVT = STA. 52+00.00
ELEV. = 233.10

G = 4.57%

G = 1.33%

Proposed Grade Along Rte 155 PGL

℄ Brg. Abut. No. 1 Sta. 47+03.00 (Fixed)

℄ Brg. Pier No. 1 Sta. 47+57.50 (Exp.)

℄ Brg. Pier No. 2 Sta. 48+28.00 (Exp.)

℄ Brg. Pier No. 3 Sta. 48+98.50 (Exp.)

℄ Brg. Pier No. 4 Sta. 49+69.00 (Exp.)

℄ Brg. Pier No. 5 Sta. 50+39.50 (Exp.)

℄ Brg. Abut. No. 2 Sta. 51+05.00 (Exp.)

Proposed Subgrade Transition (Typ.)

Approach Slab (Typ.)

Proposed Bridge Deck and Wearing Surface

Existing Rolled Beams to Remain

16'-2" Existing Vertical Clearance

16'-4" Existing Vertical Clearance

Existing Substructure to remain (Typ.)

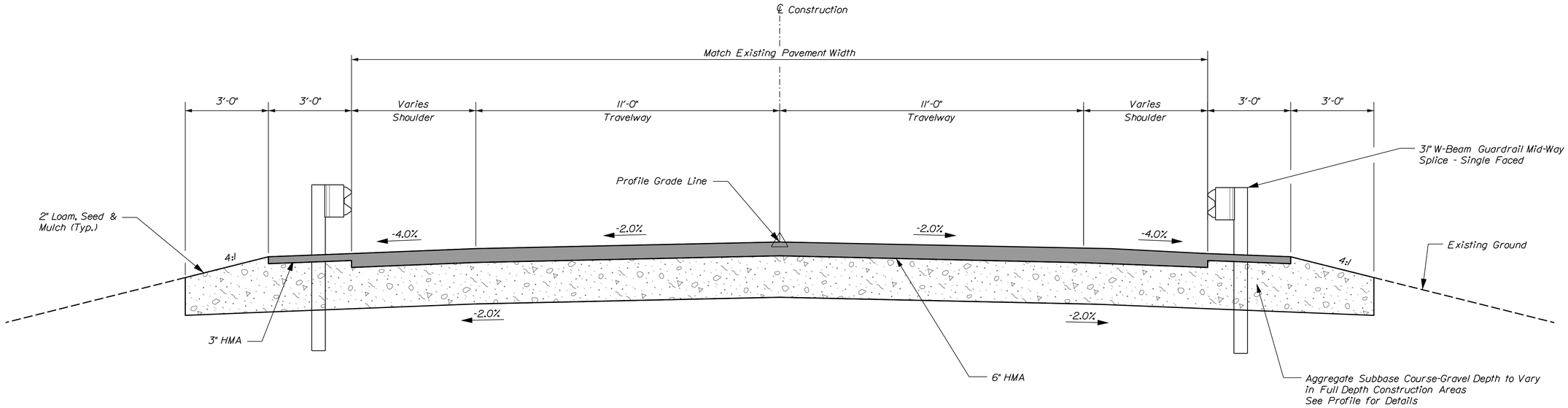
Limits of Granular Borrow and Structural Earth Excavation (Typ.)

Existing Grade Along Rte 155 PGL

I-95 NB

I-95 SB

| | | |



ROUTE 155 BRIDGE APPROACH TYPICAL SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

TYPICAL SECTIONS

SHEET NUMBER
6
OF 31

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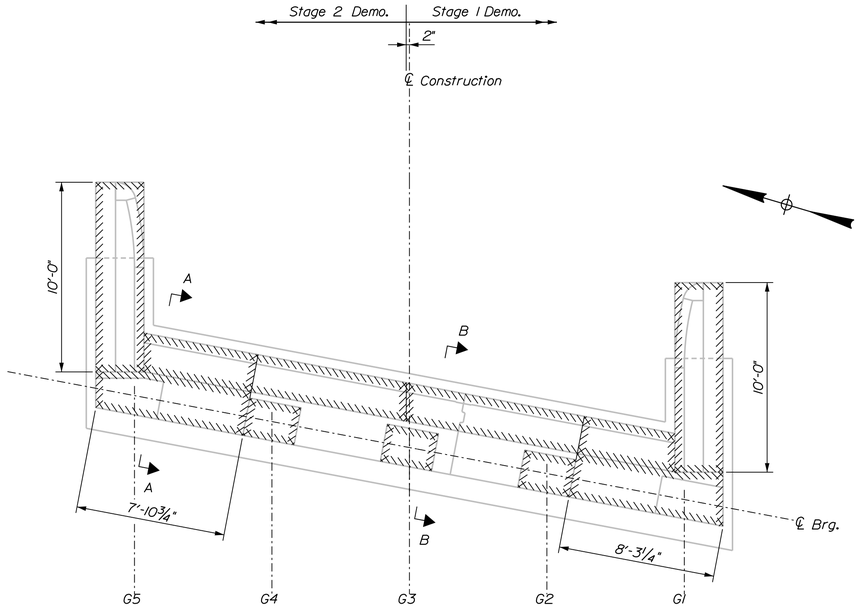
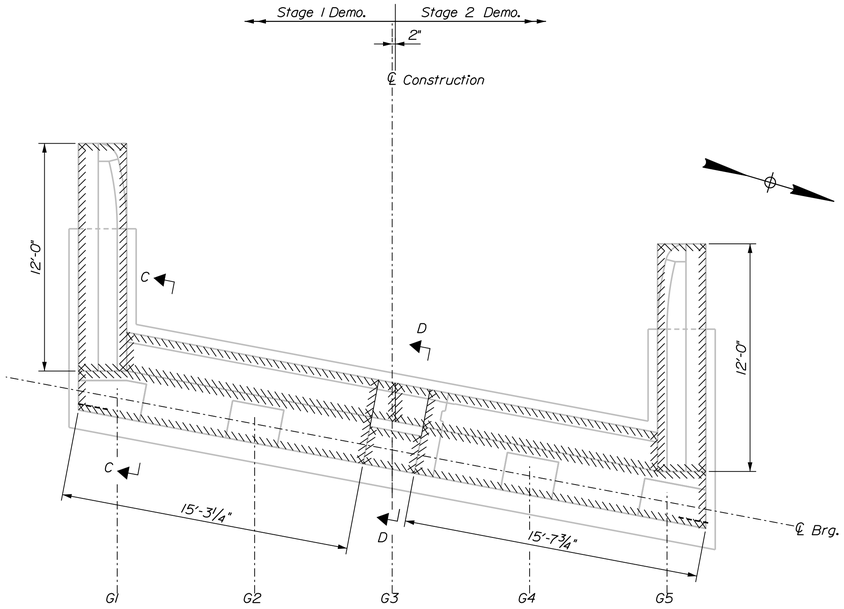
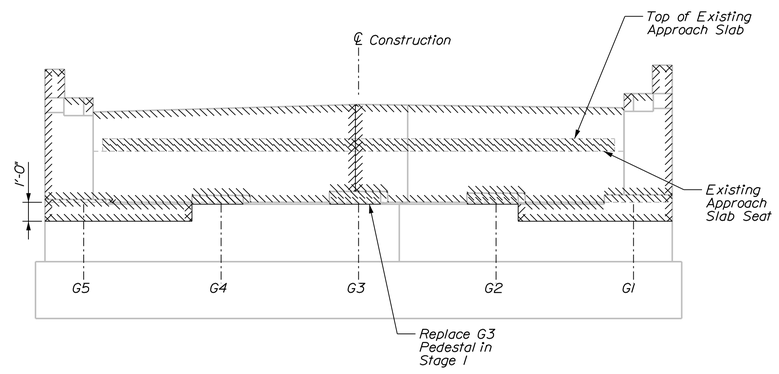


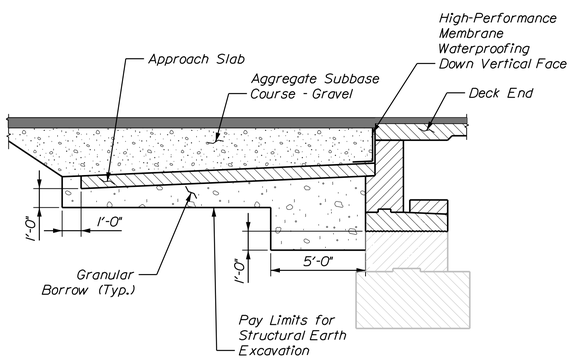
ABUTMENT 1 DEMOLITION PLAN



ABUTMENT 2 DEMOLITION PLAN

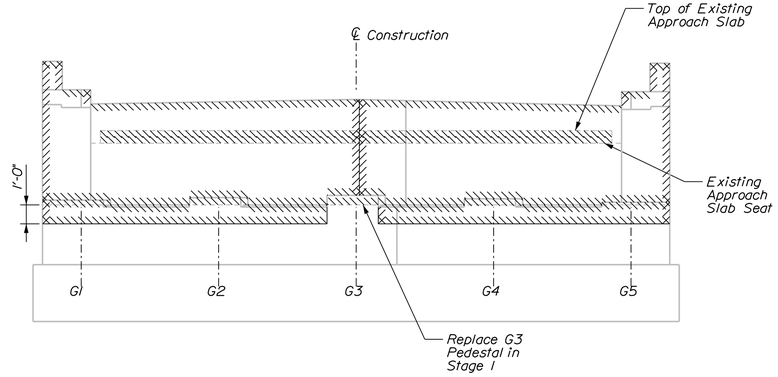


ABUTMENT 1 DEMOLITION ELEVATION

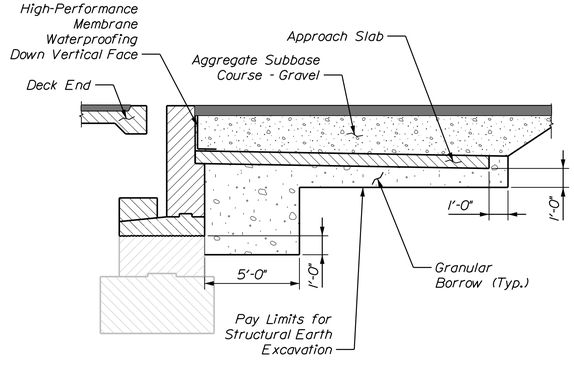


ABUTMENT 1 BACKFILL DETAIL

Abutment detail shown. Wingwall Detail similar



ABUTMENT 2 DEMOLITION ELEVATION



ABUTMENT 2 BACKFILL DETAIL

Abutment detail shown. Wingwall Detail similar

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

	BY	DATE
J. BRASK		
PROJ. MANAGER	S. LINDSLEY	08-24
DESIGN-DETAILED	E. MORRISON	08-24
CHECKED-REVIEWED	D. WHITE	08-24
DESIGN2-DETAILED2	B. COLBURN	08-24
DESIGN3-DETAILED3	J. FITZ	08-24
REVISIONS 1	N. EDMAN	08-24
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

ABUTMENT DEMOLITION

SHEET NUMBER

7

OF 31

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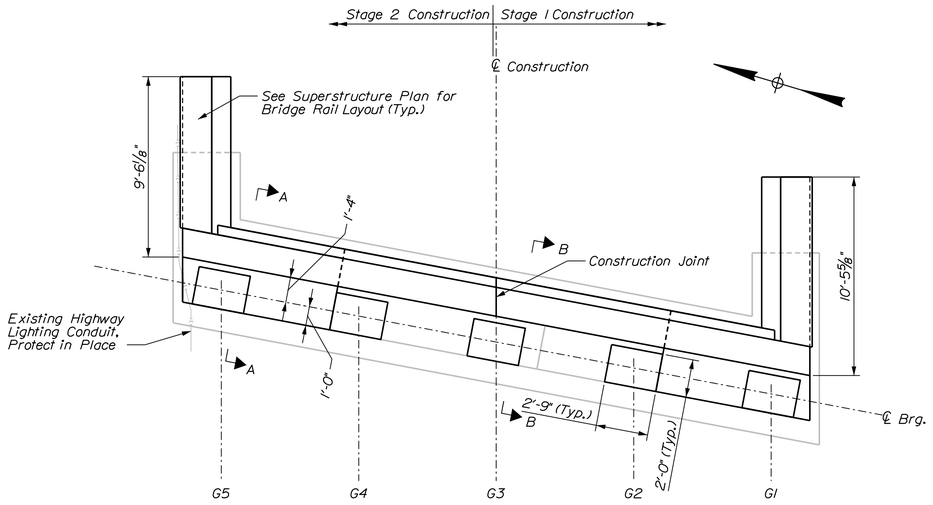
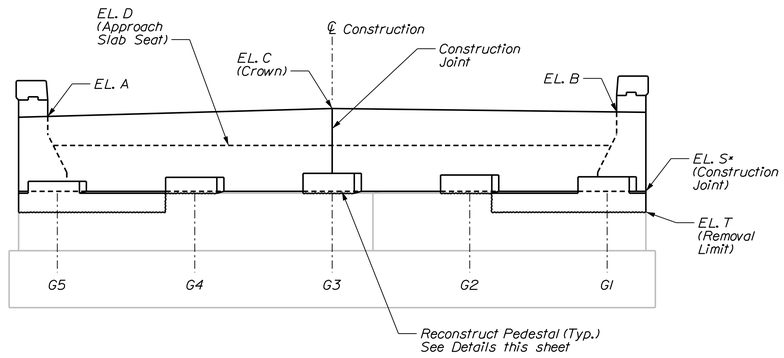
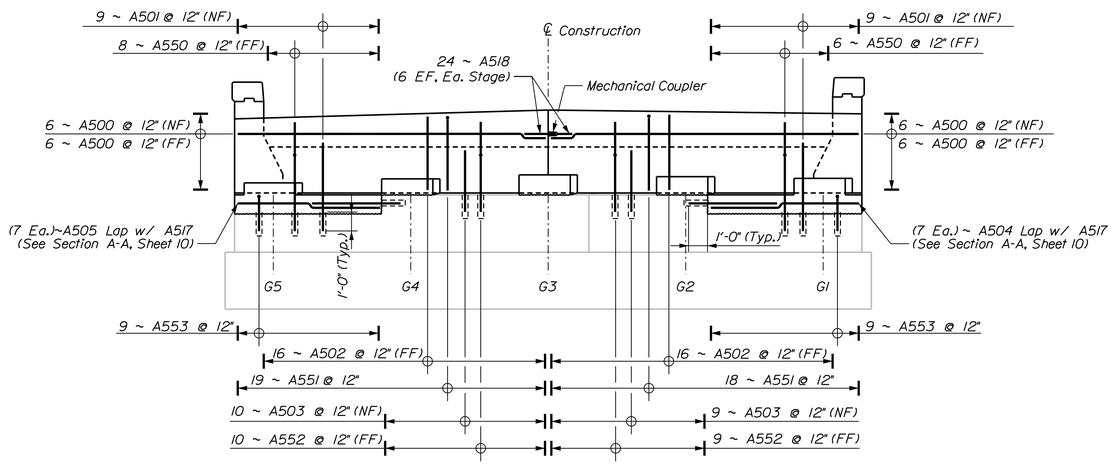


ABUTMENT 1 CONSTRUCTION PLAN

For Abutment Demolition and Construction Sections, See Sheet 10
Approach Slab not shown for clarity

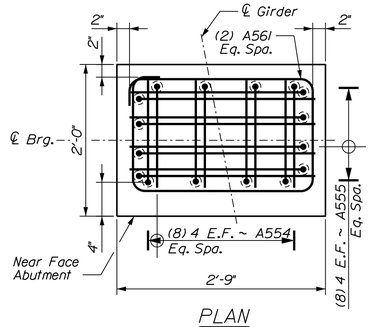


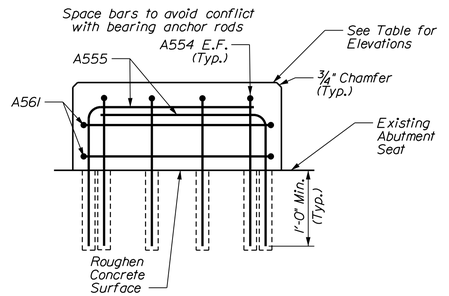
ABUTMENT 1 CONSTRUCTION ELEVATION



ABUTMENT 1 REINFORCING ELEVATION

(See Sheet 9 for Full Pedestal Reinforcement)





PARTIAL PEDESTAL REINFORCING DETAIL

Abutment 1 Shown, Abutment 2 Similar
Masonry Plates and Anchor Rods Not Shown.
To be Designed by Manufacturer. See Disc Bearing Note 1, Sheet 14

Abutment 1 Elevations								
EL. A		EL. B		EL. C		EL. D	EL. S*	EL. T
NF	FF	NF	FF	NF	FF			
217.41	217.34	217.66	217.59	217.83	217.77	215.89	213.46	212.46

NF = Near Face FF= Far Face

*Elevation to coincide with the existing construction joint elevation. Elevations provided are approximated from the existing bridge plans. To be field verified.

Abutment 1 Pedestal Elevations				
G1*	G2*	G3*	G4*	G5*
214.23	214.32	214.41	214.20	213.99

*Elevations provided are approximated from the existing bridge plans. To be field verified. Also see Disc Bearing Note 1, Sheet 14.

ABUTMENT AND WINGWALL MODIFICATION NOTES

1. The Contractor shall use care not to damage any existing reinforcing steel which is to remain. All existing reinforcing steel which is to remain shall be cleaned of all loose rust by sandblasting, wire brushing, machine wire brushing, or other methods approved by the Resident. Any damaged reinforcing steel shall be replaced as directed by the Resident at no expense to the Department.
2. Before drilling and grouting new reinforcing steel, the Contractor shall locate reinforcing steel in existing concrete by non-destructive methods to avoid conflicts. All costs associated with this work shall be incidental to related Contract Items.
3. Reinforcing steel shall have 2 inches cover unless otherwise noted.
4. Existing abutment and wingwall concrete to be removed as shown on the Plans shall be sawcut 1 inch deep prior to removal of existing concrete. All costs associated with this work shall be incidental to related Contract Items.
5. Where drilling and anchoring of reinforcement is required, the Contractor shall use a material listed on the Maine Department of Transportation Qualified Products List of Concrete Adhesive Anchor Systems. The depth of embedment shall be sufficient to develop 125% of the yield strength of the bar per the manufacturer's recommendations or 12 inches, whichever is greater. Proposed anchoring material and embedment depth shall be submitted for approval. Payment for drilling and anchoring will be incidental to related Contract Items.
6. Dimensions and layout shown are based on available record plans. Contractor shall field verify all dimensions prior to any related work.
7. All surfaces to be rehabilitated shall be clean of all debris and foreign material and shall be roughened to the 1/2" amplitude prior to placement of the new concrete. Payment shall be incidental to related concrete items.
8. Projecting reinforcing that can be maintained, in addition to that shown in the details, may be left in place at Contractor's discretion with approval of the Resident.
9. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114
WIN
WIN 25631.14
BRIDGE NO. 6068
BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
DESIGN-DETAILED	S. LINDSLEY	E. MORRISON	08/24
CHECKED-REVIEWED	D. WHITE	B. COLBURN	08/24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN	08/24
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

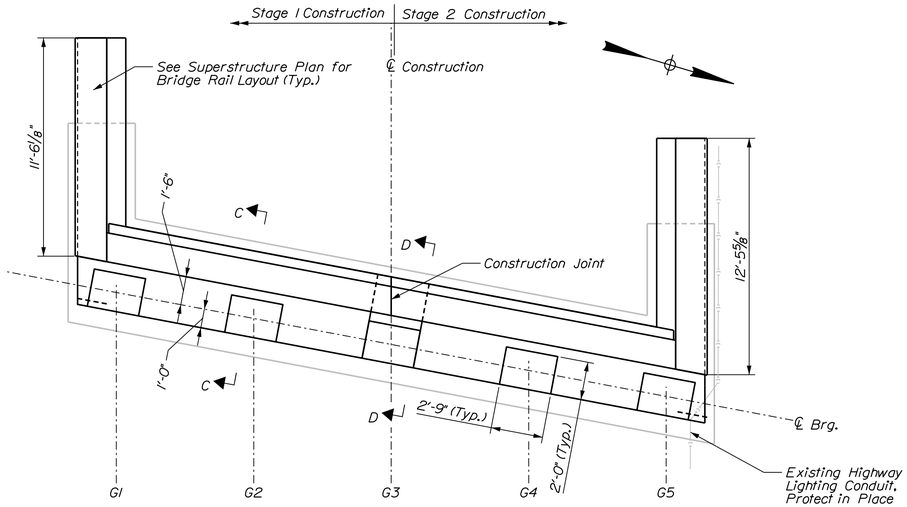
SIGNATURE
P.E. NUMBER
DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

ABUTMENT 1 CONSTRUCTION

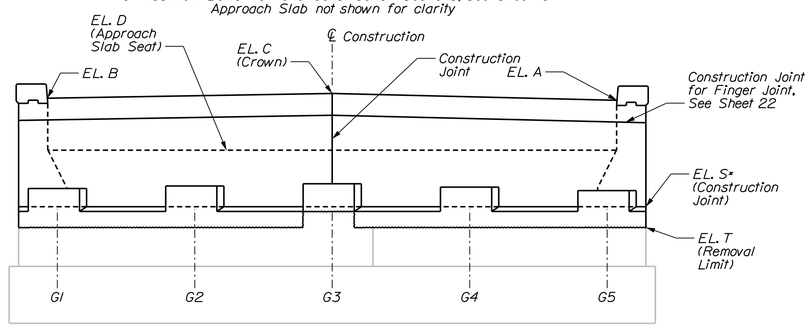
SHEET NUMBER
8
OF 31

Filename: ...\0xx_Abut 1_Construction.dgn Division: Username: emorrison Date:8/12/2024

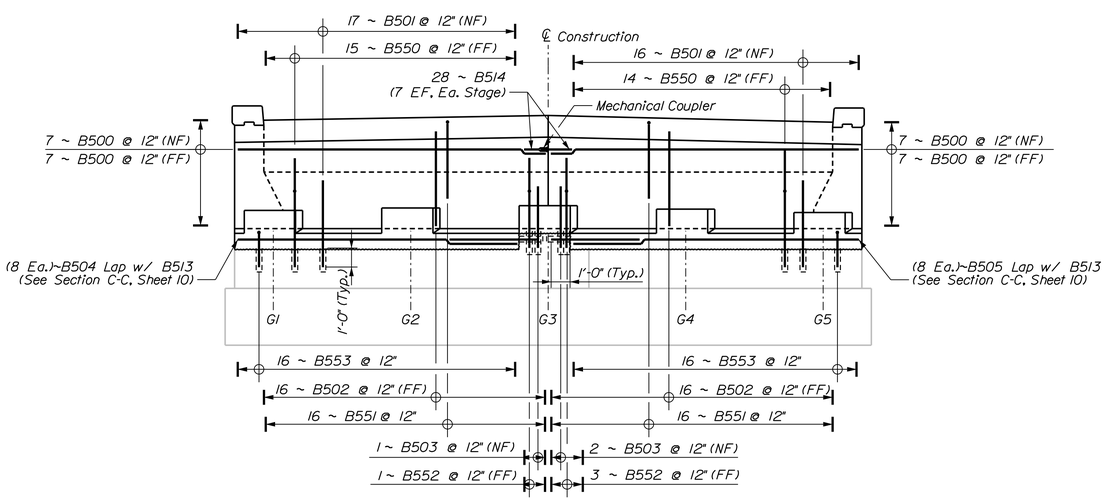


ABUTMENT 2 CONSTRUCTION PLAN

For Abutment Demolition and Construction Sections, See Sheet 10
Approach Slab not shown for clarity

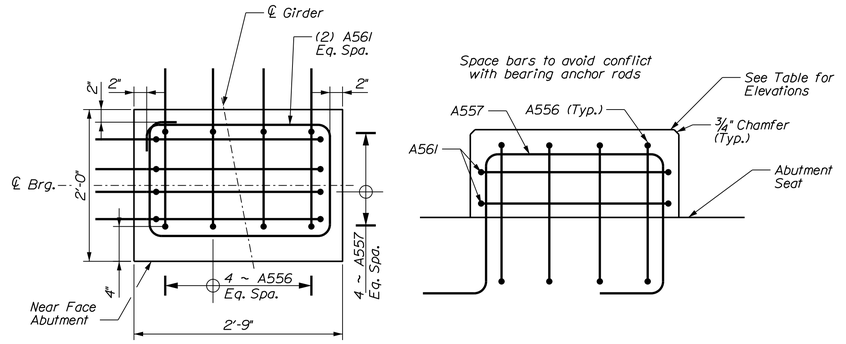


ABUTMENT 2 CONSTRUCTION ELEVATION



ABUTMENT 2 REINFORCING ELEVATION

(See Sheet 8 for Partial Pedestal Reinforcement)



FULL PEDESTAL REINFORCING DETAIL

Abutment 1 Shown, Abutment 2 Similar
Masonry Plates and Anchor Rods Not Shown.
To be Designed by Manufacturer. See Disc Bearing Note 1, Sheet 14

Abutment 2 Elevations								
EL. A		EL. B		EL. C		EL. D	EL. S*	EL. T
NF	FF	NF	FF	NF	FF			
231.25	231.28	231.35	231.38	231.60	231.63	228.61	225.63	224.63

NF = Near Face FF= Far Face
*Elevation to coincide with the existing construction joint elevation. Elevations provided are approximated from the existing bridge plans. To be field verified.

Abutment 2 Pedestal Elevations				
G1*	G2*	G3*	G4*	G5*
226.60	226.73	226.85	226.67	226.49

*Elevations provided are approximated from the existing bridge plans. To be field verified. Also see Disc Bearing Note 1, Sheet 14.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114
WIN
WIN 25631.14
BRIDGE NO. 6068
BRIDGE PLANS

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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

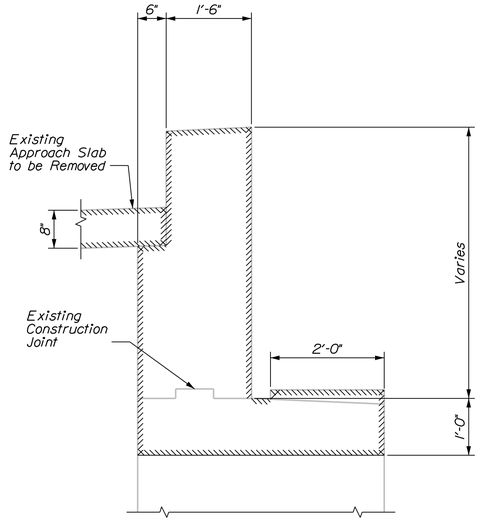
SIGNATURE
P.E. NUMBER
DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

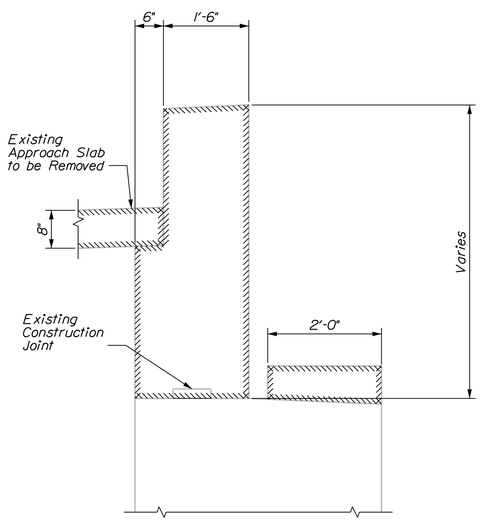
ABUTMENT 2 CONSTRUCTION

SHEET NUMBER
9
OF 31

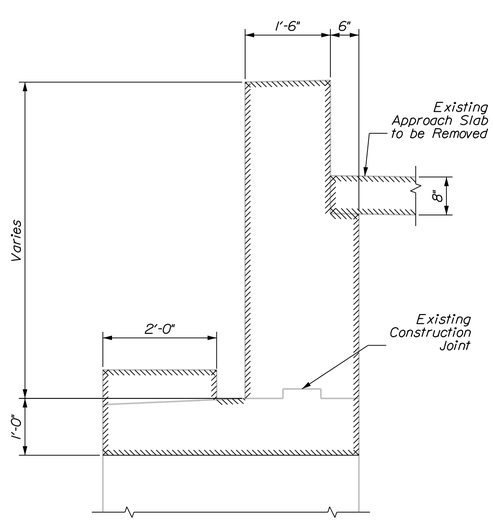
Filename: ...\Oxx_Abut 2_Construction.dgn Division: Username: emorrison Date:8/12/2024



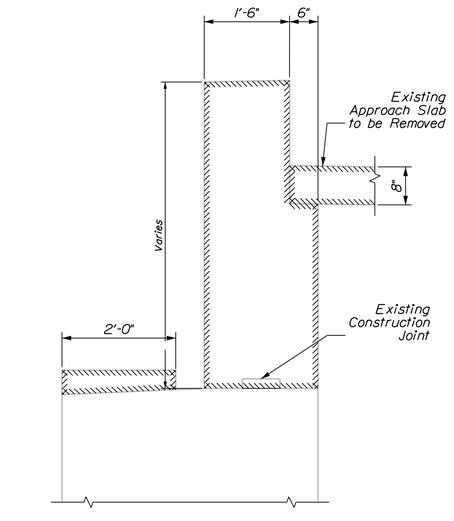
ABUTMENT 1 DEMOLITION SECTION
(SECTION A-A)



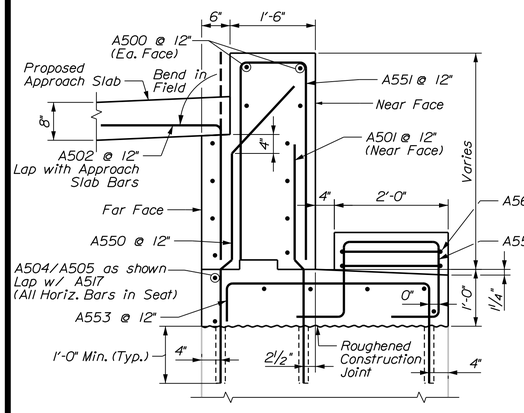
ABUTMENT 1 DEMOLITION SECTION
(SECTION B-B)



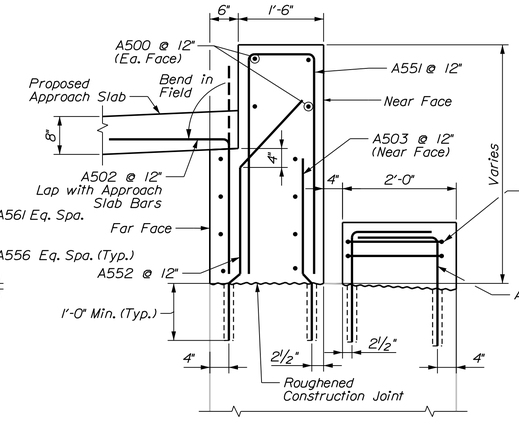
ABUTMENT 2 DEMOLITION SECTION
(SECTION C-C)



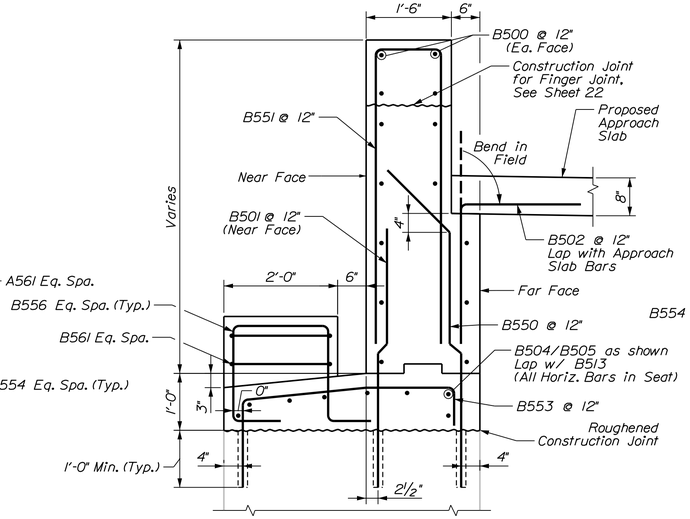
ABUTMENT 2 DEMOLITION SECTION
(SECTION D-D)



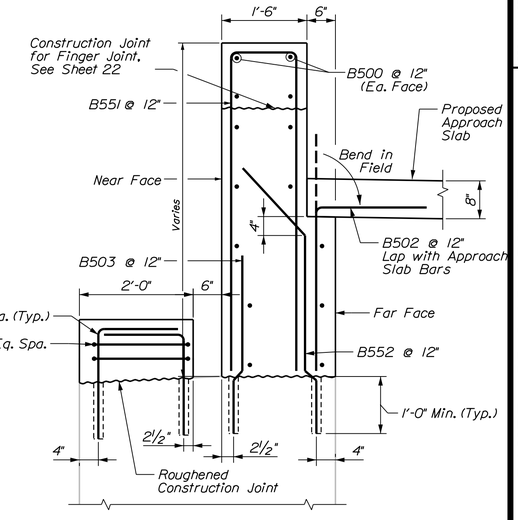
ABUTMENT 1 CONSTRUCTION SECTION
(SECTION A-A)



ABUTMENT 1 CONSTRUCTION SECTION
(SECTION B-B)



ABUTMENT 2 CONSTRUCTION SECTION
(SECTION C-C)



ABUTMENT 2 CONSTRUCTION SECTION
(SECTION D-D)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
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CHECKED-REVIEWED	D. WHITE	B. COLBURN	08-24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN	08-24
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

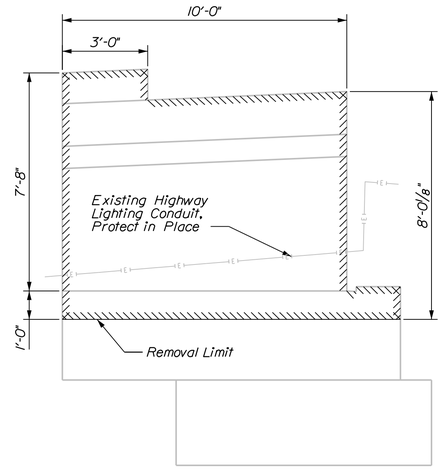
DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

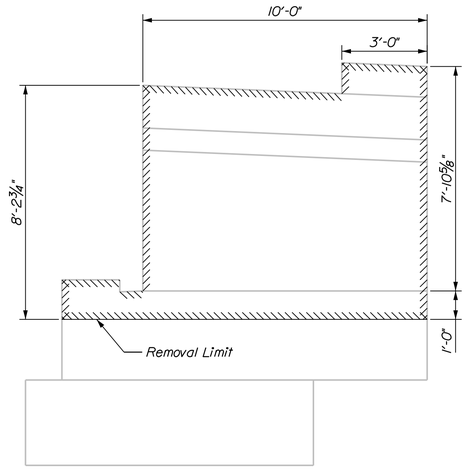
ABUTMENT SECTIONS

SHEET NUMBER
10
OF 31

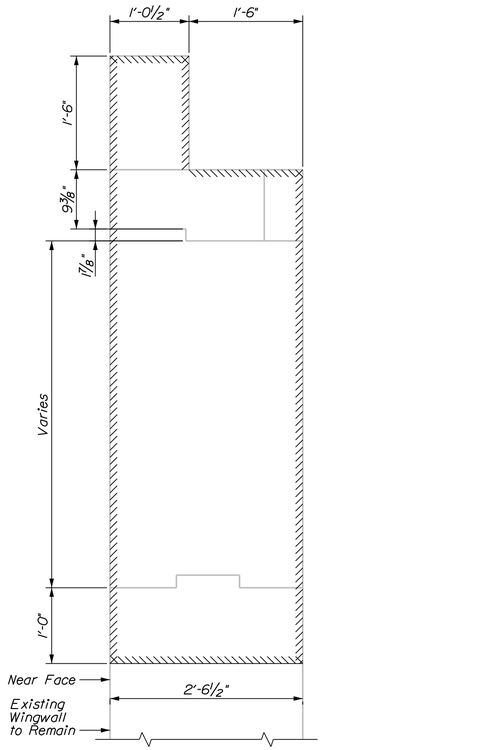
Filename: ...\0xx_Abut_Sections.dgn Division: Username: emorrison Date:8/12/2024



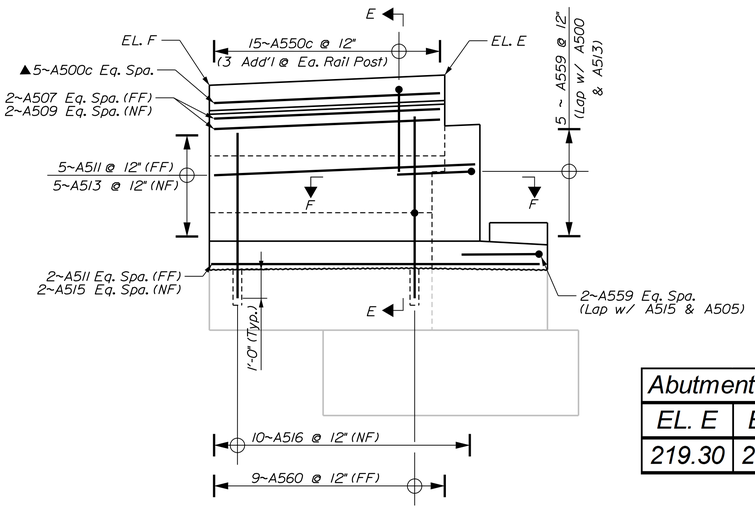
ABUTMENT 1 RIGHT WINGWALL DEMOLITION ELEVATION



ABUTMENT 1 LEFT WINGWALL DEMOLITION ELEVATION

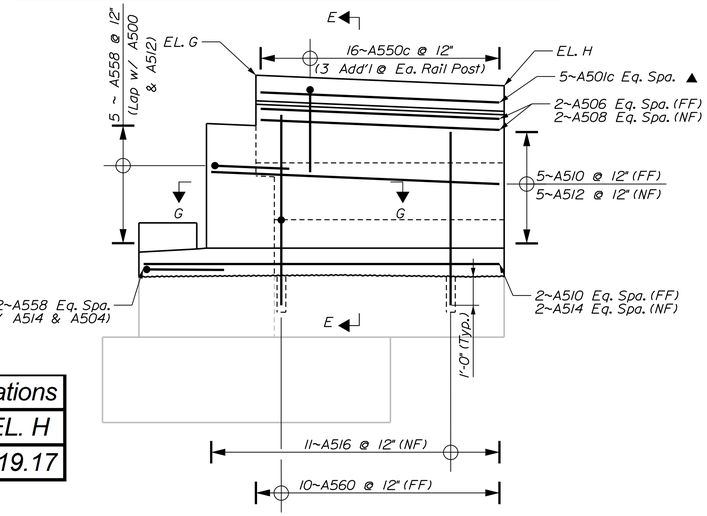


WINGWALL DEMOLITION SECTION



ABUTMENT 1 RIGHT WINGWALL CONSTRUCTION ELEVATION

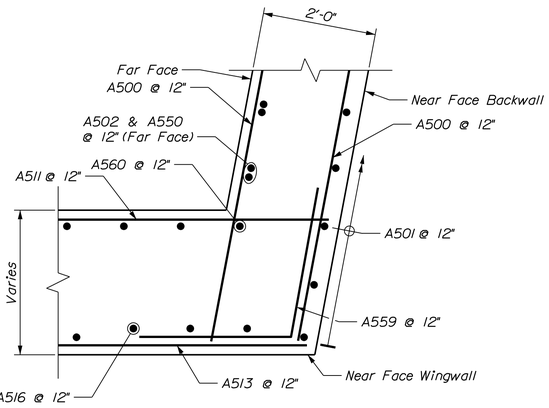
▲ = Cut to Fit



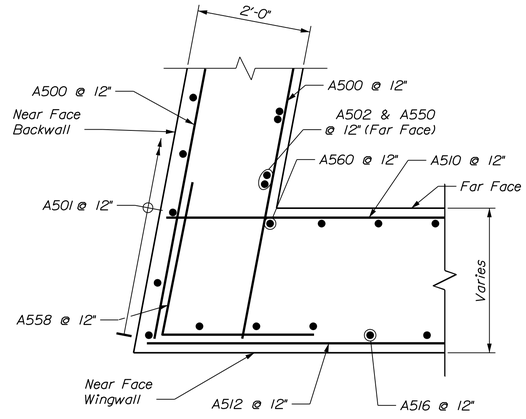
ABUTMENT 1 LEFT WINGWALL CONSTRUCTION ELEVATION

▲ = Cut to Fit

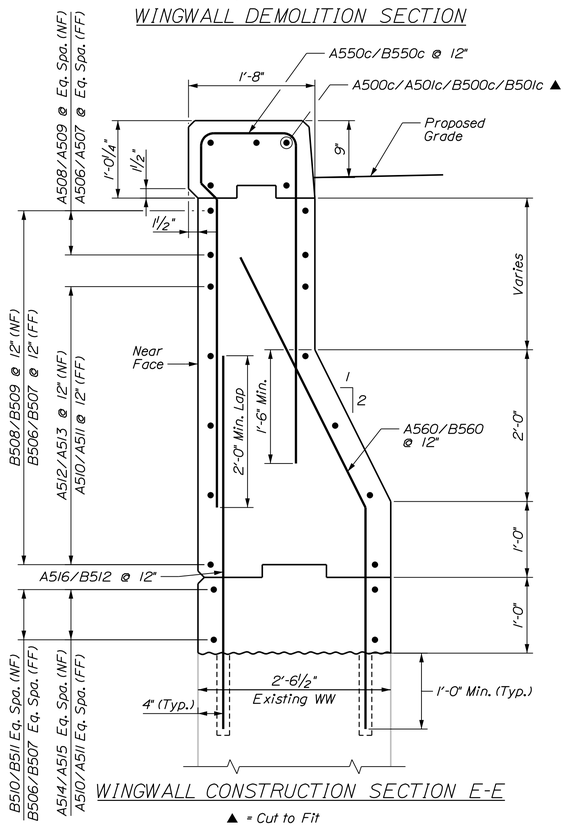
Abutment 1 Wingwall Elevations			
EL. E	EL. F	EL. G	EL. H
219.30	218.94	219.55	219.17



SECTION F-F



SECTION G-G



WINGWALL CONSTRUCTION SECTION E-E

▲ = Cut to Fit

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

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CHECKED-REVIEWED	D. WHITE	B. COLBURN	08-24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN	08-24
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

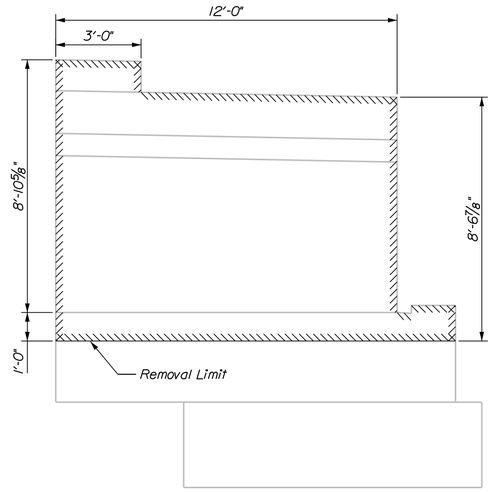
WINGWALL MODIFICATIONS

SHEET NUMBER

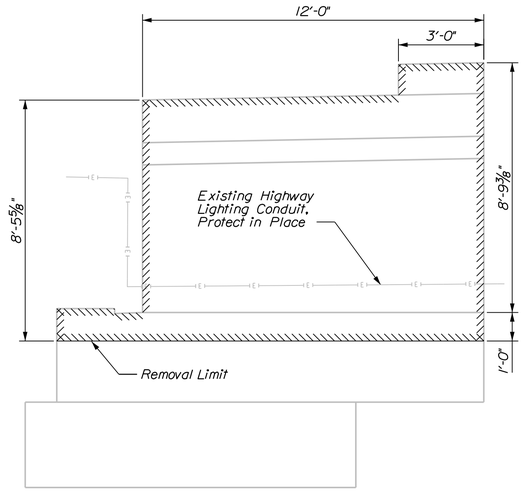
11

OF 31

Filename: ...\0xx_Wingwall_Modifications 1.dgn Division: Username: emorrison Date:8/12/2024

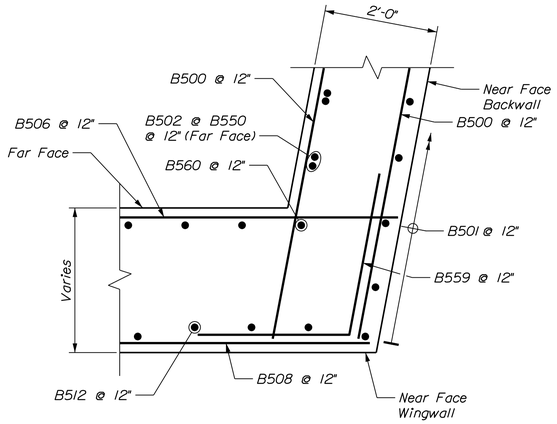


ABUTMENT 2 LEFT WINGWALL DEMOLITION ELEVATION

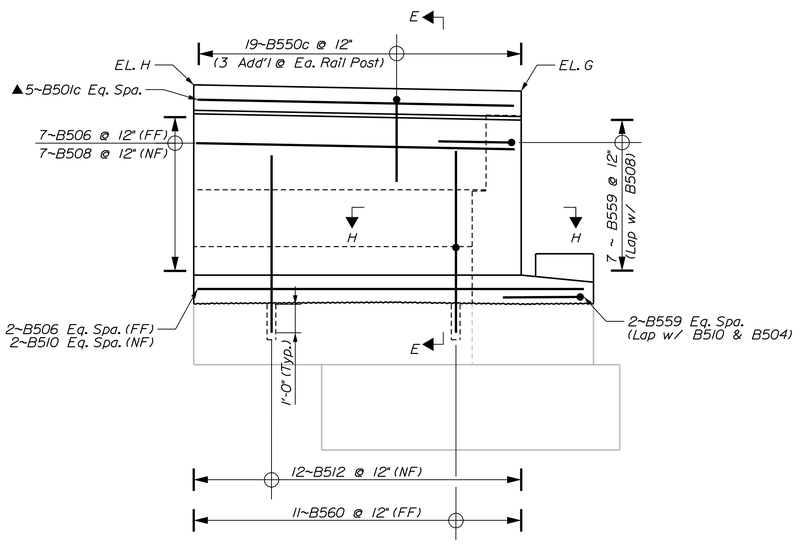


ABUTMENT 2 RIGHT WINGWALL DEMOLITION ELEVATION

Abutment 2 Wingwall Elevations			
EL. E	EL. F	EL. G	EL. H
232.00	232.22	232.10	232.32



SECTION H-H



ABUTMENT 2 LEFT WINGWALL CONSTRUCTION ELEVATION

See Section E-E on Sheet 11
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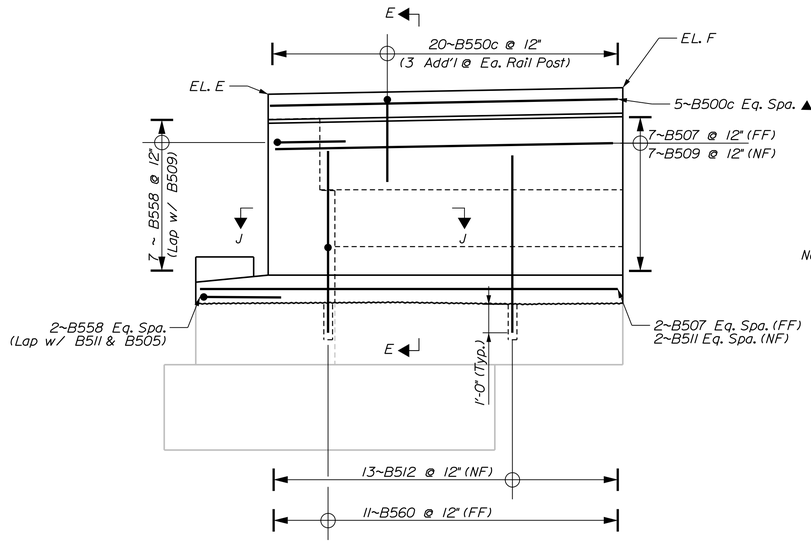
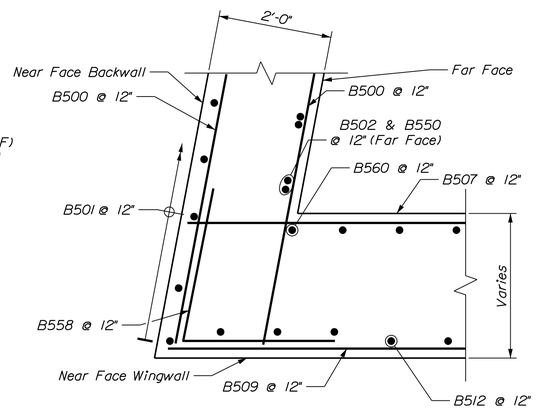


ABUTMENT 2 RIGHT WINGWALL CONSTRUCTION ELEVATION

See Section E-E on Sheet 11
▲ = Cut to Fit



SECTION J-J

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

PROJ. MANAGER	J. BRASK	
DESIGN-DETAILED	S. LINDSLEY	E. MORRISON 08/24
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DESIGN2-DETAILED2	J. FITZ	N. EDMAN 08/24
DESIGN3-DETAILED3		
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FIELD CHANGES		

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DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

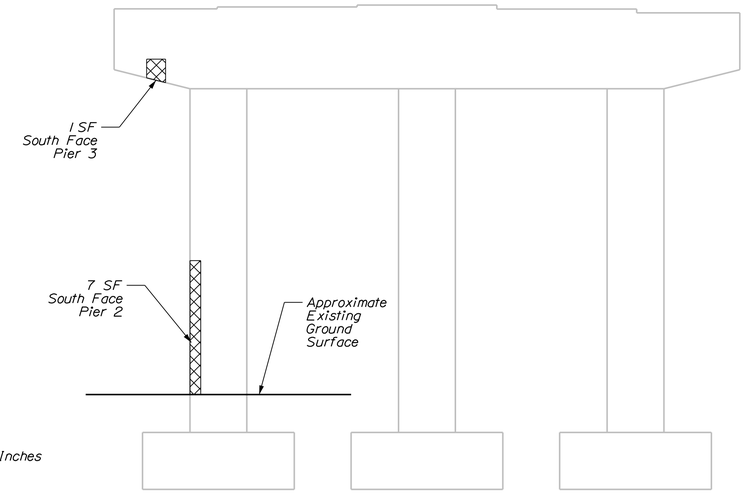
WINGWALL MODIFICATIONS

SHEET NUMBER

12

OF 31

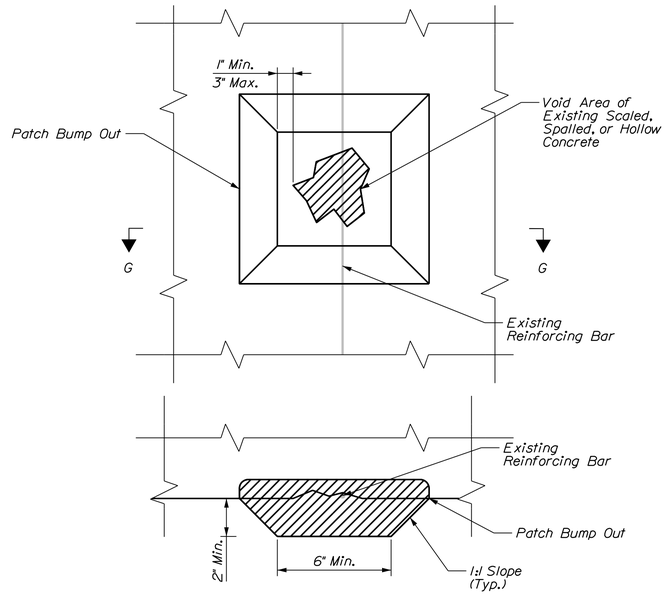
Filename: ...\Oxx_Wingwall_Modifications 2.dgn Division: Username: emorrison Date:8/12/2024



LEGEND

Repair of Vertical Surfaces < 8 Inches

TYPICAL PIER ELEVATION



SECTION G-G

BUMP OUT DETAIL

Not to Scale

CONCRETE REPAIR NOTES

1. The repair quantities in these Plans are approximate and are based on limited field inspections. Prior to the start of any concrete repairs, the Resident and Contractor shall jointly inspect all concrete surfaces and agree on repair limits. Estimated repair quantities may be increased or decreased at the Resident's discretion.
2. No repairs are anticipated for substructure units not shown. The Contractor and the Resident shall verify that no work is required.
3. All broken or corroded reinforcing bars shall be supplemented in accordance with Standard Specification Section 518.04. Supplemental reinforcing shall maintain a clear cover of 2" minimum. The bump out detail provided shall be used to meet minimum cover requirements as necessary. Supplemental bars shall be paid for under Pay Items 503.19 and 503.20.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068 BRIDGE PLANS

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DESIGN3-DETAILED3			
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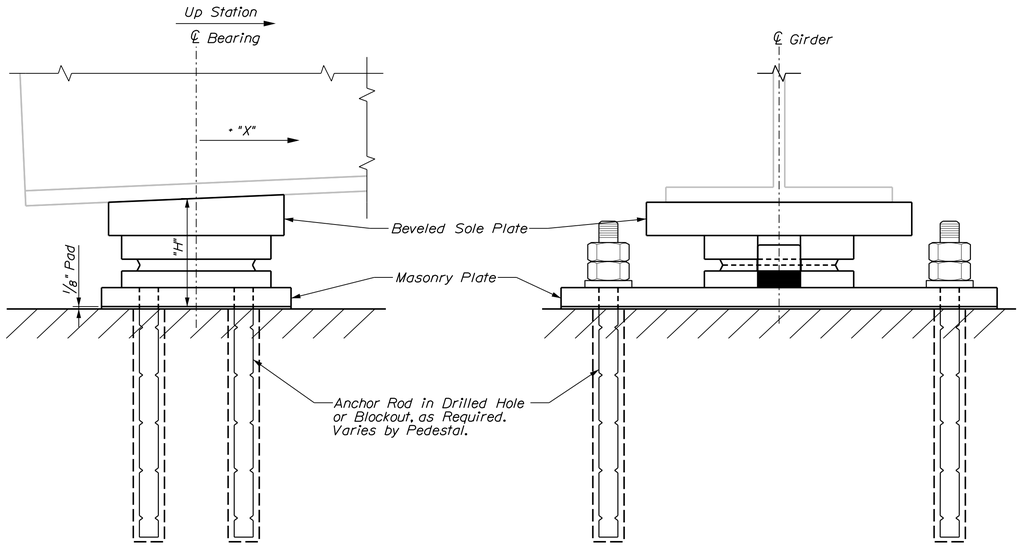
ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

PIER REPAIRS

SHEET NUMBER

13

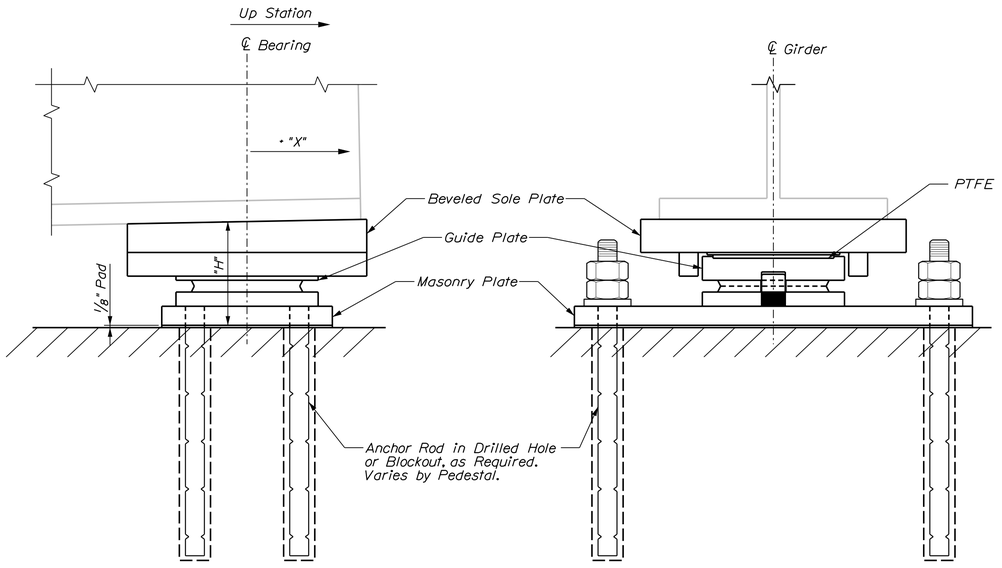
OF 31



Longitudinal Elevation

Transverse Section

FIXED BEARING ASSEMBLY



Longitudinal Elevation

Transverse Section

UNI-DIRECTIONAL BEARING ASSEMBLY

DISC BEARING NOTES

1. The actual dimension "H" shall be the responsibility of the Contractor. Dimensions and sizes of plates not shown are dependent on design loads, capacity, and the manufacturer of the bearings. The shop drawings, prepared by the manufacturer, shall provide all pertinent bearing information. The final bearing pedestal elevations shall be determined by the Contractor and submitted with the shop drawings for approval prior to construction of the substructure units.
2. Masonry plates shall be placed on 1/8" thick preformed pads in accordance with the specifications.
3. All steel, unless otherwise specified, shall meet the requirements of ASTM A709, Grade 50.
4. Bearing anchorage shall be Anchor Rod with double nuts and washers in blockout or drilled hole with adhesive.
5. Anchorage spacing and size shall be coordinated with the bearing manufacturer and shall not conflict with portions of existing anchor rods that remain. Anchor rod height shall not interfere with bearing components, girder, or diaphragm.
6. Anchor rods shall meet the requirements of ASTM F1554, Grade 105 and shall be swedged or threaded on the embedded portion of the rod.
7. Heavy hex nuts for anchor rods shall meet the requirements of ASTM A563, Grade D or DH.
8. Anchor rods, washers, and nuts shall be galvanized to ASTM A153 OR ASTM B695, Class 50, Type 1. Payment for galvanizing will be considered incidental to the disc bearing pay items.
9. For each bearing assembly, all steel except the top surface of the sole plate shall be coated in accordance with Standard Specifications Section 506, Protective Coating - Steel (Either Thermal Spray Coating or Hot-Dip Galvanizing). The top surface of the sole plate shall be masked and after welding of the bearings shall be coated in accordance with Standard Specifications Section 506, Protective Coating - Steel (Zinc Rich Coating System) to match the existing structural steel. Payment for Coatings for Disc Bearings will be considered incidental to the bearing fabrication and installation Pay Items.
10. The abbreviation "PTFE" indicates polytetraflouroethylene.
11. All PTFE, including guide and restraint surfaces, shall be unfilled.
12. PTFE minimum bearing pressure shall be 1 ksi under total service loading and 3 ksi under total strength loading.
13. Average compressive stresses on the disc shall be computed using the minimum plan area of the unstressed disc, excluding the area of any holes.
14. The design temperature range shall be 150°F (-30°F to 120°F).
15. Design of the sole plates, including weld to existing girder, and masonry plates is the responsibility of the Bearing Manufacturer. Payment for these shall be made under Item 523.5551, Pot or Disc Bearings, Fixed or Item 523.5552, Pot or Disc Bearings, Expansion as applicable.
16. Sole plate shall be beveled according to the grade defined at each substructure location in the Sole Plate Bevel Table. The minimum sole plate thickness after beveling shall be 1 1/2".
17. Strength Limit State rotations shown in the Disc Bearing Design Table do not include an allowance for uncertainties. Use a minimum allowance of 0.01 radians for uncertainties.
18. Anchor rods shall have a minimum embedment of 18 inches below the top of pedestals.
19. Bearings shall be designed with a thermal load factor of 1.2.
20. Longitudinal horizontal forces do not include friction forces at expansion bearings.
21. All bearings shall be marked prior to shipping. The marks shall include the bearing locations on the bridge, and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed. Bearings shall be restrained during transit.
22. Bearing installation shall be in strict conformance with the Standard Specifications and the manufacturer's recommendations.
23. In the Disc Bearing Setting Corrections Table, a negative value for Dimension "X" indicates a direction away from the nearer expansion joint. A positive value for Dimension "X" indicates a direction toward the nearer expansion joint.
24. Abutment No. 1 bearings shall be welded to the girder prior to Abutment No. 2 bearings. End diaphragms at Abutment No. 1 shall be within 1/2" of centerline of bearing at time of welding.
25. Temperatures shown in the Disc Bearings Setting Corrections Table are those of the steel girders and not necessarily ambient air temperature.
26. Bearings need not be designed with hold-downs.
27. Anchor rods shall be drilled and grouted in place using a material listed on the Maine Department of Transportation Qualified Product List of Concrete Anchoring Systems.
28. Bearings shall not be welded until after all the dead load has been applied to the bridge.
29. Fixed bearings shall allow ±1/16" of movement in any direction. Uni-directional bearings shall allow ±1/4" of movement prior to guide engagement. All bearings shall satisfy the minimum rotation value in the Standard Specifications.

SOLE PLATE BEVEL TABLE (%)	
Abutment 1	4.31
Abutment 2	1.89

DISC BEARING SETTING CORRECTIONS TABLE							
	Dimension "X" (inches)						
	0° F	15° F	30° F	45° F	60° F	75° F	90° F
Abutment 1	0	0	0	0	0	0	0
Abutment 2	-1.41	-0.94	-0.47	0	0.47	0.94	1.41

DISC BEARING DESIGN TABLE

Location	Bearing Type	Design Loads Per Bearing (kips)											Assumed Bearing Height (H) (in.) (See Note 1)	Design Rotations (radians)		Total Long. Movement (in.)
		Vertical Design Loads					Horizontal Design Loads									
		Strength	Extreme Event	Service			Strength		Extreme Event		Service					
		Total Load	Total Load	Dead Load	Max. Live Load	Min. Live Load	Long.	Trans.	Long.	Trans.	Long.	Trans.		Strength	Service	
Abutment 1	Fixed	162	63	26	73	-11	17	2	147	16	15	15	5.44	0.005	0.003	0.00
Abutment 2	Uni-Dir.	176	72	34	75	-9	0	2	0	18	0	17	5.46	0.007	0.005	4.52

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	J. BRASK	
DESIGN-DETAILED	S. LINDSLEY	08/24
CHECKED-REVIEWED	E. MORRISON	08/24
DESIGN2-DETAILED2	D. WHITE	B. COLBURN
DESIGN3-DETAILED3	J. FITZ	N. EDMAN
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

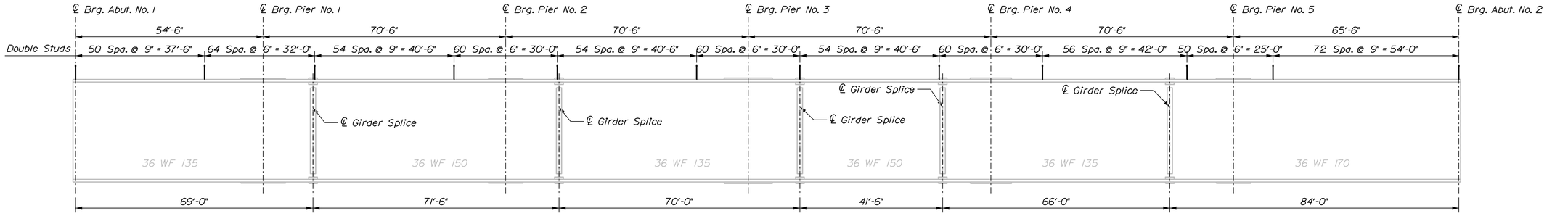
DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

BEARING DETAILS

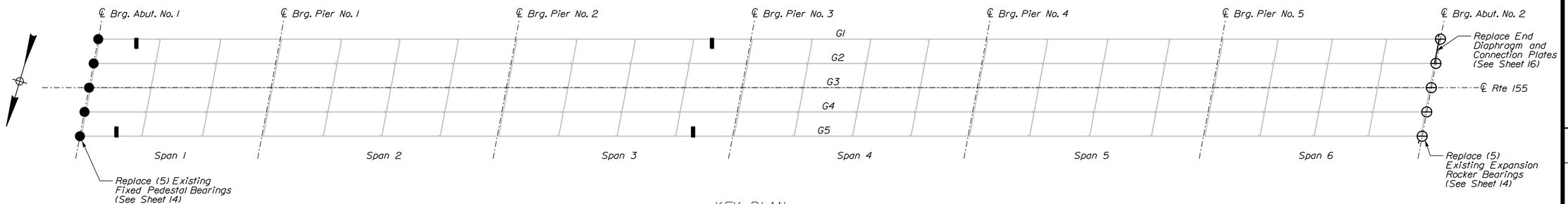
SHEET NUMBER
14
OF 31

Filename: ...\0xx_Bearing_Details.dgn Division: Username: emorrison Date:8/12/2024



SHEAR CONNECTOR LAYOUT

1270 (635 x 2 Rows) Studs Per Girder
(6350 Studs Total)

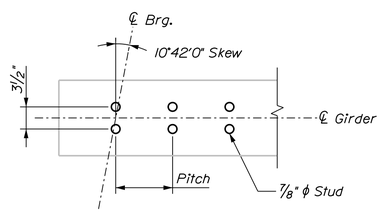


KEY PLAN

LEGEND

⊖ Guided Longitudinal Expansion (Unidirectional) Disc Bearing

● Fixed Disc Bearing



SHEAR CONNECTOR DETAIL

SHEAR CONNECTOR NOTES

1. Dimensions are measured along centerline of the girder.
2. Prior to installing the proposed shear studs, the Contractor shall clean the top flange so that it is free of debris, rust, scale, oil and other contaminates that would adversely affect the welding operation. Payment for cleaning the top flange for installation of proposed shear studs shall be incidental to Item 505.08, Shear Connectors. Existing steel may be coated with a lead-based paint system. See General Notes for more information.
3. The proposed shear studs shall be ⅞" diameter. Studs shall penetrate into the deck a minimum of 2" and maintain a clear cover of 2" to the top of the studs.
4. If existing shear connectors are present, they shall be removed such that they project 1 inch maximum above the top of the existing top flange unless they conflict with the installation of the new shear connectors or any other work. If the existing shear connectors interfere with installation of the new shear connectors or any other work, they shall be removed completely and ground flush with the top flange. All costs associated with this work shall be incidental to related Contract Items.
5. Pitch spacing may be adjusted at bolted splices to avoid splice bolts.

STATE OF MAINE
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WIN
WIN 25631.14
BRIDGE NO. 6068

BRIDGE PLANS

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CHECKED-REVIEWED	D. WHITE	B. COLBURN 08-24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN 08-24
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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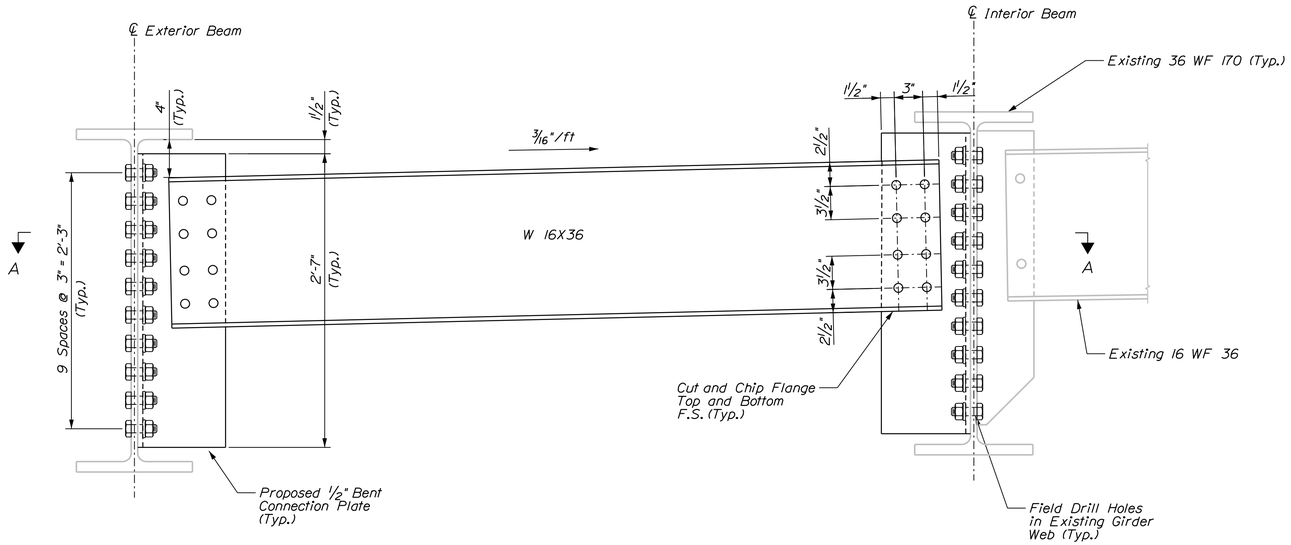
ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

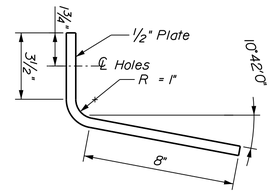
KEY PLAN & SHEAR CONNECTOR LAYOUT

SHEET NUMBER
15
OF 31

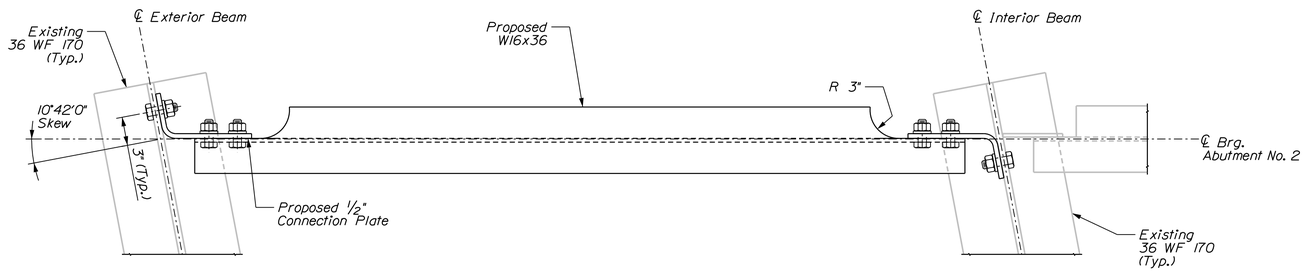
Filename: ...\0xx_Shear_Stud_Layout.dgn Division: Username: emorrison Date:8/12/2024



END DIAPHRAGM ELEVATION
(Abutment 2)



CONNECTION PLATE DETAIL



SECTION A-A

STRUCTURAL STEEL NOTES

1. Replace Diaphragm as shown on Key Plan.
2. The reuse of existing bolts will not be permitted.
3. All bolts shall be ⅞" ϕ, ASTM F3125 Grade A325, Type 1, High Strength Bolts.
4. Proposed Structural Steel shall be coated in accordance with Standard Specifications Section 506, Shop Applied Protective Coating - Steel (Zinc Rich Coating System). Payment for the coating will be incidental to Pay Item 504.70.
5. Shop drill 15/16" ϕ holes in diaphragm. Shop drill 11/16" ϕ holes in bent plates. Field drill 15/16" ϕ holes in existing girders.
6. Proposed steel contact surfaces shall be cleaned in accordance with Pay Item 506.1775 Field Painting, New and Existing Steel with Zinc Rich Paint.
7. Payment for field measuring and field drilling shall be incidental to Pay Item 504.71, "Structural Steel Erection".
8. Existing connection plates that are being replaced shall be removed without damage to the girder. Payment will be incidental to Pay Item 504.71.

STATE OF MAINE
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PROJECT NO. 2563114

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BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

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CHECKED-REVIEWED	D. WHITE	B. COLBURN	08-24
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DESIGN3-DETAILED3			
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HOWLAND PENOBSCOT COUNTY

STRUCTURAL STEEL DETAILS

SHEET NUMBER
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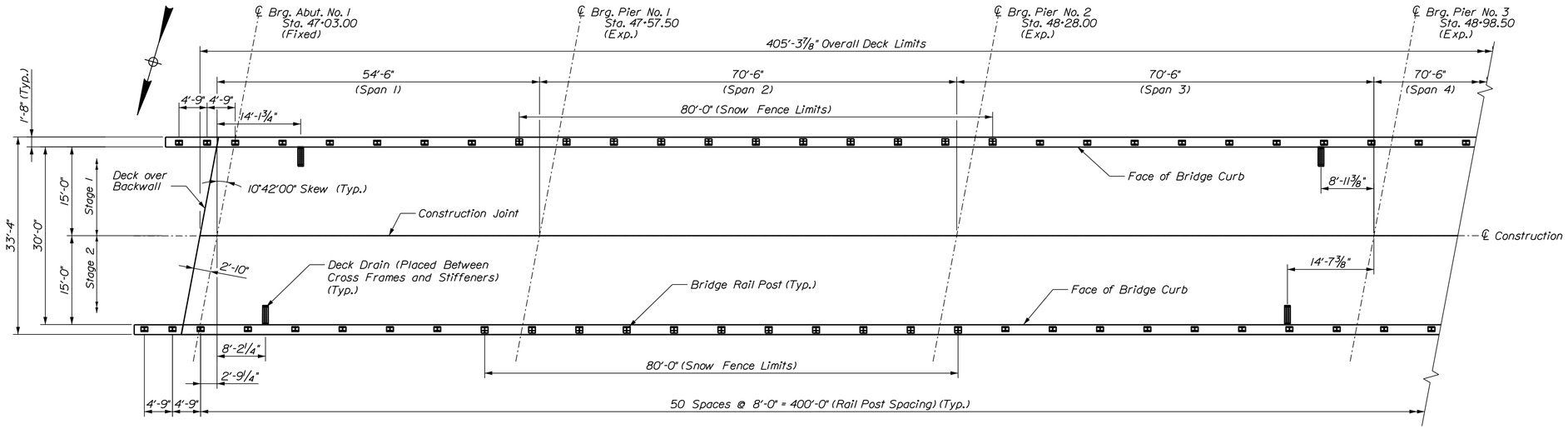

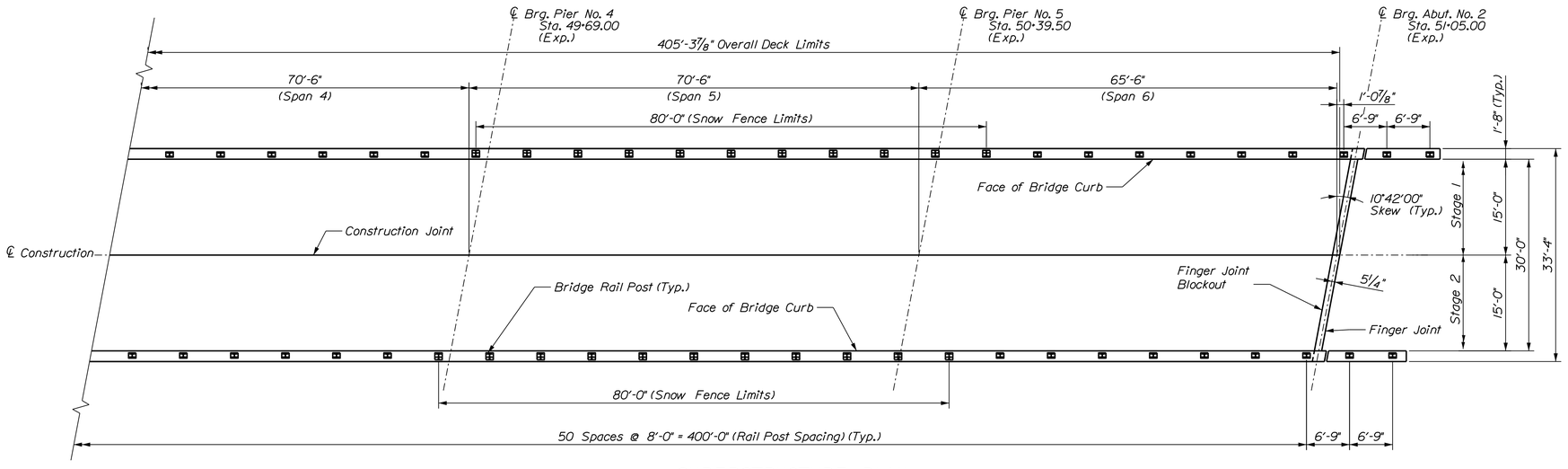

SUPERSTRUCTURE PLAN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
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CHECKED-REVIEWED	D. WHITE	B. COLBURN	08/24
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

SUPERSTRUCTURE PLAN

SHEET NUMBER
17
OF 31

Username: emorrison Date:8/12/2024
Division:
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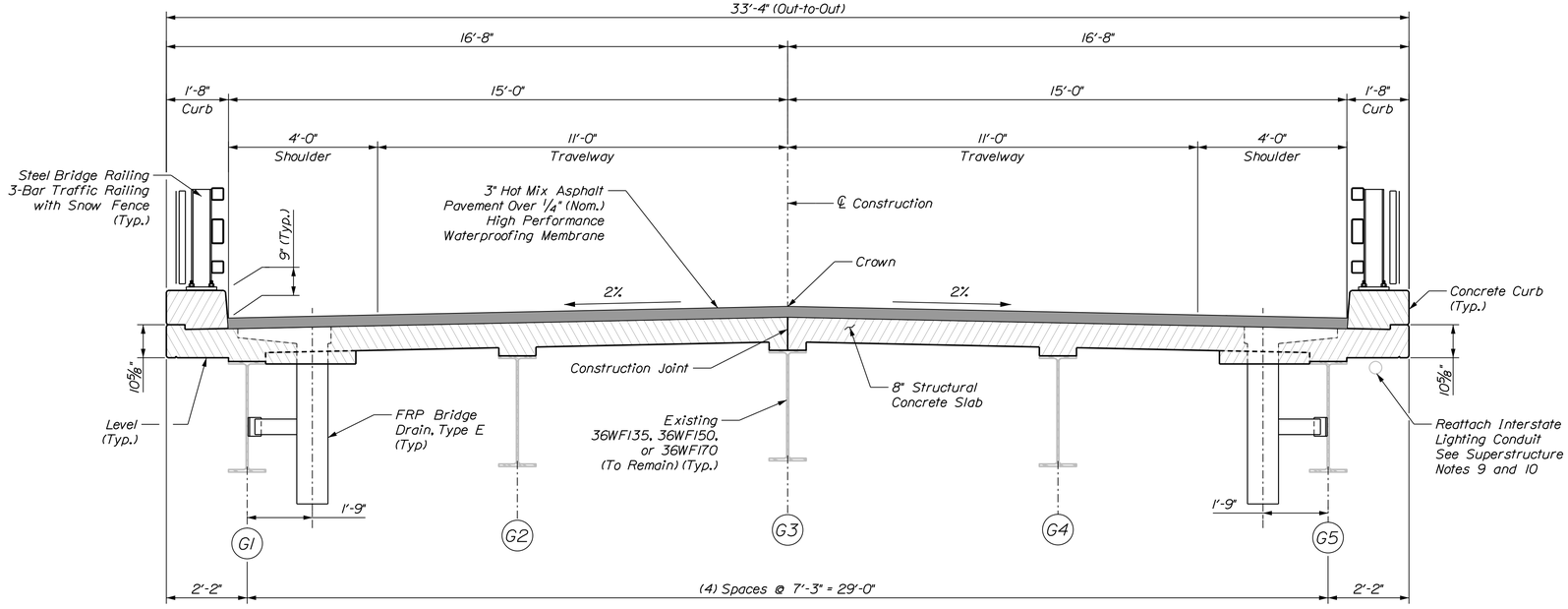

TRANSVERSE SECTION

SUPERSTRUCTURE NOTES

1. The theoretical blocking used for design of the structure is 2.75 inches at the centerlines of bearing of the abutments and piers as measured from the top of the rolled beam flange. 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 shall be placed continuously, per Stage, and shall be kept plastic until the entire placement has been made.
5. At the Contractor's option, Precast Concrete Deck Panels may be used in place of full depth cast-in-place deck slab, in accordance with Special Provision Section 502, Structural Concrete - Precast Deck Panels, and in accordance with the Standard Details.
6. Payment for reinforcing steel fabricated, delivered, and placed in the cast-in-place portion of the structural concrete slab and curb will be considered incidental to the appropriate 502 Pay Items. If Contractor opts to use Precast Concrete Deck Panels, Contractor is responsible for revising the Reinforcement Schedule.
7. Deck reinforcement shall be Plain Steel and curb reinforcement shall be Low-Carbon Chromium unless otherwise noted.
8. Contractor shall stagger the splice locations of the longitudinal bars.
9. Interstate lighting shall be operational during all nighttime hours. Method of temporary support of the existing conduit shall be described in the Demolition Plan. Payment for the temporary support shall be incidental to the bridge removal Pay Item.
10. The galvanized conduit attachments shall be spaced not more than 6 feet apart and all hardware shall be galvanized. Payment shall be incidental to the related Contract Items.

GIRDER	BOTTOM OF SLAB ELEVATIONS																												
	CL BRG. ABUT. NO. 1	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. PIER NO. 1	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. PIER NO. 2	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. PIER NO. 3
G1	217.99	218.23	218.47	218.70	218.93	219.16	219.38	219.60	219.81	220.03	220.24	220.52	220.81	221.09	221.36	221.63	221.89	222.15	222.39	222.64	222.89	223.14	223.39	223.64	223.89	224.13	224.36	224.58	224.80	225.02	225.24
G2	218.08	218.32	218.56	218.79	219.03	219.25	219.47	219.69	219.90	220.12	220.33	220.61	220.90	221.18	221.46	221.73	221.99	222.24	222.49	222.74	222.99	223.24	223.49	223.75	223.99	224.23	224.46	224.69	224.91	225.12	225.34
G3	218.16	218.41	218.65	218.88	219.11	219.34	219.56	219.78	219.99	220.21	220.42	220.71	220.99	221.28	221.55	221.82	222.08	222.34	222.59	222.83	223.08	223.34	223.59	223.84	224.09	224.33	224.56	224.79	225.01	225.22	225.44
G4	217.96	218.20	218.44	218.68	218.91	219.14	219.36	219.58	219.79	220.01	220.22	220.51	220.79	221.08	221.36	221.63	221.89	222.14	222.39	222.64	222.89	223.14	223.40	223.65	223.90	224.14	224.37	224.60	224.82	225.03	225.25
G5	217.75	218.00	218.24	218.47	218.70	218.93	219.15	219.37	219.59	219.81	220.02	220.31	220.59	220.88	221.15	221.42	221.69	221.94	222.19	222.44	222.69	222.95	223.20	223.46	223.70	223.95	224.18	224.41	224.63	224.85	225.07

GIRDER	BOTTOM OF SLAB ELEVATIONS																												
	CL BRG. PIER NO. 3	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. PIER NO. 4	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. PIER NO. 5	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	CL BRG. ABUT. NO. 2
G1	225.24	225.46	225.68	225.90	226.12	226.33	226.53	226.72	226.91	227.10	227.29	227.48	227.67	227.86	228.04	228.22	228.39	228.56	228.72	228.88	229.04	229.19	229.35	229.50	229.65	229.79	229.92	230.05	230.17	230.29	230.40
G2	225.34	225.56	225.79	226.01	226.23	226.44	226.64	226.83	227.02	227.21	227.40	227.59	227.78	227.97	228.16	228.34	228.51	228.67	228.83	228.99	229.15	229.31	229.46	229.62	229.77	229.91	230.05	230.18	230.30	230.41	230.52
G3	225.44	225.67	225.89	226.11	226.33	226.54	226.74	226.94	227.13	227.32	227.50	227.70	227.89	228.08	228.27	228.45	228.62	228.78	228.95	229.10	229.27	229.42	229.58	229.73	229.88	230.03	230.17	230.29	230.41	230.53	230.63
G4	225.25	225.48	225.70	225.93	226.15	226.36	226.56	226.76	226.95	227.13	227.32	227.51	227.71	227.90	228.09	228.27	228.44	228.61	228.77	228.93	229.09	229.24	229.40	229.56	229.71	229.86	229.99	230.12	230.24	230.36	230.46
G5	225.07	225.29	225.52	225.74	225.96	226.17	226.37	226.57	226.76	226.95	227.14	227.33	227.53	227.72	227.91	228.09	228.26	228.43	228.59	228.75	228.91	229.07	229.22	229.38	229.53	229.67	229.81	229.94	230.07	230.18	230.29

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

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CHECKED-REVIEWED	D. WHITE	B. COLBURN	08-24
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

SIGNATURE

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

TRANSVERSE SECTION

SHEET NUMBER
18
OF 31

Username: emorrison Date:8/12/2024
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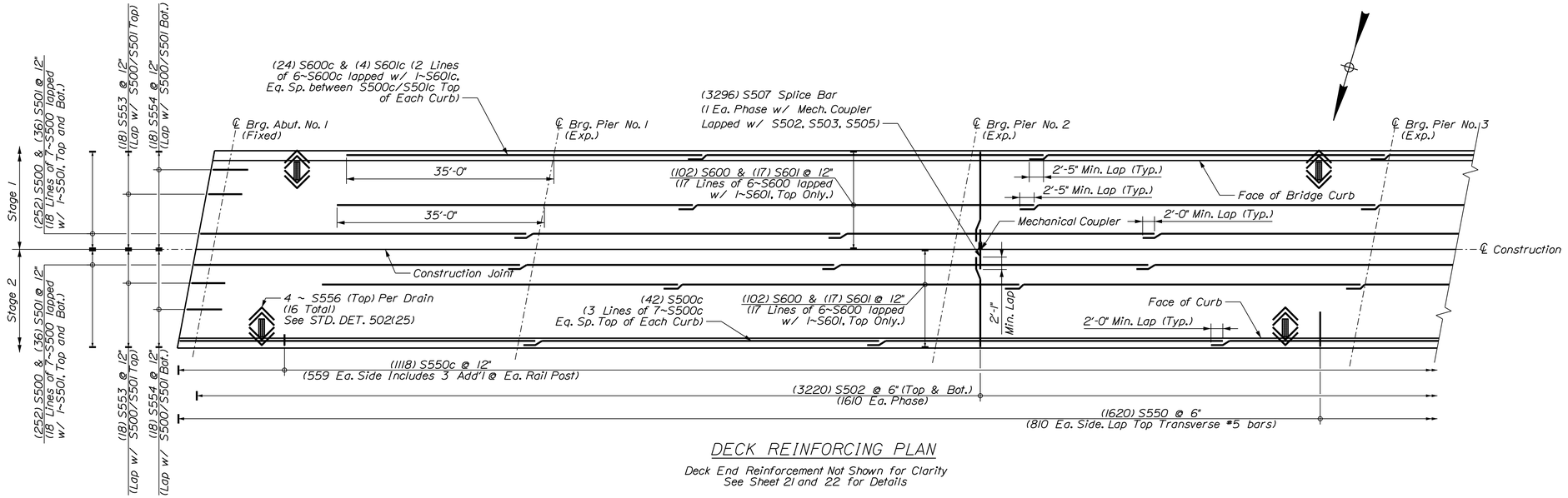
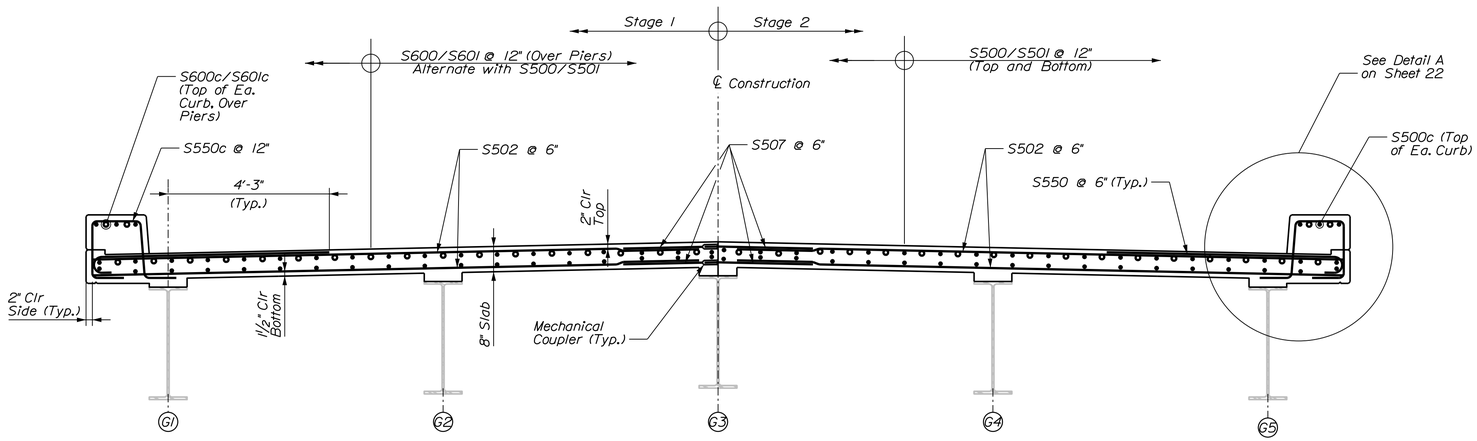


DECK REINFORCING PLAN

Deck End Reinforcement Not Shown for Clarity
See Sheet 21 and 22 for Details



TRANSVERSE SECTION

STATE OF MAINE
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PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

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FIELD CHANGES		

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ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

DECK REINFORCING

SHEET NUMBER

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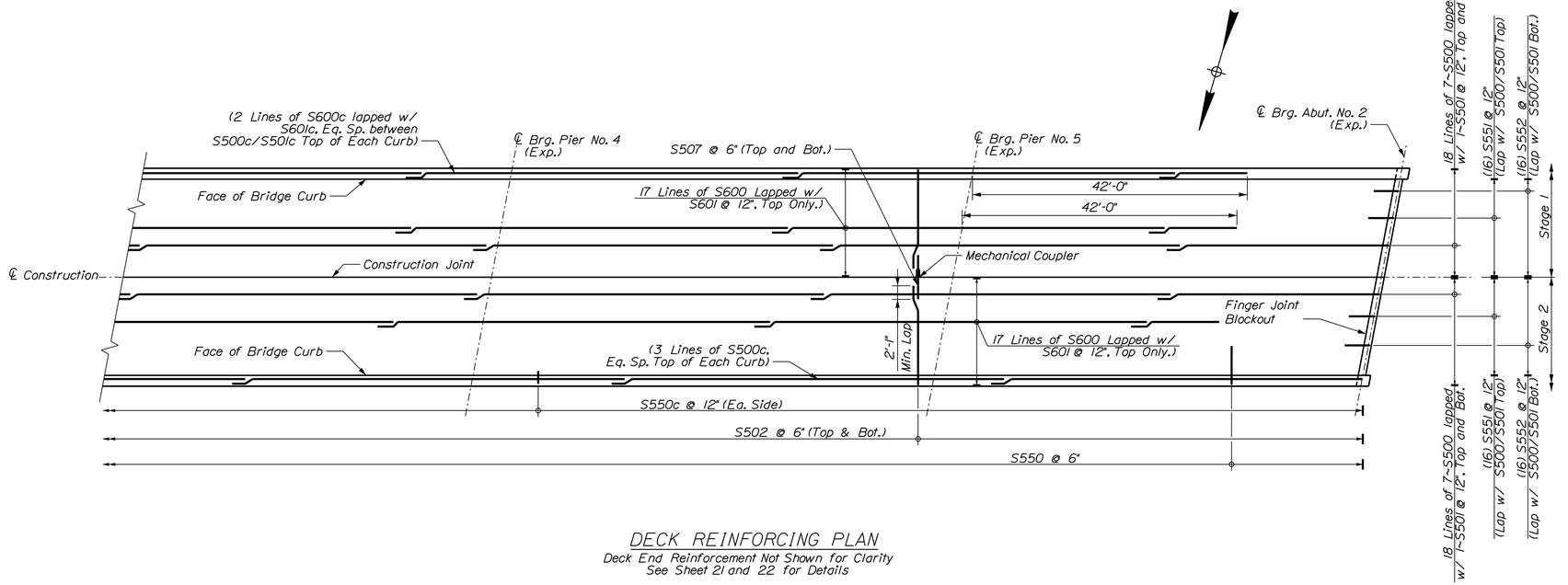
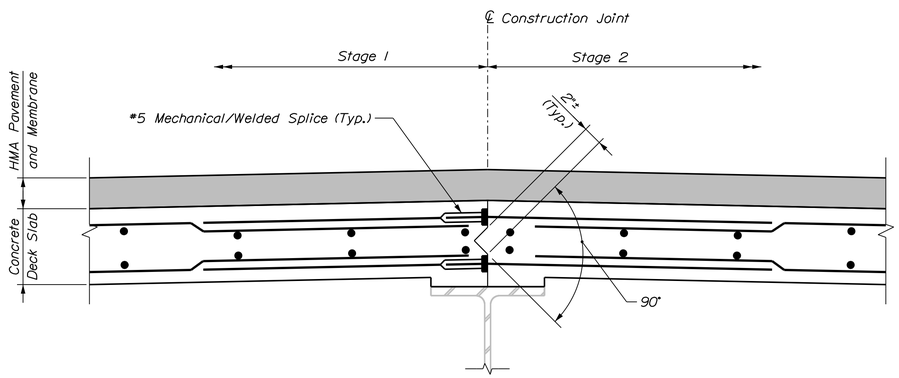
OF 31

Filename: ...\0xx_Reinforcing_Plan1.dgn Division: Username: emorrison Date:8/12/2024



DECK REINFORCING PLAN

Deck End Reinforcement Not Shown for Clarity
See Sheet 21 and 22 for Details



LONGITUDINAL CONSTRUCTION JOINT DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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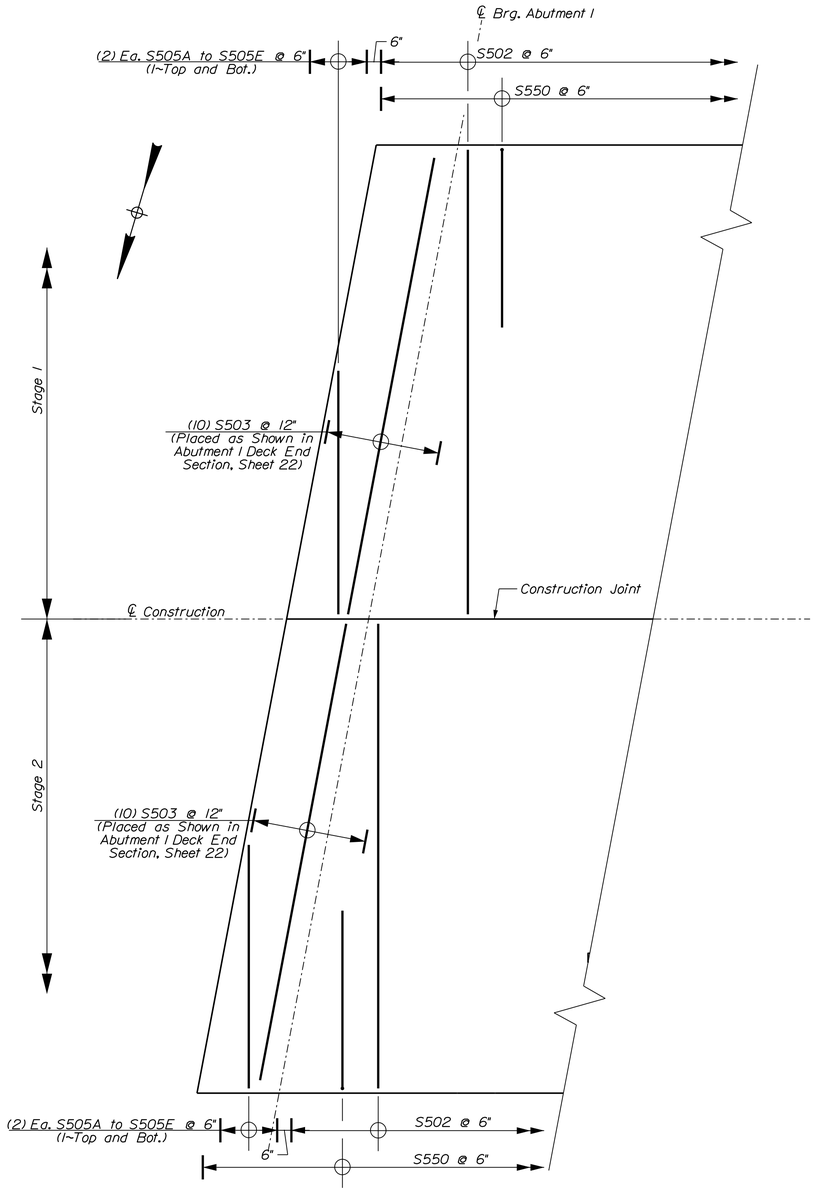
ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

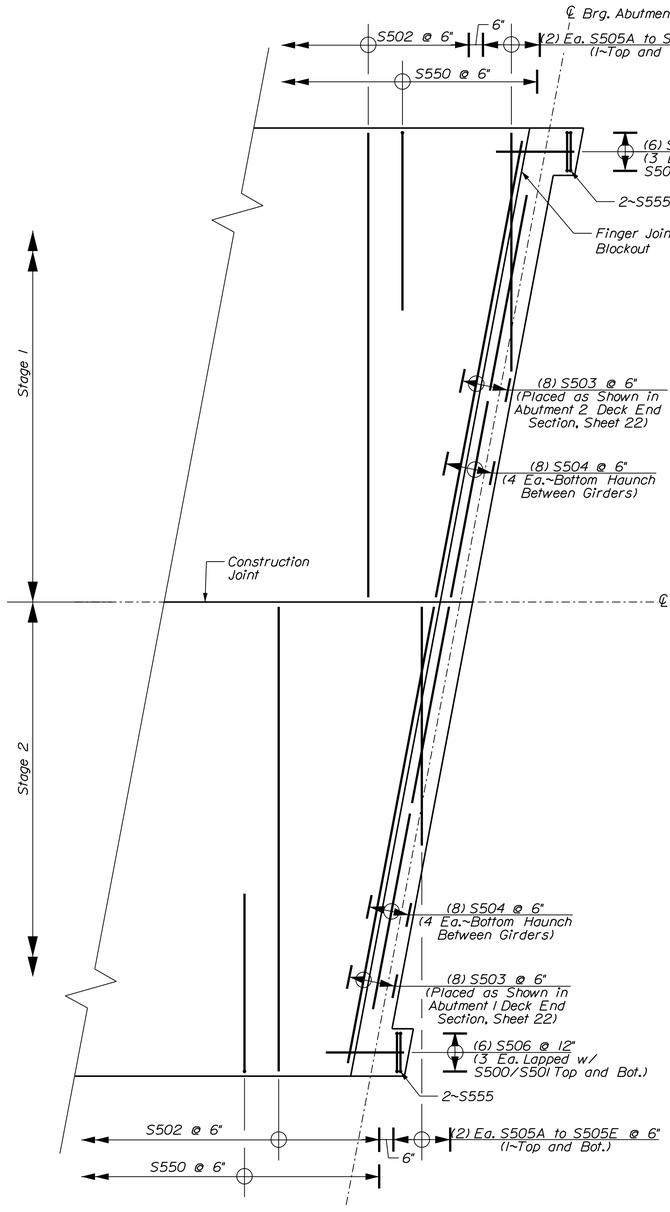
DECK REINFORCING

SHEET NUMBER
20
OF 31



ABUTMENT 1 DECK END DETAIL

Longitudinal Bars, Curb Bars, and S507 Splice Bars with Mechanical Couplers Not Shown for Clarity



ABUTMENT 2 DECK END DETAIL

Longitudinal Bars, Curb Bars, and S507 Splice Bars with Mechanical Couplers Not Shown for Clarity

STATE OF MAINE
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PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

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PROJ. MANAGER	J. BRASK	BY	
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FIELD CHANGES			

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ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

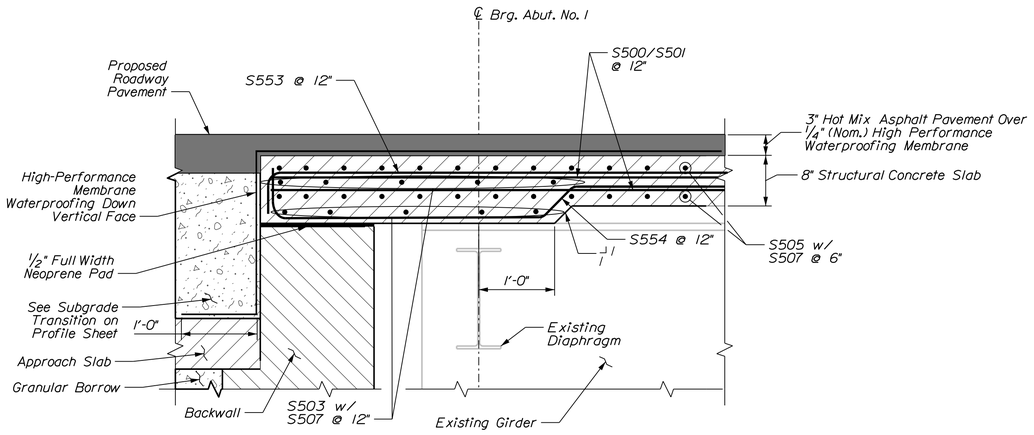
SUPERSTRUCTURE DETAILS

SHEET NUMBER

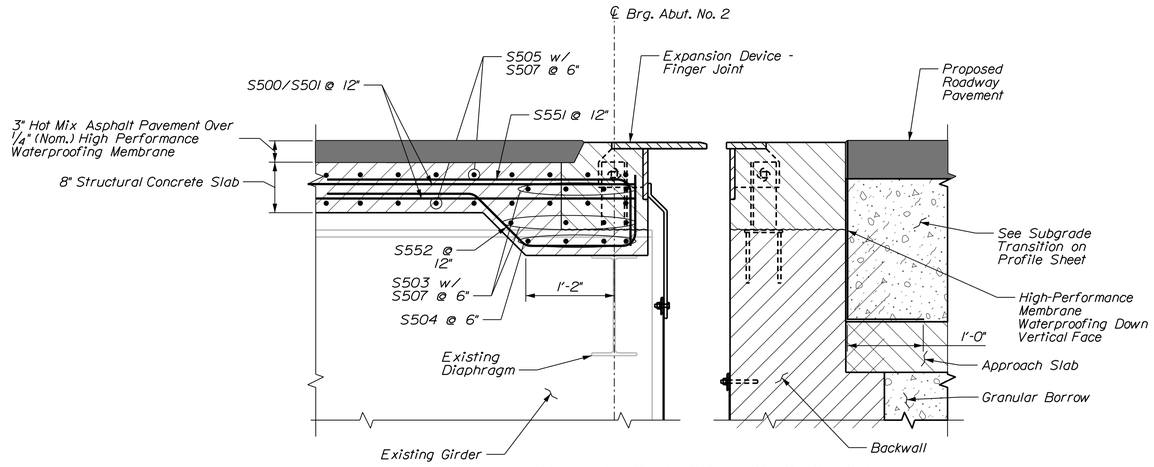
21

OF 31

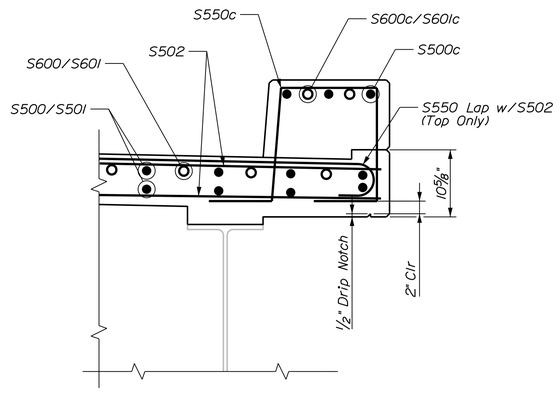
Filename: ...\0xx_Superstructure_Details_2.dgn Division: Username: emorrison Date:8/12/2024



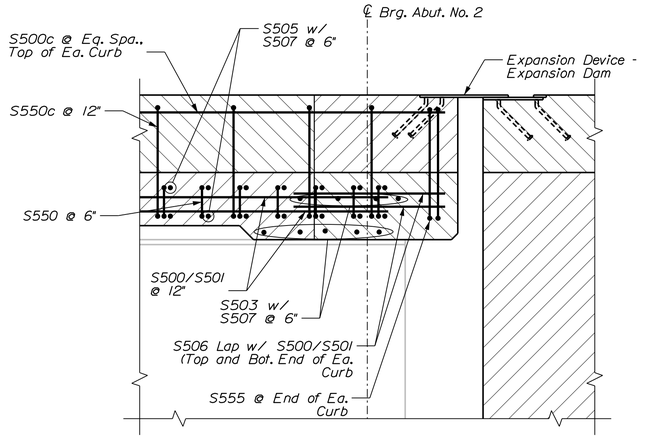
ABUTMENT 1 DECK END SECTION
(Parallel to Girder)



ABUTMENT 2 DECK END SECTION
(Parallel to Girder)



DETAIL A
Right Overhang Shown
Left Overhang Similar



ABUTMENT 2 CURB DECK END SECTION
(Parallel to Girder)

SUPERSTRUCTURE NOTES

1. Payment for the neoprene pad will be incidental to related Contract Items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

PROJ. MANAGER	J. BRASK		
DESIGN-DETAILED	S. LINDSLEY	E. MORRISON	08/24
CHECKED-REVIEWED	D. WHITE	B. COLBURN	08/24
DESIGN2-DETAILED2	J. FITZ	N. EDMAN	08/24
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

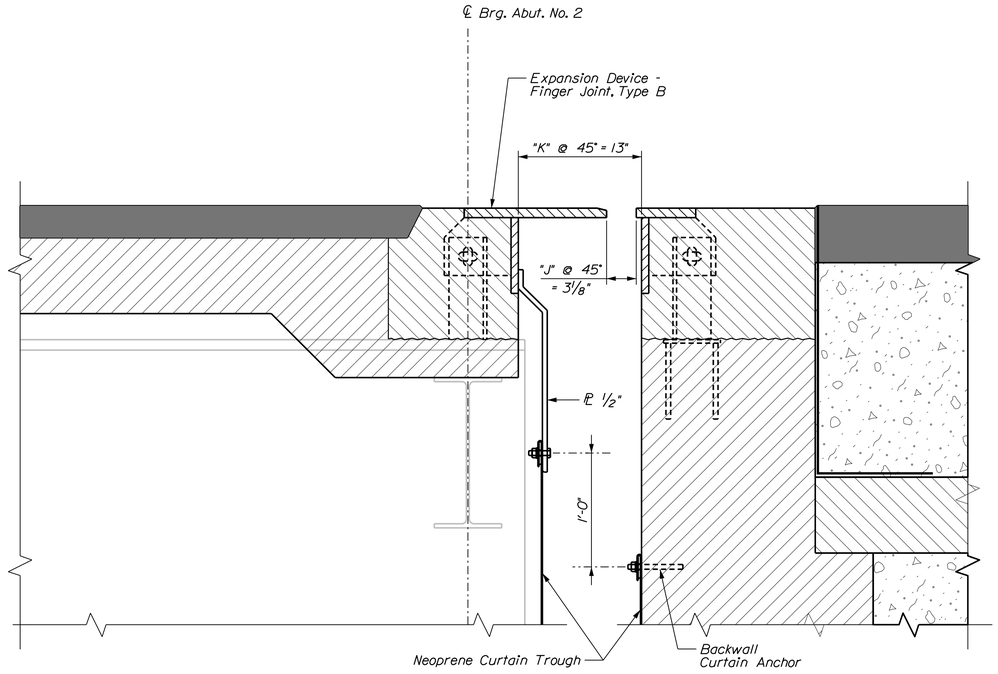
DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

SUPERSTRUCTURE DETAILS

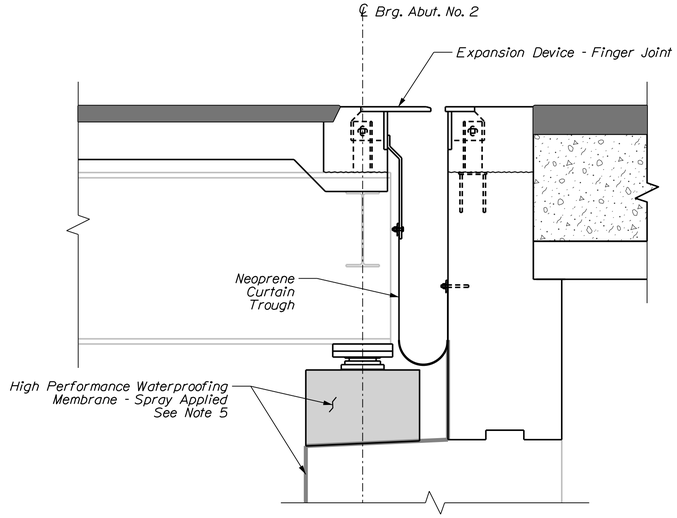
SHEET NUMBER
22
OF 31

Filename: ...\0xx_Superstructure_Details_1.dgn Division: Username: emorrison Date:8/12/2024



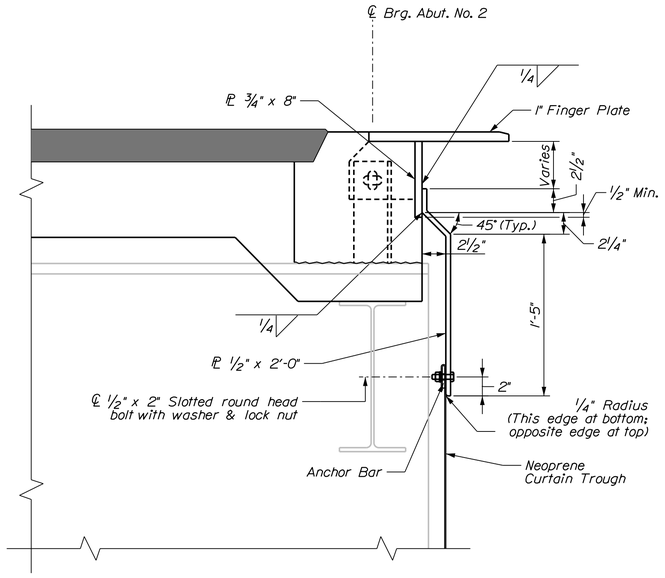
SECTION THRU FINGER JOINT

(Parallel to Girder)



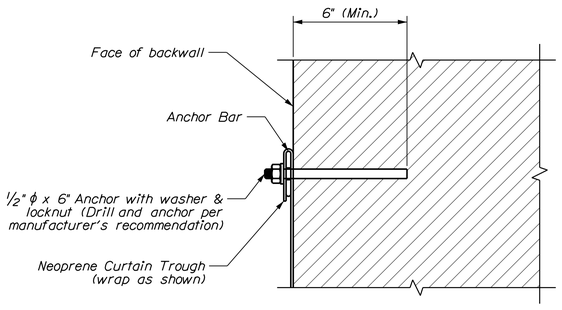
CURTAIN TROUGH AT ABUTMENT 2 EXPANSION JOINT

(Perpendicular to Joint)

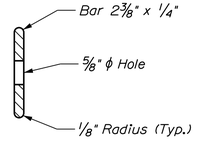


TYPICAL CURTAIN PLATE DETAIL

(Perpendicular to Joint)



ABUTMENT CURTAIN ANCHOR DETAIL



ANCHOR BAR

Provide 2 bars per trough. Match length and hole spacing to corresponding trough plate detail.

EXPANSION DEVICE AND FABRIC TROUGH NOTES

1. Provide one expansion device - Finger Joint (Type B) at Abutment No. 2. Construct finger joints in accordance with Standard Details Section 521.
2. Curb expansion dams shall be constructed in accordance with the Standard Details.
3. Fabrication and materials for the trough plates and curtain troughs, including galvanization of steel components, shall be in accordance with the provisions of Section 521 of the Standard Specification.
4. Payment for materials and installation of trough plates, curtain troughs, including neoprene sheets, anchor bars and hardware, will be incidental to Pay Item 521.23 Expansion Device - Finger Joint
5. High Performance Waterproofing Membrane shall be spray applied over the full abutment seat width and depth, up the sides of the concrete pedestals, and extending down to the existing ground on the front face of the abutment in the bays identified. The material used shall be on the Maine Department of Transportation Qualified Product List for Waterproofing Membranes.
6. Refer to Standard Details Section 521 for notes and details and information not shown.

STATE OF MAINE
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WIN
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FIELD CHANGES		

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ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

EXPANSION JOINT DETAILS

SHEET NUMBER

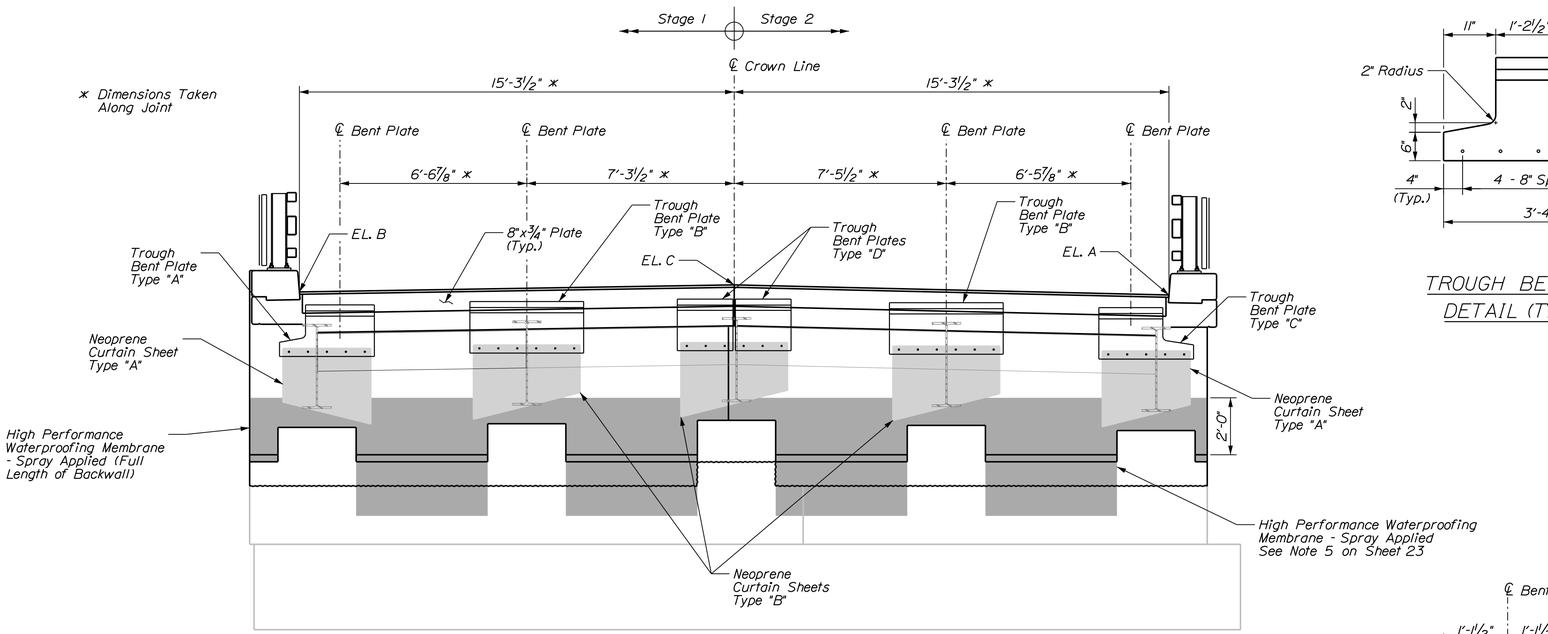
23

OF 31

Username: emorrison Date:8/12/2024

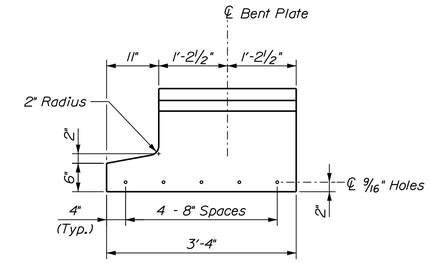
Division:

Filename: ...\Oxx_Exp_Joint_Details_1.dgn

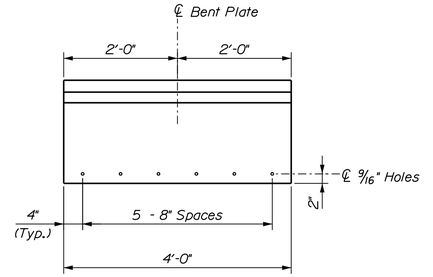


ABUTMENT FABRIC CURTAIN TROUGH ELEVATION

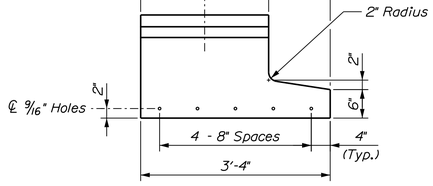
(See Sheet 9 for Elevations)



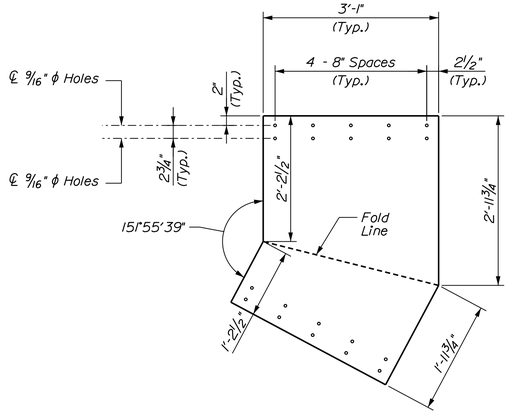
TROUGH BENT PLATE DETAIL (TYPE "A")



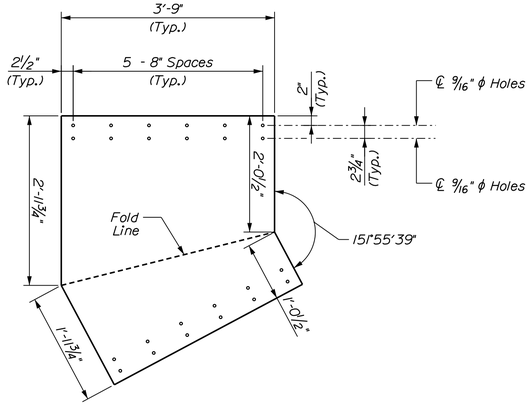
TROUGH BENT PLATE DETAIL (TYPE "B")



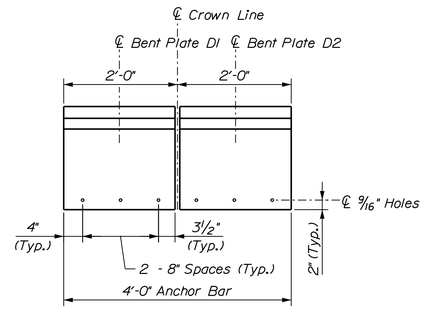
TROUGH BENT PLATE DETAIL (TYPE "C")



NEOPRENE CURTAIN SHEET (TYPE "A")



NEOPRENE CURTAIN SHEET (TYPE "B")



TROUGH BENT PLATE DETAIL (TYPE "D")

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

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CHECKED-REVIEWED	E. MORRISON	08-24
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DESIGN3-DETAILED3	J. FITZ	N. EDMAN	08-24
REVISIONS 1		
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REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

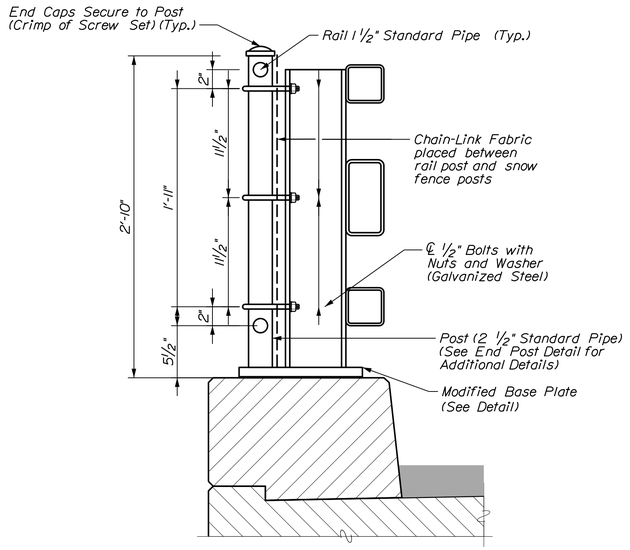
EXPANSION JOINT DETAILS

SHEET NUMBER

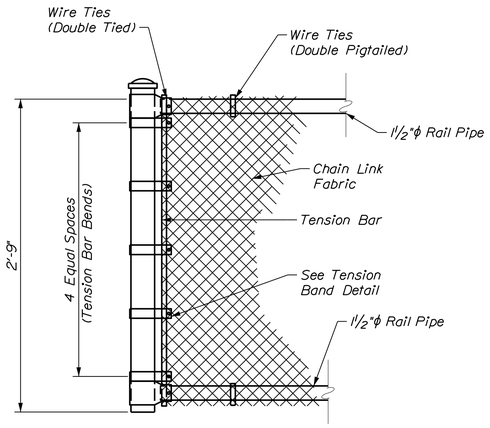
24

OF 31

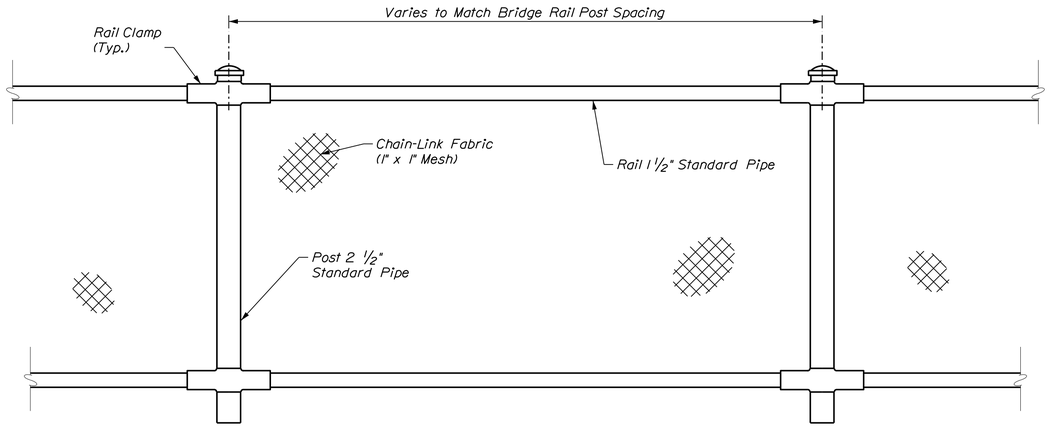
Filename: ...\0xx_Exp_Joint_Details_2.dgn Division: Username: emorrison Date:8/12/2024



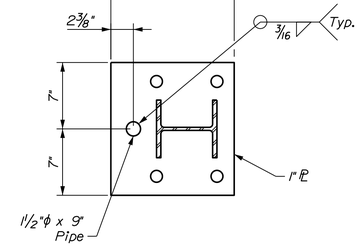
SNOW FENCE CONNECTION DETAIL



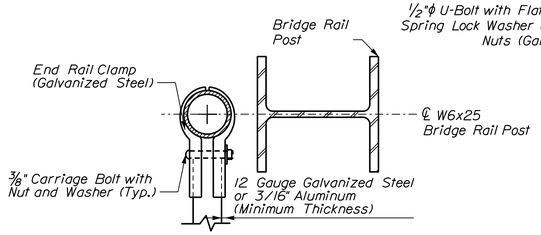
END POST DETAIL



ELEVATION - SNOW FENCE

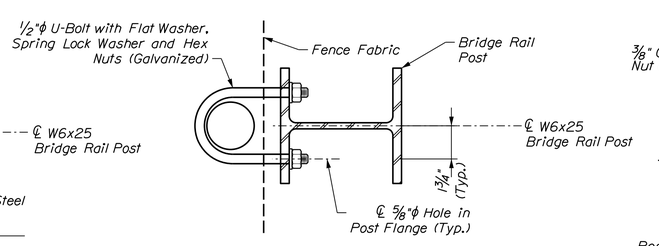


MODIFIED BASE PLATE DETAIL

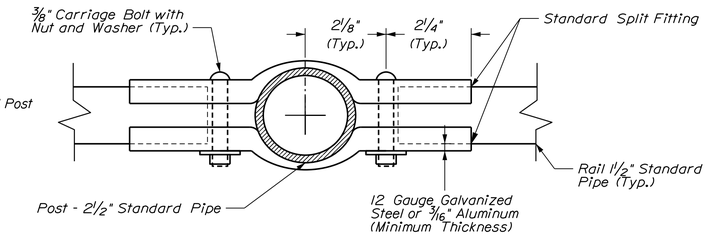


END POST SECTION

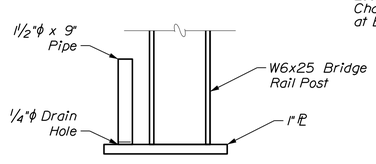
(U-Bolt Not Shown)



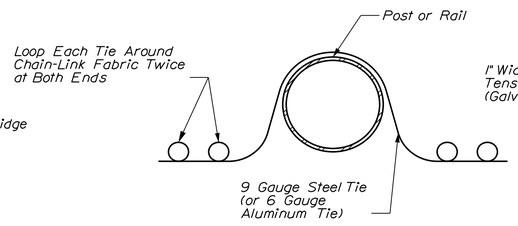
U-BOLT CONNECTION DETAIL



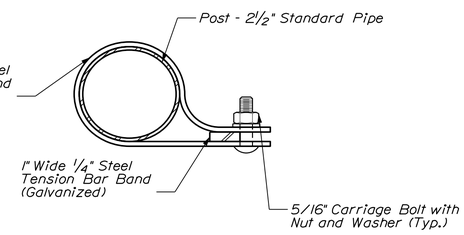
RAIL CLAMP DETAIL



MODIFIED BASE PLATE ELEVATION



DOUBLE PIGTAILED TIE



TENSION BAND DETAIL

SNOW FENCE NOTES

1. Chain-Link fence shall conform to Section 710.03 and Special Provision Section 607. The size of wire mesh (fabric) shall be 1".
2. Post and rail pipe shall be hot-dip galvanized. All pipe shall be schedule 40, standard weight. Nominal pipe sizes are shown.
3. Tension bars, bar bands, boulevard and end rail clamps shall be steel or aluminum alloy conforming to AASHTO M181 (ASTM F626). Steel components shall be hot-dip galvanized in accordance with AASHTO M111 (ASTM A123) or AASHTO M232 (ASTM A153) as applicable.
4. All bolts and nuts shall be steel conforming to ASTM A307 and ASTM A563 grade A respectively. Washers shall be hardened steel commercial type A plain and shall meet the dimensional requirements of ANSI B18.22. All bolts, nuts, and washers shall be hot-dip galvanized in accordance with AASHTO M111 (ASTM A123) or AASHTO M232 (ASTM A153) as applicable.
5. Rail may be field cut (sawn) to fit post spacing. Repair galvanizing on cut edges in accordance with ASTM A780.
6. Payment for modified base plate will be considered incidental to related Contract Items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

	BY	DATE
J. BRASK		
PROJ. MANAGER	E. MORRISON	08-24
DESIGN-DETAILED	B. COLBURN	08-24
CHECKED-REVIEWED	N. EDMAN	08-24
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

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DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

SNOW FENCE DETAILS

SHEET NUMBER

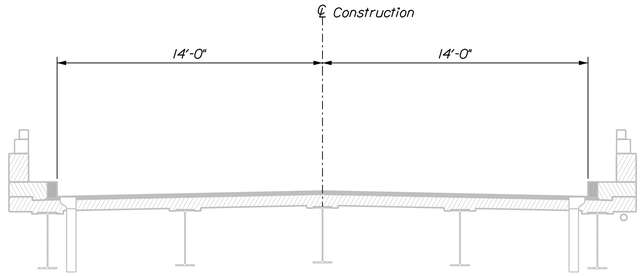
25

OF 31

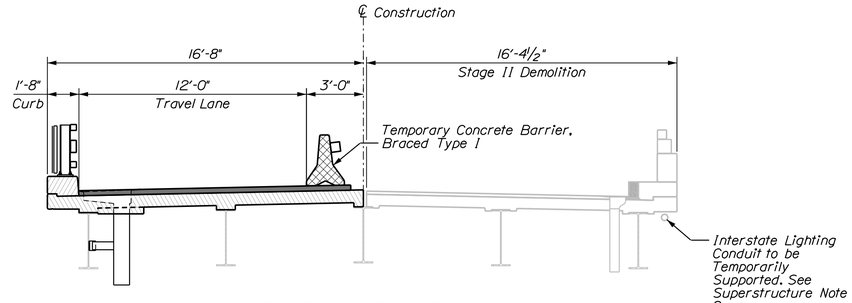
Filename: ...\0xx_Snow Fence Details.dgn Division: Username: emorrison Date:8/12/2024

STRAIGHT BARS

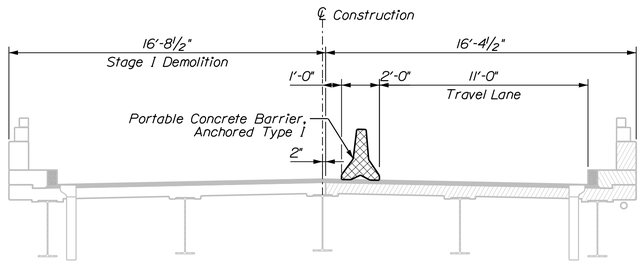
MARK	QTY.	LENGTH	LOCATION
Approach Slabs (Plain Steel)			
AS501	64	14'-2"	Approach Slab Transverse
AS601	116	15'-0"	Approach Slab Longitudinal
Superstructure (Low-Carbon Chromium)			
S500c	42	60'-0"	Curb Longitudinal
S600c	24	60'-0"	Curb Pier Longitudinal
S601c	4	13'-6"	Curb Pier Longitudinal
Superstructure (Plain Steel)			
S500	504	55'-0"	Deck Longitudinal
S501	72	34'-0"	Deck Longitudinal
S502	3220	16'-4"	Deck Transverse
S503	36	16'-7"	Deck End
S504	16	7'-0"	AB 2 Deck End
S505A	8	13'-8"	Deck Transverse
S505B	8	11'-0"	Deck Transverse
S505C	8	8'-5"	Deck Transverse
S505D	8	5'-9"	Deck Transverse
S505E	8	3'-1"	Deck Transverse
S506	12	2'-7"	AB 2 Expansion Dam
S507	3296	2'-4"	Superstructure Splice
S600	204	60'-0"	Deck Pier Longitudinal
S601	34	13'-6"	Deck Pier Longitudinal



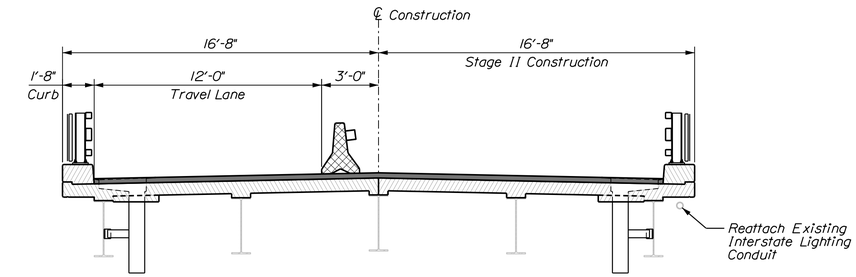
EXISTING TRANSVERSE SECTION



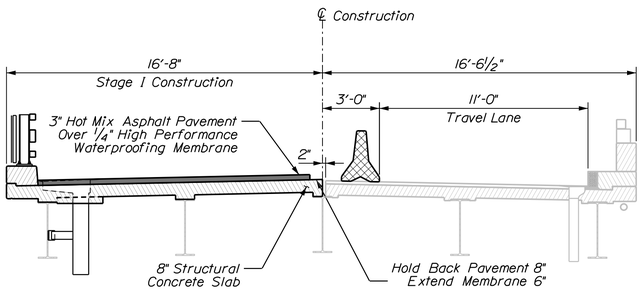
STAGE II DEMOLITION



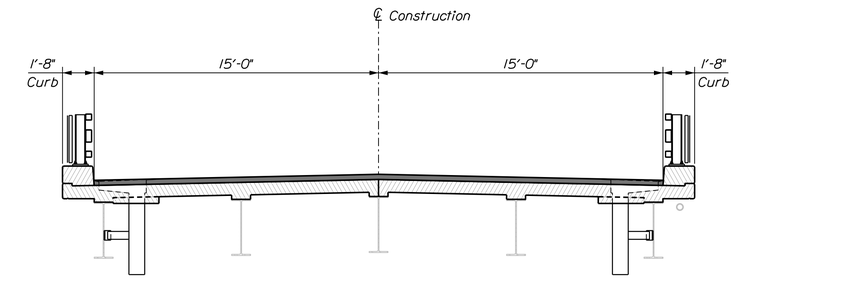
STAGE I DEMOLITION



STAGE II CONSTRUCTION



STAGE I CONSTRUCTION



PROPOSED TRANSVERSE SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
WIN 25631.14

BRIDGE NO. 6068

BRIDGE PLANS

	BY	DATE
J. BRASK		
PROJ. MANAGER		
DESIGN-DETAILED	E. MORRISON	08/24
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FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

STAGED CONSTRUCTION

SHEET NUMBER

27

OF 31

Filename: ...\00X_Staged Construction.dgn Division: Username: emorrison Date:8/12/2024

INITIAL SIGNAL TIMINGS

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9
Min Initial		5				5	5		
Passage Time		--				--	--		
Max I		15				15	10		
Max II		--				--	--		
Yellow		3				3	3		
Red		30				30	2		
Walk / Don't Walk		--				--	--		
Recall		Soft				Off	Off		
Detector		--				--	--		
Flash		R				R	R		

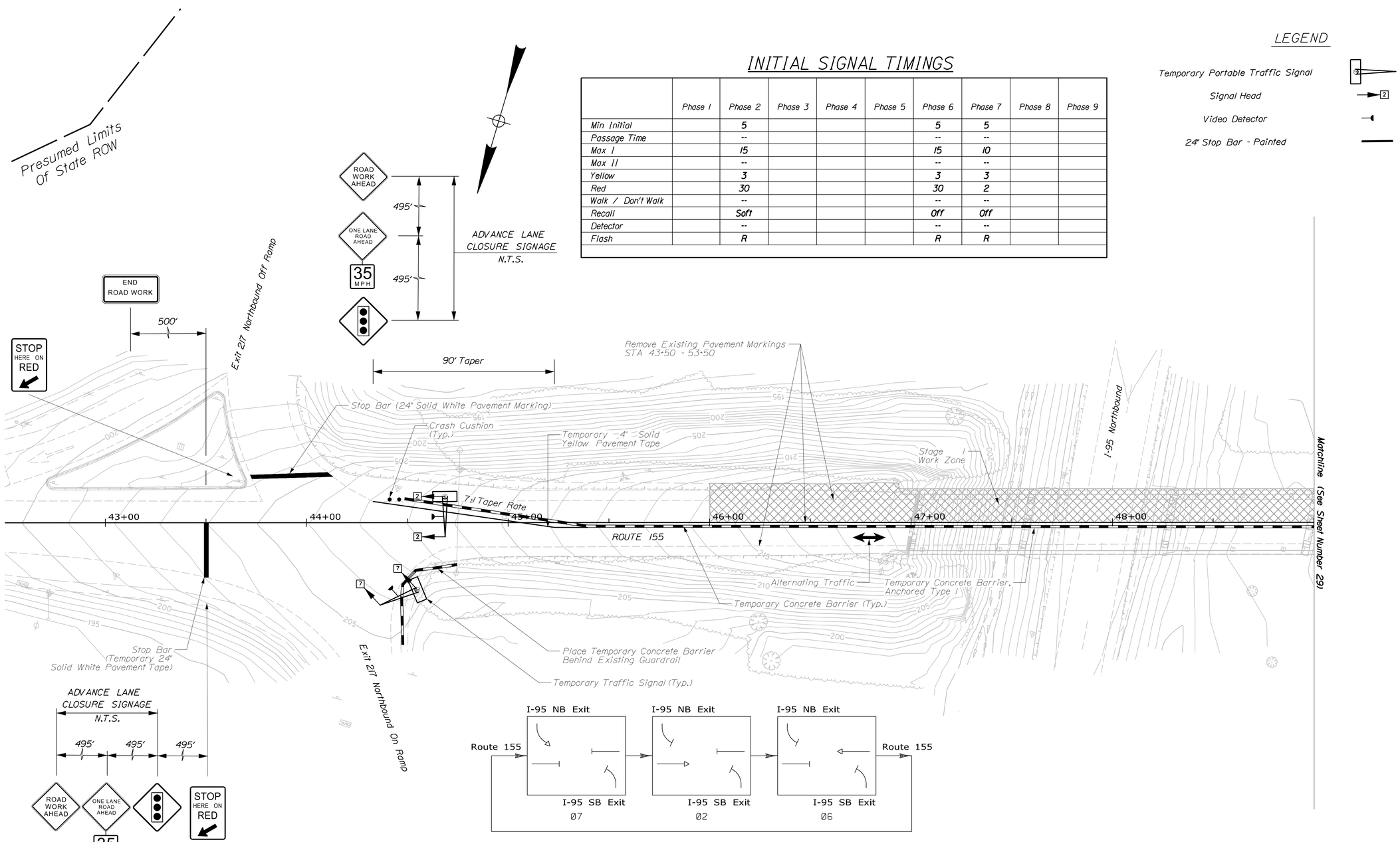
LEGEND

Temporary Portable Traffic Signal

Signal Head

Video Detector

24" Stop Bar - Painted



Traffic Signal Notes:

1. Clearance Time Calculations Were Based on a Vehicle Speed of 25 MPH for 1000 Feet on Route 155. These Timings May Need to be Adjusted Based on Actual Conditions. Contractor Will be Responsible for Monitoring Conditions and Queuing and Request Adjustments to the Timings for Approval by the Resident.

PHASE I PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN
WIN 25631.14

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REVISIONS 4		
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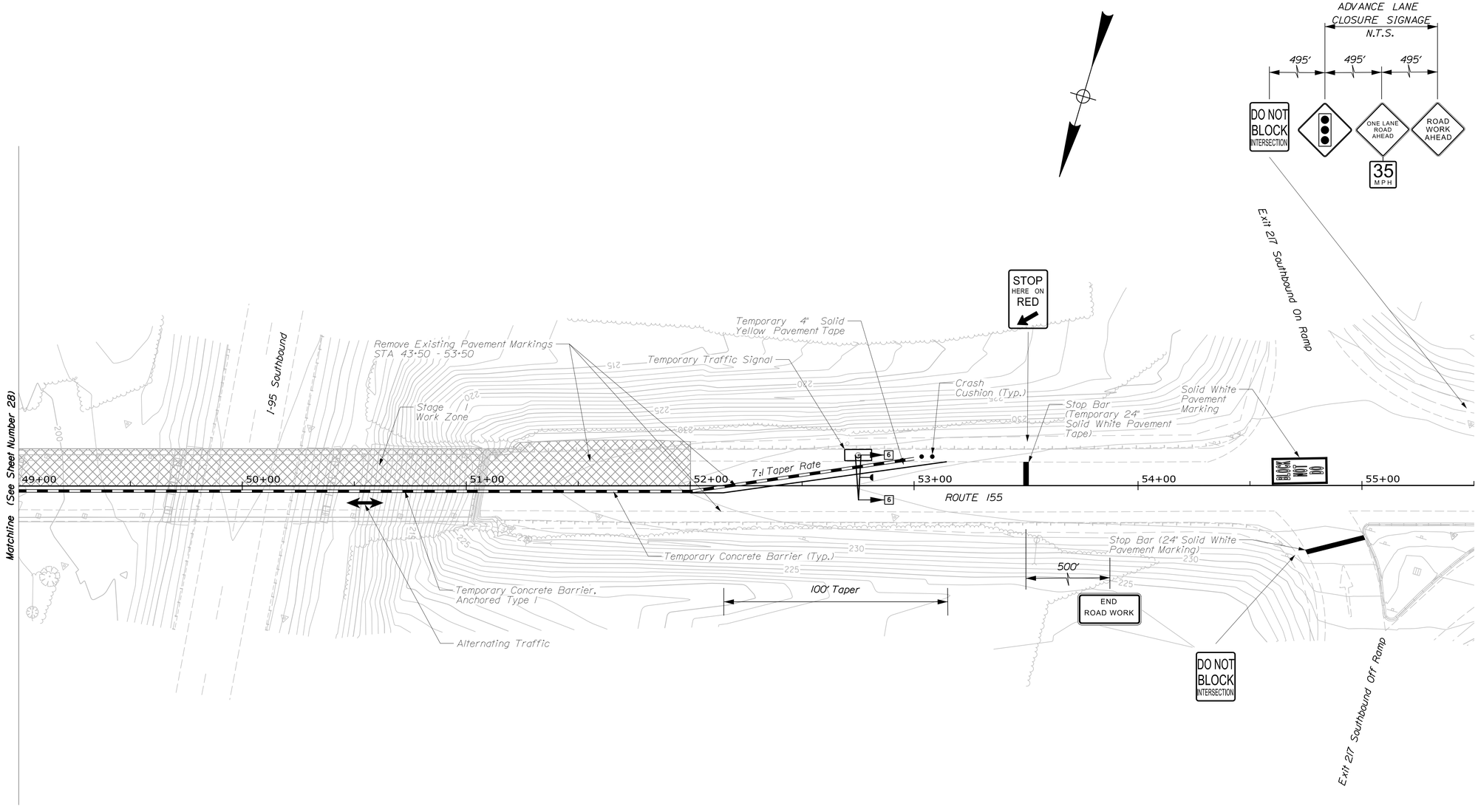
ROUTE 155\I-95 BRIDGE
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

TRAFFIC CONTROL PLANS

SHEET NUMBER

28

OF 31



PHASE 1 PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

			DATE
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HOWLAND

TRAFFIC CONTROL PLANS

SHEET NUMBER

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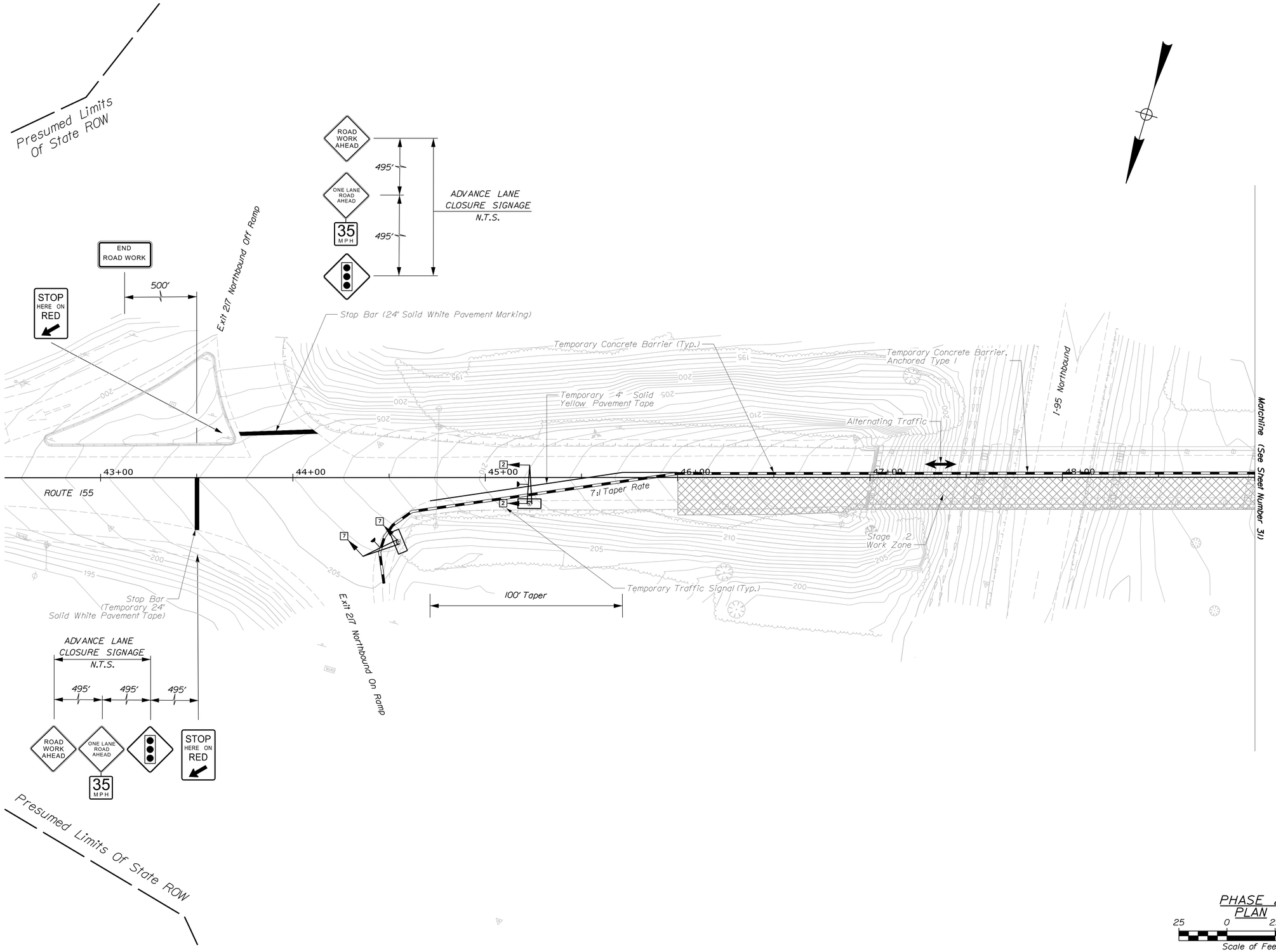

STATE OF MAINE
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WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

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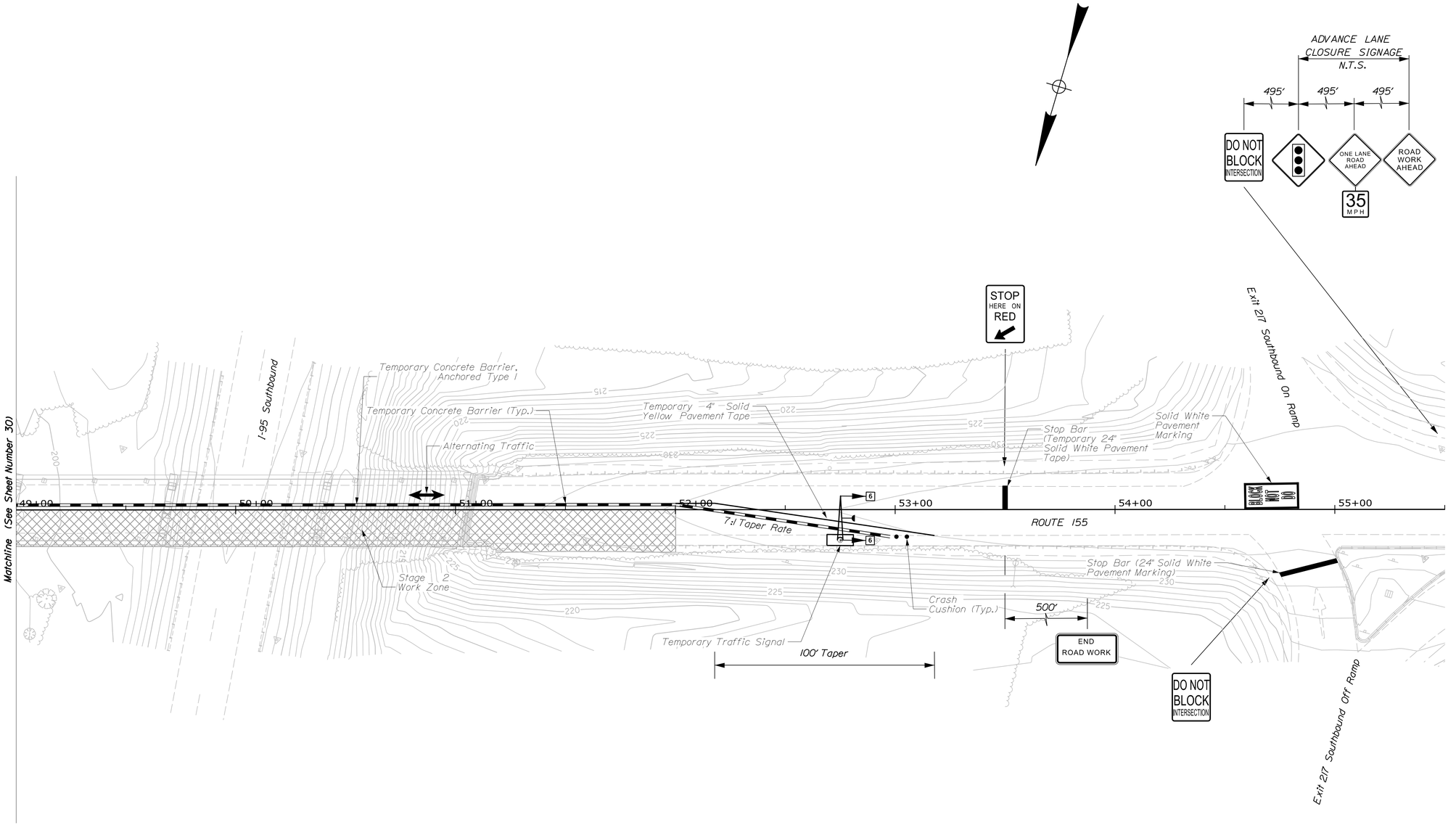
INTERSTATE 95
HOWLAND PENOBSCOT COUNTY

TRAFFIC CONTROL PLANS

SHEET NUMBER
30
OF 31



PHASE 2 PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563114

WIN
BRIDGE NO. 6068 **WIN 25631.14** BRIDGE PLANS

	BY	DATE
J. BRASK		
DESIGN-DETAILED	S. LINDSLEY	08/24
CHECKED-REVIEWED	E. MORRISON	08/24
DESIGN2-DETAILED2	D. WHITE	08/24
DESIGN3-DETAILED3	J. FITZ	
PROJ. MANAGER	N. EDMAN	08/24
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ROUTE 155\I-95 BRIDGE
INTERSTATE 95
PENOBSCOT COUNTY
HOWLAND

TRAFFIC CONTROL PLANS

SHEET NUMBER

31

OF 31