

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



MATERIALS

Concrete (Unless noted otherwise)..... Class "A"
Concrete (Curbs & Transition Barriers)..... Class "LP"
Concrete Wearing Surfaces..... Class "LP"
Reinforcing Steel..... ASTM A 615/A 615M, Grade 60
Structural Steel: All Material..... ASTM A 36/A 36M

BASIC DESIGN STRESSES

Concrete..... $f'c = 4,350 \text{ psi}$
Reinforcing Steel..... $fy = 60,000 \text{ psi}$

MAINTENANCE OF TRAFFIC

The Contractor shall coordinate all maintenance of traffic with the Highway
Work. See also phasing plans and special provisions 105, 107 and 652.

FALMOUTH TO S.PORTLAND
CUMBERLAND COUNTY
INTERSTATE 295 SOUTHBOUND
BRIDGE REHABILITATION
PROJECTS

IM-1779(300)E


PROJECT LENGTH 8.2 mi.
WEARING SURFACE REPLACEMENTS,
DECK REHABILITATIONS, JOINT MODIFICATIONS,
ENDPOST REPLACEMENTS, DRAIN AND
RAILING REPAIRS

BRIDGE NUMBERS:

1505, 5618, 5616, 5617,
0816, 6300, 6298, 6297,
6296, 6295, 6294, 6292,
6291, 6281, 6249, 1513,
3088, 6299

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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		APPROVED  COMMISSIONER	DATE 4/5/10
INTERSTATE 295 SOUTHBOUND FALMOUTH TO S.PORTLAND CUMBERLAND COUNTY		TITLE SHEET	
PROJECT INFORMATION		PROJECT COMPLETION DATE	
PROGRAM Bridge	PROJECT MANAGER Jim Wentworth	DESIGNER Don Ettinger	PROJECT RESIDENT HNTB
CONTRACTOR		CONTRACTOR	
SHEET NUMBER 1		OF 55	

ESTIMATED BRIDGE QUANTITIES																			
ITEM NO.	DESCRIPTION	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	TOTAL	UNIT
		<i>Presumpscot River Br. No. #1505</i>	<i>Kensington Street Br. No. 5618</i>	<i>SLARR/CNRR Br. No. 5616</i>	<i>Sherwood Street Br. No. 5617</i>	<i>Washington Avenue Br. No. 0816</i>	<i>Franklin Arterial Br. No. 6300</i>	<i>Forest Avenue Br. No. 6298</i>	<i>St. John Street Br. No. 6297</i>	<i>PTRR - (St. John) Br. No. 6296</i>	<i>St. James Street Br. No. 6295</i>	<i>Congress St - Park Avenue Br. No. 6294</i>	<i>Portland Connector Br. No. 6292</i>	<i>PTRR (Fore River) Br. No. 6291</i>	<i>Fore River Br. No. 6281</i>	<i>Westbrook Street Br. No. 6249</i>	<i>8239E (State Route 703) Br. No. 1513</i>		
202.202	REMOVING PAVEMENT SURFACE	985	300	875	245	0	735	670	600	620	575	1020	855	1110	2750	650	1050	13040	SY
202.30	REMOVING EXISTING CONCRETE WEARING SURFACE (605 SY)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	LS
502.29	STRUCTURAL CONCRETE WEARING SURFACE ON BRIDGE (38 CY)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	LS
502.70	BRIDGE DRAIN - TYPE A	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	4	12	EA
502.70	BRIDGE DRAIN - TYPE C	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	EA
502.701	BRIDGE DRAIN GRATE MODIFICATION	20	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	24	EA
507.0926	FURNISH ALUMINUM BRIDGE RAIL COMPONENTS	0.2	0	0	0	0	0.1	0	0	0.2	0	0.2	0	0.2	0.1	0	0	1	LS
507.0927	ALUMINUM BRIDGE RAIL, 2 BAR POST REPLACEMENT	4	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	8	EA
507.0928	ALUMINUM BRIDGE RAIL, RAIL SECTION REPLACEMENT	120	0	0	0	0	40	0	0	160	0	160	0	200	40	0	0	720	LF
507.30	ALUMINUM BRIDGE RAIL SPLICE RETROFIT	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	EA
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (13040 SY)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.15	0.05	0.1	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (1275 SY)	0.04	0.03	0.03	0.03	0.5	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.03	0.04	1	LS
* 518.39	REPAIRING GRANITE CURB BEDDING MORTAR	0	15	50	15	40	35	40	35	35	35	60	50	45	185	35	70	745	LF
* 518.50	REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL <7.9 IN.	570	85	930	105	170	210	190	170	180	170	590	120	640	1980	190	610	6910	SF
* 518.51	REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL <7.9 IN.	130	40	500	60	40	50	40	40	40	40	130	30	140	450	40	140	1910	SF
* 518.52	REPAIR OF UPWARD FACING SURFACES >7.9 IN.	1	1	3	1	1	1	1	1	1	1	1	1	1	2	1	1	19	CY
* 518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	160	SF
* 518.61	REPAIR OF VERTICAL SURFACES > 7.9 IN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	CY
520.241	BRIDGE JOINT MODIFICATION TYPE 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	EA
520.242	BRIDGE JOINT MODIFICATION TYPE 2	0	0	2	0	0	2	2	1	1	1	2	2	2	0	0	0	15	EA
520.243	BRIDGE JOINT MODIFICATION TYPE 3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	EA
520.244	BRIDGE JOINT MODIFICATION TYPE 4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	EA
520.245	BRIDGE JOINT MODIFICATION TYPE 5	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	EA
520.246	BRIDGE JOINT MODIFICATION TYPE 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	EA
520.247	BRIDGE JOINT MODIFICATION TYPE 7	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	2	5	EA
523.5304	STEEL BEARINGS, EXPANSION, ROCKER	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	EA
524.301	TEMPORARY STRUCTURAL SUPPORT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	LS
526.301	TEMPORARY CONCRETE BARRIER - TYPE 1(9000 LF)	0.05	0.07	0.07	0.07	0.06	0.02	0.02	0.06	0.06	0.06	0.08	0.07	0.02	0.17	0.06	0.06	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	1	0	1	2	4	4	2	0	2	4	4	4	4	4	4	44	EA
527.34	WORK ZONE CRASH CUSHIONS	1	1	0	0	1	1	1	1	0	0	1	1	1	1	1	1	12	UN
627.76	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW (108,000 LF)	0.11	0.06	0.06	0.06	0.09	0	0	0.05	0.05	0.05	0.05	0.09	0	0.18	0.11	0.04	1	LS
627.77	REMOVING EXISTING PAVEMENT MARKING	1750	650	650	650	1300	0	0	850	850	850	850	1250	0	1900	1500	1550	14600	SF
* 629.05	HAND LABOR, STRAIGHT TIME	10	10	10	10	10	10	10	10	10	10	10	10	10	20	20	10	180	HR
* 631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	128	HR
* 631.11	AIR TOOL (INCLUDING OPERATOR)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	128	HR
645.306	FLEXIBLE REFLECTORIZED DELINEATOR	0	100	0	0	30	0	0	40	0	0	30	30	0	30	30	0	290	EA

* Undetermined Location

Notes:

1. Estimated Quantities for each bridge are provided here for reference purposes only.

2. 403, 429 and 652 pay items are included with the highway paving project, PIN #16787.00.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E

BRIDGE NO. Varies
PIN 17793.00
BRIDGE PLANS

INTERSTATE 295 SOUTHBOUND
FALMOUTH TO S.PORTLAND
CUMBERLAND COUNTY

ESTIMATED BRIDGE QUANTITIES

SHEET NUMBER
2
OF 55

GENERAL

1. Bidders and Contractors may obtain a copy of the existing bridge plans by faxing a request for information to the bid contact person. Existing bridge plans may also be accessed at the web address below. The plans are reproductions of the original drawings as prepared for the construction of the bridges. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge.
http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php

2. All dimensions, angles and stationing shown on existing plans are taken from as-built construction drawings from 1952 through 1995, supplemented by limited field measurements and are not guaranteed to be correct. All existing bridge information shall be verified in the field by the Contractor prior to commencing any work.

3. Bidders and Contractors may obtain a copy of bridge deck evaluation report for the existing bridges by faxing a request for information to the bid contact person. The report contains visual inspection information and deck core data of the bridge. There is no assurance the information or data is a true representation of the actual conditions at the time of construction.

4. Contractor shall note that Maine DOT has other active projects in the area including Sign Truss Replacement Projects STP-1302(300)X and IM-1302(210)E. Existing I-295 overhead sign trusses located just north of the Sherwood Street Bridge and north and south of the Tukeys Bridge are scheduled for replacement in 2010 as well as existing sign trusses on State Route 703 and Forest Avenue near I-295. Contractor shall coordinate his work and traffic control with these and other contracts.

UTILITIES

1. Utilities in this contract are listed in Special Provision Section 104, Utilities.

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

3. The locations of the existing utilities, bridge wiring and monitoring instruments (i.e. Utilities and Special Equipment) shown on these plans are based on the best available information and are approximate. The Contractor shall verify the location of all existing utilities and special equipment prior to starting work. The Contractor shall protect existing utilities and special equipment during construction and shall provide temporary supports where required by his operations. Temporary supports shall be approved by the utility or special equipment owner prior to their installation and use. The cost of this work shall be considered incidental to the work required under Item 659.10 Mobilization.

4. The Contractor shall note that some bridges have PVC or galvanized electrical conduits embedded in the wing walls, deck curbs and decks. Prior to demolition of any component, or drilling and grouting into any component, the contractor shall field locate the conduit(s) and verify the work will not damage the conduit. The Contractor shall advise the Resident of all interferences prior to proceeding with the work. See the project as-builts for additional information. Any damaged conduits or wiring resulting from the contractors operations shall be repaired to the Resident's satisfaction at no cost to the Department.

BRIDGE RAILING

1. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain property of the Department. Contractor shall transport materials to the Maine DOT maintenance lot at Dunstan Corner in Scarborough. Contact is Ken Littlefield at 592-1861. Payment will be considered incidental to related Contract items.

2. The drawings show the approximate number of damaged bridge rail posts and damaged bridge rail sections that are to be replaced on this project. The actual quantity of bridge rail and post replacement shall be as directed by the Resident.

3. The Contractor shall furnish the quantity of bridge rail, posts and splice bars specified in the Contract to the Department. The Department shall provide the necessary bridge rail components to the Contractor to make the identified repairs. The components shall come from the Department's existing stockpiles initially, and from the materials supplied by the Contractor after the Department's stockpiles are depleted. All bridge rail post anchor bolts, anchor bolt anchoring materials, and splice rail modification bolts shall be furnished by the Contractor.

4. Bridge rail splices shall be modified on the I-295 over Presumpscot River Bridge and I-295 over Westbrook Street Bridge in accordance with the standard and supplemental details and as noted on the drawings. All splice rail modification bolts shall be furnished by the Contractor.

5. At the Resident's discretion, and based on available materials, damaged bridge rail sections may be replaced in either full length sections or in shorter rail sections. Bridge rail section replacement shall be completed such that all proposed and existing lengths of rail are attached to a minimum of two posts, and such that all rail splices are located two feet from a post.

6. Bridge rail posts that are relocated as part of the concrete transition barrier modifications, and bridge rail sections shortened or extended as part of the concrete transition barrier modifications, shall be considered incidental to the concrete transition barrier modification pay items. Components necessary to extend rails section or relocate bridge posts shall come from the Department's stockpiles located at the Maine DOT maintenance lot, Dunstan Corner in Scarborough. Contact Ken Littlefield at 592-1861. All bridge rail post anchor bolts, anchor bolt anchoring materials, and splice rail modification bolts shall be furnished by the Contractor.

7. Numerous bridges on this project have no existing concrete end post on the departure passing side of the bridge. Existing bridge rail extends across the median along the closure wall. Concrete transition barrier is proposed at these locations. Contractor shall remove the 1'-6" radius rail corner sections and cut or remove additional rail as necessary to complete the work, but removal shall not exceed 1'-0" beyond the proposed back of endpost unless directed by Resident. Coordinate work with Resident. Work considered incidental to item 526.34.

STRUCTURAL

1. Payment for removing existing concrete end posts will be considered incidental to related Contract items.

2. Reinforcing steel schedules will be the responsibility of the Contractor. Refer to Subsection 503.03 of the Standard Specifications for more information. Payment for all work associated with developing reinforcing steel schedules will be considered incidental to related Contract items.

3. Granite curb salvaged from the project site will be substituted for Terminal Curb Type 2 where available. Payment for reuse of granite curb or for Terminal Curb Type 2 will be considered incidental to Item No. 606.1721, Bridge Transition Type 1.

4. Protective coating for concrete surfaces shall be applied to the following areas of new concrete:

All exposed surfaces of concrete curbs,
Fascias down to the drip notch,
All exposed surfaces of Concrete Transition Barriers,
12 Inches below the top of backwalls on the back side.
Concrete wearing surfaces.

5. An NCHRP350 compliant impact attenuation system shall be installed concurrently with the placement of each run of concrete barrier.

6. Removal of existing bridge rail transition barriers and installation of new bridge rail transition barriers shall occur behind concrete barrier and NCHRP350 compliant impact attenuation systems.

7. Any damage to existing concrete or reinforcing steel resulting from the work performed, shall be repaired or replaced by a method approved by the Resident at no cost to the Department.

8. All reinforcing steel that is to be exposed and reused shall be cleaned by a method approved by the Resident. Payment shall be incidental to related contract items.

9. The integrity of existing approach pavement and subbase gravel shall be maintained during removal of backwall concrete. Payment for any repair or damages shall be incidental to related contract items.

10. Gland seal(s) or compression seal(s) shall be approved by the Resident prior to installation of joint armor.

11. All expansion joints shall be fabricated so the expansion joints construction joints align with the phasing plans. New seals shall be installed full length after all sections of the joint armor have been installed.

12. All existing materials which are removed from the work area shall be removed from the site and properly disposed of by the Contractor in a manner approved by the Resident. These existing materials include, but are not limited to, concrete, metal casing, reinforcing steel, silt and other debris on or attached to the structure within the work areas. The cost of removal and disposal shall be considered incidental to the cost of the work items for which these removals are required.

13. Contractor shall form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.

14. Reinforcing steel shall have a 2 inch minimum cover unless otherwise noted.

15. Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.

16. For all drilling and anchoring, the anchor material chosen from the prequalified list shall be submitted to the Resident for approval.

17. The Contractor is advised none of the bridge decks are scheduled to be scarified. Only the existing pavement, membrane, and pavement shim (where applicable) is to be removed. See Section 202.031 of the Specifications for additional information.

18. If the depth of the deteriorated concrete is below the reinforcing steel then remove the concrete to a minimum depth of 1 inch below the bars.

19. Anchor rods shall be ASTM F1554, Grade 55.

20. Where railing posts are required to be relocated new anchor rods conforming to ASTM F1554 Grade 50 shall be furnished and drilled and anchored into the existing curb. The depth of embedment shall be sufficient to develop an ultimate tension capacity of 33 kips per anchor rod. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item 526.34, Permanent Concrete Transition Barrier.

21. All transverse reinforcing steel in the deck and backwall shall run continuously along the full width of the bridge. Payment for lap splices and threaded couplers will not be paid for directly, but shall be considered incidental to the related contract items.

22. The reinforcing steel and anchor rod anchoring material shall be selected from Maine DOT's qualified products list or an approved equal. The contractor shall submit the proposed system to the resident for approval. The selected anchoring material shall be installed in strict accordance with the selected manufacturer's recommendations. Reinforcing steel and anchor rods, drilled and anchored into existing concrete, shall be embedded to develop 125% of the yield strength of the bar.

23. All proposed anchor rods shall be hot dip galvanized.

CONCRETE WEARING SURFACE

1. The Contractor will be required to hold pre-placement meetings for the concrete wearing surface one week prior to each placement.

2. Top of concrete wearing surface elevations shall be established by the Contractor at centerline and gutter at 10 foot intervals based on centerline finish grade profile. Elevations shall be provided to the Resident one week prior to setting top of concrete wearing surface grades.

3. A steel tine finish shall be applied to the concrete wearing surface.

4. The Contractor shall provide a minimum 7 day wet cure for the concrete wearing surface. After 7 days of wet cure, the Contractor shall allow normal live load traffic, provided that the concrete has reached 80% of design strength. The Contractor shall make concrete test specimens and cure with the concrete wearing surfaces. The Contractor shall submit compressive strength test results to the Resident prior to allowing live loads on the bridge.

5. The existing latex modified concrete wearing surface on I-295 over Washington Street may not be a consistent 1/4" depth over the entire surface due to a discrepancy in the as-constructed joint elevations. The Contractor shall pothole the existing concrete deck in multiple places prior to removing the wearing surface to determine the actual latex modified wearing surface depths and ensure the structural concrete deck is not damaged during the wearing surface removal. The joint elevation discrepancy will be addressed as part of this contract, and the proposed wearing surface thickness will be varied as required to develop the deck cross slope shown on the original design plans.

CONSTRUCTION PHASING

1. All traffic control shall be in accordance with the Manual for Uniform Traffic Control Devices for Streets and Highways, USDOT, FHWA, Latest Edition

2. Contractor shall submit traffic control plans for all bridges/work zones in accordance with the Special Provisions 105, 107 & 652 and the Manual of Uniform Traffic Control Devices, latest edition.

3. The construction phasing for the bridge work has been separated into 11 work zones as follows:

- a. I-295 Over Presumpscot River
- b. I-295 Over Kensington Street, CNRR, Sherwood Street
- c. I-295 Over Washington Ave.
- d. I-295 Over Franklin Arterial
- e. I-295 Over Forest Avenue
- f. I-295 Over St John Street, PTRR (St John), St James Street, and Congress Street/Park Avenue
- g. I-295 Over Portland Connector
- h. I-295 Over PTRR (Fore River)
- i. I-295 Over Fore River
- j. I-295 Over Westbrook Street
- k. I-295 Over State Route 703

Contractor shall plan the work accordingly. Any proposed modifications to the work zones (grouping of bridges) or phasing of work shall be submitted to the Resident for review and approval.

4. Construction phasing plans represent bridge phasing work only. Required maintenance of traffic is not shown and shall be designed by the Contractor in accordance with Special Provision 652.

5. Contractor shall note work zone time restrictions exist for all work zones. See Special Provisions 105 and 107 for specific work zone time restrictions and limitations of operations.

6. Contractor shall provide two 11 foot travel lanes and two 1 foot shoulders in all work zones, unless otherwise noted on the Plans or in the Specifications. Contractor shall provide one 11 foot travel lane minimum and two 1 foot shoulders in all work zones when permitted to reduce traffic to one travel lane.

7. All lanes in long term lane closures and work zones shall be delineated with temporary paint lines or temporary raised pavement markings. Temporary paint lines will not be permitted on the surface course of new pavement. Temporary raised pavement markings shall only be used when approved by the Resident.

8. Excessively wide lane widths may cause driver confusion. Contractor shall avoid lane widths in excess of 15'-0" unless approved by the Resident.

9. Contractor shall install longitudinal pavement joints at crown lines or lane lines as noted on the Plans.

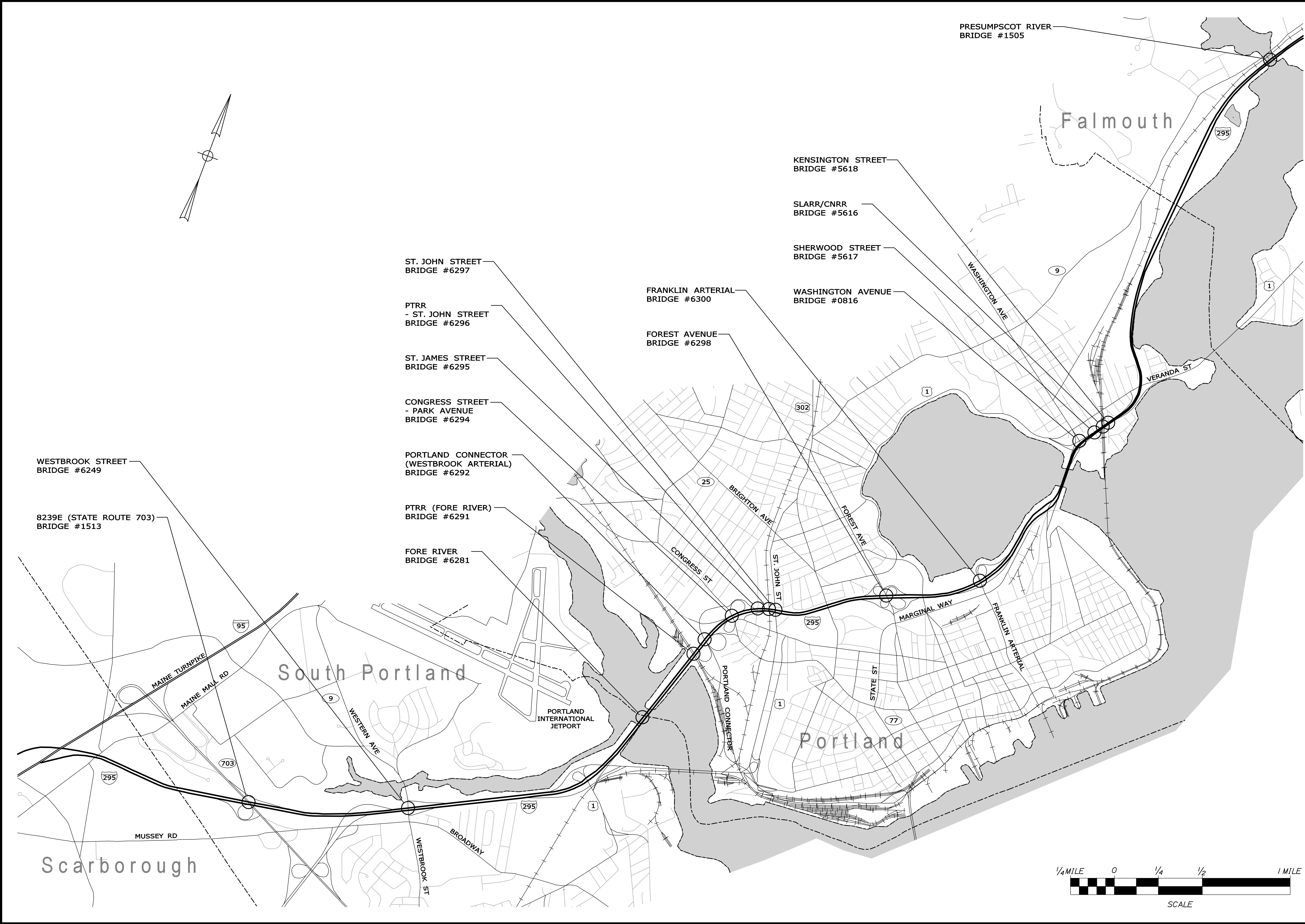
10. Placement of the high performance membrane shall be in accordance with standard specifications and manufacturers published recommendations. Contractor shall submit proposed membrane overlap details at the longitudinal joints to the Resident for review and approval. Details shall include proposed methodology for bond breaker for the overlaps between construction phases as well as procedures for infilling and removal of bituminous material without damage to the membrane.

11. Single sided bolt down barrier will be required for the Fore River Bridge repair work. Single sided barrier shall be furnished and paid for under 526.301, Temporary Concrete Barrier Type 1. Anchorage of the bridge barrier shall be achieved through the use of removable anchorages. Once the barrier is removed the contractor shall remove the anchorages, pack the holes in the deck with mortar, apply hot rubber sealant to the top of the mortar, and pack the hole in the pavement with hot mix asphalt. Payment for this work shall be considered incidental to the Temporary Concrete Barrier pay item.

12. Design of bolted temporary bridge barrier is the responsibility of the Contractor where applicable.

13. Contractor is responsible for all maintenance of traffic required for all work including ramp closures as shown on the plans.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E PIN 17793.00 BRIDGE NO. Varies BRIDGE PLANS	INTERSTATE 295 SOUTHBOUND FALMOUTH TO S.PORTLAND CUMBERLAND COUNTY GENERAL NOTES	PROJ. MANAGER	DOE	BY	DATE	03\10	03\10	SIGNATURE	P.E. NUMBER	DATE	
		DESIGN-DETAILED	CAH	CHKD-REVIEWED	DGE	DESIGN-DETAILED	DESIGN-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
SHEET NUMBER		3 OF 55									



STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

IM-1779(300)E

BRIDGE NO. Varies

PIN 17793.00

BRIDGE PLANS

INTERSTATE 295 SOUTHBOUND

FALMOUTH TO S.PORTLAND

CUMBERLAND COUNTY

LOCATION MAP

SHEET NUMBER

4

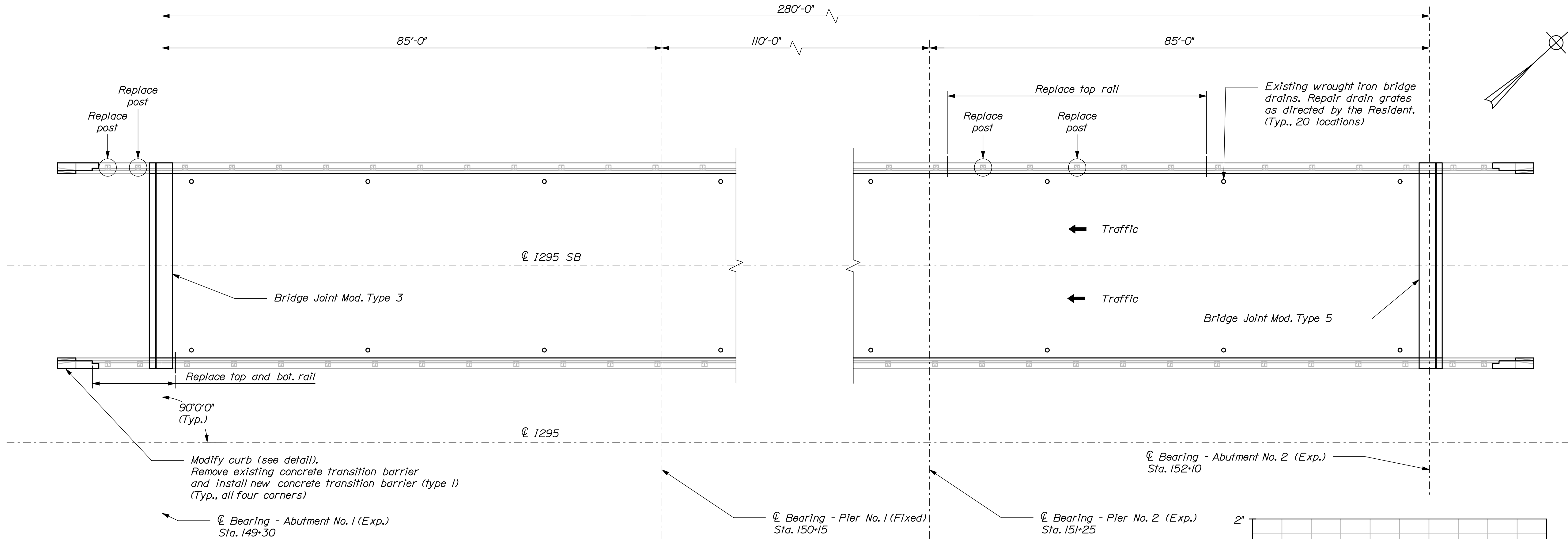
OF 55

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE
CAH	DCE	MPC	03/10	DCE	03/10
DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED
REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1
REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2
REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3
REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4
FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES

SIGNATURE

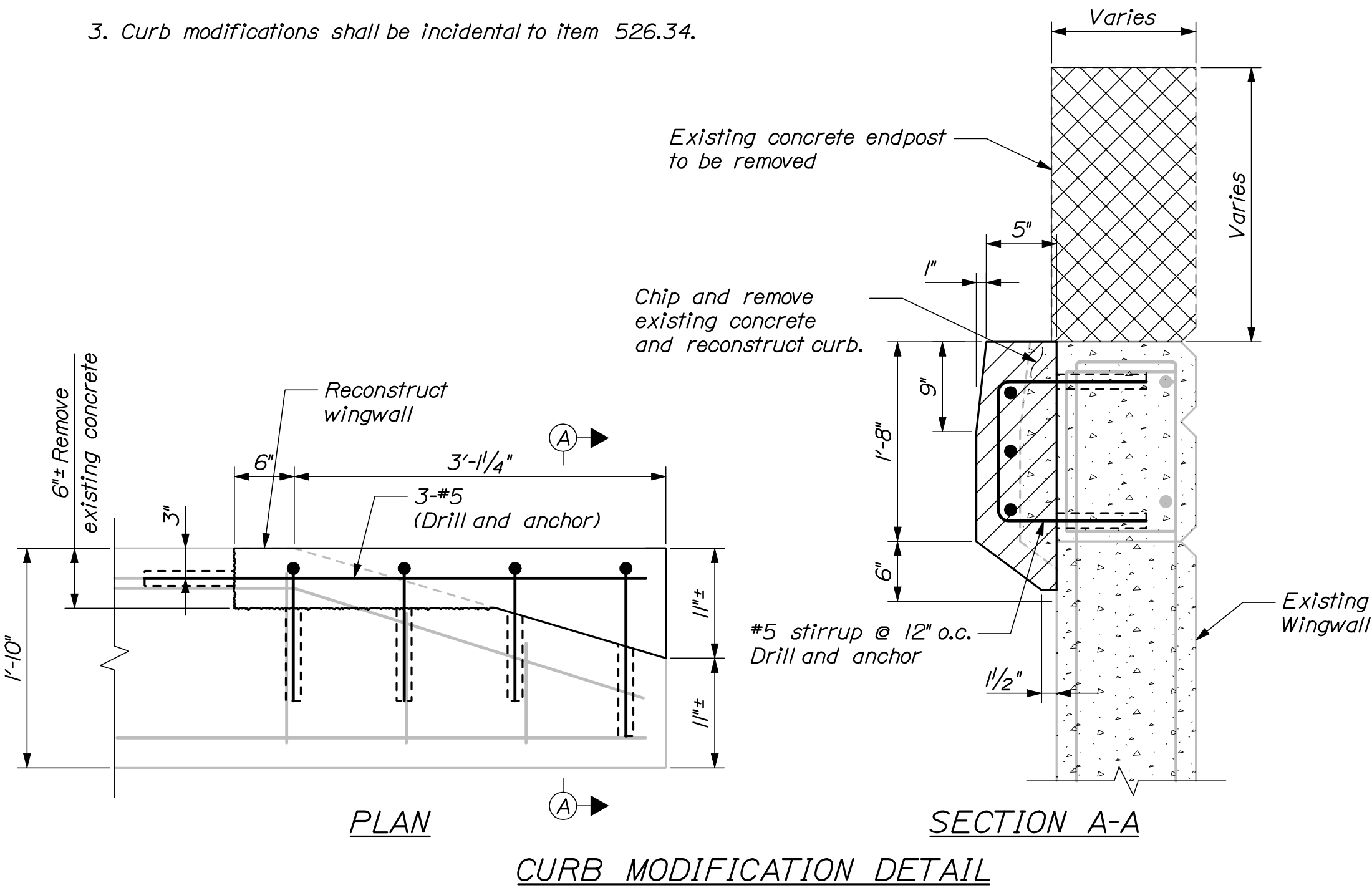
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DATE

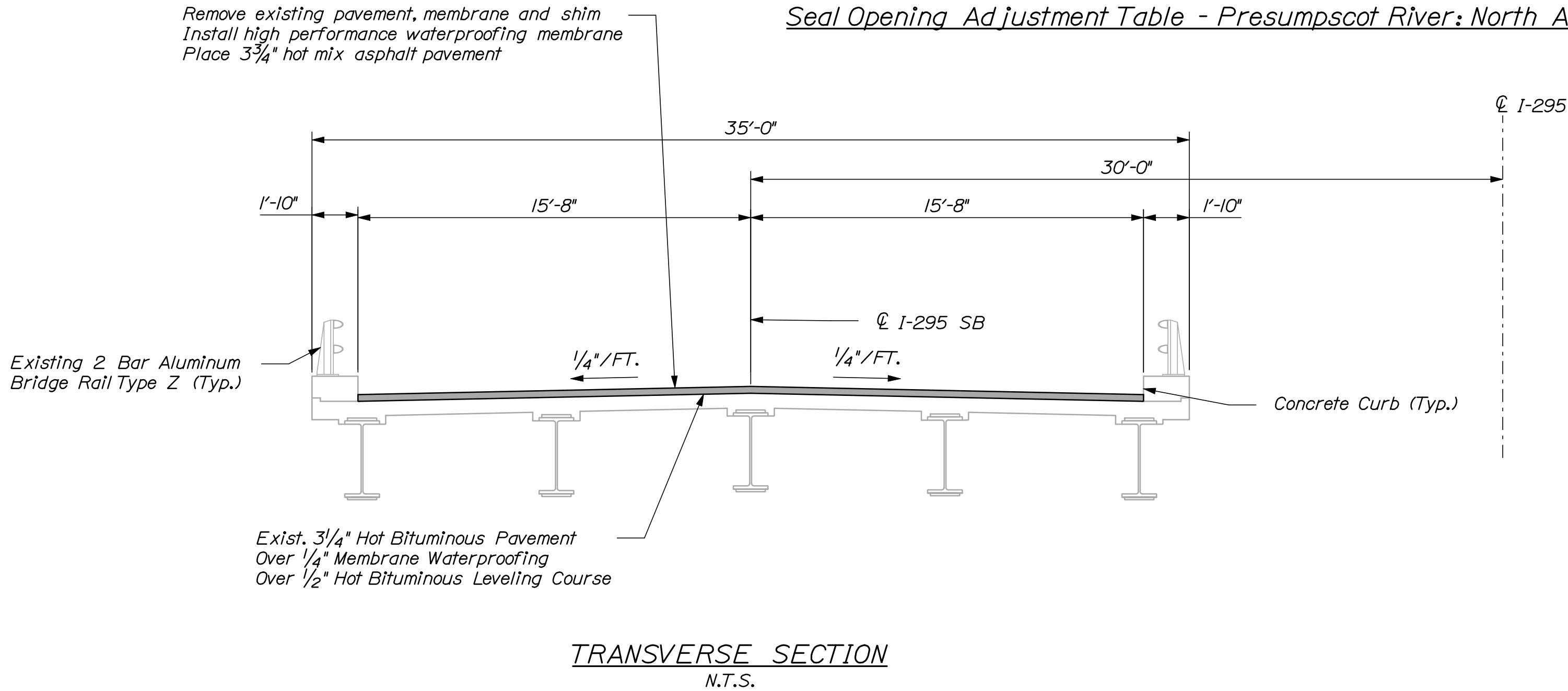
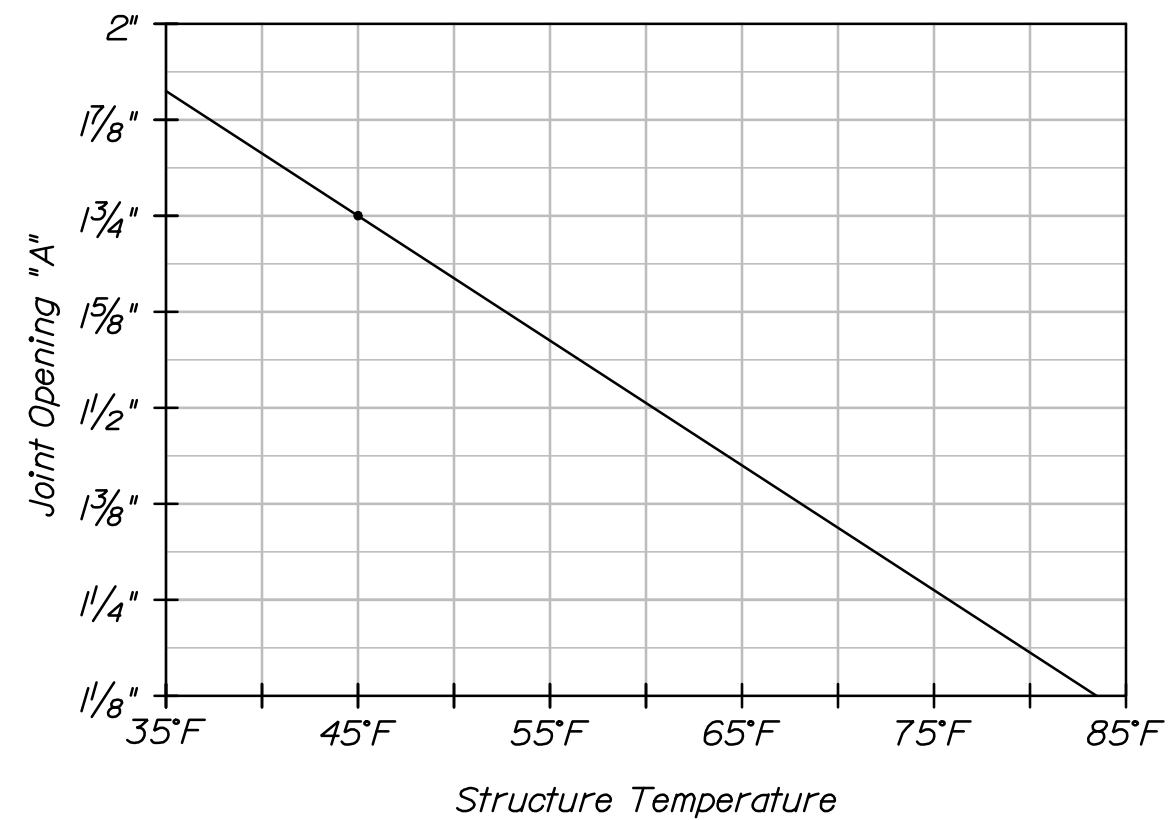


NOTES:

1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall replace existing abutment bearings as shown on these plans and specifications prior to completing any joint modifications. See Bearing Details sheet for bearing details and notes.
3. Curb modifications shall be incidental to item 526.34.



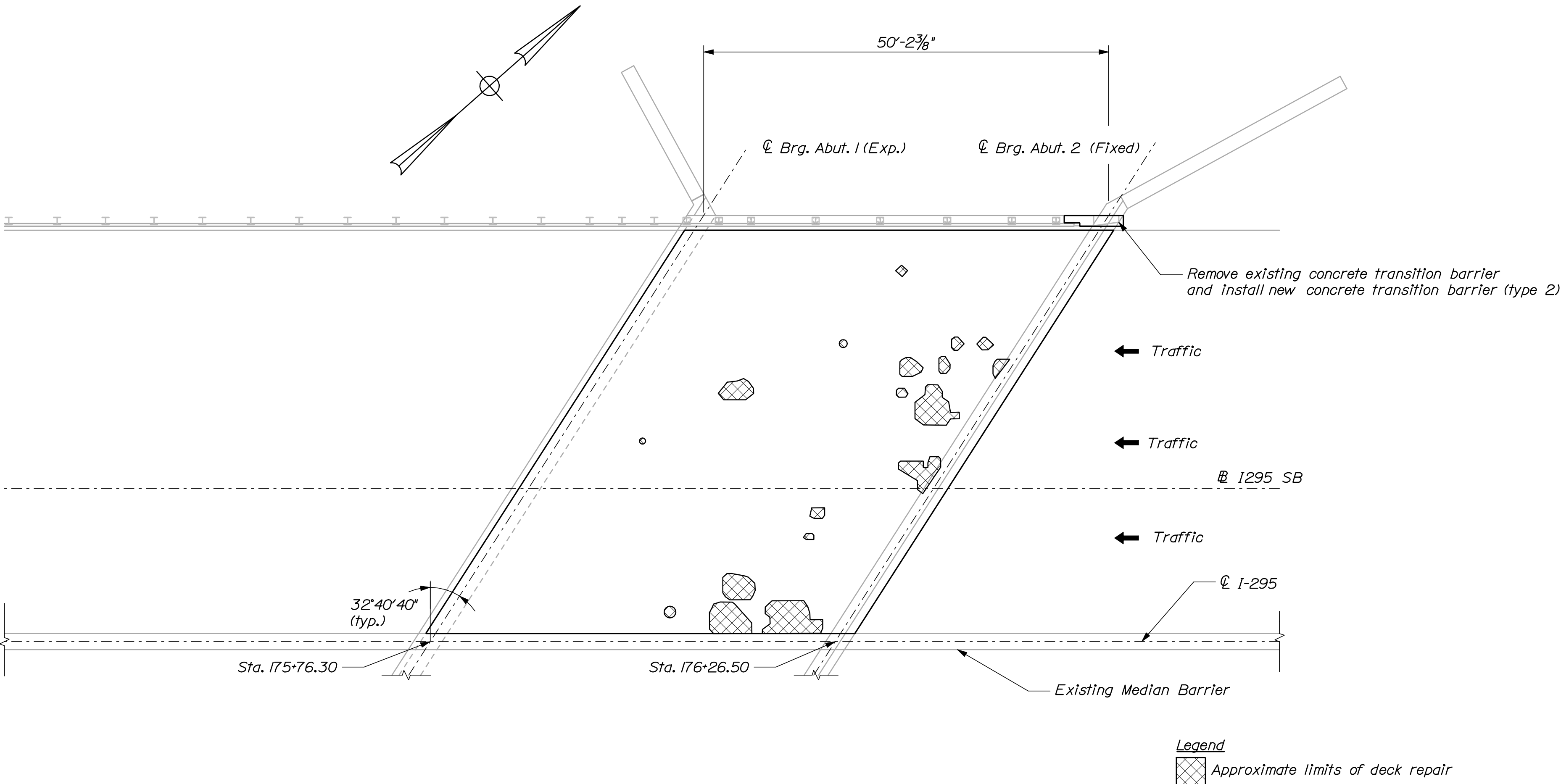
INTERSTATE 295 SOUTHBOUND OVER PRESUMPCOT RIVER
Falmouth ~ Bridge No. 1505
N.T.S.



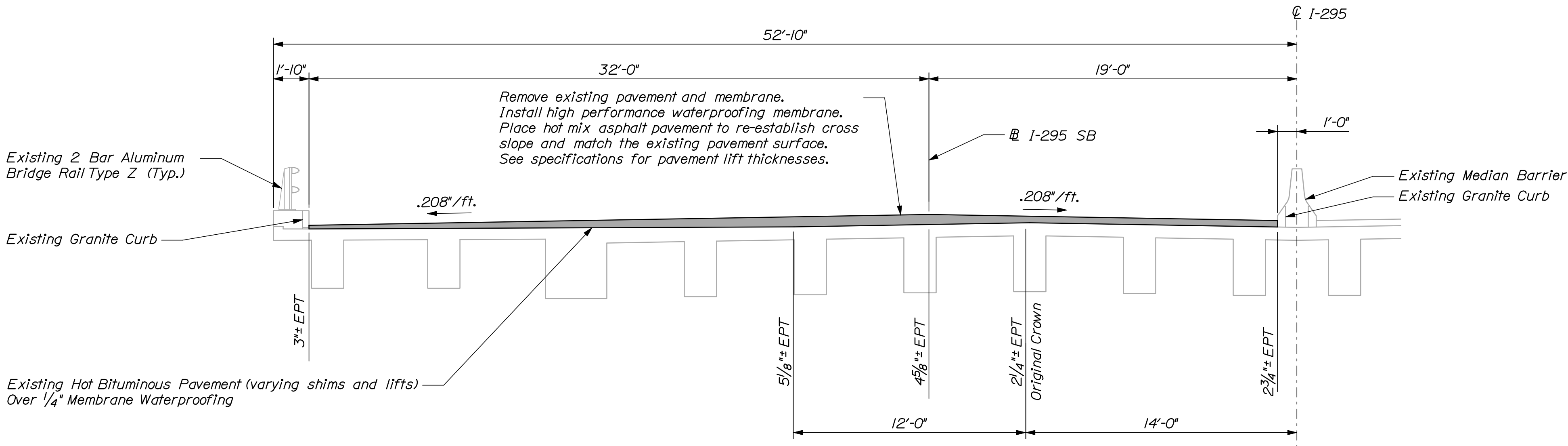
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1779(300)E		BRIDGE NO. 1505		PIN 17793.00		BRIDGE PLANS	
INTERSTATE 295 SOUTHBOUND		PRESUMPCOT RIVER		CUMBERLAND COUNTY		FALMOUTH		PLAN AND TRANS. SECTION		SHEET NUMBER	
5		OF 55									
PROJECT MANAGER		DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED		REVISIONS 1		REVISIONS 2	
BY		DATE		SIGNATURE		P.E. NUMBER		DATE			
DOE		03/10		03/10							
CAH		TRC									
REVISIONS 3		REVISIONS 4		FIELD CHANGES							

NOTES:

1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Approximate locations for deck repairs are shown on the plan. Exact locations may vary and shall be determined in the field. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
3. Install composite pavement interlayer per detail shown on sheet 23 at Abutments 1 and 2.

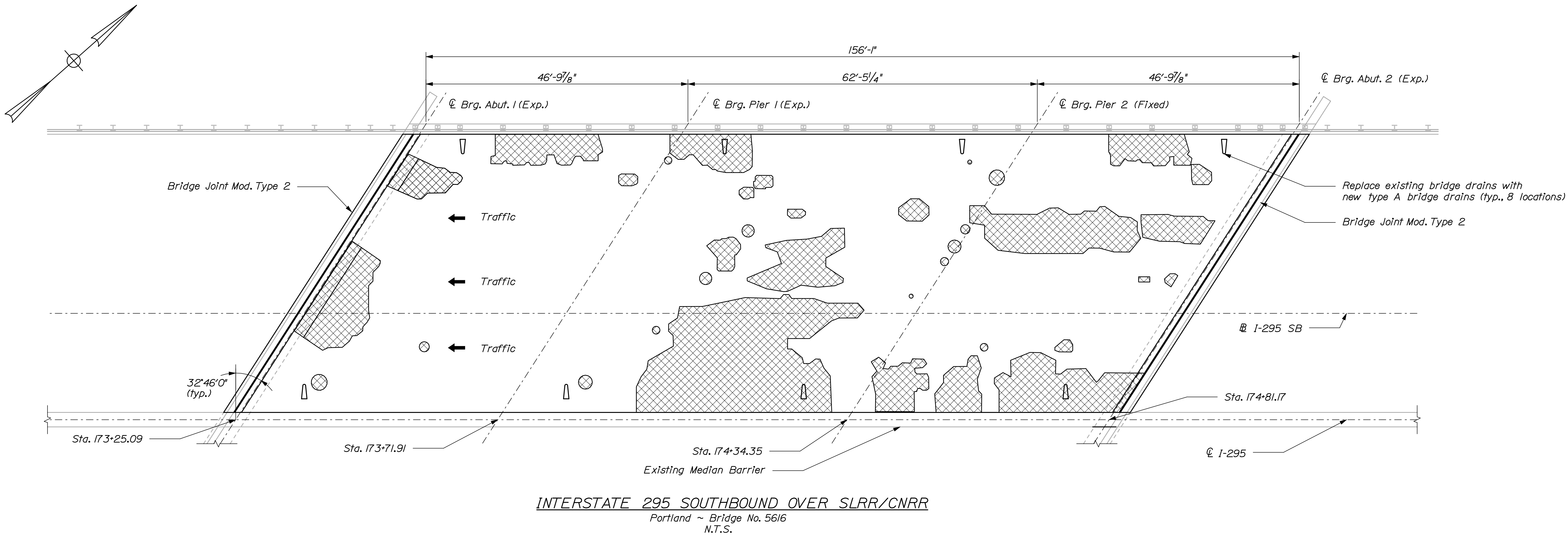


INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET
Portland ~ Bridge No. 5618
N.T.S.



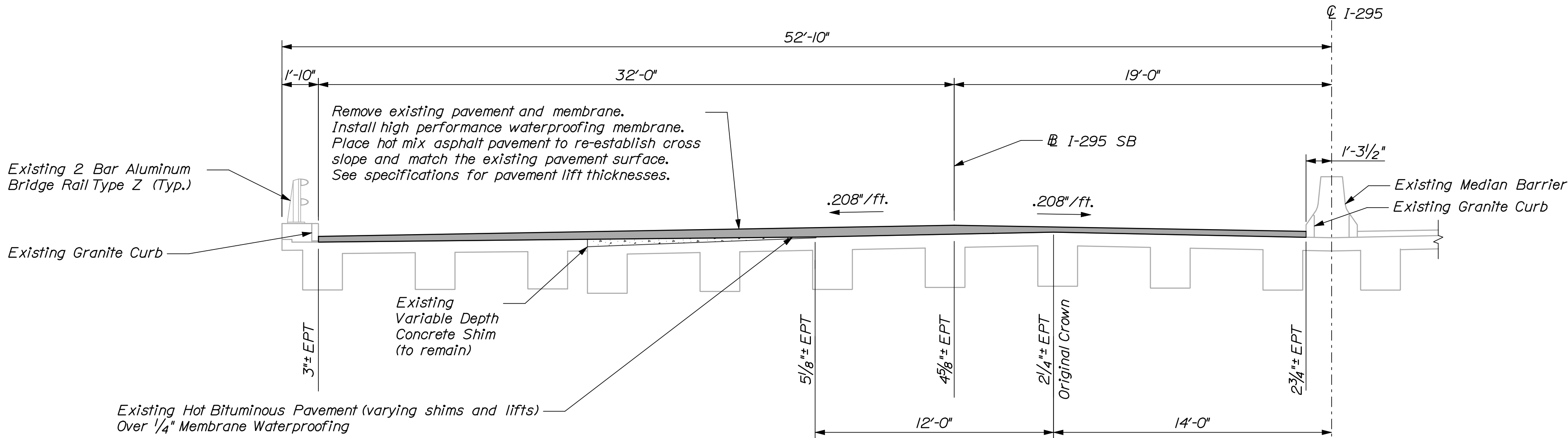
HALF TRANSVERSE SECTION
N.T.S.

SHEET NUMBER			INTERSTATE 295 SOUTHBOUND KENSINGTON STREET PORTLAND			CUMBERLAND COUNTY			PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES			DOE CAH TRC -		
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INTERSTATE 295 SOUTHBOUND OVER SLRR/CNRR
Portland ~ Bridge No. 5616
N.T.S.

Legend
Approximate limits of deck repair



HALF TRANSVERSE SECTION
N.T.S.

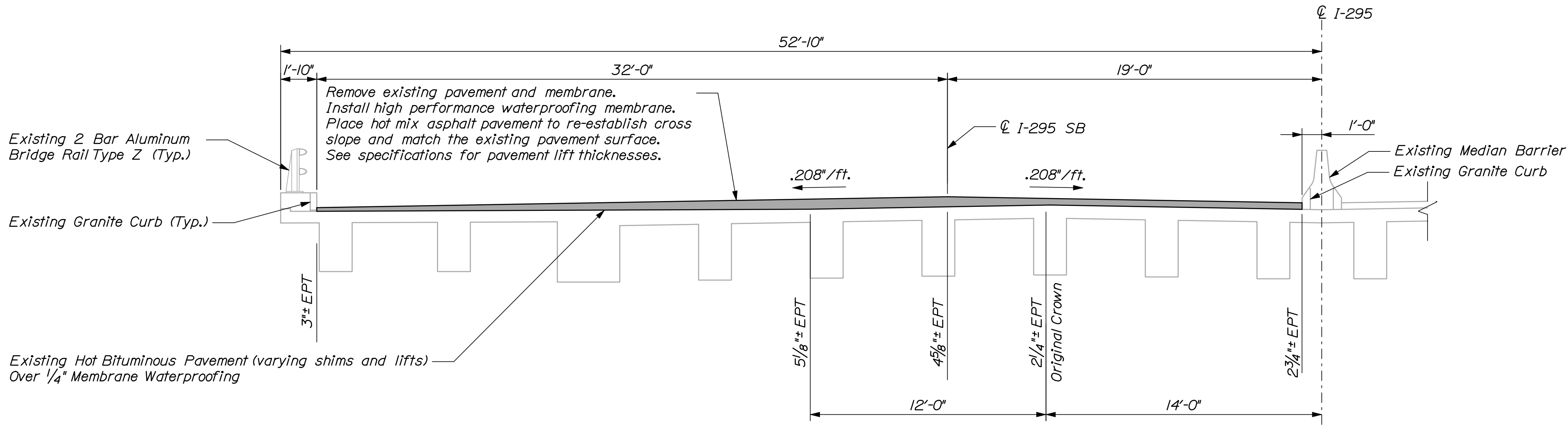
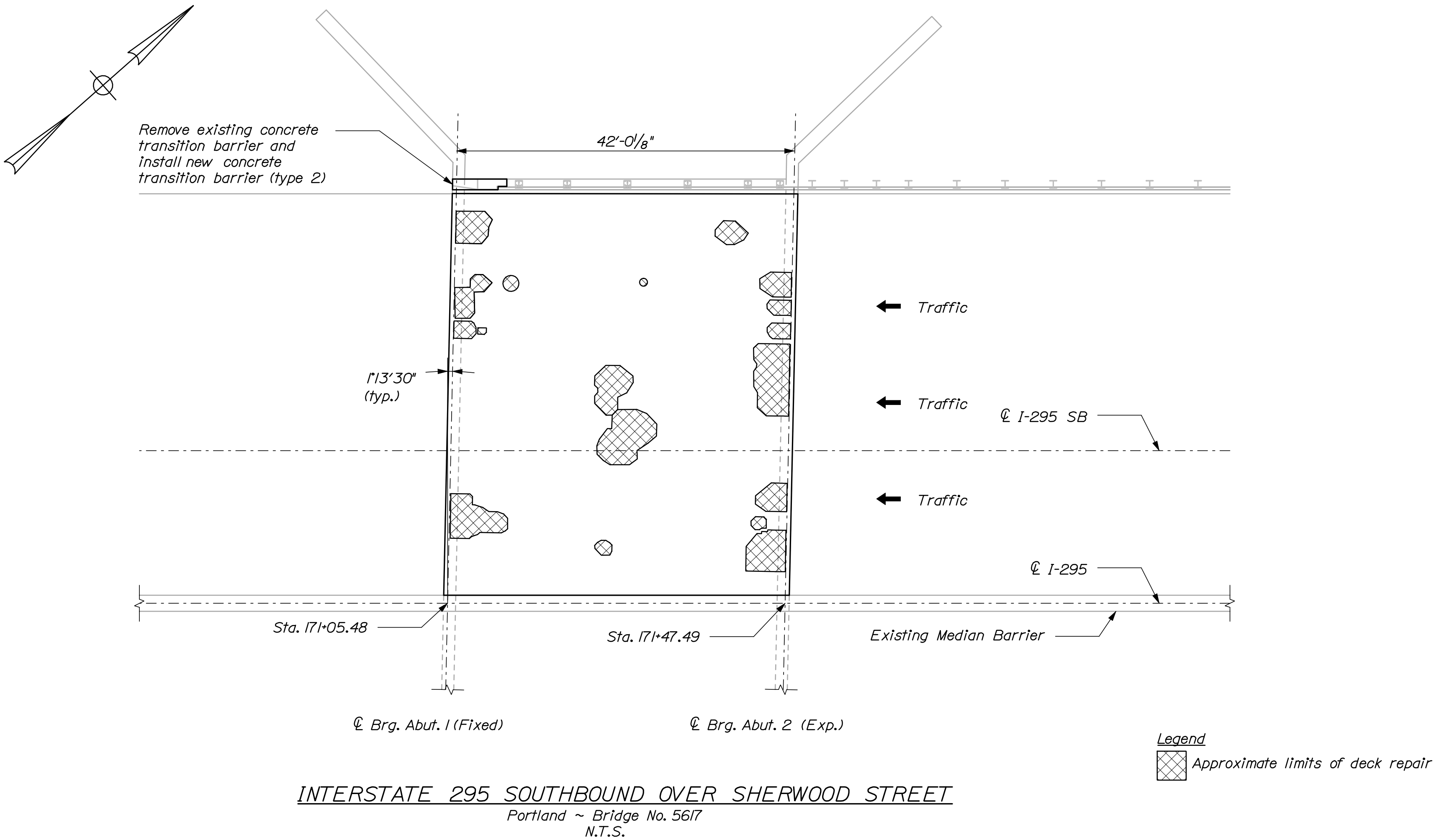
EPT = Existing Pavement Thickness
(From as-builts)

NOTES:
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Approximate locations for deck repairs are shown on the plan. Exact locations may vary and shall be determined in the field. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E	SHEET NUMBER	
	2	
	OF 55	
INTERSTATE 295 SOUTHBOUND SLRR AND CNRR PORTLAND PLAN AND TRANS. SECTION	SHEET NUMBER	
	2	
	OF 55	
CUMBERLAND COUNTY	SHEET NUMBER	
	2	
	OF 55	
BRIDGE PLANS	SHEET NUMBER	
	2	
	OF 55	
BRIDGE NO. 5616	SHEET NUMBER	
	2	
	OF 55	
PIN 17793.00	SHEET NUMBER	
	2	
	OF 55	
DATE	SHEET NUMBER	
	2	
	OF 55	
P.E. NUMBER	SHEET NUMBER	
	2	
	OF 55	
SIGNATURE	SHEET NUMBER	
	2	
	OF 55	
DATE	SHEET NUMBER	
	2	
	OF 55	
BY	SHEET NUMBER	
	2	
	OF 55	
DOE	SHEET NUMBER	
	2	
	OF 55	
PROJ. MANAGER	SHEET NUMBER	
	2	
	OF 55	
DESIGN-DETAILED	SHEET NUMBER	
	2	
	OF 55	
CHECKED-REVIEWED	SHEET NUMBER	
	2	
	OF 55	
CAH	SHEET NUMBER	
	2	
	OF 55	
RWI	SHEET NUMBER	
	2	
	OF 55	
DATE	SHEET NUMBER	
	2	
	OF 55	

NOTES:

1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Approximate locations for deck repairs are shown on the plan. Exact locations may vary and shall be determined in the field. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
3. Install composite pavement interlayer per detail shown on sheet 23 at Abutments 1 and 2.



EPT = Existing Pavement Thickness
(From as-builts)

HALF TRANSVERSE SECTION

N.T.S.

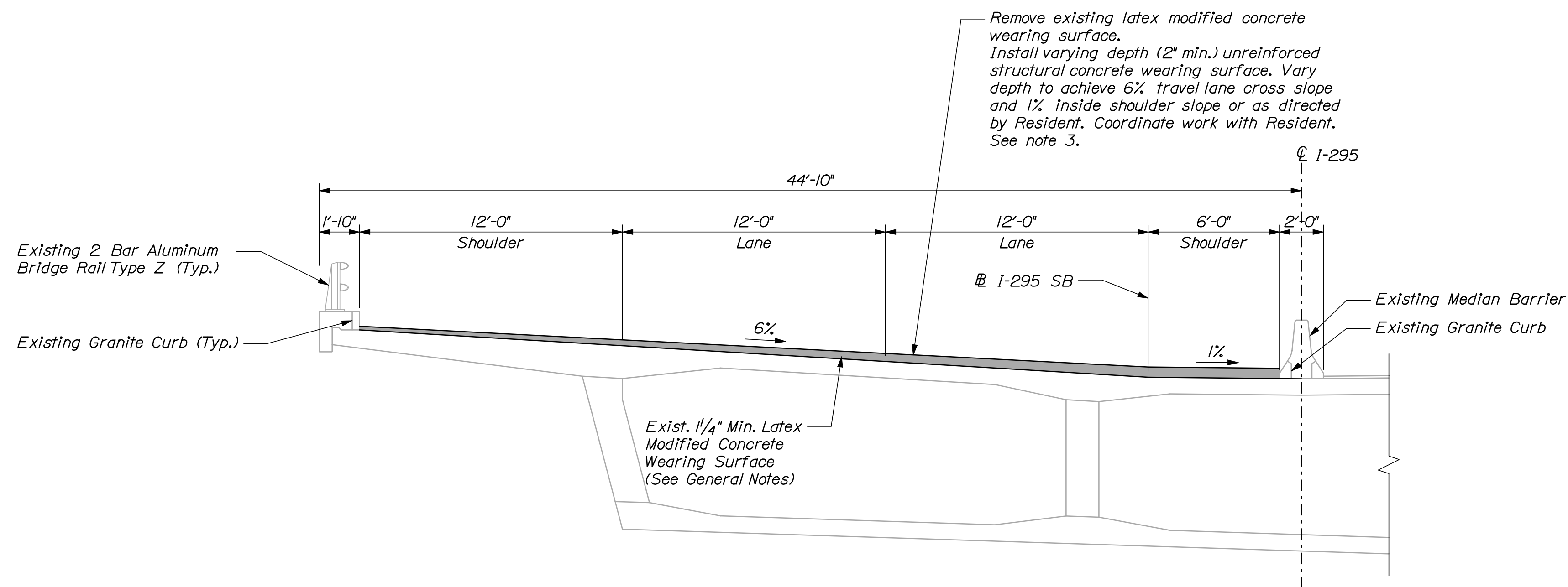
STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E					SIGNATURE
				P.E. NUMBER	
				DATE	
				BRIDGE NO. 5617	
				PIN 17793.00	
				BRIDGE PLANS	

1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.

3. Contractor shall survey along top of existing grade, joints, and roadway approaches 100 feet beyond joints. Collected information shall include elevation grades at crown, breaks, and 10 feet on center. Contractor shall provide information to resident at least 15 working days before planned joint repair work. Resident to provide proposed finish grades for wearing surface and joint repair work in areas where proposed depths vary. All work associated with survey collection and coordination is considered incidental to the 502 pay items. See also General Notes.

[illegible]

Portland ~ Bridge No. 0816
N.T.S.

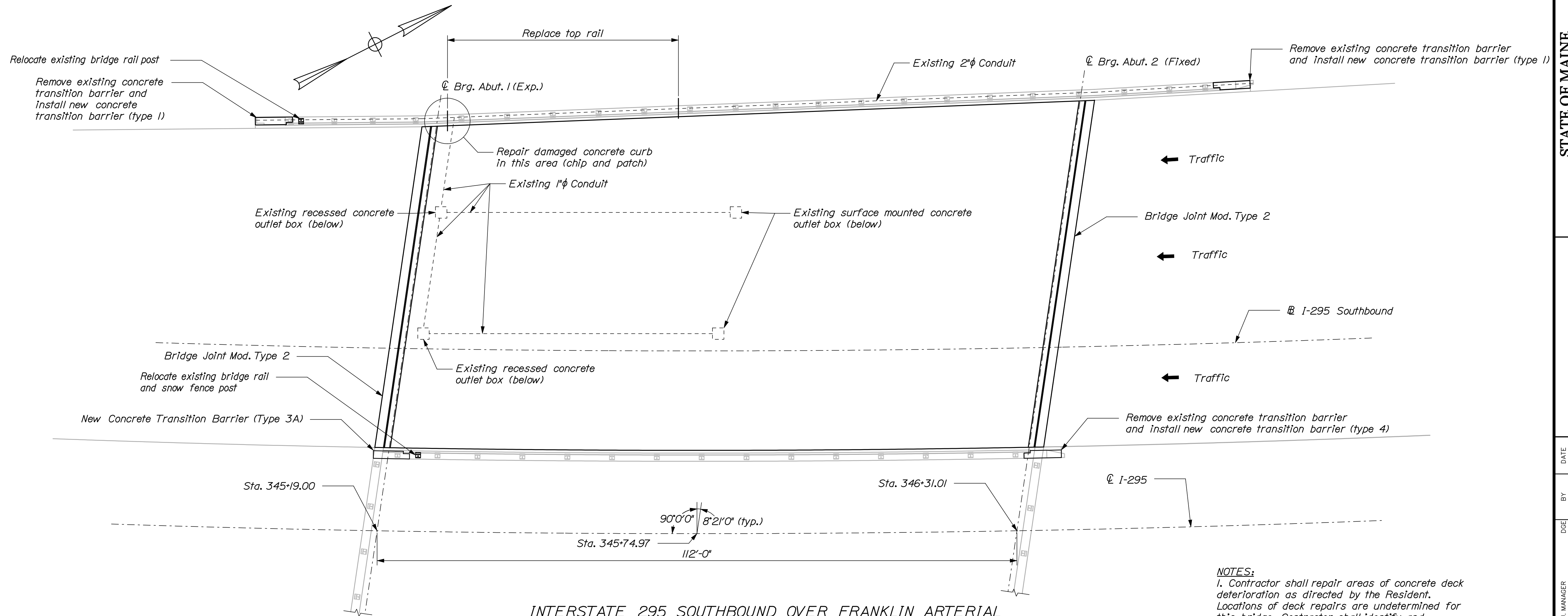


N.T.S.

DESIGN-DETAILED	CAH	RWH	03/10
CHECKED-REVIEWED	TRC	—	03/10
DESIGN2-DETAILED2	—	—	
DESIGN3-DETAILED3	—	—	
REVISIONS 1	—	—	
REVISIONS 2	—	—	
REVISIONS 3	—	—	
REVISIONS 4	—	—	
FIELD CHANGES	—	—	
SIGNATURE			
P.E. NUMBER			
DATE			

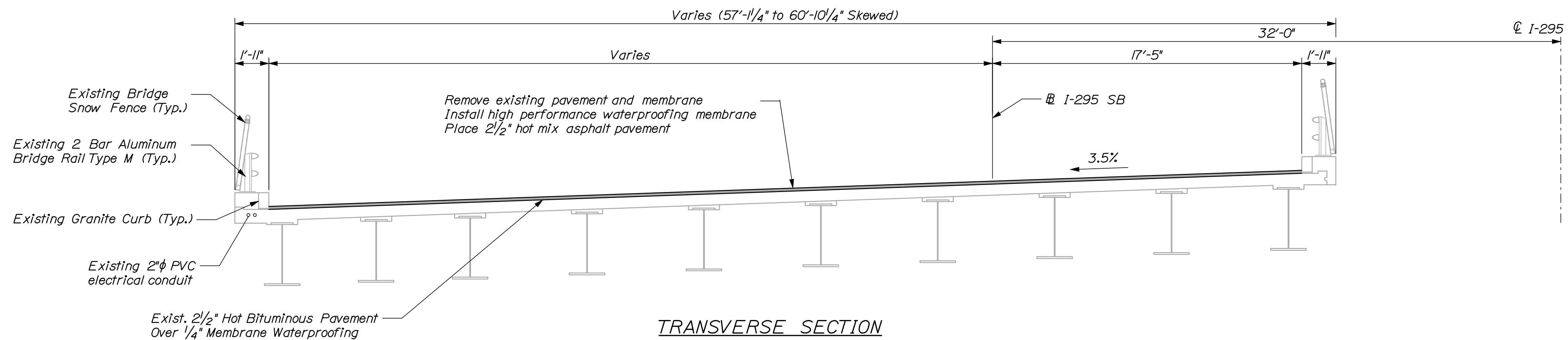
INTERSTATE 295 SOUTHBOUND
WASHINGTON AVENUE
PORTLAND CUMBERLAND COUNTY
PLAN AND TRANS. SECTION

Filename: 010_PlanXsec-FranklinArterial.dgn
Division: BRIDGE
Username: mcundiff
Date: 3/26/2010



INTERSTATE 295 SOUTHBOUND OVER FRANKLIN ARTERIAL
Portland ~ Bridge No. 6300
N.T.S.

- NOTES:**
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
 2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
 3. Relocation of snow fence post and modification of snow fencing shall be incidental to item 526.34.



TRANSVERSE SECTION
N.T.S.

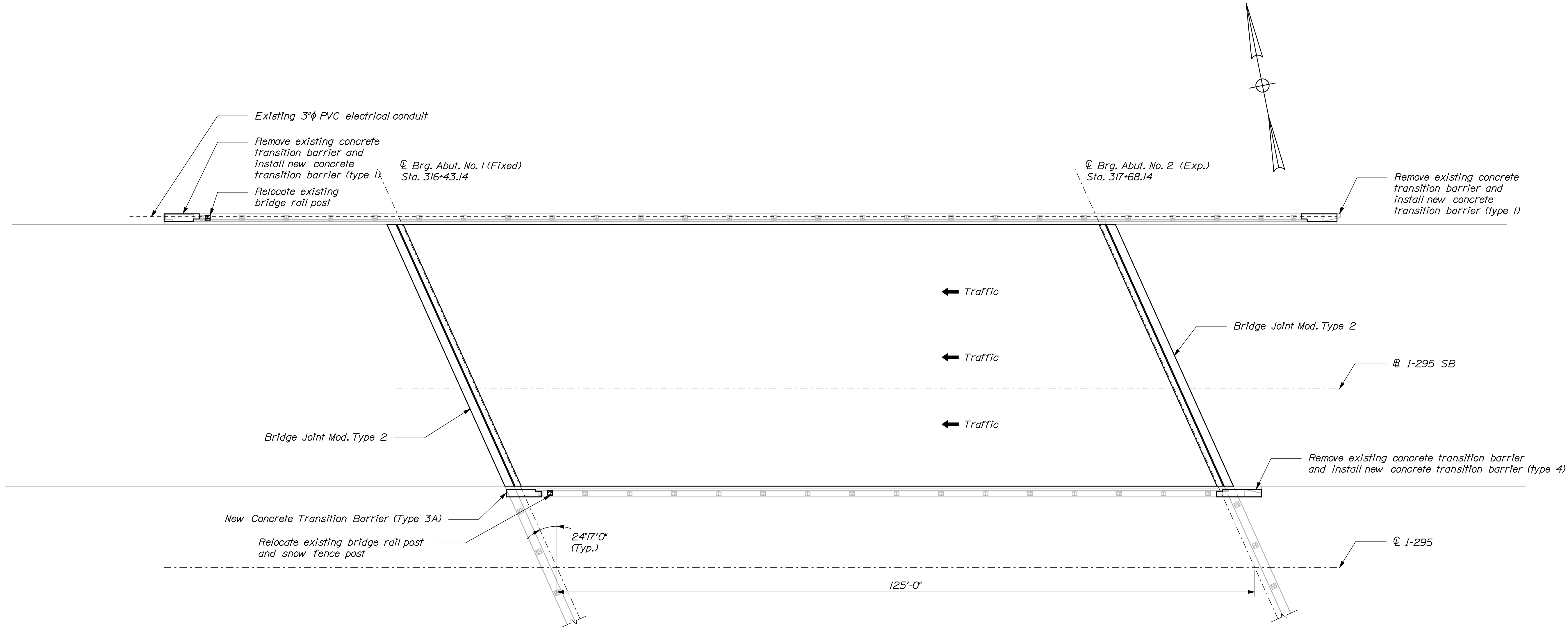
SHEET NUMBER										STATE OF MAINE									
10										DEPARTMENT OF TRANSPORTATION									
OF 55										IM-1779(300)E									
PLAN AND TRANS. SECTION										BRIDGE NO. 6300									
PORTLAND CUMBERLAND COUNTY										PIN 17793.00									
FRANKLIN ARTERIAL										BRIDGE PLANS									
INTERSTATE 295 SOUTHBOUND																			
DESIGN-DETAILED										SIGNATURE									
CHECKED-REVIEWED TRC										DATE									
DESIGN2-DETAILED2																			
DESIGN3-DETAILED3																			
REVISIONS 1										P.E. NUMBER									
REVISIONS 2																			
REVISIONS 3																			
REVISIONS 4																			
FIELD CHANGES																			

Date: 3/26/2010

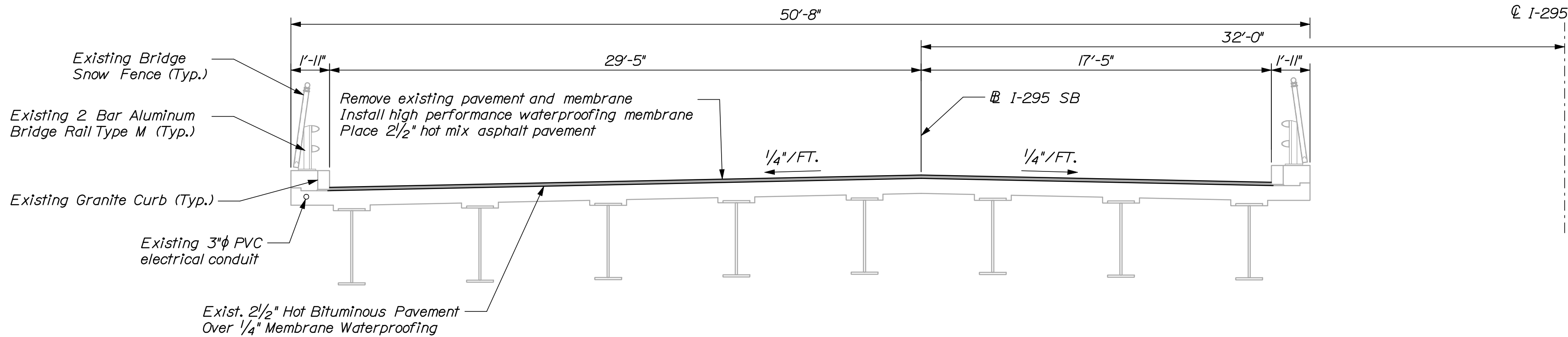
Username: mcardiff

Division: BRIDGE

Filename: 011_PlanXsec-Forest Ave.dgn



INTERSTATE 295 SOUTHBOUND OVER FOREST AVENUE
 Portland ~ Bridge No. 6298
 N.T.S.



TRANSVERSE SECTION
 N.T.S.

- NOTES:**
 1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
 2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
 3. Relocation of snow fence post and modification of snow fencing shall be incidental to item 526.34.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	IM-1779(300)E		BRIDGE NO. 6298		PIN 17793.00		BRIDGE PLANS	
	SIGNATURE		P.E. NUMBER		DATE			
	03/10		03/10					
INTERSTATE 295 SOUTHBOUND FOREST AVENUE PORTLAND CUMBERLAND COUNTY		SHEET NUMBER		11		OF 55		

Date: 3/26/2010

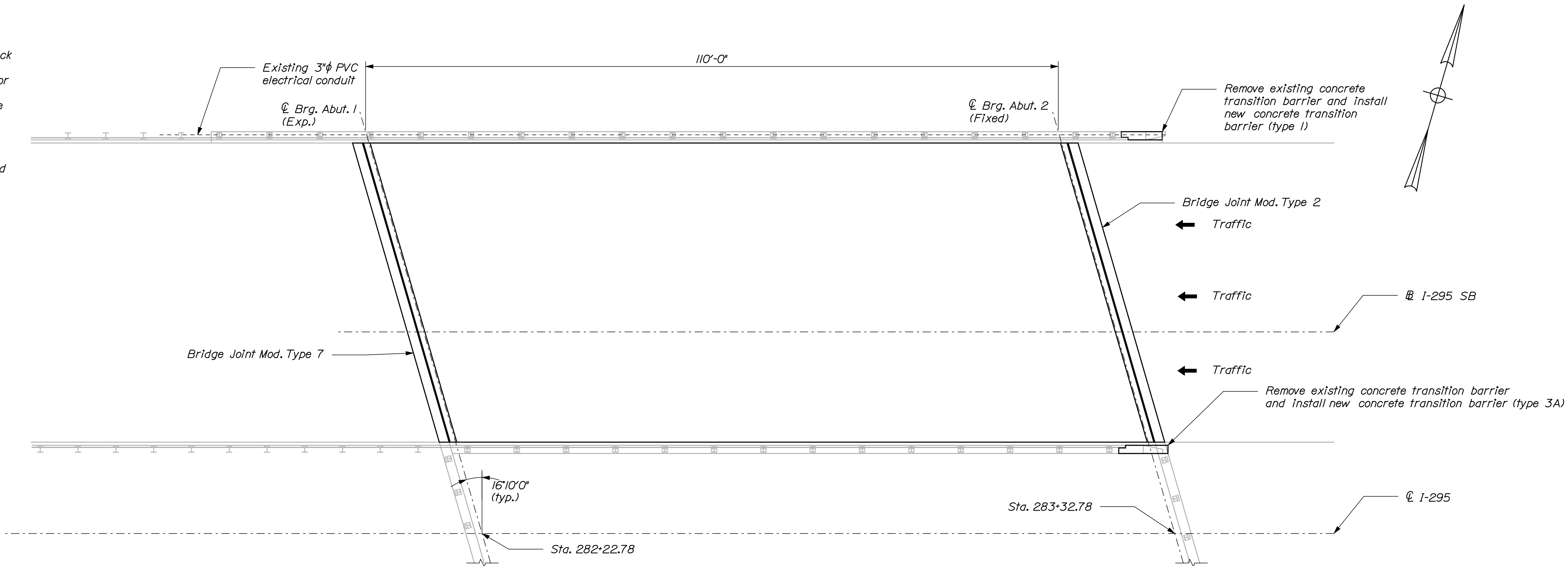
Username: mcloudiff

Division: BRIDGE

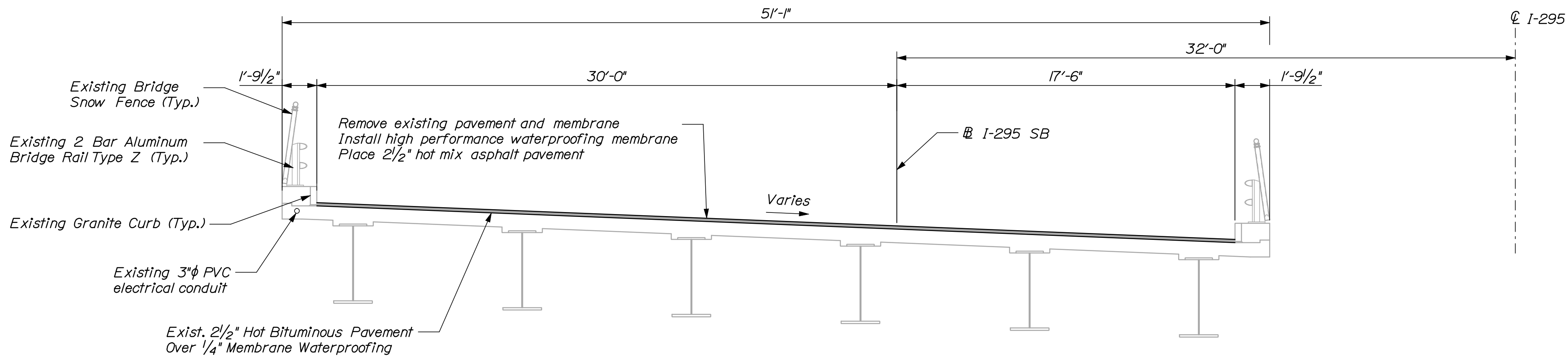
Filename: 012_PlanXsec-StJohn.dgn

NOTES:
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.

2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)



INTERSTATE 295 SOUTHBOUND OVER ST. JOHN STREET
Portland ~ Bridge No. 6297
N.T.S.



TRANSVERSE SECTION
N.T.S.

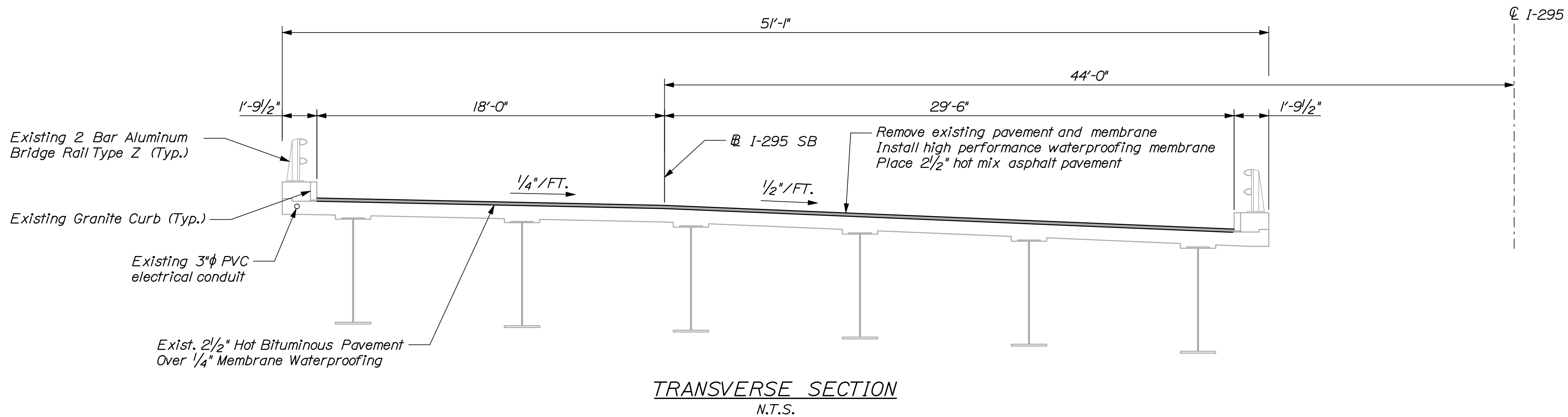
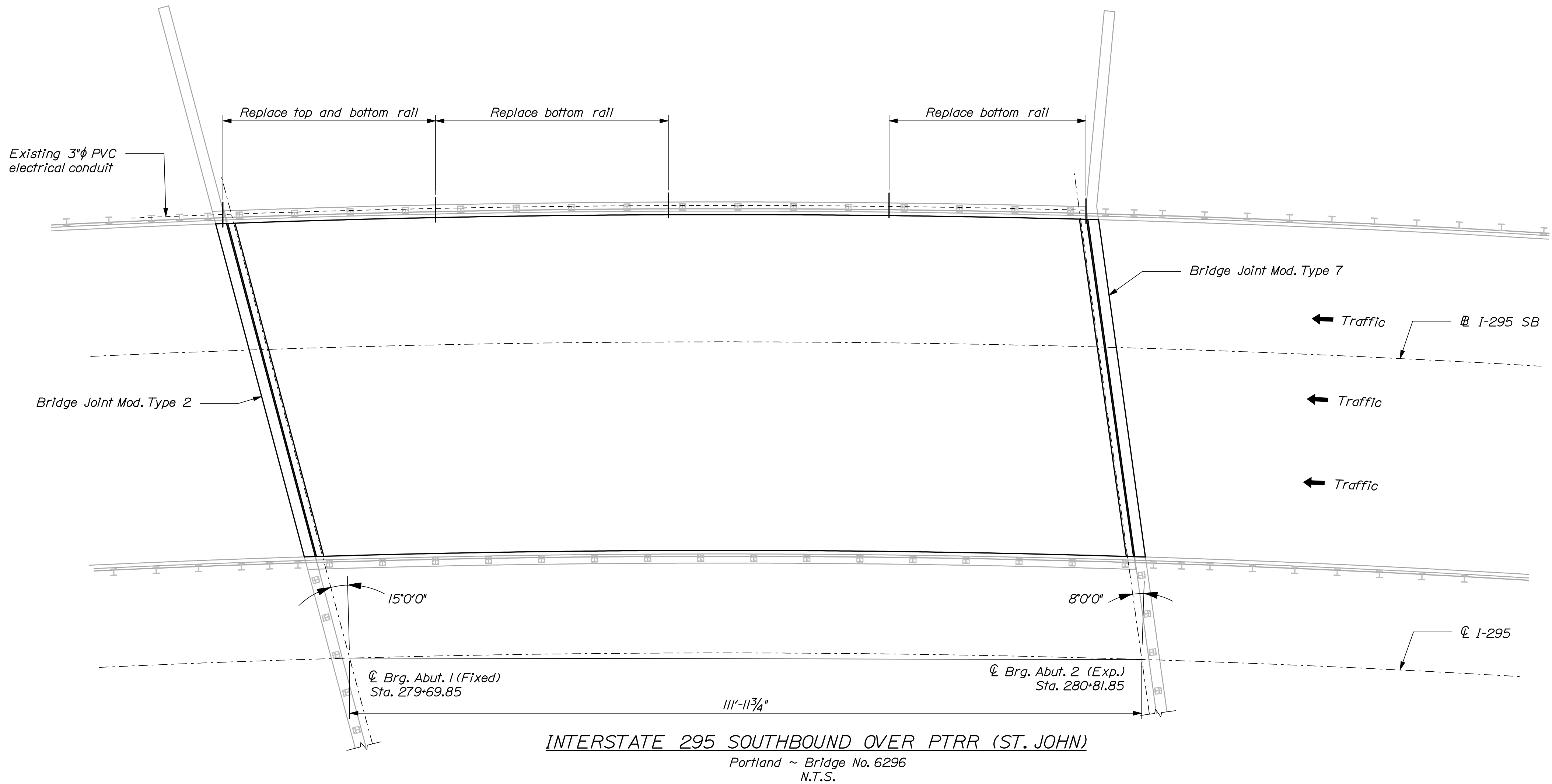
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. 6297
PIN 17793.00
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	CAH	TRC	DOE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
							03/10			
							03/10			

INTERSTATE 295 SOUTHBOUND
ST. JOHN STREET
CUMBERLAND COUNTY
PORTLAND
PLAN AND TRANS. SECTION

SHEET NUMBER
12
OF 55

NOTES:
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)



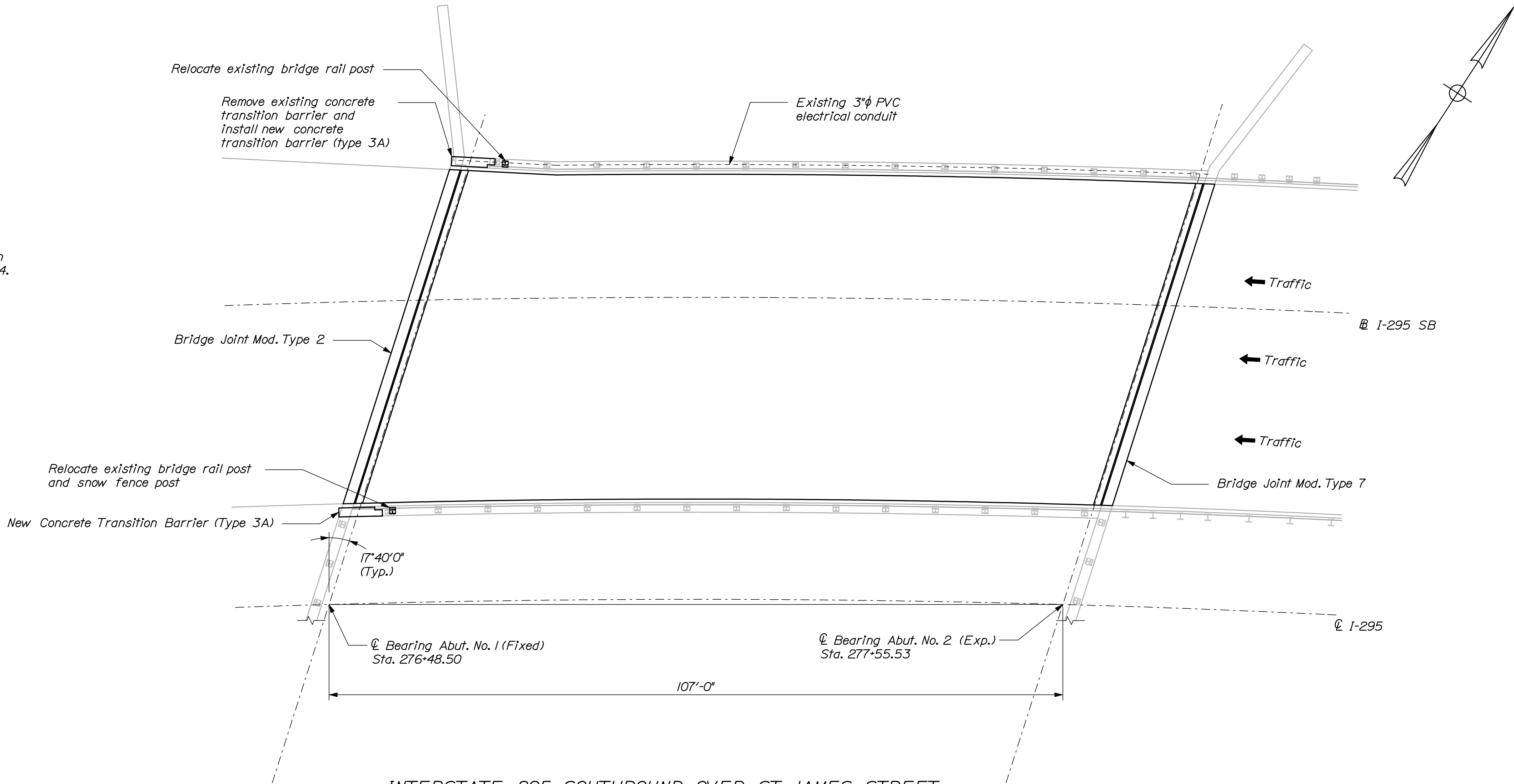
PROJ. MANAGER	DOE	BY	DATE	
CAH	RWH		03/10	SIGNATURE
DESIGN-DETAILED			03/10	
CHECKED-REVIEWED	TRC			
DESIGN-DETAILED2				
DESIGN-DETAILED3				P.E. NUMBER
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				DATE
FIELD CHANGES				

NOTES:

1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.

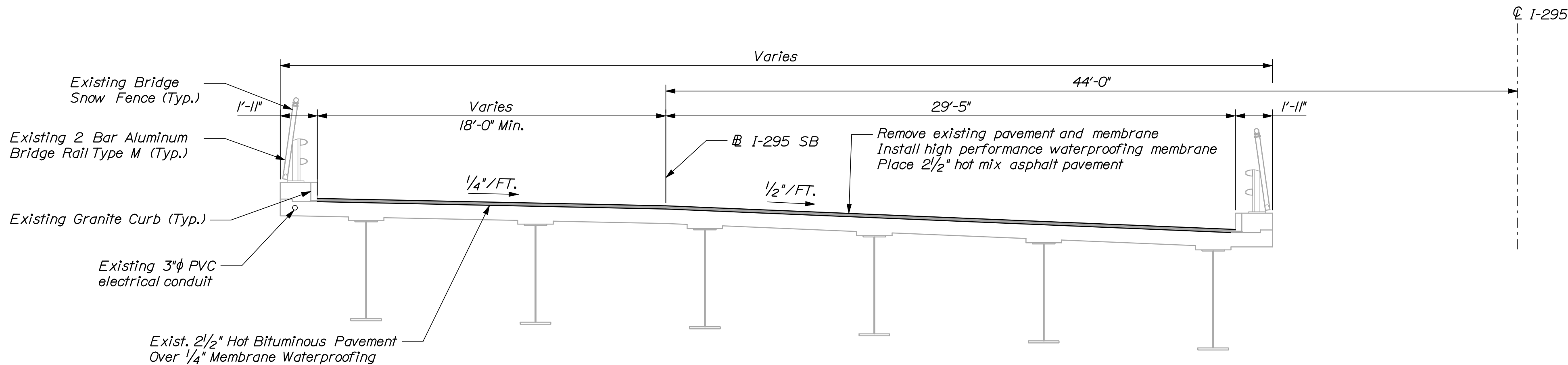
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)

3. Relocation of snow fence post and modification of snow fencing shall be incidental to item 526.34.



INTERSTATE 295 SOUTHBOUND OVER ST. JAMES STREET

Portland ~ Bridge No. 6295
N.T.S.



TRANSVERSE SECTION

M.T.S.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. 6295	PIN 17793.00
	BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DOE	DATE
	CAH	TRC	03/10	RWH		03/10
	DESIGN-DETAILED					
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

INTERSTATE 295 SOUTHBOUND	
ST. JAMES STREET	
PORTLAND CUMBERLAND COUNTY	
PLAN AND TRANS. SECTION	

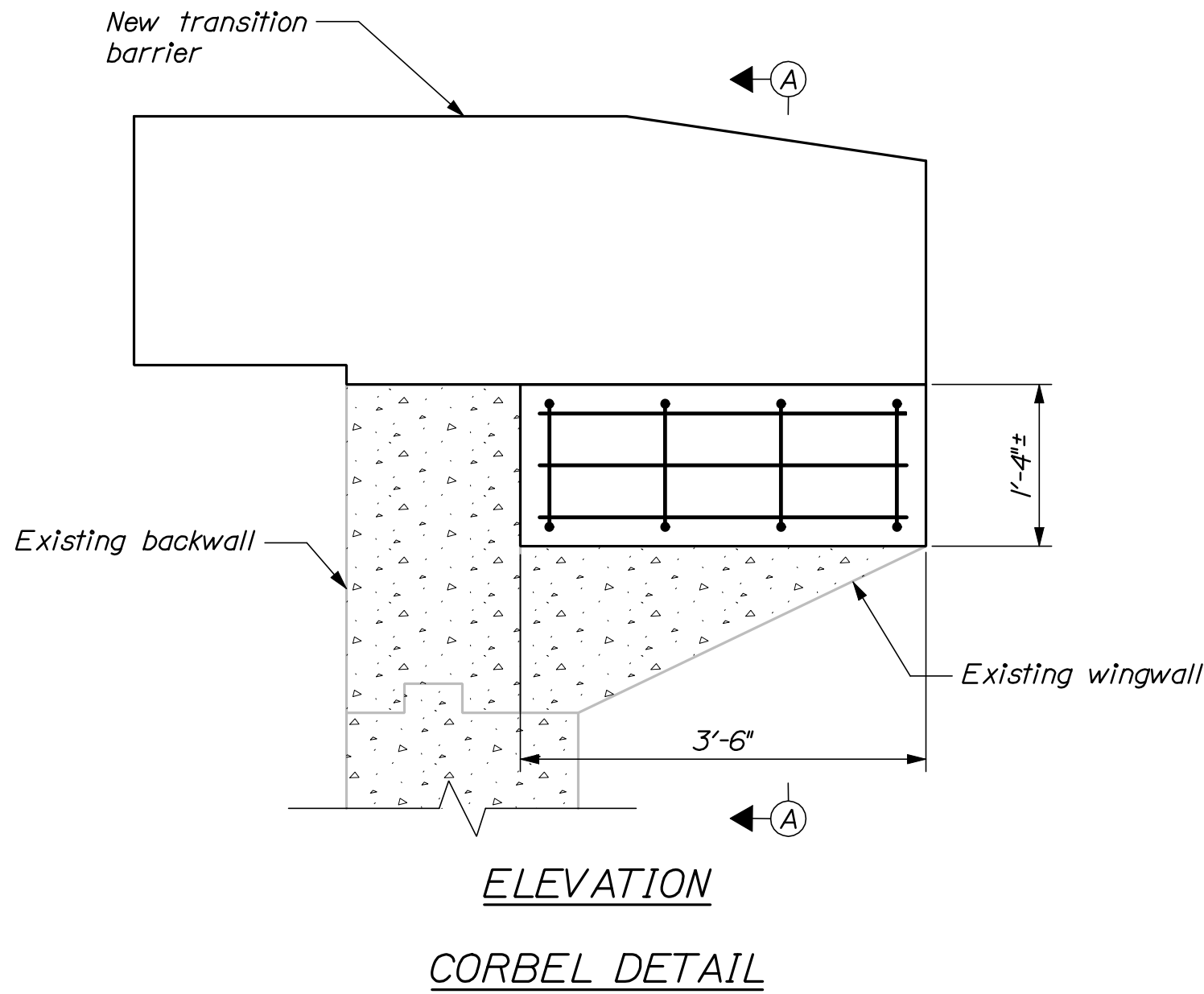
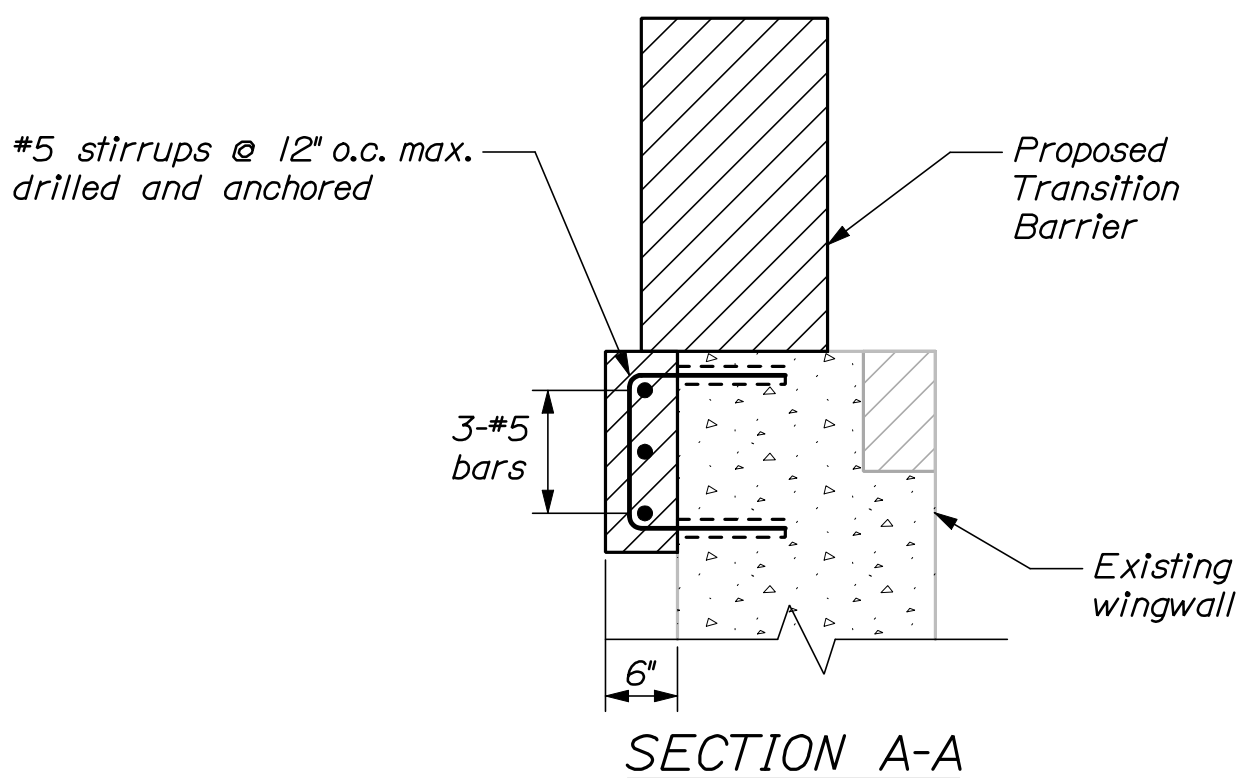
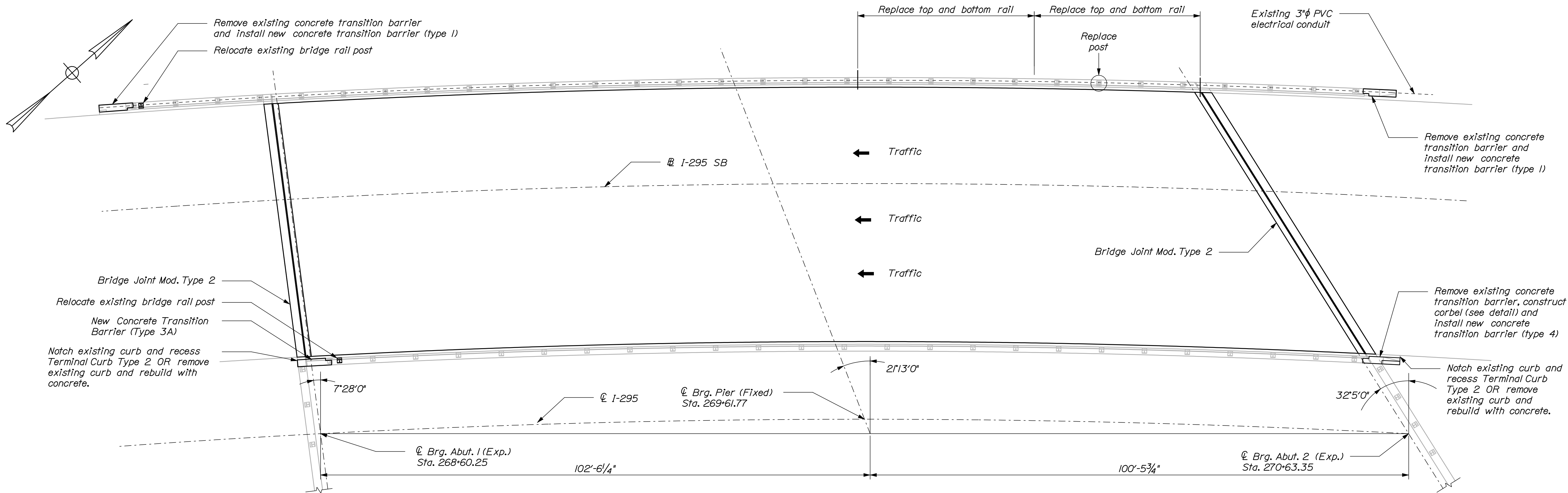
SHEET NUMBER
14
OF 55

Date: 3/26/2010

Username: mcardiff

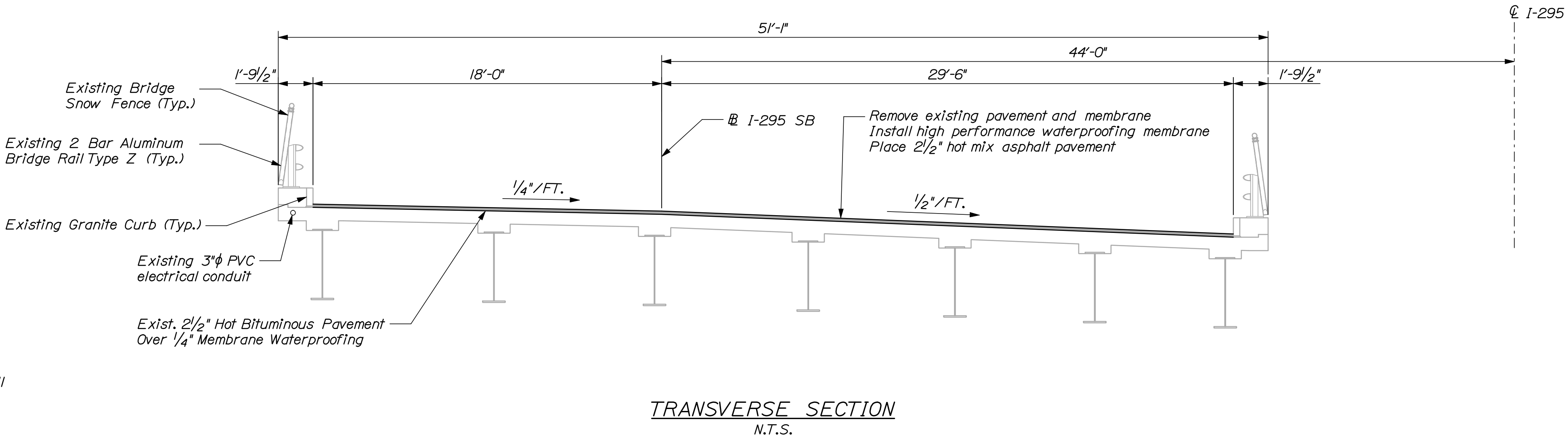
Filename: 015_PlanSec-CongressStreet-ParkAvenue

Division: BRIDGE



INTERSTATE 295 SOUTHBOUND OVER CONGRESS STREET & PARK AVENUE
Portland ~ Bridge No. 6294
N.T.S.

- NOTES:**
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
 2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
 3. Construction of the proposed support corbel at the approach passing lane side transition barrier shall be incidental to item 526.34.
 4. Modifying existing bridge curb for matching proposed terminal curb shall be incidental to item 526.34.



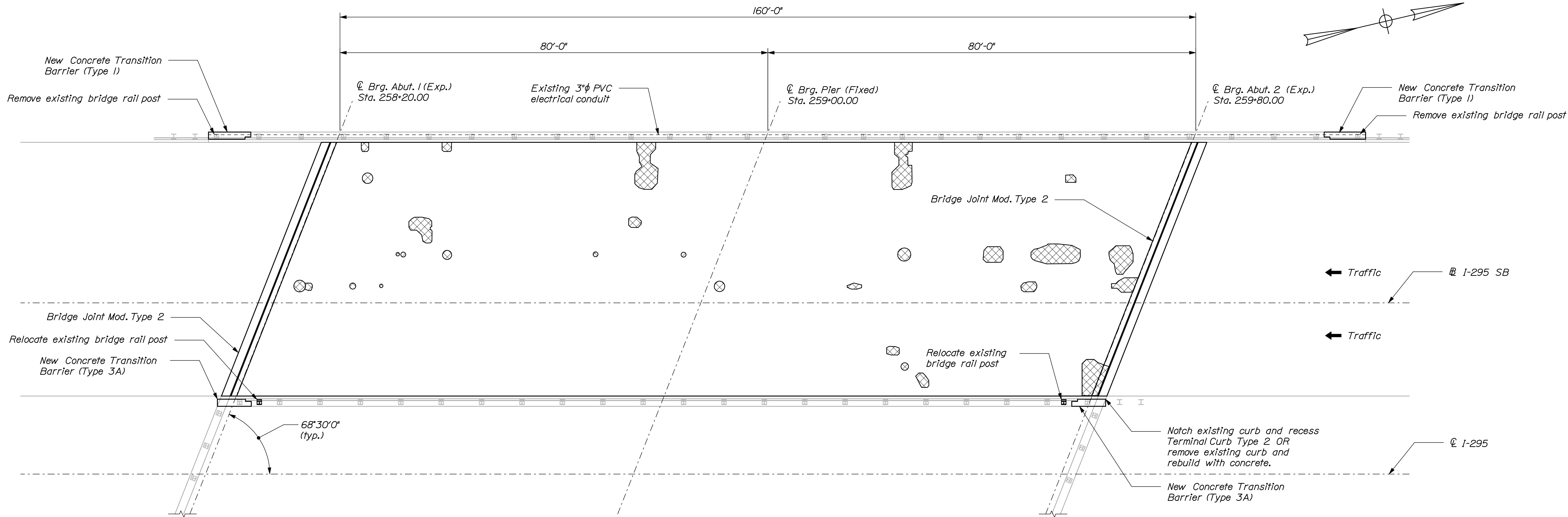
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1779(300)E		BRIDGE NO. 6294		PIN 17793.00		BRIDGE PLANS	
INTERSTATE 295 SOUTHBOUND		CONGRESS STREET & PARK AVENUE		CUMBERLAND COUNTY		SHEET NUMBER		15		OF 55	
DATE		BY		SIGNATURE		P.E. NUMBER		DATE			
03/10		RW									
03/10		CAH									
		TRC									
		DESIGN-DETAILED									
		DESIGN-DETAILED									
		REVISIONS 1									
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		REVISIONS 3									
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		FIELD CHANGES									

Date: 3/26/2010

Username: mcundiff

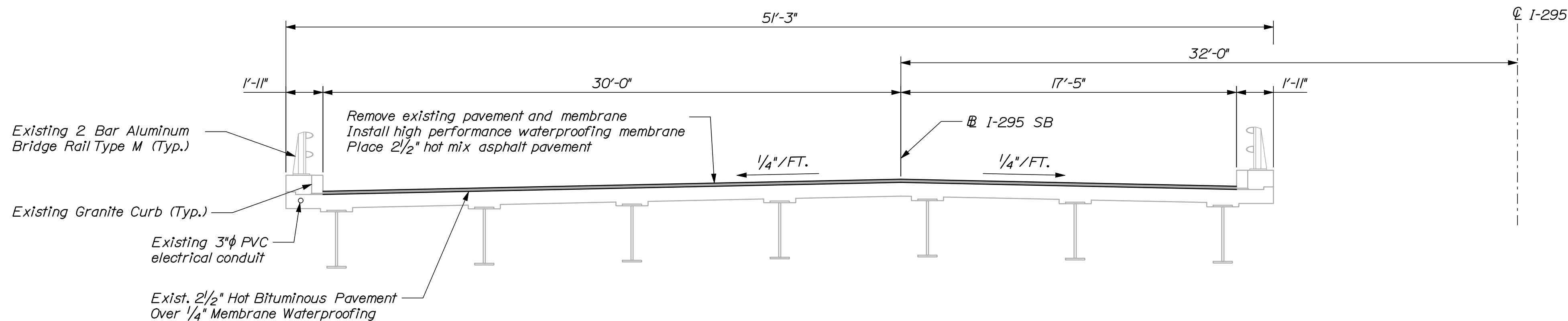
Division: BRIDGE

Filename: 016_PlanXsec-PortlandConnector.dgn



INTERSTATE 295 SOUTHBOUND OVER PORTLAND CONNECTOR (WESTBROOK ARTERIAL)
Portland ~ Bridge No. 6292
N.T.S.

Legend
Approximate limits of deck repair



TRANSVERSE SECTION
N.T.S.

NOTES:
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Approximate locations for deck repairs are shown on the plan. Exact locations may vary and shall be determined in the field. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
3. Modifying existing bridge curb for matching proposed terminal curb shall be incidental to item 526.34.

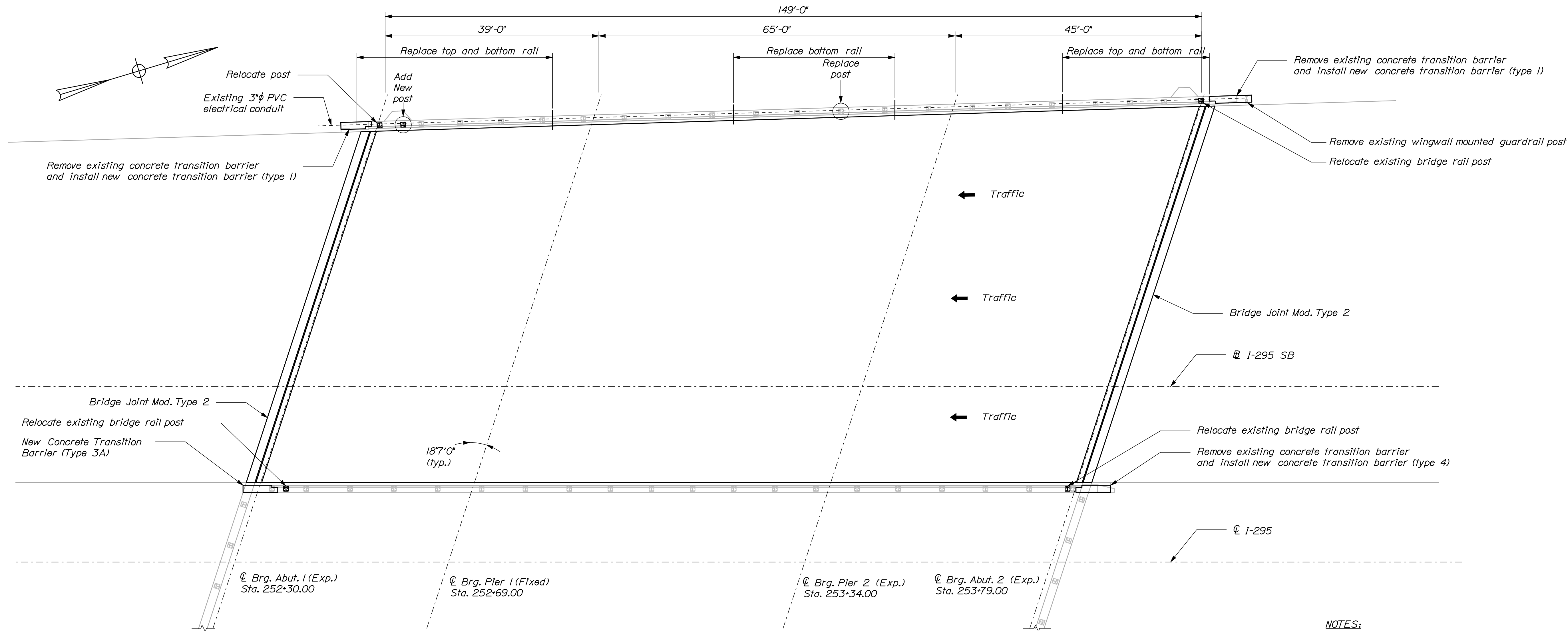
PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	CAH	TRC	DOE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
							03/10			
							03/10			

Date: 3/26/2010

Username: mcardiff

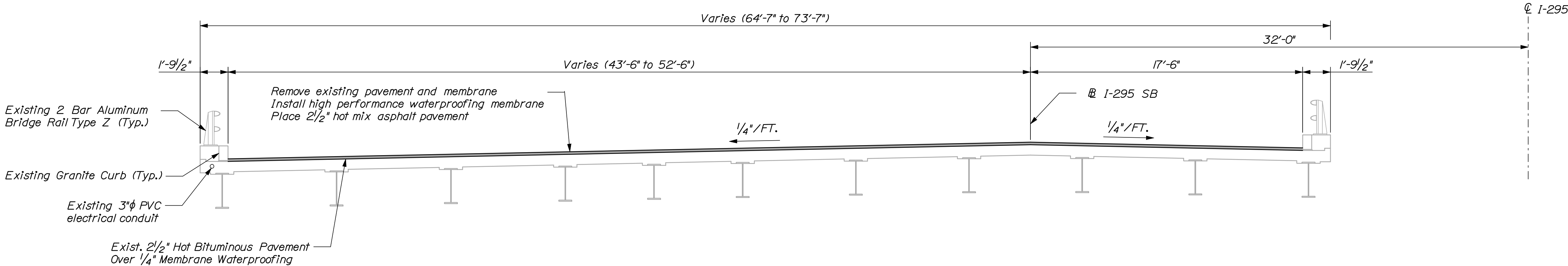
Division: BRIDGE

Filename: 017_PlanXsec-PTRR.dgn



INTERSTATE 295 SOUTHBOUND OVER PTRR (FORE RIVER)

Portland ~ Bridge No. 629I
N.T.S.



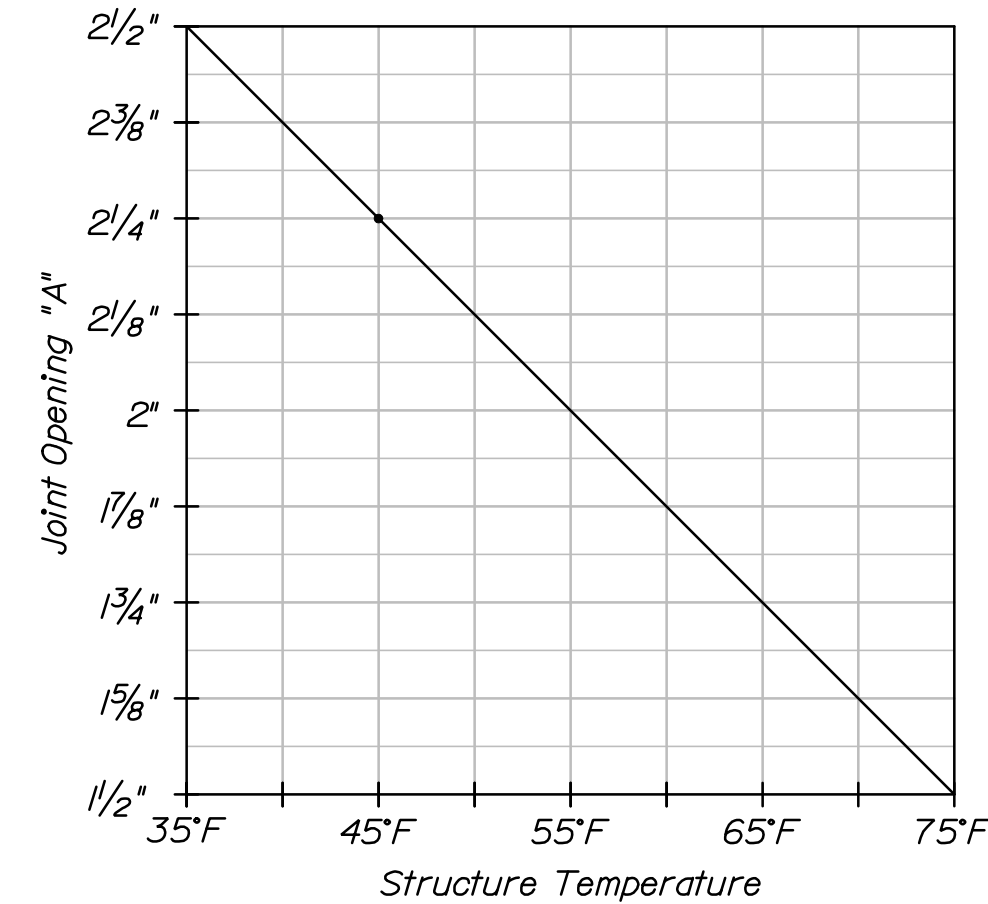
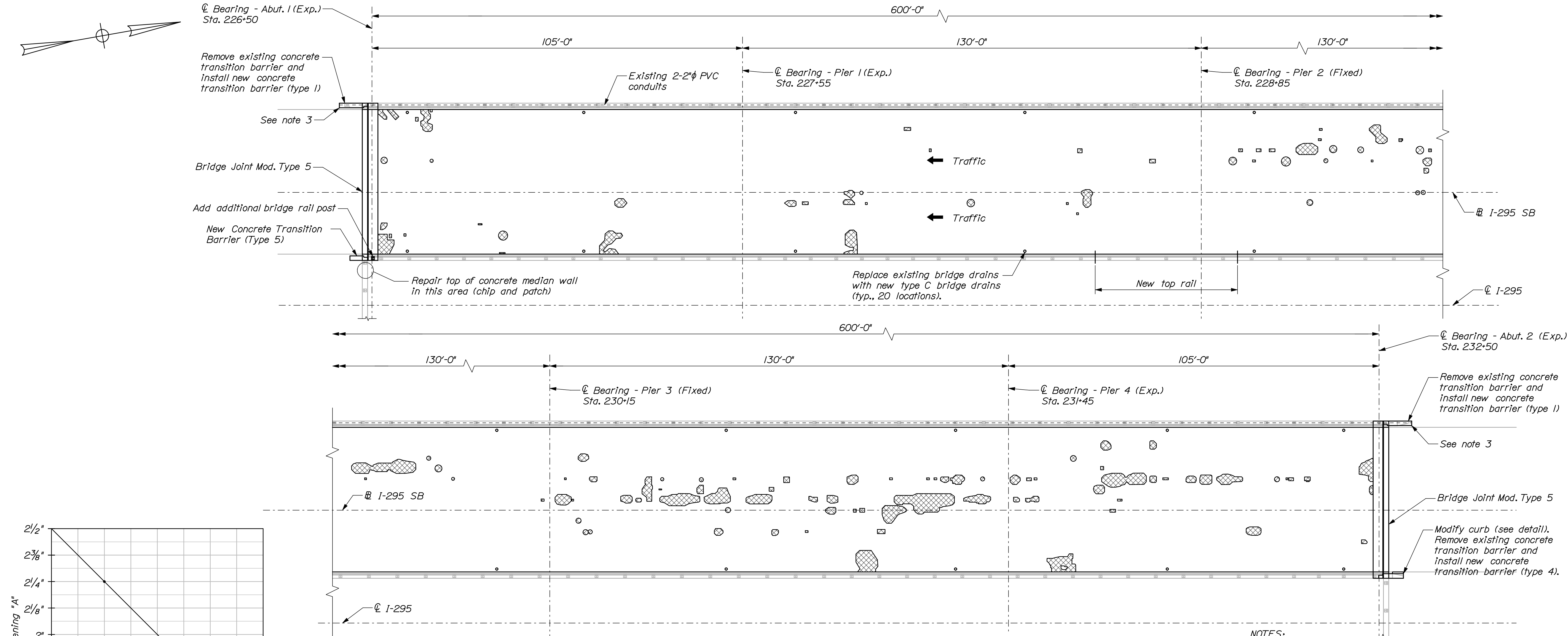
TRANSVERSE SECTION
N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	IM-1779(300)E	PIN 17793.00	BRIDGE NO. 629I	BRIDGE PLANS
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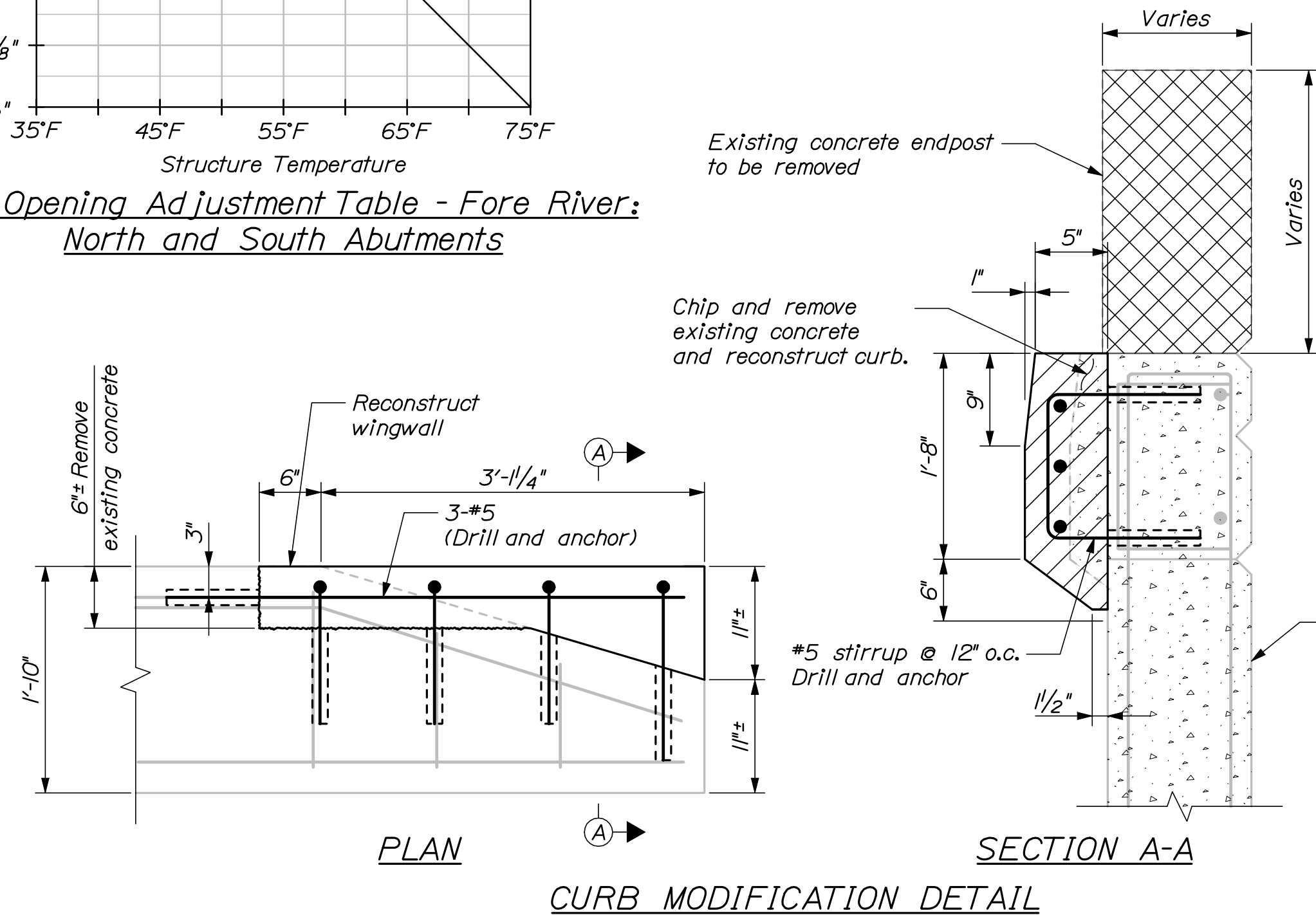
PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
CAH	TRC	RWH	03/10	03/10				
DESIGN-DETAILED								
REVISIONS 1								
REVISIONS 2								
REVISIONS 3								
REVISIONS 4								
FIELD CHANGES								

INTERSTATE 295 SOUTHBOUND PTRR (FORE RIVER) PORTLAND CUMBERLAND COUNTY	PLAN AND TRANS. SECTION
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SHEET NUMBER 17 OF 55



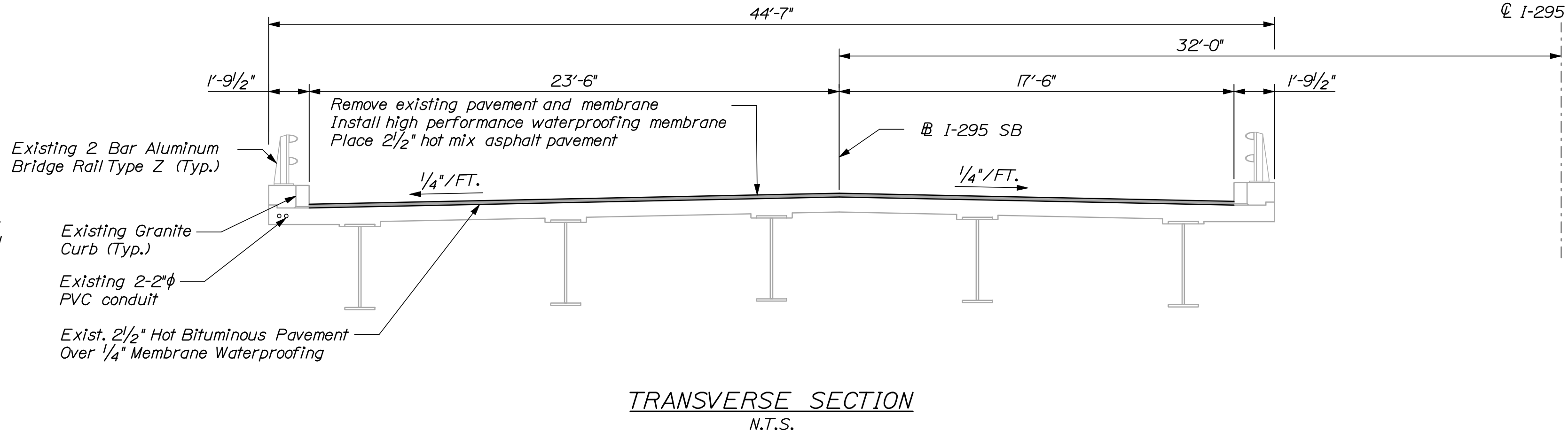
Seal Opening Adjustment Table - Fore River:
North and South Abutments



INTERSTATE 295 SOUTHBOUND OVER FORE RIVER
Portland ~ Bridge No. 6281
N.T.S.

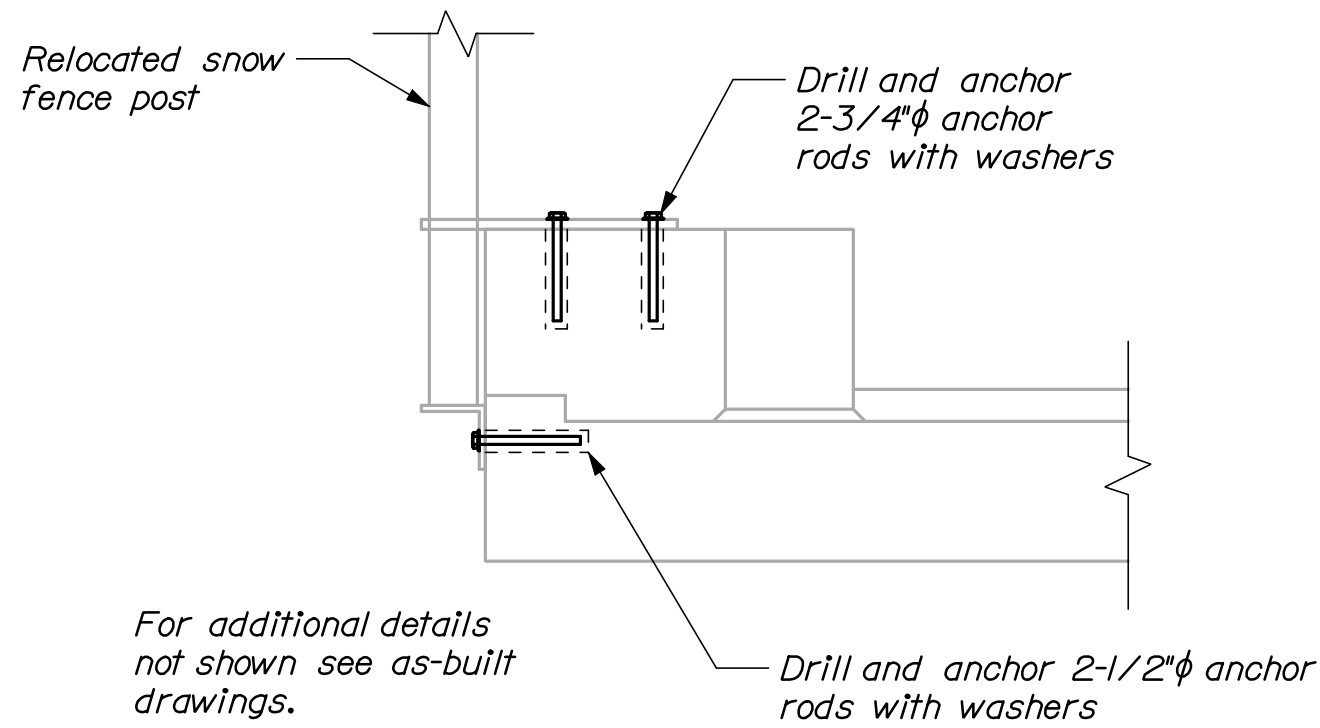
Legend
Approximate limits of deck repair

- NOTES:
1. Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Approximate locations for deck repairs are shown on the plan. Exact locations may vary and shall be determined in the field. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
 2. Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
 3. Notch existing curb and recess terminal curb type 2 or remove existing curb and rebuild with concrete.
 4. Not all conduit details shown. See as-builts for additional information.

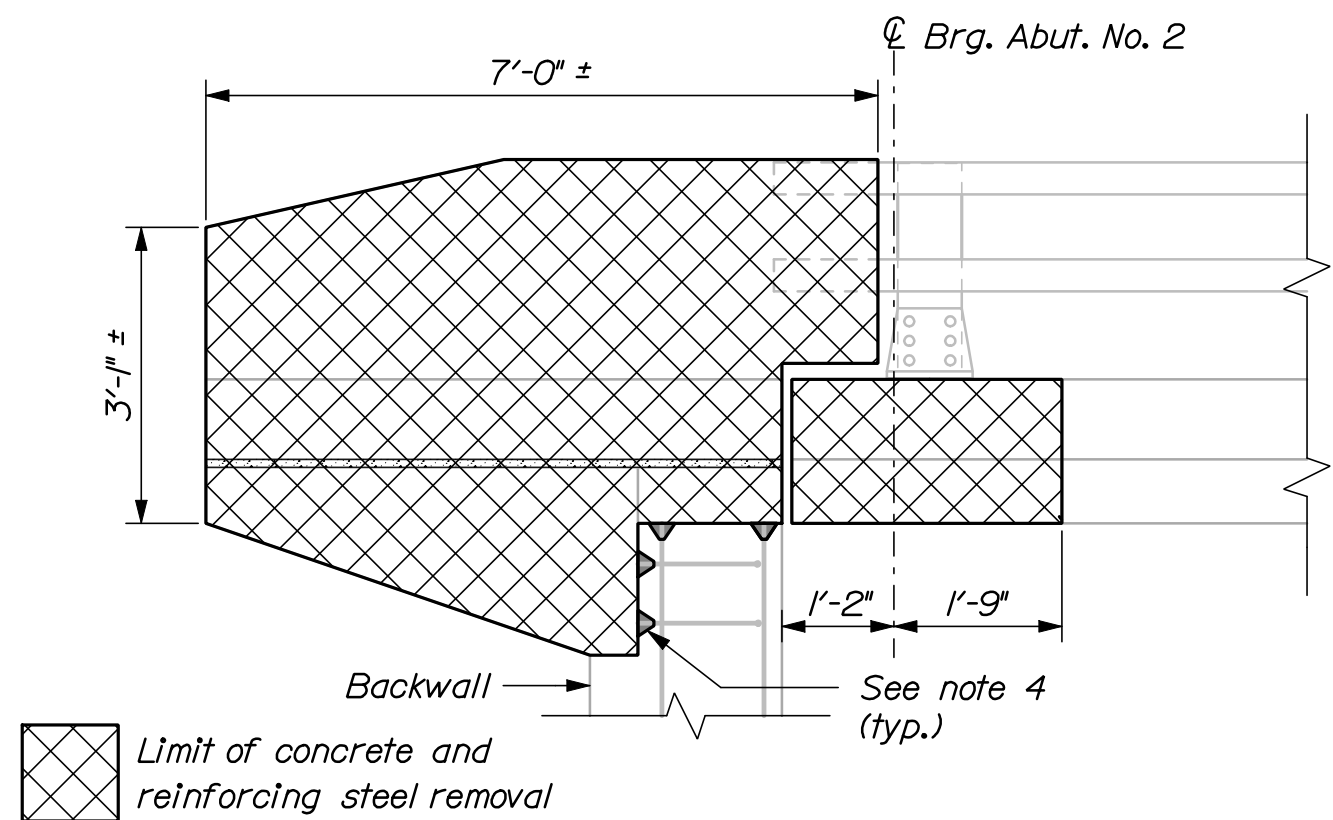


STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1779(300)E		BRIDGE NO. 6281		PIN 17793.00		BRIDGE PLANS	
PROJECT		SHEET		DATE		REVISIONS		APPROVED		DESIGNED	
INTERSTATE 295 SOUTHBOUND		FORE RIVER		CUMBERLAND COUNTY		PORTLAND		PLAN AND TRANS. SECTION		SHEET NUMBER	
18		OF 55									

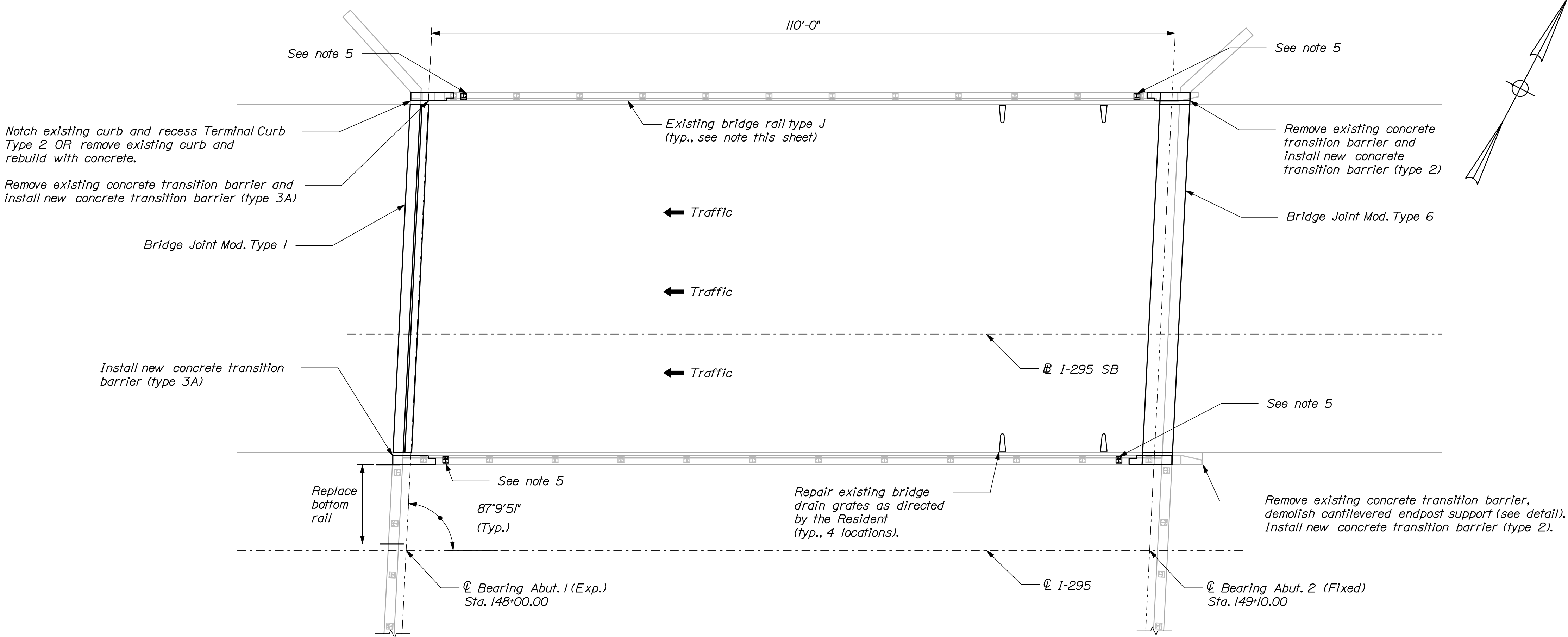
- NOTES:**
- Contractor shall repair areas of concrete deck deterioration as directed by the Resident. Locations of deck repairs are undetermined for this bridge. Contractor shall identify and mark areas for deck repair after removing the wearing surface. Coordinate work with Resident. Payment for deck repair work shall be under the 518 pay items.
 - Contractor shall repair areas of deteriorated granite curb bedding mortar on the deck as required. Locations of deteriorated granite curb bedding mortar are undetermined. (Typ.)
 - Reanchor the sign bridge supports (not shown) into curb and grout void under steel support as directed by Resident. Paid under time and materials.
 - After demolishing the existing passing approach transition barrier the existing reinforcing steel shall be cut 2" below the demolished surface. The contractor shall chip localized areas of concrete as required to allow the bars to be cut and then fill the depressions with grout to provide a flush surface.
 - Relocate existing bridge rail post and snow fence post and modify snow fencing as required. See snow fence post relocation detail. Incidental to item 526.34.
 - Repair areas of damaged curb at departure passing endpost location as directed by The Resident. Payment to be made under Repair of Vertical Surfaces < 7.9 Inches, Item No. 518.60.
 - Replace toggle bolts on all type J rail posts per standard detail BDI08-65. Payment by time and materials.
 - Center all splice tubes and secure one side of splice tube to type J bridge rail. Payment by time and materials.



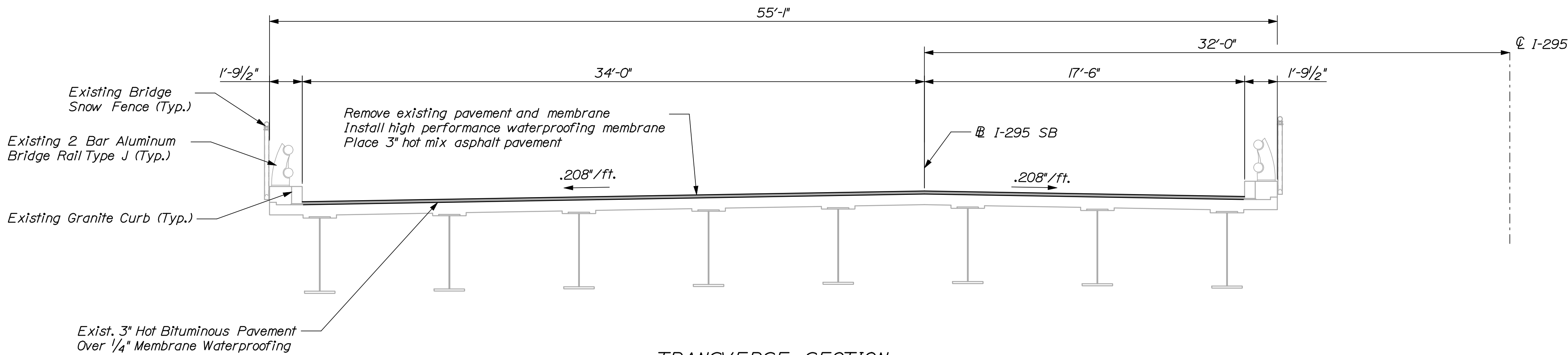
SNOW FENCE POST RELOCATION



ENDPOST SUPPORT
DEMOLITION DETAIL

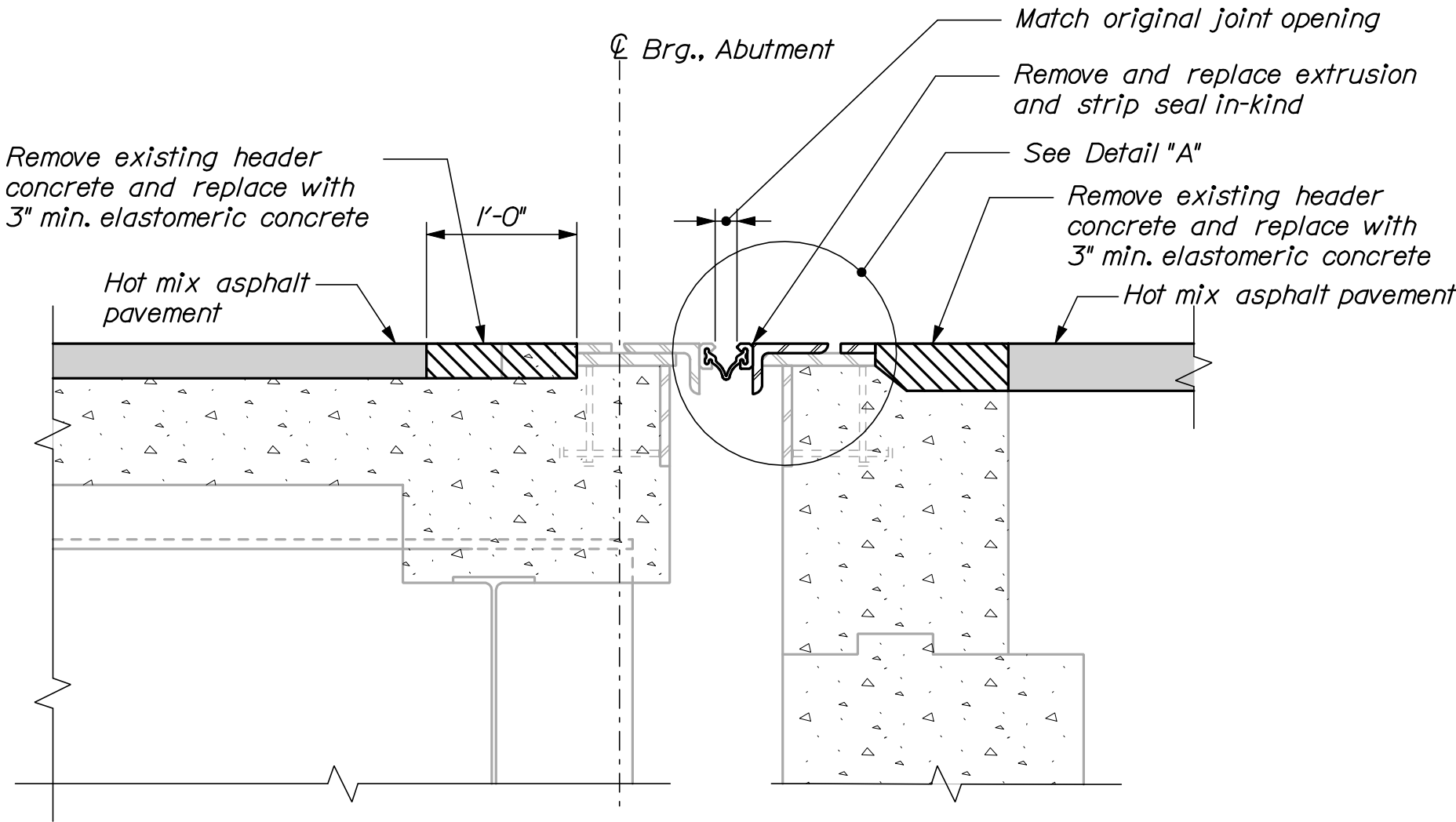


INTERSTATE 295 SOUTHBOUND OVER WESTBROOK STREET
South Portland ~ Bridge No. 6249
N.T.S.

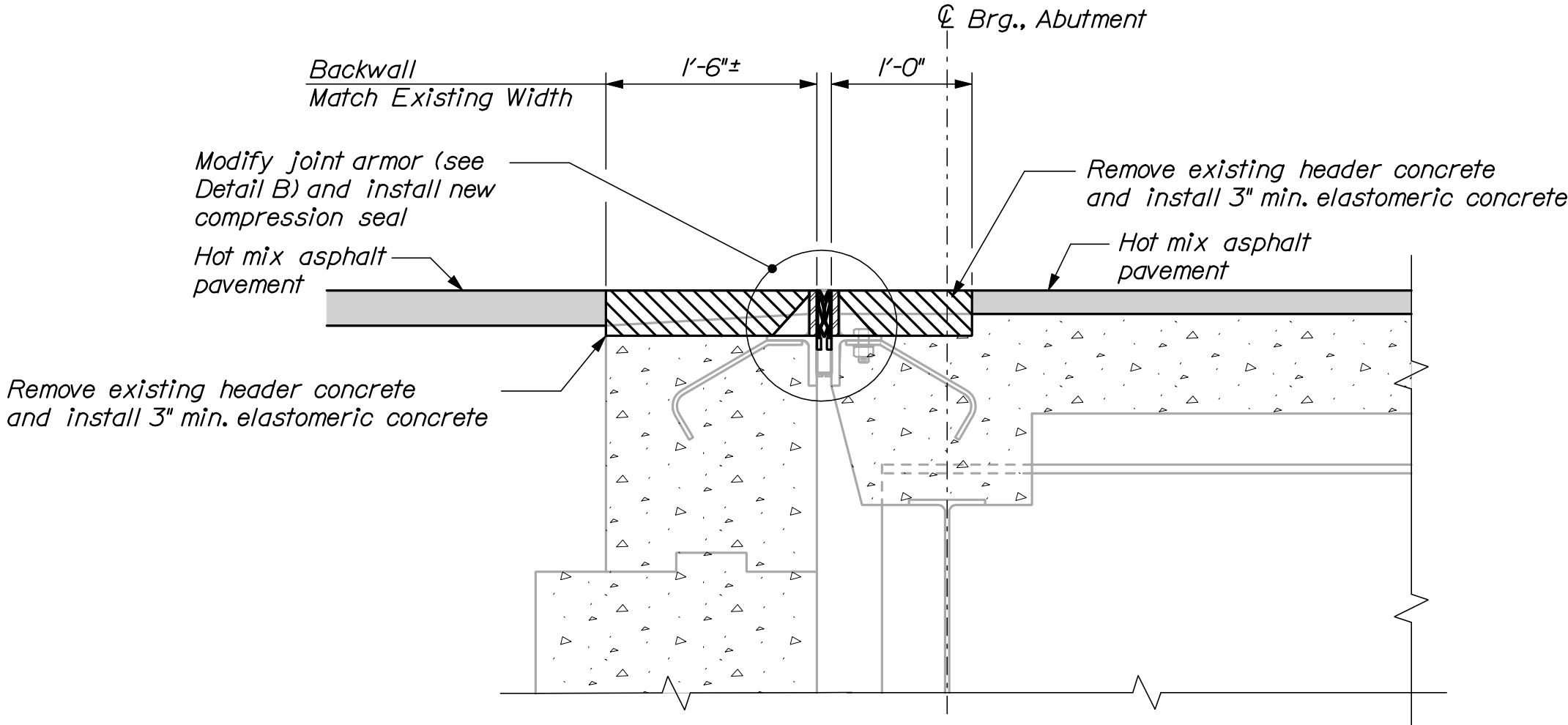


TRANSVERSE SECTION
N.T.S.

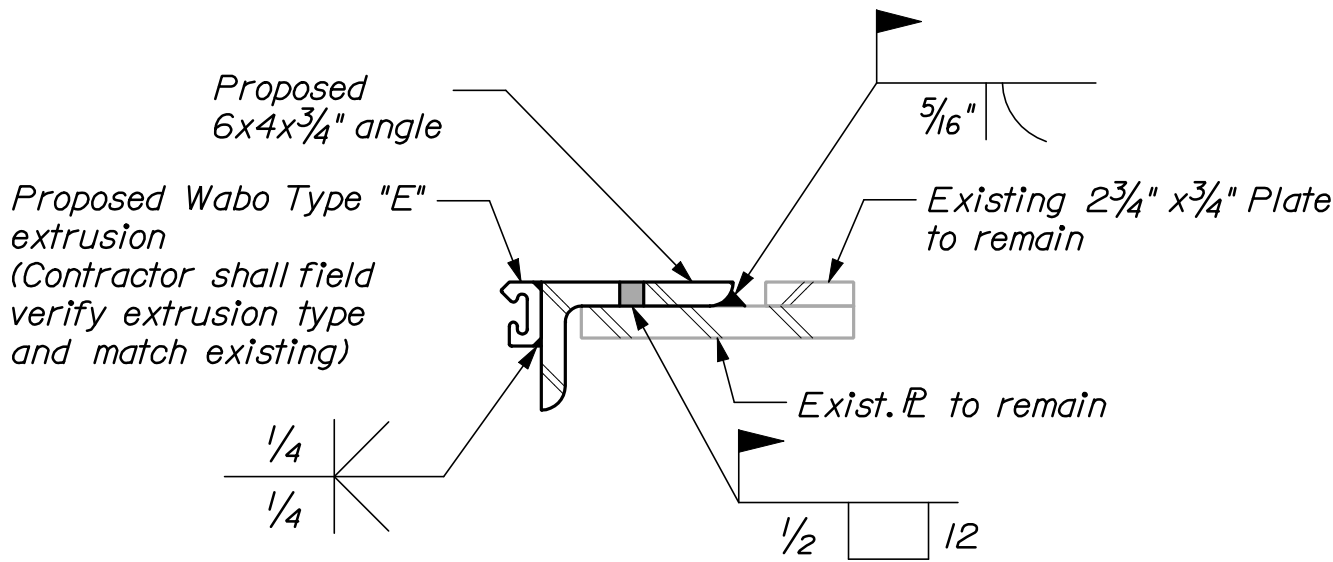
SHEET NUMBER				19				OF 55				
INTERSTATE 295 SOUTHBOUND WESTBROOK STREET SOUTH PORTLAND CUMBERLAND COUNTY PLAN AND TRANS. SECTION				PROJ. MANAGER		DOE	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E BRIDGE NO. 6249 PIN 17793.00 BRIDGE PLANS			
				DESIGN-DETAILED		CAH	RWH	03/10				
				CHECKED-REVIEWED		TRC	-	03/10				
				SIGNATURE								
				DESIGN2-DETAILED2		-	-	-				
				DESIGN3-DETAILED3		-	-	-	P.E. NUMBER DATE			
				REVISIONS 1		-	-	-				
				REVISIONS 2		-	-	-				
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				FIELD CHANGES		-	-	-				



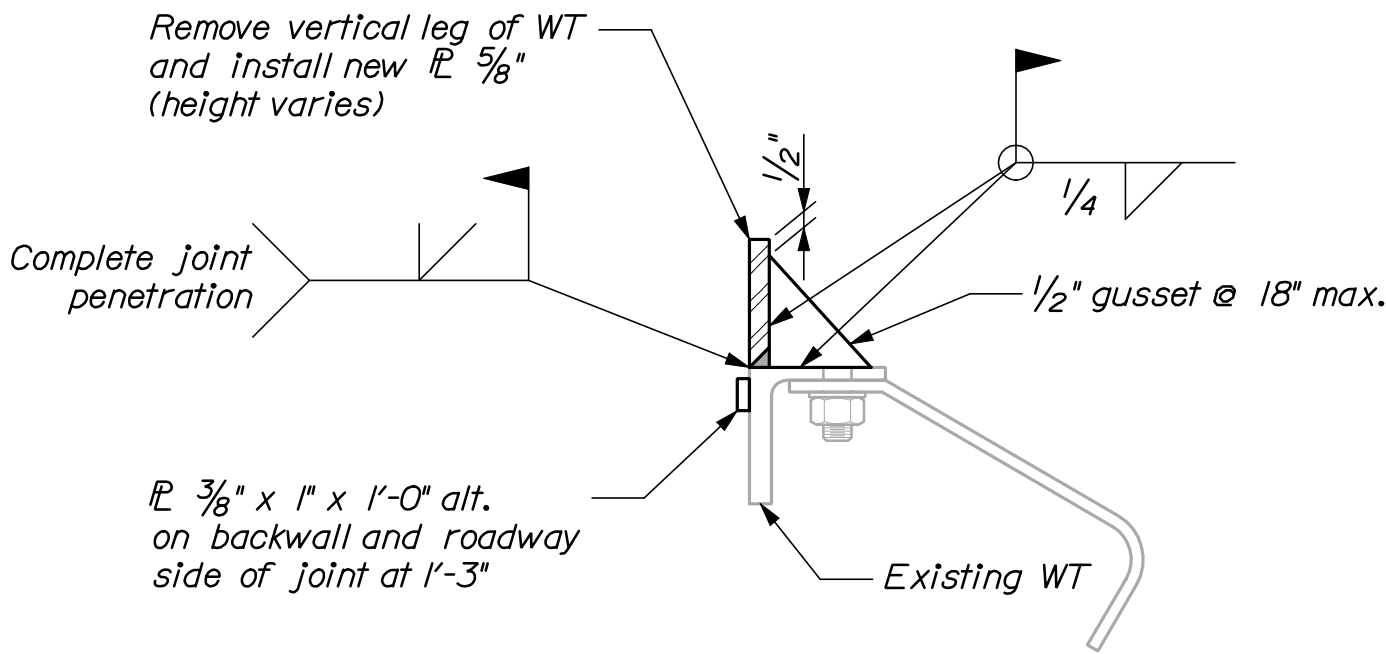
BRIDGE JOINT MODIFICATION TYPE 1
1" = 1'-0"



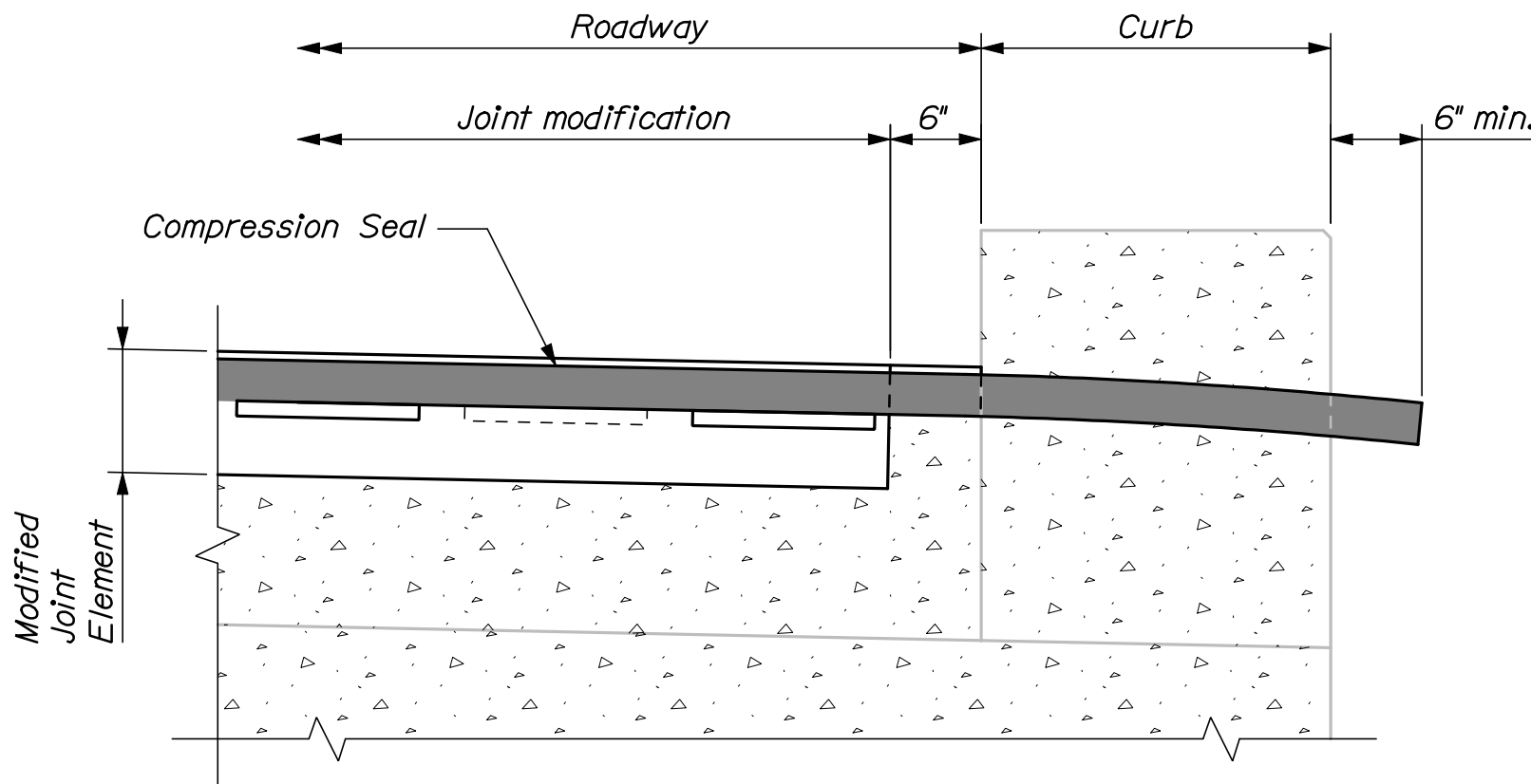
BRIDGE JOINT MODIFICATION TYPE 2
1" = 1'-0"



DETAIL A
2" = 1'-0"



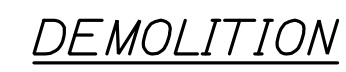
DETAIL B
2" = 1'-0"



COMPRESSION SEAL JOINT DETAIL AT CURB

- NOTES**
1. Refer to Standard Details Section 520 for details and information not shown.
 2. All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.
 3. Elastomeric concrete shall be applied according to the manufacturer's recommendations.
 4. All new steel supplied for the bridge joint modification shall be uncoated.
 5. The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.
 6. Removal and replacement of existing header concrete shall be completed along the full width of the roadway. Bridge joint armor and extrusion modifications shall match into the existing steel armor approximately six inches from the gutterline. Replacement seals shall be full width.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E	BRIDGE PLANS	
	BRIDGE NO. Varies	PIN 17793.00
	SHEET NUMBER	
INTERSTATE 295 SOUTHBOUND FALMOUTH TO S.PORTLAND CUMBERLAND COUNTY	JOINT MODIFICATION DETAILS I	
	21	
	OF 55	
PROJ. MANAGER		DATE
CHECKED-DESIGNED	BY	DATE
DESIGNED-REVIEWED	DOE	03/10
DESIGNED-REVIEWED	RWH	03/10
DESIGNED-REVIEWED	CAH	03/10
DESIGNED-REVIEWED	TRC	03/10
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		




JOINT MODIFICATION TYPE 3
(See also Reconstructed Curb & Overhang Detail, Sheet 23)
1" = 1'-0"



BRIDGE JOINT MODIFICATION TYPE 7
1" = 1'-0"

LEGEND

 Approximate limit of concrete and reinforcing steel removal

NOTES

1. *Minimum depth of backwall reconstruction shall be to backwall construction joint or solid concrete, whichever is greater.*
2. *Refer to Standard Details Section 520 for details and information not shown.*
3. *All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.*
4. *Elastomeric concrete shall be installed according to the manufacturer's recommendations.*
5. *All new steel supplied for the bridge joint modification shall be uncoated.*
6. *The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.*
7. *Removal and replacement of existing header concrete shall be completed along the full width of the roadway. Bridge joint armor and extrusion modifications shall match into the existing steel armor approximately six inches from the gutterline. Replacement seals shall be full width.*

STATE OF NEW YORK	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. Varies	PIN 17793.00
BRIDGE PLANS	

DESIGN-DETAILED	CAH	RWH	03.ND	SIGNATURE
CHECKED-REVIEWED	TRC	—	05.ND	
DESIGN2-DETAILED2	—	—	—	
DESIGN3-DETAILED3	—	—	—	P.E. NUMBER
REVISIONS 1	—	—	—	
REVISIONS 2	—	—	—	
REVISIONS 3	—	—	—	DATE
REVISIONS 4	—	—	—	
FIELD CHANGES	—	—	—	

INVESTIGATE 293 SOUTHBOUND
FALMOUTH TO S.PORLAND
CUMBERLAND COUNTY

JOINT MODIFICATION DETAILS II

SHEET NUMBER

22

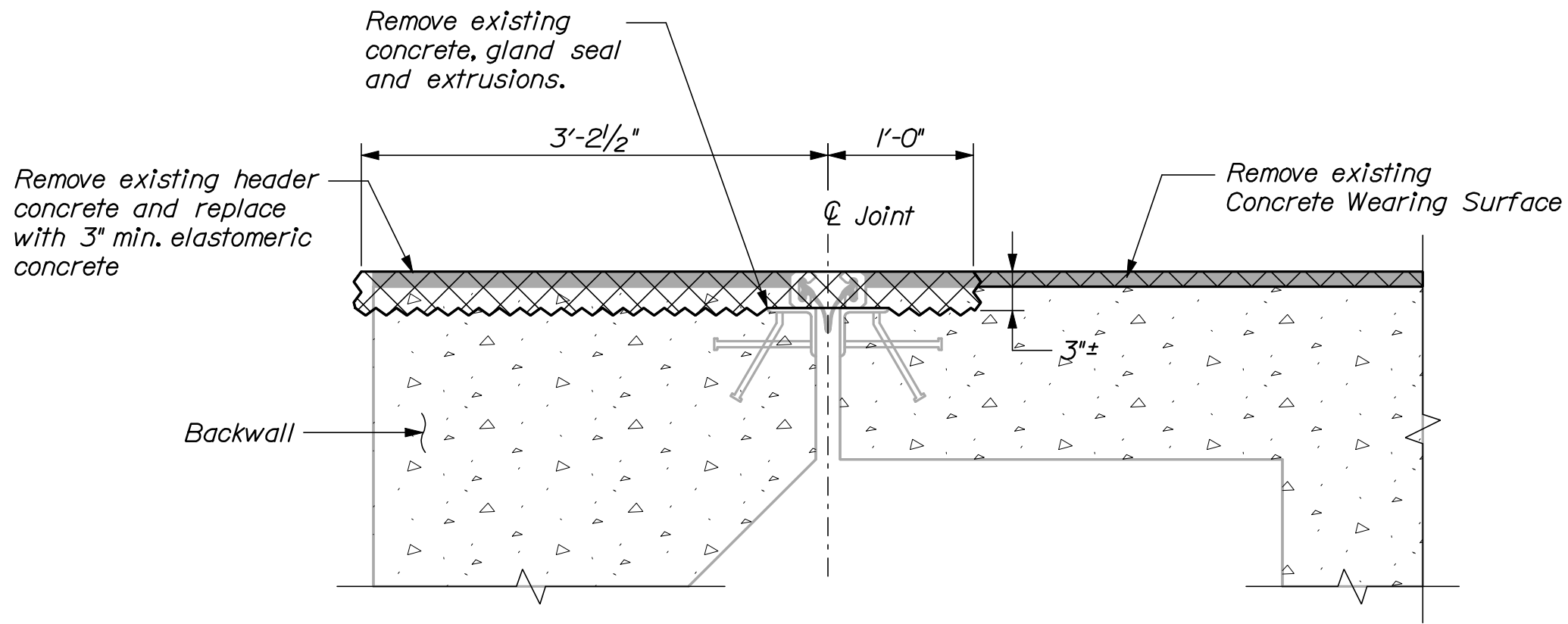
OF 55

Date: 3/26/2010

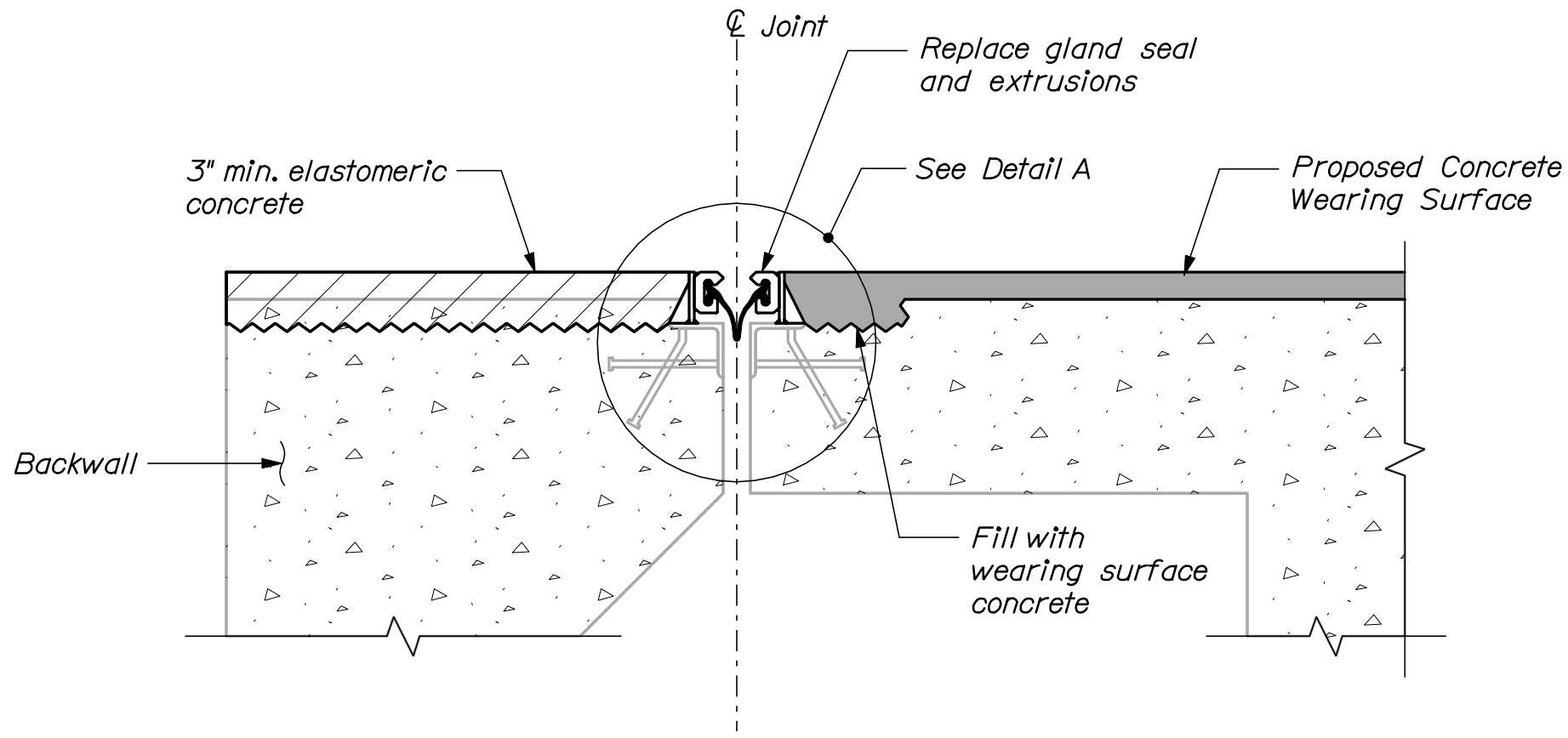
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Division: BRIDGE

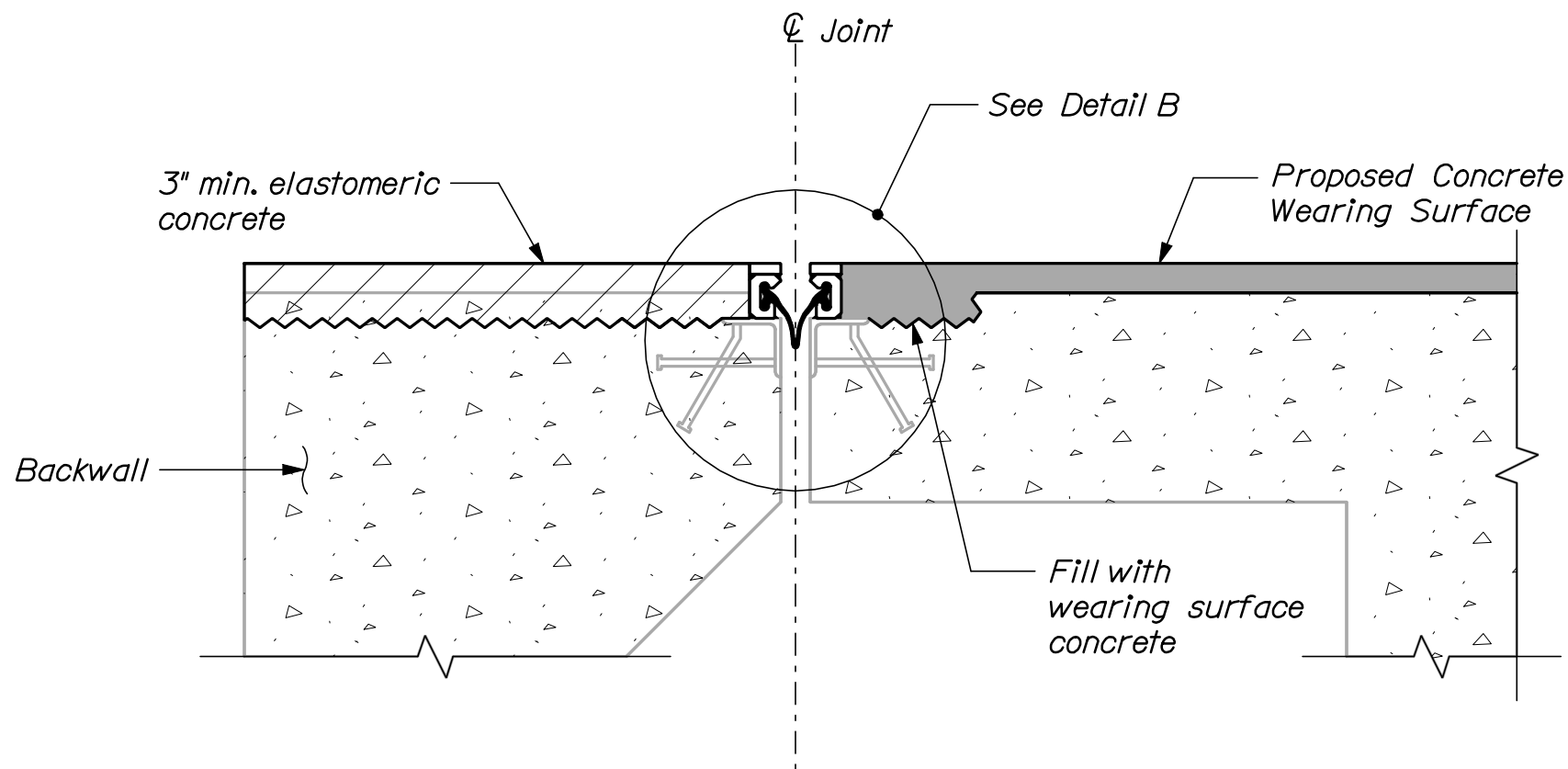
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DEMOLITION

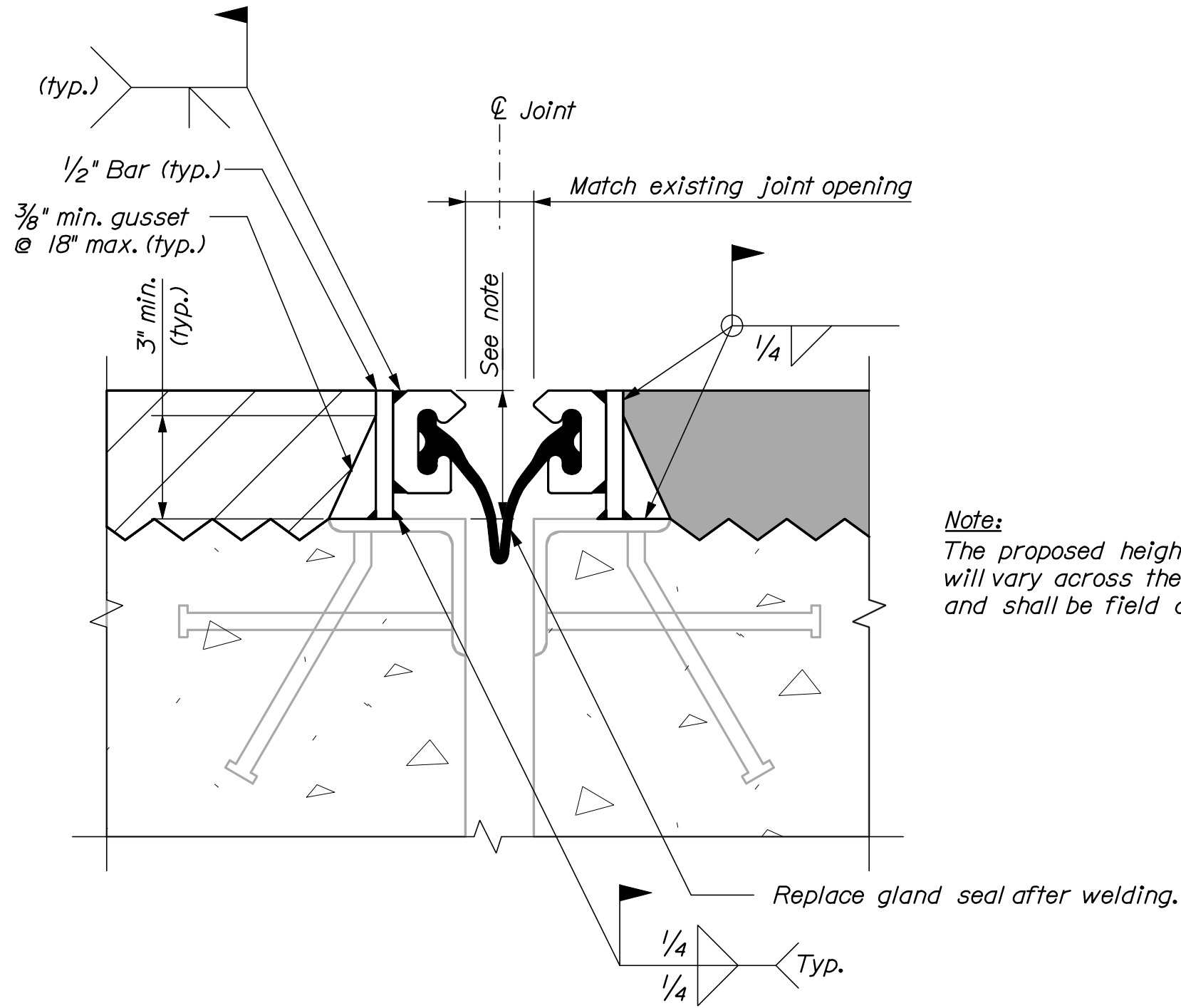


CONSTRUCTION - WASHINGTON AVENUE SOUTH ABUTMENT

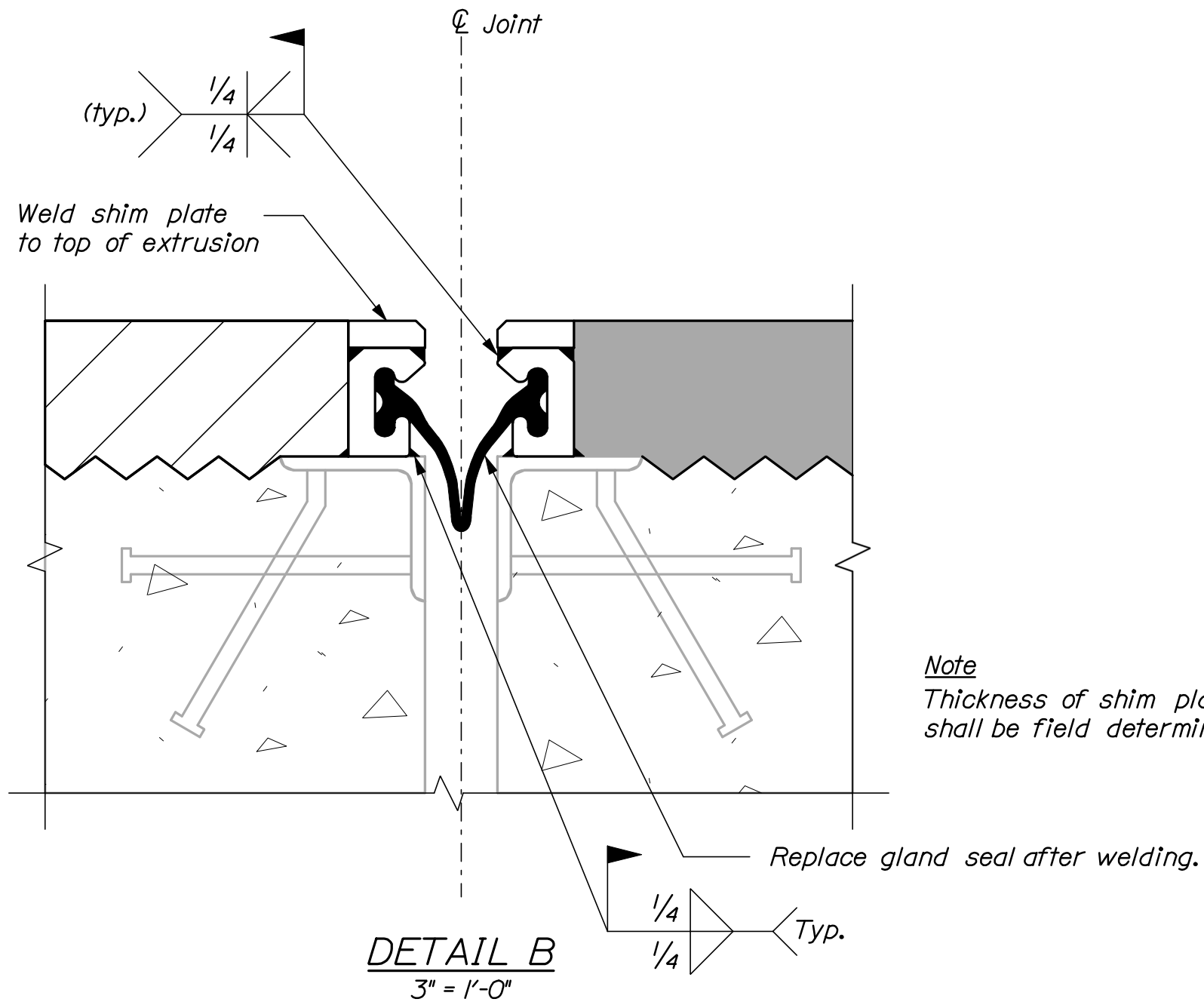


CONSTRUCTION - WASHINGTON AVENUE NORTH ABUTMENT

JOINT MODIFICATION TYPE 4
1" = 1'-0"



DETAIL A
3" = 1'-0"



DETAIL B
3" = 1'-0"

Note:
The proposed height of extrusion will vary across the bridge width and shall be field determined.

Note
Thickness of shim plate shall be field determined.

LEGEND

Approximate limit of concrete and reinforcing steel removal

NOTES

1. Refer to Standard Details Section 520 for details and information not shown.
2. All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.
3. Elastomeric concrete shall be applied according to the manufacturer's recommendations.
4. All new steel supplied for the bridge joint modification shall be uncoated.
5. The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.
6. Removal and replacement of existing header concrete shall be completed along the full width of the roadway. Bridge joint armor and extrusion modifications shall extend to the limits described on sheet 9. Replacement seals shall be full width.

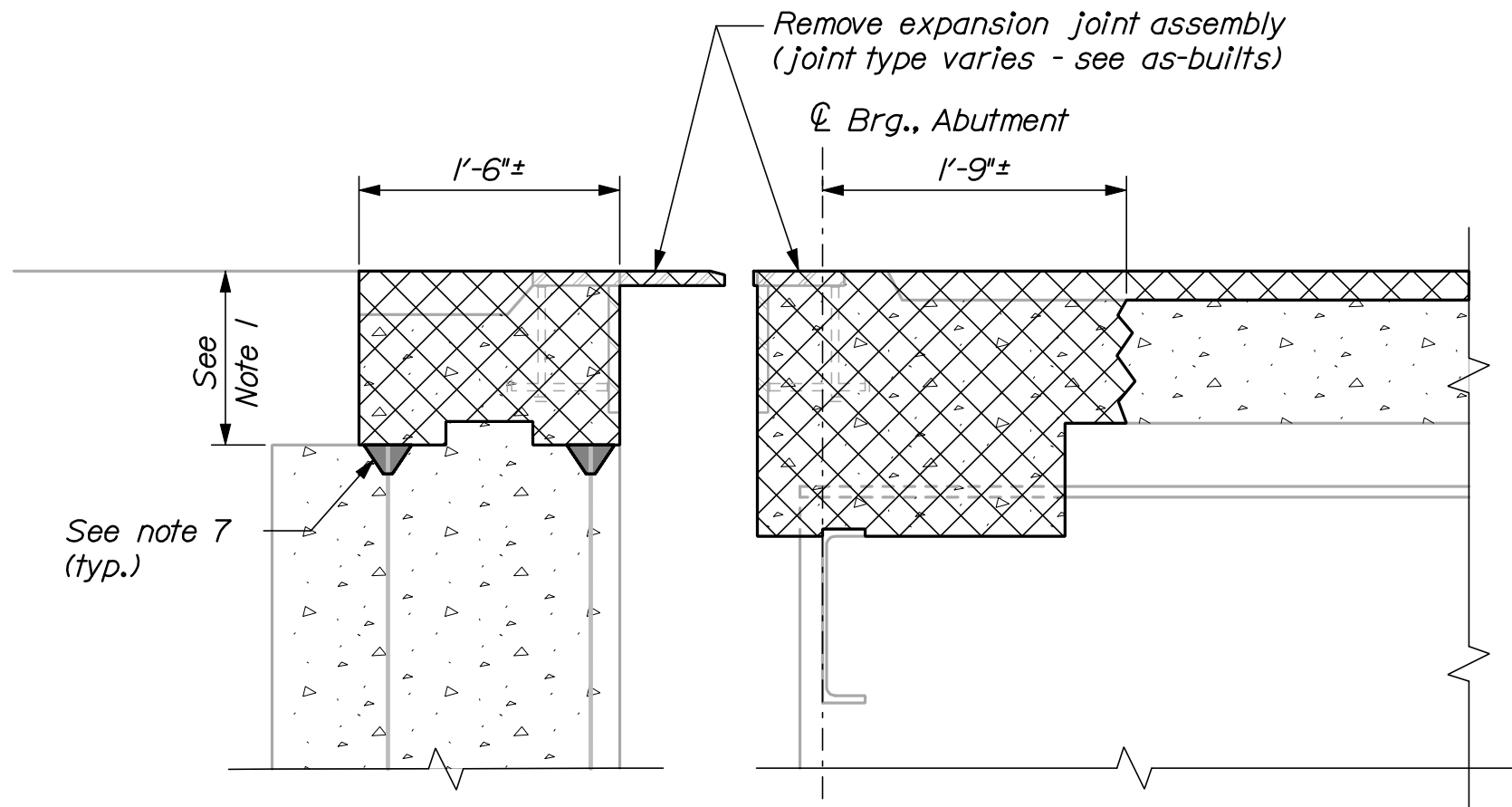
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1779(300)E		BRIDGE NO. Varies		PIN 17793.00		BRIDGE PLANS	
INTERSTATE 295 SOUTHBOUND		FALMOUTH TO S.PORLAND		CUMBERLAND COUNTY		JOINT MODIFICATION DETAILS III		SHEET NUMBER		23	
PROJ. MANAGER		DESIGNED-DETAILED		CHECKED-REVIEWED		DESIGNED-DETAILED		REVISIONS 1		REVISIONS 2	
DOE		CAH		TRC		-		-		-	
BY		RW		-		-		-		-	
DATE		03/10		03/10		-		-		-	
SIGNATURE		-		-		-		-		-	
P.E. NUMBER		-		-		-		-		-	
DATE		-		-		-		-		-	
FIELD CHANGES		-		-		-		-		-	

Date: 3/26/2010

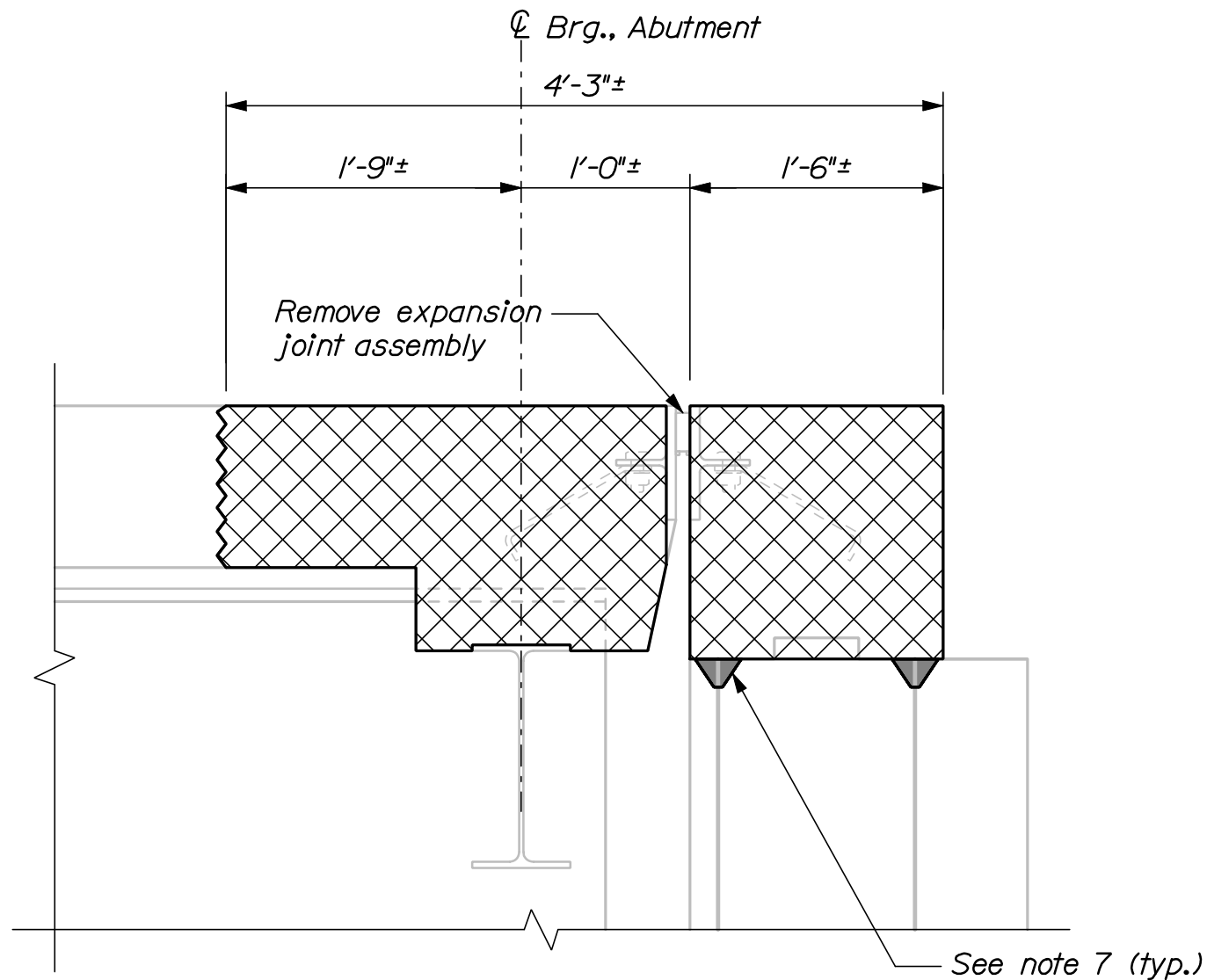
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Division: BRIDGE

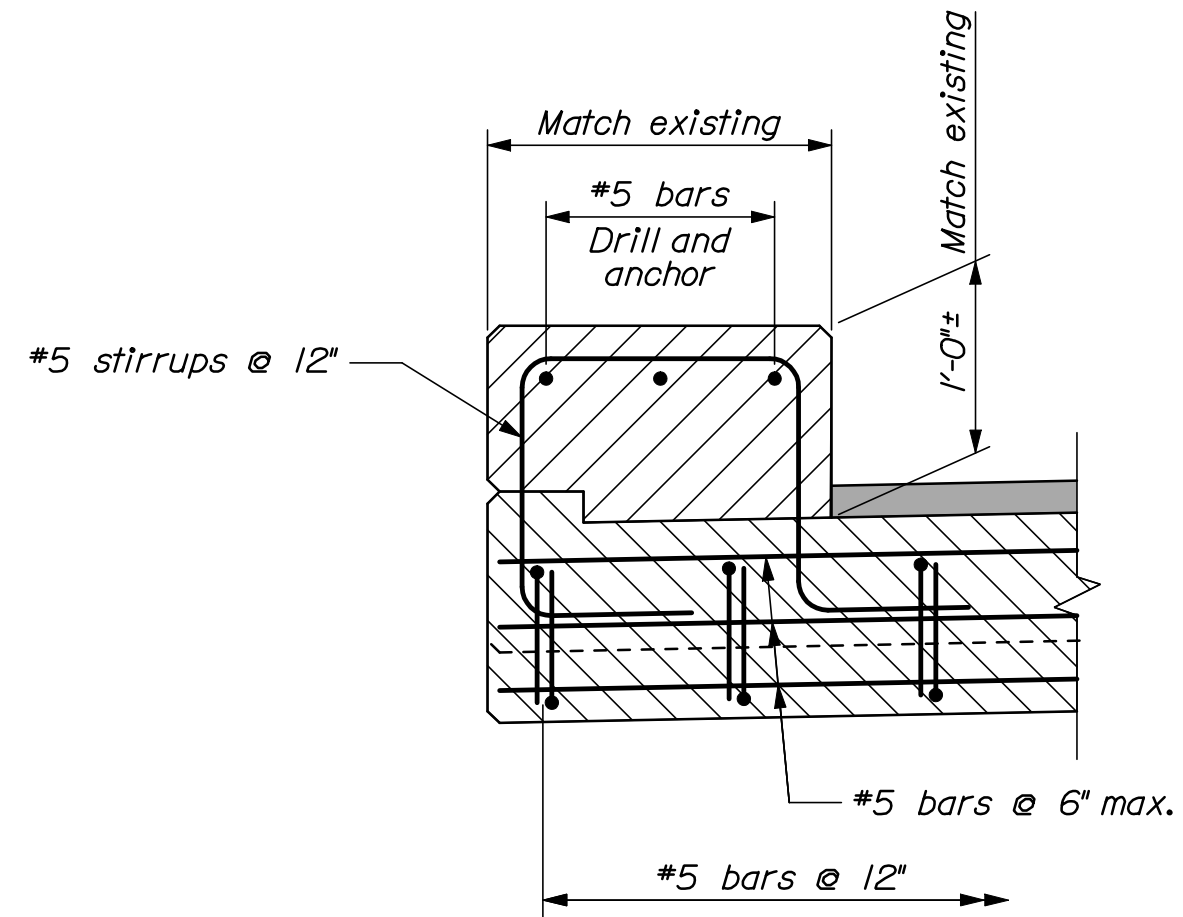
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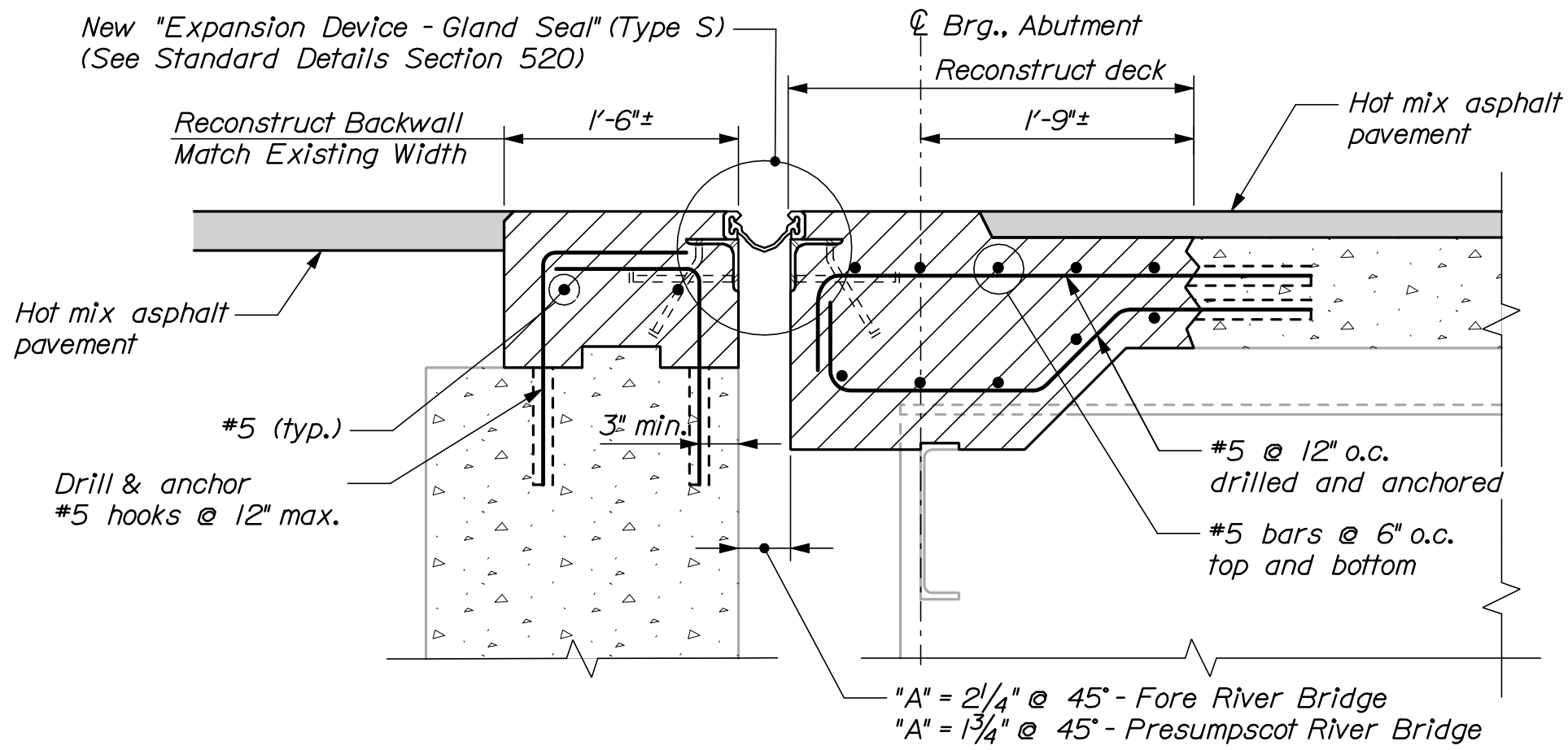
DEMOLITION



DEMOLITION

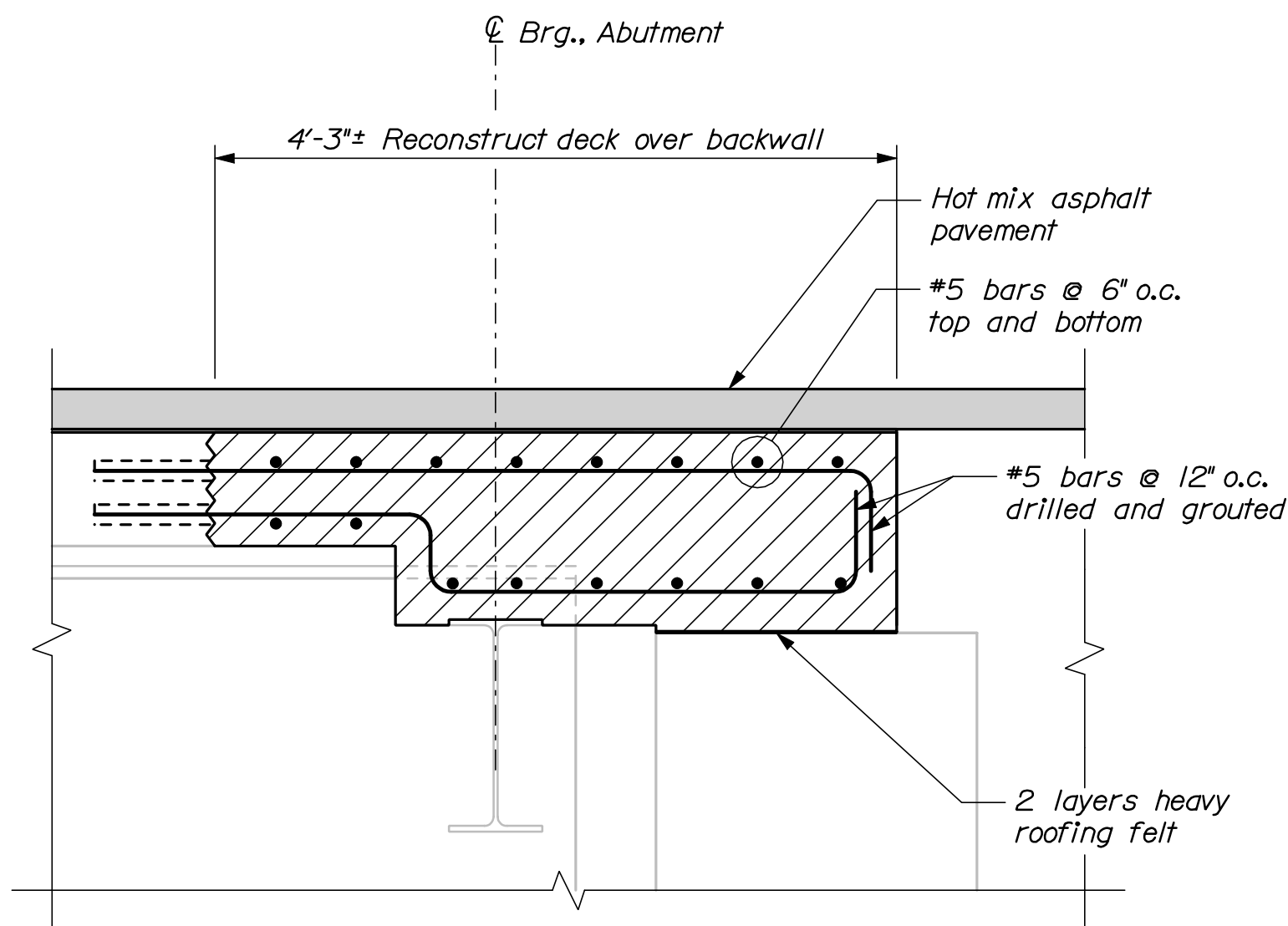


RECONSTRUCTED CURB & OVERHANG DETAIL
1" = 1'-0"



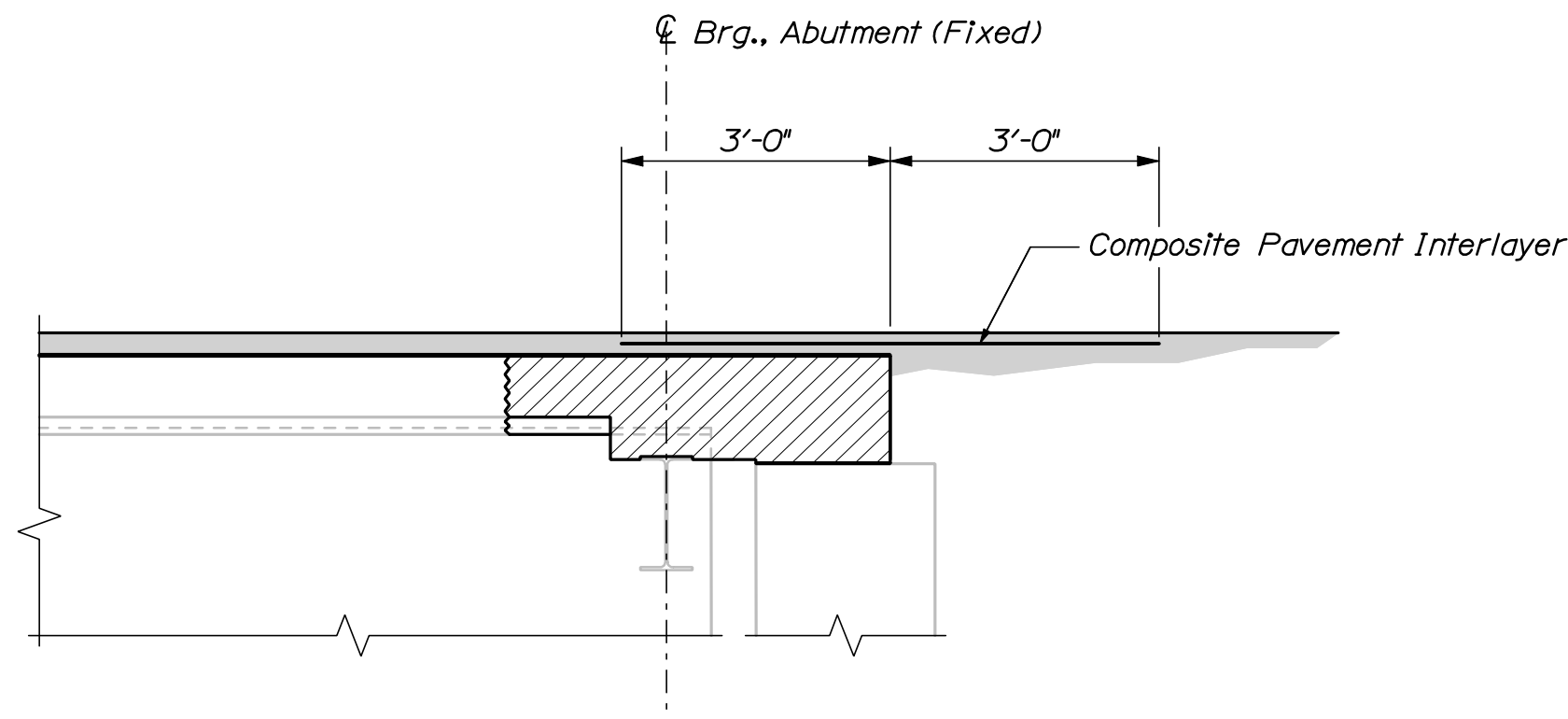
CONSTRUCTION

JOINT MODIFICATION TYPE 5
(See also "Reconstructed Curb & Overhang Detail")
1" = 1'-0"



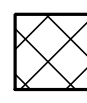
CONSTRUCTION

JOINT MODIFICATION TYPE 6
(See also "Reconstructed Curb & Overhang Detail")
1" = 1'-0"



COMPOSITE PAVEMENT INTERLAYER
Typical of all existing or reconstructed slab-over-backwall locations

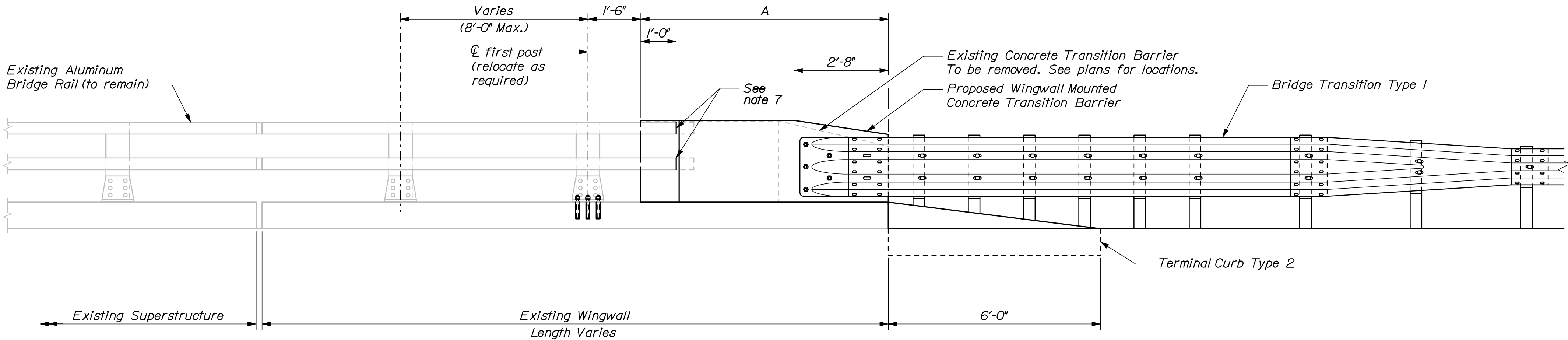
LEGEND

 Approximate limit of concrete and reinforcing steel removal

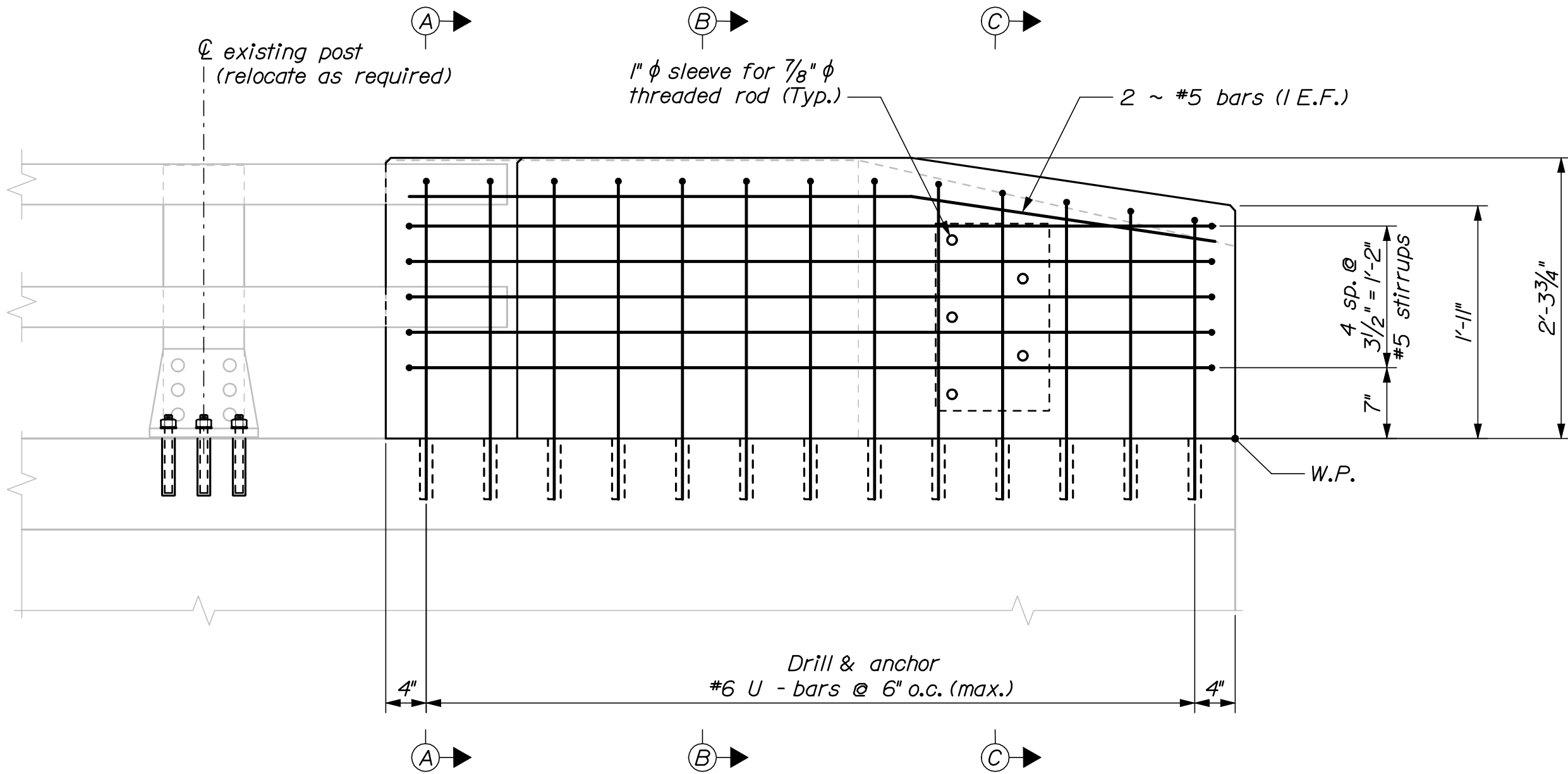
NOTES

1. Minimum depth of backwall reconstruction shall be to backwall construction joint or solid concrete, whichever is greater.
2. Refer to Standard Details Section 520 for details and information not shown.
3. All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.
4. Elastomeric concrete shall be applied according to the manufacturer's recommendations.
5. All new steel supplied for the bridge joint modification shall be uncoated.
6. The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.
7. After demolishing the existing backwall concrete the existing reinforcing steel shall be cut 2" below the demolished surface. The contractor shall chip localized areas of concrete as required to allow the bars to be cut and then fill the depressions with grout to provide a flush surface. Following demolition of the backwall concrete the top of backwall surface shall receive a thin layer of patching mortar to provide a smooth uniform surface on which to cast the slab-over-backwall. The patching mortar shall be selected from Maine DOT's qualified products list.

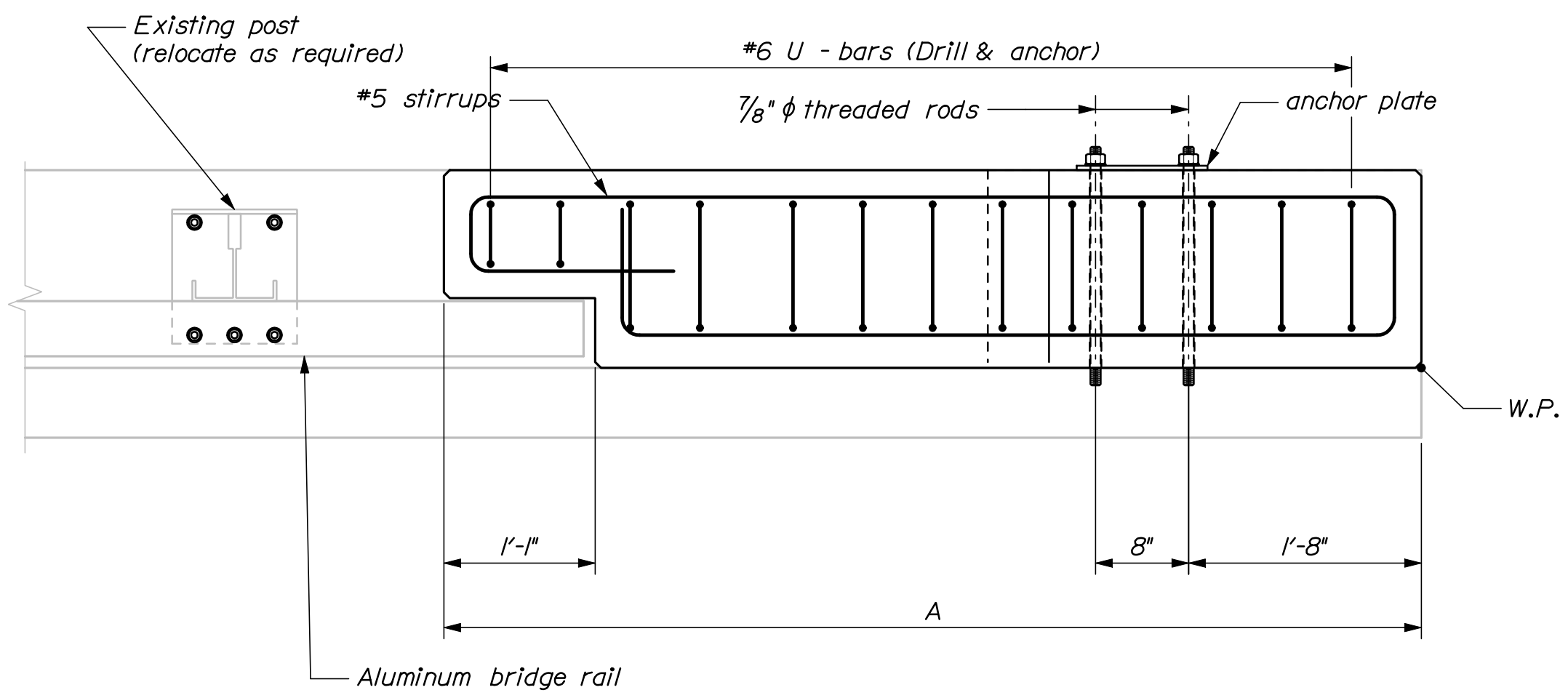
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DATE 03/10 03/10 - - - - - -	BY RWL - - - - - - -	DATE 03/10 03/10 - - - - - -
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	CAH TRC - - - - - - -	DATE 03/10 03/10 - - - - - -
SIGNATURE P.E. NUMBER DATE	SIGNATURE P.E. NUMBER DATE	SIGNATURE P.E. NUMBER DATE



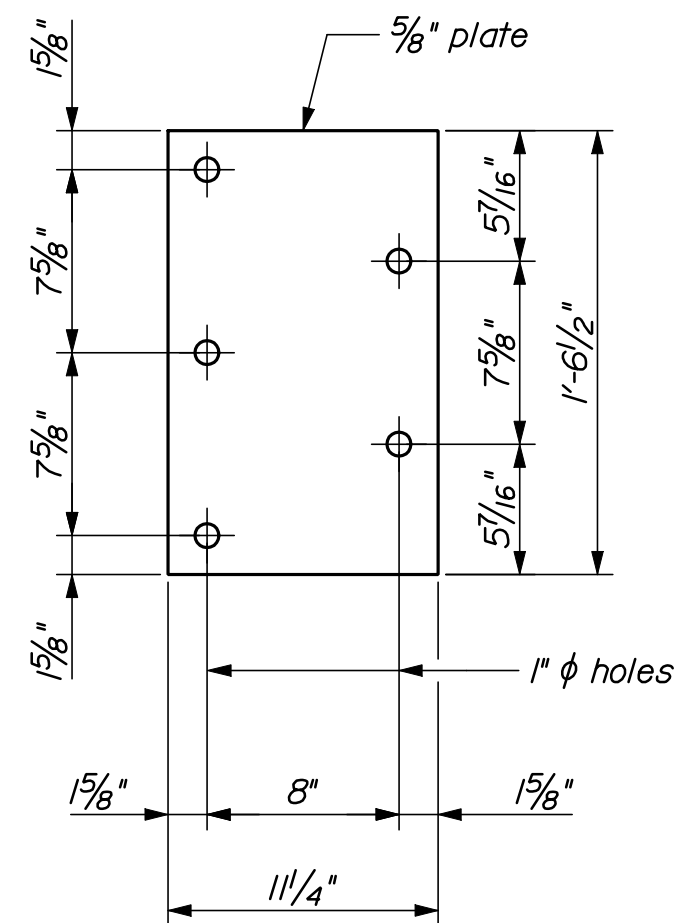
CONCRETE TRANSITION BARRIER (TYPE I)
Roadway elevation shown



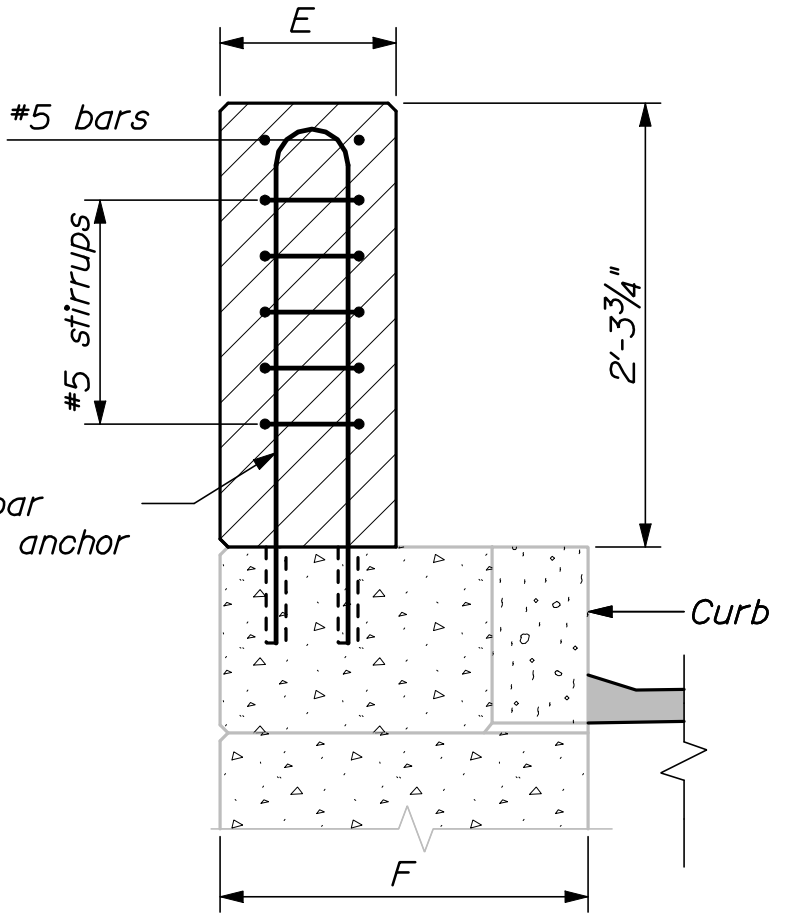
TRANSITION BARRIER ELEVATION
Roadway elevation shown



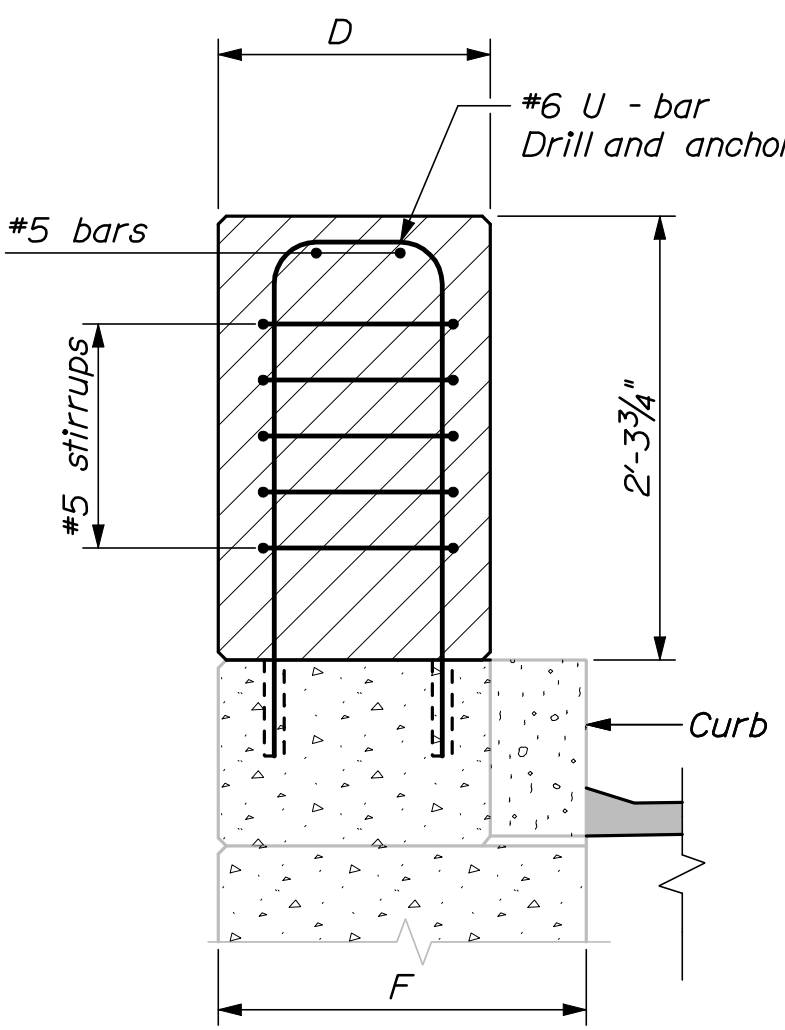
TRANSITION BARRIER PLAN



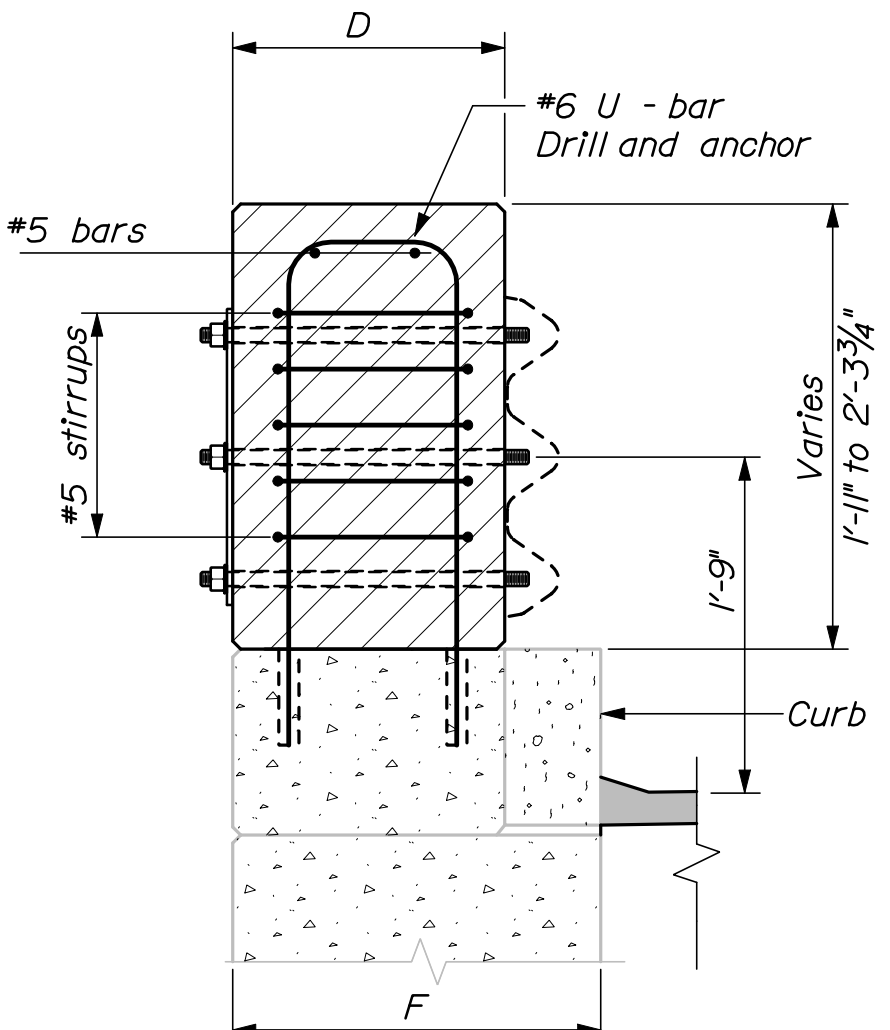
ANCHOR PLATE



SECTION A-A



SECTION B-B



SECTION C-C

CONCRETE TRANSITION BARRIER NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and conduit and adjust dowel and bridge rail post anchor stud locations to avoid cutting existing bars and damaging existing electrical conduit. Any adjustments from plan dimensions shall be approved by the Resident.
6. The contractor shall reconstruct the existing curb at the Presumpscot River Bridge prior to completing the required endpost modifications. See Plan and Transverse Section sheet for details.
7. The contractor shall trim or install longer rail sections as directed by the resident to provide 12" of projection into the transition barrier recess.

Bridge #	Bridge	Location	A	D	E	F
1505	Presumpscot River	All Locations	7'-0"	1'-4"	11"	1'-10"
0816	Washington Avenue	Approach Travel Lane	6'-10"	1'-4"	11"	1'-10"
0816	Washington Avenue	Departure Travel Lane	6'-9"	1'-4"	11"	1'-10"
6300	Franklin Arterial	Approach Travel Lane	6'-5"	1'-4"	11"	1'-11"
6300	Franklin Arterial	Departure Travel Lane	6'-6"	1'-4"	11"	1'-11"
6298	Forest Avenue	Approach Travel Lane	6'-5"	1'-4"	11"	1'-11"
6298	Forest Avenue	Departure Travel Lane	6'-4"	1'-4"	11"	1'-11"
6297	St. John Street	Approach Travel Lane	6'-6"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6294	Congress St./Park Ave.	Approach Travel Lane	6'-2"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6294	Congress St./Park Av.	Departure Travel Lane	6'-4"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6292	Portland Connector	Approach Travel Lane	7'-9"	1'-4"	11"	1'-11"
6292	Portland Connector	Departure Travel Lane	7'-11"	1'-4"	11"	1'-11"
6291	PTRR (Fore River)	Approach Travel Lane	7'-9"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6291	PTRR (Fore River)	Departure Travel Lane	5'-7"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6281	Fore River	Approach Travel Lane	8'-0"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6281	Fore River	Departure Travel Lane	8'-0"	1'-3 1/2"	10 1/2"	1'-9 1/2"

INTERSTATE 295 SOUTHBOUND
FALMOUTH TO S.PORTLAND
CUMBERLAND COUNTY
CONCRETE TRANSITION BARRIER
(TYPE 1)

SHEET NUMBER
25
OF 55

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. As Noted
PIN 17793.00
BRIDGE PLANS

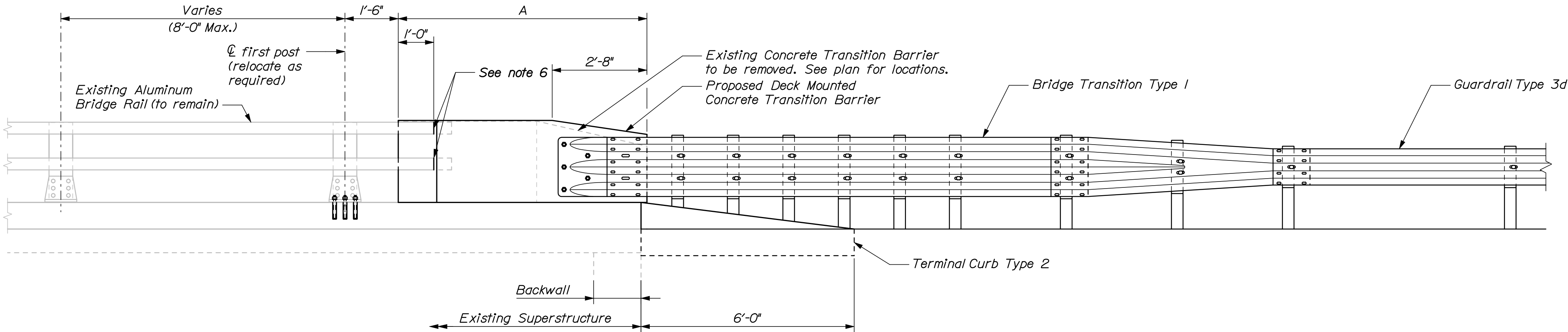
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Date: 3/26/2010

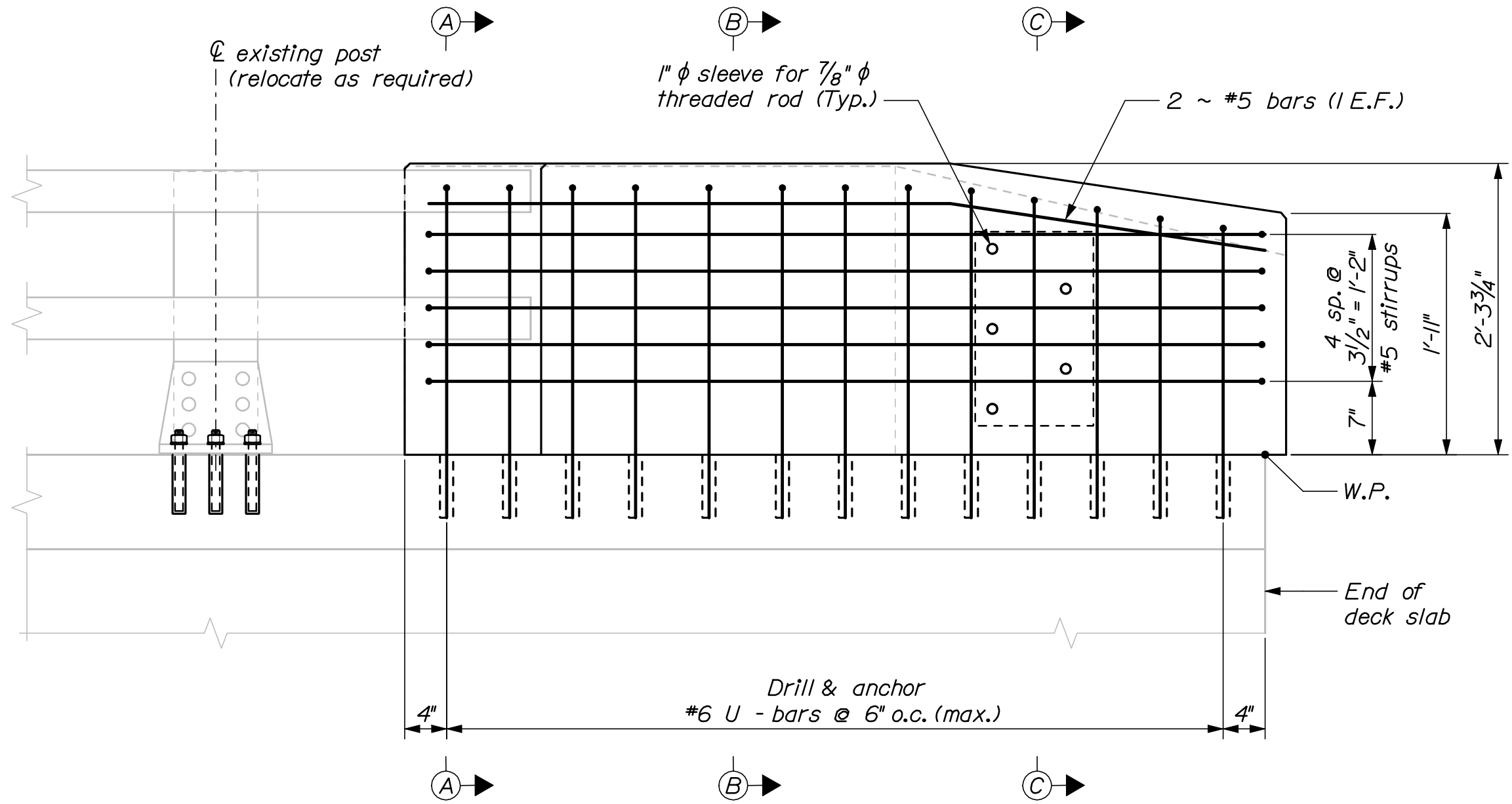
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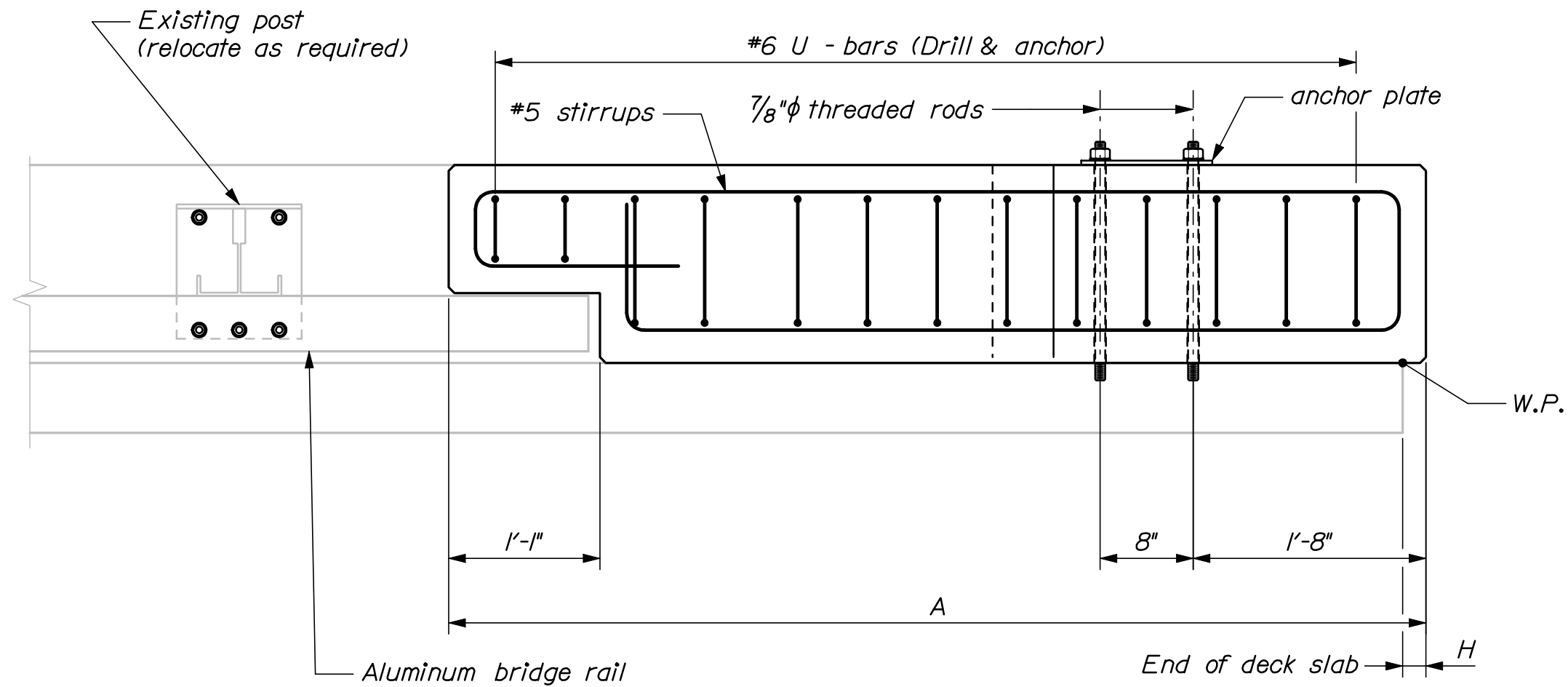
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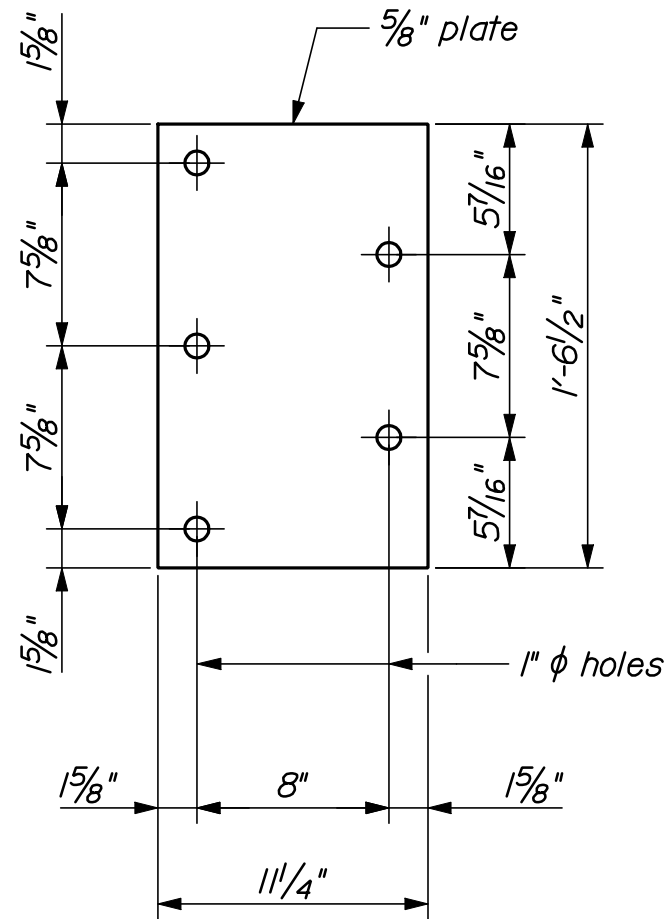
CONCRETE TRANSITION BARRIER (TYPE 2)
Roadway elevation shown



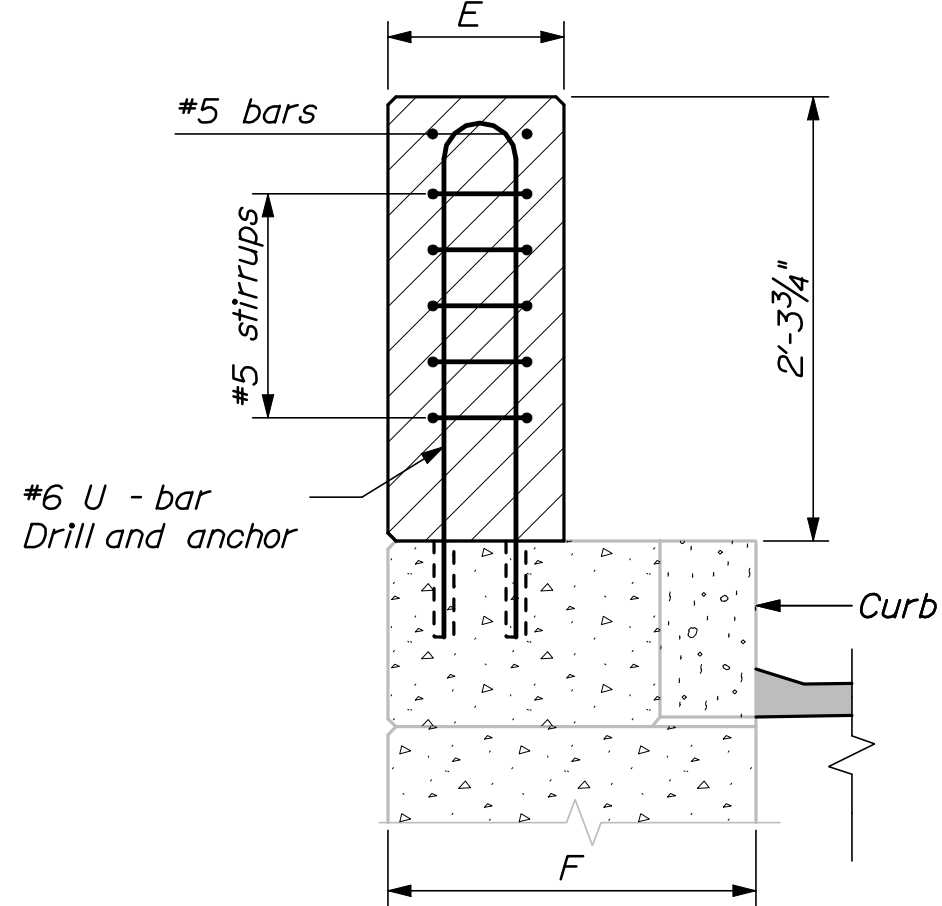
TRANSITION BARRIER ELEVATION
Roadway elevation shown



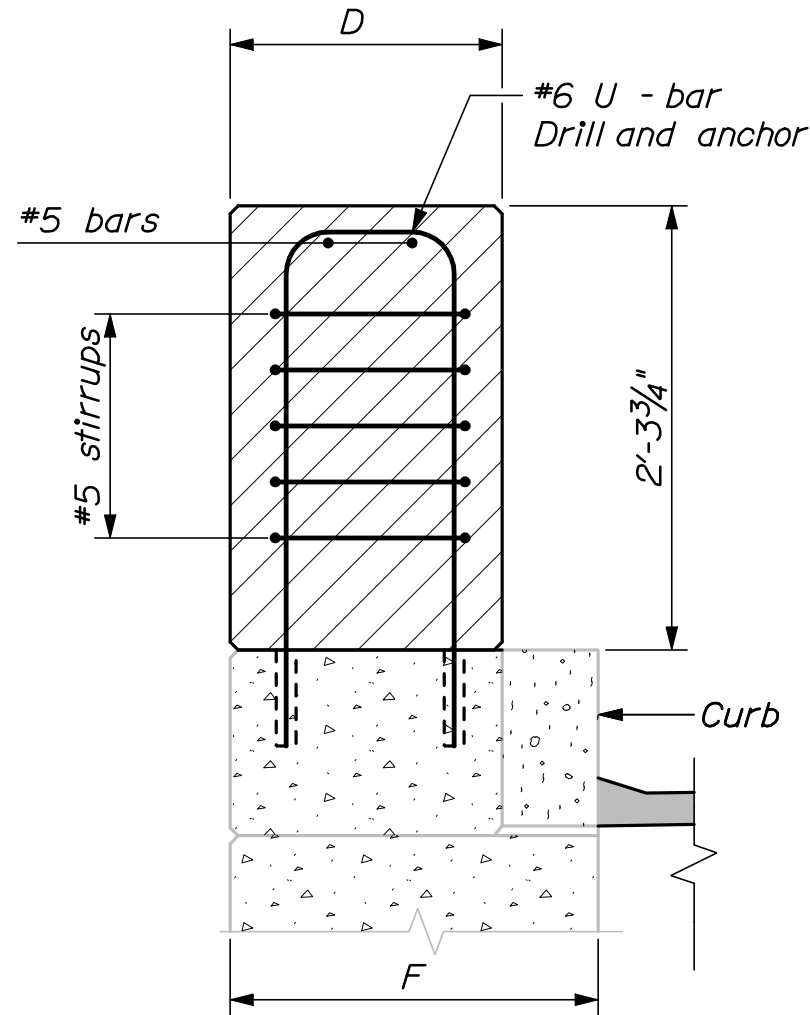
TRANSITION BARRIER PLAN



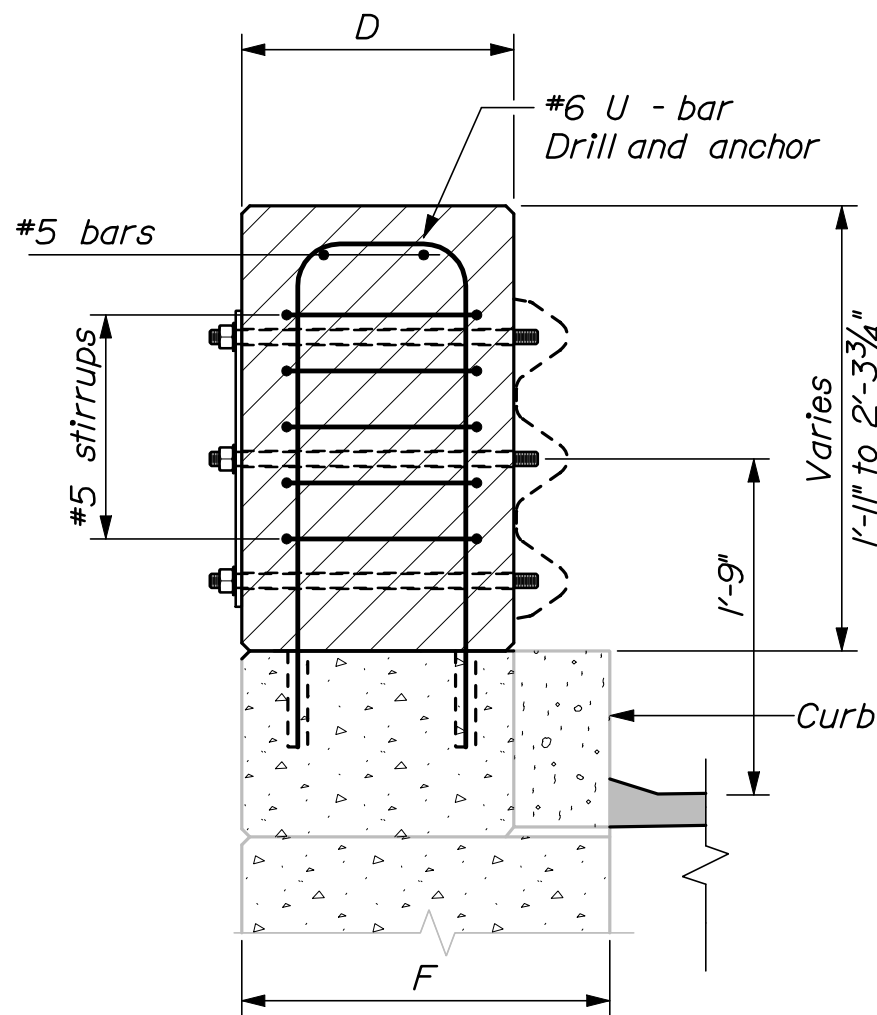
ANCHOR PLATE



SECTION A-A



SECTION B-B



SECTION C-C

CONCRETE TRANSITION BARRIER NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and conduit and adjust dowel and bridge rail post anchor stud locations to avoid cutting existing bars and damaging existing electrical conduit. Any adjustments from plan dimensions shall be approved by the Resident.
6. The contractor shall trim or install longer rail sections as directed by the resident to provide 12" of projection into the transition barrier recess.

Bridge #	Bridge	Location	A	D	E	F	H
5618	Kensington Street	Approach Travel Lane	7'-4"	1'-4"	11"	1'-10"	11"
5617	Sherwood Street	Departure Travel Lane	6'-9"	1'-4"	11"	1'-10"	0"
6249	Westbrook Street	Approach Travel Lane	6'-4"	1'-3 1/2"	9 1/2"	1'-9 1/2"	0"
6249	Westbrook Street	Approach Passing Lane	6'-4"	1'-3 1/2"	9 1/2"	1'-9 1/2"	0"

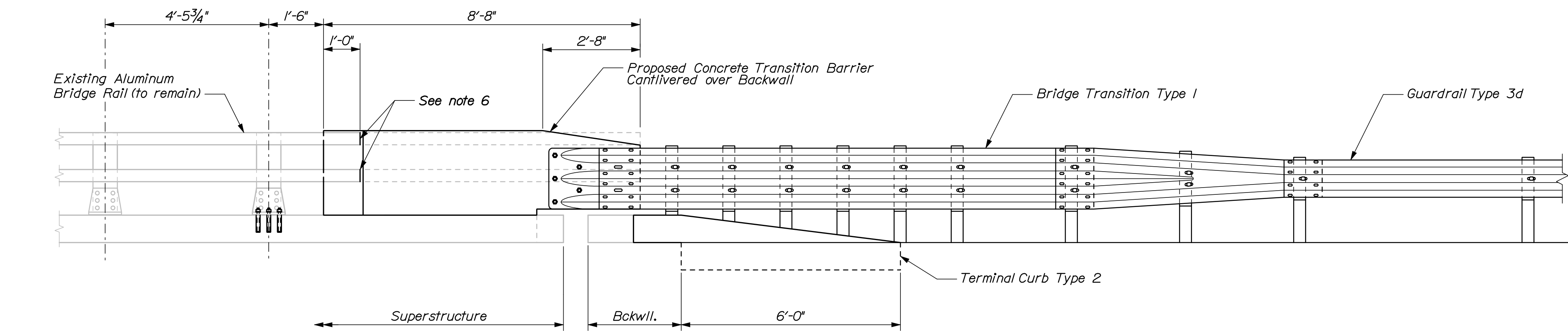
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	IM-1779(300)E	BRIDGE NO. As Noted PIN 17793.00	BRIDGE PLANS
INTERSTATE 295 SOUTHBOUND FALMOUTH TO S.PORLAND CUMBERLAND COUNTY CONCRETE TRANSITION BARRIER (TYPE 2)			
SHEET NUMBER 26 OF 55			



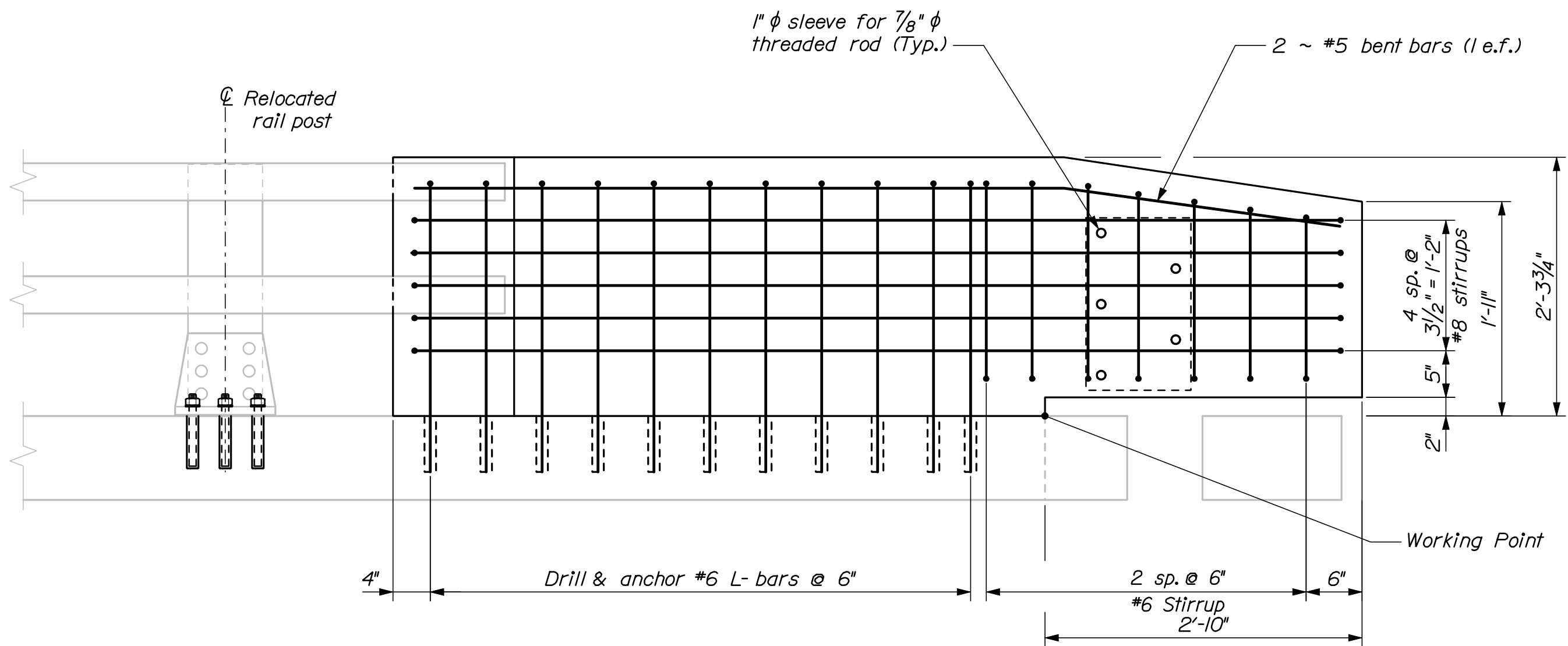
6. The contractor shall trim or install longer rail sections as directed by the resident to provide 12" of projection into the transition barrier recess.



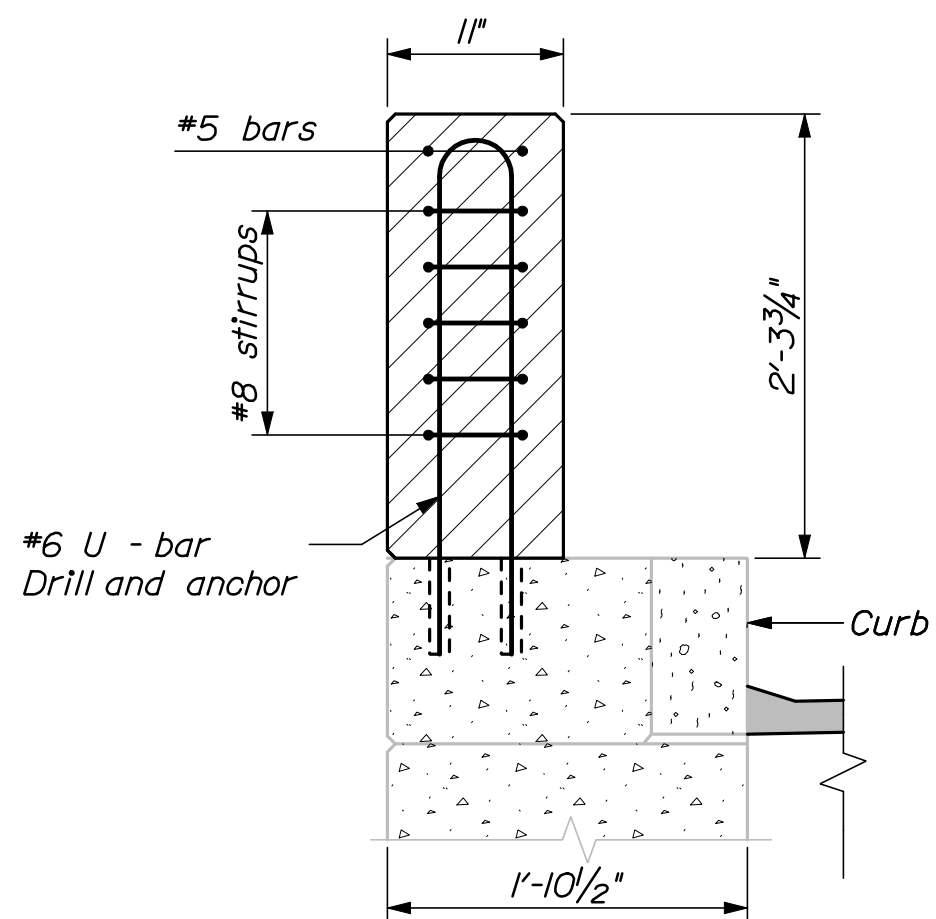
TRANSITION BARRIER PLAN



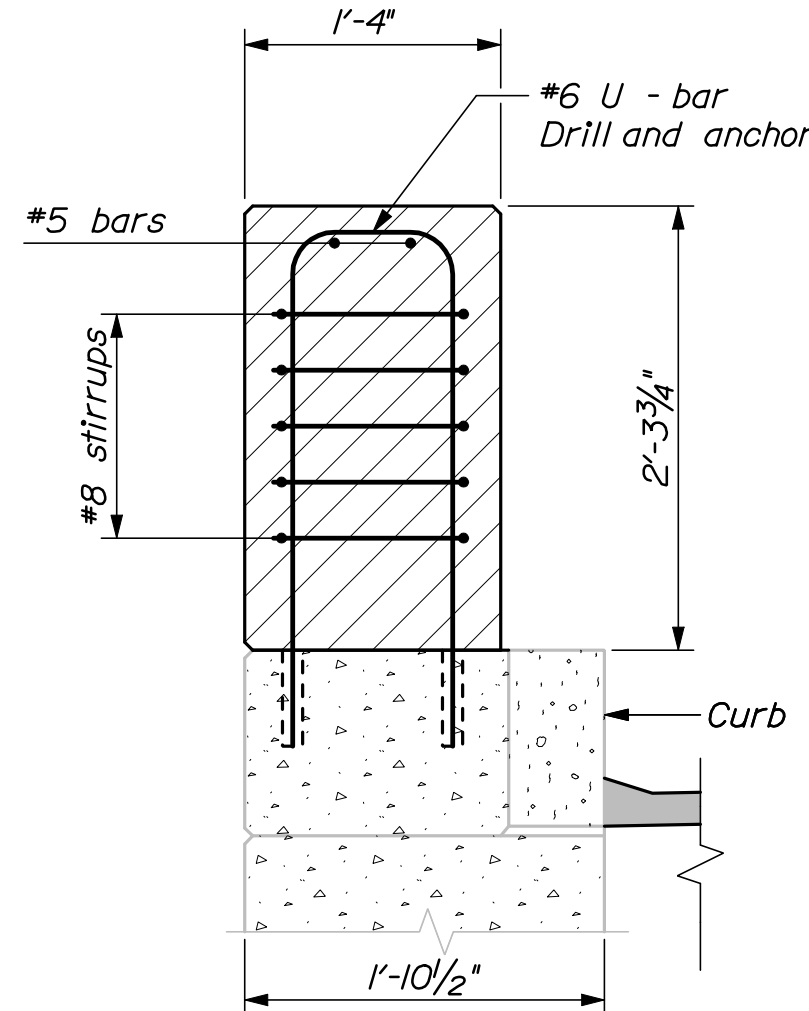
CONCRETE TRANSITION BARRIER (TYPE 3B)
Roadway elevation shown



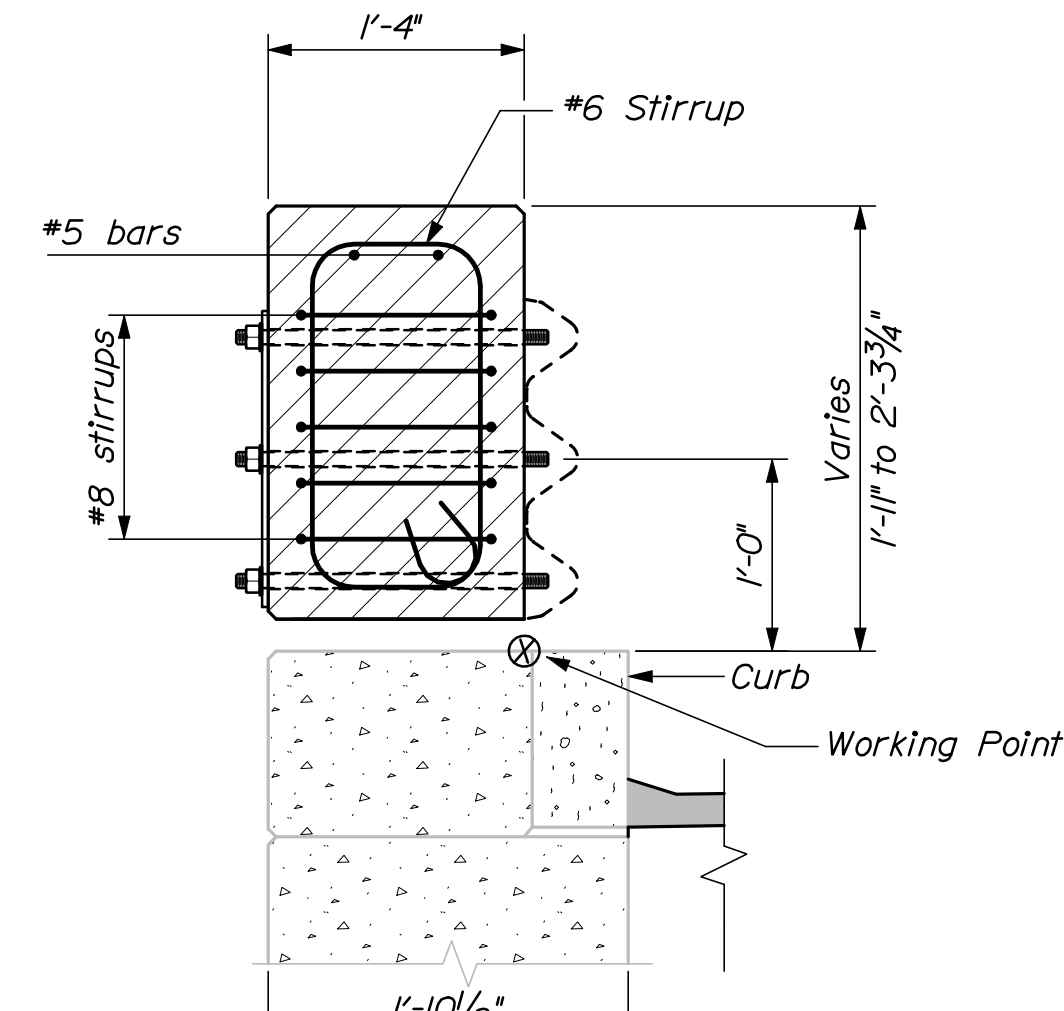
TRANSITION BARRIER ELEVATION
Roadway elevation shown



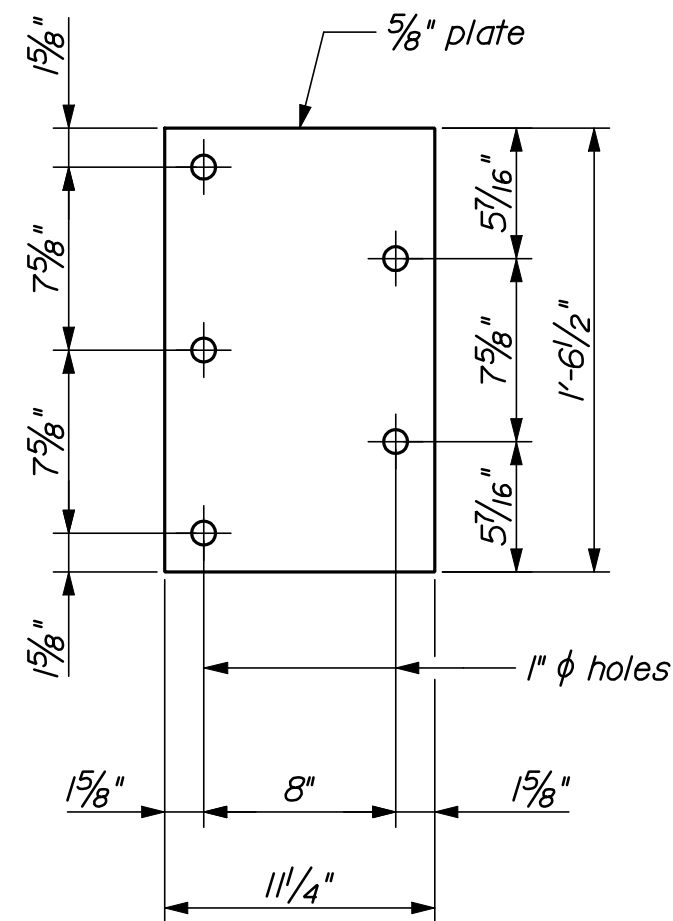
SECTION THROUGH RECESS



SECTION THROUGH STEM

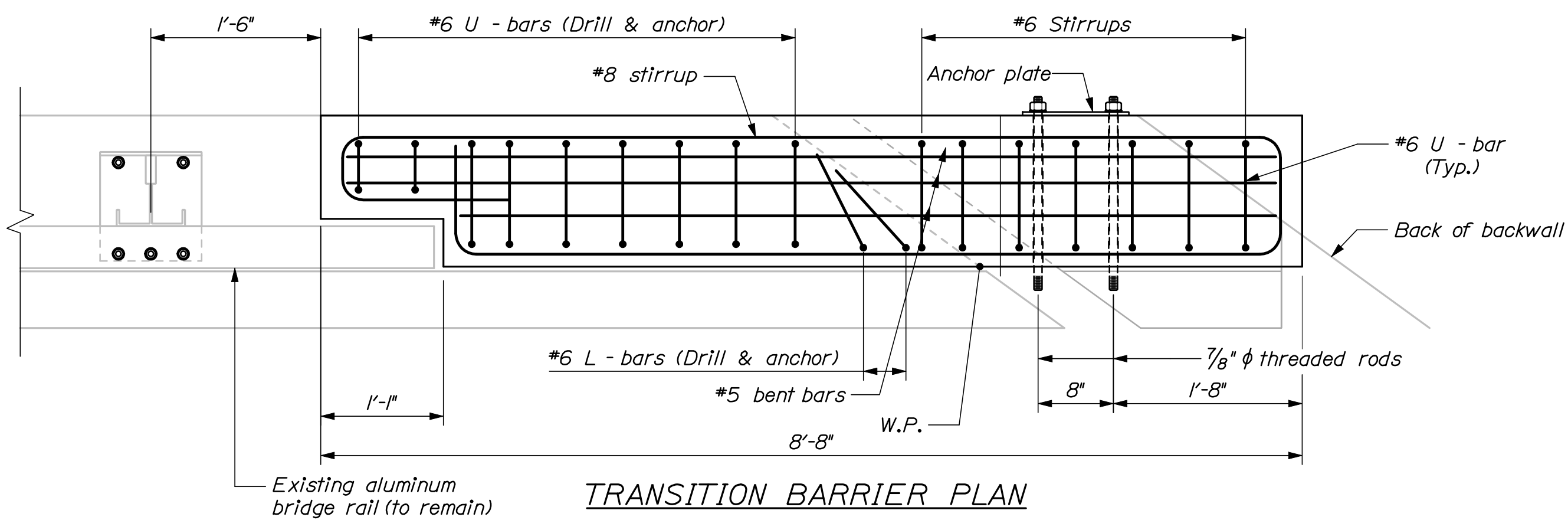


SECTION THROUGH NOSE



ANCHOR PLATE

NOTE:
This transition barrier to be constructed at Bridge 8239E (State Route 703), departure passing



TRANSITION BARRIER PLAN

CONCRETE TRANSITION BARRIER NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and conduit and adjust dowel and bridge rail post anchor stud locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.
6. The contractor shall trim or install longer rail sections as directed by the resident to provide 12" of projection into the transition barrier recess.

INTERSTATE 295 SOUTHBOUND
FALMOUTH TO S.PORLAND
CUMBERLAND COUNTY

CONCRETE TRANSITION BARRIER
(TYPE 3B)

SHEET NUMBER

28

OF 55

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. As Noted
PIN 17793.00
BRIDGE PLANS

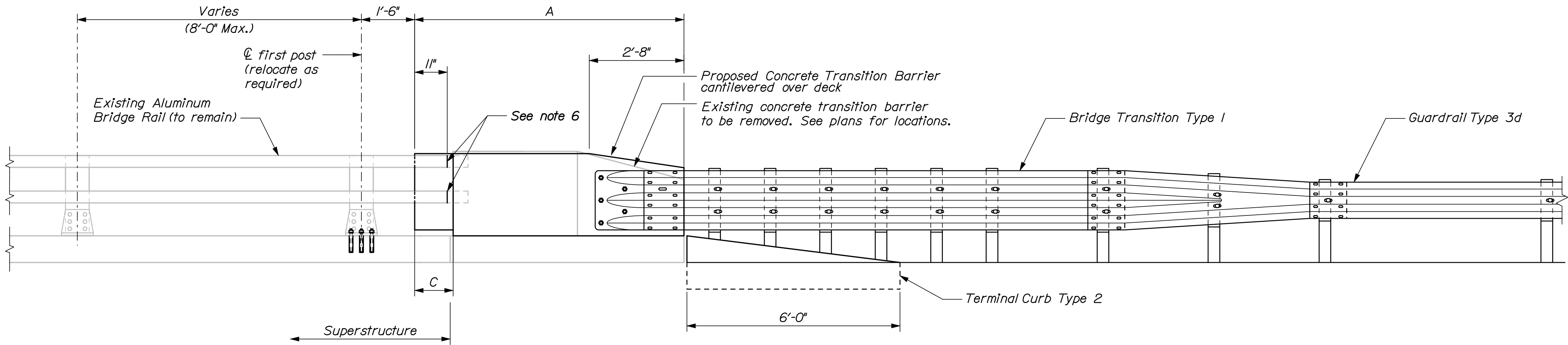
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DESIGN-DETAILED	03/10	RWH	03/10	
CHECKED-REVIEWED				
DESIGN-DETAILED				
DESIGN-DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

Date: 3/26/2010

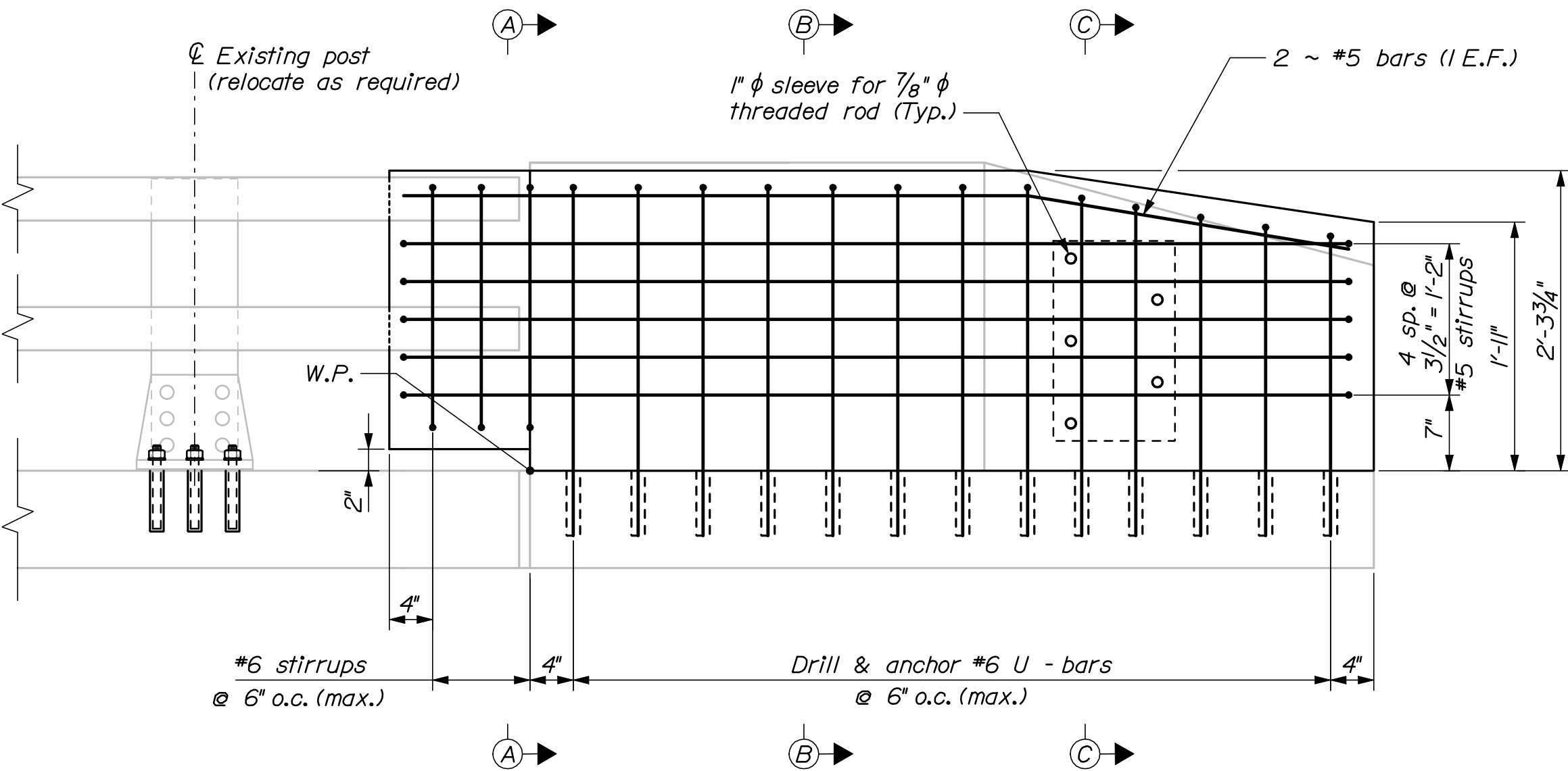
Username: mcondiff

Division: BRIDGE

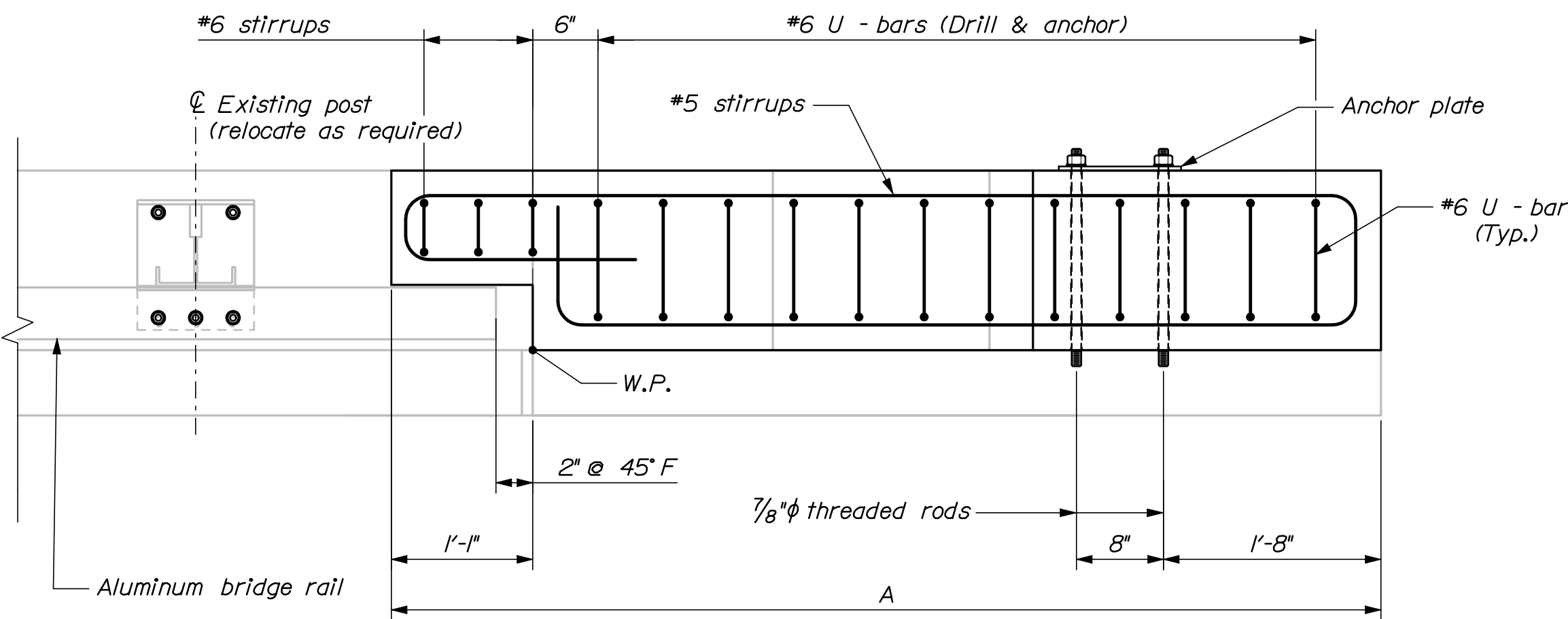
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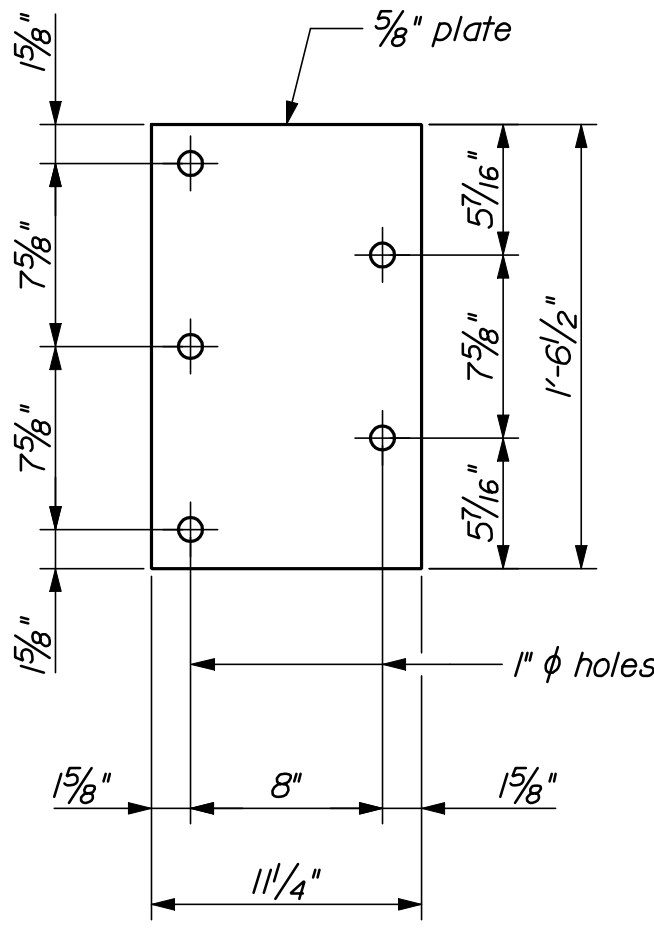
CONCRETE TRANSITION BARRIER (TYPE 4)
Roadway elevation shown



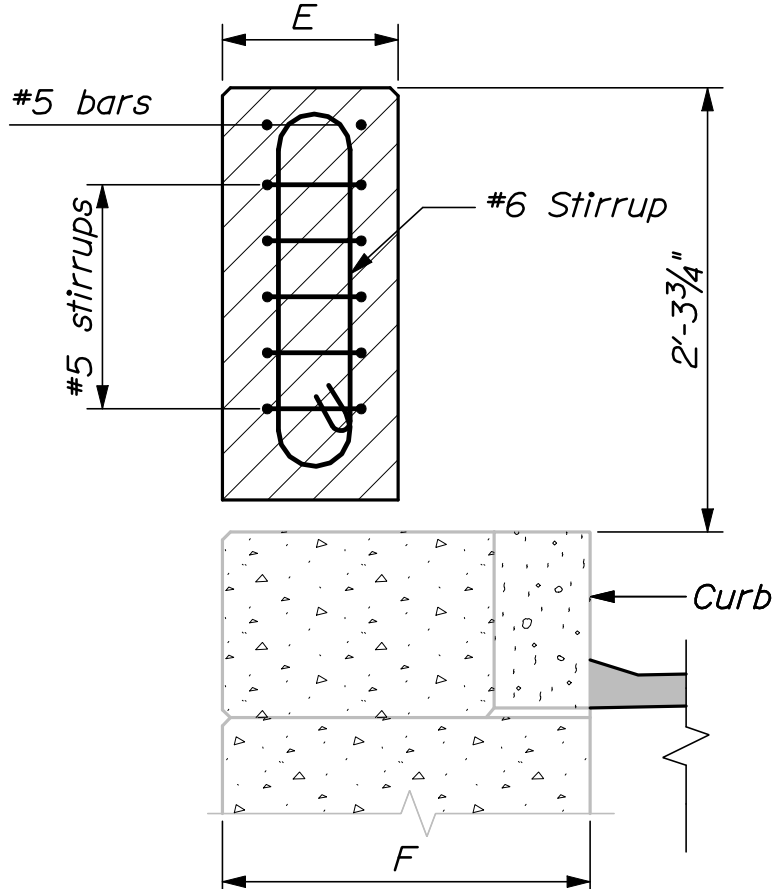
TRANSITION BARRIER ELEVATION
Roadway elevation shown



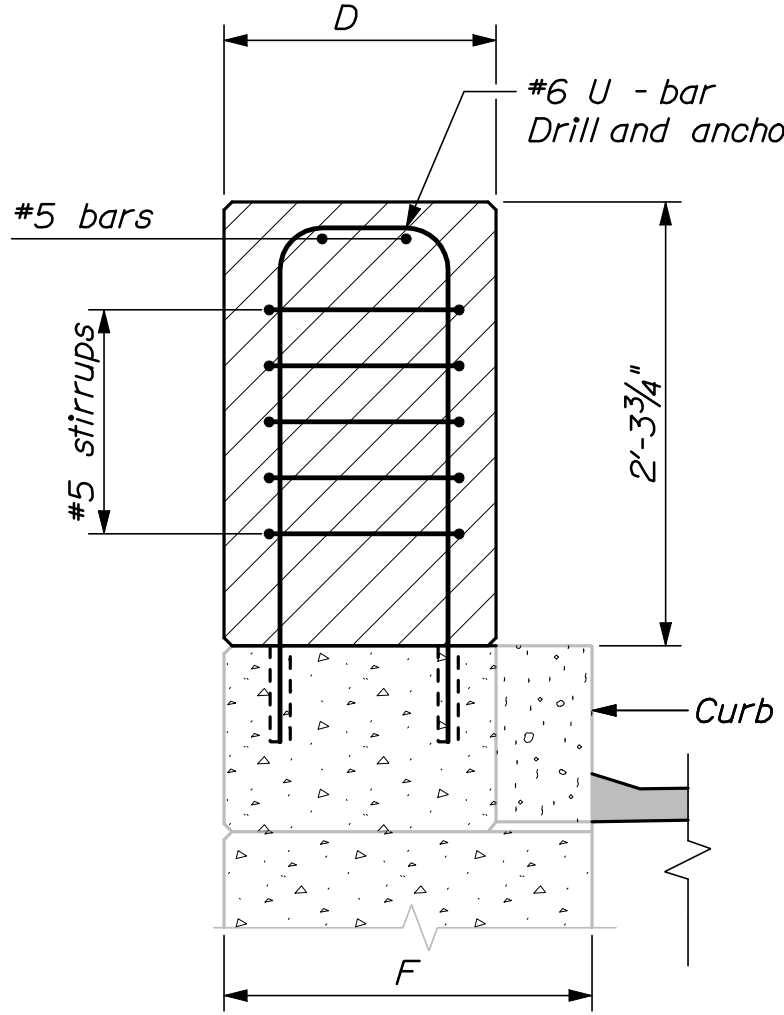
TRANSITION BARRIER PLAN



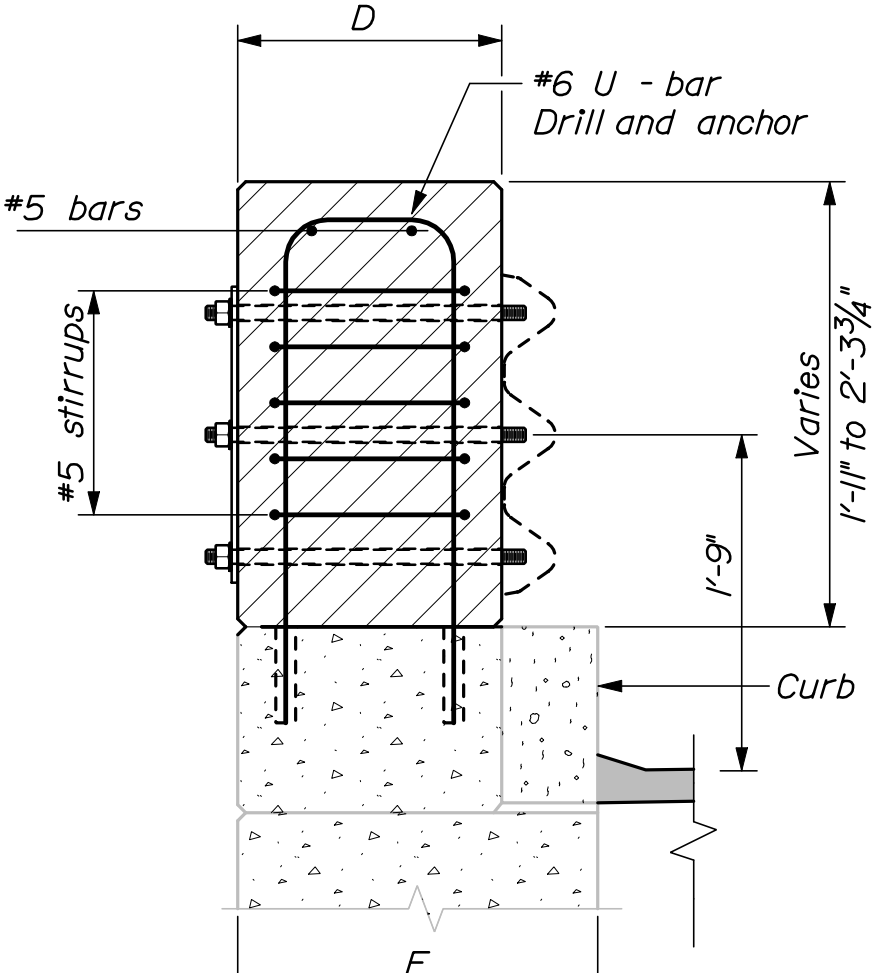
ANCHOR PLATE



SECTION A-A



SECTION B-B



SECTION C-C

CONCRETE TRANSITION BARRIER NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and conduit and adjust dowel and bridge rail post anchor stud locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.
6. The contractor shall trim or install longer rail sections as directed by the resident to provide 12" of projection into the transition barrier recess.

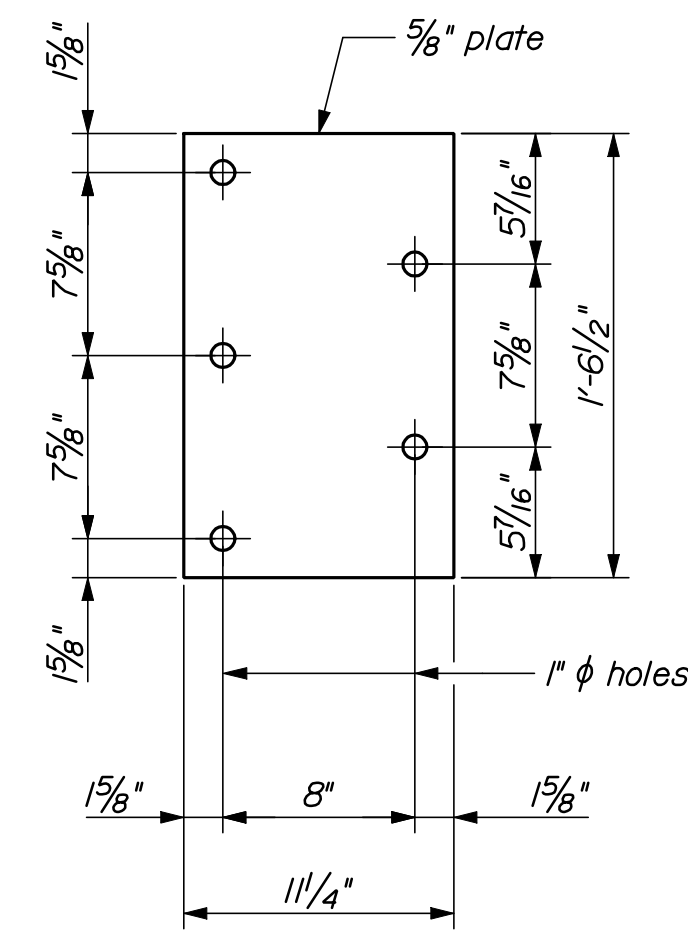
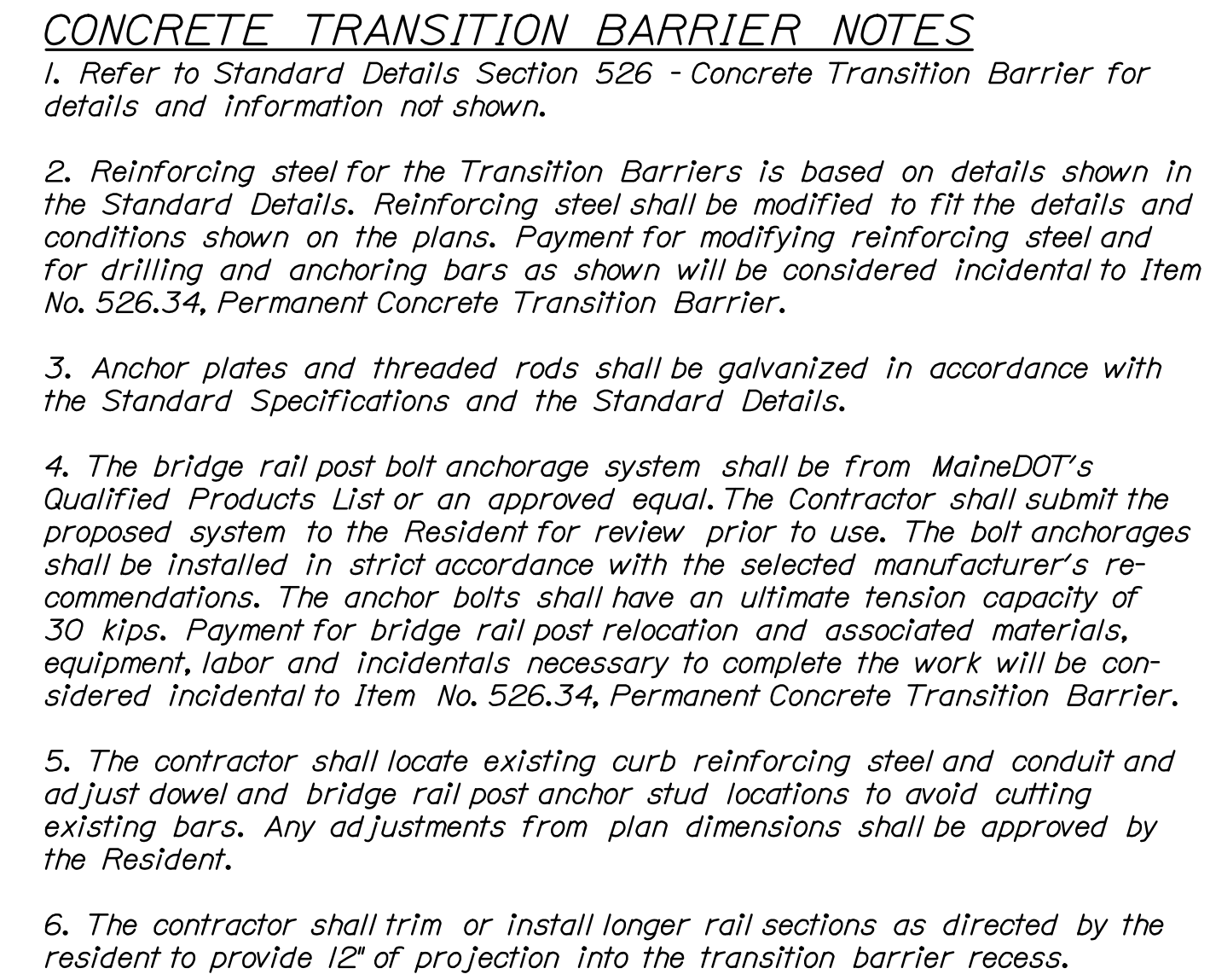
Bridge #	Bridge	Location	A	C	D	E	F
6300	Franklin Arterial	Approach Passing Lane	6'-7"	1'-11"	1'-4"	11"	1'-11"
6298	Forest Avenue	Approach Passing Lane	8'-1"	1'-8"	1'-4"	11"	1'-11"
6294	Congress St./Park Av.	Approach Passing Lane	6'-11"	1'-2"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6291	PTRR (Fore River)	Approach Passing Lane	6'-4"	1'-2"	1'-3 1/2"	10 1/2"	1'-9 1/2"
6281	Fore River	Approach Passing Lane	7'-0"	1'-4"	1'-3 1/2"	10 1/2"	1'-9 1/2"
1513	8239E (Route 703)	Approach Passing Lane	7'-1"	6"	1'-4"	11"	1'-11"

INTERSTATE 295 SOUTHBOUND
FALMOUTH TO S.PORTLAND
CUMBERLAND COUNTY
CONCRETE TRANSITION BARRIER
(TYPE 4)

SHEET NUMBER
29
OF 55

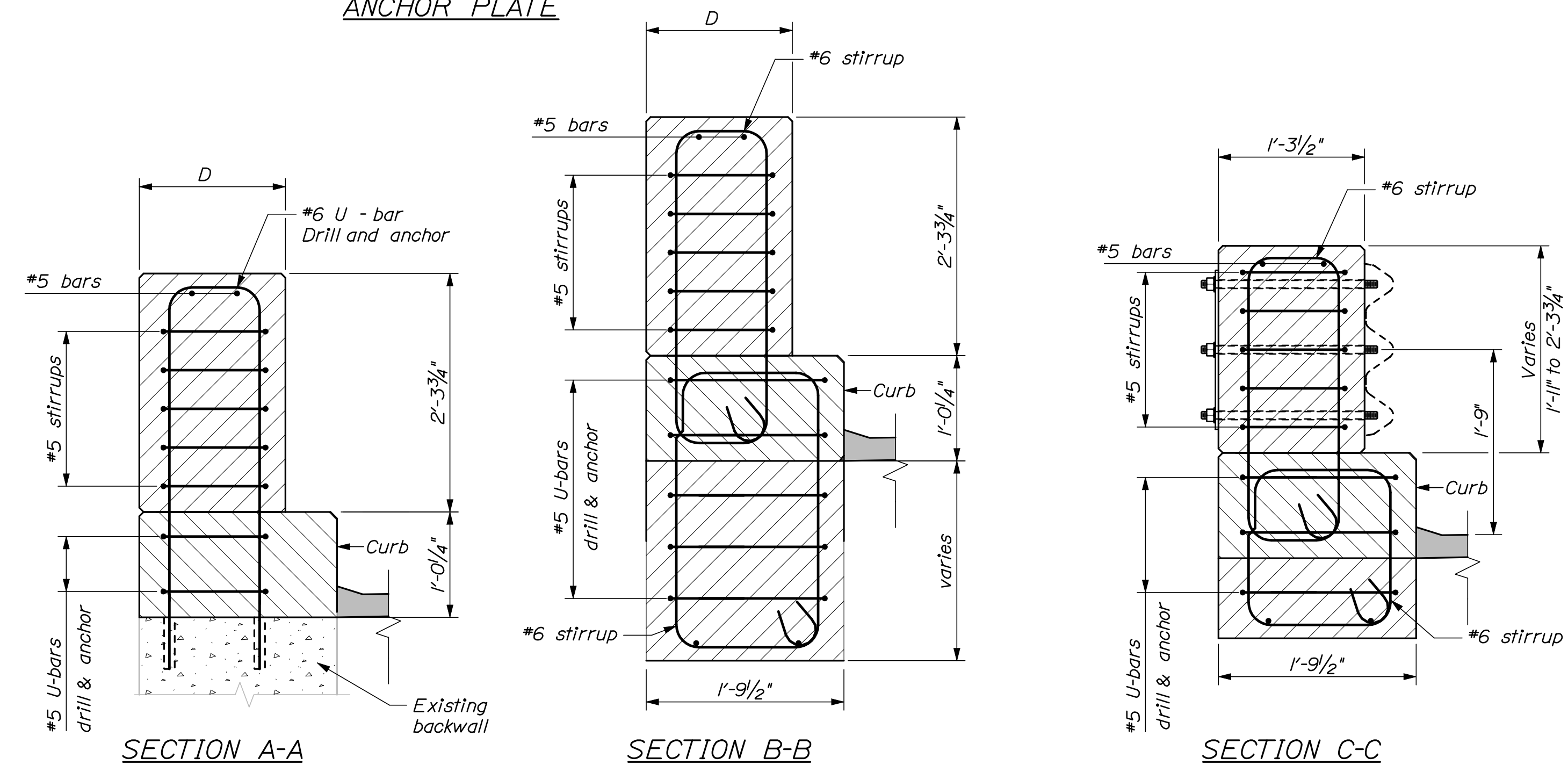
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. As Noted
PIN 17793.00
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DOE	SIGNATURE	P.E. NUMBER	DATE
CAH	TRC	TRC	03/10	RWH	03/10			
DESIGN-DETAILED								
REVISIONS 1								
REVISIONS 2								
REVISIONS 3								
REVISIONS 4								
FIELD CHANGES								



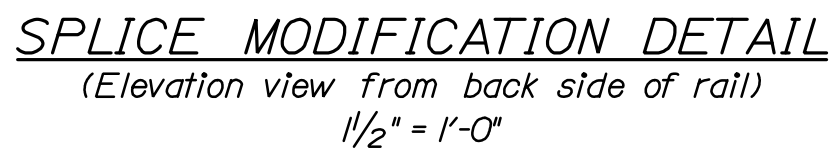
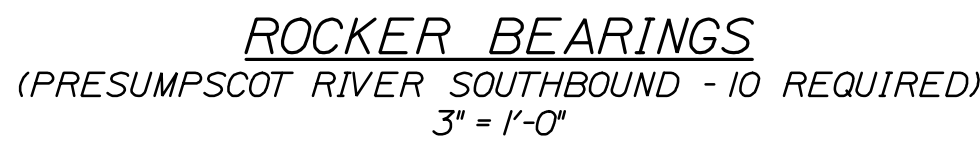
ANCHOR PLATE

NOTE:
This transition barrier to be constructed at Fore River Bridge, departure passing



SECTION C-C

TRANSITION BARRIER PLAN



1. *Recenter existing splice bar and drill two $\frac{5}{16}$ " ϕ holes and install two $\frac{3}{8}$ " ϕ x 1" hex washer head tapping screws, type F (stainless). Drill two additional $\frac{5}{16}$ " ϕ holes in rail for splice location verification.*
2. *Only 2 splice bars need to be recentered which require the verification holes.*

1. The Contractor shall remove the existing abutment rocker bearings at the Presumpscot River Southbound Overpass and install new rocker bearings in accordance with these plans and specifications. Prior to completing any bearing work the Contractor shall submit design drawings and calculations to the Resident for approval that detail the proposed method of temporarily raising and supporting the bridge superstructure during bearing removal and replacement. At all times during bearing removal and replacement the deck roadway shall be no more than one half inch higher than the approach roadway. Payment for jacking and temporary support of the Presumpscot River Bridge deck will be made under Item 524.30, "Temporary Structural Support"

2. Removal of the bearings from the existing girders shall be completed in a manner approved by the Resident. Bearing removal shall be considered incidental to the bearing replacement item.

3. Bearings shall be fabricated from steel conforming to AASHTO M270, grade 36 and shall be galvanized after fabrication.

4. Anchor rods shall be galvanized AASHTO F1554, Grade 55 and shall be swedged or threaded on the embedded portion. The threads of the anchor rods shall be upset after assembly.

5. After installation of the bearings are complete the Contractor shall retouch areas of paint removal and damaged galvanizing with a cold galvanizing compound approved by the Resident.

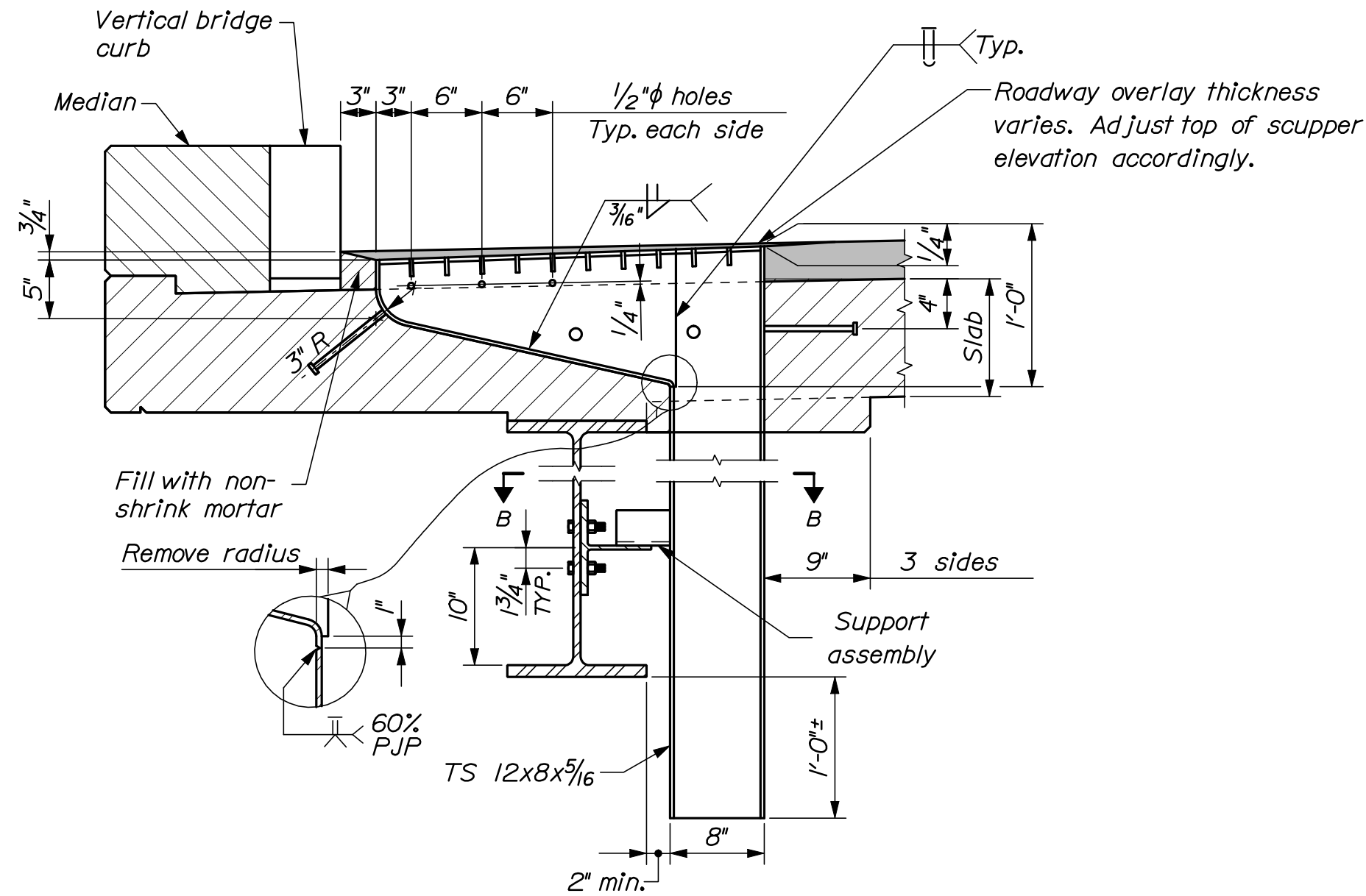
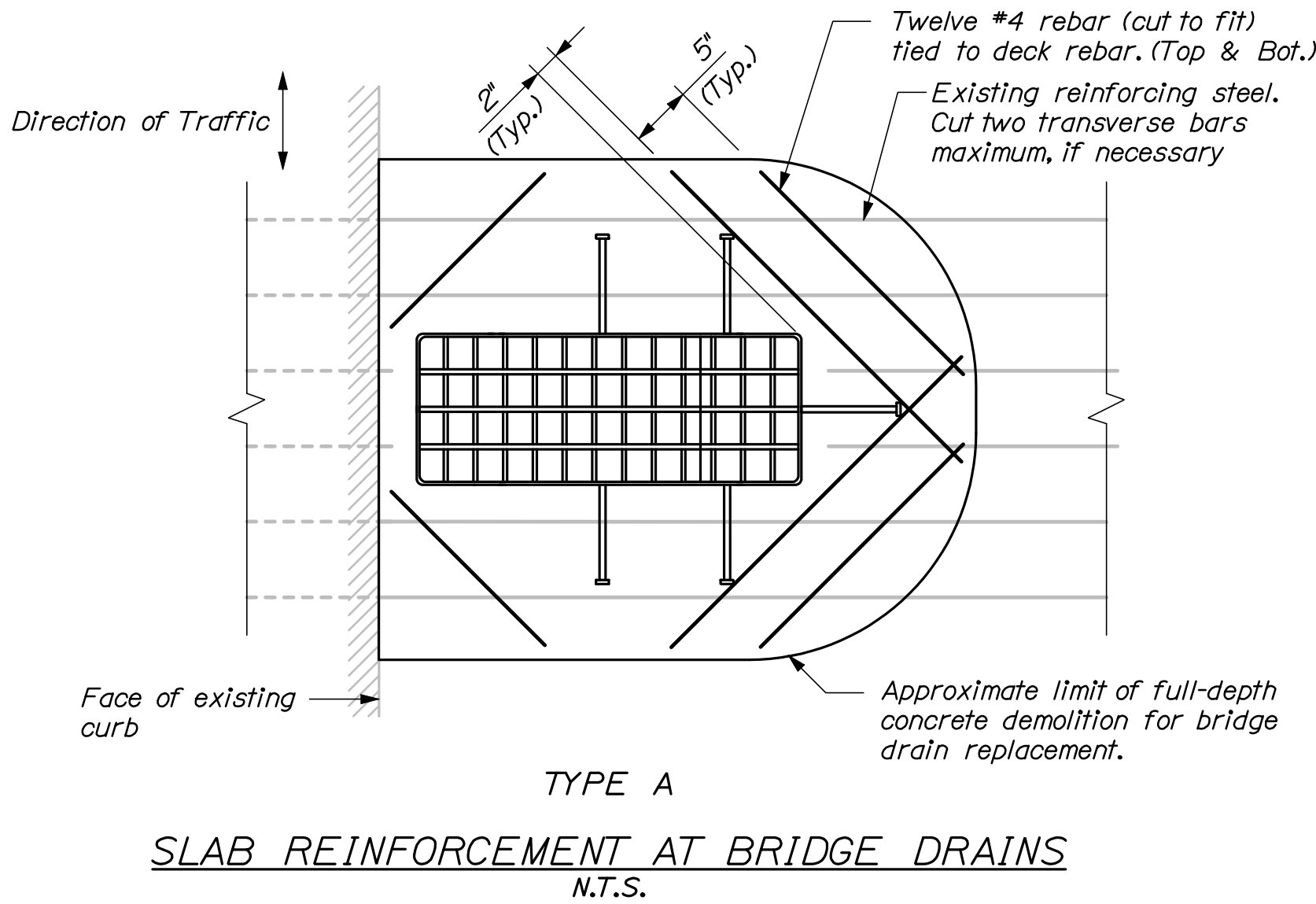
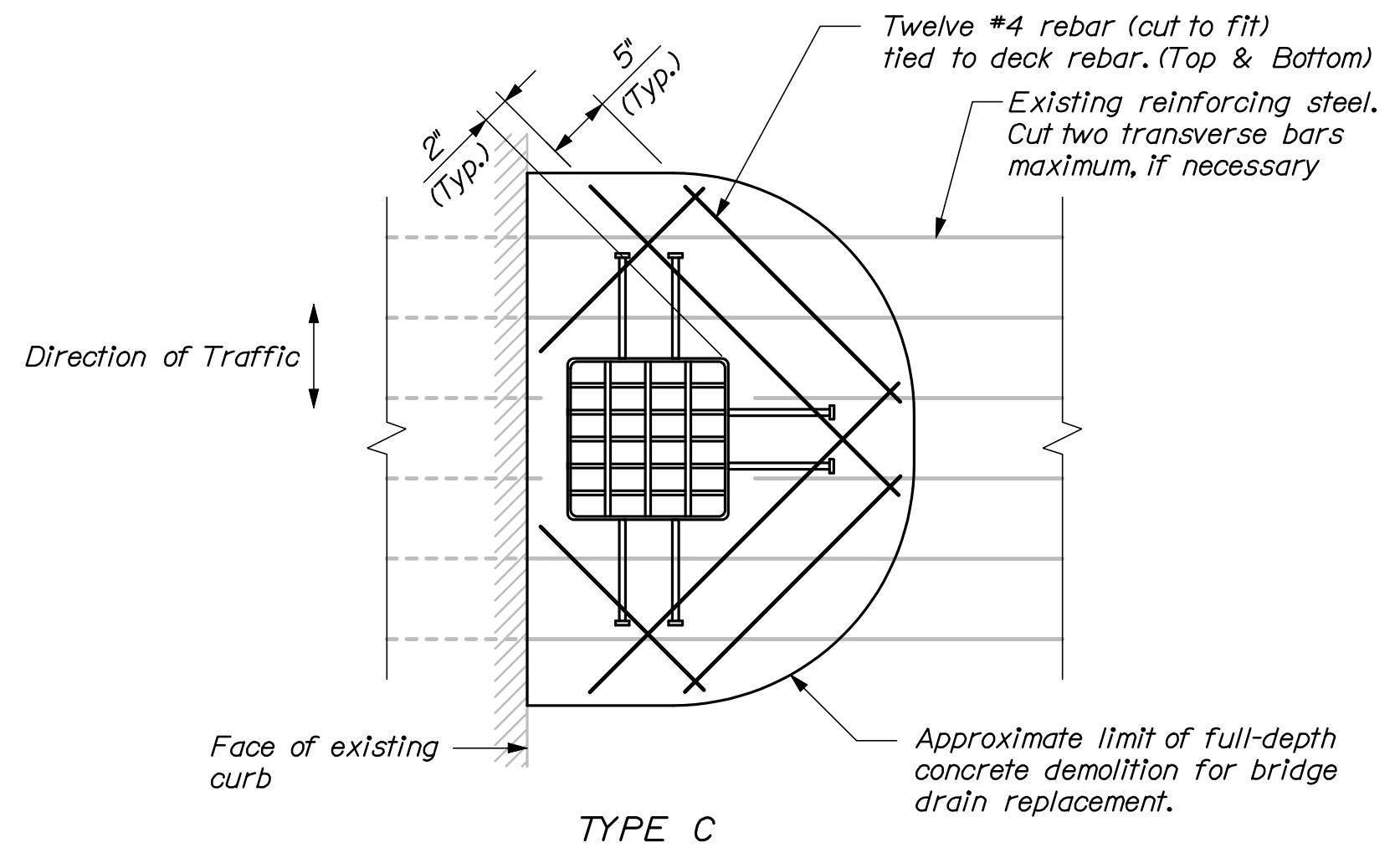
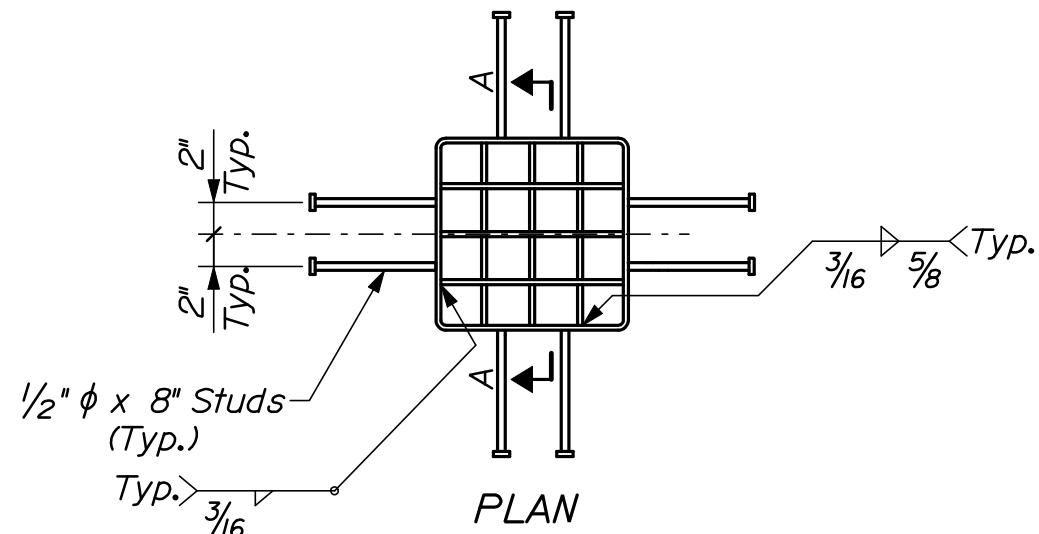
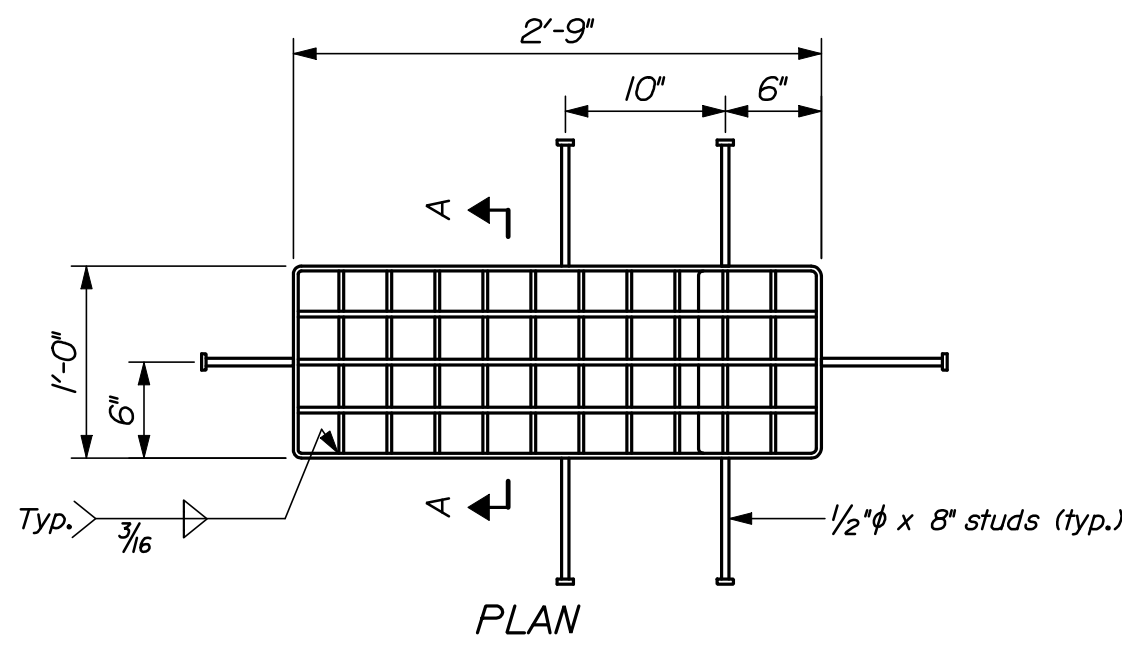
<div>INTERSTATE 295 SOUTHBOUND FALMOUTH TO S.PORTLAND CUMBERLAND COUNTY</div> <div>BEARING DETAILS</div>		PROJ. MANAGER		DGE	BY	DATE
		DESIGN-DETAILED CAH			RWH	03/10
		CHECKED-REVIEWED DGE				03/10
		DESIGN2-DETAILED2				SIGNATURE
		DESIGN3-DETAILED3				P.E. NUMBER
		REVISIONS 1				
		REVISIONS 2				
		REVISIONS 3				
		REVISIONS 4				DATE
FIELD CHANGES						
SHEET NUMBER		STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E BRIDGE NO. VariesPIN 17793.00BRIDGE PLANS				
31 OF 55						

Date:3/26/2010

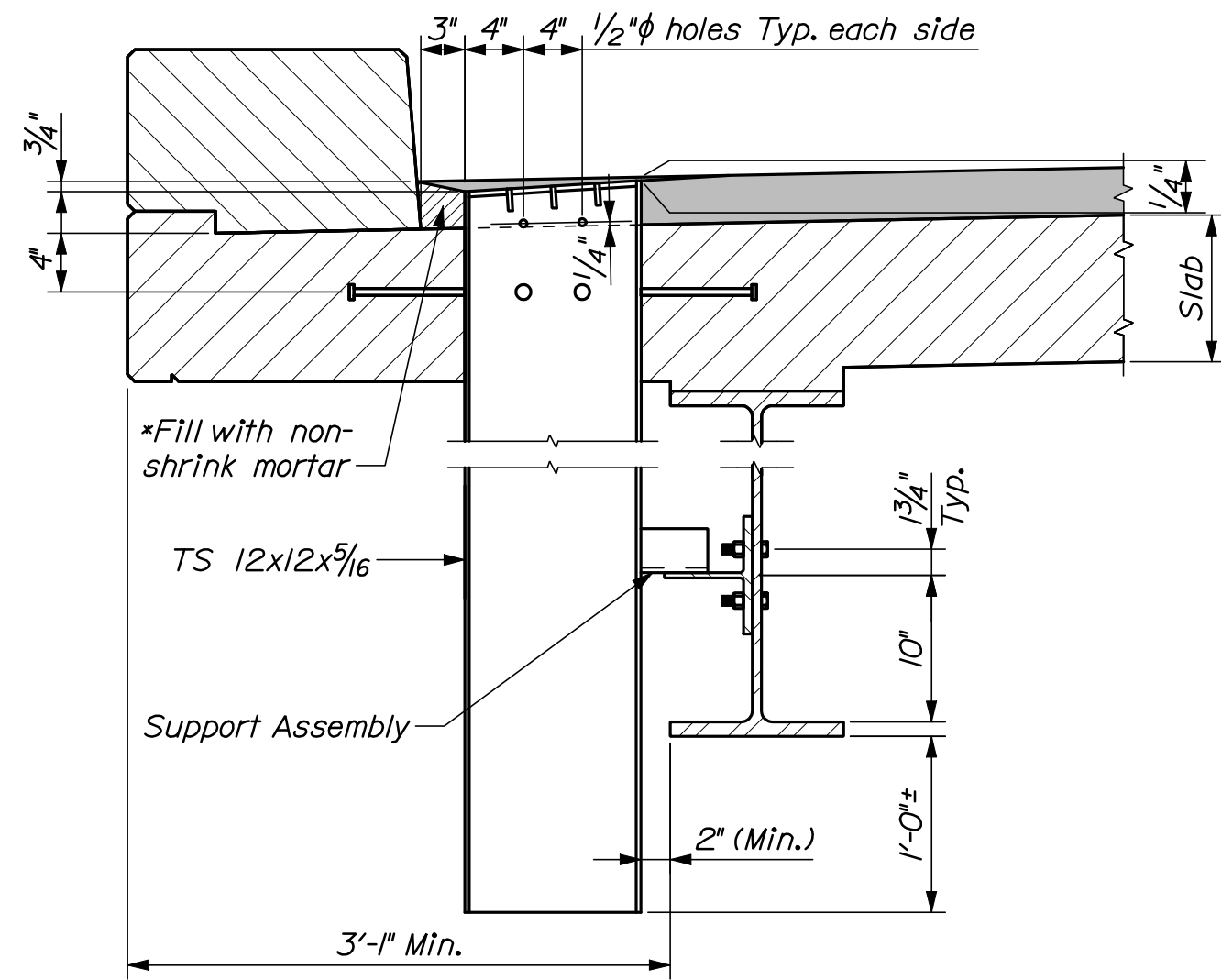
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Division: BRIDGE

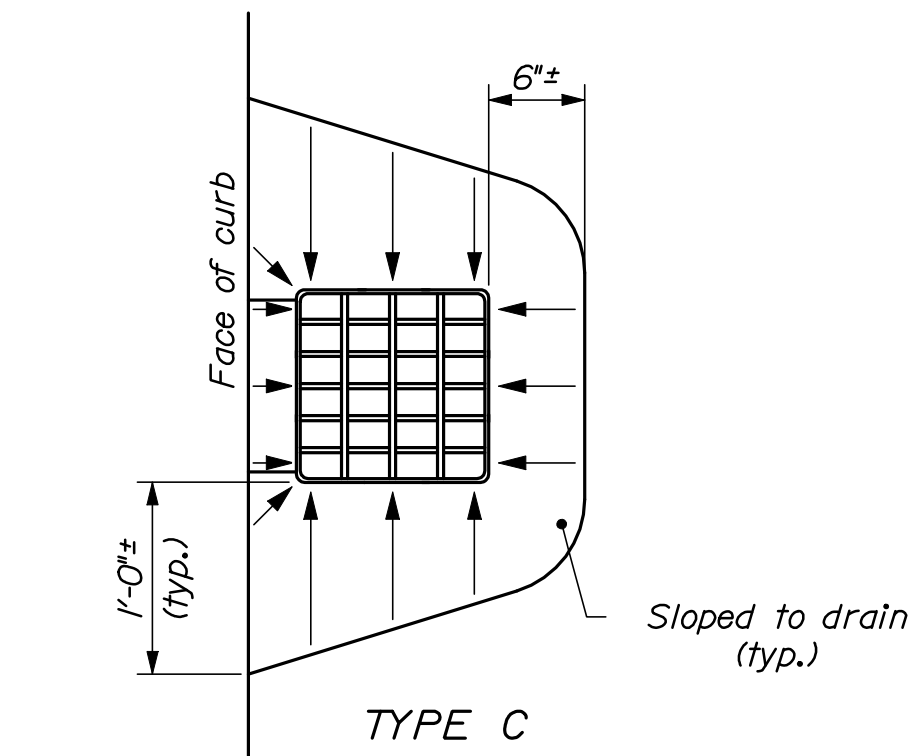
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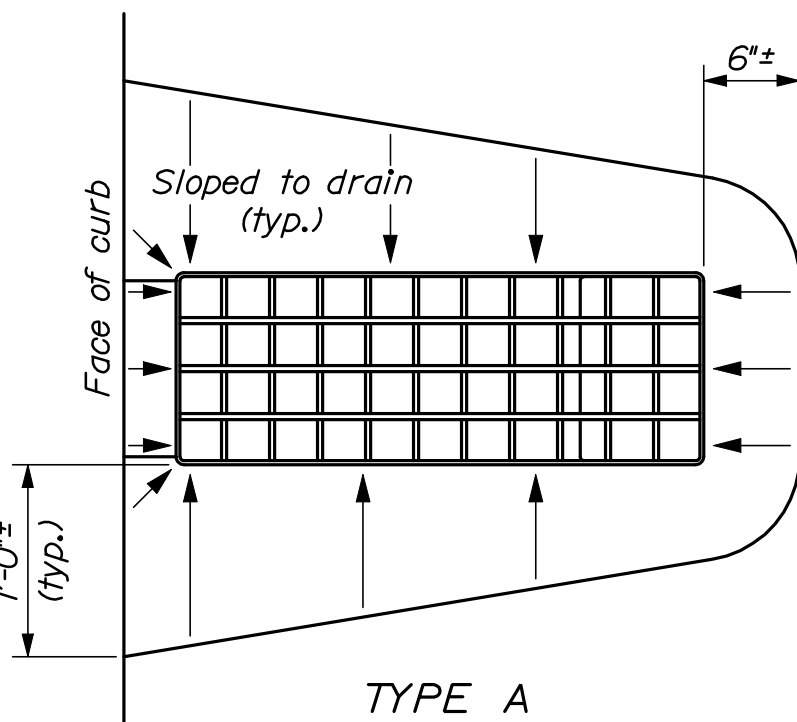
SECTION
BRIDGE DRAIN TYPE A
N.T.S.



SECTION
BRIDGE DRAIN TYPE C
N.T.S.

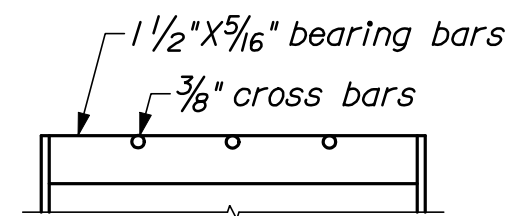


TYPE C

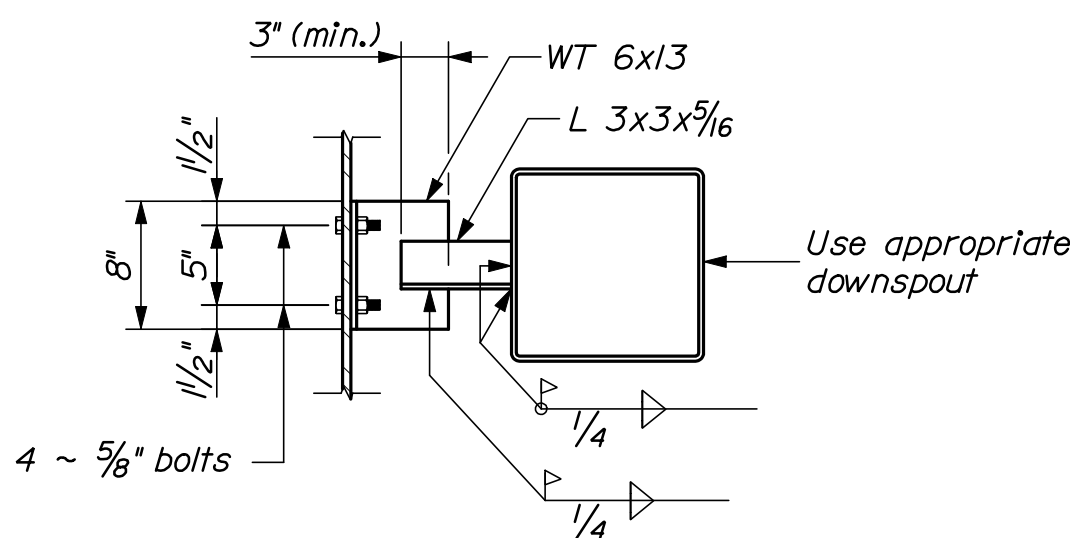


TYPE A

PAVEMENT DEPRESSION AROUND BRIDGE DRAINS
N.T.S.



SECTION A-A



SECTION B-B

BRIDGE DRAIN NOTES:

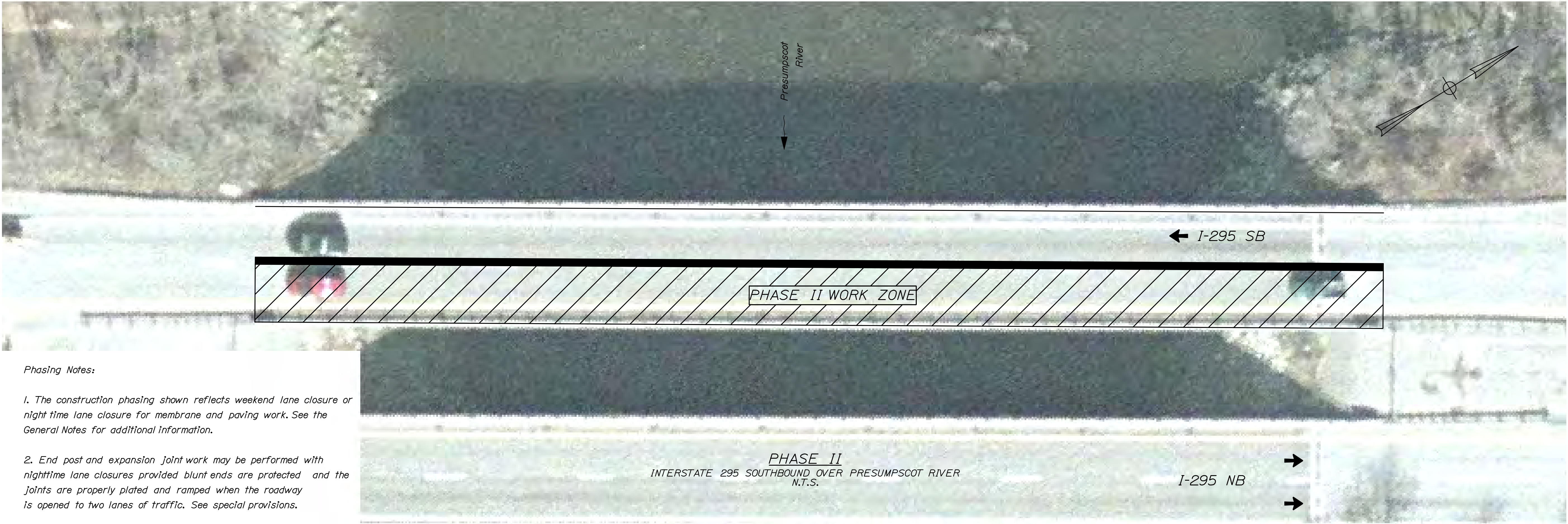
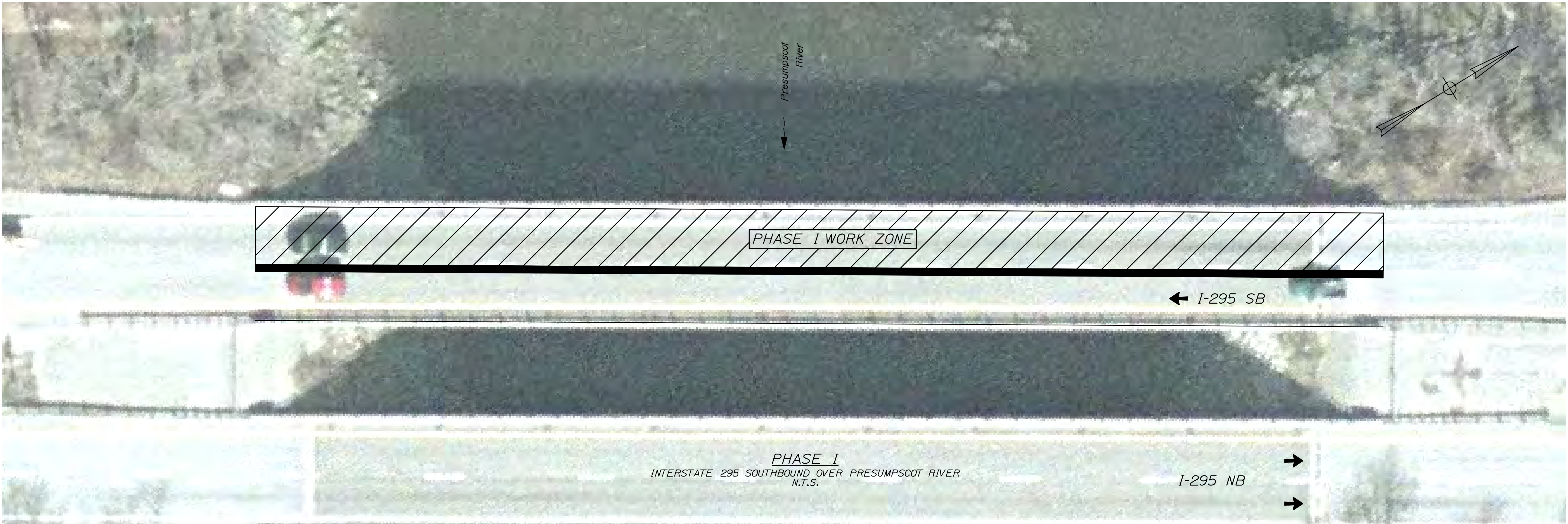
1. All plates, if any, shall be 1/4" thick and shall conform to ASTM A 36.
2. Downspouts shall conform to ASTM A500.
3. Grating shall be a commercial heavy-duty grating with 1/2" x 5/16" bearing bars spaced at 2 3/8" and 3/8" cross bars spaced at 4". Grating shall be centered in the drain top.
4. If the minimum thickness of concrete below the drain is 2" or less, the concrete haunch shall be extended as shown.
5. At the Contractors option bridge drain shear studs may be field welded to the drain. Touch up areas with an approved cold galvanizing compound after welding.
6. Drains, WT6x13, and L 3x3x5/16 shall be blast cleaned to the requirements of SSPC-SP6/NACE 3 and hot-dipped galvanized in accordance with ASTM A 123. All associated fasteners shall be hot dip galvanized.
7. One 1" PVC weep drain shall be installed in the gutter line on the upgrade side of each scupper. All work and materials associated with installing new weep drains shall be considered incidental to the related contract items.
8. At a minimum the existing deck concrete shall be removed to a distance 6" beyond the end of the welded studs. Concrete removal need not extend below the existing granite curb. Care shall be taken not to damage the existing reinforcing steel during concrete demolition. After concrete removal the Resident shall direct the Contractor to cut existing reinforcing bars as needed to allow installation of the drains.
9. The Contractor shall furnish twelve (12) pieces of #4 reinforcing steel for each drain to be placed around the proposed bridge drain as directed by the Resident. The required length of the proposed reinforcing shall be determined by the Resident in the field. The additional reinforcing steel around each bridge drain will not be paid for directly. Payment will be considered incidental to related contract items.

STATE OF MAINE	BRIDGE NO.	PIN	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	Varies	17793.00	
IM-1779(300)E			

PROJ. MGR.	DESIGN-DETAILED	CHECKED	REVIEWED	DATE
CAH	TRC	DOE	DOE	03/10
DESIGN-DETAILED	TRC	DOE	DOE	03/10
DESIGN-DETAILED	TRC	DOE	DOE	03/10
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

INTERSTATE 295 SOUTHBOUND	BRIDGE DRAIN DETAILS
FALMOUTH TO S.PORLAND	
CUMBERLAND COUNTY	

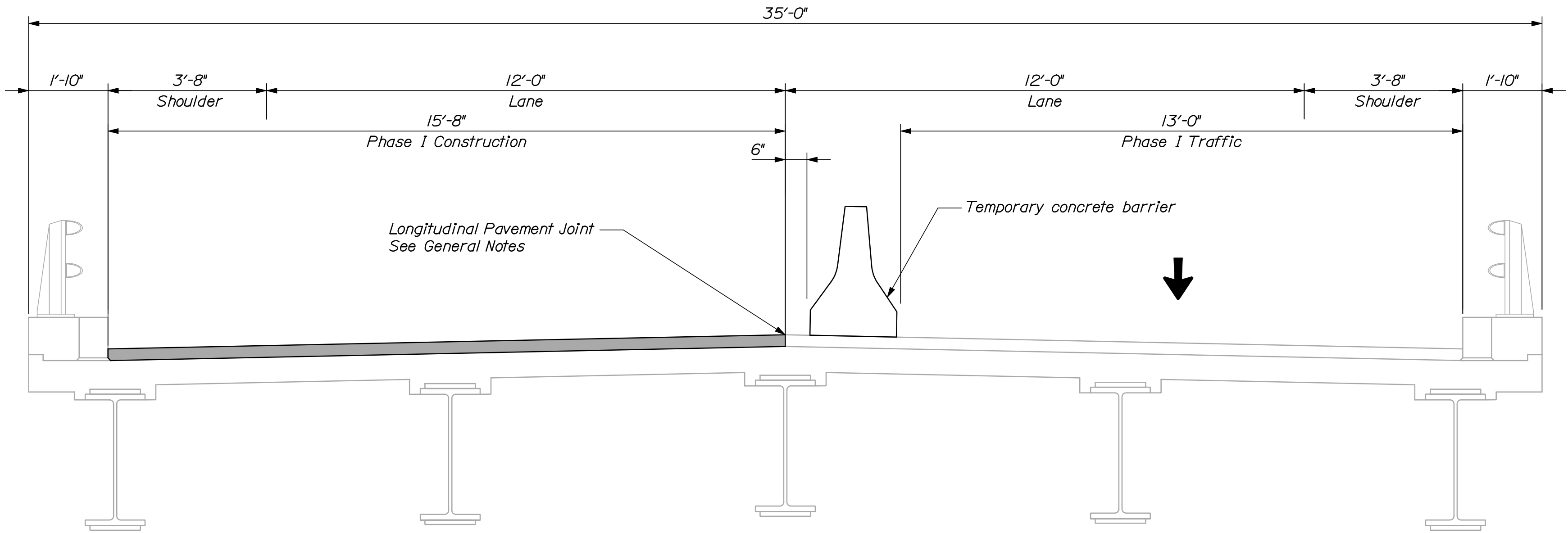
SHEET NUMBER	32
	OF 55



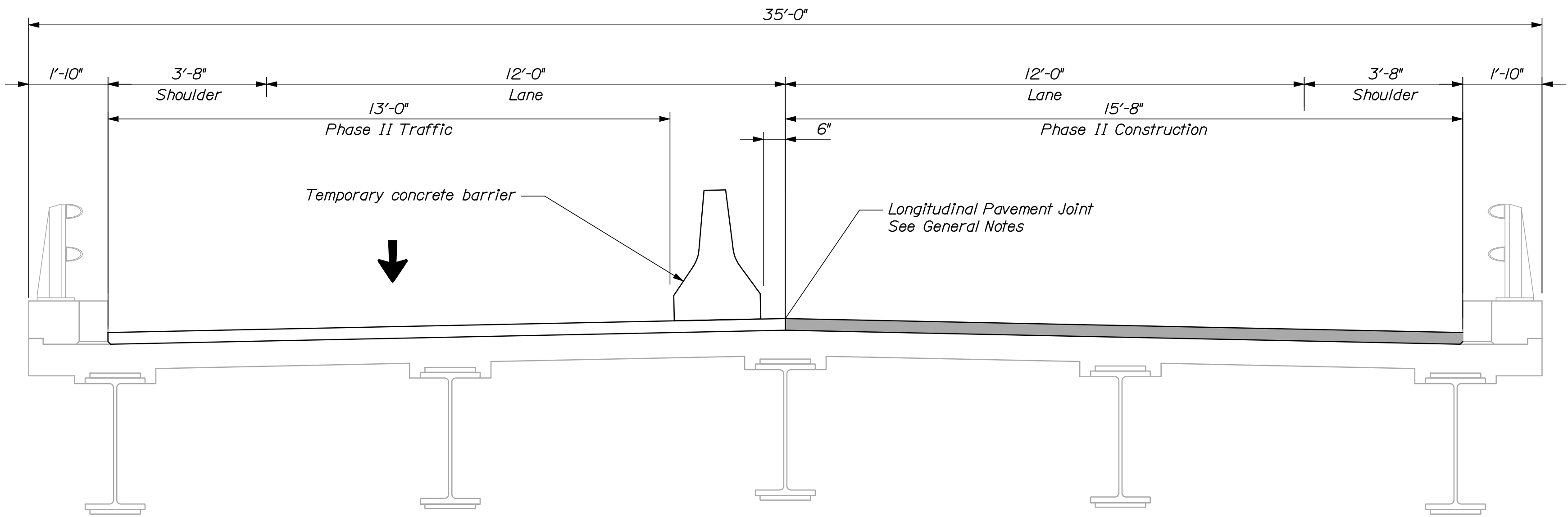
Phasing Notes:

1. The construction phasing shown reflects weekend lane closure or night time lane closure for membrane and paving work. See the General Notes for additional information.
2. End post and expansion joint work may be performed with nighttime lane closures provided blunt ends are protected and the joints are properly plated and ramped when the roadway is opened to two lanes of traffic. See special provisions.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E		PIN 17793.00	
BRIDGE NO. 1505		BRIDGE PLANS	
INTERSTATE 295 SOUTHBOUND		DATE	
PRESUMPCOT RIVER		BY	
CUMBERLAND COUNTY		DOE	
FALMOUTH		CAH	
CONSTRUCTION PHASING		CHECKED-REVIEWED	
PLAN		DOE	
SHEET NUMBER		SIGNATURE	
33		P.E. NUMBER	
OF 55		DATE	



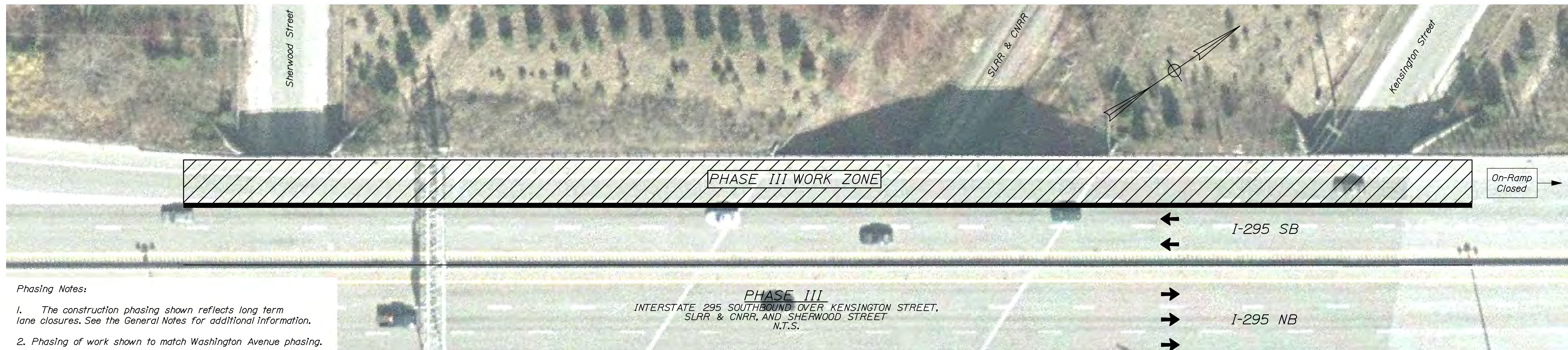
PHASE I
INTERSTATE 295 SOUTHBOUND OVER PRESUMPCOT RIVER
N.T.S.



PHASE II
INTERSTATE 295 SOUTHBOUND OVER PRESUMPCOT RIVER
N.T.S.

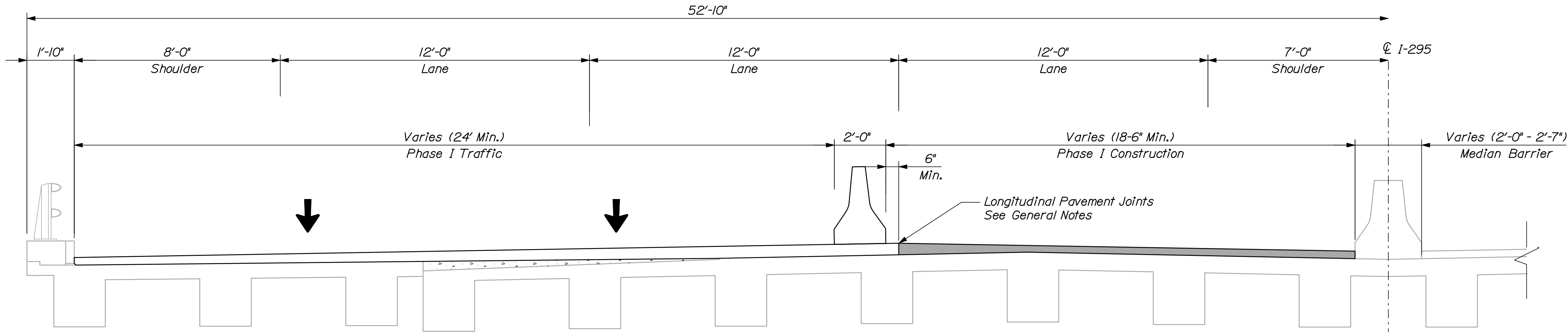
NOTE:
Sections are shown looking upstation.

<div> <div>INTERSTATE 295 SOUTHBOUND PRESUMPCOT RIVER</div> <div>FALMOUTH CUMBERLAND COUNTY</div> <div>CONSTRUCTION PHASING TYPICAL SECTION</div> </div>	<div>STATE OF MAINE</div> <div>DEPARTMENT OF TRANSPORTATION</div>		<div>IM-1779(300)E</div>		<div>BRIDGE NO. 1505</div> <div>PIN 17793.00</div> <div>BRIDGE PLANS</div>	
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SHEET NUMBER		34				
OF 55						

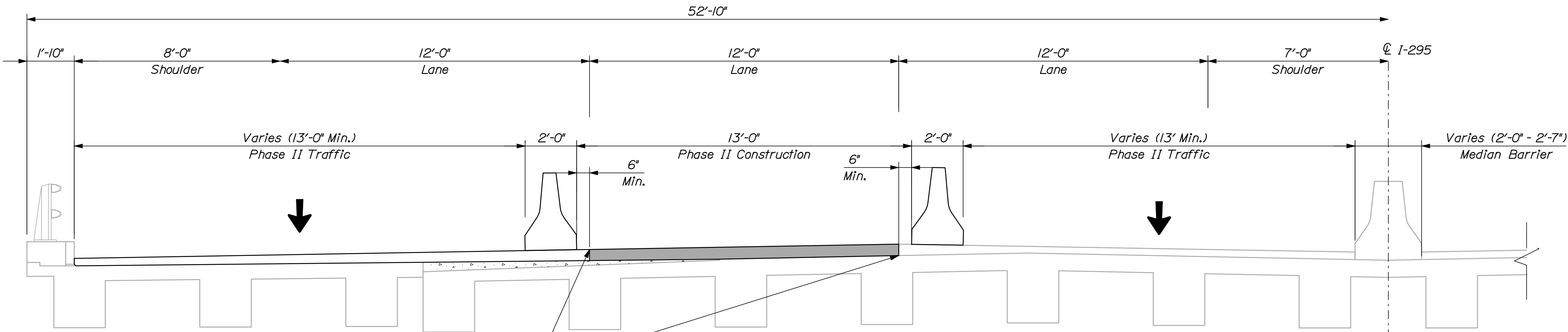


1. The construction phasing shown reflects long term lane closures. See the General Notes for additional information.
2. Phasing of work shown to match Washington Avenue phasing.

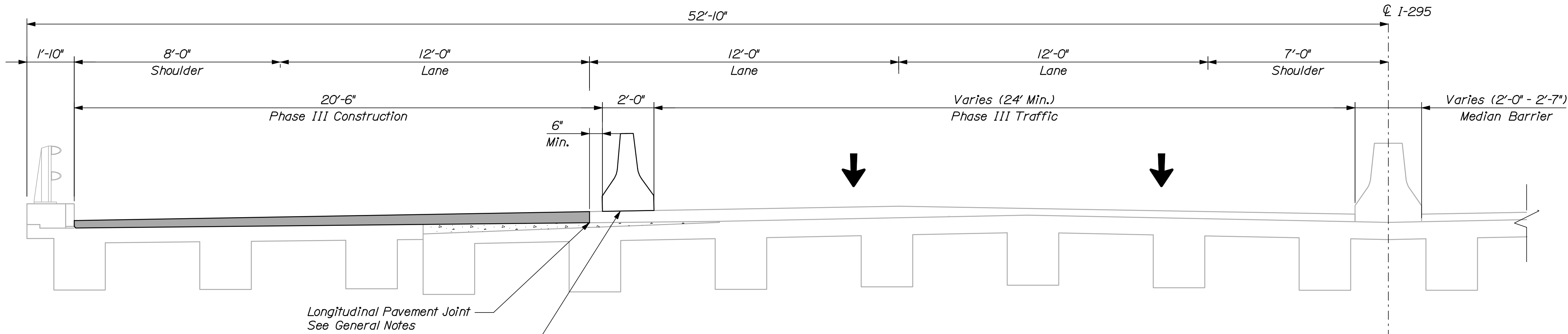
[illegible]



PHASE I
INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR
AND SHERWOOD STREET
N.T.S.



PHASE II
INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR
AND SHERWOOD STREET
N.T.S.



PHASE III
INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR
AND SHERWOOD STREET
N.T.S.

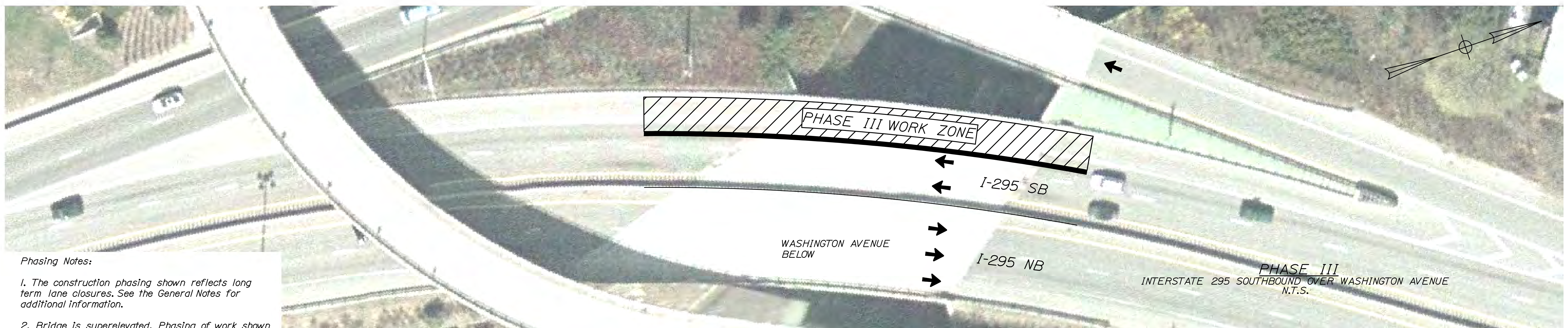
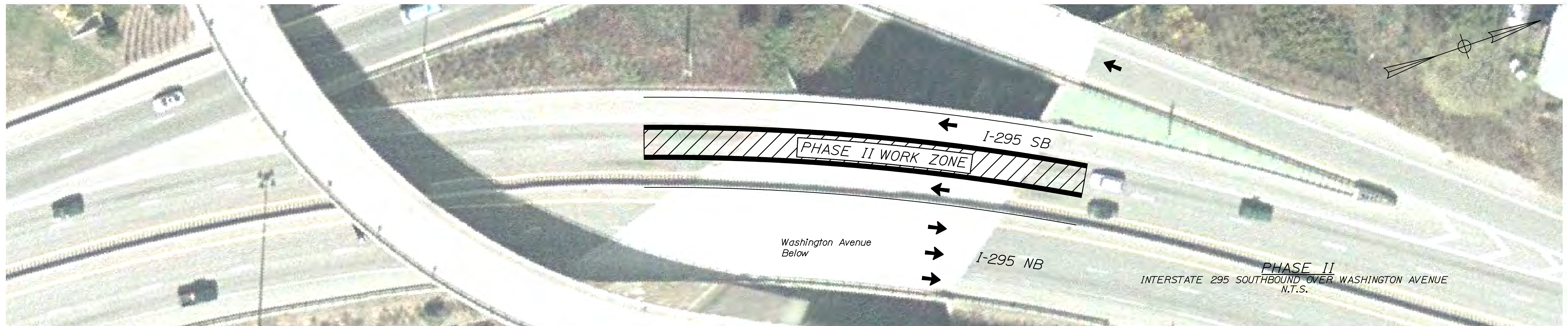
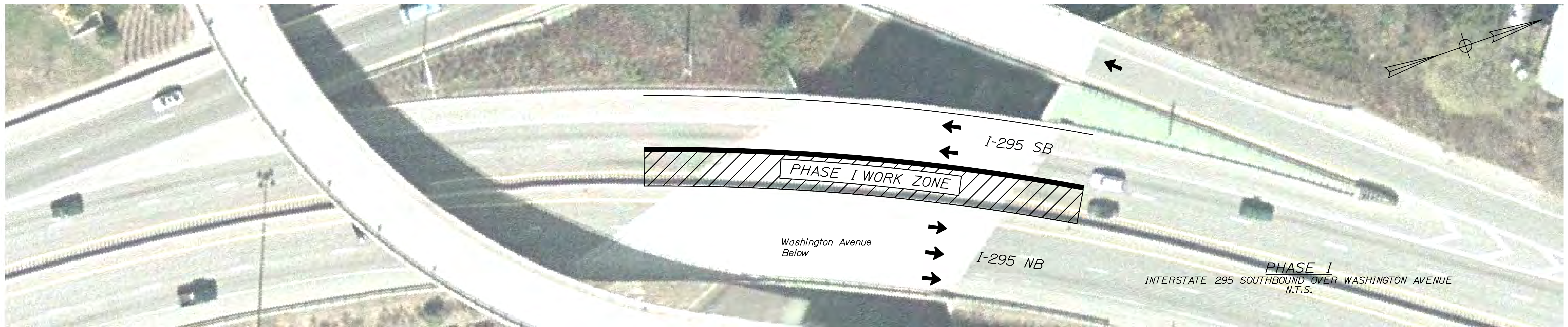
NOTE:
Sections are shown looking upstation.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. 5618, 5616, 5617	PIN 17793.00
BRIDGE PLANS	

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE
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DESIGN-DETAILED	DOE					
DESIGN-DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

INTERSTATE 295 SOUTHBOUND KENSINGTON STREET, SLRR/CNRR AND SHERWOOD STREET	
PORTLAND	CUMBERLAND COUNTY
CONSTRUCTION PHASING TYPICAL SECTION	

SHEET NUMBER
36
OF 55

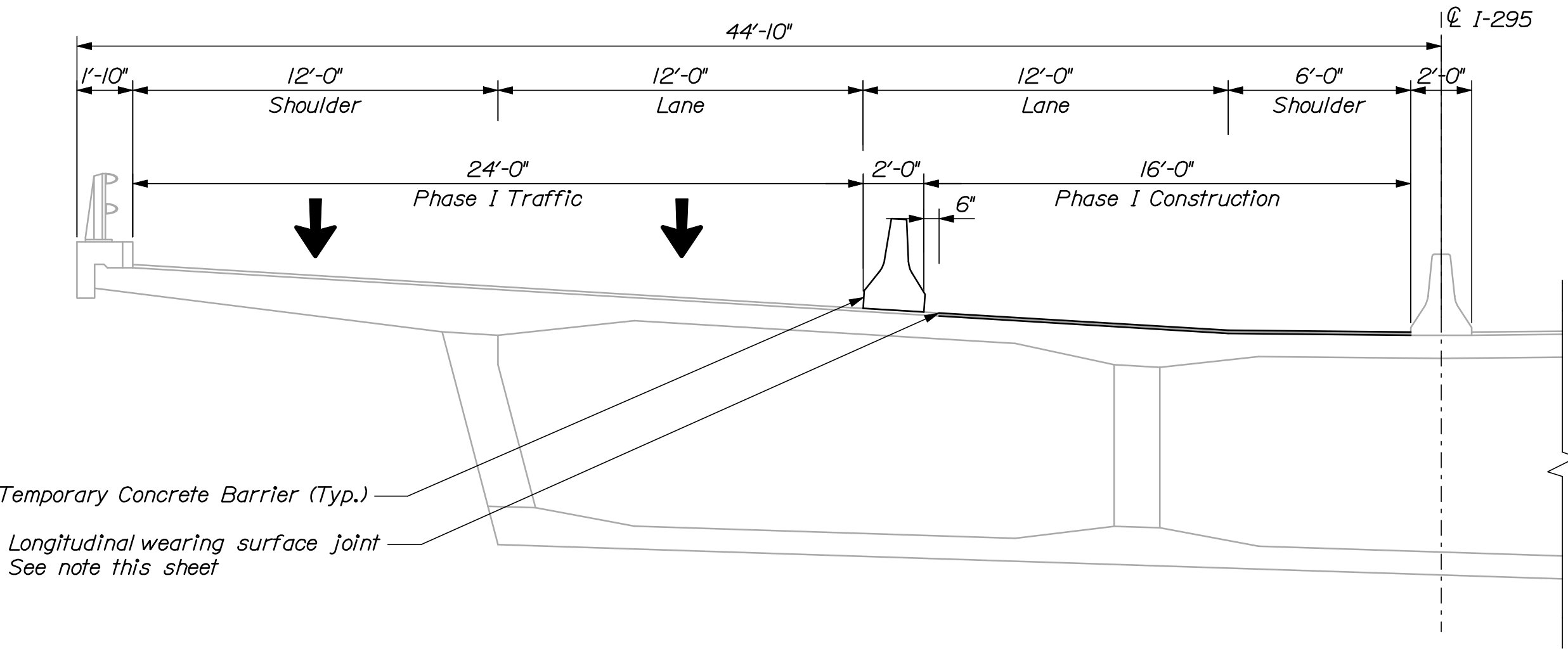


1. The construction phasing shown reflects long term lane closures. See the General Notes for additional information.

2. Bridge is superelevated. Phasing of work shown reflects construction and placement of concrete wearing surface on low side in Phase I.

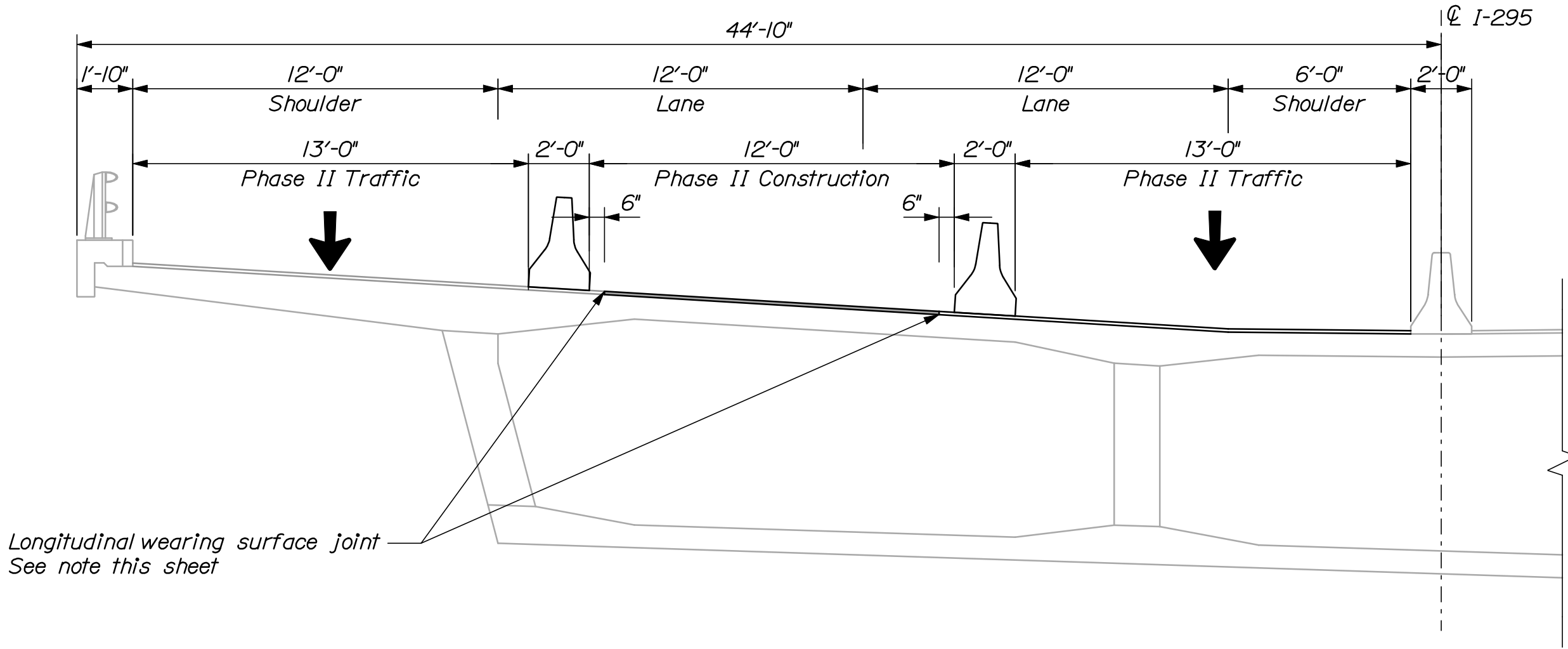
37 OF 55	SHEET NUMBER	INTERSTATE 295 SOUTHBOUND										STATE OF MAINE			
		WASHINGTON AVENUE													
		PORTLAND CUMBERLAND COUNTY										DEPARTMENT OF TRANSPORTATION			
		CONSTRUCTION PHASING													
		PLAN										IM-1779(300)E			
												BRIDGE NO. 0816 PIN 17793.00 BRIDGE PLANS			

PROJ. MANAGER	DOE	BY	DATE
DESIGN-DETAILED	CAH	RWH	03/10
CHECKED-REVIEWED	DOE	-	03/10
DESIGN-DETAILED2	-	-	SIGNATURE
DESIGN-DETAILED3	-	-	P.E. NUMBER
REVISIONS 1	-	-	
REVISIONS 2	-	-	
REVISIONS 3	-	-	
REVISIONS 4	-	-	DATE
FIELD CHANGES	-	-	



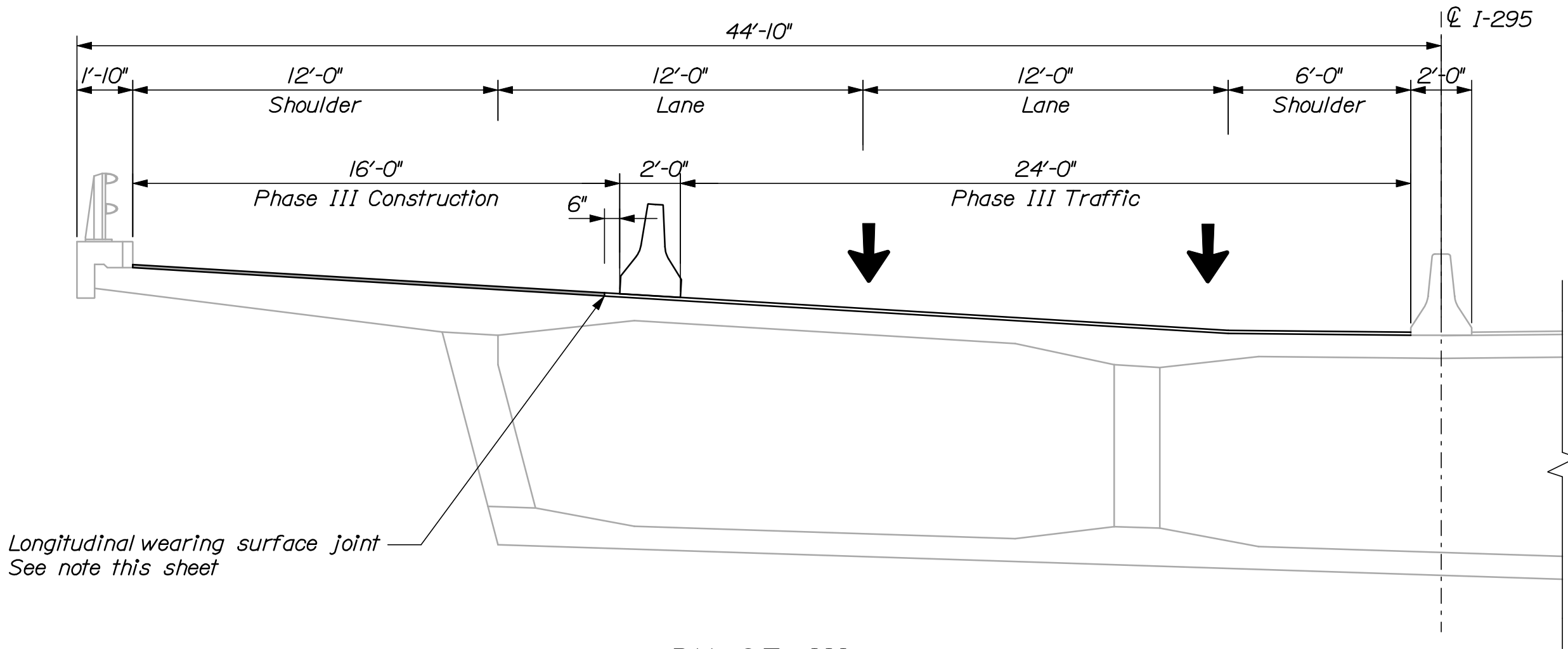
PHASE I

INTERSTATE 295 SOUTHBOUND OVER WASHINGTON AVENUE
N.T.S.



PHASE II

INTERSTATE 295 SOUTHBOUND OVER WASHINGTON AVENUE
N.T.S.



PHASE III

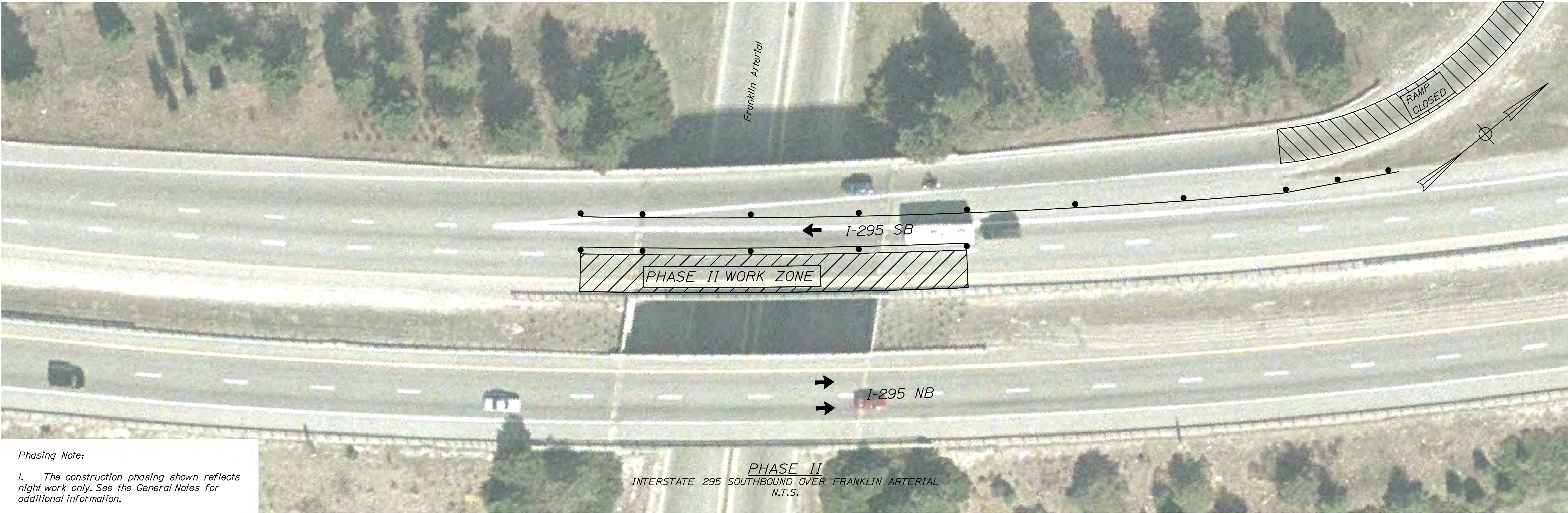
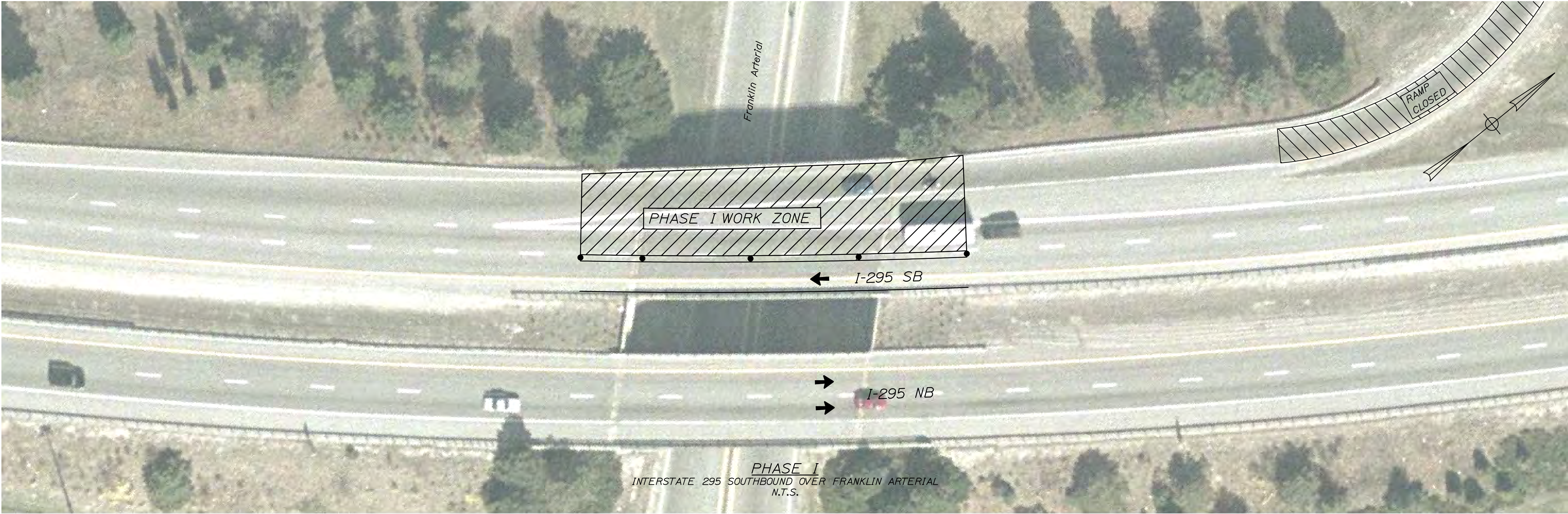
INTERSTATE 295 SOUTHBOUND OVER WASHINGTON AVENUE
N.T.S.

NOTES:

1. Longitudinal concrete wearing surface joints for the Washington Avenue Bridge are not located at crown lines or lane lines.

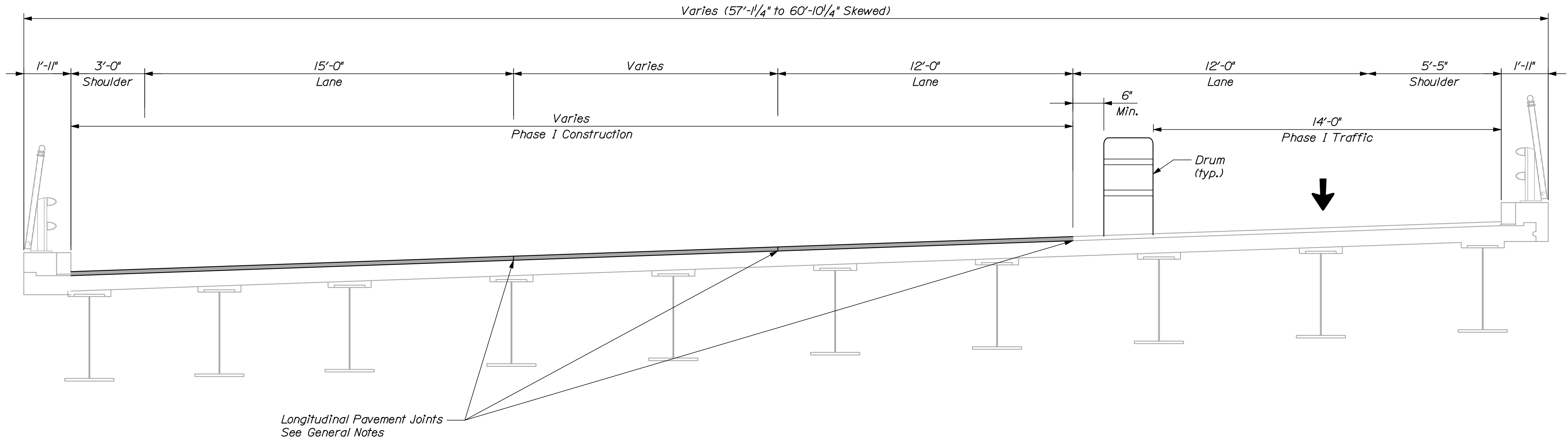
2. Sections are shown looking upstation.

<div> <div>STATE OF MAINE</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>IM-1779(300)E</div> <div> <div>BRIDGE NO. 0816</div> <div>PIN</div> <div>17793.00</div> </div> <div>BRIDGE PLANS</div> </div>				
<div> <div>INTERSTATE 295 SOUTHBOUND</div> <div>WASHINGTON AVENUE</div> <div>PORTLAND CUMBERLAND COUNTY</div> <div>CONSTRUCTION PHASING</div> <div>TYPICAL SECTION</div> </div>	PROJ. MANAGER	DOE	BY	DATE
	DESIGN-DETAILED	CAH	RWH	03/10
	CHECKED-REVIEWED	DOE	-	03/10
	DESIGN-DETAILED	-	-	-
	DESIGN-DETAILED	-	-	-
	REVISIONS 1	-	-	-
	REVISIONS 2	-	-	-
	REVISIONS 3	-	-	-
	REVISIONS 4	-	-	-
	FIELD CHANGES	-	-	-
SHEET NUMBER		SIGNATURE		
		P.E. NUMBER		
		DATE		
38				
OF 55				

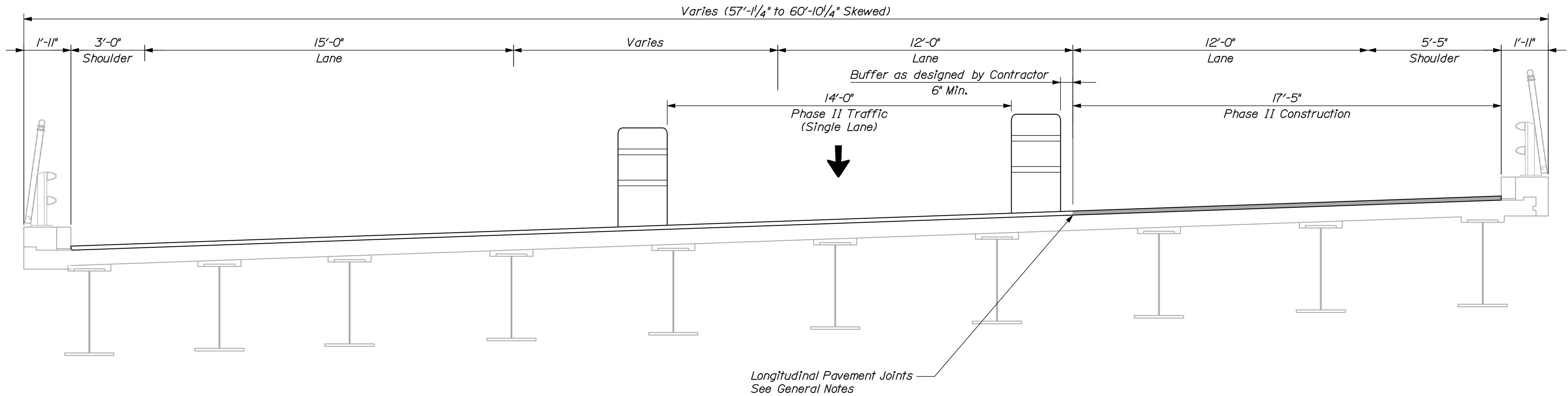


Phasing Note:
1. The construction phasing shown reflects night work only. See the General Notes for additional information.

SHEET NUMBER										STATE OF MAINE									
39 OF 55										DEPARTMENT OF TRANSPORTATION									
										IM-1779(300)E									
										BRIDGE NO. 6300 PIN 17793.00 BRIDGE PLANS									
INTERSTATE 295 SOUTHBOUND FRANKLIN ARTERIAL PORTLAND CUMBERLAND COUNTY CONSTRUCTION PHASING PLAN										PROJ. MANAGER	DCE	BY	DATE						
										DESIGN-DETAILED	CAH	RWH	03/10						
										CHECKED-REVIEWED	DCE	-	03/10						
										DESIGN2-DETAILED2	-	-	-						
										DESIGN3-DETAILED3	-	-	-						
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										REVISIONS 2	-	-	-						
										REVISIONS 3	-	-	-						
										REVISIONS 4	-	-	-						
										FIELD CHANGES	-	-	-						



PHASE I
 INTERSTATE 295 OVER FRANKLIN ARTERIAL
 N.T.S.



PHASE II
 INTERSTATE 295 OVER FRANKLIN ARTERIAL
 N.T.S.

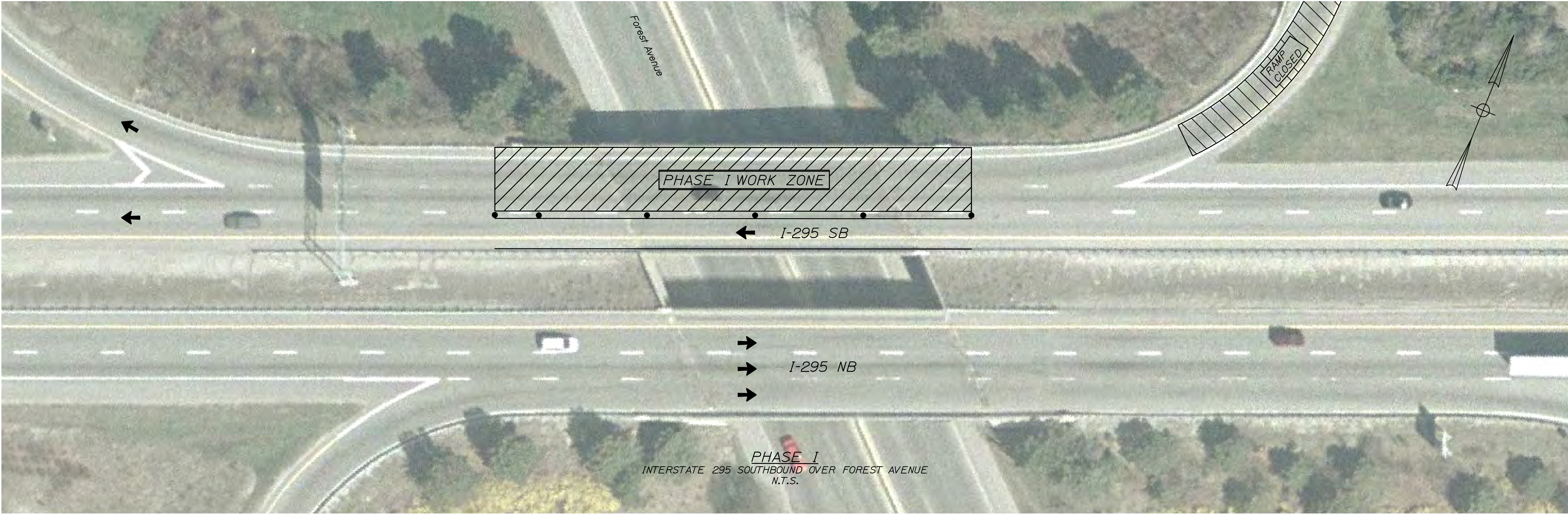
NOTE:
 Sections are shown looking upstation.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
PIN	17793.00
BRIDGE NO. 6300	BRIDGE PLANS

PROJ. MANAGER	DESIGNED	CHECKED	REVIEWED	DATE	BY	DATE	SIGNATURE
CAH	RWH	03/10	03/10	03/10	03/10	03/10	
DESIGNED	DESIGNED	DESIGNED	DESIGNED	DESIGNED	DESIGNED	DESIGNED	
REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	REVISIONS 1	
REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	REVISIONS 2	
REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	REVISIONS 3	
REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	REVISIONS 4	
FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	FIELD CHANGES	

INTERSTATE 295 SOUTHBOUND	
FRANKLIN ARTERIAL	
CUMBERLAND COUNTY	
CONSTRUCTION PHASING	
TYPICAL SECTION	

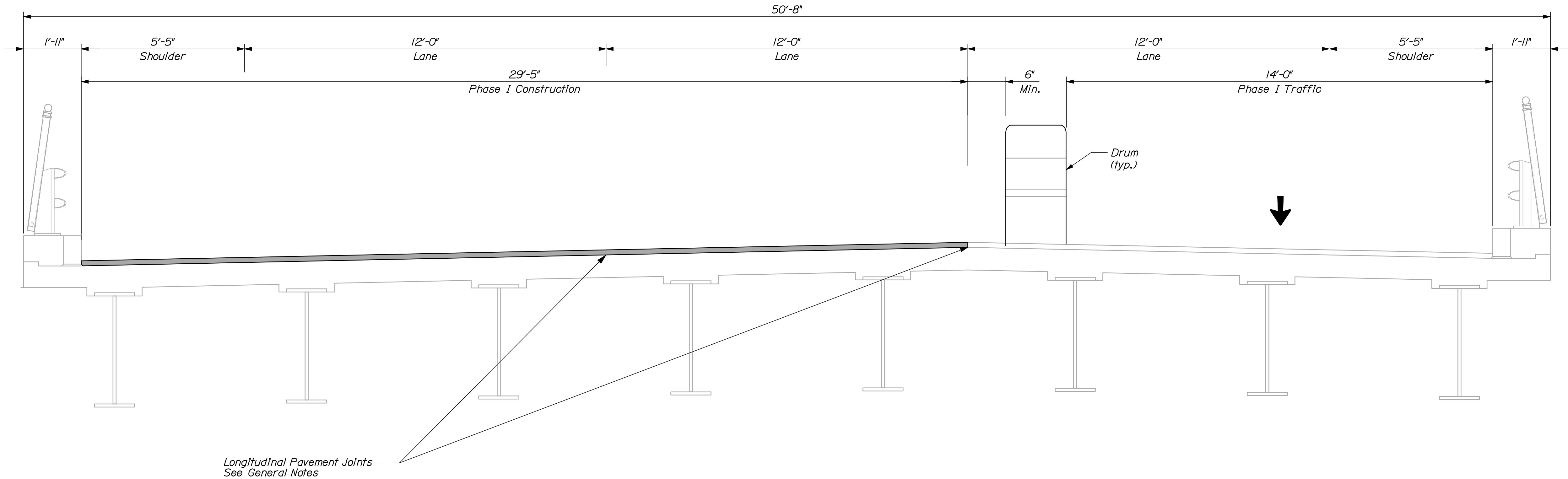
SHEET NUMBER	
40	
OF 55	



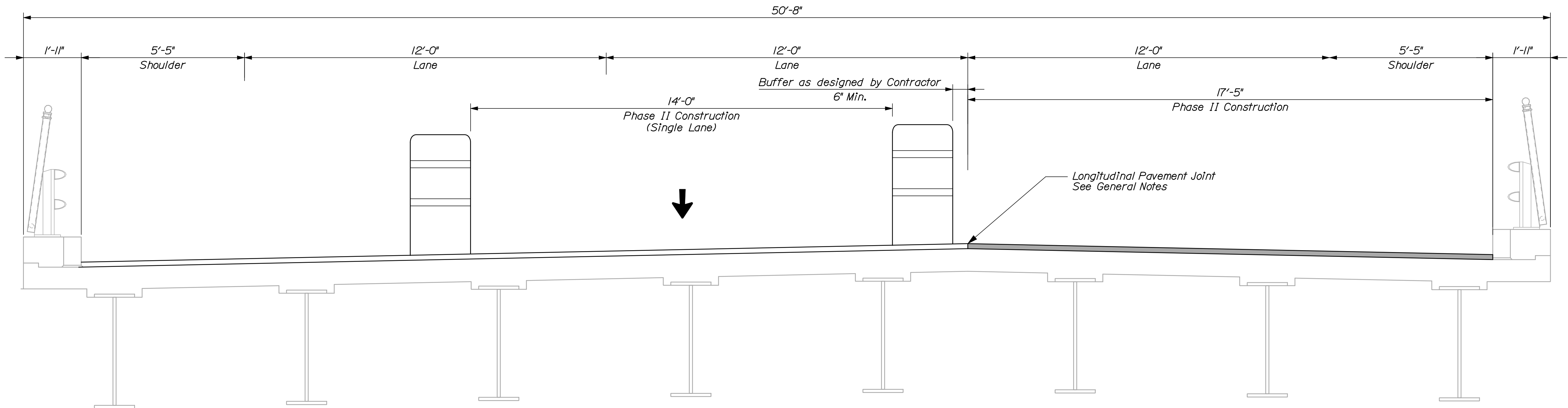
Phasing Note:

1.The construction phasing shown reflects night work only. See the General Notes For additional information.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1779(300)E		PIN 17793.00		BRIDGE PLANS	
INTERSTATE 295 SOUTHBOUND		FOREST AVENUE		CUMBERLAND COUNTY		CONSTRUCTION PHASING		PLAN	
PORTLAND		SHEET NUMBER		41		OF 55			
PROJ. MANAGER		DESIGN-DETAILED		CHECKED-REVIEWED		DATE		SIGNATURE	
CAH		DOE		RWI		03/10		03/10	
DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER		DATE	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		FIELD CHANGES	



PHASE I
INTERSTATE 295 SOUTHBOUND OVER FOREST AVENUE
N.T.S.

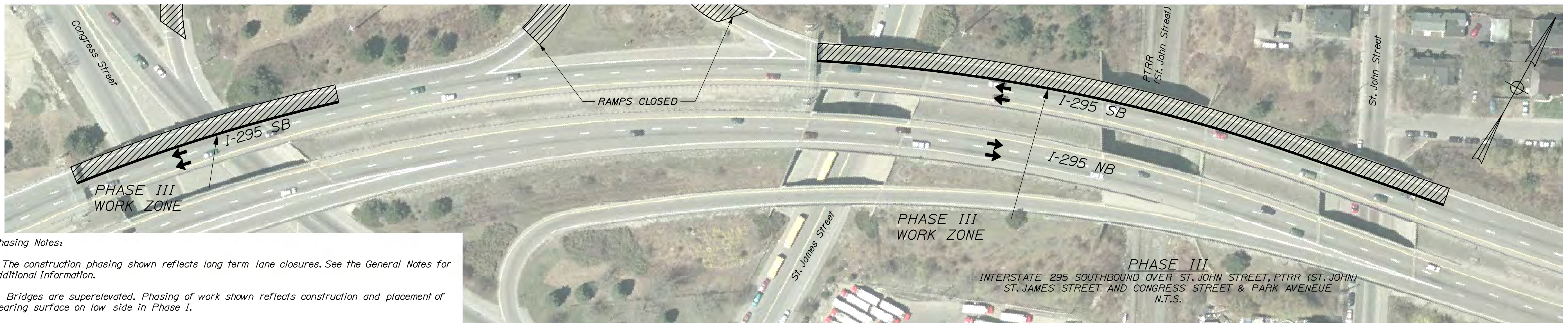
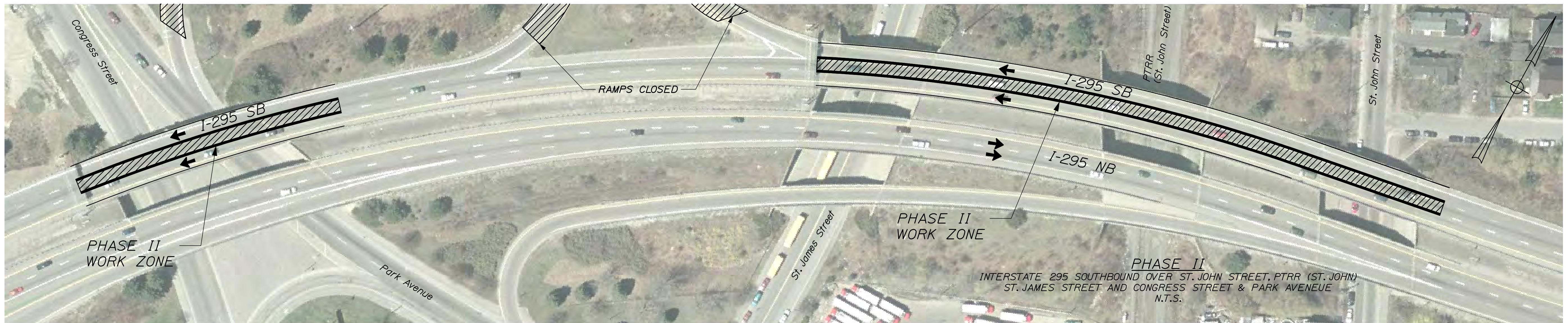
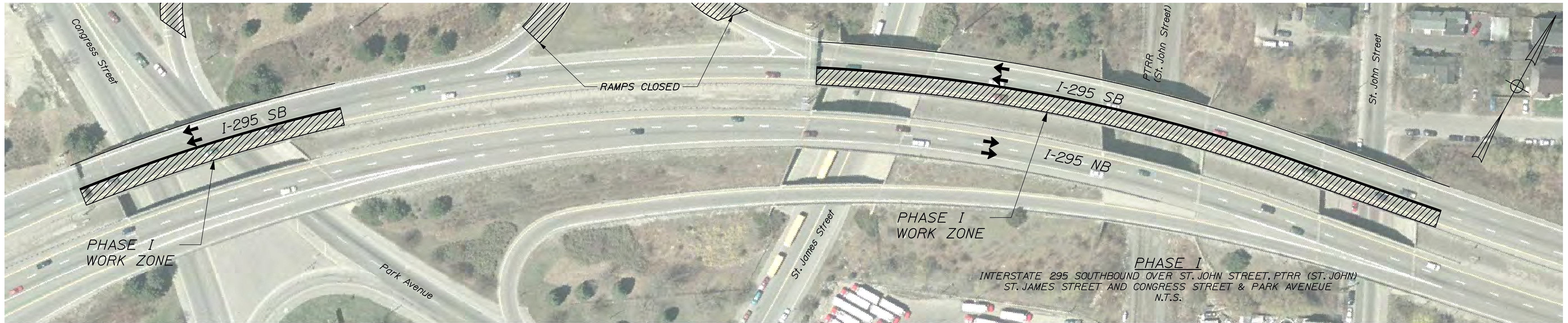


PHASE II
INTERSTATE 295 SOUTHBOUND OVER FOREST AVENUE
N.T.S.

NOTE:
Sections are shown looking upstation.

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE
DOE	CAH	RWH	03/10	-	03/10	
	DESIGN-DETAILED					P.E. NUMBER
	REVISIONS 1					DATE
	REVISIONS 2					
	REVISIONS 3					
	REVISIONS 4					
	FIELD CHANGES					

INTERSTATE 295 SOUTHBOUND
FOREST AVENUE
PORTLAND CUMBERLAND COUNTY
CONSTRUCTION PHASING
TYPICAL SECTION



3. Shifting of lanes between St. James Street Bridge and Congress Street/Park Avenue Bridge will be required to stay on existing pavement.

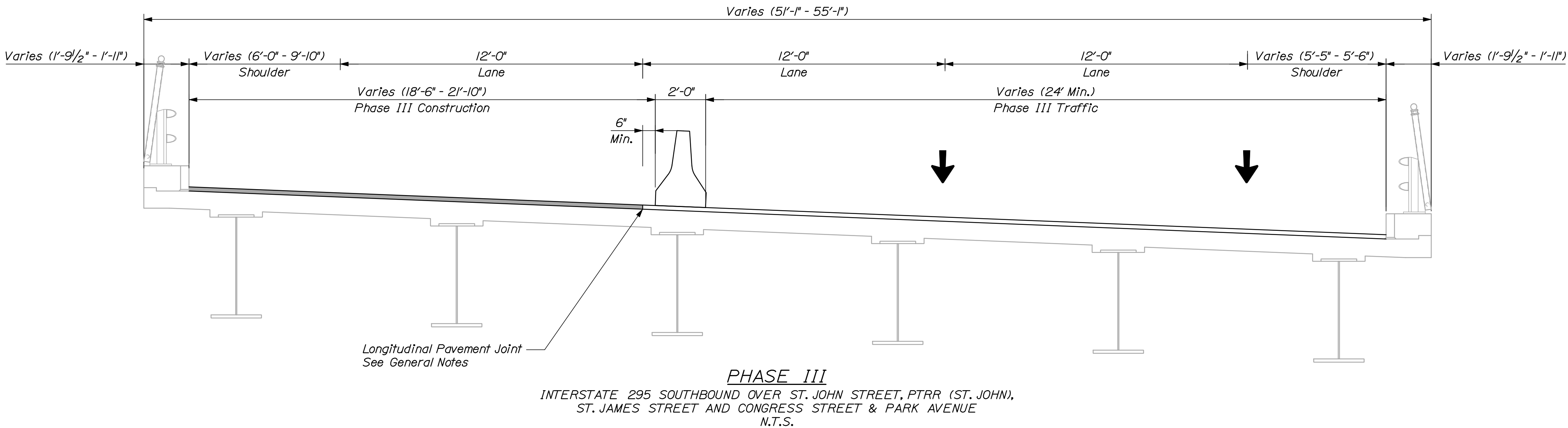
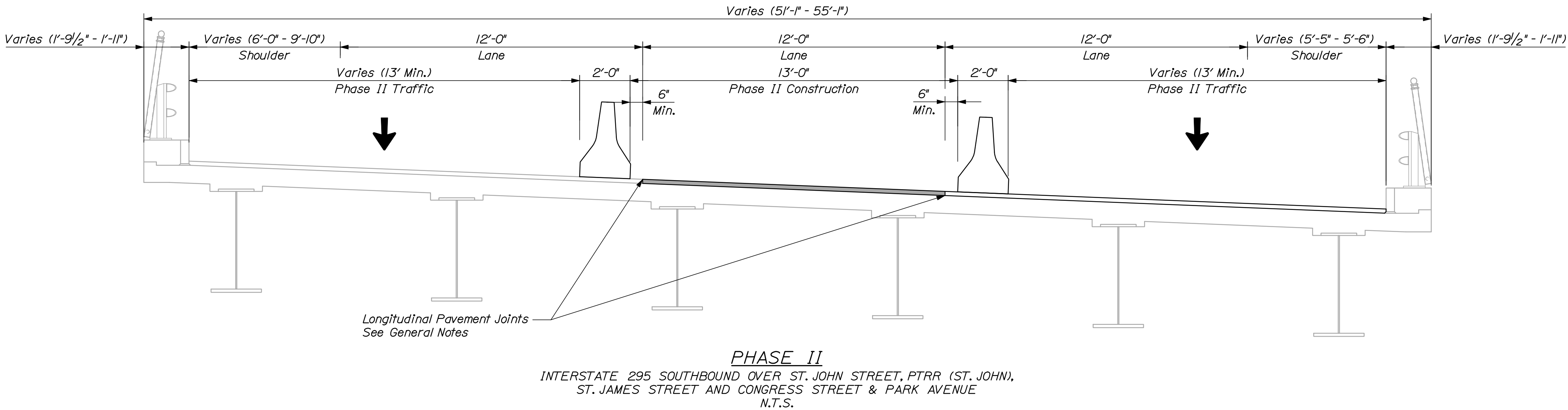
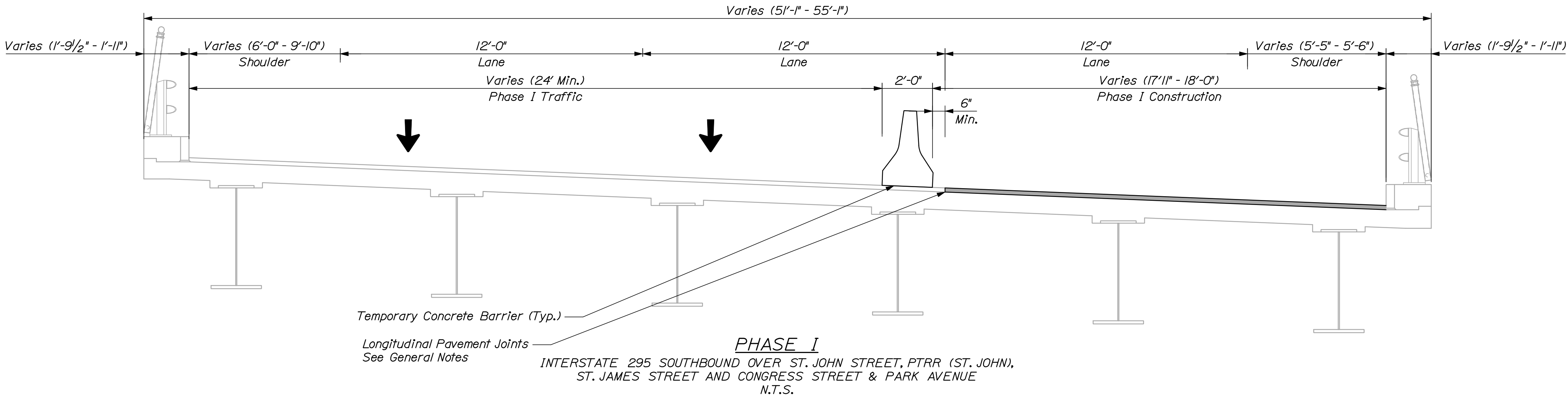
43 OF 55	SHEET NUMBER	INTERSTATE 295 SOUTHBOUND ST. JOHN ST, PTRR (ST. JOHN) ST. JAMES ST, & CONGRESS ST. PORTLAND CUMBERLAND COUNTY										PROJ. MANAGER	DGE	BY	DATE
		CONSTRUCTION PHASING PLAN										DESIGN-DETAILED	CAH	RWH	03/10
												CHECKED-REVIEWED	DGE	-	03/10
												DESIGN2-DETAILED2	-	-	SIGNATURE
												DESIGN3-DETAILED3	-	-	P.E. NUMBER
												REVISIONS 1	-	-	-
		REVISIONS 2	-	-	-	-									
		REVISIONS 3	-	-	-	-									
		REVISIONS 4	-	-	-	DATE									
		FIELD CHANGES	-	-	-	-									
STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E BRIDGE NO. 6297, 6296, 6295 & 6294 PIN 17793.00 BRIDGE PLANS															

Date: 3/26/2010

Username: mcardiff

Division: BRIDGE

Filename: 044_PhasingXsec-Location6.dgn



NOTE:
Sections are shown looking upstation.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. 6297, 6296, 6295 & 6294	PIN 17793.00
BRIDGE PLANS	

PROJ. MANAGER	DESIGNED	CHECKED	REVIEWED	DATE
CAH	RWH	03/10	03/10	
DESIGNED-DETAILED	DESIGNED-DETAILED	DESIGNED-DETAILED	DESIGNED-DETAILED	
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	
FIELD CHANGES				

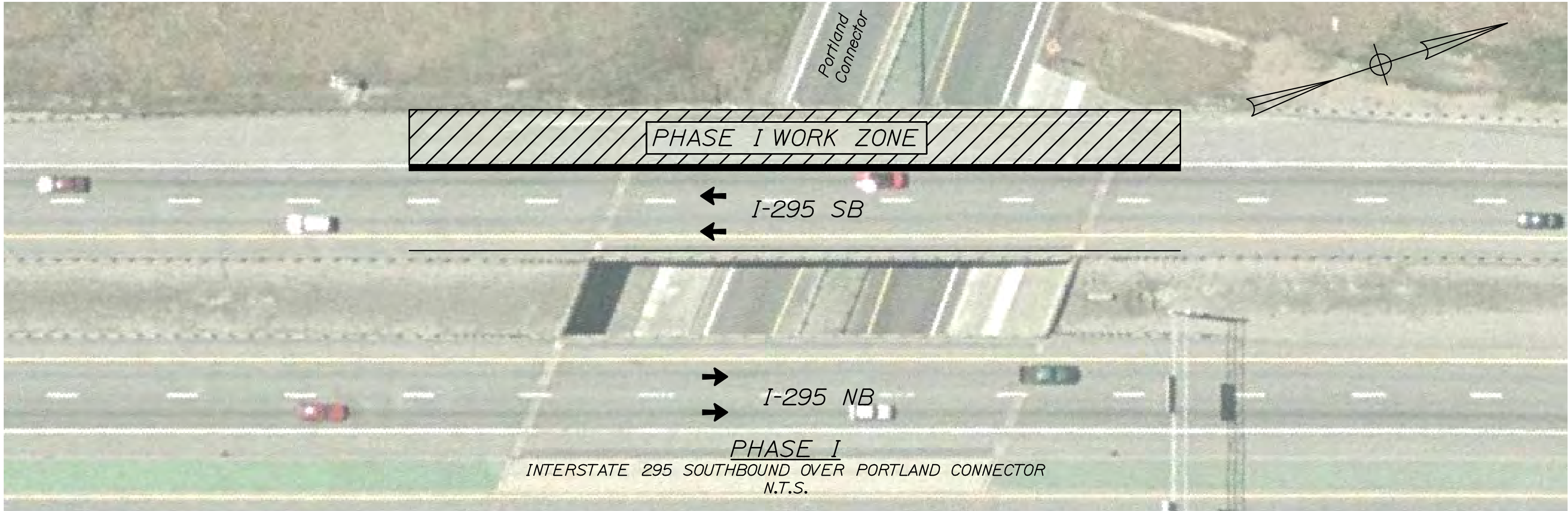
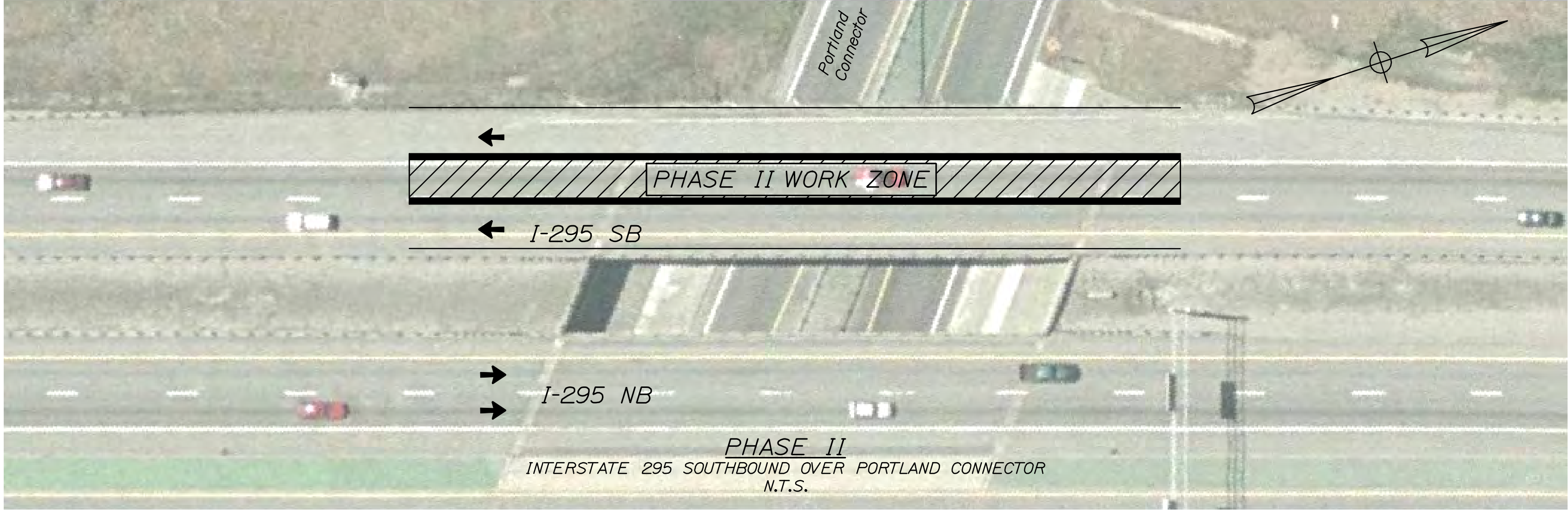
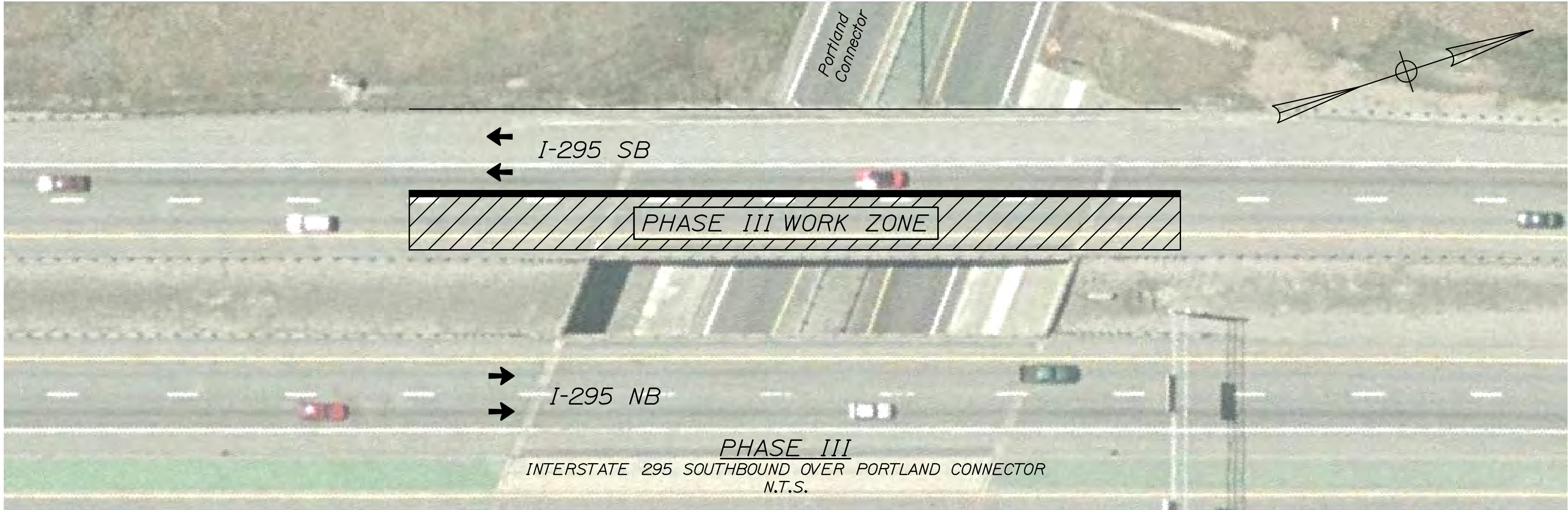
SIGNATURE	P.E. NUMBER	DATE

INTERSTATE 295 SOUTHBOUND	ST. JOHN ST, PTRR (ST. JOHN),
ST. JAMES ST, & CONGRESS ST./PARK AVE.	CUMBERLAND COUNTY
PORTLAND	
CONSTRUCTION PHASING	
TYPICAL SECTION	

SHEET NUMBER
44
OF 55

Phasing Note:

1. The construction phasing shown reflects long term lane closures. See the General Notes for additional information.

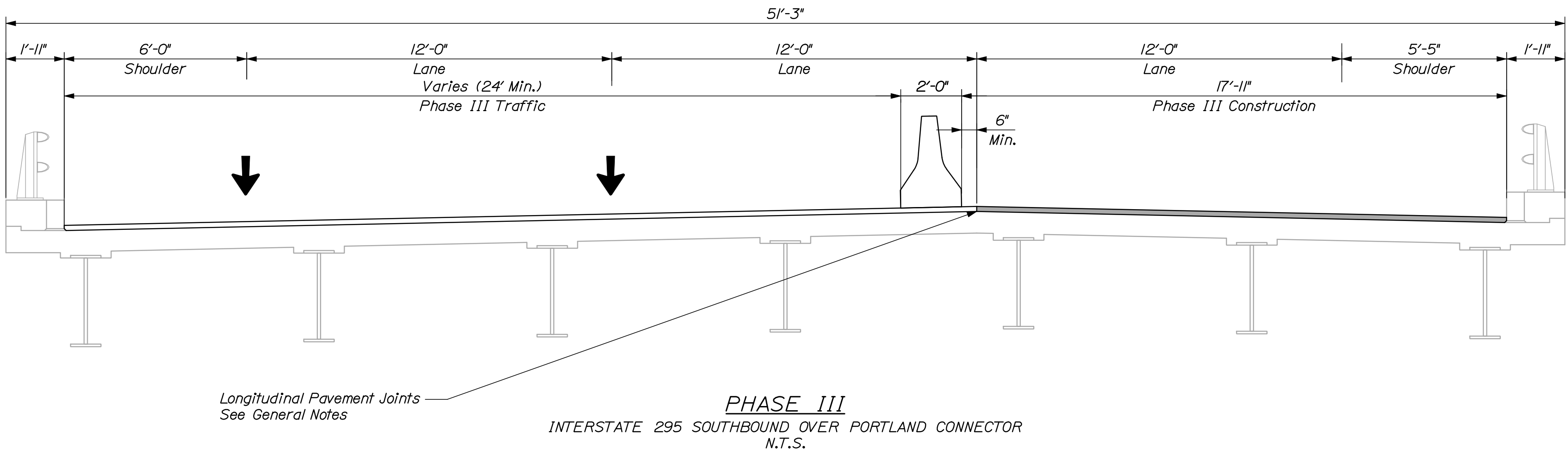
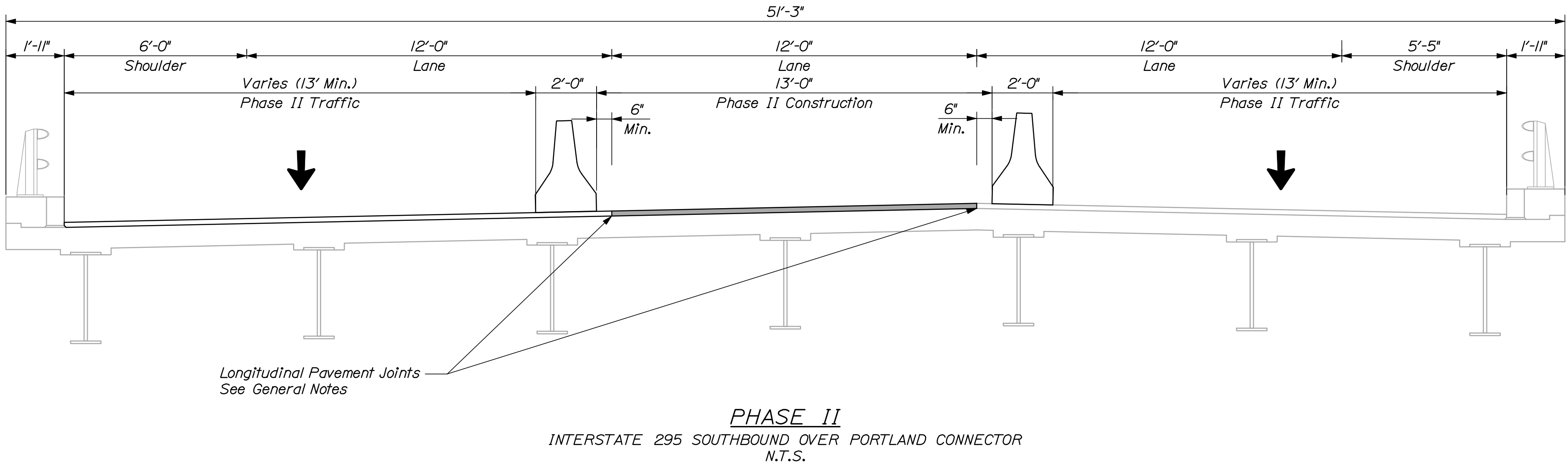
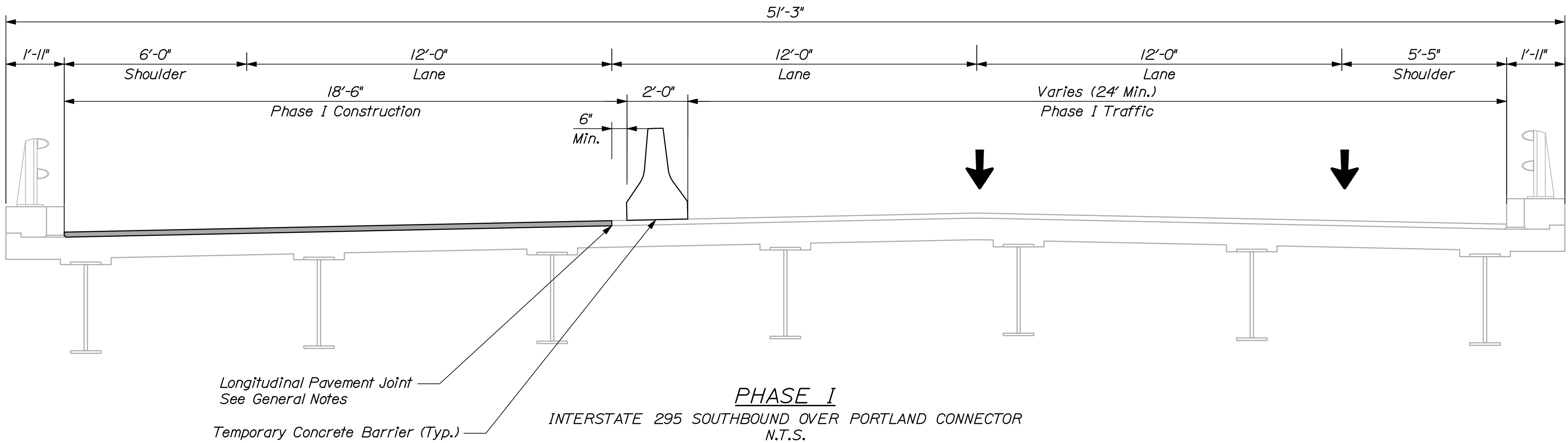


INTERSTATE 295 SOUTHBOUND
PORTLAND CONNECTOR
PORTLAND CUMBERLAND COUNTY
CONSTRUCTION PHASING
PLAN

SHEET NUMBER
45
OF 55

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. 6292
PIN 17793.00
BRIDGE PLANS

PROJ. MANAGER	DESIGNED	CHECKED	REVIEWED	DATE	BY	DATE	SIGNATURE
CAH	DOE	RWH	03/10	03/10	-	-	P.E. NUMBER
DESIGNED	REVIEWED	DATE	BY	DATE	BY	DATE	SIGNATURE
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES	-	-	-



NOTE:
Sections are shown looking upstation.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. 6292	PIN 17793.00
BRIDGE PLANS	

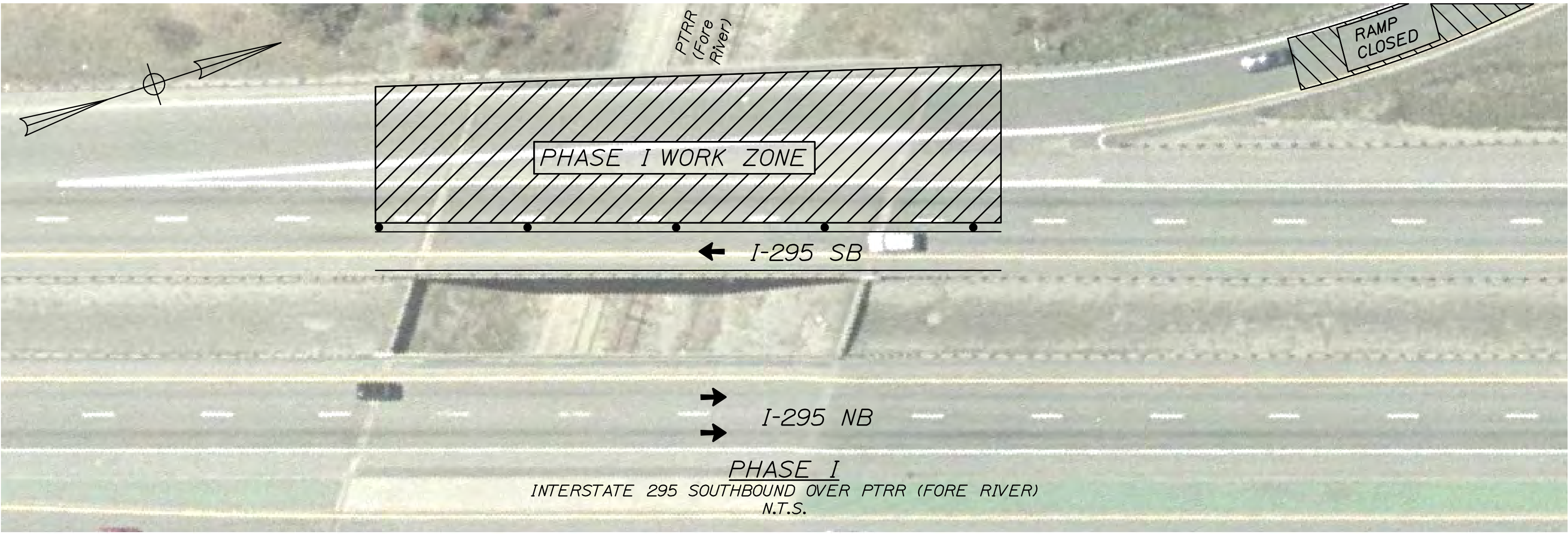
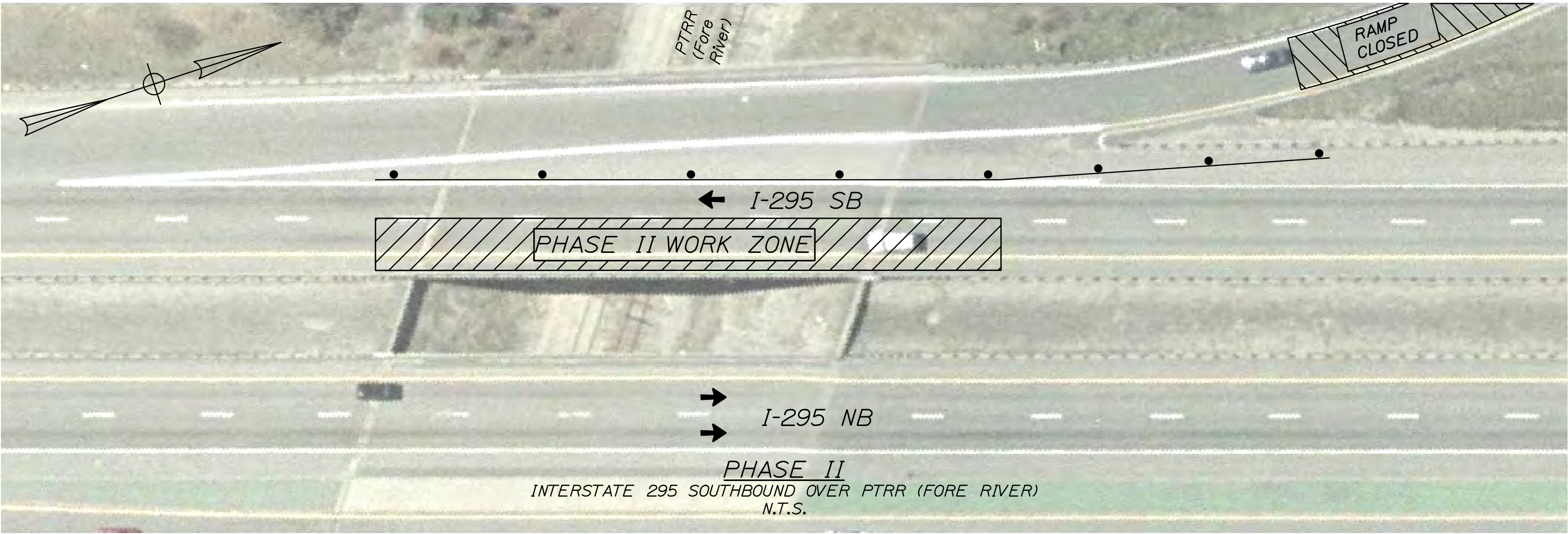
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CAH	RWH	03/10	03/10	
SIGNATURE				
P.E. NUMBER				
DATE				
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REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

INTERSTATE 295 SOUTHBOUND	
PORTLAND CONNECTOR	
CUMBERLAND COUNTY	
CONSTRUCTION PHASING	
TYPICAL SECTION	

SHEET NUMBER
46
OF 55

Phasing Note:

1. The construction phasing shown reflects night work only. See the General Notes for additional information.



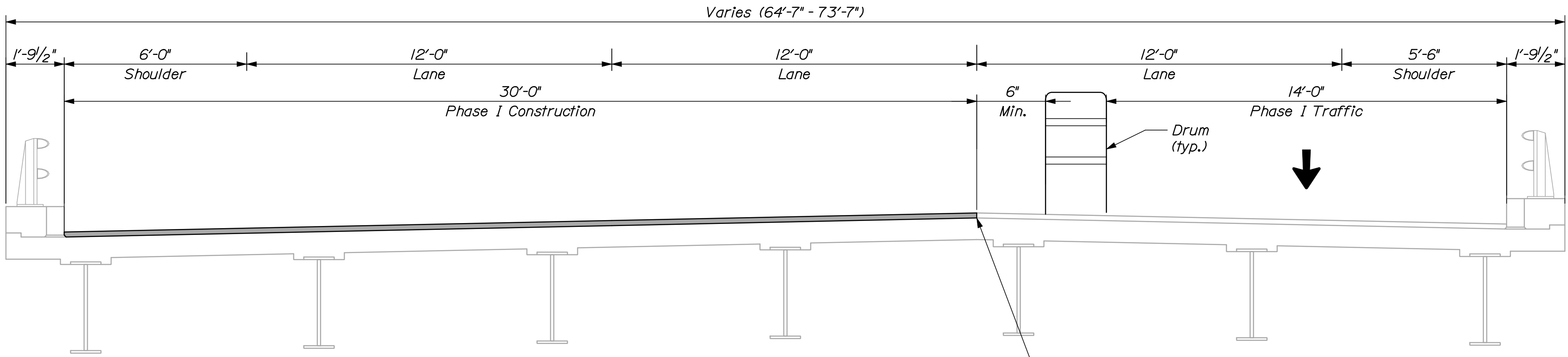
INTERSTATE 295 SOUTHBOUND
PTRR (FORE RIVER)
PORTLAND CUMBERLAND COUNTY
CONSTRUCTION PHASING
PLAN

SHEET NUMBER
47
OF 55

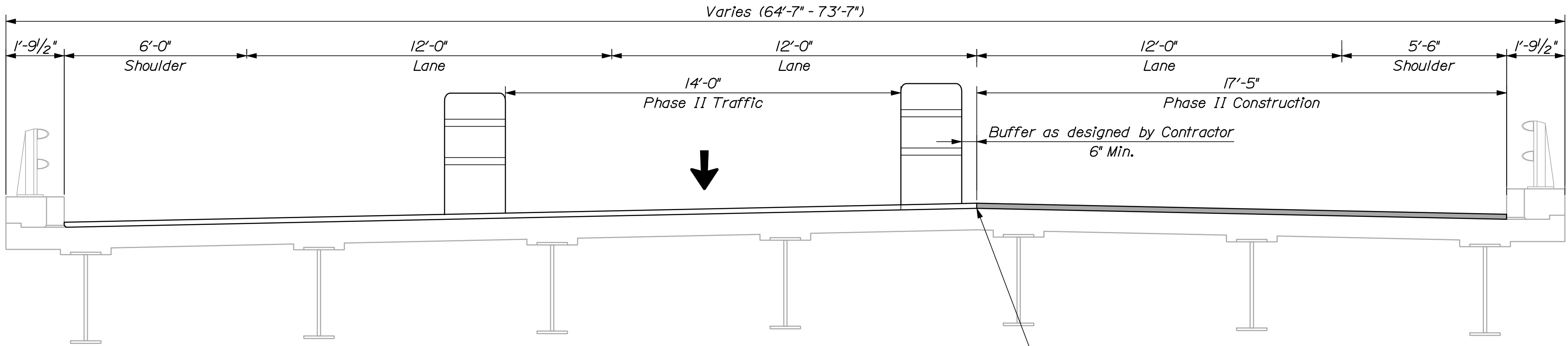
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1779(300)E
BRIDGE NO. 6291
PIN 17793.00
BRIDGE PLANS

PROJ. MANAGER	DOE	BY	DATE
DESIGN-DETAILED	CAH	RWH	03/10
CHECKED-REVIEWED	DOE	-	03/10
DESIGN-DETAILED	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
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REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE	P.E. NUMBER	DATE



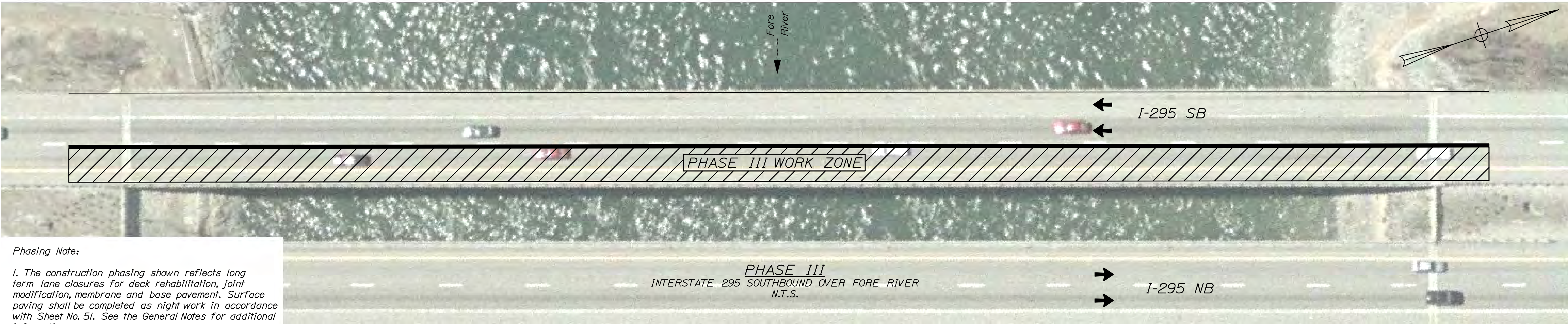
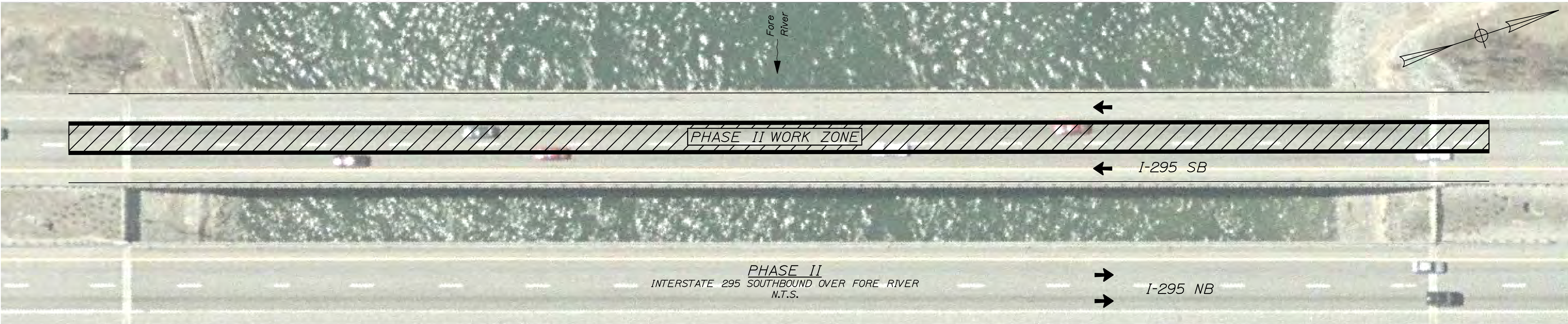
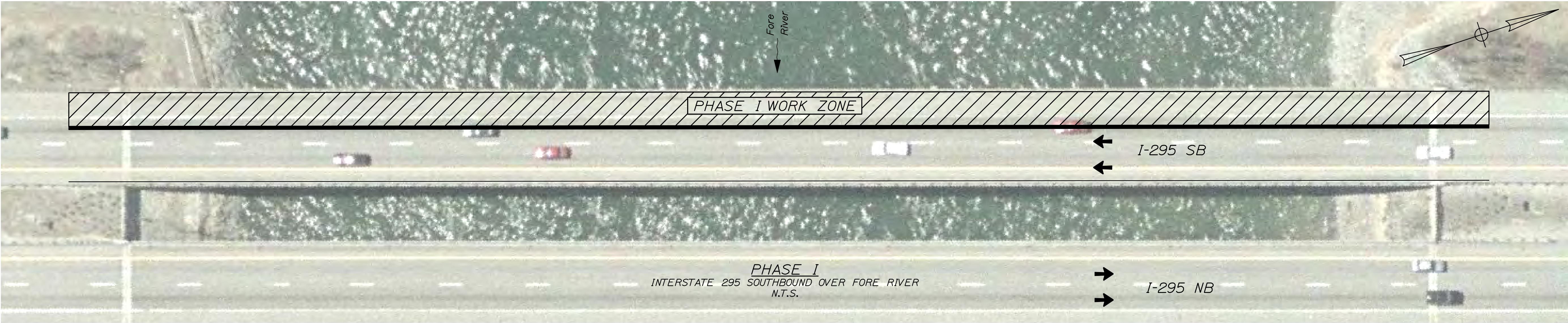
PHASE I
INTERSTATE 295 SOUTHBOUND OVER PTRR (FORE RIVER)
N.T.S.



PHASE II
INTERSTATE 295 SOUTHBOUND OVER PTRR (FORE RIVER)
N.T.S.

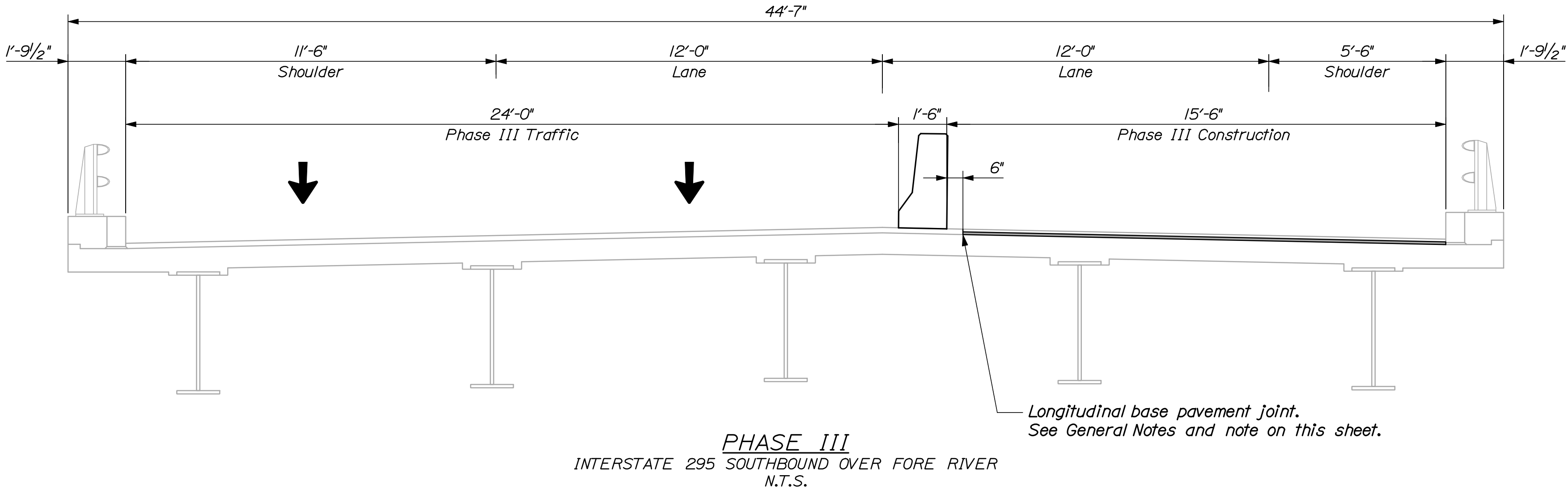
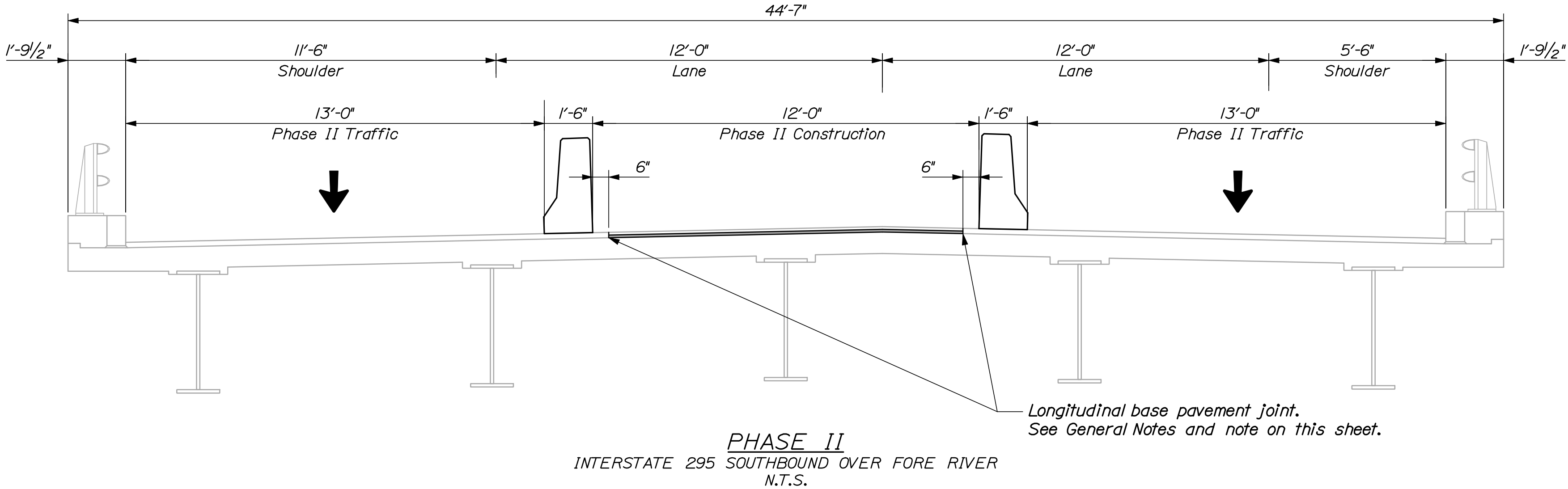
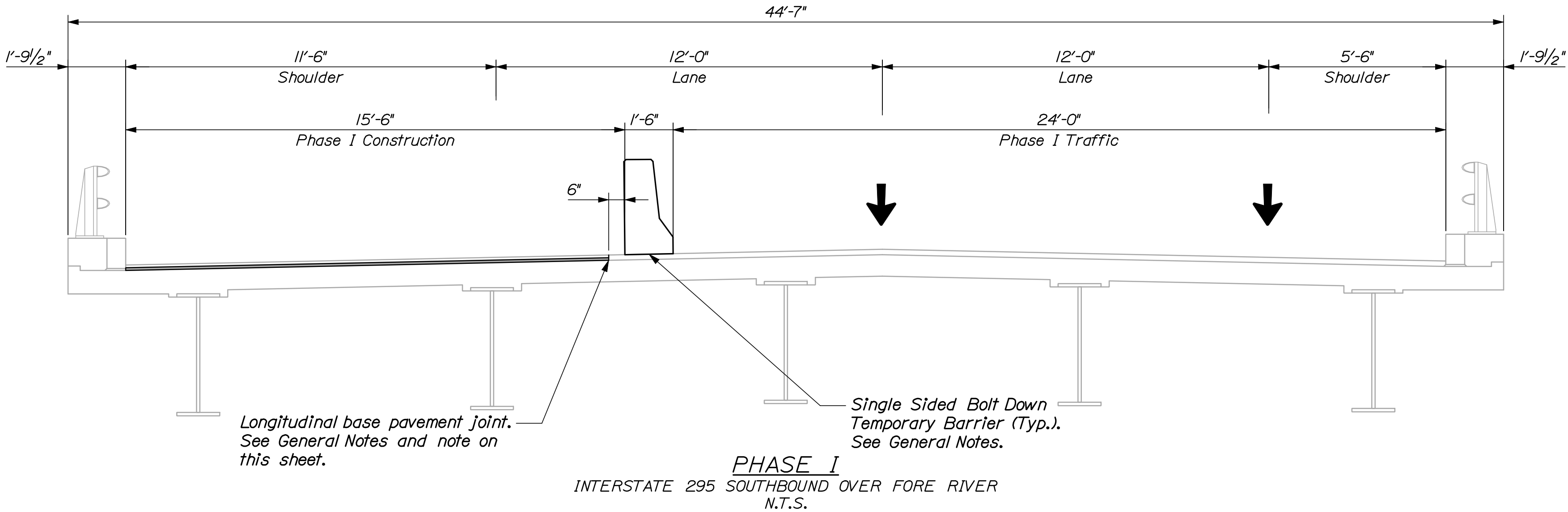
NOTE:
Sections are shown looking upstation.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E	PROJ. MANAGER				DOE	BY	DATE
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	CHECKED-REVIEWED				DOE	-	03/10
	DESIGN2-DETAILED2				-	-	-
	DESIGN3-DETAILED3				-	-	-
PORTLAND CUMBERLAND COUNTY							
CONSTRUCTION PHASING							
TYPICAL SECTION							
BRIDGE NO. 6291							
PIN 17793.00							
BRIDGE PLANS							



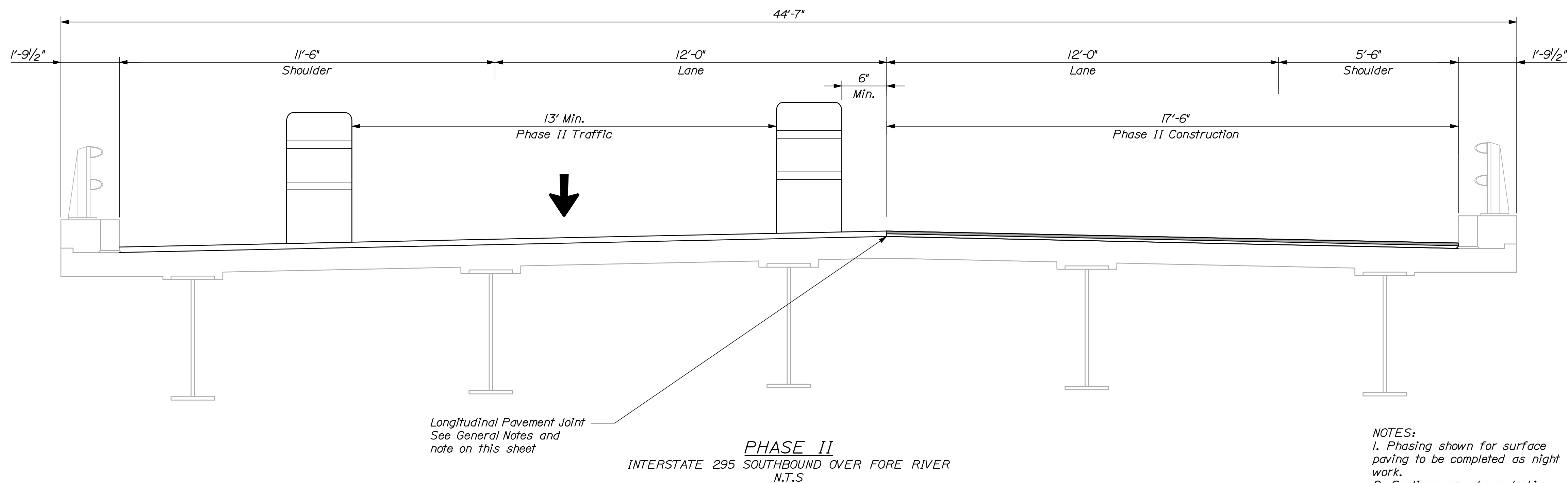
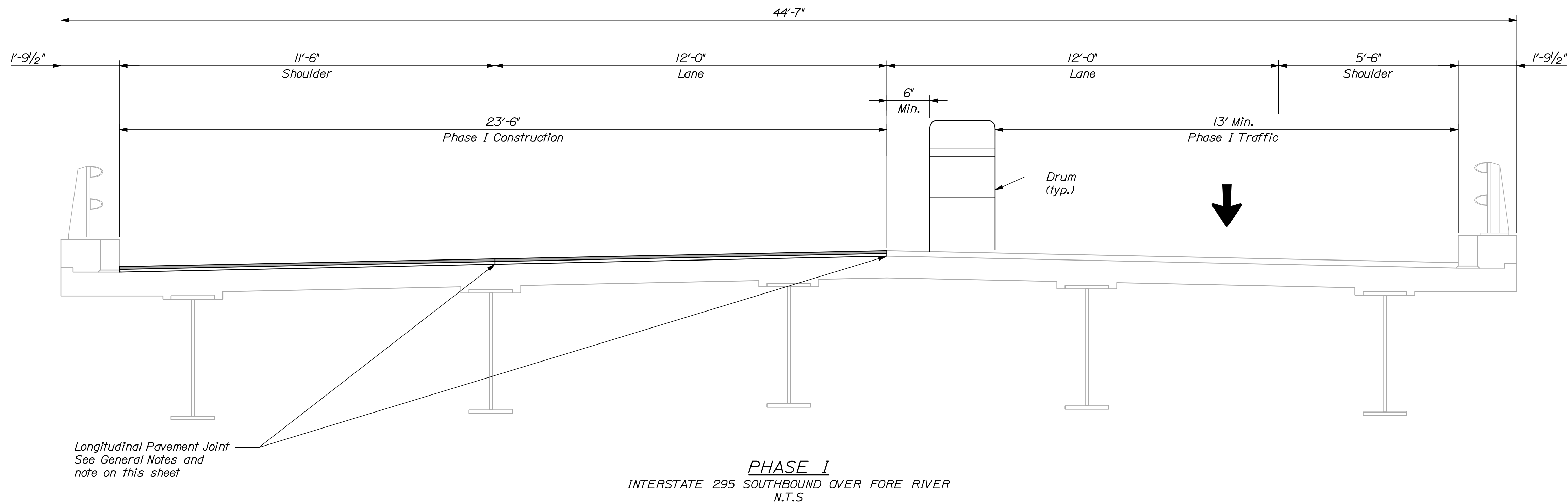
Phasing Note:
1. The construction phasing shown reflects long term lane closures for deck rehabilitation, joint modification, membrane and base pavement. Surface paving shall be completed as night work in accordance with Sheet No. 51. See the General Notes for additional information.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E	<table><tr><td>PROJ. MANAGER</td><td>DESIGN-DETAILED</td><td>CHECKED-REVIEWED</td><td>DOE</td><td>BY</td><td>DATE</td></tr><tr><td>CAH</td><td>DOE</td><td>RWH</td><td>03/10</td><td>03/10</td></tr><tr><td>DESIGN-DETAILED</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr><tr><td>REVISIONS 1</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr><tr><td>REVISIONS 2</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr><tr><td>REVISIONS 3</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr><tr><td>REVISIONS 4</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr><tr><td>FIELD CHANGES</td><td>DOE</td><td>CAH</td><td>DOE</td><td>03/10</td><td>03/10</td></tr></table>				PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DOE	BY	DATE	CAH	DOE	RWH	03/10	03/10	DESIGN-DETAILED	DOE	CAH	DOE	03/10	03/10	REVISIONS 1	DOE	CAH	DOE	03/10	03/10	REVISIONS 2	DOE	CAH	DOE	03/10	03/10	REVISIONS 3	DOE	CAH	DOE	03/10	03/10	REVISIONS 4	DOE	CAH	DOE	03/10	03/10	FIELD CHANGES	DOE	CAH	DOE	03/10	03/10
					PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DOE	BY	DATE																																									
					CAH	DOE	RWH	03/10	03/10																																										
DESIGN-DETAILED	DOE	CAH	DOE	03/10	03/10																																														
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REVISIONS 2	DOE	CAH	DOE	03/10	03/10																																														
REVISIONS 3	DOE	CAH	DOE	03/10	03/10																																														
REVISIONS 4	DOE	CAH	DOE	03/10	03/10																																														
FIELD CHANGES	DOE	CAH	DOE	03/10	03/10																																														
INTERSTATE 295 SOUTHBOUND FORE RIVER PORTLAND CUMBERLAND COUNTY		SHEET NUMBER 49 OF 55																																																	
CONSTRUCTION PHASING PLAN		BRIDGE NO. 6281 PIN 17793.00 BRIDGE PLANS																																																	



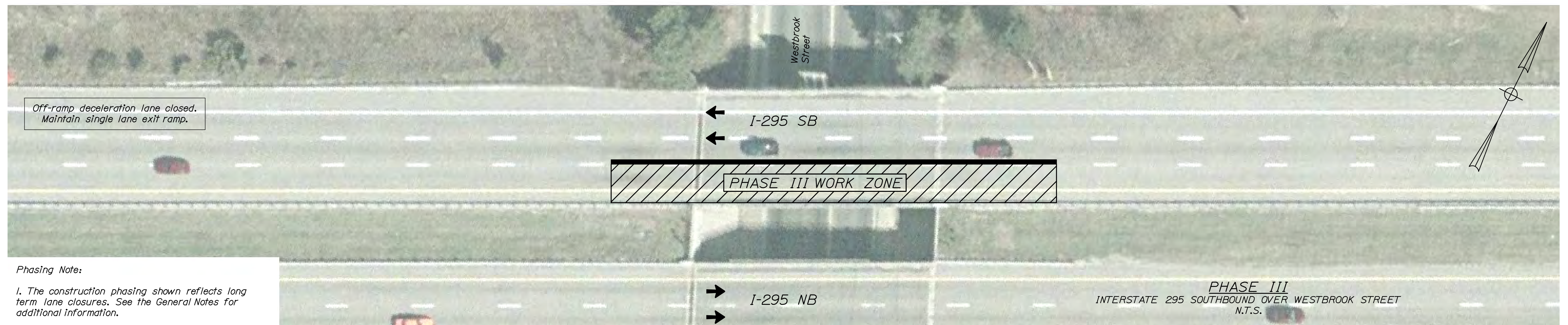
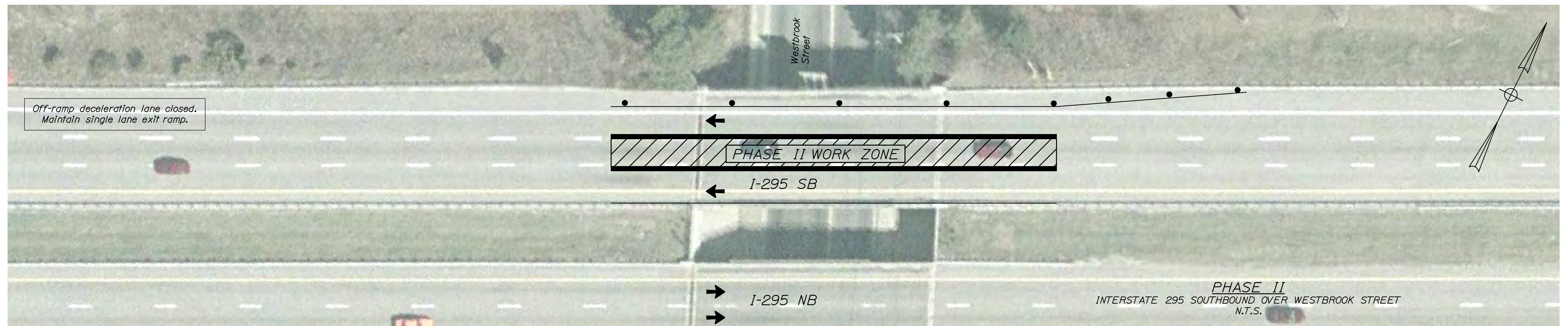
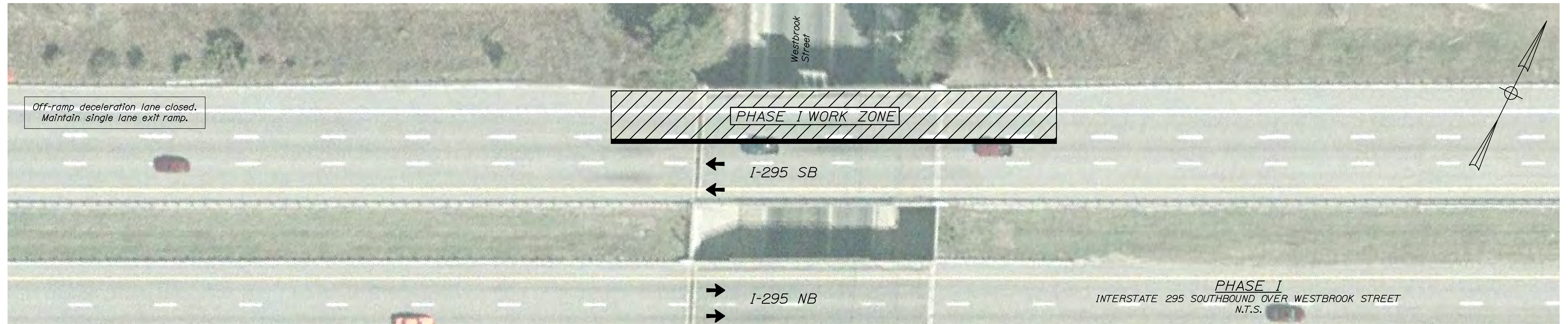
NOTES:
1. Phasing shown for deck rehabilitation, joint modification, membrane and base pavement. Surface paving shall be completed as night work. See next sheet.
2. Sections are shown looking upstation.

<div> <div>INTERSTATE 295 SOUTHBOUND</div> <div>FORE RIVER</div> <div>PORTLAND CUMBERLAND COUNTY</div> <div>CONSTRUCTION PHASING</div> <div>TYPICAL SECTION</div> </div>	<div>STATE OF MAINE</div> <div>DEPARTMENT OF TRANSPORTATION</div>		<div>IM-1779(300)E</div>		<div>BRIDGE NO. 6281</div> <div>PIN 17793.00</div> <div>BRIDGE PLANS</div>	
	PROJ. MANAGER	CHEKED-REVIEWED	CAH	DOE	BY	DATE
	DESIGN-DETAILED	CAR	RWH	03/10	SIGNATURE	03/10
	DESIGN-REVIEWED	DOE	-	-	P.E. NUMBER	-
	DESIGN-DETAILED	-	-	-	DATE	-
	REVISIONS 1	-	-	-	-	-
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	REVISIONS 3	-	-	-	-	-
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	FIELD CHANGES	-	-	-	-	-
SHEET NUMBER		50				
		OF 55				



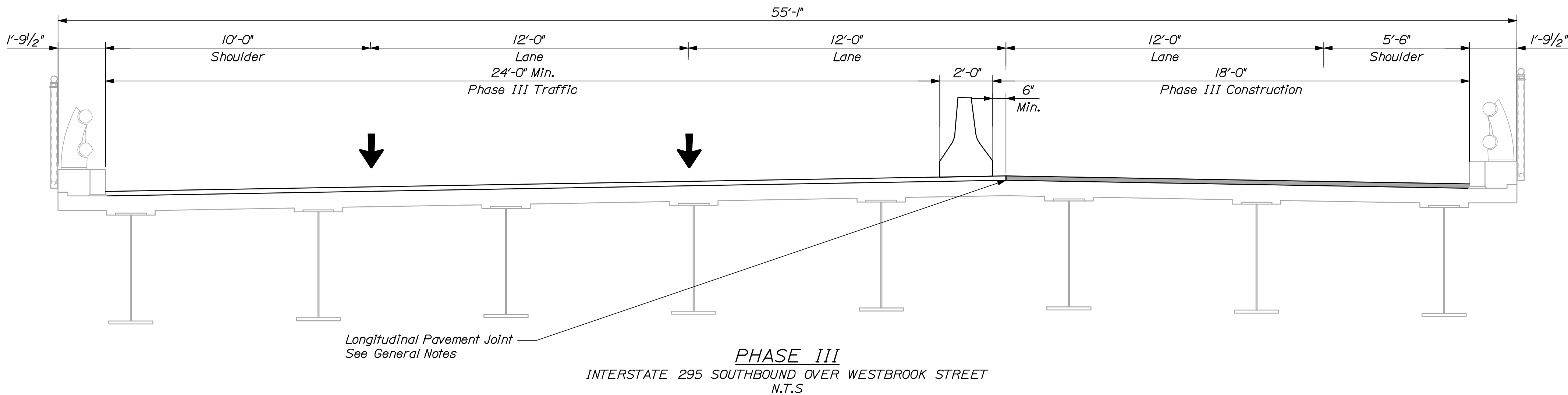
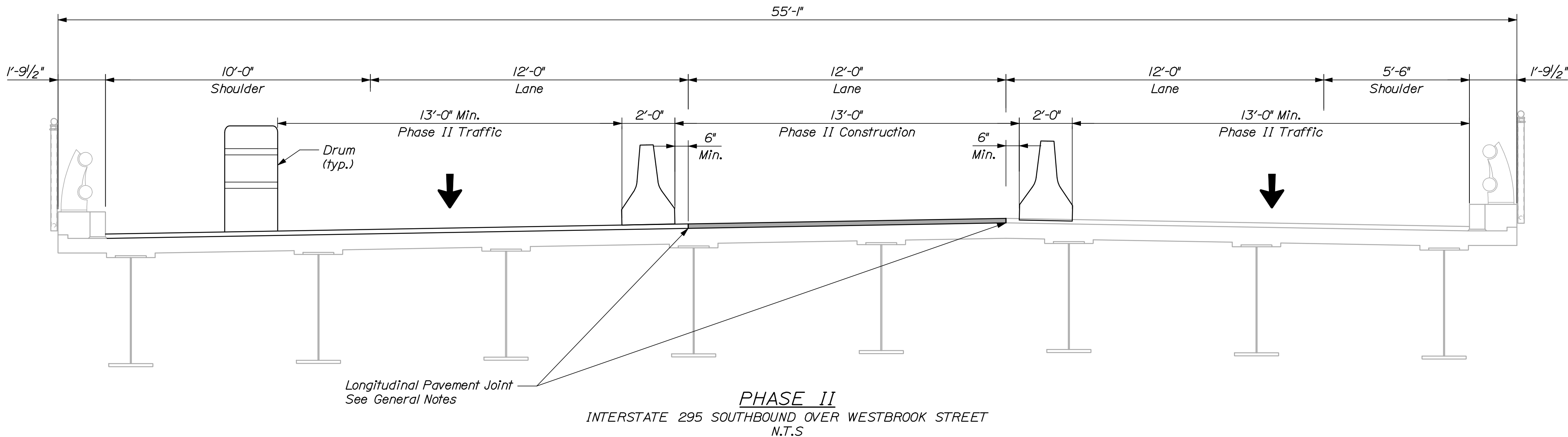
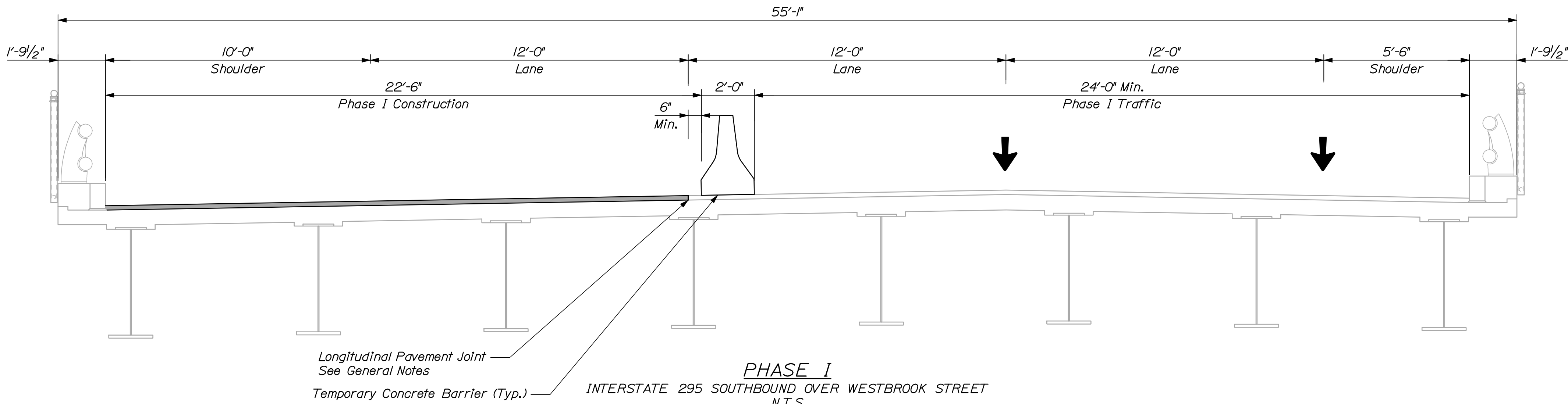
NOTES:
1. Phasing shown for surface paving to be completed as night work.
2. Sections are shown looking upstation.

SHEET NUMBER		INTERSTATE 295 SOUTHBOUND				STATE OF MAINE			
51		FORE RIVER				DEPARTMENT OF TRANSPORTATION			
		PORTLAND CUMBERLAND COUNTY				IM-1779(300)E			
		CONSTRUCTION PHASING				PIN 17793.00 BRIDGE NO. 6281 BRIDGE PLANS			
		TYPICAL SECTION							
OF 55		PROJ. MANAGER		DOE	BY	DATE			
		DESIGN-DETAILED		CAH	RWH	03/10			
		CHECKED-REVIEWED		DOE	-	03/10	SIGNATURE		
		DESIGN2-DETAILED		DOE	-	-			
		DESIGN3-DETAILED		DOE3	-	-			
		REVISIONS 1		-	-	-	P.E. NUMBER		
		REVISIONS 2		-	-	-			
		REVISIONS 3		-	-	-			
		REVISIONS 4		-	-	-	DATE		
		FIELD CHANGES		-	-	-			



1. The construction phasing shown reflects long term lane closures. See the General Notes for additional information.

52 OF 55	SHEET NUMBER	INTERSTATE 295 SOUTHBOUND WESTBROOK STREET PORTLAND CUMBERLAND COUNTY CONSTRUCTION PHASING PLAN										STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E BRIDGE NO. 6249PIN 17793.00BRIDGE PLANS			
		PROJ. MANAGER		DOE	BY	DATE	SIGNATURE								
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		CHECKED-REVIEWED		DOE	03/10										
		DESIGN-DETAILED2		-	-										
		DESIGN-DETAILED3		-	-	P.E. NUMBER									
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FIELD CHANGES		-	-												



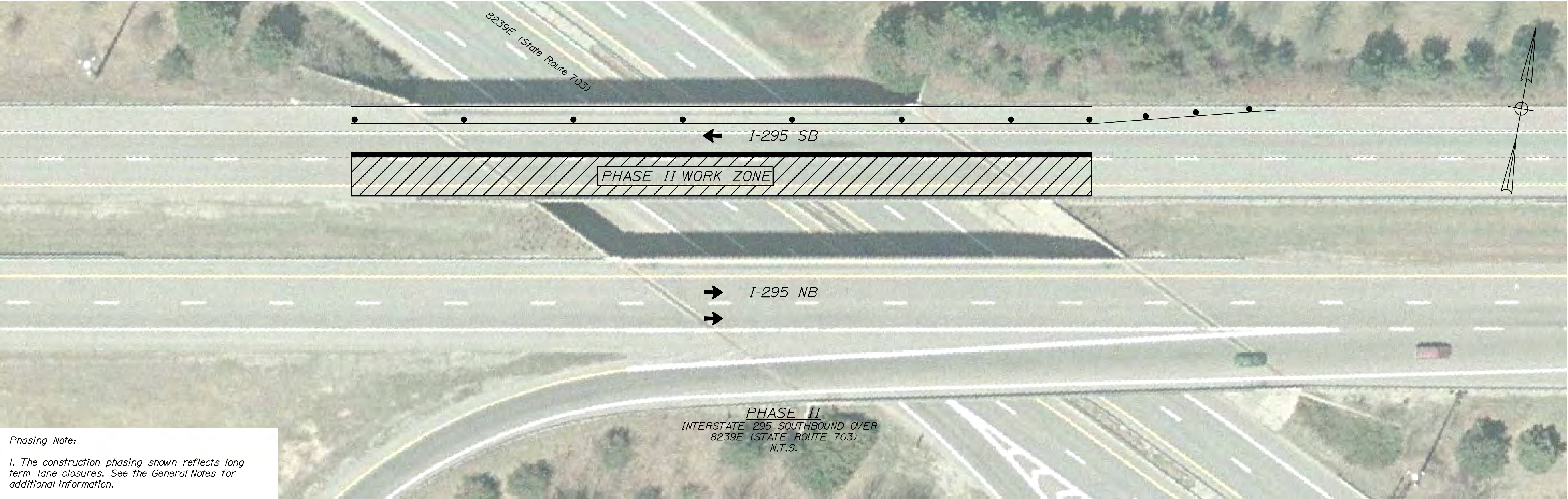
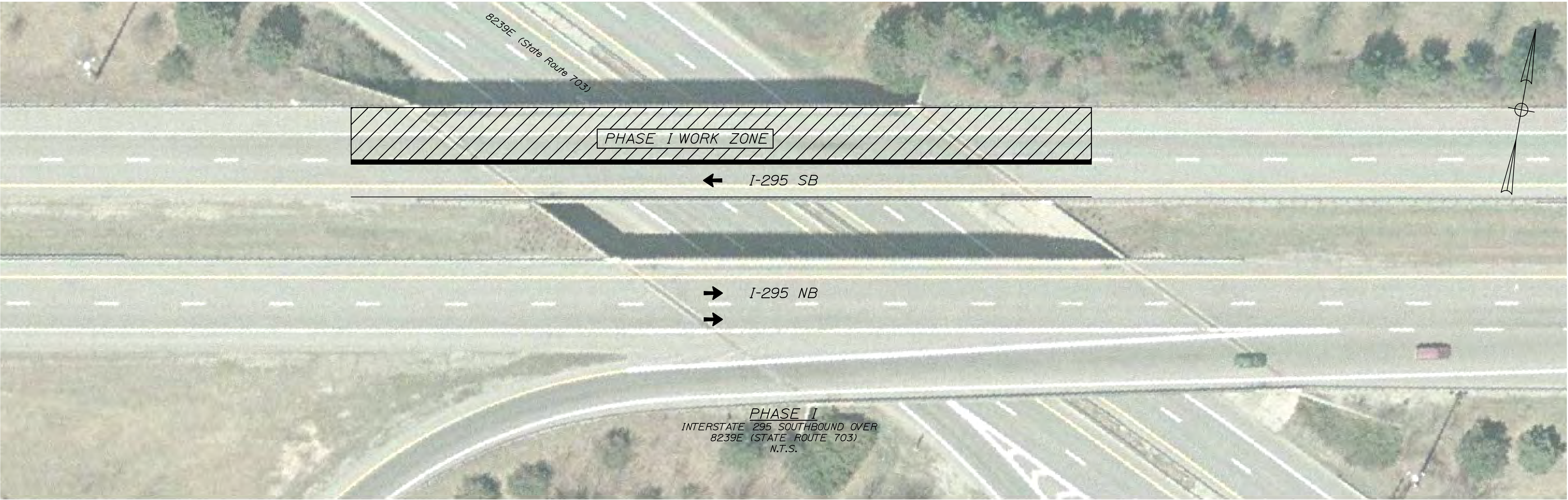
NOTE:
Sections are shown looking upstation.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
IM-1779(300)E	
BRIDGE NO. 6249	PIN 17793.00
BRIDGE PLANS	

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DATE	BY	DATE	SIGNATURE
CAH	CAH	CAH	03/10	RWH	03/10	
DESIGN-DETAILED	DESIGN-DETAILED	DESIGN-DETAILED				
REVISIONS 1	REVISIONS 1	REVISIONS 1				
REVISIONS 2	REVISIONS 2	REVISIONS 2				
REVISIONS 3	REVISIONS 3	REVISIONS 3				
REVISIONS 4	REVISIONS 4	REVISIONS 4				
FIELD CHANGES	FIELD CHANGES	FIELD CHANGES				

INTERSTATE 295 SOUTHBOUND	WESTBROOK STREET
PORTLAND CUMBERLAND COUNTY	
CONSTRUCTION PHASING	
TYPICAL SECTION	

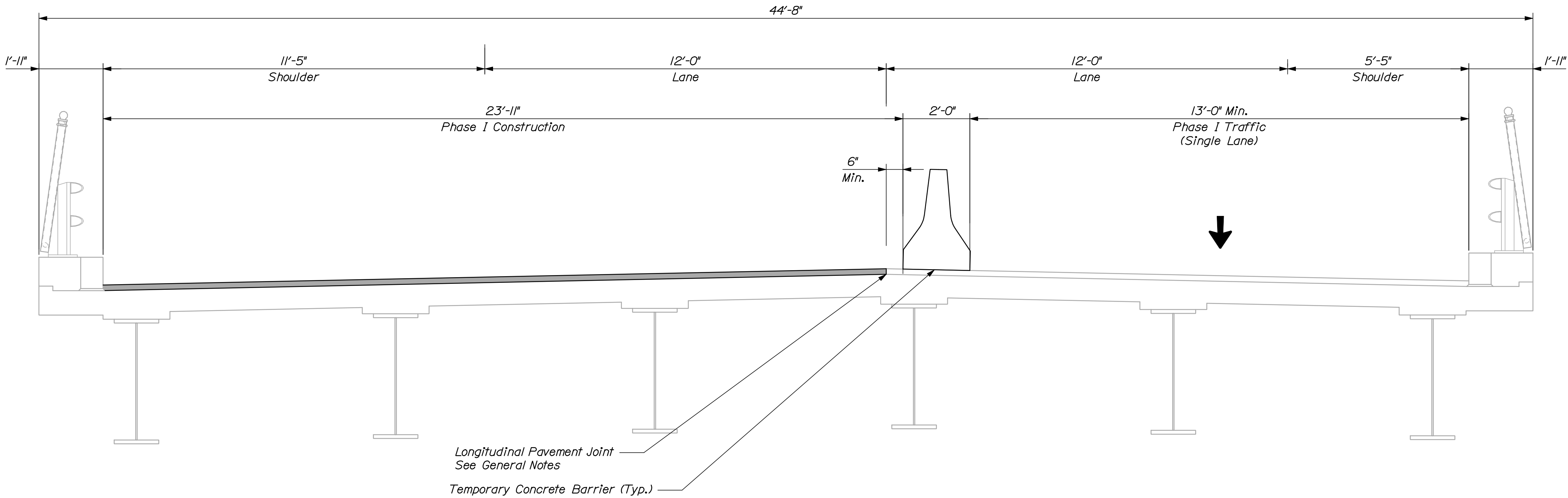
SHEET NUMBER
53
OF 55



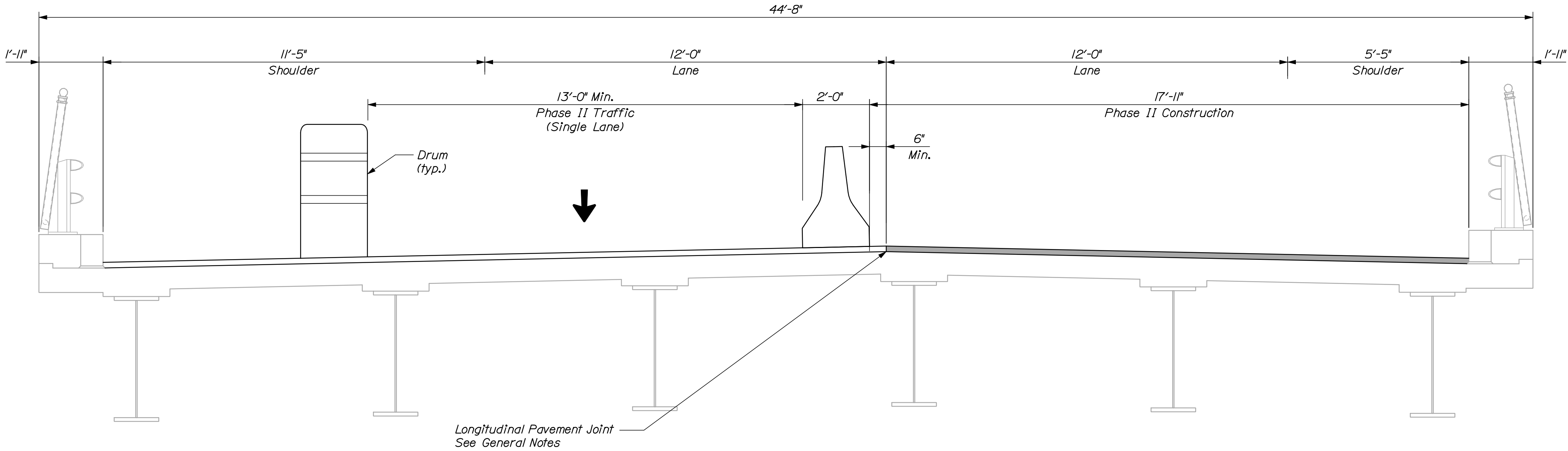
Phasing Note:

1. The construction phasing shown reflects long term lane closures. See the General Notes for additional information.

INTERSTATE 295 SOUTHBOUND 8239E (STATE ROUTE 703) PORTLAND CUMBERLAND COUNTY										PROJ. MANAGER		DOE	BY	DATE	STATE OF MAINE				
CONSTRUCTION PHASING PLAN										DESIGN-DETAILED	CAH		RWH	03/10	DEPARTMENT OF TRANSPORTATION				
										CHECKED-REVIEWED	DOE			03/10	SIGNATURE				
										DESIGN2-DETAILED2									
										DESIGN3-DETAILED3									
										REVISIONS 1					P.E. NUMBER				
										REVISIONS 2									
										REVISIONS 3									
										REVISIONS 4									
										FIELD CHANGES					DATE				
SHEET NUMBER												BRIDGE NO. 1513		PIN 17793.00		BRIDGE PLANS			
54																			
OF 55																			



PHASE I
INTERSTATE 295 SOUTHBOUND OVER 8239E (STATE ROUTE 703)
N.T.S.



PHASE II
INTERSTATE 295 SOUTHBOUND OVER 8239E (STATE ROUTE 703)
N.T.S.

NOTE:
Sections are shown looking upstation.

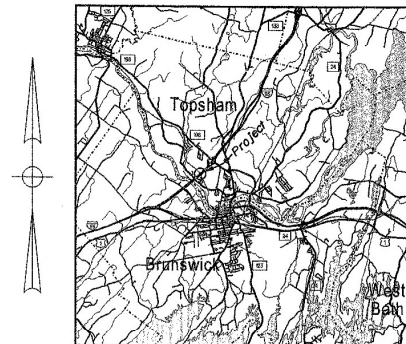
INTERSTATE 295 SOUTHBOUND 8239E (STATE ROUTE 703) PORTLAND CUMBERLAND COUNTY CONSTRUCTION PHASING TYPICAL SECTION					PROJ. MANAGER DESIGN-DETAILED CAH CHECKED-REVIEWED DOE DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		DOE	BY RWH	DATE 03/10 03/10
					SIGNATURE				
					P.E. NUMBER				
					DATE				
SHEET NUMBER 55 OF 55					STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1779(300)E BRIDGE NO. 1513 PIN 17793.00 BRIDGE PLANS				

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



TOPSHAM
SAGadahoc COUNTY
INTERSTATE 95 SOUTHBOUND
OVER
MAINE CENTRAL RAILROAD
INTERSTATE 95

AC-IM-95-1105(600)E
PROJECT LENGTH 0.025 MILES
WEARING SURFACE REPLACEMENT
Bridge No. 1512



LOCATION MAP
Scale in Miles

SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Second Edition
1998 and Interim Specifications through 2002.

DESIGN LOADING

Live Load (Existing)..... HS20-44 as modified for Interstate Highways

TRAFFIC DATA

Current (2003) AADT14220
Future (2023) AADT21330
DHV - % of AADT11
Design Hour Volume2346
% Heavy Trucks (AADT)12
% Heavy Trucks (DHV)5
Directional Distribution (DHV)100
18 kip Equivalent P 2.01900
18 kip Equivalent P 2.51810
Design Speed (mph)65

MATERIALS

Concrete (Unless noted otherwise)..... Class "A"
Concrete (Curbs, Sidewalks & Transition Barriers)..... Class "LP"

BASIC DESIGN STRESSES

Concrete $f'_c = 4,350$ psi
Reinforcing Steel $f_y = 60,000$ psi

UTILITIES

Maine Central / Springfield Terminal Railroad
Mdot-Railroad

MAINTENANCE OF TRAFFIC

Maintain one 14 foot travel lane at all times using temporary concrete
barrier and crash barrels.

LIST OF DRAWINGS

Title Sheet 1
Quantities, Notes and Stage Construction 2
Superstructure 3

SCOPE OF WORK

- Replace reinforced concrete wearing surface with high - performance membrane and asphalt pavement
- Grind and repave 100' on approaches at each end of bridge
- Replace compression seals in deck expansion joints
- Retrofit aluminum bridge rail bar splices using set screws
- Repair fascia concrete adjacent to end posts
- Replace damaged sections of approach guardrail
- Replace guardrail leading end treatment with NCHRP 350 compliant system

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED: [Signature]
DATE: 7/1/04
COMMISSIONER: [Signature]
CHIEF ENGINEER: [Signature]

MAINE
SEAL
OFFICE OF THE CHIEF ENGINEER
BRIDGE DIVISION
DATE: 6-21-04

PROJECT INFORMATION
PROJECT NUMBER: 11056.00
PROJECT NAME: TOPSHAM INTERSTATE 95 SOUTHBOUND
PROJECT LOCATION: SAGadahoc COUNTY
PROJECT DESCRIPTION: WEARING SURFACE REPLACEMENT
PROJECT CONTRACT DATE: [Blank]

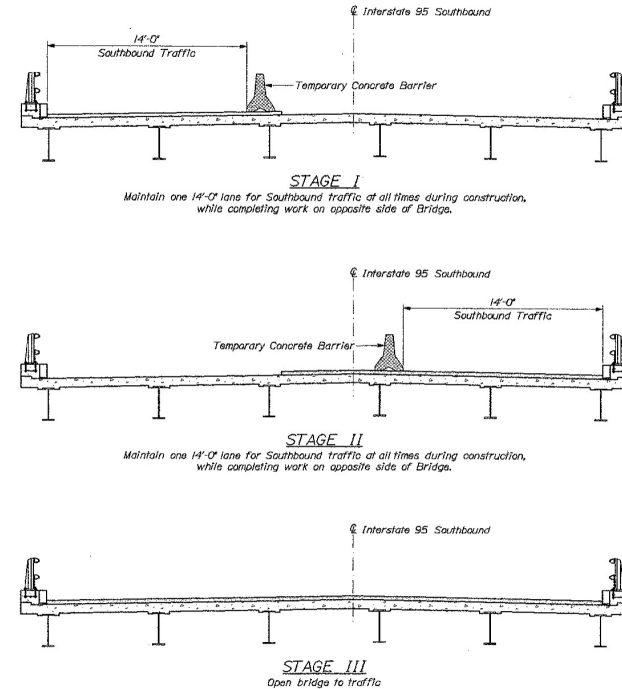
AC-IM-95-1105(600)E
PIN 11056.00
TOPSHAM
INTERSTATE 95 SOUTHBOUND
TITLE SHEET

SHEET NUMBER
1
OF 3

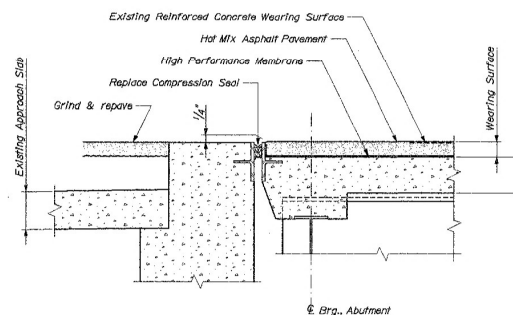
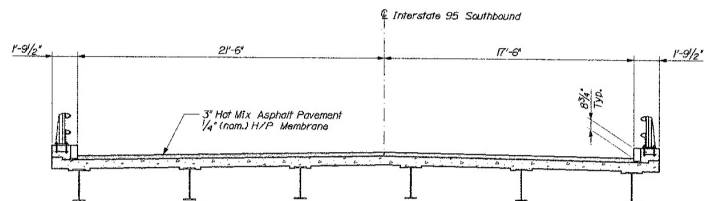
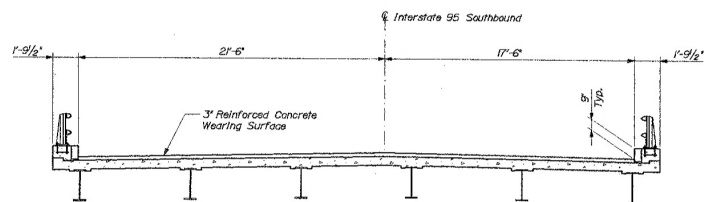
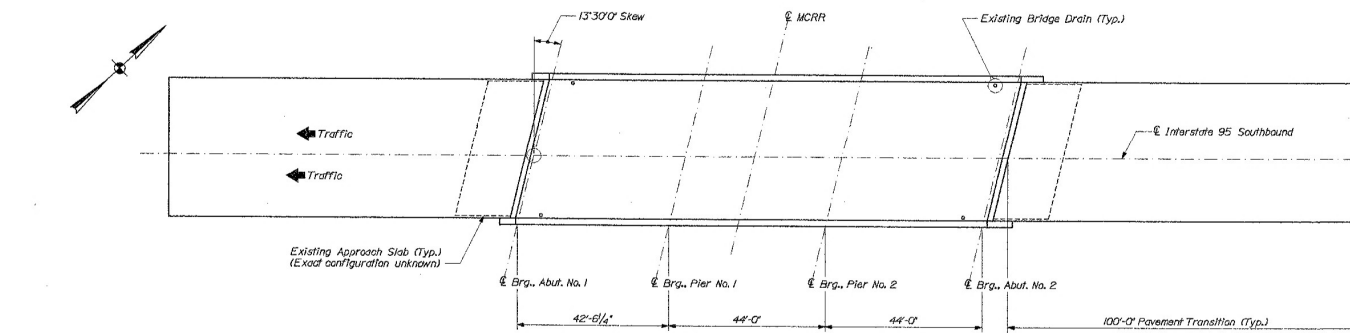
ESTIMATED QUANTITIES		
ITEM NO.	DESCRIPTION	QUANTITY UNIT
202.108	REMOVING EXISTING CONCRETE	1 LS
202.127	REM EXIST BIT PAVEMENT	1 LS
403.213	HOT MIX ASPHALT 12.5 MM HMA BASE	126 T
403.210	HOT MIX ASPHALT 9.5 MM HMA	111 T
507.30	ALUM RAIL SPICE RETROFIT	8 EA
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	1 LS
518.50	REPAIR OF UPWARD FAC SURF TO RE STEEL	30 SF
518.51	REPAIR OF UPWARD FAC SURF BELOW RE STEEL	20 SF
518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN.	4 SF
518.70	REPAIR OF OVERHEAD SURFACES < 7.9 IN.	4 SF
520.22	EXPANSION DEVICE - COMPRESSION SEAL	2 EA
606.17	GR TP 3B - SOL RAIL	100 LF
606.35	GR DELINEATOR POST	4 EA
606.363	GR REMOVE AND DISPOSE	150 LF
606.79	GUARDRAIL 350 FLARED TERMINAL	2 EA
615.07	LOAM	5 CY
618.101	SEEDING METHOD NUMBER 2 PLAN QUANTITY	1 UN
627.72	6" WHITE PAVEMENT MARKING LINE	1000 LF
629.05	HAND LABOR, STRAIGHT TIME	20 HR
631.12	ALL-PURPOSE EXC (INC OPERATOR)	20 HR
631.172	TRUCK-LARGE (INC OPERATOR)	20 HR
639.19	FIELD OFFICE TYPE B	1 EA
652.39	WORK ZONE TRAFFIC CONTROL	1 LS
656.75	TEMP. SOIL EROS. AND WATER POLL. CONTROL	1 LS
659.10	MOBILIZATION	1 LS

GENERAL CONSTRUCTION NOTES

- All Utility Facilities shall be adjusted by the respective Utilities unless otherwise noted.
- Plans of the existing bridge are available for the Contractor's reference at the Bridge Program's office in Augusta. 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.
- A bridge deck evaluation report of the existing bridge is available for the Contractor's reference at the Bridge Program's office in Augusta. The report contains visual inspection information and deck core data of the bridge. There is no assurance that the information or data is a true representation of the conditions of the entire deck. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- Any damage to existing concrete resulting from the work performed, shall be repaired by a method approved by the Resident at the expense of the Contractor.
- Reinforcing steel shall have a 2" minimum cover unless otherwise noted.
- The Contractor shall use care not to damage the existing reinforcing steel which is to remain. Any damaged reinforcing shall be replaced as directed by the Resident at no expense to the Department.
- After the existing concrete wearing surface has been removed, the Contractor may be directed by the Resident to rehabilitate areas of the deck. Payment will be made under items 518.50 or 518.51 whichever is applicable.
- If the depth of the deteriorated concrete is below the reinforcing bars, then remove concrete to a minimum depth of 1" below the reinforcing steel.
- Depress wearing surface around existing bridge drains as directed by the Resident.



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
AC-119-95-1105(600)E		PIN 11055.00	
Bridge No. 1512		BRIDGE PLANS	
INTERSTATE 95 SOUTHBOUND		SHEET NUMBER	
MAINE CENTRAL RAILROAD		2	
TOPSHAM		OF 3	
SAGadahoc COUNTY			
ESTIMATED QUANTITIES, CONSTRUCTION			
NOTES AND STAGE CONSTRUCTION			
PROJECT NO.	DATE	SIGNATURE	DATE
DESIGNED BY			
CHECKED BY			
APPROVED BY			
REVISIONS			
NO.	DATE	BY	REASON
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			



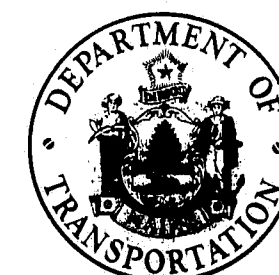
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
BRIDGE No. 1912 PIN 11056.00 BRIDGE PLANS

SIGNATURE	DATE
P.E. NUMBER	DATE

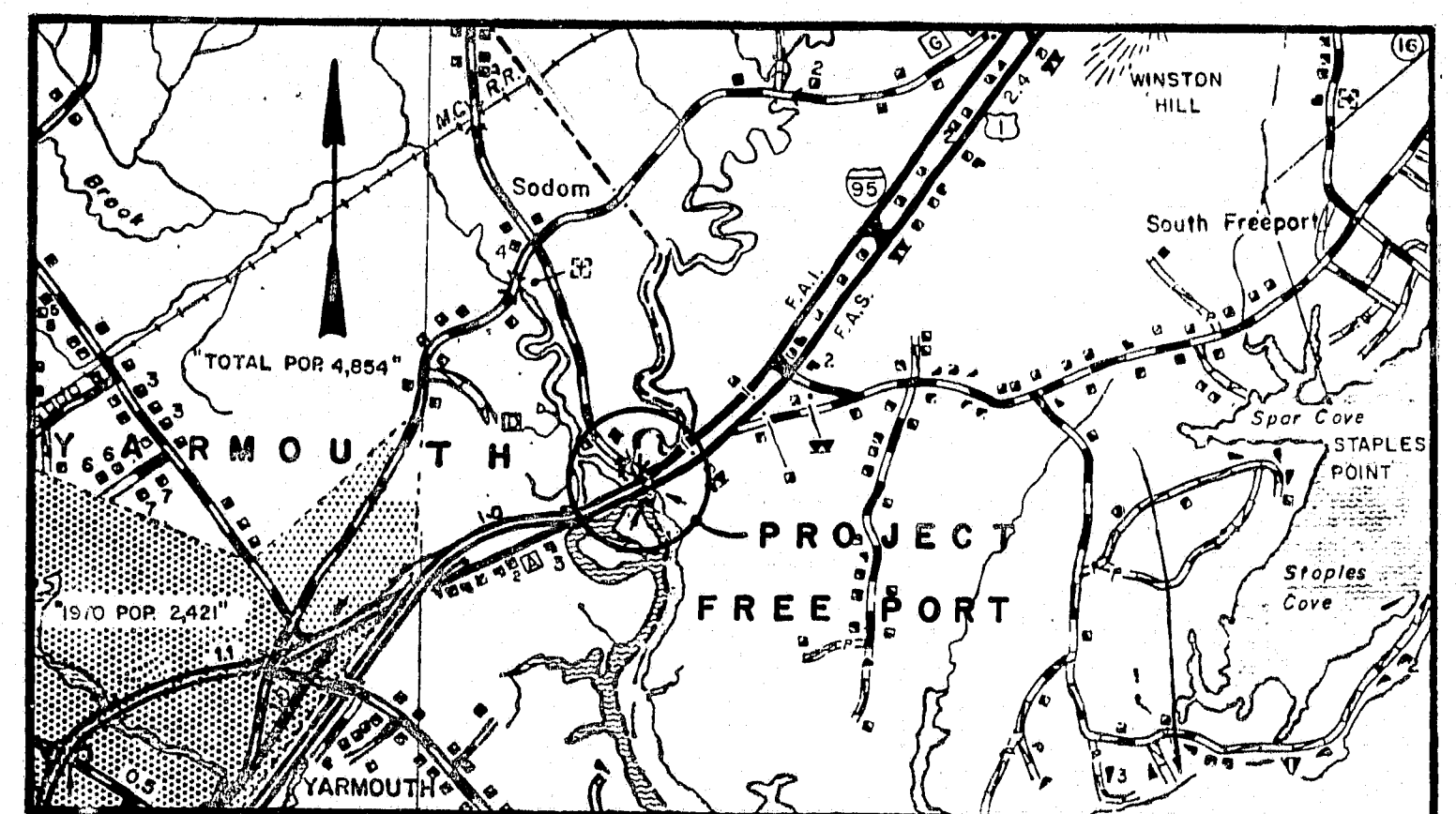
INTERSTATE 95 SOUTHBOUND MAINE CENTRAL RAILROAD TOPSHAM SACADAHOC COUNTY
SUPERSTRUCTURE

SHEET NUMBER 3 OF 3

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



YARMOUTH-FREEPORT CUMBERLAND COUNTY MAINE FEDERAL AID INTERSTATE PROJECT NO. I-95-4 142162 OVER COUSINS RIVER PROJECT LENGTH 0.019 MILES



0 1 2 3 miles

SCALE
LOCATION MAP

Coast Guard Permit No. I-84-1

CONVENTIONAL SIGNS	
COUNTY LINES	=====
TOWN LINES	-----
PROPERTY LINES	=====
R/W LINES-EXISTING	=====
R/W LINES-NEW-ACCESS CONTROL	=====
R/W LINES-NEW-NO ACCESS CONTROL	=====
CULVERT-EXISTING	=====
CULVERT-PROPOSED	=====
CURBING-EXISTING	=====
CURBING-PROPOSED	=====
TRAVELLED WAY-EXISTING	=====
TRAVELLED WAY-PROPOSED	=====
UNDERGROUND UTILITIES-EXISTING	=====
UNDERGROUND UTILITIES-PROPOSED	=====
RAILROAD-SINGLE TRACK	=====
RAILROAD-DOUBLE TRACK	=====
UTILITY POLE-EXISTING	=====
UTILITY POLE-JOINT OCCUPANCY	=====
PROPOSED UTILITY POLE-TEMPORARY	=====
PROPOSED UTILITY POLE-PERMANENT	=====
TREES	=====
WOODS	=====

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges
1977 and interim specifications thru 1983.
CONTRACT: State of Maine, Department of Transportation, Standard
Specifications, Highways and Bridges, Revisions of June 1981.

DESIGN LOADING

LIVE LOAD HS 25
STRESS CYCLES 500,000

MATERIALS

CONCRETE Class A
REINFORCING STEEL ASTM A615, Grade 60
STRUCTURAL STEEL:
Beams ASTM A572
All Other ASTM A36
High Strength Bolts ASTM A325, TYPE I

BASIC ALLOWABLE STRESSES

CONCRETE $f'_c = 3000$ psi $n=9$
REINFORCING STEEL $f_y = 60,000$ psi
STRUCTURAL STEEL:
ASTM A572 $f_y = 50,000$ psi
ASTM A36 $f_y = 36,000$ psi
ASTM A325 $f_y = 33,000$ psi

TRAFFIC DATA			
DESCRIPTION	N.B.	S.B.	BOTH DIR.
ADT 1983	10679	10933	21612
ADT 2003	14955	15310	30265
DHV	2164	2164	3934
DHV-% of ADT D.D.H.V.			DHV 13
T% (AADT)	9	9	9
T% D.HOUR	5	5	5
D%	100	100	55
18KIP EQ, P2.5			1015

Plans of existing bridge and a hydrologic report of the bridge site are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and 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. The hydrologic report is based on the interpretation by the Department of information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of June 1981) and supplementals thereto, except as modified on the plans and in the special provisions.

F.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	1	34

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
QUANTITIES	2
GENERAL PLAN	3
SURVEY	4
PROFILES	5-6
FOUNDATION SURVEY	7-8
ABUTMENT NO. 1	9-12
ABUTMENT NO. 2	13-16
STRUCTURAL STEEL	17
BLOCKING PLAN	18
SUPERSTRUCTURE	19-20
REINFORCING STEEL SCHEDULE	21-23
STANDARD DETAILS	24-30
TRAFFIC MAINTENANCE	31-33
RIGHT-OF-WAY MAP	34

STANDARD DETAILS

BD 101-81	BEARING PEDESTALS
BD 113-81	DIAPHRAGMS and CROSSFRAMES
BD 114-81	ALUMINUM BRIDGE RAILING 2-BAR
BD 120-81	CONCRETE END POSTS
BD 125-82	EXPANSION DEVICE-COMPRESSION SEAL (BIT.W.S.)
BD 126-81	MISC. DETAILS-SUPERSTRUCTURE, APPR.SLAB
BD 127-81	MISC. DETAILS-SUPERSTRUCTURE

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
David White
COMMISSIONER

DATE

12-27-83

Richard Coleman
CHIEF ENGINEER

12-27-83

AS BUILT 1985 R/P

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

R93-56

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-44262	2	34

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	Removing Existing Bridge	1	L.S.
203.25	Granular Borrow	5000	C.Y.
203.26	Gravel Borrow	110	C.Y.
206.081	Str. Earth Exc. - Abuts., Ret. Walls, Box Culverts, & Struc. Plate Units	10	C.Y.
403.08	Hot Bituminous Pavement, Grading C	145	Ton
501.217	Steel H Beam Piles 89 lbs/Ft	6120	L.F.
502.21	Str. Concrete, Abuts. & Retaining Walls	542	C.Y.
502.260	Str. Concrete Roadway & Sidewalk Slabs on Steel Bridges	1	L.S.
502.310	Str. Concrete Approach Slabs	1	L.S.
503.12	Reinforcing Steel Fab & Delivered	87,800	LBS.
503.13	Reinforcing Steel Placing	87,800	LBS.
504.700	Str. Steel Fab & Delivered	1	L.S.
504.710	Str. Steel Erection	1	L.S.
505.080	Shear Connectors	1	L.S.
506.141	Field Painting New Structural Steel	1	L.S.
507.092	Aluminum Bridge Railings, 2 Bar	400	L.F.
508.10	Membrane Waterproofing	880	S.Y.
511.0701	Cofferdam Abut. 1	1	L.S.
511.0702	Cofferdam Abut. 2	1	L.S.
512.08	French Drains	276	L.F.
514.06	Curing Box for Concrete Cylinders	1	Each
515.21	Protective Coating for Concrete Surfaces	1	L.S.
520.22	Expansion Device - Compression Seal	2	Each
609.132	Vertical Bridge Curb Type 1B	422	L.F.
610.03	Plain Riprap	1800	C.Y.
616.08	Sodding	50	S.Y.
618.15	Temporary Seeding	30	LBS.
619.12	Mulch	9	Unit
639.19	Field Office Type B	1	Each

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.31	Type I Barricades	10	Each
652.35	Construction Signs	300	S.F.
652.361	Maintenance of Traffic Control Devices	1	L.S.
652.38	Flagger	300	M.H.
656.50	Baled Hay, In Place	15	Each
656.51	Sandbags, In Place	15	Each
657.24	Seeding Pits	15	Unit
659.10	Mobilization	1	L.S.
660.21	On-the-Job Training (Bid)	1000	M.H.

Estimate of Lump Sum Quantities

502.26	Str. Concrete Roadway & Sidewalk Slabs on Steel Bridges	262	C.Y.
502.31	Str. Concrete Approach Slabs	60	C.Y.
504.70	Str. Steel Fab & Delivered	288,000	LBS.
504.71	Str. Steel Erection	288,000	LBS.
505.08	Shear Connectors	3048	Each

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	2/24/84
CHECKED	2/24/84
REVISIONS	
FIELD CHANGES	

PLANS

AS BUILT 1985 Rep

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT

QUANTITIES

SHEET 2 OF 34 AUGUSTA, MAINE Feb 1984

R93-57

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	I-95-44268	3	34

SPECIFICATIONS

DESIGN - Load Factor Design per AASHTO Standard Specifications for Highway Bridges, 1977 and Interim Specifications thru 1983.

CONTRACT - State of Maine, Department of Transportation, Standard Specifications Highways and Bridges, Revision of June 1983.

DESIGN LOAD - HS-25

MATERIALS - Concrete: Class A
Reinforcing Steel: ASTM A615 Grade 60
Structural Steel: Beam ASTM A572
High Strength Bolt: ASTM A325
All other ASTM A36

BASIC ALLOWABLE STRESSES

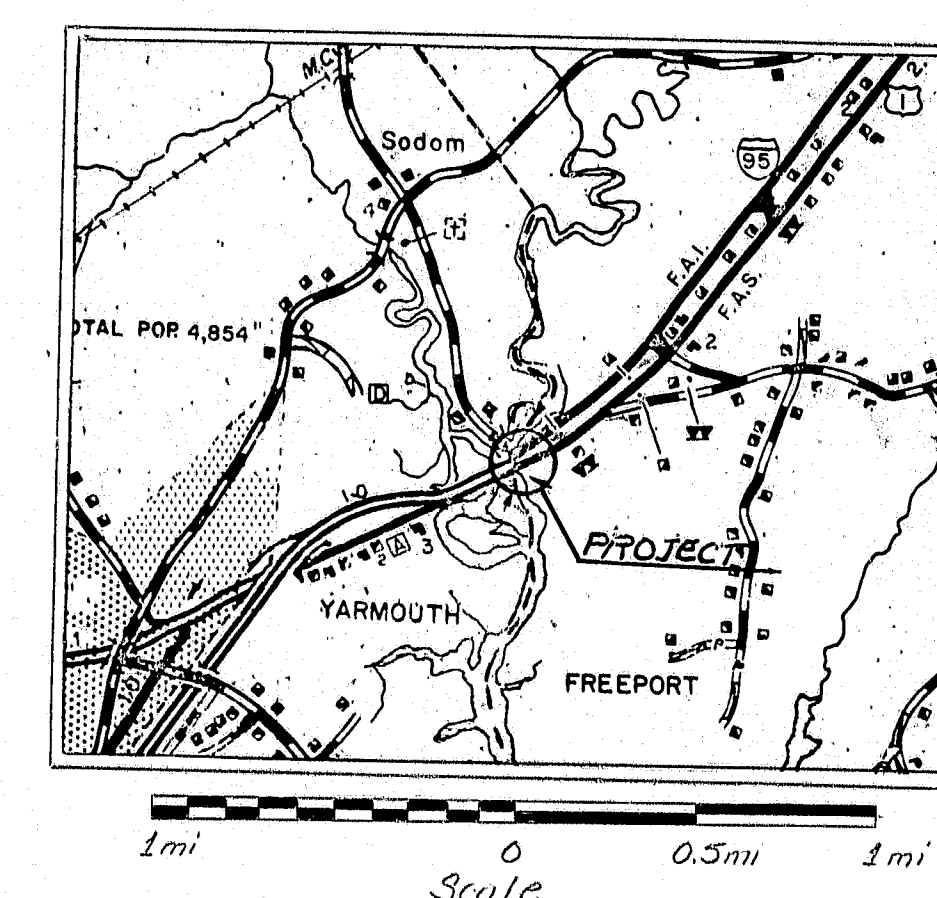
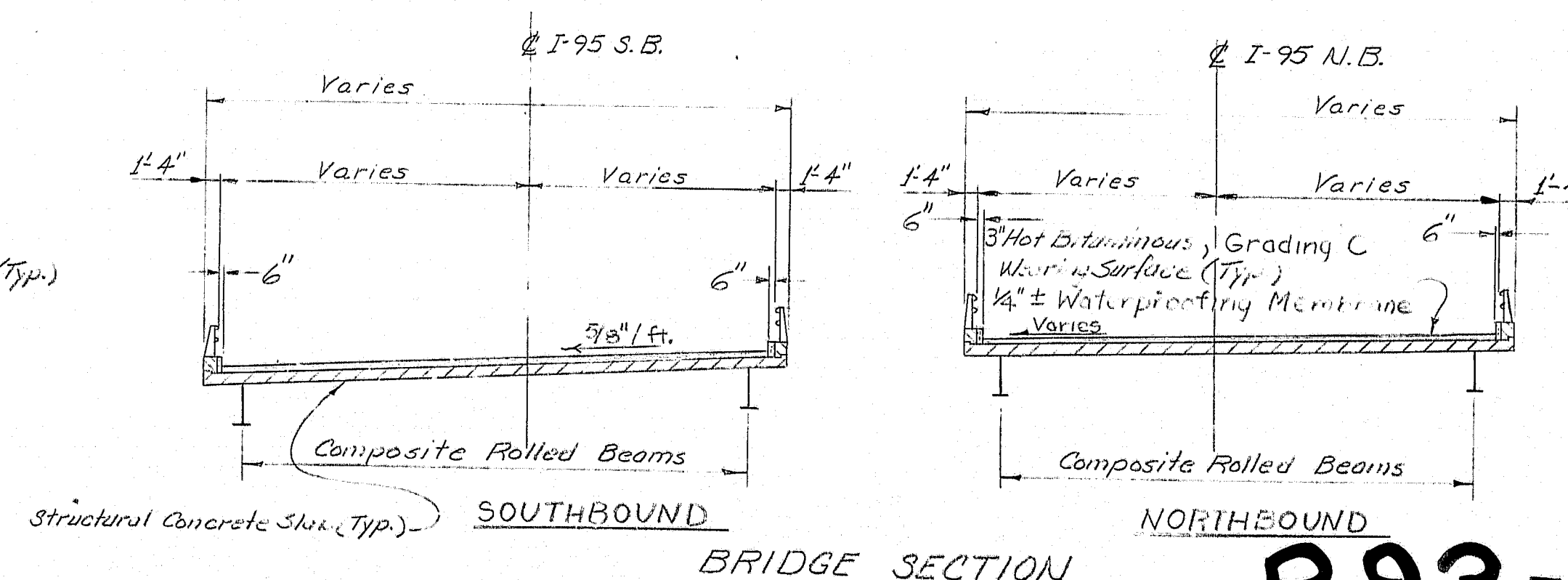
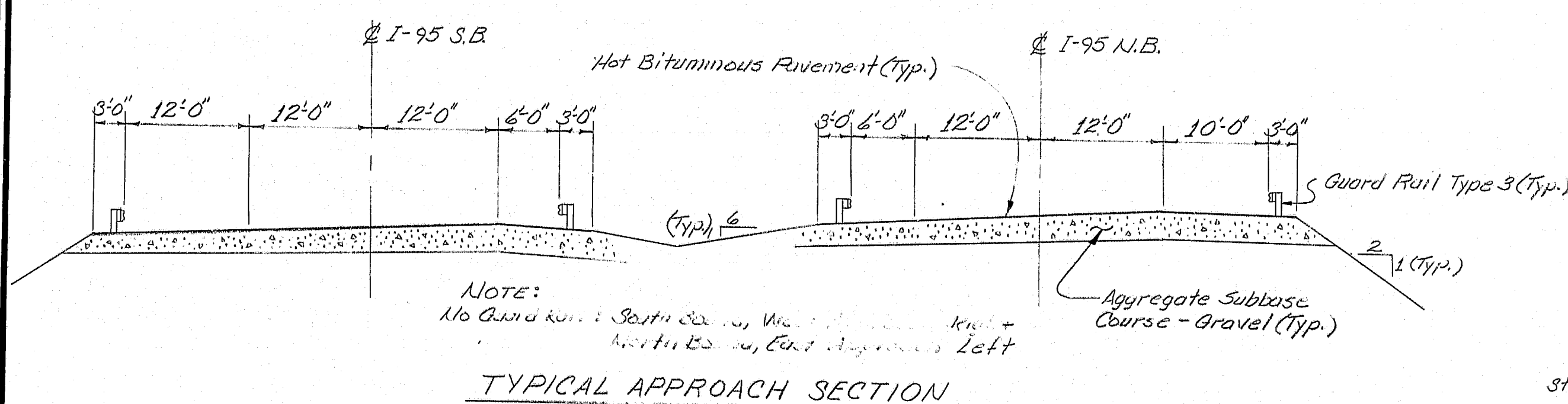
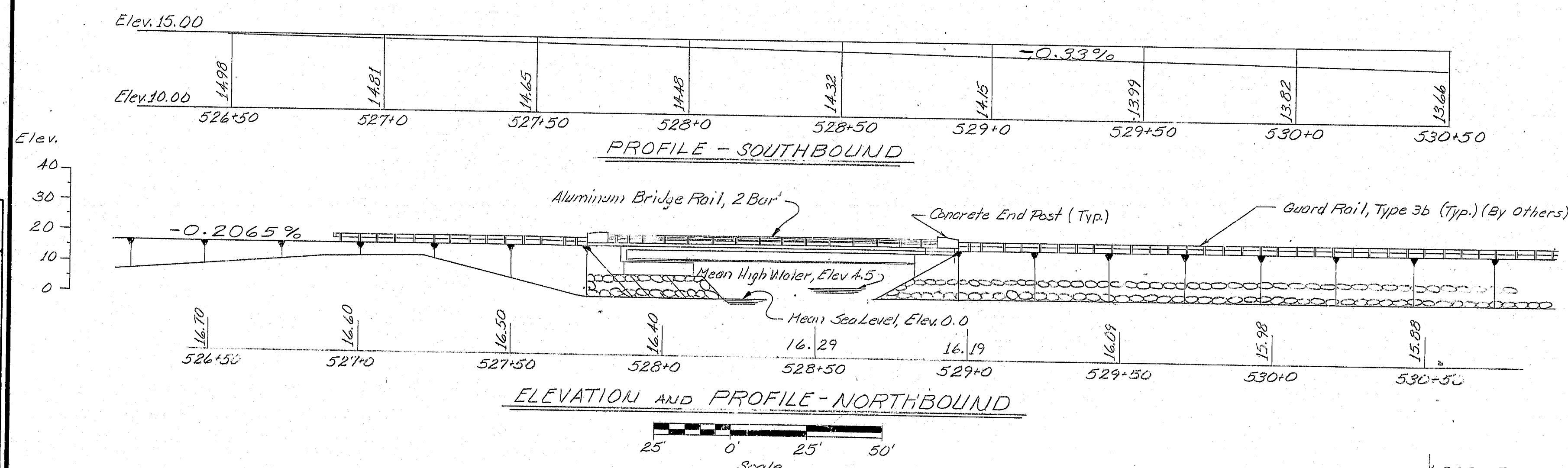
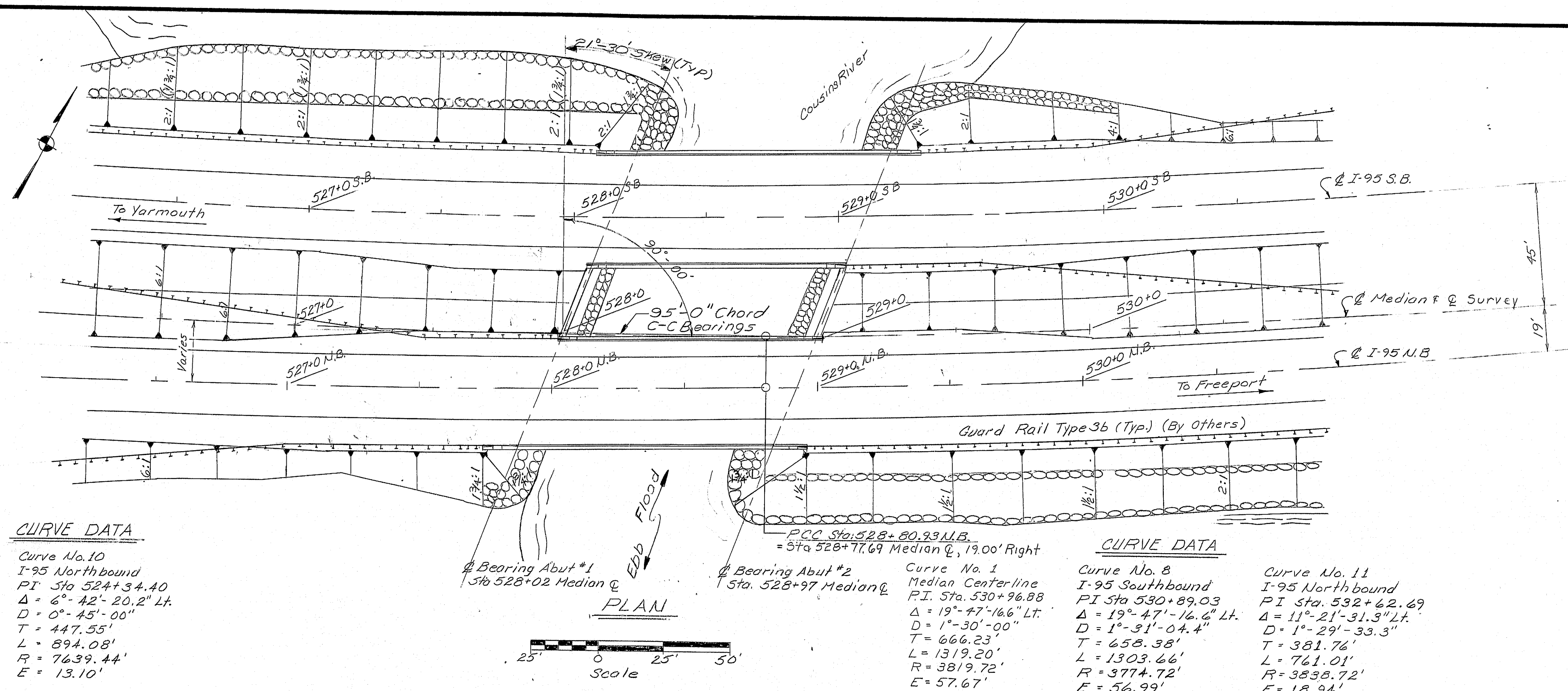
Concrete $f_c = 3,000 \text{ psi}$ $n = 9$
Reinforcing Steel $f_y = 60,000 \text{ psi}$
Structural Steel $f_y = 50,000 \text{ psi}$
ASTM A325 $f_y = 33,000 \text{ psi}$
ASTM A36 $f_y = 36,000 \text{ psi}$

TRAFFIC DATA

AADT (1983) 10,935
AADT (2003) 15,310
DHV 2.164
D (%) 100
T (%) 9
18 h.p. P2.5 1,015

HYDROLOGICAL DATA

Drainage Area 17.81 Sq. Miles
Design Discharge (Q50) 1,700 cfs
Check Discharge (Q100) 2,000 cfs
Mean Low Water Elev. -4.5
Mean Sea Level Elev. 0.0
Mean High Water Elev. +4.5
1983 Predicted High Tide Elev. +6.7



LOCATION MAP

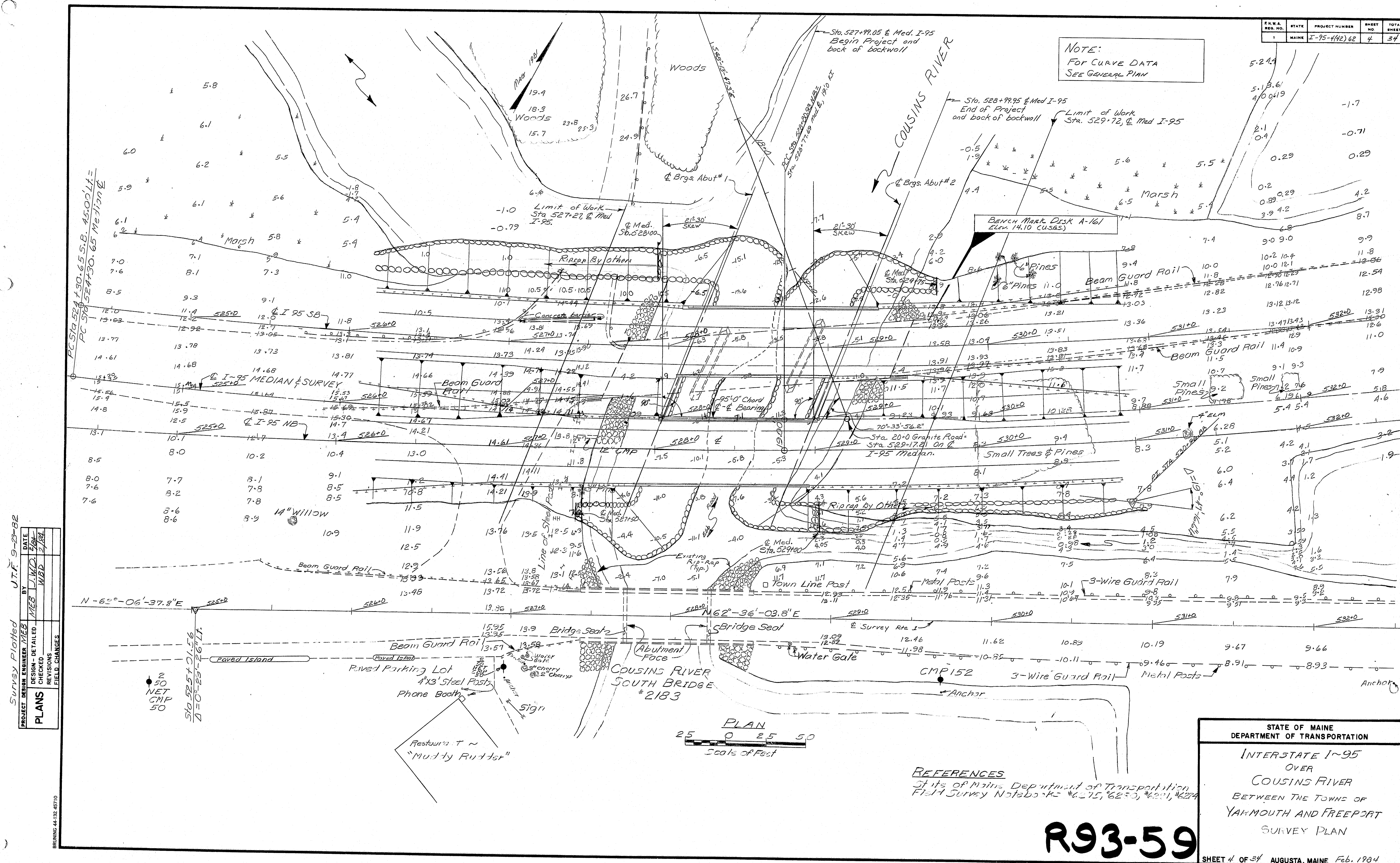
AS BUILT 1985 Rep
Bridge No. 5621

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
GENERAL PLAN

R93-58

SHEET 3 OF 34 AUGUSTA, MAINE Feb. 1984



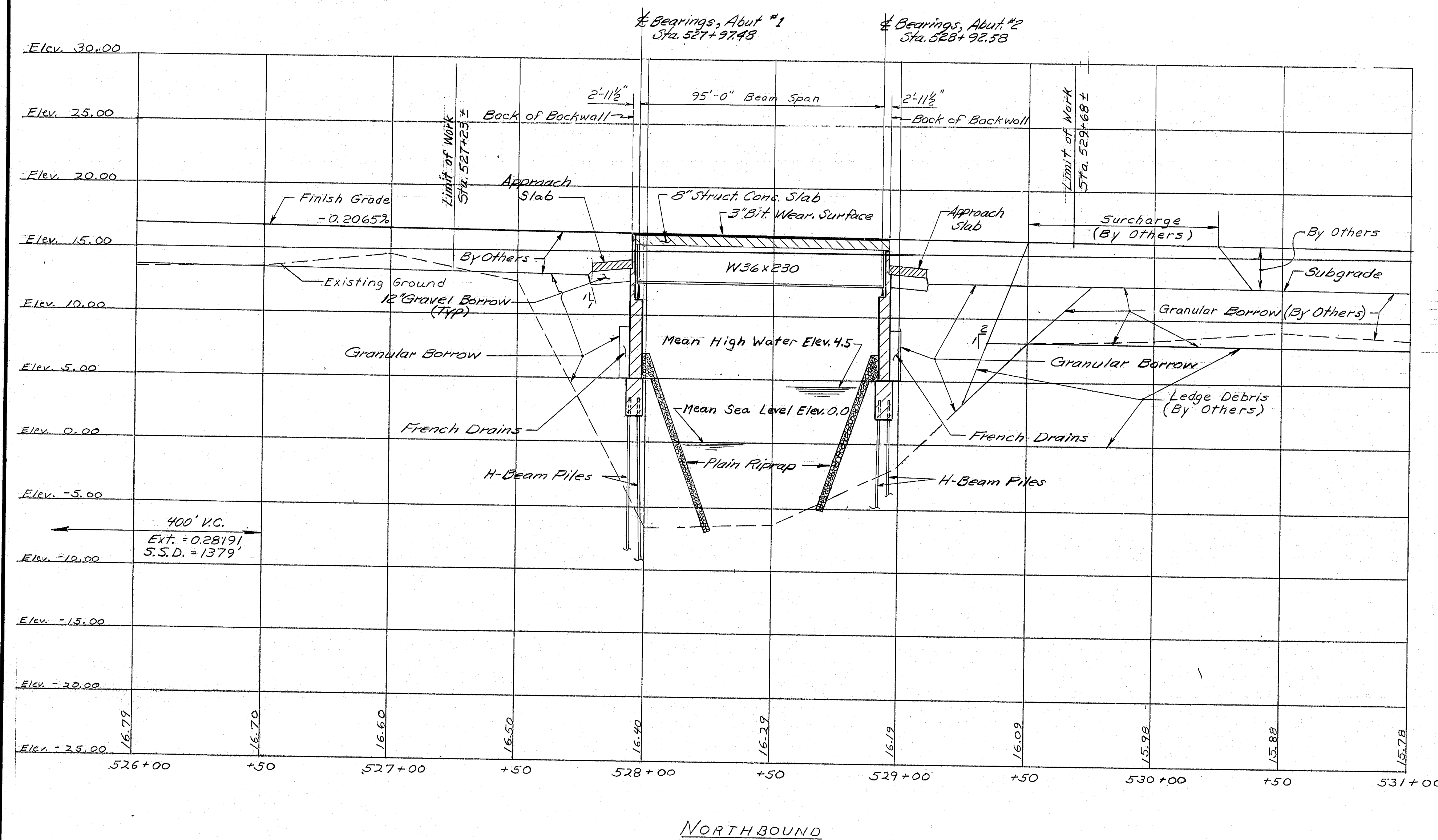
F.R.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	5	34

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. For easements, construction limits and right-of-way lines refer to Right-of-Way Map.
3. Place a 2 foot wide strip of sod on the side slopes along the top of the riprap.
4. All embankment material, except as otherwise shown, placed below Elevation 6.00, shall be granular borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
5. Removal of the Existing Bridge shall include the removal of the superstructure, removal of the abutment backwalls down to the bridge seat elevations, removal of wingwalls down to the elevation of adjacent bridge seats, and removal of the piers to a depth of 5 feet below the face of riprap or to the top of the distribution slab, whichever is higher. Payment will be made under Item 202.19, Removing Existing Bridge, Lump Sum.
6. This Project shall be built in two stages described as follows:
 Stage I - The abutments (stage I) for northbound and the northbound superstructure shall be constructed and backfill placed as shown on the plans.
 A detour (by others) shall be constructed to route southbound traffic over the northbound span.
 Stage II - The existing southbound bridge shall be removed to the limits described in note (5). The abutments (stage II) for southbound and the southbound superstructure shall be constructed, and backfill placed as shown on the plans.

AS BUILT NOTE

The abutments moved towards each other and as a result the armored joint opening at abutment 1 stage 1 (northbound structure) closed to the point that we were unable to install the compression seal. *Rp*



NORTHBOUND

PROJECT	DESIGN	ENGINEER	DATE
PLANS	DESIGNED	WED	5/84
	CHECKED	WED	5/84
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-12 6710-1

AS BUILT 1985 *Rp*

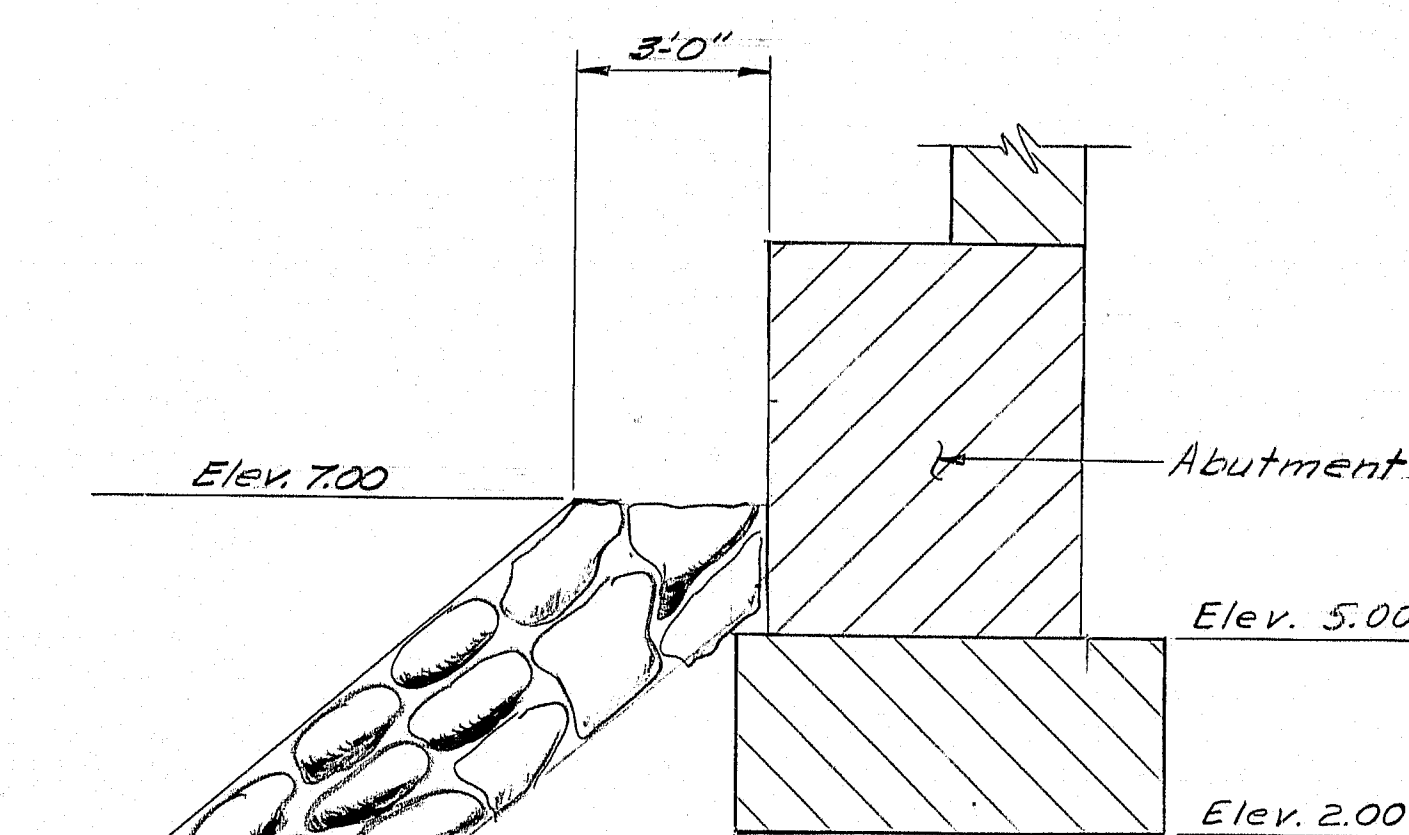
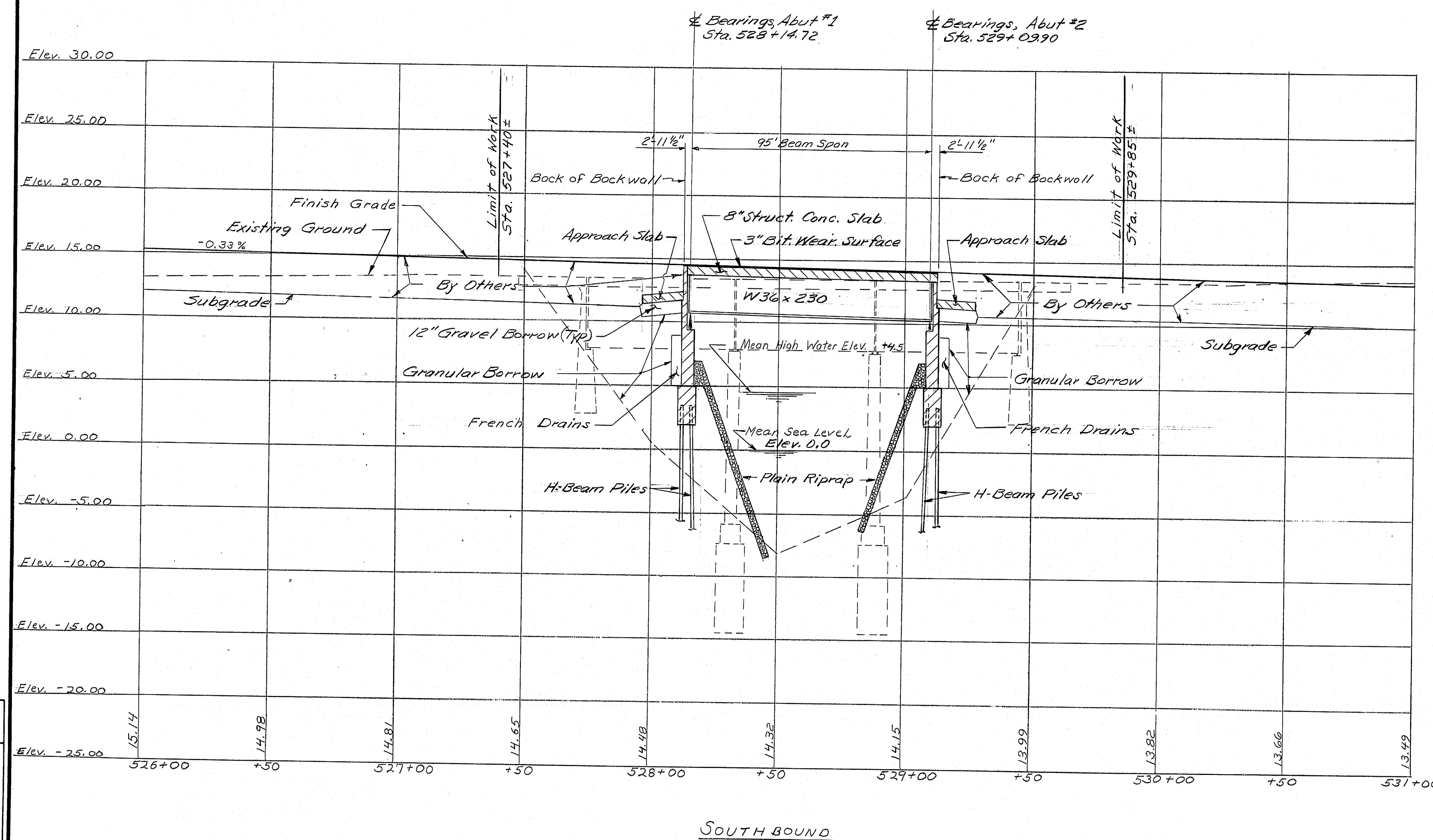
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT
PROFILE AND CONSTRUCTION LIMIT
(Northbound)

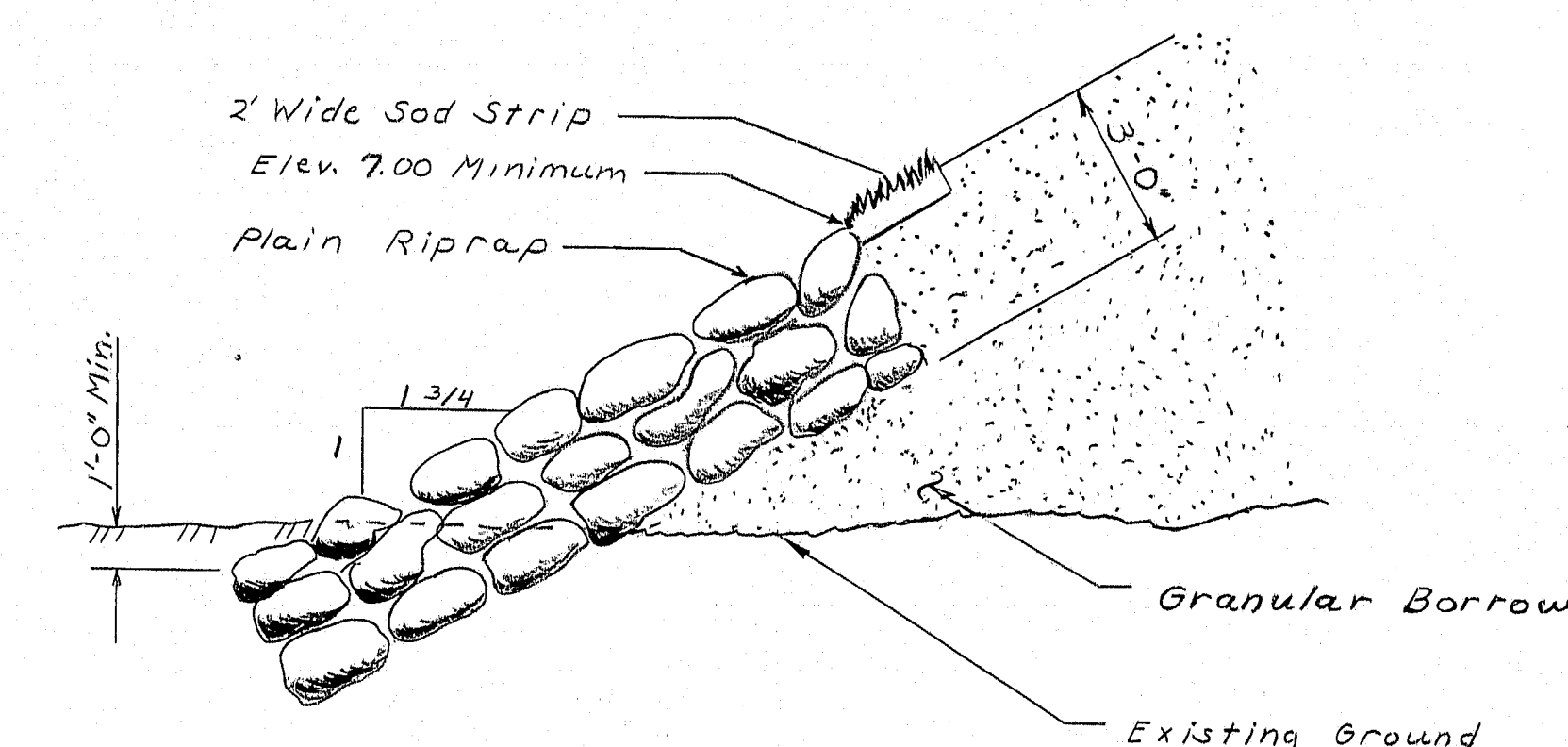
R93-60

SHEET 5 OF 34 AUGUSTA, MAINE Feb 1984

F.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	6	34



RIPRAP DETAIL



TYPICAL RIPRAP SECTION

AS BUILT 1985 R.P.P.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

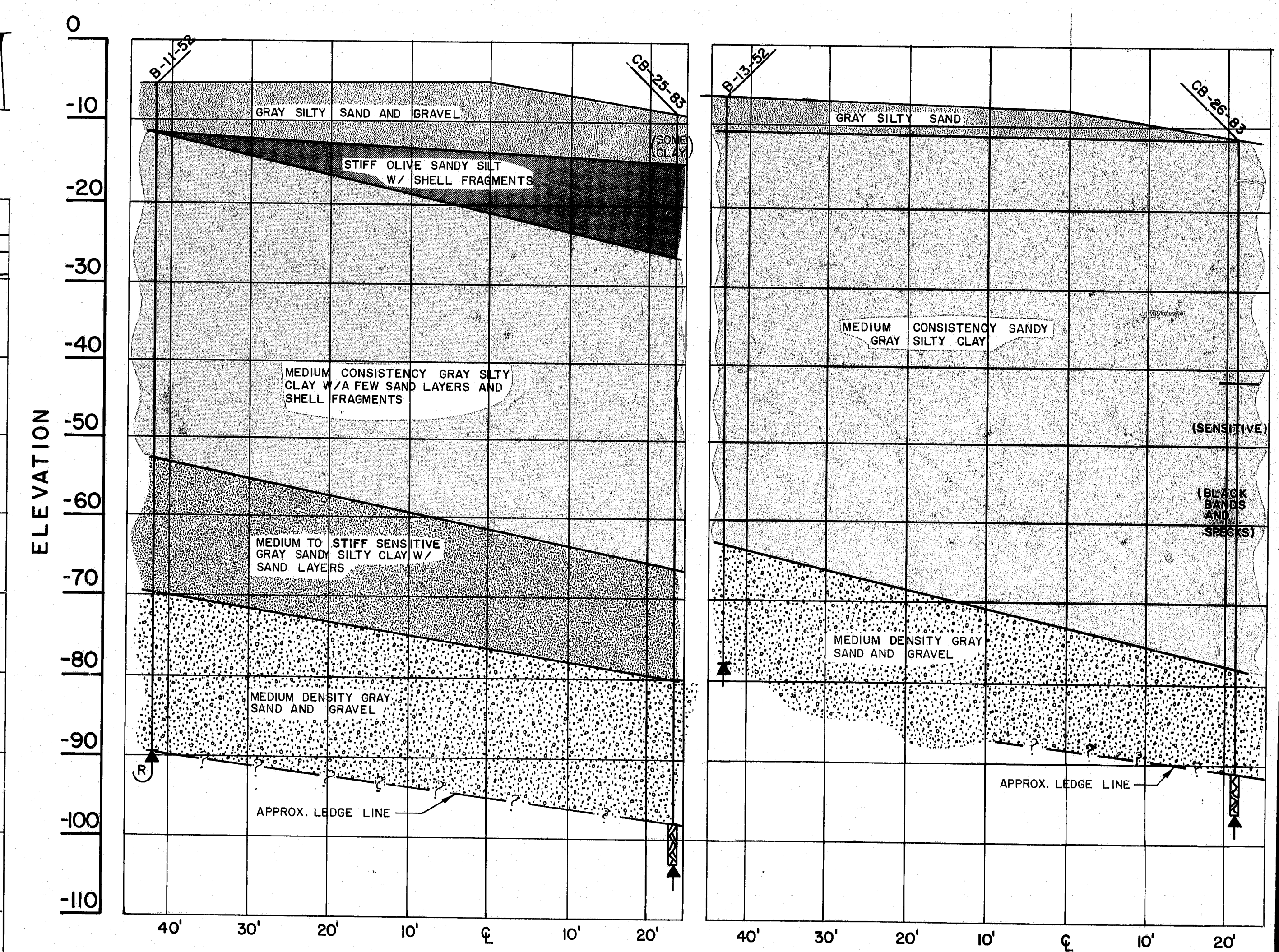
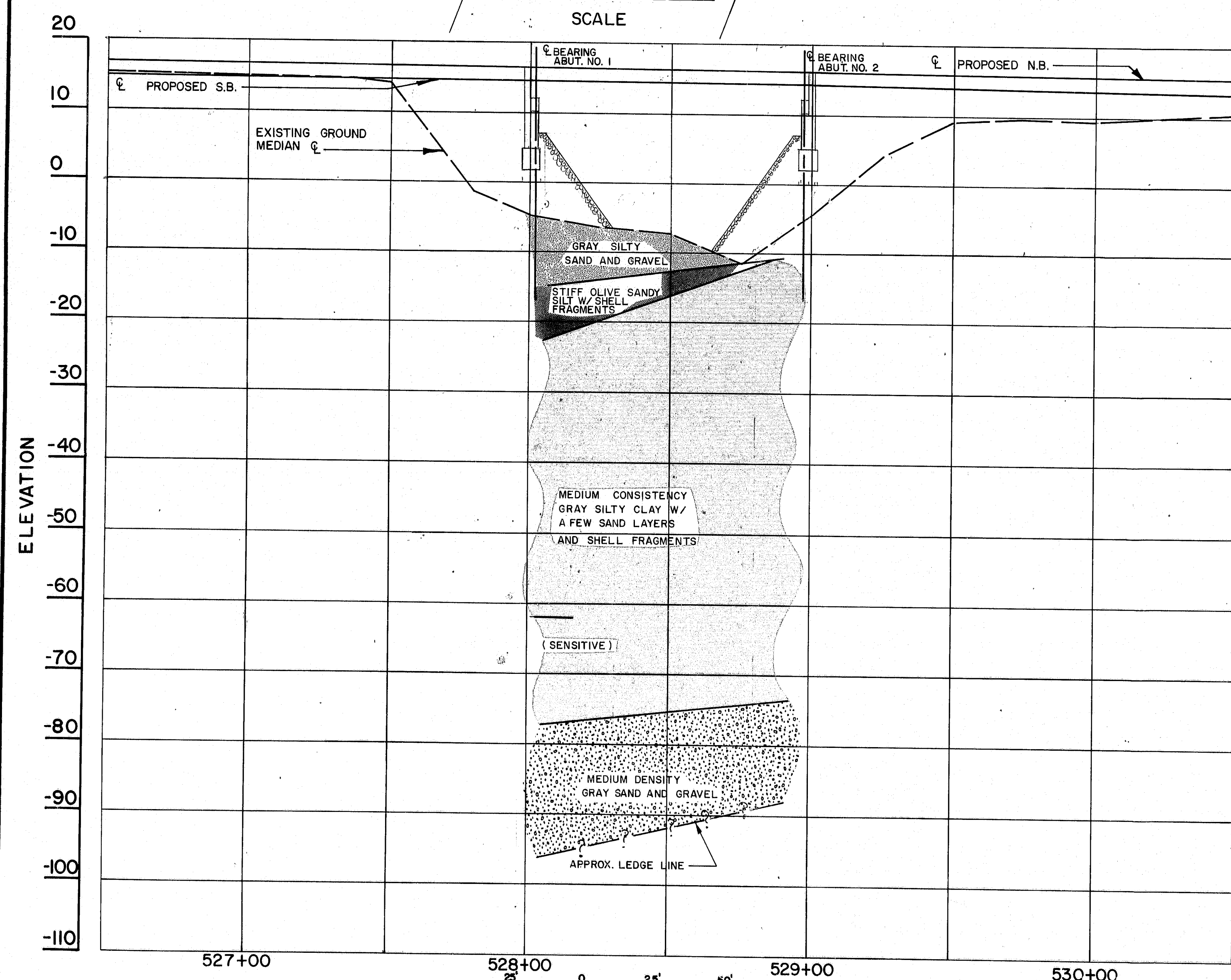
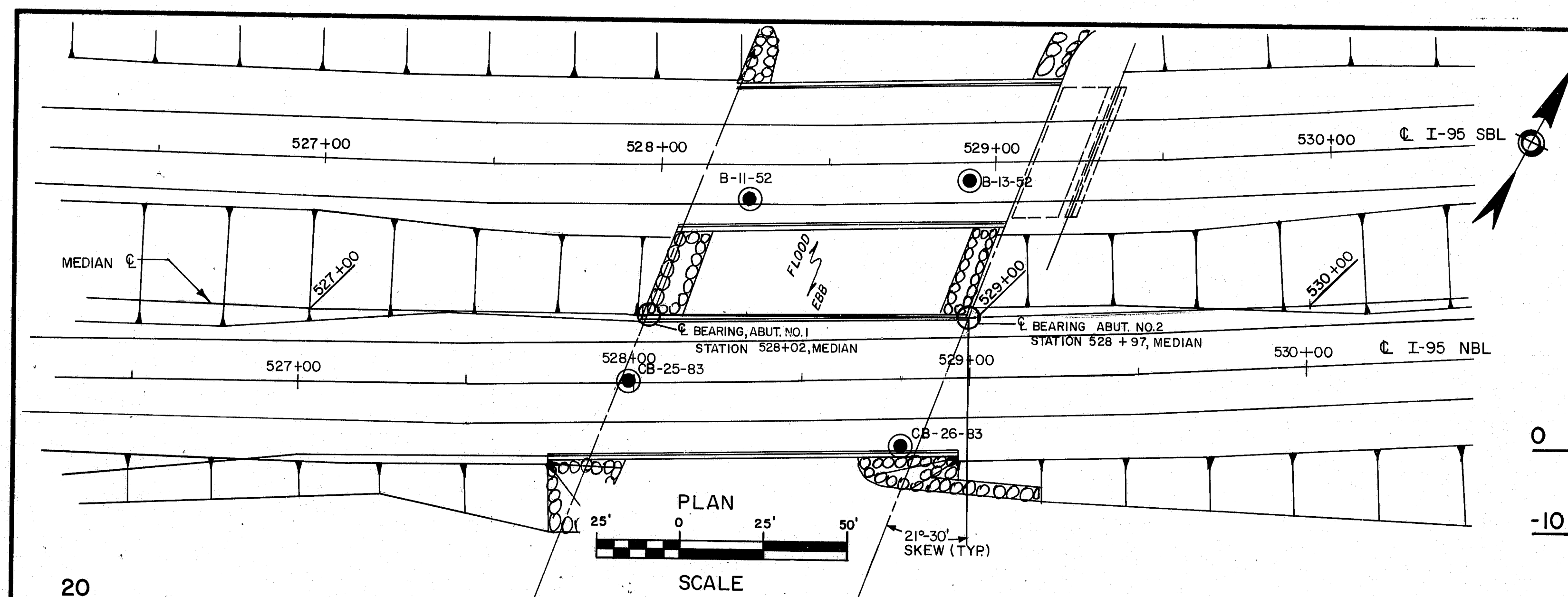
INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT
PROFILE AND CONSTRUCTION LIMIT
(Southbound)

R93-61

PROJECT DESIGN ENGINEER	DATE
MEB	12/83
DESIGN - CHECKED	DATE
MEB	2/84
REVISIONS	DATE
FIELD CHANGES	

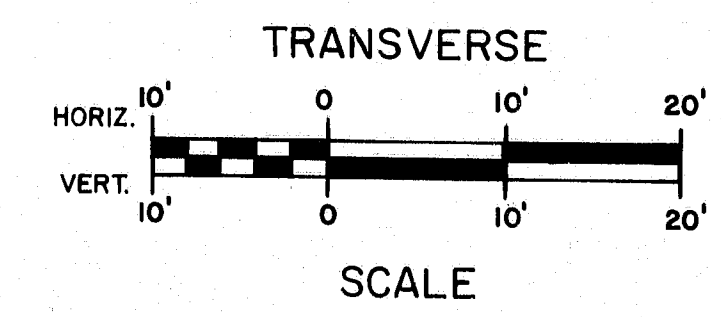
BRUNING 44122 27101

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	7	34



ABUT. NO. 1
STATION 528+09
(APPROX.)

ABUT. NO. 2 AS BUILT 1955
STATION 528+86 (APPROX.)



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND COUNTY
FOUNDATION SURVEY

R93-62

SHEET 7 OF 34 AUGUSTA, MAINE Feb 1984

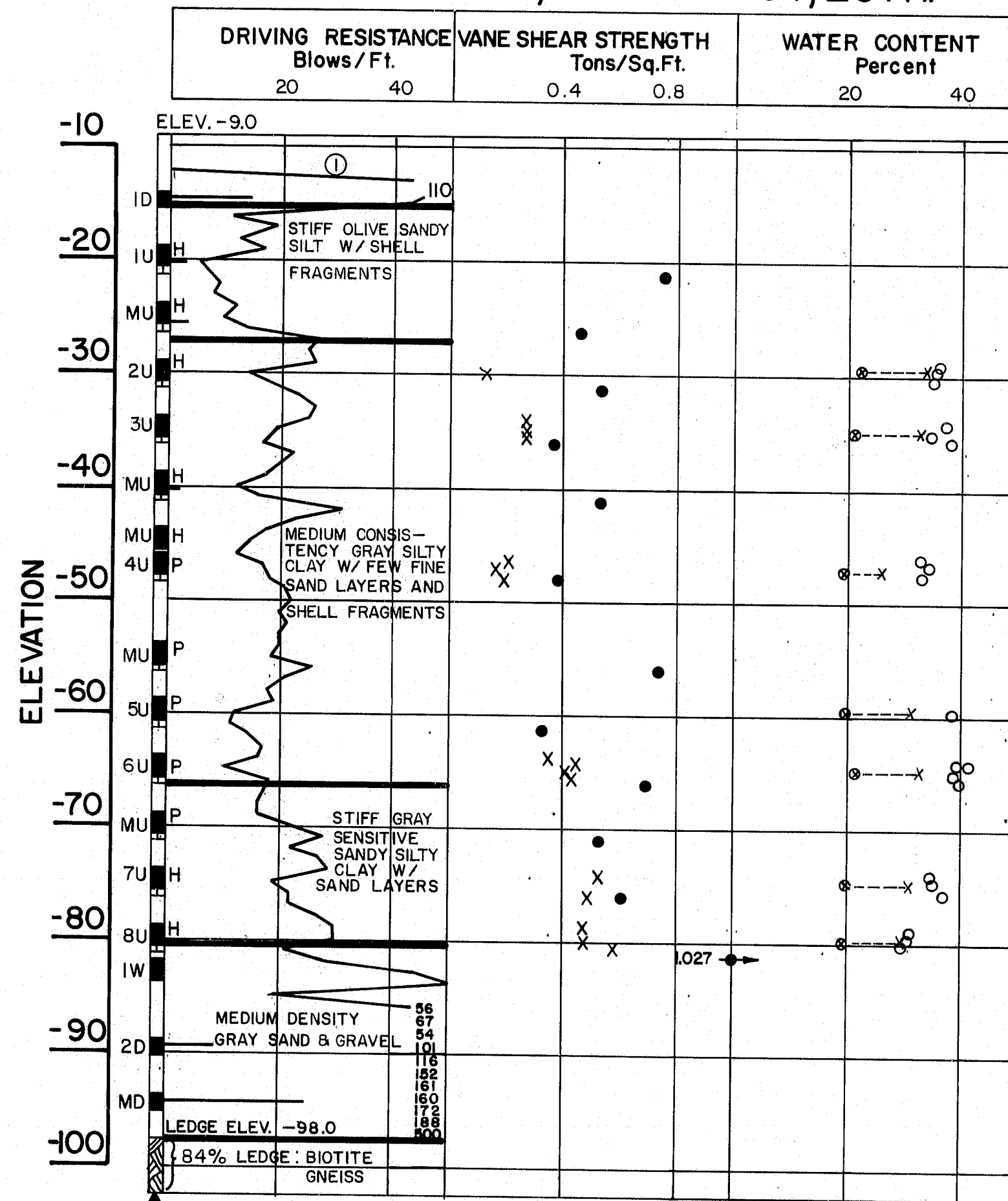
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	7/84
CHECKED	
REVISIONS	
FIELD CHANGES	

BRUNING 44132-45710

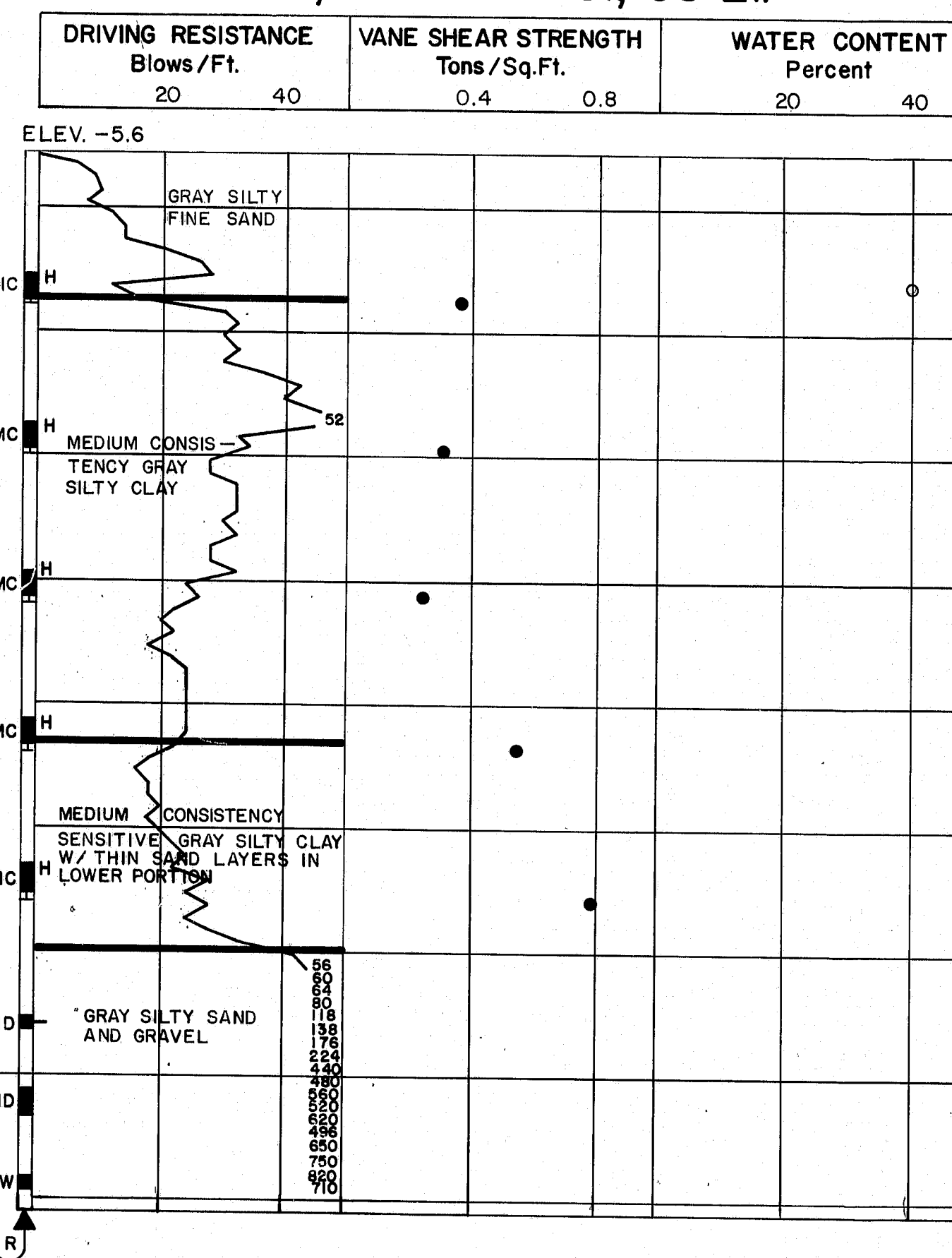
BORING DETAILS

F.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-4/42)62	8	34

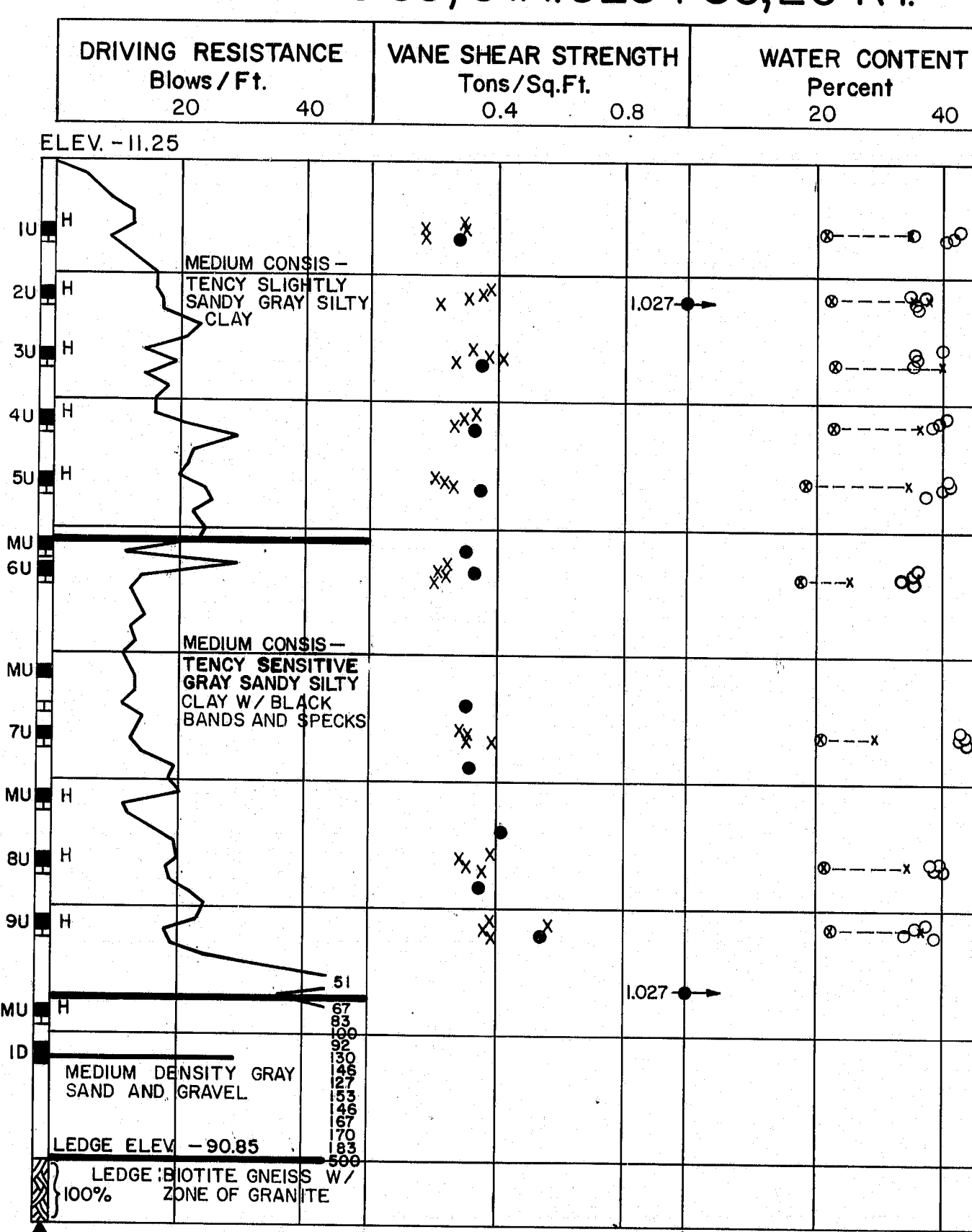
BORING CB-25-83, STA. 527+97, 20' RT.



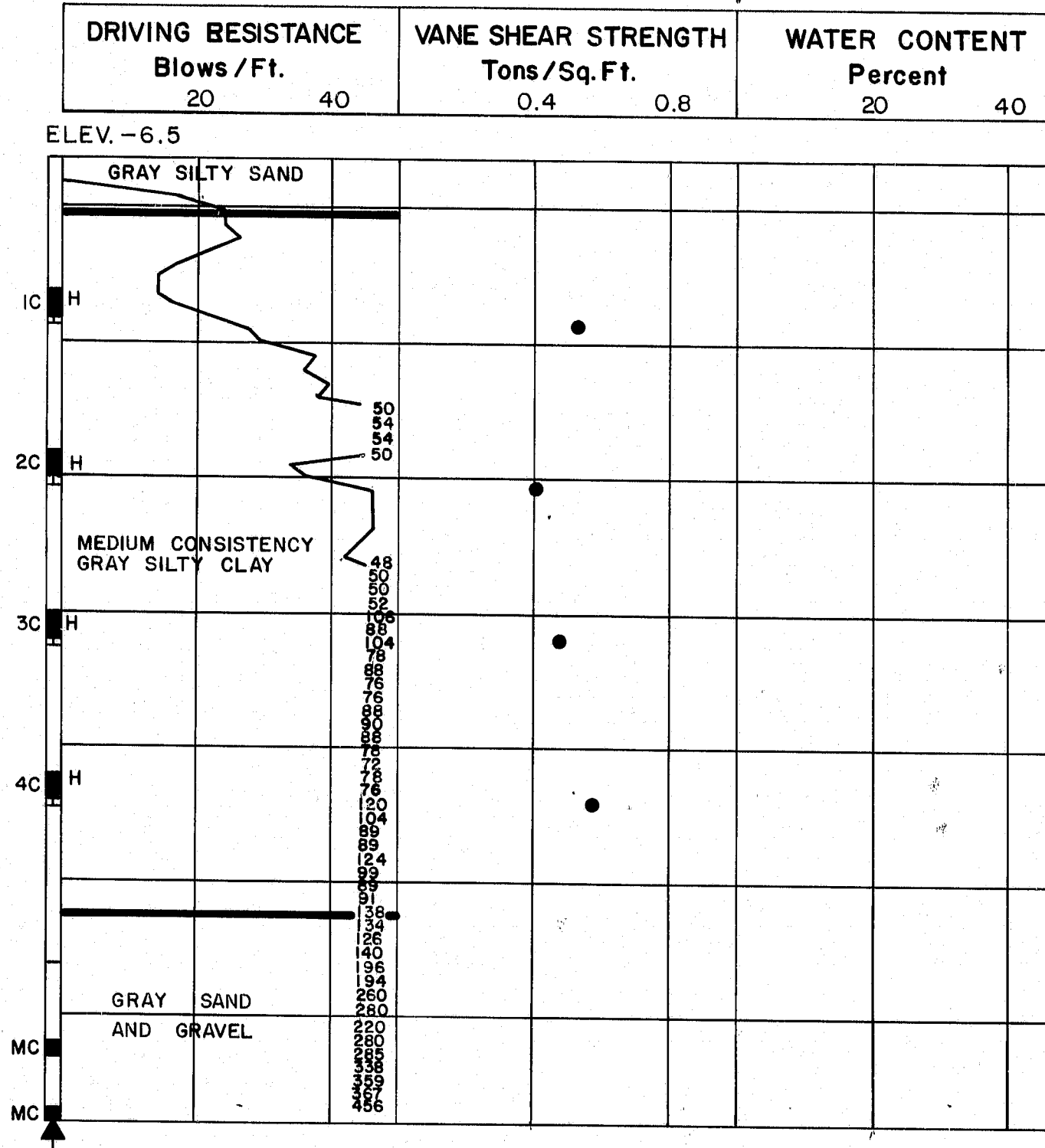
BORING NO. 11, STA. 528+31, 35' LT.



BORING CB-26-83, STA. 528+80, 20' RT.



BORING NO. 13, STA. 528+97, 41' LT.



NOTE: ESTIMATED 60 GAL/MIN. WATER FLOW AFTER REMOVING LEDGE CORE

① MEDIUM DENSITY GRAY SILTY SAND AND GRAVEL W/ PIECES OF WOOD AND SHELL FRAGMENTS. SOME CLAY IN UPPER PORTION

BORING NOTES

- All samples and vane are made ahead of casing
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
 - ID S & H Sampler #1290's
 - IC 2" O.D. 16 ga. seamless tubing
 - IU 3 1/2" O.D. 16 ga. seamless tubing
- Wash sample and number
- Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- H Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- ① Locations cored by diamond bit and percent recovery of rock

SHEAR NOTES

- Field vane shear strengths
- × Laboratory vane shear strengths
- Shear strengths in excess of capacity of equipment

WATER CONTENT NOTES

- Natural water contents given as a percent of dry weight
- ⊗ Plastic and liquid limits
- Ignition losses are given as percent of dry weight

PROJECT DESIGN ENGINEER	DATE
BY	11/20/84
PLANS	
CHECKS	
REVISIONS	
FIELD CHANGES	

BORING 44-132-42710

R93-63

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

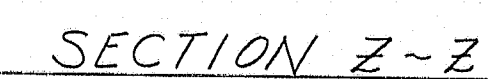
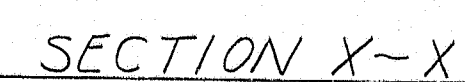
I-95
OVER
COUNSINS RIVER
BETWEEN THE CITIES OF
YARMOUTH AND FREEPORT
CUMBERLAND COUNTY
BORING DETAILS

SHEET 8 OF 34 AUGUSTA, MAINE Feb 1984

[illegible]

Note: All Piles are HP14x89

1. ~ Piles marked thus $\perp \rightarrow$, shall be battered 1 inch per foot in the direction of the arrow.
2. ~ Maximum calculated pile loads: 120 tons (including 40 tons allowed for negative skin friction).
3. ~ Estimate of piles required:
Abutment Nos. 1 3 4 - HP 14 x 89 @ 95 feet
Abutment Nos. 2 3 4 - HP 14 x 89 @ 65 feet
4. ~ 13 HP x 89 bearing piles may be substituted for 14 HP x 89 bearing piles at the option of the Contractor.



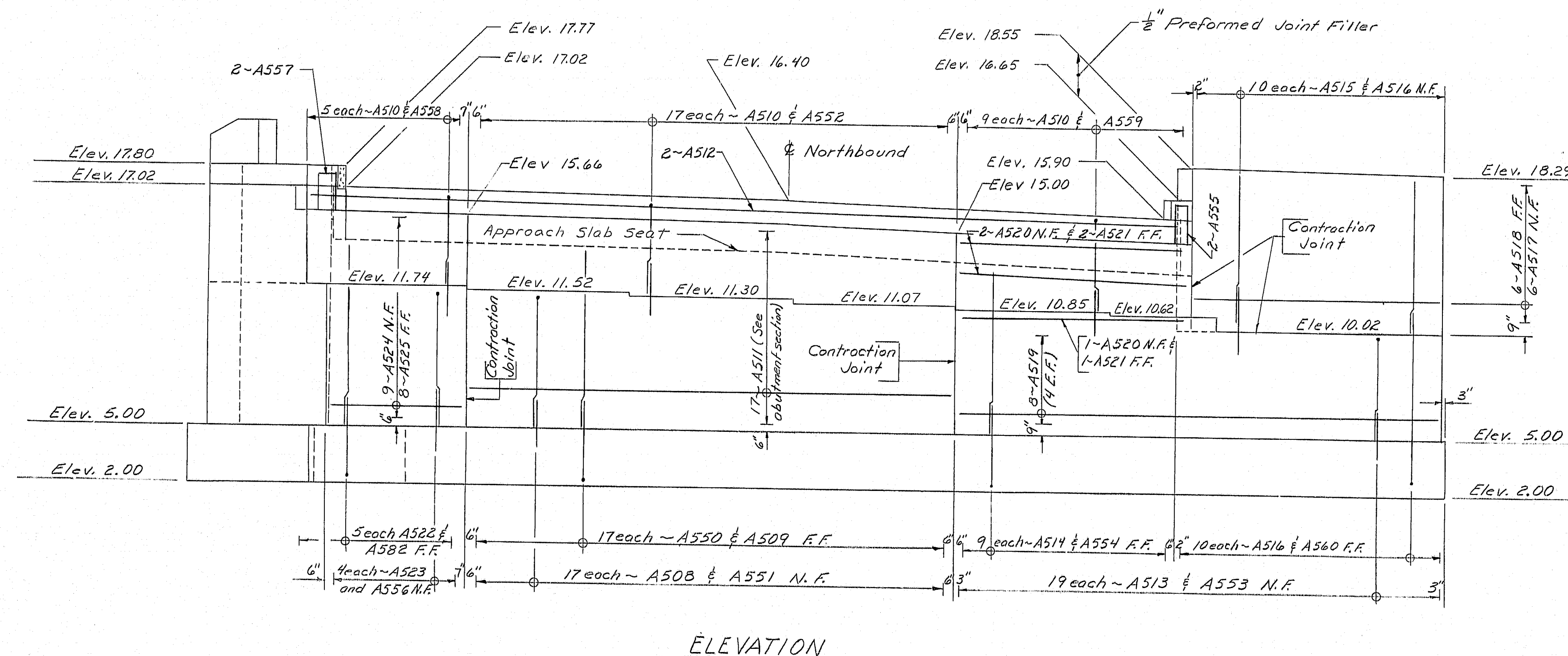
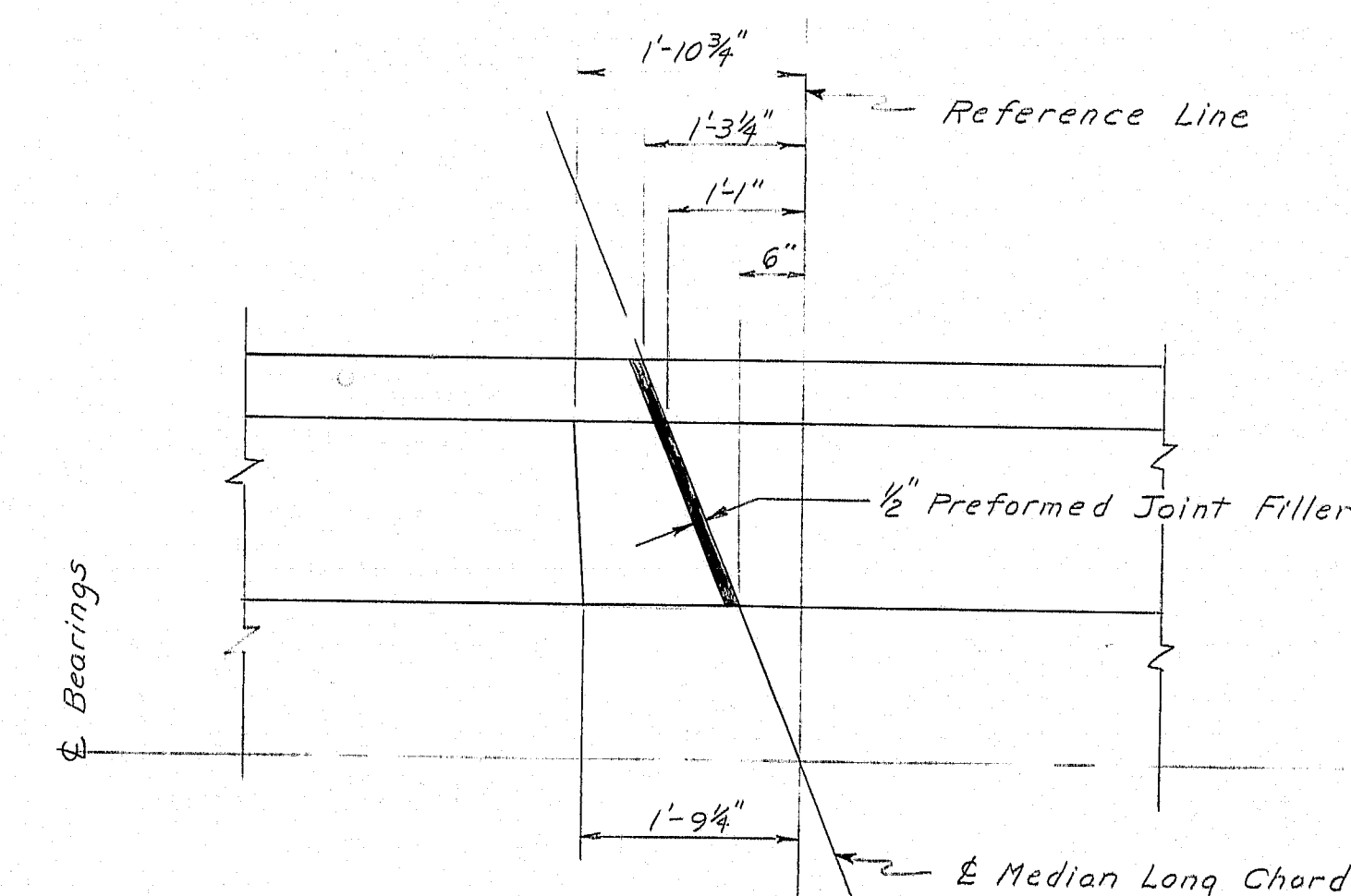
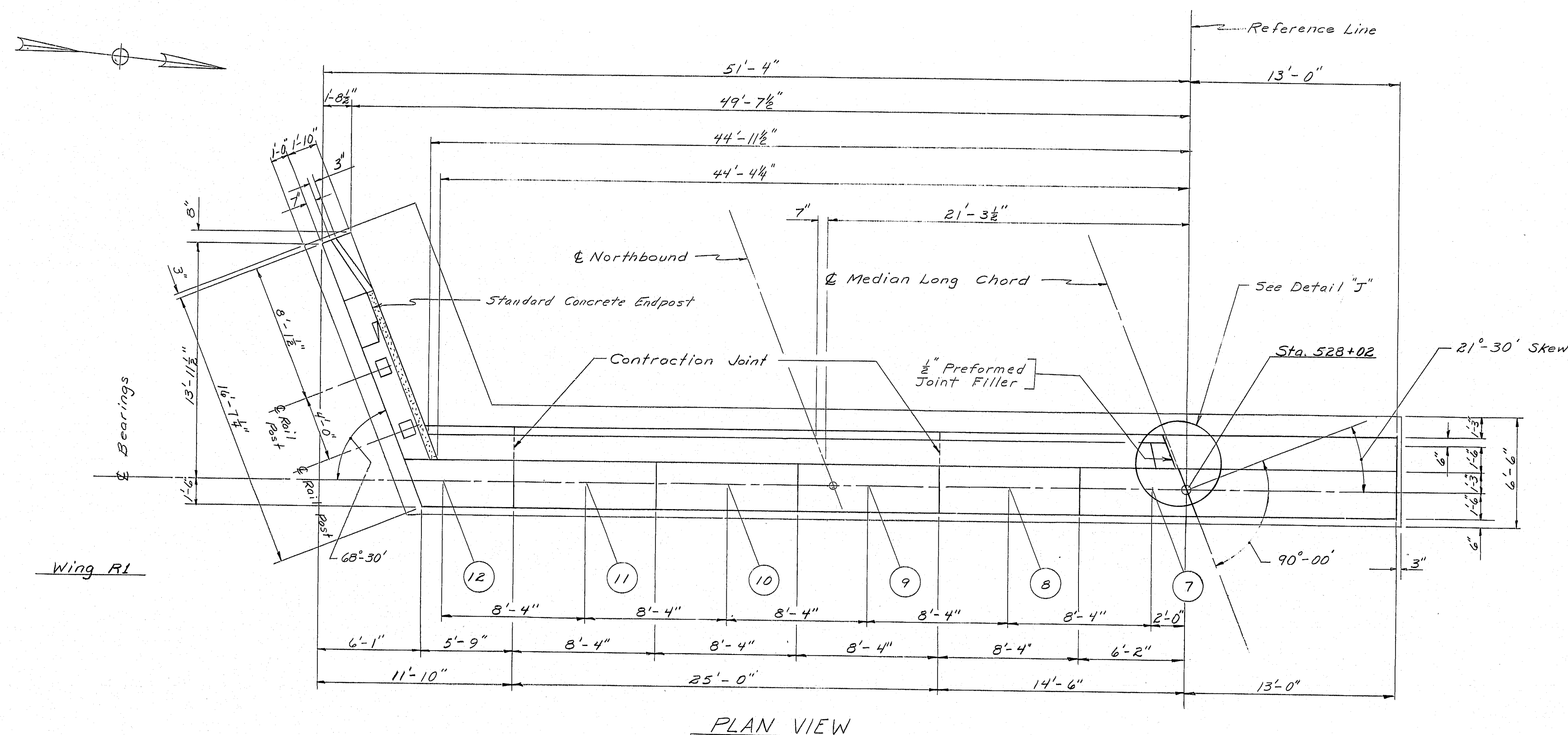
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SHEET 9 OF 34 AUGUSTA, MAINE Feb 1984

R93-64

~ ABUTMENT NOTES ~

1. ~ Payment for all concrete endposts will be incidental to item 502.260, Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges.
2. ~ Reinforcing steel shall have 2 inches cover unless otherwise indicated.
3. ~ Reinforcing steel shall be placed at 18 inches maximum spacing unless otherwise indicated.
4. ~ Cover expansion joints on the back with two layers of heavy roofing. See BD 127 for detail.
5. ~ Protective coating for concrete surfaces shall be applied to the following areas:
 - Top of concrete Curbs & All exposed surfaces of Concrete End Posts.
 - Top of abutment backwalls and 1' below top of backwalls on the back side.
 - Top of wingwalls and 1' below below top of wall on the back side. Top of median backwall and the back of the median wall to 1' below finished grade.
6. ~ Place 4" diameter drains in breastwall and wings at 20 feet maximum spacing. Exact location to be determined by the Engineer in the field.
7. ~ See the General Construction Notes for a description of the Stage Construction Sequence.



PROJECT DESIGN ENGINEER	MEB	BY	MEB	DATE	10/23
DESIGN - DETAILED			MEB		
CHECKED				WBD	2/18/4
REVISIONS					

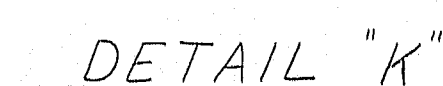
PLANS

AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 195
over
COUSINS RIVER
Between the towns of
YARMOUTH and FREEPORT
ABUTMENT No. 1 - STAGE No. 1
(NORTHBOUND)
SHEET 10 OF 34 AUGUSTA, MAINE Feb 1984

R93-65

[illegible]

PLAN VIEW

1/2" Preformed Joint Filler

Elev. 18.02

Elev. 16.12

Elev. 15.37

Elev. 14.44

15' 10 each - A535 & A536 N.F.

9' 10 each - A528 & A562

17 each - A528 & A562

10' 10 each - A529 & A581

Elev. 13.19

Elev. 13.80

Elev. 12.56

Elev. 13.94

Elev. 10.02

Elev. 9.61

Elev. 9.19

Elev. 8.78

Elev. 8.37

Elev. 7.95

Elev. 5.00

Elev. 2.00

2 - A568

3 - A542 N.F.

3 - A509 F.F.

2 - A540

2 - A557

1 - A532

6 - A537 F.F.

6 - A538 N.F.

16 - A547

3 - A530

5 - A532 F.F.

6 - A531 N.F.

3 - A536

9' 9 each - A535 & A566 F.F.

9' 9 each - A539 & A547 F.F.

17 each - A527 & A569 F.F.

11 each - A529 & A564 F.F.

15 each - A533 & A565 N.F.

17 each - A526 & A561 N.F.

11 each - A528 & A563 N.F.

Contraction Joint

Contraction Joint

Contraction Joint

Approach Slab Seat

Southbound

Sec Section

R93-66

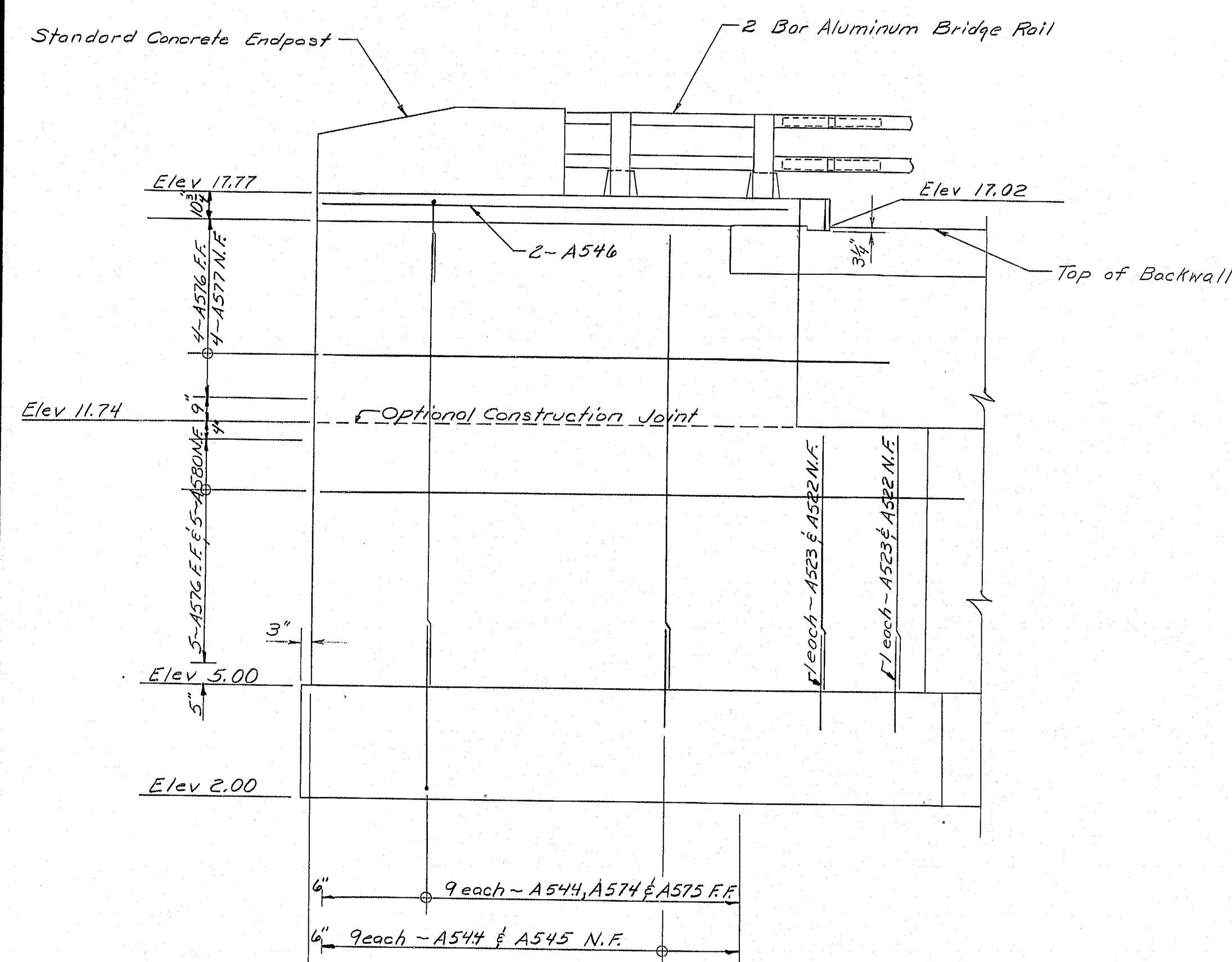
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I95
over
COUSINS RIVER

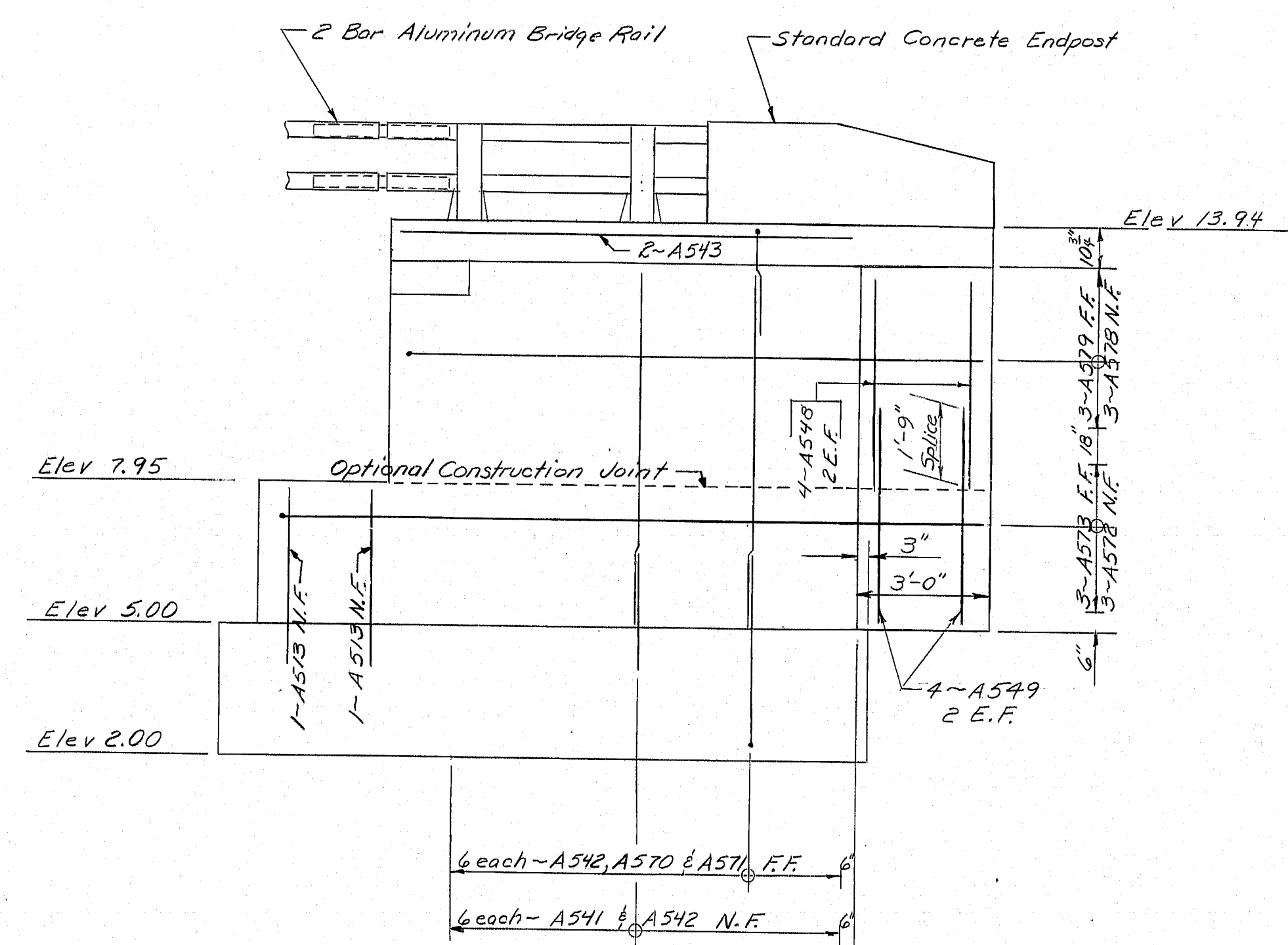
Between the towns of
YARMOUTH and FREEPORT
ABUTMENT No. 1 - STAGE No. 2
(SOUTHBOUND)
SHEET 11 OF 34 AUGUSTA, MAINE Feb 1984

PROJECT DESIGN ENGINEER	MEB	BY	MEB	DATE	10/03
DESIGN - DETAILED					
CHECKED			WBD	2/04	
REVISIONS					
FIELD CHANGES					

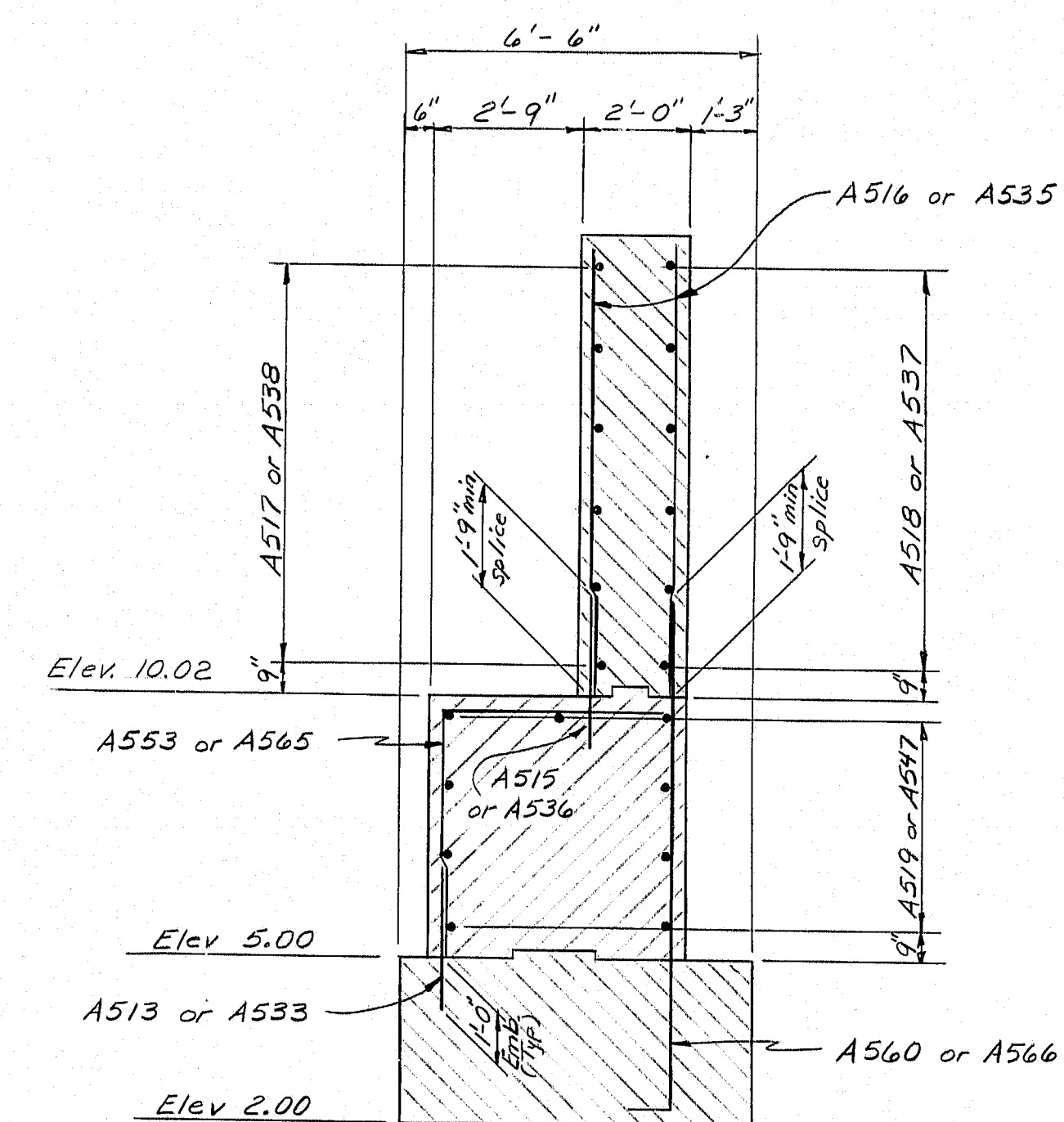
F.R.D. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(19)62	12	34



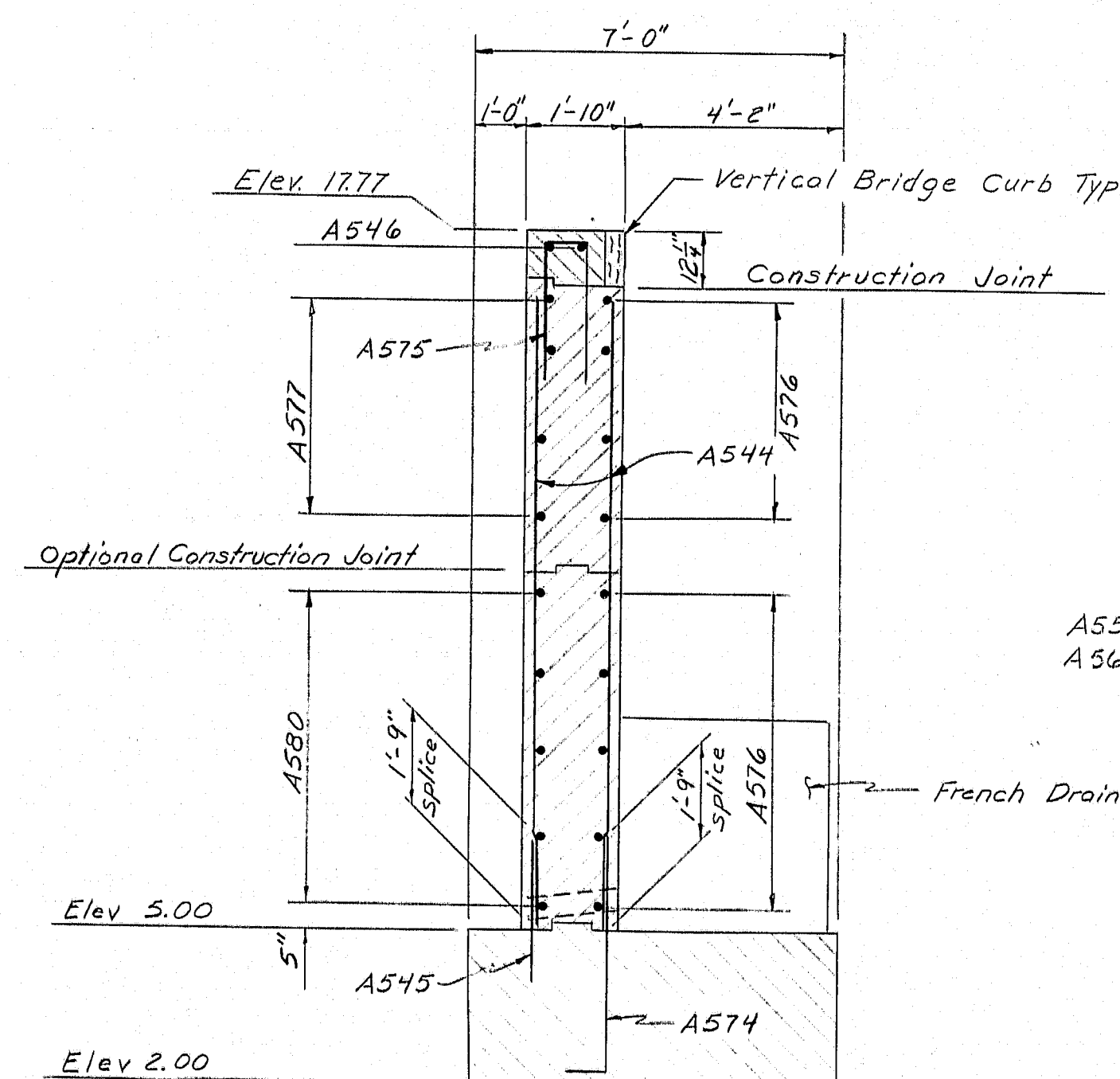
WING R1 ELEVATION



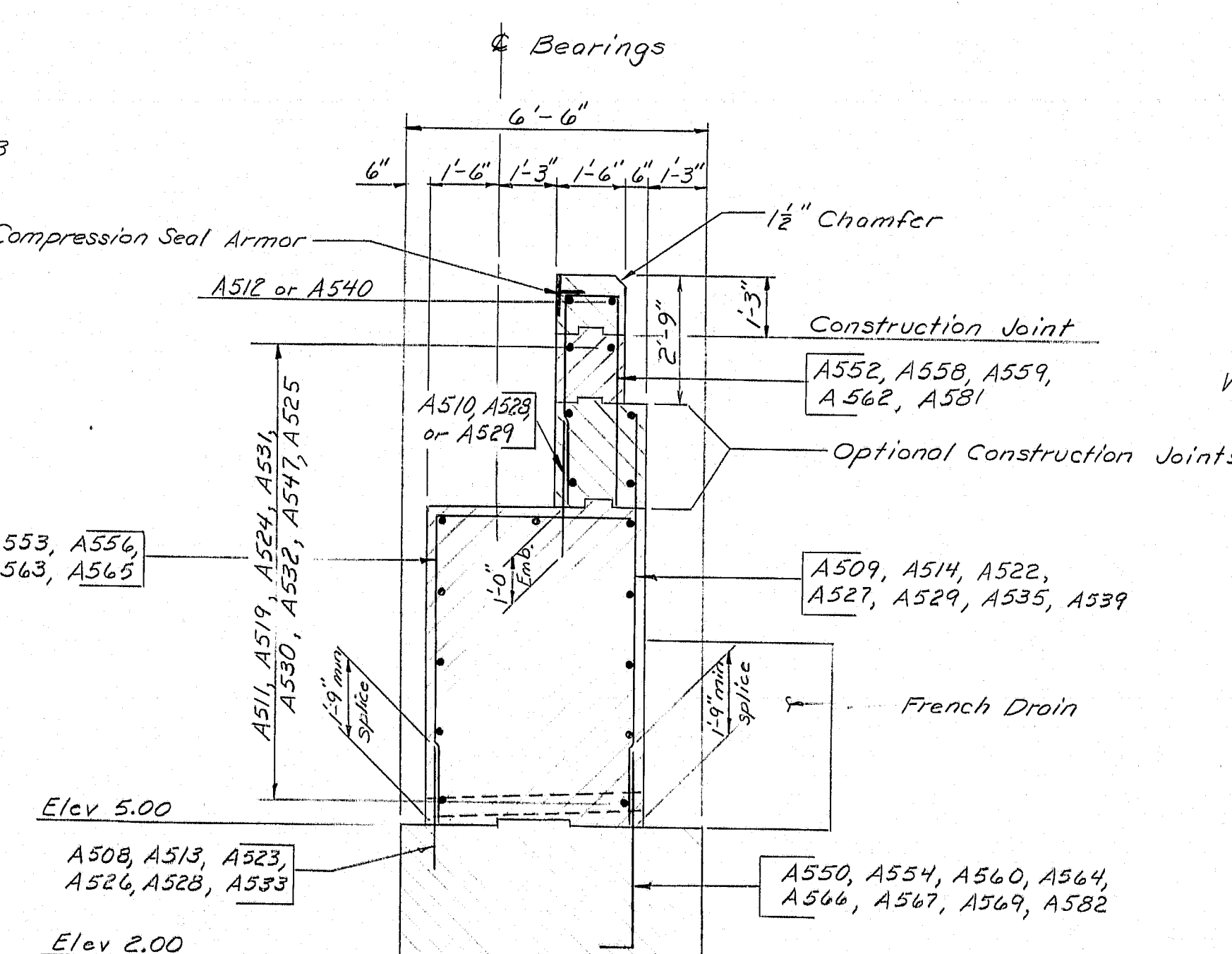
WING L1 ELEVATION



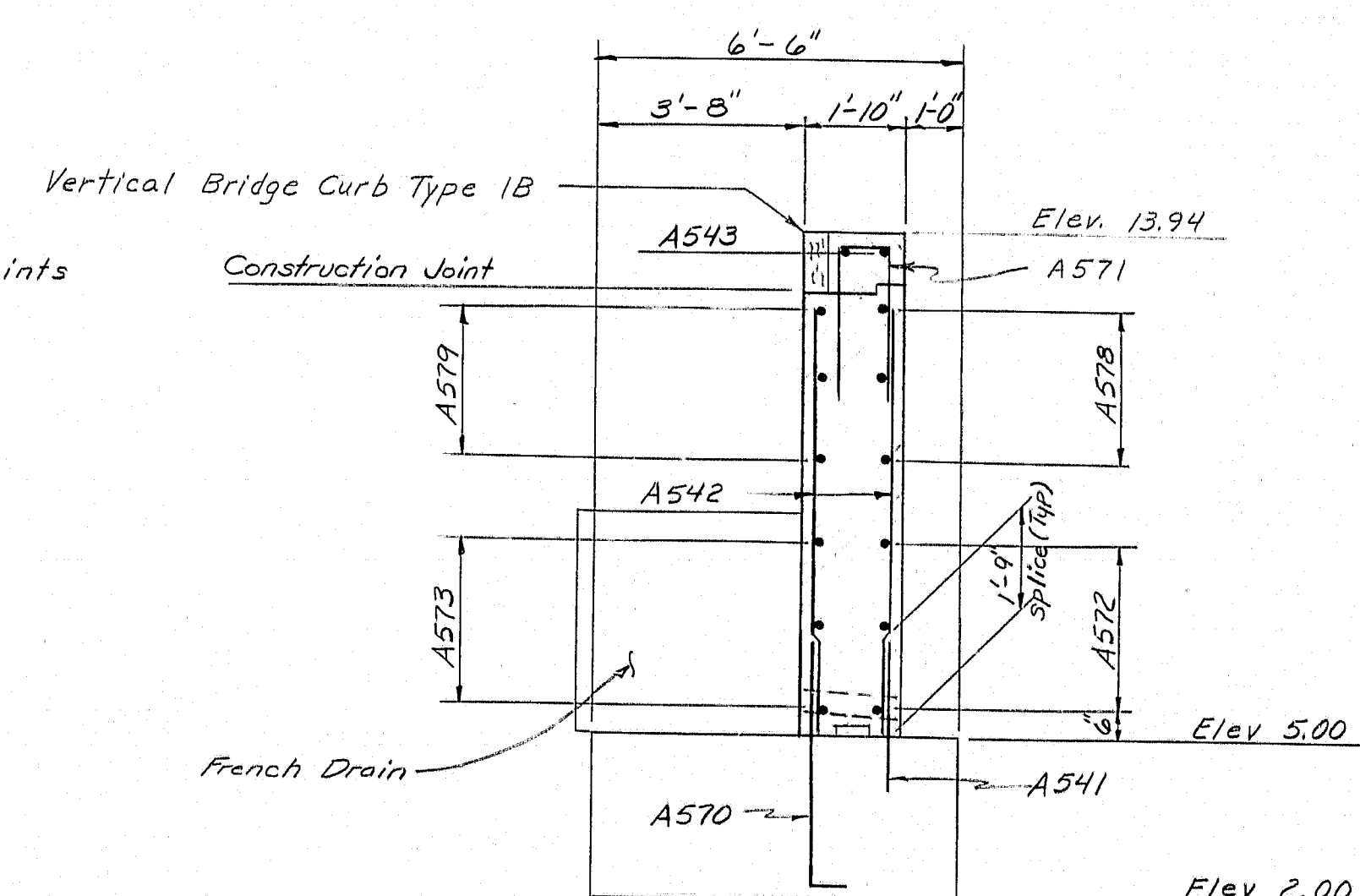
MEDIAN SECTION



WING R1 SECTION



ABUTMENT SECTION



WING L1 SECTION

AS BUILT 1985 - RSP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I95
over
COUSINS RIVER
Between the towns of
YARMOUTH and FREEPORT

ABUTMENT No. 1 SECTIONS

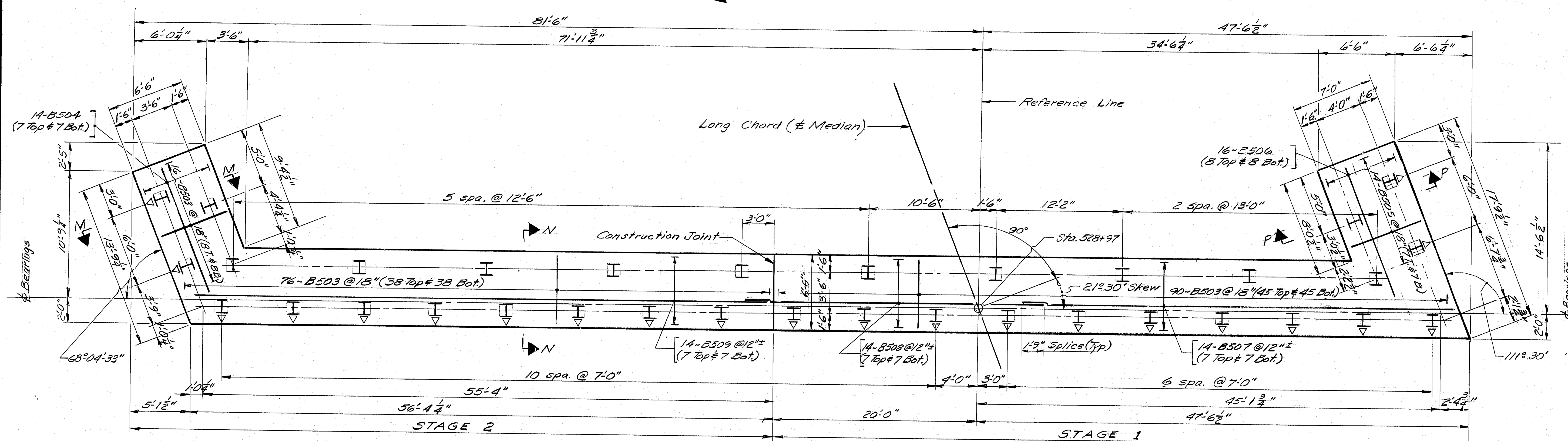
SHEET 12 OF 34 AUGUSTA, MAINE Feb 1984

R93-67

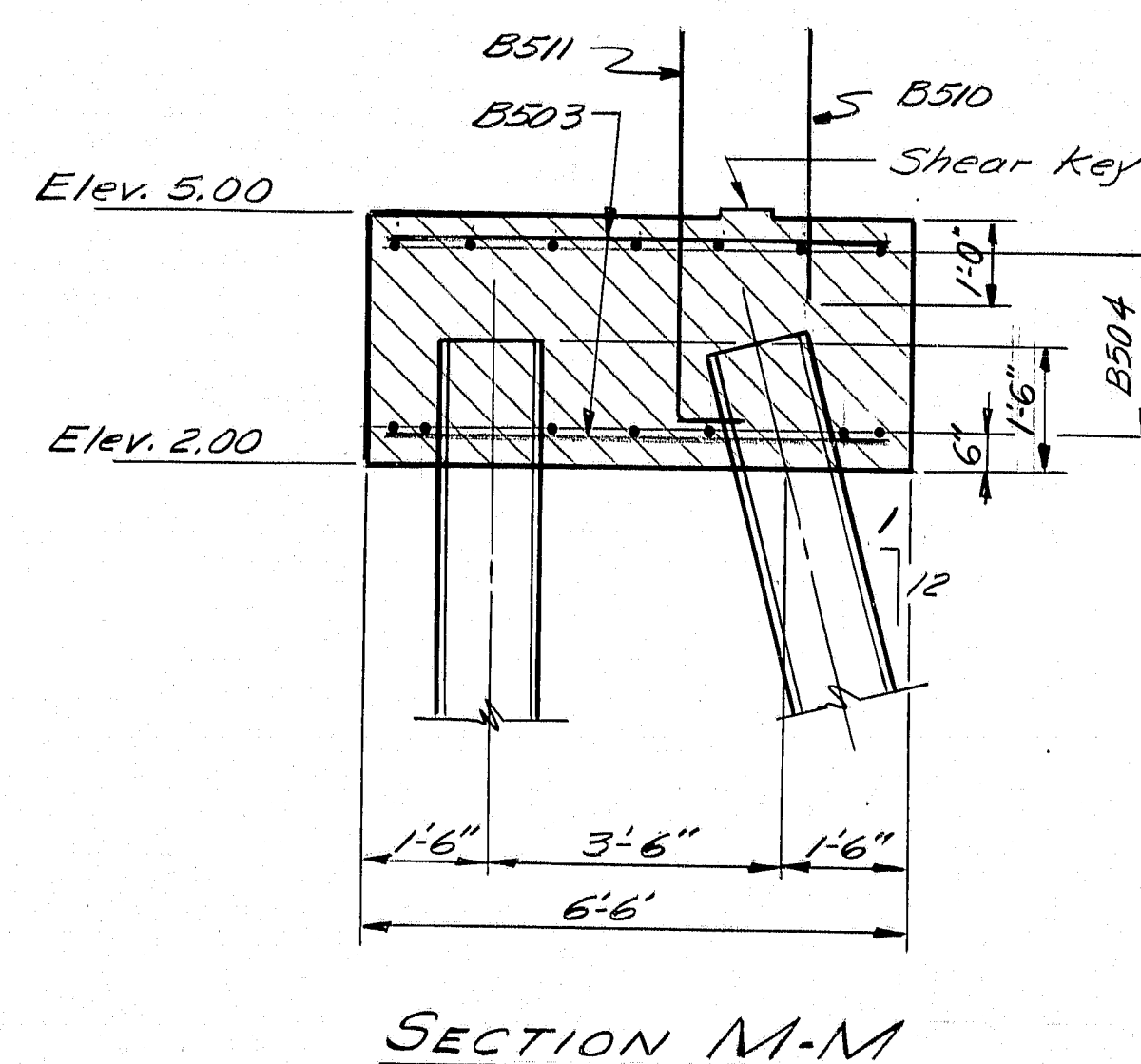
PROJECT DESIGN ENGINEER		MEB	BY		DATE
DESIGN - DETAILED			MEB		10/93
CHECKED				WBD	2/94
REVISIONS					

BRUNING 44.132.6710.1

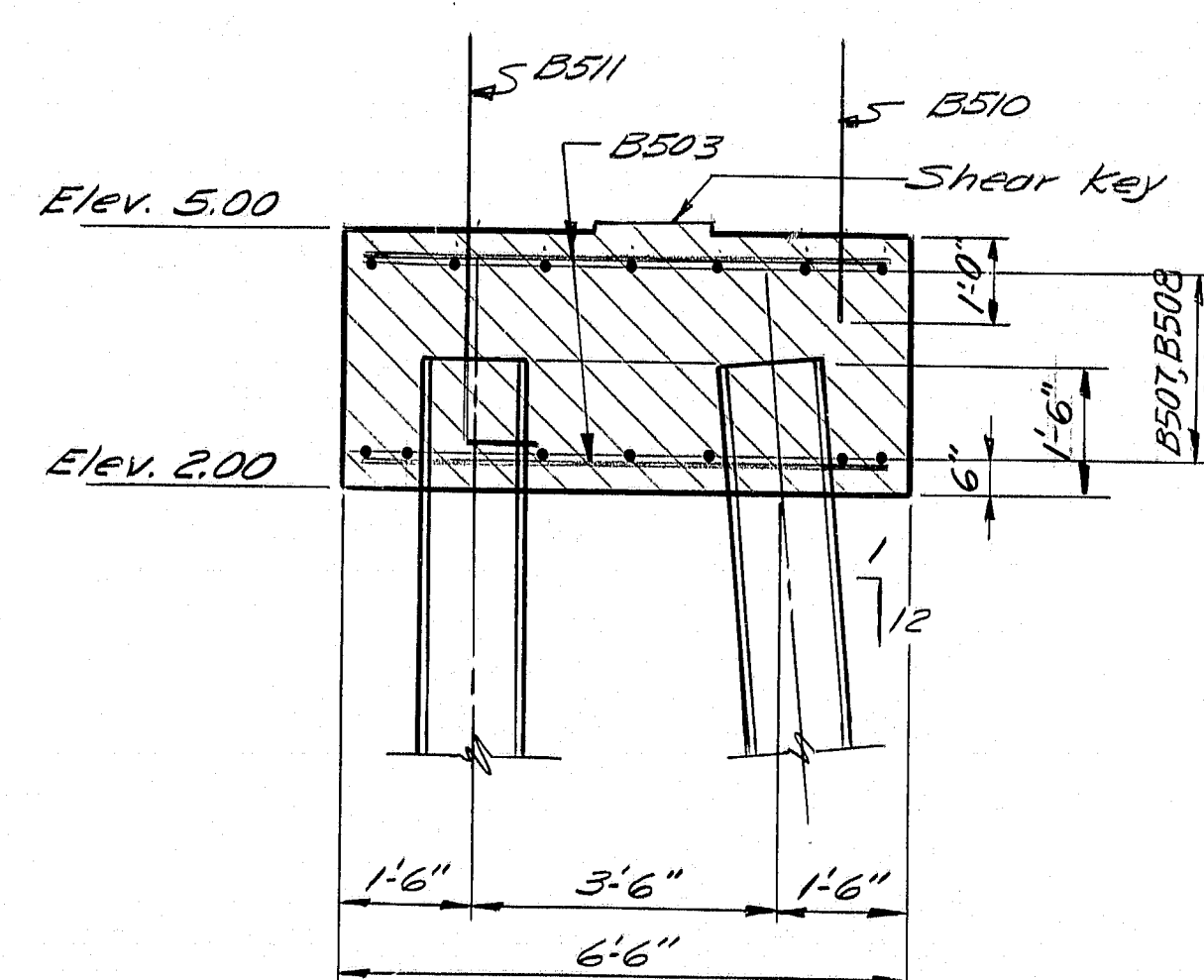
F.R.E.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-11(42)62	13	34



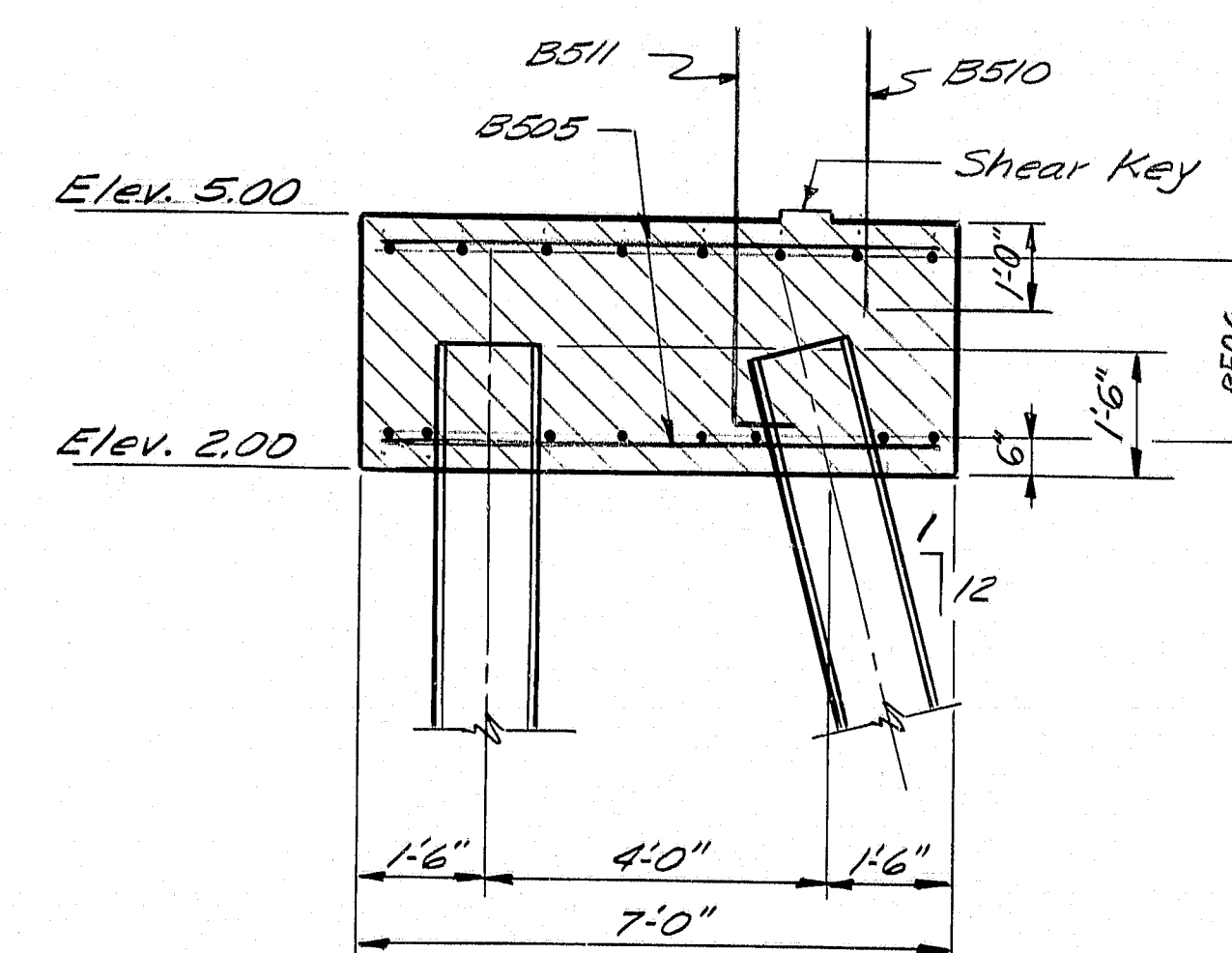
FOOTING PLAN - ABUTMENT No. 2
Note: All Piles are HP 14x59



SECTION M-M



SECTION N-N



SECTION P-P

AS BUILT 1985 R.P.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I95
over
COUSINS RIVER
between the towns of
YARMOUTH & FREEPORT

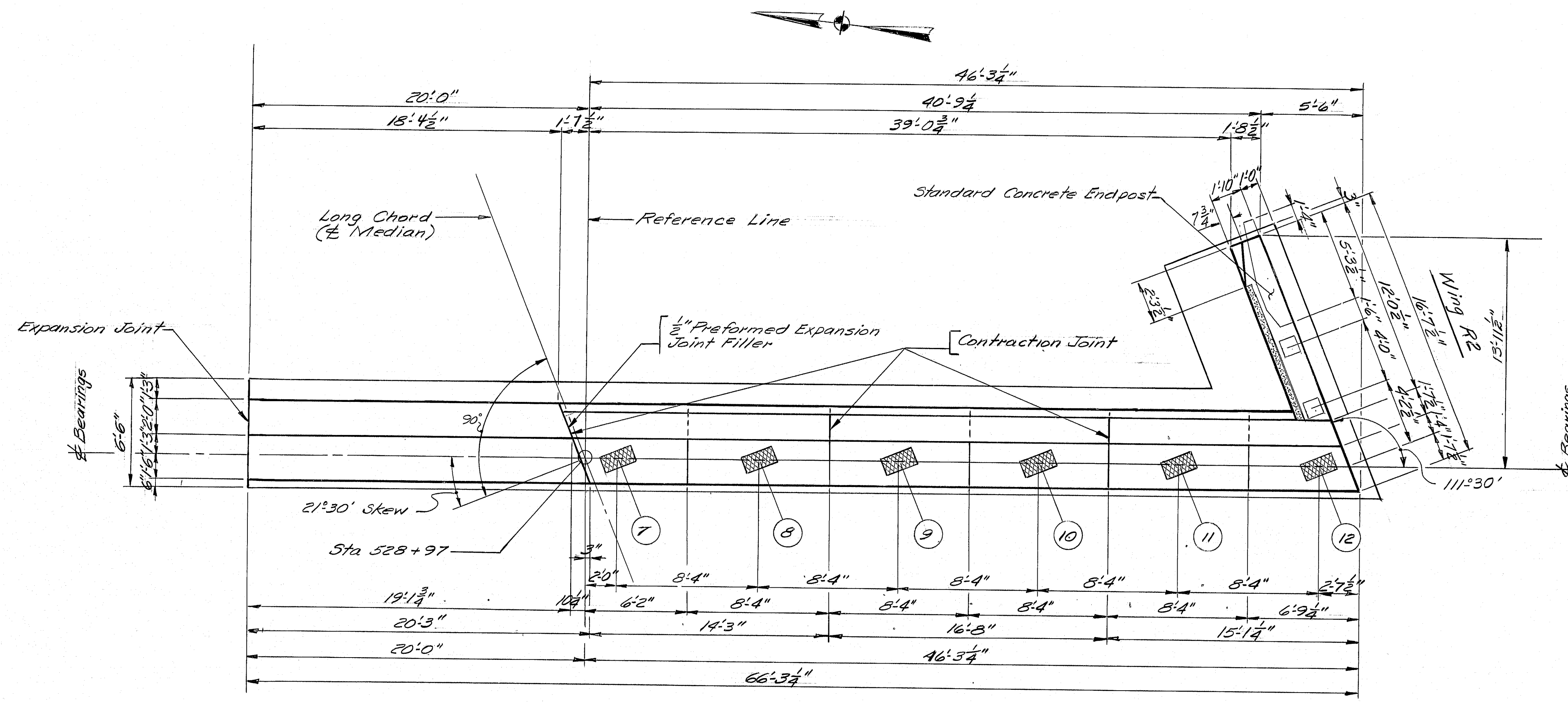
FOOTING PLAN - ABUTMENT #2
SHEET 13 OF 34 AUGUSTA, MAINE Feb 1984

R93-68

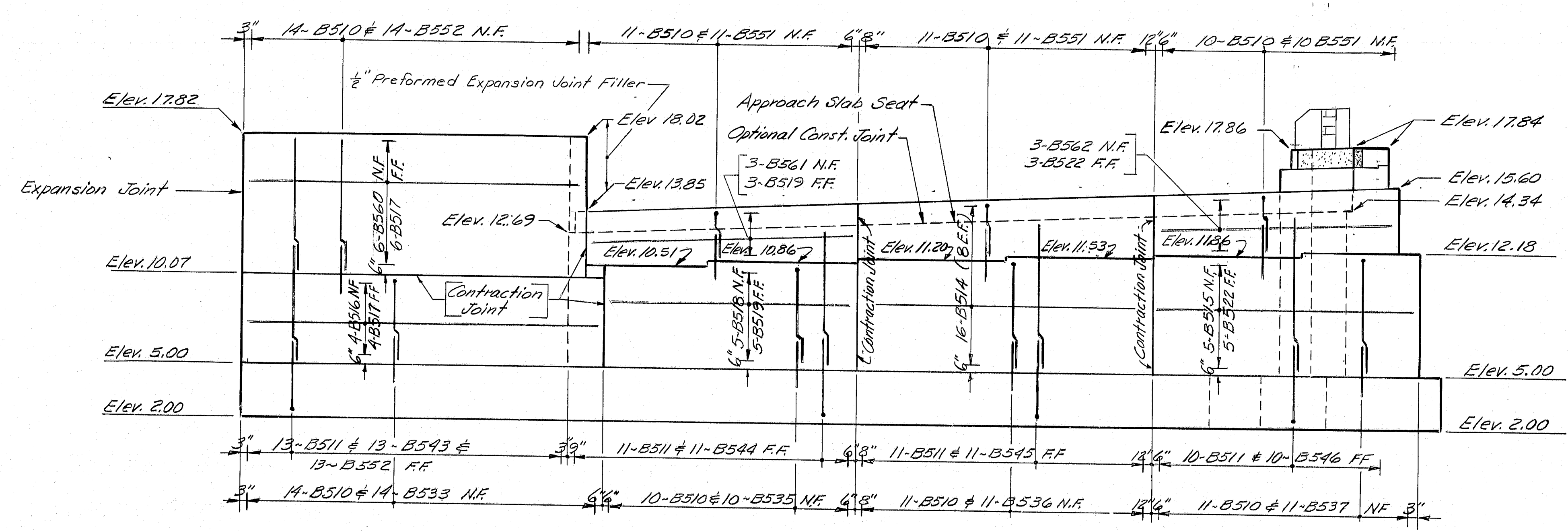
PROJECT DESIGN ENGINEER	MEB	DATE	10-93
DESIGN - CHECKED	MEB	DATE	10-93
REVISIONS	WJD	DATE	2/94
FIELD CHANGES			

REVISION 44-52 45710-1

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(42)62	14	34



PLAN



ELEVATION

PROJECT DESIGN ENGINEER	DATE
MEB	10/93
CHECKED	DATE
WBD	2/94
REVISIONS	FIELD CHANGES

BRUNING 44122 257131

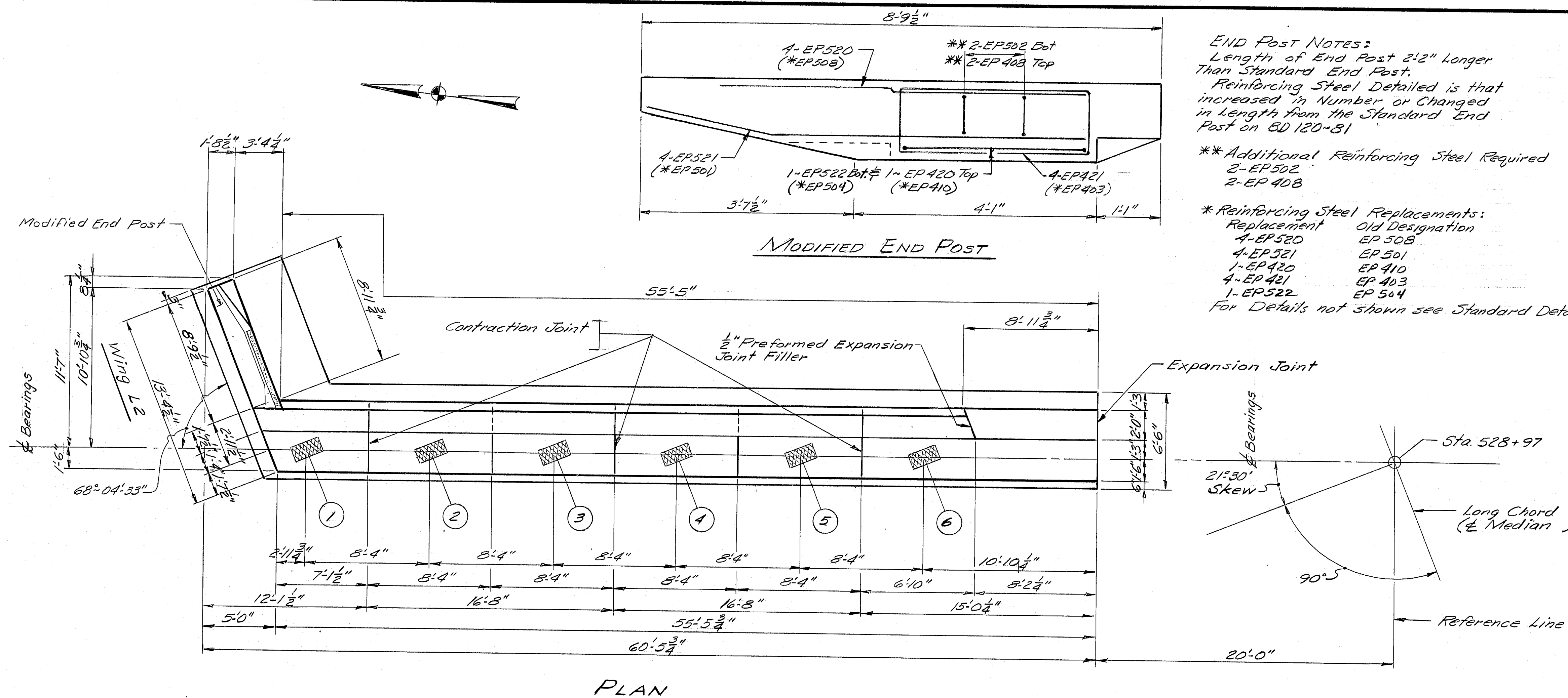
AS BUILT 1985 P.O.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I 95
OVER
COUSINS RIVER
between the TOWNS of
YARMOUTH & FREEPORT
ABUTMENT #2 - STAGE #1
(NORTHBOUND)
SHEET 14 OF 34 AUGUSTA, MAINE FEB 1984

R93-69

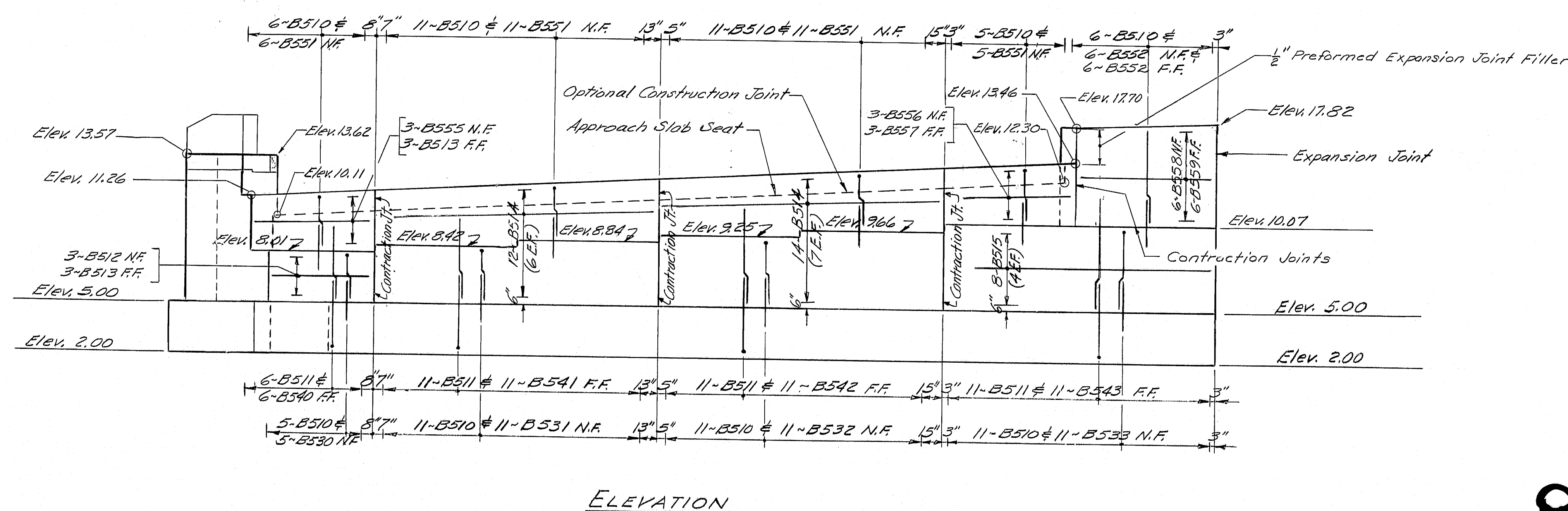
F.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(10)62	15	34



END POST NOTES:
 Length of End Post 2'-2" Longer Than Standard End Post.
 Reinforcing Steel Detailed is that increased in Number or Changed in Length from the Standard End Post on BD 120-81

**** Additional Reinforcing Steel Required**
 2-EP502
 2-EP408

*** Reinforcing Steel Replacements:**
 Replacement Old Designation
 4-EP520 EP 508
 4-EP521 EP 501
 1-EP420 EP 410
 4-EP421 EP 403
 1-EP522 EP 504
 For Details not shown see Standard Details.



AS BUILT 1985 RCP

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

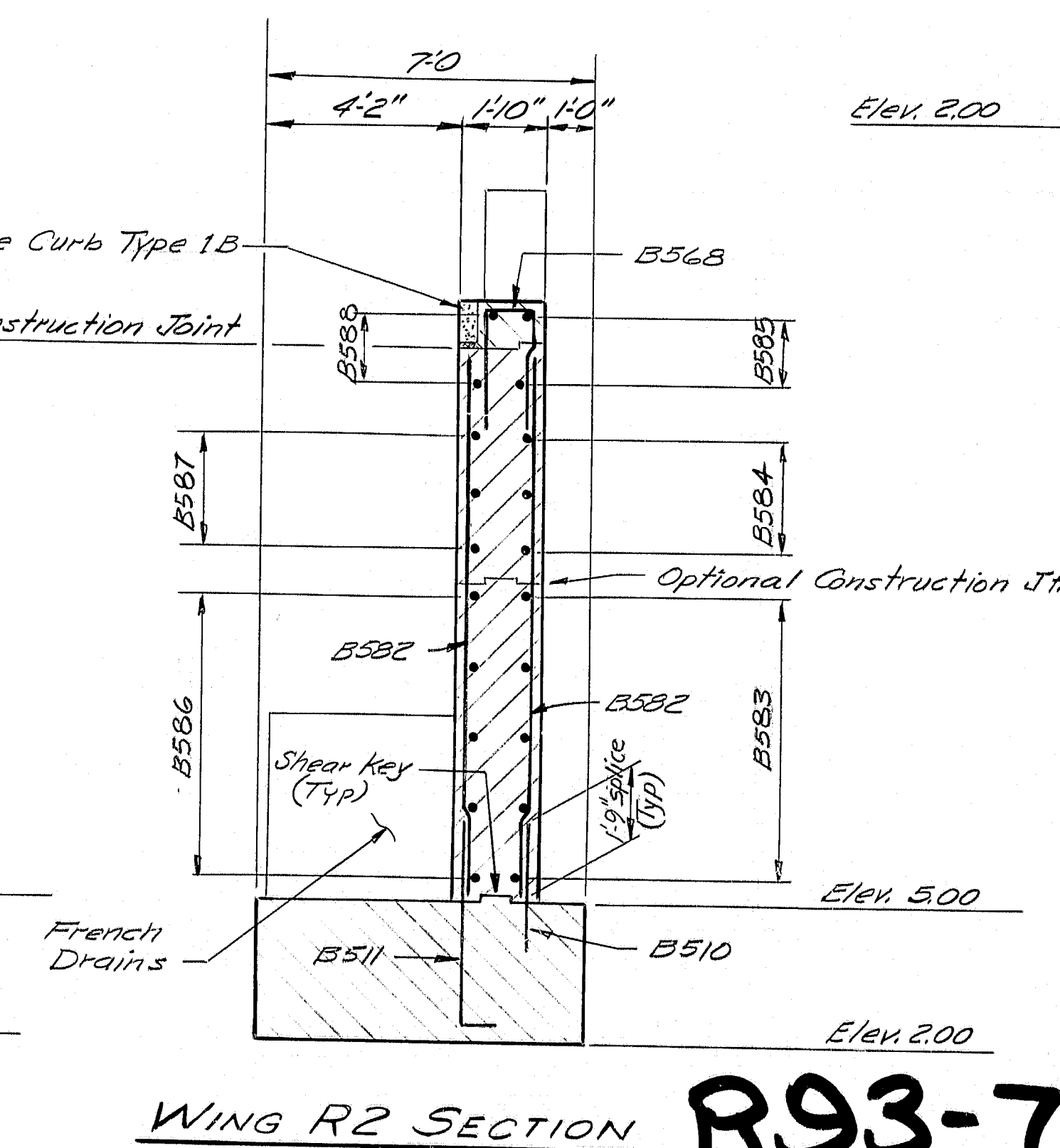
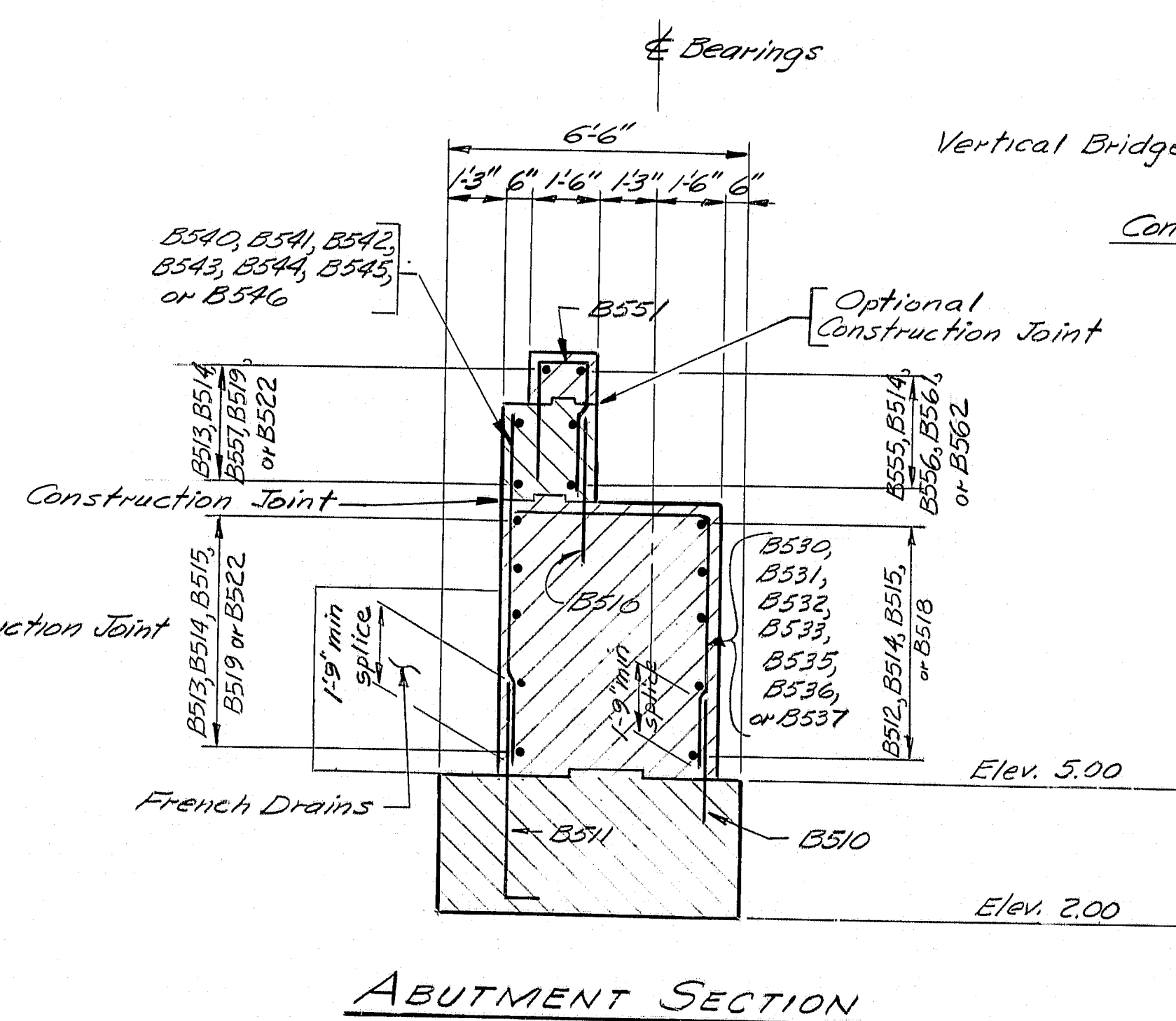
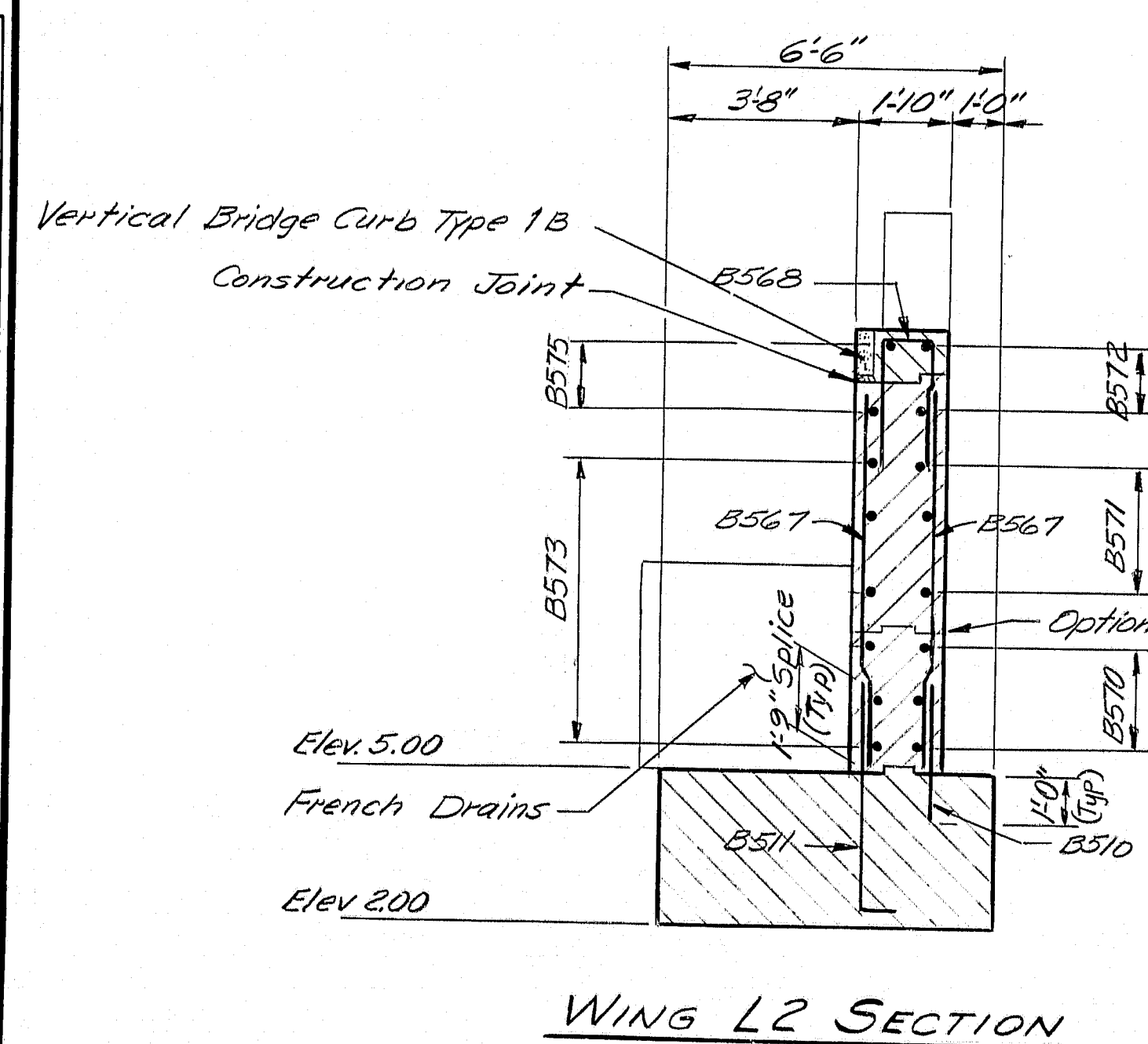
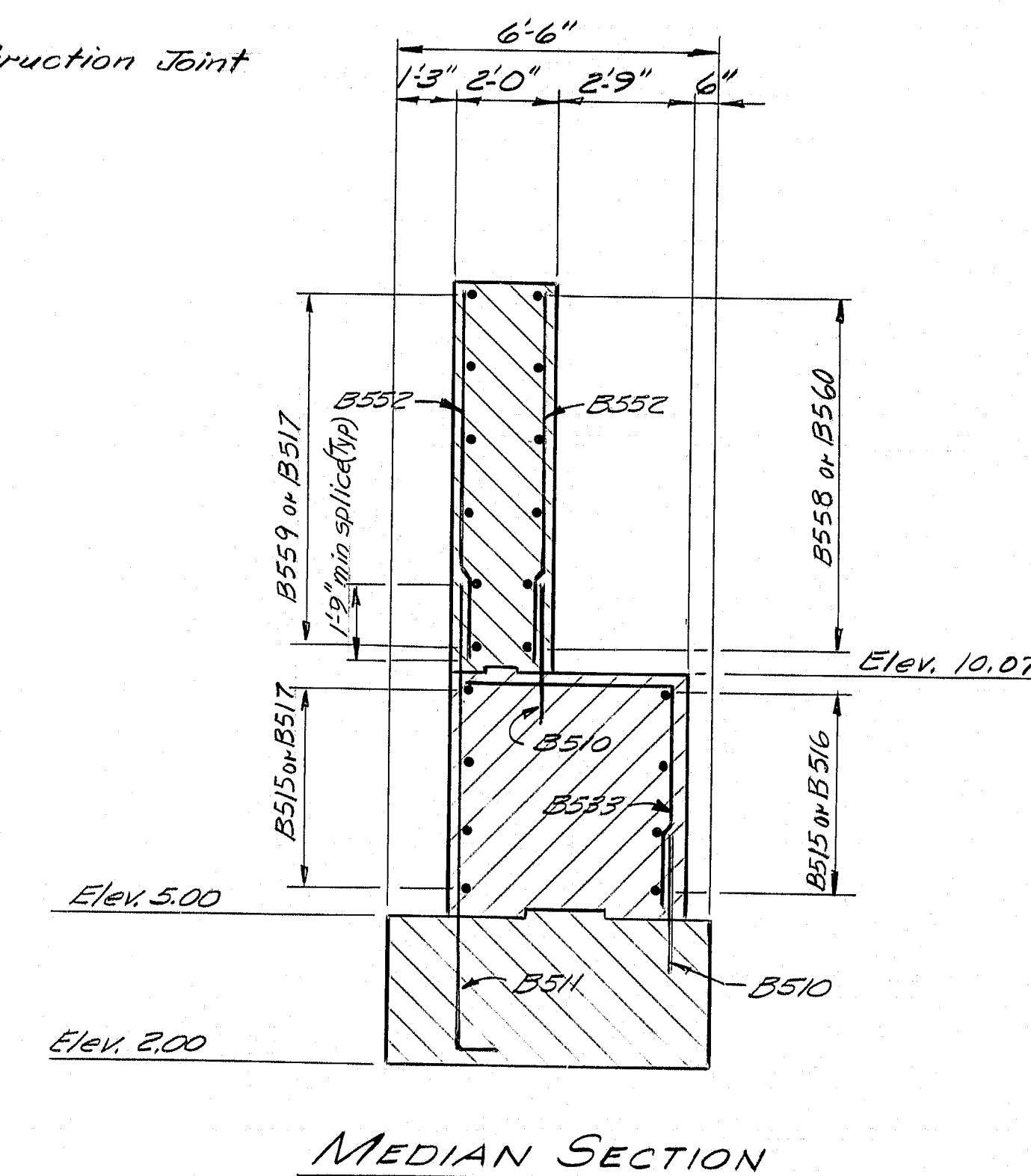
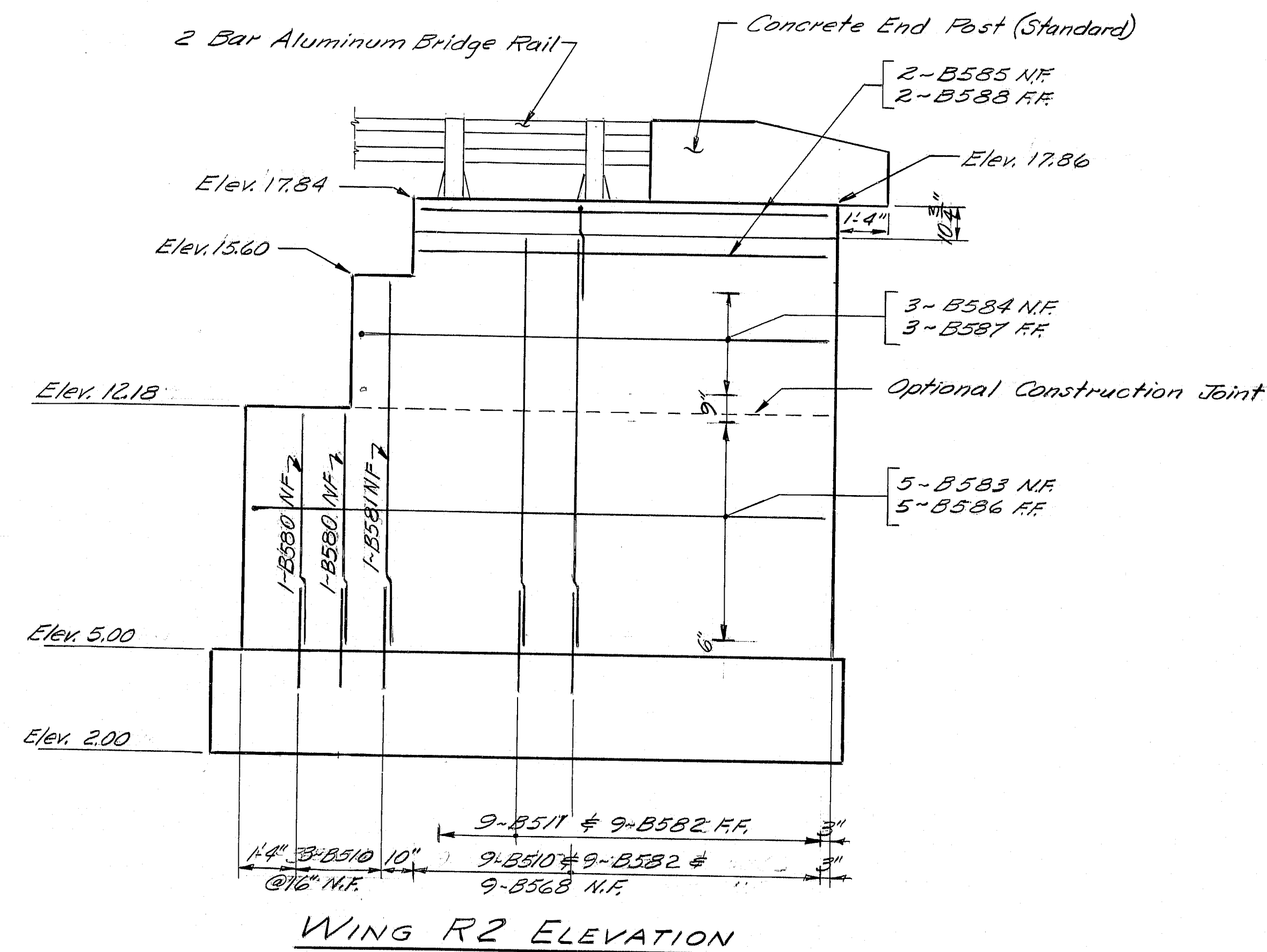
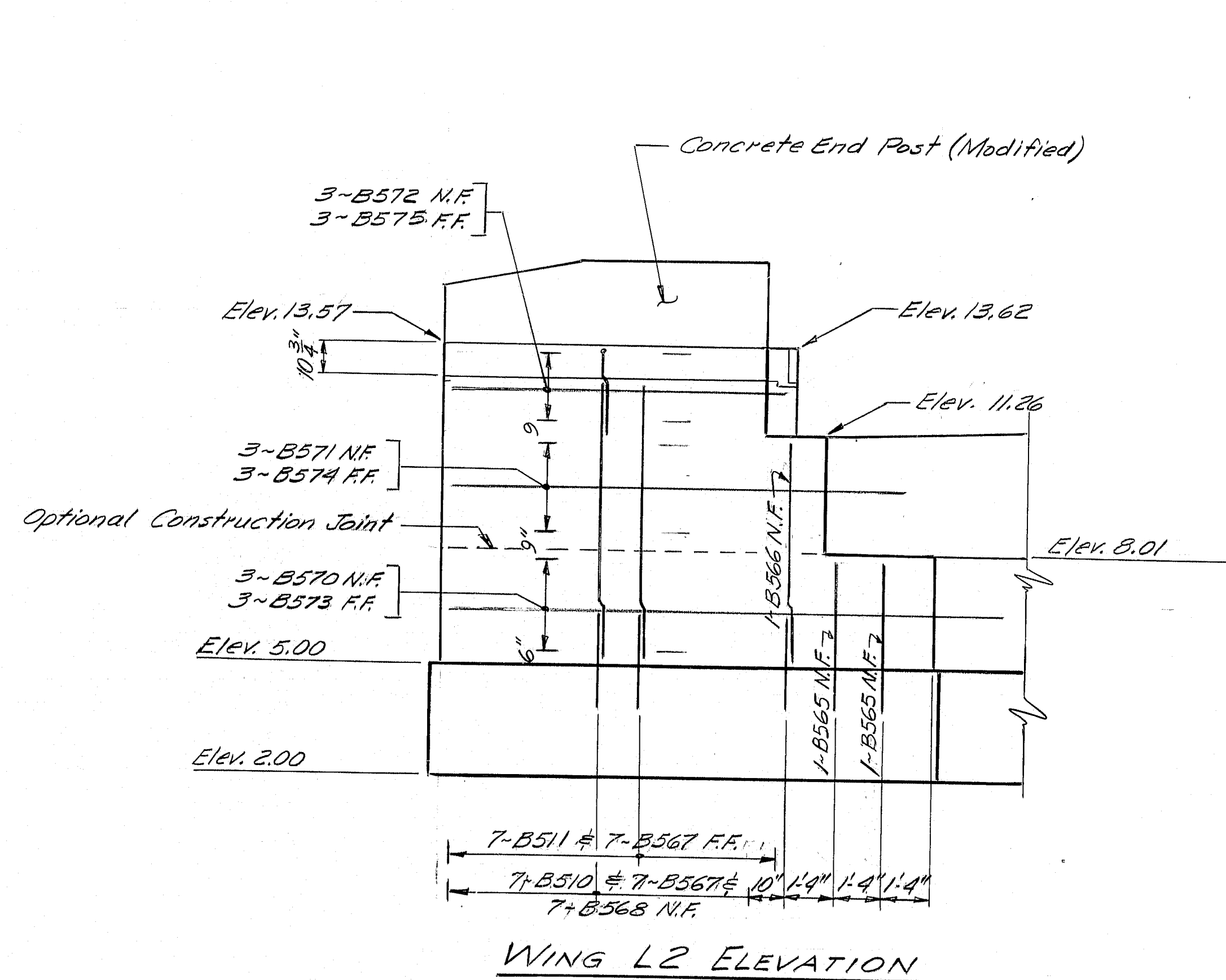
INTERSTATE I 95
 over
 COUSINS RIVER
 between the towns of
 YARMOUTH & FREEPORT
 ABUTMENT #2 - STAGE #2
 (SOUTHBOUND)
 SHEET 15 OF 34 AUGUSTA, MAINE Feb 1984

R93-70

PROJECT DESIGN ENGINEER	DATE
MES	10-83
DESIGN - DETAILED	MEB
CHECKED	WBD
REVISIONS	2/84
FIELD CHANGES	

BRUNING 44-132-25710-1

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	T-95-1412	62	16



AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 195
OVER
COUSINS RIVER
between the towns of
YARMOUTH & FREEPORT
ABUTMENT #2 ~ SECTIONS

SHEET 16 OF 34 AUGUSTA, MAINE Feb 1984

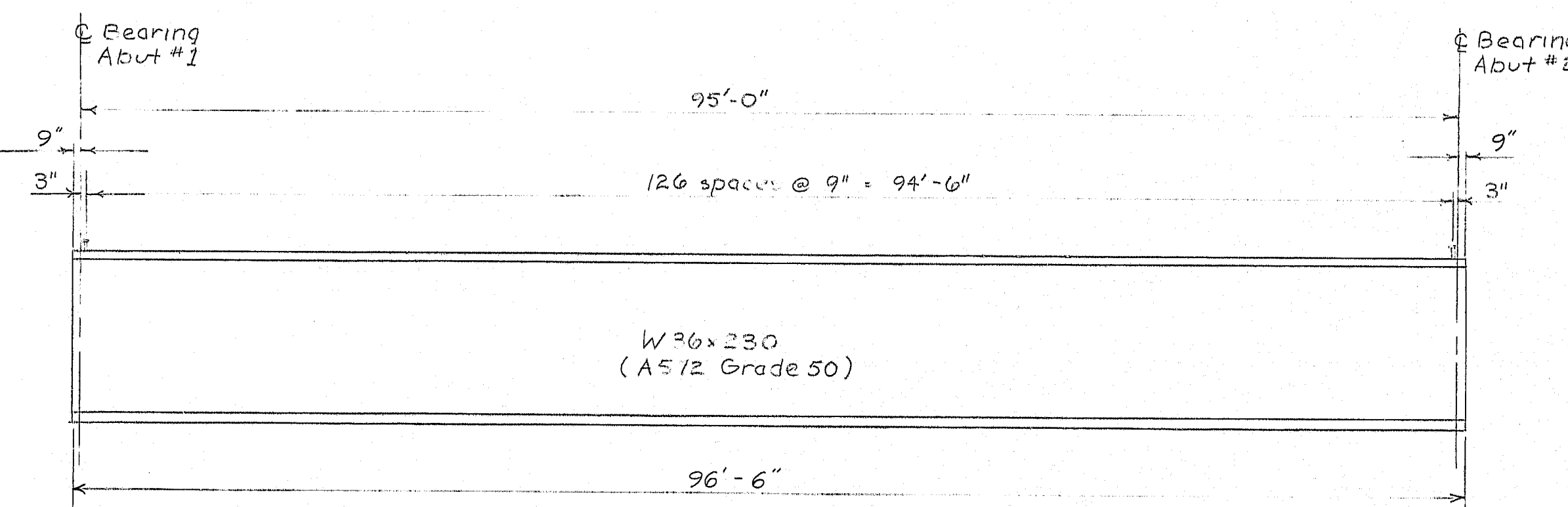
PROJECT DESIGN ENGINEER	DATE
MES	1/28/83
DESIGN - DETAIL	WED
CHECKED	WED
FIELD CHANGES	2/2/84

BRUNING 44-132-65710-1

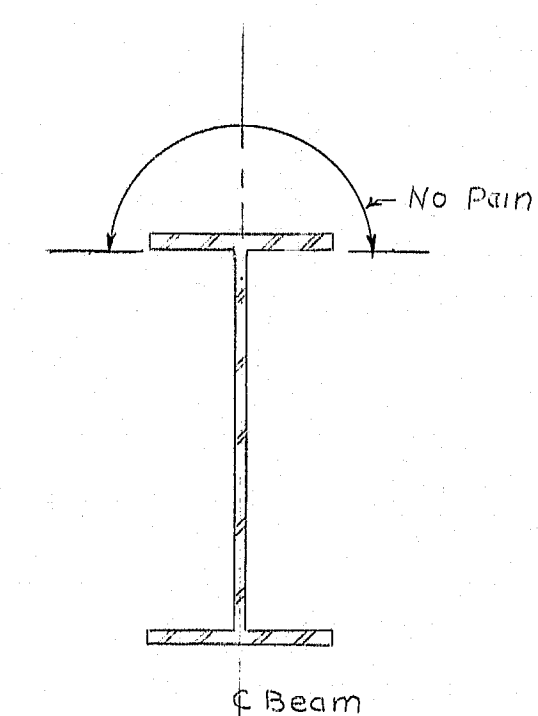
R93-71

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-442/62	17	34

Double Shear Connector Spacing
Studs / Stringer = 254
Total Studs = 3048



BEAM ELEVATION



BEAM SECTION

STRUCTURAL STEEL NOTES

1. Camber each beam 4 3/4" up. The camber is to compensate for all dead load deflections.

2. Cross-frame or diaphragm connection plate may be either plumb or normal to the top flange.

BASIC ALLOWABLE STRESSES

Structural Steel:
A512M A572 --- $F_y = 50,000 \text{ psi}$
A512M A36 --- $F_y = 36,000 \text{ psi}$
A512M A325 --- $F_y = 33,000 \text{ psi}$

MATERIALS

Structural Steel Stringer --- A512M A572 Grade 50
High Strength Bolt --- ASTM A325, $T_b 1$
All Other --- ASTM A36

AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

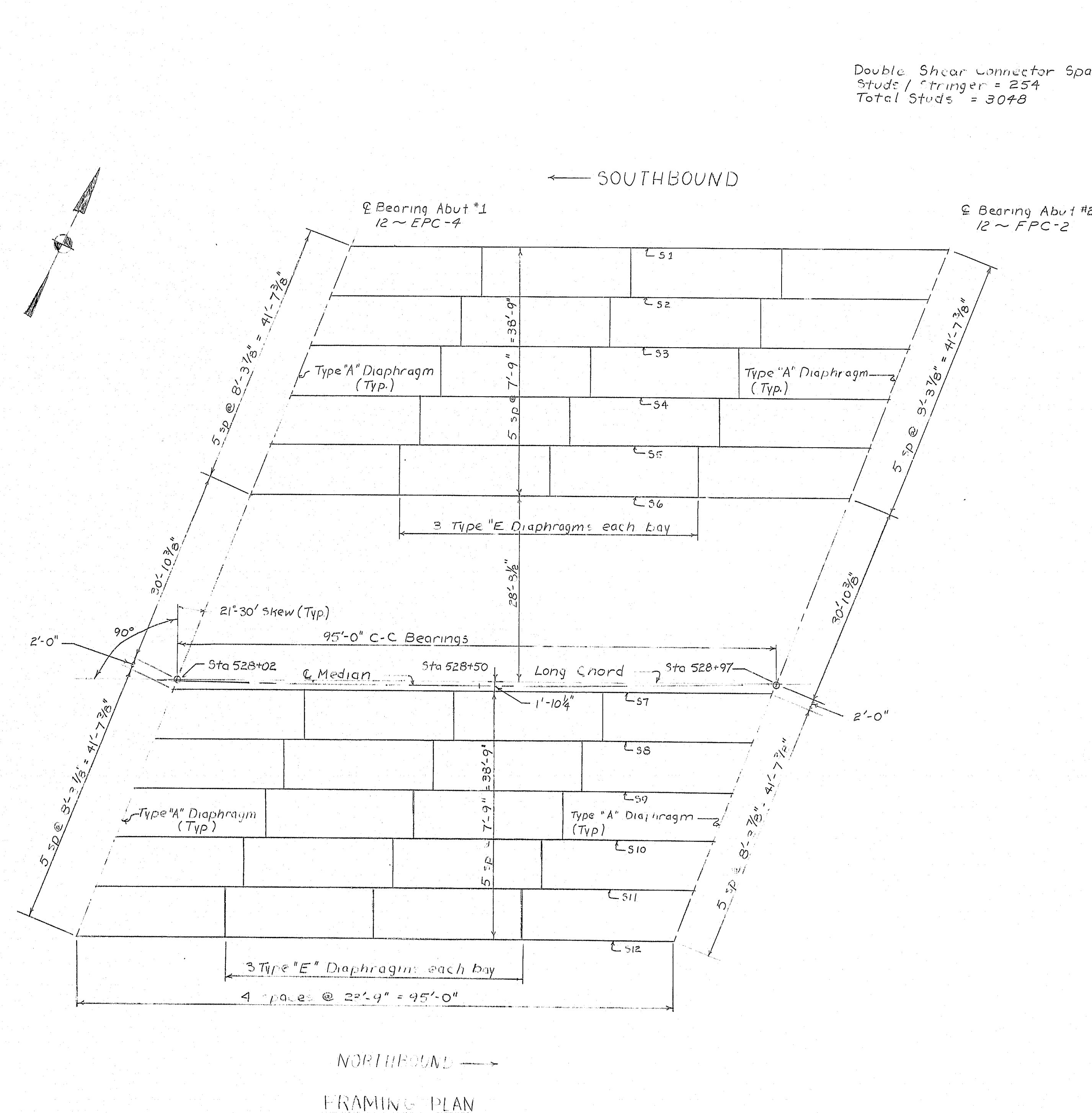
INTERSTATE I-95
OVER

COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT

STRUCTURAL STEEL
SHEET 17 OF 34 AUGUSTA, MAINE Feb 1984

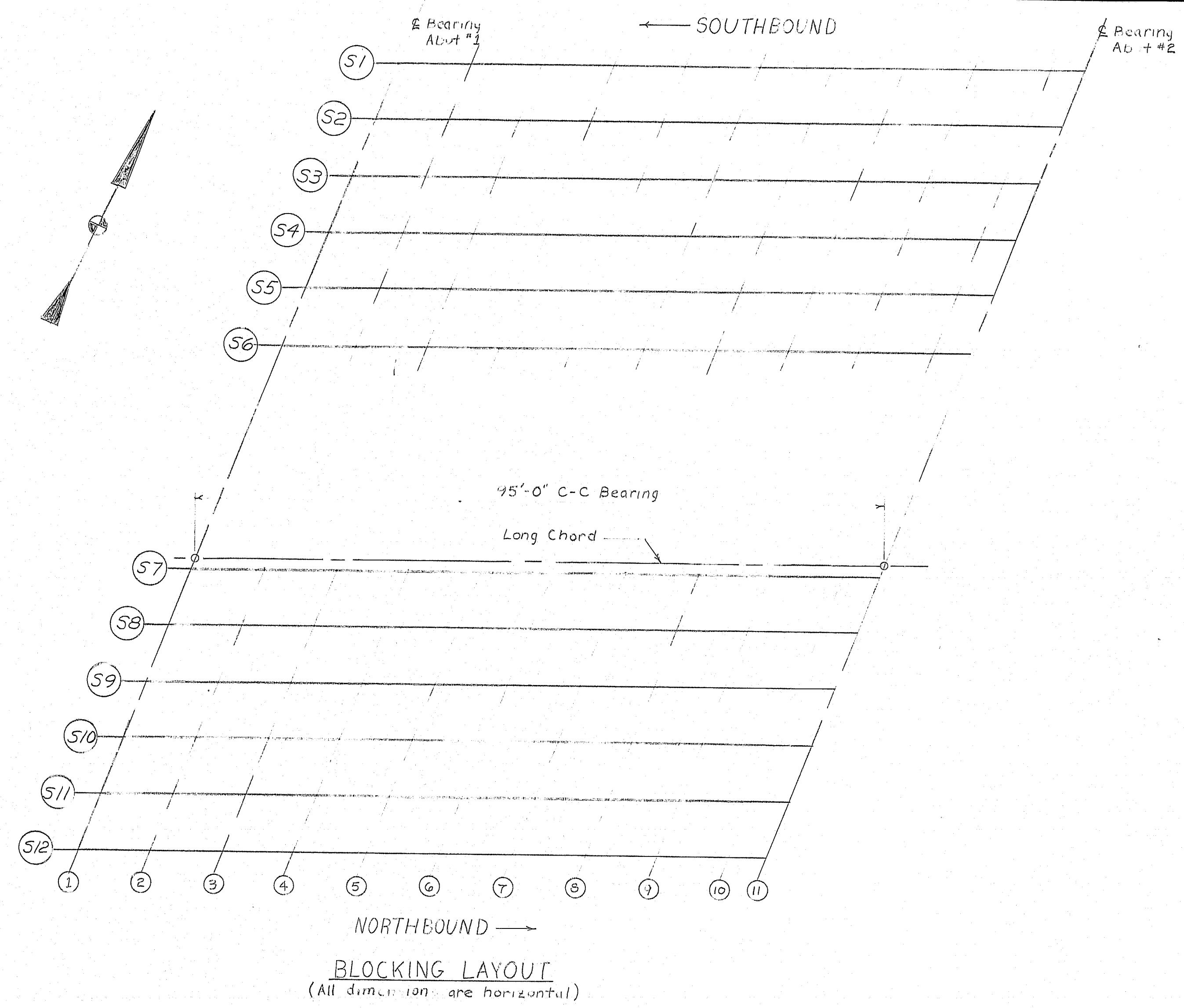
R93-72

PROJECT DESIGN ENGINEER	DATE
MES	2/84
DESIGN - CHECKED	DATE
DP	2/84
REVISIONS	DATE
WED	2/84
FIELD CHANGES	DATE



FRAMING PLAN

BRUNN 44132 457101



BEARING SETTING DATA	
After erecting structural steel and before concrete slab is placed.	
Temp. Degrees F & Setting	Abutment No. 1
	120° - 1/16"
	105° + 1/16"
	90° + 3/16"
	75° + 1/4"
	60° + 3/8"
	45° + 1/2"
	30° + 5/8"
	15° + 3/4"
	0° + 13/16"
	-15° + 15/16"
	-30° + 1 1/16"

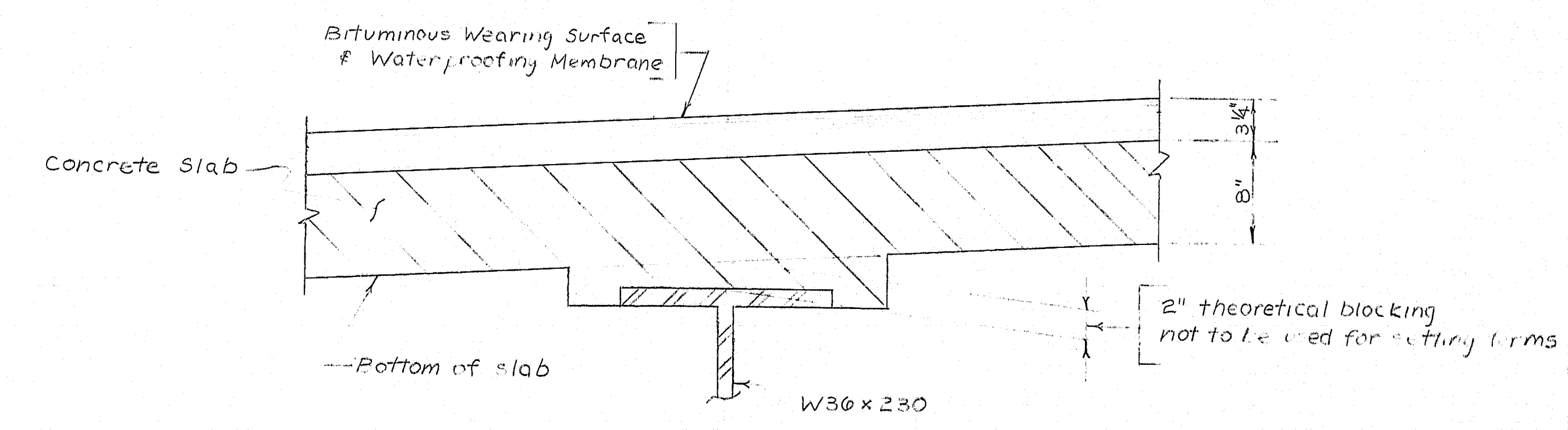
(+) sign indicates distance is away from Abutment No. 1 Backwall.

Bearings Abutment No. 1

BEARING SETTING NOTE

The Bearing Setting Data is to set bearings after erecting structural steel and before the concrete slab is placed. It is anticipated that the bearings at Abutment No. 1 will move 1/2 inch away from the fixed bearings due to the placement of the superstructure concrete. No separate payment will be made for resetting bearings to the final position if an adjustment is required.

BOTTOM OF SLAB ELEVATIONS											
Span Points	1	2	3	4	5	6	7	8	9	10	11
S1	12.28	12.36	12.43	12.48	12.49	12.47	12.42	12.33	12.21	12.07	12.00
S2	12.70	12.78	12.85	12.89	12.91	12.88	12.83	12.74	12.62	12.48	12.41
S3	13.11	13.19	13.26	13.30	13.32	13.30	13.24	13.15	13.03	12.90	12.83
S4	13.53	13.61	13.67	13.72	13.73	13.71	13.65	13.56	13.44	13.31	13.24
S5	13.94	14.02	14.09	14.13	14.15	14.12	14.07	13.97	13.86	13.72	13.65
S6	14.36	14.44	14.50	14.55	14.56	14.54	14.48	14.39	14.27	14.13	14.06
S7	14.95	15.02	15.07	15.10	15.09	15.06	14.98	14.87	14.73	14.58	14.50
S8	15.18	15.26	15.33	15.37	15.38	15.35	15.29	15.19	15.07	14.92	14.85
S9	15.40	15.50	15.57	15.63	15.65	15.64	15.59	15.50	15.39	15.26	15.19
S10	15.63	15.73	15.82	15.88	15.92	15.92	15.88	15.81	15.71	15.59	15.52
S11	15.85	15.95	16.05	16.13	16.18	16.19	16.16	16.10	16.01	15.91	15.85
S12	16.07	16.16	16.28	16.37	16.43	16.45	16.44	16.39	16.32	16.22	16.17



AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 1-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREETOWN
BLOCKING PLAN

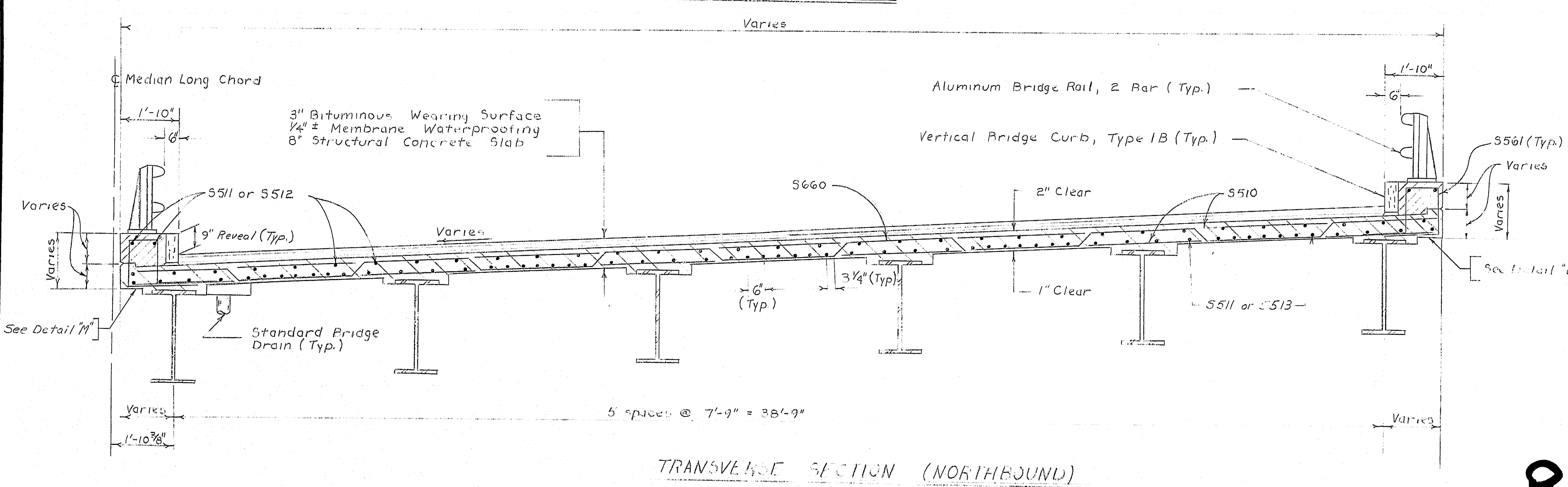
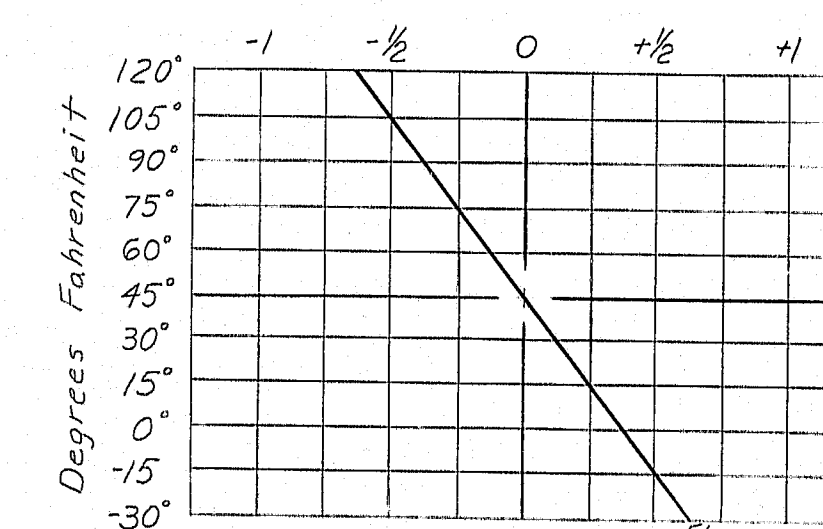
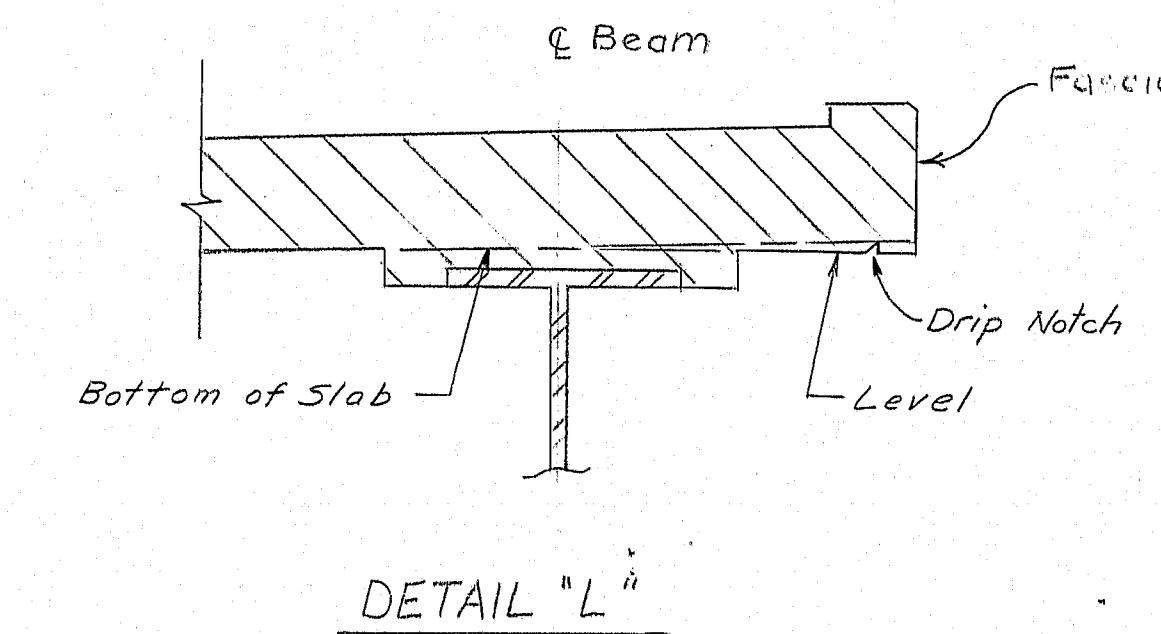
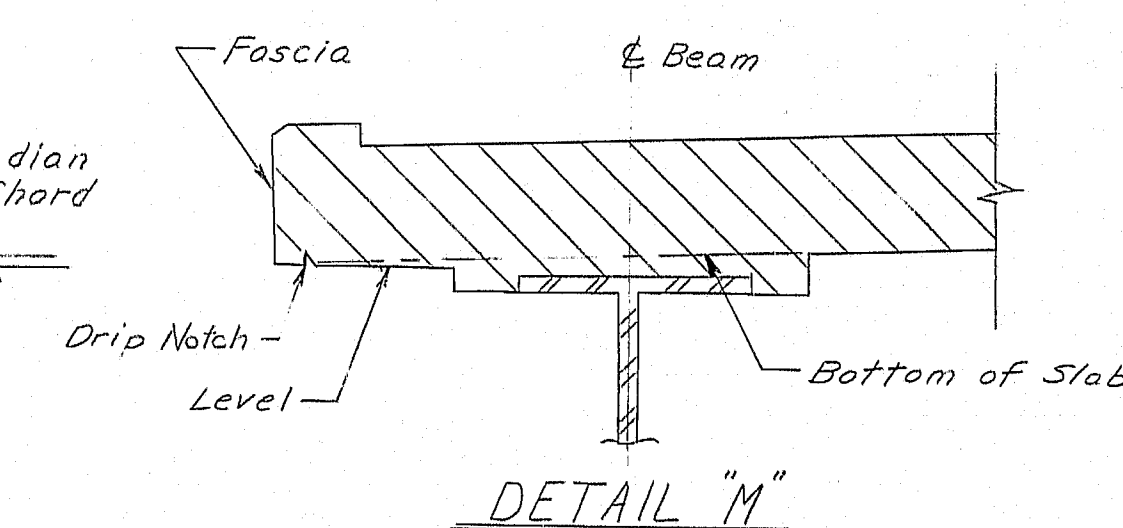
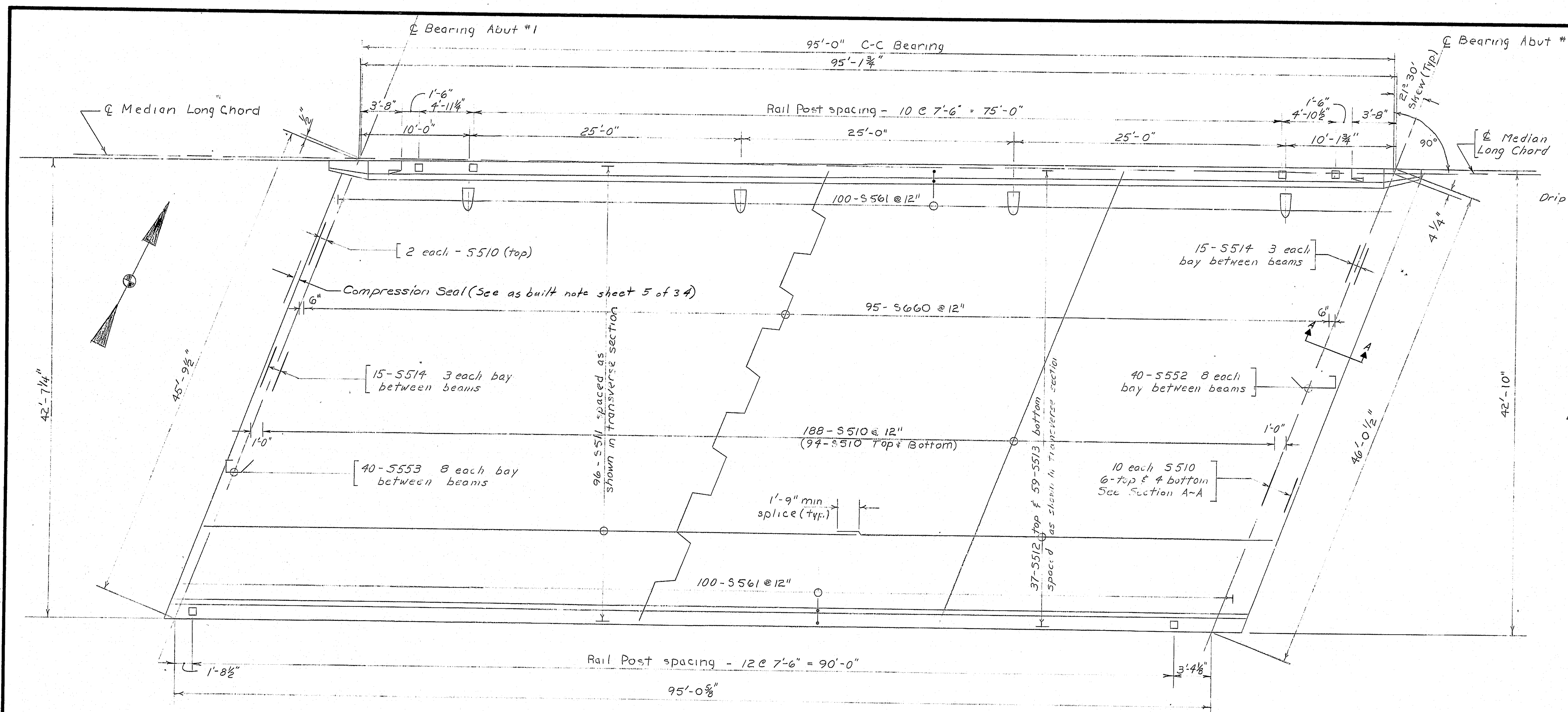
SHEET 18 OF 34 AUGUSTA, MAINE Feb 1984

R93-73

PROJECT DESIGN ENGINEER	DATE
MAINE	10/83
DESIGN - DETAILED	WBD
CHECKED	2/84
REVISIONS	
FIELD CHANGES	

BRUNING 44-52 45710-1

F.R.M.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(14)62	19	34



PROJECT DESIGN ENGINEER	DATE
WMB	4/95
DESIGN - CHECKED	BY
WMB	WMB
REVISIONS	DATE
1	2/94
FIELD CHANGES	

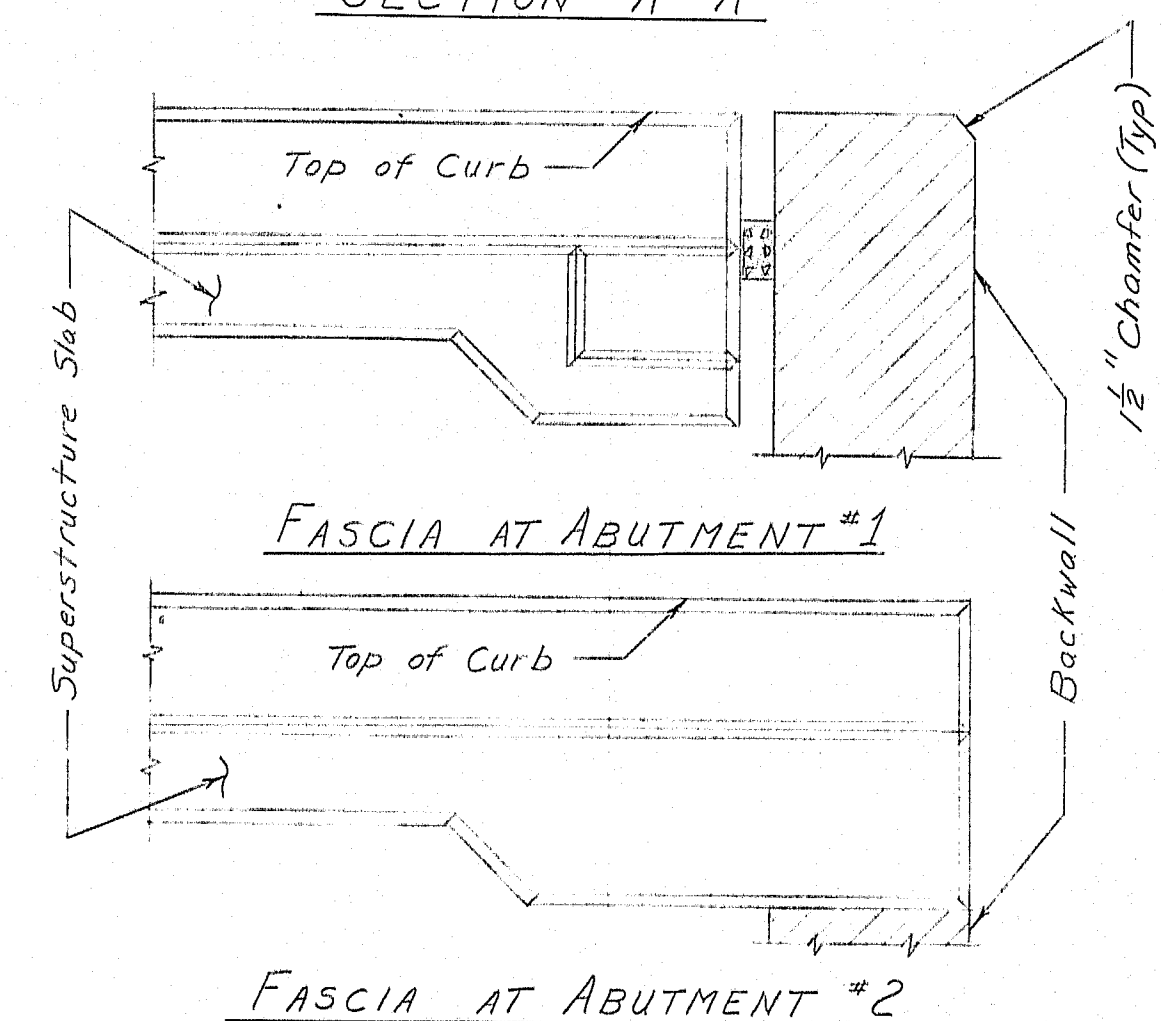
R93-74

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE I-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YAKMOUTH AND FREEPORT
Northbound Superstructure
SHEET 19 OF 34 AUGUSTA, MAINE Feb. 1984

SUPERSTRUCTURE NOTES

-
- Technical drawing of a roof assembly cross-section. The drawing shows a concrete slab on top of a steel beam. The roof assembly consists of several layers: a concrete slab (labeled 5502 or 5512), a layer of 5503 or 5513, a layer of 5504 or 5514, a layer of 5552, a layer of heavy roofing (labeled 1 Layer Heavy Roofing), and a layer of 5x6" Styrofoam. The drawing includes dimensions for the various layers and the overall assembly. The total width of the assembly is 5500 or 5510. The width of the concrete slab is 5650 or 5660. The width of the steel beam is 5500 or 5510. The width of the 5503 or 5513 layer is 5500 or 5510. The width of the 5504 or 5514 layer is 5500 or 5510. The width of the 5552 layer is 5500 or 5510. The width of the heavy roofing layer is 5500 or 5510. The width of the 5x6" Styrofoam layer is 5500 or 5510. The drawing also shows a cross-section of a wall assembly with a concrete slab, a layer of 5503 or 5513, a layer of 5504 or 5514, a layer of 5552, a layer of heavy roofing, and a layer of 5x6" Styrofoam. The wall assembly is labeled "Type A Diaphragm". The drawing includes dimensions for the wall assembly: 9" for the concrete slab, 6" for the 5503 or 5513 layer, 1'-6" for the 5504 or 5514 layer, and 6" for the 5552 layer. The drawing also shows a cross-section of a floor assembly with a concrete slab, a layer of 5503 or 5513, a layer of 5504 or 5514, a layer of 5552, a layer of heavy roofing, and a layer of 5x6" Styrofoam. The floor assembly is labeled "W 36 x 230". The drawing includes dimensions for the floor assembly: 9" for the concrete slab, 6" for the 5503 or 5513 layer, 1'-6" for the 5504 or 5514 layer, and 6" for the 5552 layer.

SECTION A-A



AS BUILT 1985
Rp

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95

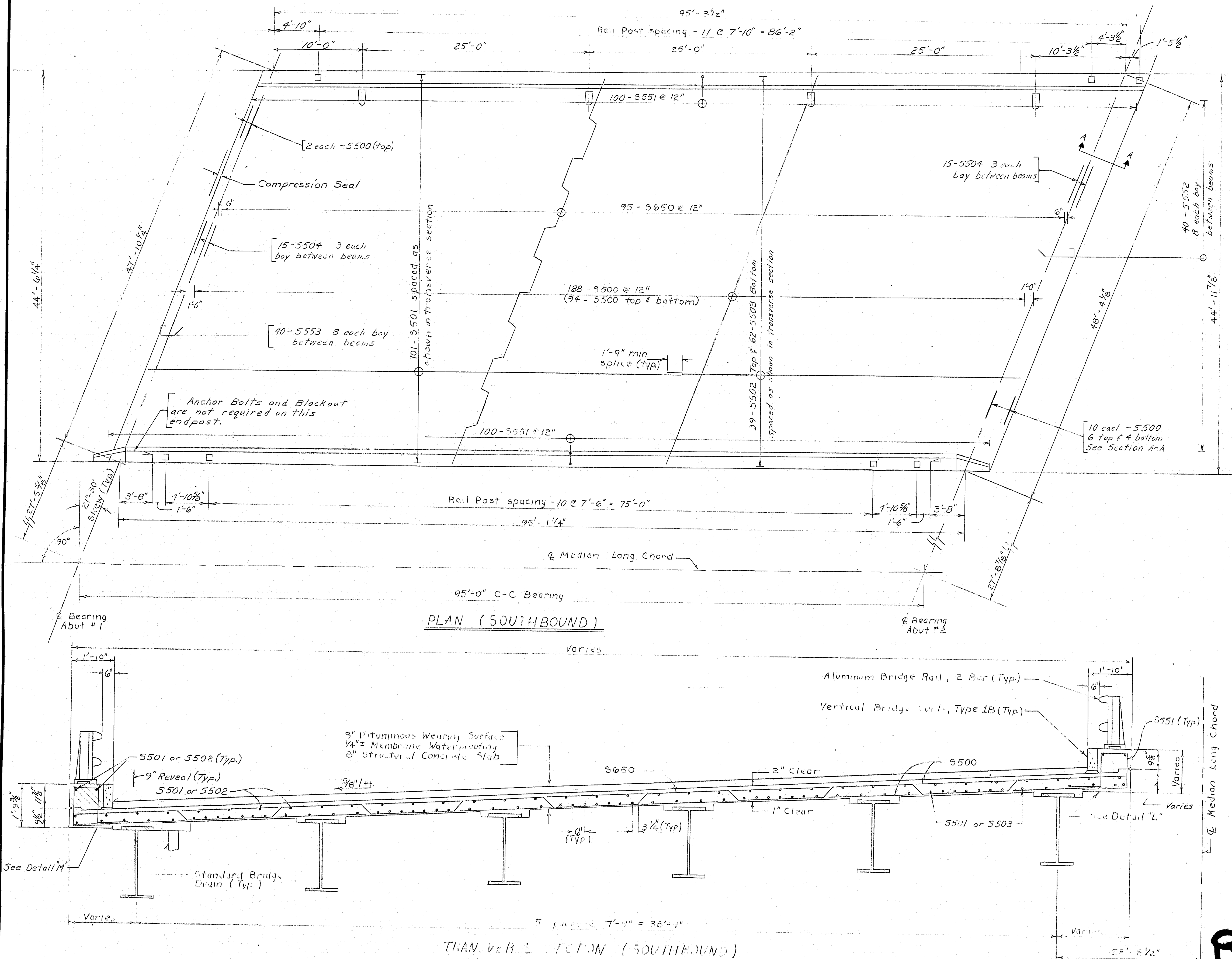
OVER

COUSINS RIVER

12. BETWEEN THE TOWNS OF

YARMOUTH AND FREEPORT

Southbound Superstructure
SHEET 20 OF 34 AUGUSTA, MAINE Feb 1984



PROJECT	DESIGN ENGINEER	MEB	BY	MEB	DATE	6/83
PLANS	DESIGN - DETAILED			D.P.		
	CHECKED				MSD	2/84
	REVISIONS					
	FIELD CHANGES					

44-132 45710-1

R93-75

REINFORCING STEEL SCHEDULE																											
STRAIGHT BARS				STRAIGHT BARS				BENT BARS																			
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
				A500	14	60'0"	Footing	A549	4	4'6"	Vertical	A550	17	5'7"	L	0'9"	4'10"										Dowel
				A501	14	35'0"	"					A551	17	10'4"	L	4'5"	5'11"										Vertical Breastwa
				A502	14	22'0"	"					A552	17	10'6"	S	—	4'8"	1'2"	4'8"				—				Vertical Backwall
				A503	180	6'0"	"					A553	19	9'3"	L	4'5"	4'10"										Vertical Breastwa
				A504	18	11'6"	"					A554	9	5'10"	L	0'9"	5'1"										Dowel
				A505	4	5'0"	"					A555	2	4'6"	S	—	2'0"	0'6"	2'0"				—				Curb
				A506	22	6'6"	"					A556	4	10'10"	L	4'5"	6'5"										Vertical Breastwall
				A507	14	16'0"	"					A557	4	4'9"	S	—	2'0"	0'9"	2'0"				—				Curb
				A508	17	3'3"	Dowel					A558	3	11'0"	S	—	4'11"	1'2"	4'11"				—				Vertical Backwall
				A509	20	8'4"	Breastwall					A559	9	10'8"	S	—	4'9"	1'2"	4'9"				—				" "
				A510	31	2'9"	Vertical Backwall					A560	10	11'6"	L	0'9"	10'9"										Dowel
				A511	17	24'8"	Horizontal Breastwall					A561	17	8'0"	L	4'5"	3'7"										Vertical Breastwall
				A512	2	45'2"	Horizontal Backwall					A562	23	9'4"	S	—	3'5"	1'2"	4'9"				—				Vertical Backwall
				A513	21	3'7"	Dowel					A563	11	7'2"	L	4'5"	2'9"										Vertical Breastwall
				A514	9	7'9"	Vertical Breastwall					A564	11	5'11"	L	0'9"	5'2"										Vertical Backwall
				A515	10	3'0"	Dowel Median Wall					A565	15	9'3"	L	4'5"	4'10"										Vertical Median
				A516	20	8'1"	Vertical Median Wall					A566	9	10'0"	L	0'9"	9'3"										" "
				A517	6	13'4"	Horizontal Median Wall					A567	6	5'6"	L	0'9"	4'9"										Vertical Breastwall
				A518	6	14'1"	" " "					A568	2	4'6"	S	—	2'0"	0'6"	2'0"				—				Curb
				A519	8	26'11"	Horizontal Breastwall					A569	17	6'6"	L	0'9"	5'9"										Dowel
				A520	3	13'6"	Horizontal Backwall					A570	6	5'3"	L	0'9"	4'6"										Dowel Wing L I
				A521	3	12'8"	" "					A571	6	6'3"	S	—	2'9"	0'9"	2'9"				—				Curb " " "
				A522	7	6'6"	Vertical					A572	3	18'3"	J	3'9"	1'0"	13'6"							6"		Horizontal " " "
				A523	6	2'9"	Dowel					A573															

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	21	34

Figure 1 displays 16 diagrams (A-W) illustrating various types of pipe and duct fittings, including elbows, tees, reducers, and transitions. Each diagram is labeled with a letter and a name in bold capital letters:


- B**: A long, narrow fitting with multiple bends and straight sections, labeled with points B, C, D1, E1, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- HB**: A horizontal fitting with a central bend, labeled with points H, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- H**: A horizontal fitting with a central bend, labeled with points H, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- S**: A horizontal fitting with a central bend, labeled with points S, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- SL**: A horizontal fitting with a central bend, labeled with points S, L, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- SB**: A horizontal fitting with a central bend, labeled with points S, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- L**: A horizontal fitting with a central bend, labeled with points L, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- V**: A horizontal fitting with a central bend, labeled with points V, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- PA**: A horizontal fitting with a central bend, labeled with points P, A, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- EP**: A horizontal fitting with a central bend, labeled with points E, P, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- PR**: A horizontal fitting with a central bend, labeled with points P, R, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- J**: A horizontal fitting with a central bend, labeled with points J, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- W**: A horizontal fitting with a central bend, labeled with points W, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- C**: A horizontal fitting with a central bend, labeled with points C, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.

All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. Δ
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A 502) bar size - #5
Mark (P 1001) bar size - #10
Mark (S 603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985 *Rep*

	<i>Rev</i> Revised ACI Standard	5-12-83
REVISIONS		DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95

OVER

COUSINS RIVER

YARMOUTH AND FREEPORT

ABUTMENT # 1

REINFORCING STEEL SCHEDULE

SHEET 21 OF 34 AUGUSTA, MAINE Feb 1984

R93-76

REINFORCING STEEL SCHEDULE

STRAIGHT BARS												BENT BARS															
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
				B503	182	6'0"	Footing	B552	39	7'4"	Median Barrier	B511	100	5'5"	L	4'8"	9"										
				B504	14	11'0"	"																				
				B505	14	6'6"	"	B555	3	7'8"	Backwall	B530	5	7'1"	L	2'9"	4'4"										Breastwall
				B506	16	12'0"	"	B556	3	6'5"	"	B531	11	7'6"	L	3'2"	4'4"										"
				B507	14	41'0"	"	B557	3	5'8"	"	B532	11	8'4"	L	4'0"	4'4"										"
				B508	14	30'0"	"	B558	6	7'10"	Median Barrier	B533	25	9'2"	L	4'10"	4'4"										"
				B509	14	56'0"	"	B559	6	8'6"	"																
				B510	188	3'3"	Dowell	B560	6	18'8"	"	B535	10	9'10"	L	5'6"	4'4"										"
								B561	3	15'0"	Backwall	B536	11	10'4"	L	6'0"	4'4"										"
				B512	3	6'9"	Breastwall	B562	3	13'8"	"	B537	11	10'9"	L	6'5"	4'4"										"
				B513	6	7'0"	Breastwall + Backwall																				
				B514	42	16'4"	"	B565	2	3'10"	Wing L2	B551	65	6'10"	S		2'10"	1'2"	2'10"							Backwall	
				B515	13	14'8"	Breastwall	B566	1	6'0"	"																
				B516	4	19'8"	"	B567	14	7'4"	"	B568	16	6'10"	S		2'10"	1'2"	2'10"							Wings L2 + R2	
				B517	10	17'11"	Median Breastwall + Barrier																				
				B518	5	14'2"	Breastwall	B572	2	8'5"	"	B570	3	15'0"	V				13'0"	2'0"				1'10"		Wing L2	
				B519	8	15'11"	Breastwall + Backwall					B571	3	12'0"	V				10'0"	2'0"				1'10"		"	
								B575	2	8'11"	"															"	
				B522	8	12'8"	"					B573	3	10'10"	V				8'10"	2'0"				1'10"		"	
								B580	2	7'0"	Wing R2	B574	3	11'5"	V				9'5"	2'0"				1'10"		"	
				B540	6	4'10"	Breastwall + Backwall	B581	1	10'5"	"															"	
				B541	11	5'3"	"	B582	18	11'7"	"	B583	5	18'2"	VV				16'2"	2'0"				9"		Wing R2	
				B542	11	6'1"	"					B584	3	15'2"	VV				13'2"	2'0"				9"		"	
				B543	24	6'11"	"	B585	2	11'7"	"															"	
				B544	11	7'7"	"					B586	5	12'10"	VV				10'10"	2'0"				9"		"	
				B545	11	8'1"	"	B588	2	10'11"	"	B587	3	13'4"	VV				11'4"	2'0"				9"		"	
				B546	10	8'6"	"																			"	

FHWA DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	22	34

TYPE-BENDING DIAGRAMS

All dimensions are out to out of reinf. bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.Δ
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

- First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A502) bar size - #5
Mark (P1001) bar size - #10
Mark (S603) bar size - #6
- Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985_{B.P.}

Revised ACI Standard	5-12-83
REVISIONS	DATE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT
ABUTMENT # 2
REINFORCING STEEL SCHEDULE
SHEET 22 OF 34 AUGUSTA, MAINE Feb 1984

R93-77

REINFORCING STEEL SCHEDULE																											
STRAIGHT BARS								BENT BARS																			
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
						(S.B.)	SUPERSTRUCTURE			END	POSTS																
				S500	200	47'6"	Transverse																				
				S501	101	60'0"	Longitudinal	EP401	60	1'10"	End Posts	S551	200	6'11"	SB	1'3"	1'4"	1'1"	1'5"	1'10"							Curb
				S502	39	40'2"	Longitudinal (top)					S552	40	6'5"	X	1'7"	3'4"	1'0"	6"								Slab Haunch Abut #1
				S503	62	35'9"	" (bottom)	EP405	32	1'5"	End Posts	S553	40	4'6"	X	1'7"	1'5"	1'0"	6"								" " " "
				S504	30	7'11"	Haunch (3 each bay)																				
								EP508	24	4'0"	End Posts	S650	95	49'3"	B		4'5 1/2"	7 1/4"	3'9 1/2"	3'7 3/4"	5'0"				47'5 3/4"	Transverse	
						(N.B.)	SUPERSTRUCTURE											x 10	x 5	x 4							
				S510	200	45'1"	Transverse	EP520	4	6'2"	Modified End Post																
				S511	101	60'0"	Longitudinal																				
				S512	39	40'2"	Longitudinal (top)	EP708	4	4'0"	" " "																
				S513	62	36'6"	" (bottom)					S551	200	6'11"	SB	1'3"	1'4"	1'1"	1'5"	1'10"							Curb
				S514	30	7'11"	Haunch (3 each bay)					S552	40	6'5"	X	1'7"	3'4"	1'0"	6"								Haunch Abut #2
												S553	40	4'6"	X	1'7"	1'5"	1'0"	6"							" " " "	
						APPROACH SLABS						S660	95	46'11"	B		3'5 1/2"	7 1/2"	3'9 1/2"	3'7 3/4"	3'8"			45'1 3/8"	Transverse		
				AS400	64	30'0"	NB + SB											x 10	x 5	x 4							
				AS401	32	14'0"	SB Lane																				
				AS403	32	11'10"	NB Lane																				
				AS600	312	15'0"	NB + SB																				
												EP402	32	4'9"	S	0	2'1"	0'7"	2'1"			0				End Posts	
												EP403	28	4'8"	H	0'4"	1'0"	1'0"	1'0"			0'4"				" "	
												EP404	32	3'1"	S	0	1'3"	0'7"	1'3"			0				" "	

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	23	34

All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠
 Reinforcing Bar : ASTM A615 Grade 60

1. First digit(s) following the letter of the Mark indicates size of reinf bar.
Mark (A 502) bar size - #5
Mark (P 100) bar size - #10
Mark (S 603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985 Rep

	<i>Revised ACI Standard</i>	5-12-
REVISIONS		DATE

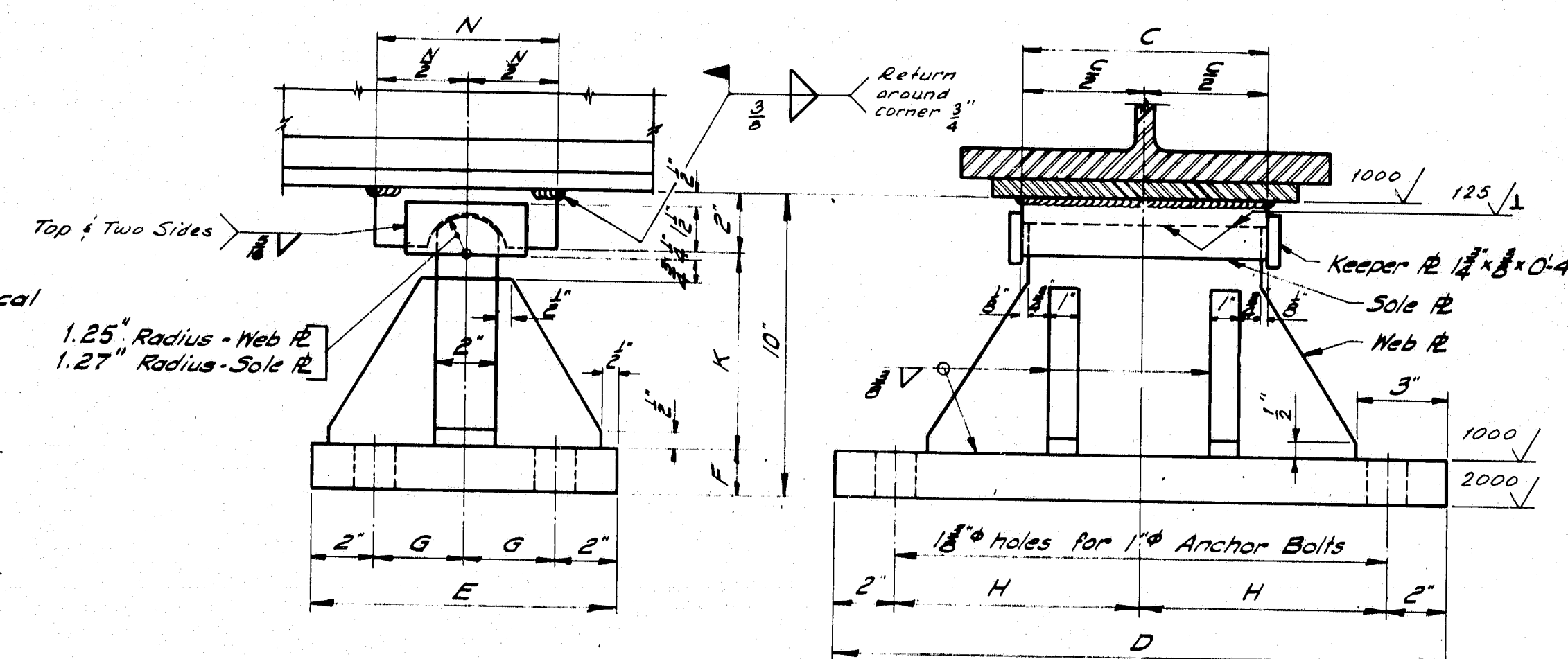
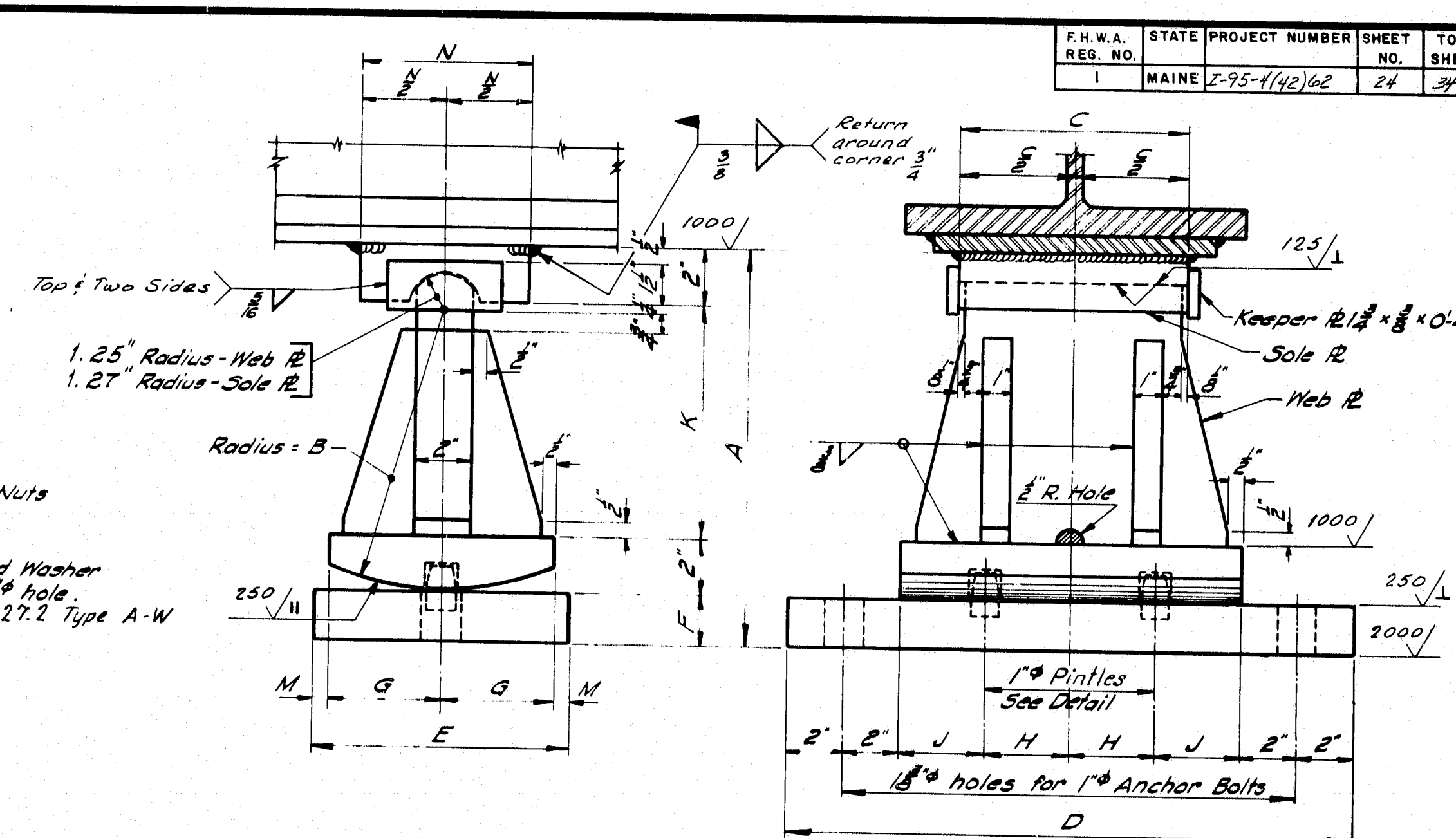
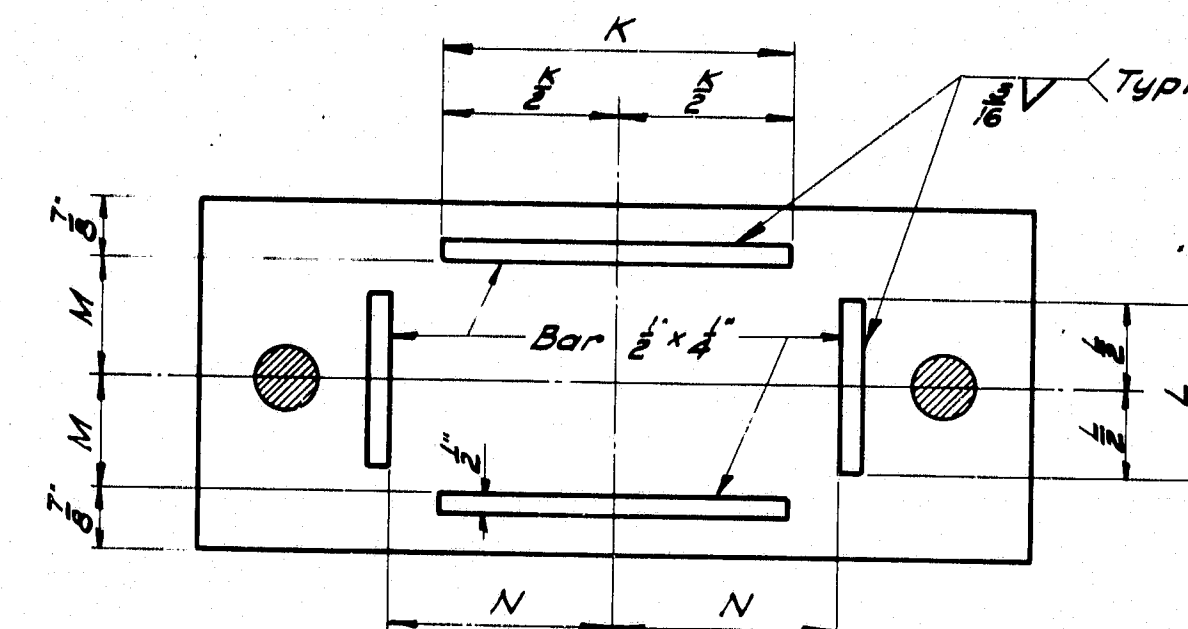
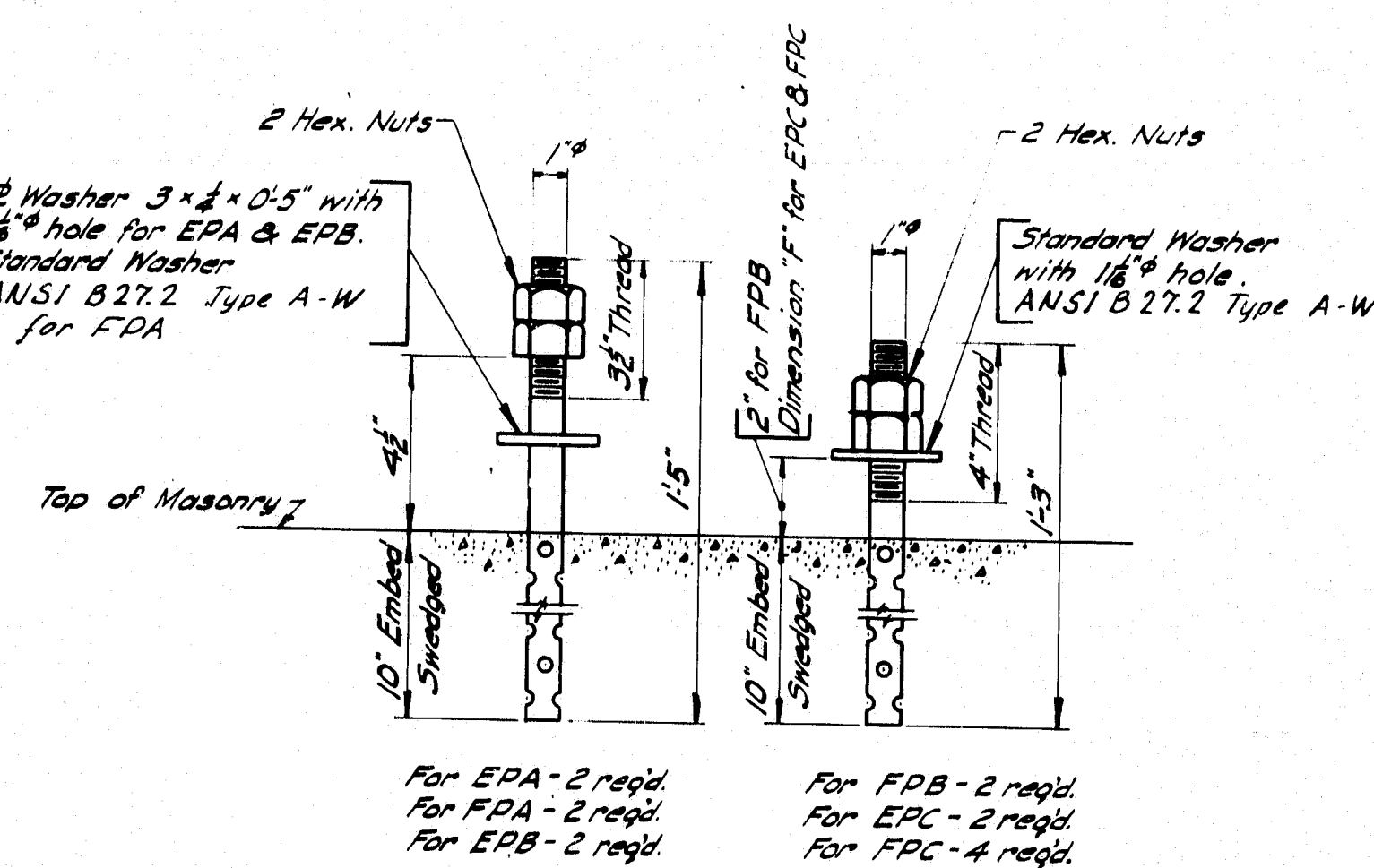
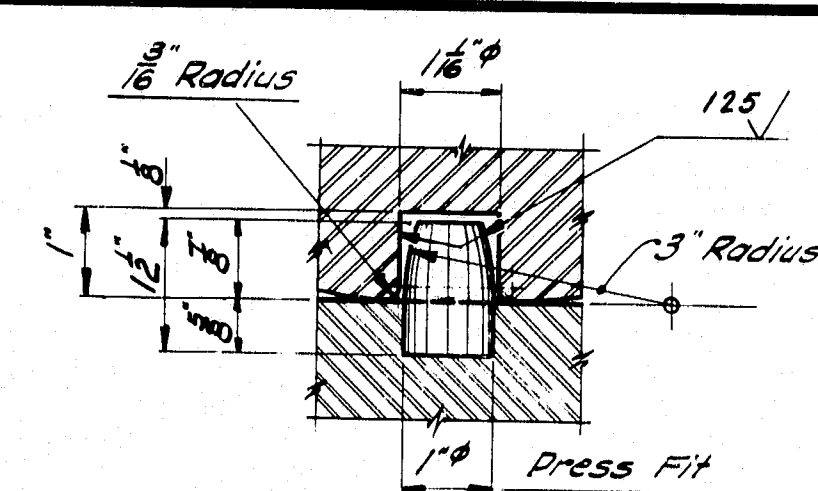
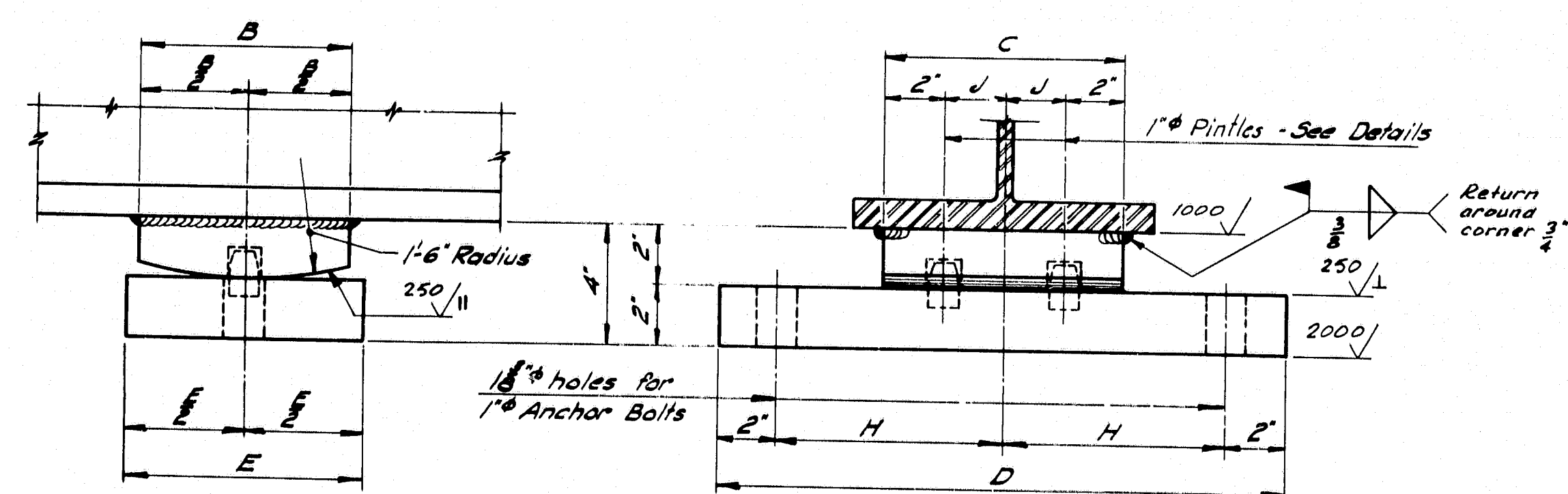
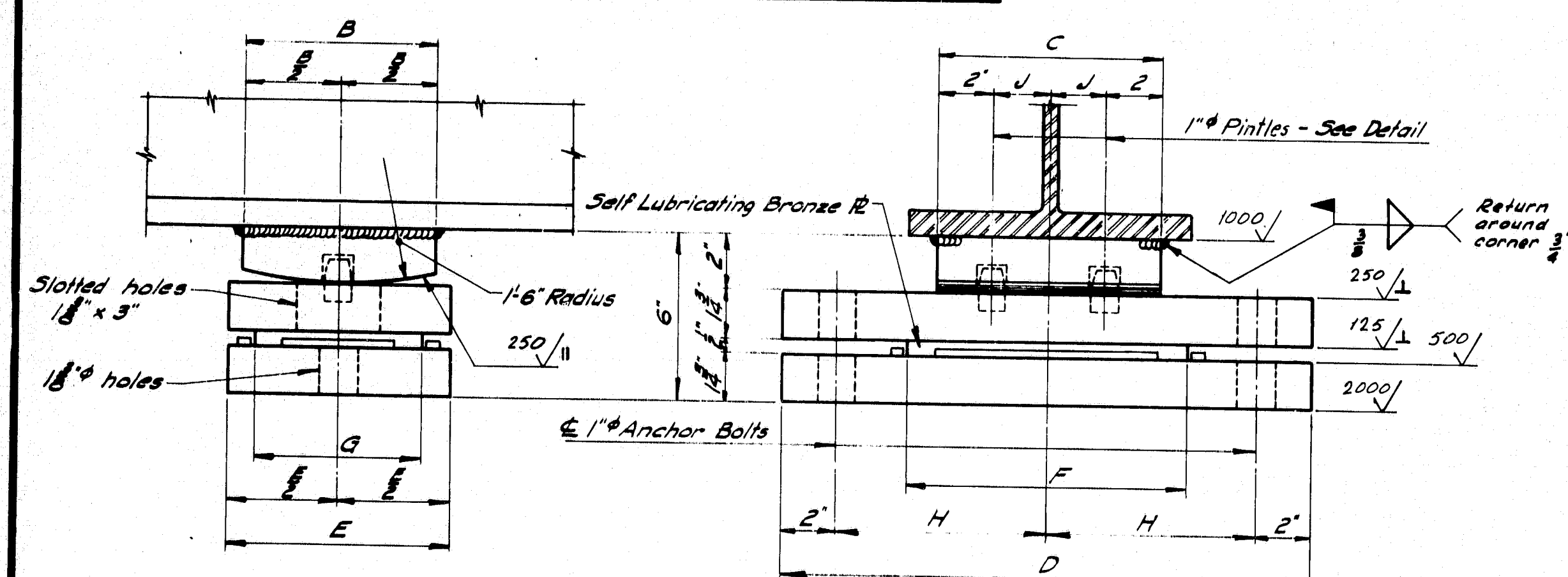
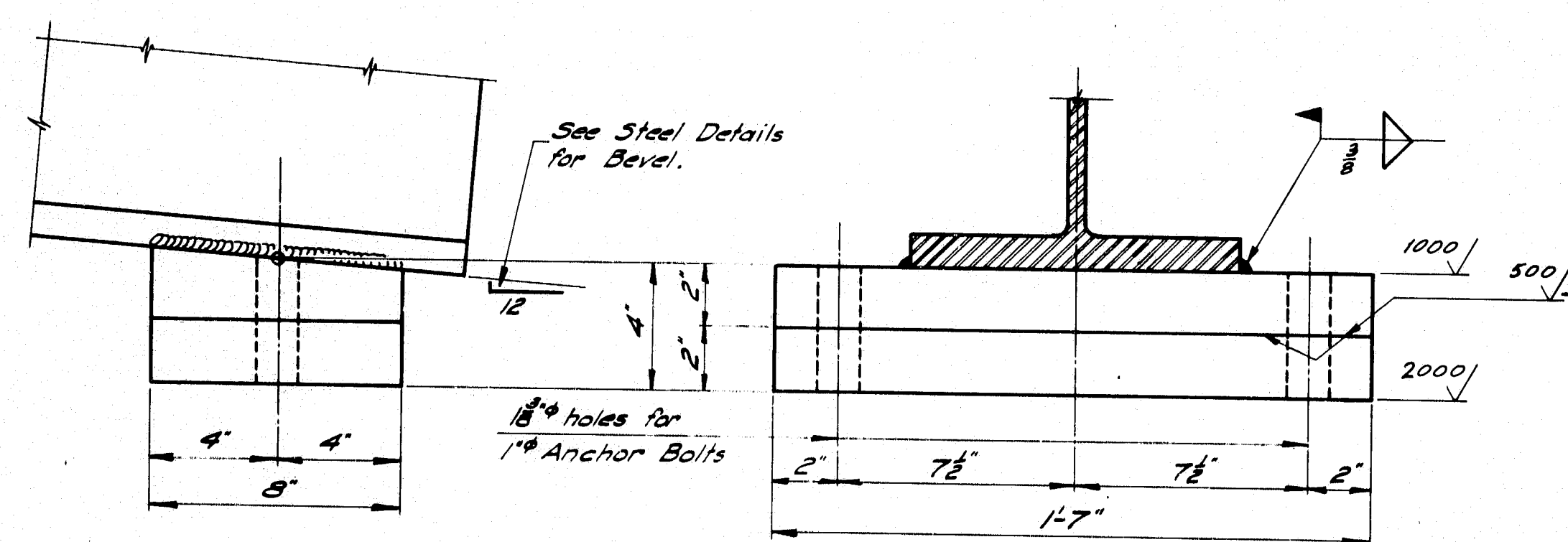
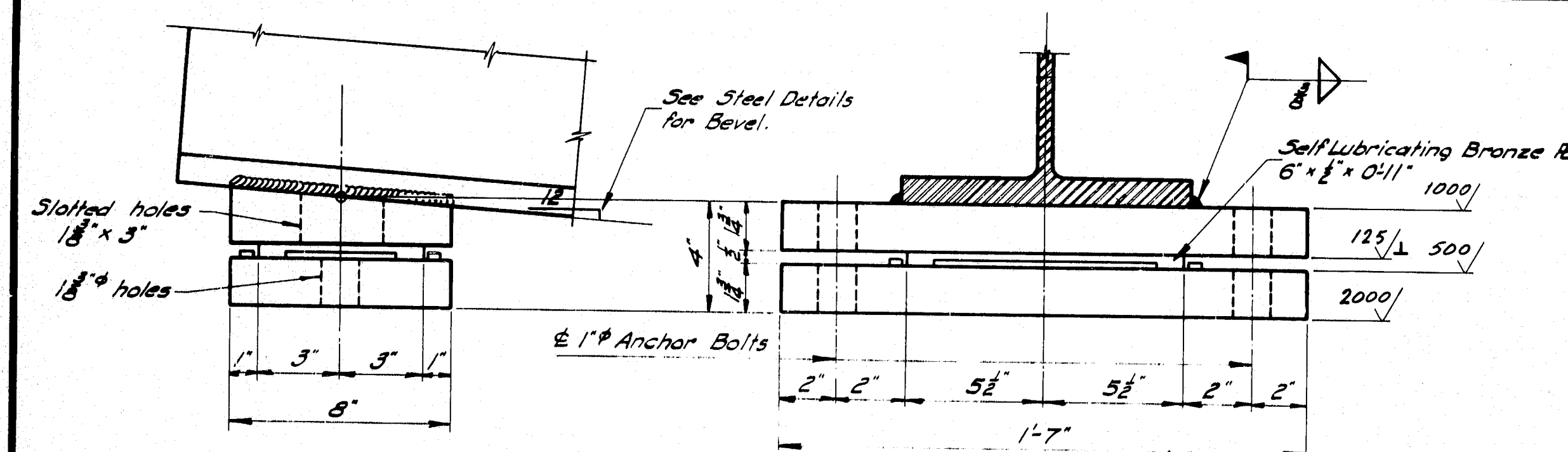
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT

REINFORCING STEEL SCHEDULE
SHEET 23 OF 34 AUGUSTA, MAINE Feb 1984

R93-78

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	MES BAY	2/84
	REVISIONS	WJD	2/84
	FIELD CHANGES		



PEDESTALS		ALLOWABLE LOADS & DIMENSIONS													
<i>Pedestal</i>	<i>Load</i>	A	B	C	D	E	F	G	H	J	K	L	M	N	
EPA	132 ^K	—	—	—	—	—	—	—	—	—	8"	4"	3½"	5½"	
FPA	150 ^K	—	—	—	—	—	—	—	—	—	8"	4"	3½"	5½"	
EPB-1	120 ^K	—	6"	8"	14 ⁷ "	8"	10"	6"	7½"	2"	8"	4"	3½"	5½"	
EPB-2	165 ^K	—	7"	10"	14 ⁸ "	9"	14 ⁷ "	7"	8"	3"	10"	5"	3½"	5½"	
EPB-3	224 ^K	—	8"	11 ⁴ "	20 ¹⁰ "	10"	14 ⁸ "	8"	10"	4½"	12 ⁵ "	5"	4½"	6½"	
FAB-1	120 ^K	—	6"	8"	14 ⁷ "	8"	—	—	7½"	2"	—	—	—	—	
FAB-2	165 ^K	—	7"	10"	14 ⁸ "	9"	—	—	8"	3"	—	—	—	—	
FAB-3	224 ^K	—	8"	11 ⁴ "	20 ¹⁰ "	10"	—	—	10"	5"	—	—	—	—	
EPC-1	70 ^K	2½"	6"	8"	14 ⁸ "	8"	1½"	3½"	3"	3"	4½"	—	1"	6"	
EPC-2	100 ^K	1½"	8"	8"	14 ⁸ "	8"	1½"	3½"	3"	3"	6½"	—	1"	6"	
EPC-3	130 ^K	1½"	10"	8"	14 ⁸ "	9"	1½"	4"	3"	3"	6½"	—	1"	7"	
ERC-4	160 ^K	1½"	10"	8"	14 ¹⁰ "	9"	1½"	4"	4"	3"	8½"	—	1"	7"	
ERC-5	190 ^K	1½"	10"	9"	21 ¹⁰ "	10"	2"	4½"	5"	3"	8½"	—	1"	8"	
ERC-6	220 ^K	1½"	14 ¹⁰ "	10"	21 ¹⁰ "	10"	2½"	5"	5"	3"	10½"	—	1"	8"	
ERC-7	250 ^K	1½"	14 ¹⁰ "	14 ¹⁰ "	21 ¹⁰ "	10"	2½"	5"	5"	4"	10½"	—	1"	8"	
FPC-1	100 ^K	—	—	8"	14 ⁸ "	9"	14 ⁸ "	8"	—	—	6½"	—	—	6"	
FPC-2	160 ^K	—	—	8"	14 ⁸ "	10"	14 ⁸ "	8"	—	—	6½"	—	—	7"	
FPC-3	190 ^K	—	—	9"	21 ¹⁰ "	10"	1½"	3"	10"	—	6½"	—	—	8"	
FPC-4	220 ^K	—	—	10"	21 ¹⁰ "	14 ¹⁰ "	1½"	4"	10"	—	6½"	—	—	9"	
FPC-5	250 ^K	—	—	14 ¹⁰ "	21 ¹⁰ "	14 ¹⁰ "	2"	4"	10"	—	6½"	—	—	9"	

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed elevations are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 6" and min. slope of 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

A.S.T.M. STEEL CLASSIFICATION

1. Charpy V-Notch tests are not required for steel used in bearing pedestals.
2. When structural steel is specified to be unpainted, all steel including anchor bolts shall be A588 unpainted.
3. When structural steel is specified to be painted, all steel including anchor bolts shall be A36.

AS BUILT 1985 Rep

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

BEARING PEDESTALS

R93-75

REVISIONS

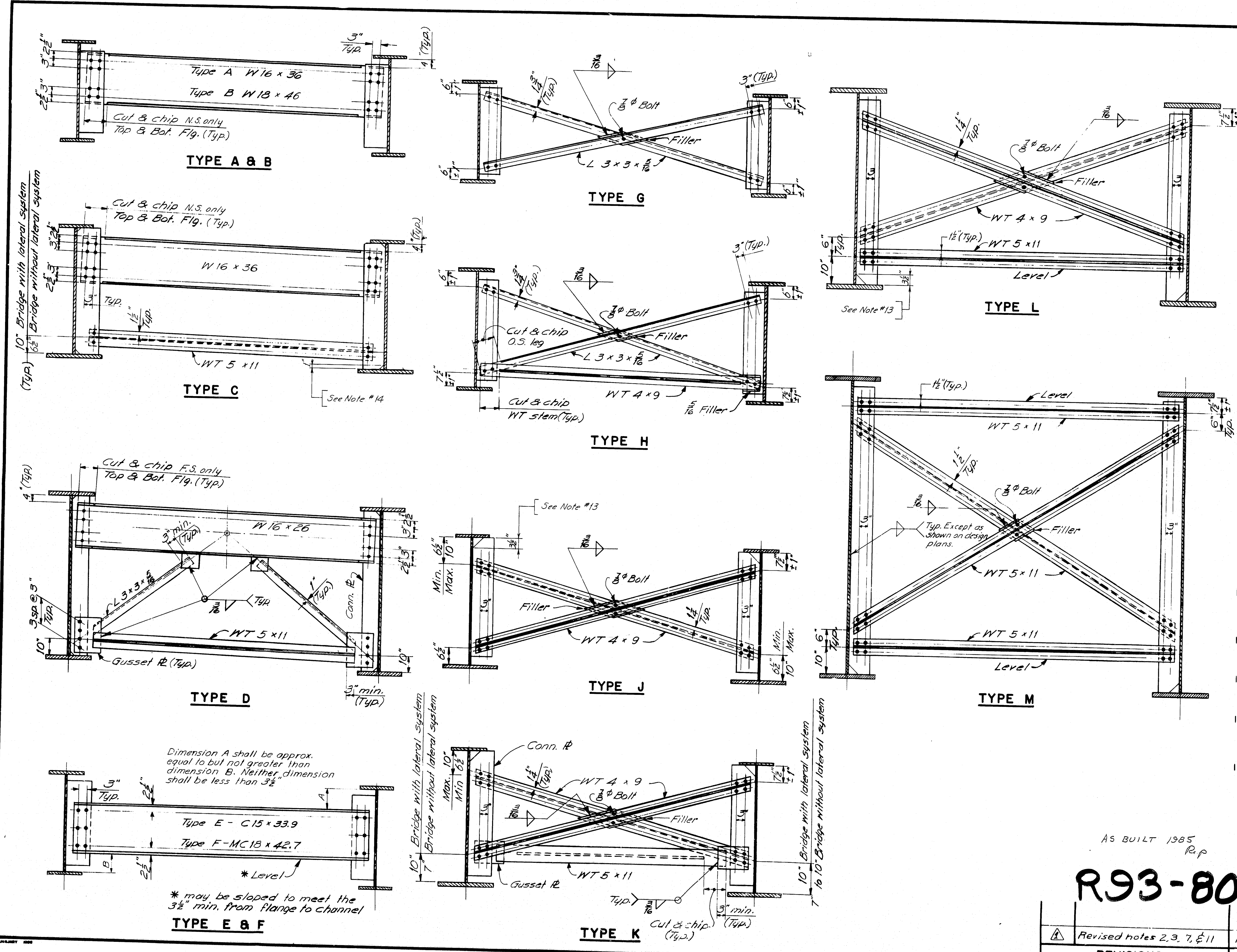
DATE _____

E SHEET 24 OF 34 AUGUSTA, MAINE JUNE 1981

C.D. & A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	2-95-442	62	25

FABRICATION NOTES

- 1.) All bolts shall be 7/8" H.S. Bolts. Hole sizes for bolts shall conform to Section 504.23 of the Standard Specifications, and edge-distances shall be 1 1/2" min. unless otherwise shown.
- 2.) Connection Plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. For bearing stiffeners or intermediate stiffeners and for bent connection plates the plate size will be given on the design drawings.
- 3.) Connection Plates shall be fastened to web plates by fillet welds as shown. All fillet welds shall be the minimum size as specified in A.A.S.H.T.O. Standard Specifications for Highway Bridges, Art. 1.7.21, unless otherwise shown on design drawings.
- 4.) Connection Plates shall be 3/8" clear from flanges, except as indicated by notes 5 & 6.
- 5.) Connection Plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression.
- 6.) Connection Plates shall extend to the bottom flange at points where lateral bracing is attached and on welded beams and girders in areas where the bottom flange is always in compression.
- 7.) When a connection plate is extended to a flange it shall fit within 1/16" except if the design drawings show it is to be welded.
- 8.) Bearing Stiffeners at end bearings shall extend to both top and bottom flanges and shall be welded to both flanges. Weld at bottom flange shall be a full penetration weld. Weld at top flange shall be a fillet weld both sides (see Note 3).
- 9.) Bearing Stiffeners at other than end bearings shall extend to both top and bottom flanges, shall be welded to the bottom flange with a full penetration weld and shall fit within 1/16" at the tension flange.
- 10.) Intermediate Stiffeners shall extend to both top and bottom flanges, shall be welded to the compression flange with a fillet weld on both sides (see Note 3) and shall fit within 1/16" at the tension flange.
- 11.) Use only those items called for on the design drawings in case of conflict between these standard details and design drawings, the design drawings shall be followed.
- 12.) All dimensions shown as " - ± 1/8" are variable in order to allow a series of crossframes to have the same slopes and/or dimensions.
- 13.) All connection plates and stiffeners that are extended to a flange shall be clipped 3/8", except as indicated by note 14.
- 14.) Bearing stiffeners at end bearings shall be clipped 1/4" at top and bottom. Bearing stiffeners at all other bearings shall be clipped 1/2" at the compression flange.
- 15.) For unpainted applications all steel for diaphragms and crossframes shall be A.S.T.M.-A588. For bridges specified to be painted the steel for diaphragms and connection plates shall be A.S.T.M.-A36, except other steel classifications may be used subject to the approval of the Engineer.



AS BUILT 1985
R.P.

R93-80

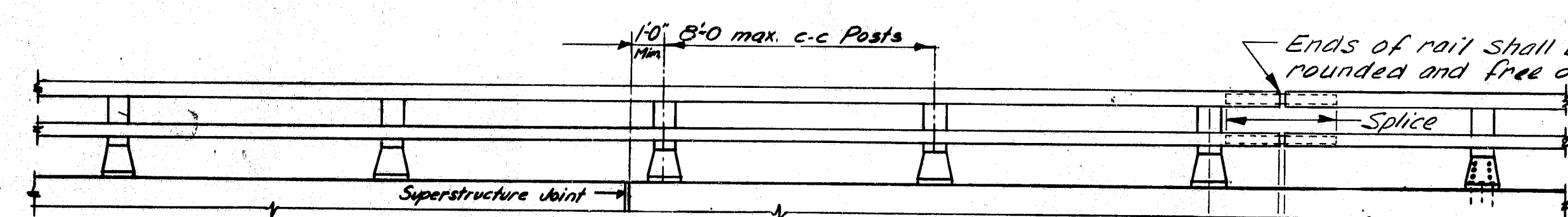
REVISIONS	DATE
Revised notes 2, 3, 7, & 11	1-68

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
STANDARD DETAILS (BD 113-81)	
DIAPHRAGMS & CROSSFRAMES	
SHEET 25 OF 34	AUGUSTA, MAINE JUNE 1981

DATE	BY	DESIGN	DETAILS	CHECKED	REVISIONS	FIELD CHANGES

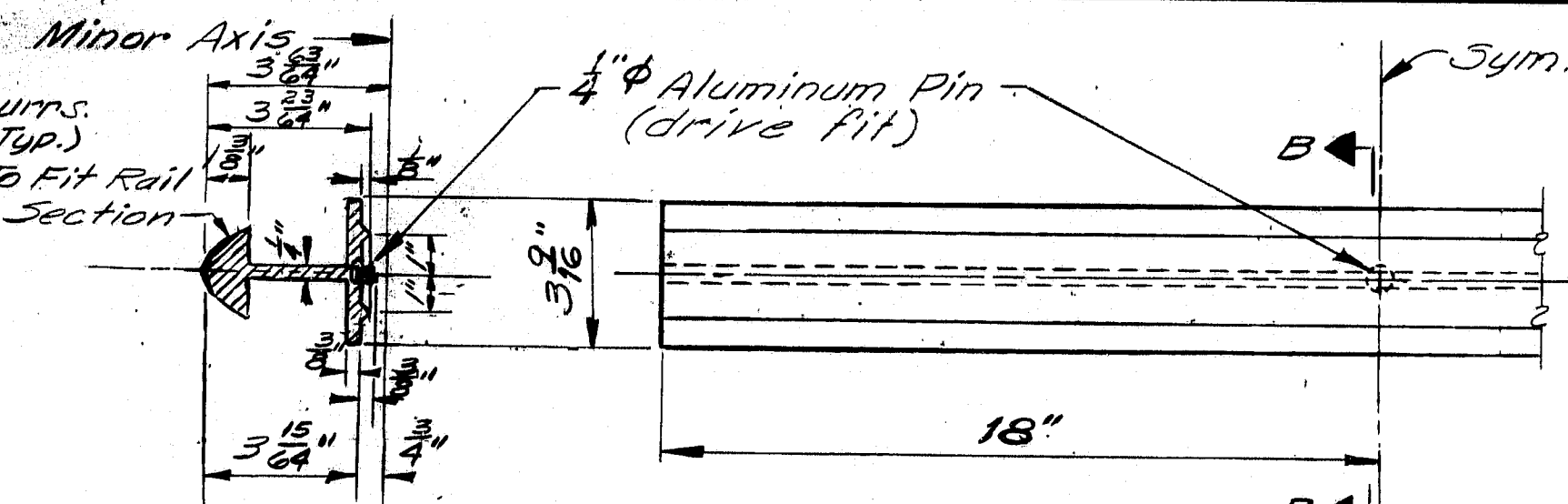
PLANS

F.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-4(42)62	26	34



RAILING - ELEVATION

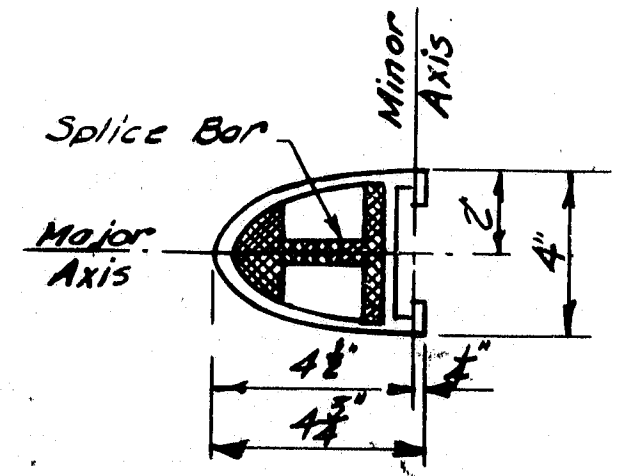
Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on the Bridge Plans.



SECTION B-B

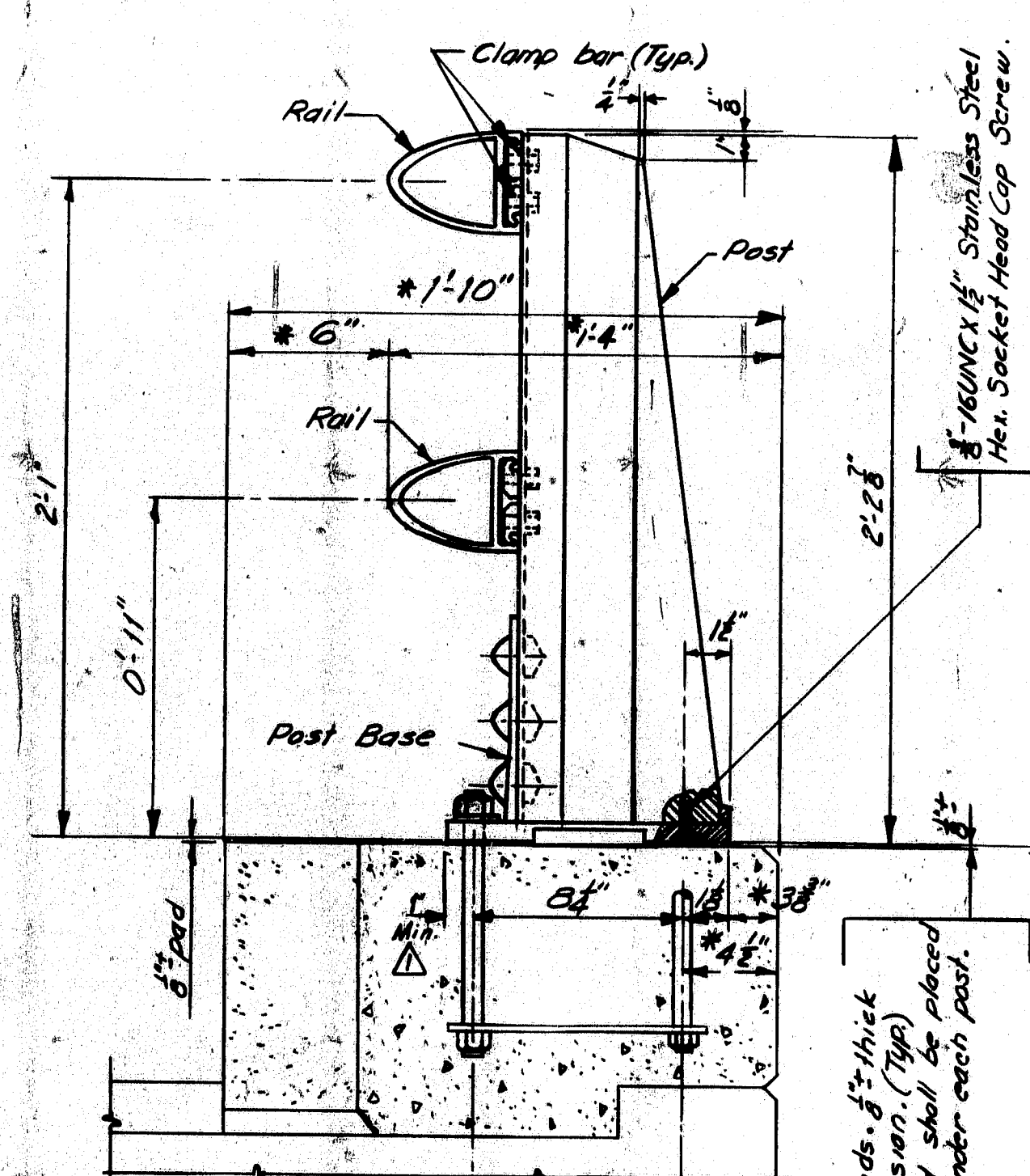
SPLICE BAR

Alternate splice bars may be substituted if approved by the Engineer.



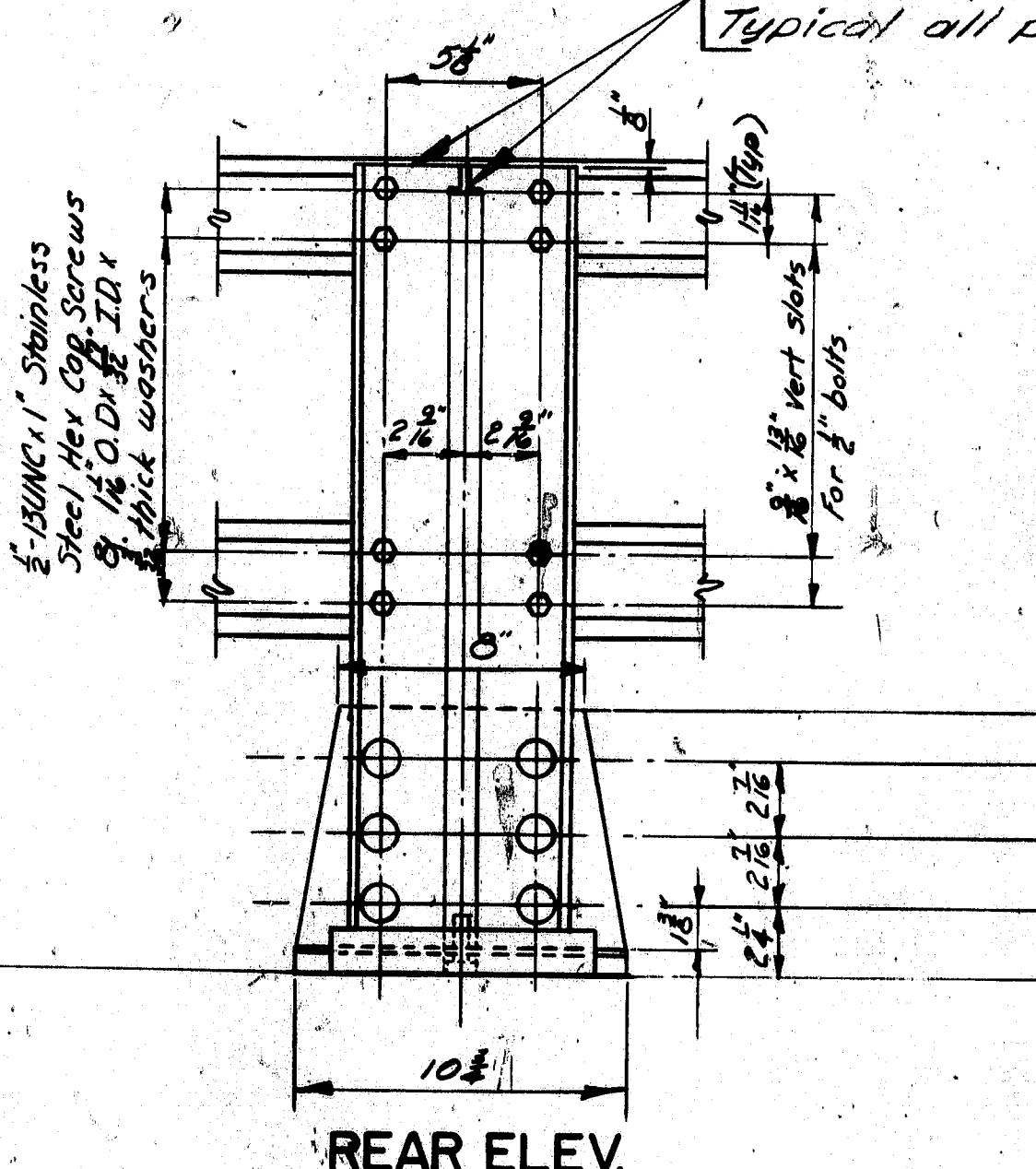
RAIL SECTION

See "Rail Detail"

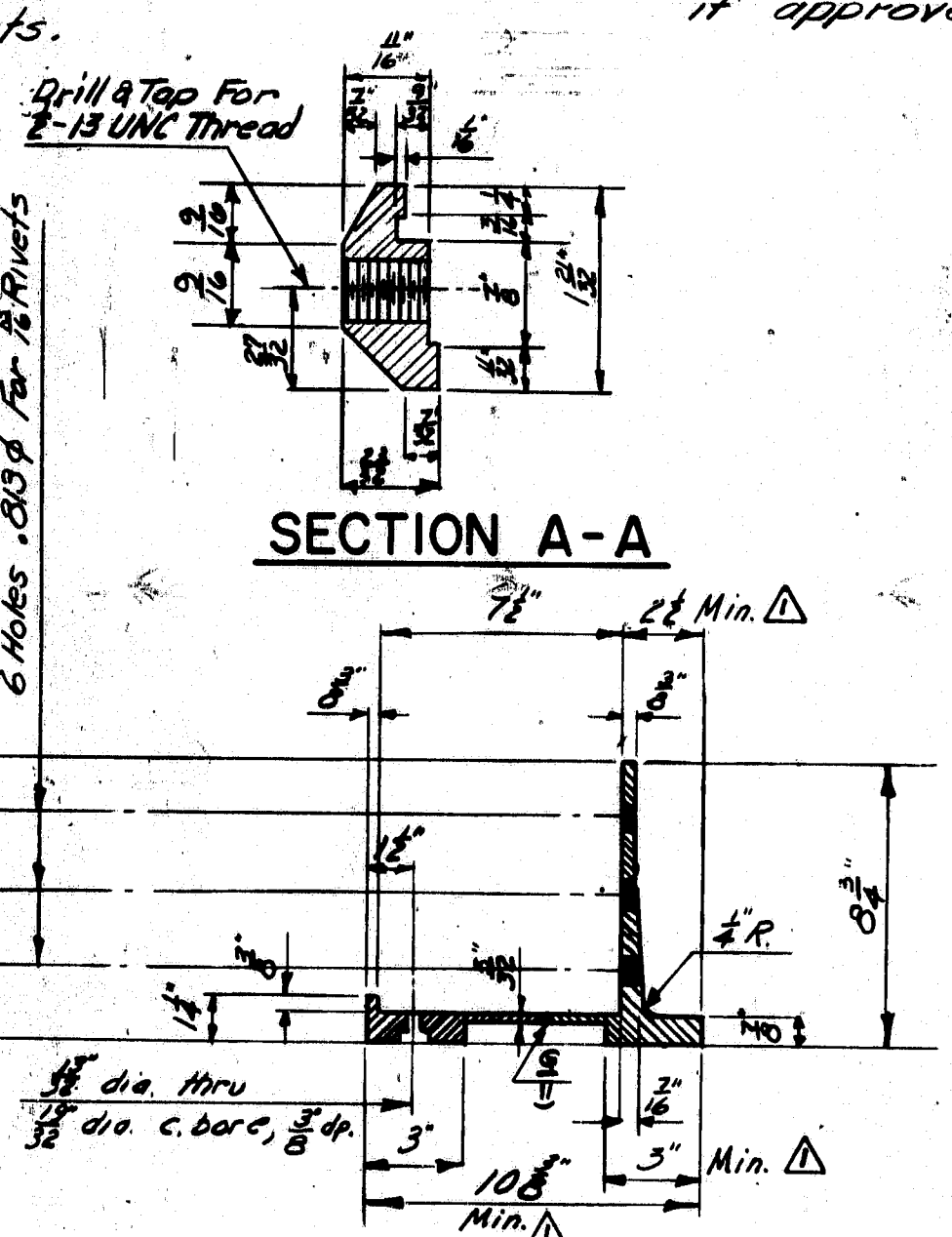


BRIDGE RAILING (Assembly)

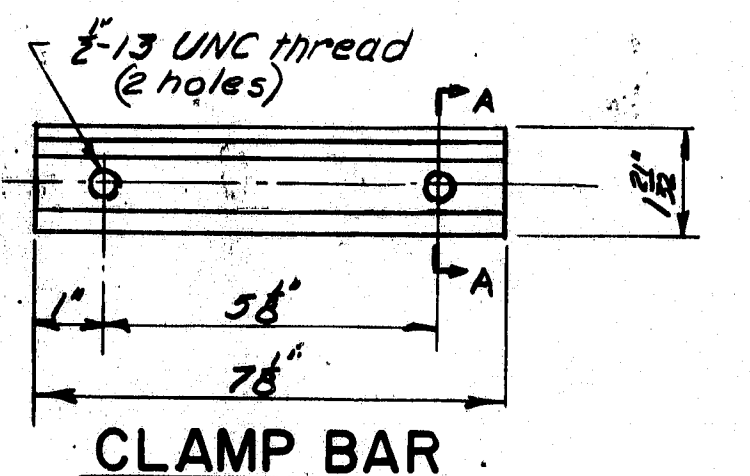
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



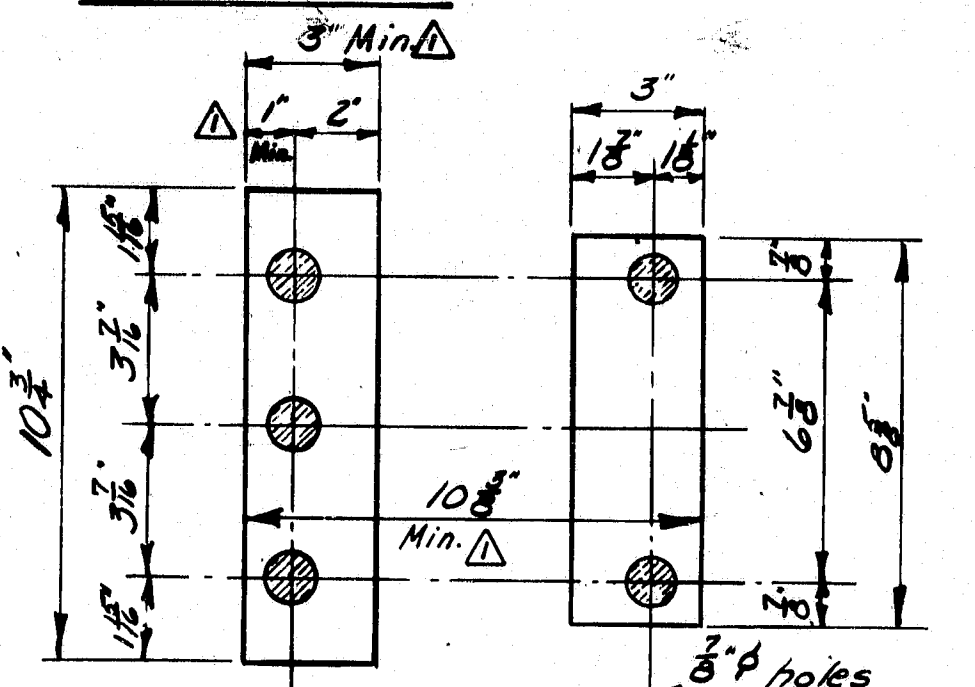
REAR ELEV



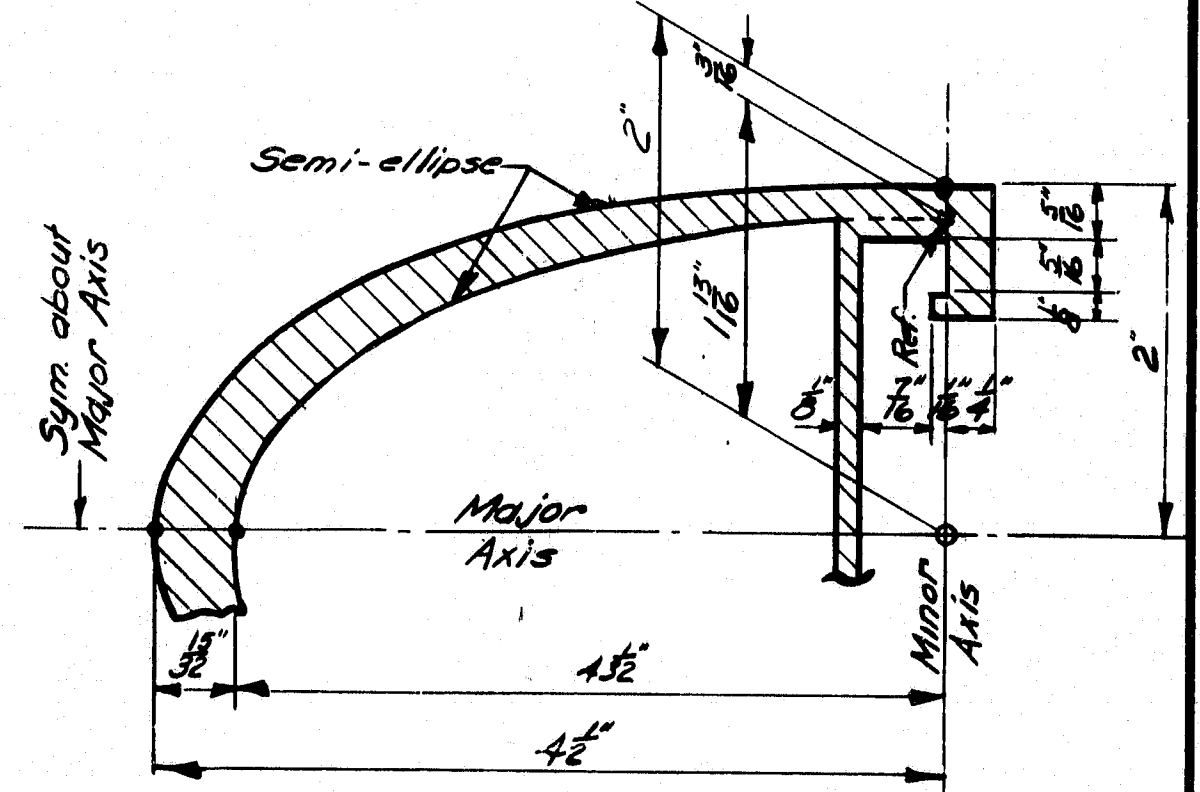
POST BASE SECTION



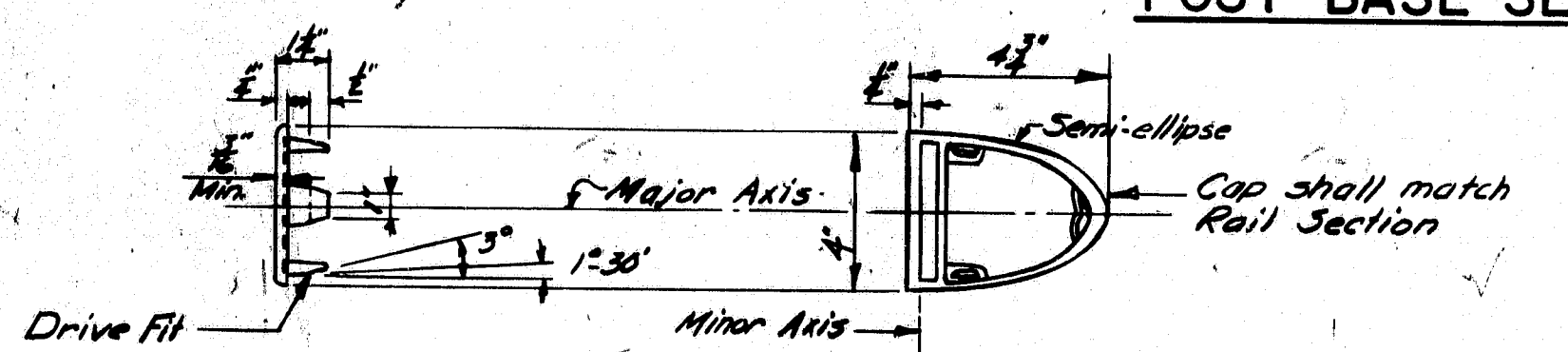
CLAMP BAR



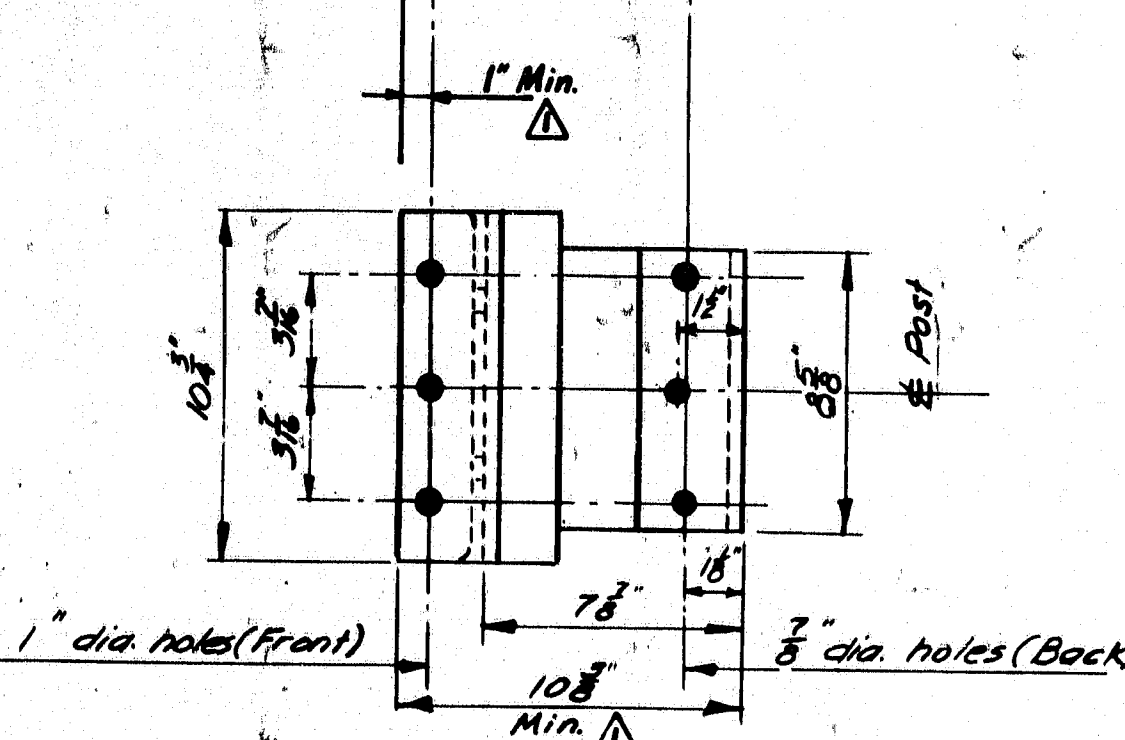
PREFORMED PADS



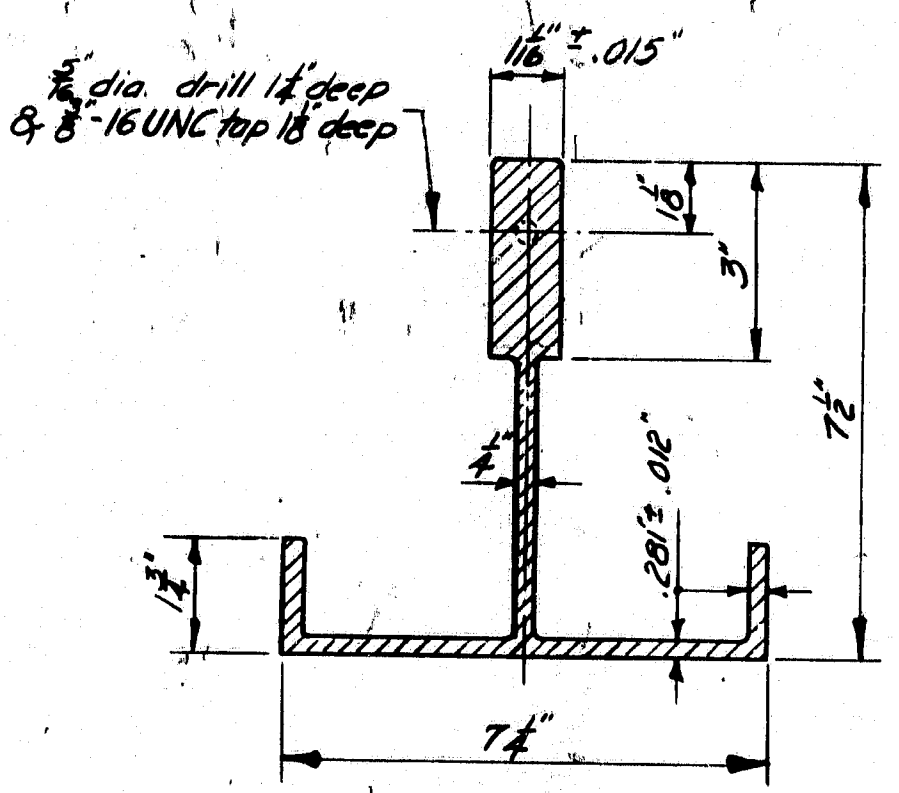
RAIL DETAIL



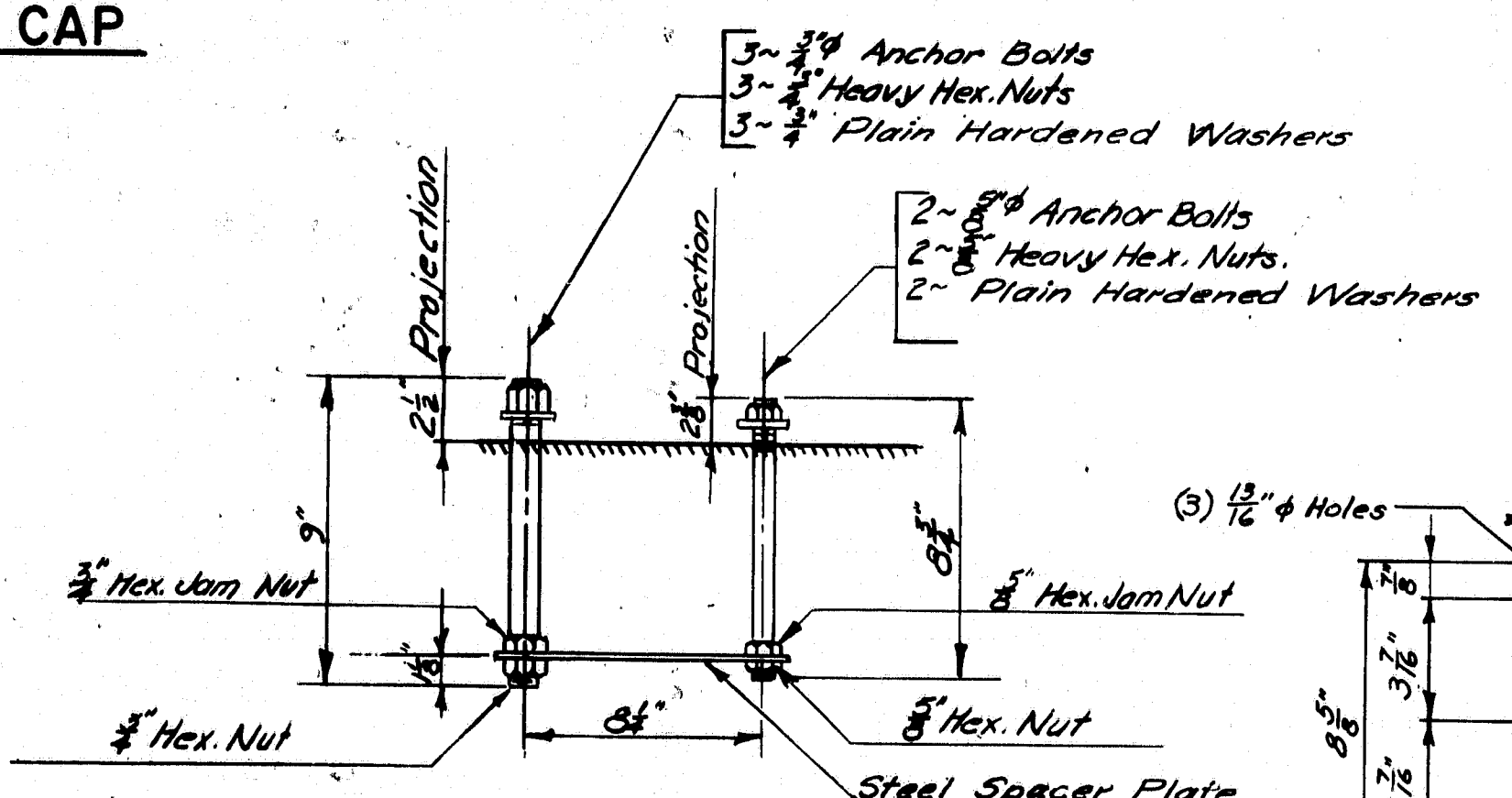
RAIL CAP



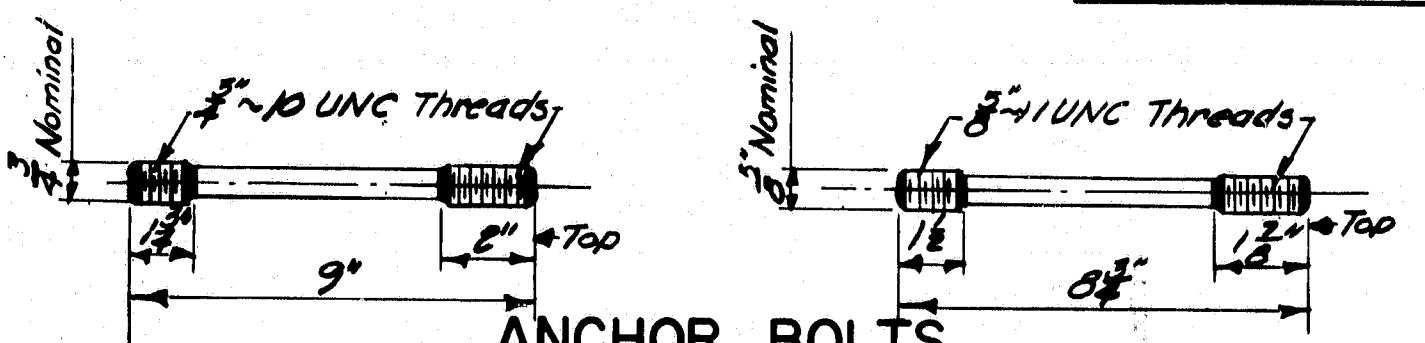
POST BASE (Bottom View)



POST SECTION

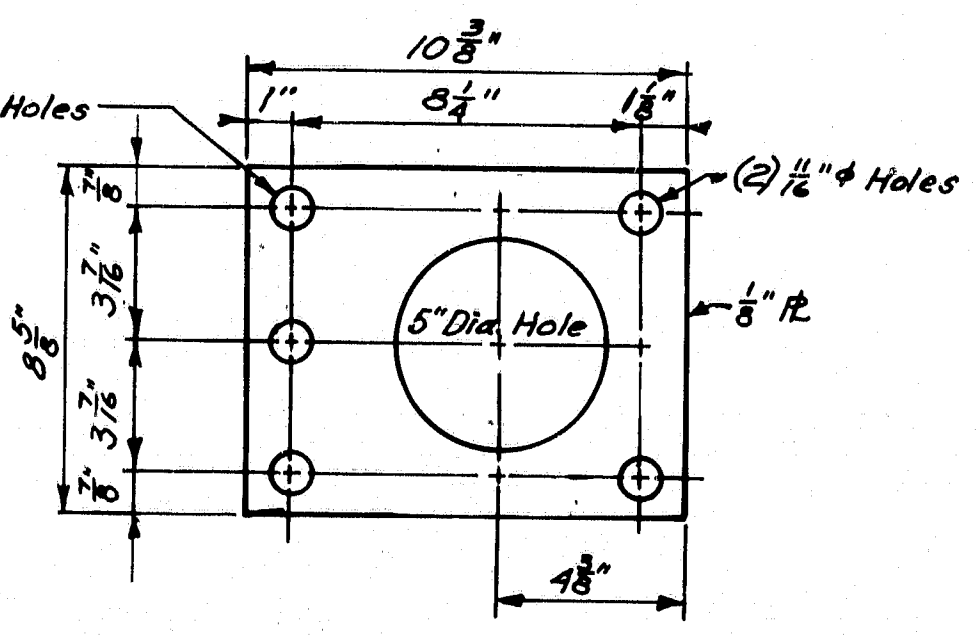


RAIL POST ANCHORAGE (Assembly)



ANCHOR BOLTS

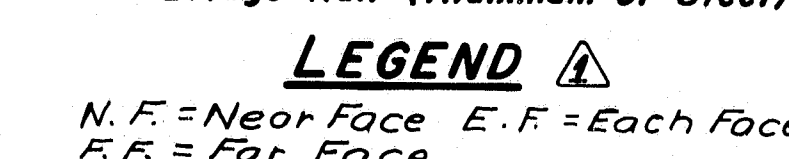
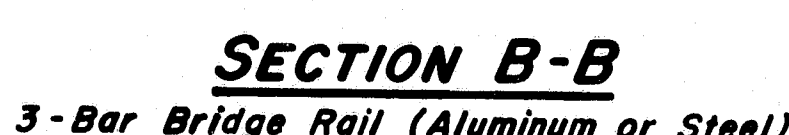
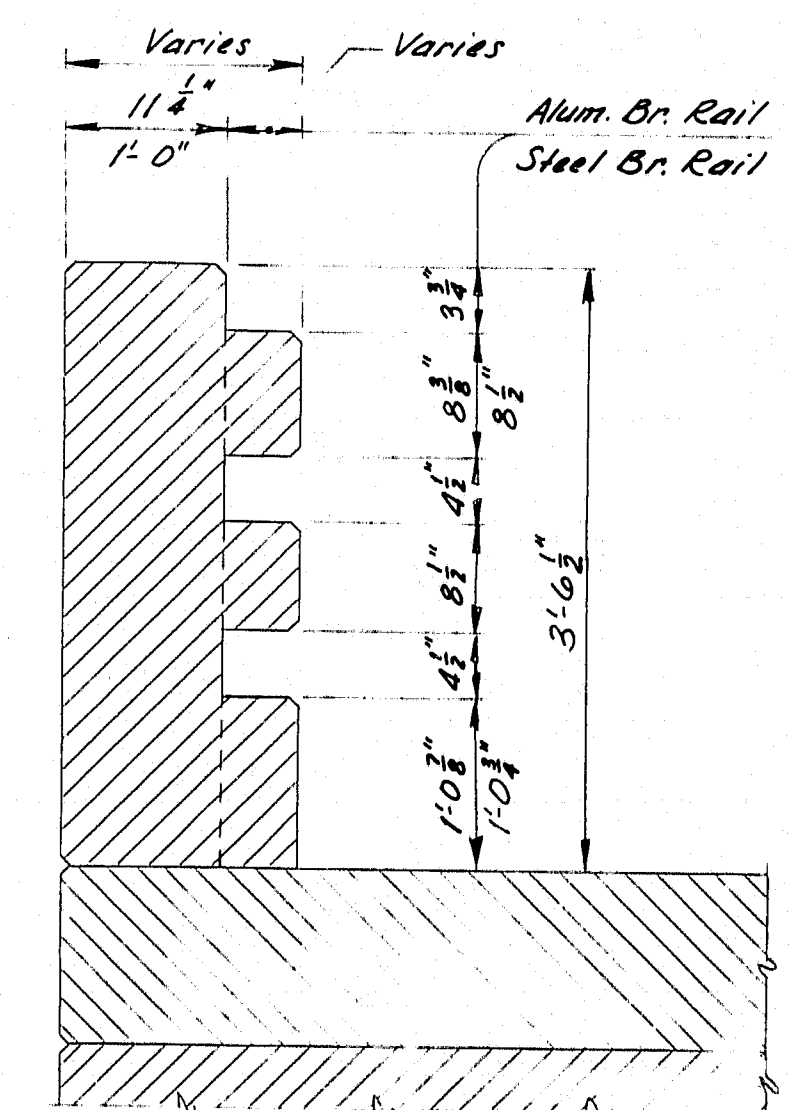
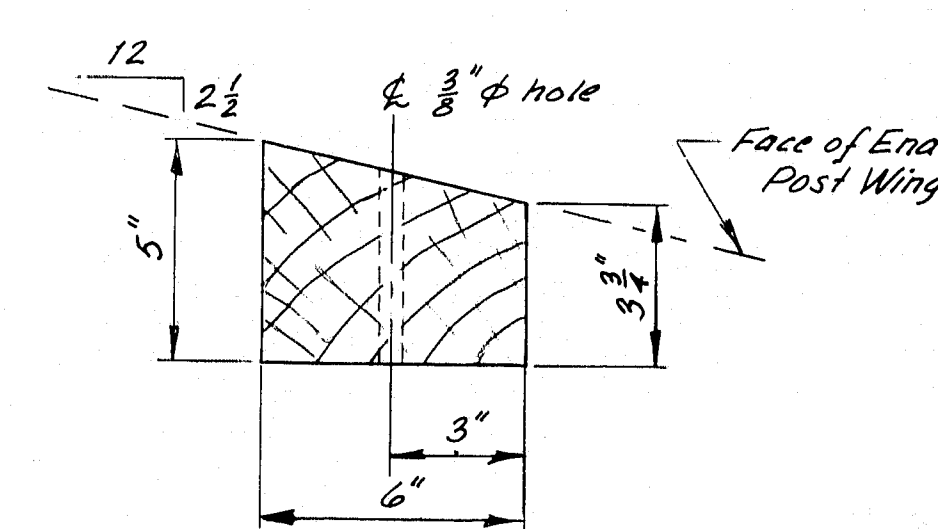
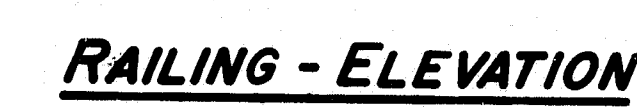
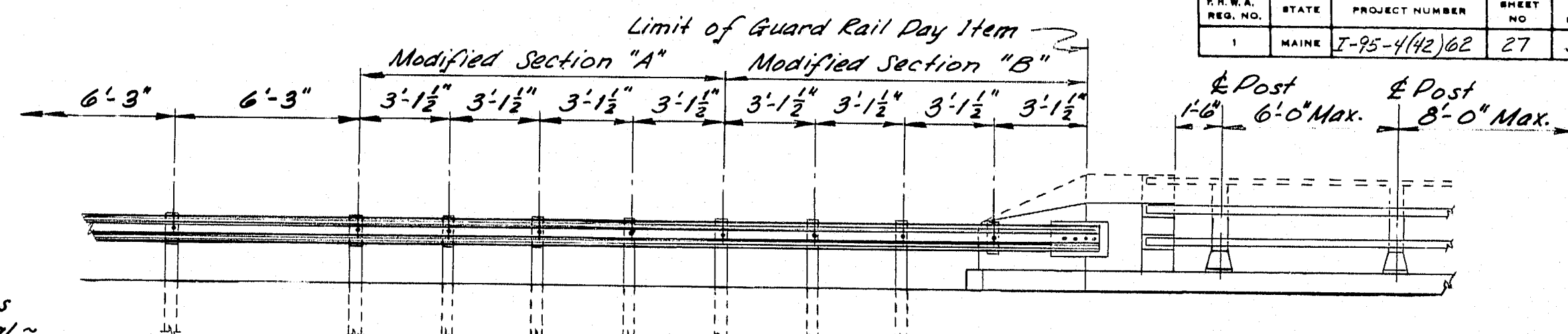
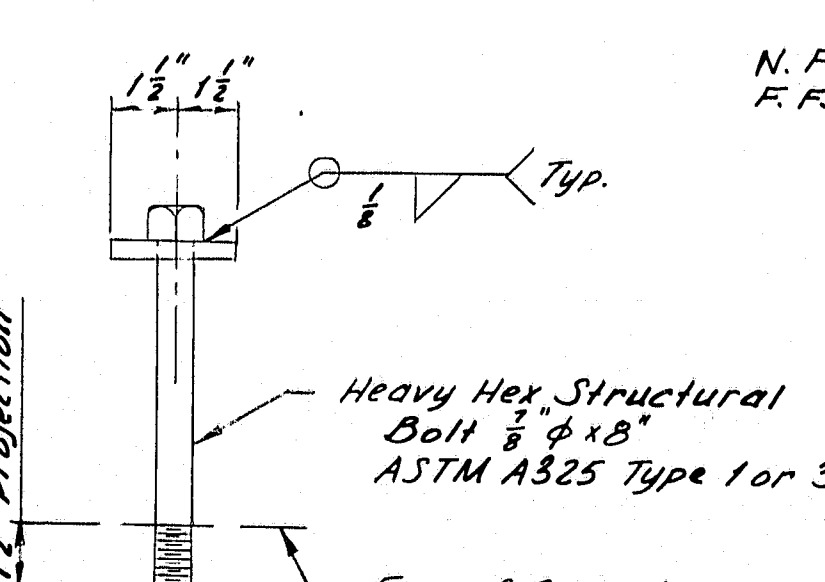
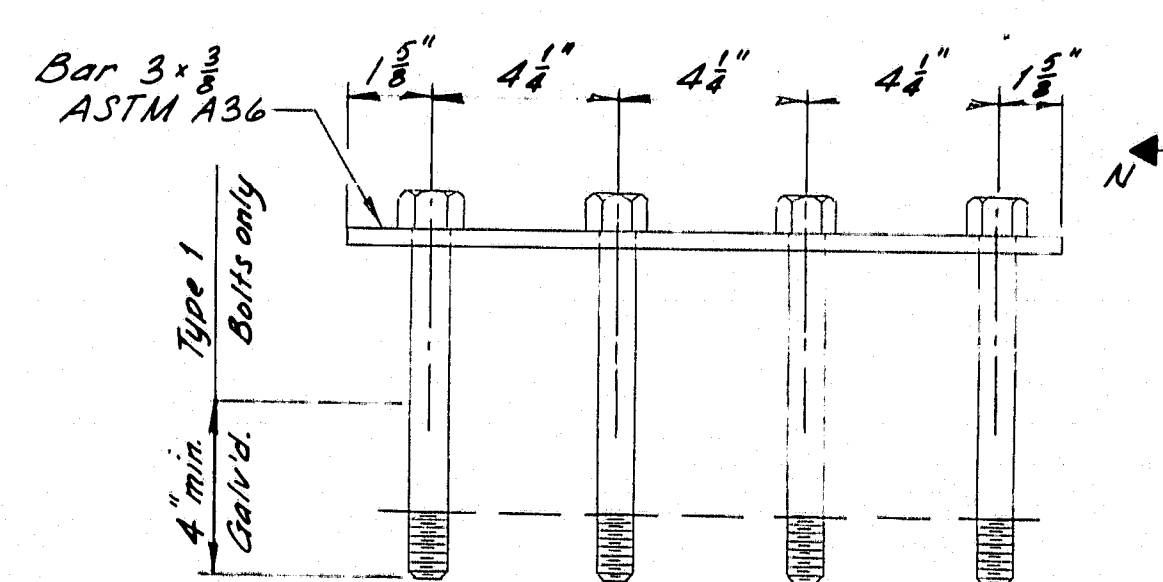
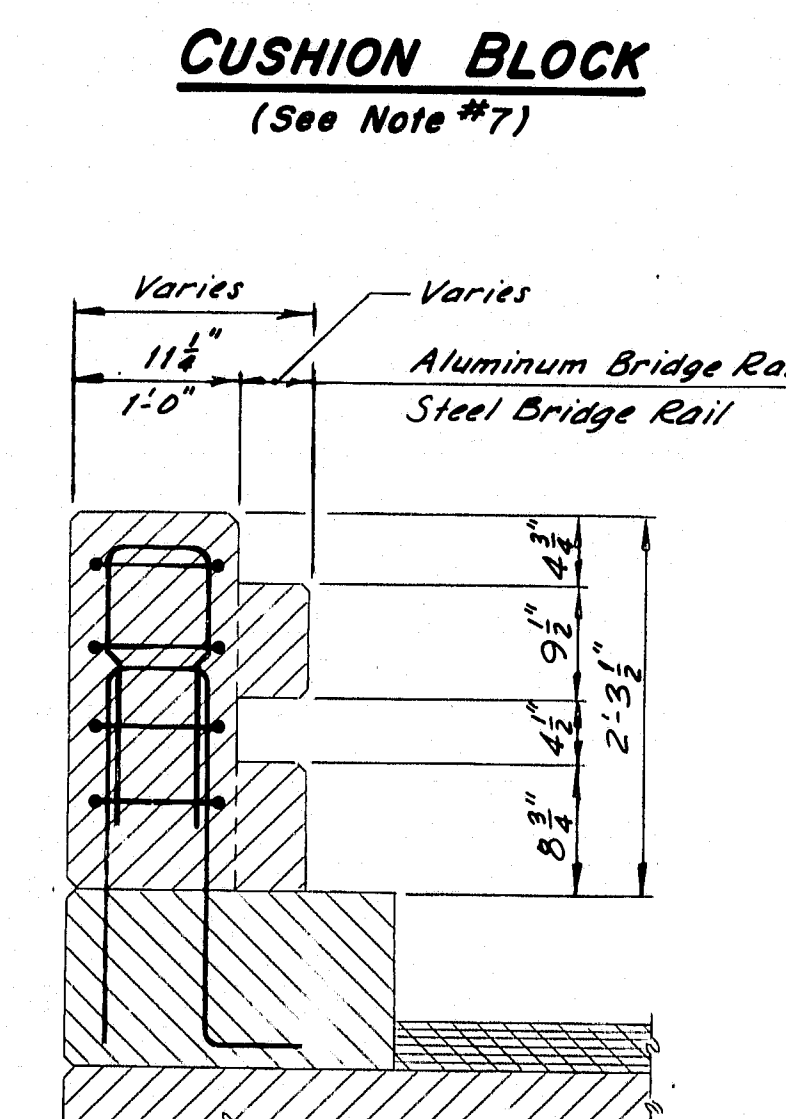
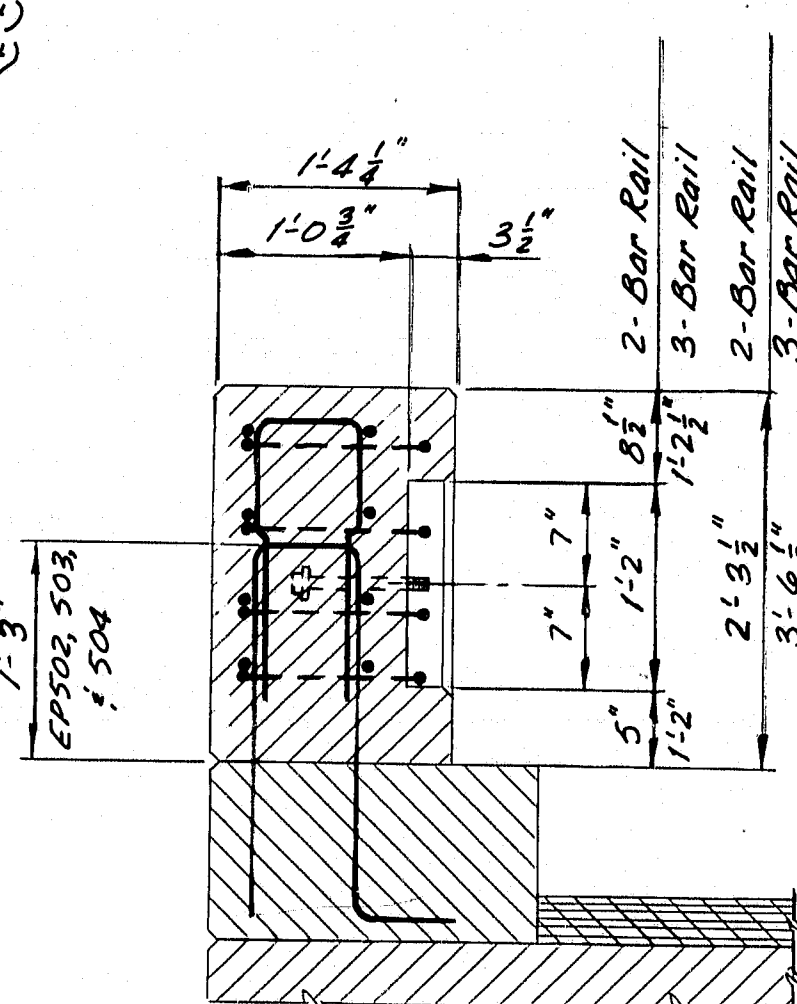
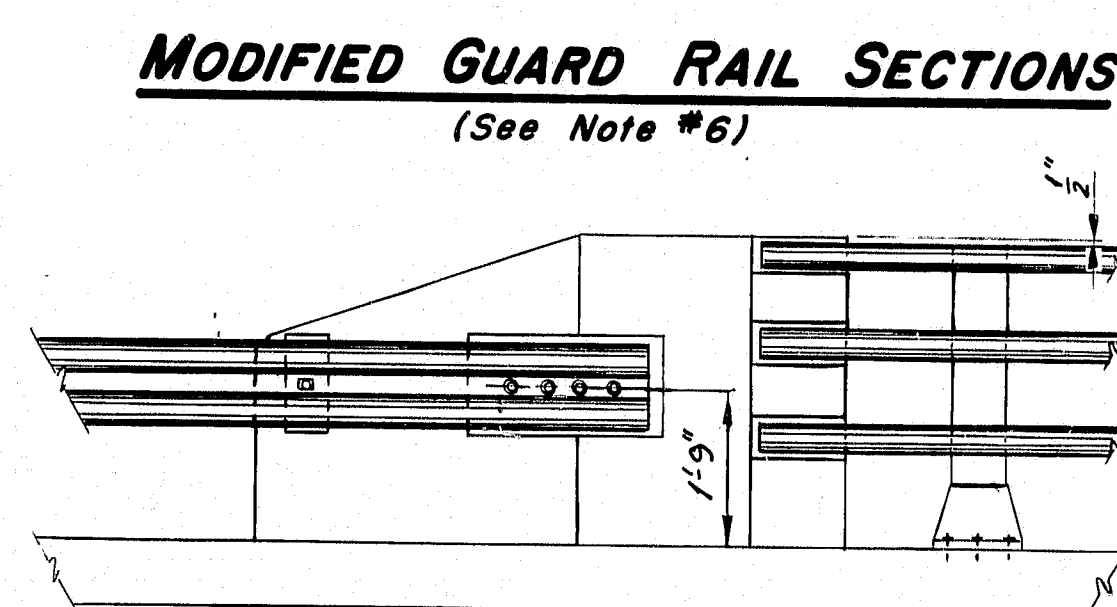
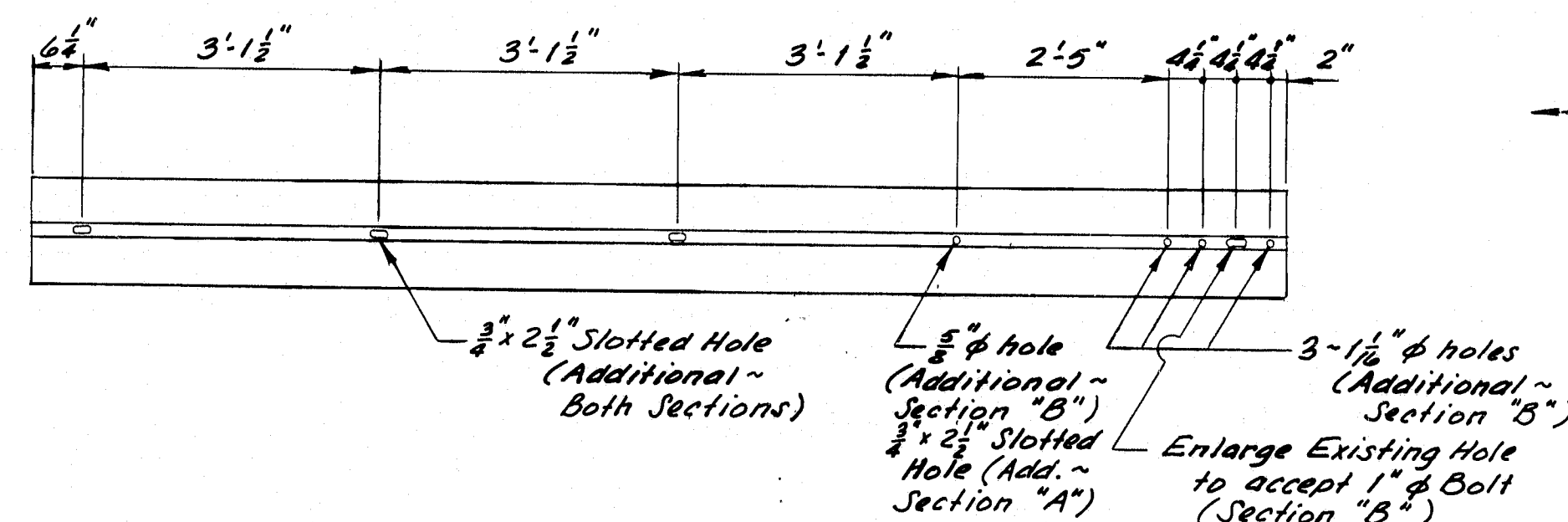
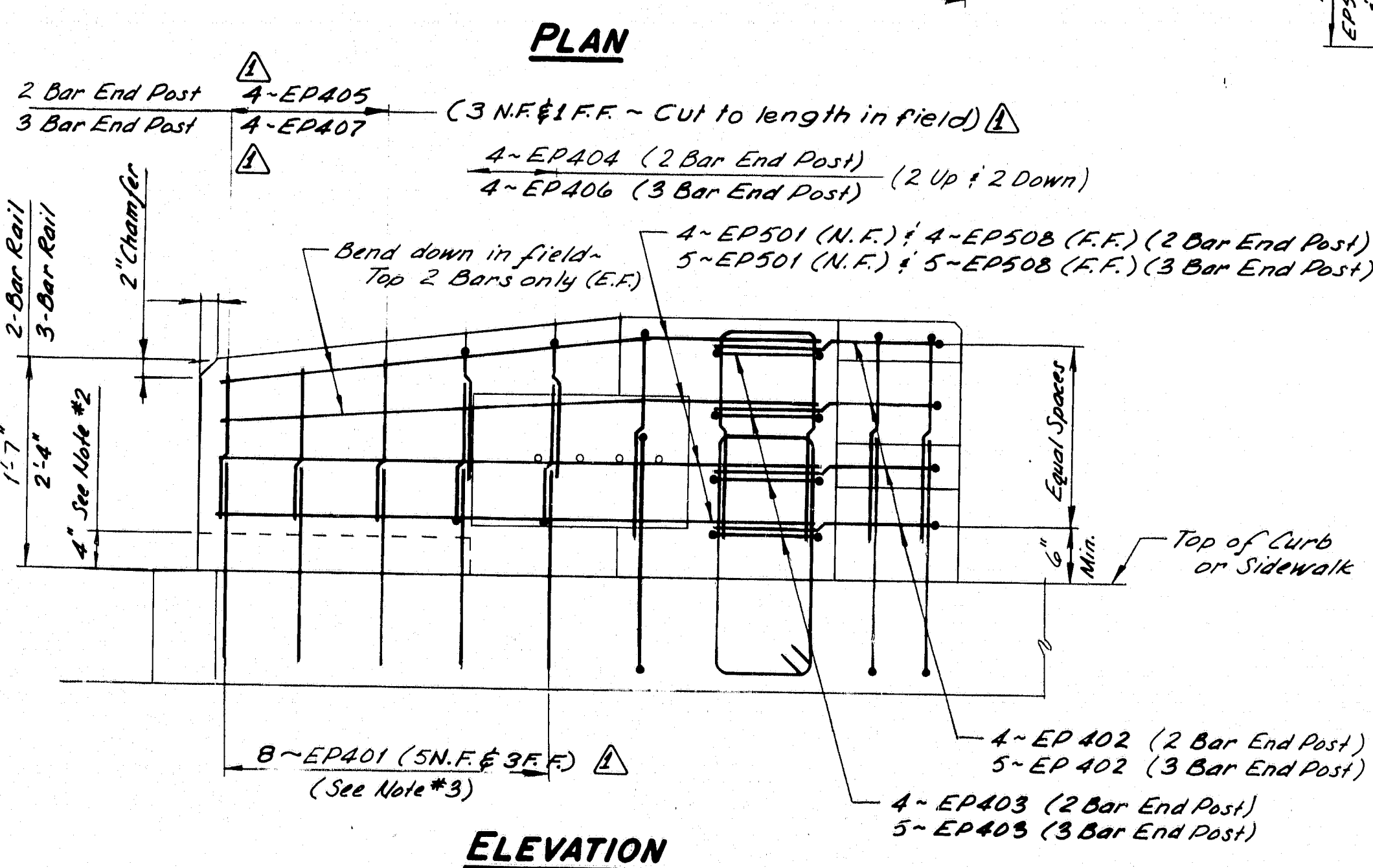
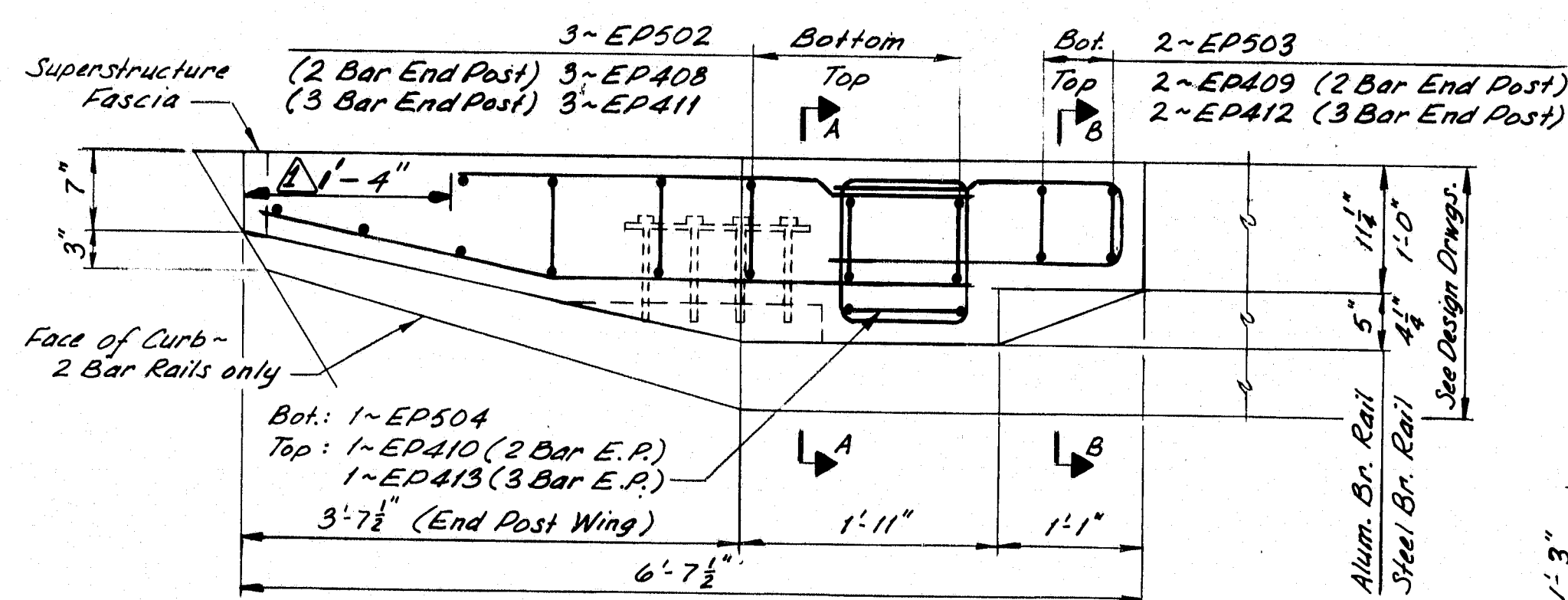
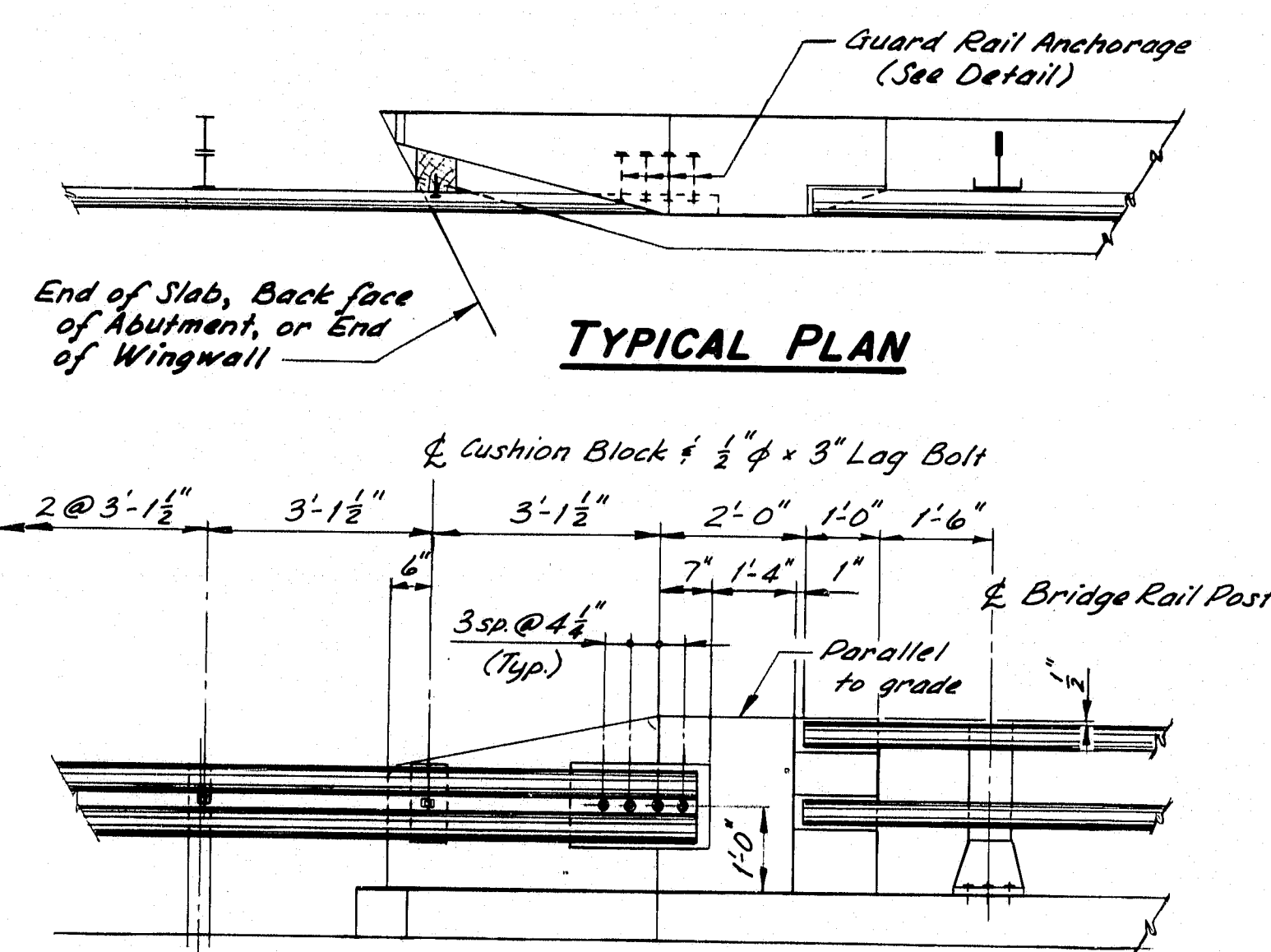
If cut threads are used, body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than pitch diameter of the threads.



STEEL SPACER PLATE (For Anchorage)

AS BUILT 1985 Rep	DATE
Altered base dimensions	7-83
REVISIONS	
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
STANDARD DETAILS (BD 114-81)	
ALUMINUM BRIDGE RAILING 2-BAR (SEMI-ELLIPSE)	
SHEET 26 OF 34	AUGUSTA, MAINE JUNE 1981

R93-81



- ## **NOTES**
1. For locations of End Posts on the structure, see Design Drawings.
 2. At times, an End Post Wing may be cantilevered for all or part of its length. For details, see Design Drawgs.
 3. If an End Post Wing is cantilevered, bars EP401 to be omitted as needed.
 4. When End Post Wing is cantilevered more than 2'-0", all #5 bars shall be replaced by #7 bars.
 5. Nuts for $\frac{3}{4}$ " ϕ anchor bolts shall be incidental to Guard Rail Pay Items. Nuts shall conform to A.S.T.M. A563, Grade 4H, galvanized in accordance with A.S.T.M. A153, or Grade C3, plain.
 6. Additional holes in the Modified Guard Rail Sections may be made by drilling, punching, or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
 7. Cushion Block material shall be as specified for Wood Posts in Subsection 710.07 (a). Payment for Cushion Blocks and Lag Bolts shall be incidental to the Guard Rail Pay Items.
 8. Reinforcing Steel shall have 2" min. concrete cover.
 9. After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
 10. Guard Rail Anchorage shall be incidental to the applicable concrete pay item.
 11. End Posts shall be constructed normal to grade unless otherwise shown on Design Drawings.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-4(42)62	27	34

REVISIONS		DATE
1	General Revisions	1-83

AS BUILT 1985

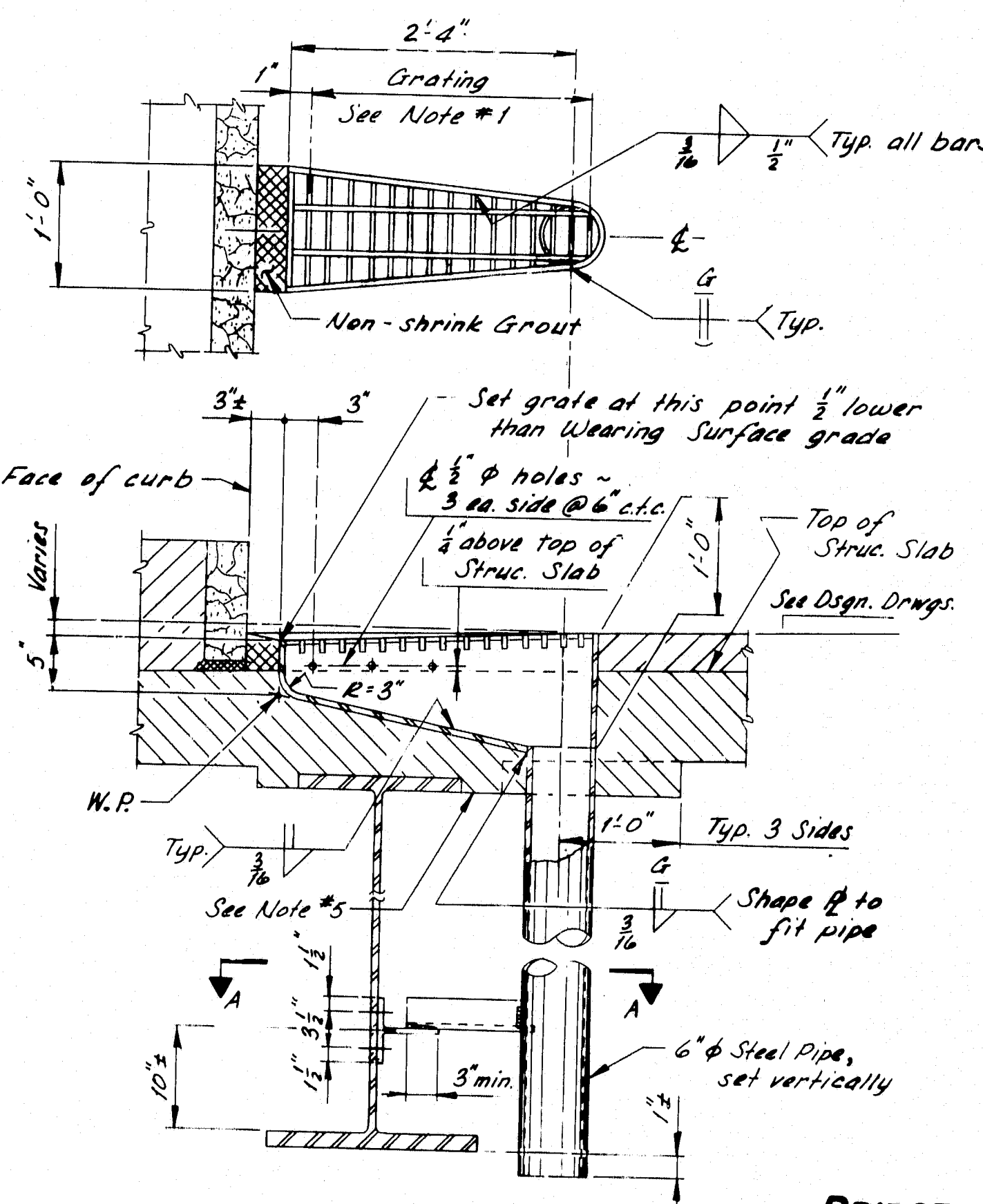
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 120-81)

CONCRETE END POSTS

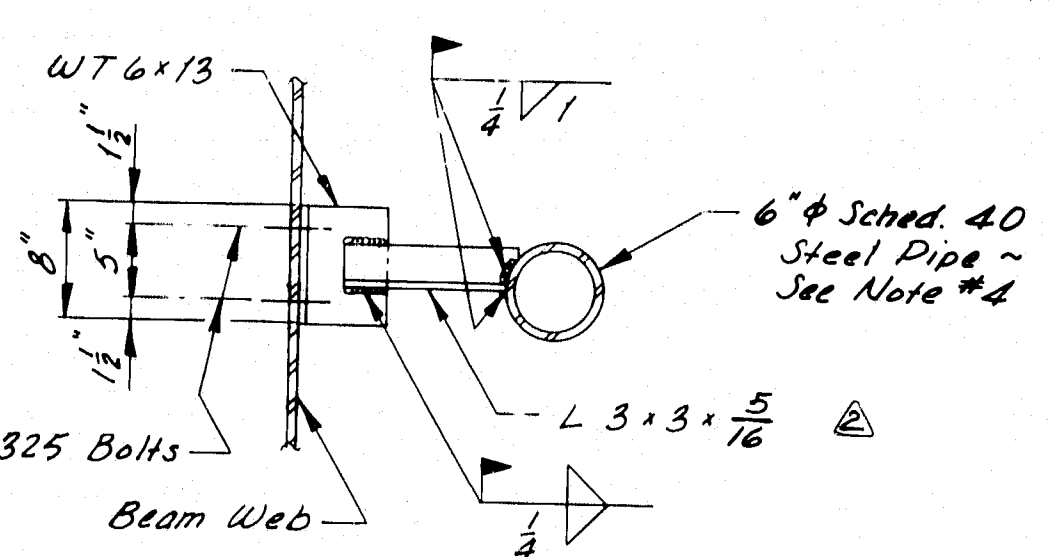
SHEET 27 OF 34 AUGUSTA, MAINE JUNE 1981



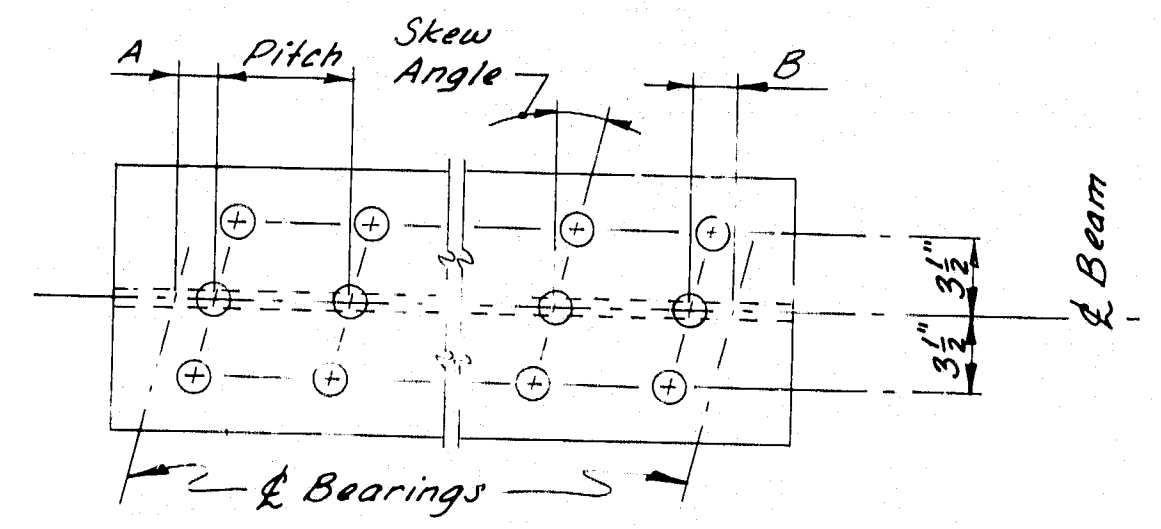
NOTES:

- Grating shall be a commercial heavy-duty grating with $1\frac{1}{2} \times \frac{3}{4}$ inch bearing bars spaced at 2 inches c.t.c., and $\frac{3}{4}$ inch cross bars spaced at 4 inches c.t.c.
- Plates shall be A.S.T.M. A36, $\frac{1}{4}$ inch thick.
- WT 6x13 shall be of the same material as the beam web.
- At the option of the Contractor, the Bridge Drain may be modified to allow the use of T.S. 6x6x $\frac{1}{2}$ conforming to A.S.T.M. A501 or A.S.T.M. A500, Gr. "A", in place of the 6 inch steel pipe.
- If the minimum thickness of concrete below the Drain is 2 inches or less, the haunch shall be extended as shown.
- Painting will not be required when the structural steel is specified to be unpainted.
- Payment for Bridge Drain shall be as specified under subsection 502.19 of the Standard Specifications.

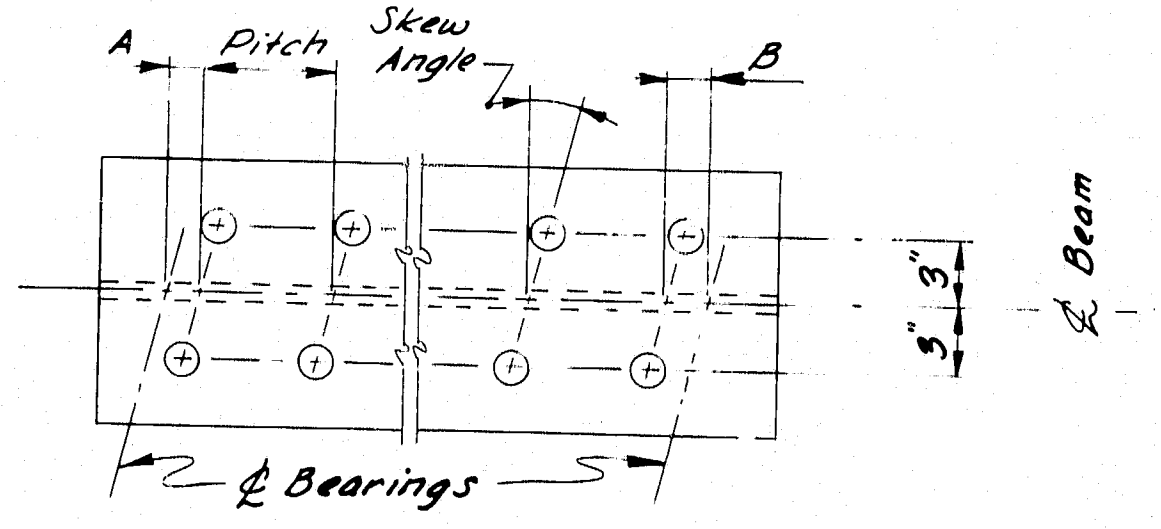
BRIDGE DRAIN



SECTION A-A



TRIPLE STUDS

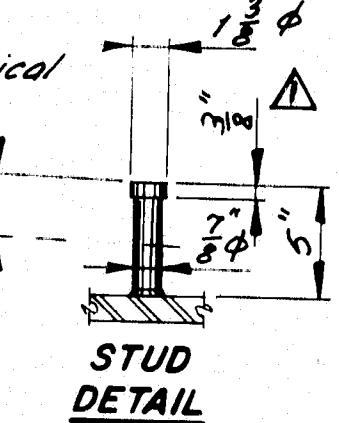


DOUBLE STUDS

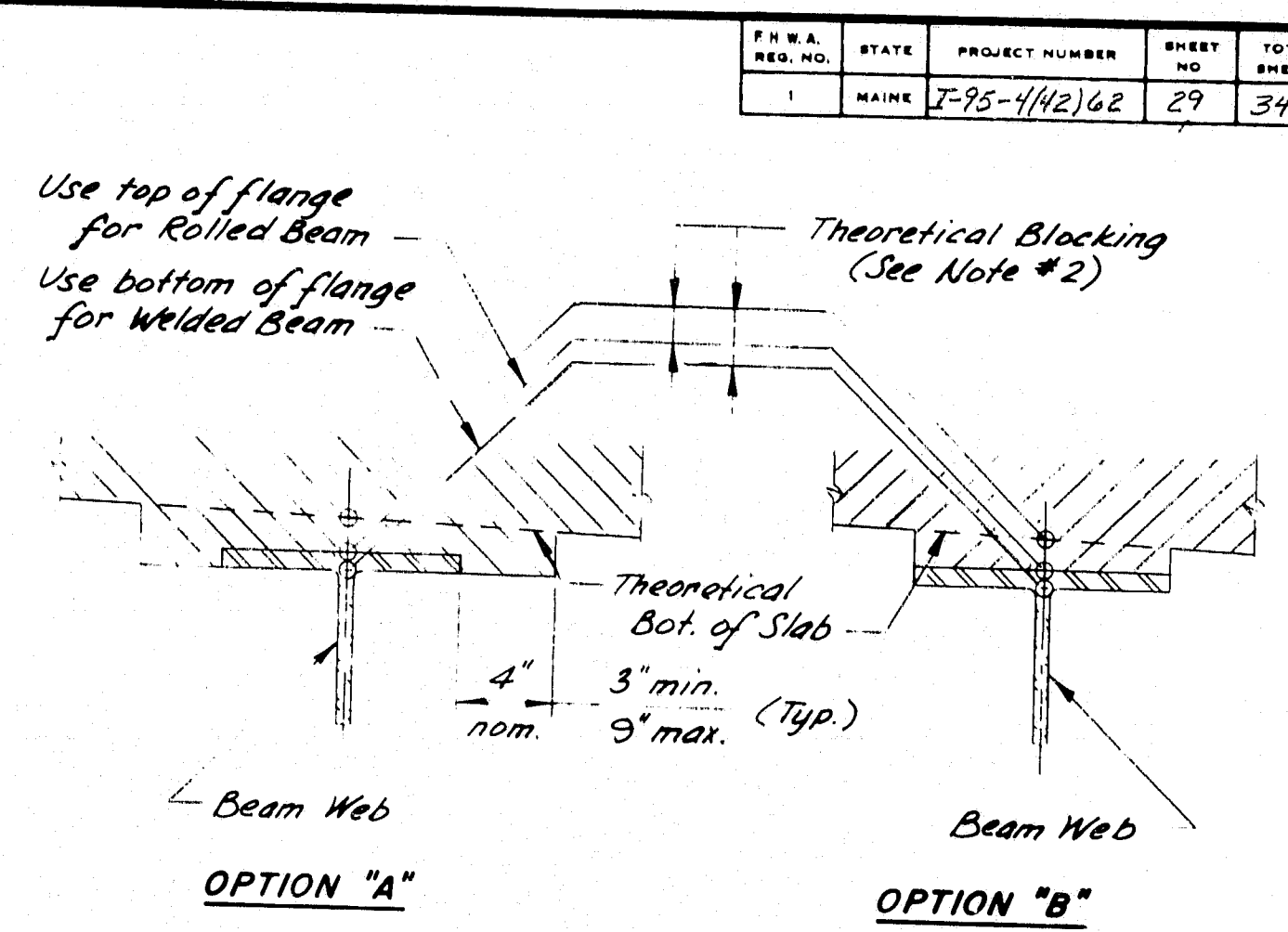
NOTE:

- See Design Drawings for Dim's. "A", "B", stud pitch, and skew angle.

SHEAR CONNECTORS



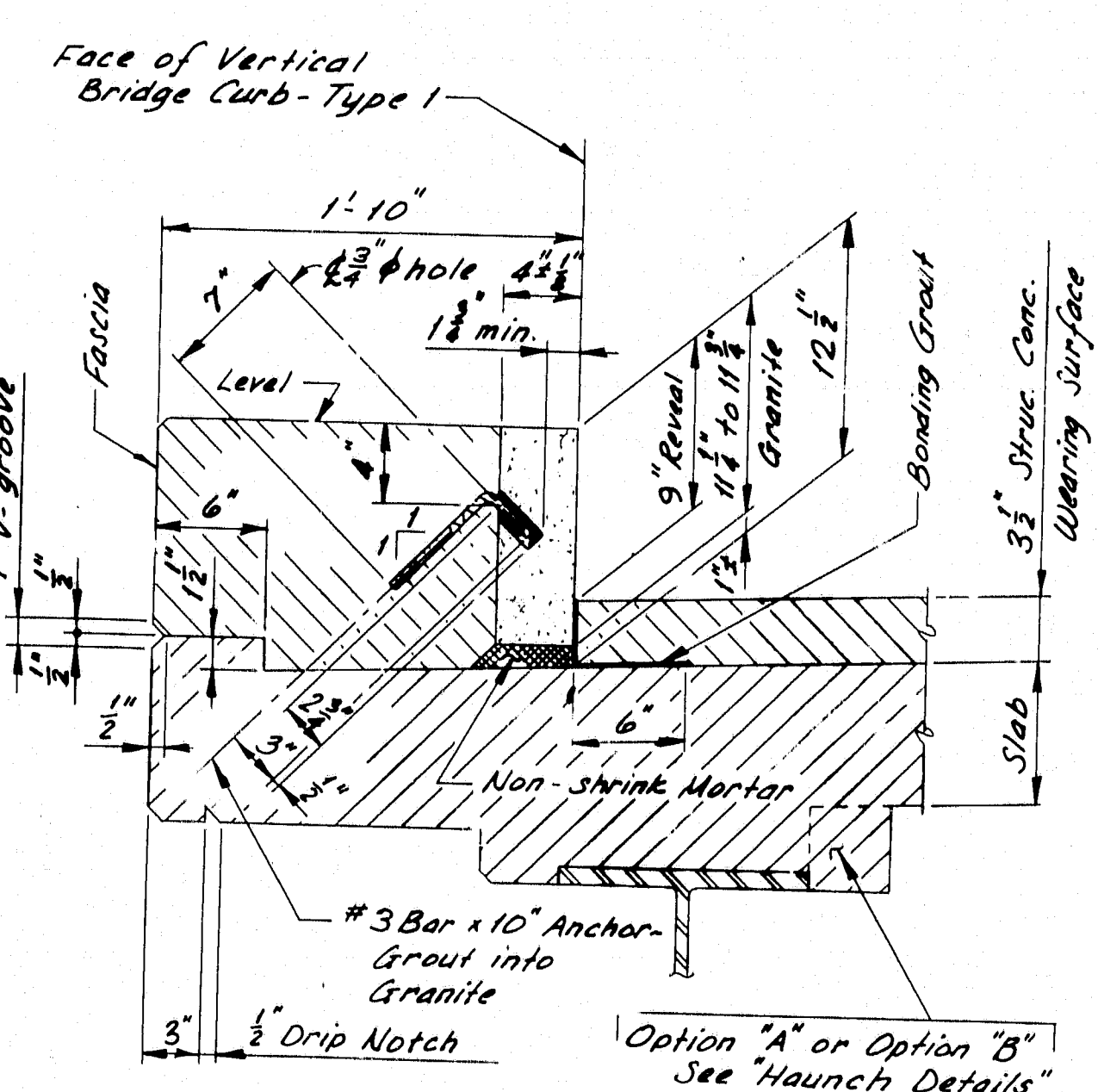
STUD DETAIL



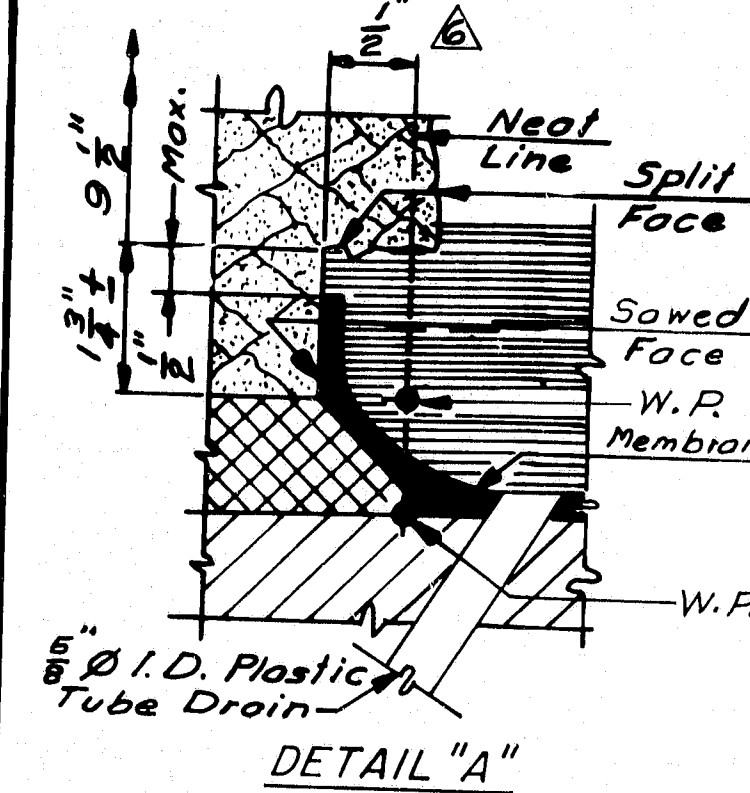
NOTE:

- Haunch Option "A" or Option "B" may be used at the Contractor's discretion. Only one option shall be used on each structure, except that Option "A" must always be used on the fascia side of all fascia beams and on beams designed without shear connectors.
- Theoretical Blocking shall be as indicated on Design Drawings.
- Do not use Theoretical Blocking for setting of form-work.

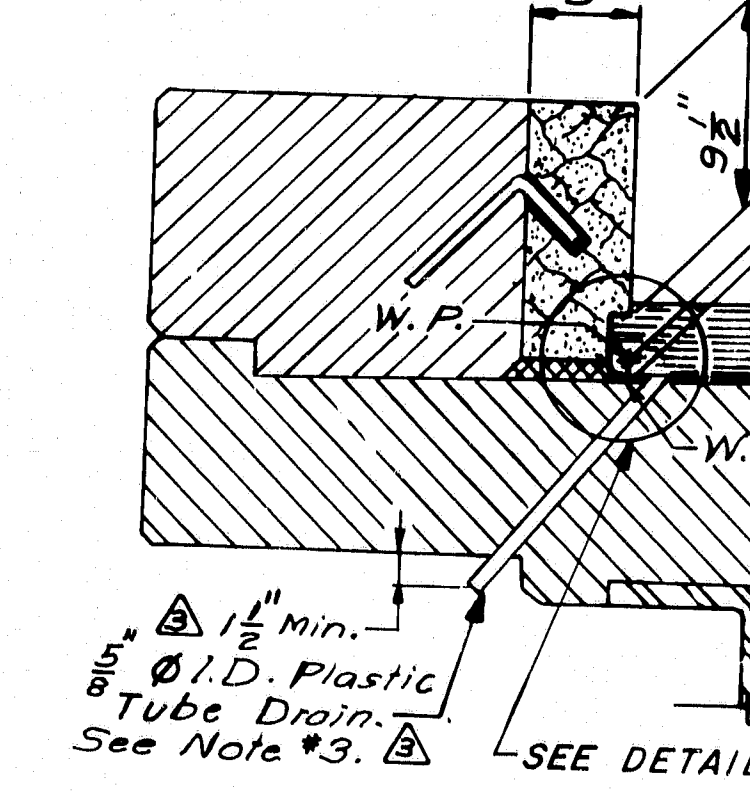
HAUNCH DETAILS



CURB SECTION TYPE 1A
(STRUCTURAL CONCRETE WEARING SURFACE)



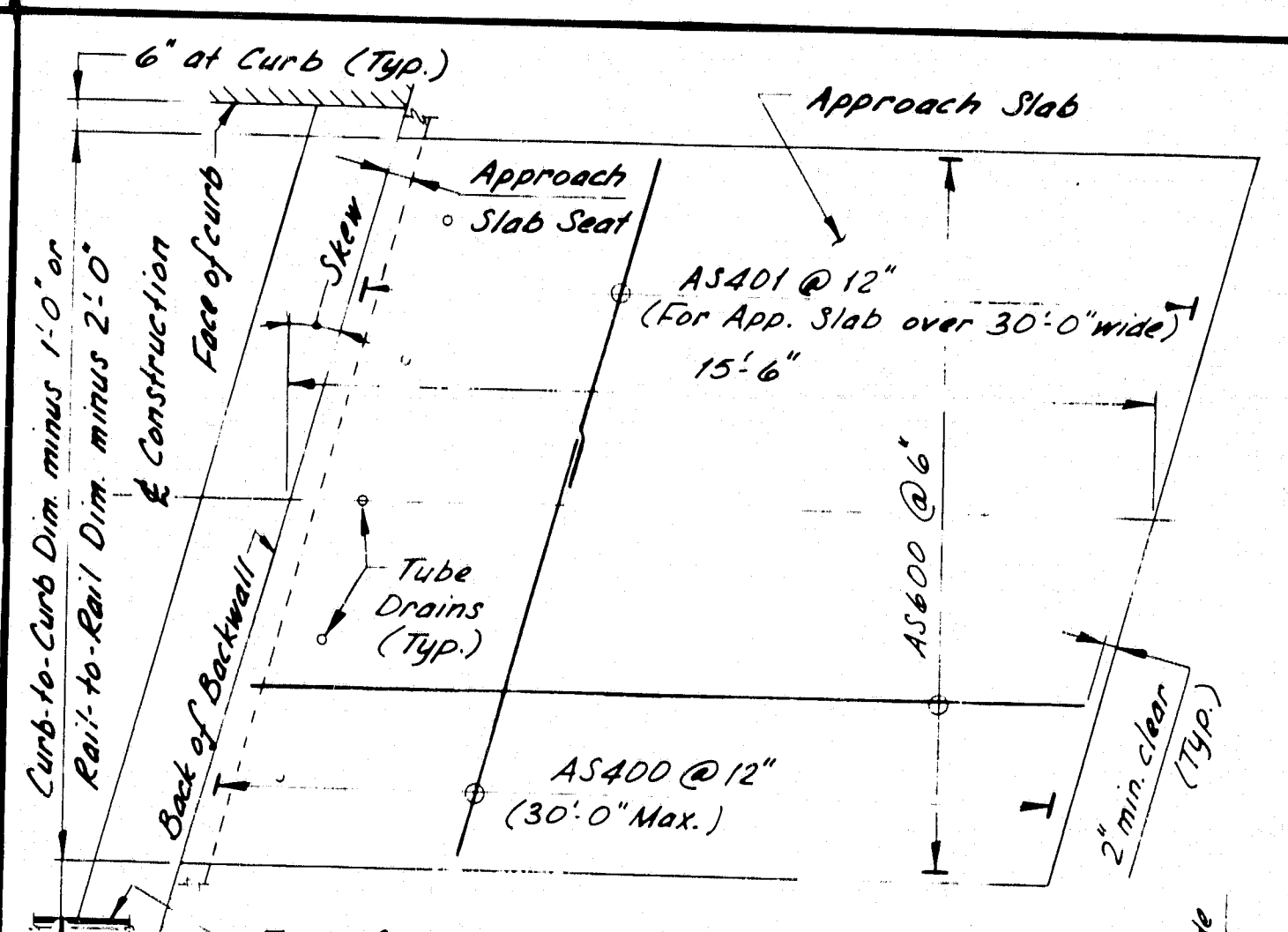
DETAIL "A"



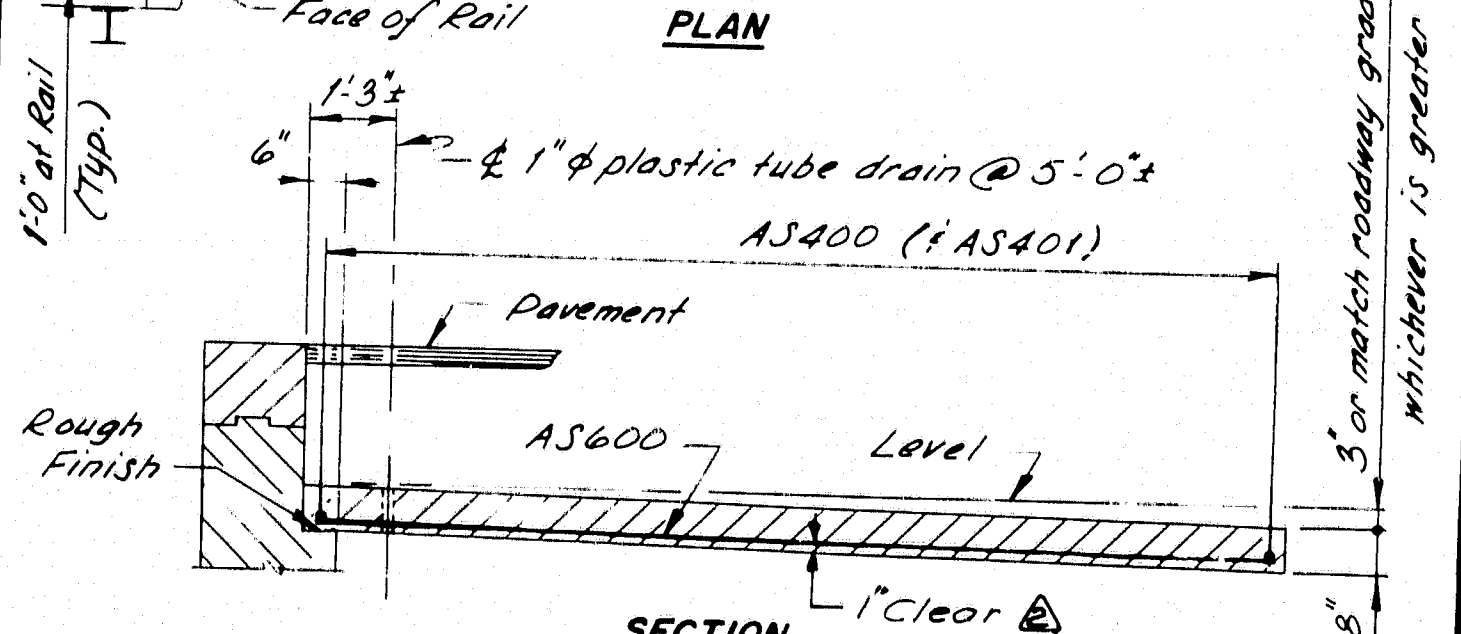
CURB SECTION TYPE 1B
(BITUMINOUS WEARING SURFACE)

NOTES:

- For dimensions not shown, see Curb Section (Structural Concrete Wearing Surface).
- W.P. = Working Point.
- Use drains at low points on slab behind expansion devices.

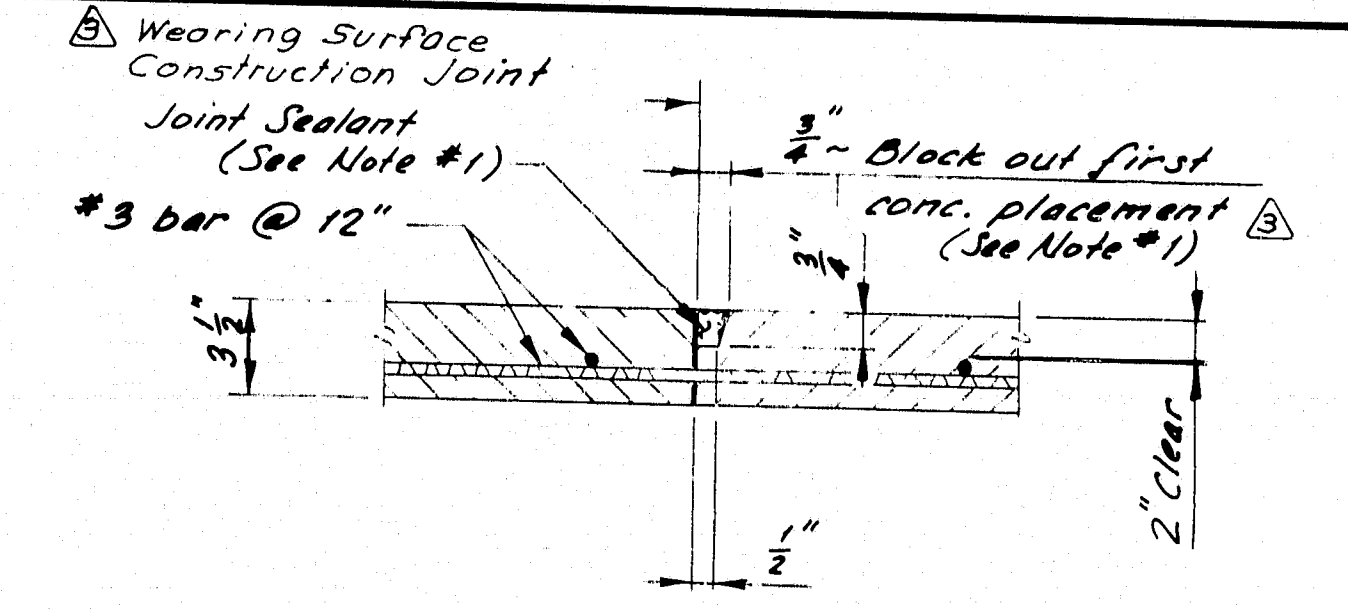


PLAN



SECTION

APPROACH SLAB R93-84



WEARING SURFACE DETAIL

NOTE:

- Use Block-out and Sealant only at Wearing Surface Construction Joints over Structural Slab Construction Joints. At all other joints, brush joint with neat cement paste before making adjacent concrete placement.

STRUCTURAL CONCRETE WEARING SURFACE

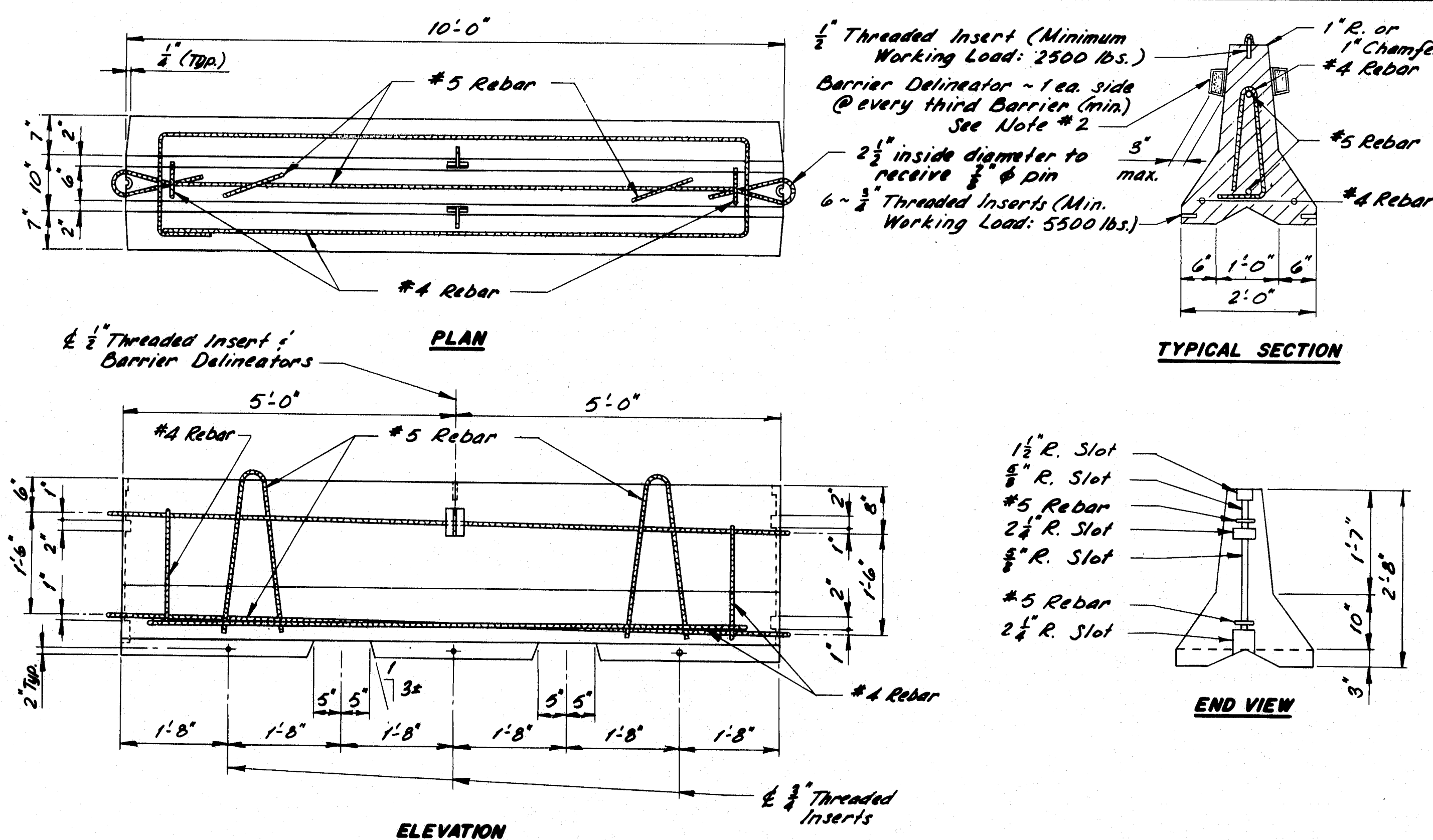
REVISIONS	DATE
Revised Stud Detail 3-82	
Added Curb Section 7-82	
Added Plastic Tube Drain & modified Structural Concrete Wearing Surface.	11-82
Revised Curb Anchorage	2-83
Revised Curb Title	6-83
Revised Curb Type 1B	11-83

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS (BD 126-81) AS BUILT 1985 MISCELLANEOUS DETAILS BRIDGE DRAIN - SHEAR CONNECTORS STRUC. CONC. WEAR. SURFACE CURB SECTION - APPROACH SLAB HAUNCH DETAILS
SHEET 29 OF 34 AUGUSTA, MAINE JUNE 1981

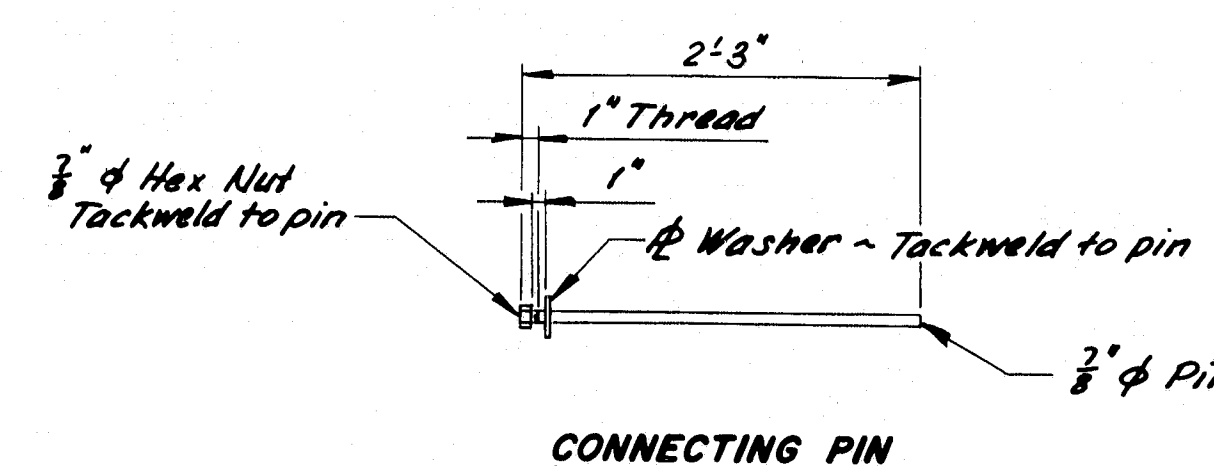
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	1/2/82
CHECKED	
REVISIONS	
FIELD CHANGES	

BRIDGING 44-132-8710

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	E-95-1142	30	34

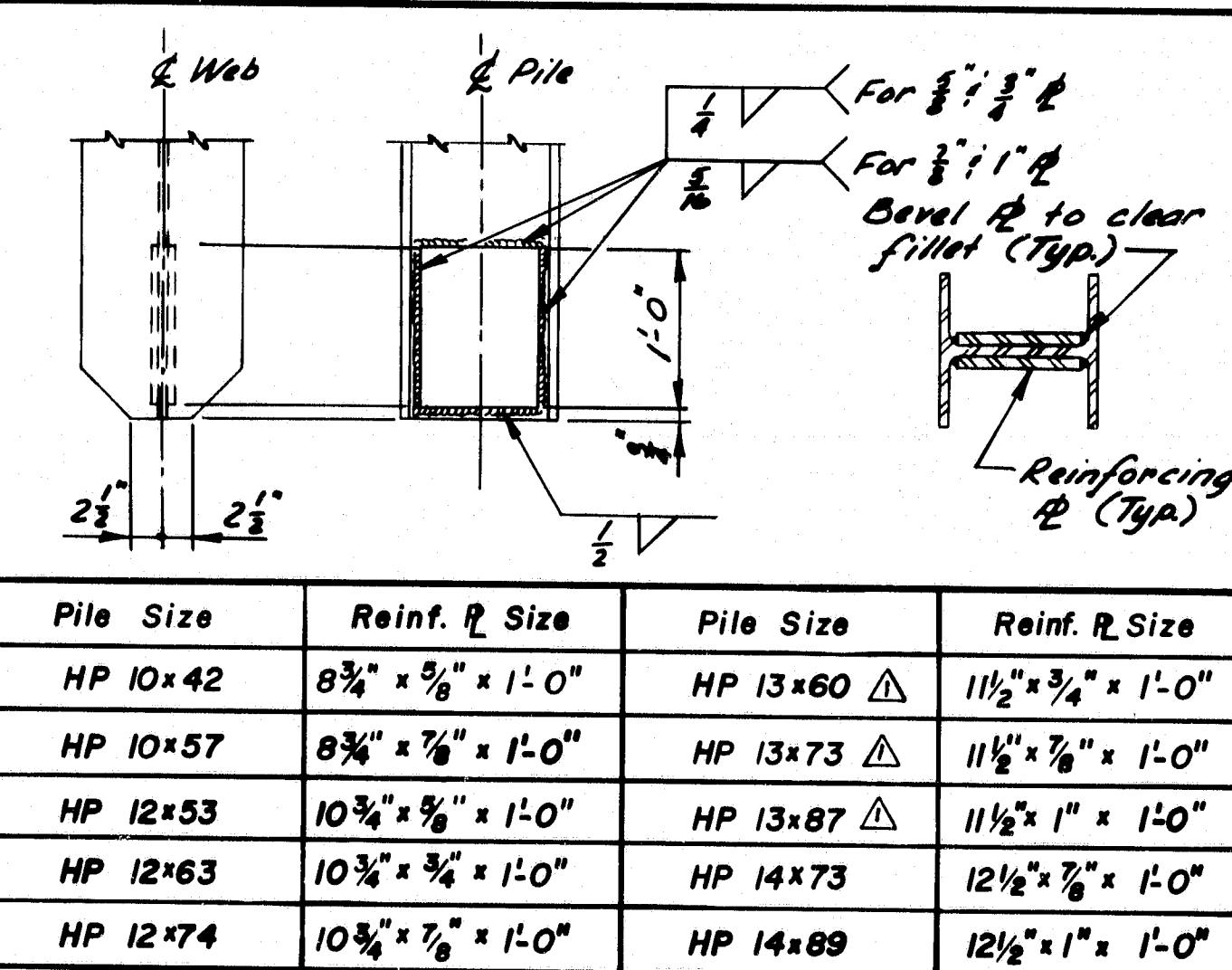


TEMPORARY CONCRETE BARRIER - TYPE I



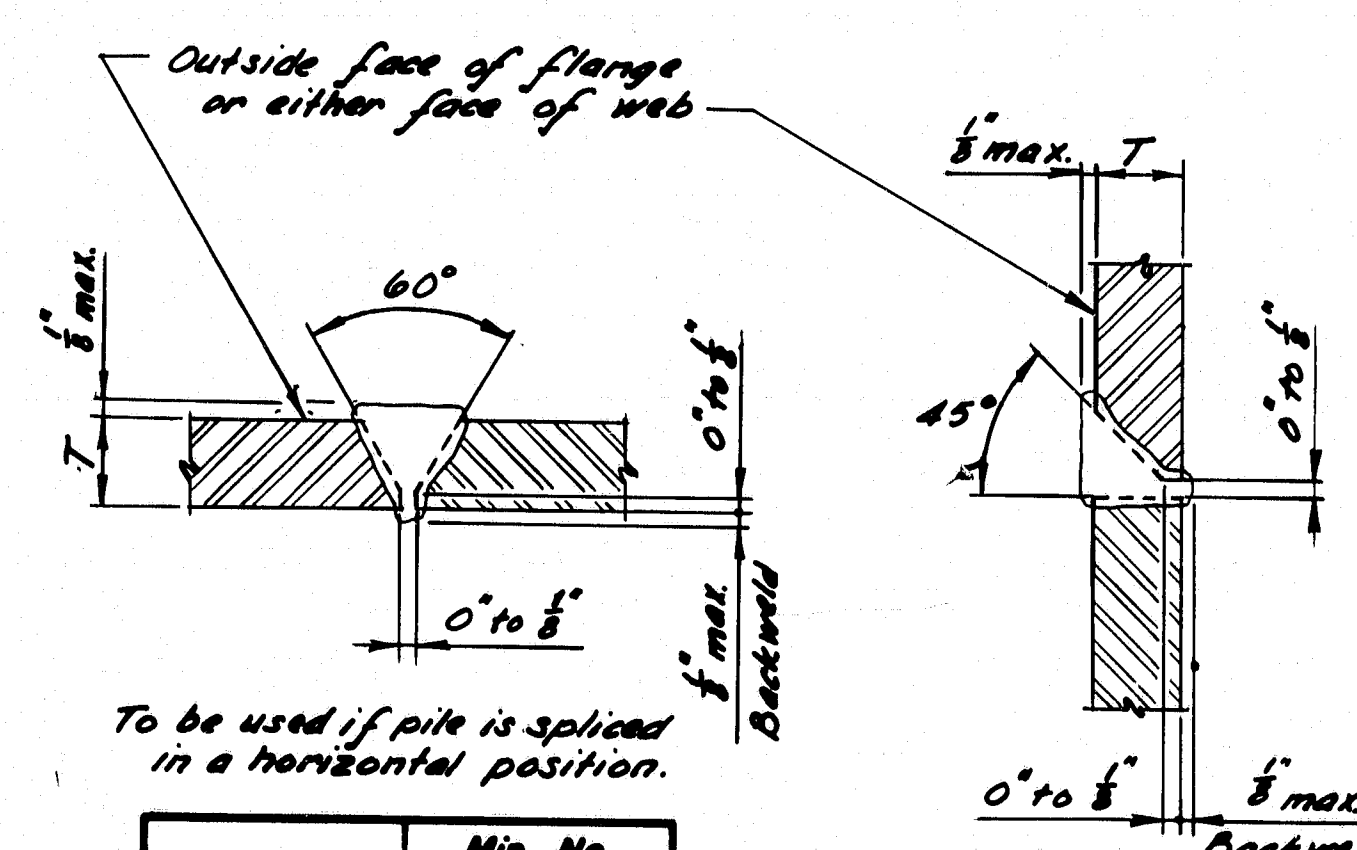
NOTES:

- The reinforcing steel, and connections, lifting arrangement, and sizes and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate reinforcing, and connections, lifting points, and hold-down arrangements.
- Barrier Delineators shall be bi-directional with a minimum effective reflect area of 8.0 square inches as approved by the Engineer. The Reflector shall preferably be of Methyl Methacrylate, and the Housing of Acrylonitrile Butadiene Styrene.



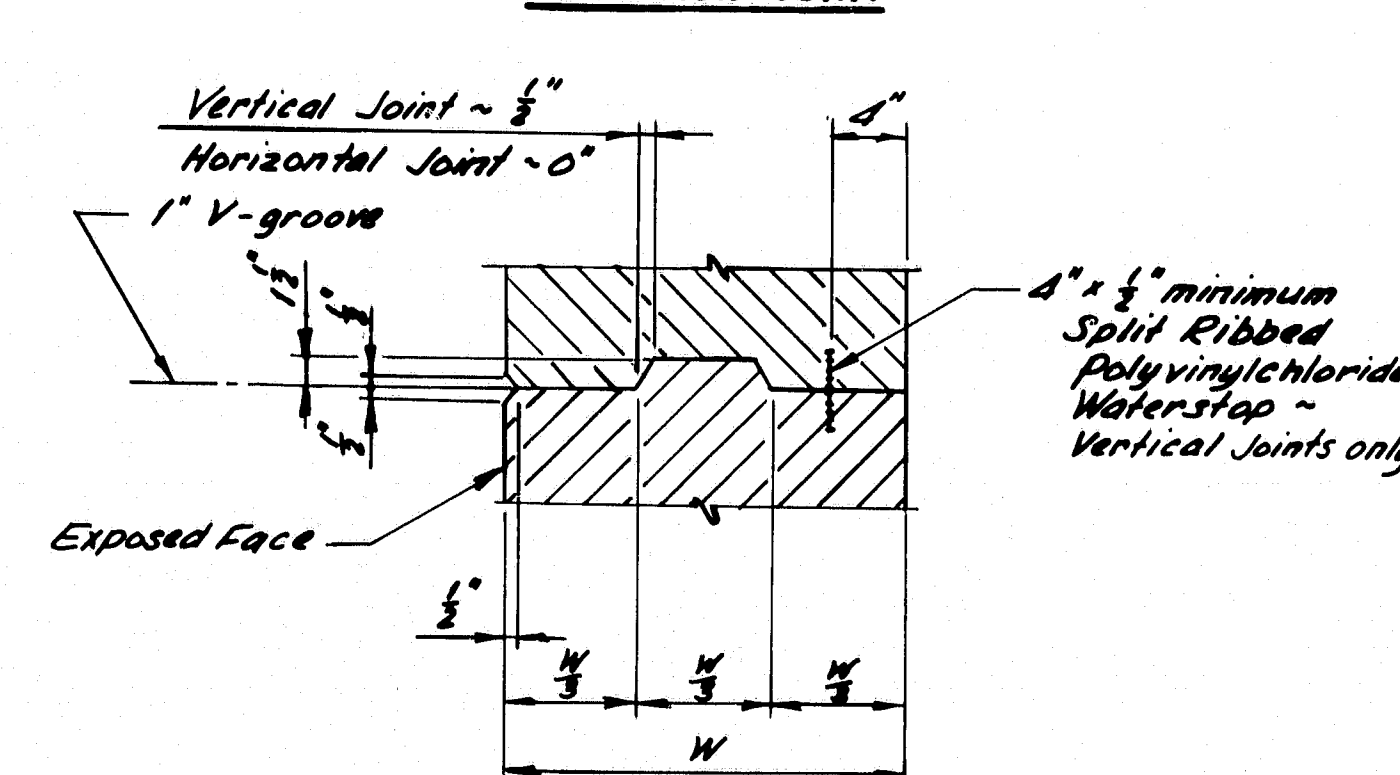
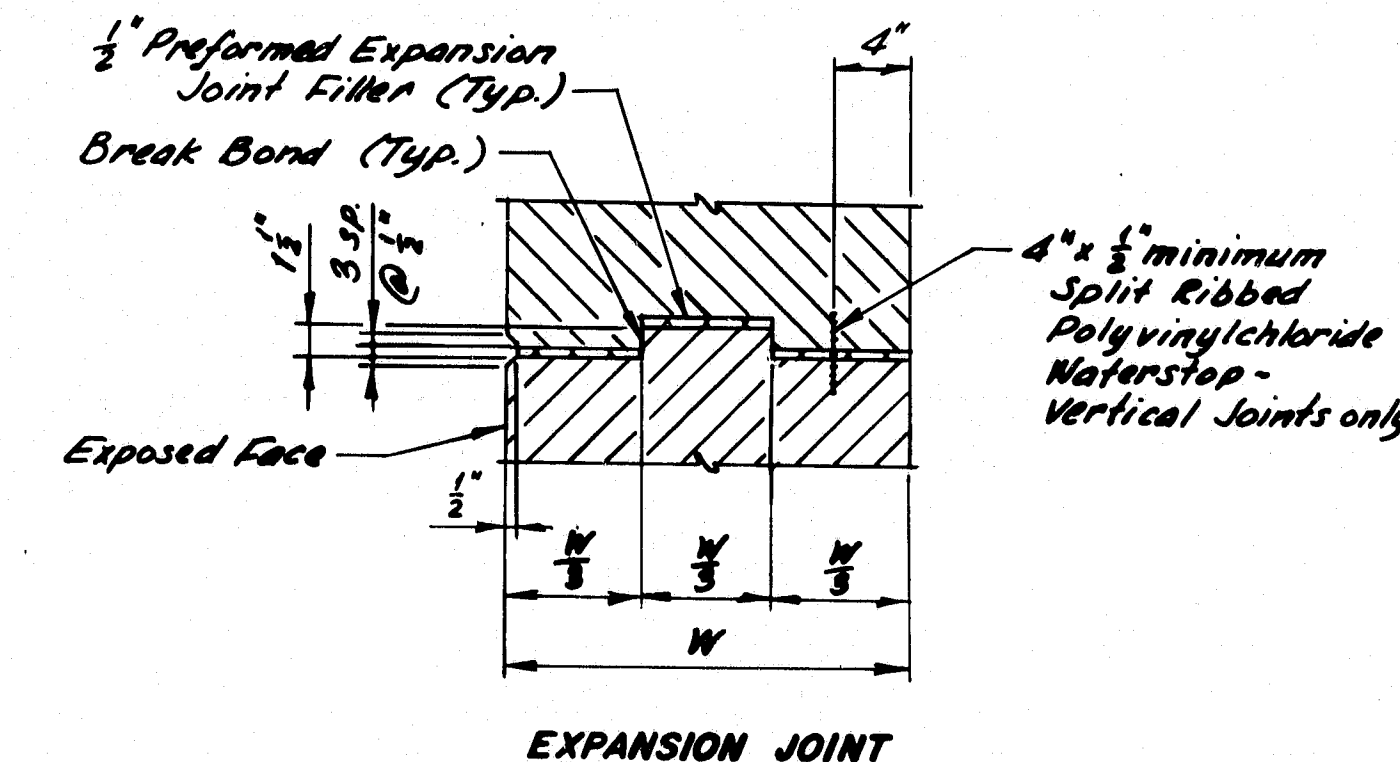
- NOTES:**
- Alternate Pointed Reinforced Pile Tips may be used if they have at least the cross-sectional area of the pile tip shown and are approved by the Engineer.
 - Plates may be shop or field welded.
 - Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
 - Electrodes shall be dry when used, in accordance with the provisions of A.M.S. Spec. D.1.1, as amended by AASHTO.

POINTED REINFORCED PILE TIP

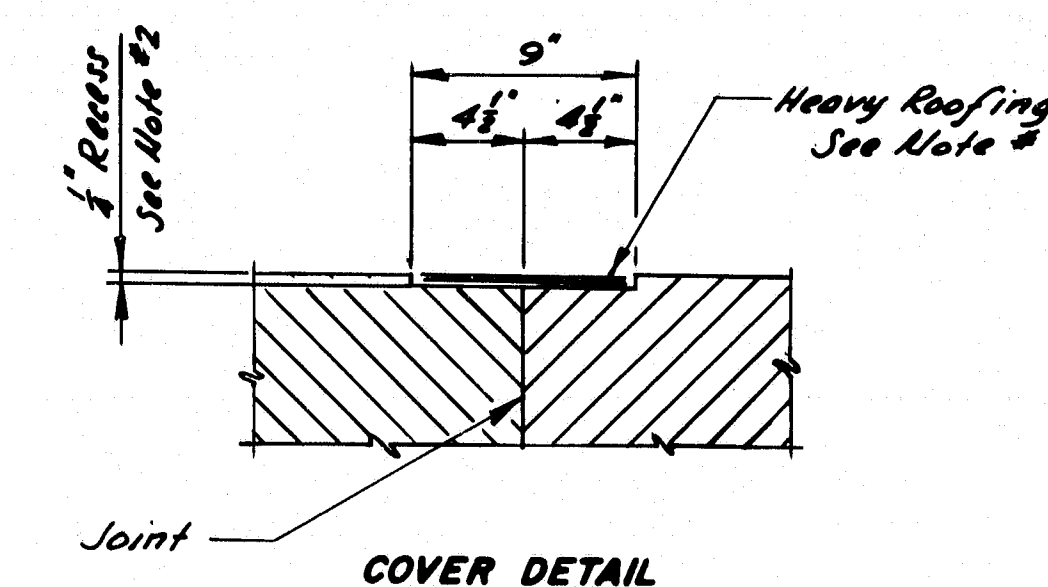


- NOTES:**
- All cutting shall be done with the use of a mechanical guide.
 - Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
 - Electrodes shall be dry when used, in accordance with the provisions of A.M.S. Spec. D.1.1, as amended by AASHTO.
 - Gauge root before welding second side.

PILE SPLICE



CONCRETE JOINTS



- NOTES:**
- Where called for, cover horizontal and vertical construction, contraction, or expansion joints with two (2) 9" wide layers of heavy roofing felt. Coat the concrete and back of each layer as applied with plastic roofing cement.
 - Recess the covered area 1/4" unless otherwise indicated on Design Drawings.

CONCRETE JOINT COVER

AS BUILT 1985
RFP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 127-81)

MISCELLANEOUS DETAILS
TEMP. CONC. BARRIER - TYPE I
POINTED REINFORCED PILE TIP
PILE SPLICE - CONC. JOINTS
CONCRETE JOINT COVER

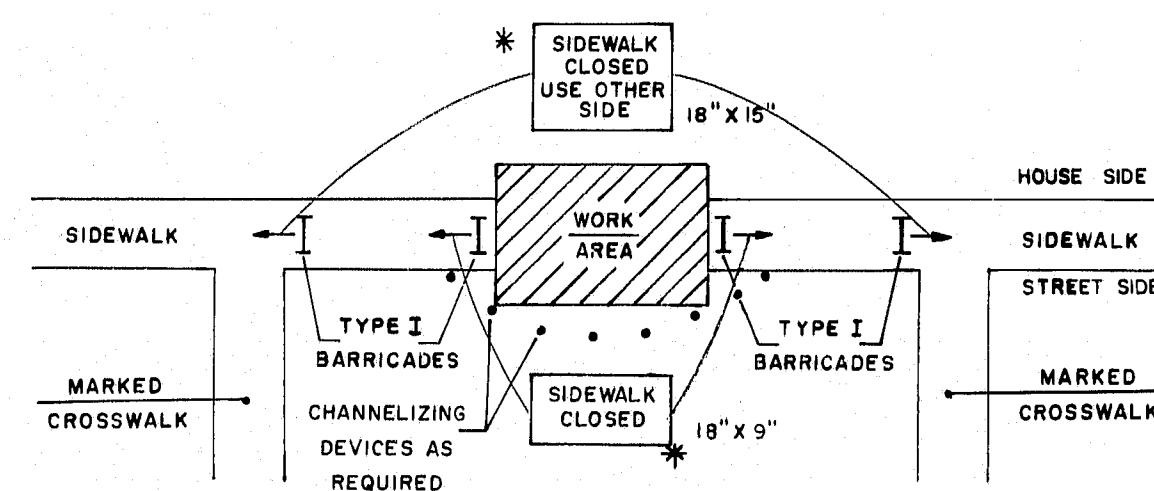
Added 13 HP's
REVISIONS Date

SHEET 30 OF 34 AUGUSTA, MAINE JUNE 1981

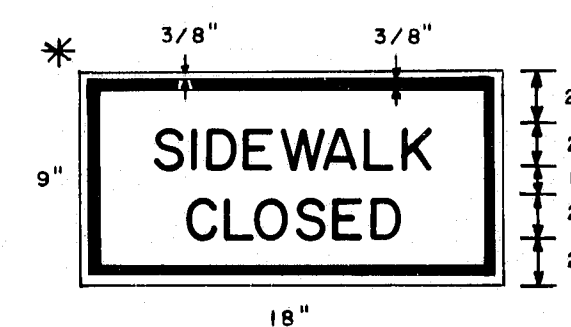
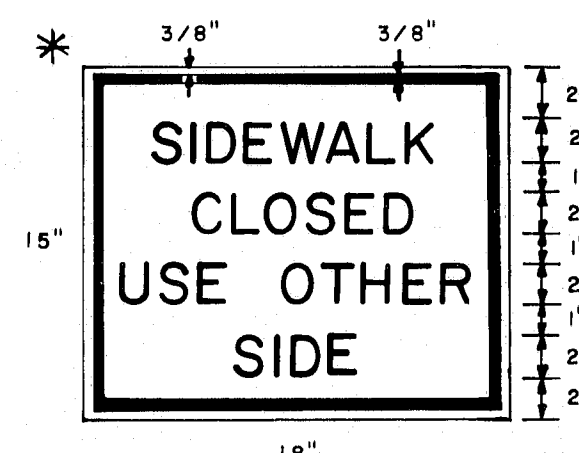
R93-85

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-4(42)62	31	34

* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT
AND BORDER-2" SERIES C UPPER CASE LETTERS

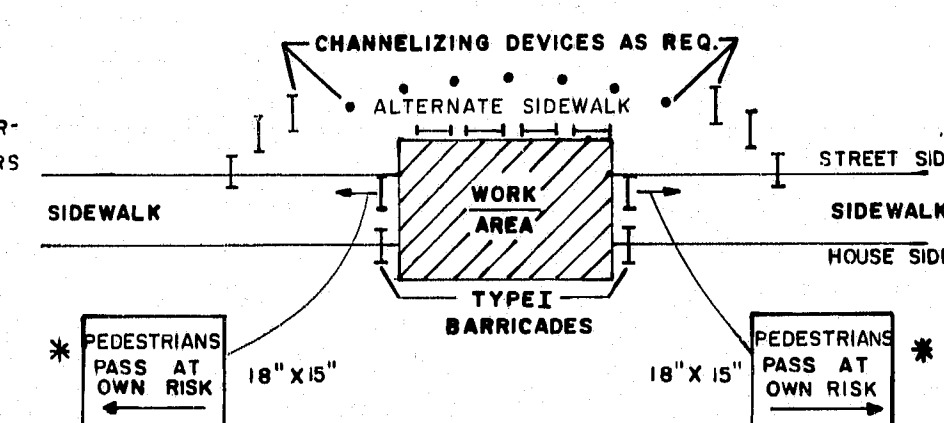


**SIDEWALK CLOSURE
WITHOUT ALTERNATE SIDEWALK**

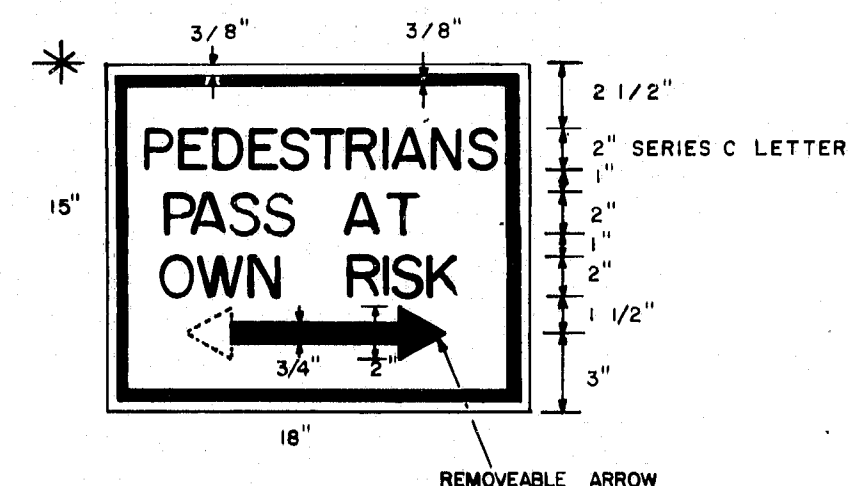


A

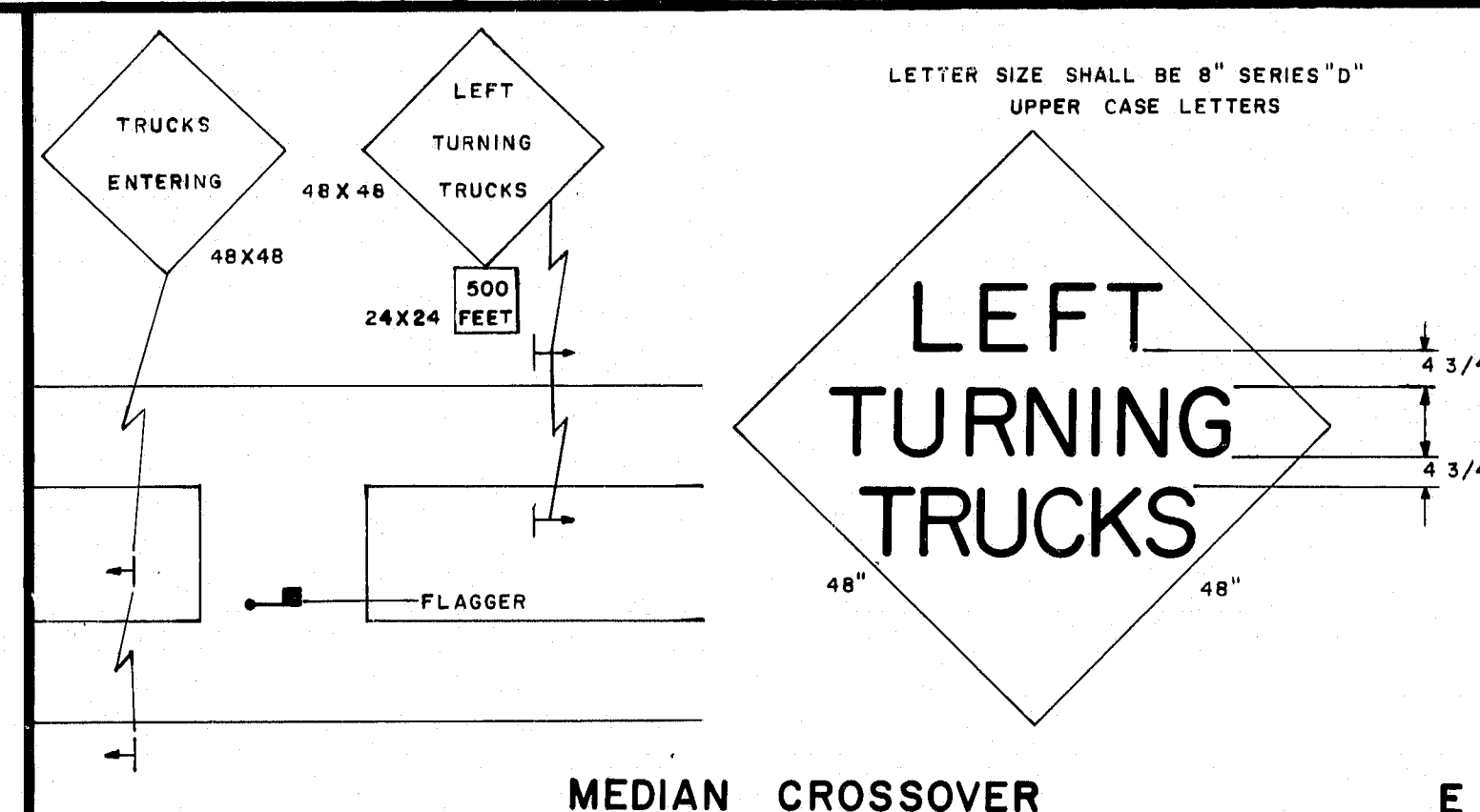
* NON-REFLECTORIZED WHITE BACK-
GROUND, BLACK TEXT AND BORDER-
2" SERIES C UPPER CASE LETTERS



**SIDEWALK CLOSURE
WITH ALTERNATE SIDEWALK**



B



MEDIAN CROSSOVER

GENERAL NOTES

- Distances shown for sign placement are nominal, exact locations shall be determined by the Engineer.
- Grades on temporary roadways through the construction zone used by the public shall not exceed 10 percent.
- Advisory speed consistent with prevailing conditions shall be as determined by the Engineer.
- Use annular signs when specified in the Special Provisions.
- The length of tapers shall be determined from the following formulae:

$$\text{If } S \text{ is equal to or less than } 40 \text{ MPH} \\ L = (W \times S \times S) / 60$$

$$\text{If } S \text{ is equal to or greater than } 45 \text{ MPH} \\ L = WS$$

Where:

L = taper length in feet
S = operating speed in MPH
W = width of roadway to be closed in feet

Taper lengths shall be rounded to the nearest five feet.

It may be required to extend lane closure tapers to provide a smooth transition where geometric alignment reduces sight distance.

- The maximum longitudinal spacing of channelizing devices shall conform to the following:

- 50 feet through work areas
- A distance in tapers equal to the numerical value of the operating speed, i.e., 45 MPH = 45 feet
- In all areas not covered above maximum spacing shall be as follows:

Radius of curve Spacing
80' to 300' 25'
300' to 700' 50'
700' to 1000' 75'
over 1000' 5 times the operating speed

The maximum transverse spacing in tapers shall be determined from the following formula:

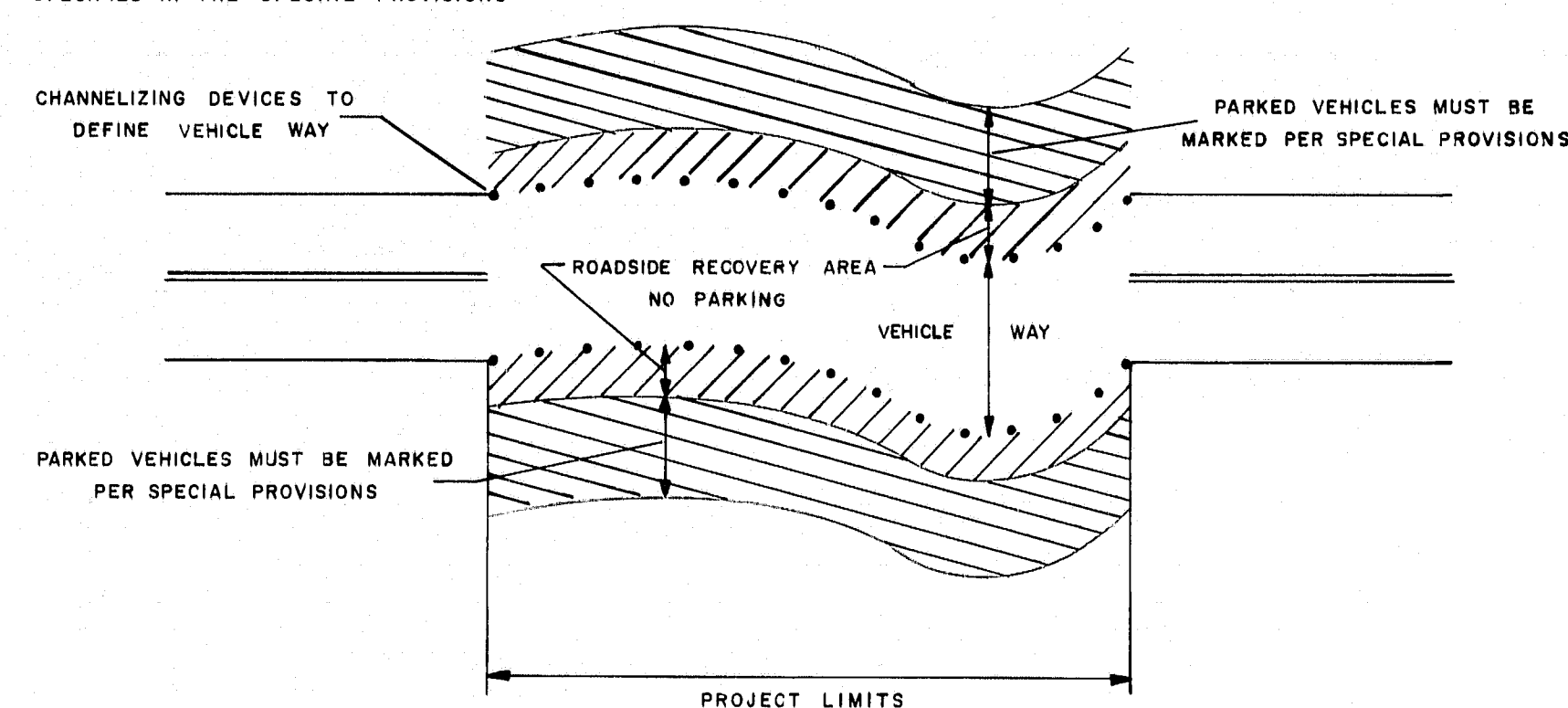
$$D = (W \times S) / L$$

Where:

D = transverse spacing in feet
W = width of roadway to be closed in feet
L = taper length in feet
S = operating speed in MPH

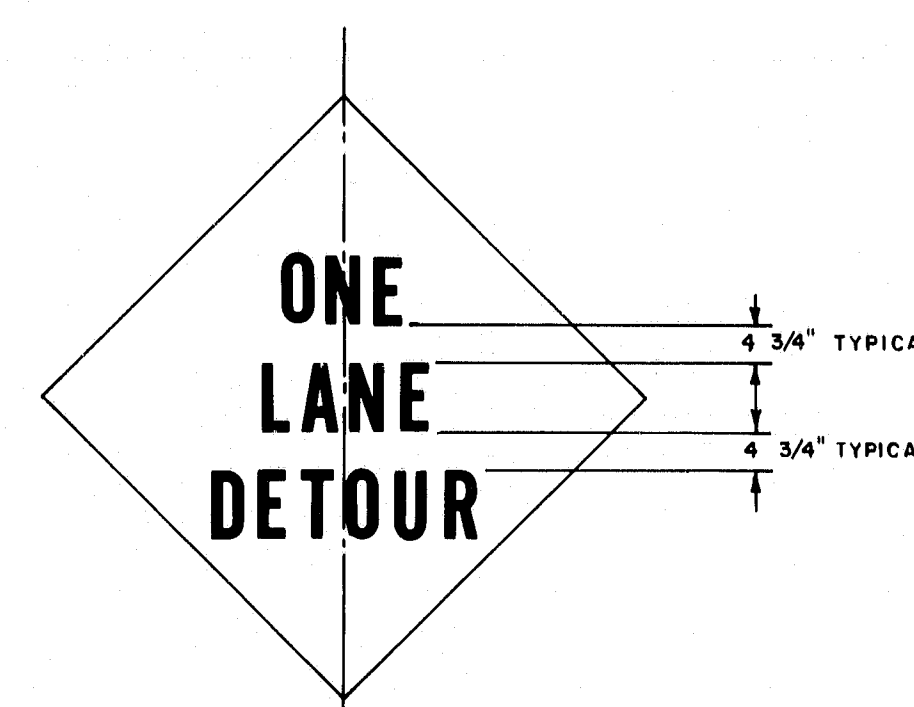
- BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET.

ALL DIMENSIONS AND OTHER REQUIREMENTS AS
SPECIFIED IN THE SPECIAL PROVISIONS



ROADSIDE RECOVERY AREA

CONSTRUCTION WARNING SIGN DETAIL



- Letter size shall be 8" Series 'D'.
- Border dimensions and legend design shall conform to "Standard Highway Signs".

D

PROJECT DESIGN ENGINEER	DATE
BY	
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	
PLANS	

REVISIONS

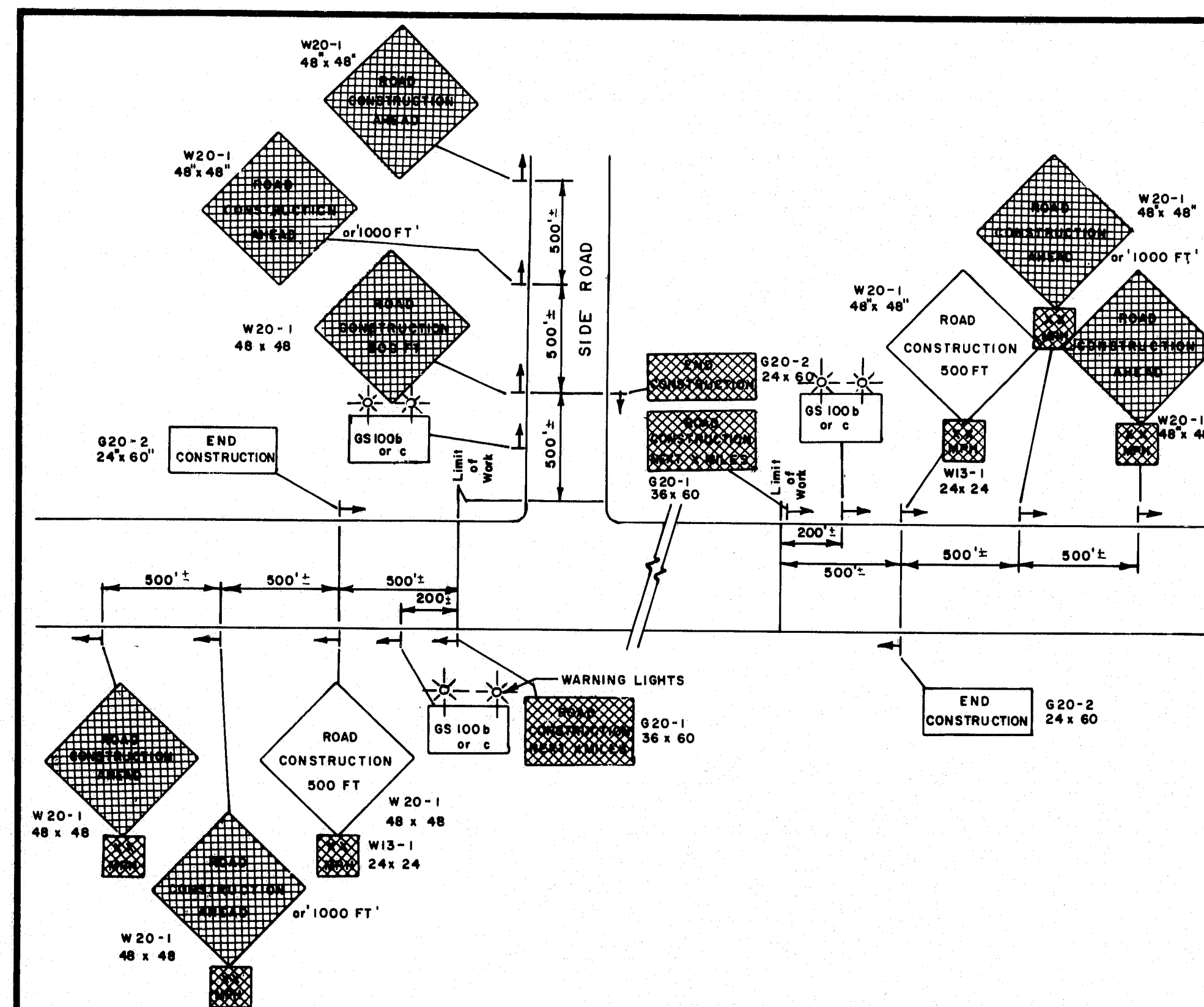
3-4-80	GENERAL NOTES
4/3/80 PF	A,B,C,G,N

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

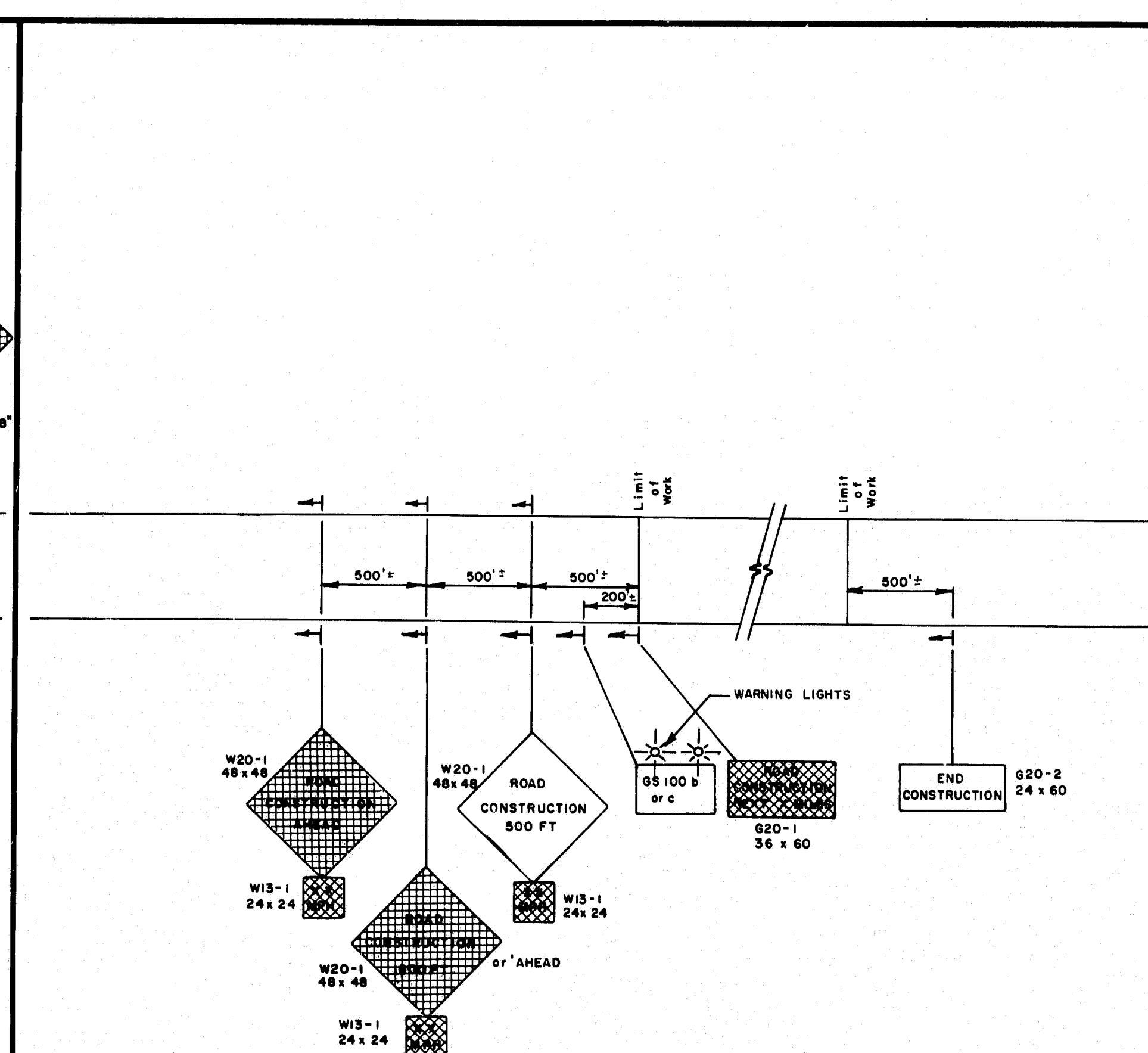
R93-86

F.H.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-1(42)62	32	34



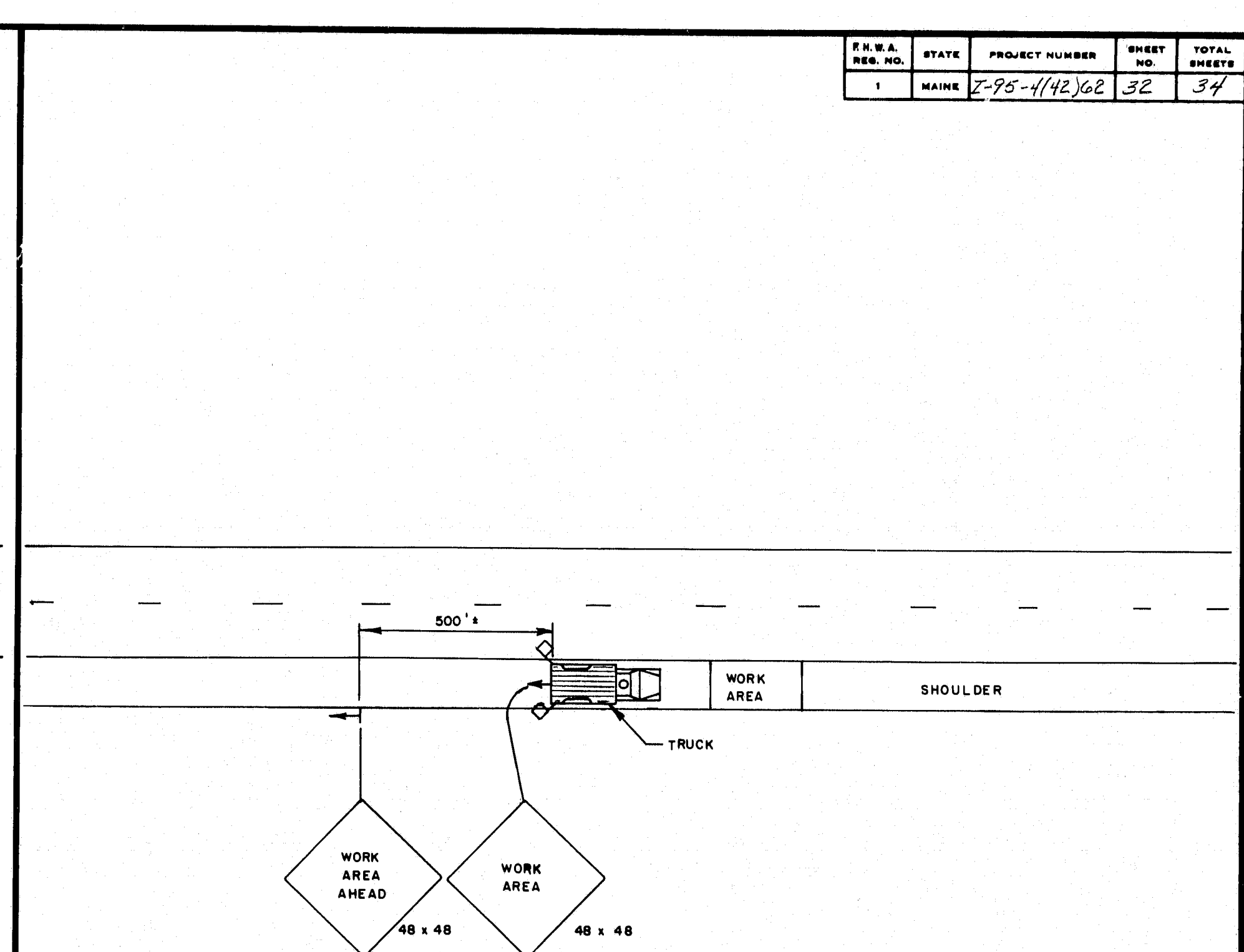
PROJECT APPROACH SIGNING
Two Way Traffic

A



PROJECT APPROACH SIGNING
Expressway

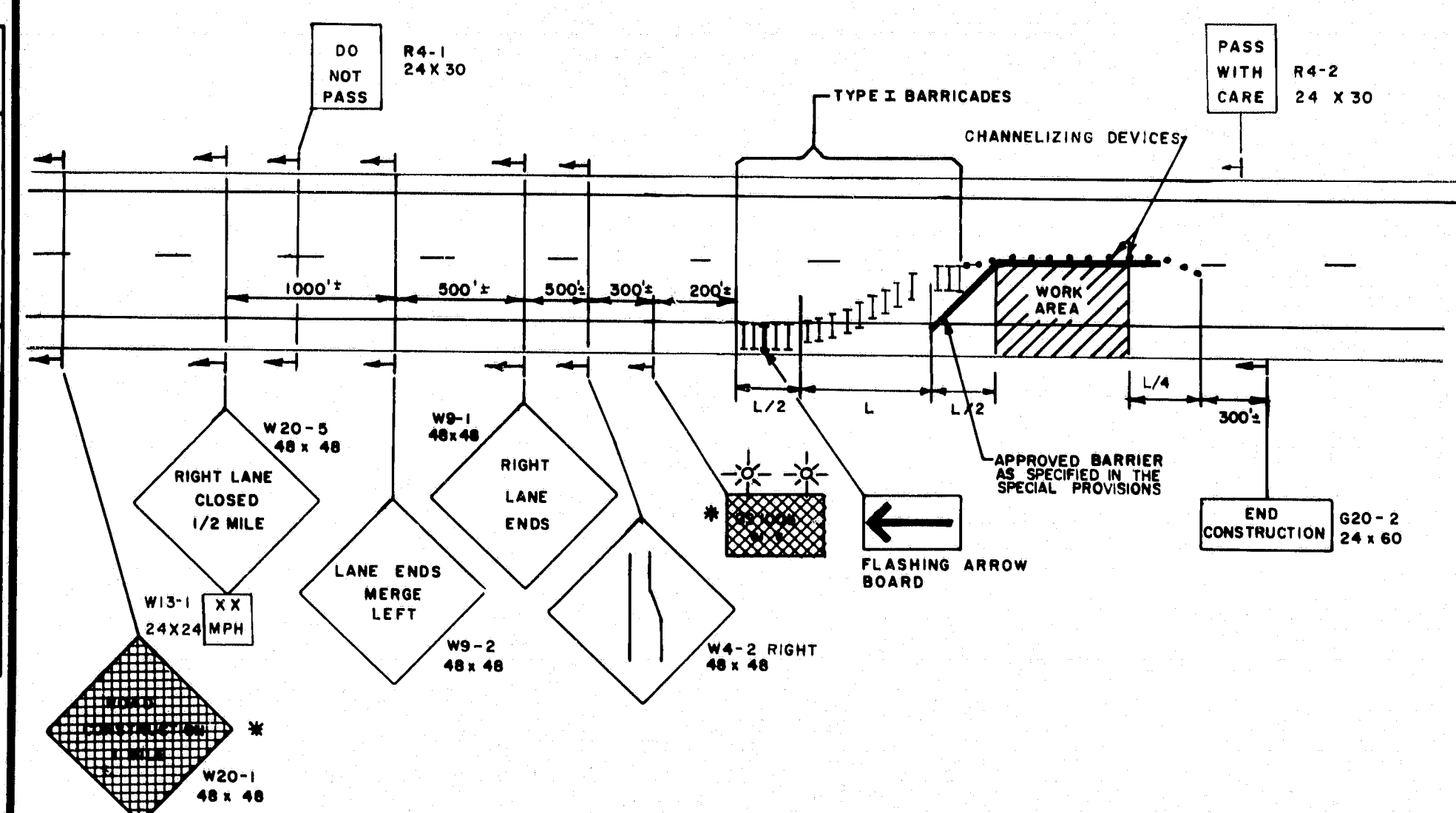
B



SHOULDER WORK - MOBILE

C

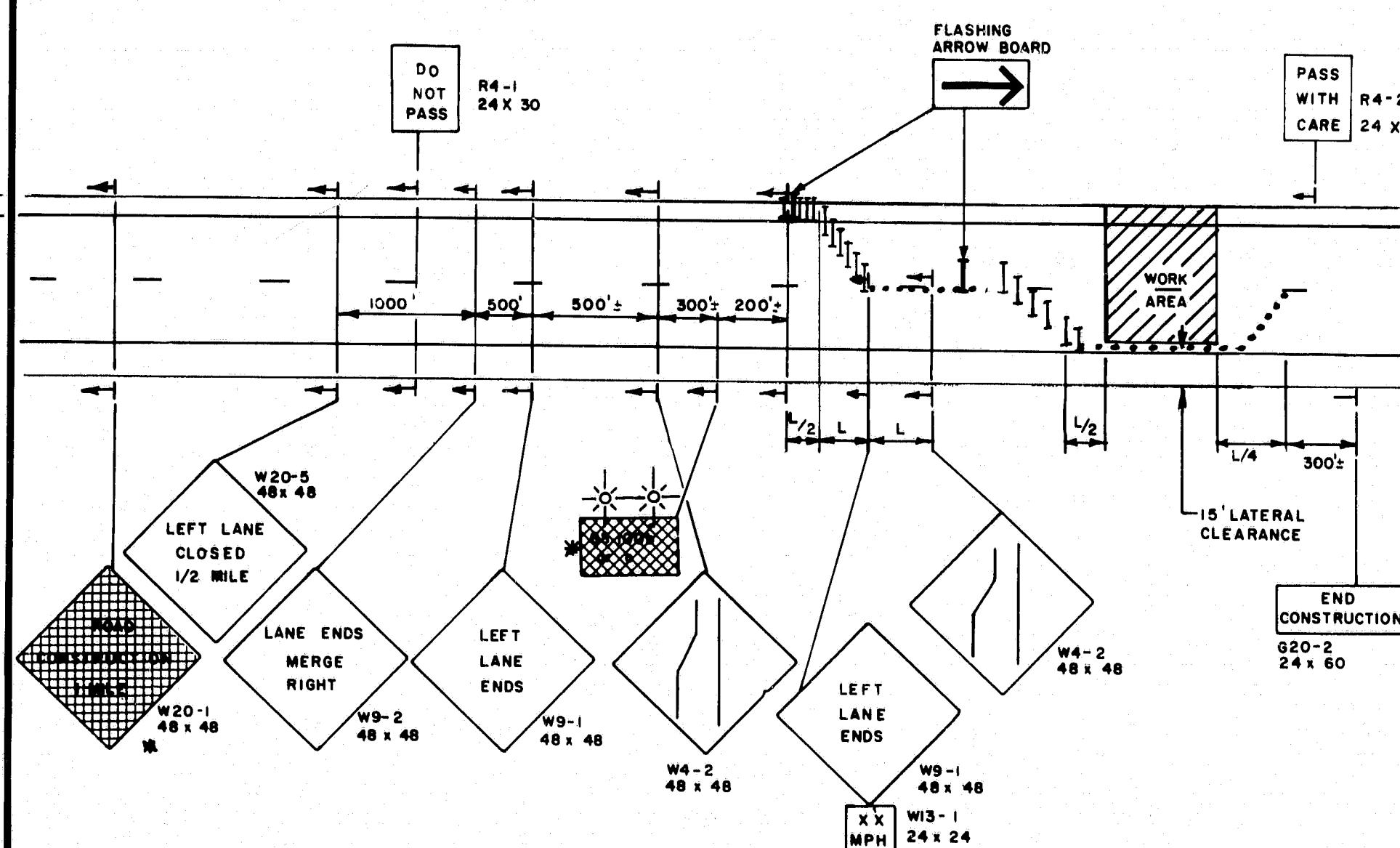
NOTE
* OMIT W20-1 AND GS-100B OR C IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.
ALTER PAVEMENT MARKINGS AS REQUIRED. MAINTAIN 15 FT LATERAL CLEARANCE.
USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.



EXPRESSWAY LANE CLOSURE

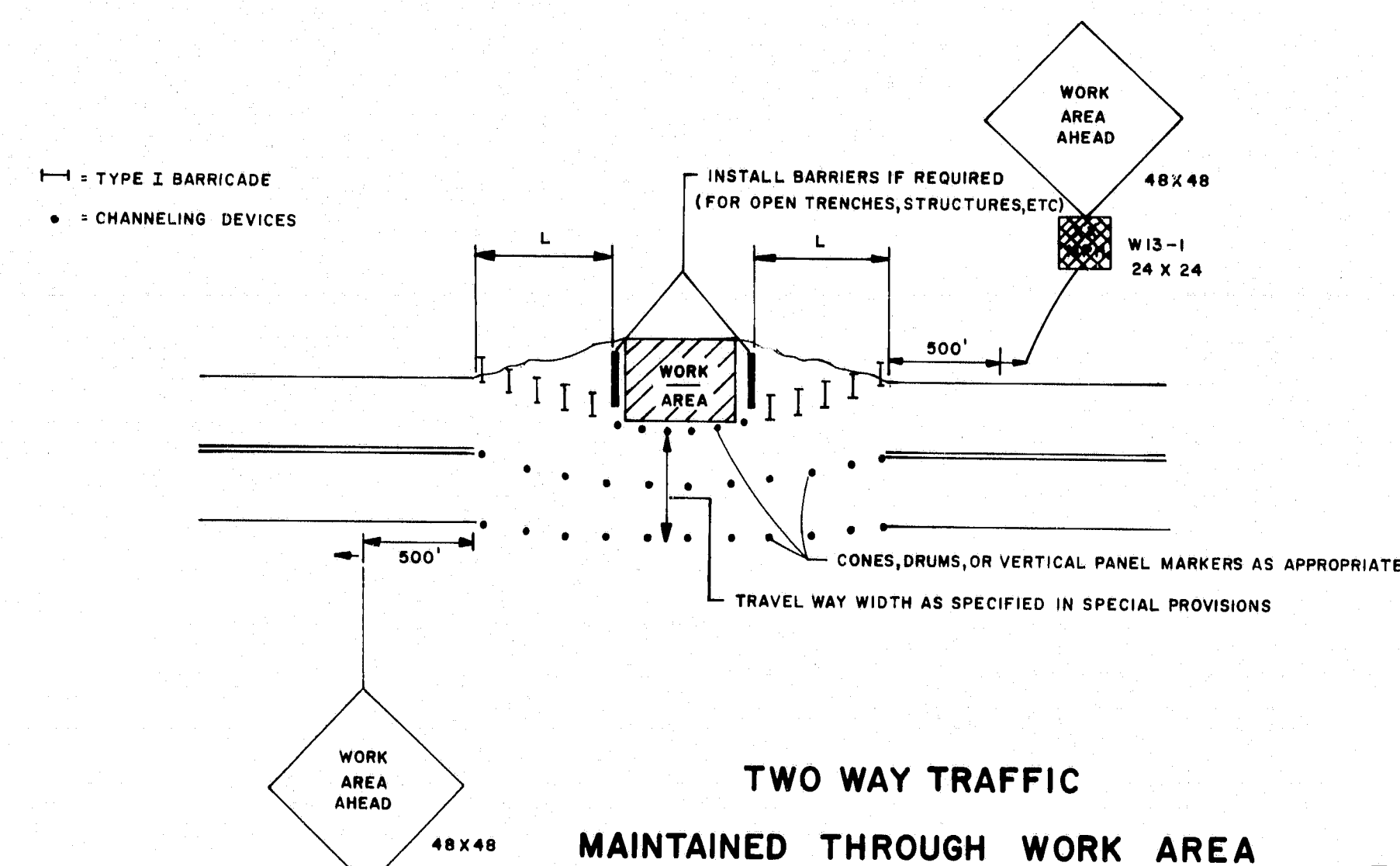
D

NOTE
W20-1 AND GS-100B OR C SHALL BE USED ONLY WHEN THE CLOSURE IS THE ACTUAL CONSTRUCTION PROJECT AND NOT A PART THEREOF.
ALTER PAVEMENT MARKINGS AS NECESSARY.
USE SIMILAR SIGNING FOR RIGHT LANE CLOSURE.



TWO LANE CLOSURE - UTILIZING RIGHT SHOULDER

E



TWO WAY TRAFFIC
MAINTAINED THROUGH WORK AREA

F

DATE	BY
DESIGN - DETAIL	
CHECKED	
REVISIONS	
FIELD CHANGES	

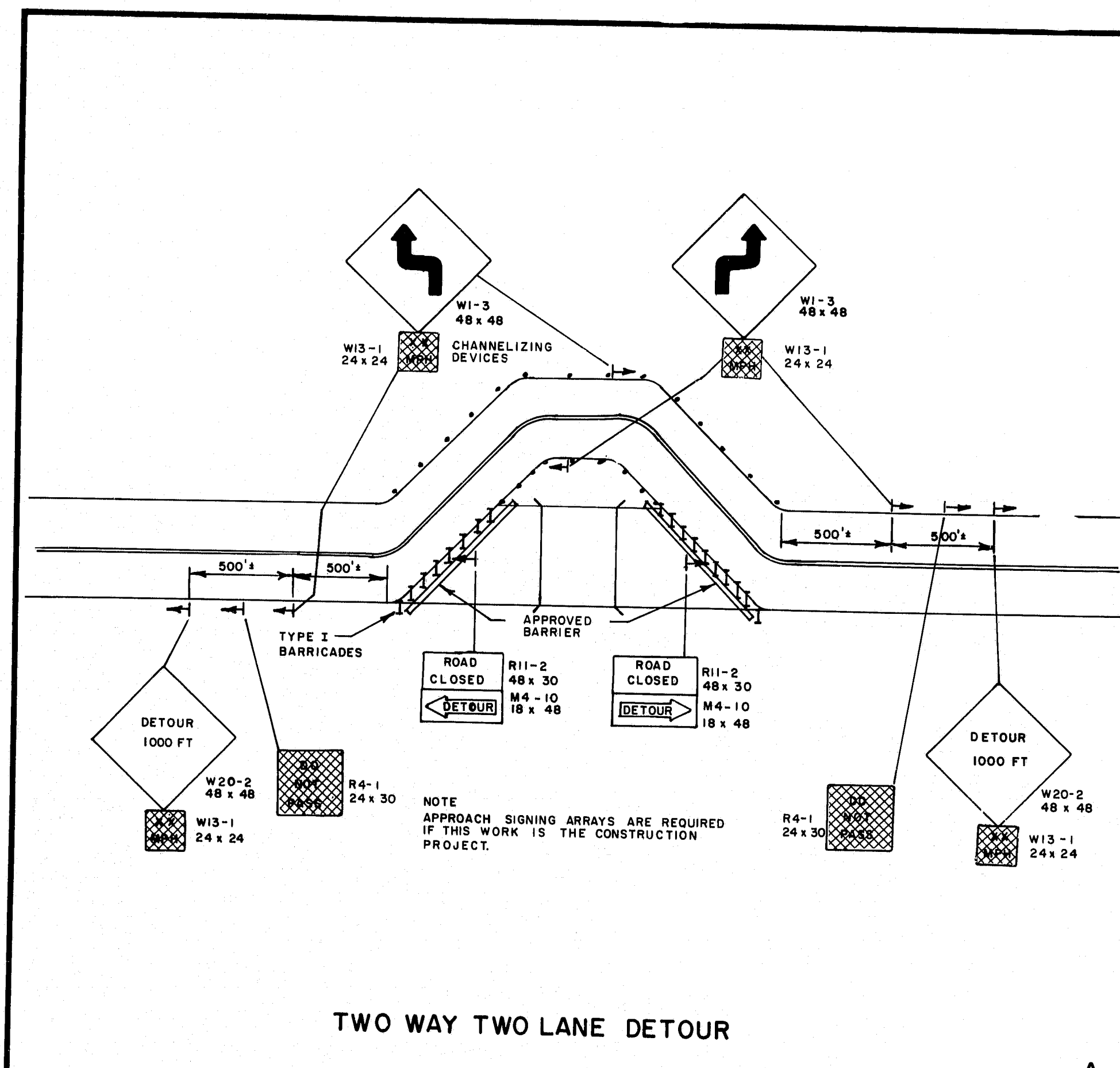
REVISIONS

1-28-80	
3-4-80	PLATE "F"
4/3/80 PF	D,E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

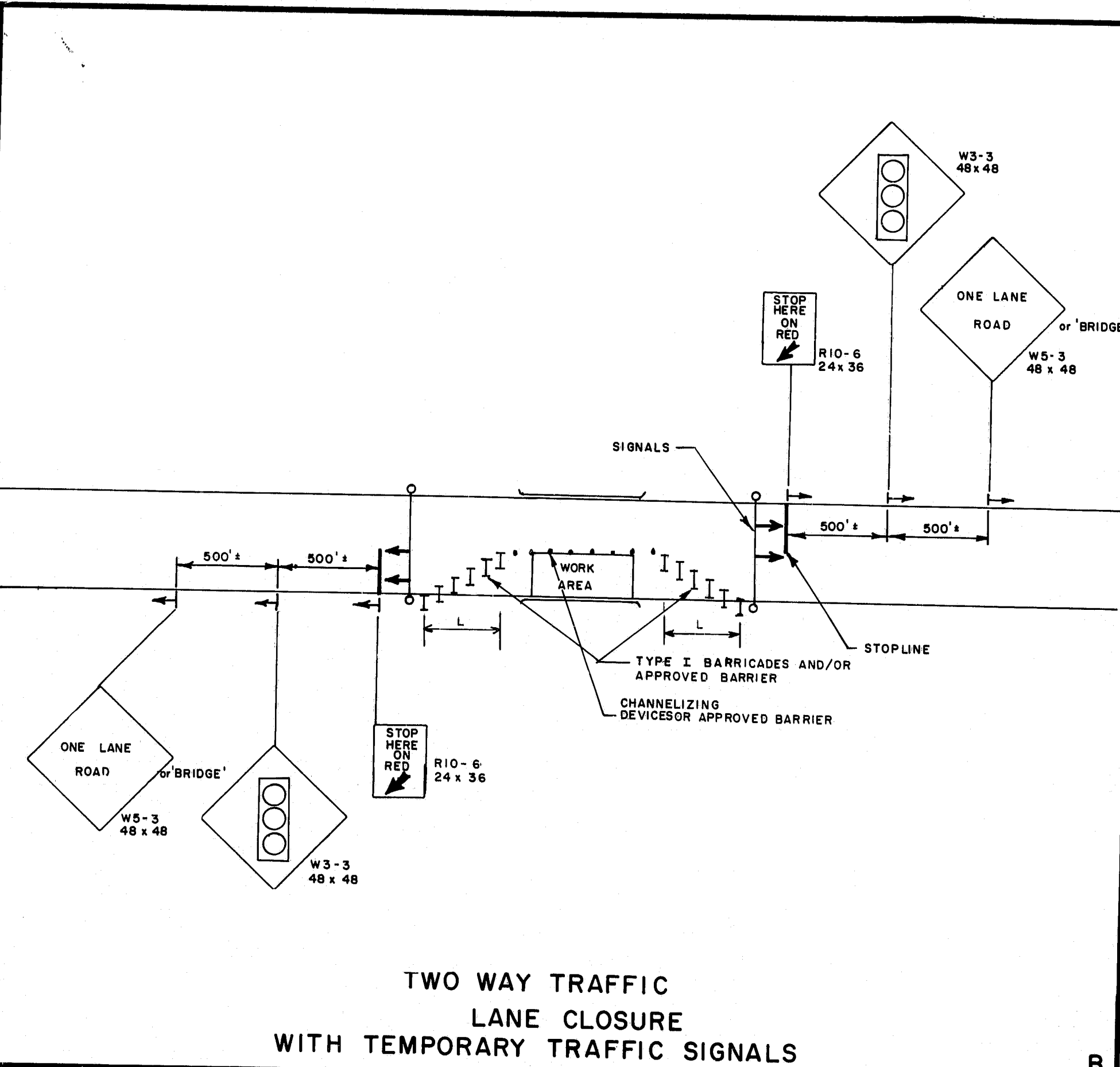
MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

R93-87



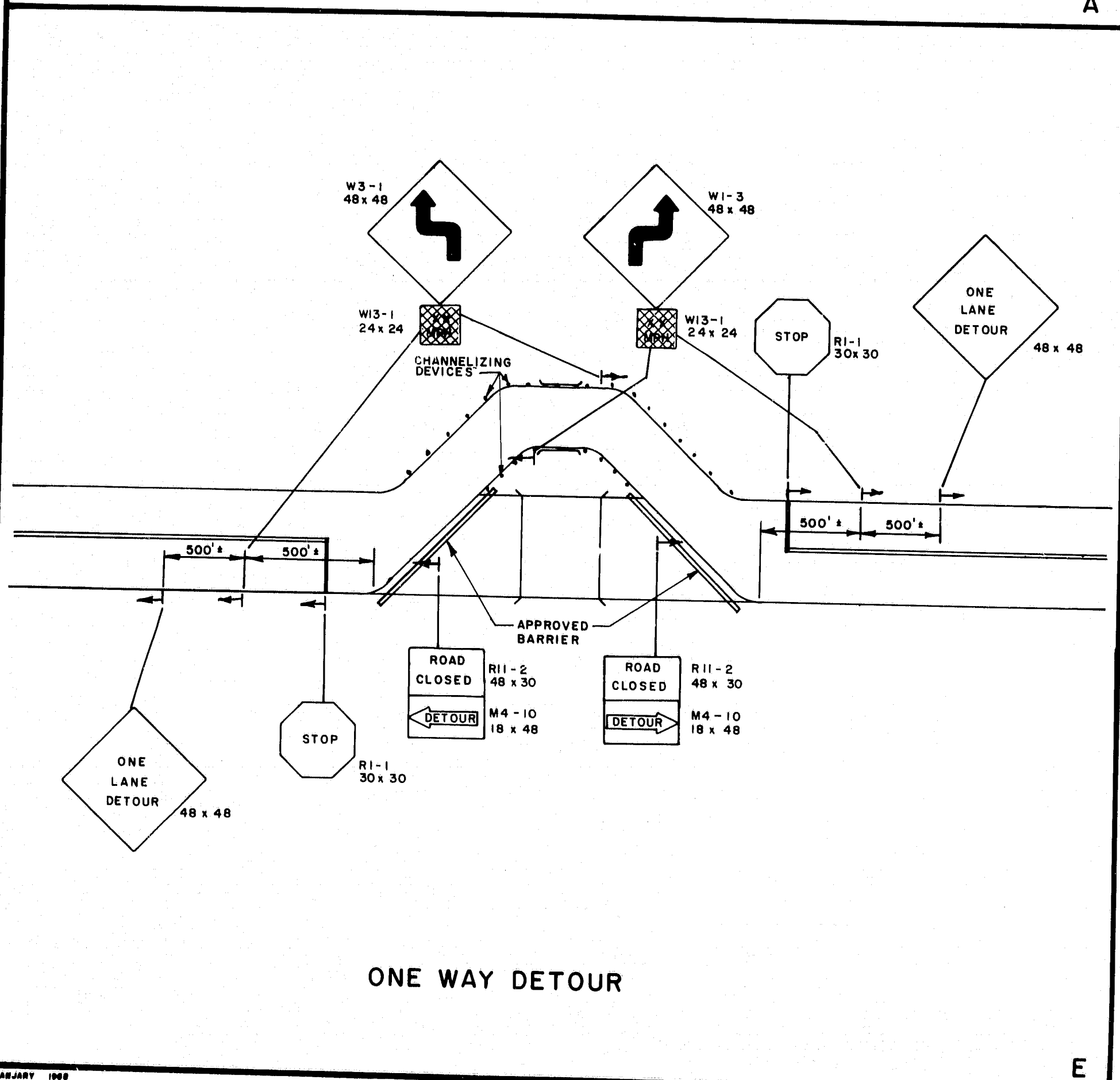
TWO WAY TWO LANE DETOUR

A



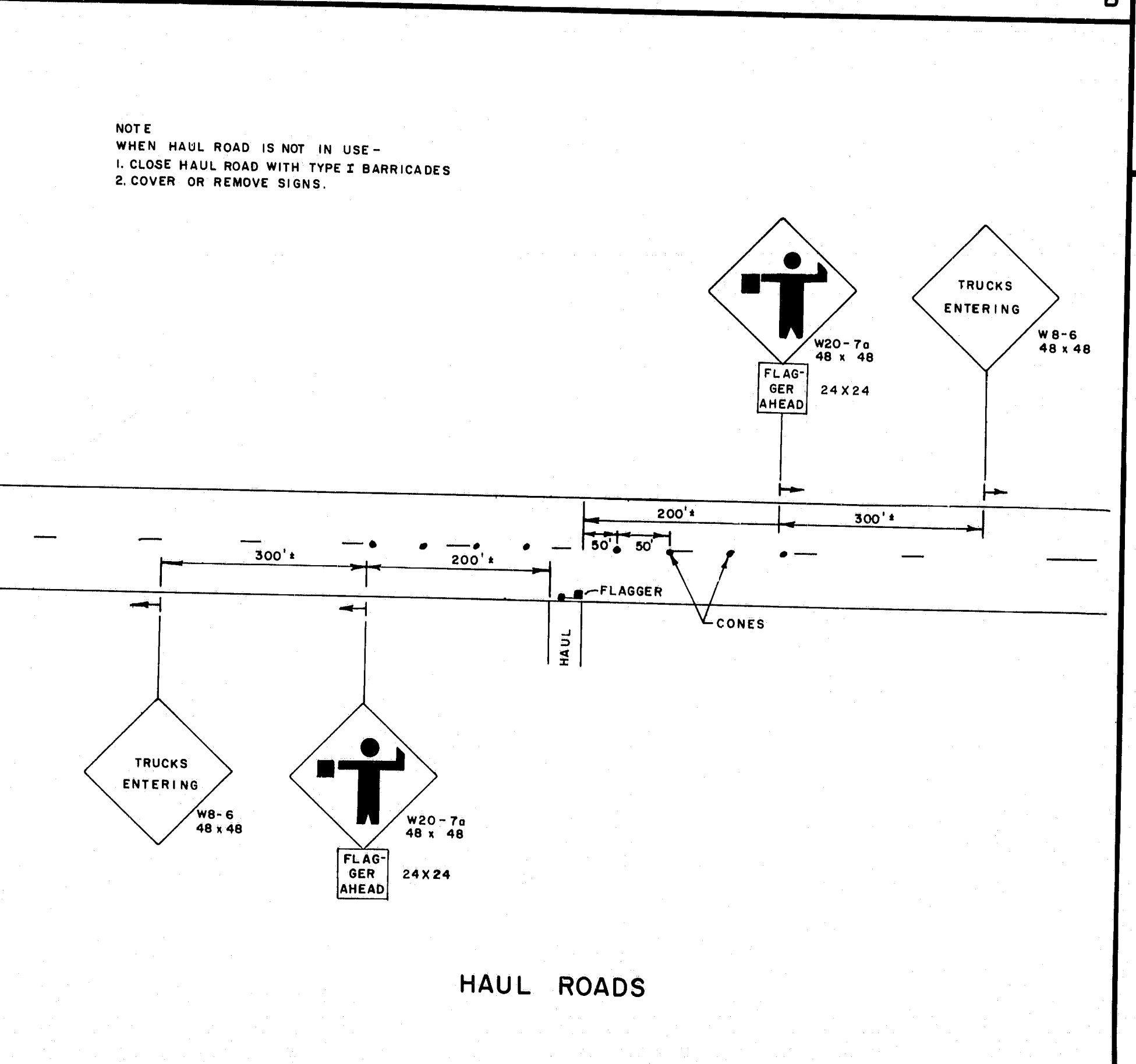
TWO WAY TRAFFIC LANE CLOSURE WITH TEMPORARY TRAFFIC SIGNALS

B



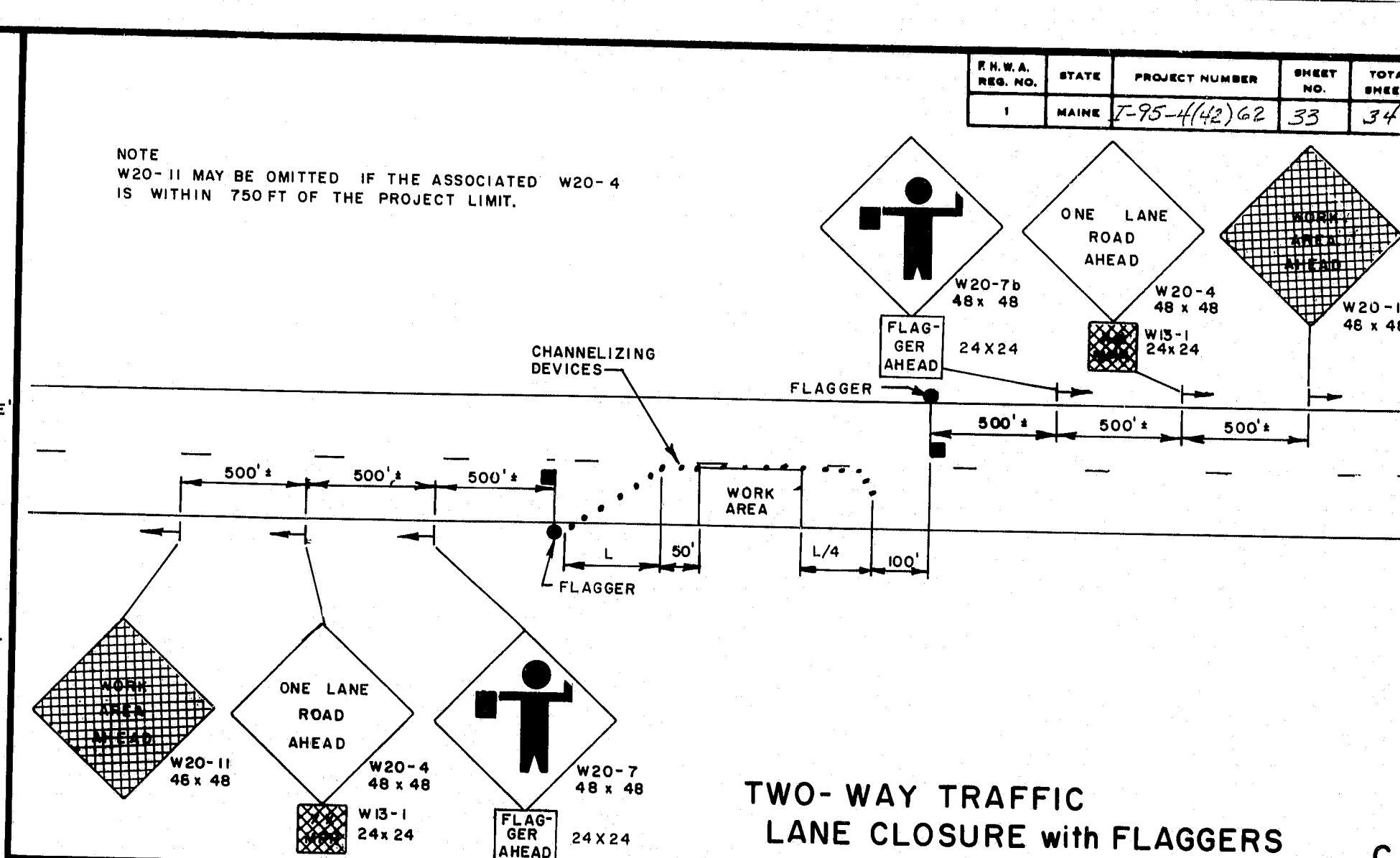
ONE WAY DETOUR

E



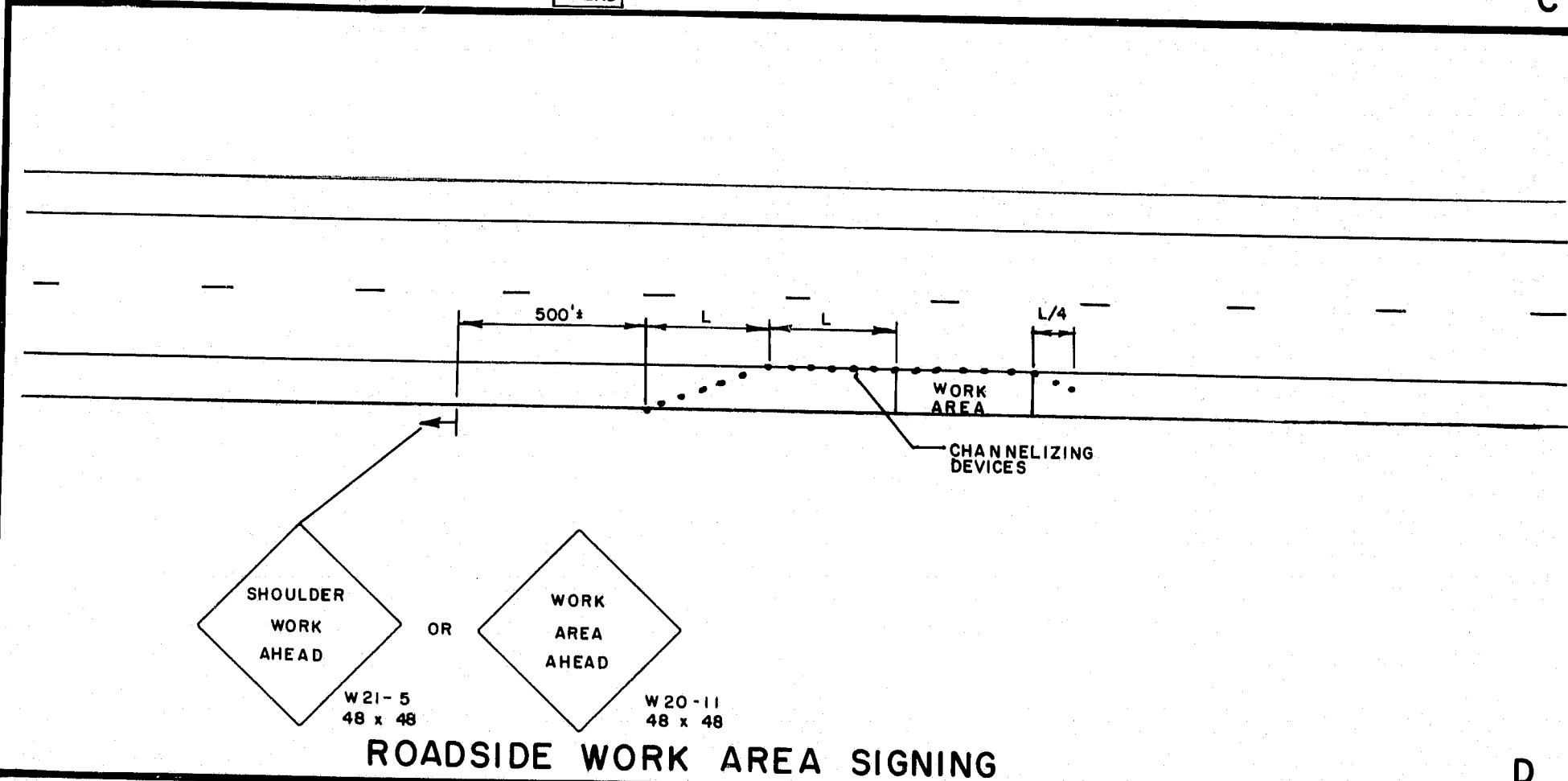
HAUL ROADS

F



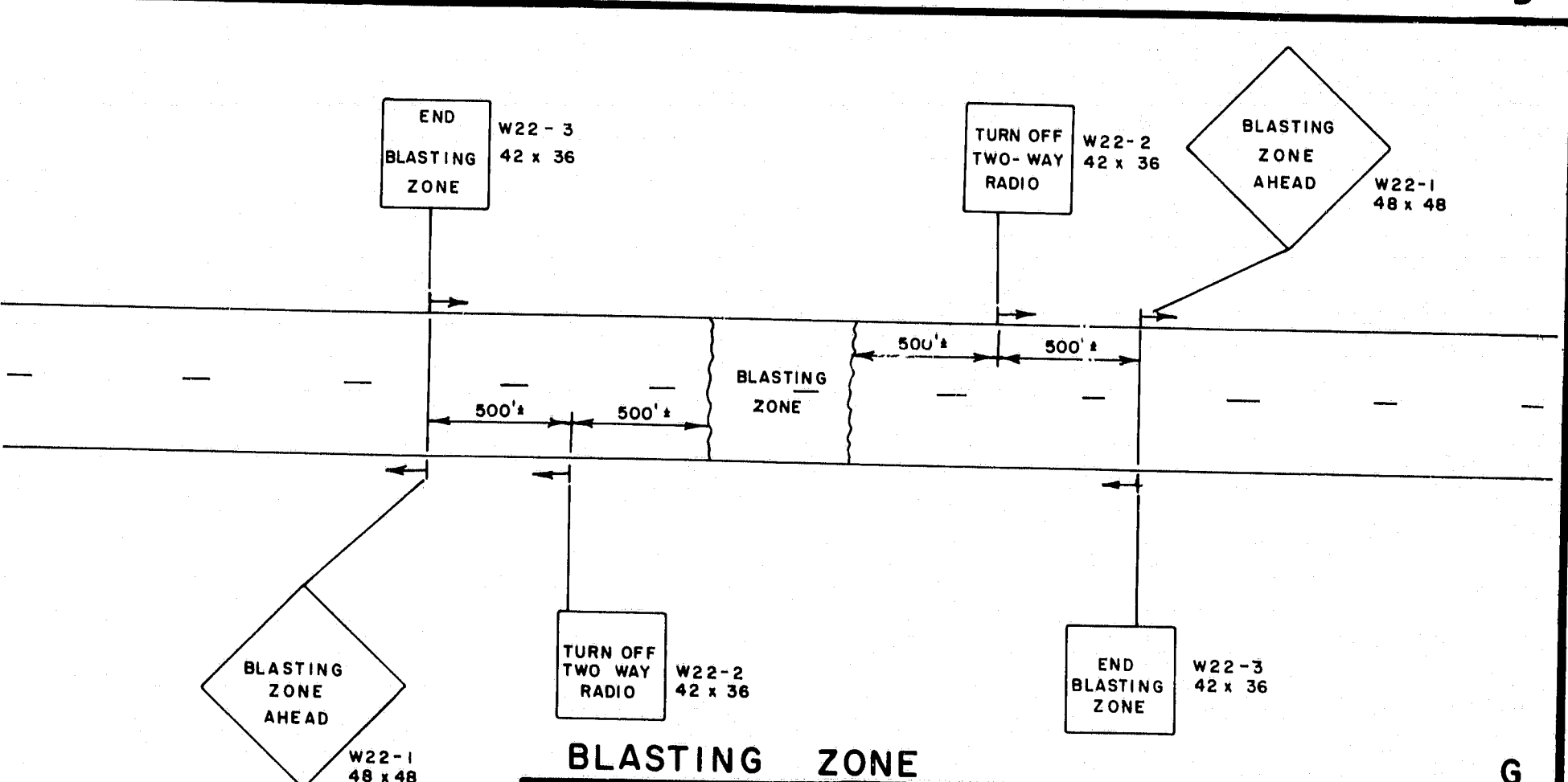
TWO-WAY TRAFFIC LANE CLOSURE with FLAGGERS

C



ROADSIDE WORK AREA SIGNING

D



BLASTING ZONE

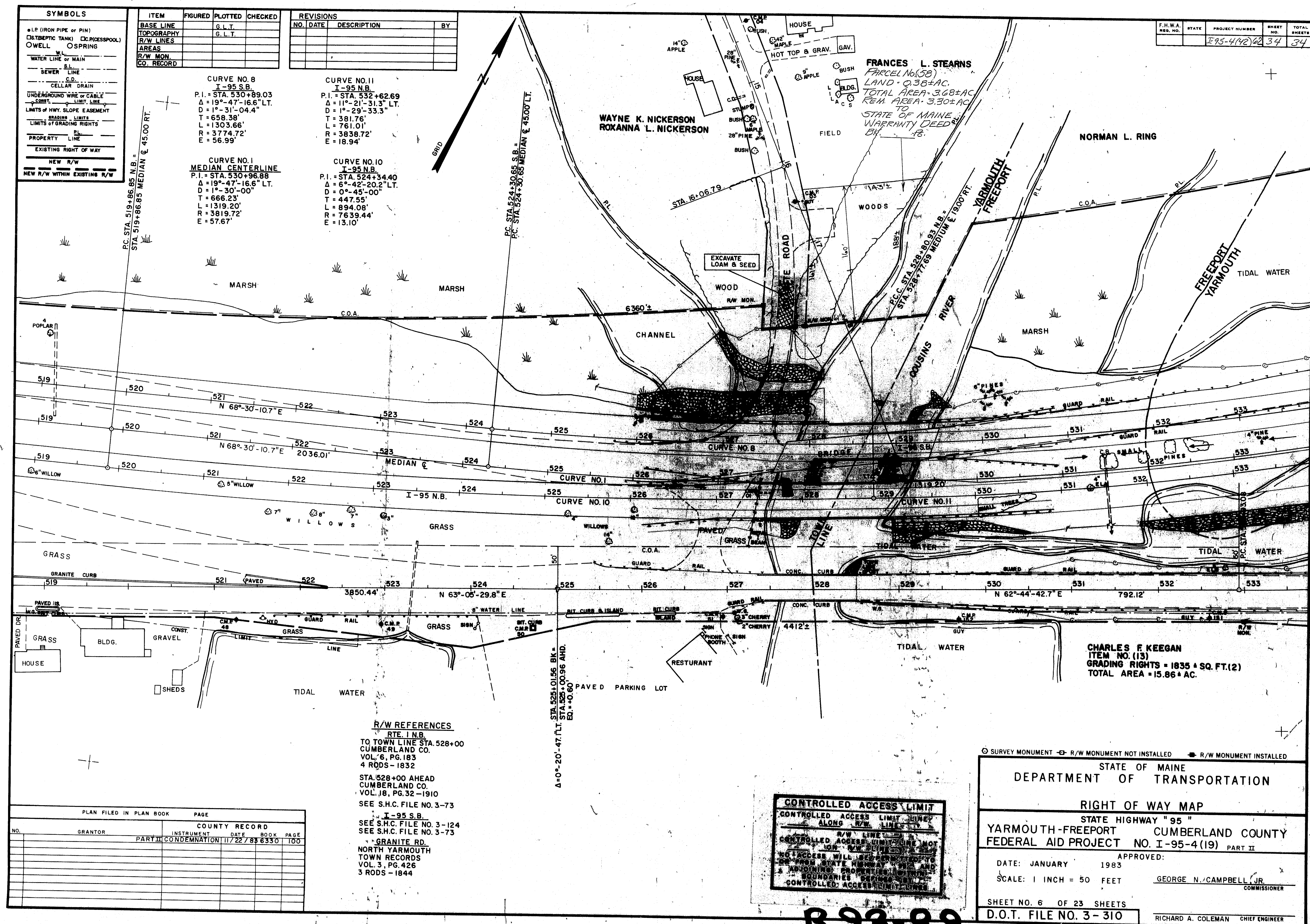
G

REVISIONS	
4/3/80 PF	B, C, D

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

R93-88



F.S.M.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-4(59)	2	25

YARMOUTH

SPECIFICATION

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1989.

CONTRACT: STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF JULY 1988.

DESIGN LOADING

LIVE LOAD: H20-S16-44 MODIFIED

MATERIALS

CONCRETE: CLASS A
REINFORCING STEEL: ASTM A615 GRADE 60
STRUCTURAL STEEL: ASTM A373(Existing)
HIGH STRENGTH BOLTS: ASTM A325

BASIC ALLOWABLE STRESSES

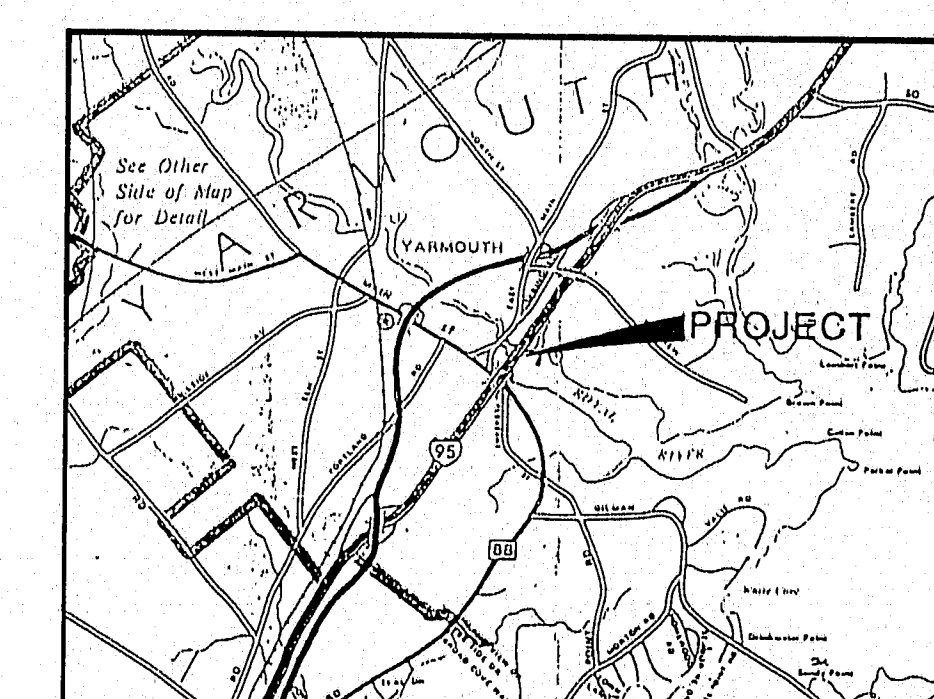
CONCRETE: $f_c=1,200$ psi
REINFORCING STEEL: $f_s=24,000$ psi
STRUCTURAL STEEL: $f_s=18,000$ psi

TRAFFIC DATA

	NB	SB
AADT (1989)	14,730	15,880
AADT (2009)	26,510	28,580
DESIGN HOURLY VOLUME	3,446	3,430
PERCENT TRUCKS	9	9
DIRECTIONAL DISTRIBUTION (%)	100	100
DESIGN SPEED (MPH)	65	65
18 KIP EQUIVALENT P2.5	1,482	1,557

INDEX OF SHEETS

1. GENERAL PLAN
2. DETAILS AND ESTIMATE OF QUANTITIES
3. SECTIONS
4. MISCELLANEOUS DETAILS
5. REINFORCING STEEL SCHEDULE



SCALE

1" = 1/2" 0 1 2 MILES

SCALE

PIN NO. 002832.00
BRIDGE NO.S 5832 & 1507

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Kimball Chase ONE GATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95

over

ROUTE 88

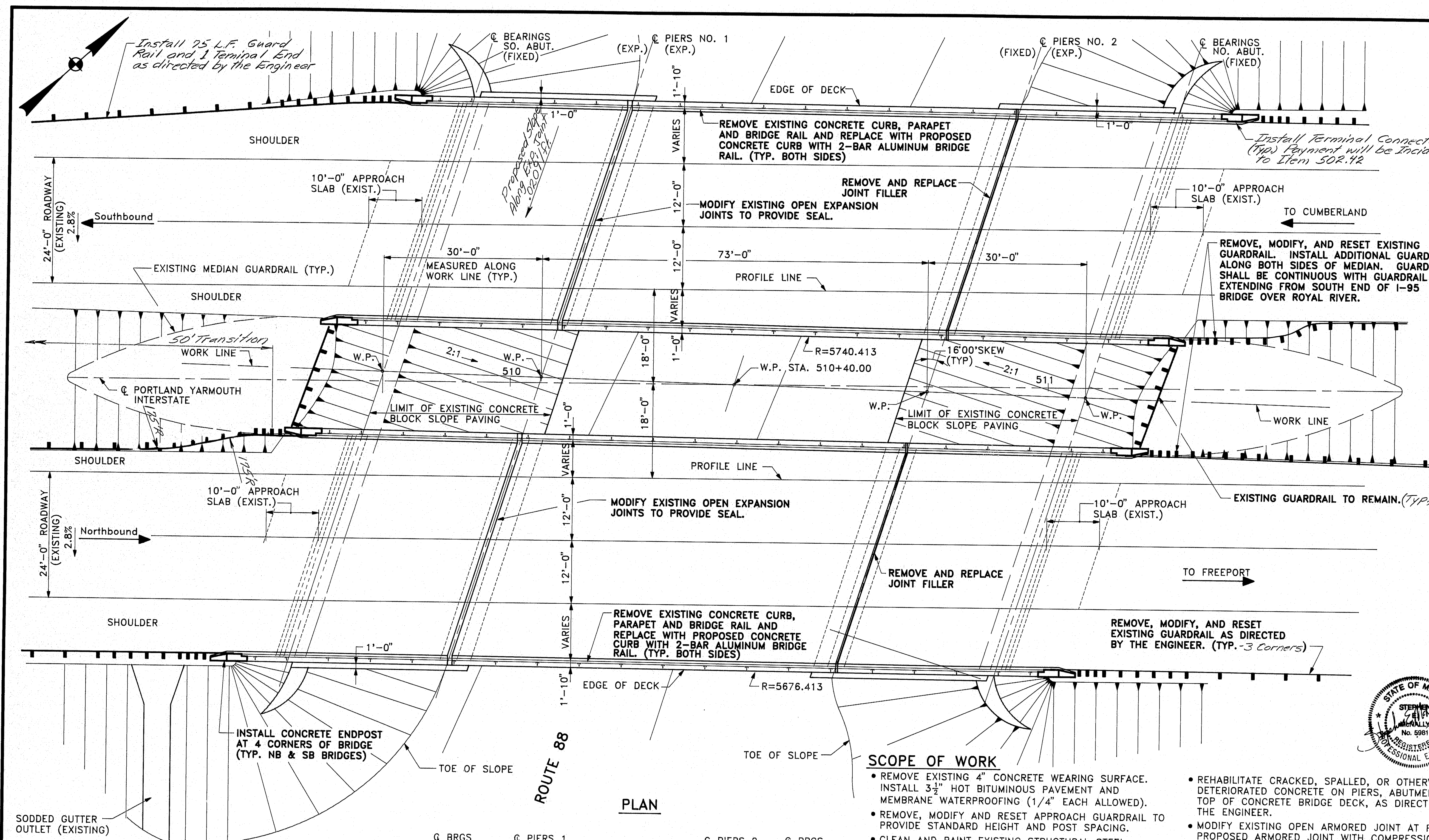
YARMOUTH, MAINE

CUMBERLAND COUNTY

GENERAL PLAN

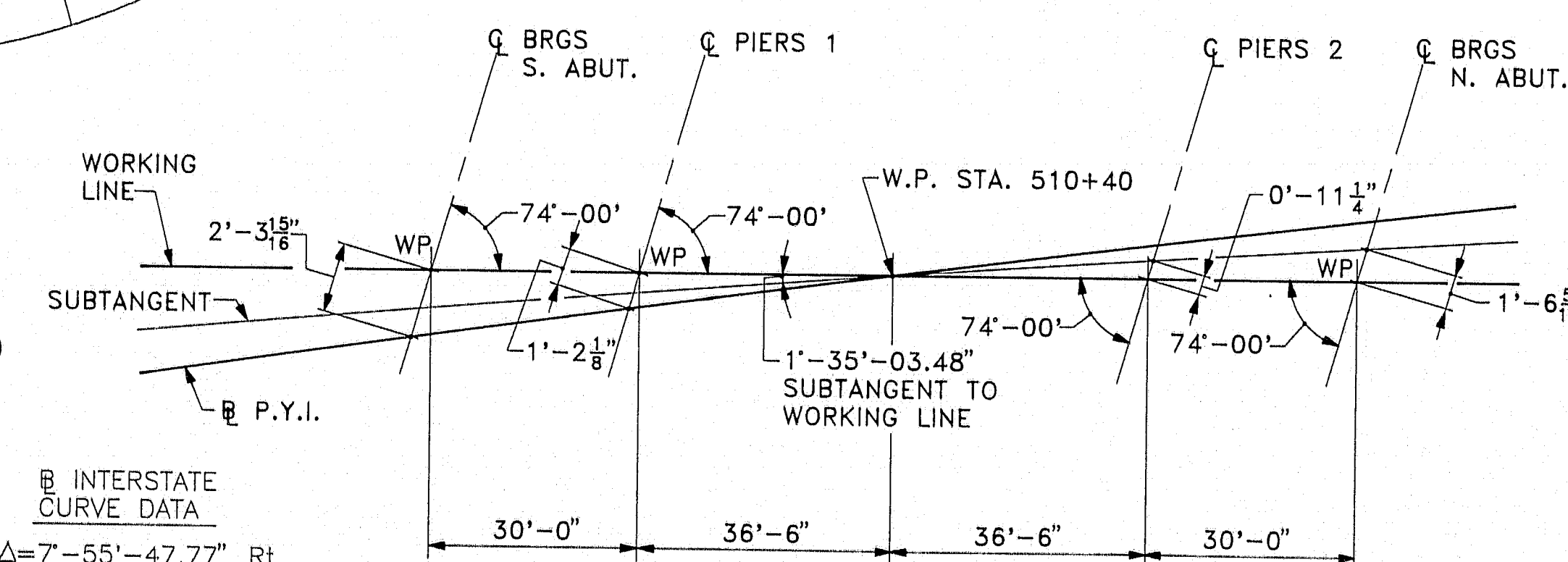
SHEET 1 OF 5

AUGUSTA, MAINE



PLAN

- ALIGNMENT NOTES:**
1. ABUTMENTS AND PIERS ARE PARALLEL.
 2. EDGES OF DECK, CURBS AND PROFILE LINES ARE CONCENTRIC CIRCLES.
 3. WINGWALLS (INCLUDING WINGWALL CURBS) ARE STRAIGHT.



ALIGNMENT PLAN

SCOPE OF WORK

- REMOVE EXISTING 4" CONCRETE WEARING SURFACE. INSTALL 3 1/2" HOT BITUMINOUS PAVEMENT AND MEMBRANE WATERPROOFING (1/4" EACH ALLOWED).
- REMOVE, MODIFY AND RESET APPROACH GUARDRAIL TO PROVIDE STANDARD HEIGHT AND POST SPACING.
- CLEAN AND PAINT EXISTING STRUCTURAL STEEL INCLUDING BEARINGS.
- REMOVE EXISTING SUBSTANDARD CONCRETE CURB AND ALUMINUM BRIDGE RAIL SYSTEM. INSTALL 1'-10" WIDE CONCRETE CURBS WITH SILICA FUME AND STANDARD 2-BAR ALUMINUM RAIL.
- REMOVE, MODIFY, AND RESET EXISTING GUARDRAIL AS DIRECTED BY THE ENGINEER AND INSTALL ADDITIONAL GUARDRAIL ALONG MEDIAN.
- REHABILITATE CRACKED, SPALLED, OR OTHERWISE DETERIORATED CONCRETE ON PIERS, ABUTMENTS, AND TOP OF CONCRETE BRIDGE DECK, AS DIRECTED BY THE ENGINEER.
- MODIFY EXISTING OPEN ARMORED JOINT AT PIER 1 WITH PROPOSED ARMORED JOINT WITH COMPRESSION SEAL.
- REMOVE AND REPLACE JOINT FILLER AT PIER 2.
- MAINTAIN ONE 12 FOOT MINIMUM TRAFFIC LANE ON EACH BRIDGE.
- INSTALL STANDARD CONCRETE ENDPOSTS AT APPROACH AND DEPARTURE ENDS OF BRIDGES.
- INSTALL ADDITIONAL GUARDRAIL POSTS FOR GUARDRAIL BETWEEN BRIDGES.

* REM. 2 AND RUTH. 1. ALTERN. SLOPE (1:1)

119-288

PLANS OF THE EXISTING BRIDGE ARE AVAILABLE FOR THE CONTRACTOR'S REFERENCE AT THE BRIDGE DESIGN OFFICE IN AUGUSTA. THE PLANS ARE REPRODUCTIONS OF ORIGINAL DRAWINGS AS PREPARED FOR THE CONSTRUCTION OF THE BRIDGE AND 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.

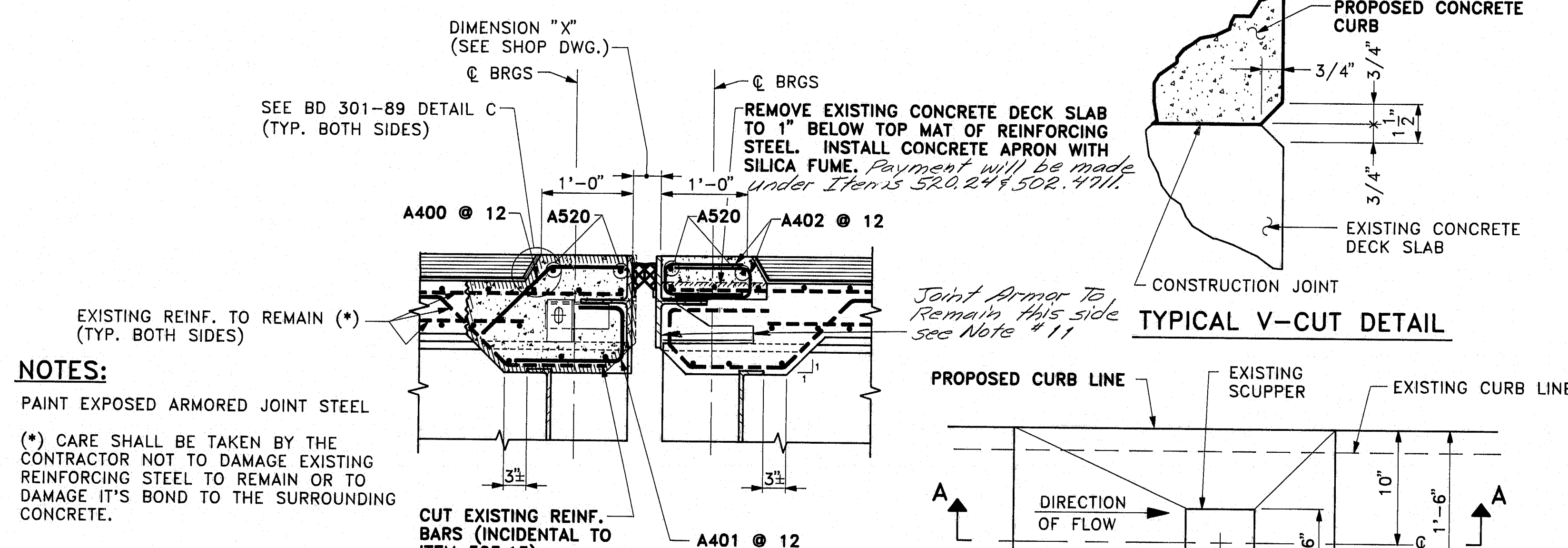
PROJECT DESIGN ENGINEER	DATE
J. Bailey	8-23-90
P. Bova	7-3-90
S. Mordant	
REVISIONS	
FIELD CHANGES	

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.128	REMOVING OF EXIST. CONCRETE CURBS & SIDEWALKS	0.20	L.S.
202.14	Rem. Exist. Rail - Property of Contractor	670	L.F.
202.17	Rem. Exist. Str. Conc.	0.47	L.S.
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	235	TON
403.121	Hot Bituminous Pavement, Grading E	40	TON
409.15	Bituminous Tack Coat Applied	65	G
502.42	STRUC. CONC. RDWY & SDWLK SLAB ON STEEL BRIDGES	50	C.Y.
502.4711	SILICA FUME ADDITIVE	0.45	L.S.
503.12	REINFORCING STEEL, FABRICATION AND DELIVERED	7,800	lbs
503.13	REINFORCING STEEL, PLACING	7,800	lbs
506.17	Surf. Prep. EXISTING STRUCTURAL STEEL	0.18	L.S.
506.172	Field Painting Existing Structural Steel	0.18	L.S.
507.092	Aluminum Bridge Railing, 2-Bar	622	L.F.
508.13	Membrane Waterproofing	0.24	L.S.
514.06	Curing Box for Concrete Cylinders	0.48	EA.
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	0.38	L.S.
518.21	REHABILITATION OF STRUCTURAL CONCRETE SUBSTRUCTURE	1000	S.F.
518.30	REHAB. OF STRUC. CONC. SLAB - TO REINFORCING STEEL	65	S.F.
518.31	REHAB. OF STRUC. CONC. SLAB - TO BELOW REINF. STEEL	25	S.F.
518.32	Rehab. of Struc. Conc. Slab - Full Depth	20	S.F.
520.241	Bridge Joint Modification, I-95/Route 88	4	EA.
526.301	Temporary Concrete Barrier	0.25	L.S.
527.32	Portable Crash Barrels	10	EA.
608.265	Terminal End-Single Rail - Galvanized Steel	1	EA.
608.364	Guardrail-Remove, Modify, and Reset Type 3b	1900	L.F.
608.367	Replace Unusable Existing Guard Rail Post	4	EA.
608.55	Guardrail Type 3-Single Rail	700	L.F.
608.751	Widen Shoulder for Breakaway Cable Terminal	2	EA.
608.77	Breakaway Cable Terminal	2	EA.
627.611	6 Inch Solid White Pavement Marking Line	400	L.F.
627.621	6 Inch Broken White Pavement Marking Line	11.25	L.F.
627.631	6 Inch Solid Yellow Pavement Marking Line	400	L.F.
627.67	Removing Pavement Markings	100	S.F.
627.671	Temp. 6" Plastic Pave Marking Line, Yellow or White	1750	L.F.
637.18	Field Office Type A	0.21	EA.
639.22	Testing Facilities Bituminous Mixes	0.21	L.S.
639.23	Testing Facilities Concrete	0.21	L.S.
652.30	Flashing Arrow Board	0.5	EA.
652.31	Type I Barricade	30	EA.
652.33	Drum	10	EA.
652.34	Cone	10	EA.
652.35	Construction Signs	300	S.F.
652.361	Maint. of Traffic Control Device	0.25	L.S.
652.38	Flagger	100	M.H.
659.10	Mobilization	0.21	L.S.

ESTIMATE OF LUMP SUM QUANTITIES

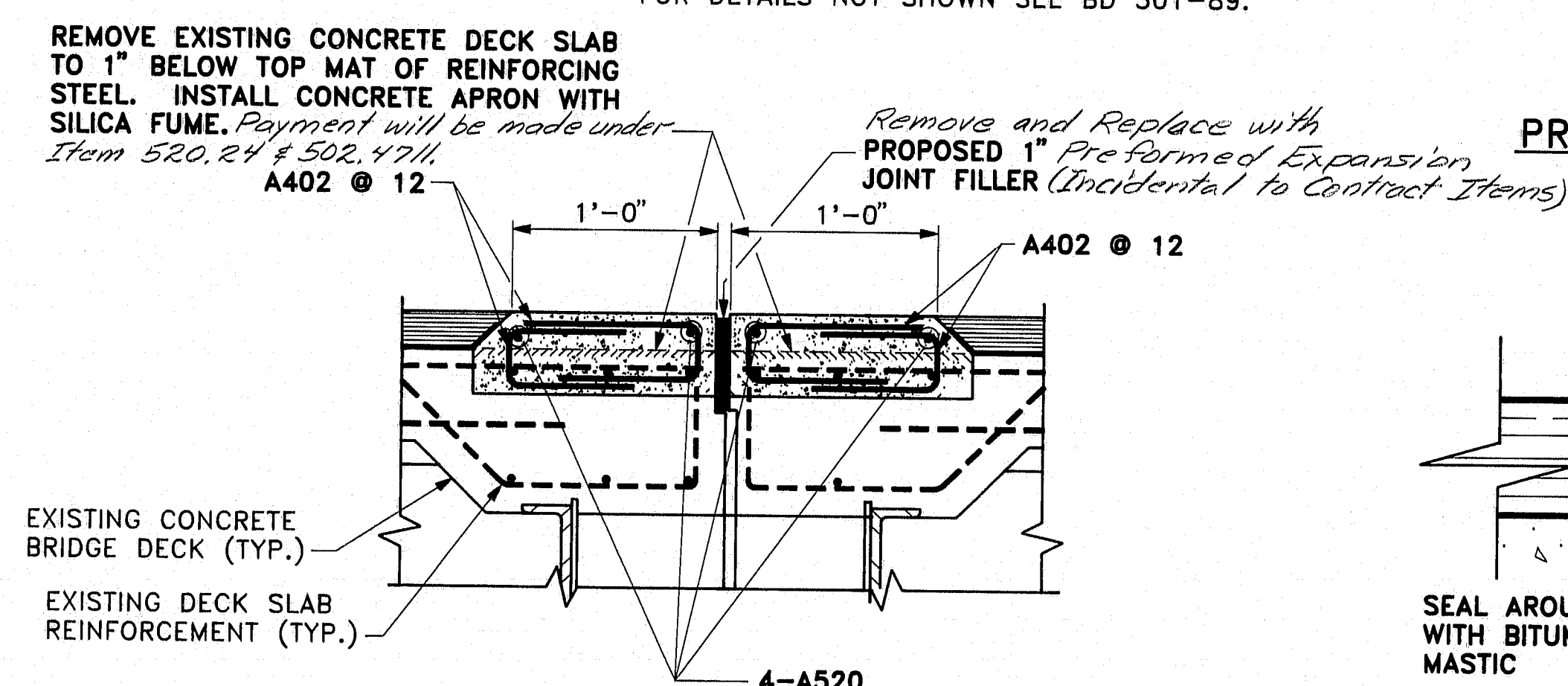
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
506.172	FIELD PAINTING EXISTING STRUCTURAL STEEL	357,700	lbs.



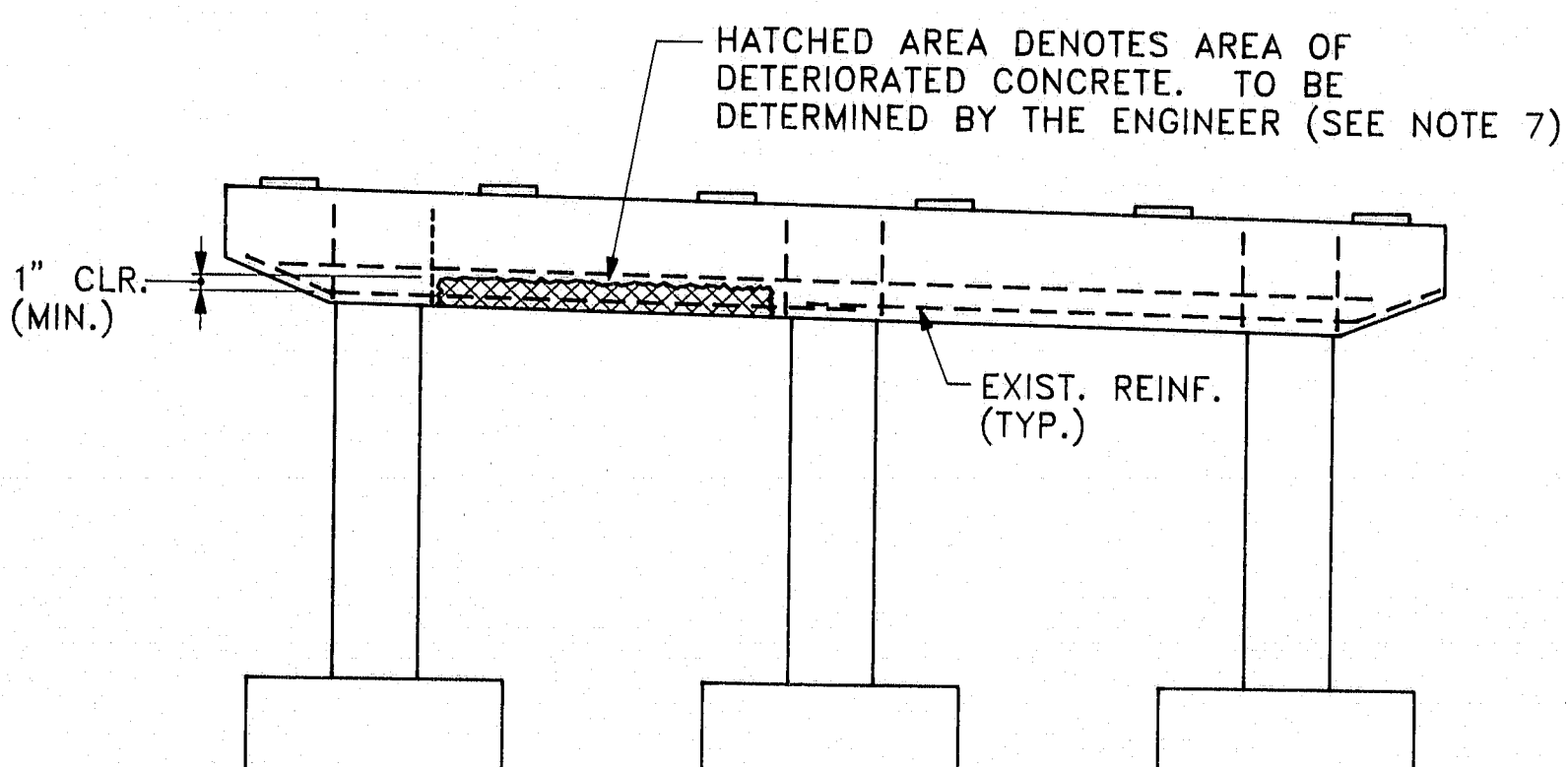
EXPANSION JOINT MODIFICATION

AT PIER NO. 1

FOR DETAILS NOT SHOWN SEE BD 301-89.



CROSS-SECTION AT PIER 2

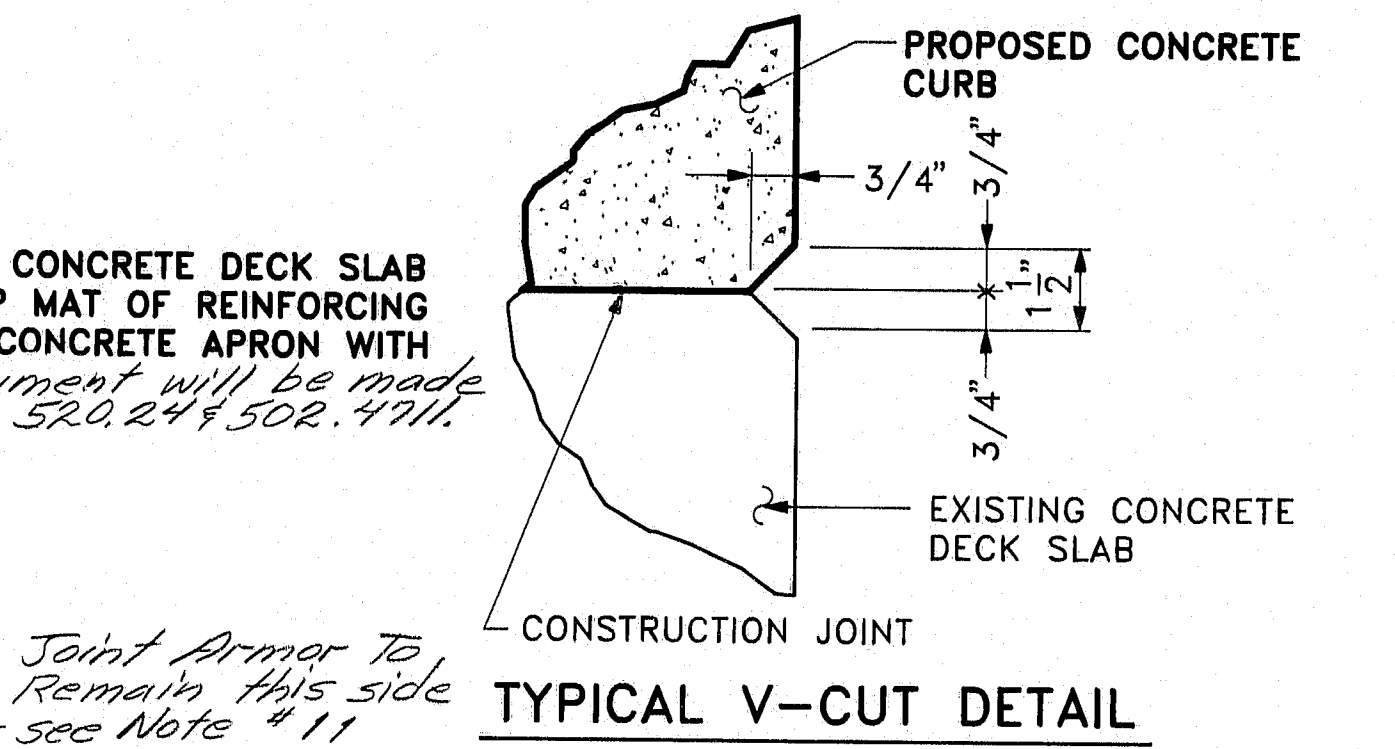


TYPICAL PIER REHABILITATION - ELEVATION

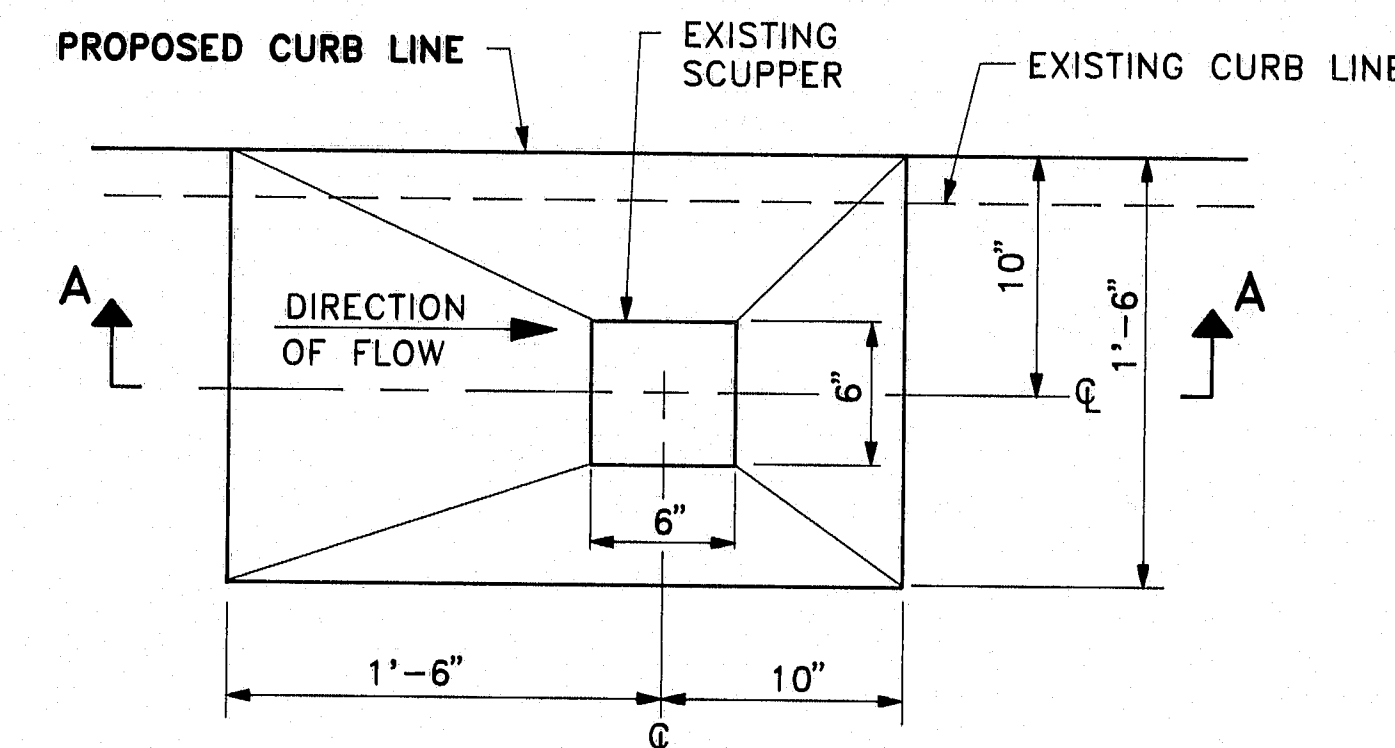
(REHABILITATION TO BE PERFORMED UNDER ITEM 518.21)

SYMBOLS

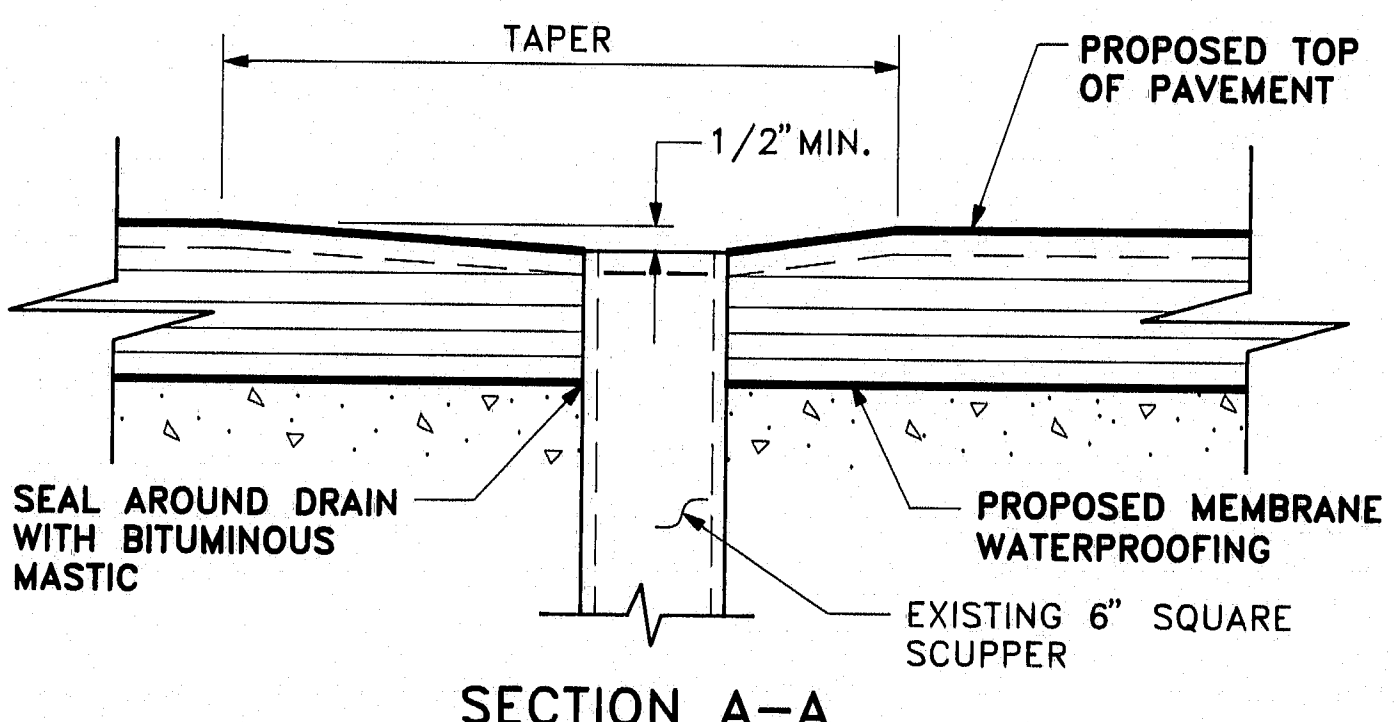
- EXISTING CONCRETE TO BE REMOVED
- PROPOSED CONCRETE



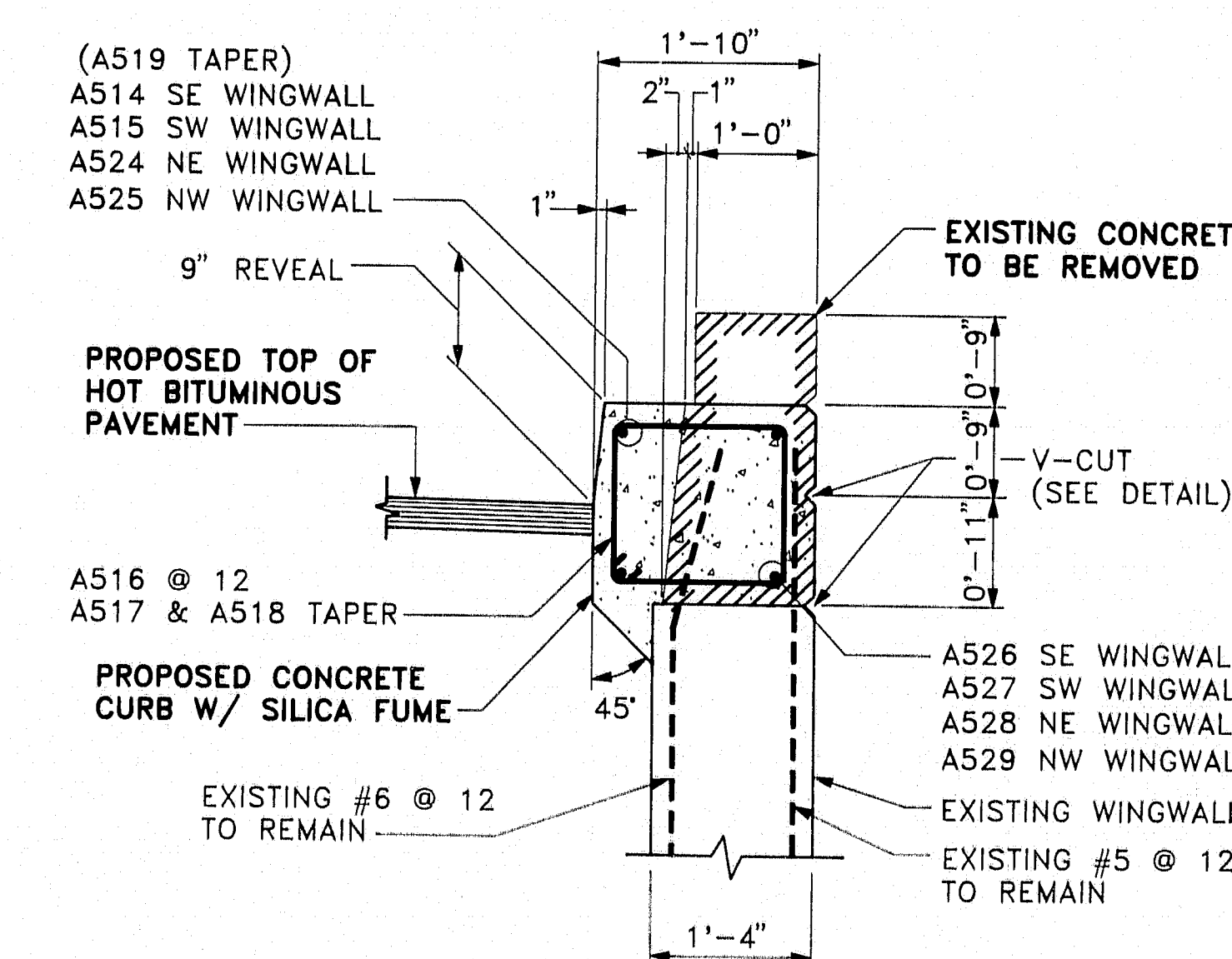
TYPICAL V-CUT DETAIL



PROPOSED SCUPPER BEVEL PLAN



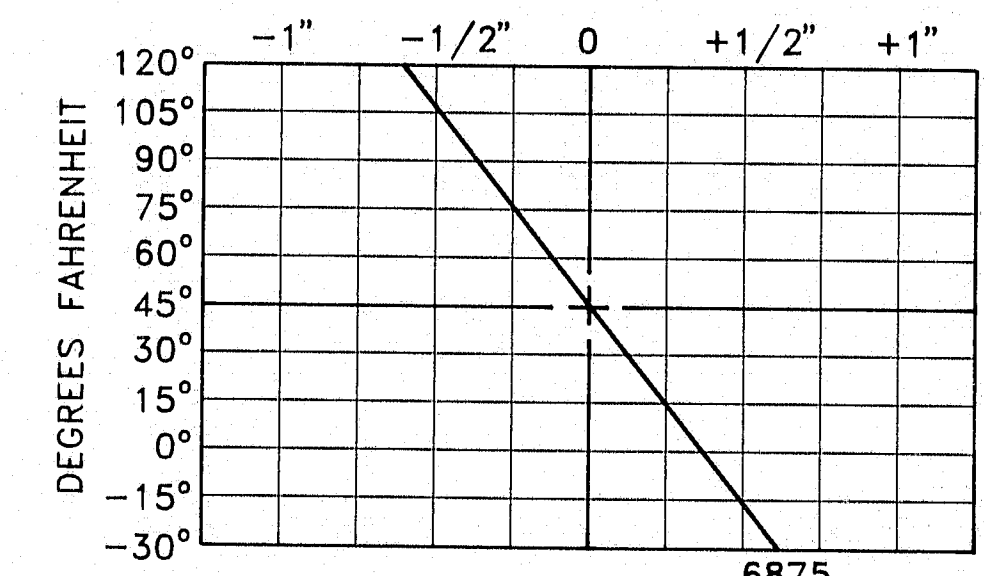
SECTION A-A



RETURN WING MODIFICATIONS

NOTES:

- SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RATING OF: *Per No. 1: 1.375 Inches*
- SEAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF JOINT ARMOR.
- JOINT OPENING WILL VARY DEPENDING ON DIMENSIONS OF THE SEAL SELECTED BY THE CONTRACTOR. JOINT OPENING SHALL BE SET ACCORDING TO OPENING SHOWN ON APPROVED SHOP DETAIL DRAWINGS.
- COMPRESSION SEAL ADJUSTMENT CHART SHOWS ADJUSTMENT NECESSARY FOR JOINT OPENING SHOWN ON SHOP DRAWINGS. FOR TEMPERATURES OTHER THAN 45°, ADJUSTMENT IS TO BE MEASURED PARALLEL TO THE CENTERLINE OF CONSTRUCTION.
- JOINT ARMOR SHALL BE FABRICATED AND DELIVERED TO THE SITE IN TWO (2) SECTIONS. INSTALLATION OF JOINT ARMOR SHALL BE PERFORMED TO ALLOW ONE LANE OF TRAFFIC OVER THE BRIDGE DURING CONSTRUCTION. THE TWO SECTIONS OF JOINT ARMOR ARE TO BE WELDED IN THE FIELD TO PRODUCE ONE CONTINUOUS SECTION. WELDS ARE TO BE GROUND SMOOTH AND PAINTED PRIOR TO COMPRESSION SEAL INSTALLATION.
- COMPRESSION SEALS SHALL BE INSTALLED IN ONE CONTINUOUS LENGTH. SPLICING OF THE COMPRESSION SEAL IS NOT ALLOWED. A TEMPORARY INTERRUPTION OF TRAFFIC IS ANTICIPATED TO FACILITATE THE INSTALLATION.
- IF THE DEPTH OF DETERIORATED CONCRETE EXTENDS TO REINFORCING BARS, REMOVE CONCRETE TO A MINIMUM DEPTH OF 1" BEYOND REINFORCING STEEL.
- AFTER EXISTING *rehab. conc. w/s* HAS BEEN REMOVED, THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO REHABILITATE AREAS OF THE DECK. PAYMENT WILL BE MADE UNDER ITEMS 518.30 OR 518.31, WHICHEVER IS APPLICABLE.
- PROPOSED REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" UNLESS OTHERWISE INDICATED.
- PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO ALL EXPOSED SURFACES OF CONCRETE PATCHING AND THE IMMEDIATE SURROUNDING AREA AS DIRECTED BY THE ENGINEER.
- EXISTING EXPANSION JOINT STEEL IS TO BE CUT VERTICALLY AT THE EXISTING EDGE OF CURB. EXISTING JOINT ARMOR SHALL BE REMOVED UNDER THE SIDEWALK AREA TO THE CUT LINE. THE ENDS OF EXISTING JOINT ARMOR SHALL BE PREPARED FOR WELDING AND PROPOSED CURB ARMOR SHALL BE BUTT WELDED TO THE EXISTING. WELDS ON EXPOSED SURFACES SHALL BE GROUND FLUSH. SEE BD 301-89 FOR EXPANSION JOINT STEEL CONFIGURATION AND SIZES AT CURB.

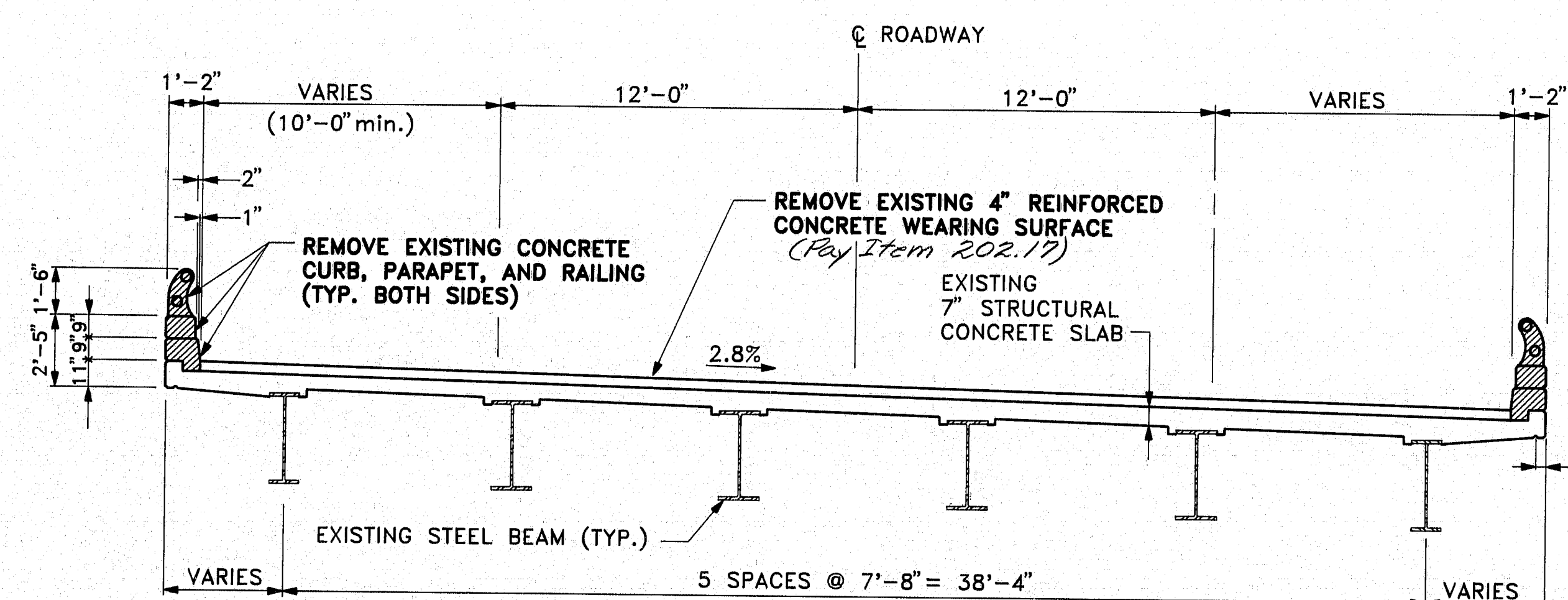


COMPRESSION SEAL ADJUSTMENT CHART

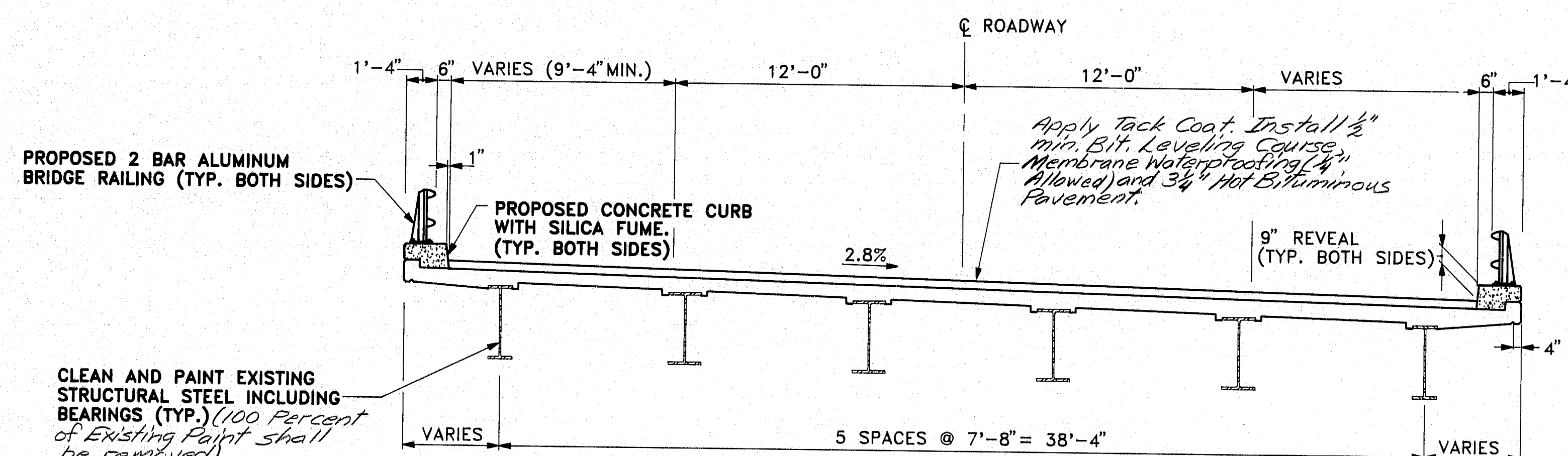
119-289 PIN NO. 002832.00
BRIDGES NO.S 5832 & 1507

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Kimball Chase	ONE CATE STREET PORTSMOUTH, N.H. 03801 (603) 431-2520
I-95 over ROUTE 88 YARMOUTH, MAINE CUMBERLAND COUNTY DETAILS AND ESTIMATE OF QUANTITIES	
SHEET 2 OF 5	AUGUSTA, MAINE

F.M.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-4(59)	4	25

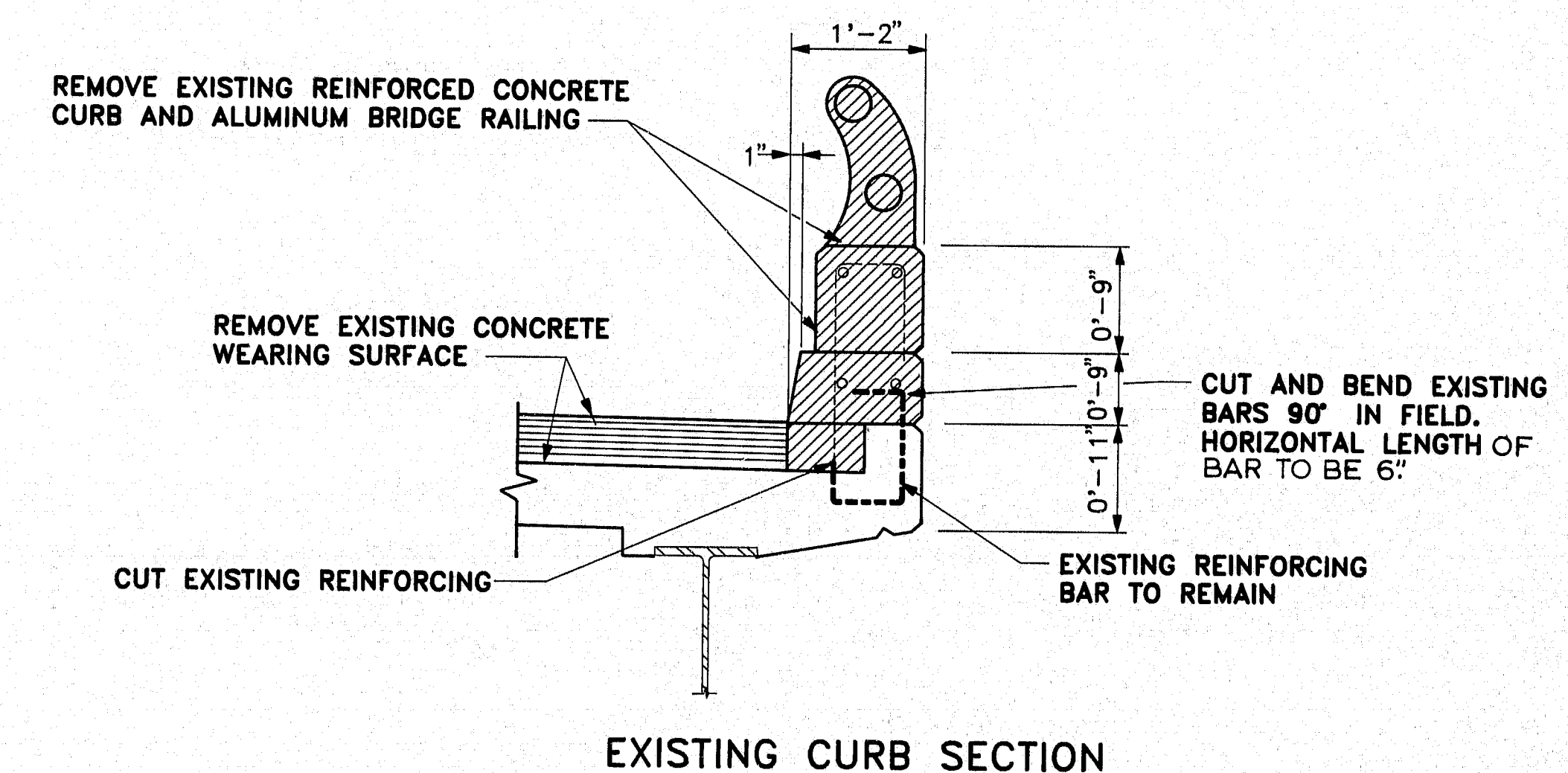


EXISTING CROSS SECTION OF DECK

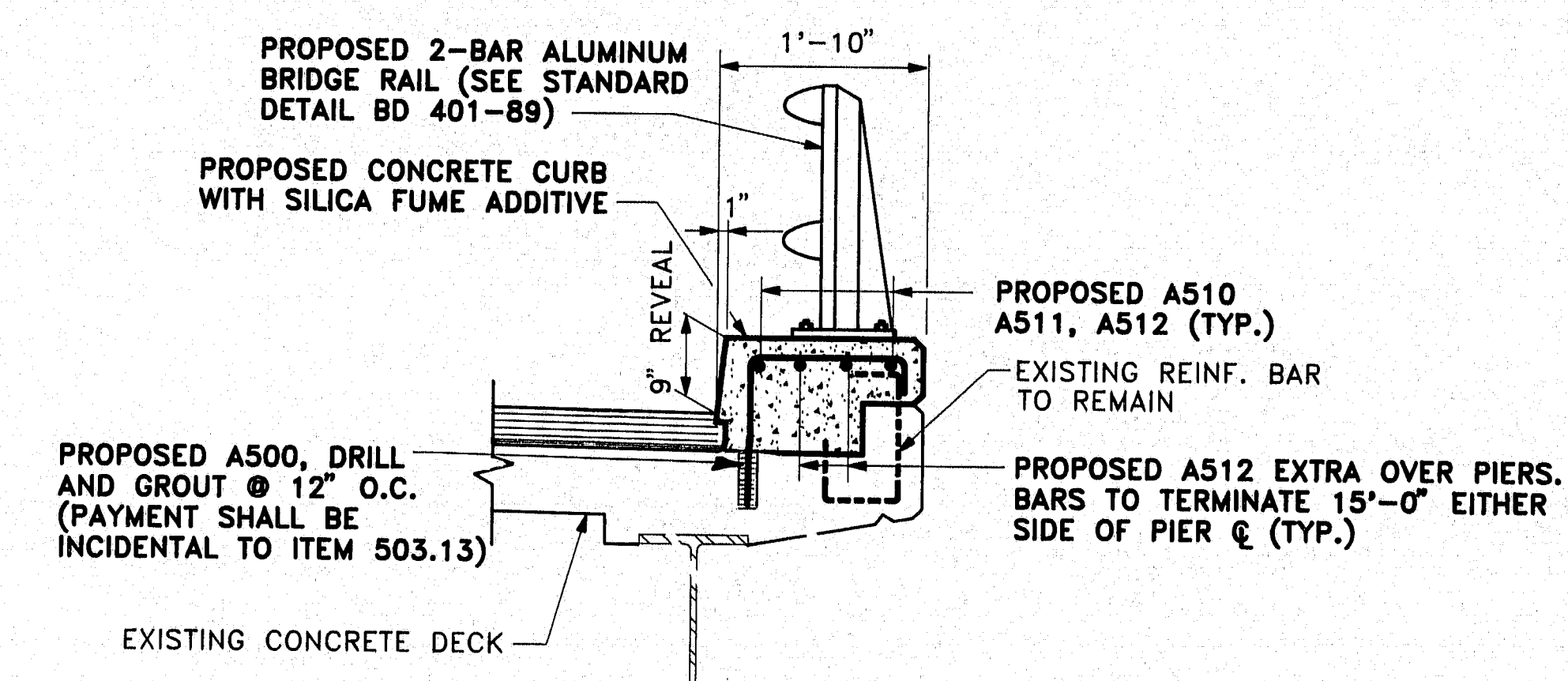


PROPOSED CROSS SECTION OF DECK

The Existing Concrete Wearing Surface may be bonded to the concrete deck, and therefore a Bridge Deck Evaluation Report for the subject bridge has been made available for the Contractor's reference at the Bridge Design Office in Augusta. This report is based on the interpretation by the Department of tests and information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.



EXISTING CURB SECTION



PROPOSED CURB SECTION

A500 stirrups shall be drilled and anchored into the existing concrete by a method approved by the Engineer and shall meet in-place proof load requirements for unconfined pull out of 11,300* service load. Proof loading will be the responsibility of the Department and will be done at the discretion of the Engineer. Minimum 50' time for proof loading shall be specified by the Contractor. The minimum proof loading obtained will be 150% of service load.

119-290

PIN NO. 002832.00
BRIDGE NO.S 5832 & 1507

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Kimball Chase
ONE CATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95
over
ROUTE 88
YARMOUTH, MAINE
CUMBERLAND COUNTY
SECTIONS

SHEET 3 OF 5

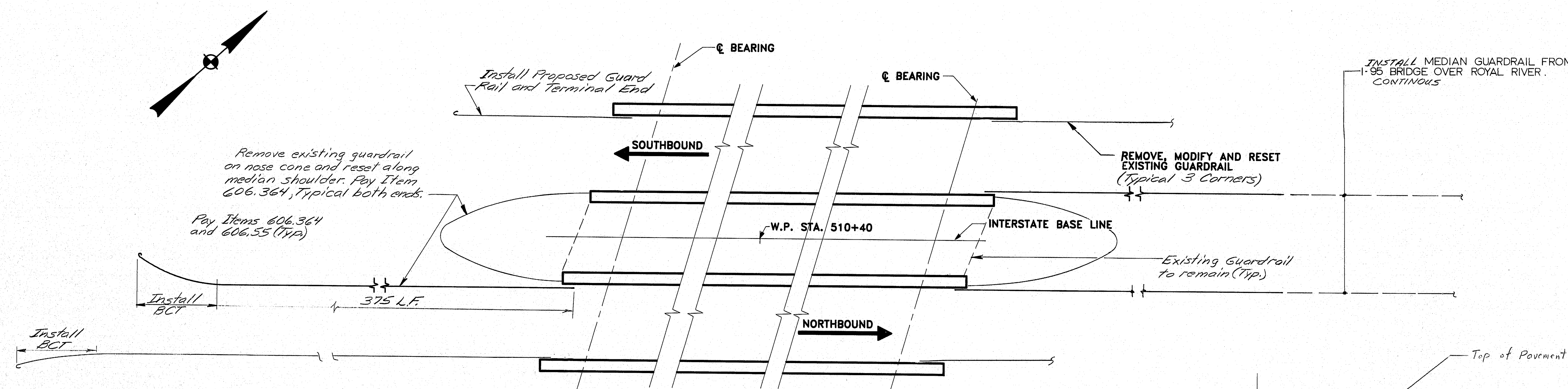
AUGUSTA, MAINE

SYMBOLS

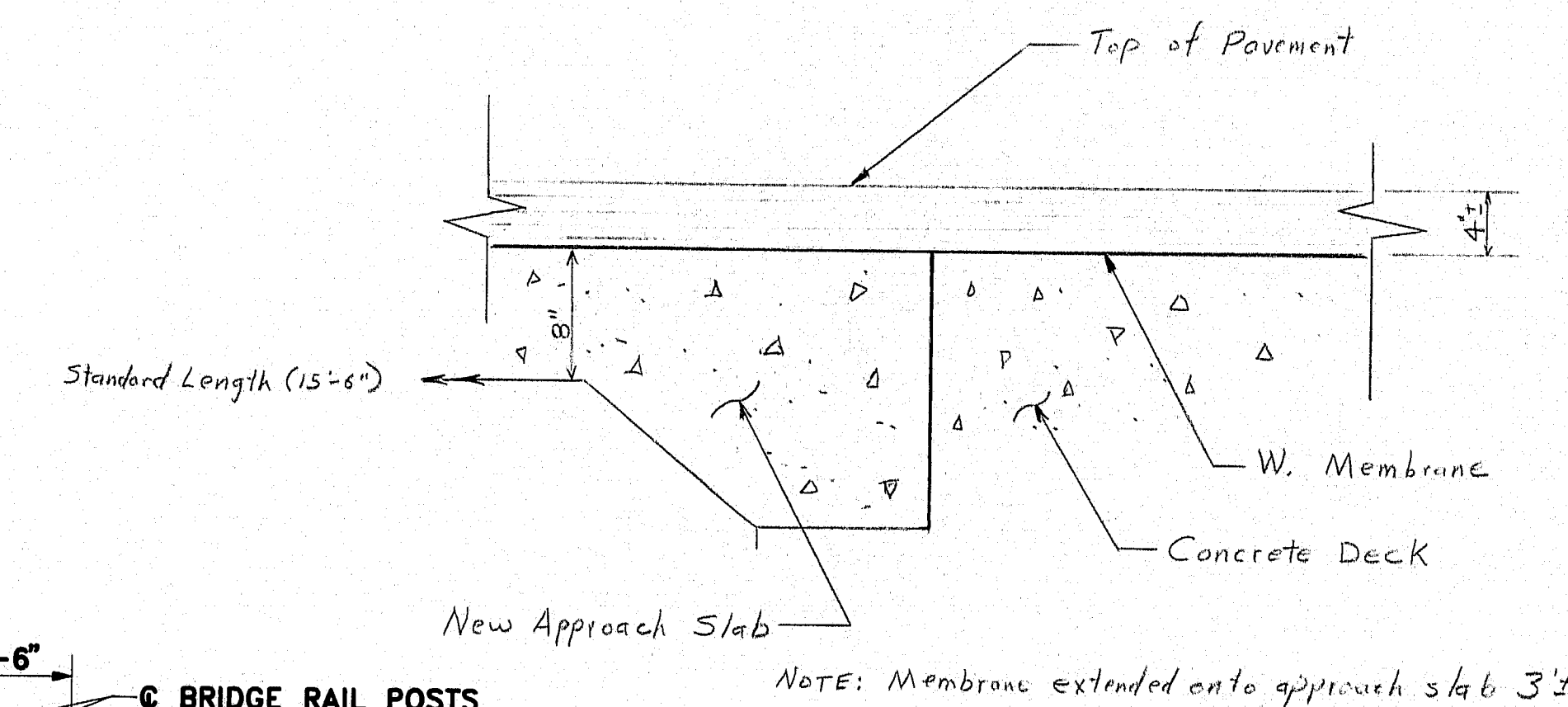
EXISTING CONCRETE TO BE REMOVED
NEW CONCRETE

PROJECT DESIGN NUMBER	DATE	BY	DATE
PLANS	8-28-90	J. Bishy	7-5-90
DESIGNER		P. Rees	
CHECKER		S. McElroy	
REVISIONS			
FIELD CHANGES			

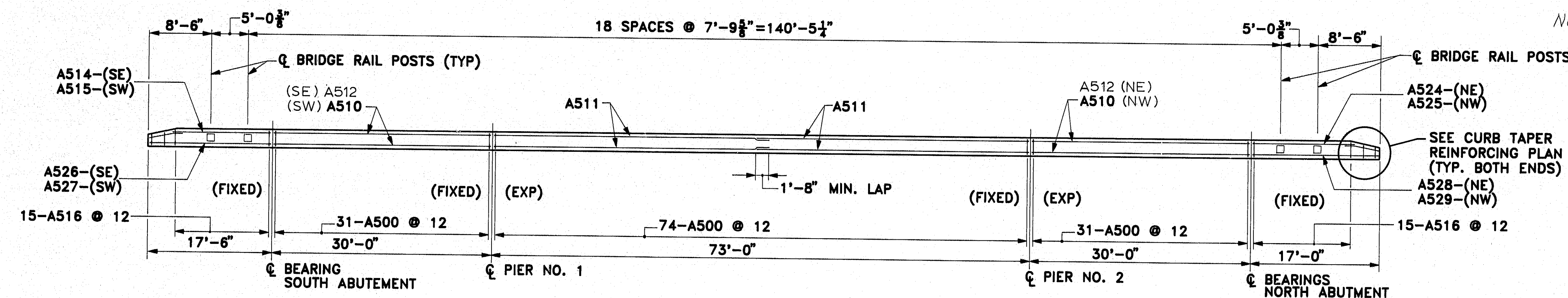
F.A.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-4(59)	5	25



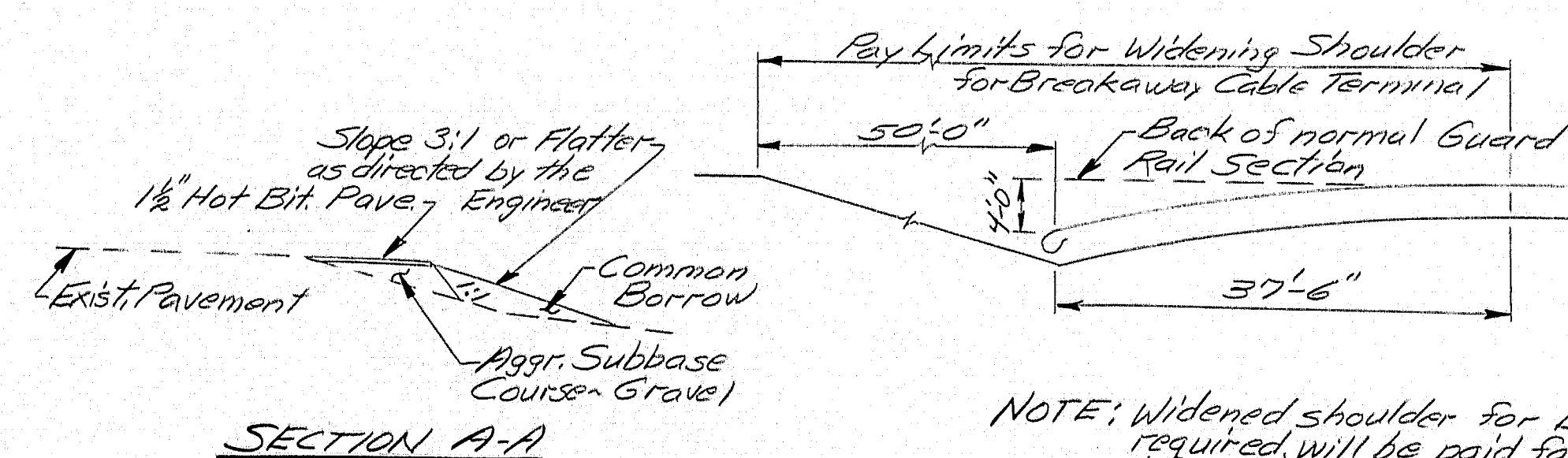
PROPOSED GUARDRAIL LAYOUT DETAIL



APPROACH SLAB DETAIL
(Typ. four locations)



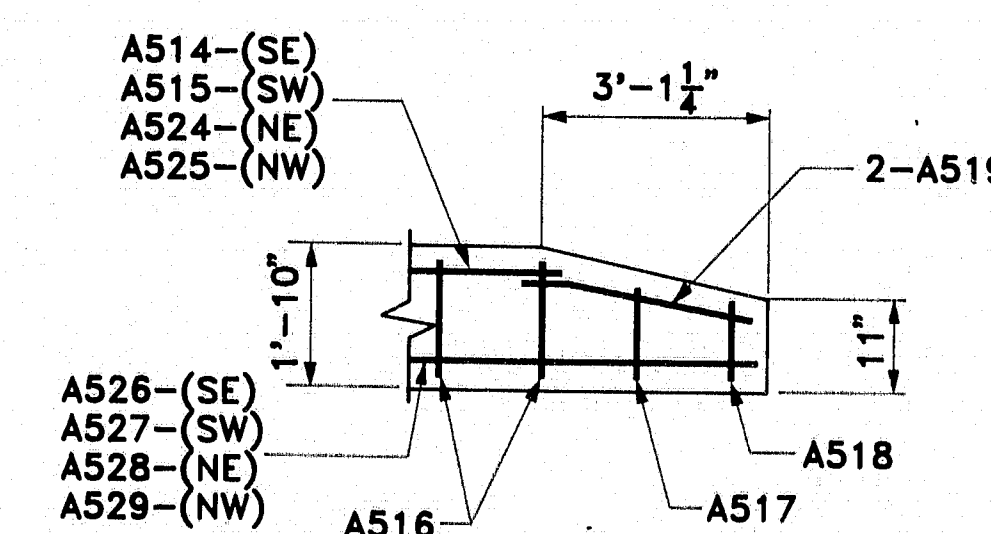
CURB REINFORCING DETAIL & BRIDGE RAIL POST LAYOUT



SECTION A-A

NOTE: Widened shoulder for Breakaway Cable Terminal, when required, will be paid for under Item 606.751 complete in place, which price shall be full payment for furnishing and placing, grading and compaction of Aggregate Subbase, Common Borrow, seed and mulch. The Hot Bit/Inert Pavement will be paid for under Item 403.10.

DETAIL OF SHOULDER WIDENING FOR BREAKAWAY CABLE TERMINAL



CURB TAPER REINFORCING PLAN
(END POST STIRRUPS NOT SHOWN)

'As Built' 08/25 5-7-93
PIN NO. 002832.00
BRIDGES NOS 5832 & 1507

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Kimball
Chase
ONE CATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95
over
ROUTE 88
YARMOUTH, MAINE
CUMBERLAND COUNTY
MISCELLANEOUS DETAILS

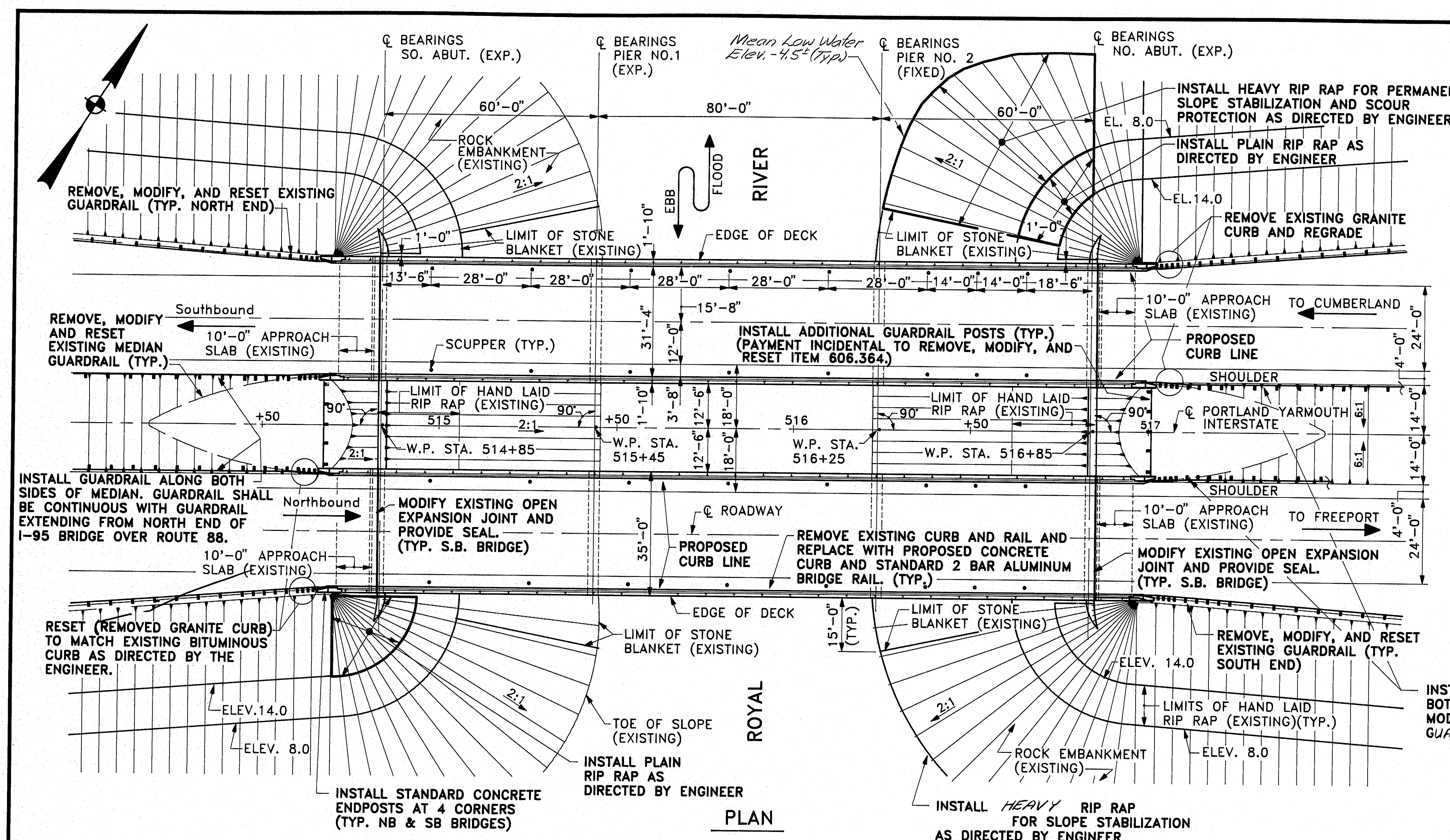
SHEET 4 OF 5

AUGUSTA, MAINE

119-291

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	IR-95-4(59)	7	25

YARMOUTH



SCOPE OF WORK

- REMOVE EXISTING 4" CONCRETE WEARING SURFACE. INSTALL HOT BITUMINOUS PAVEMENT AND MEMBRANE WATERPROOFING (1/4" EACH ALLOWED).
- CLEAN AND PAINT EXISTING STRUCTURAL STEEL INCLUDING BEARINGS.
- MODIFY EXISTING OPEN ARMORED JOINTS AT NORTH AND SOUTH ENDS OF BRIDGES AND PROVIDE SEALS.
- REHABILITATE CRACKED, SPALLED OR OTHERWISE DETERIORATED CONCRETE ON ABUTMENTS AND CONCRETE BRIDGE DECK, AS DIRECTED BY THE ENGINEER.
- INSTALL STANDARD CONCRETE END POSTS AT APPROACH AND DEPARTURE ENDS OF BRIDGES.
- REMOVE EXISTING SUBSTANDARD CONCRETE CURB AND NON-CONTINUOUS ALUMINUM BRIDGE RAIL AND INSTALL 1'-10" WIDE CONCRETE CURBS WITH SILICA FUME AND STANDARD 2-BAR ALUMINUM BRIDGE RAIL.
- REMOVE, MODIFY, AND RESET APPROACH GUARDRAIL TO PROVIDE FOR STANDARD HEIGHT AND POST SPACING.
- INSTALL ADDITIONAL POSTS AT MEDIAN GUARDRAIL BETWEEN BRIDGES.
- INSTALL GUARDRAIL ALONG MEDIAN.
- MAINTAIN ONE 12 FOOT MINIMUM TRAFFIC LANE ON EACH BRIDGE.
- INSTALL RIP RAP FOR EROSION PROTECTION AND SLOPE STABILIZATION AS DIRECTED BY THE ENGINEER.
- REMOVE EXISTING GRANITE CURB AND REGRADE AT NORTH APPROACH AND RESET (REMOVED GRANITE CURB) TO MATCH EXISTING BITUMINOUS CURB AT SOUTH APPROACH AS DIRECTED BY THE ENGINEER.

SPECIFICATION

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1989.

CONTRACT: STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF JULY 1988.

DESIGN LOADING

LIVE LOAD: H20-S16-44 (MODIFIED)

MATERIALS

CONCRETE: CLASS A
REINFORCING STEEL: ASTM A615 GRADE 60
STRUCTURAL STEEL: ASTM A36 (PAINTED)

BASIC ALLOWABLE STRESSES

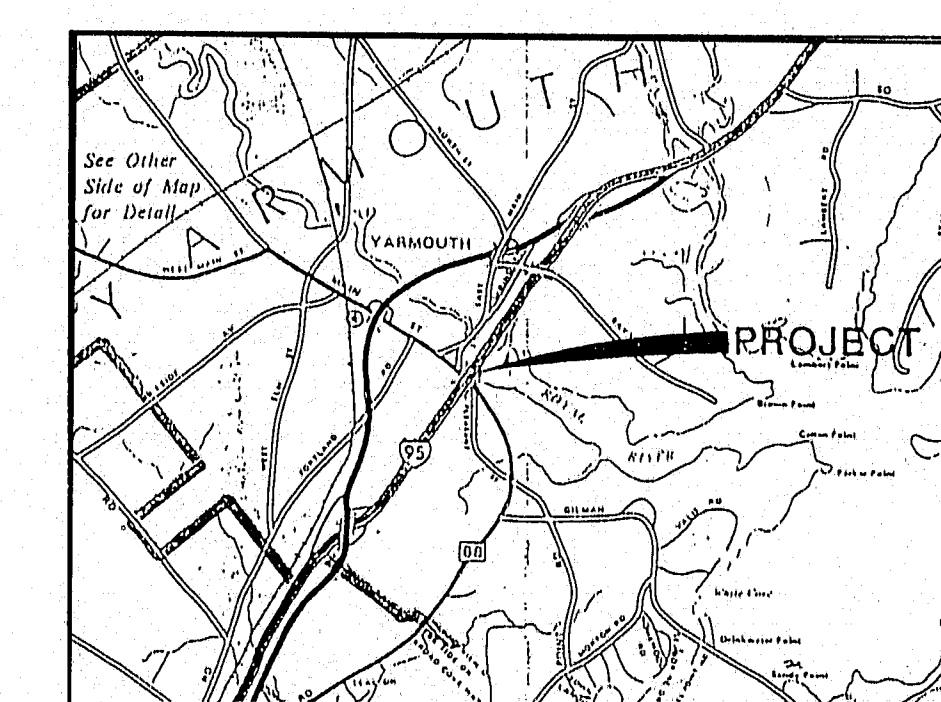
CONCRETE: $f_c = 1,200 \text{ psi}$
REINFORCING STEEL: $f_s = 24,000 \text{ psi}$
STRUCTURAL STEEL: $f_s = 18,000 \text{ psi}$

TRAFFIC DATA

	NB	SB
AADT (1989)	14,730	15,880
AADT (2009)	26,510	28,580
DESIGN HOURLY VOLUME	3,446	3,430
PERCENT TRUCKS	9%	9%
DIRECTIONAL DISTRIBUTION (%)	100	100
POSTED SPEED (MPH)	65	65
18 KIP EQUIVALENT P2.5	1,482	1,557

INDEX OF SHEETS

- 1) GENERAL PLAN AND SECTIONS
- 2) DETAILS AND ESTIMATE OF QUANTITIES
- 3) MISCELLANEOUS DETAILS
- 4) REINFORCING STEEL SCHEDULE



LOCATION MAP

1 1/2 0 1 2 MILES

119-293

SCALE

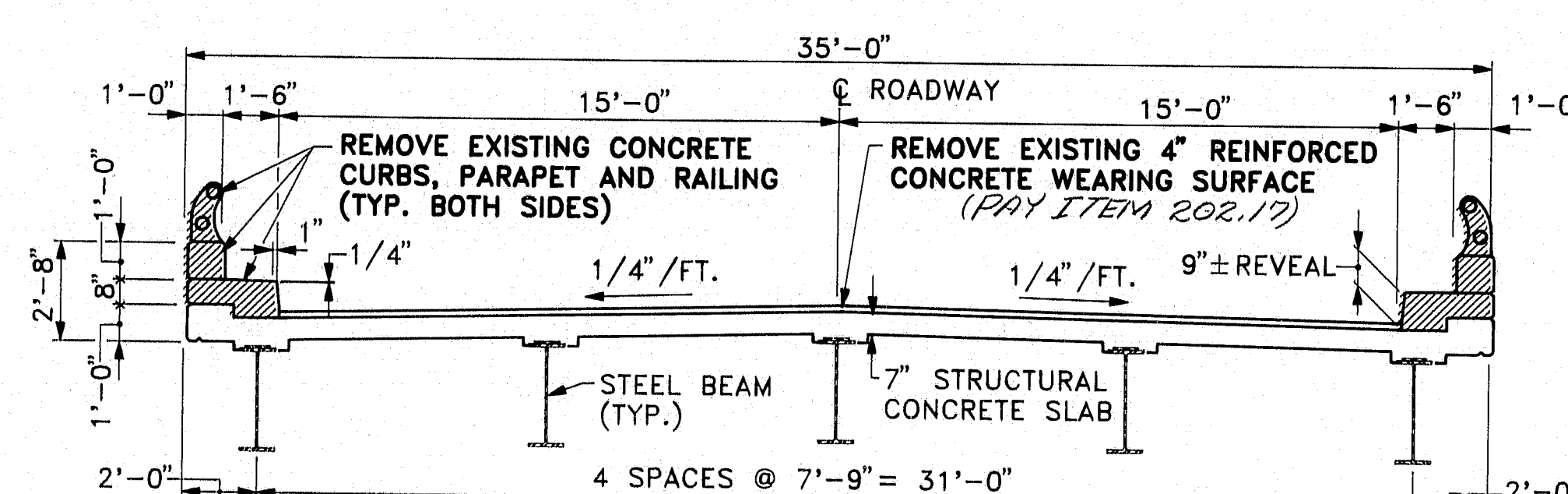
PIN NO. 002832.00
BRIDGE NOS 5834 & 1508

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Kimball Chase
ONE CATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95
over
ROYAL RIVER
YARMOUTH, MAINE
CUMBERLAND COUNTY
GENERAL PLAN AND SECTIONS

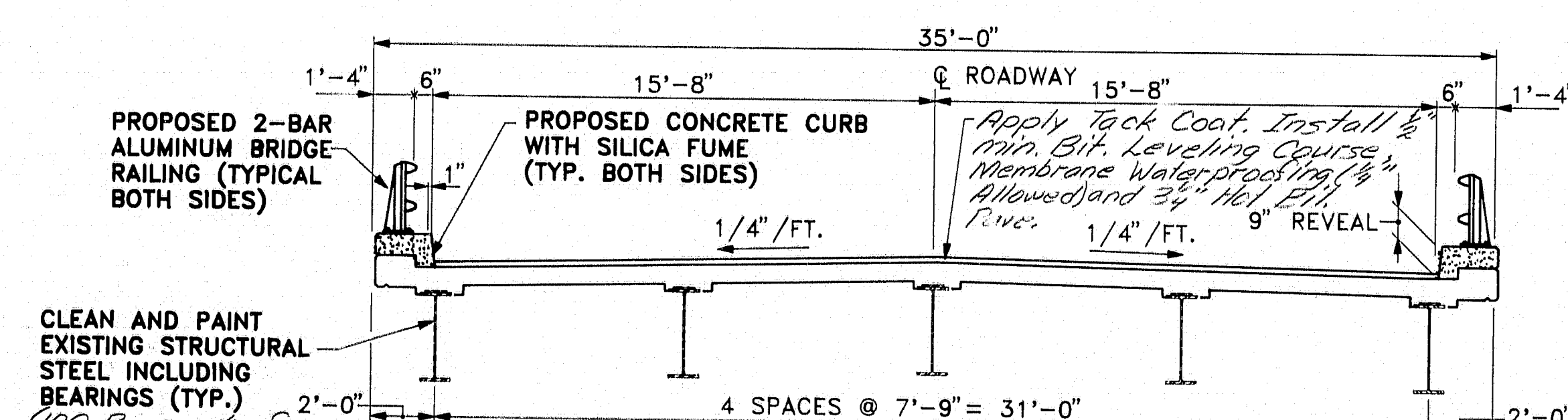
SHEET 1 of 4

AUGUSTA, MAINE



EXISTING CROSS SECTION OF DECK

EXISTING CONCRETE TO BE REMOVED
NEW CONCRETE



PROPOSED CROSS SECTION OF DECK

The Existing Concrete Wearing Surface may be bonded to the concrete deck, and therefore a Bridge Deck Evaluation Report for the subject bridge has been made available for the Contractor's reference at the Bridge Design Office in Augusta. This report is based on the interpretation by the Department of tests and information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

PLANS OF THE EXISTING BRIDGE ARE AVAILABLE FOR THE CONTRACTOR'S REFERENCE AT THE BRIDGE DESIGN OFFICE IN AUGUSTA. THE PLANS ARE REPRODUCTIONS OF ORIGINAL DRAWINGS AS PREPARED FOR THE CONSTRUCTION OF THE BRIDGE AND 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.

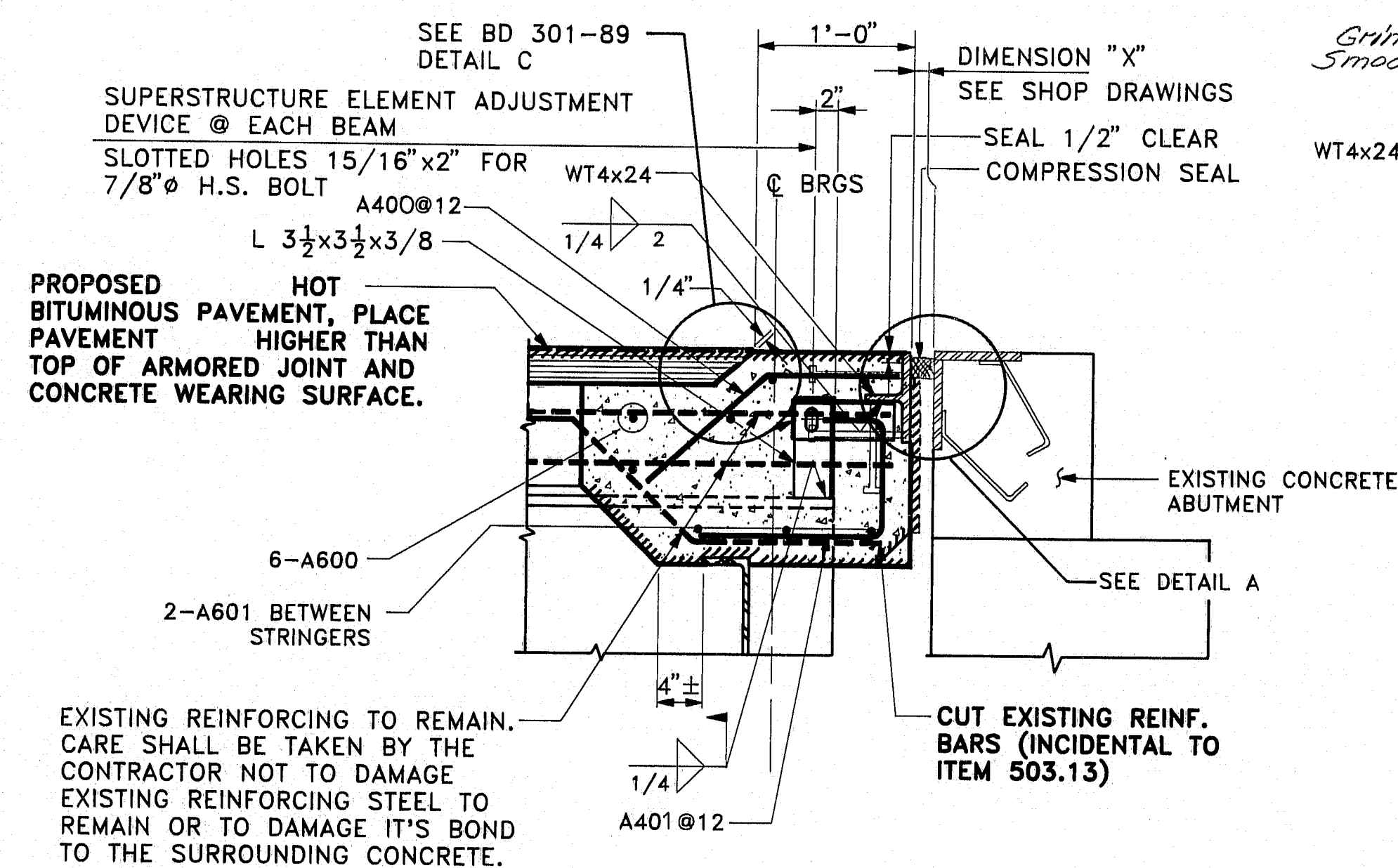
5/7/93

DATE	BY	REVISION
8-13-90	A. WHITE	DESIGN - DETAIL
7-2-90	S. MONALY	CHECKED
		REVISIONS
		FIELD CHANGES

PLANS

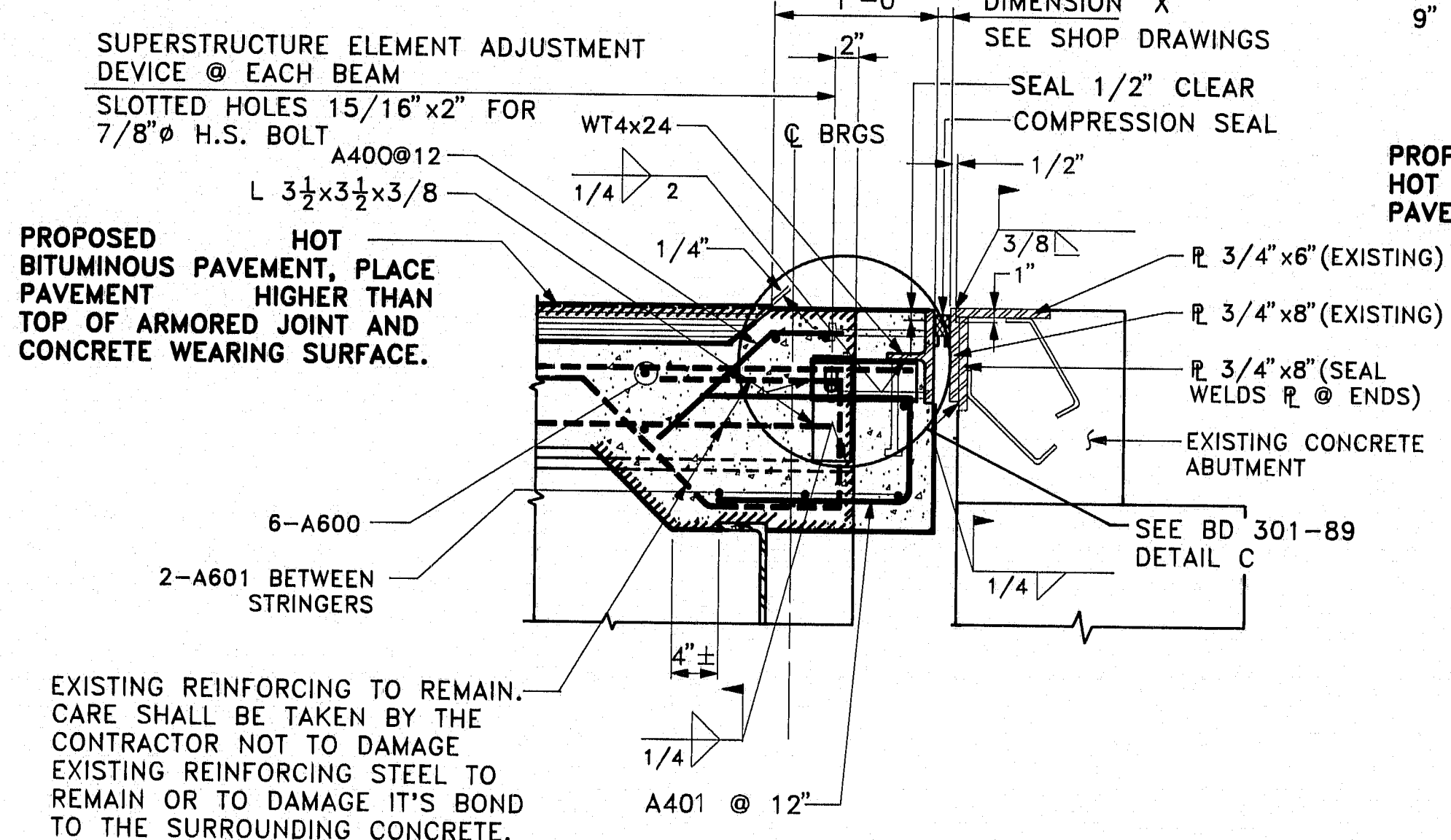
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.128	REMOVING OF EXIST. CONCRETE CURBS & SIDEWALKS	0.49	L.S.
202.14	REMOVING EXIST. RAILING - PROP. OF CONTRACTOR	946	L.F.
202.17	Remove Exist. Struct. Concrete	0.53	L.S.
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	250	TON
403.121	Hot Bituminous Pavement, Grading E - Shum	40	TON
409.15	Bituminous Tack Coat Applied	20	G
502.42	Struc. Conc. Rely & Sawcut Slab on Steel Bridges	66	C.Y.
502.4711	Silica Fume Additive	0.55	L.S.
503.12	REINFORCING STEEL, Fab & Del	10,000	lbs
503.13	Reinforcing Steel, Placing	10,000	lbs
506.17	Surface Prep. Existing Structural Steel	0.22	L.S.
506.172	Field Painting Existing Structural Steel	0.22	L.S.
507.092	Aluminum Bridge Railing, 2'-Bar	899	L.F.
508.13	Membrane Water-proofing	0.27	L.S.
514.06	Curing Box for Concrete Cylinders	0.36	EA.
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	0.107	L.S.
518.21	REHABILITATION OF STRUCTURAL CONCRETE SUBSTRUCTURE	100	S.F.
518.30	REHAB. OF STRUC. CONC. SLAB - TO REINFORCING STEEL	2500	S.F.
518.31	REHAB. OF STRUC. CONC. SLAB - TO BELOW REINF. STEEL	1,200	S.F.
518.32	Rehab. of Struc. Conc Slab - To Full Depth	20	S.F.
520.2402	Bridge Joint Modification I-95/Royal River	4	EA.
526.301	Temporary Concrete Barrier	0.3	L.S.
527.32	Portable Crash Barrels	10	EA.
606.364	Guardrail- Remove, Modify, and Resct, Type 3b	900	L.F.
606.367	Replace Unusable Existing Guard Rail Post	4	EA.
606.55	Guardrail Type 3~Single Rail	350	L.F.
606.251	Widen Shoulder for Breakaway Cable Terminal	2	EA.
606.77	Breakaway Cable Terminal	2	EA.
610.08	Plain RIP RAP	20	C.Y.
610.16	Heavy Rip Rap	300	C.Y.
627.611	6 Inch Solid White Pavement Marking Line	400	L.F.
627.621	6 Inch Broken White Pavement Marking Line	1125	L.F.
627.631	6 Inch Solid Yellow Pavement Marking Line	400	L.F.
627.67	Removing Pavement Markings	100	S.F.
627.691	Temp. 6" Plastic Pave. Marking Line, Yellow or White	1750	L.F.
639.18	Field Office Type A	0.33	EA.
639.22	Testing Facilities Bituminous Mixes	0.33	L.S.
639.23	Testing Facilities Concrete	0.33	L.S.
652.30	Flashing Arrow Board	0.5	EA.
652.31	Type I Barricade	30	EA.
652.33	Drum	10	EA.
652.34	Cone	10	EA.
652.35	Construction Signs	300	S.F.
652.361	Maint. of Traffic Control Device	0.25	L.S.
652.38	Flagger	100	M.H.
659.10	Mobilization	0.33	L.S.

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
506.172	FIELD PAINTING EXISTING STRUCTURAL STEEL	430,000	LBS.



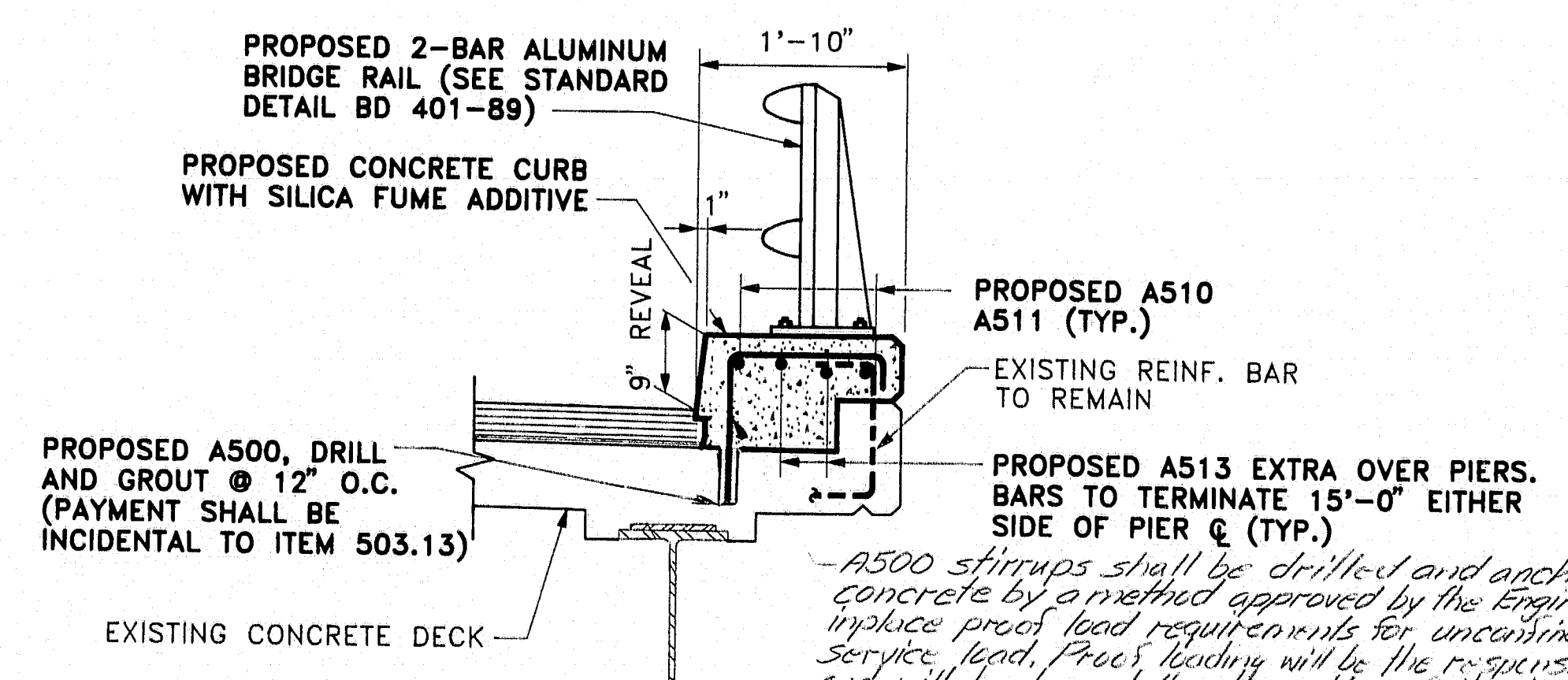
NOTE:
PAINT ALL EXPOSED ARMORED
JOINT STEEL

(SEE STANDARD SHT. BD 301-89
FOR DETAILS NOT SHOWN)

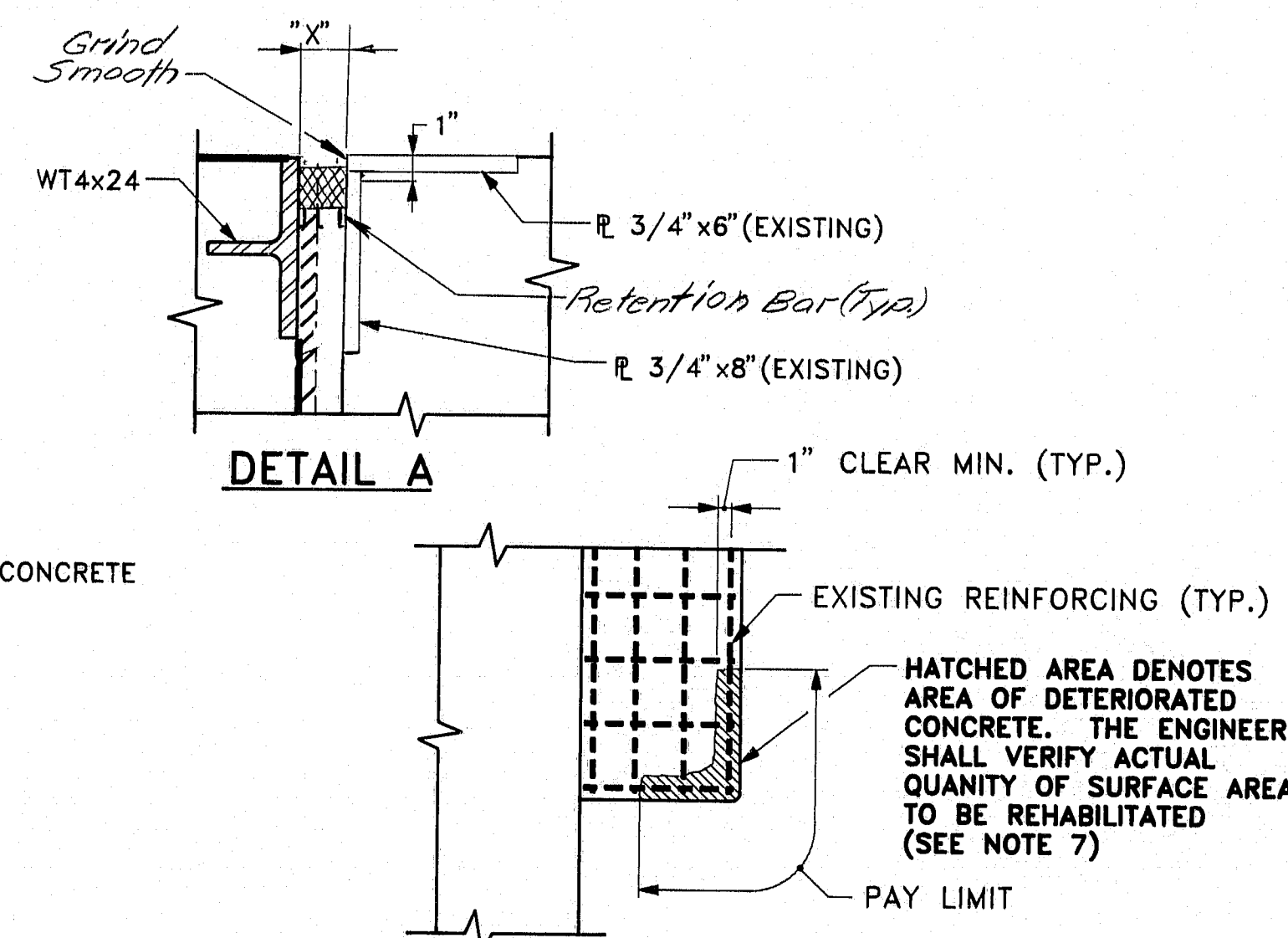


NOTE:
PAINT ALL EXPOSED ARMORED
JOINT STEEL

(SEE STANDARD SHT. BD 301-89
FOR DETAILS NOT SHOWN)

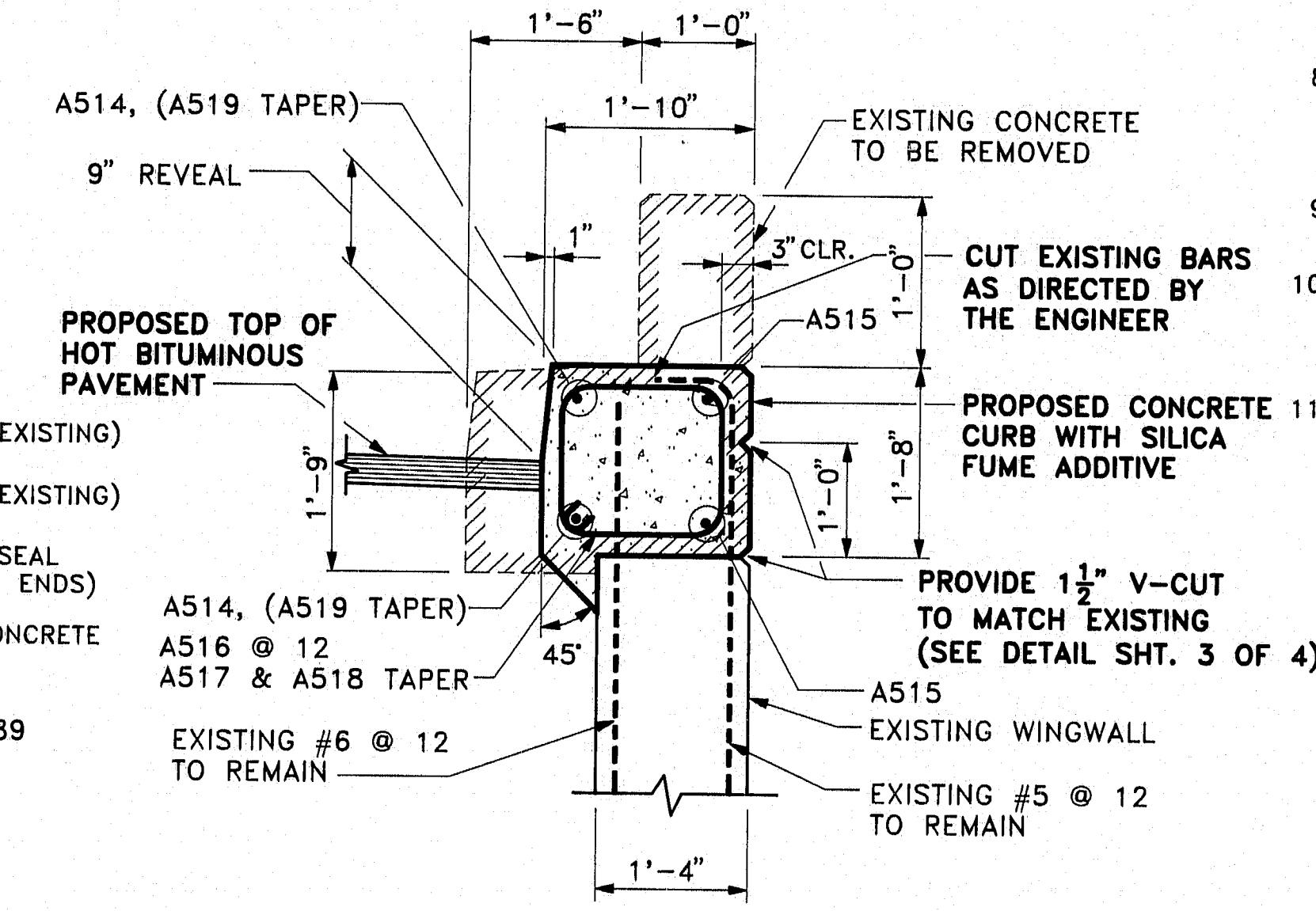


PROPOSED CURB SECTION

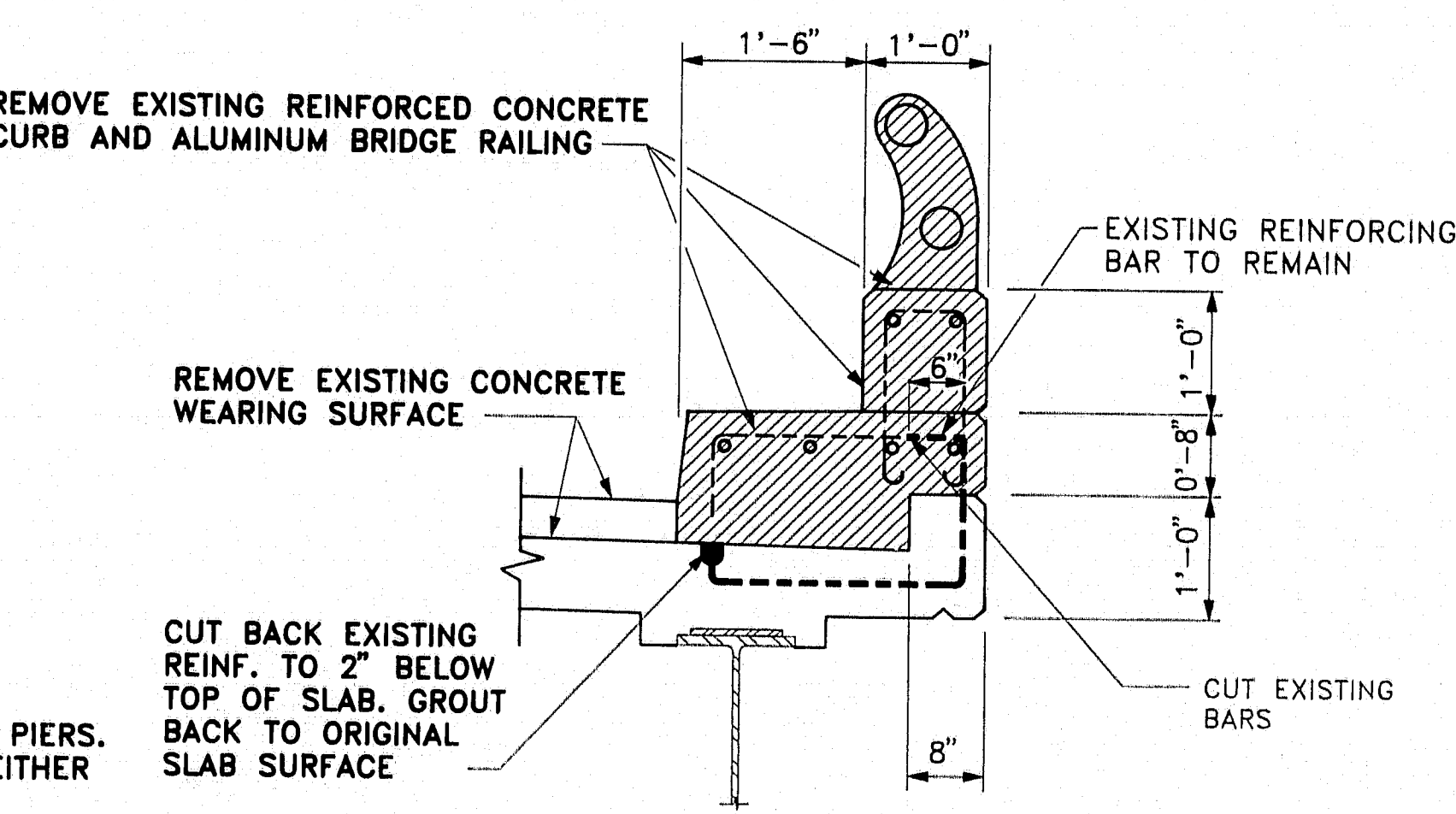


TYPICAL ABUTMENT REHABILITATION - PLAN

(REHABILITATION TO BE PERFORMED UNDER ITEM 518.21)





RETURN WING MODIFICATIONS



EXISTING CURB SECTION

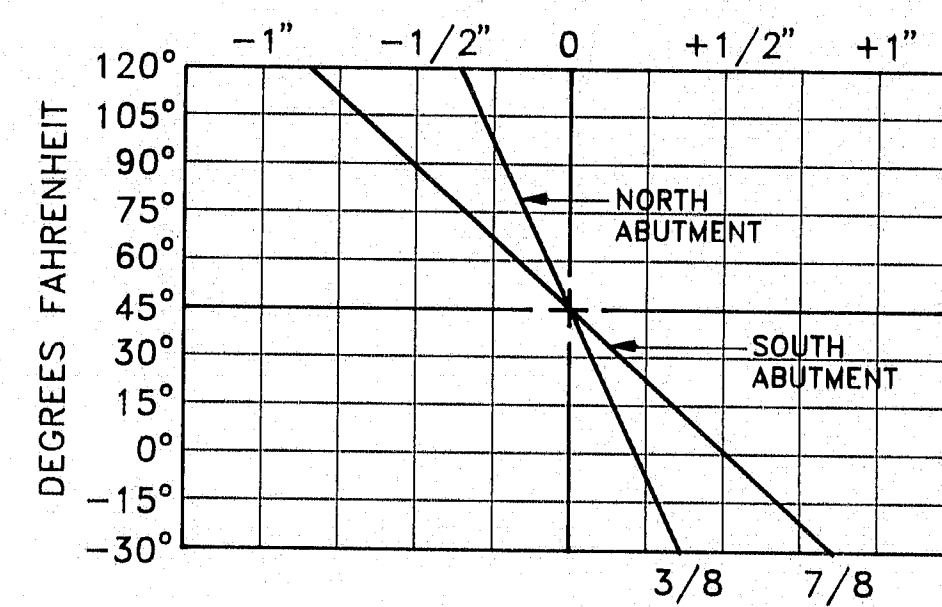
SYMBOLS

 EXISTING CONCRETE TO BE REMOVED

 PROPOSED CONCRETE

- NOTES:**


1. THE SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RATING OF:
NORTH ABUTMENT: .750 INCHES
SOUTH ABUTMENT: 1.75 INCHES
2. SEAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF JOINT ARMOR.
3. THE JOINT OPENING WILL VARY DEPENDING ON DIMENSIONS OF THE SEAL SELECTED BY THE CONTRACTOR. JOINT OPENING SHALL BE SET ACCORDING TO OPENING SHOWN ON APPROVED SHOP DETAIL DRAWINGS.
4. COMPRESSION SEAL ADJUSTMENT CHART SHOWS ADJUSTMENT NECESSARY FOR JOINT OPENING SHOWN ON SHOP DRAWINGS. FOR TEMPERATURES OTHER THAN 45°F, ADJUSTMENT IS TO BE MEASURED PARALLEL TO THE CENTERLINE OF CONSTRUCTION.
5. JOINT ARMOR SHALL BE FABRICATED AND DELIVERED TO THE SITE IN TWO (2) SECTIONS. INSTALLATION OF JOINT ARMOR SHALL BE PERFORMED TO ALLOW ONE LANE OF TRAFFIC OVER THE BRIDGE DURING CONSTRUCTION. THE TWO SECTIONS OF JOINT ARMOR ARE TO BE WELDED IN THE FIELD TO PRODUCE ONE CONTINUOUS SECTION. WELDS ARE TO BE GROUND SMOOTH AND PAINTED PRIOR TO COMPRESSION SEAL INSTALLATION.
6. COMPRESSION SEALS SHALL BE INSTALLED IN ONE CONTINUOUS LENGTH. SPLICING OF THE COMPRESSION SEAL IS NOT ALLOWED. A TEMPORARY INTERFERENCE OF TRAFFIC IS ANTICIPATED TO FACILITATE THE INSTALLATION.
7. IF THE DEPTH OF DETERIORATED CONCRETE EXTENDS TO REINFORCING BARS, REMOVE CONCRETE TO A MINIMUM DEPTH OF 1" BEFORE REINFORCING STEEL.
8. AFTER EXISTING BITUMINOUS PAVEMENT HAS BEEN REMOVED, THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO REHABILITATE AREAS OF THE DECK. PAYMENT WILL BE MADE UNDER ITEMS 518.30 OR 518.31, WHICHEVER IS APPLICABLE.
9. PROPOSED REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" UNLESS OTHERWISE INDICATED.
10. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO ALL EXPOSED SURFACES OF CONCRETE PATCHING AND THE IMMEDIATE SURROUNDING AREA, AS DIRECTED BY THE ENGINEER.
11. EXISTING EXPANSION JOINT STEEL IS TO BE CUT VERTICALLY AT THE EXISTING EDGE OF CURB. EXISTING JOINT ARMOR SHALL BE REMOVED UNDER THE SIDEWALK AREA UP TO THE CUT LINE. THE ENDS OF EXISTING JOINT ARMOR SHALL BE PREPARED FOR WELDING AND PROPOSED JOINT ARMOR SHALL BE BUTT WELDED TO THE EXISTING. WELDS ON EXPOSED SURFACES SHALL BE GROUND FLUSH. SEE BD 301-89 FOR EXPANSION JOINT SEAL CONFIGURATION AND SIZES AT CURB AND PROPOSED CURB BLADE.



COMPRESSION SEAL ADJUSTMENT CHART

PIN NO. 002832.00
BRIDGES NO. 5834 & 1508

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

 **Kimball Chase** ONE CATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95

over

ROYAL RIVER

YARMOUTH, MAINE

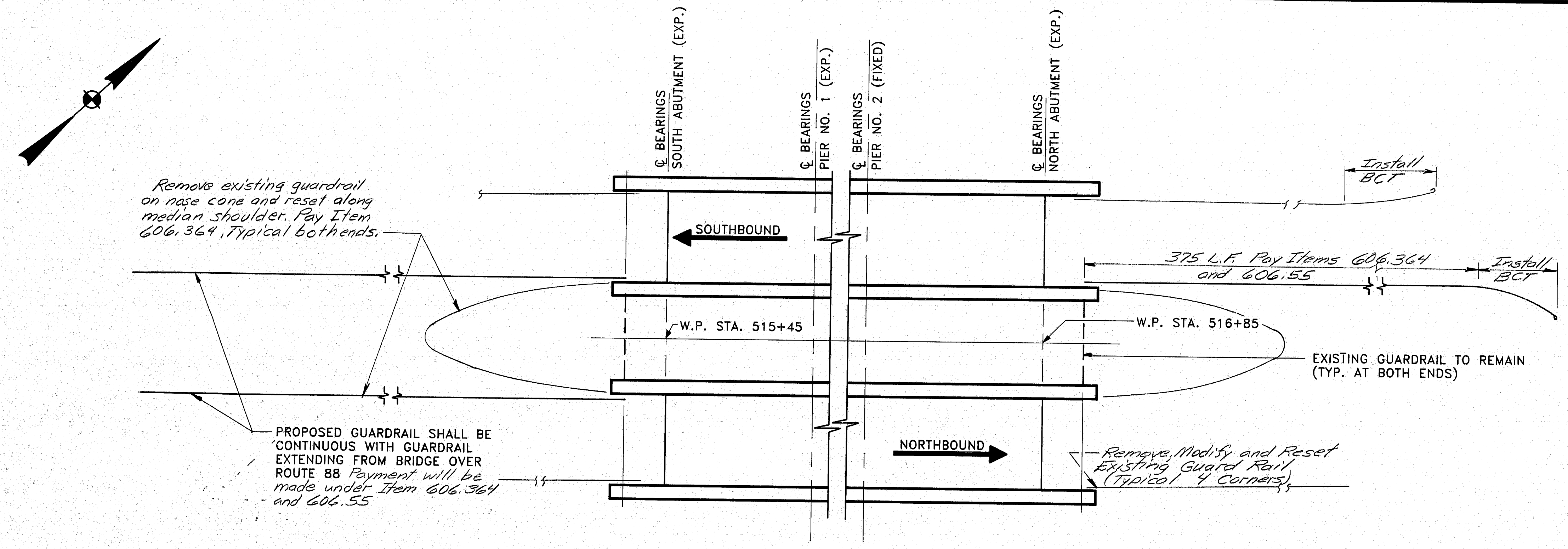
CUMBERLAND COUNTY

DETAILS AND ESTIMATE OF QUANTITIES

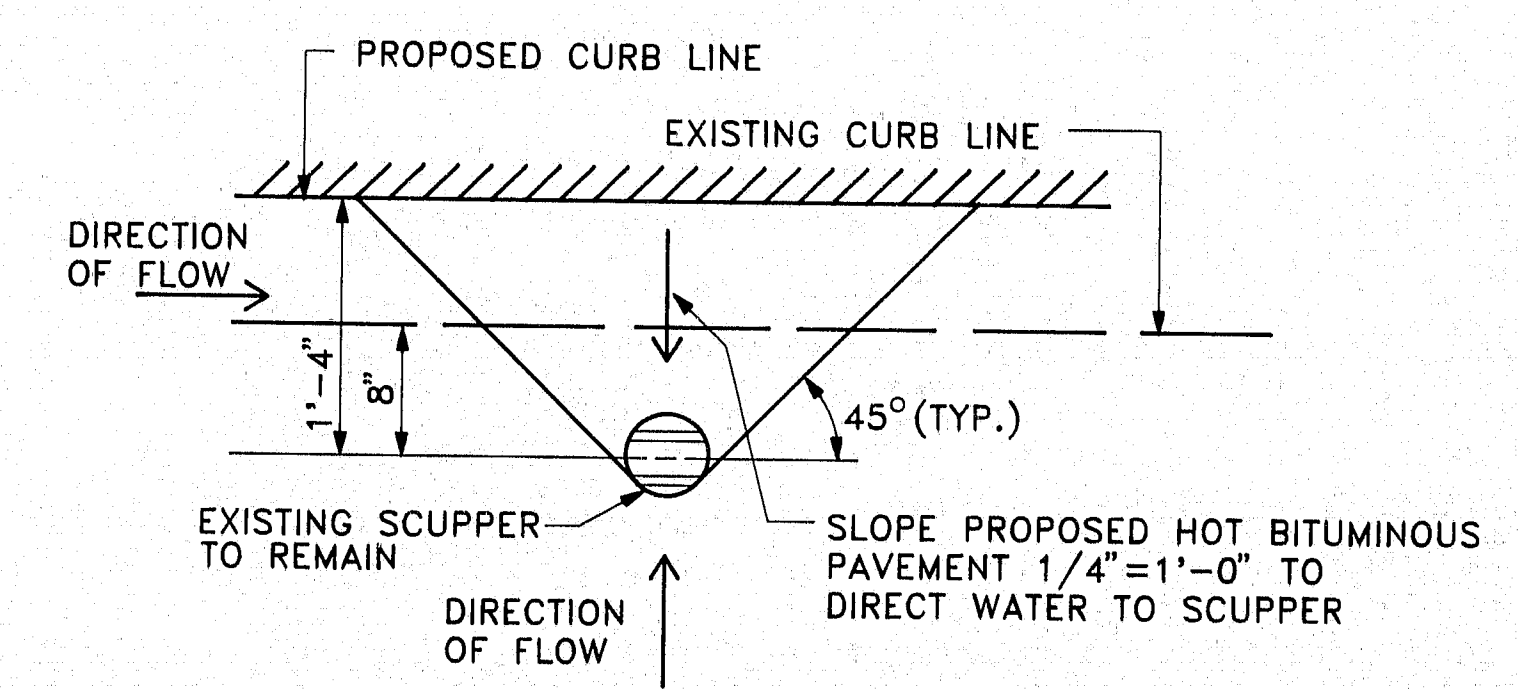
SHEET 2 OF 4

AUGUSTA MAINE

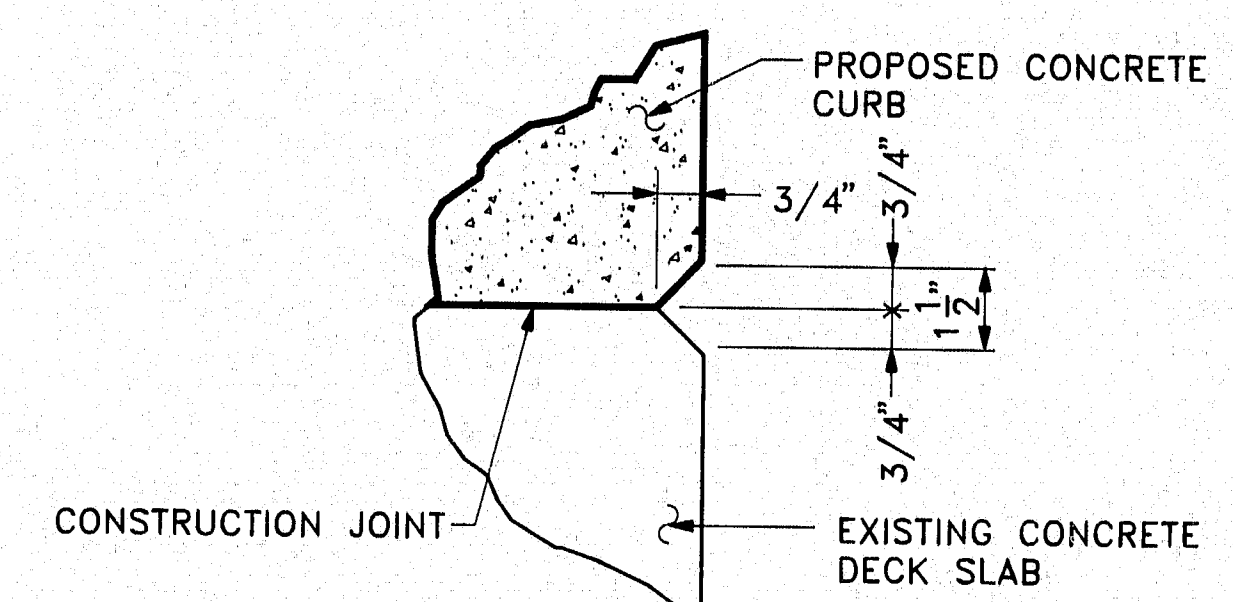
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-4(59)	9	25



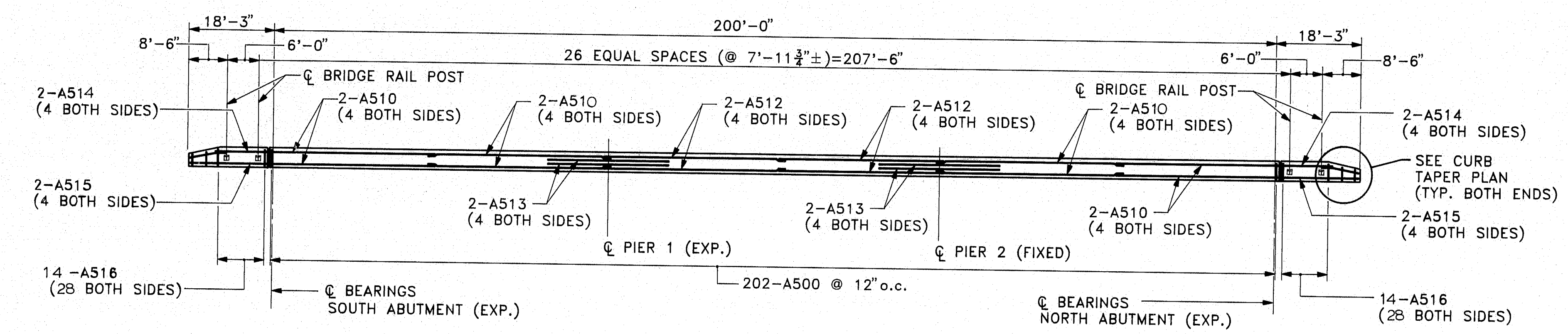
PROPOSED MEDIAN GUARDRAIL LAYOUT DETAIL



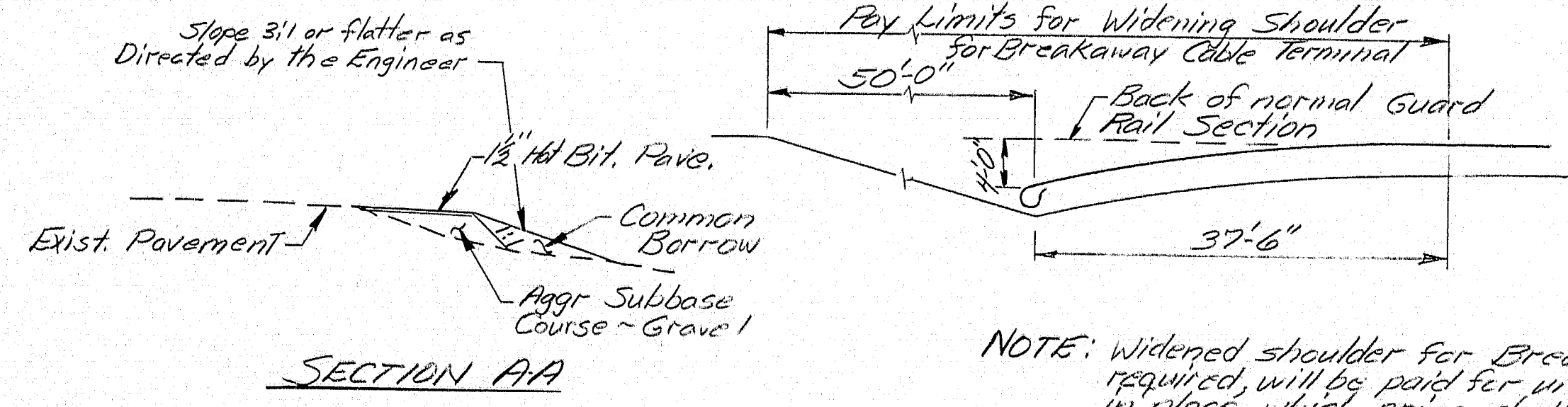
DRAINAGE MODIFICATION DETAIL



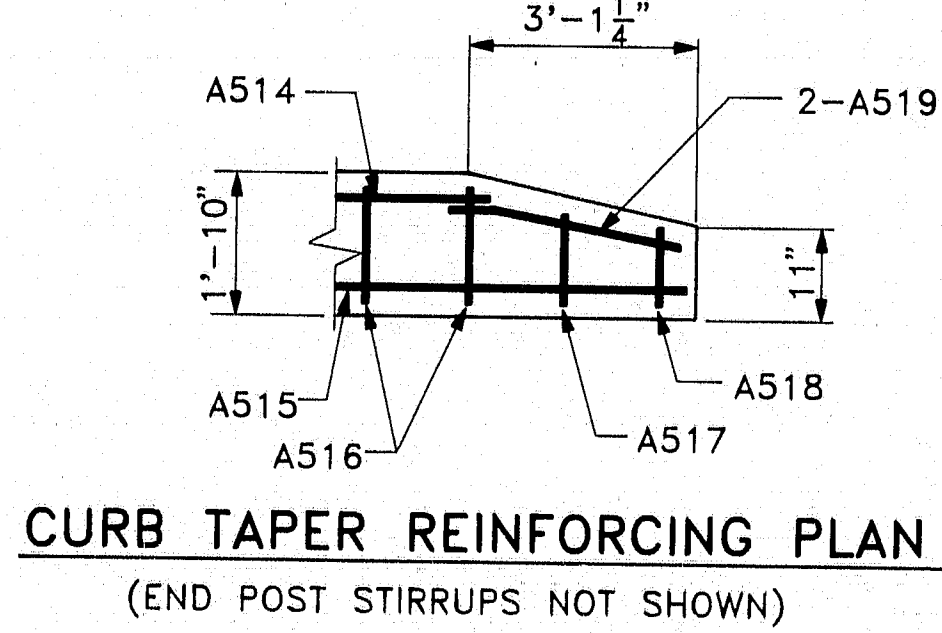
TYPICAL V-CUT DETAIL



PLAN:
CURB REINFORCEMENT AND BRIDGE RAIL POST LAYOUT



NOTE: Widened shoulder for Breakaway Cable Terminal, when required, will be paid for under Item 606.251 complete in place, which price shall be full payment for furnishing and placing, grading and compaction of Aggregate Subbase, Common Borrow, seed and mulch. The Hot Bituminous Pavement will be paid for under Item 402.10.



CURB TAPER REINFORCING PLAN
(END POST STIRRUPS NOT SHOWN)

PIN NO. 002832.00
BRIDGES NO. 5834 & 1508

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Kimball Chase ONE GATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95
over
ROYAL RIVER
YARMOUTH, MAINE
CUMBERLAND COUNTY
MISCELLANEOUS DETAILS

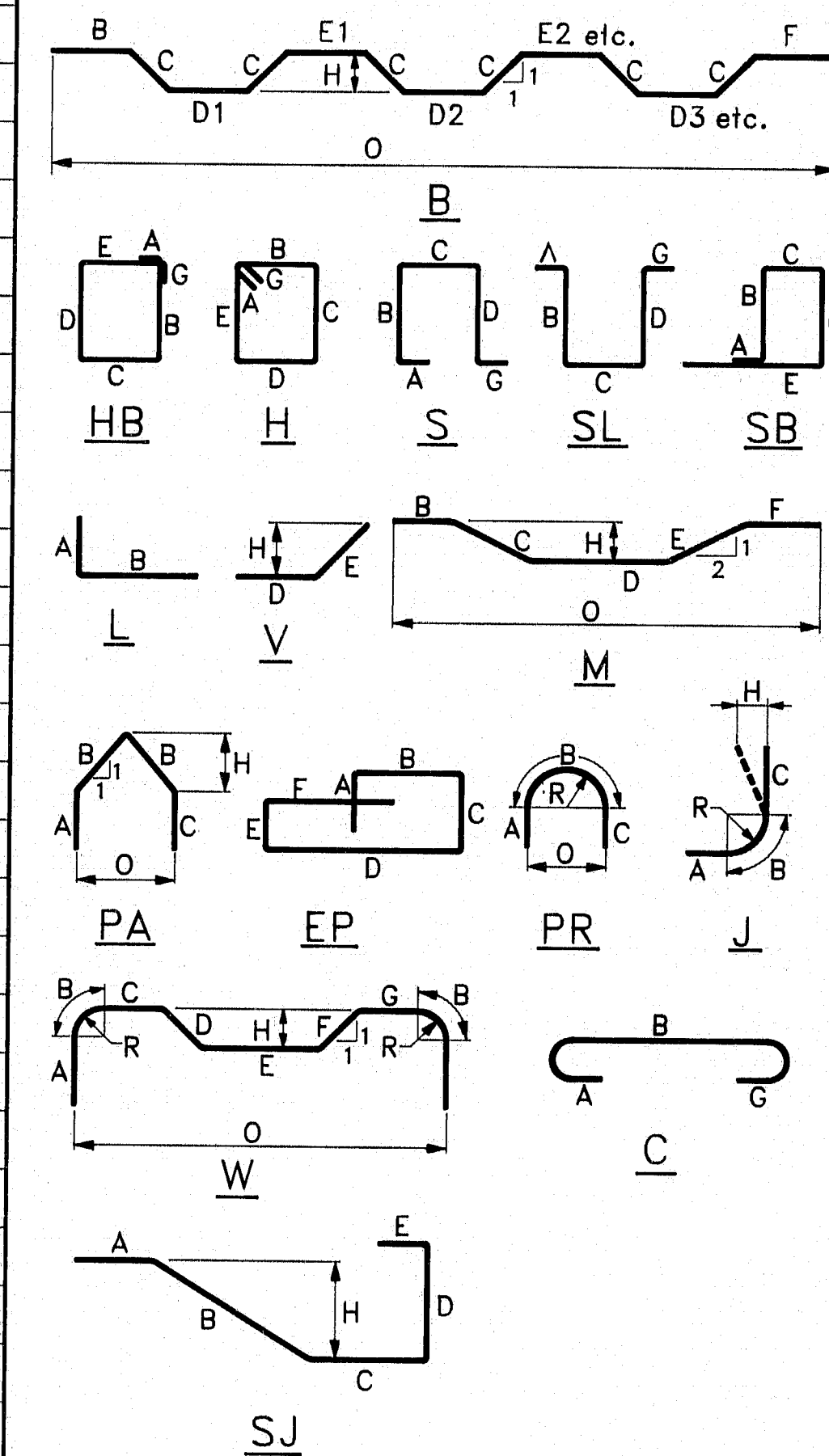
119-295

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - RETAINED	A. WHITE	8-13-90
CHECKED	S. MANALLY	7-2-90
REVISIONS		
FIELD CHANGES		

REINFORCING STEEL SCHEDULE

REINFORCING STEEL SCHEDULE																											
STRAIGHT BARS														BENT BARS													
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
SUPERSTRUCTURE														SUPERSTRUCTURE													
A510	32	31'-8"	HORIZ. CURB									A400	128	2'-5"	V				0'-9"	1'-0"			0'-8"			EXPANSION JOINT	
A512	16	41'-8"	HORIZ. CURB									A401	128	2'-7"	SB	0	0	0'-6"	0'-9"	1'-4"						EXPANSION JOINT	
A513	16	30'-0"	HORIZ. CURB																								
A514	16	13'-9"	HORIZ. RETURN WING									A500	808	3'-2 3/4"	S		1'-4 3/4"	1'-5"	0'-5"							VERTICAL CURB	
A515	16	16'-8"	HORIZ. RETURN WING									A516	112	6'-3"	H	0'-5 1/2"	1'-4"	1'-4"	1'-4"	1'-4"		0'-5 1/2"					RETURN WING
A600	24	31'-0"	JOINT MODIFICATION									A517	8	5'-5"	H	0'-5 1/2"	0'-11"	1'-4"	0'-11"	1'-4"		0'-5 1/2"					RETURN WING
A601	32	7'-3"	JOINT MODIFICATION									A518	8	4'-7"	H	0'-5 1/2"	0'-6"	1'-4"	0'-6"	1'-4"		0'-5 1/2"					RETURN WING
END POST														END POST													
EP400	48	2'-0"										EP401	32	4'-11"	S	0	2'-0"	0'-11"	2'-0"			0					
EP405	48	1'-10"										EP402	16	4'-6"	S	0	2'-0"	0'-6"	2'-0"			0					
												EP500	32	7'-10"	S	0	5'-6"	0'-7"	1'-9"			0					
												EP501	32	6'-8"	SJ	0	3'-1"	2'-7"	1'-0"	0				0'-8"			
												EP502	32	4'-7"	S	0	1'-10"	0'-11"	1'-10"			0					
												EP503	16	4'-2"	S	0	1'-10"	0'-6"	1'-10"			0					

TYPE-BENDING DIAGRAMS



ALL DIMENSIONS ARE OUT TO OUT OF REINF. BAR BENDING DETAILS AND HOOKS SHALL CONFORM TO THE RECOMMENDATIONS OF THE CURRENT REVISION OF ACI STANDARD 318.

REINFORCING BAR: ASTM A615 GRADE 60

GENERAL NOTES

- FIRST DIGIT(S) FOLLOWING THE LETTER OF THE MARK INDICATES SIZE OF REINF. BAR.
 MARK (A502) BAR SIZE-#5
 MARK (P1001) BAR SIZE-#10
 MARK (S603) BAR SIZE-#6
- EACH TRUSS BAR, TYPE B, MAY BE REPLACED BY TWO (2) STRAIGHT BARS (ONE TOP & ONE BOTTOM) OF THE SAME BAR SIZE AS THE TRUSS BAR. PAYMENT IN EITHER CASE SHALL BE BASED ON TRUSS BARS AS SCHEDULED ON PLANS.

PIN NO. 002832.00
BRIDGES NO. 5834 & 1508

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Kimball Chase
ONE CATE STREET
PORTSMOUTH, N.H. 03801
(603) 431-2520

I-95
over
ROYAL RIVER
YARMOUTH, MAINE
CUMBERLAND COUNTY
REINFORCING STEEL SCHEDULE

119-296

PROJECT DESIGN NUMBER	DATE
DESIGN: DETAILER: J. FELDERMAN	6-20-90
CHECKER: S. MORLEY	7-5-90
REVISIONS:	
FINAL NUMBER	

PLANS

IM-1677(400)E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



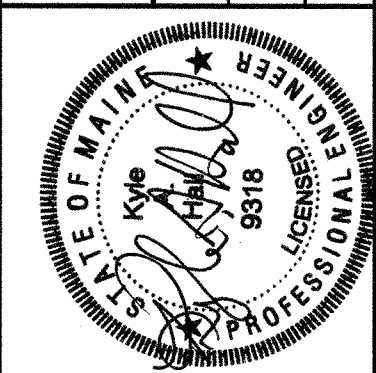
**FALMOUTH, CUMBERLAND,
YARMOUTH, & FREEPORT**
CUMBERLAND COUNTY
I-295 NORTHBOUND
IM-1677(400)E
PROJECT LENGTH : 12.037 MILES
HIGHWAY PRESERVATION

TRAFFIC DATA

Current (2009) AADT 23150
Design Speed (mph) 65
Functional Class: PRINCIPAL ARTERIAL INTERSTATE

SEC 1	SEC 2	SEC 3	SEC 4	SEC 5
EXIT 9 US 1 FALMOUTH TO EXIT 10	EXIT 10 FALMOUTH TO EXIT 11	EXIT 11 FALMOUTH SPUR TO EXIT 16	EXIT 16 US 1 YARMOUTH TO EXIT 17	EXIT 17 US 1 YARMOUTH TO EXIT 20
23150	21930	25350	21510	23330

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	<i>[Signature]</i>	2/25/10
CHIEF ENGINEER: <i>[Signature]</i>		2/25/10



<i>[Signature]</i>	SIGNATURE
9318	P.E. NUMBER
2/24/10	DATE

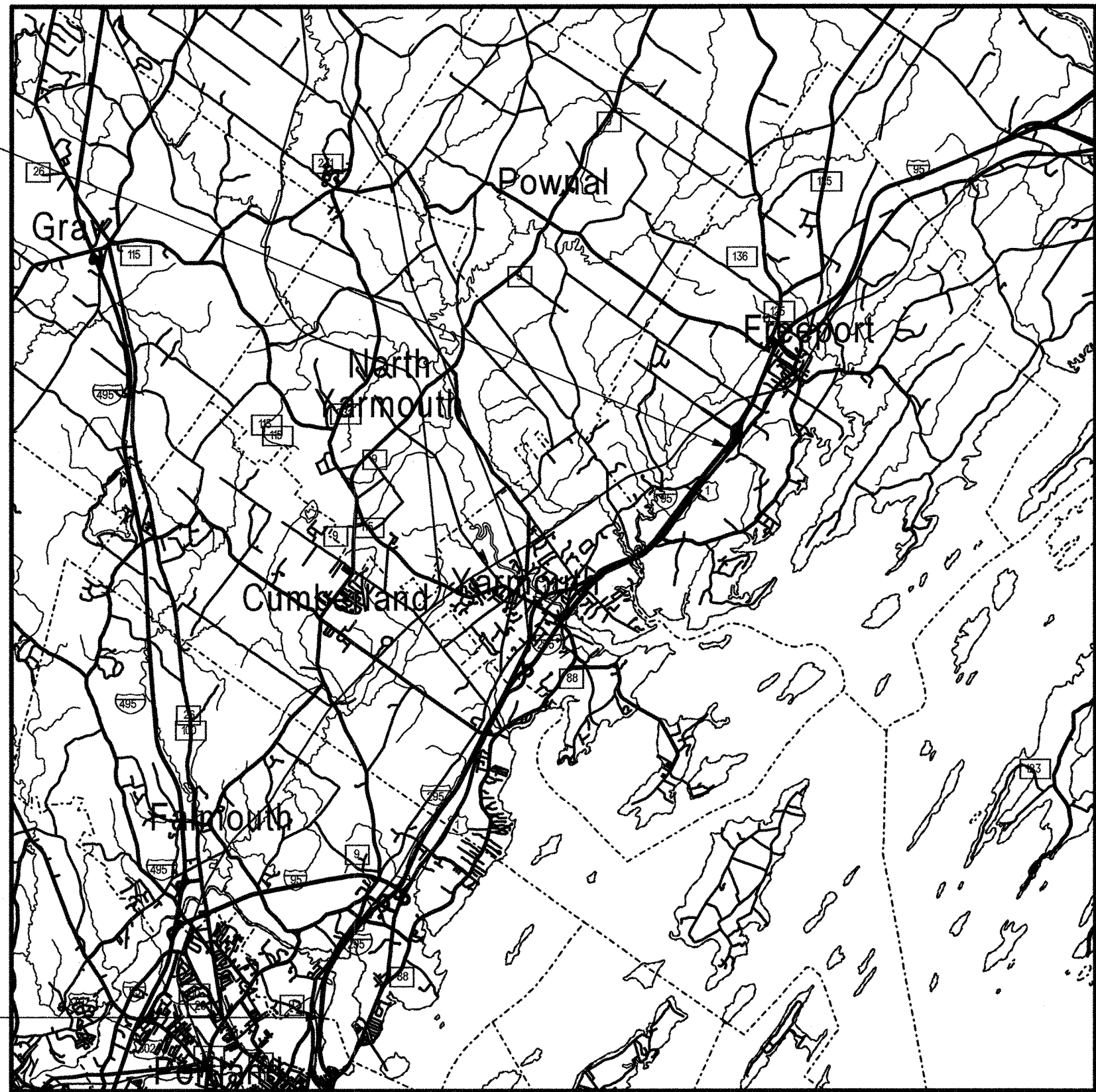
PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
		ROBERT HOUGH					

FALMOUTH, CUMBERLAND, YARMOUTH, & FREEPORT I-295 NORTHBOUND	TITLE SHEET
---	-------------

SHEET NUMBER	1
OF 1	

PROGRAM AREA: HIGHWAY RESURFACING INTERSTATE
SCOPE OF WORK: PAVEMENT MILLING, HMA OVERLAY,
BRIDGE WORK, DRAINAGE AND
SAFETY IMPROVEMENTS

END PROJECT STATION 660+00 RLM 20.50

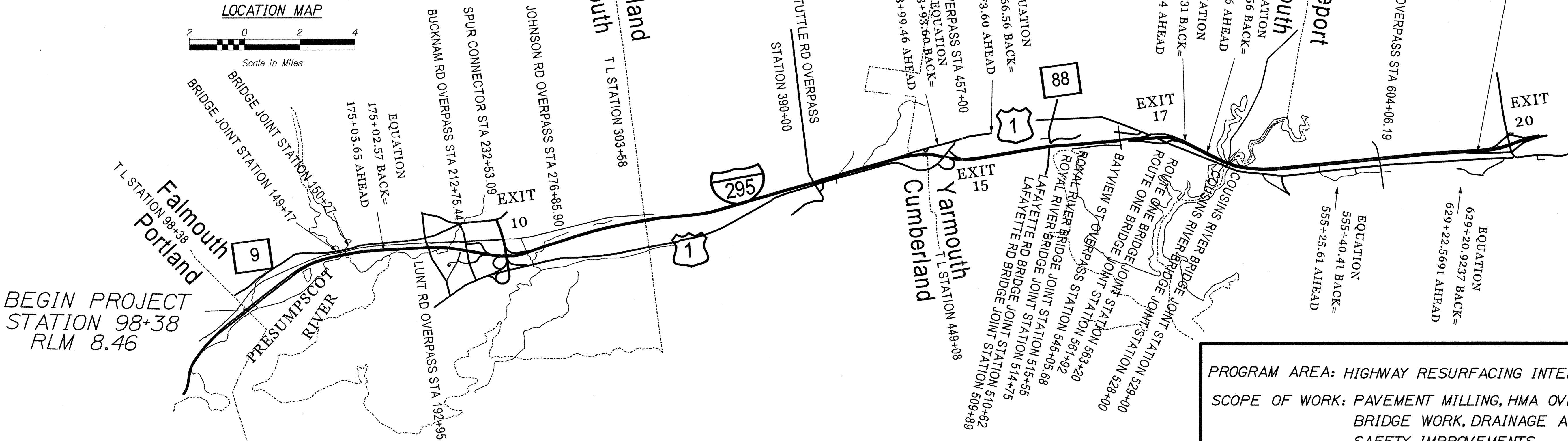


BEGIN PROJECT STATION 98+38 RLM 8.46

LOCATION MAP



Scale in Miles



BEGIN PROJECT
STATION 98+38
RLM 8.46

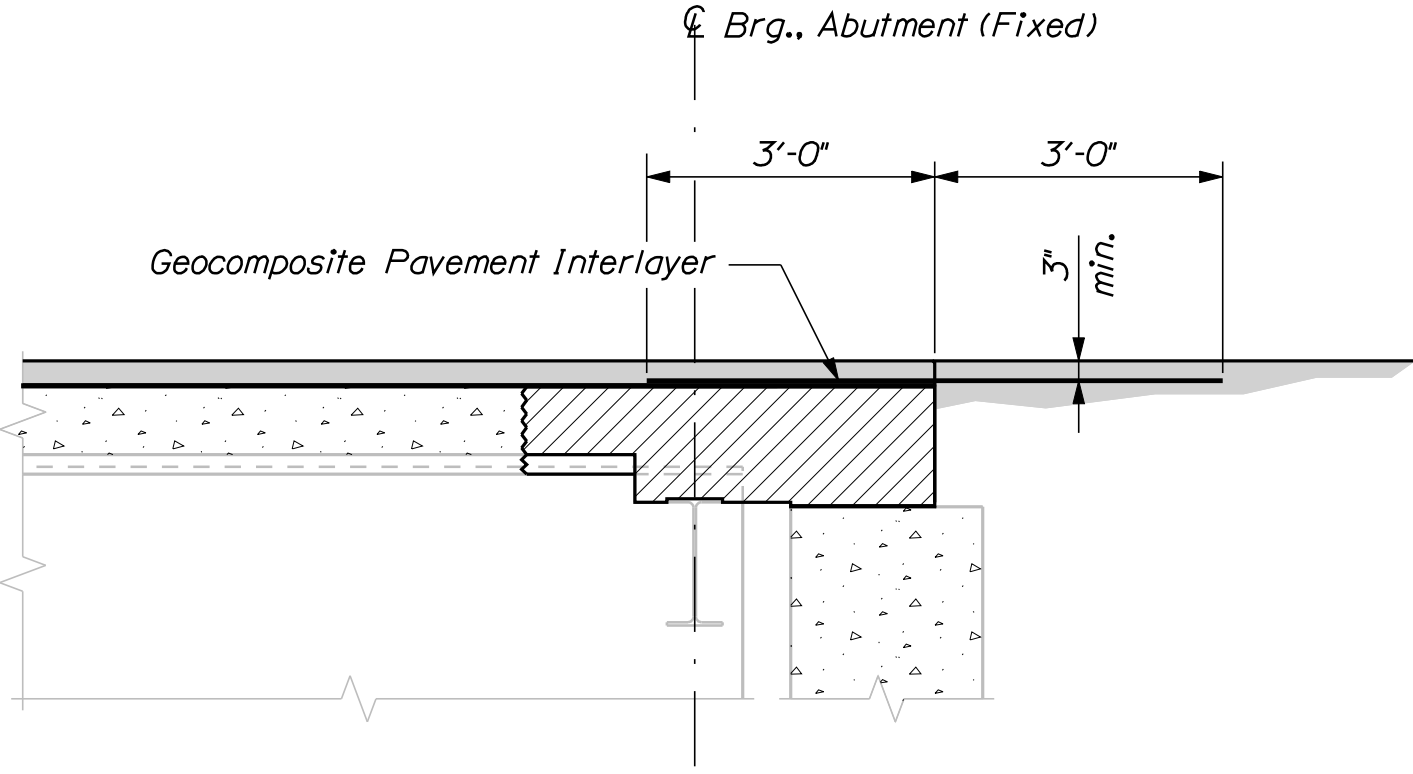
END PROJECT
STATION 660+00
RLM 20.50

PIN 16774.00

IM-1677(400)E

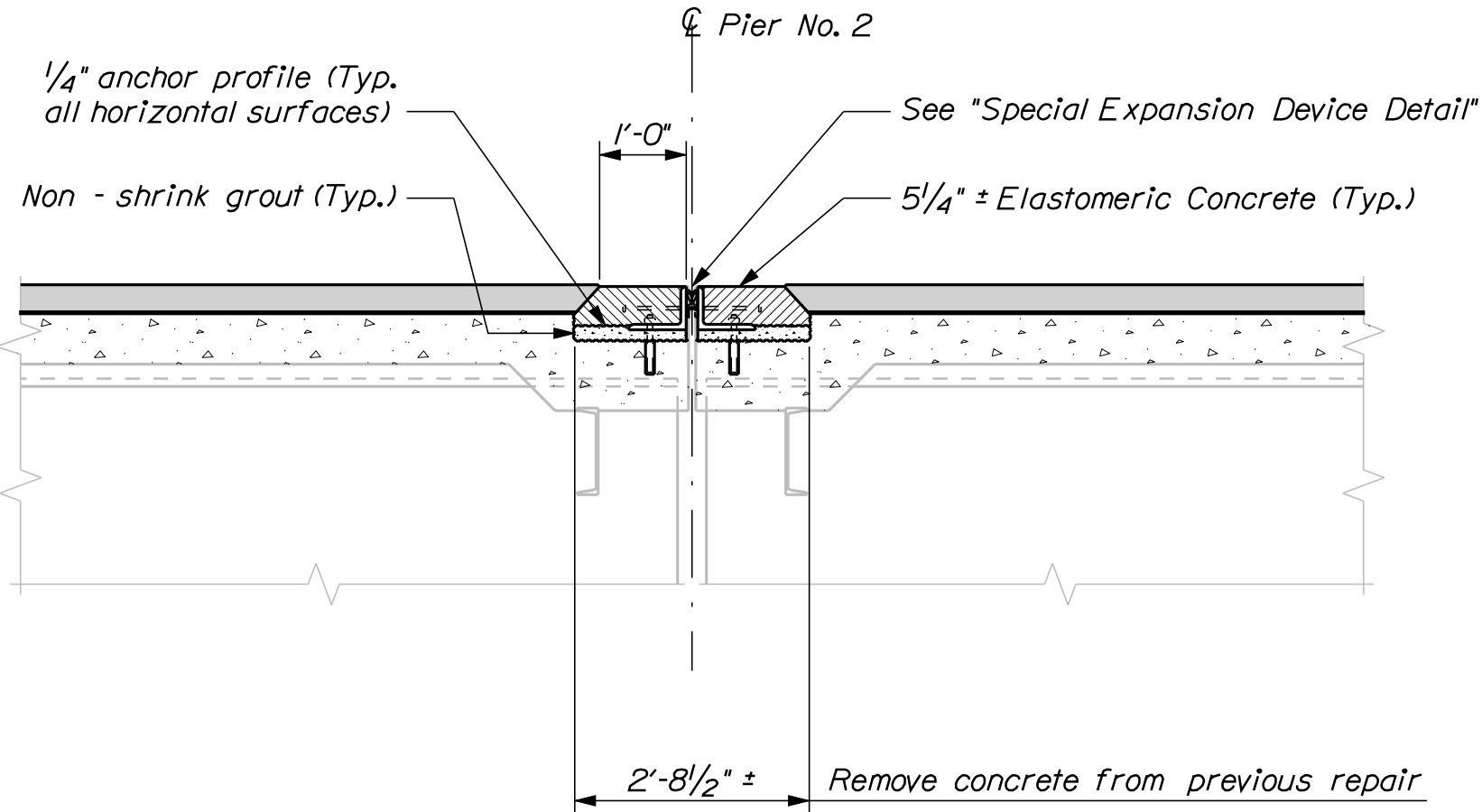
ESTIMATED BRIDGE QUANTITIES								
ITEM NO.	DESCRIPTION	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	UNIT
		Presumpscot River Bridge No. 5828	Route 88 Bridge No. 5832	Royal River Bridge No. 5834	U.S. Route 1 Bridge No. 5833	Cousins River Bridge No. 1137	Total	
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	--	--	--	--	--	1	LS
518.50	REPAIR OF UPWARD FACING SURFACE TO RESTEEL	25	25	25	25	25	125	SF
518.51	REPAIR OF UPWARD FACING SURFACE TO BELOW RESTEEL	10	10	10	10	10	50	SF
518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN.	10	10	10	10	10	50	SF
518.61	REPAIR OF VERTICAL SURFACES > 7.9 IN.	3	3	3	3	3	15	CY
520.24	BRIDGE JOINT MODIFICATION	--	1	--	--	--	1	EA
520.241	BRIDGE JOINT MODIFICATION TYPE 1	1	1	1	2	1	6	EA
520.242	BRIDGE JOINT MODIFICATION TYPE 2	1	--	--	--	--	1	EA
520.243	BRIDGE JOINT MODIFICATION TYPE 3	--	--	1	--	--	1	EA
520.26	LONGITUDINAL BRIDGE JOINT MODIFICATION	5	2	2	2	2	13	LF
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	4	4	4	4	20	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	4	4	4	4	20	EA

Note: Estimated Quantities for each bridge are provided here for reference purposes only.



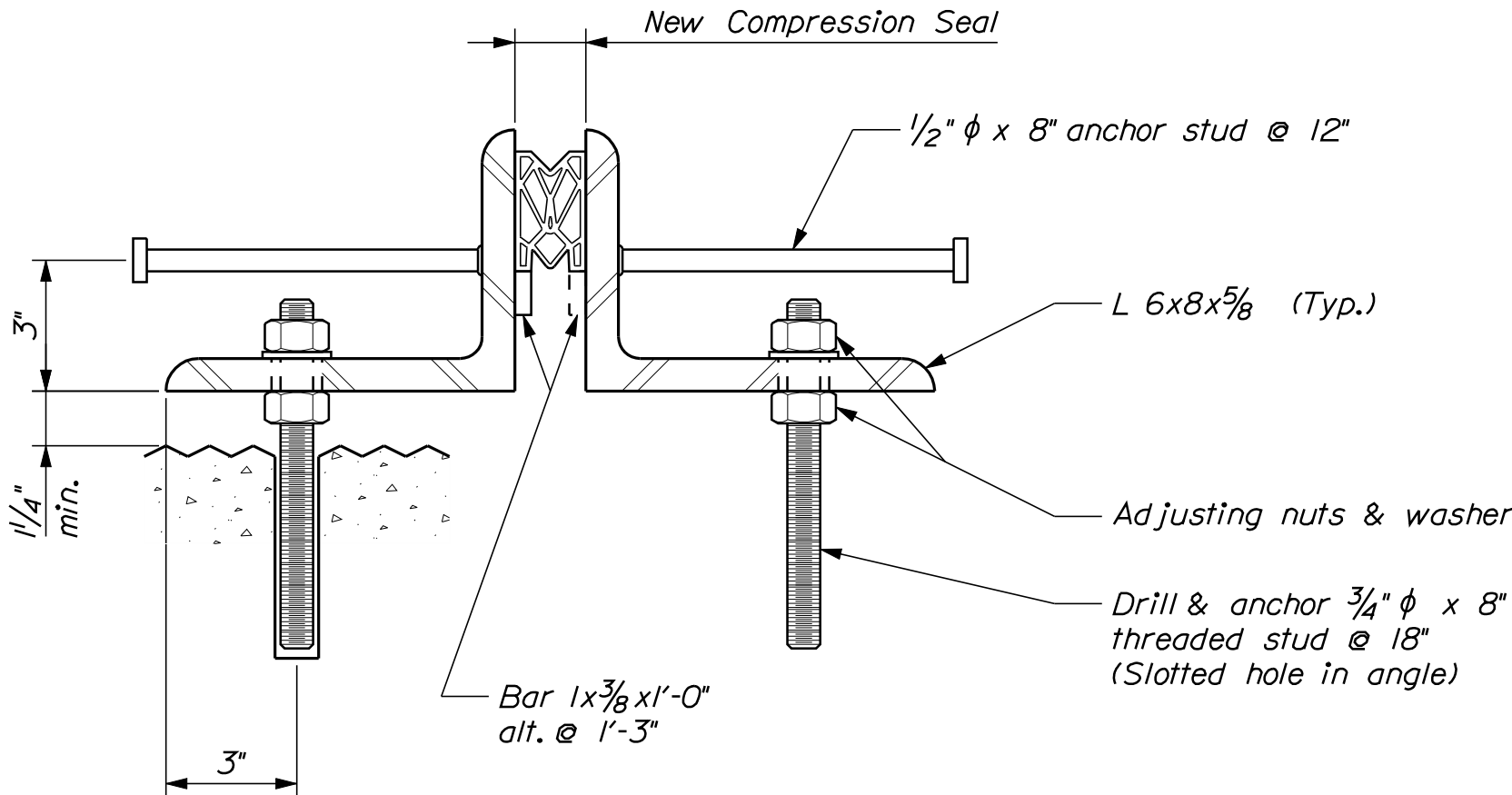
COMPOSITE PAVEMENT INTERLAYER

Typical at all existing or reconstructed slab - over - backwall locations



BRIDGE JOINT MODIFICATION

For use at I-295 N.B. over Route 88, Pier No. 2



SPECIAL EXPANSION DEVICE DETAIL

INDEX OF BRIDGE DRAWINGS

Estimated Bridge Quantities & General Construction Notes	1
I-295 N.B. over Presumpscot River (5828) and Route 88 (5832)	2
I-295 N.B. over Royal River (5834) and U.S. Route 1 (5833)	3
I-295 N.B. over Cousins River (1137)	4
Typical Transition Barriers	5
Cousins River Transition Barriers	6
Typical Details	7

MATERIALS

Concrete (Unless noted otherwise)	Class "A"
Concrete (Curbs & Transition Barriers)	Class "LP"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel: All Material	ASTM A 36/A 36M

BASIC DESIGN STRESSES

Concrete	f'c = 4,350 psi
Reinforcing Steel	fy = 60,000 psi

MAINTENANCE OF TRAFFIC

The Contractor shall coordinate all maintenance of traffic with the Highway Contractor.

GENERAL CONSTRUCTION NOTES

- Bidders and Contractors may obtain a copy of the existing bridge plans by faxing a Request for Information to the Bid Contact Person. 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.
- All dimensions based on or relating to the existing bridges shall be verified in the field by the Contractor, i.e., existing joint opening, joint length and backwall width.
- Payment for removing concrete end posts will be considered incidental to related Contract items.
- Reinforcing Steel Schedules will be the responsibility of the Contractor. Refer to Subsection 503.03 of the Standard Specifications for more information. Payment for all work associated with developing reinforcing steel schedules will be considered incidental to related Contract items.
- Granite curb salvaged from the project site will be substituted for Terminal Curb Type 2 where available. Payment for reuse of granite curb or for Terminal Curb Type 2 will be considered incidental to Item No. 526.34, Concrete Transition Barrier.
- Protective Coating for Concrete Surfaces shall be applied to the following areas of new concrete:
 - All exposed surfaces of concrete curbs,
 - Fascias down to the drip notch,
 - All exposed surfaces of Concrete Transition Barriers,
 - 12 inches below the top of backwalls on the back side.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
IM-1677(400)E
PIN 16774.00
As Noted
BRIDGE PLANS

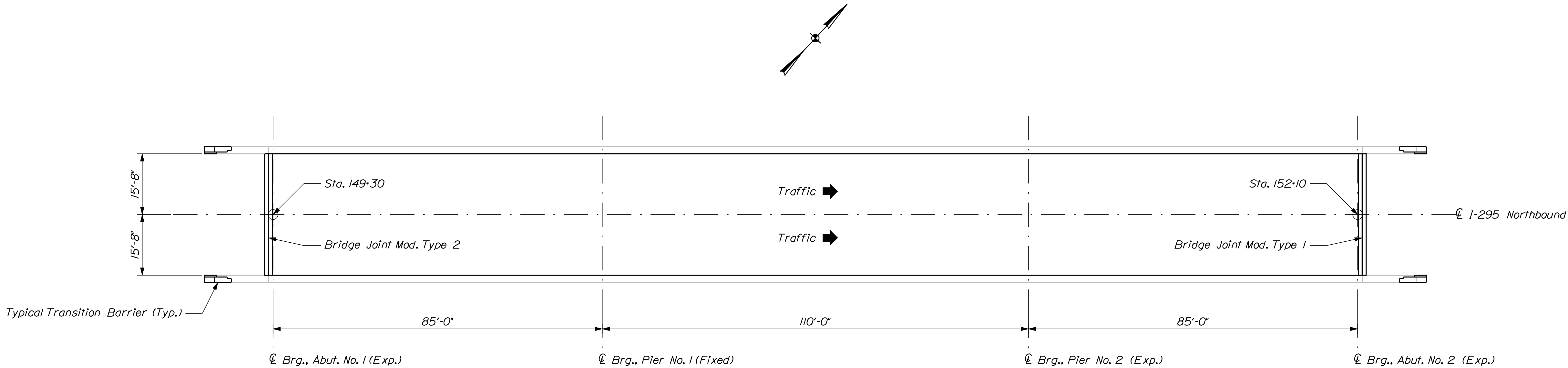
STATE OF MAINE
Jeffrey S. Folsom
PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE

DATE
BY
D. Damren
R. Blunt
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

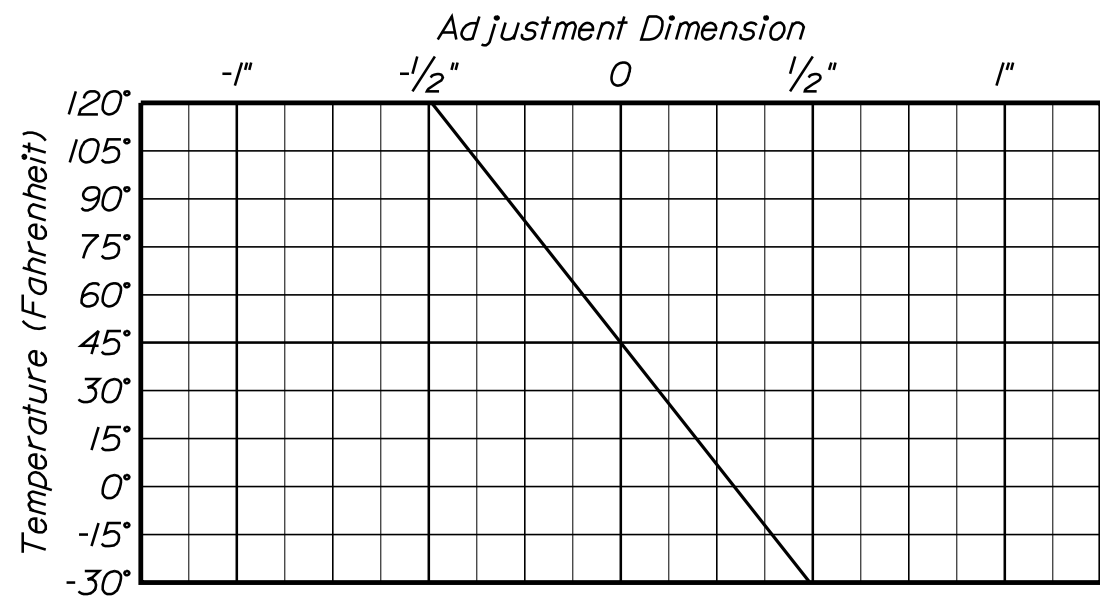
INTERSTATE 295 NORTHBOUND
BRIDGE WEARING SURFACE REHABILITATION
FALMOUTH TO FREEPORT
ESTIMATED BRIDGE QUANTITIES
& GENERAL CONSTRUCTION NOTES

SHEET NUMBER
1
OF 7

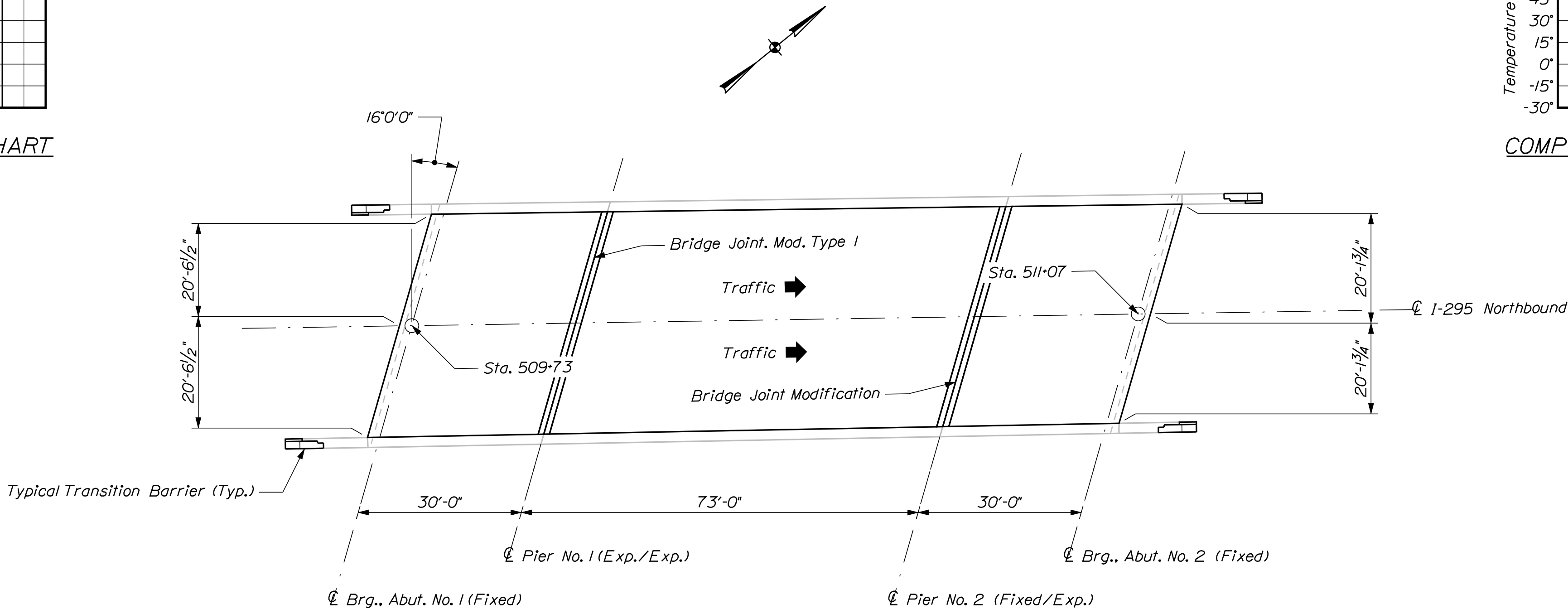


INTERSTATE 295 NORTHBOUND OVER PRESUMPCOT RIVER
Falmouth ~ Bridge No. 5828

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement

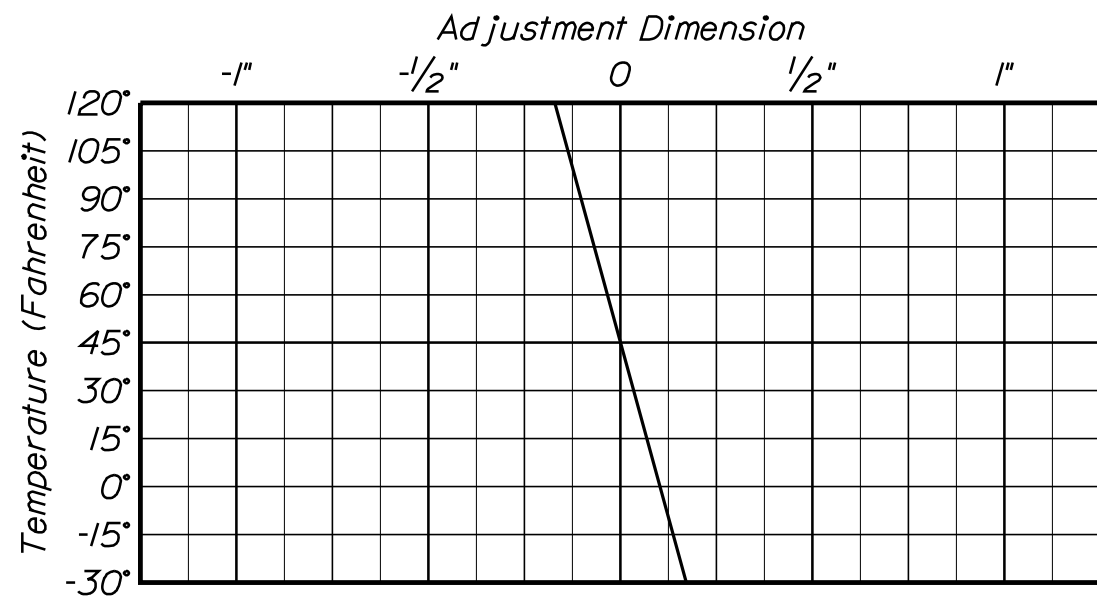


COMPRESSION SEAL ADJUSTMENT CHART
I-295 N.B. over Presumpscot River ~ Pier No. 2

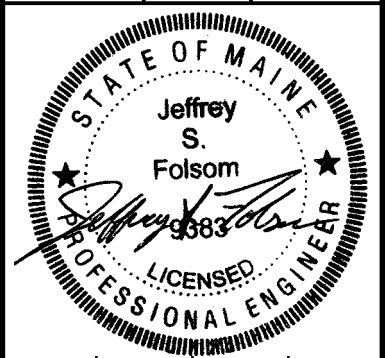


INTERSTATE 295 NORTHBOUND OVER ROUTE 88
Yarmouth ~ Bridge No. 5832

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement



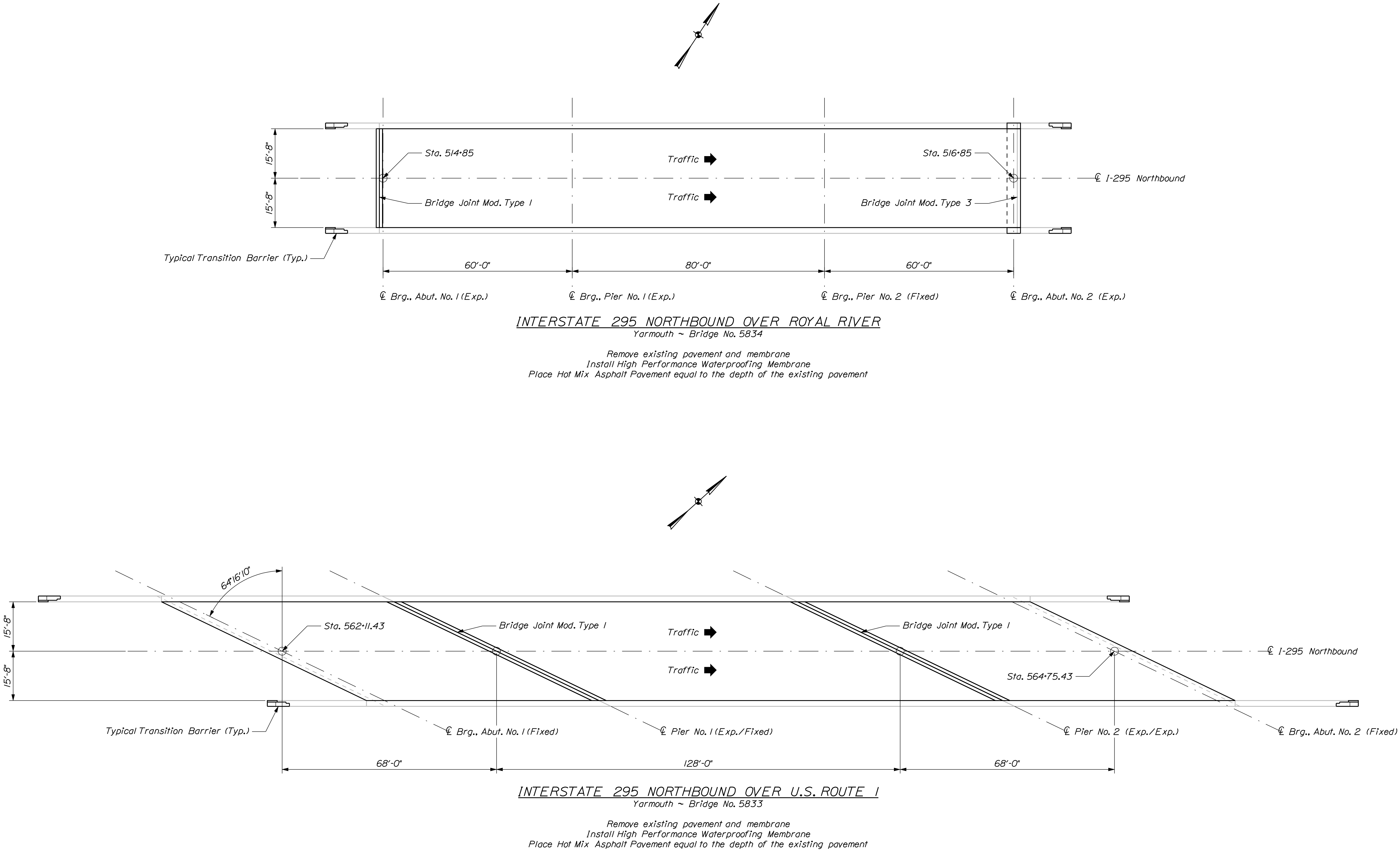
COMPRESSION SEAL ADJUSTMENT CHART
I-295 N.B. over Route 88 ~ Pier No. 2



SIGNATURE	P.E. NUMBER	DATE

DATE	BY	PROJ. MANAGER	CHECKED	DESIGNED	REVISIONS	FIELD CHANGES
	D. Damren	R. Blunt			1	
					2	
					3	
					4	

INTERSTATE 295 NORTHBOUND FALMOUTH TO FREEPORT CUMBERLAND COUNTY	BRIDGE PLANS
--	--------------



STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

IM-1677(400)E

BRIDGE NO. 5834 & 5833

PIN 16774.00

BRIDGE PLANS

STATE OF MAINE

Jeffrey S. Folsom

1988

PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER

CHECKED-REVIEWED

DESIGN-DETAILED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

BY

DATE

INTERSTATE 295 NORTHBOUND

FALMOUTH TO FREEPORT

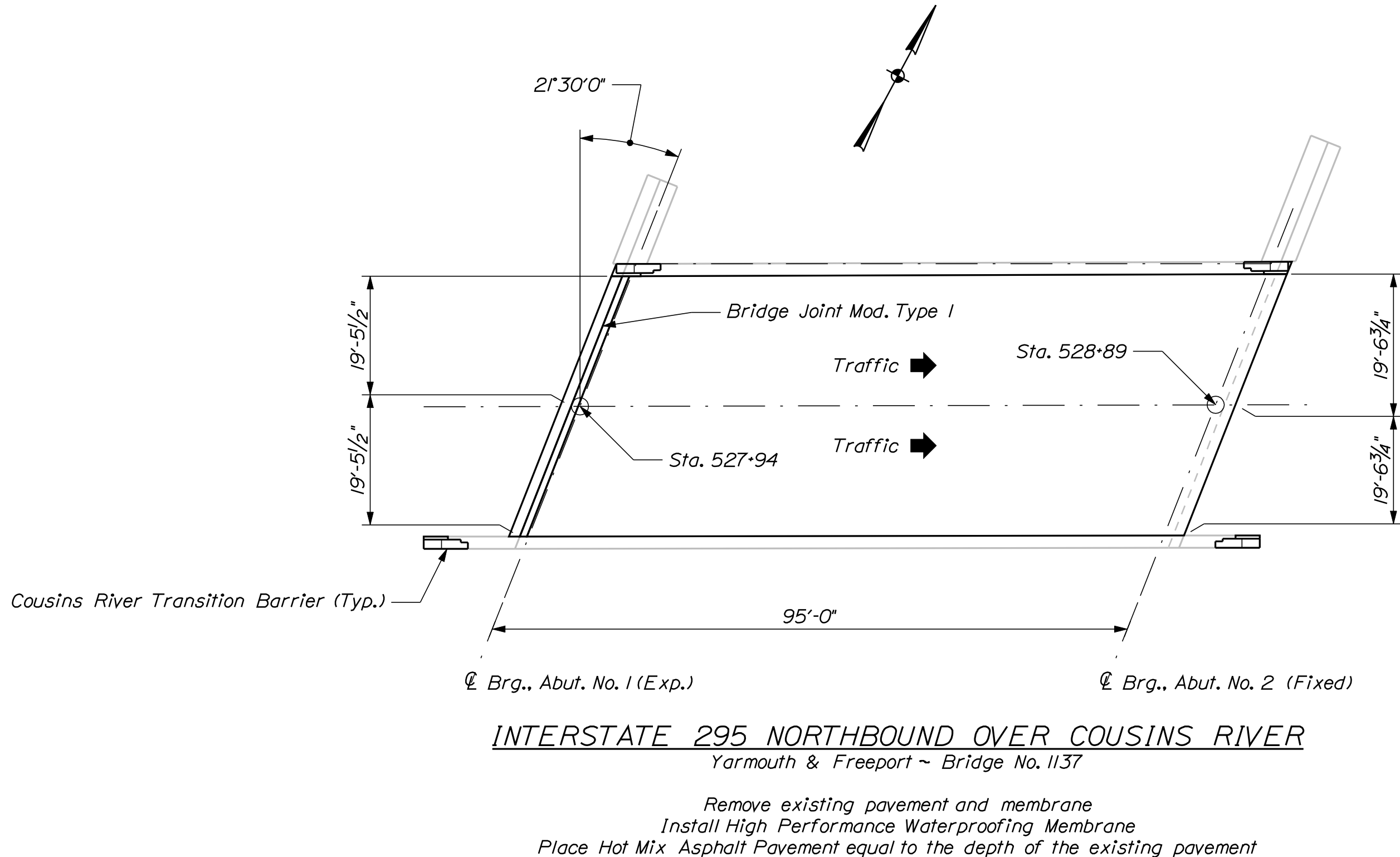
CUMBERLAND COUNTY

BRIDGE PLANS

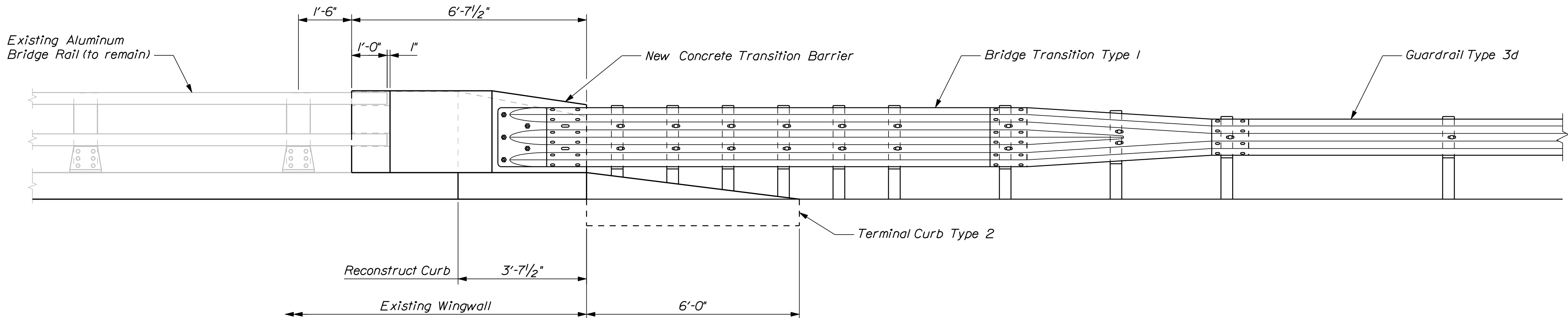
SHEET NUMBER

3

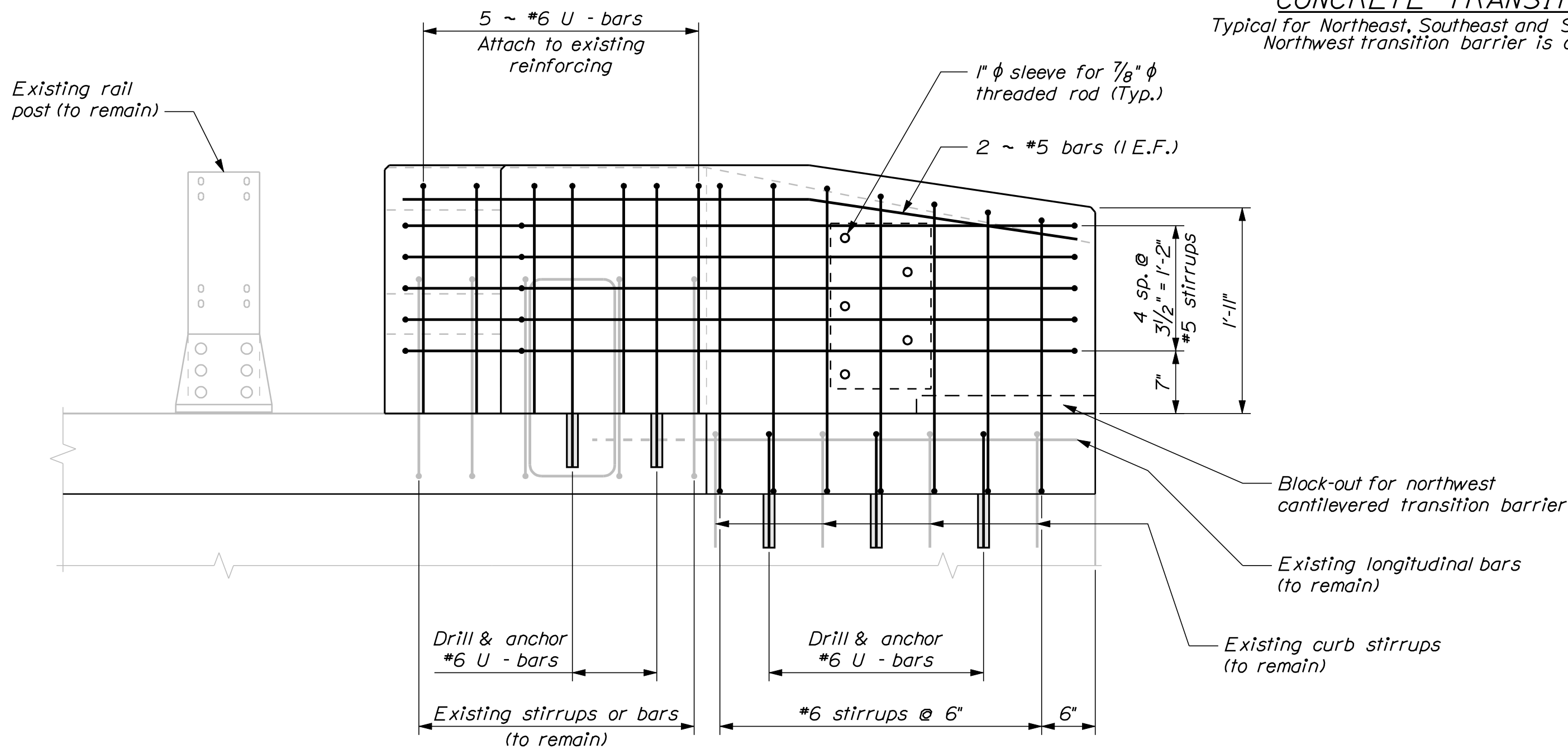
OF 7



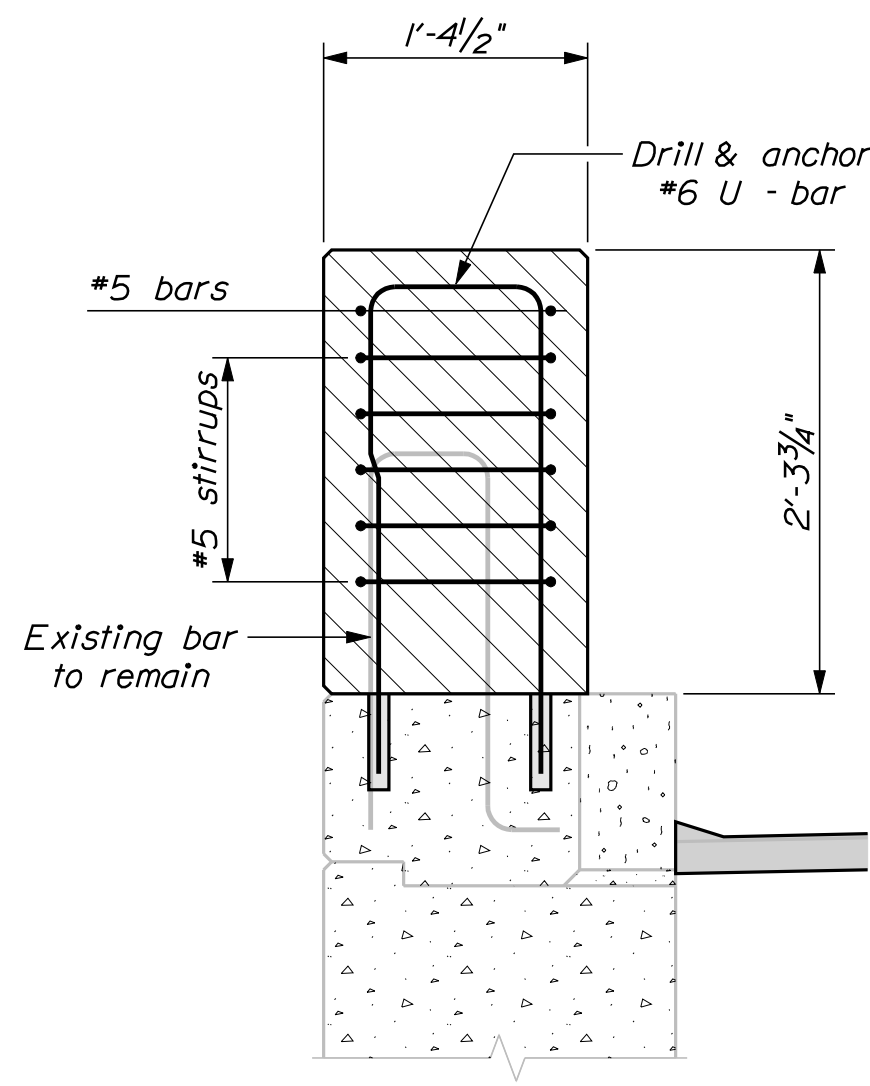
INTERSTATE 295 NORTHBOUND FALMOUTH TO FREEPORT CUMBERLAND COUNTY		PROJECT MANAGER R. Blunt D. Dornen		DATE 10/10/2018		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
BRIDGE PLANS		DESIGN-DETAILED CHECKED-REVIEWED DESIGN2-DETAILED2 DESIGN3-DETAILED3		SIGNATURE P.E. NUMBER		IM-1677(400)E	
REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		DATE 10/10/2018 10/10/2018 10/10/2018 10/10/2018		DATE 10/10/2018 10/10/2018 10/10/2018 10/10/2018		BRIDGE NO. 1137 PIN 16774.00 BRIDGE PLANS	



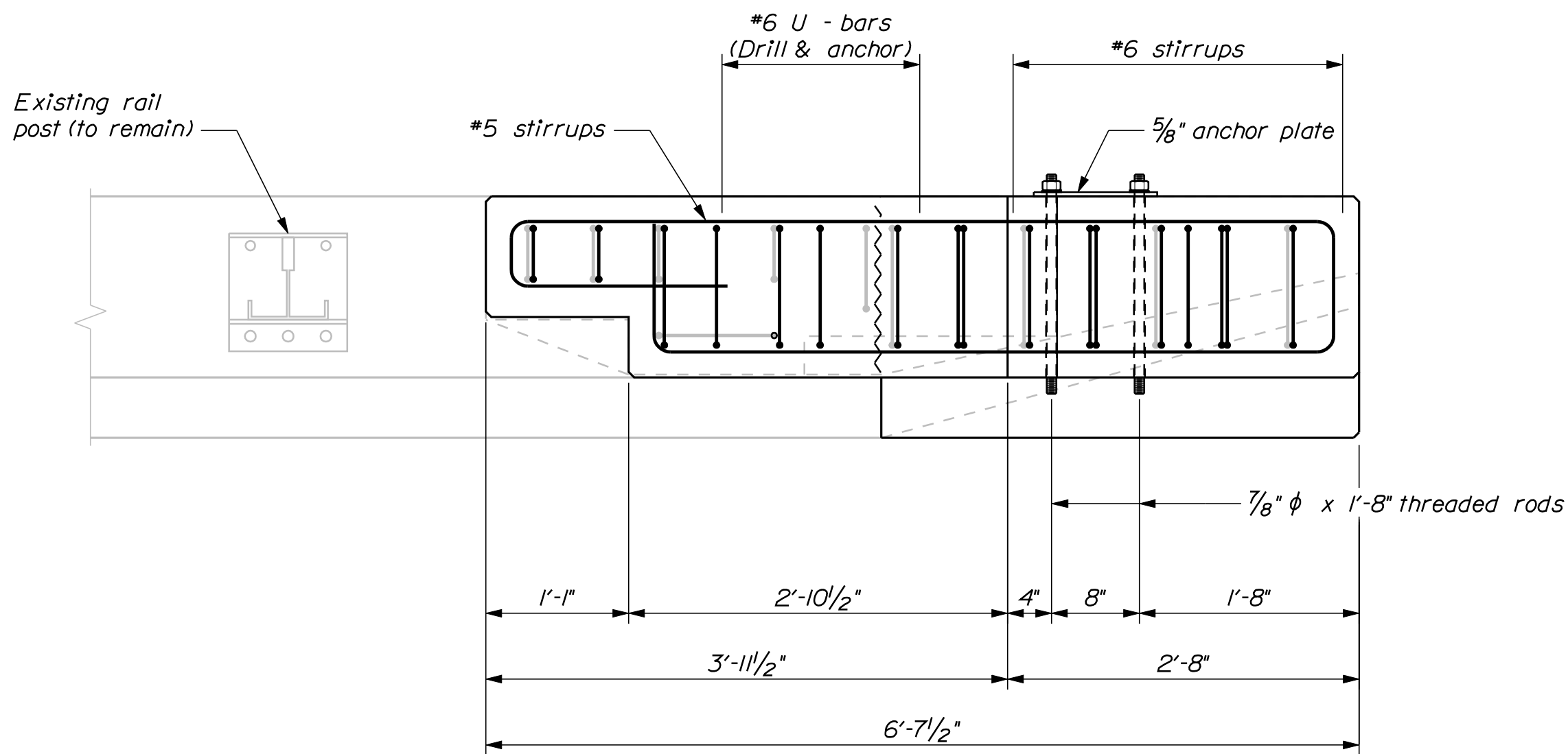
CONCRETE TRANSITION BARRIER
 Typical for Northeast, Southeast and Southwest transition barriers
 Northwest transition barrier is cantilevered but similar



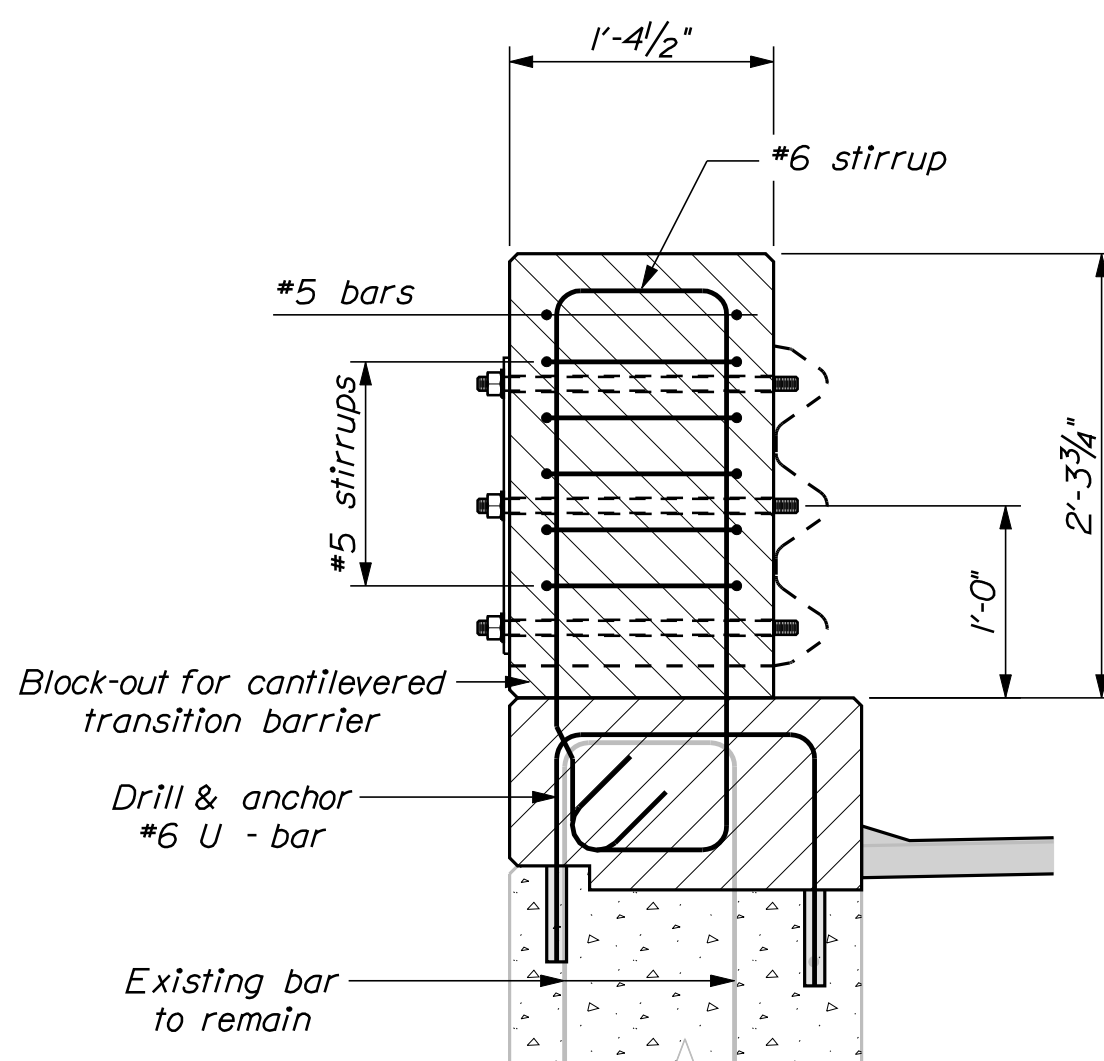
TRANSITION BARRIER ELEVATION
 Southwest concrete transition barrier shown
 other transition barrier reinforcement similar



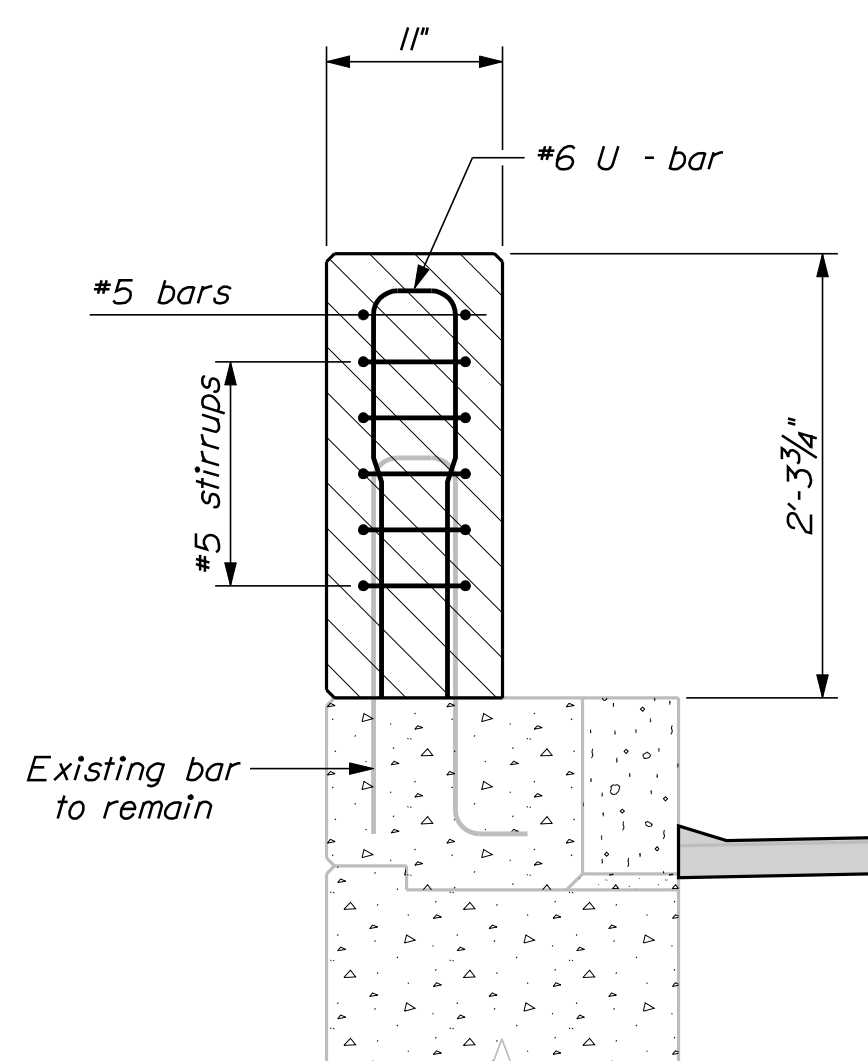
SECTION THROUGH STEM



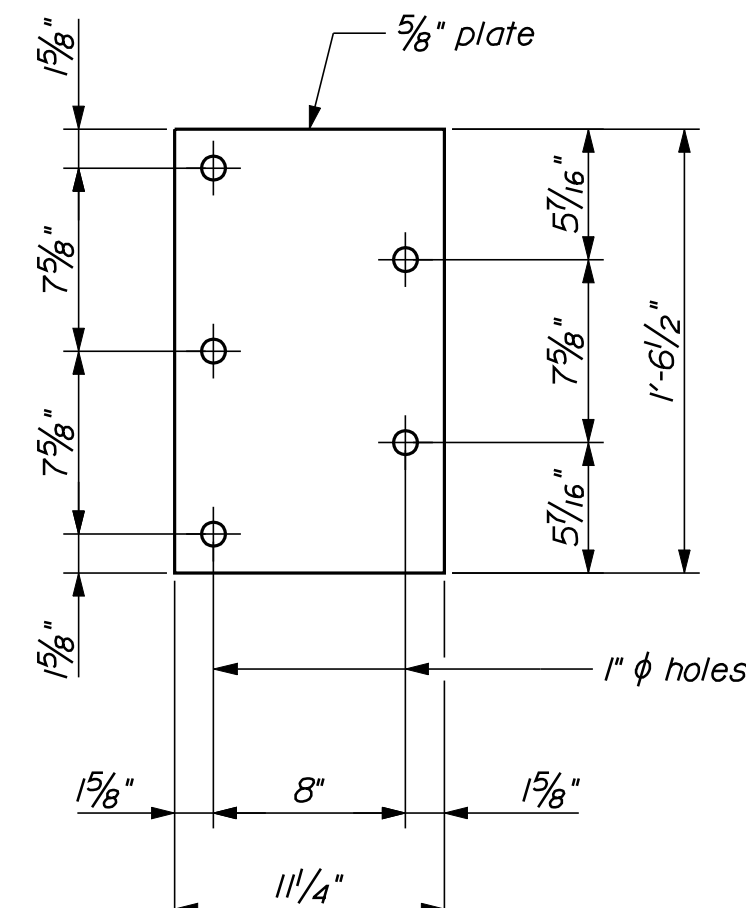
TRANSITION BARRIER PLAN
 Southwest concrete transition barrier shown
 other transition barrier reinforcement similar



SECTION THROUGH NOSE



SECTION THROUGH RECESS



ANCHOR PLATE

CONCRETE TRANSITION BARRIER NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and adjust dowel and bridge rail post anchor stud locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.

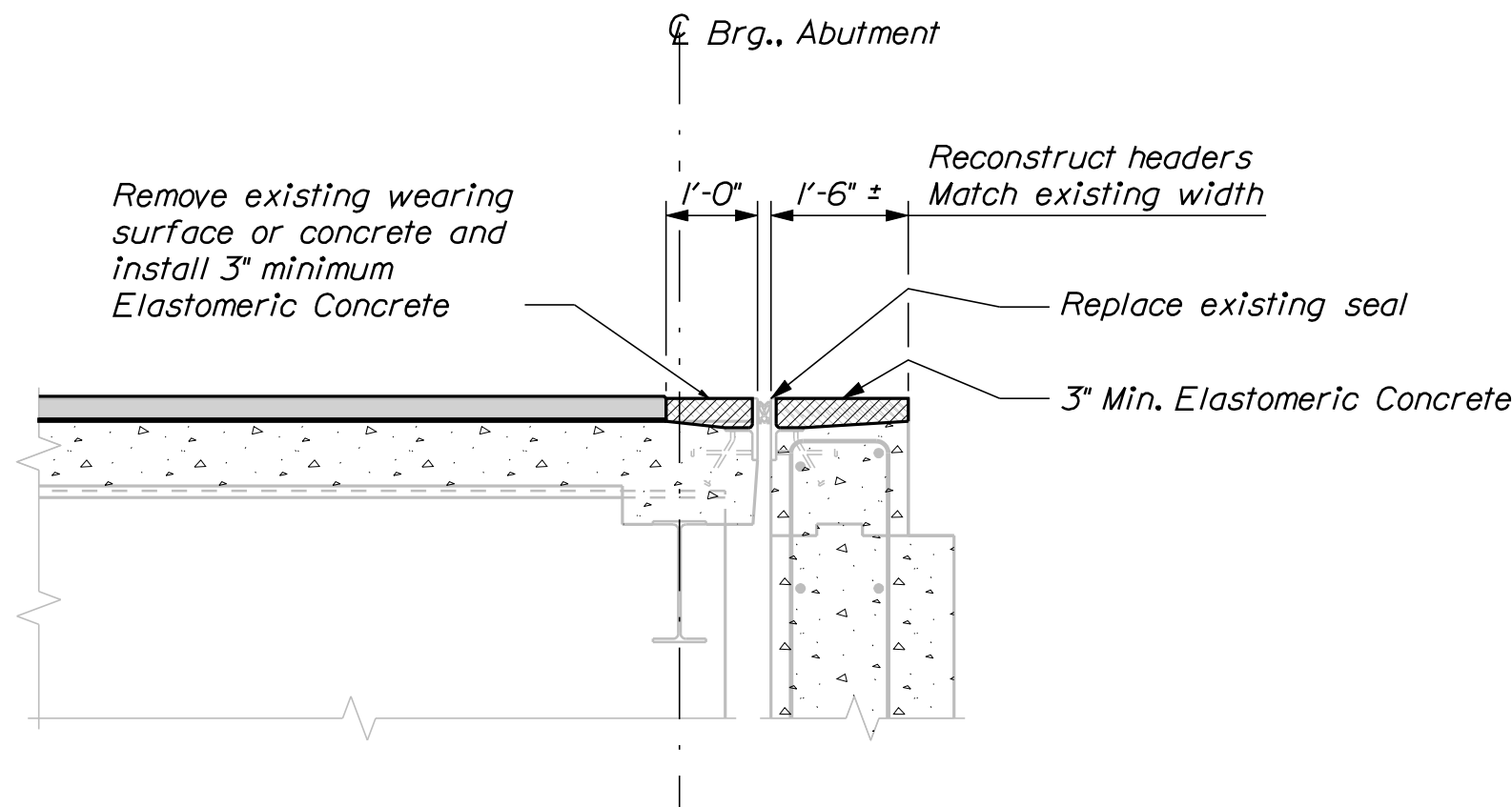
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		IM-1677(400)E		BRIDGE NO. As Noted PIN 16774.00 BRIDGE PLANS	
INTERSTATE 295 NORTHBOUND FALMOUTH TO FREEPORT CUMBERLAND COUNTY		COUSINS RIVER TRANS. BARRIERS		SHEET NUMBER 6 OF 7	
		SIGNATURE P.E. NUMBER DATE		PROJ. MGR. CHECKED-REVIEWED DESIGNED-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	
BY D. Damren		DATE		FIELD CHANGES	

Date:2/24/2010

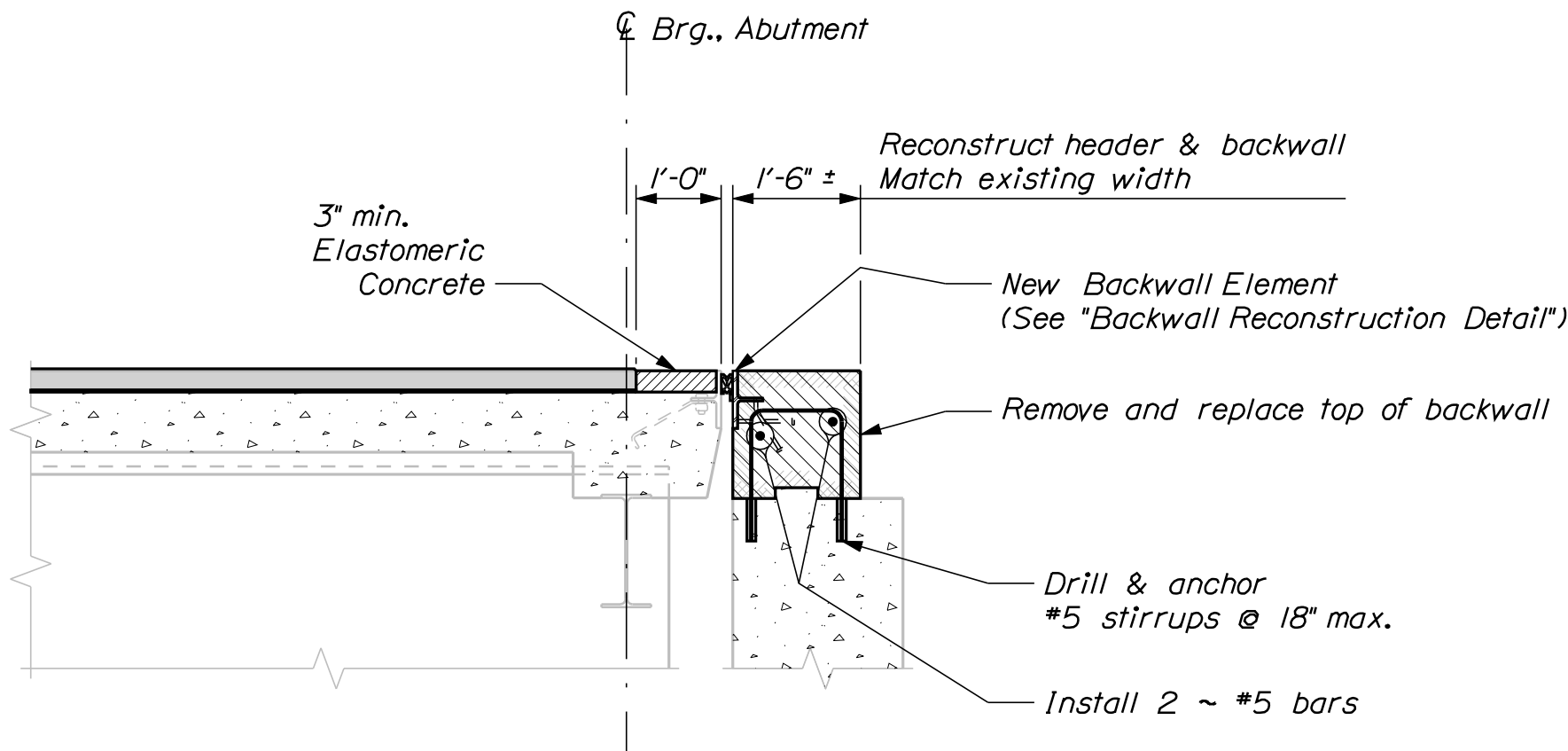
Username: dano.damren

Division: BRIDGE

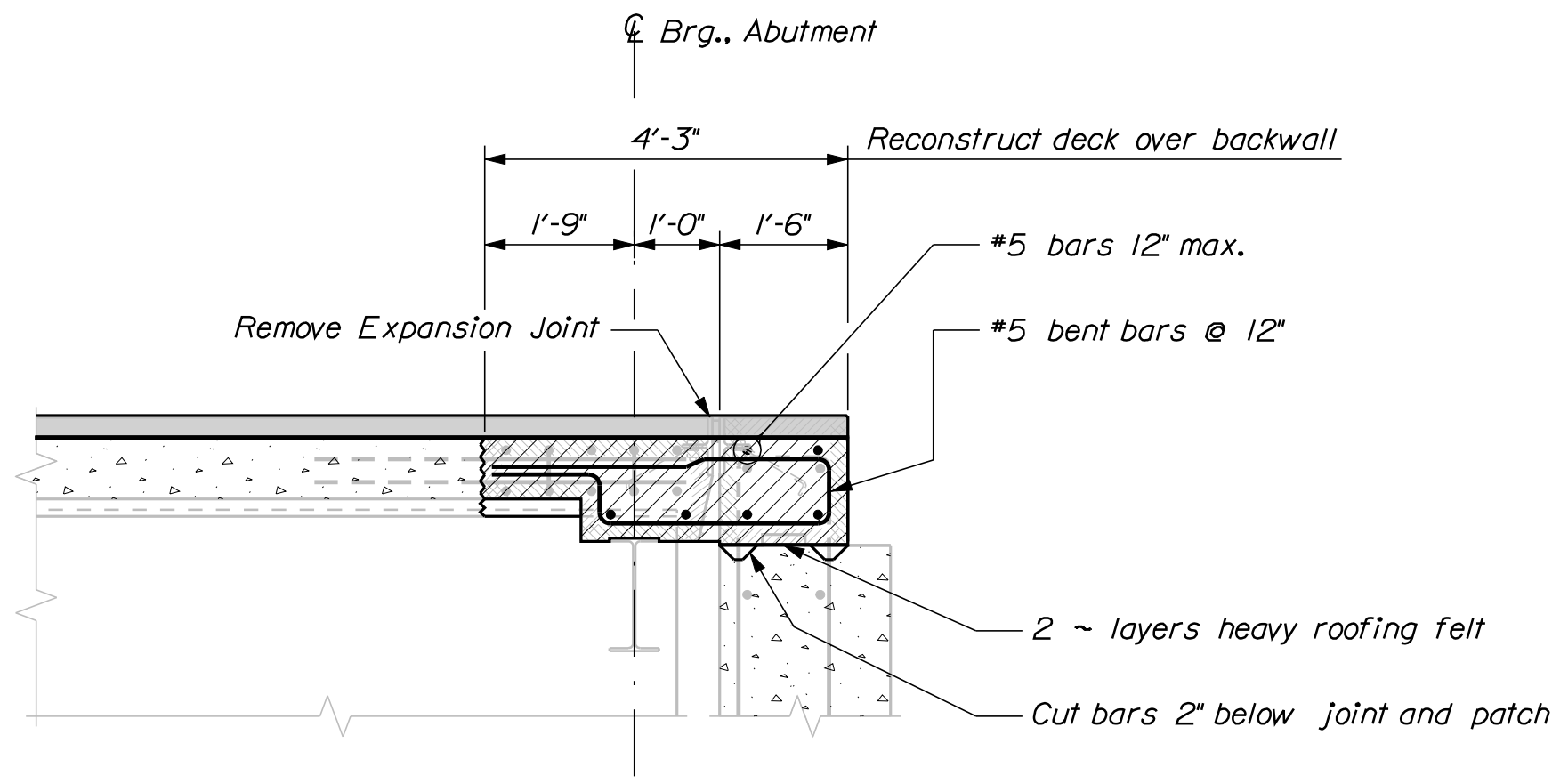
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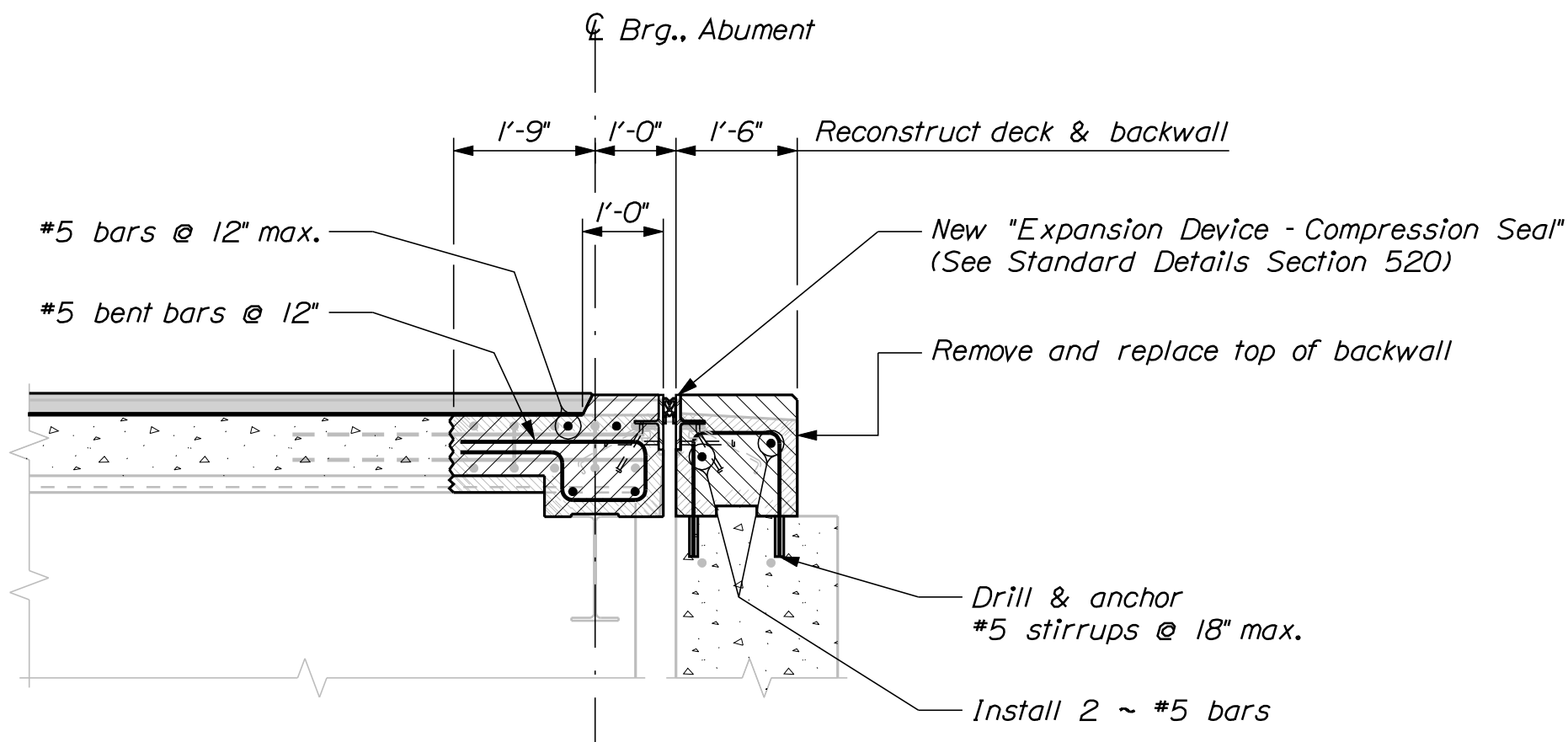
BRIDGE JOINT MODIFICATION TYPE 1



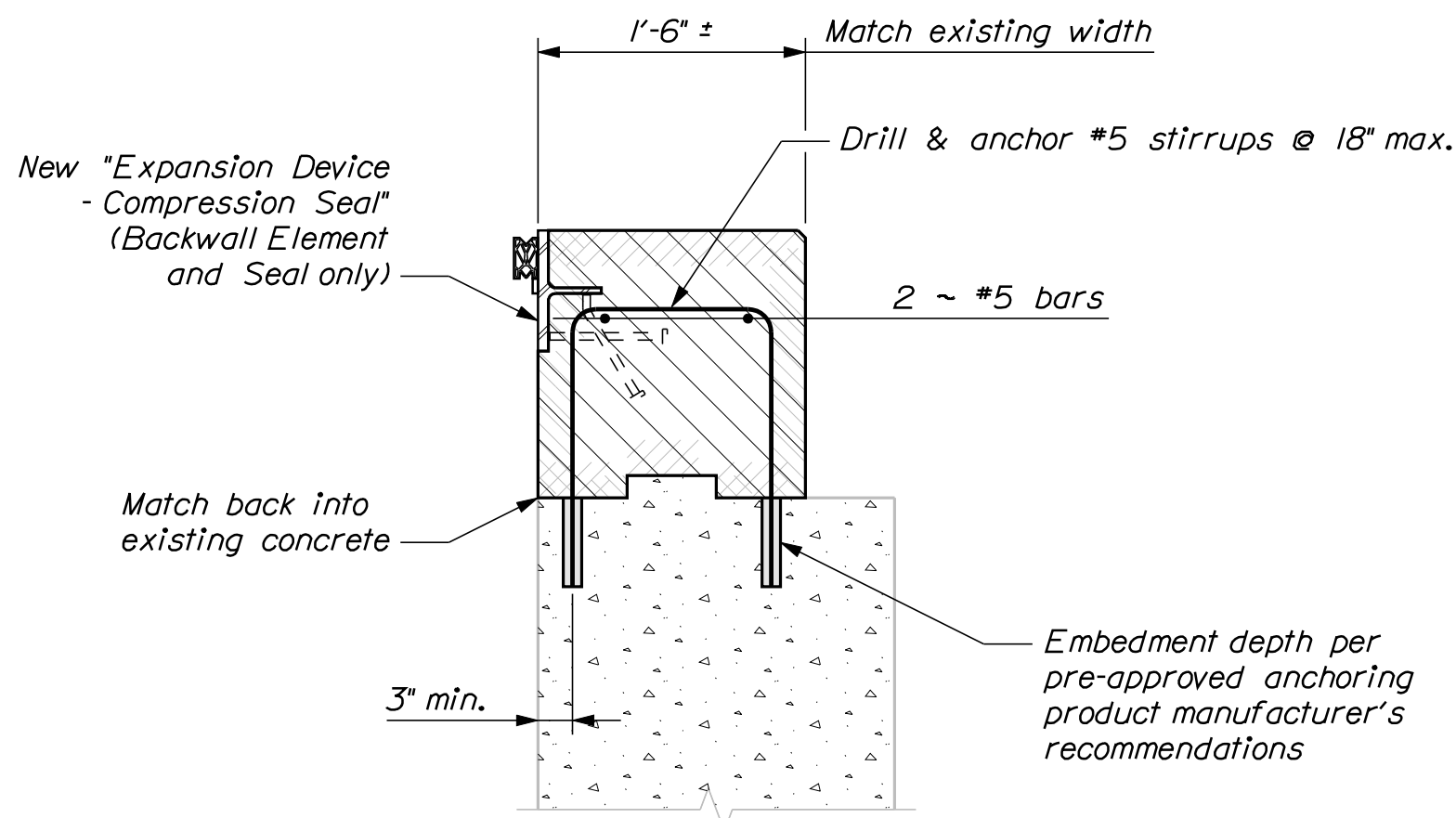
BRIDGE JOINT MODIFICATION TYPE 2



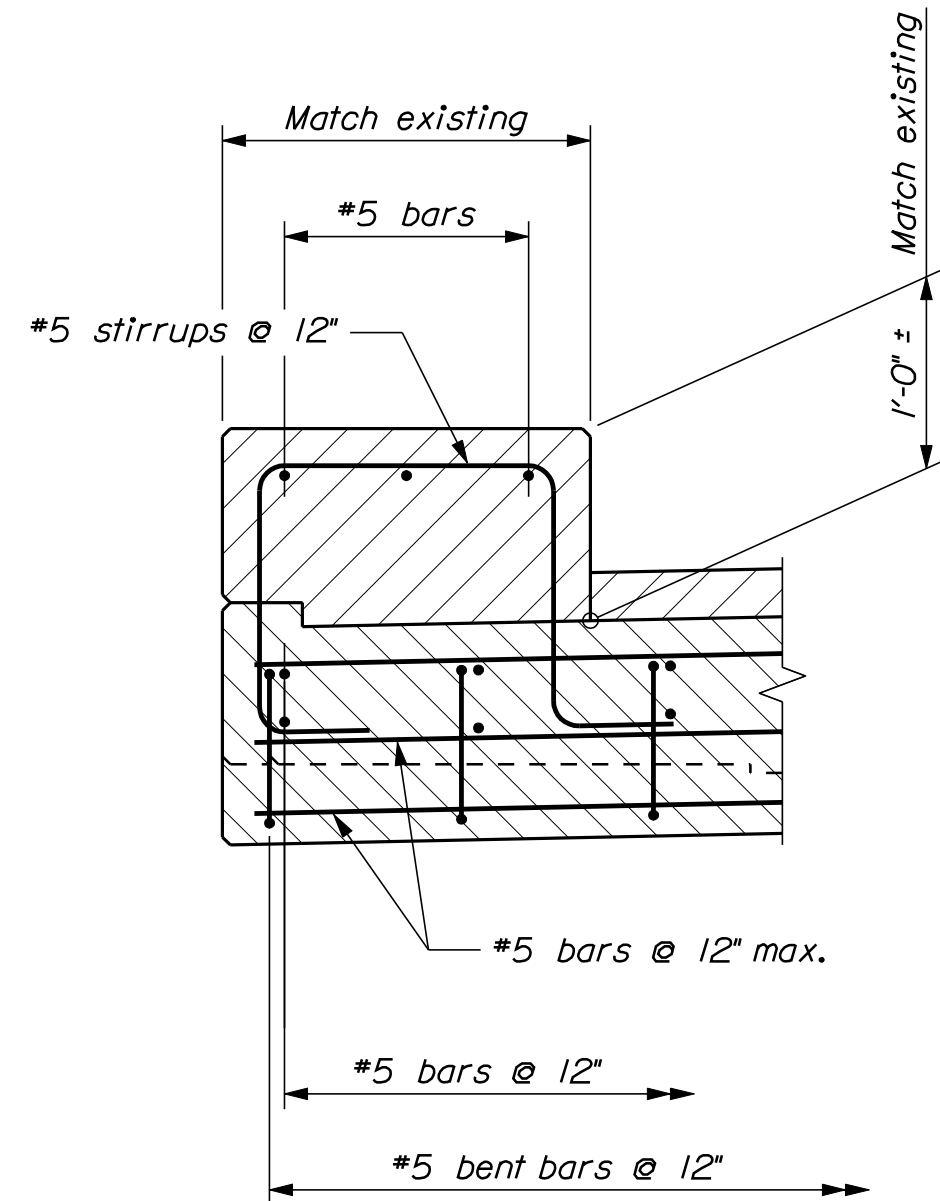
BRIDGE JOINT MODIFICATION TYPE 3
Refer to "Reconstructed Deck & Overhang Detail" for more information



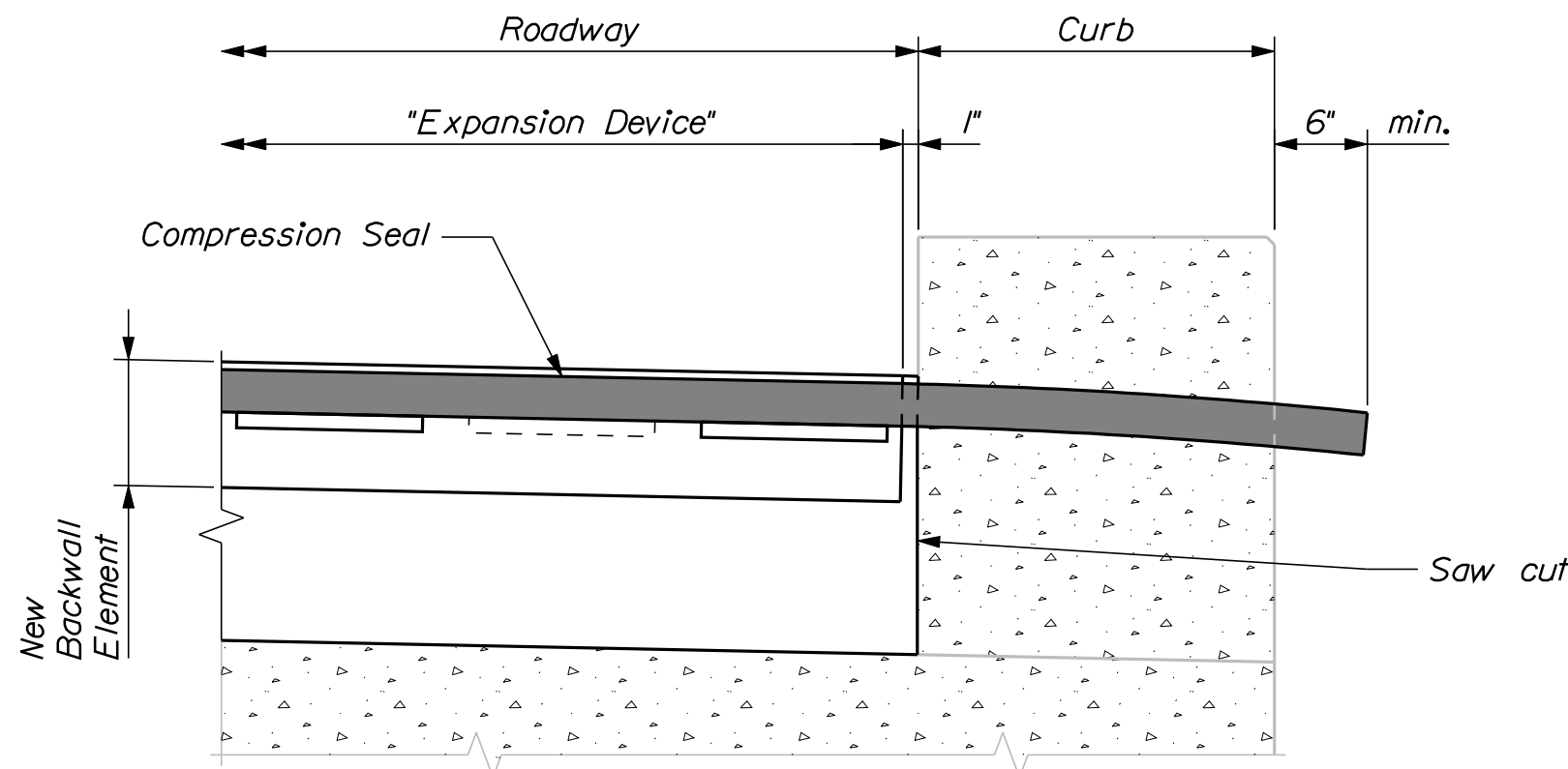
BRIDGE JOINT MODIFICATION TYPE 5



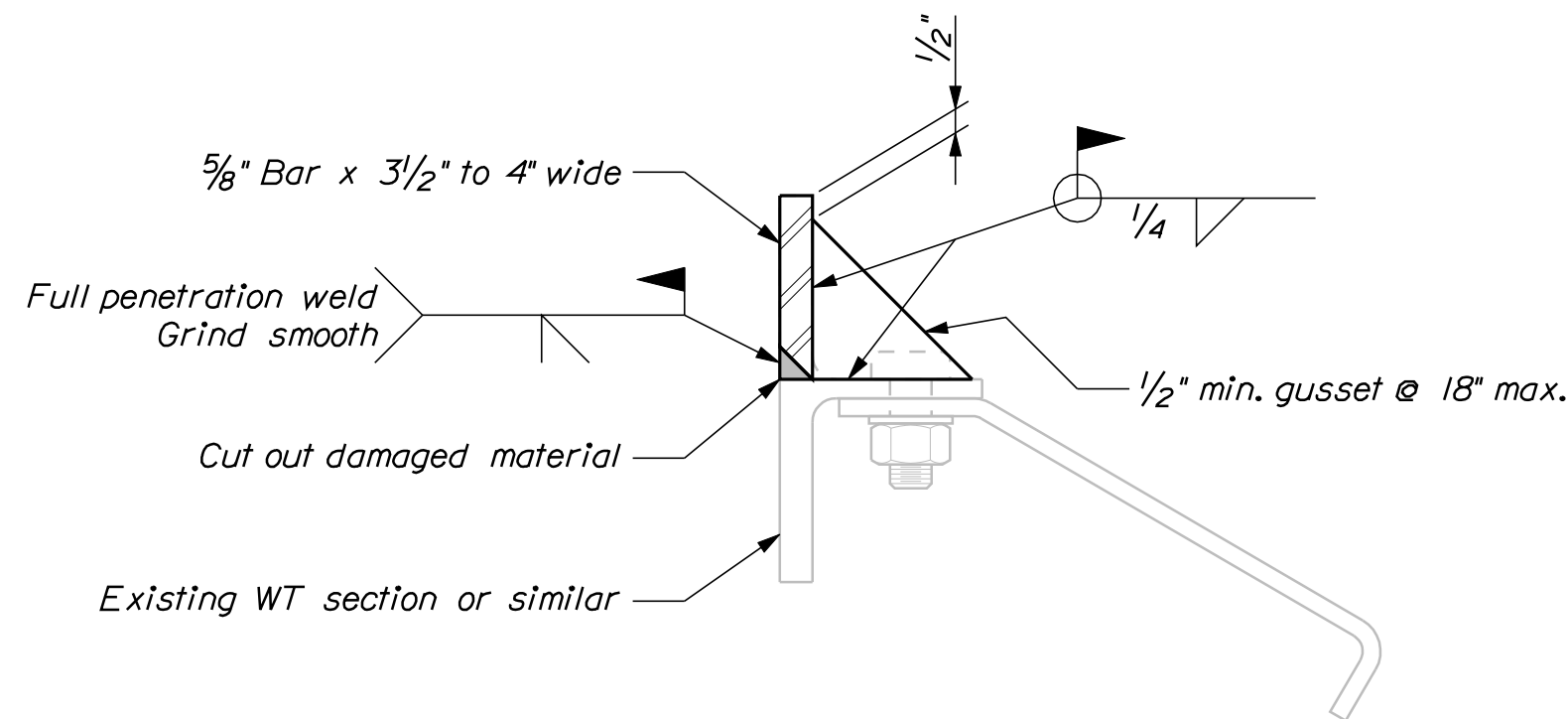
BACKWALL RECONSTRUCTION DETAIL
See Standard Details Section 520 for "Expansion Device"



RECONSTRUCTED CURB & OVERHANG DETAIL




BRIDGE JOINT DETAIL AT CURB



LONGITUDINAL BRIDGE JOINT MODIFICATION
For existing superstructure elements where required

BRIDGE JOINT MODIFICATION NOTES


1. Refer to Standard Details Sections 502 and 520 for details and information not shown.
2. All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.
3. Elastomeric concrete shall be applied according to the manufacturer's recommendations.
4. All new steel supplied for the bridge joint modification shall be uncoated.
5. The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.

BRIDGE JOINT MODIFICATION TYPES & ASSOCIATED DETAILS				STATE OF MAINE DEPARTMENT OF TRANSPORTATION				BRIDGE PLANS			
TYPICAL DETAILS				IM-1677(400)E				PIN 16774.00			
				BRIDGE NO. 5828 & 5832							
SHEET NUMBER 7 OF 7											
				DESIGN-DETAILED		R. Blunt		D. Dornen		DATE	
				CHECKED-REVIEWED							
				DESIGN2-DETAILED2						SIGNATURE	
				DESIGN3-DETAILED3						P.E. NUMBER	
				REVISIONS 1						DATE	
				REVISIONS 2							
				REVISIONS 3							
				REVISIONS 4							
				FIELD CHANGES							

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE ROUTE 95
OVER
CATHANCE RIVER
IN THE TOWN OF
TOPSHAM
SAGADAHOC COUNTY
PROJECT NO. IM-95-6601(00)E
PIN 6601.00
PROJECT LENGTH 0.022 KILOMETER
BRIDGE NO. 0158 S.B.
BRIDGE NO. 6310 N.B.



INTERSTATE ROUTE 95
OVER
MAINE CENTRAL RILROAD
IN THE TOWN OF
TOPSHAM
SAGADAHOC COUNTY
PROJECT NO. IM-95-6942(00)E
PIN 6942.00
PROJECT LENGTH 0.040 KILOMETER
BRIDGE NO. 6270 N.B.

INTERSTATE ROUTE 95
OVER
OLD LEWISTON ROAD
IN THE TOWN OF
TOPSHAM
SAGADAHOC COUNTY
PROJECT NO. IM-95-6755(00)E
PIN 6755.00
PROJECT LENGTH 0.0305 KILOMETER
BRIDGE NO. 1511 S.B.
BRIDGE NO. 6269 N.B.

INTERSTATE ROUTE 95
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND COUNTY
AND
TOPSHAM - SAGADAHOC COUNTY
PROJECT NO. IM-95-6600(00)E
PIN 6600.00
PROJECT LENGTH 0.254 KILOMETER
BRIDGE NO. 1510 S.B.
BRIDGE NO. 6268 N.B.

NOTE:
All work contemplated under this contract
to be governed by and in conformity with the
Standard Specifications(Revision of April 1995)
and supplementals thereto, together with the
Standard Details Highways and Bridges Revisions
of April 1997) and the supplementals thereto,
as modified by the plans and Specification
Special Provisions.

APPROVED
State of Maine
Department of Transportation

United States
Department of Transportation
Federal Highway Administration
Region 1

COMMISSIONER
DATE

APPROVED

CHIEF ENGINEER
DATE

DIVISION ADMINISTRATOR
DATE

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

Scope of Work

- Retrofit Guard Rail transitions

- Remove Structural Concrete Wearing Surface.

- Repair granite curb bedding mortar.

- Rehabilitate deck as per Note No. 3.

- Install Membrane Waterproofing.

- Install 80 mm Superpave Hot Mix Asphalt.

- Retrofit existing aluminum bridge rail splices.

- Remove North Approach slab N.B. lane (Old Lewiston Road)

- Install Curb transition on leading ends only.

Bridge Joint Modifications

- Install new compression seals at the following locations:

6601.00

Bridge No. 0158 S.B. Southerly end.

M.R 16 mm

Bridge No. 0158 N.B. Northerly end.

M.R 12 mm

Bridge No. 6310 S.B. Southerly end.

M.R 16 mm

Bridge No. 6310 N.B. Northerly end.

M.R 12 mm

6942.00

Bridge No. 6270 N.B. Southerly end.

M.R 16 mm

Bridge No. 6270 N.B. Northerly end.

M.R 28 mm

6755.00

Bridge No. 1511 S.B. Northerly end.

M.R 28 mm

Bridge No. 1511 S.B. Southerly end.

M.R 16 mm

Bridge No. 6269 N.B. Southerly end.

M.R 16 mm

6600.00

Bridge No. 1510 S.B. Southerly end.

M.R 44 mm

Bridge No. 6268 N.B. Southerly end.

M.R 44 mm

- Install new Gland seals at the following locations:

6755.00

Bridge No. 6269 N.B. Northerly end.

M.R 28 mm

Seal Notes

NOTE:
Field verify fit of selected seal, (Retention bar depth,
narrowest installation opeing, etc.)

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

PROJECT NO. IM-95-6942(00)E

TRAFFIC DATA

N.B.

AADT 1998 = 13035

AADT 2018 = 16945

DHV = 2203

Trucks(%) = 10

D (%) = 100

18 kip eq. P2.0 = 766

18 kip eq. P2.5 = 805

Posted Speed = 105 km/h

PROJECT NO. IM-95-6600(00)E

TRAFFIC DATA

N.B.

AADT 1998 = 13035

AADT 2018 = 16945

DHV = 2203

Trucks(%) = 10

D (%) = 100

18 kip eq. P2.0 = 766

18 kip eq. P2.5 = 805

Posted Speed = 105 km/h

PROJECT NO. IM-95-6755(00)E

TRAFFIC DATA

N.B.

AADT 1998 = 13035

AADT 2018 = 16945

DHV = 2203

Trucks(%) = 10

D (%) = 100

18 kip eq. P2.0 = 766

18 kip eq. P2.5 = 805

Posted Speed = 105 km/h

PROJECT NO. IM-95-6601(00)E

TRAFFIC DATA

S.B.

N.B.

AADT 1998 = 5095

AADT 2018 = 7645

DHV = 1093

Trucks(%) = 8

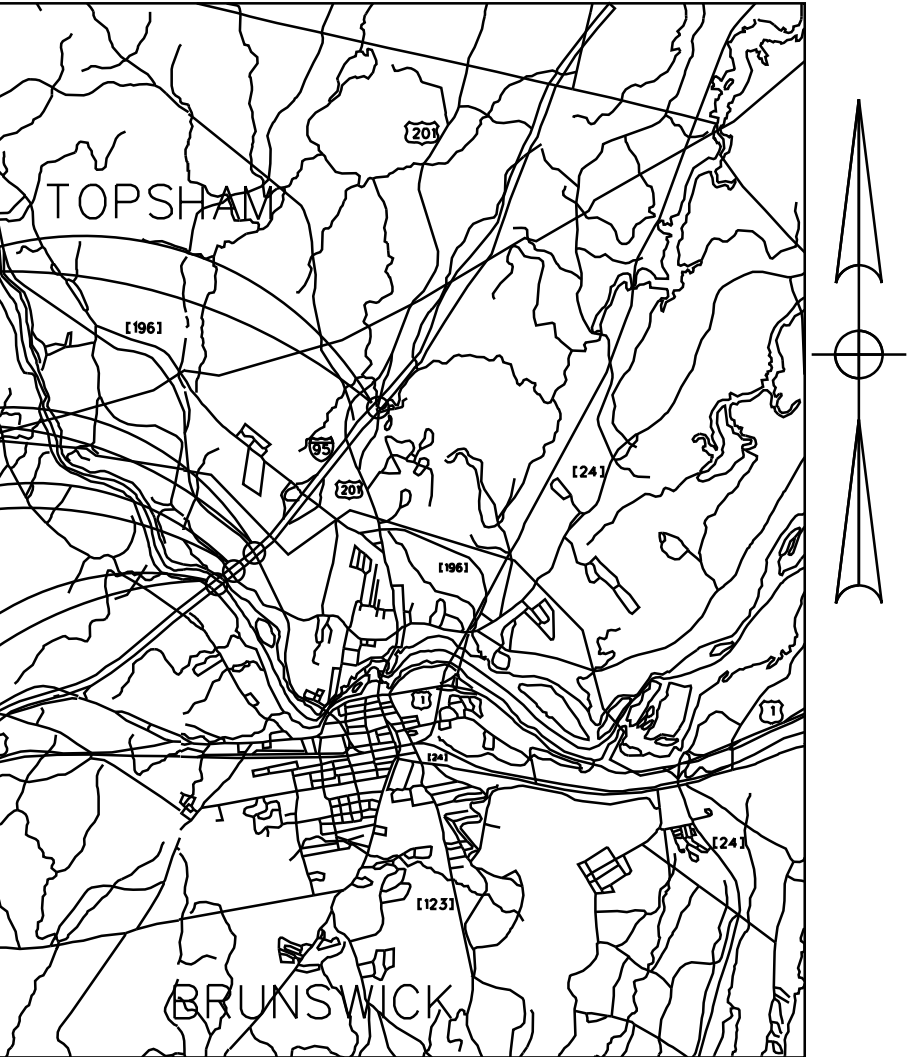
D (%) = 100

18 kip eq. P2.0 = 230

18 kip eq. P2.5 = 294

Posted Speed = 105 km/h

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.



PROJECT IM-95-6601(00)E
BRIDGE NO. 0158 S.B.
BRIDGE NO. 6310 N.B.

PROJECT IM-95-6942(00)E
BRIDGE NO. 6270 N.B.

PROJECT IM-95-6755(00)E
BRIDGE NO. 1511 S.B.
BRIDGE NO. 6269 N.B.

PROJECT IM-95-6600(00)E
BRIDGE NO. 1510 S.B.
BRIDGE NO. 6268 N.B.

Location Map

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1996, with interim 1997.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of April 1995.

MATERIALS

CONCRETE: All (unless otherwise specified) _____ Class A

METRIC1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

General Construction Notes:

1.- Delcrete, Welcrete or approved equal shall be placed along the joint steel on the backwall and the superstructure as shown on the plans or as directed by the Construction Manager. Surface preparation and concrete placement shall be done in accordance with the manufacturer's recommendations. Payment will be considered incidental to the bridge joint modification pay item.

2.- Remove existing concrete wearing surface. Rehabilitate existing concrete deck as directed by the Construction Manager with a material chosen from the Department's prequalified list of patching materials.

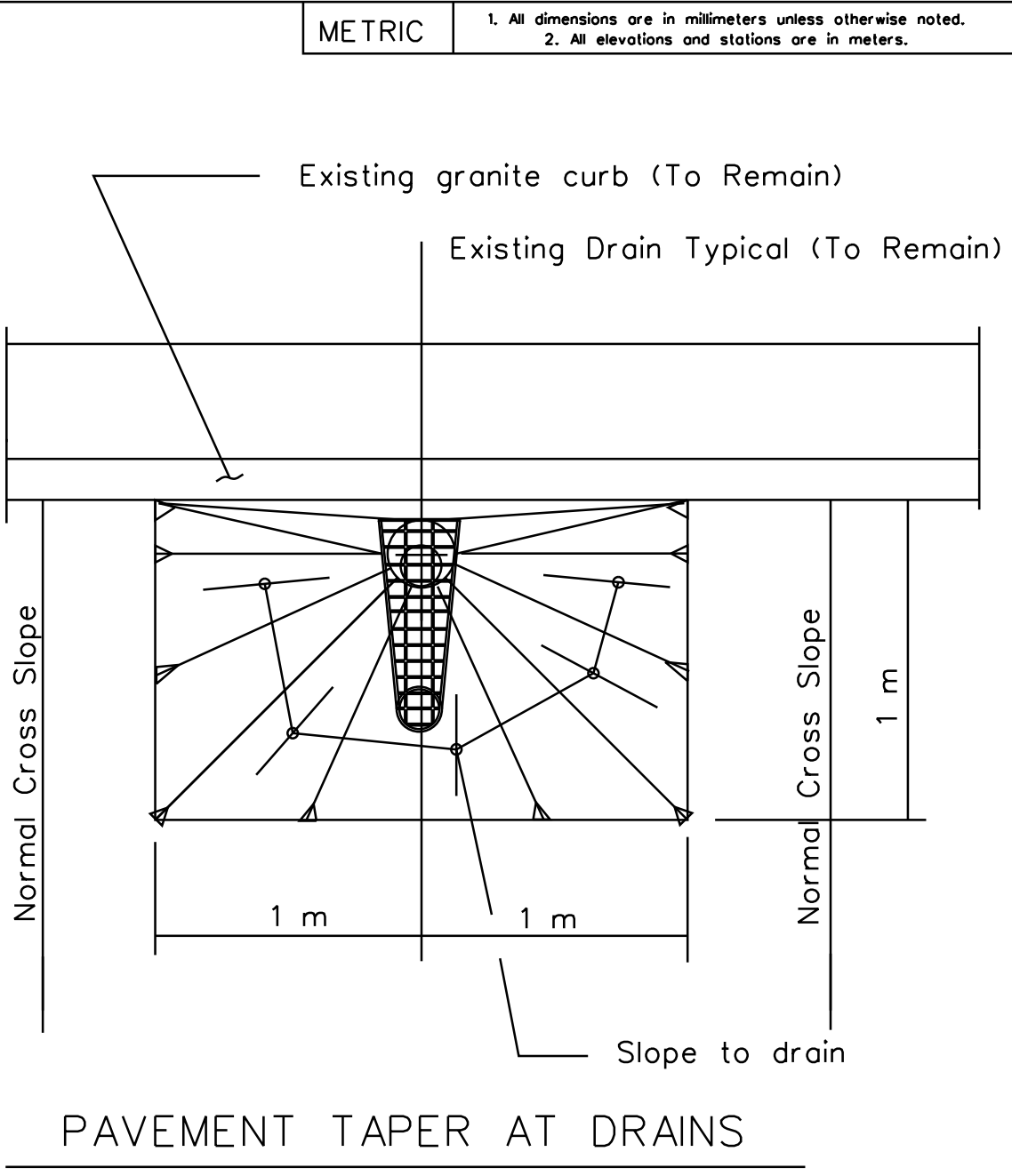
3.- After existing concrete wearing surface has been removed the Contractor may be directed by the Construction Manager to rehabilitate areas of the deck. Payment will be made under Item 518.30 or 518.31, whichever is applicable.

4.- Repair Granite Curb Bedding Mortar as directed by the construction Manager, with Sikadur 23, Lo-Mod Gel or approved equal.

5.- Existing Aluminum Bridge Rail Splices as directed by the Construction Manager shall be retrofitted as shown on splice bar detail. Payment will be made under Item 507.30, Aluminum Bridge Rail Splice Retrofit. Estimated quantity of rail splices required is approximate and should be field verified.

6.- Any damage to the existing concrete resulting from the Contractor's operation shall be repaired at the Contractor's expense.

7.- Dimensions shown are from asbuilt plans and may differ from actual field dimensions. Verify all dimensions prior to construction.



METRIC 1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.

Maintenance of Traffic

- 1.- During construction one 3.6 m lane will be maintained by use of temporary concrete barrier.
- 2.- Payment for all the work and materials required for the maintenance of traffic, such as temporary concrete barriers, maintenance of traffic control devices, cones, drums, and temporary traffic lights as approved by the Construction Manager will be paid for under the applicable pay items.

METRIC 1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.

General Construction Notes:

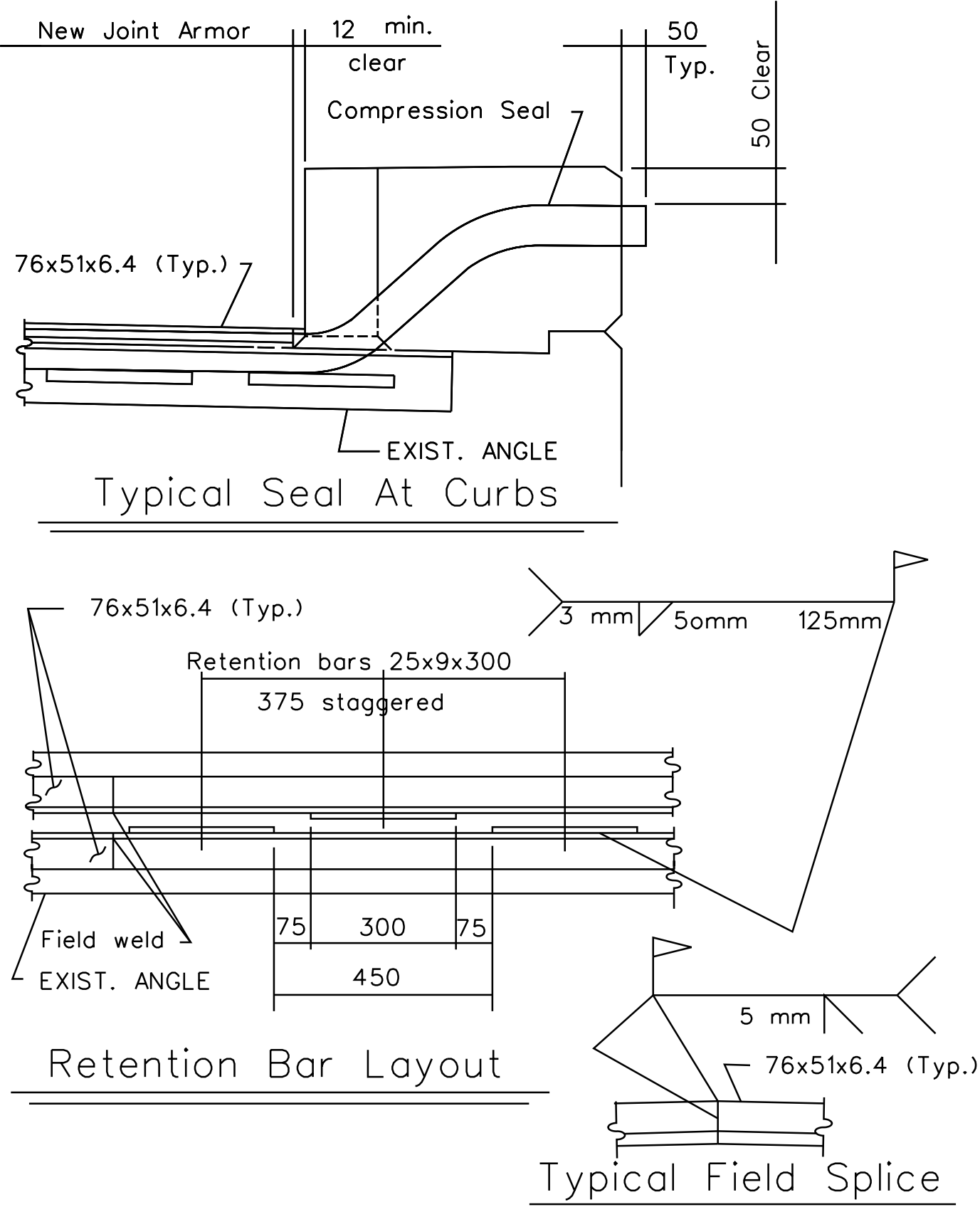
- 8.- The Contractor shall use care as not to damage the existing granite curb. Any damaged curb due to the Contractor's operation shall be repaired as directed by the Construction Manager at no expense to the Department.
- 9.- The Contractor shall be aware of U.S. Coast Guard restrictions, Legal Relations with and Public Responsibility to Public (Bridges over Navigable Waters.)
- 10.- Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans show any construction field changes or any alterations which may have been made to the bridge during its life span.
- 11.- A Bridge Deck Evaluation Report is available for the Contractor's reference at the Bridge Design Office in Augusta. The report contains visual inspection information and deck core data of the bridge. There is no assurance that the information or data is a true representation of the conditions of the entire deck.
- 12.- All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- 13.- Surface coarse of Superpave Hot Mix Asphalt, Shall be placed in one operation.
- 14.- Bituminous Wearing Course shall be placed in one continuous operation for each bridge.

1 REVISIONS 4-27-98

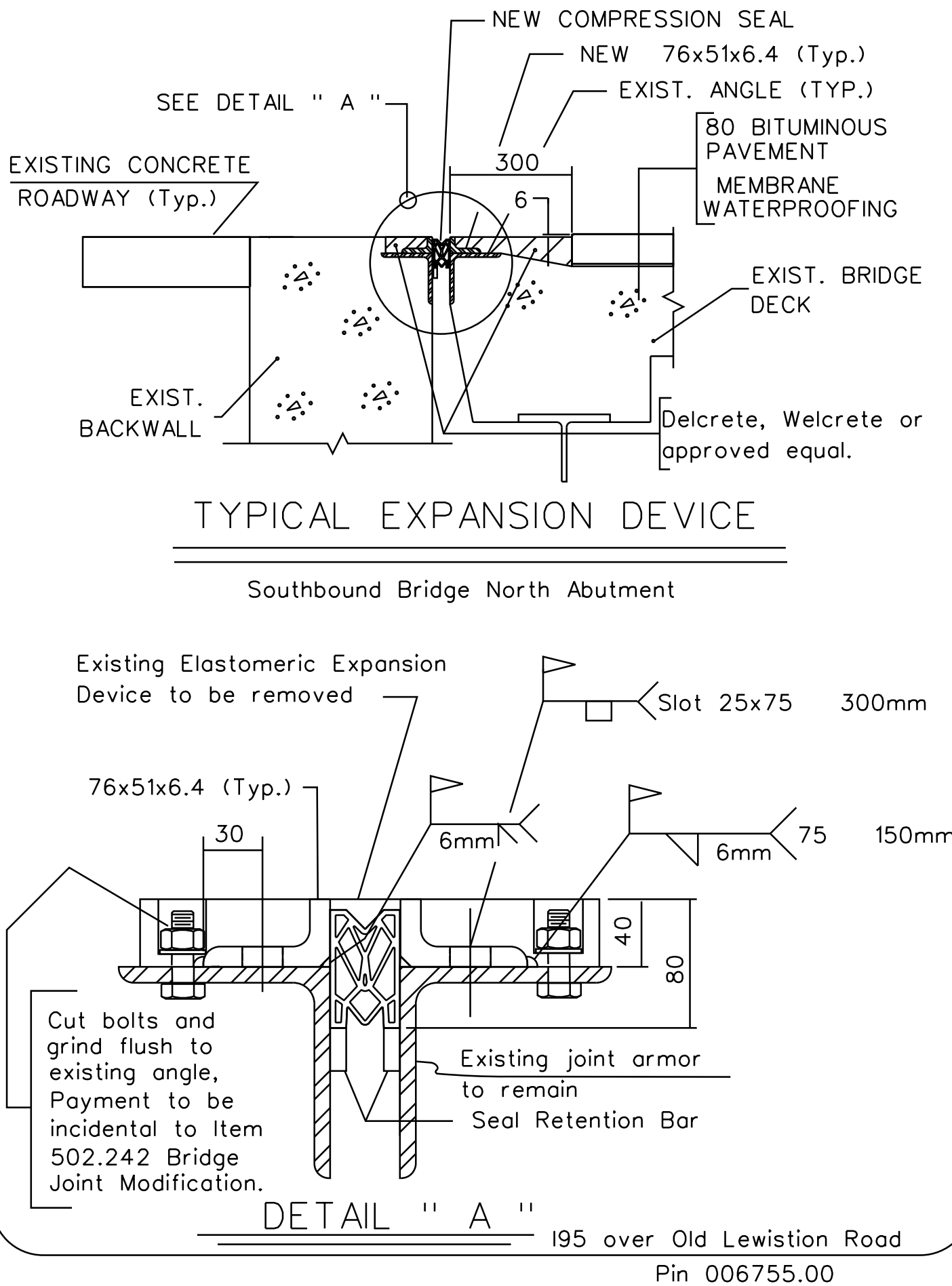
ESTIMATED QUANTITIES							
ITEM NO.	DESCRIPTION	PIN 6600.00 QUANT	PIN 6755.00 QUANT	PIN 6942.00 QUANT	PIN 6601.00 QUANT	TOTAL	UNIT
202.11	REMOVING PORTLAND CEMENT CONCRETE PAVEMENT						m
202.17	REMOVING EXISTING STRUCTURAL CONCRETE (23 M)		1			1	LS
403.207	SUPERPAVE HOT MIX ASPHALT 19.0 MM		48			48	Mg
403.210	SUPERPAVE HOT MIX ASPHALT 9.5 MM	1207	150	93	105	1555	Mg
507.30	ALUMINUM RAIL BAR SPLICE RETROFIT	208	32	12	24	276	Each
508.13	MEMBRANE WATERPROOFING (6,285, 735, 485, 545 m)	.78	.09	.06	.07	1	LS
518.30	REHAB. OF STRUCTURAL CONCRETE SLAB - TO REINFORCING STEEL	126	15	10	11	162	m
518.31	REHAB. OF STRUCTURAL CONCRETE SLAB - TO BELOW REINFORCING STEEL	126	15	10	11	162	m
518.32	REHABILITATION OF STRUCTURAL CONCRETE SLAB - FULL DEPTH	63	8	5	6	82	m
518.39	REPAIRING GRANITE CURB BEDDING MORTAR	253	30	21	22	326	m
520.241	BRIDGE JOINT MODIFICATION TYPE 1	2	3	2	4	11	Each
520.242	BRIDGE JOINT MODIFICATION TYPE 2		1			1	Each
526.301	TEMPORARY CONCRETE BARRIER, TYPE I	.78	.09	.06	.07	1	LS
527.32	PORTABLE CRASH BARRELS	64	8	4	4	80	Each
606.17	GUARDRAIL TYPE 3B - SINGLE RAIL	61	61	38	61	221	m
606.25	TERMINAL CONNECTOR			4		4	Each
609.237	TERMINAL CURB TYPE 1 - 2.1 m	4	2	2	4	12	Each
627.72	150 mm WHITE PAVEMENT MARKING LINE	2220	1200	720	2200	6340	m
627.74	150 mm YELLOW PAVEMENT MARKING LINE	1110	600	360	1100	3170	m
627.77	REMOVING PAVEMENT MARKINGS	90	80	48	116	334	m
627.781	TEMPORARY 150 mm PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	2200	1200	720	2200	6320	m
639.19	FIELD OFFICE TYPE B	.8	.1	.05	.05	1	Each
652.30	FLASHING ARROW BOARD	1	.5	.5		2	Each
652.312	TYPE III BARRICADE	6	1	1	1	9	Each
652.33	DRUM	80	10	5	1	96	Each
652.34	CONE	20	2	1	5	28	Each
652.35	CONSTRUCTION SIGNS	96	12	6	1	115	m
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	.25	.25	.25	.25	1	LS
652.38	FLAGGER	640	80	40	40	800	MH
659.10	MOBILIZATION	.78	.09	.06	.07	1	LS

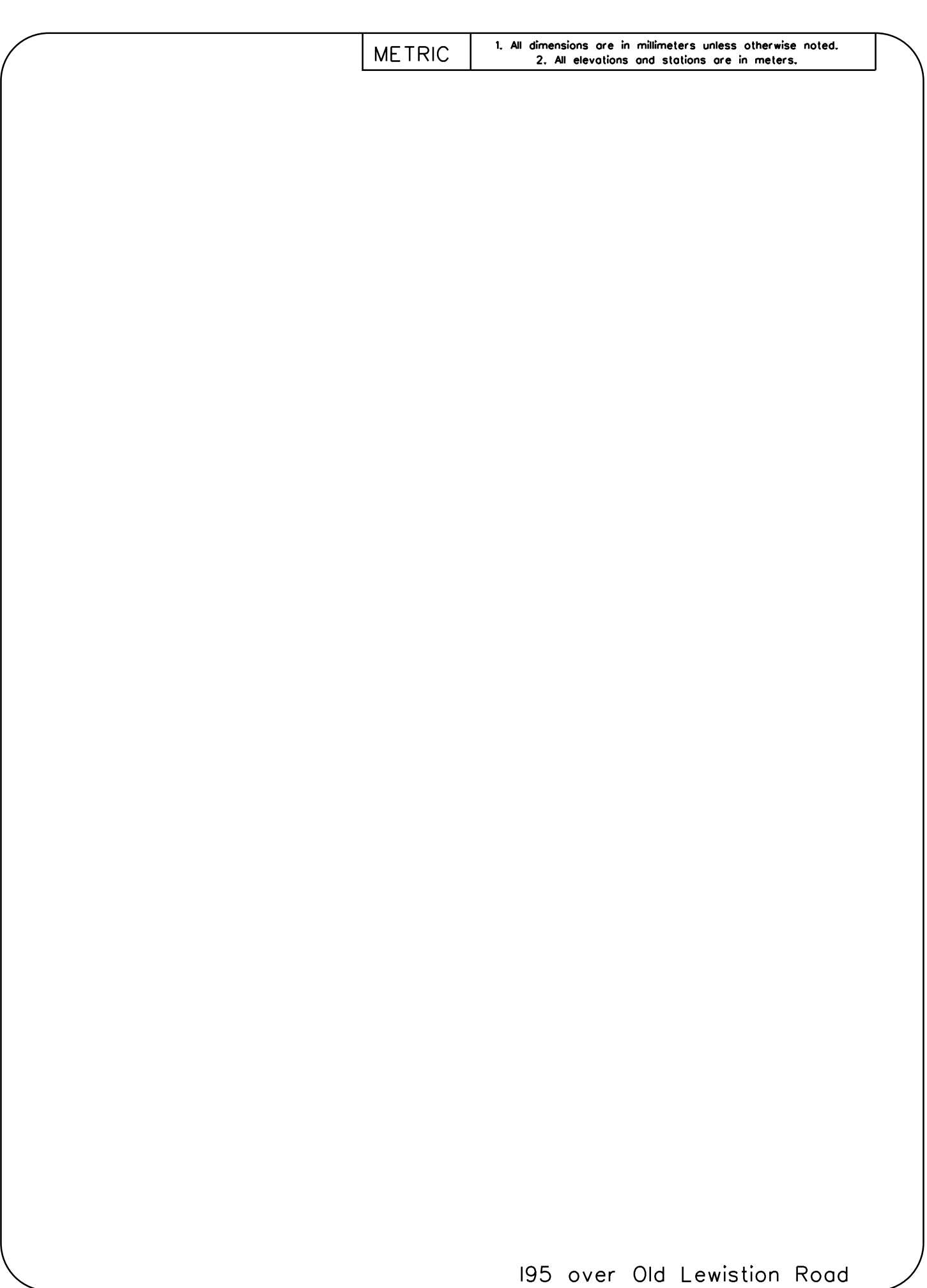
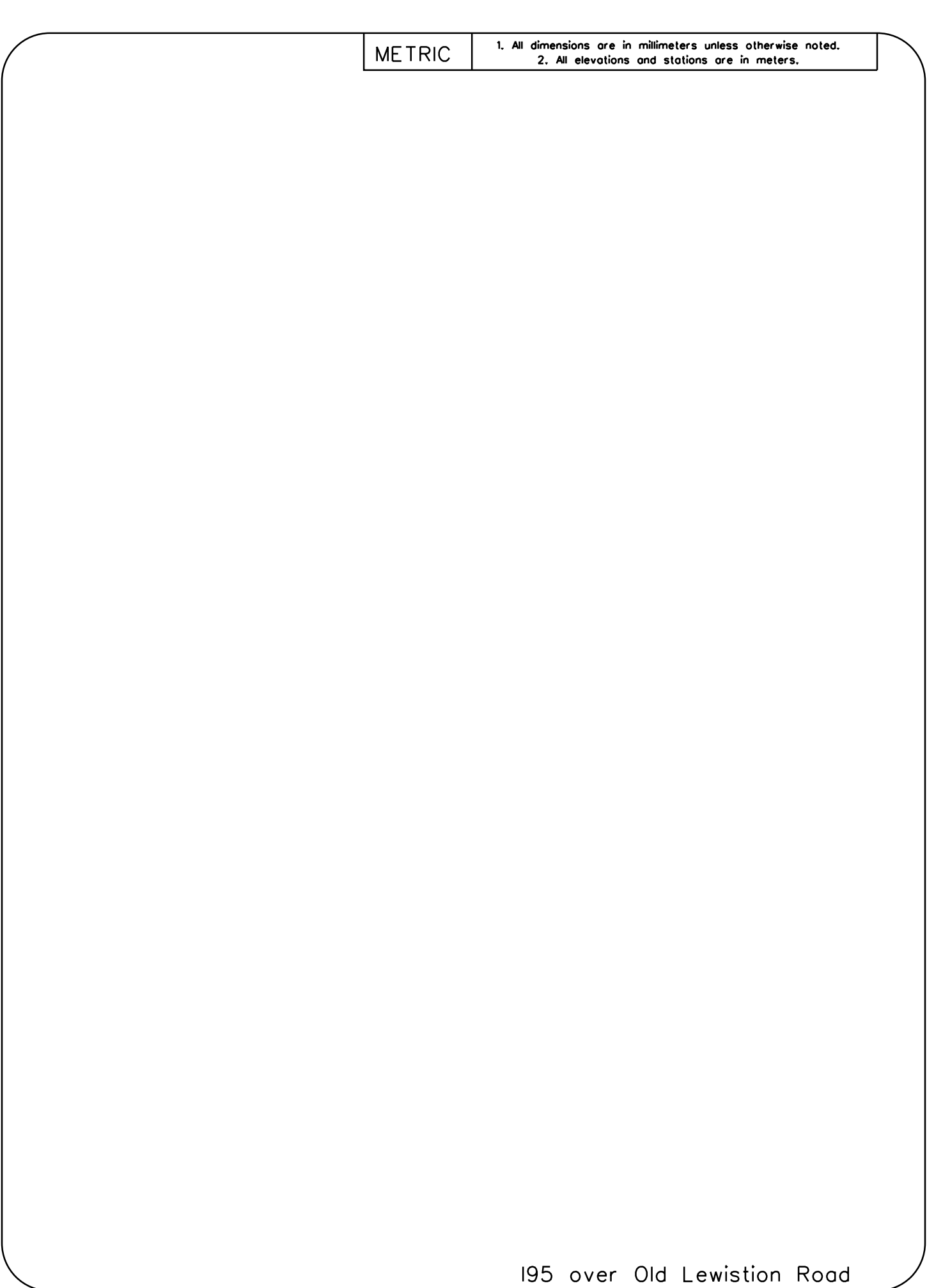
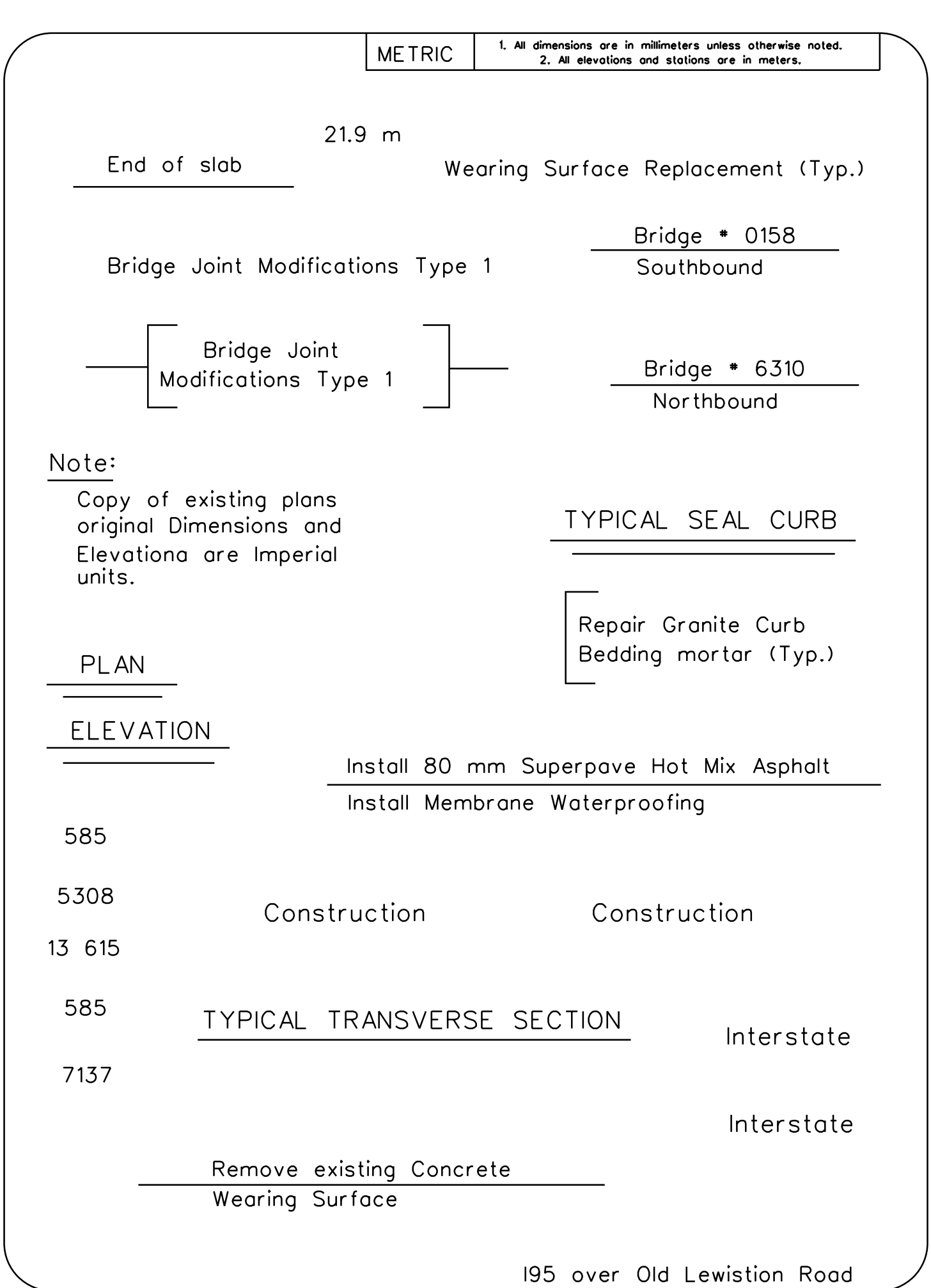
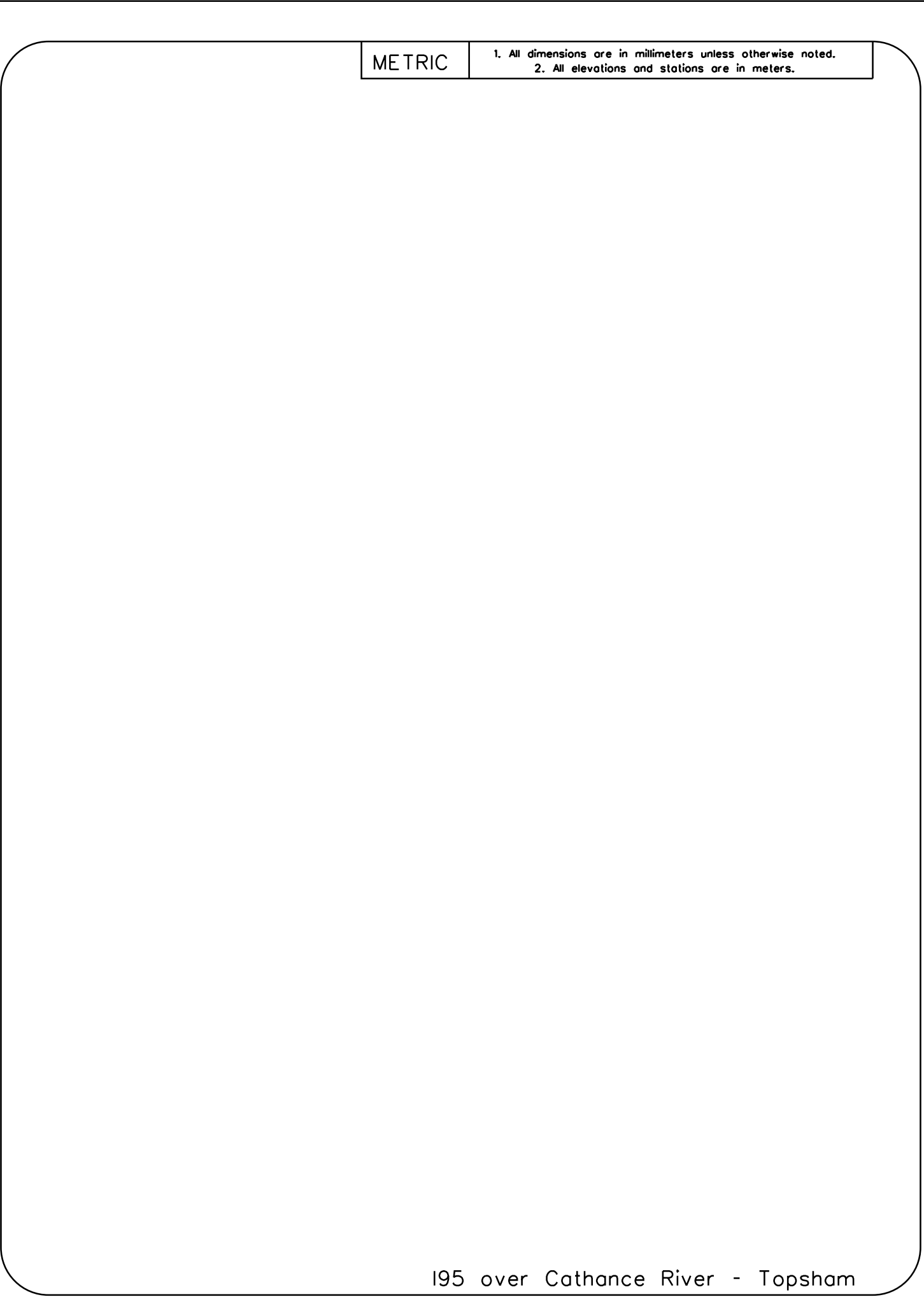
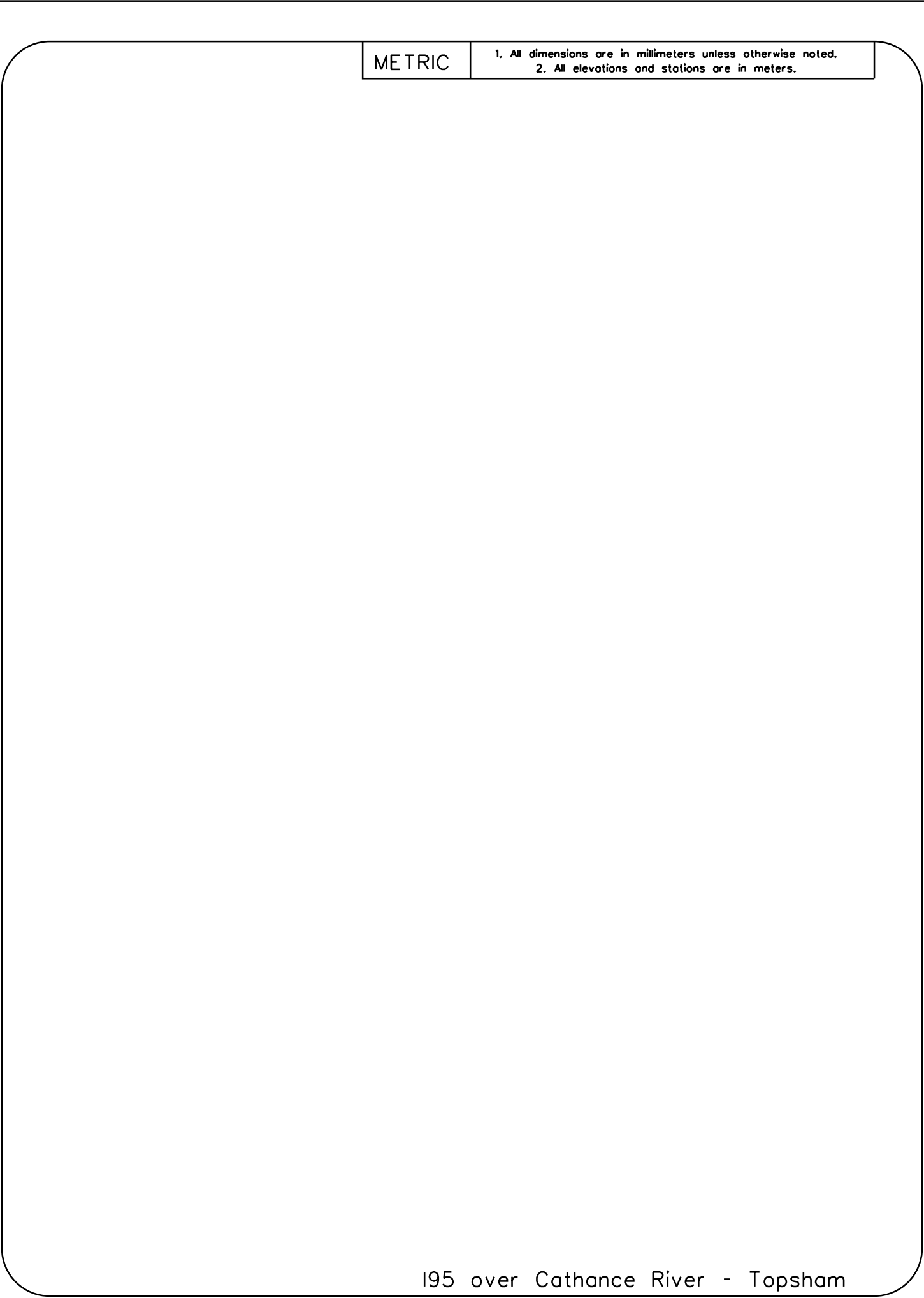
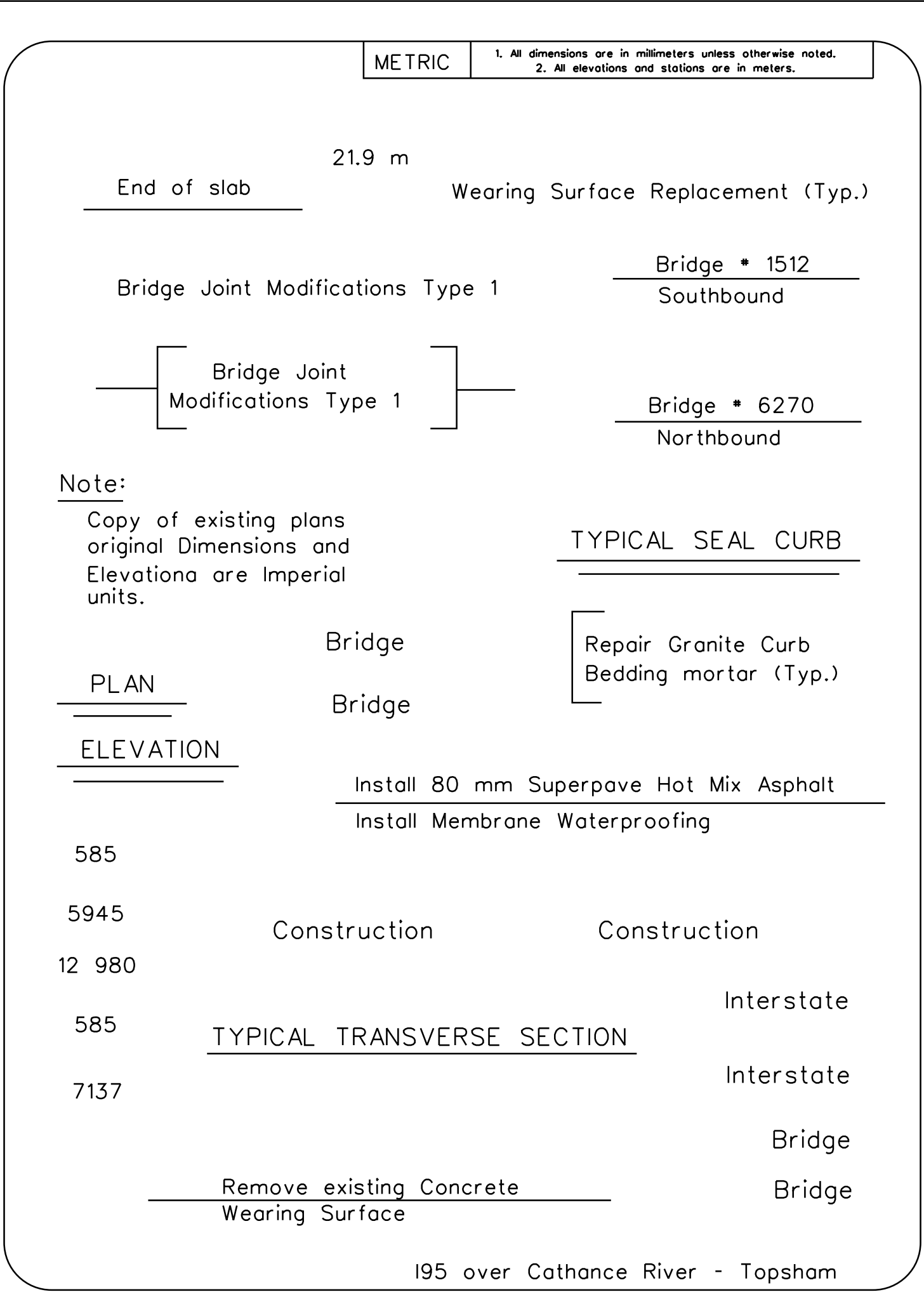
1 REVISIONS 4-27-98

METRIC 1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.



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In order to allow for joint movement, the fabric curtain shall be 2" longer than the distance necessary to reach from, and attach to, the curtain offset and anchor.

CONCRETE: Class AASF
REINFORCING STEEL: ASTM A615, Grade 60
STRUCTURAL STEEL: ASTM A36
FASTENERS: ASTM A307, Grade A

CONCRETE: Class AASF, $f'_c = 5,000$ psi
 REINFORCING STEEL: $f_y = 60,000$ psi
 STRUCTURAL STEEL:
 ASTM A36, $F_y = 36,000$ psi
 ASTM A307, $F_v = 14,000$ psi

Replace existing modular expansion joints with finger joint/curtain system at north abutment on northbound and southbound bridges.

Maintain a minimum of one 12' lane of traffic.



Expansion Dem (Typ.)

El. 98.77 N.F.
El. 98.81 F.F.

Vertical Joint
(for Stage Construction)

El. 99.26 N.F.
El. 99.30 F.F.

Construction

El. 98.90 N.F.
El. 98.94 F.F.

El. 99.52

El. 99.65

7 Bolts
Eq. Spc'd
(Typ.)

1 1/2" (Typ.)

5 Anchors
Eq. Spc'd
(Typ.)

1 1/2" (Typ.)

7 Bolts
Eq. Spc'd
(Typ.)

5 Anchors
Eq. Spc'd
(Typ.)

1 1/2" (Typ.)

1 1/2" (Typ.)

Fabric Curtain
(Typ.)

El. 90.65

El. 90.84

El. 91.04

El. 90.97

El. 90.78

9'-3"

9'-3"

3'-0"

6'-3"

9'-3"

2'-1 1/2" (Typ.)

3'-11 1/2" (Typ.)

2'-0" (Typ.)

4'-0" (Typ.)

Beam (Typ.)

NOTE: Both northbound and southbound north abutments are equal and opposite hand.

VIEW A-A

STRAIGHT BARS					
MARK	NO.	LENGTH	LOCATION		
A501	44	24'-0"	Transverse		

BENT BARS					
MARK	NO.	LENGTH	TYPE	A	
A502	12	5'-5"	S	6"	1'
A503	8	5'-7"	S	—	2'

REINFORCING STEEL SCHEDULE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

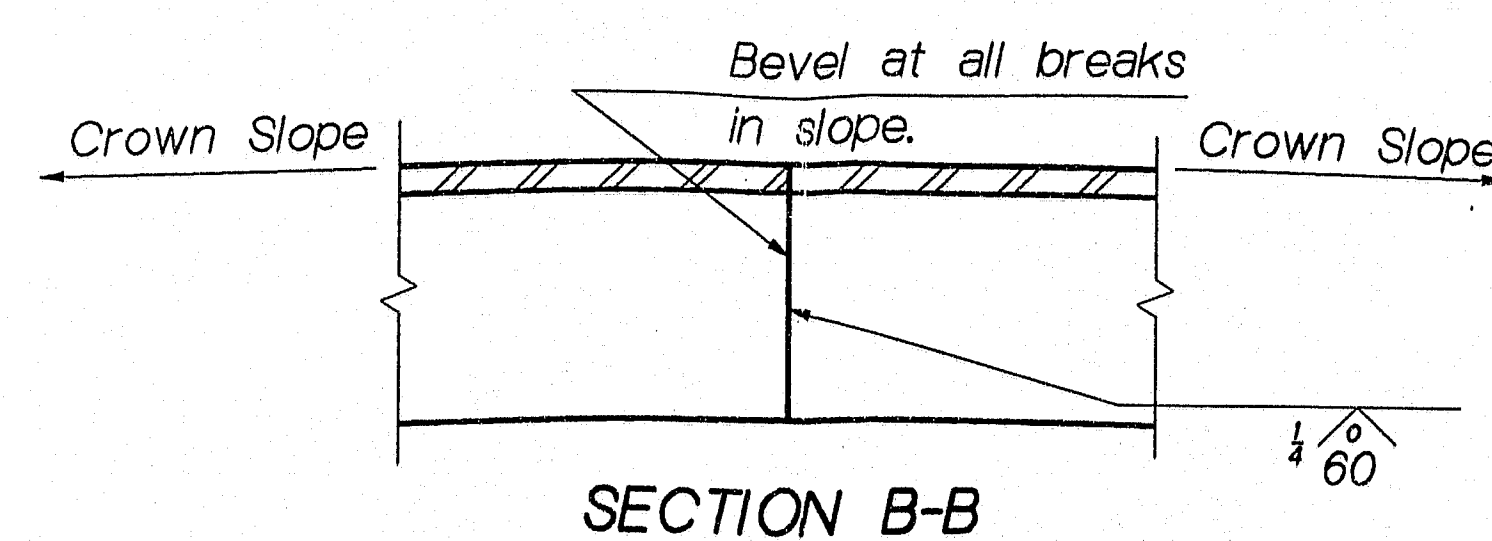
INTERSTATE 95
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND COUNTY &
TOPSHAM - SAGADAHOE COUNTY

JOINT REPLACEMENT

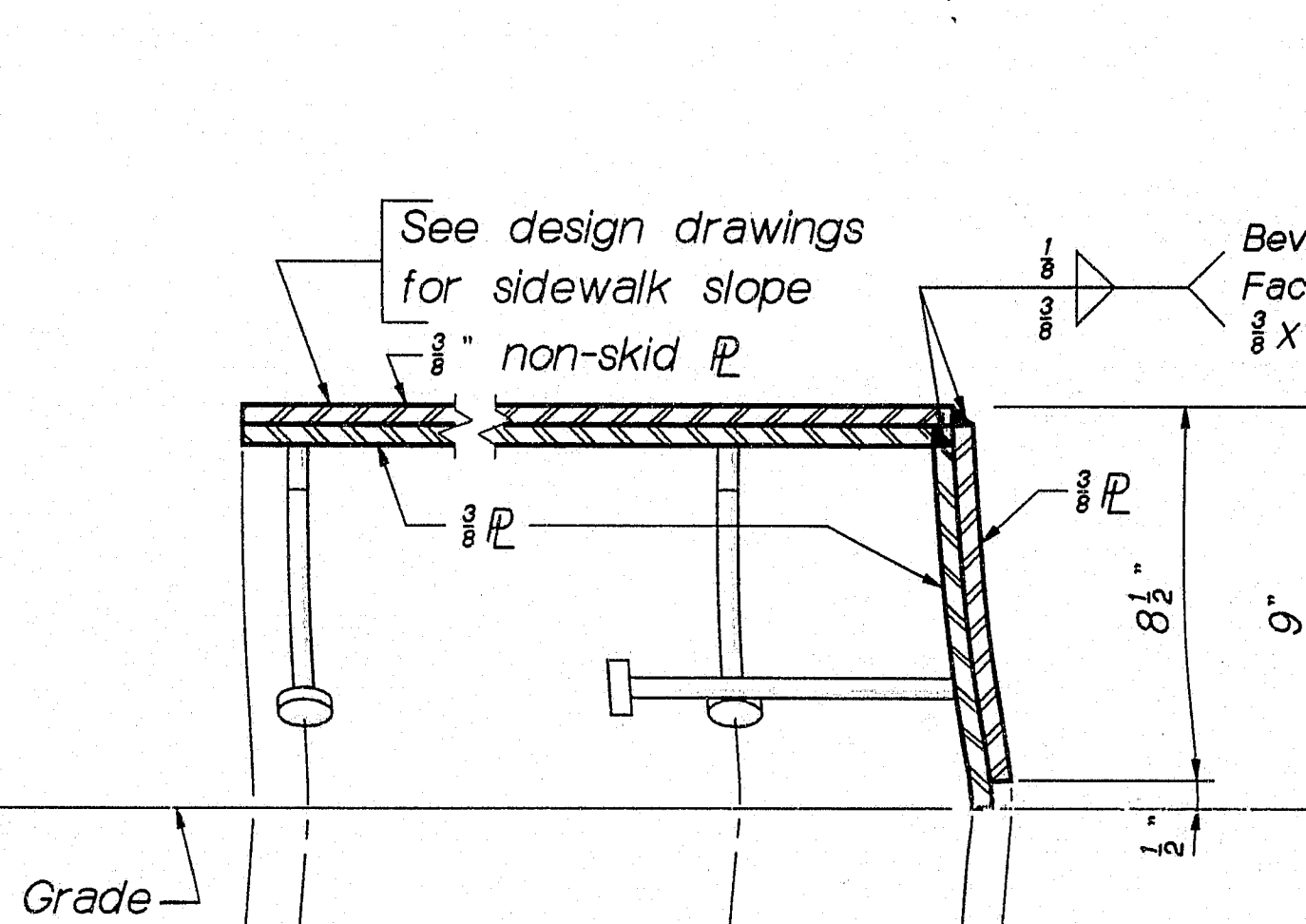
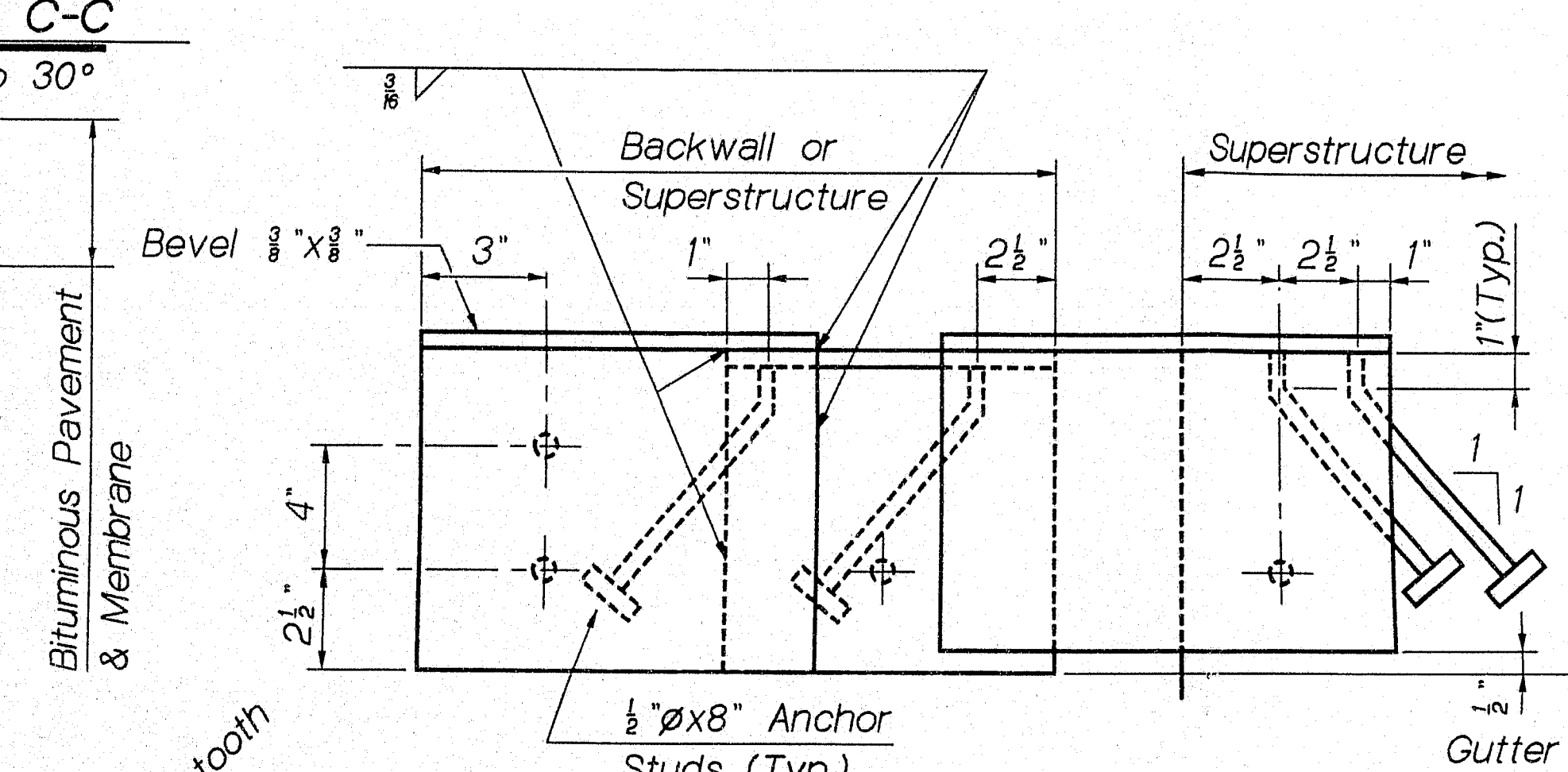
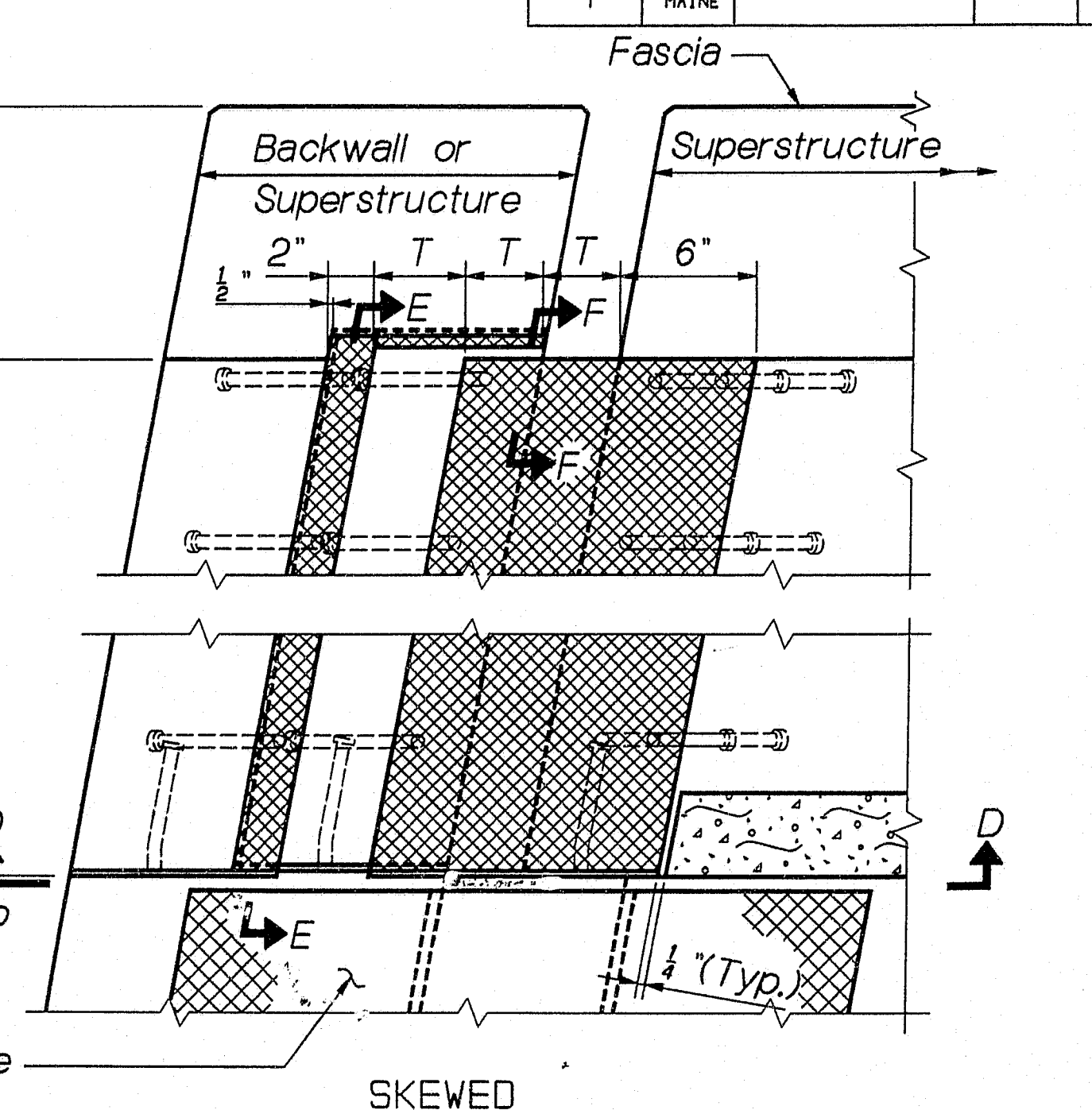
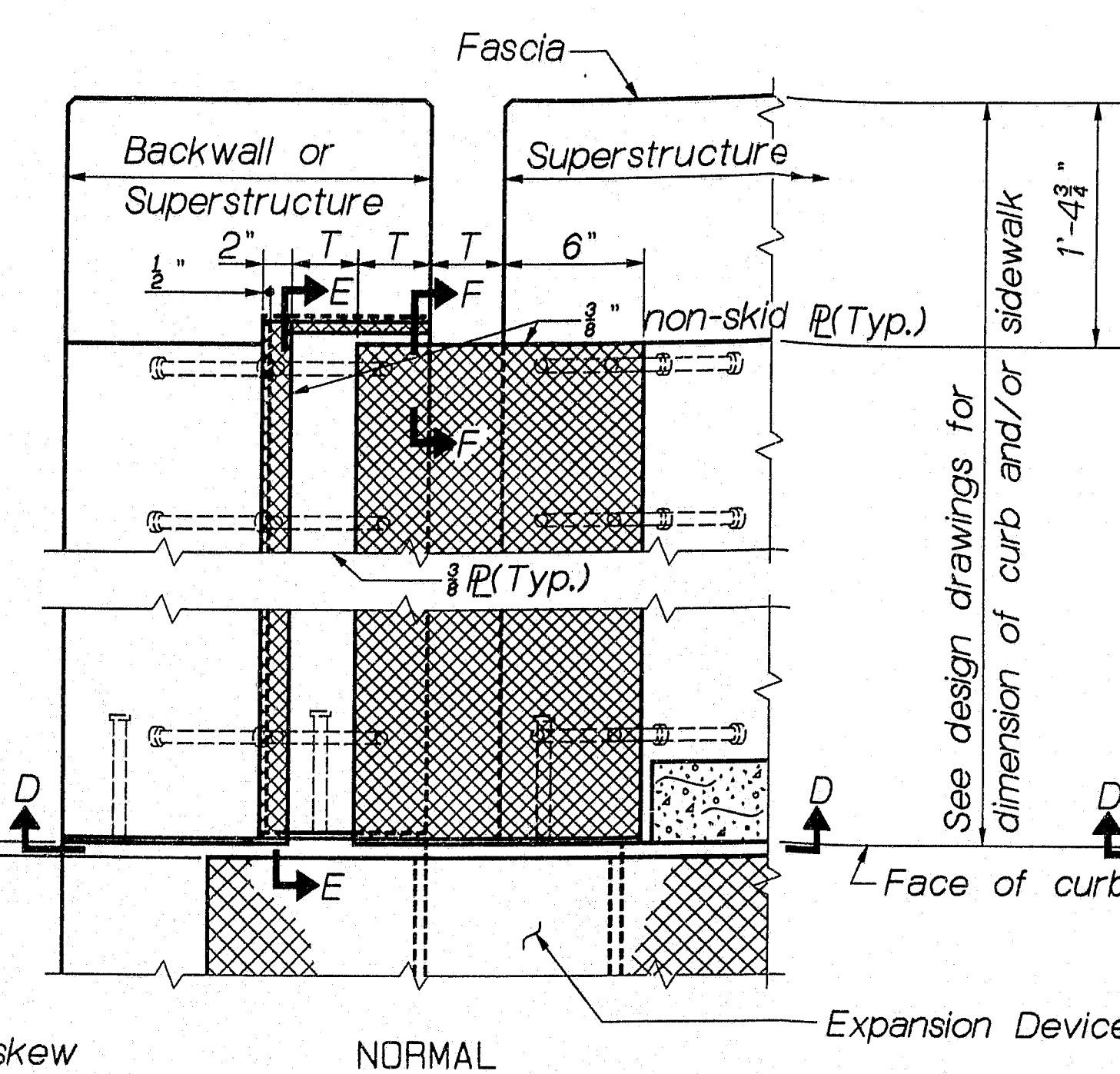
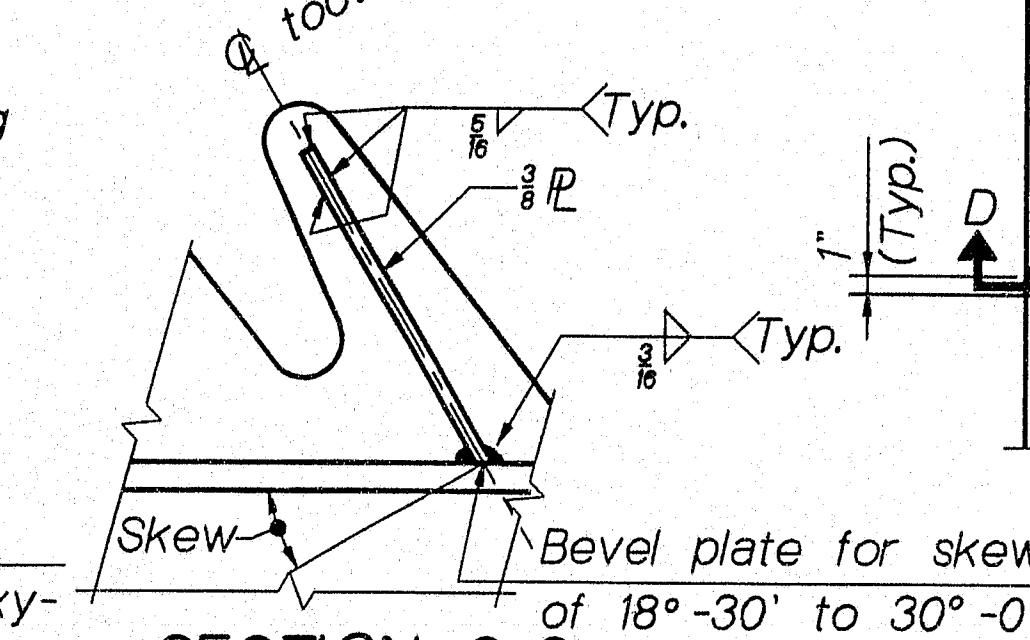
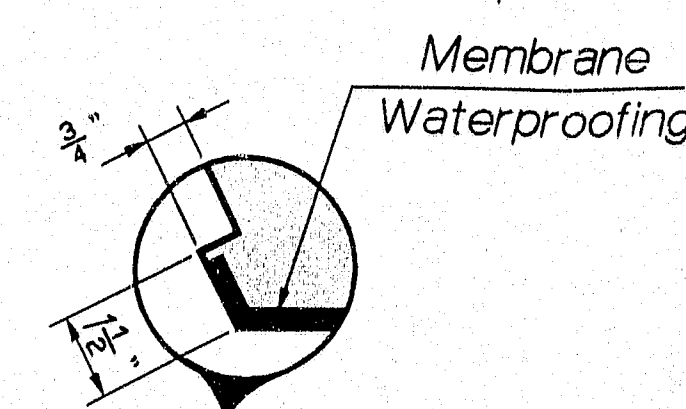
SHEET OF AUGUSTA, MAINE

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN-DETAILED	M. Parlin	3/95
	CHECKED		
	REVISED		
	FIELD CHANGES		

20 JAN 95-01.00.20
JNTDET1

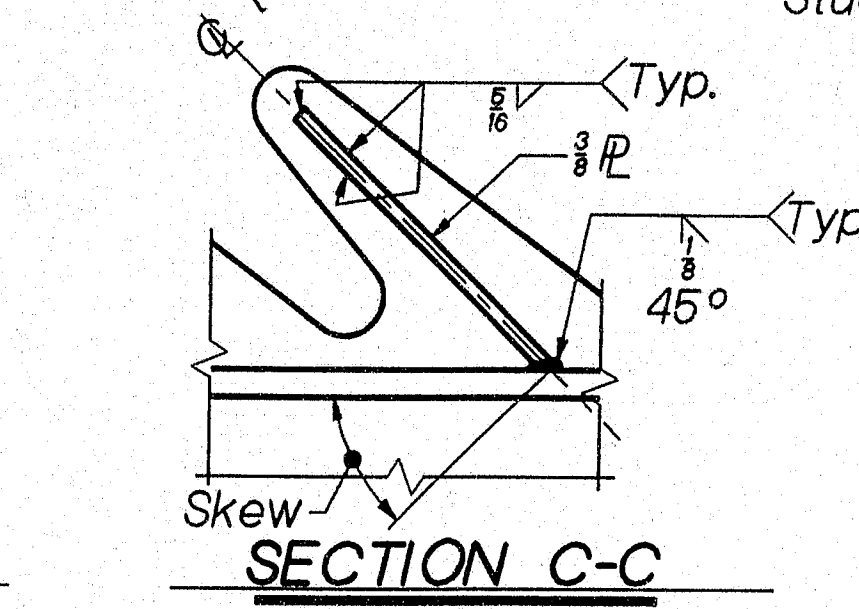


See design drawings for construction @
to curb dimensions, skew, crown slope,
slab thickness, other dimensions & angles that
are necessary to complete fabrication details
and location of Expansion Device.

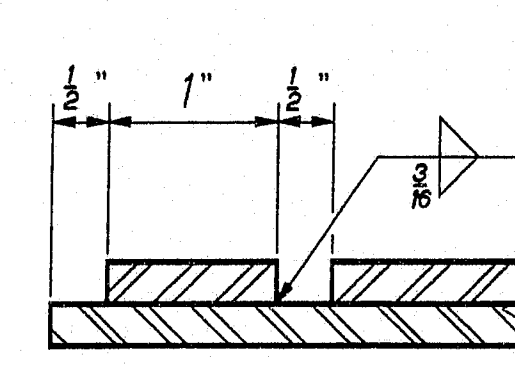


TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-240'	440'-600'	600'-760'	760'-920'
T 45°	3"	4"	5"	6"	7"

CURB AND SIDEWALK EXPANSION DAM - DETAILS



Skew ✓
SECTION C-C

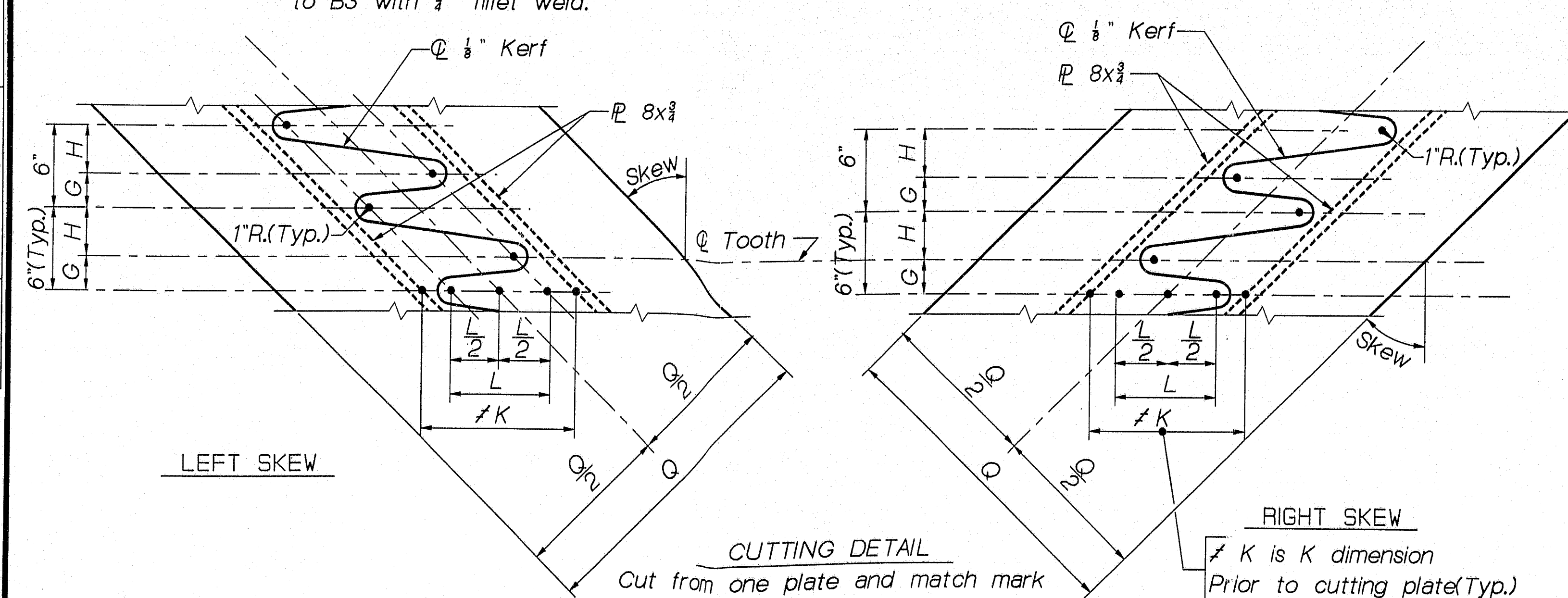
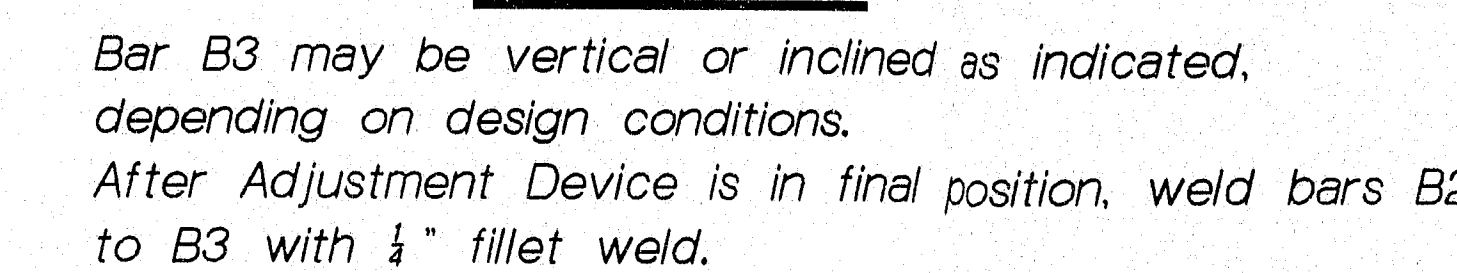


SECTION F-F

128-11

FINGER JOINT NOTES

1. The concrete in the superstructure Block-out may be placed with the Sidewalk Concrete.
2. All structural steel shall be A36.



ROADWAY FINGER JOINT - DETAILS

TABLE OF DIMENSIONS												
Type	Exp. Length	Skew	f K	L	G	H	K _{45°}	J _{45°}	M	N	P	Q
A	100°-260°	0°-5° incl.	7"	4"	3"	3"	9"	2½"				21"
		5°-10° ↑	7¼"	4¼"	2½"	3½"	9¼"	2½"				22"
		10°-20°	8"	4¾"	2½"	3½"	10"	2½"				22"
		20°-30°	9¾"	5¼"	2¾"	3¼"	10¾"	2½"				23"
		30°-40° ↑	9¾"	5¾"	2½"	3½"	11¾"	2½"				23"
B	280°-440°	40°-50° incl.	11¼"	6½"	2½"	3½"	13¼"	2½"				23"
		0°-5° incl.	9"	6"	3"	3"	12"	3½"				23"
		5°-10° ↑	9¼"	6¼"	2½"	3½"	12¼"	3½"				24"
		10°-20°	10"	6¾"	2½"	3½"	13"	3½"				24"
		20°-30°	10¾"	7¼"	2¾"	3¼"	13¾"	3½"				25"
C	440°-600°	30°-40° ↑	12"	8"	2¾"	3¼"	15"	3½"				25"
		40°-50° incl.	13½"	8¾"	2½"	3½"	15½"	3½"				26"
		0°-10° incl.	11¼"	8¼"	3"	3"	15¼"	4½"	9"	4"	1½"	25"
		10°-20° ↑	12"	8¾"	2½"	3½"	16"	4½"	10"	4"	1½"	26"
		20°-30°	12¾"	9¼"	2½"	3½"	16¾"	4½"	11"	4"	1½"	26"
D	600°-760°	30°-40° ↑	14"	10"	2¾"	3¼"	18"	4½"	11"	4"	1½"	26"
		40°-50° incl.	15½"	10¾"	2¾"	3¼"	19½"	4½"	12"	4"	1½"	26"
		0°-10° incl.	13¼"	10¼"	3"	3"	18¼"	5½"	11"	5"	2"	30"
		10°-20° ↑	14"	10¾"	2½"	3½"	19"	5½"	12"	5"	2"	30"
		20°-30°	14¾"	11¼"	2½"	3½"	19¾"	5½"	13"	5"	2"	30"
E	760°-920°	30°-40° ↑	16"	12"	2½"	3½"	21"	5½"	13"	5"	2"	30"
		40°-50° incl.	17¾"	13"	2¾"	3¼"	22¾"	5½"	15"	5"	2"	30"
		0°-10° incl.	15¼"	12¼"	3"	3"	21¼"	6½"	13"	6"	2½"	36"
		10°-20° ↑	16"	12¾"	2½"	3½"	22"	6½"	14"	6"	2½"	36"
		20°-30°	16¾"	13¼"	2½"	3½"	22¾"	6½"	15"	6"	2½"	36"
		30°-40° ↑	18"	14"	2½"	3½"	24"	6½"	15"	6"	2½"	36"
		40°-50° incl.	19¾"	15"	2¾"	3¼"	25¾"	6½"	17"	6"	2½"	36"

GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings
the requirements of the Design Drawings shall be followed.

REVISIONS	APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Description	MoDOT	FHWA	
Original Plan	JULY, 1993		STANDARD DETAILS BD 304 - 93
			EXPANSION DEVICE
			FINGER JOINT
			SHEET OF AUGUSTA MAINE JULY, 1993

SHEET OF AUGUSTA, MAINE JULY, 1993