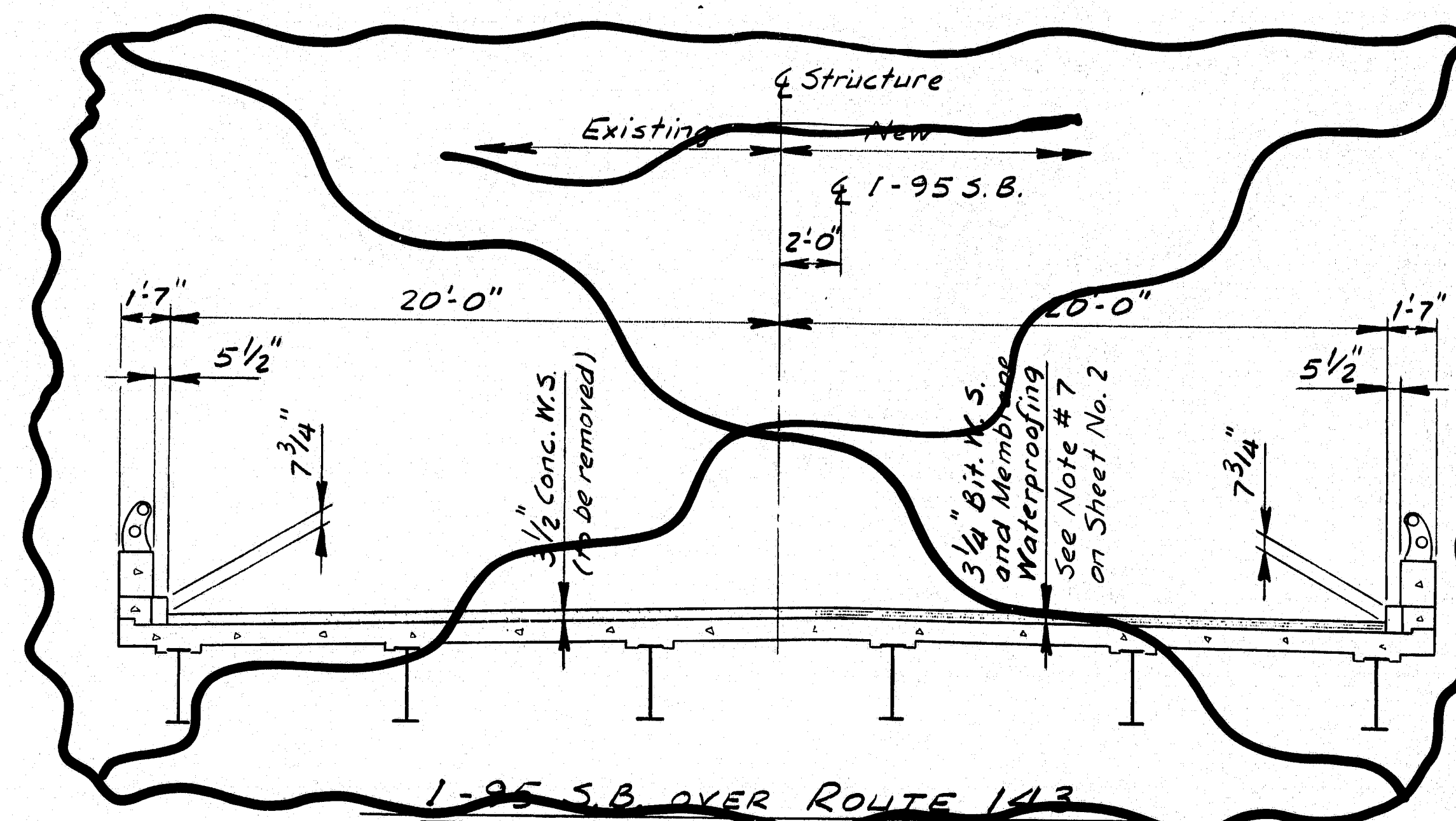


1-95 S.B. OVER MCRR  
1-95 S.B. OVER E. BR. SEBASTICOOK RIVER



# INDEX OF SHEETS

General Plan	1
Estimated Quantities	2
Rail Replacement Dts. (Newport)	3
Bridge Details (Newport)	4
Reinforcing Steel Schedule	5
BD 114-81: Aluminum	6
BD 120-81: Conc. End Posts	7
BD 127-81: Temp. Conc. Barrier	8

# LEGEND

W.S. = Wearing Surface

# SYMBOLS

	Existing Concrete (to remain)
	Existing Concrete (to be removed)
	New Concrete
	Bituminous Pavement

100-167

Newport: 1R-95-7(91)  
~~1R-95-7(91)~~

STATE	PROJECT NUMBER	SHEET	TOTAL
MAINE	95-7(91)	22	40

# SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway Bridges 1983 and interim specifications thru 1985.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of January 1984.

# DESIGN LOADING

LIVE LOAD (Existing):  
HS20-516-44 as modified for Interstate

# TRAFFIC DATA

MCRR & River	143
AADT 1984	4475
AADT 2004	5370
DHV	768
T(%)	15
D(%)	100

# SCOPE OF WORK

1-95 OVER MCRR &  
1-95 OVER E. BR. SEB. RIVER -  
Remove 2" Bituminous W.S.\*  
Repair deck as necessary  
Modify & seal expansion joints  
Remove & replace Bridge Railing  
Construct Concrete End Posts  
Install Membrane Waterproofing  
& 4" Hot Bituminous W.S.  
Clean & paint all Structural Steel

1-95 OVER ROUTE 143 -  
Remove 3 1/2" Concrete W.S.  
Repair deck as necessary  
Install Membrane Waterproofing  
& 3 1/4" Hot Bituminous W.S.  
Install Guard Rail Connections  
Repair damaged pier caps  
Clean & paint all Structural Steel

\* Includes removal of existing Membrane Waterproofing

Note: Reproductions of the original construction plans for the existing bridges are available at the Bridge Design Office in Augusta. It is unlikely that the plans will show any construction field changes or subsequent alterations to the original structures.

Revised as Built C.R. Kul 12-22-88

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 S.B. OVER MCRR INTERSTATE 95 S.B. OVER E. BRANCH SEBASTICOOK RIVER NEWPORT
<del>INTERSTATE 95 S.B. OVER Rte. 143</del>
GENERAL PLAN
SHEET 1 OF 8 AUGUSTA, MAINE



PROJECT DESIGN ENGINEER	BY	DATE
	DESIGN - DETAILED	10/20/95
	CHECKED	10/20/95
	REVISIONS	10/20/95
FIELD CHANGES		

ESTIMATED QUANTITIES					
ITEM NO.	DESCRIPTION	95-7(91)	95-7(95)	UNIT	TOTAL
		1-95 S.B. MCR	1-95 S.B. E.B.S. River Rte 143		Both Projects
202.127	Removal of Existing Bituminous Pavement	0.47	0.53	L.S.	1
202.128	Removal of Existing Concrete - Curbs & Sidewalks	0.47	0.53	L.S.	1
202.13	Removing Existing Railings (Retained by Dept.)	333	384	L.F.	717
<del>202.13</del>	<del>Removing Existing Structural Concrete</del>	<del>---</del>	<del>---</del>	<del>L.F.</del>	<del>---</del>
403.08	Hot Bituminous Pavement, Grading C	117	133	Ton	365
503.12	Reinforcing Steel Fabricated and Delivered	610	580	Lb.	1190
503.13	Reinforcing Steel Placing	610	580	Lb.	1190
506.142	Field Painting Existing Structural Steel	0.31	0.41	L.S.	1
506.16	Surface Preparation of Existing Structural Steel	240	320	M.H.	775
507.092	Aluminum Bridge Railing, 2-Bar	321	373	L.F.	694
508.1301	Membrane Waterproofing (Newport)	0.47	0.53	L.S.	1
<del>508.1302</del>	<del>Membrane Waterproofing (Extra)</del>	<del>---</del>	<del>---</del>	<del>L.S.</del>	<del>---</del>
518.30	Rehabilitation of Structural Concrete Slab to Reinforcing Steel	285	325	S.F.	600
518.31	Rehabilitation of Structural Concrete Slab to Below Reinforcing Steel	95	110	S.F.	320
520.24	Bridge Joint Modification	2	2	Each	4
526.301	Temporary Concrete Barrier Type 1	0.33	0.35	L.S.	1
606.173	Bridge Connections	4	4	Each	8
LUMP SUM QUANTITIES					
202.127	Removal of Existing Bituminous Pavement	530	600	S.Y.	1130
202.128	Removal of Existing Concrete - Curbs & Sidewalks	20	23	C.Y.	43
<del>202.13</del>	<del>Removing Existing Structural Concrete</del>	<del>---</del>	<del>---</del>	<del>L.F.</del>	<del>---</del>
506.142	Field Painting Existing Structural Steel	267,500	353,700	Lb.	857,700
508.1301	Membrane Waterproofing (Newport)	540	610	S.Y.	150
<del>508.1302</del>	<del>Membrane Waterproofing (Extra)</del>	<del>---</del>	<del>---</del>	<del>S.Y.</del>	<del>---</del>

# GENERAL CONSTRUCTION NOTES

1. Maintain one 12-foot minimum traffic lane at all times.
2. All work shall be done behind temporary concrete barrier.
3. The top surface of the existing concrete slabs shall be repaired as directed by the Engineer. Payment will be made under the appropriate Item No. 518.30 and 518.31.
4. All existing structural steel at each bridge shall be cleaned and painted.
5. Depress the Bituminous Wearing Surface around the existing bridge drains as directed by the Engineer.
6. Payment for drilling and grouting of reinforcing steel will be considered incidental to Item No. 503.13, Reinforcing Steel, Placing.
7. On the 1-95 S.B. over Route 143 bridge only, a second application of full coverage membrane waterproofing shall be applied over and in the same manner as the first full coverage layer. The side seams and end overlaps of the first and second layers shall be staggered. No additional payment will be made for the second full coverage layer of membrane waterproofing.
8. On the two Newport bridges, transition the approach pavement thickness one inch over about 100 feet to meet the increased finished grade of the bridge decks.

Newport: 1R-95-7(91)  
~~Class 1R-95-7(95)~~

F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	95-7(91)	23	40

"Revised as Built" CRK 10-22-88

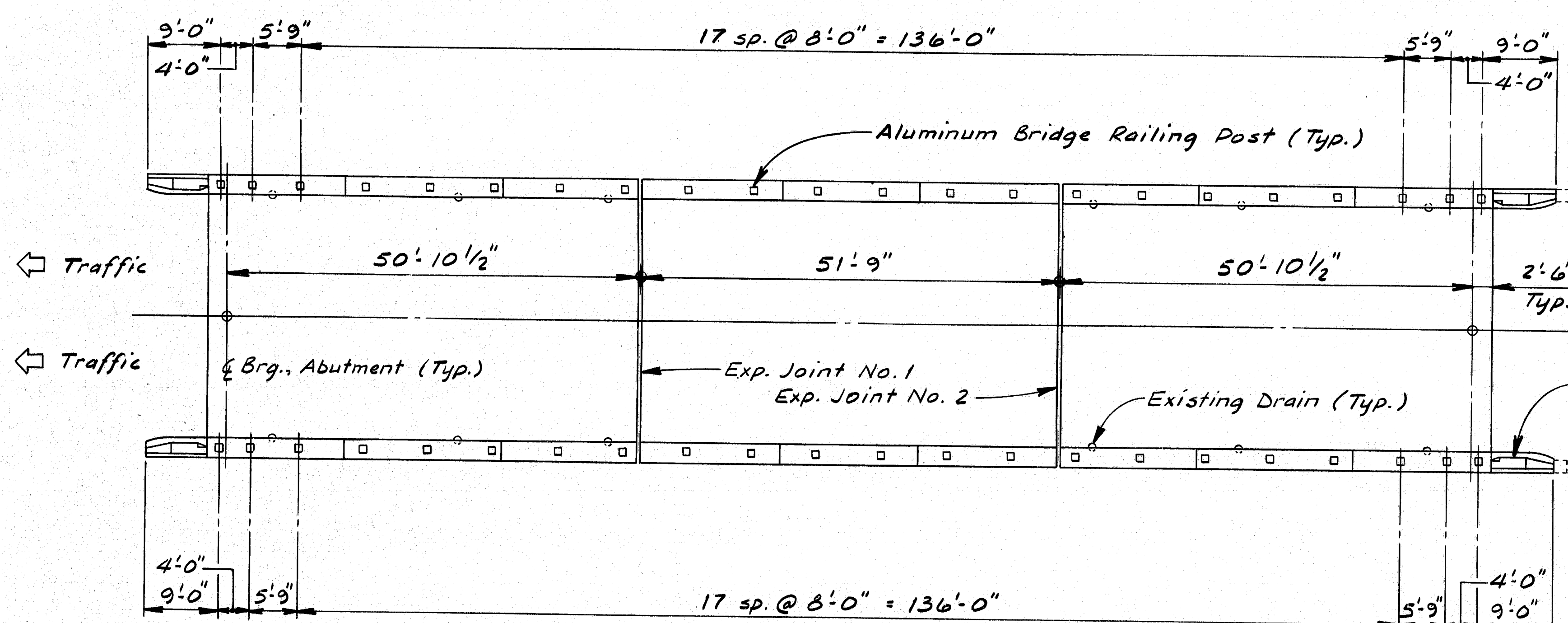
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 S.B. OVER MCR
INTERSTATE 95 S.B. OVER
E. BRANCH SEBASTICOOK RIVER
NEWPORT
<del>INTERSTATE 95 S.B. OVER Rte 143</del>
ESTIMATED QUANTITIES
SHEET 2 OF 3 AUGUSTA, MAINE

100-168

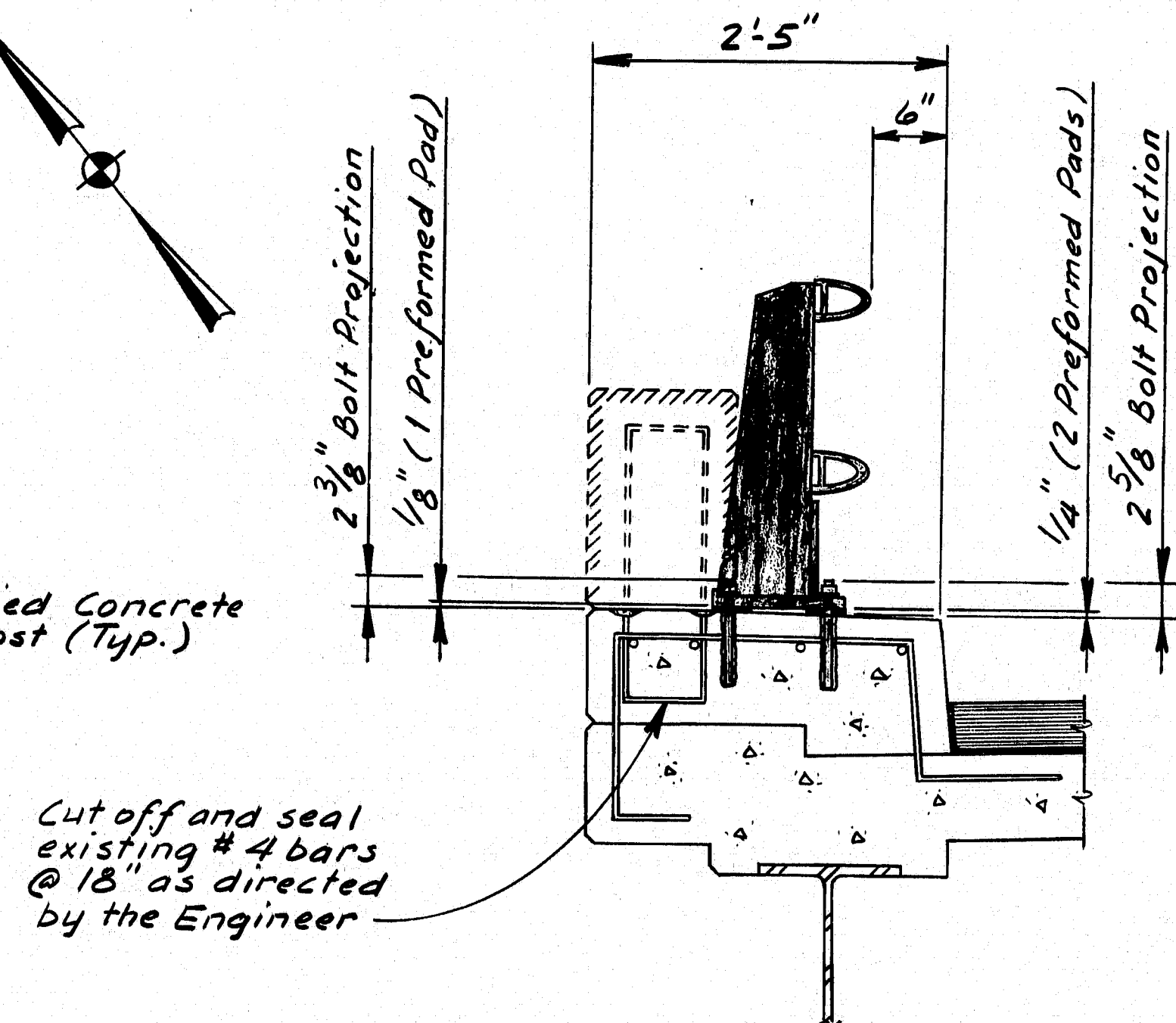
NEWPORT 95-7(91)



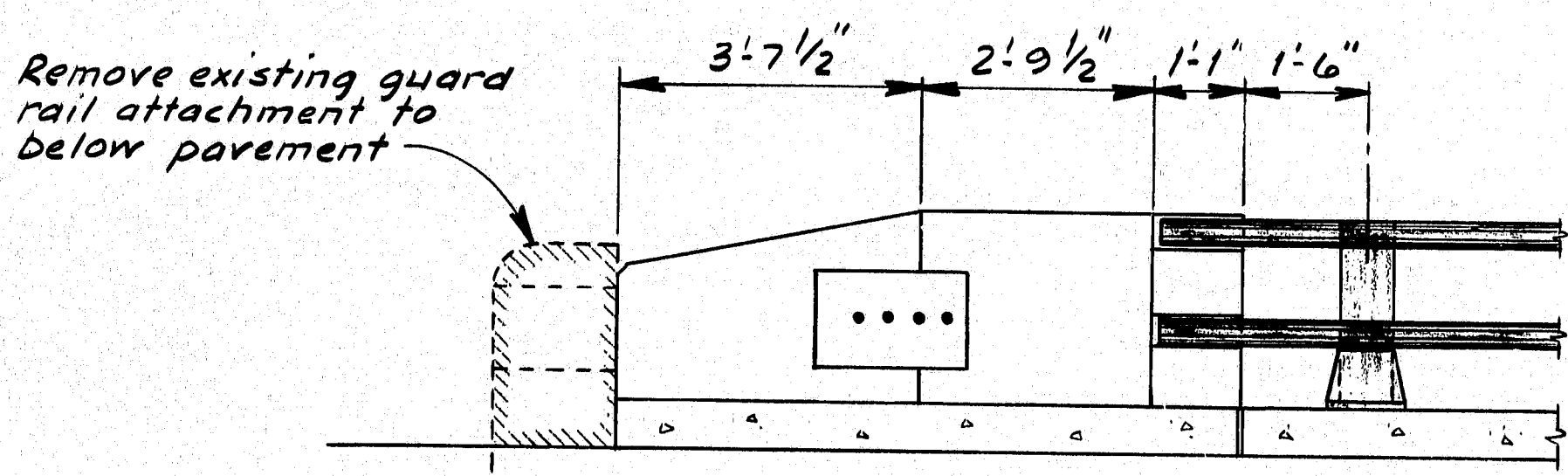
FR. A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	100-169	24	40



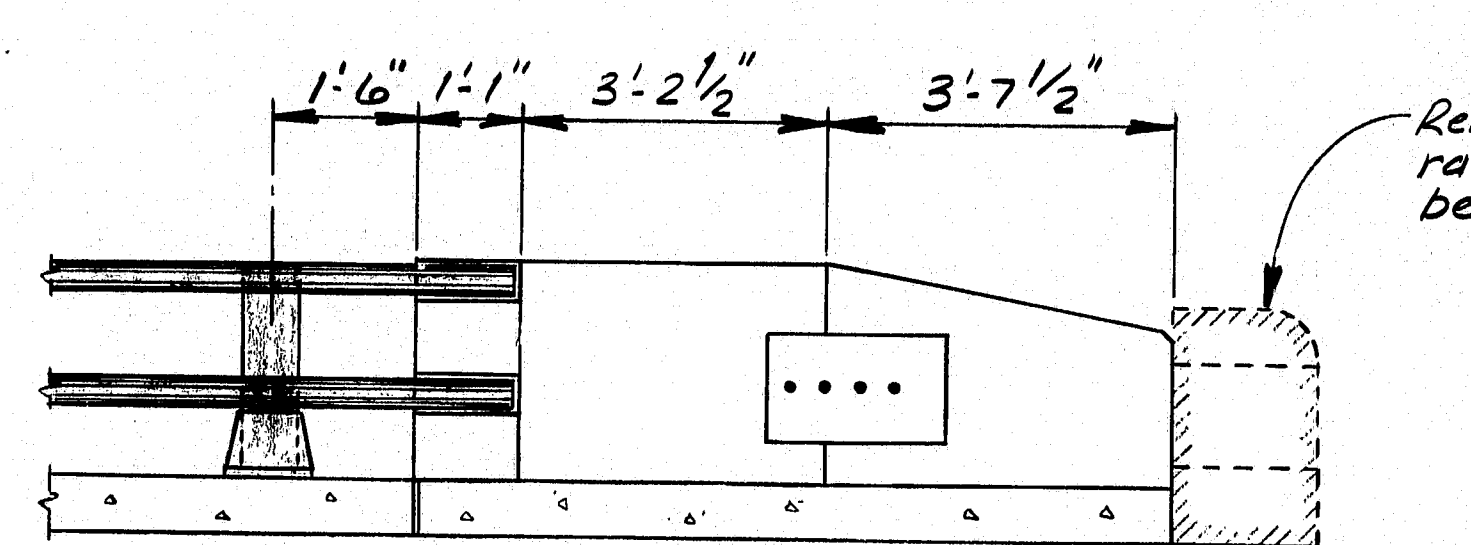
I-95 OVER MCRR.



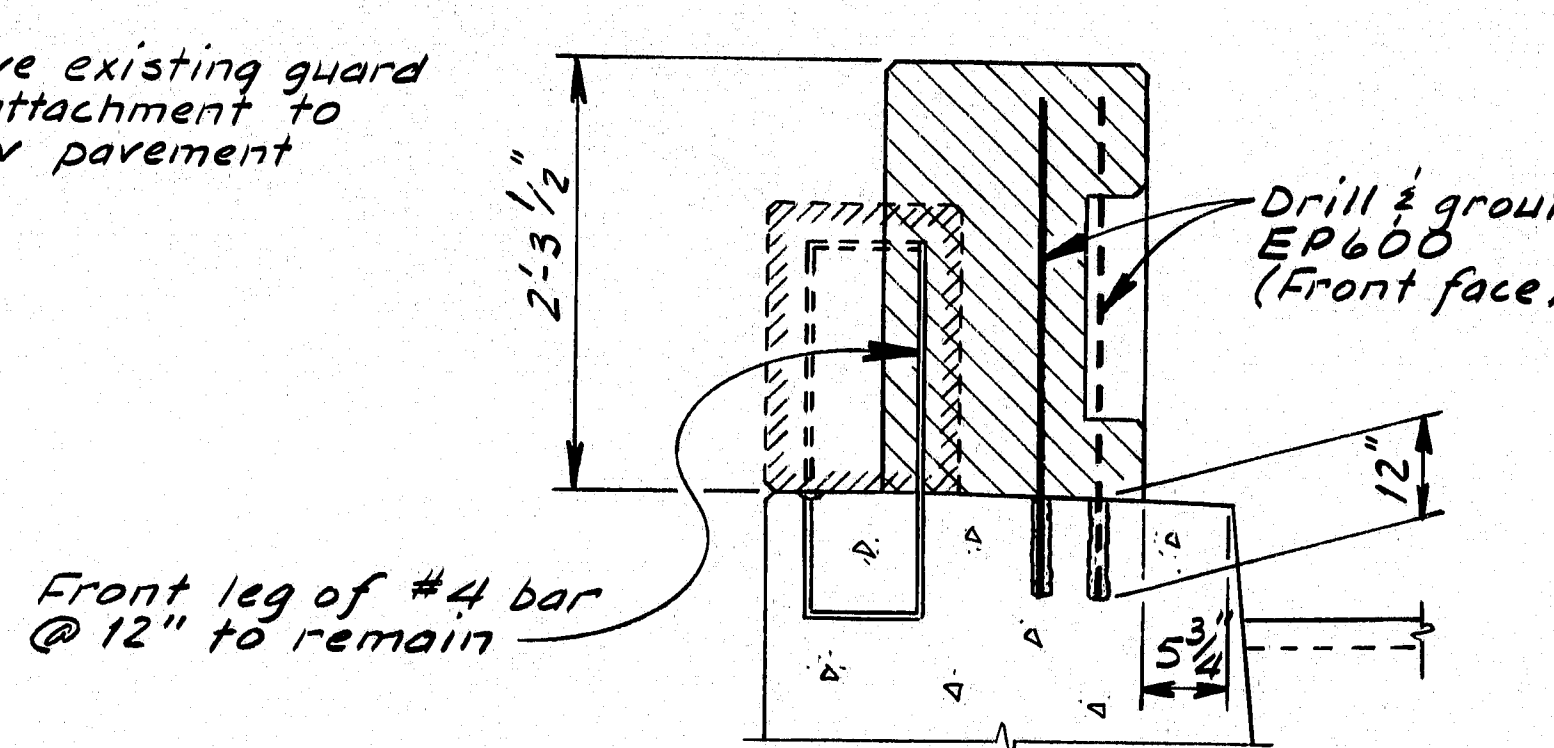
RAIL DETAIL



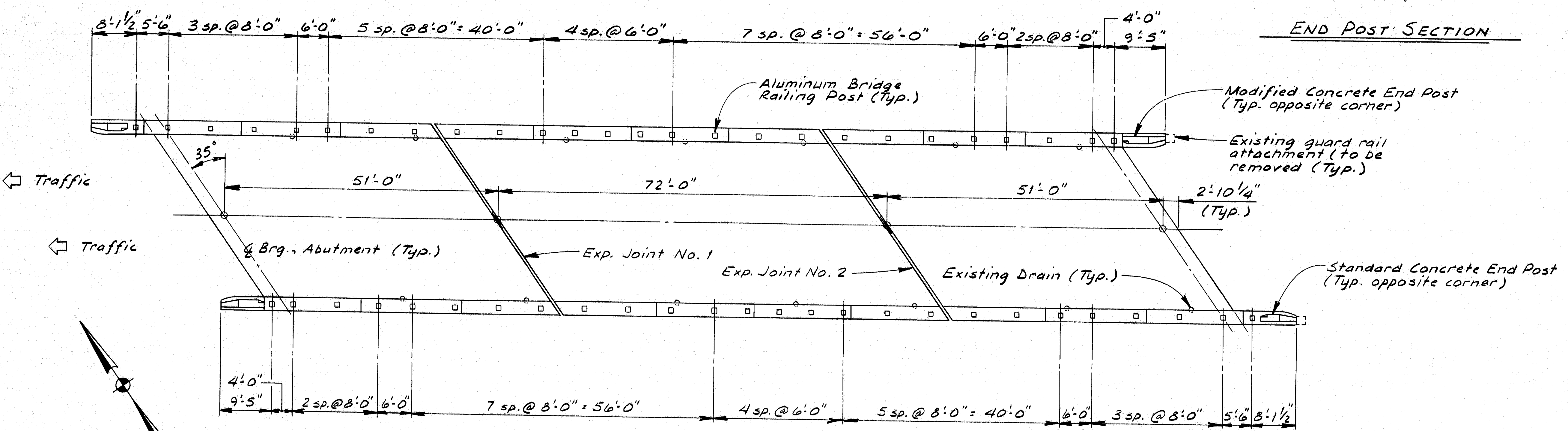
MODIFIED END POST (MCRR)  
(Build two as shown; two opposite hand)



MODIFIED END POST (RIVER)  
(Build two as shown)

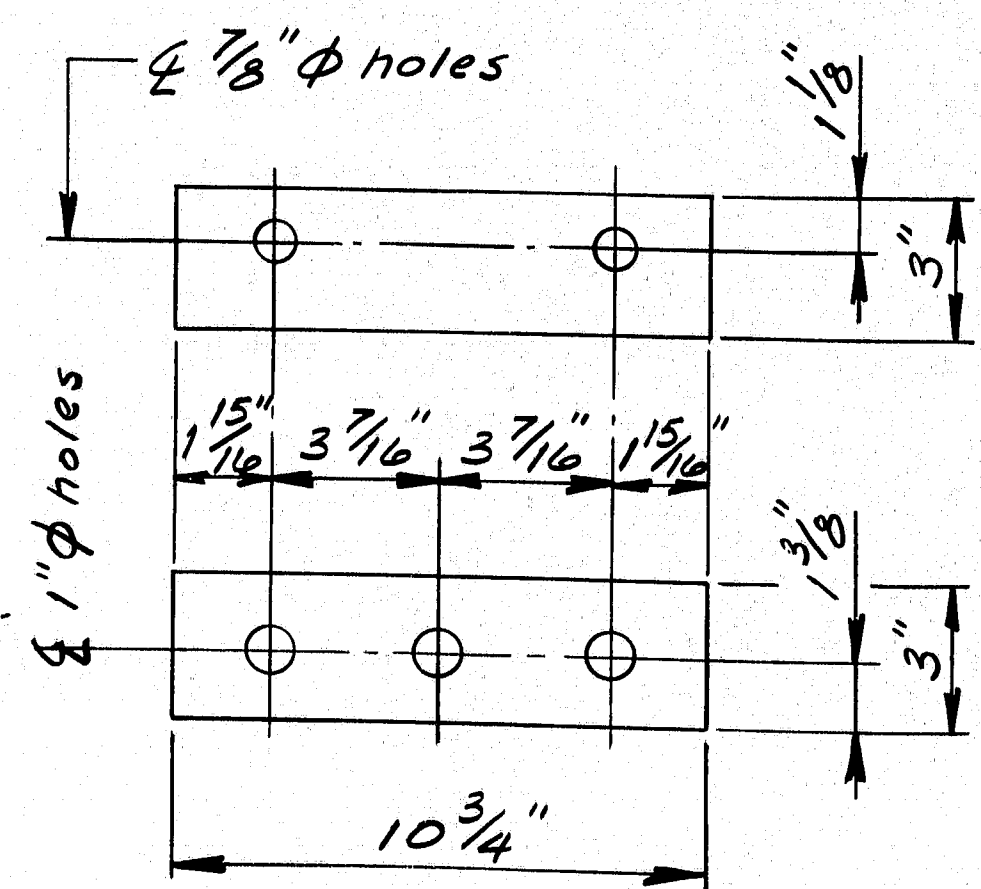


END POST SECTION



I-95 OVER EAST BRANCH SEBASTICOOK RIVER

- NOTES**
1. Removal of existing rail parapets and guard rail attachments will be paid for under Item No. 202.128. Cutting and sealing of exposed reinforcing steel will be considered incidental to this item.
  2. Anchor bolts for bridge railing shall be drilled and grouted in accordance with Special Provision Section 507.
  3. Protective Coating for Concrete Surfaces shall be applied to all exposed surfaces of Concrete End Posts. Payment will be considered incidental to contract items.
  4. Reinforcing steel shall have two inches cover unless otherwise indicated.
  5. For the Modified End Posts, substitute reinforcing bars from BD 120 as follows:  
 4 - EP600 replace 3 - EP502  
 2 - EP600 replace 2 - EP503  
 3 - EP600 replace 1 - EP504  
 3 - EP400 replace 1 - EP410  
 For Standard End Post, substitute bars as follows:  
 3 - EP600 replace 3 - EP502  
 2 - EP600 replace 2 - EP503  
 2 - EP600 replace 1 - EP504  
 2 - EP400 replace 1 - EP410



PREFORMED PADS

Revised as Built CRK, 12-22-88

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 S.B. OVER MCRR  
AND  
INTERSTATE 95 S.B. OVER  
E. BRANCH SEBASTICOOK RIVER  
IN THE TOWN OF  
NEWPORT

RAIL REPLACEMENT DETAILS

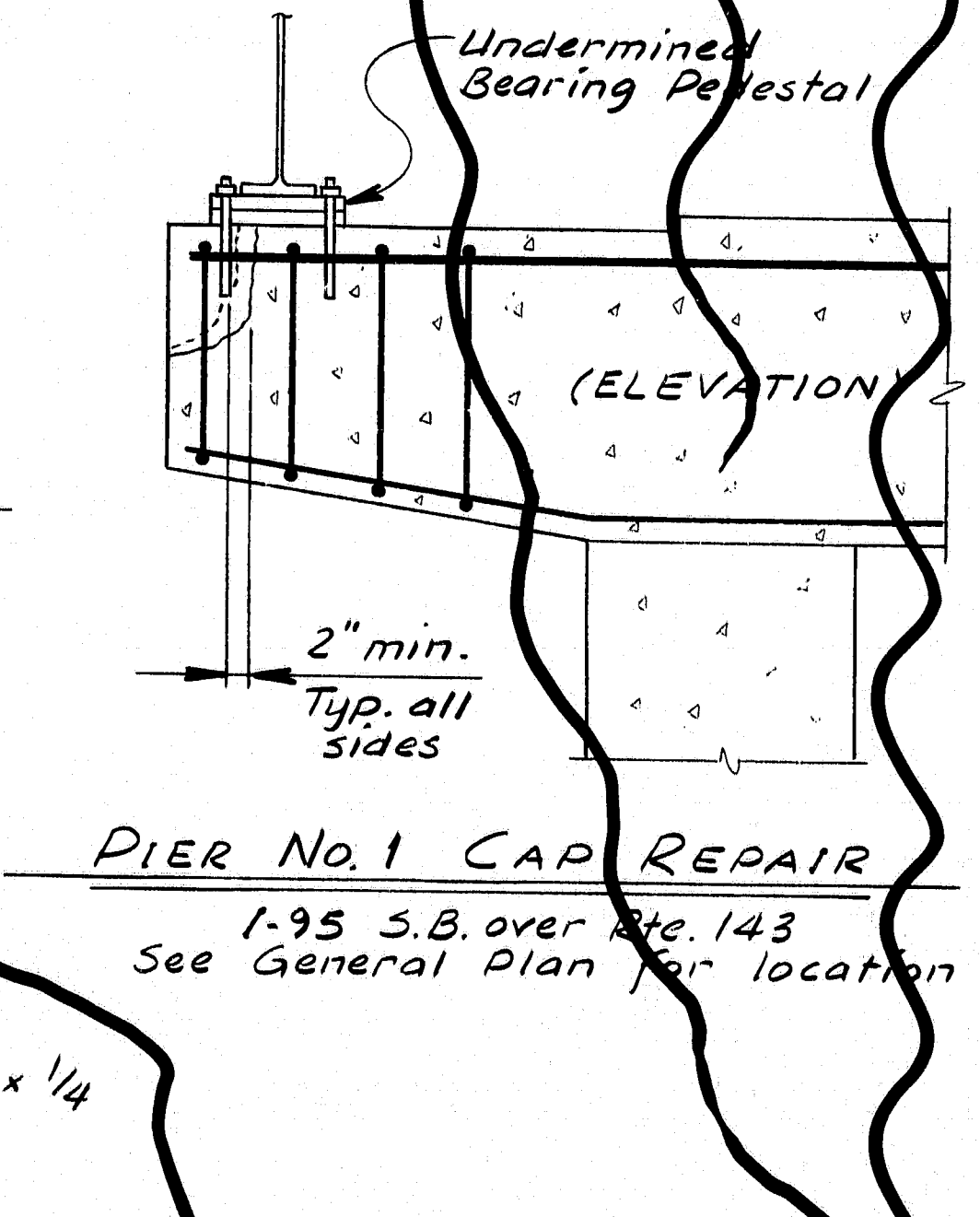
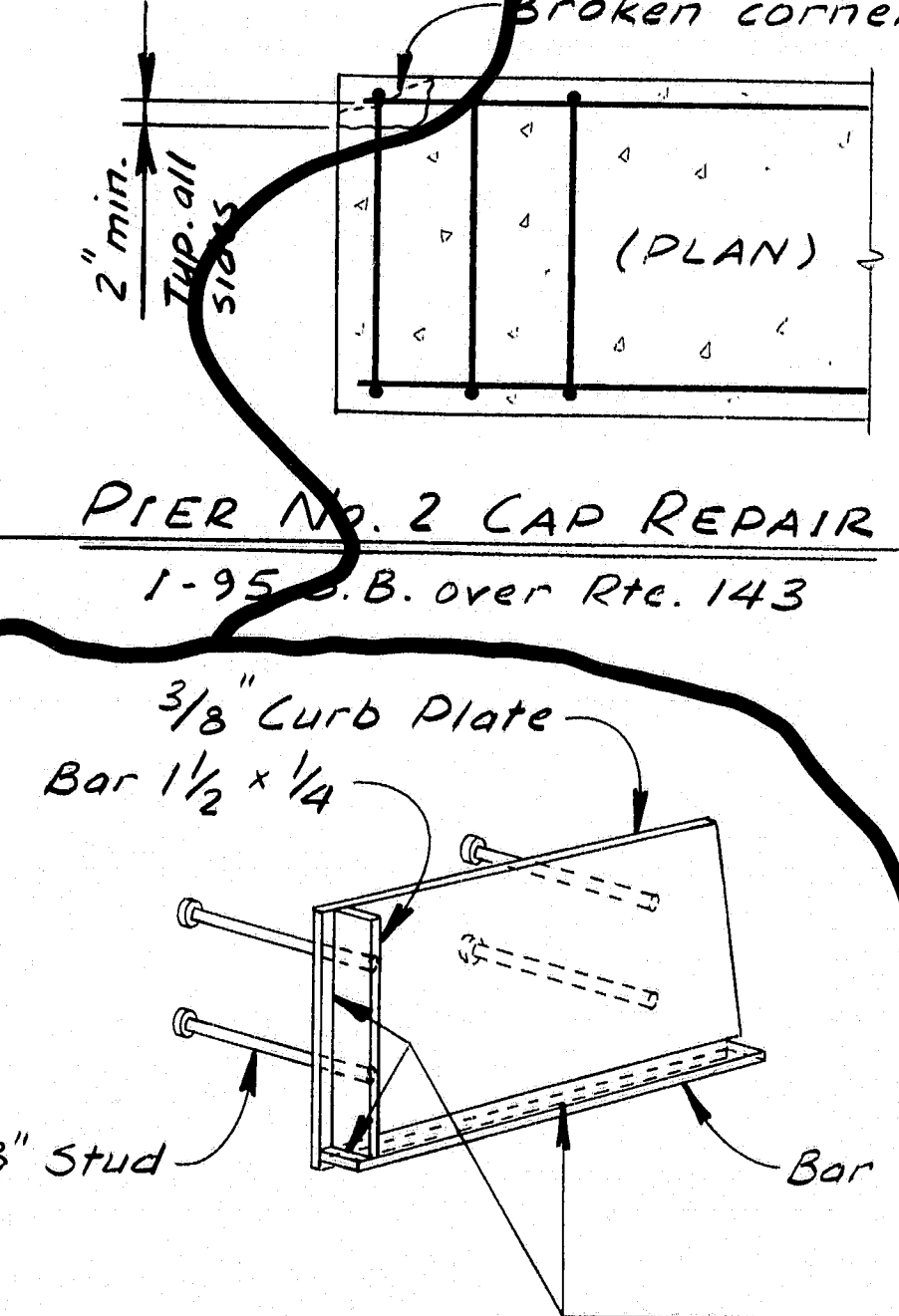
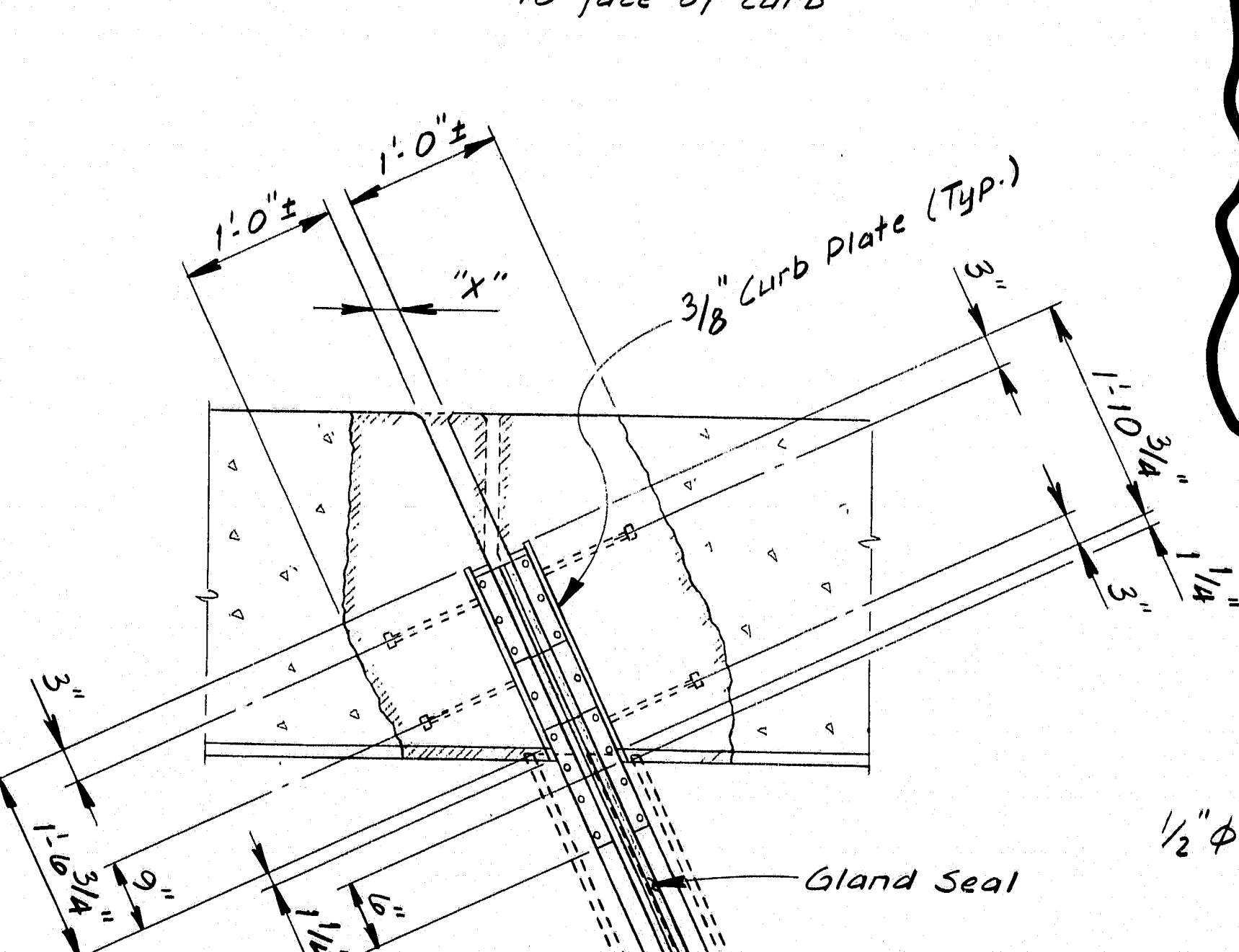
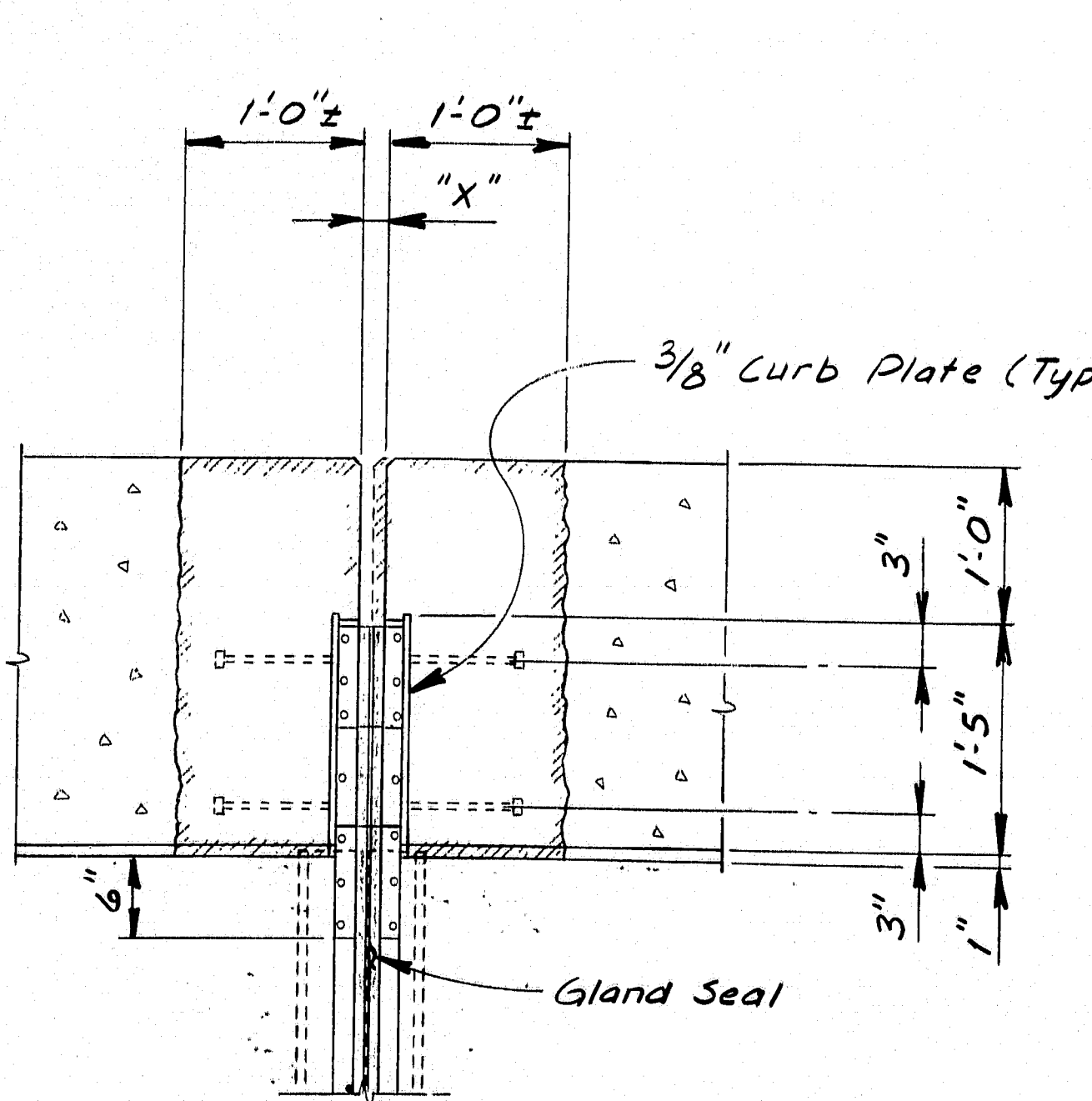
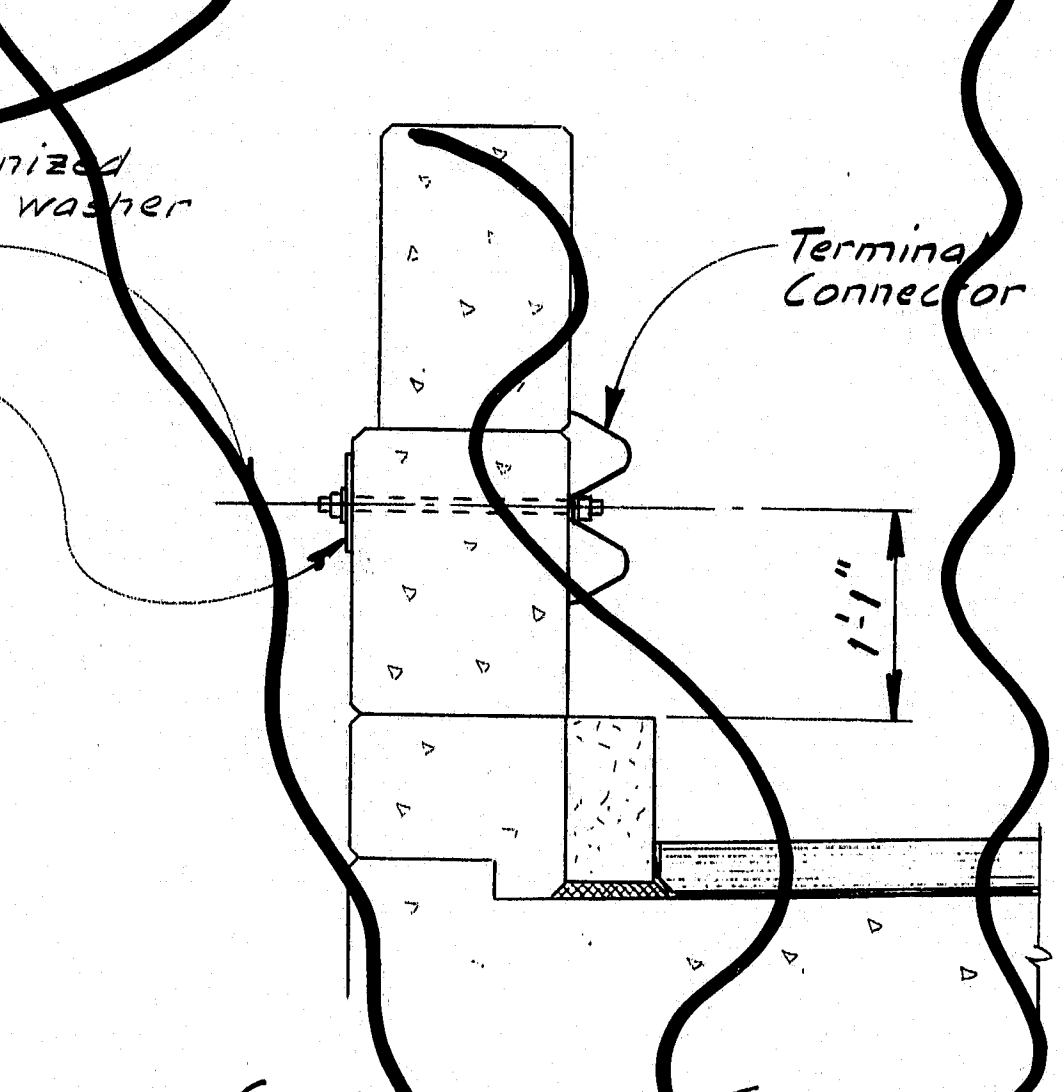
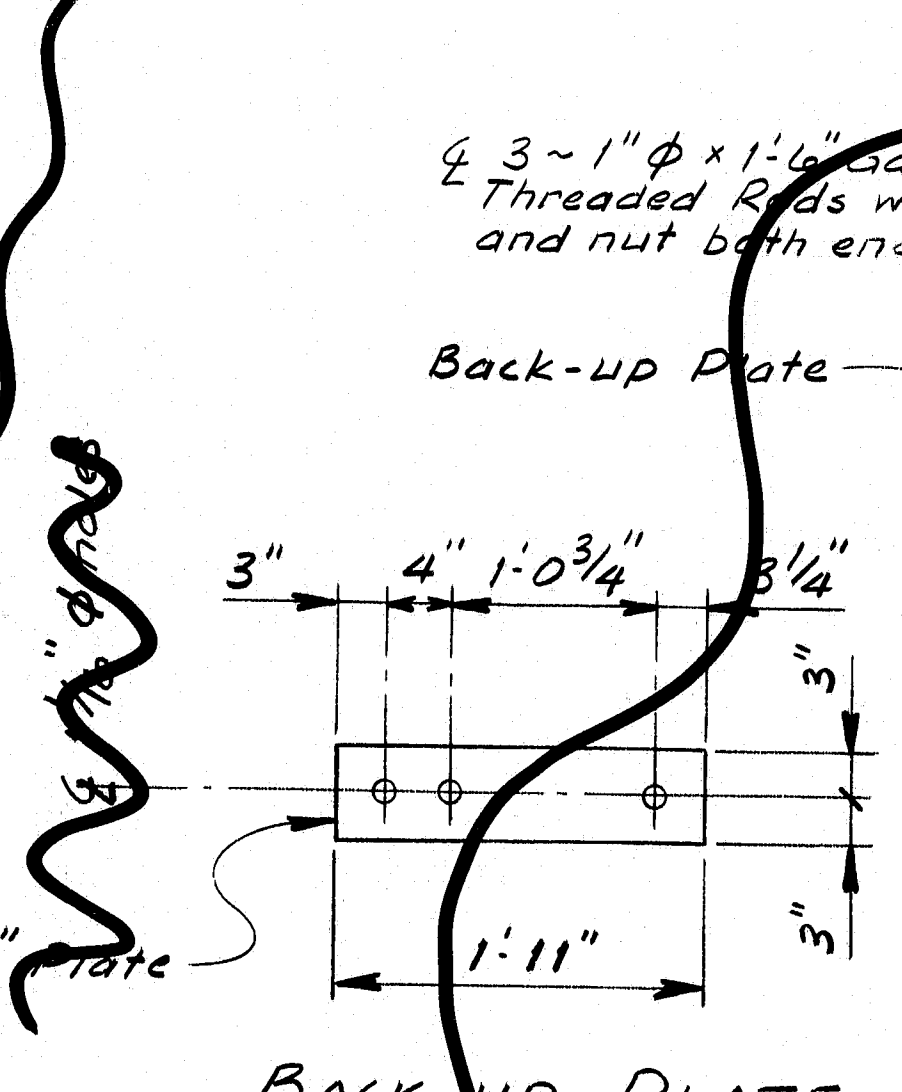
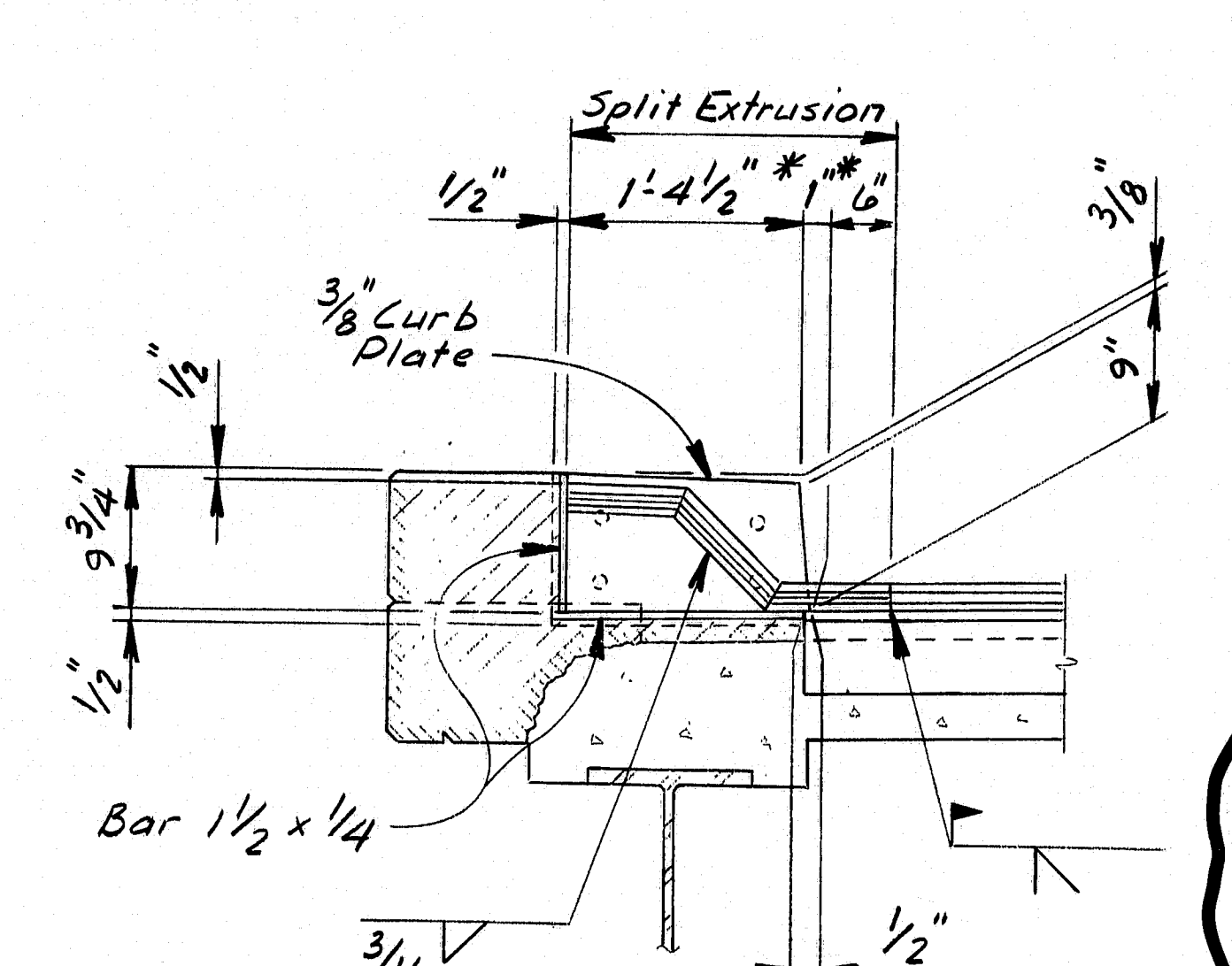
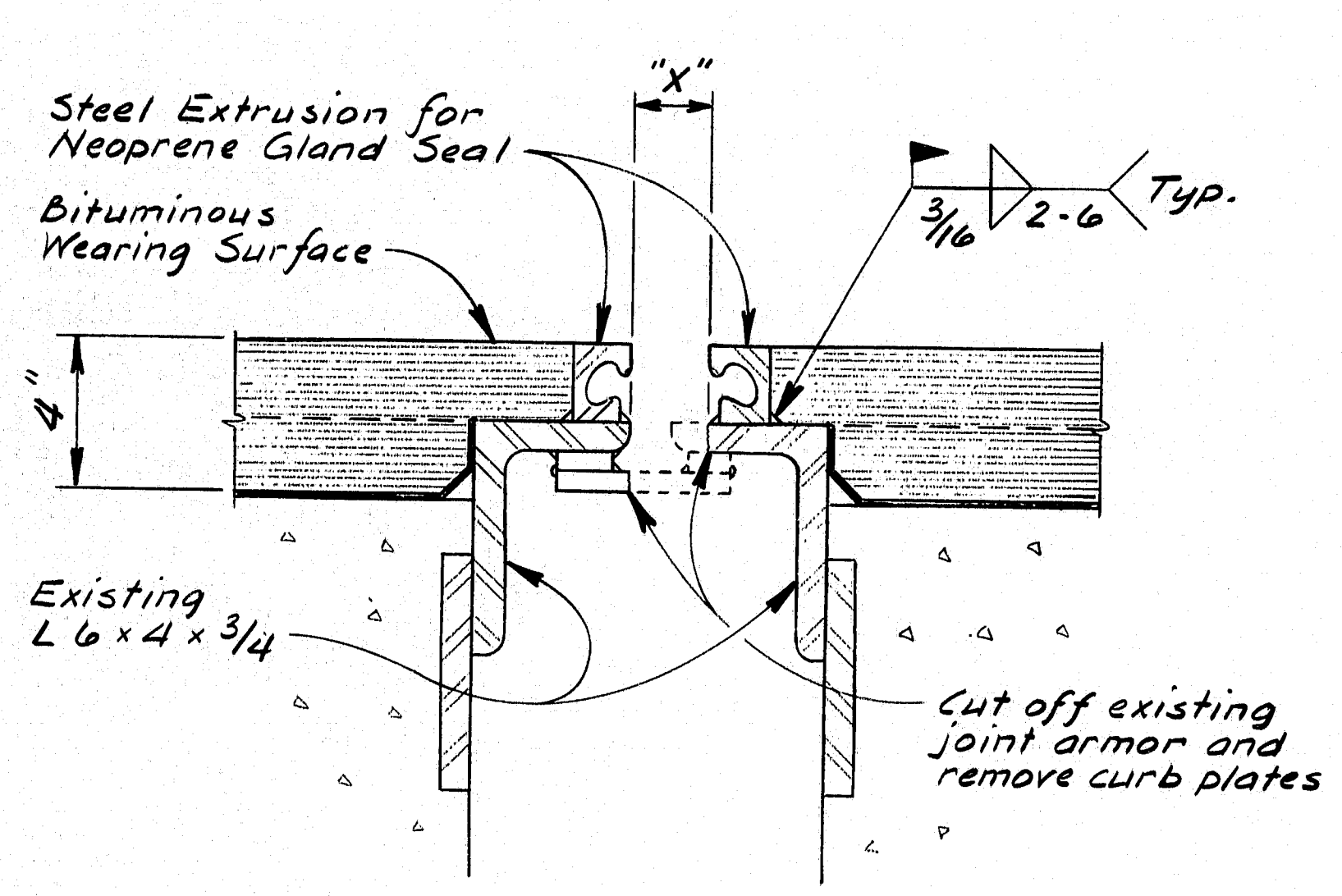
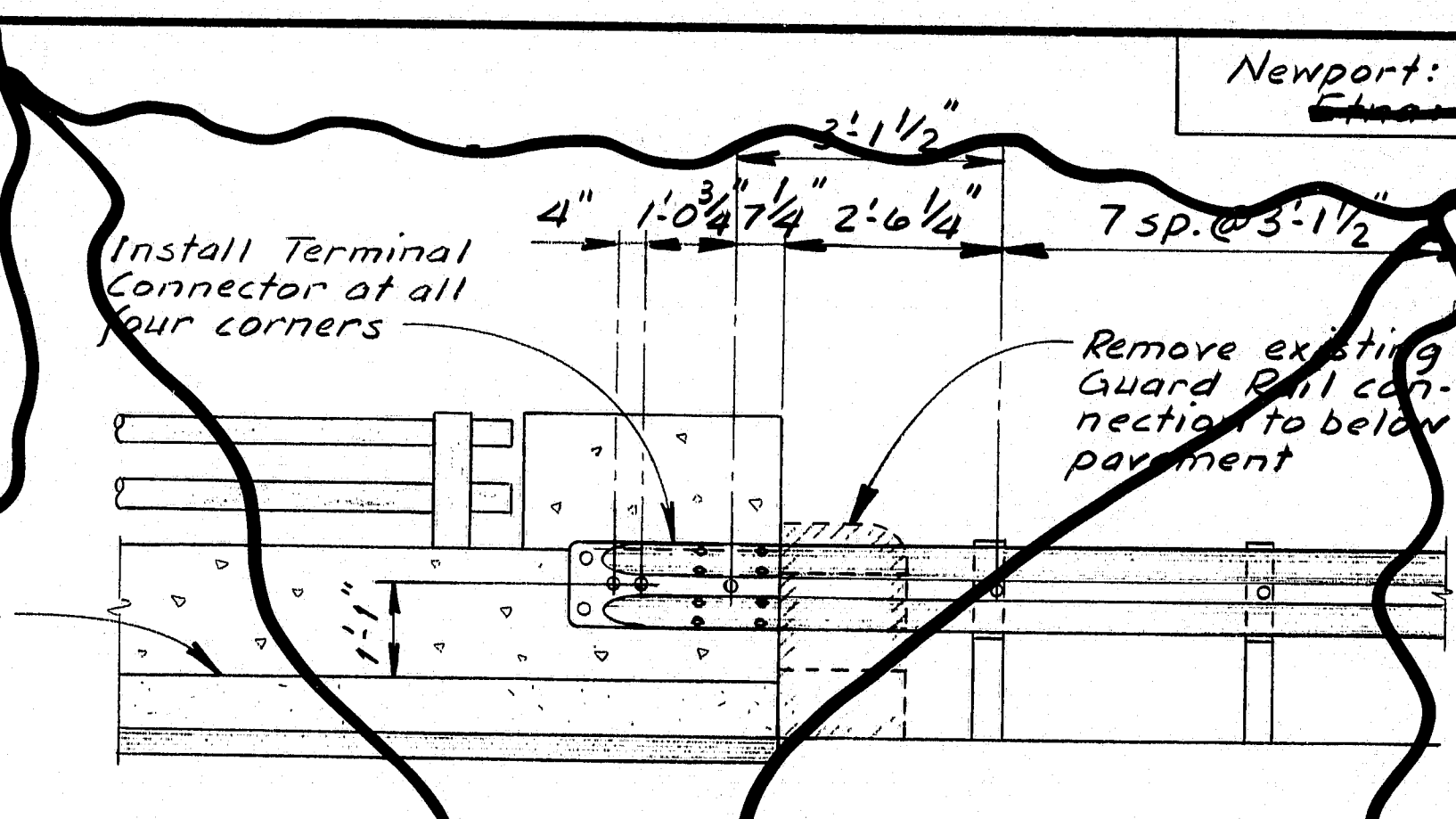
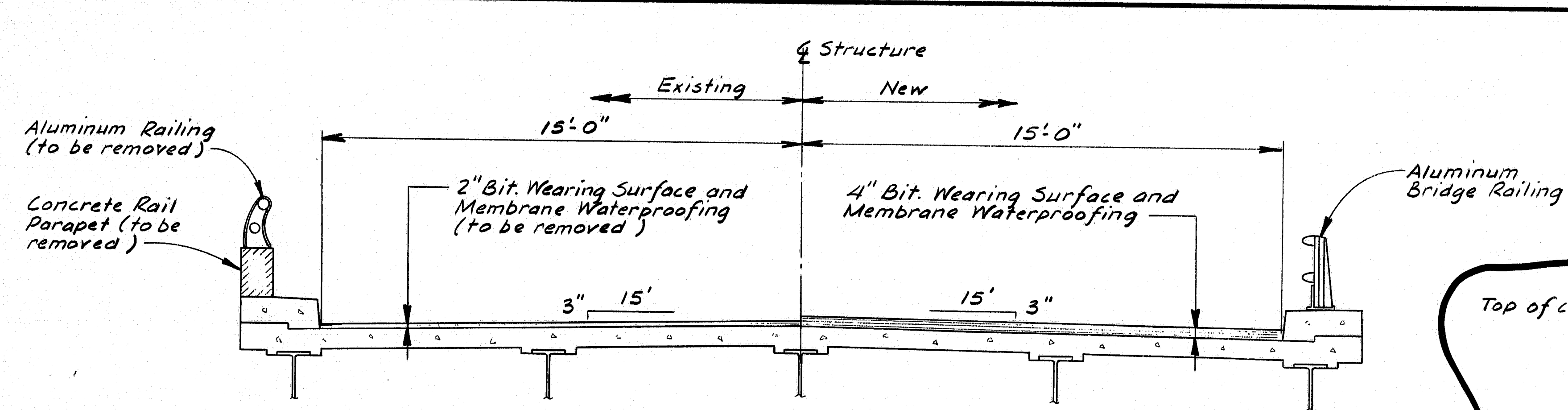
SHEET 3 OF 8 AUGUSTA, MAINE  
NEWPORT 95-7(91)

100-169

PROJECT DESIGN ENGINEER	DATE
DESIGN DETAIL	10/2/88
CHECKED	10/2/88
REVISIONS	10/2/88
FIELD CHANGES	10/2/88

BRUNING 44-132 45710-1





- NOTES (1-95 S.B. over Rte. 143)
- Any damage caused by drilling holes for the Terminal Connector anchorage shall be repaired at the Contractor's expense.
  - The superstructure shall be supported by a method approved by the Engineer before removing deteriorated concrete from the pier cap bearing area. The exact method of repair shall be as directed by the Engineer. Payment will be made under the provisions of Subsection 104.03, Extra Work.
  - Removal of the existing concrete wearing surface will be paid for under Item No. 202.17, Removing Existing Structural Concrete.
  - Payment for the Terminal Connectors, including installation, will be considered incidental to the Guard Rail Pay Items.

GLAND SETTING TABLE

	MCRR No. 1	MCRR No. 2	River No. 1	River No. 2
120	1 11/16"	1 3/8"	1 1/4"	1 11/16"
105	1 3/4"	1 1/2"	1 3/8"	1 3/4"
90	1 13/16"	1 5/8"	1 9/16"	1 13/16"
75	1 7/8"	1 3/4"	1 11/16"	1 7/8"
60	1 15/16"	1 7/8"	1 7/8"	1 15/16"
45	2"	2"	2"	2"
30	2 1/16"	2 1/8"	2 1/8"	2 1/16"
15	2 1/8"	2 1/4"	2 5/16"	2 1/8"
0	2 3/16"	2 3/8"	2 7/16"	2 3/16"
-15	2 1/4"	2 1/2"	2 5/8"	2 1/4"
-30	2 5/16"	2 5/8"	2 3/4"	2 5/16"

Dimension "X"

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 S.B. OVER MCRR  
INTERSTATE 95 S.B. OVER  
E. BRANCH SEBASTICOOK RIVER  
NEWPORT

BRIDGE DETAILS

SHEET 4 OF 8 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER

DATE	BY	DESIGN	CHECKED	IN CHARGE
10-5-97	J. D. Dyer	DESIGNED	REVIEWED	APPROVED
10-5-97	L.S.B.	CHECKED	REVIEWED	APPROVED

PLANS

BRUNING 44-32 45710-1

100-170

"Revised as Built"



[illegible]

### TYPE - BENDING DIAGRAMS

The diagrams illustrate various types of bending moment distributions:

- A:** Cantilever beam with point load  $P$  at free end.
- B:** Simply supported beam with point load  $P$  at center.
- C:** Simply supported beam with triangular load.
- D:** Fixed end of a beam.
- E:** Fixed end of a beam with rotation  $\theta$ .
- F:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- G:** Fixed end of a beam with translation  $\delta$ .
- H:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- I:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- J:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- K:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- L:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- M:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- N:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- O:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- P:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- Q:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- R:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .
- S:** Fixed end of a beam with rotation  $\theta$  and translation  $\delta$ .

GENERAL NOTES

- 100-171

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

~~INTERSTATE 95 S. OVER RITE 143~~

SHEET 5 OF 8 AUGUSTA, MAINE

NEWPORT 95-7(91)

DESIGN - DETAIL	BY	DATE
CHECKED	D. Dorman	May '87
REVISIONS	LSB	6-87
REVISIONS		