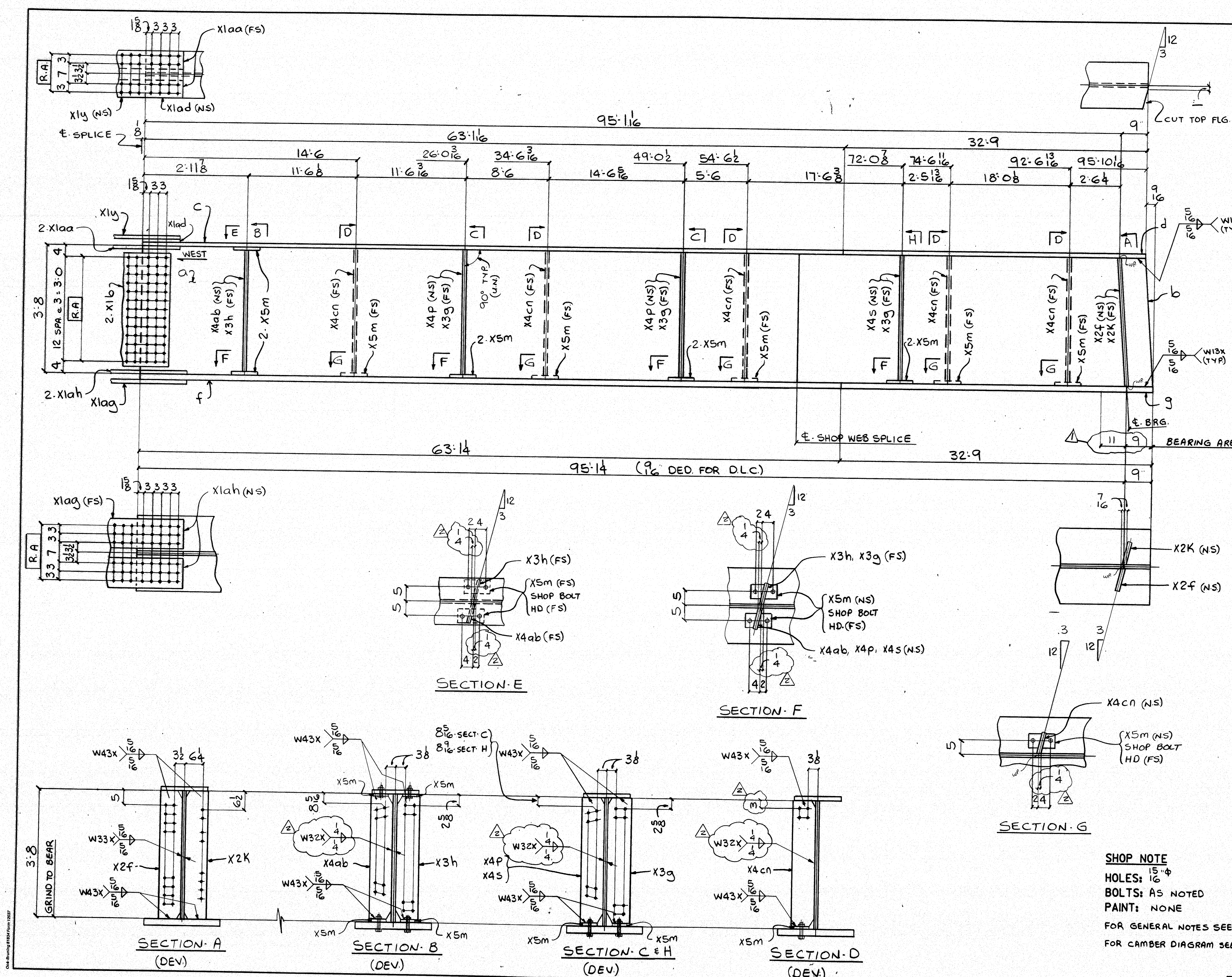




FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	BR-BRF-038-1 (35)

BILL OF MATERIAL					
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM
ONE G4I GIRDER					
1	a	P. 44 x 9 1/2	59 7 1/2	(T)	1 19
1	b	P. 44 x 9 1/2	36 3 1/2	(T)	1 22
1	c	P. 16 x 1	63 1 1/2	(T)	4 12
1	d	P. 16 x 1	32 9	(T)	4 14
1	f	P. 26 x 28	63 1 1/2	(T)	3 8
1	g	P. 26 x 28	32 9	(T)	3 18
2	x1b	P. 39 x 1/2	1 6 1/2	(T)	6 10
1	x1y	P. 16 x 9 1/2	2 0 1/2	(T)	6 8
2	x1aa	BAR. 7 x 1 1/2	2 0 1/2	(T)	6 5
1	x1ad	P. 12 1/2 x 1 1/2	1 4		6 16
1	x1ag	P. 24 x 1 1/2	2 6 1/2	(T)	6 3
2	x1ah	P. 11 x 1 1/2	2 6 1/2	(T)	6 2
1	x2f	BAR. 8 x 3/4	3 8 3/2		7 3
1	x2k	BAR. 8 x 3/4	3 8 3/2		7 3
1	x4ab	BAR. 7 1/2 x 3/4	3 6 3/4		7 18
1	x3h	BAR. 7 1/2 x 3/4	3 6 3/4		7 18
2	x4p	BAR. 7 1/2 x 3/4	3 7 3/8		7 18
1	x4s	BAR. 7 1/2 x 3/4	3 7 3/8		7 18
3	x3g	BAR. 7 1/2 x 3/4	3 7 3/8		7 18
5	x4cn	BAR. 7 1/2 x 3/4	3 7 3/8		7 18
15	x5m	BAR. 5 x 3/8	0 9		7 10
26	3/4"	HS BOLTS	0 4	BO TT FLG	8 1
4	3/4"	HS BOLTS	0 3	TOP FLG	8 1
30		WASH FOR 3/4" BOLTS			8 11

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION

☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED

NOV 27 1996

☐ RETURNED FOR CORRECTIONS ☐ REJECTED

DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 105 OF STANDARD SPECIFICATIONS

DESIGN INFO	117-98	5/28/96
DESIGN INFO		3-25-96
NO.	REVISION	DATE

HIGH STEEL STRUCTURES, INC.

1710 Hampden Road
Lancaster, PA 17605-0008
Phone 717/299-5222

A Division of High Industries, Inc.

GIRDER - G4I

PENOBSCOT RIVER BRIDGE

PENOBSCOT RIVER BRIDGE STA. 18+70

PENOBSCOT CO., BANGOR TO BREWER

STATE OF MAINE

DEPT. OF TRANSPORTATION

STATE CONTRACT OR REF. NO. BR-BRF-038-1 (35) PIN 2672.00

CONTRACTOR REED & REED, INC.

IN CHARGE: LANCO (WC) MADE BY: DF CHK'D BY: DWG DATE: 2-21-96

CONTRACT NUMBER ME-95393-1 DRAWING NUMBER 68 OF 77

SHOP NOTE

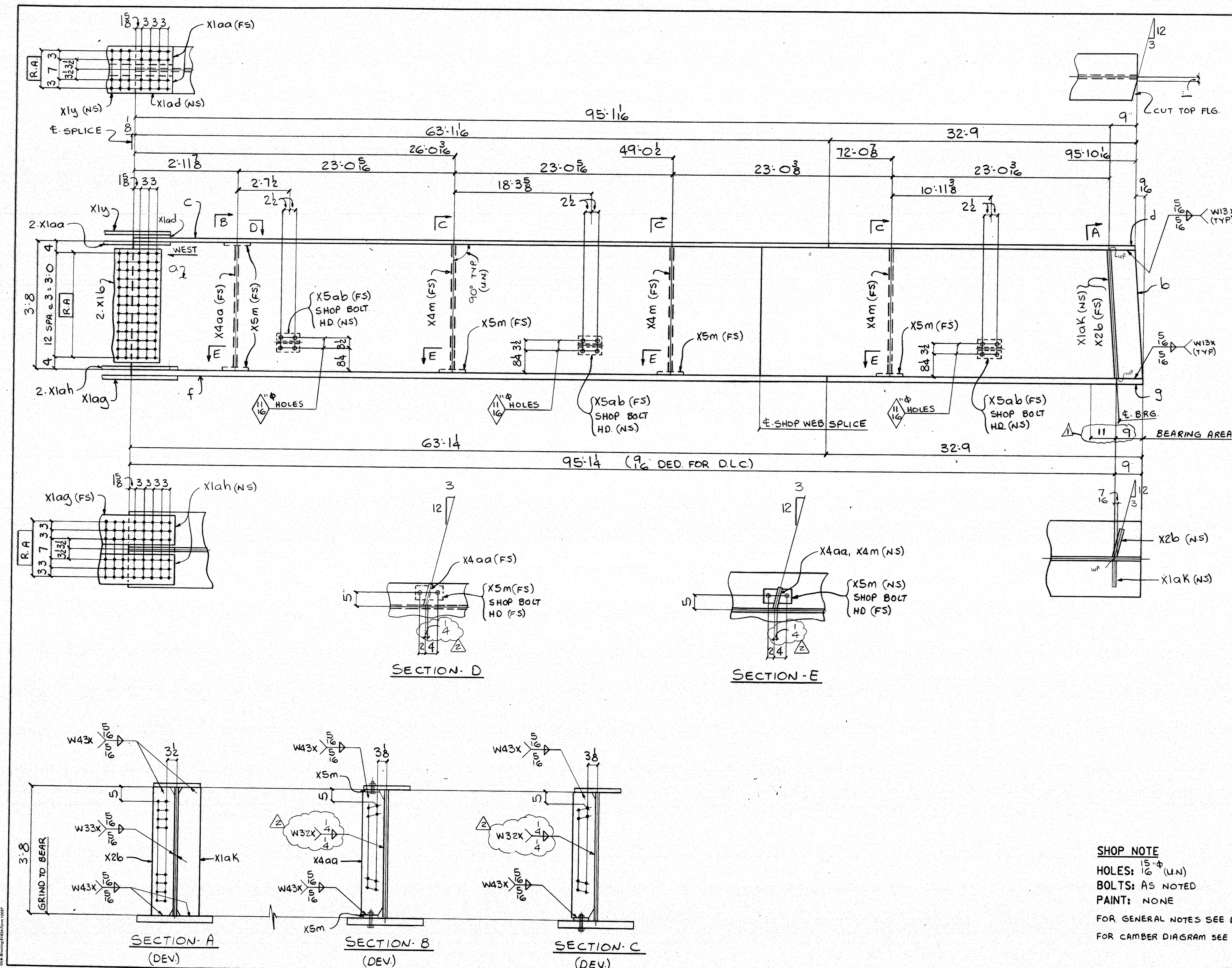
HOLES: 1 1/2"

BOLTS: AS NOTED

PAINT: NONE

FOR GENERAL NOTES SEE DWG. N1

FOR CAMBER DIAGRAM SEE DWG. WC3



FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	BR-BRF-038-1 (35)

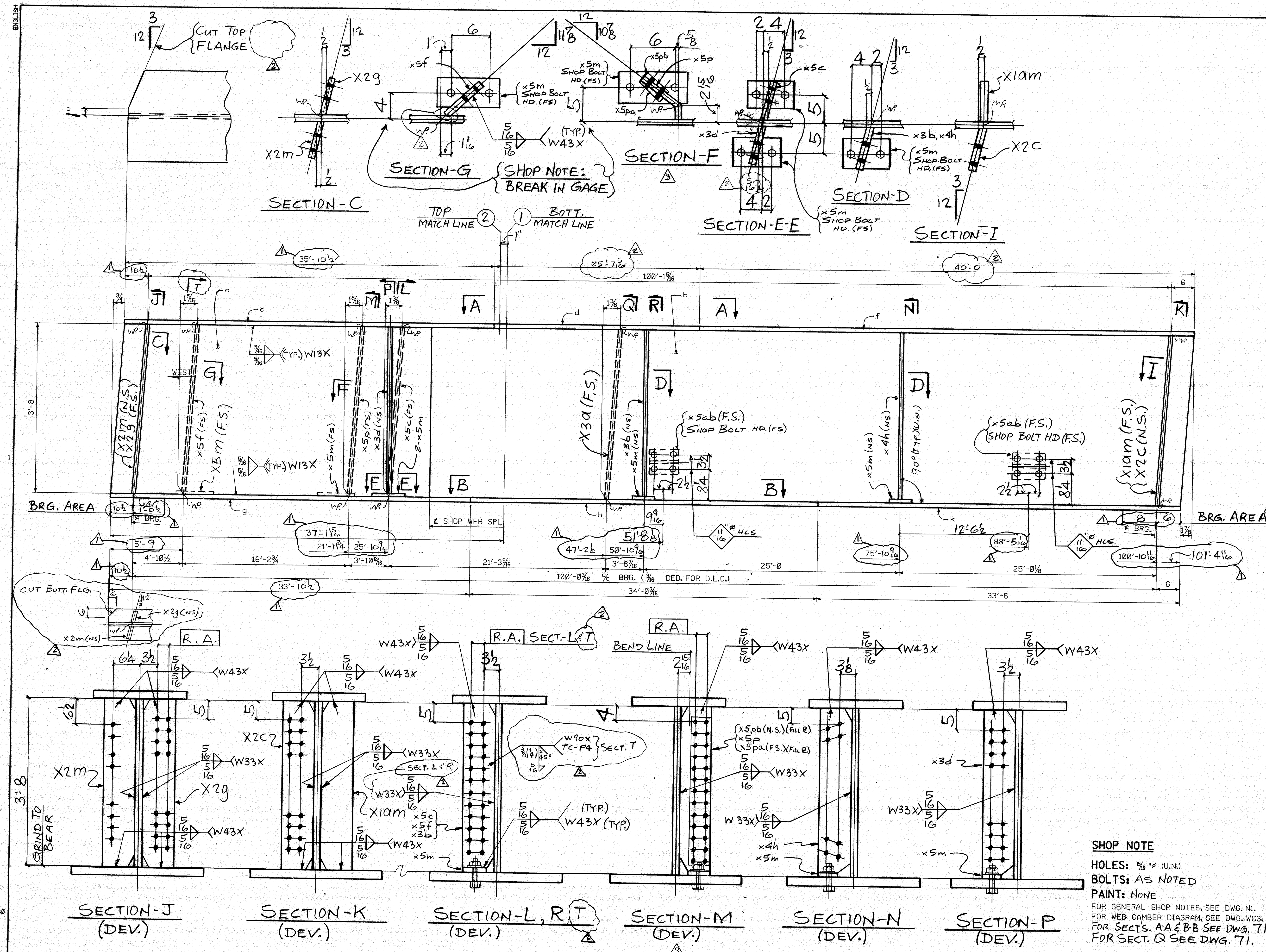
BILL OF MATERIAL							
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP. WEIGHT	LB.
ONE G51 GIRDER							22,627
1	a	R. 44 x 9 1/2	59 7 1/2	(T)	1	19	
1	b	R. 44 x 9 1/2	36 3 1/2	(T)	1	22	
1	c	R. 16 x 1	63 1 1/2	(T)	4	12	
1	d	R. 16 x 1	32 9	(T)	4	14	
1	f	R. 26 x 28	63 14	(T)	3	8	
1	g	R. 26 x 28	32 9	(T)	3	18	
2	X1b	R. 39 x 1/2	1 6 1/2	(T)	6	10	
1	X1y	R. 16 x 9 1/2	2 0 1/2	(T)	6	8	
2	X1aa	BAR. 7 x 1 1/2	2 0 1/2	(T)	6	5	
1	X1ad	R. 12 1/2 x 1 1/2	1 4		6	16	
1	X1ag	R. 24 x 1 1/2	2 6 1/2	(T)	6	3	
2	X1ah	R. 11 x 1 1/2	2 6 1/2	(T)	6	2	
1	X1ak	BAR. 7 x 3/4	3 8		7	4	
1	X2b	BAR. 8 x 3/4	3 8 3/2		7	3	
1	X4aa	BAR. 7 1/2 x 3/4	3 6 3/4		7	8	
3	X4m	BAR. 7 1/2 x 3/4	3 7 3/8		7	5	
5	X5m	BAR. 5 x 5/8	0 9		7	10	
3	X5ab	WT6 x 13	0 8		9	11	
8	3/8"	HS BOLTS	0 4	BOTT FLG	8	1	
2	3/8"	HS BOLTS	0 3	TOP FLG	8	6	
10		WASH FOR 3/8" BOLTS			8	11	
12	5/8"	HS BOLTS	0 2	WEB	8	14	
12		WASH FOR 5/8" BOLTS			8	18	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED
NOV 27 1996
☐ RETURNED FOR CORRECTIONS ☐ REJECTED
DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 305
OF STANDARD SPECIFICATIONS

SHOP NOTE
HOLES: 1 1/2" (U.N.)
BOLTS: AS NOTED
PAINT: NONE
FOR GENERAL NOTES SEE DWG. N1
FOR CAMBER DIAGRAM SEE DWG. WC 3

DESIGN INFO	117-99	9/22/96
DESIGN INFO		3-25-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G51		
PENOBSCOT RIVER BRIDGE		
PENOBSCOT RIVER BRIDGE STA. 18+70		
PENOBSCOT CO., BANGOR TO BREWER		
STATE OF MAINE		
DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. BR-BRF-038-1 (35) PIN 2672.00		
CONTRACTOR REED & REED, INC.		
IN CHARGE LAMCO (WC) MADE DF CHK'D DWG DATE 2-21-96		
CONTRACT NUMBER ME-95393-1 DRAWING NUMBER 69 OF 77		

NOV 25 1996

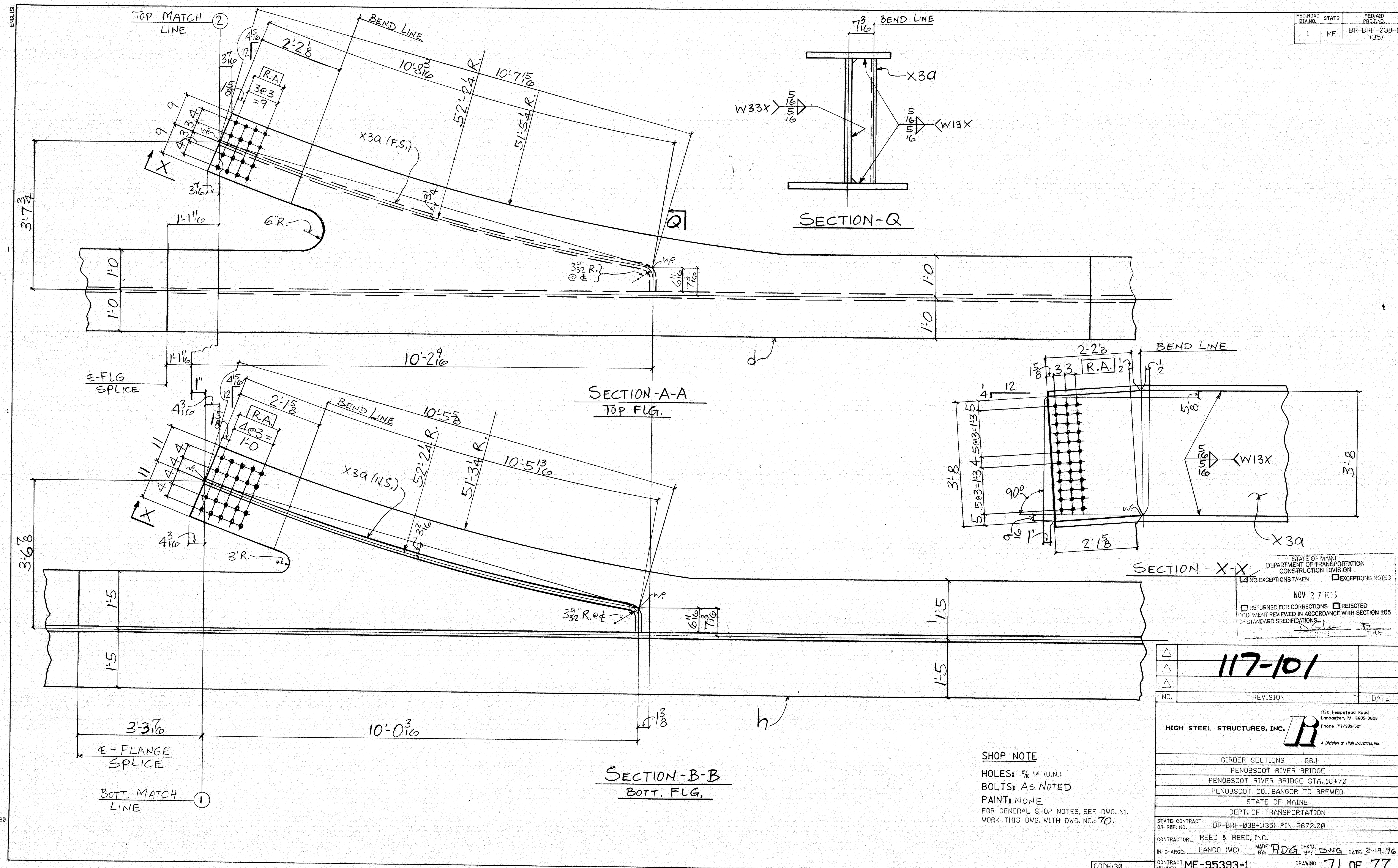


BILL OF MATERIAL					
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM
ONE	GGJ	GIRDER			72.69
1	a	R 44 x 1	29	(T)	13
1	b	R 44 x 1	71	(T)	12
1	c	R 24 x 2 1/2	35	(T)	24
1	d	R 66 x 2 1/2	25	(T)	34
1	f	R 24 x 2 1/2	40	(T)	23
1	g	R 34 x 2 1/2	33	(T)	33
1	h	R 73 x 2 1/2	34	(T)	32
1	k	R 34 x 2 1/2	33	(T)	33
1	X3a	R 44 x 1	11	(T)	23
1	X1am	BAR 8 x 3/4	3		73
1	X2c	BAR 8 x 3/4	3		73
1	X2g	BAR 8 x 3/4	3		73
1	X2m	BAR 8 x 3/4	3		73
1	X3d	BAR 8 x 3/4	3		73
1	X3b	BAR 8 x 3/4	3		73
1	X3c	BAR 8 x 3/4	3		73
1	X3f	BAR 8 x 3/4	3		73
1	X3h	BAR 7 1/2 x 1 1/2	3	(T)	73
1	X5p	R 44 x 1	0	BENT (T)	79
6	X5m	BAR 5 x 3/8	0	(T)	710
2	X5ab	WT 6 x 13	0		911
1	X5pa	R 37 x 1 1/8	0	FILL R B.T.S.	-
1	X5pb	R 37 x 1 1/8	0	FILL R B.T.S.	-
12	8"	H.S. BOLT	0	X5m TO FLG.	819
12	WASHERS	FOR 8" BOLT			811
8	8"	H.S. BOLT	0	X5ab TO WEB	816
8	WASHERS	FOR 8" BOLT			818

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS (NOTE)
NOV 27 1996
☐ RETURNED FOR CORRECTIONS ☐ REJECTED
DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 105
OF STANDARD SPECIFICATIONS
DESIGNED BY: [Signature]
CHECKED BY: [Signature]

	Added X5pa & X5pb (Full R's): FAS ERROR	8-12-96
	DESIGN INFO	9/28/96
	DESIGN CHG. 117-100	3-27-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.  1770 Hempstead Road Lanester, PA 15605-0008 Phone 717/239-520 A Division of High Industries, Inc.		
GIRDER GGJ		
PENOBSCOT RIVER BRIDGE		
PENOBSCOT RIVER BRIDGE STA. 18+70		
PENOBSCOT CO., BANGOR TO BREWER		
STATE OF MAINE		
DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. BR-BRF-038-1(35) PIN 2672.00		
CONTRACTOR REED & REED, INC.		
IN CHARGE LAMCO (WC)		
MADE BY: ADG		
DRAWN DATE: 2-19-96		
CONTRACT NUMBER ME-95393-1		
DRAWING NUMBER 70 OF 77		

SHOP NOTE
HOLES: 1/2" (U.N.)
BOLTS: AS NOTED
PAINT: NONE
FOR GENERAL SHOP NOTES, SEE DWG. N1.
FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
FOR SECTS. AA & BB SEE DWG. T1.
FOR SECT. Q SEE DWG. T1.



FED. ROAD DIST. NO.	STATE	FED. ROAD PROJ. NO.
1	ME	BR-BRF-038-1 (35)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION

☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED

NOV 27 1996

☐ RETURNED FOR CORRECTIONS ☐ REJECTED

REVISION REVIEWED IN ACCORDANCE WITH SECTION 105 OF STANDARD SPECIFICATIONS

DATE: 11/27/96

NO.	117-101	DATE
REVISION		

1775 Hempstead Road
Lancaster, PA 17606-0008
Phone 717/299-5211

HIGH STEEL STRUCTURES, INC.

A Division of High Industries, Inc.

GIRDER SECTIONS G6J
PENOBSCOT RIVER BRIDGE
PENOBSCOT RIVER BRIDGE STA. 18+70
PENOBSCOT CO., BANGOR TO BREWER
STATE OF MAINE
DEPT. OF TRANSPORTATION

STATE CONTRACT OR REF. NO. BR-BRF-038-1(35) PIN 2672.00

CONTRACTOR REED & REED, INC.

IN CHARGE LANCE (WC) MADE BY RDG CHK'D BY DWG DATE 2-19-96

CONTRACT ME-95393-1 DRAWING NUMBER 71 OF 77

SHOP NOTE

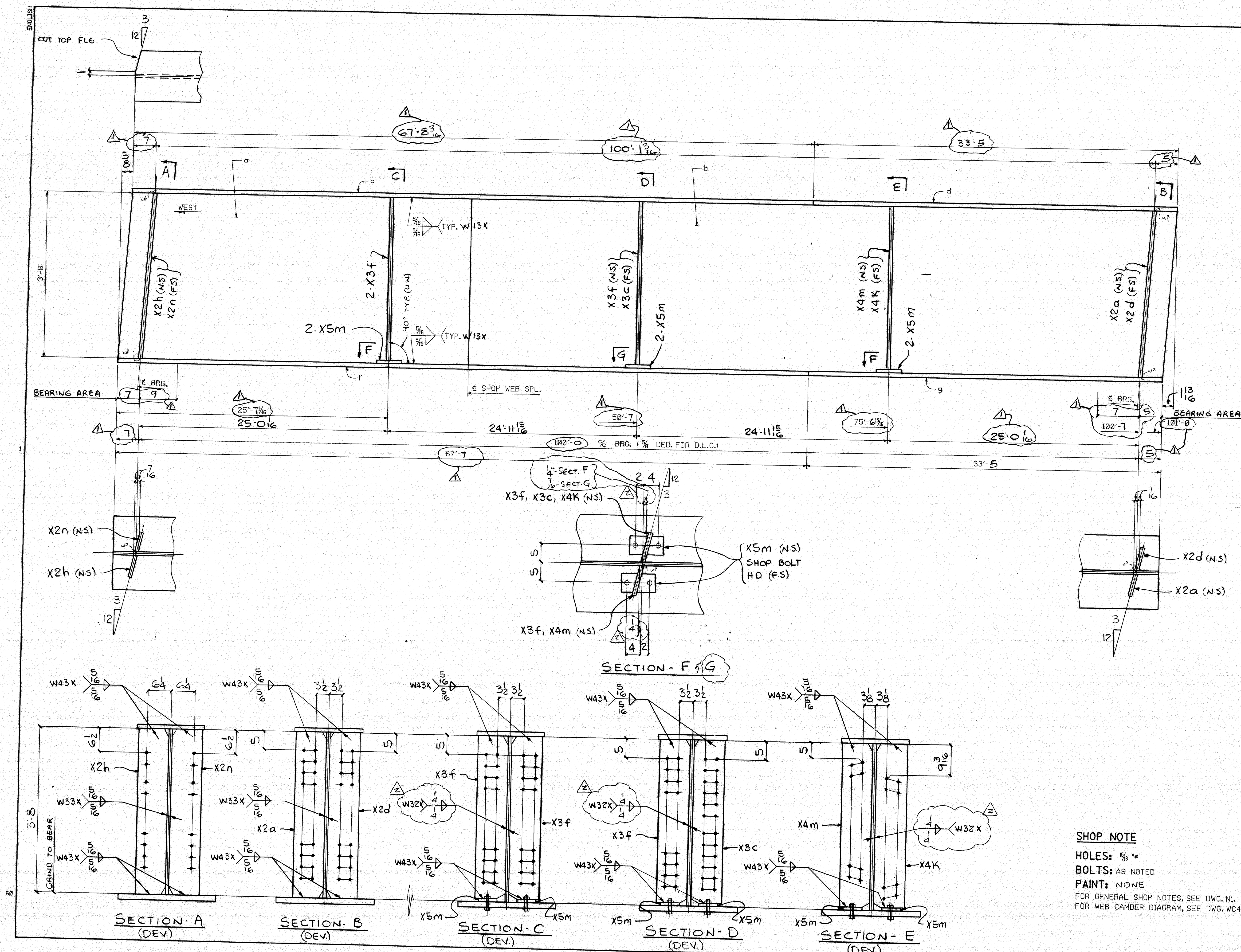
HOLES: $\frac{5}{8}$ " (U.N.)

BOLTS: AS NOTED

PAINT: NONE

FOR GENERAL SHOP NOTES, SEE DWG. N1.

WORK THIS DWG. WITH DWG. NO. 70.



FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	BR-BRF-038-1 (35)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP. WEIGHT EAL.
ONE	G7J	GIRDER				24,484
1	a	R 44 x $\frac{7}{8}$	33	7 $\frac{3}{8}$ (T)	1	83
1	b	R 44 x $\frac{7}{8}$	67	6 $\frac{1}{2}$ (T)	1	18
1	c	R 18 x 1	67	8 $\frac{1}{2}$ (T)	1	9
1	d	R 18 x 1	33	5 (T)	1	10
1	f	R 26 x 2 $\frac{1}{2}$	67	7 (T)	1	3
1	g	R 26 x 2 $\frac{1}{2}$	33	5 (T)	1	17
1	X2h	BAR 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	1	3
1	X2n	BAR 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	1	3
1	X2a	BAR 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	1	3
1	X2d	BAR 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	1	3
3	X3f	BAR 8 x $\frac{3}{4}$	3	7 $\frac{3}{8}$	1	7
1	X3c	BAR 8 x $\frac{3}{4}$	3	7 $\frac{3}{8}$ (T)	1	7
1	X4m	BAR 7 $\frac{1}{2}$ x $\frac{3}{4}$	3	7 $\frac{3}{8}$	1	7
1	X4K	BAR 7 $\frac{1}{2}$ x $\frac{3}{4}$	3	7 $\frac{3}{8}$	1	7
6	X5m	BAR 5 x $\frac{5}{8}$	0	9	1	10
12	$\frac{3}{4}$ "	H.S. BOLTS	0	4	1	8
12	WASH	FOR $\frac{3}{4}$ " BOLTS			1	11

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION

☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED

NOV 27 1996

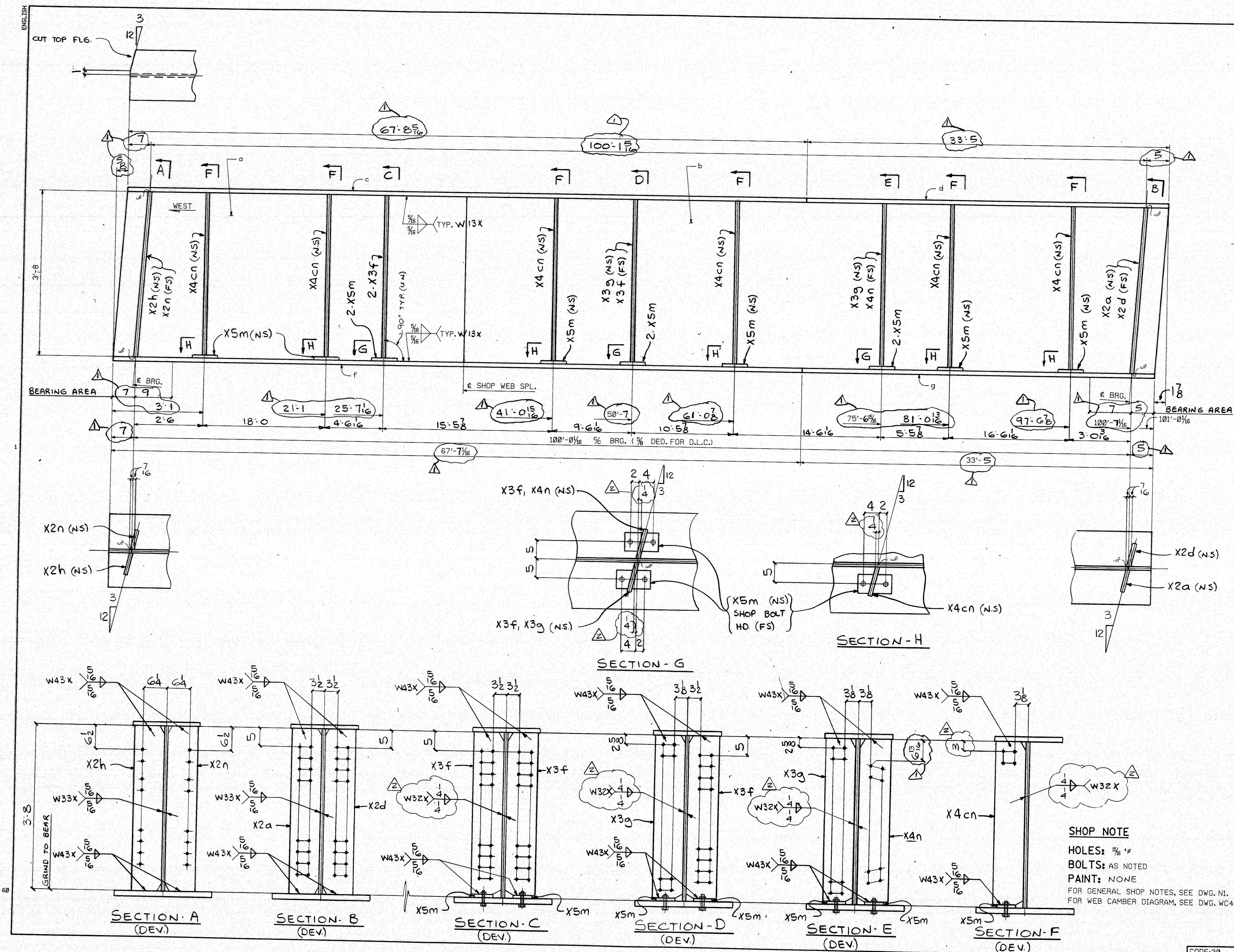
☐ RETURNED FOR CORRECTIONS ☐ REJECTED

DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 105
OF STANDARD SPECIFICATIONS

DATE: 11/27/96

DESIGN INFO	117-102	5/28/96
DESIGN CHG.		2-27-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G7J		
PENOBSCOT RIVER BRIDGE		
PENOBSCOT RIVER BRIDGE STA. 18+70		
PENOBSCOT CO., BANGOR TO BREWER		
STATE OF MAINE		
DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. BR-BRF-038-1(35) PIN 2672.00		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCO (WC) MADE BY: TDF CHK'D. BY: DWG DATE: 2-19-96		
CONTRACT NUMBER: ME-95393-1 DRAWING NUMBER: 72 OF 77		

NOV 25 1996

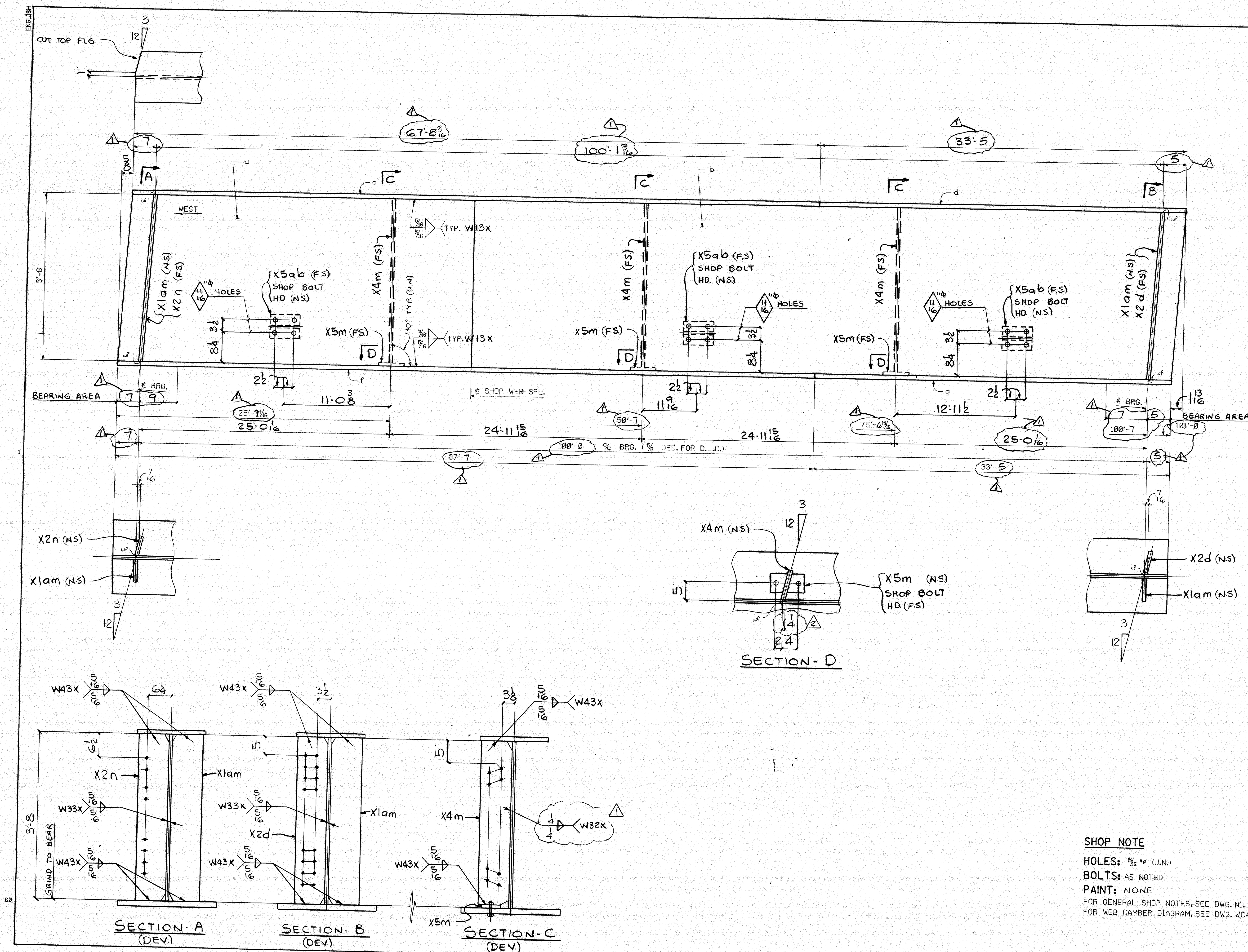


FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.		
1		ME	BR-BRF-038- (35)		
BILL OF MATERIAL					
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM
ONE	G83	GIRDER			24,916
1	a	R 44 x $\frac{7}{8}$	33	7 $\frac{7}{8}$ (T)	120
1	b	R 44 x $\frac{7}{8}$	67	6 $\frac{1}{2}$ (T)	118
1	c	R 18 x 1	67	8 $\frac{1}{2}$ (T)	49
1	d	R 18 x 1	33	5 (T)	410
1	f	R 26 x 2 $\frac{1}{2}$	67	7 $\frac{1}{2}$ (T)	37
1	g	R 26 x 2 $\frac{1}{2}$	33	5 (T)	317
1	X2h	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	73
1	X2n	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	73
1	X2a	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	73
1	X2d	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{2}$	73
3	X3f	BAR. 8 x $\frac{3}{4}$	3	7 $\frac{3}{8}$	77
2	X3g	BAR. 7 $\frac{1}{2}$ x $\frac{3}{4}$	3	7 $\frac{3}{8}$	78
1	X4n	BAR. 7 $\frac{1}{2}$ x $\frac{3}{4}$	3	7 $\frac{3}{8}$	78
6	X4cn	BAR. 7 $\frac{1}{2}$ x $\frac{3}{4}$	3	7 $\frac{3}{8}$	78
12	X5m	BAR. 5 x $\frac{5}{8}$	0	9	710
24	$\frac{3}{4}$	HS BOLTS	0	4	818
24	WASH.	FOR $\frac{3}{4}$ BOLTS			811

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 CONSTRUCTION DIVISION
☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED
 NOV 27 1996
☐ RETURNED FOR CORRECTIONS ☐ REJECTED
 DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 105
 OF STANDARD SPECIFICATIONS.

DESIGN INFO	117-103	5/28/96
DESIGN CHG.		3-27-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 1770 Hempstead Road Lancaster, PA 17609-0008 Phone 717/291-5211 A Division of High Industries, Inc.		
GIRDER - G83		
PENOBSCOT RIVER BRIDGE		
PENOBSCOT RIVER BRIDGE STA. 18+70		
PENOBSCOT CO., BANGOR TO BREWER		
STATE OF MAINE		
DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	BR-BRF-038-1(35)	PIN 2672.00
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	DATE: 2-19-96
CONTRACT NUMBER	ME-95393-1	DRAWING NUMBER: 73 OF 77

NOV 25 1996



FED. ROAD DIV. NO.		STATE	FED. ROAD PROJ. NO.
1		ME	BR-BRF-038- (35)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR WASTE EX.
ONE	G103	GIRDER				34.2
1	a	R 44 x $\frac{5}{16}$	33	7 $\frac{5}{16}$ (T)	1.20	
1	b	R 44 x $\frac{5}{16}$	67	6 $\frac{13}{16}$ (T)	1.18	
1	c	R 18 x 1	67	8 $\frac{3}{16}$ (T)	1.9	
1	d	R 18 x 1	33	5 (T)	4.10	
1	f	R 26 x 2 $\frac{1}{2}$	67	7 (T)	3.7	
1	g	R 26 x 2 $\frac{1}{2}$	33	5 (T)	3.17	
1	X2n	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{16}$	7.3	
1	X2d	BAR. 8 x $\frac{3}{4}$	3	8 $\frac{1}{16}$	7.3	
2	X1am	BAR. 8 x $\frac{3}{4}$	3	8	7.3	
3	X4m	BAR. 7 $\frac{1}{2}$ x $\frac{3}{8}$	3	7 $\frac{3}{8}$	7.8	
3	X5m	BAR. 5 x $\frac{3}{8}$	0	9	7.10	
3	X5ab	WT6 x 13	0	8	9.11	
6	$\frac{3}{4}$ "	HS BOLTS	0	4	8.8	
6	WASH	FOR $\frac{3}{4}$ " BOLTS			8.11	
12	$\frac{5}{8}$ "	HS BOLTS	0	2	8.14	
12	WASH	FOR $\frac{5}{8}$ " BOLTS			8.18	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION

☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED

NOV 27 1996

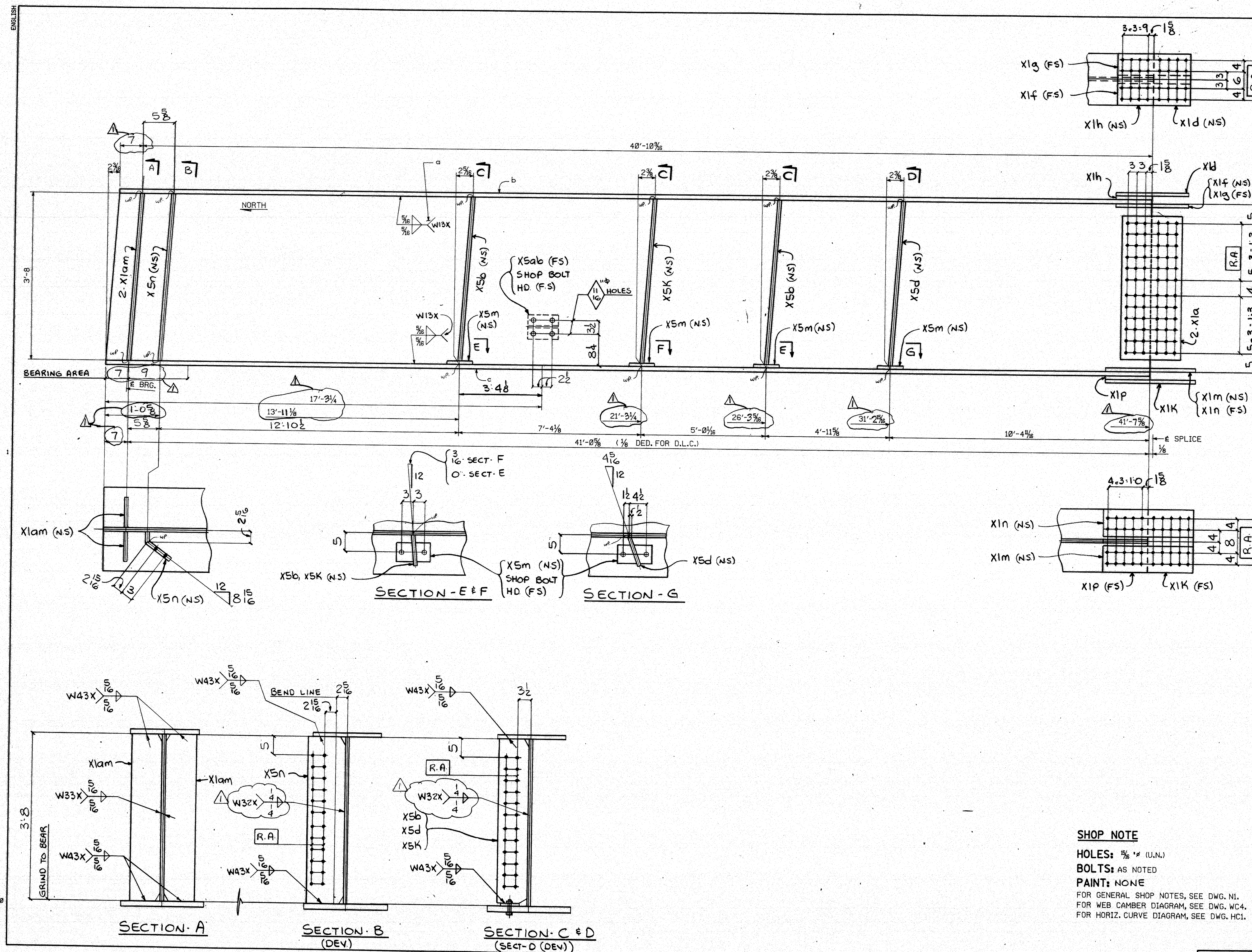
☐ RETURNED FOR CORRECTIONS ☐ REJECTED

DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 105 OF STANDARD SPECIFICATIONS

DATE: 11/27/96

DESIGN INFO	117-105	5/28/96
DESIGN CHG.		3-27-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G103		
PENOBSCOT RIVER BRIDGE		
PENOBSCOT RIVER BRIDGE STA. 18+70		
PENOBSCOT CO., BANGOR TO BREWER		
STATE OF MAINE		
DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. BR-BRF-038-1(35) PIN 2672.00		
CONTRACTOR - REED & REED, INC.		
IN CHARGE - LANCO (WC) MADE BY TDF		
CONTRACT NUMBER - ME-95393-1		
DRAWING NUMBER - 75 OF 77		

NOV 25 1996

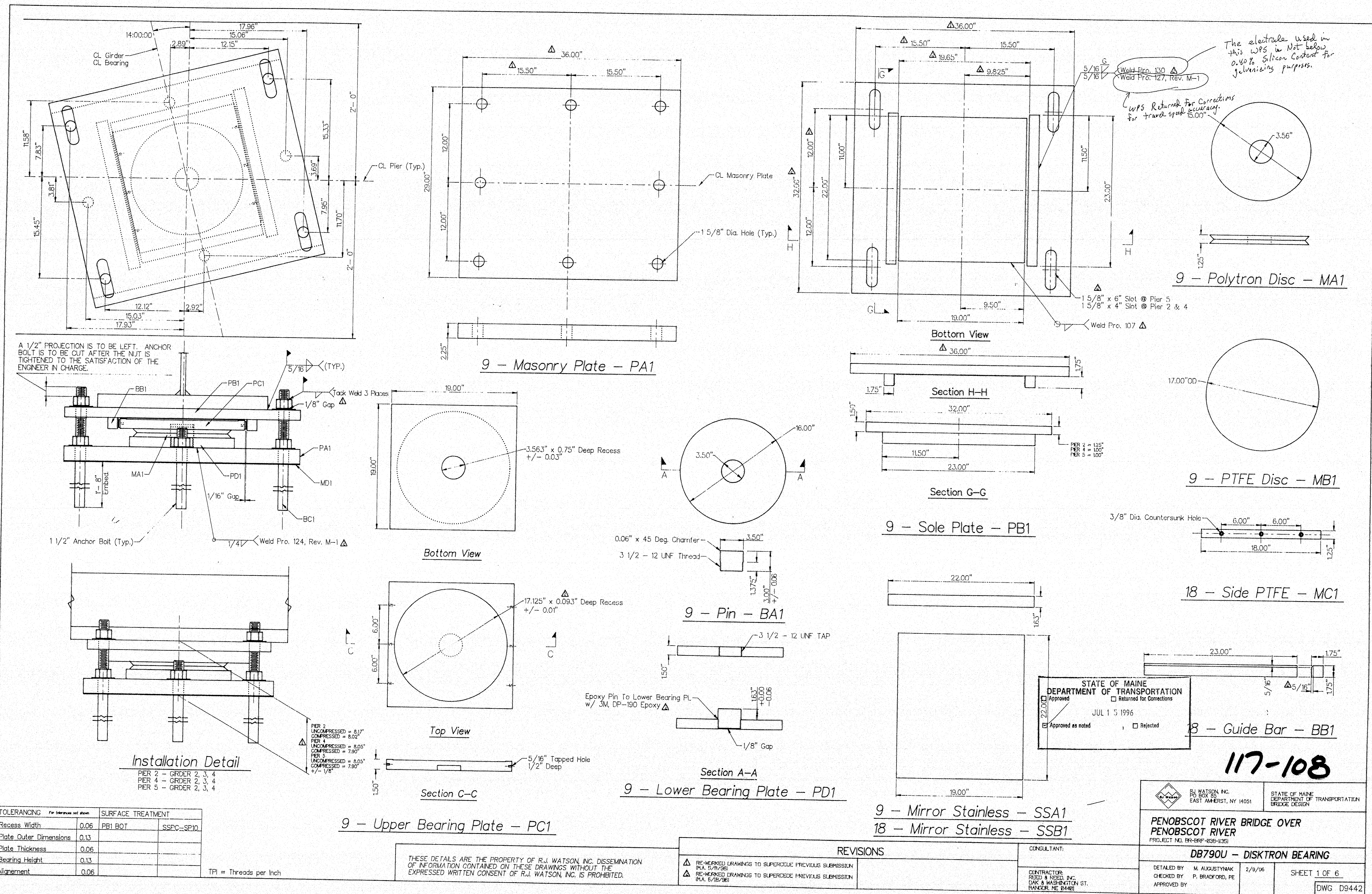


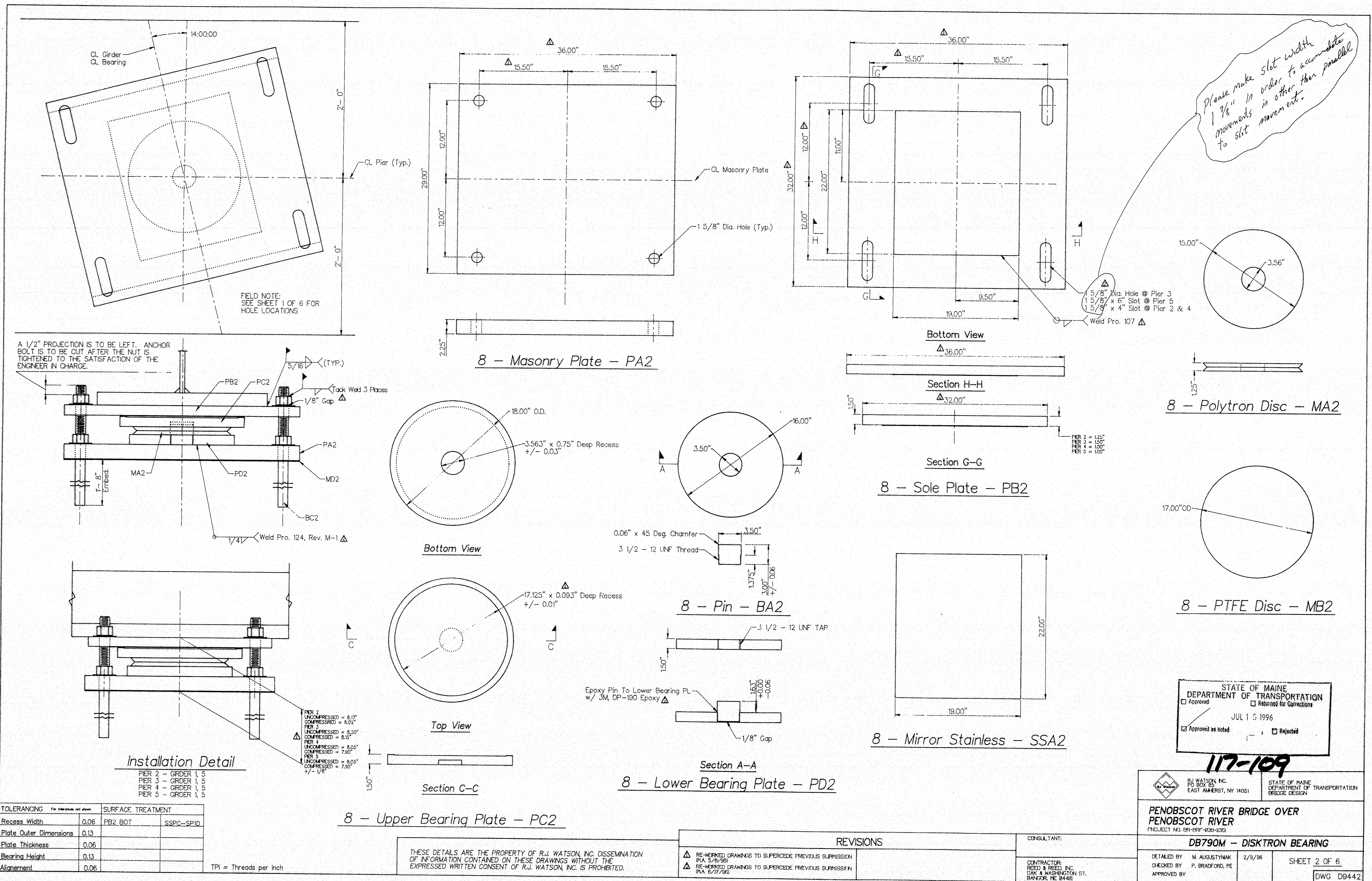
FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.				
1		ME	BR-BRF-038-1 (35)				
BILL OF MATERIAL							
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP WEIGHT EA.	
ONE	G11J	GIRDER				14,92	
1	a	R. 44 x 3/8	41	7 3/4 (T)	2	4	
1	b	R. 18 x 1 1/4	41	5 3/8 (T)	4	6	
1	c	R. 22 x 2 1/2	41	7 1/2 (T)	4	2	
2	X1a	R. 38 x 1/2	1	6 1/2 (T)	5	8	
1	X1d	R. 18 x 1	2	0 1/2 (T)	5	4	
1	X1f	BAR. 8 x 1 1/4	2	0 1/2 (T)	5	5	
1	X1g	BAR. 8 x 1 1/4	2	0 1/2 (T)	5	5	
1	X1h	R. 12 1/2 x 3/8	1	6 (T)	5	6	
1	X1K	R. 22 x 1 1/4	2	6 1/2 (T)	5	2	
1	X1m	R. 10 x 1 1/2	2	6 1/2 (T)	5	3	
1	X1n	R. 10 x 1 1/2	2	6 1/2 (T)	5	3	
1	X1P	R. 15 1/2 x 3/8	1	10	5	7	
2	X1am	BAR. 8 x 3/4	3	8	(T)	7	3
1	X5n	R. 44 1/2 x 3/4	0	10 BENT	7	4	
2	X5b	BAR. 8 x 3/4	3	7 1/2	7	3	
1	X5d	BAR. 8 x 3/4	3	7 1/2	7	3	
1	X5K	BAR. 8 x 3/4	3	7 1/2	7	3	
4	X5m	BAR. 5 x 3/4	0	9	(T)	7	10
1	X5ab	WTG x 13	0	8		1	11
8	3/4"	HS BOLTS	0	4	GOTT FLG.	8	1
8	WASH	FOR 3/4" BOLTS				8	11
4	5/8"	HS BOLTS	0	2	WEB	8	14
4	WASH	FOR 5/8" BOLTS				8	18

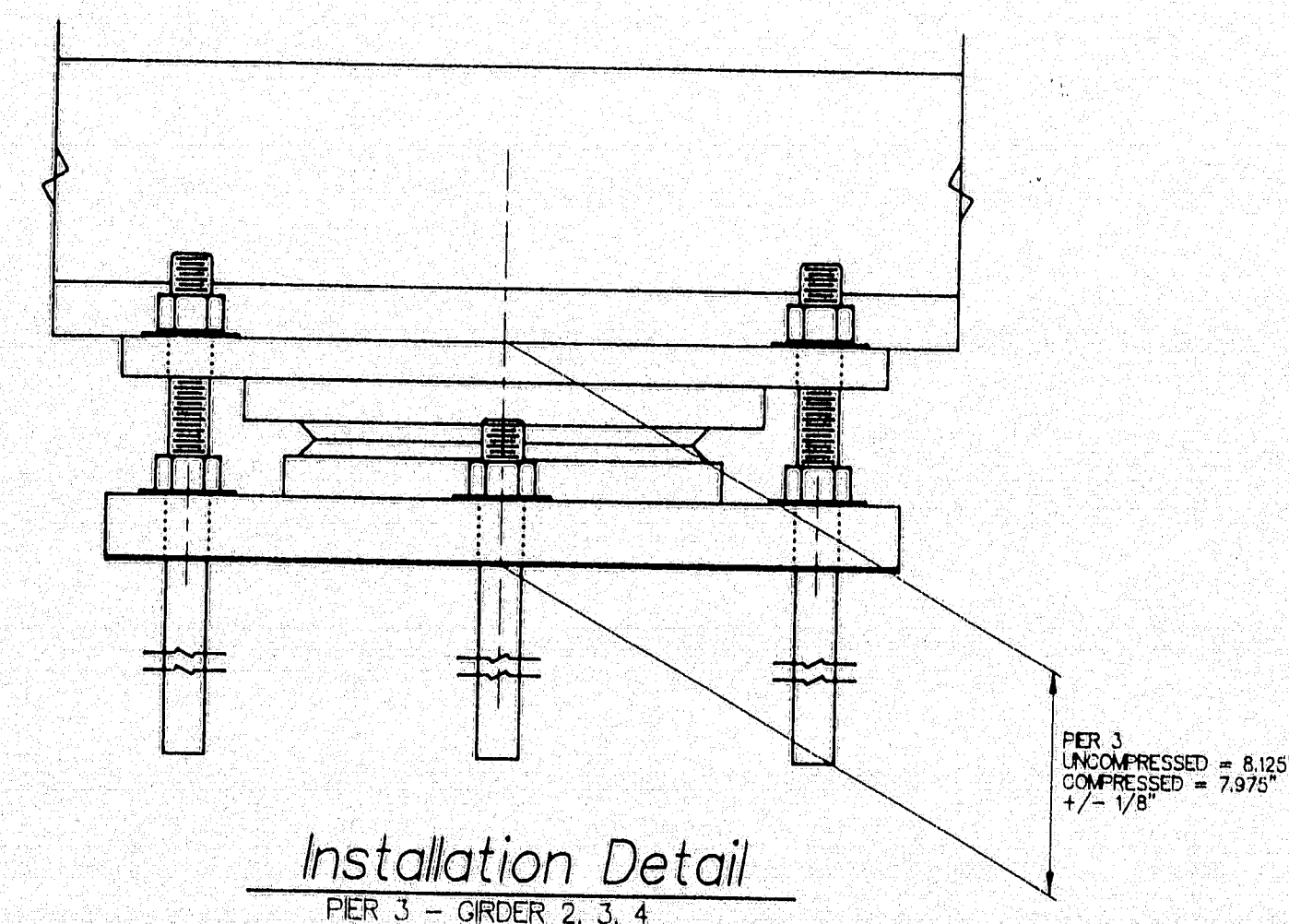
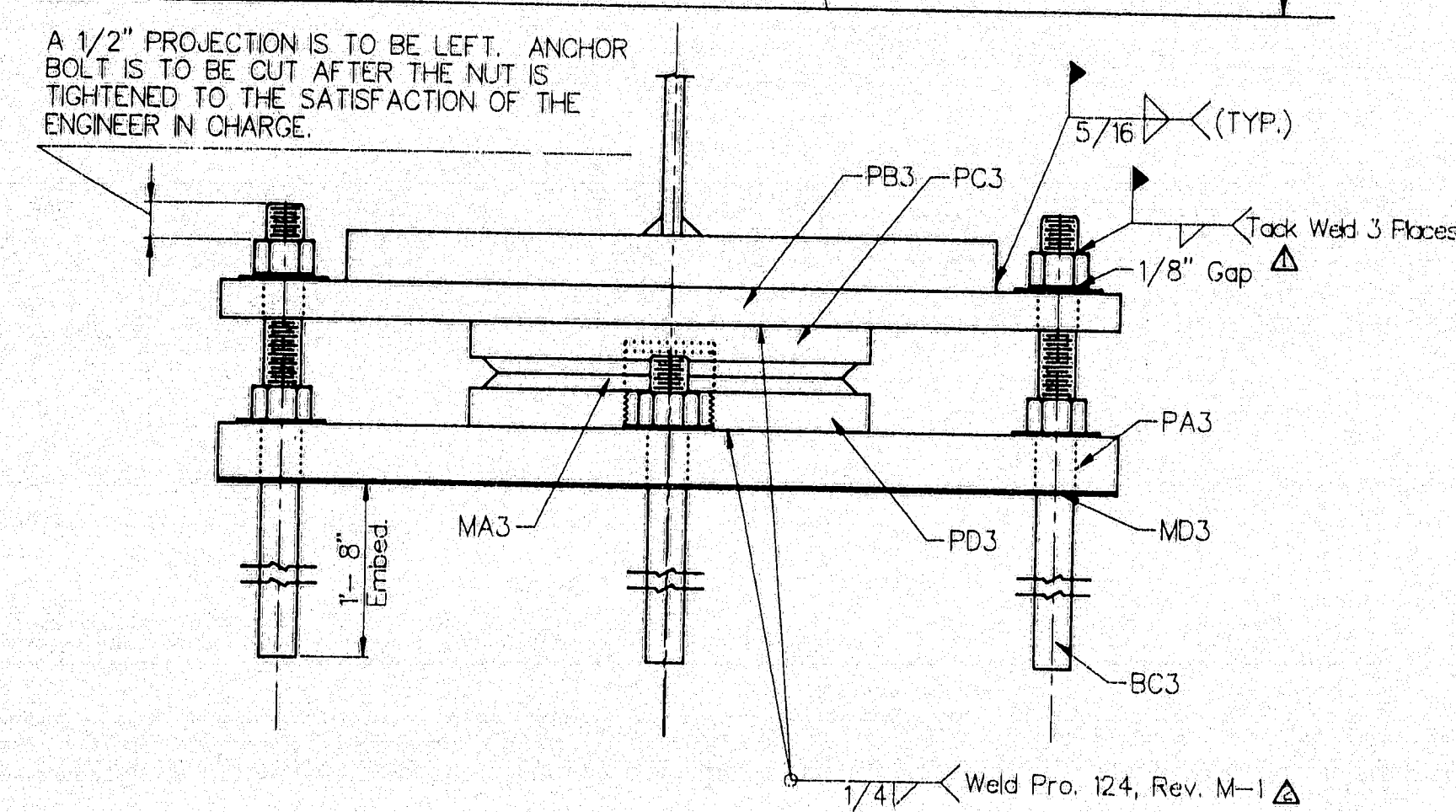
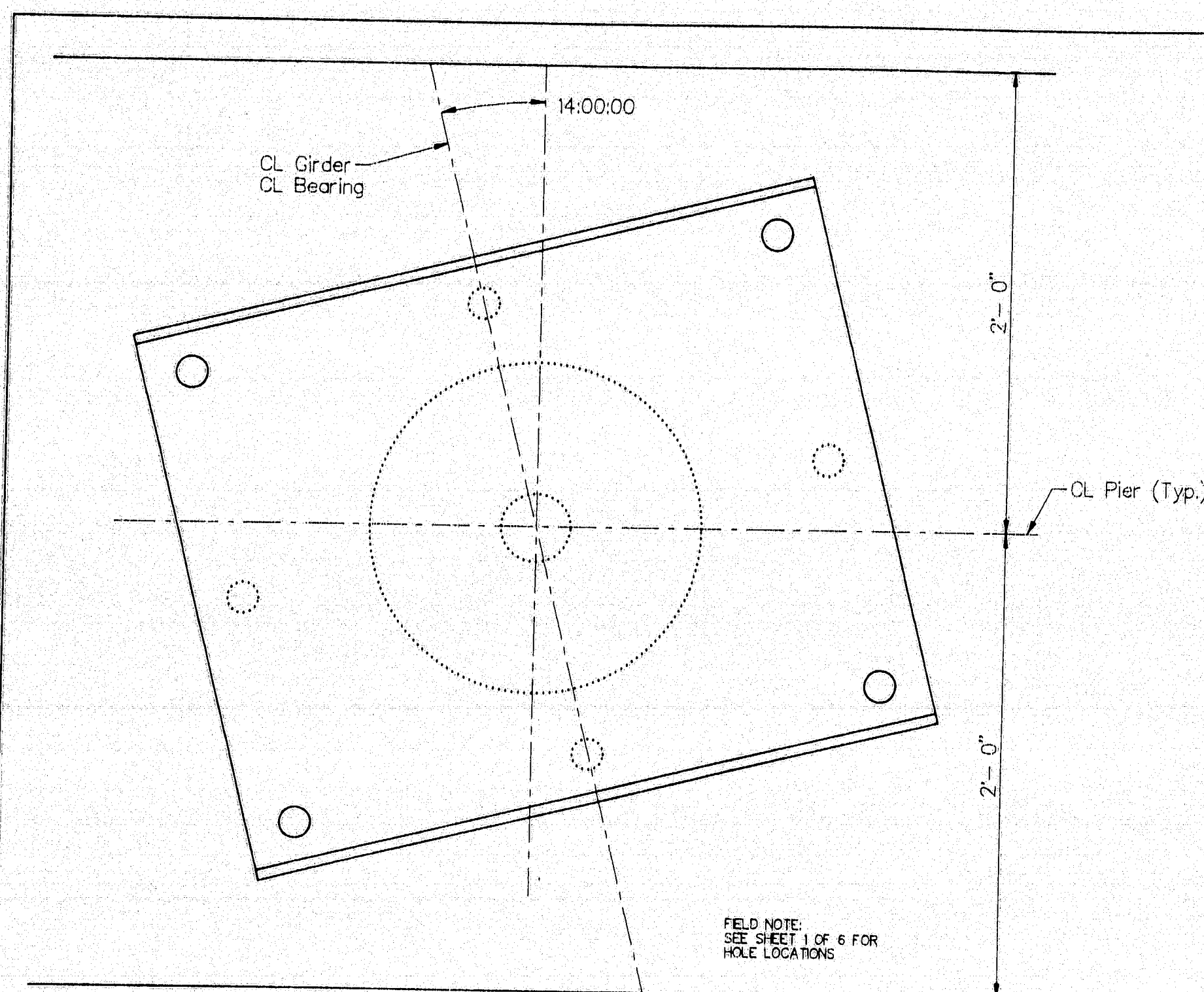
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED
NOV 27 1996
☐ RETURNED FOR CORRECTIONS ☐ REJECTED
DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 305
OF STANDARD SPECIFICATIONS
117-106

117-106	
DESIGN CHG.	3-27-96
NO.	REVISION
DATE	
HIGH STEEL STRUCTURES, INC.	
1770 Hempstead Road Lancaster, PA 17602-0008 Phone 717/299-8281	
A Division of High Industries, Inc.	
GIRDER G11J	
PENOBSCOT RIVER BRIDGE	
PENOBSCOT RIVER BRIDGE STA. 18+70	
PENOBSCOT CO., BANGOR TO BREWER	
STATE OF MAINE	
DEPT. OF TRANSPORTATION	
STATE CONTRACT OR REF. NO. BR-BRF-038-1(35) PIN 2672.00	
CONTRACTOR REED & REED, INC.	
IN CHARGE LANC (WC) MADE BY TDF CHK'D BY DWG DATE 2-19-96	
CONTRACT NUMBER ME-95393-1 DRAWING NUMBER 76 OF 77	

SHOP NOTE
HOLES: 3/8" (U.N.)
BOLTS: AS NOTED
PAINT: NONE
FOR GENERAL SHOP NOTES, SEE DWG. N1.
FOR WEB CAMBER DIAGRAM, SEE DWG. WC4.
FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.



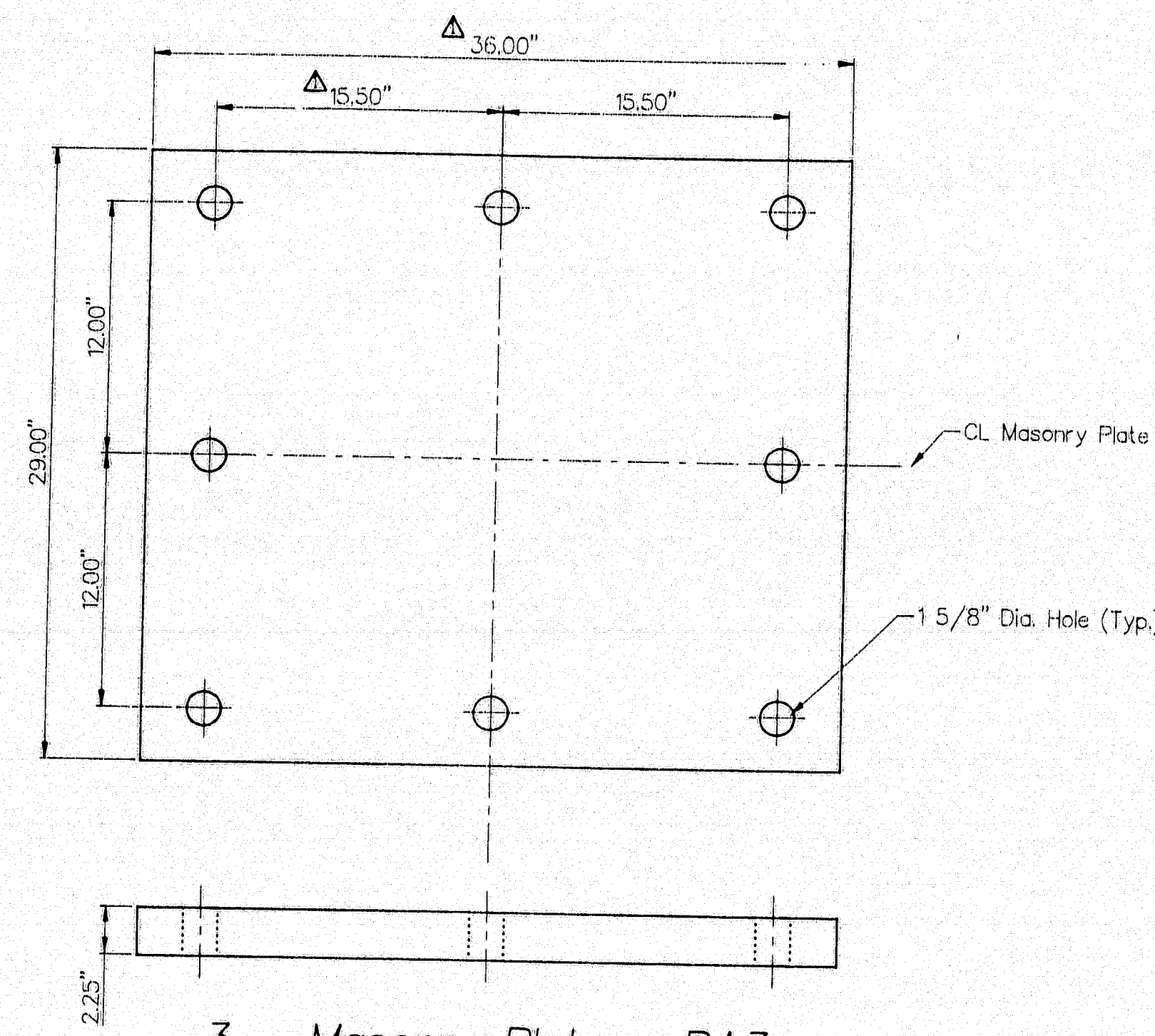
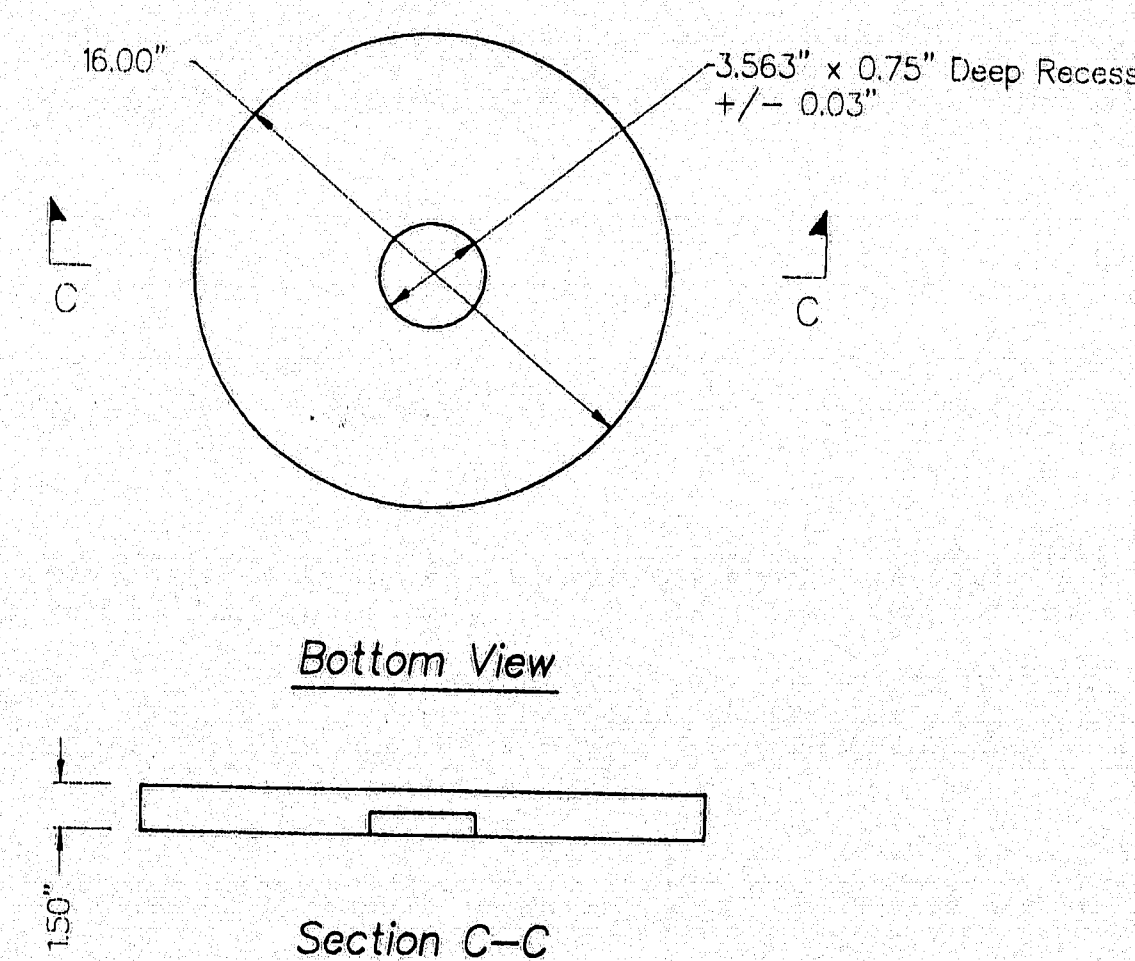




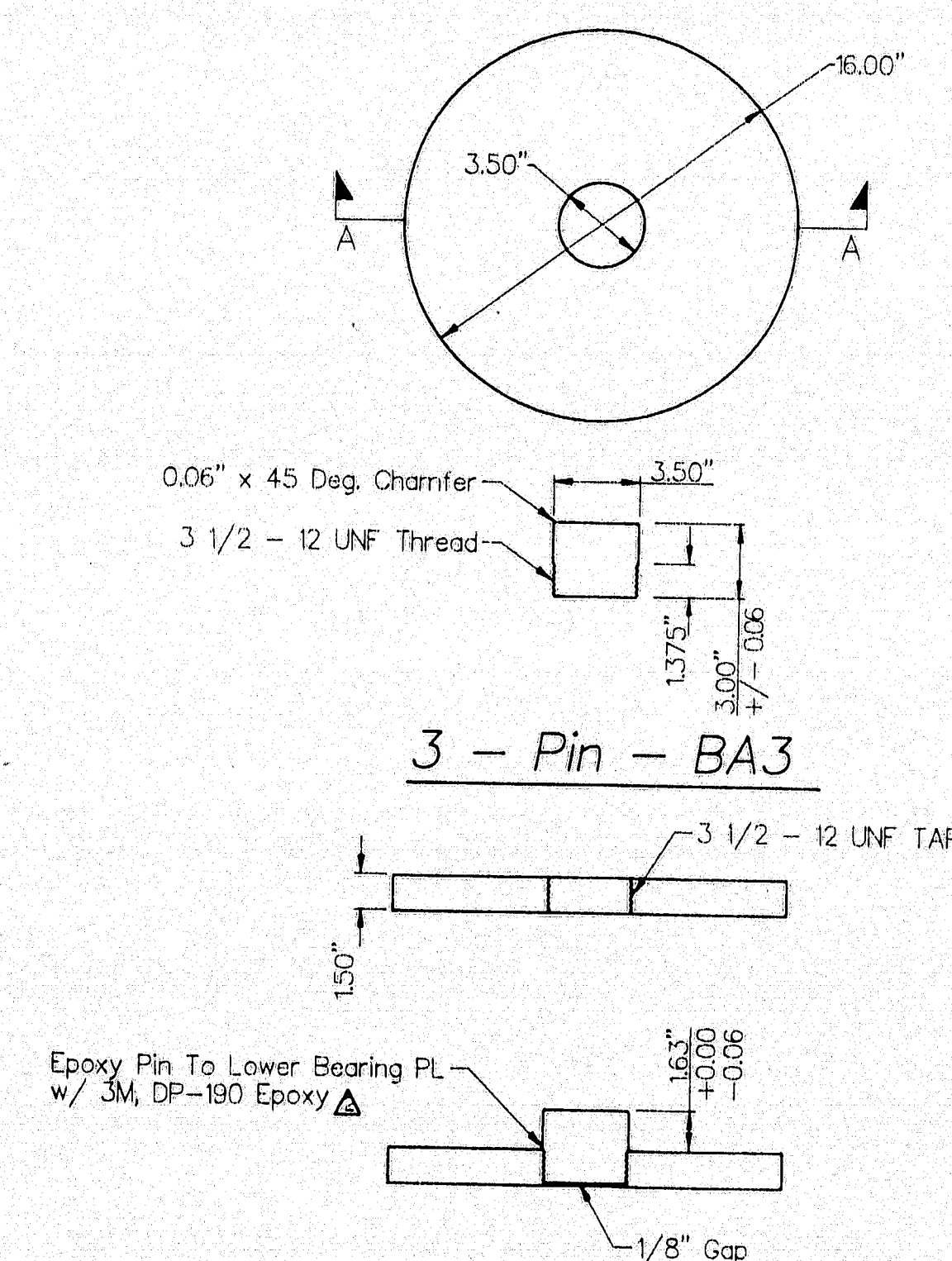
TOLERANCING	For Interpress not shown	SURFACE TREATMENT
Recess Width	0.06	
Plate Outer Dimensions	0.13	
Plate Thickness	0.06	
Bearing Height	0.13	
Alignment	0.06	

TPI = Threads per inch

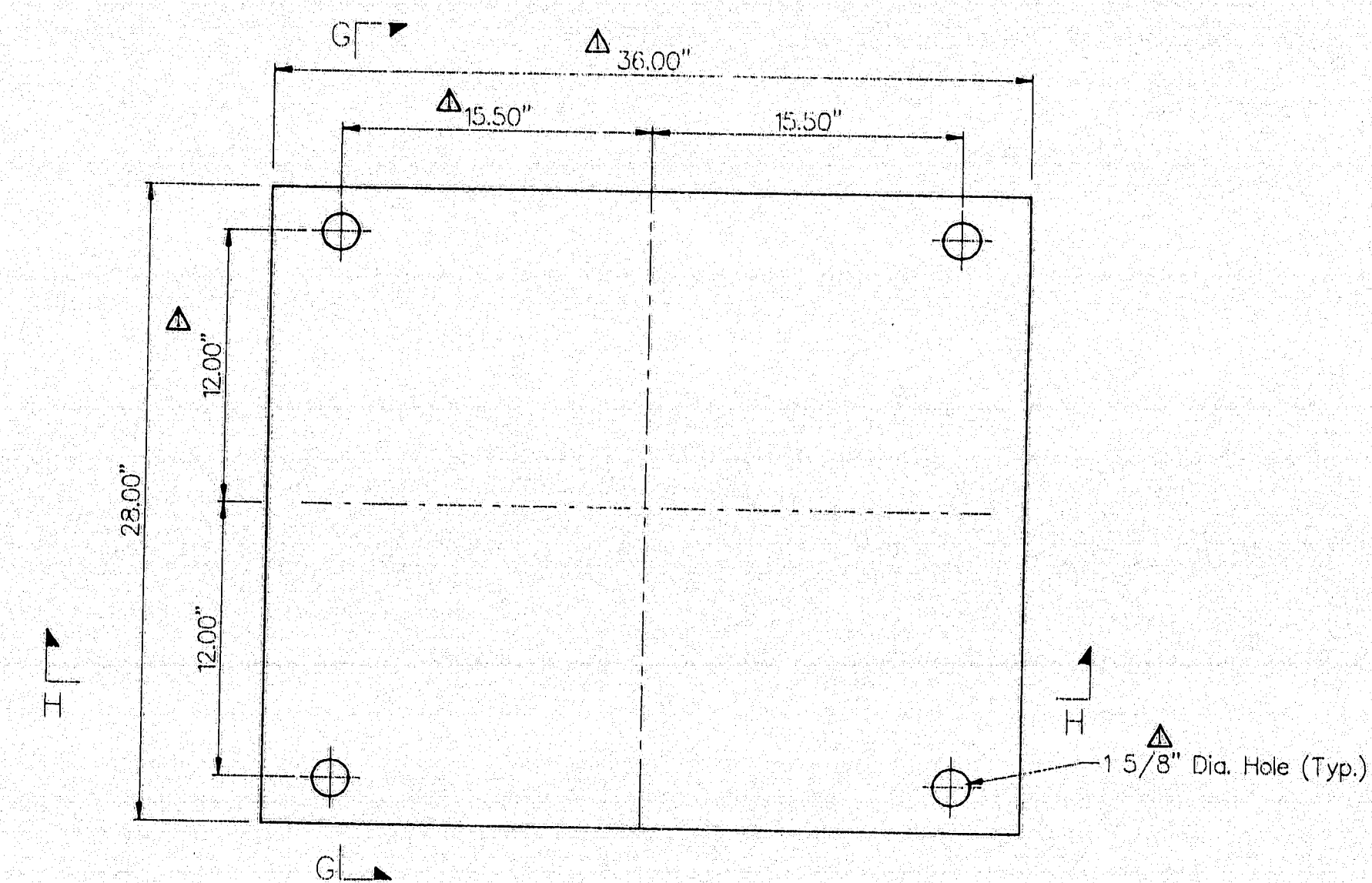
3 - Upper Bearing Plate - PC3



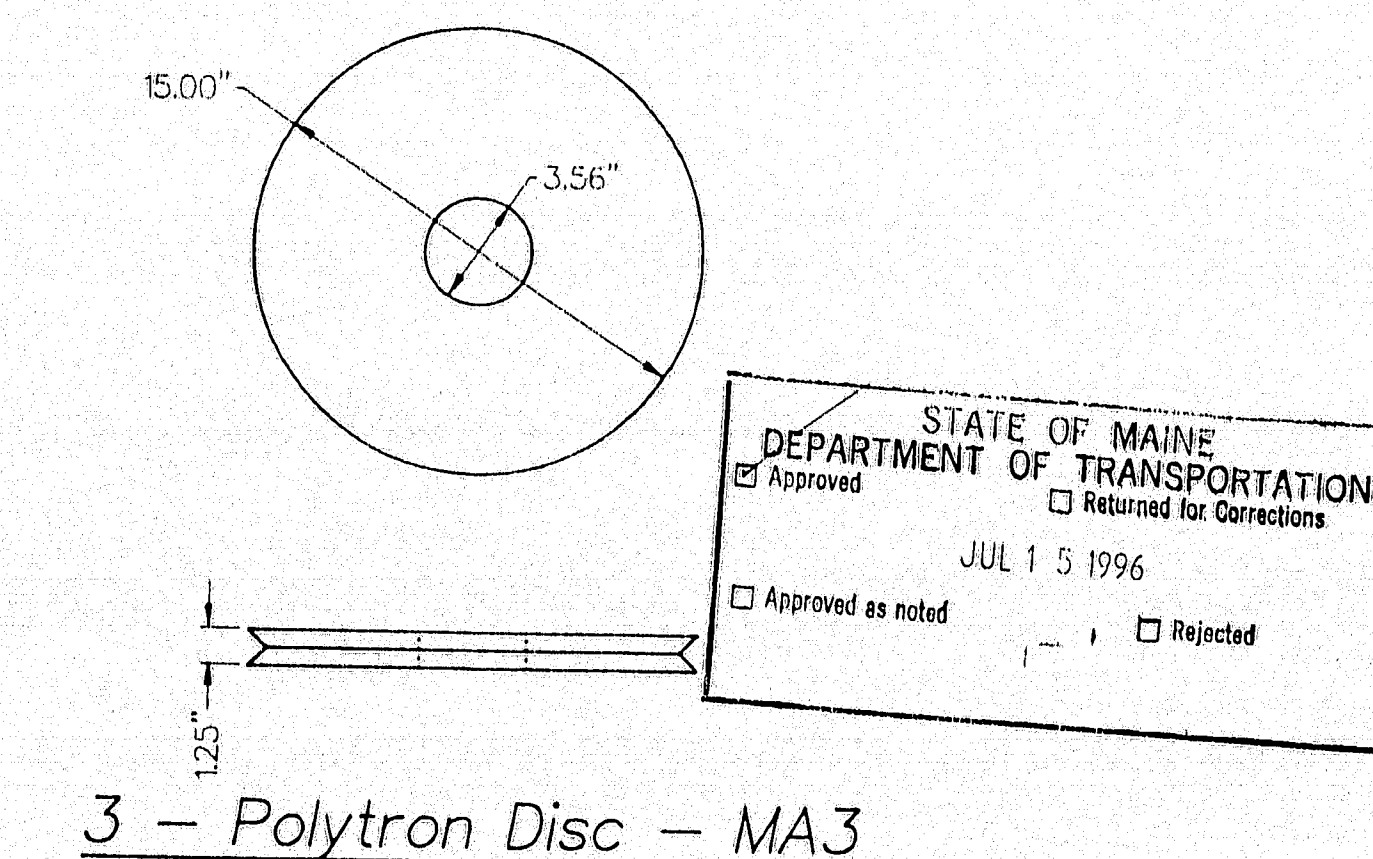
3 - Masonry Plate - PA3



3 - Lower Bearing Plate - PD3



3 - Sole Plate - PB3



3 - Polytron Disc - MA3

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
JUL 15 1996
Approved as noted
Returned for Corrections
Rejected

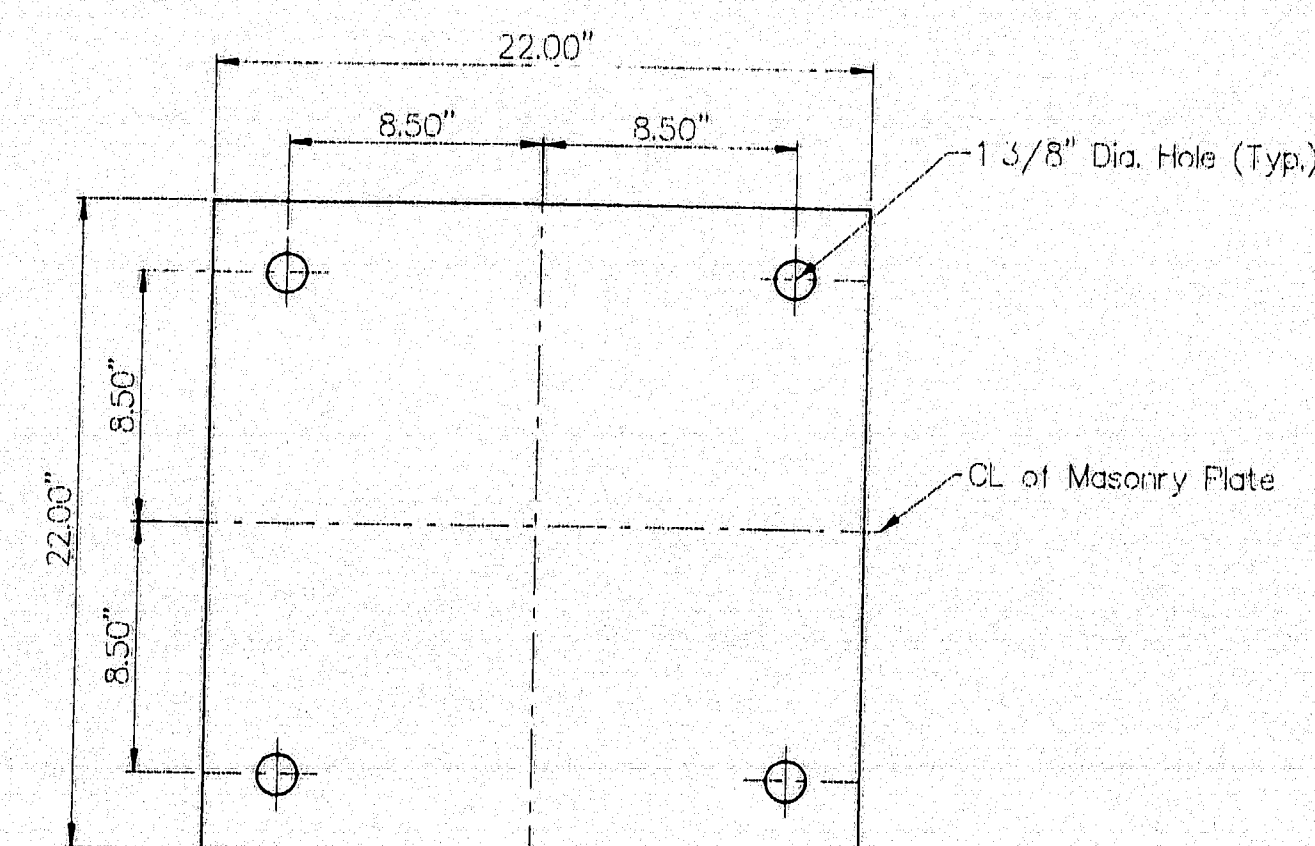
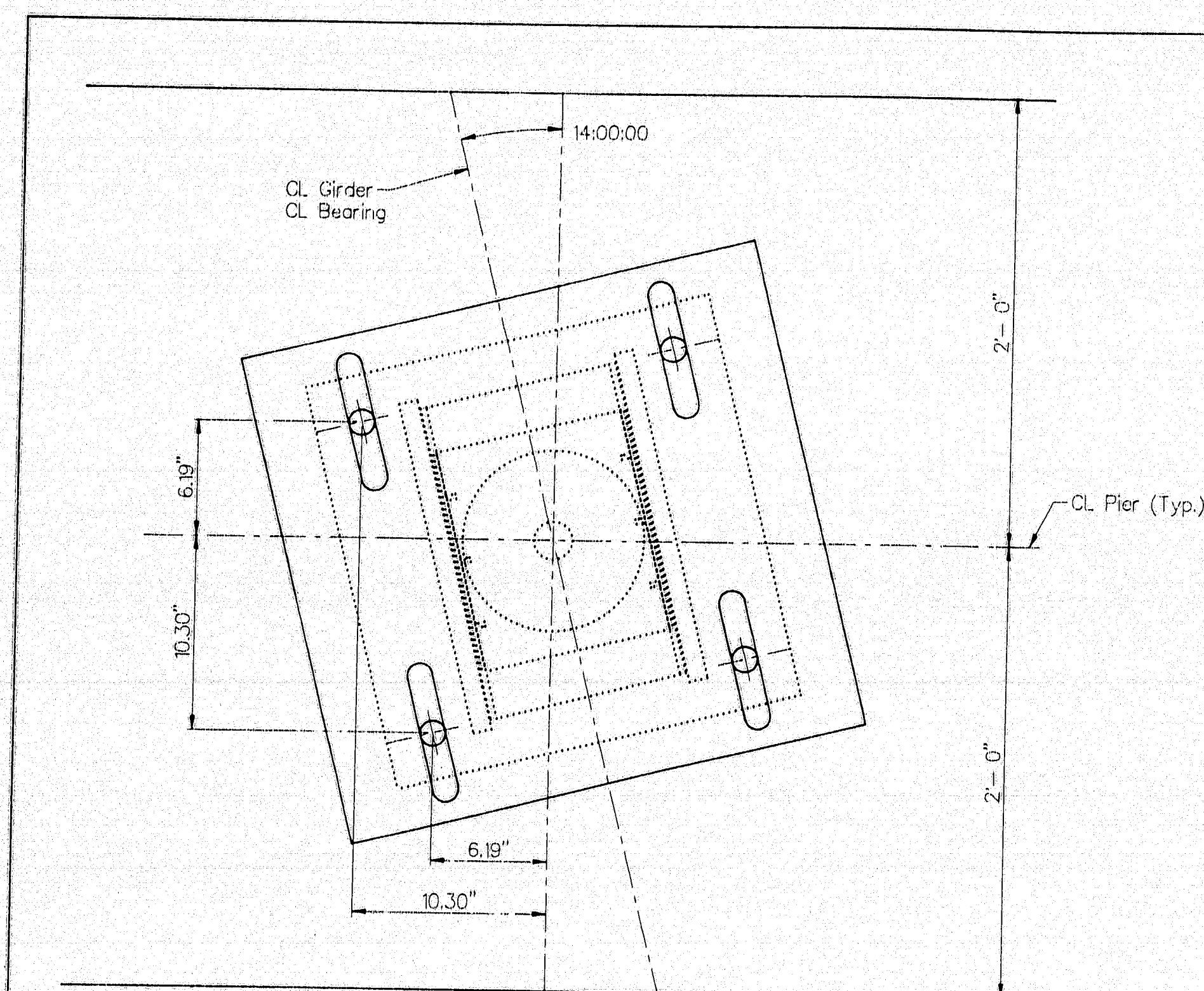
117-110

R.J. WATSON, INC. P.O. BOX 85 EAST AMHERST, NY 14051		STATE OF MAINE DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN	
PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER PROJECT NO. BR-09F-03B-03E			
DB790F - DISKTRON BEARING			
DESIGNED BY M. AUGUSTYNIAK 2/9/96	CHECKED BY P. BRADFORD, PE	SHEET 3 OF 6	DWG D9442

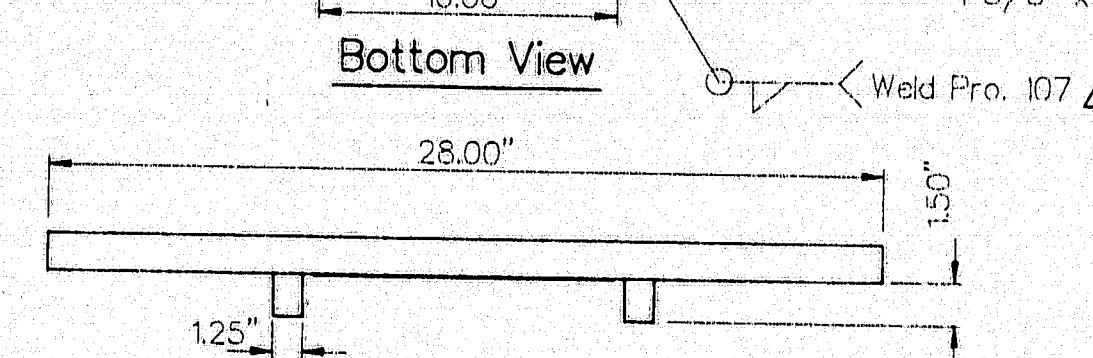
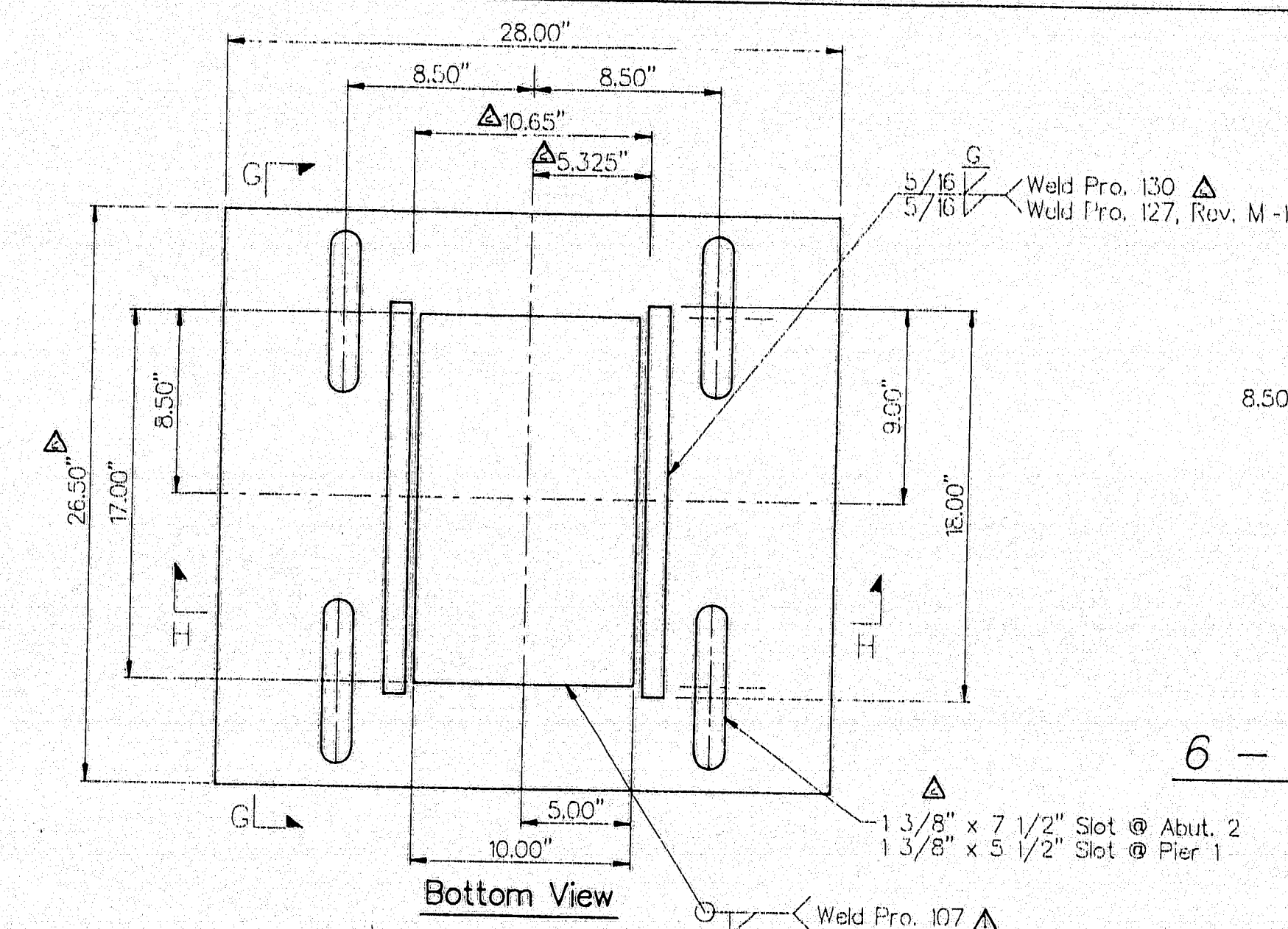
THESE DETAILS ARE THE PROPERTY OF R.J. WATSON, INC. DISSEMINATION OF INFORMATION CONTAINED ON THESE DRAWINGS WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.J. WATSON, INC. IS PROHIBITED.

REVISIONS
RE-WORKED DRAWINGS TO SUPERSEDE PREVIOUS SUBMISSION P.A. 5/18/96
RE-WORKED DRAWINGS TO SUPERSEDE PREVIOUS SUBMISSION P.A. 6/18/96

CONSULTANT:
CENTRACTOR:
REED & NEED, INC.
ONE & A HALF WASHINGTON ST.
BANGOR, ME 04401



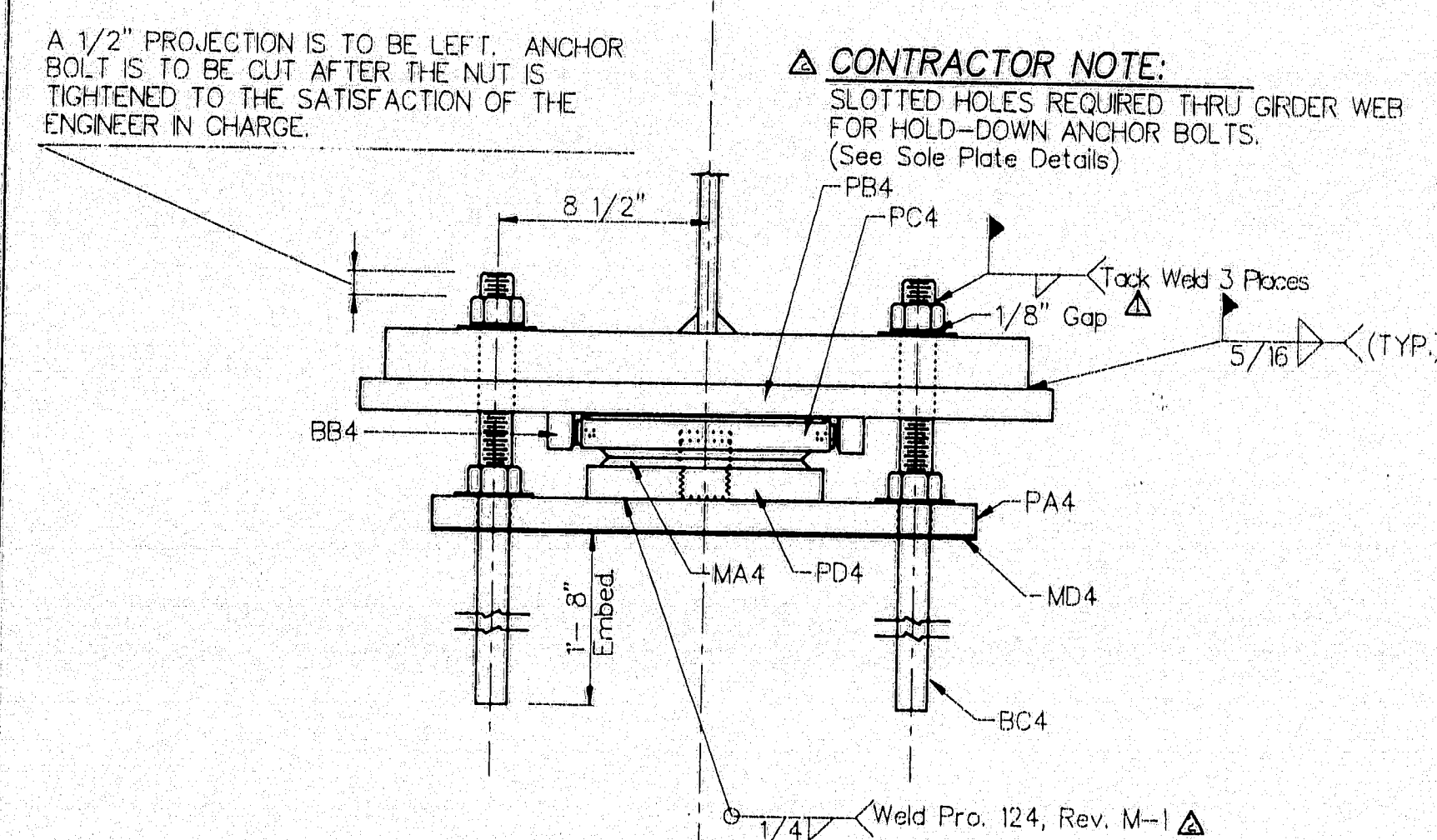
6 - Masonry Plate - PA4



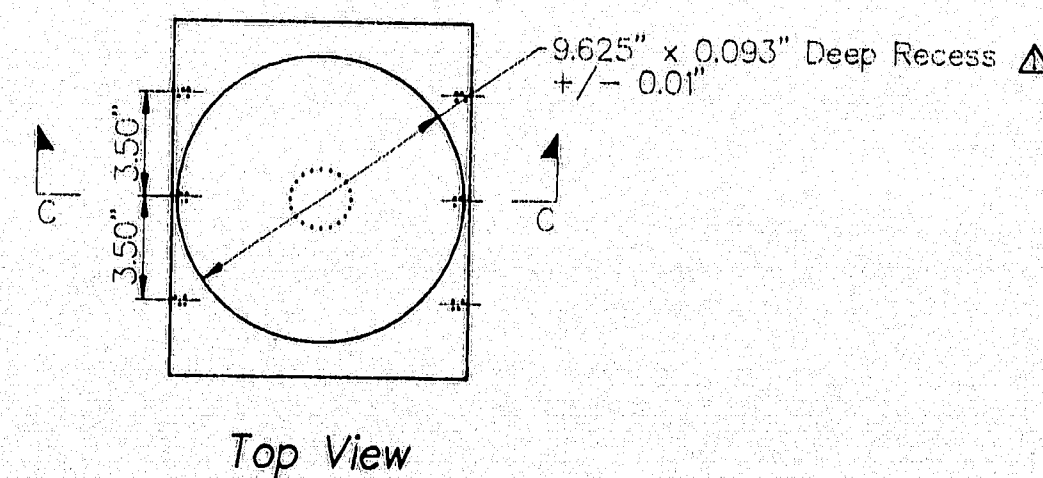
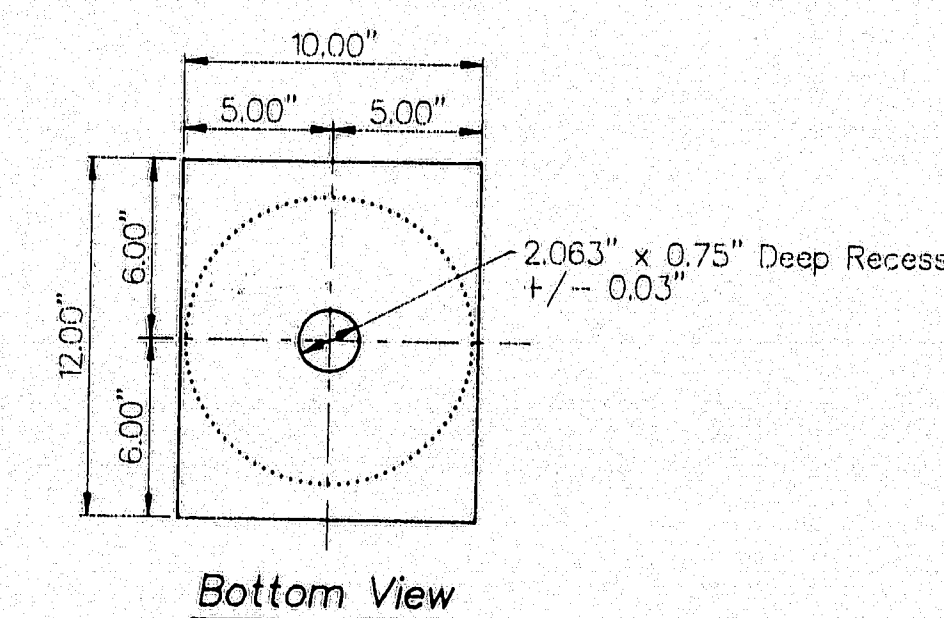
6 - Sole Plate - PB4

6 - Polytron Disc - MA4

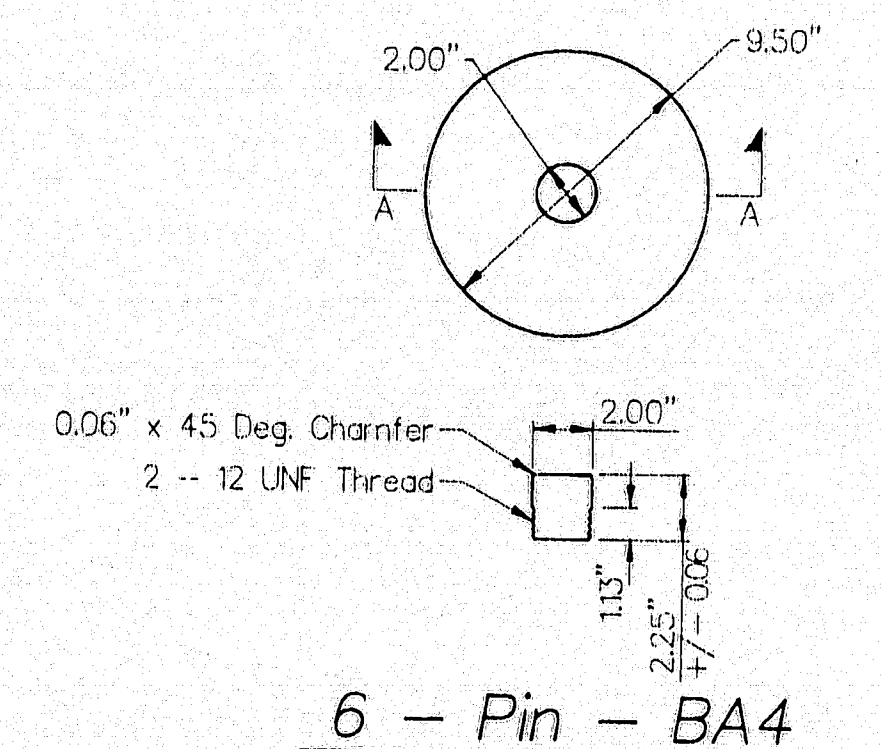
6 - PTFE Disc - MB4



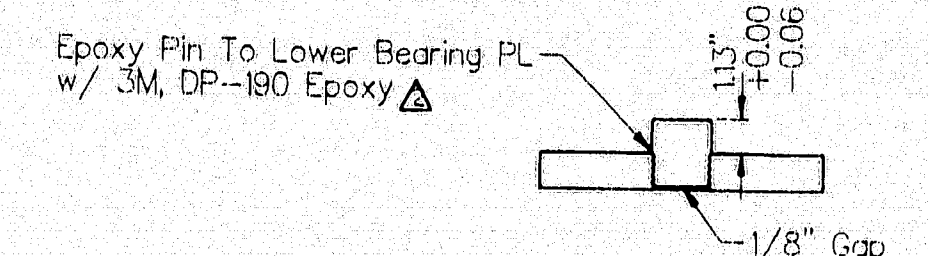
Installation Detail



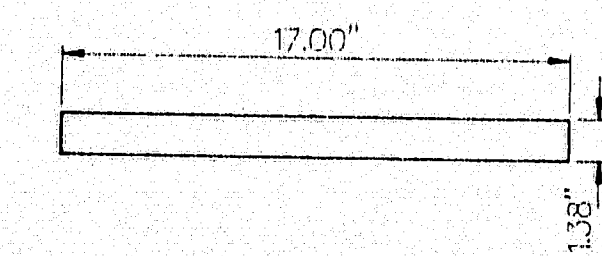
6 - Upper Bearing Plate - PC4



6 - Pin - BA4

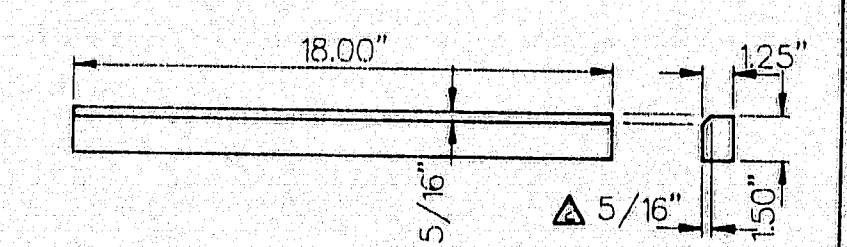


6 - Lower Bearing Plate - PD4



6 - Mirror Stainless - SSA4

12 - Side PTFE - MC4



12 - Guide Bar - BB4

See Sheet 1 For Comments.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
JUL 15 1996
Approved as noted

TOLERANCING	For fabrication not shown	SURFACE TREATMENT
Recess Width	0.06	PF4 BOT
Plate Outer Dimensions	0.13	SSPC-SP10
Plate Thickness	0.06	
Bearing Height	0.13	
Alignment	0.06	

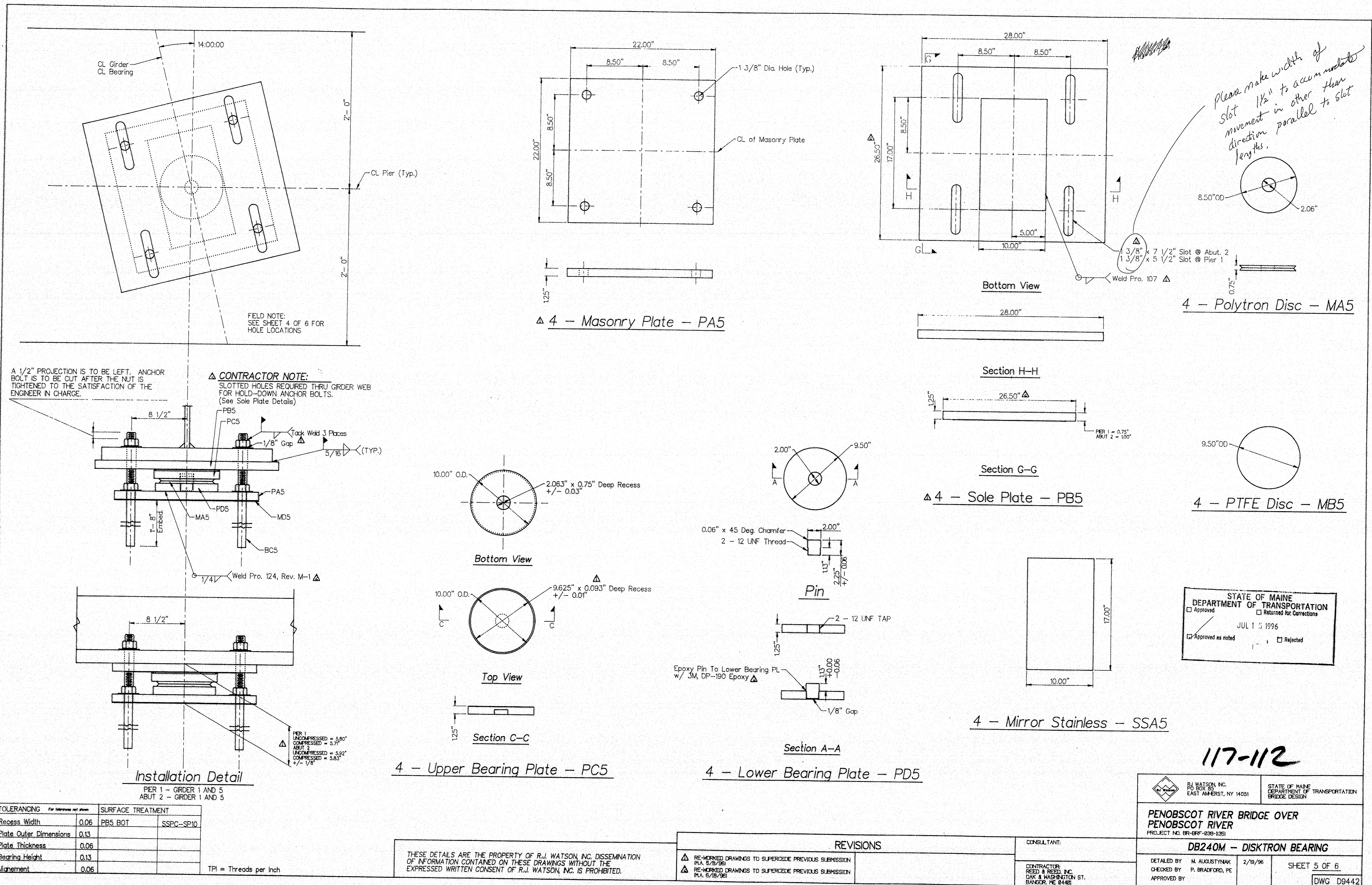
TPI = Threads per inch

THESE DETAILS ARE THE PROPERTY OF R.J. WATSON, INC. DISSEMINATION OF INFORMATION CONTAINED ON THESE DRAWINGS WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.J. WATSON, INC. IS PROHIBITED.

REVISIONS	CONSULTANT
RE-WORKED DRAWINGS TO SUPERCEDE PREVIOUS SUBMISSION RJA 5/6/96	
RE-WORKED DRAWINGS TO SUPERCEDE PREVIOUS SUBMISSION RJA 6/10/96	

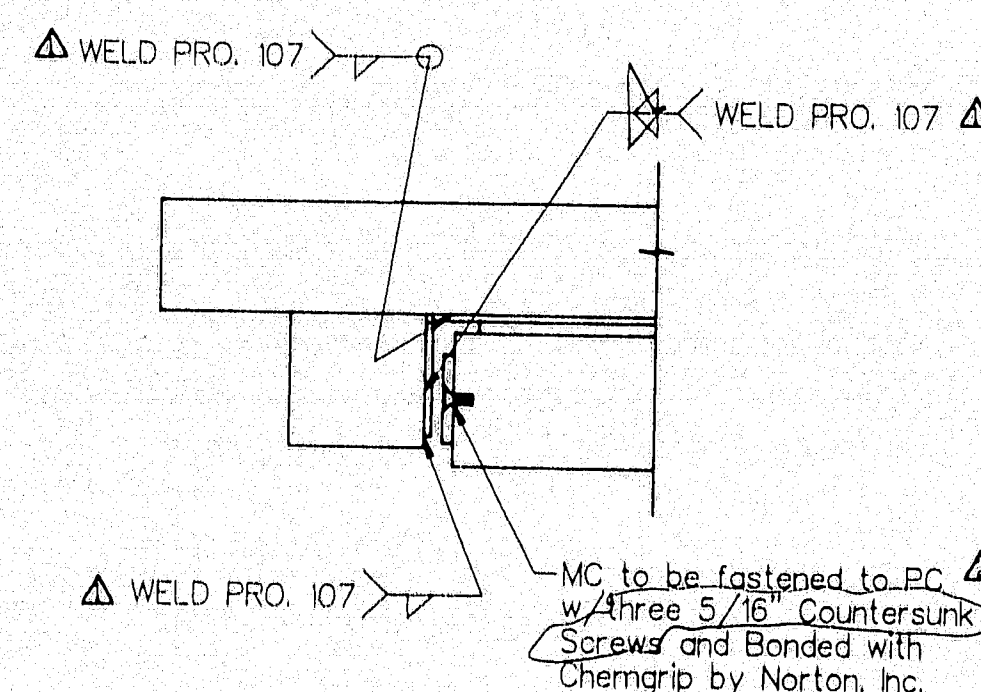
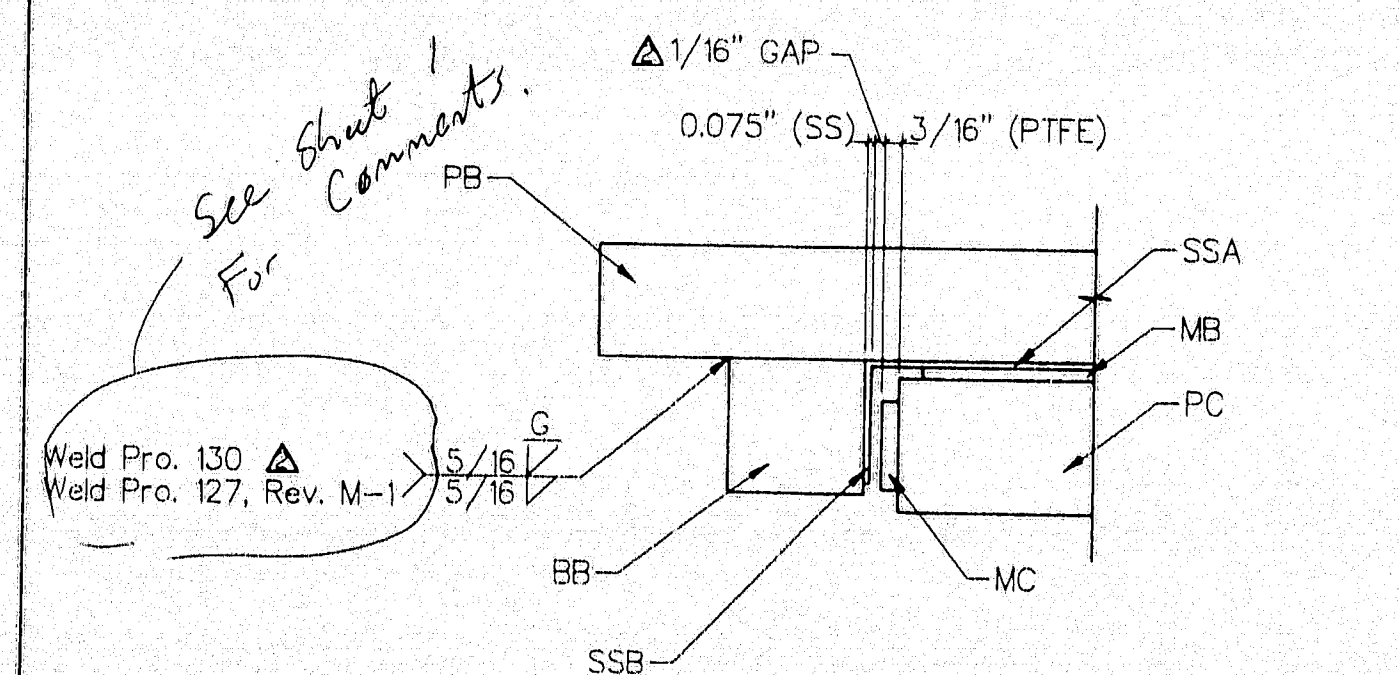
CONTRACTOR
REED & REED, INC.
ONE WASHINGTON ST.
BANGOR, ME 04401

R.J. WATSON, INC. 101 BOX 85 EAST AMHERST, NY 14051 STATE OF MAINE DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN	PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER PROJECT NO. BR-69F-89B-035 DB240U - DISKTRON BEARING DETAILED BY M. AUGUSTYNIAK CHECKED BY P. BRADFORD, PE APPROVED BY	2/15/96 SHEET 4 OF 6 DWG D9442
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GENERAL NOTES:

- ALL STEEL PLATES SHALL CONFORM TO ASTM-A588 (EXCEPT AS NOTED) AND SHALL BE OF DOMESTIC ORIGIN.
- ANCHOR BOLTS AND NUTS SHALL CONFORM TO ASTM-A449, SHALL BE GALVANIZED AND SHALL BE OF DOMESTIC ORIGIN.
- ANCHOR BOLT WASHERS AND NUTS SHALL BE HOT-DIP GALVANIZED AND SHALL BE OF DOMESTIC ORIGIN.
- THE POLYTRON ELEMENT SHALL BE IN ACCORDANCE WITH AASHTO 15th EDITION SECTION 10.3, TABLE 10.3.3, PAGES 570 - 573, AND SHALL BE ROUGHED.
- PTFE IS TO BE VIRGIN AND ETCHED ON ONE SIDE FOR BONDING INTO MACHINED RECESS. THE MAXIMUM COEFFICIENT OF FRICTION SHALL NOT EXCEED 0.4 @ 3500 psi, STATIC OR DYNAMIC PER SPECIFICATION.
- THE STAINLESS STEEL SHEET SHALL CONFORM TO ASTM-A240, TYPE 316, SHALL BE 1/4 GAUGE (20.3 THICKNESS) AND SHALL RECEIVE A No. 8 BRIGHT MIRROR FINISH PER SPECIFICATION.
- ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS - D15 BRIDGE WELDING CODE, AS WELL AS THE STATE OF MAINE STANDARDS AND SPECIFICATIONS.
- COATING: ALL EXTERIOR STEEL SURFACES EXCEPT STAINLESS STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM-A153.
- ORIENTATION OF BEARING SOLE PLATE SHALL BE MARKED ON EACH INDIVIDUAL BEARING AS SHOWN ON THE SHOP DRAWINGS.
- PTFE AND STAINLESS STEEL SURFACES SHALL BE PROTECTED FROM DAMAGE AS WELL AS ABRASION DEBRIS AND CONTAMINANTS AT ALL TIMES PRIOR TO FINAL ASSEMBLY. THESE SURFACES SHALL BE INSPECTED FOR SUCH DAMAGE AND DEBRIS BEFORE FINAL ASSEMBLY.
- THE CONTRACTOR SHALL ADJUST BEARING SEAT ELEVATIONS AT ABUTMENTS AND TRANSVERSE BEAM PEDESTALS TO ACCOMMODATE FINISHED BEARING HEIGHT.
- COMPLETED BEARINGS SHALL BE INDIVIDUALLY STEEL Banded FOR SHIPPING AND HANDLING.
- BEARINGS SHALL BE STORED IN A CLEAN, DRY, LEVEL, UPRIGHT POSITION.
- AT NO TIME MAY ANY BEARING BE DISSEMBLED WITHOUT AUTHORIZATION FROM R. J. WATSON, INC.
- ALL MILL SCALE TO BE REMOVED FROM BEARING PLATES VIA SANDBLASTING (SSPC-SP10). STAINLESS STEEL BACKER PLATES SHALL BE SANDBLASTED TO AN SSPC-SP10 NEAR-WHITE STEEL FINISH.
- GALVANIZED BEARING PLATE SURFACES ABOVE AND BELOW THE POLYTRON ELEMENT SHALL BE GROUND TO CREATE A ROUGH SURFACE.
- TESTING SHALL BE CONDUCTED BY THE TESTING COORDINATOR SPECIFIED IN THESE DRAWINGS AND CARRIED OUT AT:
NATIONAL CENTER FOR EARTHQUAKE ENGINEERING RESEARCH (NCEER)
STATE UNIVERSITY OF NEW YORK AT BUFFALO (UNIVERSITY CAMPUS)
TESTING COORDINATION: MARTIN AUGUSTYNIAK, R.J. WATSON, INC.
PRODUCTION COORDINATION: DAVID STAFFORD, R.J. WATSON, INC.
ALL TESTING SHALL CONFORM TO 5206 OF THE MAINE STANDARD SPECIFICATIONS.
- DAMAGED GALVANIZED AREAS FROM WELDING PROCESS SHOULD BE PAINTED WITH ZINC RICH PAINT.



Weld Detail

BILL OF MATERIALS

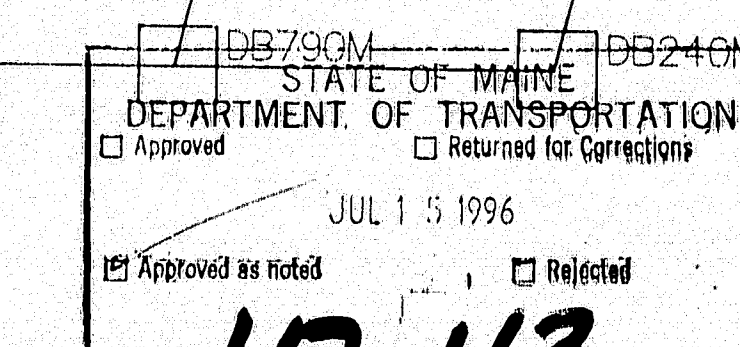
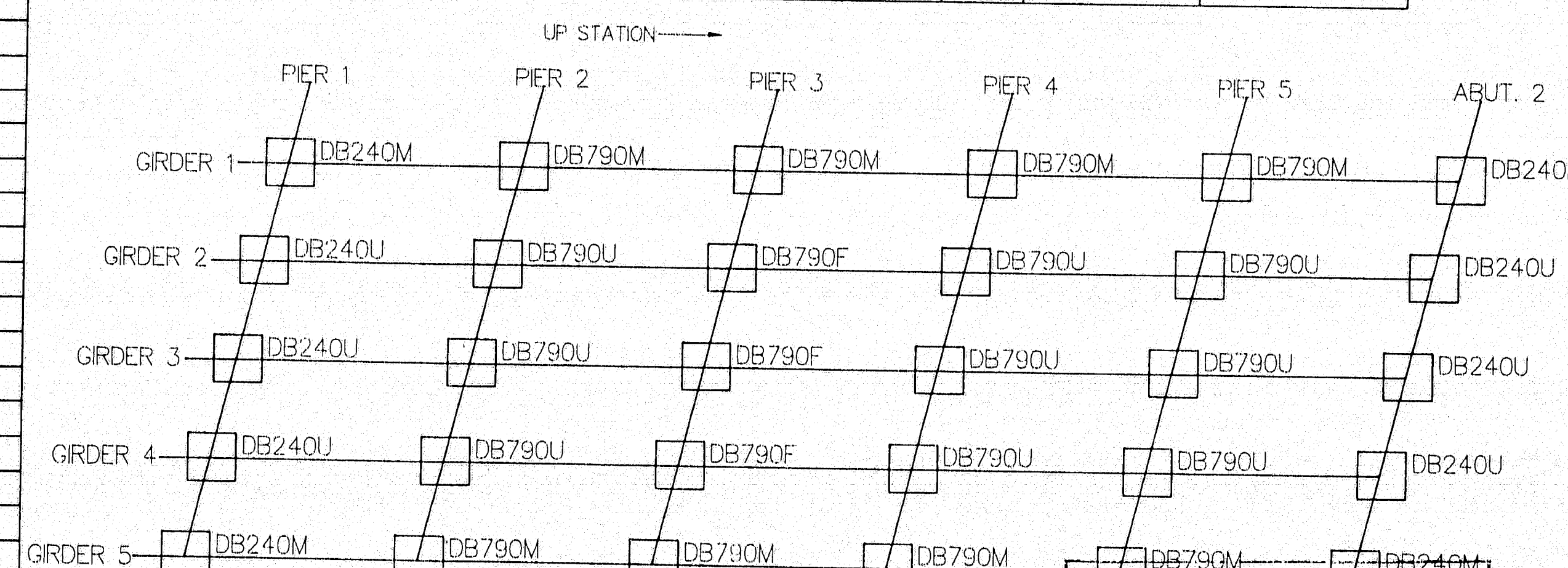
LN	MARK	QUANTITY UNIT	TOT.	SECTION	LENGTH FT. IN.	MATERIAL	REMARKS
01				DB790U			
02	PA1	1	9	Δ PLATE - 2 1/4" x 36"	2	5	A588 MASONRY PLATES
03	PB1	1	9	Δ PLATE - 1 1/2" x 36"	2	8	A588 SOLE PLATES
04	PC1	1	9	PLATE - 1 1/2" x 15"	1	7	A588 UPR. BRG. PLATES
05	PD1	1	9	PLATE - 1 1/2" x 15" OD	-	-	A588 LWR. BRG. PLATES
06	SSA1	1	9	STAINLESS SHEET - 1/4 GA. x 15"	1	10	A240 - TYPE 316 SEE GEN. NOTE NO.6
07	SSB1	2	18	STAINLESS SHEET - 1/4 GA. x 15/16"	1	10	A240 - TYPE 316 SEE GEN. NOTE NO.6
08	BA1	1	9	3 1/2" ROUND BAR	0	3	A193 - B7 THRD SHEAR PINS
09	BB1	2	18	1 3/4" x 1 3/4" BAR	1	11	A588 GUIDE BARS
10	BC1	Δ 4	36	1 1/2" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	6	A449 SEE GEN. NOTE NO.2
11	BC2	Δ 4	36	1 1/2" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	0	A449 SEE GEN. NOTE NO.2
12	MA1	1	9	1 1/4" x 15" OD POLYTRON ELEMENT	-	-	POLYURETHANE SEE GEN. NOTE NO.4
13	MB1	1	9	3/16" x 17" OD PTFE DISC	-	-	VIRGIN PTFE, ETCHED SEE GEN. NOTE NO.5
14	MC1	2	18	3/16" x 1 1/4" PTFE STRIPS	1	6	25X GLASS FILLED SEE GEN. NOTE NO.5
15	MD1	1	9	Δ BEARING PAD - 1/8" x 36"	2	5	RUBBER IMP. FABRIC 720-02
16				DB790M			
17	PA2	1	9	Δ PLATE - 2 1/4" x 36"	2	5	A588 MASONRY PLATES
18	PB2	1	9	Δ PLATE - 1 1/2" x 36"	2	8	A588 SOLE PLATES
19	PC2	1	9	PLATE - 1 1/2" x 15" OD	-	-	A588 UPR. BRG. PLATES
20	PD2	1	9	PLATE - 1 1/2" x 15" OD	-	-	A588 LWR. BRG. PLATES
21	SSA2	1	9	STAINLESS SHEET - 1/4 GA. x 15"	1	10	A240 - TYPE 316 SEE GEN. NOTE NO.6
22	BA2	1	9	3 1/2" ROUND BAR	0	3	A193 - B7 THRD SHEAR PINS
23	BC2	Δ 4	36	1 1/2" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	6	A449 SEE GEN. NOTE NO.2
24	MA2	1	9	1 1/4" x 15" OD POLYTRON ELEMENT	-	-	POLYURETHANE SEE GEN. NOTE NO.4
25	MB2	1	9	3/16" x 17" OD PTFE DISC	-	-	VIRGIN PTFE, ETCHED SEE GEN. NOTE NO.5
26	MD2	1	9	Δ BEARING PAD - 1/8" x 36"	2	5	RUBBER IMP. FABRIC 720-02
27				DB790F			
28	PA3	1	3	Δ PLATE - 2 1/4" x 36"	2	5	A588 MASONRY PLATES
29	PB3	1	3	Δ PLATE - 1 1/2" x 36"	2	4	A588 SOLE PLATES
30	PC3	1	3	PLATE - 1 1/2" x 15" OD	-	-	A588 UPR. BRG. PLATES
31	PD3	1	3	PLATE - 1 1/2" x 15" OD	-	-	A588 LWR. BRG. PLATES
32	BA3	1	3	3 1/2" ROUND BAR	0	3	A193 - B7 THRD SHEAR PINS
33	BC3	Δ 4	12	1 1/2" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	6	A449 SEE GEN. NOTE NO.2
34	BC3	Δ 4	12	1 1/2" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	0	A449 SEE GEN. NOTE NO.2
35	MA3	1	3	1 1/4" x 15" OD POLYTRON ELEMENT	-	-	POLYURETHANE SEE GEN. NOTE NO.4
36	MD3	1	3	Δ BEARING PAD - 1/8" x 36"	2	5	RUBBER IMP. FABRIC 720-02
37				DB240U			
38	PA4	1	6	Δ PLATE - 1 1/4" x 22"	1	10	A588 MASONRY PLATES
39	PB4	1	6	Δ PLATE - 1 1/4" x 28"	2	2 1/2	A588 SOLE PLATES
40	PC4	1	6	PLATE - 1 1/4" x 12"	0	10	A588 UPR. BRG. PLATES
41	PD4	1	6	PLATE - 1 1/4" x 9 1/2" OD	-	-	A588 LWR. BRG. PLATES
42	SSA4	1	6	STAINLESS SHEET - 1/4 GA. x 10"	1	5	A240 - TYPE 316 SEE GEN. NOTE NO.6
43	SSB4	2	12	STAINLESS SHEET - 1/4 GA. x 1 3/8"	1	5	A240 - TYPE 316 SEE GEN. NOTE NO.6
44	BA4	1	6	2" ROUND BAR	0	2 1/4	A193 - B7 THRD SHEAR PINS
45	BB4	2	12	1 1/4" x 1 1/2" BAR	1	6	A588 GUIDE BARS
46	BC4	Δ 4	24	1 1/8" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	6	A449 SEE GEN. NOTE NO.2
47	MA4	1	6	3/4" x 8 1/2" OD POLYTRON ELEMENT	-	-	POLYURETHANE SEE GEN. NOTE NO.4
48	MB4	1	6	3/16" x 9 1/2" OD PTFE DISC	-	-	VIRGIN PTFE, ETCHED SEE GEN. NOTE NO.5
49	MC4	2	12	3/16" x 1" PTFE STRIPS	0	1 3/4	VIRGIN PTFE, ETCHED SEE GEN. NOTE NO.5
50	MD4	1	6	Δ BEARING PAD - 1/8" x 22"	1	10	RUBBER IMP. FABRIC 720-02
51				DB240M			
52	PA5	1	4	Δ PLATE - 1 1/4" x 22"	1	10	A588 MASONRY PLATES
53	PB5	1	4	Δ PLATE - 1 1/4" x 28"	2	2 1/2	A588 SOLE PLATES
54	PC5	1	4	PLATE - 1 1/4" x 10" OD	-	-	A588 UPR. BRG. PLATES
55	PD5	1	4	PLATE - 1 1/4" x 9 1/2" OD	-	-	A588 LWR. BRG. PLATES
56	SSA5	1	4	STAINLESS SHEET - 1/4 GA. x 10"	1	5	A240 - TYPE 316 SEE GEN. NOTE NO.6
57	BA5	1	4	2" ROUND BAR	0	2 1/4	A193 - B7 THRD SHEAR PINS
58	BC5	Δ 4	16	1 1/8" DIA. FULLY THRD ANCR BOLT W/NO NUTS & WASHERS	2	6	A449 SEE GEN. NOTE NO.2
59	MA5	1	4	3/4" x 8 1/2" OD POLYTRON ELEMENT	-	-	POLYURETHANE SEE GEN. NOTE NO.4
60	MB5	1	4	3/16" x 9 1/2" OD PTFE DISC	-	-	VIRGIN PTFE, ETCHED SEE GEN. NOTE NO.5
61	MD5	1	4	Δ BEARING PAD - 1/8" x 22"	1	10	RUBBER IMP. FABRIC 720-02

Δ TOP OF PEDESTAL ELEVATIONS

LOCATION	G1	G2	G3	G4	G5
PIER 1	36.53	36.71	36.77	36.39	36.01
PIER 2	35.79	36.04	36.16	35.85	35.54
PIER 3	36.93	37.22	Δ 37.40	37.11	36.83
PIER 4	34.82	35.17	35.39	35.18	34.96
PIER 5	29.93	30.31	30.57	30.39	30.21
ABUT. 2	Δ 30.04	Δ 30.37	Δ 30.58	Δ 30.36	Δ 30.14

Δ BEARING SETTING CORRECTIONS (INCHES)

LOCATION	0°	15°	30°	45°	60°	75°	90°	105°	LONGIT. MOVE -30° to 120°
PIER 1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2
PIER 2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2
PIER 3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	0
PIER 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2
PIER 5	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	4 1/2
ABUT. 2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	5 1/2

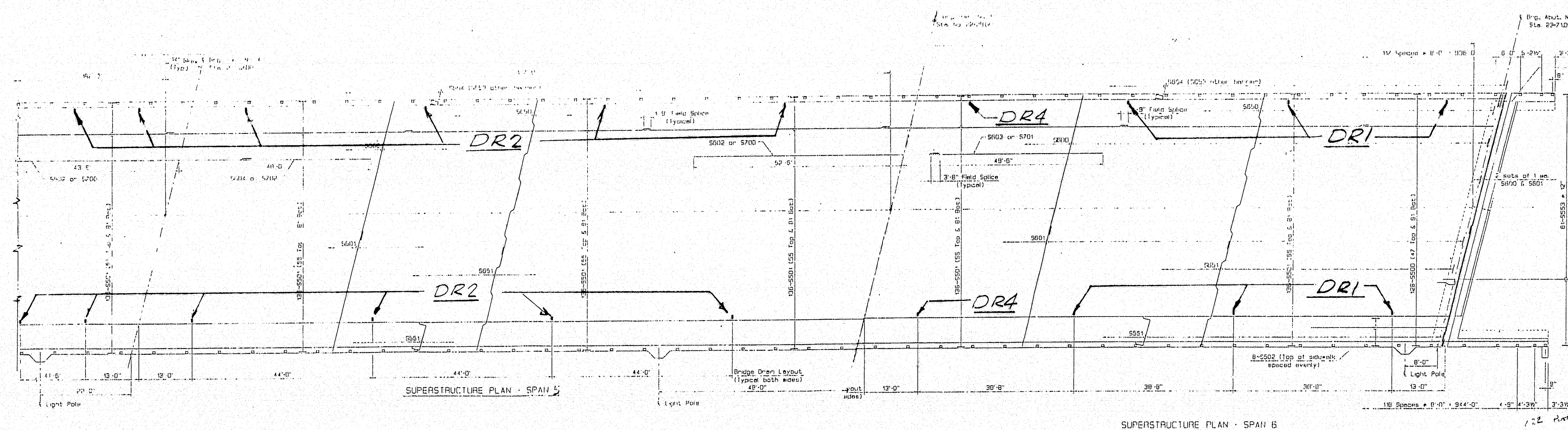
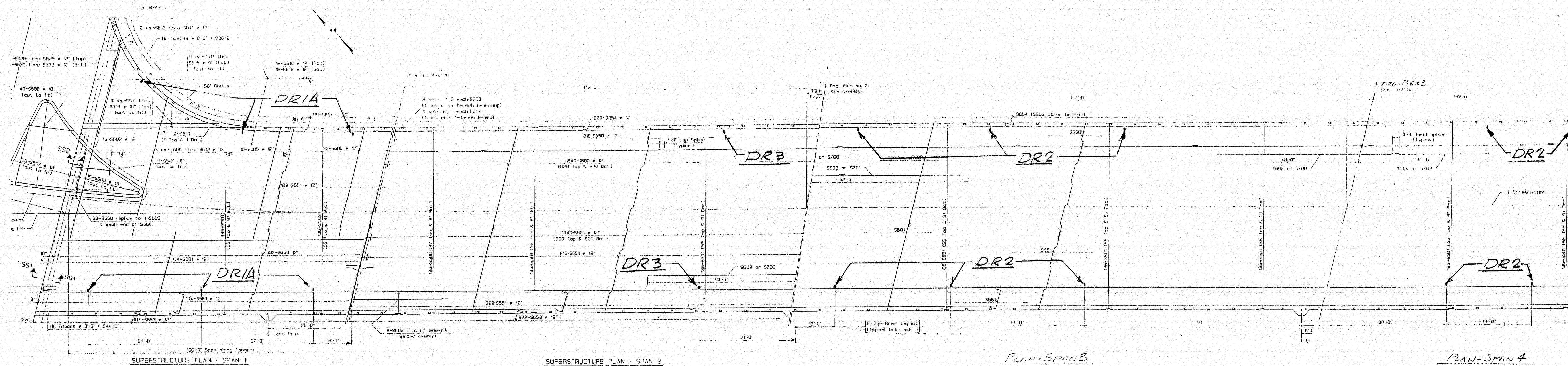


R.J. WATSON, INC.
 EAST AMHERST, NY 14051
 STATE OF MAINE
 DEPARTMENT OF
 BRIDGE DESIGN
 PENOBSCOT RIVER BRIDGE OVER
 PENOBSCOT RIVER
 PROJECT NO. BR-BRF-238-1351
 DISKTRON BEARING BILL OF MATERIALS
 PREPARED BY: M. AUGUSTYNIAK 2/23/96
 CHECKED BY: P. BRADFORD, PE
 APPROVED BY: [Signature]
 SHEET 6 OF 6
 DWG D9442

THESE DETAILS ARE THE PROPERTY OF R.J. WATSON, INC. DISSEMINATION
 OF INFORMATION CONTAINED ON THESE DRAWINGS WITHOUT THE
 EXPRESSED WRITTEN CONSENT OF R.J. WATSON, INC. IS PROHIBITED.

REVISIONS
 Δ RE-REVISED DRAWINGS TO SUPERCEDE PREVIOUS SUBMISSION
 Δ RE-REVISED DRAWINGS TO SUPERCEDE PREVIOUS SUBMISSION
 (P.A. 5/18/96)

CONSULTANT:
 CONTRACTOR:
 CHECKED BY:
 APPROVED BY:

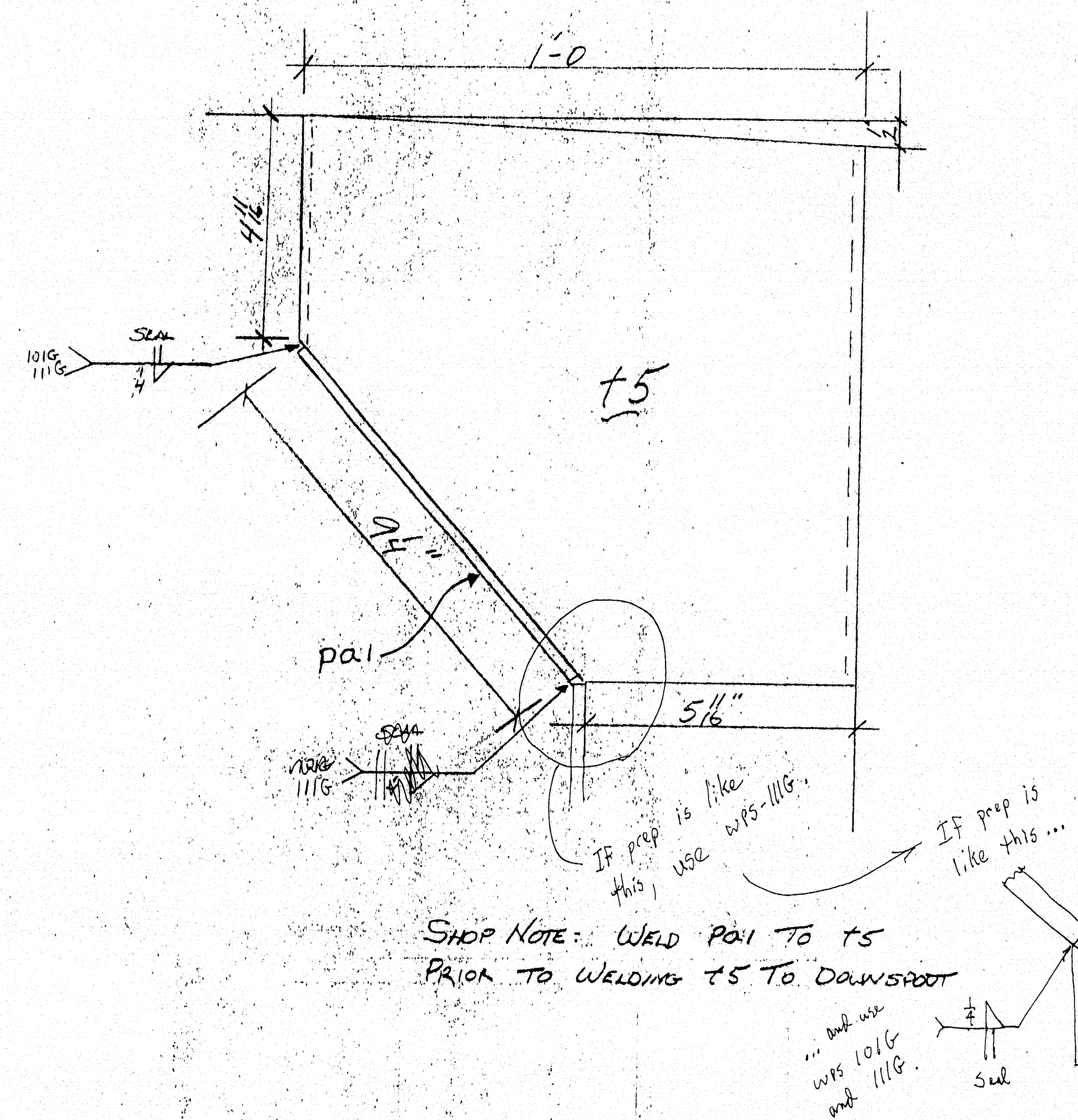
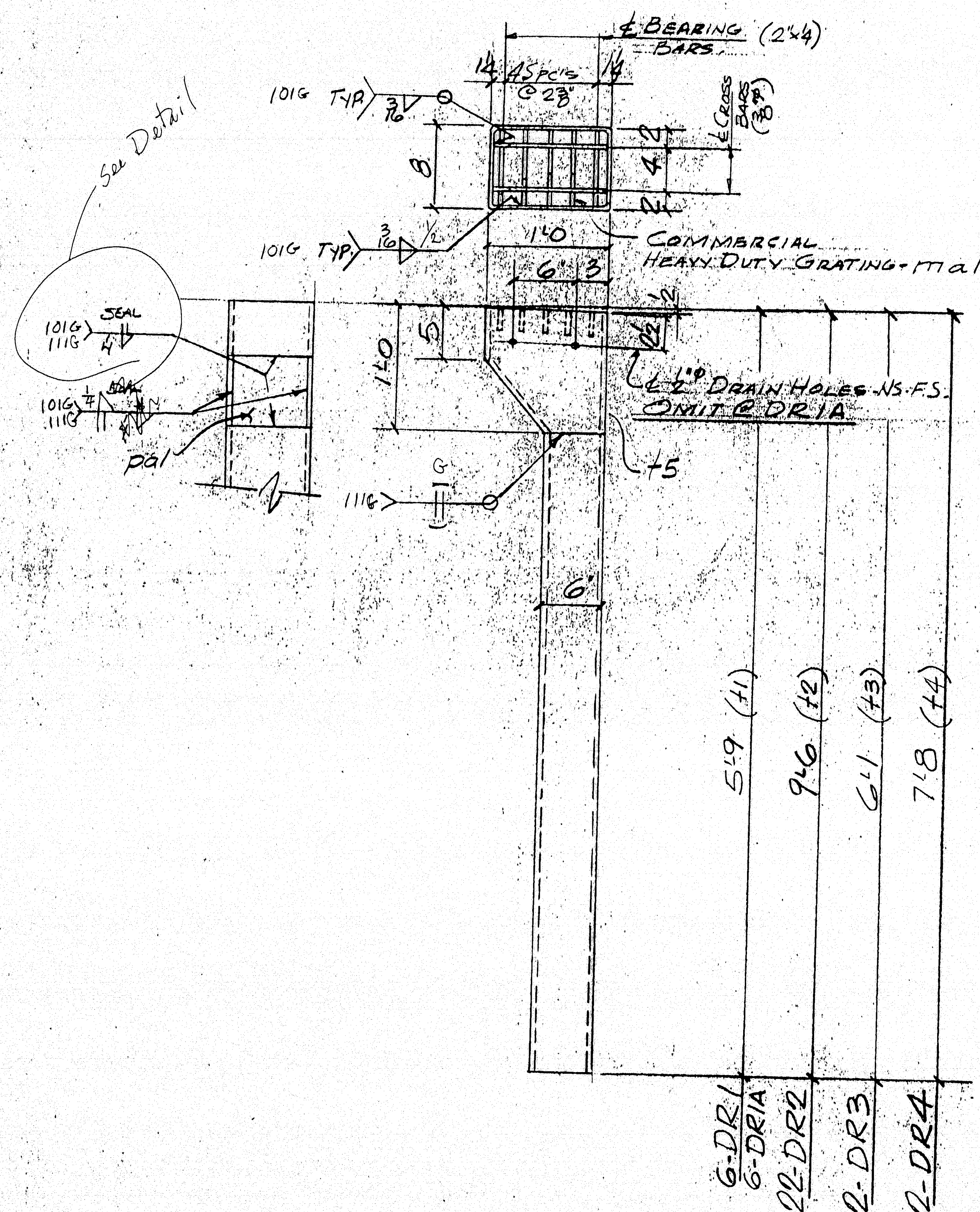


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
JUN 19 1996
Approved
Approved as noted
Returned for Corrections
Rejected

PAY ITEM 502.19

OUT FOR APPROVAL	DATE	OWN	CHK	APP	O.A.	NO.	DIA.	LGT	TYPE	WASHER
OUT FOR APPROVAL	DATE	OWN	CHK	APP	O.A.	NO.	DIA.	LGT	TYPE	WASHER
ISSUED TO SHOP	DATE	OWN	CHK	APP	O.A.	NO.	DIA.	LGT	TYPE	WASHER
FIELD & OFFICE	DATE	OWN	CHK	APP	O.A.	NO.	DIA.	LGT	TYPE	WASHER
REV. REMARKS	DATE	OWN	CHK	APP	O.A.	NO.	DIA.	LGT	TYPE	WASHER
PROJECT NO. BR-BRF-038-1(35)										
MATERIAL: ASTM A36	ELECTRODES: PER PROC.									
HOLES: AS NOTED	SHOP BOLTS: -									
SURFACE PREP. & PAINT										
GALVANIZED AFTER FAB. PER ASTM-A123										
DESCRIPTION: BRIDGE DRAIN LOCATIONS	DRAWN BY	DATE								
JOB: PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER BANGOR-BREWER, ME.	UPF	5-15-96								
	CHKD BY	DATE								
	EJ	DATE								
	APPROV BY	DATE								
	O.A.	DATE								
CUSTOMER: REED & REED INC.										
BRIDGE & STEEL SERVICES	JOB NO.	DRG. NO.								
5 INDUSTRY ROAD SOUTH PORTLAND, ME. 04106	9009	E1								
PHONE (207) 874-2017 FAX. (207) 874-6998										
	REV.									

THIS DWG. TO BE USED FOR
LOCATING BRIDGE DRAIN ONLY



19-DA1	43x3x1/2x3-11	SOUTH SIDE
19-DA2	DO x 1/3	NORTH SIDE

ABM INFO		SHOP BILL				JOB NO.	DRG. NO.		
						9009	111		
PAGE	LINE	NO.	DESCRIPTION	FT.	IN.	ASS'Y MARK	SHIPPING MARK	REMARKS	WEIGHT
		6	DRAINS	5	9		DR1		
		6	DO	5	9		DR1A		
1	A	12	TS 2x6x4	2	9	11		1500-1000-1000	
1	E	12	TS 2x6x4	1	0	15		1500-1000-1000	
1	F	12	24x72	9	4	11		1500-1000-1000	
1	G	12	1 1/2" WIDE x 2"	12	11	11		24x72x12 1500-1000-1000 1500-1000-1000	
		22	DRAINS	9	6		DR2		
1	B	22	TS 8x6x4	3	6	12		1500-1000-1000	
1	E	22				15			
1	P	22				11			
1	G	22				11			
		2	DRAINS	6	1		DR3		
1	C	2	TS 8x6x14	5	1	13		1500-1000-1000	
1	E	2				15			
1	F	2				11			
1	G	2				11			
		2	DRAINS	7	8		DR4		
1	D	2	TS 8x6x14	6	8	14		1500-1000-1000	
1	E	2				15			
1	F	2				11			
1	G	2				11			
1	J	19	23x3x76	3	11		DA1		
1	K	19	DO	1	3		DA2		

PAY ITEM 502.19

WT 6X10 and Fasteners will be paid for under structural steel.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☐ Returned for Corrections
JUL 24 1996
☒ Approved as noted ☐ Rejected

OUT FOR APPROVAL: *[Signature]*
OUT FOR APPROVAL: *[Signature]*
ISSUED TO SHOP
FIELD & OFFICE

REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT.	TYPE	WASHER
1	REVISION ON 1/16										

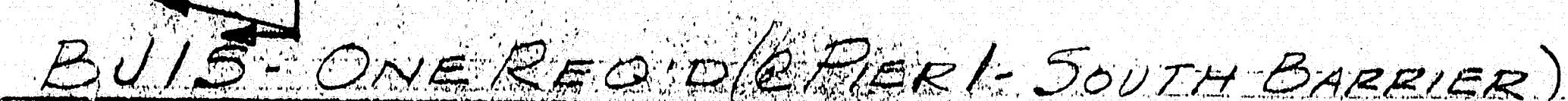
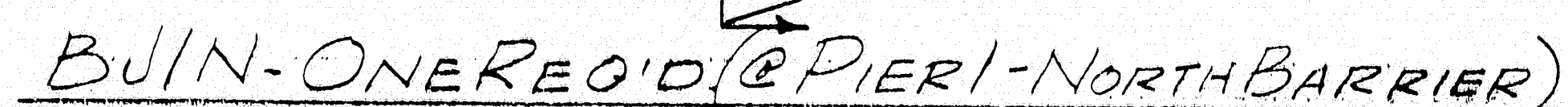
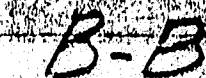
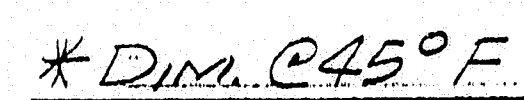
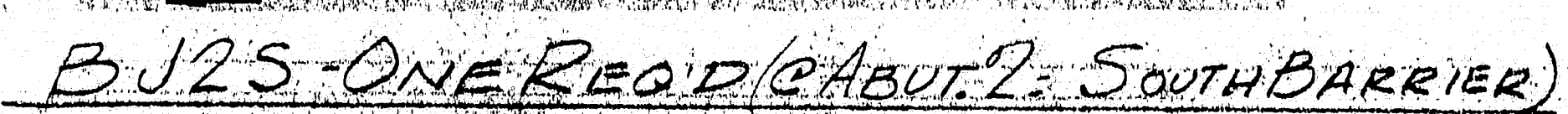
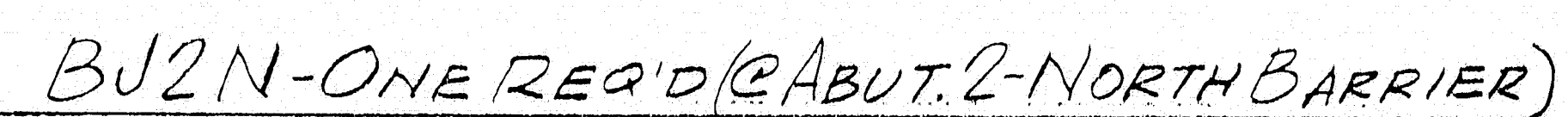
PROJECT NO. BR-BRE-0387(135)
MATERIAL: A516 ELECTRODES: E70C
HOLES: A516 SHIP BOLTS
SURFACE PREP. & PAINT: GALVANIZED AFTER FAB
DESCRIPTION: BRIDGE DRAIN DETAILS
JOB: PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER BANOOK-BREWER, ME
CUSTOMER: REED & REED, INC.
BRIDGE & STEEL SERVICES
5. INDUSTRY ROAD SOUTH PORTLAND, ME 04106
PHONE (207) 874-2017 FAX: (207) 874-6998

117-115

DATE: 5/17/96
CHK'D BY: *[Signature]*
APPROV'D BY: *[Signature]*
Q.A.: *[Signature]*

JOB NO. 9009 DRG. NO. 111
REV.

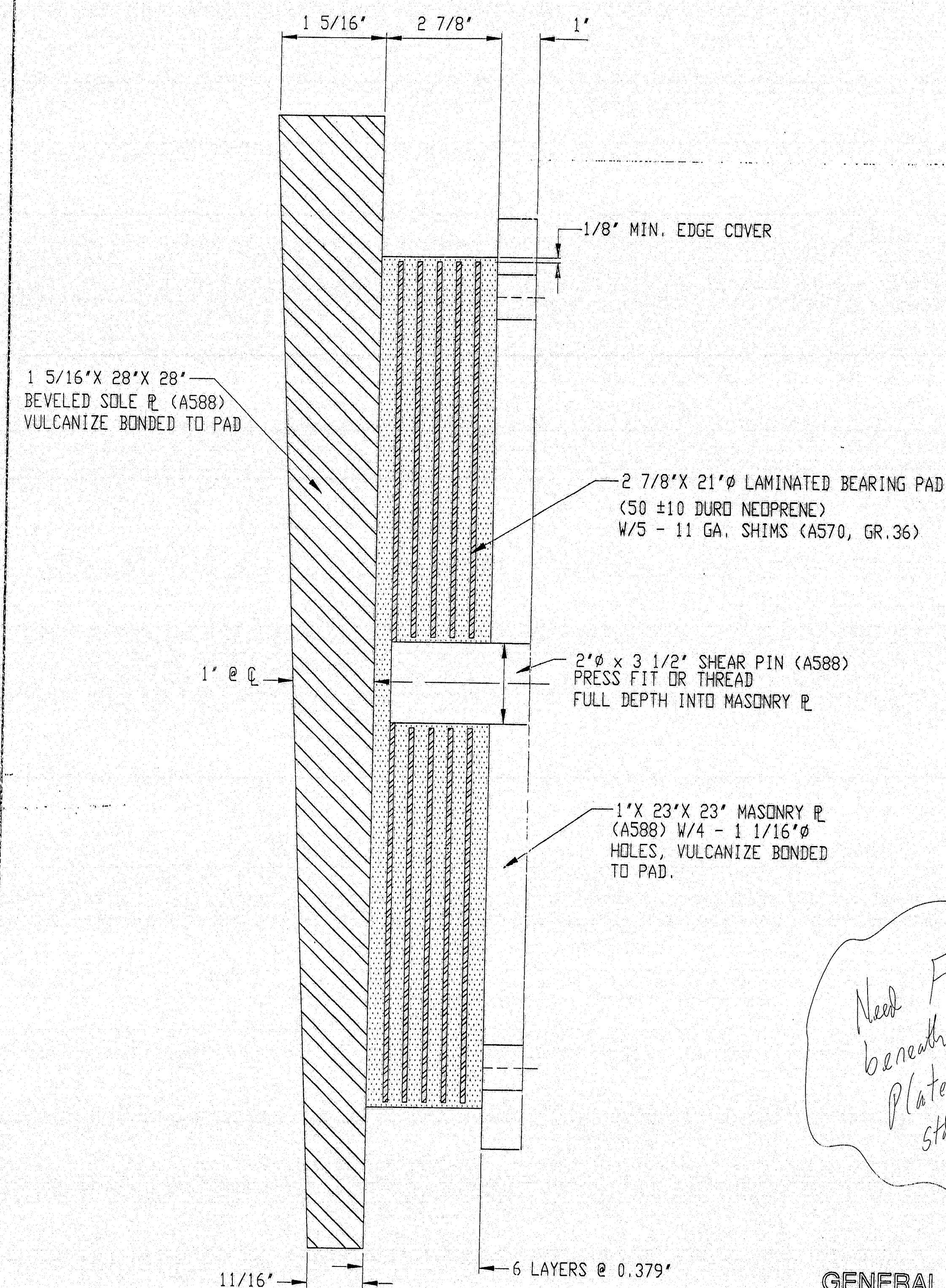
[illegible]



PAY ITEM NO. 520.23

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☒ Approved ☐ Returned for Corrections
AUG 13 1996
☒ Approved as noted ☐ Rejected

[illegible]



SECTION 'A-A'

Notes: The field weld connecting the flange to the bearing shall be allowed to cool after each pass, however, the temperature of steel adjacent to the elastomer shall not exceed 200°F. Temperature shall be controlled by welding procedure specifications and temperature indicating crayons or other devices approved by the Engineer.

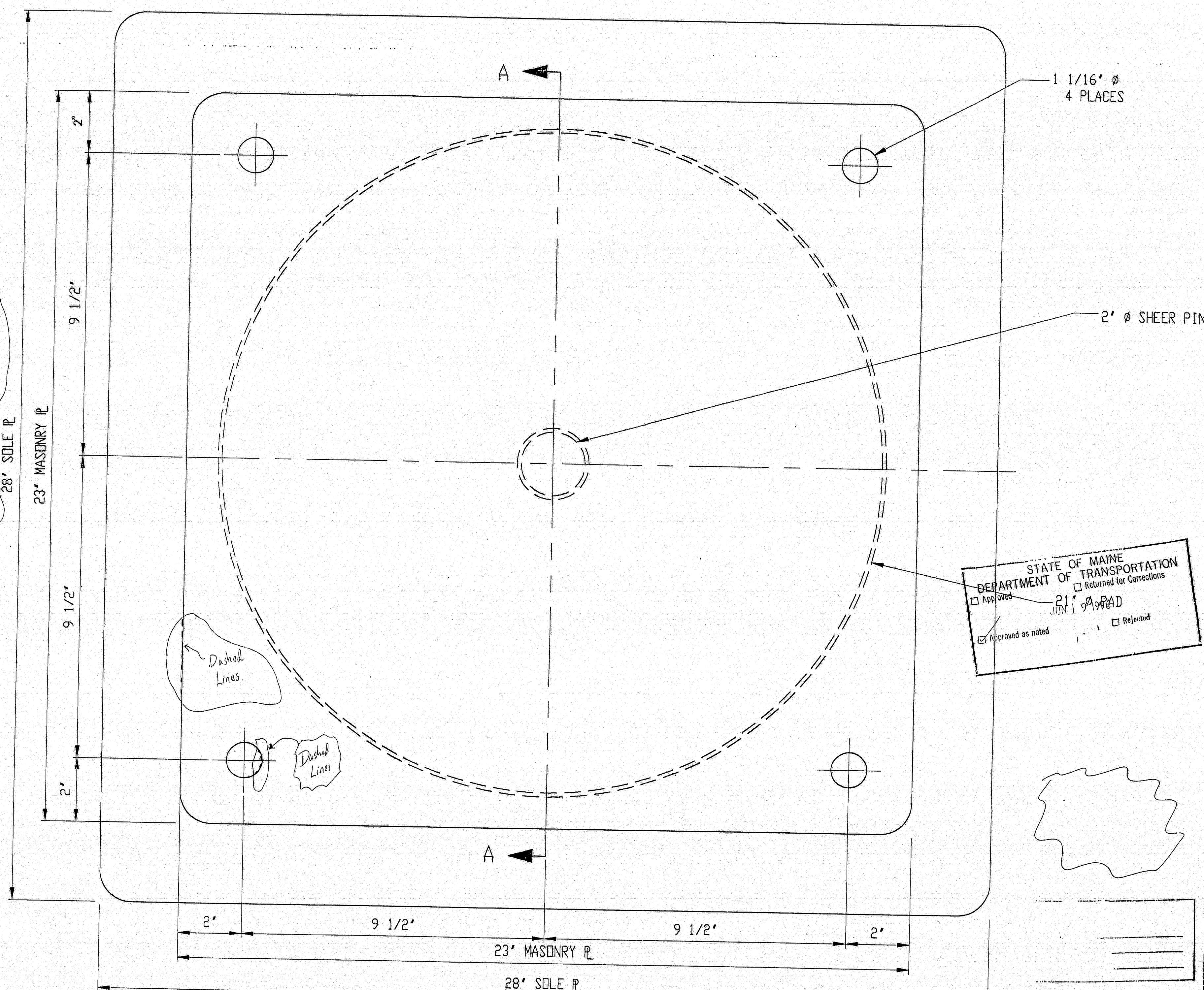
When field welding bearing components do not allow welding currents to pass through laminated bearing pad assembly or damage may occur.

GENERAL NOTES

- PAD AND MATERIALS CONFORM TO MAINE D.O.T. SPECIFICATIONS FOR ELASTOMERIC BEARINGS.
- THESE SHOP DRAWINGS WERE PREPARED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS. THE D.S. BROWN COMPANY DOES NOT ACCEPT LIABILITY FOR THE DESIGN OF THE PRODUCTS DETAILED IN THESE SHOP DRAWINGS.
- 1/2" MAX. RADIUS ON PLATE CORNERS.

Who Provides Hardware? Anchor Bolts, Washers, Heavy Hex Nuts etc.?

Need Fabric Pads beneath Masonary Plates. see Me 504.45.



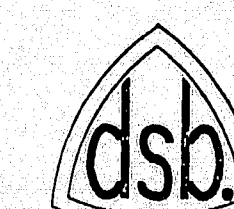
PLAN VIEW
MARK: 61383-A
< 2 > REQ'D.
ABUTMENT 1 G1

DATA	61383-A
SHAPE FACTOR	13.57
AREA OF COMPRESSION	334.10
AREA OF SHEAR	346.36
EFFECTIVE RUBBER THICKNESS	2.27
SHAPE FACTOR AASHTO	13.85
DIAMETER/THICKNESS	7.30

DSB FILE NO: 96-61383

PD: 1764

D.S. BROWN 96-61383-09813 SHEET 1 OF 4



F.A.P. NO.:

STATE PROJ. NO.: BR-BRF-038-1(35)
BRIDGE NO: PENOBSCOT RIVER BRIDGE
DISTRIBUTOR REED & REED, INC.
CONTRACTOR:



DATE	SYM	REVISION	DR	CK
5-09-96				
THE D.S. BROWN COMPANY, INC. NORTH BALTIMORE, OHIO 45872-0156 U.S.A.				
SCALE: 1/2"				
DRAWN BY: J. Briggs				
PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER				
PENOBSCOT COUNTY MAINE				
ELASTOMERIC BEARING PAD				
DRAWING NUMBER 96-61383-01				

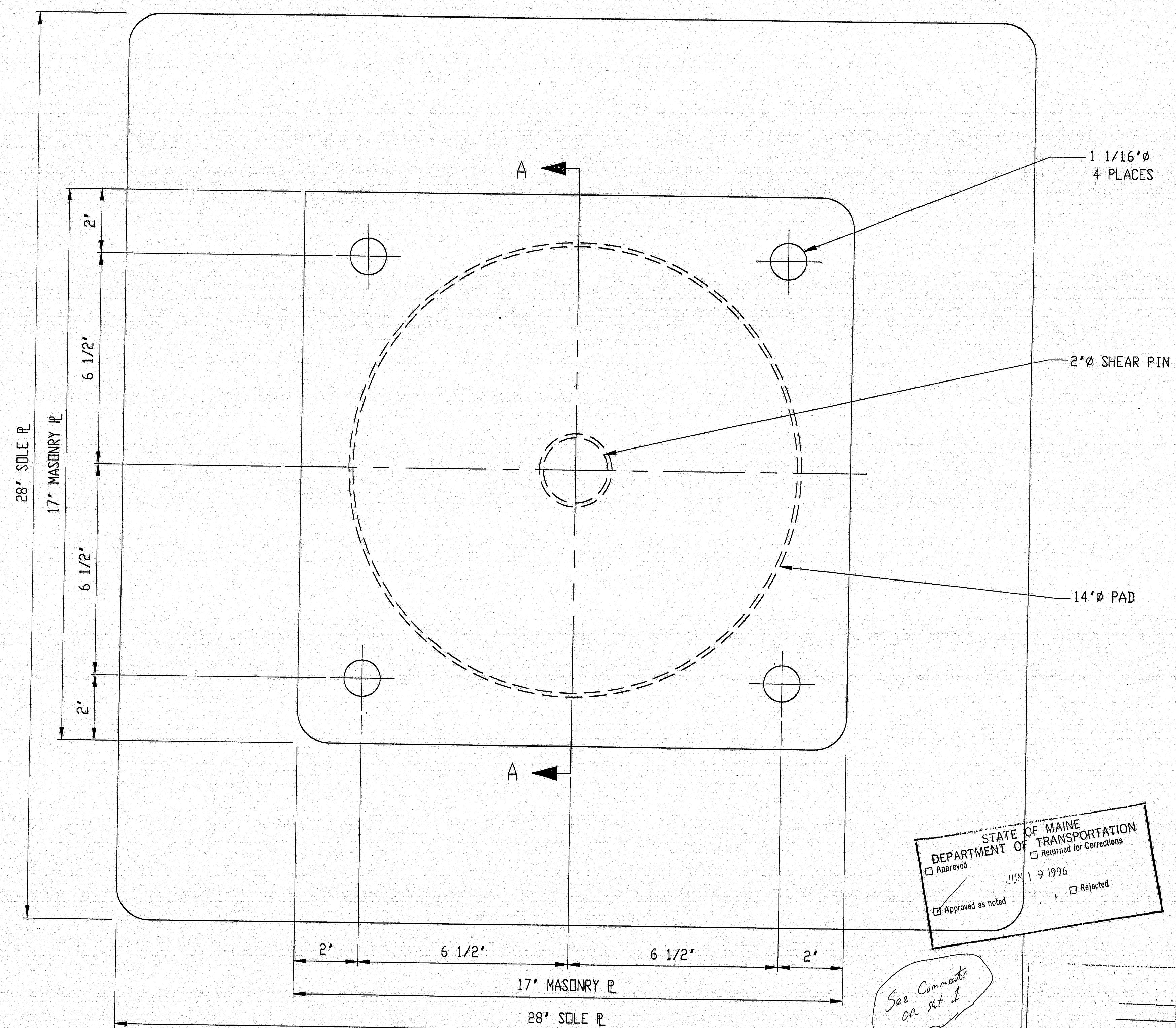
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
JUN 1 1996
Approved as noted

117-121



1. PAD AND MATERIALS CONFORM TO MAINE D.O.T. SPECIFICATIONS FOR ELASTOMERIC BEARINGS.
2. THESE SHOP DRAWINGS WERE PREPARED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS. THE D.S. BROWN COMPANY DOES NOT ACCEPT LIABILITY FOR THE DESIGN OF THE PRODUCTS DETAILED IN THESE SHOP DRAWINGS.
3. 1/2" MAX. RADIUS ON PLATE CORNERS.

DATA	61383-B
SHAPE FACTOR	8.95
AREA OF COMPRESSION	145.80
AREA OF SHEAR	153.94
EFFECTIVE RUBBER THICKNESS	2.27
SHAPE FACTOR AASHTO	9.23
DIAMETER/THICKNESS	4.87

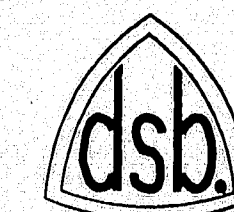


PLAN VIEW
MARK: 61383-B
(7) REQ'D.
ABUTMENT G2-G5

PO: 1764

D.S. BROWN 96-61383-09813

SHEET 2 OF 4



F.A.P. NO.:

STATE PROJ. NO.: BR-BRF-038-1(35)

BRIDGE NO: PENOBSCOT RIVER BRIDGE

DISTRIBUTOR REED & REED, INC.

CONTRACTOR:



THE D.S. BROWN COMPANY, INC.
NORTH BALTIMORE, OHIO 45872-0158 U.S.A.

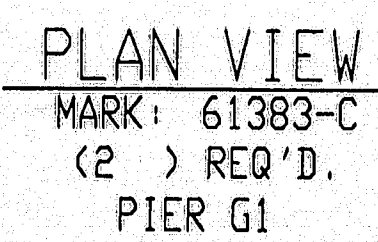
SCALE: 1/2

DATE: 5-09-96

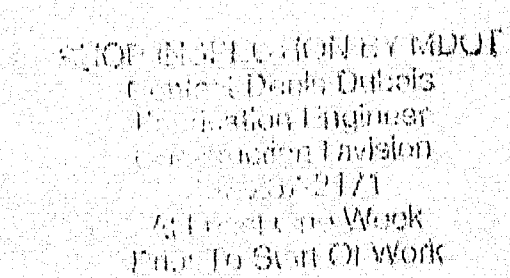
PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER
PENOBSCOT COUNTY MAINE

ELASTOMERIC BEARING PAD

DRAWING NUMBER	96-61383-02
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DSB FILE NO: 96-61383



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☐ Returned for Corrections
JUN 19 1996
☒ Approved as noted ☐ Rejected

See Comments
on pht 1.

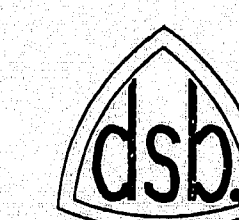
DATA	61383-C
SHAPE FACTOR	10.50
AREA OF COMPRESSION	297.89
AREA OF SHEAR	312.00
EFFECTIVE RUBBER THICKNESS	3.04
SHAPE FACTOR ASHTO	10.83
LENGTH/THICKNESS	3.10

117-123
SHEET 3 OF 4

P0: 1764

D.S. BROWN 96-61383-09813

SHEET 3 OF 4



F.A.P. NO.:

STATE PROJ. NO.: BR-BRF-038-1(35)

BRIDGE NO: PENOBSCOT RIVER BRIDGE

DISTRIBUTOR REED & REED, INC.

CONTRACTOR:



THE D.S. BROWN COMPANY, INC.
NORTH BALTIMORE, OHIO 45872-0158 U.S.A.

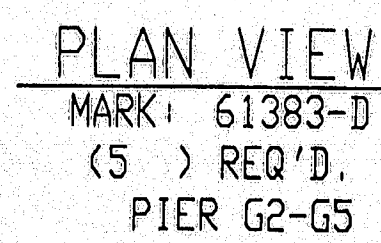
SCALE: 1/2

DATE: 5-13-96

PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER
PENOBSCOT COUNTY MAINE

ELASTOMERIC BEARING PAD

DRAWING NUMBER	96-61383-03
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1. PAD AND MATERIALS CONFORM TO MAINE D.O.T. SPECIFICATIONS FOR ELASTOMERIC BEARINGS.
2. THESE SHOP DRAWINGS WERE PREPARED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS. THE D.S. BROWN COMPANY DOES NOT ACCEPT LIABILITY FOR THE DESIGN OF THE PRODUCTS DETAILED IN THESE SHOP DRAWINGS.
3. 1/2" MAX. RADIUS ON PLATE CORNERS.

SECTION 'A-A'

DATA	61383-D
SHAPE FACTOR	8.47
AREA OF COMPRESSION	188.89
AREA OF SHEAR	200.00
EFFECTIVE RUBBER THICKNESS	3.03
SHAPE FACTOR AASHTO	8.80
LENGTH/THICKNESS	2.58

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☐ Returned for Corrections
JUL 19 1996
☒ Approved as noted ☐ Rejected
See Comments

See Comments on
Sgt 1.

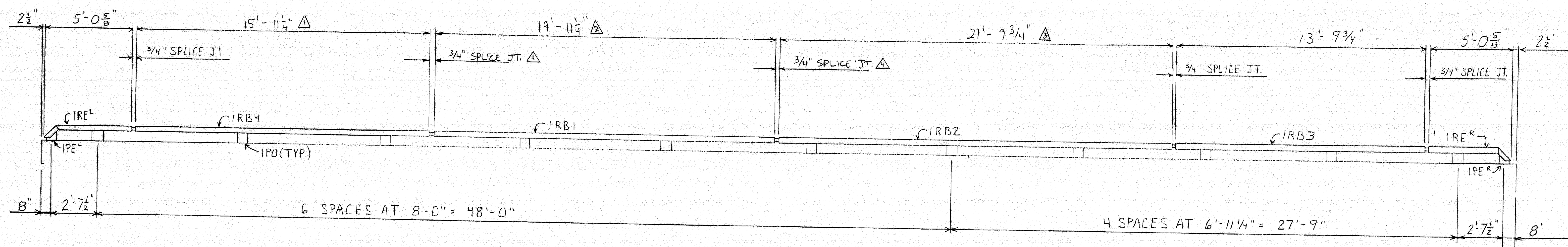
17-124

PO: 1764

D.S. BROWN 96-61383-09813 SHEET 4 OF 4

 	F.A.P. NO.:	DATE	SYM	REVISION	DR	CK
	STATE PROJ. NO.: BR-BRF-03B-1(35)					
	BRIDGE NO: PENOBSCOT RIVER BRIDGE					
	DISTRIBUTOR REED & REED, INC.					
	CONTRACTOR:					

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-135	1	3



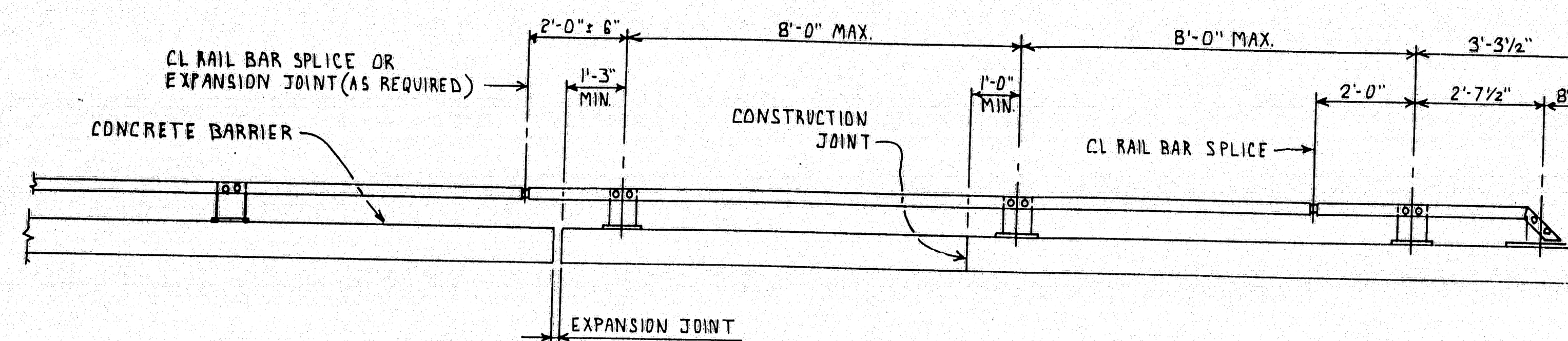
ELEVATION - NORTH MAIN ST. OVERPASS - FACING SOUTH

NOTE: CONTRACTOR TO FIELD VERIFY DIMENSIONS,
PRIOR TO FABRICATION.

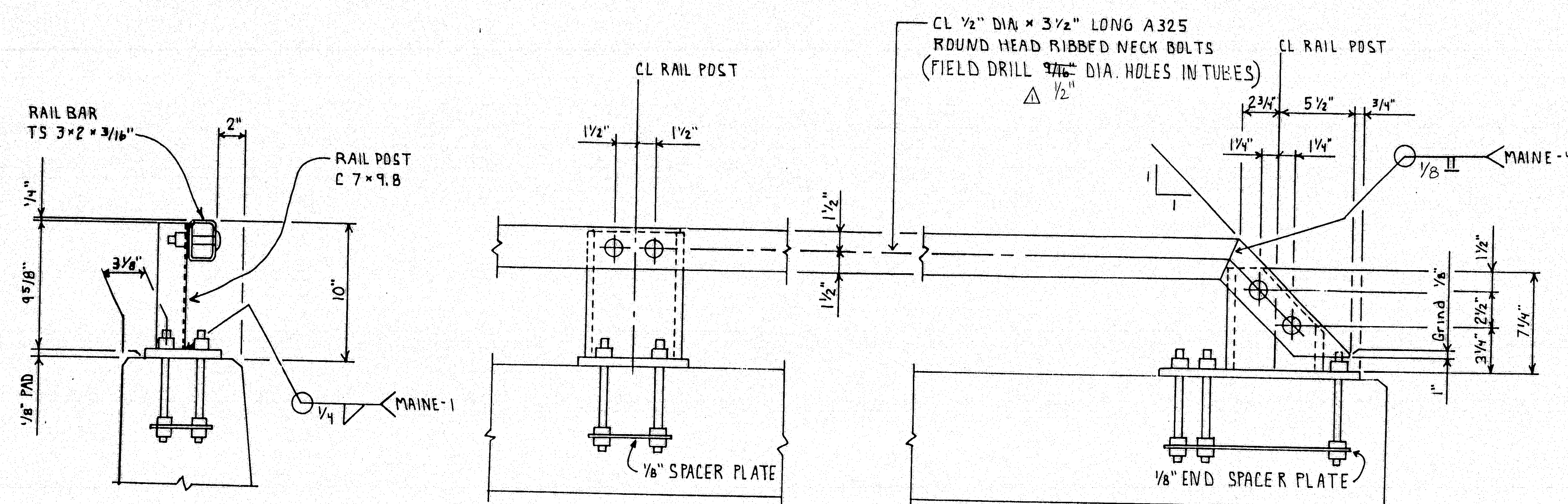
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
☒ Approved	☐ Returned for Corrections
DEC 03 1996	
☐ Approved as noted	☐ Rejected

117-125

Approved Released for Fabrication Material Finish		HIGHWAY SAFETY CORP. 239 Commerce Street, Glastonbury, Conn. 06033	
Drawing By: EMM Checked By:		Item 507.0845-STEEL BRIDGE RAILING-ONE BAR Job PENOBSCOT RIVER BRIDGE	
Date 11-5-96		County PENOBSCOT Project No. BR-BRF-038-135	
NO Revision Date		GENERAL CONTRACTOR: REED & REED, INC.	
1 REVISED LENGTH 11-5-96		SUB CONTRACTOR: A.D. ROSSI CORP.	
2 REVISED LENGTH 11-5-96		Job No. 038-135	
3 REVISED LENGTH 11-5-96		Drawg. No. E1	
4 CHANGED SPLICE 11-5-96			



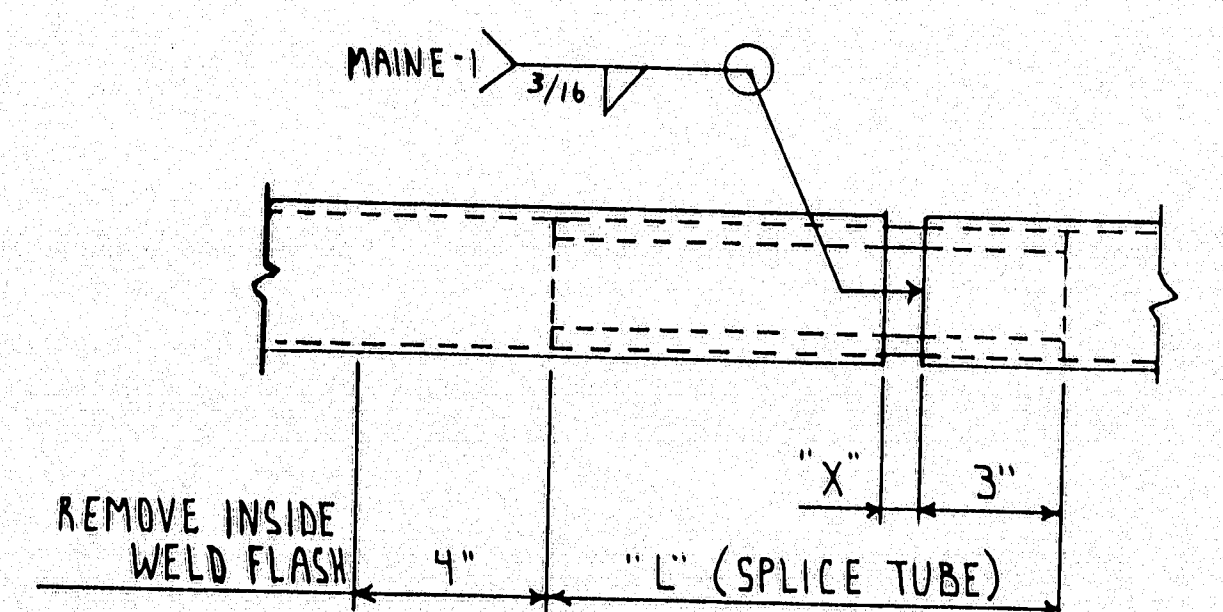
BRIDGE RAILING ELEVATION



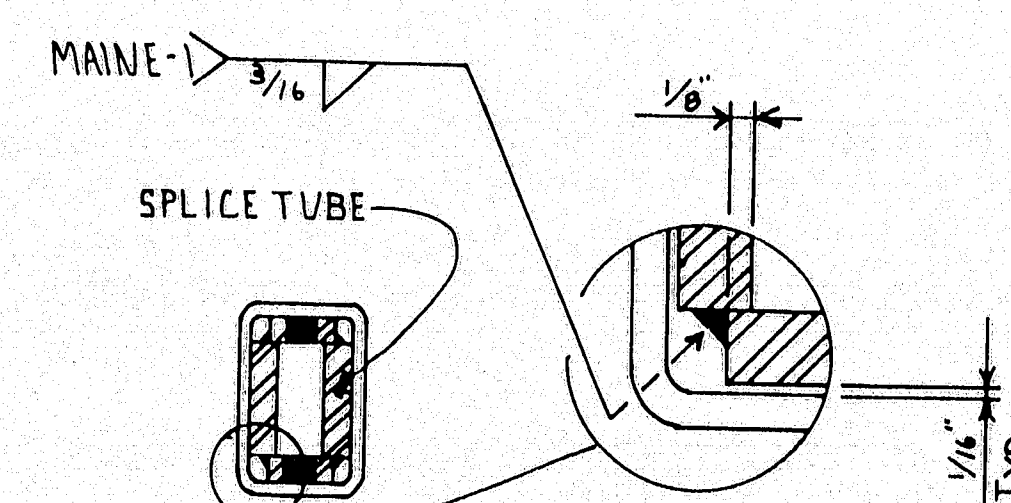
TYPICAL RAIL SECTION

RAIL & POST ELEVATION

RAIL & END POST ELEVATION



RAIL BAR SPICE / EXPANSION JOINT



RAIL SPICE SECTION

RAIL BAR SPICE & EXPANSION JOINT TABLE			
"T"	"L"	"X"	
Splice	1'-8"	3/4"	
≤ 4"	1'-8"	2 1/2"	
> 4" ≤ 6 1/2"	2'-0"	3 3/4"	
> 6 1/2" ≤ 9"	2'-4"	5"	
> 9" ≤ 13"	2'-10"	7"	

"T" = TOTAL MOVEMENT

SPICE TUBE DIMENSIONS	
Top & Bot. Plates	Bar 1 x 3/8 x "L"
Side Plates	Bar 1 3/4 x 3/8 x "L"

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	2	3

GENERAL NOTES:

ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 507 - RAILINGS OF THE STANDARD SPECIFICATIONS.

ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED AND FREE OF BURRS.

ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF ASTM A153.

RAIL POSTS SHALL BE SET NORMAL TO GRADE UNLESS OTHERWISE INDICATED.

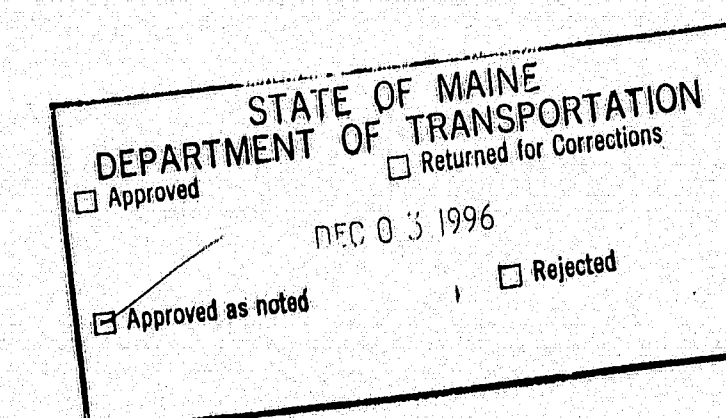
RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

ALL TESTING OF POST-TO-BASE WELDS SHALL CONFORM AWS D1.5 ARTICLE 6.7.2.

THE 3/16" DIA. HOLES FOR THE RIBBED NECK BOLTS SHALL BE FIELD-DRILLED.

ALL BUTT JOINT WELDS SHALL HAVE A MINIMUM PENETRATION OF 60%.

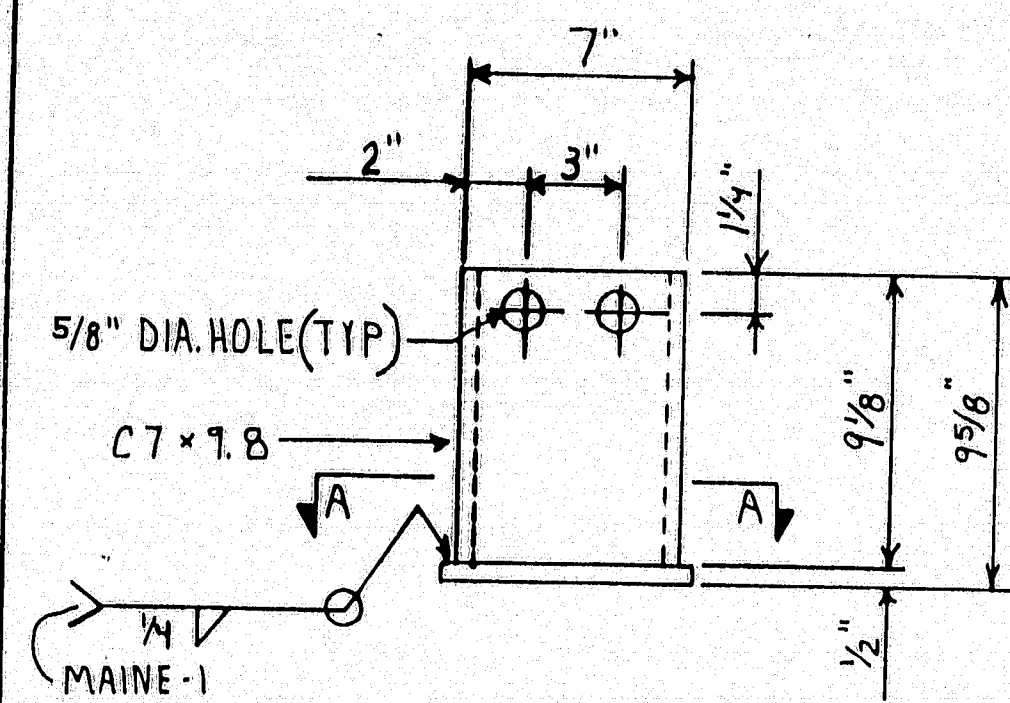
If anchor bolts are cut from Unthreaded rod, ensure exposed ends are touched up with galv.



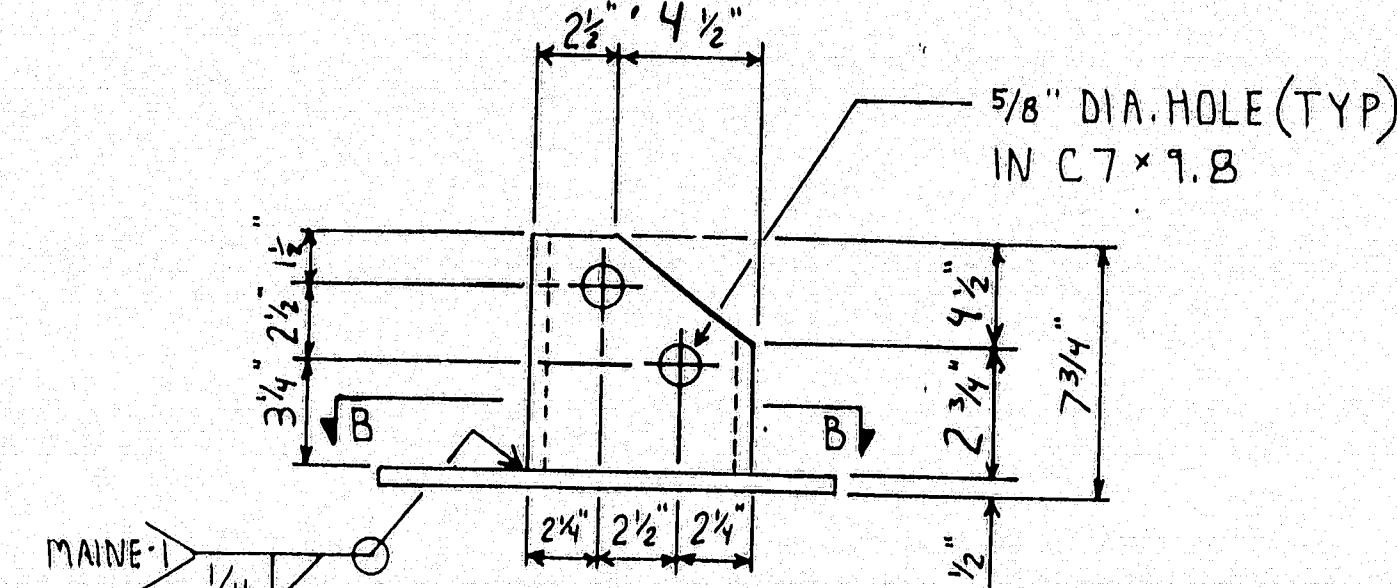
117-126

Approved		Released for Fabrication	
Material		Finish	
Drawing By: CMM		Date: 11-5-96	
Checked By:		Date:	
NO	Revision	Date	County
1	CHANGE D. HOLE SIZE	11-5-96	PENOBSCOT
Item 507.0845 - STEEL BRIDGE RAILING - ONE BAR		Job PENOBSCOT RIVER BRIDGE	
GENERAL CONTRACTOR: REED & REED, INC.		Project No. BR-BRF-038-(35)	
SUB CONTRACTOR: A.D. ROSSI CORP.		Job No. 038-135	
Drwg. No. E2			

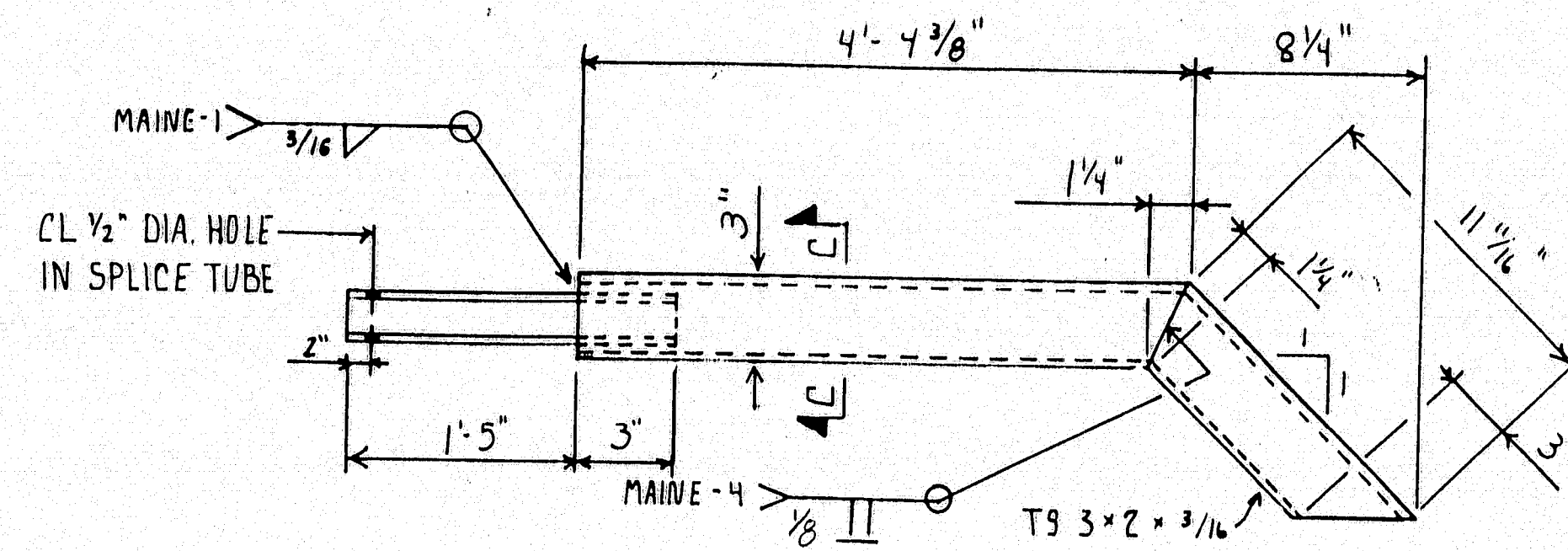
F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	3	3



11-POST-IPD

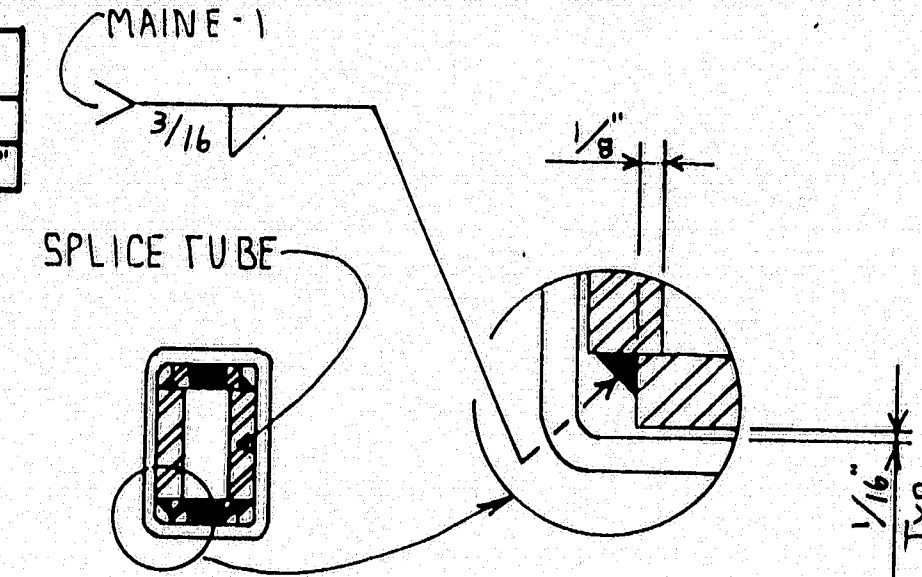


1- END POST- IPE^R (AS SHOWN)
1- END POST- IPE^L (OPP. HAND)

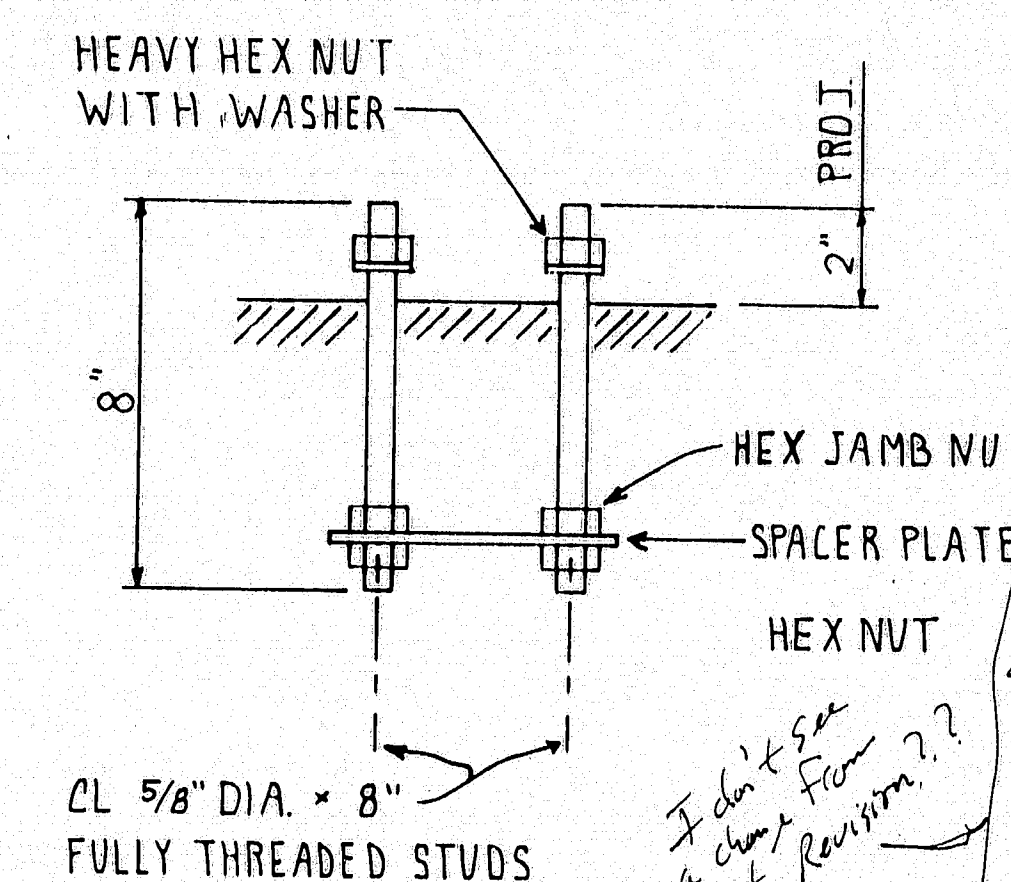


1- END RAIL- IRE^R (AS SHOWN)
1- END RAIL- IRE^L (OPP. HAND)

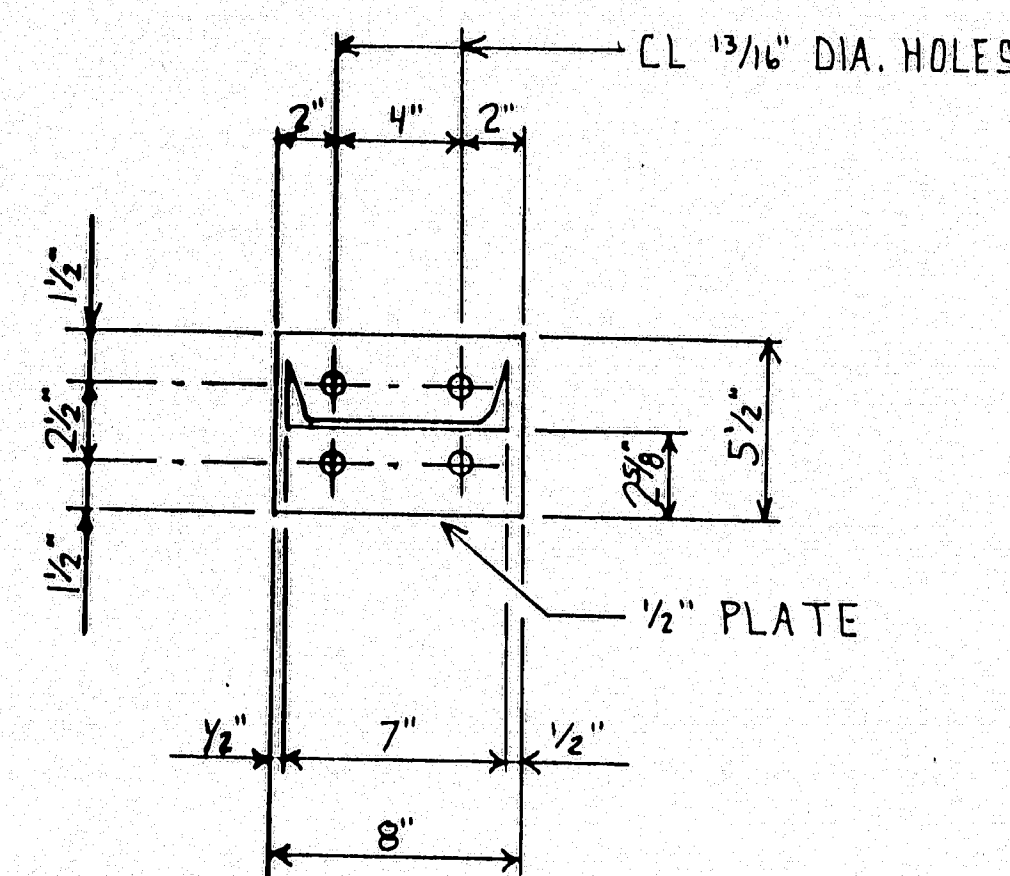
SPLICE TUBE DIMENSIONS		
Top & Bot. Plates	Bar	1 3/8" x 3/8" x 1'-8"
Side Plates	Bar	1 3/4" x 3/8" x 1'-8"



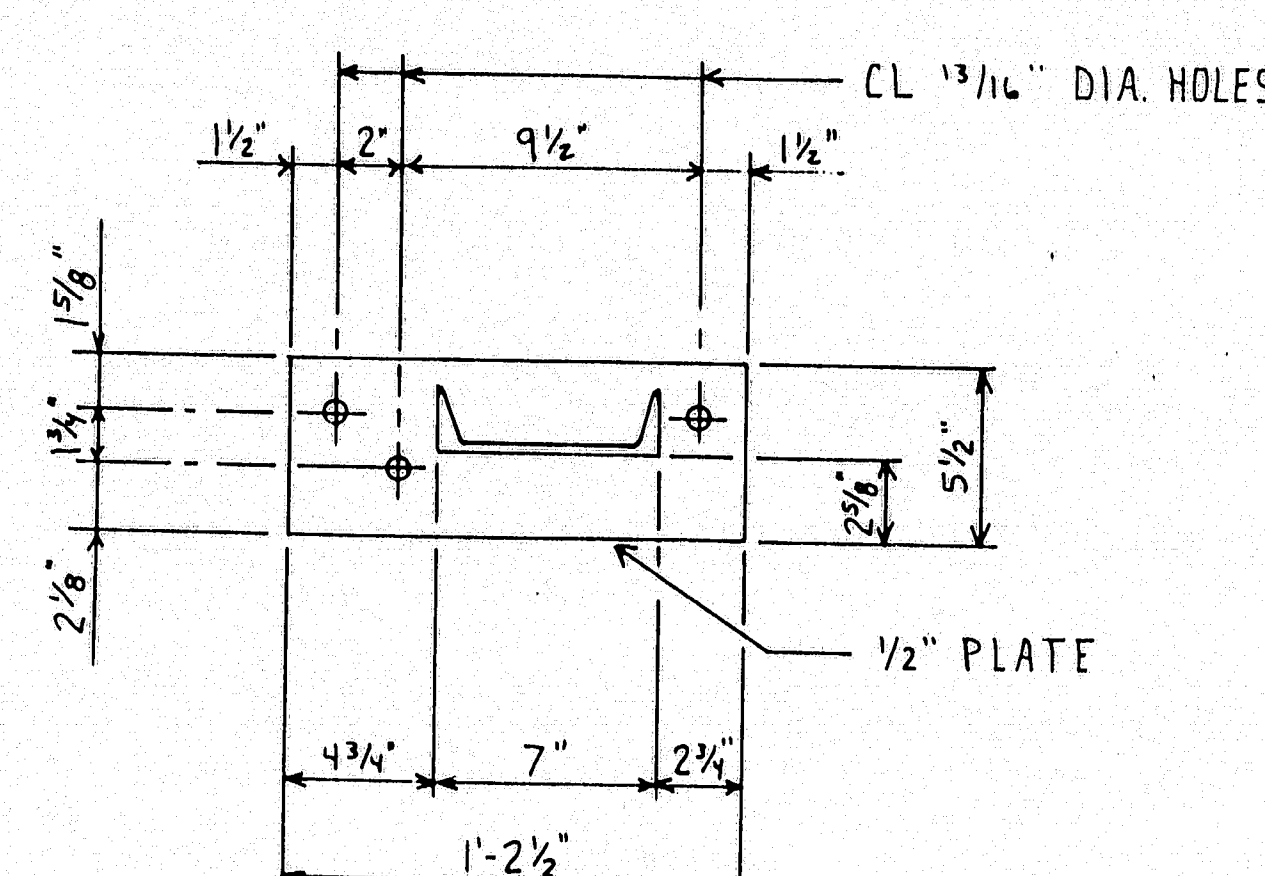
SECTION C-C



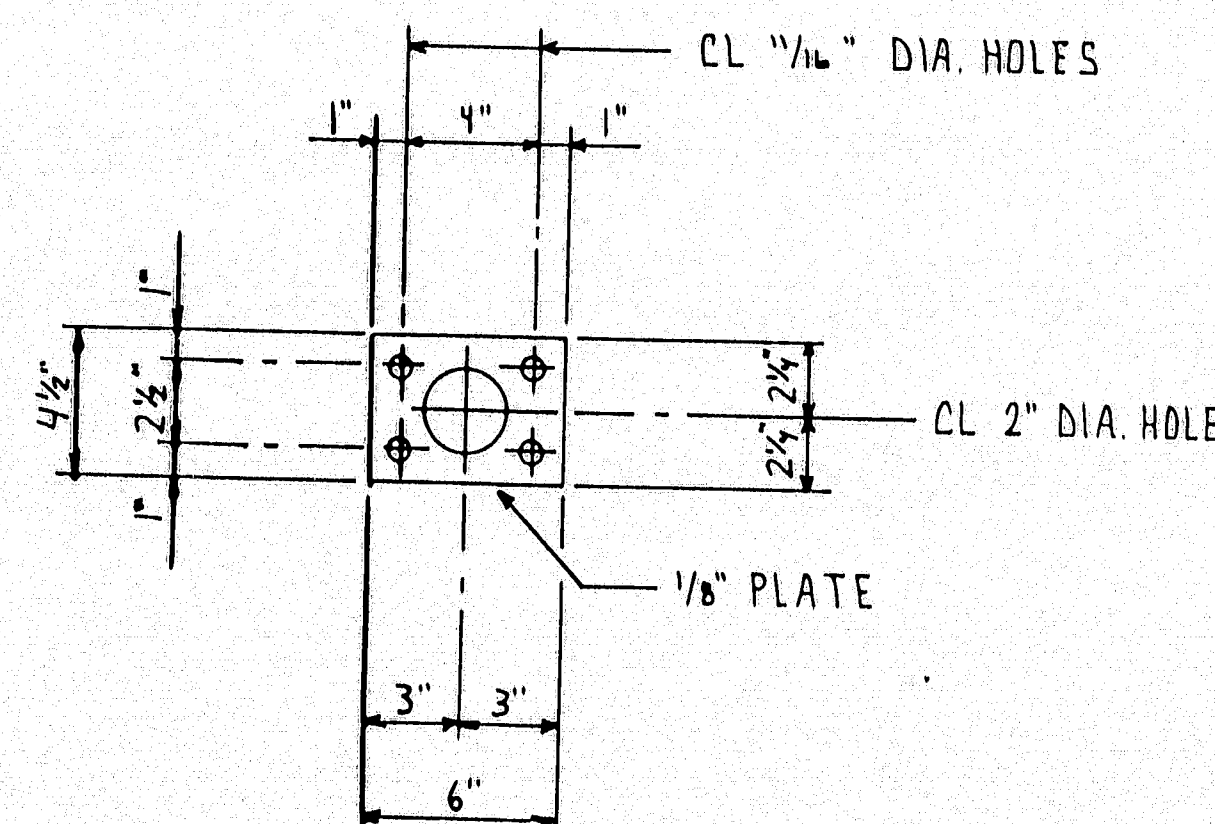
ANCHOR BOLT DETAIL



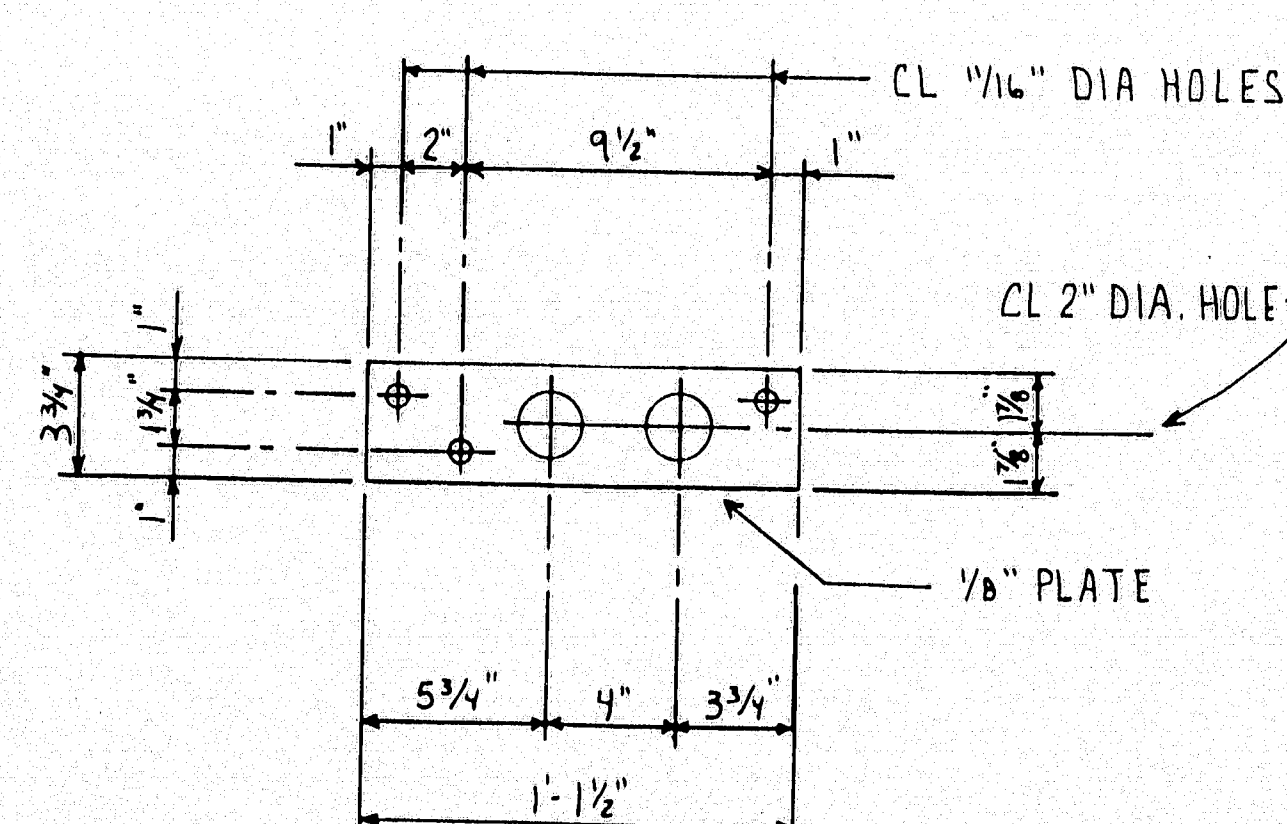
SECTION A-A



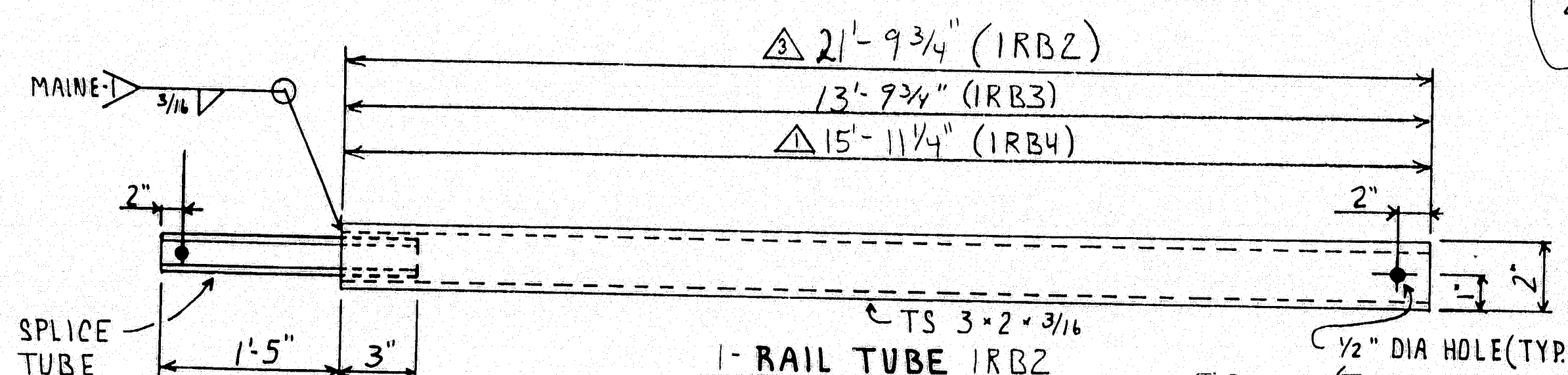
SECTION B-B



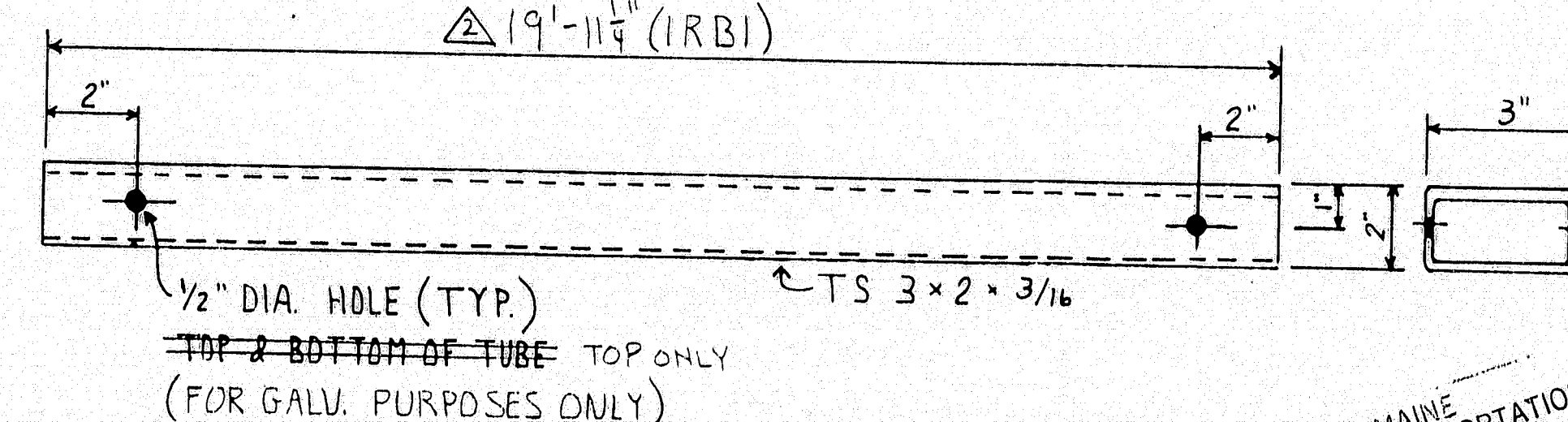
11-SPACER PLATE-ISP



1- END SPACER PLATE- ISE^R (AS SHOWN)
1- END SPACER PLATE- ISE^L (OPP. HAND)



1- RAIL TUBE- IRB1



1- RAIL TUBE- IRB1

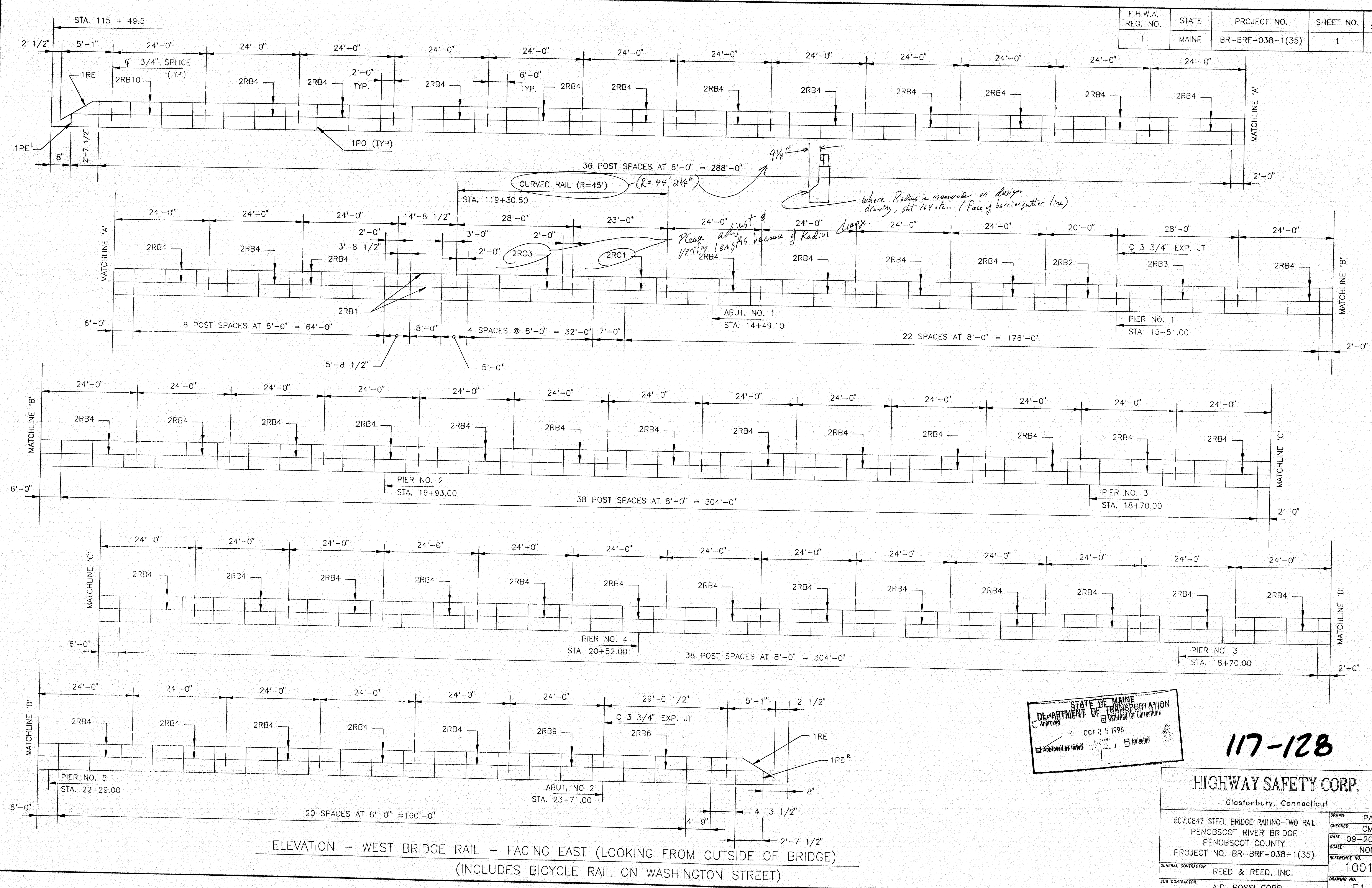
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Approved for Construction
nrc 03 1996
Approved as noted

MK.	QTY.	DESCRIPTION	REMARKS
IPD	11	POST	
	11	C7x7.8 x 9 5/8"	A36
	11	PL 2" x 5 1/2" x 8"	A36
IRE	1	END POST	
	2	C7x7.8 x 7 3/4"	A36
	2	PL 1 1/2" x 5 1/2" x 1'-2 1/2"	A36
ISP	11	SPACER PLATE	
	11	PL 1 1/2" x 4 1/2" x 6"	A36
ISE	1	END SPACER PLATE	
	2	PL 1 1/2" x 3 3/4" x 1'-1 1/2"	A36
IRE	1	END RAIL	
	2	TS 3x2x3/16 x 4'-4 1/8"	A500 Gr B
	2	TS 3x2x3/16 x 11 1/4"	A500 Gr B
	4	PL 3/8" x 1" x 1'-8"	A36
	4	PL 3/8" x 1 3/4" x 1'-8"	A36
		RAIL TUBES	
IRB1	1	TS 3x2x3/16 x 19'-11 1/4"	A500 Gr B
IRB2	1	TS 3x2x3/16 x 21'-9 3/4"	A500 Gr B
	1	PL 3/8" x 1" x 1'-8"	A36
	1	PL 3/8" x 1 3/4" x 1'-8"	A36
IRB3	1	TS 3x2x3/16 x 13'-9 3/4"	A500 Gr B
	1	PL 3/8" x 1" x 1'-8"	A36
	1	PL 3/8" x 1 3/4" x 1'-8"	A36
IRB4	1	TS 3x2x3/16 x 15'-11 1/4"	A500 Gr B
	1	PL 3/8" x 1" x 1'-8"	A36
	1	PL 3/8" x 1 3/4" x 1'-8"	A36
		ANCHOR BOLTS	
	50	5/8" x 8" Rod	A499 Fully Threaded
	50	5/8" Heavy Hex Nut	A194 Gr 2H
	50	5/8" Hex Jamb Nut	A194 Gr 2H
	50	5/8" Hex Nut	A563 Gr A
	50	5/8" Washer	F436
		MISC. Hardware	
	26	1/2" x 3 1/2" Ribbed Neck Bolt	A325
	26	1/2" Lock Nut	A194 Gr 2H
	26	1/2" Washer	F436
		NEOPRENE PADS	
	12	1/2" x 4 1/2" x 6" Neoprene Pad	90 Shore A Duro.
	3	1/8" x 3 3/4" x 1'-1 1/2" Neoprene Pad	90 Shore A Duro.

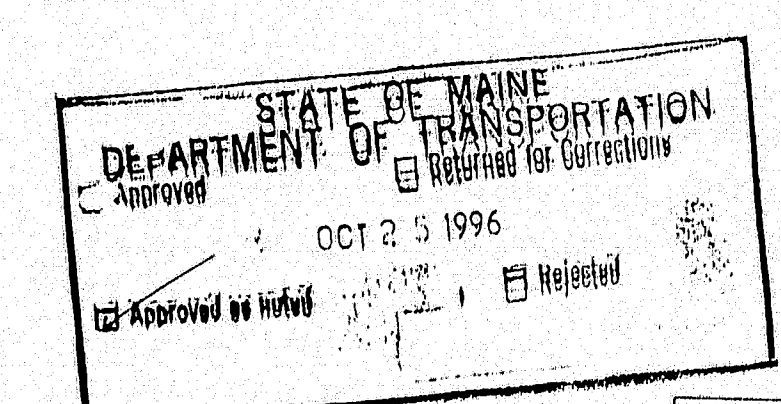
117-127

Approved Released for Fabrication Material Finish	Item 507.0845- STEEL BRIDGE RAILING- ONE BAR
Drawn By CMM Date 11-5-96	Job PENOBSCOT RIVER BRIDGE
Directed By Date	County PENOBSCOT Project No. BR-BRF-038-105
NO Revision Date	GENERAL CONTRACTOR: REED & REED, INC.
1 REVISED LENGTH 11-5-96	SUB CONTRACTOR: A.D. ROSSI CORP.
2 REVISED LENGTH 11-5-96	Job No. 038-135
3 REVISED LENGTH 11-5-96	Drawn No. 1

HIGHWAY SAFETY CORP.
239 Commerce Street, Glastonbury, Conn. 06033



F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	1	5



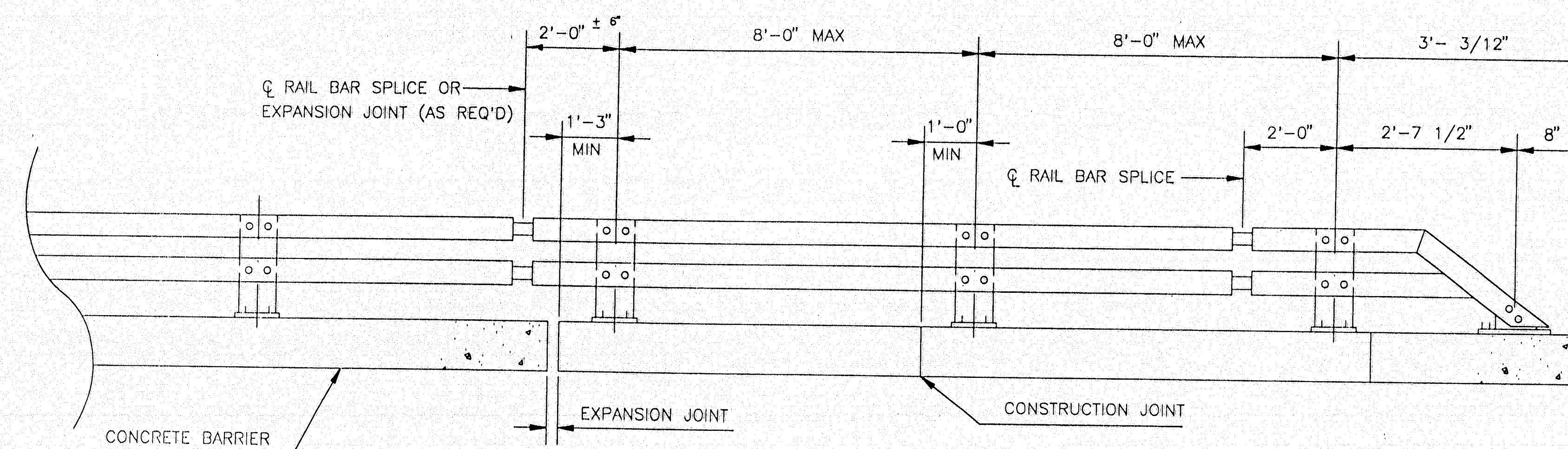
117-128

HIGHWAY SAFETY CORP.	
Glastonbury, Connecticut	
507.0847 STEEL BRIDGE RAILING-TWO RAIL	DRAWN PAR
PENOBSCOT RIVER BRIDGE	CHECKED CMM
PENOBSCOT COUNTY	DATE 09-20-96
PROJECT NO. BR-BRF-038-1(35)	SCALE NONE
GENERAL CONTRACTOR	REFERENCE NO.
REED & REED, INC.	1001
SUB CONTRACTOR	DRAWING NO.
A.D. ROSSI CORP.	E1

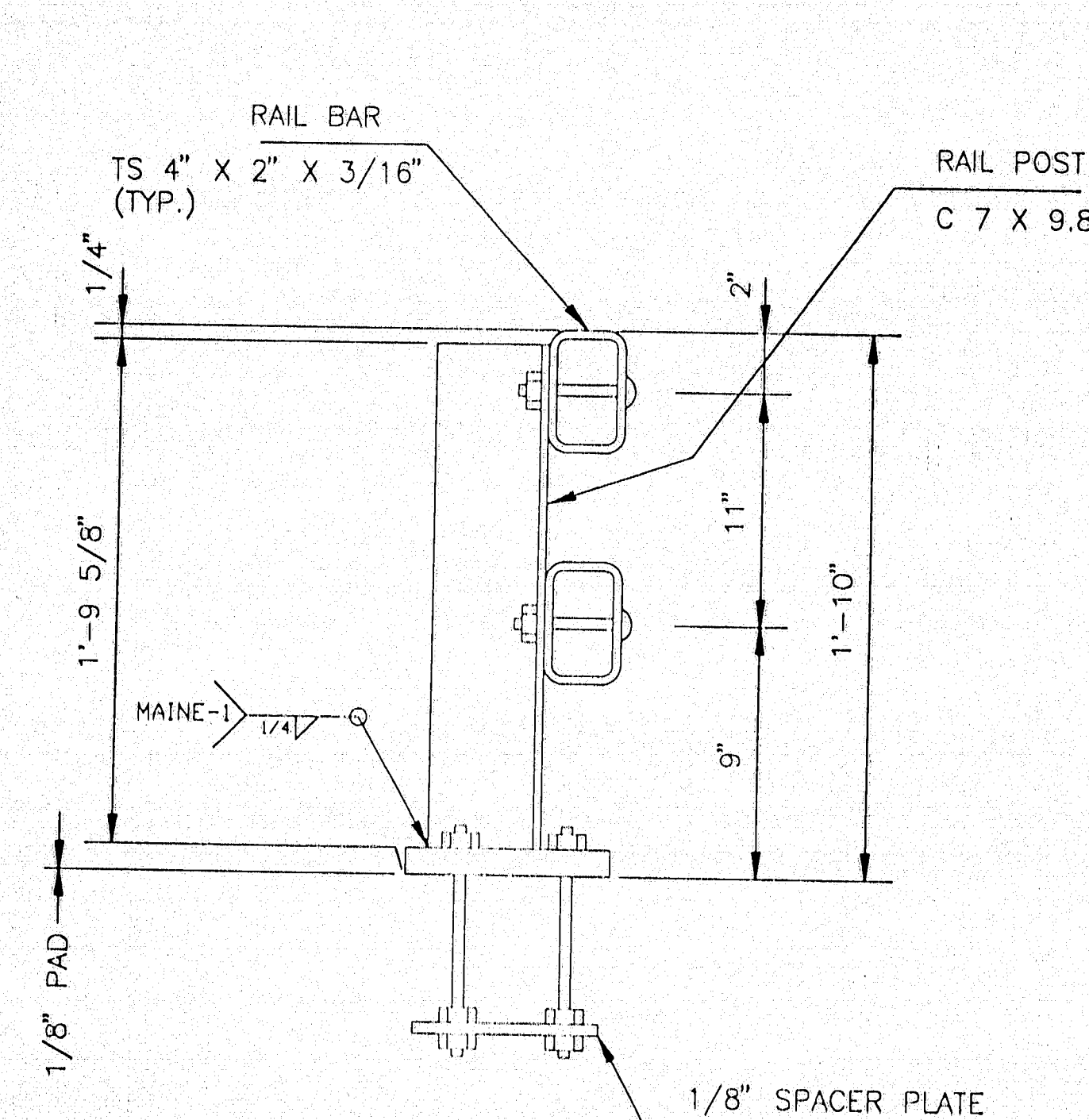
ELEVATION - WEST BRIDGE RAIL - FACING EAST (LOOKING FROM OUTSIDE OF BRIDGE)
(INCLUDES BICYCLE RAIL ON WASHINGTON STREET)

1001-E1.PLC

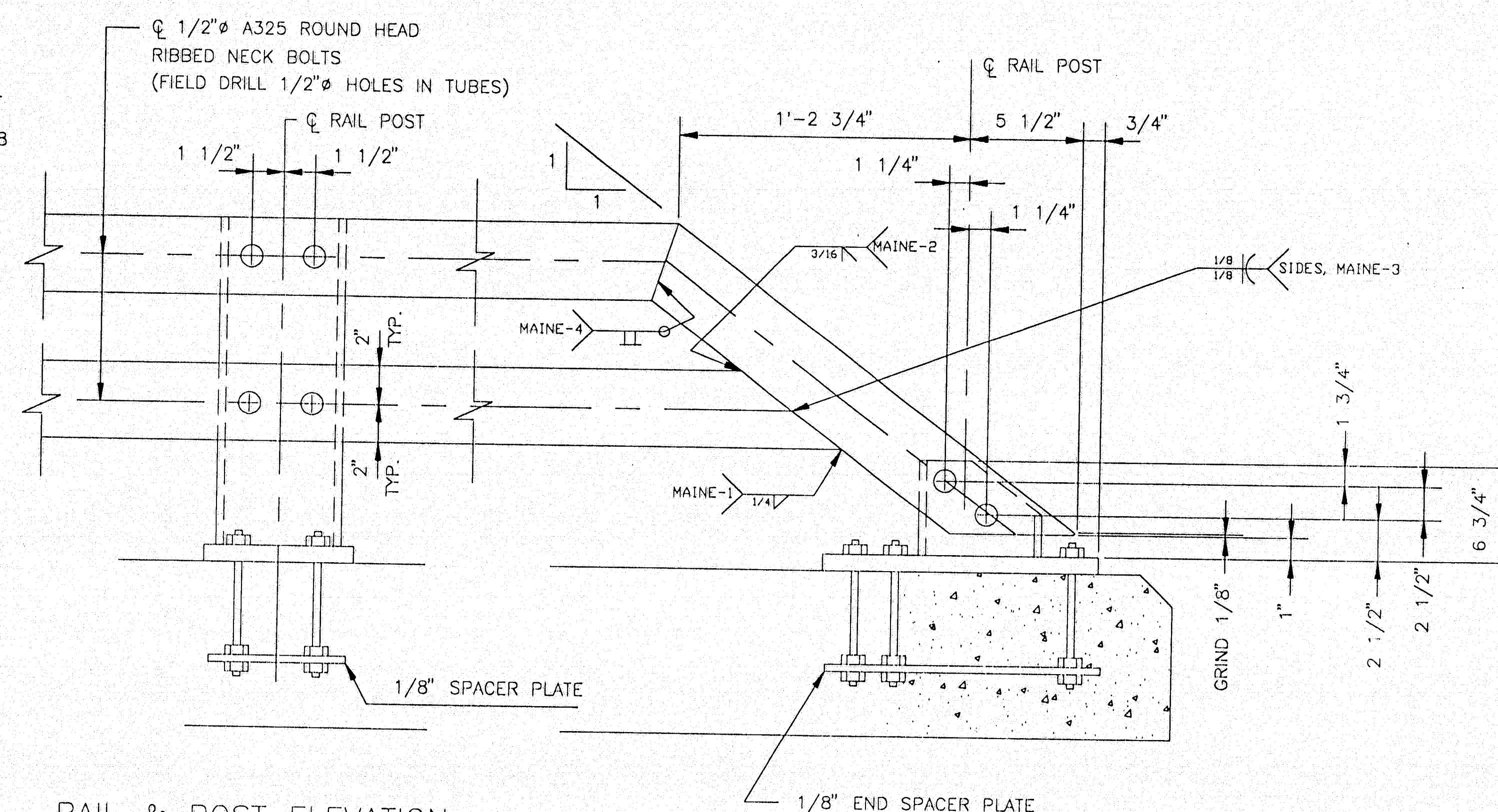
F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	3	5



BRIDGE RAILING ELEVATION

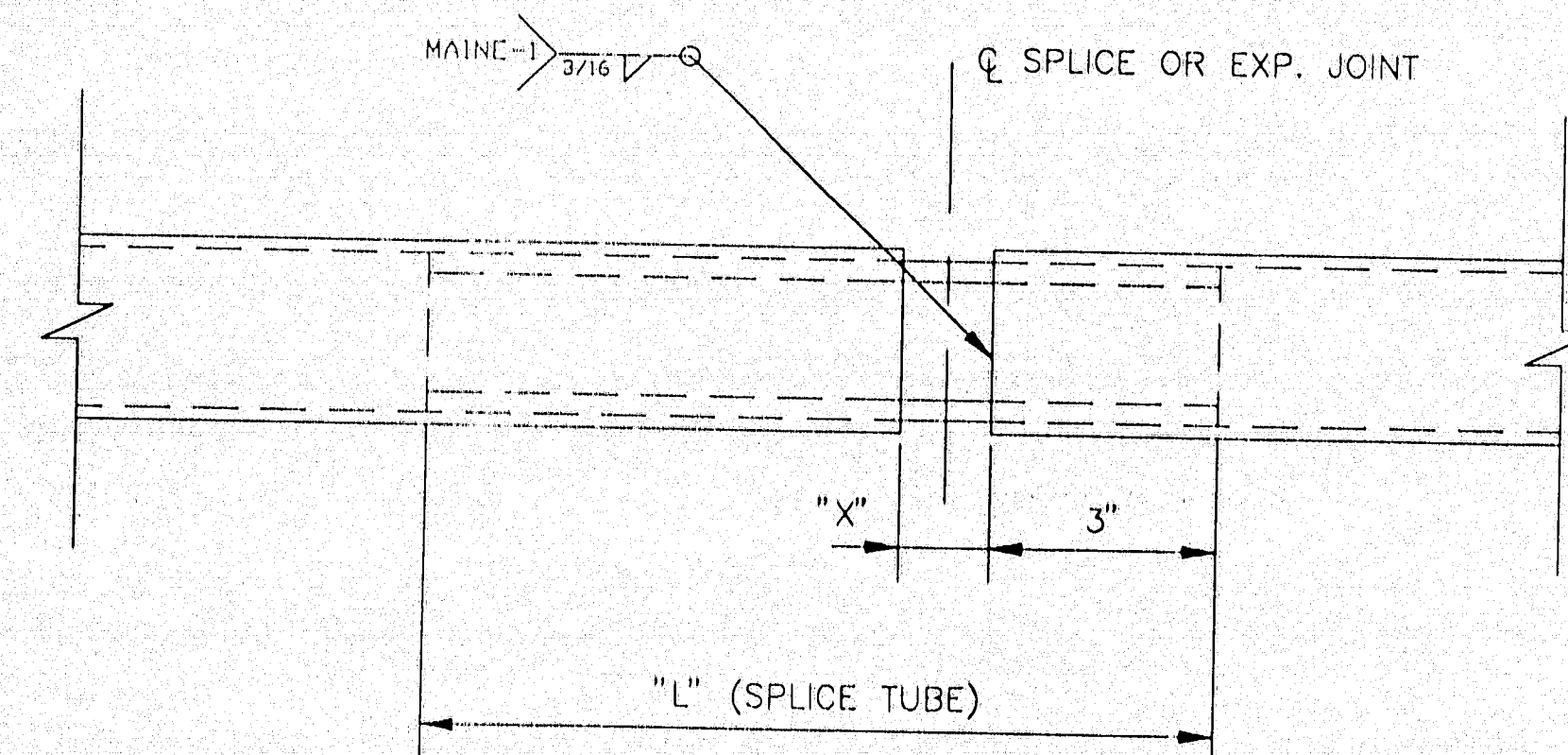


TYPICAL RAIL SECTION

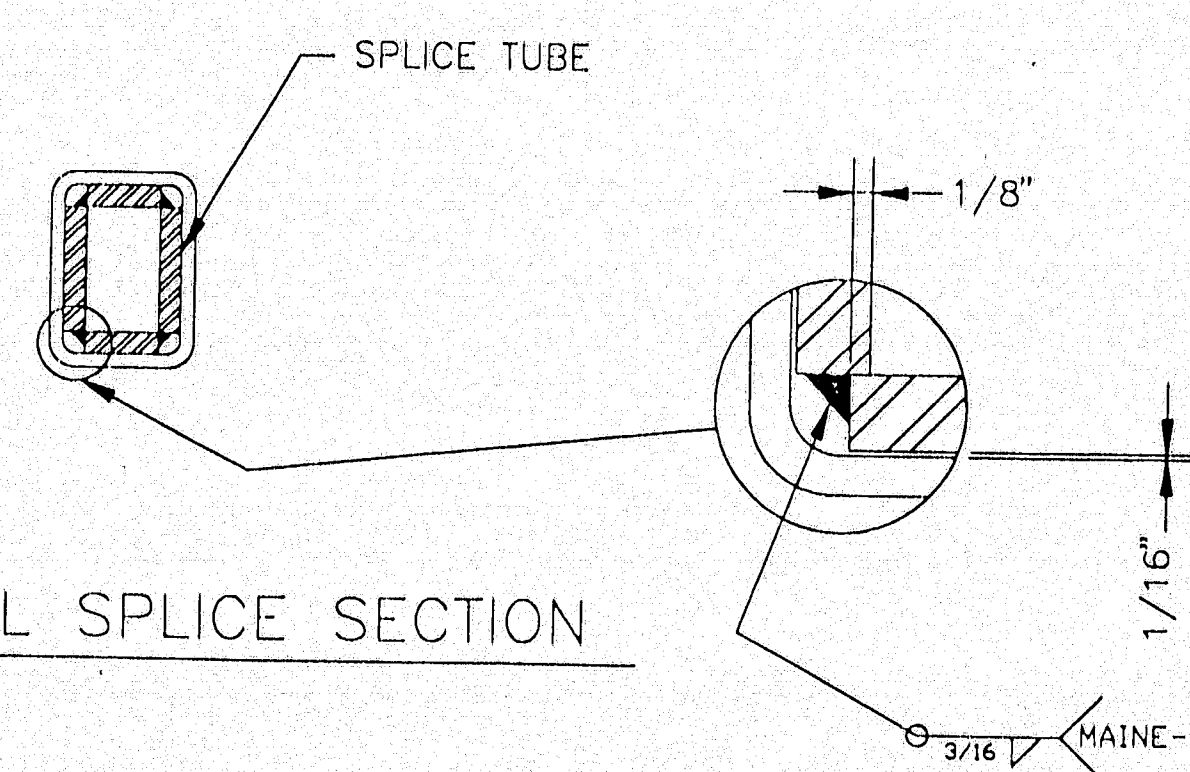


RAIL & POST ELEVATION

RAIL & END POST ELEVATION



RAIL BAR SPLICE / EXPANSION JOINT



RAIL SPLICE SECTION

GENERAL ERECTION NOTES:

ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 507 - RAILINGS OF THE STANDARD SPECIFICATIONS.

RAIL POSTS SHALL BE SET NORMAL TO GRADE UNLESS OTHERWISE NOTED.

RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

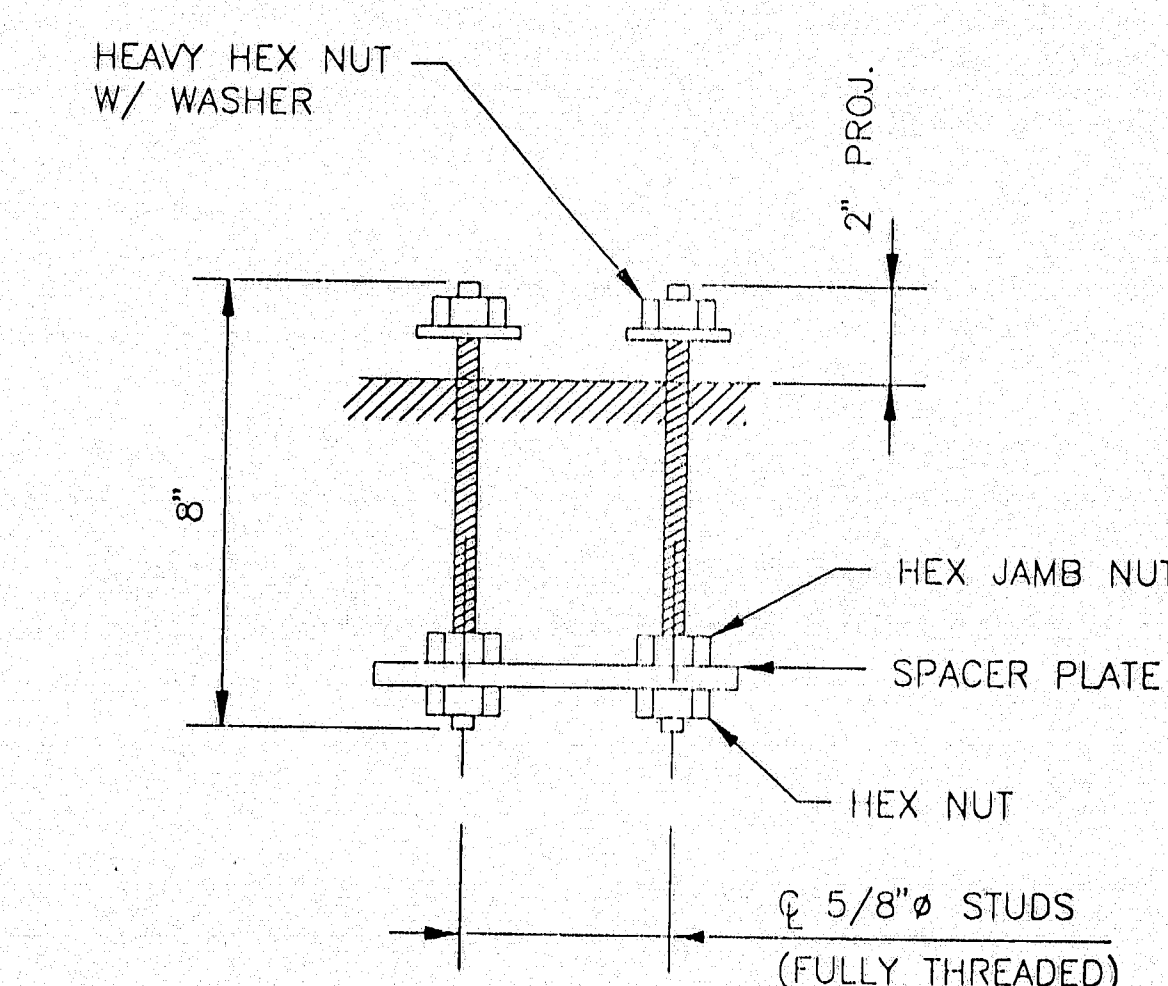
THE 1/2" HOLE FOR THE RIBBED NECK BOLT SHALL BE FIELD DRILLED.

ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION AND IN ACCORDANCE WITH ASTM A123, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF ASTM A153.

ALL WELDING SHALL CONFORM TO AWS D1.5

If anchor bolts are cut from one piece, finish up exposed ends w/ Galv.

All exposed cuts or thermal edges shall be rounded & free of burrs.

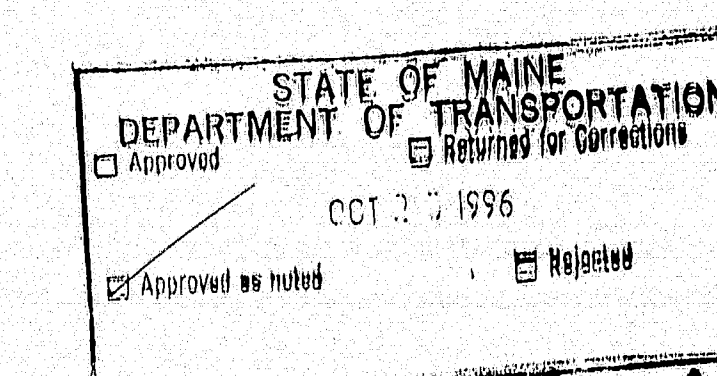


ANCHOR BOLT DETAIL

RAIL BAR SPLICE & EXPANSION JOINT TABLE		
"I"	"L"	"X"
SPLICE	1'-8"	3/4"
≤ 4"	1'-8"	2 1/2"
> 4" ≤ 6 1/2"	2'-0"	3 3/4"
> 6 1/2" ≤ 9"	2'-4"	5"
> 9" ≤ 13"	2'-10"	7"

"I" = TOTAL MOVEMENT

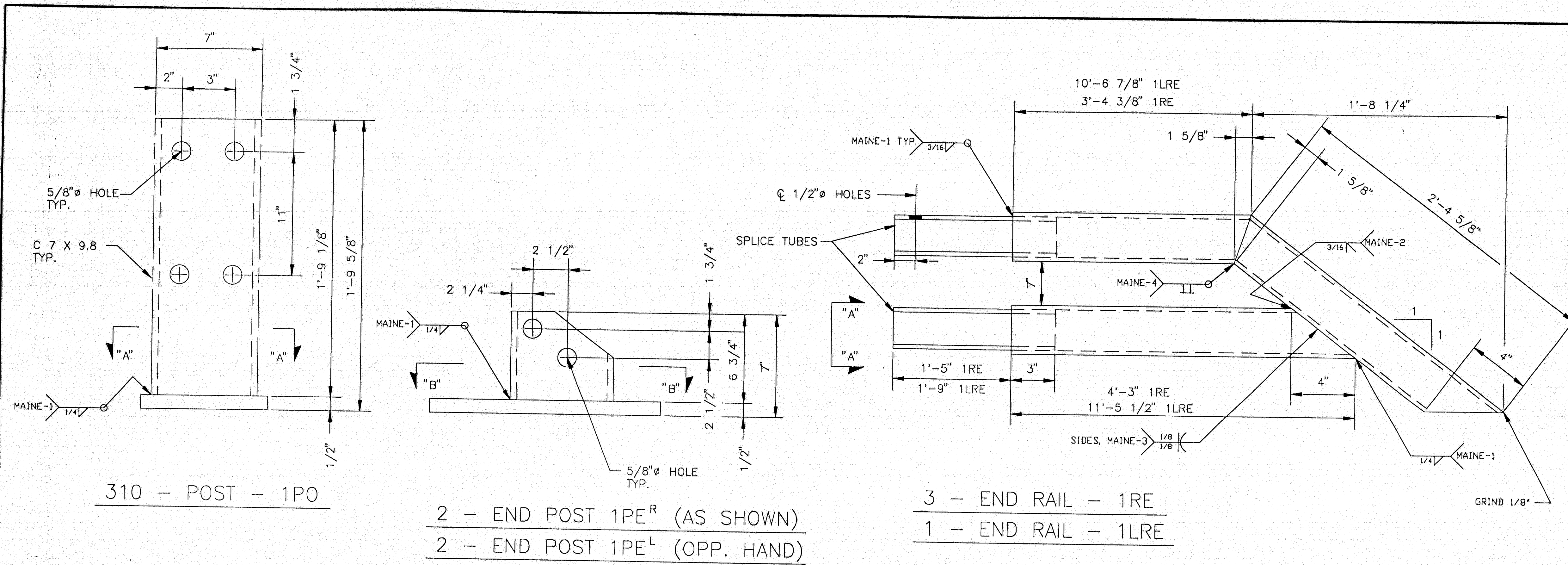
SPICE TUBE DIMENSIONS	
TOP & BOTTOM PLATES	BAR 1" X 3/8" X "L"
SIDE PLATES	BAR 2 3/4" X 3/8" X "L"



177-130
HIGHWAY SAFETY CORP.

Glastonbury, Connecticut

507.0847 STEEL BRIDGE RAILING-TWO RAIL	DRAWN	PAR
PENOBSCOT RIVER BRIDGE	CHECKED	CMM
PENOBSCOT COUNTY	DATE	09-20-96
PROJECT NO. BR-BRF-038-1(35)	SCALE	NONE
GENERAL CONTRACTOR	REFERENCE NO.	1001
REED & REED, INC.	DRAWING NO.	E3
SUB CONTRACTOR		
A.D. ROSSI CORP.		



F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	4	5

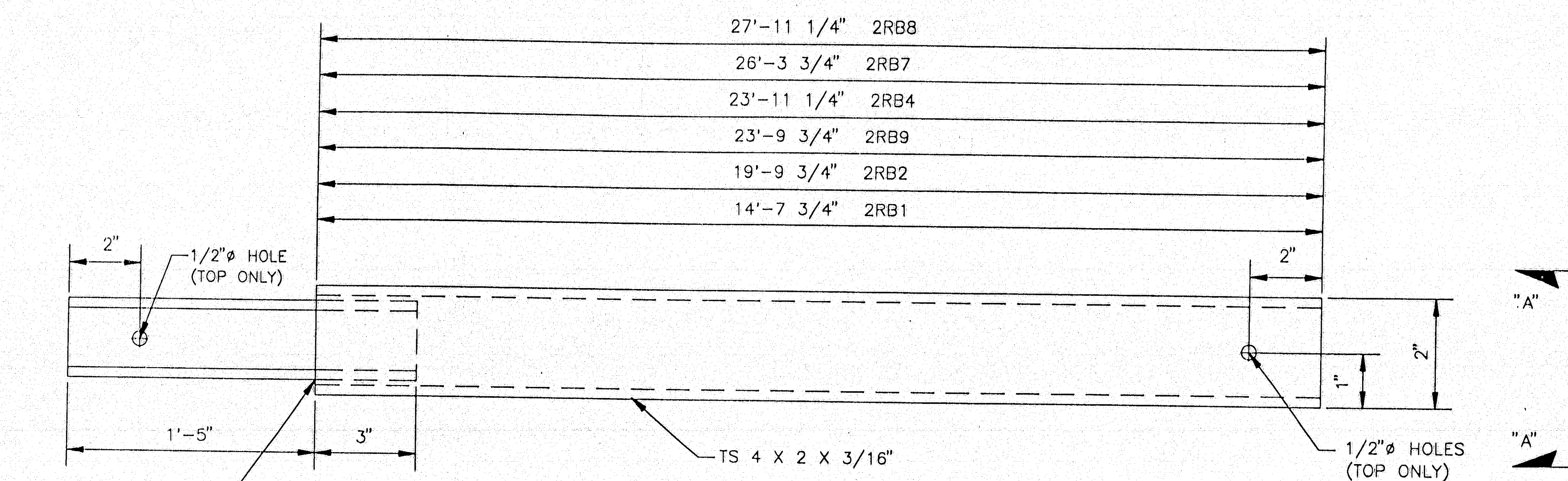
BILL OF MATERIAL			
Mk.	Qty.	Description	Remarks
1PO	310	POSTS	
	310	C 7 X 9.8 X 1'-9 1/8"	A36
	310	PL 1/2" X 5 1/2" X 8"	A36
1PE	2	END POSTS	
	4	C 7 X 9.8 X 6 3/4"	A36
	4	PL 1/2" X 5 1/2" X 1'-2 1/2"	A36
1SP	310	SPACER PLATE	
	310	PL 1/8" X 4 1/2" X 6"	A36
1SE	4	END SPACER PLATE	
	4	PL 1/8" X 3 3/4" X 1'-1 1/2"	A36
1RE	3	END RAIL	
	3	TS 4 X 2 X 3/16" X 4'-3"	A500 GR. B
	3	TS 4 X 2 X 3/16" X 3'-4 3/8"	A500 GR. B
	3	TS 4 X 2 X 3/16" X 2'-4 5/8"	A500 GR. B
	12	PL 3/8" X 1" X 1'-8"	A36
	12	PL 3/8" X 2 3/4" X 1'-8"	A36
1LRE	1	END RAIL	
	1	TS 4 X 2 X 3/16" X 11'-5 1/2"	A500 GR. B
	1	TS 4 X 2 X 3/16" X 10'-6 7/8"	A500 GR. B
	1	TS 4 X 2 X 3/16" X 2'-4 5/8"	A500 GR. B
	4	PL 3/8" X 1" X 2'-0"	A36
	4	PL 3/8" X 2 3/4" X 2'-0"	A36
		ANCHOR BOLTS	
	1252	5/8" X 8" ROD FULLY THREADED	A449
	1252	5/8" HEAVY HEX NUT	A194 GR. 2H
	1252	5/8" HEX JAMB NUT	A194 GR. 2H
	1252	5/8" HEX NUT	A563 GR. A
	1252	5/8" FLAT WASHER	F436
		MISCELLANEOUS HARDWARE	
	1248	1/2" X 3 1/2" RIBBED NECK BOLT	A325
	1248	1/2" LOCK NUT	A194 GR. 2H
	1248	1/2" FLAT WASHER	F436
		PADS	
	340	NEOPRENE PADS 1/8" X 4 1/2" X 6"	90 SHORE A DURO.
	5	NEOPRENE PADS 1/8" X 3 3/4" X 1'-1 1/2"	90 SHORE A DURO.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
OCT 25 1996
Approved for Construction

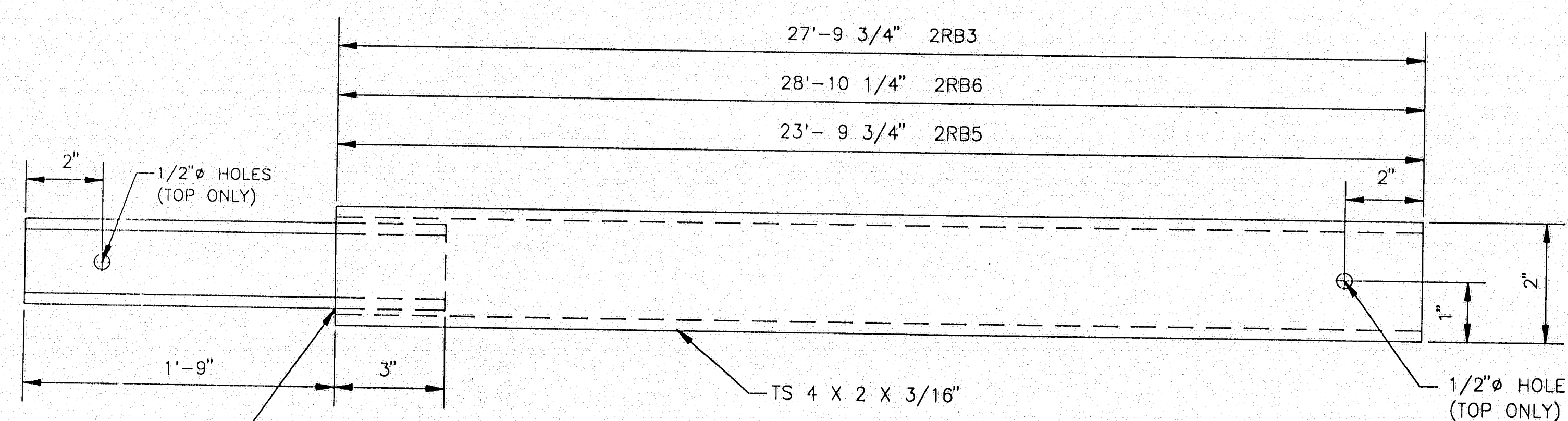
117-131

HIGHWAY SAFETY CORP.	
Glastonbury, Connecticut	
507.0847 STEEL BRIDGE RAILING-TWO RAIL	DRAWN PAR
PENOBSCOT RIVER BRIDGE	CHECKED CMM
PENOBSCOT COUNTY	DATE 09-20-96
PROJECT NO. BR-BRF-038-1(35)	SCALE NONE
GENERAL CONTRACTOR REED & REED, INC.	REFERENCE NO. 1001
SUB CONTRACTOR A.D. ROSSI CORP.	DRAWING NO. D1

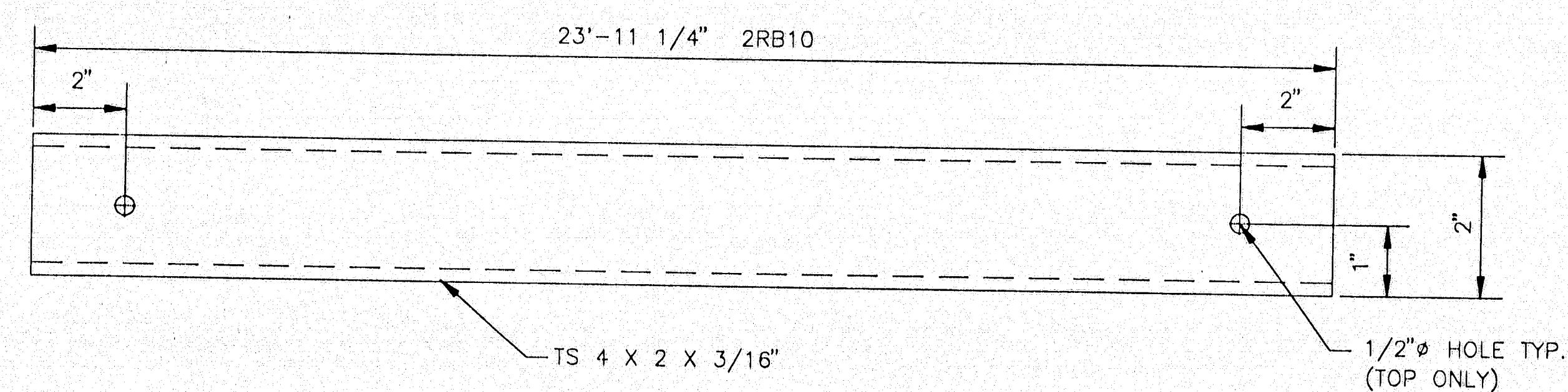
1001-D1-PLC



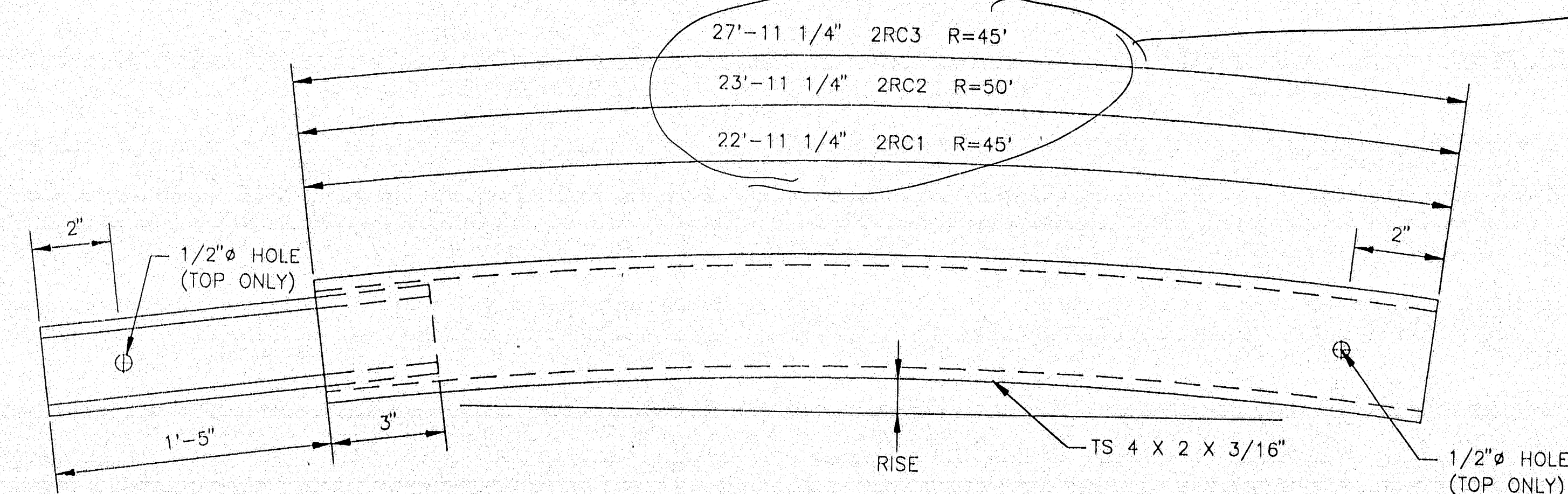
RAIL TUBE - STRAIGHT



RAIL TUBE - STRAIGHT



RAIL TUBE - STRAIGHT

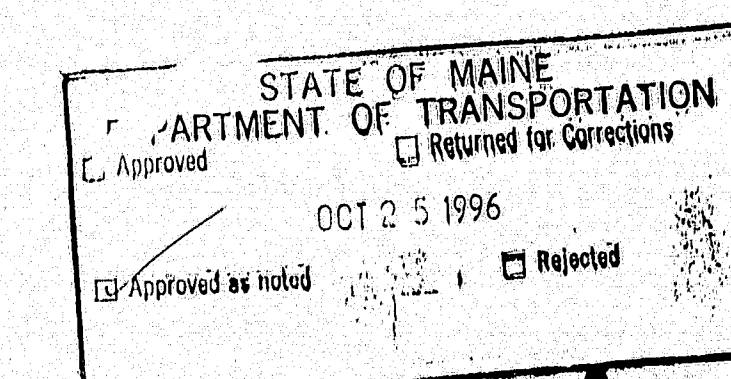


RAIL TUBE - CURVED

Adjust.
See E1 & E2

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	5	5

BILL OF MATERIAL			
Mk.	Qty.	Description	Remarks
STRAIGHT RAILS			
2RB1	2	TS 4 X 2 X 3/16 X 14'-7 3/4"	A500 GR. B
	4	PL 3/8" X 1" X 1'-8"	A36
	4	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB2	4	TS 4 X 2 X 3/16 X 19'-9 3/4"	A500 GR. B
	8	PL 3/8" X 1" X 1'-8"	A36
	8	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB3	2	TS 4 X 2 X 3/16 X 27'-9 3/4"	A500 GR. B
	4	PL 3/8" X 1" X 1'-8"	A36
	4	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB4	164	TS 4 X 2 X 3/16 X 23'-11 1/4"	A500 GR. B
	328	PL 3/8" X 1" X 1'-8"	A36
	328	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB5	2	TS 4 X 2 X 3/16 X 23'-9 3/4"	A500 GR. B
	4	PL 3/8" X 1" X 2'-0"	A36
	4	PL 3/8" X 2 3/4" X 2'-0"	A36
2RB6	2	TS 4 X 2 X 3/16 X 28'-10 1/4"	A500 GR. B
	4	PL 3/8" X 1" X 2'-0"	A36
	4	PL 3/8" X 2 3/4" X 2'-0"	A36
2RB7	2	TS 4 X 2 X 3/16 X 26'-3 3/4"	A500 GR. B
	4	PL 3/8" X 1" X 1'-8"	A36
	4	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB8	4	TS 4 X 2 X 3/16 X 27'-11 1/4"	A500 GR. B
	8	PL 3/8" X 1" X 1'-8"	A36
	8	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB9	4	TS 4 X 2 X 3/16 X 23'-9 3/4"	A500 GR. B
	8	PL 3/8" X 1" X 1'-8"	A36
	8	PL 3/8" X 2 3/4" X 1'-8"	A36
2RB10	4	TS 4 X 2 X 3/16 X 23'-11 1/4"	A500 GR. B
CURVED RAILS			
2RC1	2	TS 4 X 2 X 3/16 X 22'-11 1/4" R=45'	A500 GR. B
	4	PL 3/8" X 1" X 1'-8"	A36
	4	PL 3/8" X 2 3/4" X 1'-8"	A36
2RC2	8	TS 4 X 2 X 3/16 X 23'-8 3/4" R=50'	A500 GR. B
	16	PL 3/8" X 1" X 1'-8"	A36
	16	PL 3/8" X 2 3/4" X 1'-8"	A36
2RC3	2	TS 4 X 2 X 3/16 X 27'-11 1/4" R=45'	A500 GR. B
	4	PL 3/8" X 1" X 1'-8"	A36
	4	PL 3/8" X 2 3/4" X 1'-8"	A36

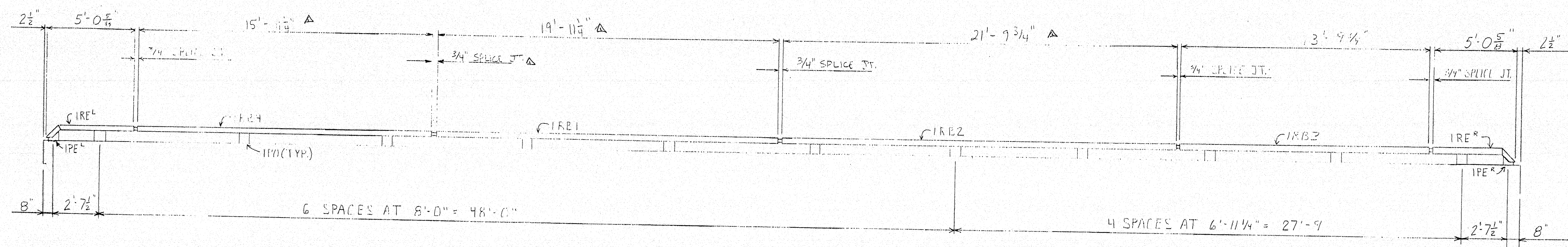


117-132
HIGHWAY SAFETY CORP.

Glastonbury, Connecticut

507.0847 STEEL BRIDGE RAILING-TWO RAIL PENOBSCOT RIVER BRIDGE PENOBSCOT COUNTY PROJECT NO. BR-BRF-038-1(35)	DRAWN PAR CHECKED CMM DATE 09-20-96 SCALE NONE REFERENCE NO. 1001 DRAWING NO. D2
GENERAL CONTRACTOR SUB CONTRACTOR	REED & REED, INC. A.D. ROSSI CORP.

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-135	1	3



ELEVATION- NORTH MAIN ST. OVERPASS - FACING SOUTH

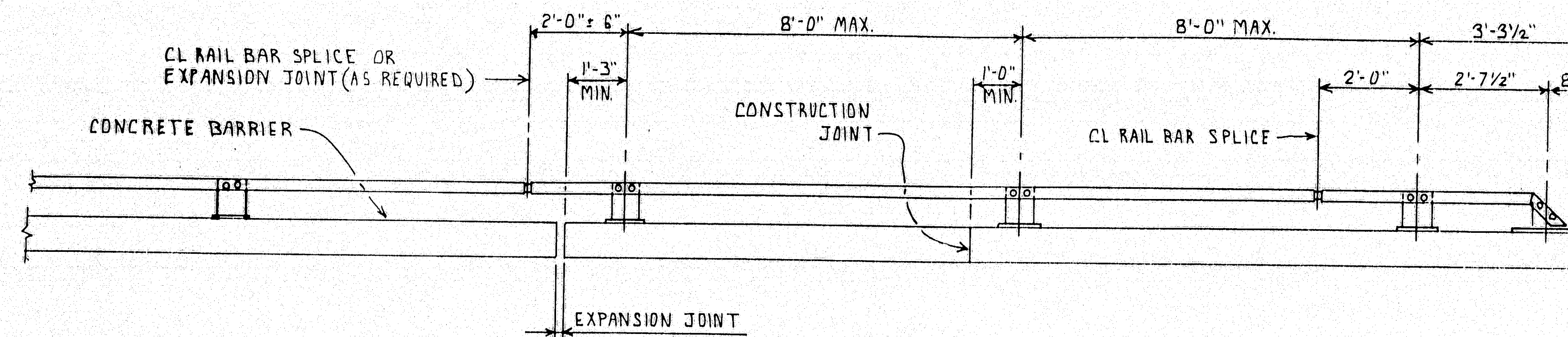
NOTE: CONTRACTOR TO FIELD VERIFY DIMENSIONS,
LOOK TO FABRICATION.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
☒ Approved	☐ Returned for Corrections
OCT 25 1996	
☒ Approved as noted	☐ Rejected

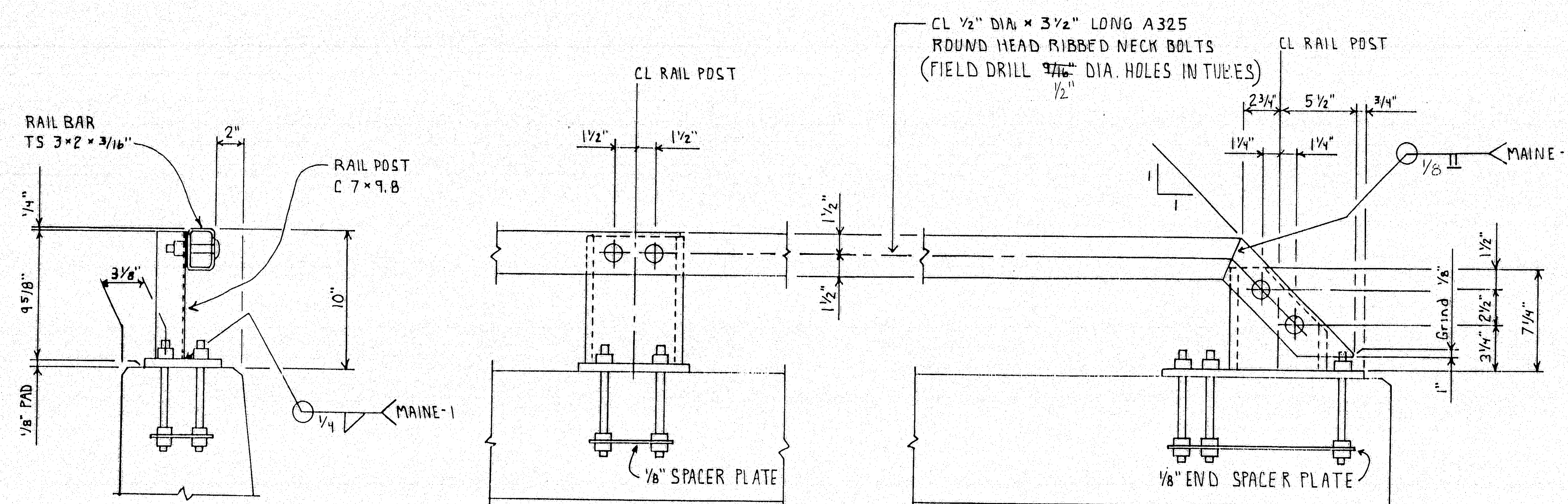
The vertical curves of
profile may not have been
taken into consideration.
See Shts 185 & 13 of
Design Dwg.
Please Verify Prior to Fabrication.

117-141

Approved	Released for Fabrication	Material	Finish
Drawing By: CMM	Date: 7-18-96	Checked By:	Date:
NO	Revision	Date	
1	Length change 185	10/15/96	
HIGHWAY SAFETY CORP. 239 Commerce Street, Glastonbury, Conn. 06033			
Item 507.0845-STEEL BRIDGE RAILING-ONE BAR Job PENOBSCOT RIVER BRIDGE County PENOBSCOT Project No. BR-BRF-038-135 GENERAL CONTRACTOR: REED & REED, INC. SUB CONTRACTOR: A.D. ROSSI CORP. Job No. 038-135 Drawg. No. E1			



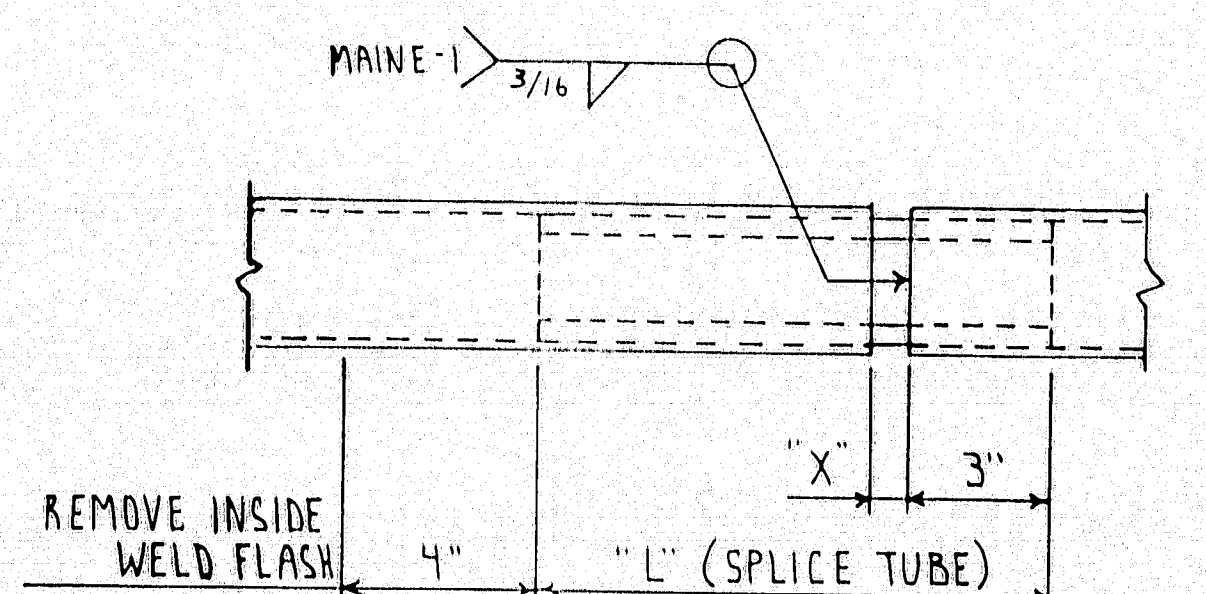
BRIDGE RAILING ELEVATION



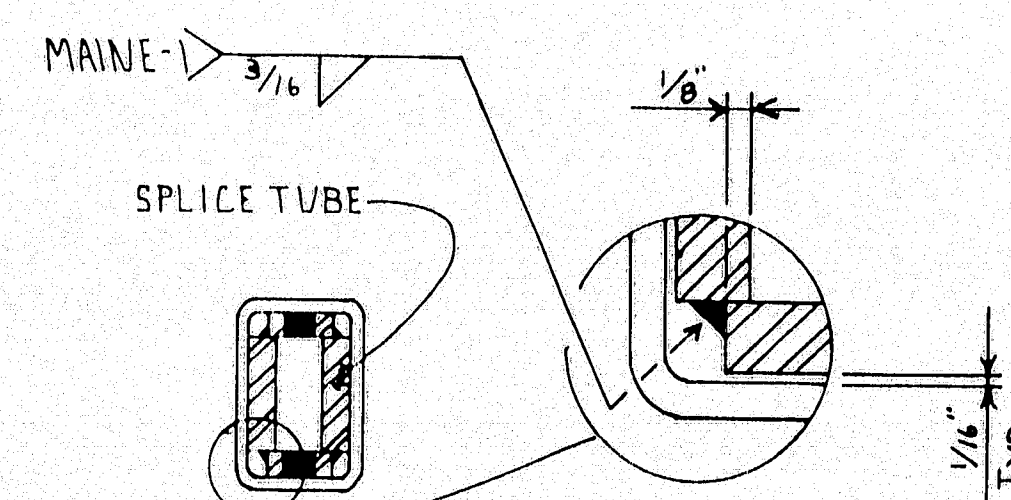
TYPICAL RAIL SECTION

RAIL & POST ELEVATION

RAIL & END POST ELEVATION



RAIL BAR SPLICE / EXPANSION JOINT



RAIL SPLICE SECTION

RAIL BAR SPLICE & EXPANSION JOINT TABLE		
"T"	"L"	"X"
Splice	1'-8"	3/4"
≤ 4"	1'-8"	2 1/2"
> 4" ≤ 6 1/2"	2'-0"	3 3/4"
> 6 1/2" ≤ 9"	2'-4"	5"
> 9" ≤ 13"	2'-10"	7"

"T" = TOTAL MOVEMENT

SPLICE TUBE DIMENSIONS	
Top & Bot. Plates	Bar 1 x 3/8 x "L"
Side Plates	Bar 1 3/4 x 3/8 x "L"

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	LR-BRF-038-1(35)	2	3

GENERAL NOTES:

ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 507 - RAILINGS OF THE STANDARD SPECIFICATIONS.

ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED AND FREE OF BURRS.

ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF ASTM A153.

RAIL POSTS SHALL BE SET NORMAL TO GRADE UNLESS OTHERWISE INDICATED.

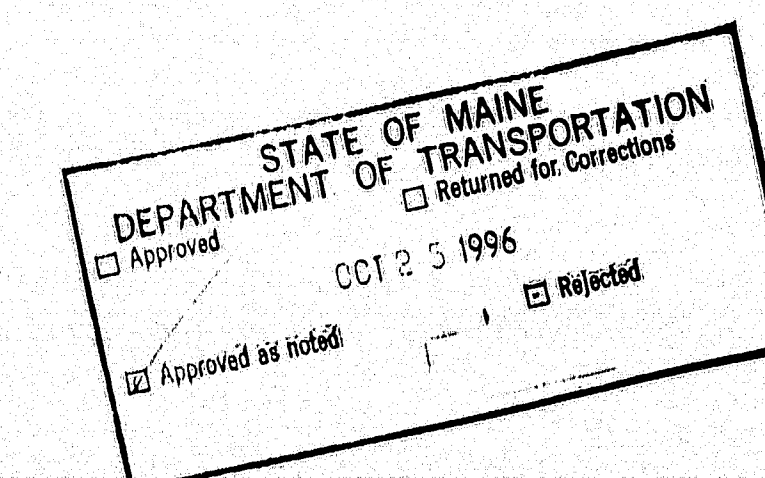
RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

ALL TESTING OF POST-TO-BASE WELDS SHALL CONFORM AWS D1.5 ARTICLE 6.7.2.

THE 3/16" DIA. HOLES FOR THE RIBBED NECK BOLTS SHALL BE FIELD-DRILLED.

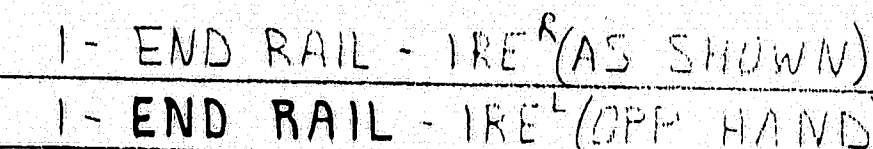
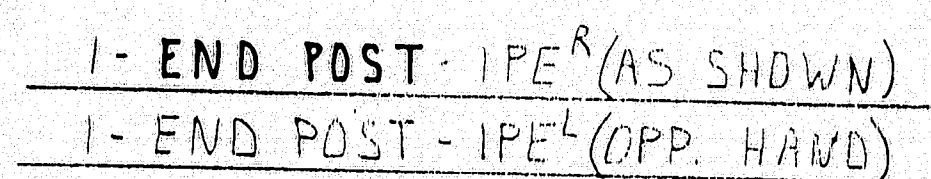
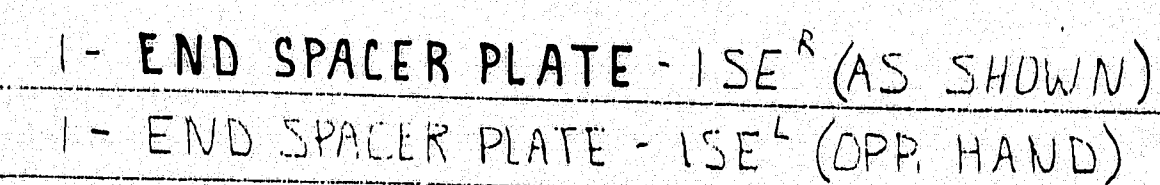
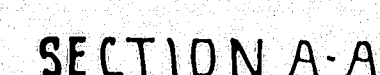
ALL BUTT JOINT WELDS SHALL HAVE A MINIMUM PENETRATION OF 60%.

If anchor bolts are cut from threaded rods, ensure exposed ends are threaded and Galv.



117-142

Approved Released for Fabrication Material Finish		HIGHWAY SAFETY CORP. 239 Commerce Street, Glastonbury, Conn. 06033	
Drawing By: LMM Checked By: [Signature] NO Revision Date: 7-18-96		Item: 507.0845-STEEL BRIDGE RAILING-ONE BAR Job: PENOBSCOT RIVER BRIDGE County: PENOBSCOT Project No.: BR-BRF-038-1(35) GENERAL CONTRACTOR: REED & REED, INC. SUB CONTRACTOR: A.D. RUSSI CORP. Job No.: 038-135 Drwg. No.: E2	

SECTION C-C

See Sheet #E,
Tubes may need
to be curved in order
to accommodate vertical
& angle parts

BILL OF MATERIAL			
MK.	QTY	DESCRIPTION	REMARKS
IPC	11	POST	
	11	C 7' x 9' 8" x 9 1/2"	A36
		PL 2' x 5 1/2" x 8"	A36
IPES	1	END POST	
	2	C 7' x 9' 8" x 7 1/4"	A36
	2	PL 1/2" x 5 1/2" x 1' 2 1/2"	A36
ISP	11	SPACER PLATE	
	11	PL 1/8" x 4 1/2" x 6"	A36
ISEB	1	END SPACER PLATE	
	2	PL 1/4" x 3 1/4" x 1' 1 1/2"	A36
IRE	1	END RAIL	
	2	TS 3' x 2 x 3/16 x 4' 4 3/8"	A500 Gr B
	2	TS 3' x 2 x 3/16 x 11' 1/4"	A500 Gr B
	4	PL 1/8" x 1" x 1' 8"	A36
	4	PL 3/8" x 1 3/4" x 1' 8"	A36
		RAIL TUBES	
IRB1	1	TS 3' x 2 x 3/16 x 19' 11 1/2"	A500 Gr B
IRB2	1	TS 3' x 2 x 3/16 x 21' 9 3/4"	A500 Gr B
	1	PL 3/8" x 1" x 1' 8"	A36
	1	PL 1/8" x 1 3/4" x 1' 8"	A36
IRB3	1	TS 3' x 2 x 3/16 x 13' 3 3/4"	A500 Gr B
	1	PL 3/8" x 1" x 1' 8"	A36
	1	PL 1/8" x 1 3/4" x 1' 8"	A36
IRB4	1	TS 3' x 2 x 3/16 x 15' 11 1/4"	A500 Gr B
	1	PL 3/8" x 1" x 1' 8"	A36
	1	PL 1/8" x 1 3/4" x 1' 8"	A36
		ANCHOR BOLTS	
	50	3/8" x 8" Rod	A499 Fully Threaded
	50	3/8" Heavy Hex Nut	A197 Gr 2H
	50	3/4" Hex Jam Nut	A197 Gr 2H
	50	3/8" Hex Nut	A563 Gr A
	50	3/8" Washer	F436
		MISC. Hardware	
	26	1/2" x 4 1/2" Riveted Work Bolt	A325
	26	1/2" Lock Nut	A197 Gr 2H
	26	1/2" Washer	F436
		NEOPRENE PADS	
	12	1/2" x 4 1/2" x 6" Neoprene Pad	90 Shore A Dur. O.
	3	1/4" x 3 3/4" x 1' 1 1/2" Neoprene Pad	90 Shore A Dur. O.

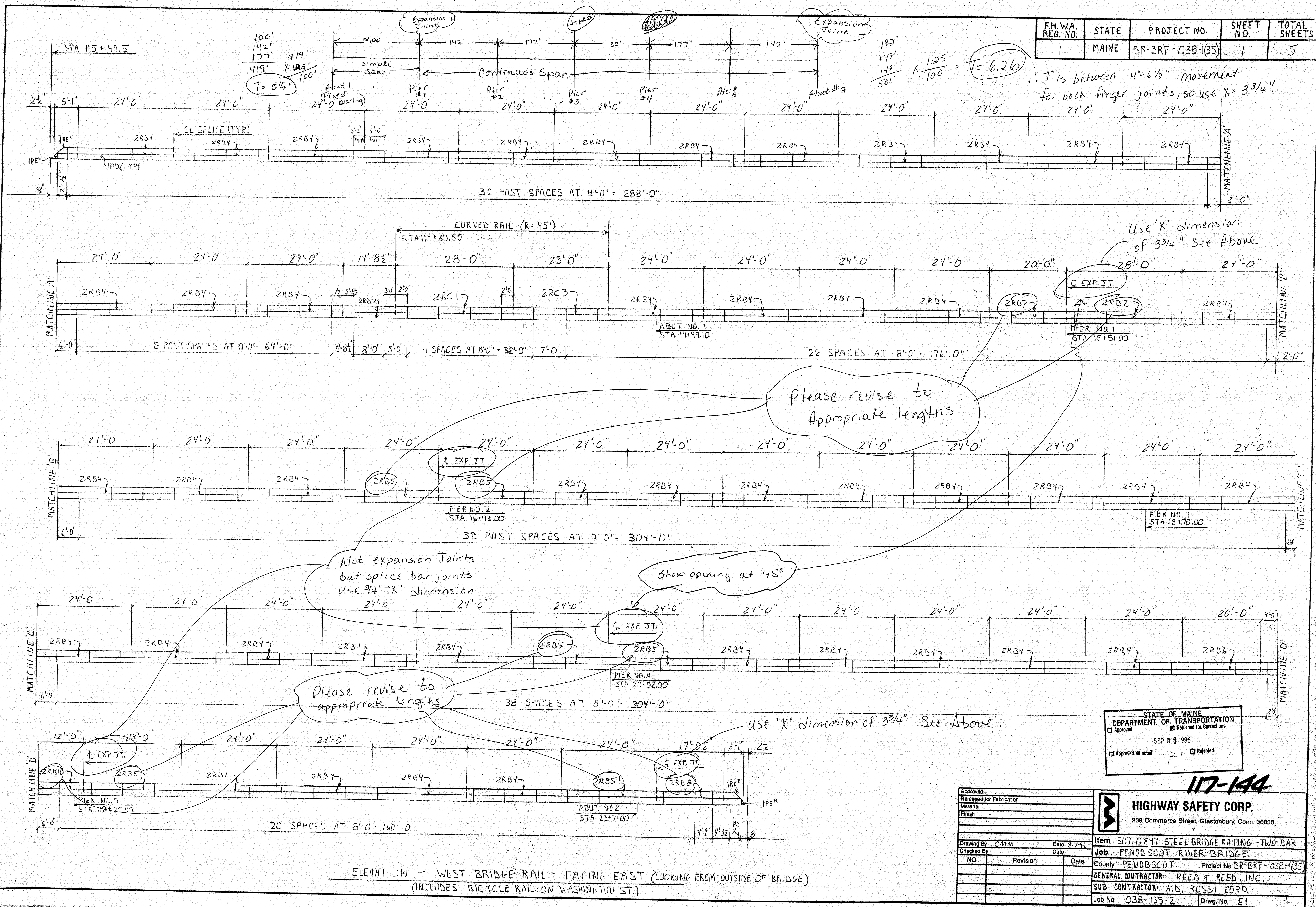
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Reviewed for Corrections

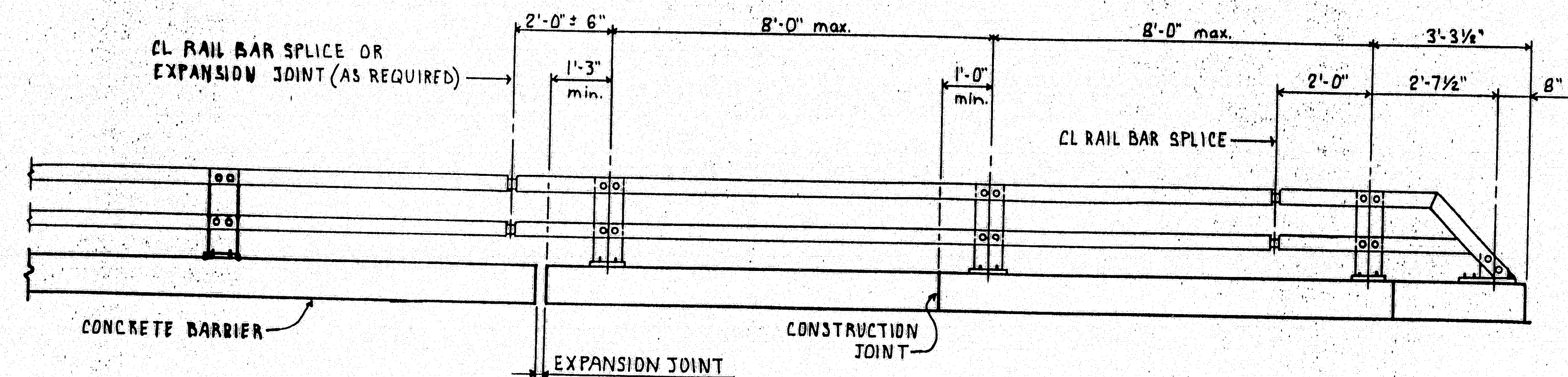
☐ Approved 001251996 ☐ Rejected

☒ Approved as noted

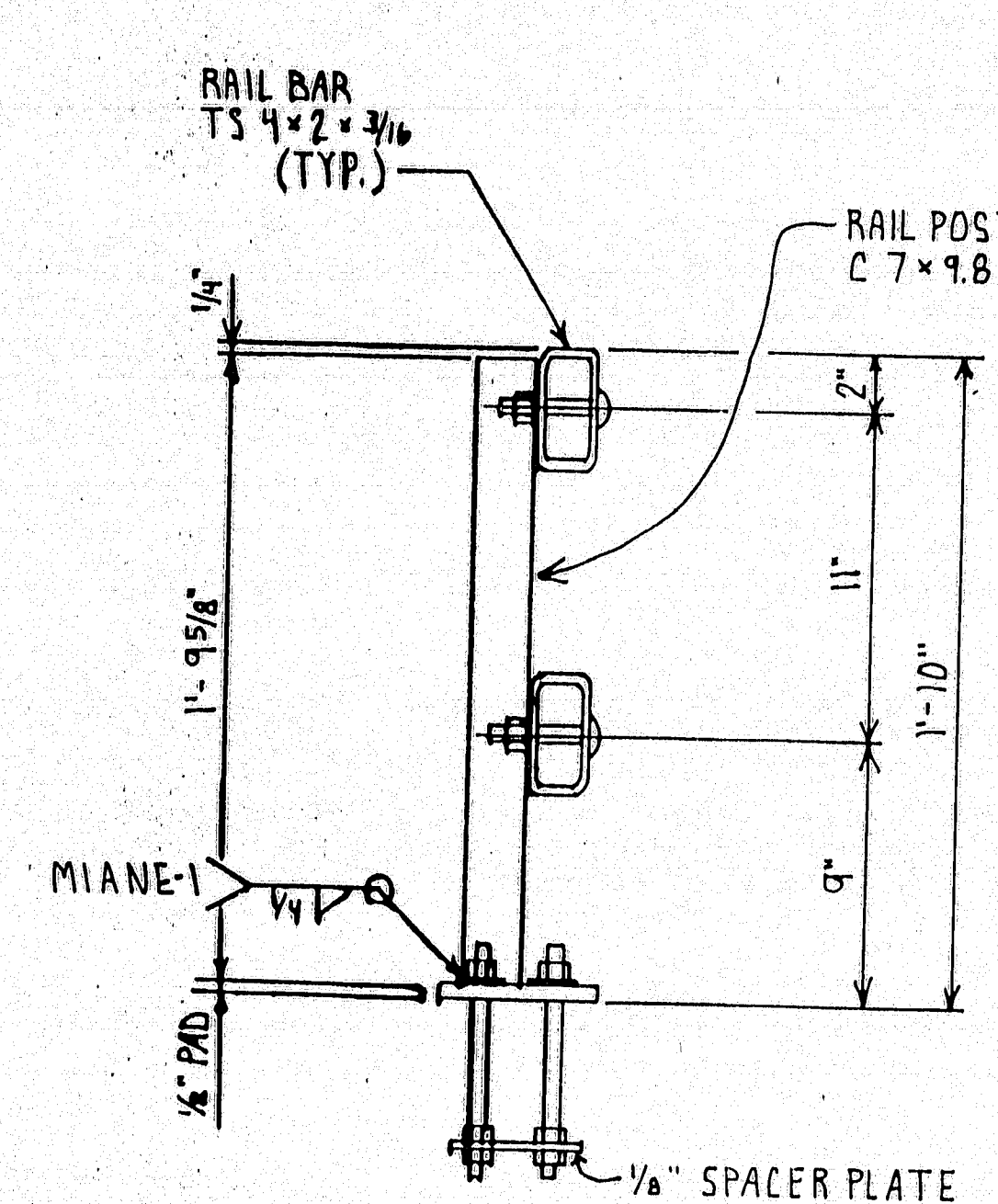
117-143

Approved		 HIGHWAY SAFETY CORP. 239 Commerce Street, Glastonbury, Conn. 06033
Released for Fabrication		
Material		
Finish		
Drawing By: <u>CMH</u> Checked By: _____ Date: <u>7-7-74</u> Date: _____	Item: <u>507.0845- STEEL BRIDGE RAILING- ONE BAR</u> <u>Job PENOBSCOT RIVER BRIDGE</u> County: <u>PENOBSCOT</u> Project No: <u>BR-BRF-036-105</u> GENERAL CONTRACTOR: <u>REED & REED, INC.</u> SUB CONTRACTOR: <u>A.D. ROSSI CORP.</u> Job No: <u>038-135</u> Draw No: _____	

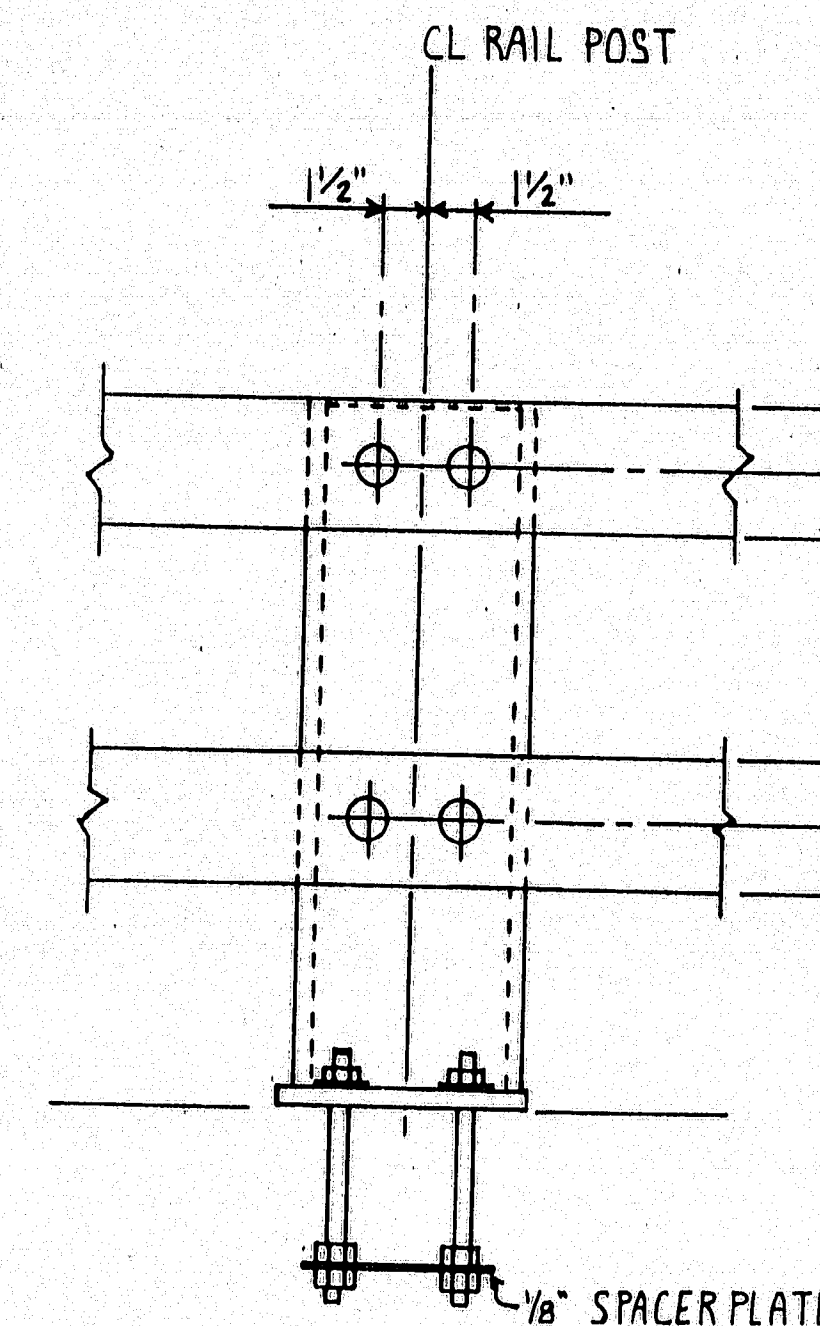




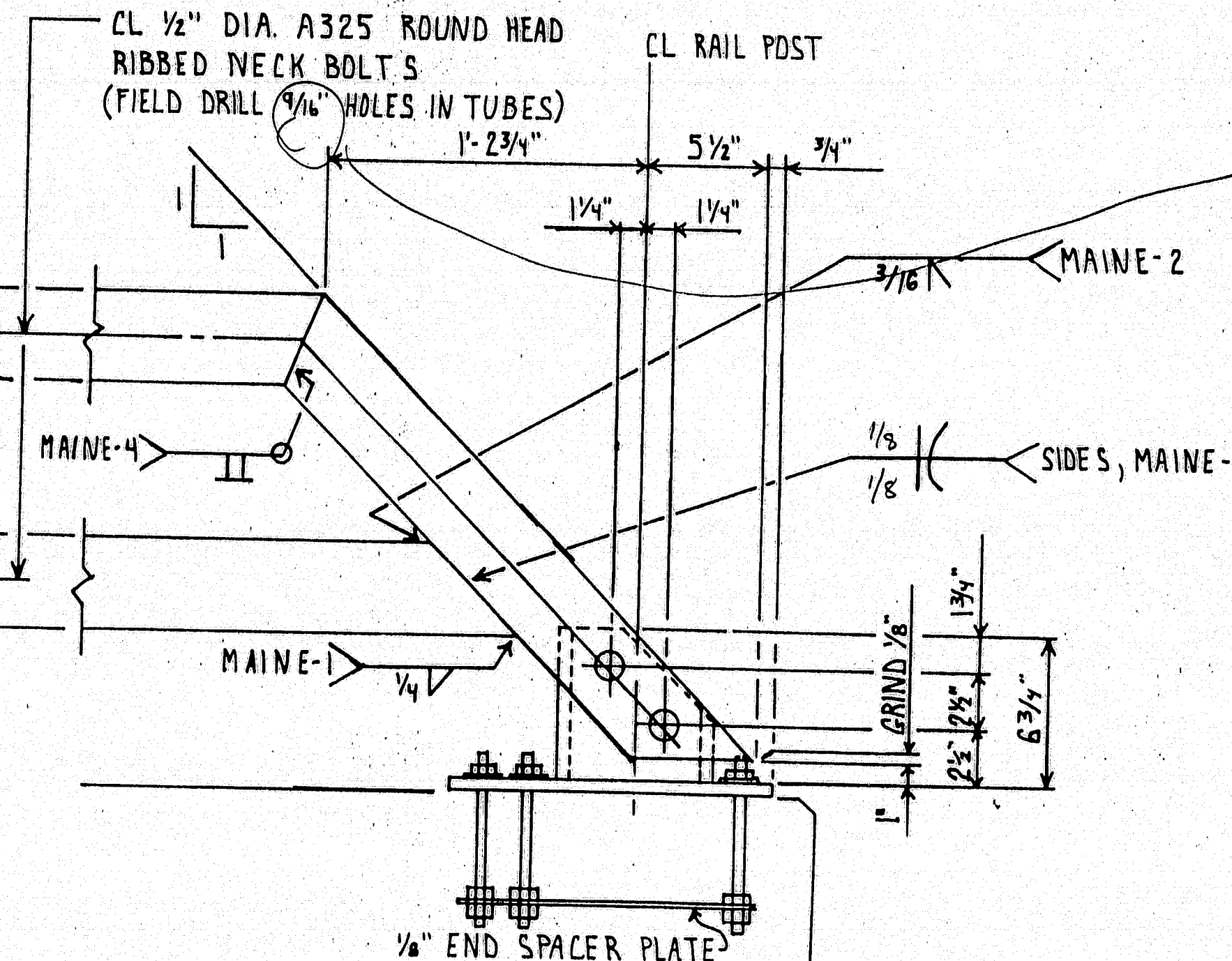
BRIDGE RAILING ELEVATION



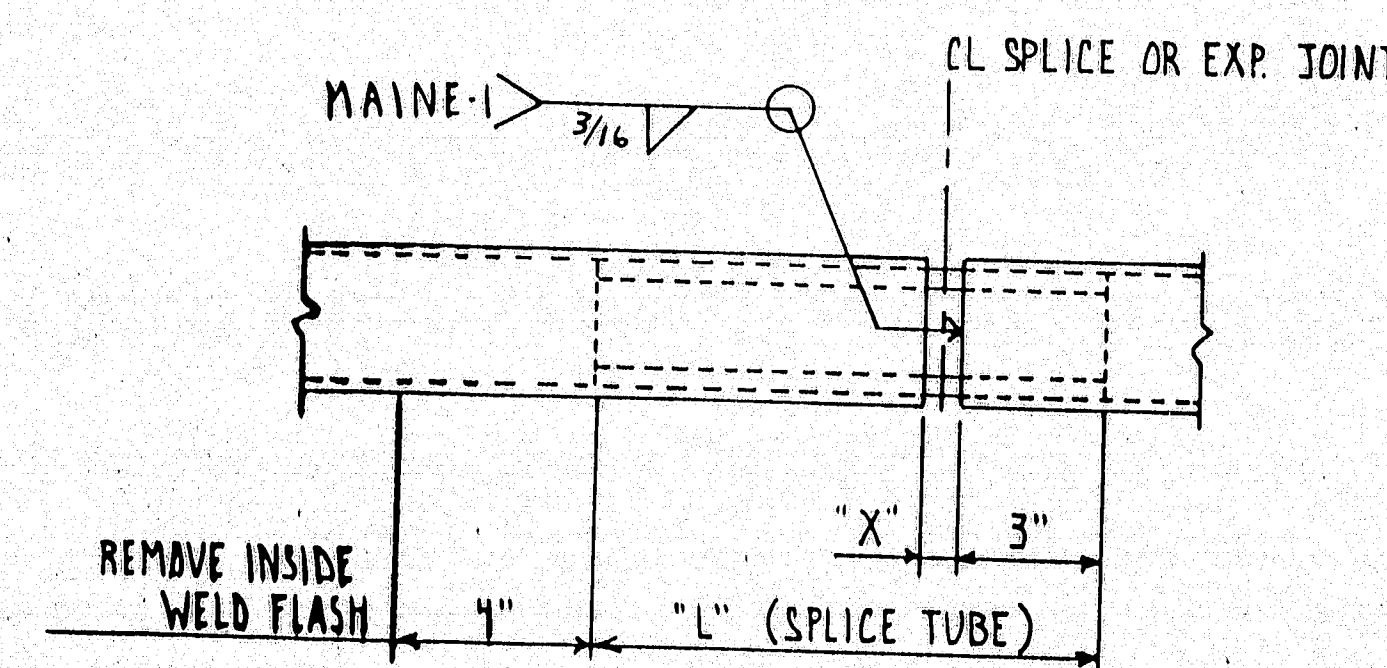
TYPICAL RAIL SECTION



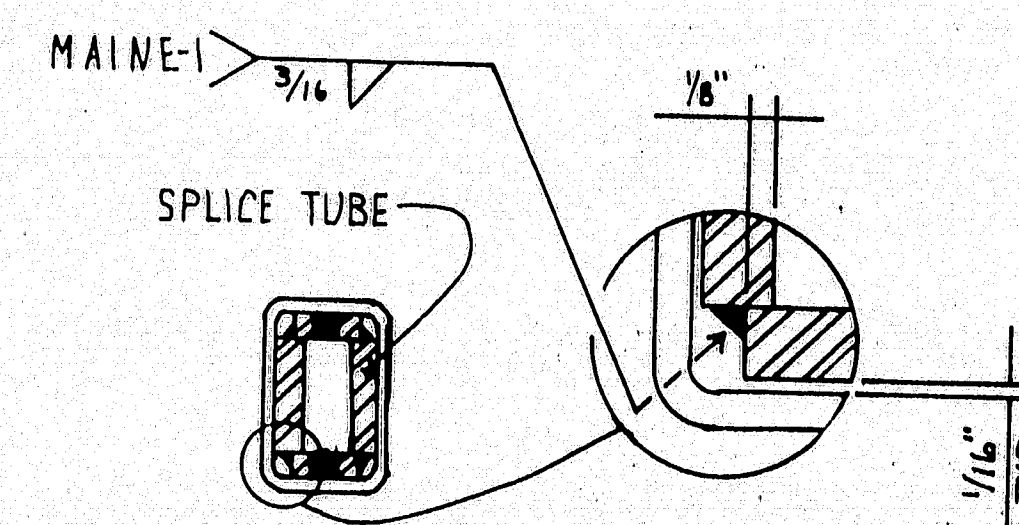
RAIL & POST ELEVATION



RAIL & END POST ELEVATION



RAIL BAR SPlice / EXPANSION JOINT



RAIL SPlice SECTION

RAIL BAR SPlice & EXPANSION JOINT TABLE		
T	"L"	"X"
SPlice	1'-8"	3/4"
≤ 4"	1'-8"	2 1/2"
> 4" ≤ 6 1/2"	2'-0"	3 3/4"
> 6 1/2" ≤ 9"	2'-4"	5"
> 9" ≤ 13"	2'-10"	7"
"T" = TOTAL MOVEMENT		

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	MAINE	BR-BRF-038-1(35)	3	5

GENERAL ERECTION NOTES:

ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 507 - RAILINGS OF THE STANDARD SPECIFICATIONS.

RAIL POSTS SHALL BE SET NORMAL TO GRADE UNLESS OTHERWISE NOTED.

RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

ALL TESTING OF POST-TO-BASE WELDS SHALL CONFORM TO AWS D1.5 ARTICLE 6.7.2.

THE 1/16" DIA. HOLE FOR THE RIBBED NECK BOLT SHALL BE FIELD DRILLED.

ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUND AND FREE OF BURRS.

ALL BUTT GROOVE WELDS SHALL HAVE A MINIMUM PENETRATION OF 60%.

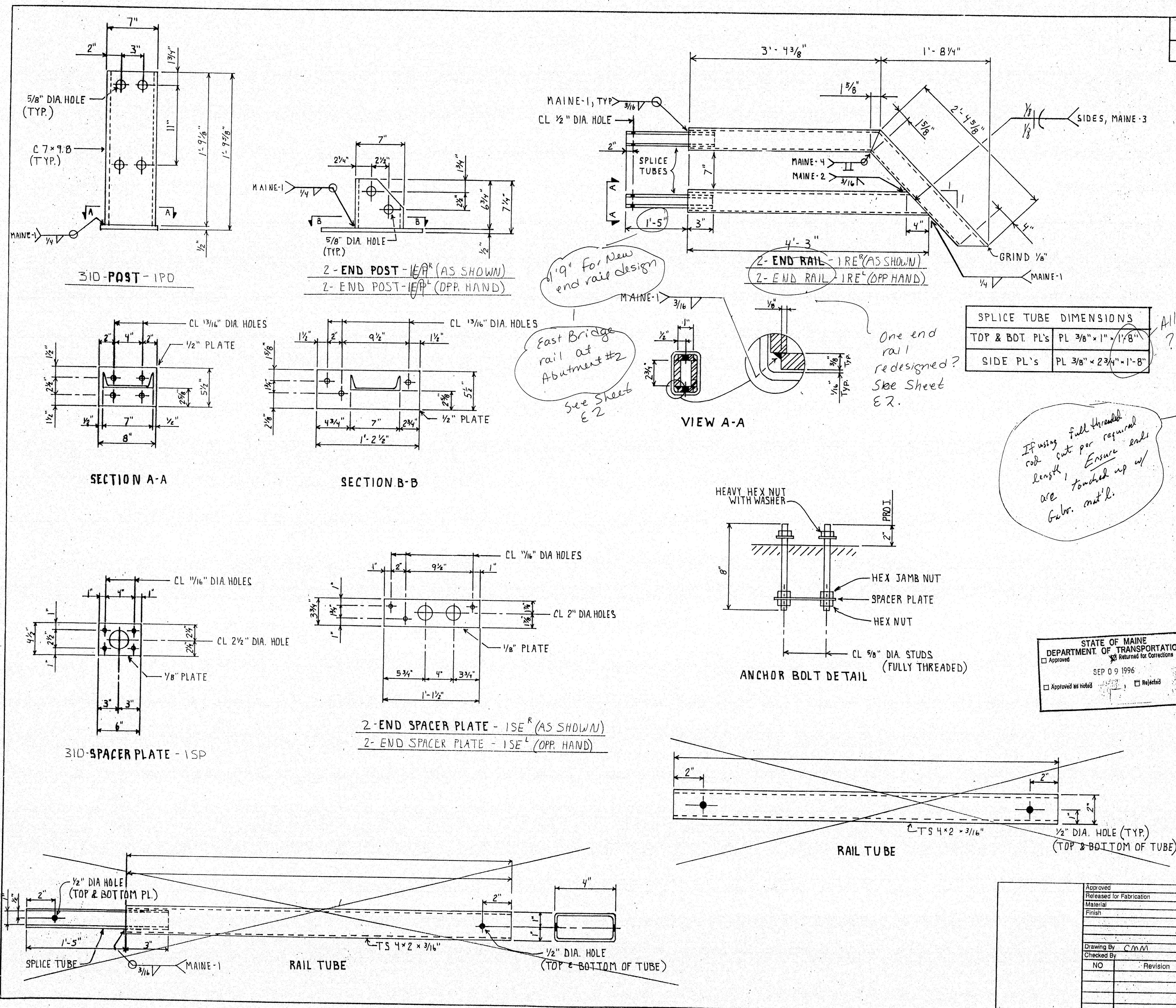
ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF ASTM A153.

Can make this dia. hole 1/2" to provide an appropriate interference fit of Ribbed Neck Bolt.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
☒ Approved	☐ Returned for Corrections
SEP 09 1996	
☒ Approved as Noted	☐ Rejected

117-146

Approved Released for Fabrication		HIGHWAY SAFETY CORP. 239 Commerce Street, Glastonbury, Conn. 06033
Material		
Finish		
Drawing By CMM	Date	Item 507.0847 STEEL BRIDGE RAILING - TWO BAR
Checked By	Date	Job PENOBSCOT RIVER BRIDGE
NO	Revision	County PENOBSCOT Project No. BR-BRF-038-1(35)
		GENERAL CONTRACTOR: REED & REED, INC.
		SUB CONTRACTOR: A.D. ROSSI CORP.
		Job No. 038-135-2 Dwg. No. E3



F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	4	5

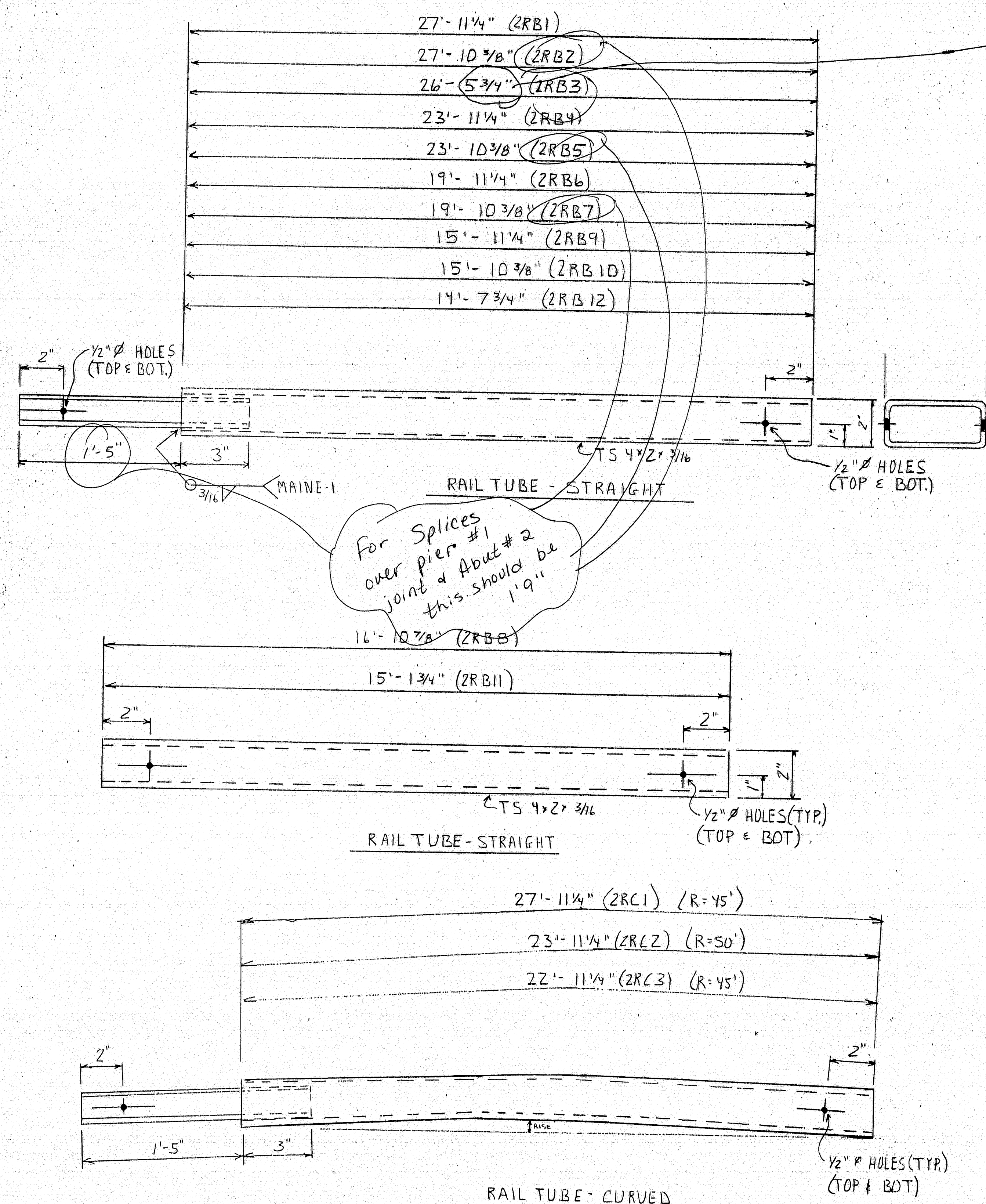
BILL OF MATERIAL			
MK.	QTY	DESCRIPTION	REMARKS
1P0	310	POST	
	310	C 7 x 9.8 x 17.9 1/8"	A36
	310	PL 1/2" x 5 1/2" x 8"	A36
1P0	2	END POST	
	4	C 7 x 9.8 x 6 3/4"	A36
	4	PL 1/2" x 5 1/2" x 12 1/2"	A36
1SP	310	SPACER PLATE	
	310	PL 1/8" x 4 1/2" x 6"	A36
1SE0	2	END SPACER PLATE	
	4	PL 1/8" x 3 3/4" x 14 1/2"	A36
1RE0	2	END RAIL	
	4	TS 4 x 2 x 3/16 x 4' 3"	A500 Gr. B
	4	TS 4 x 2 x 3/16 x 3' 4 1/2"	A500 Gr. B
	4	TS 4 x 2 x 3/16 x 2' 4 1/2"	A500 Gr. B
	16	PL 3/8" x 1" x 1'-8"	A36
	16	PL 3/8" x 2 3/4" x 1'-8"	A36
ANCHOR BOLTS			
	1252	5/8" x 8" Rod (Full Thread)	A449
	1252	5/8" Heavy Hex Nut	A194 Gr. 2H
	1252	5/8" Hex Jam Nut	A194 Gr. 2H
	1252	5/8" Hex Nut	A563 Gr. A
	1252	5/8" Washer	F436
MISC. Hardware			
	1218	1/2" x 3 1/2" Ribbed Nut Bolt	A325
	1218	1/2" Lock Nut	A194 Gr. 2H
	1218	1/2" Washer	F436
PADS			
	340	Neoprene Pads: 1/8" x 4 1/2" x 6"	90 Shore A Duro
	5	Neoprene Pads: 1/8" x 3 3/4" x 1 1/2"	70 Shore A Duro

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SEP 09 1996
Approved as noted

	Approved		
	Released for Fabrication		
	Material		
	Finish		
Drawn By	CMM	Date	8-7-96
Checked By		Date	
NO	Revision	Date	

HIGHWAY SAFETY CORP.
239 Commerce Street, Glastonbury, Conn. 06033
Item 507.0847 STEEL BRIDGE RAILING - TWO BAR
Job PENOBSCOT RIVER BRIDGE
County PENOBSCOT Project No. BR-BRF-038-1(35)
GENERAL CONTRACTOR REED & REED, INC.
SUB CONTRACTOR A.D. ROSSI, CORP.
Job No. 038-135-2 Drwg. No. 1

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-105	5	5



BILL OF MATERIAL			
MK.	QTY.	DESCRIPTION	REMARKS
2RB1	2	TS 4x2x3/16 x 27'-11 1/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB2	4	TS 4x2x3/16 x 27'-10 3/8"	A500 Gr B
	8	PL 3/8 x 1" x 1'-8"	A36
	8	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB3	2	TS 4x2x3/16 x 26'-5 3/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB4	146	TS 4x2x3/16 x 23'-10 3/8"	A500 Gr B
	292	PL 3/8 x 1" x 1'-8"	A36
	292	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB5	24	TS 4x2x3/16 x 23'-10 3/8"	A500 Gr B
	48	PL 3/8 x 1" x 1'-8"	A36
	48	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB6	2	TS 4x2x3/16 x 19'-11 1/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB7	4	TS 4x2x3/16 x 19'-10 3/8"	A500 Gr B
	8	PL 3/8 x 1" x 1'-8"	A36
	8	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB8	2	TS 4x2x3/16 x 16'-10 3/8"	A500 Gr B
2RB9	2	TS 4x2x3/16 x 15'-11 1/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB10	2	TS 4x2x3/16 x 15'-10 3/8"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB11	2	TS 4x2x3/16 x 15'-10 3/8"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RB12	2	TS 4x2x3/16 x 14'-7 3/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
CURVED RAILS			
2RC1	2	TS 4x2x3/16 x 27'-11 1/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36
2RC2	8	TS 4x2x3/16 x 23'-11 1/4"	A500 Gr B
	16	PL 3/8 x 1" x 1'-8"	A36
	16	PL 3/8 x 2 3/4 x 1'-8"	A36
2RC3	2	TS 4x2x3/16 x 22'-11 1/4"	A500 Gr B
	4	PL 3/8 x 1" x 1'-8"	A36
	4	PL 3/8 x 2 3/4 x 1'-8"	A36

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Approved ☒ Approved as noted ☐ Rejected ☐
SEP 09 1996
Returned for Corrections

Approved ☒ Released for Fabrication ☐
Material ☐ Finish ☐
Drawing By CMM Date 8-7-96
Checked By Date
NO Revision Date
Item 507.0847 STEEL BRIDGE RAILING - TWUBAH
Job PENOBSCOT RIVER BRIDGE
County PENOBSCOT Project No. BR-BRF-038-105
GENERAL CONTRACTOR: REED & REED, INC.
SUB CONTRACTOR: A.D. ROSSI CORP.
Job No. 038-135-2 Drwg. No. 2

HIGHWAY SAFETY CORP.

299 Commerce Street, Glastonbury, Conn. 06033

117-148