

BILL OF MATERIAL					
MARK	NO.	SHAPE	LENGTH	WT.	REMARKS
A1	2	SCUPPER			
ma1	2	12" DIA. REDUCER			1/2" A36 STEEL
mb1	2	6" PIPE	3		5" A36 STEEL W/ 1/2" REDUCER
ba1	4	F.B. 1/2"	0.82		FIT A36
bb1	4	F.B. 1/2"	0.10		FIT A36

MAT. - A36 STEEL.
(PIPE A53 GRADE 3)

FOR FINAL APPROVAL

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Returned for Corrections
JUL - 0 1987	
<input type="checkbox"/> Approved as noted	<input type="checkbox"/> Rejected
K. Jacobs WELDING ENGR.	

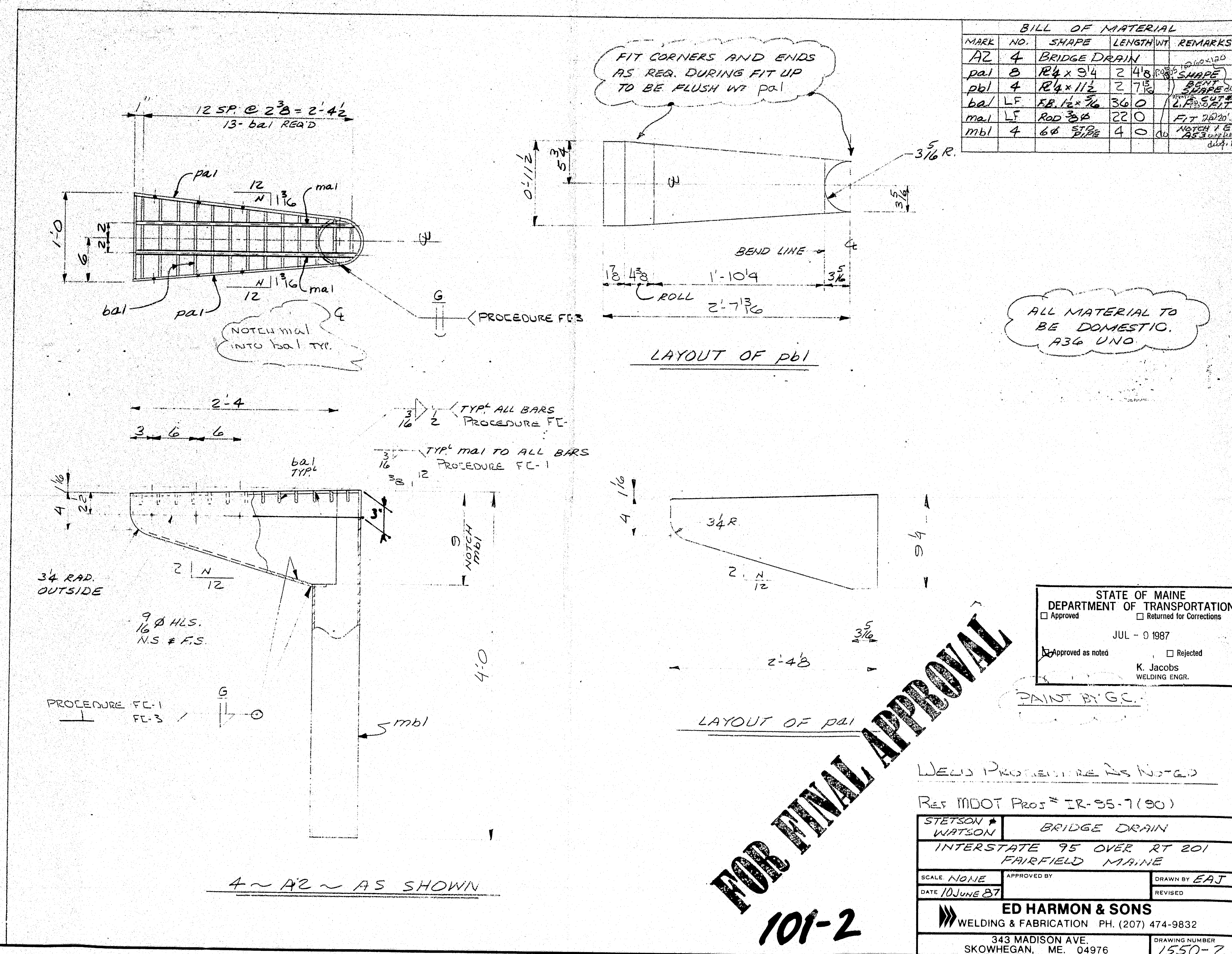
ALL MATERIAL TO BE DOMESTIC

WELD: PER AISC 1.17
Ref. MDOT Proj. IR-95-7(90)

STEINSON WATSON	BRIDGE DRAIN SCUPPER
INTERSTATE 95 OVER RT 201 FAIRFIELD MAINE	
SCALE: NONE	APPROVED BY: <i>EAS</i>
DATE: 9 JUNE 87	REVISED:
ED HARMON & SONS WELDING & FABRICATION PH. (207) 474-9832 343 MADISON AVE. SKOWHEGAN, ME. 04976	
DRAWING NUMBER 1550-1	

101-1

2 - A1 - AS SHOWN



5
2 3/4

2-48

LAYOUT OF PAI

FOR FINAL APPROVAL

WELDS P

REF MOOT

STETSON
WATSON
INTERS

SCALE NONE

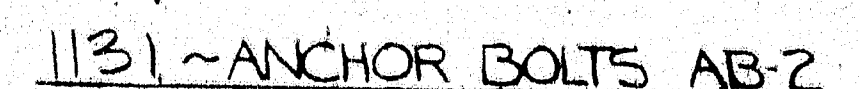
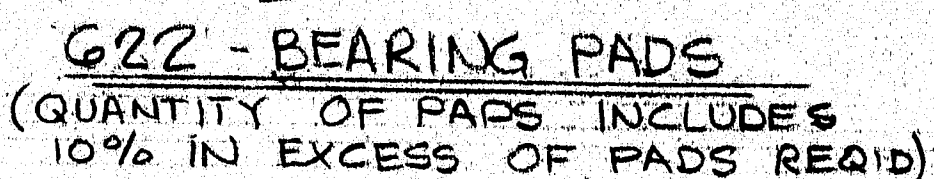
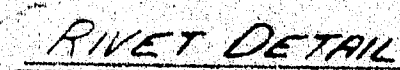
DATE 10 JUNE 67

WELDING

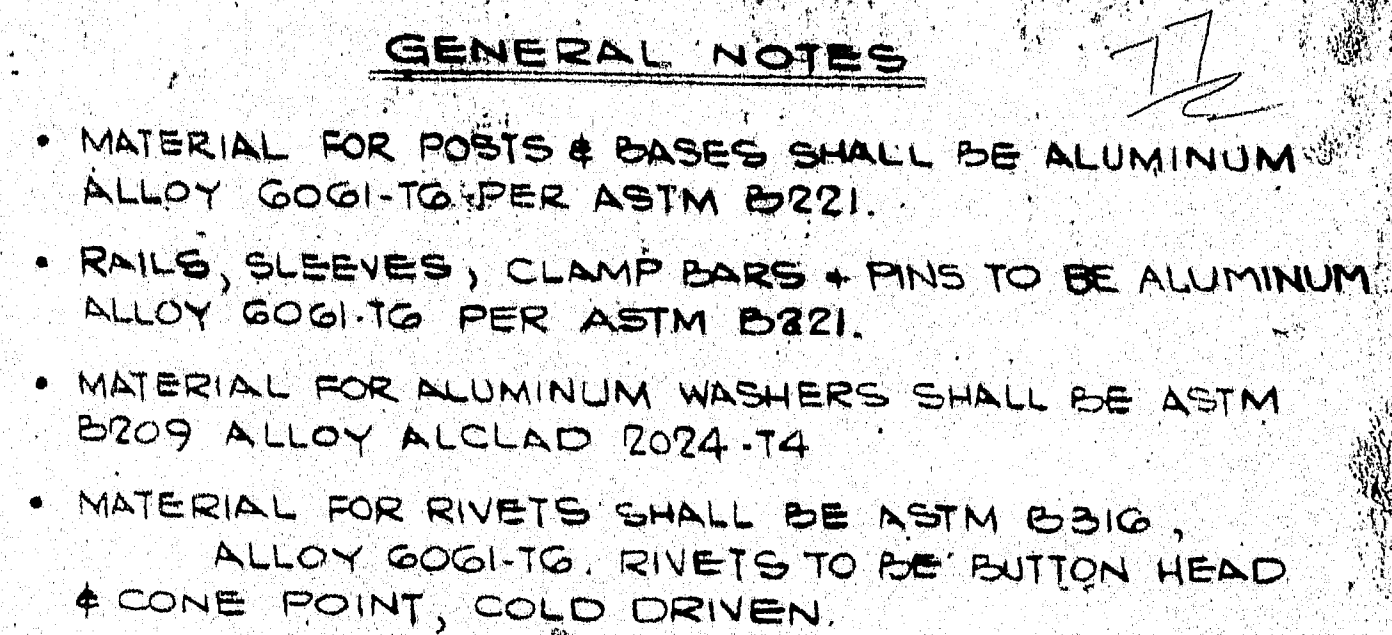
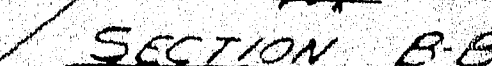
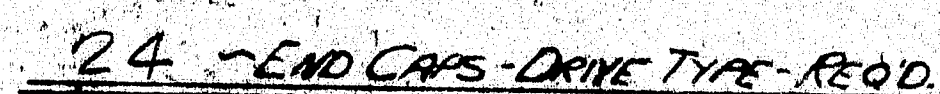
101-2



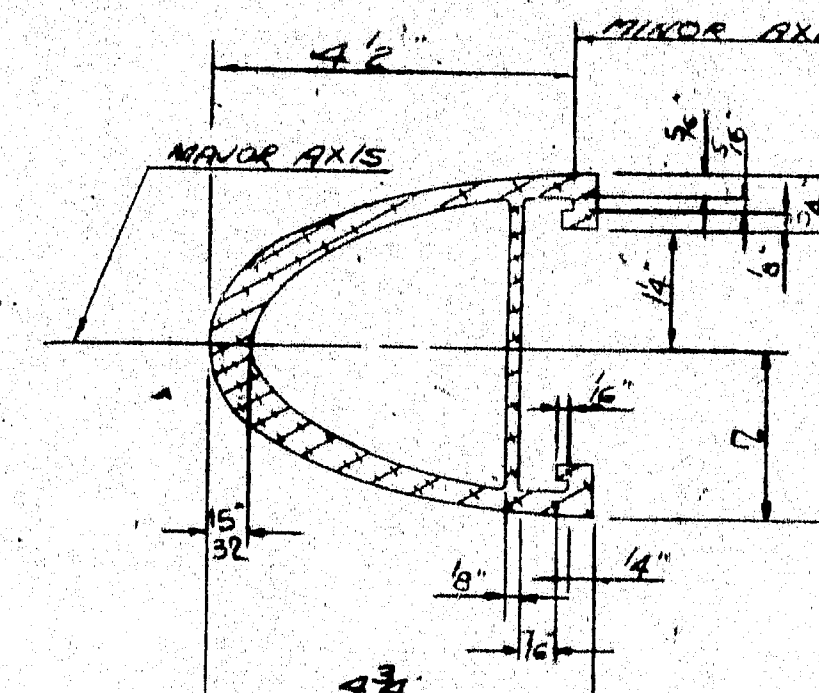
2260' CLAMPING BARS REQ'D



SECTION C-C



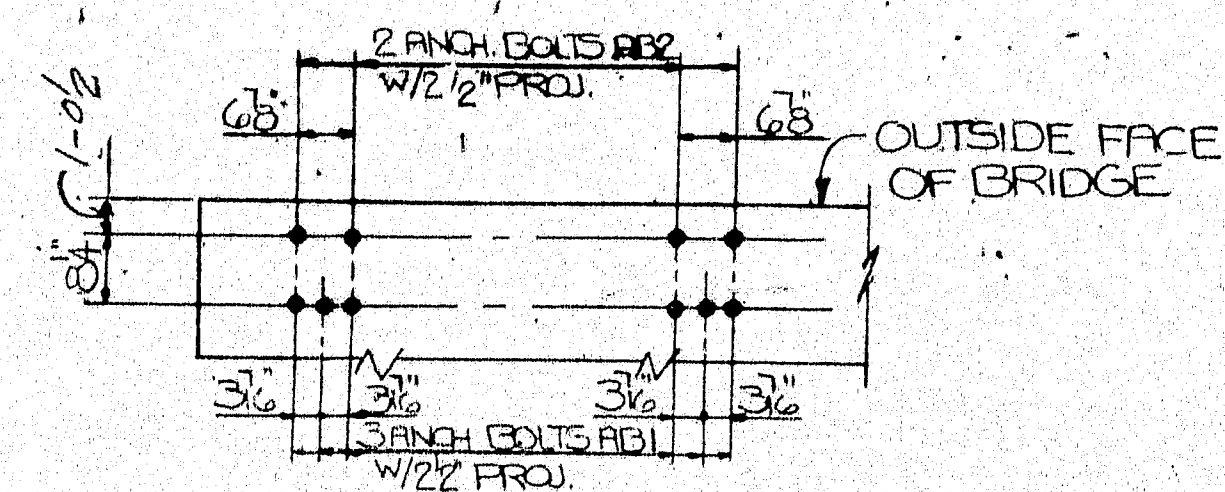
- DRAIN TYPE END CAPS TO BE SAWN MOLD CASTINGS, ASTM A276 ALLOY B443F.
- FOR ANCHOR BOLT SPEC. SEE SECTION 507.05 OF THE SPECIAL PROVISIONS.
- POSTS SHALL BE SET NORMAL TO GRADE & RAILING TO BE PARALLEL TO GRADE.
- STEEL SPACER R'S SHALL BE COMMERCIAL QUALITY CARBON STEEL PER ASTM A569, (PLAIN)
- STAINLESS STEEL BOLTS & CAP SCREWS SHALL CONFORM TO ASTM A276, COND. A, COLD FINISHED AND ANY OF THE 300 SERIES HAVING A MINIMUM YIELD STRENGTH OF 45000 P.S.I.
- RAIL SPLICE SHALL BE LOCATED 2'-0" (±3") FROM E. OF RAIL POST.
- BEARING PADS SHALL BE MADE WITH NEW UNVULCANIZED RUBBER & UNUSED FABRIC FIBRES, 85 TO 95 SHORE A DUROMETER, ULTIMATE BREAKDOWN LIMIT OF THE PAD UNDER COMPRESSIVE LOADING SHALL BE NO LESS THAN 10,000 P.S.I.
- RAILING SHALL BE ATTACHED TO A MINIMUM OF 4 POSTS WHEN POSSIBLE & IN ANY CASE NEVER LESS THAN 2 POSTS.
- ALL THREADS TO BE UNC CLASS 2A/2B.
- ALL EXTRUSION TOLERANCES NOT SHOWN SHALL BE IN ACCORDANCE WITH ASTM B221.



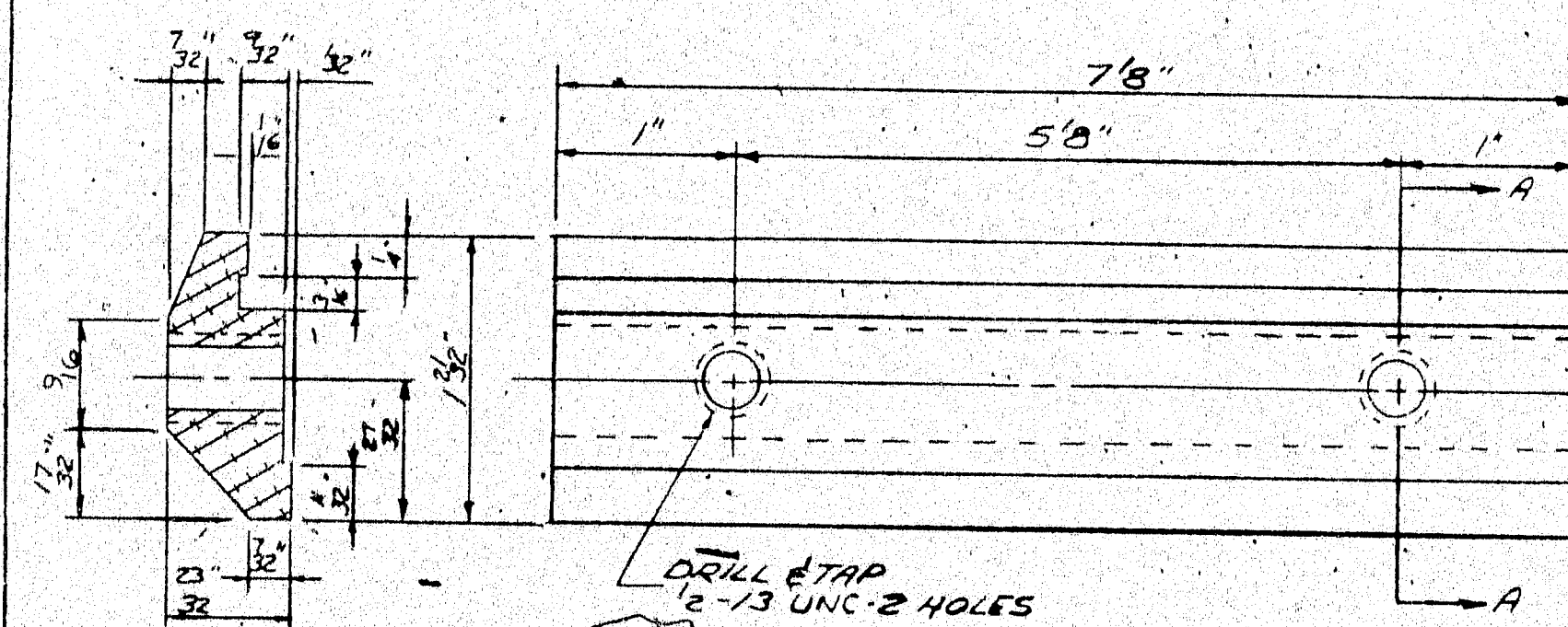
SECTION THROUGH RAIL 101-3

STATE OF MAINE DEPARTMENT OF TRANSPORTATION <input type="checkbox"/> Approved <input type="checkbox"/> Returned for Corrections MAY 9 1987 <input checked="" type="checkbox"/> Approved as noted <input type="checkbox"/> Rejected K. Jacobs W. JOSE EAGAR	<div style="text-align: right;">OFFICE COPY A-1</div> RECEIVED MAY 20 1987 CHECKED _____ REVIEWED BY <i>[Signature]</i>
TYPE "A" RAILING	
APPROVED _____	RECD. APPROVA _____ DRAWING _____

See Comments for this submission

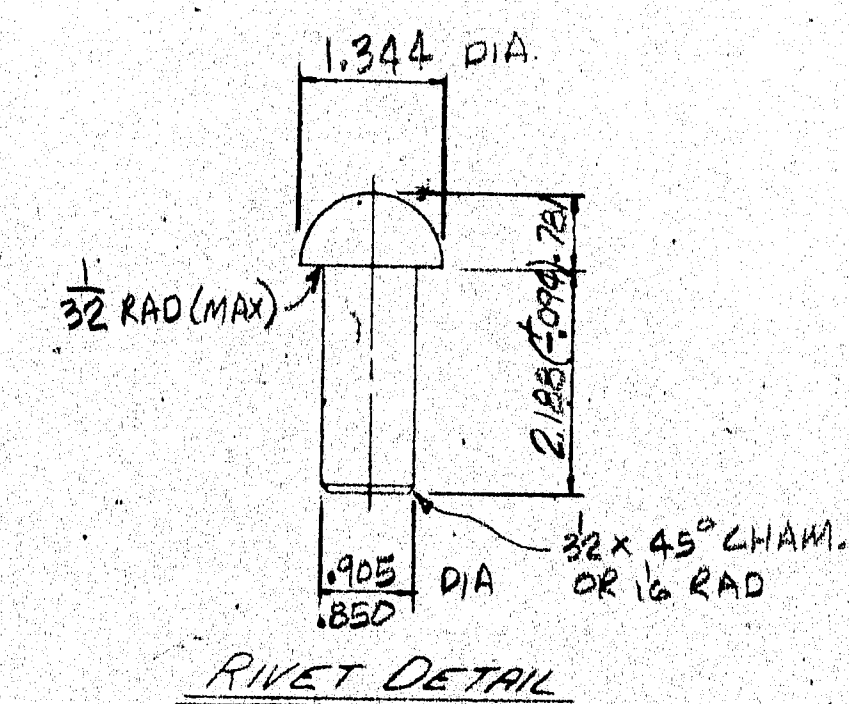


ANCHOR BOLT SETTING

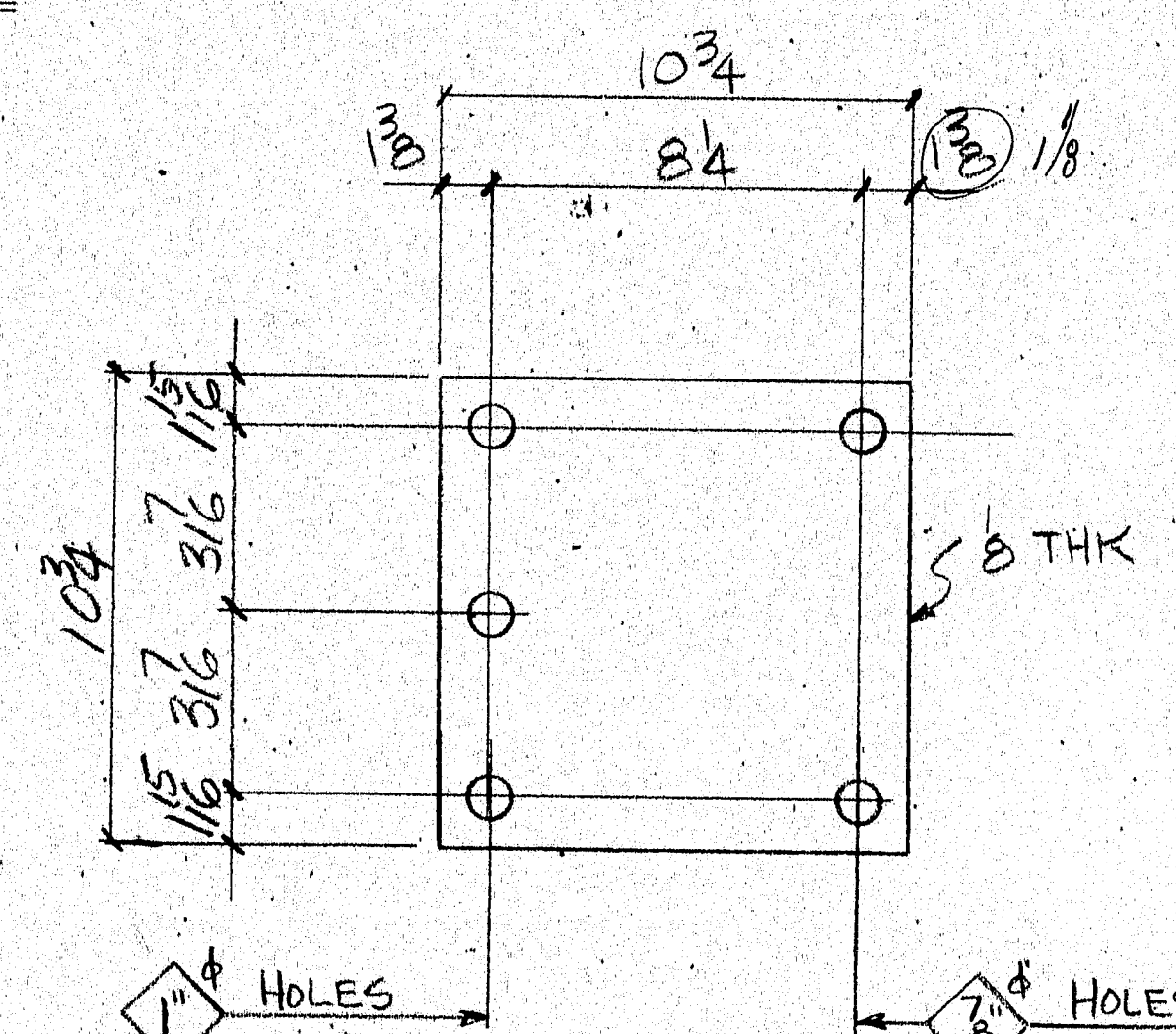


SECTION A-A

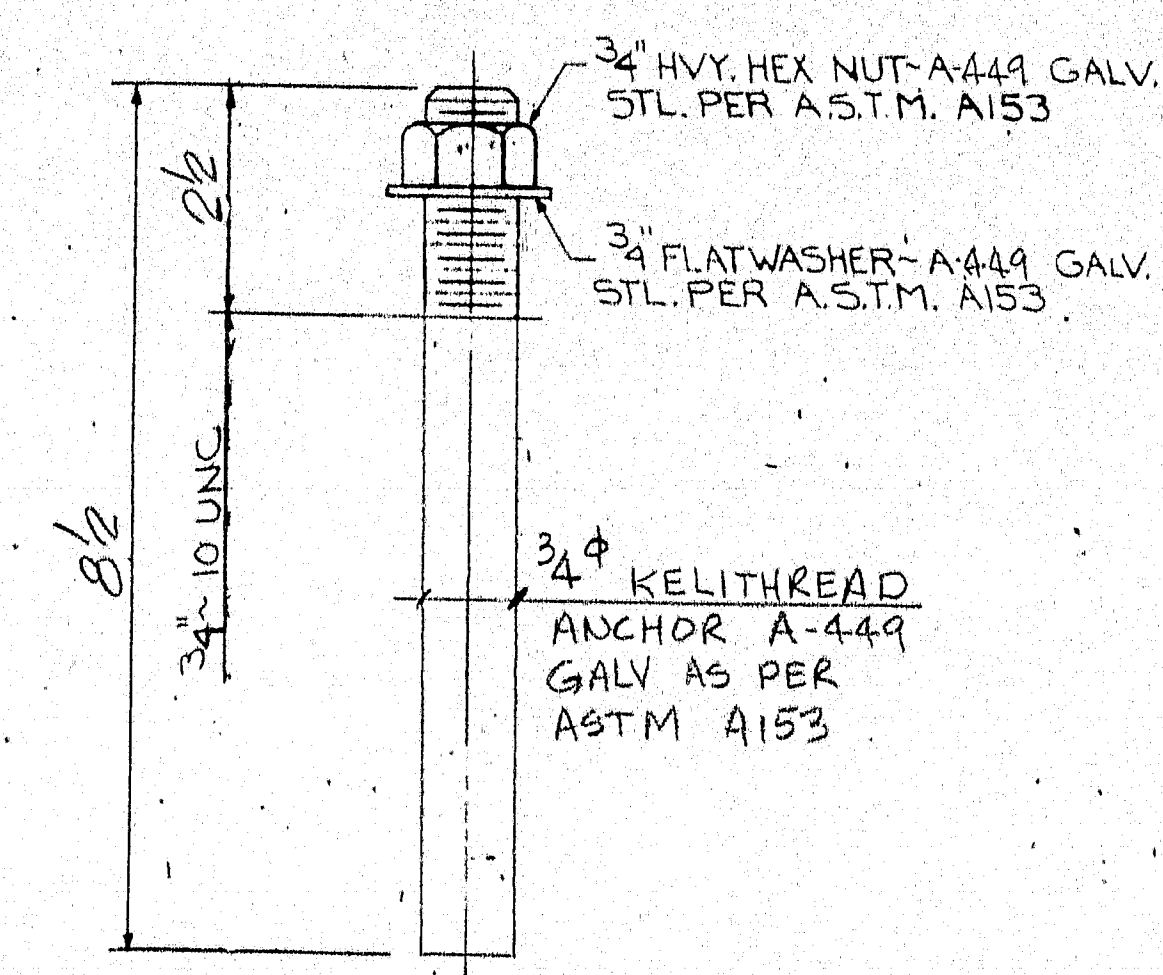
2260 - CLAMPING BARS REQ'D



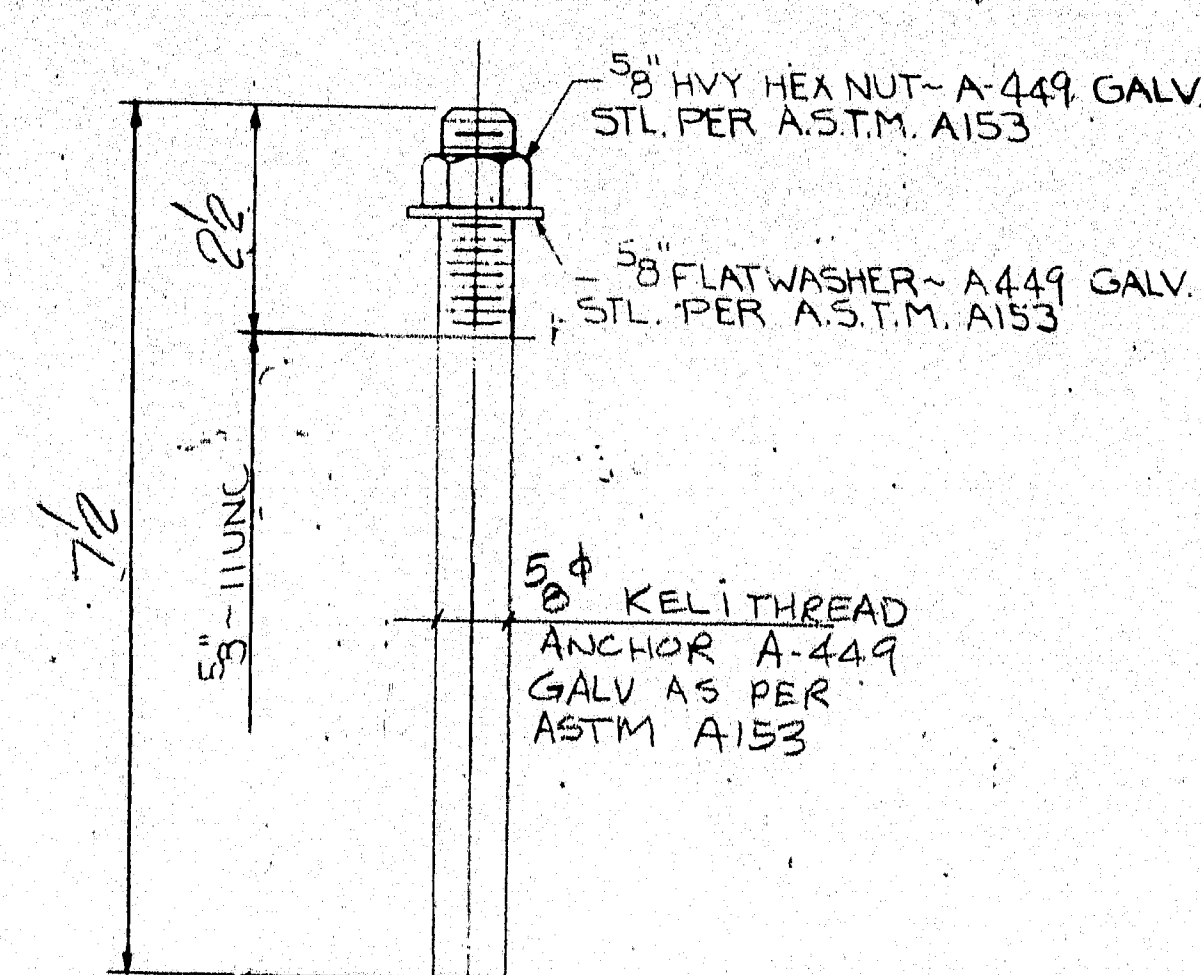
RIKET DETAIL



622 - BEARING PADS
(QUANTITY OF PADS INCLUDES 10% IN EXCESS OF PADS REQ'D)

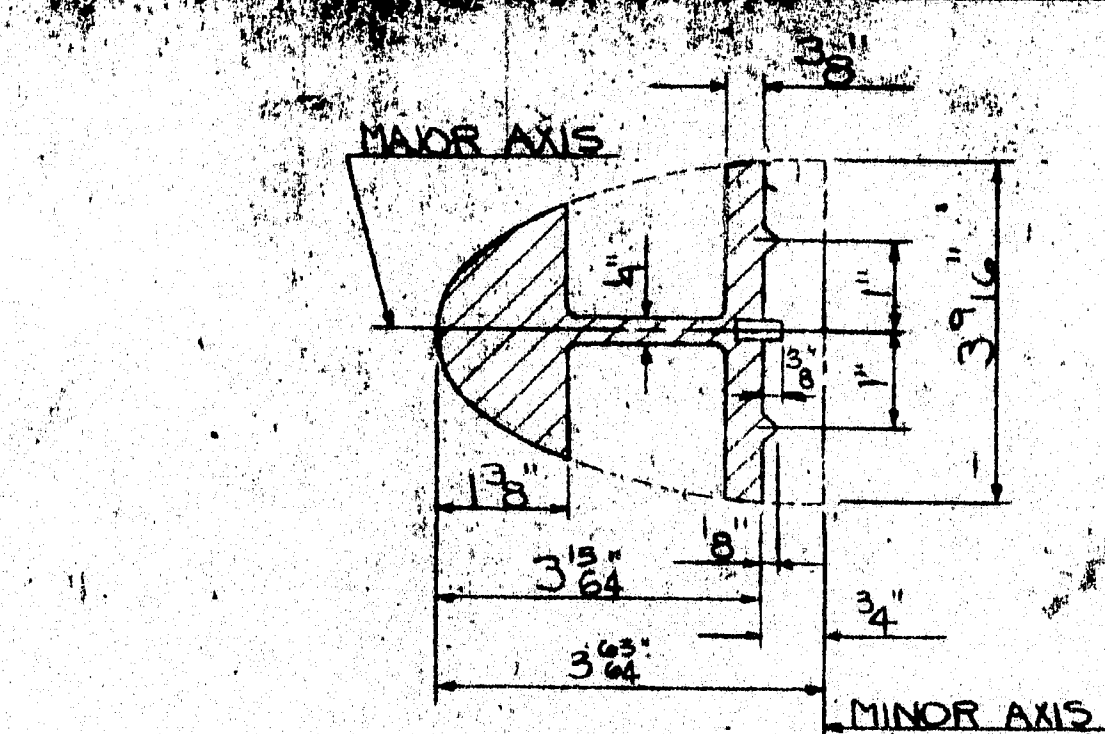


1696 - ANCHOR BOLTS AB-1

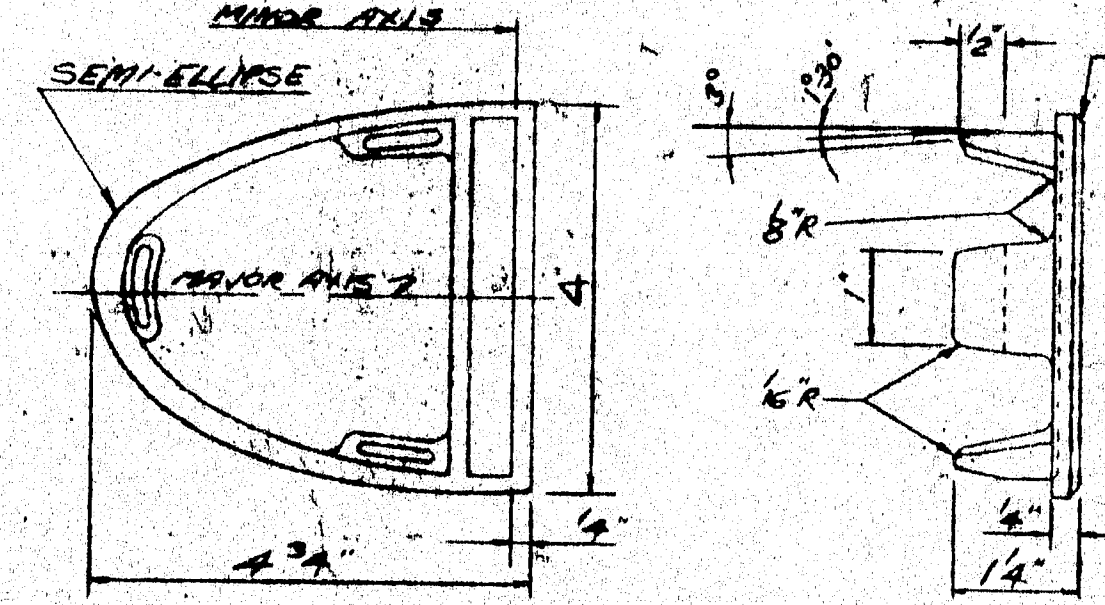


1131 - ANCHOR BOLTS AB-2

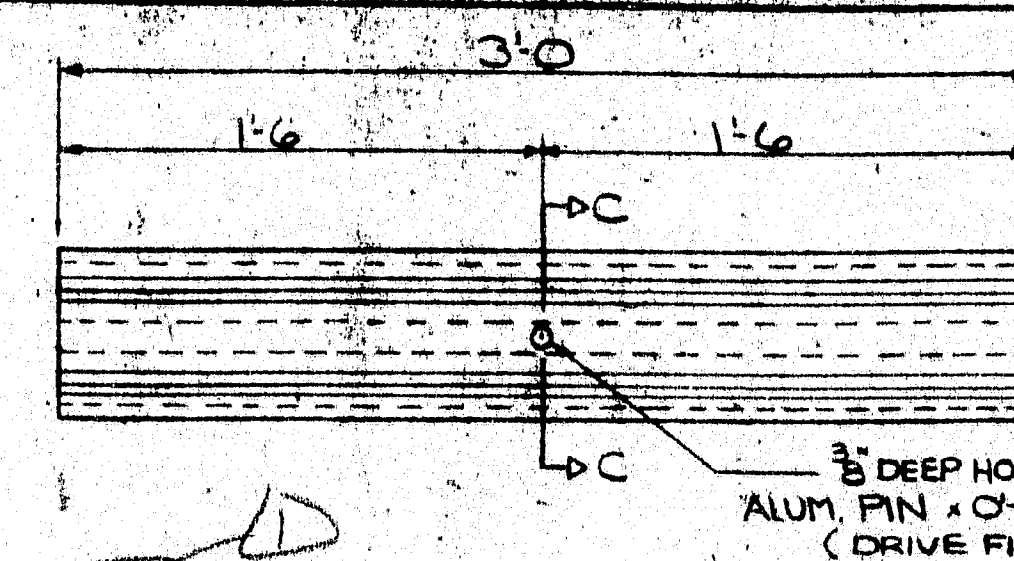
* QUANTITY OF BOLTS, NUTS + WASHERS INCLUDES ONE EXTRA FOR TESTING.



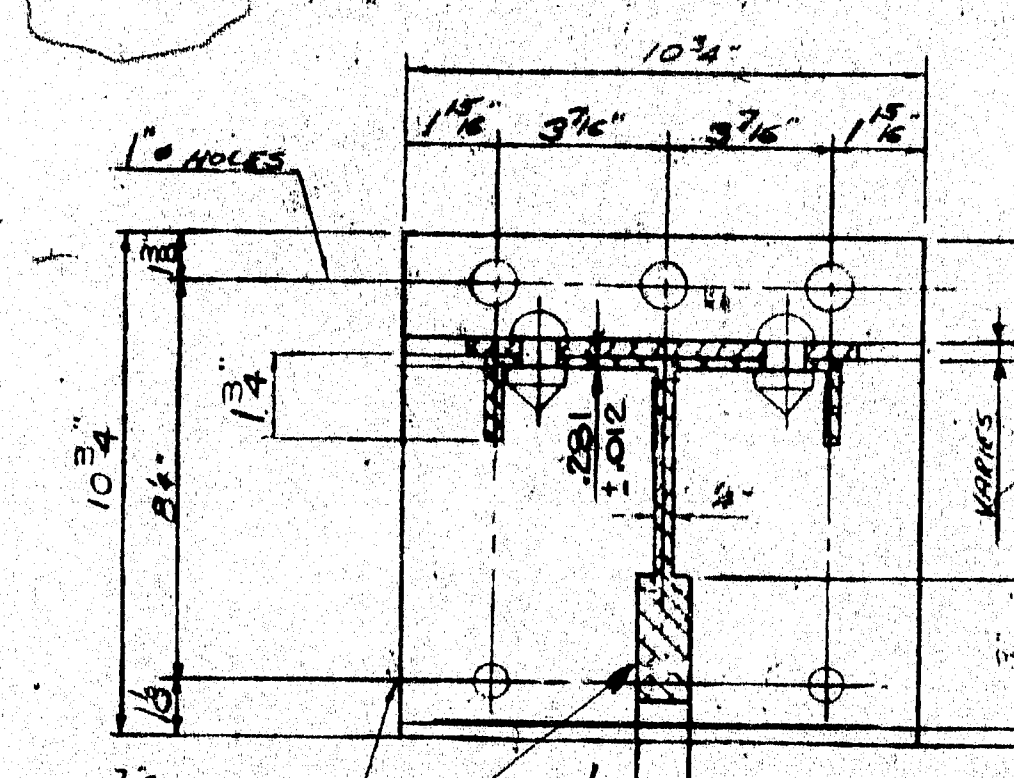
SECTION C-C



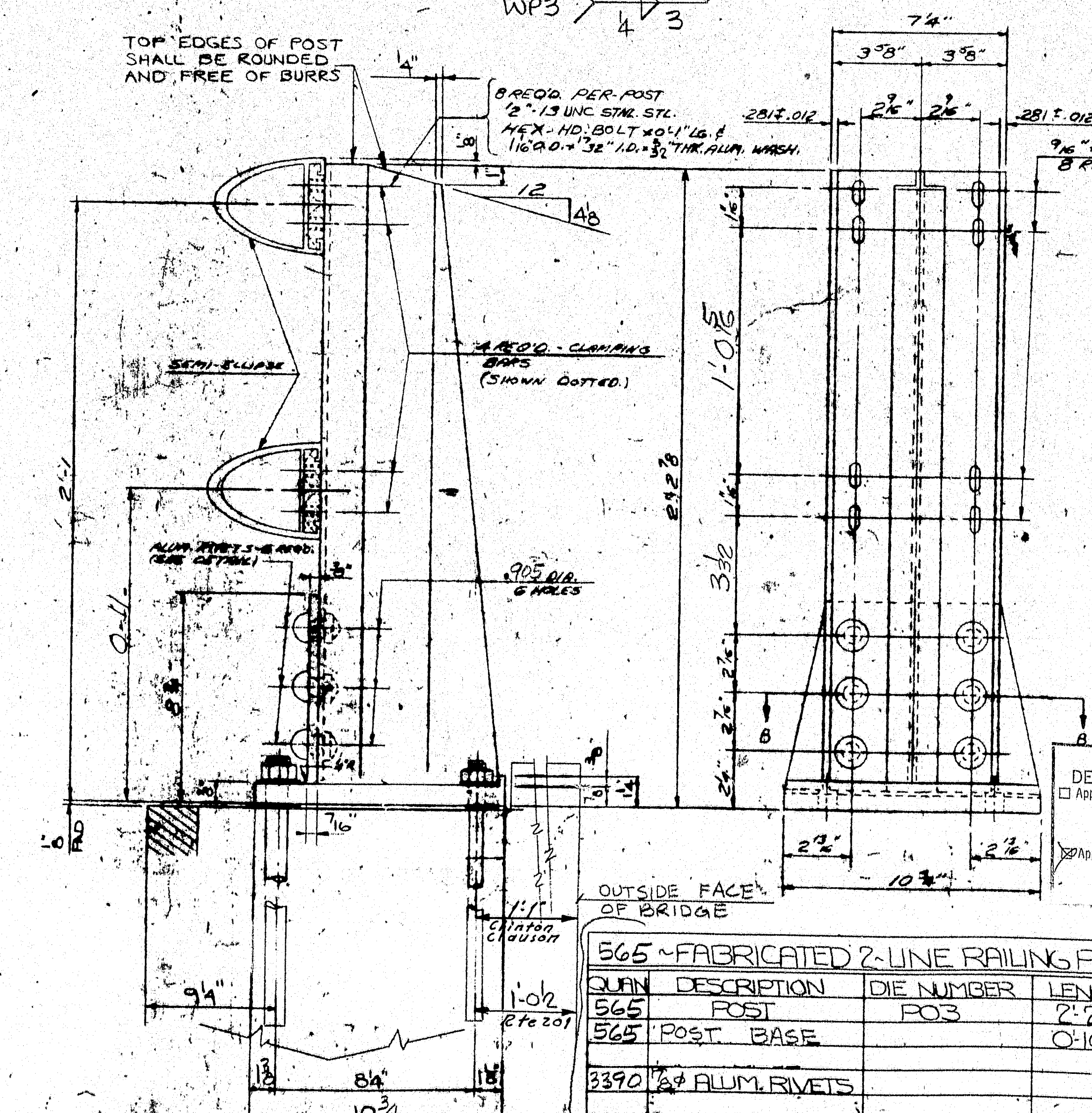
24 - END CAPS - DRIVE TYPE - REQ'D



278 - SPLICE SLEEVES 31 REQ'D

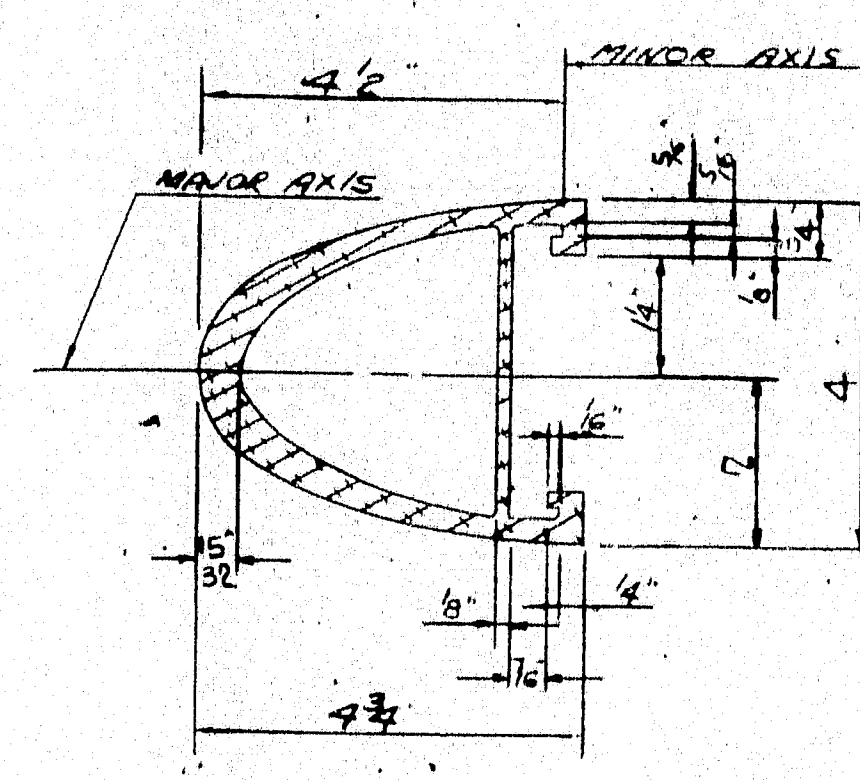


SECTION B-B



GENERAL NOTES

- MATERIAL FOR POSTS & BASES SHALL BE ALUMINUM ALLOY 6061-T6 PER ASTM B221.
- RAILS, SLEEVES, CLAMP BARS & PINS TO BE ALUMINUM ALLOY 6061-T6 PER ASTM B221.
- MATERIAL FOR ALUMINUM WASHERS SHALL BE ASTM B209 ALLOY ALCLAD 2024-T4.
- MATERIAL FOR RIVETS SHALL BE ASTM B316, ALLOY 6061-T6. RIVETS TO BE BUTTON HEAD & CONE POINT, COLD DRIVEN.
- DRIVE TYPE END CAPS TO BE SAND MOLD CASTINGS, ASTM B226 ALLOY B443E.
- FOR ANCHOR BOLT SPEC. SEE SECTION 507.05 OF THE SPECIAL PROVISIONS.
- POSTS SHALL BE SET NORMAL TO GRADE & RAILING TO BE PARALLEL TO GRADE.
- STEEL SPACER R'S SHALL BE COMMERCIAL QUALITY CARBON STEEL PER ASTM A569, (PLAIN).
- STAINLESS STEEL BOLTS & CAP SCREWS SHALL CONFORM TO ASTM A276, COND. A, COLD FINISHED AND ANY OF THE 300 SERIES HAVING A MINIMUM YIELD STRENGTH OF 45,000 PSI.
- RAIL SPLICE SHALL BE LOCATED 2'-0" (±3") FROM & OF RAIL POST.
- BEARING PADS SHALL BE MADE WITH NEW UNVULCANIZED RUBBER & UNUSED FABRIC FIBRES. 85 TO 95 SHORE A DUROMETER, ULTIMATE BREAKDOWN LIMIT OF THE PAD UNDER COMPRESSIVE LOADING SHALL BE NO LESS THAN 10,000 PSI.
- RAILING SHALL BE ATTACHED TO A MINIMUM OF 4 POSTS WHEN POSSIBLE & IN ANY CASE NEVER LESS THAN 2 POSTS.
- ALL THREADS TO BE UNC CLASS 2A/2B.
- ALL EXTRUSION TOLERANCES NOT SHOWN SHALL BE IN ACCORDANCE WITH ASTM B221.



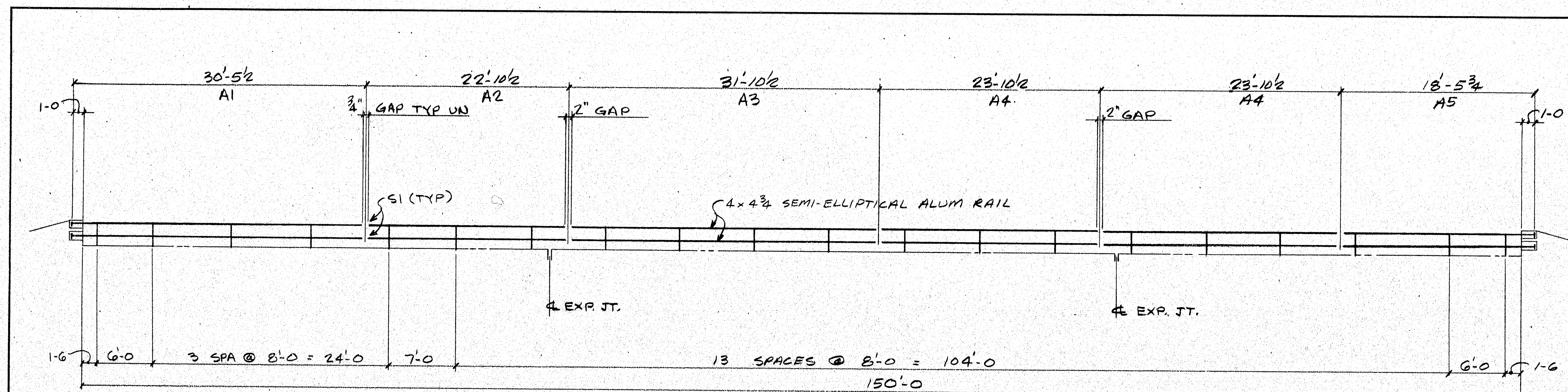
SECTION THROUGH RAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Approved: _____
Retained for Corrections: _____
MADE 2:0 1987
K. Jacobs
Approved as noted

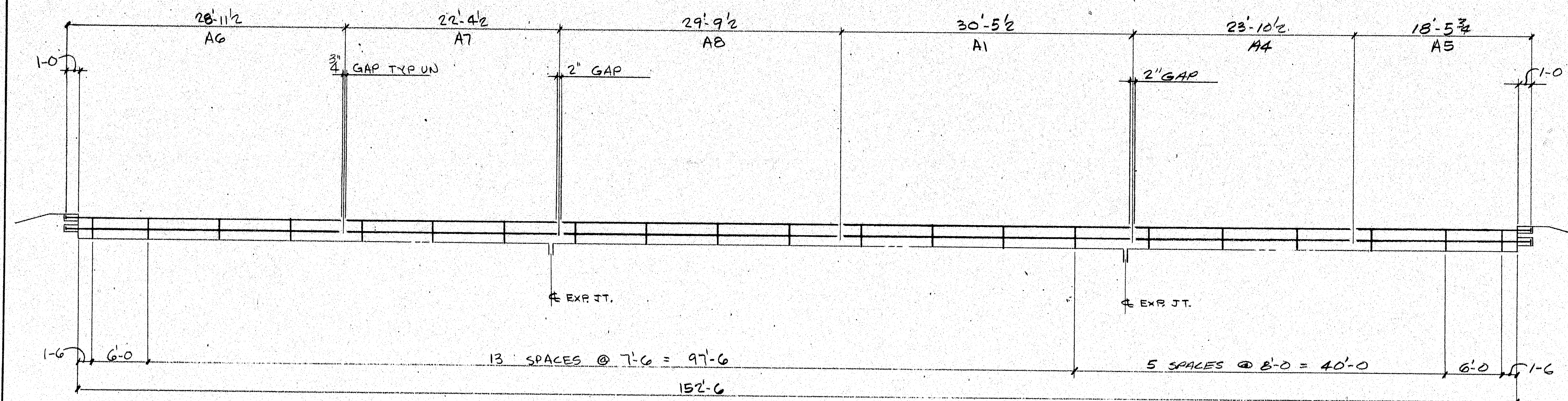
TYPE 'A' RAILING

APPROVED:	RECD. APPROVAL:
DRAWING:	DRAWING:
L. B. FOSTER CO. 415 HOLIDAY DRIVE PITTSBURGH, PENNSYLVANIA 15220	
FOR G.L. EUNIS COMPANY MAINE DEPT. OF TRANSPORTATION PROJECT NO. IR-95-7(90) 2-LINE SEMI-ELLIPTICAL ALUM. RAIL GENERAL NOTES & TYPICAL DETAILS	
MADE W.B. DATE 4/87	JOB NO. AL 2187
CHECK NO. DATE 4/87	DRAWING L.B.F.
REVISIONS	

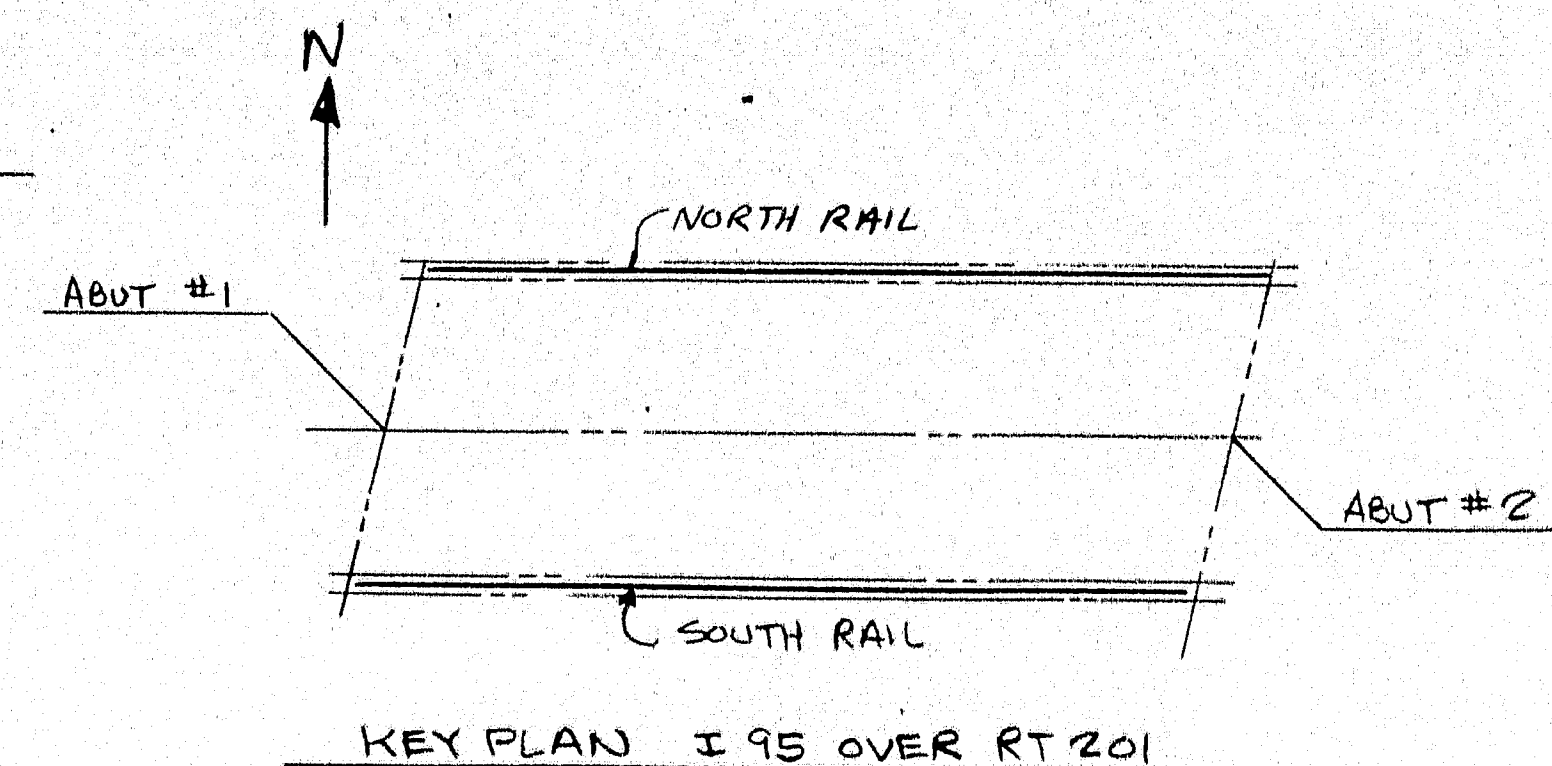
101-4



INSIDE ELEVATION (NORTH RAIL)



OUTSIDE ELEVATION (SOUTH RAIL)



BILL OF MATERIAL					
PO. NO.	MARK NO.	NO. REQD.	DESCRIPTION	LENGTH	REMARKS
LINE				FT. IN.	
			FOR SPECS SEE LB 1		
			41 FABRICATED ALUM POSTS		2-LINE
			164 ALUM CLAMP BAR 1 3/4 x 3/8	0 76	
			328 1/2" BUNK HEX HD BOLT	0 1	A276 SERIES 300 ALUM
			328 1/2" O.D. x 1/2" I.D. x 3/4" THK WASHER		
			AB1 123 3/4" KELITHREAD ANCHOR	0 8 1/2	A449-GALV.
			123 3/4" H.V. HEX NUT	do do	
			123 3/4" FLAT WASHER	do do	
			AB2 82 5/8" KELITHREAD ANCHOR	0 7 1/2	A449-GALV.
			82 5/8" H.V. HEX NUT	do do	
			82 5/8" FLAT WASHER	do do	
			S-1 20 ALUM SLEEVES	3 0	
			20 1/4" ALUM PIN	0 0 3/4	DRIVE FIT
			8 ALUM END CAPS		DRIVE TYPE
			41 BEARING PADS 10 3/4 x 1 1/2	0 10 3/4	
			A1 4 4 x 4 3/4 SEMI-ELLIPTICAL	30 5 1/2	
			A2 2 ALUM. RAIL	22 10 1/2	
			A3 2	31 10 1/2	
			A4 6	23 10 1/2	
			A5 4	18 5 3/4	
			A6 2	28 11 1/2	
			A7 2	22 4 1/2	
			A8 2	29 9 1/2	

ENDS OF RAIL SHALL BE
ROUNDED & FREE OF BURRS

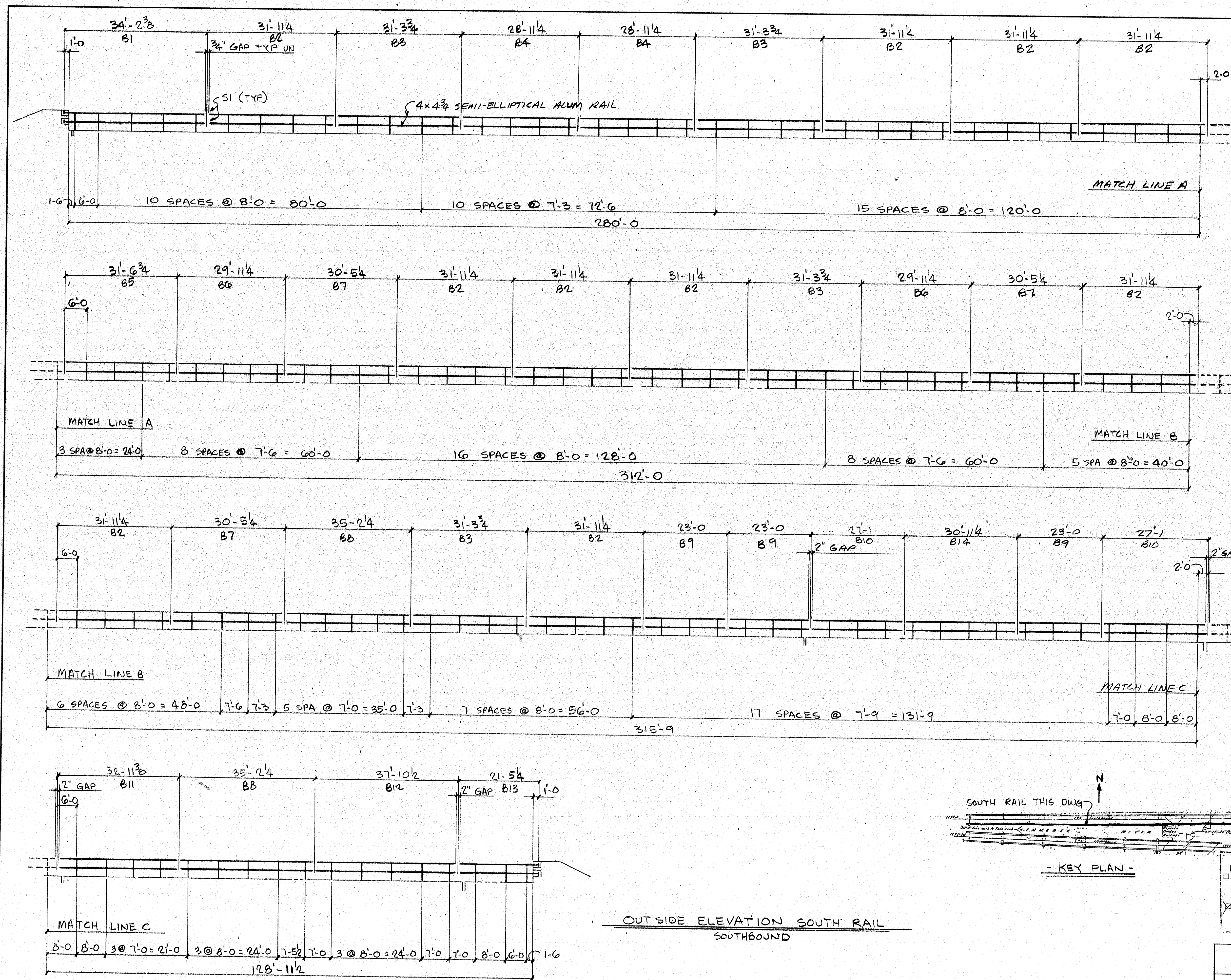
NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG LB 1
THIS DRAWING IS NOT TO SCALE.
LENGTH OF RAILING ON THIS SHEET = 302.5' PAY LENGTH.
SPLICE GAP @ SLEEVE = 3/4" UN.

THIS CONTRACT IS BASED UPON THE CONTRACTOR SETTING AND SPACING THE ANCHOR BOLTS TO THE MEASUREMENTS SHOWN ON THE APPROVED SHOP DRAWINGS. THE L. B. FOSTER CO. WILL NOT BE RESPONSIBLE FOR WORK NECESSITATED BY ANY OTHER SETTING AND SPACING.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MAY 13 1987
K. Jacobs
MAINTENANCE ENGINEER

APPROVED: _____ REC'D APPROVAL
DRAWING: _____
L. B. FOSTER CO.
GENERAL OFFICES
PITTSBURGH, PENNSYLVANIA 15220
FOR: G.L. ENNIS COMPANY
MAINE DEPT. OF TRANSPORTATION
PROJECT NO. IR-95-7(90)
INTERSTATE 95 OVER RT. 201 IN
THE TOWN OF FAIRFIELD
MADE WB. DATE 4/87 JOB NO. AL-8187 CUST. NO. _____
CHECK NB. DATE 4/87 DRAWING LB2 REV. NO. 1

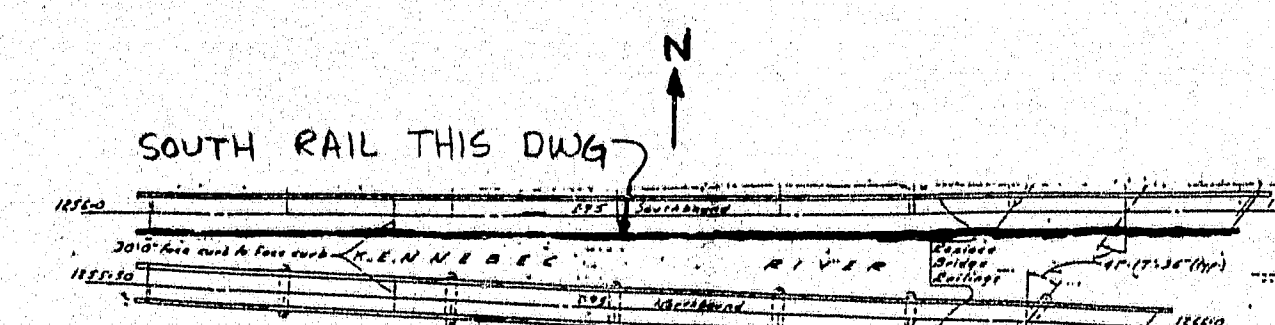
101-5



BILL OF MATERIAL					
QTY	MARK NO.	NO. REQD.	DESCRIPTION	LENGTH FT. IN.	REMARKS
			FOR SPECS SEE LB1		
			125 FABRICATED ALUM POSTS		2-LINE
			540 ALUM CLAMP BAR 1 1/2 x 3/8	0 78	
			1280 2-13 BUNK HEX HD BOLT	0 1	ASTM SERIES 300
			1080 1/2" O.D. x 3/8 TO x 1/2 THK WASHER		ALUM
			AB1 405 3/4" KELITHREAD ANCHOR	0 8 1/2	A449-GALV.
			405 3/4" HVY. HEX NUT	0 0	do
			405 3/4" FLAT WASHER	0 0	do
			AB2 270 5/8" KELITHREAD ANCHOR	0 72	A449-GALV.
			270 5/8" HVY. HEX NUT	0 0	do
			270 5/8" FLAT WASHER	0 0	do
			S-1 66 ALUM SLEEVES	3 0	
			66 4" x ALUM. PIN	0 6 3/4	DRIVE FIT
			4 ALUM END CAPS		DRIVE TYPE
			135 BEARING PADE 10 3/4 x 5	0 10 3/4	
			B1 2 4x4 3/4 SEMI-ELLIPTICAL	34 2 3/8	
			B2 20 ALUM. RAIL	31 11 1/4	
			B3 8	31 3 3/4	
			B4 4	28 11 1/4	
			B5 2	31 6 3/4	
			B6 4	29 11 1/4	
			B7 6	30 5 1/4	
			B8 4	35 2 1/4	
			B9 6	23 0	
			B10 4	27 1 0	1"
			B11 2	32 11 3/8	
			B12 2	37 10 1/2	
			B13 2	21 5 1/4	
			B14 2	30 1 1/4	

ENDS OF RAIL SHALL BE
ROUNDED & FREE OF BURRS

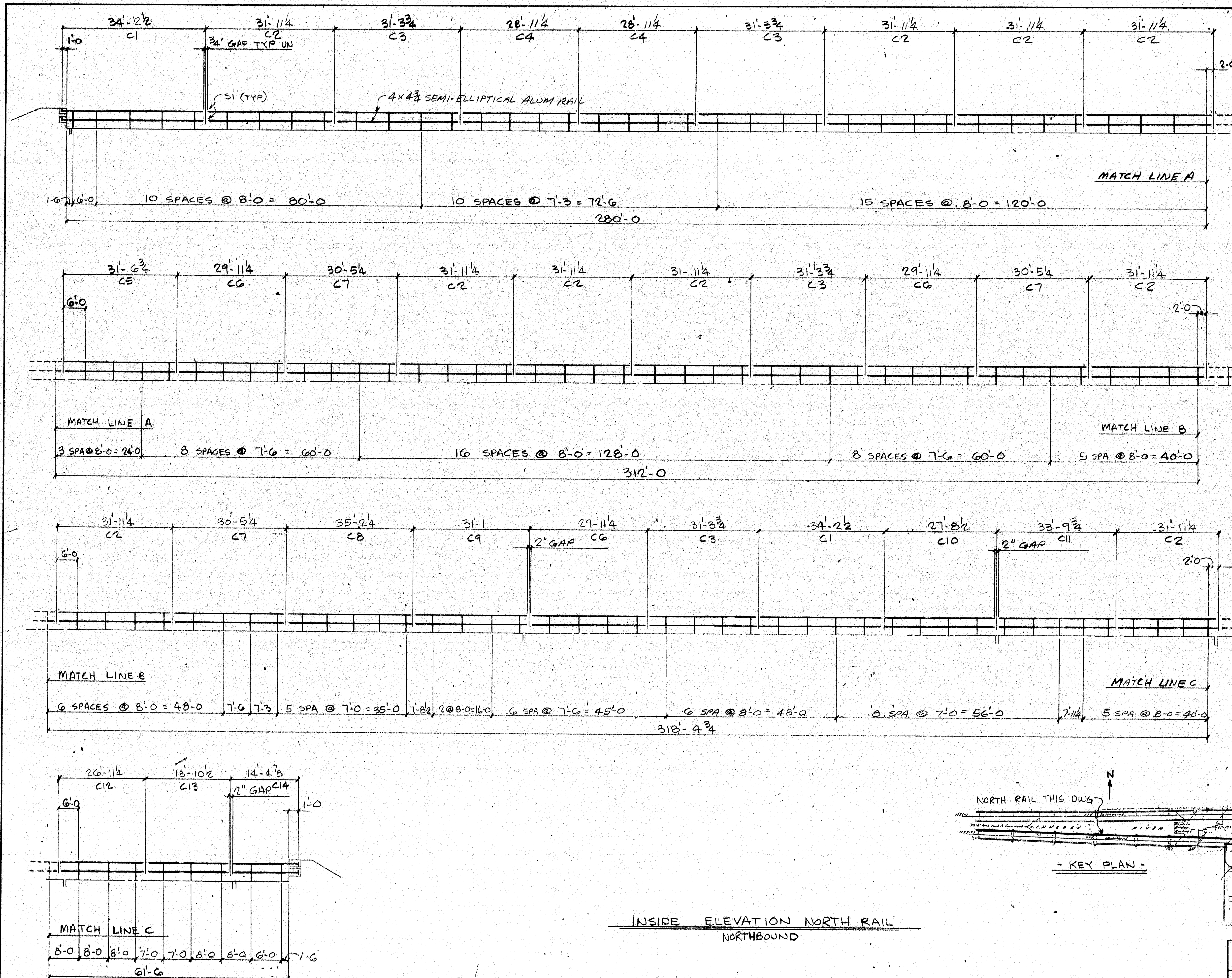
NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG LB1
THIS DRAWING IS NOT TO SCALE.
LENGTH OF RAILING ON THIS SHEET = 1036.71' PAY LENGTH.
SPLICE GAP @ SLEEVE = 3/4" UN



- KEY PLAN -

OUTSIDE ELEVATION SOUTH RAIL
SOUTHBOUND

STATE OF MAINE DEPARTMENT OF TRANSPORTATION MAY 10 1987 Approved as noted K. Jacobs 121 LONG LANE		APPROVED: _____ REC'D APPROVAL DRAWING: _____ L. B. FOSTER CO. GENERAL OFFICES PITTSBURGH, PENNSYLVANIA 15220 FOR: G.L. ENNIS COMPANY MAINE DEPT. OF TRANSPORTATION PROJECT NO. IR-95-7(90) CLINTON A. CLAUSON MEMORIAL BRIDGES OVER KENNEBEC RIVER SOUTH BOUND	
MADE BY: _____ DATE: 4/87 JOB NO. ALB187	CUST. NO. _____	CHECK BY: _____ DATE: 5/87 DRAWING: LB3	REV. NO. _____



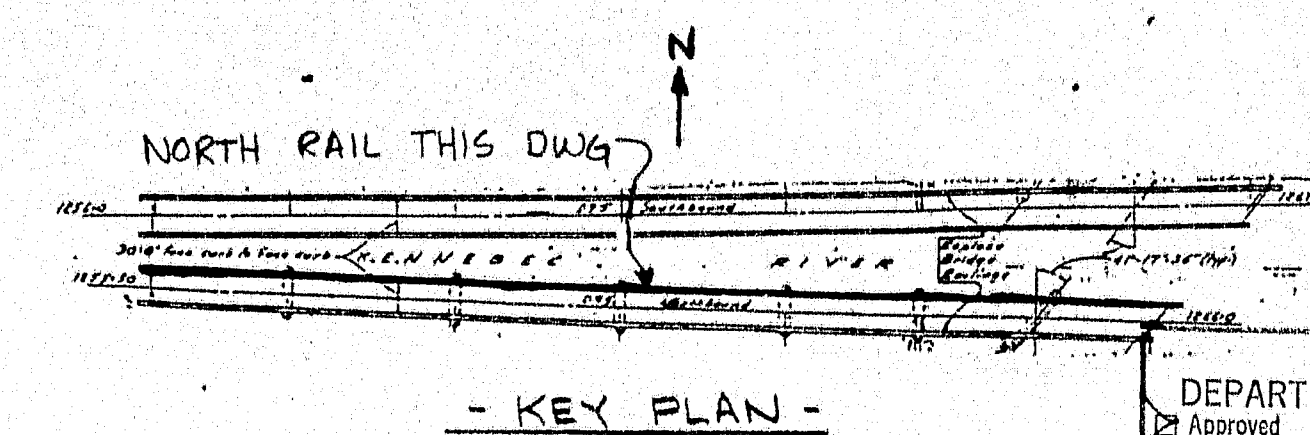
BILL OF MATERIAL					
P.O. NO.	MARK NO.	NO. REQD.	DESCRIPTION	LENGTH	
				FT.	IN.
			FOR SPECS SEE LB1		
			127 FABRICATED ALUM POSTS		2-LINE
			508 ALUM CLAMP BAR 1 3/4" x 3/8"	0	7 1/2
			1016 1/2-13 UNK HEX HD BOLT	0	1
			1016 1/2" O.D. x 1/2" TO 1/4" THK WASHER		ALUM
			AB1 381 3/4" KELITHREAD ANCHOR	0	8 1/2
			381 3/4" H.V. HEX NUT		do do
			381 3/4" FLAT WASHER		do do
			AB2 254 3/4" KELITHREAD ANCHOR	0	7 1/2
			254 3/4" H.V. HEX NUT		do do
			254 3/4" FLAT WASHER		do do
			S1 62 ALUM SLEEVES	3	0
			62 1/4" ALUM. PIN	0	0 3/4
			4 ALUM END CAPS		DRIVE TYPE
			127 BEARING PADS 10 3/4" x 3"	0	10 3/4
			C1 4 4x4 3/4" SEMI-ELLIPTICAL	34	2 1/2
			C2 20 ALUM. RAIL	31	11 1/4
			C3 8	31	3 3/4
			C4 4	28	11 1/4
			C5 2	31	6 3/4
			C6 6	29	11 1/4
			C7 6	30	5 1/4
			C8 2	35	2 1/4
			C9 2	31	1
			C10 2	27	8 1/2
			C11 2	33	9 3/4
			C12 2	26	11 1/4
			C13 2	18	10 1/2
			C14 2	14	4 3/8

ENDS OF RAIL SHALL BE
ROUNDED & FREE OF BURRS

NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG LB1
THIS DRAWING IS NOT TO SCALE.
LENGTH OF RAILING ON THIS SHEET = 972' PAY LENGTH.
SPlice GAP @ SLEEVE = 3/4" UN

THIS CONTRACT IS BASED UPON THE CONTRACTOR SETTING AND SPACING THE ANCHOR
BOLTS TO THE MEASUREMENTS SHOWN ON THE APPROVED SHOP DRAWINGS.
THE L. B. FOSTER CO. WILL NOT BE RESPONSIBLE FOR WORK NECESSITATED
BY ANY OTHER SETTING AND SPACING.

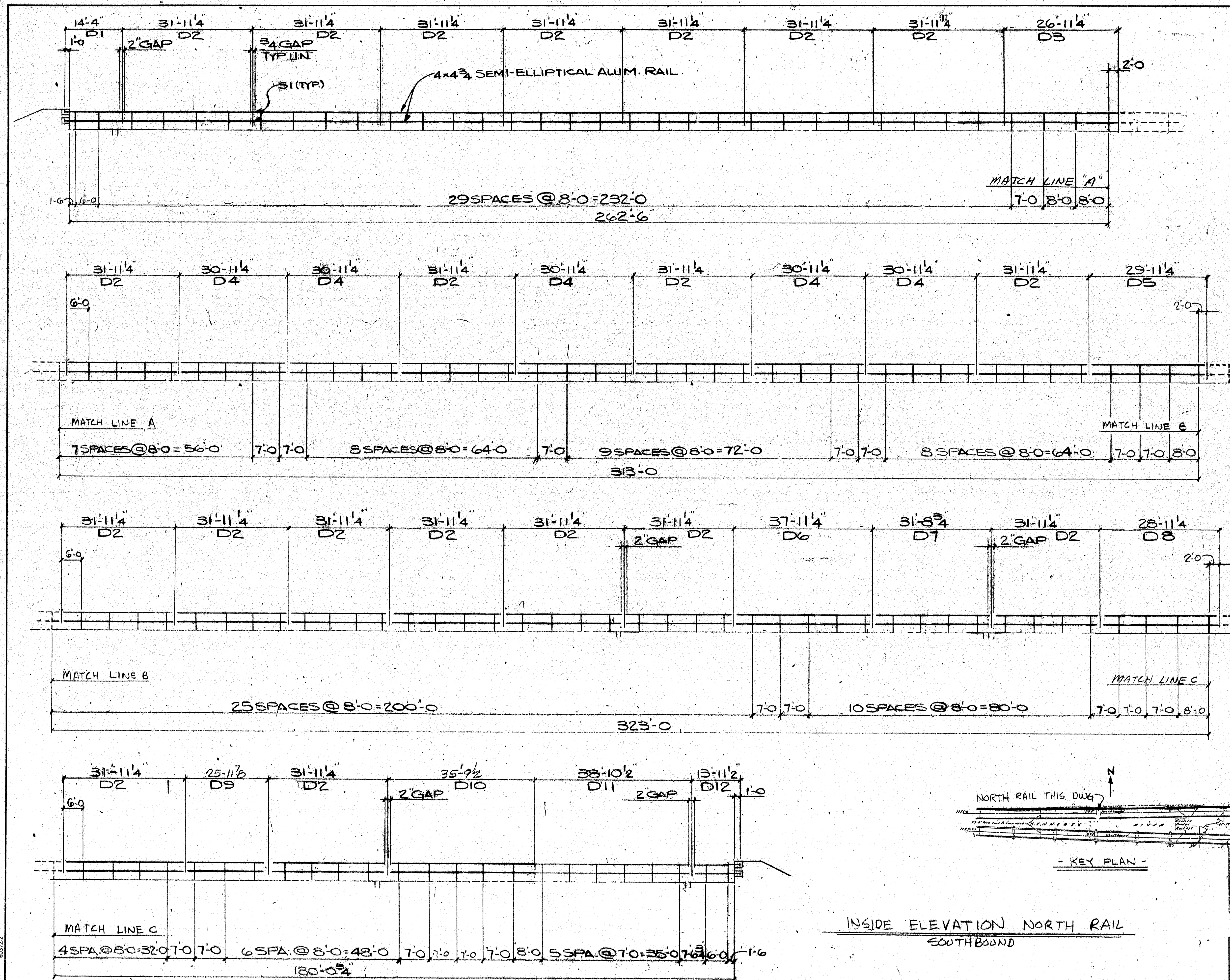
101-7



INSIDE ELEVATION NORTH RAIL
NORTHBOUND

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Approved
MAY 20 1987
K. Jacobs
Vice President

APPROVED: _____ REC'D APPROVAL
DRAWING: _____
L. B. FOSTER CO.
GENERAL OFFICES
PITTSBURGH, PENNSYLVANIA 15220
FOR: G. L. ENNIS COMPANY
MAINE DEPT. OF TRANSPORTATION
PROJECT NO. IR-95-7(90)
CLINTON A. CLAUSON MEMORIAL BRIDGES
OVER KENNEBEC RIVER NORTH BOUND
MADE IN 1987 DATE 5/87 JOB NO. ALB187 CUST. NO.
CHECK IN 1987 DATE 5/87 DRAWING LB4 REV. NO.



BILL OF MATERIAL					
QTY	MARK NO.	NO. REQD.	DESCRIPTION	LENGTH FT. IN.	REMARKS
			FOR SPECS SEE LB1		
139			FABRICATED ALUM. POSTS		2-LINE
554			ALUM. CLAMP BAR 1 3/4" x 3/8"	0 7/8	
1112			1/2"-13 UNC. HEX HD. BOLT	0 1	A976 SERIES 300
1112			1/2" O.D. x 1/2" I.D. x 1/2" THK. WASHER		ALUM.
417 1/2			KELITHREAD ANCHOR	0 8/2	A449-GALV.
417 1/2			HVY. HEX NUT		do do
417 1/2			FLAT WASHER		do do
278 1/2			KELITHREAD ANCHOR	0 7/2	A449-GALV.
278 1/2			HVY. HEX NUT		do do
278 1/2			FLAT WASHER		do do
68			ALUM. SLEEVES	3 0	
68			1/4" x 1/4" ALUM. PIN	0 0 3/4	DRIVE FIT
4			ALUM. END CAPS		DRIVE TYPE
139			BEARING PADS 10 3/4" x 8"	0 10 3/4	
2			4x4 3/4" SEMI-ELLIPTICAL	14 4	
40			ALUM. RAIL	31 11 1/4	
2				26 11 1/4	
2				30 11 1/4	
2				29 11 1/4	
2				31 11 1/4	
2				31 11 1/4	
2				28 11 1/4	
2				25 11 1/2	
2				35 9 1/2	
2				38 10 1/2	
2				13 11 1/2	

ENDS OF RAIL SHALL BE ROUNDED & FREE OF ALL BURRS.

NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG LB1
THIS DRAWING IS NOT TO SCALE.
LENGTH OF RAILING ON THIS SHEET = 1078.56' PAY LENGTH
SPICE GAP = SLEEVE = 3/4" UN

THIS CONTRACT IS BASED UPON THE CONTRACTOR SETTING AND SPACING THE ANCHOR BOLTS TO THE MEASUREMENTS SHOWN ON THE APPROVED SHOP DRAWINGS. THE L. B. FOSTER CO. WILL NOT BE RESPONSIBLE FOR WORK NECESSITATED BY ANY OTHER SETTING AND SPACING.

101-B

APPROVED: _____ REC'D APPROVAL _____
DRAWING: _____

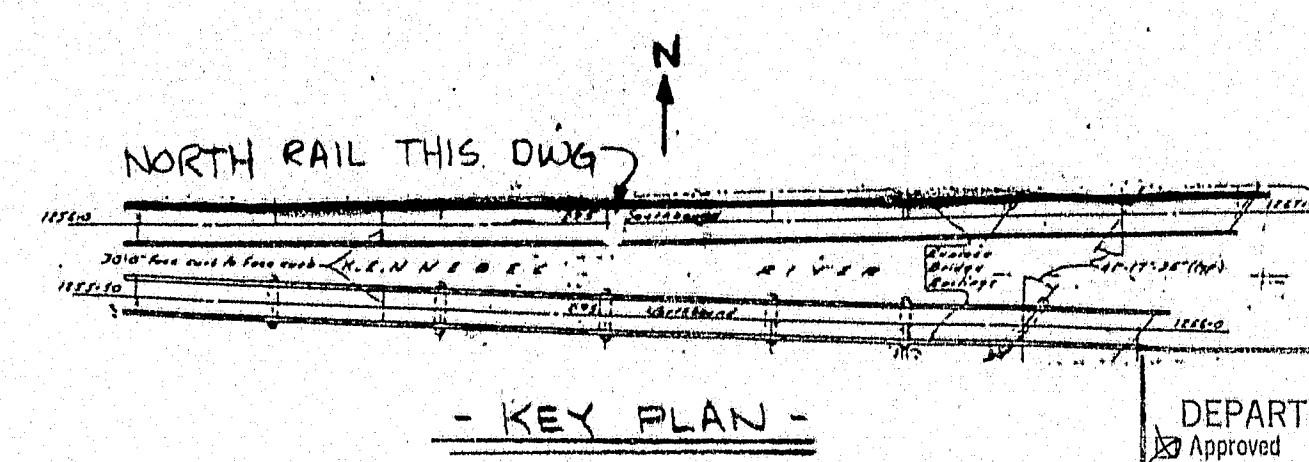
L. B. FOSTER CO.
GENERAL OFFICES
PITTSBURGH, PENNSYLVANIA 15220

FOR: G. L. ENNIS COMPANY
MAINE DEPT. OF TRANSPORTATION
PROJECT NO. JR-95-7(90)
CLINTON A. CLAUSON MEMORIAL BRIDGES
OVER KENNEBEC RIVER SOUTH BOUND

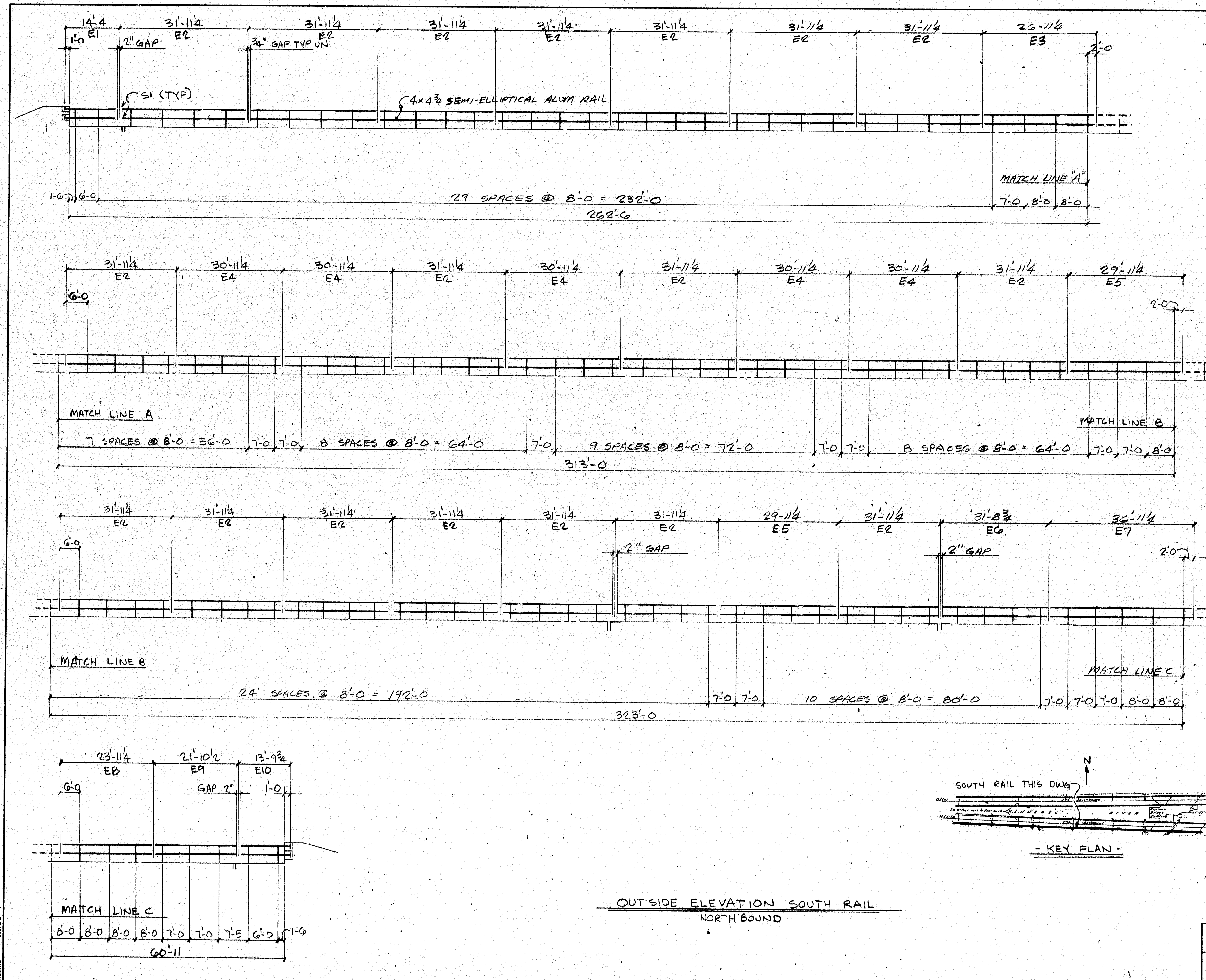
MADE: 11/8 DATE: 2/87 JOB NO. ALB187 CUST. NO. _____
CHECK NO. DATE: 5/87 DRAWING: LB5 REV. NO. _____

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Approved: _____ MAY 21, 1987
Rejected: _____
K. Jacobs
11/11/86

REV. DESCRIPTION BY DATE APP'D



INSIDE ELEVATION NORTH RAIL
SOUTHBOUND



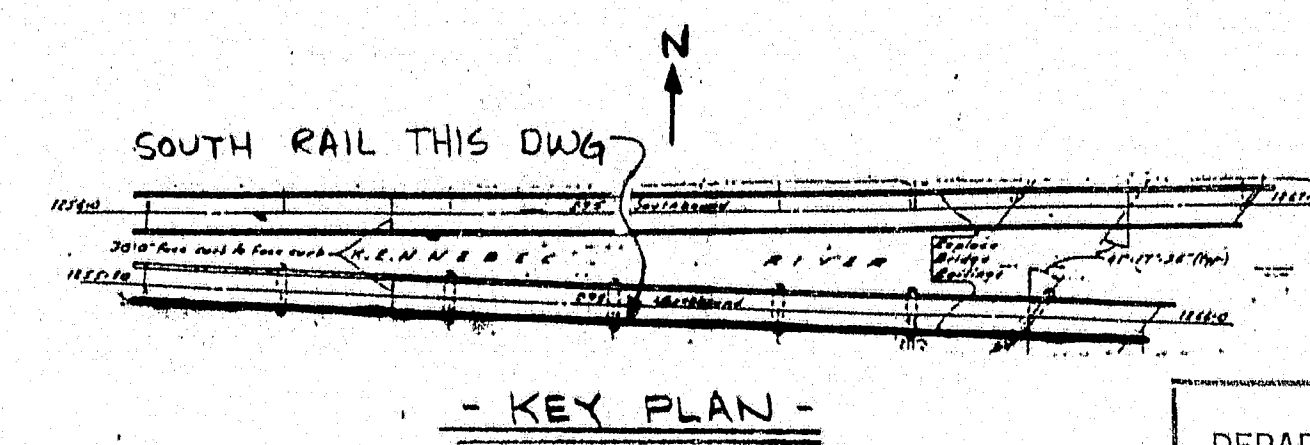
BILL OF MATERIAL					
QTY	MARK NO.	NO. REQD.	DESCRIPTION	LENGTH FT. IN.	REMARKS
			FOR SPECS SEE LB1		
123			FABRICATED ALUM POSTS		2-LINE
498			ALUM CLAMP BAR 1 3/4" x 3/8"	0 7/8	
984			1/2" BUNK HEX HD BOLT	0 1	ASTM SERIES 300
984			1/2" O.D. x 3/8" ID x 3/8" THK WASHER		ALUM
AB1	367		3/4" KELITHREAD ANCHOR	0 8/2	A449-GALV.
	367		3/4" H.V. HEX NUT	do do	
	367		3/4" FLAT WASHER	do do	
AB2	246		3/4" KELITHREAD ANCHOR	0 7/2	A449-GALV.
	246		3/4" H.V. HEX NUT	do do	
	246		3/4" FLAT WASHER	do do	
S-1	62		ALUM SLEEVES	3 0	
	62		4" P ALUM. PIN	0 0 3/4	DRIVE FIT
			4 ALUM END CAPS		DRIVE TYPE
123			BEARING PADS 10 3/4" x 6"	0 10 3/4	
E1	2		4x4 3/4" SEMI-ELLIPTICAL	14 4	
E2	30		ALUM. RAIL	31 1/4	
E3	2			26 1/4	
E4	10			30 1/4	
E5	4			29 1/4	
E6	2			31 8 3/4	
E7	2			36 1/4	
E8	2			23 1/4	
E9	2			21 10 3/4	
E10	2			13 9 3/4	

ENDS OF RAIL SHALL BE
ROUNDED & FREE OF BURRS

NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG LB1
THIS DRAWING IS NOT TO SCALE.
LENGTH OF RAILING ON THIS SHEET = 959.42' PAY LENGTH.
SPLICE GAP = SLEEVE + 3/4" UN

THIS CONTRACT IS BASED UPON THE CONTRACTOR SETTING AND SPACING THE ANCHOR
BOLTS TO THE MEASUREMENTS SHOWN ON THE APPROVED SHOP DRAWINGS.
THE L. B. FOSTER CO. WILL NOT BE RESPONSIBLE FOR WORK NECESSITATED
BY ANY OTHER SETTING AND SPACING.

101-9



STATE OF MAINE DEPARTMENT OF TRANSPORTATION Approved		APPROVED: DRAWING	
RECEIVED FOR CORRECTIONS JAN 2 0 1997 K. Jacobs V. J. NG ENGR.		REC'D APPROVAL	
L. B. FOSTER CO. GENERAL OFFICES PITTSBURGH, PENNSYLVANIA 15220			
FOR: G. L. ENNIS COMPANY MAINE DEPT. OF TRANSPORTATION PROJECT NO. IR-95-7(20) CLINTON A. CLAUSON MEMORIAL BRIDGES OVER KENNEBEC RIVER NORTH BOUND			
MADE IN 1/8 DATE 9/87 JOB NO. ALA187		CUST. NO.	
CHECK IN 1/8 DATE 5/87 DRAWING LB6		REV. NO.	
REV.	DESCRIPTION	BY	DATE APP'D