GIRDER - G19-2

FLANGE TO BE FLAT WITHIN 1/16" AND 90° TO WEB.

SECT. (A) (DEVELOPED)

SECT. (B) (DEVELOPED)

SECT. (C) (DEVELOPED)

SECT. (D) (DEVELOPED)

DETAIL "AA"

NOTE 'A'
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
TO 3/4" INCL.	50°
OVER 3/4" TO 1 1/2" INCL.	70°
OVER 1 1/2" TO 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(3) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 3/16" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

For location of details shown on this sheet refer to diagrams.
E5

SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS
1			ONE - GIRDER - G19-2						
2	a	1	PL	54		1/16	53	6 17/32	56 x 7/16
3	b	1	PL	54		1/2	38	1 5/8	56 x 1/2
4	c	1	PLU	16		1/4	53	4 15/32	
5	d	1	PLU	16		3/8	53	6 17/32	
6	f	1	PLU	16		1/4	38	1 5/8	
7	g	1	PLU	16		1/4	37	11 5/8	
8	C 26#	2	PLU	15		1/2	2	1	
9	C 21#	4	PL	6 1/2		1/2	2	1	
10	C 20#	2	PLU	13		3/8	4	2	
11	C 16hL# (FS) / 16hR# (NS)	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
12	C 16tL# (NS) / 16tR# (FS)	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
13	C 1n#	2	BR	7		1/2	4	6	F2E
14	C 16#	2	BR	7		1/2	4	6	F2E
15									
16									
17									
18									
19	US2	1	UPPER SHOE						DET. ON DWG #2
20	US9	1	UPPER SHOE						DET. ON DWG #2
21		24	325	5/8			0	3 1/2	H.H.H. - H.H.N.
22		13	325	5/8			0	2 1/2	H.H.H. - H.H.N.
23		37	HW	5/8	HOLE				
24									
25									
26	FWL	1	WD			5/16	306	1	
27	FWS	1	WD			5/16	69	4	
28	FW	1	WD			1/2	12	4	
29	SDS	1	WD			1/16	4	6	
30	VGDS	1	WD			1/4	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
53	10 1/2	1	01
38	7	2607	
53	8	1	03
53	8	1	02
38	5	2613	
38	5	2613	
21	3	2447	
		J	
21	1	2448	
18	4	2449	
18	4	2449	
18	4	2451	
18	4	2451	

INST. - 19W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-2	GIRDER (194 x 54 x 9249)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY J. S. Hardesty SEP 26 1969

PAY ITEM - 504.711

MATERIAL A36 STEEL
SHOP BOLTS 3/4"
OPEN HOLES 15/16" U.N.
A325 FIELD BOLTS 7/8"
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE 'A')
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

GIRDERS

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-23-69 IN CHARGE D.K. DERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CI-6269-020 DRAWING NO. 102

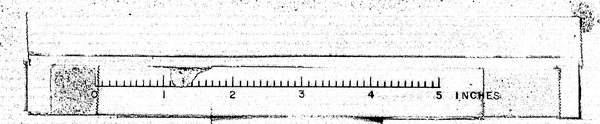
REVISION: NO. | DATE | INIT.

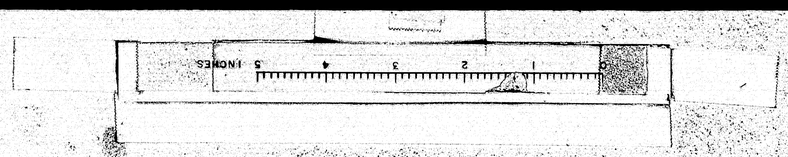
SUBMITTAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0
DATE

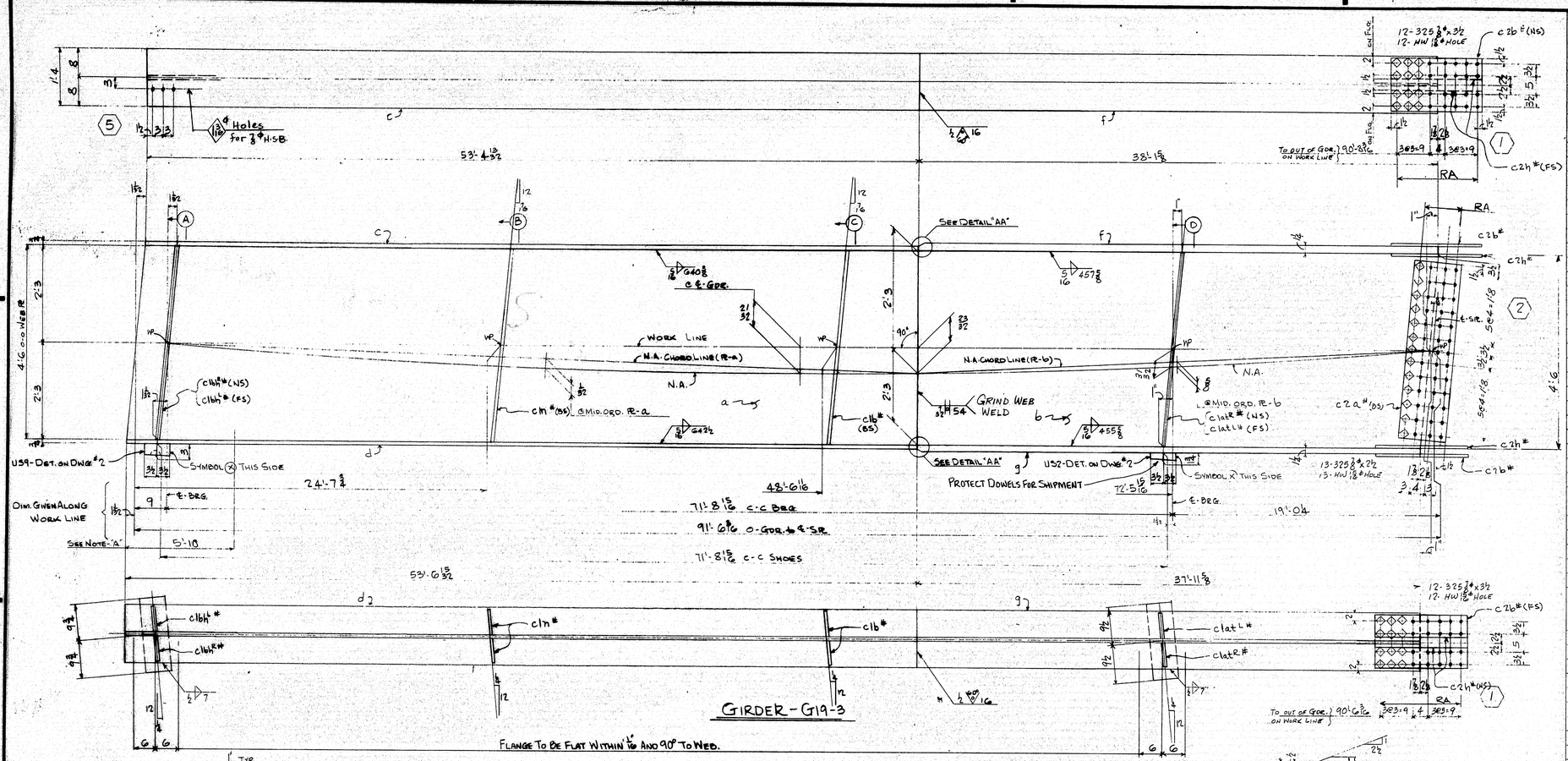
INSP #1-1

106-100

SEP 9 1969


0 1 2 3 4 5 INCHES


INCHES
0
1
2
3
4
5



SHOP BILL									ALL OVER	
ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	ITEM PAGE
		ONE-GIRDER-G19-3									
a	1	PL	54		1/16	53	6 15/32	56t x 1/16	53	10½	1 01
b	1	PL	54		½	38	1 5/8	56 x ½	38	7	26 07
c	1	PLV	16		3/8	53	4 13/32		53	8	1 03
d	1	PLV	16		3/8	53	6 15/32		53	8	1 03
f	1	PLV	16		1/4	38	1 5/8		38	3	26 13
g	1	PLV	16		1/4	37	11 5/8		38	3	26 13
c 2b#	2	PLV	15		½	2	1		21	3	24 47
c 2h#	4	PL	6½		½	2	1				J 1
c 2a#	2	PLV	13		3/8	4	2		21	1	24 48
c 16h#	1	BR	7½		¾	4	6½	M1E F1E	18	4	24 49
c 16t#	1	BR	7½		¾	4	6½	M1E F1E	18	4	24 49
c 1g	2	BR	7		½	4	6	F2E	18	4	24 51
c 1b	2	BR	7		½	4	6	F2E	18	4	24 51
US9	1	UPPER SHOE						DET. on DWG.#2			
US2	1	UPPER SHOE						DET. on DWG.#2			
	24	325	⅞			0	3½	H.H.N.			M
	13	325	⅞			0	2½	H.H.N.			
	37	HW	15/16	HOLE							
FWL	1	WD			5/16	3	6	0¾			
FWS	1	WD			5/16	G	9	℄			
FW	1	WD			½	2	4				
SOS	1	WD			1/16	4	6				
VGOS	1	WD			¾	2	8				

NOTE "A"
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63 ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
TO ¾" INCL.	50°
OVER ¾" TO 1½" INCL.	70°
OVER 1½" TO 2½" INCL.	150°
OVER 2½"	225°

(15) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ⅛" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST.-"19W"

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-3	GIRDER (194 x 59 x 9219)	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY J.S. Mahin SEP 26 1969
PAY ITEM - 504.711

MATERIAL A36 STEEL
FIELD BOLTS ⅞ϕ
OPEN HOLES 15/16ϕ U.N.
A325 FIELD BOLTS ⅞ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD-AS NOTED
MILL-AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

GIRDERS

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-28-69 IN CHARGE D.K. DERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 103

NO.	DATE	INIT.	REVISION

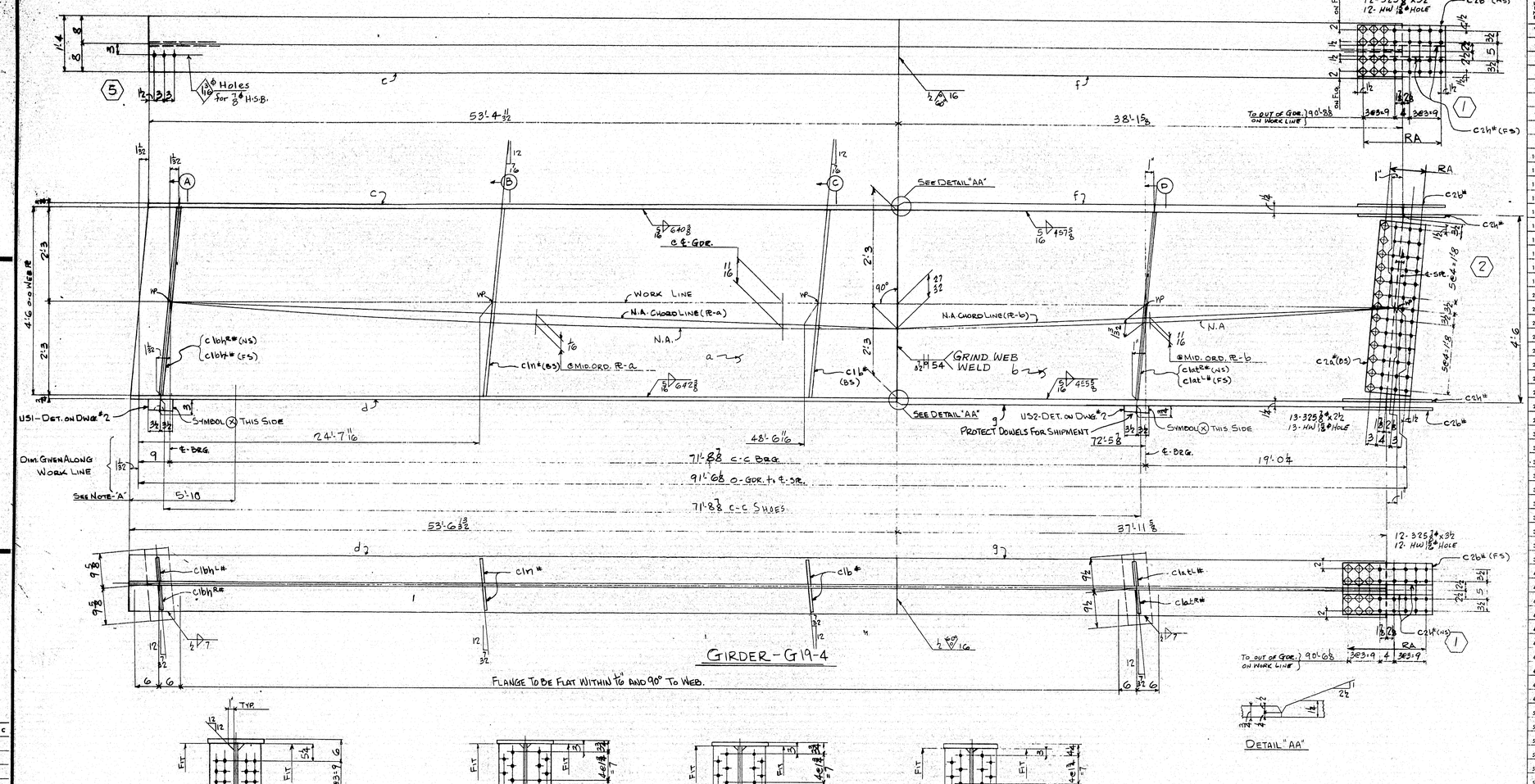
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

For location of details shown on this sheet refer to diagrams.
65

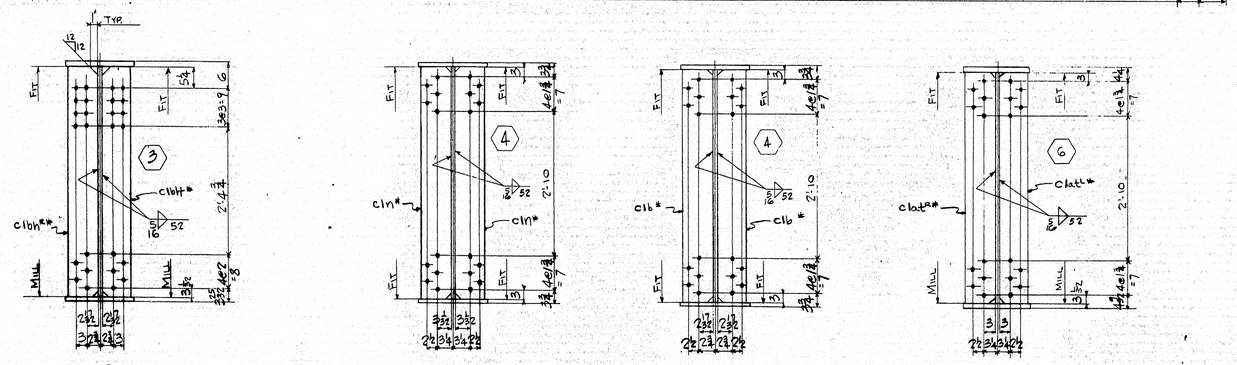
3 1 INSP#1-1 106-107

0 1 2 3 4 5 INCHES

Holes on 1 stiff. C16 & C17(NS) were misplaced & welded up - OK with RW Christie e-phone 10/28/69



SHOP BILL											MILL ORDER	
PC. MK.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUND	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	PIECE MK.
1		ONE-	GIRDER-	G19-4								
2	a	1	PL	54		7/16	53	6 13/32	56½ x ½	53	10½	1 01
3	b	1	PL	54		½	38	1 5/8	56 x ½	38	7	20 07
4	c	1	PLU	16		¾	53	4 3/32		53	8	1 03
5	d	1	PLU	16		¾	53	6 3/32		53	8	1 03
6	f	1	PLU	16		¼	38	1 5/8		38	3	20 13
7	g	1	PLU	16		¼	37	11 5/8		38	3	20 13A
8	c 2b*	2	PLU	15		½	2	1		21	3	24 47
9	c 2h*	4	PL	6½		½	2	1		"		J
10	c 2a*	2	PLU	13		⅜	4	2		21	1	24 48
11	c 16h1*	1	BR	7½		¾	4	6 3/32	MIE FIE	18	4	24 49
12	c 1b*	2	BR	7		½	4	6	F2E	18	4	24 51
13	c 10a1*	1	BR	7½		¾	4	6 1/32	MIE FIE	18	4	24 49
14	c 1h*	2	BR	7		½	4	6	F2E	18	4	24 51
19	U51	1	UPPER SHOE						DET. ON DWG.# 2			
20	U52	1	UPPER SHOE						DET. ON DWG.# 2			
21		24	325	7/8"			0	3½	H.H.N. - H.H.N.			M
22		13	325	7/8"			0	7½	H.H.N. - H.H.N.			
23		37	HW	1 1/8" HOLE								
26	FWL	1	WD			5/16	36C	0½				
27	FWS	1	WD			5/16	69	4				
28	FW	1	WD			½	2	4				
29	SOS	1	WD			7/16	4	6				
30	VGOS	1	WD			¾	2	8				



NOTE 'A'
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SPS-63 ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. ℄ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(S) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ½" DIA. 10 SIZE OR DRILLED FULL DIA. WHEN ASSEMBLED SOLID WITH CONNECTING PARTS ASSEMBLED.

INST.-"19W"

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-4	GIRDER (19½ x 59 x 92'-9)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
BOLTS ⅞"
OPEN HOLES 1 1/8" U.N.
A325 FIELD BOLTS ⅞
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE 'A')
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-29-69 IN CHARGE D.K. DERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CT-6289-020 DRAWING NO. 104

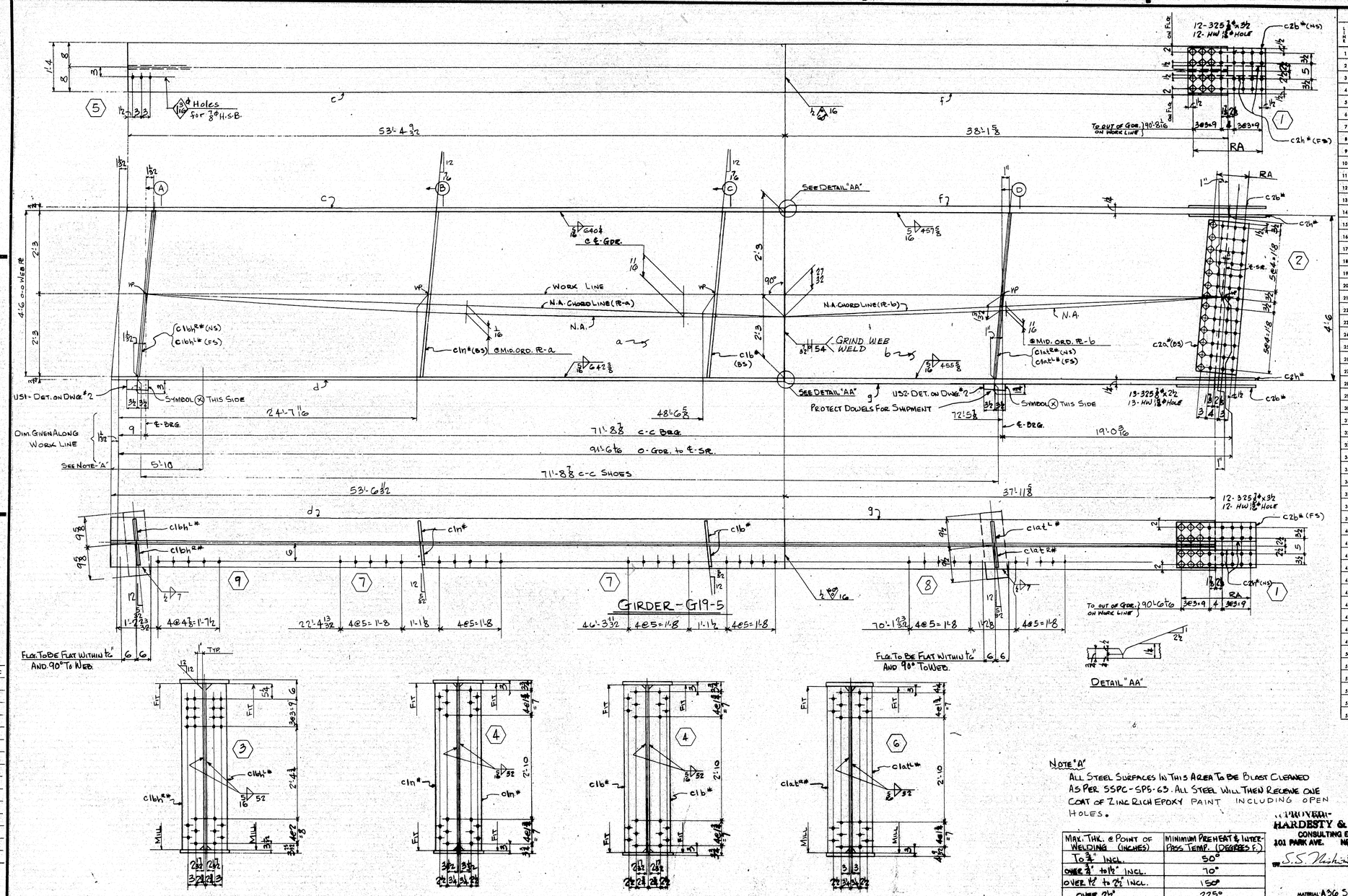
REVISION										
NO.										
DATE										
INIT.										
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

For location of details shown on this sheet refer to diagram.
E5

3 1 INSP# 1-1 106-102 SEP 19 1969

3283 (Rev. C-648)

0 1 2 3 4 5 INCHES



SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION PREFIX OR SUFFIX	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE - GIRDER - G19-5							
2	a	1	PL	54		1/16	53	6 3/32	56k x 1/16
3	b	1	PL	54		1/2	38	1 5/8	56k
4	c	1	PLU	16		1 1/4	53	4 3/32	
5	d	1	PLU	16		3/4	53	6 3/32	
6	f	1	PLU	16		1 1/4	38	1 5/8	
7	g	1	PLU	16		1 1/4	37	11 5/8	
8	c 26*	2	PLU	15		1/2	2	1	
9	c 2h*	4	PL	6 1/2		1/2	2	1	
10	c 2a*	2	PLU	13		3/8	4	2	
11	c 1bhL*	1/1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
12	c 1n*	2	BR	7		1/2	4	6	FIE
13	c 1atL*	1/1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
14	c 1b*	2	BR	7		1/2	4	6	FIE
15									
16									
17									
18									
19	US1	1	UPPER SHOE						DET. on DWG.* 2
20	US2	1	UPPER SHOE						DET. on DWG.* 2
21		24	325	7/8*			0	3 1/2	H.H.H. - H.H.N.
22		13	325	7/8*			0	2 1/2	H.H.H. - H.H.N.
23		37	HW	1 1/8* HOLE					
24									
25									
26	FWL	1	WD			1/16	365	11 3/4	
27	FWS	1	WD			1/16	69	4	
28	FW	1	WD			1/2	2	4	
29	SDS	1	WD			1/16	4	6	
30	VGDS	1	WD			3/4	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

ITEM	WEIGHT FT.	WEIGHT IN.	PAGE	LINE
1				
2	53	10 1/2	1	01
3	38	7	26	07
4	53	8	1	03
5	53	8	1	03
6	38	3	26	13
7	38	3	76	13
8	21	3	24	47
9			J	
10	21	1	24	48
11	18	4	24	49
12	18	4	24	51
13	18	4	24	49
14	18	4	24	51

Note 'A'

All steel surfaces in this area to be blast cleaned as per SSPC-SP6-63. All steel will then receive one coat of zinc rich epoxy paint including open holes.

Max. Thk. of Point of Welding (Inches)	Minimum Preheat & Inter-Pass Temp. (Degrees F.)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

(F) All open holes (UN)

Use E7010, E7018 & E7028 low hydrogen electrodes or grade SAW-2 for welding. No tack welding will be permitted unless shown or incorporated in final weld.

RA - Holes marked RA shall be subpunched or subdrilled and reamed to size or drilled full size after the solid with connecting parts assembled.

"Approved" Hardesty & Hanover Consulting Engineers 101 Park Ave. New York 17, N.Y. by S.S. Mashburn SEP 26 1969

Inst. - "19W"

Required List

Qty.	Shipping Mark	Description	Remarks
ONE	G19-5	Girder (194 x 59 1/2 x 9249)	

Pay Item - 504.711

Girders

Material: A36 Steel
Bolts: 7/8*
Open holes: 1 1/8* U.N.
A325 field bolts: 7/8*
Shop contact surfaces: No Paint (UN) (See Note "A")
Weld - As Noted
Mill - As Noted
Paint: One Coat AASHO-M72-Type II Red Lead (UN)

Customer: Maine State Highway Commission
Piscataqua River Bridge
Project No. I-95-1(22)16
Cont. No. 3 - New Hampshire App.
Structural Steel
Bethlehem Steel Corporation
Fabricated Steel Construction
Pottstown Drafting Room — Pottstown Works
Made by BED Date 7-31-69 In Charge D.K. Dierdorff
Checked by RJ Date 9-11-69 Shop No. 2
Contract CI-6(14)-020 Drawing No. 105

No.	Date	Init.	Revision
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

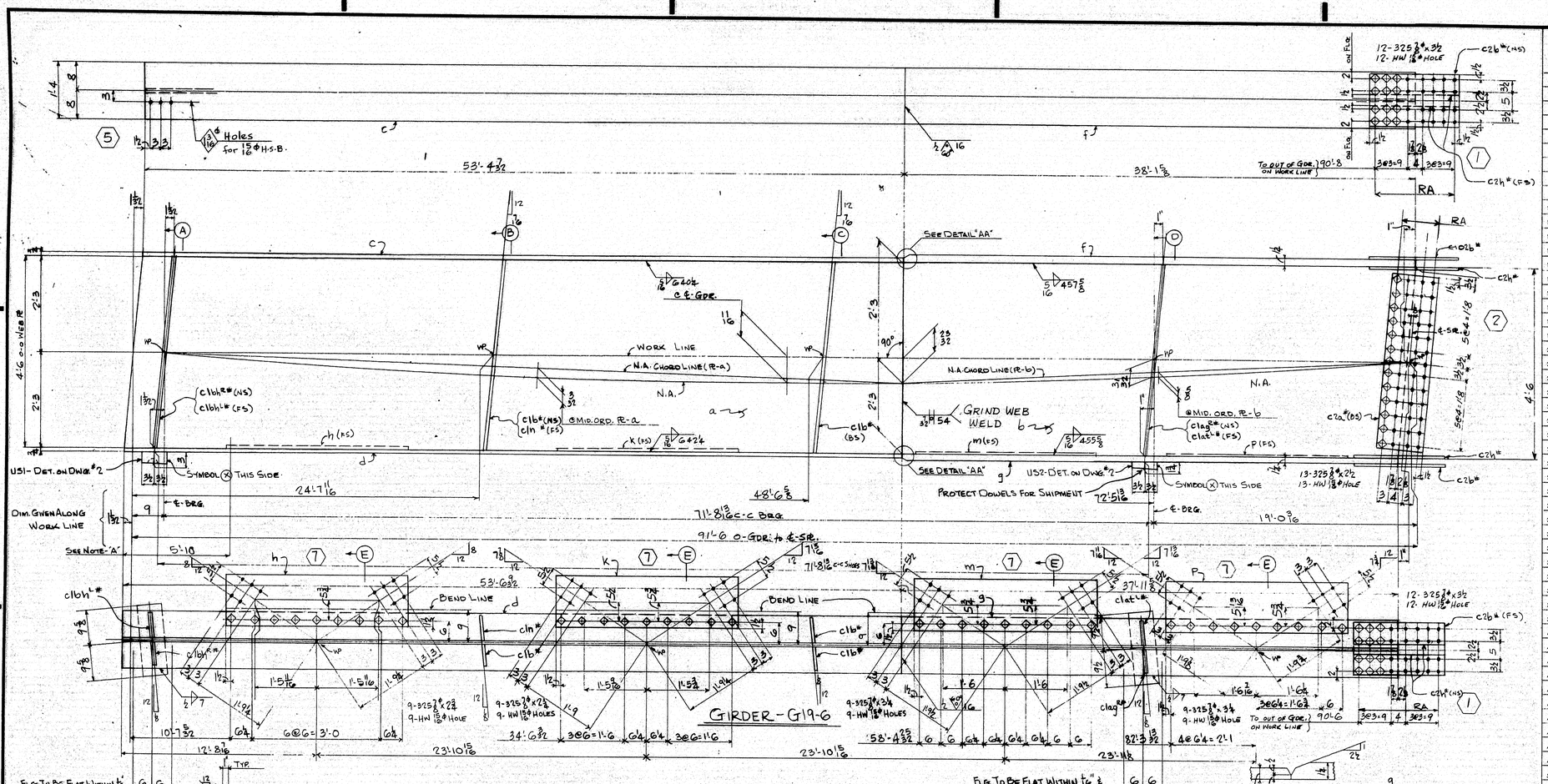
Submittal	1	2	3	4	5	6	7	8	9	0
Date										

For location of details shown on this sheet refer to diagrams.
E5

3 — 1 INSP#1-1

106 - 10.3

SEP 1 8 1969



SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE-	GIRDER-	G19-6					
2	a	1	PL	54		1/16	53	6 9/32	562 #/pc
3	b	1	PL	54		1/2	38	1 5/8	5644 #/pc
4	c	1	PLU	16		3/4	53	4 3/32	
5	d	1	PLU	16		3/4	53	6 9/32	
6	f	1	PLU	16		1/4	38	1 5/8	
7	g	1	PLU	16		1/4	37	11 5/8	
8	c 2b*	2	PLU	15		1/2	2	1	
9	c 2h*	4	PL	G1/2		1/2	2	1	
10	c 2a*	2	PLU	13		3/8	4	2	
11	c 1bhL*	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
12	c 1b*	3	BR	7		1/2	4	6	FZE
13	c 1ag*	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
14	c 1n*	1	BR	7		1/2	4	6	FZE
15	c 1at*	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
16	h	1	PL	14 1/2		5/8	4	3 1/2	BENT
17	K	1	PL	14 1/2		5/8	4	3 1/2	BENT
18	m	1	PL	14 1/2		5/8	4	4	BENT
19	P	1	PL	14 1/2		5/8	4	4 3/8	BENT
20									
21		24	325	7/8			0	3 1/2	H.H.H.-H.H.N.
22		13	325	7/8			0	2 1/2	H.H.H.-H.H.N.
23		73	HW	15/16	HOLE				
24		18	325	7/8			0	7 3/8	HHH-HHN
25		18	325	7/8			0	3 1/2	HHH-HHN.
26	FWL	1	WD			1/16	366	0	
27	FWS	1	WD			1/16	69	4	
28	FW	1	WD			1/2	2	4	
29	SDS	1	WD			1/16	4	6	
30	VGDS	1	WD			3/4	2	8	
31									
32									
33									
34	US1	1	UPPER SHOE						DET. ON DWG #2
35	US2	1	UPPER SHOE						DET. ON DWG #2
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM SUB
53	10½	101	
38	7	26	07
53	8	103	
53	8	103	
38	3	26	13
38	3	26	13
21	3	24	47
		J	
21	1	24	48
18	4	24	49
18	4	24	51
18	4	24	49
18	4	24	51
18	4	24	49
26	0	28	19
26	0	28	19
26	0	28	19
26	0	28	19

NOTE "A"
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SPS-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(UN) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¾" AND REAMED TO SIZE OR DRILLED FULL SIZE WHEN ASSEMBLED WITH THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST. - "19W"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-6	GIRDER (28⅝"x59"x92'-8½")	

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
BY J.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
INVISIBLE BOLTS ⅞"ϕ
OPEN HOLES 15/16"ϕ U.N.
A325 FIELD BOLTS ⅞"ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

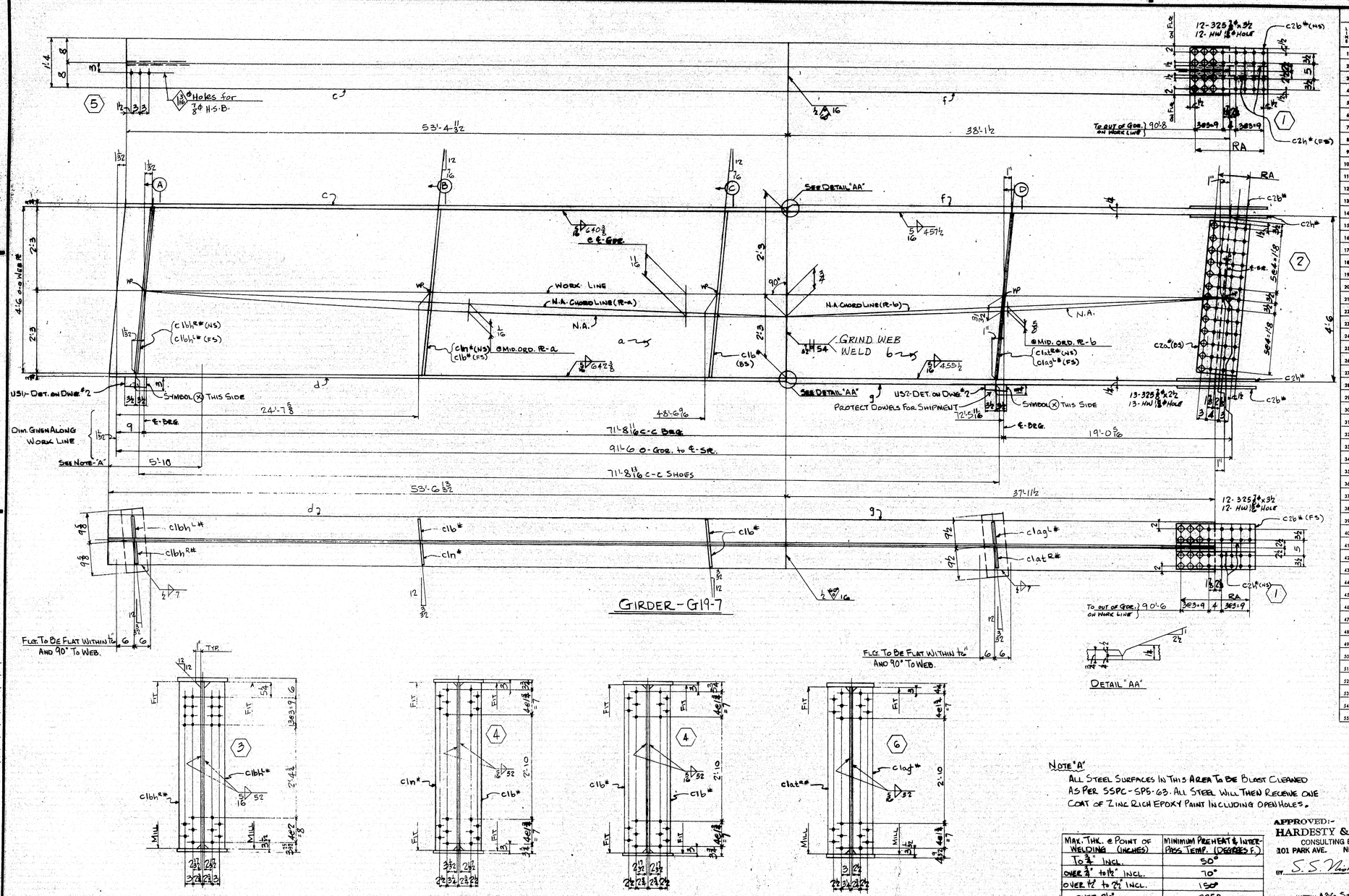
CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-29-69 IN CHARGE D.K. BERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 106

REVISION

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

For location of details shown on this sheet refer to Wagrams, E5

3 1 INSP#1-1 106-104 SEP 9 1969



MK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SIZE OR NUMBER	THICK	LENGTH FT.	LENGTH IN.	REMARKS
1			ONE - GIRDER - G19-7						
2	a	1	PL	54		1/16	53	6 15/32	56 x 1/16
3	b	1	PL	54		½	38	1½	56 x ½
4	c	1	PLU	16		⅜	53	4 3/32	
5	d	1	PLU	16		¼	53	6 3/32	
6	f	1	PLU	16		1/4	38	1½	
7	g	1	PLU	16		1/4	37	11½	
8	c 2b*	2	PLU	15		½	2	1	
9	c 2h*	4	PL	6½		½	2	1	
10	c 2a*	2	PLU	13		⅜	4	2	
11	c 16h^L*	1	BR	7½		⅜	4	6 5/32	MIE FIE
12	c 16	3	BR	7		½	4	6	FIE
13	c 1at^R*	1	BR	7½		⅜	4	6 5/32	MIE FIE
14	c 1ag^L*	1	BR	7½		⅜	4	6 5/32	MIE FIE
15	c 1n*	1	BR	7		½	4	6	FIE
16									
17									
18									
19	US1	1	UPPER SHOE						DET. on DWG #2
20	US2	1	UPPER SHOE						DET. on DWG #2
21		24	325	8 ϕ			0	3½	W.H.W. - H.H.W.
22		13	325	8 ϕ			0	2½	W. H.H. - W. H.W.
23		37	HW	15/16 ϕ HOLE					
24									
25									
26	FWL	1	WD			5/16	305	11½	
27	FWS	1	WD			5/16	69	4	
28	FW	1	WD			½	2	4	
29	SDS	1	WD			1/16	4	6	
30	VGDS	1	WD			⅜	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

LENGTHS FT.	IN.		
53	10½		
38	7	22	
53	8	1	10
53	8	1	10
38	3	22	18
38	3	22	18
21	3	24	47
21	1	24	48
18	4	24	49
18	4	24	51
18	4	24	49
18	4	24	49
18	4	24	51

NOTE 'A'
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP5-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(F) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST. - "19W"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-7	GIRDER (19'-4" x 5'-9½" x 924 8¾)	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY S.S. Nakiran SEP 26 1968

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
BOLTS ⅞ϕ
OPEN HOLES 15/16ϕ U.N.
A325 FIELD BOLTS ⅞ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

REVISION

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-30-69 IN CHARGE D.K. DIEFFENBACHER
CHECKED BY R.J. DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 107

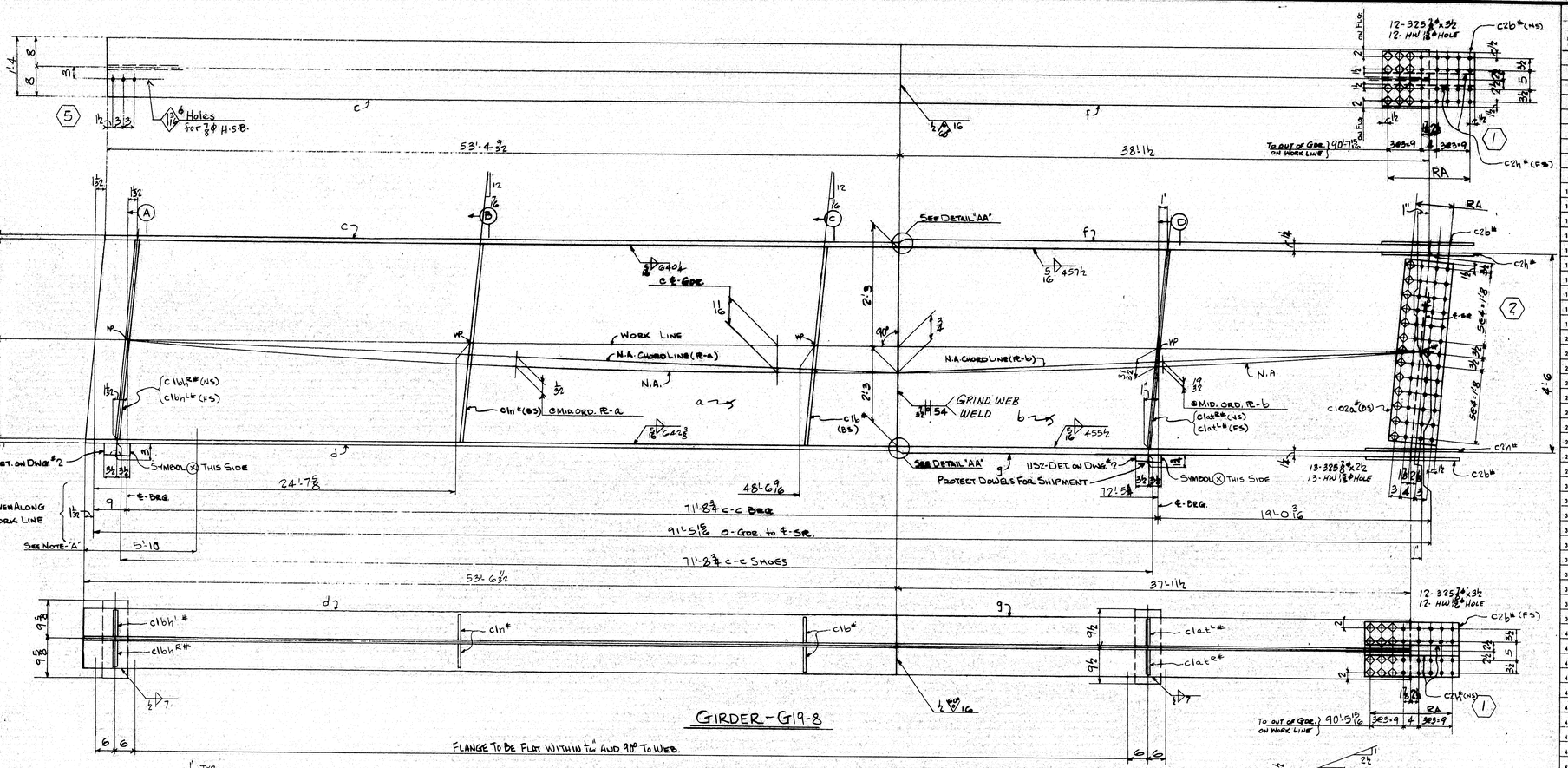
For location of details shown on this sheet refer to diagrams.
E5

3 1 INSP#1-1

106-105

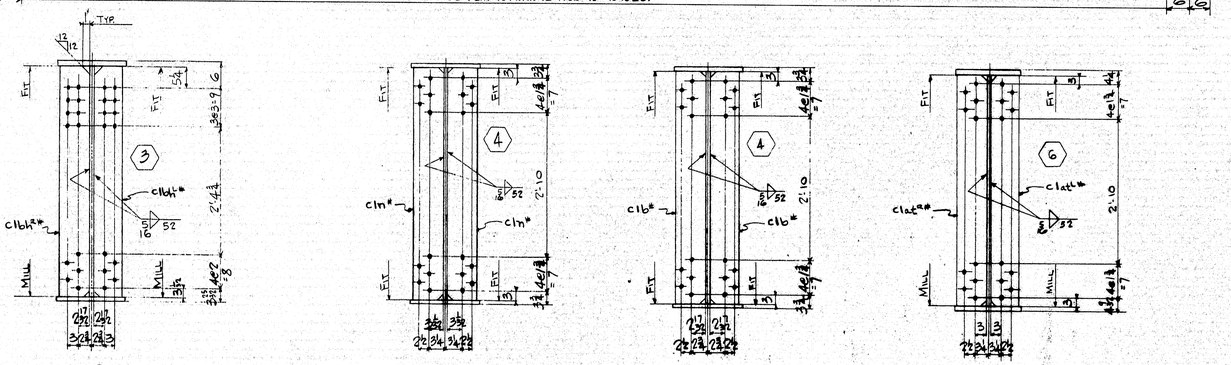
SEP 19 1968

0 1 2 3 4 5 INCHES



GIRDER - G19-8

FLANGE TO BE FLAT WITHIN 1/16" AND 90° TO WEB.



DETAIL "AA"

NOTE "A"

ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SPS-C3. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
TO 3/4" INCL.	50°
OVER 3/4" TO 1 1/2" INCL.	70°
OVER 1 1/2" TO 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(3) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 3/16" AND REAMED TO SIZE OR DRILLED FULL SIZE WHEN THE SOLID WITH CONNECTING PARTS ASSEMBLED.

For location of details shown on this sheet refer to diagrams.

E5

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE - GIRDER - G19-8							
2	a	1	PL	54		1/16	53	6 11/32	56ℓ x 1/16
3	b	1	PL	54		1/2	38	1 1/2	56 x ℓ
4	c	1	PLU	16		3/8	53	4 9/32	
5	d	1	PLU	16		3/8	53	6 11/32	
6	f	1	PLU	16		1/4	38	1 1/2	
7	g	1	PLU	16		1/4	37	11 1/2	
8	C 26 *	2	PLU	15		1/2	2	1	
9	C 2h *	4	PL	6 1/2		1/2	2	1	
10	C 2a *	2	PLU	13		3/8	4	2	
11	C 16hL *	1	BR	7 1/2		3/4	4	6 5/32	MIE FIE
12	C 1n *	2	BR	7		1/2	4	6 1/2	F2E
13	C 1at L *	1	BR	7 1/2		3/4	4	6 5/32	MIE FIE
14	C 1b *	2	BR	7		1/2	4	6	F2E
15									
16									
17									
18									
19	U51	1	UPPER SHOE						DET. ON DWG # 2
20	U52	1	UPPER SHOE						DET. ON DWG # 2
21		24	325 7/8" ø				0	3 1/2	H.H.H. - H.H.N.
22		13	325 7/8" ø				0	7 1/2	H.H.H. - H.H.N.
23		37	HW 1 1/8" ø HOLE						
24									
25									
26	FWL	1	WD			5/16	365	11 1/4	
27	FWS	1	WD			5/16	69	4	
28	FW	1	WD			1/2	2	4	
29	SDS	1	WD			1/16	4	6	
30	VGDS	1	WD			3/4	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LINE	LENGTH FT.	LENGTH IN.	PIECE MARK
2	53	10 1/4	1 91
3	38	7	26 (97)
4	53	8	1 03
5	53	8	1 03
6	38	3	26 (95)
7	38	3	26 (96)
8	21	3	24 47
9			J
10	21	1	24 48
11	18	4	24 49
12	18	4	24 51
13	18	4	24 49
14	18	4	24 51

INST. - "19W"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-8	GIRDER (194 x 5 1/2 x 92 1/8)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
ENGINEERING BOLTS 7/8"ø
OPEN HOLES 13/16"ø U.N.
A325 FIELD BOLTS 7/8"ø
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.

STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-30-69 IN CHARGE B.K. BERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6289-020 DRAWING NO. 108

NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

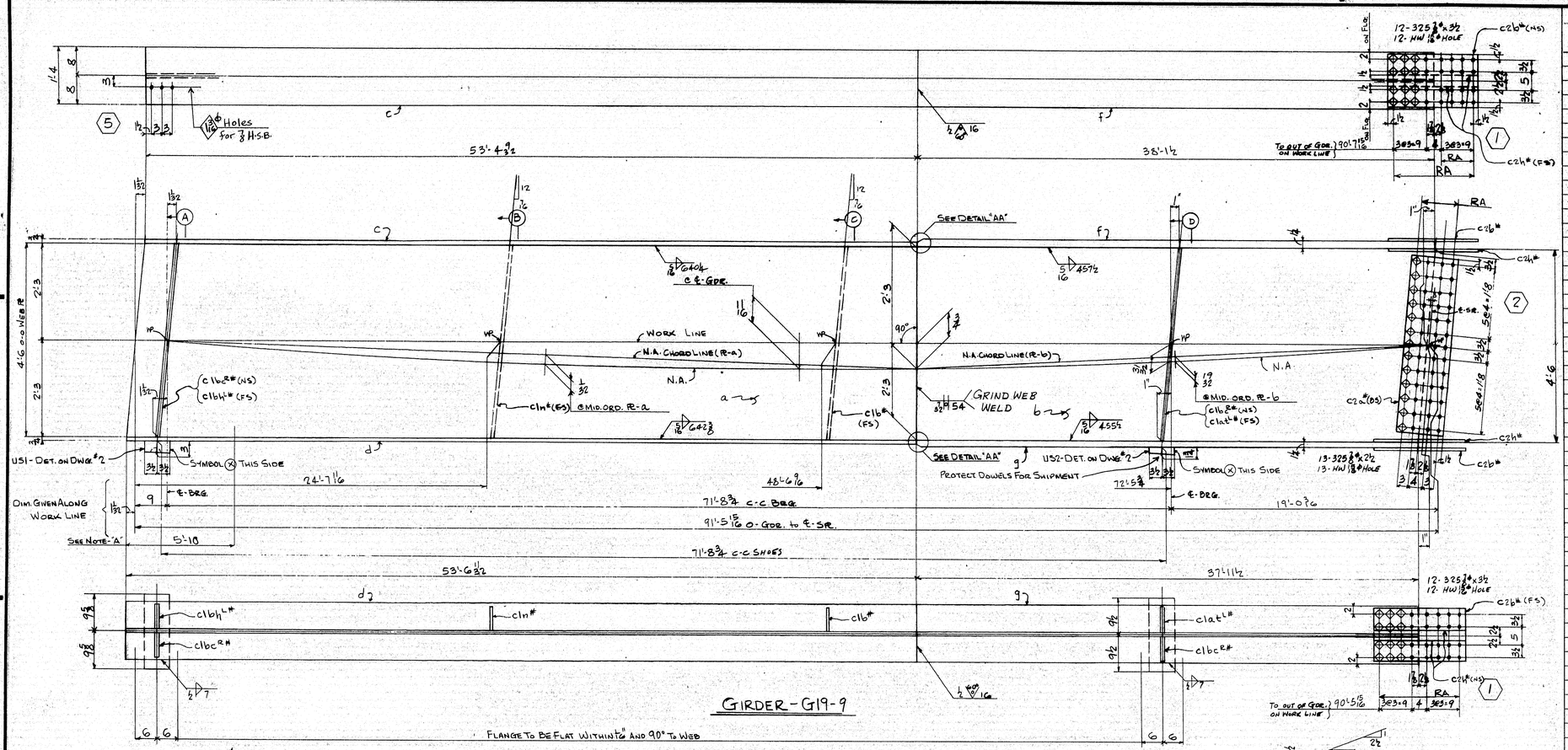
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

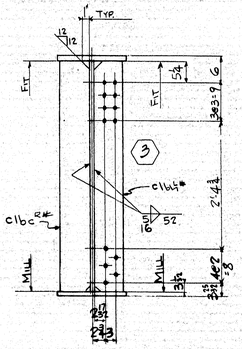
3 1 INSP #1-1

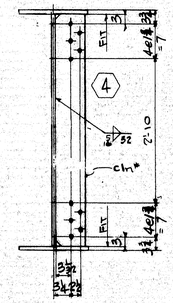
106 - 102

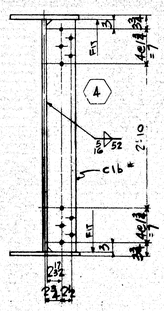
33403 (Rev. C 4-65) SEP 19 1969

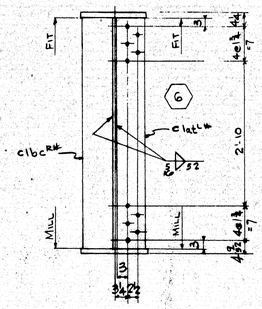
GIRDER - G19-9

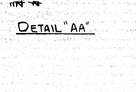




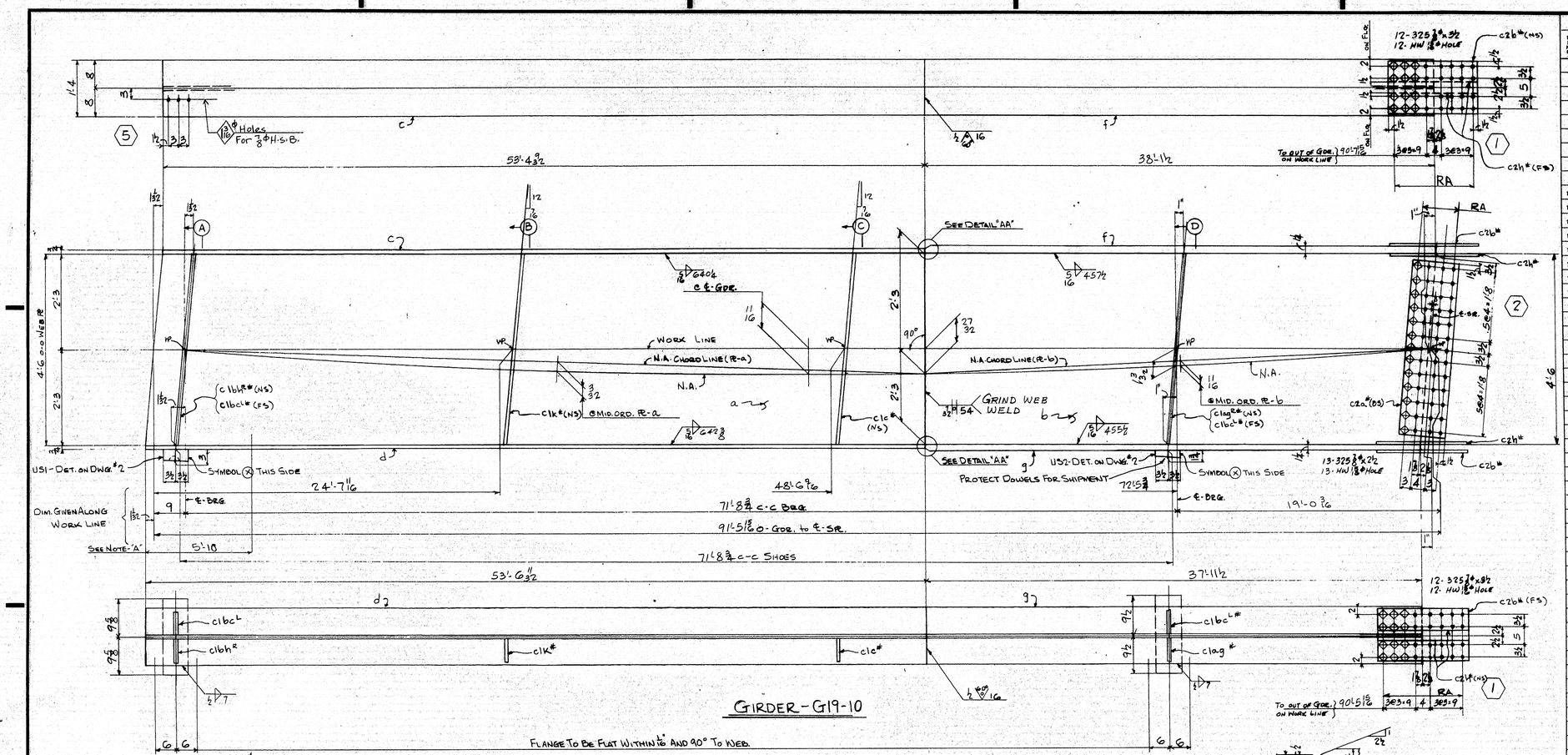








| SHOP BILL | | |



GIRDER - G19-10

SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR PATTERN	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE - GIRDER - G19-10							
2	a	1	PL	54		1/16	53	6 3/32	56"x1/16
3	b	1	PL	54		1/2	38	1½	56"x1"
4	c	1	PLW	16		3/8	53	4 5/32	
5	d	1	PLW	16		3/8	53	6 5/32	
6	f	1	PLW	16		1/4	38	1½	
7	g	1	PLW	16		1/4	37	11½	
8	c 26*	2	PLW	15		1/2	2	1	
9	c 24*	4	PL	6½		1/2	2	1	
10	c 22*	2	PLW	13		3/8	4	2	
11	c 16c*	2	BR	7½		3/8	4	6 5/32	M1E F1E
12	c 1k*	1	BR	7		1/2	4	6	F2E
13	c 16h*	1	BR	7½		3/8	4	6 5/32	M1E F1E
14	c 1c*	1	BR	7		1/2	4	6	F2E
15	c 1ag*	1	BR	7½		3/8	4	6 5/32	M1E F1E
16									
17									
18									
19	US1	1	UPPER SHOE						DET. ON DWG.* 2
20	US2	1	UPPER SHOE						DET. ON DWG.* 2
21		24	325 ¾ϕ				0	3½	H.H.H. - H.H.N.
22		13	325 ¾ϕ				0	2½	H.H.H. - H.H.N.
23		37	HW 1⅛ϕ HOLE						
24									
25									
26	FWL	1	WD			15/16	365	11½	
27	FW5	1	WD			5/16	52	0	
28	FW	1	WD			½	2	4	
29	505	1	WD			1/16	4	6	
30	VG05	1	WD			¾	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MARK	LENGTH FT.	LENGTH IN.	PAGE
1			
2	53	10½	1 01
3	38	7	26 07
4	53	8	1 03
5	53	8	1 03
6	38	3	26 06
7	38	3	26 06
8	21	3	24 47
9			J
10	21	1	24 48
11	18	4	24 49
12	18	4	24 51
13	18	4	24 49
14	18	4	24 51
15	18	4	24 49

NOTE 'A'

ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SPS-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½ to 2½ INCL.	150°
OVER 2½"	225°

⅜ ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST. - "19E"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-10	GIRDER (19¼ x 59¾ x 91' 8¾)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
ERECTION BOLTS ⅞ϕ
OPEN HOLES 1⅛ϕ U.N.
A325 FIELD BOLTS ⅞ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

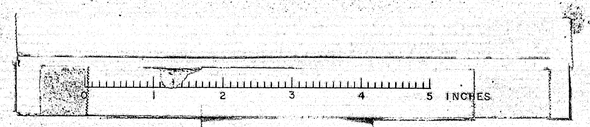
REVISION

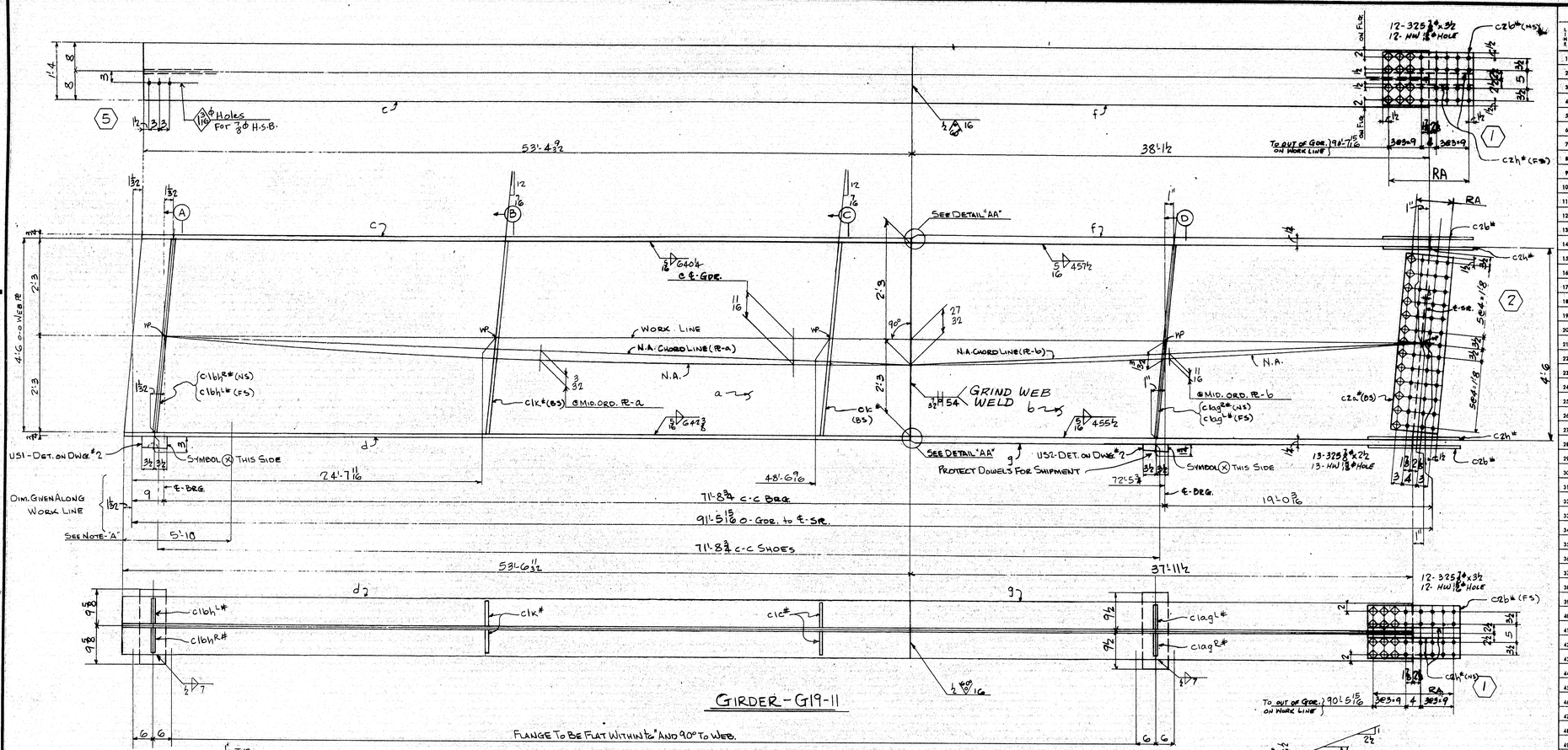
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

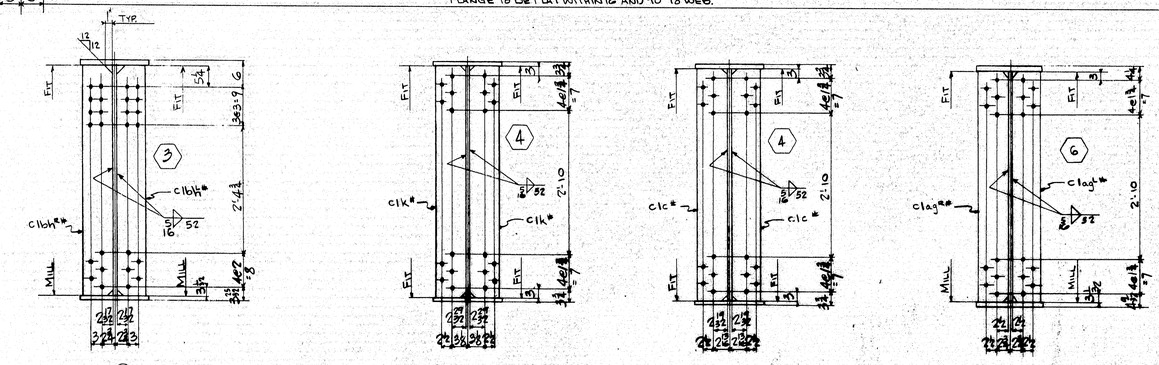
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
PROJECT: PISCATAQUA RIVER BRIDGE
PROJECT No. I-95-1(22)16
CONT. No. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-30-69 IN CHARGE D.K. DEETHART
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 110

For location of details shown on this sheet refer to diagrams.
E5

INSP# I-1/106-108







SHOP BILL

MK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION PER CENT OF FULL SECTION	SECTION THICK.	LENGTH FT.	LENGTH IN.	REMARKS	MAIN CONTROL LENGTH FT.	MAIN CONTROL LENGTH IN.	MAIN CONTROL PAGE	MAIN CONTROL ITEM
1		ONE - GIRDER - G19-11											
2	a	1	PL	54		1/16	53	6 11/32	54x1/16	53	10½	1	501
3	b	1	PL	54		½	38	1½	54x½	38	7	26	013
4	c	1	PLU	16		¼	53	4 3/32		53	8	1	103
5	d	1	PLU	16		¾	53	6½		53	8	1	103
6	f	1	PLU	16		1¼	38	12		38	3	26	13
7	g	1	PLU	16		1¼	37	11½		38	3	26	13
8	c 2b#	2	PLU	15		½	2	1		21	3	24	47
9	c 2h#	4	PL	6½		½	2	1				J	
10	c 2a#	2	PLU	13		⅜	4	2		21	1	24	48
11	c 16h L## / 1	BR	7½			¾	4	6 5/32	MIE FIE	18	4	24	49
12	c 1k#	2	BR	7		½	4	6	FZE	18	4	24	51
13	c 1agL## / 1	BR	7½			¾	4	6 5/32	MIE FIE	18	4	24	49
14	c 1c#	2	BR	7		½	4	6	FZE	18	4	24	51
15													
16													
17													
18													
19	U51	1	UPPER SHOE						DET. ON DWG.#2				
20	U52	1	UPPER SHOE						DET. ON DWG.#2				
21		24	325	¾			0	3½	H.H.N. - H.H.N.				M
22		13	325	¾			0	7½	H.H.N. - H.H.N.				
23		37	HW	1 1/8 HOLE									
24													
25													
26	FWL	1	WD			5/16	365	11¼					
27	FWS	1	WD			5/16	69	4					
28	FW	1	WD			½	2	4					
29	SDS	1	WD			1/16	4	6					
30	VGDS	1	WD			¾	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

INST. - "19E"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-11	GIRDER (194x59½x92.98)	

NOTE 'A'

ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. of POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½ to 2½" INCL.	150°
OVER 2½"	225°

(3) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 3/16" AND REAMED TO SIZE OR DRILLED FULL SIZE WHILE THE SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
ERECTION BOLTS 7/8 ϕ
OPEN HOLES 1 1/8 ϕ U.N.
A325 FIELD BOLTS 7/8
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM Pottstown WORKS
MADE BY RD DATE 7-30-69 IN CHARGE D.K. BRECKBILL
CHECKED BY R.J. DATE 9-11-69 SHOP NO. 2
CONTRACT CI-6249-020 DRAWING NO. 111

NO.	DATE	BY	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

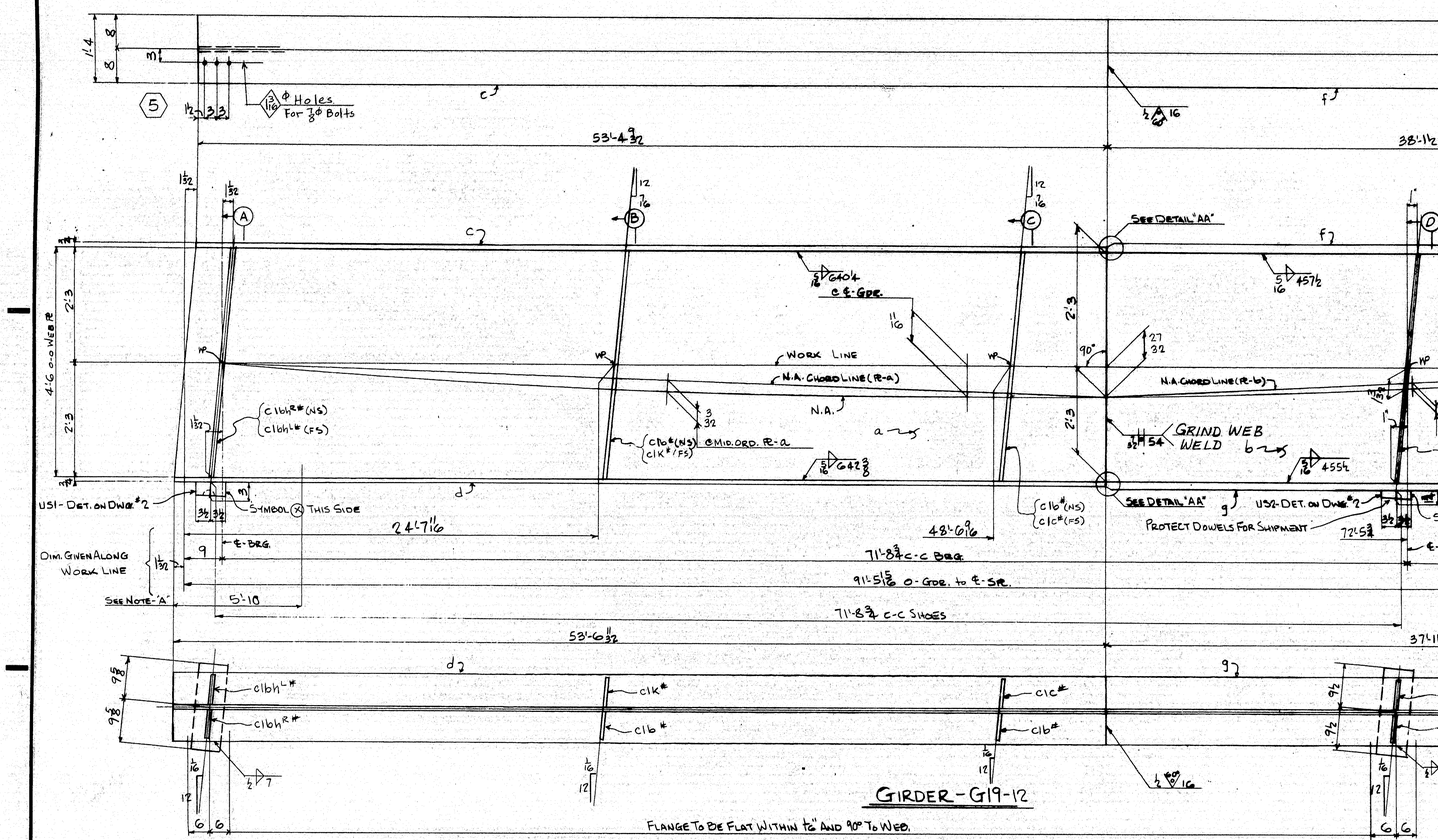
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

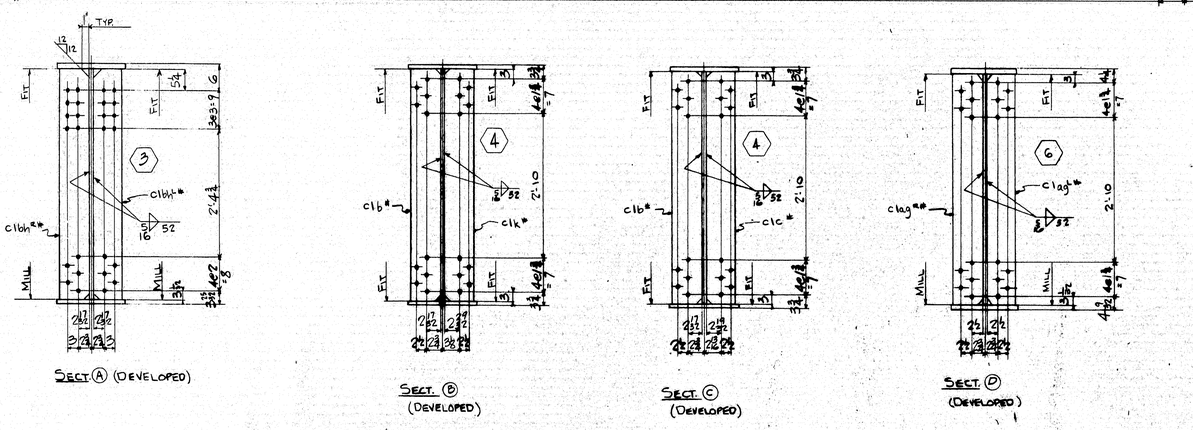
For location of details shown on this sheet refer to diagrams.

E5

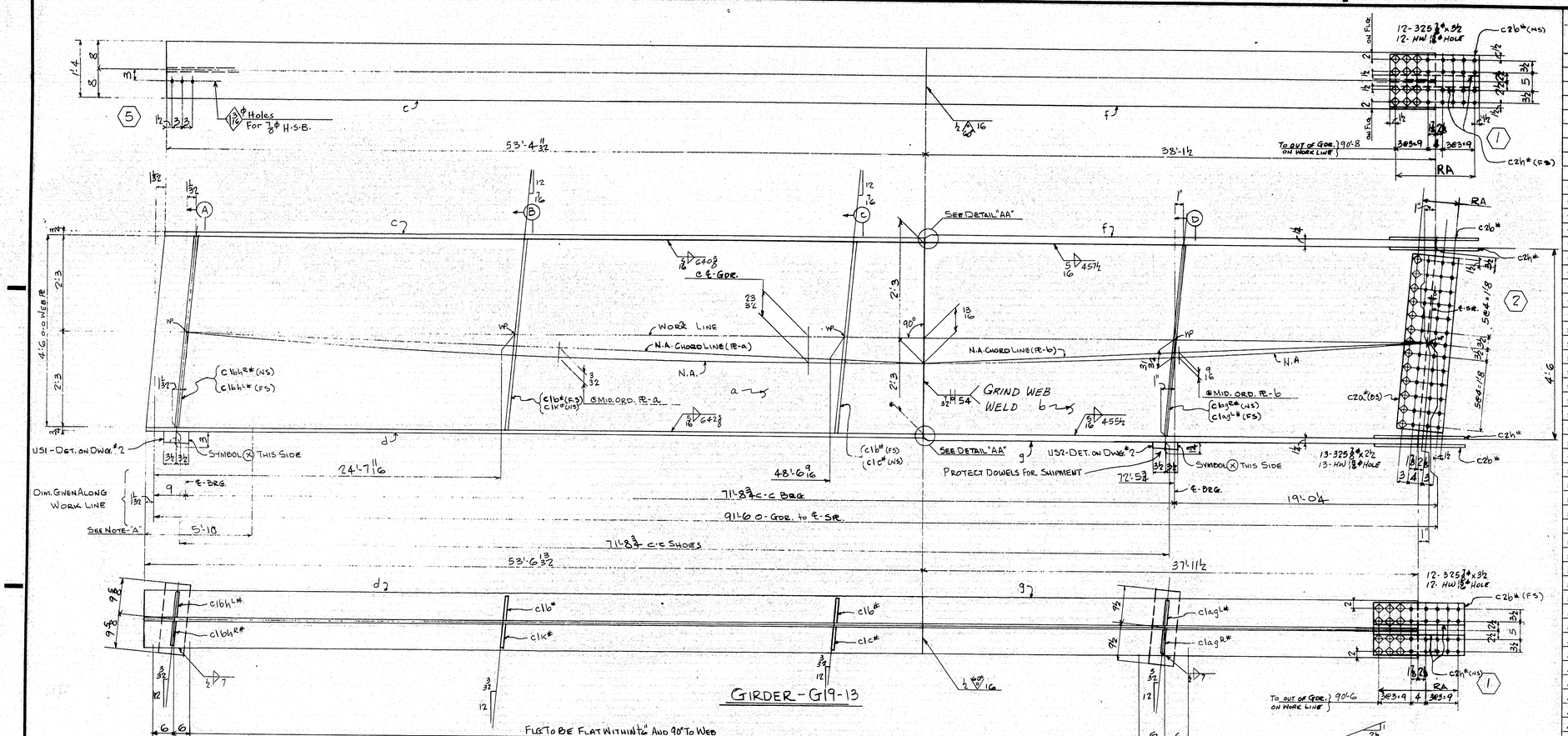
106-109 INSP# 1-

SEP 19 1969


5
Φ Holes For ⅞ Φ Bolts
53'-4 9/32
38'-1½
c26* (NS)
c26* (FS)
c2h* (FS)
RA
c2h*
c2a* (DS)
SEE DETAIL "AA"
G4½
c.g. GDR.
WORK LINE
N.A. CHORD LINE (R-a)
N.A. CHORD LINE (R-b)
N.A.
GRIND WEB WELD
@ MID. ORD. R-a
@ MID. ORD. R-b
c1b* (NS)
c1k* (FS)
c1c* (NS)
c1c* (FS)
c1bh* (NS)
c1bh* (FS)
c1agR* (NS)
c1agL* (FS)
USI - DET. ON DWG* 2
USI - DET. ON DWG* 2
SYMBOL (X) THIS SIDE
PROTECT DOWELS FOR SHIPMENT
DIM. GIVEN ALONG WORK LINE
SEE NOTE 'A'
c.g. BRG.
5'-10
24'-7 11/16
48'-6 9/16
71'-8 3/4 c-c BRGS.
91'-5 15/16 O-GDR. to c.g. SR.
71'-8 3/4 c-c SHOES
53'-6 11/32
37'-11½
72'-5 3/4
19'-0 3/16
12-325 7/8 x 3½
12-HW 1⅛ HOLE
13-325 7/8 x 2½
13-HW 1⅛ HOLE
TO OUT OF GDR. ON WORK LINE 90'-7 15/16
TO OUT OF GDR. ON WORK LINE 90'-5 15/16
c1bhL*
c1bhR*
c1k*
c1c*
c1b*
c1agL*
c1agR*
GIRDER - G19-12
FLANGE TO BE FLAT WITHIN ⅛" AND 90° TO WEB.
DETAIL "AA"


SECT. (A) (DEVELOPED)
SECT. (B) (DEVELOPED)
SECT. (C) (DEVELOPED)
SECT. (D) (DEVELOPED)

| | | |



SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE - GIRDER - G19-13							
2	a	1	PL	54		1/16	53	6 3/32	56½ x 1/16
3	b	1	PL	54		½	38	1½	56 x ½
4	c	1	PLU	16		¾	53	4 11/32	
5	d	1	PLU	16		¾	53	6 13/32	
6	f	1	PLU	16		1¼	38	1½	
7	g	1	PLU	16		1¼	37	11½	
8	c 26*	2	PLU	15		½	2	1	
9	c 2h*	4	PL	6½		½	2	1	
10	c 2a*	2	PLU	13		⅜	4	2	
11	c 16h L* R*	1 / 1	BR	7½		⅜	4	6 5/32	MIE, FIE
12	c 1b*	2	BR	7		½	4	6	FZE
13	c 1g L* R*	1 / 1	BR	7½		⅜	4	6 5/32	MIE, FIE
14	c 1c*	1	BR	7		½	4	6	FZE
15	c 1k*	1	BR	7		½	4	6	FZE
16									
17									
18									
19	US1	1	UPPER SHOE						DET. ON DWG.#2
20	US2	1	UPPER SHOE						DET. ON DWG.#2
21		24	325	⅞ϕ			0	3½	H.H.H. - H.H.N.
22		13	325	⅞ϕ			0	2½	H.H.H. - H.H.N.
23		37	HW	15/16ϕ Hole					
24									
25									
26	FWL	1	WD			1/16	365	11½	
27	FWS	1	WD			1/16	69	4	
28	FW	1	WD			½	2	4	
29	SOS	1	WD			1/16	4	6	
30	VGOS	1	WD			⅜	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

WEIGHT LENGTH FT.	WEIGHT LENGTH IN.	WEIGHT PAGE	WEIGHT LBS.
53	10½	1	01
38	7	26	07
53	8	1	03
53	8	1	03
38	3	26	13
38	3	26	13
21	3	24	47
		J	
21	1	24	48
18	4	24	49
18	4	24	51
18	4	24	49
18	4	24	51
18	4	24	51

INST. - "19E"

REQUIRED LIST

QTY.	SHIPPING MARKS	DESCRIPTION	REMARKS
ONE	G19-13	GIRDER (194 x 59½ x 92-3½)	

MAX. THK. of POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

⑤ ALL OPEN HOLES (UN)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nakkinen SEP 26 1969

PAY ITEM - 504.711

MATERIAL A36 STEEL
BOLTS ⅞ϕ
OPEN HOLES 1⅛ϕ U.N.
A325 FIELD BOLTS ⅞ϕ
SHOP CONTACT SURFACES No PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

GIRDERS

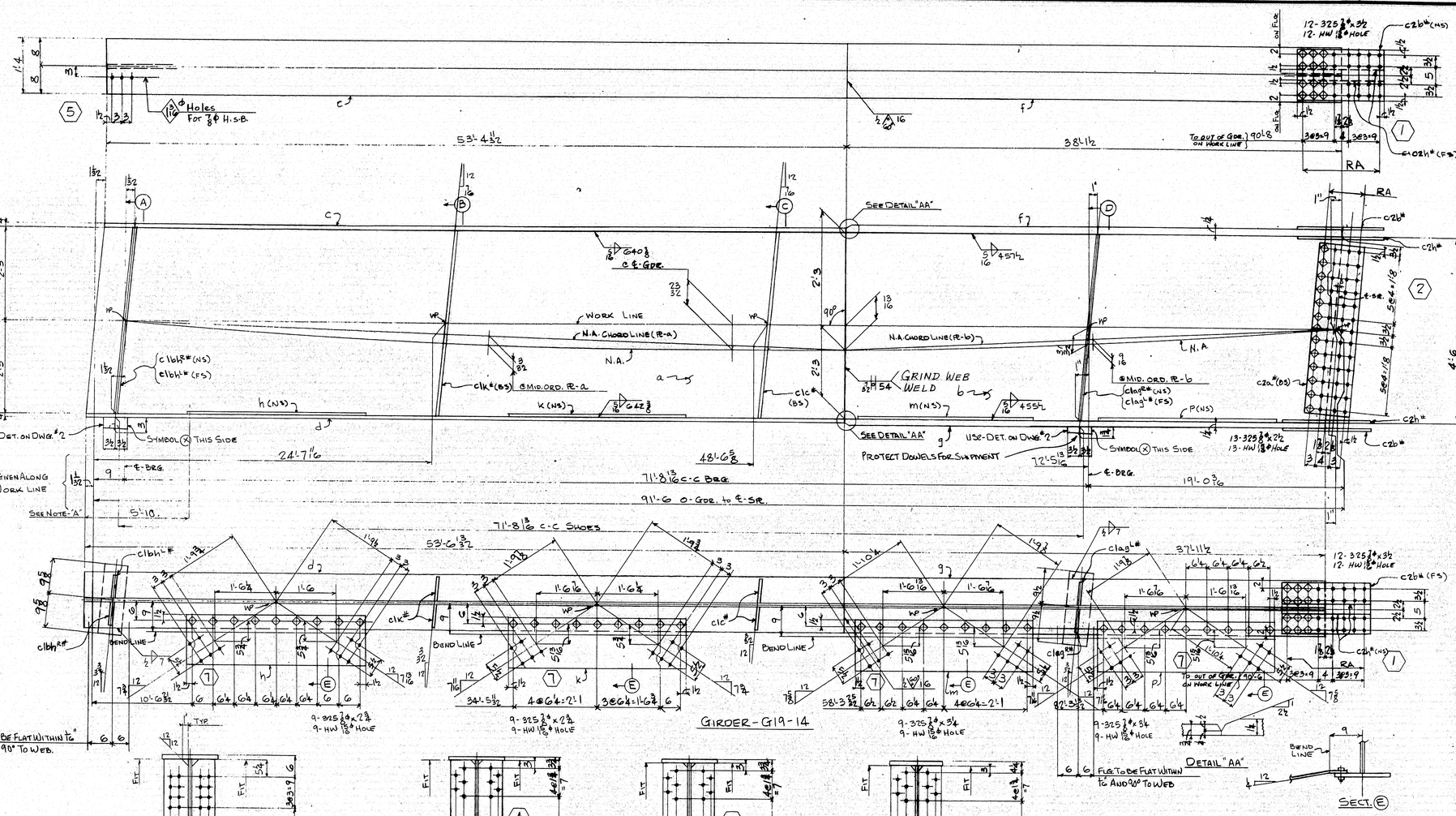
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 5 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 7-31-69 IN CHARGE D.K. DERTHICK
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CI-6289-020 DRAWING NO. 113

NO.	DATE	INIT.
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

REVISION

SUBMITTAL DATE	1	2	3	4	5	6	7	8	9	10

106 - 111 INSP#1-1 SEP. 9 1968



SHOP BILL											FIELD CONNECTION			
PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SIZE OR PATTERN	THICK	LENGTH FT.	LENGTH IN.	REMARKS		LENGTH FT.	LENGTH IN.	WEIGHT EACH	WEIGHT TOTAL
1		ONE - GIRDER - G19-14												
2	a	1	PL	54		1/16	53	6 13/32	56x1/16		53	10½	1	01
3	b	1	PL	54		½	38	11½	56x½		38	7	26	01
4	c	1	PLW	16		⅜	53	4 11/32			53	8	1	02
5	d	1	PLW	16		⅜	53	6 3/32			53	8	1	02
6	f	1	PLW	16		1½	38	11½			38	3	26	13
7	g	1	PLW	16		1¼	37	11½			38	3	26	13
8	c 2b*	2	PLW	15		½	2	1			21	3	24	47
9	c 2h*	4	PL	6½		½	2	1					J	
10	c 2a*	2	PLW	13		⅜	4	2			21	1	24	48
11	c 16h1*	1	BR	7½		⅜	4	6½	MIE FIE		18	4	24	49
12	c 1k*	2	BR	7		½	4	6	F2E		18	4	24	51
13	c 1a1*	1	BR	7½		⅜	4	6 5/32	MIE FIE		18	4	24	49
14	c 1c*	2	BR	7		½	4	6	F2E		18	4	24	51
15	h	1	PL	14½		⅝	4	4¼			26	0	28	19
16	k	1	PL	14½		⅜	4	4½			26	0	28	19
17	m	1	PL	14½		⅝	4	5½			26	0	28	19
18	P	1	PL	14½		⅝	4	5¼			26	0	28	19
19	US1	1	UPPER SHOE						DET. on DWG.* 2					
20	US2	1	UPPER SHOE						DET. on DWG.* 2					
21		24	325 ⅞ϕ				0	3½	H-H-H-H-H-H					
22		13	325 ⅞ϕ				0	2½	H-H-H-H-H-H					
23		73	HW 1⅛ϕ HOLE											
24		18	325 ⅞ϕ				0	2⅜	H-H-H-H-H					
25		18	325 ⅞ϕ				0	3¼	H-H-H-H-H					
26	FWL	1	WD			15/16	365	11½						
27	FWS	1	WD			5/16	69	4						
28	FN	1	WD			½	2	4						
29	SDS	1	WD			1/16	4	6						
30	VGDS	1	WD			⅜	2	8						

a	b	c

NOTE "A"
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(3) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST. - "19E"

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-14	GIRDER (28⅜ x 59¼ x 9 2L 8⅜)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.

PAY ITEM - 504.711

BY S.S. Nishimura SEP 26 1969

GIRDERS

MATERIAL A36 STEEL
BOLTED BOLTS ⅞ϕ
OPEN HOLES 1⅛ϕ U.N.
A325 FIELD BOLTS ⅞ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 8-1-69 IN CHARGE D.K. DIEFFLEY
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6789-020 DRAWING NO. 114

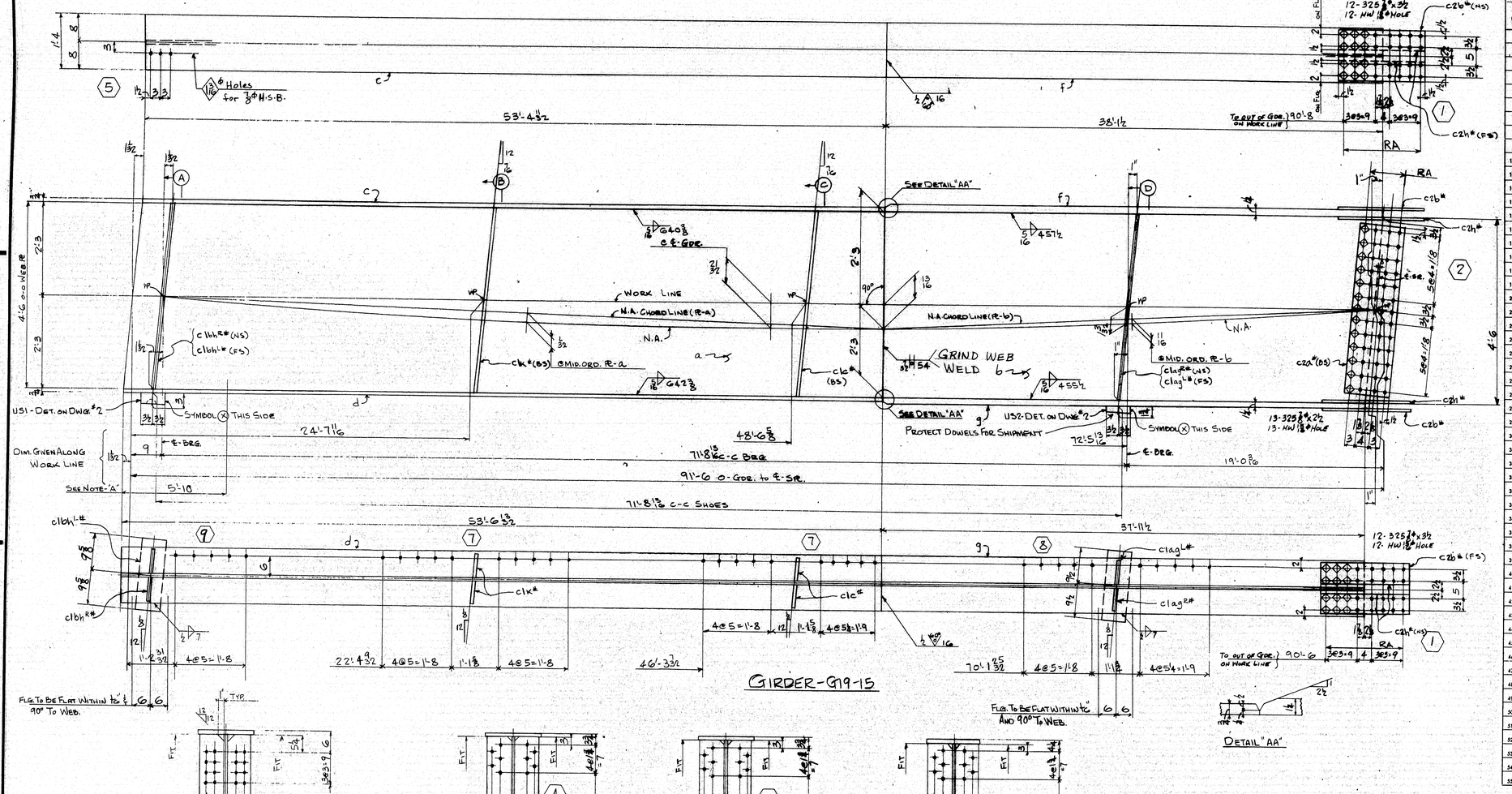
NO.	DATE	INIT.
REVISION		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

For location of details shown on this sheet refer to diagrams.
E5

106-112 INSP# 1-1

SEP 19 1969



GIRDER-G19-15

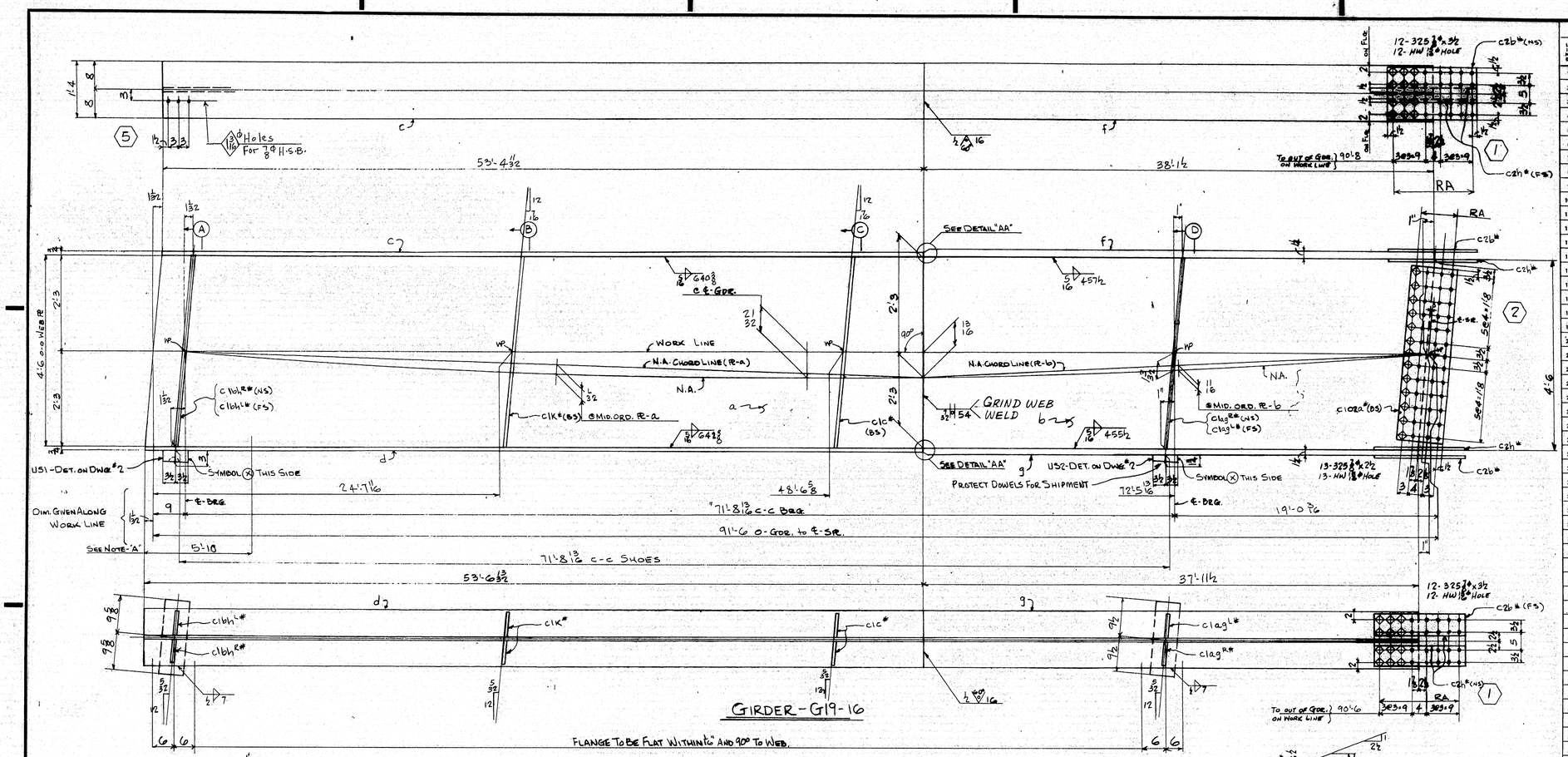
SECT. (A) (DEVELOPED)

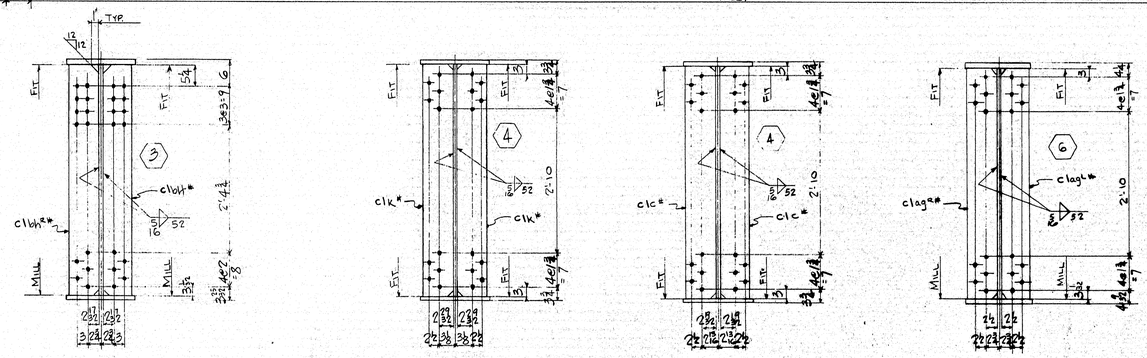
SECT. (B) (DEVELOPED)

SECT. (C) (DEVELOPED)

SECT. (D) (DEVELOPED)

| SHOP BILL | | |





SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	MATERIAL SIZE	MATERIAL GRADE	WIDTH	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE - GIRDER - G19-16							
2	a	1	PL	54		½	53	6 3/32	56x½
3	b	1	PL	54		½	38	1½	56x½
4	c	1	PLW	16		⅞	53	4 11/32	
5	d	1	PLW	16		⅞	53	6 3/32	
6	f	1	PLW	16		1⅛	38	1½	
7	g	1	PLW	16		1⅛	37	11½	
8	C 2b*	2	PLW	15		½	2	1	
9	C 2h*	4	PL	6½		½	2	1	
10	C 2a*	2	PLW	13		⅝	4	2	
11	C 1bhL*	1	BR	7½		⅝	4	6 7/32	MIE FIE
12	C 1c*	2	BR	7		½	4	6	F2E
13	C 1bgL*	1	BR	7½		⅝	4	6 7/32	MIE FIE
14	C 1K*	2	BR	7		½	4	6	F2E
15									
16									
17									
18									
19	USI	1	UPPER SHOE						DET. ON DWG #2
20	US2	1	UPPER SHOE						DET. ON DWG #2
21		24	325	⅞			0	3½	H.H.H. - H.H.N.
22		13	325	⅞			0	2½	H.H.H. - H.H.N.
23		37	HW	1⅛ HOLE					
24									
25									
26	FWL	1	WD			1/16	365	11½	
27	FWS	1	WD			1/16	69	4	
28	FW	1	WD			½	2	4	
29	SDS	11	WD			1/16	4	6	
30	VGDS	1	WD			¾	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

WEIGHTS			
PIECE MARK	NO.	UNIT	TOTAL
a	1	2054	2054
b	1	1457	1457
c	1	2053	2053
d	1	2053	2053
f	1	1457	1457
g	1	1420	1420
C 2b*	2	7	14
C 2h*	4	7	28
C 2a*	2	16	32
C 1bhL*	1	28	28
C 1c*	2	28	56
C 1bgL*	1	28	28
C 1K*	2	28	56
USI	1	2054	2054
US2	1	2054	2054
	24	325	7800
	13	325	4225
	37	HW	1850
FWL	1	WD	1000
FWS	1	WD	200
FW	1	WD	10
SDS	11	WD	100
VGDS	1	WD	20

NOTE "A"
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES.

MAX. THK. of POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½ to 2½" INCL.	150°
OVER 2½"	225°

(F) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED

INST. - "19E"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-16	GIRDER (191'x54"x7/8")	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

MATERIAL A36 STEEL
BOLTS ⅞ A325
OPEN HOLES 1⅛ U.N.
A325 FIELD BOLTS ⅞
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

REVISION

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

GIRDERS

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT No. I-95-1(22)16
CONT. No. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN BRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 8-1-69 IN CHARGE D.K. DIETERLEY
CHECKED BY R.J. DATE 9-11-69 SHOP NO. 2
CONTRACT CS-6249-030 DRAWING NO. 116

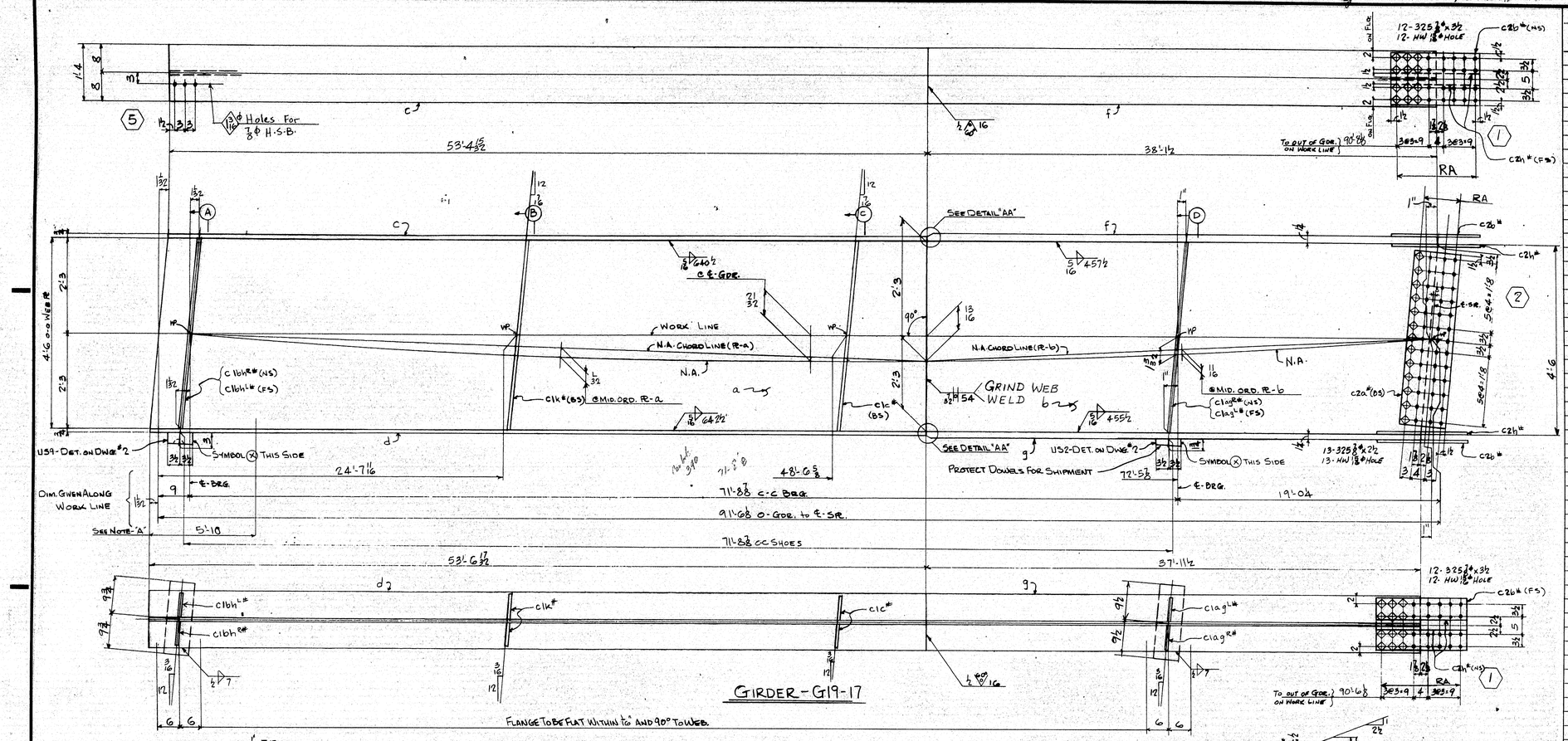
For location of details shown on this sheet refer to diagrams.
E5

106-114 INSP #1-1

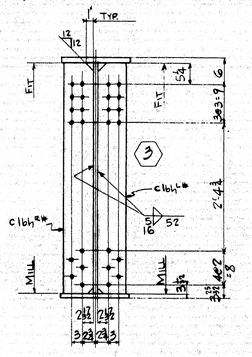
SEP 29 1969

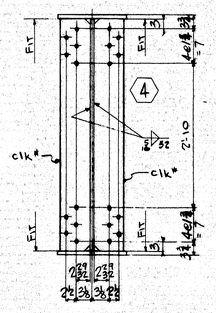
0 1 2 3 4 5 INCHES

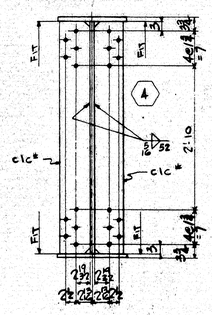
clag misplaced by ¾" - H&H ok'd method to remove

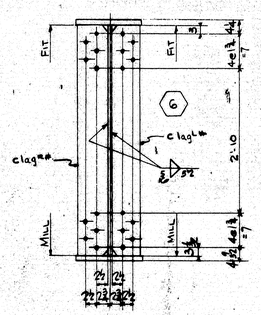


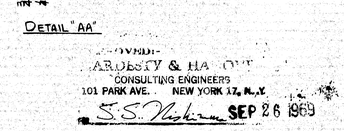
GIRDER - G19-17











SHOP BILL										MILL ORDER	
ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
1		ONE - GIRDER - G19-17											
2	a	1	PL	54		1/16	53	6½	56½ x 1/16	53	10½	1	01
3	b	1	PL	54		½	38	1½	56 x ½	38	7	26	07
4	c	1	PLU	16		¾	53	4 15/32		53	8	1	02
5	d	1	PLU	16		¾	53	6 17/32		53	8	1	03
6	f	1	PLU	16		1¼	38	1½		38	3	26	13
7	g	1	PLU	16		1¼	37	11¼		38	3	26	13
8	C 2b*	2	PLU	15		½	2	1		21	3	24	47
9	C 2h*	4	PL	6½		½	2	1				J	
10	C 2a*	2	PLU	13		⅜	4	2		21	1	24	48
11	C 1bhL* R*	1	BR	7½		⅜	4	6½	MIE FIE	18	4	24	49
12	C 1k*	2	BR	7		½	4	6	E2E	18	4	24	51
13	C 1agL* R*	1	BR	7½		⅜	4	6½	MIE FIE	18	4	24	49
14	C 1c*	2	BR	7		½	4	6	F2E	18	4	24	51
15													
16													
17													
18													
19	U59	1	UPPER SHOE						DET. on DWG #2				
20	U52	1	UPPER SHOE						DET. on DWG #2				
21		24	325 ¾"				0	3½	H.H.N. - H.H.N.				
22		13	325 ¾"				0	2½	H.H.N. - H.H.N.			M	
23		37	HW 15/16" HOLE										
24													
25													
26	FWL	1	WD			5/16	366	0					
27	FWS	1	WD			5/16	69	4					
28	FW	1	WD			½	7	4					
29	SDS	1	WD			1/16	4	6					
30	VGDS	1	WD			¾	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
S.S. Yakimow SEP 26 1969

NOTE 'A'
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT, INCLUDING OPEN HOLES.

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½ to 2½" INCL.	150°
OVER 2½"	225°

⑧ ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¾" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

MATERIAL A36 STEEL
BOLTS ¾
OPEN HOLES 15/16 U.N.
A325 FIELD BOLTS ¾
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

INST. - "19E"

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-17	GIRDER (19½ x 59½ x 92 1/8 #)	

PAY ITEM - 504.711

GIRDERS

REVISION		
NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

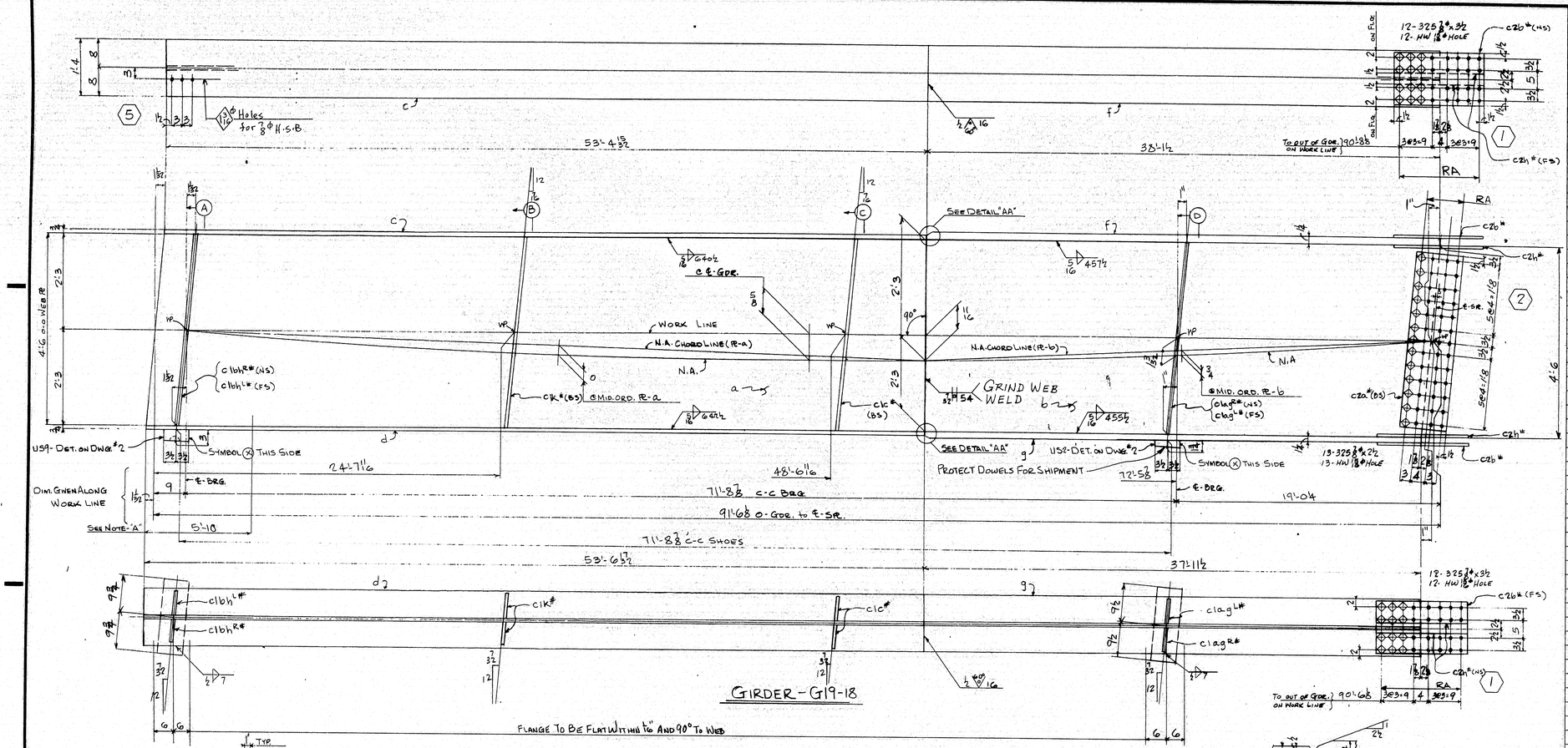
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 9 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 8-1-69 IN CHARGE D.K. DERTOLET
CHECKED BY R.J. DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6289-020 DRAWING NO. 117

For location of details shown on this sheet refer to diagrams.
E5

1 106-115 INSP #1-1

35433 (Rev. C 6-63) SEP. 1 S 1969



SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
			ONE-GIRDER-G19-18						
	a	1	PL	54		1/16	53	6 17/32	56½ x 7/16
	b	1	PL	54		½	38	1½	56 x ½
	c	1	PLU	16		¾	53	4 25/32	
	d	1	PLU	16		¾	53	6 17/32	
	f	1	PLU	16		1/4	38	1½	
	g	1	PLU	16		1/4	37	11½	
c	2b *	2	PLU	15		½	2	1	
c	2h *	4	PL	6½		½	2	1	
c	2a *	2	PLU	13		⅜	4	2	
c	1bhL *	1	BR	7½		¾	4	6½	MIE FIE
c	1c *	2	BR	7		½	4	6	FZE
c	1bgL *	1	BR	7½		¾	4	6½	MIE FIE
c	1k *	2	BR	7		½	4	6	FZE
	US9	1	UPPER SHOE						DET. ON DWG. * 2
	US2	1	UPPER SHOE						DET. ON DWG. * 2
		24	325	⅞ *			0	3½	H.H.H. - H.H.N.
		13	325	⅞ *			0	7½	H.H.H. - H.H.N.
		37	HW	15/16 * HOLE					
	FWL	1	WD			1/16	366	0	
	FW5	1	WD			5/16	69	4	
	FW	1	WD			½	2	4	
	SD5	1	WD			5/16	4	6	
	VGD5	1	WD			¾	2	8	

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
53	10½	1	01
38	7	26	07
53	8	1	03
53	8	1	03
38	3	26	13
38	3	26	13
21	3	24	47
21	1	24	48
18	4	24	49
18	4	24	51
18	4	24	49
18	4	24	51

NOTE "A"

ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
TO ¾" INCL.	50°
OVER ¾" TO 1½" INCL.	70°
OVER 1½" TO 2½" INCL.	150°
OVER 2½"	225°

(F) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA [illegible] SUBPUNCHED OR SUBDRILLED [illegible] TO SIZE OR DRILLED FULL SIZE [illegible] SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 111 EIGHTH AVE. NEW YORK 17, N.Y. S.S. Nishimura SEP 26 1969

INST. - "19E"

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-18	GIRDER (19½ x 59⅝ x 97'-8¾")	

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
SHOP BOLTS ⅞"ϕ
OPEN HOLES 15/16"ϕ U.N.
A325 FIELD BOLTS ⅞"ϕ
SHOP CONTACT SURFACES NO PAINT (UN) (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

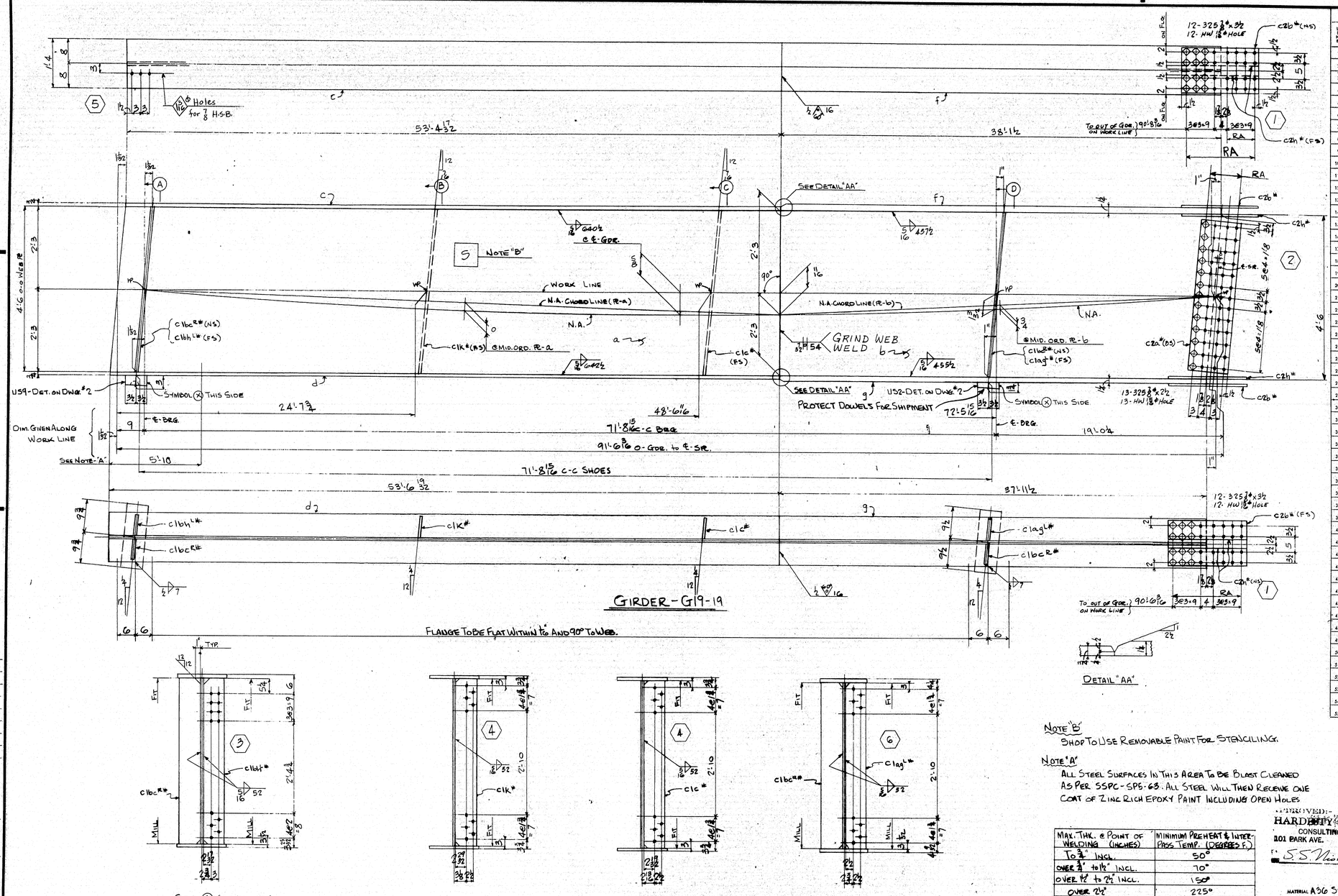
CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 8-1-69 IN CHARGE D.K. BERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 118

REVISION: NO. | DATE | INIT.

SUBMITTAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0
DATE

For location of details shown on this sheet refer to diagrams.
E5

3 1 106-116 INSP#1-1 3343 (Rev. 6-65) SEP , 1969



SHOP BILL										MILL ORDER			
	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
1		ONE-	GIRDER-	G19-	19								
2	a	1	PL	54		1/2	53	6 19/32	54"x 1/2	53	10½	1	01
3	b	1	PL	54		1/2	38	1½	54 x 1/2	38	7	26	07
4	c	1	PLU	16		3/4	53	4 17/32		53	8	1	03
5	d	1	PLU	16		3/4	53	6 19/32		53	8	1	03
6	f	1	PLU	16		1/4	38	1½		38	3	26	13
7	g	1	PLU	16		1/4	37	11½		38	3	26	13
8	C 2b*	2	PLU	15		1/2	2	1		21	3	24	47
9	C 2h*	4	PL	6½		1/2	2	1				J	
10	C 2a*	2	PLU	13		3/8	4	2		21	1	24	48
11	C 1bc*	2	BR	7½		3/4	4	6 1/32	MIE FIE	18	4	24	49
12	C 1K*	1	BR	7		1/2	4	6	FZE	18	4	24	51
13	C 1bh*	1	BR	7½		3/4	4	6 1/32	MIE FIE	18	4	24	49
14	C 1c*	1	BR	7		1/2	4	6	FZE	18	4	24	51
15	C 1ag*	1	BR	7½		3/4	4	6 1/32	MIE FIE	18	4	24	49
16													
17													
18													
19	US9	1	UPPER SHOE						DET. ON DWG #2				
20	US2	1	UPPER SHOE						DET. ON DWG #2				
21		24	325 7/8"ø				0	3½	H-H.H.-H-H.H.			M	
22		13	325 7/8"ø				0	7½	H-H.H.-H-H.H.				
23		37	HW 1 1/8"ø HOLE										
24													
25													
26	FWL	1	WD			5/16	366	0					
27	FWS	1	WD			5/16	52	0					
28	FW	1	WD			1/2	2	4					
29	SOS	1	WD			1/16	4	6					
30	VGOS	1	WD			3/4	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

NOTE "B"
SHOP TO USE REMOVABLE PAINT FOR STENCILING.

NOTE "A"
ALL STEEL SURFACES IN THIS AREA TO BE BLAST CLEANED AS PER SSPC-SP6-63. ALL STEEL WILL THEN RECEIVE ONE COAT OF ZINC RICH EPOXY PAINT INCLUDING OPEN HOLES

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
TO 3/4" INCL.	50°
OVER 3/4" TO 1 1/2" INCL.	70°
OVER 1 1/2" TO 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(5) ALL OPEN HOLES (UN)

USE E7016, E7018 & E7028 LOW H-HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST.-"19E"

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G19-19	GIRDER (19½ x 5½ x M245 3/4)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
BOLTS 7/8"ø
OPEN HOLES 1 5/16"ø U.N.
A325 FIELD BOLTS 7/8"ø
SHOP CONTACT SURFACES NO PAINT (UN). (SEE NOTE "A")
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.

STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

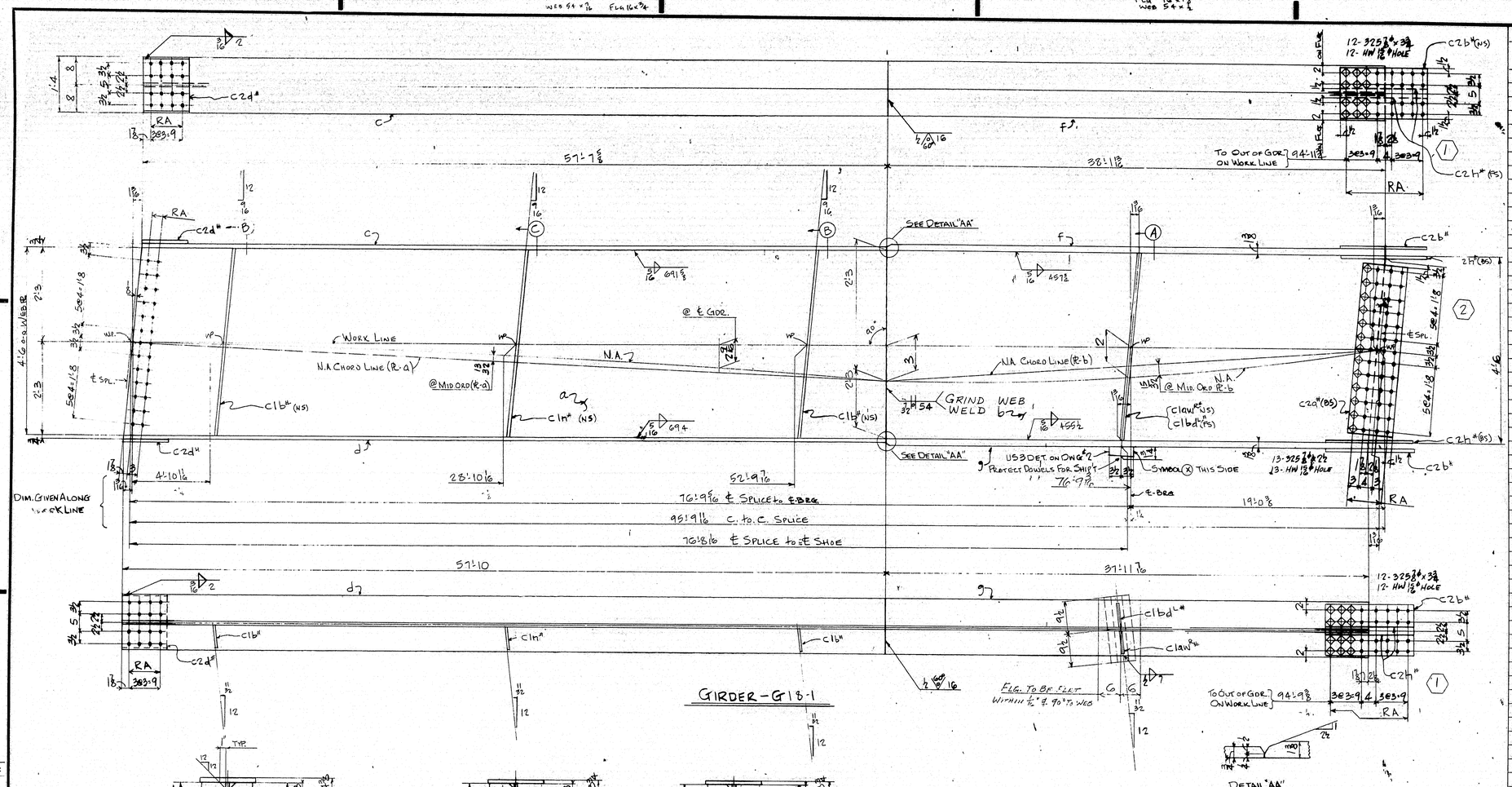
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RD DATE 8-1-69 IN CHARGE D.K. BERTOLET
CHECKED BY RJ DATE 9-11-69 SHOP NO. 2
CONTRACT CJ-6269-020 DRAWING NO. 119

For location of details shown on this sheet refer to diagrams.
E5

3

1/06-717 INSP #1-1 35433 (Rev. C 4-63) SEP 1 8 1969

GIRDER - G18-1



SHOP BILL										FIELD BILL	
PC. MK.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.
1		ONE - GIRDER - G18-1									
2	a	1	PL	54		1/16	57	10	℄ to ℄ 56 1/2 x 7/16	58	2 1/2
3	b	1	PL	54		1/2	38	1 15/16	56 x 1/2	38	07
4	c	1	PLU	16		3/8	57	7 5/8	16 x 3/8	57	11 1/2
5	d	1	PLU	16		3/8	57	10	" "	57	11 1/2
6	F	1	PLU	16		1 3/8	38	1 15/16	16 x 1 3/8	38	7 3/4
7	g	1	PLU	16		1 3/8	37	11 7/16	" "	38	7 3/4
8	C zb#	2	PLU	15		1/2	2	1		21	3
9	C zh#	4	PL	6 1/2		1/2	2	1			J
10	C za#	2	PLU	13		3/8	4	7		21	1
11	C law#	1	BR	7 1/2		3/4	4	6 1/16	MIE-FIE	18	4
12	C lbd#	1	BR	7 1/2		3/4	4	6 1/16	MIE-FIE	18	4
13	C lb#	2	BR	7		1/2	4	6	F2E	18	4
14	C ln#	1	BR	7		1/2	4	6	F2E	18	4
15											
16											
17											
18	US3	1	UPPER SHOE						DET. ON DWG #2		
19	C zd#	2	PL	15		1/2	1	0 3/8		21	3
20											
21		24	325	8 3/4		0	3	3/4	H-H.H.-H.H.N.		
22		13	325	8 3/4		0	2	1/2	H-H.H.-H.H.N.		M
23		37	HW	1 5/8	HOLE						
24											
25	FW	1	WD			3/16	0	8			
26	FWL	1	WD			5/16	383	1 3/4			
27	FWS	1	WD			5/16	43	4			
28	FW	1	WD			1/2	1	2			
29	SDS	1	WD			1/2	4	6			
30	V60S	1	WD			1/4	2	8			
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S. Nishimura SEP 26 1969

INST. - 18W

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-1	GIRDER (59 x 19 x 97 1/4)	

PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
BOLTS 7/8
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE I RED LEAD (LIN)

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP. '96
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM — POTTSTOWN WORKS
MADE BY DML DATE 7-28-69 IN CHARGE D.V. DIRECTOR ET
CHECKED BY WRS DATE 8-7-69 SHOP NO. 7
CONTRACT CJ-6209-020 DRAWING NO. 120

NO.	DATE	REVISION
SUBMITTAL		
DATE		

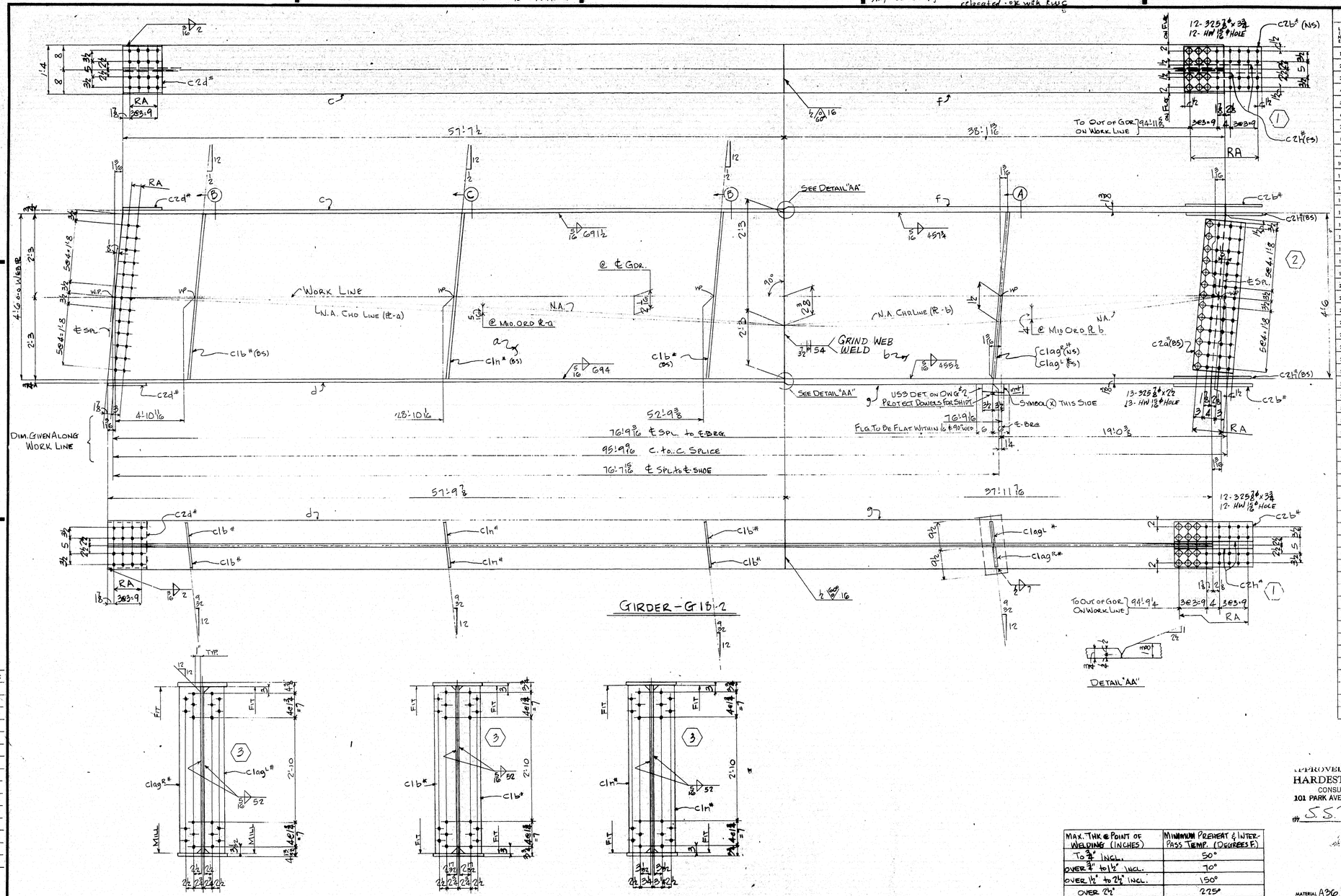
For location of details shown on this sheet refer to diagrams.
65

2°33'12" - TAN A = 8.04940 INSP#1-1 106-118

1 5 1968

stiff. 7×½ ON WEB 54×½ FLG 16×¾

clag^R mislocated 3" sloping cut out, grind flush-mp Flg 16×1½ web 54×½ relocated · OK with BWS



MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(3) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD

RA - HOLES MARKED "RA" SUBPUNCHED OR SUBDRILLED ¼" SMALLER THAN SIZE OR DRILLED FULL SIZE WITH PIECES IN SOLID WITH CONNECTING PARTS ASSEMBLED.

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR PATTERN	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WEIGHT EACH PIECE	WEIGHT TOTAL
1		ONE -	GIRDER -	G18.2							
2	a	1	PL	54		1/16	57	9 3/4	54½×16	58	24
3	b	1	PL	54		½	38	1 15/16	54×½	38	07
4	c	1	PLU	16		¾	57	7½	16×¾	57	11½
5	d	1	PLU	16		¾	57	9 3/8	" "	57	11½
6	F	1	PLU	16		1 3/8	38	1 15/16	16×1 3/8	38	22
7	g	1	PLU	16		1 3/8	37	11 7/16	" "	38	22
8	C 26#	2	PLU	15		½	2	1		21	3
9	C 2h#	4	PL	6½		½	2	1			3
10	C 2a#	2	PLU	13		⅜	4	2		21	1
11	C 1aa^R#	1	BR	7½		¾	4	6	GR. MIE-FIE	18	4
12	C 1aa^L#	1	BR	7½		¾	4	6	GR. MIE-FIE	18	4
13	C b*	4	BR	7		½	4	6	FZE	18	4
14	C n*	2	BR	7		½	4	6	FZE	18	4
15											
16											
17											
18	US3	1	UPPER SHOE						DET. ON DWG #2		
19	C 2d#	2	PL	15		½	1	0 3/8		21	3
20											
21		24	325	⅞			0	3¾	H-H.H.-H.H.N.		
22		13	325	⅞			0	2½	H-H.H.-H.H.N.		
23		37	HW	1⅛	HOLE						
24											
25	FW	1	WD			5/16	0	8			
26	FWL	1	WD			5/16	383	1¼			
27	FWS	1	WD			5/16	69	4			
28	FW	1	WD			½	1	2			
29	SDS	1	WD			5/16	4	6			
30	V60S	1	WD			¾	2	8			
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura
SEP 26 1969

INST.-18W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-2	GIRDER (59"×19"×9'11-0")	

PAY ITEM - 504.711

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM — POTTSTOWN WORKS
MADE BY DML DATE 7-28-69 IN CHARGE B.K. BIRKELBACH
CHECKED BY DS DATE 8-1-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 121

MATERIAL A36 STEEL
BOLTS ⅞
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD-AS NOTED
MILL-AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LW)

REVISION NO.	DATE	INIT.
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
0		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

For location of details shown on this sheet refer to diagrams.

65

2°30'-12" TAN A = 3.64068 INSP#1-1

106-119

GIRDER - G18-3

SECT (A) (DEVELOPED)

SECT. (B) (DEVELOPED)

SECT. (C) (DEVELOPED)

DETAIL "AA"

SHOP BILL												MILL ORDER			
PC. MK.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOLDED	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	WGHT. PER FT.	
			ONE - GIRDER - G18-3										
	a	1	PL	54		1/16	57	9 3/4	56 1/2 x 7/16	58	2 1/4	24	05
	b	1	PL	54		1/2	38	11 5/16	56 x 1/2	38	07	24	85
	c	1	PLW	16		3/8	57	7 1/16	16 x 3/8	57	11 1/2	24	17
	d	1	PLW	16		3/8	57	9 3/4	" "	57	11 1/2	24	17
	f	1	PLW	16		1 3/8	38	11 5/16	16 x 1 3/8	38	11 3/8	24	12
	g	1	PLW	16		1 3/8	37	11 3/8	" "	38	2 1/4	24	12
C	2b#	2	PLW	15		1/2	2	1		21	3	24	17
C	2h#	4	PL	6 1/2		1/2	2	1			J		
C	2a#	2	PLW	13		3/8	4	2		21	1	24	18
C	lag#R	1	BR	7 1/2		3/4	4	0 3/4	MIE - FIE	18	4	24	44
C	lag#L	1	BR	7 1/2		3/4	4	0 3/4	MIE - FIE	18	4	24	44
C	1b#	4	BR	7		1/2	4	6	FZE	18	4	24	51
C	1n#	2	BR	7		1/2	4	6	FZE	18	4	24	51
	U33	1	UPPER SHOE						DET. ON DWG #2				
C	2d#	2	PW	15		1/2	1	0 3/8		21	3	24	47
		24	325	7/8			0	3 3/4	4-H.H.-H.H.N.				
		13	325	7/8			0	2 1/2	H.H.H.-H.H.N.				
		37	HW	1 1/8	HOLE								
	FW	1	WD			3/16	0	8					
	FWL	1	WD			3/16	383	0 4					
	FWS	1	WD			3/16	69	4					
	FW	1	WD			1/2	1	2					
	SDS	1	WD			1/16	4	6					
	V60S	1	WD			1/4	2	8					

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(WP) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.
RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 1/4" LESS THAN SOLID TO SIZE OR DRILLED FULL SIZE AFTER THE SOLID WITH CONNECTING PARTS ASSEMBLED

For location of details shown on this sheet refer to diagram.

E5

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SEP 26 1969

INST.-18W

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-3	GIRDER (59 x 19 x 97'-0")	

PAY ITEM - 504.711

MATERIAL A36 STEEL
BOLTS 7/8
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 TYPE II RED LEAD (LIN)

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY DML DATE 7-28-69 IN CHARGE B.V. BERTOLET
CHECKED BY FEG DATE 8-11-69 SHOP NO. 2
CONTRACT CJ-G289-020 DRAWING NO. 122

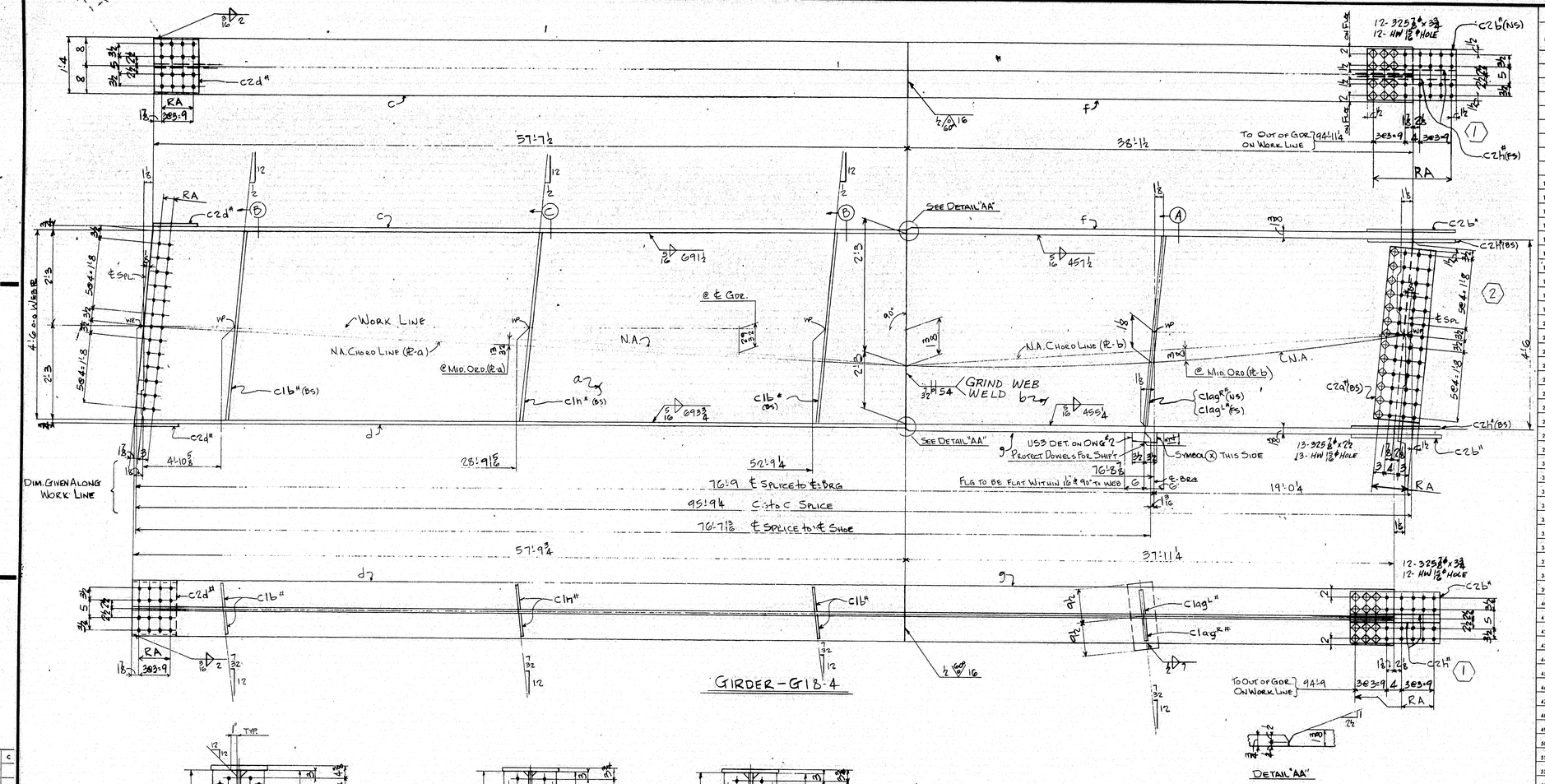
REVISION

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

3 1 2'-27-08 TAN A=8.63170 INSP#1-1 106-120

5 INCHES



SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WEIGHT FT.	WEIGHT IN.		
1		ONE - GIRDER - G18-4											
2	a	1	PL	54		1/16	57	9¾	56k×7/16	55	2⅝	26	56
3	b	1	PL	54		½	38	1½	56×½	38	07	26	56
4	c	1	PLU	16		3/8	57	7½	16×3/8	57	11½	26	11
5	d	1	PLU	16		3/8	57	9¾	" "	57	11½	26	11
6	f	1	PLU	16		1 3/8	38	1½	16×1 3/8	38	9¾	26	12
7	g	1	PLU	16		1 3/8	37	11¼	" "	38	7 3/4	26	12
8	C 26#	2	PLU	15		½	2	1		21	3	24	47
9	C 2h#	4	PL	6½		½	2	1				J	
10	C 2a#	2	PLU	13		3/4	4	2		21	1	24	45
11	C 1ag R#	1	DR	7½		3/4	4	G3/4	MIE - FIE	18	4	24	49
12	C 1ag L#	1	DR	7½		3/4	4	G3/4	MIE - FIE	18	4	24	49
13	C 1b #	4	DR	7		½	4	G	FIE	18	4	24	51
14	C 1h #	2	DR	7		½	4	G	FIE	18	4	24	51
15													
16													
17													
18	US3	1	UPPER SHOE						DET. ON DWG #2			Y	
19	C 2d#	2	PLU	15		½	1	0 3/8		21	3	24	47
20													
21		24	325	7/8			0	3¾	H-H.H.-H.H.W.				
22		13	325	7/8			0	2½	H-H.H.-H.H.W.			M	
23		37	HW	1 1/8	HOLE								
24													
25	FW	1	WD			3/16	0	8					
26	FWL	1	WD			5/16	383	0					
27	FWS	1	WD			5/16	69	4					
28	FW	1	WD			2	1	2					
29	SDS	1	WD			7/16	4	6					
30	V60S	1	WD			3/4	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(3) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD
RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED ½" SMALLER THAN SIZE OR DRILLED FULL SIZE WITH THE SOLID WITH CONNECTING PARTS ASSEMBLED

For location of details shown on this sheet refer to diagram.

E5

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

INST. - 18W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-4	GIRDER (5'9"x19"x97'0")	

PAY ITEM - 504.711

GIRDER

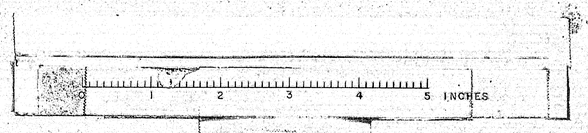
MATERIAL A36 STEEL
BOLTS 7/8
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE II RED LEAD (LIN)

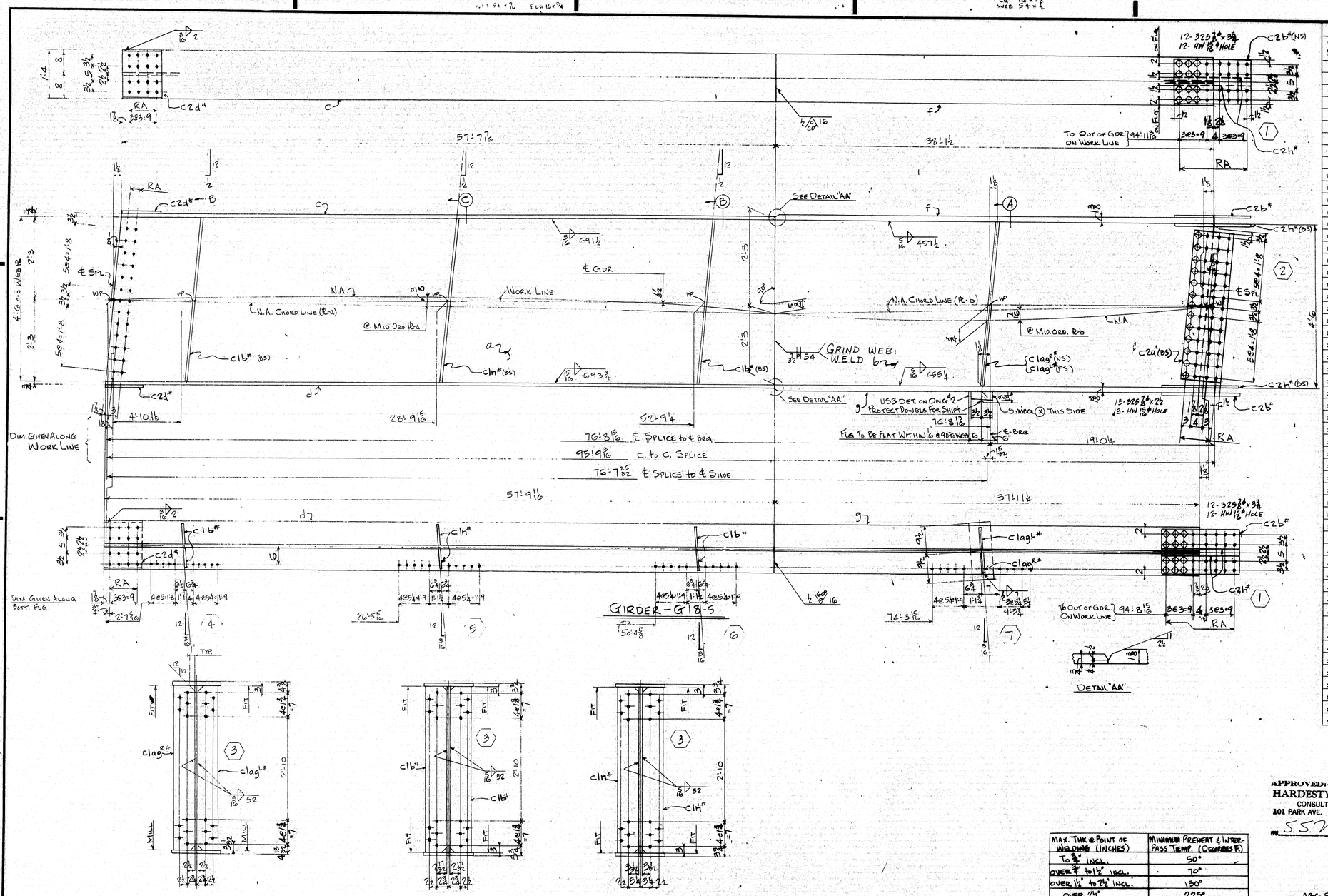
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM Pottstown WORKS
MADE BY DML DATE 7-29-69 IN CHARGE D.V. DESHUET
CHECKED BY FRS DATE 8-11-69 SHOP NO. 2
CONTRACT CJ-6219-020 DRAWING NO. 123

REVISION NO.	DATE	INIT.
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

3 1 2°24'-04 TAN A = 8.62254 INSP#1-1 10 6-12 1




57'-7 15/16
38'-1 1/2
57'-9 1/4
57'-9 1/16
37'-11 1/4
76'-8 15/16 ℄ SPLICE to ℄ BRG.
95'-9 15/16 C. to C. SPLICE
76'-7 25/32 ℄ SPLICE to ℄ SHOE
DIM. GIVEN ALONG WORK LINE
DIM GIVEN ALONG BOTT FLG
℄ GDR
℄ SPL
WORK LINE
N.A.
N.A. CHORD LINE (R-a)
@ M10.000 R-a
N.A. CHORD LINE (R-b)
@ M10.000 R-b
SEE DETAIL "AA"
GRIND WEB; WELD b
USB DET. ON DWG #2
PROTECT DOWELS FOR SHOP
SYMBOL (X) THIS SIDE
FLG TO BE FLAT WITH IN 6" BRG
GIRDER - G18-5
TO OUT OF GDR ON WORK LINE 94'-11 7/16
TO OUT OF GDR ON WORK LINE 94'-8 15/16
DETAIL "AA"
SECT (A) (DEVELOPED)
SECT. (B) (DEVELOPED)
SECT. (C) (DEVELOPED)
TYP.
MILL
FIT
RA

| SHOP BILL | | |

GIRDER-G18-6

SECT. (A) (DEVELOPED)

SECT. (B) (DEVELOPED)

SECT. (C) (DEVELOPED)

SECT. (E) (F) (G) (H)

DETAIL "AA"

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

(A) ALL OPEN HOLES

USE E7016 E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING

NO TACK WELDING WILL BE PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD

RA HOLES MARKED RA SHALL BE SUBPUNCH OR SUBDRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

For location of details shown on this sheet refer to diagrams.

E5

SHOP BILL

ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	ONE - GIRDER - G18-6						
a	1	PL	54	1/2	57	9½	56½ x ½
b	1	PL	54	½	38	1½	56 x ½
c	1	PLW	16	¾	57	7/16	16 x ¾
d	1	PLW	16	¾	57	9½	" "
f	1	PLW	16	1 3/16	38	1 3/16	16 x 1 3/16
g	1	PLW	16	1 3/16	37	11 5/16	16 x 1 3/16
C c2b*	2	PLW	15	⅜	2	1	
C c2h*	4	PL	6½	½	2	1	
C c2a*	2	PLW	13	⅜	4	2	
C lgt2*	1	BR	7½	¾	4	6½	MIE-FIE
C lgt3*	1	BR	7½	¾	4	6½	MIE-FIE
C 1b*	5	BR	7	½	4	6	FIE
C 1n*	1	BR	7	½	4	6	FIE
C 2d*	2	PLW	15	½	1	0 5/8	
ac	1	PL	14½	5/8	4	6	BENT
ad	1	PL	14½	5/8	4	6	BENT
US3	1	UPPER SHOE					DET. ON DWG #2
af	1	PL	14½	5/8	4	6	BENT
ag	1	PL	14½	5/8	4	7	BENT
FW	1	WD			31/16	0	8
FWL	1	WD			382	11¼	
FWS	1	WD			69	4	
FW	1	WD			½	1	2
SDS	1	WD			1/16	4	6
V605	1	WD			½	7	8
	18	325	7/8		0	2¾	H.H.H.-H.H.N
	13	325	7/8		0	2½	
	18	325	7/8		0	3¼	
	24	325	15/16	HOLE	0	3½	
	73	HW	15/16	HOLE			

INST.-18W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-6	GIRDER (59"x28#x740)	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nachman SEP 26 1969

PAY ITEM - 504.711

GIRDERS

MATERIAL A36 STEEL
BOLTS ⅞"ø
OPEN HOLES 15/16"ø
A325 FIELD BOLTS
SHOP CONTACT SURFACE NO PRINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE I RED LEAD (LIN).

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(12)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM
MADE BY JML DATE 7-30-69
CHECKED BY RG DATE 8-11-69
CONTRACT CJ-63A-010

NO.	DATE	REVISION
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

1062/23

GIRDER - G18-7 - G18-8

SHOP BILL

ITEM NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		2	GIRDER - G18-7	1-G18-8					
2	a	2	PL	54		1/16	57	9 3/8	56 1/2 x 7/16
3	b	2	PL	54		1/2	38	1 1/2	56 x 1/2
4	c	2	PLU	16		1/2	57	11 1/4	16 x 3/4
5	d	2	PLU	16		3/4	57	9 3/8	" "
6	f	2	PLU	16		1 3/8	38	1 1/2	16 x 1 3/8
7	g	2	PLU	16		1 3/8	37	11 3/8	" "
8	C 25*	4	PLU	15		1/2	2	1	
9	C 2h*	8	PL	6 1/2		1/2	2	1	
10	C 2a*	4	PLU	13		3/8	4	2	
11	C lat R*	2	BR	7 1/2		3/4	4	6	Cop MIE - FIE
12	C lat L*	2	BR	7 1/2		3/4	4	6	Cop MIE - FIE
13	C 1b*	9	BR	7		1/2	4	6	FZE 1-G18-7, 6-G18-8
14	C 1h*	3	BR	7		1/2	4	6	FZE 1-G18-7, 2-G18-8
15									
16									
17									
18	US3	2	UPPER SHOE						DET. ON DWG #2
19	C 2d*	4	PLU	15		1/2	1	0 3/8	
20									
21		48	325 3/4				0	3 3/4	H-H.H-H.H-N.
22		26	325 3/4				0	2 1/2	H-H.H-H.H-N.
23		74	HN		HOLE				
24									
25	FW	2	WD			3/16	0	8	
26	FWL	2	WD			5/16	382	11	
27	FWS	2	WD			5/16	69	4	
28	FW	2	WD			1/2	1	2	
29	SDS	2	WD			1/2	4	6	
30	V60S	2	WD			3/4	2	8	

MILL ORDER LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
58	2 1/2	26	05
38	0 7/8	26	07
57	11 1/2	26	17
57	11 1/2	26	17
38	9 3/8	26	12
38	9 3/8	26	12
21	3	24	47
		J	
21	1	24	48
18	4	24	49
18	4	24	49
18	4	24	51
18	4	24	51
21	3	24	47
		M	

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

SECT (A) (DEVELOPED)

SECT. (B) (DEVELOPED)

SECT. (C) (DEVELOPED)

INST. - 13W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-7	GIRDER (59 x 19 x 96 - 1 1/2)	
ONE	G18-8	GIRDER (" " ")	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 22, N.Y.
BY S.S. Mashimura SEP 26 1969

PAY ITEM - 504.711

GIRDERS

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT No. I-95-1(22)16
CONT. No 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM — POTTSTOWN WORKS
MADE BY DML DATE 7-29-69 — IN CHARGE B.K. BERTOLET
CHECKED BY TRG DATE 8-1-69 — SHOP NO. 2
CONTRACT CJ-6249-020 — DRAWING NO. 126

MATERIAL A36 STEEL
BOLTS 7/8
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD

RA - HOT ... SUBPUNCH OR SUBDRILL ... D SIZE (DRILLED FULL ... SOLID WITH CONNECTING PARTS ASSEMBLED.

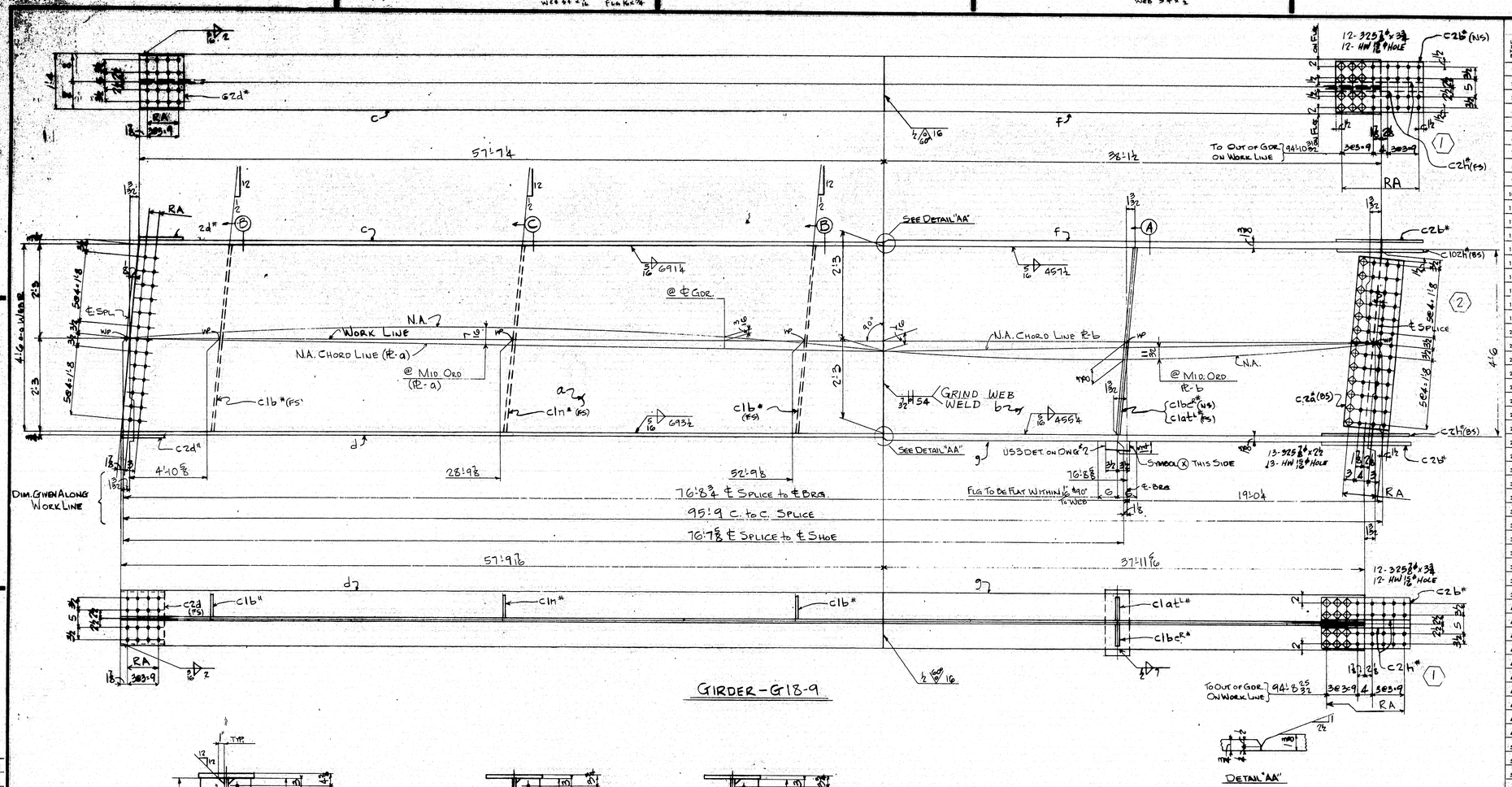
REVISION	NO.	DATE	INIT.
SUBMITTAL	1		
DATE	2		

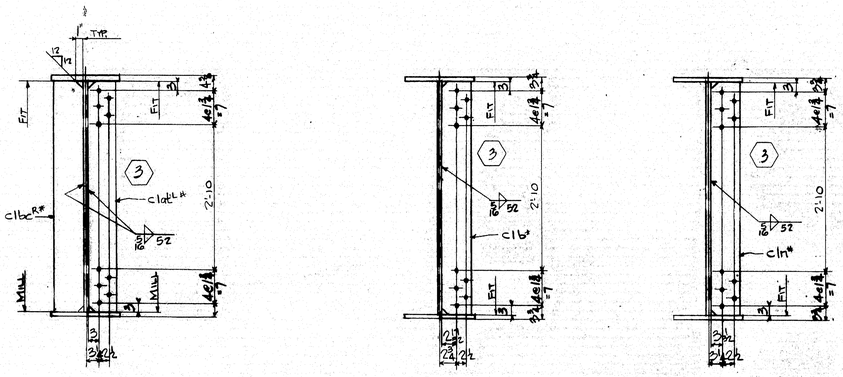
For location of details shown on this sheet refer to diagrams.
E5

3 1 2° 17-10 - TAN A = 8 60121 INSP#1-1

106-124

33433 (Rev. C 4-65)





SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE-	GIRDER-	G18-9					
2	a	1	PL	54		1/2	57	9 7/16	54 1/2 × 1/2
3	b	1	PL	54		1/2	38	1 1/2	54 × 1/2
4	c	1	PLU	16		3/4	57	7 1/4	16 × 3/4
5	d	1	PLU	16		3/4	57	9 7/16	" "
6	f	1	PLU	16		1 3/8	38	1 1/2	16 × 1 3/8
7	g	1	PLU	16		1 3/8	37	11 5/16	" "
8	C 26*	2	PLU	15		1/2	2	1	
9	C 2H*	4	PL	6 1/2		1/2	2	1	
10	C 2a*	2	PLU	13		3/8	4	2	
11	C 1bc*	1	BR	7 1/2		3/4	4	6	MIE-FIE
12	C 1at*	1	BR	7 1/2		3/4	4	6	MIE-FIE
13	C 1b*	2	BR	7		1/2	4	6	FZE
14	C 1n*	1	BR	7		1/2	4	6	FZE
15									
16									
17									
18	US3	1	UPPER SHOE						DET. ON DWG #2
19	C 2d*	2	PLU	15		1/2	1	0 3/8	
20									
21		24	325	3/4			0	3 3/4	H-HH-H.HN.
22		13	325	3/4			0	2 1/2	H-HH-H.HN.
23		37	HW	1 1/8	HOLE				
24									
25	FW	1	WD			3/16	0	8	
26	FWL	1	WD			5/16	382	11	
27	FWS	1	WD			5/16	43	4	
28	FW	1	WD			1/2	1	2	
29	SDS	1	WD			1/2	4	6	
30	Y605	1	WD			3/4	2	8	
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM UNIT
38	2 1/2	26	05
38	07	26	01
57	11 1/2	26	17
57	11 1/2	26	17
38	9 1/2	26	12
38	2 1/2	26	12
21	3	24	47
		J	
21	1	24	48
18	4	24	49
18	4	24	49
18	4	24	51
18	4	24	51
21	3	24	47
		M	

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

(1/2 3/8) All Open Holes

USE E7016 E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
No Tack Welding Permitted Unless Shown or Incorporated in Final Weld

RA - Holes Marked RA Shall Be Subpunched or Subdrilled 1/4" and Reamed to Size or Drilled Full Size from the Solid with Connecting Parts Assembled.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S. S. Nishimura
SEP 26 1969

Material A36 Steel
Bolts 7/8
Open Holes 15/16
A325 Field Bolts
Shop Contact Surfaces No Paint
Weld-As Noted
Mill-As Noted
Paint One Coat AASHO-M72-Type II Red Lead (LIN)

SUBMITTAL	1	2	3	4	5	6	7	8	9	10
DATE										

INST.-18W

Required List

QTY.	Shipping Mark	Description	Remarks
ONE	G18-9	Girder (59 × 19 × 9/16 : 11 1/2)	

Pay Item - 504.711

GIRDER

NO.	DATE	REVISION
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

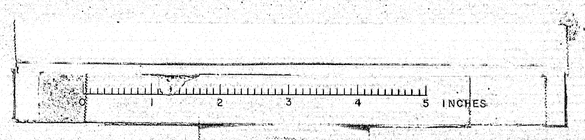
Customer: Maine State Highway Commission
Piscataqua River Bridge
Project No. I-95-1(22)16
Cont. No 3 - New Hampshire App
Structural Steel
BETHLEHEM STEEL CORPORATION
Fabricated Steel Construction
Pottstown Drafting Room — Pottstown Works
Made by DML Date 7-29-69 — In Charge B.K. Bertolet
Checked by RJ Date 8-11-69 — Shop No. 2
Contract CJ-6249-020 — Drawing No. 127

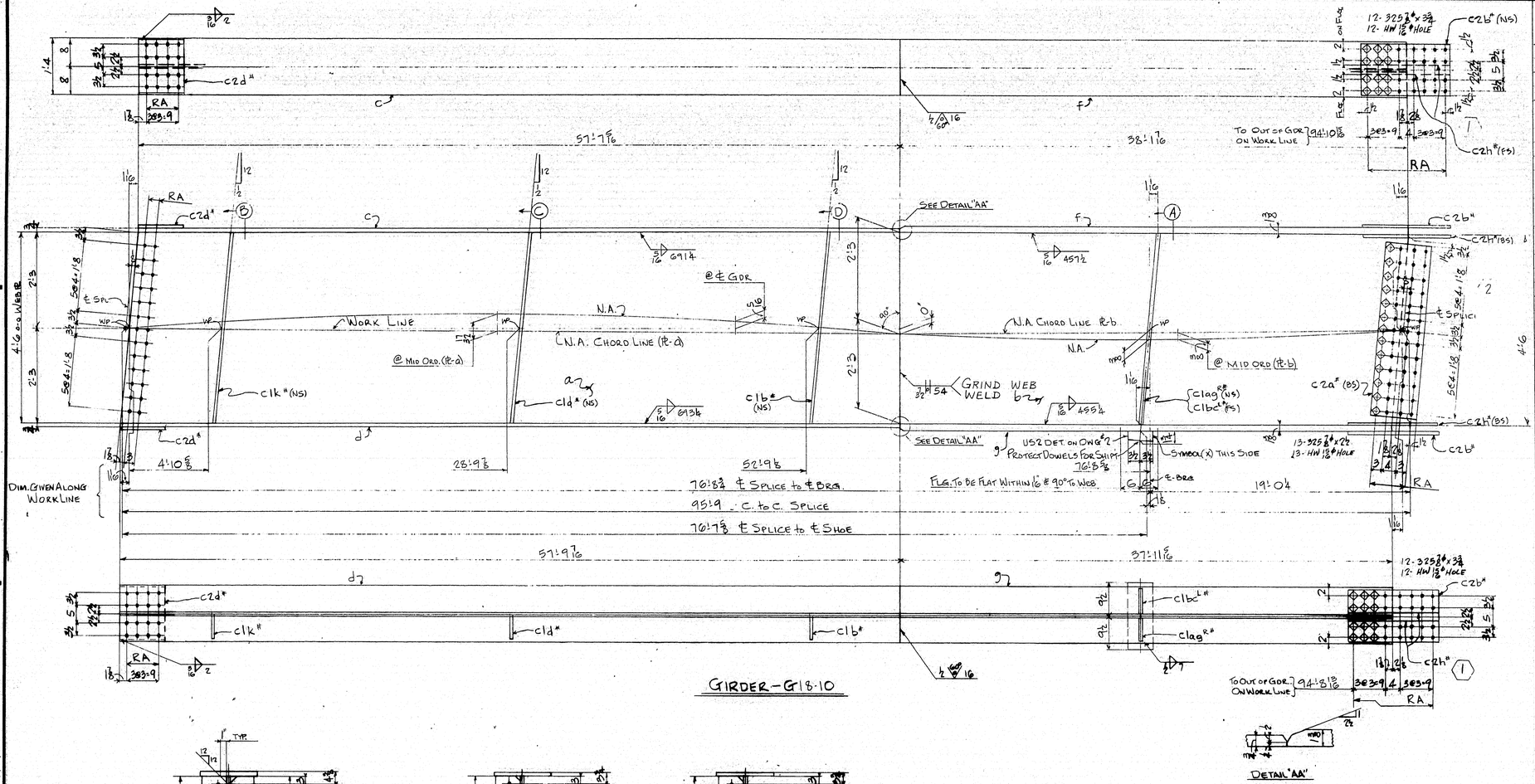
For location of details shown on this sheet refer to diagram 65

3 1 2°17'26" - Tan A = 8.60205 INSP#1-1

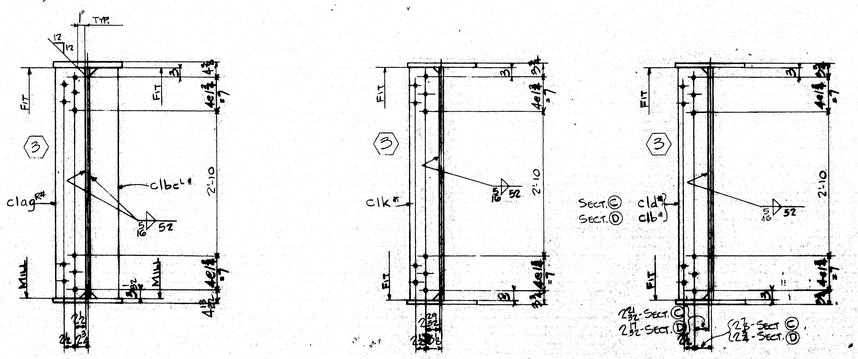
106 - 125

33433 (Rev.C-4.63) 1 9 1969





GIRDER-G18-10



	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
p			
s			
w			
y			

For location of details shown on this sheet refer to diagram.

E5

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIDE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER ITEM PAGE	MILL ORDER ITEM NO.
1		ONE - GIRDER - G18-10											
2	a	1	PL	54		1/16	57	9 7/16	56 1/2 x 7/16	58	2 4	26	05
3	b	1	PL	54		1/2	38	1 7/16	56 x 1/2	38	07	26	07
4	c	1	PLU	16		3/4	57	7 7/16	16 x 3/4	57	11 1/2	26	17
5	d	1	PLU	16		3/4	57	9 7/16	" "	57	11 1/2	26	17
6	f	1	PLU	16		1 3/8	38	1 7/16	16 x 1 3/8	38	0 4	26	12
7	g	1	PLU	16		1 3/8	37	11 5/16	" "	38	2 4	26	12
8	C 26"	2	PLU	15		1/2	2	1		21	3	24	47
9	C 2H"	4	PL	6 1/2		1/2	2	1				J	
10	C 2a"	2	PLU	13		3/8	4	2		21	1	24	48
11	C lag"	1	BR	7 1/2		3/4	4	Cont.	MIE - FIE	18	4	24	49
12	C 1bc"	1	BR	7 1/2		3/4	4	Cont.	MIE - FIE	18	4	24	49
13	C 1b"	1	BR	7		1/2	4	6	FIE	18	4	24	51
14	C 1d"	1	BR	7		1/2	4	6	FIE	18	4	24	51
15	C 1k"	1	BR	7		1/2	4	6	FIE	18	4	24	51
16													
17													
18	US2	1	UPPER SHOE						DET. ON DWG #2				
19	C 2d"	2	PLU	15		1/2	1	0 3/8		21	3	24	47
20													
21		24	325 7/8 ϕ				0	3 3/4	H-H-H-H-H-H				
22		13	325 7/8 ϕ				0	2 1/2	H-H-H-H-H-H			M	
23		37	HW 1 1/8 ϕ HOLE										
24													
25	FW	1	WD			3/16	0	8					
26	FWL	1	WD			3/16	382	11					
27	FWS	1	WD			3/16	43	4					
28	FW	1	WD			2	1	2					
29	SDS	1	WD			1/16	4	6					
30	V60S	1	WD			3/4	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

INST.-18E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-10	GIRDER (59 x 19 x 9 1/2)	

MAX. THICK @ POINT OF WELD ENTRY (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(A) ALL OPEN HOLES

USE E7016 E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

ALL HOLES MARKED (A) SHALL BE PUNCHED 1/4" OR SUBDRILLED 3/16" SMALLER THAN SIZE OR DRILLED FULL SIZE WHEN SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nicholson SEP 26 1969

PAY ITEM - 504.711

GIRDER

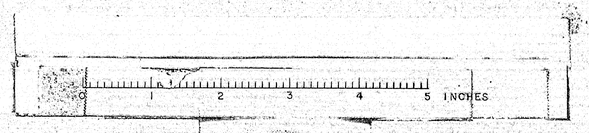
MATERIAL A36 STEEL
BOLTS 7/8"
OPEN HOLES 1 1/16"
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

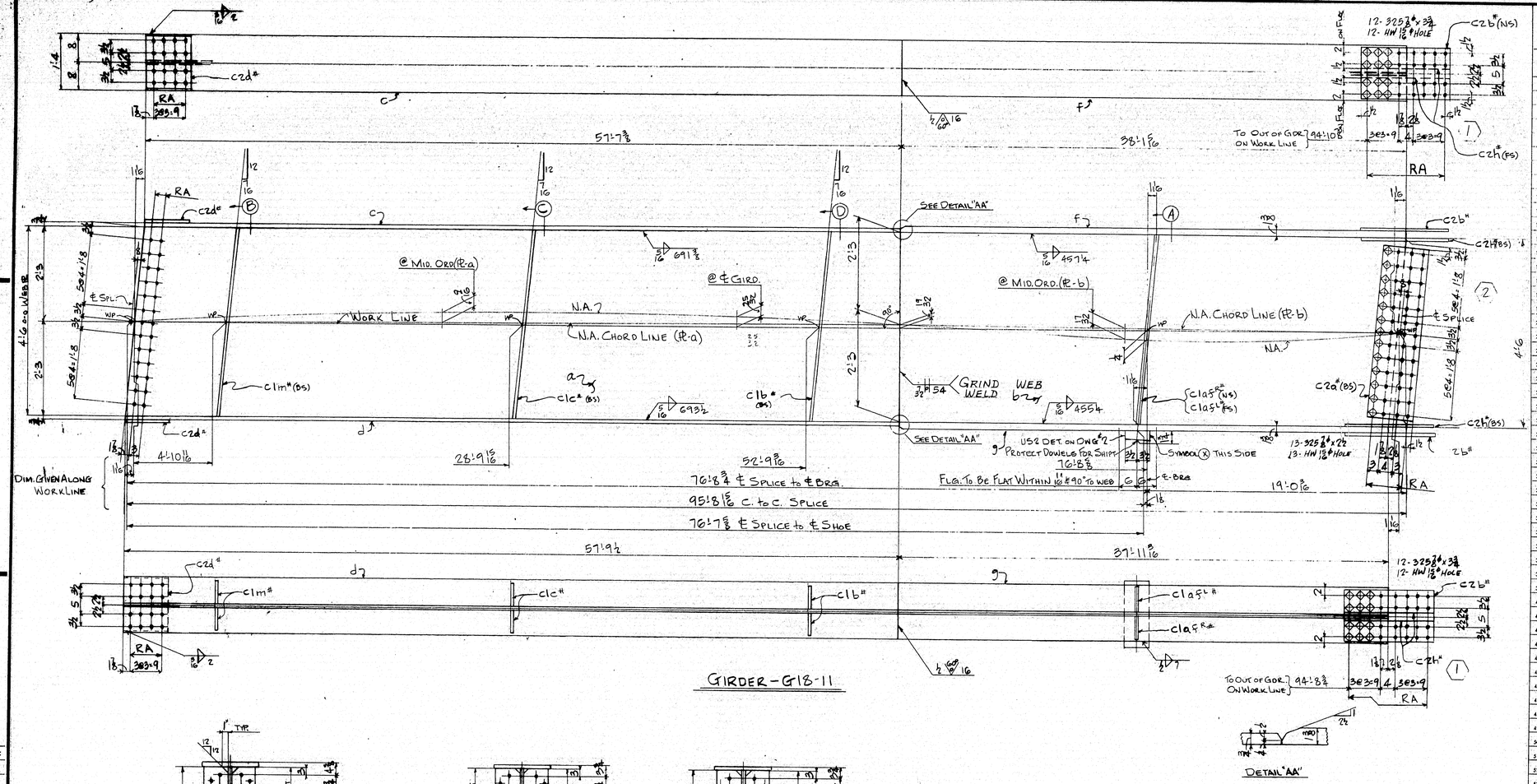
NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

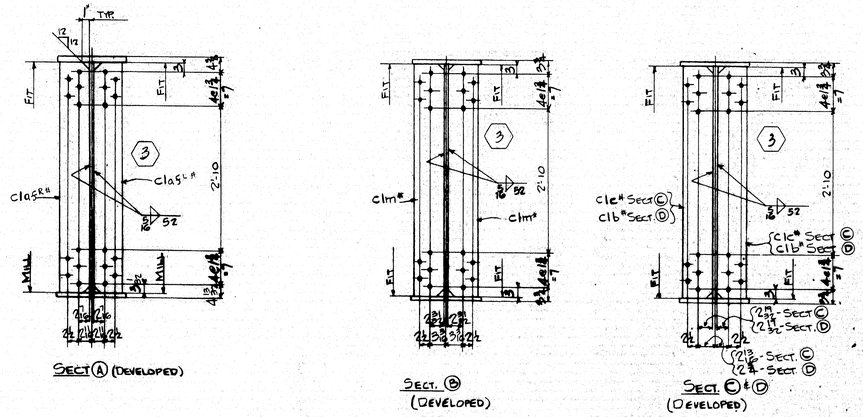
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(12)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN WORKS
POTTSTOWN DRAFTING ROOM
MADE BY DML DATE 5-4-69 IN CHARGE E.V. BRETCHET
CHECKED BY DATE SHOP NO. 2
CONTRACT CJ-6299-020 DRAWING NO. 128

3 1 2°16'-50" TAN A. 8.60115 106-126 INSP#1-1







SHOP BILL

MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS
	ONE - GIRDER - G18-11								
	a	1	PL	54		7/16	57	9 1/2	56 1/2 x 7/16
	b	1	PL	54		1/2	38	1 15/16	56 x 1/2
	c	1	PLU	16		3/8	57	7 7/8	16 x 3/8
	d	1	PLU	16		3/4	57	9 1/2	" "
	F	1	PLU	16		1 3/8	38	1 15/16	16 x 1 3/8
	9	1	PLU	16		1 3/8	37	11 5/16	" "
C	2b#	2	PLU	15		1/2	2	1	
C	2h#	4	PL	6 1/2		1/2	2	1	
C	2a#	2	PLU	13		3/8	4	2	
C	1a5Ra	1	BR	7 1/2		3/4	4	G 32 MIE - FIE	
C	1a5Fa	1	BR	7 1/2		3/4	4	G 32 MIE - FIE	
C	1b#	2	BR	7		1/2	4	G. FZE	
C	1c#	2	BR	7		1/2	4	G FZE	
C	1m#	2	BR	7		1/2	4	G FZE	
	US2	1	UPPER SHOE						DET. ON DWG #2
C	2d#	2	PW	15		1/2	1	0 7/8	
		24	325	7/8 ϕ			0	3 3/4	H-H.H.-H.H.N.
		13	325	7/8 ϕ			0	2 1/2	H-H.H.-H.H.N.
		37	HW	1 5/8 ϕ HOLE					
	FW	1	WD		3/16		0	8	
	FWL	1	WD		3/16		382	10 3/4	
	FWS	1	WD		3/16		69	4	
	FW	1	WD		1/2		1	2	
	SDS	1	WD		7/16		4	6	
	Y60S	1	WD		3/4		2	8	

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
58	2 1/2	26	05
38	07	26	09
57	11 1/2	26	17
57	11 1/2	26	17
38	2 1/2	26	12
38	2 1/2	26	12
21	3	24	47
			J
21	1	24	48
18	4	24	49
18	4	24	49
18	4	24	51
18	4	24	51
18	4	24	51
21	3	24	47
			M

INST.-18E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-11	GIRDER (59 x 19 x 96:11b)	

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(A) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD

RA • HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED SIZE OR DRILLED FULL SIZE WHEN SOLID WITH CONNECTING PARTS ASSEMBLED.

For location of details shown on this sheet refer to diagrams.

E5

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY J.S. Nishimura
SEP 26 1969

PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
BOLTS 7/8 ϕ
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE II RED LEAD (LIN)

NO.	DATE	REVISION

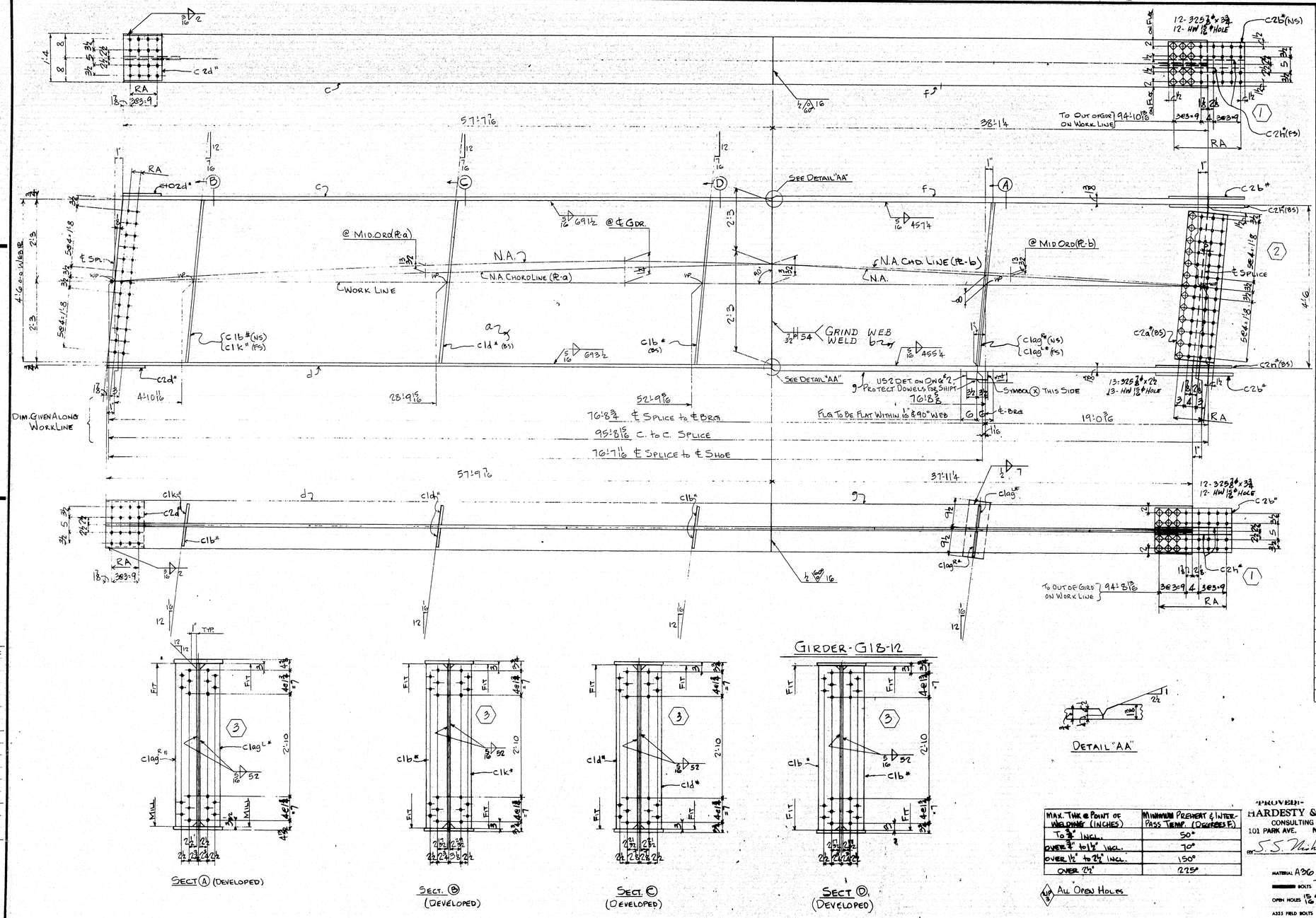
SUBMITTAL DATE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

POTTSTOWN DRAFTING ROOM — POTTSTOWN WORKS
MADE BY DML DATE 8-4-69 — IN CHARGE B.K. BEERTOLET
CHECKED BY PS DATE 8-13-69 — SHOP NO. 2
CONTRACT CJ-6249-020 — DRAWING NO. 129

3 1 72.13'48" — TAN A = 3.59040 106 - 127 INSP#1-1

33433 (Rev. C 6-63) SEP 9 1969



Mark	Assembly Mark	No.	Shape	Section Size	Section Size or Pounds	Thick	Length Ft.	Length In.	Remarks	Mill Order Length Ft.	Mill Order Length In.	Mill Order Length Fr.	Mill Order Page	Mill Order Item
		ONE - GIRDER - G18-12												
	a	1	PL	54		7/16	57	9 15/16	56'-2"x16	58	2 1/2	26	05	
	b	1	PL	54		1/2	38	1 1/4	56"x1/2	39	0 7/8	26	07	
	c	1	PLU	16		3/4	57	7/16	16"x3/4	57	1 1/2	26	11	
	d	1	PLU	16		3/4	57	9 15/16	" "	57	1 1/2	26	11	
	F	1	PLU	16		1 3/8	38	1 1/4	16"x1 3/8"	38	2 3/8	26	12	
	g	1	PLU	16		1 3/8	37	11 1/4	" "	38	2 3/8	26	12	
C	2b"	2	PLU	15		1/2	2	1		21	3	24	47	
C	2h"	4	PL	6 1/2		1/2	2	1				J		
C	2a"	2	PLU	13		3/8	4	2		21	1	24	48	
C	1ag"R	1	BR	7 1/2		3/4	4	6 1/2	MIE-FIE	18	4	24	49	
C	1ag"L	1	BR	7 1/2		3/4	4	6 1/2	MIE-FIE	18	4	24	49	
C	1b"	3	BR	7		1/2	4	6	FZE	18	4	24	51	
C	1d"	2	BR	7		1/2	4	6	FZE	18	4	24	51	
C	1k"	1	BR	7		1/2	4	6	FZE	18	4	24	51	
	US2	1	UPPER SHOE						DET. ON DWG #2					
C	2d"	2	PLU	15		1/2	1	0 3/8		21	3	24	47	
		24	325 7/8"				0	3 3/4	H-H-H-H-H-H					
		13	325 1 1/8"				0	2 1/2	H-H-H-H-H-H					M
		37	HW 1 1/8"	HOLE										
	FW	1	WD			3/16	0	8						
	FWL	1	WD			5/16	382	11						
	FWS	1	WD			5/16	69	4						
	FW	1	WD			1/2	1	2						
	SDS	1	WD			1/16	4	6						
	Y605	1	WD			3/4	2	8						

Inst. - 18E

Required List

Qty.	Shipping Mark	Description	Remarks
ONE	G18-12	Girder (59x19x96'-11/2)	

Max. Thk @ Point of Welding (Inches)	Minimum Preheat & Inter-Pass Temp. (Degrees F.)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

(M) All Open Holes

Use E7016 E7018 E7028 Low Hydrogen Electrodes or Grade SAW-2 For Welding. No Tack Welding Permitted Unless Shown or Incorporated in Final Weld.

RA - Holes Marked RA Shall Be Subpunched or Subdrilled 1/4" and Reamed to Size or Drilled Full Size From the Solid With Connecting Parts Assembled.

Proven:
Hardesty & Hanover
Consulting Engineers
101 Park Ave. New York 17, N.Y.
S. S. Nishimura Sep 26 1969

Pay Item - 504.711

Material A36 Steel
Bolts 7/8"
Open Holes 15/16"
A325 Field Bolts
Shop Contact Surfaces No Paint
Weld - As Noted
Mill - As Noted
Paint One Coat AASHO-M72-Type II Red Lead (LW)

Girder

Customer: Maine State Highway Commission
Piscataqua River Bridge
Project No. I-95-1(22)16
Cont. No. 3 - New Hampshire App.
Structural Steel
Bethlehem Steel Corporation
Fabricated Steel Construction
Pottstown Drafting Room — Pottstown Works
Made by DML Date 6-4-69 In Charge B.K. Bertolet
Checked by RRS Date 8-13-69 Shop No. 2 1
Contract CJ-6249-020 Drawing No. 130

Submittal	1	2	3	4	5	6	7	8	9	0
Date										

No. Date Init. Revision

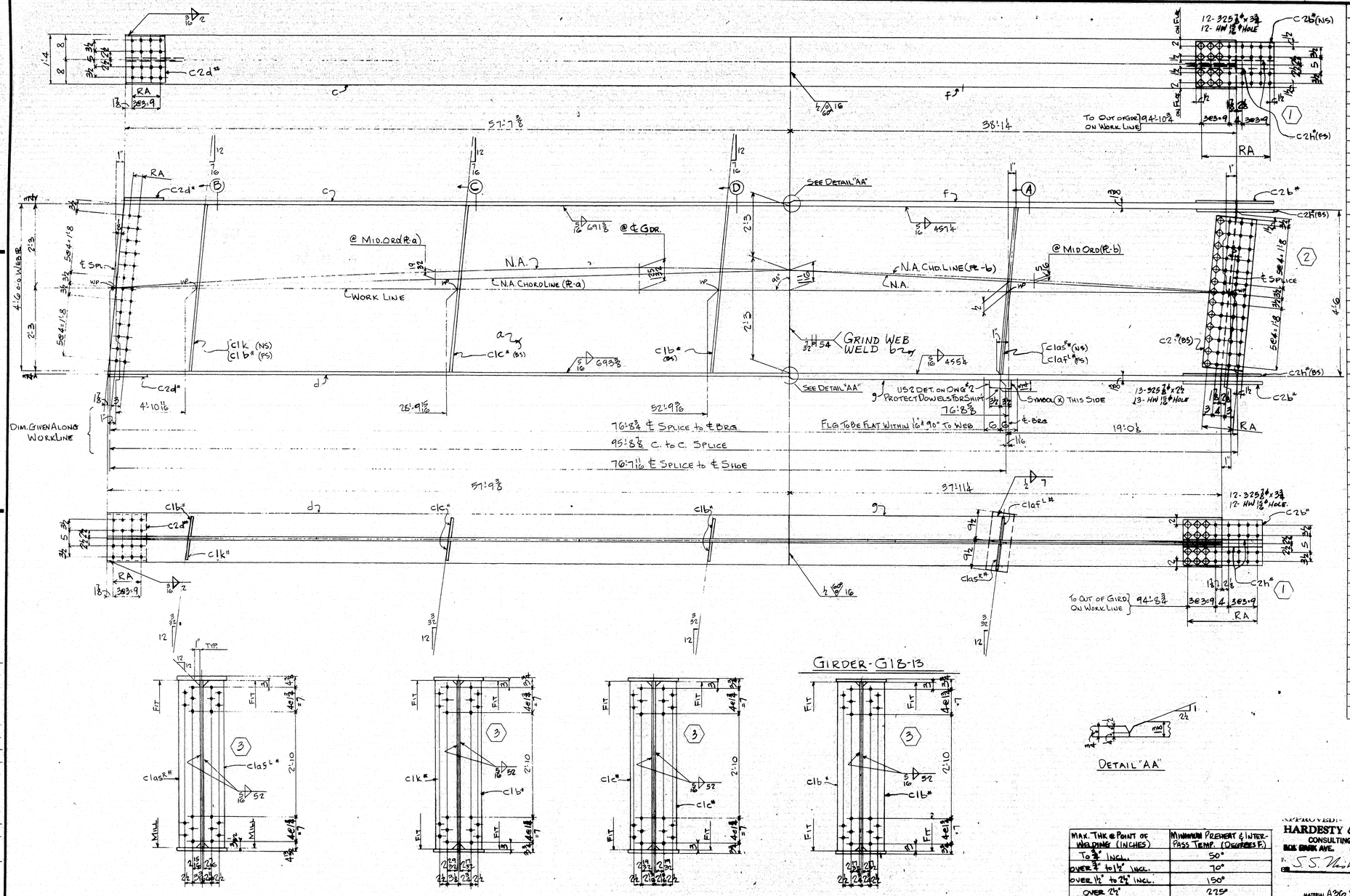
For location of details shown on this sheet refer to diagrams.

E5

2°10'47" — Tan A = 3.58054 106-12P

INSP #1-1

3433 (Rev. C 4-68) Sep 8 1969



Item	Assembly Mark	No.	Shape	Section Size	Section Size for Folding	Section Thick	Length Ft.	Length In.	Remarks	Mill Order Length Ft.	Mill Order Length In.	Mill Order Length Fract.	Mill Order Wt.
		ONE-Girder-G18-13											
2	a	1	PL	54		1/2	57	9 3/8	50 1/2 x 16	58	2 1/2	26	858
3	b	1	PL	54		1/2	38	1 1/4	56 x 1/2	38	07	26	571
4	c	1	PLU	16		3/4	57	7 3/8	16 x 3/4	57	11 1/2	26	19
5	d	1	PLU	16		3/4	57	9 3/8	" "	57	11 1/2	26	17
6	F	1	PLU	16		1 3/8	38	1 1/4	16 x 1 3/8	38	07	26	12
7	g	1	PLU	16		1 3/8	37	11 1/4	" "	38	2 1/2	26	12
8	C1 2 1/2*	2	PLU	15		1/2	2	1		21	3	24	47
9	C1 2H*	4	PL	6 1/2		1/2	2	1				J	
10	C1 2a*	2	PLU	13		3/8	4	2		21	1	24	48
11	C1 1a5 RR	1	BR	7 1/2		3/4	4	G 3/32	MIE - FIE	18	4	24	49
12	C1 1a5 LR	1	BR	7 1/2		3/4	4	G 3/32	MIE - FIE	18	4	24	49
13	C1 1b*	3	BR	7		1/2	4	G	FZE	18	4	24	51
14	C1 1c*	2	BR	7		1/2	4	G	FZE	18	4	24	51
15	C1 1k*	1	BR	7		1/2	4	G	FZE	18	4	24	51
16													
17													
18	US 2	1	UPPER SHOE						DET. ON DWG #2				
19	C1 2a*	2	PLU	15		1/2	1	0 5/8		21	3	24	47
20													
21		24	325	7/8			0	3 3/4	H-H.H-H.H.N.				
22		13	325	1 1/4			0	2 1/2	H-H.H-H.H.N.			M	
23		37	HW	1 1/8*	Hole								
24													
25	FW	1	WD			3/16	0	8					
26	FWL	1	WD			Grade B	382	10 1/2					
27	FWS	1	WD				69	4					
28	FW	1	WD			1/2	1	2					
29	SDS	1	WD			1/2	4	6					
30	V60S	1	WD			1/4	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

INST.-18E

Required List			
Qty.	Shipping Mark	Description	Remarks
ONE	G18-13	Girder (59x19x9/16)	

Max. Thk. of Point of Welding (Inches)	Minimum Preheat & Inter-Pass Temp. (Degrees F.)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

All Open Holes

Use E7016 E7018 E7028 Low Hydrogen Electrodes or Grade SAW-2 for Welding. No Tack Welding Permitted Unless Shown or Incorporated in Final Weld.

RA - Holes marked RA shall be subpunched or subdrilled 1/4" and reamed to size or drilled full size from the solid with connecting parts assembled.

Approved:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.

Pay Item - 504.711

K. S. Nishizawa SEP 26 1969

Girder

Material A36 Steel
Bolts 7/8"
Open Holes 15/16"
A325 Field Bolts
Shop Contact Surfaces No Paint
Weld - As Noted
Mill - As Noted
Paint One Coat AASHO-M72-Type II Red Lead (LIN)

Submittal	1	2	3	4	5	6	7	8	9	0
Date										

No.	Date	Init.
Revision		

Customer: Maine State Highway Commission
Piscataqua River Bridge
Project No. I-95-1(22)10
Cont. No. 3 - New Hampshire App.
Structural Steel
BETHLEHEM STEEL CORPORATION
Fabricated Steel Construction

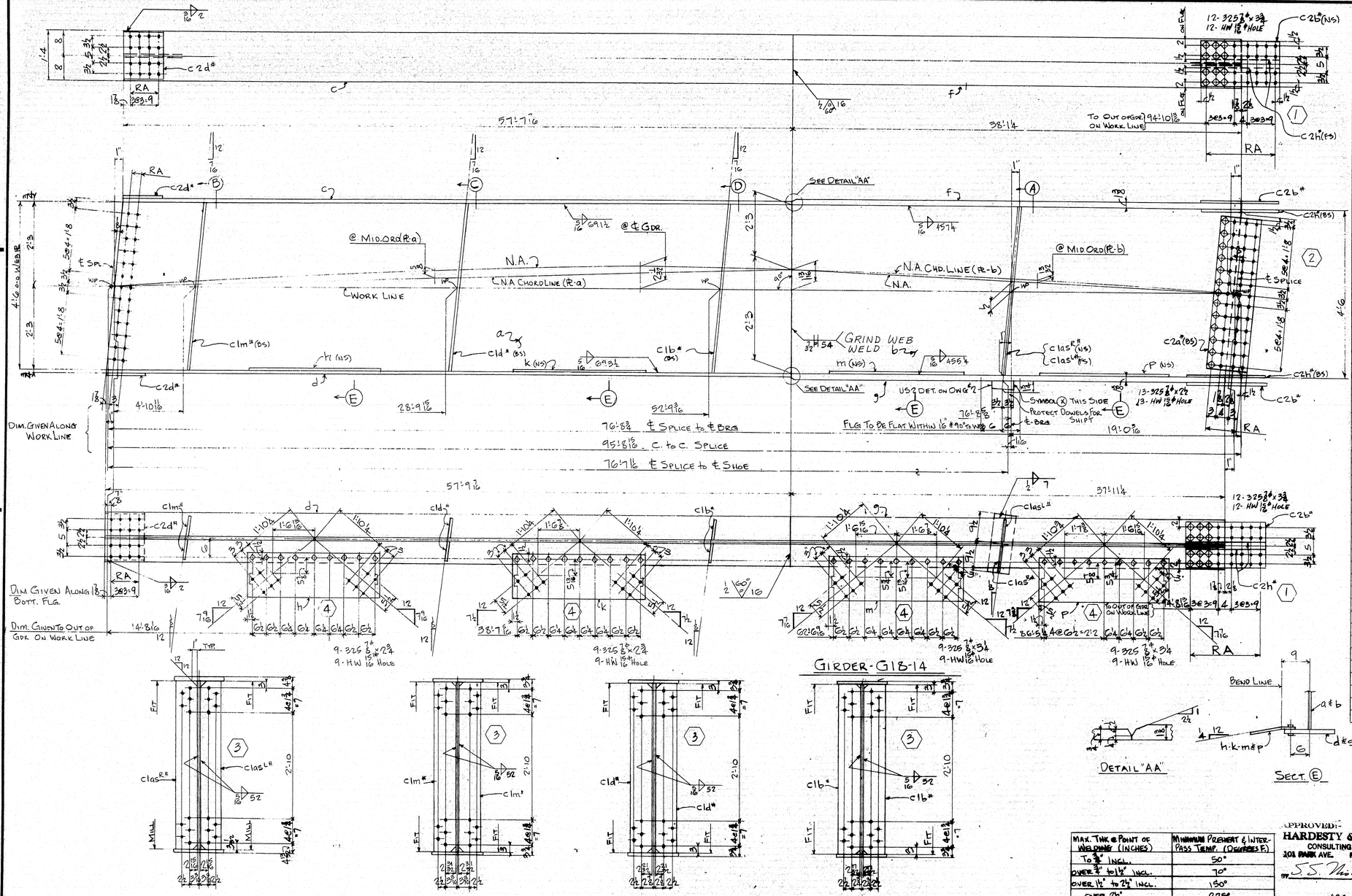
Pottstown Drafting Room — Pottstown Works
Made by DML Date 5-4-69 — In charge B.V. Berglet
Checked by FES Date 8/13/69 — Shop No. 2
Contract CJ-6289-020 — Drawing No. 131

For location of details shown on this sheet refer to diagrams.
E5

Sect (A) (Developed)
Sect (B) (Developed)
Sect (C) (Developed)
Sect (D) (Developed)

1" = 2'-08-20" — Tan A = 8.57227 106 - 129 INSP#1-1

SEP 19 1969



SHOP BILL										MILL ORDER	
	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
1		ONE - GIRDER - G18-14											
2	a	1	PL	54		1/16	57	9 7/16	562 x 16	58	2 1/2	26	38
3	b	1	PL	54		1/2	38	1 1/4	56 x 2	38	0 7/8	26	04
4	c	1	PLU	16		3/8	57	7 1/16	16 x 3/8	57	11 1/2	26	17
5	d	1	PLU	16		3/8	57	9 7/16	" "	57	11 1/2	26	17
6	F	1	PLU	16		1 1/8	38	1 1/4	16 x 1 1/8	38	2 3/4	26	12
7	g	1	PLU	16		1 1/8	37	11 1/4	" "	38	2 3/4	26	12
8	C 2b*	2	PLU	15		2	2	1		.21	3	24	47
9	C 2h*	4	PL	6 1/2		1/2	2	1				J	
10	C 2a*	2	PLU	13		3/4	4	7		21	1	24	48
11	C las R*	1	BR	7 1/2		3/4	4	6 3/32	MIE - FIE	18	4	24	49
12	C las L*	1	BR	7 1/2		3/4	4	6 3/32	MIE - FIE	18	4	24	49
13	C 1b*	2	BR	7		1/2	4	6	FIE	18	4	24	51
14	C 1d*	2	BR	7		1/2	4	6	FIE	18	4	24	51
15	C 1m*	2	BR	7		1/2	4	6	FIE	18	4	24	51
16	h	1	PL	14 1/2		1/2 UNDER 5/8	4	6	DENT	26	0	28	19
17	k	1	PL	14 1/2		1/2 UNDER 5/8	4	6	DENT	26	0	28	19
18	US 2	1	UPPER SHOE						DET. ON DWG #2				
19	C 2d*	2	PU	15		1/2 UNDER 5/8	1	0 3/8		21	3	24	47
20	m	1	PL	14 1/2		1/2 UNDER 5/8	4	6	DENT	26	0	28	19
21		24	325	7/8			0	3 3/4	H-H-H.-H-H.N.				
22		13	325	7/8			0	2 1/2	H-H-H.-H-H.N.			M	
23		73	HW	15/16	HOLE								
24	P	1	PL	14 1/2		5/16 UNDER 3/8	4	6 1/2	BENT	26	0	28	19
25	FW	1	WD				0	8					
26	FWL	1	WD				882	11					
27	FWS	1	WD				69	4					
28	FW	1	WD				1	2					
29	SDS	1	WD				4	6					
30	V60S	1	WD				2	8					
31													
32		18	325	7/8			0	2 3/4	H-H-H.-H-H.N			M	
33		18	325	7/8			10	3 4	H-H-H.-H-H.N.			M	
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

INST.-18E

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-14	GIRDER (59 x 28 x 90 11/16)	

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(1/2 S) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

RA - HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Medzian SEP 26 1969

PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
BOLTS 7/8"ø
OPEN HOLES 15/16"ø
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE II RED LEAD (LIN)

REVISION NO.	DATE	INIT.
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

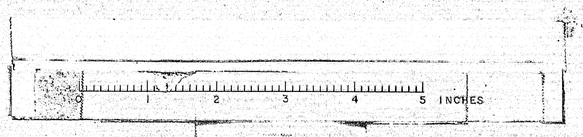
CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY DML DATE 8-4-69 IN CHARGE B.V. BERTOLET
CHECKED BY FRG DATE 8-13-69 SHOP NO. 7
CONTRACT CJ-6299-020 DRAWING NO. 132

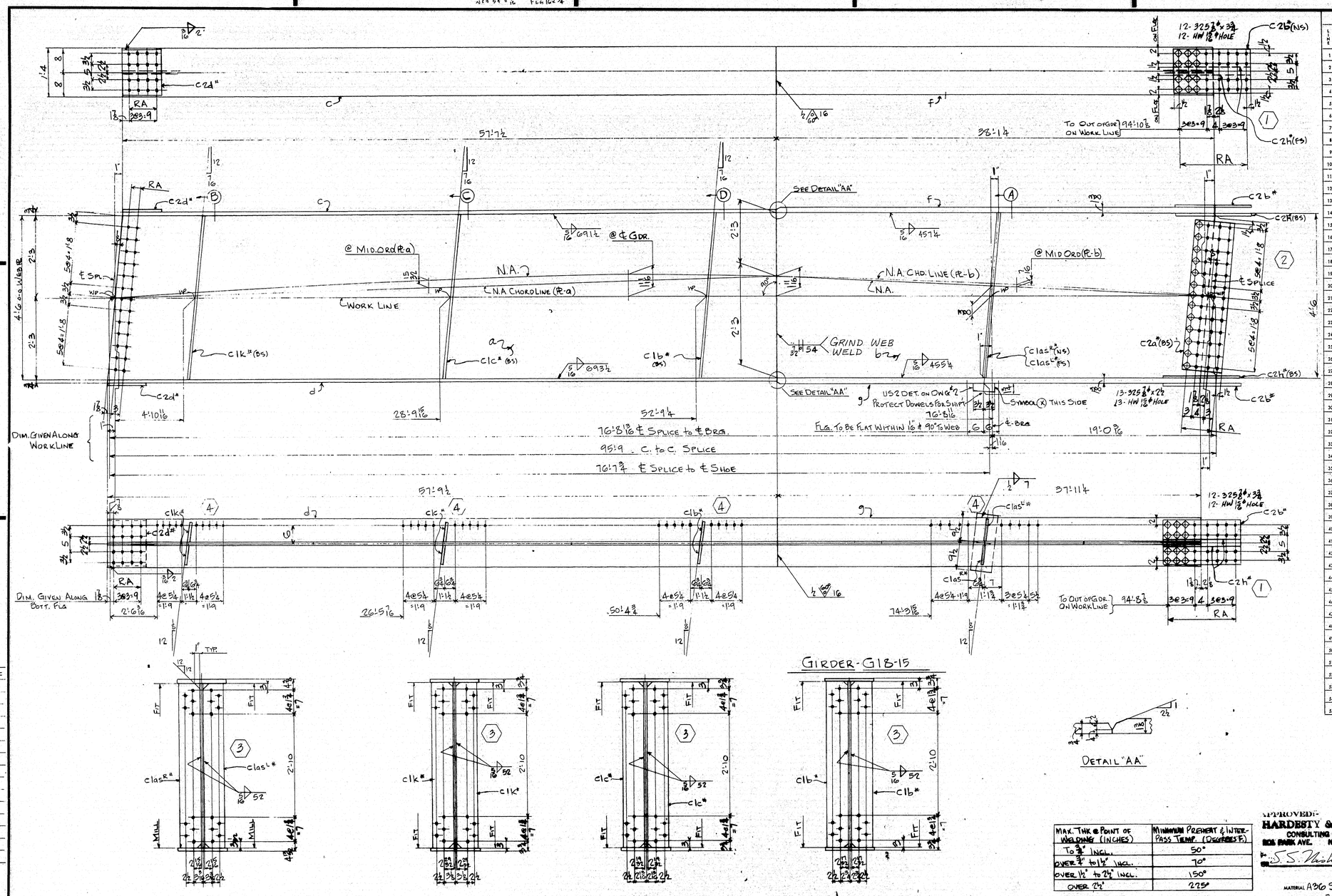
For location of details shown on this sheet refer to diagrams.
E5

2°-08'-33" - TAN A = 3.57300

106 - 130

INSP #1-1





a	b	c

SHOP BILL												FIELD CHECK			
PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUND	THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	PAGE	
1		ONE - GIRDER - G18-15											
2	a	1	PL	54		1/16	57	9½	56½ x 1/16	58	2¾	26	05
3	b	1	PL	54		½	38	1¼	56 x ½	36	07	26	07
4	c	1	PLU	16		3/8	57	7½	16 x 3/8	57	11½	26	17
5	d	1	PLU	16		3/8	57	9½	" "	57	11½	26	17
6	F	1	PLU	16		1 3/8	38	1¼	16 x 1 3/8	38	2¾	26	12
7	g	1	PLU	16		1 3/8	37	11¾	" "	38	1¼	26	12
8	C. 2b*	2	PLU	15		½	2	1		21	3	24	47
9	C. 2h*	4	PL	6½		½	2	1				J	
10	C. 2a*	2	PLU	13		3/8	4	2		21	1	24	48
11	C. las^R*	1	BR	7½		¾	4	6 3/32	MIE - FIE	18	4	24	49
12	C. las^L*	1	BR	7½		¾	4	6 3/32	MIE - FIE	18	4	24	49
13	C. 1b*	2	BR	7		½	4	6	FZE	18	4	24	51
14	C. 1c*	2	BR	7		½	4	6	FZE	18	4	24	51
15	C. 1k*	2	BR	7		½	4	6	FZE	18	4	24	51
16													
17													
18	US2	1	UPPER SHOE						DET. ON DWG #2				
19	C. 2d*	2	PLU	15		½	1	0 5/8		21	3	24	47
20													
21		24	325	7/8 ø			0	3¾	H-H.H. - H.H.N.				
22		13	325	7/8 ø			0	7½	H-H.H. - H.H.N.			M	
23		37	HW	1 1/8 ø	HOLE								
24													
25	FW	1	WD			3/16	0	8					
26	FWL	1	WD			3/16	382	11					
27	FWS	1	WD			3/16	69	4					
28	FW	1	WD			½	1	2					
29	SDS	1	WD			1/16	4	6					
30	V60S	1	WD			¼	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

Max. Thk @ Point of Welding (Inches)	Minimum Preheat & Inter-pass Temp. (Degrees F)
To ¾" Incl.	50°
Over ¾" to 1½" Incl.	70°
Over 1½" to 2½" Incl.	150°
Over 2½"	225°

▽ All Open Holes

Use E7016 E7018 E7028 Low Hydrogen Electrodes or Grade SAW-2 for Welding
No Tack Welding Permitted Unless Shown or Incorporated in Final Weld

RA - Holes marked RA shall be subpunched or drilled ½" and reamed to size or drilled full size from the solid with connecting parts assembled.

For location of details shown on this sheet refer to diagram.

E5

INST.-18E

Required List

Qty.	Shipping Mark	Description	Remarks
One	G18-15	Girder (59x19x9@1½)	

Approved:
HARDESTY & HANOVER
CONSULTING ENGINEERS
BOX PARK AVE. NEW YORK 17, N.Y.
S.S. Nishimura SEP 26 1969

Pay Item - 504.711

Material A36 Steel
Bolts 7/8 ø
Open Holes 1 3/16 ø
A325 Field Bolts
Shop contact surfaces No Paint
Weld - As Noted
Mill - As Noted
Paint one coat AASHO-M72-
Type II Red Lead (LN)

Submittal	1	2	3	4	5	6	7	8	9	0
Date										

Revision

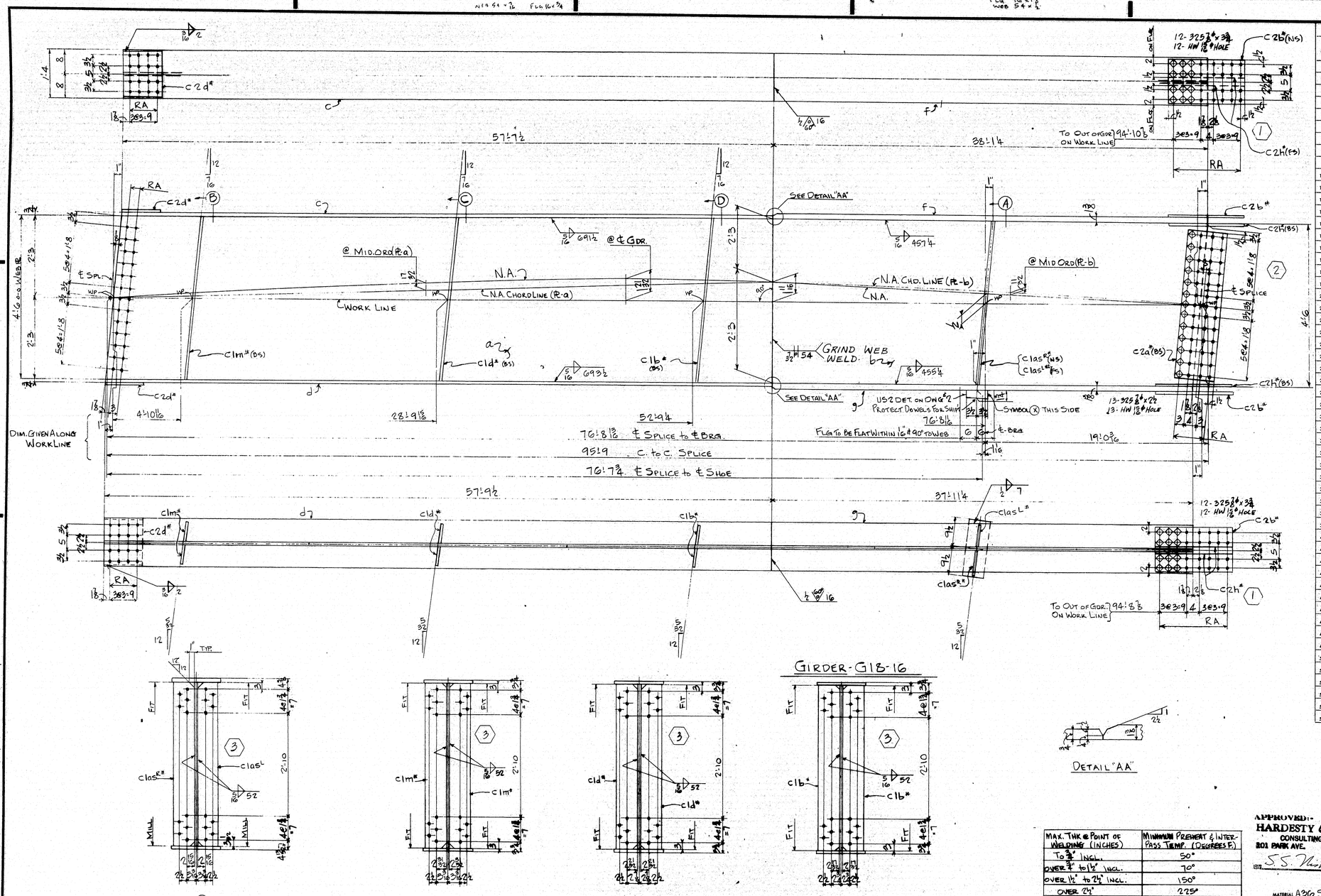
GIRDER

Customer: Maine State Highway Commission
Piscataqua River Bridge
Project No. I-95-1(22)16
Cont. No. 3 - New Hampshire App.
Structural Steel
BETHLEHEM STEEL CORPORATION
Fabricated Steel Construction

Pottstown Drafting Room — Pottstown Works
Made by D.M.L. Date 3-5-69 In Charge D.V. Bretcelet
Checked by W.R.S. Date 3-12-69 Shop No. 12
Contract CJ-6209-020 Drawing No. 133

33453 (Rev. 4-68)

3 1 7°08'-40" - TAN A - 8.57340 106-131 INSP # 1-1



SHOP BILL

ITEM NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER WEIGHT PAGE	MILL ORDER WEIGHT LBS
1		ONE - GIRDER - G1B-16											
2	a	1	PL	54		1/2	57	9 1/2	54 1/2 x 1/2	58	2 1/2	26	05
3	b	1	PL	54		1/2	38	1 1/4	54 x 1/2	38	07	26	07
4	c	1	PLU	16		3/4	57	7 1/2	16 x 3/4	57	11 1/2	26	17
5	d	1	PLU	16		3/4	57	9 1/2	" "	57	11 1/2	26	17
6	F	1	PLU	16		1 3/8	38	1 1/4	16 x 1 3/8	38	3 1/2	26	12
7	g	1	PLU	16		1 3/8	37	11 1/4	" "	38	1 1/2	26	12
8	C 2b*	2	PLU	15		1/2	2	1		21	3	24	47
9	C 2h*	4	PL	6 1/2		1/2	2	1				J	
10	C 2a*	2	PLU	13		3/8	4	2		21	1	24	48
11	C 1as*	1	BR	7 1/2		3/4	4	G 32	MIE - FIE	18	4	24	49
12	C 1as*	1	BR	7 1/2		3/4	4	G 32	MIE - FIE	18	4	24	49
13	C 1b*	2	BR	7		1/2	4	G	FZE	18	4	24	51
14	C 1d*	2	BR	7		1/2	4	G	FZE	18	4	24	51
15	C 1m*	2	BR	7		1/2	4	G	FZE	18	4	24	51
16													
17													
18	US2	1	UPPER SHOE						DET. ON DWG #2				
19	C 2d*	2	PLU	15		1/2	1	0 3/8		21	3	24	47
20													
21		24	325	3/4 Ø			0	33 1/4	H-H-H-H-H-N				
22		13	325	1 1/8 Ø HOLE			0	2 1/2	H-H-H-H-H-N			M	
23		37	HN										
24													
25	FW	1	WD			3/16	0	8					
26	FWL	1	WD			3/16	382	11					
27	FWS	1	WD			3/16	69	4					
28	FW	1	WD			1/2	1	2					
29	SDS	1	WD			1/16	4	6					
30	YEOS	1	WD			3/4	2	8					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(WP) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING. NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

... HOLES MARKED RA SHALL BE PUNCHED ... DRILLED 3/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

INST. - 1BE

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G1B-16	GIRDER (59x19 x 96'-11 1/2)	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.

PAY ITEM - 504.711

SEP 26 1969

MATERIAL A36 STEEL
BOLTS 7/8 Ø
OPEN HOLES 15/16 Ø
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 - TYPE II RED LEAD (LN)

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. No. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

POTTSTOWN DRAFTING ROOM — POTTSTOWN WORKS
MADE BY DML DATE 8-5-69 IN CHARGE B.V. BERTOLET
CHECKED BY [illegible] DATE 9-17-69 SHOP NO. 7
CONTRACT CJ-6289-020 DRAWING NO. 1154

REVISION

NO.	DATE	INIT.
1		
2		
3		
4		
5		
6		
7		
8		
9		
0		

SUBMITTAL DATE

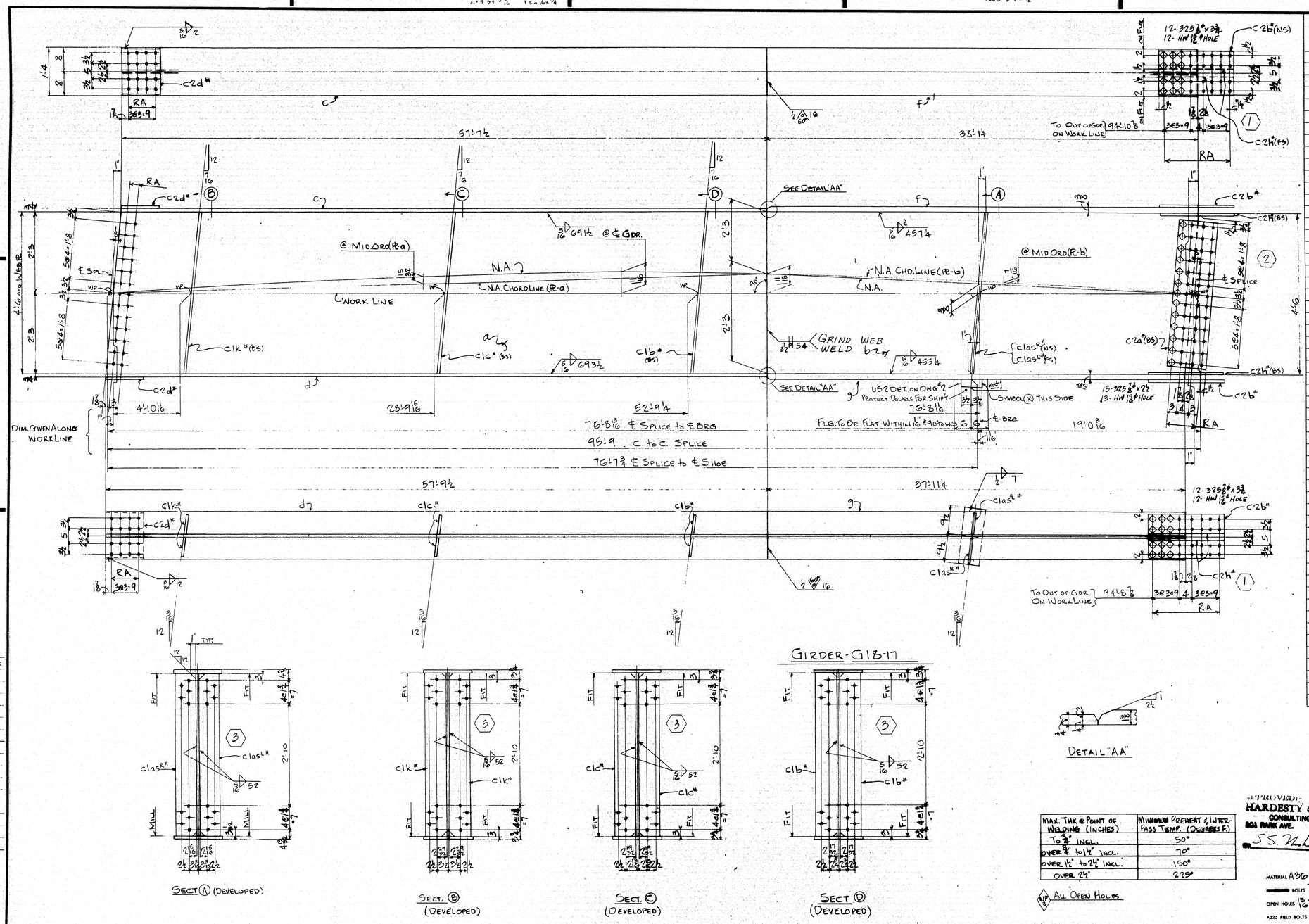
For location of details shown on this sheet refer to diagrams.

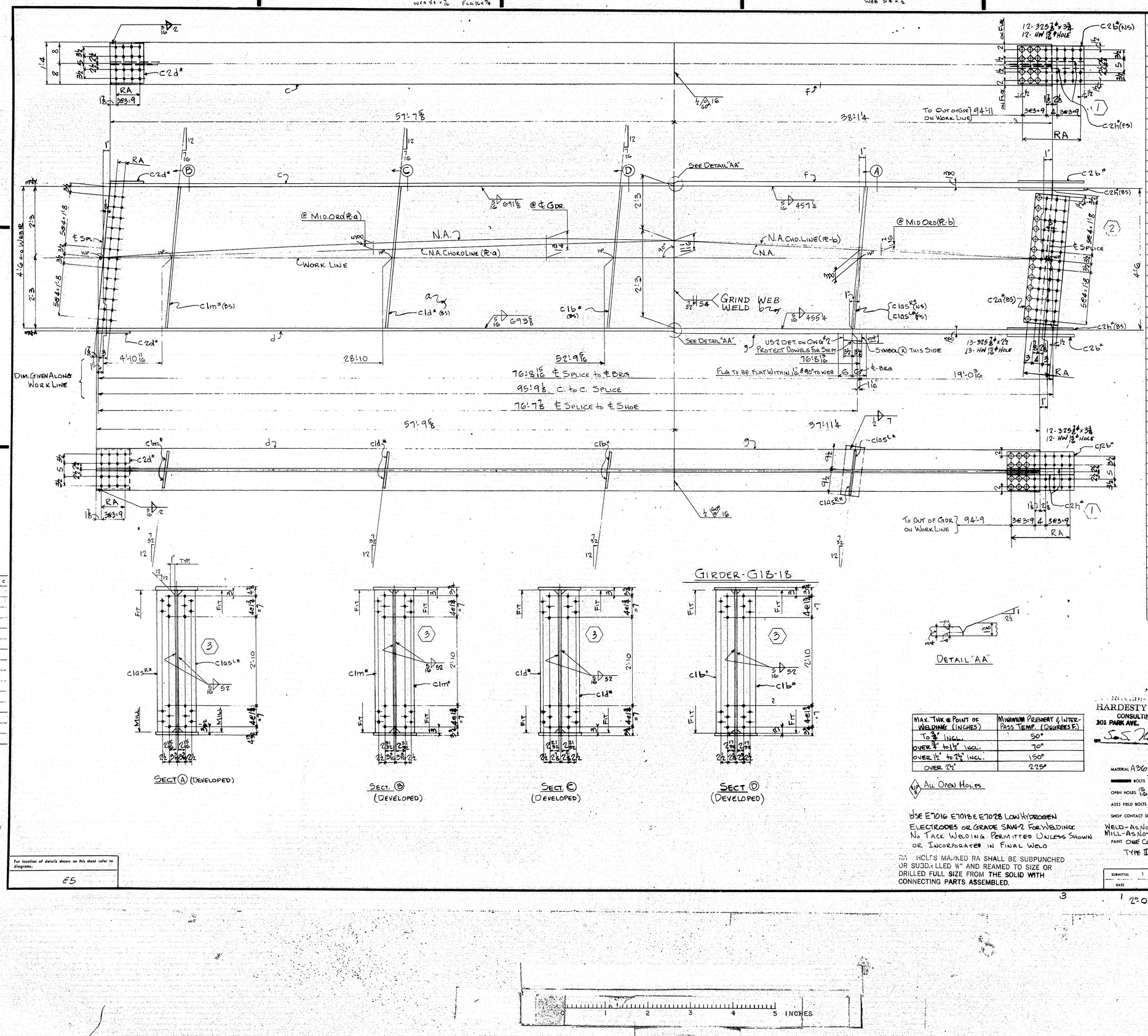
E5

33403 (Rev. C 4-63)

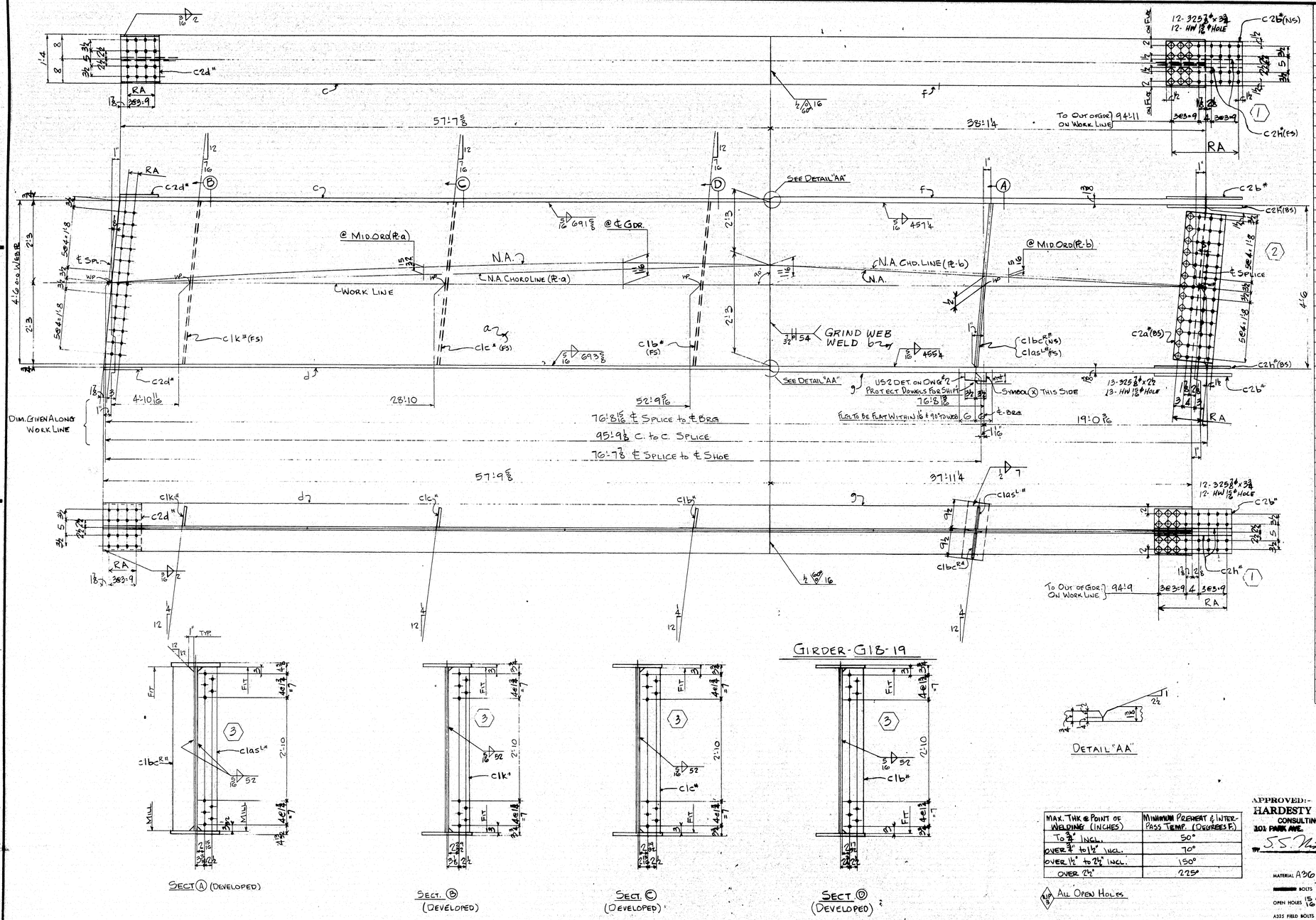
1 2°08'46" - TAN A. 8.57374 106-132 INSP#1-1

5 INCHES


57'-7½
38'-1¼
57'-9½
37'-11¼
76'-8 15/16 ℄ Splice to ℄ Brg.
95'-9 C. to C. Splice
76'-7¾ ℄ Splice to ℄ Shoe
76'-8 3/16
19'-0 3/16
28'-9 15/16
52'-9¼
4'-10 11/16
DIM. GIVEN ALONG WORK LINE
WORK LINE
N.A.
N.A. CHORD LINE (R-a)
N.A. CHD. LINE (R-b)
@ MID ORD (R-a)
@ MID ORD (R-b)
℄ SPL.
WP
SEE DETAIL "AA"
SEE DETAIL "BB"
GRIND WEB FLUSH
GRIND WEB
FLG. TO BE FLAT WITHIN 1/16 @ 90° TO WEB
℄ BRG
SYMBOL (X) THIS SIDE
PROTECT BOLTED FOR SHIPT
USE DET. ON DWG #2
TO OUT OF GDR ON WORK LINE 94'-10 7/8
94'-8 7/8
RA
12-325 7/8" x 3 3/4 12-HW 1 1/8" HOLE
13-325 7/8" x 9 1/2 13-HW 1 1/8" HOLE
C25 (WS)
C2H (FS)
C2H (BS)
C2b
C2a (BS)
C2d
C1k (BS)
C1c (BS)
C1b (BS)
Clas R (WS)
Clas LH (FS)
Clas R
Clas LH
5/16 69½ @ ℄ GDR
5/16 69¾
5/16 45½
3/32 54 GRIND WEB FLUSH
5/16 52
5/16 55
1" TYP.
1 1/2 2 1/8
1 1/2 2 1/8 HOLE
5 3/4
4 1/2
2 1/4
3 1/4
3 3/4
5 3/4
5 5/8
5 3/4
5 5/8
5 3/4
5 5/8


57'-7⅞
38'-1¼
57'-9⅝
28'-10
52'-9⅝
76'-8 15/16 ℄ Splice to ℄ Brg
95'-9⅛ C. to C. Splice
76'-7⅞ ℄ Splice to ℄ Shoe
19'-0 9/16
37'-1¼
94'-11
94'-9
DIM. GIVEN ALONG WORK LINE
WORK LINE
N.A.
N.A. CHORD LINE (R-a)
N.A. CHO. LINE (R-b)
@ MID ORD (R-a)
@ MID ORD (R-b)
@ ℄ GDR.
SEE DETAIL "AA"
GRIND WEB WELD
SYMBOL (X) THIS SIDE
FLG TO BE FLAT WITHIN 1/16 @ 90° TO WEB
℄ BRG
℄ SPLICE
℄ SHOE
PROTECT DOWELS FOR SHIM
USE DET. ON DWG #2
TO OUT OF GDR ON WORK LINE
RA
TYP.
SECT (A) (DEVELOPED)
SECT (B) (DEVELOPED)
SECT (C) (DEVELOPED)
SECT (D) (DEVELOPED)
DETAIL "AA"
GIRDER-G18-18

| SHOP BILL | | |



SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		ONE-GIRDER-G18-19							
	a	1	PL	54		1/16	57	9 3/8	56x1/16
	b	1	PL	54		1/2	38	1/4	56x1/2
	c	1	PLU	16		1/2	57	7 3/8	16x1/2
	d	1	PLU	16		1/2	57	9 3/8	" "
	F	1	PLU	16		13/16	38	1/4	" "
	g	1	PLU	16		13/16	37	11 1/4	" "
C.	2b*	2	PLU	15		1/2	2	1	
C.	2H*	4	PL	6 1/2		1/2	2	1	
C.	2a*	2	PLU	13		3/8	4	2	
C.	1bc R*	1	BR	7 1/2		3/4	4	6 1/2	MIE-FIE
C.	1as L*	1	BR	7 1/2		3/4	4	6 1/2	MIE-FIE
C.	1b*	1	BR	7		1/2	4	6	FIE
C.	1c*	1	BR	7		1/2	4	6	FIE
C.	1k*	1	BR	7		1/2	4	6	FIE
	US2	1		UPPER SHOE					DET. ON DWG #2
C.	2d*	2	PLU	15		1/2	1	0 3/8	
		24	325	7/8 DIA.			0	3 3/4	H-H.H.-H.H.N.
		13	325	GRIP			0	2 1/2	H-H.H.-H.H.N.
		37	HW	1 1/8" HOLE					
	FW	1	WD				0	8	
	FWL	1	WD				382	11 1/2	
	FWS	1	WD				43	4	
	FW	1	WD				2	2	
	SDS	1	WD				1/16	4	6
	V60S	1	WD				1/4	2	8

MILL ORDER

PIECE MARK	LENGTH FT.	LENGTH IN.	FINISH PAINT	FINISH MILL
a	58	2 1/2	26	05
b	38	0 1/2	26	07
c	57	11 1/2	26	17
d	57	11 1/2	26	17
F	38	2 1/2	26	12
g	38	2 1/2	26	12
2b*	21	3	24	47
2H*			J	
2a*	21	1	24	48
1bc R*	18	4	24	49
1as L*	18	4	24	49
1b*	18	4	24	51
1c*	18	4	24	51
1k*	18	4	24	51
2d*	21	3	24	47
			M	

INST.-18E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G18-19	GIRDER (59x19x9/16 1/2)	

MAX. THK @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

(1/4) ALL OPEN HOLES

USE E7016 E7018 E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING
NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD
RA HOLES MARKED RA SHALL BE SUBPUNCHED OR SUBDRILLED 3/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM THE SOLID WITH CONNECTING PARTS ASSEMBLED.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY J.S. Nahirney SEP 26 1969

PAY ITEM - 504.711

MATERIAL A36 STEEL
BOLTS 7/8
OPEN HOLES 15/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES NO PAINT
WELD-AS NOTED
MILL-AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY DML DATE 5-6-69 IN CHARGE B.V. BERTOLET
CHECKED BY EEG DATE 8-15-69 SHOP NO. 2
CONTRACT CJ-6229-020 DRAWING NO. 1371

REVISION

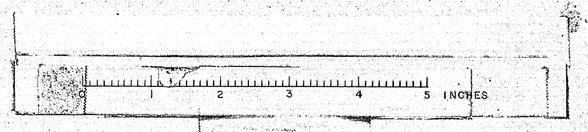
NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

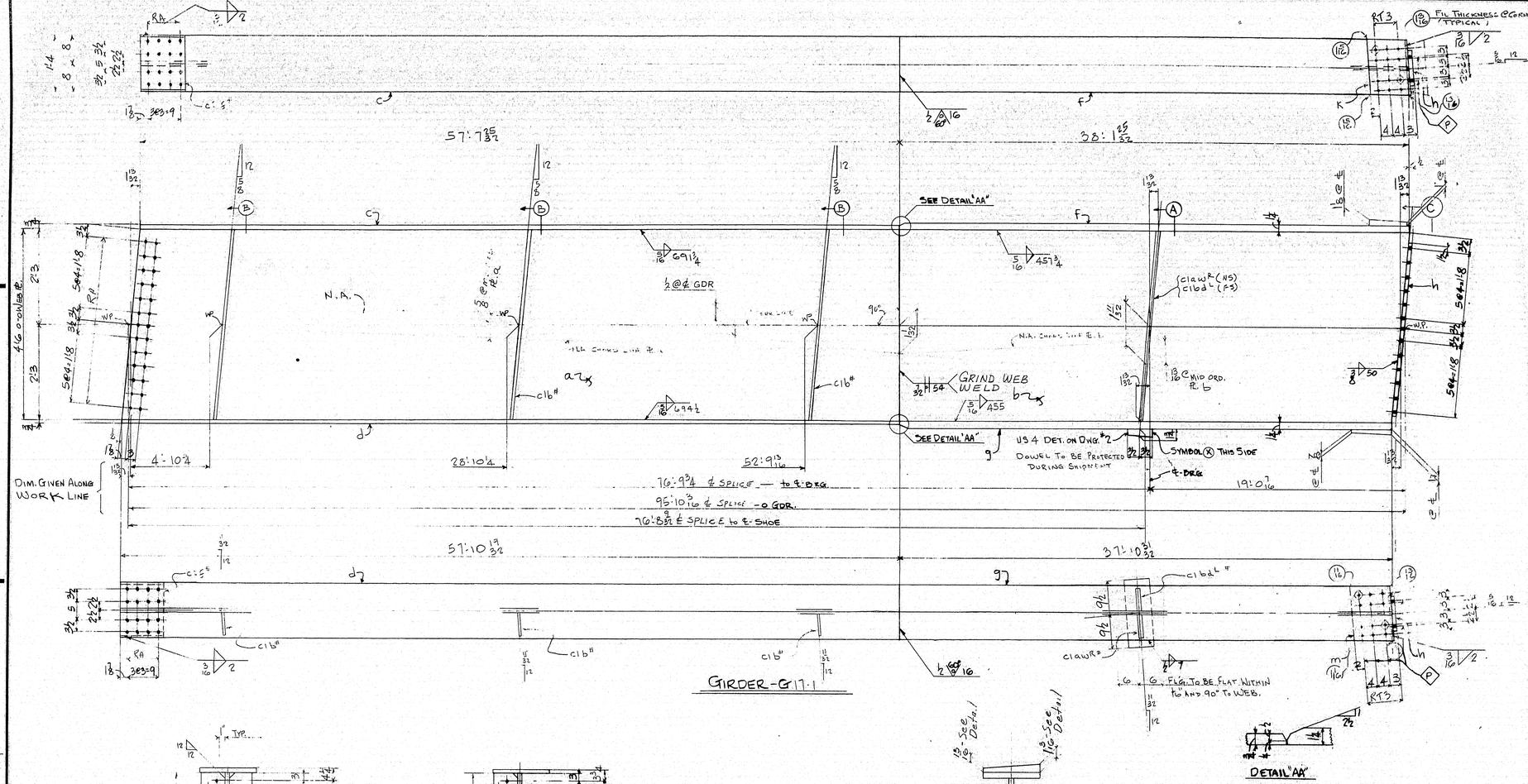
For location of details shown on this sheet refer to diagrams.
E5

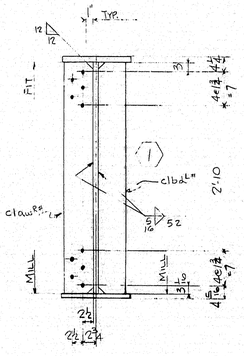
1 ∡ 2°09'-01" - TAN ∡ 8.57491 106-135 INSP #1-1

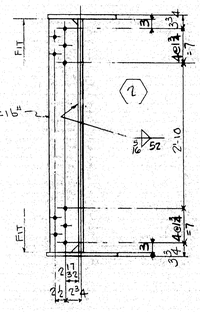
SEP 1 9 1969

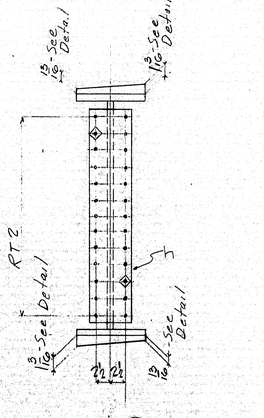


new location by B-RWC
5k3-MSC draft acceptable









HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA — HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/4 ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

For location of details shown on this sheet refer to diagrams.

E5

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER WIDTH INCHES	MILL ORDER WIDTH FRACTION
1		ONE-GIRDER-G17-1											
2	a	1	PL	54		1/16	57	10 3/32	CF 56 x 7/16	58	2 1/2	26	05
3	b	1	PL	54		1/2	38	13 5/32	CF 56 x 1/2	38	7	26	07
4	c	1	PLU	16		3/4	57	7 25/32		57	11 3/4	26	16
5	d	1	PLU	16		3/4	57	10 19/32		57	11 3/4	26	16
6	f	1	PLU	16		1/4	38	12		38	3	26	13
7	g	1	PLU	16		1/4	37	11 13/16		38	3	26	13
8	h	1	PL	8		1/2	4	2		30	6	J	
9	K	1	PL	12 3/4		15/16 x 13/16	1	4				J	
10	m	1	PL	12 3/4		13/16 x 11/16	1	4				J	
11	c: 22*	2	PL	15		5/8	1	0 3/8	15 1/2 x 5/8	20	7	24	44
12	c: 10WR*	1	BR	7 1/2		3/4	4	6 1/16	MIE FIE	18	4	24	49
13	c: 16bL*	1	BR	7 1/2		3/4	4	6 1/16	MIE FIE	18	4	24	49
14	c: 16*	3	BR	7		1/2	4	6	FIE	18	4	24	51
15													
16													
17													
18	U34	1	UPPER SHOE						DET. ON DWG #2				
19													
20													
21													
22	FWL	1	WD			5/16	383	2					
23	FWS	1	WD			5/16	43	4					
24	FW	1	WD			1/2	1	2					
25	FWS	1	WD			3/8	8	4					
26	SDS	1	WD			5/16	4	6					
27	VGDS	1	WD			3/16	2	8					
28	FW	1	WD			3/16	1	4					
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

INST.-17W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-1	GIRDER 19x56x1/2	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
S.S. Nishan SEP 26 1969

FAP ITEM - 504.711

GIRDER

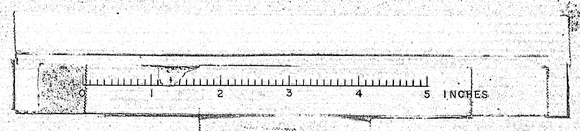
MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 13/16 ϕ
A325 FIELD BOLTS 7/8
SHOP CONTACT SURFACES NO PAINT
WELD-AS NOTED
MILL-AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

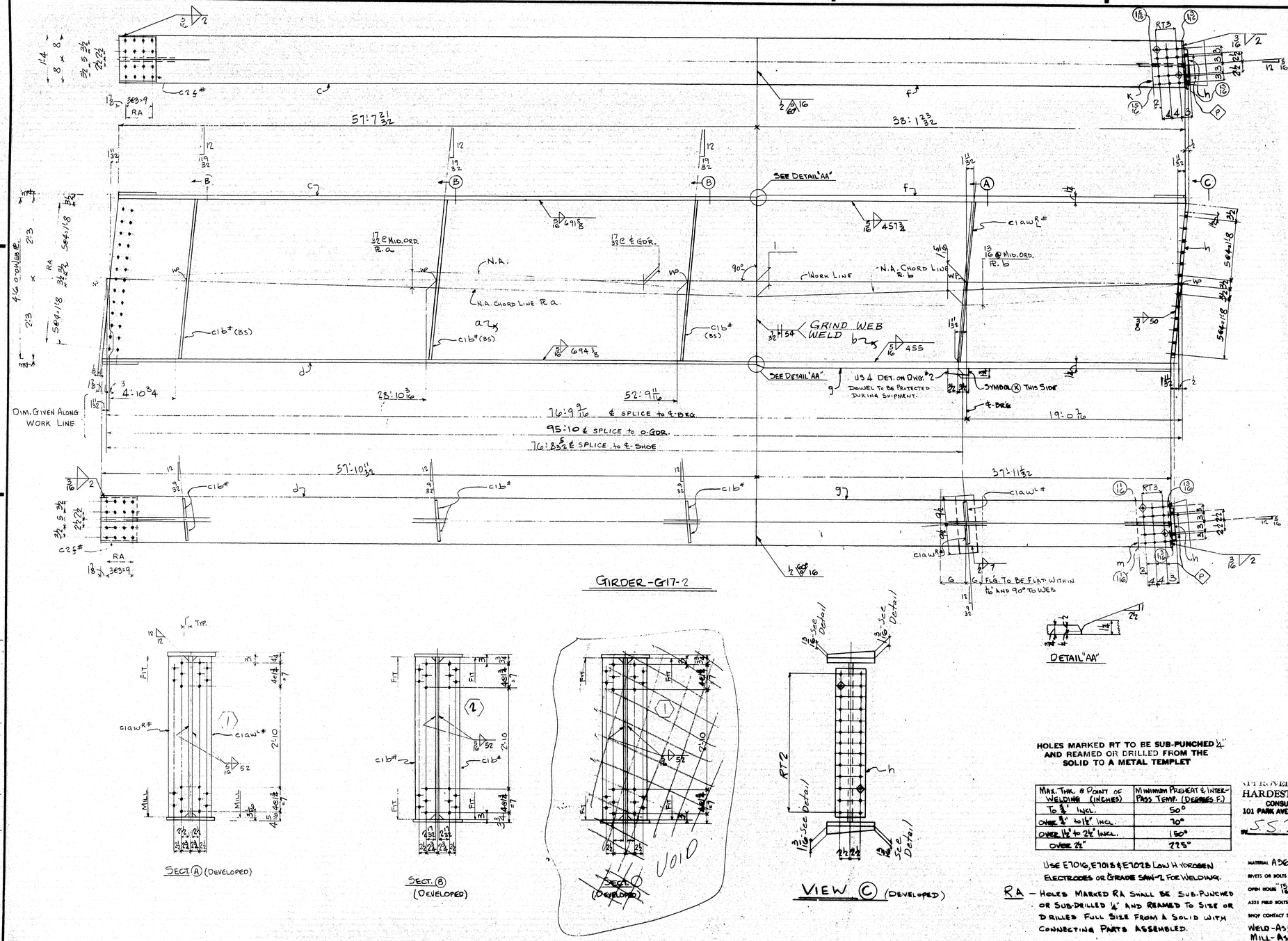
CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)W
CONT. NO. 3 - NEW HAMPSHIRE ARC
STRUCTURE STEEL
BETHLEHEM STEEL CORPORATION
POTTSTOWN DRAFTING ROOM
MADE BY R.D.N. DATE 7-30-69 BY
CHECKED BY R.J. DATE 8-19-69 DRAFT NO.
CONTRACT C1-52-19-220 DRAWING NO. 128

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

NO.	DATE	REVISIONS
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

3 1 INSP#1 106-136





GIRDER-G17-2

SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUND	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER WEIGHT PAGE #	MILL ORDER WEIGHT LINE #
1		ONE-GIRDER-G17-2											
2	a	1	PL	54		1/16	57	10 11/32	CF 56½ x 7/16	58	2½	26	25
3	b	1	PL	54		½	38	1 23/32	CF 56 x ½	38	7	26	24
4	c	1	PLU	16		3/8	57	7 3/32		57	11¾	26	16
5	d	1	PLU	16		3/8	57	10 31/32		57	11¾	26	14
6	f	1	PLU	16		1/4	38	11/16		38	3	26	13
7	g	1	PLU	16		1/4	37	11¼		38	3	26	12
8	h	1	PL	8		½	4	2		30	6	J	
9	K	1	PL	12⅜		5/16 x 13/16	1	4				J	
10	m	1	PL	12⅜		13/16 x 13/16	1	4				J	
11	c 25#	2	PL	15		⅝	1	0⅜	15½ x ⅝	20	2	24	44
12	c laws# 1 / 1	1	BR	7½		¾	4	6 1/16	MIE FIE	18	4	24	49
13													
14	c 16#	6	BR	7		½	4	6	FIE	18	4	24	51
15													
16													
17													
18													
19													
20													
21	US 4	1	UPPER SHOE						DET. ON DWG. #2				
22	FW	1	WD				1	4					
23	FWS	1	WD				69	4					
24	FWL	1	WD				382	9½					
25	FWS	1	WD				8	4					
26	FW	1	WD				1	2					
27	VG05	1	WD				2	8					
28	SDS	1	WD				1/16	4	6				
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

HOLES MARKED RT TO BE SUB-PUNCHED ¼" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA – HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/4 ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

For location of details shown on this sheet refer to diagrams.

E5

INST.–17W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-2	GIRDER 19'-5 3/4" x 96"	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nielsen SEP 26 1969

PAY ITEM – 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS 7/8 ϕ
SHOP CONTACT SURFACES NO PAINT
WELD – AS NOTED ⅜ 16 ϕ
MILL – AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LH)

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

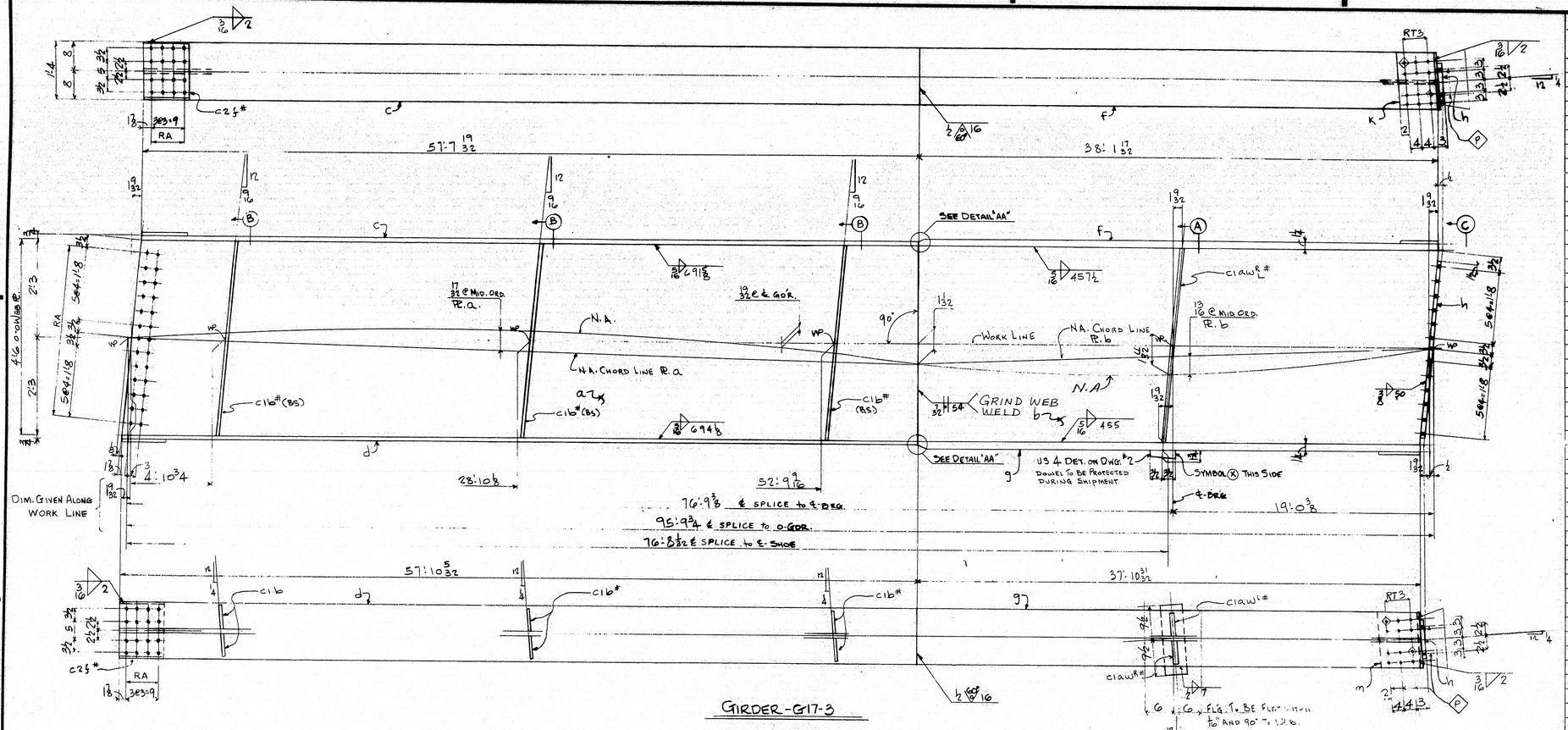
REVISIONS

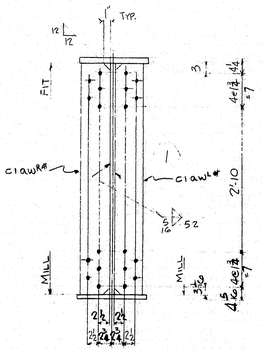
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

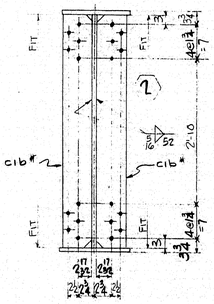
CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)116
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
PATTERSON PLANT
DRAWN BY RON DATE 7-31-69 IN CHARGE B.H.S.
CHECKED BY RT DATE 8-19-69 SHOP NO. 2
CONTRACT CT 9219-030 DRAWING NO. 139

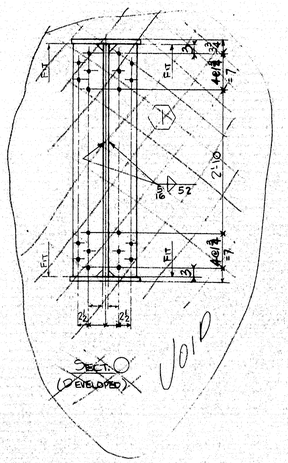
INSP#1-1 106-137

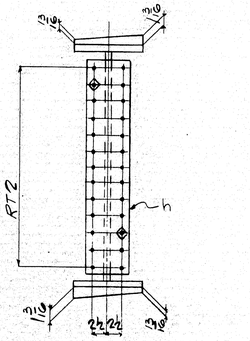
0 1 2 3 4 5 INCHES

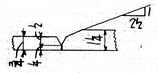












LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SECTION PER OR WIDTH	SECTION THICK.	LENGTH FT.	LENGTH IN.	REMARKS	ADDITION FT.	ADDITION IN.	ADDITION PIECE MARK
1			ONE - GIRDER - G17-3									
2	a	1	PL	54		1/16	57	10 3/32	C.F. 56 1/2 x 1/16	58	24	26 65
3	b	1	PL	54		1/2	38	1 17/32	C.F. 56 x 1/2	38	7	26 30
4	c	1	PLW	16		3/8	57	7 19/32		57	11 1/4	26 16
5	d	1	PLW	16		3/8	57	10 3/32		57	11 1/4	26 16
6	f	1	PLW	16		1/4	38	11 1/16		38	3	26 13
7	g	1	PLW	16		1/4	37	11 5/8		38	3	26 13
8	h	1	PL	8		1/2	4	2		30	6	J
9	K	1	PL	12 5/16		3/16 x 13/16	1	4				J
10	m	1	PL	12 5/16		13/16 x 13/16	1	4				J
11	C: 25#	2	PL	15		5/8	1	0 3/8	15 1/2 x 5/8	20	2	24 44
12	C: 1aw1#	1	BR	7 1/2		3/4	4	6 5/16	MIE FIE	18	4	24 41
13												
14	C: 16#	6	BR	7		1/2	4	6	FZE	18	4	24 51
15												
16												
17												
18												
19												
20												
21	US 4	1	UPPER SHOE						DET. ON DWG #2			
22	FW	1	WD			3/16	1	4				
23	FWS	1	WD			5/16	69	4				
24	FWL	1	WD			5/16	382	0 1/2				
25	FWS	1	WD			3/8	8	4				
26	FW	1	WD			1/2	1	2				
27	VGDS	1	WD			1/2	2	8				
28	SDS	1	WD			7/16	4	6				
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												

HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. OF PART OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA — HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/4 ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST. — 17W

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-3	GIRDER 19'-5 1/8" x 9'-0"	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nichols SEP 26 1969

PAY ITEM — 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS 7/8 ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LN)

NO.	DATE	INIT.
9		
8		
7		
6		
5		
4		
3		
2		
1		
NO.	DATE	INIT.

REVISION

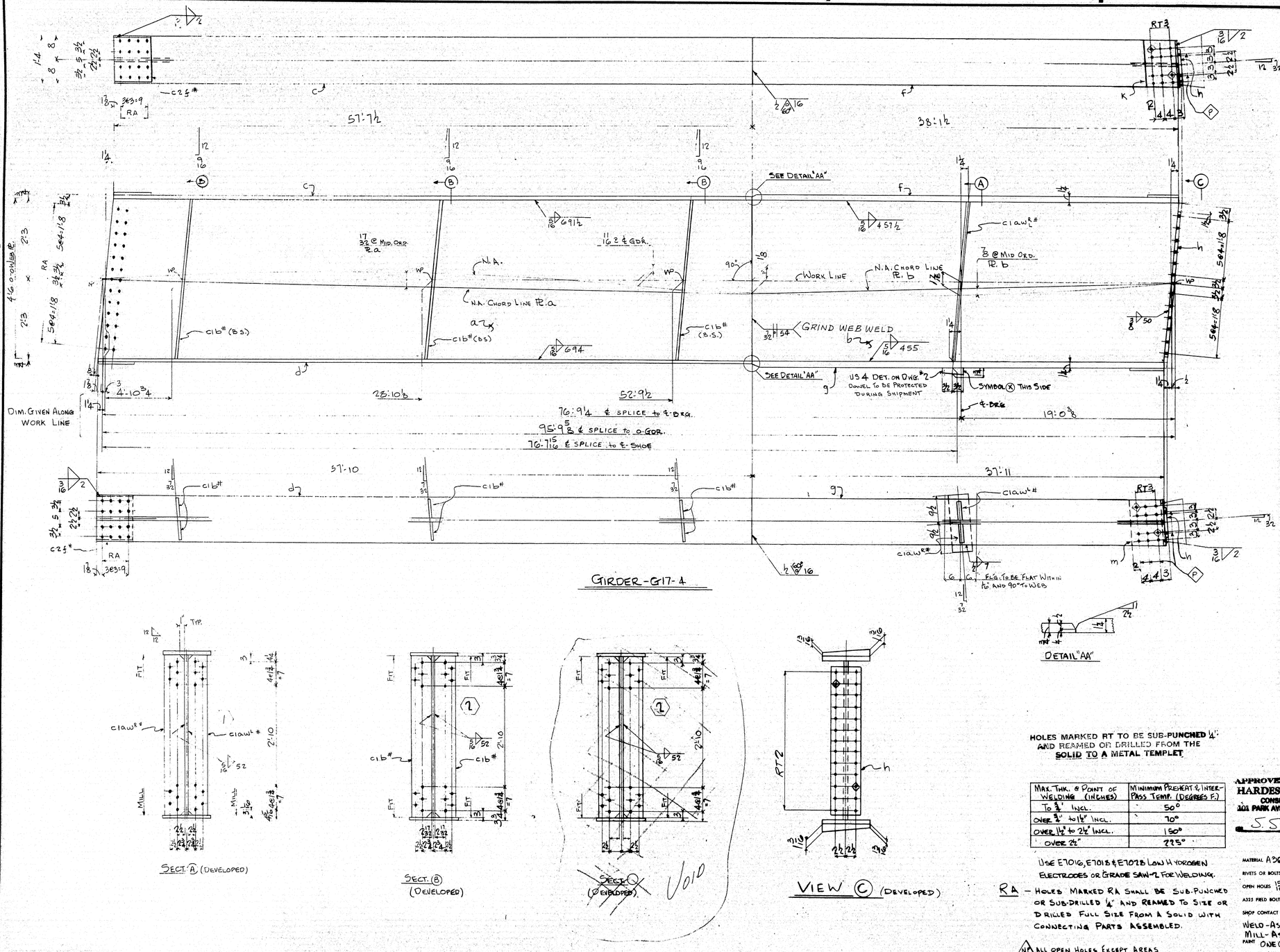
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)116
CONT. NO. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RDN DATE 8-1-69 IN CHARGE B.W. BERTOLET
CHECKED BY RJ DATE 8-19-69 SHOP NO. 2
CONTRACT CI-G219-070 DRAWING NO. 140

For location of details shown on this sheet refer to diagrams.
E5

3 - 1 INSP#1-1 106-132

SEP 1 1969



LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
1		ONE-	GIRDER-	G17-4									
2	a	1	PL	54		1/4	57	10	C.F. 56½ x 7/16	58	2½	26	#5
3	b	1	PL	54		½	38	1½	C.F. 56 x ½	38	7	26	37
4	c	1	PLU	16		¾	57	7½		57	11¼	26	16
5	d	1	PLU	16		¾	57	10		57	11¼	26	16
6	f	1	PLU	16		¼	38	1⅝		38	3	26	13
7	g	1	PLU	16		¼	37	11⅜		38	3	26	13
8	h	1	PL	8		½	4	2		30	6	J	
9	K	1	PL	12 5/16		13/16 x 13/16	1	4				J	
10	m	1	PL	12 5/16		13/16 x 13/16	1	4				J	
11	c. 2½#	2	PL	15		5/8	1	0⅜	15½ x ⅜	20	2	24	44
12	c. 19WT#	1	BR	7½		¾	4	6 5/16	MIE FIE	18	4	24	49
13													
14	c. 16#	6	BR	7		½	4	6	F2E	18	4	24	51
15													
16													
17													
18													
19													
20													
21	US 4	1		UPPER SHOE					DET. ON DWG #2				
22	FW	1	WD			1/16		1	4				
23	FWS	1	WD			1/16		69	4				
24	FWL	1	WD			1/16		383	0				
25	FWS	1	WD			5/16		8	4				
26	FW	1	WD			½		1	2				
27	VGOS	1	WD			½		2	8				
28	SDS	1	WD			7/16		4	6				
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													

HOLES MARKED RT TO BE SUB-PUNCHED ¼" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. ℄ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

USE E7016, E7018 & E7028 LOW H YDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA – HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST.-17W

REQUIRED LIST			
QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-4	GIRDER 19"x58½"x96'-0"	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
S. S. Washburn SEP 26 1969

PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS ⅞ ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

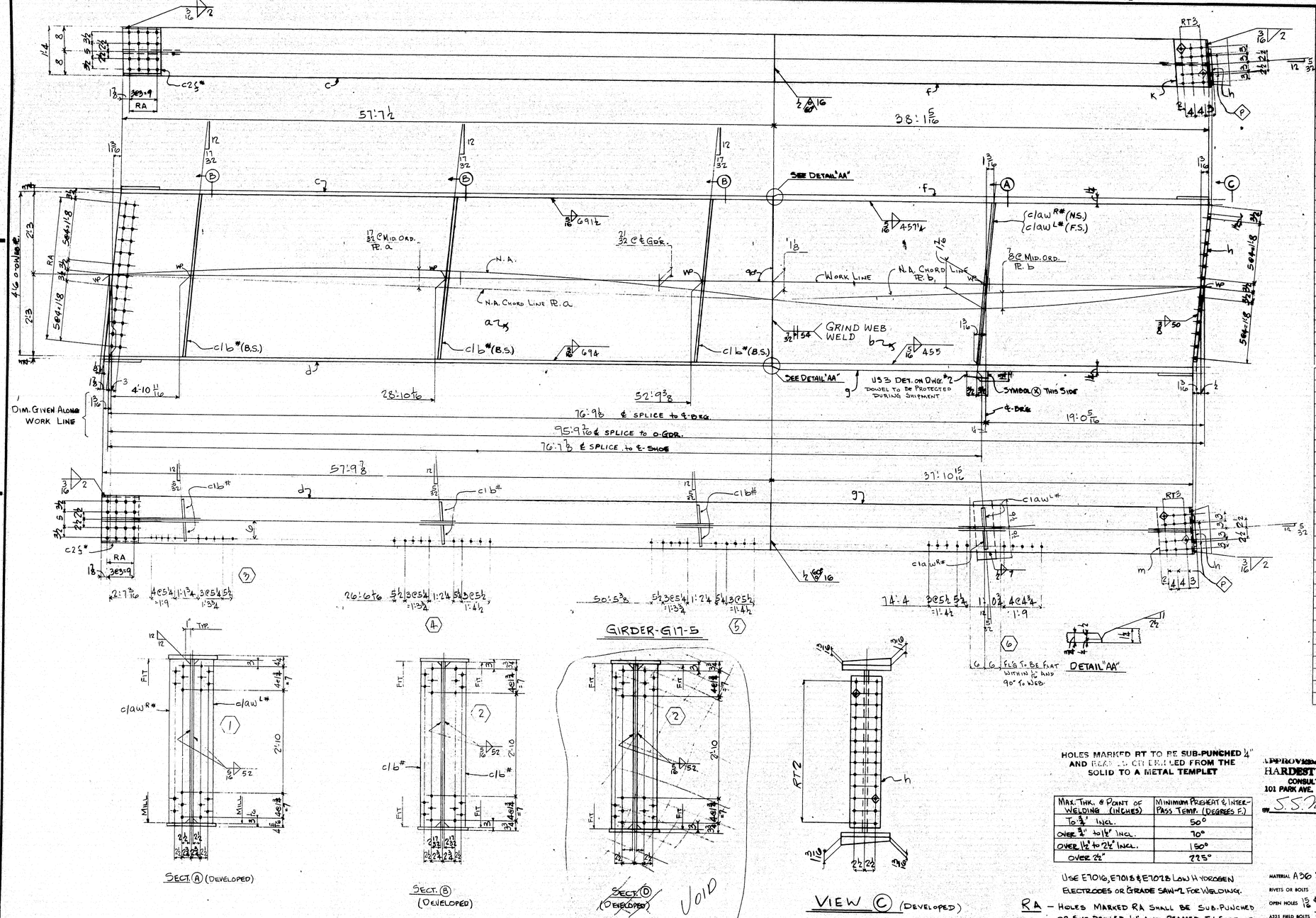
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)116
CONT. NO 3 - NEW HAMPSHIRE APP.

STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE W.R.D.N. DATE 8-1-69 IN CHARGE B.K. BEETCHET
CHECKED BY R.J. DATE 8-19-69 SHOP NO. 2
CONTRACT CJ-6749-020 DRAWING NO. 141

For location of details shown on this sheet refer to diagrams.
E5

3 . . 1 INSP#1-1 106-139

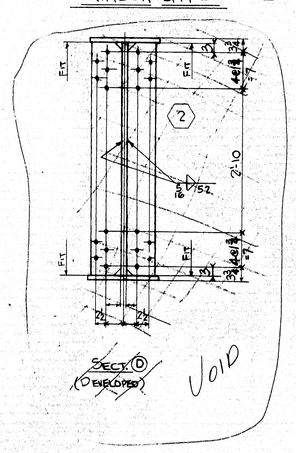


SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE-	GIRDER		G17-5				
2	a	1	PL	54		7/16	57	9 3/8	CF 56'2 x 7/16
3	b	1	PL	54		½	38	1 5/16	CF 56 x ½
4	c	1	PLV	16		¾	57	7½	
5	d	1	PLV	16		¾	57	9 3/8	
6	f	1	PLV	16		1¼	38	1 3/8	
7	g	1	PLV	16		1¼	37	11 3/32	
8	h	1	PL	8		½	4	2	
9	K	1	PL	12 3/8		1 3/16 x 5/16	1	4	
10	m	1	PL	12 3/8		1 3/16 x 5/16	1	4	
11	c. 25*	2	PL	1.5		5/16	1	0 3/8	15½ x 5/8
12	c. 1aw R* / 1	1	BR	7½		¾	4	6	MIE FIE
13	c. 1b*	6	BR	7		½	4	6	F2E
21	U53	1	UPPER SHOE						DET. ON DWG #2
22	FW	1	WD			3/16	1	4	
23	FW2	1	WD			3/16	69	4	
24	FWL	1	WD			3/16	382	11½	
25	FWS	1	WD			3/16	8	4	
26	FW	1	WD			1 3/4	1	2	
27	VGDS	1	WD			1 3/4	2	8	
28	SDS	1	WD			1/16	4	6	

MILL ORDER

LINE	LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM SHEET
1				
2	58	2½	26	05
3	38	7	20	07
4	57	11⅞	26	16
5	57	11¾	26	16
6	38	3	26	13
7	38	3	26	13
8	30	6	J	
9			J	
10			J	
11	20	2	24	44
12	18	4	24	49
13	18	4	24	51



HOLES MARKED RT TO BE SUB-PUNCHED ¼" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. OF PART OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

USE E7016, E7018 & E7018 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA – HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

(3) ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST. – 17W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-5	GIRDER 19'-5⅜" x 96"-0	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY J.S. Hardesty SEP 26 1969

PAY ITEM – 504.711

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS ⅞ ϕ
SHOP CONTACT SURFACES NO PAINT
WELD – AS NOTED
MILL – AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

GIRDER

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO 3 - NEW HAMPSHIRE APP.

STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

POTTSTOWN DRAFTING ROOM Pottstown WORKS
MADE BY R.D.N DATE 8-4-69 IN CHARGE B.K. BERTOLET
CHECKED BY RJ DATE 8-19-69 SHOP NO. 2
CONTRACT CJ-6749-020 DRAWING NO. 142

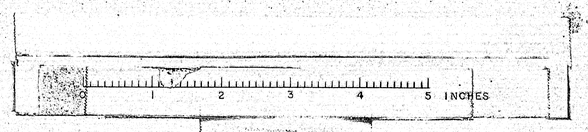
NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
1		

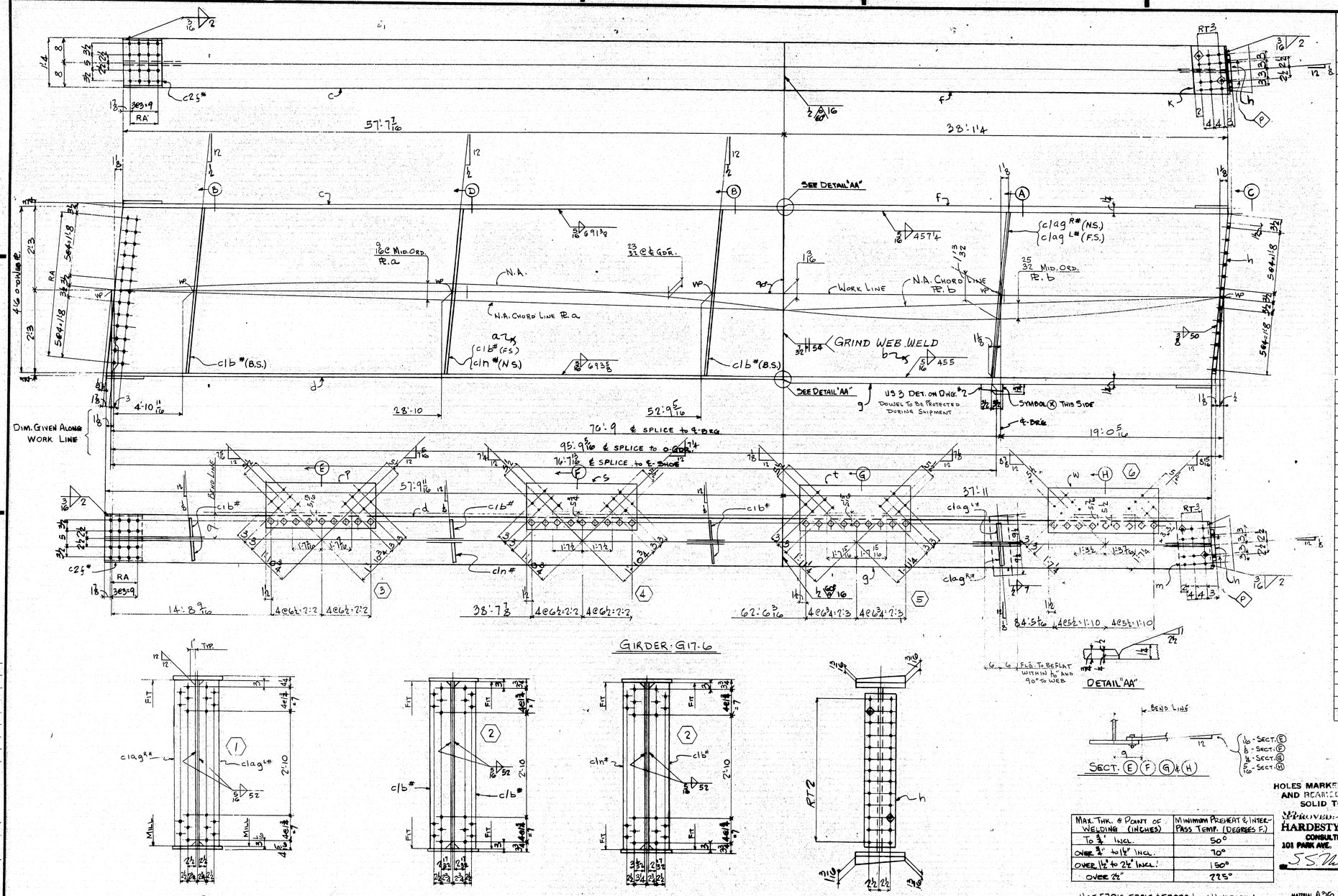
REVISION

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

For location of details shown on this sheet refer to diagrams.
E5

3 1 INSP#1-1 106-143





GIRDER · G17·6

SECT. (A) (DEVELOPED)

SECT. (B) (DEVELOPED)

SECT. (D) (DEVELOPED)

VIEW (C) (DEVELOPED)

For location of details shown on this sheet refer to diagrams.

E5

SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE-	GIRDER	G17-	6				
2	a	1	PL	54		7/16	57	9 11/16	CF 5G 1/2 x 7/16
3	b	1	PL	54		1/2	38	1 1/4	CF 5G x 1/2
4	c	1	PLV	16		3/8	57	7 7/16	
5	d	1	PLV	16		3/8	57	9 11/16	
6	f	1	PLV	16		1/4	38	1 3/4	
7	g	1	PLV	16		1/4	37	11 3/32	
8	h	1	PL	8		1/2	4	2	
9	K	1	PL	12B		1 1/8 x 5/16	1	4	
10	m	1	PL	12B		1 1/8 x 5/16	1	4	
11	c 25*	2	PL	15		5/8	1	0 3/8	15 1/2 x 5/8
12	c lag L* R*	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
13	c 1b*	5	BR	7		1/2	4	6	F2E
14	c 1n*	1	BR	7		1/2	4	6	F2E
15	P	1	PL	14 1/2		5/8	4	7	BENT
16	S	1	PL	14 1/2		5/8	4	7	BENT
17	r	1	PL	14 1/2		5/8	4	9	BENT
18	W	1	PL	14 1/2		5/8	3	11	BENT
19									
20									
21	US 3	1	UPPER SHOE						DET. ON DWG # 2
22	FW	1	WD			7/16		1	4
23	FW3	1	WD			7/16		69	4
24	FWL	1	WD			7/16		389	6 1/2
25	FWS	1	WD			7/16		8	4
26	FW	1	WD			1/2		1	2
27	VGOS	1	WD			1/2		2	8
28	SDS	1	WD			7/16		4	6
29									
30									
31									
32		18	325	7/8				0	3 1/4
33		18	325	7/8				0	2 3/4
34		36	HV	1 3/4	15/16	1/2			
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	PIECE	MK
58	2 1/2	26	05
38	7	26	07
57	11 3/4	26	16
57	11 3/4	26	16
38	3	26	13
38	3	26	13
30	6	J	
		J	
		J	
20	2	24	44
18	4	24	49
18	4	24	51
18	4	24	51
26	0	28	19
26	0	28	19
26	0	28	19
26	0	28	19

M

INST. - 17 W

HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-6	GIRDER 19 x 58B x 95-11/16	

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2" to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA - HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

(P) ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
PAY ITEM - 504.711
S.S. Nishan SEP 26 1969

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS 7/8 ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (UN)

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO 3 - NEW HAMPSHIRE APP.

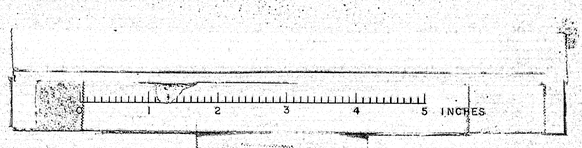
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

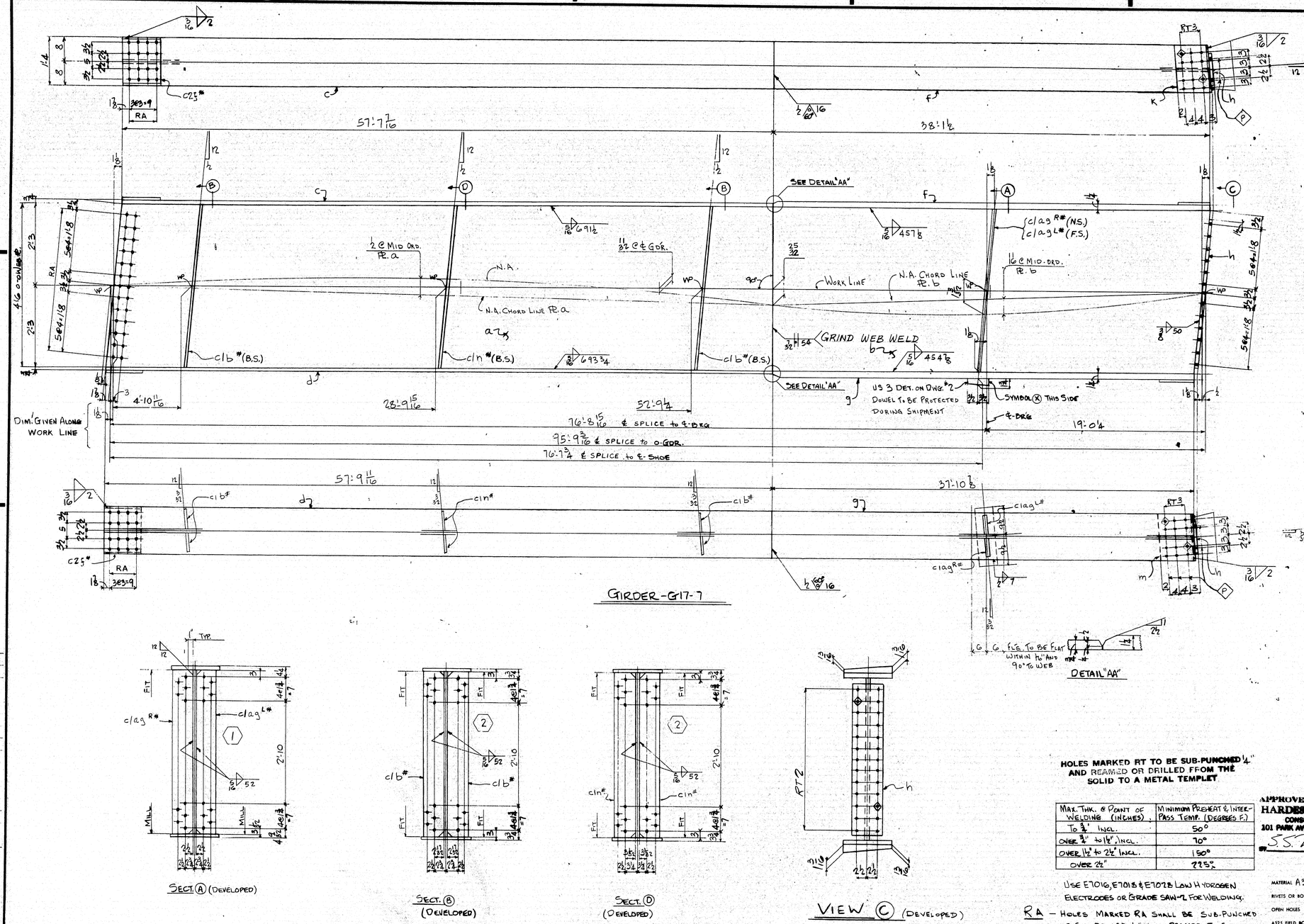
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY RDN DATE 8-5-69 IN CHARGE B.K. BERTOLET
CHECKED BY RJ DATE 8-19-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 143

NO.	DATE	INIT.
REVISION		

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

INSP #1-1 106-147





GIRDER-G17-7

SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1			ONE-GIRDER-G17-7						
2	a	1	PL	54		7/16	57	9 11/16	CF 56 1/2 x 7/16
3	b	1	PL	54		1/2	38	1 1/8	CF 56 x 1/2
4	c	1	PLV	16		3/8	57	7 1/16	
5	d	1	PLV	16		3/8	57	9 11/16	
6	f	1	PLV	16		1/4	38	1 3/8	
7	g	1	PLV	16		1/4	37	10 1 3/16	
8	h	1	PL	8		1/2	4	2	
9	K	1	PL	12 1/8		13/16 x 13/16	1	4	
10	m	1	PL	12 1/8		13/16 x 13/16	1	4	
11	C25*	2	PL	15		5/8	1	0 3/8	15 1/2 x 5/8
12	C149 R*	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
13	C b*	4	BR	7		1/2	4	6	F2E
14	C 1h*	2	BR	7		1/2	4	6	F2E
15									
16									
17									
18									
19									
20									
21	US 3	1	UPPER SHOE						DET. ON DWG. #2
22	FW	1	WD			3/16	1	4	
23	FWS	1	WD			5/16	69	4	
24	FWL	1	WD			5/16	382	10 1/2	
25	FWS	1	WD			5/16	8	4	
26	FW	1	WD			1/2	1	2	
27	VGOS	1	WD			3/4	2	8	
28	SDS	1	WD			1/16	4	6	
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	WIDTH PAGE	WIDTH LINE
58	2 1/2	26	05
38	7	26	07
57	11 3/4	26	16
57	11 3/4	26	16
38	3	26	13
38	3	26	13
30	6	J	
		J	
		J	
20	2	24	44
18	4	24	49
18	4	24	51
18	4	24	51

HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET.

MAX. THK. OF POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" INCL.	50°
OVER 3/4" to 1 1/2" INCL.	70°
OVER 1 1/2 to 2 1/2" INCL.	150°
OVER 2 1/2"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA - HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/4 P ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST-17W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-7	GIRDER 19 x 58 7/8 x 96-0	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY J.S. Hardesty SEP 26 1969

PAY ITEM - 504.7(1)

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ♦
A325 FIELD BOLTS 7/8 ♦
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LN)

GIRDER

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY R.D.N. DATE 8-5-69 IN CHARGE B.K. BERTOLET
CHECKED BY R.J. DATE 8-19-69 SHOP NO. 2
CONTRACT CJ-6249-020 DRAWING NO. 144

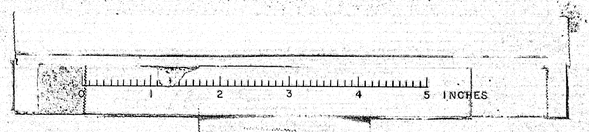
REVISION NO. | DATE | INIT.

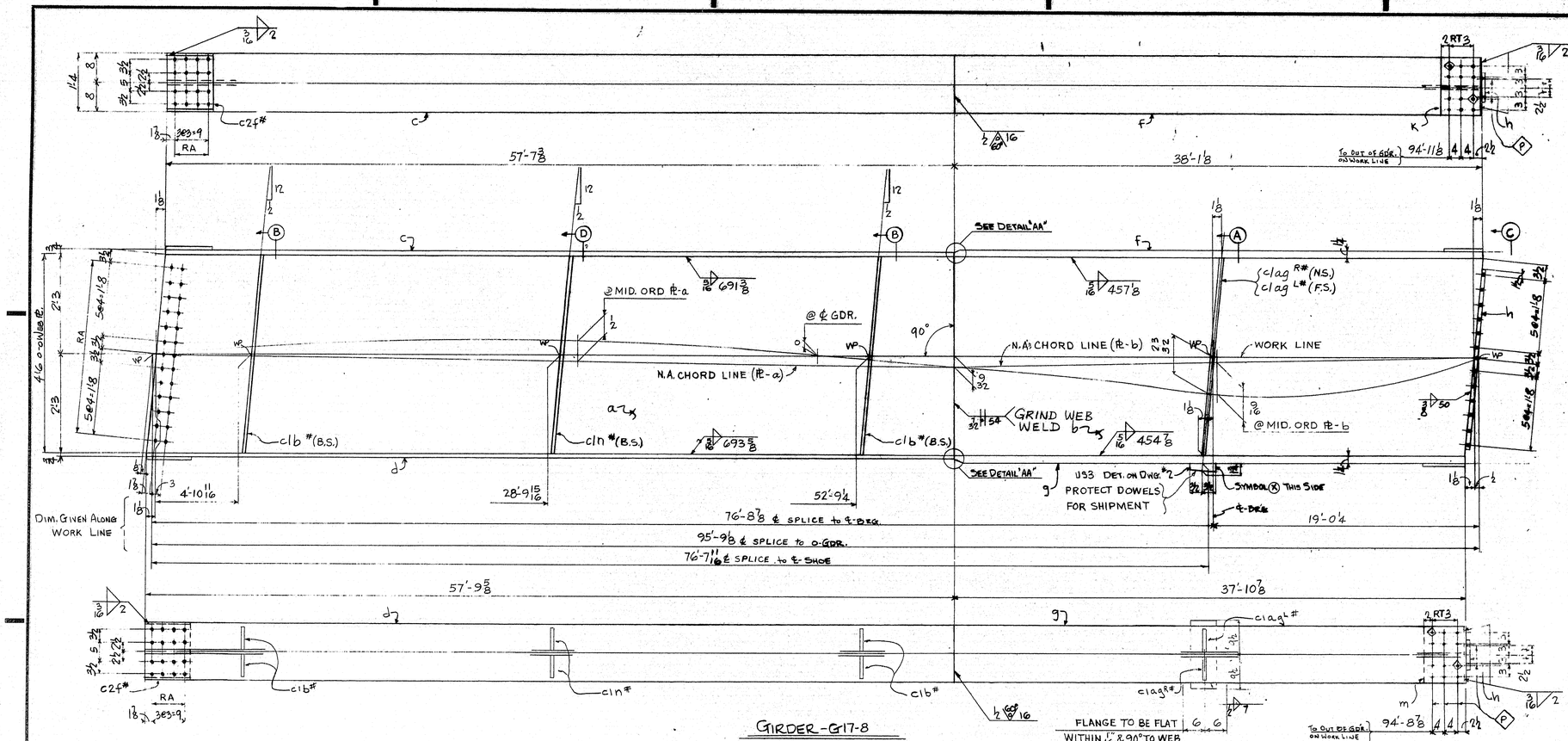
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

For location of details shown on this sheet refer to diagrams.
E5

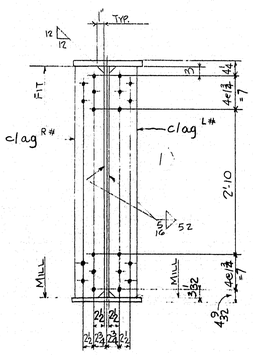
3 1 INSP#1-1

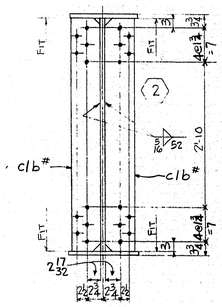
106-142

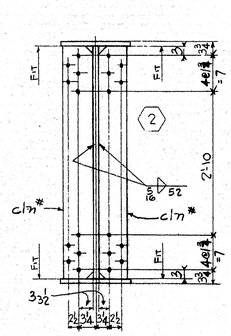


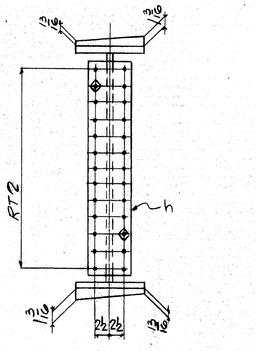

57'-7⅞
38'-1⅛
94'-11⅛
To Out of Gdr. on Work Line
28'-9 15/16
52'-9¼
76'-8⅞ ℄ SPLICE to ℄ BEG.
95'-9⅛ ℄ SPLICE to ℄ GDR.
76'-7 11/16 ℄ SPLICE to ℄ SHOE
57'-9⅝
37'-10⅞
19'-0¼
4'-10 11/16
Dim. Given Along Work Line
4'-6 o-o Web ℄
564-1/8
213
RA
@ ℄ GDR.
90°
N.A. CHORD LINE (℄-a)
N.A. CHORD LINE (℄-b)
WORK LINE
@ MID. ORD ℄-a
@ MID. ORD ℄-b
SEE DETAIL "AA"
GRIND WEB WELD
PROTECT DOWELS FOR SHIPMENT
US3 DET. ON DWG. #2
SYMBOL Ⓚ THIS SIDE
℄ BRG.
FLANGE TO BE FLAT WITHIN 1/16 & 90° TO WEB
94'-8⅞
To Out of Gdr. on Work Line
clag R# (N.S.)
clag L# (F.S.)
clb #(B.S.)
cln #(B.S.)
clb #
cln #
clag L #
clag R #
c2f #
RA
363=9
691 3/8
693 5/8
457 1/8
454 1/8
DETAIL "AA"

GIRDER-G17-8

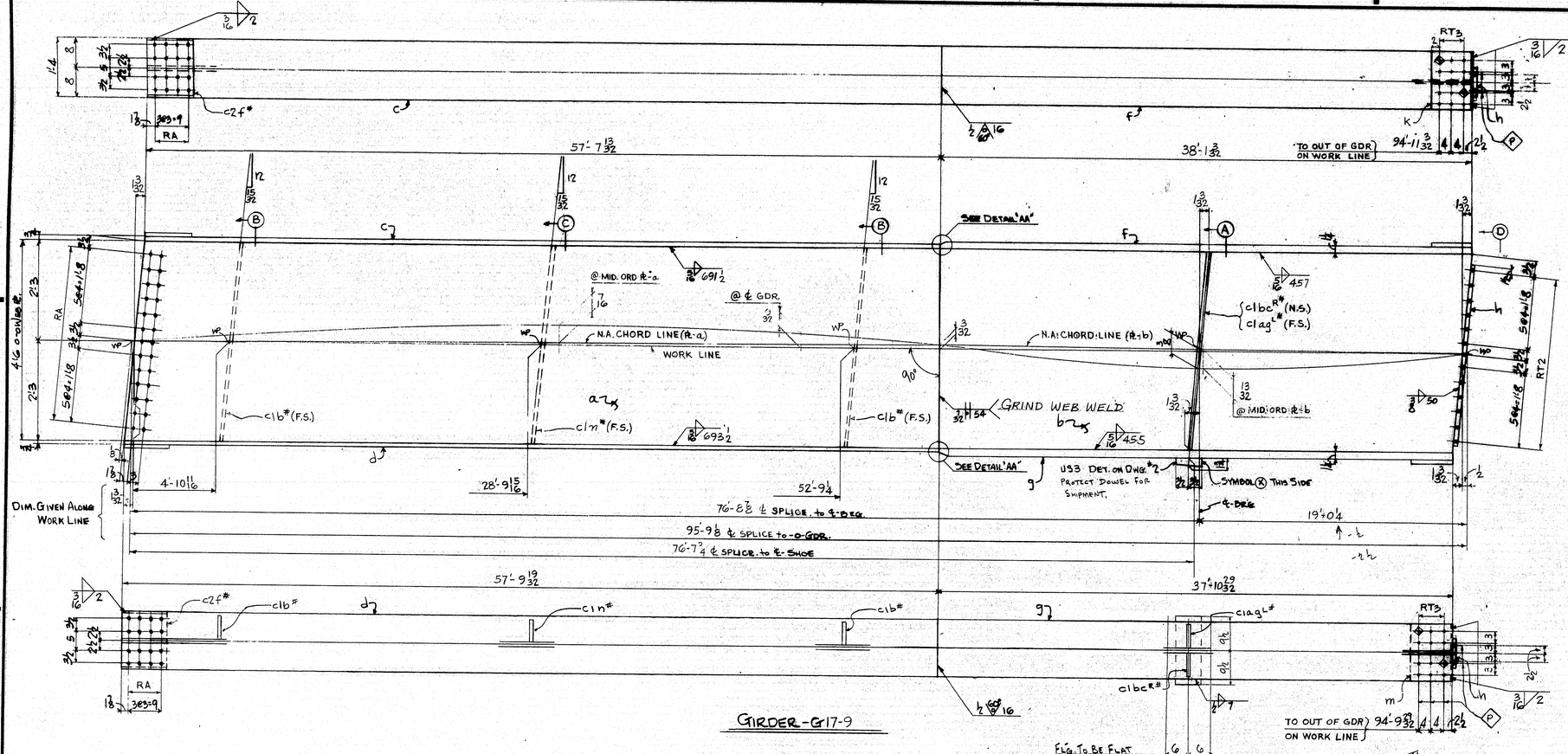

TYP.
clag L#
clag R#
2'-10
MILL
SECT. Ⓐ (DEVELOPED)

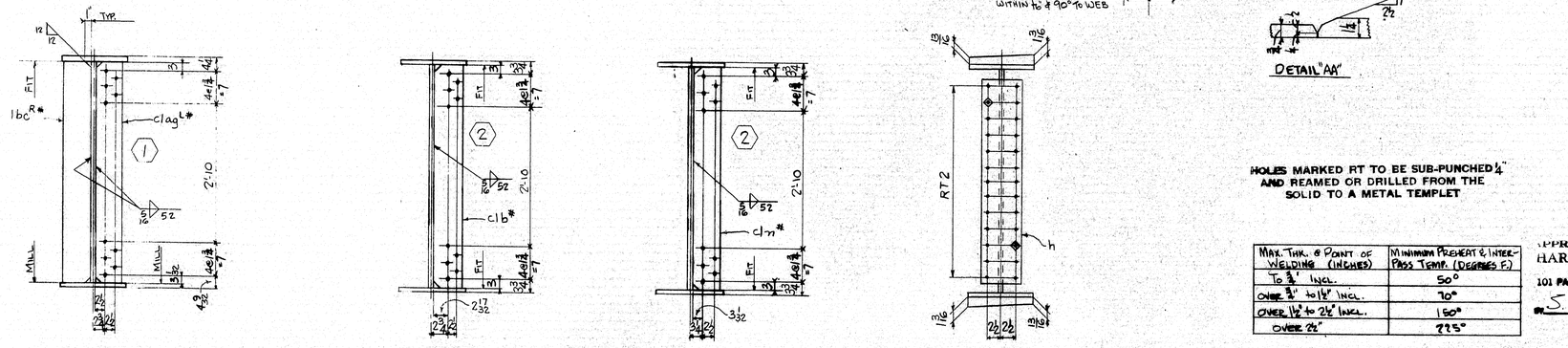

clb #
cln #
2'-10
SECT. (B) (DEVELOPED)


cln #
clb #
2'-10
SECT. Ⓓ (DEVELOPED)


RT 2
h
VIEW Ⓒ (DEVELOPED)

| | | |





	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	LENGTH FT.	LENGTH IN.	
1		ONE-	GIRDER-	G17-9								
2	a	1	PL	54		1/16	57	9 19/32	CF 56½ x 1/16	58	2½	2085
3	b	1	PL	54		½	38	1 3/32	CF 56 x ½	38	7	2601
4	c	1	PLU	16		3/4	57	7 13/32		57	11¾	2418
5	d	1	PLU	16		3/4	57	9 19/32		57	11¾	2418
6	f	1	PLU	16		1¼	38	1 3/32		38	3	2013
7	g	1	PLU	16		1¼	37	10 29/32		38	3	2013
8	h	1	PL	8		½	4	2		30	6	J
9	K	1	PL	12		1 3/16 x 13/16	1	4				J
10	m	1	PL	12		1 3/16 x 1/2	1	4				J
11	c: 2f*	2	PL	15		5/16	1	0 3/8	15 x 5/16	20	2	24 44
12	c: 1bc R*	1	BR	7½		3/4	4	6 3/32	MIE FIE	18	4	24 49
13	c: 1ag L*	1	BR	7½		3/4	4	6 3/32	MIE FIE	18	4	24 49
14	c: 1b*	2	BR	7		1/2	4	6	FIE	18	4	24 51
15	c: 1m*	1	BR	7		1/2	4	6	FIE	18	4	24 51
16												
17												
18	US3	1	UPPER SHOE						DET. ON DWG.*2			
19												
20												
21	FW	1	WD			3/16	1	4				
22	FWL	1	WD			5/16	382	10				
23	FWS	1	WD			5/16	43	4				
24	FW	1	WD			1/2	1	2				
25	FWS	1	WD			3/8	8	4				
26	SDS	1	WD			1/16	4	6				
27	VGDS	1	WD			3/4	2	8				
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												

HOLES MARKED RT TO BE SUB-PUNCHED ¼" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

USE E70I6, E70I8 & E70I8 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA. — HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

(P) ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST.—17W

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-9	GIRDER 19'x58½"x95-11/8	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura SEP 26 1969

PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS - 7/8 ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LN)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM Pottstown WORKS
MADE BY B.A.L. DATE 7-29-69 IN CHARGE R.K. Bernhardt
CHECKED BY R.J. DATE 8-19-69 SHOP NO. 2
CONTRACT CJ-6249-010 DRAWING NO. 146

NO.	DATE	BY	REVISION
0			
9			
8			
7			
6			
5			
4			
3			
2			
1			

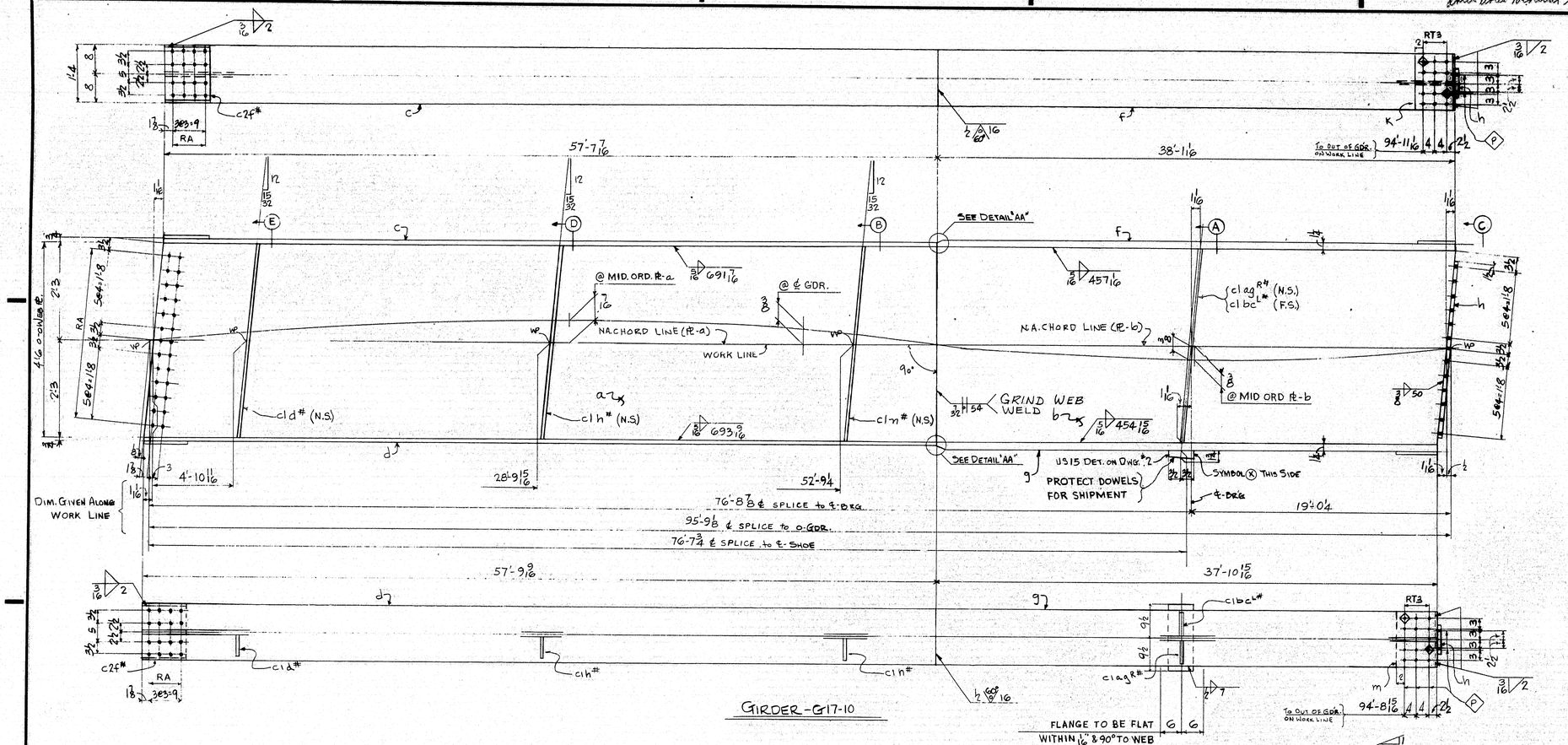
ESSENTIAL	1	2	3	4	5	6	7	8	9	10
DATE										

For location of details shown on this sheet refer to diagrams.
E5

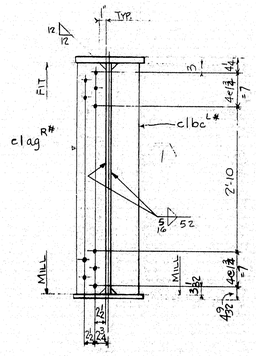
3 1 INSP #1-1

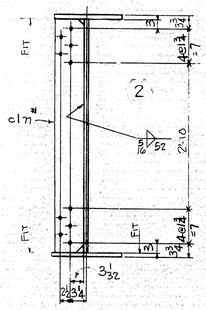
106 - 142

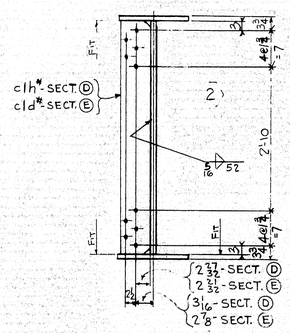
Drill holes vertical through flg. - DRG

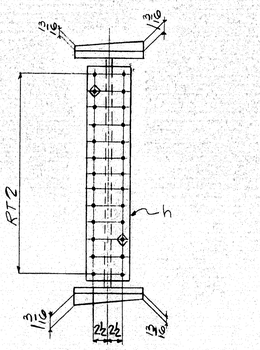


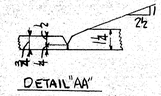
GIRDER-G17-10











HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLAT.

MAX. THK. OF POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
TO 3/4" INCL.	50°
OVER 3/4" TO 1 1/2" INCL.	70°
OVER 1 1/2" TO 2 1/2" INCL.	150°
OVER 2 1/2"	225°

USE E7016, E7018 & E7028 LOW H YDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA - HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/8 ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		ONE-	GIRDER-	G17-10					
2	a	1	PL	54		1/16	57	9 3/16	CF 56 1/2 x 1/16
3	b	1	PL	54		1/2	38	1 1/16	CF 56 x 1/2
4	c	1	PLU	16		3/4	57	7 1/16	
5	d	1	PLU	16		3/4	57	9 3/16	
6	f	1	PLU	16		1/4	38	1/16	
7	g	1	PLU	16		1/4	37	10 15/16	
8	h	1	PL	8		1/2	4	2	
9	K	1	PL	12		1 13/16 x 13/16	1	4	
10	m	1	PL	12		1 13/16 x 13/16	1	4	
11	c 2f#	2	PL	15		5/8	1	0 3/8	15 1/2 x 5/8
12	c 1ag R#	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
13	c 1bc L#	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE
14	c 1d#	1	BR	7		1/2	4	6	F2E
15	c 1h#	1	BR	7		1/2	4	6	F2E
16	c 1m#	1	BR	7		1/2	4	6	F2E
17									
18									
19									
20									
21	US15	1	UPPER SHOE						DET. ON DWG #2
22	FW	1	WD			3/16	1	4	
23	FWS	1	WD			3/16	43	4	
24	FWL	1	WD			3/16	382	10	
25	FWS	1	WD			3/8	8	4	
26	FW	1	WD			1/2	1	2	
27	VG05	1	WD			3/4	2	8	
28	SDS	1	WD			1/16	4	6	
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									

MILL ORDER

LENGTH FT.	LENGTH IN.	ITEM PAGE	ITEM LINE
58	2 1/2	26	05
38	7	26	07
57	11 3/4	26	16
57	11 3/4	26	16
38	3	26	13
38	3	26	13
30	6	J	
		J	
		J	
20	2	24	44
18	4	24	49
18	4	24	49
18	4	24	51
18	4	24	51
18	4	24	51

INST. - 17E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-10	GIRDER 19X56 1/2 X 95'-11 1/16	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
PAY ITEM - 504.711
BY J.S. Nichols SEP 26 1969

GIRDER

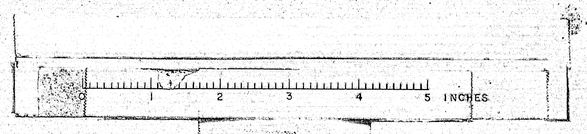
MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 YIELD BOLTS 7/8 ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LN)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(72)16
CONT. NO 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY B.A.L. DATE 7-30-69 IN CHARGE B.W. BERTOLET
CHECKED BY RJ DATE 8-19-69 SHOP NO. 2
CONTRACT CT-6949-020 DRAWING NO. 147

REVISION NO. DATE INIT.

SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

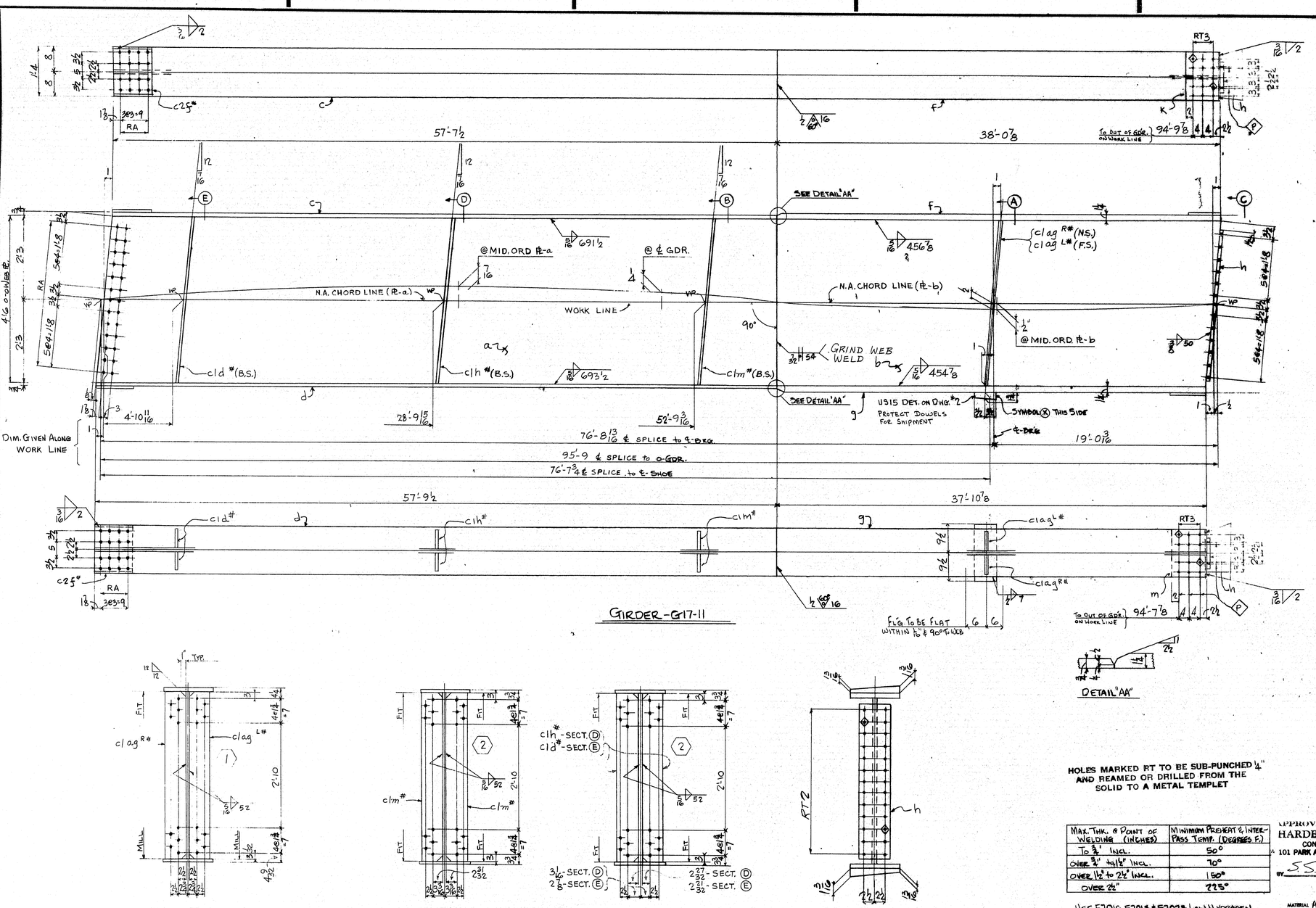
For location of details shown on this sheet refer to diagrams.
E5



35433 (Rev. C 4-65)

SEP 19 1969

106-1/5 INSP #1-1



HOLES MARKED RT TO BE SUB-PUNCHED ¼" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTERPASS TEMP. (DEGREES F.)
To ¾" INCL.	50°
OVER ¾" to 1½" INCL.	70°
OVER 1½" to 2½" INCL.	150°
OVER 2½"	225°

USE E7016, E7018 & E7028 LOW HYDROGEN ELECTRODES OR GRADE SAW-2 FOR WELDING.

RA — HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED ¼" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

3/4 ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELDS.

For location of details shown on this sheet refer to diagrams.

E5

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SIZE	FRACTION	THICK	LENGTH FT.	LENGTH IN.	REMARKS	NAIL GRADE LENGTH FT.	NAIL GRADE LENGTH IN.	NAIL GRADE WEIGHT
1		ONE-	GIRDER-	G17-11								
2	a	1	PL	54		7/16	57	9½	CF 56½ x 7/16	58	2½	860 5
3	b	1	PL	54		½	38	0⅞	CF 56½	38	7	260 7
4	c	1	PLW	16		½	57	7½		57	11½	261 6
5	d	1	PLW	16		½	57	9½		57	11½	261 6
6	f	1	PLW	16		½	38	0⅞		38	3	202 3
7	g	1	PLW	16		½	37	10⅞		38	3	202 3
8	h	1	PL	8		½	4	2		3 0 6		J
9	K	1	PL	12		1½ x 13/16	1	4				J
10	m	1	PL	12		1½ x 13/16	1	4				J
11	c 25#	2	PL	15		⅝	1	0⅜	15½ x ⅝	20	2	24 44
12	c lag L#	1	BR	7½		¾	4	6 32/32	MIE FIE	18	4	124 44
13	c 1d#	2	BR	7		½	4	6	F2E	18	4	124 51
14	c 1h#	2	BR	7		½	4	6	F2E	18	4	124 51
15	c 1m#	2	BR	7		½	4	6	F2E	18	4	124 51
16												
17												
18												
19												
20												
21	US15	1	UPPER SHOE						DET. ON DWG #2			
22	FW	1	WD			3/16	1	4				
23	FWS	1	WD			5/16	69	4				
24	FWL	1	WD			5/16	382	9½				
25	FWS	1	WD			⅜	8	4				
26	FW	1	WD			½	1	2				
27	VGDS	1	WD			¾	2	8				
28	SDS	1	WD			7/16	4	6				

INST.-17E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-11	GIRDER 19 x 58⅜ x 25/16	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK
BY S.S. Yoshizumi SEP 26
Pay Item - 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ
A325 FIELD BOLTS ⅞ ϕ
SHOP CONTACT SURFACES NO PAINT
WELD - AS NOTED
MILL - AS NOTED
PAINT ONE COAT AASHO-M72 TYPE II RED LEAD (UN)

CONTRACT
MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT No. I-95-1(22)16
CONT. No. 3 - NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM
MADE BY B.A.L. DATE 8-1-69 IN CHARGE
CHECKED BY R.S. DATE 8-19-69 SHOP NO.
CONTRACT C1-22114-0B8 DRAWING NO. 148

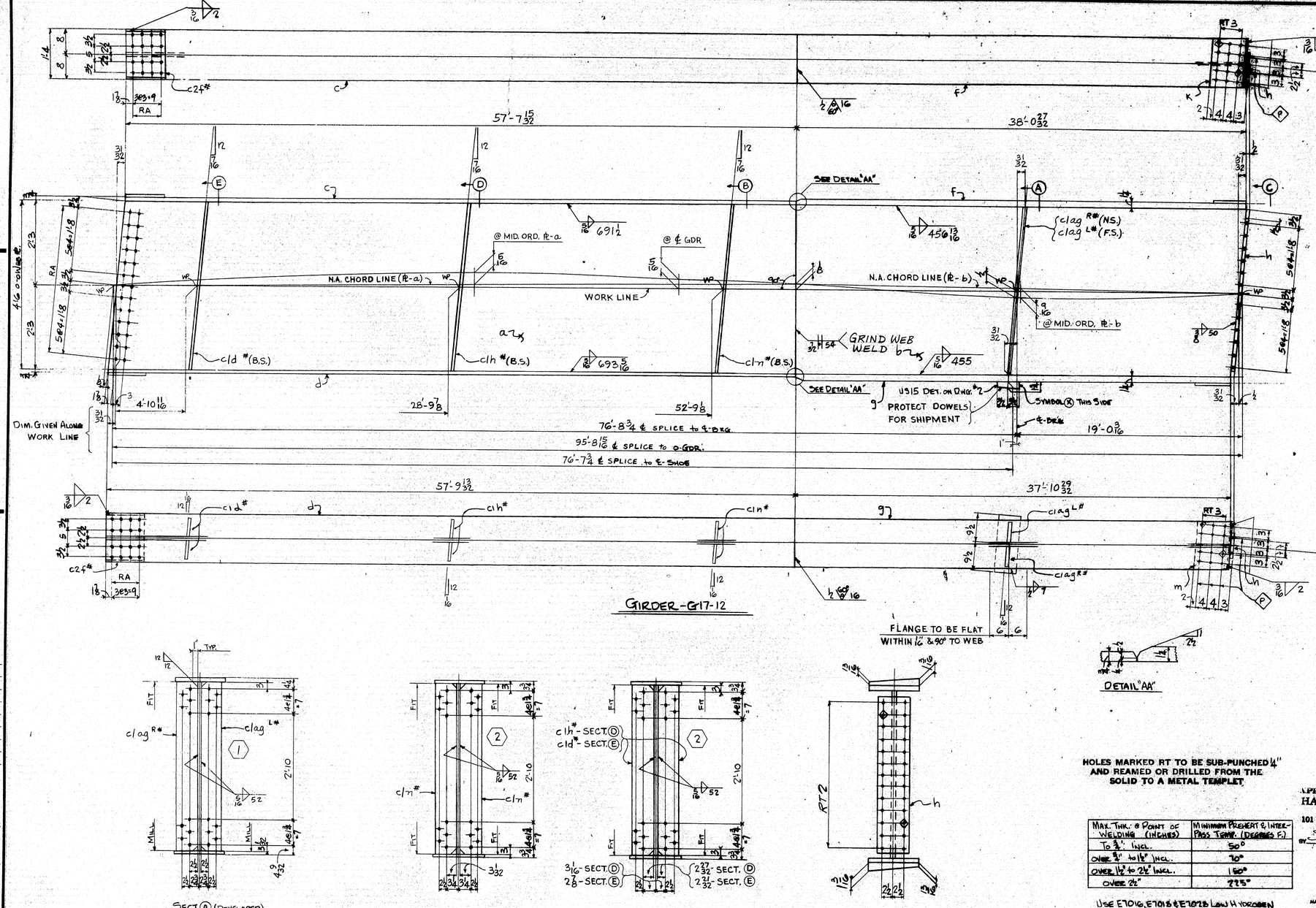
SUBMITTAL	1	2	3	4	5	6	7	8	9	10
DATE										

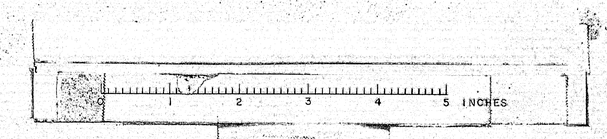
REVISIONS

NO.	DATE	INIT.

106-146 INSP#17

0 1 2 3 4 5 INCHES





SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION WEB LOCATION	SECTION THICK	MEMBER FT.	MEMBER IN.	REMARKS	WEIGHT FT.	WEIGHT IN.	WEIGHT
1		ONE-GIRDER				G17-12						
2	a	1	PL	54		1/16	57	9 13/32	CF 56 1/2 X 1/16	158	12 1/2	20 05
3	b	1	PL	54		1/2	38	0 27/32	CF 56 X 1/2	38	7	26 07
4	c	1	PLW	16		3/8	57	7 15/32		57	10 1/2	26 16
5	d	1	PLW	16		3/8	57	9 13/32		57	11 1/2	26 16
6	f	1	PLW	16		1/4	38	0 7/8		38	3	26 13
7	g	1	PLW	16		1/4	37	10 1/2		38	3	26 13
8	h	1	PL	8		1/2	4	2		30	6	J
9	K	1	PL	12 1/2		13/16 x 12	1	4				J
10	m	1	PL	12 1/2		13/16 x 12	1	4				J
11	c 2f#	2	PL	15		5/8	1	0 3/32	15 1/2 x 5/8	20	2	24 44
12	c 1eg#	1	BR	7 1/2		3/4	4	6 3/32	MIE FIE	18	4	24 49
13	c 1d#	2	BR	7		1/2	4	6	F2E	18	4	24 51
14	c 1h#	2	BR	7		1/2	4	6	F2E	18	4	24 51
15	c 1m#	2	BR	7		1/2	4	6	F2E	18	4	24 51
16												
17												
18												
19												
20												
21	US15	1	UPPER SHOE						DET. ON DWG #2			
22	FW	1	WD			3/16	1	4				
23	FWS	1	WD			5/16	69	4				
24	FWL	1	WD			5/16	382	9 1/4				
25	FWS	1	WD			5/8	8	4				
26	FW	1	WD			1/2	1	2				
27	VGDS	1	WD			3/4	2	8				
28	SDS	1	WD			1/16	4	6				

HOLES MARKED RT TO BE SUB-PUNCHED 1/4" AND REAMED OR DRILLED FROM THE SOLID TO A METAL TEMPLET

MAX. THK. @ POINT OF WELDING (INCHES)	MINIMUM PREHEAT & INTER-PASS TEMP. (DEGREES F.)
To 3/4" Incl.	50°
Over 3/4" to 1 1/2" Incl.	70°
Over 1 1/2" to 2 1/2" Incl.	150°
Over 2 1/2"	225°

USE E7016, E7015 & E7028 LOW HYDROGEN ELECTRODES OR GRADE 55W-2 FOR WELDING.

RA - HOLES MARKED RA SHALL BE SUB-PUNCHED OR SUB-DRILLED 1/4" AND REAMED TO SIZE OR DRILLED FULL SIZE FROM A SOLID WITH CONNECTING PARTS ASSEMBLED.

ALL OPEN HOLES EXCEPT AREAS NOTED (P)

NO TACK WELDING PERMITTED UNLESS SHOWN OR INCORPORATED IN FINAL WELD.

INST-17E

REQUIRED LIST

QTY.	SHIPPING MARK	DESCRIPTION	REMARKS
ONE	G17-12	GIRDER 19 x 58 3/8 x 95-10 11/16	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Washburn SEP 26 1969
PAY ITEM - 504.711

GIRDER

MATERIAL A36 STEEL
RIVETS OR BOLTS
OPEN HOLES 15/16"ø
A325 FIELD BOLTS 7/8"ø
SHOP CONTACT SURFACES NO PAINT
WELD-AS NOTED
MILL-AS NOTED
PAINT ONE COAT AASHO-M72-TYPE II RED LEAD (LIN)

OWNER: MAINE STATE HIGHWAY COMMISSION
PISCATAQUA RIVER BRIDGE
PROJECT NO. I-95-1(22)16
CONT. NO. 3-NEW HAMPSHIRE APP.
STRUCTURAL STEEL
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
POTTSTOWN DRAFTING ROOM POTTSTOWN WORKS
MADE BY B.H.L. DATE 8-4-69 IN CHARGE B.K. BARNHART
CHECKED BY R.J. DATE 8-19-69 SHOP NO. 2
CONTRACT CT-6214-030 DRAWING NO. 149

SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

REVISION

For location of details shown on this sheet refer to diagrams.

E5

TAPE 1 106-147 INSP #1-1