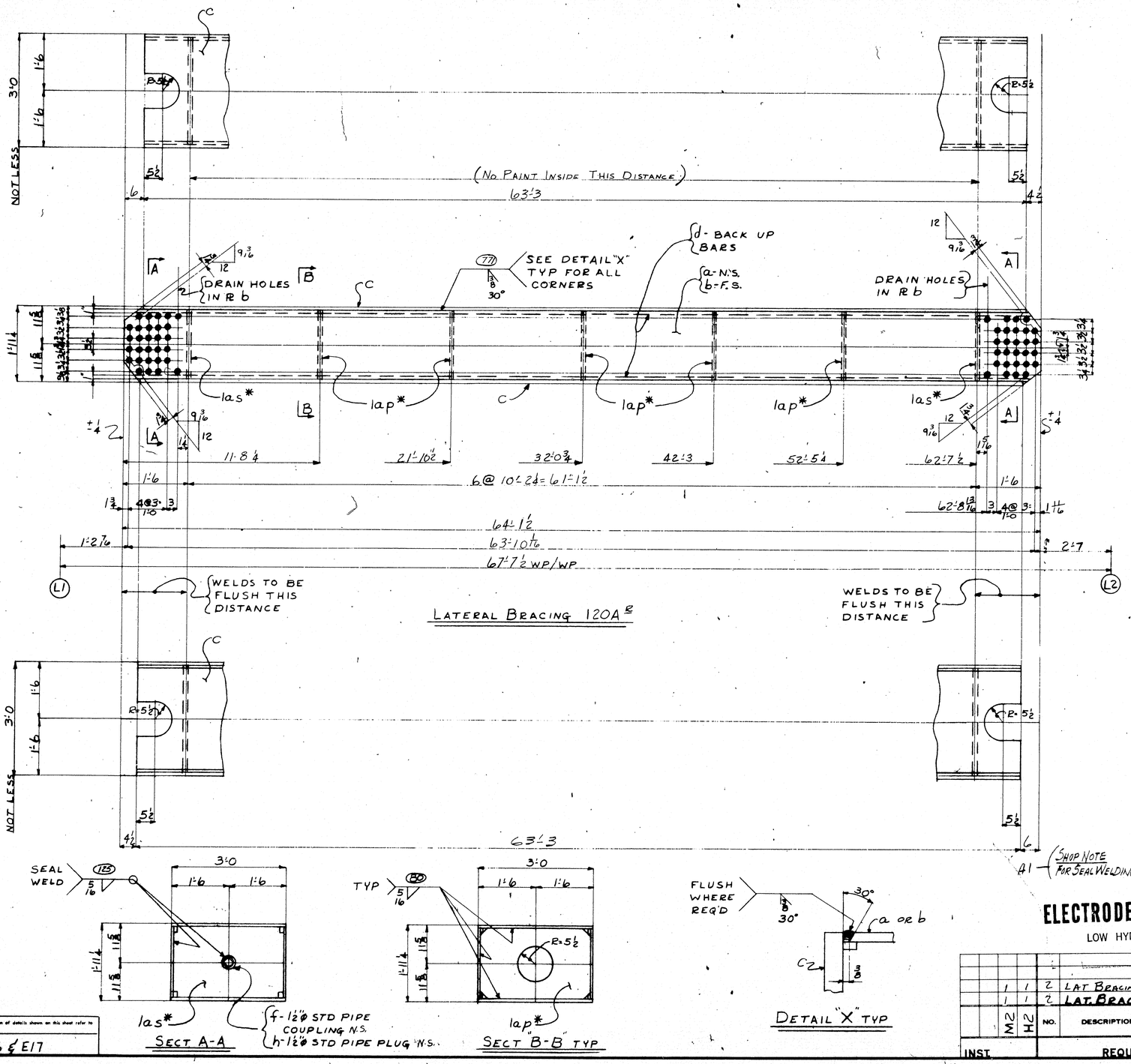


For location of details shown on this sheet refer to diagrams.

E16 & E17

	a	b	c
3			
2			
1			
A			
3			
2			
1			
C			
B			
A			
P			
3			
2			
1			
W			
Y			

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLE MARK	NO.	SHAPE	SECTION SIZE	SECTION LBS/FT	LENGTH THICK	LENGTH FT	LENGTH IN	REMARKS	WIDTH	THICK	MILL LENGTH FT	MILL LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
		4							LATERAL BRACES 2-120A^E 2-120A^L							
M	2	a	4	R	21¼	½	6	4	1½ T2W						20	40
M	3	b	4	R	21¼	½	6	4	1½ T2W						20	40
2	4	c	8	R	36	⅝	6	3	3 T2W						20	24
	5	d	16	BR	1	⅝	6	4	3 BACK UP BAR						43	19
	6	f	8	M	1½ø	STD PIPE COUPLING 2½ LG									AM	08
	7	h	8	M	1½ø	STD PIPE PLUG									AM	09
	8	las*	20	R	22	⅜	2	11							20	60
		las*	8	R	22	⅜	2	11							20	60

12	FW	4	WD	5/16	54	2
13	FW	4	WD	¼	18	0 (SEAL WELD) - A1
14	SD	4	WD	⅛	1	1 (SEAL WELD)
15	B30	4	WD	½	257	1

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FEW
FEB 25 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.
EXCEPT FOR DRAIN HOLES

NOTE:
LENGTHS ARE CORRECTED FOR TEMPERATURE

A1 (SHOP NOTE FOR SEAL WELDING SEE SHT #C515)

ELECTRODES E70XX
LOW HYDROGEN

INST	SM	SH	NO.	DESCRIPTION	MARK	REMARKS
	1	1	2	LAT BRACING	120A^L	2-0 X 3-10 X 64½
	1	1	2	LAT BRACING	120A^R	2-0 X 3-10 X 64½ PART 1CT 11N (SEE NOTE X)

REQUIRED LIST

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

NO.	DATE	REVISION
4	2-13-70	

MATERIAL A-36
RIVETS OR BOLTS
OPEN HOLES 15/16"
WELDING AS NOTED
SHOP CONTACT SURFACES NP

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

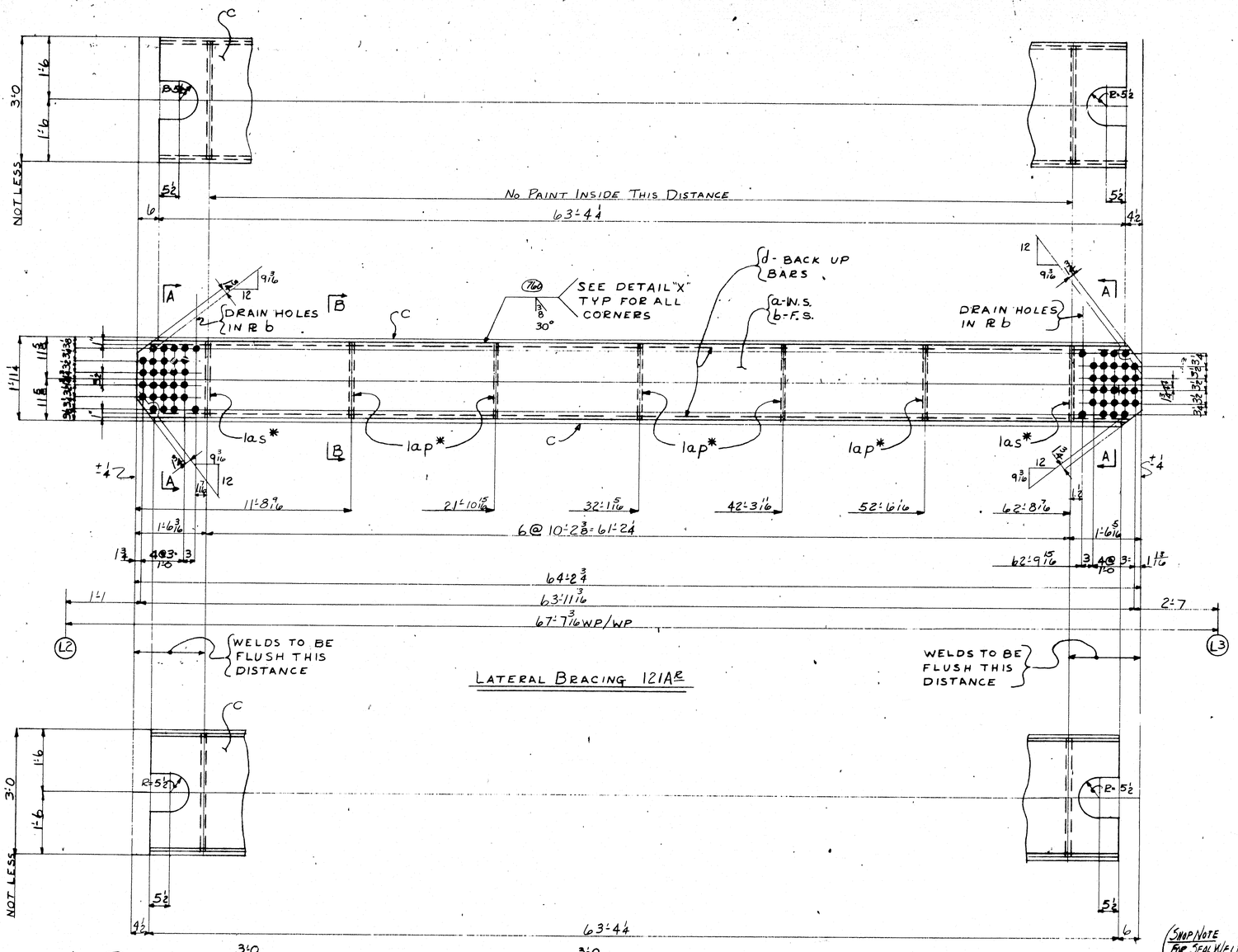
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RP DATE 12-12-69 IN CHARGE LAG
CHECKED BY RP DATE 12-17-69 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 120

120-52

NO. TAPE

0 1 2 3 4 5 6



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

E16 & E17

SHOP BILL

PRODUCT TYPE	ITEM NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4		LATERAL BRACES 2-121A^R & 2-121A^L					
M	2	a	4	R	21¼		½	64	2¾	T2W
M	3	b	4	R	21¼		½	64	2¾	T2W
M	4	c	8	R	36		⅜	63	4¼	T2W
	5	d	16	BR	1		⅝	64	4	BACK UP BAR
	6	f	8	M	1½"ø	STD PIPE COUPLING 2½ LG				
	7	h	8	M	1½"ø	STD PIPE PLUG				
	8	las*	20	R	22		⅜	2	11	
	9	las*	8	R	22		⅜	2	11	
	10									
	11									
	12									
	13	FW	4	WD			5/16	54	2	
	14	FW	4	WD			¼	18	0	SEAL WELD — A1
	15	SD	4	WD			⅛	1	1	SEAL WELD
	16	B30	4	WD			½	253	5	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					20	40
					20	40
					20	24
					43	19
					AM	08
					AM	08
					20	60
					20	60

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
FEB 25 1970

NOTE:
LENGTHS CORRECTED FOR TEMPERATURE

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.
EXCEPT FOR DRAIN HOLES

ELECTRODES E70XX
LOW HYDROGEN

SHOP	FIELD	NO.	DESCRIPTION	MARK	REMARKS
		1	2	LAT. BRACING	121A^L	2-0 X 3'-0 X 6	A3
		1	2	LAT. BRACING	121A^R	2-0 X 3'-0 X 6	A3

INST — REQUIRED LIST

MATERIAL	A-36
RIVETS OR BOLTS	
OPEN HOLES	15/16"
WELDING	AS NOTED
SHOP CONTACT SURFACES	NP
PAINT	ICT 11N (SEE NOTE "X")

NO.	DATE	REVISION
4	7-18-69	

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

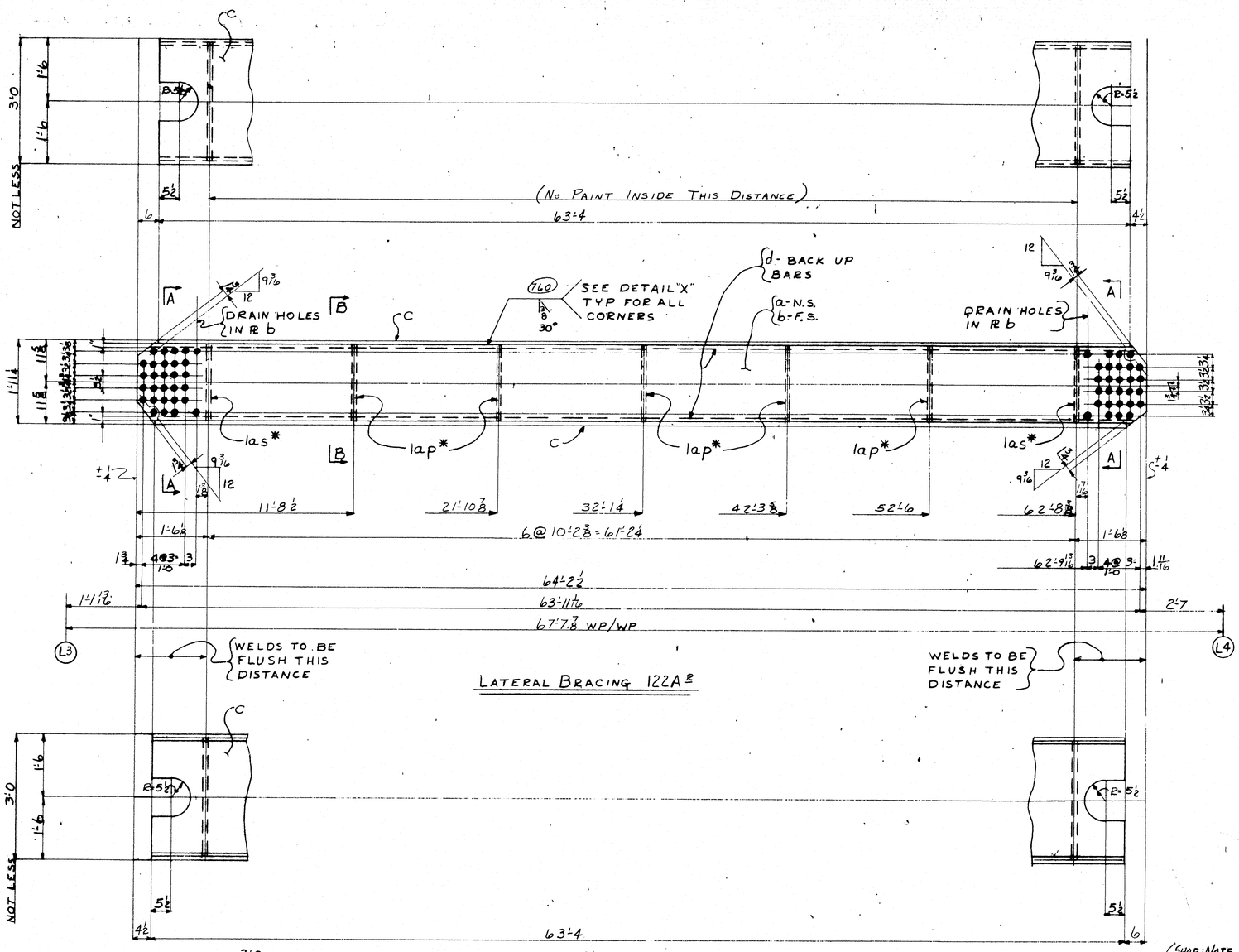
LATERAL BRACING (L2) TO (L3)

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE; CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RF DATE 12-12-69 IN CHARGE LAG
CHECKED BY PS DATE 12-17-69 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 121

120-53" NO TAPE



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

E16 & E17

	a	b	c
a			
b			
c			
d			
e			
f			
g			
h			
i			
j			
k			
l			
m			

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES

A1 — SHOP NOTE FOR SEAL WELDING SEE SHT # C516

ELECTRODES E70XX

LOW HYDROGEN

INST.	NO.	DESCRIPTION	MARK	REMARKS
	2	LAT BRACING	122A^L	2-0x3'-0x6'-4 1/2
	2	LAT. BRACING	122A^R	2-0x3'-0x6'-4 1/2

REQUIRED LIST

SHOP BILL

LINE	ASSEMBLY MARK	NO	STAMP	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		4	LATERAL BRACES 2-122A^R 2-122A^L						
2	a	4	R	2 1/4		1/2	64	2 1/2	T2W
3	b	4	R	2 1/4		1/2	64	2 1/2	T2W
4	c	8	R	36		5/8	63	4	T2W
5	d	16	BR	1		5/8	64	4	BACK UP BAR
6	f	8	M	1½"ø STD PIPE COUPLING 2 1/16 LG					
7	h	8	M	1½"ø STD PIPE PLUG					
8	las*	20	R	22		3/8	2	11	
9	las*	8	R	22		3/8	2	11	
10									
11									
12									
13	FW	4	WD			5/16	54	2	
14	FW	4	WD			1/4	18	0	SEAL WELD A1
15	SD	4	WD			1/8	1	1	SEAL WELD
16	B30	4	WD			1/2	252	5	

MILL ORDER

LINE	ASSEMBLY MARK	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
1								
2	a						20	39
3	b						20	39
4	c						20	23
5	d						43	19
6	f						AM	08
7	h						AM	08
8	las*						20	60
9	las*						20	60
10								
11								
12								
13	FW							
14	FW							
15	SD							
16	B30							
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
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APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W.
FEB 25 1970

NOTE:
LENGTHS CORRECTED FOR TEMPERATURE

LATERAL BRACING (L3) TO (L4)

MATERIAL	A-36
RIVETS OR BOLTS	
OPEN HOLES	15/16"
WELDING	AS NOTED
SHOP CONTACT SURFACES	NP
PAINT	ICT 11N (SEE NOTE X)

REVISION

NO.	DATE	INIT.
1	2-13-70	

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 12-12-69 IN CHARGE
CHECKED BY PS DATE 12-17-69 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 122

35433 Rev D 8-69

120-54 NO TAPE

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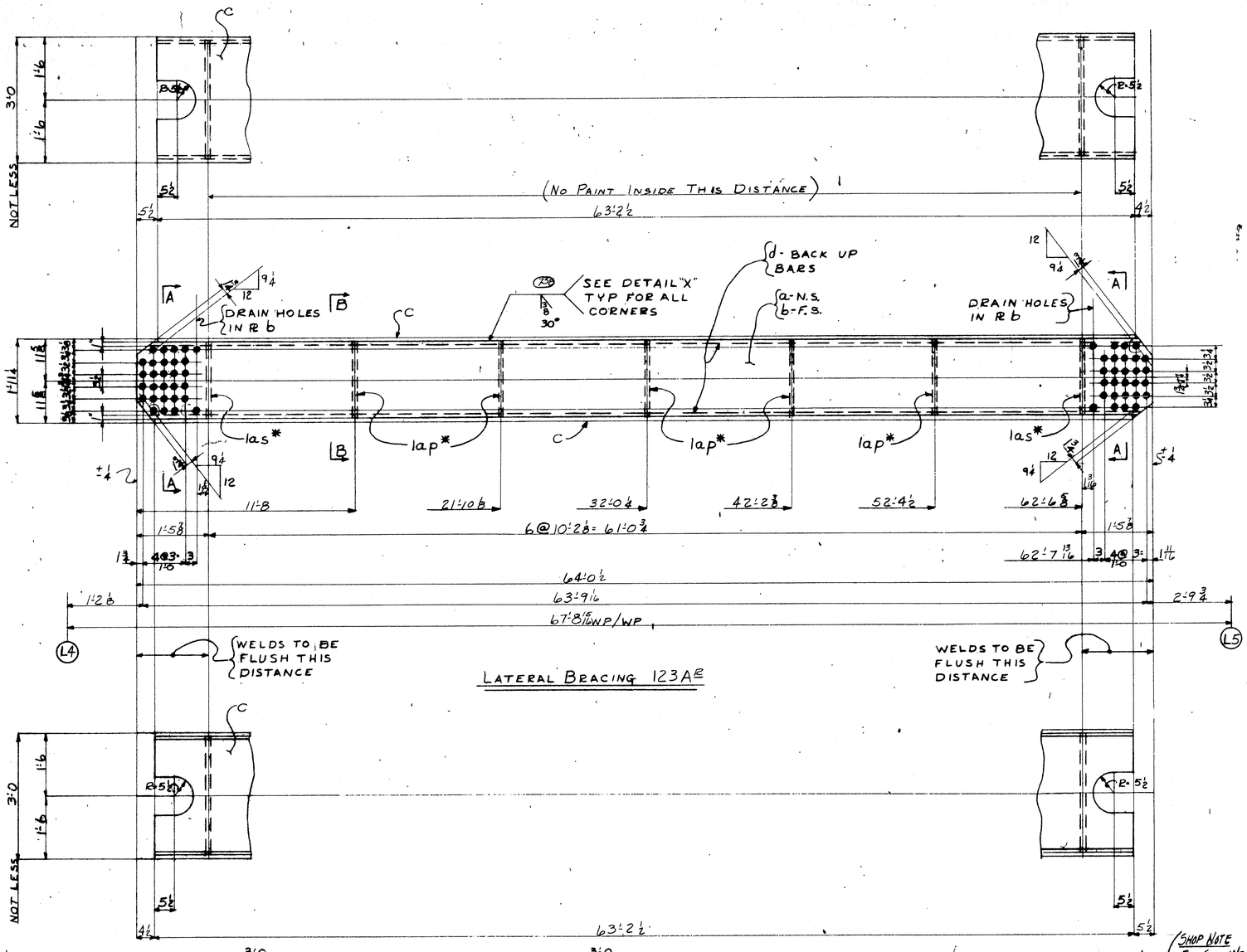


	a	b	c
a			
b			
c			
d			
e			
f			
g			
h			
i			
j			
k			
l			
m			
n			
o			
p			
q			
r			
s			
t			
u			
v			
w			
y			

SHOP BILL — MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	LENGTH THICK	LENGTH FT	LENGTH IN	REMARKS	WIDTH	STOCK LENGTH FT	STOCK LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
		4	LATERAL BRACES 2-123A^R & 2-123A^L												
M	a	4	R	2¼		½	64	0½	T2W					20	38
M	b	4	R	2¼		½	64	0½	T2W					20	38
②	c	8	R	36		⅜	63	2½	T2W					20	22
	d	16	BR	1		⅝	65	0	BACK UP BAR					43	19
	f	8	M	1½ø	STD PIPE COUPLING 2 1/16 LG									AM	08
	h	8	M	1½ø	STD PIPE PLUG									AM	08
	las*	20	R	22		⅜	2	11						20	60
	las*	8	R	22		⅜	2	11						20	60
	Fw	4	WD			5/16	54	2							
	FW	4	WD			¼	17	4	SEAL WELD						
	SD	4	WD			⅛	1	1	SEAL WELD						
	B30	4	WD			½	25	8							

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES

NOTE: LENGTHS CORRECTED FOR TEMPERATURE

A1 — SHOP NOTE FOR SEAL WELDING SEE SHT #G515

ELECTRODES E70XX
LOW HYDROGEN

NO	DESCRIPTION	MARK	REMARKS
1	2	LAT BRACING	123A^L	2'-0x3'-0x64'-0
1	2	LAT. BRACING	123A^R	2'-0x3'-0x64'-0

INST — REQUIRED LIST

MATERIAL	A-36
RIVETS OR BOLTS	
OPEN HOLES	15/16"
WELDING	AS NOTED
SHOP CONTACT SURFACES	N.P.
PAINT	LGT. GRY (SEE NOTE "X")

NO.	DATE	INIT.	REVISION
A1	2-13	WH	

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

APPROVED for HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FEW
FEB 25 1970

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE; CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

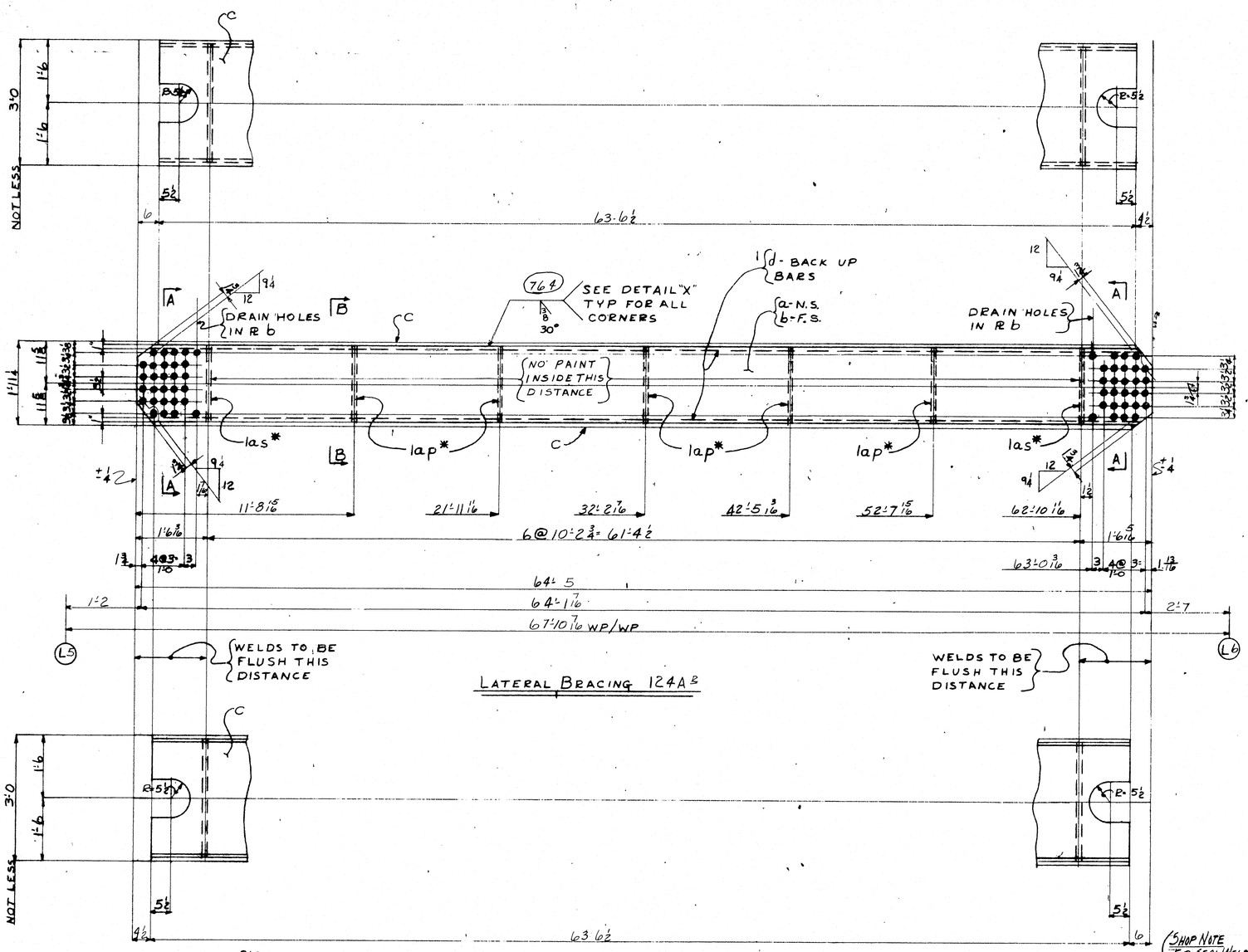
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 12-12-69 IN CHARGE LAG
CHECKED BY FPS DATE 12-17-69 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 123

LATERAL BRACING ⑭ TO ⑮

For location of details shown on this sheet refer to diagram.
E16 & E17

0 1 2 3 4 5 6

120-55 NC TAPE



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

INST.			NO.	DESCRIPTION	MARK	REMARKS
	1	1	2	LAT. BRACING	124A^L	2-10X3-0X64'5
	1	1	2	LAT. BRACING	124A^R	2-10X3-0X64'5 PARTS LGT HVY (SEE NOTE X)

REQUIRED LIST

ELECTRODES E70XX

LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.
EXCEPT FOR DRAIN HOLES

MATERIAL A-36
RIVETS OR BOLTS
OPEN HOLES 15/16"
WELDING AS NOTED
SHOP CONTACT SURFACES N.P.

A1 SHOP NOTE FOR SEAL WELDING SEE SHT #0515

NOTE:
LENGTH CORRECTED FOR TEMPERATURE

LATERAL BRACING (L5) TO (L6)

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		4	LATERAL BRACES 2-124A^L & 2-124A^L													
M	a	4	PL	2¼		½	64	5	T2W						20	37
M	b	4	PL	2¼		½	64	5	T2W						20	37
2	c	8	PL	36		⅝	63	6½	T2W						20	21
	d	16	BR	1		⅝	64	8	BACK UP BAR						43	19
	f	8	M	1½" ø					STD PIPE COUPLING 2½ LG						AM	08
	h	8	M	1½" ø					STD PIPE PLUG						AM	08
	las*	20	PL	22		⅜	2	11							20	60
	las*	8	PL	22		⅜	2	11							20	60
	FW	4	WD			5/16	54	2								
	FW	4	WD			¼	18	0	SEAL WELD } A1							
	SD	4	WD			⅛	1	1	SEAL WELD }							
	B30	4	WD			½	254	8								

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
FEB 25 1970

REVISION NO.	DATE	INIT.
41	2-13-70	

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

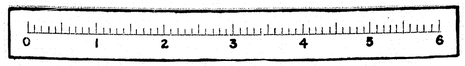
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

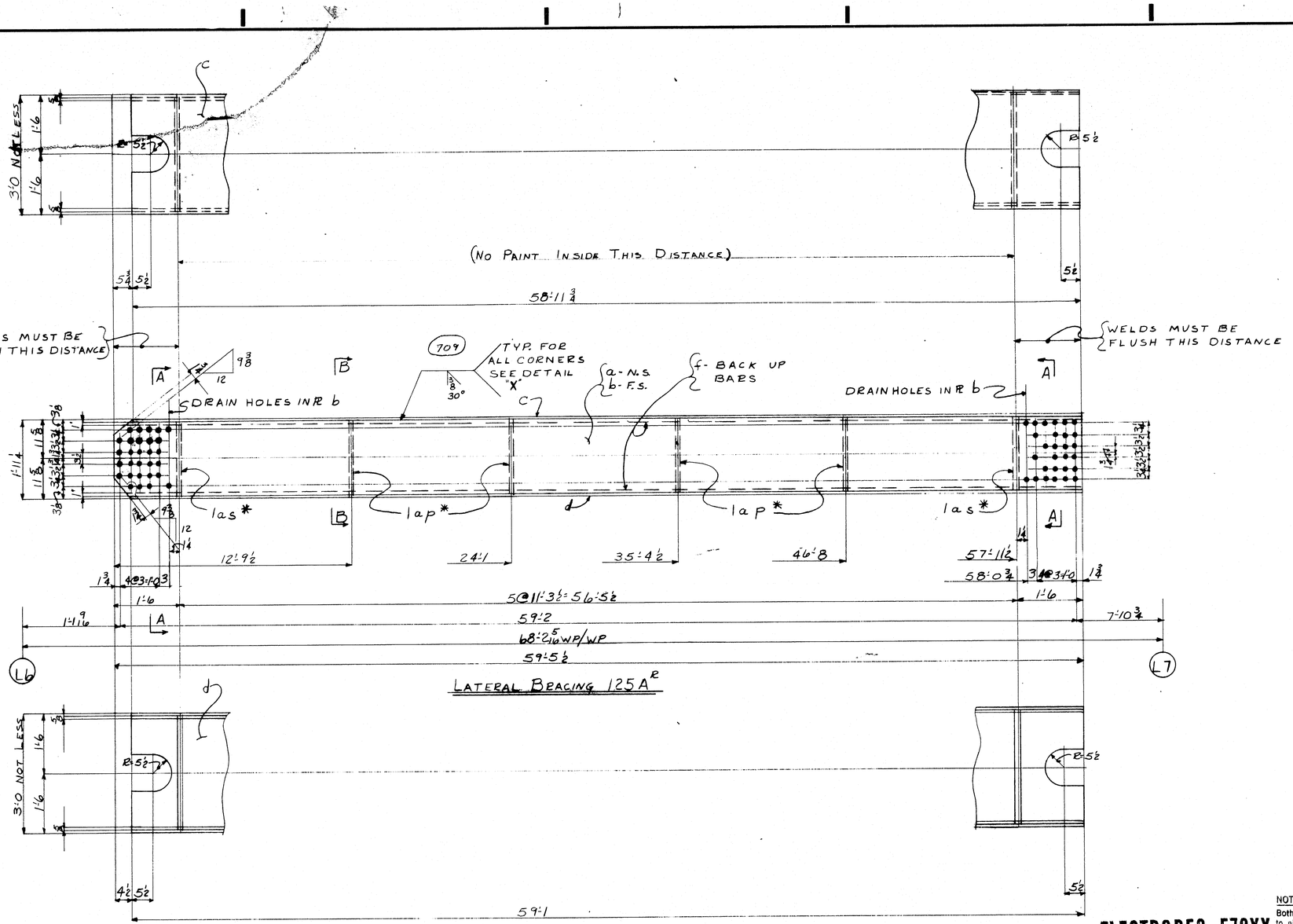
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

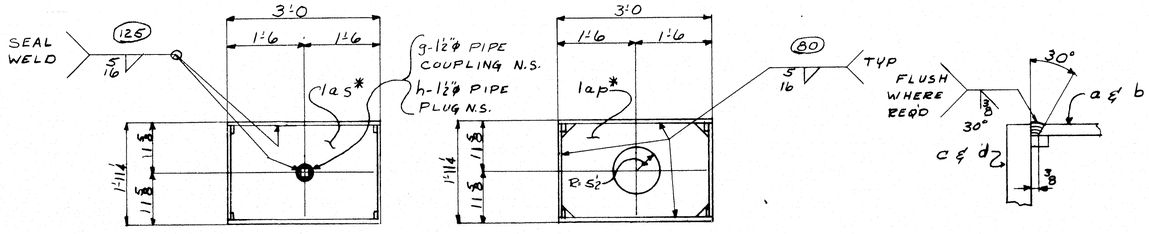
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY BS DATE 10-15-69 IN CHARGE
CHECKED BY PS DATE 12-19-69 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 124

120-56 NC TAPE

1965 (Rev 2-69)







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

E16 & E17

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

ELECTRODES E70XX

LOW HYDROGEN

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES

MATERIAL A36

RIVETS OR BOLTS —

OPEN HOLES 15/16 ϕ

A325 FIELD BOLTS

SHOP CONTACT SURFACES N.P

PAINT ICT RED LEAD U.N. (SEE NOTE "X")

AB — (SHOP NOTE FOR SEAL WELDING SEE SHT #15)

INST M	INST H	NO.	DESCRIPTION	MARK	REMARKS
1	1	2	LAT. BRACING	125A^R	3'-0 x 2'-0 x 59'-6
1	1	2	℄	125A^L	℄

REQUIRED LIST

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

SHOP BILL

PRODUCT	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		4		LATERAL BRACING 2-125A^R & 2-125A^L					
(M)	a	4	PL	21¼		½	59	5½	T2W
(M)	b	4	PL	21¼		½	59	5½	T2W
(Z)	c	4	PL	36		⅝	58	11¾	T2W
(Z)	d	4	PL	36		⅝	59	1	T2W
	f	16	BR	1		⅝	60	1	BACK UP BARS
	g	8	M	1½"ϕ STD PIPE COUPLING 2¼ LG					
	h	8	M	1½"ϕ STD PIPE PLUG					
	lap*	16	PL	22		⅜	2	11	
	las*	8	PL	22		⅜	2	11	
	SD	4	WD			⅛	1	1	SEAL WELD - A2
	FW	4	WD			¼	20	0	SEAL WELD
	FW	4	WD			5/16	54	2	
	B30	4	WD			½	237	2	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					20	42
					20	42
					20	25
					20	25
					43	19
					AM	08
					AM	08
					20	60
					20	60

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FEW
FEB 25 1970

NOTE:
LENGTH CORRECTED FOR TEMP.
LATERAL BRACING (L6) TO (L7)

NO.	DATE	INIT.
A2	2-16	WD
1	3/10	LG

REVISION

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY PG DATE 12-16-69 IN CHARGE LAG
CHECKED BY PS DATE 12-19-69 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 125

35453 (Rev.D 8-69)

120-57 NC TAPE

NO PAINT INSIDE MEMBER BETWEEN SEAL DIAPHRAGMS

10'-2⅞ | 10'-2⅞ | 2'-10½

1'-4¾ | 5½ | 10¼ | 2½ | 5¼ | 7¾ | 1'-8½

1'-9¾ NOT LESS | 1'-9 | 10½ | 10½ | 1'-9 NOT LESS

24'-1/4

VIEW "B-B"

W-F.S.-2-SB 7/8 x 1/2

1'-2 | 7 | 7 | 3¾ | 3¾ | 1½ | 1½

±4 | 1¾ | 4@3'-1/0 | 22'-7/16 | 8@3'-2'-0 | 1 13/16

24'-5½ C/C END HOLES

24'-9

SECTION "A-A"

DRAIN HOLES

3/16 | 12 | 3/8

1'-9¾ NOT LESS | 1'-9 | 10½ | 10½ | 1'-9 NOT LESS

5½ | 1¼ | 7 | 7 | 3¾ | 3¾ | 1'-9

21'-11¾

24'-3¾

SECTION "C-C"

2'-5¼

1'-11

W-2-SB 7/8 x 1/2

1'-2 | 7 | 7 | 3¾ | 3¾ | 1½ | 1½

±4 | 1¾ | 4@3'-1/0 | 22'-2½ | 3 | 3 | 5@3'-1'-5½ | 1¾

24'-0¼ C/C END HOLES

2'-9 | 24'-3¾ | 8 15/16

27'-9 1/16 WP/WP

DIAGONAL 126A^R

NOTE X

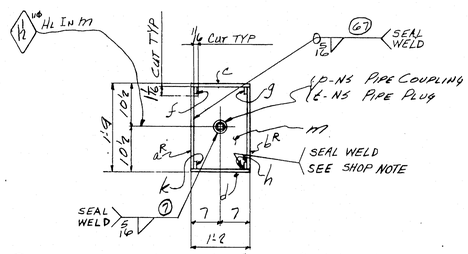
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT SLOTS @ ENDS AND 6½" HOLES

SHOP NOTE:
FOR SEAL WELDING SEE SHT # CS 15

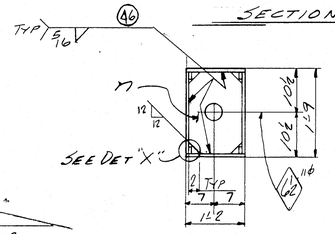
SWAY FRAME @ POINT (U8) & (U8)

PROJECT TYPE	LINES	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	DIAGONALS - 2-126A^E & 2-126A^L						
(2)	2	a^E_L	2	PL	19½		3/8	24	1/4	T2W
(2)	3	b^E_L	2	PL	19½		3/8	24	9	T2W
(M)	4	c	4	PL	14		3/8	24	9	T2W
(M)	5	d	4	PL	14		3/8	24	3¾	T2W
	6	f	4	BR	1		5/8	25	1/4	BACK UP BAR
	7	g	4	BR	1		5/8	25	9	BACK UP BAR
	8	h	4	BR	1		5/8	25	3¾	BACK UP BAR
	9	k	4	BR	1		5/8	23	3½	BACK UP BAR
	10	m	8	PL	13¼		3/8	1	8¼	
	11	n	4	PL	13¼		3/8	1	8¼	
	12	p	8	M	1½"	STD PIPE COUPLING FULL				AM8
	13	r	8	M	1½"	STD PIPE PLUG (SQ HD)				AM8
	14	w	8	SHS	14		1/8	1	3½	FILL
	15									
	16									
	17	B30	4	WD			3/8	95	8	
	18	FW	4	WD			5/16	15	0	
	19	SD	4	WD			1/8	1	1	PER CS15
	20	SD	4	WD			1/4	27	8	PER CS15
	21		16	MB 7/8"ϕ				0	1½	RHH-RHN (SB)
	22									
	23									
	24									
	25									
	26									
	27									
	28									
	29									
	30									

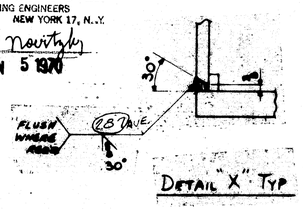
MILL ORDER: WIDTH | THICK | LENGTH FT. IN. | STOCK | PEAK 1 PAGE LINE



SECTION "D-D"



SECTION "F-F"



DETAIL "X" TYP

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Hanover
JUN 5 1970

ELECTRODES E70XX
LOW HYDROGEN

		1	1	2	DIAGONAL	126A^E	1/4 x 11'-2 = 22'-3
		1	1	2	DIAGONAL	126A^L	1/4 x 11'-2 = 22'-3
		MB	MB	NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

MATERIAL ASTM-A36
RIVETS OR BOLTS
OPEN HOLES 15/16" ϕ N
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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

REVISION: NO. | DATE | INIT.
A1 | 5/28 | RP

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

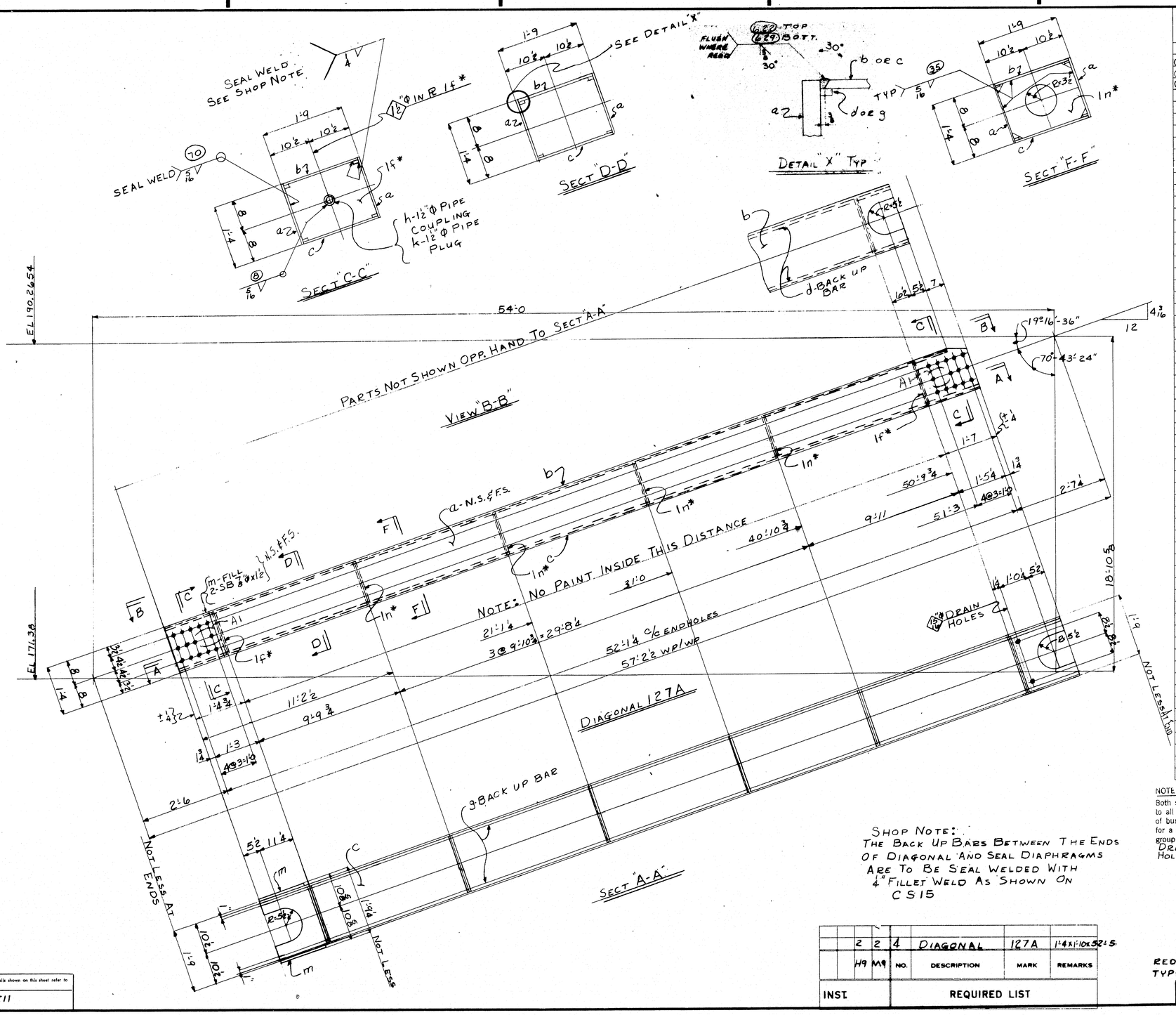
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 12-17-69 IN CHARGE L. GOTHBERG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT C&G290-070 DRAWING NO. 126

For location of details shown on this sheet refer to diagram.
E94E11

1420-58 NC TAPE

0 1 2 3 4 5 6



SHOP NOTE:
THE BACK UP BARS BETWEEN THE ENDS OF DIAGONAL AND SEAL DIAPHRAGMS ARE TO BE SEAL WELDED WITH 4" FILLET WELD AS SHOWN ON CS15

INST.	NO.	DESCRIPTION	MARK	REMARKS
	2	2 4 DIAGONAL	127A	1'-4 x 1'-10 x 52'-5
	H9	M9		
REQUIRED LIST				

For location of details shown on this sheet refer to diagrams.
E9 & E11

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & HAND HOLES

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ UN 16
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT ONE SHOP COAT RED LEAD AASHO-M72 TYPE II SEE NOTE "X"

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

NO.	DATE	INIT.
A1	5-11	CD

REVISION

SHOP BILL / MILL ORDER

PRODUCT MARK	PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	DIAGONAL		127A											
M	2	a	8	PL	16		3/8	52	4 3/4	T2W						230	10
T	3	b	4	PL	19 1/2		1/2	51	9 3/4	T2W						230	04
T	4	c	4	PL	19 1/2		1/2	52	4 3/4	T2W						230	06
	5	d	8	BR	1		5/8	52	9 3/4	BACK UP BAR						236	15
	6	If*	8	PL	15		3/8	1	8 1/4							234	11
	7	g	8	BR	1		5/8	53	4 3/4	BACK UP BAR						236	15
	8	h	8	M	1 1/2" ϕ	STD PIPE	COUPLING 2" LG									AM	08
	9	k	8	M	1 1/2" ϕ	STD PIPE	PLUG									AM	08
	10	In*	16	PL	15		3/8	1	8 1/4							234	11
	11	m	8	PL	16		1/8	1	3 1/2	FILL						231	09
	12																
	13		16	MB	7/8" ϕ			0	1 1/2	RH HH & RHN (SB)						AM	31
	14																
	15	Fw	4	WD			5/16	23	4								
	16																
	17	B30	4	WD			1/2	208	6								
	18																
	19	Fw	4	WD			1/4	23	7								
	20																
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APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
MAY 22 1970

ELECTRODES E70XX
LOW HYDROGEN NOTE: Length Corrected for Temperature

SWAY FRAME DIAGONAL @ L9 & L9'

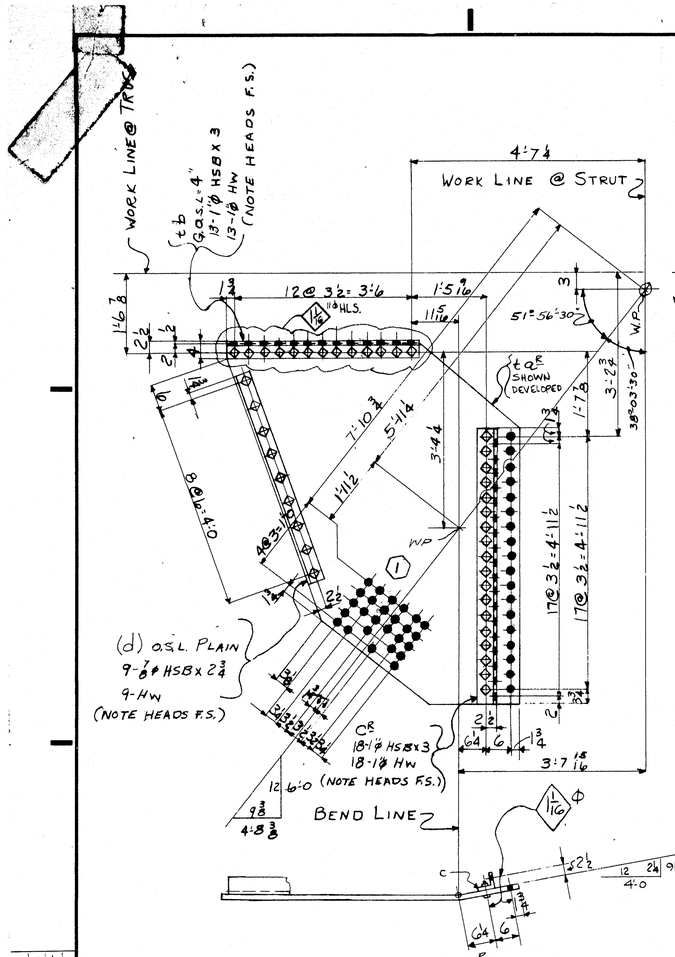
CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

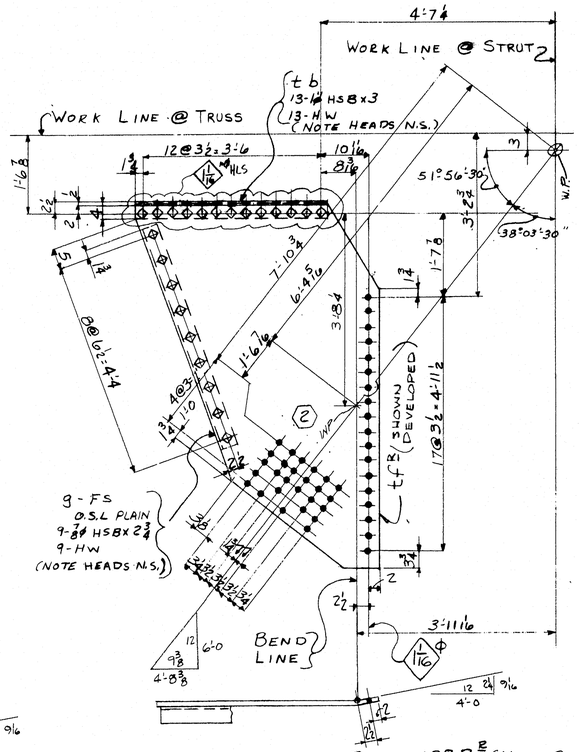
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

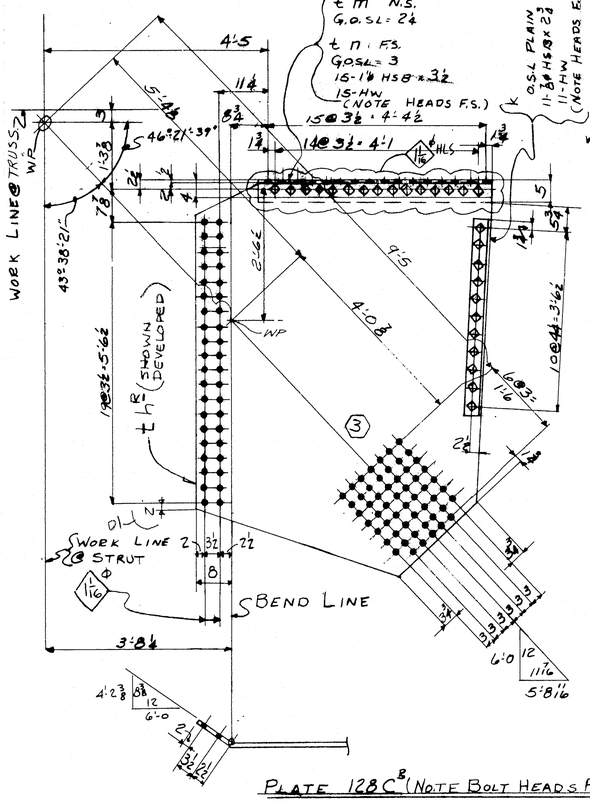
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RF DATE 2-4-70 IN CHARGE LAG
CHECKED BY CAD DATE 4-8-70 SHOP NO.
CONTRACT CG 6290-070 DRAWING NO. 127

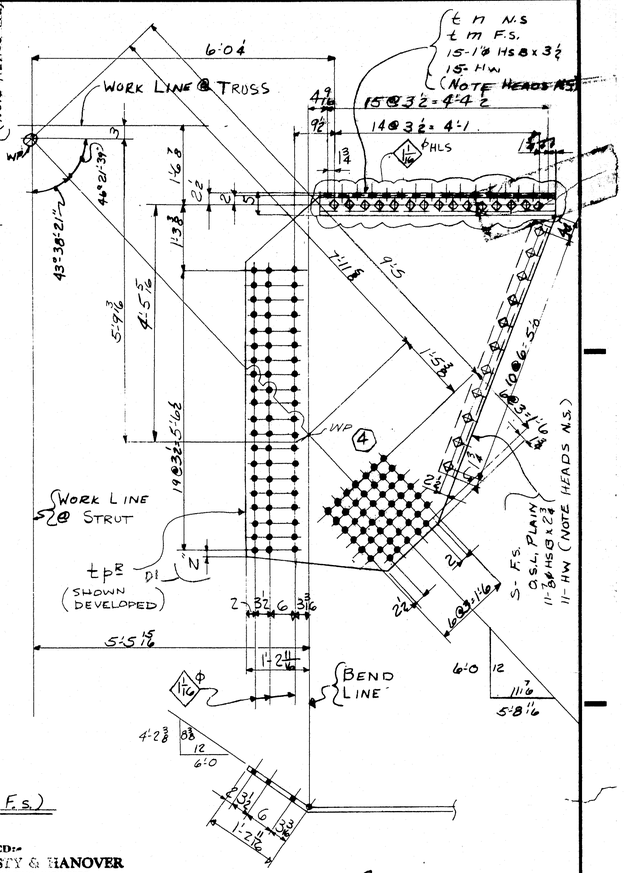
35433 (Rev.D 8-69)

120-59 NC TAPE









APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Nourtsy
OCT 5 1970

	1	1	2	PLATE	128A^E	5'-4 x 5 x 7'-1
	1	1	2		128A^L	S
	1	1	2		128B^E	4'-8 x 5 x 7'-1
	1	1	2		128B^L	S
	(	1	1		128C^E	5'-10 x 10 x 7'-7
	1	1	2	D2	128C^L	S
	(	1	1		128D^E	6'-4 x 10 x 7'-4
	1	1	2		128D^L	S
	W'SH	W'SH	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

For location of details shown on this sheet refer to diagrams.
E16 & E17

PROJECT PIECE	M'L	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	PLATES 2-128A^E 2-128A^L						
D1	2	t a^R 2/2	R	85⅛			¾	5	9 9/16	BENT
	3	t b	4	L	6	4	¾	3	9½	
	4	c^R 2/2	L	4	4		¾	5	5	
	5	d	4	L	4	4	¾	4	3½	
	6									
	7		36	325	⅞			0	2¾	
	8									
	9		36	HW	1¾	1 5/16	3/16			
	10									
	11		124	325	1"			0	3	
	12									
	13		124	HW	2"	1 11/16	3/16			
	14									
	15									
	16									
	17									
	18		4	PLATES 2-128B^E 2-128B^L						
D1	19	t f^L 2/2	R	85⅛			¾	4	8½	BENT
	20	t b	4	L						
	21	g	4	L	4	4	¾	4	7½	

MILL ORDER WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					Z13	01
					101	5
					89	09
					89	09
					Z13	02
					101	5
					89	09

	22									
	23									
	24		36	325	⅞			0	2¾	
	25									
D1	26		36	HW	1¾	1 5/16	3/16			
	27									
	28									
	29		52	325	1"			0	3	
	30									
	31		52	HW	2"	1 11/16	3/16			
	32									
	33									
	34	D2	3	PLATES 1-128C^E 2-128C^L						
D1	35	t h^L 1/2	R	91			¾	5	11	BENT
	36	k	3	L	4	4	¾	3	10½	
	37	t m	3	L	4	4	5/16	4	8	
	38	t n	3	L	5	5	5/16	4	8	
	39									
	40									
	41									
	42									
	43	D2	33	325	⅞			0	2¾	
	44		33	HW	1¾	1 5/16	3/16			
	45									

	46	D2	45	325	1"			0	3½	
	47		45	HW	2"	1 11/16	3/16			
	48									
	49									
	50									
	51									
	52	D2	3	PLATES 1-128D^E 2-128D^L						
D1	53	t p^R 1/2	R	88⅛			¾	6	1½	BENT
	54	t m	3	L						
	55	t n	3	L						
	56	s	3	L	4	4	¾	5	3½	
	57									
	58									
	59									
	60		33	325	⅞			0	2¾	
	61	D2								
	62		33	HW	1¾	1 5/16	3/16			
	63									
	64									
	65		45	325	1"			0	3½	
	66	D2								
	67		45	HW	2"	1 11/16	3/16			
	68									
	69									

D1 — Z13 03 / 89 09 / 101 07 / 101 03

D1 — Z13 04 / 101 07 / 101 03 / 89 09

(MAT'L PREFIXED WITH LETTER (t) IS ASTM A 517 NO PREFIX - A36)

MATERIAL
RIVETS OR BOLTS ⅞ UN
OPEN HOLES 15/16 UN.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
PAINT / CT UN (SEE NOTE 'X')

GUSSET PLS @ L7

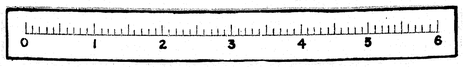
NO.	DATE	INIT.	REVISION
D 2	9-10	LG	
D 1	8-4-70	PS	

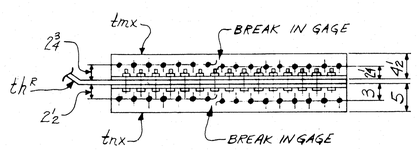
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RF DATE 12-22-69 IN CHARGE LAG
CHECKED BY PS DATE 1-27-70 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 128

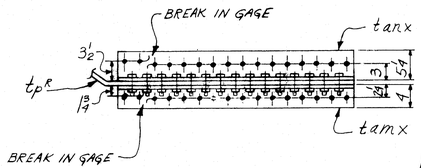
120-60





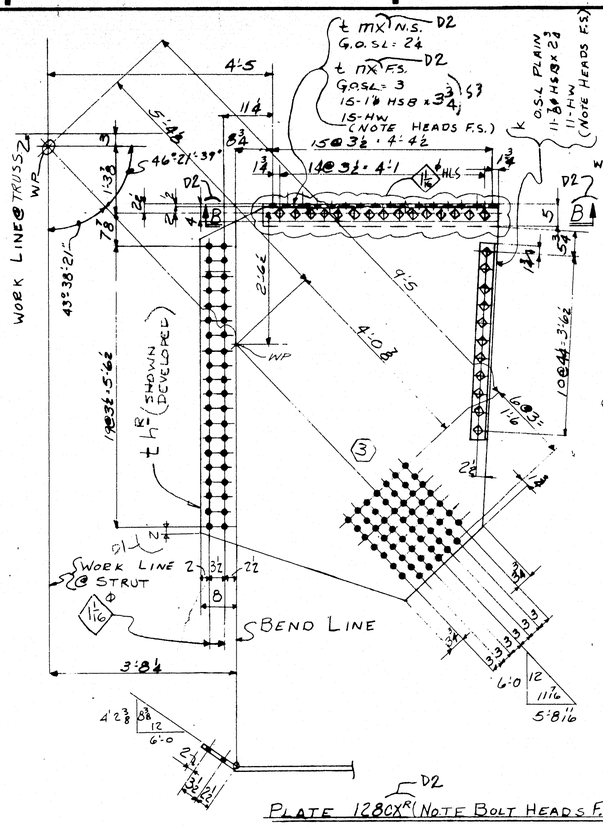
SEC. "B-B"

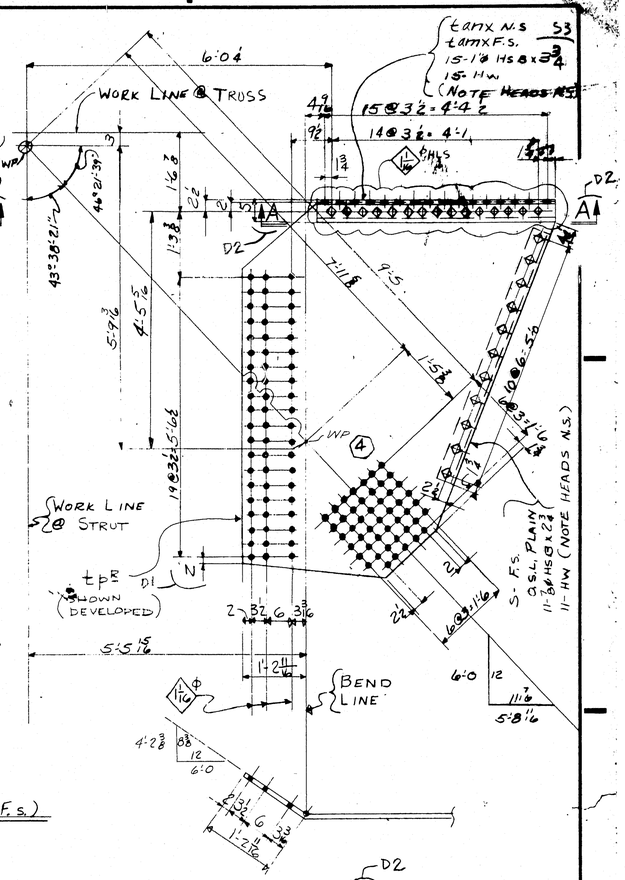
D2



SEC. "A-A"

D2





APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
OCT 21 1970

INST.	QTY.	NO.	DESCRIPTION	MARK	REMARKS
			REQUIRED LIST		
D2	1	1	PLATE	128CX^R	5'-10 x 10 x 7'-7
	1	1	PLATE	128DX^R	6'-1 x 10 x 7'-4

For location of details shown on this sheet refer to diagrams.
E16 & E17

SHOP BILL / ABLE ORDER

PROJECT STEP	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION WT. OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS	ABLE ORDER WIDTH	ABLE ORDER THICK	ABLE ORDER LENGTH FT	ABLE ORDER LENGTH IN	ABLE ORDER STOCK	ITEM PAGE	ITEM LINE
D2	33		1	PLATE	-128CX^R												
D1	34	t hR	1	R	91		3/4	5	11	BENT						213	03
	37	t k	1	L	4	4	3/4	3	10 1/2							89	09
	38	t mx	1	L	4 1/2	4	3/4	4	8	BUILT UP MEMBER S3						101	07
	39	t nx	1	L	5	4	3/4	4	8	BUILT UP MEMBER S3						101	03
D2	42		11	325	7/8" ø				0	2 3/4							
	43		11	HW	1 3/4" ø	1 5/16" ø	3/16										
D2	46		15	325	1" ø				0	3 3/4 S3							
	47		15	HW	2" ø	1 1/16" ø	3/16										
D2	53		1	PLATE	-128DX^R												
D1	53	t pR	1	R	88 1/8		3/4	6	1 1/2	BENT						213	04
	54	t amx	1	L	4	4	5/8	4	8							101	07
	55	t anx	1	L	5 1/4	4	3/4	4	8	BUILT UP MEMBER S3						101	03
	56	s	1	L	4	4	3/4	5	3 1/2	S3						89	09
	60		11	325	7/8" ø				0	2 3/4							
D2	61		11	HW	1 3/4" ø	1 5/16" ø	3/16										
	65		15	325	1" ø				0	3 3/4 S3							
D2	66		15	HW	2" ø	1 1/16" ø	3/16										

MAT'L PREFIXED WITH LETTER (t) IS ASTM A 517
NO PREFIX - A36

MATERIAL
RIVETS OR BOLTS 7/8" ø UN
OPEN HOLES 15/16" ø UN.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
PAINT 1 CT UN (SEE NOTE "X")

GUSSET PLS @ L7

MK	NO.	DATE	REVISION
S	3	9-29	RP
D	2	9-10	LG
	1	8-19	PS

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

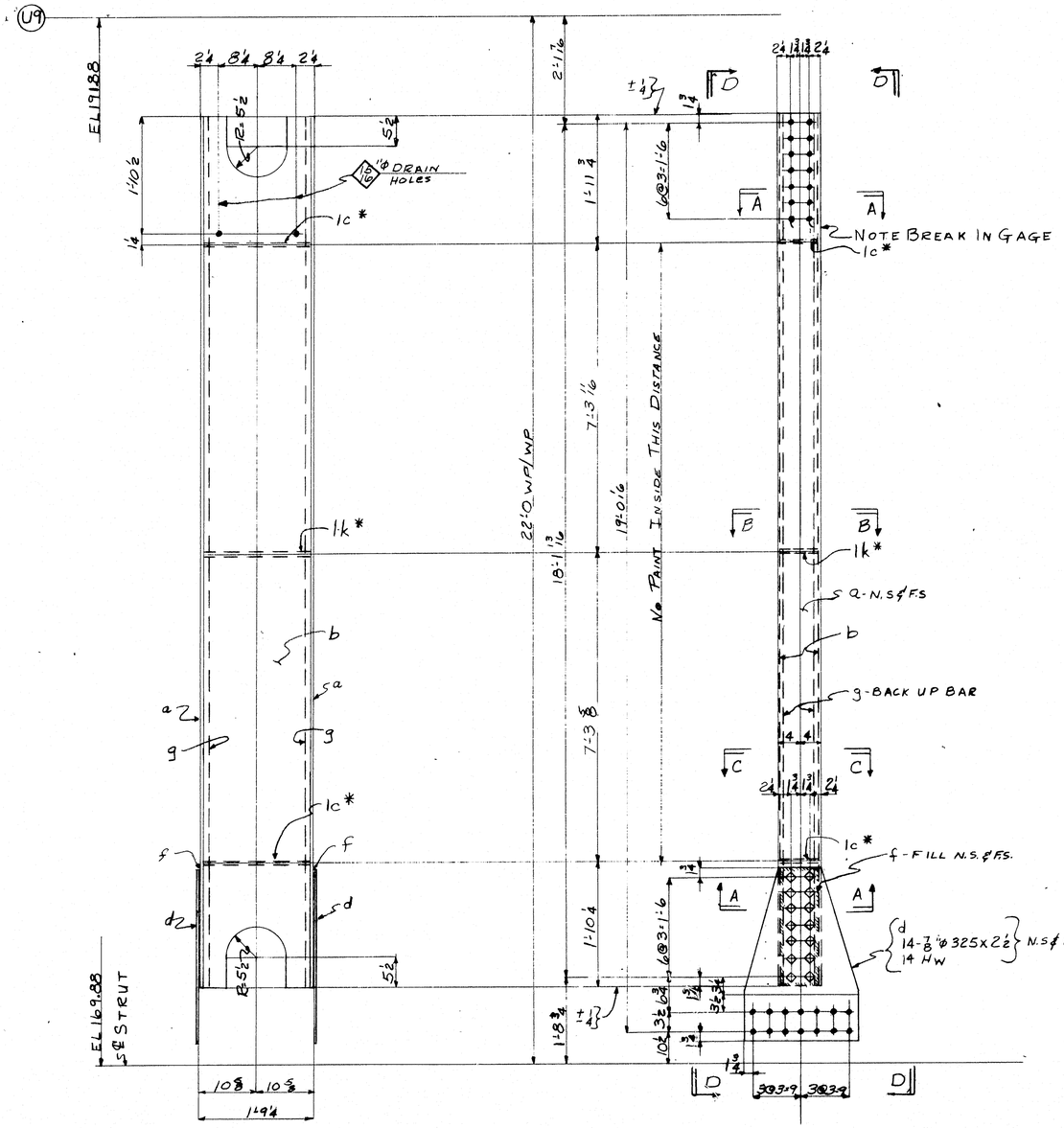
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

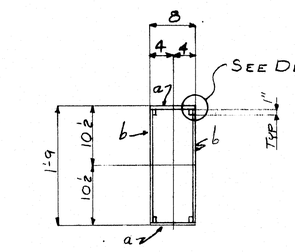
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RP DATE 12-22-69 IN CHARGE LAG
CHECKED BY PS DATE 1-27-70 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 128X D2

120-61

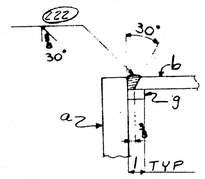
35042 (Rev. 2-69)



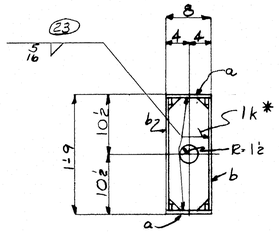
VIEW D-D



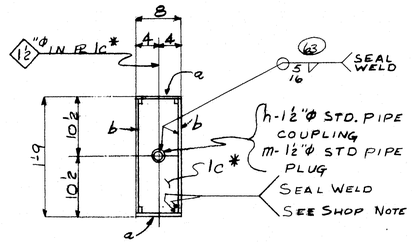
SECT "C-C"



DETAIL "X" TYP



SECT "B-B"



SECT "A-A"

SHOP NOTE:
THE BACK UP BARS BETWEEN ENDS OF VERTICAL & SEAL DIAPHRAGMS ARE TO BE SEAL WELDED WITH ¼" FILLET WELD AS SHOWN ON CS15

VERTICAL 129A

		1	1	2	VERTICAL	129A	1'-11 x 1'-10 x 19'-4
		M9	H9	NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

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

E9 & E11

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

SHOP BILL

PRODUCT TYPE	PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	VERTICALS				129A		
M	2	a	4	PL	8		1/2	18	5 5/16	T2W
2	3	b	4	PL	19¼		3/8	18	5 5/16	T2W
	4	1c*	4	BR	7¼		3/8	1	8	
	5	d	4	PL	3 3/4		1/2	1	9½	(16 : 3 CUTS 4 PCS)
	6	f	4	PL	8		1/8	1	9½	FILL
	7	g	8	BR	1		5/8	19	5¼	BACK-UP-BAR
	8	h	4	M	1½ø					STD PIPE COUPLING 2½ LG.
	9	1k*	2	PL	7¼		3/8	1	8	
	10	m	4	M	1½ø					STD PIPE PLUG
	11									
	12									
	13									
	14		56	325	7/8			0	2½	
	15									
	16		56	HW	1¾ø	19/16	3/16			
	17									
	18									
	19	FW	2	WD			5/16	12	5	
	20	FW	2	WD			1/4	30	5	
	21									
	22	B30	2	WD			3/8	74	0	

MILL ORDER

PIECE MARK	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
2						230	08
3						230	09
4						234	11
5						239	09
6						9	
7						236	15
8						AM	08
9						236	15
10						AM	08
14							AM 21
16							AM 21

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Hanover
MAY 20 1970

ELECTRODES E70XX LOW HYDROGEN

LENGTH CORR. FOR TEMP

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & FOR HAND HOLES

MATERIAL A36
RIVETS OR BOLTS 7/8
OPEN HOLES 19/16 UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1-SHOP COAT RED LEAD AASHO-M72 TYPE II SEE NOTE "X" UN

VERTICAL L9 TO U9 5' L9' TO U9'

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
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

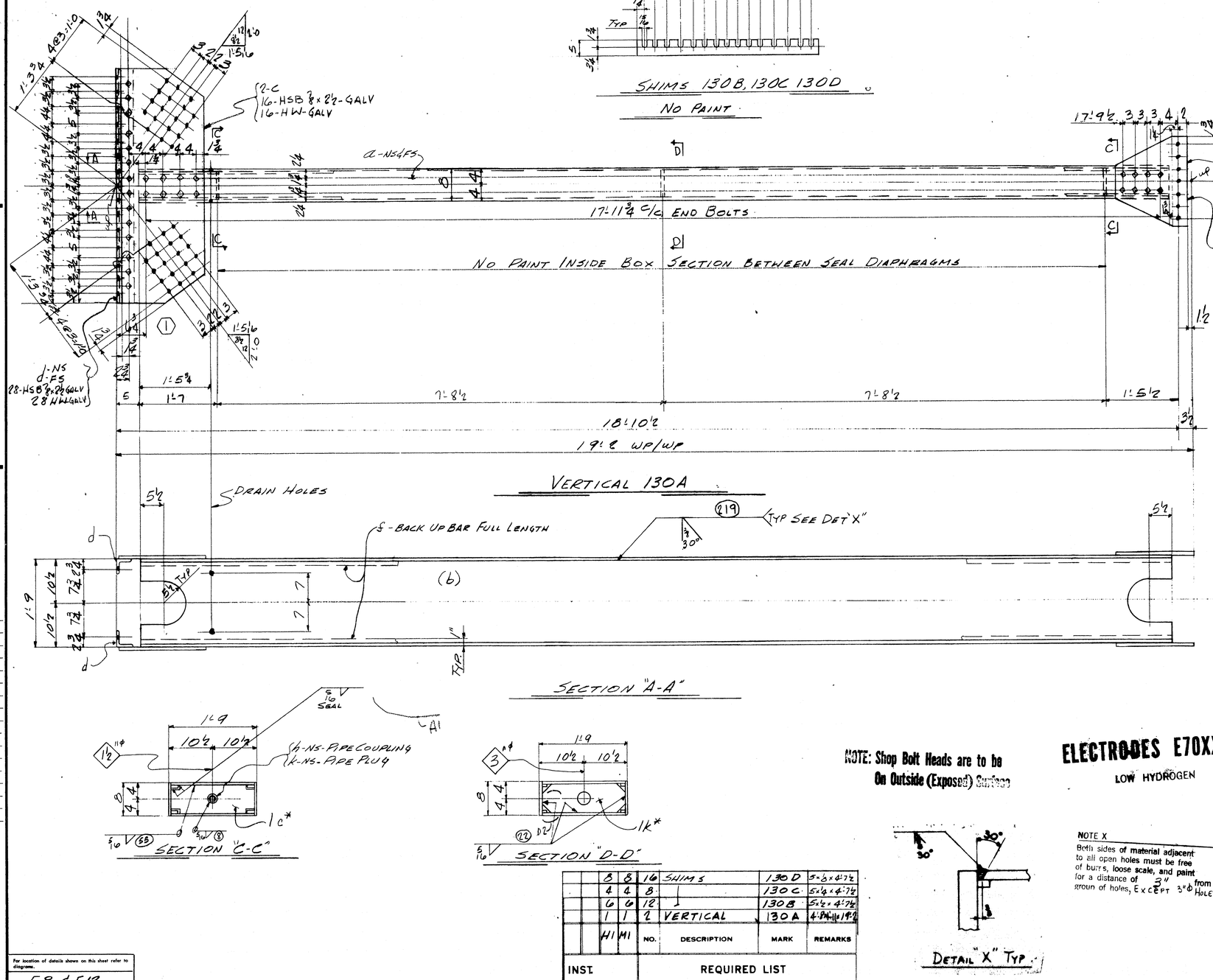
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EG DATE 2-9-70 IN CHARGE LAG
CHECKED BY C.A.J. DATE 4-9-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 129

35433 (Rev.D 8-69)

120-62 NC TAPE

0 1 2 3 4 5 6



	8	8	16	SHIMS	130D	5"x6"x4'-7 1/2"	
	4	4	8		130C	5"x4"x4'-7 1/2"	
	6	6	12		130B	5"x6"x4'-7 1/2"	
	1	1	2	VERTICAL	130A	4'-9 1/2"x18'-10 1/2"x19'-8"	
	H1	M1	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

DETAIL "X" TYP.

ELECTRODES E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" around of holes, EXCEPT 3"Ø from the HOLE.

A1 SHOP NOTE FOR SEAL WELDING SEE SHT #CS15

SHOP BILL

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		2	VERTICALS - 130A													
M	2	a	4	BR	8		1/2	18	3 1/4	T2W						20	43
2	3	b	4	PL	19 1/4		3/8	18	3 1/4	T2W						20	59
	4	c	4	PL	19 1/2		5/8	4	7 1/2							16	19
	5	d	4	L	4	4	5/8	4	7 1/2							18	18
	6	f	8	BR	1		5/8	19	3 1/4	BACK UP BARS						43	19
	7	g	4	PL	16 1/4		1/2	1	9 1/2	(6'0 CUTS 4 PCS)					G		
	8	1c*	4	BR	7 1/4		3/8	1	8						G		
	9	1k*	2	BR	7 1/4		3/8	1	8						G		
	10	h	4	M	1 1/2"					STD PIPE COUPLING x 2 1/4"							AM8
	11	k	4	M	1 1/2"					STD PIPE PLUG (SQ HD)							AM8
	12																
	13	FW	2	WD			1/4	24	0	SEAL WELD (A1)							
	14	SD	2	WD			1/8	1	1	SEAL WELD)							
	15	B30	2	WD			3/8	73	0								
	16	FW	2	WD			5/16	12	4								
	17																
	18		32	325	7/8			0	2 1/4	GALV							AM28
	19		88	325	7/8			0	2 1/2	GALV							AM28
	20		120	HW	13/4	16/16	3/16			GALV							AM28
	21																
	22																
	23																
	24	LOOSE MATERIAL															
	25	130B	12	BR	5		1/2	4	7 1/2	SHIM N.P.						102	5
	26	130C	8	BR	5		1/4	4	7 1/2	" N.P.						102	6
	27	130D	16	BR	5		1/8	4	7 1/2	" N.P.						102	7

MATERIAL A.S.T.M A36
BOLTS 7/8" GALV.
OPEN HOLES 15/16" UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT ONE CT. STEEL COTE EPO-LUX No. 100-E14 EPO-ZINC RICH PRIMER, GRAY COLOR U.N.

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

NO.	DATE	INIT.
D2	3-11	ED
A1	2-16	[illegible]

REVISION

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-22-70 IN CHARGE L. GOTTBERG
CHECKED BY C.A.P. DATE 2-17-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 130

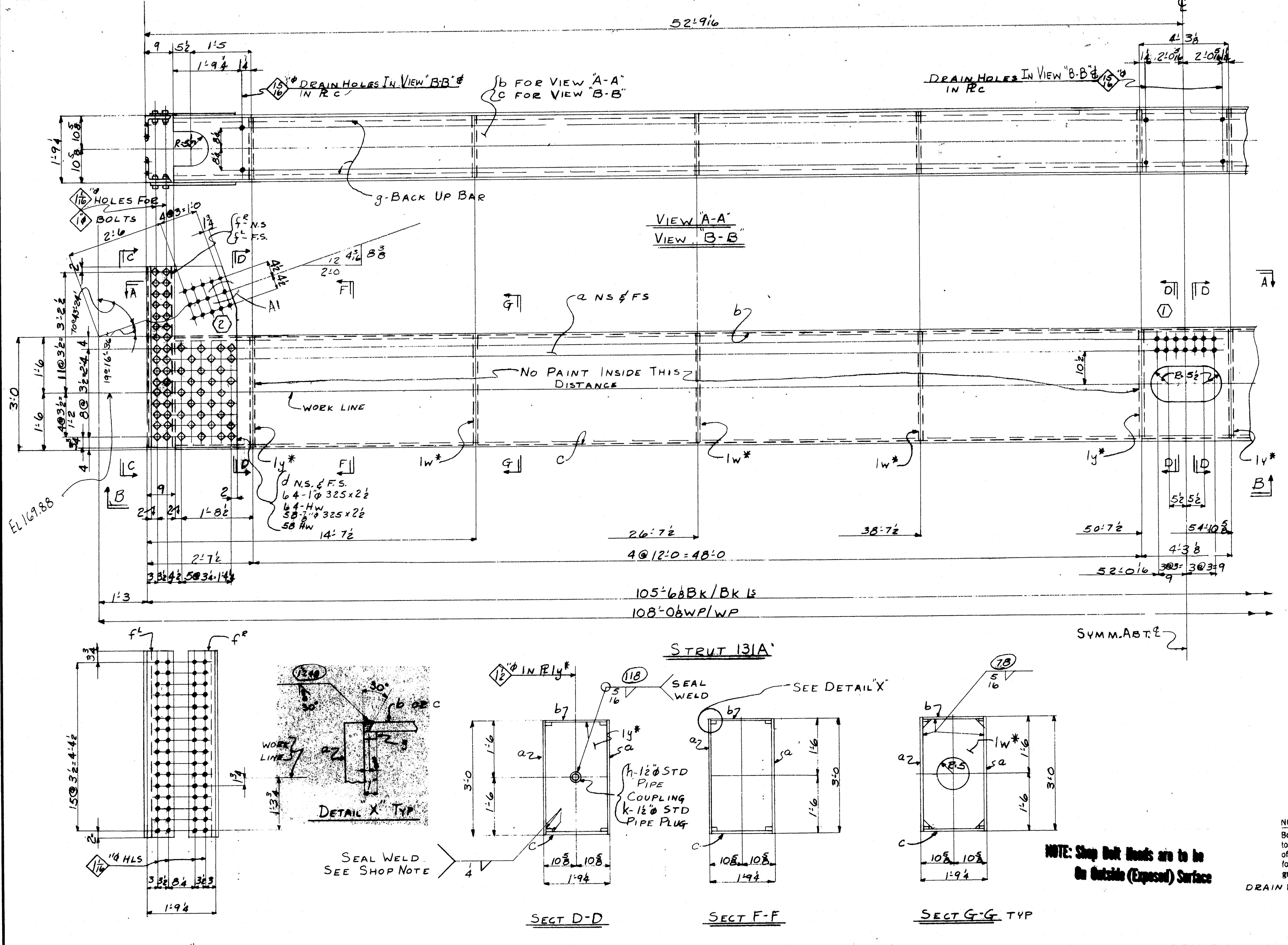
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
201 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 20 1970

SWAY FRAME @ POINT U0 & U0'

For location of details shown on this sheet refer to diagrams
E8 & E12

35413 (Rev.D 8-69)

120-120-63, NC IAML



NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

SHOP NOTE:
THE BACK UP BARS BETWEEN THE ENDS OF STRUT & SEAL DIAPHRAGMS AND ALSO BETWEEN SEAL DIAPHRAGMS AT ℄ ARE TO BE SEAL WELDED WITH 1/4" FILLET WELD AS SHOWN ON CS15

For location of details shown on this sheet refer to diagrams.
E9 & E11

Product Type	Line	Assembly Mark	No.	Shape	Section Size or Width	Section	Thick	Length Ft.	Length In.	Remarks	Width	Thick	Length Ft.	Length In.	Stock	Item Page	Item Line
	1		2	STRUTS	131A												
(2)	2	a	4	PL	36		5/8	104	0 1/8	T2W						247	06
(M)	3	b	2	PL	19 1/4		1/2	104	0 1/8	T2W						232	09
(M)	4	c	2	PL	19 1/4		1/2	104	0 1/8	T2W						232	09
	5	d	8	PL	28 1/4		1/2	4	10 1/4							234	09
	6	f^R f^L	4/4	L	8	8	5/8	4	10 1/4							233	17
	7	g	8	BR	1		5/8	105	0 1/8	BACK UP BARS						236	15
	8	h	8	M	1 1/2"φ STD. PIPE COUPLING 2 1/16" LG											AM	08
	9	k	8	M	1 1/2"φ STD PIPE PLUG											AM	08
	10	1w*	12	PL	20		3/8	2	11							231	17
	11	1y*	8	PL	20		3/8	2	11							231	17
	12																
	13																
	14																
	15		232	325	7/8"φ			0	2 1/2							AM	21
	16		232	HW	1 3/4	15/16	3/16									AM	21
	17																
	18		256	325	1"φ			0	2 1/2							AM	21
	19		256	HW	2"φ	1 1/16	3/16									AM	21
	20																
	21																
	22	FW	2	WD			5/16	68	4								
	23	FW	2	WD			1/4	63	7								
	24																
	25	B30	2	WD			1/2	416	0								

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
801 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 22 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS. & 22x11 HAND HOLES

MATERIAL A36
RIVETS OR BOLTS 7/8"φ A325 UN
OPEN HOLES 15/16"φ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1 SHOP COAT RED LEAD AASHO-M72 TYPE II
SEE NOTE "X" UN

ELECTRODES - E70XX
LOW HYDROGEN

LENGTH CORR. FOR TEMP STRUT @ L9 & L9'

			No.	Description	Mark	Remarks
	1	1	2	STRUT	131A	4'-1 1/2 x 1'-10 x 103'-6
	H9	M9	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

Revision No.	Date	Init.
A1	5-11	CD

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 2-10-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 4-7-70 SHOP NO.
CONTRACT CG 6290-071 DRAWING NO. 131

35453 (Rev.D 8-69)

120-64 NO TAPE

Ps a & b ℄ WELDS MUST NOT PROJECT ABOVE PL(C)

S-FILL BEV
2-SB 7/8ϕx1 3/4

f-BACK-UP BARS

A1

4@4 1/2 = 1'-5

1'-11 1/2

104'-1 5/8 C/C END HOLES

VIEW A-A

TRUSS

NOT LESS @ ENDS

a-N.S.
b-FS

lw*

ly*

No PAINT INSIDE THIS DISTANCE

13'-4 7/16

24'-9 9/16

36'-2 1/16

47'-7 13/16

11'-5 5/8

4'-6 3/4

4@11'-5 5/8 = 45'-8 1/2

52'-2 9/16

52'-5 9/16

104'-5 5/8" END TO END

108'-0 5/8 WP/WP

STRUT 132A

U9

Ps a & b ℄ WELDS MUST NOT PROJECT BELOW PL(d)

d

f-BACK UP BARS

A1

7/16ϕ DRAIN HOLE

4@4 1/2 = 1'-5

104'-1 5/8 C/C END HOLES

SECT B-B

BEND LINE

1'-7 1/2

9 3/4

12

2:0

1'-5 3/4

39°-04'-37"

h
23-7/8ϕ 325x2 1/2
23-HW

1'-8 1/4

11@3" = 2'-9

1 1/2

SEAL WELD

118

5/16

SEAL WELD SEE SHOP NOTE

1 1/2ϕ IN PL ly*

n-1 1/2ϕ STD PIPE COUPLING

p-1 1/2ϕ STD PIPE PLUG

SECT "C-C"

FILL m

k
BOLTS-7/8"ϕ 325x2 3/4
W&H-HW

R=5 1/2

HOLES FOR BOLTS N.S. ℄

B.L. Fork

10 3/4

16@2 3/4 = 3'-8

1'-6 3/4

3'-0

BEND LINE

AEC DONE PL

t-SEE DETAIL "A"

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HARDESTY & HANOVER
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101 PARK AVE. NEW YORK 17, N.Y.
FFW

MAY 22 1970

g
22-7/8"ϕ 325x3
8 7/8"ϕ 325x2 1/2
30-HW

DETAIL "A"

APC 2" ON ℄ PL

STRUT @ LINE U9 & U9'

BEND LINE N.S. PL

FILL w

t-FS

DRAIN HOLES

SYMM ABT ℄

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

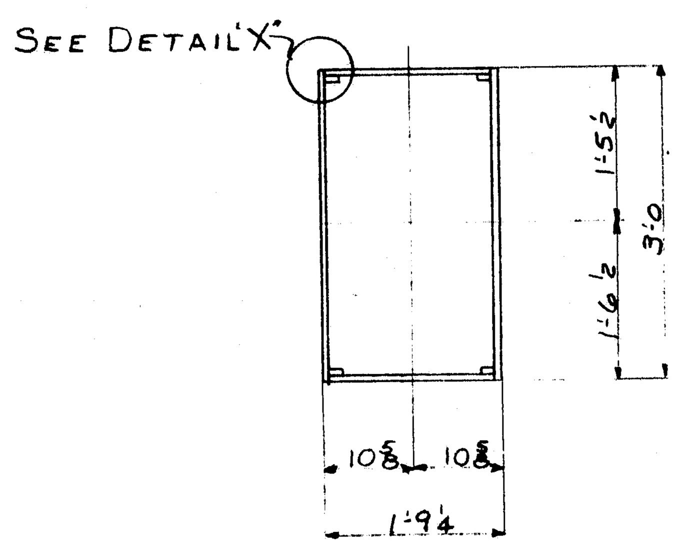
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY E. DATE 3-2-70. IN CHARGE LAG
CHECKED BY C.A.D. DATE 3-15-70. SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 132AB

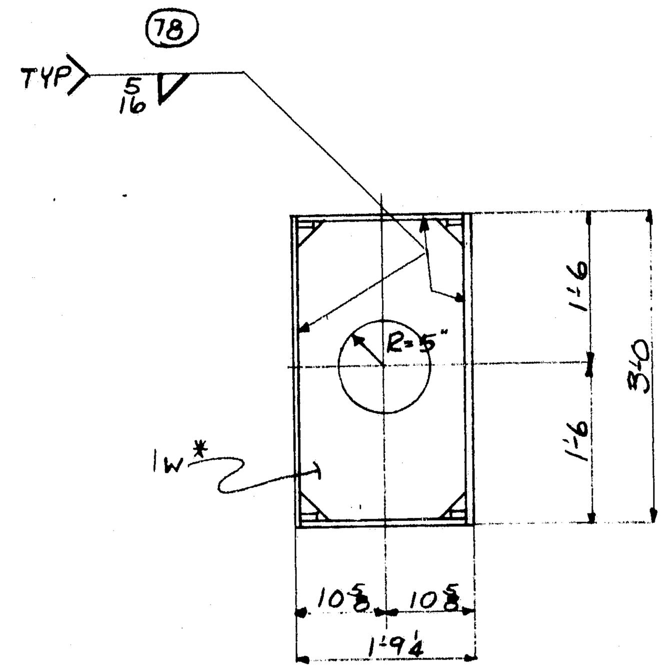
A1 5-11 CD
NO DATE INIT.
REVISION

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

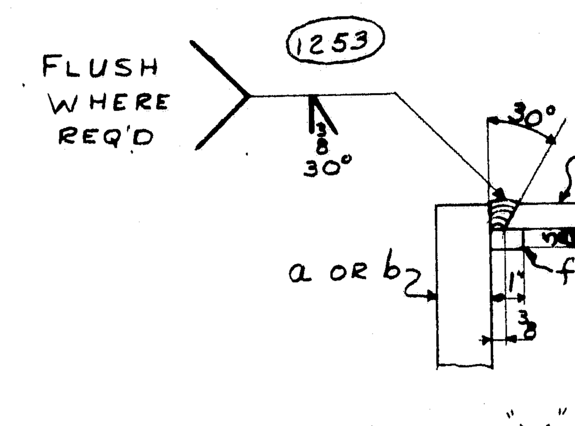
120-65



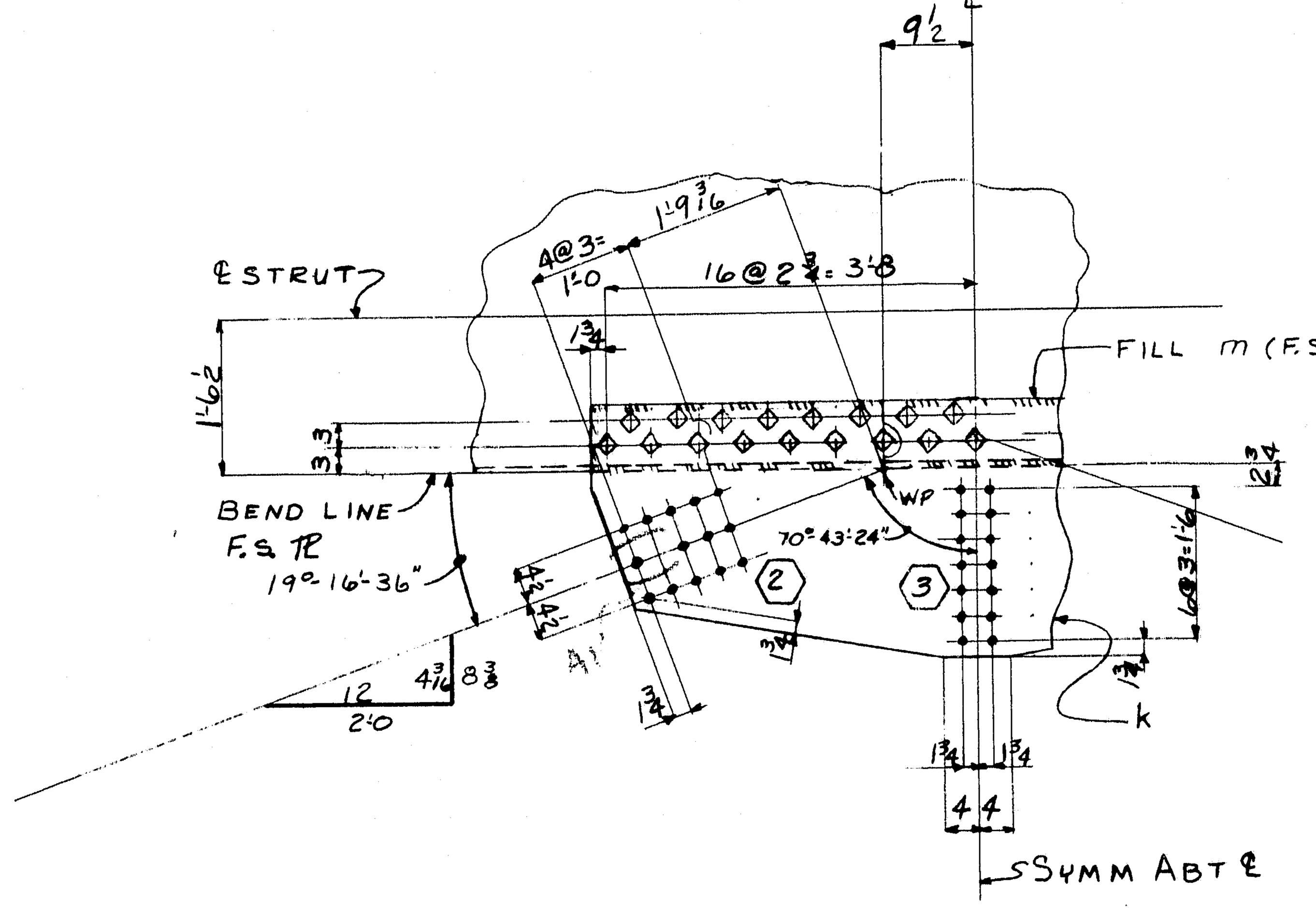
SECT "D-D"



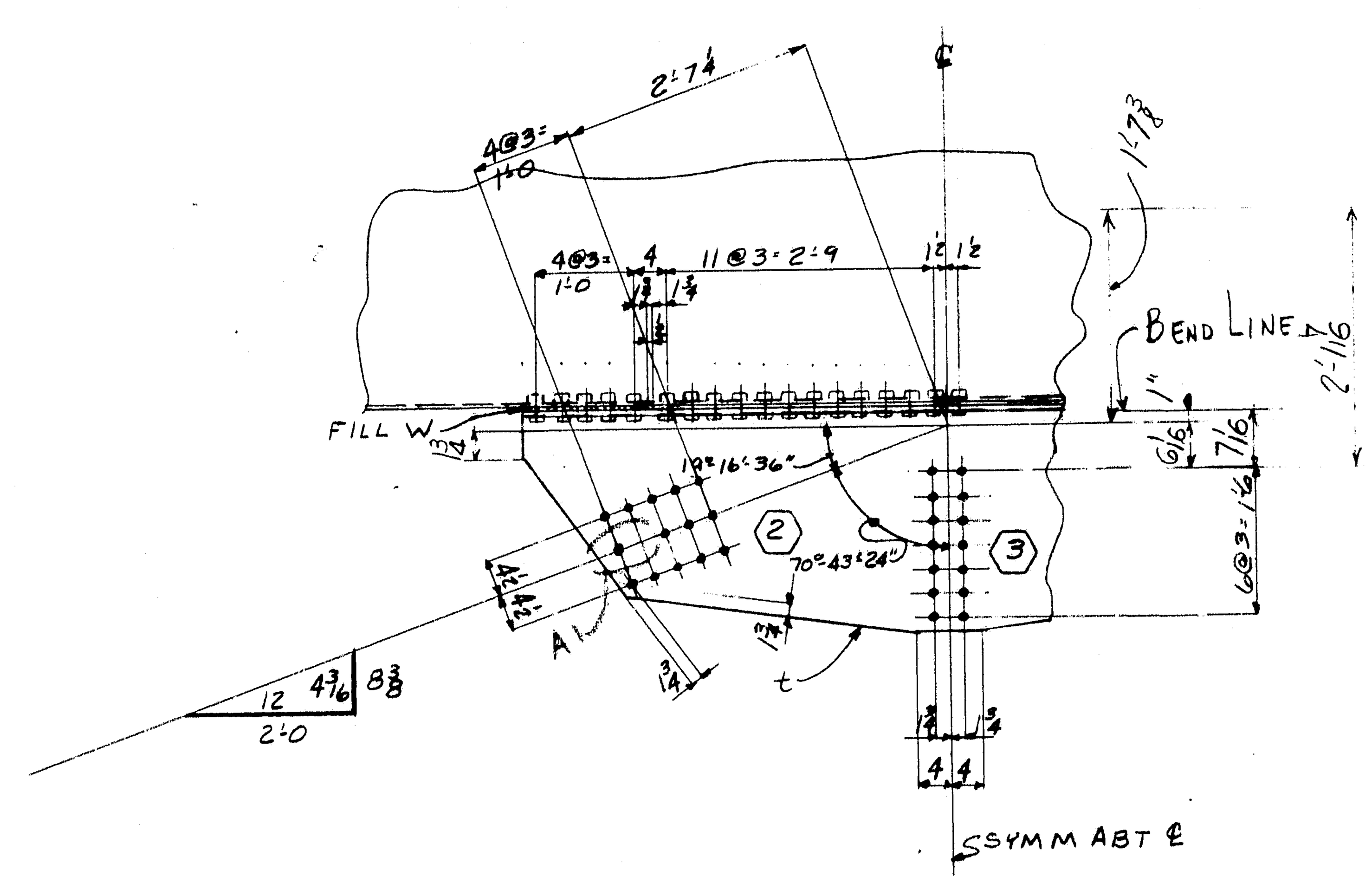
SECT "F-F"
(TYP)



DETAIL "X"
(TYP)



SECT "G-G"
(SHOWN DEVELOPED)



SECT "H-H"

SHOP NOTE:
BACK UP BARS FOR SEAL DIAPH'S TO END OF STRUT & BETWEEN DIAPH'S AT ℄ SHALL BE SEAL WELDED WITH 1/4" FILLET WELD AS SHOWN ON C S15

SHOP BILL / MILL ORDER

Product Type	Line	Assembly Mark	No.	Shape	Section Size	Size or Pounds	Thick	Length Ft.	Length In.	Remarks	Width	Thick	Length Ft.	Length In	Stock	Item Page	Item Line
	1		2	STRUTS			132A										
M	2	a	2	PL	36		5/8	104	5 1/8	T2W						223	04
M	3	b	2	PL	36		5/8	104	5 1/8	T2W						223	04
2	4	c	2	PL	19 1/4		1/2	104	5 1/8	T2W						223	05
2	5	d	2	PL	19 1/4		1/2	104	5 1/8	T2W						223	05
	6	f	8	BR	1		5/8	105	5	BACK-UP BAR						229	07
	7	g	2	PL	72 1/2		5/8	3	3	BENT						231	15
	8	h	2	PL	72 1/2		5/8	3	1 3/4	BENT						231	14
	9	k	2	PL	91 1/2		1/2	2	6 1/4	BENT						231	10
	10	m	2	BR	7 3/4		3/8	7	7 1/2	FILL						239	07
	11	n	8	M	1 1/2"φ	STD PIPE COUPLING 2 11/16 LG										AM	08
	12	p	8	M	1 1/2"φ	STD PIPE PLUG										AM	08
	13	s	2	BR	4 [illegible]		3/16	1	8 1/2	BEV 3/16 x 1/16						G	
	14	t	2	PL	105 1/2		5/8	3	0 3/4	BENT						231	11
	15	w	2	PL	8 7/8		5/8	1	3 3/4	FILL						239	09
	16	1w*	12	PL	20		3/8	2	11							229	11
	17	1y*	8	PL	20		3/8	2	11							229	11
	18																
	19																
	20																
	21		124	325	7/8"φ				2 1/2							AM	21
	22		88	325	7/8"φ				3							AM	21
	23		66	325	7/8"φ				2 3/4							AM	21
	24																
	25		278	HW	1 3/4"φ	15/16"φ	3/16									AM	21
	26																
	27		8	MB	7/8"φ			0	1 3/4	RHB RHN (S.B.)						AM	31
	28																
	29	FW	2	WD			5/16	78	4								
	30	FW	2	WP			1/4	103	7								
	31																
	32	B30°	2	WD			1/2	417	8								
	33																
	34																
	35																
	36																
	37																
	38																
	39																
	40																
	41																
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	60																
	61																
	62																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 22 1970

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR 22x11 HAND HOLES & HOLES MARKED DRAIN HOLES

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

For location of details shown on this sheet refer to diagrams.
E9 & E11

	1	1	2	STRUT	132A	4'-6 x 5'-5 x 104'-5
	M9	H9	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL A36
RIVETS OR BOLTS 7/8"φ A325
OPEN HOLES 15/16"φ U.N.
A325 FIELD BOLTS ——
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72 Type II See Note "X"

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

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
A1	5-11	21 CD

REVISION

STRUT @ LINE U9 & U9'

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

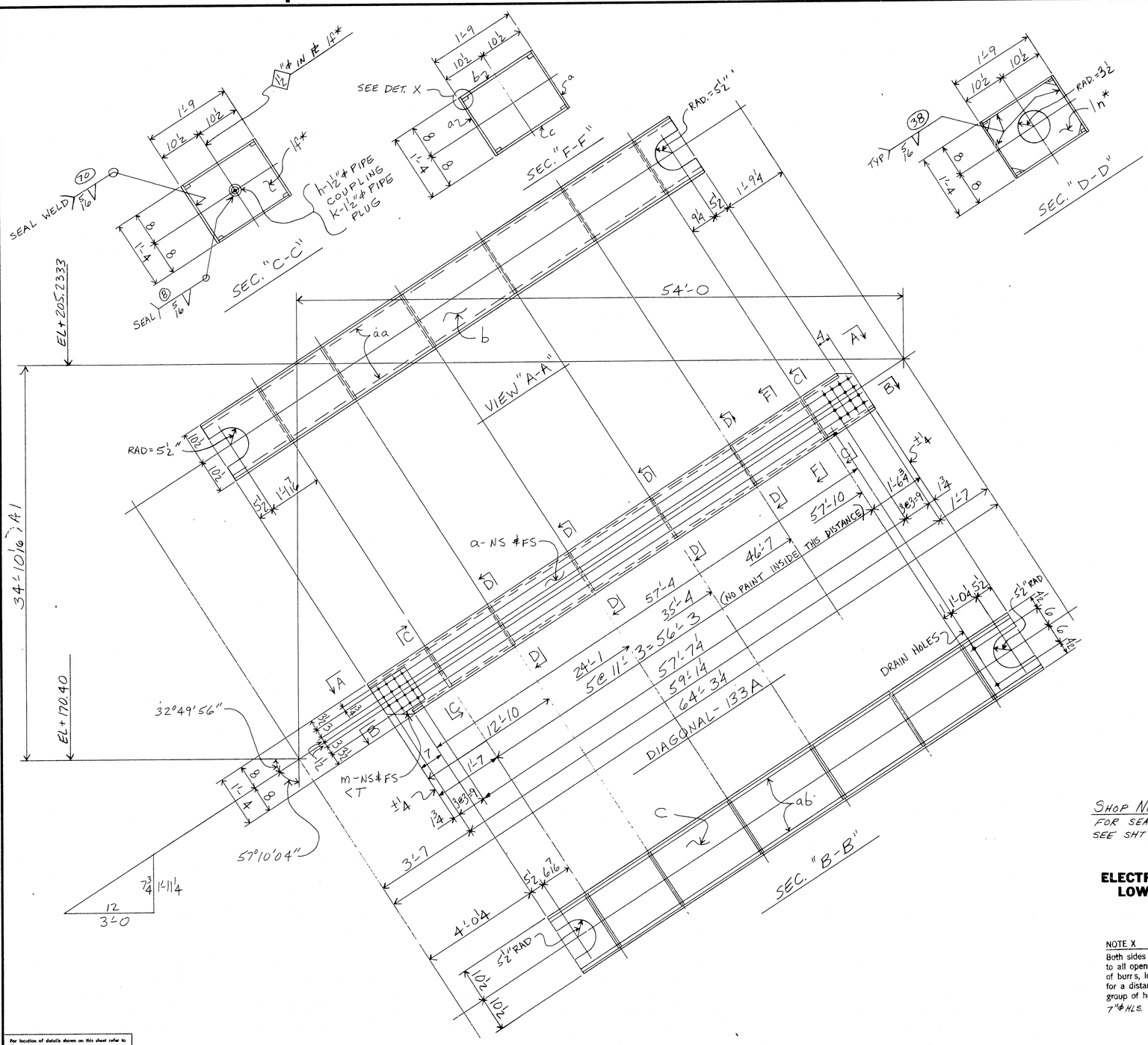
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 3-3-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 4-15-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 132BB

35453 (Rev.D 8-69)

120-66,

0	1	2	3	4	5	6



PROD TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION Size	Size or Pounds	Thick	LENGTH Ft.	In.	REMARKS	MILL ORDER LENGTH Ft.	In.	ITEM Page	Line
	1		4	DIAGONALS			13	3A						
(2)	2	a	8	PL	16		3/8	59	4¾	T2W	59	7	232	1
(M)	3	b	4	PL	19½		½	59	0¾	T2W	59	7	232	2
(M)	4	c	4	PL	19½		½	58	9¾	T2W	59	7	232	2
	5	ff*	8	PL	15		3/8	1	8¼		1	8¼	233	4
	6	hn*	16	PL	15		3/8	1	8¼		1	8¼	233	4
	7	h	8	M	1½ϕ STD PIPE COUPLING								AM	8
	8	k	8	M	1½ϕ STD PIPE PLUG (SQ. HD)								AM	8
	9	m	8	PL	12½		⅜	1	0½	FILL	1	0½	233	9
	10	aa	8	BR	1		5/8	60	1¾	BACKUP BAR	60	7	233	1
	11	ab	8	BR	1		5/8	59	9¾	BACKUP BAR	60	7	233	1
	15	FW	4	WD			5/16	25	8					
	18	B30	4	WD			½	235	10					
	20	SD	4	WD			1/8	1	1	SEAL WELD				
	21	FW	4	WD			1/4	18	6	SEAL WELD				

SHOP NOTE
FOR SEAL WELDING
SEE SHT # C515

ELECTRODES - E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HLS. 7"ϕ HLS. & 11×11 HLS.

MATERIAL — ASTM-A36
RIVETS OR BOLTS —
OPEN HOLES — 15/16ϕ
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING - AS NOTED
PAINT — 1 SHOP CT. RED LEAD AASHO-M72, TYPE II
SEE NOTE "X"

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

NO.	DATE	INIT.
4	3-30-70	ET

REVISION

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
APR 16 1970

	2	2	4	DIAGONAL 1.19x1.4x59-5 133A	
HII	MII	NO.	DESCRIPTION	MARK	REMARKS

INST. REQUIRED LIST

SWAY FRAME @ PANEL PT. (10)
NOTE: Length Corrected for Temperature

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

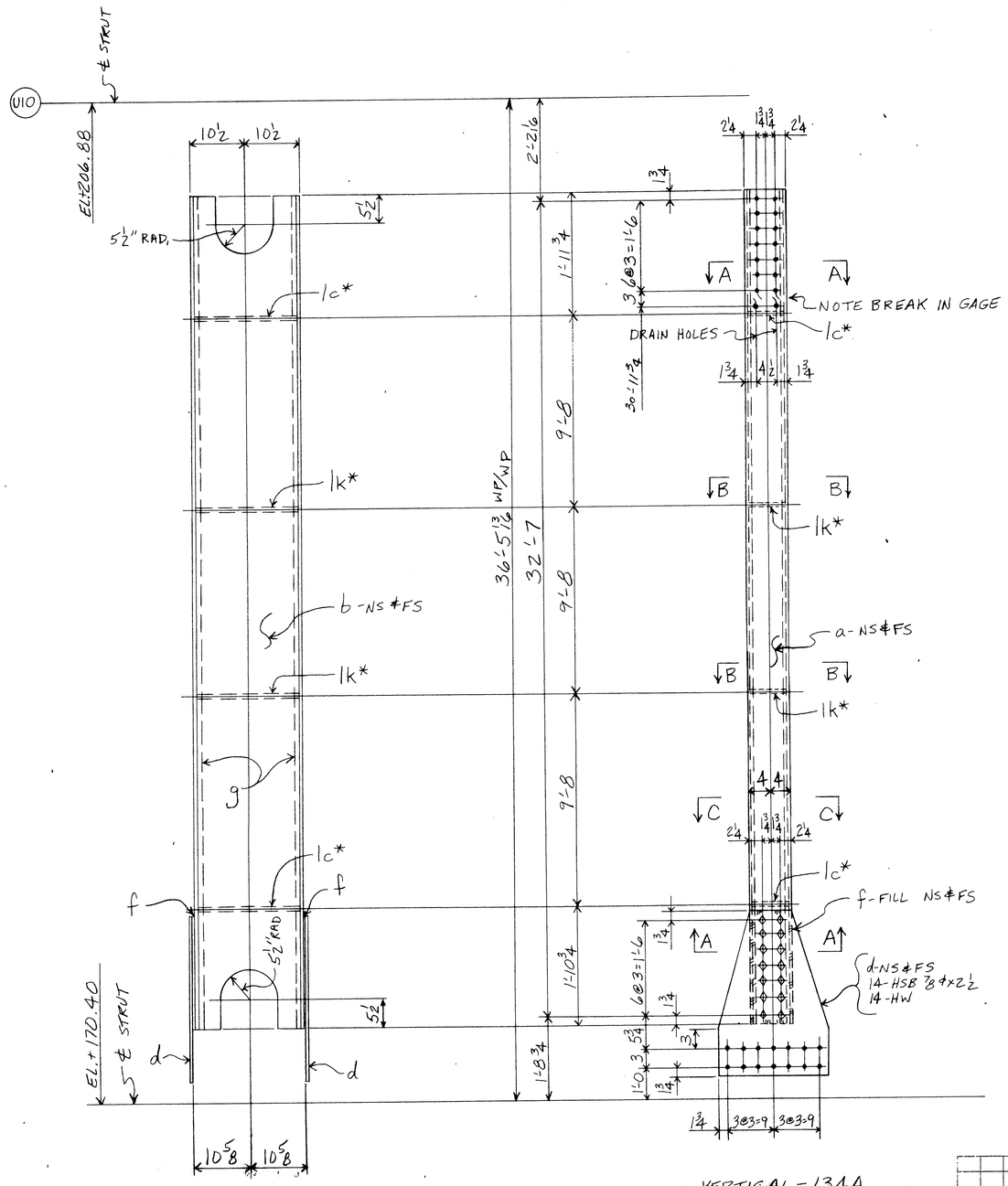
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-19-70 IN CHARGE L.G.
CHECKED BY ET DATE 3-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 133

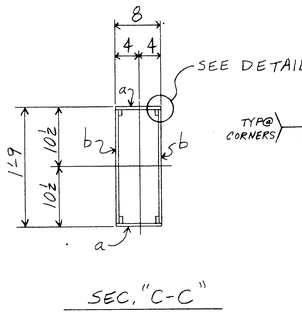
For location of details shown on this sheet refer to diagrams.
E9 & E11

25632 (Rev.A 1-65)

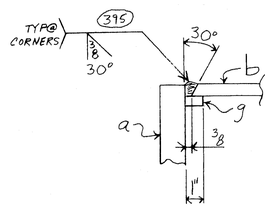
12.0-67 NC TAPE



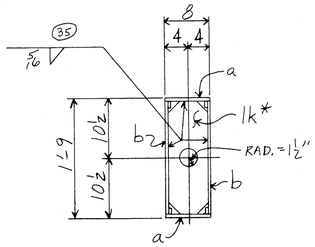
VERTICAL-134A



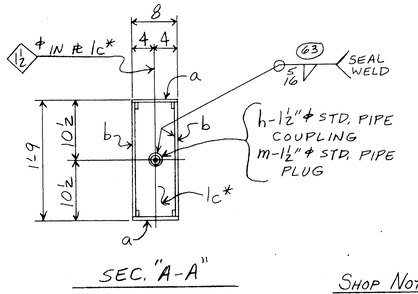
SEC. "C-C"



DETAIL "X" (TYP)



SEC. "B-B"



SEC. "A-A"

SHOP NOTE
FOR SEAL WELDING
SEE SHT. # 0515

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES ℄ FOR 3"HLS #11×11 HOLES

ELECTRODES - E70XX LOW HYDROGEN

SHOP BILL

PRODUCT TYPE		ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	- VERTICALS - 134A						
M	2	a	4	PL	8		1/2	32	10½	T2W
M	3	b	4	PL	19¼		3/8	32	10½	T2W
	4	1c*	4	BR	7¼		3/8	1	8	
	5	d	4	PL	21½		1/2	2	6¼	
	6	f	4	PL	7		1/8	1	9½	FILL
	7	g	8	BR	1		5/8	33	10½	BACKUP BAR
	8	h	4	M	1½ ℄ STD	PIPE COUPLING	2 1/16 LG.			
	9	1k*	4	PL	7¼		3/8	1	8	
	10	m	4	M	1½ ℄ STD	PIPE PLUG	(SQ. HD.)			
	11									
	12									
	13									
	14		56	325	7/8 ℄			0	2½	
	15									
	16		56	HW	1¾	15/16	3/16			
	17									
	18									
	19	FW	2	WD			5/16	16	4	
	20	SD	2	WD			1/8	1	1	SEAL WELD
	21	FW	2	WD			1/4	15	0	SEAL WELD
	22	B30	2	WD			3/8	131	8	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		33	2		232	3
		33	2		232	4
		1	8¼		233	4
		2	6¼		233	13
		1	9½		233	14
		34	0		233	2
					AM	8
		1	8¼		233	4
					AM	8
					AM	86

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
80 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 26 1970

NOTE: Length Corrected for Temperature

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

	1	1	2	VERTICAL 1'-10x1'-10x33'-9	134A						
	M11	M11	NO.	DESCRIPTION	MARK	REMARKS					
INST.			REQUIRED LIST								

MATERIAL - ASTM-A36
RIVETS OR BOLTS - ⅞ ℄
OPEN HOLES - 15/16 ℄ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - NO PAINT
WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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

REVISION

NO.	DATE	INIT.

SWAY FRAME @ PANEL PT. (10)

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

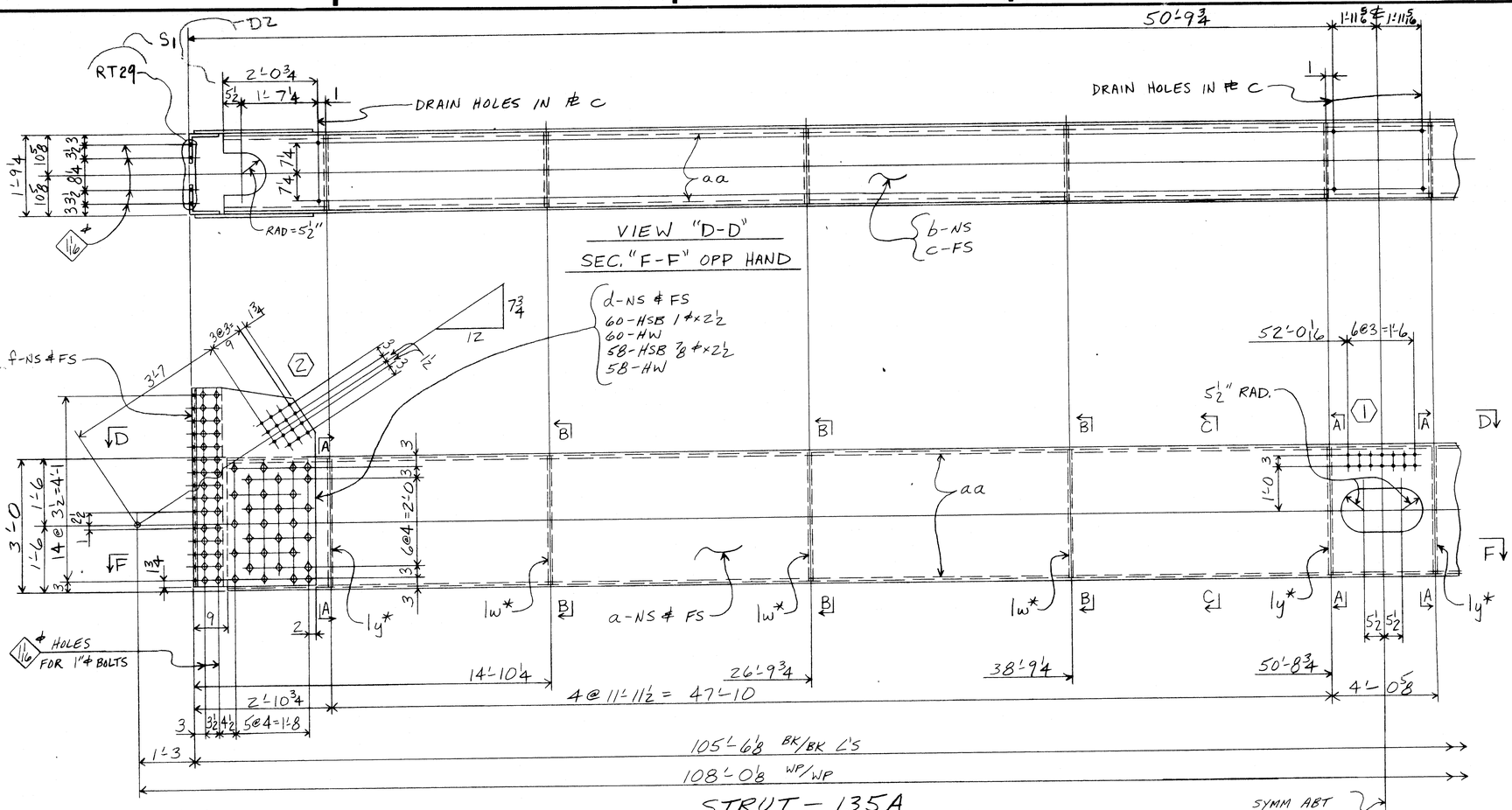
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

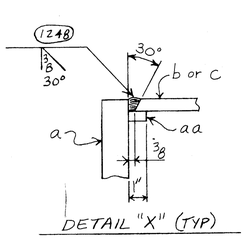
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-19-70 IN CHARGE LG
CHECKED BY ET DATE 3-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 134

35433 (Rev.D 8-69)

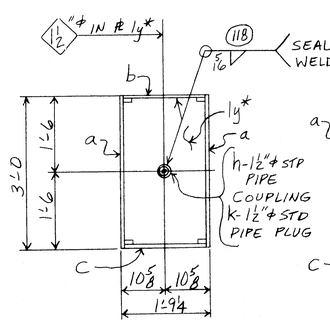
For location of details shown on this sheet refer to diagrams.
E9 ℄ E11

120-68 NC TAPE

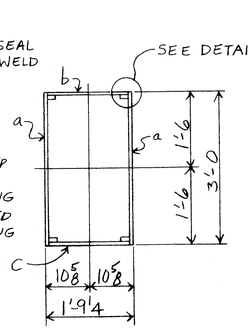




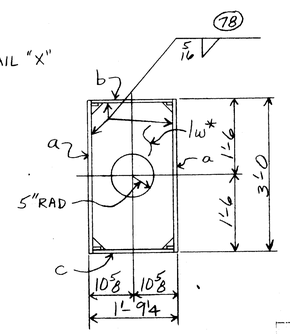
DETAIL "X" (TYP)



SEC. "A-A"



SEC. "C-C"



SEC. "B-B"

INST.	1	1	STRUT 4'-6" x 1'-10" x 105" 57	135A	
	H11	NO.	DESCRIPTION	MARK	REMARKS
			REQUIRED LIST		

S3

SHOP NOTE

FOR SEAL WELDING SEE SHT CS15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES ℄ SLOTS

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

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

E9 & E11

SHOP BILL

	MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		(1)	-	STRUTS	- 135	A			
②	a S5	(2)	PL	36		5/8	104	0 1/8	T2W
Ⓜ	b	(1)	PL	19 1/4		1/2	104	0 1/8	T2W
Ⓜ	c	(1)	PL	19 1/4		1/2	104	0 1/8	T2W
	d	(4)	PL	32		1/2	4	4 1/2	
	f	(4)	L	8	8	5/8	4	4 1/2	
	aa	(4)	BR	1		5/8	105	0 1/4	BACKUP BAR
	h S5	(4)	M	1 1/2 ℄	STD		PIPE COUPLING 2 1/16 LG		
	k	(4)	M	1 1/2 ℄	STD		PIPE PLUG		
	lw*	(6)	PL	20		3/8	2	11	
	ly*	(4)	PL	20		3/8	2	11	
		116	325	7/8 ℄			0	2 1/2	
		116	HW	1 3/4	15/16	3/16			
	S3								
		120	325	1 ℄			0	2 1/2	
		120	HW	2	1 1/16	3/16			
	FW	(1)	WD			5/16	78	4	
	B30	(1)	WD			1/2	416	0	
	S3	(1)	WD						
	SD	(1)	WD			1/8	1	1	SEAL WELD
	FW	(1)	WD			1/4	34	0	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	104	2			232	5
	104	2			232	6
	104	2			232	6
	4	4 1/2			233	7
	4	4 1/2			233	8
	105	2			233	3
					AM	8
					AM	8
	3	0			233	6
	3	0			233	6
					AM	26
					AM	26

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
801 PARK AVE. NEW YORK 17, N.Y.
FPW
OCT 5 1970

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

SWAY FRAME @ PANEL POINT (10)

MATERIAL — ASTM-A36
BOLTS — 7/8 ℄ U.N.
OPEN HOLES — 15/16 ℄ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

REVISION NO.	DATE	INIT.
S1	9/18	LG
D2	4-13	ET/LM
S1	3 13	

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

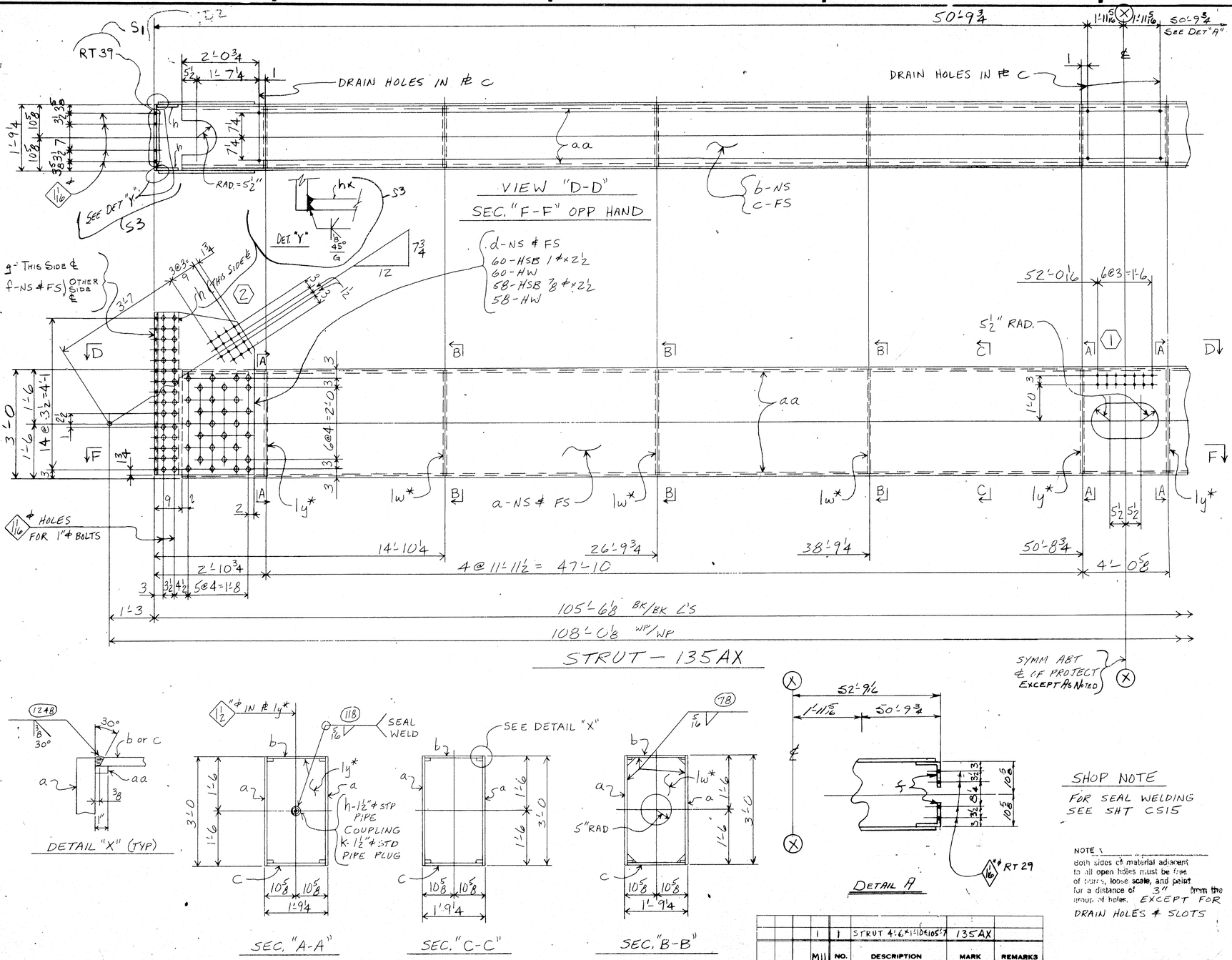
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 9-20-70 IN CHARGE LG
CHECKED BY ET DATE 8-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 135

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

35433 (Rev.D 8-69)

120-69



SHOP NOTE

FOR SEAL WELDING SEE SHT CS15

NOTE:
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

INST	MII	NO.	DESCRIPTION	MARK	REMARKS
		1	1 STRUT 4'-6"x14"x105'-7	135AX	
REQUIRED LIST					

For location of details shown on this sheet refer to diagrams: E9 & E11

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	SIZE WIDTH	SIZE THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	MILL ORDER SEQ.	ITEM FAMILY	ITEM LOWE
		1	- STRUTS - 135 AX													
②	a	2	PL	36		5/8	104	0⅛	T2W			104	2		232	5
Ⓜ	b	1	PL	19¼		½	104	0⅛	T2W			104	2		232	6
Ⓜ	c	1	PL	19¼		½	104	0⅛	T2W			104	2		232	6
	d	4	PL	32		½	4	4½				4	4½		233	7
	f	2	L	8	8	5/8	4	4½				4	4½		233	8
	aa	4	BR	1		5/8	105	0¼	BACKUP BAR			105	2		233	3
	h	4	M	1½#	STD.				PIPE COUPLING 2⅛ LG						AM	8
	k	4	M	1½#	STD.				PIPE PLUG						AM	8
	lw*	6	PL	20		⅜	2	11				3	0		233	6
	ly*	4	PL	20		⅜	2	11				3	0		233	6
	g	1	PL	52½		5/8	1	9¼	S3							
	hk	2	BR	7		5/8	4	4½	S3							
		116	32S	⅞#			0	2½							AM	26
		116	HW	1¾		15/16	3/16									
		120	32S	1#			0	2½							AM	26
		120	HW	2		1⅛	3/16									
	B45D	1	WD			5/8	8	9	S3							
	FW	1	WD			5/16	78	4								
	B30	1	WD			½	416	0								
	SD	1	WD			⅛	1	1	SEAL WELD							
	FW	1	WD			¼	34	0	SEAL WELD							

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
KFW
FEB 25 1971

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

SWAY FRAME @ PANEL POINT (10)

MATERIAL — ASTM-A36
BOLTS — ⅞ # U.N.
OPEN HOLES — 15/16 # U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

NO	DATE	INIT.	REVISION
5	2/17	EP	
4	9-13	EP	
3	3-13	LM	

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

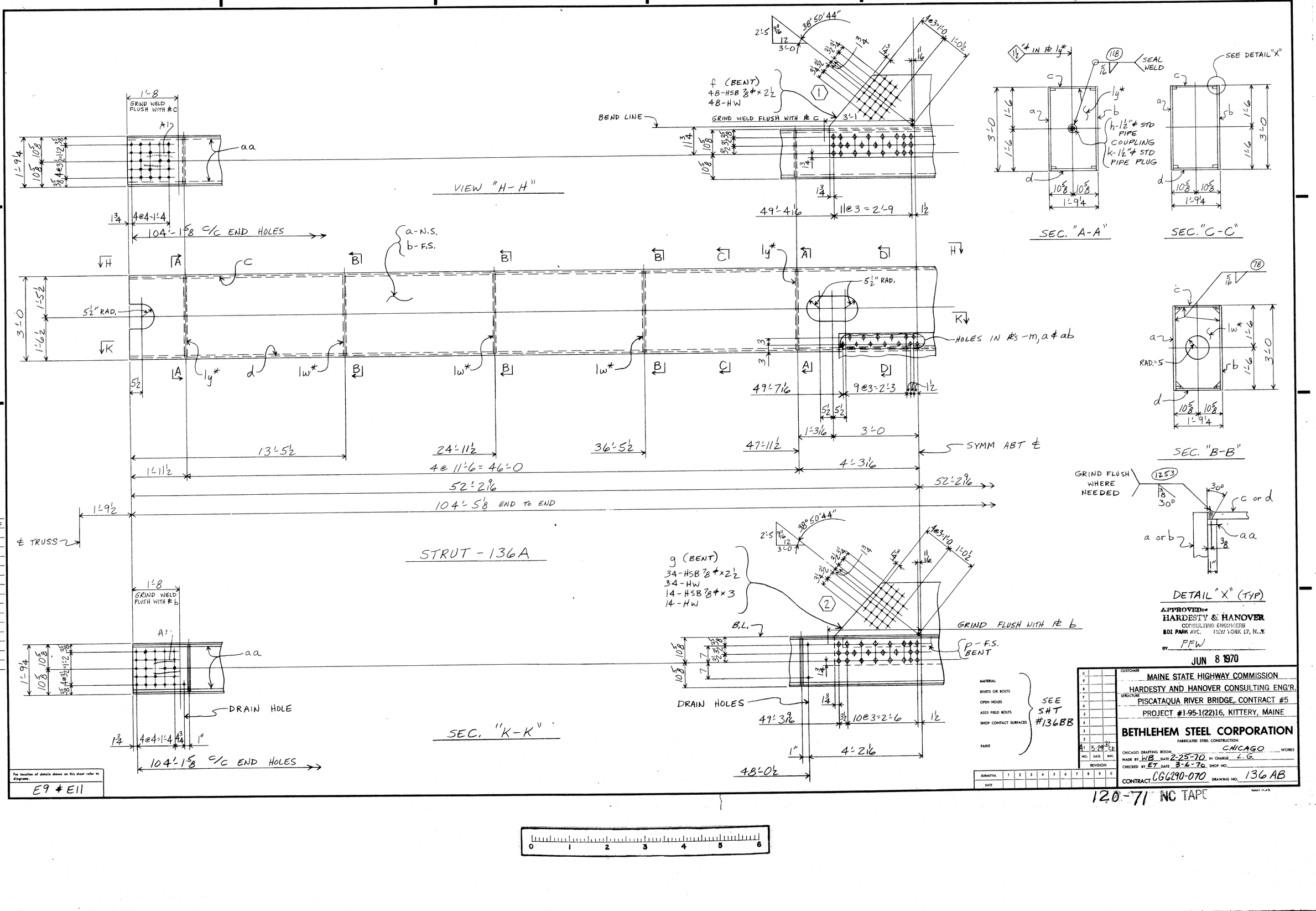
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 9-20-70 IN CHARGE LG
CHECKED BY ET DATE 9-6-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 135X

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

120-70

0 1 2 3 4 5 6



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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUN 8 1970

NO.	DATE	INIT.	REVISION
21	5-29	CD	

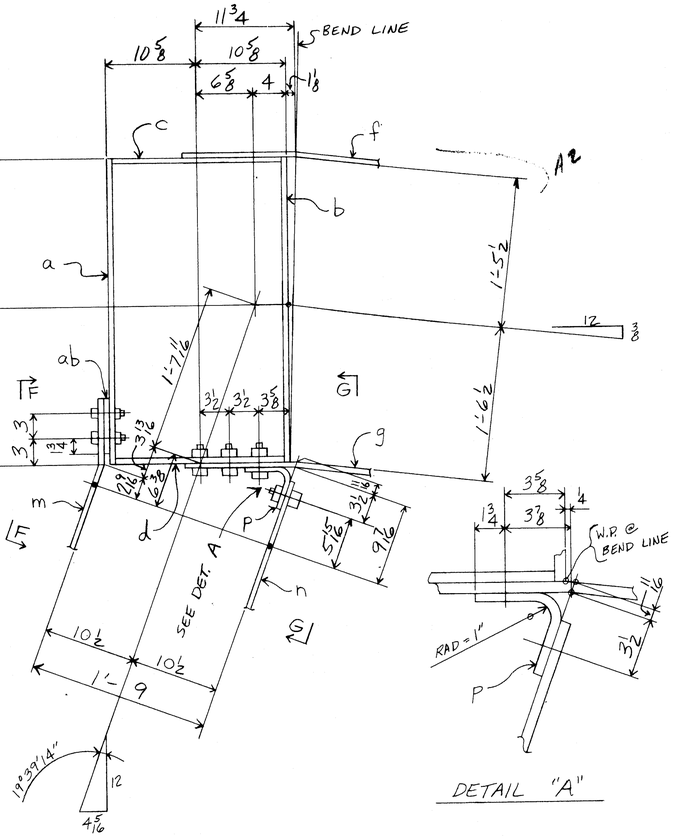
SUBMITTAL DATE: 1 2 3 4 5 6 7 8 9 0

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

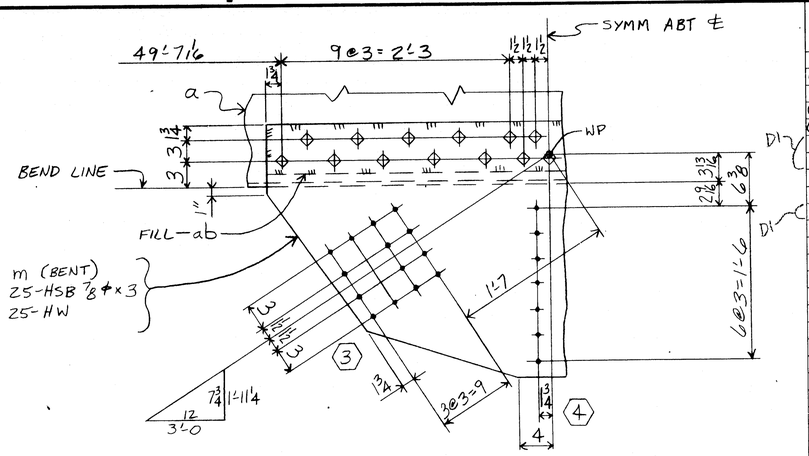
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-25-70 IN CHARGE L.G.
CHECKED BY ET DATE 3-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 136 AB

120-71 NC TAPE

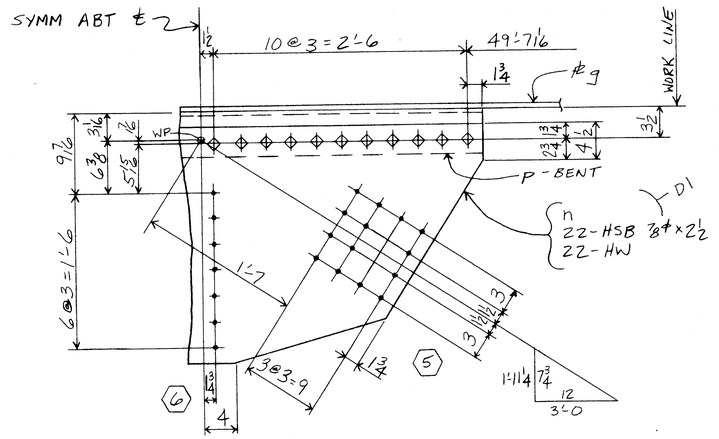


SEC. "D-D"

DETAIL "A"



VIEW "F-F"
(SHOWN DEVELOPED)



VIEW "G-G"
(SHOWN DEVELOPED)

NOTE X
Both sides of material adjacent to all open holes must be free of burr's, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS

SHOP NOTE!
FOR SEAL WELDING SEE SHT CS15

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

		1	1	2	STRUT 5'-6 3/8" x 104'-6"	136A
		H11	M11	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST		

SHOP BILL

PRODUCT NO.		ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	- STRUTS	- 136A					
②	2	a	2	PL	36		5/8	104	5 1/8	TZW
②	3	b	2	PL	36		5/8	104	5 1/8	TZW
Ⓜ	4	c	2	PL	19 1/4		1/2	104	5 1/8	TZW
Ⓜ	5	d	2	PL	19 1/4		1/2	104	5 1/8	TZW
	6	f	2	PL	72 1/2		5/8	3	0	BENT
	7	g	2	PL	73 1/2		5/8	2	11	BENT
	8	h	8	M	1 1/2 ϕ	STD PIPE COUPLING 2 1/16 LG				
	9	k	8	M	1 1/2 ϕ	STD PIPE PLUG				
	10	m	2	PL	66 1/2		1/2	2	6	BENT
	11	n	2	PL	27 1/2		1/2	5	6 1/2	
	12	p	2	PL	66 1/2		5/8	0	9	BENT
	13	aa	8	BR	1		5/8	105	5	
	14	ab	2	BR	6 1/2		9/16	5	6 1/2	FILL
	15	lw*	12	PL	20		3/8	2	11	
	16	ly*	8	PL	20		3/8	2	11	
	17									
	18									
	19									
	20		208	325	7/8 ϕ			0	2 1/2	
	21		78	325	7/8 ϕ			0	3	
	22									
	23		286	HW	1 3/4	15/16	3/16			
	24									
	25									
	26	B30	2	WD			1/2	417	8	
	27	FW	2	WD			5/16	78	4	
	28	SD	2	WD			1/8	1	1	SEAL WELD
	29	FW	2	WD			1/4	31	4	SEAL WELD
	30									
	31									
	32									
	33									
	34									
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	60									
	61									
	62									

MILL ORDER

SPARE	SPARE THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		104	7		223	7
		104	7		223	7
		104	7		223	8
		104	7		223	8
		3	0		233	15
		2	11		233	16
					AM	8
					AM	8
		2	6		233	10
		5	6 1/2		233	11
		0	9		233	12
		105	5		229	3
		5	7		233	10
		2	11 1/2		229	12
		2	11 1/2		229	12
					AM	26
					AM	26

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
801 PARK AVE. NEW YORK 17, N.Y.
APR 1 1970

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

SWAY FRAME & PANEL POINT ⑩

MATERIAL — ASTM - A36
RIVETS OR BOLTS — 15/16 ϕ
OPEN HOLES — 15/16 ϕ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES — NO PAINT
WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

REVISION NO.	DATE	INIT.
A2	3-30	ET
D1	3/16	WB

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-25-70 IN CHARGE L.G.
CHECKED BY ET DATE 3-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 136BB

53433 (Rev.D 8-69)

For location of details shown on this sheet refer to diagrams:
E9 & E11

120-72 NC TAPE

NO PAINT INSIDE MEMBER BETWEEN SEAL DIAPHRAGMS

VIEW "C-C"

SECTION "A-A"

SECTION "D-D"

DIAGONAL 137A^R

DRAIN HOLES

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT SLOTS @ ENDS & 6'6" HOLES

SHOP BILL											MILL ORDER					
PRODUCT TYPE	LINE NO.	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	DIAGONALS - 2 - 137A^R & 2 - 137A^L													
M	2	a	4	PL	14		3/8	26	4 1/2	T2W			26	7		225	4
M	3	b	4	PL	14		3/8	25	11 1/4	T2W			26	7		225	4
M	4	c^PL	2	PL	19 1/8		3/8	25	8 3/4	T2W			26	7		225	3
M	5	d^PL	2	PL	19 1/2		3/8	24	9	T2W			26	7		225	3
	6	s	4	BR	1		5/8	26	8 3/4	BACK UP BAR							
	7	g	4	BR	1		5/8	25	9	BACK UP BAR							
	8	h	4	BR	1		5/8	25	11 1/4	BACK UP BAR							
	9	k	4	BR	1		5/8	25	4	BACK UP BAR							
	10	m	8	PL	13 1/4		3/8	1	8 1/4								
	11	n	4	PL	13 1/4		3/8	1	8 1/4								
	12	p	8	M	1 1/2"	STD				PIPE COUPLING FULL						AM8	
	13	t	8	M	1 1/2"	STD				PIPE PLUG (SQ HD)						AM8	
	14	w	8	PL	14		1/8	2	0 1/4	FILL							
	15																
	16																
	17																
	18	B30	4	WD			3/8	95	8								
	19	FW	4	WD			5/16	15	0	SEAL WELD							
	20	FW	4	WD			1/4	31	0	PER CS15							
	21	SD	4	WD			1/8	1	1	SEAL WELD							
	22																
	23		16	MB	7/8"			0	11/2	RHH RHN (SB)							
	24																
	25																
	26																
	27																
	28																
	29																
	30																

SECTION "G-G"

SECTION "F-F"

DETAIL "X" TYP

SHOP NOTE
FOR SEAL WELDING SEE SHT "CS 15

DIAGONALS FOR SWAY FRAME @ POINT U8 & U8'

ELECTRODES - E70XX
LOW HYDROGEN

				NO.	DESCRIPTION	MARK	REMARKS
		1	1	2	DIAGONAL	137A^R	19x1/2x26-4
		1	1	2	DIAGONAL	137A^L	19x1/2x26-4
		MB	MB				
INST					REQUIRED LIST		

For location of details shown on this sheet refer to diagram.
E9 to E11

MATERIAL ASTM-A36
RIVETS OR BOLTS —
OPEN HOLES 7/8" ø UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES NP
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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

REVISIONS

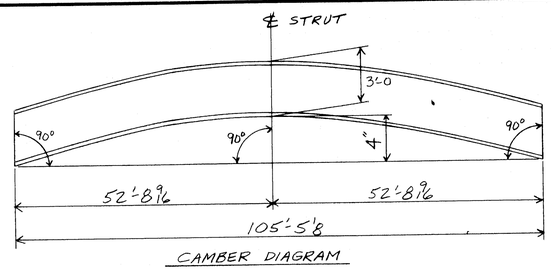
APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Moothy
MAY 29 1970

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

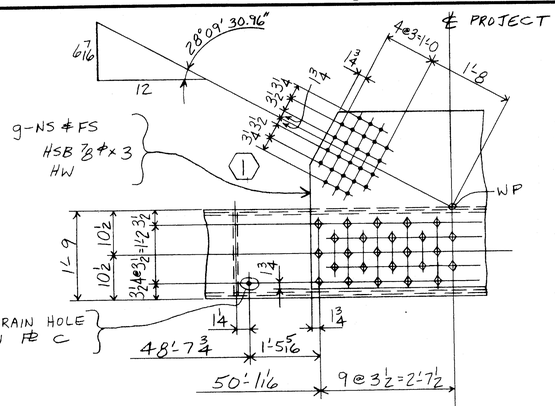
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

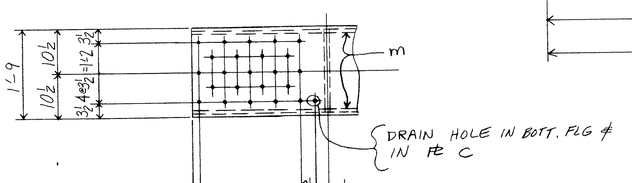
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY ITF DATE 8-24-70 IN CHARGE L. GOTHARD
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT C46290-070 DRAWING NO. 137

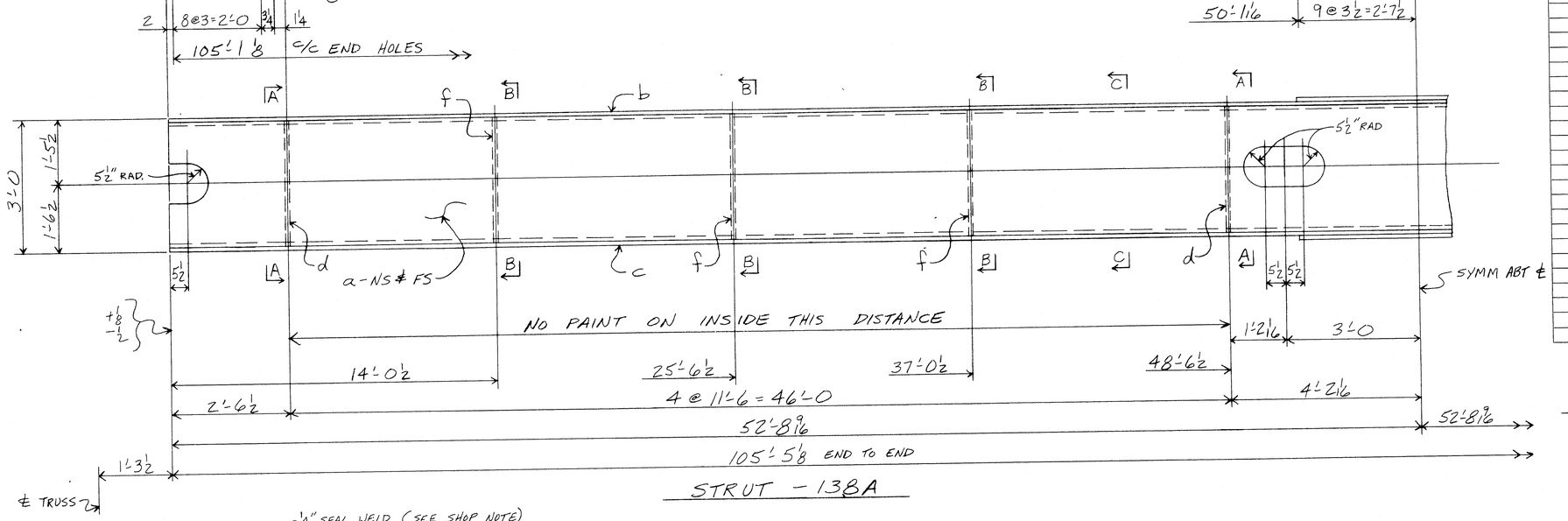
120-73 NC TAPE



CAMBER DIAGRAM





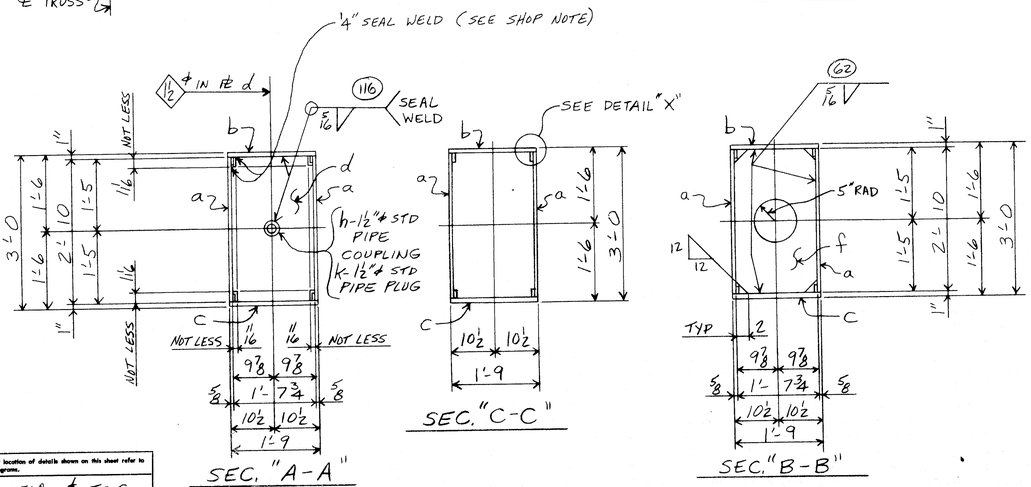


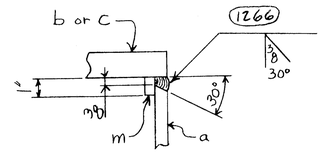
STRUT - 138A

PROD TYPE	LINE	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 ITEM Page	MILL ORDER ITEM Line
	1		2	-STRUTS -138A										
②	2	a	4	PL	33 1/4		5/8	105	5 1/8	T2W	105	7	246	10
Ⓜ	3	b	2	PL	21		1	105	5 1/8	T2W	105	7	246	9
Ⓜ	4	c	2	PL	21		1	105	5 1/8	T2W	105	7	246	9
	5	d	8	PL	19 3/4		3/8	2	10		21	1 3/4	246	8
	6	f	12	PL	19 3/4		3/8	2	10		21	1 3/4	246	8
	7	g	4	PL	47 1/2		5/8	5	6 1/2		22	5	246	7
	8	h	8	M	1 1/2" ℄	STD PIPE COUPLING		Z 1/16 LG					AM	8
	9	k	8	M	1 1/2" ℄	STD PIPE PLUG							AM	8
	10	m	8	BR	1		5/8	106	5 1/4	BACKUP BAR	40	0	248	9
	11													
	12													
	13													
	14		192	325	7/8 ℄			0	3				AM	26
	15		192	HW	1 3/4	15/16	3/16						AM	26
	16													
	17													
	18	B30	2	WD			5/8	422	0					
	19	FW	2	WD			5/16	69	8					
	20	FW	2	WD			1/4	107	0					
	21	SP	2	WD			1/8	1	1					

SHOP NOTE!-

BACK UP BARS BETWEEN ENDS OF STRUT ℄ SEAL DIAPHRAGMS AND BETWEEN SEAL DIAPHRAGMS AT CENTER SHALL BE SEAL WELDED WITH 1/4" FILLET WELD AS SHOWN ON CS15.





DETAIL "X" (TYP)

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

E18 ℄ E20

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES ℄ HAND HOLES

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 401 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 8 1970

INTERMEDIATE STRUT BETW. M10℄M11

NOTE: Length Corrected for Temperature

H12	M12	NO.	DESCRIPTION	MARK	REMARKS
		1	2 STRUT 3'-9x3'-2x105'-6	138A	
INST.			REQUIRED LIST		

MATERIAL — ASTM-A36
BOLTS — 7/8 ℄
OPEN HOLES — 15/16 ℄ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO : M72, Type II See Note "X", U.N.

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

REVISION: NO. | DATE | INIT.

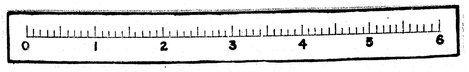
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

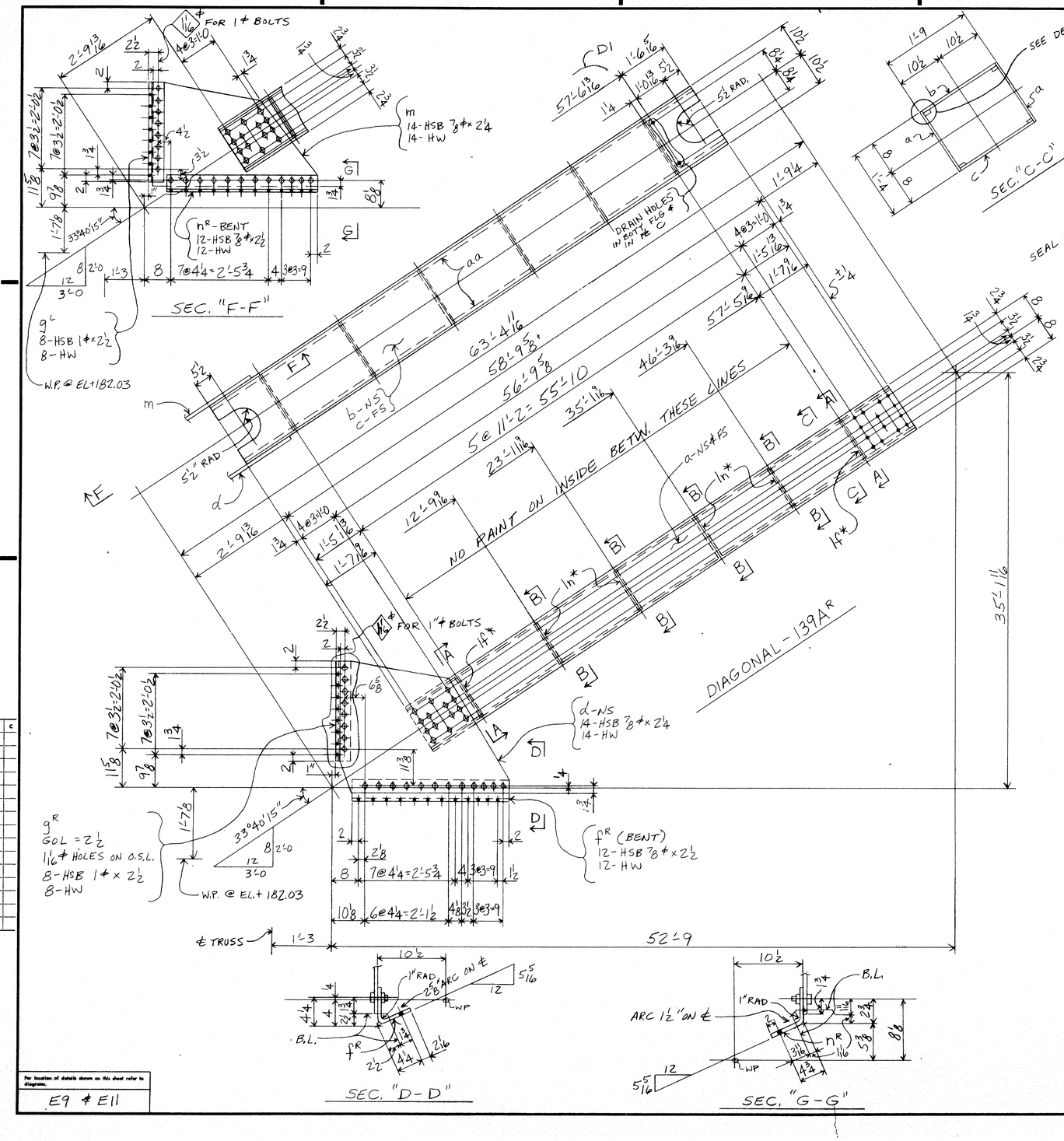
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-26-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 4-4-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 138

33433 (Rev.A 1-65)

120-74 NC TAPE





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

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

E9 & E11

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION: Size	SECTION: Size or Pounds	SECTION: Thick	LENGTH: Ft.	LENGTH: In.	REMARKS	MILL ORDER: LENGTH Ft.	LENGTH In.	ITEM: Page	ITEM: Line
	1		4 - DIAGONALS		-2-	139	AR		#2-139AL				
(M)	2	a	8	PL	16		3/8	59	1 1/8	T2W		59	3	Z60	14
(2)	3	b	4	PL	19 1/2		1/2	59	1 1/8	T2W		59	3	Z60	8
(2)	4	c	4	PL	19 1/2		1/2	59	1 1/8	T2W		59	3	Z60	8
	5	d	4	PL	39 5/8		1/2	4	4 3/4	7'-4 CUTS 2 PCS		Z0	0	Z45	19
	6	f^R	2 1/2	PL	48 1/4		5/8	0	10 1/4	BENT		Z0	0	Z45	18
	7	g^R	4 4	L	4	4	5/8	2	6 1/4			Z5	0	Z28	13
	8	h	8	M	1 1/2"ϕ	STD PIPE	COUPLING		Z 1/16 LG					AM	8
	9	k	8	M	1 1/2"ϕ	STD PIPE	PLUG							AM	8
	10	m	4	PL	31 3/4		1/2	4	3 1/4	7'-0 1/2 CUTS 2 PCS		Z0	0	Z45	19
	11	n^R	2 1/2	PL	46 3/4		5/8	0	11	BENT		Z0	0	Z45	18
	12	aa	16	BR	1		5/8	60	1	BACK UP BAR		40	0	Z48	9
	13	lf*	8	PL	15		3/8	1	8 1/4			30	0	Z44	8
	14	ln*	16	PL	15		3/8	1	8 1/4			30	0	Z44	8
	15														
	16														
	17														
	18														
	19		64	325	1 ϕ			0	Z 1/2					AM	Z6
	20		64	HW	Z	11/16	3/16							AM	Z6
	21														
	22														
	23		112	325	7/8 ϕ			0	2 1/4					AM	Z6
	24		96	325	7/8 ϕ			0	2 1/2					AM	Z6
	25		Z08	HW	1 3/4	15/16	3/16							AM	Z6
	26														
	27														
	28	FW	4	WD			5/16	25	8						
	29	B30	4	WD			1/2	236	4						
	30	FW	4	WD			1/4	25	10						
	31	SD	4	WD			1/8	1	1						
	32														
	33														
	34														
	35														
	36														
	37														
	38														
	39														
	40														
	41														
	42														

SHOP NOTE!

BACKUP BARS FROM SEAL DIAPHRAGMS TO END OF DIAGONAL SHALL BE SEAL WELDED WITH 4" FILLET WELD AS PER CS15.

		1 1	2	DIAGONAL 4'-6 1-18 x 61'-5	139AL
		1 1	2	⊥ ⊥	139AR
	H12 M12	NO.	DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST			

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUL 30 1970

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

MATERIAL — ASTM-A36
RIVETS OR BOLTS — 7/8 ϕ U.N.
OPEN HOLES — 15/16 ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT One Shop Coat Red Lead AASHO : M72, Type II See Note "X"

NO.	DATE	BY	REVISION
D1	7/24	WJB	

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

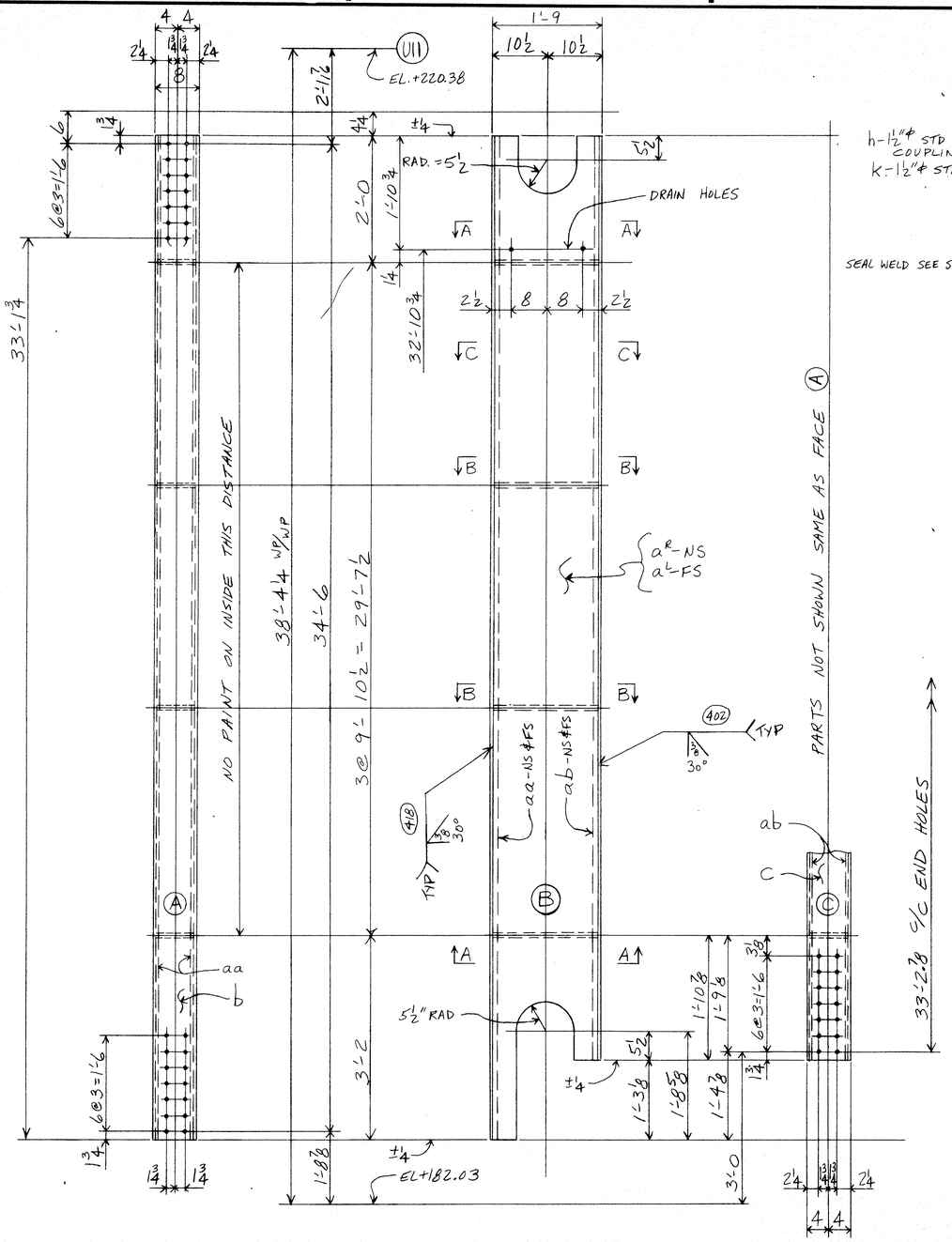
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-2-70 IN CHARGE L.G.
CHECKED BY C.D. DATE 4-16-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 139

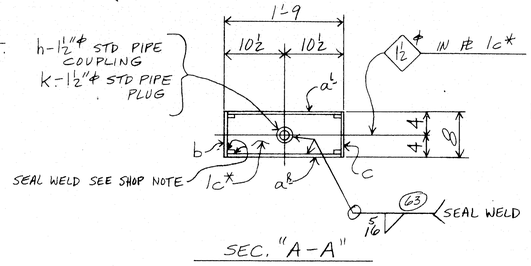
33453 (Rev. A 1-65)

120-75 NC TAPE

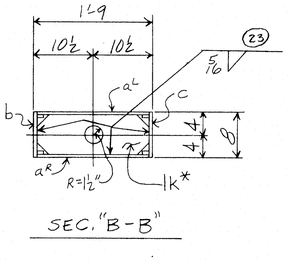


VERTICAL - 140A

For location of details shown on this sheet refer to diagrams.
E9 & E11



SEC. "A-A"



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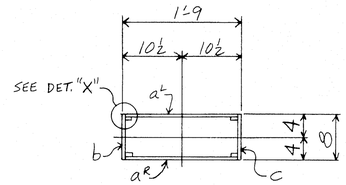
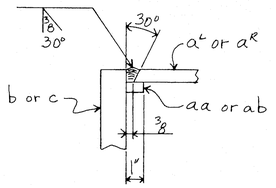


SEC. "C-C"



DETAIL "X" (TYP)

SHOP NOTE!

BACKUP BARS FROM SEAL DIAPHRAGMS TO ENDS OF VERTICAL TO BE SEAL WELDED WITH 4" FILLET WELD AS SHOWN ON CS15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS

ELECTRODES - E70XX LOW HYDROGEN

		1	1	2 VERTICAL 1'-9"x0'-8"x34'-0" 140A			
	H12	M12	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

SHOP BILL

PROJECT NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	2 VERTICALS - 140A								
(12)	aR	2	PL	19¼		⅜	34	9½	T2W
(W)	b	2	PL	8		½	34	9½	T2W
(M)	c	2	PL	8		½	33	6⅜	T2W
	1c*	4	BR	7¼		⅜	1	8	
	1k*	4	BR	7¼		⅜	1	8	
	h	4	M	1½"ϕ	STD	PIPE COUPLING			Z½6CG
	k	4	M	1½"ϕ	STD	PIPE PLUG			
	aa	4	BR	1		⅝	35	9½	BACKUP BAR
	ab	4	BR	1		⅝	34	6⅜	BACKUP BAR
	FW	2	WD			5/16	14	4	
	B30	2	WD			⅜	136	8	
	FW	2	WD			¼	36	1	
	SD	2	WD			⅛	1	1	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		35	0		260	13
		35	0		260	12
		35	0		260	12
		30	0		244	8
		30	0		244	8
					AM	8
					AM	8
		40	0		248	9
		40	0		248	9

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JEFW
MAY 8 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

SWAY FRAME VERTICAL @ LINE (11)

MATERIAL — ASTM-A36
RIVETS OR BOLTS — ⅞ ϕ
OPEN HOLES — 15/16 ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — No PAINT
WELDING — AS NOTED
PAINT One Shop Coat Red Lead AASHO : M72, Type II See Note "X"

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
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-2-70 IN CHARGE L.G.
CHECKED BY CAD DATE 4-16-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 140

35432 Rev. D 8-69

120-76 NC TAL

m - THIS SIDE OF ℄ PROJECT

n - THIS SIDE OF ℄ PROJECT

m - THIS SIDE OF ℄ PROJECT FOR A

n - THIS SIDE OF ℄ PROJECT FOR A

t - BENT HSB ⅞"ϕ x 2½ HW

P - BENT HSB ⅞"ϕ x 3 HW

BEND LINE

℄ PROJECT

HSB ⅞"ϕ x 3½ N.S. HW

f - N.S.

HOLES N.S OF STRUT

5 - N.S.

5½" RAD.

5½" RAD

a - NS

b - FS

NO PAINT ON INSIDE THIS DISTANCE

SYMM ABT ℄ PROJECT UNLESS NOTED

A	11'-8¾		21'-8¾	31'-8¾	41'-8¾	47'-11¾		
B	11'-8¾		21'-8¾	27'-8¾	37'-8¾	47'-11¾		
A	4'-0¾	7'-8	3@ 10'-0 = 30'-0		6'-3	4'-3⅛		
B	4'-0¾	7'-8	10'-0	6'-6	9'-6	10'-3	4'-3⅛	

52'-2⅛

104'-5⅝ END TO END

STRUTS - 141A & 141B

SEC. "A-A"

SEC. "B-B" & "H-H"

SEC. "C-C"

CONN. @ LEFT SIDE OF ℄ PROJECT

n - FOR SEC. "H-H" FOR A
n - FOR A & B @ SEC. "B-B"

m @ SEC. "B-B" FOR A & B
m @ SEC. "H-H" FOR A

SEE WELD - SEE SHOP NOTE

SEAL WELL

h - 1½" ϕ STD PIPE COUPLING

k - 1½" ϕ STD PIPE PLUG

SEE DET. X

CONN. AT LEFT SIDE OF ℄ PROJECT

RAD. 5"

GRIND FLUSH WHERE NEEDED

DETAIL "X"

W - BENT HSB ⅞"ϕ x 2½ HW

PART. SEC. "K-K"

PART SEC. "M-M"

DRAIN HOLE

104'-2⅛ C/C END HOLES

E9 & E11

SIGN SUPPORTS & BOTT. SWAY FRAME STRUT @ LINE (11)

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 401 PARK AVE. NEW YORK 17, N.Y. FFW MAY 28 1970

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE SHT. #141BB

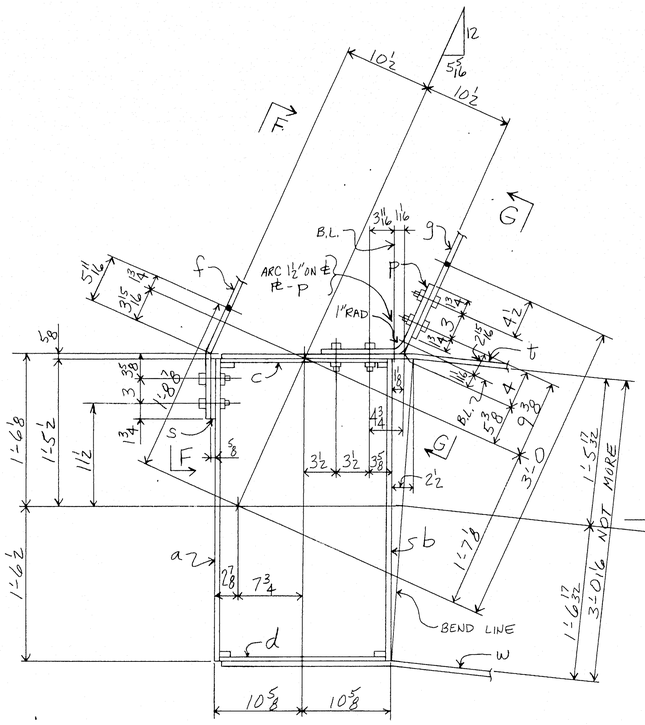
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

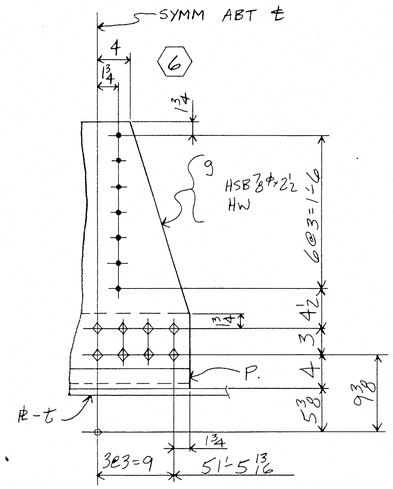
CHICAGO DRAFTING ROOM — CHICAGO WORKS
MADE BY WB DATE 3-4-70 — IN CHARGE L.G.
CHECKED BY CAD DATE 4-20-70 — SHOP NO.
CONTRACT CG6290-{071 090 — DRAWING NO. 141AB

REVISION: A 5-12 CD (NO. DATE INIT.)
SUBMITTAL DATE 1 2 3 4 5 6 7 8 9 0

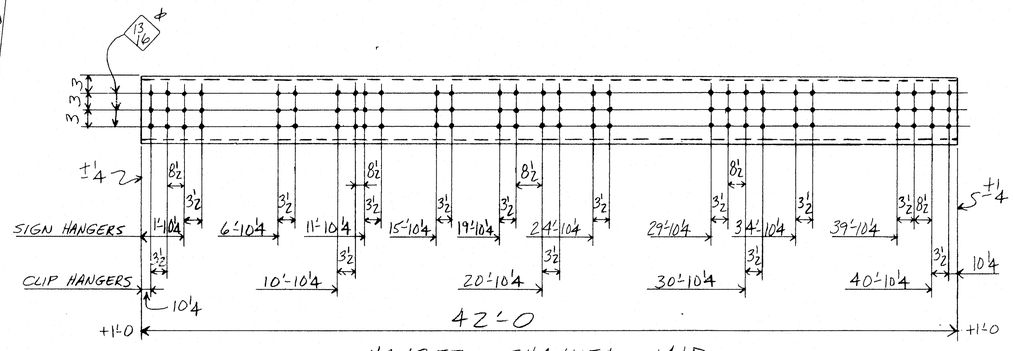
120-77 NO TAPE



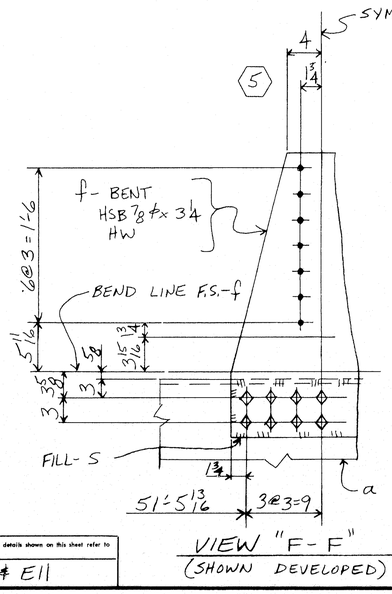
SEC. "D-D"



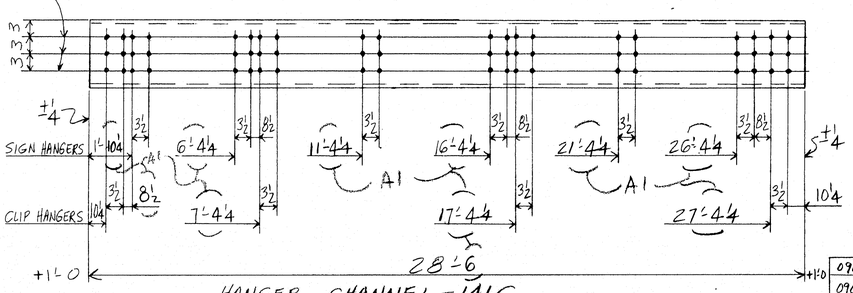
VIEW "G-G"



HANGER CHANNEL - 141D



VIEW "F-F"
(SHOWN DEVELOPED)



HANGER CHANNEL - 141C

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES, HAND HOLES, AND AT SIGN HANGER HOLES. (A1)

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

SHOP NOTE:
BACK-UP BARS FROM SEAL DIAPHRAGMS TO END OF MEMBER AND BETWEEN SEAL DIAPHRAGMS AT ℄ PROJECT ARE TO BE SEAL WELDED WITH '4" FILLET WELD AS PER SHT. CS15

PROD	TYPE	INST	MI2	M12	NO.	DESCRIPTION	MARK	REMARKS
090				1	1	HGR. CHANNEL 1'-0"x0'-3"x42'-0	141D	
090				1	1	⊥ 1'-0"x0'-3"x28'-6	141C	
071				1	1	STRUT 5'-2 x3"x10"x104°-6	141B	
071			1		1	⊥ ⊥	141A	

REQUIRED LIST

For location of details shown on this sheet refer to diagrams.
E9 & E11

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		2	–	STR	UTS	: 1-	14	1/4	℄ 1-14/B
② 2	a	2	PL	36		5/8	104	5 5/8	T2W
② 3	b	2	PL	36		5/8	104	5 5/8	T2W
Ⓜ 4	c	2	PL	19¼		½	104	5 5/8	T2W
Ⓜ 5	d	2	PL	19¼		½	104	5 5/8	T2W
6	f	2	PL	21½		5/8	2	9⅛	BENT
7	g	2	PL	21½		½	2	5	
8	h	8	M	1½ϕ	STD	PIPE	COUPLING 2½ LG		
9	k	8	M	1½ϕ	STD	PIPE	PLUG		
10	m	9	PL	9		½	0	7	4-B 5-A
11	n	9	PL	7⅛		½	0	8⅜	4-B 5-A
12	p	2	PL	21½		5/8	1	6¼	BENT
13	s	2	BR	7¾		5/8	1	9½	FILL
14	t	2	PL	73¾		5/8	3	7¾	BENT
15	w	2	PL	6 9¾		5/8	3	5¼	BENT
16	y	8	BR	4		5/8	1	0½	FILL
17	aa	8	BR	1		5/8	105	5¾	BACKUP BAR
18	lw*	16	PL	20		3/8	2	11	
19	ly*	8	PL	20		3/8	2	11	
20									
21									
22									
23									
24		16	MB	7/8ϕ				2¼	RHϕHHN (SB)
25		206	325	7/8ϕ				2½	
26		28	325	7/8ϕ				3	
27		28	325	7/8ϕ				3¼	
28									
29		262	HW	1¾	15/16	3/16			
30									
31									
32	B30	2	WD			½	418	0	
33									
34	FW	2	WD			⅛	1	1	
35	FW	1	WD			¼	139	3	A
36	FW	1	WD			¼	137	11	B
37	FW	1	WD			5/16	97	4	B
38	FW	1	WD			5/16	98	10	A
39									
40									
41									
42									
43									
44									
45				LOOSE	MATERIAL				
090 46	A1C	1	C	12	25		28	6	A1
090 47	A1D	1	C	12	25		42	0	
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									

MILL ORDER

PIECE MARK	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
2			104	9		260	15
3			104	9		260	15
4			104	9		260	9
5			104	9		260	9
6			20	9¼		252	8
7			25	0		245	19
8						AM	8
9						AM	8
10			0	7		269	9
11			0	8⅜		269	5
12			20	9¼		252	8
13			20	9¼		252	8
14			20	0		245	18
15			20	0		245	18
16			21	4¼		172	11
17			40	0		248	9
18			21	1¾		246	8
19			21	1¾		246	8
24						AM	27
25						AM	26
26						AM	26
27						AM	26
29						AM	26
46			28	6		269	1
47			40	0		269	2

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUN 10 1970

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

PROD. TYPE 071 U.N.
SIGN SUPPORTS & BOTT. SWAY FRAME STRUT @ PANEL LINE (11)

MATERIAL – ASTM-A36
RIVETS OR BOLTS – ⅞ϕ
OPEN HOLES – 15/16ϕ U.N.
A325 FIELD BOLTS –
SHOP CONTACT SURFACES – NO PAINT
WELDING – AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" ℄ U.N.

NO.	DATE	MIT.
A1	5-12	CD

REVISION

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

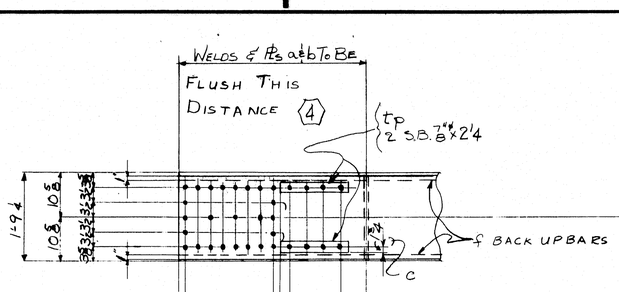
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

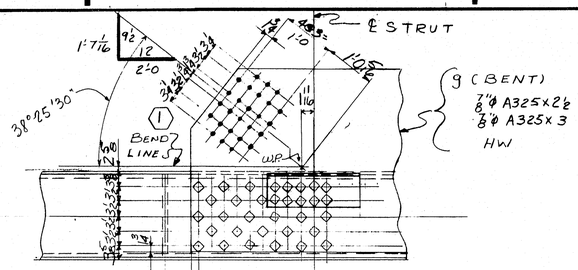
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-4-70 IN CHARGE L.G.
CHECKED BY CAD DATE 4-20-70 SHOP NO.
CONTRACT CG6290 8071 8090 DRAWING NO. 141BB

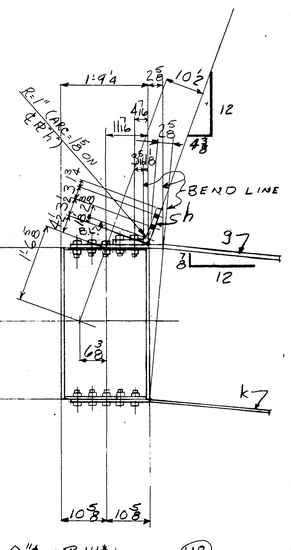
120-78 NC TAPE

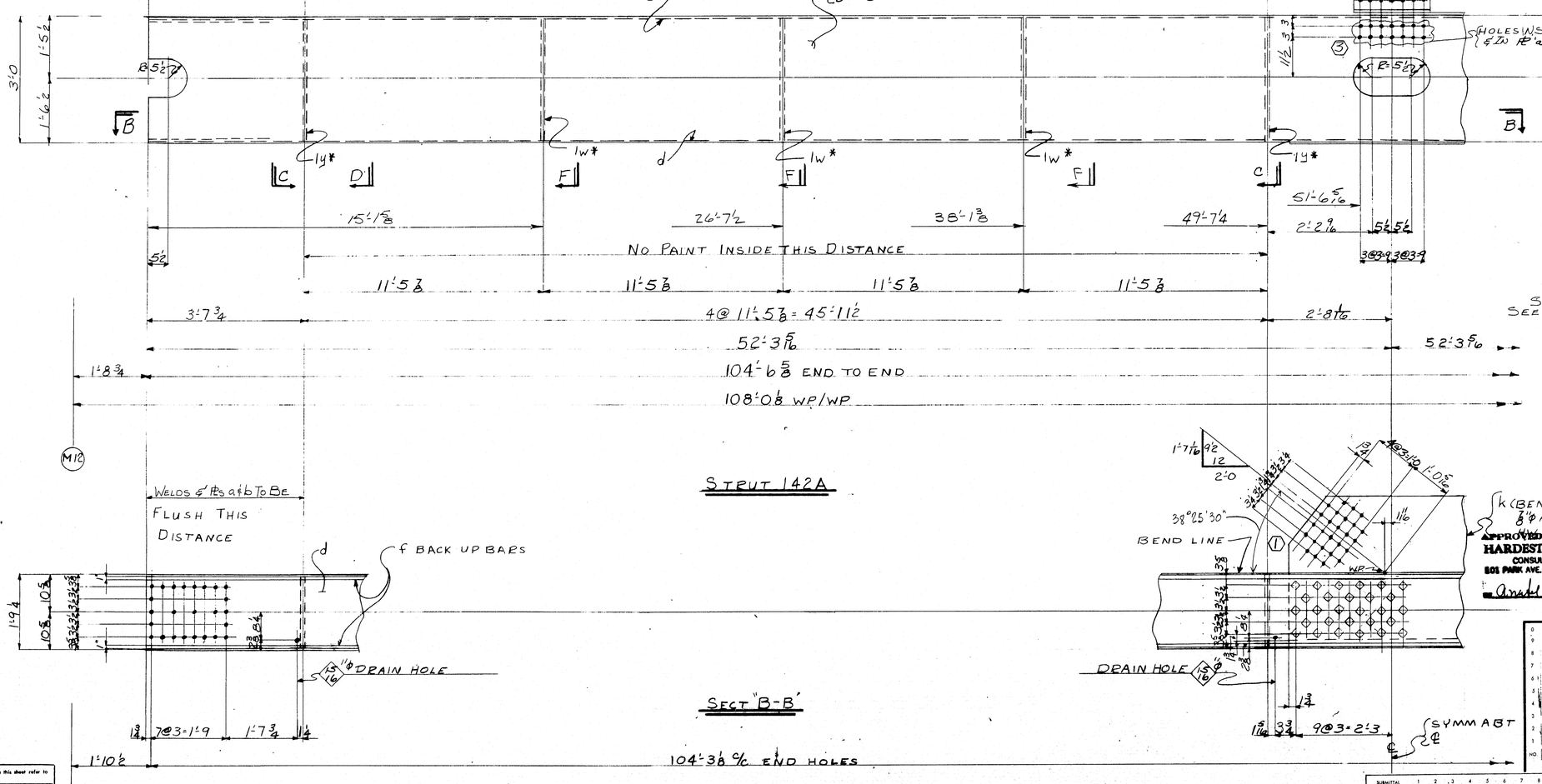
35435 (Rev. 2-5-68)

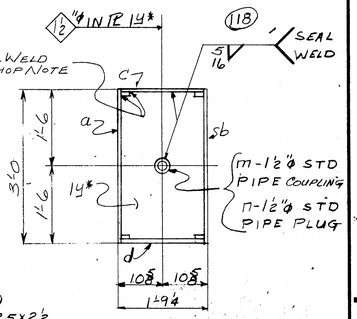


VIEW "A-A"









SECT "C-C"

SECT "B-B"

104'-3 3/8 % END HOLES

BOTT. SWAY FRAME STRUT AT LINE (12)

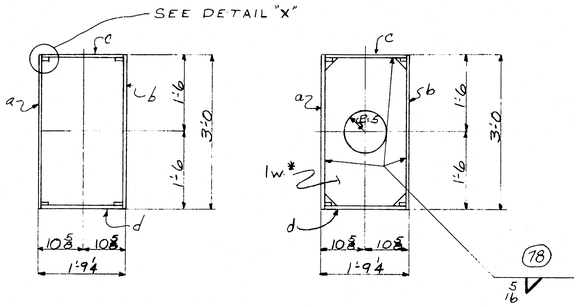
APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 401 PARK AVE. NEW YORK 17, N.Y.
Arnold Douglas MAY 13 1970

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 3-16-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 4-21-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 142AB

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

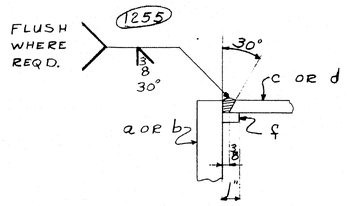
*For location of details shown on this sheet refer to diagram.
E9 & E11

12-0-79 NC TAPE



SECT "D-D"

SECT F-F



DETAIL "X"

SHOP NOTE:

BACK-UP BARS FROM SEAL DIAPH'S. TO END OF MEMBER AND BETW. SEAL DIAPH'S. AT CTR. OF STRUT SHALL BE SEAL WELDED WITH ¼" FILLET WELD AS SHOWN ON SHT.# 05 15

SHOP BILL

PIECE MARK	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	STRUTS - - 142A						
(2)	2	a	2	PL	36		5/8	104	6 5/8	T2W
(2)	3	b	2	PL	36		5/8	104	6 5/8	T2W
(M)	4	c	2	PL	19¼		1/2	104	6 5/8	T2W
(M)	5	d	2	PL	19¼		1/2	104	6 5/8	T2W
	6	f	8	BR	1		5/8	105	7	BACK UP BARS
	7	g	2	PL	5 7/2		5/8	3	7¾	(BENT)
	8	h	2	PL	2 1/2		5/8	1	5¼	(BENT)
	9	k	2	PL	5 7/2		5/8	3	5¼	(BENT)
	10	m	8	M	1½					STD PIPE COUPLING 2½ LG
	11	n	8	M	1½					STD PIPE PLUG
	12	lw*	12	PL	20		3/8	2	11	
	13	ly*	8	PL	20		3/8	2	11	
	14									
	15	t f	8	BR	3½		5/8	1	3½	FILL
	16									
	17									
	18		178	325	7/8			0	2½	
	19									
	20		28	325	7/8			0	3	
	21									
	22		206	HW	1¾		7/16	8	3/16	
	23									
	24		16	ME	7/8"			0	2¼	RHH & RHN (S.B.)
	25									
	26	FW	2	WD			5/16	78	4	
	27									
	28	B30	2	WD			1/2	4/8	4	
	29	SD	2	WD			1/8	1	2	SEAL WELD
	30	FW	2	WD			1/4	99	9	SEALWELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					240	06
					240	06
					240	07
					240	07
					242	04
					241	14
					241	08
					241	15
					AM	08
					AM	08
					242	07
					242	07
					167	8
					AM	26
					AM	26
					AM	26
					AM	31

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
MAY 13 1970

NOTE: Length Corrected for Temperature

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR HLS MARKED DRAIN & 22x11 SLOT HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX LOW HYDROGEN

BOTT. SWAY FRAME STRUT AT LINE (12)

MATERIAL	BARS tP - ASTM 517 BALANCE - ASTM A36
RIVETS OR BOLTS	7/8ø A325
OPEN HOLES	15/16ø UN
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	N.P.
WELDING	AS NOTED
PAINT	One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & U.N.

REVISION: NO. | DATE | INIT.

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 3-17-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 4-21-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 142 BB

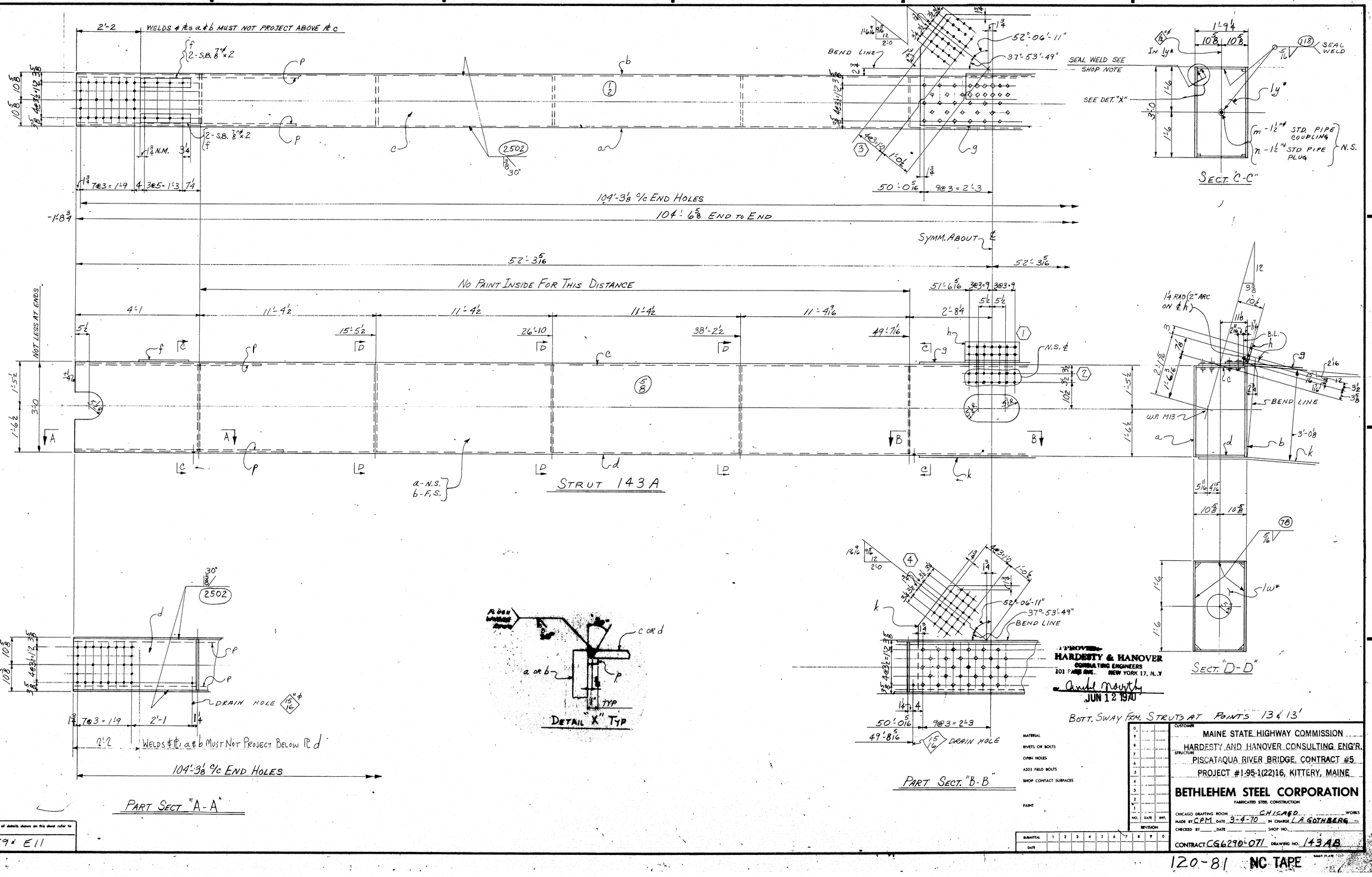
33433 (Rev.D 8-69)

1	1	2	STRUT	142A	3'-9"x3'-10"x104'-7
MK	MK	NO.	DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST			

For location of details shown on this sheet refer to diagrams.
E9 & E11

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

120-80 NC TAPE



MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 F. BOLTS
SHOP CONTACT SURFACES
PAINT

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 12 1970

For location of details shown on this sheet refer to diagrams.
E9 & E11

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 3-4-70 IN CHARGE L.A. GOTHBERG
CHECKED BY DATE SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 143AB

120-81 NC TAPE

SHOP BILL

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	STRUTS 143A						
(2)	2	a	2	PL	36		5/8	104	6 5/8	TIW
(2)	3	b	2	PL	36		5/8	104	6 5/8	TIW
(M)	4	c	2	PL	19 1/4		1/2	104	6 5/8	TIW
(M)	5	d	2	PL	19 1/4		1/2	104	6 5/8	TIW
	6	f	8	BR	3 1/2		5/8	1	8	
	7	g	2	PL	5 7/8		5/8	3	8	BENT
	8	h	2	PL	21 1/2		5/8	1	4 3/4	BENT
	9	k	2	PL	57 1/2		5/8	3	5 1/4	BENT
	10	m	8	M	1 1/2"	STD. PIPE		COUPLING x 2 1/16 Lg		
	11	n	8	M	1 1/2"	STD. PIPE		PLUG		
	12	w*	12	PL	20		3/8	2	11	
	13	y*	8	PL	20		3/8	2	11	
	14	p	8	BR	1		5/8	105	6 1/2	BACKUP BAR
	15									
	16									
	17									
	18	FW	2	WD			5/16	78	4	
	19	B30	2	WD			1/2	417	0	
	20	SD	2	WD			1/8	1	1	SEAL WELD
	21	FW	2	WD			1/4	74	8	SEAL WELD
	22									
	23		16	MB	7/8			0	2	RHH # RHN (G.B.)
	24		178	325	7/8			0	2 1/2	
	25		28	325	7/8			0	3	
	26		206	HW	1 3/4	15/16	3/16			
	27									
	28									
	29									
	30									
	31									
	32									
	33									
	34									
	35									
	36									
	37									
	38									
	39									
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	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		104	9		256	06
		104	9		256	06
		104	9		256	07
		104	9		256	07
					212	8
58		3	9		257	14
22		3	0		257	09
58		3	6		257	15
					AM	8
					AM	8
62		2	11		256	14
12		2	11		256	14
		105	9		256	11
					AM	27
					AM	21
					AM	21
					AM	21

		1	1	2	SWAY FRAME STRUT	143A	3'-10 47/64" x 104'-7
		H15	M15	NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 12 1970
Arnold Dorfzaun

BOTT. SWAY FRAME STRUTS AT POINT 13 & 13'

SHOP NOTE!
BACK-UP BARS BETWEEN SEAL DIAPH'S & END OF STRUT AND BETW. SEAL DIAPH'S AT CENTER SHALL BE SEAL WELDED AS SHOWN ON CS15.

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT PERFORATIONS

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL ASTM-A 36
RIVETS OR BOLTS 7/8"ϕ
OPEN HOLES 15/16" U.N.
A325 FIELD BOLTS 7/8"ϕ
SHOP CONTACT SURFACES N.P.
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & U.N.

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

NO.	DATE	INIT.

REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

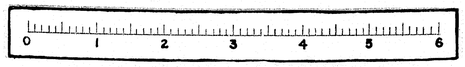
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 3-6-70 IN CHARGE L.A. SOTHBERG
CHECKED BY DATE SHOP NO.
CONTRACT CG 6290-071 DRAWING NO. 143 BB

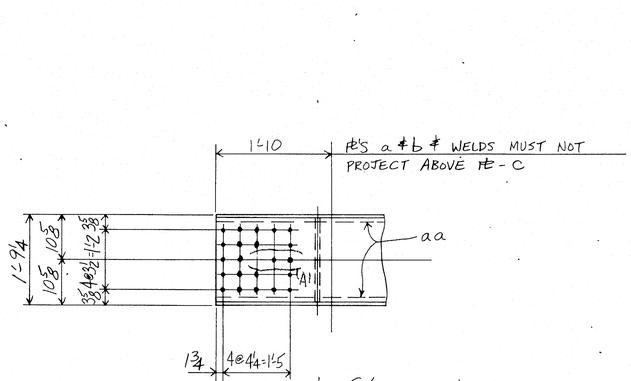
	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
n			
p			
s			
t			
w			
y			

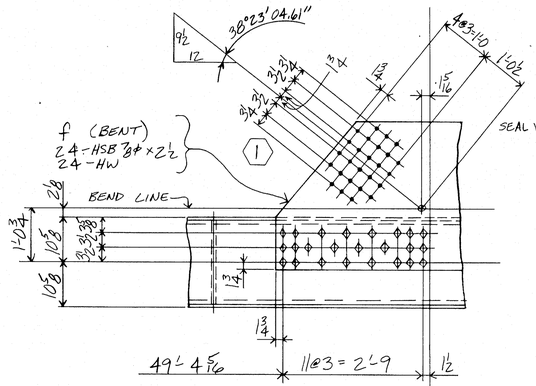
For location of details shown on this sheet refer to diagrams.
E9 & E11

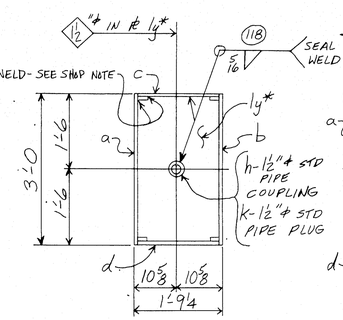
120-82 NC TAPE



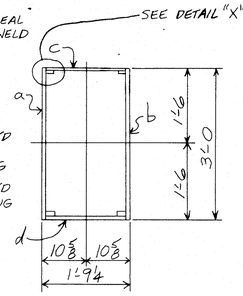
STRUT - 144A





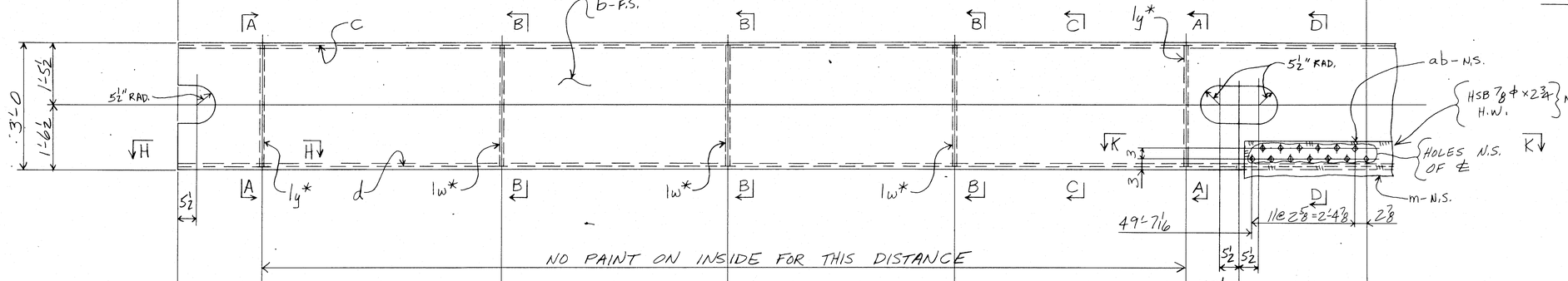


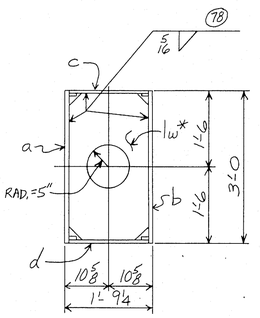
SEC. "A-A"



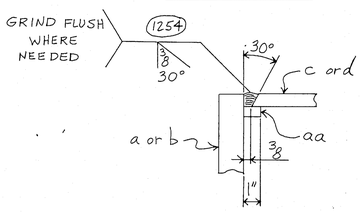
SEC. "C-C"

PART SEC. "H-H"

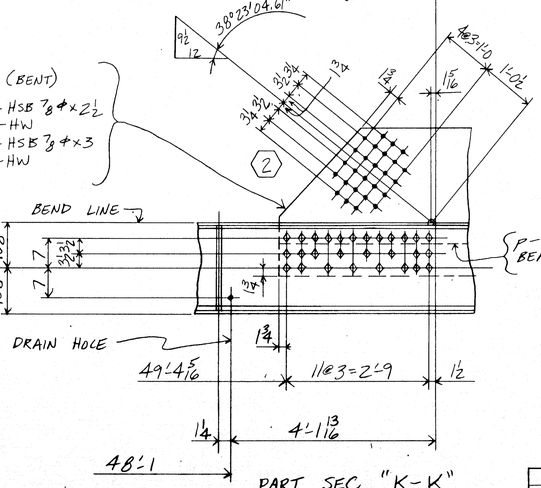




SEC. "B-B"



DETAIL "X"



PART SEC "K-K"

MATERIAL	
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

SEE SHT #144BB

TOP SWAY FRAME STRUT @ LINE (11)

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

E9 ℄ E11

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
401 PARK AVE. NEW YORK 17, N.Y.
Arnold Roth JUN 3 1970

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

NO.	DATE	INIT.
41	5-15	GD

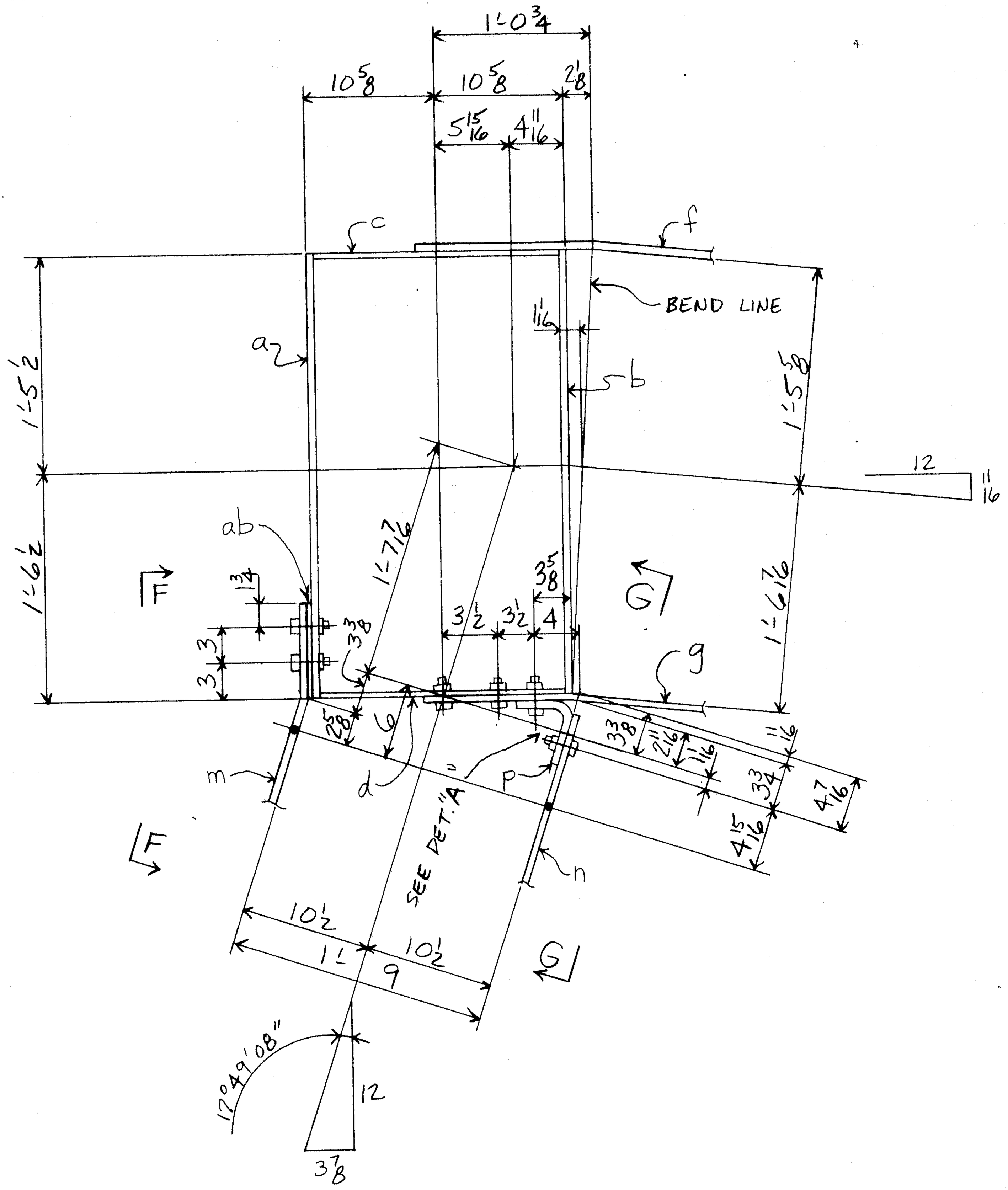
REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

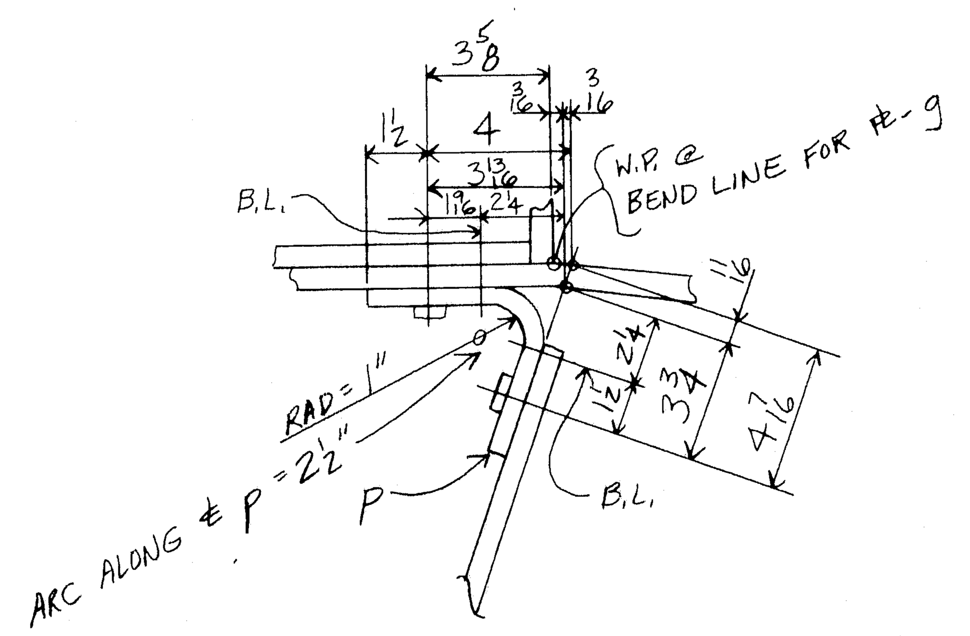
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-6-70 IN CHARGE L.G.
CHECKED BY CAD DATE 4-21-70 SHOP NO.
CONTRACT G66290-071 DRAWING NO. 144AB

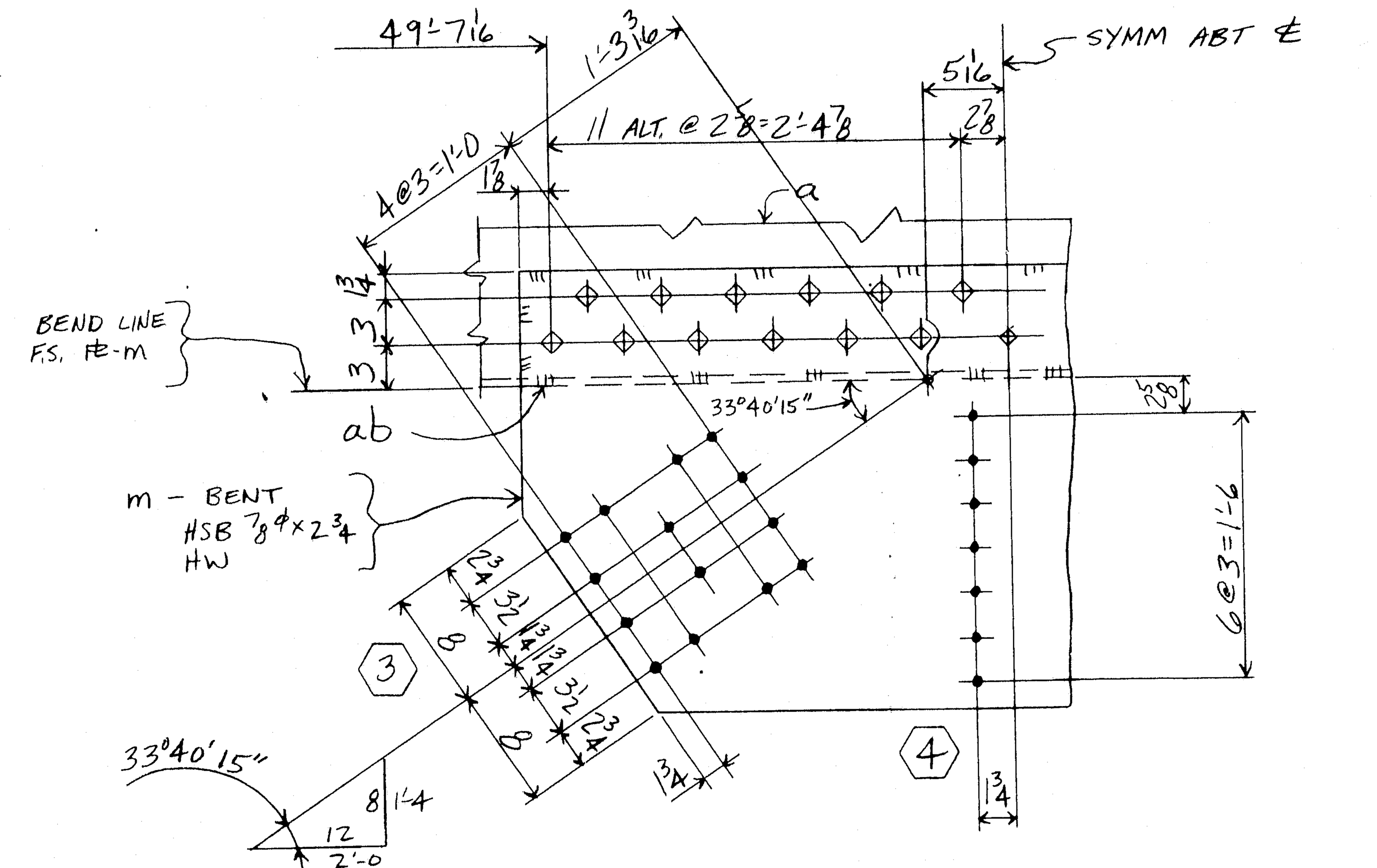
120-83 NC TAPE



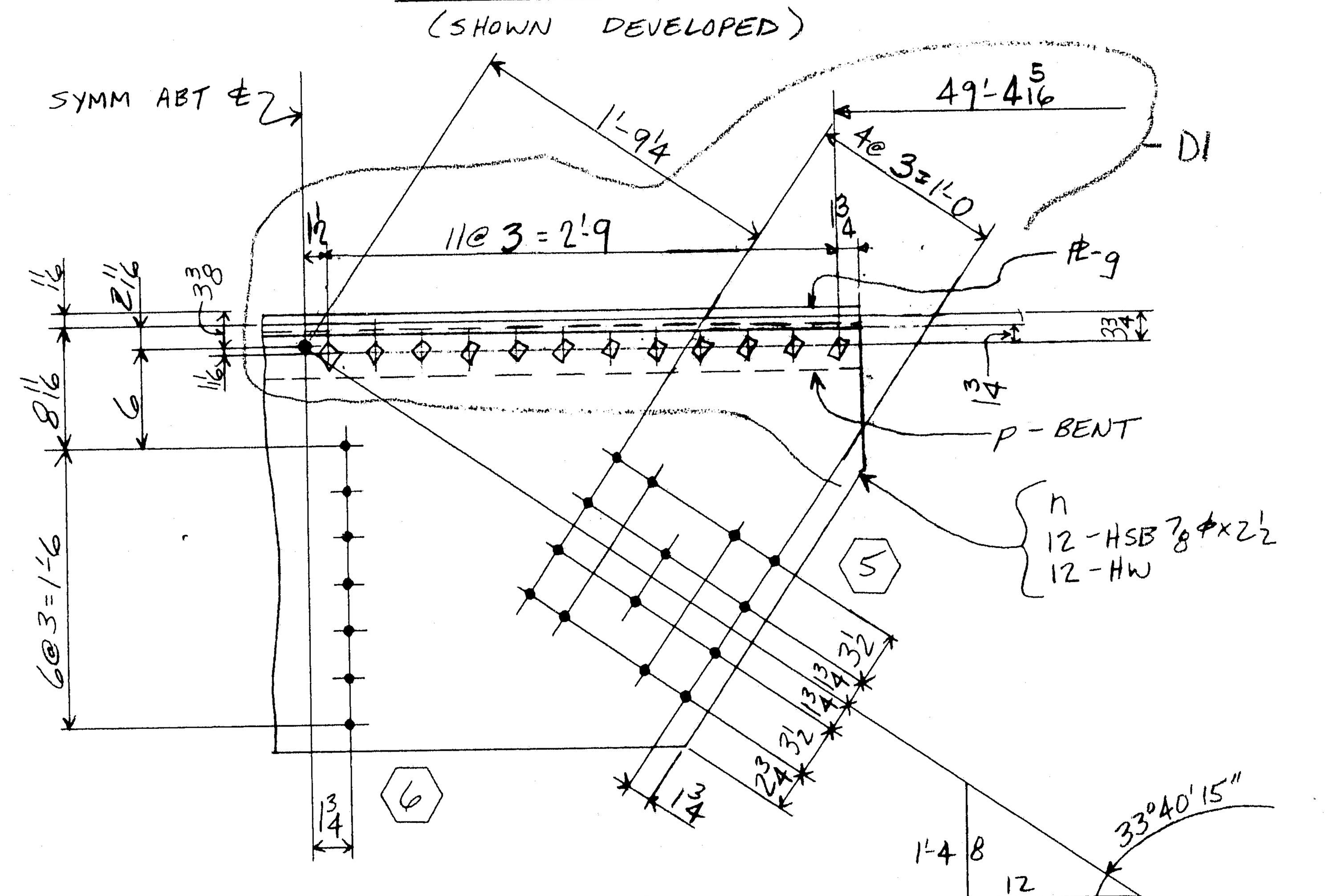
SEC. "D-D"



DETAIL "A"



VIEW "F-F"
(SHOWN DEVELOPED)



VIEW "G-G"

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		2 - STRUTS : - 144A														
②	2	a	2	PL	36		5/8	104	5⅝	T2W							
②	3	b	2	PL	36		5/8	104	5⅝	T2W							
Ⓜ	4	c	2	PL	19¼		½	104	5⅝	T2W							
Ⓜ	5	d	2	PL	19¼		½	104	5⅝	T2W							
	6	f	2	PL	72½		5/8	3	0½	BENT			20	0		245	18
	7	g	2	PL	72½		5/8	2	10¼	BENT			20	0		245	18
	8	h	8	M	1½φ	STD	PIPE COUPLING 2 1/16 LG									AM	8
	9	k	8	M	1½φ	STD	PIPE PLUG									AM	8
	10	m	2	PL	67¼		½	2	6¼	BENT			25	0		245	19
	11	n	2	PL	26½		½	6	(10½)-D1				25	0		245	19
	12	p	2	PL	(72½)-D1		5/8	0	8⅝	BENT			20	0		245	18
	13	aa	8	BR	1		5/8	105	5¾	BACKUP BAR			40	0		248	9
	14	ab	2	BR	7¾		3/8	5	7¼	FILL			30	0		244	8
	15	1w*	12	PL	20		3/8	2	11				29	9½		229	19
	16	1y*	8	PL	20		3/8	2	11				29	9½		229	19
	17																
	18																
	19																
	20																
	21		208	325	⅞φ			0	2½							AM	26
	22		50	325	⅞φ			0	2¾							AM	26
	23		48	325	⅞φ			0	3							AM	26
	24																
	25		306	HW	1¾	15/16	3/16									AM	26
	26																
	27																
	28	B30	2	WD			½	418	0								
	29	FW	2	WD			5/16	78	4								
	30	SD	2	WD			1/8	1	1	SEAL WELD							
	31	FW	2	WD			¼	99	3	SEAL WELD							
	32																
	33																
	34																
	35																
	36																
	37																
	38																
	39																
	40																
	41																
	42																
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p			
s			
t			
w			
y			

SHOP NOTE !
BACK-UP BARS BETWEEN SEAL DIAPHRAGMS & END OF STRUT AND BETWEEN SEAL DIAPHRAGMS AT ℄ SHALL BE SEAL WELDED WITH ¼" FILLET WELDS AS SHOWN ON CS15.

ELECTRODES - E70XX LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3 from the group of holes. EXCEPT FOR DRAIN HOLES & HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

				NO.	DESCRIPTION	MARK	REMARKS
		1	1	2	STRUT 5'-6x3'-8x104'-6	144A	
		H12	M12	NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

For location of details shown on this sheet refer to diagrams.
E9 & E11

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
[signature] NOV 24 1970

NOTE: Length Corrected for Temperature

SWAY FRAME TOP STRUT @ PANEL POINT (11)

MATERIAL - ASTM-A36
RIVETS OR BOLTS - ⅞φ
OPEN HOLES - 15/16φ U.N.
A325 FIELD BOLTS -
SHOP CONTACT SURFACES - NO PAINT
WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO: M72, Type II See Note "X"

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
D1	11-16	31 CAD

REVISION

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-6-70 IN CHARGE L.G.
CHECKED BY CAD DATE 4-21-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 144BB

35453 (Rev.D 8-69)

120-84 NC TAPE

NO PAINT INSIDE MEMBER BETWEEN SEAL DIAPHRAGMS

5@9'-10 - 49'-2

VIEW "C-C"

SECTION "A-A"

SECTION "D-D"

SECTION "G-G"

SECTION "F-F"

VIEW "H-H"

VIEW "K-K"

DIAGONAL 145A^R

DRAIN HOLES

52'-5 1/4

52'-4 1/2 c/c END HOLES

52'-5 1/4

51'-3 1/2

51'-9 1/4

52'-7 1/2 c/c END HOLES

52'-11

SEE SHT CS15 FOR SEAL WELD

SHOP NOTE: FOR SEAL WELDING SEE SHT # CS15

NOTE: Length Corrected for Temperature

DIAGONAS - SWAY FRAME @ POINT 8

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 6'-4" HLSS SLOTS @ ENDS

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL ASTM-A36
BOLTS 7/8" UN
OPEN HOLES 15/16" UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

INST.	REQUIRED LIST				
M	B	NO.	DESCRIPTION	MARK	REMARKS
		1	DIAGONAL	14'5A^R	32'-3 1/2 - 55'-0
		1	"	14'5A^L	32'-3 1/2 - 55'-0

SHOP BILL

PRODUCT TYPE	PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	DIAGONALS - 2-14SA^R & 2-14SA^L						
M	2	a	4	PL	1/6		7/16	52	5 1/4	T2W
M	3	b	4	PL	1/6		7/16	52	11	T2W
L	4	c^R	2 1/2	PL	19 1/4		3/8	52	5 1/4	T2W
L	5	d^R	2 1/2	PL	19 1/4		3/8	52	5 1/4	T2W
	6	j	4	BR	1		5/8	52	11 3/4	BACK UP BARS
	7	g	4	BR	1		5/8	52	11 1/4	BACK UP BARS
	8	h	8	BR	1		5/8	53	5 1/8	BACK UP BARS
	9	lm*	16	PL	15 1/4		3/8	1	8	
	10	ld*	8	PL	15 1/4		3/8	1	8	
	11	n	8	M	1 1/2	STD PIPE COUPLING (FULL)				AM 8
	12	p	8	M	1 1/2	STD PIPE PLUG (SQ HD)				AM 8
	13	t^R	4	L	4	4 5/8	3	4 1/4		228 13
	14	k	8	PL	23 3/4	1/2	3	4 1/4		134 09
	15	m^L	4	L	4	4 5/8	1	7 3/4		228 13
	16									
	17		96	325	7/8*			0	2 1/2	AM 30
	18		104	325	7/8*			0	2 1/4	AM 30
	19		40	325	1*			0	2 1/2	AM 30
	20		200	HW	3/4*	15/16	3/16			AM 30
	21		40	HW	7/8*	1 1/16	3/16			AM 30
	22									
	23	B30	WD	4			3/8	209	8	
	24	FW	WD	4			5/16	27	10	
	25	FW	WD	4			1/4	27	0	SEALWELD PER
	26	SD	WD	4			1/8	1	1	SEALWELD CS15
	27									
	28									
	29									
	30									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					225	15
					225	15
					225	18
					225	18
					236	15
					236	15
					236	15
					226	16
					226	16
					AM 8	
					AM 8	
					228	13
					134	09
					228	13
					AM 30	
					AM 30	
					AM 30	
					AM 30	
					AM 30	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW MAY 22 1970

CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 3-6-70 IN CHARGE L. GOTHBERG
CHECKED BY PS DATE 5-11-70 SHOP NO.
CONTRACT 66290-070 DRAWING NO. 145

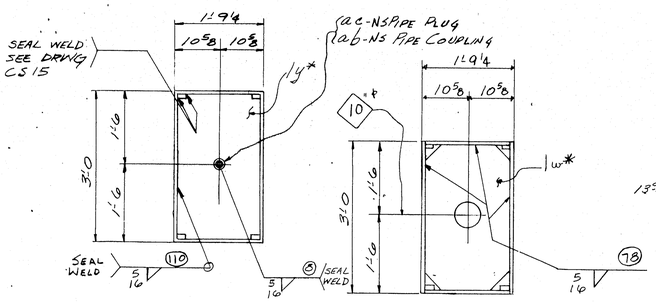
NO.	DATE	INIT.

REVISION

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

E9&E11

120-85 NC TAPE

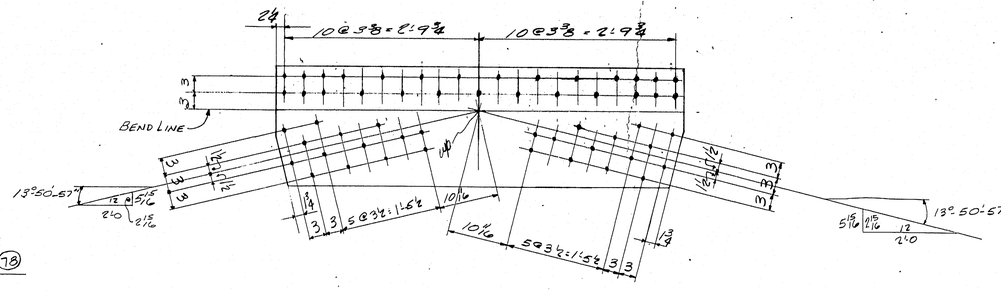


SECTION "F-F"

TYP

SECTION "G-G"

TYP



DETAIL #m

SHOWN DEVELOPED

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK ITEM PAGE	STOCK ITEM LINE
		2	STRUTS - 146A												
②	a	2	PL	36		5/8	104	5⅝	T2W					223	1
③	b	2	PL	36		5/8	104	5⅝	T2W					223	1
Ⓜ	c	2	PL	9¼		1/2	104	5⅝	T2W					223	2
Ⓜ	d	2	PL	9¼		1/2	104	5⅝	T2W					223	2
	f	8	BR	1		5/8	105	5⅝	BACK UP BARS					229	1
	w*	8	PL	20		3/8	2	11						229	10
	y*	10	PL	20		3/8	2	11						229	10
	g	2	PL	6½		5/8	3	10	BENT					227	13
	h	2	PL	6½		5/8	4	0½	BENT					227	12
	k	4	PL	6	4	1/2	1	11¾	BENT						
	m	4	PL	7	2	1/2	1	9½	BENT						
	n	4	BR	8		1/4	6	0	FILL						
	p	4	BR	8		1/4	5	4	FILL						
	ab	16	M	1½	ST'D PIPE COUPLING FULL									AM8	
	ac	16	M	1½	ST'D PIPE PLUG (SQ HD)									AM8	
	t	4	BR	5⅜		3/8	1	9½	BEV. FILL (½ x 3/8)						
	af	2	PL	21½		1/2	2	9¾							
	FW	2	WD			5/16	104	8							
	FW	2	WD			1/4	101	4	SEAL WELD						
	SD	2	WD			1/8	1	1	SEAL WELD						
	B30	2	WD			1/2	417	10							
	ad	2	BR	7½		3/16	1	9½	FILL						
		8	MB	7/8*			0	13¾	RHH & RHN (SB)					AM27	
	ag	2	L	8 8		5/8	1	9½	BENT						
		216	325	7/8*			0	2¾						AM26	
		252	325	7/8*			0	2½						AM26	
		496	HW	1¾	15/16	3/16								AM26	
	ah	2	PL	21½		1/2	2	6							
		28	325	7/8			0	3							

104'-5⅝ END TO END

25'-2 13/16

27'-0

℄ TRUSS

1'-9¼

SYMM ABT ℄

10@3=2'-6

10@3=2'-6

2'-5

2'-5

2'-5

2'-5

3@3'-9

5½

5½ 5½ TYP

1'-5½

3'-0

1'-6½

℄ STRUT

BEND LINE

P.FS FILL

k-NS SEE ENLARGED DET. 27-HSB ⅞ x 2¾ 27-HN

3'-6

3'-6

7'-0

10'-0

10'-0

3'-6

4 @ 3'-6 = 14'-0

5'-6

(ag) SHOWN DEVELOPED

SHOWN DEVELOPED 14-HSB ⅞ x 2' 14-HN

2'-1 13/16

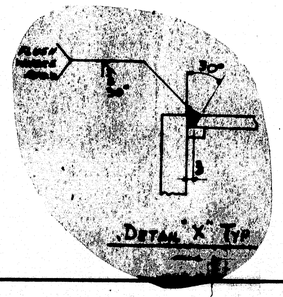
9'-9

9'-9

SECTION "H H"

SECTION "K-K"

STRUT - 146A



	1	1	2	STRUT	146A	4'-0 x 4'-2 x 104⅝
	48 WB		NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

SHOP NOTE:
FOR SEAL WELD SEE SHEET CS15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT SLOTS & DRAIN HOLES

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FPW
MAY 1 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL ASTM-A36
BOLTS ⅞
OPEN HOLES 15/16 UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

TOP CHORD STRUT @ SWAY FRAME POINT 8

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 3-17-70 IN CHARGE L. GOTHBERG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT 66240-071 DRAWING NO. 146AB

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.
E9 & E11

120-86 NC TAPE

3485 (Rev 2-69)

104'-5 5/8 END TO END
52'-2 9/16 END TO ℄
104'-2 1/8 C/C END HOLES

℄ TRUSS

1'-9 1/4

4@4 1/2 = 1'-6

t-NS-FILL
2-SB-7/8" x 1 3/4

WELDS FLUSH THIS DISTANCE 1'-11

(46) TYP @ ENDS T ℄ B SEE DET "X"

(415) TYP T ℄ B SEE DET "X"

VIEW "C-C"

22'-5 1/16

10@3 3/8 = 2'-9 3/4 | 10@3 3/8 = 2'-9 3/4

2'-5 | 2'-5

5 1/2 | 5 1/2 TYP

m-FS FILL

m-FS SEE ENLARGED DET 27-HSB 7/8" x 2 1/4 27-HW

(1)

SECTION "A-A"
104'-2 1/8 C/C END HOLES

25'-2 13/16

27'-0

21'-10 1/16

6'-9 1/2 DRAIN HOLES

5 DRAIN HOLE

4@4 1/2 = 1'-6

2'-1 9/16

SECTION "D-D"

10@3 = 2'-6 | 10@3 = 2'-6

WELDS FLUSH THIS DISTANCE 1'-11

BEND LINE

13°50'57"

12 | 2 13/16 | 5 15/16

2'-0

8@3 = 2'-0 | 8@3 = 2'-0

DETAIL "L"
SHOWN DEVELOPED

49'-7 7/16 | 8@3 1/2 = 2'-4 | 3 1/2

℄ SYMM ABT ℄

BEND LINE

9-NS-BENT SHOWN DEVELOPED
51-HSB 7/8 x 2 1/2
57-HW

38°41'00"

12 | 9 3/8 | 1'-7 3/16

2'-0

(7)

4@3 1/2 = 1'-0

1'-7 3/4

2'-5 | 2'-5

3@3 = 9 | 3@3 = 9

FILL (ad)

BEND LINE

(af) SHOWN DEVELOPED
14-HSB-7/8" x 22'
14-HW

(5)

4@3 = 1'-0

4 @ 27'-0

48'-10 1/16

5 DRAIN HOLE

49'-9 9/16

3@3 1/2 = 10 1/2 | 3@3 1/2 = 9 3/4 | 3@3 1/2 = 9

BEND LINE

(3)

4-FS-BENT SHOWN DEVELOPED
41-HSB 7/8 x 2 1/2
14-HSB 7/8 x 3
55-HW

38°41'00"

12 | 9 3/8 | 1'-7 3/16

2'-0

4@3 1/2 = 1'-0

1'-7 3/4

TOP CHORD STRUT @ SWAY FRAME POINT 8

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 22 1970

NO.	DATE	INT.
1	5-11	PS

REVISION

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

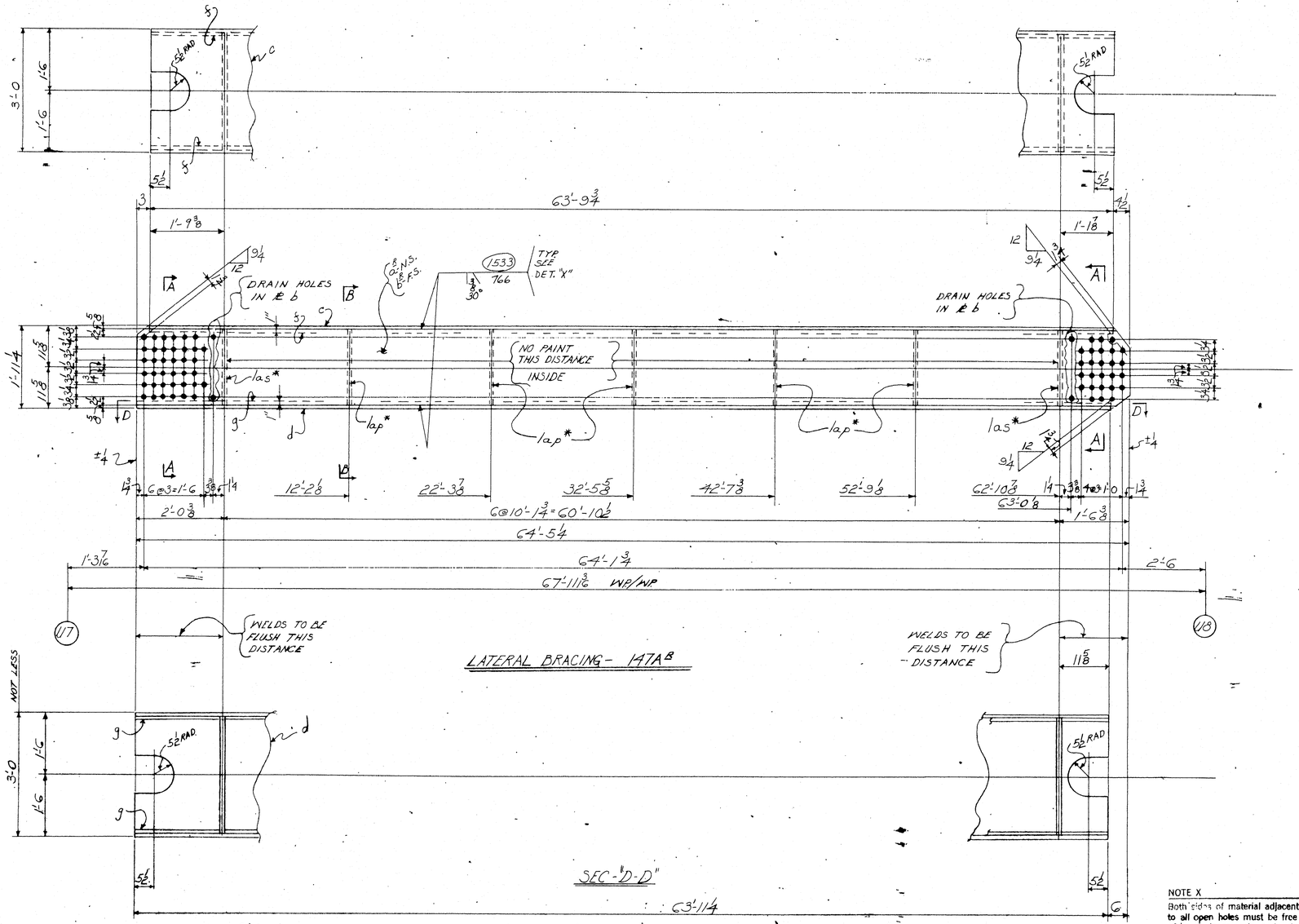
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 3-10-70 IN CHARGE L. GOTHBERG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT 66G890-071 DRAWING NO. 146 BB

34663 (1-63)

For location of details shown on this sheet refer to diagram
E9 ℄ E11

120-87 NC TAPE

0 1 2 3 4 5 6



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

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

E13 # E15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36

RIVETS OR BOLTS —

OPEN HOLES - 15 ℄ / 12

A325 FIELD BOLTS —

SHOP CONTACT SURFACES - N.P.

WELDING - AS NOTED

PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

MB	HB	NO.	DESCRIPTION	MARK	REMARKS
1	1	2	LAT. BRACING CONSIST'G	147A^C	
1	1	2	LAT. BRACING	147A^B	

INST — REQUIRED LIST

SHOP BILL

PROJECT PROTECT	LINE NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	LATERAL BRACES - 2-147A^B & 2-147A^C						
M	2	a℄	22	PL	21/4		1/2	64	5 1/4	T2W
M	3	b℄	22	PL	21/4		1/2	64	5 1/4	T2W
(2)	4	c	4	PL	36		5/8	63	9 3/4	
	5	d	4	PL	36		5/8	63	11/4	
	6	f	8	BR	1		5/8	64	9 3/4	BACKUP BAR
	7	g	8	BR	1		5/8	64	11/4	BACKUP BAR
	8	h	8	M	1 1/2" ℄	STD	PIPE	COUPLING 2 1/2 LG.		AM 8
	9	k	8	M	1 1/2" ℄	STD	PIPE	PLUG		AM 8
	10	lap*	20	PL	22		3/8	2	11	
	11	las*	8	PL	22		3/8	2	11	
	12									
	13									
	14									
	15									
	16	FW	4	WD			5/16	61	8	
	17	FW	4	WD			1/4	23	7	SEAL WELD
	18	B30	4	WD			1/2	255	6	
	19	SD	4	WD			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					234	02
					234	02
					234	01
					234	01
					236	01
					236	01
					AM 8	
					AM 8	
					236	07
					236	07

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY IFW MAY 1 1970

LATERAL BRACING U7 TO U8

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

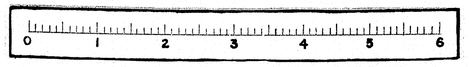
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

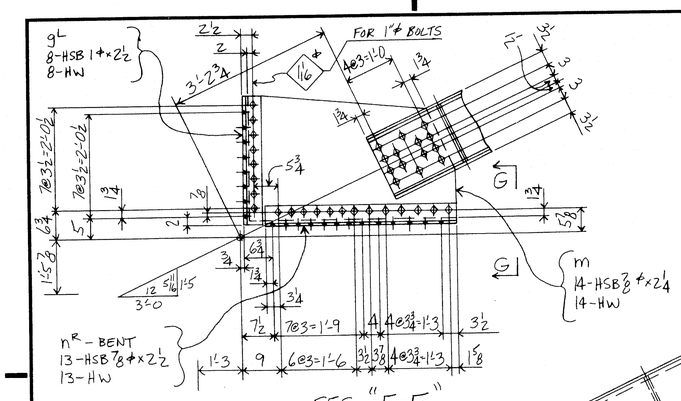
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

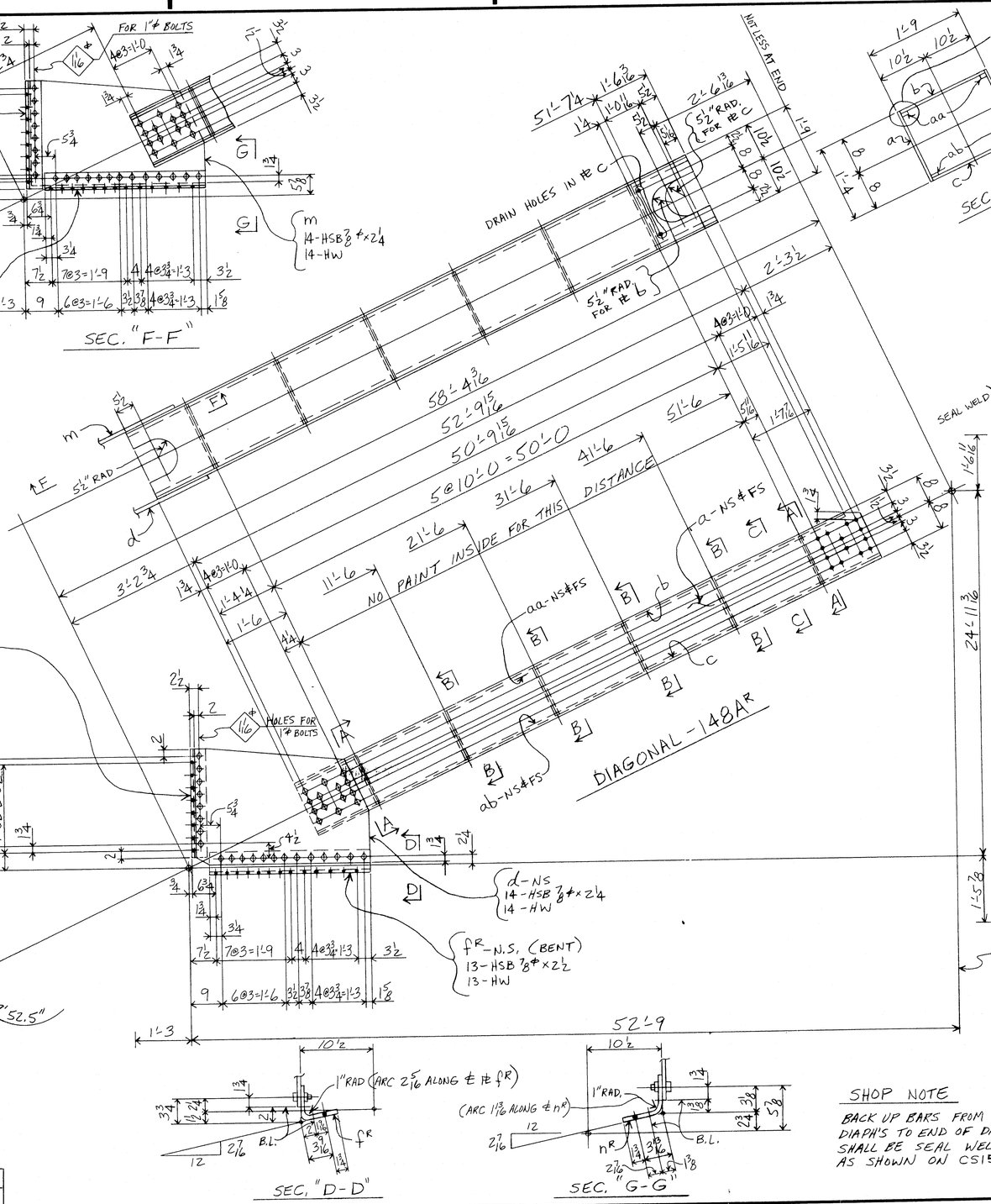
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

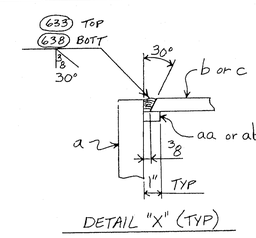
CHICAGO DRAWING ROOM CHSO WORKS
MADE BY MP DATE 3-16-70 IN CHARGE L.A.G.
CHECKED BY KP DATE 4-13-70 SHOP NO.
CONTRACT 66290-072 DRAWING NO. 147

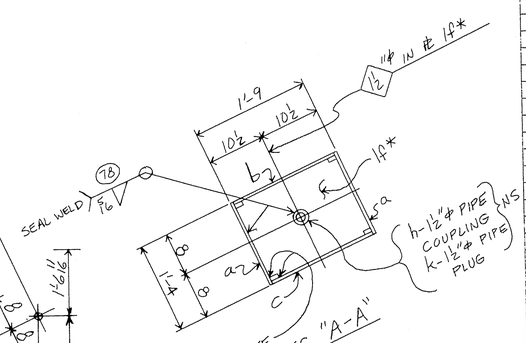
120-88 NC TAPE

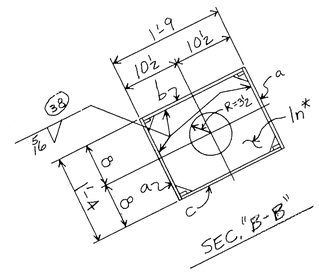












SHOP NOTE

BACK UP BARS FROM SEAL DIAPH'S TO END OF DIAGONAL SHALL BE SEAL WELDED AS SHOWN ON CS15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

PROD TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION Size	Size or Pounds	Thick	LENGTH Ft.	In.	REMARKS	MILL ORDER LENGTH Ft.	In.	ITEM Page	Line
	1		4	– DIAGONALS: 2-	148AR # 2-	148AL								
②	2	a	8	PL	16		3/8	53	11/16	T2W	53	3	237	1
Ⓜ	3	b	4	PL	19½		½	52	3⅜	T2W	53	3	237	2
Ⓜ	4	c	4	PL	19½		½	53	1/16	T2W	53	3	237	2
	5	d	4	PL	32¾		½	4	13/4		4	13/4	238	1
	6	fR	2	PL	45¼		5/8	0	9	BENT	0	9	238	4
	7	gR	4	L	4	4	5/8	2	6¼		2	6¼	238	3
	8	h	8	M	1½"#	STD PIPE COUPLING				2 1/16 LG			AM	8
	9	k	8	M	1½"#	STD PIPE PLUG							AM	8
	10	m	4	PL	29⅛	D1	½	4	13/4	7-11½ CUTS 2 #S	4	13/4	238	2
	11	nR	2	BR	45¼		5/8	0	9½	BENT	0	9½	238	5
	12	aa	8	BR	1		5/8	53	8½	BACKUP BAR	54	3	239	1
	13	ab	8	BR	1		5/8	54	1½	BACKUP BAR	54	3	239	1
	14	lf*	8	PL	15		3/8	1	8¼		1	9	239	4
	15	ln*	16	PL	15		3/8	1	8¼		1	9	239	4
	16													
	17													
	18													
	19		64	325	1#			0	2½				AM	30
	20		64	HW	2	1 1/16	3/16						AM	30
	21													
	22		104	325	⅞#			0	2½				AM	30
	23		112	325	⅞#			0	2¼				AM	30
	24		216	HW	1¾	15/16	3/16						AM	30
	25													
	26													
	27	FW	4	WD			5/16	25	8					
	28	B30	4	WD			½	211	10					
	29	SD	4	WD			⅛	1	1	SEAL WELD				
	30	FW	4	WD			¼	24	4	SEAL WELD				
	31													
	32													
	33													
	34													
	35													
	36													
	37													
	38													
	39													
	40													
	41													
	42													

NOTE: Length Corrected for Temperature

		1	1	2	DIAGONAL 1'10"-4'6"x56'-11	148AL
		1	1	2	⊥ ⊥	148AR
	H17	M17	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST		

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

E10

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 401 PARK AVE. NEW YORK 17, N.Y.

FPW

NOV 10 1970

SWAY FRAME DIAGONAL @ PANEL POINT (14)

MATERIAL – ASTM-A36
RIVETS OR BOLTS – ⅞# U.N.
OPEN HOLES – 15/16# U.N.
A325 FIELD BOLTS –
SHOP CONTACT SURFACES – NO PAINT
WELDING – AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & U.N.

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

REVISION

NO.	DATE	INIT.
D1	10-30	CD

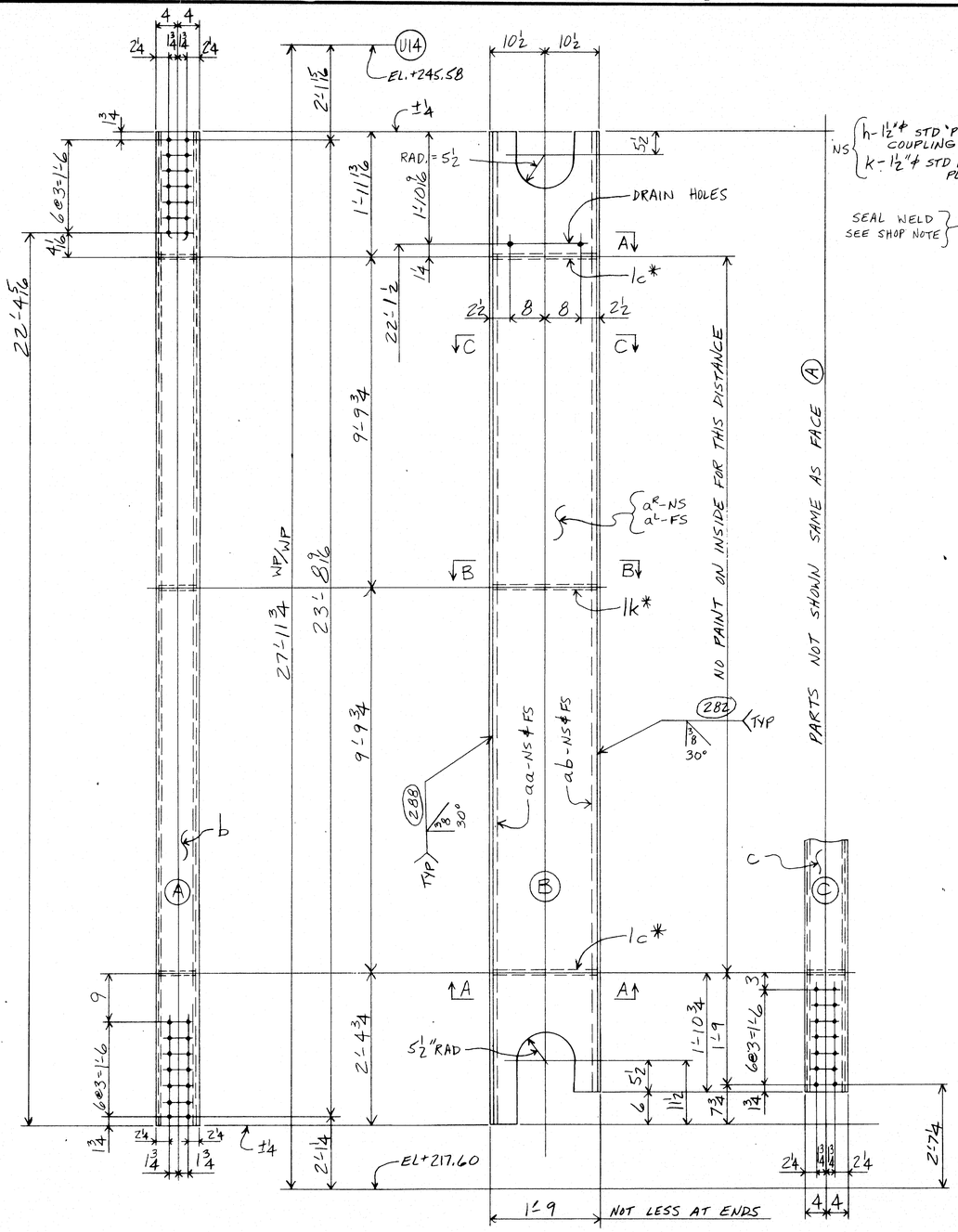
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

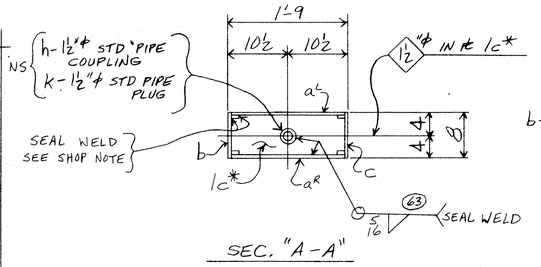
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-16-70 IN CHARGE LG
CHECKED BY CAD DATE 5-7-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 148

120-89 · NC TAPE

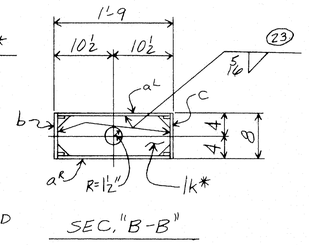
25433 (Rev. A 1-67)



VERTICAL - 149A



SEC. "A-A"



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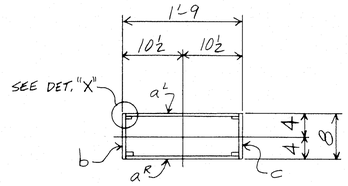

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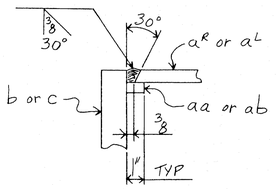


DETAIL "X" (TYP)

SHOP NOTE

BACK UP BARS FROM SEAL DIAPH'S TO END OF VERTICALS SHALL BE SEAL WELDED AS SHOWN ON CS15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3 from the group of holes. EXCEPT FOR DRAIN HOLES ⊄ SLOTS.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

		1	1	Z	VERTICAL 1'-9"x10'-8"x24'-0	149A
	H17	M17	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

For location of details shown on this sheet refer to diagrams.
E10

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
				Z- VERTICALS: -149A					
②	aR	3/2	PL	19¼		⅜	24	0 1/16	T2W
Ⓜ	b	2	PL	8		½	24	0 1/16	T2W
Ⓜ	c	2	PL	8		½	23	6 1/16	T2W
	1c*	4	BR	7¼		⅜	1	8	
	1k*	2	BR	7¼		⅜	1	8	
	h	4	M	1½"⊄	STD	PIPE	COUPLING	2 1/16 LG	
	k	4	M	1½"⊄	STD	PIPE	PLUG		
	aa	4	BR	1		⅝	25	0 1/16	BACKUP BAR
	ab	4	BR	1		⅝	24	6 1/16	BACKUP BAR
	FW	2	WD			⅝	12	5	
	B30	2	WD			⅜	95	0	
	SD	2	WD			⅛	1	1	SEAL WELD
	FW	2	WD			¼	32	4	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		24	2		237	4
		24	2		237	3
		24	2		237	3
		1	8		239	5
		1	8		239	5
					AM	8
					AM	8
		25	1		239	2
		25	1		239	2

ELECTRODES - E70XX LOW HYDROGEN

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUN 9 1970

NOTE: Length Corrected for Temperature

SWAY FRAME VERTICAL @ PANEL POINT (14)

MATERIAL - ASTM-A36
RIVETS OR BOLTS
OPEN HOLES - 15/16 ⊄ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - NO PAINT
WELDING - AS NOTED
PAINT One Shop Coat Red Lead
AASHO - M72, Type II
See Note "X" ⊄ U.N.

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

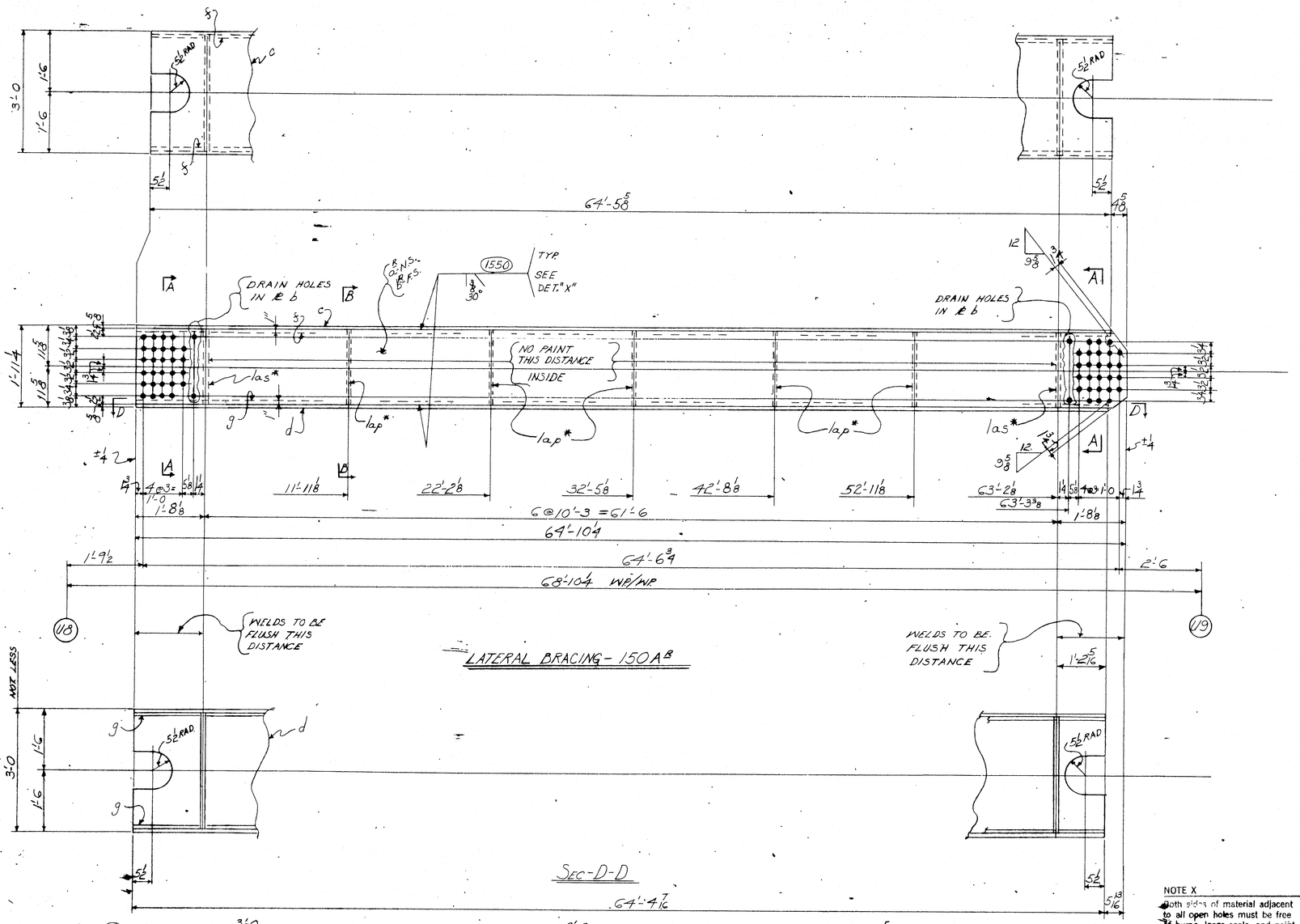
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-17-70 IN CHARGE L.G.
CHECKED BY C.A.P. DATE 5-8-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 149

NO.	DATE	INIT.
REVISION		

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

35433 (Rev.D 9-69)

120-90 NC TAPE



1	1	2	LAT. BRACING	20x3 ONLY	150A B						
1	1	2	LAT. BRACING		150A B						
M9	H9	NO.	DESCRIPTION	MARK	REMARKS						

LIST — REQUIRED LIST

SHOP BILL

PRODUCT PIECE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	LATERAL BRACES - 2-150A B & 2-150A B						
M	2	a B	2	PL	21/4		1/2	69	10 1/4	T2W
M	3	b B	2	PL	21/4		1/2	69	10 1/4	T2W
②	4	c	4	PL	36		5/8	64	5 3/8	
②	5	d	4	PL	36		5/8	64	4 7/16	
	6	f	8	BR	1		5/8	65	5 3/8	BACKUP BAR
	7	g	8	BR	1		5/8	65	4 7/16	BACKUP BAR
	8	h	8	M	1 1/2 ø	STD	PIPE COUPLING	2 1/2 LG.		AM8
	9	k	8	M	1 1/2 ø	STD	PIPE PLUG			AM8
	10	lap*	20	PL	22		3/8	2	11	
	11	las*	8	PL	22		3/8	2	11	
	16	FW	4	WD.			5/16	61	8	
	17	D30	4	WD.			1/2	258	4	
	18	FW	4	WD.			1/4	22	6	SEAL WELD
	19	SD	4	WD.			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					234	04
					234	04
					234	03
					234	03
					236	02
					236	02
					AM8	
					AM8	
					236	05
					236	08

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

NOTE: Length Corrected for Temperature.

FOR SEAL WELDING SEE SHT #CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS OR BOLTS —
OPEN HOLES - 15/16 ø
A325 FIELD BOLTS —
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK N.Y. 10017
F.F.V MAY 1 1970

LATERAL BRACING U8 TO U9

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

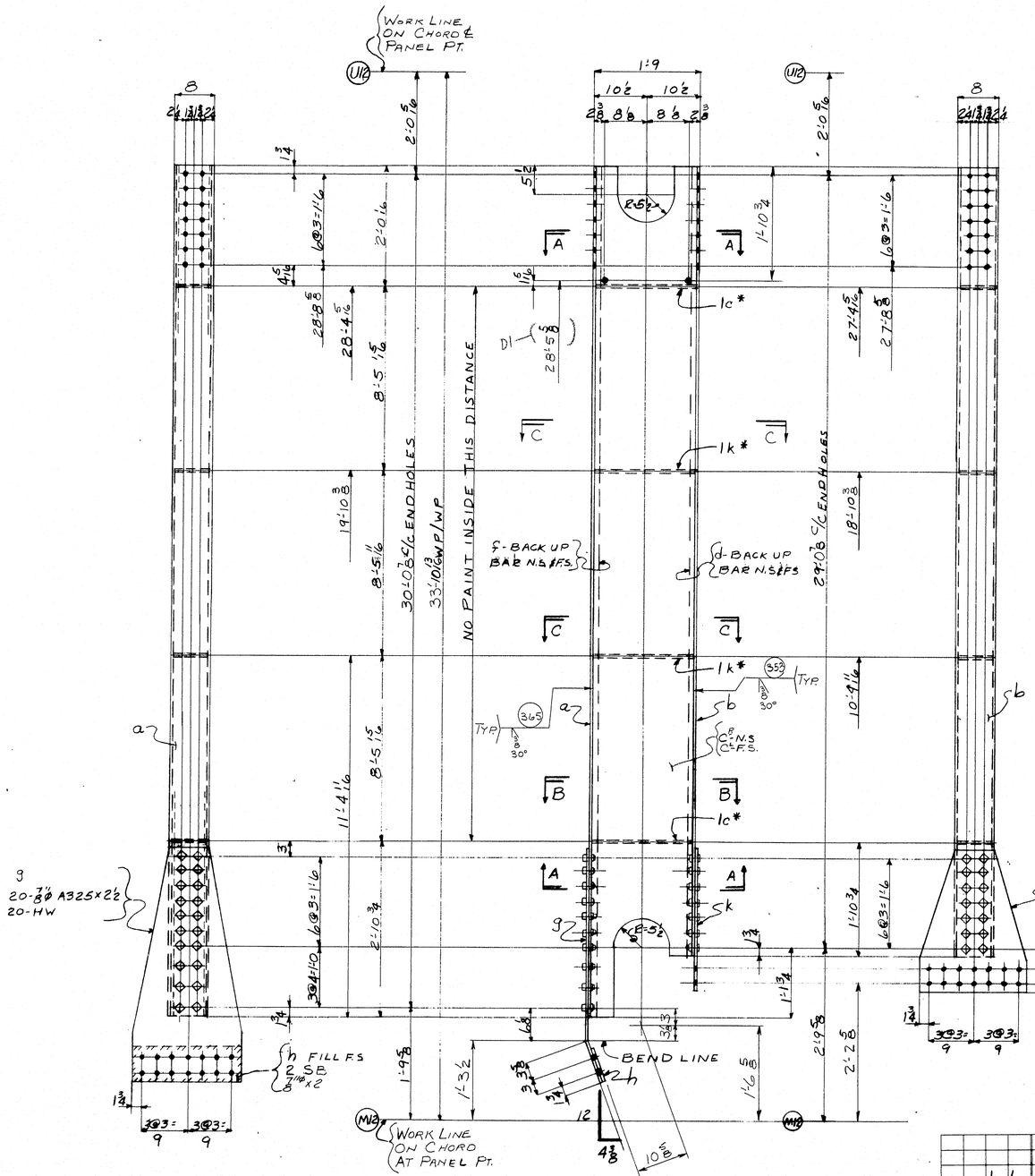
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CH60 WORKS
MADE BY TH DATE 3-17-70 IN CHARGE L.A.G.
CHECKED BY DP DATE 4-13-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 150

REVISION NO.	DATE	INIT.

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

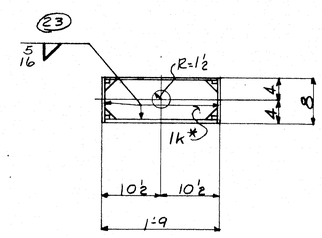
120-91 NC TAPE



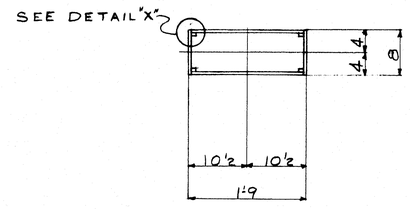
VERTICAL 151A

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

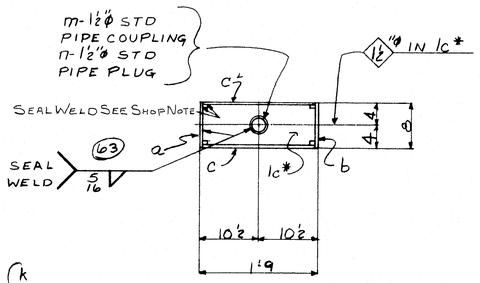
E9 & E11



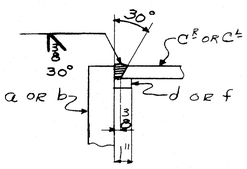
SECT "C-C" TYP



SECT "B-B"



SECT "A-A"



DETAIL "X" TYP

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes; EXCEPT FOR DRAIN HOLES 11X11 SLOT HOLES & 11X1'-7" SLOT HOLES

SHOP NOTE:
BACK-UP BARS BETW. END OF VERTICALS & SEAL DIAM'S. ARE TO BE SEAL WELDED WITH 1/4" FILLET WELD AS SHOWN ON SHT # CS15

NOTE: Length Corrected for Temperature

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface ELECTRODES - E70XX LOW HYDROGEN

SHOP BILL

LINE	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 ITEM Page	MILL ORDER ITEM Line
1		2	VERTICALS				151	A					
2	a	2	PL	8		1/2	30	4 3/8	T2W			24	05
3	b	2	PL	8		1/2	29	4 3/8	T2W			24	03
4	c 2 1/2 2 1/2	PL	19 1/4			3/8	30	4 3/8	T2W			24	04
5	d	4	BR	1		3/8	30	4 1/2	BACK UP BAR			24	02
6	f	4	BR	1		3/8	31	4 1/2	BACK UP BAR			24	02
7	g	2	PL	21 1/2		5/8	3	10 1/4	(BENT)			24	05
8	h	2	BR	7 3/4		5/16	1	9 1/2	FILL			24	07
9	k	2	PL	21 1/2		5/8	2	4 1/2				24	06
10	m	4	M	1 1/2"ϕ	STD PIPE COUPLING 2 1/16 G							AM	08
11	n	4	M	1 1/2"ϕ	STD PIPE PLUG							AM	09
12	1c*	4	BR	7 1/4		3/8	1	8				24	04
13	1k*	4	BR	7 1/4		5/8	1	8				24	04
14		68	325	7/8"ϕ			0	2 1/2				AM	26
15													
16		68	HW	1 3/4"ϕ	15/16	3/16						AM	26
17													
18		4	MB	7/8"ϕ			0	2	RHH & RHN (68)			AM	31
19	FW	2	WD			5/16	14	4					
20													
21	B30	2	WD			3/8	119	8					
22	SD	8	WD			1/8	1	2	SEAL WELD				
23	FW	2	WD			1/4	29	10	SEAL WELD				

INST.	M14	H14	NO.	DESCRIPTION	MARK	REMARKS
	1	1	2	VERTICAL	151A	1'-10 x 1'-10 x 31'-6

REQUIRED LIST

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

HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE, NEW YORK 17, N.Y.
BY FFW DATE OCT 14 1970

SWAY FRAME VERTICAL M12 TO U12 & M12' TO U12'

MATERIAL	A36
RIVETS OR BOLTS	8 A325 U.N
OPEN HOLES	15/16"ϕ UN
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	N.P.
WELDING	AS NOTED
PAINT	One Shop Coat Red Lead
	AASHO - M72, Type II
	See Note "X" & UN

REVISION NO.	DATE	INIT.
1	10-2	CAD

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

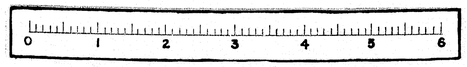
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

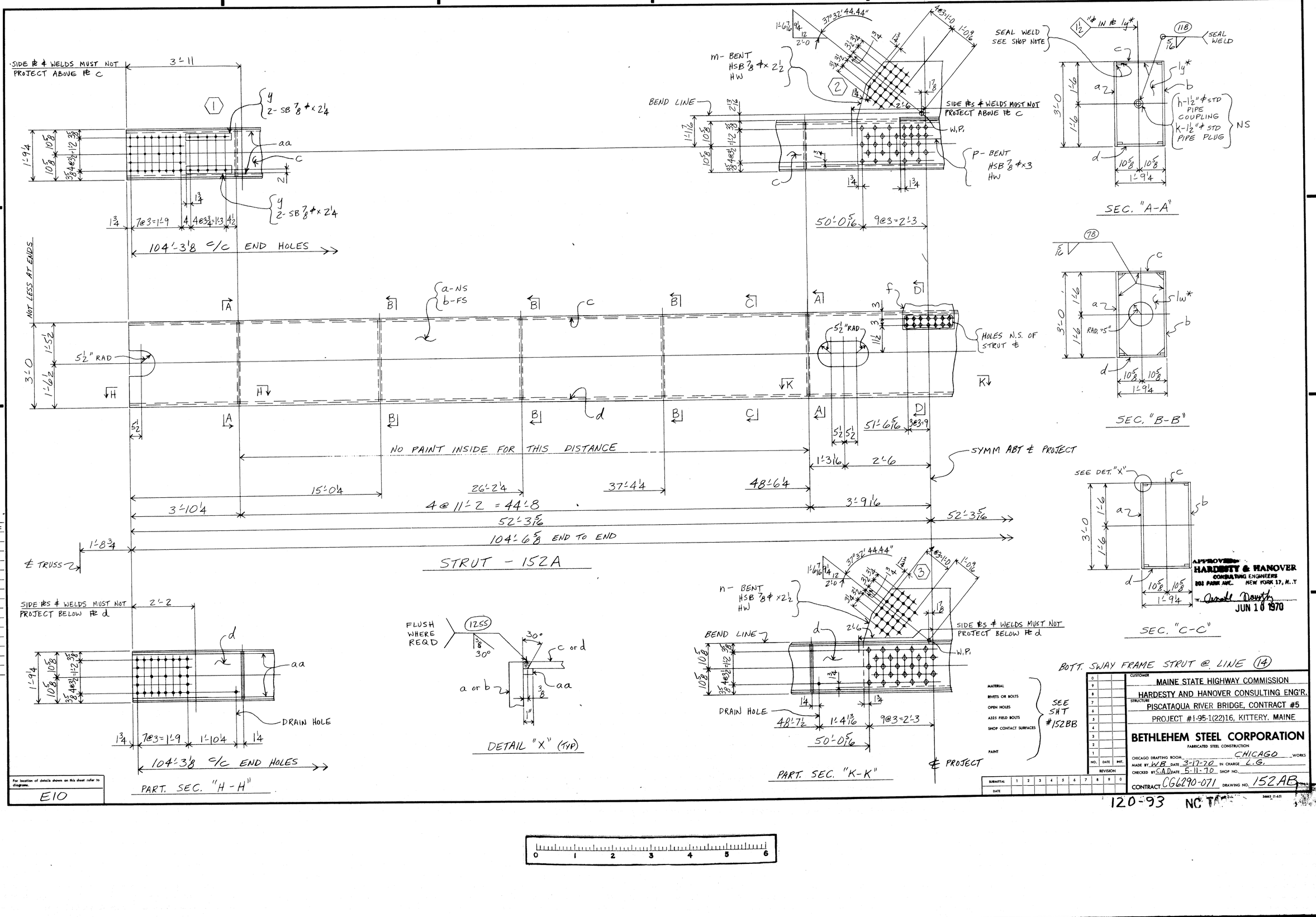
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

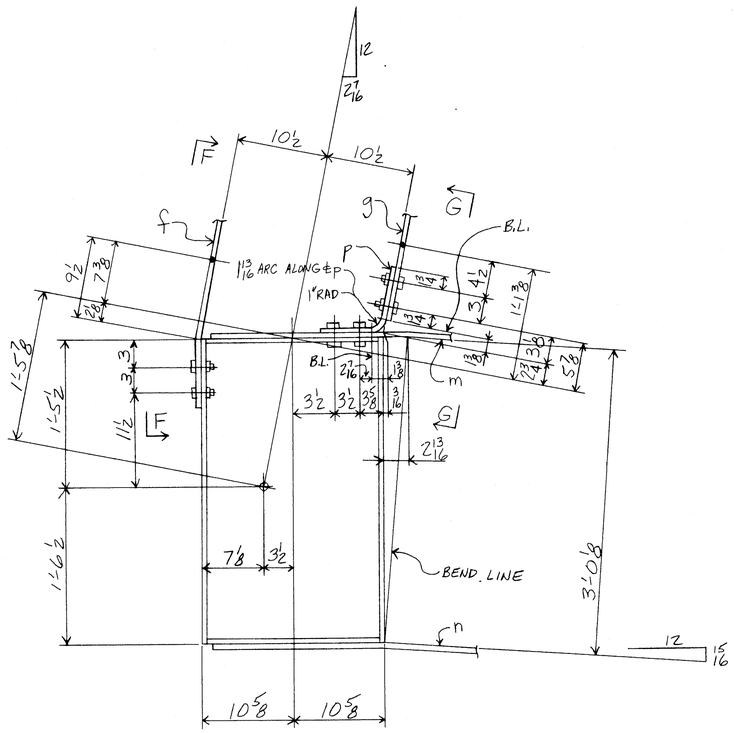
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY PG DATE 3-18-70 IN CHARGE LAG
CHECKED BY C.A.P. DATE 4-22-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 151

3543 (Rev. A 1-65)

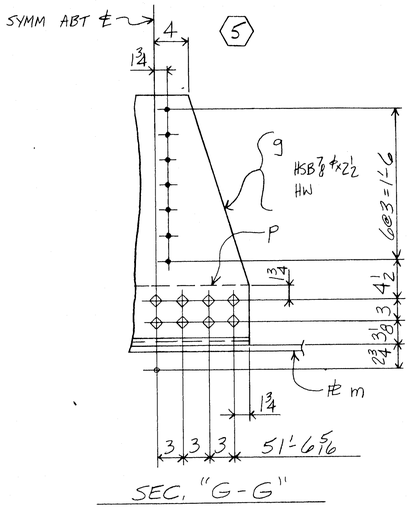
120-92 NC TAPE



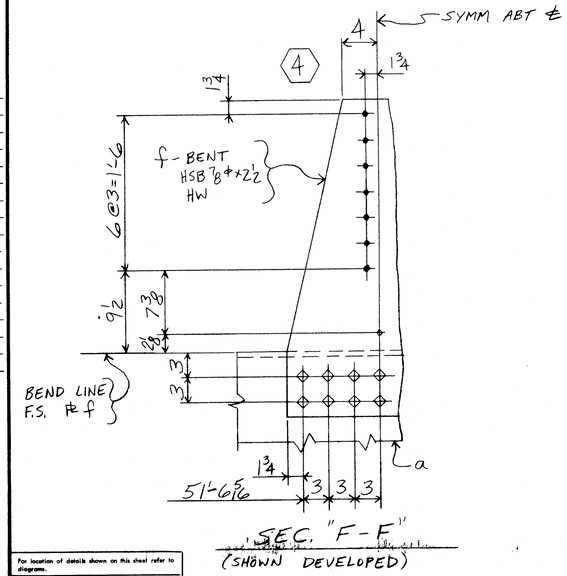

SIDE ℄s & WELDS MUST NOT PROJECT ABOVE ℄ C
3'-11
1
y
2- SB 7/8 ϕ x 2 1/4
aa
c
2
1'-9 1/4
10 5/8
10 5/8
3 3/4 @ 3 1/2 = 1'-3
1 3/4
7 @ 3 = 1'-9
4
4 @ 3 3/4 = 1'-3
4 1/2
104'-3 1/8 c/c END HOLES
NOT LESS AT ENDS
3'-0
1'-5 1/2
1'-6 1/2
5 1/2" RAD
m- BENT HSB 7/8 ϕ x 2 1/2 HW
BEND LINE
2
37° 32' 44.44"
1'-6 7/16
9 1/4
12
2'-0
4 @ 3'-1 0
1'-0 8
3 3/4
3 3/4
3 3/4
3 3/4
2 1/4
1 3/4
1 7/8
2'-6
SIDE ℄s & WELDS MUST NOT PROJECT ABOVE ℄ C
W.P.
P- BENT HSB 7/8 ϕ x 3 HW
2 1/2
1'-1 1/2
10 5/8
3 3/4 @ 3 1/2 = 1'-1 2
10 5/8
1 3/4
1 3/4
50'-0 5/16
9 @ 3 = 2'-3
SEAL WELD SEE SHOP NOTE
1 1/2 " ϕ IN ℄ ly*
118
5/16
SEAL WELL
c
ly*
b
a
h- 1 1/2 " ϕ STD PIPE COUPLING
k- 1 1/2 " ϕ STD PIPE PLUG
NS
3'-0
1'-6
1'-6
d
10 5/8
10 5/8
1'-9 1/4
SEC. "A-A"
78
5/16
c
lw*
a
b
RAD. = 5"
3'-0
1'-6
1'-6
d
10 5/8
10 5/8
1'-9 1/4
SEC. "B-B"
A
B
C
D
H
K
a- NS
b- FS
c
d
f
m
5 1/2" RAD
3
1 1/2
HOLES N.S. OF STRUT ℄
5 1/2
5 1/2
51'-6 5/16
3 @ 3 = 9
NO PAINT INSIDE FOR THIS DISTANCE
15'-0 1/4
26'-2 1/4
37'-4 1/4
48'-6 1/4
1'-3 1/16
2'-6
SYMM ABT ℄ PROJECT
3'-10 1/4
4 @ 11'-2 = 44'-8
3'-9 1/16
52'-3 5/16
52'-3 5/16
104'-6 5/8 END TO END
1'-8 3/4
℄ TRUSS
STRUT - 152A
SIDE ℄s & WELDS MUST NOT PROJECT BELOW ℄ d
2'-2
d
aa
1'-9 1/4
10 5/8
10 5/8
3 3/8 @ 3 1/2 = 1'-3 3/8
DRAIN HOLE
1 3/4
7 @ 3 = 1'-9
1'-10 1/4
1 1/4
104'-3 1/8 c/c END HOLES
PART. SEC. "H-H"
FLUSH WHERE REQD
1255
3/8
30°
30°
c or d
a or b
aa
3/8
1"
DETAIL "X" (TYP)
n- BENT HSB 7/8 ϕ x 2 1/2 HW
3
37° 37' 44.44"
1'-6 7/16
9 1/4
12
2'-0
4 @ 3'-1 0
1'-0 8
3 3/4
3 3/4
3 3/4
3 3/4
2 1/4
1 3/4
1 7/8
2'-6
BEND LINE
d
SIDE ℄s & WELDS MUST NOT PROJECT BELOW ℄ d
W.P.
10 5/8
10 5/8
3 3/8 @ 3 1/2 = 1'-1 2
3 3/8
1 3/4
1 3/4
1 1/4
DRAIN HOLE
48'-7 1/2
1'-4 13/16
9 @ 3 = 2'-3
50'-0 5/16
℄ PROJECT
PART. SEC. "K-K"
SEE DET. "X"
c
b
a
3'-0
1'-6
1'-6
d
10 5/8
10 5/8
1'-9 1/4
SEC. "C-C"
APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 10 1970
BOTT. SWAY FRAME STRUT @ LINE (14)
MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHT #152BB
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY W.B. DATE 3-17-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 5-11-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 152AB
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.
E10
120-93 NC TA
34663 11-65



SEC. "D-D"



SEC. "G-G"



SEC. "F-F"
(SHOWN DEVELOPED)

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

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

E10

SHOP NOTE!

BACK UP BARS FROM END OF STRUT TO SEAL DIAPH'S AND BETWEEN SEAL DIAPH'S AT ℄ SHALL BE SEAL WELDED AS PER SHT CS15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

		1	1	2	STRUT 5'-9 3/4" x 104'-7	152A	
	#17	M17	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

SHOP BILL

PRODUCT TYPE	ITEM NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	-	STRUTS: 152A					
(2)	2	a	2	PL	36		5/8	104	6 5/8	T2W
(2)	3	b	2	PL	36		5/8	104	6 5/8	T2W
(M)	4	c	2	PL	19¼		½	104	6 5/8	T2W
(M)	5	d	2	PL	19¼		½	104	6 5/8	T2W
	6	f	2	PL	21½		5/8	3	1	BENT
	7	g	2	PL	21½		½	2	5	
	8	h	8	M	1½"ϕ	STD	PIPE	COUPLING		2 7/16 LG.
	9	k	8	M	1½"ϕ	STD	PIPE	PLUG		
	10	m	2	PL	5 7½		5/8	3	8	BENT
	11	n	2	PL	5 7½		5/8	3	5¼	BENT
	12	p	2	PL	2 1½		5/8	1	4	BENT
	13	y	8	BR.	4		5/8	1	8¼	FILL
	14	aa	8	BR	1		5/8	105	6 5/8	BACKUP BAR
	15	w*	12	PL	20		3/8	2	11	
	16	y*	8	PL	20		3/8	2	11	
	17									
	18									
	19									
	20									
	21									
	22		16	MB	7/8ϕ			0	2¼	RHH & RHN (S.B.)
	23		28	325	7/8ϕ			0	3	
	24		234	325	7/8ϕ			0	2½	
	25									
	26		262	HW	1¾	15/16	3/16			
	27									
	28									
	29	B30	2	WD			½	418	4	
	30	FW	2	WD			5/16	78	4	
	31	SD	2	WD			⅛	1	1	SEAL WELD
	32	FW	2	WD			¼	120	4	SEAL WELD
	33									
	34									
	35									
	36									
	37									
	38									
	39									
	40									
	41									
	42									
	43									
	44									
	45									
	46									
	47									
	48									
	49									
	50									
	51									
	52									
	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		104	10		237	5
		104	10		237	5
		104	10		237	6
		104	10		237	6
		3	1		238	6
		2	5		238	7
					AM	8
					AM	8
		3	8		238	14
		3	5¼		238	15
		1	4		238	8
		1	9		207	5
		105	9		239	3
		2	11		239	6
		2	11		239	6
					AM	31
					AM	30
					AM	30
					AM	30

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 10 1970

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX
LOW HYDROGEN

BOTT. SWAY FRAME STRUT @ PANEL POINT 14

MATERIAL - ASTM-A36
RIVETS OR BOLTS - 7/8ϕ
OPEN HOLES - 15/16ϕ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - NO PAINT WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO: M72, Type II See Note "X" & U.N.

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

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

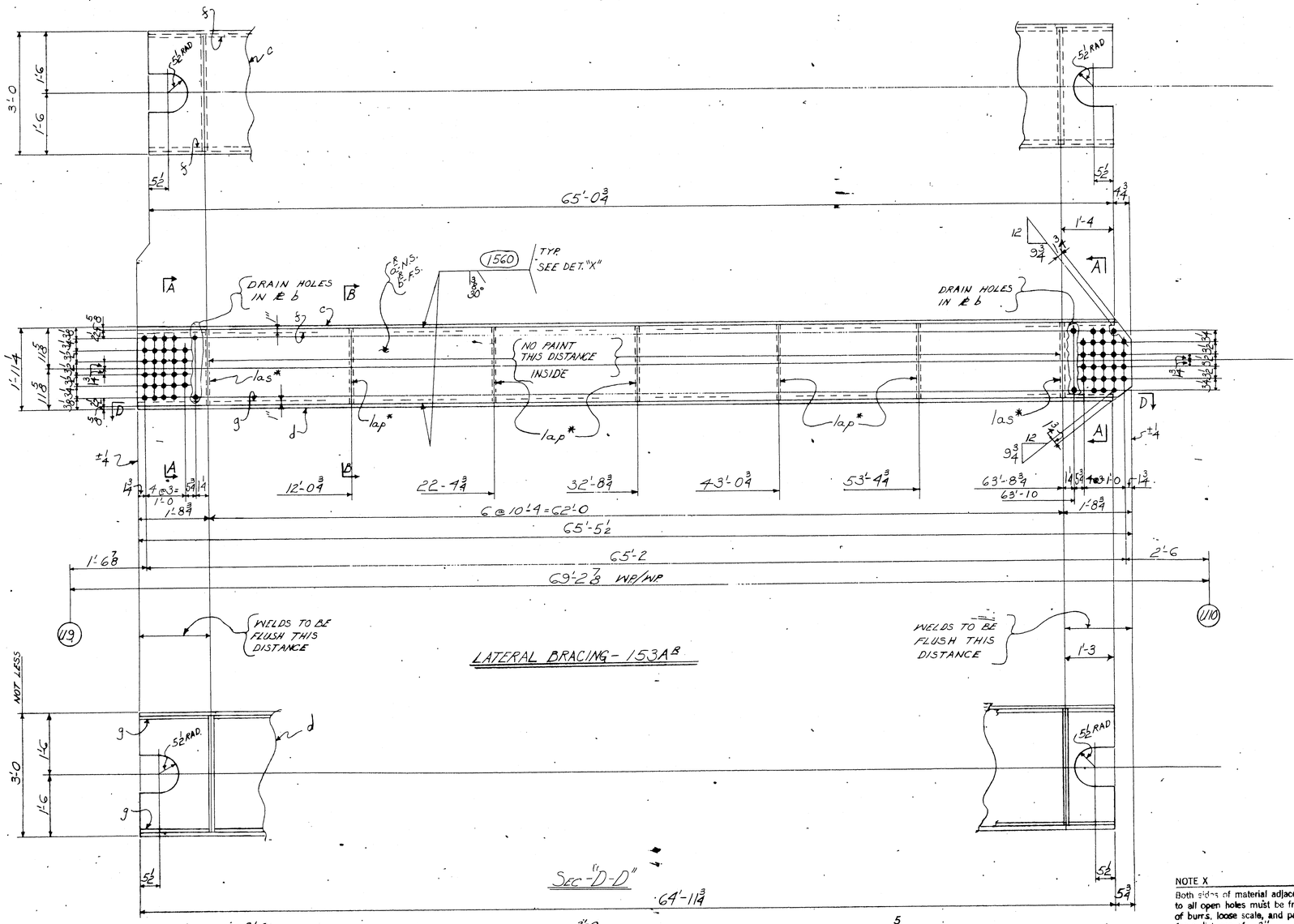
REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-18-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 5-11-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 152BB

35433 (Rev.D 8-69)

120-94 NC TAPE



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

E13 # E15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

MK	NO.	DESCRIPTION	MARK	REMARKS
1	1	2 LAT. BRACING 20'0"x65'7	153A L	
1	1	2 LAT. BRACING	153A L	
MK	MK	NO.	DESCRIPTION	MARK	REMARKS

INST. — REQUIRED LIST

PRODUCT TYPE	L	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	LATERAL BRACES - 2/153A R + 2-153A L						
M	2	a R	2	PL	21/4		1/2	65	5 1/2	T2W
M	3	b L	2	PL	21/4		1/2	65	5 1/2	T2W
②	4	c	4	PL	36		5/8	65	0 3/4	T2W
②	5	d	4	PL	36		5/8	64	11 3/4	T2W
	6	f	8	BR	1		5/8	66	1	BACKUP BAR
	7	g	8	BR	1		5/8	66	0	BACKUP BAR
	8	h	8	M	1½ Φ	STD	PIPE COUPLING	2 1/16 LG.		AMS
	9	k	8	M	1½ Φ	STD	PIPE	PLUG		AMS
	10	lap*	20	PL	22		3/8	2	11	
	11	las*	8	PL	22		3/8	2	11	
	12									
	13									
	14									
	15									
	16									
	17	FW	4	WD			5/16	61	8	
	18	B30	4	WD			1/2	200	6	
	19	FW	4	WD			1/4	20	8	SEAL WELD
	20	SD	4	WD			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					234	06
					234	06
					234	05
					234	05
					236	03
					236	03
					AMS	
					AMS	
					236	09
					236	09

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT. #CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS OR BOLTS —
OPEN HOLES - 15/16 Ø
A325 FIELD BOLTS —
SHOP CONTACT SURFACES - N.P
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II — See Note "X"

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W
MAY 1 1970

LATERAL BRACING U9 TO U10

CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

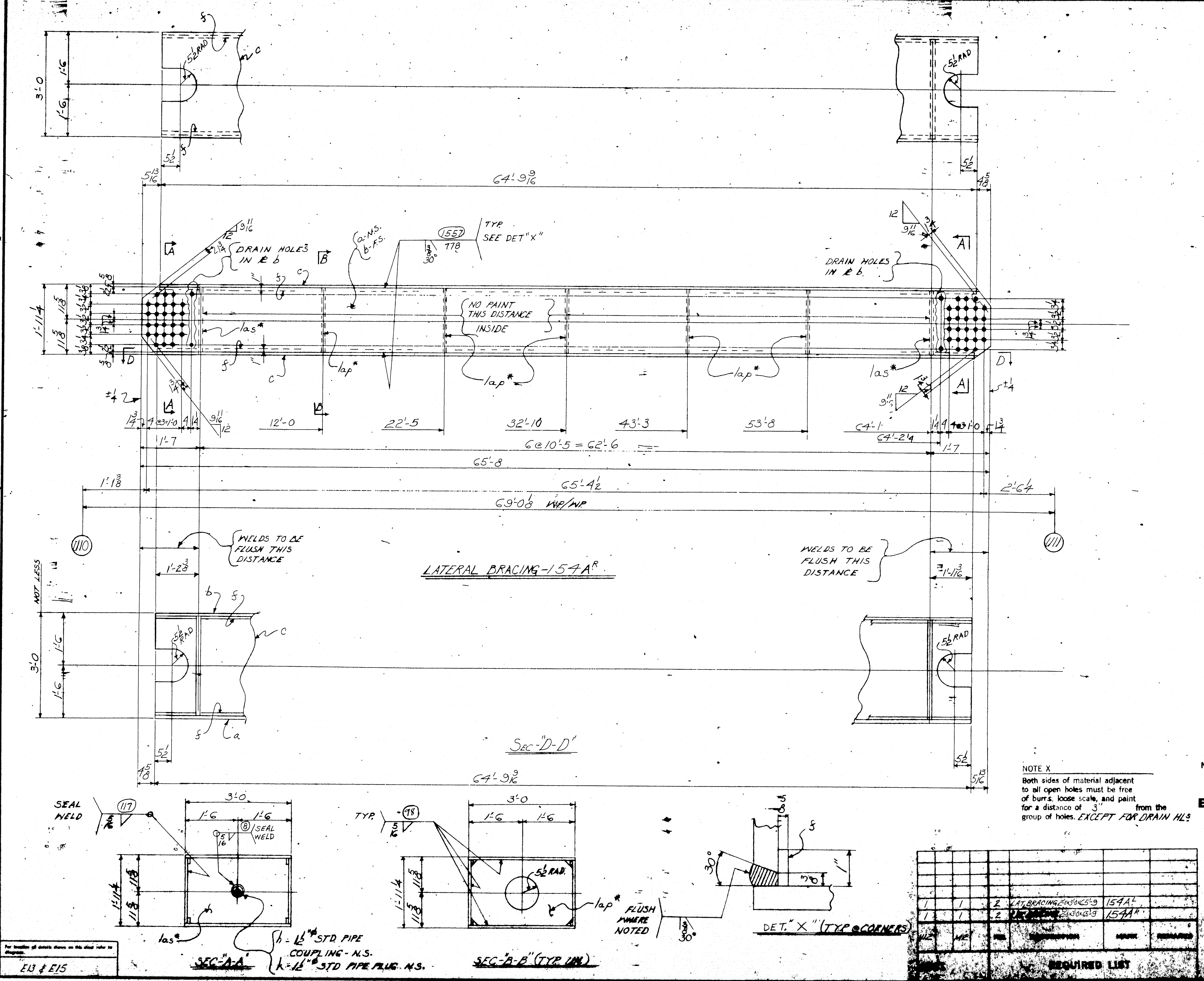
CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY MH DATE 3-17-70 IN CHARGE L.A.G.
CHECKED BY RD DATE 4-13-70 SHOP NO.

CONTRACT CGC290-072 DRAWING NO. 153

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

120-95 NC TAPE



Product Type	Line	Assembly Mark	No.	Shape	Section Size	Size or Pounds	Thick	Length Ft.	Length In.	Remarks	Width	Thick	Length Ft.	Length In.	Stock	Item Page	Item Line
	1	D1	4-LATERAL BRACES 2-154A^R & 2-154A^L							D1							
(M)	2	a R/L	2/2	PL	21¼		½	65	8	72W						261	02
(M)	3	b R/L	2/2	PL	21¼		½	65	8	72W						261	02
(2)	4	c	8	PL	36		5/8	64	9 9/16							261	01
	5																
	6	f	16	BR	1		5/8	65	9 9/16	BACKUP BAR						261	07
	7																
	8	h	8	M	1½φ	STD	PIPE	COUPLING		2 1/16 LG.						AM8	
	9	k	8	M	1½φ	STD.	PIPE	PLUG								AM8	
	10	lap*	20	PL	22		3/8	2	11							261	10
	11	las*	8	PL	22		3/8	2	11							261	10
	12																
	13	FW	4	WD			5/16	61	8								
	14	B30	4	WD			½	259	6								
	15	FW	4	WD			¼	18	8	SEAL WELD							
	16	SD	4	WD			1/8	1	1	SEAL WELD							

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS.

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX
LOW HYDROGEN

W/2	M/2	No.	Description	Mark	Remarks
1	1	2	LAT. BRACING 2-0x3-0x65-9	154A^L	
1	1	2	LAT. BRACING 2-0x3-0x65-9	154A^R	

REQUIRED LIST

MATERIAL - A.S.T.M. - A36
RIVETS OR BOLTS —
OPEN HOLES - 15/16 φ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

REVISION: D1 | 6/1 | RP

For location of details shown on this sheet refer to diagram. E13 & E15

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUN 8 1970

LATERAL BRACING U10 TO U11

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY MP DATE 3-18-70 IN CHARGE L.A.G.
CHECKED BY RP DATE 4-13-70 SHOP NO.
CONTRACT CGC290-072 DRAWING NO. 154

120-96 NC TAPE

SEAL WELD SEE SHOP NOTE

t - 1½"ϕ STD PIPE COUPLING N.S.
w - 1½"ϕ STD PIPE PLUG - N.S.

SEAL WELD

SECT "C-C"

SEE DETAIL "X"

SECT "D-D"

d - BACKUP BARS

SECT "F-F" (TYP)

PARTS NOT SHOWN OPP. HAND TO SECT "A-A"

VIEW "B-B"

61'-0¼ WP/WP
56'-5 C/C END HOLES
54'-5
5@ 10'-9 = 53'-9

NOTE: No Paint Inside This Distance

DIAGONAL 155 A^R

DRAIN HOLES

WORK LINE

g - BACK UP BARS

SECT A-A

SECT G-G

DETAIL "X" (TYP)

Shop Note!
Back Up Bars Between Seal Diaphragms And End Of Diagonals Shall Be Seal Welded With ¼" Fillet Welds, As Shown On C S15.

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

E7 & E11

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION: Size	SECTION: Size or Pounds	SECTION: Thick	LENGTH: Ft.	LENGTH: In.	REMARKS
1		4	DIAGONALS			2-155 A^E			2-155 A^L
2	a	8	PL	16		3/8	56	8½	T2W
3	b	4	PL	19½		½	56	5½	T2W
4	c	4	PL	19½		½	56	8½	T2W
5	d	8	BR	1		5/8	57	5½	BACK UP BAR
6	1f*	8	PL	15		3/8	1	8¼	
7	g	8	BR	1		5/8	57	8½	BACK UP BAR
8	h^L	4	L	4	4	5/8	2	6¼	
9	k	4	PL	37¼		½	3	10½	
10	m	4	PL	30¼		½	3	10½	
11	1n*	16	PL	15		3/8	1	8¼	
12	P^S 2½	2	PL	42		5/8	0	8½	BENT
13	S^S 2½	2	PL	42		5/8	0	9¾	BENT
14	t	8	M	1½"ϕ STD PIPE COUPLING 2 Thd LG					AM 08
15	w	8	M	1½"ϕ STD PIPE PLUG					AM 08
16									
17									
18									
19									
20		112	325	⅞"ϕ			0	2¼	AM 26
21		96	325	⅞"ϕ			0	2½	AM 26
22									
23		208	HW	1¾"ϕ	19/16	3/16			AM 26
24									
25		64	325	1"ϕ			0	2½	AM 26
26									
27		64	HW	2"ϕ 1 Thd		3/16			AM 26
28									
29									
30									
31	FW	4	WD			5/16	25	10	
32	FW	4	WD			¼	23	0	SEAL WELD
33	SD	4	WD			⅛	1	2	SEAL WELD
34	B30	4	WD			½	226	6	
35									
36									
37									
38									
39									
40									
41									
42									

MILL ORDER

LENGTH Ft.	LENGTH In.	ITEM Page	ITEM Line
		240	01
		240	02
		240	03
		242	01
		242	06
		242	01
		241	03
		241	01
		241	02
		242	05
		242	04
		242	04
		AM	08
		AM	08
		AM	26
		AM	26
		AM	26
		AM	26

1	1	2	DIAGONAL	155 A^E	4"11X¼"10A	59'-3
1	1	2	"	155 A^L	"	

MARK	NO.	DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST		

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
PFW
MAY 22 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 11X11 SLOT HOLES

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

SWAY FRAME DIAGONAL @ 12 & 12'

MATERIAL	A36
RIVETS OR BOLTS	⅞ϕ A325 U.N
OPEN HOLES	1⅛ϕ U.N
A325 FIELD BOLTS	—
SHOP CONTACT SURFACES	N. P
WELDING	AS NOTED
PAINT	One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & U.N.

NO.	DATE	INIT.	REVISION
D1	5-6	CD	

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

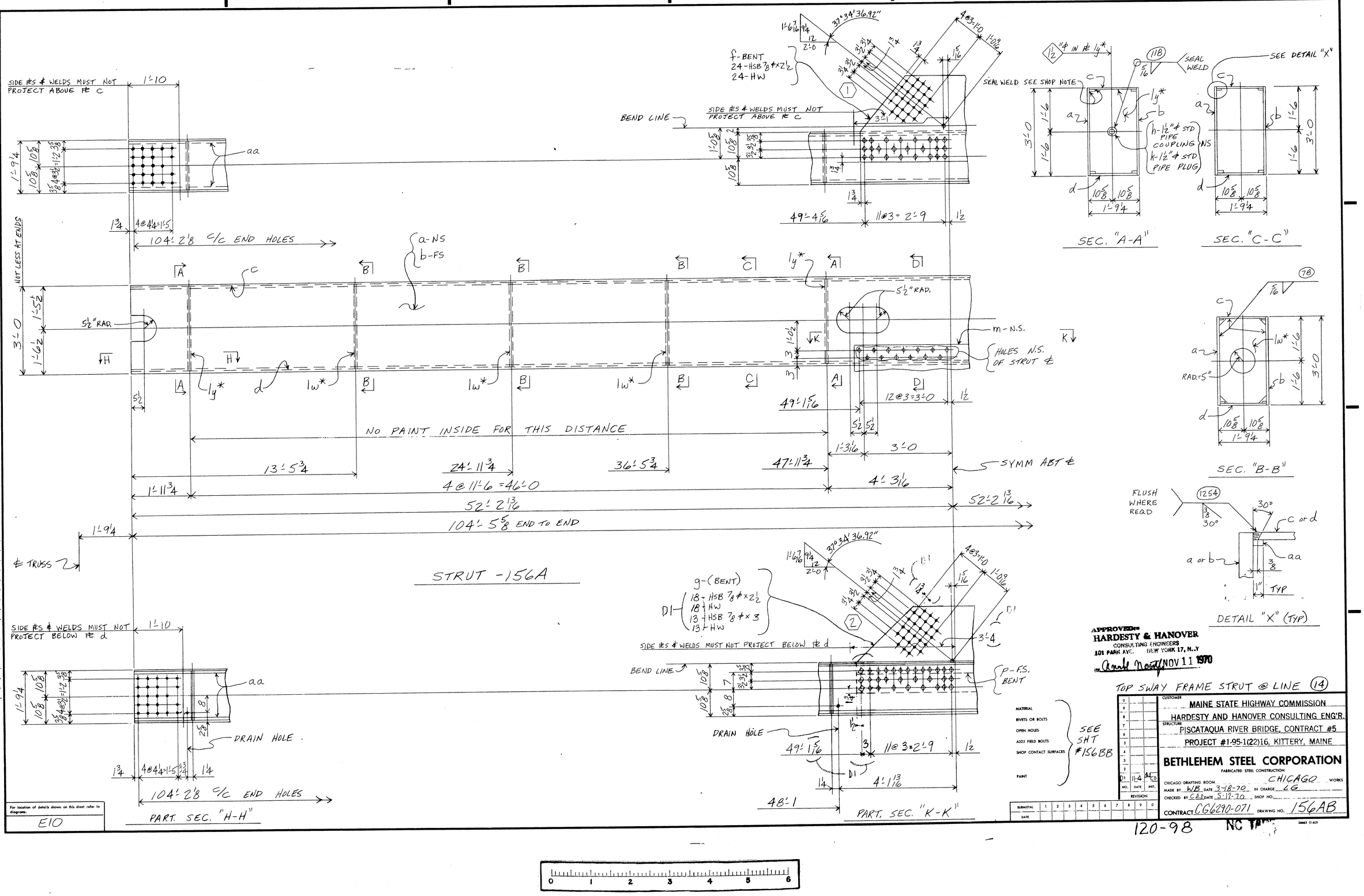
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

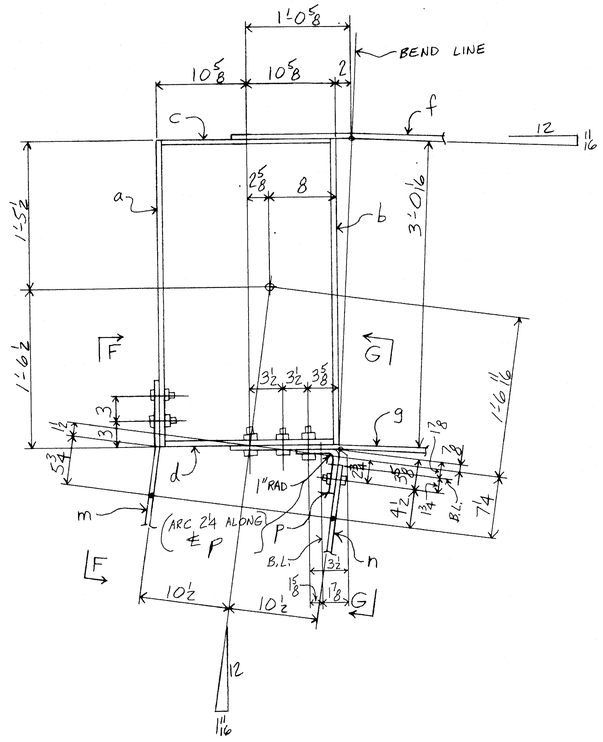
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RJ DATE 3-19-70 IN CHARGE LAG
CHECKED BY C.A.P. DATE 4-23-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 155

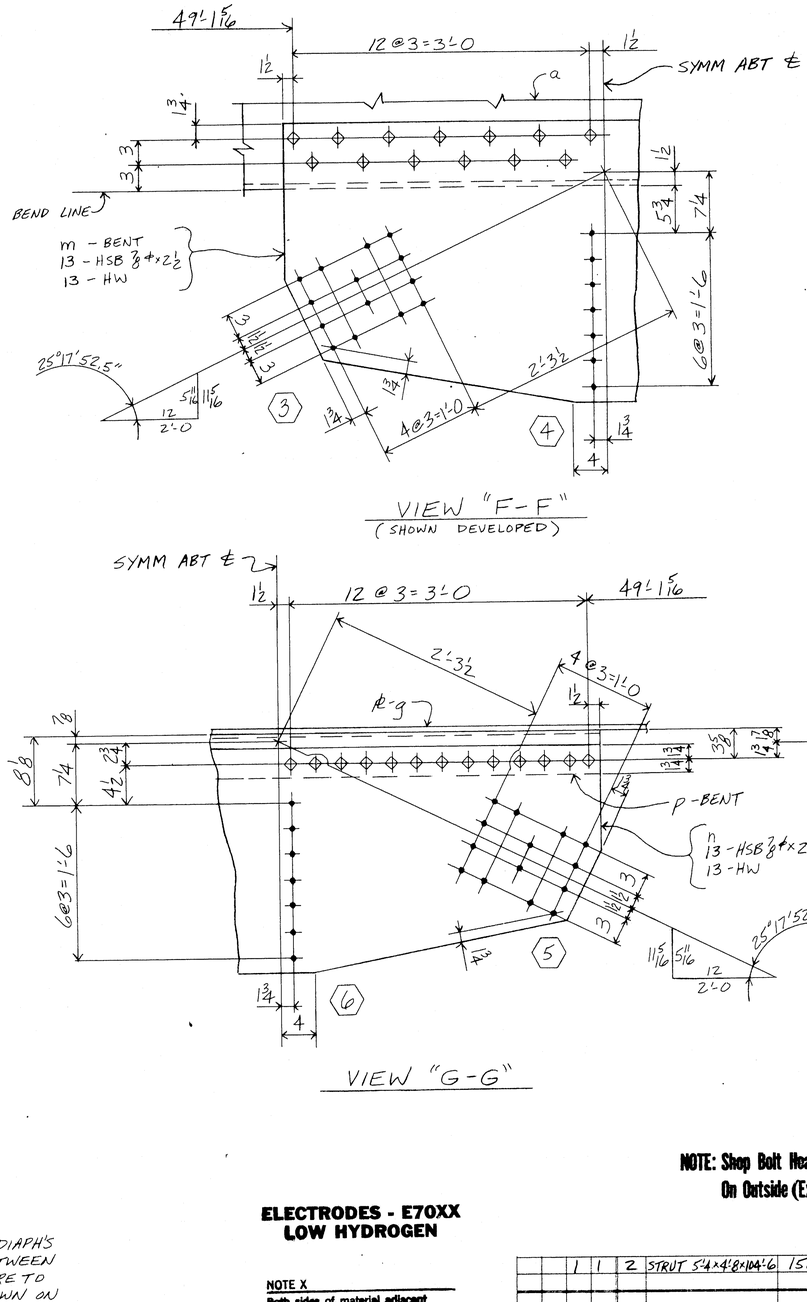
15423 (Rev. A 1-65)

120-97 NC TAPE

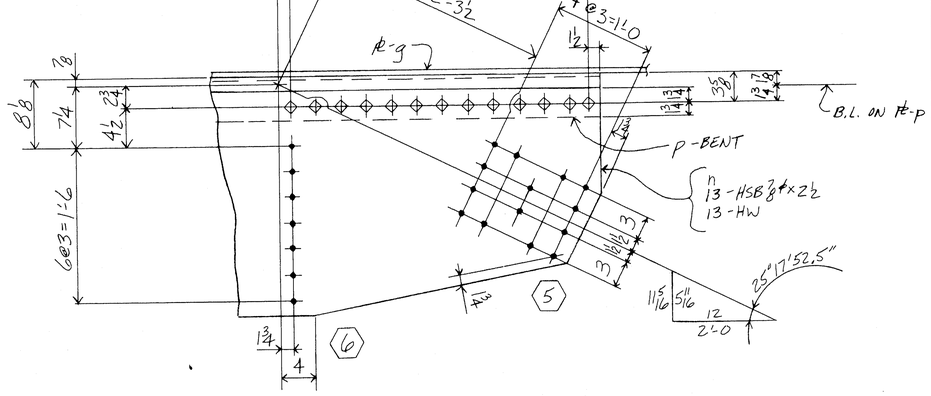

SIDE FES & WELDS MUST NOT PROJECT ABOVE FE C
1'-10
aa
1'-9¼
104: 2⅛ C/C END HOLES
NAT LESS AT ENDS
3'-0
5½" RAD.
a-NS
b-FS
ly*
lw*
d
NO PAINT INSIDE FOR THIS DISTANCE
13'-5¾
24'-11¾
36'-5¾
47'-11¾
1'-11¾
4@11'-6 =46'-0
52'-2 13/16
104'-5⅝ END TO END
SYMM ABT ℄
4'-3 1/16
℄ TRUSS
STRUT -156A
f-BENT
24-HSB ⅞ ϕ x 2½
24-HW
BEND LINE
SIDE FES & WELDS MUST NOT PROJECT ABOVE FE C
49'-4 5/16
11@3 = 2'-9
SEAL WELD SEE SHOP NOTE
SEAL WELD
SEE DETAIL "X"
h-1½" ϕ STD PIPE COUPLING NS
k-1½" ϕ STD PIPE PLUG
SEC. "A-A"
SEC. "C-C"
SEC. "B-B"
m-N.S.
HOLES N.S. OF STRUT ℄
49'-1 5/16
12@3=3'-0
1'-3 1/16
3'-0
FLUSH WHERE REQD
30°
C or d
a or b
DETAIL "X" (TYP)
g-(BENT)
18-HSB ⅞ ϕ x 2½
18-HW
13-HSB ⅞ ϕ x 3
13-HW
SIDE FES & WELDS MUST NOT PROJECT BELOW FE d
P-F.S. BENT
DRAIN HOLE
49'-1 5/16
11@3=2'-9
4'-1 13/16
48'-1
PART. SEC. "K-K"
SIDE FES & WELDS MUST NOT PROJECT BELOW FE d
DRAIN HOLE
104'-2⅛ C/C END HOLES
PART. SEC. "H-H"
For location of details shown on this sheet refer to diagrams.
E10
SEE SHT #156BB
MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SUBMITTAL
DATE
REVISION
APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE., NEW YORK 17, N.Y.
NOV 11 1970
TOP SWAY FRAME STRUT @ LINE (14)
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-18-70 IN CHARGE LG
CHECKED BY CAD DATE 5-19-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 156AB
120-98
NC TYPE



SEC. "D-D"



VIEW "F-F"
(SHOWN DEVELOPED)



VIEW "G-G"

SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		2	- STRUTS - 156A						
②	a	2	PL	36		5/8	104	5 5/8	T2W
②	b	2	PL	36		5/8	104	5 5/8	T2W
ⓜ	c	2	PL	19 1/4		1/2	104	5 5/8	T2W
ⓜ	d	2	PL	19 1/4		1/2	104	5 5/8	T2W
6	f	2	PL	72 1/2		5/8	3	0 1/4	BENT
7	g	2	PL	78	481	5/8	2	10 1/2	BENT
8	h	8	M	1 1/2"ϕ	STD	PIPE COUPLING		2 1/16 LG	
9	k	8	M	1 1/2"ϕ	STD	PIPE PLUG			
10	m	2	PL	78		1/2	2	9 1/4	BENT
11	n	2	PL	26		1/2	6	6	
12	p	2	PL	78		5/8	0	9 1/4	BENT
13	aa	8	BR	1		5/8	105	5 5/8	BACKUP BAR
14	lw*	12	PL	20		3/8	2	11	
15	ly*	8	PL	20		3/8	2	11	
16									
17									
18	D1								
19									
20	27	2	325	7/8 ϕ			0	2 1/2	
21	52	3	25	7/8 ϕ			0	3	
22									
23	324	HW	1 3/4	5/16	3/16				
24									
25									
26	B30	2	WD			1/2	418	0	
27	FW	2	WD			5/16	78	4	
28	SD	2	WD			1/8	1	1	SEAL WELD
29	FW	2	WD			1/4	97	7	SEAL WELD
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									
56									
57									
58									
59									
60									
61									
62									

MILL ORDER

WIDTH	THICK	STOCK LENGTH FT.	STOCK LENGTH IN.	ITEM PAGE	ITEM LINE
		104	10	237	5
		104	10	237	5
		104	10	237	6
		104	10	237	6
		3	7 1/4	238	12
				9	
				AM	8
				AM	8
		2	9 1/4	238	9
		6	8	238	10
		0	9 1/4	238	11
		105	9	239	3
		2	11	239	6
		2	11	239	6
				AM	30
				AM	30
				AM	30

D1 (M2)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Roofian
NOV 11 1970

NOTE: Length Corrected for Temperature

SHOP NOTE!

BACK UP BARS FROM SEAL DIAPH'S TO END OF STRUT AND BETWEEN SEAL DIAPH'S AT CENTER ARE TO BE SEAL WELDED AS SHOWN ON CS15.

ELECTRODES - E70XX LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & SLOTS.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

		1	1	2	STRUT 5'-4 x 4'-8 x 104'-6	156A	
	H17	M17	NO.	DESCRIPTION	MARK	REMARKS	
INST.				REQUIRED LIST			

TOP SWAY FRAME STRUT @ PANEL POINT (14)

MATERIAL – ASTM-A36
RIVETS OR BOLTS – 7/8 ϕ
OPEN HOLES – 15/16 ϕ U.N.
A325 FIELD BOLTS –
SHOP CONTACT SURFACES – NO PAINT
WELDING – AS NOTED
PAINT One Shop Coat Red Lead. AASHO - M72, Type II See Note "X" ϕ U.N.

NO.	DATE	INIT.	REVISION
D2	5-3	LJ CD	
D1	11-4	RL CD	

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

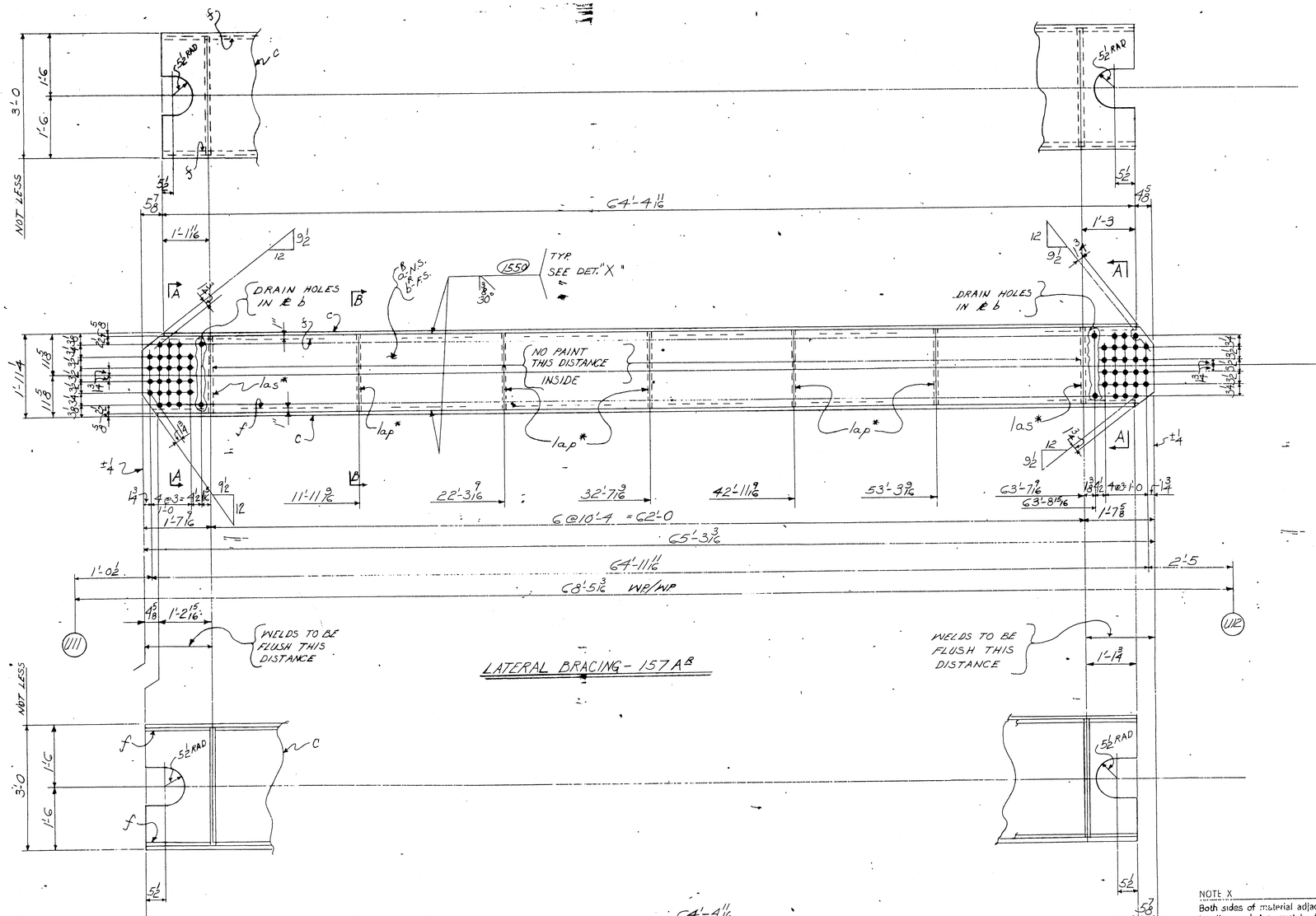
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-19-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 5-12-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 156BB

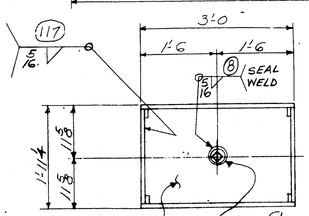
For location of details shown on this sheet refer to diagrams.
E10

120-99 NC TAPE 33433 (Rev.2) 8-69

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

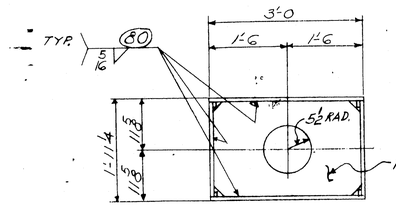
0 1 2 3 4 5 6



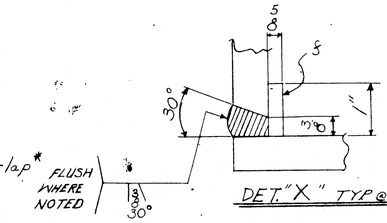


SEC-"A-A"

h - 1½"ø STD. PIPE COUPLING - N.S.
k - 1½"ø STD PIPE PLUG N.S.



SEC-"B-B" (TYP UN.)



DET. "X" TYP @ CORNERS

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

E13 & E15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

M14	M14	NO.	DESCRIPTION	MARK	REMARKS
1	1	2	LAT. BRACING 20"x10"x	157A℄	
1	1	2	LAT. BRACING	157A℄	

INST. — REQUIRED LIST

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS - H. BOLTS
OPEN HOLES - 15/16ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - One Shop Coat Red Load AASHO - M72, Type II See Note "X"

SHOP BILL

PRODUCT TYPE 1=P 2=M	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		4	LATERALS 2-157A℄ 4 L57A℄						
(M)	a℄	2	PL	21¼		½	65	3 3/16	T2W
(M)	b℄	2	PL	21¼		½	65	3 3/16	T2W
(2)	c	8	PL	36		⅝	64	4 11/16	T2W
	f	16	BR	1		⅝	65	4 11/16	BACKUP BAR
	h	8	M	1½	STD	PIPE	COUPLING 2½ LG		AMB
	k	8	M	1½	STD	PIPE	PLUG		AMB
	lap*	20	PL	22		⅜	2	11	
	las*	8	PL	22		⅜	2	11	
	FW	4	WD			5/16	54.	2	
	B30	4	WD			½	258	4	
	FW	4	WD			¼	18	8	SEAL WELD
	SD	4	WD			⅛	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE - LINE
					26\04
					26\04
					26\03
					26\08
					AMB
					AMB
					26\11
					26\11

APPROVED for HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
by Donald Northy MAY 8 1970

LATERAL BRACING U11 TO U12

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

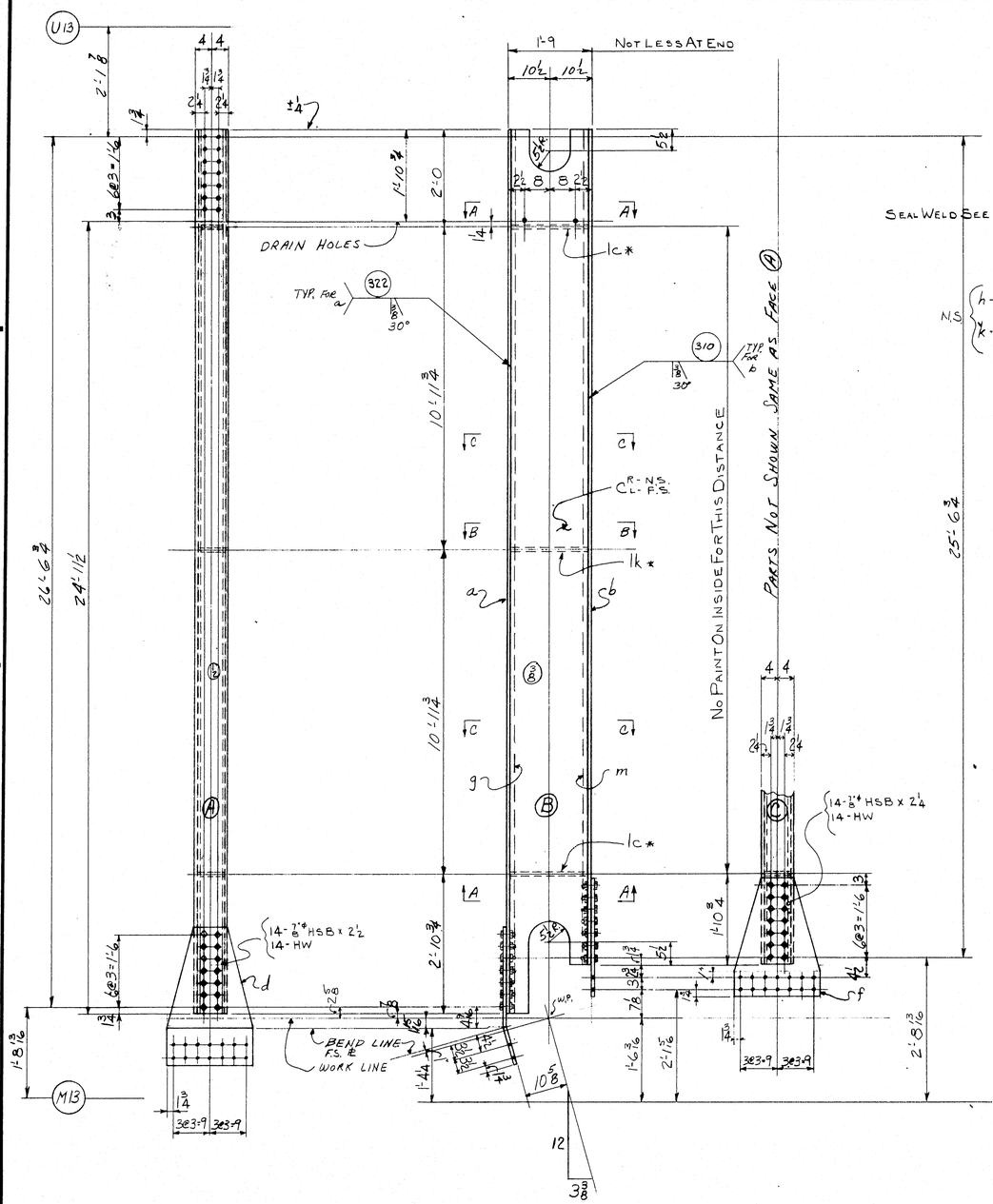
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY MP DATE 3-19-70 IN CHARGE L.A.G.
CHECKED BY LP DATE 4-27-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 157

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

120-100 NC TAPE

3340 Bm.D.8-69



SHOP BILL

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		2	VERTICALS 158A						
②	2	a	2	PL	8		½	26	10¼	T2W
②	3	b	2	PL	8		½	25	10¼	T2W
Ⓜ	4	c'	2	PL	19¼		⅜	26	10¼	T2W
	5	d	2	PL	21½		⅝	2	10	BENT
	6	f	2	PL	21½		½	2	5	
	7	g	4	BR	1		⅝	27	10¼	BACKUP BAR
	8	m	4	BR	1		⅝	26	10¼	BACKUP BAR
	9	1a*	4	PL	7¼		⅜	1	8	
	10	1k*	2	PL	7¼		⅜	1	8	
	11	h	4	M	1½"	STD.	PIPE	PLUG		
	12	k	4	M	1½"	STD	PIPE	COUPLING	2½ 6	
	13									
	14									
	15									
	16	FW	2	WD			5/16	12	5	
	17	B30	2	WD			⅜	105	4	
	18	FW	2	WD			¼	34	6	SEAL WELD
	19	SD	2	WD			1/8	1	1	" "
	20		28	325	⅞"			0	2¼	
	21		28	325	⅞"			0	2½	
	22		56	HW	1¾	15/16	3/16			

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		27	1		256	03
		26	1		256	04
		27	1		256	05
		3	0		257	09
					257	10
		27	10		256	09
		27	10		256	09
					256	13
					256	13
					AM	8
					AM	8
					AM	26
					AM	26
					AM	26

INST.	NO.	DESCRIPTION	MARK	REMARKS
	1	2 VERT. 1'-10 x 22 x 27'-11	158A	
	1/15	M15		

REQUIRED LIST

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

E9 & E11

VERTICAL 158A

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes., EXCEPT DRAIN HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL AST.M - A36
BOLTS
OPEN HOLES 15/16
A325 FIELD BOLTS ⅞"
SHOP CONTACT SURFACES N.P.
WELDING: AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" + UN

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

NO.	DATE	INIT.
REVISION		

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 31 PARK AVE. NEW YORK 17, N.Y.

FFW

JUN 9 1970

VERTICAL @ SWAY FRAME POINT 13

CUSTOMER MAINE STATE HIGHWAY COMMISSION

HARDESTY AND HANOVER CONSULTING ENG'R

STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION

FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS

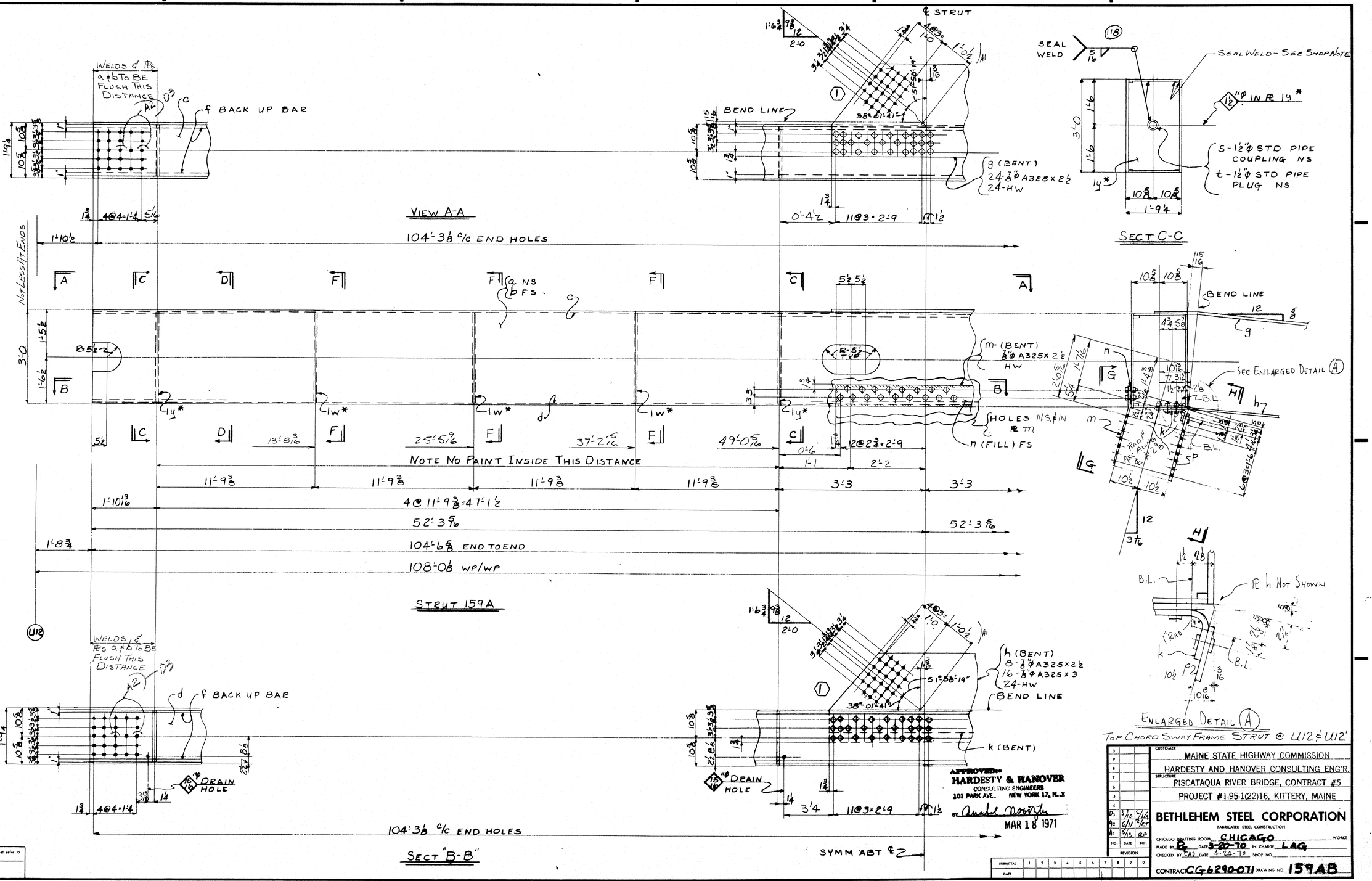
MADE BY CPM DATE 3-19-70 IN CHARGE L.A. GOTHBERG

CHECKED BY CAD DATE 5-6-70 SHOP NO.

CONTRACT CG6290-070 DRAWING NO. 158

120-101 NC TAPE

0 1 2 3 4 5 6



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

E9 & E11

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE., NEW YORK 17, N.Y.
BY
MAR 18 1971

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

NO.	DATE	INIT.
D2	3/10	3/14
A2	6/11	6/17
A1	5/13	RP

REVISION

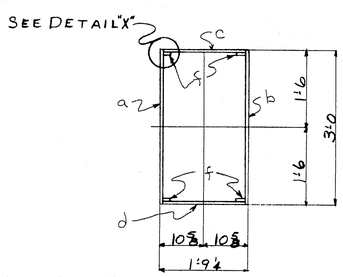
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

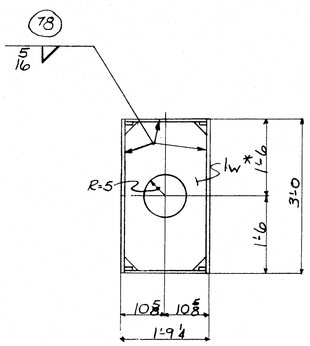
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RP DATE 3-22-70 IN CHARGE LAG
CHECKED BY CAD DATE 4-24-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 159AB

36663 (1-65)

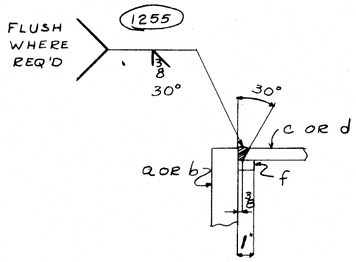
120-102 NC TAPE



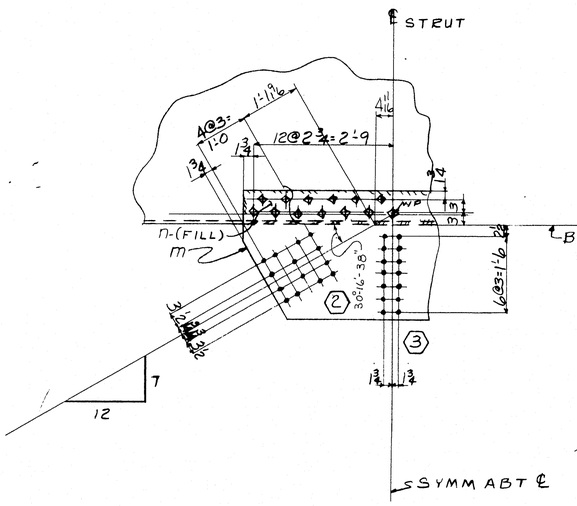
SECT "D-D"



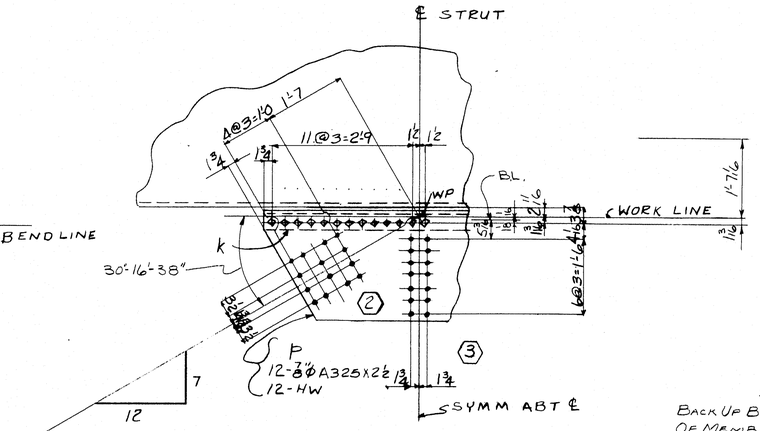
SECT "F-F" TYP



DETAIL "X" TYP



SECT "G-G"
(SHOWN DEVELOPED)



"SECT H-H"

SHOP NOTE!
BACK UP BARS FROM SEAL DIAPH'S TO END OF MEMBER AND BETWEEN SEAL DIAPH'S AT CENTER OF STRUT SHALL BE SEAL WELDED WITH ¼" FILLET WELD AS SHOWN ON CS15.

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

For location of details shown on this sheet refer to diagrams.
E9 & E11

SHOP BILL

LINE	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: ITEM Page	MILL ORDER: ITEM Line
1		2	STRUTS - - 159A										
(M) 2	a	2	PL	36		5/8	104	6 5/8	T2W			223	13
(M) 3	b	2	PL	36		5/8	104	6 5/8	T2W			223	13
(2) 4	c	2	PL	19¼		1/2	104	6 5/8	T2W			223	18
(2) 5	d	2	PL	19¼		1/2	104	6 5/8	T2W			223	16
6	f	8	BR	1		5/8	105	7	BACK UP BAR			229	06
7	g	2	PL	72½		5/8	3	0	(BENT)			241	12
8	h	2	PL	72½		5/8	2	10	(BENT			241	13
9	k	2	PL	72½		5/8	1	1	(BENT)			241	11
10	m	2	PL	89½		1/2	2	6	(BENT)			241	09
11	n	2	BR	7¾		3/16	5	9½	FILL			241	16
12	P	2	PL	25½		1/2	6	0½				241	10
13	S	8	M	1½"ø	STD	PIPE COUPLING 2½ LG						AM	08
14	t	8	M	1½"ø	STD	PIPE PLUG						AM	08
15	lw*	12	PL	20		3/8	2	11				289	19
16	ly*	8	PL	20		3/8	2	11				289	14
17													
18													
19													
20		226	325	7/8"ø			0	2½				AM	30
21													
22		64	325	7/8"ø			0	3				AM	30
23													
24		290	HW	1¾"ø	15/16	3/16						AM	30
25													
26													
27	Fw	2	WD			5/16	78	4					
28	FW	2	WD			1/4	81	1	SEAL WELD				
29	SD	2	WD			1/8	1	2	SEAL WELD				
30	B30	2	WD			1/2	418	4					
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

		1	1	2	STRUTS	159A	4'3x5'-3x104'-7
	M14	H14		NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
401 PARK AVE. NEW YORK 17, N.Y.
NOV 11 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR HOLES MARKED DRAIN HOLE & 11X22 SLOT HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

TOP CHORD SWAY FRAME STRUT @ U12 & U12'

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 13/16"ø UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & UN

NO.	DATE	INT.
D1	10-30	CD

REVISION

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

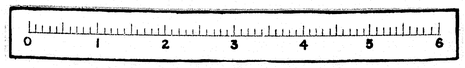
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

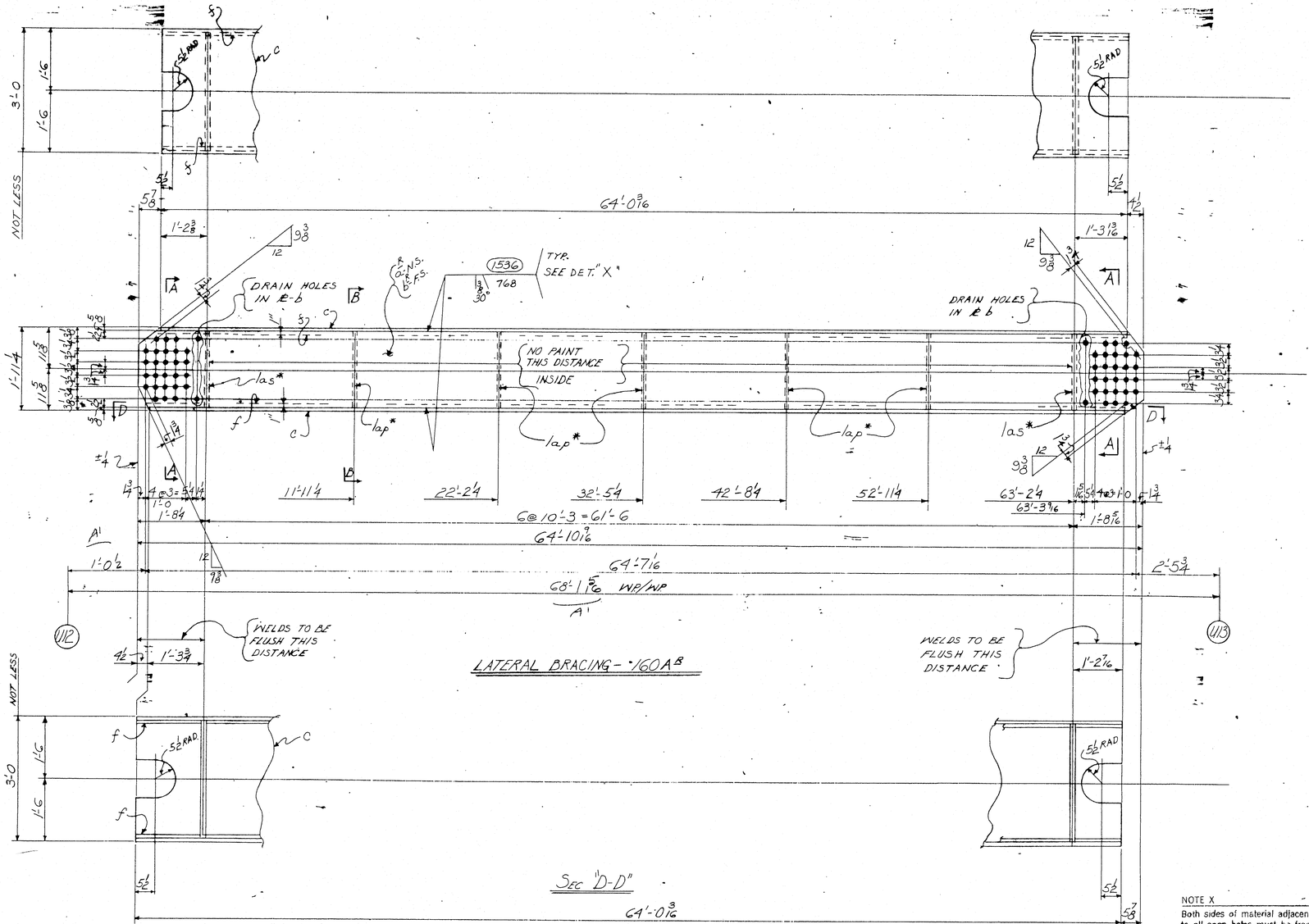
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

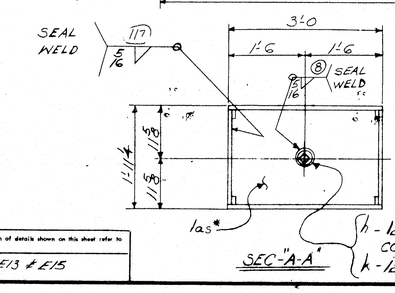
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RG DATE 3-20-70 IN CHARGE LAG
CHECKED BY CAD DATE 4-24-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 159BB

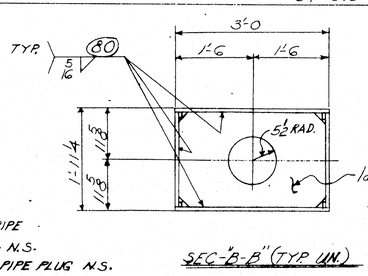
33433 (Rev. A 1-65)

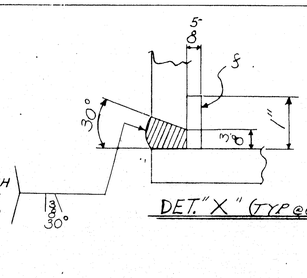
120-103 NC TAPE











NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

M15	M15	NO.	DESCRIPTION	MARK	REMARKS
		2	LAT BRACING 2-L3½x3½x5/16x5'-10	L60A ℄	
1	1	2	LAT BRACING 2	1	L60A B	
INST.		REQUIRED LIST			

For location of details shown on this sheet refer to diagrams. E13 & E15

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.* CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS - HB BOLTS
OPEN HOLES - 15/16 ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

SHOP BILL

PROJECT TAG	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	LATERALS	2-L60A B & 2-L60A ℄												
M	2	aL	2	PL	21¼		½	64	10 9/16	T2W						261	06
M	3	bE	2	PL	21¼		½	64	10 9/16	T2W						261	06
2	4	c	8	PL	36		⅝	64	0 3/16	T2W						261	05
	5																
	6	f	16	BR	1		⅝	65	0¼	BACKUP BAR						261	09
	7																
	8	h	8	M	1½ STD			PIPE COUPLING 2½ LG								AMB	
	9	k	8	M	1½ STD			PIPE PLUG								AMB	
	10	lap*	20	PL	22		⅜	2	11							261	12
	11	las*	8	PL	22		⅜	2	11							261	12
	12																
	13																
	14	FW	4	WD			5/16	54	2								
	15	B30	4	WD			½	256	0								
	16	FW	4	WD			¼	20	2	SEAL WELD							
	17	SD	4	WD			⅛	1	1	SEAL WELD							

PROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
MAY 28 1970

LATERAL BRACING U12 TO U13

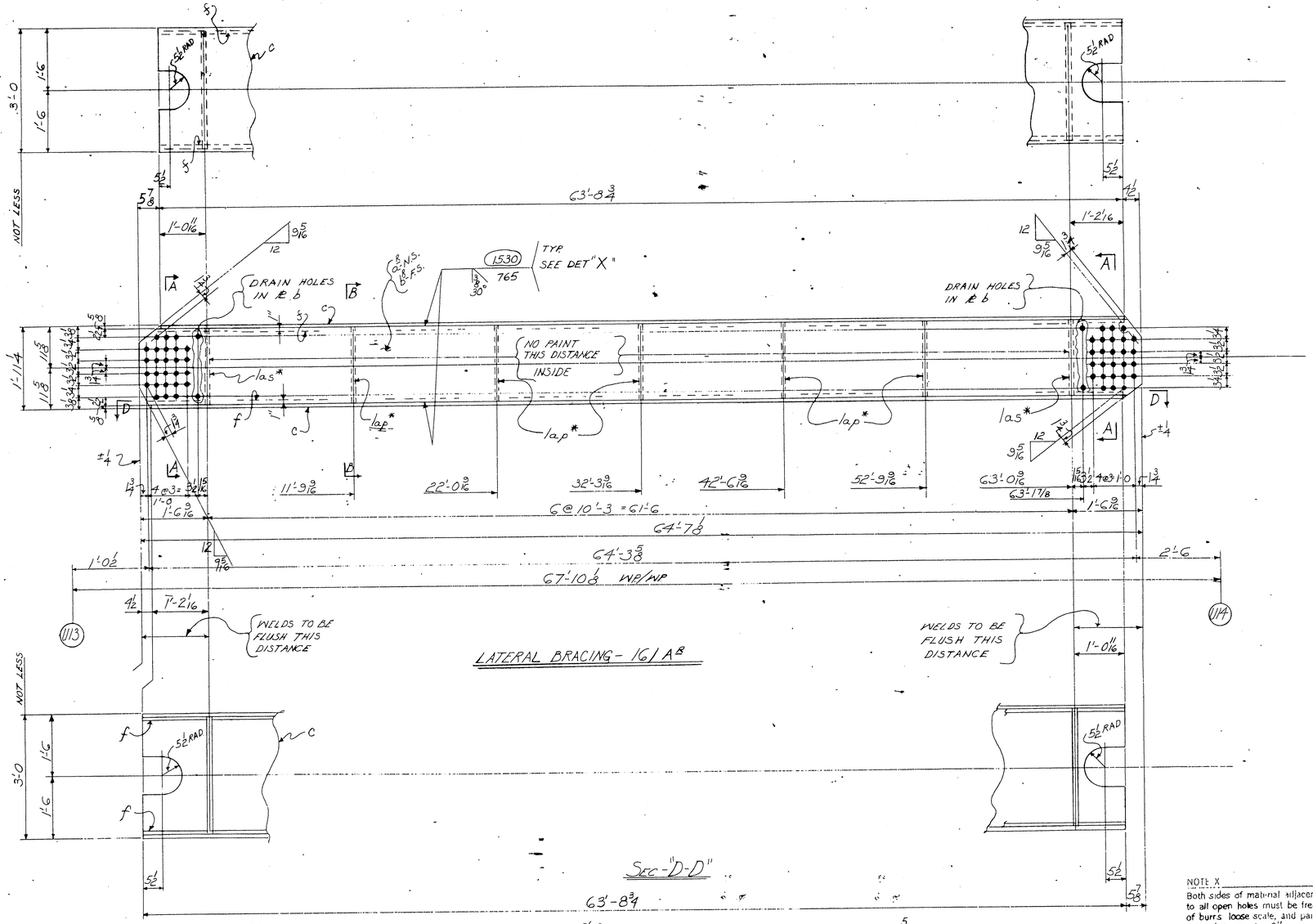
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY RP DATE 3-19-70 IN CHARGE L.A.G.
CHECKED BY RP DATE 4-7-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 160

REVISION: NO. 5/13 DATE R.P. INIT.

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

33432 (Rev.D 8-69)

120-104 NC TAPE



1	1		2	LAT. BRACING	26x30x69-8	16/A^B	
1	1		2	LAT. BRACING	1 1	16/A^B	
M17		H7	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

NOTE X
Both sides of material adjacent to all open holes must be free of burrs loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

NOTE: Length Corrected for Temperature
FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M - A36
H.T. - F BOLTS ——
OPEN HOLES - 15/16 ℄ U.N.
A325 FIELD BOLTS ——
SHOP CONTACT SURFACES - N.P
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

For location of details shown on this sheet refer to diagrams.
E13 # E15

SHOP BILL

PIECE MARK	SIZE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
			4	LATERALS			2-16/A^B	2	16/A^B	
M1		a^E	2	PL	21 1/4		1/2	64	7 1/8	T2W
M1		b^E	2	PL	21 1/4		1/2	64	7 1/8	T2W
2		c	8	PL	36		5/8	63	3 3/4	T2W
		f	8	BR	1		5/8	64	8 3/4	BACKUP BAR
		h	8	M	1 1/2"	STD	PIPE	COUPLING 2'-6 LG		AMB
		k	8	M	1 1/2"	STD	PIPE	PLUG		AMB
		lap*	20	PL	22		3/8	2	11	262.10
		las*	8	PL	22		3/8	2	11	262.10
		FW	4	WD.			5/16	54	2	
		B30	4	WD.			1/2	255	0	
		FW	4	WD.			1/4	17	10	SEAL WELD
		SD	4	WD.			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					262	02
					262	02
					262	01
					262	07
					AMB	
					AMB	
					262	10
					262	10

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Moorby
MAY 8 1970

LATERAL BRACING U13 TO U14

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY JH DATE 3-20-70 IN CHARGE L.A.G.
CHECKED BY KP DATE 4-27-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 161

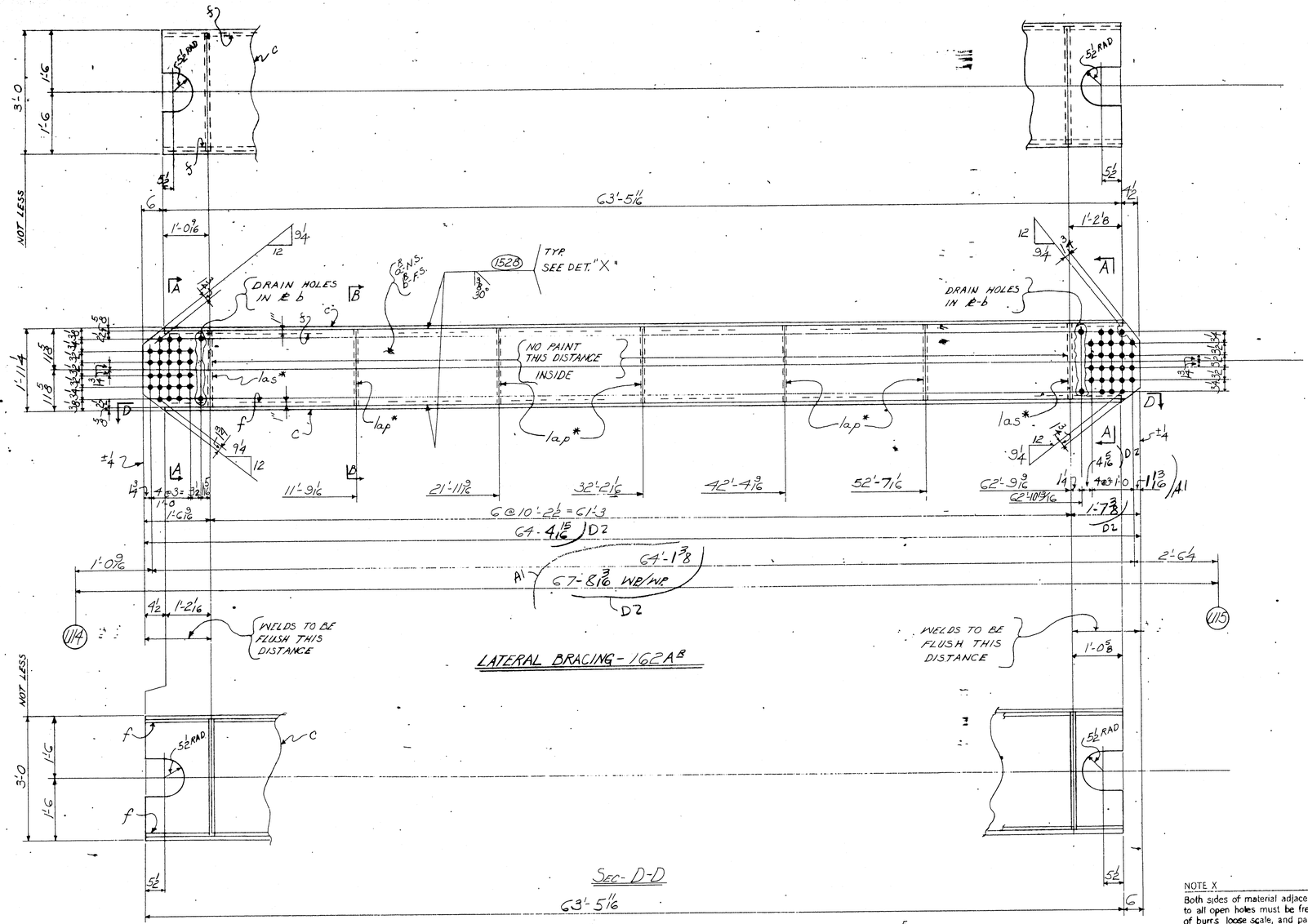
REVISION

NO.	DATE	INIT.

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

33433 (Rev.D 8-69)

120-105 NC TAPE



a	b	c
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

For location of details shown on this sheet refer to diagram: E14

NOTE X
Both sides of material adjacent to all open holes must be free of burrs loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

MI8	HI8	NO.	DESCRIPTION	MARK	REMARKS
		2	LAT. BRACING 2-63'-0 1/4 @ 45	162A B	
		2	LAT. BRACING 1-1	162A E	
INST			REQUIRED LIST		

SHOP BILL

PROJECT NO.	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		4	LATERALS		2-162A B & 2-162A E				
M	a*	8	PL	21¼		½	64	4 15/16	T2W
M	b*	8	PL	21¼		½	64	4 15/16	T2W
E	c	8	PL	36		⅝	63	6 11/16	T2W
									D2
	f	16	BR	1		⅝	64	6 11/16	BACKUP BAR
	h	8	M	1½	STD	PIPE COUPLING 2½ LG			AMS
	k	8	M	1½	STD	PIPE PLUG			AMS
	lap*	20	PL	22		⅜	2	11	
	las*	8	PL	22		⅜	2	11	
	FW	4	WD			5/16	54	2	
	B30	4	WD			½	254	8	
	FW	4	WD			¼	18	0	SEAL WELD
	SD	4	WD			⅛	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					262	04
					262	04
					262	03
					262	08
					AMS	
					AMS	
					262	11
					262	11

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS - B BOLTS —
OPEN HOLES - 15/16 ø U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES - N.P
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
BY Anatol Moretsky JUL 24 1970

LATERAL BRACING U14 TO U15

CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

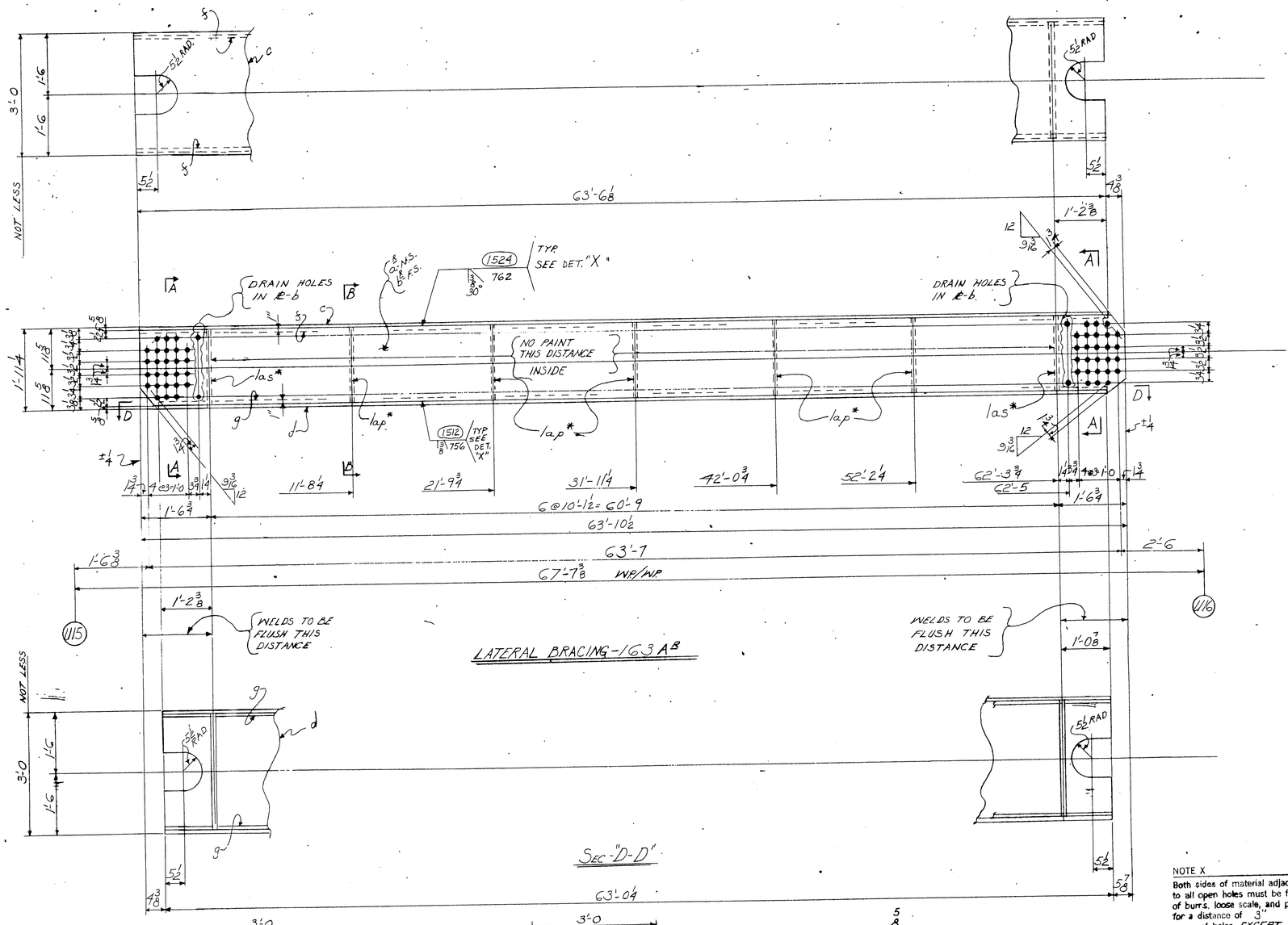
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY JH DATE 3-24-70 IN CHARGE L.A.G.
CHECKED BY RP DATE 4-1-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 162

REVISION NO. 2 DATE 7/15/70 BY R.P.

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

120-106 NC TAPE



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

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

E14

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HLS

Y		2	LAT. BRACING 20 STAGGER	163A^B		
		2	LAT. BRACING	163A^B		
M20	M20	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST			

SHOP BILL

PRODUCT TYPE		ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	LATERAL BRACES-2-163A^B & 2-163A^B						
M	2	a^PL	2	PL	21/4		1/2	63	10½	T2W
M	3	b^PL	2	PL	21/4		1/2	63	10½	T2W
2	4	c	4	PL	36		5/8	63	6⅛	T2W
2	5	d	4	PL	36		5/8	63	0¼	T2W
	6	f	8	BR	1		5/8	64	6	BACKUP BAR
	7	g	8	BR	1		5/8	64	0	BACKUP BAR
	8	h	8	M	1½ø	STD		PIPE COUPLING 2½ LG.		
	9	k	8	M	1½ø	STD		PIPE PLUG		
	10	lap*	20	PL	22		5/8	2	11	
	11	las*	8	PL	22		5/8	2	11	
	12									
	13	FW	4	WD			5/16	54	2	
	14	B30	4	WD			1/2	253	0	
	15	FW	4	WD			1/4	20	3	SEAL WELD
	16	SD	4	WD			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					262	06
					262	06
					262	05
					262	05
					262	09
					262	09
					AM8	
					AM8	
					262	12
					262	12

NOTE: Length Corrected for Temperature

FOR SEAL WELDING SEE SHT.# CS15

ELECTRODES - E70XX LOW HYDROGEN

MATERIAL - A.S.T.M. - A36
RIVETS OR BOLTS —
OPEN HOLES - 1/16" U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 3 1970

LATERAL BRACING U15 TO U16

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY MP DATE 3-24-70 IN CHARGE L.A.G.
CHECKED BY PP DATE 4-27-70 SHOP NO.
CONTRACT CGC290-072 DRAWING NO. 163

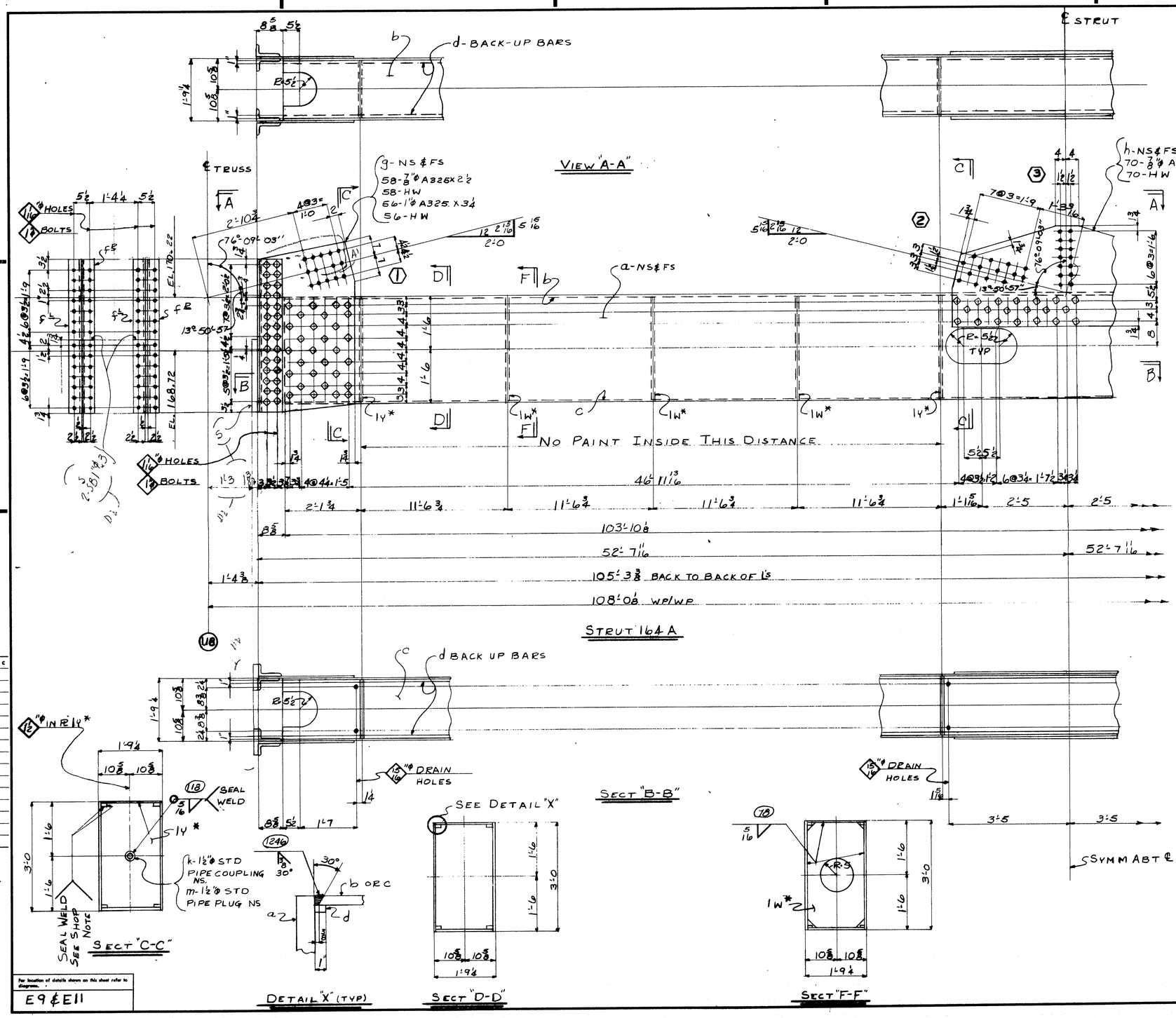
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

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

REVISION

120-107 NC TAPE

0 1 2 3 4 5 6



	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
		2	STRUTS 164A											
(2)	a	4	PL	36		5/8	103	10⅛	T2W					22508
(M)	b	2	PL	19¼		½	103	10⅛	T2W					22507
(M)	c	2	PL	19¼		½	103	10⅛	T2W					22507
	d	8	BR	1		5/8	104	10	BACK UP BAR					22606
	f	8	L	8	4	5/8	4	3¾						22705
	g	8	PL	32¼		½	4	9⅛						22701
	h	4	PL	34		½	6	5						22702
	k	8	M	1½"ϕ		STD PIPE COUPLING (FULL)								AM 08
	m	8	M	1½"ϕ		STD PIPE PLUG								AM 08
	1W*	12	PL	20		3/8	2	11						22612
	14*	8	PL	20		3/8	2	11						22611
	5	8	PL	8½		1⅜	2	0½	FILL					1593
D2		16	MB	1"ϕ			0	3	RWH-HHN (SB)					AM 27
		372	325	⅞"ϕ			0	2½						
		372	HW	1¾"ϕ	15/16	3/16								
		224	325	1"ϕ			0	3¼						
		224	HW	2"ϕ	1 1/16	3/16								
	FW	2	WD			5/16	78	0						
	FW	2	WD			¼	90	8	SEAL WELD PER CS15					
	SD	2	WD			⅛	1	1						
	B30	2	WD			½	415	5						

	1	1	2	STRUT	164A	5'-1 x 2'-6 x	105'-3½
	M8	H8	NO.	DESCRIPTION	MARK	REMARKS	

INST. — REQUIRED LIST

SHOP NOTE:
FOR SEAL WELDING SEE DRWG CS15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR HOLES MARKED DRAIN HOLES & 22X11 SLOT HOLES

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 28 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

STRUT BELOW U8 & U8'

MATERIAL A-36
RIVETS OR BOLTS
OPEN HOLES 16 ϕ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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

NO.	DATE	INIT.	REVISION
D2	5-21	CD	
A1	5-19	CD	

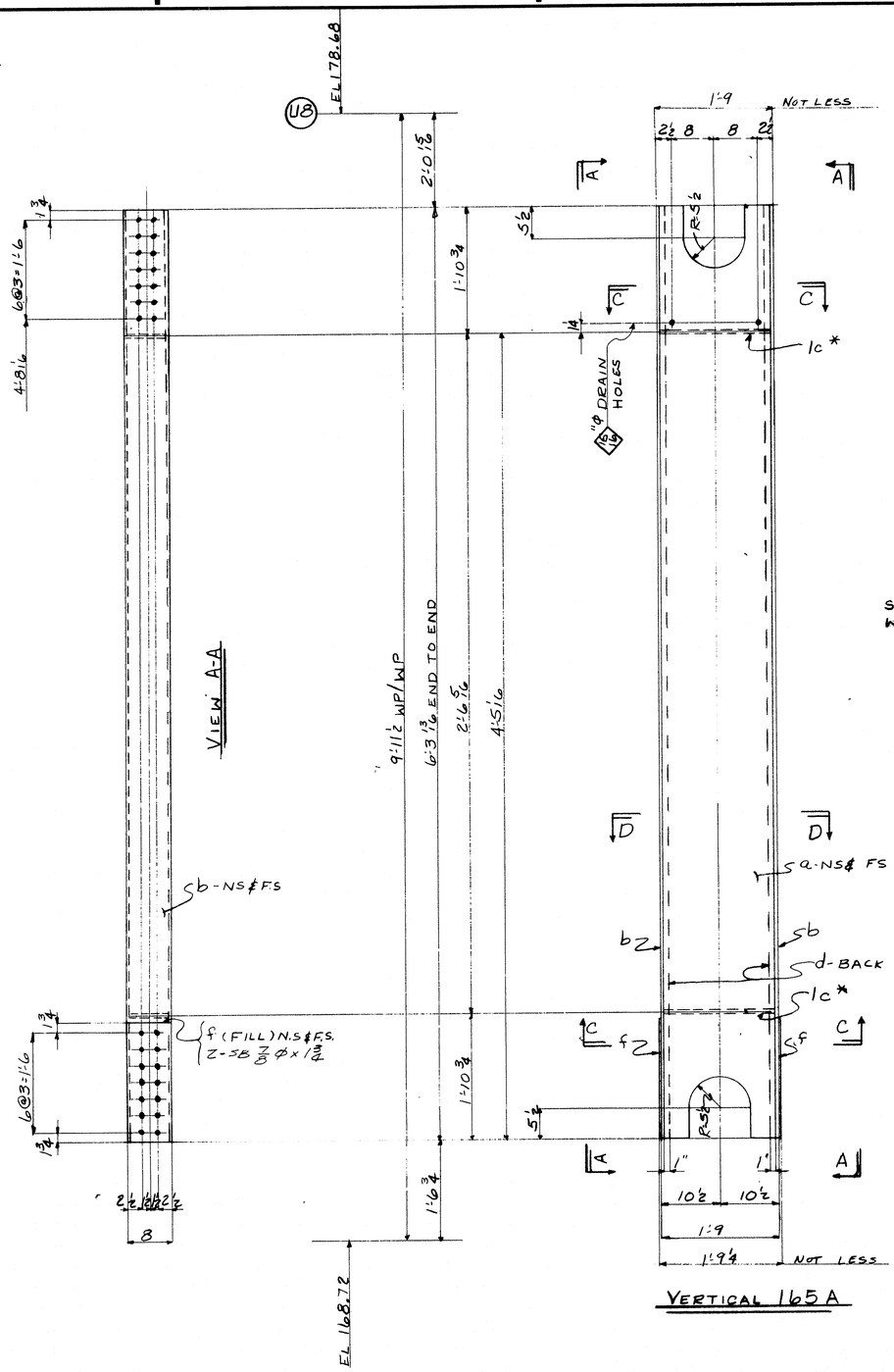
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

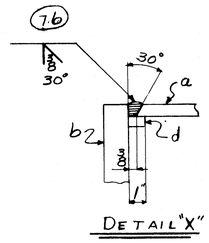
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

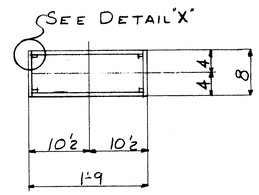
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY BF DATE 3-24-70 IN CHARGE LAG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 164

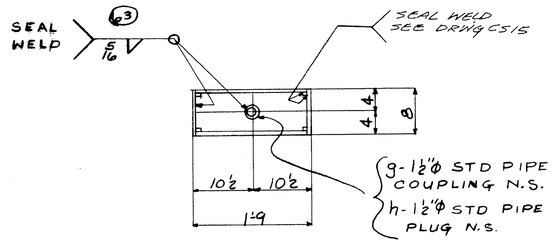
33453 (Rev. A 1-65)

120-108 NC TAPE









SHOP NOTE:
FOR SEAL WELDING SEE DWG CS15

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR HOLES MARKED DRAIN HOLES & 11X11 SLOT HOLES

SHOP BILL

ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION Size	SECTION Size or Pounds	LENGTH Thick	LENGTH Ft.	LENGTH In.	REMARKS	MILL ORDER LENGTH Ft.	MILL ORDER LENGTH In.	MILL ORDER ITEM Page	MILL ORDER ITEM Line
1		2	VERTICAL			165A							
2	a	4	PL	19/4		3/8	6	3 13/16	T2W			22512	
3	b	4	PL	8		1/2	6	3 7/16	T2W			22611	
4	1c *	4	BR	7/4		3/8	1	8				G	
5	d	8	BR	1		5/8	7	4	BACK UP BAR			22606	
6	f	4	STP	6½		1/8	1	9½	FILL			22711	
7	g	4	M	1½ø	STD	PIPE COUPLING (FULL)						AM	08
8	h	4	M	1½ø	STD	PIPE PLUG						AM	08
9													
10													
11													
12	FW	2	WD			5/16	10	6					
13	SD	2	WD			1/8	1	1	SEAL WELD PER CS15				
14	FW	2	WD			1/4	30	4					
15	B30	2	WD			3/8	23	8					
16													
17		8	MB	7/8ø			0	1 3/12	RHH, RHN(SB)				
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

M8	H8	NO.	DESCRIPTION	MARK	REMARKS
		1	1	2	VERTICAL	165A	1'-9 x 0'-8 x 6'-6
INST.		REQUIRED LIST			

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FEW
MAY 12 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

VERTICAL @ U8 & U8'

MATERIAL	A36
RIVETS OR BOLTS	—
OPEN HOLES	15/16ø UN
A325 FIELD BOLTS	—
SHOP CONTACT SURFACES	N.P
WELDING	AS NOTED
PAINT	One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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										

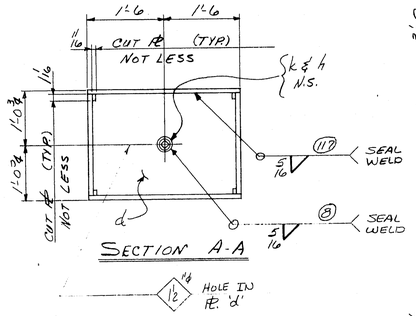
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY R DATE 3-24-70 IN CHARGE LAG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT CG 6290-070 DRAWING NO. 165

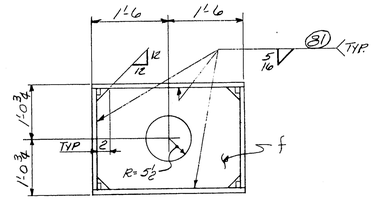
33433 (Rev.A 1-65)

For location of details shown on this sheet refer to diagrams.
E9 & E11

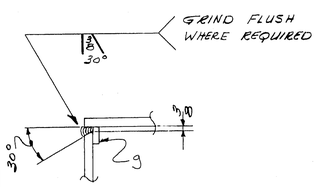
120-109 NC TAPE



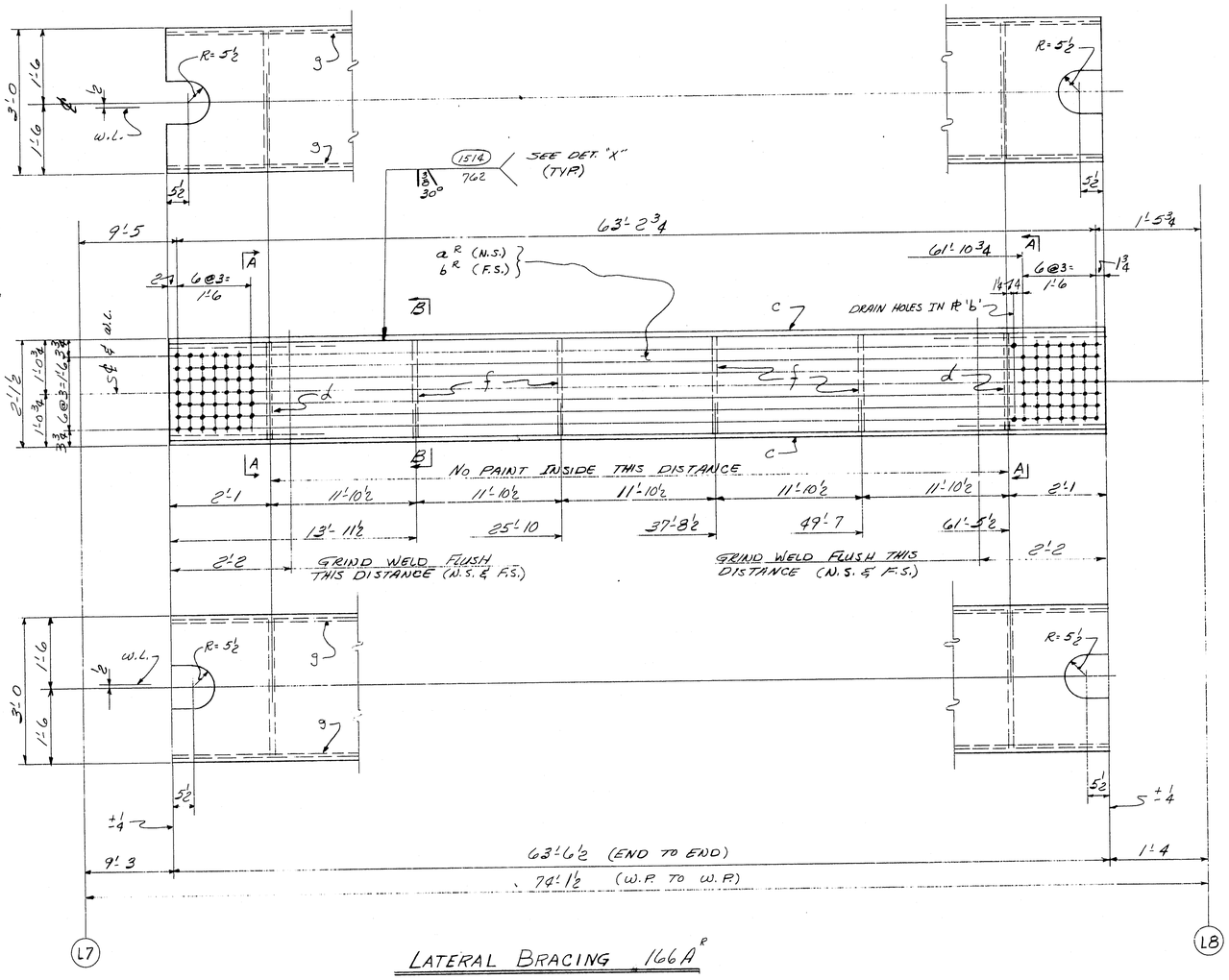
SECTION A-A



SECTION B-B



DETAIL 'X'



LATERAL BRACING 166A^R

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

INST.	MB	SB	NO.	DESCRIPTION	MARK	REMARKS
		1	2	do	166A^L	
		1	2	LATERAL BRAC.	166A^R	

REQUIRED LIST

For location of details shown on this sheet refer to diagrams.
E18-E20

SHOP BILL — MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	WEIGHT Pcs.	WEIGHT Lbs.
		4 - LATERAL BRACES 2-166A^R & 2-166A^L													
M	a^R	2	PL	23 1/4		3/4	63	6 1/2	T&W						235.2
M	b^R	2	PL	23 1/4		3/4	63	6 1/2	T&W						235.2
E	c	8	PL	3/16		3/4	63	6 1/2	T&W						235.1
	d	8	PL	29		3/8	2	10 1/2							236.10
	f	16	PL	29		3/8	2	10 1/2							236.10
	g	16	BR	1		5/8	64	6 1/2	BACK-UP BAR						236.4
	h	8	M	1/8 ø					STD. PIPE COUPLING, 2 1/16 LG						AMB
	k	8	M	1 1/2 ø					STD. PIPE PLUG						AMB
	FW	4	WD.			5/16	47	10							
	B30	4	WD.			3/4	254	2							
	FW	4	WD.			1/4	16	8	SEAL WELD						
	SD	4	WD.			1/8	1	1	SEAL WELD						

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUN 3-1970

FOR SEAL WELDING SEE SHT.# CS15

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX
LOW HYDROGEN

MATERIAL ASTM-A36
RIVETS OR BOLTS
OPEN HOLES 15/16" ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"
U.N.

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

REVISION NO. DATE INIT.

LATERAL BRACING L7 TO L8

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENGR.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95 (2) 16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 3-25-70 IN CHARGE L.A.G.
CHECKED WLP DATE 4/30/70 SHOP NO.
CONTRACT CS6290-012 DRAWING NO. 166

33433 (Rev.2 8-69)

120-110 NC TAPE

0 1 2 3 4 5 6

STRUT 167A

STRUT @ L8 & L8'

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

E9 & E11

CUSTOMER: MAINE STATE HIGHWAY COMMISSION

HARDESTY AND HANOVER CONSULTING ENG'R.

STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION

FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS

MADE BY B DATE 3-30-70 IN CHARGE LAG

CHECKED BY PS DATE 5-11-70 SHOP NO.

CONTRACT CG 6290-071 DRAWING NO. 167AB

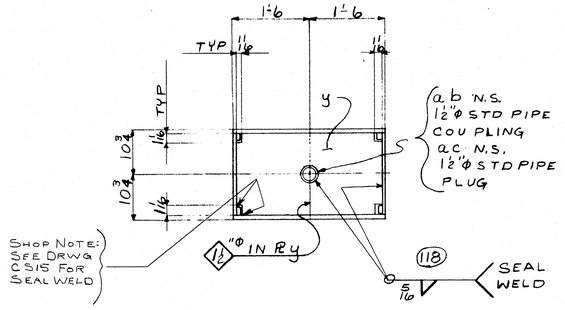
APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.

BY FFW DEC 30 1970

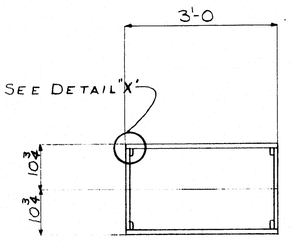
REVISION: NO. 1 DATE 12/17/70 INIT. RM

SUBMITTAL / DATE

120-111 NO TAPE



SECT "A-A"



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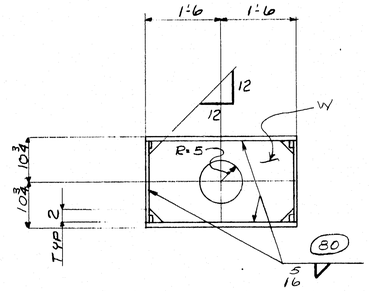
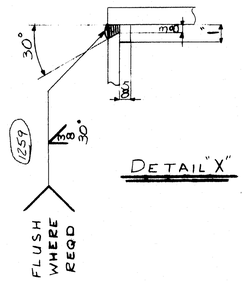
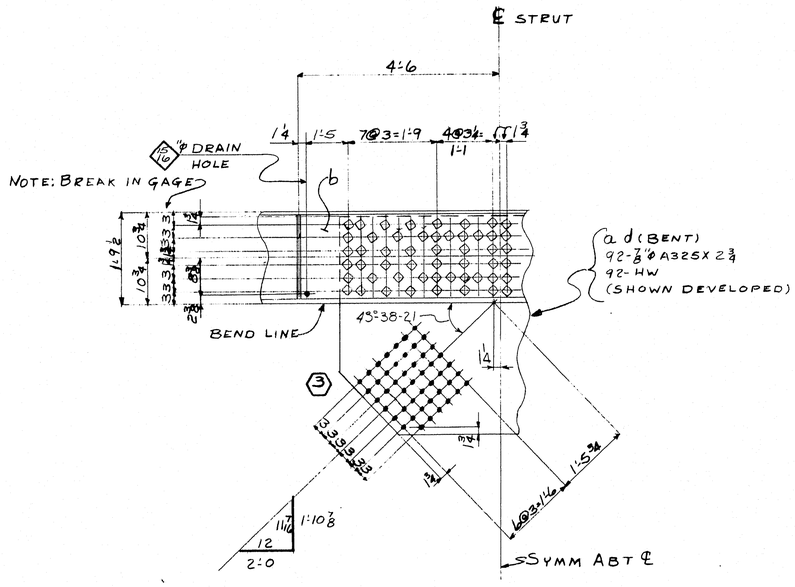


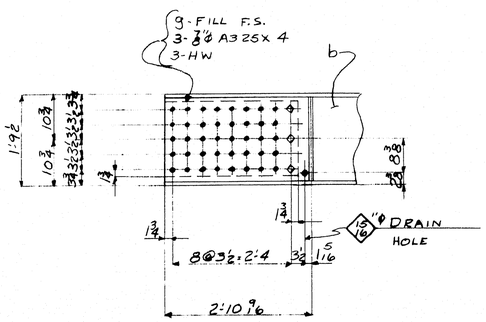
SECT "C-C" TYP



DETAIL "X"



SECT "F-F"



SECT D-D

	b	c
a		
W	/	
x	/	
d		
f		
g		
K		
K		
m		
n		
p		
s		
t		
w		
y		

INST.	M8	H8	NO.	DESCRIPTION	MARK	REMARKS
	1	1	2	STRUT	167A	4'6X4'6X10 5/8

REQUIRED LIST

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

E9 & E11

SHOP BILL — MAIL ORDER

PROJECT	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	MAIL ORDER WIDTH	MAIL ORDER THICK	MAIL ORDER LENGTH FT.	MAIL ORDER LENGTH IN.	MAIL ORDER STOCK	MAIL ORDER ITEM FACT	MAIL ORDER ITEM LINE
		2	STRUTS - 167A													
M	a	2	PL	19 1/4		5/8	10 4	5 1/8	T2W						225	09
M	b	2	PL	19 1/4		5/8	10 4	5 1/8	T2W						225	09
M	c	2	PL	36		3/4	10 4	5 1/8	T2W						225	10
M	d	2	PL	36		3/4	10 4	5 1/8	T2W						225	10
	f	8	BR	1		5/8	10 5	5	BACK UP BAR						226	05
	g	4	PL	17 1/2		2	2	7 1/2	FILL						159	01
	h	2	PL	98 1/2		5/8	2	2 3/4	(BENT)						228	06
	k	2	L	3 1/2	3 1/2	5/8	5	0							228	08
	m	2	PL	85 1/2		3/8	4	5 3/4	(BENT)						228	09
	n	2	BT	B	44		7	1 1/2	(BENT						228	06
	p	14	BR	5 1/2		3/8	0	6 1/4							228	11
	s	2	PL	23 1/4		5/8	7	1 1/2							228	05
	t	2	L	3 1/2	3 1/2	3/8	4	3 1/2							228	07
	w	12	PL	20		3/8	2	10 3/4							226	14
	y	8	PL	20		3/8	2	10 3/4							226	13
	ab	8	M	1 1/2"φ					STD PIPE COUPLING (FULL)						AM	08
	ac	8	M	1 1/2"φ					STD PIPE PLUG						AM	08
	ad	2	PL	75 1/2		7/8	4	3 1/2	(BENT)						228	10
		8	MB	3/4"φ			0	2	RH HER HN (SB)							
		48	325	7/8"φ			0	2 1/2								
		360	325	7/8"φ			0	2 3/4								
		6	325	7/8"φ			0	4								
		48	325	7/8"φ			0	3 1/2								
		462	HW	3/4	15/16	3/16										
	FW	2	WD			5/16	82	10								
	SD	2	WD			1/8	1	1	PER DWG C-S15							
	FW	2	WD			1/4	117	0								
	B30	2	WD			5/8	419	8								

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
MAY 22 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 22X11 SLOT HOLES

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

STRUT @ L8 & L8'

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16"φ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
~~PAINT One Shop Coat Red Lead~~
AASHO - M72, Type II See Note "X"

D 5/14 YP — NO. DATE INIT. — REVISION

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

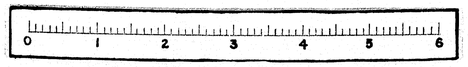
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

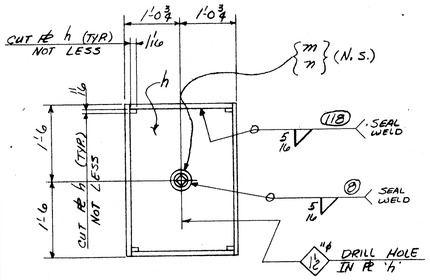
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY R DATE 3-31-70 IN CHARGE LAG
CHECKED BY FS DATE 5-14-70 SHOP NO.

CONTRACT CG6290-07 DRAWING NO. 16788

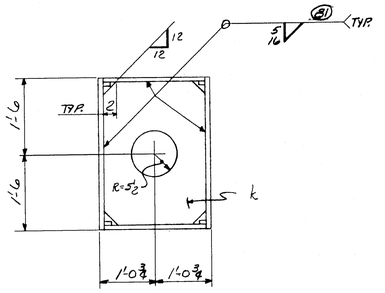
32431 (Rev.D 8-69)

NC TAPE 120-112

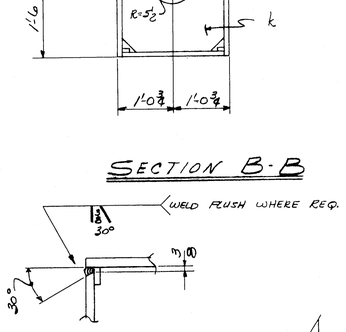




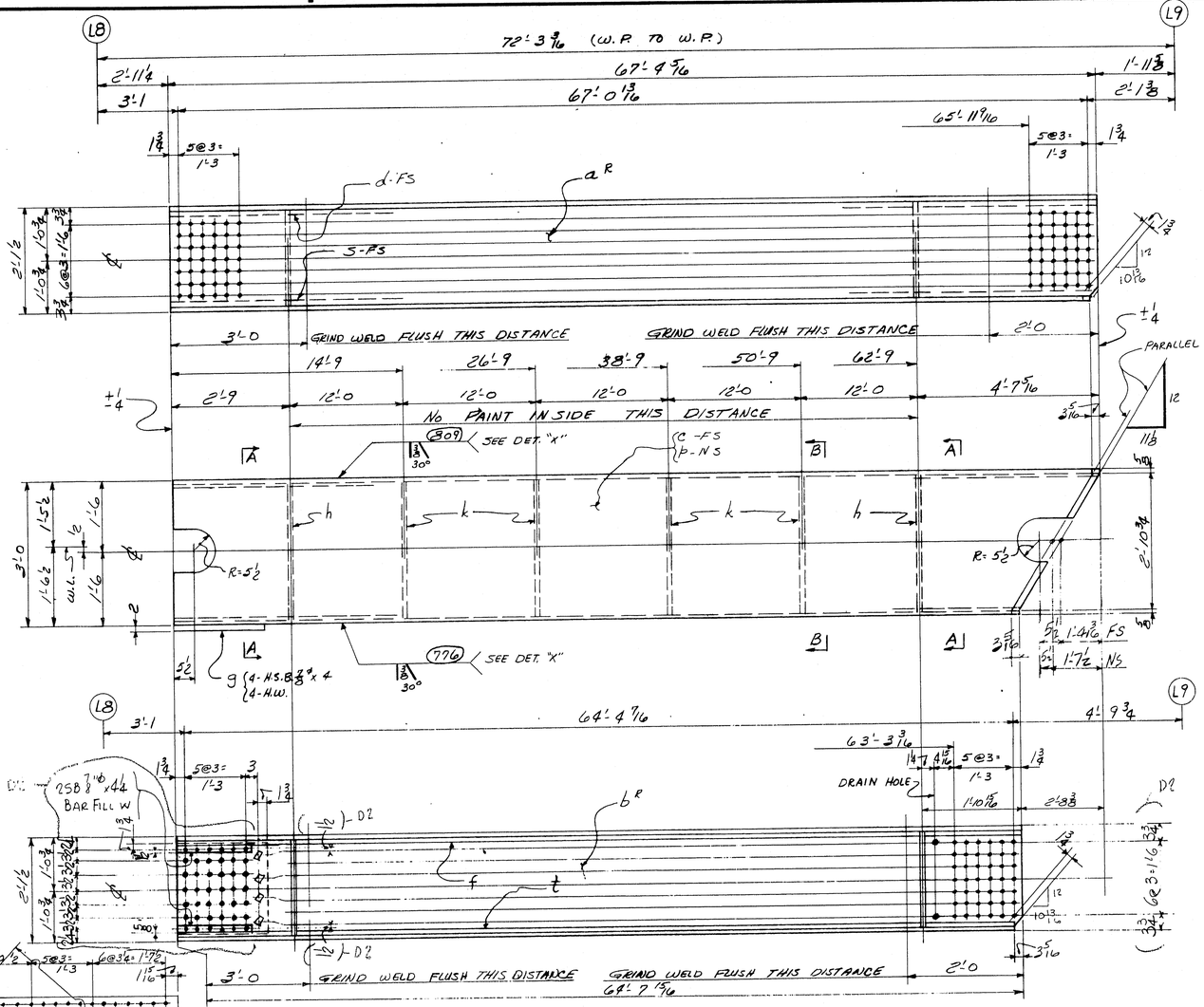
SECTION A-A



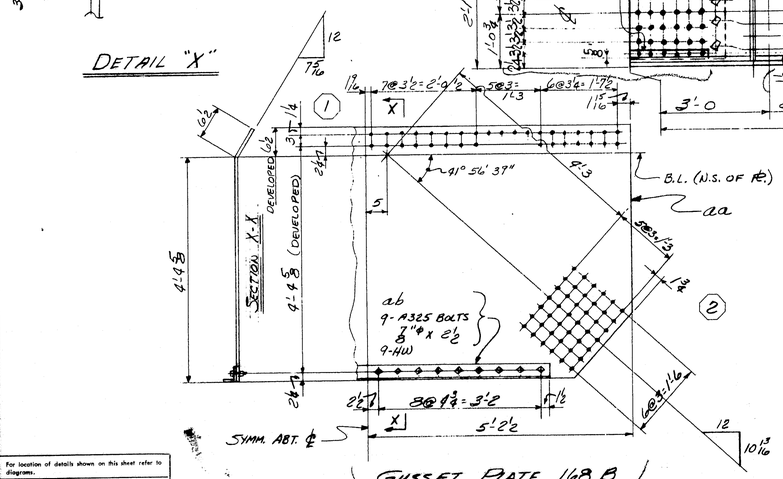
SECTION B-B



DETAIL "X"



LATERAL BRACING 168A^R



GUSSET PLATE 168B

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

D1			1	1	2	GUSSET PL	168B
D2			1	1	1	LATERAL BRACE	168AL
			1	1	2	do	168AR
		M9	M9	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

SHOP BILL

PROJECT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1																
	2	D2	2 - LATERAL BRACES 1-168AR & 1-168AL														
	3																
M	4	aE	1	PL	23 1/4		5/8	67	4 7/16	TEW						235	4
	5																
M	6	bE	1	PL	23 1/4		5/8	68	7 5/16	TEW						235	5
	7																
2	8	c	2	PL	36		3/4	67	4 5/16	TEW						235	3
	9	d	2	BR	1		5/8	68	4 1/4	BACK-UP BAR						236	5
	10	f	2	BR	1		5/8	65	8	(do)						236	5
	11	g	2	PL(24 1/2 D2)			2	1	9 1/2	FILL							
	12	h	4	PL	24		3/8	2	10 3/4							236	11
	13	k	8	PL	24		3/8	2	10 3/4							236	11
	14	m	4	M	1 1/2φ		STD. PIPE COUPLING 2 1/16 LG.									AMB	
	15	n	4	M	1 1/2φ		STD. PIPE PLUG									AMB	
2	16	P	4	PL	36		3/4	67	1							235	3
	17	S	2	BR	1		5/8	68	1	BACK-UP BARS						236	5
	18	t	2	BR	1		5/8	65	4 7/8	(do)						236	5
	19	W	4	BR	2 1/8		5/8	1	6 4	FILL							
	20																
	21		8	MB	7/8φ			0	4 4	EHHE RHN (S.B.) D2							
	22																
	23	FW	2	WD			9/16	47	10								
	24	B30	2	WD			5/8	20	4								
	25	FW	2	WD			1/4	47	7	SEAL WELD							
	26	SD	2	WD			1/8	1	1	(do)							
	27		8	325	7/8φ			0	4							AM30	
	28		8	HW	1 3/4	13/16	3/16			FOR 7/8φ BOLT						AM30	
	29																
	30																
	31	D2															
	32																
	33																
	34																
	35	D1	2 - GUSSET PLATES 168B														
	36																
	37	aa	2	PL	125		7/8	4	11 1/8							250	15
	38	ab	2	L	3 1/2	3 1/2	3/8	7	0							250	13
	39																
	40																
	41																
	42		36	325	7/8φ			0	8 1/2								
	43		36	HW	1 3/4φ	7/8	15/16			FOR 7/8φ BOLT							
	44																
	45																
	46																
	47																
	48																
	49																
	50																
	51																
	52																
	53																
	54																
	55																
	56																
	57																
	58																
	59																
	60																
	61																
	62																

FOR SEAL WELD SEE SHT. #CS 15

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL ASTM-A36
RIVETS OR BOLTS 7/8"φ
OPEN HOLES 15/16"φ U.N.
A325 FIELD BOLTS 7/8"φ
SHOP CONTACT SURFACES N.P.
PAINT WELDING As NOTED
One Shop Coat Red Lead AASHO - M72, Type II See Note "X" U.N.

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

NO.	DATE	INIT.	REVISION
D2	5/17/71	RJ	2nd
D1	5-26	7/6V	

HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Hardesty
MAY 27 1971

LATERAL BRACING L8 TO L9

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)15, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

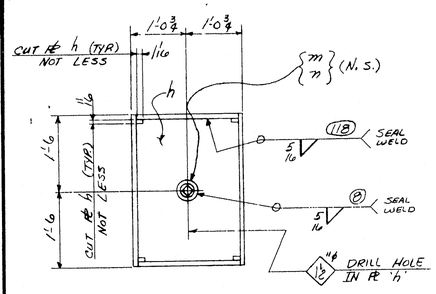
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE IN CHARGE L.A.G.
CHECKED BY RP DATE 4-30-70 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 168

33433 (Rev.D 8-69)

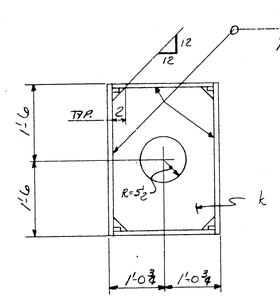
NC TAPE 120-113

For location of details shown on this sheet refer to diagram.
E18

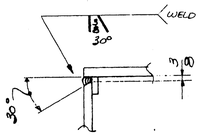
0 1 2 3 4 5 6



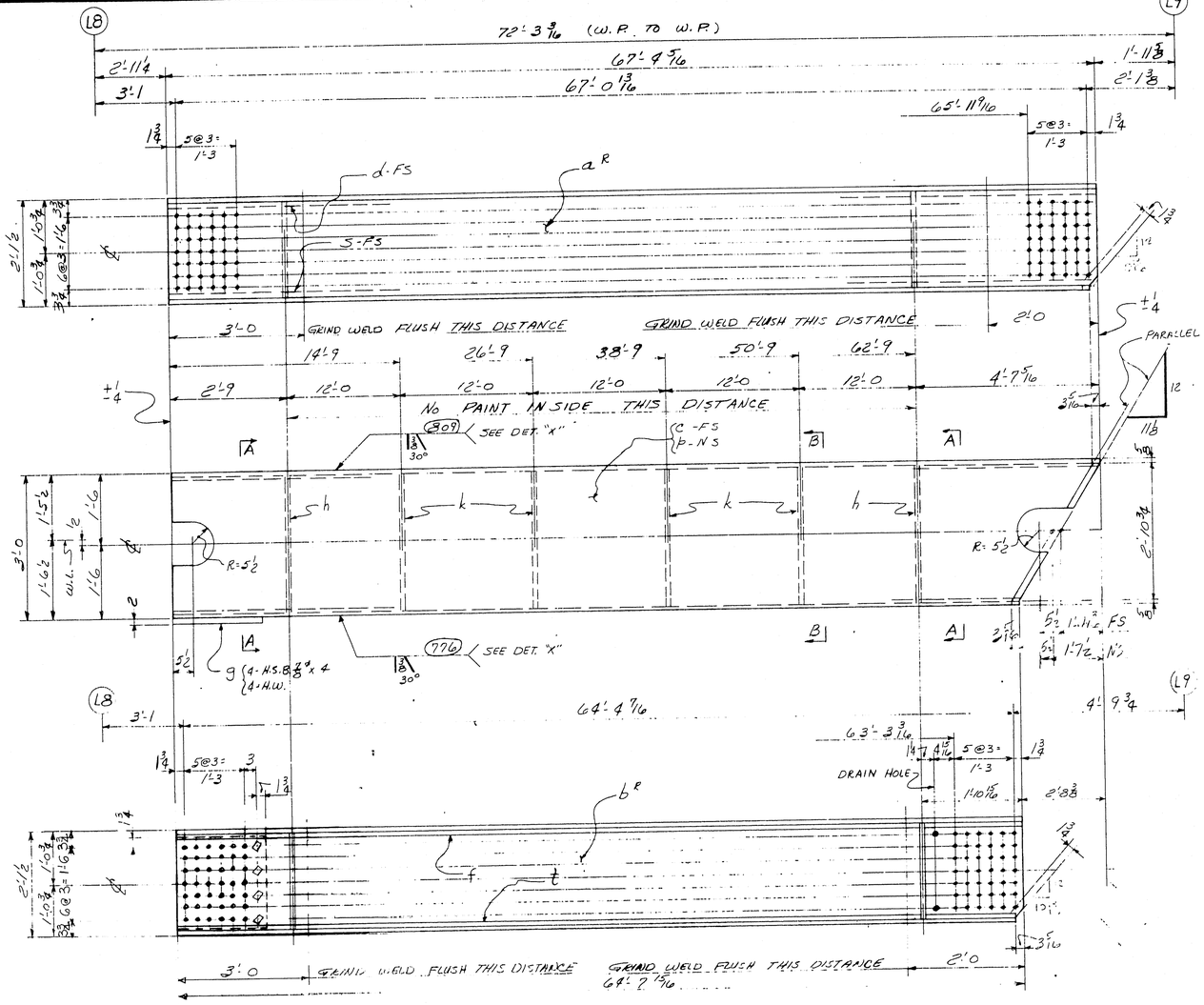
SECTION A-A



SECTION B-B



DETAIL "X"



LATERAL BRACING 168A^R

SHOP BILL													MILL BILL		
ASSEMBLY MARK	NO.	SHAPE	SIZE	SECTION SIZE OR POUNDS	THICK	LENGTH FT	LENGTH IN	REMARKS	WEIGHT	LENGTH FT	LENGTH IN	LENGTH 16THS	
	2	LATERAL BRACES 1-168A^R & 1-168A^L											
(M)	a^R	1	PL	23¼		5/8	67	4 5/16	T&W				235.4
(M)	b^R	1	PL	23¼		5/8	69	7 5/16	T&W				235.5
(2)	c	2	PL	36		3/4	67	4 5/16	T&W				235.3
	d	2	BR	1		5/8	68	9¼	BACK-UP BAR				236.5
	f	2	BR	1		5/8	65	8	(do)				236.5
	g	2	PL	2 1/2		2	1	9½	FILL				
	h	4	PL	24		3/8	2	10¾					236.11
	k	8	PL	24		3/8	2	10¾					236.11
	m	4	M	1½"	STD. PIPE COUPLING 2¼ LG.								AMB
	n	4	M	1½"	STD. PIPE PLUG								AMB
(2)	P	2	PL	36		3/4	67	1					235.3
	S	2	BR	1		5/8	68	1	BACK-UP BARS				236.5
	t	2	BR	1		5/8	65	4 5/8	(do)				236.5
	FW	2	WD			5/16	47	10					
	B30	2	WD			5/8	24	1					
	FW	2	WD			1/4	47	7	SEAL WELD				
	SD	2	WD			1/8	1	1	(do)				
		8	325	7/8"			0	4					AM30
		8	4W	1 3/4	15/16	3/16			FOR 8" BOLT				AM30

	1	1	LATERAL BRACE	168A^R
	1	1	do	168A^L
49	NO.		DESCRIPTION	MARK / REMARKS
INST.	REQUIRED LIST			

PROVED: HARDESTY & HANOVER, CONSULTING ENGINEERS, 101 PARK AVE. NEW YORK 17, N.Y. S.S. Hankinson MAY 27 1971

FOR SEAL WELD SEE SHT. #CS 15

ELECTRODES - ETOXX LOW HYDROGEN

3" min. lap EXCEPT DRAIN HOLES

NOTE: For AB Conn. Bolt ... Nomenclature

LATERAL BRACING L8' TO L9'

MATERIAL ASTM-A36
RIVETS OR BOLTS 7/8" ø
OPEN HOLES 15/16" ø U.N.
A325 FIELD BOLTS 7/8" ø
SHOP CONTACT SURFACES N.P.
WELDING As Noted
PAINT One Shop Coat ...
AASHO - ... See Note "X" U.N.

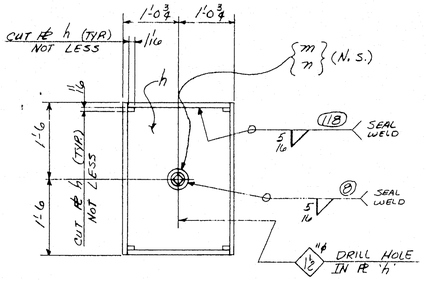
CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENGINEERS
PROJECT ...
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE ... IN CHARGE L.A.G.
CHECKED BY RP DATE ... SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 168X

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

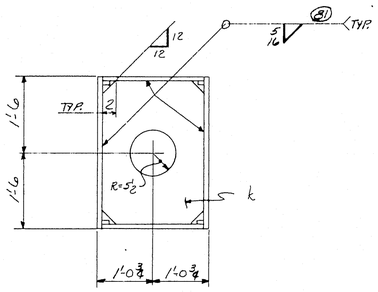
For location of details shown on this sheet refer to diagram. E18-E20

NO. TAPE 120-114

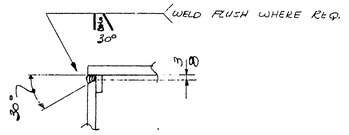
0 1 2 3 4 5 6



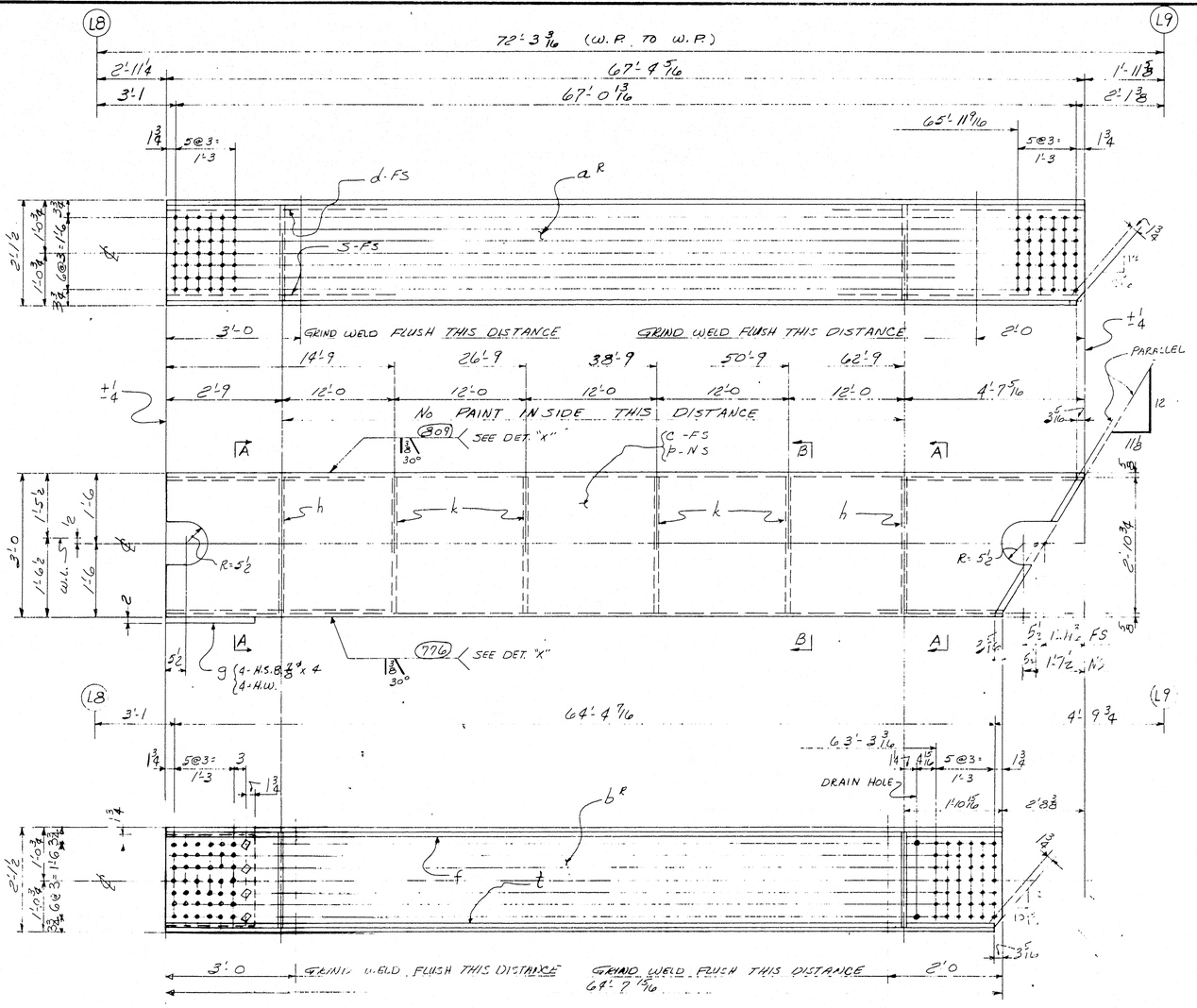
SECTION A-A



SECTION B-B



DETAIL "X"



LATERAL BRACING 168A R

SHOP BILL											
MARK	NO.	SPAN	SIZE OR GRADE	SIZE OR WEIGHT	THICK	WIDTH	LENGTH	REMARKS	LENGTH		
									FT	IN	
	2	LATERAL BRACES 1-168A R & 1-168A L									
(M)	a R	1	PL	23 1/4		5/8	67	4 7/16	TCW		235 4
(M)	b L	1	PL	23 1/4		5/8	68	7 5/16	TCW		235 5
(2)	c	2	PL	36		3/4	67	4 5/16	TCW		235 3
	d	2	BR	1		5/8	68	4 1/4	BACK-UP BAR		236 5
	f	2	BR	1		5/8	65	8	(do)		236 5
	g	2	PL	2 1/2		2	1	9 1/2	FILL		
	h	4	PL	24		3/8	2	10 3/4			236 11
	k	8	PL	24		3/8	2	10 3/4			236 11
	m	4	M	1 1/2"					STD. PIPE COUPLING 2'6 LG.		AM8
	n	4	M	1 1/2"					STD. PIPE PLUG		AM8
(2)	P	2	PL	36		3/4	67	1			235 3
	S	2	BR	1		5/8	68	1	BACK-UP BARS		236 5
	t	2	BR	1		5/8	66	4 5/16	(do)		236 5
	FW	2	WD			9/16	47	10			
	B30	2	WD			5/8	24	1			
	FW	2	WD			1/4	47	7	SEAL WELD		
	SD	2	WD			1/8	1	1	(do)		
		8	325	7/8"			0	4			AM30
		8	HW	1 3/4	15/16	5/16			FOR 7/8" BOLT		AM30

FOR SEAL WELD SEE SHT. #CS 15

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
S.S. Weinheimer
MAY 27 1971

3" EXCEPT DRAIN HOLES

ELECTRODES - E70XX
LOW HYDROGEN

	L	1	LATERAL BRACE	168A R
	J	1	do	168A L
H9	NO.		DESCRIPTION	MARK	REMARKS
INST.	REQUIRED LIST				

LATERAL BRACING L8' TO L9'

MATERIAL ASTM-A36
RIVETS OR BOLTS 7/8" HT
OPEN HOLES 15/16" U.N.
A325 FIELD BOLTS 7/8" HT
SHOP CONTACT SURFACES N.P.
WELDING As Noted
PAINT One Shop Coat
AASHO ... Spec.
See Note "D"
U.N.

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
ENGINEERS AND CONTRACTORS
STRUCTURE
AUGUSTA
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE IN CHARGE L.A.G.
CHECKED BY DATE WORK NO.
CONTRACT CG 6290-012 DRAWING NO 168X

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

For location of details shown on this sheet refer to diagrams.
E18-E20

NO. TAPE 120-114

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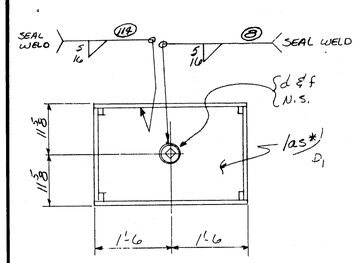
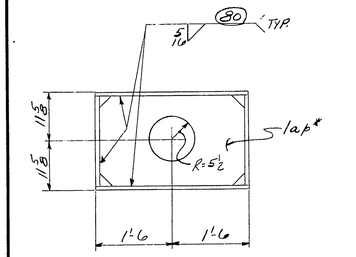
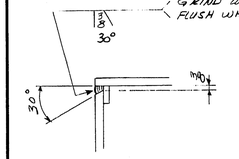


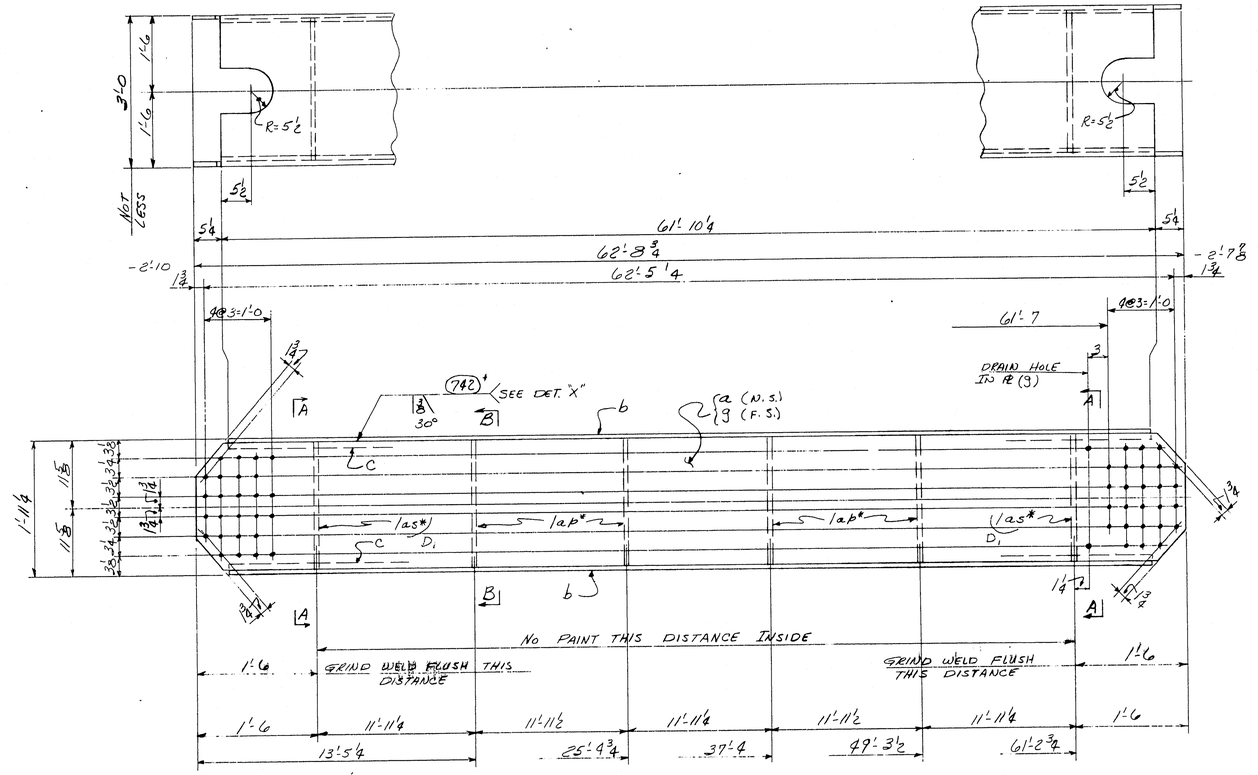
SECTION A-A



SECTION B-B



DETAIL "X"



LATERAL BRACING 169A
L9 TO L10

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the edge of holes, EXCEPT DRAIN HOLES.

	2	2	4	LATERAL BRAC.	169A	
	H10	M10	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST		

For location of details shown on this sheet refer to diagrams.
E4 & E6

SHOP BILL

PROD. TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	- LATERAL BRACING - 169A						
	2									
	3									
(11)	4	a	4	PL	21¼		½	62	8¾	T2W
(2)	5	b	8	PL	36		5/8	61	10¼	T2W
	6	c	16	BR	1		5/8	62	10¼	BACK-UP BAR
	7	d	8	M	1½	STD.	PIPE COUPLING, 2½ LG.			
	8	f	8	M	1½	STD.	PIPE PLUG			
	9	las*	8	PL	22		3/8	2	11	
	10	lap*	16	PL	22		3/8	2	11	
(11)	11	g	4	PL	21¼		½	62	8¾	T2W
	12									
	13									
	14									
	15									
	16	FW	4	WD			5/16	46	8	
	17	B30	4	WD			½	247	5	
	18	FW	4	WD			¼	16	8	SEAL WELD
	19	FW	4	WD			⅛	1	1	SEAL WELD
	20									
	21									
	22									
	23									
	24									
	25									
	26									
	27									
	28									
	29									
	30									
	31									
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	44									
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	50									
	51									
	52									
	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					247	2
					247	1
					247	3
					AMB	
					AMB	
					247	4
					247	4
					247	2

D1

FOR SEAL WELDING SEE SHT#. CS 15

HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Worth
JUN 17 1970

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL ASTM-A36
RIVETS OR BOLTS
OPEN HOLES 15/16" ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" U.N.

NO.	DATE	INT.
D	6-8	8V

REVISION

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

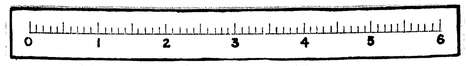
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

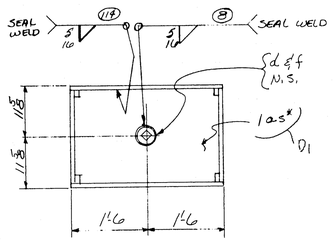
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE IN CHARGE L.A.G.
CHECKED BY R.D. DATE 5-21-70 SHOP NO.
CONTRACT CG6290-082 DRAWING NO. 169

NC TAPE 120-115

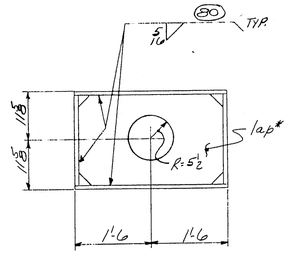
33433 (Rev.D 8-69)

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

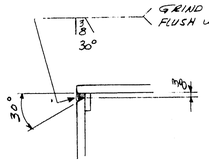




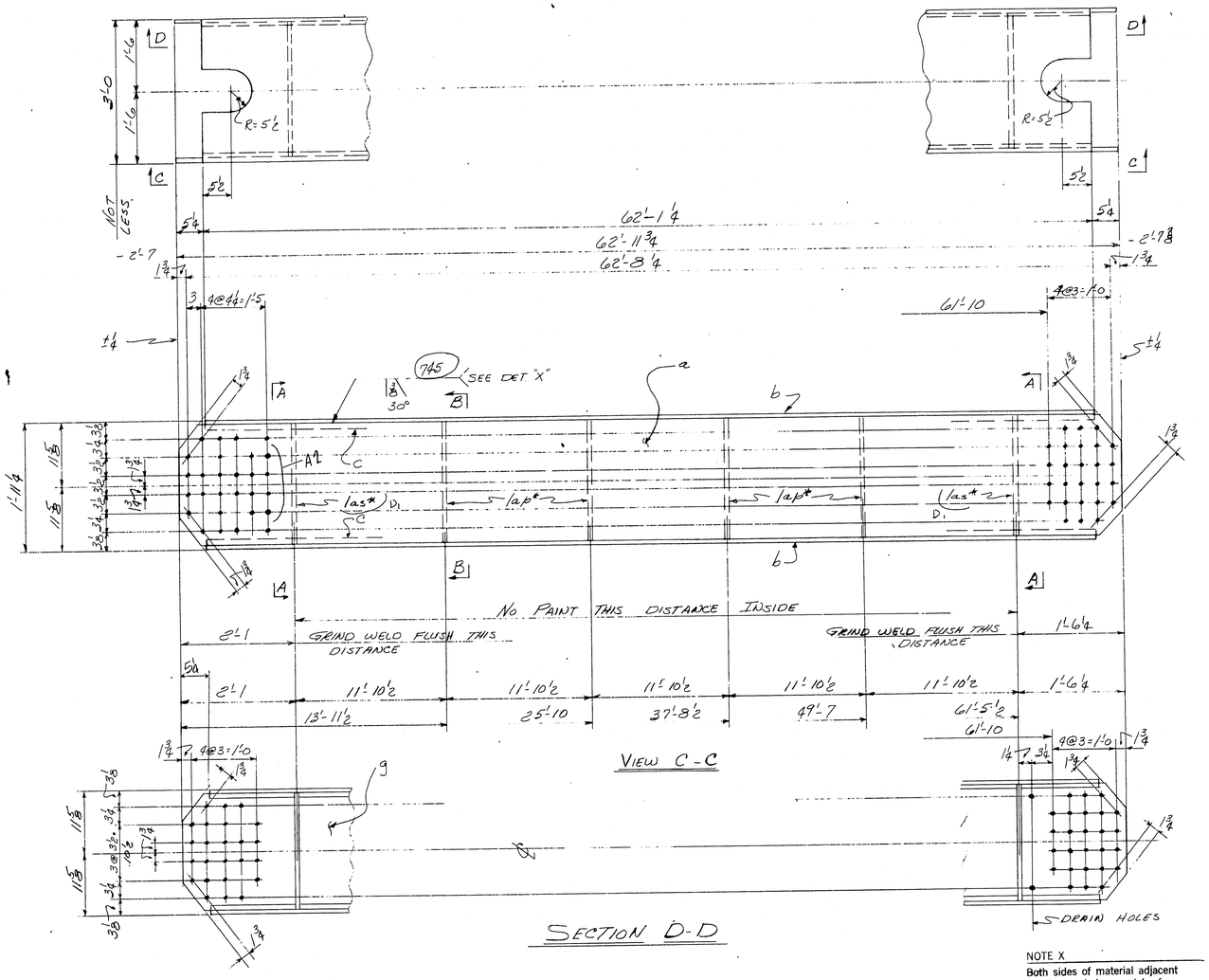
SECTION A-A



SECTION B-B



DETAIL "X"



VIEW C-C

SECTION D-D

LATERAL BRACING 170 A
L10 TO L15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

							2	4	4	2	4	4	20	LATERAL BRAC.	170 A	
							M9	M16	M13	M19	M16	M13	NO.	DESCRIPTION	MARK	REMARKS
INSTALLMENTS										INST			REQUIRED LIST			

SHOP BILL — MILL ORDER

ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	WEIGHT	LENGTH FT	LENGTH IN	ITEM
20 - LATERAL BRACING - 170 A												
(10)	a	20	PL	21/4		1/2	62	11 3/4	T&W			2
(2)	b	40	PL	36		3/8	62	1/4	T&W			1
	c	80	BR	1		3/8	63	1/4	BACK-UP BARS			3
D1	las*	40	PL	22		3/8	2	11				4
	lap*	80	PL	22		3/8	2	11				4
	d	40	M	1 1/2*		STD. PIPE COUPLING, 2 1/16 LG.						AMB
	f	40	M	1 1/2*		STD. PIPE PLUG						AMB
(10)	g	20	PL	21/4		1/2	62	11 3/4	T&W			2
	FW	20	WD.			9/16	46	8				
	B30	20	WD.			1/2	248	5				
	FW	20	WD.			1/4	26	0	SEAL WELD			
	FW	20	WD.			1/8	1	1	SEAL WELD			

FOR SEAL WELD SEE SHT.# CS15

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 505 PARK AVE. NEW YORK 17, N.Y. JUL 6 1970

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL A.S.T.M.-A36
RIVETS OR BOLTS 15/16
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" V.N.

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

NO	DATE	INIT.	REVISION
12	6/22	RP	
11	6-8	RP/BV	

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

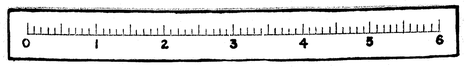
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE IN CHARGE L.A.G.
CHECKED BY RP DATE 5-21-70 SHOP NO.
CONTRACT CG6290-022 DRAWING NO. 170

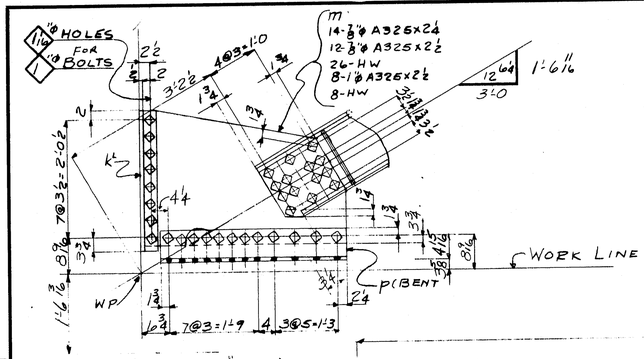
33433 (Rev.D 8-69)

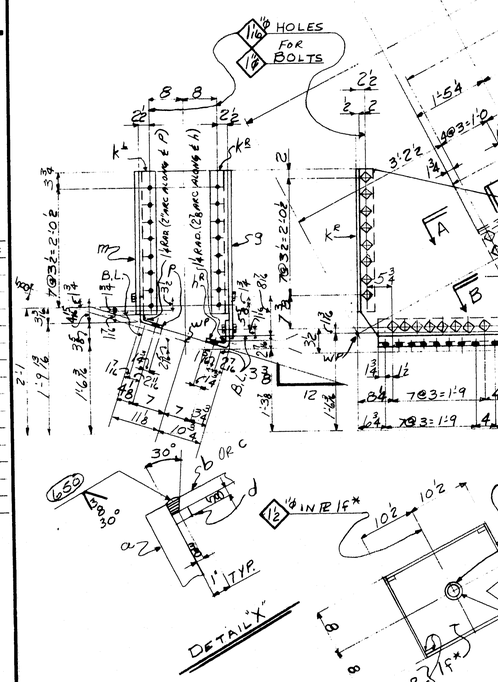
NC TAPE 120-116

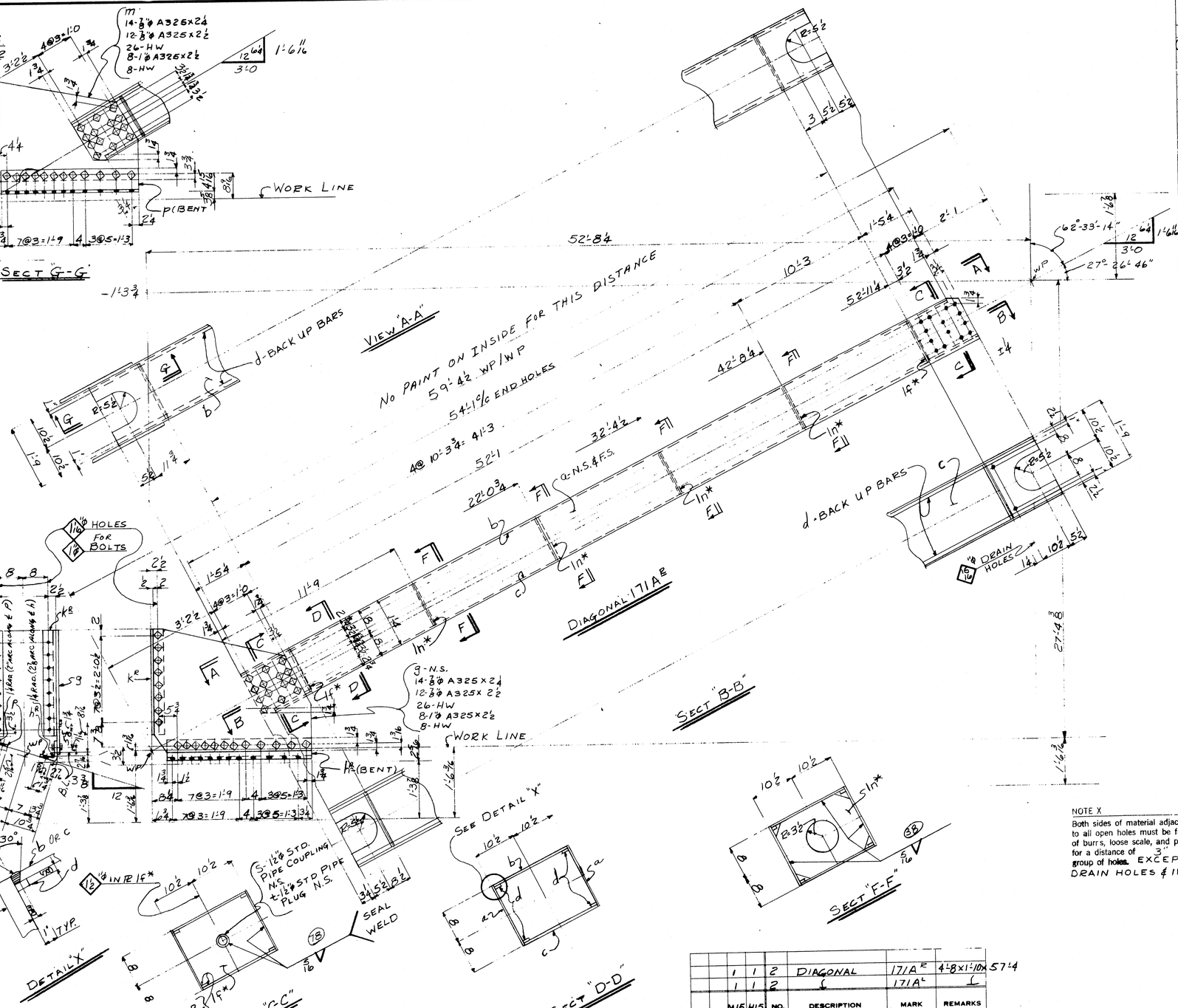
For definition of details shown on this sheet refer to drawings:
E4, E5 & E6

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









SHOP BILL

MILL ORDER

PROJECT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
	1		4	DIAGONALS:- 2-171A^E & 2-171A^L													
(E)	2	a	8	PL	16		3/8	54	4 1/2	T2W						256	01
(M)	3	b	4	PL	19 1/2		1/2	54	1 1/4	T2W						256	02
(M)	4	c	4	PL	19 1/2		1/2	54	1 1/4	T2W						256	09
	5	d	16	BR	1		5/8	55	1 1/4	BACK UP BAR						256	08
	6	15*	8	PL	15		3/8	1	8 1/4							256	12
	7	g	4	PL	35 5/8		1/2	4	1 1/2							257	01
	8	h^R	2	PL	46		5/8	0	8 3/4	BENT						257	02
	9	k^L	2	L	4	4	5/8	2	6 1/4							257	03
	10	m	4	PL	30 1/4		1/2	4	0 1/2							257	04
	11	1n*	16	PL	15		3/8	1	8 1/4							256	12
	12	P	4	PL	44		5/8	0	11 3/4	BENT						257	05
	13	s	8	M	1 1/2"		STD PIPE COUPLING 2 1/2 LG									AM	08
	14	t	8	M	1 1/2"		STD PIPE PLUG									AM	08
	19		112	325	7/8"			0	2 1/4							AM	30
	20															AM	26
	21		96	325	7/8"			0	2 1/2								
	22															AM	26
	23		208	HW	1 3/4		15/16	3/16								AM	30
	25		64	325	1"			0	2 1/2							AM	26
	27		64	HW	2		1 1/16	3/16								AM	26
	31		FW	4	WD		5/16	25	8								
	33		B30	4	WD		1/2	216	8								
	34		FW	4	WD		1/4	22	4	SEAL WELD							
	35		SD	4	WD		1/8	1	1	" "							

		1	1	2	DIAGONAL	171A^E	4'-8 X 1'-10 X 57'-4
		1	1	2	"	171A^L	"
		M15	H15	NO.	DESCRIPTION	MARK	REMARKS
INST		REQUIRED LIST					

For location of details shown on this sheet refer to diagrams.
E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
505 PARK AVE. NEW YORK 22, N.Y.
FFW
JUN 9 1970

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16" Ø UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES NP
WELDING AS NOTED
PAINT One Shop Coat Red Lead
AASHO - M72, Type II
See Note "X" & U.N.

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

DIAGONAL M13 TO U13 & M13' TO U13'

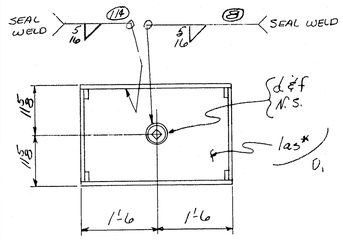
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

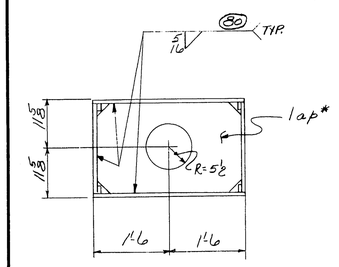
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RE DATE 4-1-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 5-6-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 171

12433 (Rev.D 8-69)

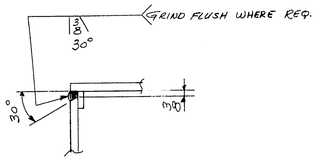
NC TAPE 120-117



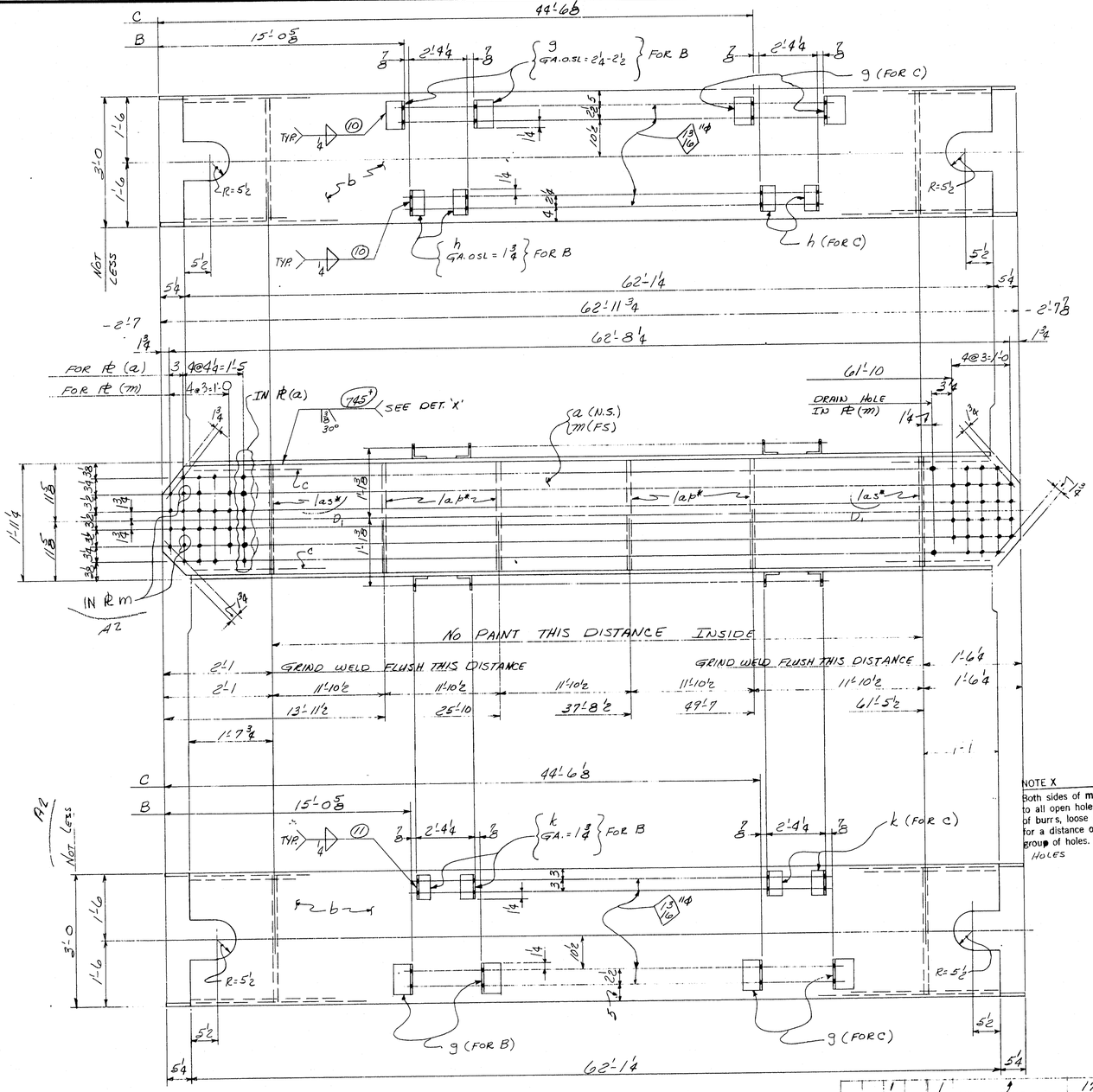
SECTION A-A



SECTION B-B



DETAIL "X"



NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

LATERAL BRACING	172A	(L 15 TO L 16)
(do)	172B	(L 16 TO 15')
(do)	172C	(L 16 TO 15')

NO.	DESCRIPTION	MARK	REMARKS
		172C	
		172B	
2	2	LATERAL BRACING	172A
INST.	REQUIRED LIST		

SHOP BILL — MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LEN: TH FT	LEN: TH IN	SKETCH	ITEM PAGE	ITEM LINE
		4	-LATERAL BRACING													
		2- 172A, 1-172B & 1-172C														
M	a	4	PL	21¼		½	62	11¾	T2W						249	2
2	b	8	PL	36		⅜	62	1¼	T2W						249	1
	c	16	BR	1		⅜	63	1¾	BACK-UP BAR						249	3
	d	8	M	1½			0	2¹⁵⁄₁₆	STD. PIPE COUPLING						AM8	
	f	8	M	1½			STD. PIPE PLUG								AM8	
	las*	8	PL	22		⅜	2	11							249	4
	lap*	16	PL	22		⅜	2	11							249	4
	g	8	L	6	4	⅜	0	5	B&C						G	
	h	4	L	3	3	⅜	0	4¾	B&C						G	
	k	4	L	3	3	⅜	0	5½	B&C						G	
M	m	4	PL	21¼		½	62	11¾	T2W						249	2
	FW	4	WD			5/16	96	8								
	FW	2	WD			¼	6	8	B&C							
	B30	4	WD			½	248	5								
	FW	4	WD			¼	17	4	SEAL WELD							
	SD	4	WD			⅛	1	1	SEAL WELD							

FOR SEAL WELD SEE SHT.# CS15

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Moody
JUL 6 1970

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL ASTM-A36
RIVETS OR BOLTS 15/16" ϕ U.N.
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" U.N.

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

NO.	DATE	PRT.
4	6/22	RP
0	6-8	7/8

REVISION

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95 1(2)16, KITTERY, MAINE

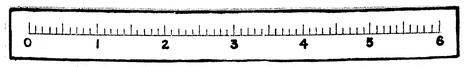
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE IN CHARGE L.A.G.
CHECKED BY DATE SHOP NO.

CONTRACT CG6690-07E DRAWING NO. 172

NC TAPE 120-118

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



STRUT 173A

47'-6 9/16

104'-2 5/8 c/c END HOLES

WELDS TO BE GROUND FLUSH TOP & BOTT. FOR THIS DISTANCE

108'-0 5/8 WP/WP

104'-5 5/8 END TO END

52'-2 13/16

No PAINT INSIDE THIS DISTANCE

NOT LESS AT ENDS

f-BACK UP BARS

BEND LINE

9 (BENT)
26-7/8"ϕ A325 x 2 1/2
26-HW
(SHOWN DEVELOPED)

12@3=3'-0

SYMM ABT. ℄

h (BENT)

k
13-7/8"ϕ A325 x 2 1/2
13-HW

WORK LINE

W.P.

B.L.

SECT "A-A"

m-N.S. (BENT)
7/8"ϕ A325 x 2 1/2
HW
(SHOWN DEVELOPED)

n-(BENT)
9-7/8"ϕ A325 x 2 1/2
17-7/8"ϕ A325 x 3
26-HW
(SHOWN DEVELOPED)

n-(BENT) F.S.

a-N.S.
b-F.S.

15/16"ϕ DRAIN HOLE

4@4'-1'-5 3/32

46'-11 1/2

104'-2 5/8 c/c END HOLES

SYMM ABT ℄

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
500 PARK AVE. NEW YORK 17, N.Y.
JUN 12 1970

STRUT @ U13 & U13'

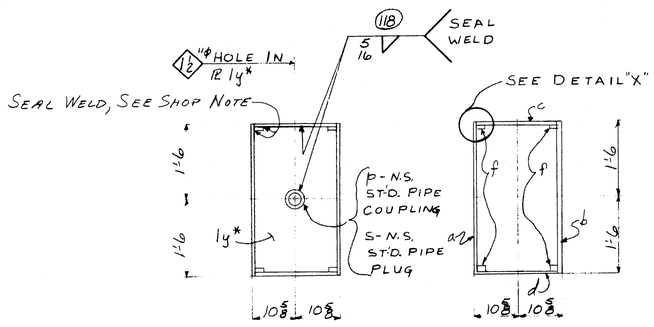
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RB DATE 4-2-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 5-1-70 SHOP NO.

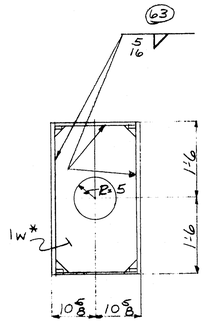
CONTRACT CG6290-071 DRAWING NO. 173AB

120-119

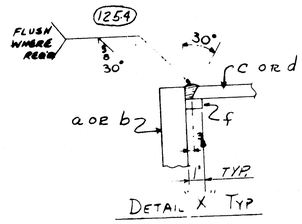
36663 (1-67)



SECT "B-B"



SECT "D-D"



DETAIL "X" TYP

SHOP BILL / MILL ORDER

ITEM NO.	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS	WIDTH	THICK.	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
1		2	STRUTS	173A												
2	a	2	PL	36		5/8	104	5 3/8	T2W						223	10
2	b	2	PL	36		5/8	104	5 3/8	T2W						223	10
M	c	2	PL	19 1/4		1/2	104	5 3/8	T2W						223	11
M	d	2	PL	19 1/4		1/2	104	5 3/8	T2W						223	11
	f	8	BR	1		5/8	105	6	BACK UP BAR						229	06
	g	2	PL	78 1/2		5/8	3	0 1/4	BENT						257	12
	h	2	PL	78 1/2		5/8	1	0 1/4	BENT						257	08
	k	2	PL	26		1/2	6	6 1/2	12-7 CUTS 2						257	07
	m	2	PL	75 1/2		1/2	2	8 3/8	BENT						257	06
	n	2	PL	78 1/2		5/8	2	10 1/4	BENT						257	13
	p	8	M	1 1/2 ϕ					STD PIPE COUPLING 2 1/16 LG						AM	08
	s	8	M	1 1/2 ϕ					STD PIPE PLUG						AM	08
	lw*	12	PL	20		3/8	2	11							229	15
	lg*	8	PL	20		3/8	2	11							229	15
		242	325	7/8 ϕ			0	2 1/2							AM	26
		168	325	7/8 ϕ			0	3							AM	26
		310	HW	13/4		15/16	3/16								AM	26
	FW	2	WD			5/16	70	10								
	FW	2	WD			1/4	86	9	SEAL WELD							
	SP	2	WD			1/8	1	1								
	B30	2	WD			1/2	418	0								

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Moritz
JUN 12 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 22x11 SLOT HOLES

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

SHOP NOTE:-
BACK-UP BARS FROM SEAL DIAPH'S TO END OF STRUT AND BETWEEN SEAL DIAPH'S AT CENTER ARE TO BE SEAL WELDED AS PER SHT CS15.

INST.	MIS	HIS	NO.	DESCRIPTION	MARK	REMARKS
	1	1	2	STRUT	173A	4'2x5'5x104'6

REQUIRED LIST

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead
AASHO - M72, Type II
See Note "X" GEN.

REVISION: NO. | DATE | INIT.

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(27)16, KITTERY, MAINE

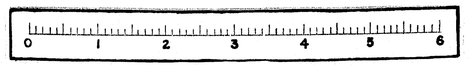
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

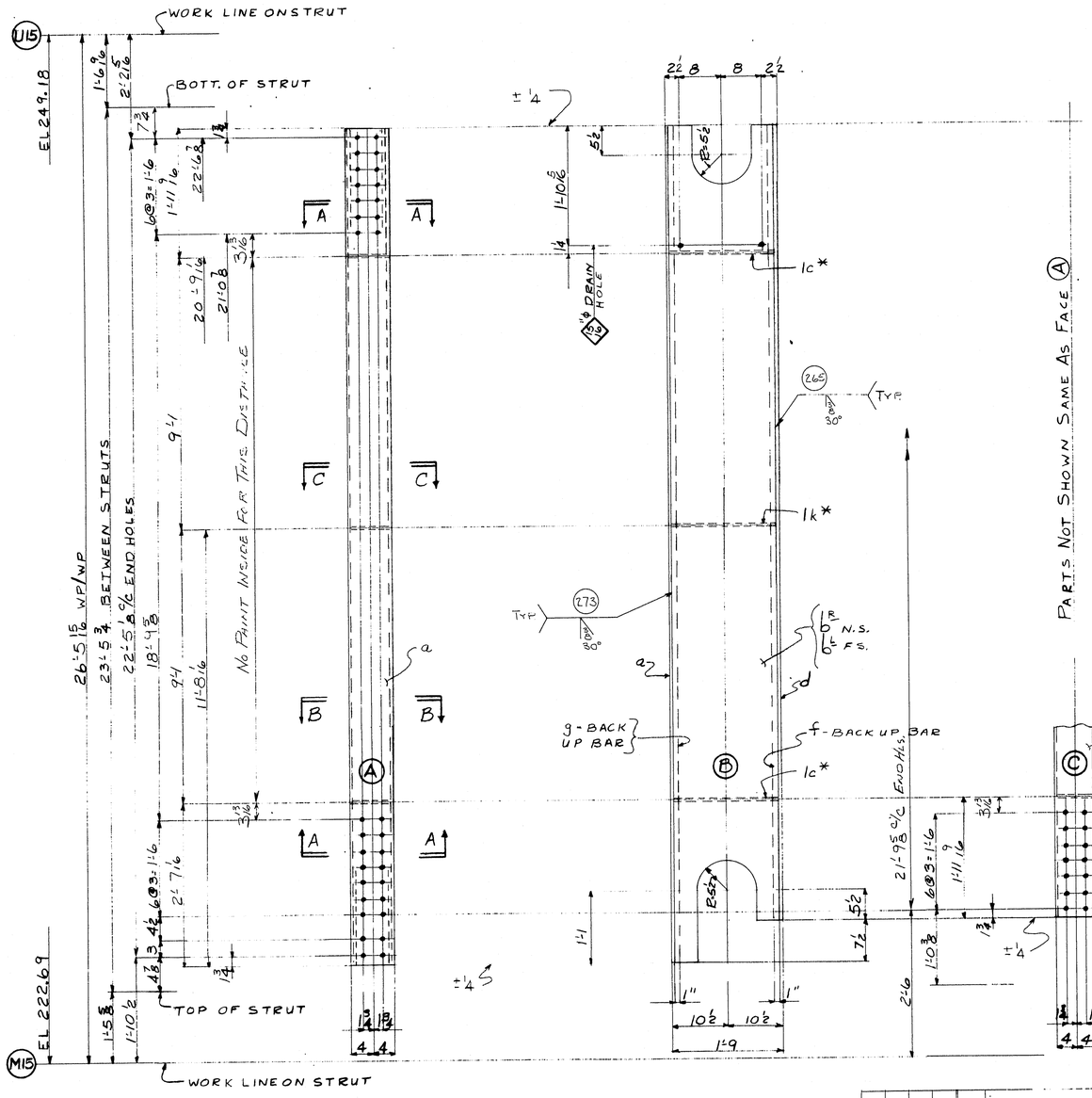
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 4-3-70 IN CHARGE LAG
CHECKED BY CAD DATE 5-7-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 173BB

INC TAPE 1643 (Rev.0 8-69)

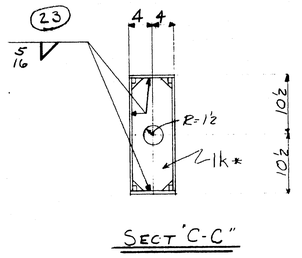
For location of details shown on this sheet refer to diagrams.
E9 & E11

120-120





VERTICAL 174A



1	1	2	VERTICAL	174A	0'8x1'9x22'8	
M18	H18	NO.	DESCRIPTION	MARK	REMARKS	
INST.		REQUIRED LIST				

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 11X11 SLOT HOLES

SHOP BILL / MILL ORDER

PROJECT TYPE	ITEM NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN	MILL ORDER STOCK #	ITEM PAGE	ITEM LINE
	1		2	VERTICALS				174A									
(2)	2	a	2	PL	8		1/2	22	8 5/8	T2W						258	03
(3)	3	b 9/16 ϕ	2	PL	19¼		3/8	22	8 5/8	T2W						258	05
	4	1c*	4	BR	7¼		3/8	1	8							258	13
(2)	5	d	2	PL	8		1/2	22	1 1/8	T2W						258	04
	6	f	4	BR	1		5/8	23	1 1/8	BACK UP BAR						258	10
	7	g	4	BR	1		5/8	23	8 5/8	BACK UP BAR						258	09
	8	1k*	2	BR	7¼		3/8	1	8							258	13
	9	m	4	M	1½					STD PIPE COUPLING 2½LG						AM	08
	10	n	4	M	1½					STD PIPE PLUG						AM	08
	11																
	12																
	13																
	14	FW	2	WD			5/16	12	5								
	15																
	16	B30	2	WD			3/2	89	8								
	17	SD	2	WD			1/8	1	1	SEAM WELD							
	18	FW	2	WD			1/4	33	3	"							
	19																
	20																
	21																
	22																
	23																
	24																
	25																
	26																
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	60																
	61																
	62																

PROVIDED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
605 PARK AVE. NEW YORK 17, N.Y.
FFW
JUN 9 1970

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

SWAY FRAME VERTICAL @ 15 & 15'

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16ϕ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & U.N.

REVISION NO. DATE INT.

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

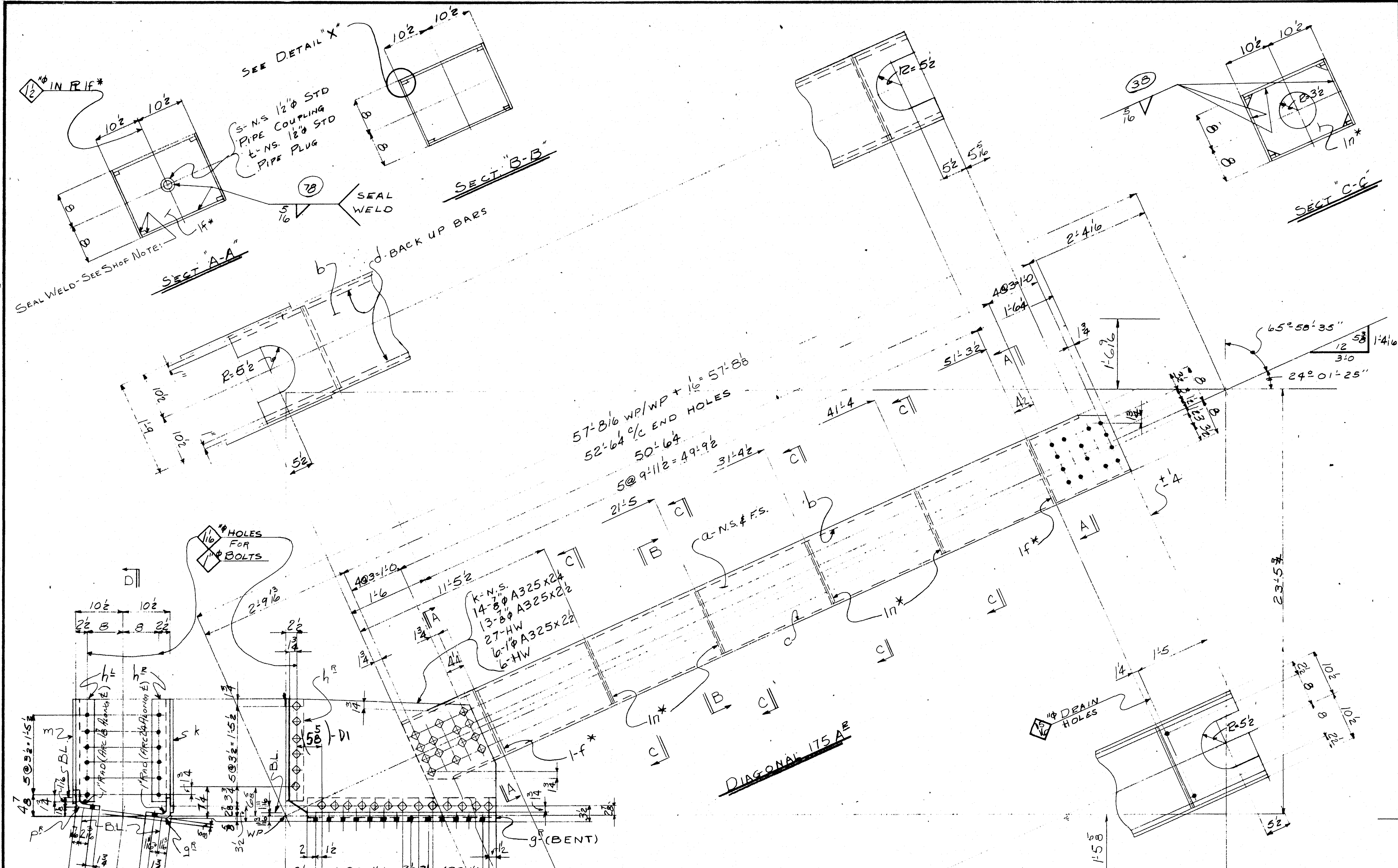
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

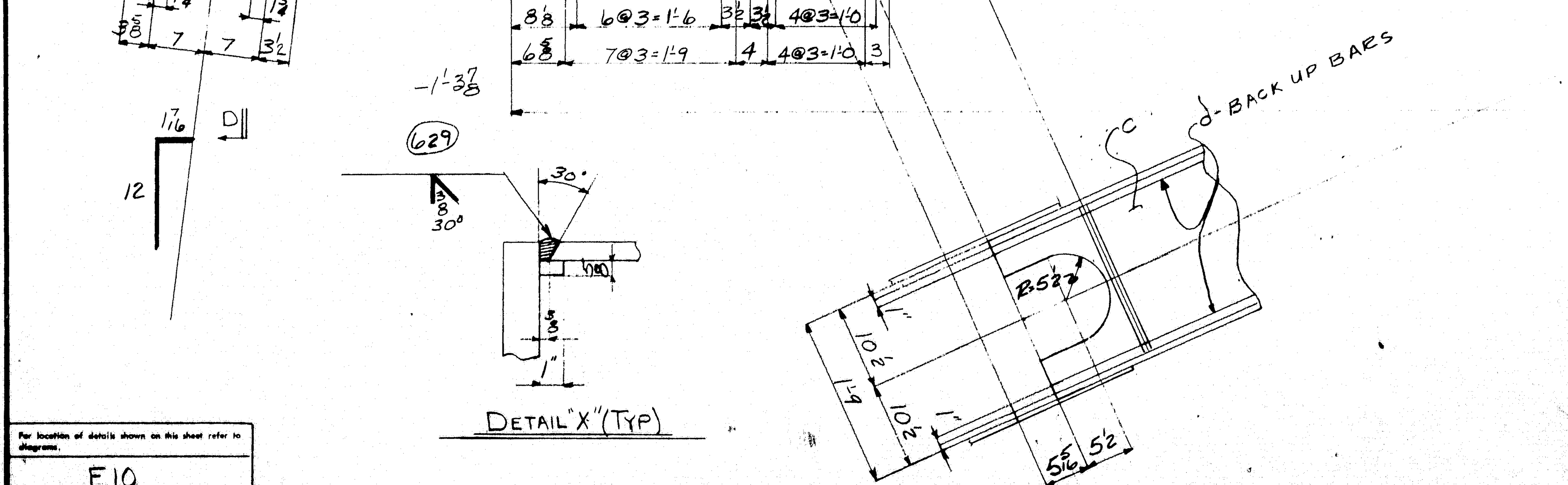
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY BF DATE 4-3-70 IN CHARGE LAG
CHECKED BY C.A.P. DATE 5-12-70 SHOP NO.
CONTRACT CG6290-020 DRAWING NO. 174

For location of details shown on this sheet refer to diagrams.
E10

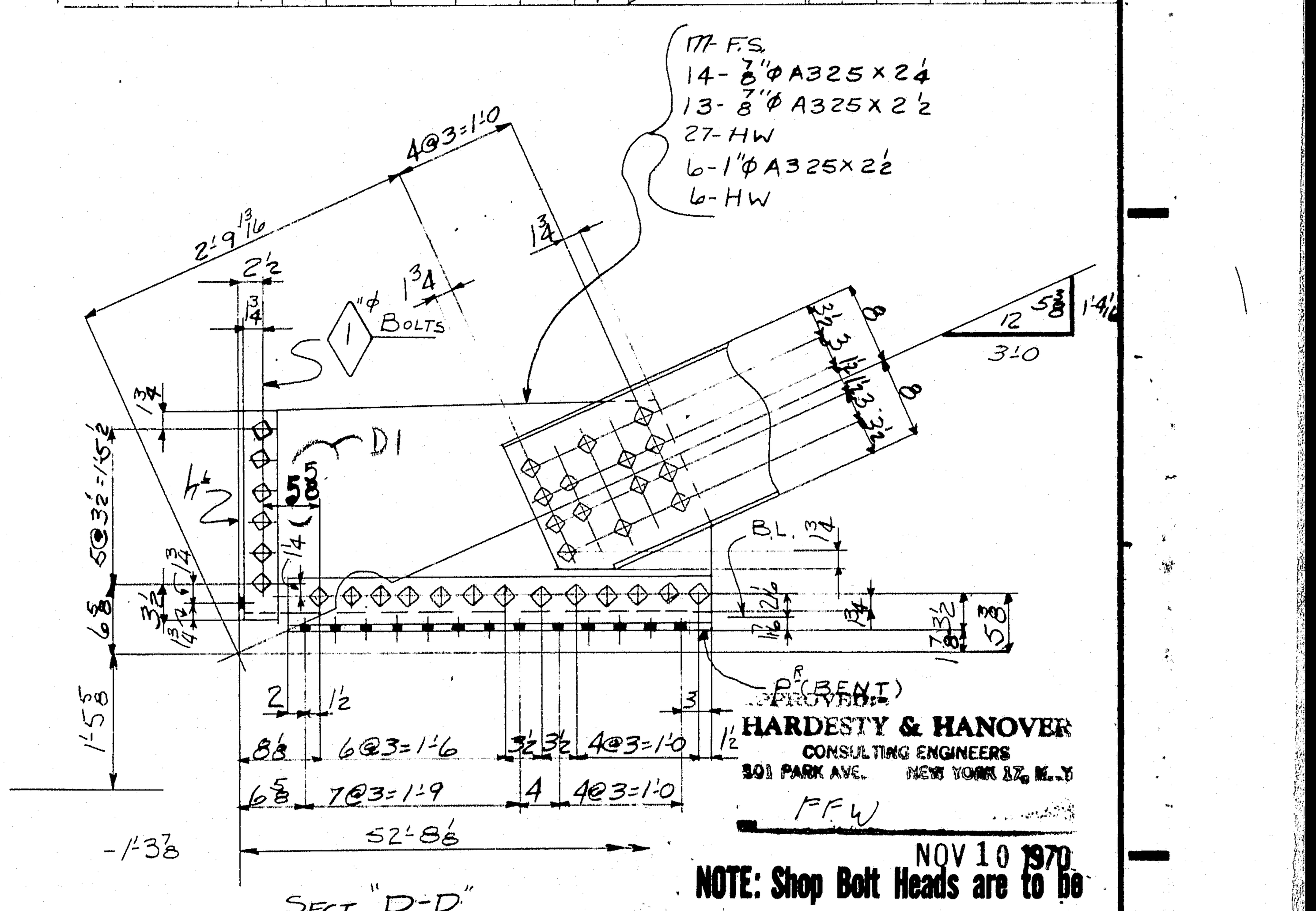
NC TAPE 120-121

33433 (Rev.D 8-69)





PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SIZE	SIZE OR POUNDS	THICK	FT.	IN.	REMARKS	WIDTH	THICK	FT.	IN.	STOCK	PAGE	LINE
	1		4	DIAGONALS 2-175A^R & 2-175A^L													
(2)	2	a	8	PL	16		3/8	52	9 3/4	T-2W						258	01
(M)	3	b	4	PL	19 1/2		1/2	52	4 7/16	T2W						258	02
(M)	4	c	4	PL	19 1/2		1/2	52	4 7/16	T2W						258	02
	5	d	16	BR	1		5/8	53	4 1/2	BACK UP BAR						258	08
	6	1f*	8	PL	15		3/8	1	8 1/4							258	12
	7	g^R_L	2/2	PL	42		5/8	0	9 1/4	BENT						259	04
	8	h^R_L	4/4	L	4	4	5/8	1	10 3/4							259	03
	9	k	4	PL	24 3/4		1/2	3	9 7/8							259	02
	10	m	4	PL	22 1/4		1/2	3	9 7/8	7-6 CUTS 2 PLS						259	01
	11	1n*	16	PL	15		3/8	1	8 1/4							258	12
	12	P^R_L	2/2	PL	42		5/8	0	9 5/8	BENT						259	04
	13	s	8	M	1 1/2"φ	STD PIPE COUPLING 2 1/16 LG										AM	08
	14	t	8	M	1 1/2"φ	STD PIPE PLUG										AM	08
	15																
	16																
	17		112	A325	7/8"φ			0	2 1/4							AM / AM	26 / 30
	18																
	19		104	A325	7/8"φ			0	2 1/2							AM / AM	26 / 30
	20																
	21		216	HW	1 3/4"φ	15/16	3/16									AM / AM	26 / 30
	22																
	23		48	A325	1"φ			0	2 1/2							AM / AM	26 / 30
	24																
	25		48	HW	2"φ	1 1/16	3/16									AM / AM	26 / 30
	26																
	27																
	28	FW	4	WD			5/16	25	8								
	29																
	30	B30	4	WD			1/2	209	8								
	31	FW	4	WD			1/4	19	10	SEAL WELD							
	32	SD	4	WD			1/8	1	1	" "							



APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
NOV 10 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 11x11 SLOT HOLES

SHOP NOTE! - BACK UP BARS FROM SEAL DIAPH'S TO END DIAG. ARE TO BE SEAL WELDED AS SHOWN ON SHT CS15

		1	1	2	DIAGONAL	175A^R	3'-8x1'-10x 55'-6
		1	1	2	"	175A^L	"
		M18	H18	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16"φ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & UN.

REVISION NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
2		
D1	11-3	CD

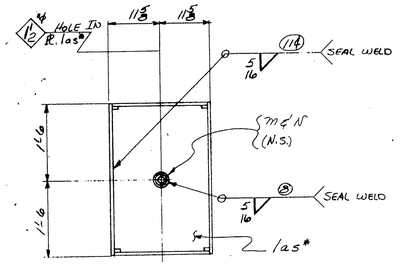
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

SWAY FRAME DIAGONAL AT LINE 15

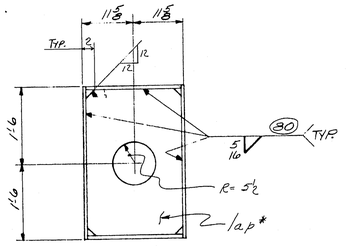
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY R DATE 4-6-70 IN CHARGE LAG
CHECKED BY CAD DATE 5-13-70 SHOP NO.
CONTRACT CG6290-070 DRAWING NO. 175

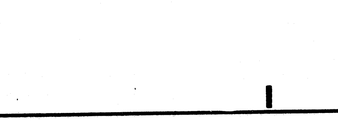
NC TAPE 120-122



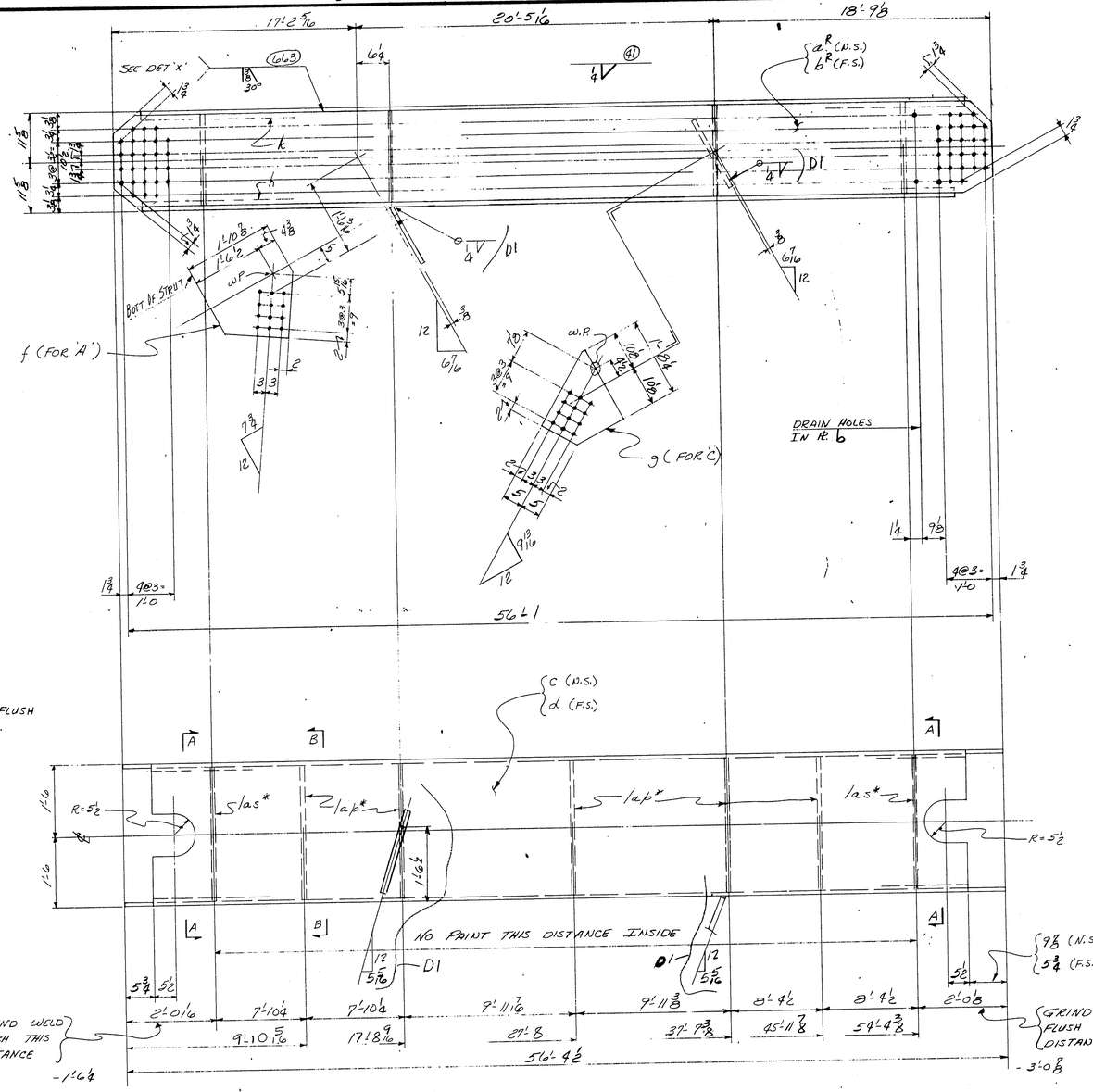
SECTION X-A



SECTION B-B



DETAIL "X"



LATERAL BRACING 176 A
(do) 176 B (OPP HD.)
(do) 176 C

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES & BOTH SIDES OF As & dg D1

		1	1	LATERAL BRAC.	176C	
1		1	1	2	(do)	176B	
			1	1	(do)	176A	
	M	H					
	12	12	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

SHOP BILL / MILL ORDER

ITEM/POS NO	PIECE MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	MATERIAL WIDTH	MATERIAL THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		4	LATERAL BRACING														
		1	-176A, 2-176B & 1-176C														
(M)	4	aR	2	PL	21/4		1/2	56	4 1/2	T2W - A&C						264	19
(M)	5	bR	2	PL	21/4		1/2	56	4 1/2	T2W A&C						264	19
(2)	6	c	4	PL	36		5/8	55	0 1/8	T2W						264	17
(2)	7	d	4	PL	36		5/8	55	5	T2W						264	17
	8	f	1	PL	16 1/2		3/8	1	10 1/16	A					G		
	9	g	1	PL	20 1/4		3/8	1	4 7/16	C					G		
	10	h	8	BR	1		5/8	56	1	BACK-UP BARS						264	14
	11	k	8	BR	1		5/8	56	5	(do)						264	14
	12	las*	8	PL	22		3/8	2	11							264	20
	13	lap*	20	PL	22		3/8	2	11							264	20
	14	m	8	M	1 1/2"	STD.	PIPE	COUPLING, 2 1/6 LG.								AMB	
	15	n	8	M	1 1/2"	STD.	PIPE	PLUG								AMB	
(M)	16	aL	2	PL	21/4		1/2	56	4 1/2	T2W - B						264	19
(M)	17	bL	2	PL	21/4		1/2	56	4 1/2	T2W - B						264	19
		B30	4	WD			1/2	221	0								
		FW	4	WD			5/16	53	8								
		FW	4	WD			1/4	11	4	SEAL WELD							
		FW	4	WD			1/8	1	1	SEAL WELD							
		FW	1	WD			1/4	3	11	A							
		FW	1	WD			1/4	3	5	C							

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
505 PARK AVE. NEW YORK 22, N.Y.
FCW
JUN 30 1970

FOR SEAL WELDING SEE SHT # CS15

ELECTRODES - E70XX
LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL ASTM - A36
RIVETS OR BOLTS 15/16" U.N.
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING As NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

NO	DATE	INT.	REVISION
1	6/22	R.P.	

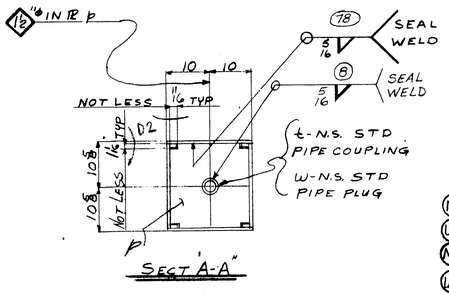
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 5-15-70 IN CHARGE L.A.S.
CHECKED BY R.P. DATE 5-26-70 SHOP NO.
CONTRACT CG6270-072 DRAWING NO. 176

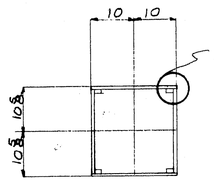
35438 (Rev.D 5-69)

For location of details shown on this sheet refer to diagrams.
E18 & E20

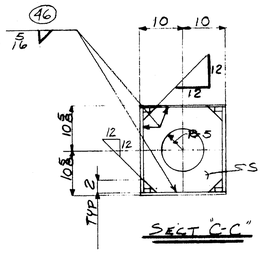
120-123 NC TAPE



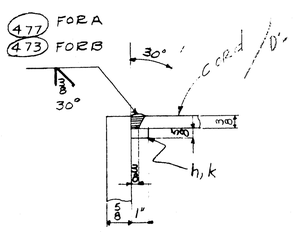
SECT "A-A"



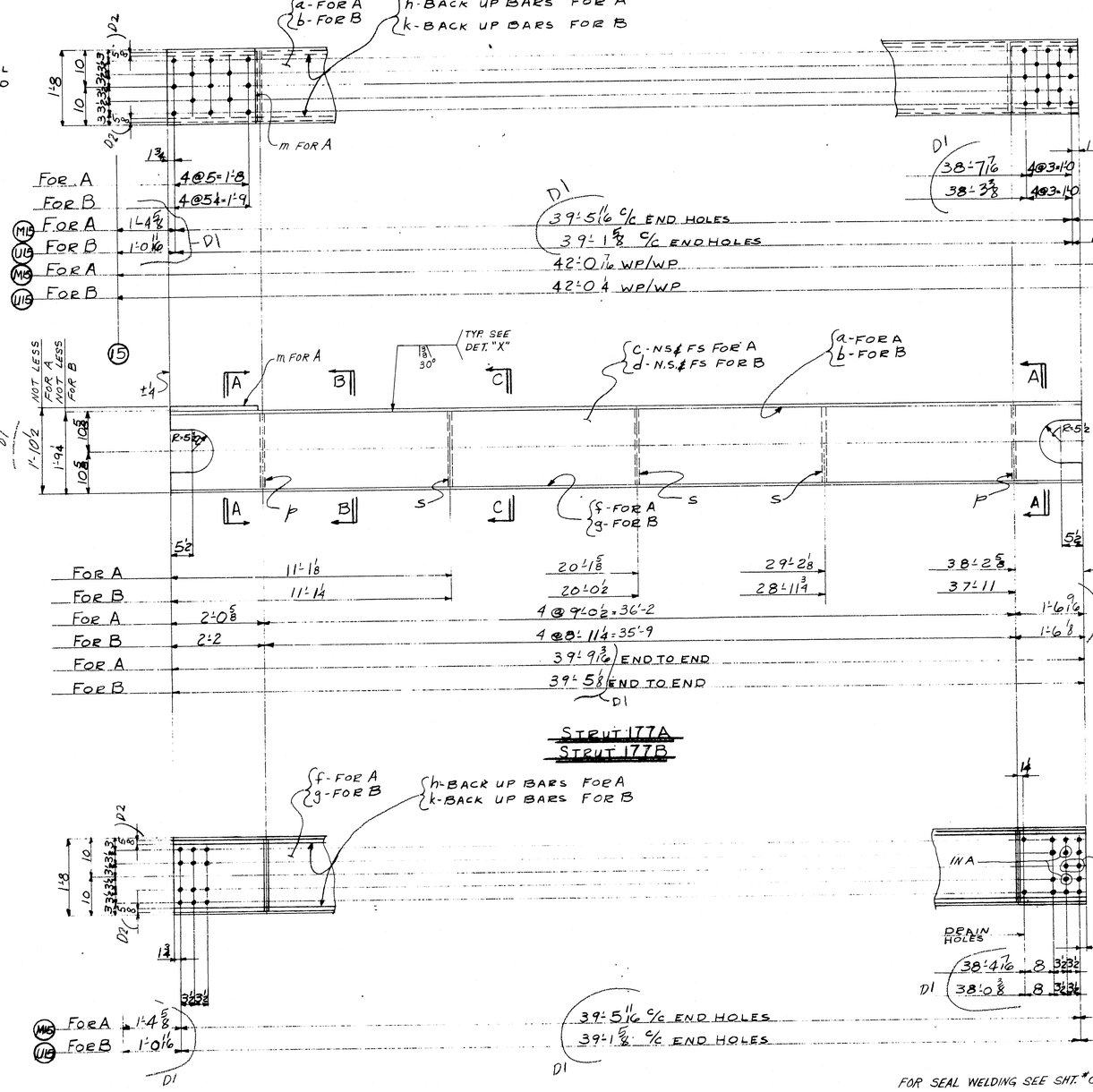
SECT "B-B"



SECT "C-C"



DETAIL "X" TYP



FOR SEAL WELDING SEE SHT. # OS15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 11"x11" SLOT HOLES

SHOP BILL — MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN	ITEM
		2	STRUT 177A											
		2	STRUT 177B											
(2)	a	2	PL	20		5/8	39	9 3/16	T2W FOR A					263 01
(2)	b	2	PL	20		5/8	39	5 5/8	T2W FOR B					263 03
(M)	c	4	PL	19¼		3/8	39	9 3/16	T2W FOR A					263 02
(M)	d	4	PL	19¼		3/8	39	5 5/8	T2W FOR B					263 04
	f	2	PL	20		5/8	39	9 3/16	T2W FOR A					263 02
	g	2	PL	20		5/8	39	5 5/8	T2W FOR B					263 04
	h	8	BR	1		5/8	40	9	BACK UP BAR FOR A					263 05
	k	8	BR	1		5/8	40	5	BACK UP BAR FOR B					263 06
(M)	P	8	PL	19¼		3/8	1	8						263 07
(M)	S	12	PL	19¼		3/8	1	8						263 08
	t	8	M	1½					STD PIPE COUPLING 2 1/16					AM 09
	w	8	M	1½					STD PIPE PLUG					AM 08
	m	2	PL	20		1/4	1	11½	A					
	FW	4	WD			5/16	25	10						
	B30	2	WD			3/8	159	0	FOR A					
	B30	2	WD			3/8	157	8	FOR B					
	FW	4	WD			1/4	28	10	SEAL WELD					
	SD	4	WD			1/8	1	1	SEAL WELD					

APPD HARDESTY & HANOVER
CONSULTING ENGINEERS
1 PARK AVE. NEW YORK 17, N.Y.
Arnold Hardesty
OCT 21 1970

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

STRUT FROM U15 TO U16 & U15' TO U16' "B"
STRUT FROM M15 TO M16 & M15' TO M16' "A"

1	1	2	STRUT		177A	1'-9 x 1'-8 x	39'-9		
1	1	2		I	177B	S I	39'-5		
H80	M80	NO.	DESCRIPTION		MARK	REMARKS			

INST | REQUIRED LIST

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16 ϕ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

NO.	DATE	INIT.	REVISION
D2	11/1	RP	
D1	9/22	RP	

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

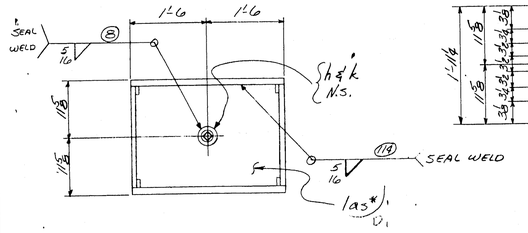
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RP DATE 4-8-70 IN CHARGE LAG
CHECKED BY RP DATE 5-26-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 17.7

35433 (Rev.2) 8-69

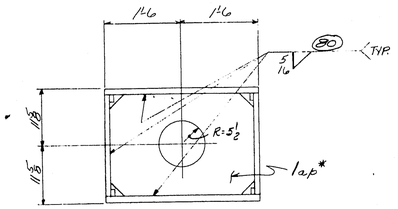
For location of details shown on this sheet refer to diagrams.
E14 & E19

120-124 NC TAPE

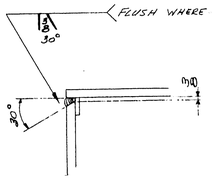
0 1 2 3 4 5 6



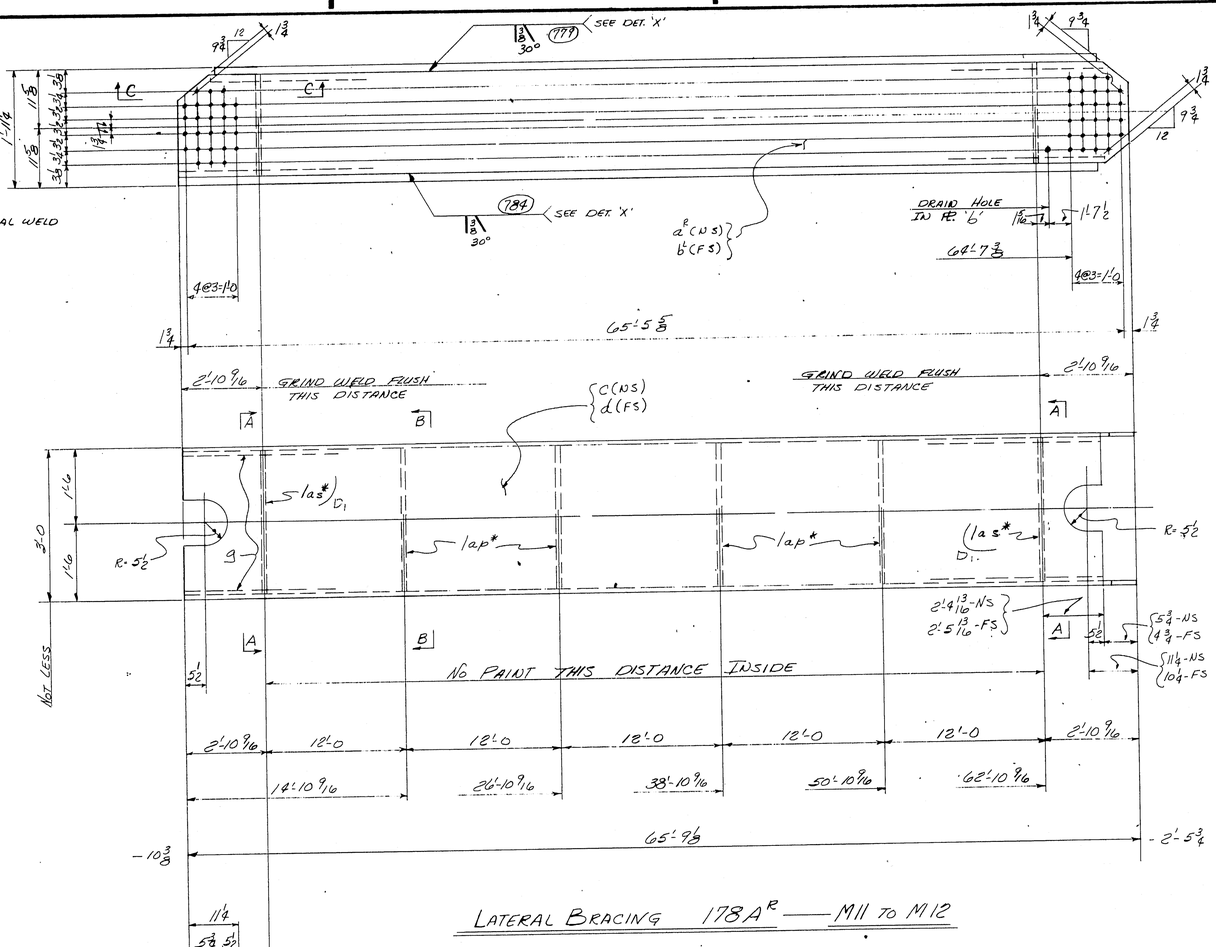
SECTION A-A



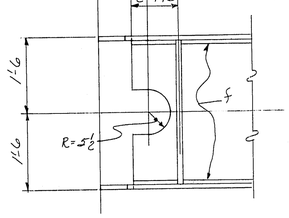
SECTION B-B



DETAIL 'X'



LATERAL BRACING 178A^R —— M11 TO M12



SECTION C-C

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

ELECTRODES - E70XX
LOW HYDROGEN

INST.	MARK	NO.	DESCRIPTION	REMARKS
		H 19 M 14		
	178A^L	1 1	2 (do)	
	178A^R	1 1	2 LATERAL BRACING	

REQUIRED LIST

SHOP BILL — MILL ORDER

ITEM	MARK	NO	SHAPE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		4	LATERAL BRACING 2-178A^R & 2-178A^L												
M	a^R	2	PL	21¼	½	65	9⅛	T&W						264	13
M	b^L	2	PL	21¼	½	65	9⅛	T&W						264	13
②	c	4	PL	36	⅝	65	3⅜	T&W						264	15
②	d	4	PL	36	⅝	64	10⅜	T&W						264	15
	f	8	BR	1	⅜	65	11	BACK-UP BAR						264	14
	g	8	BR	1	⅝	66	4	(do)						264	14
	h	8	M	1½#	STD. PIPE COUPLING 2½ LG.									AMB	
	k	8	M	1½#	STD. PIPE PLUG									AMB	
	las*	8	PL	22	⅜	2	11	1-CUTS 3@						264	20
D1	lap*	16	PL	22	⅜	2	11	22 X 2'-11						264	20
	B30	4	WD		½	260	6								
	FW	4	WD		9/16	96	8								
	FW	4	WD		¼	96	0	SEAL WELD							
	FW	4	WD		⅛	1	1	SEAL WELD							

FOR SEAL WELDING SEE SHT # CS 15

NOTE: Length Corrected for Temperature

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUN 17 1970

LATERAL BRACING M11 TO M12

MATERIAL ASTM - A36
RIVETS OR BOLTS 15/16" ϕ U.N.
OPEN HOLES
A325 F. BOLTS
SHOP CONTACT SURFACES N.P.
WELDING As Noted
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE.

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 9-8-70 IN CHARGE E.A.G.
CHECKED BY RP DATE 5-1-70 SHOP NO.
CONTRACT CG6290-076 DRAWING NO. 178

REVISION NO. 6 DATE 9/21 INIT.

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

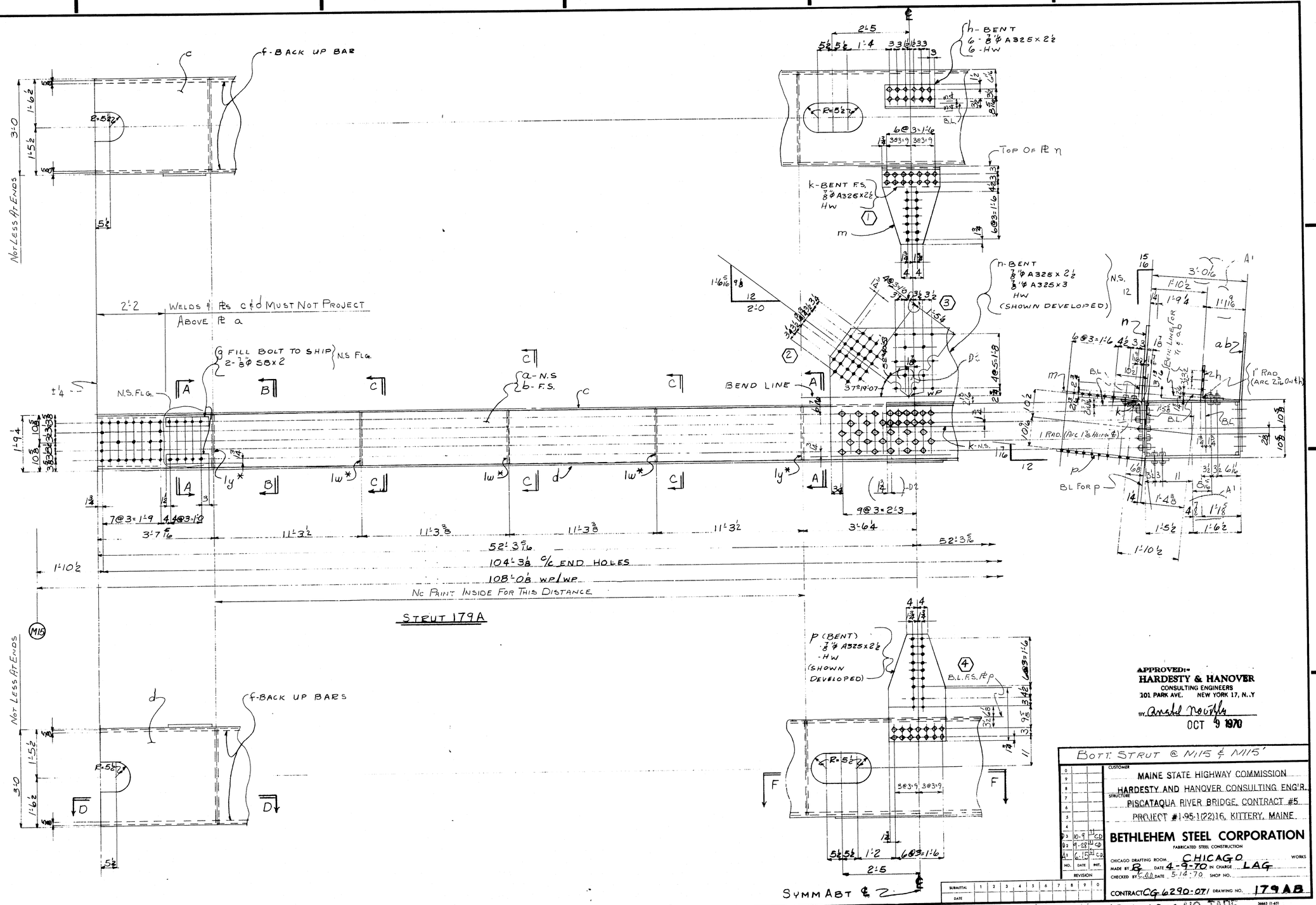
33423 (Rev.2) 8-69

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

E18 - E20

120-125 NC TAPE

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



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

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

E10

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY Arnold Roth
OCT 9 1970

BOTT. STRUT @ N115 & N115'

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 4-9-70 IN CHARGE LAG
CHECKED BY C.GG DATE 5-14-70 SHOP NO.
CONTRACT CG 6290-071 DRAWING NO. 179AB

NO.	DATE	INT.
D3	10-9	CD
D2	9-28	CD
D1	6-15	C2

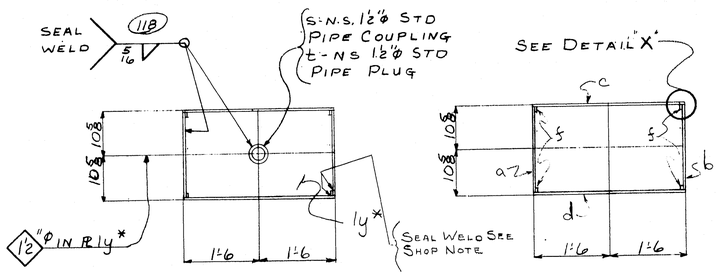
REVISION

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

36663 (1-67)

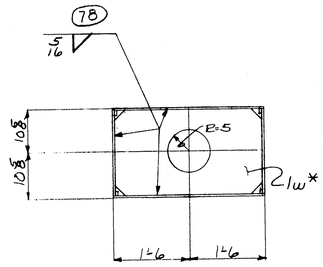
120-126 NO TAPE

0 1 2 3 4 5 6

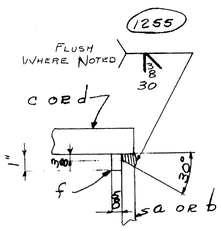


SECT "A-A"

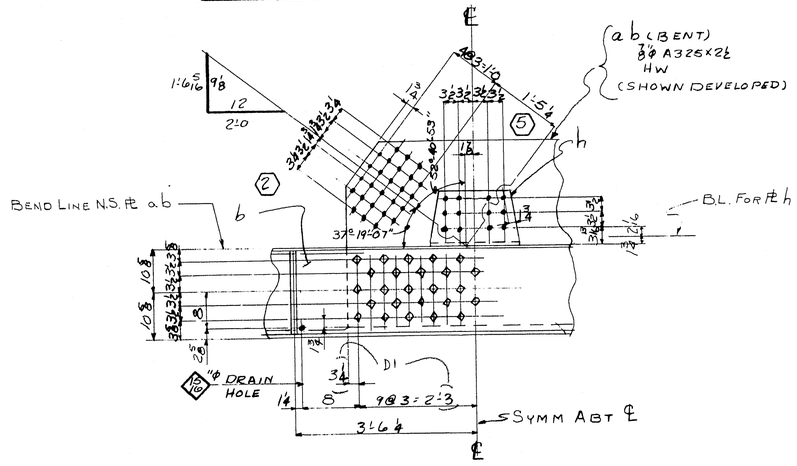
SECT "B-B"



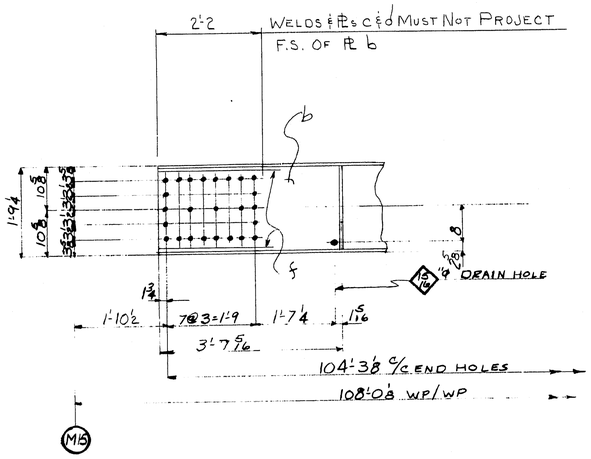
SECT "C-C"



DETAIL "X" (TYP)



SECT "F-F"



SECT "D-D"

SHOP NOTE!

BACK UP BARS FROM SEAL DIAPH'S TO END OF STRUT AND BETWEEN SEAL DIAPH'S AT CENTER ARE TO BE SEAL WELDED AS SHOWN ON CS15.

1	1	2 STRUTS	179A	4'-2x6'-0x104'-7
M18	M18	NO. DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST		

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

E10

SHOP BILL

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		2	STRUTS 179A													
(F)	2	a	2	PL	19¼		½	104	6⅝	T2W						25807	
(F)	3	b	2	PL	19¼		½	104	6⅝	T2W						25807	
(M)	4	c	2	PL	36		⅝	104	6⅝	T2W						258.06	
(M)	5	d	2	PL	36		⅝	104	6⅝	T2W						258.06	
	6	f	8	BR	1		⅝	105	6⅝	BACK UP BAR						258.11	
	7	g	8	BR	3½		⅝	1	4¢	FILL						G	
	8	h	2	PL	21		⅝	1	7¾	(BENT)						259.14	
	9	k	2	PL	21½		⅝	1	3⅜	(BENT)						259.10	
	10	m	2	PL	21½		½	2	5							259.09	
	11	n	2	PL	60½		⅝	3	11	(BENT)						259.11	
	12	p	2	PL	21½		⅝	3	5⅞	(BENT)						259.08	
	13	s	8	M	1½ø STD PIPE COUPLING 2'16LG											AM 98	
	14	t	8	M	1½ø STD PIPE PLUG											AM 98	
	15	lw*	12	PL	20		⅜	2	11							258.14	
	16	ly*	8	PL	20		⅜	2	11							258.14	
	17	a b	2	PL	60½		⅝	3	8	(BENT)						259.12	
	18																
	19		16	MB	7/8ø			0	2	RHH & RHN (S.B.)						AM 21	
	20																
	21		258	325	7/8ø			0	2½							AM 32 AM 26	
	22																
	23		28	325	7/8ø			0	3							AM 32 AM 26	
	24		28	A	HW	1 3/4ø	15/16	3/16								AM 32 AM 26	
	25																
	26	FW	2	WD			5/16	58	8								
	27																
	28	B30	2	WD			½	418	4								
	29																
	30	FW	2	WD			¼	112	9	SEAL WELD							
	31	SO	2	WD			⅛	1	1	1" 1"							
	32																
	33																
	34																
	35																
	36																
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	62																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
By Arnold Doorly
SEP 23 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 22x11 HANGHOLES & SLOT HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16ø UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II & U.N. See Note "X"

BOTT. SWAY FRAME STRUT @ M15 & M15'

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY R DATE 4-9-70 IN CHARGE LAG
CHECKED BY C.A.J. DATE 5-14-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 179BB

REVISION NO. 1 DATE 9-11 INT. JJ GAD

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

120-127 NC TAPE

NOT LESS AT ENDS

5½ C ℄ BACK UP BAR

3'-0 1'-1½ 1'-5½ WP

R=5½

WELDS @ ℄ c & d MUST NOT PAINT - ABOVE ℄ a

1'-1⅝

1'-9¼ 10⅝ 10⅝ 5⅝ 3⅜ 3⅜ 3⅜

A B C C C C BEND LINE A

a - N.S.
b - F.S.

1y* 1w* 1w* d 1w* 1y*

13/4 4@4'-1 5/16 2'-1 5/16 11'-5 3/8 11'-5 7/8 11'-5 7/8 11'-5 7/8 10 11@3½=3'-2½ 3/4 4'-2¼

52'-3 1/16

104'-2 5/8 c/c END HOLES

108'-0 3/8 WP/WP

1'-10 3/4

NO PAINT INSIDE FOR THIS DISTANCE

12@3½=3'-6

4@3'-1 0 2'-4 1/16

g
13 - 7/8" ϕ A325 x 2½
13 - H.W.
DIMENSIONS IN PLANE OF ℄ g

1'-4 1/16 5/8 12 3'-0

① ② ③ ④

24°1'25"

B.L. on h

h WP

4@3'-1 0 1'-6 2

BL.

k (BENT)
6 - 7/8" ϕ A325 x 2½
6 - H.W.

5½ 5½ 3 3 3 3 3 3

1'-8¼ 2'-6

1'-6 7/16 9/16 12 2:0

4@3'-1 0 1'-6 3/8

m (BENT)
29 - 7/8" ϕ A325 x 2½
24 - H.W.
(SHOWN DEVELOPED)

37°30'39"

WP

4@3'-1 0 1'-9

B.L. for k, m & p

1" RAD. (ARC 2⅛" ALONG ℄ k)

3'-0 1/16 1'-9¼ 1'-2 13/16

m 1'-6 1/16 3 3/16 p k 1 1/16 1 1/16 BL

4@3'-1 0 1'-6

1 1/4 1 1/4 B.L. g h B.L. B.L.

BL 1 1/16 1 1/16 3½ 3 5/16 5/16

1'-6½ 1'-0½ 3 3 3 16 4 1/16 BEND LINE 17 12

1'-5½ 3 1/16

1" RAD. (ARC 2 3/16 ALONG ℄ k)

7¾ 10½ 10½ 1'-9

12

U15 ±1/4"

NOT LESS AT ENDS

D D d ℄ BACK UP BAR

3'-0 1'-1½ 1'-5½ WP

R=5½

5½

BEND LINE

F F

℄ SYMM ABT ℄

11¼ 12 AT 3'-3¼ = 39'-3

1'-8¼ 2'-6

n (BENT)
SHOWN DEVELOPED
8 - 7/8" ϕ A325 x 2½
WITH H.W.

4@3'-1 0 2'-4 1/16

⑤ ⑥ ⑦

14 1/16 5/8 12 3'-0

3 1/16

24°1'25"

WP

4@3'-1 0 1'-6 2

1 1/4 1 1/4 5'-5¼

SECTION "G-G"

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Hoover
SEP 30 1970

TOP SWAY FRAME STRUT @ U15 & U15'

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RL DATE 4-13-70 IN CHARGE LAG
CHECKED BY C.A.D. DATE 5-12-70 SHOP NO.

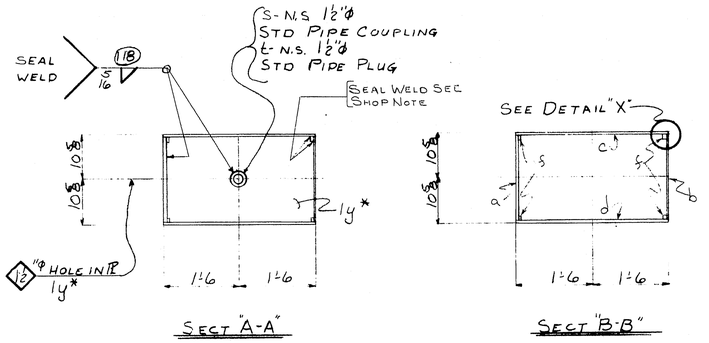
CONTRACT CG6290-071 DRAWING NO. 180A8

NO.	DATE	INIT.	REVISION
D2	9-14	CD	
A2	7-7	TBV	
A1	6-15	CD	

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

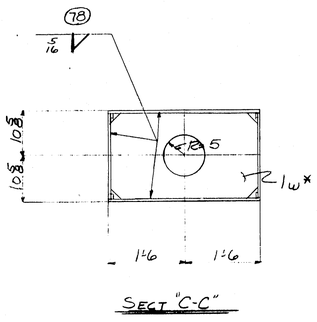
For location of details shown on this sheet refer to diagrams.
E10

120-128

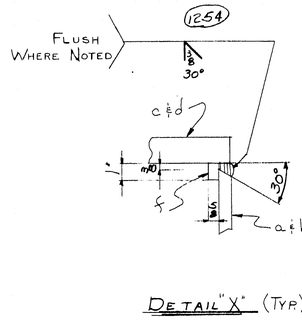


SECT "A-A"

SECT "B-B"

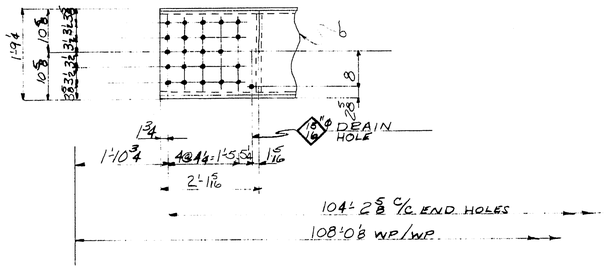


SECT "C-C"

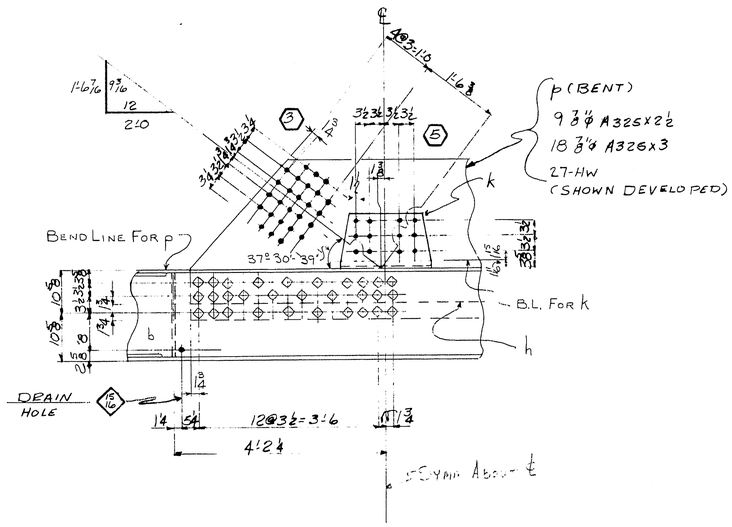


DETAIL "X" (TYP)

1-10 > P, S, c & d AND WELDS MUST NOT PROJECT ABOVE PL b



VIEW "D-D"



SECT "F-F"

SHOP NOTE:

BACK-UP BARS FROM SEAL DIAPH'S TO END OF STRUT & BETWEEN SEAL DIAPH'S AT CENTER ARE TO SEAL WELDED AS SHOWN ON CS15

	a	b	c
x			
b			
x			
d			
y			
g			
q			
k			
m			
n			
p			
s			
t			
w			
y			

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

E10

	1	1	2	STRUT	180A	5'-5x 4'-3x	104'-6
	M18	H18	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		2	STRUTS	180A												
M	a	2	PL	19¼		1½	104	6⅛	T2W						258	17
M	b	2	PL	19¼		1½	104	6⅛	T2W						258	17
2	c	2	PL	36		5/8	104	6⅛	T2W						240	08
2	d	2	PL	36		5/8	104	6⅛	T2W						240	08
	f	8	BE	1		5/8	105	6	BACK UP BAR						236	15
	g	2	PL	26		1½	7	7	7-3¼ CUTS 2 PCS						262	17
	h	2	PL	9		5/8	1	0¾	(BENT)						262	10
	k	2	PL	21		5/8	1	3¼	(BENT)						262	10
	m	2	PL	8¼		5/8	3	4	(BENT)						262	13
	n	2	PL	81½		5/8	2	10½	(BENT)						259	20
	p	2	PL	9		5/8	3	2	(BENT)						262	13
	s	8	M	1½"ϕ		STD PIPE COUPLING 2 1/16" LG									AM	08
	t	8	M	1½"ϕ		STD PIPE PLUG									AM	08
	lw*	12	PL	20		5/8	2	11							229	19
	ly*	8	PL	20		5/8	2	11							229	19
		258	325	⅞"ϕ			0	2½							AM	30
		72	325	⅞"ϕ			0	3							AM	30
		330	HW	1¾	15/16	5/16									AM	30
	FW	2	WD			5/16	78	4								
	FW	2	WD			1/4	99	5	SEAL WELD							
	SD	2	WD			1/8	1	1	" "							
	330	2	WP			1/2	418	0								

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY André Nowicki
JUN 10 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Length Corrected for Temperature

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16"ϕ UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" & UN.

REVISION: NO. | DATE | INIT.

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

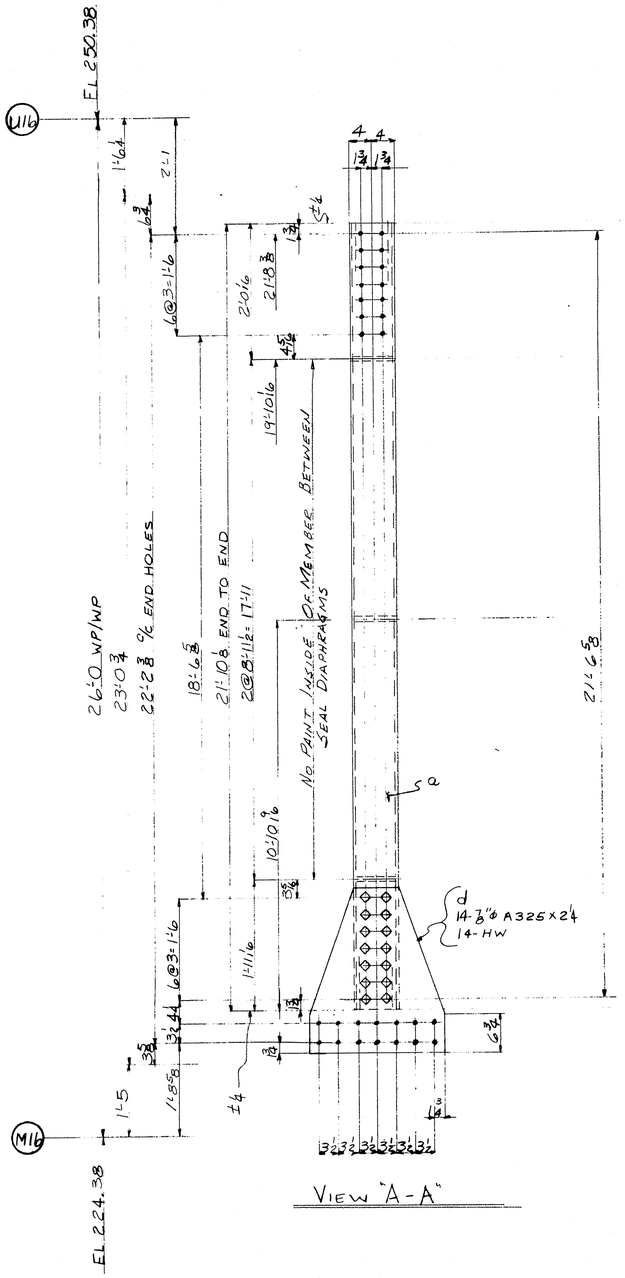
TOP SWAY FRAME STRUT @ U15 & U15'

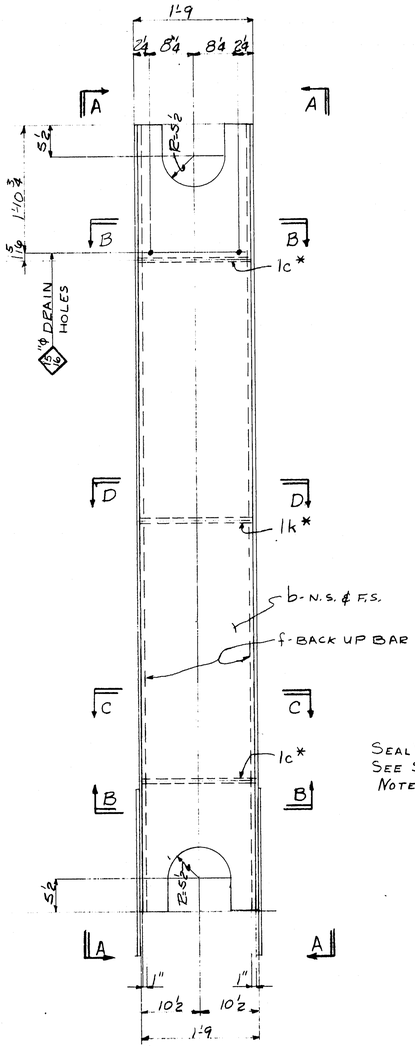
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

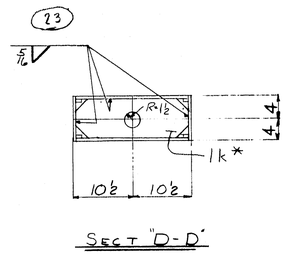
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RF DATE 4-13-70 IN CHARGE LAG
CHECKED BY CAB DATE 5-13-70 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 180 B.B

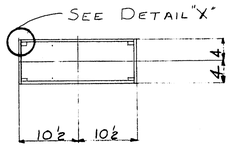
120-129 NC TAPE



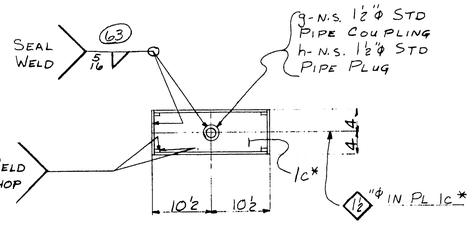




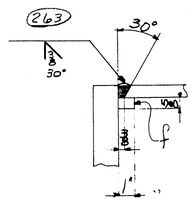
SECT "D-D"



SECT "C-C"



SECT "B-B"



DETAIL "X" (TYP)

VERTICAL 181A

NO.	DESCRIPTION	MARK	REMARKS
1	VERTICAL	181A	1'-10 X 2 1/4 X 8'-2 1/16

INST. REQUIRED LIST

SHOP NOTE: SEE DRWG CS15 FOR SEAL WELD

SHOP BILL — MILL ORDER

PIECE NO.	ASSEMBLE MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK.	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN.	ITEM NO. STR.	ITEM NO. LINE
		1	VERTICALS 181A												
(M)	a	2	PL	B		1/2	21	10 1/8	T2W						25404
(2)	b	2	PL	19 1/4		3/8	21	10 1/8	T2W						25905
	1c*	2	BR	7 1/4		3/8	1	8							25412
	d	2	PL	29 1/4		7/8	2	0 1/2	3-7/8 CUTS 2-1 5/8						25504
	f	4	BR	1		5/8	22	10	BACK UP BAR						25409
	1k*	1	BR	7 1/4		3/8	1	8							25412
	g	2	M	1 1/2"ϕ	STD PIPE COUPLING X 2 1/16 LG										AM 08
	h	2	M	1 1/2"ϕ	STD PIPE PLUG										AM 08
		28	325	7/8"ϕ		0 2 1/4									AM 30
		28	HW	1 3/4	7 5/16	3/16									AM 30
	SD	1	WD			1/8	1	1							
	FW	1	WD			1/4	31	4							
	FW	1	WD			5/16	12	5							
	B30	1	WD			3/8	87	8							

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FEW
JAN 20 1971

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of from the group of holes. EXCEPT FOR DRAIN HOLES & 11x11 SLOT HOLES

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

VERTICAL FROM M16 TO U16

MATERIAL A36
RIVETS OR BOLTS
OPEN HOLES 15/16 UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT One Shop Coat Red Lead
AASHO - M72, Type II
See Note "X" U.N

REVISION NO. | DATE | MIT.

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

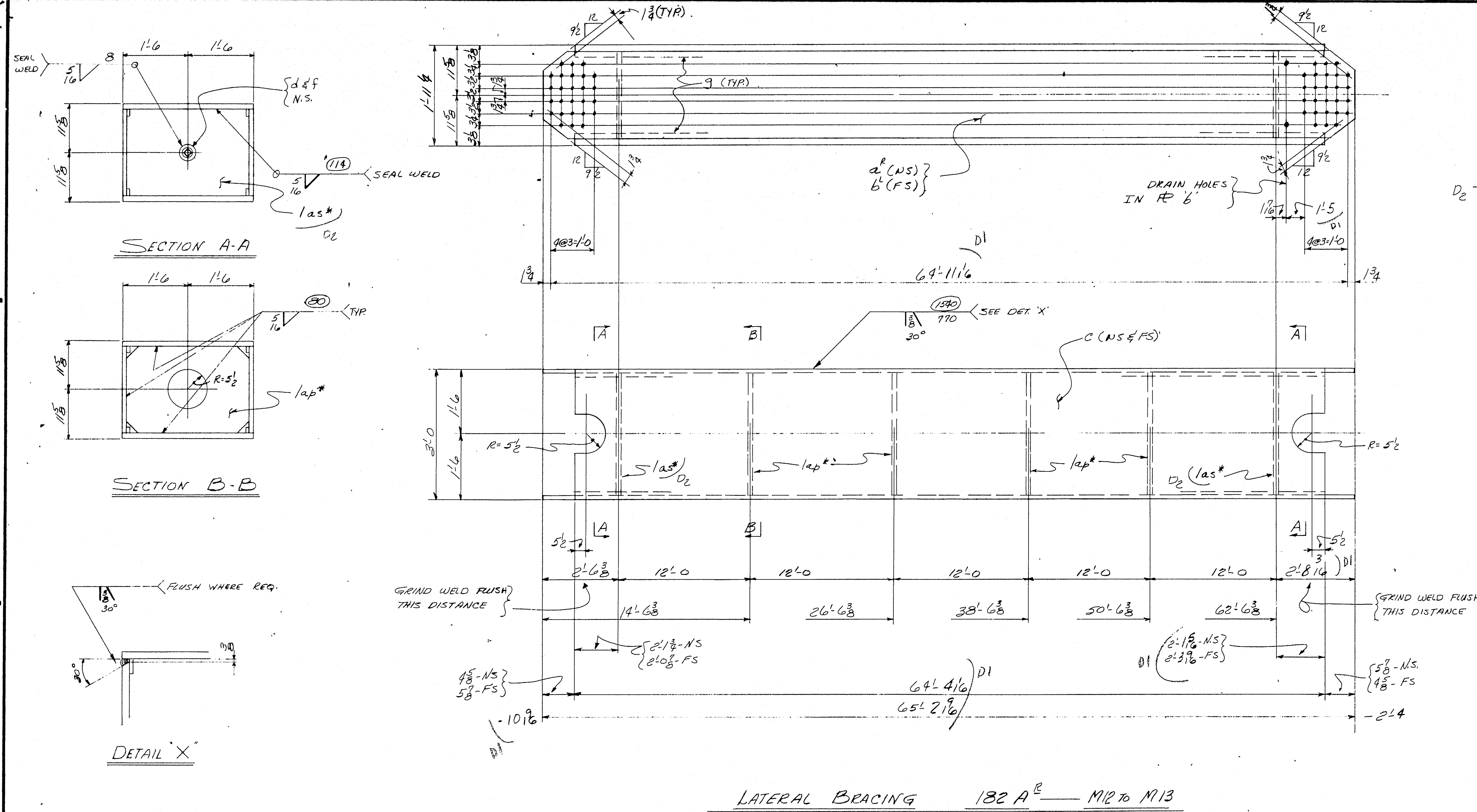
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RG DATE 4-15-70 IN CHARGE LAG
CHECKED BY C.A.D DATE 1-8-71 SHOP NO.
CONTRACT CG 6290-070 DRAWING NO. 181

35453 (Rev.D 8-69)

For location of details shown on this sheet refer to diagrams.
E 10

	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
n			
P			
s			
t			
w			
y			

120-130



SHOP BILL

Product Type	Line	Assembly Mark	No	Shape	Size	Size or Pounds	Thick	Ft.	In.	Remarks	Width	Thick	Ft.	In.	Stock	Item Page	Item Line
	1		4	-	LATERAL BRACING												
	2				2-182A^R & 2-182A^L												
	3									D1							
(M)	4	a R/L	2/2	PL	21 1/4		1/2	65	2 9/16	T2W						264	18
(M)	5	b R/L	2/2	PL	21 1/4		1/2	65	2 9/16	T2W						264	18
(Z)	6	c	8	PL	36		5/8	64	4 1/16	T2W						264	16
	7	d	8	M	1 1/2φ	STD. PIPE COUPLING, 2 1/16 LG.										AM8	
	8	f	8	M	1 1/2φ	STD. PIPE PLUG										AM8	
	9	g	16	BR	1		5/8	65	2 1/2	BACK-UP BARS						264	14
D2	10	1as*	8	PL	22		3/8	2	11	{1-CUTS 3 @						264	20
	11	1ap*	16	PL	22		3/8	2	11	22 x 2'-11						264	20
	17	B30	4	WD			1/2	256	9								
	18	FW	4	WD			5/16	46	8								
	19	FW	4	WD			1/4	33	10	SEAL WELD							
	20	FW	4	WD			1/8	1	1	SEAL WELD							

FOR SEAL WELDING SEE SHT.# CS15

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
Anabel Noorzly
JUN 17 1970

NOTE: Length Corrected for Temperature

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

ELECTRODES - E70XX LOW HYDROGEN

		H 15	M 15	NO.	DESCRIPTION	MARK	REMARKS
		1	1	2	(do)	182A^L	
		1	1	2	LATERAL BRACING	182A^R	

INST. REQUIRED LIST

For location of details shown on this sheet refer to diagrams.
E18 - E20

LATERAL BRACING M12 TO M13

MATERIAL ASTM-A36
RIVETS OR BOLTS —
OPEN HOLES 15/16 φ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

NO.	DATE	INIT.
D2	6-8	BV
D1	5-21	RP

REVISION

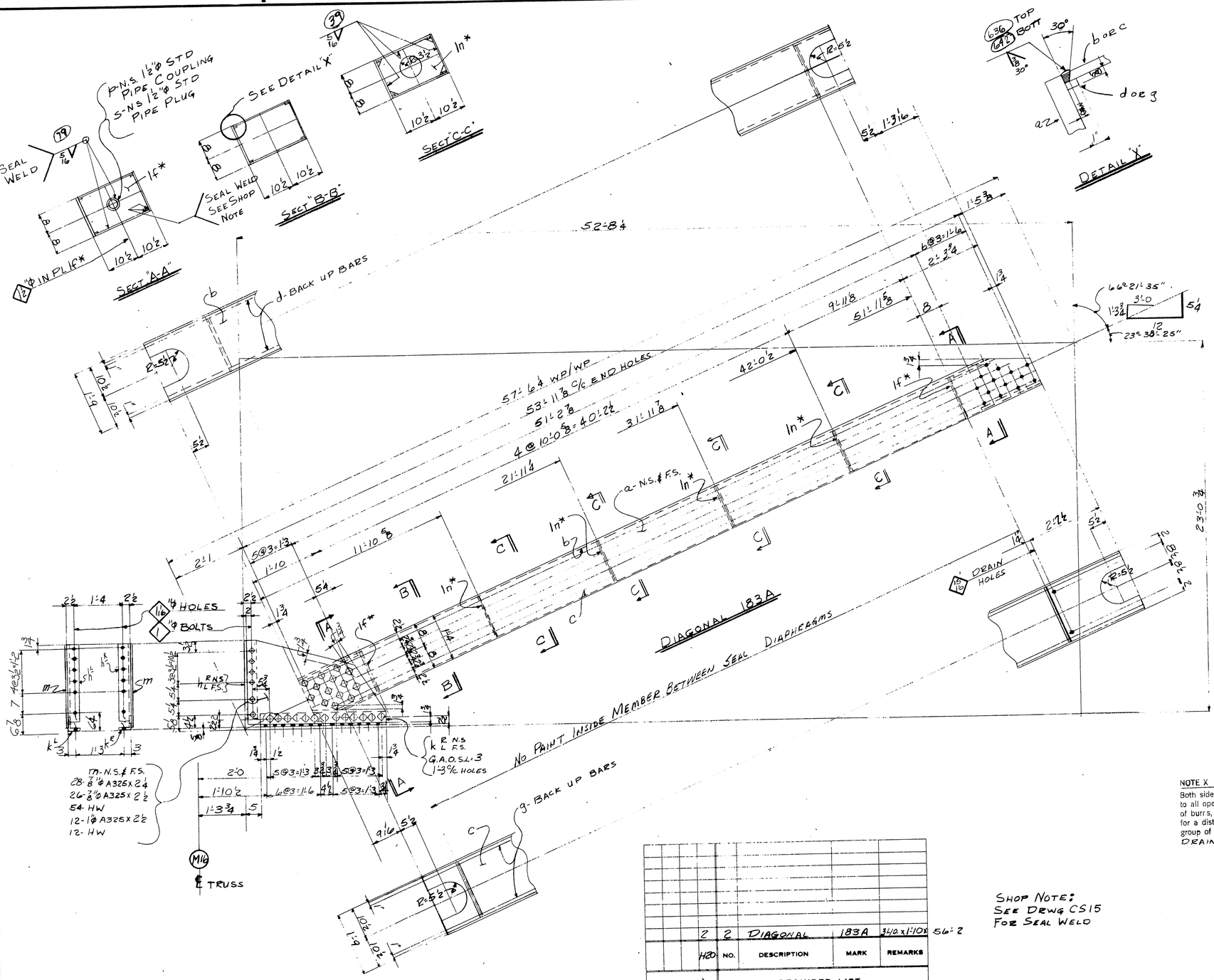
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 4-15-70 IN CHARGE L.A.G.
CHECKED BY KP DATE 5-1-70 SHOP NO.
CONTRACT CG 6290-072 DRAWING NO. 182

35453 (Rev.D 8-69)

NC TAPE 120-131



	a	b	c
N			
K			
L			
T			
P			
K			
K			
M			
P			
X			
T			
W			
Y			

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

E10

	2	2	DIAGONAL	183A	3/4 x 1'-10½	56:2
H20	NO.		DESCRIPTION	MARK	REMARKS	

INST. — REQUIRED LIST

SHOP NOTE:
SEE DWG CS15
FOR SEAL WELD

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR DRAIN HOLES & 11x11 SLOT HOLES

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		2	DIAGONALS				183	A								
(2)	a	4	PL	16		3/8	54	3 3/8	T2W						254	02
(4)	b	2	PL	19½		½	53	0 5/16	T2W						254	03
(4)	c	2	PL	19½		½	53	6 5/16	T2W						254	03
(2)	d	4	BR	1		5/8	54	0 1/4	BACK UP BAR						254	08
	1f*	4	PL	15		3/8	1	8¼							254	11
	g	4	BR	1		5/8	54	6 1/4	BACK UP BAR						254	08
	h	2	L	4	4	5/8	2	2¼							255	03
	k	2	L	6	4	5/8	3	6½	CUT TO 45°x4						255	02
	m	1	PL	28¼		½	3	11	6-1½ CUTS 2						255	01
	In*	8	PL	15		3/8	1	8¼							254	11
	p	4	M	1½"ø	STD PIPE COUPLING x 2 1/16 LG										AM	08
	s	4	M	1½"ø	STD PIPE PLUG										AM	08
		56	325	⅞"ø			0	2¼							AM	30
		52	325	⅞"ø			0	2½							AM	30
		108	HW	1¾"ø	15/16	3/16									AM	30
		24	325	1"ø			0	2½							AM	30
		24	HW	2	1/16	3/16									AM	30
	SD	2	WD			1/8	1	1	SEALWELD							
	FW	2	WD			1/4	25	1	SEALWELD							
	FW	2	WD			5/16	26	2								
	B30	2	WD			1½	213	0								

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY PFW
JAN 20 1971

SWAY FRAME DIAGONAL FROM M16 TO U16

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

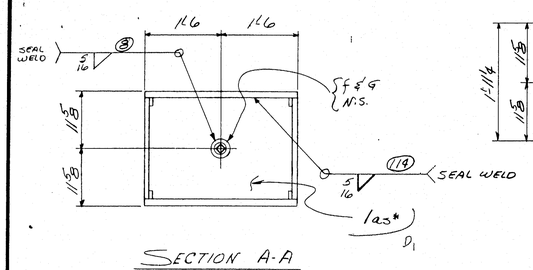
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RZ DATE 4-15-70 IN CHARGE LAG
CHECKED BY SAD DATE 1-4-71 SHOP NO.
CONTRACT C&L 290-070 DRAWING NO. 183

MATERIAL A36
RIVETS OR BOLTS —
OPEN HOLES 15/16 UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT One Shop Coat Red Lead
AASHO - M72, Type II
See Note "X"

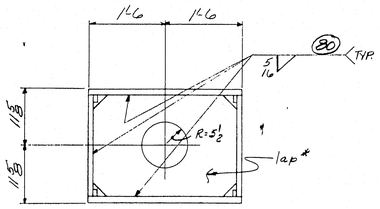
REVISION: NO. | DATE | INIT.

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

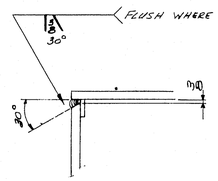
35435 (Rev.D 8-69)



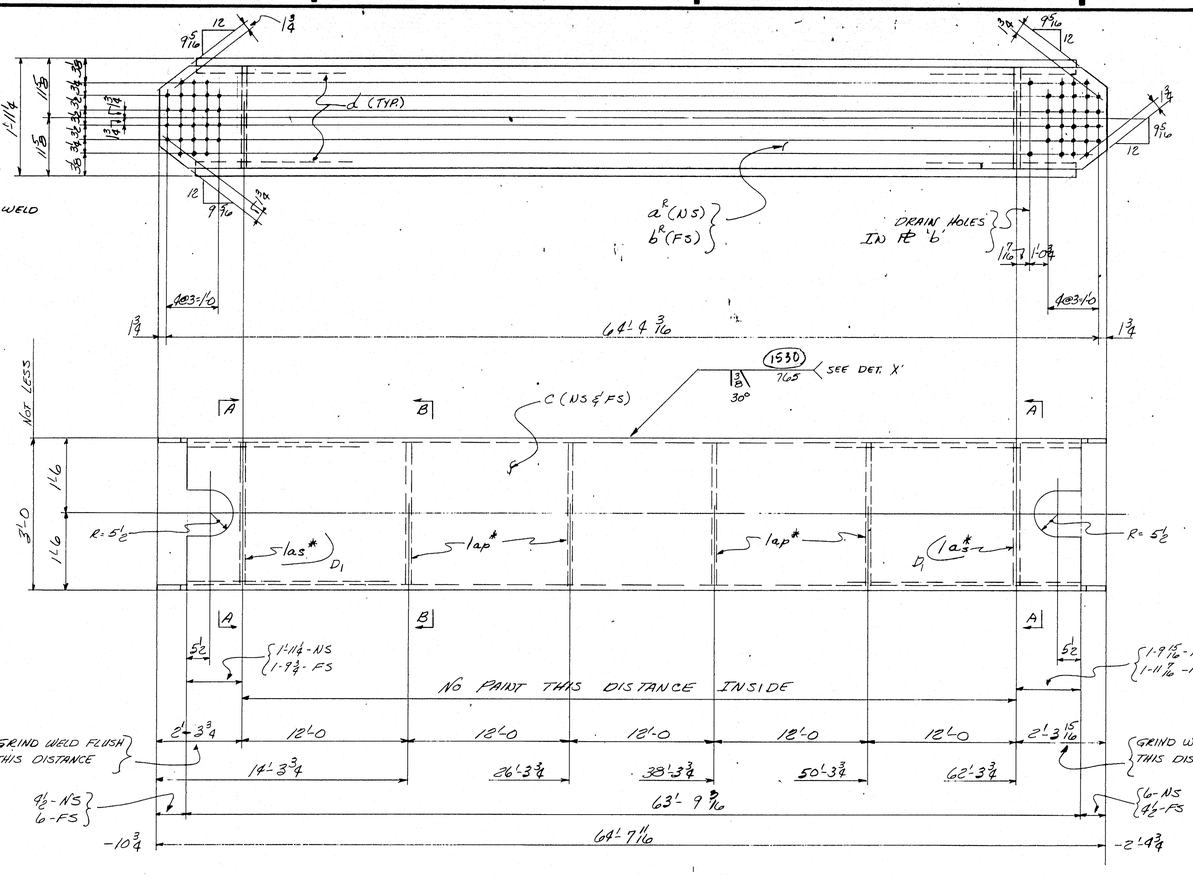
SECTION A-A



SECTION B-B



DETAIL 'X'



LATERAL BRACING 184A^R ——— M13 TO M14

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

ELECTRODES - E70XX
LOW HYDROGEN

		1	1	2	(do)	184A^L	
		1	1	2	LATERAL BRACING	184A^R	
		H 17	M 17	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

For location of details shown on this sheet refer to diagrams.
E18 - E20

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

SHOP BILL

PIECE MARK	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4 - LATERAL BRACING							
	2		2 - 184A^R & 2 - 184A^L							
	3									
M	4	a^R	2	PL	21¼		½	64	7 11/16	TEW
M	5	b^R	2	PL	21¼		½	64	7 11/16	TEW
②	6	c	8	PL	36		⅝	63	9 3/16	TEW
	7	d	16	BR.	1		⅝	64	9½	BACK-UP BAR
	8	f	8	M	1½ STD.			STD. PIPE COUPLING; 2½ LG.		AAB
	9	g	8	M	1½ STD.			STD. PIPE		PLUG
	10	las*	8	PL	22		⅜	2	11	1-CUTS 3 @
	11	lap*	16	PL	22		⅜	2	11	22 x 2'-11
	12									
	13									
	14									
	15									
	16									
	17	B30	4	WD			½	255	2	
	18	FW	4	WD			5/16	46	8	
	19	FW	4	WD			¼	30	2	SEAL WELD
	20	FW	4	WD			⅛	1	1	SEAL WELD
	21									
	22									
	23									
	24									
	25									
	26									
	27									
	28									
	29									
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	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					265	2
					265	2
					265	1
					265	7
					AAB	
					AAB	
					265	10
					265	10

FOR SEAL WELDING SEE SHT # CS15

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Moody
JUN 17 1970

NOTE: Length Corrected for Temperature

LATERAL BRACING M13 TO M14

MATERIAL ASTM-A36
RIVETS OR BOLTS —
OPEN HOLES 15/16 U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING As NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

NO.	DATE	INIT.	REVISION
0	6/8/70	BV	

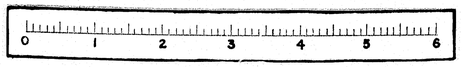
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

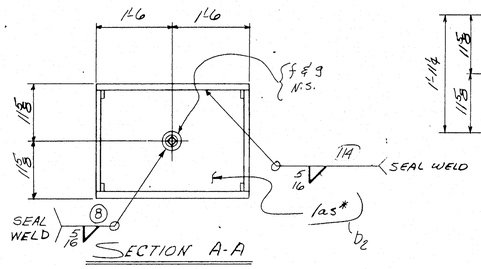
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

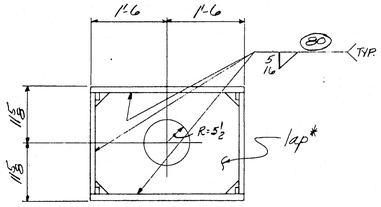
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 4-20-70 IN CHARGE E.A.G.
CHECKED BY LP DATE 5-1-70 SHOP NO.
CONTRACT CG6290-012 DRAWING NO. 184

120-133 NC TAPE

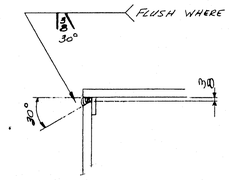




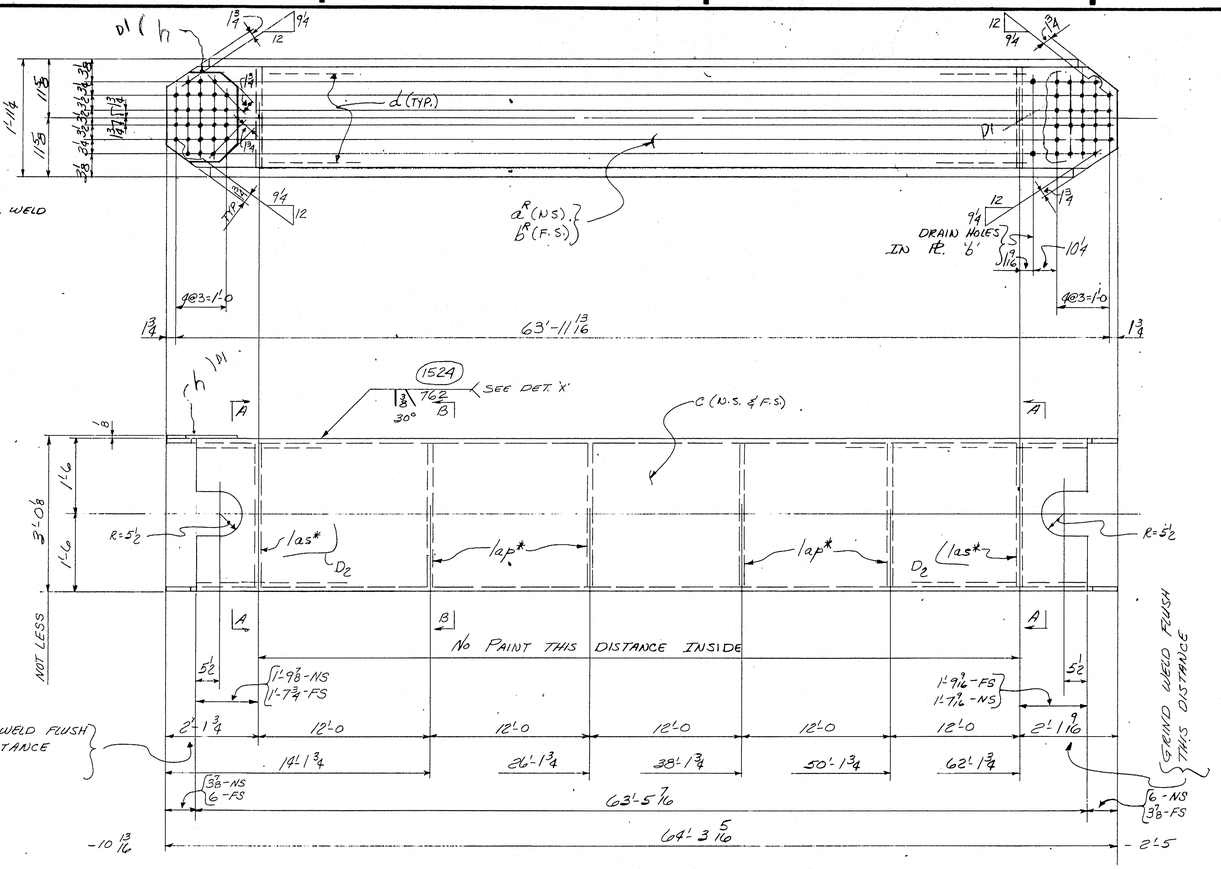
SECTION A-A



SECTION B-B



DETAIL "X"



LATERAL BRACING 185AR M14 TO M15

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES

ELECTRODES - E70XX
LOW HYDROGEN

INST.	H 18	M 18	NO.	DESCRIPTION	MARK	REMARKS
REQUIRED LIST						
			2	" "	185AL	
	1	1	2	LATERAL BRACING	185AR	
	1	1	2	" "	185AL	

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

E19

SHOP BILL

PROJECT TYPE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	-	4	LATERAL BRACING 2-185AR & 2-185AL						
(M)	a^R	2	PL	21 1/4		1/2	64	3 5/16	T2W
(M)	b^R	2	PL	21 1/4		1/2	64	3 5/16	T2W
(2)	c	8	PL	36		5/8	63	5 7/16	T2W
	d	16	BR	1		5/8	64	5 1/2	BACK-UP BAR
	f	8	M	1 1/2"	STD. PIPE COUPLING		2	9/16	LG
	g	8	M	1 1/2"	STD. PIPE PLUG				
D2	1a s*	8	PL	22		3/8	2	11	1-CUTS. 3 @ 1'-22X 2'-11
	1ap*	16	PL	22		3/8	2	11	
	h	4	PL	2		1/8	1	3 3/4	D1
	B30	4	WD			1/2	253	10	
	FW	4	WD			5/16	46	8	
	FW	4	WD			1/4	27	7	SEAL WELD
	SD	4	WD			1/8	1	1	SEAL WELD

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					265	4
					265	4
					265	3
					265	8
					AMB	
					AMB	
					265	11
					265	11

For Seal Welding See Sht. #CS15

NOTE: Length Corrected for Temperature

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Orabel Murphy
JUN 17 1970

LATERAL BRACING M14 TO M15

MATERIAL ASTM-A36
RIVETS OR BOLTS —
OPEN HOLES 15/16" ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X" U.N.

NO.	DATE	REVISION
0	6-8-70	BV
01	5-21	RP

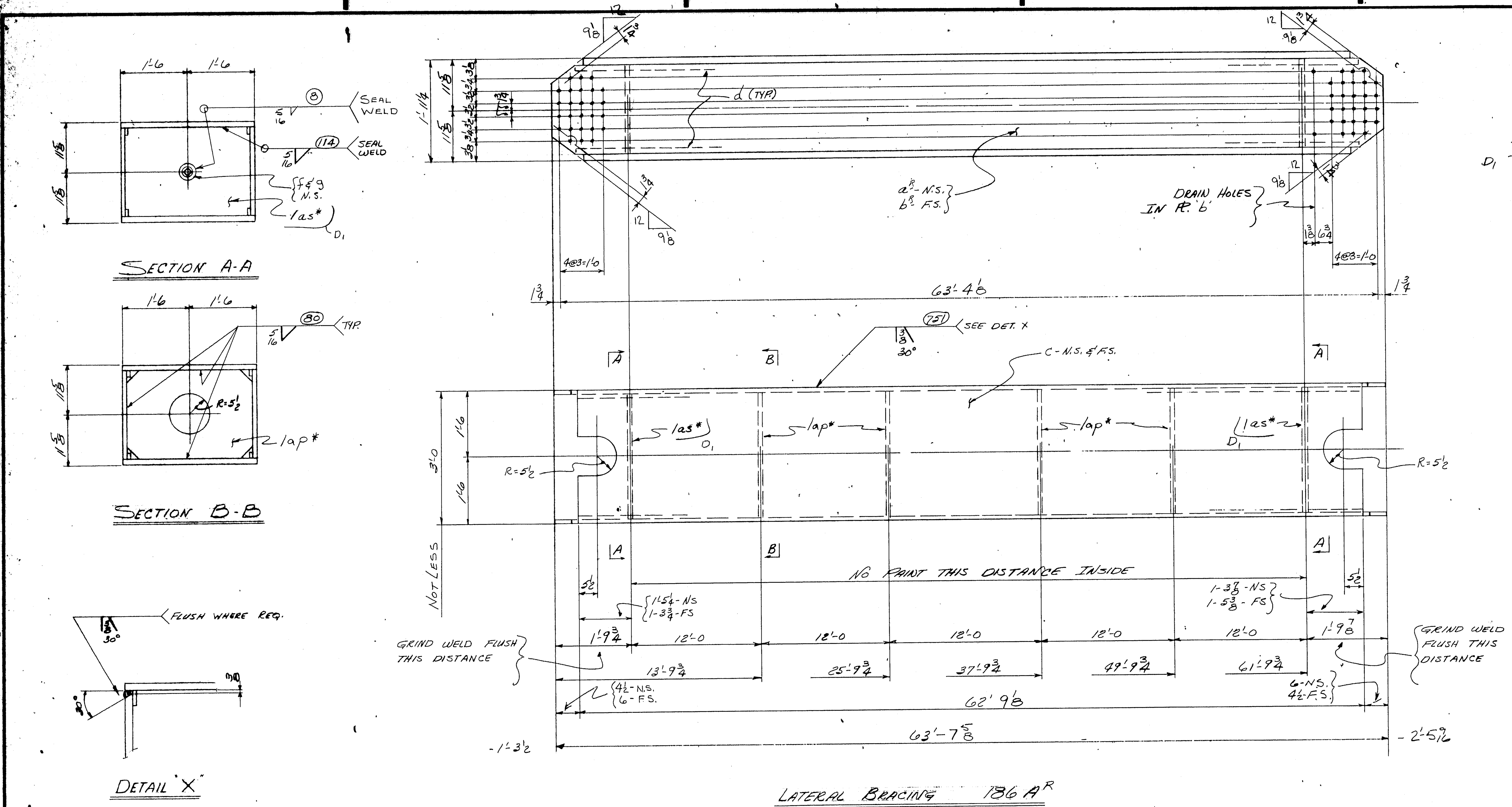
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95.1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 4-15-70 IN CHARGE L.A.G.
CHECKED BY R.P. DATE 4-30-70 SHOP NO.
CONTRACT CG6290-012 DRAWING NO. 185

120-134 NC TAPE



PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SIZE	SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	- LATERAL BRACING 2-186A^R & 2-186A^L													
	2																
(M)	3	a^R_L	2/2	PL	21 1/4		1/2	63	7 5/8	T2W						265	6
(M)	4	b^R_L	2/2	PL	21 1/4		1/2	63	7 5/8	T2W						265	6
(2)	5	c	8	PL	36		5/8	62	9 1/8	T2W						265	5
	6	d	16	BR	1		5/8	63	8 3/4	BACK-UP BAR						265	9
	7	1as*	8	PL	22		3/8	2	11	{1-CUTS 3 @						265	12
	8	1ap*	16	PL	22		3/8	2	11	22 x 2'-11}						265	12
	9	f	8	M	1 1/2ø	STD. PIPE COUPLING, 2 1/16 LG.										AM8	
	10	g	8	M	1 1/2ø	STD. PIPE PLUG										AM8	
	11																
	12																
	13																
	14																
	15																
	16	B30	4	WD			1/2	251	0								
	17	FW	4	WD			5/16	46	8								
	18	FW	4	WD			1/4	22	1	SEAL WELD							
	19	SD	4	WD			1/8	1	1	SEAL WELD							
	20																
	21																
	22																
	23																
	24																
	25																
	26																
	27																
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	55																
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	57																
	58																
	59																
	60																
	61																
	62																

D1

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Anatol Noorzky
JUN 17 1970

FOR SEAL WELDING SEE SHT. #CS-15

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT DRAIN HOLES.

		1	1	2	LATERAL BRAC.	186A^L	
		1	1	2	LATERAL BRAC.	186A^R	
		H 20	M 20	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

LATERAL BRACING M15 TO M16

MATERIAL ASTM - A36
RIVETS OR BOLTS
OPEN HOLES 15/16"ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1 Coat "TT-P-57b Type 1 Zinc Yellow - Iron Oxide" U.N. - See Note "X"

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

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B.V. DATE 4-20-70 IN CHARGE L.A.G.
CHECKED BY RP DATE 5-1-70 SHOP NO.
CONTRACT CG6290-072 DRAWING NO. 186

NC TAPE 120-135

For location of details shown on this sheet refer to diagram.
E19

SIDE Rs & WELDS MUST NOT PROJECT ABOVE R b

SIDE Rs & WELDS MUST NOT PROJECT BELOW R c

No PAINT INSIDE MEMBER BETWEEN SEAL DIAPHRAGMS

SYMM ABT & PROJECT

5 & PROJECT

BOTT STRUT SWAY FRAME ℄ LINE (16)

STRUT 187A

VIEW "A-A"

VIEW "C-C"

SECTION B-B

SECTION "D-D"

SECTION "F-F"

SECTION "G-G"

104'-3⅜ ℄/℄ END HOLES

104'-6⅝ END TO END

4@11'-3 = 45'-0

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JAN 20 1971

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #105(12)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-4-71 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 1-5-71 SHOP NO.
CONTRACT CG6890-071 DRAWING NO. 187AB

REVISION: NO. | DATE | INIT.

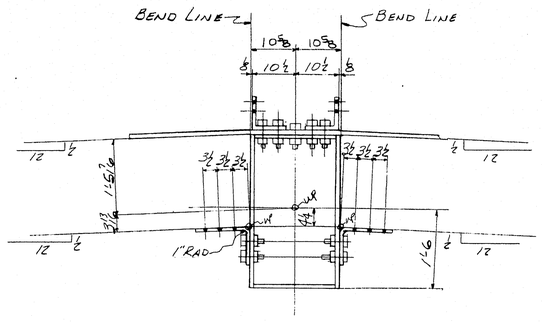
SUBMITTAL / DATE: 1 2 3 4 5 6 7 8 9 0

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

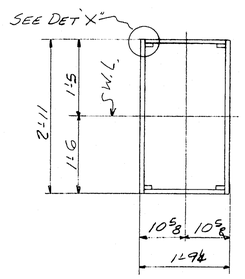
E10

120-136

36663 11-631



SECTION "K-K"



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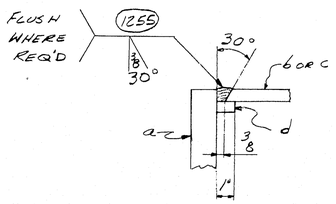

DETAIL "X" (TYP)

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

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

E10

INST.	NO.	DESCRIPTION	MARK	REMARKS
	1	STRUT	18TA	3'8x340x1047
		REQUIRED LIST		

NOTE A

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3 from the group of holes. EXCEPT 11"x22" HAND HOLES & DRAIN HOLES

NOTE: Shop Bolt Hardware On Outside (Exposed) Face

ELECTRODES - E70XX LOW HYDROGEN

SHOP NOTE!
BACK-UP BARS FROM END OF STRUT TO SEAL DIAPHRAGMS & BETWEEN SEAL DIAPHRAGMS @ ℄ SHALL BE SEAL WELDED AS PER SHT CS15

PROJECT TYPE	LINE	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		1	STRUT	18TA												
(2)	2	a	2	PL	35		5/8	104	6 5/8	TZW						254	14
(M)	3	b	1	PL	19¼		1/2	104	6 5/8	TZW						258	17
(M)	4	c	1	PL	19¼		1/2	104	6 5/8	TZW						258	17
	5	d	4	BR	1		5/8	105	6½	BACK UP BARS						265	16
	6	f	1	PL	24½		5/8	4	9½	BENT						262	14
	7	g	2	L	8	8	5/8	2	0½							255	14
	8	h	2	PL	21		5/8	1	7⅜	BENT						262	16
	9	k	2	PL	21¼		15/16	1	10¼	(FILL)						292	01
	10	m	4	BR	3		5/8	1	8	(FILL)						G 212	8
	11	n	4	M	1 1/2"	STD	PIPE	COUPLING	2 1/16 LG							AM8	
	12	p	4	M	1½"	STD	PIPE	PLUG								AM8	
	13	t	4	PL	20		3/8	2	10							258	19
	14	w	6	PL	20		3/8	2	10							258	19
	15																
	16																
	17		8	MB	7/8"			0	2	RHH&RHN(SB)						AM40	
	18		4	MB	7/8			0	2½	RHH&RHN(SB)						AM40	
	19																
	20		28	A325	7/8"			0	2½							AM41	
	21		28	A325	7/8"			0	3							AM41	
	22																
	23		56	HW	1"	15/16	3/16									AM41	
	24																
	25																
	26	B30	1	WD			1/2	418	4								
	27	FW	1	WD			5/16	76	8								
	28	FW	1	WD			1/4	86	11	SEAL WELD							
	29	SD	1	WD			1/8	1	1	SEAL WELD							
	30																
	31																
	32																
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APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
F.F.W.
JAN 20 1971

NOTE: Length Corrected for Temperature

BOTT STRUT SWAY FRAME @ LINE (16)

MATERIAL ASTM-A36
RIVETS OR BOLTS 7/8"ϕ
OPEN HOLES 15/16"ϕ LIN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P
WELDING AS SHOWN
PAINT One Shop Coat Red Lead Paint Conforming to Specification "A"

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
HARDESTY AND HANOVER CONSULTING ENGR.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-5-71 IN CHARGE L. GOTTBERG
CHECKED BY C.A.D. DATE 1-5-71 SHOP NO.
CONTRACT CG6290-071 DRAWING NO. 18788

35435 (Rev.D 8-69)

120-137

0 1 2 3 4 5 6

U16

104'-2⅝ c/c END HOLES

9@5'-0 = 45'-0

5'-0 1/16

BEND LINE F.S. ℄ d

THIS SIDE ℄

OTHER SIDE ℄

TYP

HOLES (OTHER SIDE ℄

(FILL) 2-5/8" ø x 1¾

f (FILL)

d - BENT (SHOWN DEVELOPED)
A325 BOLTS
⅞" ø x 2¾
H.W.

m (N.S. & F.S.)
A325 BOLTS
6 - ⅞" ø x 2½ N.S. & F.S.
6 - H.W.

BEND LINE

NO PAINT INSIDE OF MEMBER BETW. SEAL DIAPHRAGMS

23° 38' 24.62"

12 5/4 10½
2'-0

n - (N.S. & F.S.)
A325 BOLTS
NS & FS { 13 - ⅞" ø x 2½
13 - H.W.

k - BENT (SHOWN DEVELOPED)
6 - A325 BOLTS
⅞" ø x 2½
6 - H.W.

p (F.S.)
A325 BOLTS
26 - ⅞" ø x 2½
26 - H.W.

2'-3 | 11'-4⅜ | 11'-8⅛ | 11'-8⅛ | 11'-8⅛ | 11'-8⅛

52'-3 1/16

104'-6⅛ END TO END

108'-0⅛ WP/WP

STRUT 188A

h (FILL) 2-5/8" ø x 2

DRAIN HOLES

104'-2⅝ c/c END HOLES

Symm @ ℄ EXCEPT AS SHOWN

BEND LINE N.S. ℄

TOP CHORD STRUT @ U16

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

E10

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Nowitz
JAN 20 1971

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

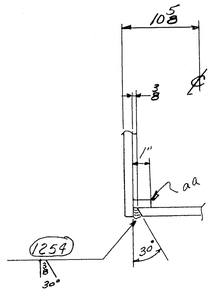
CHICAGO DRAFTING ROOM WORKS
MADE BY RG DATE IN CHARGE L.A.S.
CHECKED BY EAD DATE 1-6-71 SHOP NO.
CONTRACT 66290-071 DRAWING NO. 188 AB

NO.	DATE	INIT.
REVISION		

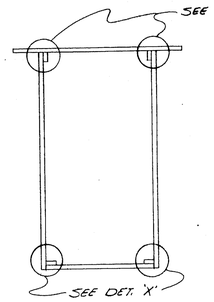
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

36663 (1-65)

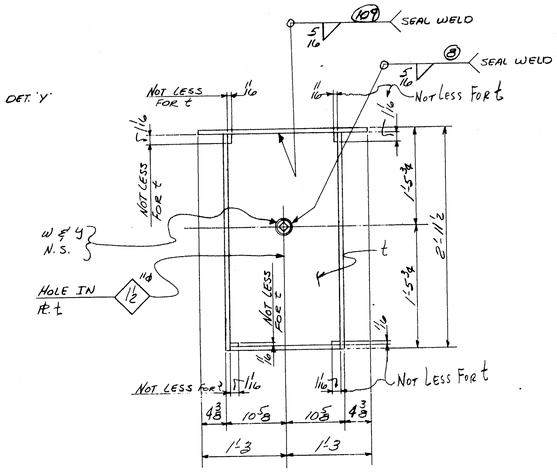
120-138



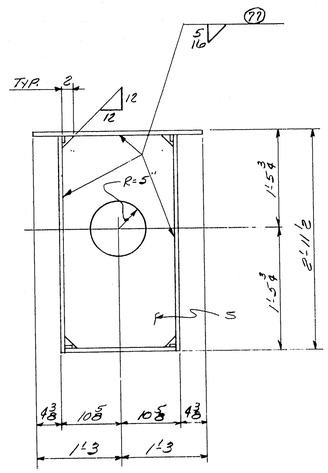
DETAIL 'X'



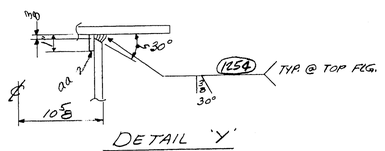
SECTION C-C



SECTION A-A



SECTION B-B



DETAIL 'Y'

SHOP NOTE:
SEE SHT. #CS 15 FOR SEAL WELDING

		1	1	STRUT	188A	61"x30"x10#7
	1/20	NO.		DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST				

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the center of holes. EXCEPT DRAIN HOLES & HAND HOLES

NOTE: Length Corrected for Temperature

ELECTRODES - E70XX LOW HYDROGEN

SHOP BILL / MILL ORDER

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		1	- STRUT - 188A													
(2)	a	2	PL	34⅜		5/8	10	6⅛							224	9
(M)	b	1	PL	30		1/2	10	6⅛							224	10
(M)	c	1	PL	19¼		1/2	10	6⅛							224	10
	d	1	PL	20		5/8	6	0⅜	(BENT)						262	16
	f	1	PL	20		3/8	2	6	FILL						258	20
	g	2	PL	18½		5/16	1	9	BEV. FILL							
	h	2	PL	21¼		9/16	1	9¼	FILL							
	k	2	PL	21		5/8	1	6¾	(BENT)						262	16
	m	2	L	8	8	5/8	1	9							255	14
	n	2	PL	25⅜		1/2	6	10	1½ 10¼ CUTS (2)						262	17
	p	2	L	8	4	5/8	6	10							255	19
	s	6	PL	20		3/8	2	10⅛								
	t	4	PL	20		3/8	2	10½								
	w	4	M	1½"					STD. PIPE COUPLING, 2½ LG.						AM8	
	y	4	M	1½"					STD. PIPE PLUG.						AM8	
	aa	4	BR	1		5/8	10	6	BACK-UP BARS							
	B30	1	WD			5/8	209	0								
	B30	1	WD			1/2	209	0								
	FW	1	WD			5/16	77	6								
	FW	1	WD			1/4	77	9	SEAL WELD							
	FW	1	WD			1/8	1	1	(do)							
		224	325	7/8"			0	2½							AH 30	
		23	325	7/8"			0	2¾								
		227	H.W.	1¾	15/16	3/16			FOR 7/8" BOLTS							
		4	MB	7/8"			0	2	RHH & RHN (S.B.)						AH 31	
		4	MB	7/8"			0	1¾	RHH & RHN (S.B.)						AH 31	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JAN 20 1971

Top Chord Strut @ U16

MATERIAL ASTM-A36
RIVETS OR BOLTS
OPEN HOLES 15/16" ϕ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING As Noted
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

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

REVISION: NO. | DATE | INIT.

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY E.B.V. DATE IN CHARGE E.A.G.
CHECKED BY C.A.D. DATE 1-6-71 SHOP NO.
CONTRACT CG 6290-071 DRAWING NO. 188.88

32433 (Rev.D 8-69)

NC FA. 120-139

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

	a	b	c
a			
b			
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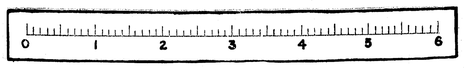
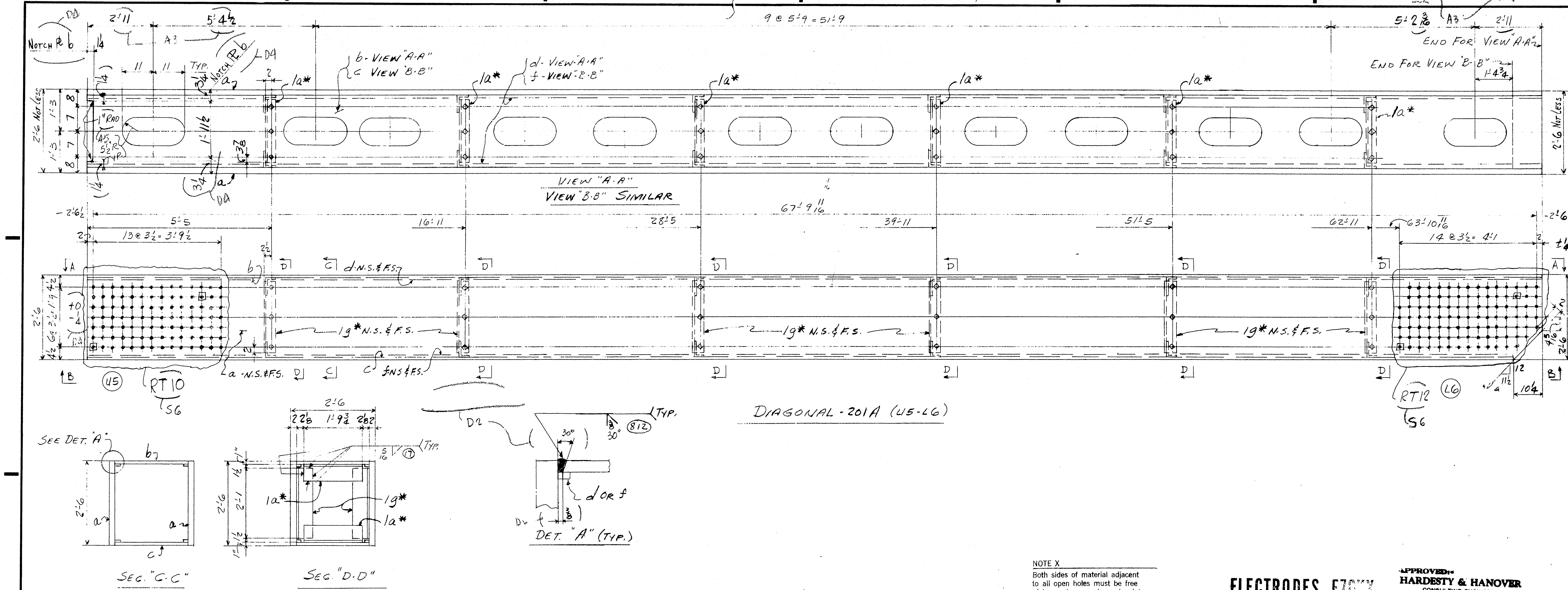
w			
y			





NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes, EXCEPT 11 x 22" HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
(LOW HYDROGEN)

LENGTH CORR. FOR TEMP.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 22 1970

For location of details shown on this sheet refer to diagrams.
E8, E12

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	MILL LENGTH FT.	MILL LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	DIAGONALS				201	A	(U5-L6)							
(2)	2	a	8	PL	30		2	68	1 1/16	(T2W)			68	8		13	06
(M)	3	b	4	PL	25 1/4		1	68	1 11/16	T2W			68	8		13	07
(M)	4	c	4	PL	25 1/4		1	67	3 7/16	T2W			67	11		13	08
	5	d	8	BR	1		5/8	69	1 11/16				69	8		58	6
	6	f	8	BR	1		5/8	68	3 7/16				69	8		58	6
	7	1g*	48	L	6	4	1/2	2	1				40	0		14	05
	8	1a*	48	L	6	3 1/2	1/2	1	9 3/4				40	0		14	06
	9																
	10																
	11																
	12		144	HSB	1"φ			0	3							AM14	
	13		144	HSB	1"φ			0	4							AM14	
	14		288	HW	2"φ	1 1/16	3/16									AM14	
	15																
	16	FW	4	W/O			5/16	34	0								
	17	B30	4	W/O			1	270	8								
	18																
	19																
	20																
	21																

		MS	HS	NO.	DESCRIPTION	MARK	REMARKS
		2	2	4	DIAGONAL	201A	2'-6x2'-6x68' U5-L6

INST. — REQUIRED LIST

TRUSS DIAGONAL U5-L6

MATERIAL ASTM-A36
BOLTS 1"φ
OPEN HOLES 1 1/16"φ U.N.
A325 FIELD BOLTS 1"φ
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1-CT RED LEAD U.N.

NO.	DATE	INIT.
5	5-4	CD
A5	4-22	CD
D4	4-1	CD
A3	2-12	CAD
D2	12-31	CAD
1	12-19	CAD

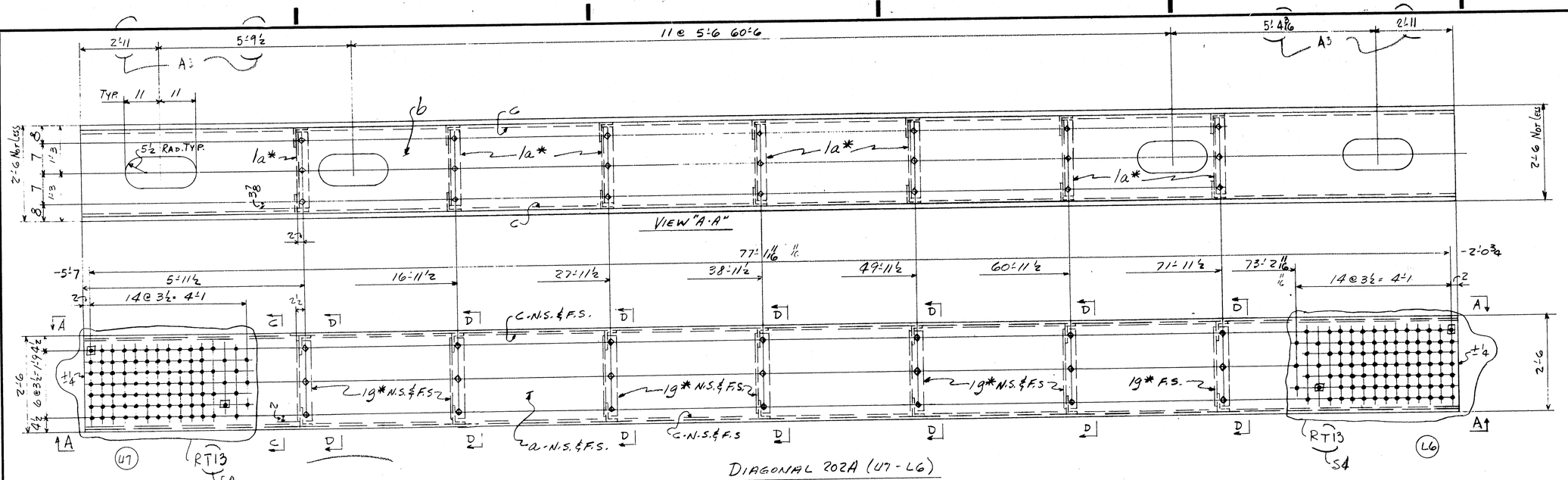
REVISION

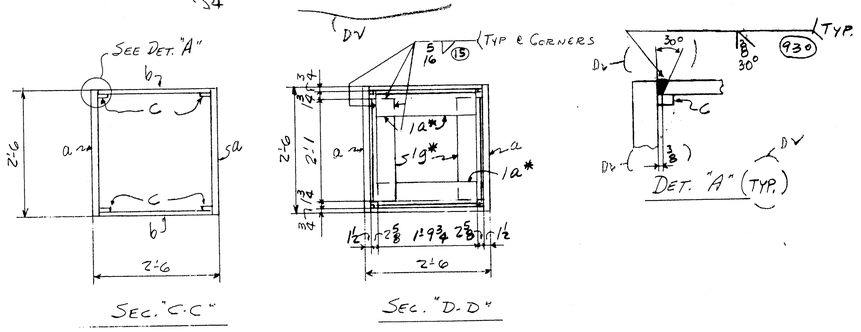
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY ET DATE 10-2-69 IN CHARGE LS
CHECKED BY CAP DATE 11/26 SHOP NO.
CONTRACT CG 6290-062 DRAWING NO. 201

120-140





NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" - " from the group of holes, EXCEPT 11 & 22 " HOLES

ELECTRODES E70XX
(LOW HYDROGEN)
LENGTH CORR. FOR TEMP.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

For location of details shown on this sheet refer to diagrams.
E8, E12

PIECE MARK	LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	DIAGONALS				20	2A	(L6-U7)							
②	2	a	8	PL	30		1 1/2	77	5 15/16	(T2W)			78	1		14	07
Ⓜ	3	b	8	PL	26 1/4		3/4	77	5 15/16	T2W			78	1		14	08
	4	c	16	BR	1		5/16	78	5 15/16				79	1		58	07
	5	1g*	56	L	6	4	1/2	2	1				40	0		14	05
	6	1a*	56	L	6	3 1/2	1/2	1	9 3/4				40	0		14	06
	7																
	8																
	9																
	10		168	HSB	1 ø			0	2 3/4							AM14	
	11		168	HSB	1 ø			0	3 1/2							AM14	
	12		336	HW	2	1 11/16	3/16									AA14	
	13																
	14																
	15	B30	4	WD			3/4	310	0								
	16	FW	4	WD			5/16	35	0								
	17																
	18																
	19																
	20																
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	66																
	67																
	68																

NO.	DESCRIPTION	MARK	REMARKS
2	2	4 DIAGONAL 2'-6 x 2'-6 x 7'-7 1/16	202A	U7-L6

INST. — REQUIRED LIST

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
NOV 3 1970

MATERIAL ASTM-A36
BOLTS 1" ø
OPEN HOLES 1 1/16" ø U.N.
A325 FIELD BOLTS 1" ø
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1 CT RED LEAD U.N.

TRUSS DIAGONAL U7-L6

REVISION NO.	DATE	INIT.
D6	8/24	RP
S4	5-4	CD
A3	2-17	CAD
D2	12-31	CAD
D1	12-19	CAD

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY GF DATE 10-8-69 IN CHARGE L.G.
CHECKED BY [illegible] DATE 11-7-69 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 202

120-141

43'-5 13/16 END TO END (ALONG TOP)

VIEW 'C-C'

TOP CHORD MEMBER 203A^R (U0 TO U1 & U0' TO U1')

SECTION D-D

43'-6 1/16 END TO END (ALONG BOTTOM)

TOP CHORD MEMBER BETWEEN U0 & U1

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
OCT 5 1970

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE 203 CC

NO.	DATE	INIT.	REVISION
D7	9-21	LJD	
D6	8-31	SC/DM	
D5	7-24	LG	
D4	6-1	RP	
D3	5-21	RP	
D2	4-24	RW	
D1	3-20	SC/DM	

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

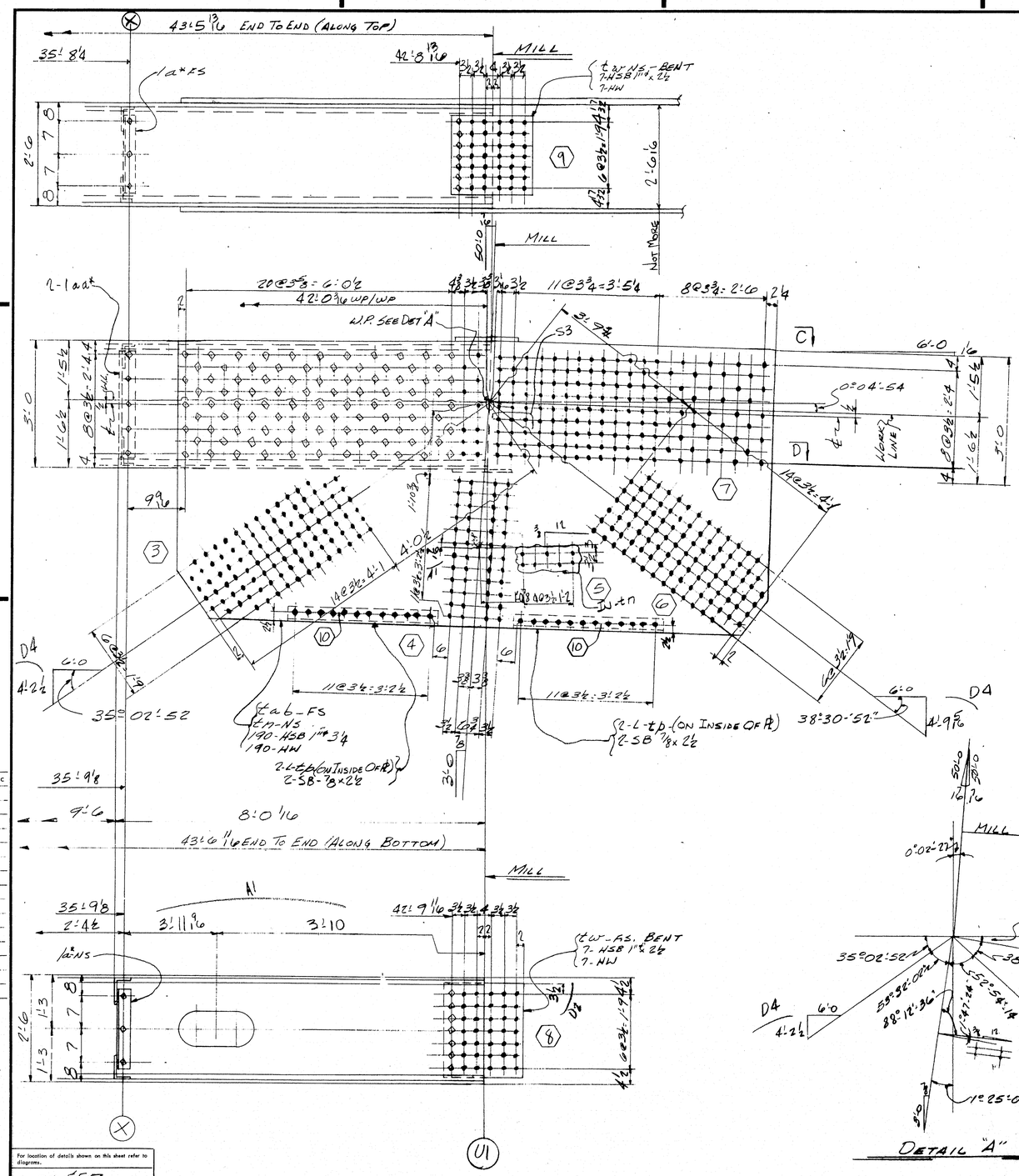
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

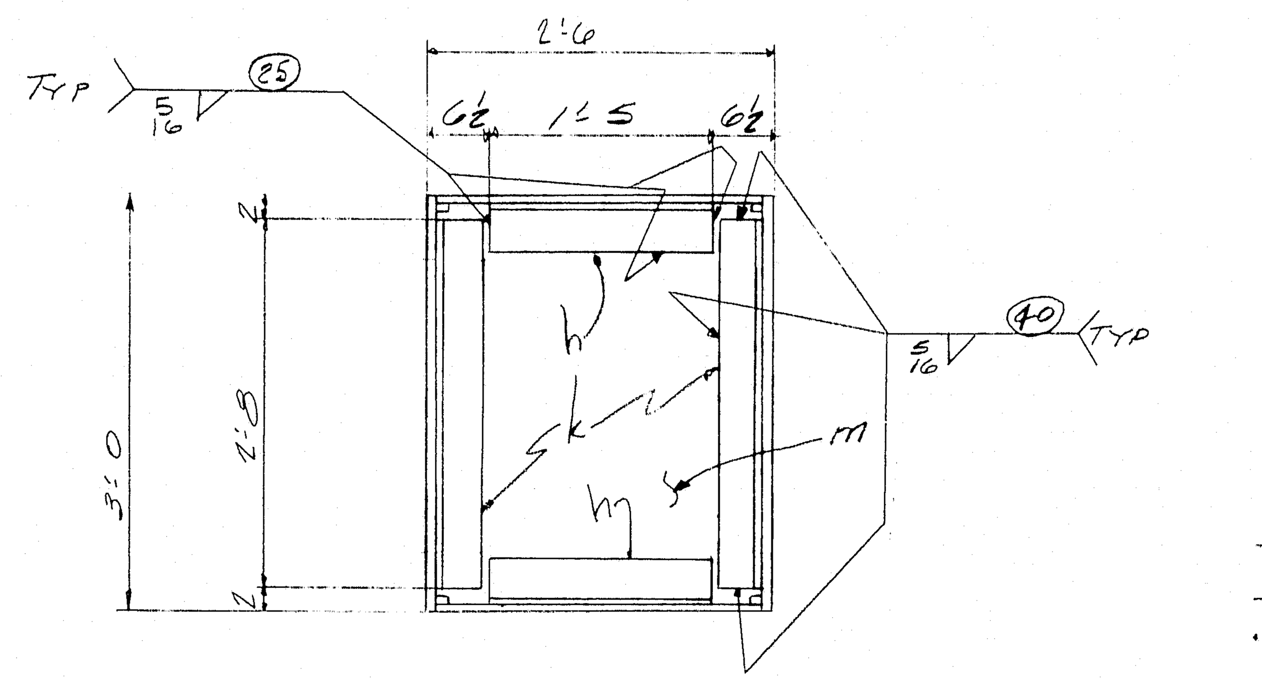
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-18-69 IN CHARGE L.GOTH BERG
CHECKED BY RP DATE 1-27-70 SHOP NO.
CONTRACT 646690-060 DRAWING NO. 203 AC

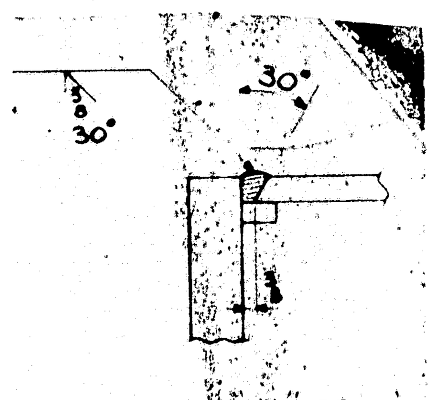
For location of details shown on this sheet refer to diagrams.
E8 & E12

120-142 NC TAPE

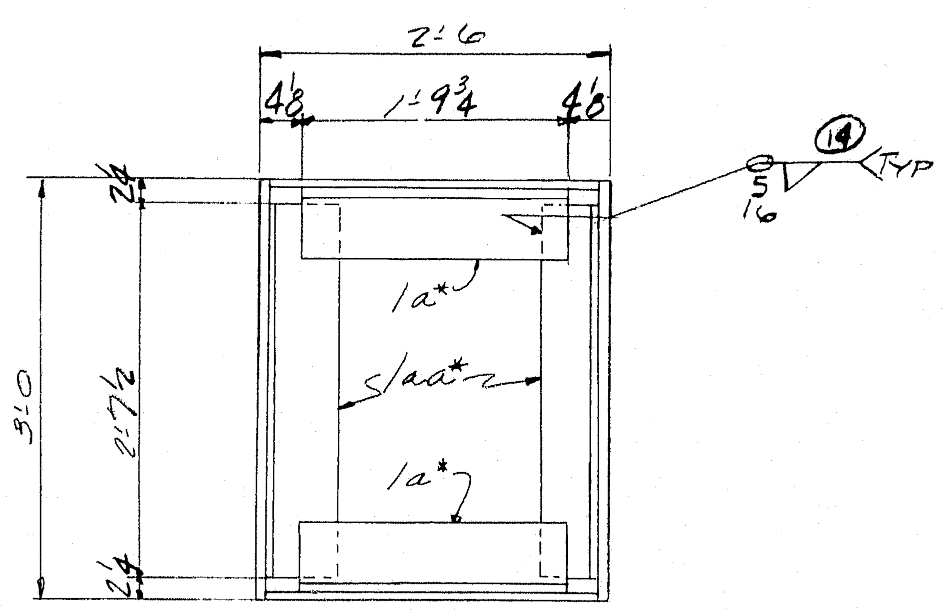

43'-5 13/16 END TO END (ALONG TOP)
35'-8 1/4
42'-8 13/16
MILL
1-a**FS
t-w-NS-BENT
1-NSB 1" x 2 1/2
1-HW
2'-6
2'-6 1/16
50:10
MILL
NOT MADE
2-1 a**
20@3 5/8 = 6'-0 1/2
42'-0 3/16 WP/WP
W.P. SEE DET "A"
11@3 3/4 = 3'-5 1/4
8@3 5/8 = 2'-0
24
S3
3'-9 1/4
C1
6'-0 1/16
0°04'-54"
D1
4 @ 3 1/2 = 2'-4
1'-5 1/4
1'-6 1/2
3'-0
5'-0
8@3 1/2 = 2'-4
99/16
14@3 1/2 = 4'-1
7
3
4'-0 1/2
5
6
10
4
11@3 1/2 = 3'-2 1/2
2-L-tp-(ON INSIDE OF R)
2-SB 1/8 x 2 1/2
35°02'-52"
tab-FS
tn-NS
190-HSB 1" dia 3/4
190-HW
2-L-tp-(ON INSIDE OF R)
2-SB 7/8 x 2 1/2
38°30'-52"
4:9 5/16
D4
4:2 1/2
C:0
35:9 1/8
9'-6
8:0 1/16
43'-6 11/16 END TO END (ALONG BOTTOM)
MILL
A1
35:9 1/8
2'-4 1/2
3'-11 9/16
3'-10
42'-9 1/16
t-w-FS, BENT
7-HSB 1" x 2 1/2
7-HW
1'-6
1'-3
1'-3
8
U1
50:10
MILL
0°02'-27"
0°04'-54"
35°02'-52"
38°25'-58"
52°54'-14"
59°52'-04"
38°12'-36"
1°25'-06"
DETAIL "A"
TOP CHORD MEMBER BETWEEN U 0 & U 1
For location of details shown on this sheet refer to diagrams.
EB & E2R
MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE E2R3C
SUBMITTAL
DATE
REVISION
NO. DATE INIT.
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.F.P. DATE 11-11-69 IN CHARGE L. GOTHBERG
CHECKED BY E.P. DATE 1-2-70 SHOP NO.
CONTRACT CG 6890-060 DRAWING NO. 203-BC
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FOR PFW
JUL 8 1970
120-143 NC TAPE



SECTION "A-A"



DETAIL "X" TYP.



SECTION "B-B"

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

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

E8 & E12

		SHOP BILL									MILL ORDER						
PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1	A4 - TOP CHORD MEMBERS 2-203A^R & 2-203A^L															
(2)	2	a	(4	PL	36		3/4	43	6 1/4	T2W-MIE			43	11		32	1
D6-(M)	3	b R/L	2/2	PL	27 3/4		1/2	43	5 3/8	T2W-MIE			43	11		32	2
(M)	4	c	4	PL	27 3/4		1/2	43	6 1/4	T2W-MIE			43	11		32	2
	5	d	8	BR	1		5/8	44	6 1/8	BACK UP BAR			44	11		61	11
	6	f	8	BR	1		5/8	44	5 1/2	BACK UP BAR			44	11		61	11
	7	g D4 (	4	PL	60		5/8	5	0 3/4							93	3
	8	h	8	L	4	4	3/8	1	5							32	9
	9	k	8	L	4	4	3/8	2	8							32	9
	10	m	4	PL	30		3/8	3	0						G	32	3
	11	1a*	32	L	6	3 1/2	1/2	1	9 3/4							61	8
	12	1aa*	32	L	6	4	1/2	2	7 1/2							61	2
	13	t n	4	PL	84 1/2		1	13	10 1/2							63	6
	14	t p	16	L	4	4	1/2	3	6 1/2							99	6
	15	t w	8	PL	28		1/2	1	10	BENT						69	15
	16	t ab	4	PL	84 1/2		1	13	10 1/2							63	6
	17	(gx	4	PL	60		5/8	5	0 3/4	) D4						93	3
	18	(ax	4	PL	36		3/4	43	6 1/4	T2W-MIE)						32	1
	19																
	20	FW	4	WD			5/16	29	6								
	21	B30	4	WD			1/2	173	10								
	22																
	23		32	MB	7/8 φ			0	2 1/2	RHH&RHN (SB)							
	24																
	25		176	325	1"φ			0	2 1/2							AM14	
D6-(D5(	26		(586	325	1"φ			0	2 3/4							AM14	
	27	E3															
	28		800	325	1"φ			0	3 1/4							AM14	
	29																
D6-(D5(	30		(1562	HW	2	1 1/16	3/16									AM14	
	31	E3															
	32																
	33																
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	61																
	62																

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
SEP 10 1970

"LENGTH CORRECTED FOR TEMP"

NOTE X
Both sides of material adjacent to all open holes must be free of burr's, loose scale, and paint for a distance of 3" from the group of holes.
EXCEPT 11x22 SLOTS

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

A1 "2" {SHAPES - T1, PLATES - A517} PREFIXED "t"

TOP CHORD MEMBER BETWEEN U0 & U1

INST.		H1	M1	NO.	DESCRIPTION	MARK	REMARKS
		1	1	2	TOP CHORD MEMBER	203A^R	5'-0 x 2'-8 x 5'-6
		1	1	2	"	203A^L	"

REQUIRED LIST

MATERIAL A36 NO PREFIX
[redacted] BOLTS 1"φ
OPEN HOLES 1 1/16 UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES NP
WELDING - AS NOTED
PAINT 1-CT. UN SEE NOTE "X"

NO.	DATE	INIT.
0		
9		
8		
7		
D6	8/31	3/CAD
D5	7/29	LG
D4	6/1	RP
E3	4-6	2/BV
S2	2/19	1/TC
1	2/6	RP

REVISION

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11/11/69 IN CHARGE L. GOTHBERG
CHECKED BY RP DATE 1/2/70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 203 CC

35453 (Rev.D 8-69)

120-144 NC TAPE

FOR A & B CONDUIT BRKT SPACING NS R4 R4

THESE HOLES ARE INDENTICAL WITH RT. 31 N.C. DRILL FULL SIZE

LADDER HOLE SPACING (FS)

NOTE BREAK IN GAGE LADDER CONN. TYP.

NOTE BREAK IN GAGE

NOTE BREAK IN GAGE

SHOP BOLTS (NS) OPEN HOLES (FS)

TOP OF ELECTRICAL PANEL ROOF

OPEN HOLES NS BOLTS FS

SHOP BOLTS (NS) OPEN HOLES (FS)

VIEW "F-F"

SECT. "D-D"

DETAIL "X" TYP

VERTICALS 204A & 204C UO TO LO (AS SHOWN)

204B UO TO LO (OPPOSITE HAND TO SKETCH)

MARK N.S. FACE INSIDE

A1 STEELCOTE EPO-LUX No. 100 E14 EPO-ZINC RICH PRIMER GRAY COLOR

ANGLES H&K TO BE BLAST CLEANED TO WHITE METAL SEE GEN. NOTES

MATERIAL	
~~DRIVEN~~ BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

D3	7-7	7/M
R4	5/16	3/Em
E3	4-23	7/Lm
E2	4-6	4/Lm
A1	3-16	5/Lm

NO.	DATE	REVISION

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION

HARDESTY AND HANOVER CONSULTING ENG'R.

STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION

FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS

MADE BY CPM DATE 10-7-69 IN CHARGE L.A. GOTHBERG

CHECKED BY GM DATE 12-17-69 SHOP NO.

CONTRACT CG6290-063 DRAWING NO. 204AB

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

FPW JUL 14 1970

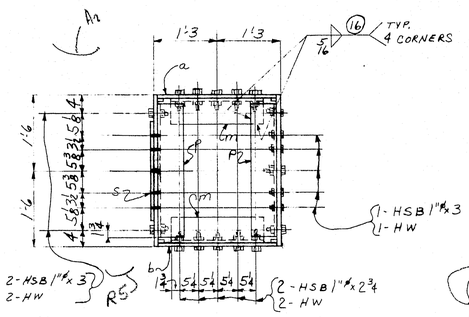
VERTICALS UO TO LO ?

VERTICALS UO TO LO

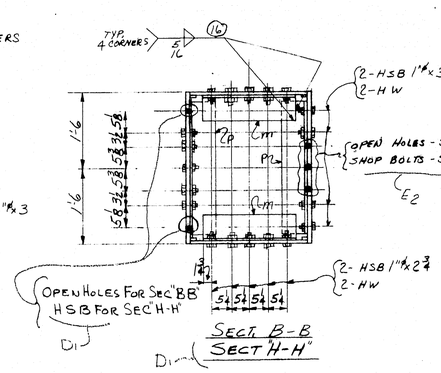
For location of details shown on this sheet refer to diagrams.

E8 & E12

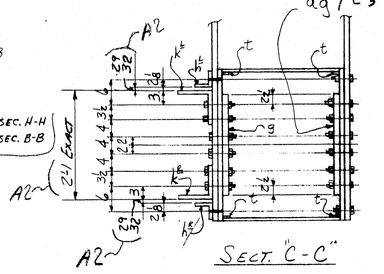
120-145 NC TAPE



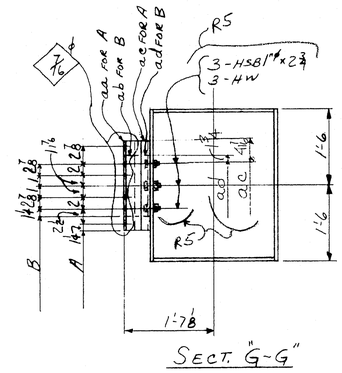
SECT. "A-A"



SECT. B-B
SECT H-H



SECT. "C-C"



SECT. "G-G"

	SHOP BILL									MILL ORDER					
PRODUCT TYPE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		4	VERTICALS			1-204A, 1-204B, 1-204C & 1-204C										
M	a	4	PL	27¼		¾	30	10⅜	T2W			31	1½		21	02
M	b	4	PL	27½		¾	30	9⅝	T2W			31	1½		21	02
② R5	c	1	PL	36		1	31	9⅝	A T2W			31	1½		21	01
②	d	4	PL	36		1	31	9⅝	T2W			31	1½		21	01
E4	f R L	3-2	PL	10 3/4		1¼	8	8							74	01
E4	g	4	PL	24		1¼	5	6¾							74	02
	h R L	4-4	L	4	4	¾	4	1½				34	10		15	19
	k R C	4-4	L	8	8	⅞	4	1½				34	10		15	19
	m	24	L	6	3½	½	2	0½				2	2		21	05
②	w	1	PL	36		1	31	9⅝	B T2W			31	11½		21	01
	P	24	L	6	4	½	2	7½							21	04
	s	4	PL	23¾		⅝	5	7		61	⅝	25	0		16	19
	t	16	BR	1		⅝	31	10¾	BACK UP BARS						58	08
	aa	3	L	4	3	⅜	1	3 1/16	A -D6						72	16
	ab	3	L	4	3	⅜	0	10¾	B						72	17
	ac	3	L	4	3	⅜	1	3 1/16	A R5						72	16
	ad	3	L	4	3	⅜	0	10¾	B						72	17
E4 D6	af R L	3-2	PL	10 3/4		1¼	8	8							74	01
	R5	38	325	1" ø			0	2¾							AM	14
	D1	140	325	1" ø			0	3							AM	14
	A2	2													AM	14
	D1	284	325	1" ø			0	3¾							AM	14
		16	325	1" ø			0	4½							AM	14
	E3	288	325	1" ø			0	5							AM	14
	R5	192	325	1" ø			0	5¾							AM	14
		998	HW	2		1 1/16	3/16								AM	14
		160	RIV	1" ø					A502-GRADE 1						AM	19
		16	MB	1" ø			0	4¼	RHH & RHN SB.						AM	15
	B30	4	WD			¾	123	6								
	IFW	4	WD			¼	1	0								
	FW	4	WD			5/16	16	0								
	FW	1	WD			¼	7	3	A R5							
	FW	1	WD			¼	5	3	B							
E4	ag	4	PL	24		1¼	5	6¾							74	02
R5	ah	2	PL	36		1	31	9⅝	C T2W)			31	11½		21	01

HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUL 30 1970

ELECTRODES E70XX
LOW HYDROGEN

		1	1	VERTICALS	204C R	8⅛x36x031'10	
		1	1		204C L		
		1	1		204B		
		1	1		204A		
	HI	MI	NO.	DESCRIPTION	MARK	REMARKS	
INST.			REQUIRED LIST				

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.

"LENGTH CORR. FOR TEMP."

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL ASTM-A36
RIVETS & BOLTS 1"ø
OPEN HOLES 1 1/16" U.N.
A325 FIELD BOLTS 1"ø
SHOP CONTACT SURFACES N.P.
WELDING: AS NOTED A2
PAINT One Shop Coat Red Lead AASHO - M72, Type II See Note "X"

D1	7-20	LM	
R5	5-16	LM	
E4	4-23	LM	
E3	4-6	LM	
A2	3-16	LM	
D1	2-23	LM	
NO.	DATE	INIT.	REVISION

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

VERTICALS U0 TO L0 & U0' TO L0'

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

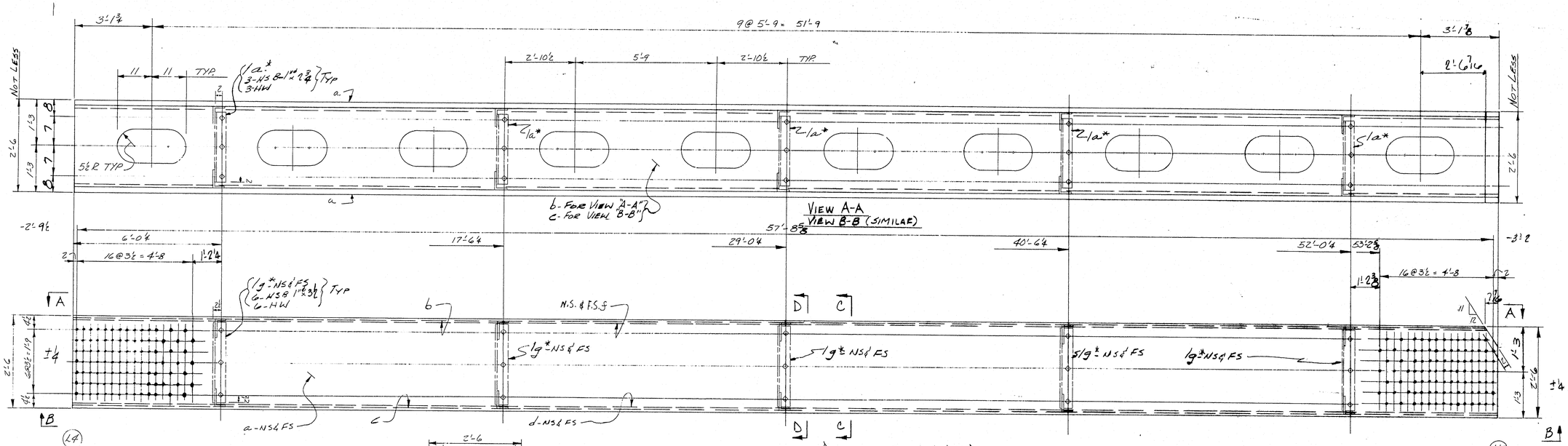
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 11-15-69 IN CHARGE L.A. GOTHBERG
CHECKED BY LM DATE 12-12-69 SHOP NO.
CONTRACT C66290-063 DRAWING NO. 204 BB

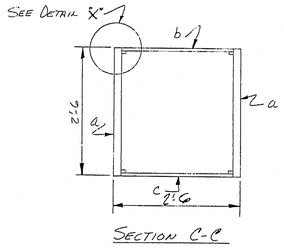
35435 (Rev.2) 8-69

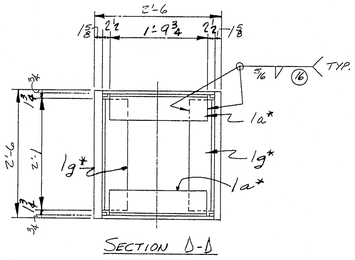
120-146 NC TAPE

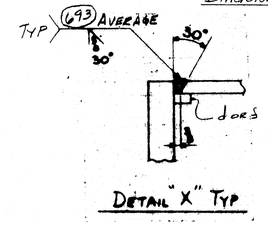
For location of details shown on this sheet refer to diagrams.
E8 & E12

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









NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11x22 HOLES

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 2 1970

"LENGTH CORR. FOR TEMP."

ELECTRODES E70XX
(LOW HYDROGEN) - A1
NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

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

E8, E12

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
1		4		DIAGONALS 205A												
2	a	8	PL	30		1 1/8	58	0 3/8	T2W			58	9		12	1
3	b	4	PL	26		3/4	57	5 3/16	T2W			58	9		12	2
4	c	4	PL	26		3/4	58	0 5/8	T2W			58	3		12	3
5	d	8	BR	1		5/8	59	0 5/8	BACK UP BAR						43	19
6	5	8	BR	1		5/8	58	5 3/16	BACK UP BAR						43	19
7	1a*	40	L	6	3 1/2	1/2	1	9 3/4							12	5
8	1g*	40	L	6	4	1/2	2	1							12	4
9																
10																
11																
12		120	325	1"ø			0	2 3/4							AM14	
13		120	325	1"ø			0	3 1/2							AM14	
14		240	WW	2	1'-4	5/16									AM14	
15																
16	FW	4	WO			5/16	26	8								
17	B30	4	WI			3/4	231	0								
18																
19																
20																
21																
22																
23																
24																
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66																
67																
68																
69																

NO.	MK	NO.	DESCRIPTION	MARK	REMARKS
2	2	4	DIAGONAL	205A	
M4	M4				

INST — REQUIRED LIST

TRUSS DIAGONAL BETWEEN L4-U5

MATERIAL ASTM - A36
[redacted] BOLTS 1"ø
OPEN HOLES 1 1/16"ø
A325 FIELD BOLTS 1"ø
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1 Ct. RED LEAD (W)

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

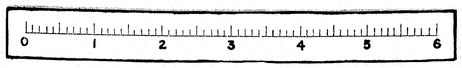
NO.	DATE	INIT.
A1	2-19	CAD

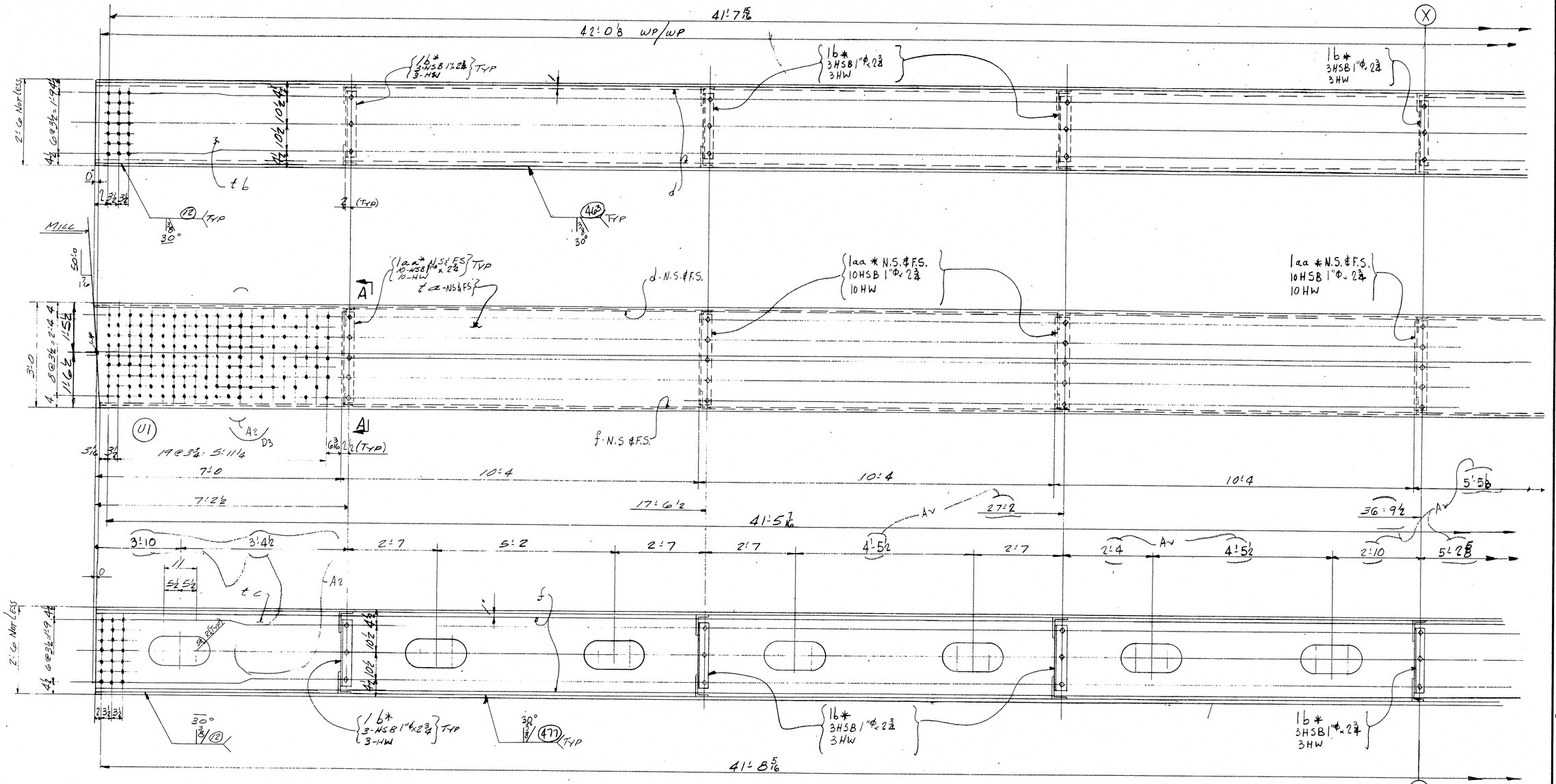
REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EJM DATE 11-14-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 12-18-69 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 205

120-147 NC TAPE





TOP CHORD MEMBER 206A (U1-U2)

TOP CHORD U1 TO U2 & U1' TO U2'

For location of details shown on this sheet refer to diagrams.
E8 & E12

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
FFW
JUN 17 1970

MATERIAL	
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

NO.	DATE	INIT.
D3	6-4	LG
A2	9-6	CAD
A1	12-19	CAD

REVISION

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

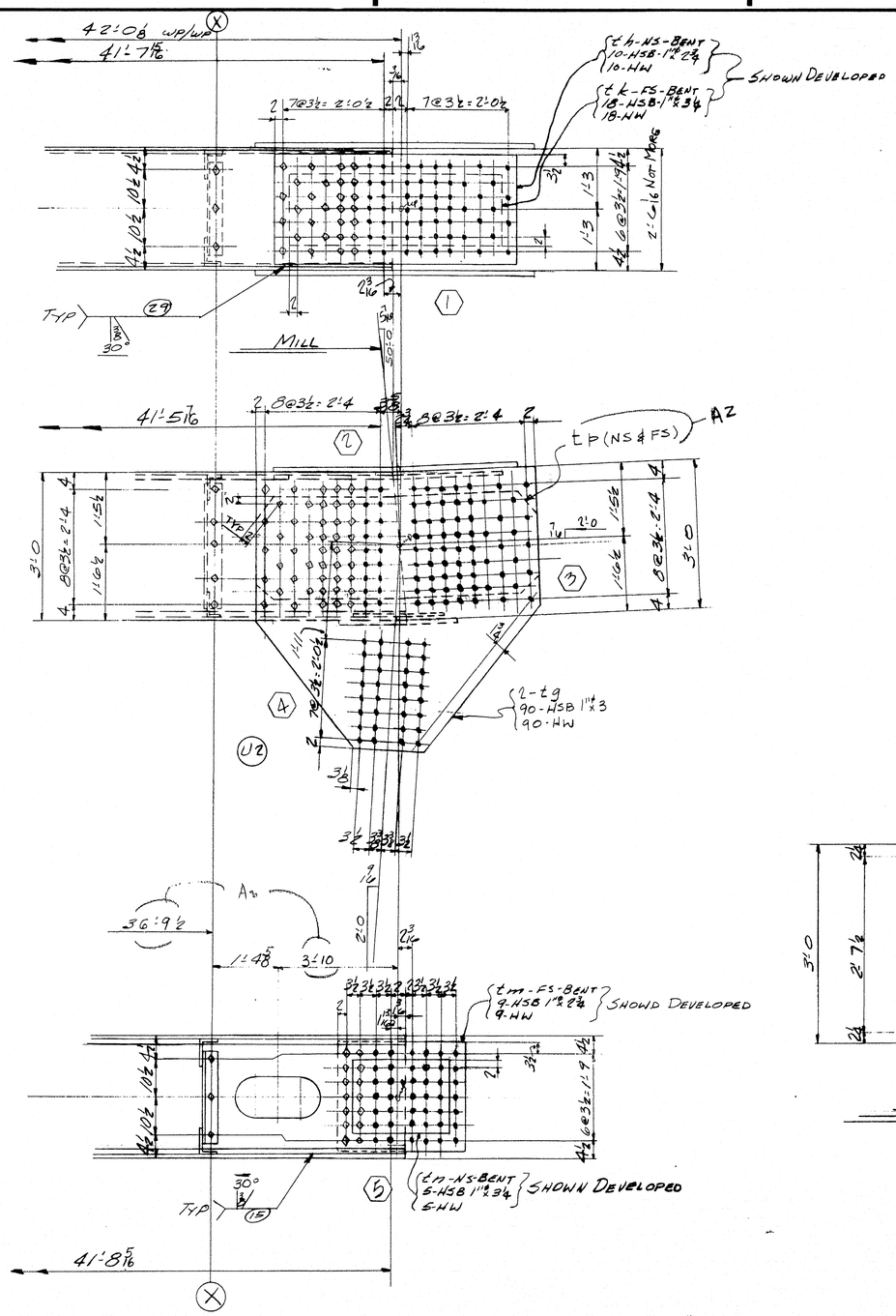
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

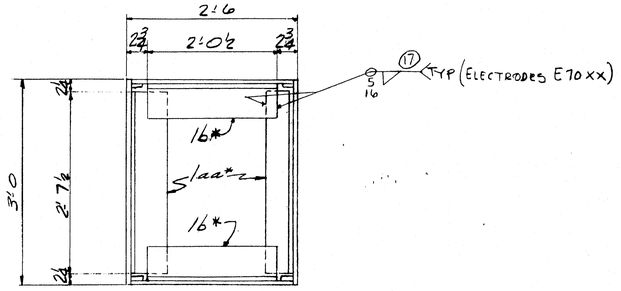
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 11-12-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 11-28-69 SHOP NO.
CONTRACT 66290-061 DRAWING NO. 206AB

36663 (1-69)

120-148 NC TAPE

0 1 2 3 4 5 6





SECTION "A-A"

	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
n			
P			
s			
t			
w			
y			

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

EB & E12

INST	M2	M1	NO.	DESCRIPTION	MARK	REMARKS
	2	2	4	TOP CHORD MEMBER	206A	5'-5 15/16"

REQUIRED LIST

ELECTRODES E110XX EXCEPT AS NOTED

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes EXCEPT 11"x 22" HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

"LENGTH CORR. FOR TEMP"
TOP CHORD MEMBER U1 TO U2 & U1' TO U2'

MATERIAL {A517 PREFIX t / A36 NO PREFIX}
BOLTS 1"ø
OPEN HOLES 1 1/16" UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1-Cr RED LEAD UN. (SEE NOTE "X")

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

NO.	DATE	INT.
A2	2-6	EAB
#1	12-19	CAD

REVISION

SHOP BILL

PIECE MARK	NO. PIECE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	TOP CHORD MEMBERS 206A						
Q	2	t a	8	PL	36		13/16	42	10 5/16	T2W-M2E
M	3	t b	4	PL	27 5/8		3/4	41	11 5/16	T2W-M2E
M	4	t c	4	PL	27 5/8		3/4	42	0 5/16	T2W-M2E
	5	d	8	BR	1		5/8	42	11 5/16	BACK UP BARS
	6	s	8	BR	1		5/8	43	0 5/16	BACK UP BARS
	7	t g	8	PL	67		3/4	5	8 1/2	
	8	t h	4	PL	28		1/2	4	9	BENT
	9	t k	4	PL	18		5/8	4	2	BENT
	10	t m	4	PL	28		1/2	2	5	BENT
	11	t n	4	PL	18		1/2	1	10	BENT
	12	16*	32	L	6	31/2	1/2	2	0 1/2	
	13	slaa*	32	L	6	4	1/2	2	7 1/2	
	14	t p	8	PL	25 3/8		3/4	5	6 3/8	
	15									
AZ	16		280	325	1ø			0	3 3/4	
	17		332	325	1*			0	2 3/4	AM14
	18		80	325	1*			0	3	AM14
	19		92	325	1*			0	5 1/4	AM16
	20		784	HW	2	1 1/16	3/16			AM14
	21									
	22	B30	4	WD			3/4	168	0	
	23	FW	4	WD			5/16	22	8	

MILL ORDER

PIECE MARK	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
Q			42	3		45	1
M			42	3		45	2
M			42	3		45	2
			43	3		55	1
			43	3		55	1
						64	5
						64	1
						64	2
						64	3
						64	4
			2	2		55	3
			2	9		55	2
						9703	
						AM14	
						AM14	
						AM16	
						AM14	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FEW
FEB 20 1970

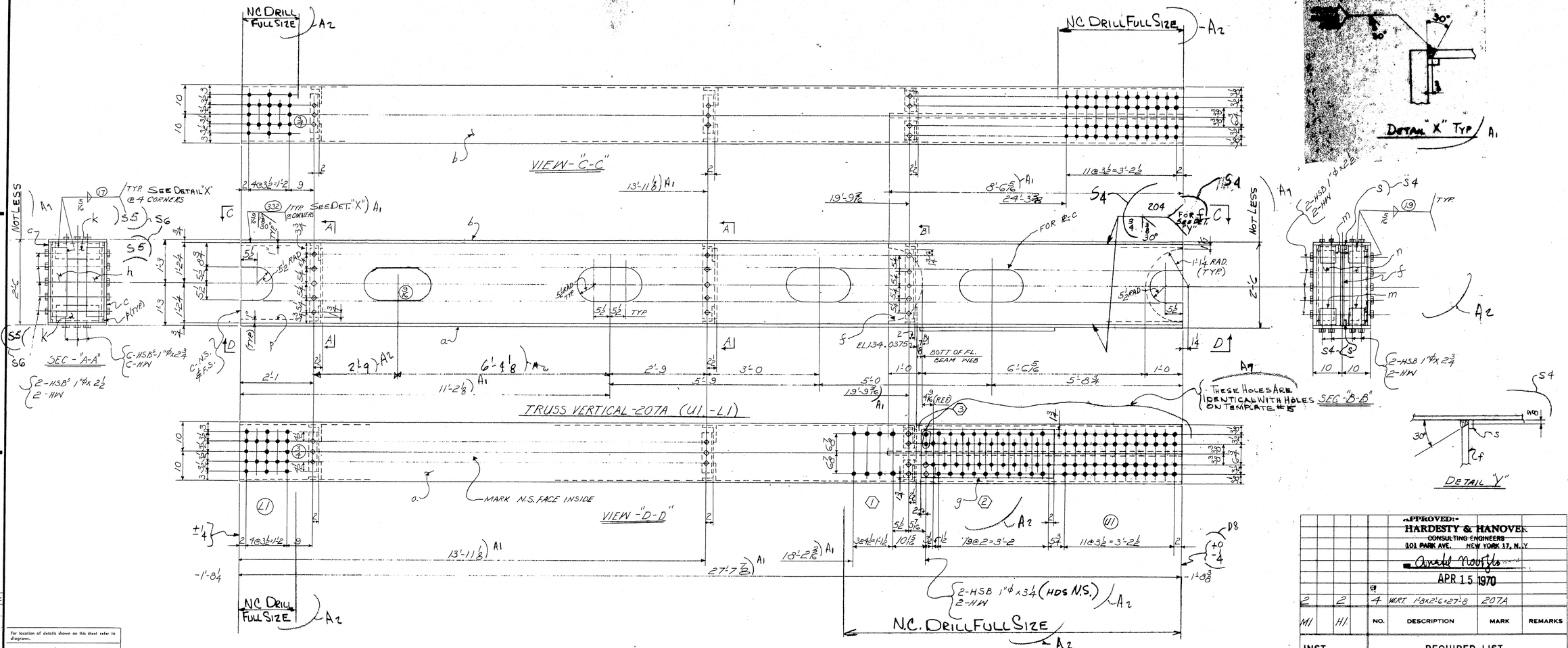
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)18, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-13-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 11-28-69 SHOP NO.
CONTRACT C&G290-061 DRAWING NO. 206 BB

35433 (Rev.2-8-69)

120-149 NC TAPE



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

E8 & E12

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		4	VERTICALS - 207A						
(2)	a	4	PL	20		¾	27	7⅞	T2W
(2)	b	4	PL	20		¾	27	7⅞	T2W
(M)	c	8	PL	27¾		9/16	27	7⅞	T2N
S6									
S5	f	4	PL	27¾		¾	8	5⅝	S4
S5	g	4	PL	17¼		1	3	11	FILL
S5	h	16	L	6	4	½	2	0½	
S6	k	16	L	6	3½	½	1	4	
	m	16	L	6	4	½	0	7	
	n	8	L	6	3½	½	2	0½	
	p	16	BR	1		5/8	28	7¾	BACKUP BAR
	s	8	BR	1		5/8	9	6	BACKUP BAR — S4

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	¾	27	7⅞		22	07
	¾	27	7⅞		22	07
	9/16	27	7⅞		22	08
	¾	8	5⅝		22	09
	1	3	11		67	14
	½	2	0½		34	06
	½	1	4		34	08
	½	0	7		34	06
	½	2	0½		34	08
	5/8	28	7¾		58	09
	5/8	9	6		156	09

B30	4	WD		9/16	110	8	
FW	4	WD		9/16	17	8	
IFW	4	WD		9/16	0	8	
B30	1	WD		¾	17	0	A2 — S4
	80	325	1"ϕ		0	2¾	AM14
	120	325	1"ϕ		0	2½	AM14
	8	325	1"ϕ		0	3¼	AM14
208	HW	2	O.D.	1 6/16	3/16		AM14

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Roofy
APR 15 1970

			NO.	DESCRIPTION	MARK	REMARKS
2	2	4	WERT. 1'8x2'6x27'8		207A	
M1	H1		NO.	DESCRIPTION	MARK	REMARKS

INST. REQUIRED LIST

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.

ELECTRODES E70XX
LOW HYDROGEN

LENGTH CORR. FOR TEMP.
POINT U1 TO L1

MATERIAL - A.S.T.M-A36
BOLTS 1"ϕ
OPEN HOLES - 1/16 ϕ
A325 FIELD BOLTS
SHOP CONTACT SURFACES - N.P
WELDING - AS NOTED
PAINT - 1 CT U.N. (SEE NOTE X)

NO.	DATE	REVISION
D8	4-1	CD
A7	3-13	LM
S6	2-25	LM
S5	2-19	LM
S4	2-12	LM
D	2-4	LM
A2	1-27	LM
A1	12-19	LM

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

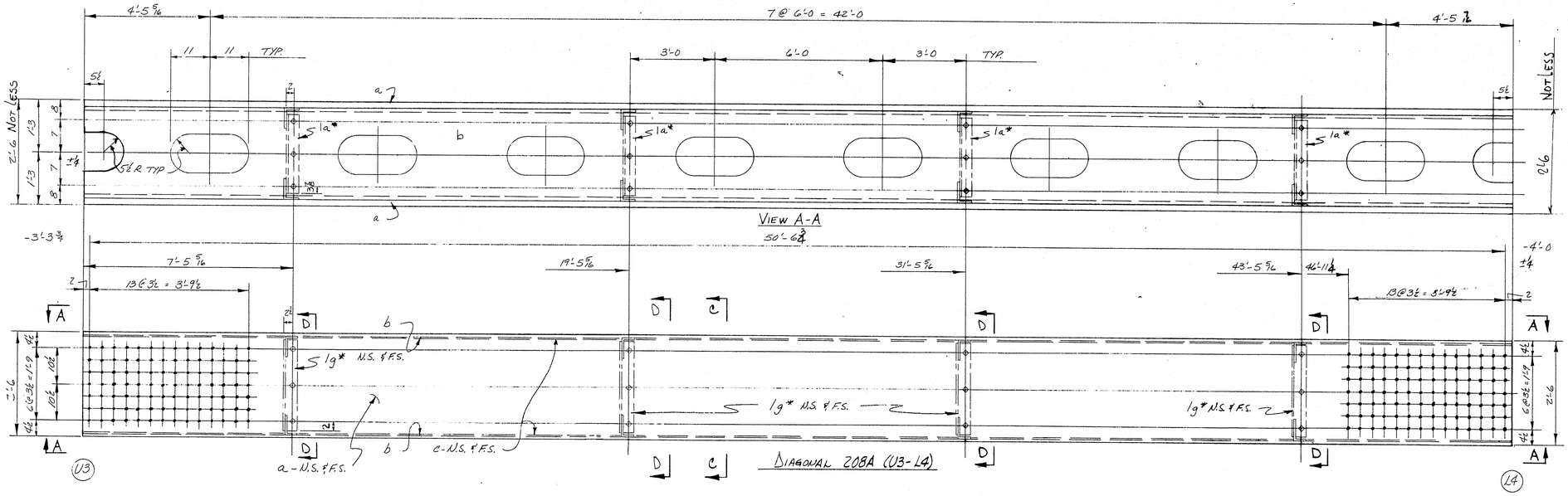
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

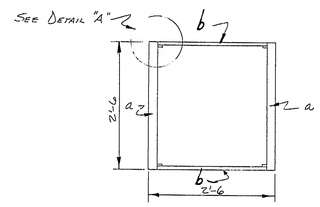
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

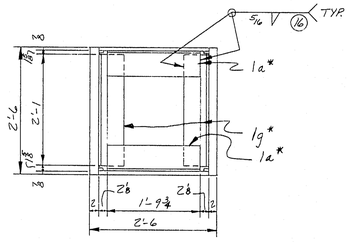
CHICAGO DRAFTING ROOM CHGO WORKS
MADE BY TH DATE 11-19-69 IN CHARGE L GOTHBERG
CHECKED BY LM DATE 12-1-69 SHOP NO.
CONTRACT CGC290-063 DRAWING NO. 207

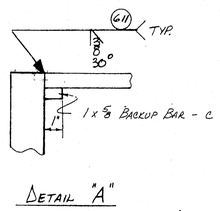
35062 (Rev. 8-69)

120-150 NC TAPE









ELECTRODES E70XX
(LOW HYDROGEN)
NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes, EXCEPT 11 x 22 & 11 x 11 HOLES.

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N. Y.
BY FFW
FEB 20 1970
"LENGTH CORR. FOR TEMP."

For location of details shown on this sheet refer to diagrams.
E3, E12

SHOP BILL

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4		DIAGONALS			208		(U3-L4)
2	2	a	3	PL	30		2	50	10 3/4	T&W
14	3	b	8	PL	2" 1/4		7/8	50	10 3/4	T&W
	4	c	16	BR	1		5/8	51	10 3/4	BACK-UP BAR
	5	1a*	32	L	6	3 1/2	1/2	1	9 3/4	
	6	1g*	32	L	6	4	1/2	2	1	
	7									
	8									
	9									
	10									
	11		96	325	1"ø			0	2 3/4	
	12		96	325	1"ø			0	4	
	13		192	HW	2	1 1/16	3/16			
	14									
	15	FW	4	WD			5/16	21	4	
	16	B30	4	WD			7/8	203	8	
	17									
	18									
	19									
	20									
	21									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		51	6		11	1
		51	6		11	2
		52	6		58	4
					11	4
					11	3
					AM	14
					AM	14
					AM	14

22	23	24	25	26	27	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	56	57	58	59	60	61	62	63	64	65	66	67	68	69	

	2	2	4	DIAGONAL	208A
M3	M3	NO.	DESCRIPTION	MARK	REMARKS

INST. — REQUIRED LIST

MATERIAL	ASTM-A36
BOLTS	1"ø
OPEN HOLES	1 1/16" U.N.
A325 FIELD BOLTS	1"ø
SHOP CONTACT SURFACES	N.P.
WELDING	AS NOTED
PAINT	1 Ct. RED LEAD U.N.

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

NO.	DATE	INIT.
A1	12-19	CAD

REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY: EJM DATE 11-17-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 11/?? SHOP NO.
CONTRACT CG 6290-062 DRAWING NO. 208

120-151 NC TAPE

VIEW "C-C"

SECT D-D

BOTT. CHORD MEMBER 209A[2]

SECT B-B

DETAIL "A"

NOTE: SEE 209BB FOR SECTIONS & WELDING DETAILS

BOTT. CHORD L0 TO L1

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
JUL 14 1970

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EJ DATE 11-19-69 IN CHARGE LAG
CHECKED BY JD DATE 1-5-70 SHOP NO.
CONTRACT C66290-060 DRAWING NO. 209AB

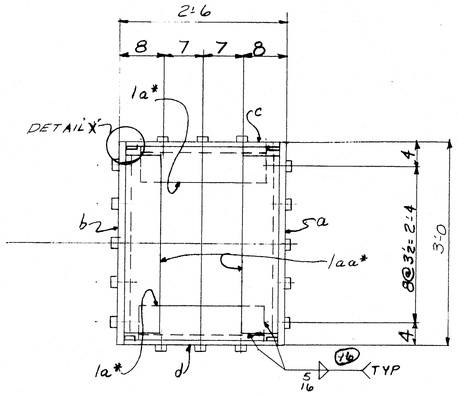
REVISION

NO.	DATE	INT.
5	7/9	LG
4	5/14	RP
3	3/4	KP
2	3/4	RJ
1	2/20	5/18

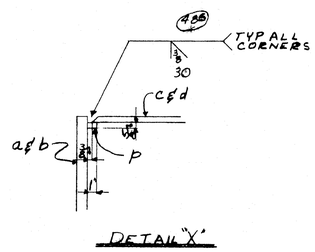
SUBMITTAL DATE: 1 2 3 4 5 6 7 8 9 0

For location of details shown on this sheet refer to diagrams.
E16 & E17

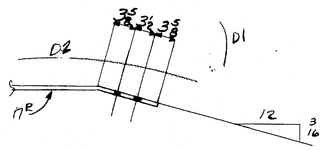
120-152 NC TAPE



SECT "A-A"



DETAIL "X"



SECT F-F

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR 11x22 SLOTS

MATERIAL A36
RIVETS OR BOLTS 1" ø UN
OPEN HOLES 1 1/16" ø UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT ICT UN

LENGTH CORR. FOR TEMP

INST	M1	H1	NO.	DESCRIPTION	MARK	REMARKS
S3	1		1	BOTT CHORD	209A L 3	
	1	1	2	BOTT CHORD	209A R 4 4X 1'-9X 43'-3	
		1	1	S	209A L S	

REQUIRED LIST

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	4 BOTT CHORD MEMBER 2-209A R & 2-209A L								
(M)	a	4	PL	36		1 1/8	40	5 3/16	MIE T2W
(M)	b	4	PL	36		1 1/8	40	5 3/16	MIE T2W
(M)	c	4	PL	27		3/4	40	5 3/16	MIE T2W
	d	4	PL	27		3/4	40	4 1/16	MIE T2W
	f	8	PL	50 1/2		7/8	4	7	
	g L & R	2 2	L	6	4	3/4	6	0	BNT
	h	4	BR	6		7/8	1	9 1/2	FILL
	k	4	PL	22		3/4	2	3	BNT
	m L & R	2 2	PL	27 1/8		3/4	6	0	BNT
S3	n L & R	2 2	PL	52	D1	3/4	4	9	BNT D2
	p	16	BR	1		5/8	41	5	BACK UP BAR
	1a*	32	L	6	3 1/2	1/2	1	9 3/4	
	1aa*	32	L	6	4	1/2	2	7 1/2	
D2									
	D1								
		8	MB	7/8 P			0	4	RHH RHN (S&B)
S3	nx L	1	PL	52		3/4	4	9	BNT
		96		1" ø			0	2 3/4	
		36		1" ø			0	3	
		192		1" ø			0	3 1/2	
		656	HW	2" ø	11/16	3/16			
	FW	4	WD			5/16	21	4	
	B30	4	WD			3/4	161	8	

MILL ORDER

LINE	ASSEMBLY MARK	WIDTH	THICK	STOCK LENGTH FT.	STOCK LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
(M)	a						33	01
(M)	b						33	01
(M)	c						33	02
	d						33	02
	f						86	01
	g L & R						86	06
	h						86	07
	k						86	04
	m L & R						86	03
	n L & R						86	02
	p						33	05
	1a*						33	04
	1aa*						33	03
	D1							
							AM	28
	nx L							
							AM	16
							AM	14
							AM	21
	FW							
	B30							

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUL 14 1970

NO.	DATE	INIT.	REVISION
D1	12/2	RP	
S3	7/8	LG	
D2	7/8	RP	
D	9/4	RP	

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

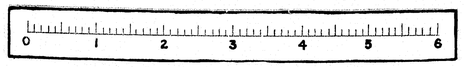
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RP DATE 11-19-69 IN CHARGE LAG
CHECKED BY RP DATE 1-5-70 SHOP NO.
CONTRACT C&L 790-060 DRAWING NO. 209 BB

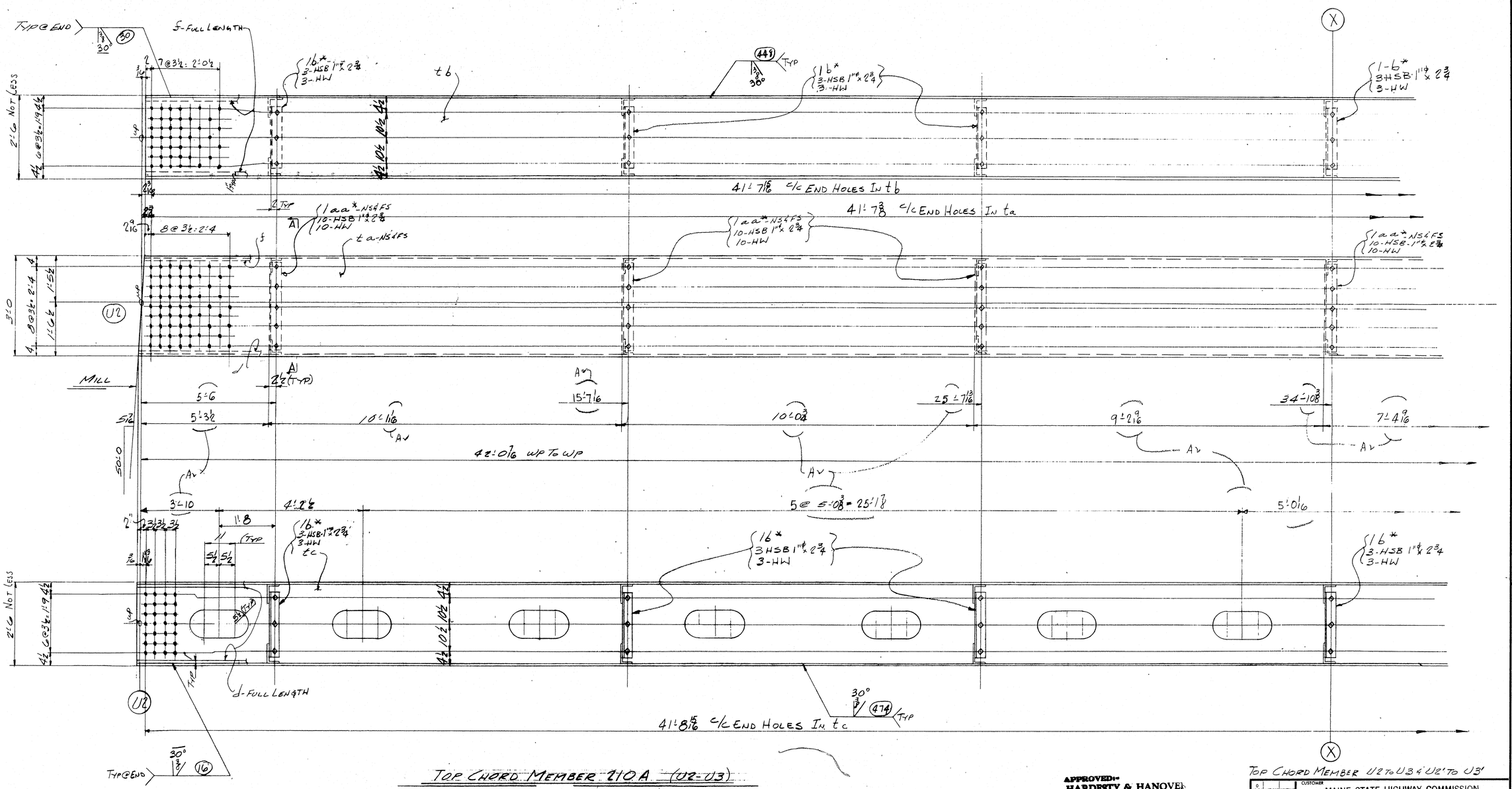
35433 (Rev.D 8-69)

For location of details shown on this sheet refer to diagrams.
E16 & E17

1220-153 NC TAPE

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





TOP CHORD MEMBER 210A (U2-U3)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FPW
MAR 12 1970

NO.	DATE	INIT.	REVISION
12	2.15	CAD	
41	12.19	CAD	

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

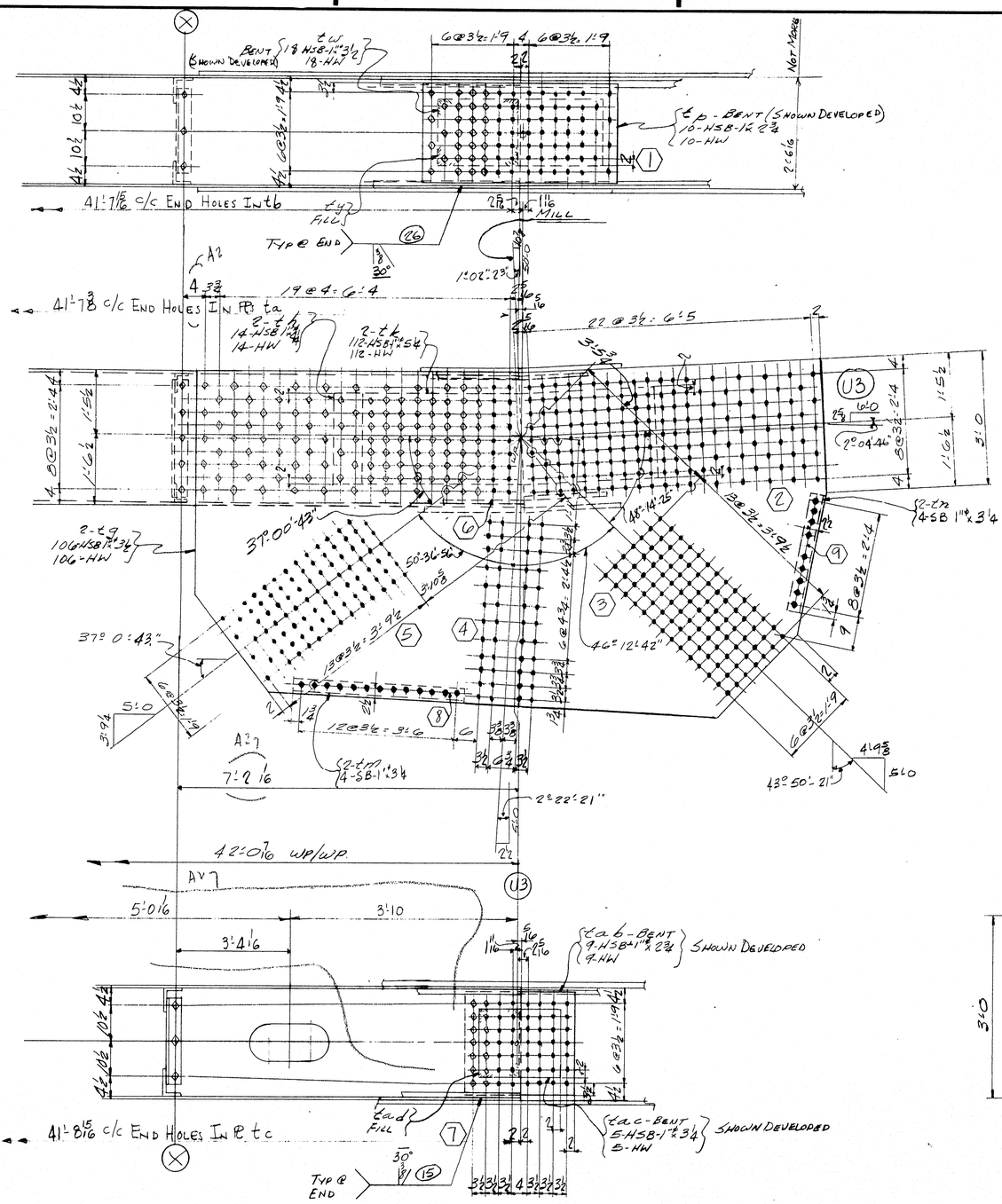
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-14-69 IN CHARGE L GOTHBERG
CHECKED BY C.A.D. DATE 12-3-69 SHOP NO.
CONTRACT 246290-061 DRAWING NO. 210AB

36663 (1-65)

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-154 NC TAPE



		2	2	4	TOP CHORD MEMBER	210A	7-10-69 JMH10
		H2	M2	NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

SECTION "A-A"

ELECTRODES E110XX EXCEPT AS NOTED
LOW HYDROGEN
AV

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes: EXCEPT 1¼ ø ø HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

52
MATERIAL (SHAPES · T1 PLATES · A517) PREFIXED "E"
A36 - NO PREFIX
BOLTS 1"ø
OPEN HOLES 1⅛"ø
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT - 1 CT RED LEAD OIL (SEE NOTE "X")

"LENGTH CORR FOR TEMP."
TOP CHORD MEMBER U2-U3 & U2'-U3'

PROJECT PIECE		ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	- TOP CHORD MEMBERS 210A													
(2)	2	t a.	8	PL	36		19/16	42	10⅞	T2W-M2E			42	3		46	1
(M2)	3	t b	4	PL	27⅜		3/4	41	11⅞	T2W-M2E			42	3		46	2
(M1)	4	t c	4	PL	27⅜		3/4	42	0⅛	T2W-M2E			42	3		46	2
	5	d	8	BR	1		5/8	43	0⅛	BACK UP BARS			43	3		55	4
	6	e	8	BR	1		5/8	42	11⅛	BACK UP BARS			43	3		55	4
	7	l b*	32	L	6	3½	1/2	2	0½				2	2		55	3
	8	l a c*	32	L	6	4	1/2	2	7½				2	9		55	2
	9	t g	8	PL	9¾		1¼	13	11							69	12
	10	t h	8	PL	25		13/16	4	0⅛	FILL						69	14
	11	t k	8	PL	20⅝	+DA	1	6	14⅝	+D3						69	13
	12	t m	8	L	4	4	3/4	3	9½							99	8
	13	t n	8	L	4	4	3/4	2	7½							99	9
	14	t p	4	PL	28		1/2	4	2	BENT						69	15
	15	t w	4	PL	18		5/8	3	7	BENT						75	11
	16	t y	4	PL	18		1/8	1	9⅜	FILL						100	2
	17	t a b	4	PL	28		1/2	2	5	BENT						69	16
	18	t a c	4	PL	18		1/2	1	10	BENT						69	16
	19	t a d	4	PL	18		1/8	0	10⅛	FILL						100	1
	20																
	21																
	22																
	23																
	24																
	25	FW	4	WD			5/16	22	8								
	26	B30	4	WD			3/4	168	2								
	27																
	28		4.96	325	1"			0	3½							AM14	
	29		332	325	1"			0	2¾							AM14	
	30		56	325	1"			0	4¼							AM14	
	31		448	325	1"			0	5¼							AM14	
	32		20	325	1⅛"			0	3¼							AM14	
	33		1358	HW	2	11/16	3/16									AM14	
	34																
	35		32	MB	1"			0	3¼	RH+RHNSB						AM18	
	36																
	37																
	38																
	39																
	40																
	41																
	42																
	43																
	44																
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	61																
	62																

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

MAR 12 1970

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

For location of details shown on this sheet refer to diagrams.
E8 & E12

	NO.	DATE	INIT.
0			
9			
8			
7			
6			
5			
D4	3-4	70	CJD
D3	2-26	70	FF
S2	2-19	70	TJ
A1	12-19	69	CAD

REVISION

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 11-15-69 IN CHARGE L.GOTHBERG
CHECKED BY C.A.D. DATE 12-3-69 SHOP NO.
CONTRACT C4G290.061 DRAWING NO. 21088

32455 (Rev.D 8-69)

120-155 NC TAPE

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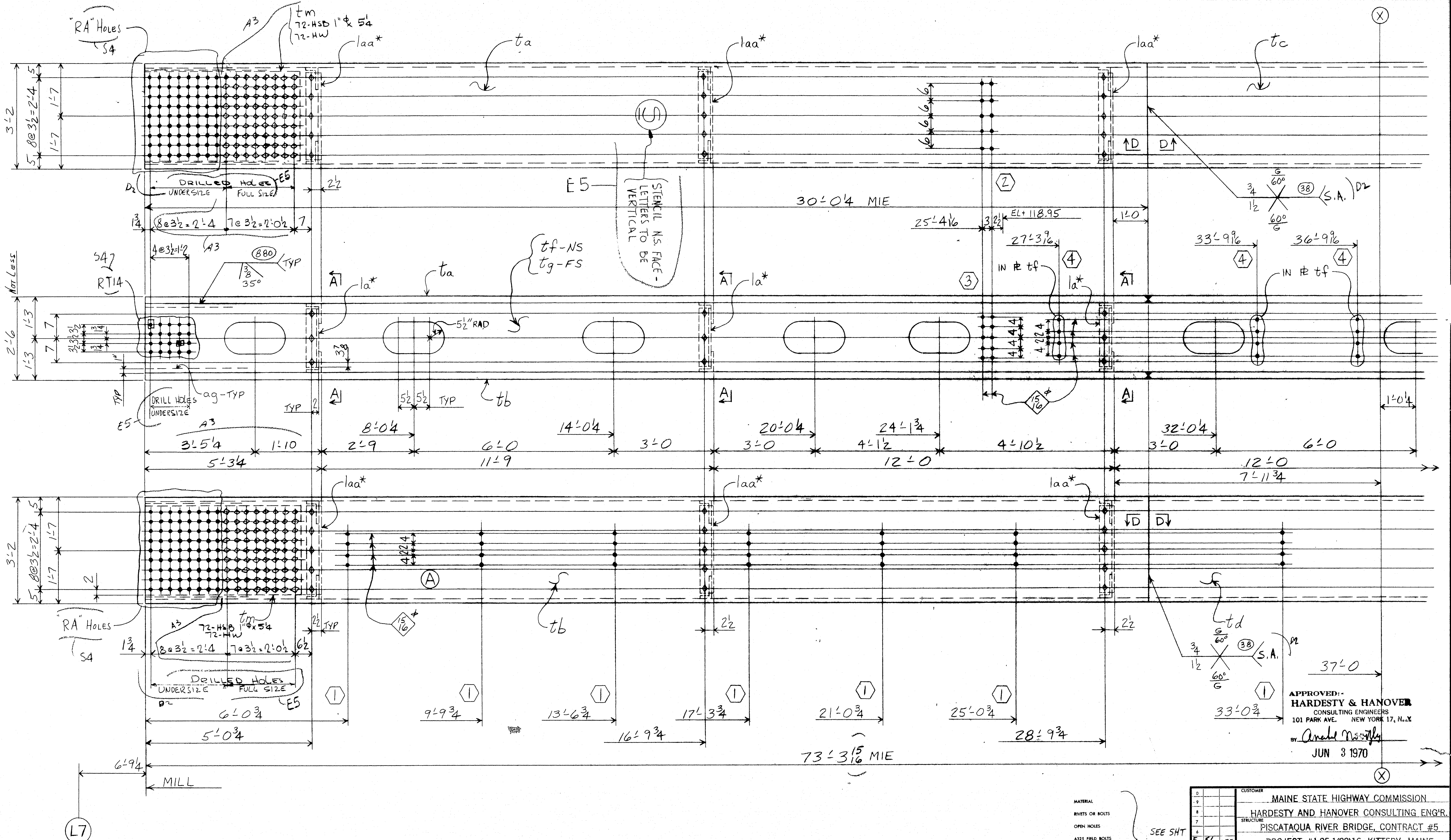


TRUSS VERTICAL - 211A[R]

MARK FACE (A) INSIDE

For location of details shown on this sheet refer to diagrams.
E8 & E12

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE SHT 211CC

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [signature]
JUN 3 1970

NO.	DATE	INIT.
E5	5/22	RP
S4	5-4	CD
A3	3/10	RP
D2	1-27	RP
A1	12/18	RLP

REVISION

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 11-25-69 IN CHARGE LG
CHECKED BY RLP DATE 12-11-69 SHOP NO.
CONTRACT CG6290-064 DRAWING NO. 211AC

120-156 NC TAPE

laa* tc ad^R 3-HSB 1"ϕx4½ 3-HW NOTE! BREAK IN GAGE laa* DRILLED HOLES-UNDER SIZE E5 D2 E5

40'-0¼ MIE 39'-9⅞ 3'-0¼ 1'-0 42'-9⅞ 45'-9⅞ 48'-9⅞ 51'-9⅞ 57'-9⅞ 63'-9⅞ 65'-3⅞ 5'-3⅞ 27@3½=7'-10½ 2 5½ IN ℄ th ½ NOTCH ℄th 5½ RAD

IN ℄ tf F F th-NS tk-FS A laa* A1 laa* B B1 tc td IN ℄ th IN ℄ th IN ℄ th IN ℄ th IN ℄ tk

la*-NS & FS 3-HSB-1"ϕx3½ 3-HW

1'-0¼ SM ½ ¾ 60° 60° 25 D1

38'-0¼ 6'-0 3'-0 3'-0 6'-0 44'-0¼ 44'-10⅝ 50'-0¼ 3½ 2'-6⅛ 55'-7 3'-0⅛ 6'-0 61'-7 3'-0 67'-7 3'-0 70'-9 3'-2 2'-6 15/16

12'-0 4'-0¼ 11'-6 11/16 12'-0⅛ 8'-8 15/16

td tn RT9 D2 C C ad^R 1-HSB 1"ϕx4½ 1-HW

G1 4-STD HEX NUTS 2-LOCKWASHER laa* 11"ϕ 13/16 Holes For ¾"ϕ Rods 4@1'-0=4'-0 2 5/16 D6 60'-1⅛ 64'-1⅛ 10 15/16 RT15 S4 E5 DRILLED HOLES-UNDER SIZE E5 D2 D3 +0 -4

NOTE! BREAK IN GAGE 5 8@3½=2'-4 5 8@3½=2'-4 5

42'-4½ 46'-1⅞ 1'-0¼ 5⅛ 8@3½=2'-4 1'-5⅜ 4@3'-1'-0 3@5½=1'-3¾ 4 13/16 6@4¾=2'-4½ 3⅜ 6@3=1'-6 2½ ad^L 1-HSB 1"ϕx4½ 1-HW

EL+138.8775 BOTT. FLG OF F.B.

37'-0 40'-9¾ 52'-4 7/16 65'-3 7/16 64'-4½ 27@3½ = 7'-10½ 2 73'-3 15/16 MIE 1'-1½

3ℓ LNGTH. ALONG ℄ OF ROD 5 2¼ 2" RAD. ℄ ROD (TYP.) 2 1/10" 2 P 3/8 4½ G STD LOCKWASHER STD HEX. NUT G" THREAD G 9/16 STD. HEX. NUT STD LOCKWASHER SEC "G-G" D6

For location of details shown on this sheet refer to diagrams. E8 & E12

MATERIAL RIVETS OR BOLTS OPEN HOLES A325 FIELD BOLTS SHOP CONTACT SURFACES PAINT SEE SHT. 211CC

NO.	DATE	INT.
D	9/8	RP
D1	8/31	RP
E5	5/26	RP
S4	5-4	CD
D2	4-1	CD
D3	1/7	SRP
A1	4/18	ELP

REVISION

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION

HAPPDESTY AND HANOVER CONSULTING ENG'R.

STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION

FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS

MADE BY WB DATE 11-25-69 IN CHARGE LG

CHECKED BY RSP DATE 12-11-69 SHOP NO.

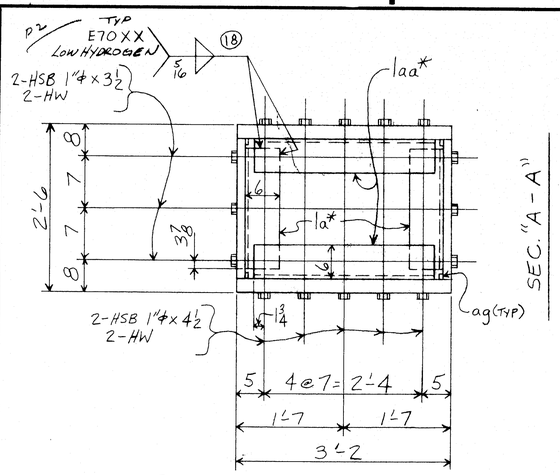
CONTRACT CG6290-064 DRAWING NO. 211BC

HAPPDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.

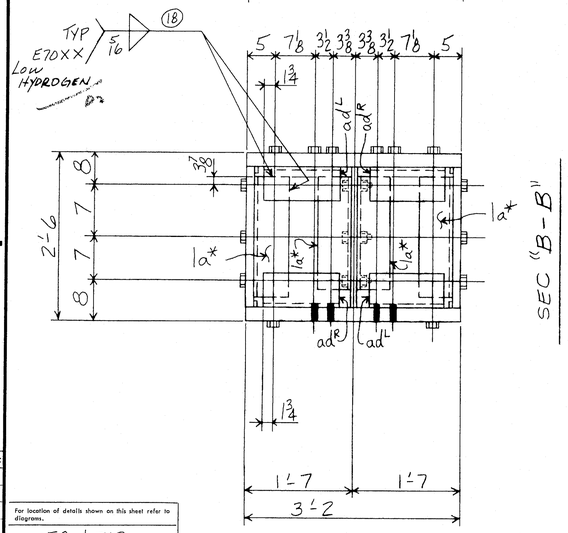
FFW

SEP 10 1970

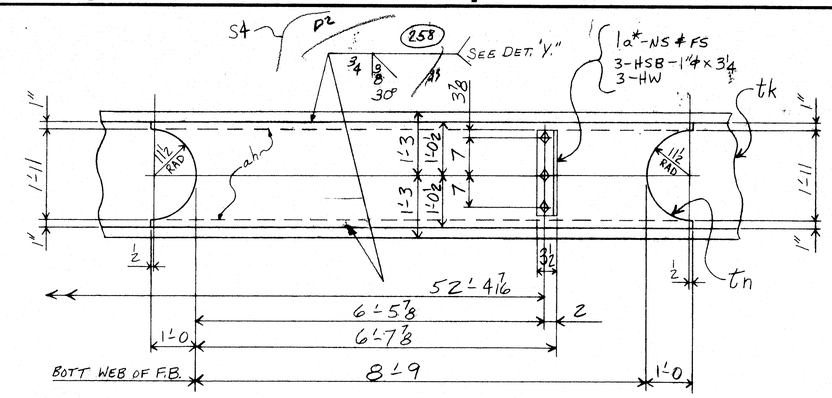
120-157 NC TAPE



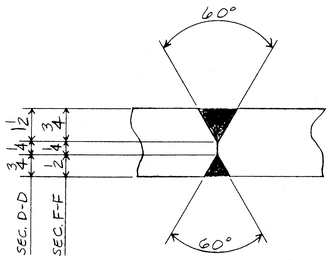
SEC. "A-A"



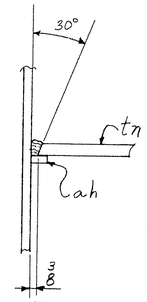
SEC "B-B"



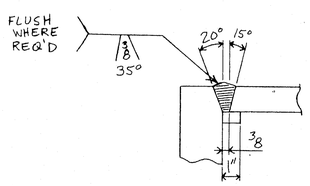
SEC. "C-C"



SEC. "D-D" & "F-F"



DETAIL "Y"



TYP CORNER WELD

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11/16" x 22" HOLES

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

E8 & E12

SHOP BILL

PROJECT MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	ITEM PAGE	ITEM LINE
	1	4	-VERTICALS- 2-211AR & 2-211AL								
②	2 t. a	4	PL	38		2½	30	0¼	MIE & TZW	29	1
②	3 t. b	4	PL	38		2½	30	0¼	MIE & TZW	29	1
②	④ t. c	4	PL	38		2½	43	3 3/16	TZW	29	2
②	④ t. d	4	PL	38		2½	43	3 3/16	TZW	29	2
Ⓜ	6 t. f	4	PL	24¼		1½	40	0¼	MIE & TZW	96	2
Ⓜ	7 t. g	4	PL	24¼		1½	40	0¼	MIE & TZW	96	2
Ⓜ	④ t. h	4	PL	24¼		1½	33	3 3/16	TZW	96	1
Ⓜ	④ t. k	4	PL	24¼		1½	33	3 3/16	TZW	96	1
	10 t. m	8	PL	32		1¼	4	8¼	MIE	88	7
	11 t. n	4	PL	24½	)-S4	¾	10	9		97	1
	12										
	13										
	14 la*	56	L	6	3½	½	1	9¾		30	3
	15 laa*	40	L	6	4	½	2	7½		30	4
	16										
	17 adR B/B	2	L	6	4	½	1	2⅛		30	2
	18										
	19 ag	16	BR	1		5/8	7'4	3⅛	BACKUP BAR	58	15
	20 ah	8	BR	1		5/8	11	9	BACKUP BAR	156	10
	21										

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM
		30	1½		29 1
		30	1½		29 1
		43	4¾		29 2
		43	4¾		29 2
		40	1½		96 2
		40	1½		96 2
		33	4¾		96 1
		33	4¾		96 1
		4	8¼		88 7
		10	9		97 1
					30 3
					30 4
					30 2
		74	8		58 15
					156 10

-S4

P	20	RD	¾"ϕ			2	5 7/8	BENT		
	40	MSC	LOCKWASHER	FOR	¾"ϕ	BOLT				
	80	MSC	STD HEX NUT	FOR	¾"ϕ	BOLT				
	232	325	1"ϕ			0	4½			AM14
	144	325	1"ϕ			0	3½			AM14
	12	325	1"ϕ			0	3¼			AM14
		D5								
A3	5/16	325	1"ϕ			0	5¼			
	964	HW	2	1 1/16	3/16					AM14
	IFW	4	WD		5/16	2	8			
	FW	4	WD		5/16	42	0			
	V35	4	WD		1½	293	4			
	V6060	4	WD		2½	6	4			
	V6060	4	WD		1½	4	2			
	B30	4	WD		¾	21	6			

D6 — S4

	1	1	2	VERTICAL 3'-4 x 2'-8 x 73'-5	211AL	
	1	1	2	I I	211AR	
H6	M6	NO.	DESCRIPTION	MARK	REMARKS	

INST. — REQUIRED LIST

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW SEP 18 1970
VERTICAL - L7 TO U7

MATERIAL — (ASTM-A517 PREFIX-t) (ASTM-A36 NO PREFIX)
RIVETS OR BOLTS — 1"ϕ U.N.
OPEN HOLES — 1 1/16" ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT (NOTE M) EXCEPT AS NOTED
PAINT — 1 CT. U.N.
D2 WELDING

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

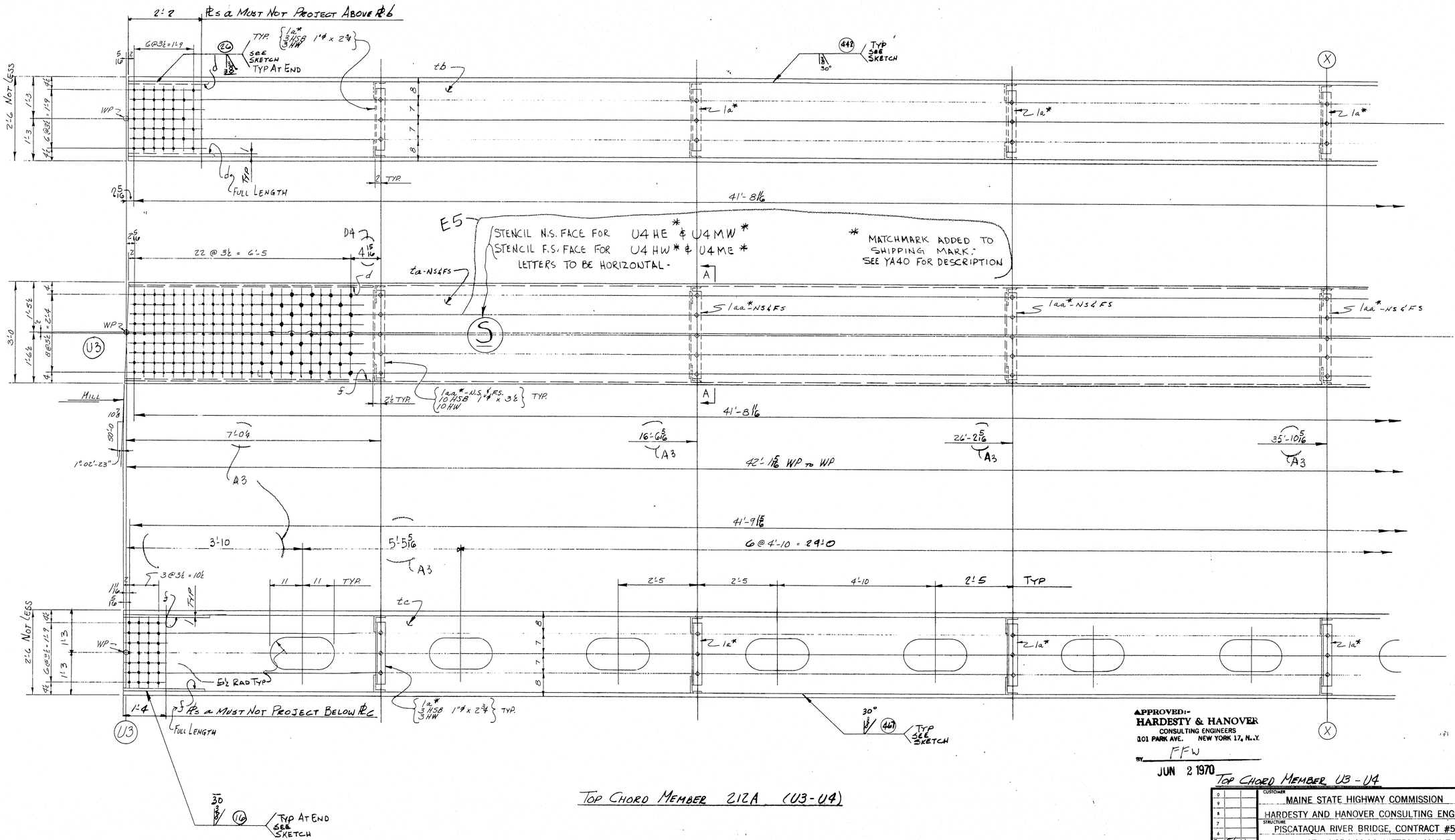
NO.	DATE	INIT.
D6	8/71	RP
D5	3/66	RP
S4	2/12	LM
A3	7/10	RP
D2	1-27	AP
A1	12-18	RP

REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 11-25-69 IN CHARGE LG
CHECKED BY MD DATE 12-11-69 SHOP NO.
CONTRACT CG6290-064 DRAWING NO. 21KCC

120-158 NC TAPE



Top Chord Member 212A (U3-U4)

For location of details shown on this sheet refer to diagrams.
E8 & E12

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUN 2 1970

Top Chord Member U3 - U4

	NO.	DATE	INIT.	REVISION
0				
9				
8				
7				
6				
E2	5/22		LD	
D4	4-30		CAD	
A2	2-12		CAD	
2	2-10		PSK	
A1	12-19		CAD	

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

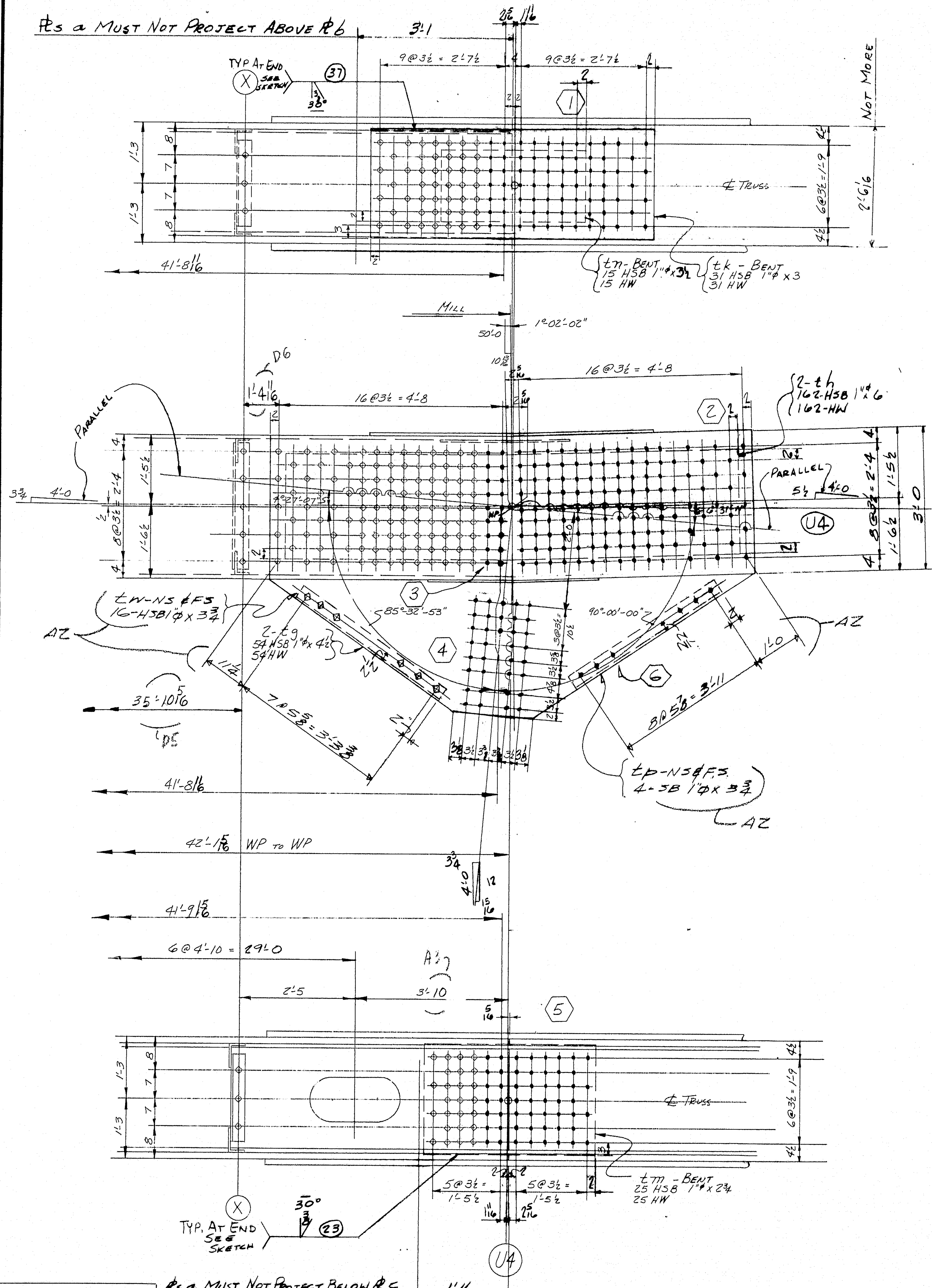
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EJM DATE 11-20-68 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 12-9-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 212AB

120-159 NC TAPE

Ps a MUST NOT PROJECT ABOVE Pb



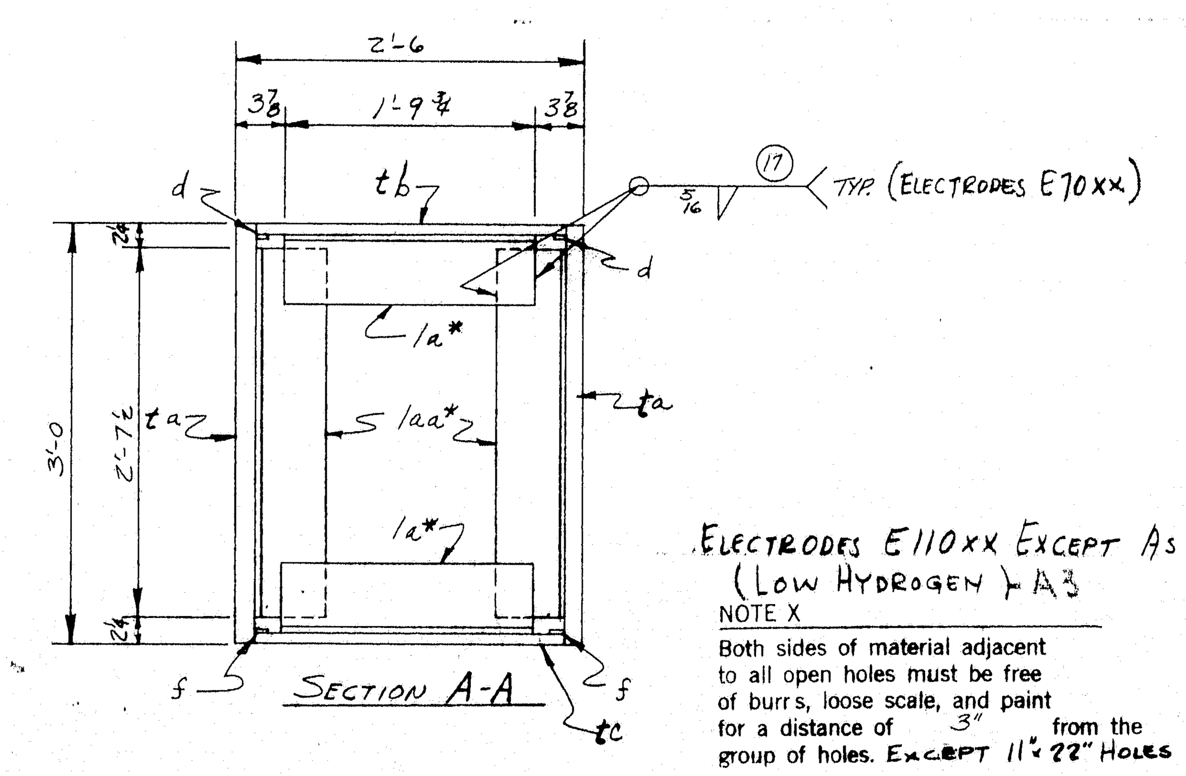
Ps a MUST NOT PROJECT BELOW Pc

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

E8 & E12

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

		2	2	4	TOP CHORD MEMBERS	212 A	6-5… U3-U4
		H3	H3	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			



ELECTRODES E110XX EXCEPT AS NOTED (LOW HYDROGEN) - A3

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 1 1/16" & 22" HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	TOP CHORD MEMBERS - 212A													
(2)	2	t a	8	PL	36		1 5/8	42	1 15/16	T2W-M2E			42	4		47	1
(M)	3	t b	4	PL	26		7/8	42	0 11/16	T2W-M2E			42	4		79	1
(M)	4	t c	4	PL	26		7/8	42	1 15/16	T2W-M2E			42	4		79	1
	5	d	8	BR	1		5/8	43	0 11/16	BACK-UP BARS			43	5		55	7
	6	f	8	BR	1		5/8	43	1 15/16	BACK-UP BARS			43	5		55	7
	7	1a*	32	∠	6	3½	½	1	9¾				2	2		55	9
	8	1aa*	32	∠	6	4	½	2	7½				2	9		55	8
	9	t g	8	PL	77		1½	10	1½				10	3½		83	1
	10	t h	8	PL	26 1/8		(1½)	9	5¾				9	7		83	2
	11	t k	4	PL	27	51	¾	5	11	BENT			5	11		65	2
	12	t m	4	PL	27		½	3	7	BENT			3	7		65	3
	13	t n	4	PL	18		½	3	0	BENT			3	0		65	1
	14																
AZ	15	t p	8	∠	4	4	¾	4	3								
AZ	16	t w	8	∠	4	4	¾	3	7 3/8								
	17																
	18																
	19																
	20																
	21																
	22																
	23																
	24																
	25																
	26	FW	4	WD			5/16	22	8								
	27	B30	4	WD			7/8	168	6								
	28																
	29		196	325	1"φ			0	2¾							AM	14
	30		124	325	1"φ			0	3							AM	14
	31		220	325	1"φ			0	3½							AM	14
	32																
	33		216	325	1"φ			0	4½							AM	14
	34		648	325	1"φ			0	6							AM	14
	35																
AZ	36		1468	HW	2	1 1/16	3/16									AM	14
AZ	37		16	MB	1φ			0	3¾	RHN, RHN						AM	22
AZ	38		64	325	1φ			0	3¾								
	39																
	40																
	41																
	42																
	43																
	44																
	45																
	46																
	47																
	48																
	49																
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	52																
	53																
	54																
	55																
	56																
	57																
	58																
	59																
	60																
	61																
	62																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW MAY 28 1970

"LENGTH CORR. FOR TEMP."

TOP CHORD MEMBER U3-U4

54

MATERIAL: SHAPES - T1, PLATES - A517 (PREFIXED "t"); A36 - NO PREFIX
BOLTS 1"φ
OPEN HOLES 1 1/16"φ
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1 CT. RED LEAD U.N. (SEE NOTE "X")

NO.	DATE	INIT.
0		
9		
8		
S7	6-15	TC
D6	5-12	GD
D5	4-29	CD
S4	2-19	TC
A3	2-12	CAD
A 2	2-10	PS
A1	12-19	CAD
REVISION		

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

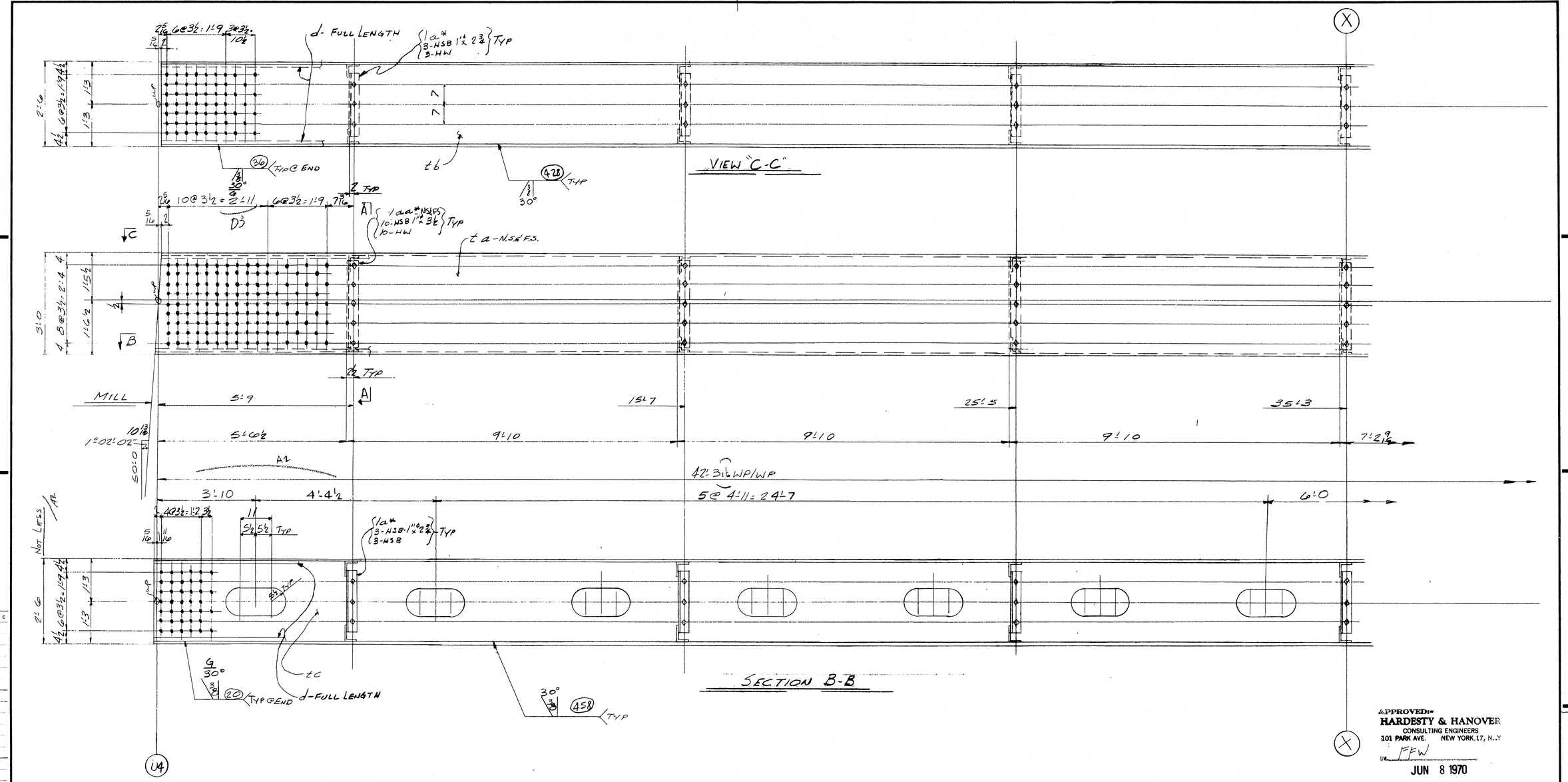
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EJM DATE 11-24-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 12-3-69 SHOP NO.
CONTRACT CG 6290-061 DRAWING NO. 212 BB

35453 (Rev.D 8-69)

120-160 NC TAPE



TOP CHORD MEMBER 213A (U4 TO U5)
(U4' TO U5)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUN 8 1970

NO.	DATE	REVISION
D3	5/21	EP
A2	2/11	RLP
A1	12-18	RLP

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

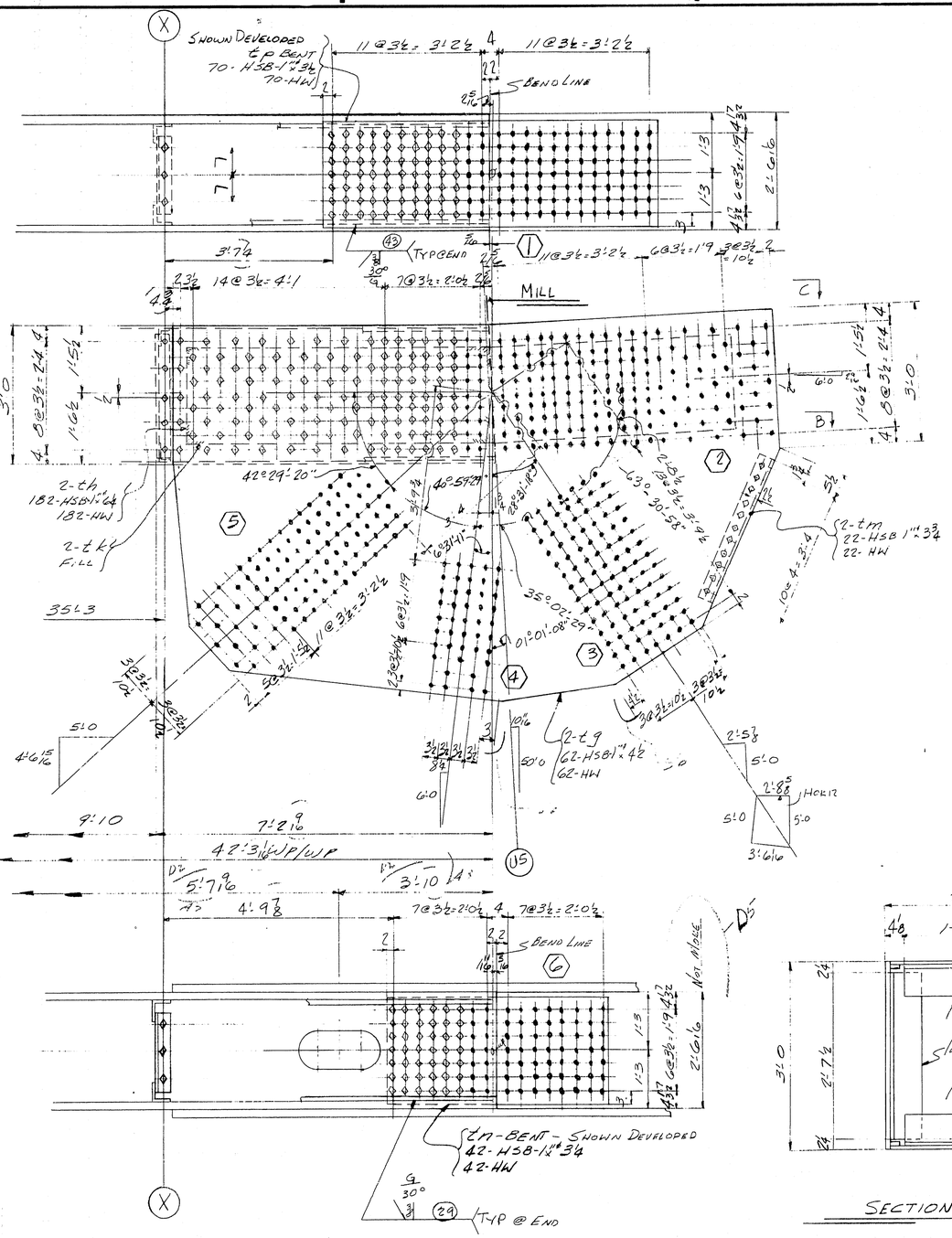
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-18-69 IN CHARGE L. GOTHBERG
CHECKED BY RLA DATE 11-24-69 SHOP NO.
CONTRACT 46290-061 DRAWING NO. 213AB

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-16 NC TAPE



SHOP BILL

4 - TOP CHORD MEMBER 213A

℄	t a	8	PL	36		15/8	42	3 1/16	T2W-M2E	42 6	48 1
Ⓜ	t b	4	PL	26		7/8	42	2 1/16	T2W M2E	42 6	80 1
Ⓜ	t c	4	PL	26		7/8	42	3 1/16	T2W-M2E	42 6	80 1
	d	16	BR	1		5/8	43	3	BACK UP BAR	43 6	55 10
	la*	32	L	6	3½	1½	1	9¾		2 2	65 12
	la*	32	L	6	4	1½	2	7½		2 9	5: 11
	t g	8	PL	100		1½	13			13 1	85 1
	t h	8	PL	27½		1½	11	9½		11 9½	83: 2
	t k	8	PL	25		1/4	6	5¼	FILL	6 5¼	70 5
	t m	8	L	4	4	3/4	3	7½		3 11½	70 6
	t n	4	PL	27		7/8	4	9	BENT	4 9	70 3
	t p	4	PL	27		1/8	7	1	BENT	7 1	70 2

B30	4	WD	7/8	169 0
FW	4	WD	5/16	21 4

96	325	1#	0 2¾ AM14
168	325	1#	0 3¼ AM14
440	325	1#	0 3½ AM14
88	325	1#	0 3¾ AM14
249	325	1#	0 4½ AM14
728	325	1#	0 6¼ AM14
1768	HW	2#	1¼x3 3/16 AM14

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUL 30 1970

2	2	4	TOP CHORD MEMBER				213A		814x30x48-6		
H4	M4	NO.	DESCRIPTION				MARK		REMARKS		
INST.		REQUIRED LIST									

(SHAPES - T1 } PREFIXED "t"
(PLATES - A517 }

MATERIAL A 36 No PREFIX
BOLTS 1"ø
OPEN HOLES 1/16
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.F.
WELDING AS NOTED
PAINT 1-CT RED LEAD UNL (SEE NOTE "X")

Sh	7-24	3/16	M
Ds	5/17	WP	
Sh	2-19	UTC	
Ab	12/11	RP	
Co	12/1	DD	
Gr	11-18	WLP	
NO	DATE	INIT.	REVISION

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

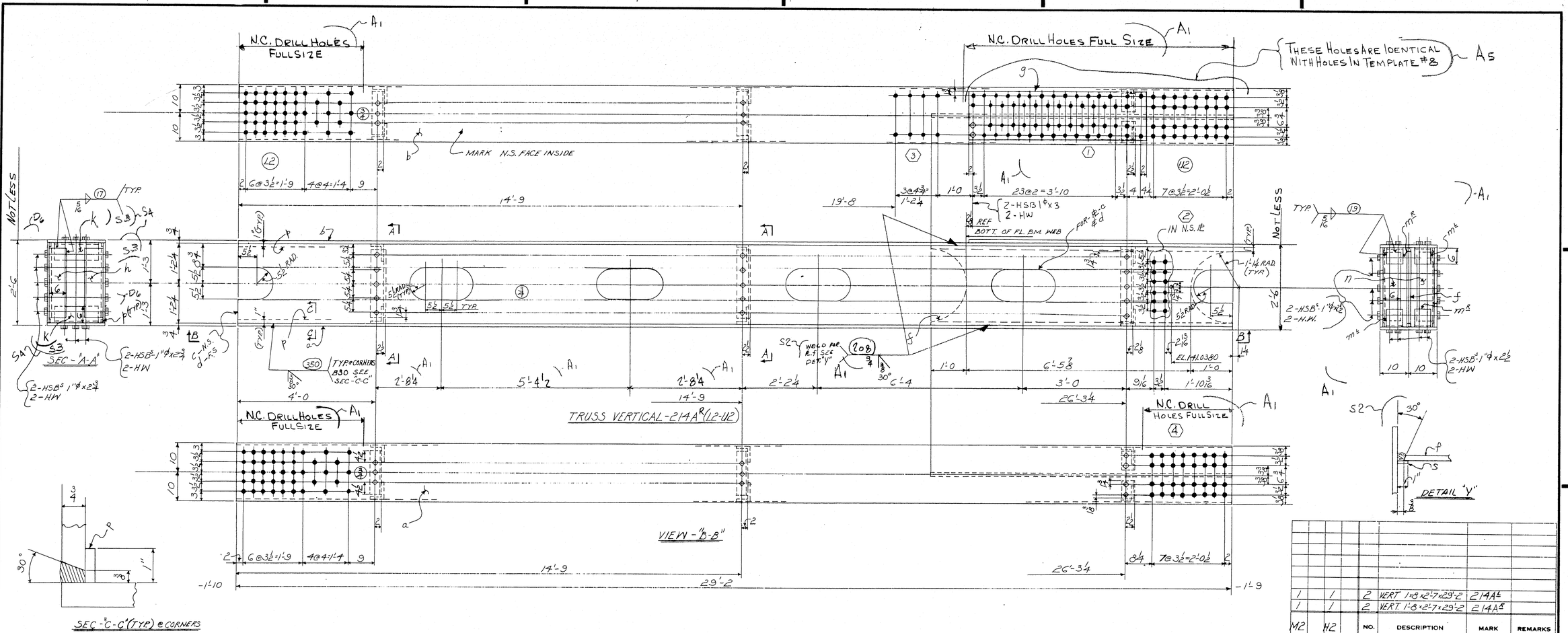
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY TF DATE 11-19-69 IN CHARGE L. GOTHBERG
CHECKED BY RLD DATE 11-26-69 SHOP NO.
CONTRACT 46290-060 DRAWING NO. 213BB

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-162 NC TAPE

0 1 2 3 4 5 6



		2	VERT 1'-8 x 2'-7 x 29'-2	214A^L	
		2	VERT 1'-8 x 2'-7 x 29'-2	214A^R	
M2	H2	NO.	DESCRIPTION	MARK	REMARKS
INST.		REQUIRED LIST			

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

E8 # E12

SHOP BILL

PIECE MARK	ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	VERTICALS	2-214A^R & 2-214A^L											23	10
(2)	2	a	4	PL	20		¾	29	2							23	10
(2)	3	b	4	PL	20		¾	29	2							23	10
(M)	4	c	4	PL	27¾		¾	29	2	T2W						23	11
(M)	5	d	4	PL	27¾		¾	29	2	T2W						23	11
S4 (3)		s	4	PL	27¾	5#	¾	8	5⅛							24	09
(S) (3)		g	4	PL	17¼		¾	5	1	FILL						67	15
(S) (3)	9	h	16	L	6	4	1½	2	0½							34	06
(S) (3)		k	16	L	6	3½	1½	1	4							34	08
S4	10	m^S	8	L	6	4	⅜	0	6⅜							34	07
	11	n	8	L	6	3½	⅜	2	0½							34	09
	12	p	16	BR	1		⅝	30	2	BACKUP BAR						58	10
	13	s	8	BR	1		⅝	9	5⅞	BACKUP BAR						156	11

S2

22	FW	4	WND			5/16	17	8		
23	B30	4	WND			¾	17	0		
24	B30	4	WND			¾	116	8		
25										
26										
27				8335	1"ϕ		0	3		
28				128325	1"ϕ		0	2¾		AM14
29				72325	1"ϕ		0	2½		AM14
30				208 HW	2 O.D.	1/4 ID	3/16			AM14

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 22 x 11 PERFORATIONS

PT-L2 TO U2

MATERIAL - A.S.T.M-A36

~~RIVETS OR~~ BOLTS 1"ϕ

OPEN HOLES - 1/16 ϕ

A325 FIELD BOLTS —

SHOP CONTACT SURFACES N.P

WELDING-AS NOTED

PAINT - 1-CT 4N (SEE NOTE "X")

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Ernest Moody APR 15 1970

ELECTRODES E70XX

LOW HYDROGEN

(LENGTH CORR. FOR TEMP.)

NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
A6	4-3	DLM	
A5	3-13	LM	
S6	2-25	DLM	
S5	2-18	LM	
S2	2-12	LM	
A1	1-28	LM	

SUBMITTAL 1 2 3 4 5 6 7 8 9 0

DATE

CUSTOMER MAINE STATE HIGHWAY COMMISSION

HARDESTY AND HANOVER CONSULTING ENG'R.

STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CH60 WORKS

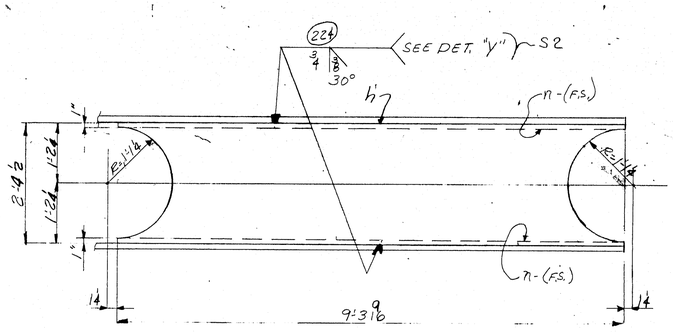
MADE BY TJD DATE 1-30-69 IN CHARGE L.G.

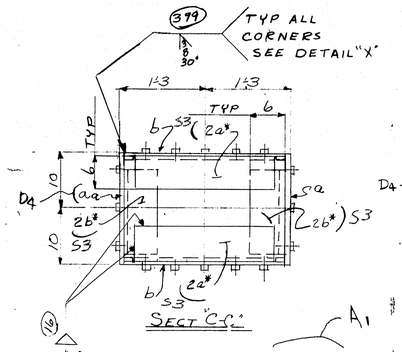
CHECKED BY LM DATE 12-12-69 SHOP NO.

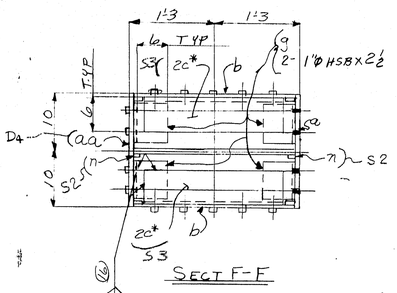
CONTRACT CGG290-063 DRAWING NO. 214

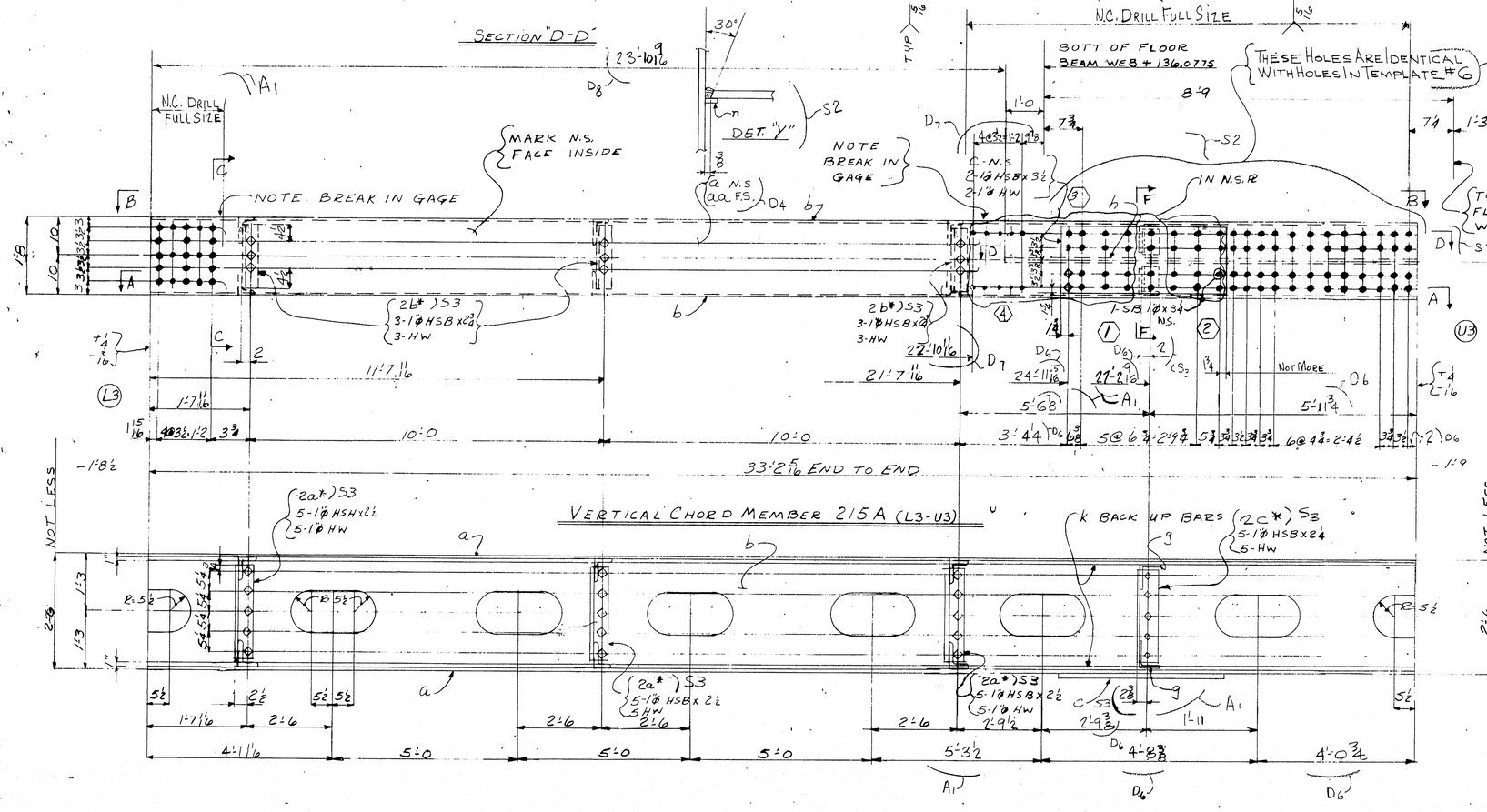
120-163 BC TAPE

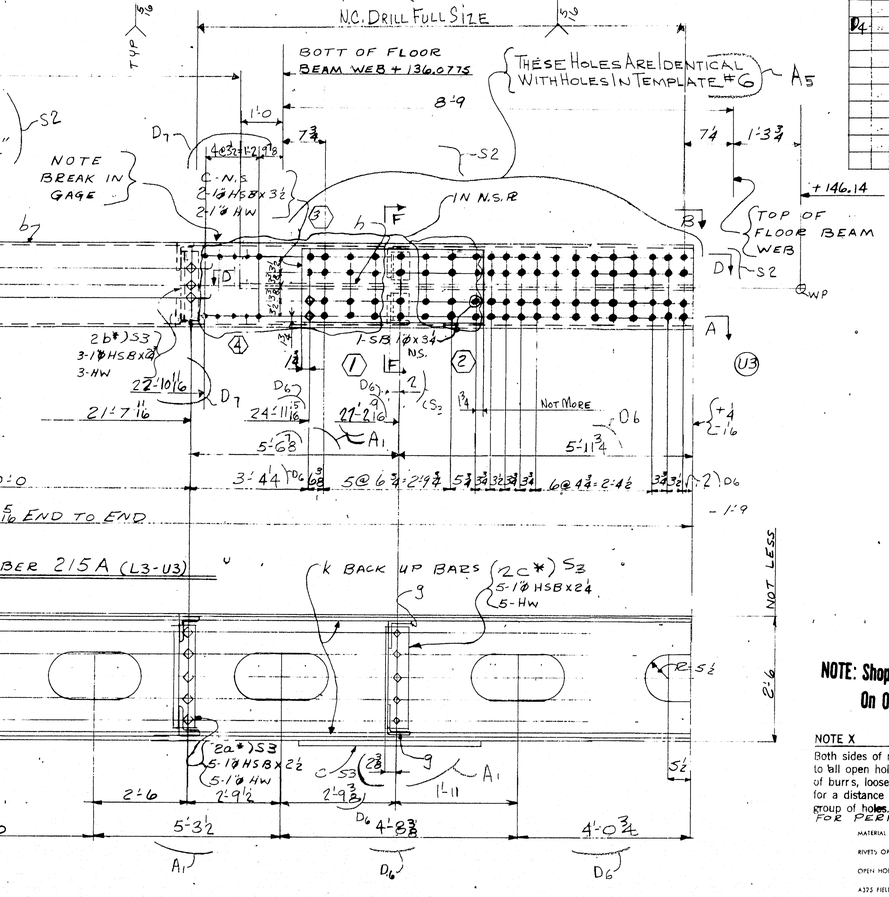
35043 (Rev.E 8-69)

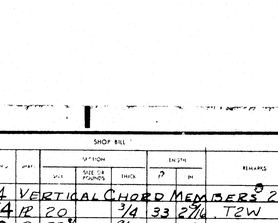












MARK	NO. PCS.	WGT.	SHOP BILL SECTION SIZE	SHOP BILL SECTION SIZE OF FASTENERS	SHOP BILL SECTION LENGTH	SHOP BILL ENTRY ft	SHOP BILL ENTRY in	SHOP BILL REMARKS	MBE ORDER ASSY. MARK	MBE ORDER PIECE MARK	MBE ORDER LENGTH ft	MBE ORDER LENGTH in	MBE ORDER ITEM PAGE	MBE ORDER ITEM NO.
	D4	4	VERTICAL CHORD MEMBERS 215A											
(2)	a	4	PL 20		3/4	33	2 7/16	T2W					24	10
(M)	b	8	PL 27 3/4		9/16	33	2½	T2W					24	11
	C	4	PL 17 1/4		1 1/4	4	1 5/8						69	12
S3	2a*	24	L 6	4	1/2	2	0½						34	06
S3	2b*	24	L 6	3½	1/2	1	4						34	05
	9	16	L 6	3½	3/8	0	7						34	07
	h	4	PL 27 3/4	-S2	3/4	9	3 3/16						24	09
	K5*	16	BR 1		5/8	34	2	BACK UP BAR					58	11
S3	2c*	8	L 6	4	3/8	2	0½						34	09
	71	8	BR 1		5/8	10	3 9/16	BACKUP BAR		S2			156	13
	136	325	1"Ø			0	2½						AM	21
	72	325	1"Ø			0	2 7/8						AM	21
	8	325	1"Ø			0	3½						AM	21
	40	325	1"Ø			0	2¼						AM	21
	256	HW	2"Ø	1 1/16	3/16								AM	21
	4	MB	1"Ø			0	3¼	RHHS 2HN (SB.)					AM	22
	FW	4	WD		5/16	21	4							
	SB30°	4	WD		9/16	132	10							
S2	B30	4	WD		3/4	18	8							
D4	aa	4	PL 20		3/4	33	2 5/16	T2W					24	10

	2	2	4	VERTICAL MEMBER 215A		1'-8 x 2'-6 x 33'-3
	M3	H3	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST		

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" except from the group of holes. FOR PEFFERATIONS.

MATERIAL A36
RIVETS OR BOLTS 1"Ø
OPEN HOLES 1/16 P
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P
PAINT 1 CT

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Hardesty
MAY 28 1970

LENGTH CORR FOR TEMP.
VERTICAL U3 TO L3

MARK	QUANTITY	SIZE
D2	5-12	1¼ LM
D5	3-31	2 LM
D6	3-25	2 LM
A5	13-13	2 LM
D4	13-1	LM
S3	8-8	2 LM
S2	2-12	2 LM
A1	1-30	LM

NO	DATE	REVISION	BY

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5,
PROJECT #1-95-1(22)16, KITTERY, MAINE.

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RG DATE 11-20-69 IN CHARGE LMG
CHECKED BY LM DATE 1-7-70 SHOP NO.
CONTRACT C46290-063 DRAWING NO. 215

The location of details shown on this sheet refer to E8 & E12

120-164 NC TAPE

42'-0 11/16 c/c END HOLES

11@3½ = 3'-2½

FULL LENGTH

1a* 3-HSB-1"x3 3-HW } TYP

tb

2'-6 NOT LESS

4 @ 3½ = 1'-1½

1'-3

1'-3

7 7

(43) TYP @ END

3/4 30° 4

2 (TYP)

(435) TYP

3/8 30°

42'-0 3/4 c/c END HOLES

A

2 5/16

11@3½ = 3'-2½

9@3½ = 2'-7½

4 13/16

1a a* - NS & FS 10-HSB-1"x3 3/4 10-HW } TYP

ta - NS & FS

3'-0

4 @ 3½ = 2'-2

1'-5½

1'-0½

MILL

2½ (TYP)

A

10 11/16

6'-5⅛

16'-5⅛

26'-5⅛

36'-5⅛

42'-5 5/16 L.P/W.P

50'-0

01°01'-08"

6'-2⅝

10'-0

10'-0

10'-0

6'-2 11/16

3'-5½

5'-6

6@5'-0 = 30'-0

L.L.

2 7@3½ = 2'-0⅛

5/16 1"/16

11

11 TYP

d - FULL LENGTH

1a* 3-HSB-1"x3 3-HW } TYP

tc

2'-6 NOT LESS

4 @ 3½ = 1'-1½

1'-3

1'-3

5½ TYP

11"x22" SLOT (TYP)

42'-1 15/16 c/c END HOLES

3/8 30° (23) TYP @ END

3/8 30° (450) TYP

(U5)

(X)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
JUN 2 1970

TOP CHORD MEMBER 216A (U5 TO U6)
(U5' TO U6')

For location of details shown on this sheet refer to diagrams.
EB & E12

NO.	DATE	REVISION	INIT.
10			
9			
8			
7			
6			
5			
4			
3			
2	5/27		RP
1	11-18		RLP

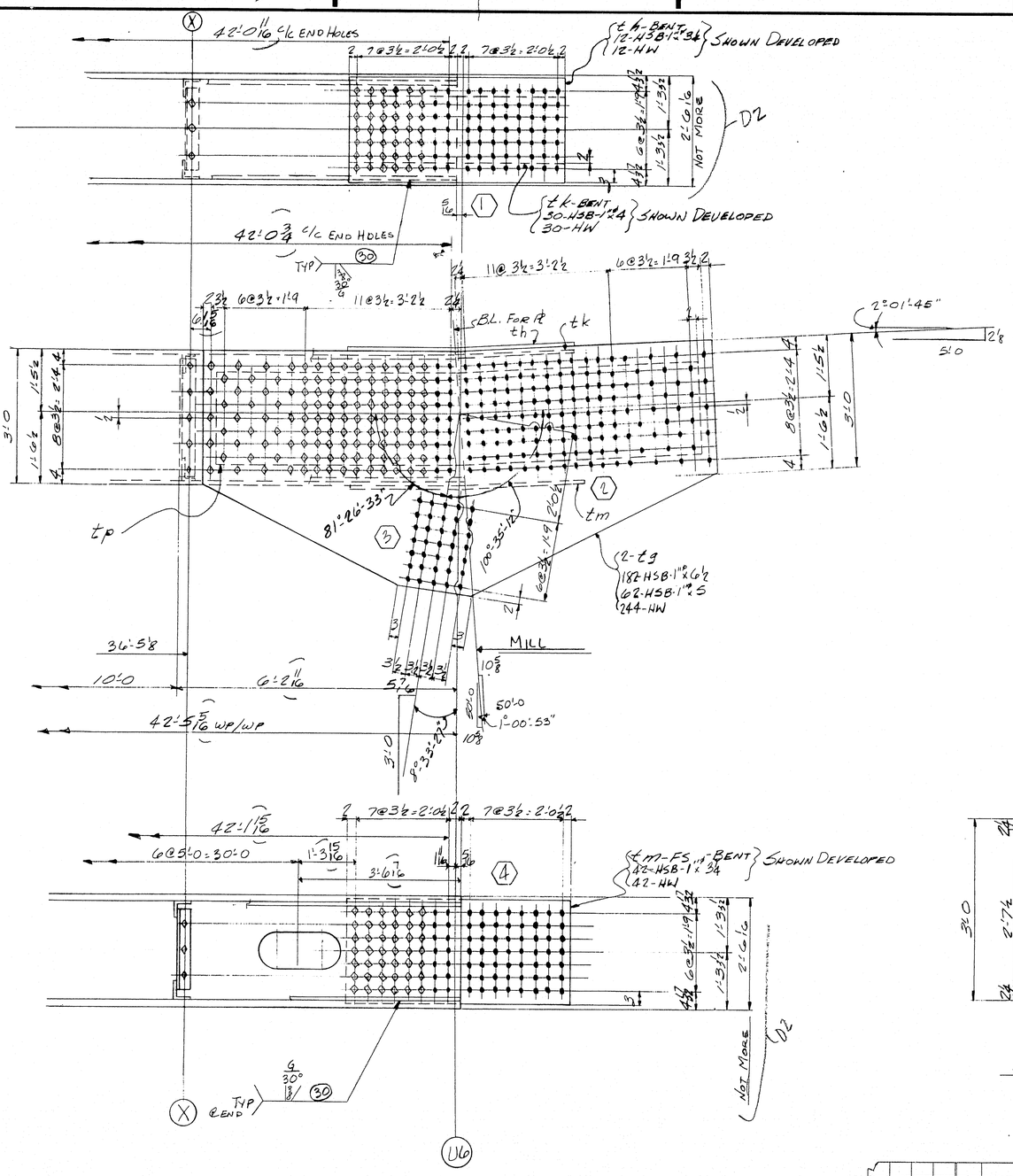
SUBMITTAL DATE: 1 2 3 4 5 6 7 8 9 0

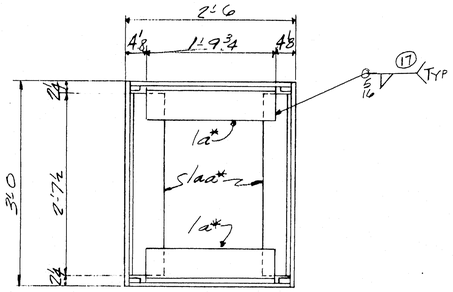
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO WORKS

CHICAGO DRAFTING ROOM
MADE BY JF DATE 11-21-69 IN CHARGE L. GOTHBERG
CHECKED BY ZO DATE 12-10-69 SHOP NO.
CONTRACT CG 6290-061 DRAWING NO. 216 AB

120-165 NC TAPE





SECTION "A-A"

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11x22 HOLES

SHOP BILL

PIECE MARK	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1	4-TOP CHORD MEMBERS 216A								
②	2	t a	8	PL	36		1 7/8	42	5 15/16	T2W-M2E
Ⓜ	3	t b	4	PL	25½		1	42	4 1/16	T2W-M2E
Ⓜ	4	t c	4	PL	25½		1	42	5 1/16	T2W-M2E
	5	d	16	BR			5/8	43	4½	BACK UP BAR
	6									
	7	1a*	32	L	6	4	1½	2	7½	
	8	1a*	32	L	6	3½	1½	1	9¾	
	9	t g	8	PL	68¾		1 5/8	11	4	
	10	t h	4	PL	27		3/4	4	9	BENT
	11	t k	4	PL	18		7/8	4	9	BENT
	12	t m	4	PL	27		3/4	4	9	BENT
	13	t p	8	PL	26		1½	10	7 7/8	
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	21		96	325	1 11/16			0	3	AM14
	22		216	375	1 11/16			0	3¼	AM14
	23		160	325	1 11/16			0	3½	AM14
	24		120	325	1 11/16			0	4	AM14
	25		248	325	1 11/16			0	5	AM14
	26		728	325	1 11/16			0	6½	AM14
	27									
	28		1568	HW	2	1 1/16	3/16			AM14
	29									
	30									
	31									
	32	FW	4	WD			5/16	22	8	
	33	B30	4	WD			1	169	8	
	34									
	35									
	36									
	37									
	38									
	39									
	40									
	41									
	42									
	43									
	44									
	45									
	46									
	47									
	48									
	49									
	50									
	51									
	52									
	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		42	9		35	1
		42	9		76	1
		42	9		76	1
		43	9		55	13
		2	8		38	1
		2	2		38	2
		11	5		84	1
		4	9		68	3
		4	9		68	2
		4	9		68	3
		10	10		84	2

NO.	MS	MS	NO.	DESCRIPTION	MARK	REMARKS
	2	2	4	Top Chord Member	216A	5'-9"x6"x49"
INST				REQUIRED LIST		

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

EB & E12

A517-Prefixed t
MATERIAL A36 - No Prefix
BOLTS 1 11/16
OPEN HOLES 1 11/16 UN
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING As Noted
PAINT 1 Ct. Red Lead UN (See Note X)

NO.	DATE	INIT.	REVISION
D	5/27	RP	
A1	12/18	RLD	

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

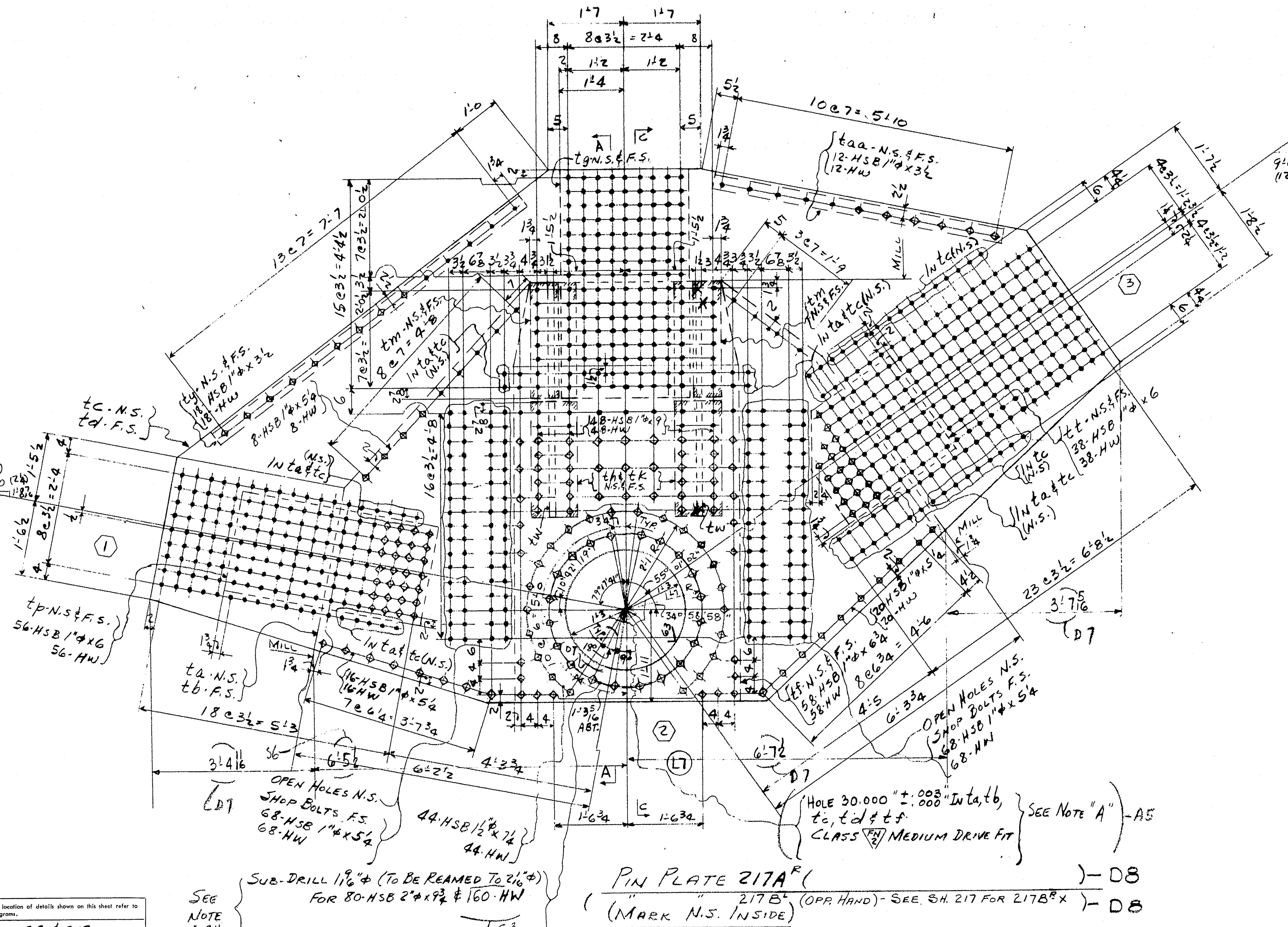
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

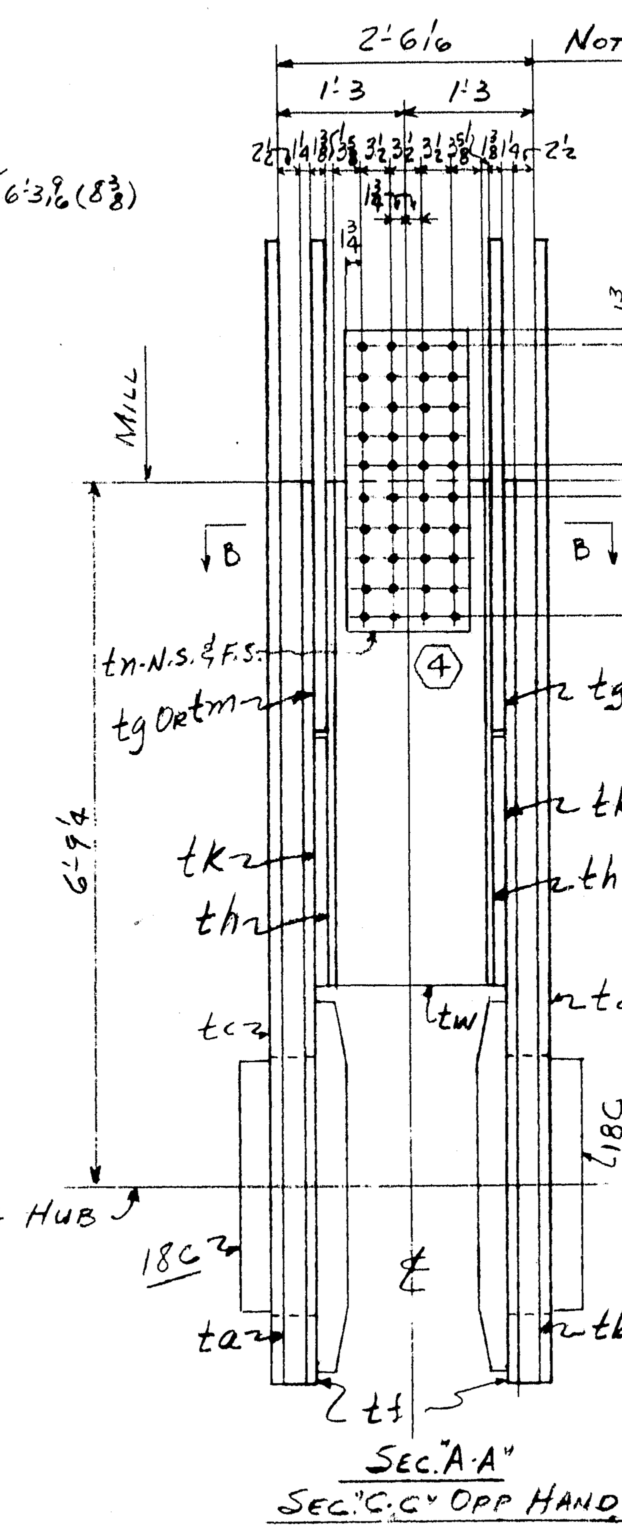
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 11-24-69 IN CHARGE L. GOTHBERG
CHECKED BY RLD DATE 12-10-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 216BB

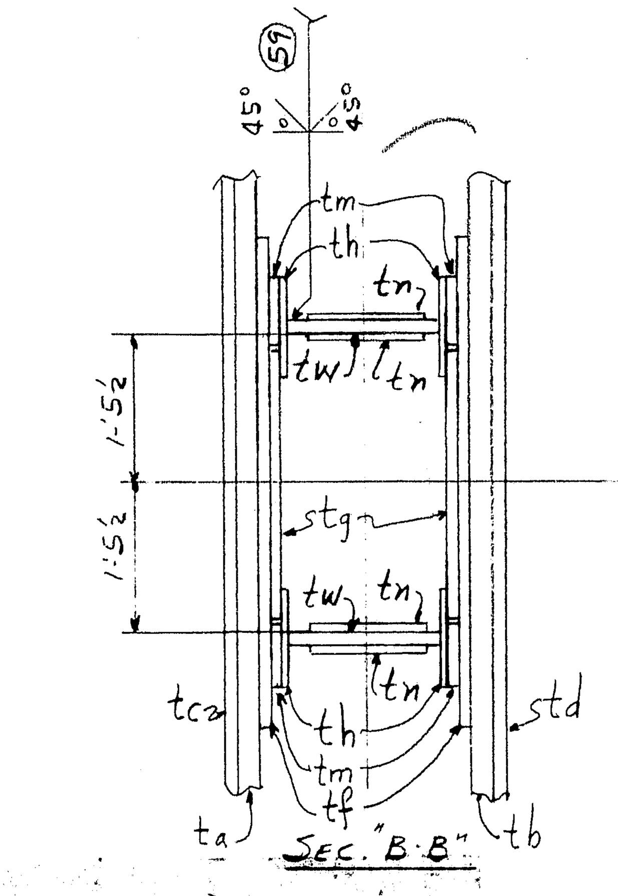
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
205 PARK AVE. NEW YORK 17, N.Y.
FFW - JUN 2 1970

33453 (Rev. 8-69)

120-166 NC TAPE







HOLE 30.000" +.003/-.000" In ta, tb, tc, td & tf. CLASS FN2 MEDIUM DRIVE FIT — SEE NOTE "A" — A5

SEE NOTE "A": SUB-DRILL 1 9/16"φ (TO BE REAMED TO 2 1/16"φ) FOR 80-HSB 2"φ x 9¾ & 160-HW — S3

PIN PLATE 217A^R ( )—D8
(MARK N.S. INSIDE) 217B^L (OPP. HAND) - SEE SH. 217 FOR 217B^R x)—D8

Note A

Before any hub is assembled to a gusset plate, several diameters of the hub shall be measured, and the approval of the Engineer shall be received before proceeding with the assembly. If in any case the measurements show insufficient interference or excessive allowance, that would result in a loose fit, the hub shall be rejected. If the interference is shown to be excessive, the necessary correction shall be made to meet the requirements.

The difference in diameter necessary for the assembly of each hub to a gusset plate shall be obtained by immersing the hub in a solution of dry ice and alcohol, and allowing it to remain until the desired reduction in diameter is reached. The hub shall then be assembled to the gusset plate, and the hub flange and gusset plate shall be drawn together by means of temporary bolts in sub-drilled holes.

After the assembly of hub and gusset plate has reached normal temperature, all sub-drilled holes shall be drilled or reamed to final size for the high-strength bolts, and the bolts shall be tightened.

TIGHTEN BOLTS ½ TURN FROM SNUG USING INGERSOLL-RAND #588 IMPACT WRENCH. — A1

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

For location of details shown on this sheet refer to diagrams. E8 & E12

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1	D8-(3) PIN PLATES 1-217A^R, 1-217A^L, ( ) 1-217B^L															
(2)	2	t a^D8	(3)	PL	104¼		2½	13	1	-D7 MIW & MZE -D8						91	01
(2)	3	t b^D8	(3)	PL	104¼		2½	13	1	MIW & MZE						91	01
(M)	4	t c^D8	(3)	PL	132½		1⅜	20	1							90	01
(M)	5	t d^D8	(3)	PL	132½		1⅜	20	1							90	01
	6	t f^D8	(6)	PL	57½		1¼	8	8¼	MIE						88	06 S3
	7	t g^D8	(6)	PL	32		1⅜	4	9⅜				4	9½		90	04
	8	t h^D8	(12)	PL	11½		1	4	10½	(MIE)-D7						88	05
	9	t k^D8	(12)	PL	11½		1⅜	2	5⅛				2	5¼		90	03
	10	t m^D8	(12)	BR	7½		1⅜	2	5⅛	(MIE)-D7			2	5¼		90	02
	11	t n^D8	(12)	PL	14		⅞	2	11							88	11
	12	t p^D8	(6)	PL	25		¾	4	1							88	09
	13																
	14	t t^D8	(6)	PL	28		¾	2	8							88	08
	15	t w^D8	(6)	PL	17¾		1½	4	10½	(MIE)-D7						90	05
	16	t y^D8	(6)	L	4	4	¾	7	10½							101	06
	17	t aa	(6)	L	4	4	¾	6	1½							101	02
	18	D8															
	19	18C	(6)	Hubs	DETAILED ON SHT. 18					SEE NOTE "A"							
	20																
	21																

LINE	MARK	NO.	MATERIAL	SIZE					REMARKS	
22	D8	(90)	A325	1φ			0	3½		AM12
23	D8	(540)	A325	1φ			0	5¼		AM12 AM14
24	D8	(282)	A325	1φ			0	6		AM12
25	D8	(174)	A325	1φ			0	6¾		AM12
26	D8	(144)	A325	1φ			0	9		AM12
27	D8	(1230)	HW	2"φ	1 1/16	3/16				AM12 AM14
28	D8	(132)	A325	1½φ			0	7¼		AM12
29	D8	(132)	HW	3	1⅝	3/16				AM12
30		(120)	A490	2"φ			0	9¾	( )-S2	(AM24)
31	D8	(240)	HW	3¾	2⅛	3/16			3-WASHER PER BOLT	
32	D8									
33										
34										
35										
36	D8									
37										
38	T450S	(3)	WO			1½	19	8		
39										
40										
41										
42										
43										
44										
45										

(LOW HYDROGEN) ELECTRODES E110XX — A4
BOLTS 28P-A.S.T.M.-A490
HUBS-ALLOY ST'L FORGING ASTM-A237 CLASS "A"
PLS & FILLS-ASTM-A517
LS-ASTM A514
MATERIAL: S2 (SHAPES-T1, PLATES-A517) PREFIXED "t"
RIVETS OR BOLTS: 1"φ
OPEN HOLES: 1 1/16"φ U.N.
A325 FIELD BOLTS: 1"φ
SHOP CONTACT SURFACES: N.P.
WELDING - AS NOTED
PAINT: 1-CT RED LEAD U.N.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
OCT 5 1970

INST.	MG	HG	NO.	DESCRIPTION	MARK	REMARKS
D8	1		1	PIN PLATE 11'-1 x 3'-5 x 20'-1	217B^L	
	1		1	Do	217A^L	
	1		1	Do	217A^R	

REQUIRED LIST — D7

NO.	DATE	INIT.
0		
9		
D8	9-10	LG
D7	5-15	CD
S6	4-10	CD
A5	3-31	CD
A4	3-9	CD
S3	3-3	CAD
S2	2-19	TC
A1	2-10	CAD

REVISION

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

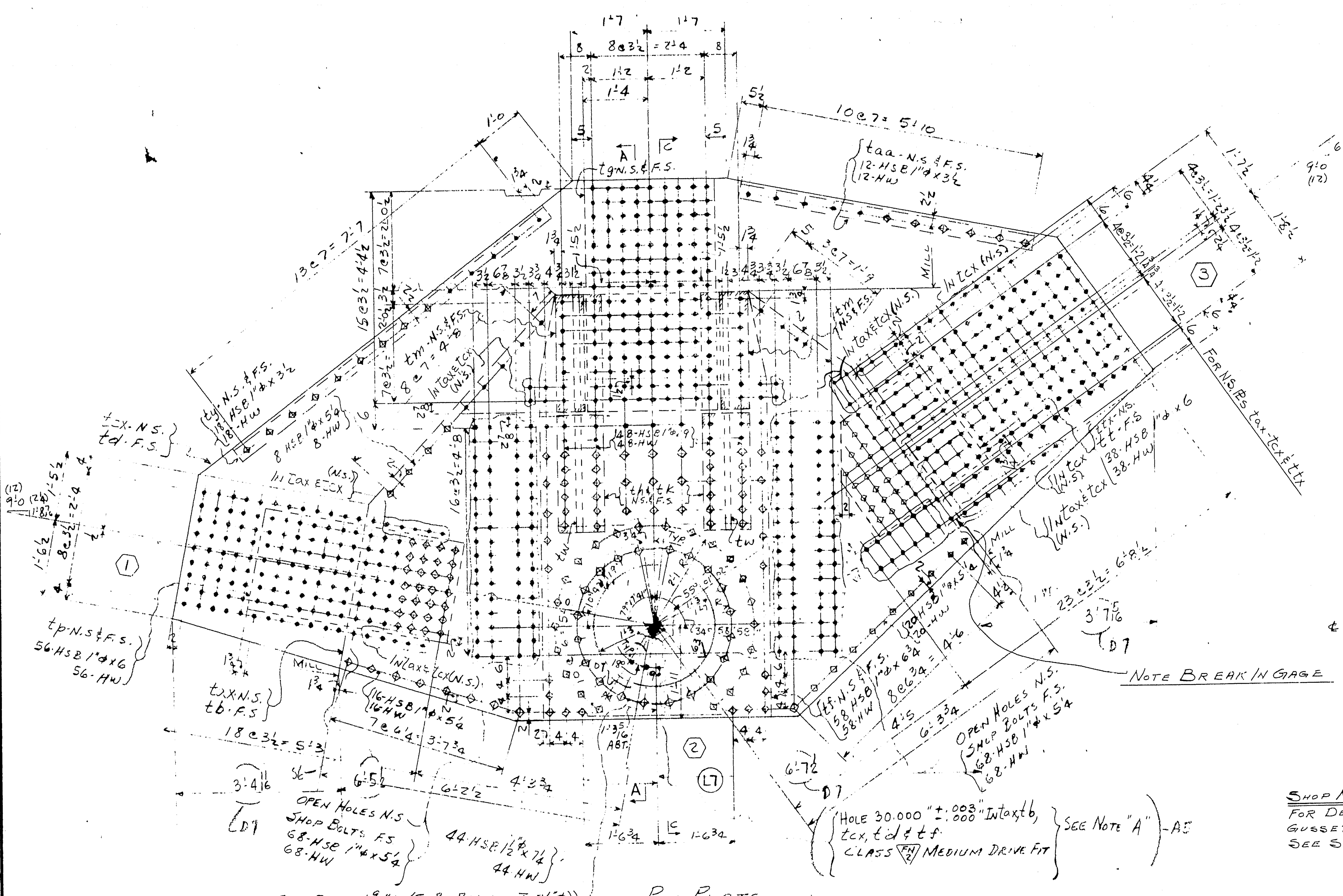
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM ______ WORKS
MADE BY ET DATE 12-1-69 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 12-12-69 SHOP NO.
CONTRACT CG 6290-061 DRAWING NO. 217

120-167 (NC TAPE)

33042 (Rev.E 8-69)

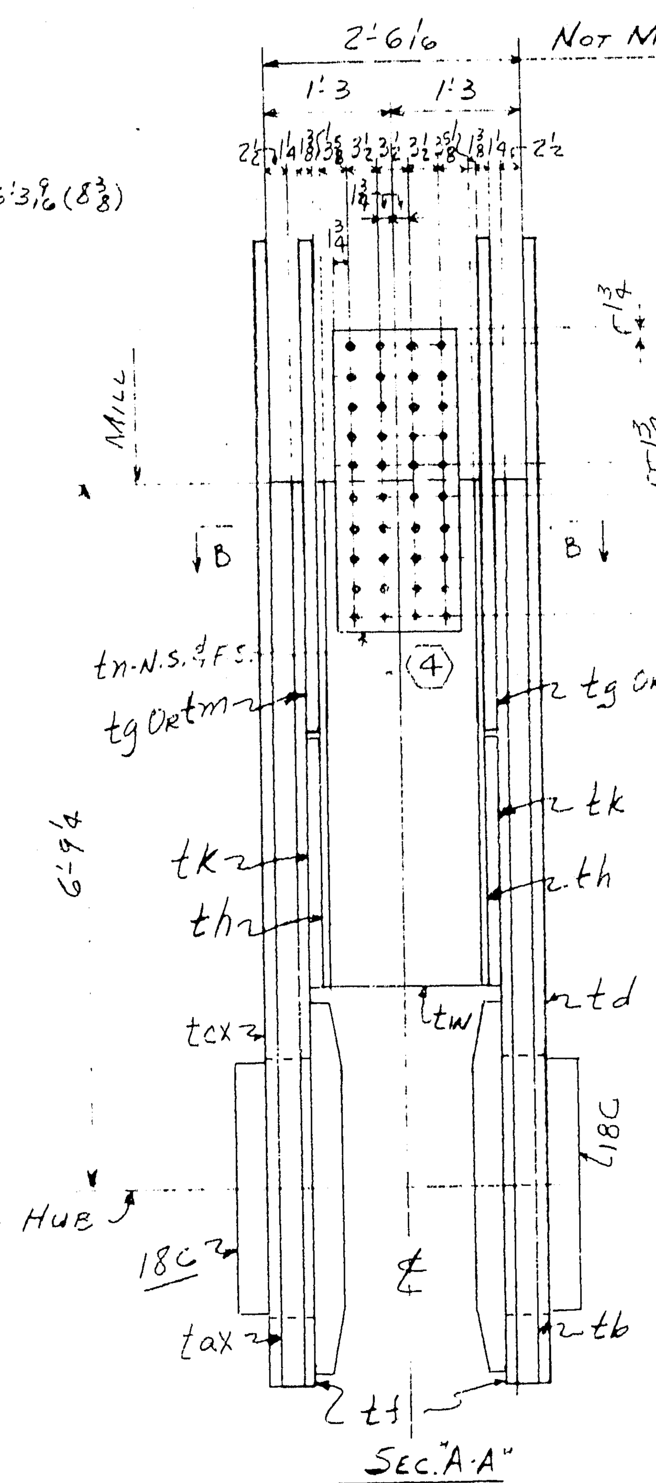


(Hole 30.000" ±.003/.000" In tax, tb, tcx, td & tf. CLASS FN2 MEDIUM DRIVE FIT) See Note "A" - A5

See Note "A": Sub-Drill 1 9/16"⌀ (To Be Reamed To 2 1/16"⌀) For 80-HSB 2"⌀x9¾ & 160-HW (S2)

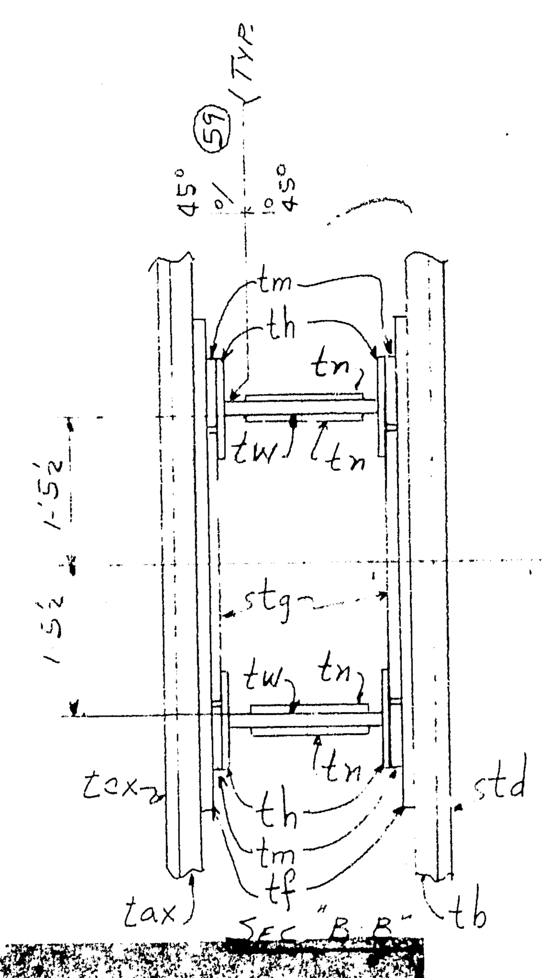
PIN PLATE

(MARK N.S. INSIDE)



SEC. "A-A"

SEC. "C-C" OPP HAND



SEC. "B-B"

SHOP NOTE: FOR DETAIL OF FAR SIDE GUSSET PLATES-tb-td-tt SEE SH #217

Note A: [illegible]

INGERSOLL-RAND #588 IMPACT WRENCH.

... Shop Bolt Heads ... On Outside (Typ.) ...

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

E8 & E12

SHOP BILL

Product Type	Line	Assembly Mark	No	Shape	Size	Size or Pounds	Thick	Length Ft	Length In	Remarks	Mill Order Width	Thick	Length Ft	Length In	Stock	Item Page	Item Line
	1		1	PIN PLATE						1-217BRX							
(2)	2	t ax	1	PL	104¼		2½	13	1	D7 MIW & MZE						91	01
(2)	3	t b	1	PL	104¼		2½	13	1	MIW & MZE						91	01
(M)	4	t c	1	PL	132½		1⅜	20	1							90	01
(M)	5	t d	1	PL	132½		1⅜	20	1							90	01
	6	t f	2	PL	57½		1¼	8	8¼	MIE						88	06
	7	t g	2	PL	32		1⅜	4	9⅜				4	9½		90	04
	8	t h	4	PL	11½		1	4	10½	(MIE)-D7						88	05
	9	t k	4	PL	11½		1⅜	2	5⅛				2	5¼		90	03
	10	t m	4	BR	7½		1⅜	2	5⅛	(MIE)-D7			2	5¼		90	02
	11	t n	4	PL	14		⅞	2	11							88	11
	12	t p	2	PL	25		¾	4	1							88	09
	13	t tx	1	PL	28¼		¾	2	8								
	14	t tt	(1)	PL	28		¾	2	8							88	08
	15	t w	2	PL	17¾		1½	4	10½	(MIE)-D7						90	05
	16	t y	2	L	4	4	¾	7	10½							101	06
	17	t aa	2	L	4	4	¾	6	1½							101	02
	18																
	19	18C	2	Hubs	Detailed on Sht. 18					See Note "A"							
	20																
	21																

Line		No. / Material	Dia.				Length	Remarks		Code
22		30 A325	1⌀			0	3½			AM12
23		180 A325	1⌀			0	5¼			AM12 AM14
24		94 A325	1⌀			0	6			AM12
25		58 A325	1⌀			0	6¾			AM12
26		48 A325	1⌀			0	9			AM12
27		410 HW	2"⌀	1 1/16	3/16					AM12 AM14
28		44 A325	1½⌀			0	7¼			AM12
29		44 HW	3	1⅝	3/16					AM12
30	S?	40 A490	2"⌀			0	9¾	Z-Washer Per Bolt		AM24
31		80 HW	3¾	2½	3/16					
32–37										
38	T4505	1 WD		1½	19	8				
39–69										

A4 (LOW HYDROGEN) ELECTRODES E11XX
BOLTS 28P-A.S.T.M.-A490
HUBS-ALLOY STL FORGING ASTM A237 CLASS "A"
PLS & FILLS-ASTM A517
LS-ASTM A514
SHAPES-T1 } PREFIXED "t"
MATERIAL PLATES-A517
RIVETS OR BOLTS 1"⌀
OPEN HOLES 1 1/16"⌀ U.N.
A325 FIELD BOLTS 1"⌀
SHOP CONTACT SURFACES N.P
WELDING - AS NOTED
PAINT 1 CT RED LEAD U.N.

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

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Noveltz OCT 21 1970

INST.		NO.	DESCRIPTION	MARK	REMARKS
1		1	Pin Plate 11'-1½-5x20	217BRX	
	MG		D7		

REQUIRED LIST

NO.	DATE	INIT.
D8	10-7	CD
D7	5-15	CD
S6	4-10	CD
A5	3-31	CD
A4	3-9	CD
S3	3-3	CAD
S2	2-19	TF
A1	2-10	CAD

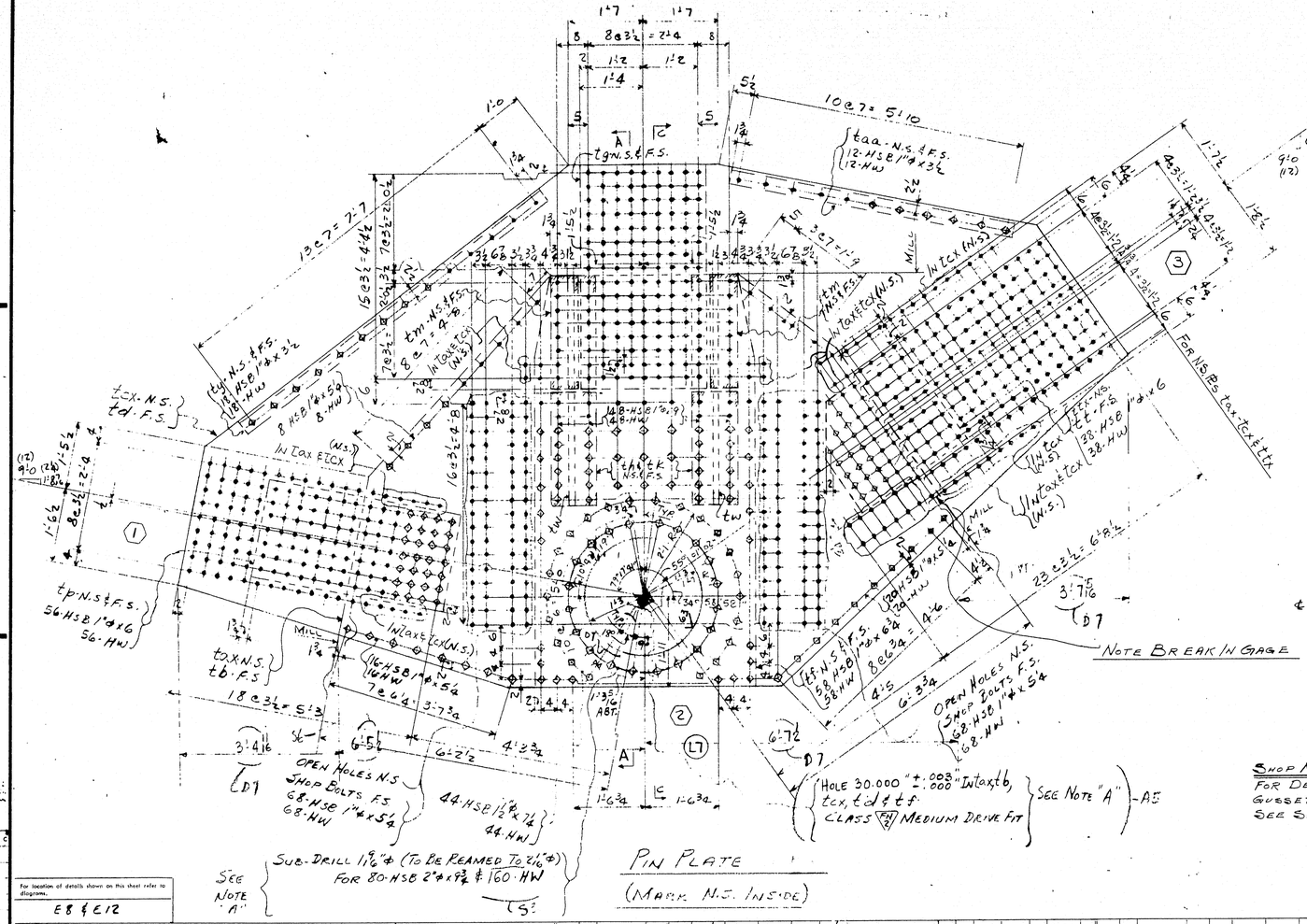
REVISION

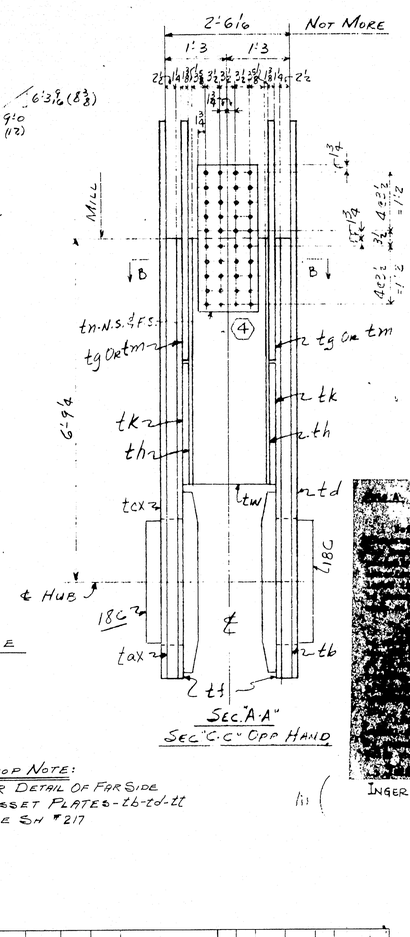
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16 KITTERY, MAINE

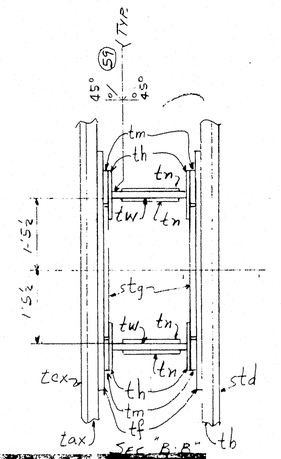
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

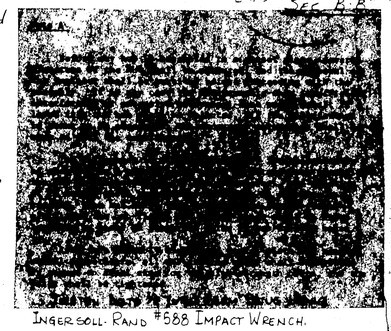
CHICAGO DRAFTING ROOM WORKS
MADE BY ET DATE 12-1-67 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 12-12-69 SHOP NO.
CONTRACT CG 62 90-061 DRAWING NO. 217 X

120-168 (NC TAPE)









Ingersoll-Rand #588 Impact Wrench.

Shop Note:
For Detail of Far Side Gusset Plates-tb-td-tf See Sh #217

AA
(Low Hydrogen)
Electrodes E11nXX
Bolts ZBP-A.S.T.M.-A490
Nuts-Alloy Steel Forging A.S.T.M. A237 Class "A"
Rivets & Fills-A.S.T.M. A 517 Gr.
A.S.T.M. A514 Shapes-T1 (Prefired)
Material Plates-A517 "E"
Rivets or Bolts 1"ø
Open Holes 1/16"ø U.N.
A325 Field Bolts 1"ø
Shop Contact Surfaces N.P.
Welding-As Noted
Paint 1 Ct Red Lead U.N.

Shop Bolt Heads are to be on Outside (Exc...)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Nowitzky OCT 21 1970

MO	NO.	DESCRIPTION	MARK	REMARKS
	1	1 Pin Plate 11¼x3-5x26'	217BRX	
INST.	REQUIRED LIST			

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16 KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM WORKS
MADE BY ET DATE 12-1-69 IN CHARGE L.G.
CHECKED BY CAL DATE 12-12-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 217.X

NO.	DATE	INIT.
10	10-7	LJ CD
9	9-15	LJ CD
8	8-10	LJ CD
7	7-31	LJ CD
6	6-9	CD
5	5-3	CAD
4	4-19	LJ TE
3	3-10	CAD
2	2-10	CAD
1	1-27	CAD

REVISION

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

SHOP BILL

Project Type	Item	Assembly Mark	No	Shape	Section Size	Section Lbs. per Foot	Section Thick	Length Ft	Length In	Remarks
	1		1	Pin Plate						1-217BRX
M	2	t ax	1	PL	10 1/2		2 1/2	13		MIW & MIE
M	3	t b	1	PL	10 1/2		2 1/2	13	11	MIW & MIE
M	4	t c	1	PL	13 2/3		1 3/8	20	1	
M	5	t d	1	PL	13 2/3		1 3/8	20	1	
	6	t f	2	PL	5 7/12		1 1/8	8	8 1/4	MIE
	7	t g	2	PL	32		1 3/8	4	9 3/8	
	8	t h	4	PL	11 1/2		1	4	10 1/2	(MIE)-D7
	9	t k	4	PL	11 1/2		1 3/8	2	5 1/8	
	10	t m	4	BR	7 1/2		1 3/8	2	5 1/8	(MIE)-D7
	11	t n	4	PL	14		7/8	2	11	
	12	t p	2	PL	25		3/4	4	1	
	13	t tx	1	L	2 8 1/8		3/4	2	8	
	14	t ts (1)		PL	28		3/4	2	8	
	15	t w	2	PL	17 3/4		1 1/2	4	10 1/2	(MIE)-D7
	16	t y	2	L	4 4		3/4	7	10 1/2	
	17	t aa	2	L	4 4		3/4	6	1 1/2	
	18									
	19	18C	2	Has Details On Sht.				18		See Note "A"
	20									
	21									

MILL ORDER

Item	Work	Thick	Length Ft	Length In	Stock	Item Page	Item Line
						91	01
						91	01
						90	01
						90	01
						88	06
		4	9 1/2			90	04
						88	05
		2	5 1/4			90	03
		2	5 1/8			90	02
						88	11
						88	09
						88	08
						90	05
						101	06
						101	02

22		30	A325	1	ø			0	3 1/2
23		180	A325	1	ø			0	5 1/4
24		94	A325	1	ø			0	6
25		58	A325	1	ø			0	6 3/4
26		410	HW	2	ø	1 1/16	3/16		
27		48	A325	1	ø			0	9
28		44	A325	1 1/2	ø			0	7 1/4
29		44	HW	3	1 5/8	3/16			
30	S2	40	A490	2	ø			0	9 3/4
31		80	HW	3 3/4	2 1/2	3/16			
32									
33									
34									
35									
36									
37									
38	T4505	1	WD			11 1/2	19	8	
39									
40									
41									
42									
43									
44									
45									

AM12
AM12, AM16
AM12
AM12
AM12, AM16
AM12
AM12
AM12
AM12
AM24

46									
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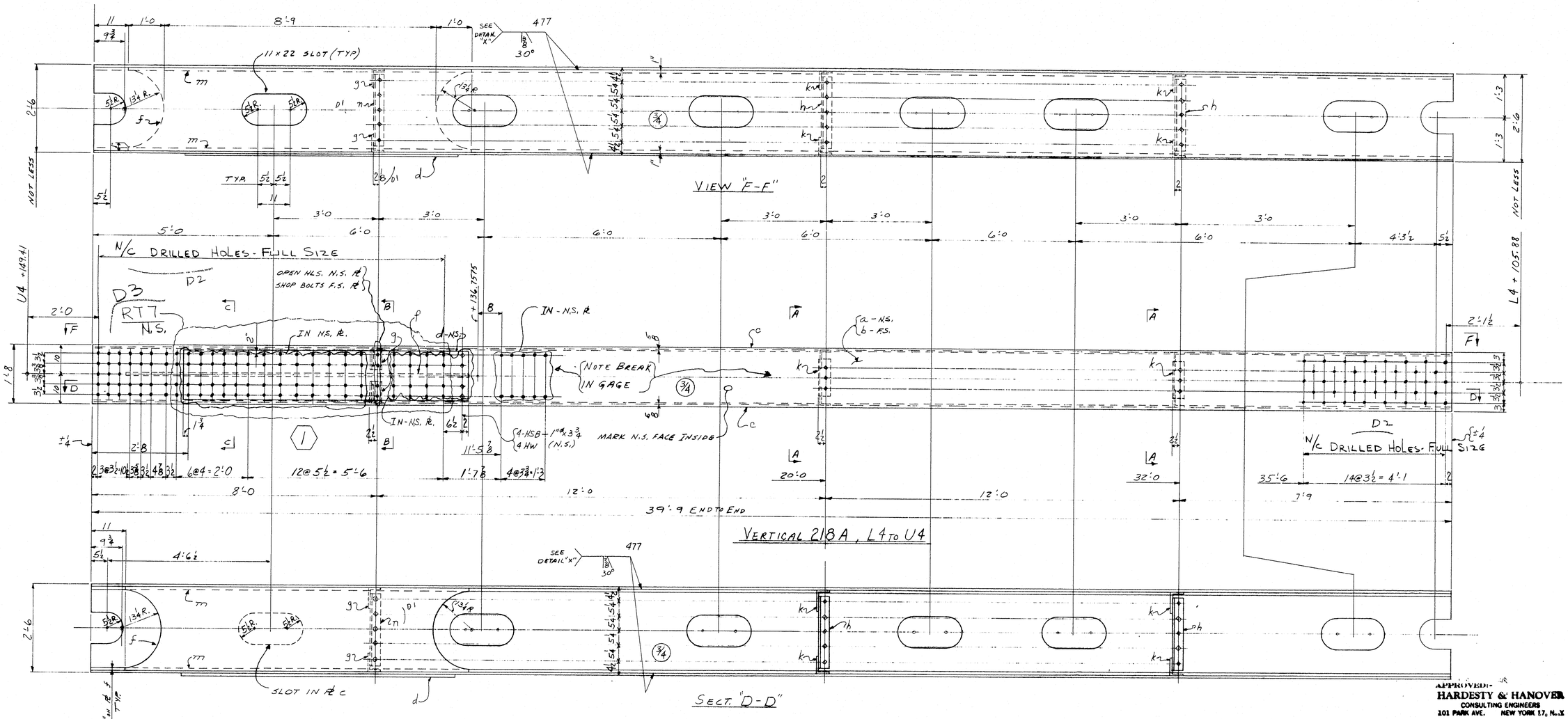
120-168 (NC TAPE)



SEE 218BB

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

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

E8 & E12

NO.	DATE	INIT.	REVISION
D3	6/1	RP	
D2	2/4	RP	
D1	1/6/70	RP	

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

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Noorigh
JUN 10 1970

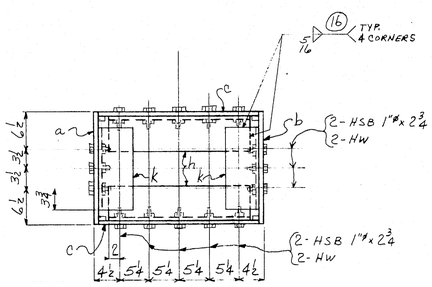
VERTICALS @ L4 TO U4

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

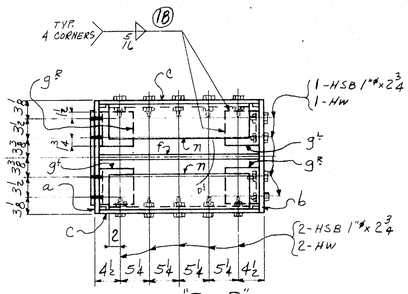
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 11-26-69 IN CHARGE LA-GOTNBERG
CHECKED BY RP DATE 12-30-69 SHOP NO.
CONTRACT 66290-063 DRAWING NO. 218AB

120-169 NC TAPE



SECT. "A-A"



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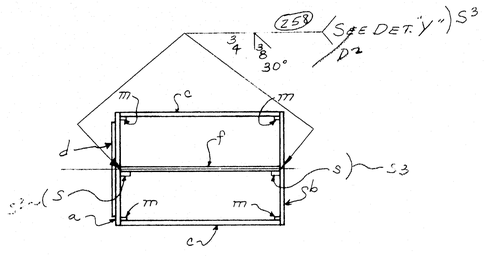

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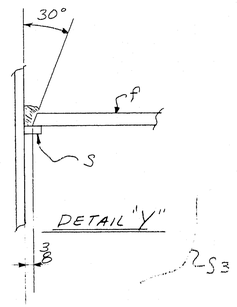

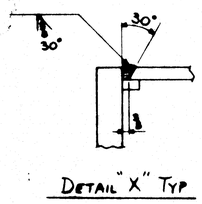

DETAIL "X" TYP

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.

LENGTH CORR. FOR TEMP.

2	2	4 VERTICALS	218A	2-7"x18"x31'-10"	
H3	M3	NO. DESCRIPTION	MARK	REMARKS	
INST.		REQUIRED LIST			

SHOP BILL / MILL ORDER

	MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	SKETCH	ITEM PAGE	ITEM LINE
		4	VERTICALS	218A												
(2)	a	4	PL	20		3/4	39	9	TZW	8½	3/4	40	3		25	09
(M)	b	4	PL	20		3/4	39	9	TZW	8½	3/4	40	3		25	9
(M)	c	8	PL	27¾		3/4	39	9	TZW	58	3/4	40	3		25	10
	d	4	PL	17¾		1½	8	0¼		36	1½	16	10¼		67	19
	f	4	PL	27¾		3/4	10	9		10⅜	3/4	21	6¼		27	10
	g	8	L	6	4	3/8	0	6¾				40	0		34	07
	h	16	L	6	3½	1½	2	1				40	0		34	08
	k	16	L	6	4	1½	1	2½				40	0		34	06
	m	16	BR	1		5/8	40	9	BK. UP BARS							
	n	8	L	6	3½	3/8	2	1							34	04
		16	325	1"ø			0	3¾							AM	21
		128	325	1"ø			0	2¾							AM	21
		56	325	1"ø			0	2½							AM	21
		200	HW	2	1 1/16	3/16										
	S3	8	BR	1		5/8	11	9	BK. UP BARS						156	13
	B30	4	WD.			3/4	180	6	S3							
	IFW	4	WD.			1/4	0	8								
	FW	4	WD.			5/16	16	4								

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
MAR 4 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

VERTICALS @ L4 to U4

MATERIAL ASTM-A36
~~RIVETS OR~~ BOLTS
OPEN HOLES 1"ø
A325 FIELD BOLTS 1"ø
SHOP CONTACT SURFACES N.P.
WELDING: AS NOTED
PAINT 1-CT. U.N.

REVISION NO.	DATE	INIT.
S3	2-12	RM
D2	2-28	RP
D1	3/6	RP

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 12-5-69 IN CHARGE L.A. GOTHBERG
CHECKED BY RP DATE 12-20-69 SHOP NO.
CONTRACT CG6290-063 DRAWING NO. 218BB

32433 (Rev.2) 8-69

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-170 MC

	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
n			
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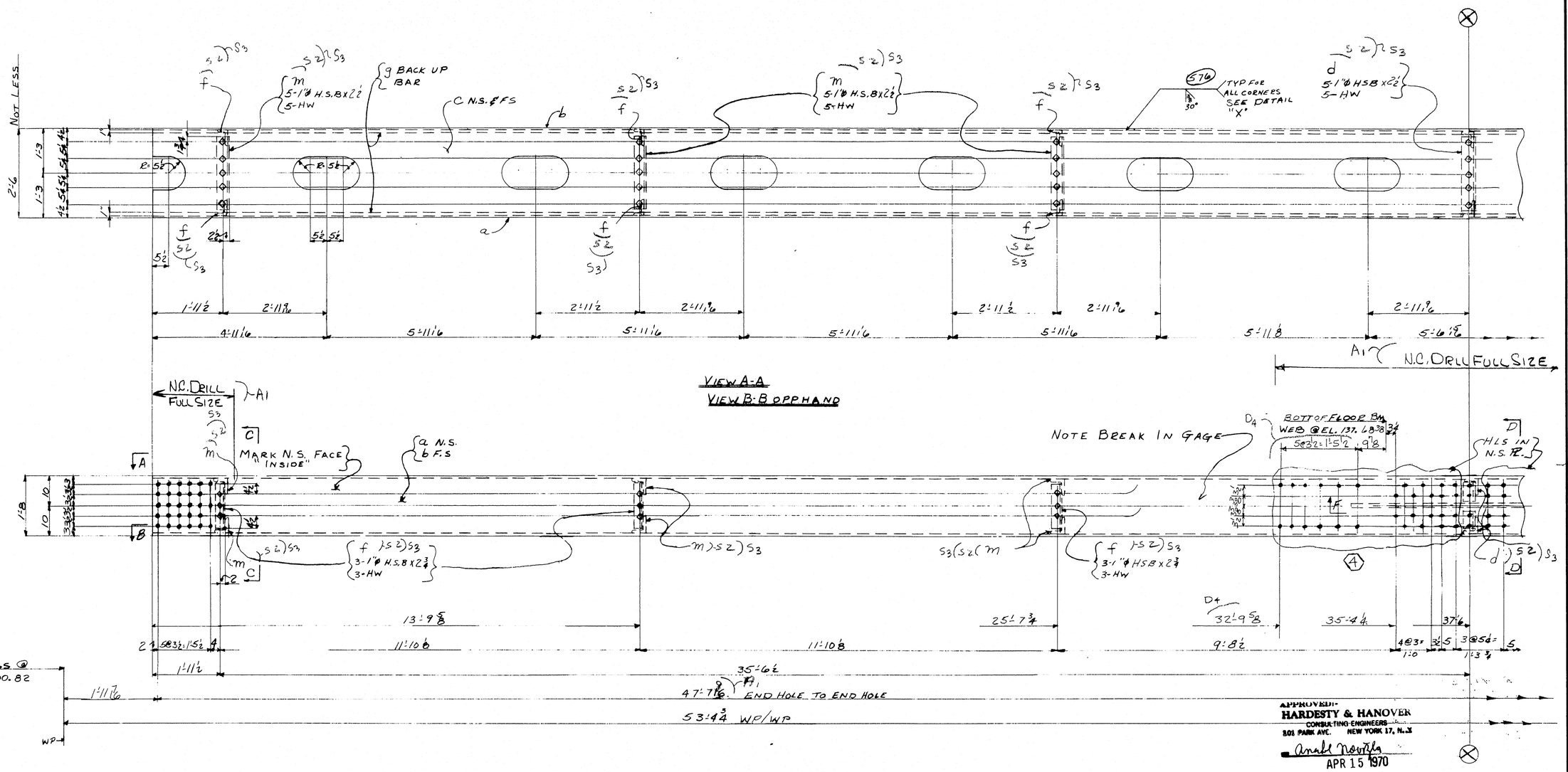

	a	b	c
a			
b			
c			
d			
e			
f			
g			
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x			
e			
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w			
y			

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

E8 & E12

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Nowitz
APR 15 1970

	NO.	DATE	INIT.
D4	3-31	@	LM
S3	2-25	@	LM
S2	2-19	@	LM
A1	1-22		LM

REVISION

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

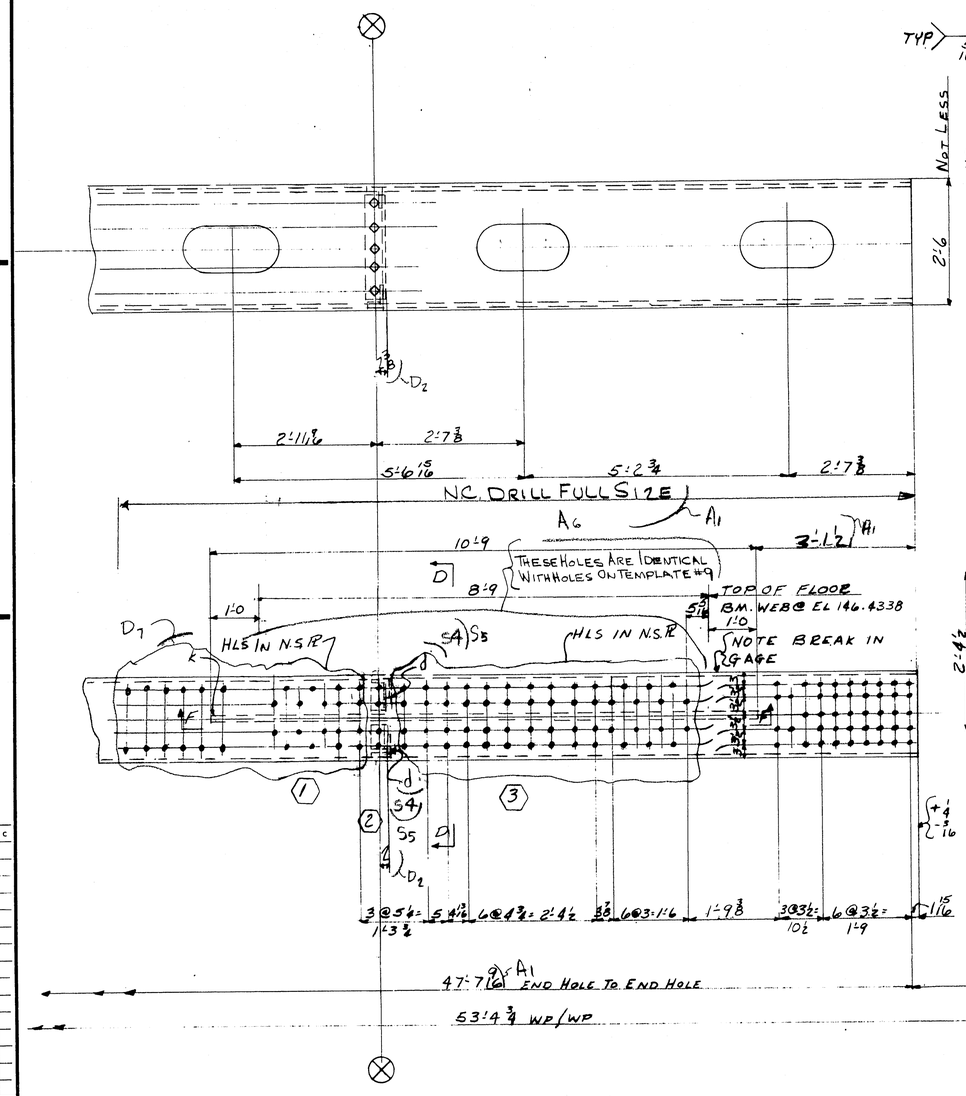
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

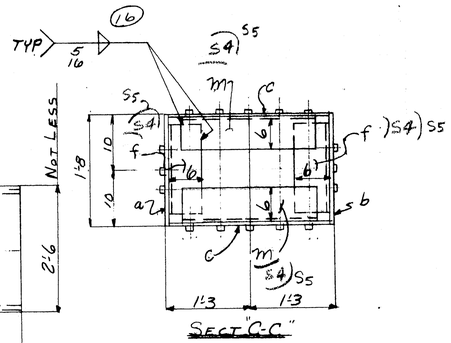
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY RL DATE 11-25-69 IN CHARGE LAG
CHECKED BY CM DATE 1-2-70 SHOP NO.
CONTRACT CG6290-063 DRAWING NO. 219AB

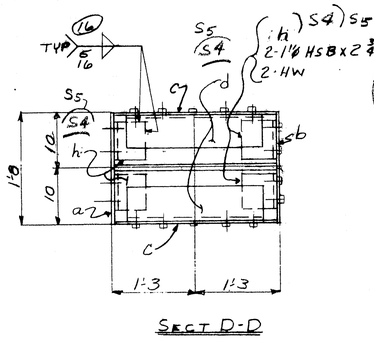
120-171 NC TAPE

0 1 2 3 4 5 6

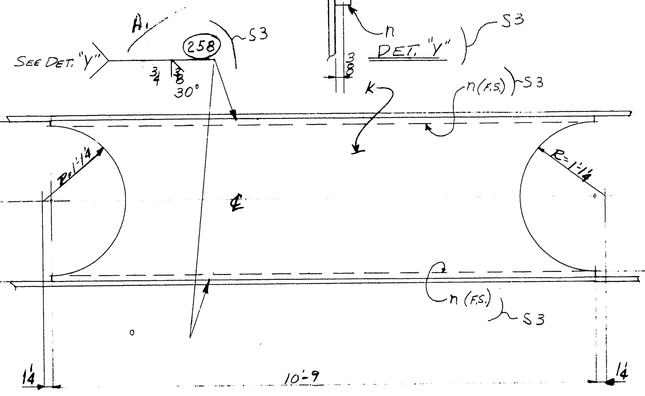




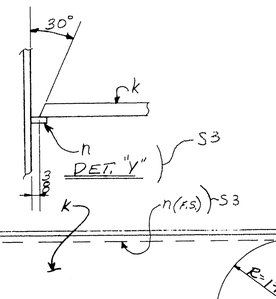
SECT C-C

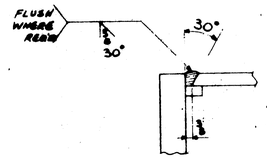


SECT D-D



SECT F-F





DETAIL "X" TYP

NOTE A
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR PERFORATIONS

MATERIAL ASTM A-36
RIVETS OR BOLTS 1"
OPEN HOLES 1 1/16" UN
A325 FIELD BOLTS 1" U.N
SHOP CONTACT SURFACES N.P

PAINT 1 CT UN.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface A1

ELECTRODES E70XX LOW HYDROGEN

(LENGTH CORR. FOR TEMP.)

M	H	NO.	DESCRIPTION	MARK	REMARKS
		2	2 4 VERT. MEMBER	219A	1'-8 1/2 x 48'-0

INST. — REQUIRED LIST

For location of details shown on this sheet refer to diagrams.
E8 & E12

SHOP BILL

MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
1		4	VERTICAL	MEMBERS					219A
M 2	a	4	PL	20		3/4	47	11½	T-2-W
M 3	b	4	R	20		3/4	47	11½	T-2-W
4	c	8	R	27¾		9/16	47	11½	T-2-W
S4 5	d	8	L	6	4	3/8	2	0½	
S4 6	f	28	L	6	3½	½	1	4	
S4 7	h	16	L	6	4	3/8	0	7	
8	k	4	R	27¾		3/4	10	9	
9	g	16	BR	1"	S3	5/8	48	11½	BACK UP BARS
S4 10	m	24	L	6	4	½	2	0½	
11		88	A325	1"			0	2¾	
12		160	A325	1"			0	2½	
13	n	8	BR	1"		5/8	11	9	BK UP BARS ~ S3
14		248	HW	2" ø	1 1/16" ø	3/16			
15									
16									
17	FW	4	WD			5/16	21	4	~ S3
18									
19									
20	B30	4	WD			9/16	19	10	
21	B30	4	WD			3/4	21	6	~ S3

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					26	07
					26	09
					26	10
					34	07
					34	08
					34	07
					27	10
					6	11
					34	06
					AM	21
					AM	21
					156	13
					AM	21

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
By: Arnold Hardesty
APR 15 1970

0		
9		
8		
D1	3-31	ØLM
A6	3-15	Ø LM
S2	2-25	Ø LM
S4	2-10	Ø LM
S3	2-12	Ø LM
D2	2-9	Ø LM
A1	6-22	LM
NO.	DATE	INIT.

REVISION

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

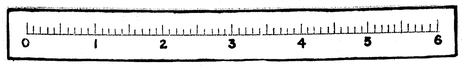
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

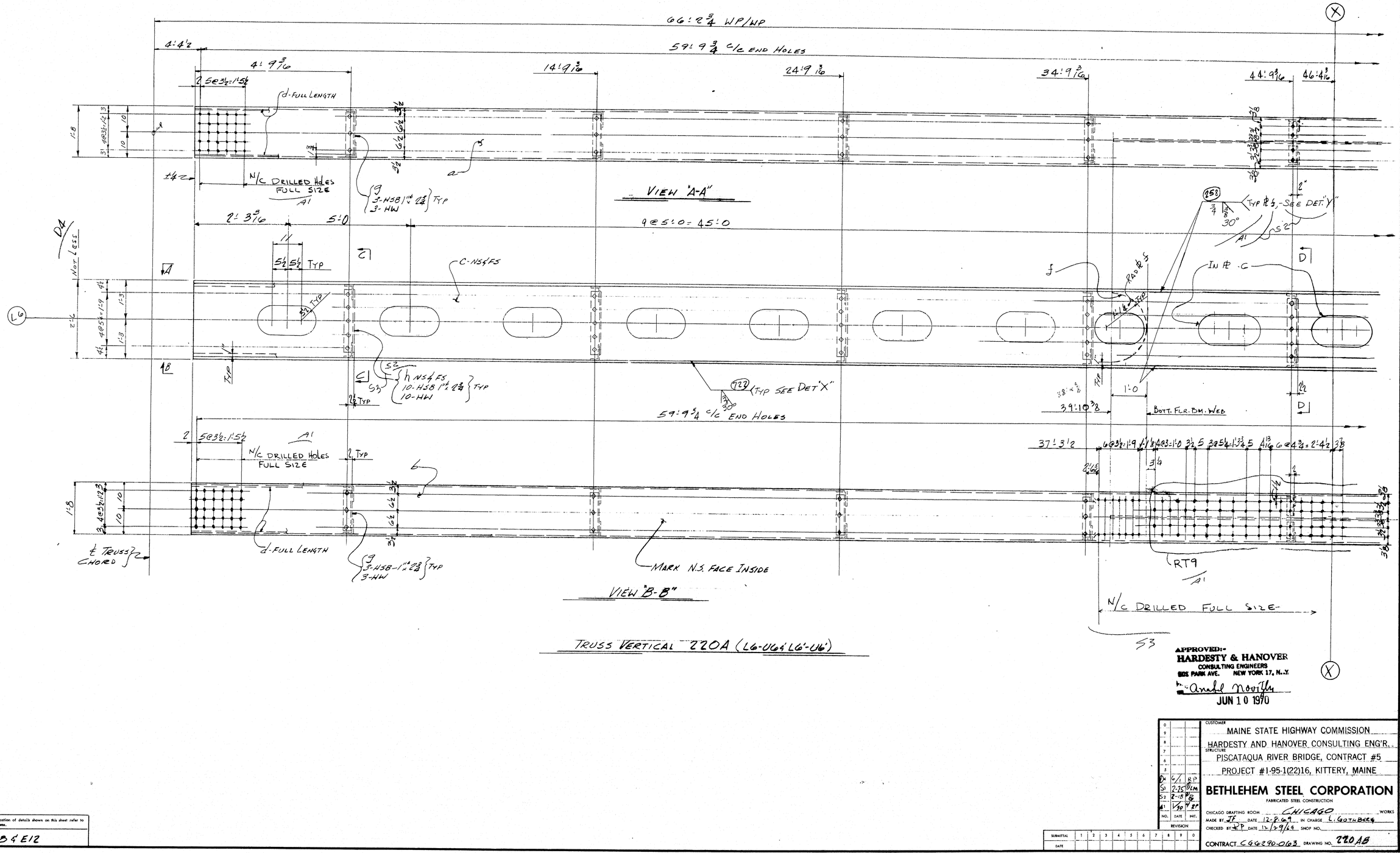
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EB DATE 12-5-69 IN CHARGE LAG
CHECKED BY LM DATE 1-2-70 SHOP NO.
CONTRACT CG6280-063 DRAWING NO. 219 SB

55433 (Rev.D 6-69)

120-172 NC TAPE





TRUSS VERTICAL 220A (L6-U6', L6'-U6')

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
666 PARK AVE. NEW YORK 17, N.Y.
by Arabel Novitzky
JUN 10 1970

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

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

E D & E 12

D	4/1	RP	
S	2-25	DLM	
S2	2-15	RP	
A1	1/30	RP	
NO.	DATE	INIT.	REVISION

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

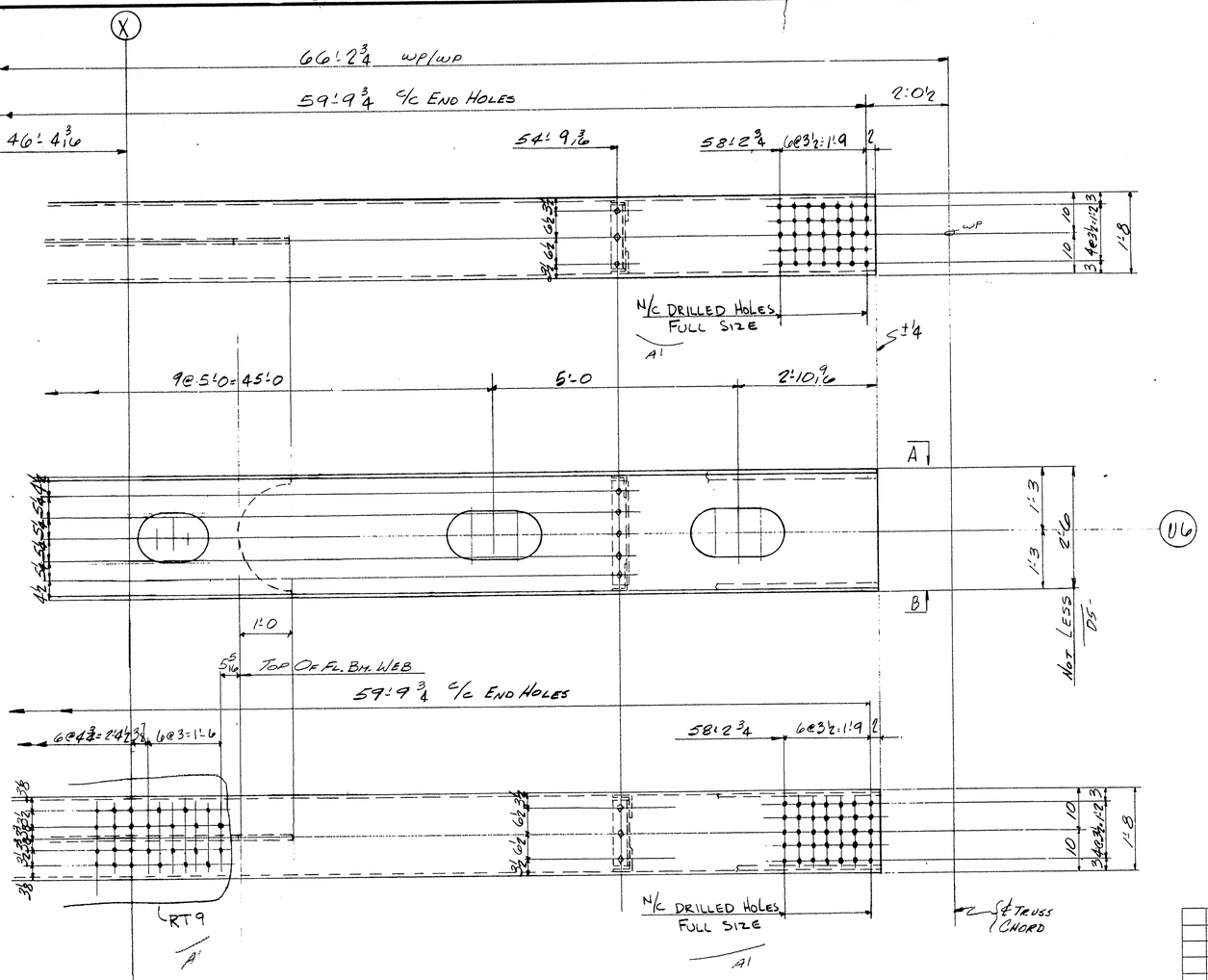
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

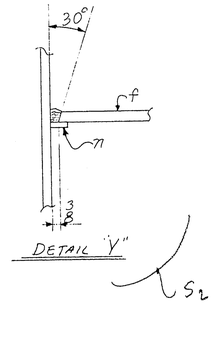
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

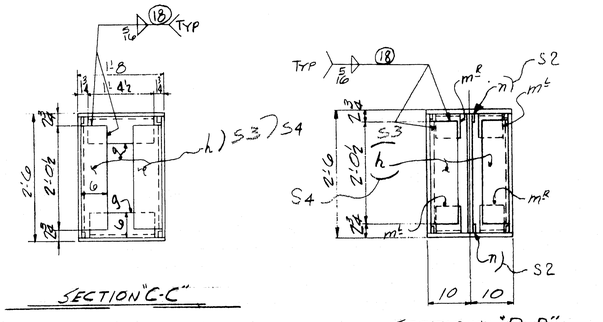
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 12-8-69 IN CHARGE L. GOTHBERG
CHECKED BY RP DATE 12/9/69 SHOP NO.
CONTRACT C66290-063 DRAWING NO. 220AB

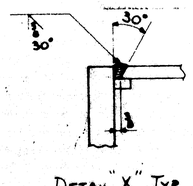
120-173 NC TAPE

0 1 2 3 4 5 6









S2
S4 (S3
S2

SHOP BILL

MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
		4 - TRUSS VERTICALS 220A						
a	4	PL	20		3/4	60	1 3/4	T2W
b	4	PL	20		3/4	60	1 3/4	T2W
c	8	PL	27 3/4		3/4	60	1 3/4	T2W
d	16	BR	1		5/8	61	1 3/4	BACK UP BARS
e	4	PL	27 3/4	1"	3/4	10	9	
g	40	L	6	3 1/2	1 1/2	1	4 1/2	
h	48	L	6	4	1 1/2	2	0 1/2	
n	8	BR	1		5/8	11	9	BACKUP BAR
m℄	8	L	6	3 1/2	1 1/2	0	6 3/8	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
8 1/2		60	6		27	11
8 1/2		60	6		27	11
5 8		60	6		27	12
		30/40	0		61	11
		21	6 1/4		27	10
		40	0		34	8
					34	6
					34	9
					34	7

376	325	1"		0	2 3/4		AM14
376	HW	2	11/16	3/16			AM14
FW	4	WD		5/16	36	0	
B30	4	WD		3/4	262	2	~S2
B45D	4	WD		3/4	21	6	

INST.	MS	HS	NO.	DESCRIPTION	MARK	REMARKS
	2	2	4	TRUSS VERTICAL	220A	2'-6 x 1'-8 x 60'-2

REQUIRED LIST

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"22" HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
Arnold Norgis APR 1 1970

LENGTH CORRECTED FOR TEMP.

MATERIAL ASTM-A36
RIVETS OR BOLTS 1"
OPEN HOLES 1 1/16" UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT - 1 CT RED LEAD UN (SEE NOTE "X")

NO.	DATE	INIT.	REVISION
D	3/9	RP	
S	3/25	LM	
S3	3-18	RP	
S2	3-18	LM	
A1	4-30	RP	

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 12-9-69 IN CHARGE L. GOTHBERG
CHECKED BY RP DATE 12/29/69 SHOP NO.
CONTRACT C46290-065 DRAWING NO. 22088

35835 (Rev.2 8-69)

For location of details shown on this sheet refer to diagrams.
E84E12

120-174 NC TAPE

66'-8 3/4 WP/WP

59'-9 3/4 c/c END HOLES

4'-4 1/2

4'-9 3/16

14'-9 3/16

24'-9 3/16

34'-9 3/16

44'-9 3/16

46'-4 1/16

Rev 3/4 (23'-0 FOR BOX #1

Rev 3/4 (34'-4 FOR BOX #4

2 SPACES @ 3 1/2 = 1'-5 1/2

d - FULL LENGTH

N/C DRILLED HOLES FULL SIZE

9 - 3-HSB 1" ø @ 12" TYP - 3-HW

VIEW "A-A"

9 @ 5'-0 = 45'-0

2'-3 9/16

5'-0

1X

5 1/2 5 1/2 TYP

C NS & FS

2 1/2 TYP

1" TYP

h NS & FS 10-HSB 1" ø @ 12" TYP - 10-HW

(T23) TYP SEE DET "X"

59'-9 3/4 c/c END HOLES

B-U3b-3

G 60° 60° G

(T5) TYP #5 - SEE DET "Y"

30°

RAD #5

IN #6 - C

D

TYP

1'-0

39'-10 3/8

BOTT. FLR. BM. WEB

37'-3 1/2

6 @ 3 1/2 = 1'-9 | 1/8 | 4 @ 3 = 1'-0 | 3 1/2 | 5 | 3 @ 5 1/4 = 1'-3 3/4 | 5 | 4 1/8 | 6 @ 4 3/4 = 2'-4 1/2 | 3 3/8

3/16

2 1/16

2

RT9

N/C DRILLED FULL SIZE

53

2 SPACES @ 3 1/2 = 1'-5 1/2

N/C DRILLED HOLES FULL SIZE

2 TYP

6

d - FULL LENGTH

9 - 3-HSB 1" ø @ 12" TYP - 3-HW

MARK N.S. FACE INSIDE

VIEW "B-B"

℄ TRUSS CHORD

TRUSS VERTICAL 220A (L6-U6' L6'-U6')

Box # 1 & Box # 4

Rev 8/4

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY S.S. Nishimura
AUG 14 1970

NO.	DATE	REVISION
4	6/30	R.P.
3	2-10	W.L.M.
2	2-10	W.L.M.
1	1/30	W.L.M.

SUBMITTAL 1 2 3 4 5 6 7 8 9 0

DATE

CUSTOMER MAINE STATE HIGHWAY COMMISSION

STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.

PISCATAQUA RIVER BRIDGE, CONTRACT #5

PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION

FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS

MADE BY JF DATE 12-8-69 IN CHARGE L. GOTHBERG

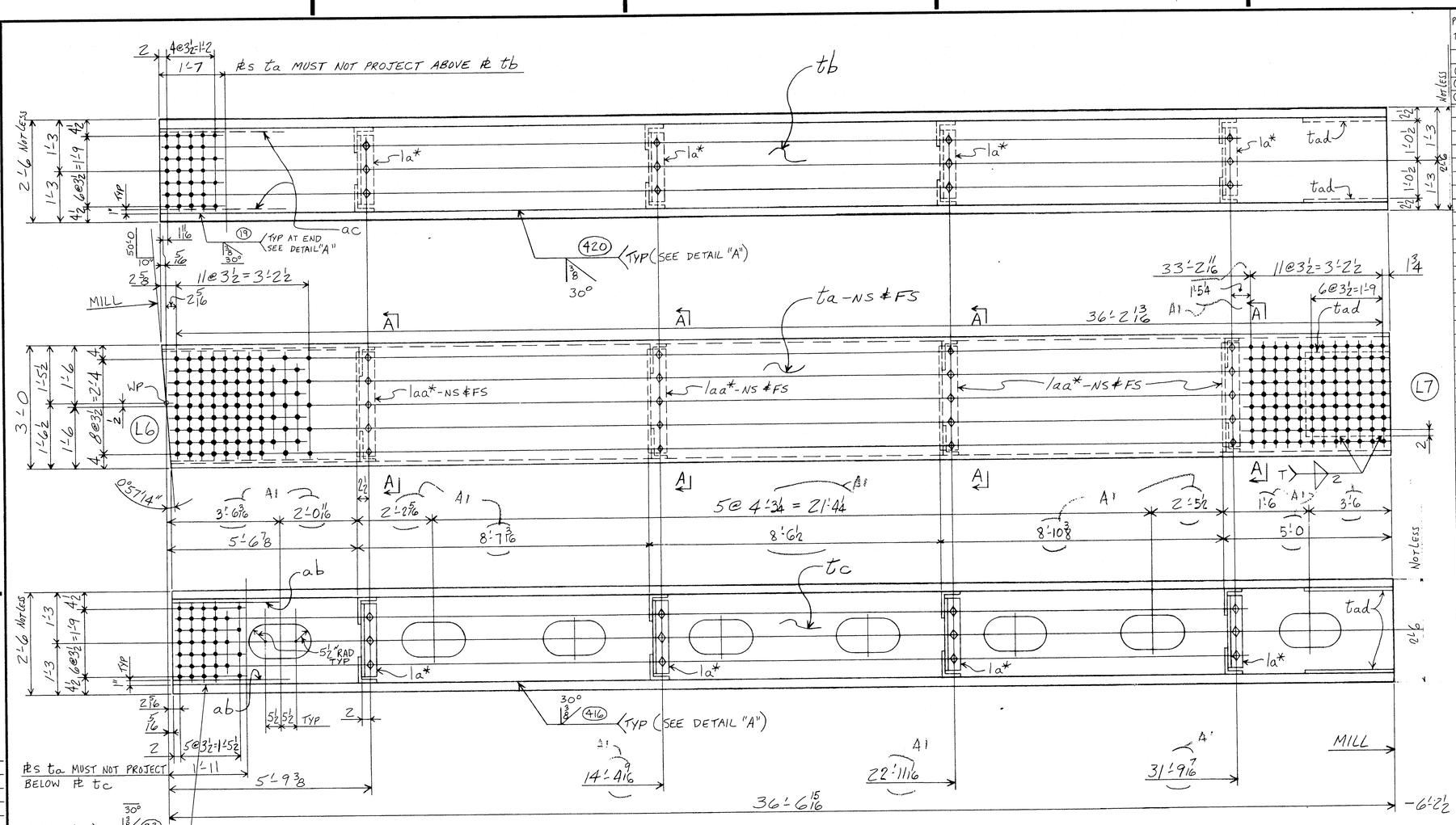
CHECKED BY RP DATE 12-9-69 SHOP NO.

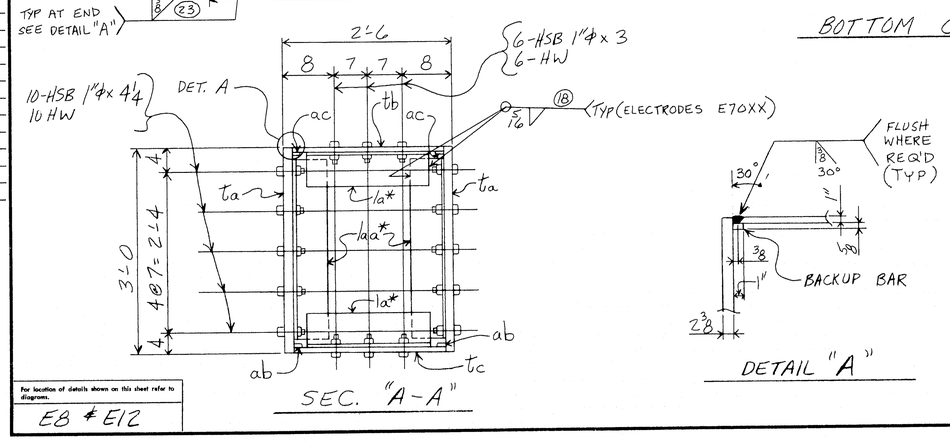
CONTRACT 669290-063 DRAWING NO. 7015X

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

E8 & E12

120-175 NC TAPE





BOTTOM CHORD – 221A (L6–L7)

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x22" HOLES.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODE E110XX
"EXCEPT WHERE NOTED"
A1 = "Low Hydrogen"
"Length Corr. For Temp."

For location of details shown on this sheet refer to diagrams. E8 & E12

PROD TYPE

SHOP BILL

LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION Size	SECTION Size or Pounds	SECTION Thick	LENGTH Ft.	LENGTH In.	REMARKS
1			4- BOTTOM CHORDS - 221A						
2 (2)	a	8	PL	36		2 3/8	36	7 1/4	MIE & T2W
3 (M)	b	4	PL	24 1/2		1	36	7 1/4	MIE & T2W
4 (M)	c	4	PL	24 1/2		1	36	6 5/8	MIE & T2W
5	ab	8	BR	1		5/8	37	6 5/8	
6	ac	8	BR	1		5/8	37	7 1/4	
7	tad	8	SHM	25		1/8	2	0 1/2	MIE ⊄T
8	la*	32	∠	6	3 1/2	1/2	1	9 3/4	
9	laa*	32	∠	6	4	1/2	2	7 1/2	
10									
11									
12									
13		160	325	1" ϕ			0	4 1/4	
14		96	325	1" ϕ			0	3	
15		256	HW	2" OD	1 1/16 ID	3/16			
16									
17									
18	FW	4	WD			5/16	24	0	
19	B30	4	WD			1	46	4	
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

MILL ORDER

LENGTH Ft.	LENGTH In.	ITEM Page	ITEM Line	
36	10	37	1	
36	10	78	1	
36	10	78	1	
37	10	57	13	
37	10	57	13	
2	0 1/2	88	10	
2	2	38	2	
2	8	38	1	
				AM14
				AM14
				AM14

	2	2	4	BOTT. CHORD 3½x2½x36⅞	221A
	H6	M6	NO.	DESCRIPTION	MARK / REMARKS
INST.			REQUIRED LIST		

BOTTOM CHORD MEMBER L6 TO L7

MATERIAL: ASTM-A517 PREFIX – t; ASTM-A36 NO PREFIX
RIVETS OR BOLTS — 1"ϕ
OPEN HOLES — 1 1/16 ϕ
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT — 1 CT. RED LEAD U.N.

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

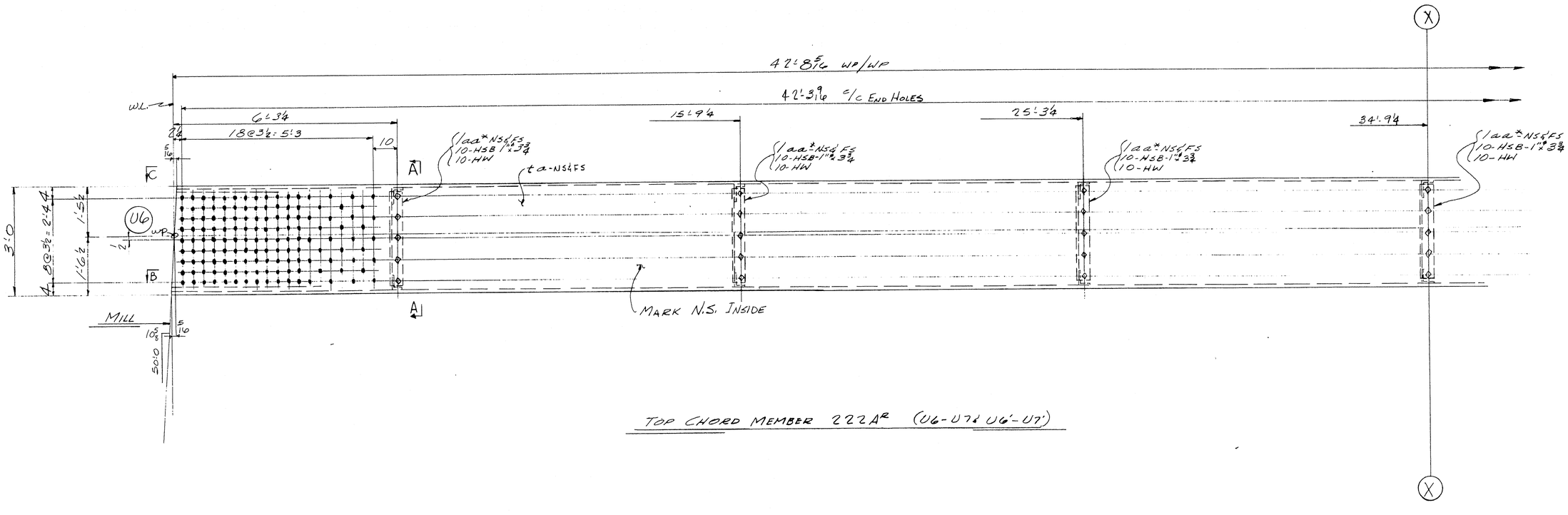
REVISION: A 3-6 CD

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 11-28-69 IN CHARGE LG
CHECKED BY C.A.D. DATE 12-11-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 221

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 18 1970

33433 (Rev.A 1-65)

120-176



TOP CHORD MEMBER 222A^R (U6-U7, U6'-U7')

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
MAY 25 1970

Top Chord Member U6-U7

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

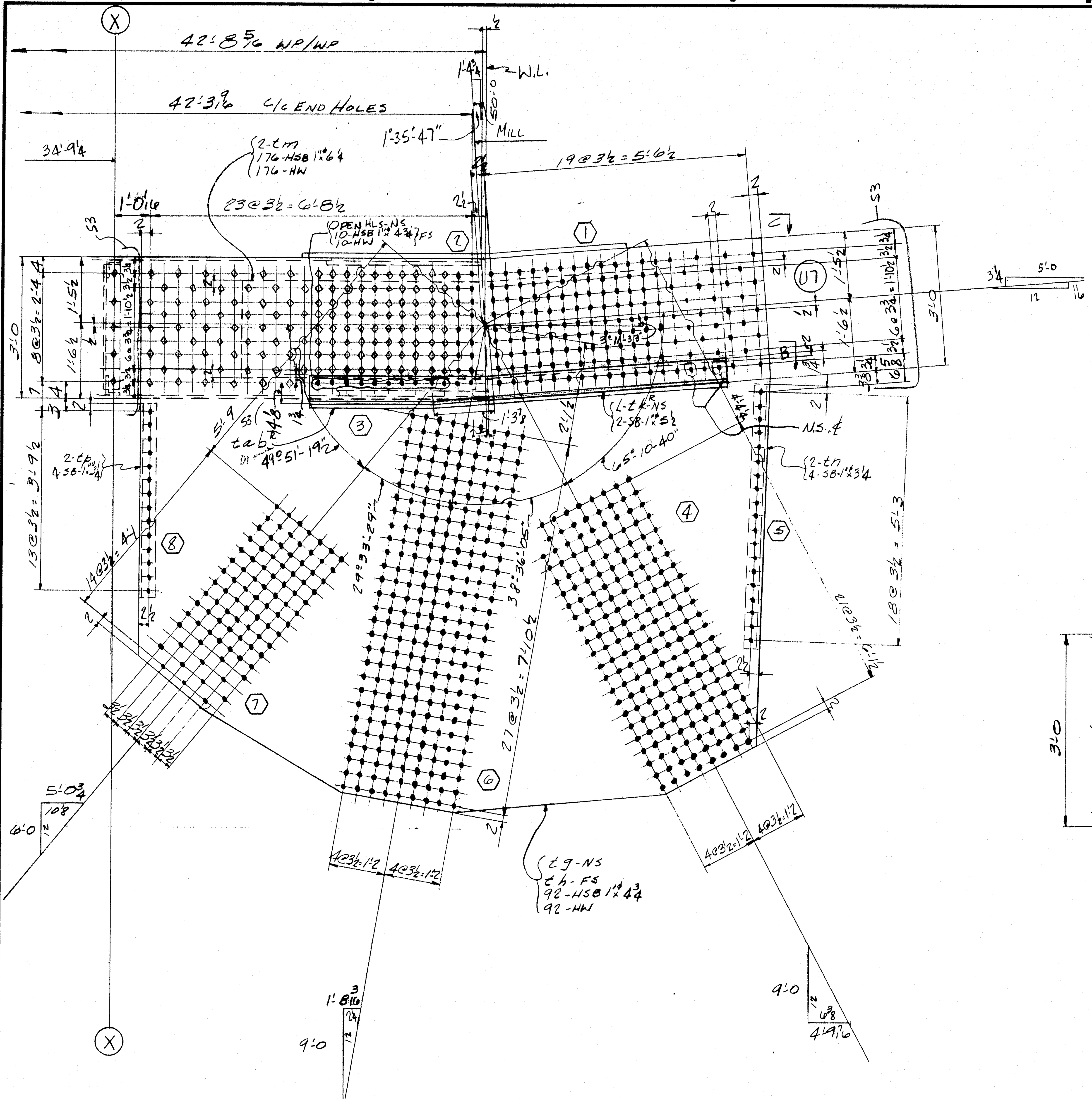
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-26-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 1-6-70 SHOP NO.
CONTRACT 66290-061 DRAWING NO. 222AD

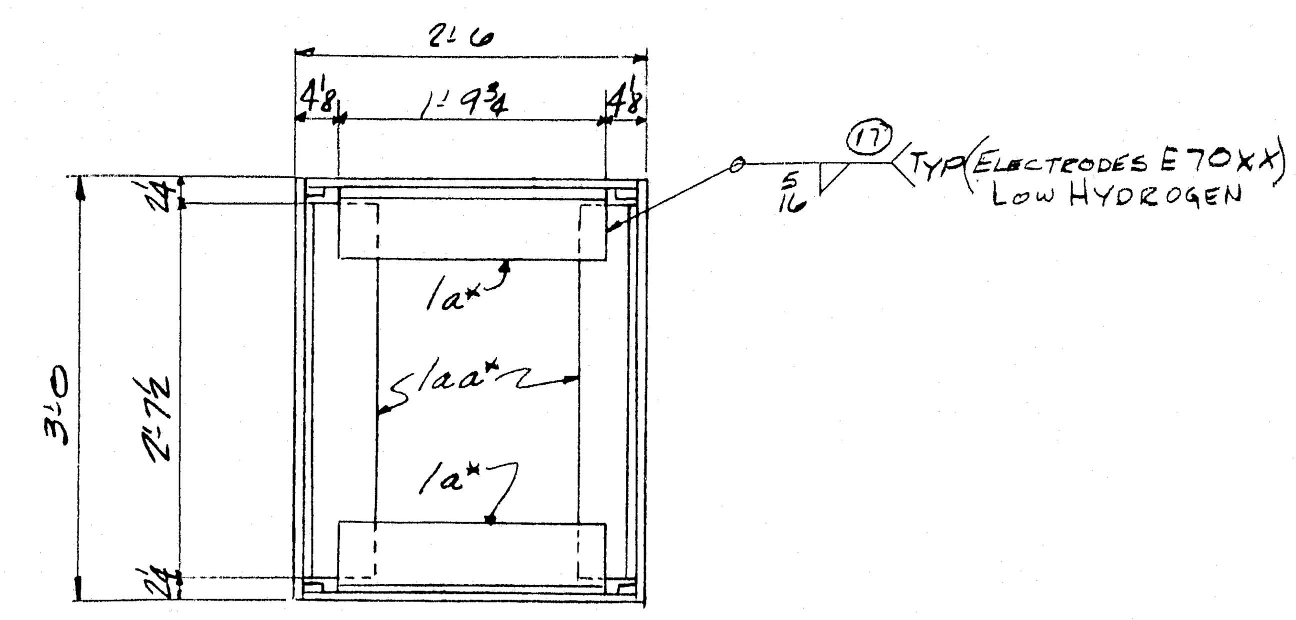
REVISION: NO. | DATE | INIT.

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

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-177



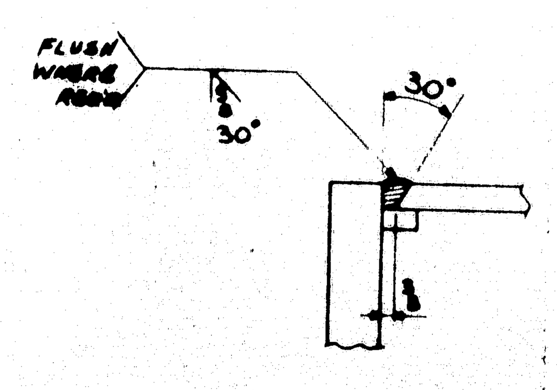


SECTION "A-A"

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E110XX (EXCEPT AS NOTED) (LOW HYDROGEN)

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11x22 HOLES



DETAIL "X" TYP

Product type	Line	Assembly mark	No.	Shape	Size	Size or pounds	Thick	Length Ft.	Length In.	Remarks	Width	Thick	Mill Length Ft.	Mill Length In.	Stock	Page	Line
	1		3 - TOP CHORD MEMBERS-1-222A^R & 2-222A^L														
(2)	2	t a	6	PL	36		1 7/8	42	9 1/8	T2W-M2E			43	0		36	1
(M)	3	t b	3	PL	25 1/2		1	42	7 1/2	T2W-M2E			43	0		77	1
(M)	4	t c	3	PL	25 1/2		1	42	9 1/8	T2W-M2E			43	0		77	1
	5	d	6	BR	1		5/8	43	7 1/2	BACK UP BAR			44	0		55	14
	6	f	6	BR	1		5/8	43	9 1/8	BACK UP BAR			44	0		55	14
	7	t g	3	PL	144 3/4		1 3/8	13	0							94	1
	8	t h	3	PL	144 3/4		1 3/8	13	0	D4						94	1
	9	t k R/L	1/2	L	8	8	1	8	8 9/16	CUT TO 5 7/8 X 5 3/4 BENT						101	11
	10	t m	6	PL	30	S3	1 1/2	10	1 3/4	S3						94	3
	11	t n	6	L	4	4	3/4	5	7							101	12
	12	t p	6	L	4	4	3/4	4	1 1/2							101	13
	13	1a*	24	L	6	3 1/2	1/2	1	9 3/4				2	2		38	2
	14	1aa*	24	L	6	4	1/2	2	7 1/2	D4			40	0		38	4
	15	t w R/L	1/2	PL	69 1/4		1 3/8	7	8	BENT						94	2
	16	t ab R/L	1/2	PL	38 3/8		3/4	8	8 9/16	BENT						95	1
	17	t ac	3	PL	27		3/4	4	9	BENT						95	2
	18																
	19		24	MB	1"φ			0	3 1/4	RHH-RHN(SB)						AM22	
	20		6	MB	1"φ			0	3 1/2	RHH-RHN(SB)						AM15	
	21		6	MB	1"φ			0	5 1/2	RHH-RHN(SB)						AM15	
	22																
	23		528	325	1"φ			0	6 1/4							AM14	
	24		306	325	1"φ			0	4 3/4							AM14	
	25		120	325	1"φ			0	3 3/4							AM14	
	26		300	325	1"φ			0	3 1/4							AM14	
	27		72	325	1"φ			0	3							AM14	
	28		1326	HW	2	1 1/16	3/16									AM14	
	29																
	30	B30	3	WD			1	170	10								
	31	FW	3	WD			5/16	22	8								

(Lines 32–62 blank.)

D1, S5, S5 (revision marks)

NOTE:- Ls tk R/L, tp & tm ARE ASTM-A514 STEEL

APPROVED:- HARDESTY & HANOVER CONSULTING ENGINEERS 101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
NOV 23 1970

"LENGTH CORR. FOR TEMP"

TOP CHORD MEMBER U6-U7

				No.	Description	Mark	Remarks
S5		1	1	1	TOP CHORD MEMBER	222A^R	6'-1 x 12'-1 x 49'-10
	1	1		2	TOP CHORD MEMBER	222A^L	↓ ↓ ↓
M6	H6						
INST.				REQUIRED LIST			

MATERIAL: SHAPES - T1 / PLATES - A517 PREFIXED "t"; A36 - NO PREFIX
BOLTS 1"φ
OPEN HOLES 1 1/16"φ UN
A325 FIELD BOLTS ———
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1-CT RED LEAD U.N. (SEE NOTE "X")

No.	Date	Init.
0		
9		
8		
7		
6		
S5	11/6	LG
D4	3-30	CD
S3	2/27	RP
S2	2-19	TC
D1	1-29	CAD
REVISION		

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

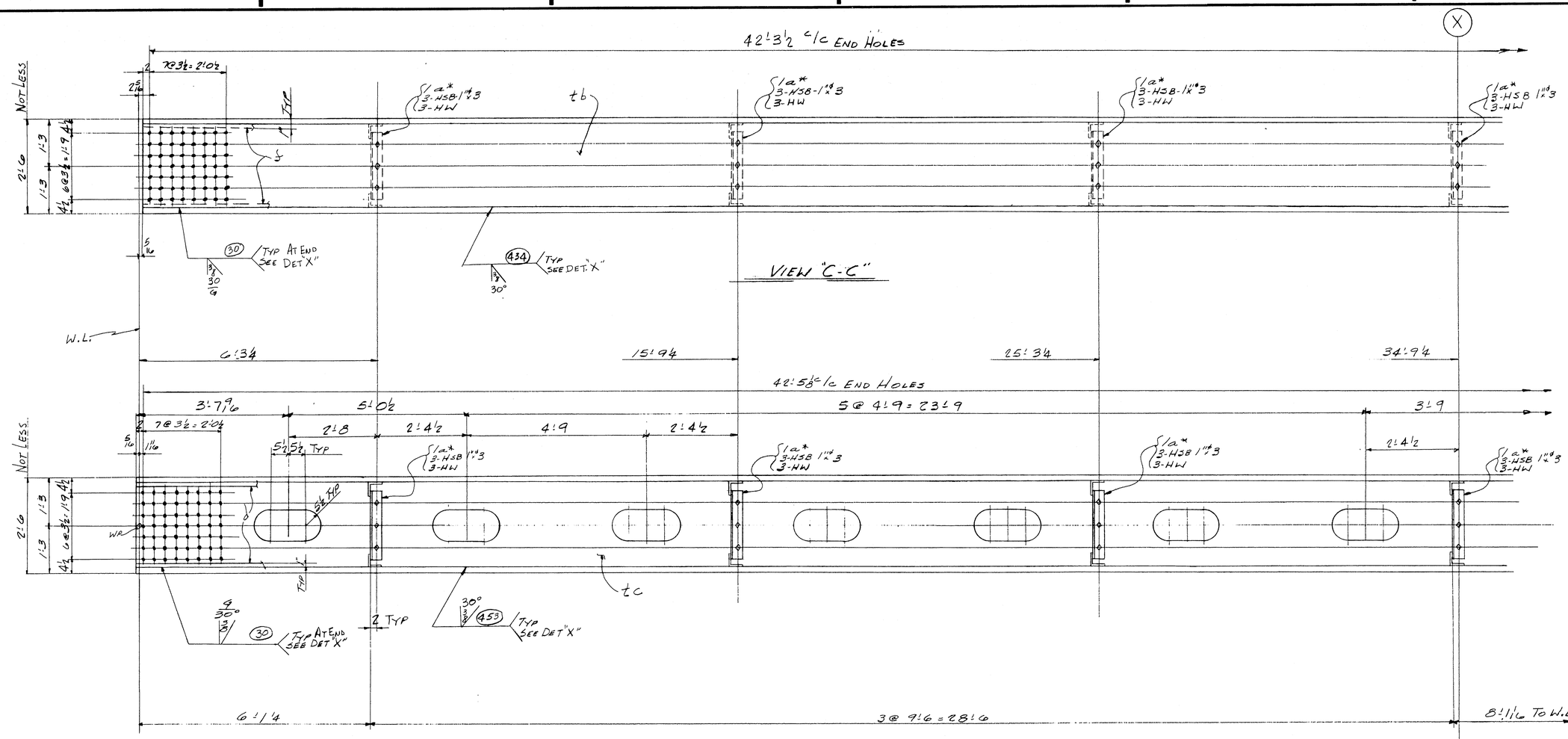
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-28-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 1-6-70 SHOP NO.
CONTRACT EG 6290-061 DRAWING NO. 222BD

For location of details shown on this sheet refer to diagrams. E8 & E12

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

35453 (Rev.D 8-69)

120-178



SECTION "B-B"

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

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

E8 & E12

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
505 PARK AVE. NEW YORK 22, N.Y.
FFW
MAY 25 1970

TOP CHORD MEMBER U6-U7

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
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

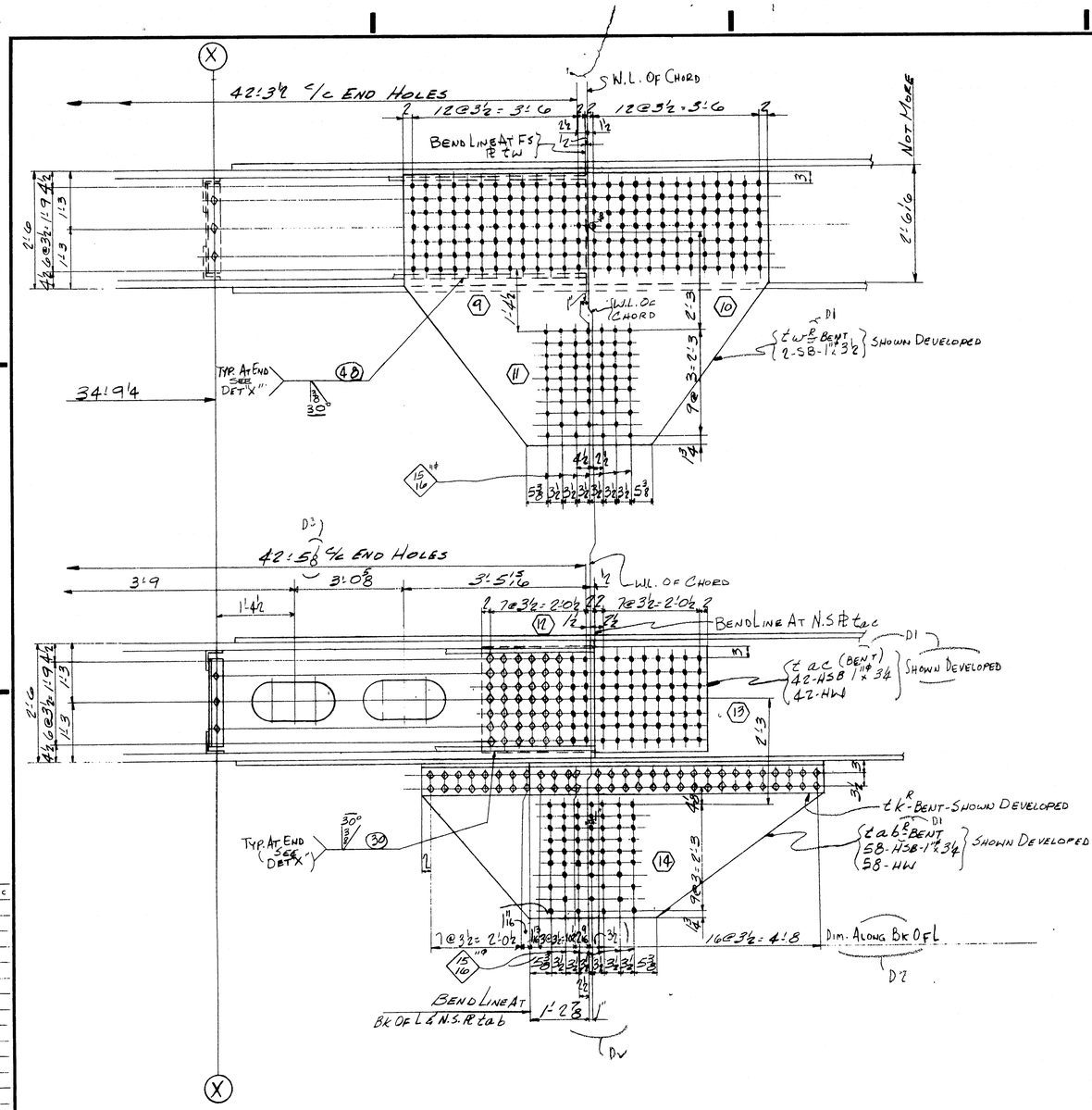
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 12-3-69 IN CHARGE L. GOTHBERG
CHECKED BY C.A.D. DATE 1-6-70 SHOP NO.
CONTRACT 566290-061 DRAWING NO. 222 C D

SAMAX 11-A-65

120-179

0 1 2 3 4 5 6



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

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

E84 E12

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FPW
JUN 30 1970

TOP CHORD MEMBER U6-U7

NO.	DATE	INIT.	REVISION
D3	6-22	CD	
D2	5-30	CD	
D1	1-29	CAD	

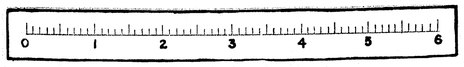
SUBMITTAL DATE 1 2 3 4 5 6 7 8 9 0

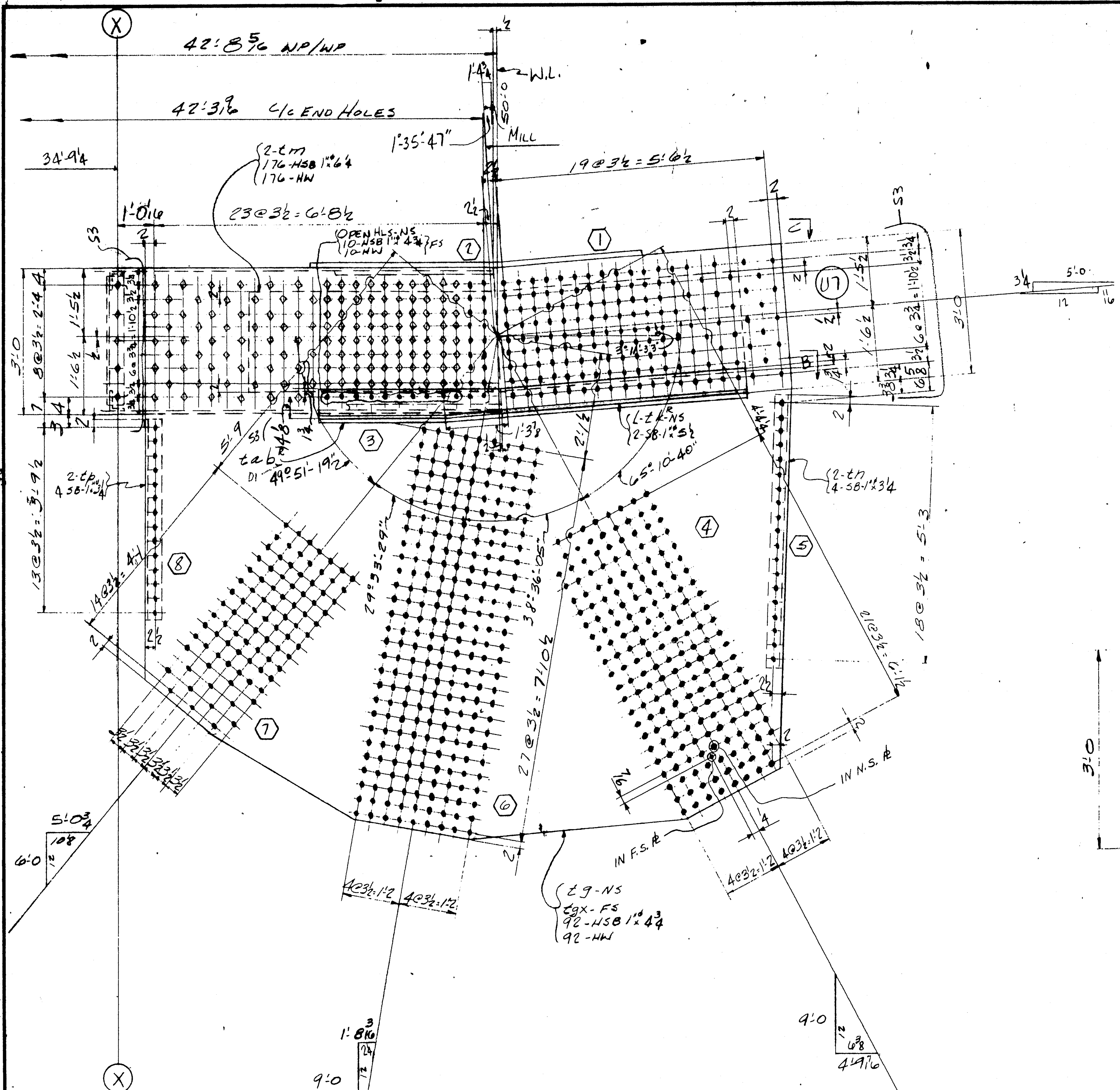
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

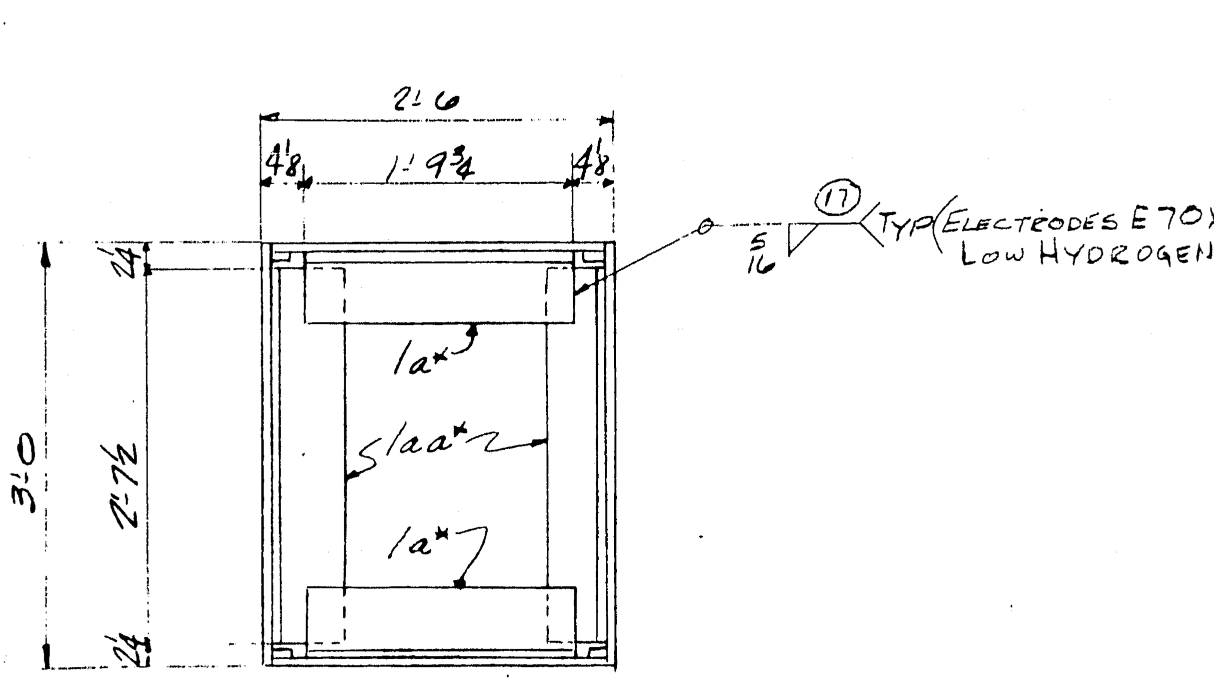
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 12-4-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 1-6-69 SHOP NO.
CONTRACT C66290-061 DRAWING NO. 222 DD

120-180





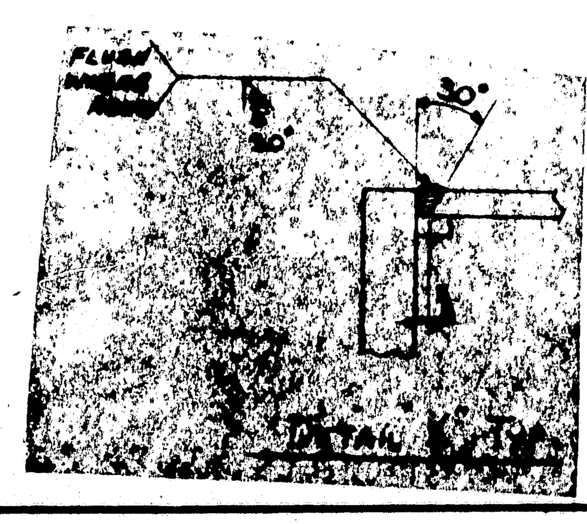


SECTION "A-A"

NOTE: Shop Bolt Heads and ... On Outside (Exposed) ...

ELECTRODES E70XX (EXCEPT AS NOTED) (LOW HYDROGEN)

... adjacent ... scale, and burrs ... 3" from the ... of holes. EXCEPT 1 1/8 x 2 2 HOLES



PRODUCT TYPE	LINE	ASSEMBLY MARK	NO	SHAPE	SIZE	SIZE OR POUNDS	THICK	LENGTH FT	LENGTH IN	REMARKS	WIDTH	THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
	1		1	-TOP CHORD MEMBER -222A^R X													
②	2	t a	2	PL	36		1 7/8	42	9 1/8	T2W-M2E			43	0		36	1
Ⓜ	3	t b	1	PL	25 1/2		1	42	7 1/2	T2W-M2E			43	0		77	1
Ⓜ	4	t c	1	PL	25 1/2		1	42	9 1/8	T2W-M2E			43	0		77	1
	5	d	2	BR	1		5/8	43	7 1/2	BACK UP BAR			44	0		55	14
	6	s	2	BR	1		5/8	43	9 1/8	BACK UP BAR			44	0		56	14
	7	t g	1	PL	144 3/4		1 3/8	13	0							94	1
	8	t gx	1	PL	144 3/4		1 3/8	13	0 (D4)							94	1
	9	t k^R	1	L	8	8	1	8	8 9/16	CUT TO 5 3/8 x 5 3/4 BNT						101	11
	10	t m	2	PL	30 (S3)		1 1/2	10	1 3/4	S3						94	3
	11	t n	2	L	4	4	3/4	5	7							101	12
	12	t p	2	L	4	4	3/4	4	1 1/2							101	13
	13	1a*	8	L	6	3 1/2	1/2	1	9 3/4				2	2		38	2
	14	1aa*	8	L	6	4	1/2	2	7 1/2				40	0		38	4
	15	t w^R	1	PL	69 1/4		1 3/8	7	8	BENT						94	2
	16	t ab^R	1	PL	38 3/8		3/4	8	8 9/16	BENT						95	1
	17	t ac	1	PL	27		3/4	4	9	BENT						95	2
	18																
	19		8	MB	1"φ			0	3 1/4	RHH-RHN(SB)						AM22	
	20		2	MB	1"φ			0	3 1/2	RHH-RHN(SB)						AM15	
	21		2	MB	1"φ			0	5 1/2	RHH-RHN(SB)						AM15	
	22																
	23		176	325	1"φ			0	6 1/4							AM14	
	24		102	325	1"φ			0	4 3/4							AM14	
	25		40	325	1"φ			0	3 3/4							AM14	
	26		100	325	1"φ			0	3 1/4							AM14	
	27		24	325	1"φ			0	3							AM14	
	28		492	HW	2	1 1/16	3/16									AM14	
	29																
	30	B30	1	WD			1	17	0 10								
	31	FW	1	WD			5/16	22	8								

D5, D1, D4, D5 (revision marks)

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
103 PARK AVE. NEW YORK 17, N.Y.
FFW
NOV 25 1970

NOTE 1- Ls tk^R, tp & tm ARE ASTM-A514 STEEL

"LENGTH CORR. FOR TEMP"

TOP CHORD MEMBER U6-U7

MATERIAL: SHAPES - T1 / PLATES - A517 PREFIXED "t"; A36 - NO PREFIX
BOLTS 1"φ
OPEN HOLES 1 1/16"φ UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1-CT RED LEAD U.N. (SEE NOTE "X")

NO.	DATE	INIT.
D5	11/16	RP
D4	3-30	CJ
S3	2/27	RP
S2	2-19	TC
D1	1-6-?	CAD

REVISION

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER, CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95 1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-28-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 1-6-70 SHOP NO.
CONTRACT EG6290-061 DRAWING NO. 222 BDX

				NO.	DESCRIPTION	MARK	REMARKS
		1		1	TOP CHORD MEMBER	222A^R X(*1)	6'-1 x 12'-1 x 49'-10
	M6						

INST. REQUIRED LIST

	a	b	c
e			
b			
c			
d			
k			
g			
h			
k			
m			
n			
p			
s			
t			
w			
y			

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-181

1'-4 ℄s ta MUST NOT PROJECT ABOVE ℄ tc

2'-6 NOTCH

1'-3

1'-3

2'-6

n

1a*

tc

TYP @ END SEE "SEC-B-B"

16

30°

476

TYP (SEE SECT "B-B")

30°

X

5 1a*

50'-0

10⅛

1¹¹/₁₆

2 @ 3½" = 10½

4'-5⅛

5'-6 1/16

15'-7 1/16

25'-8 1/16

MILL

5/16

0°57'50"

12

3/16

5'-5 7/8

3@10'-1 = 30'-3

30°

WELD FLUSH WHERE NOTED

1"

n OR p

2 1/4

3/8

1"

SEC - "B-B" TYP @ CORNERS (WELD DETAIL)

ELECTRODES E70XX (Low Hydrogen)

2-HSB^S 1"ϕ x 4¼

2-H.W.

TYP

18

15/16

2'-6

1a

1aa

ta - N.S. ℄ - F.S.

n - N.S. ℄ F.S.

5/8 (typ)

B1

A1

1aa* N.S. ℄ F.S.

5 1aa* N.S. ℄ F.S.

5 1aa* - N.S. ℄ F.S.

3'-0

1'-6

4 @ 3½" = 1'-0½

1½

1½

2

ta

1'-6

15

tc

p - N.S. ℄ F.S.

6 @ 3½" = 2'-1½

2'-7 15/16

2½

MARK N.S. FACE INSIDE

15'-6 3/4

2½

42'-6⅜ W.P. TO W.P.

25'-7 3/4

2½

TRUSS CHORD - 223A^R (L5-L6)

1a*

SEC - "A-A"

2-HSB^S 1"ϕ x 3

2-HW

5/16

4½

p

6½ AND 7½

1a*

2'-6

1'-3

1'-3

2'-6

2½

p

1½ 5½ TYP

A1

td

SEC - "C-C"

TYP @ END SEE SECT "B-B"

30°

19

1'-7 3/8

2 @ 3½" = 1'-½

3'-5 15/16

10 3/8

TYP

2'-6 1/4

5'-0½

2'-6 1/4

2'-6 1/4

15'-6 7/8

25'-7 1/16

30°

451

TYP (SEE SECT "B-B")

1'-7

℄s ta MUST NOT PROJECT BELOW ℄ td

5'-5 7/8

3'-7

4'-5

5 @ 5'-0½ = 25'-0½

A1

X

BOTTOM CHORD MEMBER AT POINT L5 TO L6

MATERIAL

RIVETS OR BOLTS

OPEN HOLES

A325 FIELD BOLTS

SHOP CONTACT SURFACES

PAINT

SEE SHT 223BB

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

E8 & E12

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 2 1970

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

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

NO.	DATE	INIT.
A1	2-18	CAD

REVISION

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

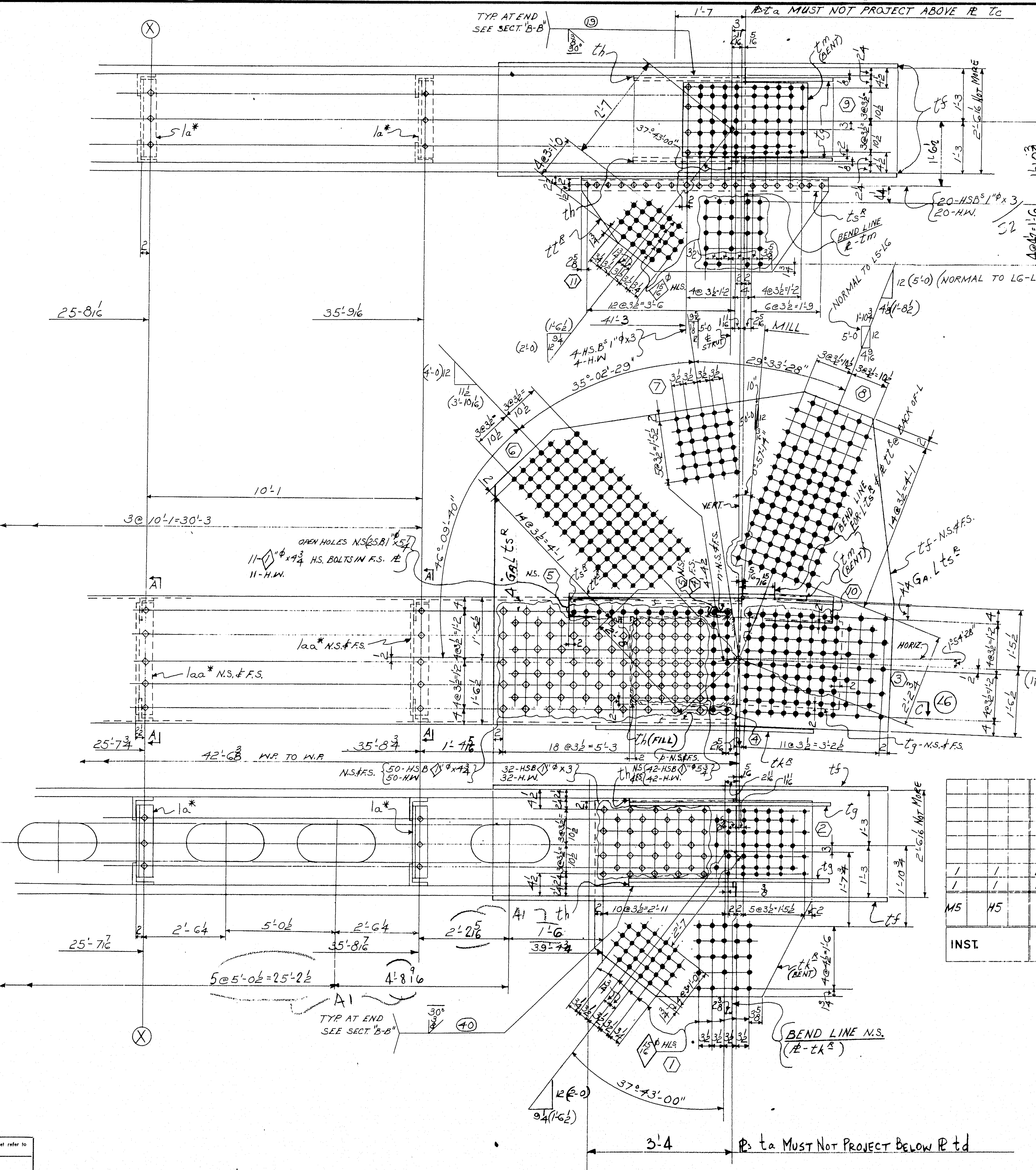
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO. WORKS
MADE BY NB DATE 12-4-69 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 12-11-69 SHOP NO.

CONTRACT CG6290-061 DRAWING NO. 223AB

120-182 NC TAPE

0 1 2 3 4 5 6



	a	b	c
a			
b			
c			
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f			
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k			
m			
n			
p			
s			
t			
w			
y			

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

E8 & E12

SHOP BILL / MILL ORDER

Product Type	Line	Assembly Mark	No.	Shape	Size	Size or Pounds	Thick	Ft.	In.	Remarks	Width	Thick	Ft.	In.	Stock	Page	Line
	1		4-TRUSS CHORDS-2-223A^R & 2-223A^L														
②	2	ta	8	PL	36		2 1/4	42	7	M2E, T2W						52	01
	3																
Ⓜ	4	tc	4	PL	24 3/4		1	42	7	M2E, T2W						82	01
Ⓜ	5	td	4	PL	24 3/4		1	42	5 3/4	M2E, T2W						82	01
	6	tf	8	PL	98 1/2		1	9	4							75	09
	7	tg	8	PL	25 15/16		1	4	10							69	13
	8	th	8	SHM	25		1/8	2	4 1/4							100	03
	9	tk^R	2/2	PL	55		5/8	5	0 1/2	BENT						75	10
	10	tm	4	PL	25		5/8	3	0	BENT						75	11
	11	n	8	BR	1		5/8	43	7	BACKUP BAR						57	10
	12	1a*	32	L	6	3 1/2	1/2	1	9 3/4							57	12
	13	1aa*	32	L	6	4	1/2	2	7 1/2							57	11
	14	p	8	BR	1		5/8	43	5 3/4	BACK UP BAR						57	10
	15	ts^R	2/2	L	8	8	1/8	6	0	BENT (CUT TO 6x4 L)						99	13
	16	tt^R	2/2	PL	26		5/8	6	0	BENT	S2					92	11
	17																
	18									S2						AM14	
	19		160	325	1"Φ			0	4 1/4							AM14	
	20		310	325	1"Φ			0	3							AM14	
	21		444	325	1"Φ			0	4 3/4							AM14	
	22		336	325	1"Φ			0	5 3/4							AM14	
	23		1260	HW	2 O.D.	1 1/16 I.D.	3/16									AM14	
	24																
	25																
	26	B30	4	WD			1	170	2								
	27	FW	4	WD			5/16	24	0								
	28																
	29																
	30		8	MB	1"Φ			0	5 1/4	RHH&HHN (S.B.)						AM15	
	31																
	32																
	33																
	34																
	35																
	36																
	37																
	38																
	39																
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	61																
	62																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
FFW
MAR 6 1970

REQUIRED LIST

INST.			NO.	DESCRIPTION	MARK	REMARKS
1	1		2	TRUSS CHORD 4-11x8-4x46'-2	223A^L	
1	1		2	" " " " "	223A^R	
M5	H5					

ELECTRODES E110XX "EXCEPT AS NOTED" (LOW HYDROGEN)

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes, EXCEPT 11 & 22 HOLES.

MATERIAL: SHAPES - T1, PLATES - A517 } PREFIXED "t"; A.S.T.M. - A36

BOLTS 1"Φ S2

OPEN HOLES - 1 1/16 Φ U.N.

A325 FIELD BOLTS —

SHOP CONTACT SURFACES - N.P.

WELDING - AS NOTED

PAINT - 1-CT. RED LEAD U.N. SEE NOTE "X"

"LENGTH CORR. FOR TEMP.

BOTTOM CHORD MEMBER AT POINT L5 TO L6

Revision No.	Date	Init.
0		
9		
8		
7		
6		
5		
4		
3		
S2	2-20	TC
A1	2-18	CAD

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

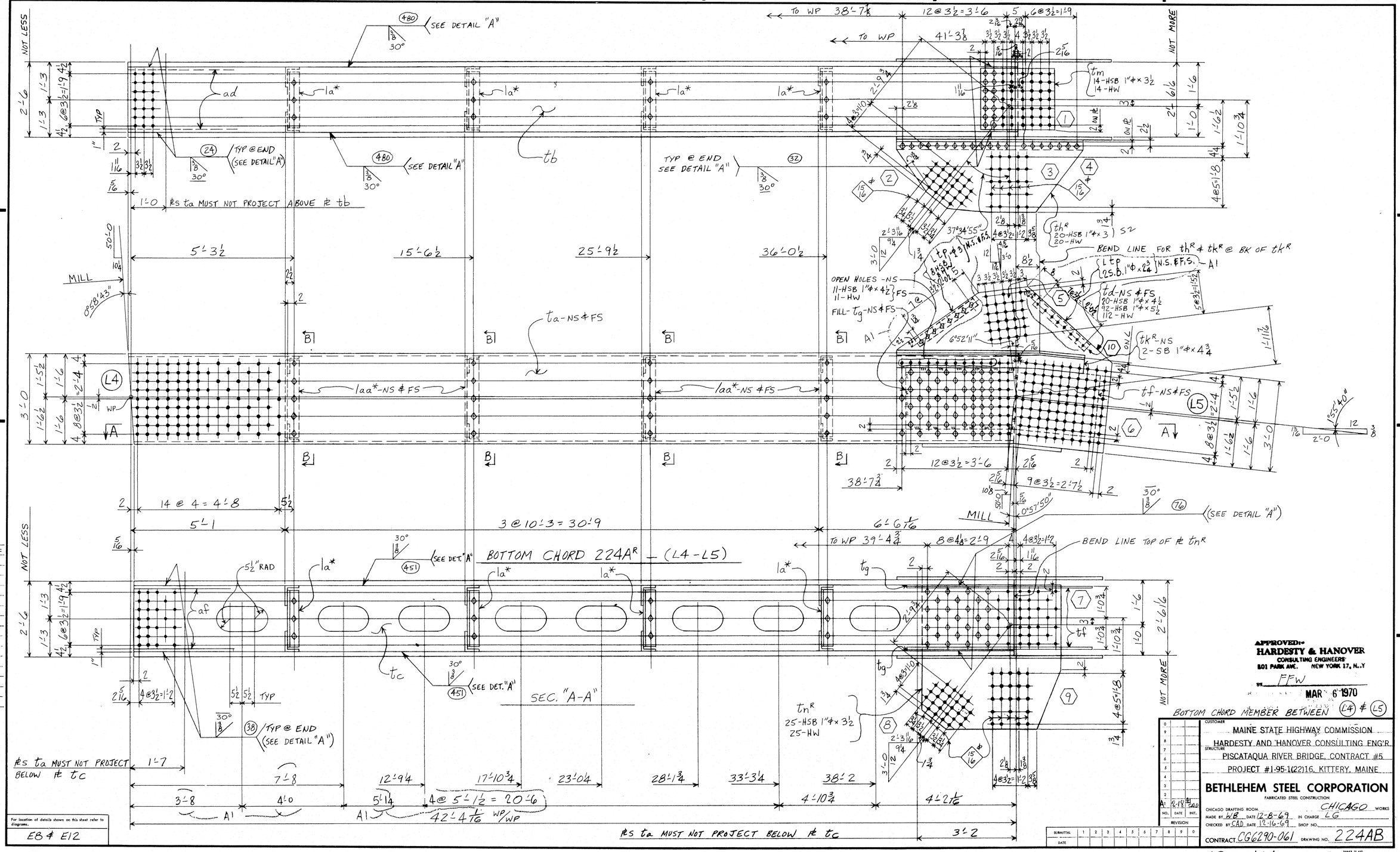
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

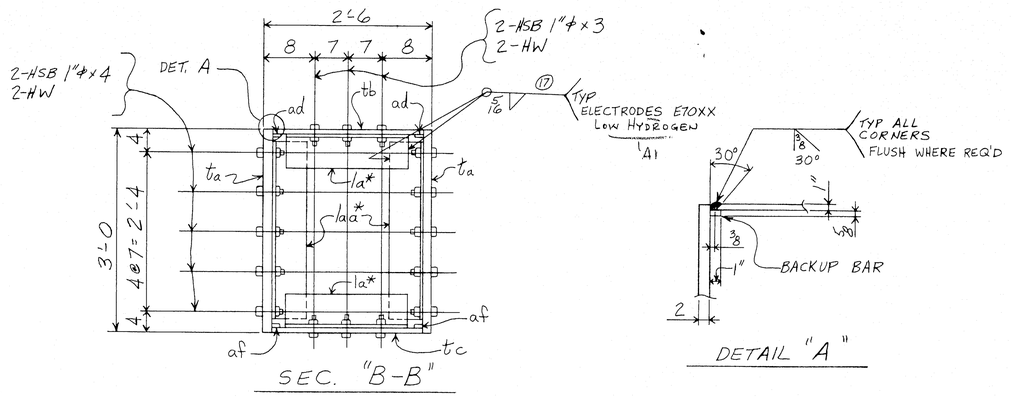
CHICAGO DRAFTING ROOM CHGO WORKS
MADE BY MP DATE 12-4-69 IN CHARGE L. GOTHBERG
CHECKED BY CAD DATE 12-12-69 SHOP NO.
CONTRACT OGG290-061 DRAWING NO. 223BB

35453 (Rev.D 8-69)

120-183 NC TAPE

0	1	2	3	4	5	6


BOTTOM CHORD 224A^R – (L4-L5)
SEC. "A-A"
SEE DETAIL "A"
TYP @ END (SEE DETAIL "A")
NOT LESS
NOT MORE
NOT MORE
MILL
BEND LINE FOR th^R & tk^R @ BK OF tk^R
BEND LINE TOP OF #s tn^R
#s ta MUST NOT PROJECT ABOVE # tb
#s ta MUST NOT PROJECT BELOW # tc
#s ta MUST NOT PROJECT BELOW # tc
OPEN HOLES -NS 11-HSB 1"Φ x 4½ 11-HW
FILL- tg-NS & FS
ta-NS & FS
laa*-NS & FS
laa*-NS & FS
tm 14-HSB 1"Φ x 3½ 14-HW
td-NS & FS 20-HSB 1"Φ x 4½ 92-HSB 1"Φ x 5½ 112-HW
th^R 20-HSB 1"Φ x 3) S2 20-HW
tk^R NS 2-SB 1"Φ x 4¾
tf-NS & FS
tn^R 25-HSB 1"Φ x 3½ 25-HW
5'-3½
15'-6½
25'-9½
36'-0½
14 @ 4 = 4'-8
3 @ 10'-3 = 30'-9
6'-6 1/16
38'-7¾
41'-3⅞
38'-7¾
39'-4¾
38'-2
3'-2
42'-4 1/16 WP/WP
4@ 5'-1½ = 20'-6
BOTTOM CHORD MEMBER BETWEEN (L4) & (L5)
For location of details shown on this sheet refer to diagrams.
E8 & E12
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
MAR 6 1970
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 12-8-69 IN CHARGE LG
CHECKED BY CAD DATE 12-16-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 224AB
A 2-18 CAD
NO. DATE INT.
REVISION
SUBMITTAL
DATE
120-184 NC TAPE



PROD TYPE	LINE	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: ITEM Page	MILL ORDER: ITEM Line
	1		4	BOTTOM CHORDS - 2-224AR & 2-224AL										
(2)	2	tL a	8	PL	36		2	42	4 1/16	MZE & TZW	42	7	51	1
(M)	3	tL b	4	PL	25 1/4		1	42	4 1/16	MZE & TZW	42	7	81	1
(M)	4	tL c	4	PL	25 1/4		1	42	3 7/16	MZE & TZW	42	7	81	1
	5	tL d	8	PL	75 1/2		1	6	(10 3/4)	- D3			92	1
	6	tL f	8	PL	26		3/4	6	3		6	3	92	3
	7	tL g	8	PL	25		1/4	3	6 1/2		3	6 1/2	92	2
	8	tL nR 2/2	2	PL	28		5/8	6	0	BENT	6	0	92	5
	9	tL kR 2/2	2	L	8	8	7/8	6	0	BENT (CUT TO GAGL)	16	0	99	15
	10	tL m	4	PL	25		1	2	5	BENT	2	5	92	4
	11	tL nL 2/2	2	PL	57		1	4	7	BENT 52°	4	8	92	6
	12	la*	32	L	6	3 1/2	1/2	1	9 3/4		2	2	57	9
	13	la*	32	L	6	4	1/2	2	7 1/2		2	9	57	8
	14													
	15	ad	8	BR	1		5/8	43	4 1/16	BACKUP BAR	43	7	57	7
	16	af	8	BR	1		5/8	43	3 7/16	BACKUP BAR	43	7	57	7
	17	tL p	16	L	4	4	1/2	2	4				134	1
	18													
	19													
	20	2											AM14	
	21	1	160	325	1ϕ			0	4				AM14	
	22	A1 (2)	240	325	1ϕ			0	3				AM14	#26
	23		156	325	1ϕ			0	3 1/2				AM14	
	24		124	325	1ϕ			0	4 1/2				AM14	
	25		368	325	1ϕ			0	5 1/2				AM14	
	26	A1 (2)	1048	HW	2 O.D.	1 1/16 ED	3/16						AM14	#26
	27		8	MB	1"ϕ			0	4 3/4	RHH & HHN (SB)			AM15	
	28	A1 (2)	16	MB	1"ϕ			0	2 3/4	RHH & HHN (SB)			AM15	
	29													
	30													
	31													
	32													
	33	FW	4	WD			5/16	22	8					
	34	B30	4	WD			1	169	4					
	35													
	36													
	37													
	38													
	39													
	40													
	41													
	42													

	1	1	2	BOTT. CHORD 5'-6"x5"x45#-6224AL	
	1	1	2	⊥ ⊥ 224AR	
	H4	M4	NO.	DESCRIPTION	MARK / REMARKS
INST.			REQUIRED LIST		

NOTE! (ANGLES tkR TO BE ASTM-A514) (L's tp TO BE T1 STEEL) A1

ELECTRODES TO BE E110XX EXCEPT AS NOTED ("Low HYDROGEN") A1

"LENGTH CORR. FOR TEMP.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
ONE PARK AVE. NEW YORK 16, N.Y.
FFW
APR 29 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x22" HOLES.

MATERIAL: {SHAPES-T1 / PLATES-A517} PREFIXED "t"; {ASTM-A36 / NO PREFIX}
RIVETS OR BOLTS — 1"ϕ
OPEN HOLES — 1 1/16ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT — 1 CT RED LEAD U.N.

BOTTOM CHORD MEMBER BETWEEN (L4) & (L5)

REVISION NO.	DATE	INIT.
D3	4-21	CD
S2	2-24	MTC
A1	2-18	CAD

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY W.B. DATE 12-8-69 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 12-16-69 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 224BB

25433 (Rev. A 1-67)

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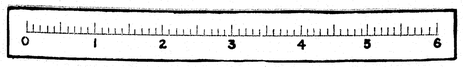
s			
t			
w			
y			

For location of details shown on this sheet refer to diagrams.
E8 & E12

120-185 NC TAPE



MARK NS FACE INSIDE

ka Kc aa Kd

5 5-HSB1"ϕ x 4¾ 5-HW

tf-N.S. 80-HSB1"ϕ x 5 80 HW

tg-F.S. 86-HSB1"ϕ x 5 86-HW

A2 tA6-N.S.&F.S. 4-SB1"ϕx2½

tt-N.S.&F.S. 4-SB1"ϕx2½

tw-N.S.&F.S. 4-SB1"ϕx2½

Ty-N.S.&F.S. 4-SB1"ϕx2½

BEND LINE FOR FULL CTOP

tpR SEE DET. 2-SB1"ϕx5½

tkR

A3

A4 (See Note "A") 12 tf-4 tg

MILL

L3

L4

W.P.

14@4=4'-8

20@4=6'-8

42'-2 1/16 W.P. TO W.P.

BOTTOM CHORD-225AR (L3 TO L4)

SEC. "C-C"

SEC. "D-D"

DET. "A" (TYP.)

DETAIL OF Pt Ka & Kb

DET OF ANGLE tpR

BOTT. CHORD Pt L3 TO L4

A4 (NOTE "A"

MILLED EDGE OF GUSSET PLATE TO BE FLUSH WITH BOX SECTIONS AT POINT "L4" AFTER SHOP ASSEMBLY.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
PFW
SEP 10 1970

For location of details shown on this sheet refer to diagrams.
E8 | E12

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHT 225BB

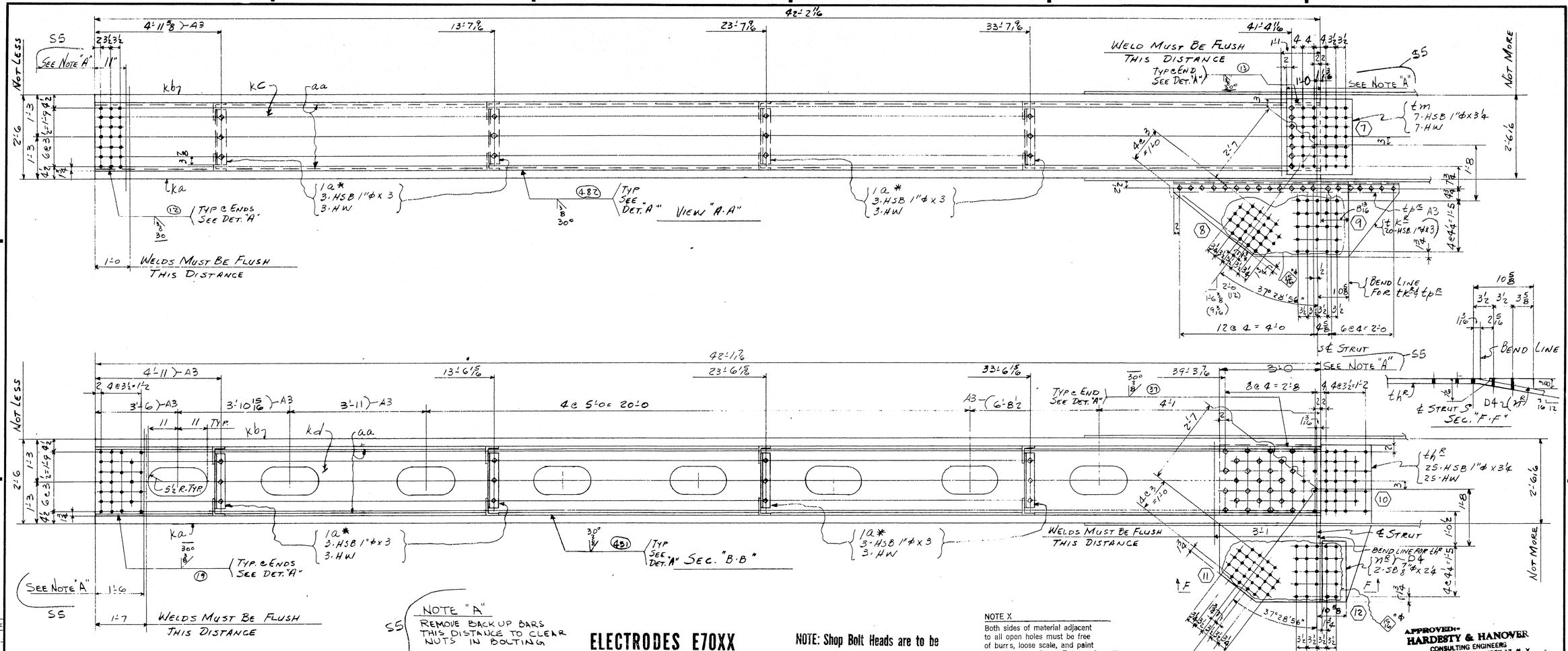
NO.	DATE	INIT.	REVISION
4	3-19	PS	
4	2-9	PS	
E	1-20	PS	

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY ET DATE 12-10-69 IN CHARGE L.G.
CHECKED BY PS DATE 1-16-70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 225AB

120-186 NC TAPE



PIECE MARK	ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	Bottom Chords 2-225A & 2-225A													
(2)	2	k a	4	PL	36		2 3/4	42	2 11/16	MZE TZW			42	5		50	04
(2)	3	k b	4	PL	36		2 3/4	42	2 11/16	MZE TZW			42	5		50	04
(M)	4	k c	4	PL	23 3/4		1	42	2 11/16	MZE TZW	24 1/2		42	5		50	05
(M)	5	k d	4	PL	23 3/4		1	42	1 7/16	MZE TZW	24 1/2		42	5		50	05
	6	t f	4	PL	10 1/2		3/4	12	3	MIW			24	6 1/4		62	10
	7	t g	4	PL	10 1/2		3/4	12	3	MIW			24	6 1/4		62	10
	8	t kR 3/4	3	PL	54		3/4	4	6 1/4				18	1		62	02
	9	t kR 3/4	3	PL	25 1/2		5/8	6	8 5/8				25	9		62	04
	10	t m	4	PL	27		3/4	1	11	BENT			30	0		68	05
D4		m8 3/4	2	PL	8 7/8		3/8	1	8 1/2	BEVELED FILL			1	9		67	09
	12	t pL 3/4	2	L	8	8	7/8	6	8 5/8	BENT (CUT TO L x 4')			6	10		99	01
	13	S	32	L	6	4	1/2	2	8				40	0		61	06
	14	1a*	32	L	6	3 1/4	1/2	1	9 3/4				40	0		61	08
	15	t s	8	L	4	4	1/2	3	3				99	02			
	16	t W	8	L	4	4	1/2	2	4 1/4				99	04			
	17	t y	8	L	4	4	1/2	2	11 1/2				99	03			
	18	aa	16	BR	1		5/8	43	0				61	11			
	19	t ab	8	L	4	4	1/2	2	1								
	20																
	21																

22													
23													
24													
25	A3												AM21
26		176	325	1 ϕ			0	3					AM14
27		160	325	1 ϕ			0	4 3/4					AM14
28		664	325	1 ϕ			0	5					AM12
29		128	325	1 ϕ			0	3 1/4					AM12
30	A2	64	MB	1 ϕ			0	2 1/2	RHN, RHN, SB				AM12
31		8	MB	7/8 ϕ			0	2 1/2	RHN, RHN, SB				AM22
32		1128	HW	2" ϕ	1 1/16	3/16							
33		8	MB	7/8 ϕ			0	5 1/2	RHN, RHN, SB				AM22
34									A3				
35													
36													
37	FW	4	WD			5/16	25	4					
38	B30	4	WD			1	169	0					
39													
40													
41													
42													
43													
44													
45													

46													
47													
48													
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66													
67													
68													
69													

		1	1	2	Bottom Chord	225A
		1	1	2	" "	225AR
M3	H3	NO.			DESCRIPTION	MARK
		INSIDE A3				

REMARKS

8'-6 5-OR 4 2-0

REVISION NO.	DATE	INIT.
5	7/13	RP
4	3-2	JPS
3	2-19	JPS
2	2-9	JPS
1	1-26	JPS

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

1'-0 ℄ s ka & kb MUST NOT PROJECT ABOVE ℄ kc

A.L. NOT LESS

2'-6 | 1'-3 | 1'-3 | 2⅜

kb

ka

kc

(1*) (11*)

(12) TYP @ END SEE "B-B"

30°

2 | 3½ | 3½ | 2

5'-11 5/16

30° (48) TYP

FLUSH WHERE NOTED

1"

n OR P

2⅝ | 2⅝

1"

15'-5 5/16

24'-11 5/16

3@9'-6 = 28'-6

SEC - "B-B" TYP @ CORNERS (WELD DETAIL)

2-HSB^S 1"ϕ x 4½
2-HW

TYP (19)

5/16 NOT LESS

2'-6

12 | 10½

0°59'-16

5/16 MILL D3

ka-N.S. kb-F.S.

n-N.S. & F.S.

A1

3/8 (TYP)

3'-0

1'-6 | 1'-6

1'-5½

1a* | 1aa*

kb

C

ka

1a*

SEC - "A-A"

2-HSB^S 1"ϕ x 3
2-HW

p-N.S. & F.S. (12)

24

18@3½ = 5'-3

5¾

2⅜

A1

MARK N.S. FACE INSIDE

15'-5

24'-11

42'-0⅞ W.P. TO W.P.

TRUSS CHORD - 226A^R (L2-L3)

5/16

A2 NOT LESS

2'-6 | 1'-3 | 1'-3 | 2⅝

kb

(11*)

5 stud (TYP)

5½ | 5½ TYP

ka

kd

30° (44B) TYP

SEC - "C-C"

TYP @ END SEE SEC - "B-B" (℄ kd)

30° (19)

2 @ 3½ = 1'-2

2'-2 3/16 | 2'-4½ | 5'-10 11/16 | 2'-4½ | 4'-9 | 15'-4 11/16 | 2'-4½ | 2'-4½ | 4'-9 | 2'-4½ | 2'-4½ | 24'-10 1/16

3'-6 3/16

7@4'-9 = 33'-3

BOTTOM CHORD MEMBER AT POINT L2 TO L3

1'-7

℄ s ka & kb MUST NOT PROJECT BELOW ℄ kd

MATERIAL —
BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE SHT.* 226BB

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY PFW
APR 7 1970

NO.	DATE	INT.
D3	3-25	VET
A2	3-2	VET
A1	2/11	RP

REVISION

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

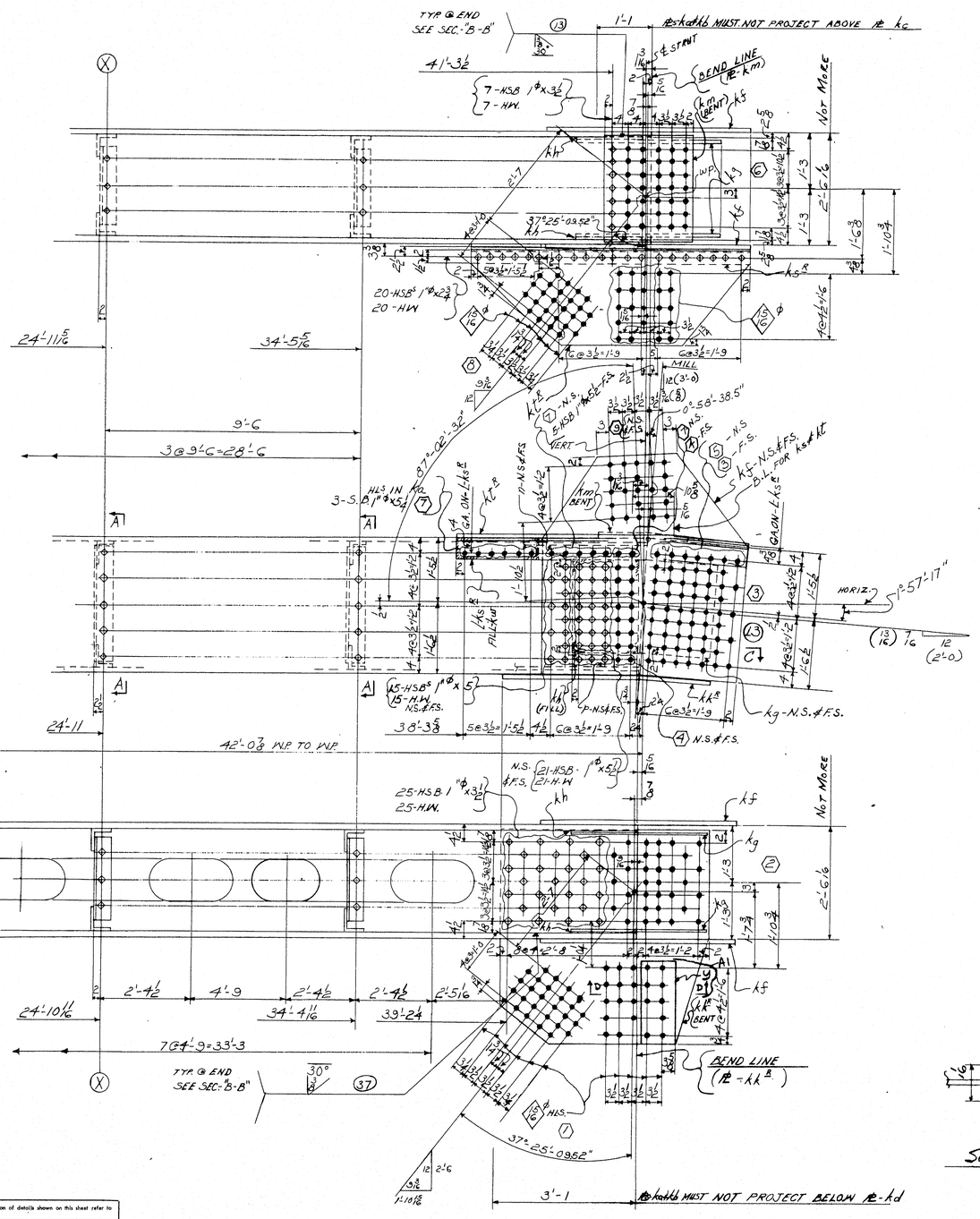
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CWGO WORKS
MADE BY TJB DATE 12-17-69 IN CHARGE L.G.
CHECKED BY ET DATE 1-5-70 SHOP NO.
CONTRACT CGC290-060 DRAWING NO. 226AB

For location of details shown on this sheet refer to diagrams.
L8 ℄ E12

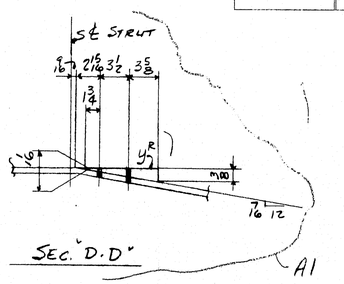
120-188 NC, TAPE

0 1 2 3 4 5 6



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

E8 & E12



			NO.	DESCRIPTION	MARK	REMARKS
M3	H3	D3	INST.	REQUIRED LIST		
/	/		2	TRUSS CHORD 4 L's 6"x4"x 3/8 22GA ℄		
/	/		2	22GA ℄		

ELECTRODES E 70XX
LOW HYDROGEN

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 22x11 PERFORATIONS

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

SHOP BILL

PIECE MARK	NO. OF PCS.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	TRUSS CHORDS-2-22GA ℄ & 2-22GA ℄						
(2)	2	K.a	4	PL	36		25/8	42	1½	M2E, T2W
(2)	3	K.b	4	PL	36		25/8	42	1½	M2E, T2W
(M)	4	K.c	4	PL	24		1	42	1½	M2E, T2W
(M)	5	K.d	4	PL	24		1	42	0¼	M2E, T2W
	6	K.f	8	PL	5¼		7/8	4	11¼	
	7	K.g	8	PL	25¾		1/2	3	1	
	8	K.h	8	PL	25		1/8	1	5¾	FILL
	9	K.k ℄	52	PL	54		1	4	7	BENT
	10	K.m	4	PL	27		1	1	11	BENT
	11	n	8	BR	1		5/8	43	1½	BACKUP BAR
	12	P	8	BR	1		5/8	43	0¼	BACKUP BAR
	13	K.s ℄	22	L	6	4	5/8	6	1	BENT
	14	K.t ℄	52	PL	26⅛		5/8	6	1	BENT
	15	K.w	4	BR	6		7/8	1	9½	FILL
	16	1a *	32	L	6	3½	1/2	1	9¾	
	17	1aa *	32	L	6	4	1/2	2	7½	
	18	y ℔	52	PL	8⅞		3/8	1	9½	FILL 3/8 x 1/16 A1
	19		160	325	1"ø			0	4½	
	20		96	325	1"ø			0	3	
	21		188	325	1"ø			0	5½	
	22		80	325	1"ø			0	2¾	
	23		128	325	1"ø			0	3½	
	24		120	325	1"ø			0	5	
	25		772	HW	2 O.D. 1/16 I.D.		3/16			
	26									
	27									
	28									
	29	B30	4	WD			1	168	0	
	30	FW	4	WD			5/16	25	4	
	31									
	32									
	33		12	M.B.	1"ø			0	5¼	AHH, RHN S.B.

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					49	04
					49	04
					49	05
					49	05
					87	12
					87	15
					87	11
					87	11
					61	11
					61	11
					87	10
					87	14
					87	13
					61	08
					61	06
					AM21	
					AM21	
					AM12	
					AM21	
					AM12	
					AM12	
					AM12	

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

FFW

MAR 12 1970

MAT'L PREFIXED WITH THE LETTER-k TO BE A588 ALL OTHER

BOTTOM CHORD MEMBER AT POINT- L2 TO L3

MATERIAL — TO BE A.S.T.M.-A36
BOLTS — 1"ø
OPEN HOLES — 1/16 ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES — N.P.
WELDING-AS NOTED
PAINT — 1 CT. U.N. (SEE NOTE "X")

NO.	DATE	INIT.
D	8-29	ET
D2	3-3	ET
A1	2-17	ET

REVISION

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

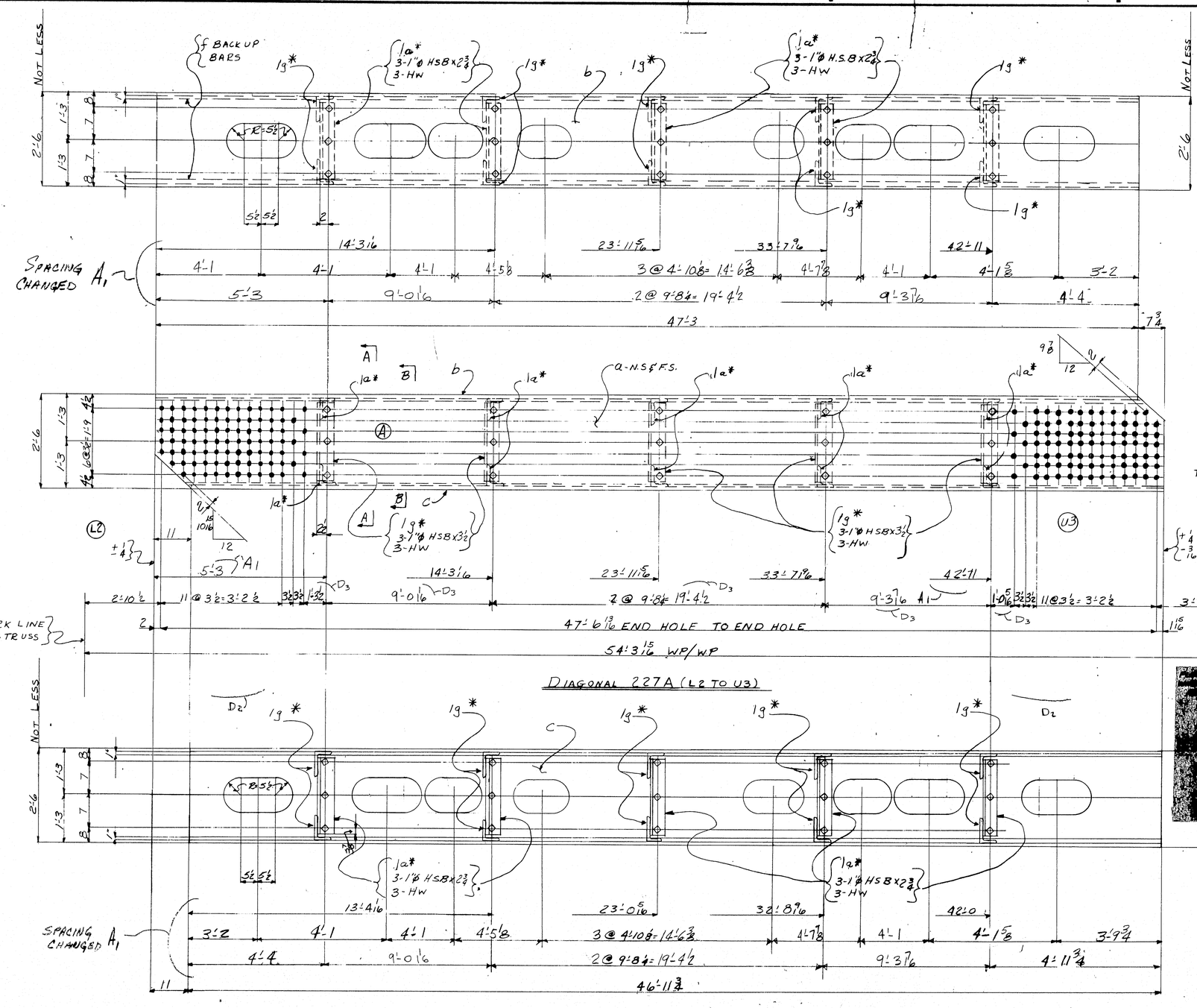
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO WORKS
MADE BY NP DATE 12-17-69 IN CHARGE L.G.
CHECKED BY ET DATE 1-5-70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 22588

35435 (Rev.D 8-69)

120-189 NC TAPE



SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS
		4	DIAGONALS 227A						
(2)	a	8	R	30		1 1/2	47	10 3/4	T2W
(M) 3	b	4	R	26 1/4		5/8	47	3	T2W
(M)	c	4	R	26 1/4		1/2	46	11 3/4	T2W
5	a*	40	L	6	3 1/2	1/2	1	9 3/4	
6	f	16	BR	1		5/8	49	0	BACK UP BAR
7	1g*	40	L	6	4	1/2	2	1	
8									
9									
10									
11									
12		120	325	1"ø			0	2 3/4	
13		120	325	1"ø			0	3 1/2	
14		240	HW	2"ø	1 1/16	3/16			
15		FW	4	WD		5/16	25	0	
16		B30	4	WD		7/8	188	5	
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MILL ORDER

WIDTH	THICK	LENGTH FT	LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
					60	06
					60	07
					60	07
					61	08
					61	11
					61	04
					AM	21
					AM	21
					AM	21

DIAGONAL FROM L2 TO U3

2	2	4	DIAGONAL	227A	2½x2½x4Hi
M2	L2	NO.	DESCRIPTION	MARK	REMARKS

INST REQUIRED LIST

NOTE: X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT PERFS.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface.

ELECTRODES E70XX
LOW HYDROGEN

E85 E12

MATERIAL	A-36
RIVETS OR BOLTS	1"ø UN
OPEN HOLES	1/16 UN
A325 FIELD BOLTS	1"ø UN.
SHOP CONTACT SURFACES	N.P.
WELDING AS NOTED	
PAINT	1 CT U.N.

NO.	DATE	INIT.	REVISION
D3	7-9	JM	
D2	7-6	JM	
A1	4-29	JM	

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY BH DATE 12-9-69 IN CHARGE LAG
CHECKED BY LM DATE 1-7-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 227

120-190 (NC TAPE)

E6

STENCIL F.S. FACE LETTERS TO BE HORIZONTAL

MILL

WP

laa*-NS & FS

a-NS & FS

OPEN HOLES - NS
SHOP BOLTS - FS

d-NS & FS
89-HSB 1"ϕ×4-NS
100-HSB 1"ϕ×4-FS
189-HW

℄ STRUT

BEND LINE f^R & g^R

13@3½=3'-9½ W.P. (SEE DET "A")

14@3½=4'-1

6@3½=1'-9

10@3½=2'-11

12@3½=3'-6

MILL B^R d (SEE NOTE "A")

f^R-NS 2-SB⅞ϕ×4

4@7=2'-4

4 8@3½=2'-4

42'-0⅛ WP/WP

L1 — L2

BOTTOM CHORD - 228A^R (L1-L2)

2-HSB 1"ϕ×3
2-HW

DET. X

2-HSB 1"ϕ×2¾
2-HW

SEC. "C-C"

TYP ALL CORNERS FLUSH WHERE REQ'D

BACKUP BAR aa

DETAIL "X"

BEND LINE

TOP OF B^R

SEC. "D-D"

DETAIL "A"

A8 (NOTE A)

MILLED EDGE OF GUSSET PLATE TO BE FLUSH WITH BOX SECTIONS AT POINT "L2" AFTER SHOP ASSEMBLY.

ELECTRODES E70XX
LOW HYDROGEN

NOTE: Shop Bolt Holes ... On Outside ...

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

FFW

LENGTH CORRECTED FOR TEMPERATURE

SEP 10 1970

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE SHT #228BB

NO.	DATE	REVISION
A6	9/4	LG
D3	7/29	LG
E5	5/22	RP
D2	4/17	RP
D1	4/13	RP
A5	3/30	RP
A4	2/11	RP
D1	1-27	RP

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY W.B. DATE 12-12-69 IN CHARGE L.G.
CHECKED BY RP DATE 1-12-70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 228AB

NC TAPE 120-19 D9

For location of details shown on this sheet refer to diagrams.
E8 & E12

VIEW "A-A"

SEC. "B-B"

SEC. "F-F"

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

EB & E12

PROJECT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	-BOTTOM CHORDS -Z-228AR & Z-228AL													
(2)	2	a	8	PL	36		1⅛	42	0½	MIE & T2W			42	4		61	1
(M)	3	b	4	PL	27		¾	42	0½	MIE & T2W			42	4		61	2
(M)	4	c	3	PL	27		¾	41	11⅝	MIE&T2W-228A1)			42	4		61	2
	5	d	8	PL	86½		1⅜	12	7	MIE) D1			12	7		73	1
	6	f^R	2	L	6	4	¾	5	11¾	BENT			6	0		73	5
	7	g^R	2	PL	26¼		¾	5	11¾	BENT			6	0		73	3
	8	h	4	PL	27		¾	1	10	BENT			1	10½		73	4
	9	k^R	2	PL	52		¾	5	0	BENT S2) A3			4	9		73	2
	10	(											1	9½		73	6
	11	aa	16	BR	1		⅝	43	0	BACK UP BAR			43	4		61	3
S5 (M)	12	cx	1	PL	27		¾	41	1H	M2E&T2W FOR 228A43							
	13	la*	32	L	6	3½	½	1	9¾				2	2		61	5
	14	laa*	32	L	6	4	½	2	7½				2	8		61	4
	15																
	16																
	17																
	18		96	325	1			0	2¾							AM14	
	19		368	325	1			0	3							AM14 #21	
	20																
	21		156	325	1			0	4							AM14 #21	

22	1220 HW	2	1⅛	3/16	) A3					AM14	46
23	(									AM22	47
24	B MB	7/8			0	4¼	RHH & RHN (SB)			AM22	48
25											49
26											50
27	FW	4	WD	5/16	20	0					51
28	B30	4	WD	3/4	168	0					52
29											53
30											54
31											55
32											56
33											57
34											58
35											59
36											60
37											61
38											62
39											63
40											64
41											65
42											66
43											67
44											68
45											69

MK		NO.	DESCRIPTION	MARK	REMARKS
	1	1	do	228A43	
S5	1	2	BOT. CHORD 7'-4"x5'-0"x47'-9	228AR	7'-3"x5'-0"x47'-9
	1	1	⊥	228AL	⊥

INST. D7 — REQUIRED LIST

MATERIAL — ASTM-A36
RIVETS OR BOLTS — 1" ϕ U.N.
OPEN HOLES — 1/16" ϕ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING — AS NOTED
PAINT — 1 CT. RED LEAD U.N.

REVISION NO.	DATE	INIT.
D	8/71	RP
P2	7/19	LG
S2	7/9	LG
A	9/17	RP
A3	9/20	RP
S3	9/16	RP
D1	1-27	RP

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

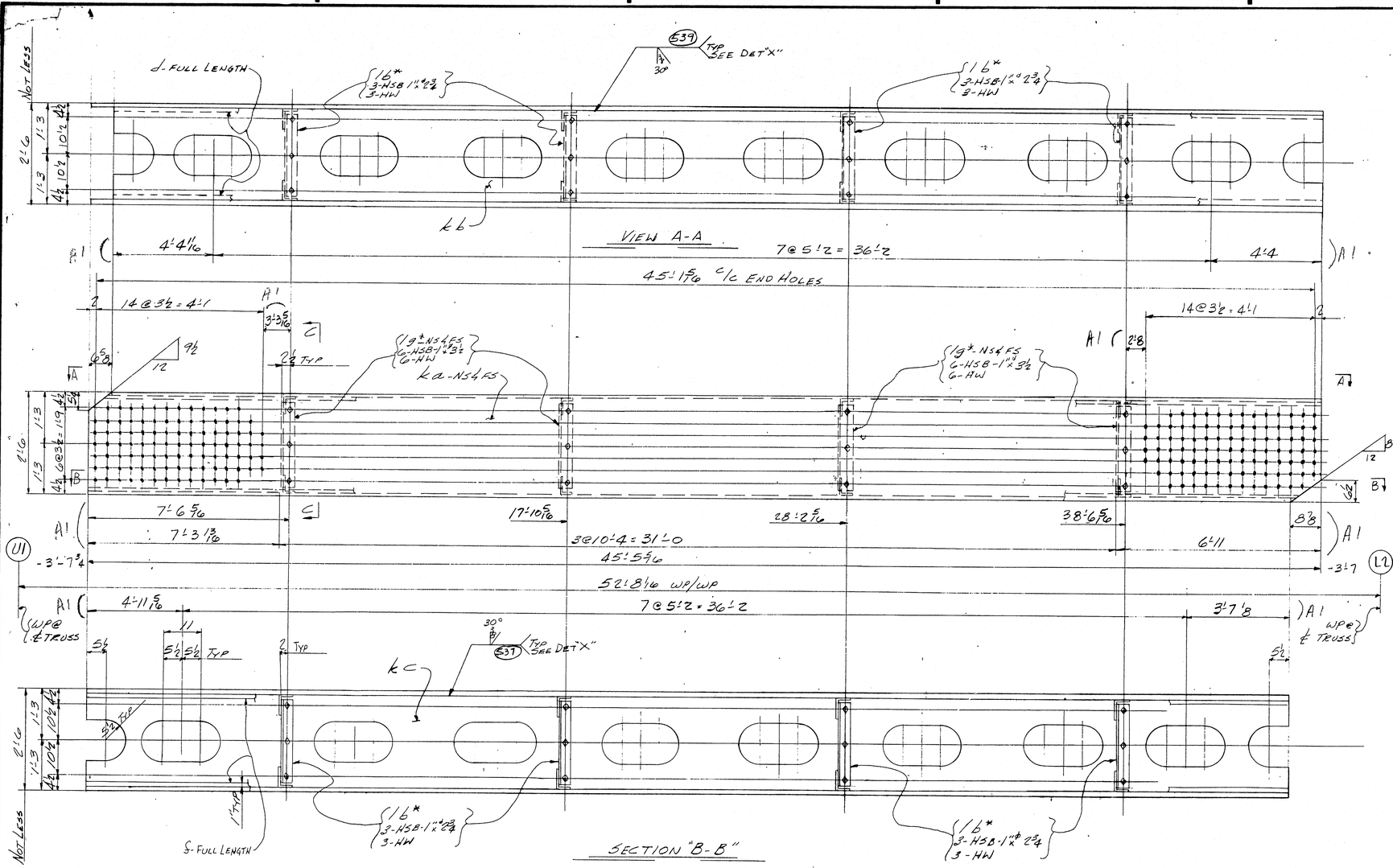
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY N.B. DATE 12-12-68 IN CHARGE L. G.
CHECKED BY RP DATE 1-17-70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 228BB

APPROVED: HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
JUL 14 1970

120-192 NC TAPE D6

0 1 2 3 4 5 6



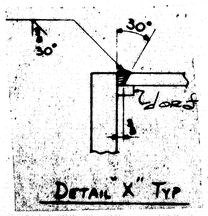
			SHOP BILL								WILL ORDER		
PIECE MARK	NO.	ALTERN. MARK	MAT'L	SECTION OR SIZE OF POUNDS	THICK	LENGTH FT	IN	REMARKS	WIDTH	THICK	LENGTH FT	IN	TOT. WT.
		4-DIAGONALS-229A											
(U1)	4	a	PL	30	1 1/2	45	5 5/16	T2W					54 4
(M)	4	b	PL	26 1/8	7/8	44	10 1/16	T2W					54 5
(M)	4	c	PL	26 1/4	7/8	44	8 9/16	T2W					54 5
	8	d	BR	1	5/8	45	10	BACK UP BAR					61 11
	8	½	BR	1	5/8	45	8	BACK UP BAR					61 11
	16*	b	32 L	6 3 1/2	1/2	2	0 1/2						61 8
	19*	c	32 L	6 4	1/2	2	1						61 6
			96 325	1" ø		0	8 3/4						AM14
			96 325	1" ø		0	3 1/2						AM14
			192 HW	2	1 1/16	3 1/16							AM14
		B30	4 WD		7/8	179	4						
		FW	4 WD		5/16	24	0						

ELECTRODES E70XX
(LOW HYDROGEN)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY PFW
FEB 20 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x22" HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface



"LENGTH CORR FOR TEMP"

2	2	4	DIAGONALS	229A	24"x26"x456
HI	MI	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST		

For location of details shown on this sheet refer to diagram.
E8&E12

MATERIAL (ASTM-A588-Prefix ok / ASTM-A36-No Prefix)
RIVETS OR BOLTS 1"ø
OPEN HOLES 1 1/16" UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1-CT RED LEAD UN. (SEE NOTE "X")

NO.	DATE	INIT.	REVISION
1	2/12/70	ET	

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 12-10-69 IN CHARGE L. GOTHBERG
CHECKED BY ET DATE 1-6-70 SHOP NO.
CONTRACT 66290-062 DRAWING NO. 229

23455 (8-70-D 8-69)

120-193 NG TAPE

NOT LESS (BOTH ENDS)

SEE DETAIL "X"

VIEW "A-A"

TRUSS DIAGONAL 230A (L0 to U1)

PART NOT SHOWN
OPP. HAND TO VIEW "A-A"

SECTION B-B

See Sht. 230BB

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

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

E8 & E12

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
505 PARK AVE. NEW YORK 17, N.Y.
FFW FEB 20 1970

TRUSS DIAG. L0 to U1

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

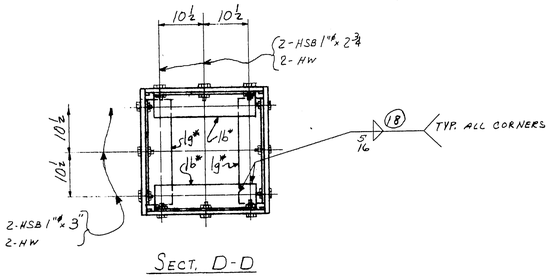
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY C.P.M. DATE 12-18-69 IN CHARGE L.A. GOTHBERG
CHECKED BY ET DATE 1-8-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 230AB

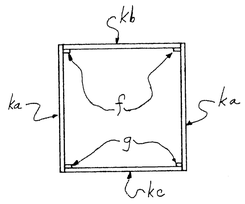
NO.	DATE	INIT.	REVISION
1	2/12	70 ET	

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

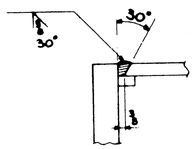
120-194 NC TAPE



SECT. D-D



SECT. "C-C"



DETAIL "X" TYP

NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 22x11 PERFORATIONS

LENGTH CORR. FOR TEMP.

On Outside (Exposed) Surfaces

ELECTRODES E70XX
LOW HYDROGEN

INST	MI	HI	NO.	DESCRIPTION	MARK	REMARKS
		2	2	4 TRUSS DIAG.	230A	2-7x2-7x44-9

REQUIRED LIST

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

E8 & E12

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		4	TRUSS DIAGONALS													
(2)	ka	8	PL	30		1 3/16	44	9 1/16	T2W	61		45	5		53	04
(11)	kb	4	PL	26 7/8		3/4	44	0 3/16	T2W	56¼		45	5		53	05
	f*	32	L	6	3½	½	2	0½				40	0		61	08
	g*	32	L	6	4	½	2	1				40	0		61	06
	p	8	BR	1		7/8	45	0				39/40	0		61	11
(11)	kc	4	PL	26 7/8		3/4	44	0 1/16	T2W			45	0		53	05
	g	8	BR	1		5/8	45	1				39/40	0		61	11
	FW	4	WD			5/16	24	0								
	B30	4	WD			3/4	176	2								
		96	325	1"ø			0	2-3/4							AM	21
		96	375	1"ø			0	3							AM	21
		192	HW	2	1 1/16	3/16									AM	21

MATERIAL PREFIXED "k" = A588 STEEL
BALANCE = A36 STEEL

MATERIAL ASTM-A36 U.N.
RIVETS OR BOLTS 1"ø
OPEN HOLES 1 1/16"
A325 FIELD BOLTS 1"
SHOP CONTACT SURFACES N.P.
WELDING: AS NOTED
PAINT 1-CT. U.N. SEE NOTE "X"

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW
FEB 6 1970

TRUSS DIAGANAL LO TO U1

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

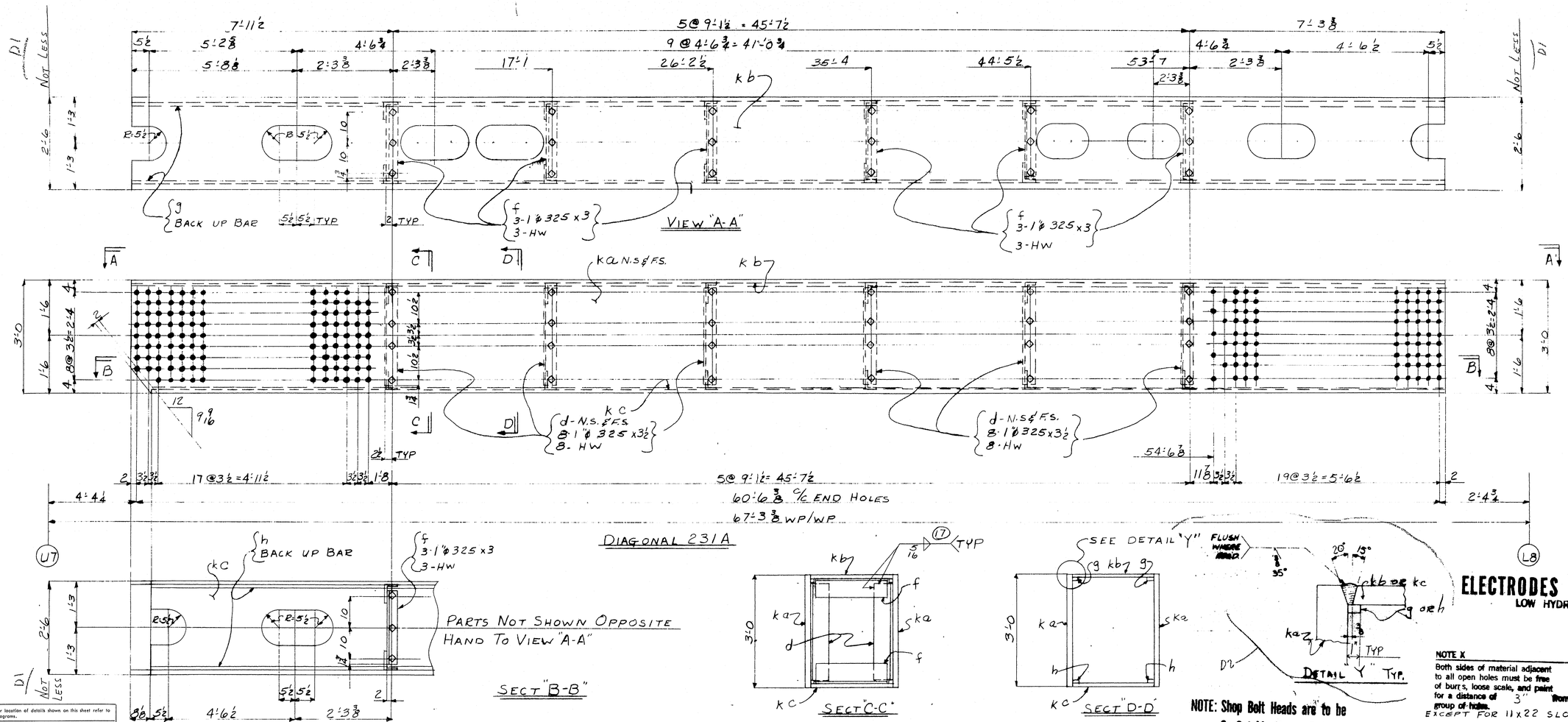
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE 12-18-69 IN CHARGE G.A. GOTHBERG
CHECKED BY ET DATE 1-8-70 SHOP NO.
CONTRACT CG 6290-062 DRAWING NO. 230 BB

REVISION: NO. | DATE | INIT.

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

35623 (Rev.D 8-69)

120-195 NC TAPE



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

E9 & E11

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.

EXCEPT FOR 11/16 x 22 SLOT HOLES

LENGTH CORR. FOR TEMP.

ELECTRODES E70XX
LOW HYDROGEN

SHOP BILL / MILL ORDER

PIECE MARK	SET-UP	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		3	DIAGONALS - 231A													
(2)	2	k a	6	PL	36		1⅝	60	10⅜							139	01
(M)	3	k b	3	PL	26		1⅛	60	10⅛							139	02
(M)	4	k c	3	PL	26		1⅛	60	2¼							139	02
	5	d	36	L	6	4	½	2	7½							145	06
	6	f	36	L	6	3½	½	1	11½							145	05
	7	g	6	BR	1		⅝	61	10⅛							142	14
	8	h	6	BR	1		⅝	61	2¼							142	14
	9																
	10																
	11																
	12		108	325	1"ϕ			0	3							AM	21
	13		144	325	1"ϕ			0	3½							AM	21
	14		252	HW	2"ϕ	1 1/16"ϕ	3/16									AM	21
	15																
	16																
	17	FW	3	WD			5/16	34	0								
	18	T30B	3	WD			1⅛	242	1								
	19																
	20																
	21																

INST.	M8	H8	NO.	DESCRIPTION	MARK	REMARKS
		1	2	3 DIAGONAL	231A	3'-0 x 2'-6 x 67'-3⅜

REQUIRED LIST

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

NOV 23 1970

MATERIAL: A588 Prefix k; A36 No Prefix
BOLTS 1⅛ϕ
OPEN HOLES 1 11/16"ϕ
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.R
WELDING AS NOTED
PAINT 1-SHOP COAT RED LEAD AASHO-M72 TYPE II U.N SEE NOTE "X"

DIAGONAL U7 TO L8 & U7' TO L8'

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

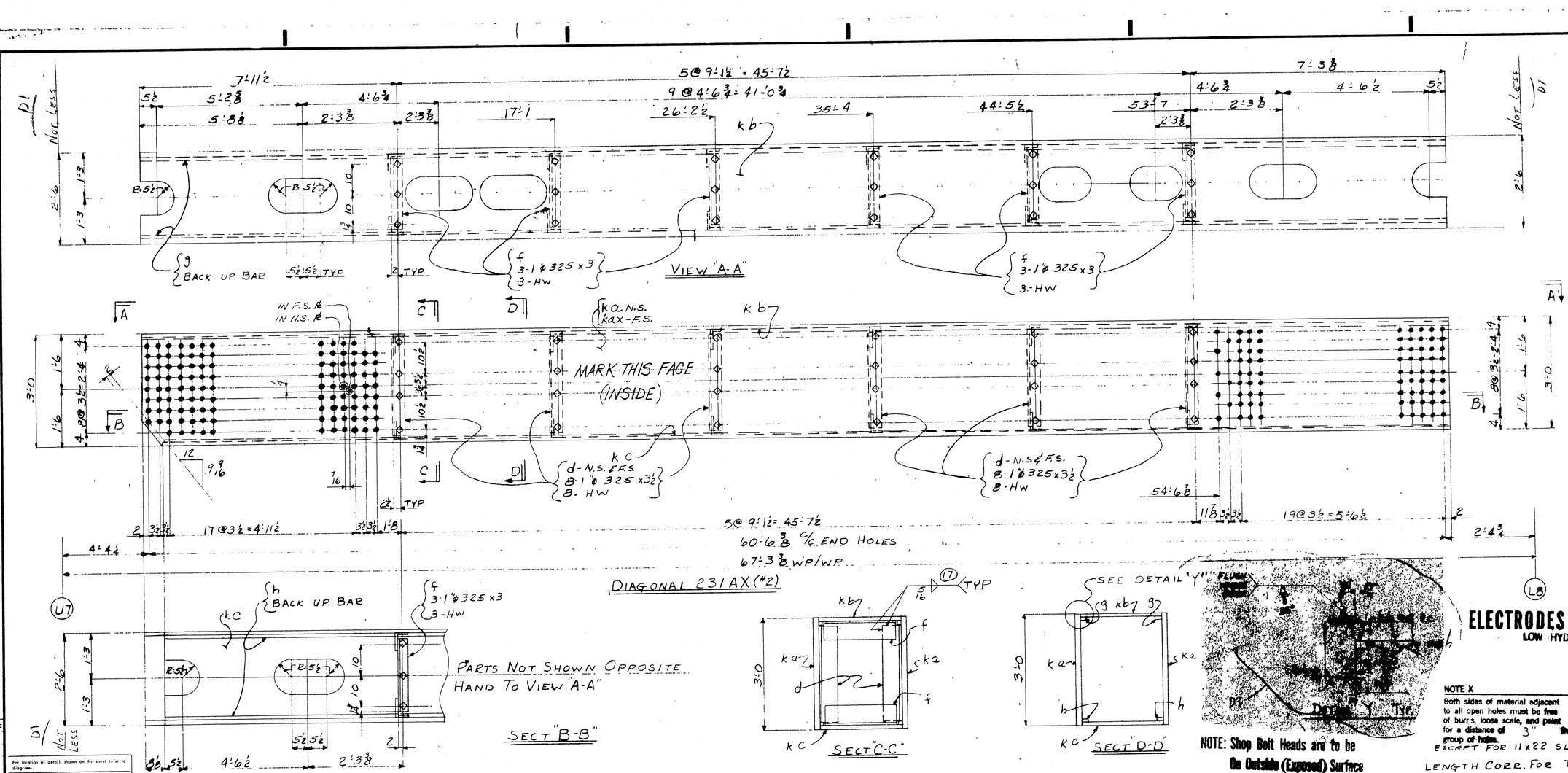
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY BE DATE 1-28-70 IN CHARGE LAG
CHECKED BY EC DATE 2-6-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 231

NO.	DATE	INIT.	REVISION
S5	11/6	LAG	
D2	6/2	CD	
D1	5/20	KH	

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

35043 (Rev.E 8-69)

120-196 (NC TAPE)



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

E9 & E11

SHOP BILL

PIECE MARK	ITEM NO.	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN	REMARKS
	1		1	DIAGONAL - 231AX(#2)						
(2)	2	k a	1	PL	36		1⅛	60	10⅜	
(M)	3	k b	1	PL	26		1⅛	60	10⅜	
(M)	4	k c	1	PL	26		1⅛	60	2¼	
	5	d	12	L	6	4	½	2	7½	
	6	f	12	L	6	3½	½	1	11½	
	7	g	2	BR	1		⅝	161	10⅜	
	8	h	2	BR	1		⅝	61	2¼	
	9									
2	10	kax	1	PL	36		1⅝	60	10⅜	
	11									
	12		36	325	1"ϕ			0	3	
	13		48	325	1"ϕ			0	3½	
	14		84	HW	2"ϕ 1⅛"ϕ		3/16			
	15									
	16									
	17	Fw	1	WD			5/16	34	0	
	18	T30B	1	WD			1⅛	242	1	
	19									
	20									
	21									

MILL ORDER

WIDTH	THICK	LENGTH FT	LENGTH IN	STOCK	ITEM PAGE	ITEM LINE
					139	01
					139	02
					139	02
					145	06
					145	05
					142	14
					142	14
					AM	21
					AM	21
					AM	21

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS 666 THIRD AVE. NEW YORK 17, N.Y.

FFW

NOV 23 1970

A588 Prefix k
A36 No Prefix

MATERIAL
BOLTS 1"ϕ
OPEN HOLES 1 1/16"ϕ
A325 FIELD BOLTS
SHOP CONTACT SURFACE N.P.
WELDING AS NOTED
PAINT 1-SHOP COAT RED LEAD AASHO-M72 TYPE II U.N SEE NOTE "X"

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

ELECTRODES E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes.
EXCEPT FOR 11x22 SLOT HOLES

LENGTH CORR. FOR TEMP.

INST	NO.	DESCRIPTION	MARK	REMARKS
	1	DIAGONAL	231AX(#2)	30x236W-C
	MB	REQUIRED LIST		

DIAGONAL U7 TO L8'

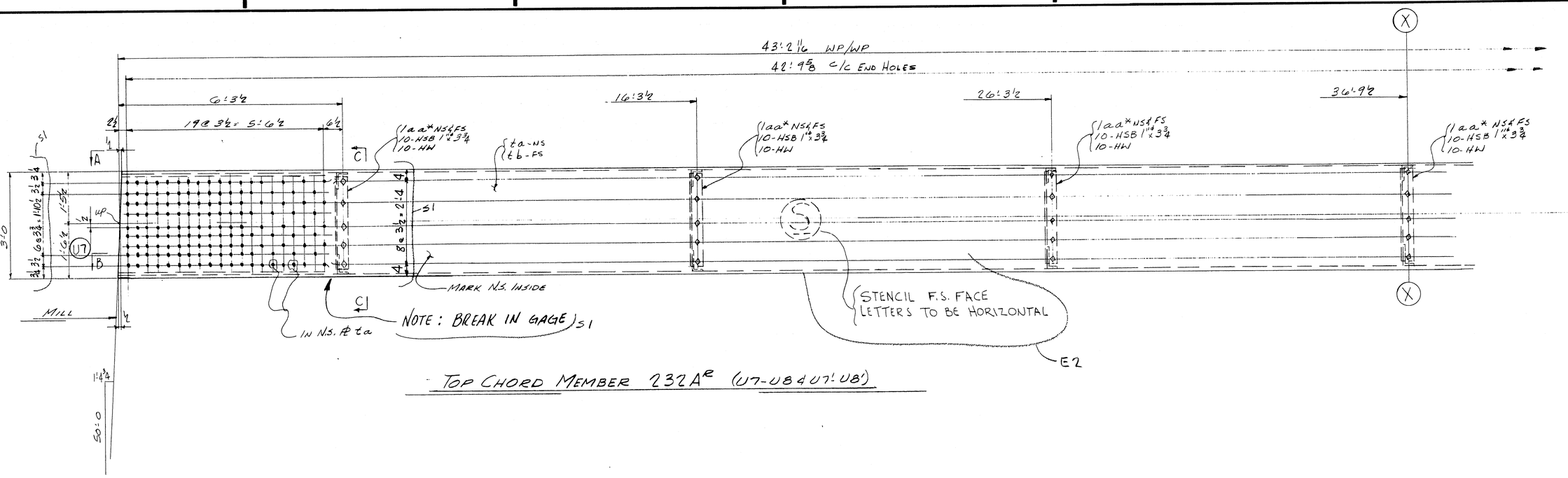
CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EG DATE 1-28-70 IN CHARGE LAG
CHECKED BY EGD DATE 2-6-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 231X

REVISION NO. DATE PRT. 1 6/1 CD 2 5/20 3 KLP

120-197 (NC TAPE)



TOP CHORD MEMBER 232A^{R} (U7-U8 & U7'-U8')

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
EOS BARK AVE. NEW YORK 17, N.Y.
FFW
JUN 2 1970

TOP CHORD MEMBER BETWEEN U7&U8, U7'&U8'

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

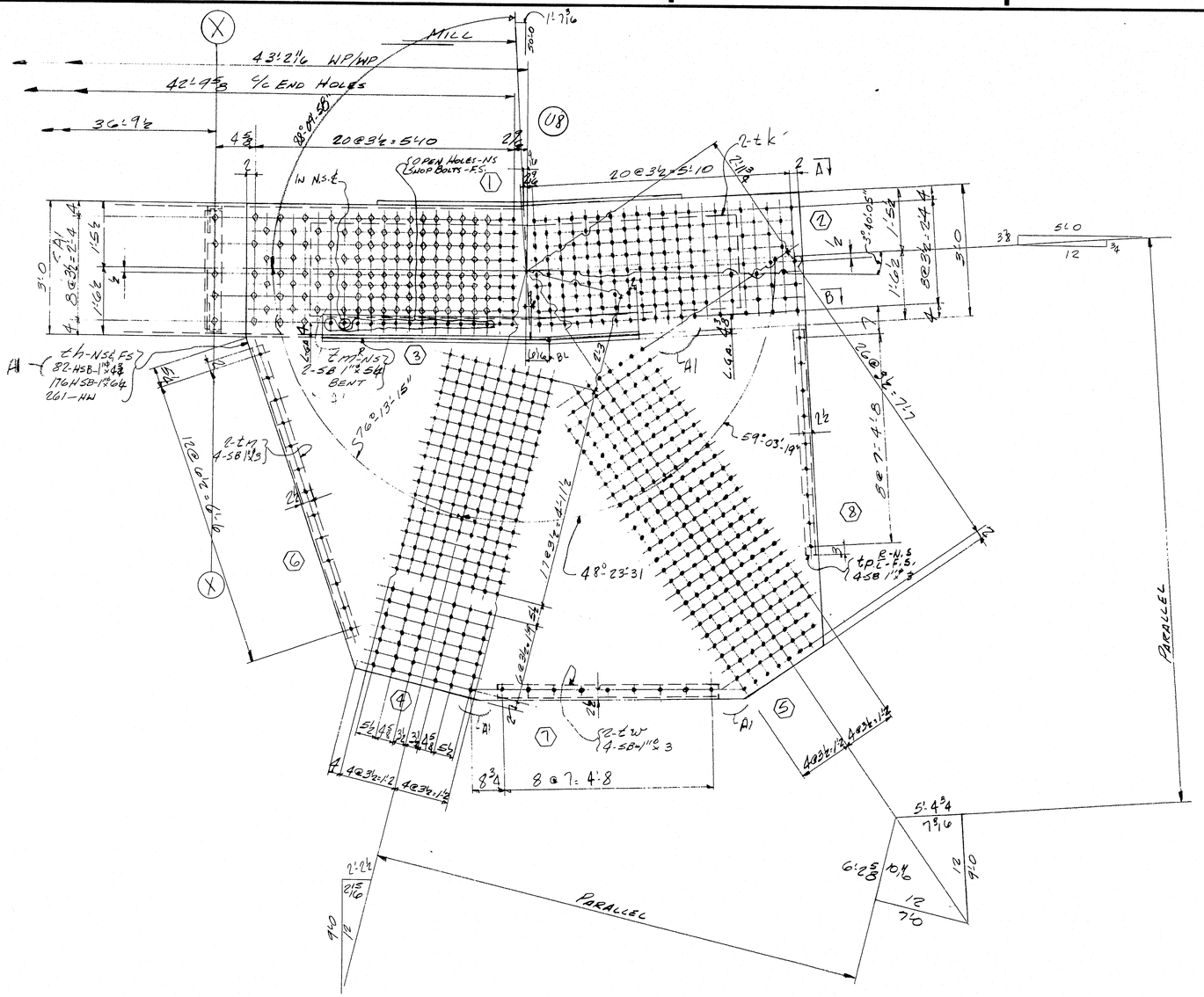
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-27-70 IN CHARGE L. GOTTBERG
CHECKED BY [illegible] DATE 2-19-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 232 AD

NO.	DATE	INIT.	REVISION
E2	5/22	RD	
E1	7/21	SKP	

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

120-198 NC TAPE



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

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

E94 E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
401 PARK AVE. NEW YORK 17, N.Y.
FFW
MAY 28 1970

TOP CHORD MEMBER BETWEEN U7-U8 & U7'-U8'

NO.	DATE	INIT.	REVISION
A 1	5-21	GJ	

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-28-70 IN CHARGE L. GOTHBERG
CHECKED BY GJ DATE 2-19-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 23280

120-199 NC TAPE

42'-9⅝ c/c END HOLES

12 @ 3½ = 3'-6

2½ | 1½ | 1'-3 | 42 @ 3½ = 12'-3 | 1'-3 | 2'-6 NOT LESS

1a* 3-HSB 1"x3 3-HW

td

g

h

TYP

(48) TYP @ END SEE DET "X"

(426) TYP SEE DET "X"

⅜ 30° G

VIEW "A-A"

W.L. 2

6'-3½ | 10'-3½ | 26'-3½ | 36'-9½ | 5'-9½ | D1

42'-11¾ c/c END HOLES

5 @ 5'-0 = 25'-0

3'-3 | 5'-2 | 3'-0

7 @ 3½ = 2'-0½

1½ | 1½ | 5½ | 5½ TYP | 2'-8 | 2'-6 | 5'-0 | 2'-6

1a* 3-HSB 1"x3 3-HW

g

8½ TYP

1" TYP

2" TYP

tc

G 30° ⅜ (50) TYP @ END SEE DET "X"

30° ⅜ (464) TYP SEE DET "X"

2'-6 NOT LESS | 1'-3 | 1'-3 | 42 @ 3½ = 12'-3

6'-1½ | 2 @ 10'-0 = 20'-0 | 10'-6 | D1 | 6'-7⅜ TO W.L.

SECTION "B-B"

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

FFW

JUL 30 1970

TOP CHORD MEMBER BETWEEN U7-U8 & U7'-U8'

NO.	DATE	BY	REVISION
D	7/21	PJ	

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE.

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-28-70 IN CHARGE L. GOTHBERG
CHECKED BY PJ DATE 8-19-70 SHOP NO.
CONTRACT C46290-0W DRAWING NO. 232CD

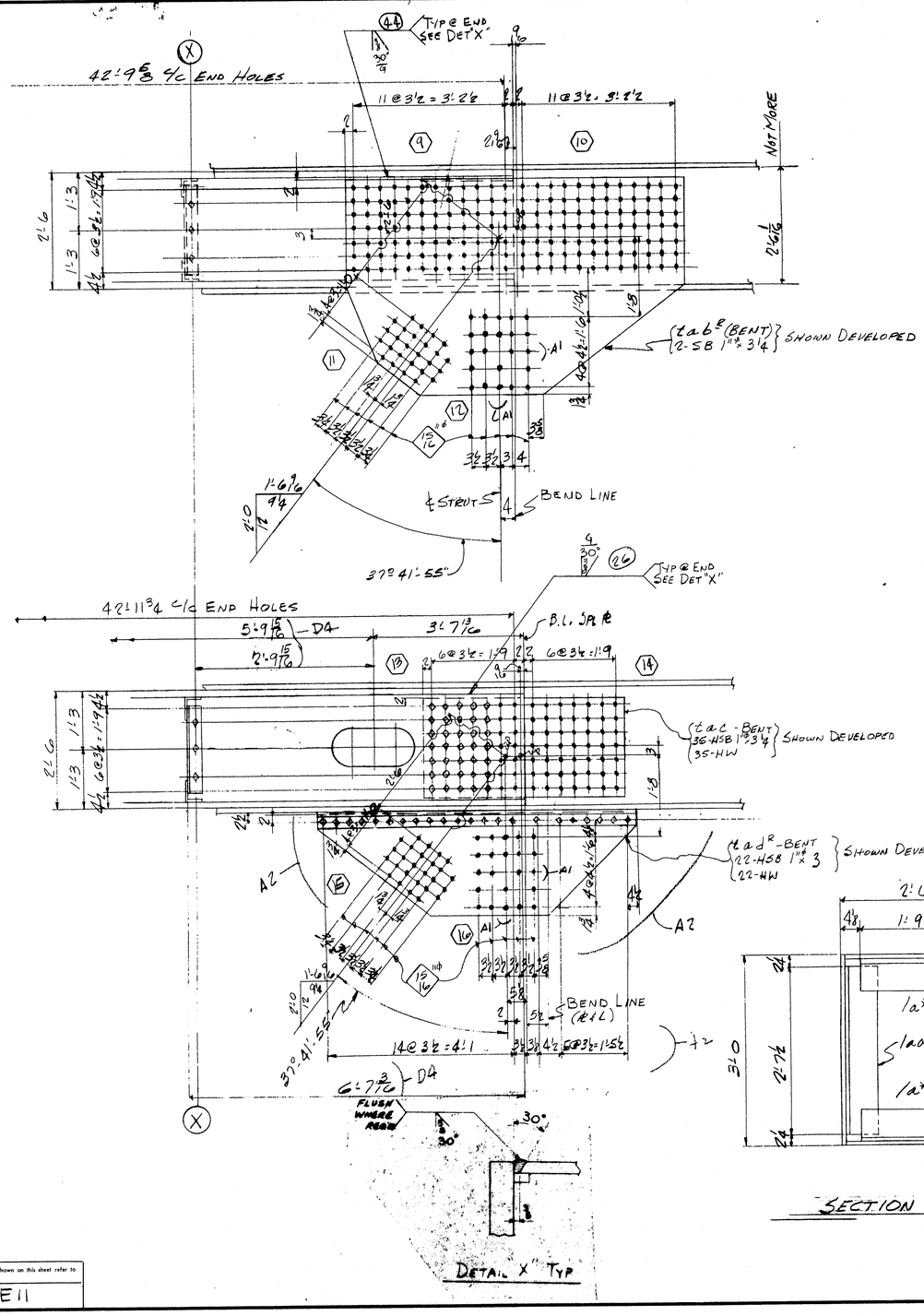
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

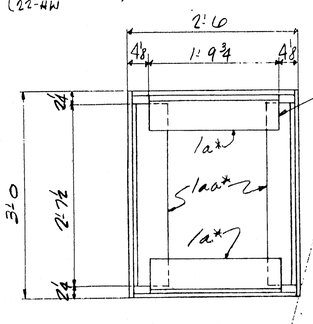
3AMX 71-A-91

For location of details shown on this sheet refer to diagrams.
E9 & E11

120-200 NC TAPE

0 1 2 3 4 5 6


42'-9 3/8 c/c END HOLES
11@3'-2 = 3'-8'-2
TYP @ END SEE DET "X"
NOT MORE
{t a b^E (BENT) 2-S8 1"# x 3'-3 1/4} SHOWN DEVELOPED
& STRUT
BEND LINE
37°41'-55"
42'-11 3/4 c/c END HOLES
B.L. SPLICE
{t a c - BENT 35-HS8 1"# x 3'-3 1/4 35-HW} SHOWN DEVELOPED
{t a d^R - BENT 22-HS8 1"# x 3 22-HW} SHOWN DEVELOPED
BEND LINE (R&L)
FLUSH WHERE REQ'D
DETAIL "X" TYP



SECTION "C-C"

ELECTRODES E110XX (UNLESS NOTED) LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT ACCESS HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

		1	1	TOP CHORD MEMBER	232AR	11"x5"x5/16	
		1	2		232AL		
M	H	NO.	DESCRIPTION	MARK	REMARKS		
INST.		REQUIRED LIST					

SHOP BILL — MILL ORDER

	ASSEMBLY MARK	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
1		3 - TOP CHORD MEMBERS 1-232AR & 2-232AL													
2	t a	3	PL	3/6		1 1/8	43	3 3/4	T2W-M2E			43	7	104	1
3	t b	3	PL	3/6		1 1/8	43	3 3/4	T2W-M2E			43	7	104	1
4	t c	3	PL	25 1/2		1	43	3 3/4	T2W-M2E			43	7	103	1
5	t d	3	PL	25 1/2		1	43	1 3/8	T2W-M2E			43	7	103	1
6	f	6	BR	1		5/8	44	3 3/4	BACK UP BARS			44	7	116	1
7	g	6	BR	1		5/8	44	1 3/8	BACK UP BARS			44	7	116	1
8	1a*	24	L	6	3 1/2	1	9 3/4							117	2
9	1aa*	24	L	6	4	1/2	2	7 1/2						117	1
10	t h	6	PL	13 1/2		1 3/8	13	2						157	1
11	t k	6	PL	7 9/16		1/2	9	7						157	9
12	t m^E	1/2	L	8	8	7/8	6	11 3/4	CUT 6X4 BENT					151	11
13	t n	6	L	4	4	1/2	6	10						150	1
14	t p^E	3/6	L	4	4	1/2	5	1						150	3
15	t w	6	L	4	4	1/2	5	0						150	2
16	t ab^E	1/2	PL	55 1/4		1 1/8	7	1	BENT					158	1
17	t ac	3	PL	25		3/4	4	2	BENT					158	2
18	t ad^E	1/2	PL	25 1/2		5/8	6	11 3/4	BENT					158	3
19															
20	FW	3	WD			5/16	22	8	E70XX						
21	B30	3	WD			1	133	0							
22															
23															
24		105	325	1#			0	3 1/4						AM26	
25		138	325	1#			0	3						126—AM27, 60—AM26	
26		120	325	1#			0	3 3/4						AM27	
27	A2	246	325	1#			0	4 3/4						AM27	
28		528	325	1#			0	6 1/4						AM28	
29	D3	1137	HW	2		1 1/16	3 1/16							AM26	
30															
31		36	MB	1#			0	3	RHH-RHN (SB)					AM27	
32		6	MB	1#			0	5 1/4	RHH-RHN (SB)					AM27	
33		6	MB	1#			0	3 1/4	RHH-RHN (SB)					AM27	
34															
35															
36															
37															
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63															

A2 — D6

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

FFW

NOV 25 1970

"LENGTH CORR. FOR TEMP"

TOP CHORD MEMBER BETWEEN U7-U8 & U7'-U8'

MATERIAL (SHAPES T/) (PL's A517) PREFIX-t; A36 No PREFIX
BOLTS 1"#
OPEN HOLES 1/16 UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
MILLING AS NOTED
PAINT ICT RED LEAD
ASSHO-M72, TYPE II
U.N. (SEE NOTE X)

	NO.	DATE	INIT.
REVISION	0	11/16	RP
	1	11/16	LG
	2	11/22	LG
	3	5/25	TF
	4	7/2	TF
	5	5-11	TF
	6	5-11	RS

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

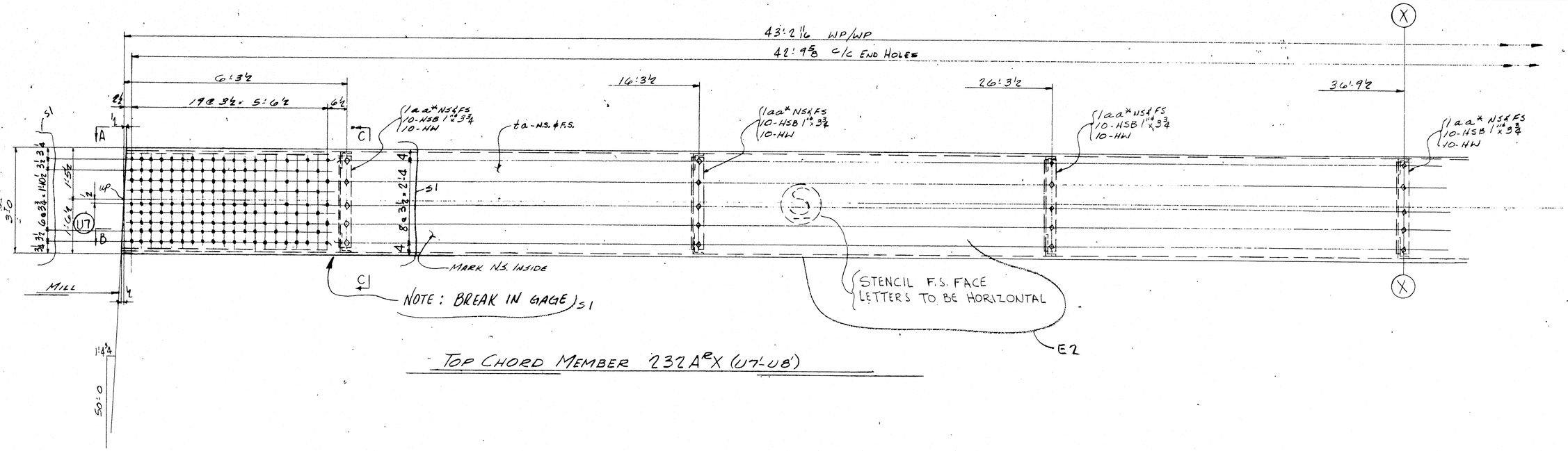
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JE DATE 1-29-70 IN CHARGE L. GOTTBERG
CHECKED BY DATE 2-19-70 SHOP NO.
CONTRACT C66290-061 DRAWING NO. 232DD

35433 (Rev.D 8-69)

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-1 NC TAPE



TOP CHORD MEMBER 232A^RX (U7-U8)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
111 PARK AVE. NEW YORK 17, N.Y.
BY FFW
NOV 23 1970

TOP CHORD MEMBER BETWEEN U7&U8, U7&U6

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

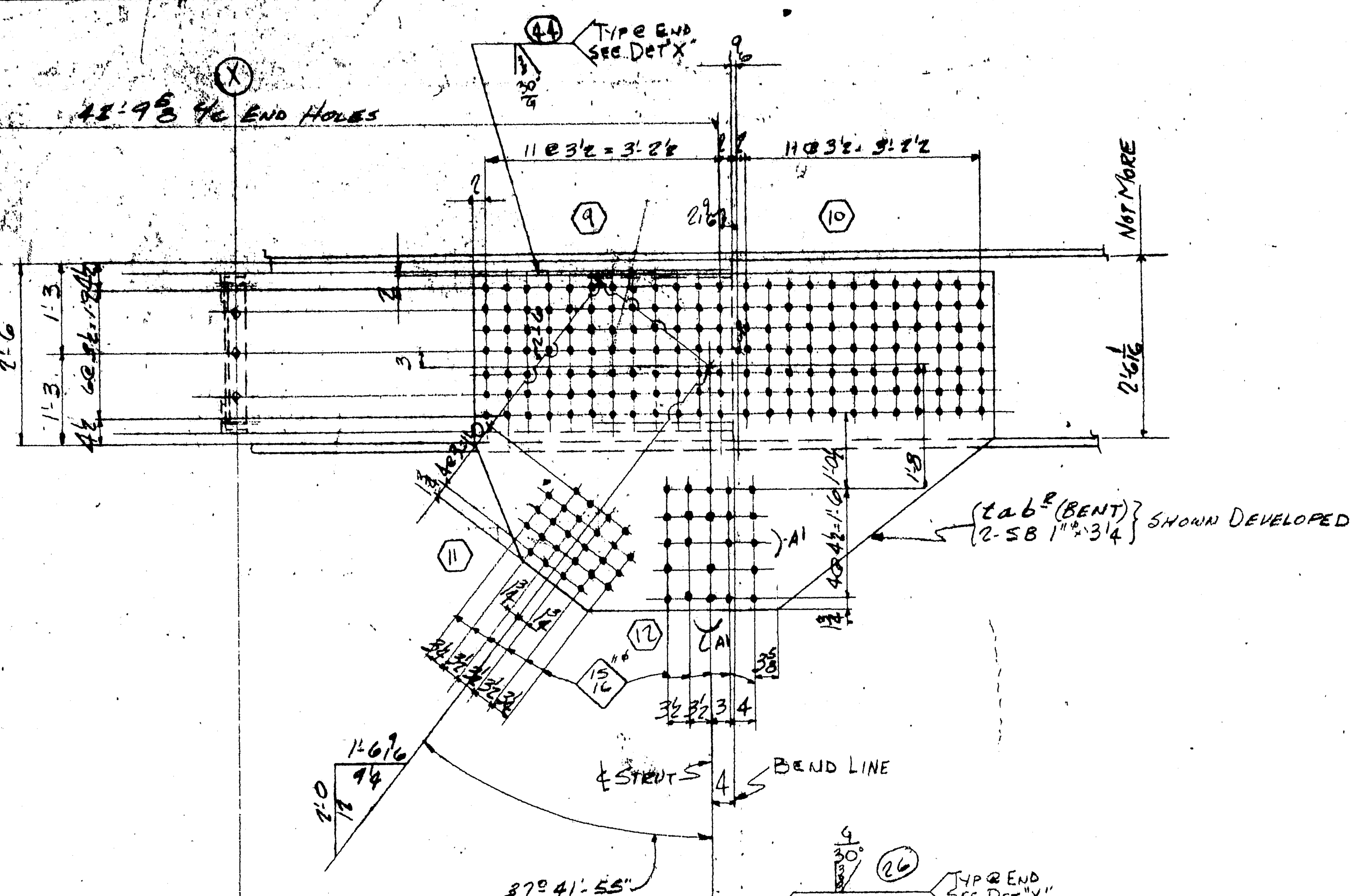
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 11-27-70 IN CHARGE L. GOTHBERG
CHECKED BY JJ DATE 12-1-70 SHOP NO.
CONTRACT CG6890-061 DRAWING NO. 232 A0 X

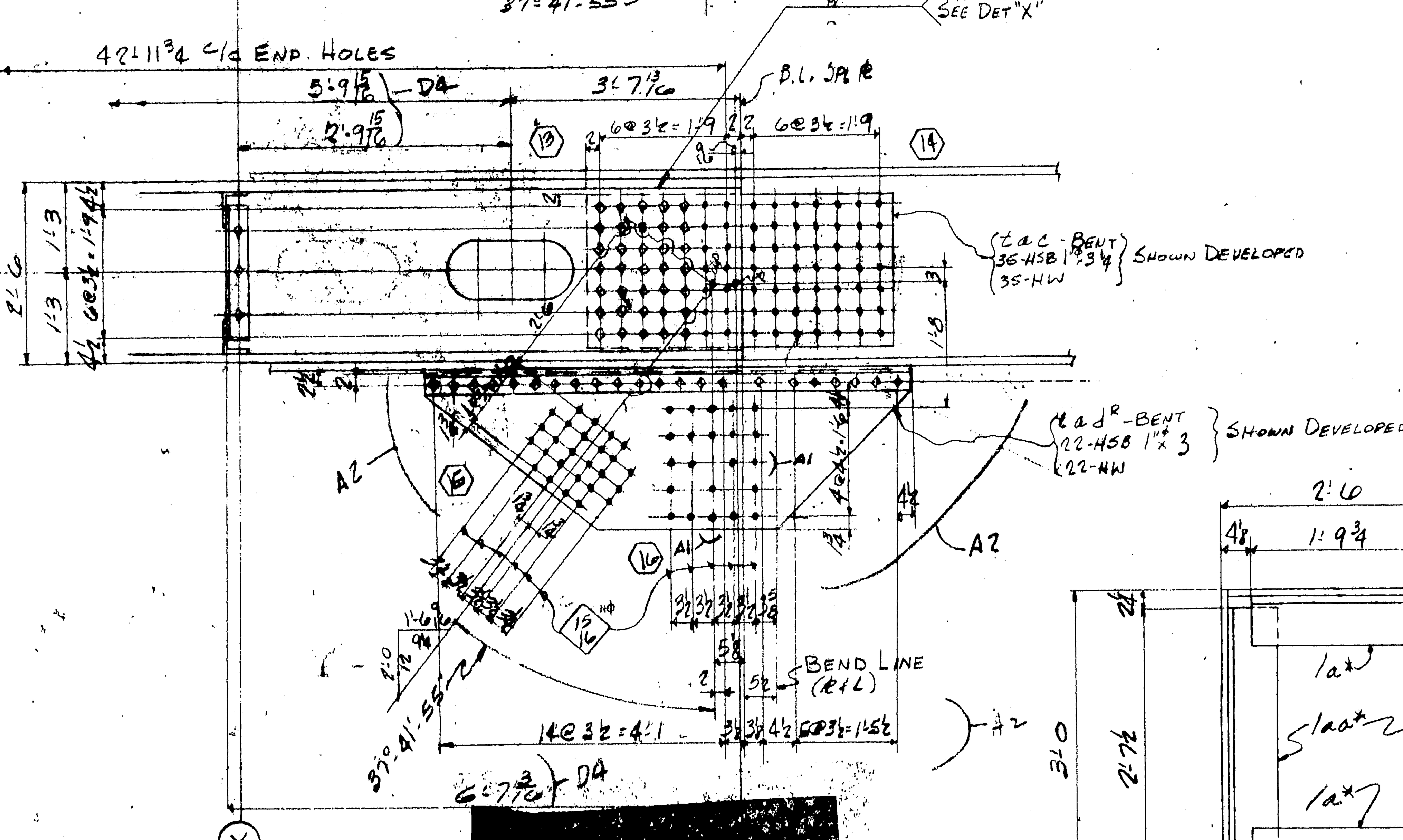
REVISION
NO. 5 DATE 5/22/71 INIT. RP

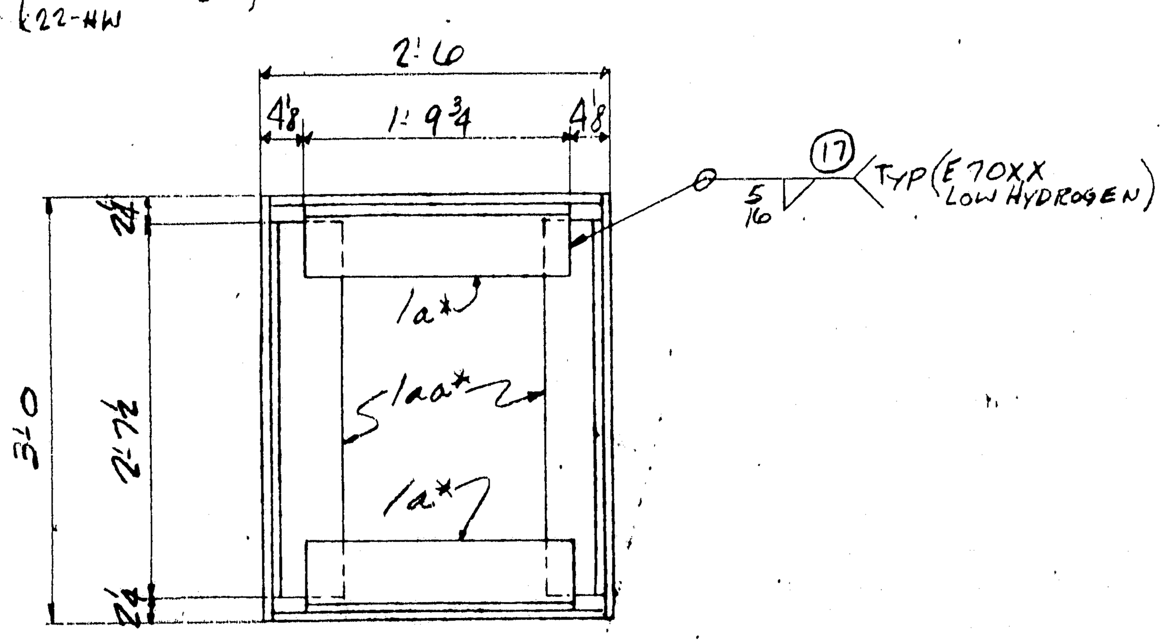
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-2 NC TAPE







SECTION "C-C"

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS	MILL ORDER WIDTH	THICK	LENGTH FT	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		1-	TOP CHORD MEMBER — 232A^R X													
(L)	2	t a	2	PL	36		1 1/8	43	3 3/4	T2W-M2E			43	7		104	1
	3																
(M)	4	t c	1	PL	25 1/2		1	43	3 3/4	T2W-M2E			43	7		103	1
(M)	5	t d	1	PL	25 1/2		1	43	1 5/8	T2W-M2E			43	7		103	1
	6	f	2	BR	1		5/8	44	3 3/4	BACK UP BARS			44	7		116	1
	7	g	2	BR	1		5/8	44	1 5/8	BACK UP BARS			44	7		116	1
	8	1a*	8	L	6	3 1/2	1/2	1	9 3/4							117	2
A2	9	1aa*	8	L	6	4	1/2	2	7 1/2							117	1
	10	t h	2	PL	13 1/2		1 3/8	13	2							157	1
	11	t k	2	PL	29 1/4		1 1/2	9	7							157	9
	12	t m^R	1	L	8	8	7/8	6	11 3/4	CUT 6x4 BENT						151	11
	13	t n	2	L	4	4	1/2	6	10							150	1
	14	t p^R_L	1/1	L	4	4	1/2	5	1							150	3
	15	t w	2	L	4	4	1/2	5	0							150	2
	16	t ab^R	1	PL	55 1/4		1 1/8	7	1	BENT						158	1
	17	t ac	1	PL	25		3/4	4	2	BENT						158	2
	18	t ad^R	1	PL	25 1/2		5/8	6	11 3/4	BENT						158	3
D5	19																
	20	FW	1	WD			5/16	22	8	E70XX							
	21	B30	1	WD			1	173	0								
	22																
	23																
	24		35	325	1φ			0	3 1/4							AM26	
	25		46	325	1φ			0	3							6—AM21 40—AM26	
	26		40	325	1φ			0	3 3/4							AM21	
	27	A2—(	82	325	1φ			0	4 3/4							AM21	
	28		176	325	1φ			0	6 1/4							AM21	
	29	D3—(	379	HW	2	1 1/16	3/16									AM21	
	30																
	31		12	MB	1φ			0	3	RHH-RHN (SB)						AM27	
	32		2	MB	1φ			0	5 1/4	RHH-RHN (SB)						AM27	
	33		2	MB	1φ			0	3 1/4	RHH-RHN (SB)						AM27	

ELECTRODES E110XX
(UNLESS NOTED)
LOW HYDROGEN — A2

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT ACCESS HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
505 PARK AVE. NEW YORK 17, N.Y.
FFW
NOV 25 1970

"LENGTH CORR. FOR TEMP"
TOP CHORD MEMBER BETWEEN U7-U8 & U7'-U8'

				NO.	DESCRIPTION	MARK	REMARKS
		1		1	TOP CHORD MEMBER	232A^R X (#3)	11'-6 x 5'-0 x 50'-0
		M8		NO.	DESCRIPTION	MARK	REMARKS
INST.					REQUIRED LIST		

MATERIAL: (SHAPES T1 / PLS A517) PREFIX - t; A36 NO PREFIX
BOLTS 1"φ
OPEN HOLES 1 1/16 UN
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
MILLING AS NOTED
PAINT 1 CT RED LEAD
ASSHO-M72, TYPE II
U.N. (SEE NOTE "X")

REVISION NO		DATE	INIT.
5	D	7/16	RP
4	D	7/2	
3	D	5/25	
2	A	5-18	JF
1	A	5-11	PS

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

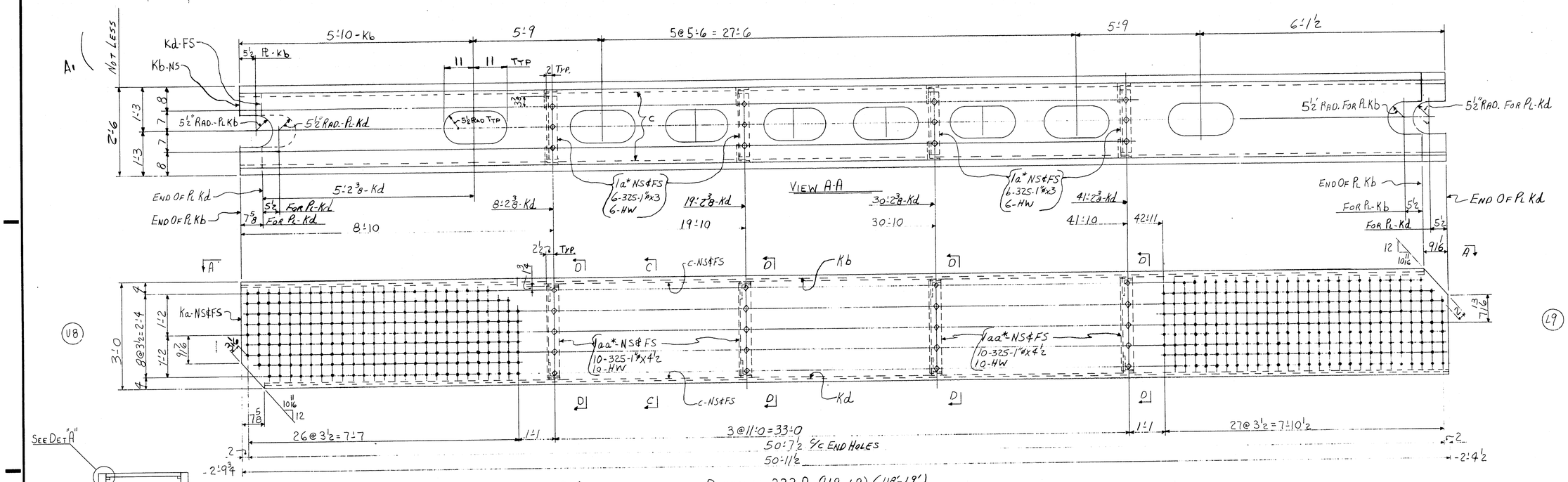
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5.
PROJECT #1-95-1(22)16, KITTERY, MAINE.

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JF DATE 1-29-70 IN CHARGE L. GOTHBERG
CHECKED BY [illegible] DATE 2-19-70 SHOP NO.
CONTRACT CG 6890-061 DRAWING NO. 232 O D X

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-3 NC TAPE



DIAGONAL 233A (U8-L9) (U8'-L9')

ELECTRODES E70XX
LOW HYDROGEN
LENGTH CORR. FOR TEMP.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes, EXCEPT 11x22 HOLES.

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Nowitzky
JUN 3 1970

For location of details shown on this sheet refer to diagrams.
E9 & E11

SHOP BILL

PROJECT TYPE	LINE	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	DIAGONALS - 233A						(U8-L9)(U8'-L9'
②	2	K a	8	PL	36		2⅞	50	11½	
Ⓜ	3	K b	4	PL	24		1⅛	50	2 1/16	
	4	1a*	32	L	6	3½	½	1	9¾	
	5	1aa*	32	L	6	4	½	2	7½	
	6	c	16	BR	1		5/8	51	3⅜	
Ⓜ	7	K d	4	PL	24		1⅛	50	3⅜	
	8									
	9									
	10		160	325	1⅛			0	4½	
	11		96	325	1⅛			0	3	
	12		256	HW	2⅛	1 1/16	3/16			
	13									
	14									
	15									
	16	FW	4	WD			5/16	25	4	
	17	V35	4	WD			1⅛	201	1	
	18									
	19									
	20									
	21									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		51	1½		140	1
		51	1½		140	2
		2	1		145	8
		2	8		145	7
		52	0		142	15
		51	1½		140	2
					AM	21
					AM	21
					AM	21

NOTE X

MATERIAL: A588-Prefix-K / A36-No Prefix
RIVETS OR BOLTS 1⅛"ø
OPEN HOLES - 1 1/16"ø U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES - N.P.
WELDING - AS NOTED
PAINT - 1-G RED LEAD-AASHO-M72, TYPE II UNLESS NOTE X"

NO.	DATE	REVISION
A1	5-26	⅞

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

TRUSS DIAGONAL (U8-L9) & (U8'-L9')

CUSTOMER
MAINE STATE HIGHWAY COMMISSION -
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

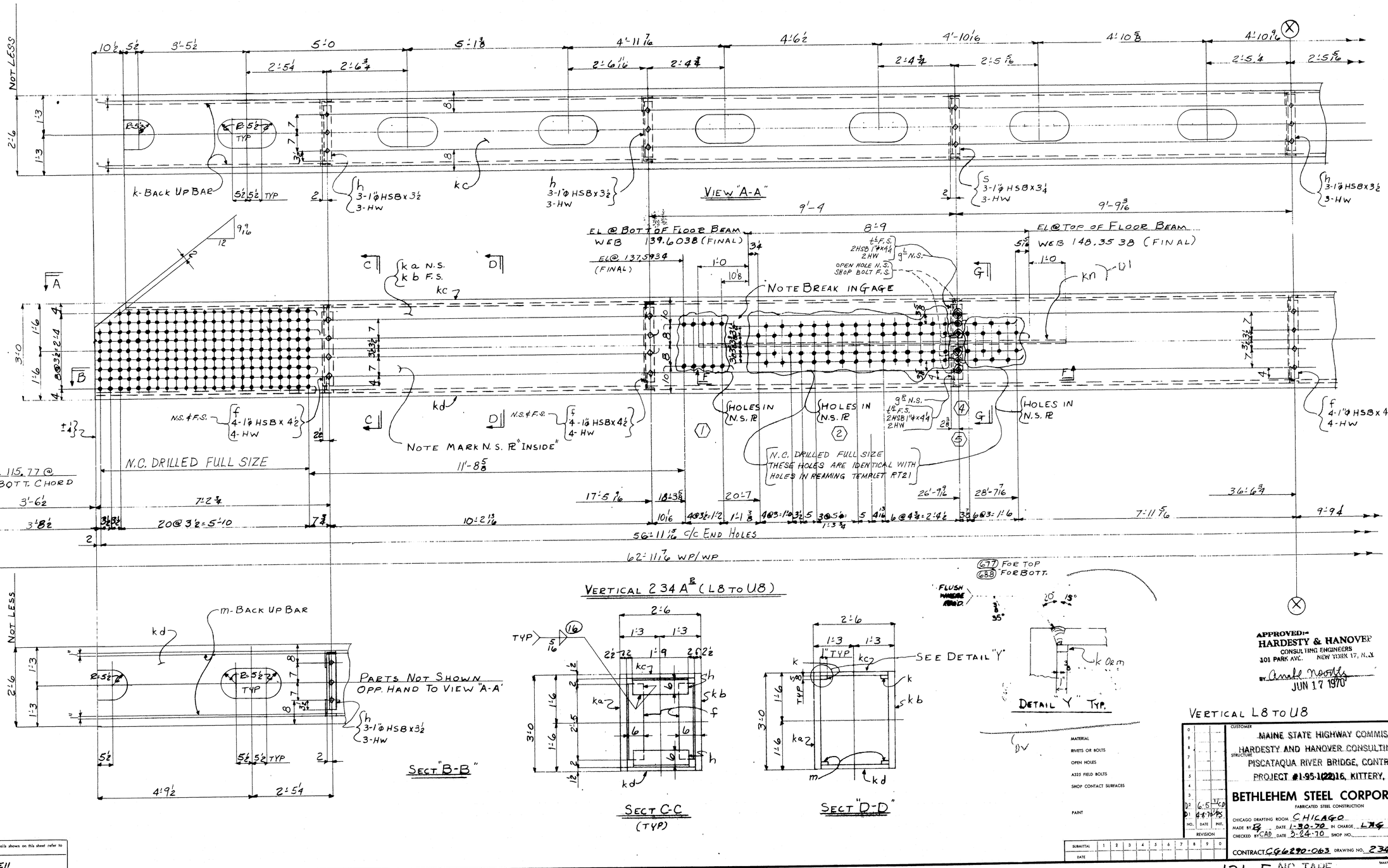
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY GCV DATE IN CHARGE L.A.G.
CHECKED BY ED DATE 2-11-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 233

NO.	DESCRIPTION	MARK	REMARKS
2	2 4 DIAGONALS	233A	3-8x2-6x5/16
H9	M9		

INST. | REQUIRED LIST

121-4 (NC TAPE)

35043 (Rev.E 8-69)



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

E9 & E11

MATERIAL	
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

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

NO.	DATE	INIT.	REVISION
D2	6-5	TJCD	
D1	4-8-70	MS	

CUSTOMER: MAINE STATE HIGHWAY COMMISSION

STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

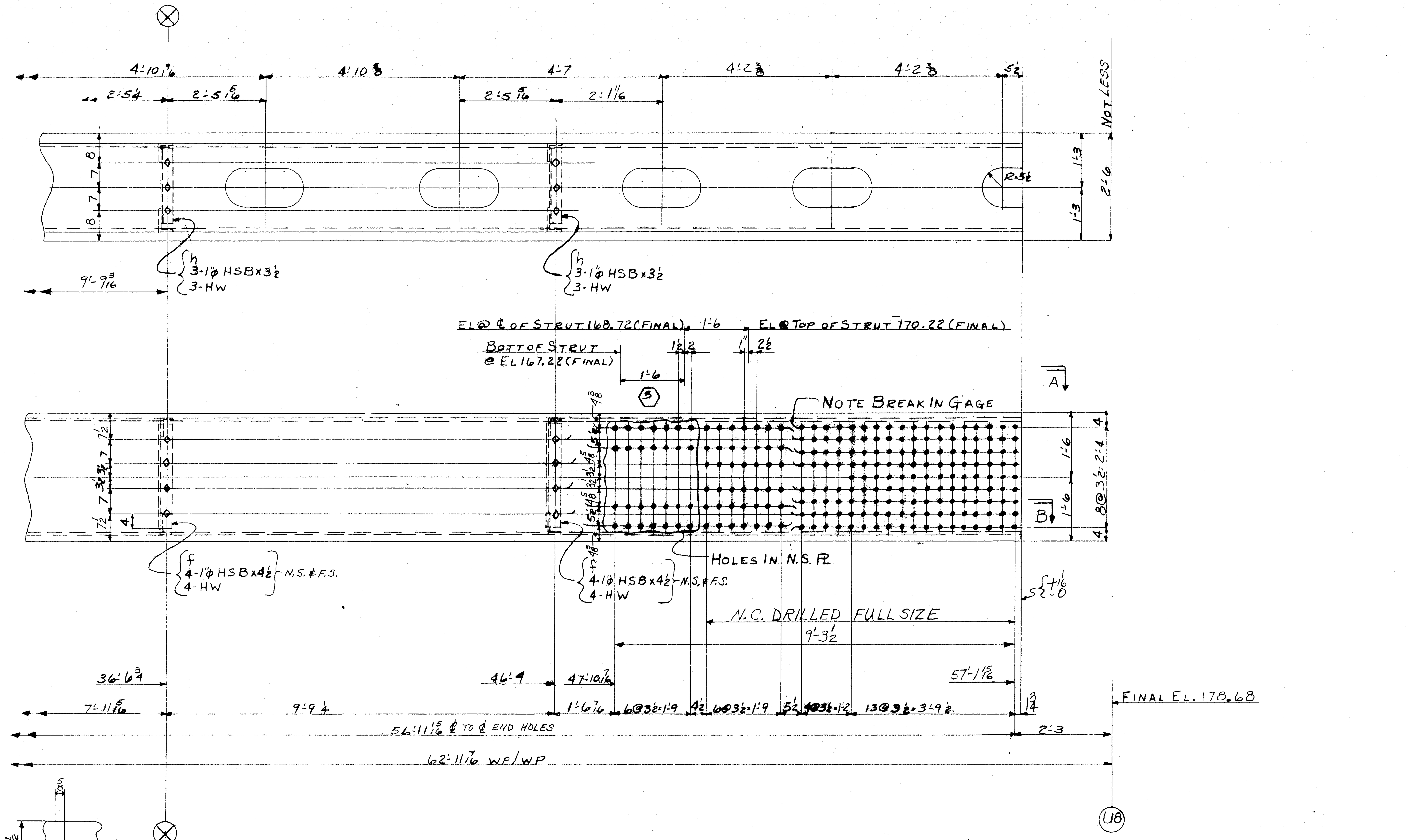
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY EB DATE 1-30-70 IN CHARGE LAG
CHECKED BY CAD DATE 3-24-70 SHOP NO.

CONTRACT CG6290-063 DRAWING NO. 234AB

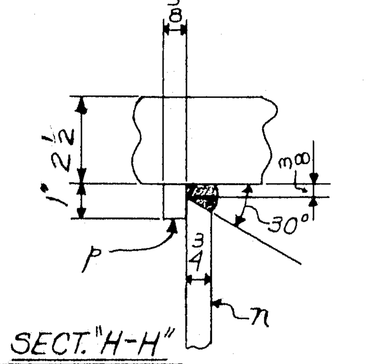
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Arnold Hardesty
JUN 17 1970

VERTICAL L8 TO U8

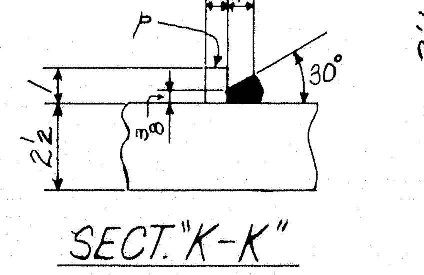
121-5 NC TAPE



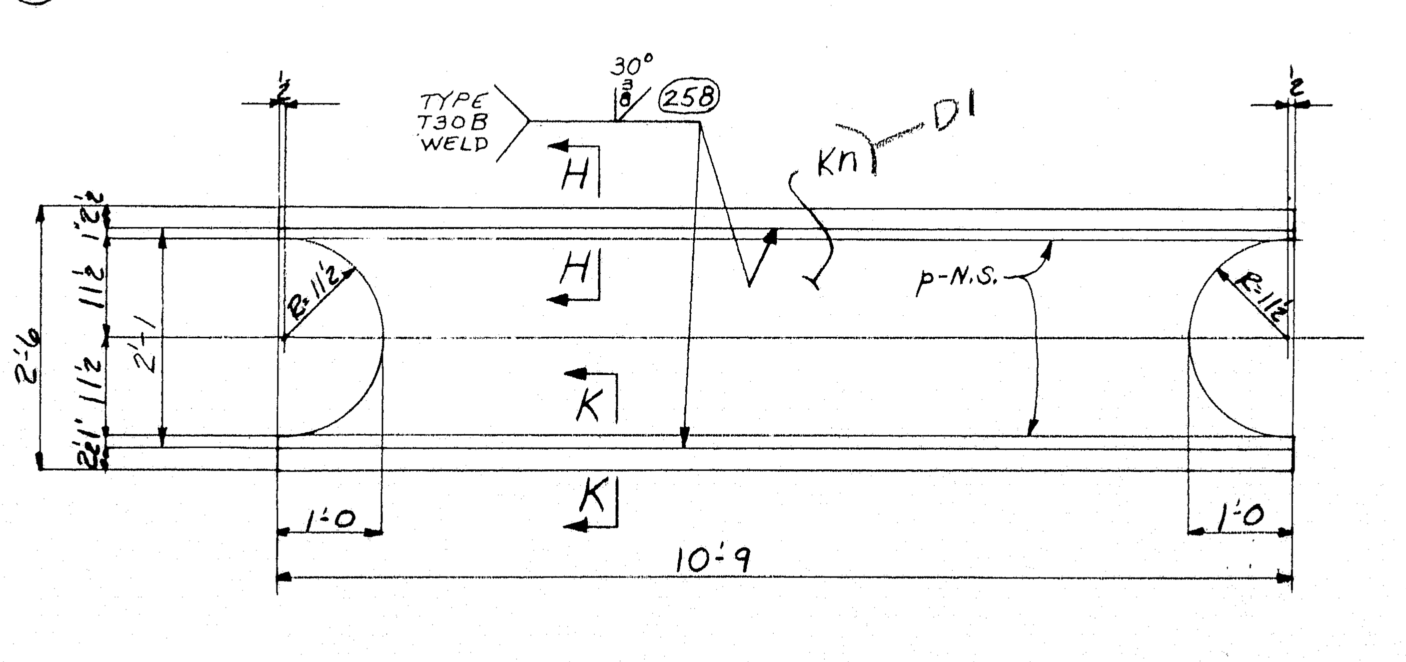
	a	b	c
a			
b			
c			
d			
f			
g			
h			
k			
m			
n			
p			
s			
t			
w			
y			



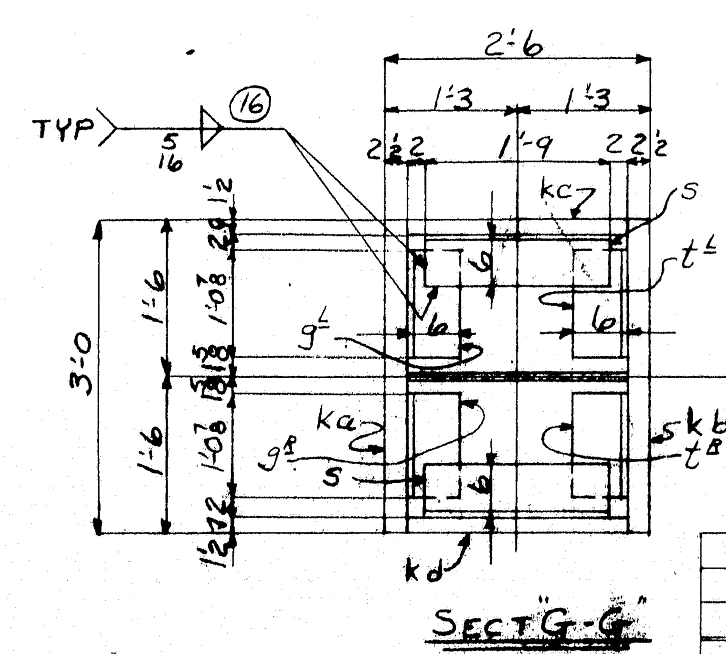
SECT. "H-H"



SECT. "K-K"



SECT "F-F"



SECT "G-G"

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4 VERTICAL CHORD MEMBERS: 2-234A^R & 2-234A^L														
(M)	2	k a	4	PL	36		2 1/2	57	3 11/16	T2W						141	01
(M)	3	k b	4	PL	36		2 1/2	57	3 11/16	T2W						141	01
(2)	4	k c	4	PL	24 1/4		1 1/2	56	5 [illegible]/16	T2W						141	02
(2)	5	k d	4	PL	24 1/4		1 1/2	57	3 1/16	T2W						141	02
	6	f	32	L	6	4	1/2	2	5							145	10
	7	g^R_L	4/4	L	6	4	3/8	1	0 7/8							145	11
	8	h	32	L	6	3 1/2	1/2	1	9							145	09
	9	k	8	BR	1		5/8	57	5 3/16	BACK UP BAR						142	16
	10	m	8	BR	1		5/8	58	3 3/4	BACK UP BAR						142	16
D1—	11	K n	4	PL	24 1/4		3/4	10	9	T2W						251	03
	12	p	8	BR	1		5/8	10	9	BACK-UP BAR						156	06
	13	s	8	L	6	3 1/2	3/8	1	9							145	12
	14	t^R_L	4/4	L	6	4	3/8	1	0 7/8							145	11
	15																
	16																
	17																
	18																
	19																
	20																
	21		24	325	1"φ			0	3 1/4							AM	2
	22																
	23		96	325	1"φ			0	3 1/2							AM	2
	24		16	325	1"φ			0	4 1/4							AM	2
	25		160	325	1"φ			0	4 1/2							AM	2
	26		296	HW	2"φ	1 1/16	3/16									AM	2
	27	FW	4	WD			5/16	26	8								
	28																
	29	T30B	4	WD			3/4	21	6								
	30																
	31	V35	4	WD			1 1/2	227	6								
	32																
	33																
	34																
	35																
	36																
	37																
	38																
	39																
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	62																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY Anatol Naoitzs
JUN 17 1970

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR 22 x 11 SLOT HOLES

PREFIX k FOR A588-B
NO PREFIX A36

VERTICAL L8-U8

LENGTH CORR. FOR TEMP

	1	1	2	VERTICAL		234A^R	2'-6 x 3'-0 x 57'-4
	1	1	2	"		234A^L	2'-6 x 3'-0 x 57'-4
	HB	MB	NO.	DESCRIPTION		MARK	REMARKS
INST.			REQUIRED LIST				

MATERIAL —
RIVETS OR BOLTS 1"φ A325
OPEN HOLES 1 1/16"φ
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT ONE SHOP COAT
RED LEAD AASHO-M72 TYPE II SEE NOTE "X"

REVISION NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
3		
D2	6-5	JL CD
D1	4-8	JPS

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

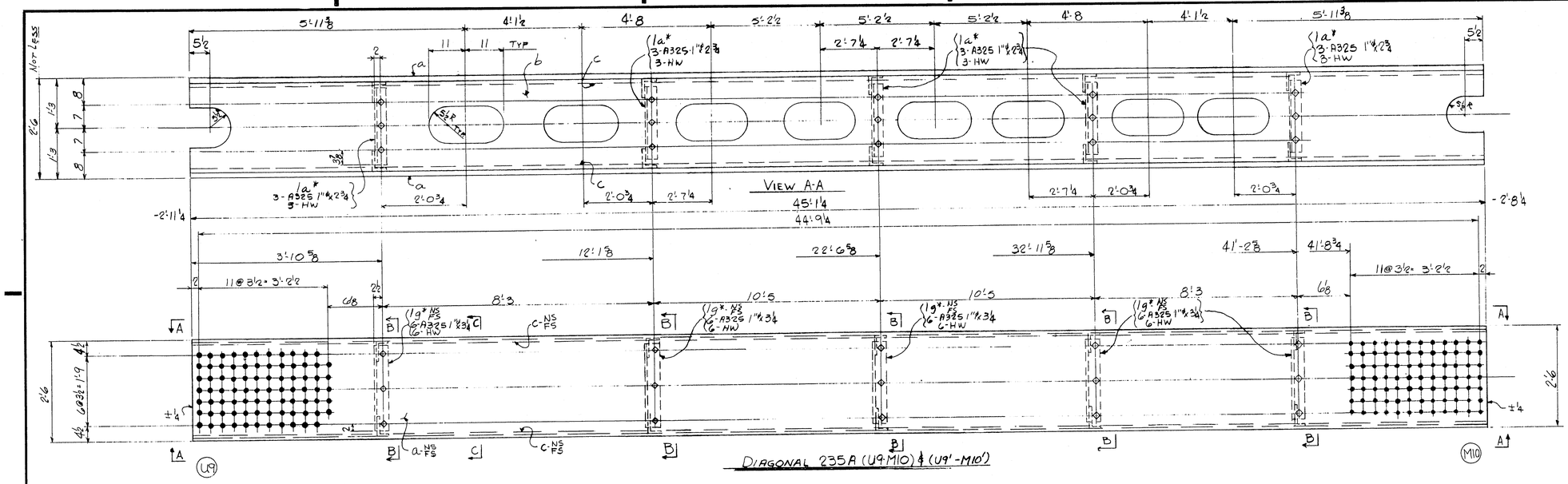
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY B DATE 2-3-70 IN CHARGE
CHECKED BY CAD DATE 3-24-70 SHOP NO.
CONTRACT CG 6290-063 DRAWING NO. 234BB

For location of details shown on this sheet refer to diagrams.
E9 & E11

35453 (Rev.D 8-69)

121-6 NC TAPE



NOTE X
Both sides of material adjacent to all open holes must be free of burrs. Mill scale, and paint for a distance of 3 inches from the group of holes EXCEPT 11⁄16"Ø22" HOLES

Heads of Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E70XX
LOW HYDROGEN

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
NOV 3 1970

For location of details shown on this sheet refer to diagrams.
E9 & E11

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
1		3 - DIAGONALS 235A (U9-M10) (U9'-M10')														
(2) 2	a	6	PL	30		1¼	45	1¼	T2W			45	3¼		164	1
(M) 3	b	6	PL	26¾		⅝	45	1¼	T2W			45	3¼		164	2
4	c	12	BR	1		⅝	46	1¼	BACK-UP BARS			45	3¼		164	3
5	1a*	30	L	6	3½	½	1	9¾				1	9¾		164	4
6	1g*	30	L	6	4	½	2	1				2	1		164	5
7		90	325	1"ø			0	3¼							AM21	
8		90	325	1"ø			0	2¾							AM21	
9		180	HW	2"ø	1"ø*	3⁄16									AM21	
10	FW	3	WD			5⁄16	25	0								
11	T30B	3	WD			¾	180	5								
12																
13																
14																
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S1	S2				
1	2	3	235A	DIAGONAL	2'-6"x2'-6"x45'-2"
M11	H11	QTY	MARK	DESCRIPTION	REMARKS
INST.				REQUIRED LIST	

LENGTH CORRECTED FOR TEMPERATURE
TRUSS DIAGONAL U9-M10 & U9'-M10'

MATERIAL A.S.T.M. A-36
BOLTS 1"ø A325
OPEN HOLES 11⁄16" U.N
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1 CT RED LEAD AASHO-M72, TYPE II U.N. SEE NOTE "X"

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

REVISION
S1 | 11/16/70 | LG

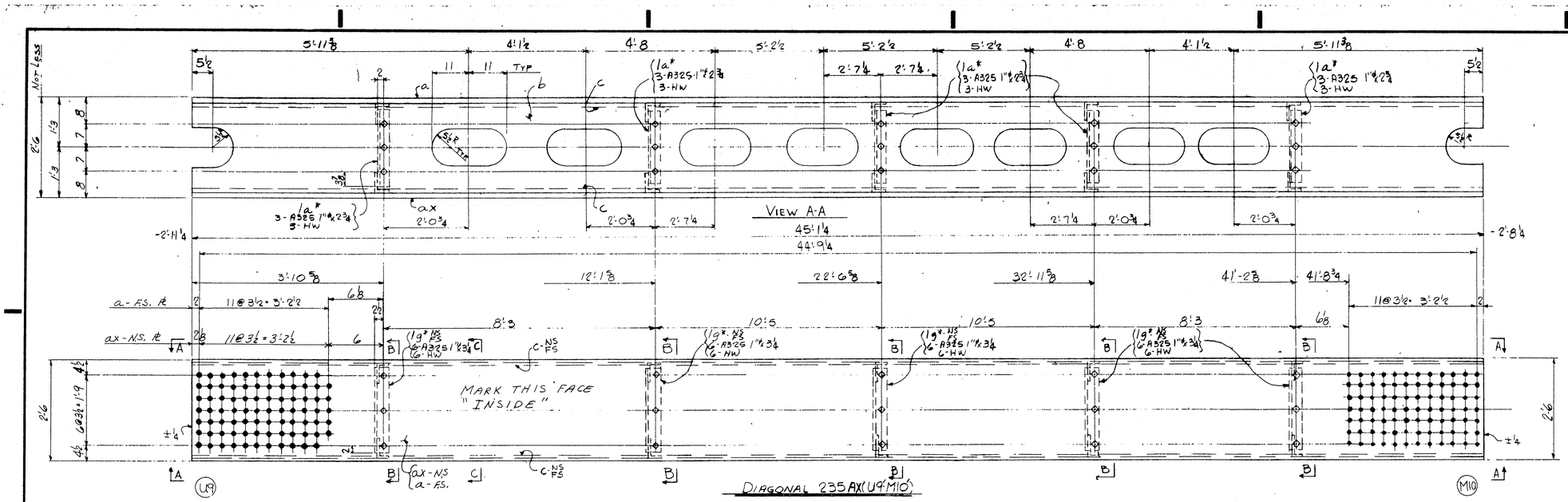
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)15, KITTERY, MAINE

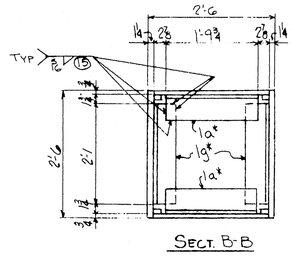
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

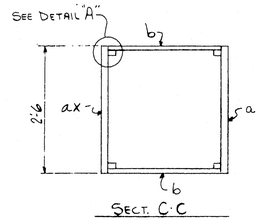
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JKM DATE 1-29-70 IN CHARGE L.G.
CHECKED BY SED DATE 2-10-70 SHOP NO.
CONTRACT CG6290-062 DRAWING NO. 235

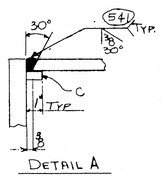
35042 (Rev. 8-69)

121-7 (NC TAPE)









NOTE X
Weld sized bolt heads are to
On Outside (Exposed) Surface
Both sides of material adjacent to all open holes must be free of burrs, mill scale, and paint for a distance of 3 inches from the group of holes. Except 1 1/4" x 22" Holes

ELECTRODES E70XX
LOW HYDROGEN

For location of details shown on this sheet refer to diagrams
E9 & E11

SHOP BILL / MILL ORDER

Project Piece	Item No.	Assembly Mark	No.	Shape	Size	Section Bill or Pounds	Thick	Length Ft	Length In	Remarks	Work	Mill Order Thick	Length Ft	Length In	Stock	Item Page	Item Line
	1		1	DIAGONAL	235AX					(U9-M10)							
②	2	a	1	PL	30		1 1/4	45	1 1/4	T2W			45	3 1/4		164	1
Ⓜ	3	b	2	PL	26 3/4		3/4	45	1 1/4	T2W			45	3 1/4		164	2
	4	c	4	BR	1		5/8	46	1 1/4	BACK-UP BARS			45	3 1/4		164	3
	5	1a*	10	L	6	3 1/2	1/2	1	9 3/4				1	9 3/4		164	4
	6	1g*	10	L	6	4	1/2	2	1				2	1		164	5
	7		30	325	1"ø			0	3 1/4							AM21	
	8		30	325	1"ø			0	2 3/4							AM21	
	9		60	HW	2"ø	1 1/16"	3/16									AM21	
	10	FW	1	WD			5/16	25	0								
	11	T30B	1	WD			3/4	180	5								
	12																
②	13	ax	1	PL	30		1 1/4	45	1 1/4	T2W							
	14																
	15																
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APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
By Arnold Nowitzky NOV 3 1970

1		1	235AX	DIAGONAL	2'-6 x 2'-6 x 45'-2
M11		QTY	MARK	DESCRIPTION	REMARKS
INST.		REQUIRED LIST			

LENGTH CORRECTED FOR TEMPERATURE
TRUSS DIAGONAL U9-M10 & U9'-M10'

MATERIAL A.S.T.M. A-36
BOLTS 1"ø A325
OPEN HOLES 1 1/16" U.N
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT 1 CT RED LEAD AASHO-M72, TYPE II U.N. SEE NOTE "X"

REVISION

NO.	DATE	INIT.

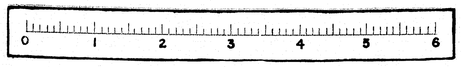
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)15 KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.K.M. DATE 1-29-70 IN CHARGE L.G.
CHECKED BY S.D. DATE 2-10-70 SHOP NO.
CONTRACT CGG290-068 DRAWING NO. 235X

121-8 (NC TAPE)



50'-6 5/16 W.P. TO W.P.

45'-8 13/16 % END HOLES

2'-6

8'-0½

14 @ 3½ = 4'-1

19'-4½

29'-7½ D3

d - FULL LENGTH

f - FULL LENGTH

ka

k
4-A325 1"ϕ x 3
4-HW
} TYP.

TOP OF FL. BM. WEB

℄ TRUSS CHORD

VIEW "A-A"

5'-0½

5'-10

D2

5 @ 5'-0 = 25'-0

5½ R-kn

5½ R-kc

5½ END

kg

kc - N.S.
kn - F.S.

2'-6
1'-3
1'-3
4 @ 5¼ = 1'-9
4½

L9
L9

2 END R-kc

±1/4 5

6'-1 5/8

1'-0

14 @ 3½ = 4'-1

2 TYP.

m - N.S. & F.S.
10-A325 1"ϕ x 2¾
10-HW
} TYP.

TYP. SEE DET "X"

30°

24'-10 7/8

26'-2 3/16 ℄ SWAY FRAME

5'-5 15/16

15 @ 3½ = 4'-4½

1'-3 3/4

D3

4 9/16

kb

K
4-A325 1"ϕ x 3
4-HW
} TYP.

d - FULL LENGTH

MARK N.S. FACE INSIDE

VIEW "B-B"

S1

(47) SEE DET. "Y"

kg

S

SECT. "C-C"

TRUSS VERTICAL 236A^R (L9-U9 & L9'-U9')

DET. "Y"

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

E9 - E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW AUG 20 1970

NO.	DATE	INIT.	REVISION
D2	8/7	LG	
D2	5-26	TC	
S1	2-13	LH	

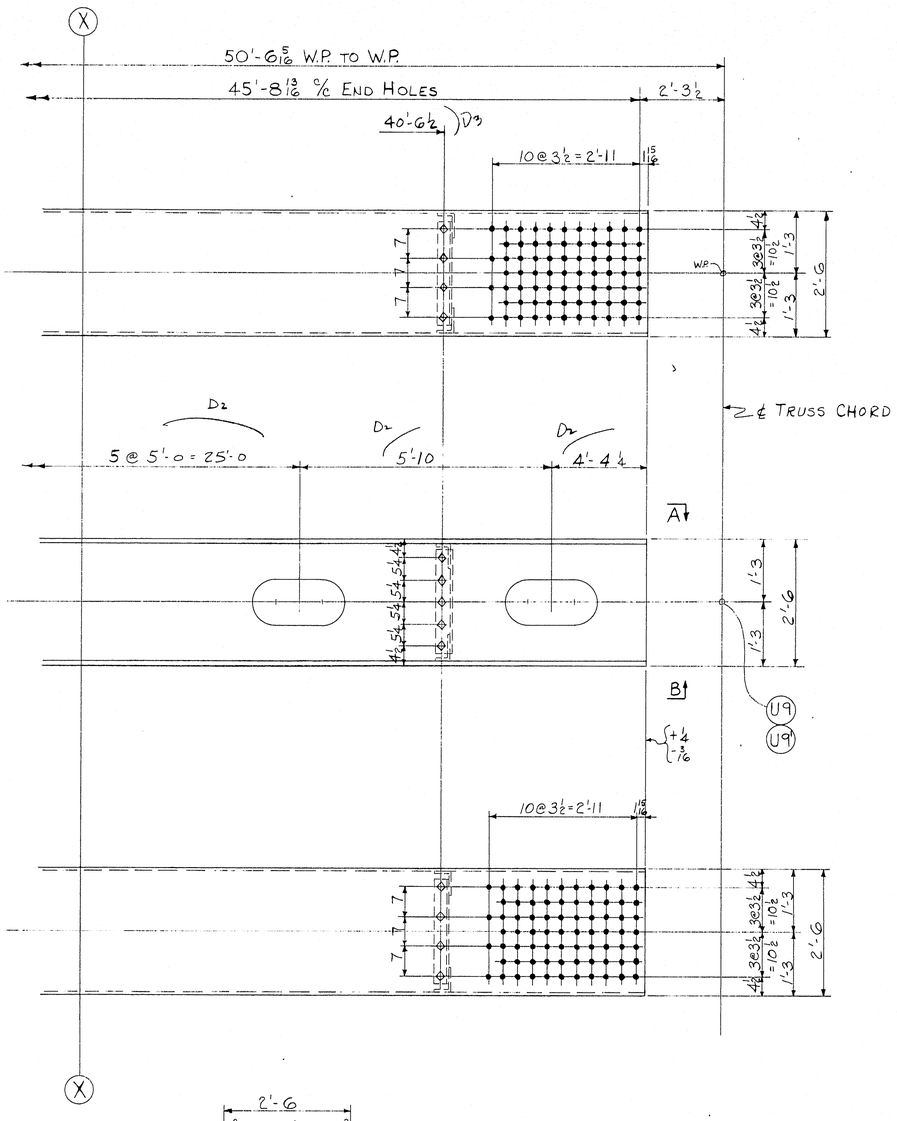
SUBMITTAL DATE 1 2 3 4 5 6 7 8 9 0

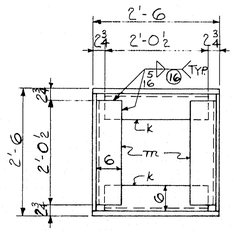
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE FISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

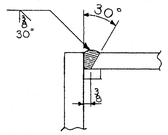
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY KMG DATE 1-30-70 IN CHARGE LAG
CHECKED BY SD DATE 9-5-70 SHOP NO.
CONTRACT CG 6290-063 DRAWING NO. 236AB

NC TAPE 121-9





SECT. "D-D"



DETAIL "X" TYP.

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

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

E9 - E11

SHOP BILL / MILL ORDER

PRODUCT TYPE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
		4	TRUSS VERTICALS 2-236A & 2-236A													
P	k a	4	PL	30		1⅛	46	0¾	T2W			46	3		165	01
P	k b	4	PL	30		1⅛	46	0¾	T2W			46	3		165	01
M	k c	4	PL	27		⅞	45	8 11/16	T2W			46	3		165	02
	d	8	BR	1		⅝	47	0¾	BACK UP BARS					D		
	f	8	BR	1		⅝	46	9	BACK UP BARS					D		
	k g	4	PL	27	S1	¾	6	1⅝							156	03
M	k n	4	PL	27		⅞	46	0¾	T2W			46	3		165	02
	k	32	L	6	3½	½	2	0½						D		
	m	32	L	6	4	½	2	0½						D		
	FW	4	WD			5/16	21	4								
S1	C															
	T30B	4	WD			⅛	183	8								
	S1-S	8	BR	1		⅝	7	1⅝	BACKUP BARS						156	14
		160	325	1 1/16			0	2¾							AM	21
		128	325	1 1/16			0	3							AM	21
		288	HW	2 1/16	1 1/16	3/16									AM	21
S1	B30	4	WD			¾	12	3								

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW AUG 20 1970

INST. H9	INST. M9	NO	DESCRIPTION	MARK	REMARKS
1	1	2	TRUSS VERTICAL	236A	2'-6×2'6×46'-1
1	1	2	Do.	236A	Do.

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"×22" HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL { ASTM-A588 PREFIX-k / ASTM-A36 NO PREFIX
BOLTS 1"ϕ
OPEN HOLES 1 1/16ϕ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1 CT. RED LEAD AASHO-M72, TYPE II SEE NOTE 'X'

ELECTRODES E70XX
LOW HYDROGEN

LENGTH CORRECTED FOR TEMPERATURE

NO.	DATE	INT.
D3	8/7	LG
D2	5-26	TC
S1	12-13	LM

REVISION

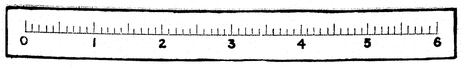
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

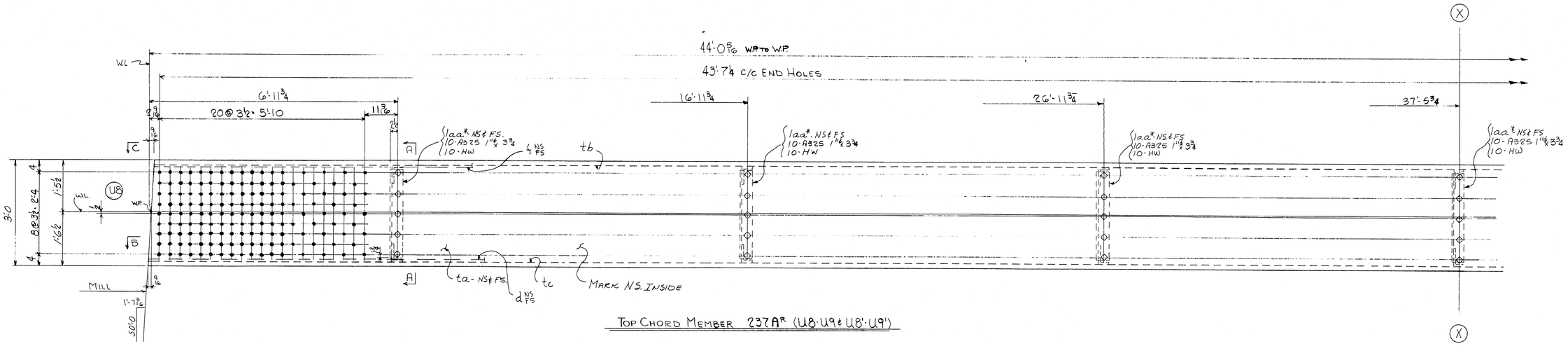
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY KMG DATE 2-2-70 IN CHARGE LAG
CHECKED BY ED DATE 2-5-70 SHOP NO.
CONTRACT CG 6290-063 DRAWING NO. 236 B B

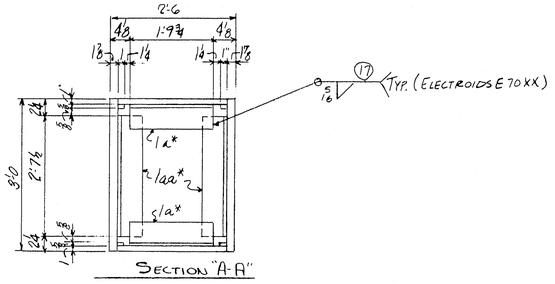
35433 (Rev.2 8-69)

NC TAPE 121-10





TOP CHORD MEMBER 237A^R (U8-U9 & U8'-U9')



APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY FFW MAY 22 1970

WORK SHEET 237AD, 237BD, 237CD & 237DD TOGETHER.
TOP CHORD U8-U9

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

For location of details shown on this sheet refer to diagrams.
E9 & E11

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

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

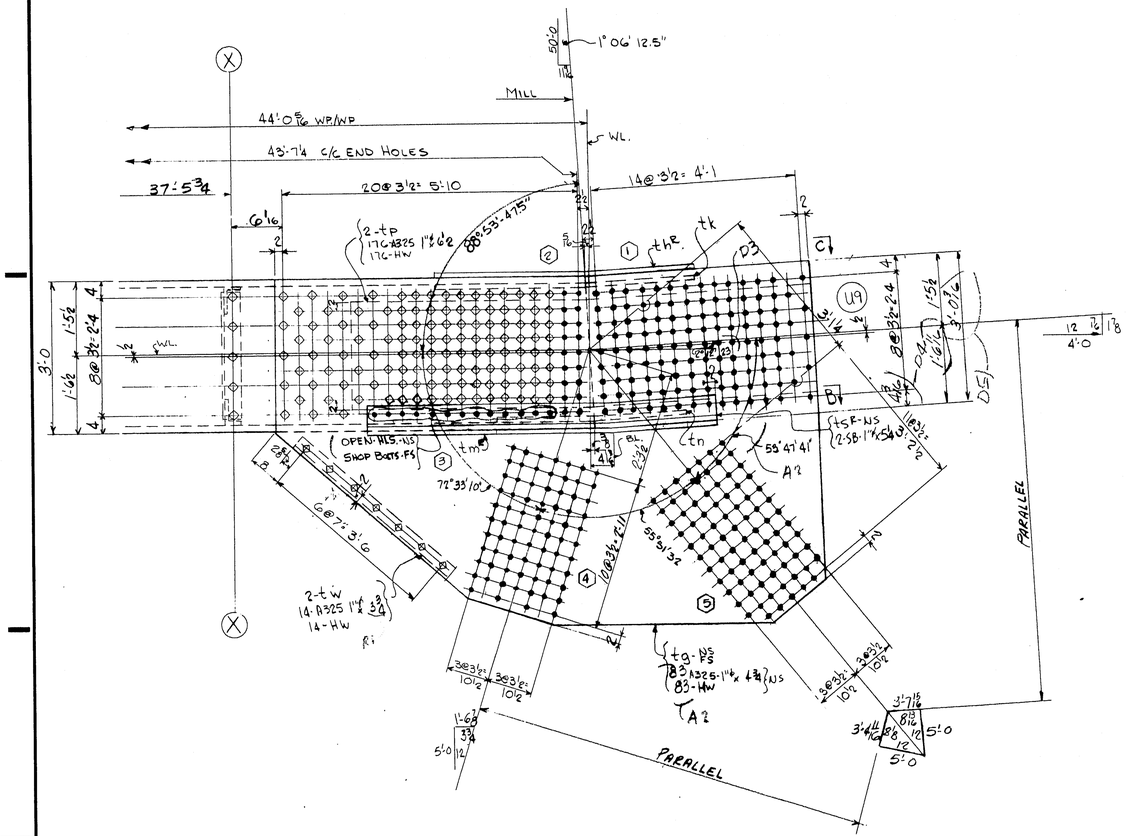
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.K.M. DATE 1-30-70 IN CHARGE L.G.
CHECKED BY [illegible] DATE 2-24-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 237AD

121-11

0 1 2 3 4 5 6



	a	b	c
a			
b			
c			
d			
f			
g			
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For location of details shown on this sheet refer to diagrams.

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUL 14 1970

WORK SHEET 237AD, 237BD, 237CD & 237DD TOGETHER
TOP CHORD MEMBER U8-U9

NO.	DATE	REVISION	INIT.
D8	7-7-70		GF
D4	6-23-70		JF
D3	6-8		VB
A2	5-29		ED
R1	3-2		VB

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16; KITTERY, MAINE

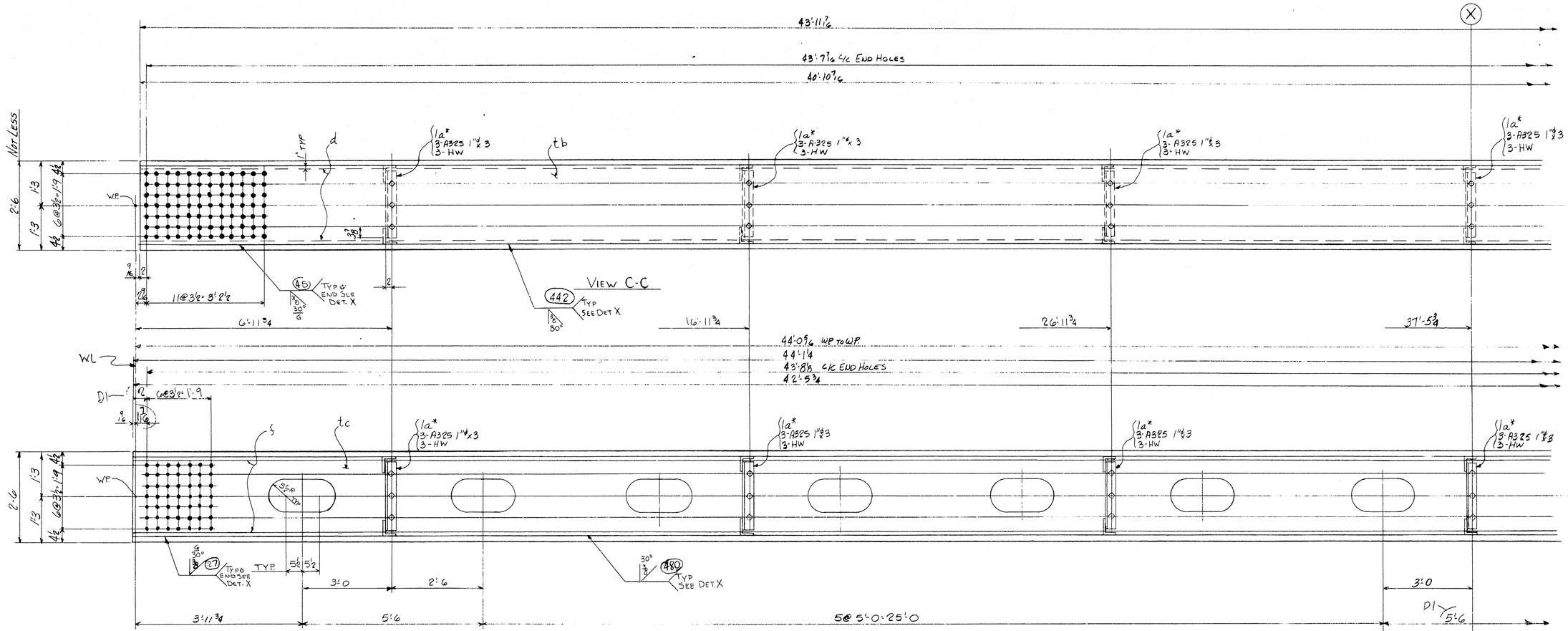
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM — WORKS
MADE BY VKM DATE 2-2-70 IN CHARGE L.G.
CHECKED BY [illegible] DATE 2-24-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 237BD

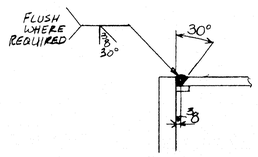
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

NC TAPE 121-12

0 1 2 3 4 5 6



SECTION B-B



DETAIL X

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUL 3 0 1970

WORK SHEETS 237AD, 237BD, 237CD & 237DD TOGETHER
TOP CHORD MEMBER U8-U9

NO.	DATE	INIT.
D 1	7/23/70	

REVISION

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

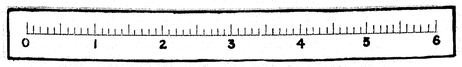
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

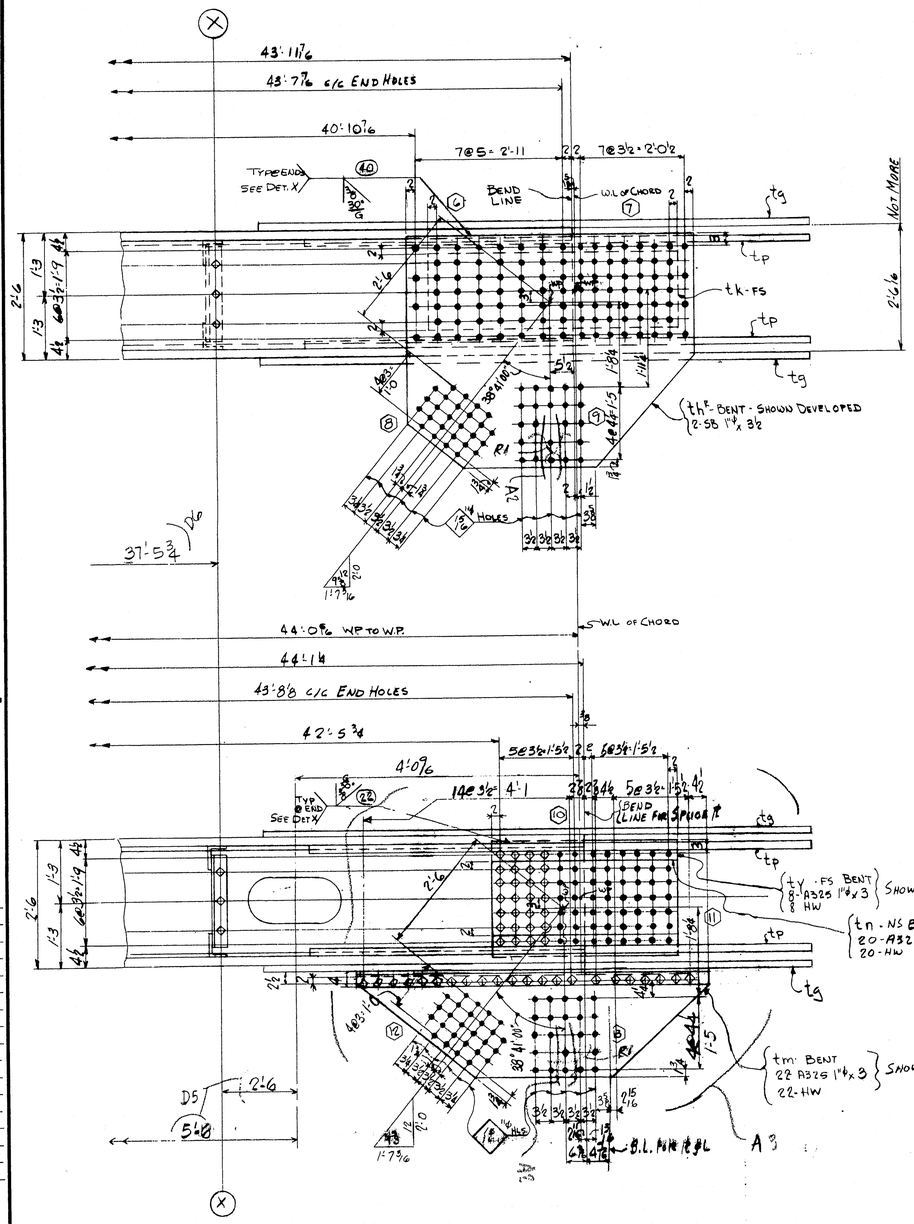
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JKM DATE 2-2-70 IN CHARGE LG
CHECKED BY DATE 2-24-70 SHOP NO.
CONTRACT CG60290-061 DRAWING NO. 237CD

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-13





SHOP BILL												MILL ORDER						
PRODUCT PIECE MARK	LINE	ASSEMBLY MARK	NO	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS		WIDTH	THICK	LENGTH FT.	LENGTH IN.	SKEW	ITEM PAGE	ITEM LINE
	1	S7	3	TOP CHORD MEMBERS						237AR & 2-237AL								
2	2	t a	6	PL	36		1 7/8	44	1/4	M2E		36	1 7/8	44	4		105	1
m	3	t b	3	PL	25 1/2		1	43	11 7/16	T2W - M2E		26 1/2	1	44	4		106	4
m	4	t c	3	PL	25 1/2		1	44	1/4	T2W - M2E		26 1/2	1	44	4		106	4
	5	d	6	BR	1		5/8	44	11 7/16					45	4		116	3
	6	f	6	BR	1		5/8	45	1/4					45	4		116	3
	7	t g	6	PL	86		1 1/2	10	10 3/4	20-B CUTS 2		86	1 1/2	20	10		157	1
	8	t h R	1/2	PL	55 1/2		5/8	5	7 1/2	BENT		56 1/2	5/8	5	7 1/2		161	4
	9	t k	3	PL	18		3/4	4	11	BENT		18	3/4	4	11		161	5
	10	t m R	1/2	PL	25		5/8	6	11 1/4	BENT 11°3 CUTS 2		25	5/8	11	5		161	7
	11	t n	3	PL	18		5/8	3	7	BENT		18	5/8	3	7		161	6
D8		t p	6	PL	28		1 1/2	9	3	D4		28	1 1/2	9	8 1/4		157	8
		t s R	1/2	L	8	8	7/8	6	11 1/4	BENT CUT TO 6 x 4				60	42 0		153	16
	14	t w	6	L	4	4	3/4	3	11 1/4					40	0		152	4
	15	t y	3	PL	27	R1	5/8	3	7	BENT		27	5/8	3	7		161	5
	16	1a R	24	L	6	3 1/2	1/2	1	9 3/4					2	0		117	4
	17	1aa R	24	L	6	4	1/2	2	7 1/2					2	8 1/2		117	3
	18		528	325	1"ϕ			0	6 1/2								AM21	
	19	A2	249	325	1"ϕ			0	4 3/4								AM21	
	20	R1	222	325	1"ϕ			0	3 3/4	R1							AM21	
	21																AM21	
	22		162	325	1"ϕ			0	3								AM21	
	23																AM21	
	24	A3	116	HW	2	1 1/16	3/16										AM21	
	25		6	MB	1"ϕ			0	5 1/4	R.H.N. R.H.N.	S.B.						AM22	
	26		6	MB	1"ϕ			0	3 1/2	R.H.N. R.H.N.	S.B.						AM22	
	27	B30	3	WD			1	176	0									
	28	FW	3				5/16	22	8									

INST M9	INST M9	QTY	MARK	DESCRIPTION	REMARKS
	1	1	237A	TOP CHORD MEMBER	1 7/8 x 4' 10 x 48' 8
1	1	2	237A	do	do

S7 C

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x22" HOLES.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E110XX
EXCEPT AS NOTED

MATERIAL ASTM-A36-No Prefix SHAPES T/I PREFIX I PS-A517 PREFIX E
RIVETS OR BOLTS A325 1"ϕ U.N.
OPEN HOLES 1 1/16"ϕ U.N.
A325 FIELD BOLTS 1"ϕ UN
SHOP CONTACT SURFACES NP
MILLING - AS NOTED
WELDING - AS NOTED
PAINT 1-CT RED LEAD AASHO - M72 TYPE II SEE NOTE X

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

NO.	DATE	INIT.
D8	10/26	LG
S7	10/15	LG
D2	8/9	LG
D5	7/23	LG
D4	7/7	RB
A3	5/28	CD
A2	5/11	CD
D1	5/8	LG

REVISION

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW NOV 3 1970

LENGTH CORR FOR TEMP
WORK SHEETS 237AD, 237BD, 237CD & 237DD TOGETHER.
TOP CHORD MEMBER (U8, U9)

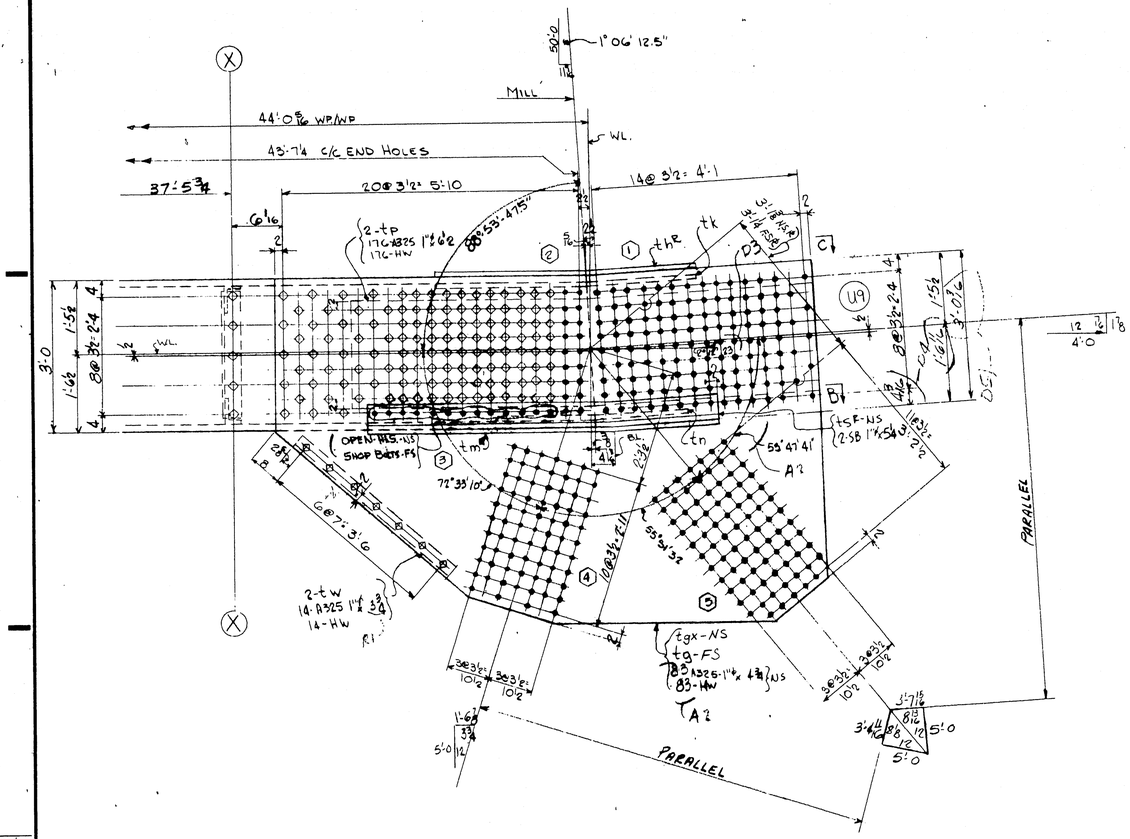
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JKM DATE IN CHARGE LG
CHECKED BY JD DATE 9-24-70 SHOP NO.
CONTRACT C66290-061 DRAWING NO. 237DD

35433 (Rev.D 8-69)

NC TAPE 12.1-14

For location of details shown on this sheet refer to diagrams.
E9 & E11



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

E9 & E11

APPROVED:
MODJESKY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW
OCT 27 1970

WORK SHEET 237AD, 237BD, 237CD & 237DD TOGETHER
TOP CHORD MEMBER U8-U9

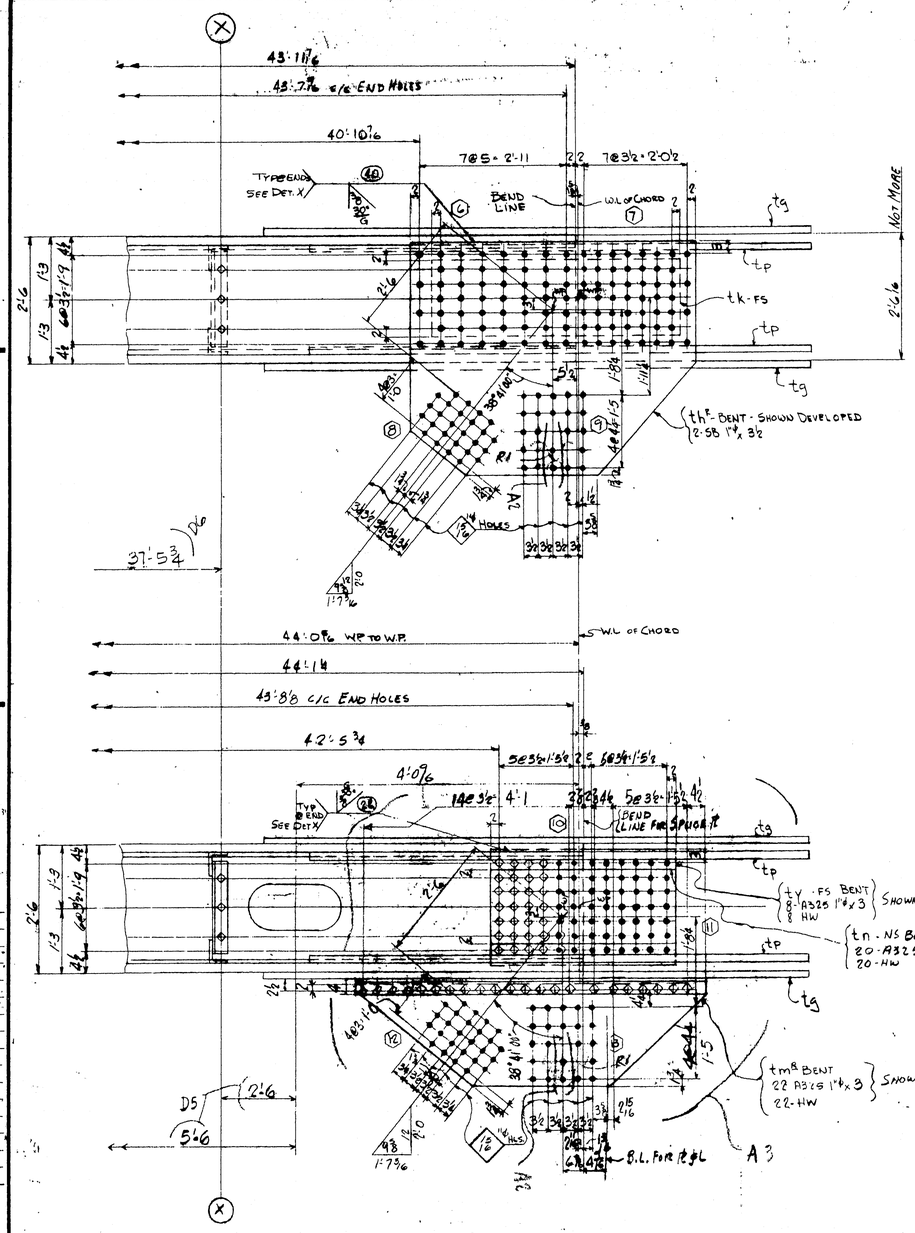
NO.	DATE	REVISION
7	7-7-70	FF
6	6-23	FF
5	6-9	FF
4	5-29	CD
3	5-8	FF

SUBMITTAL DATE

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
MODJESKY AND HANOVER, CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(27)6, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM, WORKS
MADE BY J.K.M. DATE 2-2-70 IN CHARGE L.G.
CHECKED BY DATE 2-24-70 SHOP NO.
CONTRACT CGG290-061 DRAWING NO. 237CDX

121-15 NC TAPE



NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x 22" HOLES.

INST					
M9		QTY	MARK	DESCRIPTION	REMARKS
1		1	237AX[R]	TOP CHORD MEMBER	1'3 x 4'10 x 48'8

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E110XX
EXCEPT AS NOTED

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

E9 & E11

SHOP BILL

PIECE MARK	SEQ. NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	W REMARKS
	1		1	TOP CHORD MEMBERS						237AX[R]
2	2	t a	2	PL	36		1 7/8	44	1 4	M2E
m	3	t b	1	PL	26 1/2		1	43	11 7/16	T2W - M2E
m	4	t c	1	PL	25 1/2		1	44	1 1/4	T2W - M2E
	5	d	2	BE	1		5/8	44	11 7/16	
	6	f	2	BE	1		5/8	45	1 1/4	
	7	t g	1	PL	86		1 1/2	10	10 3/4	
	8	t h[R]	1	PL	55 1/2		5/8	5	7 1/2	BENT
	9	t k	1	PL	18		3/4	4	11	BENT
	10	t m[R]	1	PL	25		5/8	6	11 1/4	BENT 11-3 CUTS 2
	11	t n	1	PL	18		5/8	3	7	BENT
	12	t p	2	PL	20		1 1/2	9	3	DA
	13	t s[D]	1	L	8	8	7/8	6	11 1/4	BENT CUT TO 6 x 4
	14	t w	2	L	4	4	3/4	3	11 1/4	
	15	t Y	1	PL	27	R1	5/8	3	7	BENT
	16	10[R]	8	L	6	3 1/2	1/2	1	9 5/8	
	17	10a[R]	8	L	6	4	1/2	2	7 1/2	
	18		176	325	1"ø			0	6 1/2	
	19	A2	83	325	1"ø			0	4 3/4	
	20	R1	74	325	1"ø			0	3 3/4	R1
	21									
	22		54	325	1"ø			0	3	R1
	23									
	24	A3	387	HW	2	11/16	3/16			
	25		2	MB	1"ø			0	5 1/4	R[2]H[2]N R[2]H[2]N S.B.
	26		2	MB	1"ø			0	3 3/4	R[2]H[2]N R[2]H[2]N S.B.
	27	B30	1	WD			1	176	0	
	28	FW	1				5/16	22	9	
	29									
	30									
	31	t gx	1	PL	86		1 1/2	10	10 3/4	
	32									
	33									
	34									
	35									
	36									
	37									
	38									
	39									
	40									
	41									
	42									
	43									
	44									
	45									
	46									
	47									
	48									
	49									
	50									
	51									
	52									
	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
36	1 7/8	44	4		105	1
26 1/2	1	44	4		106	4
25 1/2	1	44	4		106	4
		45	4		116	3
		45	4		116	3
86	1 1/2	20	10		157	11
55 1/2	5/8	5	7 1/2		161	4
18	3/4	4	11		161	5
25	5/8	11	5		161	7
18	5/8	3	7		161	6
28	1 1/2	9	8 1/4		167	8
		40	0		153	16
		40	0		152	6
27	5/8	3	7		161	5
		2	0		117	4
		2	8 1/2		117	3
					AM21	
					AM21	
					AM21	
					AM21	
					AM21	
					AM21	
					AM21	
					AM22	
					AM22	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY FFW
OCT 27 1970

LENGTH CORR FOR TEMP

WORK SHEETS 237AD, 237BD, 237CD & 237DD TOGETHER.

TOP CHORD MEMBER (U8, U9)

SHAPES T4 (PREFIX-t) R2 A514 T1
MATERIAL ASTM - A36 - No PREFIX
BOLTS A325 1"ø U.N.
OPEN HOLES 1 1/16"ø U.N.
A325 FIELD BOLTS 1"ø UN
SHOP CONTACT SURFACES NP
MILLING - AS NOTED
WELDING - AS NOTED
PAINT 1-CT RED LEAD
AASHO - M72 TYPE II
SEE NOTE X

NO.	DATE	INIT.	REVISION
D6	8/7	LG	
D5	9/23	LG	
D4	1/5	SD	
A3	5/28	CD	
A2	5/11	CD	
D1	8/18	LG	

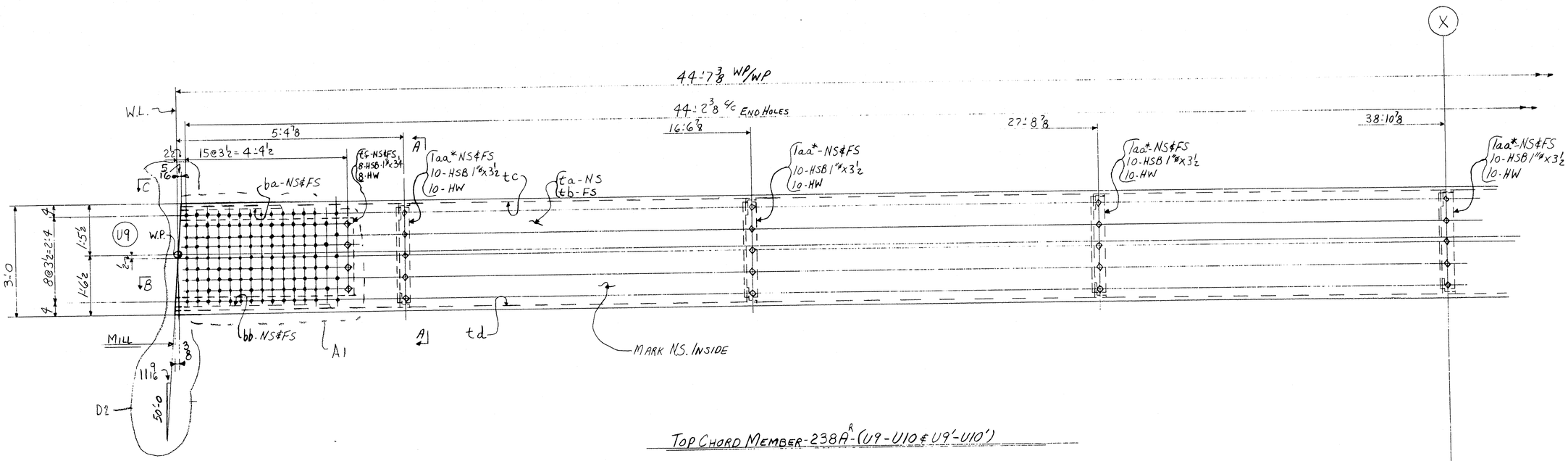
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

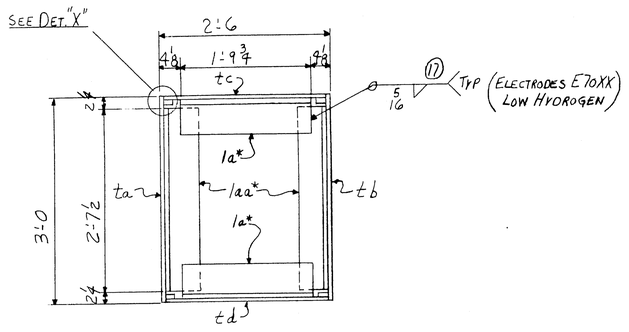
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY JKM DATE IN CHARGE LG
CHECKED BY DATE 2-24-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 237DDX

121-16 NC TAPE

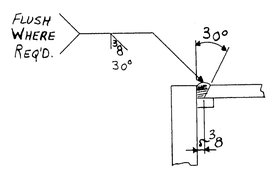
0 1 2 3 4 5 6



TOP CHORD MEMBER-238A^R-(U9-U10 & U9'-U10')



SECTION "A-A" - TYP.



DETAIL "X" TYP.

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CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUN 8 1970

TOP CHORD MEMBER (U9-U10)

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY GCY DATE 1-28-70 IN CHARGE LAG
CHECKED BY DATE SHOP NO.
CONTRACT CG6290-0061 DRAWING NO. 238AD

NO.	DATE	INIT.	REVISION
D2	11-13	CD	
A1	5-29	CD	

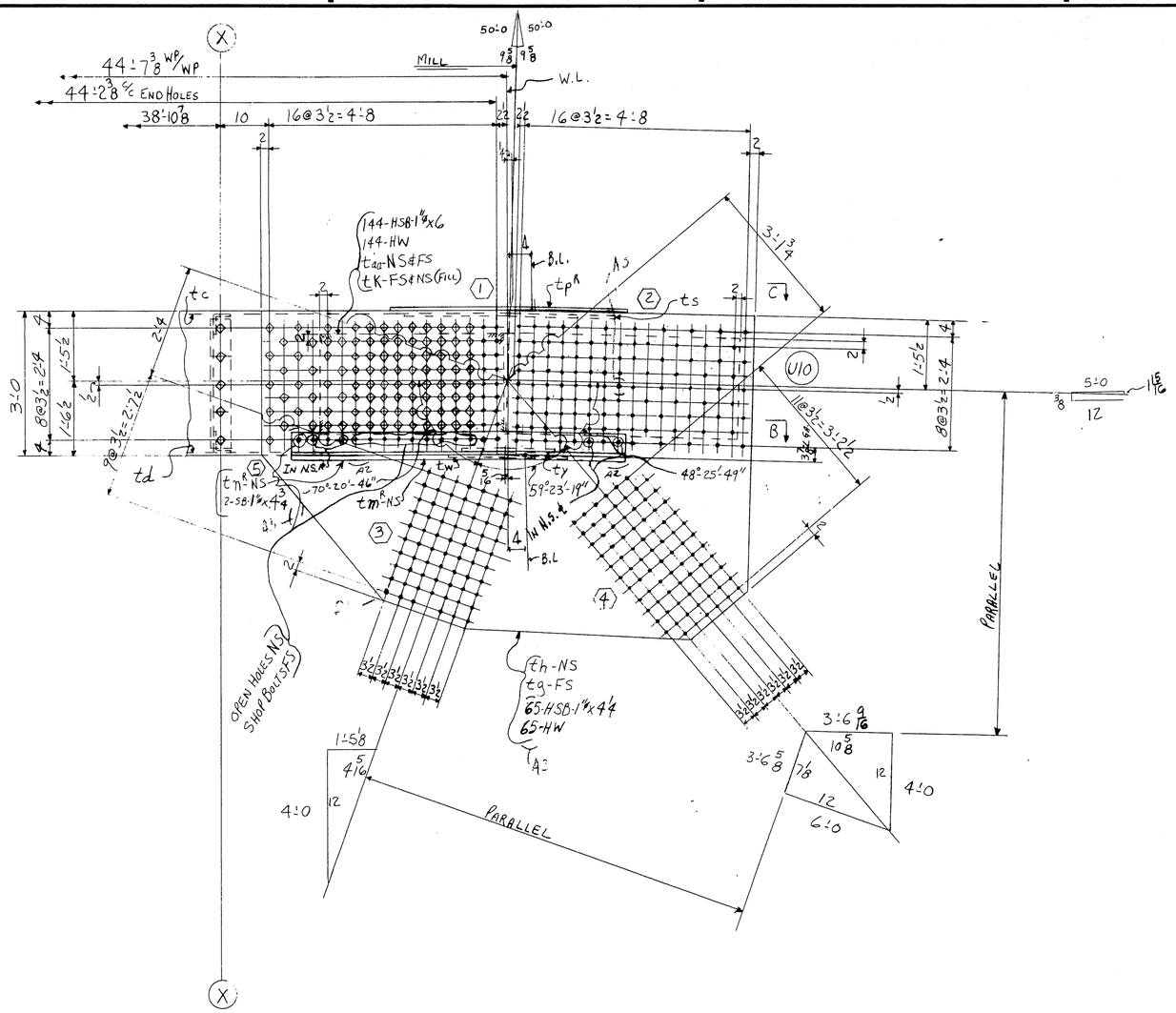
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE

121-17

For location of details shown on this sheet refer to diagrams.
E9 & E11

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

0 1 2 3 4 5 6



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

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

E9-E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW JUN 8 1970

Top Chord Member (U9-U10)

NO.	DATE	INT.
A3	5-29	CP
A2	5-26	EM
1	3-5-70	LD

REVISION

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

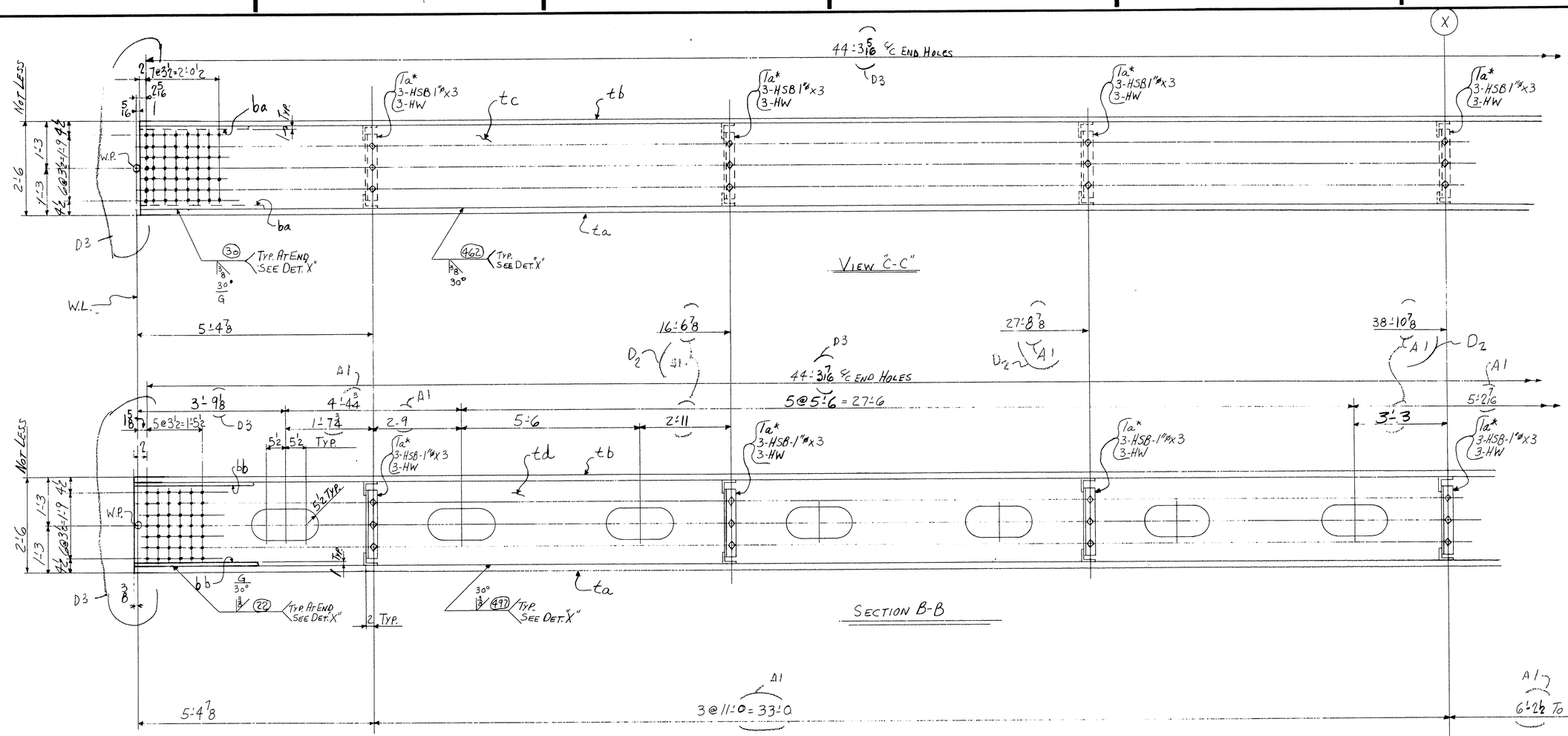
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM WORKS
MADE BY GCY DATE IN CHARGE LAG
CHECKED BY DJ DATE 2-24-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 23880

121-18 NC TAPE

0 1 2 3 4 5 6



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

E9-E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW SEP 10 1970

Top Chord Member (U9-U10)

REVISION	NO.	DATE	INIT.
D1	11-13		ED
D2	8-28		AL
A1	5-29		CD

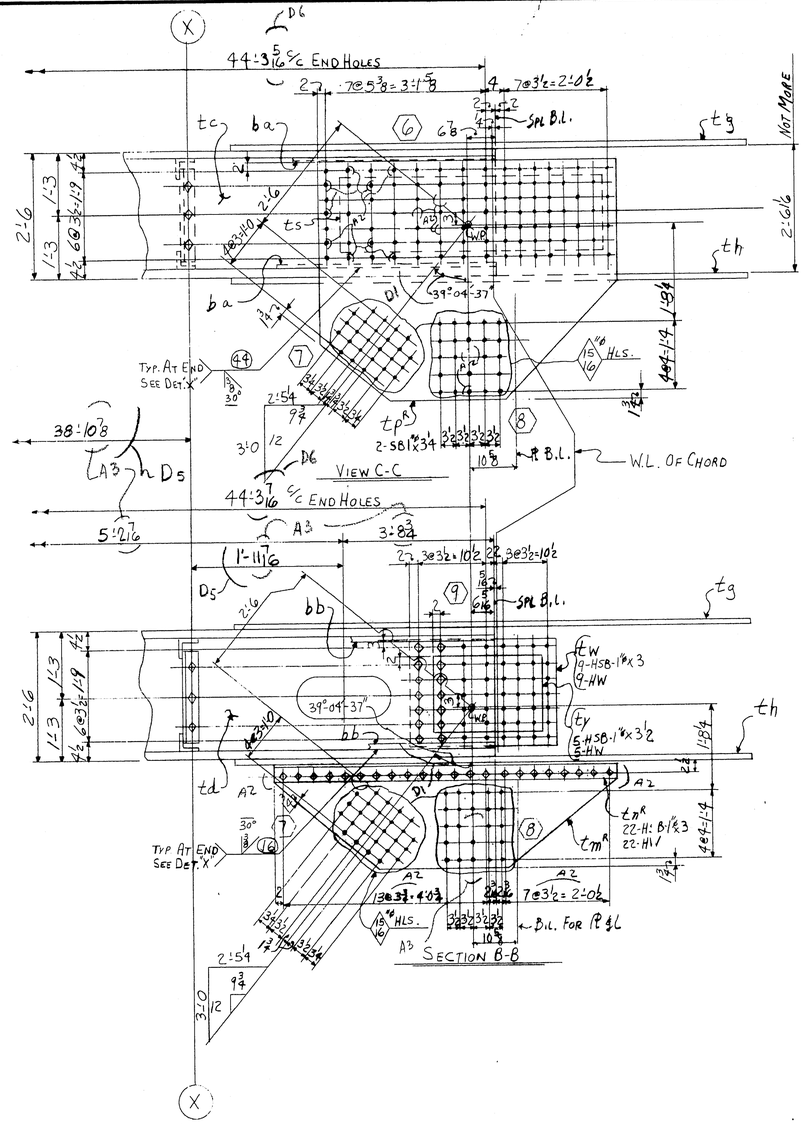
SUBMITTAL DATE: 1 2 3 4 5 6 7 8 9 0

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY GCY DATE IN CHARGE LAG
CHECKED BY DJ DATE 7-24-70 SHOP NO.
CONTRACT EG6290-061 DRAWING NO. 238 CD

121-19



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

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

E9-E11

SHOP BILL — D6

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT	LENGTH IN.	REMARKS
1		4	TOP CHORD MEMBERS - 2-238A^B 1/4 2-238A^L						
2 t	b	4	PL	36		1 1/2	44	8	M2E
M 3 t	c	4	PL	26 1/4		1	44	7 15/16	T2W - M8E
M 4 t	d	4	PL	26 1/4		1	44	7 15/16	T2W - M8E
5 t	f	8	PL	25		3/8	4	8 1/2	
6 t	g	4	PL	83		1 1/4	10	2	20:0 CUTS 2
7 t	h	4	PL	83		1 1/4	10	2	20:0 CUTS 2
8 t	k	8	PL	25		3/8	3	10	AA
9 t	mB 2	2	PL	24 1/4		3/8	6	9 7/8	BENT
10 t	nB 2	2	L	8 8		1/8	6	9 7/8	BENT, CUT 6x4
11 t	pB 2	2	PL	53 1/2		3/8	5	10 1/8	BENT
12 t	s	4	PL	18		5/8	5	1 1/4	BENT
13 t	w	4	PL	27		1/2	2	5	BENT
14 t	y	4	PL	18		1/2	1	10	BENT
15	bq	8	BR	1		5/8	45	7 15/16	
16	bb	8	BR	1		5/8	45	6 7/16	
17	la*	32	L	6	3 1/2	1/2	1	9 3/4	
18	laa*	32	L	6	4	1/2	2	7 1/2	D6
Q 19 t	a	4	PL	36		1 1/2	44	8	M2E
20 t	aa	8	PL	26 3/8		1 1/4	8	7 7/8	
21									
22									
23									
24									
25		180	HSB	1"ø			0	3 1/2	AM21
26		32	HSB	1"ø			0	3 1/4	AM21
27									
28		220	HSB	1"ø			0	3	AM21
29									
30		268	HSB	1"ø			0	4 1/4	AM21
31		576	HSB	1"ø			0	6	AM21
32									
33		1216	HW	2	1 1/16	3/16			AM21
34									
35									
36		8	MB	1"ø			0	3 1/4	RHH&RHN (SB) AM22
37		8	MB	1"ø			0	4 3/4	RHH&RHN (SB) AM22
38									
39									
40	B30	4	WD			1	178	5	
41	FW	4	WD			5/16	22	8	
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									

MILL ORDER

PIECE MARK	WIDTH	THICK	LENGTH FT	LENGTH IN	STOCK	ITEM
2	44	11			107	1
3	44	11			108	1
4	44	11			108	1
5					161	2
6					158	4
7					158	4
8					158	5
9					158	10
10					151	15
11					158	9
12					158	8
13					158	6
14					158	7
15					116	5
16					116	5
17					117	6
18					117	5
19	44	11			107	1
20	8	9			158	18

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the [illegible] of holes. EXCEPT 11x22 HOLES.

INST.	M11 H11	NO.	DESCRIPTION	MARK	REMARKS
		2	TRUSS CHORD MEMBER	238A^L	7/16x3-0x5-10
		2	" " "	238A^R	" " "
			REQUIRED LIST		

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E110XX
(EXCEPT AS NOTED)

SHAPES T/ PA517 } PREFIX -t
MATERIAL A36 - NO PREFIX
BOLTS 7/8
OPEN HOLES 1 1/16" UN
MILLING - AS NOTED
SHOP CONTACT SURFACES NP
WELDING - AS NOTED
PAINT - 1 CT. RED LEAD-ASTM D-1725 TYPE II-UN
SEE NOTE "X"

LENGTH CORR. FOR TEMP.
TOP CHORD MEMBER (U9-U10)

NO.	DATE	INIT.	REVISION
D6	11-13	CD	
D5	8-28	JM	
A4	6-11	ET	
A3	5-19	CD	
A2	3/24	CD	
A1	3/19	CD	

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

APPROVED: HARDESTY & HANOVER CONSULTING ENGINEERS NEW YORK, N.Y.
BY FFW SEP 10 1970

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENGR.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

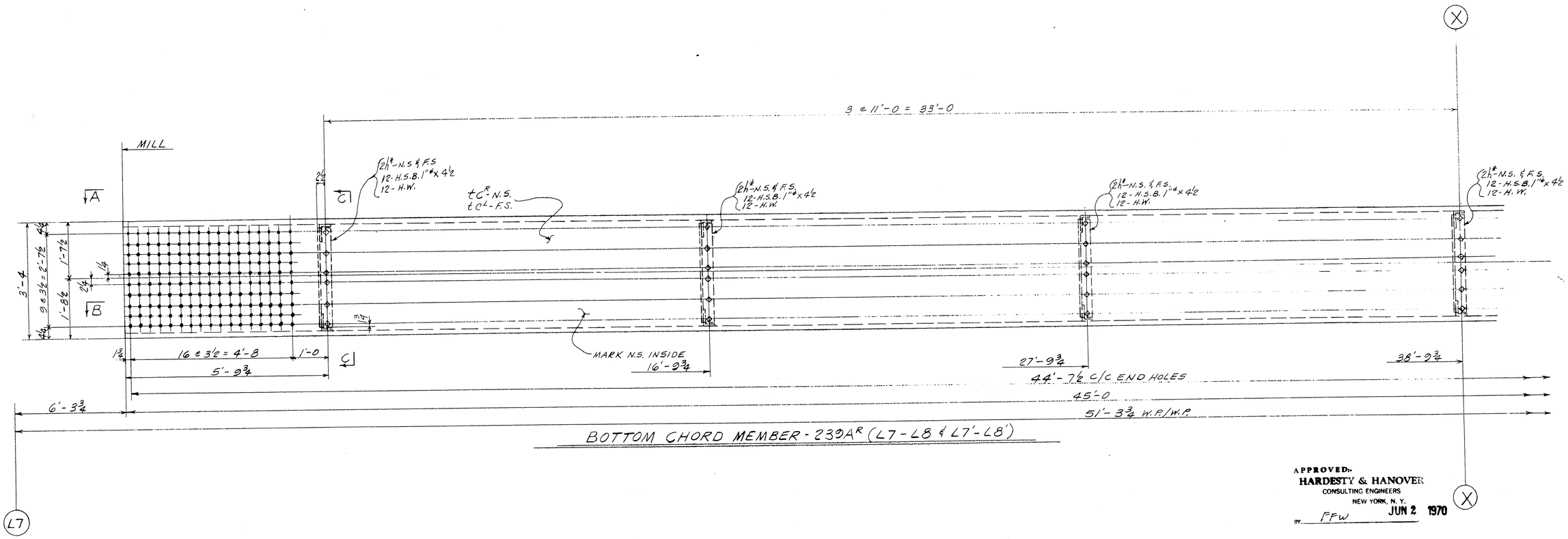
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY GCY DATE IN CHARGE LAG
CHECKED BY DATE 2-25-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 23800

35433 (Rev.D 8-69)

121-20 NC TAPE

0 1 2 3 4 5 6



BOTTOM CHORD MEMBER - 239A^R (L7-L8 & L7'-L8')

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUN 2 1970

BOTTOM CHORD MEMBER BETWEEN L7-L8 & L7'-L8'

MATERIAL	
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

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
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

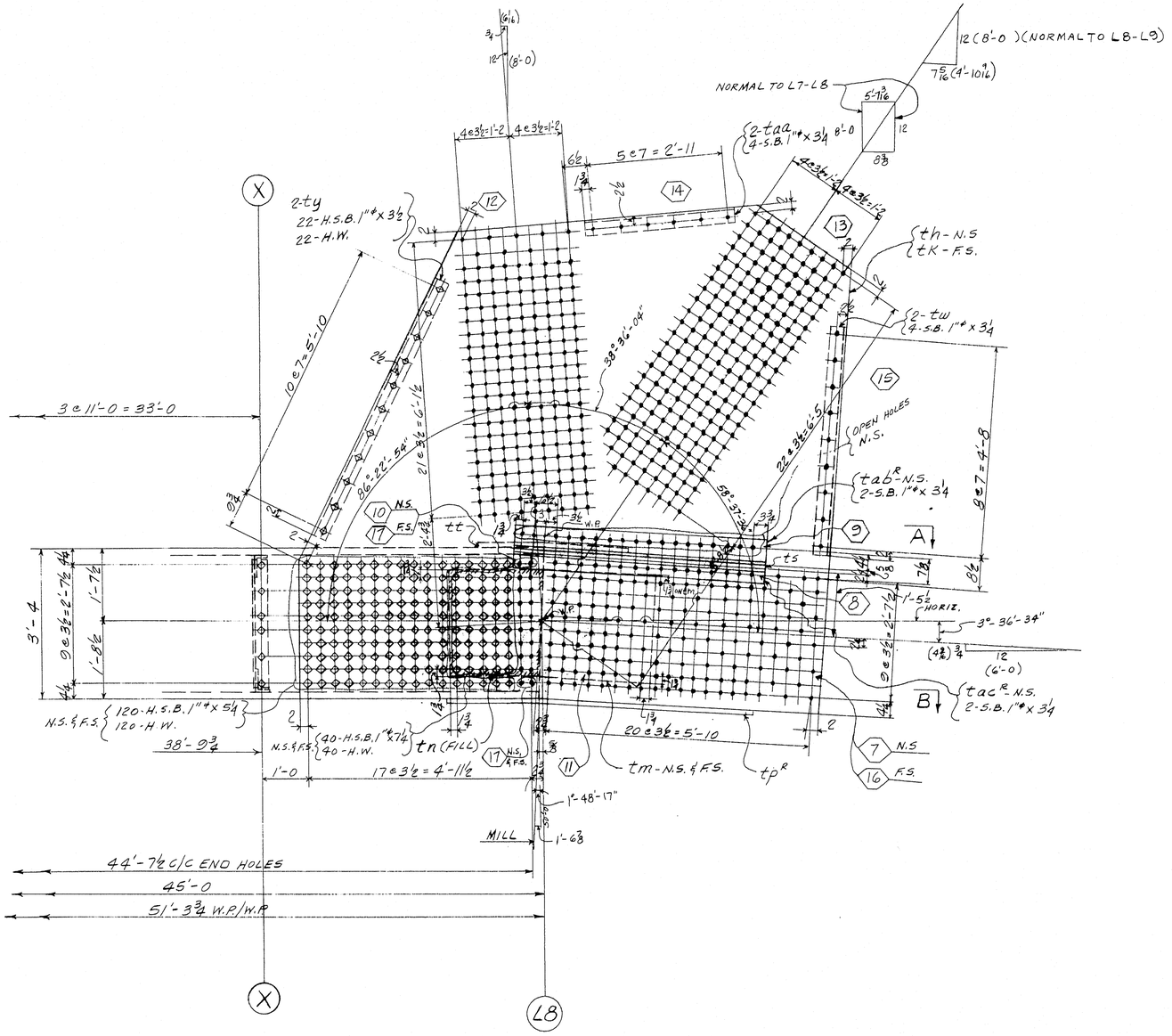
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORK
MADE BY J.A.L. DATE 2-13-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 5-5-70 SHOP NO.
CONTRACT CG 6290-061 DRAWING NO. 239AD

SAMAY 11-69

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-21



	a	b	c
a			
b			
c			
d			
f			
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h			
k			
m			
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s			
t			
w			
y			

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUN 2 1970

BOTTOM CHORD MEMBER BETWEEN L7-L8 & L7'-L8'

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

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
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

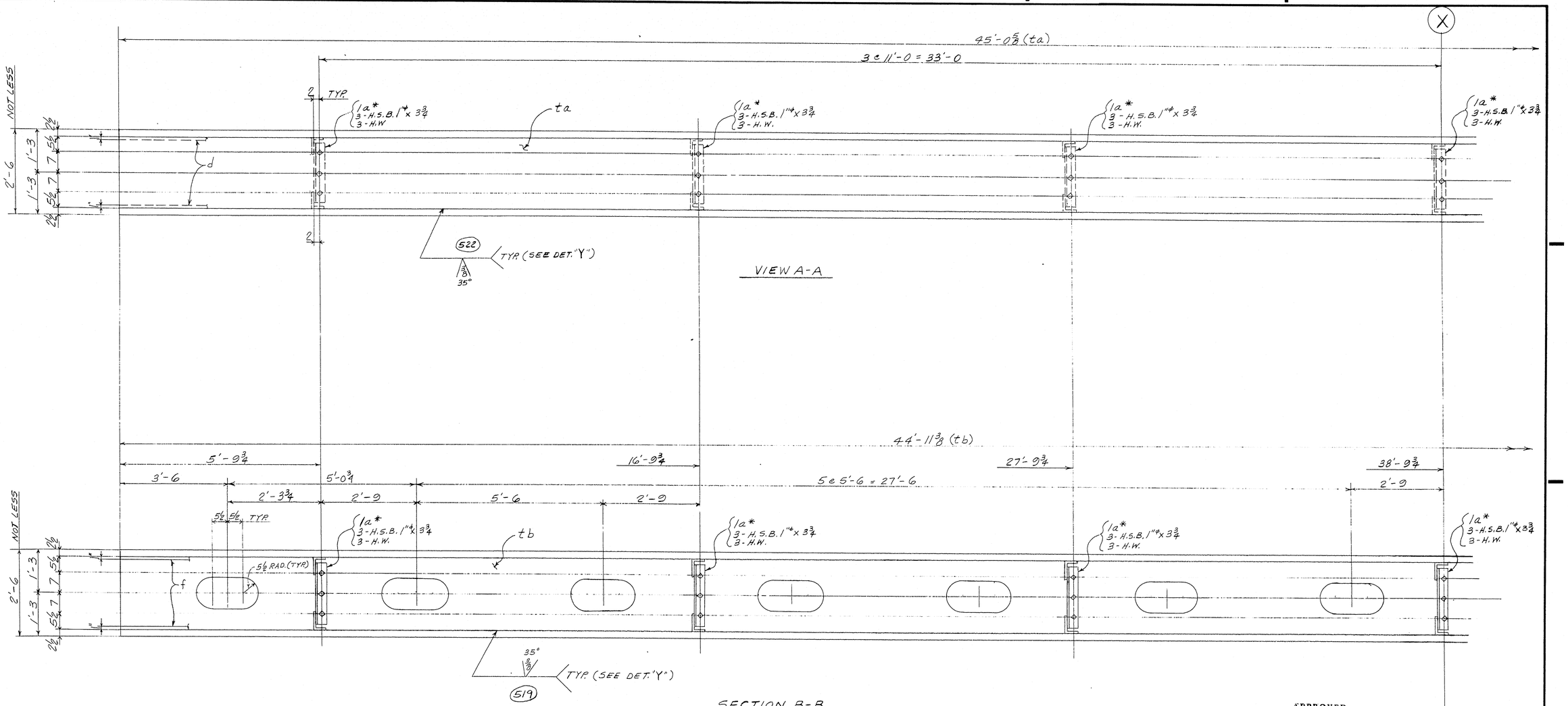
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY G.A.L. DATE 2-13-70 IN CHARGE L.G.
CHECKED BY C.A.H. DATE 3-5-70 SHOP NO.
CONTRACT CGG290-061 DRAWING NO. 239BD

NC TAPE

121-22

0 1 2 3 4 5 6



APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUN 2 1970

BOTTOM CHORD MEMBER BETWEEN L7-L8 & L7'-L8'

MATERIAL	
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

REVISION: NO. | DATE | INIT.

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
DIRECTION
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.A.L. DATE 2-13-70 IN CHARGE L.G.
CHECKED BY C.A.D. DATE 3-5-70 SHOP NO.
CONTRACT CG 6290-06 DRAWING NO. 23960

For location of details shown on this sheet refer to diagrams.
E9 & E11

121-23

	a	b	c
a			
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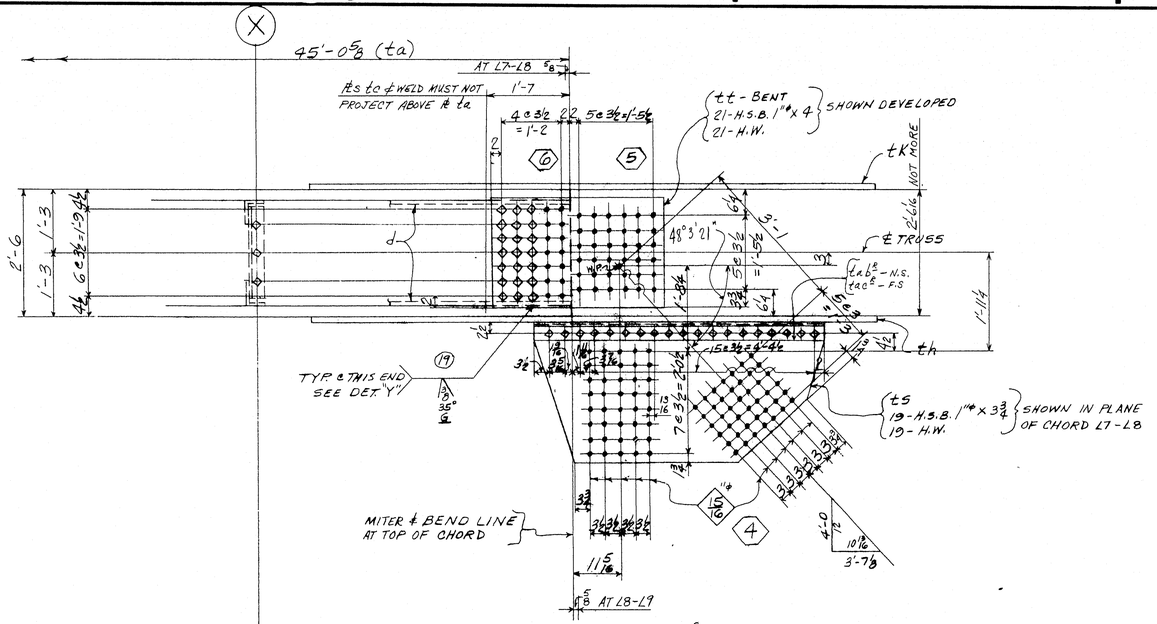
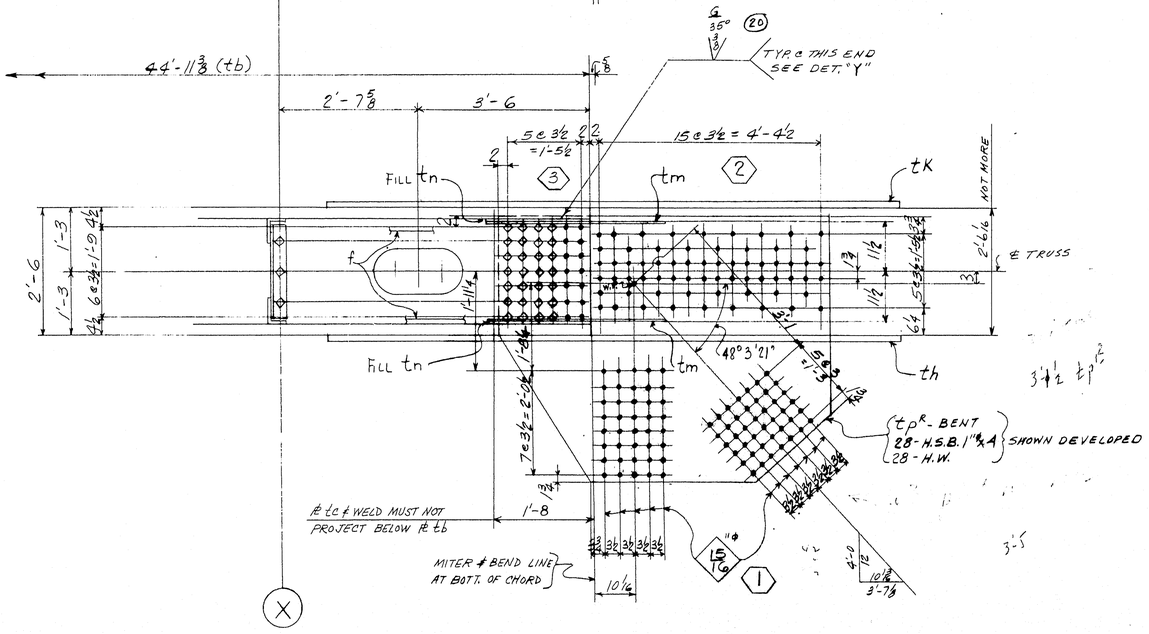
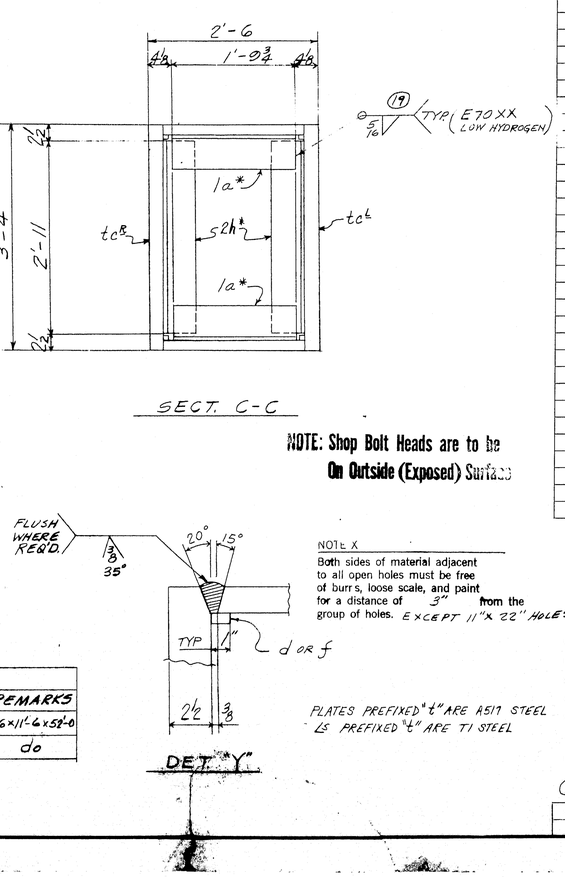
0 1 2 3 4 5 6





SECT. C-C



NOTE X

Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x 22" HOLES

PLATES PREFIXED "t" ARE A517 STEEL
LS PREFIXED "t" ARE T1 STEEL

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

D2

SHOP BILL — MILL ORDER

PROJECT PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	LENGTH FT	LENGTH IN.	STOCK ITEM PAGE	STOCK ITEM LINE
	1	4 - BOTT. CHORD MEMBERS 2-239A^R & 2-239A^L												
M	2 t a	4	PL	24 1/4		1¾	45 0 5/8	T2W - M.2E.			45	2¾	129	3rd
M	3 t b	4	PL	24 1/4		1¾	44 11 3/8	T2W - M.2E.			45	2¾	129	3rd
L	4 t c^R	1/4	PL	40		2½	45 0 5/8	T2W - M.2E.			45	2¾	128	1
	5 d	8	BR	1		5/8	46 0 5/8	BACK UP BARS			46	3	142	8
	6 f	8	BR	1		5/8	45 11 3/8	BACK UP BARS			46	3	142	8
	7 la*	32	L	6	3½	½	1 0 3/8				2	5	144	1
	8 2h*	32	L	6	4	½	2 11				3	0	144	2
	9 t h	4	PL	13 5/8		1¼	12 4 3/4	1@22'-8 CUTS 2 PCS			22	10	158	12
	10 t K	4	PL	13 5/8		1¼	12 4 3/4	1@22'-8 CUTS 2 PCS			22	10	158	12
	11 t m	8	PL	29 3/8		⅞	4 7½				4	7½	158	14
	12 t n	8	PL	28		1	2 2	FILL			2	3	158	13
	13 t p^R	28	PL	62		⅞	6 6	BENT 1@12'-8 CUTS 2 PCS			12	10	158	17
	14 t s	4	PL	32 3/8		5/8	5 8	1@10'-8 CUTS 2 PCS			10	11	158	16
	15 t t	4	PL	25		¾	3 3½	BENT			3	3½	158	15
	16 t w	8	L	4	4	¾	5 0				40	0	152	3
	17 t y	8	L	4	4	¾	6 2				40	0	152	3
	18 t aa	8	L	4	4	¾	3 2½				40	0	152	3
	19 t ab^L	28	L	8	8	⅞	5 8	CUT To 7 x 4 x ⅞			38	9	153	15
	20 t ac^L	28	L	4	4	¾	5 8				40	0	152	3
	21													
	22													
	23													
	24	102	325	1"ø			0 4½							AM26
	25	84	325	1"ø			0 4							AM26
	26	172	325	1"ø			0 3⅜							AM26
	27	118	325	1"ø			0 9							AM26
	28	88	325	1"ø			0 3½							AM26
	29	960	325	1"ø			0 5¼							AM26
	30	320	325	1"ø			0 7¼							AM26
	31	1928	H.W.	2" O.D. 11/16 I.D.		3/16								AM26
	32													
	33													
	34	48	M.B.	1"ø			0 3¼	RHH & HAN (S.B.)						AM27
	35													
	36 V35	4	WD			1¾	180 0							
	37 F.W.	4	WD			5/16	25' 9							
	38													
	39													
	40													
	41													
	42													
	43													
	44													
	45													
	46													
	47													
	48													
	49													
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	51													
	52													
	53													
	54													
	55													
	56													
	57													
	58													
	59													
	60													
	61													
	62													

INSTALLMENT H8	INSTALLMENT M8	QTY.	MARK	DESCRIPTION	REMARKS
1	1	2	239A^R	BOTT. CHORD MEMBER	5'-6 x 11'-6 x 58'-0
1	1	2	239A^L	do	do

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY FFW OCT 5 1970

ELECTRODES E11018-M (LOW HYDROGEN)

(UNLESS NOTED) LENGTH CORR. FOR TEMP.

BOTTOM CHORD MEMBER BETWEEN L7-L8 & L7'-L8'

MATERIAL (T1 A517) PREFIXED-t, A36 - NO PREFIX
BOLTS 1"ø
OPEN HOLES 1 1/16" U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING - AS NOTED
PAINT I.C.T. RED LEAD ASSHO-M72, TYPE II (SEE NOTE "X")

NO.	DATE	REVISION
D	9/22/16	
D1	6-10	CD

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

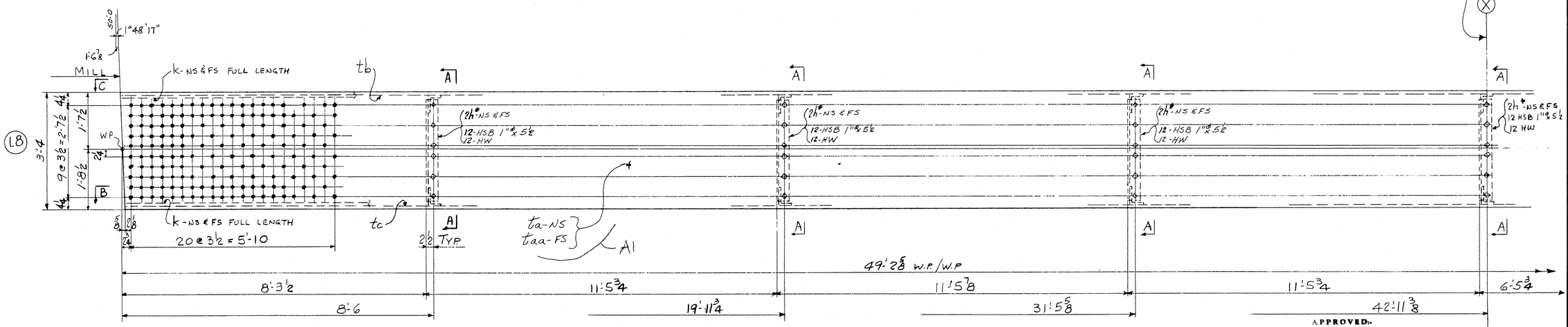
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.A.L. DATE 2-13-70 IN CHARGE L.G.
CHECKED BY C.A.P. DATE 3-5-70 SHOP NO.
CONTRACT CG6290-06 DRAWING NO. 239.DD

33433 (Rev.D 8-69)

121-24 NC TAPE



BOTTOM TRUSS CHORD 240A^{R} (L8 TO L9)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Dorfzaun APR 21 1970

BOTTOM CHORD MEMBER AT POINT L8 TO L9

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHEET 240DE A1

NO.	DATE	INT.
A1	3/31	WB

REVISION

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

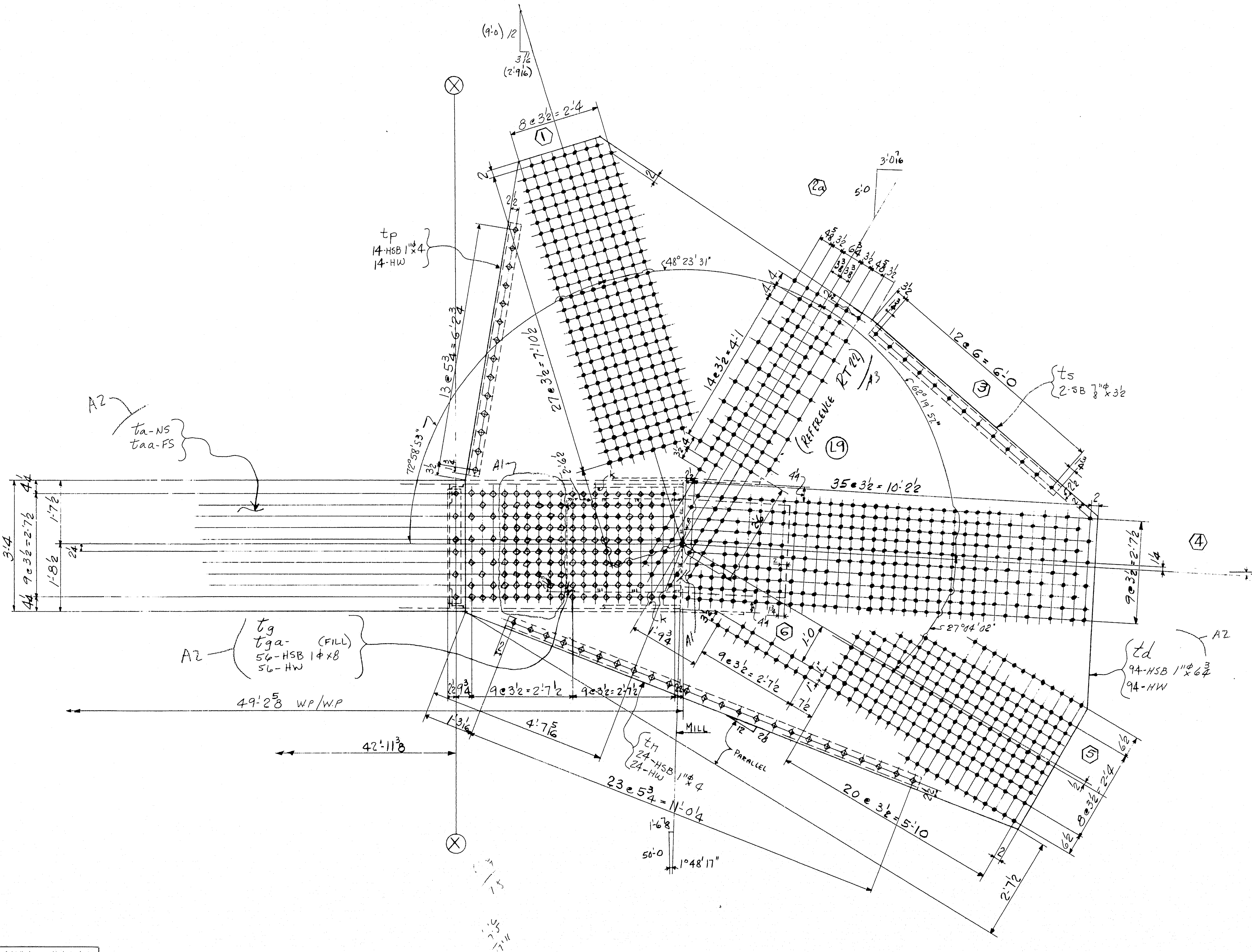
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY SAK DATE IN CHARGE L. GOTHBERG
CHECKED BY RP DATE 3/3/70 SHOP NO.
CONTRACT C&6290-061 DRAWING NO. 240AE

For location of details shown on this sheet refer to diagrams.
E9-E11

121-25 A1

0 1 2 3 4 5 6



APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY [signature] MAY 28 1970

BOTTOM CHORD MEMBER AT LINE L8 TO L9

MATERIAL	SEE DRWG # 240DE
RIVETS OR BOLTS	
OPEN HOLES	
A325 FIELD BOLTS	
SHOP CONTACT SURFACES	
PAINT	

NO.	DATE	INIT.
0		
9		
8		
7		
6		
5		
4		
A3	5/11	RP
A2	3/31	WB
A1	3/9	RP

REVISION

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

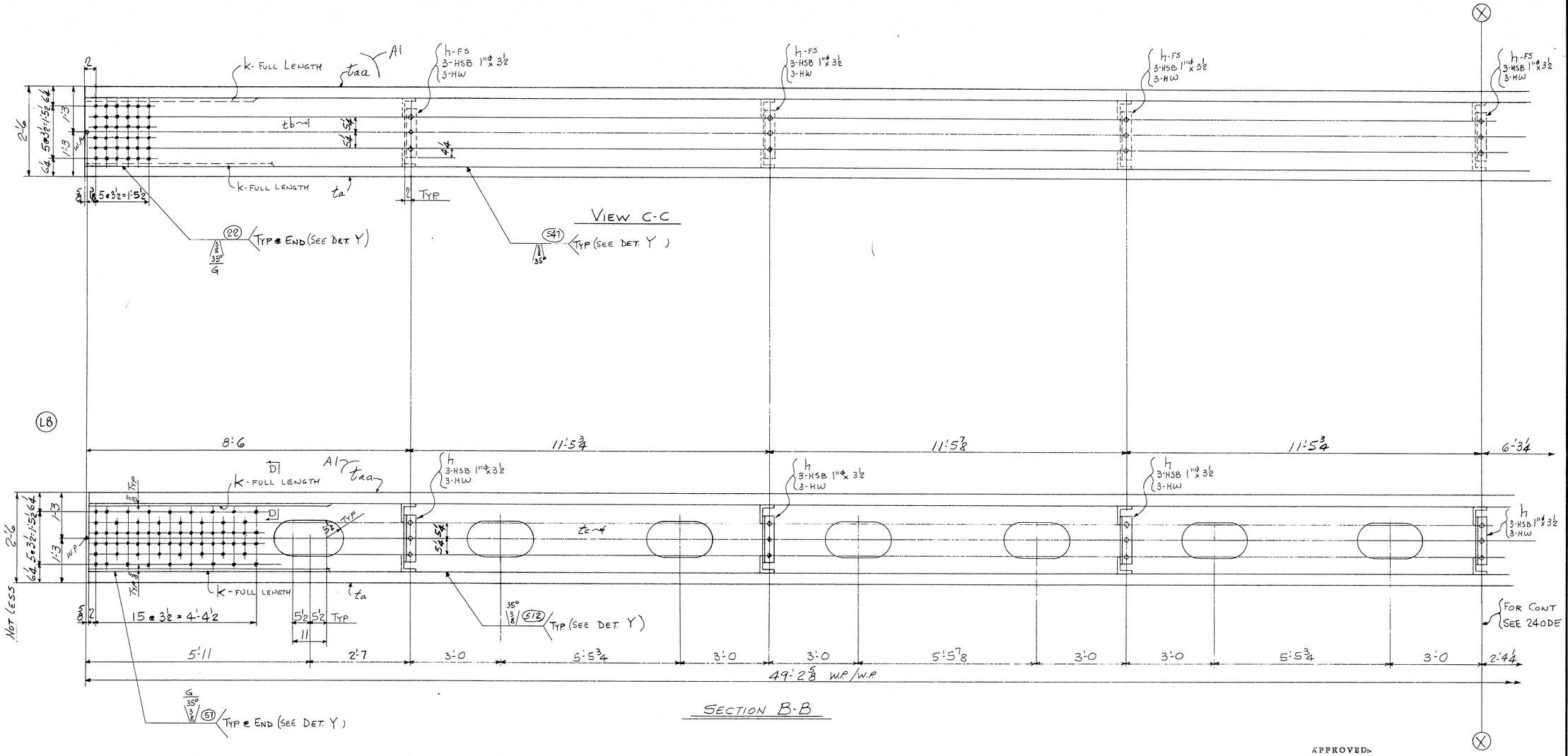
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY SAK DATE 2-9-70 IN CHARGE L. GOTHBERG
CHECKED BY RP DATE 3-3-70 SHOP NO.
CONTRACT 646290-061 DRAWING NO. 240BE

For location of details shown on this sheet refer to diagrams.
E9-E11

121-26



APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Moody APR 21 1970

BOTTOM CHORD MEMBER AT POINT L8 TO L9

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHEET 240DE

NO.	DATE	INIT.	REVISION
A1	5/21	WB	

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM — CHICAGO WORKS
MADE BY SAK DATE 2-11-70 IN CHARGE L GOTHBERG
CHECKED BY JRD DATE 3-3-70 SHOP NO.
CONTRACT EG6290-061 DRAWING NO. 240CE

For location of details shown on this sheet refer to diagrams.
E9-E11

121-27

	a	b	c
a			
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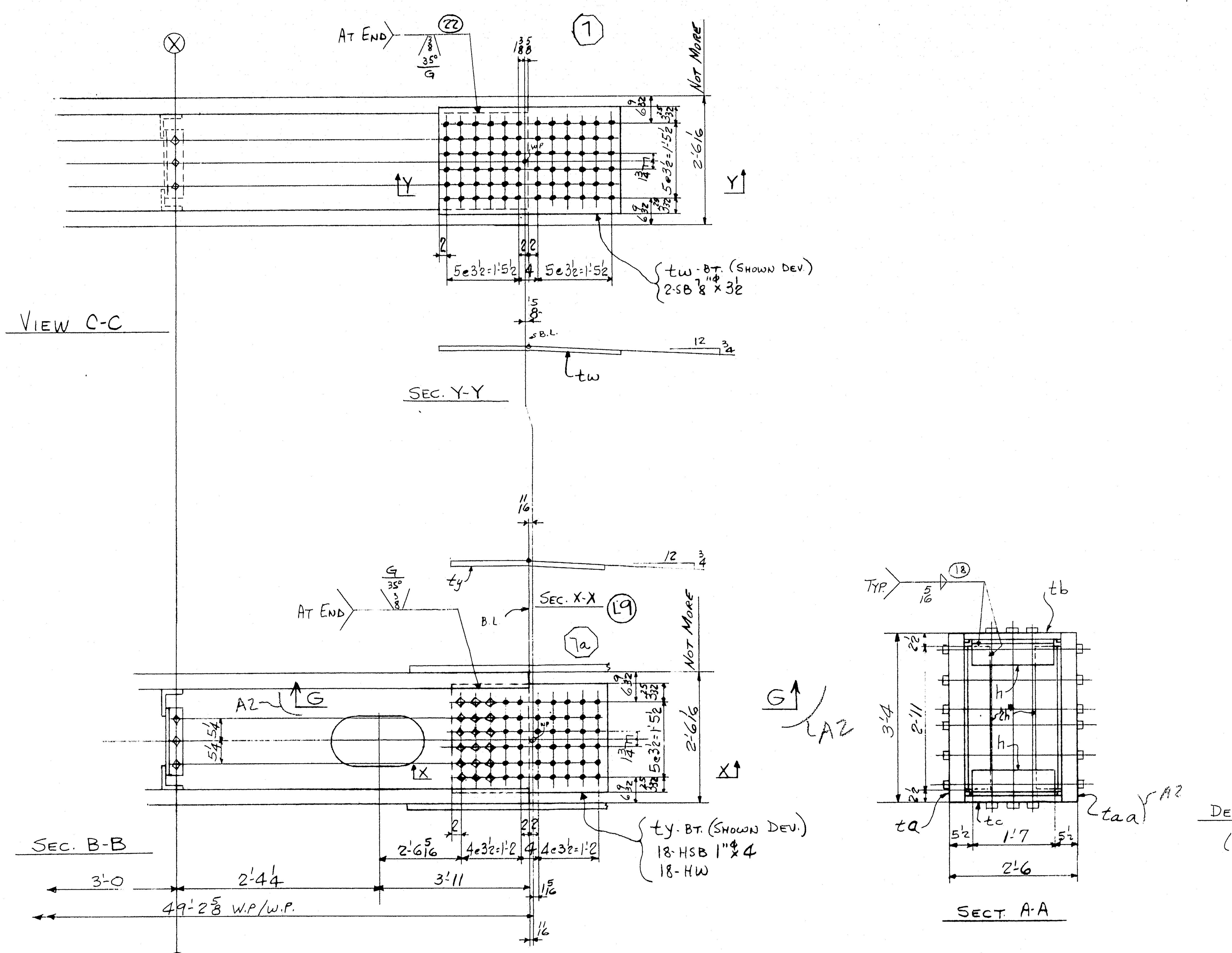
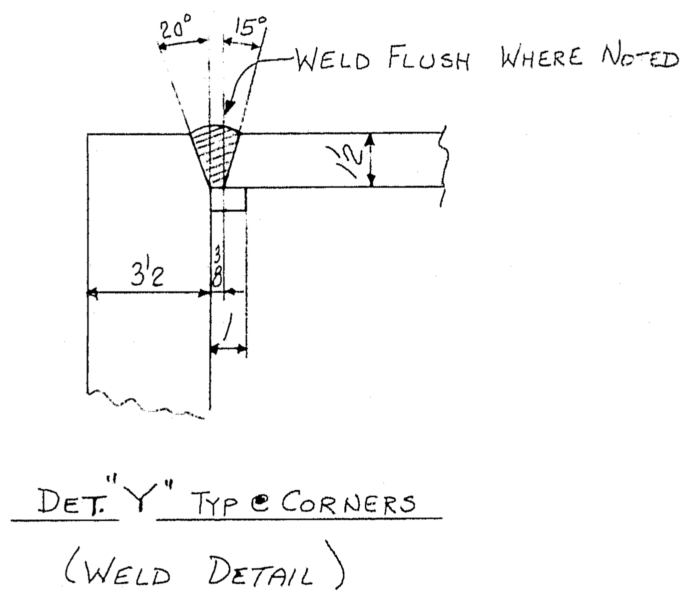




APPROVED:
HARDESTY & HANOVE…
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Anchel Noortzky OCT 21 1970

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes EXCEPT 11x22 HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES - E70XX
LOW HYDROGEN

PLs PREFIXED t - A517 STEEL
Ls PREFIXED t - T1 STEEL

For location of details shown on this sheet refer to diagrams.
E9-E11

PRODUCT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SIZE OR POUNDS	THICK	LENGTH FT.	LENGTH IN.	REMARKS	WIDTH	THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1	A2	4-BOTTOM TRUSS CHORD 2-240A^R & 2-240A^L														
(2)	2	t a	4	PL	40		3½	49	3⅞	MZE-T2W			49	7		110	1
(M)	3	t b	4	PL	22¼		1½	49	3⅞	MZE-T2W			49	7		111	3
(M)	4	t c	4	PL	22¼		1½	49	1 5/16	MZE-T2W						111	4
D3	5	t d	4	PL	144¼		1¾	20	1¼	(36'-4¾ CUTS 2)			36	8		157	2
	6	t f	4	PL	28		¼	3	0 1/16	M1E (FILL D4			3	1		160	2
	7	2h*	32	L	6	4	½	2	11				2	11¾		117	9
	8	h	32	L	6	3½	½	1	7				1	9		117	10
	9	k	16	BR	1		⅝	50	2	BACK-UP BAR			50	7		116	9
A2 (2)	10	t aa	4	PL	40		3½	49	3⅞	MZE & T2W			49	7		110	1
	11	t n	8	L	4	4	¾	11	4¼				40	0		152	3
	12	t p	8	L	4	4	¾	6	6¼				40	0		152	3
	13	t s	8	L	4	4	¾	6	3½				40	0		152	3
A2	14	t w	4	PL	25		1	3	7	BENT			3	7		160	4
	15	t y	4	PL	25		1	3	0	BENT			3	0		160	6
	16	t da	4	PL	144¼		1¾	20	1¼	(36'-4¾ CUTS 2) D4			36	8		157	2
	17	t fa	4	PL	30¼		1	5	9½				23	4		161	17
	18	t g	4	PL	30¼		1	5	9½				23	4		161	17
	19	t ga	4	PL	28		¼	3	0 1/16	M1E (FILL			3	1		160	2
	20																
	21																

22		96	325	1			0	3½		AM	26
23	A2	376	325	1			0	4		AM	26
24		192	325	1			0	5½		AM	26
25	A1	708	325	1			0	6¾		AM	26 30
26	A2	480	325	1			0	8		AM	26
27		24	MB	⅞			0	3½	S.B RHH-RHN	AM	27
28											
29	A2	1852	HW	2	1 1/16	1 3/16				AM	26
35	FW	4	WD			5/16	24	0			
36	V35	4	WD			1½	197	0			

				NO.	DESCRIPTION	MARK	REMARKS
1			1	2	BOTT TRUSS CHORD	240A^R	17'-7x2'-10x59'-10
1			1	2	do	240A^L	}
M9			H9	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST			

BOTTOM CHORD MEMBER AT POINT L8 TO L9

MATERIAL: A517 - PREFIX t; T1 - PREFIX t; A36 - NO PREFIX
[redacted] BOLTS - 1"φ
OPEN HOLES 1 1/16"φ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P
WELDING AS NOTED
PAINT 1-SHOP CT. RED LEAD AA SHO-M72, TYPE II SEE NOTE "X"

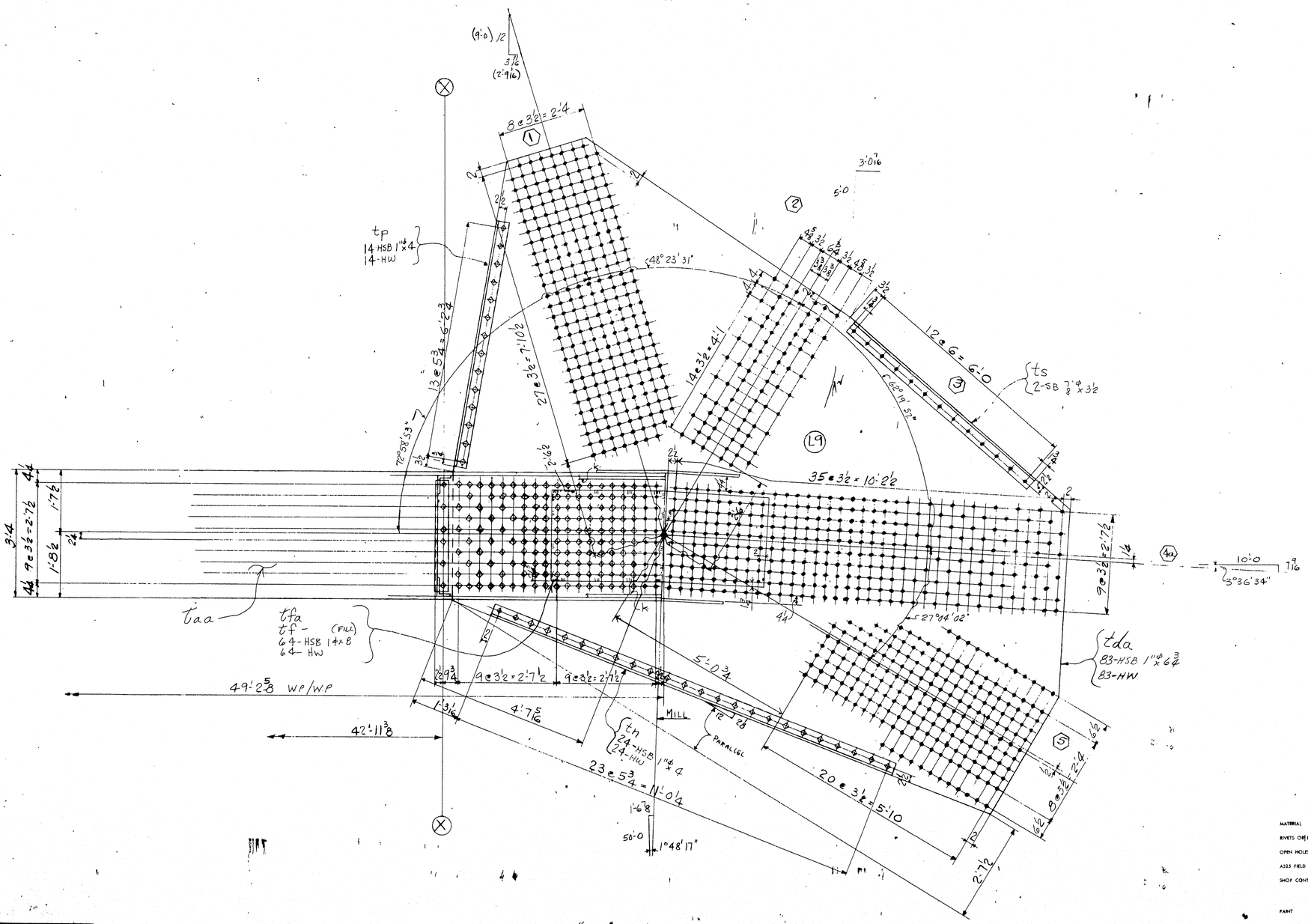
REVISION NO.	DATE	INIT.
D4	10/7	CD
D3	9/22	LG
A2	3/31	WB
A1	3/9	RP

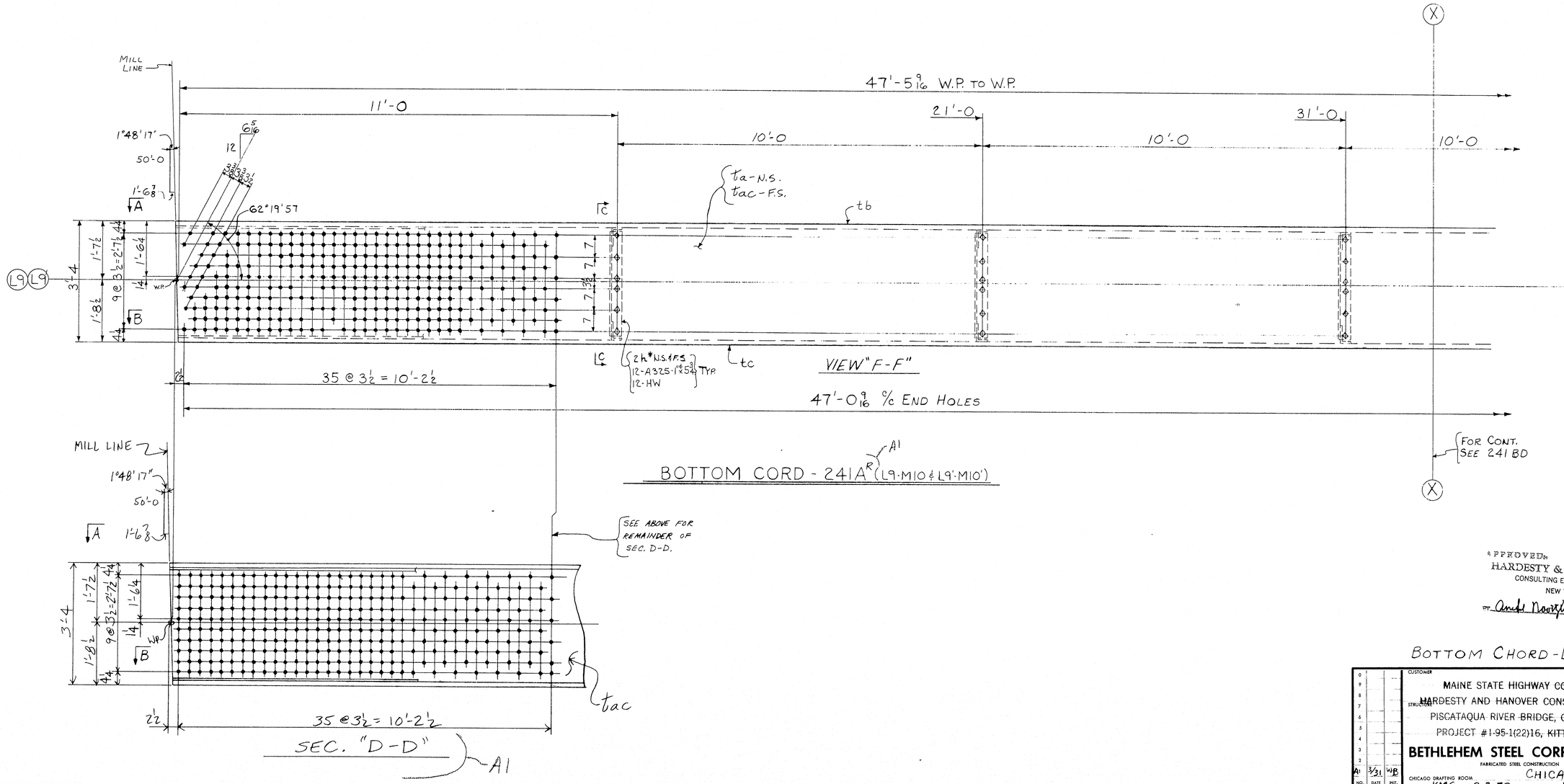
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY SAK DATE 2-13-70 IN CHARGE L. GOTHBERG
CHECKED BY RD DATE 3-3-70 SHOP NO.
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE
CONTRACT CG6290-061 DRAWING NO. 240DE
35042 (Rev.E 8-69)

NC TAPE 121-28A2

0 1 2 3 4 5 6


(9'-0) /12
3 7/16
(2'-9 1/16)
8 @ 3 1/2 = 2'-4
3'-0 7/16
5'-0
tp
14-HSB 1 1/4 x 4
14-HW
48° 23' 31"
13 @ 5 3/4 = 6'-2 3/4
27 @ 3 1/2 = 7'-10 1/2
14 @ 3 1/2 = 4'-1
12 @ 6 = 6'-0
ts
2-SB 7/8" ϕ x 3 1/2
66° 19' 57"
L9
35 @ 3 1/2 = 10'-2 1/2
9 @ 3 1/2 = 2'-7 1/2
1'-7 1/2
1'-8 1/2
3'-4
4'-4
taa
tfa
tf - (FILL)
64-HSB 14 x 8
64-HW
49'-2 5/8 WP/WP
42'-11 3/8
5'-0 3/4
9 @ 3 1/2 = 2'-7 1/2
9 @ 3 1/2 = 2'-7 1/2
2'-9 3/4
1'-3 1/16
4'-7 5/16
MILL
PARALLEL
tn
24-HSB 1" x 4
24-HW
23 @ 5 3/4 = 11'-0 1/4
1'-6 7/8
50'-0
1° 48' 17"
5° 27' 04" 02"
tda
83-HSB 1" ϕ x 6 3/4
83-HW
10'-0
3° 36' 34"
7 9/16
20 @ 3 1/2 = 5'-10
8 @ 3 1/2 = 2'-4
2'-7 1/2
6 1/2
1'-4
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY Arthur Moody MAY 28 1970
BOTTOM CHORD MEMBER AT LINE L8 TO L9
MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE DRWG. 240DE
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 3-31-70 IN CHARGE L. GOTHBERG
CHECKED BY GS DATE SHOP NO.
CONTRACT 66290-061 DRAWING NO. 240EE
REVISION
NO. DATE INIT.
1 5/11 CP
2 3/31 WB
SUBMITTAL DATE
1 2 3 4 5 6 7 8 9 0
The location of details shown on this sheet refer to
E9-E11
SEC. "G-G"
121-29 NC TAPE A1
0 1 2 3 4 5 6



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

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arch Nowitz APR 21 1970

BOTTOM CHORD - L9 TO M10

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

NO.	DATE	INIT.
A1	3/31	WB

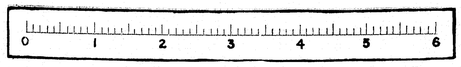
REVISION

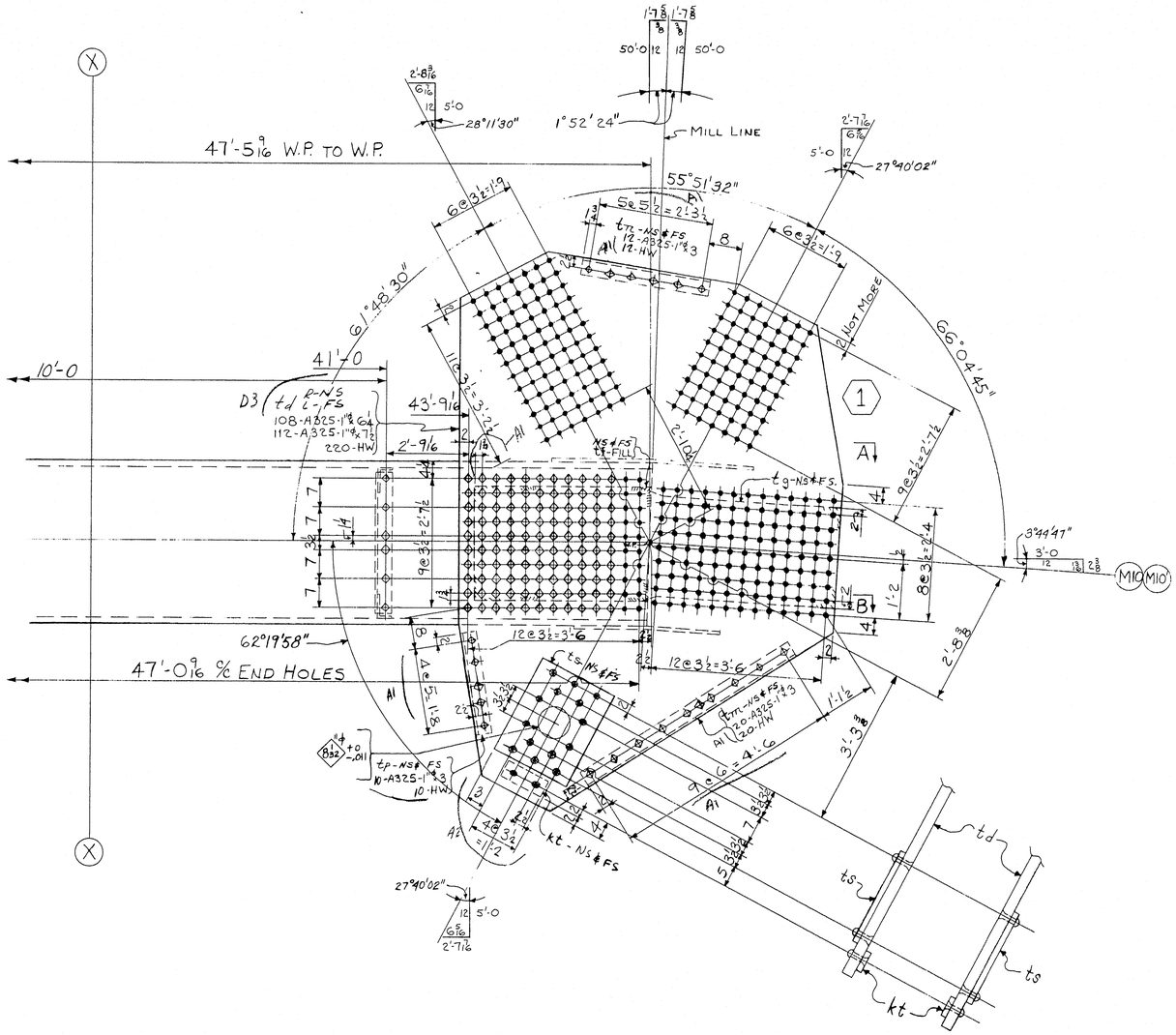
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY KMG DATE 2-3-70 IN CHARGE LAG
CHECKED BY RD DATE 3-11-70 SHOP NO.
CONTRACT CG62 90-061 DRAWING NO. 241 AD

NC TAPE 121-30





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

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Hardesty MAR 4 1971

BOTT. CHORD L9 To M10

NO.	DATE	INT.
3	2/5	RP
2	3/11	RP
1	4/22	RP

REVISION

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

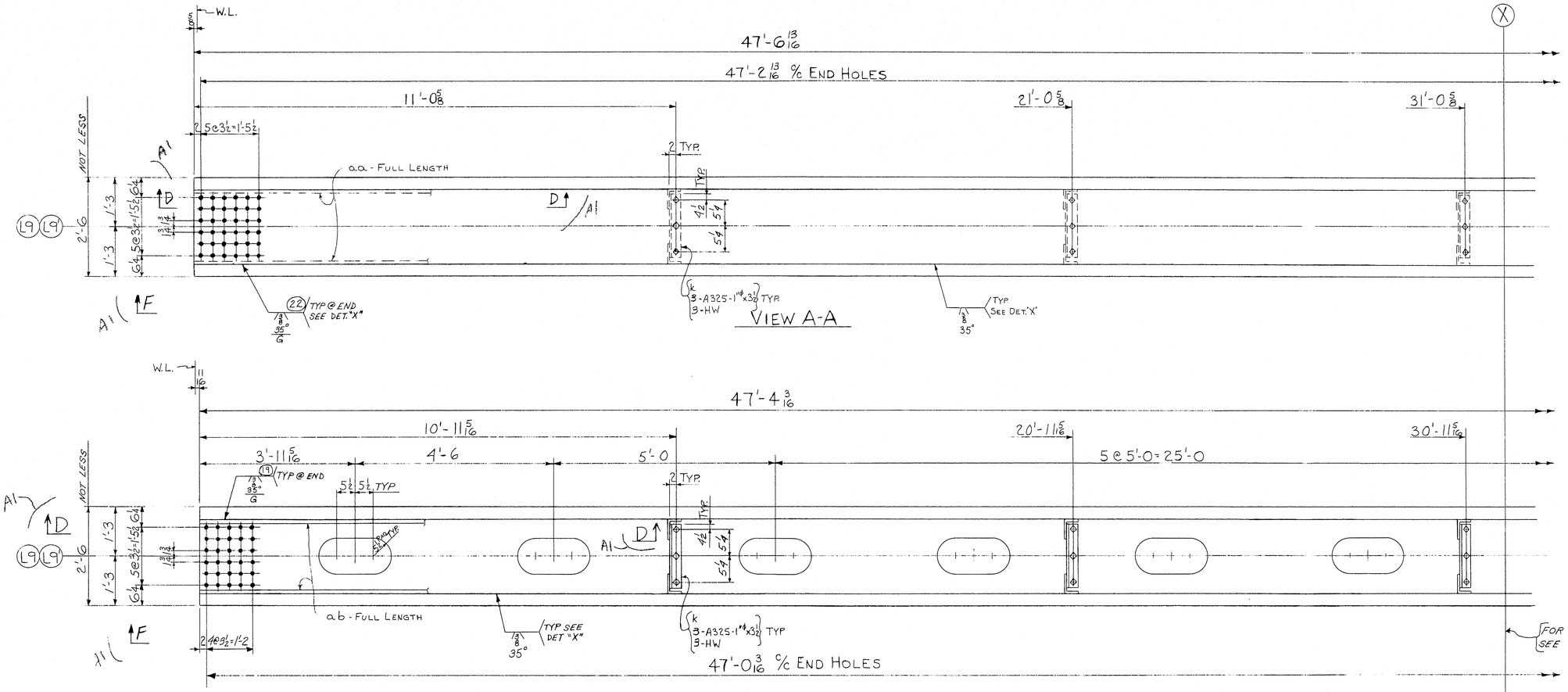
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY KMG DATE 2-4-70 IN CHARGE L.A.G.
CHECKED BY RP DATE 3-11-70 SHOP NO.
CONTRACT OG 6290-061 DRAWING NO. 241BD

121-31 NC TAPE

0 1 2 3 4 5 6



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

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY André Nowicki APR 21 1970

BOTT. CHORD - L9 To M10

REVISION			
NO.	DATE	INIT.	
A1	3/31	WB	

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

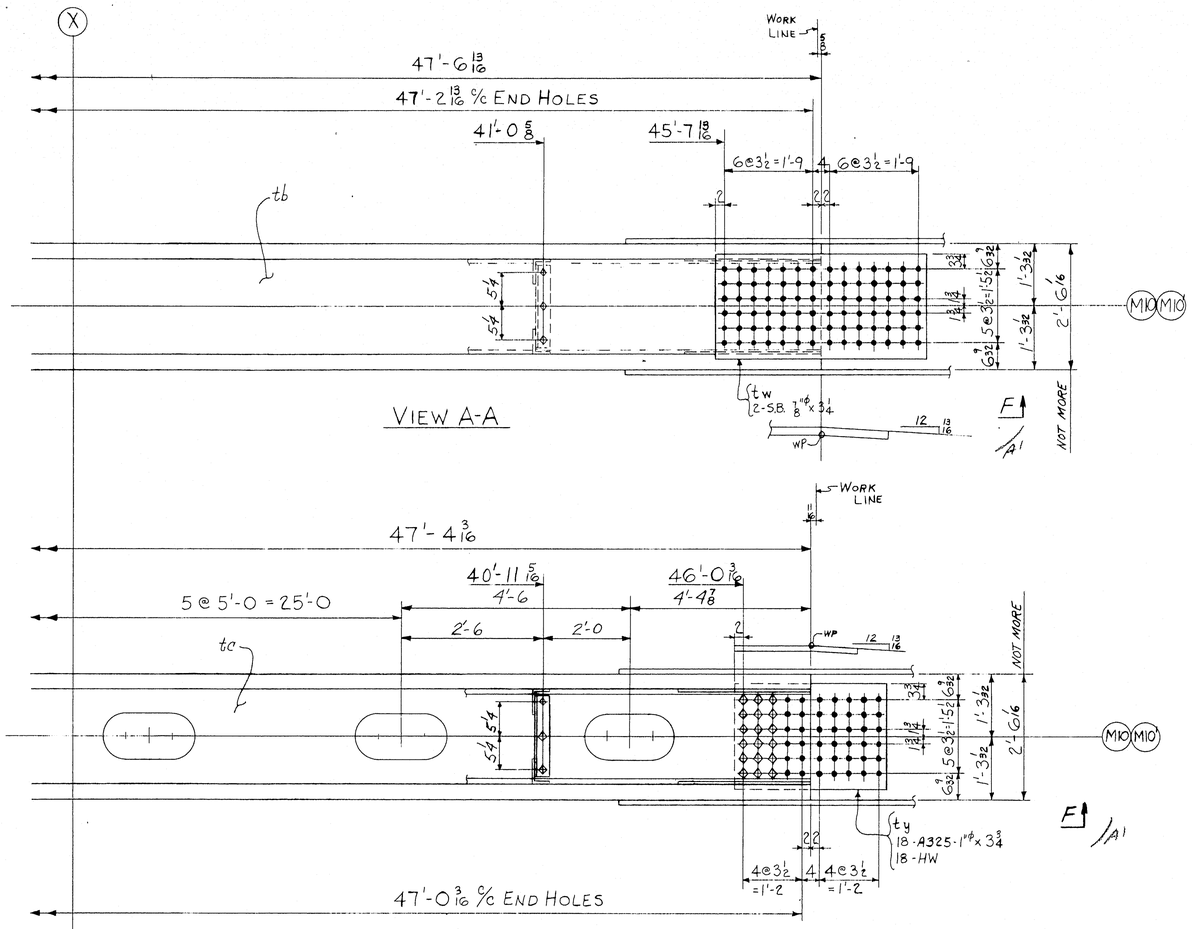
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #(I-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY KMG DATE 2-6-70 IN CHARGE LAG
CHECKED BY RP DATE 3-11-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 241CD

121-32 NC TAPE

0 1 2 3 4 5 6



For location of details shown on this sheet refer to diagram

E9 & E11

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

A1 — D4

SHOP BILL / MILL ORDER

PIECE MARK	ITEM	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS A1	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	MILL ORDER ITEM PAGE	MILL ORDER ITEM LINE
	1		4	BOTTOM CORD: 2-241A^R & 2-241A^L													
(2)	2	t a	4	PL	40		3 3/4	47	6 13/16	M2E-T2W			47	11		112	01
(M)	3	t b	4	PL	21 3/4		1 1/2	47	6 13/16	M2E-T2W			47	11		113	03
(M)	4	t c	4	PL	21 3/4		1 1/2	47	4 13/16	M2E-T2W							
	5	t d^R	3/4	PL	94 1/2		1	11	5 3/4	(20'-6 CUTS 2)							
D4	6	t f	8	PL	28		1/4	2	8 1/2	FILL-M1E							
	7	t g	8	PL	30		1	7	6 1/4	A2							
	8	2h*	32	L	6	4	1/2	2	11								
	9	k	32	L	6	3 1/2	1/2	1	7 1/2								
	10	t m	8	L	4	4	1/2	4	10	A2							
	11	t n	8	L	4	4	1/2	2	7	D3							
	12	t p	8	L	4	4	1/2	2	0	A2							
	13	t s	8	PL	20		1/2	2	1								
	14	K t	8	BR	4		5/8	0	11								
	15	t w	4	PL	25		3/4	4	2								
	16	t y	4	PL	25		3/4	3	0								
	17	aa	8	BR	1		5/8	48	6 1/2	BACK UP BARS							
	18	ab	8	BR	1		5/8	48	4 1/4	BACK UP BARS							
A1 — (2)	19	t ac	4	PL	40		3 3/4	47	6 13/16	M2E-T2W			47	11		112	01
	20																
	21	V35	4	WD			1 1/2	189	9								
	22	FW	4	WD			5/16	25	4								
	23		8	MB	7/8"φ			0	3 1/4	RHHN SB							
	24		96	325	1"φ			0	3 1/2							AM	21
	25		72	325	1"φ			0	3 3/4							AM	21
	26		192	325	1"φ			0	5 3/4							AM	21
	27		432	325	1"φ			0	6 1/4							AM	21
	28		448	325	1"φ			0	7 1/2							AM	21
	29		144	325	1"φ			0	3							AM	21
	30		384	HW	2"φ	1 1/16"φ	3/16									AM	21
	31																
	32		128	RIV.	1"φ					GRSK HD							

(LENGTH CORRECTED FOR TEMP.)

INST. H11	INST. M11	Nº	REQUIRED LIST DESCRIPTION	MARK	REMARKS
1	1	2	BOTTOM CORD	241A^R	11-5x2'-9x5'1-7
1	1	2	〃	241A^L	〃

A1

^R S PREFIXED t - A517 STEEL
^L S PREFIXED t - T1 STEEL

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 11"x22" HAND HOLES

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

MATERIAL: T1 - PREFIX-t; ASTM-A517-PREFIX-t; ASTM-A588-PREFIX-k; ASTM-A36-NO PREFIX
RIVETS OR BOLTS 1"φ
OPEN HOLES 1 1/16"φ U.N.
A325 FIELD BOLTS
SHOP CONTACT SURFACES N.P.
WELDING AS REQ'D
PAINT 1-CT. RED LEAD AASHO-M72 TYPE II
SEE NOTE "X"

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY Arnold Hardesty MAR 4 1971

ELECTRODES E70XX

LOW HYDROGEN

BOTT. CHORD -L9 TO M10

NO.	DATE	INIT.	REVISION
D4	7/5	RP	
D3	6/11	RP	
A2	4/21	EP	
A1	3/31	WB	

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

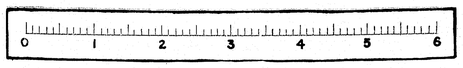
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO WORKS

CHICAGO DRAFTING ROOM
MADE BY KMG DATE 2-6-70 IN CHARGE LAG
CHECKED BY RP DATE 3-11-70 SHOP NO.
CONTRACT CG6290-061 DRAWING NO. 241DD

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

35423 (Rev.D 5-69)

121-33 NC TAPE



FOR B
FOR C

29'-6 11/16
30'-0 7/16

3'-11 5/8
3'-5 7/8

2'-9½

1'-10 3/4

2

6 1/8 12

ta- NS & FS FOR A
tb- NS
tba- FS } FOR B
tc- NS
tca- FS } FOR C

tah- NS
tak- FS } A
234- HSB 1"x6¾
234- HSB

tah- NS
tak- FS } B & C
228- HSB 1"x6¾
228- HW

td- NS & FS
4- SB 1"x3

MARK N.S. INSIDE

HOLD

F.S. FOR B & C
OPEN HOLES FOR B & C SHOP BOLTS
FOR A

N.S. ℄

(REFERENCE RT 23 - N.S.)

tg - NS
9- HSB 1"x7
9- HW

tad- FS
9- HSB 1"x7
9- HW

19 @ 3 3/8 = 5'-4⅜

5 @ 3 3/8 = 1'-4⅞

1'-9½

3'-0

3'-0

1'-6

1'-6

8 @ 3½ = 2'-4

1'-5½

1'-6½

4 @ 3½ = 2'-4

1'-5½

1'-6½

taa- NS & FS
264- HSB 1"x6¾
264- HW

tf - NS & FS
10- HSB 1"x5¼
10- HW

td- NS & FS
4- SB 1"x3

20 @ 3½ = 5'-10

20 @ 3½ = 5'-10

1'-6¼

2½

2w* - NS & FS

2w* - NS & FS

MILL

W.P. SEE DET. "A"

taf- NS
tag- FS,

2'-0½

15 @ 3½ = 4'-4½

3'-6½

15 @ 3½ = 4'-4½

1'-2½

1'-3

13'-8½
13'-6

8'-1

21'-9½

7'-6¼

29'-3¾

31'-5 13/16

7'-11 9/16

5'-0¾

36'-10 13/16

41'-11 9/16 WP/WP

L9

L10

TIE - 242AR AS SHOWN (L9-L10)

TIE - 242B AS SHOWN (L9'-L10')

TIE - 242C OPP HAND (L9'-L10')

2'-6

8 7 7 8

2-HSB 1"x 3
2-HW

2-HSB 1"x 4
2-HW

DET. X

ac

TYP ELECTRODE E70XX (LOW HYDROGEN)

5/16

3'-0

4 @ 7 = 2'-4

2y*

2w*

2y*

ab

SEC. "C-C"

TYP ALL CORNERS

30°

FLUSH WHERE INDICATED

3/8

1" TYP

BACKUP BAR

DETAIL "X"

50'-0

50'-0

MILL LINE & MITER LINE

0°36'00.79"

0°22'51.88"

90°36'00.79"

90°

89°29'42.95

WP

WORK LINE L9-L10

WORK LINE L10-L11

DETAIL "A"

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and pelat for a distance of 3" from the group of holes. EXCEPT FOR 11"x22" SLOTS.

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODE E11018 M (Low Hydrogen)
(UNLESS NOTED)

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT

SEE SHT #242AB

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
JUN 10 1970
BY Andrew Hardesty

L9-L10

LENGTH CORRECTED FOR TEMPERATURE

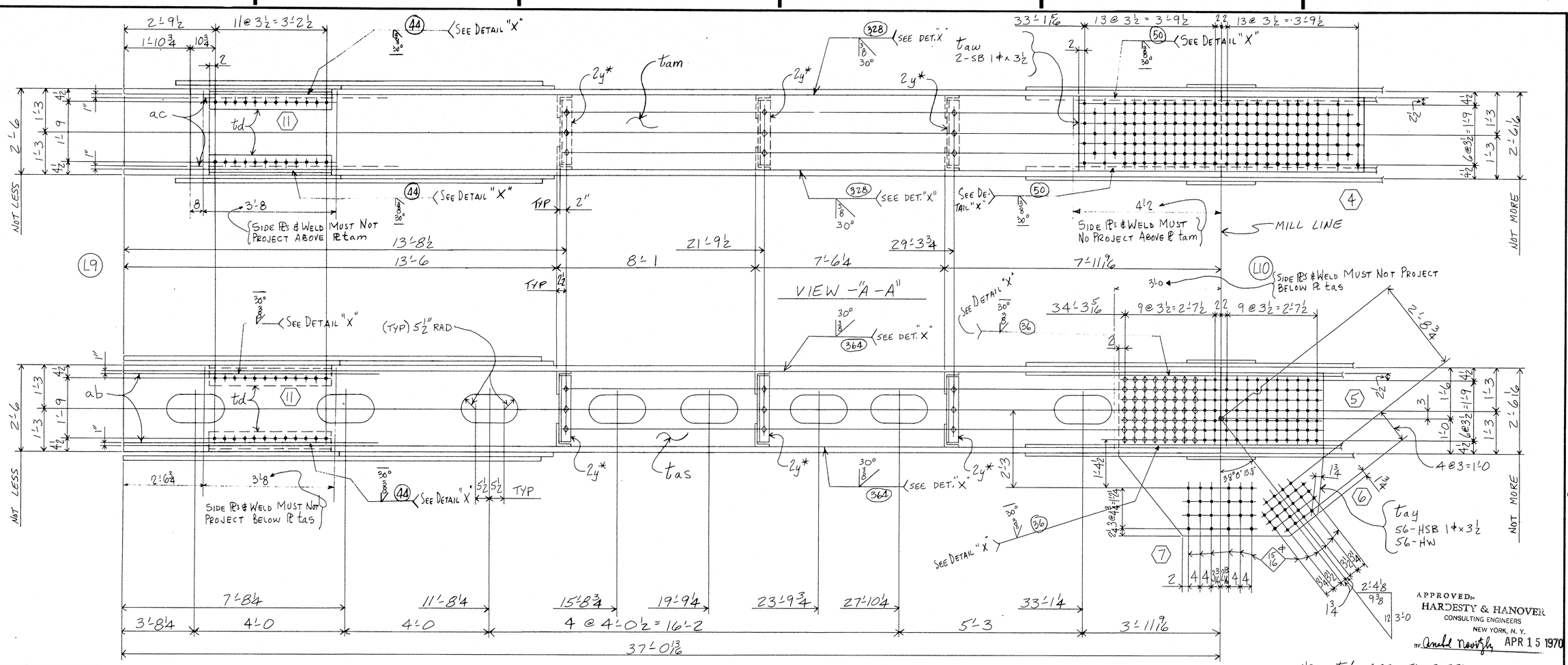
NO.	DATE	REVISION
S1	2/10	2/16 LG
A2	6-9	CD
A3	5-14	CD
A4	4-1	CD

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

CUSTOMER MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-5-70 IN CHARGE LG
CHECKED BY S.A.D. DATE 3-5-70 SHOP NO.
CONTRACT CG6290-065 DRAWING NO. 242AB

121-34 NC TAPE



SEC. "B-B"

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

E9 & E11

PROJECT NO.	L-M-E	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR FOLIOS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	MILL ORDER THICK	MILL ORDER LENGTH FT.	MILL ORDER LENGTH IN.	MILL ORDER STOCK	ITEM PAGE	ITEM LINE
	1		4	TIES:	1-242A R	1-242A L	1-242B	#	1-242C								
②	2	t a	4	PL	36		2	37	0 3/16	A MIE & MZW		37	3			135	1
②	3	t b	1	PL	36		2	37	0 3/16	B MIE & MZW		37	3			135	1
②	4	t ba	1	PL	36		2	37	0 3/16	B MIE & MZW		37	3			135	1
②	5	t c	1	PL	36		2	37	0 3/16	C MIE & MZW		37	3			135	1
②	6	t ca	1	PL	36		2	37	0 3/16	C MIE & MZW		37	3			135	1
Ⓜ	7	t am	4	PL	25¼		1	35	2 1/16	MIE & MZW		37	3			136	4
	8																
	9																
Ⓜ	10	t as	4	PL	25¼		1	37	0 3/16	MIE & MZW		37	3			136	4
	11	2y*	24	L	6	3½	½	1	9¾			2	1			144	13
	12	2w*	24	L	6	4	½	2	7½			2	8			144	14
	13	ab	8	BR	1		⅝	38	0¾	BACKUP BAR		38	3			142	12
	14	ac	8	BR	1		⅝	36	2	BACKUP BAR		38	3			142	12
	15	t aa	8	PL	36		1½	10	7¼			10	7¼			157	3
	16	t f	8	PL	36		1¾	6	1¾			6	1¾			157	4
	17	t g	4	PL	24¾		¾	8	8⅛	FAI		8	9¼			160	8
	18	t ad	4	PL	24¾		¾	4	8⅛			4	10¼			160	9
	19	t af	4	PL	32⅛		1½	11	6⅝			11	7			157	5
	20	t ag	4	PL	32⅛		1½	11	6⅝			11	7			157	5
	21	t d	16	L	8	8	⅞	3	6½	CUT 7x4x⅞		3	9			150	10
	22	t ah	4	PL	36⅛		1¼	11	6⅝							160	7
	23	t ak	4	PL	36⅛		1¼	11	6⅝							160	7
	24	t aw	4	PL	26		1¼	8	3							160	10
	25	t ay	4	PL	56½			1	5	11						160	12
	26																
	27																
	28																
	29							32	MB	1 ℄			0	3	RHH & HHN (SB)	AM	27
	30							8	MB	1 ℄			0	3½	RHH & HHN (SB)	AM	27
	31							72	325	1 ℄			0	3		AM	21
	32							120	325	1 ℄			0	4		AM	21
	33							224	325	1 ℄			0	3½		AM	21
	34							40	325	1 ℄			0	5¼		AM	21
	35							468	325	1 ℄			0	6¼	A	AM	21
	36							228	325	1 ℄			0	6¼	B	AM	21
	37							228	325	1 ℄			0	6¼	C	AM	21
	38							1056	325	1 ℄			0	6¾		AM	21
	39							72	325	1 ℄			0	7		AM	21
	40							2508	HW	2	1 1/16	3/16					
	41																
	42		FW	4	WD							5/16	17	0			
	43		B30	4	WD							1	144	4			
	44																
	45																
	46																
	47																
	48																
	49																
	50																
	51																
	52																
	53																
	54																
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	56																
	57																
	58																
	59																
	60																
	61																
	62																
	63																
	64																
	65																
	66																
	67																
	68																
	69																

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
By Arnold Novitzky APR 15 1970

L's - td ARE T1 STEEL
℄'s PREFIXED t- ARE A517 STEEL

		1	1	TIE 9½ x 5½ x 4 3½ D	242C	
		1	1		242B	
	1		1		242A L	
	1		1		242A R	
	H11	M11	NO.	DESCRIPTION	MARK	REMARKS
INST.			REQUIRED LIST			

L9-L10

MATERIAL { ASTM-A517 & T1 PREFIX - t; ASTM-A36 PREFIX - NONE }
BOLTS — 1 ℄
OPEN HOLES — 1/16 ℄ U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING - AS NOTED
PAINT — 1 CT RED LEAD AASHO-M72, TYPE II UNLESS NOTED SEE NOTE "X"

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

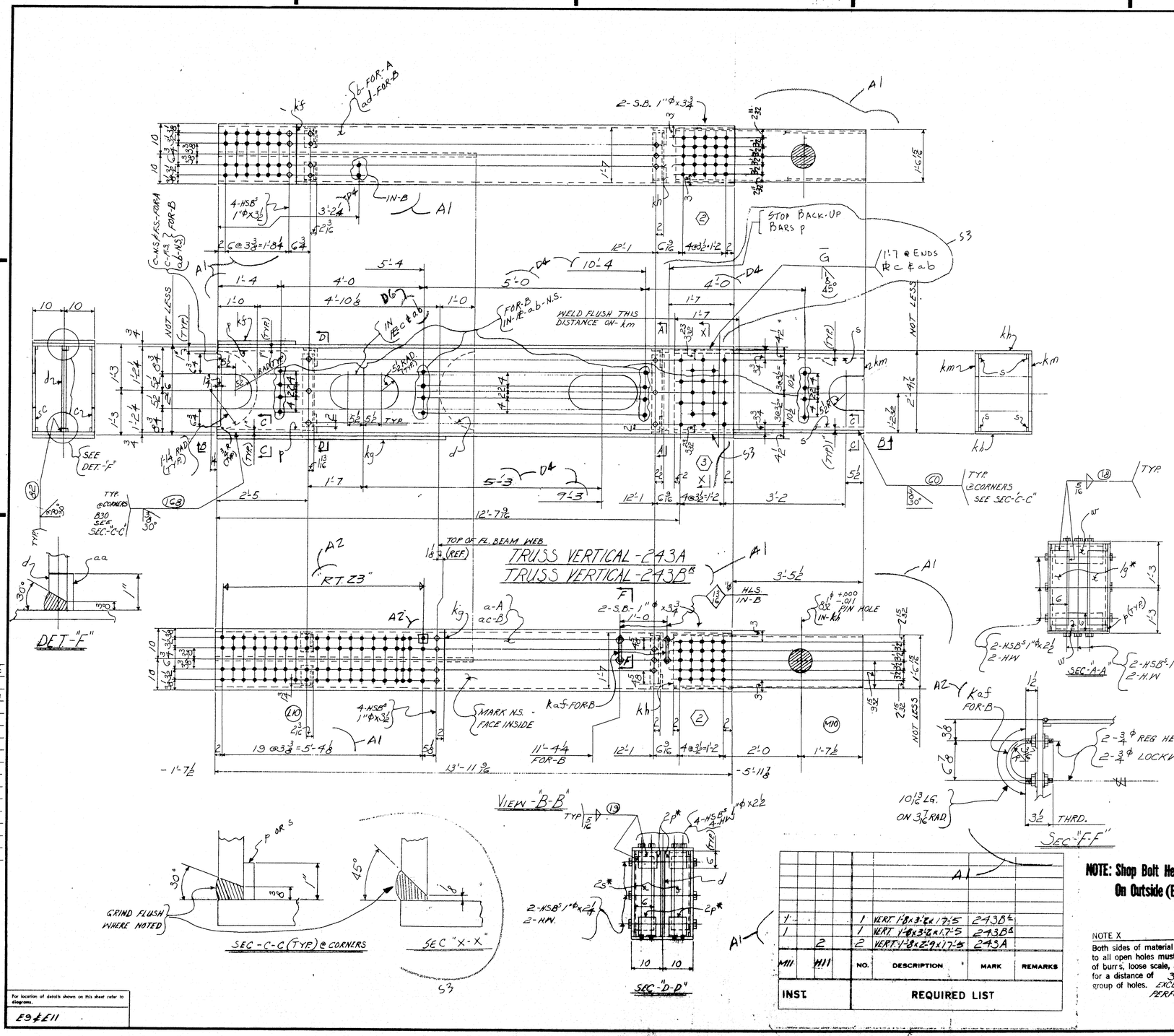
REVISION

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-9-70 IN CHARGE LG
CHECKED BY CAD DATE 3-5-70 SHOP NO.
CONTRACT CG6290-065 DRAWING NO. 242BB

NC TAPE 121-35

33042 (Rev.8-69)



1	1	1	VERT 1'-8 x 3'-6 x 17'-5	243B^R		
1		1	VERT 1'-8 x 3'-6 x 17'-5	243B^L		
	2	2	VERT 1'-8 x 2'-9 x 17'-5	243A		
MII	MII	NO.	DESCRIPTION	MARK	REMARKS	
INST.		REQUIRED LIST				

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 22x11 PERFORATIONS

For location of details shown on this sheet refer to diagrams.
E9 & E11

SHOP BILL

PRODUCT TYPE	PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIDE OR FOLDING	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	VERTICALS-243A						
(2)	2	a	2	PL	20		3/4	13	11 3/16	T2W-A
(2)	3	b	2	PL	20		3/4	13	11 3/16	T2W-A
(M)	4	c	6	PL	28 1/4	S3	1/2	13	11 3/16	T2W-2A,1-B
	5	d	4	PL	27 3/4		3/4	6	10 3/8	T2W
	6	kf	4	PL	20		1 1/4	2	0 1/4	FILL
	7	kg	4	PL	20		1 1/4	6	1 1/4	FILL
	8	kh	8	PL	18 15/16		3/4	4	11 1/2	
	9	km	8	PL	24 3/16		1/2	4	11 1/2	
	11	p	16	BR	1		5/8	12	10 1/4	BACKUP BAR (S3)
	12	s	16	BR	1		5/8	5	11 1/2	BACKUP BAR
	13	2s*	8	L	6	3 1/2	5/8	2	1	
	14	w	8	L	6	3 1/2	1/2	1	4	
	15	2p*	16	L	6	4	5/8	0	7	
	16	1g*	8	L	6	4	1/2	2	1	
	17	2a	8	BR	1		5/8	7	10 3/8	
	18									
	19		29	325	1" Φ			0	2 1/4	AM26
	20		32	325	1" Φ			0	3 1/2	AM26
	21		40	325	1" Φ			0	2 1/2	AM26
	22		24	325	1" Φ			0	2 3/4	AM26
	23		120	HW	2 O.D. 1/16 I.D.		3/16			AM26
	24									
	25		16	WB	1" Φ			0	3 3/4	S.B. RHH, RHN AM27
	26									
	27									
	28	T30B	4	WD			3/4	13	9	
	29	FW	4	WD			5/16	12	4	
	30	B30	4	WD			1/2	69	5	(S3)
	31	B45	4	WD			1/2	6	4	
	32									
	33									
(M)	34	ab	2	PL	28 1/4	S3	1/2	13	11 3/16	T2W-B
(2)	35	ac	2	PL	20		3/4	13	11 3/16	T2W-B
(2)	36	ad	2	PL	20		3/4	13	11 3/16	T2W-B
	37									
	38	Kaf	4	RD	3/4 Φ			1	5 13/16	B
	39		16	M	3/4 Φ		TAP RH NUT			B
	40		16	M	3/4 Φ		LOCKWASHERS			B
	41									
	42									
	43									
	44									
	45									
	46									
	47									
	48									
	49									
	50									
	51									
	52									
	53									
	54									
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									

MILL ORDER

WIDTH	THICK.	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
					199	01
					199	01
					199	02
					156	07
					162	04
					162	03
					171	03
					171	01
					200	01
					201	04
					201	01
					201	03
					201	02
					156	08
					AM26	
					AM26	
					AM26	
					AM26	
					AM26	
					AM27	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
by Anibal Novitsky OCT 21 1970

ELECTRODES E70XX

LOW HYDROGEN
MAT'L PREFIXED WITH THE LETTER "A" TO BE A588 STEEL ALL OTHER TO BE A.S.T.M.-A36
MATERIAL
RIVETS BOLTS 1" Φ
OPEN HOLES — 1 1/16 Φ
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — M.P.
WELDING — AS NOTED
PAINT — 1-CT. RED LEAD AASHO-MAR TYPE VI (SEE NOTE 'X')

PT-L10 TO M10

REVISION NO.	DATE	INIT.
D4	10 11	CAD
D3	7/27	LG
D2	6-5	PS
S3	5-20	RP
A2	5-11	PS
A1	4-20	PS

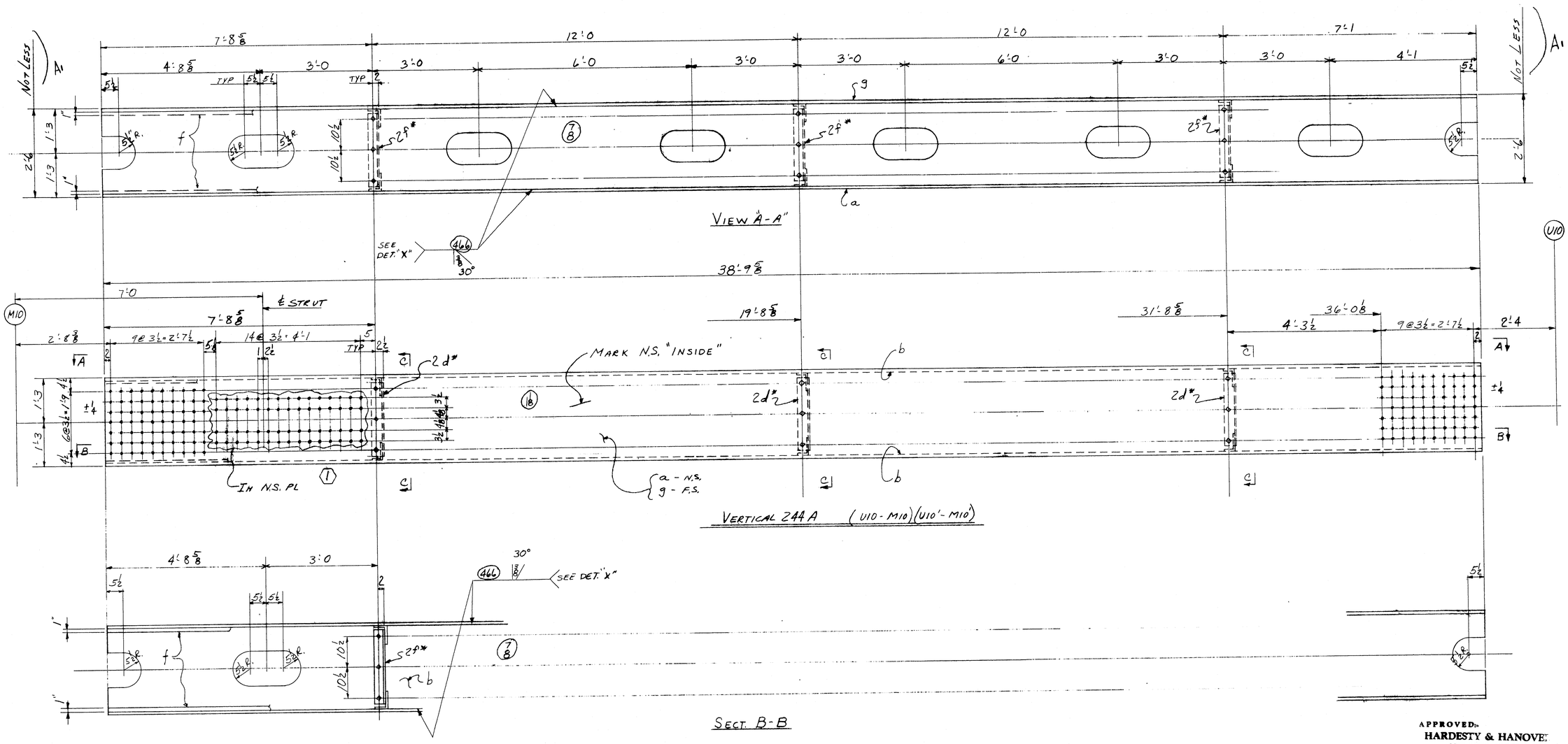
SUBMITTAL	1	2	3	4	5	6	7	8	9	0
DATE										

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO WORKS
MADE BY NH DATE 2-6-70 IN CHARGE L.G.
CHECKED BY PS DATE 3-6-70 SHOP NO.
CONTRACT CGG290-066 DRAWING NO. 243

121-36 NC TAPE



VERTICAL 244 A (U10 - M10)(U10'- M10')

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

E9 & E11

NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT PERFORATION

ELECTRODES - E70XX LOW HYDROGEN

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

NOTE: Length Corrected for Temperature

MATERIAL ASTM-A36
SHOP OR BOLTS 1"ϕ
OPEN HOLES 1⅛"ϕ
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING — AS NOTED
PAINT One Shop Coat Red Lead AASHO - M72; Type II See Note "X".

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

NO.	DATE	INIT.	REVISION
A'	5-26	J/TC	

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Novitsky JUN 3 1970

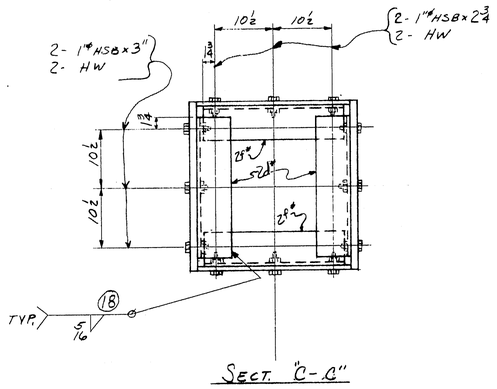
VERTICAL U10 TO M10

CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

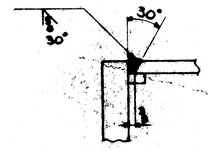
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE IN CHARGE L.A. GOTHBERG
CHECKED BY PJ DATE 3-6-70 SHOP NO.
CONTRACT CG6290-068 DRAWING NO. 244AB

121-37 NC TAPE



SECT. "C-C"



DETAIL "X" TYP

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

E9 & E12

SHOP BILL

PIECE MARK	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	S1	(3)	- VERTICALS 244A						
(2)	a	(3)	PL	30		1⅛	38	9⅝	T2W
(M)	b	(6)	PL	27		⅞	38	9⅝	T2W
	2d	(18)	L	6	4	½	2	0½	
	2f	(18)	L	6	3½	½	2	0½	
	f	(12)	BR	1		⅝	39	9½	BACKUP BARS
(2)	g	(3)	PL	30		1⅛	38	9⅝	T2W
	S1								
	FW	(3)	WD			5/16	18	0	
	B30	(3)	WD			⅞	155	4	
	S1								
	S4325	1					0	2¾	
	S4325	1					0	3	
	108	HW	2	1 3/16	3/16				

MILL ORDER

PIECE MARK	WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
(2)			39	2		190	01
(M)			39	2		190	02
			2	3		191	02
			2	2½		191	03
			39	11		191	01
(2)			39	2		190	01
						AM	26
						AM	26
						AM	26

INST.	HII	MII	NO.	DESCRIPTION	MARK	REMARKS
			2	1 3 VERTICAL 2"ϕ 30" x 38'-9½	244A	

REQUIRED LIST

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW OCT 5 1970

VERTICAL U10 to M10

MATERIAL
BOLTS OR BOLTS
OPEN HOLES
ADD'L FIELD DRIVE
SHOP COATING SURFACES
SHEET

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

NO.	DATE	INIT.
5	9/17	LG

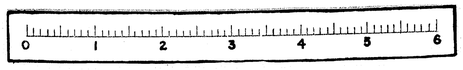
REVISION

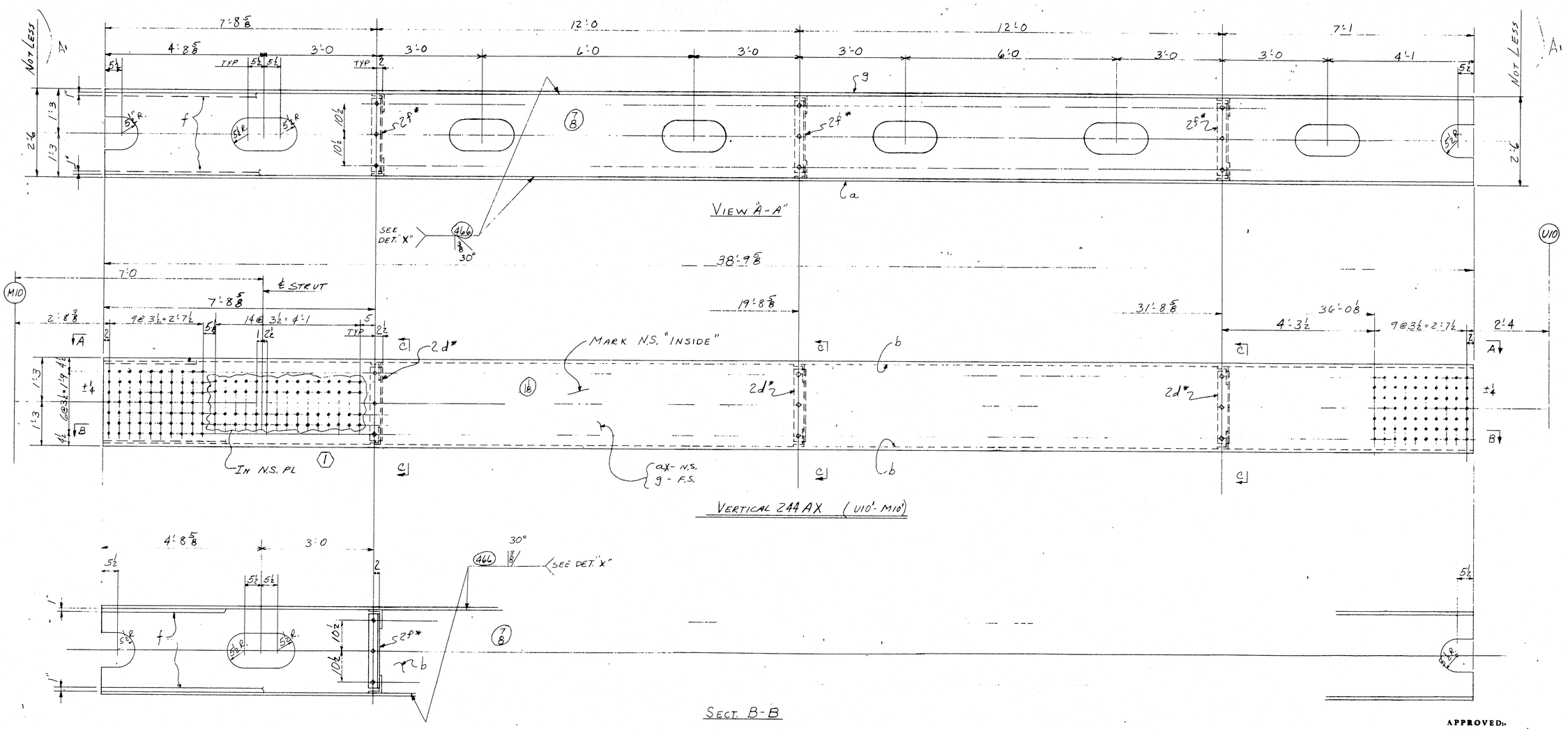
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE IN CHARGE LA. GOTHBERG
CHECKED BY DATE 3-6-70 SHOP NO.
CONTRACT C66290-063 DRAWING NO. 244 BB

121-3B NC TAPE 33042 (Rev. 2 5-69)





APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW OCT 5 1970

VERTICAL U10' TO M10'

NOTES
... of material adjacent ... bolt holes must be free ... burrs, loose scale, and dirt ... to a distance of 3" from the ... group of holes EXCEPT PERFORATION

ELECTRODES - E70XX
LOW HYDROGEN
... Shop Bolt Heads ... to be ...
On Outside (Exp... ...

NOTE: Le... ... material for temperature ...

MATERIAL ASTM-A36
... OR BOLTS 1"#
OPEN HOLES 1 1/16"#
A325 FIELD BOLTS —
SHOP CONTACT SURFACES N.P.
WELDING — AS NOTED
PAINT 1 Shop Coat Red Lead AASHO M72, Type II See Note "Y"

NO.	DATE	REVISION
A1	5263/Tc	

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

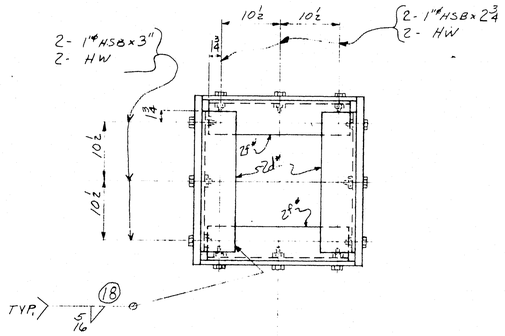
CUSTOMER MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE PENOBSCOT RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE IN CHARGE L.A. GOTHBERG
CHECKED BY DATE 3-6-70 SHOP NO.
CONTRACT CG6290-063 DRAWING NO. 244ABX

For location of details shown on this sheet refer to diagram.
E9 & E11

121-39

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



SECT. "C-C"

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

E9 & E12

SHOP BILL

PROJECT TYPE	LINE NO.	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	LENGTH THICK.	LENGTH FT	LENGTH IN	REMARKS
	1		1	- VERTICAL	244AX					
(2)	2	aX	1	PL	30		1⅛	38	9⅝	T2W
(M)	3	b	2	PL	27		⅞	38	9⅝	T2W
	4	2d*	6	L	6	4	½	2	0½	
	5	2f*	6	L	6	3½	½	2	0½	
	6	f	4	BR	1		⅝	39	9½	BACKUP BARS
(2)	7	g	1	PL	30		1⅛	38	9⅝	T2W
	8									
	9	FW	1	WD			5/16	18	0	
	10	B30	1	WD			⅞	155	4	
	11									
	12									
	13									
	14		18	325	1*			0	2¾	
	15		18	325	1*			0	3	
	16		36	HW	2	1 1/16	3/16			
	17									
	18									
	19									
	20									
	21									

MILL ORDER

LINE NO.	WIDTH	THICK.	LENGTH FT	LENGTH IN	STOCK	ITEM NO.
1						
2			39	2		190.01
3			39	2		190.02
4			2	3		191.02
5			2	2½		191.03
6			39	11		191.01
7			39	2		190.01
8						
9						
10						
11						
12						
13						
14						AM 26
15						AM 26
16						AM 26
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
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37						
38						
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41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						

				1	1	VERTICAL 36.30 38 9⅝	244AX
			M11	NO.		DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST				

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW OCT 5 1970

VERTICAL U10 to M10

~~WATERWAY~~
~~RIVETS OR BOLTS~~
~~OPEN HOLES~~
~~A325 FIELD BOLTS~~
~~SHOP COATINGS SURFACES~~
~~WELDS~~

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

REVISION
NO. DATE INIT.

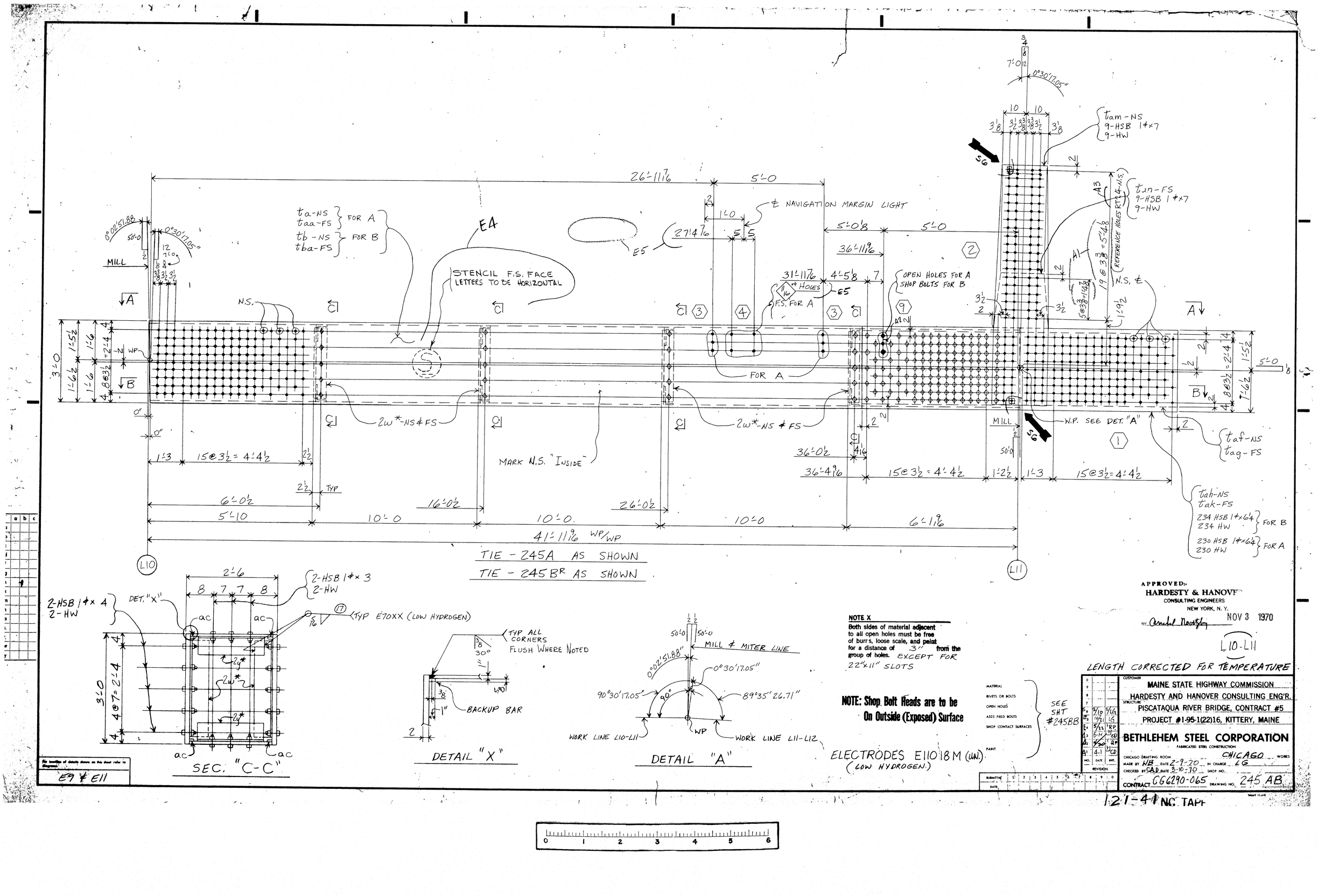
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

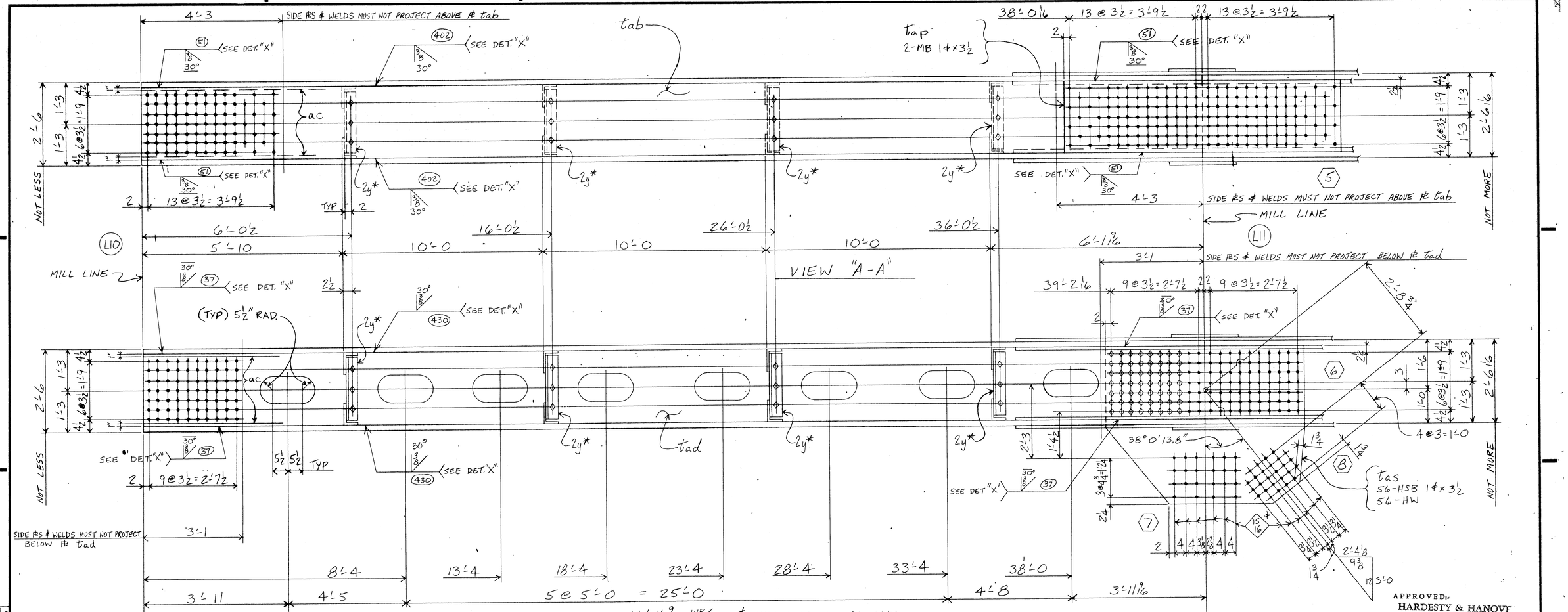
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY CPM DATE IN CHARGE LA. GOTHBERG
CHECKED BY DATE 3-6-70 SHOP NO.
CONTRACT C66290-063 DRAWING NO. 244.B&X

121-40 NC TAPE

0 1 2 3 4 5 6


26'-11 7/16
5'-0
0°02'51.88"
0°30'17.05"
50'-0
MILL
t_a-NS
t_{aa}-FS
FOR A
t_b-NS
t_{ba}-FS
FOR B
E4
STENCIL F.S. FACE LETTERS TO BE HORIZONTAL
E5
27'-4 7/16
℄ NAVIGATION MARGIN LIGHT
5'-0 1/8
5'-0
36'-11 9/16
31'-11 7/16
4'-5 1/8
11/16" HOLES
E5
F.S. FOR A
OPEN HOLES FOR A SHOP BOLTS FOR B
FOR A
N.S.
$2w^*$-NS & FS
MARK N.S. "INSIDE"
t_{am}-NS
9-HSB 1"x7
9-HW
t_{an}-FS
9-HSB 1"x7
9-HW
A3
A1
19 @ 3 3/8 = 5'-4 3/8
(REFERENCE HOLES RT. & N.S.)
5 @ 3 3/8 = 1'-4 7/8
1'-9 1/2
N.S. ℄
W.P. SEE DET. "A"
t_{af}-NS
t_{ag}-FS
t_{ah}-NS
t_{ak}-FS
234 HSB 1"x64
234 HW
FOR B
230 HSB 1"x64
230 HW
FOR A
1'-3
15 @ 3 1/2 = 4'-4 1/2
6'-0 1/2
5'-10
10'-0
16'-0 1/2
26'-0 1/2
36'-0 1/2
36'-4 9/16
1'-2 1/2
6'-1 9/16
41'-11 9/16 WP/WP
L10
L11
TIE - 245A AS SHOWN
TIE - 245BR AS SHOWN
3'-0
1'-5 1/2
1'-6
2'-4
1'-6
4 @ 8 1/2 = 2'-4
WP
A
B
1'-6 1/2
5'-0 1/8
2-HSB 1"x 3
2-HW
2-HSB 1"x 4
2-HW
DET. "X"
TYP E70XX (LOW HYDROGEN)
2'-6
8 7 7 8
ac
$2y^*$
$2w^*$
4 @ 7 = 2'-4
SEC. "C-C"
TYP ALL CORNERS FLUSH WHERE NOTED
3/8
30°
1"
1/2"
BACKUP BAR
DETAIL "X"
50'-0
MILL & MITER LINE
0°02'51.88"
0°30'17.05"
90°30'17.05"
90°
89°35'26.71"
WP
WORK LINE L10-L11
WORK LINE L11-L12
DETAIL "A"
NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT FOR 22"x11" SLOTS
NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface
ELECTRODES E110 18 M (UN.) (LOW HYDROGEN.)
MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHT #245BB
LENGTH CORRECTED FOR TEMPERATURE
E9 & E11
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Nevitsky
NOV 3 1970
L10-L11
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY NB DATE 2-9-70 IN CHARGE LG
CHECKED BY CAD DATE 3-10-70 SHOP NO.
CONTRACT CG6290-065 DRAWING NO. 245 AB
REVISION
NO. DATE INIT.
SUBMITTAL DATE
121-41 NC. TAPE



SEC. "B-B"

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

E9 # E11

PIECE MARK	LINE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	1		4	T-TIES: 1-245A, 1-245B^R & 2-245B^L						
(2)	2	t.a	1	PL	36		2	41	11 9/16	A (MZE & TZW)
(2)	3	t.aa	1	PL	36		2	41	11 3/16	A (MZE & TZW)
(2)	4	t.b	3	PL	36		2	41	11 9/16	B (MZE & TZW)
(M)	5	t.ab	4	PL	25¼		1	41	11 9/16	(MZE & TZW)
(2)	6	t.ba	3	PL	36		2	41	11 9/16	B (MZE & TZW)
(M)	7	t.ad	4	PL	25¼		1	41	11 9/16	(MZE & TZW)
	8	2w*	32	∠	6	4	½	2	7½	
	9	2y*	32	∠	6	3½	½	1	9¾	
	10	t.af	4	PL	32⅛		1½	11	6⅝	
	11	t.ag	4	PL	32⅛		1½	11	6⅝	
	12	t.ah	4	PL	36⅛		1¼	11	6⅝	
	13	t.ak	4	PL	36⅛		1¼	11	6⅝	
	14	t.am	4	PL	24¾		¾	8	6⅛	Bar 8
	15	t.an	4	PL	24¾		¾	4	6⅛	Bar 8
	16	t.ap	4	PL	26		1¼	8	3	
	17	t.as	4	PL	56½		1	5	11	
	18	ac	16	BR	1		5/8	42	11 9/16	BACKUP BAR
	19									
	20									
	21									

MILL ORDER WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
		4	3			
		42	1¾		135	2
		42	1¾		135	2
		42	1¾		135	2
		42	1¾		136	6
		42	1¾		135	2
		42	1¾		136	6
		2	8		144	14
		2	1		144	13
		11	7		179	1
		11	7		179	1
		11	7		178	3
		11	7		178	3
		8	9¼		178	1
		4	10¼		178	2
		8	3		178	5
		5	11		178	6
		43	2		142	18

25	8	MB	1#		0	3½	RHH & HHN (SB)	AM	27	
26	96	325	1#		0	3		AM	21	
27	160	325	1#		0	4		AM	21	
28	224	325	1#		0	3½		AM	21	
29	230	325	1#		0	6¼	A	AM	21	
30	702	325	1#		0	6¼	B	AM	21	
31										
32	72	325	1#		0	7		AM	21	
33	1116	HW	2	1 1/16 3/16			B	AM	21	
34	368	HW	2	1 1/16 3/16			A	AM	21	
35										
36										
37	FW	4	WD		5/16	22	B			
38	B30	4	WD		1"	168	0			
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										

		1	1	2	TIE 9¼x5½x47'-10	245B^L
		1	1	1	⊥ ⊥	245B^R
		1	1	1	⊥	245A
	H12	M12	NO.	DESCRIPTION	MARK	REMARKS
INST.				REQUIRED LIST		

MATERIAL { ASTM-A517 PREFIX - t / ASTM-A36 PREFIX - NONE }
RIVETS OR BOLTS — 1"
OPEN HOLES — 1⅛" U.N.
A325 FIELD BOLTS —
SHOP CONTACT SURFACES — NO PAINT
WELDING - AS NOTED
PAINT - 1 CT. RED LEAD AASHO-M72 TYPE II UNLESS NOTED SEE NOTE 4X

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

REVISION: NO. 1 DATE 4-1-70 BY HD

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
APR 16 1970

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
STRUCTURE: HARDESTY AND HANOVER CONSULTING ENG'R.
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY WB DATE 2-10-70. IN CHARGE LG
CHECKED BY GAD DATE 3-10-70. SHOP NO.
CONTRACT CG6290-065 DRAWING NO. 245 BB

12-1-42 NC TAPE

TRUSS VERTICAL-246A
TRUSS VERTICAL-246B

DET-"F"

SEC "X-X"

SEC-"C-C"(TYP.)@CORNERS

SEC-"G-G"

VIEW-"B-B"

SEC-"D-D"

SEC-"A-A"

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Noorigh JUN 3 1970

PT-L11 TO M11

MATERIAL
RIVETS OR BOLTS
OPEN HOLES
A325 FIELD BOLTS
SHOP CONTACT SURFACES
PAINT
SEE SHT # 246BB

NO.	DATE	INIT.	REVISION
0			
1	5-15	PS	
2	5/11	SP	
3	7/7/71	LG	

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
STRUCTURE
HARDESTY AND HANOVER CONSULTING ENG'R
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CH60 WORKS
MADE BY NB DATE 2-11-70 IN CHARGE L.G.
CHECKED BY PS DATE 4-10-70 SHOP NO.
CONTRACT C66290.066 (D3) DRAWING NO. 246AB

121-43 NC TAPE

PROJECT TYPE	LINE	ASSEMBLY MARK	NO.	SHAPE	SHOP BILL SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS	MILL ORDER WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
	1		4	VERTICALS	3-24GA					1-246B							
(2)	2	a	3	PL	20		3/4	32	6	T2W-A						198	N
(2)	3	b	3	PL	20		3/4	32	6	T2W-A						198	01
(M)	4	c	7	PL	28 1/4	21	1/2	32	6	T2W 2A, 1-B						198	02
	5	d	4	PL	27 3/4		3/4	6	10 1/8	T2W						156	07
	6	k: f	4	PL	20		1 1/4	2	0 1/4	FILL						180	02
	7	k: g	4	PL	20		1 1/4	6	1 1/4	FILL						180	01
	8	k: h	8	PL	19 15/16		1 3/4	4	11 1/2							171	03
	9	k: m	8	PL	29 7/16		1/2	4	11 1/2							171	01
	10									51							
	11	p	16	BR	1		5/8	31	5	BACKUP BAR						202	01
	12	s	16	BR	1		5/8	5	11 1/2	BACKUP BAR							
	13	2s *	8	L	6	3 1/2	5/8	2	1							203	04
	14	w	24	L	6	3 1/2	1/2	1	4							203	01
	15	2p *	16	L	6	4	5/8	0	7							203	03
	16	19 *	24	L	6	4	1/2	2	1							203	02
	17	2a	8	BR	1		5/8	7	10 1/8	BACKUP BAR						156	08
	18																
	19																
	20		24	325	1"ø			0	2 1/4							AM30	
	21		32	325	1"ø			0	3 1/2							AM30	
	22		88	325	1"ø			0	2 1/2							AM30	
	23		72	325	1"ø			0	2 3/4							AM30	
	24		216	HW	2 O.D.	1/16 I.D.	3/16									AM30	
	25																
	26		16	MB	1"ø			0	3 3/4	S.B. RHH, RHN						AM27	
	27																
	28																
	29																
	30	T30B	4	WD			3/4	13	9								
	31	FW	4	WD			5/16	24	4								
	32	B30	4	WD			1/2	143	6								
	33	B45	4	WD			1/2	6	4	51							
	34																
	35					1											
(M)	36	ab	1	PL	28 1/4		1/2	32	6	T2W-B						198	02
(2)	37	ac	1	PL	20		3/4	32	6	T2W-B						198	01
(2)	38	ad	1	PL	20		3/4	32	6	T2W-B						198	01
	39																
	40	k: af	5	RD	3/4 ø			1	5 7/16	B							
	41		20	M	3/4 ø	TAP	RH	NUT		B							
	42		20	M	3/4 ø	LOCKWASHER				B							
	43																
	44																
	45																
	46																
	47																
	48																
	49																
	50																
	51																
	52																
	53																
	54																
	55																
	56																
	57																
	58																
	59																
	60																
	61																
	62																

ELECTRODES - E70XX
LOW HYDROGEN

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY Arnold Dworsky JUN 3 1970

MAT'L PREFIXED WITH THE LETTER "A" TO BE A588 STEEL. ALL OTHER TO BE A.S.T.M.-A36

MATERIAL —
RIVETS BOLTS 1"ø
OPEN HOLES - 1/16 ø
A325 FIELD BOLTS ~
SHOP CONTACT SURFACES - N.P
WELDING - AS NOTED
PAINT - 1-CT. RED LEAD AASHO-M72 TYPE II (SEE NOTE 'X')

PT-LII TO MII

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

NO.	DATE	INIT.
REVISION		
D2	7/71	LG
S1	5/71	YSP

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHGO WORKS
MADE BY MG DATE 2-11-70 IN CHARGE LG
CHECKED BY PS DATE 4-27-70 SHOP NO.
CONTRACT C&G290-066 DRAWING NO. 246BB

30623 (Rev.D 8-69)

		1	1 VERT. 1'-8 1/2" x 36'-0 246B
2	1	3	VERT. 1'-8 1/2" x 2'-9" x 36'-0 246A
M12	H12	NO.	DESCRIPTION MARK REMARKS
INST.		REQUIRED LIST	

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

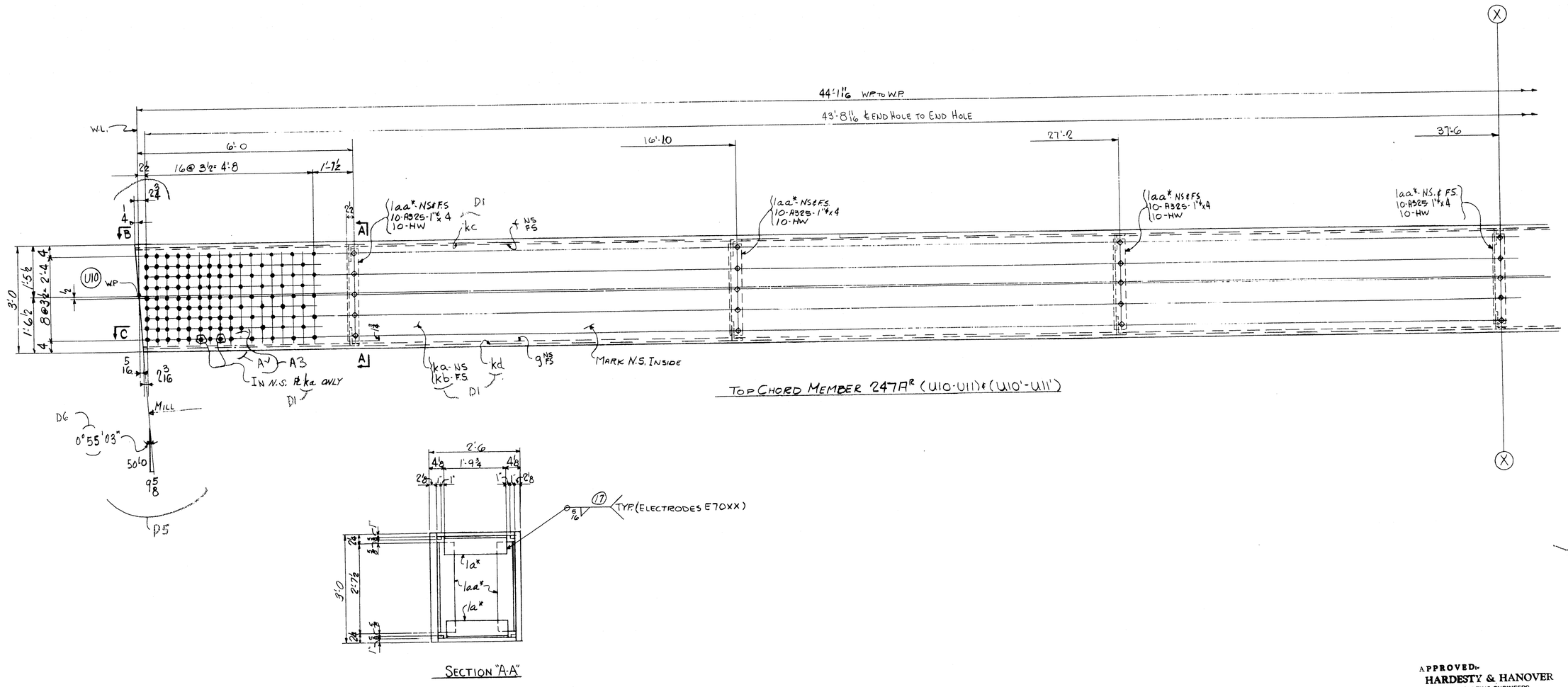
NOTE X
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. EXCEPT 22 x 11 PERFORATIONS

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

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

0 1 2 3 4 5 6

121-43 NG TAPE



TOP CHORD MEMBER 247A^R (U10-U11) & (U10'-U11')

TOP CHORD MEMBER (U10'-U11') & (U10'-U11)

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY FFW
FEB 10 1971

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

For location of details shown on this sheet refer to diagrams.
E9 & E11

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

NO.	DATE	INIT.	REVISION
0			
9			
8			
7			
D6	2/1	LG	CAD
D5	1/19	LG	CAD
D4	1/27	LG	
A3	9/11	LG	ET
A2	5-29	LG	CB
D1	3-10	LG	JD

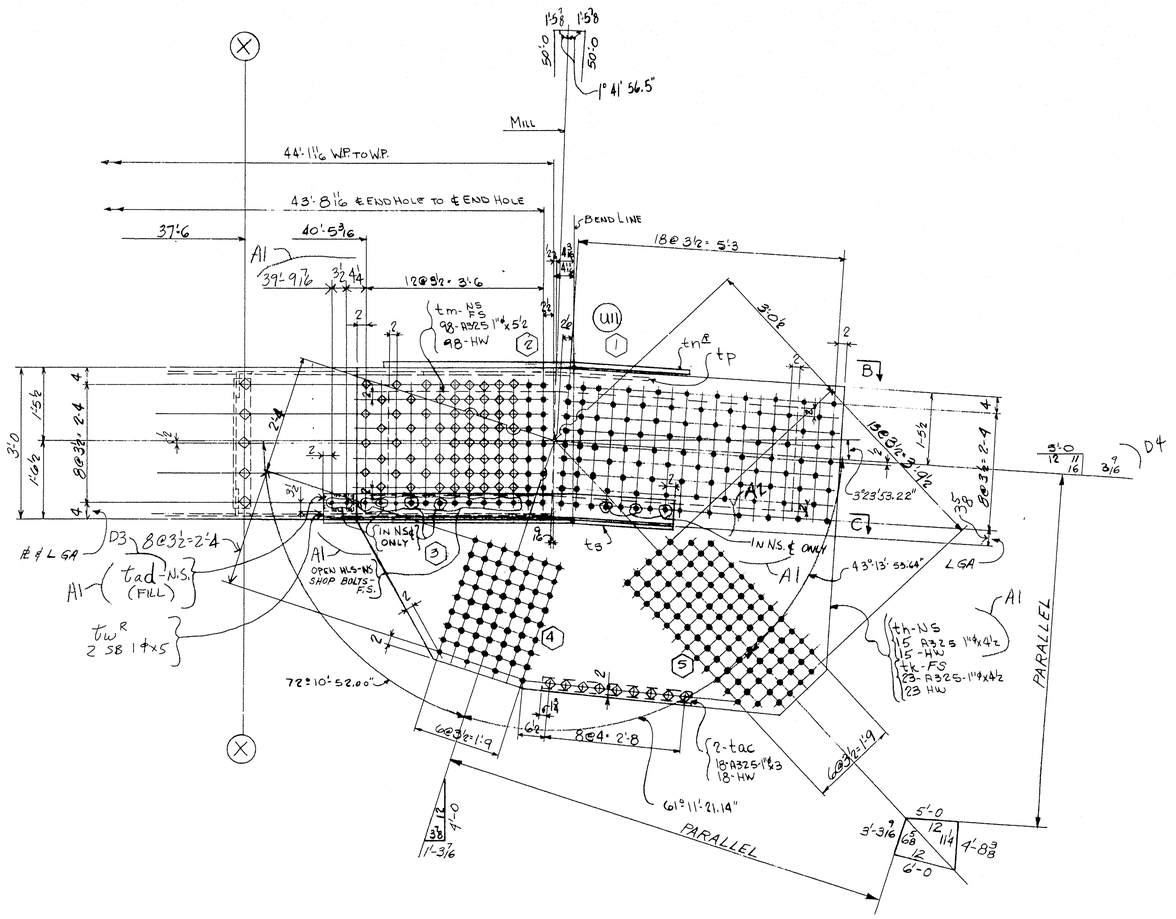
CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM _____ WORKS
MADE BY J.K.M. DATE 2-10-70 IN CHARGE L.G.
CHECKED BY [illegible] DATE 3-2-70 SHOP NO. _____
CONTRACT C66290-060 DRAWING NO. 247AD

121-4-5 D4

0 1 2 3 4 5 6



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

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

E9 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
BY FFW JUL 14 1970

TOP CHORD MEMBER (U10 U11) & (U10'-U11')

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

NO.	DATE	INT.
REVISION		
0		
9		
8		
7		
6		
D5	7/22	LG
D4	7/7	LG
D3	6/24	WB
A2	6/11	WB
A1	5/26	WB

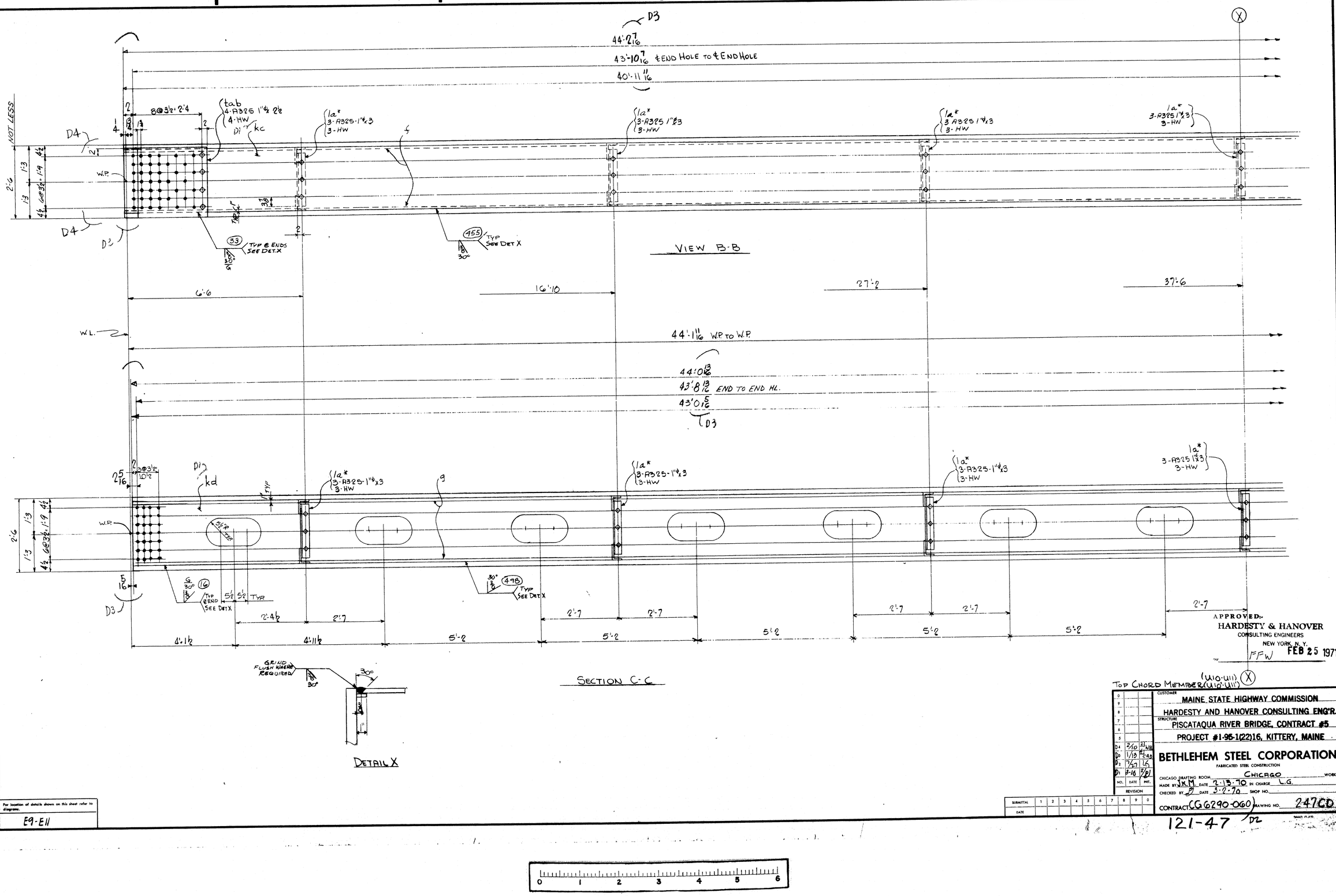
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

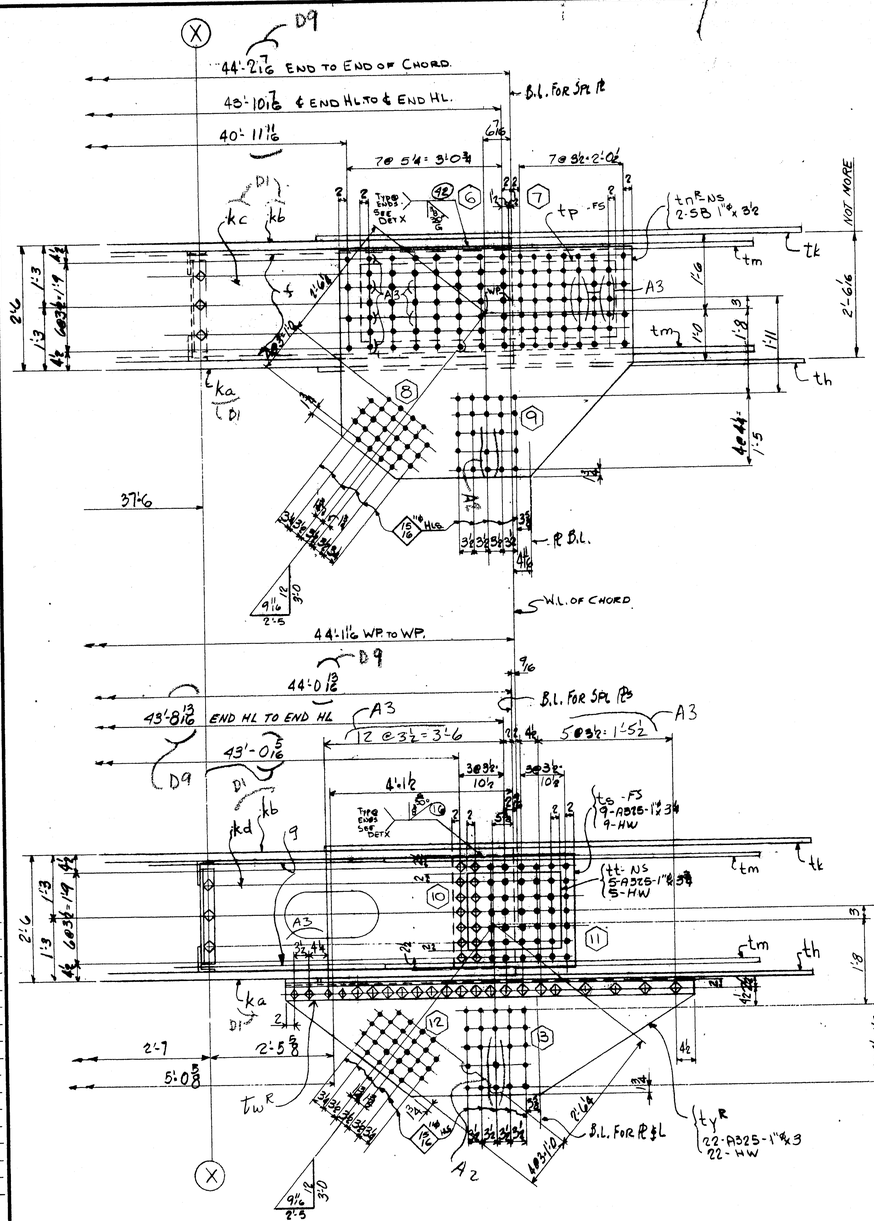
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.K.M. DATE 2-12-70 IN CHARGE L.G.
CHECKED BY DATE 3-8-70 SHOP NO.
CONTRACT CG6290-060 DRAWING NO. 247 BD

121-46 NO TAPE D5

0 1 2 3 4 5 6


44'-2 7/16
43'-10 7/16 ℄ END HOLE TO ℄ END HOLE
40'-11 11/16
NOT LESS
2'-6
1'-3
1'-3
4½
1'-9
6@3½=2'-4
tab
4-A325 1"ϕ x 2½
4-HW
1a*
3-A325-1"ϕx3
3-HW
W.P.
D4
D2
D3
kc
kd
33 TYP @ ENDS SEE DET X
455 TYP SEE DET X
30°
VIEW B-B
6'-6
16'-10
27'-2
37'-6
W.L.
44'-1 11/16 W.P. TO W.P.
44'-0 13/16
43'-8 13/16 END TO END HL.
43'-0 5/16
2 @ 3½ = 1'-0½
25/16
5/16
16 TYP BEND SEE DET X
5½
5'-0
TYP
498 TYP SEE DET X
2'-4½
2'-7
4'-1½
4'-11½
5'-2
2'-7
APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
FFW
FEB 25 1971
GRIND FLUSH WHERE REQUIRED
30°
SECTION C-C
DETAIL X
TOP CHORD MEMBER (U10-U11) (X)
CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM
MADE BY JKM DATE 2-15-70 IN CHARGE L.G.
CHECKED BY DATE 3-2-70 SHOP NO.
CONTRACT CG 6290-060 DRAWING NO. 247CD
121-47
D2
REVISION
NO. DATE INIT.
D4 2/10 EJ WB
D3 1/13 EJ EAD
D2 7/27 LG
D1 3-16 5/21
SUBMITTAL 1 2 3 4 5 6 7 8 9 0
DATE
For location of details shown on this sheet refer to diagrams.
E9-E11



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

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

E9 & E11

S7

SHOP BILL

PROJECT TYPE	ASSEMBLY MARK	NO.	SHAPE	SECTION SIZE	SECTION SIZE OR POUNDS	SECTION THICK	LENGTH FT.	LENGTH IN.	REMARKS
	D1	3	TOP CHORD MEMBERS - 1-247A℄ & 2-247A℄						
⑫	k a	3	PL	36		2 7/8	44	2 1/2	M2E
⑫	k b	3	PL	8.6		2 7/8	44	2 1/2	M2E
Ⓔ	k c	3	PL	25		1	44	2 11/16	M2E
⑬	k d	3	PL	25		1	44	0 13/16	M2E
	f	6	BR	1		5/8	45	2	D9
	g	6	BR	1		5/8	45	1 1/2	
	t h	3	PL	79 1/2		1	9	6 3/4	
	t k	3	PL	79 1/2		1	9	6 3/4	
	t m	6	PL	27 5/8		7/8	8	1 1/2	
	t n R	1/2	PL	54 1/4		3/4	5	9 1/4	BENT
D8	t p	3	PL	18		5/8	5	0 1/2	BENT
	t s	3	PL	26		3/4	2	5	BENT
	t t	3	PL	18		1/2	1	10	BENT
A3	t w R	1/2	L	8	8	7/8	6	10 1/4	BENT CTG x 4
	t y R	1/2	PL	25 1/4		5/8	6	10 1/4	BENT (8 12'-0 CUTS)
	t ac	6	L	4	4	1/2	7	11 1/2	
	la x	24	L	6	3 1/2	1/2	1	9 3/4	A36
	laa x	24	L	6	4	1/2	2	7 1/2	A36
D10	t ab	3	SHS	27 1/2		1/8	2	4 1/4	
A3	t ad	3	BR	5 1/2		1	0	7 1/2	FILL
		6	MB	1"ø			0	3 1/2	BTH RWN BWN (5B)
	D5	6	MB	1"ø			0	5	BTH RWN BWN (5B)
		12	325	1"ø			0	2 1/2	
		192	325	1"ø			0	3	
	D8	27	325	1"ø			0	3 1/4	
		15	325	1"ø			0	3 3/4	
		120	325	1"ø			0	4	
A3		114	325	1"ø			0	4 5/8	
A3		294	325	1"ø			0	5 5/8	
		774	HW	2"ø	1 1/16"ø	3/16			
	T30B	3	WD			3/8	176	7	
	FW	3	WD			5/16	22	8	

MILL ORDER

WIDTH	THICK	LENGTH FT.	LENGTH IN.	STOCK	ITEM PAGE	ITEM LINE
36	2 7/8	44	5		109	1
36	2 7/8	44	5		109	1
25	1	44	5		109	2
25	1	44	5		109	2
1	5/8	45	5		116	7
1	5/8	45	5		116	7
8 1	1	9	11		168	1
8 1	1	9	11		168	1
27 7/8	7/8	8	1 1/2		168	2
54 1/2	3/4	5	9 1/4		168	4
18	5/8	5	0 1/2		168	5
26	3/4	2	5		168	8
18	1/2	1	10		168	9
		38	9		153	15
25 1/4	5/8	12	3	A9	168	7
		400			152	04
		1	11 1/2		117	8
		1/2	8 1/2		117	7
27	3/4	2	4 1/4		147	2
		0	7 1/2		280	1
					AM	21
					AM	21
					AM	21
					AM	21
					AM	21
					AM	21
					AM	21
					AM	21

APPROVED
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW FEB 25 1971

NOTE: Shop Bolt Heads are to be On Outside (Exposed) Surface

ELECTRODES E110XX
EXCEPT WHERE NOTED
LOW HYDROGEN

"LENGTH CORR. FOR TEMP"

N.O.E.A.
Both sides of material adjacent to all open holes must be free of burrs, loose scale, and paint for a distance of 3" from the group of holes. Except 11"x2 2" Holes

D1 A588 - Prefix - k (SMAPES TT) PREFIX t (A8S-A517)
MATERIAL A36 - NO PREFIX
RIVETS OR BOLTS A325 - 1"ø UN
OPEN HOLES 1 1/16"ø UN
A325 FIELD BOLTS 1"ø UN
SHOP CONTACT SURFACES N.P.
WELDING AS NOTED
PAINT 1 - CT RED LEAD AASHO-M72 TYPE II
U.N. See Note X

WORK SHTS. 247AD, 247BD, 247CD & 247DD TOGETHER
TOP CHORD MEMBER (U10-U11) & (U10'-U11')

No.	DATE	INIT.
D10	3/11	WB
D	1/15	CAD
D2	12/28	RP
S7	12/20	WB
D4	7/27	LG
D3	6/28	WB
A4	6-17	CD
A3	5/26	WB
A2	5-15	CD
D1	4-16	RP

REVISION

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENG'R.
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #5
PROJECT #1-95-1(22)16, KITTERY, MAINE

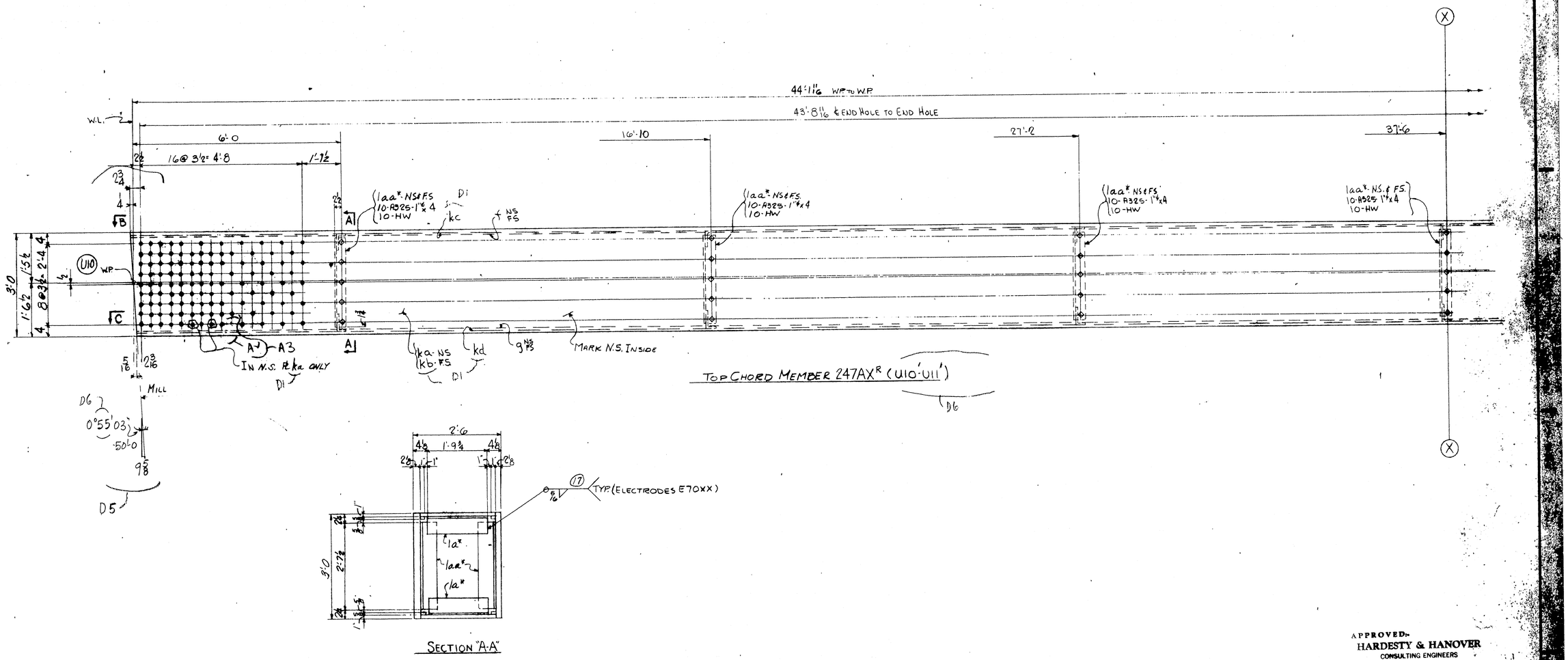
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION
CHICAGO DRAFTING ROOM CHICAGO WORKS
MADE BY J.K.M. DATE 2-27-70 IN CHARGE L.A.G.
CHECKED BY D DATE 3-2-70 SHOP NO.
CONTRACT CG6290-066 DRAWING NO. 247DD

MARK	QTY	DESCRIPTION	REMARKS
S7	2	247A℄	TOP CHORD MEM.	6'-9 x 6'-10 x 49'-11
	1	247A℄	do	do
H12 M12				
INST.		REQUIRED LIST	

12-1-48 NC TAPE

D10

0 1 2 3 4 5 6



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

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

E7 & E11

APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FPW
FEB 10 1971

D6

TOP CHORD MEMBER (U10'-U11')

0			
9			
8			
7			
D₂	2/1	21	JAD
D₁	1/13	13	CAD
D	7/27	27	LG
A₂	6/11	11	ET
A₁	5/19	19	CD
O	3/10	3/10	
NO.	DATE	INIT.	

REVISION

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

CUSTOMER: MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENGINEERS
STRUCTURE: PISCATAQUA RIVER BRIDGE, CONTRACT #6
PROJECT #1-95-1(22)16, KITTERY, MAINE

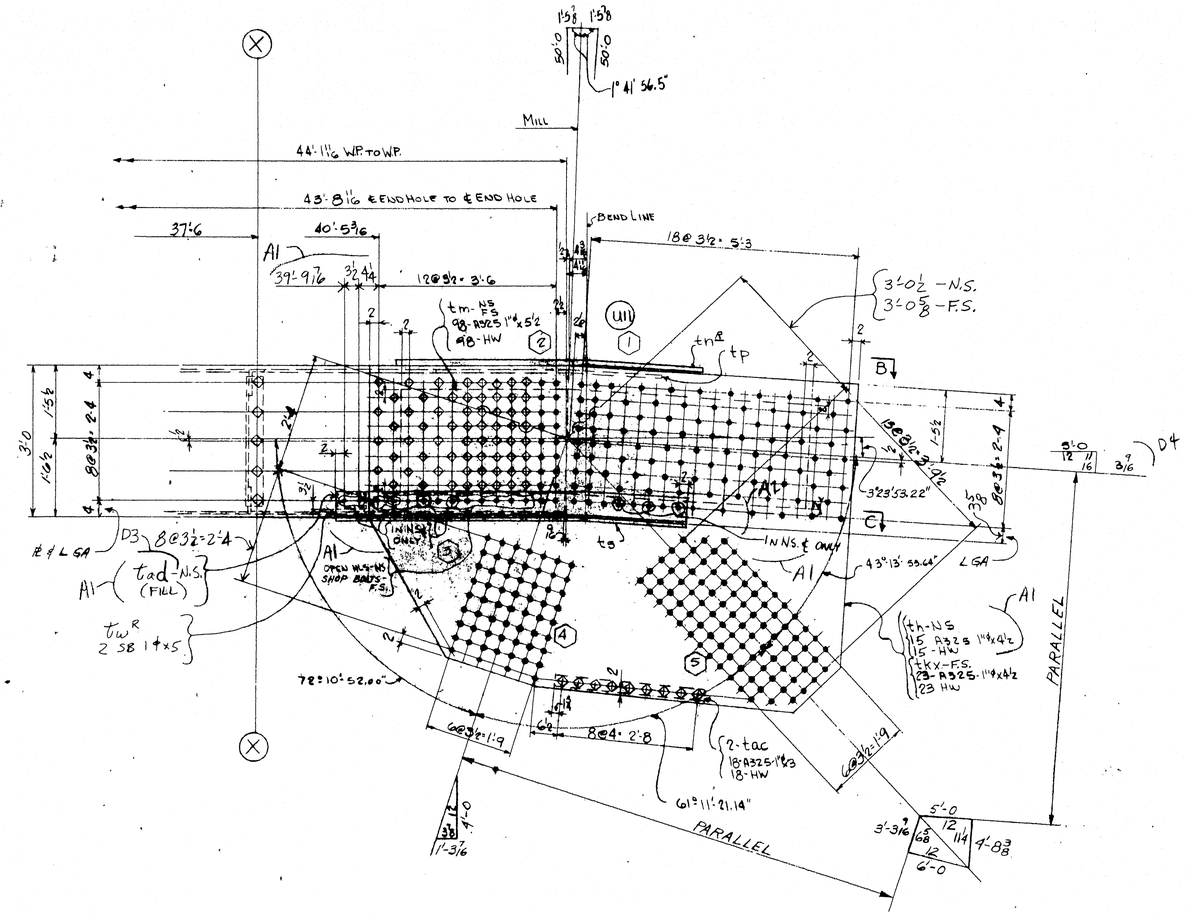
BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM
MADE BY JKM DATE 2-10-70 IN CHARGE LG
CHECKED BY D DATE 2-2-70 SHOP NO.
CONTRACT 566290-060 SHEET NO. 2 OF 2

121-49

D4

0 1 2 3 4 5 6



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

E9 & E11

APPROVED by
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.
FFW DEC 30 1970

TOP CHORD MEMBER (U10 U11) & (U10'-U11')

MO.	DATE	REVISION
D5	7/7	LG
D4	7/7	LG
D3	6/24	LJ WB
A2	6/11	TE
A1	5/26	SL WB

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

CUSTOMER
MAINE STATE HIGHWAY COMMISSION
HARDESTY AND HANOVER CONSULTING ENGR.
STRUCTURE
PISCATAQUA RIVER BRIDGE, CONTRACT #2
PROJECT #1-95 1(22)16, KITTERY, MAINE

BETHLEHEM STEEL CORPORATION
FABRICATED STEEL CONSTRUCTION

CHICAGO DRAFTING ROOM
MADE BY J.K.M. DATE 2-12-70 IN CHARGE L.G.
CHECKED BY ___ DATE 2-12-70 SHOP NO. ___
CONTRACT CG 6290-060 DRAWING NO. 2

121-50 NO. TAFF /D5

0 1 2 3 4 5 6