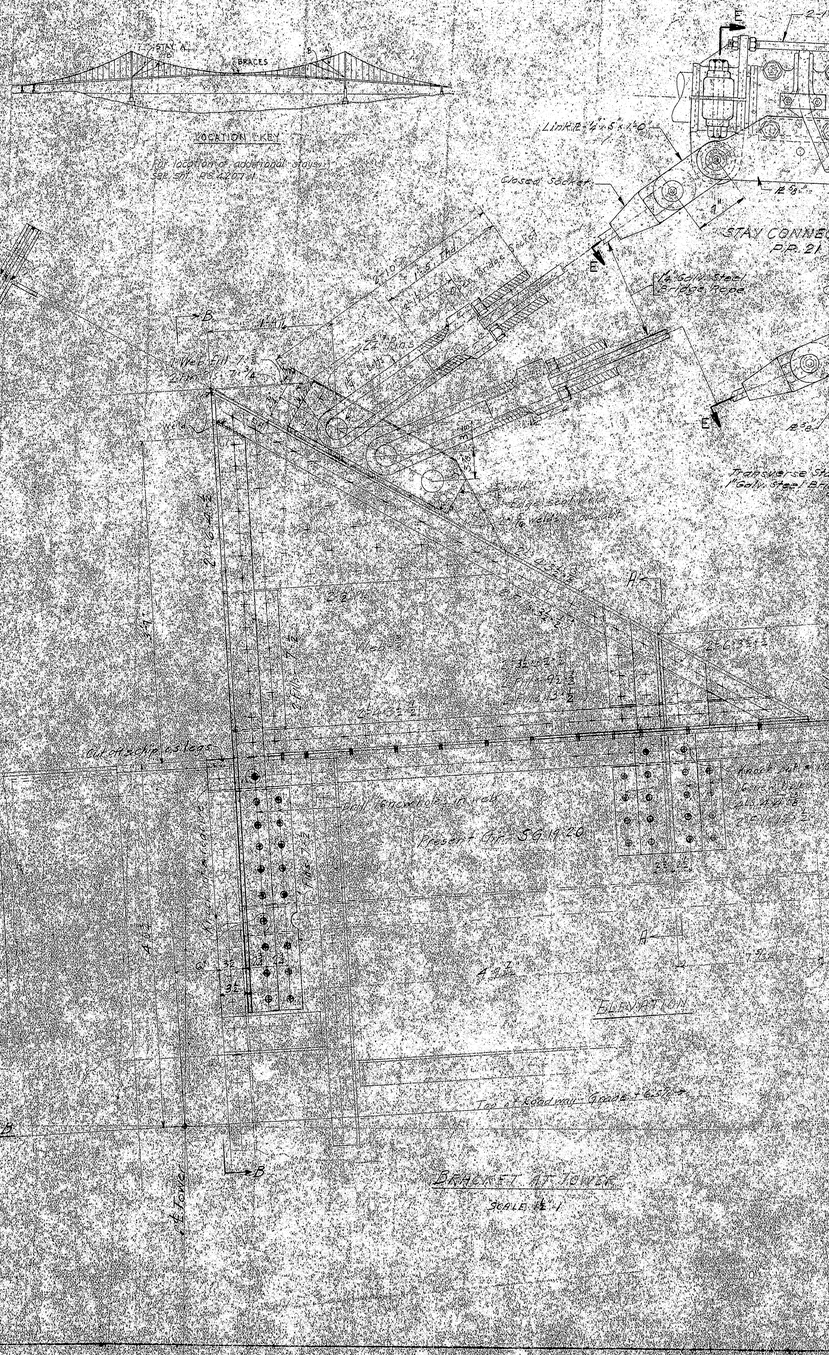

BRACES
LOCATION KEY
for location of additional stays see str. profile
Web Ell 7"@ 7 1/4
2 Pl
Web Ell 7"@ 7 1/4
2 Pl
Web Ell 7"@ 7 1/4
2 Pl

STAY D

STAY E

LOCATION KEY

For location of additional Stays, See Sht. P.S. 4207-1

Weld flush with rim of shackle after stay is adjusted.

A.P. 13

Detail revised for additional stays. Similar to A.P. 21, Sht. P.S. 3310-S/22

Normal conditions - 137'-1 5/8" Measured along rope - Vertical & Sag = 0.680'

STAY "D"

Take up 4 1/2"

7"

1 1/2"

12 Pin Pls. 7"x3/4" Web Fill 7"x3/8" Continuous Seal Weld

STAY "E"

Open Bridge Socket

Weld

2 3/4" Pins

Take up 11"

Normal condition - 177'-6" Measured along rope - Vertical & Sag = 1.85'

A.P. 11

Detail revised for additional stays. Similar to A.P. 23, Sht. P.S. 3310-S/22

Take up 4'-0" Thread

Slab 7 1/2"

Knock out and reserve Drill 20 rivet holes Thruout

Knock out and reserve Drill 20 rivet holes Thruout

Girt SG 18"

Girt SG 20"

45° Cut

Drill 7 Holes in Stiff'r

Drill 9 holes in Web

Roadway - 6.5% Grade Up

Top of

Cut bearing plate on this line and remove

Sheet No. 7208-19

NOTES

RIVETS - 7/8"

THE HEXAGON BOLTS TO BE PLACED IN CABLE BANDS SHALL BE OF NICKEL STEEL WITH A MINIMUM ULTIMATE STRENGTH OF 180,000 LBS. PER SQ. IN. AND A MINIMUM YIELD POINT OF 90,000 LBS. PER SQ. IN. THESE BOLTS SHALL NOT BE HEAT TREATED. THEY SHALL BE TIGHTENED TO A TENSION OF NOT LESS THAN 100,000 LBS. PER BOLT.

THE 1 1/2" DIAMETER RODS SHALL HAVE A GROSS METALLIC AREA OF NOT LESS THAN 1.492 SQ. IN. AND A MINIMUM ULTIMATE STRENGTH OF 124,000 LBS. THEY SHALL BE MEASURED, CUT AND SOCKETED TO PROVIDE THE LENGTHS SHOWN ON THIS DRAWING, WHEN STRESSED TO 70,000 LBS. PER SQ. IN. RODS GALVANIZED SAME AS SUSPENDERS.

PAINT ALL OF THIS STRUCTURE STEEL. NO PAINT ON ROPE.

PAINTING AS PER SPEC.

SECTION A-A

REQUIRED

2 - ROPE STAYS "D" WITH CONNECTIONS

4 - ROPE STAYS "E" WITH CONNECTIONS

6 - SPARE RODS

Side Span

Main Span

10-9-38 REVISED AS BUILT

P.W.A. PROJECT NO. ME. 1010-D.

DEER ISLE-SEDGWICK BRIDGE DISTRICT

BRIDGE OVER EGGEMOGGIN REACH

CABLE STAYS FOR SIDE SPANS

ROBINSON & STEINMAN ENGINEERS NEW YORK N.Y.

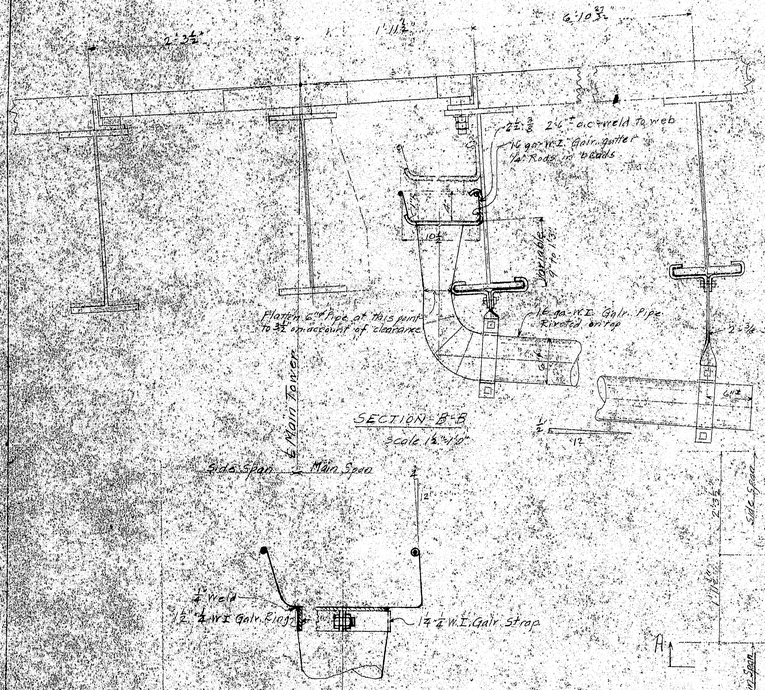
DRAWING NUMBER 125.3310 - S 126

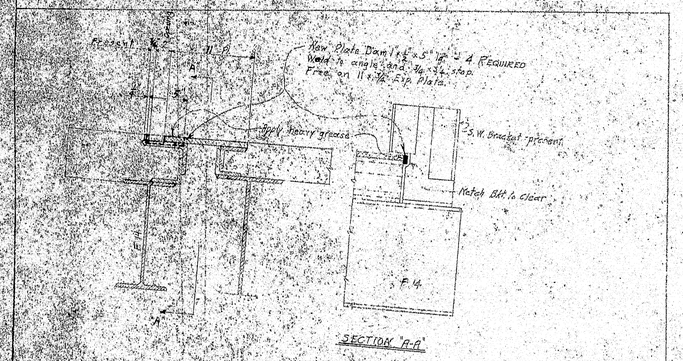
JUNE 29, 1937

136-8

touraine paints TRUFLEX ★ SILKY ★ TRIPLE WHITE ★ DURLUX

RS3310-S127





Detail of End Dams for 2"-3/4" Opening in Roadway Exp. Details at Cable Bents.
Scale 1½"=1'-0"

1A

Sheet No. 7208-20

Point - Materials not galvanized, same as Existing

REQUIRED
Gutter, run off pipe and fittings as required for expansion joint at each of two Main Towers.

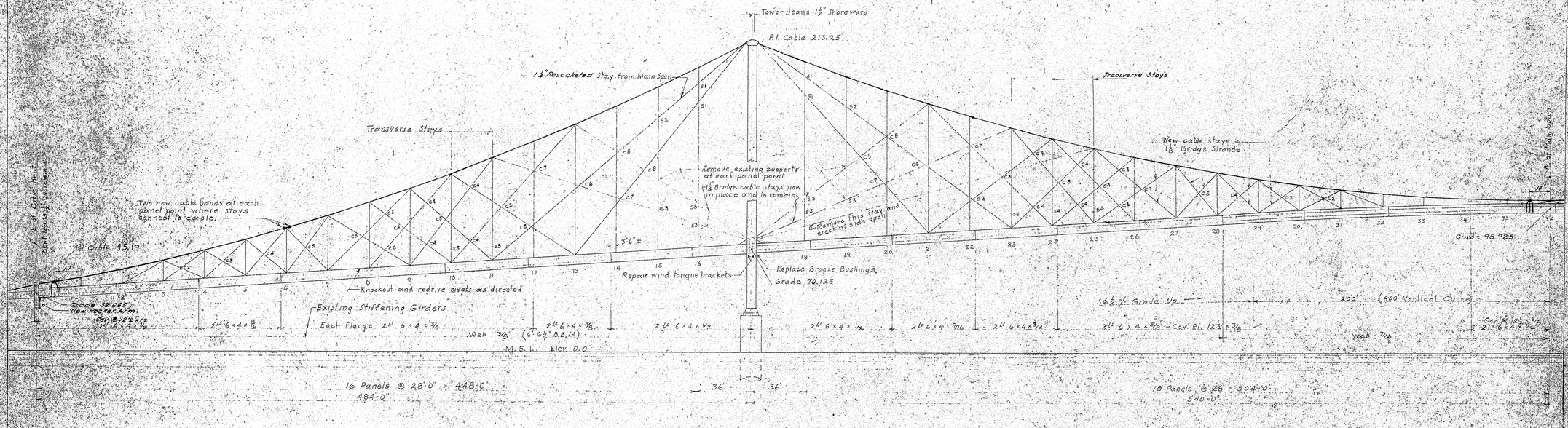
Revised 7-5-39 - Added detail of new end dams for roadway expention at Cable Bents.
10-9-39 - Revised as built.

P.W.A. PROJECT NO. ME 1010 D
DEER ISLE-SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH

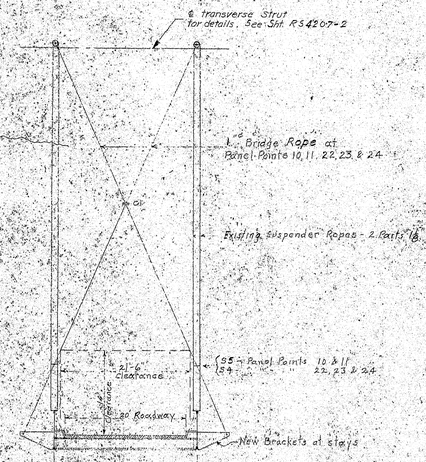
DRAINAGE DETAILS AT MAIN TOWERS

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

SCALES AS NOTED
DRAWING NUMBER
RS3310-S127



HALF ELEVATION
Scale 1" = 30'



SECTION SHOWING TRANSVERSE STAYS
Scale 1" = 2'

SPECIFIED ORIGINAL ELEVATIONS

PANEL POINT	ELEVATION @ MAIN CABLE	ELEVATION SUSP. SOCKET PIN
1	50.381	44.890
2	56.098	46.910
3	62.366	48.530
4	69.180	50.350
5	76.555	52.170
6	84.488	53.990
7	92.990	55.810
8	102.054	57.630
9	111.691	59.450
10	121.892	61.270
11	132.666	63.090
12	144.001	64.910
13	155.918	66.730
14	168.390	68.550
15	181.426	70.370
16	195.019	72.190
18	199.353	76.870
19	189.223	76.690
20	179.657	80.510
21	170.662	82.330
22	162.236	84.150
23	154.385	85.970
24	147.106	87.790
25	140.412	89.610
26	134.298	91.430
27	128.771	93.250
28	123.820	95.070
29	119.457	96.887
30	115.675	98.541
31	112.483	99.940
32	109.870	101.085
33	107.846	101.976
34	106.401	102.612
35	105.540	102.994
36	105.250	103.121

NOTES:
Existing stays are 1¼ Bridge Cable.
New longitudinal stays are to be 1⅛ Strand.
New transverse stays are to be 1¼ Bridge Cable.
Estimated average dead load at existing bridge is 1200 lbs. per linear foot per cable.

Sheet No. 7208-21

STATE OF MAINE
STATE HIGHWAY COMMISSION

DEER ISLE-SEDGWICK BRIDGES

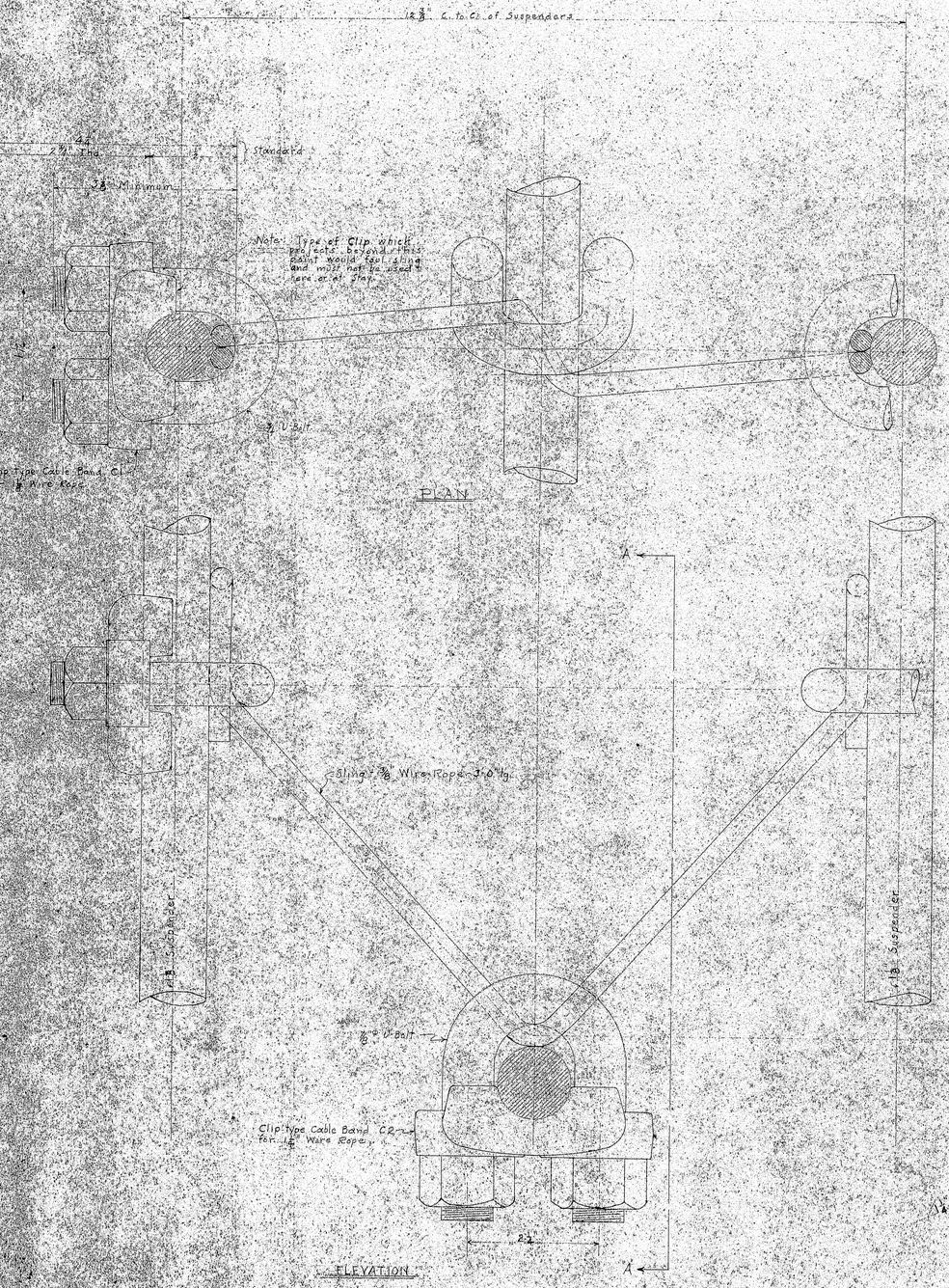
REINFORCEMENT WITH CABLE STAYS

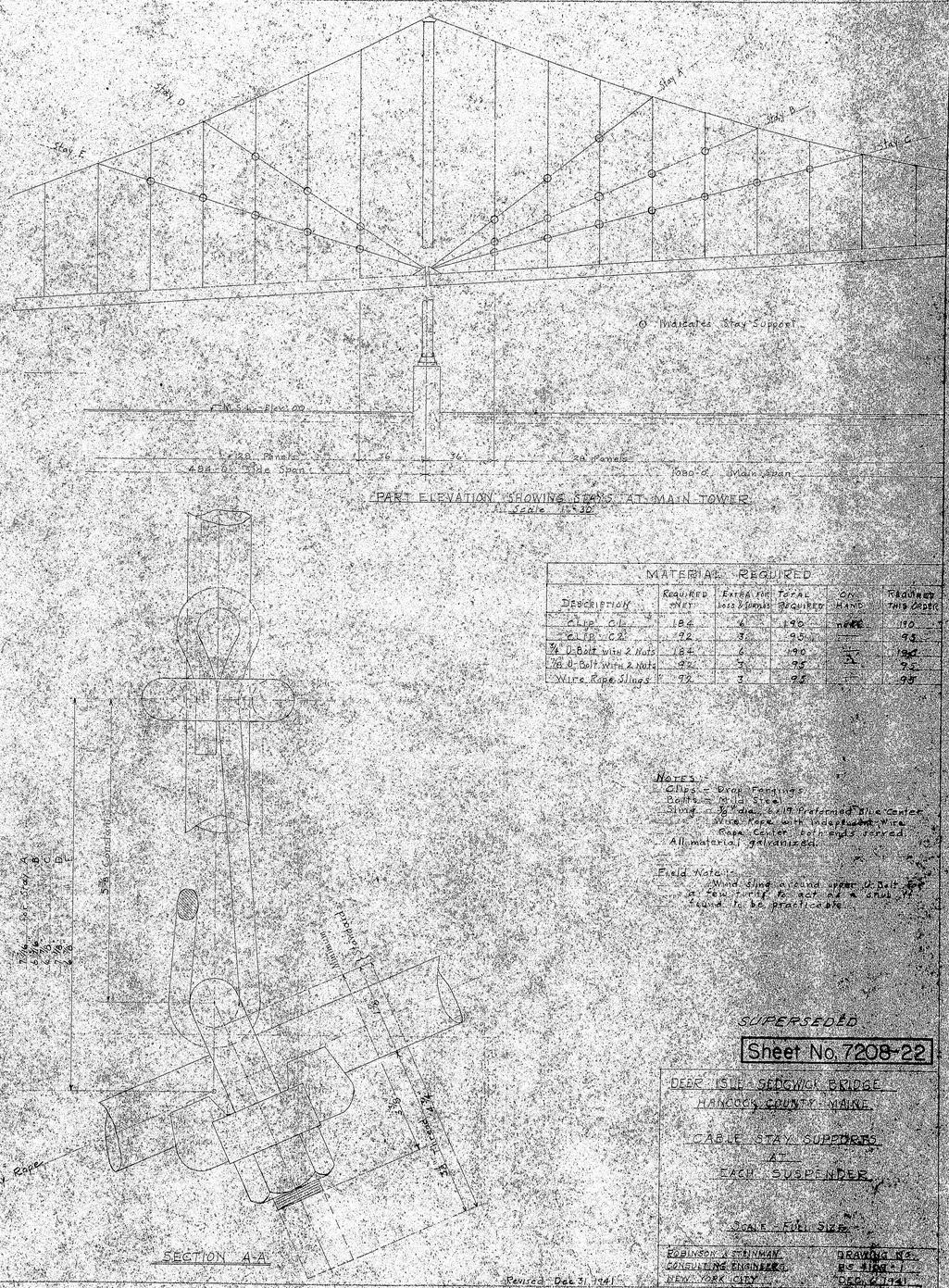
GENERAL PLAN

ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

DRAWING NUMBER
RS 4207-1
FEBRUARY 24, 1942

136:10





MATERIAL REQUIRED

Description	Required Sheet	Extra for Total Loss & Damage	Total Required	On Hand	Required This Order
Clips C1	184	6	190	none	190
Clips C2	92	3	95		95
¾" U-Bolt with 2 Nuts	184	6	190	X	190
⅞" U-Bolt with 2 Nuts	92	3	95		95
Wire Rope Slings	92	3	95		95

Notes:
Clips – Drop Forgings
Bolts – Mild Steel
Sling – ⅜" dia. 6x19 Preformed Wire center Wire Rope with independent wire Rope Center (Hemp cores forbidden)
All material galvanized.

Field Note:
Wound sling around upper U-Bolt if found necessary to secure a satisfactory fit found to be practicable.

SUPERSEDED

Sheet No. 7208-22

DEER ISLE - SEDGWICK BRIDGE
HANCOCK COUNTY, MAINE.

CABLE STAY SUPPORTS
AT
EACH SUSPENDER.

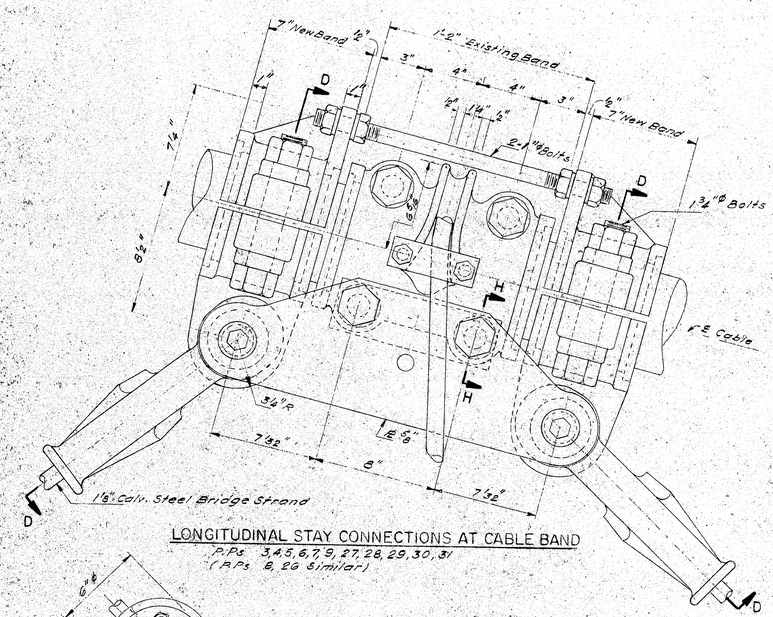
SCALE - FULL SIZE.

ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

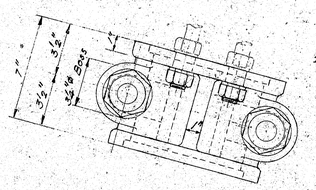
DRAWING NO.
B-S 4[illegible]-1
DEC. 6, 1941

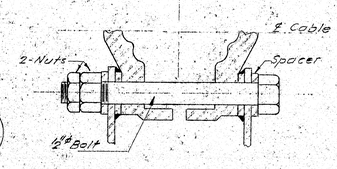
Revised Dec 3, 1941

136.11

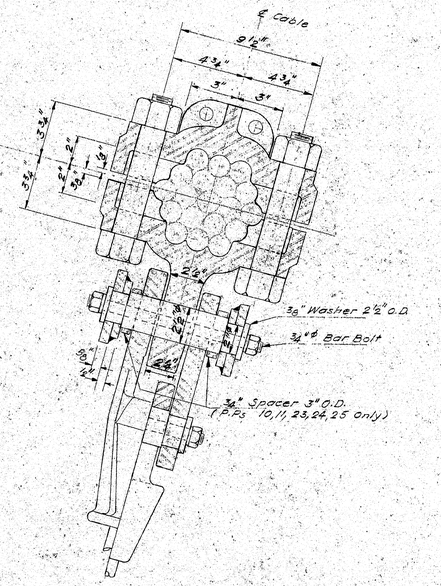


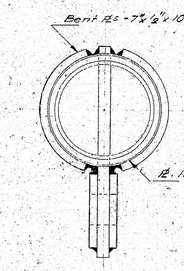
LONGITUDINAL STAY CONNECTIONS AT CABLE BAND
P.Ps. 3,4,5,6,7,9,27,28,29,30,31
(P.Ps 8, 26 Similar)



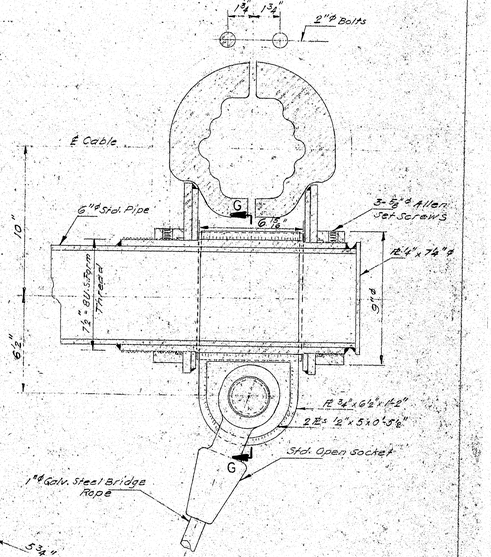


SECTION H-H

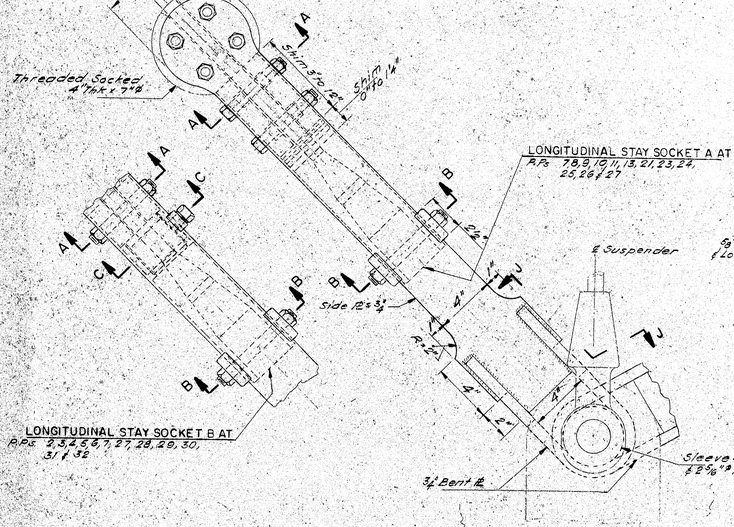


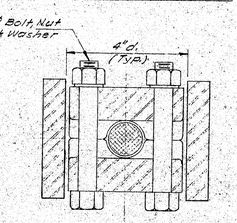


SECTION G-G

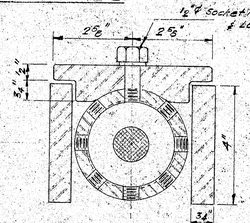


SECTION F-F
TRANSVERSE STAY CONNECTION



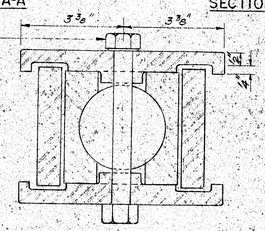


SECTION A-A

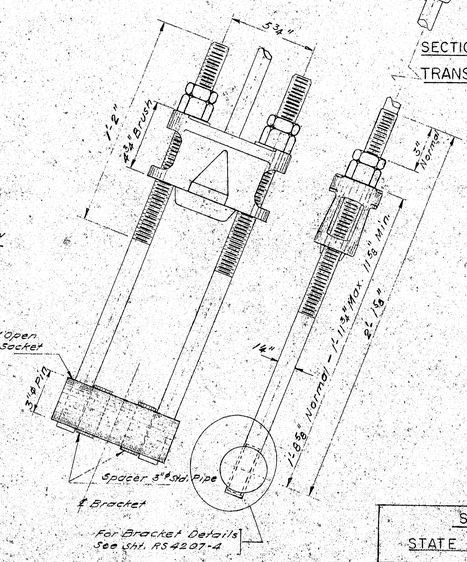


SECTION C-C

HALF SECTION D-D HALF SECTION E-E



SECTION B-B
Scale 6" = 1'-0"



LONGITUDINAL STAY CONNECTIONS AT GIRDER
For Socket details See Sht RS 4207-3
For Additional Keeper Plate details, see Sht 7204-2

For Section J-J see Sheet RS 4207-3
For location of Sections E-E & F-F, See Sheet RS 3510-5/22
For Socket Details, See Shr. RS 4207-3

Sheet No. 7208-23

STATE OF MAINE
STATE HIGHWAY COMMISSION

DEER ISLE-SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS

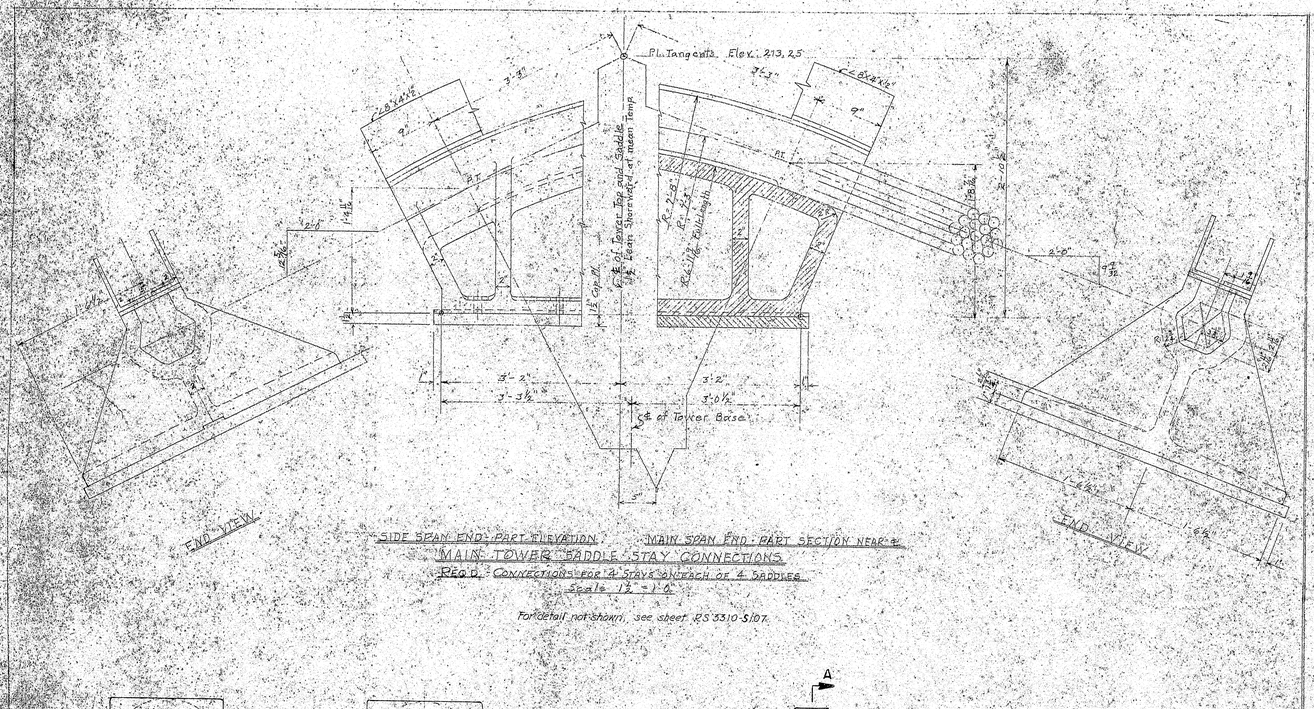
LONGITUDINAL AND TRANSVERSE STAYS
SOCKETS AND CONN. TO MAIN CABLES

SCALE 3" = 1'-0" & 6" = 1'-0"

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

DRAWING NUMBER
RS 4207-2
DECEMBER 11, 1972

136:12

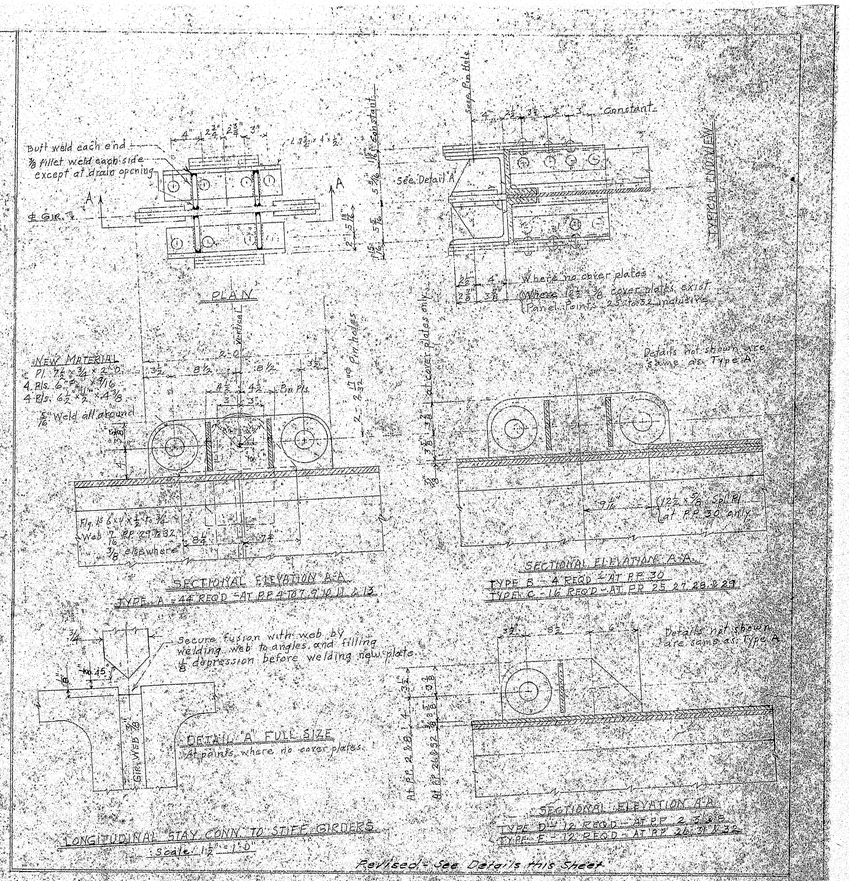


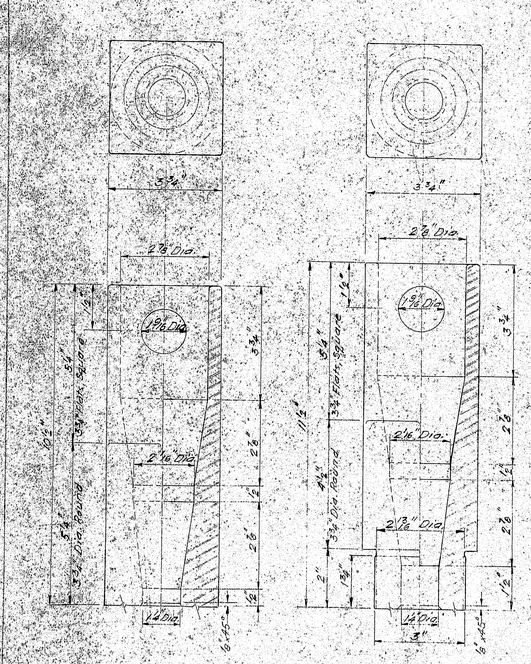
MAIN TOWER SADDLE STAY CONNECTIONS

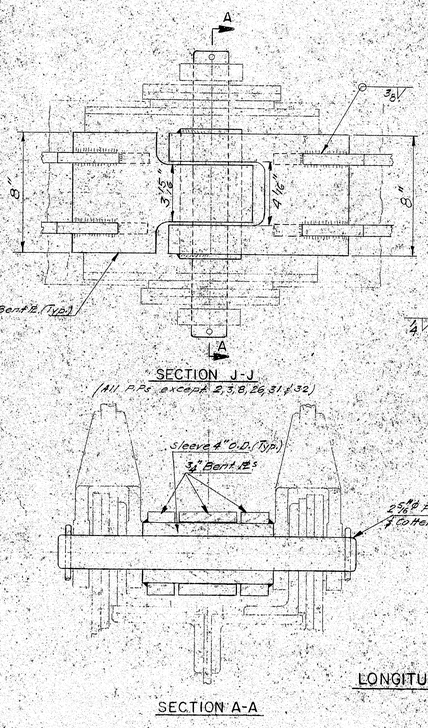
REQ'D. CONNECTIONS FOR 4 STAYS AT EACH OF 4 SADDLES

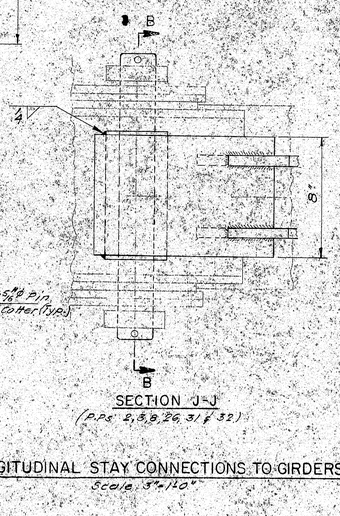
Scale 1/2" = 1'-0"

For detail not shown, see sheet RS 3310-S107.



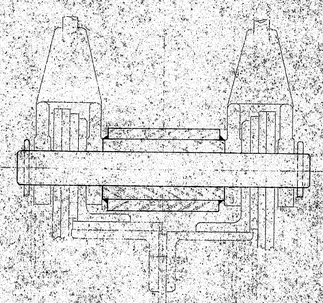






LONGITUDINAL STAY CONNECTIONS TO GIRDERS

Scale 3" = 1'-0"



SECTION B-B.

Note: For location of Section J-J See Sheet RS 4207-2

Sheet No. 7208-24

STATE OF MAINE
STATE HIGHWAY COMMISSION

DEER ISLE-SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS

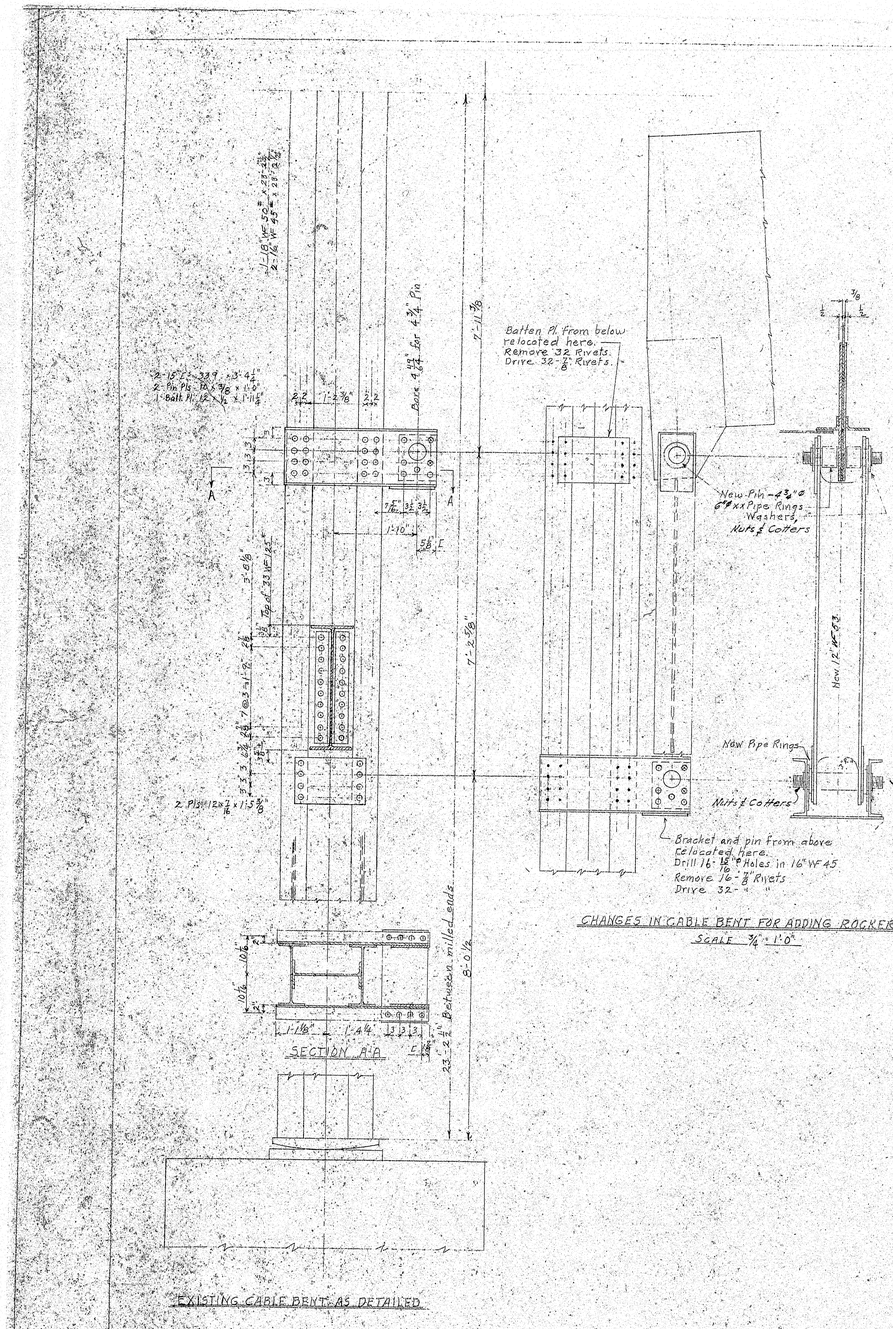
LONGITUDINAL STAY CONNECTIONS AT TOWER, SADDLES AND GIRDERS

Robinson & Steinman Consulting Engineers New York City

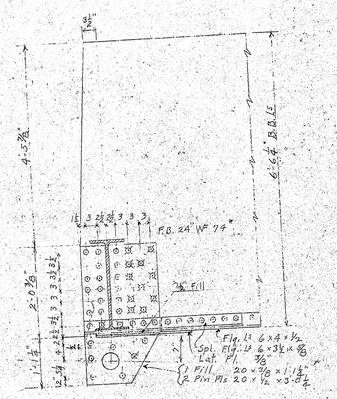
DRAWING NUMBER RS 4207-3
FEBRUARY 26, 1943

136:13

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ DURFLEX



EXISTING CABLE BENT AS DETAILED



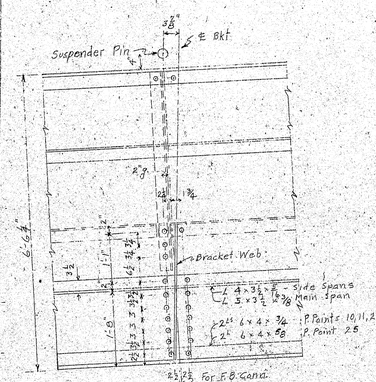
PART DETAIL - EXISTING GIRDER

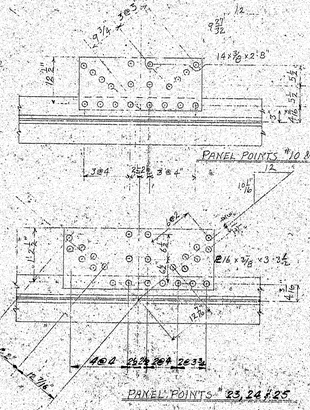
NEW MATERIAL FOR ONE ROCKER ARM - 4 REQ'D

1 Post 12" CB 58# x 8'-2 5/8"
4 Pin Pls. 9" x 1/2" x 1'-3" - 5/16" Weld all around
1 Pin 4 3/4" x 3'-8 7/8" with 2 nuts & cotter pins
2 Double Extra Strong 6" Black Gas Pipe Rings 4 3/8" ø 1/4" F2E
2 " " " " 4 5/8" ø 1/4" F2E
2 Pl. Washers 7" x 3/8"
64 7/8" Rivets

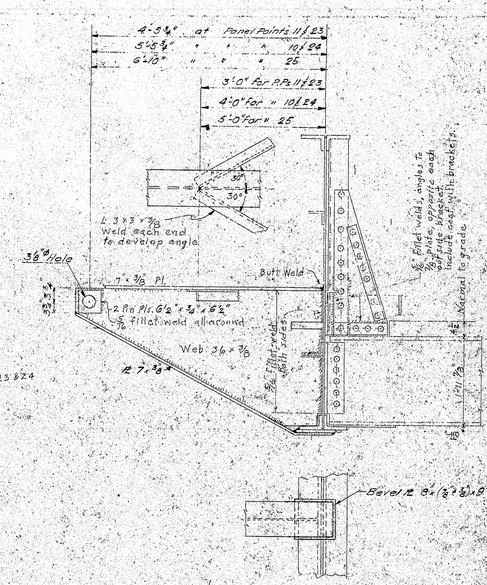
DETAIL OF EXISTING PIN AND NUT
NEW PIN TO BE SIMILAR

CHANGES IN CABLE BENT FOR ADDING ROCKER ARM
SCALE 3/4" = 1'-0"





EXISTING GIRDER & LATERAL PLATES



BRACKETS FOR TRANSVERSE STAYS - 20 REQ'D
SCALE 3/4" = 1'-0"

NOTE
Rivets 7/8" unless noted.

Sheet No. 7208-25

STATE OF MAINE
STATE HIGHWAY COMMISSION

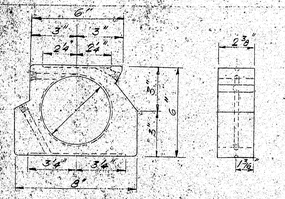
DEER ISLE-SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS

CABLE BENT ROCKER ARM
BRACKETS FOR TRANSVERSE STAYS

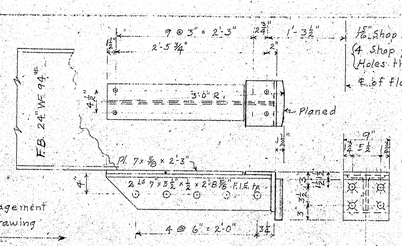
ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

DRAWING NUMBER
RS 4207 - 4
FEBRUARY 26, 1943

136:14



PHOSPHOR BRONZE BUSHINGS - 8 REQ'D.
FOR MAIN SPAN GIRDER EXPANSION BEARINGS.
Scale 3" = 1'-0"

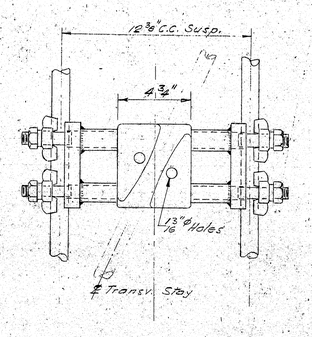


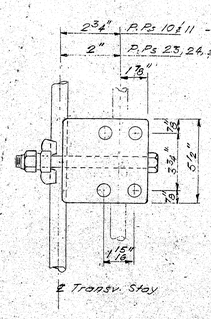
15/16" Shop Holes in floor beam - Original Detail
(4 Shop 11/16" Holes in Bracket - " " "
(Holes then drilled 15/16" to fit floorbeam in field.
E. of floor beam and .24"C.B.74" tongue.

New material for One Bracket
One L 8 x 6 x 5/8 x 0'-9"
One Plate 8 x 1/2 x 0'-9"
4 Rivets
Knock out 4 rivets, remove existing angle and plate, adjust new angle and plate for .01 clearance on tongue, with bridge centered transversely, drill 4 holes in new angle, drive 4 rivets and weld new angle to old 7 x 3½ x ½ angle to develop full bearing.

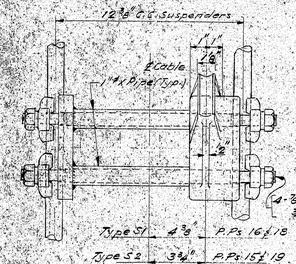
For location and general arrangement at expansion joints, see old drawing No. RS 3310-S106.

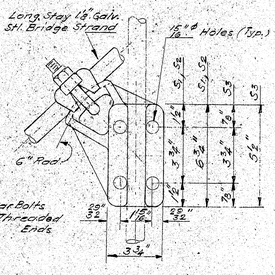
ANGLE AND PLATE REPLACEMENT AT WIND TONGUE ON MAIN TOWERS
FOR MAIN AND SIDE SPANS - 8 REQ'D. Scale 1" = 1'-0"

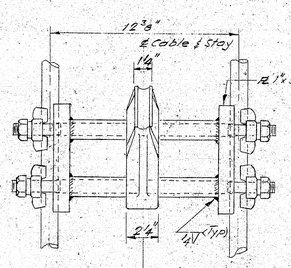




SUPPORTS FOR TRANSVERSE STAYS
Required - 8 Supports - Type S5
12 " " Type S4





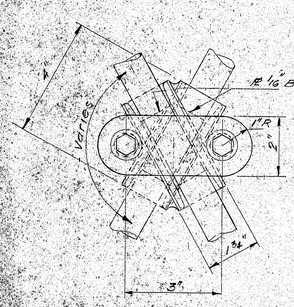


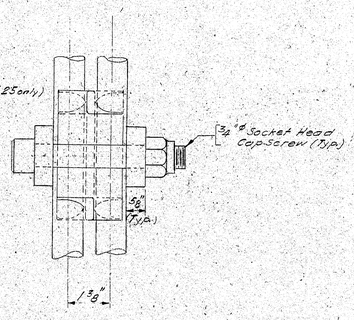
SUPPORTS FOR TOWER STAYS - PANEL POINTS 15, 16, 18 & 19.
Req'd - 16 SUPPORTS - TYPE S1
8 " " S2

NOTE: Wire Rope Clips removed from existing stay supports, shall be used for these supports.

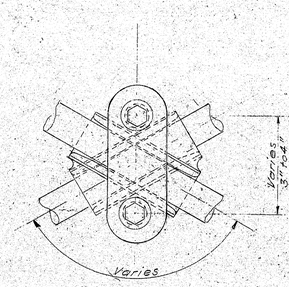
SUPPORTS FOR TOWER STAYS-PPs 15,16,18 & 19
Required - 24 Supports - Type S3

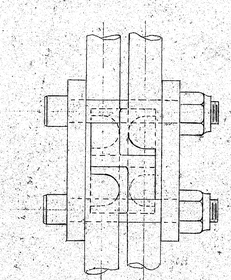
Scale 3" = 1'-0"





CROSS CLAMPS FOR TRANSVERSE STAYS
Required - 10 Type C1





CROSS CLAMPS FOR LONGITUDINAL STAYS
Required - 160 Type C2 thru C9

Scale 6" = 1'-0"

NOTE:
Supports S1, S2, S3, S4 and S5, and clamps C1 to C9 inclusive shall be galvanized and not painted.

Sheet No. 7208-26

STATE OF MAINE
STATE HIGHWAY COMMISSION

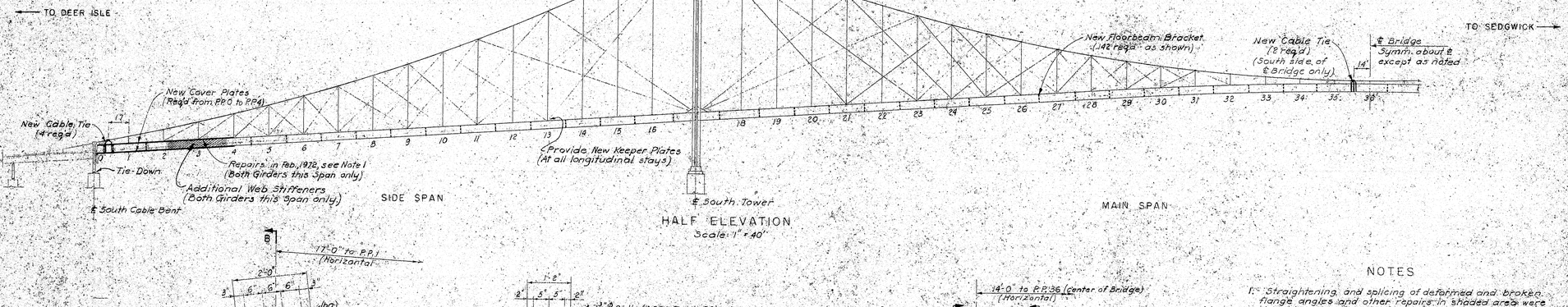
DEER ISLE-SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS

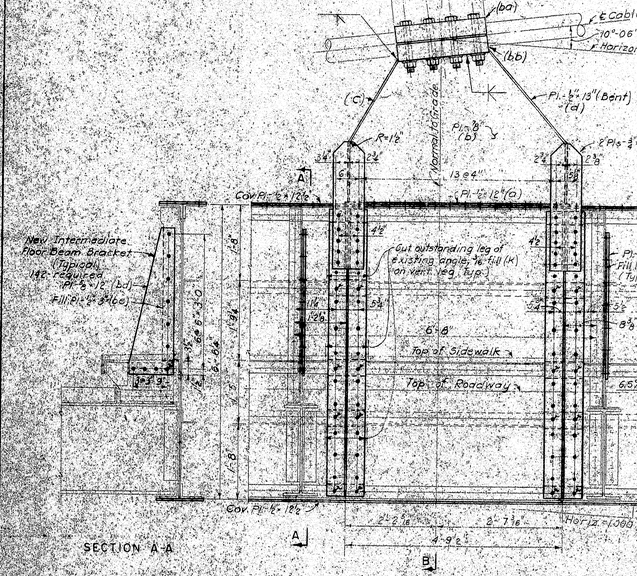
DETAILS

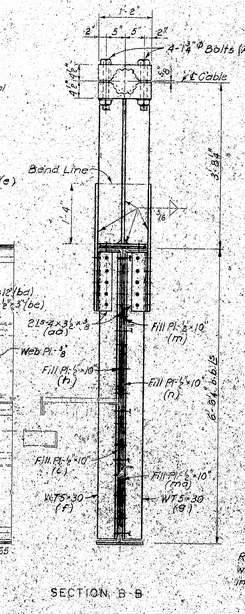
ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

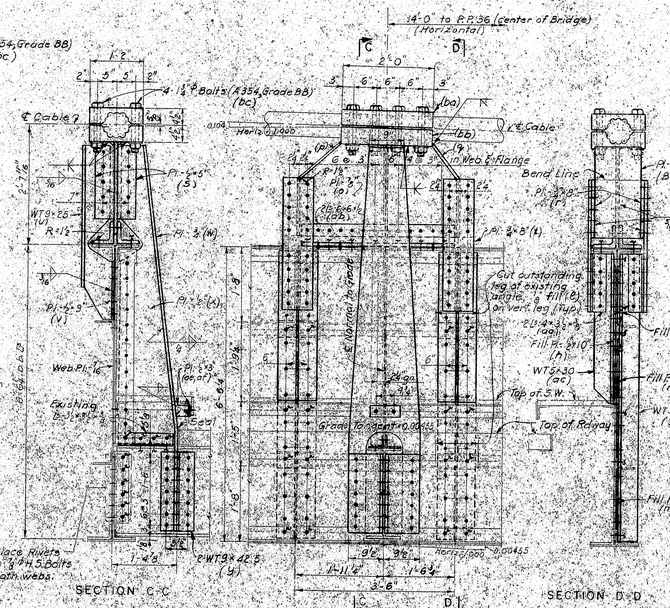
DRAWING NUMBER
RS 4207-S
FEBRUARY 26, 1943

136:15









NOTES

1. Straightening and splicing of deformed and broken flange angles and other repairs in shaded areas were done in February, 1972.
2. All new material shall be A36 steel unless otherwise noted.
3. Use A 325 - 7/8 ⌀ bolts in 15/16 ⌀ holes except as noted.
4. Use low-hydrogen E70/80 electrodes for all welds.
5. Prepare and weld material in the shop as far as practicable. Drill bolt holes shown ✦ (full size).
6. In the field, remove rivets where shown ✱; place new material and drill through ✦ and ✱ holes; complete bolting.
7. Do not weld when temperature is less than 20° F.
8. Finish cable clamp flutes to roughness rating between 500 and 400 micro inches. Cut parallel or at right angles to cable axis.
9. All dimensions shall be checked in the field as necessary before fabrication of new steel.
10. ✦ Indicates new holes.
11. ✱ Indicates existing holes.

PRIORITIES OF REPAIRS AND IMPROVEMENTS

1. Install new web stiffeners to reinforce and straighten the web plates.
2. Install 68 new floor beam brackets in side spans.
3. Install 16 new top cover plates on stiffening girders from PP 0 to PP 4 in side spans.
4. Install new cable bent tie-down at each cable bent column.
5. Install 4 new cable ties in side spans.
6. Install 74 new floor beam brackets in main span.
7. Install 2 new cable ties in main span.
8. Provide keeper plates for finger shims at diagonal stays.
9. Install 12 new bottom cover plates on stiffening girders from PP 0 to PP 4 in side spans.
10. For details and bill of material see Sheet 4.

Sheet No. 7208-27

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

ELEVATION AND CABLE TIES

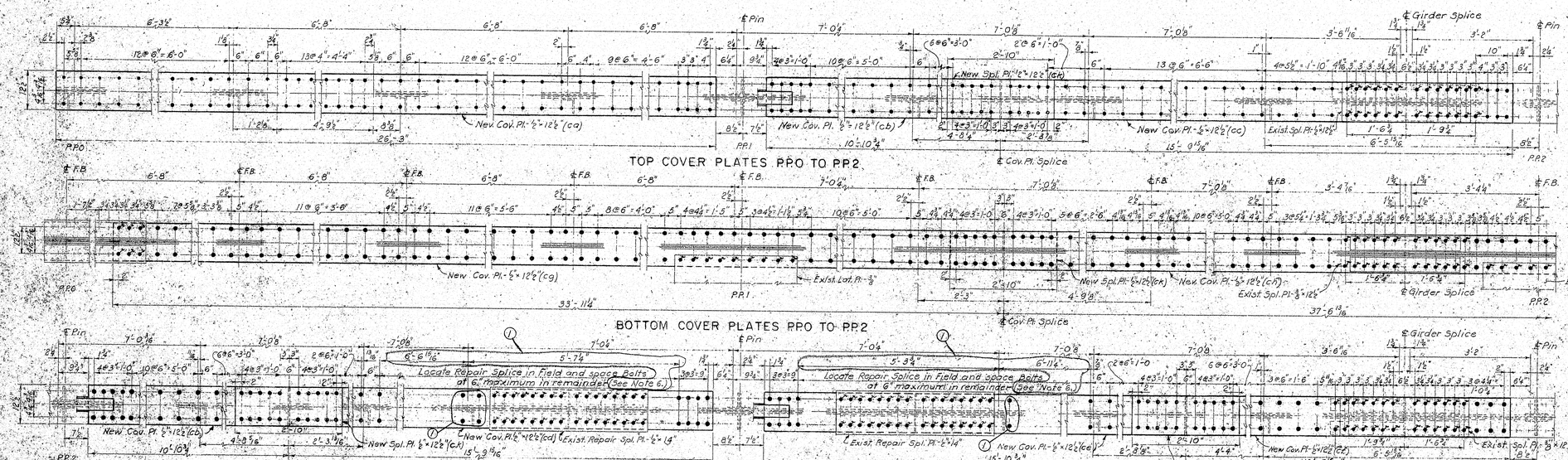
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

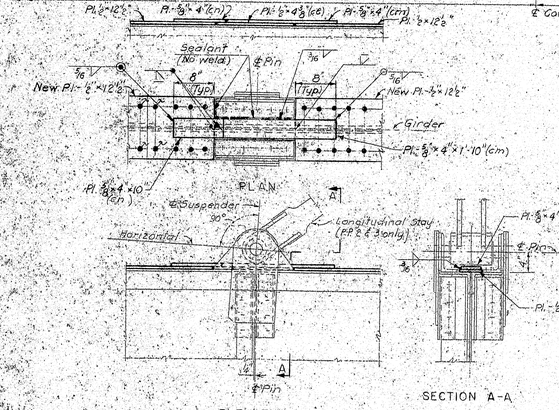
SCALE: As noted
DATE: May 19, 1972
SHEET 7204-1

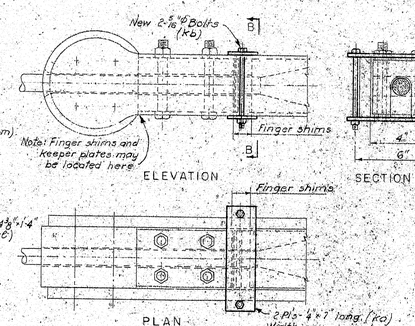
Design C.D. Ck'd. A.M.
Draw R.T. C.U.
Engineer in Charge

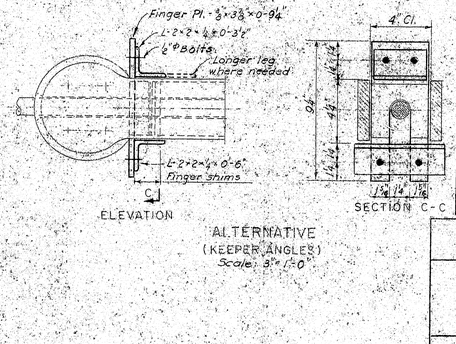
136.16

touraine paints TRUFLEX SILKY TRIPLE WHITE DURFLEX









NOTES

1. Prior to placing plates on stiffening girders straighten flange angles as far as practicable. Use of moderate heat is permitted.
2. Existing flange splice plate shall be removed, and then replaced after placing of cover plates.
3. In the new material, holes shown + shall be drilled in shop; holes shown ✓ to be drilled in the field through holes in the girder after bolts or rivets have been removed.
4. For bill of material see Sheet 4.
5. For other notes see Sheet 1.
6. Top flange of west girder in South Side Span shown. East girder in South Side Span similar. Girders in the North Side Span do not have repair splice plates and a maximum bolt spacing of 6" should be used throughout the interval shown. Holes to clear web stiffeners as indicated. (1)

Revision	By	Ck'd	Date
(1)	G.U.	G.A.	5-22-72

Design: A.W. Ck'd: G.U.
Drawn: R.T. S.S.
M. Arango
Engineer in Charge

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

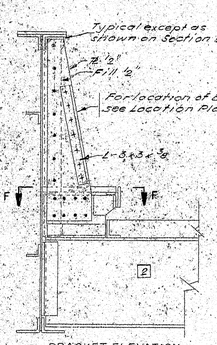
STIFFENING GIRDER COVER PLATES

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

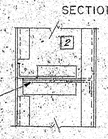
SCALE: As noted
DATE: May 18, 1972
SHEET: 7204-11

Sheet No. 7208-28

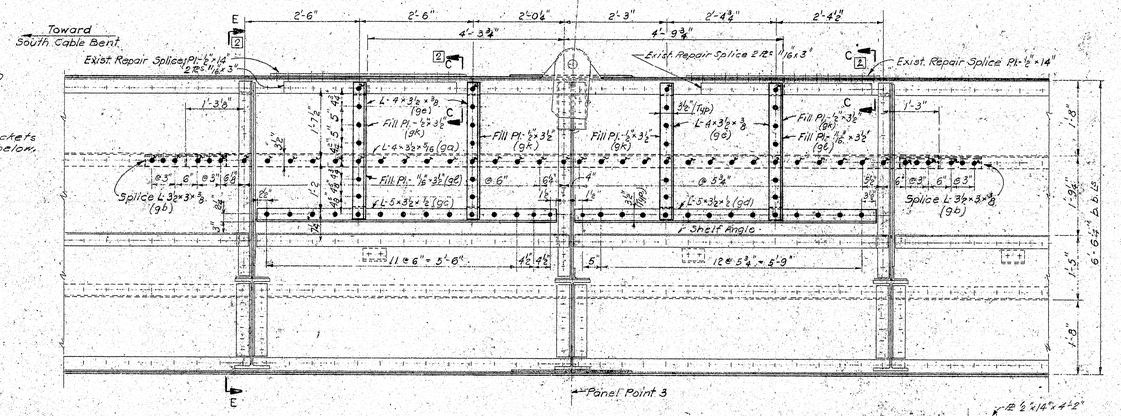
136-11



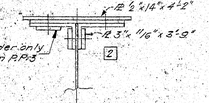
BRACKET ELEVATION
SECTION E-E



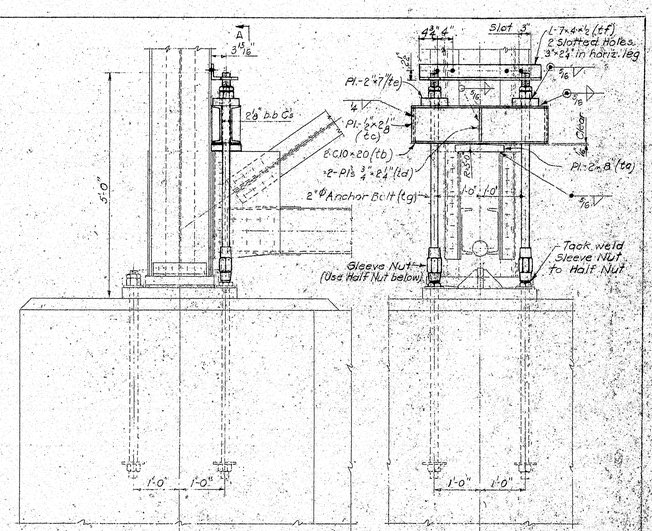
SECTION F-F
Scale ¾"=1'-0"



WEST STIFFENING GIRDER
Scale ¾"=1'-0"



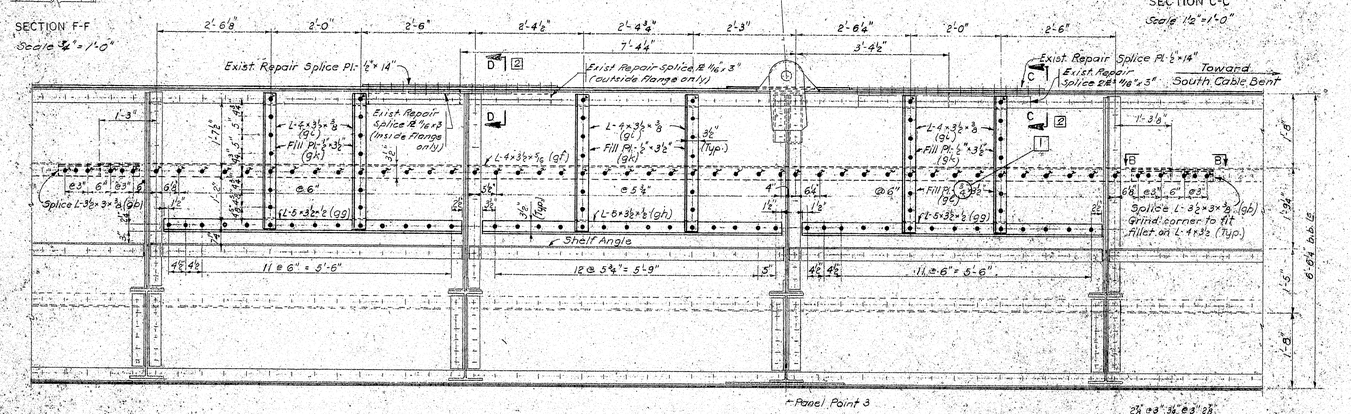
SECTION C-C
Scale 12"=1'-0"



ELEVATION

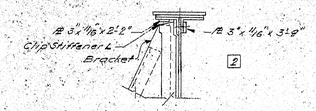
SECTION A-A

CABLE BENT TIE-DOWN
Scale ¾"=1'-0"

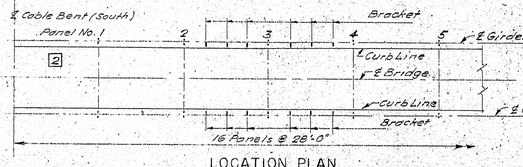


EAST STIFFENING GIRDER
Scale ¾"=1'-0"

SECTION B-B
(Typical)



SECTION D-D
Not to scale



LOCATION PLAN
Scale 1"=20'

NOTES:

1. In the new material holes shown + shall be drilled in shop; holes shown ✦ to be drilled in the field through holes in the girder after rivets have been removed.
2. Holes in girder shown + shall be drilled using holes in the new material as a template.
3. For other notes see Sheet 1.
4. Straighten shelf angle in place or remove and straighten if necessary.
5. For bill of material see Sheet 4.

Sheet No. 7208-29

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

REINFORCEMENT OF STIFFENING GIRDERS
CABLE BENT TIE-DOWN

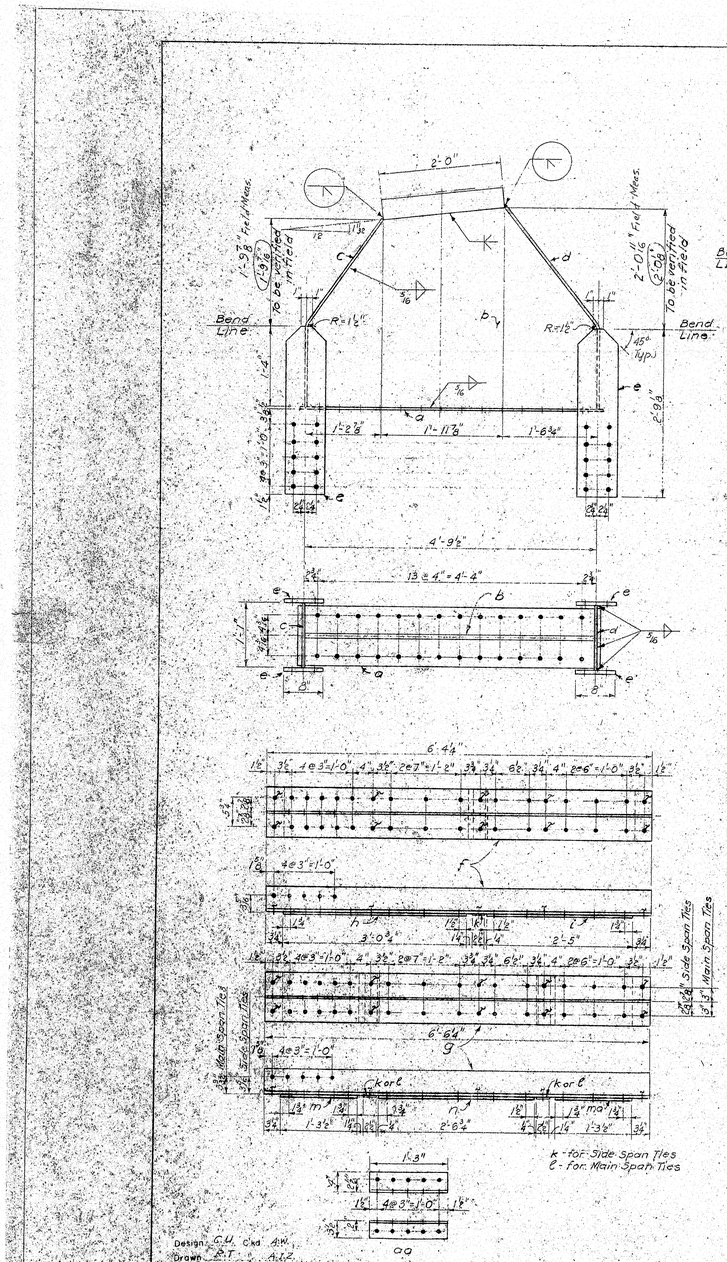
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

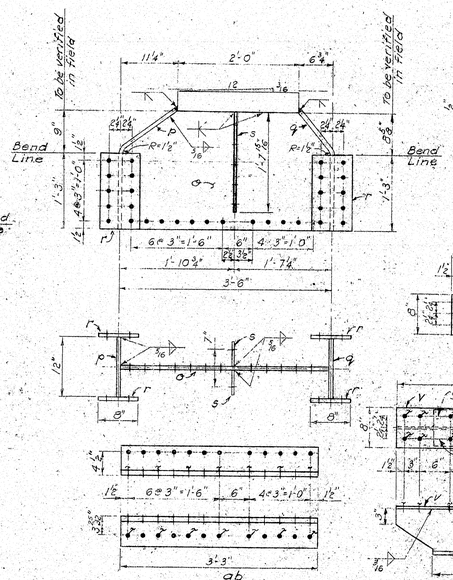
SCALE: As noted
DATE: May 9, 1912
SHEET: 7204-3

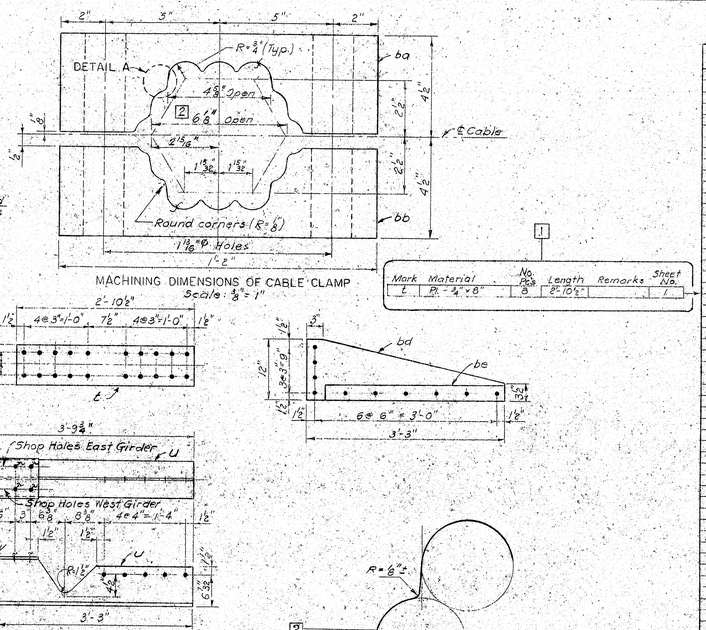
Revision	By	Ckd	Date
2	A.C.	S.G.	12-14-12
1	R.T.	G.A.	6-20-12

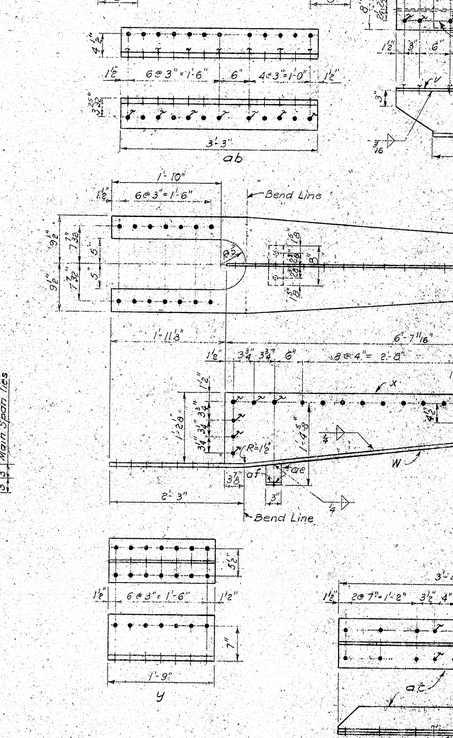
Design C.U. Chd A.T.Z.
Drawn R.T. C.U.
Engineer in Charge G. Arduna

136.18









BILL OF MATERIAL

Mark	Material	No. Pcs	Length	Remarks	Sheet No.
a	Pl.-½"×18"	4	5'-0"		1
b	Pl.-⅞"×40⅛"	4	41'-9"	Dim. to be verified in field	1
c	Pl.-½"×13" (Bent)	4	3'-6"	" " " " "	1
d	Pl.-½"×13" (Bent)	4	3'-11"	" " " " "	1
e	Pl.-¾"×8"	16	2'-2⅝"		1
f	WT 5×30	8	6'-8½"		1
h	Fill Pl.-½"×10"	8	1'-2¼"		1
k	" Pl.-⅜"×10"	8	2'-5"		1
g	WT 5×30	8	6'-4¼"		1
m	Fill Pl.-½"×10"	8	1'-3⅛"		1
n	" Pl.-½"×10"	8	2'-5⅛"		1
ma	" Pl.-⅜"×10"	8	1'-5⅛"		1
k	" Pl.-3/16"×2½"	24	0'-10"		1
aa	L-4×3½"×5/16	32	1'-3"		1
q	Pl.-⅞"×21½"	2	3'-5⅞"	Dim. to be verified in field	1
p	Pl.-¾"×12" (Bent)	2	2'-5"	" " " " "	1
q	Pl.-¾"×12" (Bent)	2	2'-2"	" " " " "	1
r	Pl.-¾"×8"	8	1'-3"		1
s	Pl.-½"×5"	4	1'-7 11/16"		1
ab	L-6×6×⅝	4	3'-3"		1
u	WT 9×25	2	3'-9¼"		1
v	Pl.-½"×8"	2	1'-3"		1
w	Pl.-¾"×19" (Bent)	2	8'-7"		1
x	Pl.-⅜"×14½"	2	6'-7 11/16"		1
ae	Pl.-½"×3"	2	0'-3 1/16"	(cut to fit)	1
af	Pl.-½"×3"	2	0'-3"		1
y	WT 9×42.5	4	1'-9"		1
ac	WT 5×30	4	3'-4"		1
h	Fill Pl.-⅜"×10"	4	3'-0¾"		1
g	WT 5×30	4	6'-4¼"		1
m	Fill Pl.-½"×10"	4	1'-3⅛"		1
n	" Pl.-½"×10"	4	2'-6⅛"		1
ma	" Pl.-⅜"×10"	4	1'-5⅛"		1
ℓ	" Pl.-⅜"×2½"	8	0'-10"		1
aa	L-4×3½"×5/16	16	1'-3"		1
ba	Pl. 4⅝"×14"	6	2'-0"		1
bb	Pl. 4"×14"	6	2'-0"		1
bc	1⅛"ø Bolt	48	1'-0"	A354, Grade BB	1
bd	Pl. 5"×12"	142	3'-3"	Cut to fit	1
be	Fill Pl. ⅜"×3"	142	2'-11½"		1
ca	Pl.-½"×12½"	4	26'-3"		2
cb	" "	2	10'-10⅜"		2
cc	" "	4	15'-9⅛"		2
cd	" "	4	18'-9 1/16"		2
ce	" "	4	18'-10⅝"		2
cf	" "	4	18'-9 1/16"		2
cg	" "	4	33'-1⅛"		2
ch	" "	4	33'-2 5/16"		2
ci	" "	4	33'-2⅜"		2
ck	Spl. Pl. ½"×12½"	20	24'10"		2
cℓ	Pl. ½"×4⅜"	12	1'-4"		2
cm	Pl.-⅜"×4"	12	1'-10"		2
cn	Pl.-⅜"×4"	12	0'-10"		2
go	L-4×3½"×5/16	1	16'-6⅜"		3
gb	Spl. L-3½×3×⅜	4	1'-9"		3
gc	L-3×3½×⅜	1	6'-7"		3
gd	L-3×3½×⅜	1	6'-7"		3
ge	L-4×3½×⅝	4	31'-0½"		3
gf	L-4×3½×5/16	1	23'-6⅞"		3
gg	L-5×3½×½	2	6'-7"		3
gh	L-5×3½×½	1	6'-7"		3
gi	L-4×3½×⅜	6	9'-0½"		3
gk	Fill Pl. ½"×3½"	10	8'-6½"		3
gℓ	Fill Pl. ② ½"×3½"	4	2'-9¼"		3
ta	Pl.-2"×8"	14	11'-1"		2
tb	C10×20	2	3'-0"		2
tc	Pl.-½"×2⅛"	8	0'-10"		2
td	Pl.-⅜"×2½"	8	0'-9½"	Cut to fit	2
te	Pl.-2"×7"	6	0'-7"		2
tf	L-3×4×½	4	2'-8"		2
tg	8"ø Anchor Bolt	8	4'-4½"	With nut at bottom and one above plate	2
ka	Pl.-4"×8"	3	0'-7"	Width of Plate	2
ℓ	Pl.-4"×3"	3	0'-7½"	and No. of Pieces to be determined in field. A325	2
"	Pl.-4"×4"	3	0'-7½"		2
kb	⅝"ø Bolt & ⅞"ø H.S. Bolts	30 1000	0'-3½"		2

Sheet No. 7208-30

NOTES:
1. Holes shown + shall be drilled in the shop; holes shown ✦ to be drilled in the field through holes in the girder after rivets have been removed.
2. For other notes see Sheet 1.

Revision	By	Ckd	Date
2	A.C.	S.G.	12-14-72
1	R.T.	G.A.	6-20-72

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

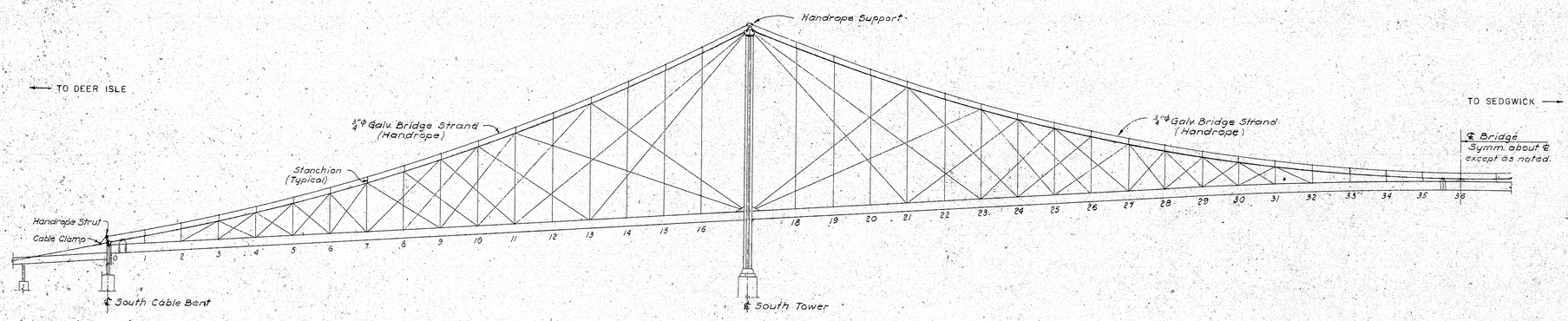
CABLE TIE DETAILS & BILL OF MATERIAL

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: 1/0 1/2" = 1"
DATE: May, 1972
SHEET: 7204-A

Design C.H. Ckd A.W.
Drawn E.T. A.L.Z.
J. Arango
Engineer in Charge

136.19



HALF ELEVATION
Scale: 1"=40'

Design ..... C'k'd .....
Drawn R.T. S.R.
L. Arango
Engineer in Charge

Sheet No. 7208-31

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

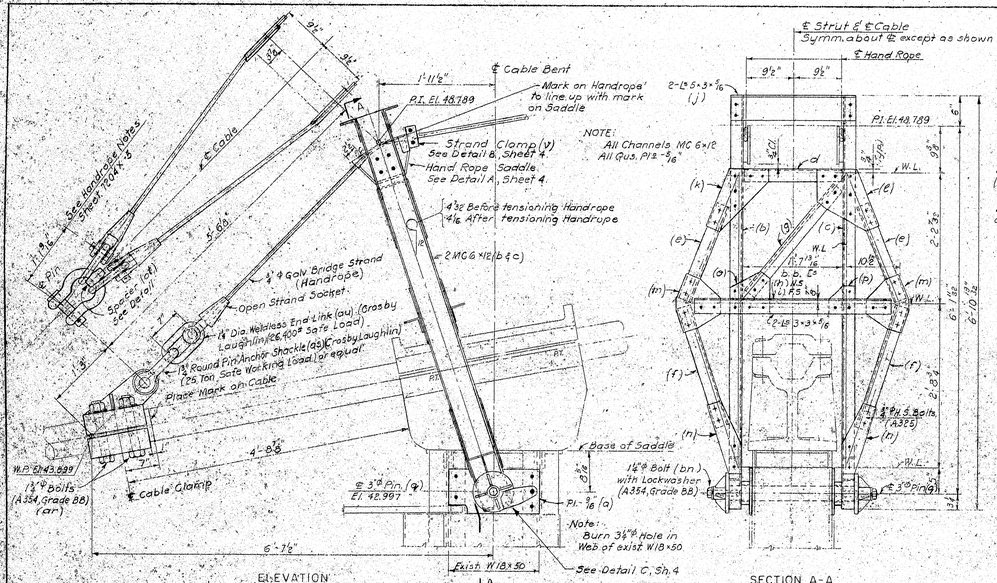
ELEVATION — HANDROPES

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As noted
DATE: Oct. 20, 1932
SHEET: 7204X-1

136:20

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
touraine paints TRUFLEX SILKY TRIPLE VELVET DURFLEX



Design: B.B. Ck'd: S.G.
Drawn: G.P. S.G.
Engineer in Charge: L. Draugo

Sheet No. 7208-32

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

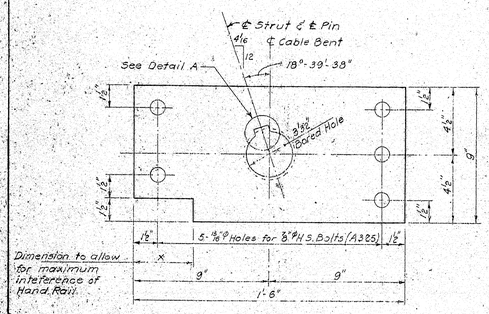
HANDROPE SUPPORTS

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

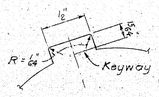
SCALE: 1/2" = 1'-0" & as noted
DATE: Oct. 20, 1972
SHEET: 7204X-2

136:21

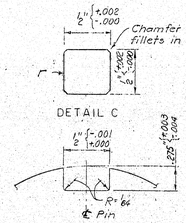
touring points TRUEFLEX SILKY TRIPLE WHITE NYLON



a
Scale: 3"=1'-0"

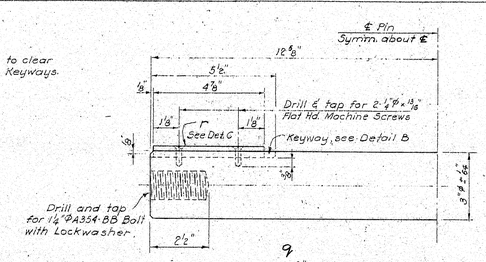


DETAIL A
Scale: 1 1/2"=1"

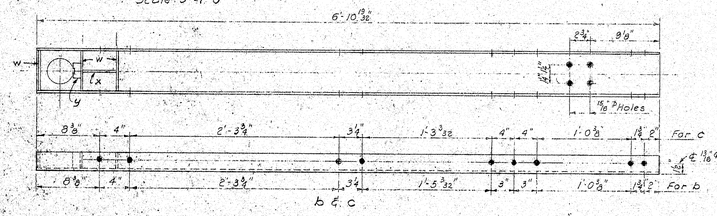


DETAIL C

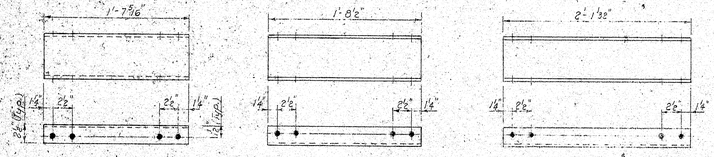
DETAIL B
Scale: 1 1/2"=1"



g
Scale: 3"=1"



b & c



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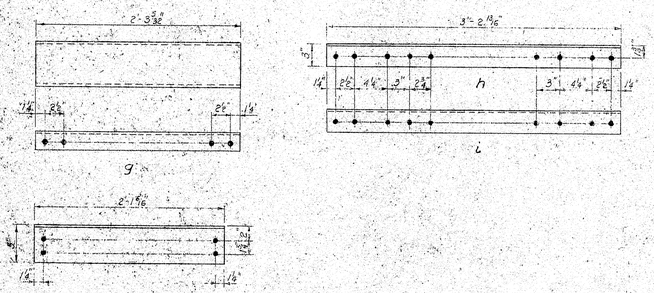
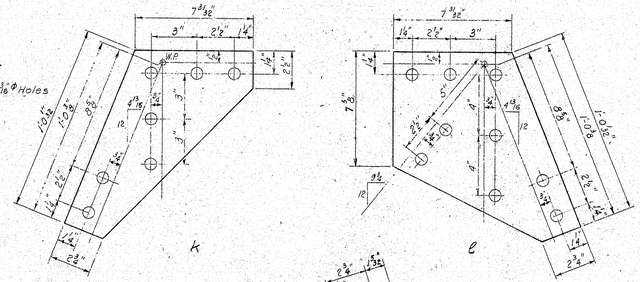


g h i

j

Scale: 1 1/2"=1'-0"



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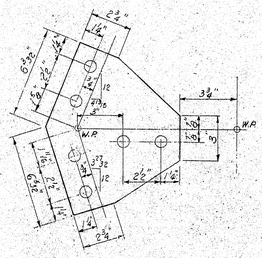

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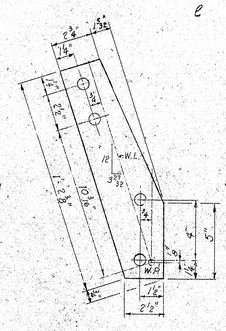

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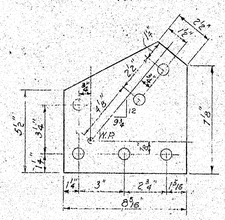

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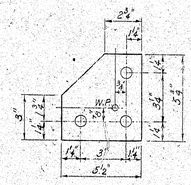


p

Scale: 3"=1'-0"

All Holes 13/16"ϕ except as noted.

Sheet No. 7208-33

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

HANDROPE STRUT DETAILS AT CABLE BENT

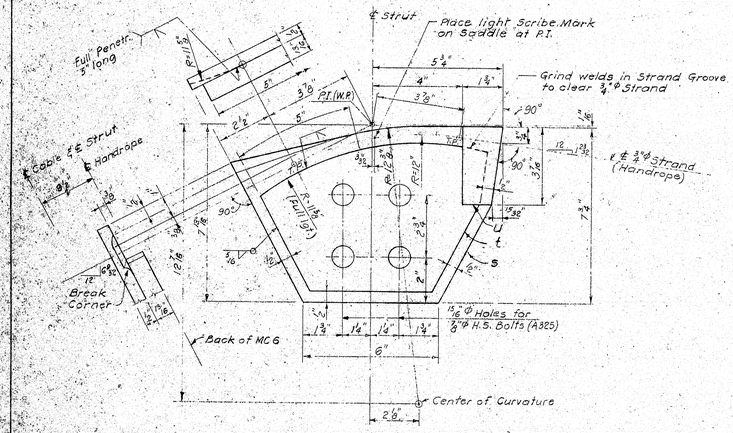
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As noted
DATE: Oct. 20, 1972
SHEET: 7204X - 3

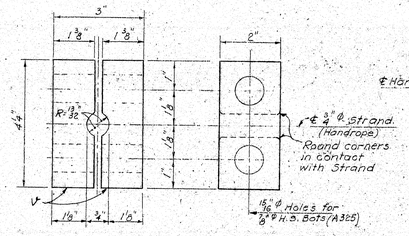
Design: B.B. Ck'd B.G.
Drawn: B.T. " B.G.
G. Arango
Engineer in Charge

136:22

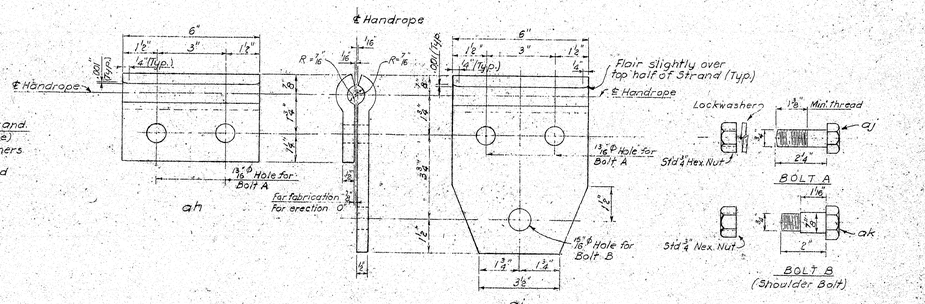
touraine prints TRUELEY ☆ SULKY ☆ TRIPLE RULER ☆ DYDELL

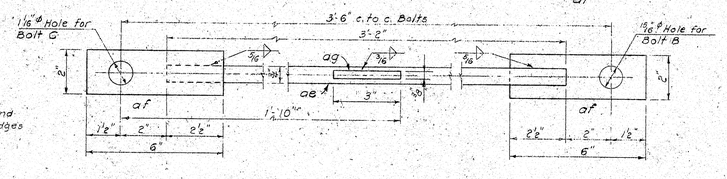


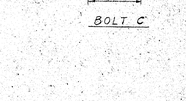
DETAIL A

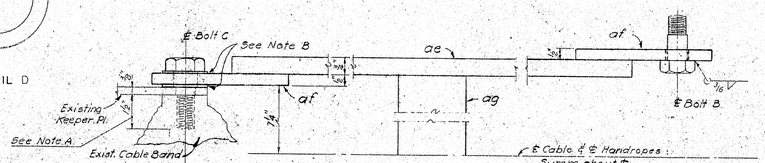


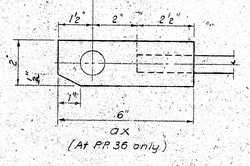
DETAIL B
Half size









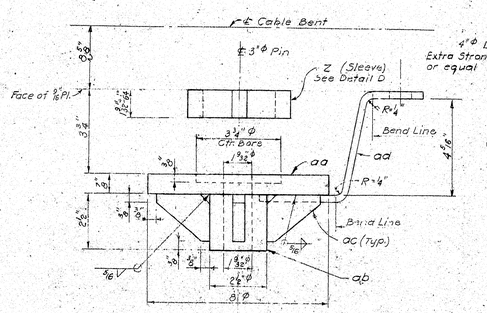


Note A: Tapped hole in Cable Band is presumed to be 1½" deep, with std ¾" thread. This should be checked before manufacture of Bolt C. The thickness of keeper plate ⅜"±⅛" should also be checked. The intent is that the threads on Bolt C match the threads in the casting, and that the end of Bolt C be ⅜" free of the end of the tapped hole when Bolt C is in place clamping the keeper plate against the cable band.

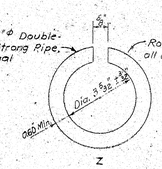
Note B: Fill these spaces with shims or ℄ aw to maintain the dimension of 1'-2½" between prongs of the stanchion. One of each should be used at each bolt.

Bolts and Nuts: ASTM-A307

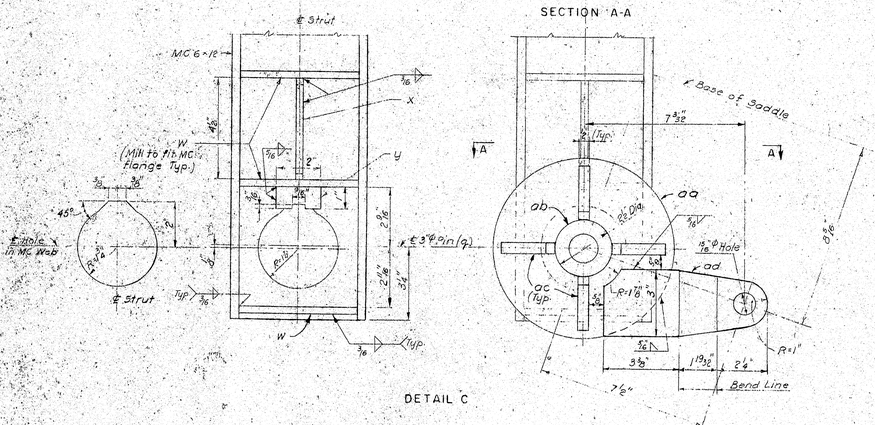
HANDROPE STANCHION



SECTION A-A



Z
DETAIL D



DETAIL C

STRUT AT CABLE BENT

Design B.B. Ck'd S.G.
Drawn R.T. S.G.
L. Arango
Engineer in Charge

Sheet No. 7208-34

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE.

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

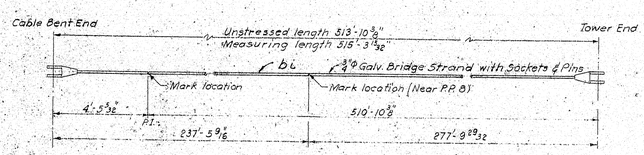
HANDROPE STRUT & STANCHION DETAILS

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

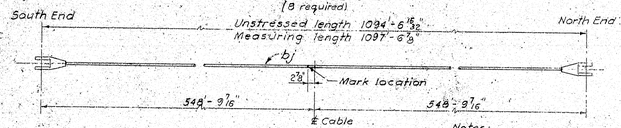
SCALE: 3/8" = 1"
DATE: Oct. 20, 1972
SHEET: 7204X-4

136-23

touraine paints TRUFLEX ★ SILKY ★ TRIPLE WHITE ★ DUPLEX



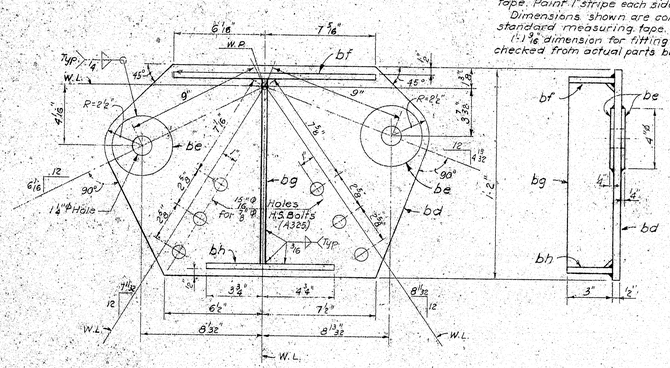
HANDROPE - SIDE SPAN
(8 required)



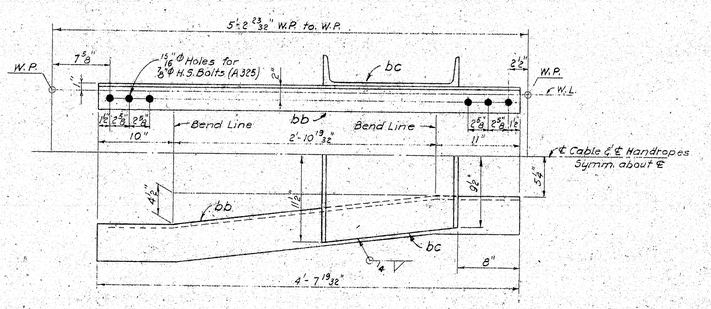
HANDROPE - MAIN SPAN
(4 required)
Not to Scale

Notes:

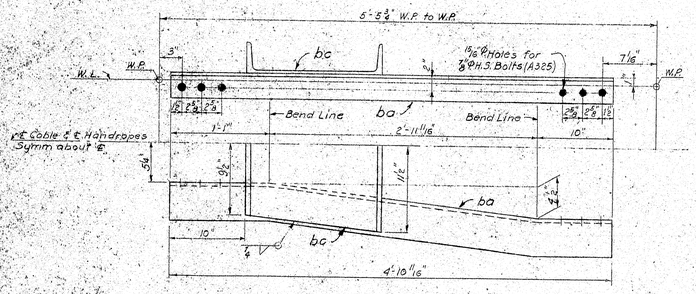
Measuring Tension in shop = 21,365 lbs.
Marks on Handrope to be placed on measured length. Mark with light scribe on zinc coating and cover with tape. Paint 1" stripe each side of scribe mark.
Dimensions shown are corrected for 68°F standard measuring tape.
(-) 9/16 dimension for fittings at Cable Clamp to be checked from actual parts before cutting Strands.



Scale: 3"=1'-0"



Scale: 1½"=1'-0"



Scale: 1½"=1'-0"

Design P.B. Ck'd S.G.
Drawn P.T. S.G.
L. Arango
Engineer in Charge

BILL OF MATERIAL

Mark	Material	No. Pc's	Length	Remarks	Sheet No.
a	Pl.-9/16" × 9"	8	1'-6"		3
b	MC 6 × 12	4	6'-10 13/32"		
c	"	4	6'-10 13/32"		
d	"	4	1'-7 5/16"		
e	"	8	1'-8 1/2"		
f	"	8	2'-1 29/32"		
g	"	4	2'-3 23/32"		
h	L-3 × 3 × 5/16	4	3'-2 7/16"		
i	L-3 × 3 × 5/16	4	3'-2 9/16"		
j	L-5 × 3 × 3/8	8	2'-1 5/16"		
k	Pl.-3/16" × 8 1/2"	8	1'-3"		
l	Pl.-3/16" × 10 1/4"	8	1'-3"		
m	Pl.-5/16" × 9 1/16"	16	0'-10 3/8"		
n	Pl.-5/16" × 3 15/16"	16	1'-3 1/4"		
o	Pl.-5/16" × 8 5/16"	8	0'-9 11/16"		
p	Pl.-5/16" × 5 1/16"	8	0'-5 3/4"		
q	Bar 3"ø	4	2'-1 1/4"	Pin	1
r	Bar ℄ - 1 1/8"	4	0'-4 7/8"	Key	3
s	Pl.-1/2" × 7 1/2"	8	1'-0 1/16"		4
t	Pl.-1/16" × 6 1/2"	8	0'-10 1/8"		
u	Pl.-2" × 1/8"	8	0'-3 1/16"		
v	Pl.-1/8" × 2"	16	0'-4 1/4"		
w	Pl.-3/16" × 2 1/16"	24	0'-5 1/16"	Cut to fit	
x	Pl.-1/16" × 2 3/16"	8	0'-4 5/8"		
y	Pl.-1" × 2"	8	0'-2 3/16"	Trunnion Block	
z	4"ø Pipe	8	0'-1 15/16"	Double Extra Strong Sleeve	
aa	Pl.-1/2" × 8"	8	0'-8"		
ab	Bar 2 1/2"ø	16	0'-2 5/8"		
ac	Pl.-1/2" × 2 1/2"	32	0'-2 3/4"		
ad	Pl.-3/16" × 3"	8	0'-10 7/8"	Bend	
ae	Bar 3/4" □	276	3'-2"	Hot-dip galv.	
af	Pl.-1/2" × 2"	548	0'-6"	"	
ag	Pl.-1/2" × 3"	138	1'-3 3/8"	"	
ah	Pl.-1/2" × 3 7/8"	276	0'-6"	"	
ai	Pl.-1/2" × 7 1/8"	276	0'-6"	"	
aj	7/8"ø Bolt	552	0'-2 1/4"	With Hex. Hd. Nut & Lwasher H.D.G.	
ak	7/8"ø Shoulder Bolt	276	0'-8"	With Hex. Hd. Nut H.D.G.	1
al	1"ø " "	276	0'-10 1/2"	" " " H.D.G.	4
am	Pl.-4 1/2" × 12"	4	1'-2"	Cable Clamp	2
an	Pl.-4" × 12"	4	1'-8"	"	
ao	Pl.-1/2" × 6"	4	1'-4 1/4"	"	4
ap	Pl.-1/2" × 3"	8	0'-6 1/4"	"	
aq	Pl.-3/4" × 5"	8	0'-1"	"	
ar	1 1/4"ø Bolt (Hex. Hd.)	16	1'-1 9/16"	A354, Grade BB	
as	1 1/4"ø Round Pin				
	Anchor Shackle	4			
at	Bar 4"ø	4	0'-2"	Spacer	
au	10"Dia End Link	8			2
av	Shim 1/4" × 2 9/16" × 2 1/2"	216			4
aw	Shim 1/8" × 2 9/16" on 2 1/2"	276			4
ax	Pl. 1/2" × 8"	4	0'-6"	At PP 36 Hot-dip galv.	4
ba	L-5 × 3 1/2 × 1/4	8	4'-11"		5
bb	L-5 × 3 1/2 × 1/2	8	4'-7 7/16"		
bc	MC 18 × 42.7	8	18'-1"		
bd	Pl.-1/2" × 14"	8	1'-9 5/8"		
be	Pl.-1/4" × 9"	32	0'-4"		
bf	Pl.-3/8" × 3"	16	1'-1 1/2"		
bg	Pl.-1/2" × 3"	8	1'-0 3/8"		
bh	Pl.-1/2" × 3"	8	0'-8 1/4"		
bk	3/4"ø Bridge Strand	6	See Detail	With sockets & Pins (Side Span)	
bl	3/4"ø Bridge Strand	4	See Detail	" " (Main Span)	5
bt	14"-24" Turnbuckle	16		With Eye, Jaw & Locknuts	2
bm	1 3/4"ø Pin	16			2
bn	1 3/4"ø Bolt & Locknuts	8	0'-6 1/2"	A354, Grade BB	2
	5/16"ø Hex. Sckrct Set Screws	16	0'-1 1/4"		2
	1/4"ø Flat Hd. Mach. Screws	16	0'-1 3/4"		2
	3/4"ø H.S. Bolts	396	0'-2"	A325	
	7/8" " "	100	0'-2 1/4"	"	
	" " "	96	0'-2 1/4"	"	
	" " "	10	0'-3"	"	
	" " "	36	0'-3 1/4"	"	
	" " "	20	0'-4 1/2"	"	

Estimated Net Weight of Structural Steel - 14,200 Lbs.
(Not included 3/4"ø Strands, Sockets & Pins)

Sheet No. 7208-35

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

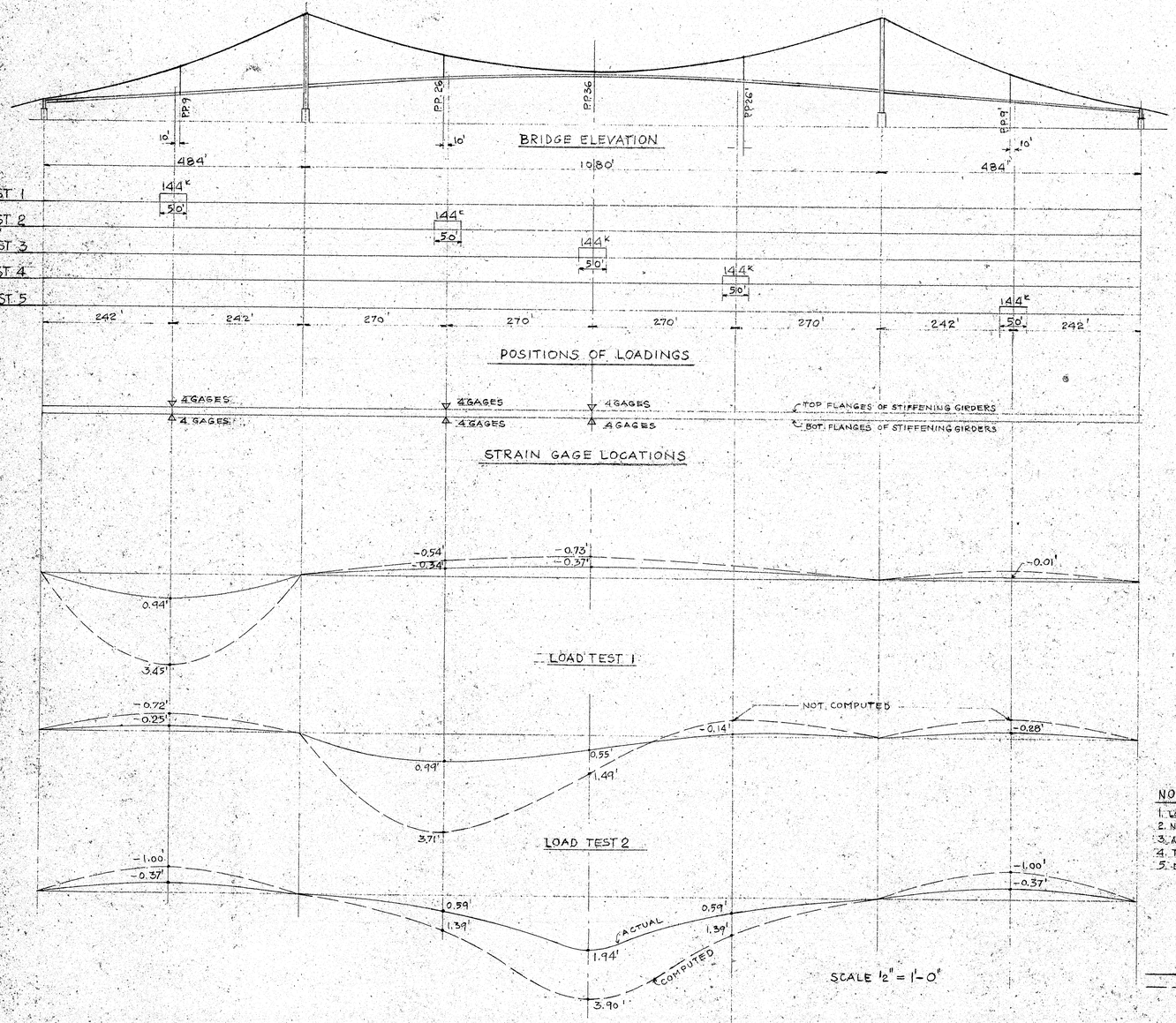
IMPROVEMENT OF SUSPENDED SPANS

HANDROPE SUPPORT DETAILS AT TOWER AND BILL OF MATERIAL

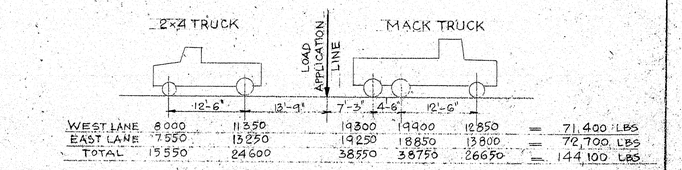
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As noted
DATE: Oct. 20, 1972
SHEET 7204X-5

136.24

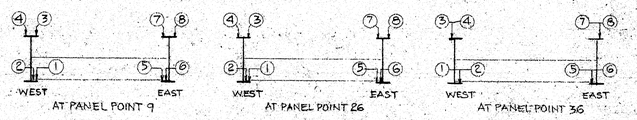


Design A.W. Chkd S.G.
Drawn A.N. " S.G.
Engineer in Charge



WEST LANE	8000	11350	19300	19900	12850	= 71,400 LBS
EAST LANE	7550	13250	19250	18850	13800	= 72,700 LBS
TOTAL	15550	24600	38550	38750	26650	= 144,100 LBS

TEST LOAD



STRAIN GAGE LOCATIONS

STRESS TABLE

	GAGE	AT PANEL POINT 9		AT PANEL POINT 26		AT PANEL POINT 36		REMARKS
	GIRDER	WEST	EAST	WEST	EAST	WEST	EAST	
TEST 1	TOP f_T psi	−2,436	−3,161	+1,726	+116			
	BOT. f_B psi	+3,947	+3,530	+1,535	+116			
	$\frac{1}{2}(f_T+f_B)$ psi	+3,192	+3,346	+96	0			
	AXIAL f_A psi	+755	+184	+1,631	+116			* SEE NOTE 2
	MOMENT f_K	+384	+405	−13	0			
	AXIAL FORCE K	+464	+113	+111.2	+7.9			
	COMPUTED f_T psi	−19,700	−19,700	−400	−400	−500	−500	SEE NOTE 3
TEST 2	TOP f_T psi	+384	+145	−3,422	−4,031			
	BOT f_B psi	−150	−280	+5,581	+4,604			
	$\frac{1}{2}(f_T+f_B)$ psi	+242	+213	+4,501	+4,318			
	AXIAL f_A psi	+92	−67	−1,080	+286			* SEE NOTE 2
	MOMENT f_K	−28	−26	+621	+596			
	AXIAL FORCE K	+18	−4.1	+73.6	19.5			
	COMPUTED f_T psi	−2200	−2,200	−16,500	−16,500	−1800	−1800	SEE NOTE 3
TEST 3	TOP f_T psi	+348	+377	+870	+957	−12,959	−13,935	
	BOT f_B psi	−201	−365	−1,039	−1,070	+15,452	+14,643	
	$\frac{1}{2}(f_T+f_B)$ psi	+425	+366	+955	+1,013	−14,179	+14,289	
	AXIAL f_A psi	−76	+11	−84	−57	+1,273	+354	
	MOMENT f_K	−51	−44	−132	−139	+1,939	+1,853	
	AXIAL FORCE K	−4.7	−0.7	−5.7	−3.9	+87.3	+64.3	
	COMPUTED f_T psi	−3,200	−3,200	−2600	−2,600	−16,500	−16,500	SEE NOTE 3
TEST 4	TOP f_T psi	+290	+145	+669	+669	−58	−44	
	BOT f_B psi	−120	−104	−448	−566	+1,234	+1,042	
	$\frac{1}{2}(f_T+f_B)$ psi	+205	+125	+529	+587	+645	+543	
	AXIAL f_A psi	+85	+21	+81	+21	+587	+499	
	MOMENT f_K	−25	−15	−73	−81	+84	+70	
	AXIAL FORCE K	+5.2	+1.3	+5.5	+1.4	+40.3	+34.2	
	COMPUTED f_T psi							NOT COMPUTED
TEST 5	TOP f_T psi	+116	+116	−145	−39	+638	+783	
	BOT f_B psi	−1	−1	−28	0	−1,063	−816	
	$\frac{1}{2}(f_T+f_B)$ psi	+59	+59	+59	+15	+850	+799	
	AXIAL f_A psi	+58	+58	−87	−15	−213	−17	
	MOMENT f_K	−7	−7	+8	+2	−110	−104	
	AXIAL FORCE K	+3.6	+3.6	−5.9	−1.0	−146	−1.2	
	COMPUTED f_T psi							NOT COMPUTED

NOTES

1. LOAD TESTS WERE CARRIED OUT ON AUGUST 18, 1972.
2. NO RELIABLE STRAIN GAGE READINGS WERE OBTAINED FOR TESTS 1 AND 2 AT P.P. 36.
3. ALL COMPUTED STRESSES AND DEFORMATIONS ARE FOR SUSPENSION BRIDGE WITHOUT DIAGONAL STAYS.
4. THE STRAIN GAGES USED ARE OF THE SR4 TYPE.
5. DETAILS OF THE TESTS ARE CONTAINED IN THE COMPUTATIONS RECORDS.

——— MEASURED DEFLECTIONS
— — — COMPUTED DEFLECTIONS (SEE NOTE 3)

Sheet No. 7208-36

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

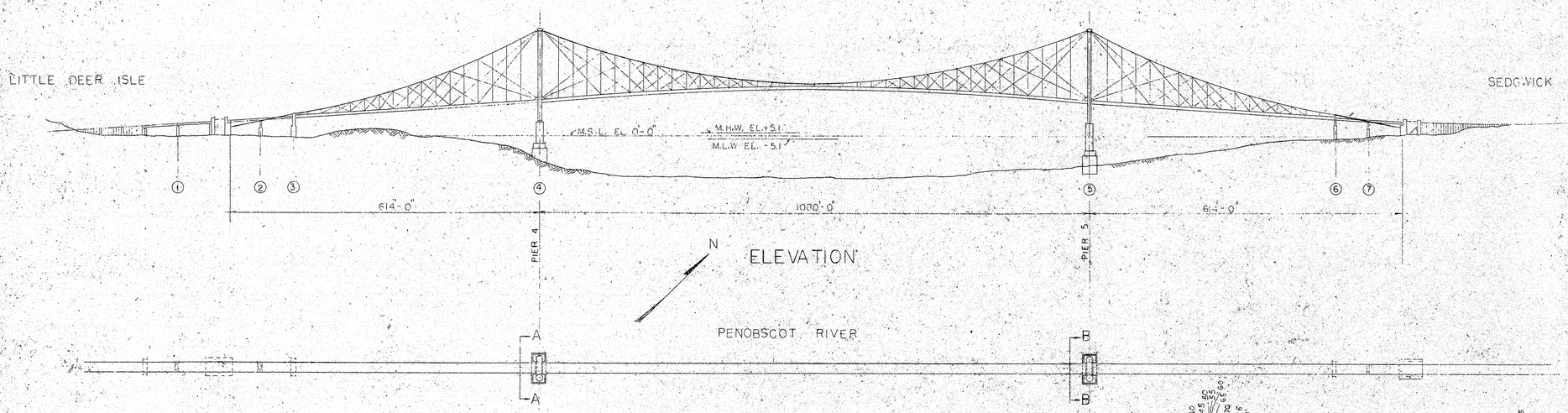
DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

LOAD TEST RECORDS

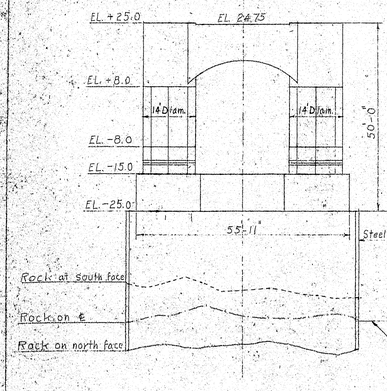
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As Noted
DATE: Feb. 2, 1973
SHEET: 1

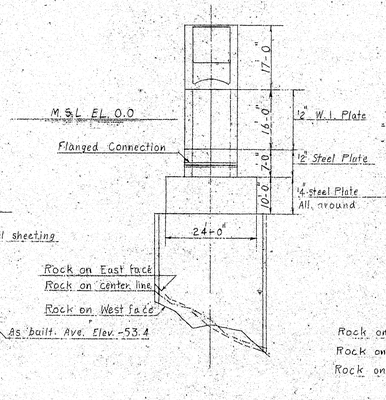
136:25



PLAN
SCALE 1"=100'-0"

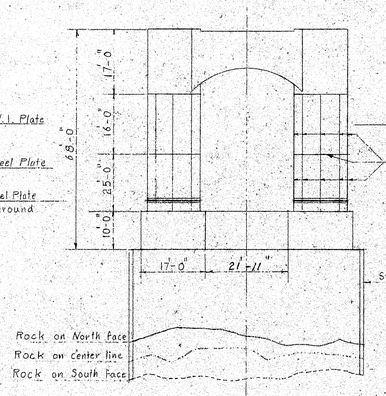


ELEVATION A-A

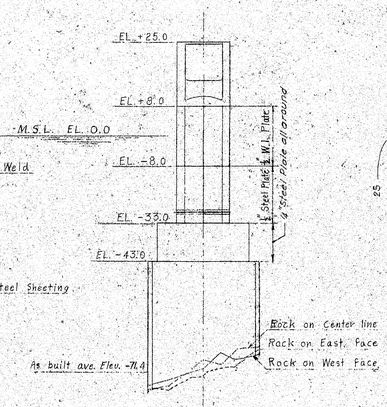


ELEV.

PIER NO. 4
SCALE 1/16"=1'-0"
(AS BUILT CONDITION)

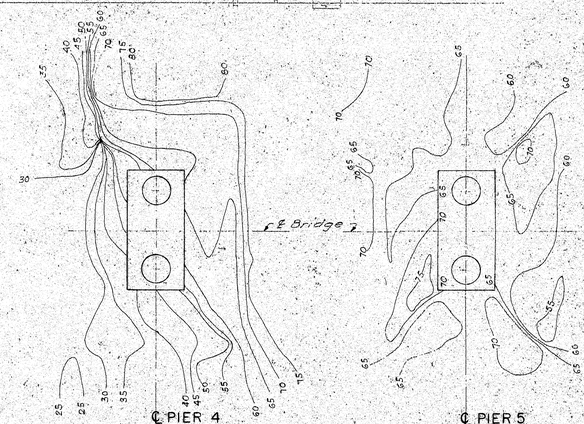


ELEVATION B-B



ELEV.

PIER NO. 5
SCALE 1/16"=1'-0"
(AS BUILT CONDITION)



SOUNDINGS BELOW M.S.L. EL. 0.0
July, 25, 1972
Scale: 1"=30'

Sheet No. 7208-37

STATE HIGHWAY COMMISSION BRIDGE DIVISION	AUGUSTA, MAINE
DEER ISLE - SEDGWICK BRIDGE OVER EGGEMOGGIN REACH FROM LITTLE DEER ISLE TO SEDGWICK	
UNDER WATER INSPECTION	
PIERS NO. 4 & 5	
STEINMAN, BOYNTON, GRONQUIST & LONDON CONSULTING ENGINEERS NEW YORK, N.Y.	SCALE AS NOTED DATE JULY 13 1972 SHEET 1

Design A.N. Ckd S.G.
Drawn A.N. " S.G.
H. Arango
Engineer in Charge

136:26

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
touraine paints TRUFLEX SILKY TRIPLE KILLER DURFLEX