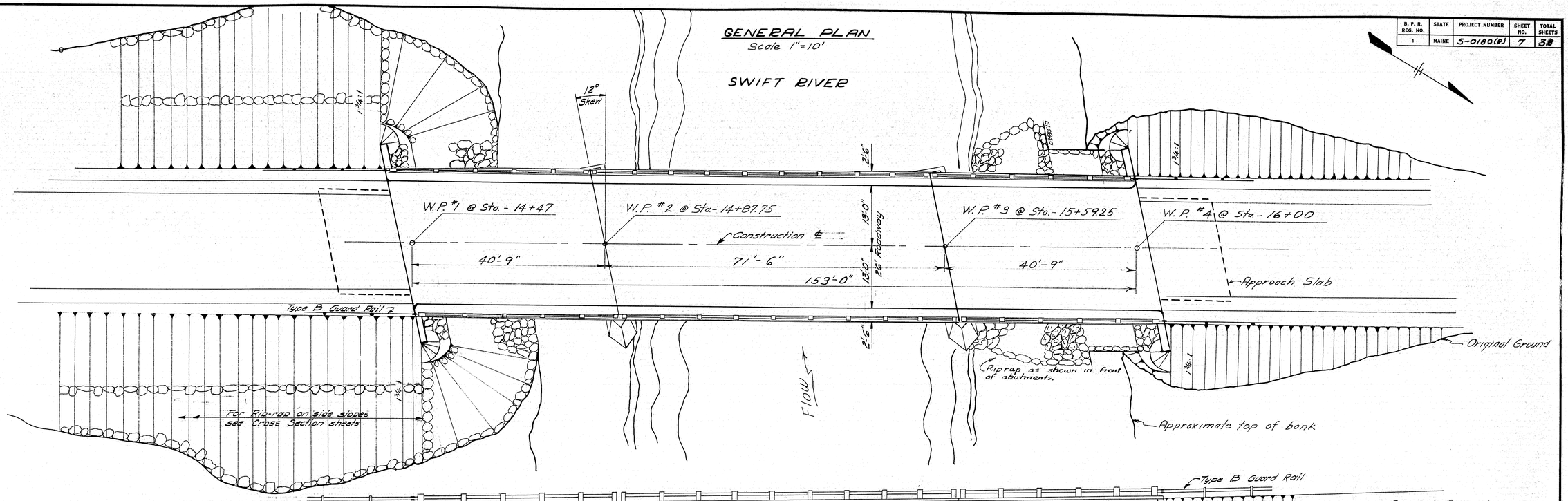
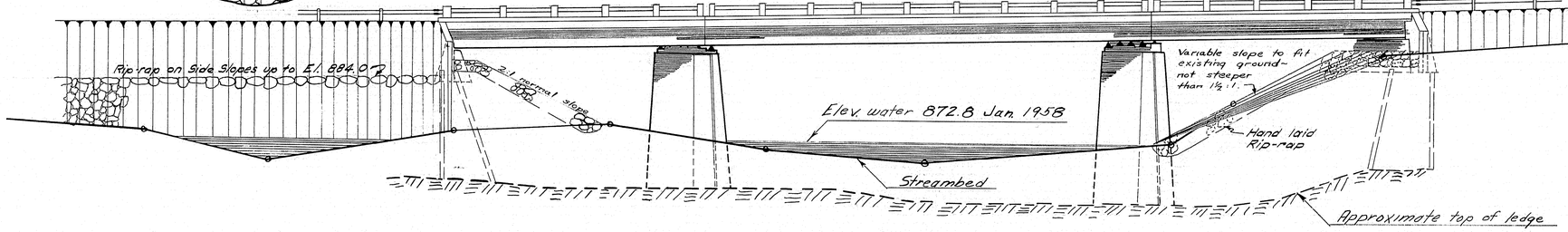
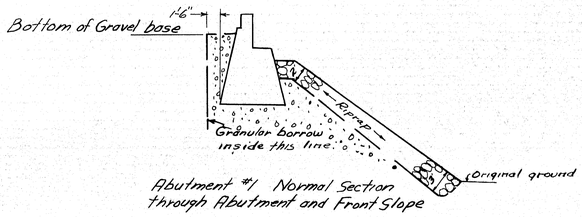
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	7	38

GENERAL PLAN
Scale 1"=10'





GENERAL ELEVATION VIEW
Scale 1"=10'



Abutment #1 Normal Section through Abutment and Front Slope

NOTE:
Payment for excavation necessary for placing riprap will be made at the contract unit price per cubic yard for "Structural Earth Excavation, Drainage."

DESIGN SPECIFICATIONS
The American Association of State Highway Officials, Standard Specifications for Highway Bridges, Revision of 1957, with supplements.

CONSTRUCTION SPECIFICATIONS
All work contemplated under the contract covering this project to be governed by and in conformity with State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revision of January, 1956, except as modified on these plans or in the special specifications.

CONCRETE CLASSIFICATIONS
Superstructure and Approach Slabs - - - - - - - Class A
Abutments and Piers - - - - - - - - - - - - Class B
Rail - Class Y

LOADING
H-20-S16-44
fs = 18,000
fc = 1,200
n = 10

DESIGN- HAMILTON DET.-H.F.
TRACE- CARROLL
CHECK- C.S.A.
BRIDGE NO.
SURVEY-
PLOT-

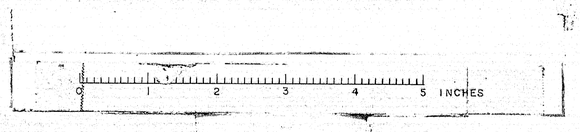
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY

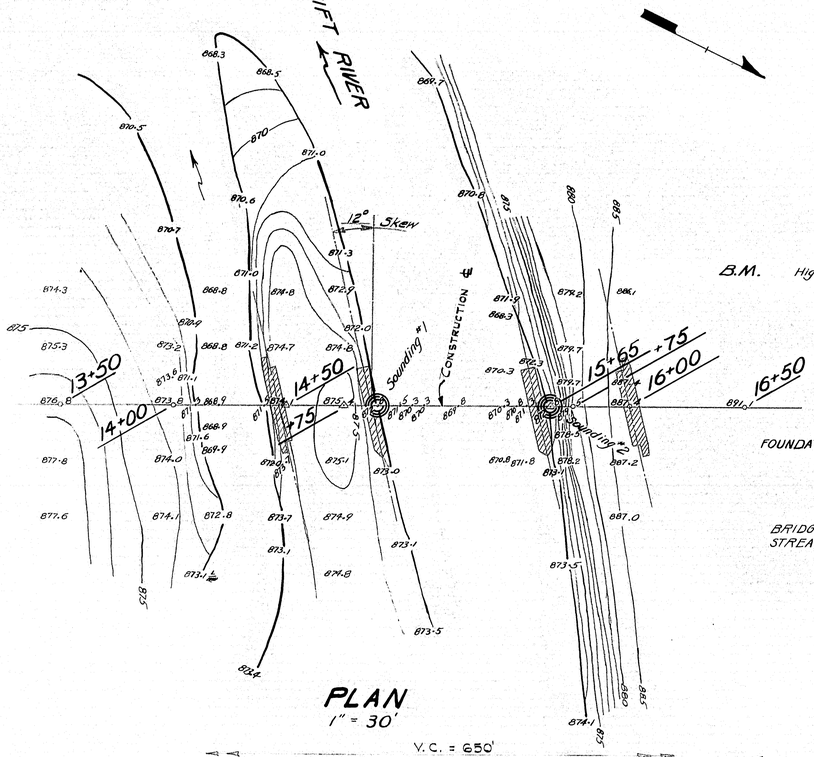
GENERAL PLAN

SHEET 1 OF 10 AUGUSTA, MAINE JULY, 1958

M-979



B. P. R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(P))	8	38



PLAN
1" = 30'

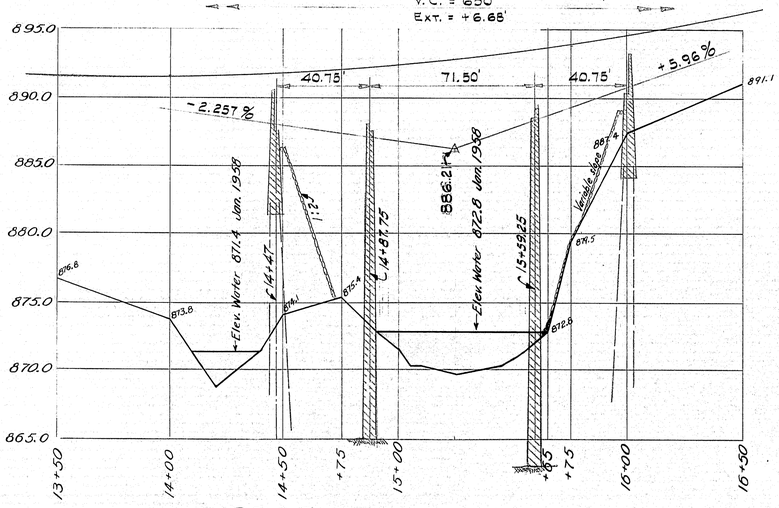
B.M. Highway T.P. 10 Vert. nail in 2" Maple stump. 2' Rt. Sta. 15+85 El. 882.65.

-NOTES-

FOUNDATION: Sounding #1 @ ℄ Sta. 14+90, unable to get more than 2.0' penetration in several places ranging 10' each side of center line. (Possibly ledge) Very questionable. Sounding #2 ℄ Sta. 15+65. Rod penetrated 6.0' below water to very firm material through gravel and small boulders.

BRIDGE: About 2000' upstream.

STREAM: Swift current at all stages. Bad ice conditions at high stages. Present bridge reported full at high stages. Low water at or below present level.



PROFILE
1" = 30' Horiz.
1" = 5' Vert.

DESIGN-
TRACE - CUTTING
CHECK -

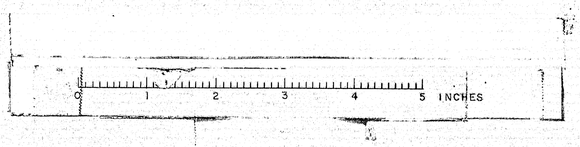
BRIDGE NO.
SURVEY - BLAKE
PLOT - CUTTING

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

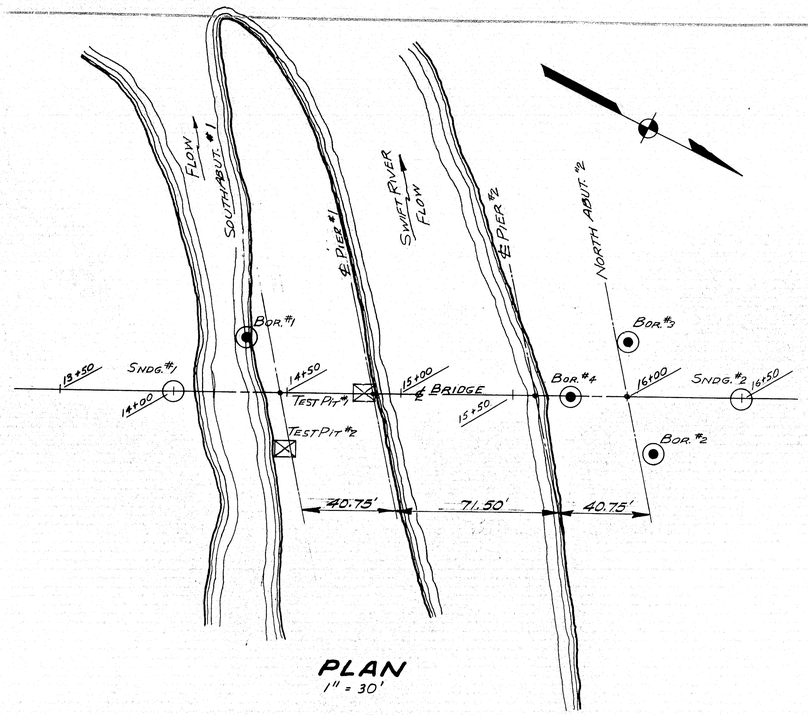
COOS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY
SURVEY

SHEET 1/a OF 10 AUGUSTA, MAINE JAN. 1958

M-980



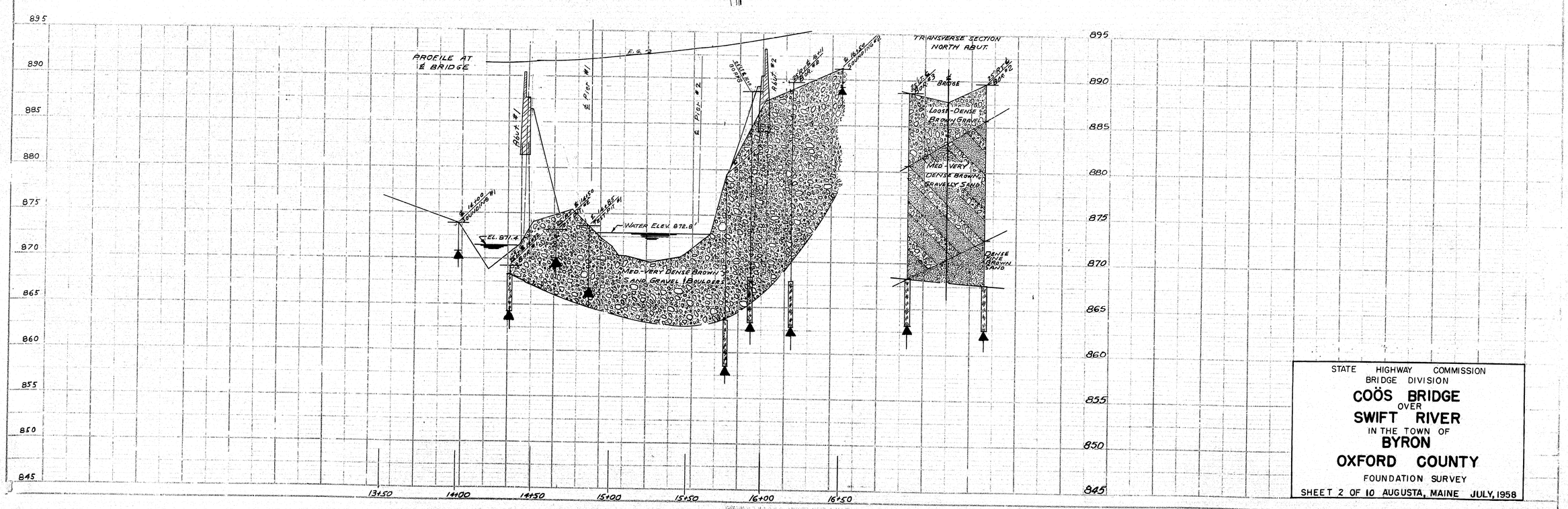
B. P. R. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F-0160(12)	10	38



PLAN
1" = 30'

LEGEND

Boring Location :
Bottom of boring indicated thus:



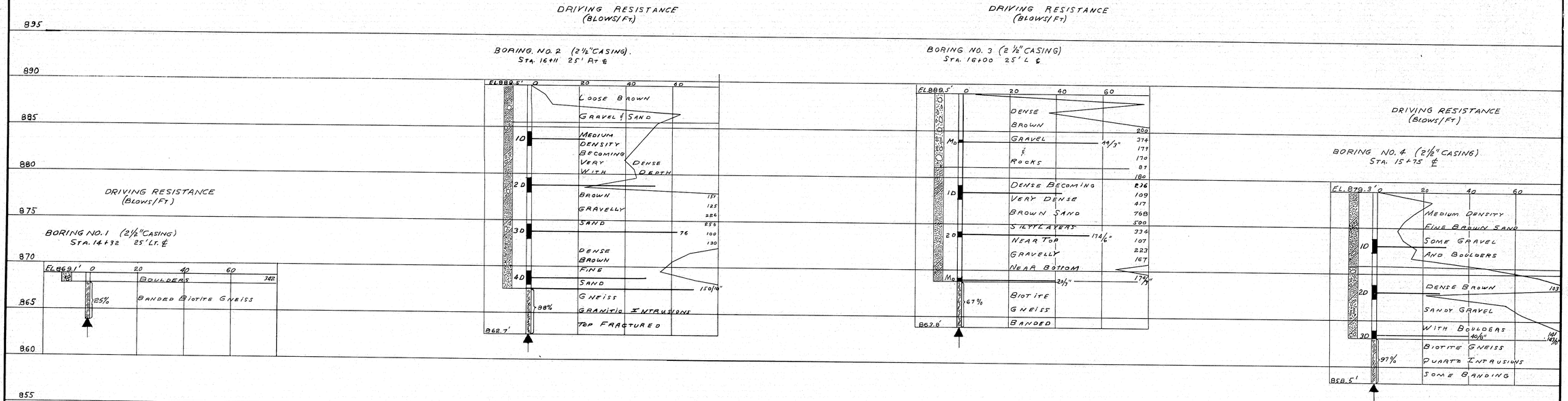
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
COÖS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY
FOUNDATION SURVEY
SHEET 2 OF 10 AUGUSTA, MAINE JULY, 1958

M-981

0 1 2 3 4 5 INCHES

B. P. R. REG'N NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	9	38

BORING LOGS



LEGEND

Location and designation of "undisturbed" samples taken in 5 ft sampler #1290s indicated thus: 1D

Unsuccessful attempts to secure dry sample indicated thus, followed by type of sampler: M_b

Number of blows of 275# hammer falling 15" required to drive spoon or tubing one foot indicated thus:

Bottom of boring indicated thus:

Percent recovery of rock core by diamond bit thus: 71%

Number of blows of 275# hammer falling 18" required to drive extra heavy casing one foot thus: 140 Graphical

TRACE – BLANCHARD
CHECK – C.S.A.

BRIDGE NO.
SURVEY –
PLOT –

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

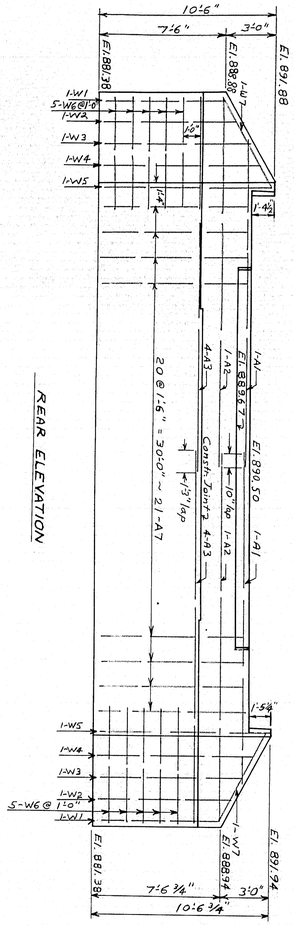
COÖS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY
FOUNDATION SURVEY

SHEET 3 OF 10 AUGUSTA, MAINE JULY, 1958

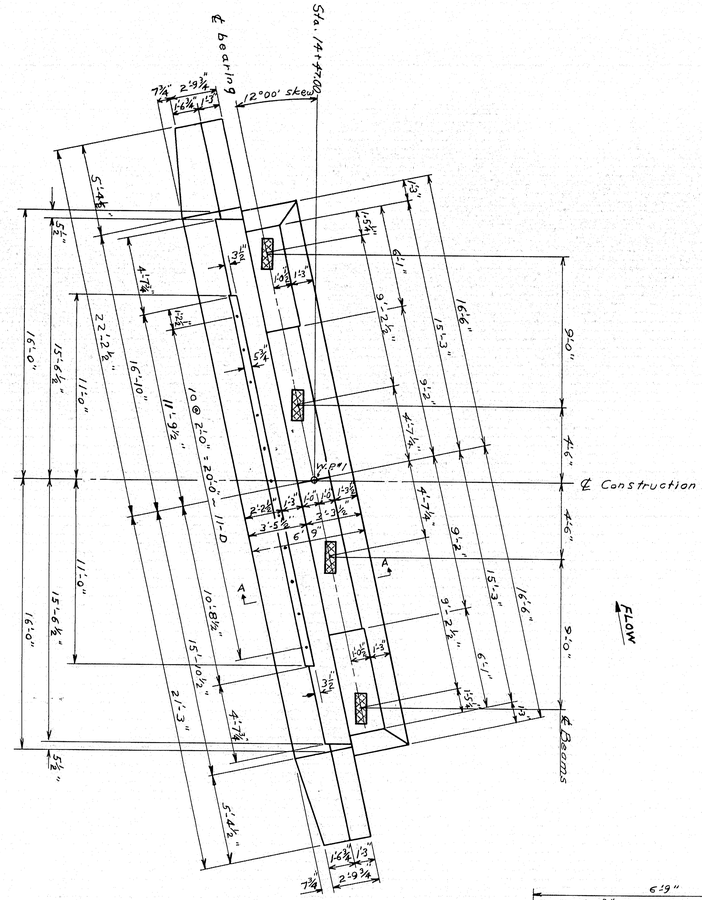
M-982

0 1 2 3 4 5 INCHES

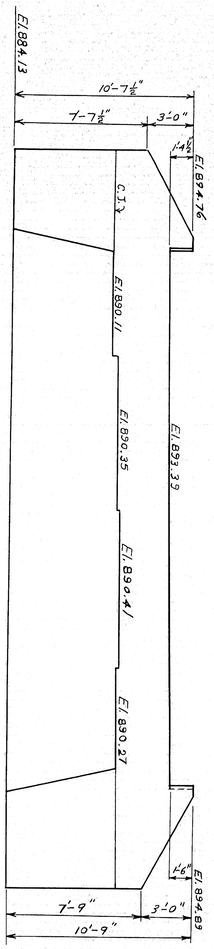
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	11	38



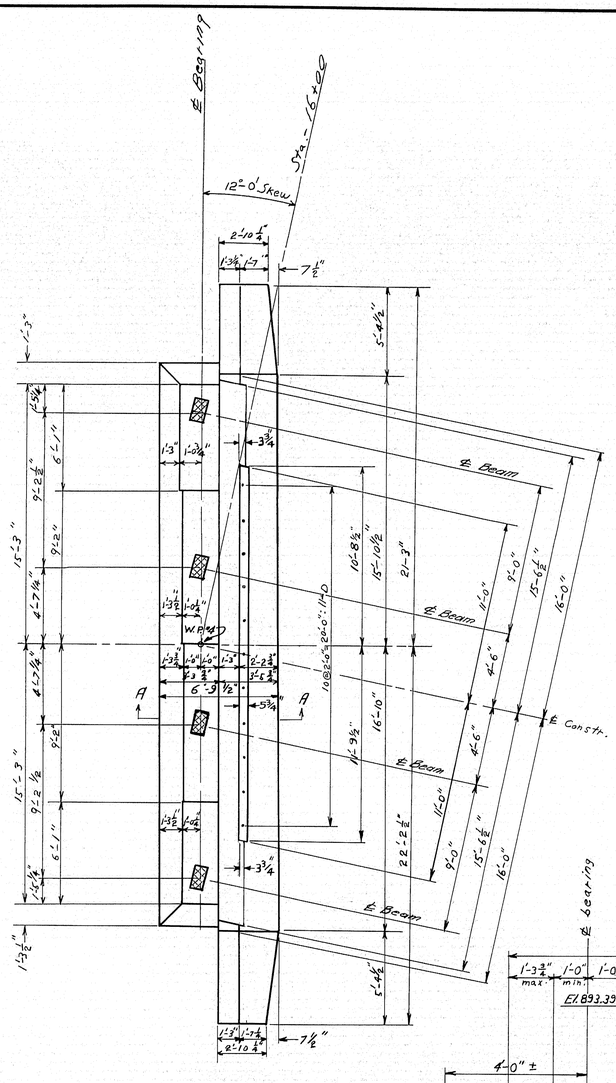
REAR ELEVATION


℄ bearing
Sta. 14+42.00
12°00' skew
7¾"
2'-9¾"
1'-6¾"
1'-3"
5'-4½"
5½"
4'-7¾"
3¾"
1'-0"
1'-3"
6'-1"
9'-2½"
5'-2"
4'-7½"
16'-6"
15'-3"
9'-0"
4'-6"
5'-0"
16'-0"
15'-5½"
11'-0"
15'-4½"
10 @ 2'-0" = 20'-0" - 11'-0
11'-9⅛"
10'-8⅛"
15'-10⅛"
2'-1"
2'-2⅛"
16'-10"
3'-5½"
6"
9"
2'-2¾"
A
W-#1
1'-3"
1'-5"
1'-6"
1'-6¾"
1'-5¾"
1'-3"
1'-3"
1'-6¾"
1'-5¾"
1'-3"
1'-3"
1'-6¾"
1'-5¾"
1'-3"
1'-3

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(12)	12	38



FRONT ELEVATION

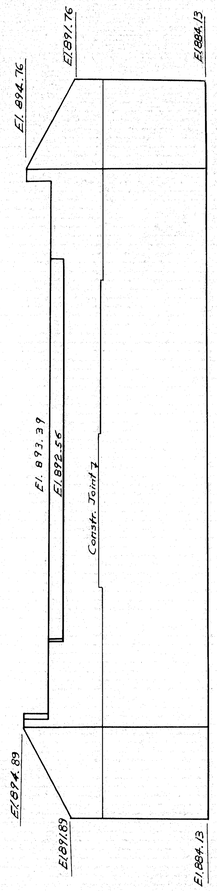


PLAN

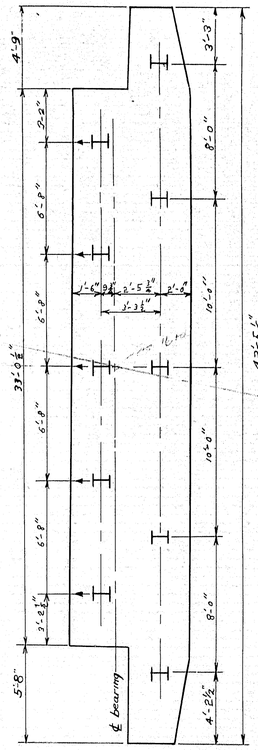
END VIEW-TYP.

SECTION A-A

FLOW



REAR ELEVATION



Pile Layout

10-10¾"ϕ x .42" Steel H-piles required.
Estimated length 85'-0". Maximum Pile load 371 tons
Piles to be driven to ledge.
Front row of piles to be battered 2½"/ft. in direction of arrow.
Pile cutoff elevation 884.13.

Reinforcing & General Notes same as for Abut. No.1, Sh. 4.

DESIGN – HAMILTON DET. – H.F.R.D.
TRACE – BLANCHARD
CHECK – C.S.A.

BRIDGE NO.
SURVEY –
PLOT –

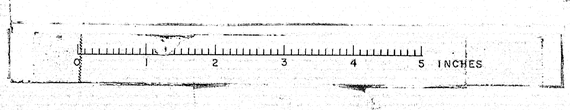
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY
ABUTMENT NO. 2

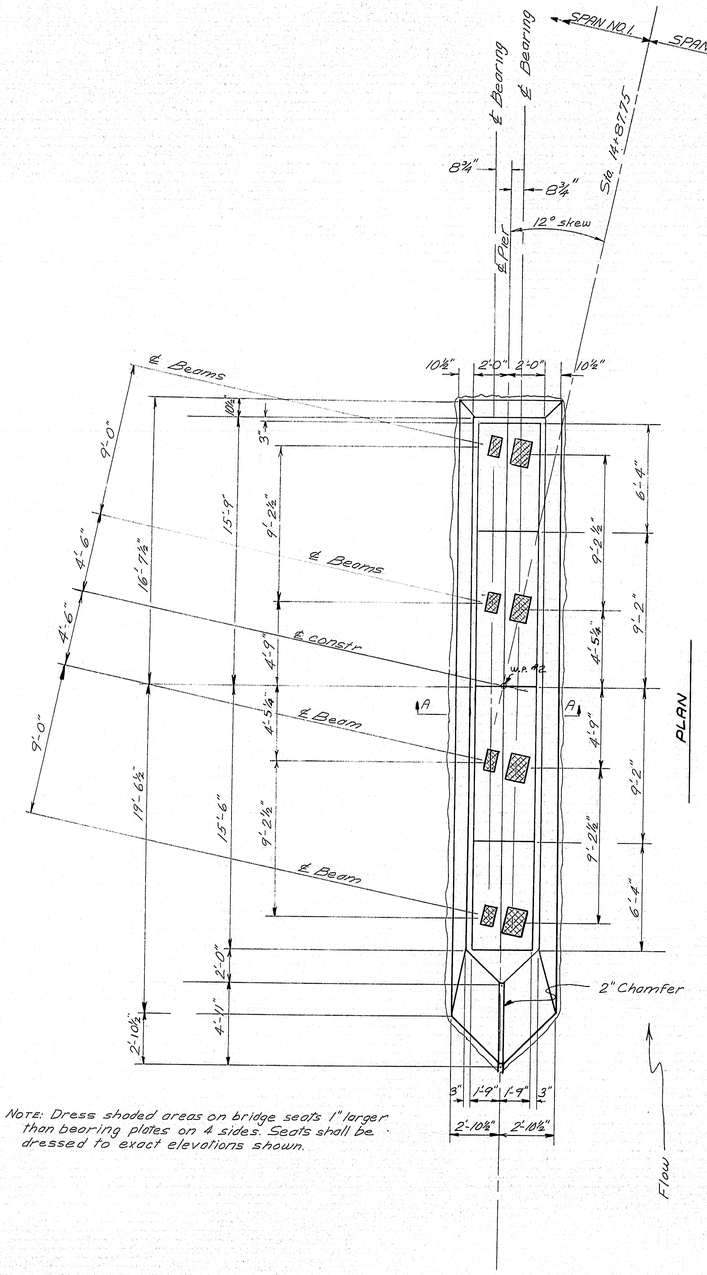
SHEET 5 OF 10 AUGUSTA, MAINE JULY, 1958

Note: Backfill and any fill necessary for placing the rip-rap shall be granular borrow. For section of rip-rap see section at Abutment #1 on Sh. #1.

M-984

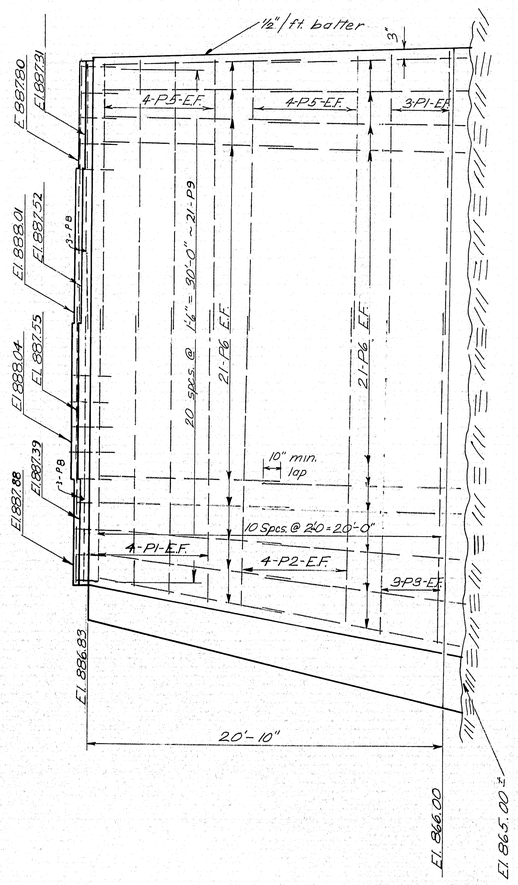


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	13	38

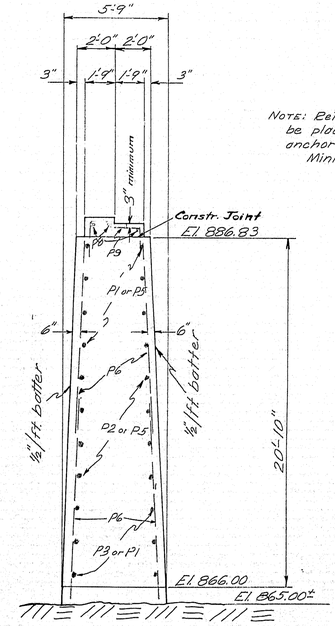


PLAN

Note: Dress shaded areas on bridge seats 1" larger than bearing plates on 4 sides. Seats shall be dressed to exact elevations shown.



ELEVATION



SECTION A-A

Note: Reinforcing steel in bridge seat shall be placed so as to clear all bearing plate anchor bolts.
Minimum reinforcing cover: 6", unless otherwise noted.

DESIGN – HAMILTON DET.-H.F., R.D.
TRACE – CARROLL
CHECK – C.S.A.
BRIDGE NO.
SURVEY –
PLOT –

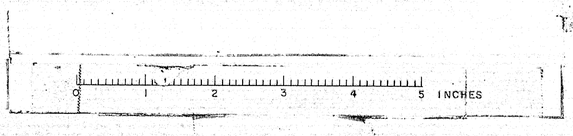
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COÖS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY

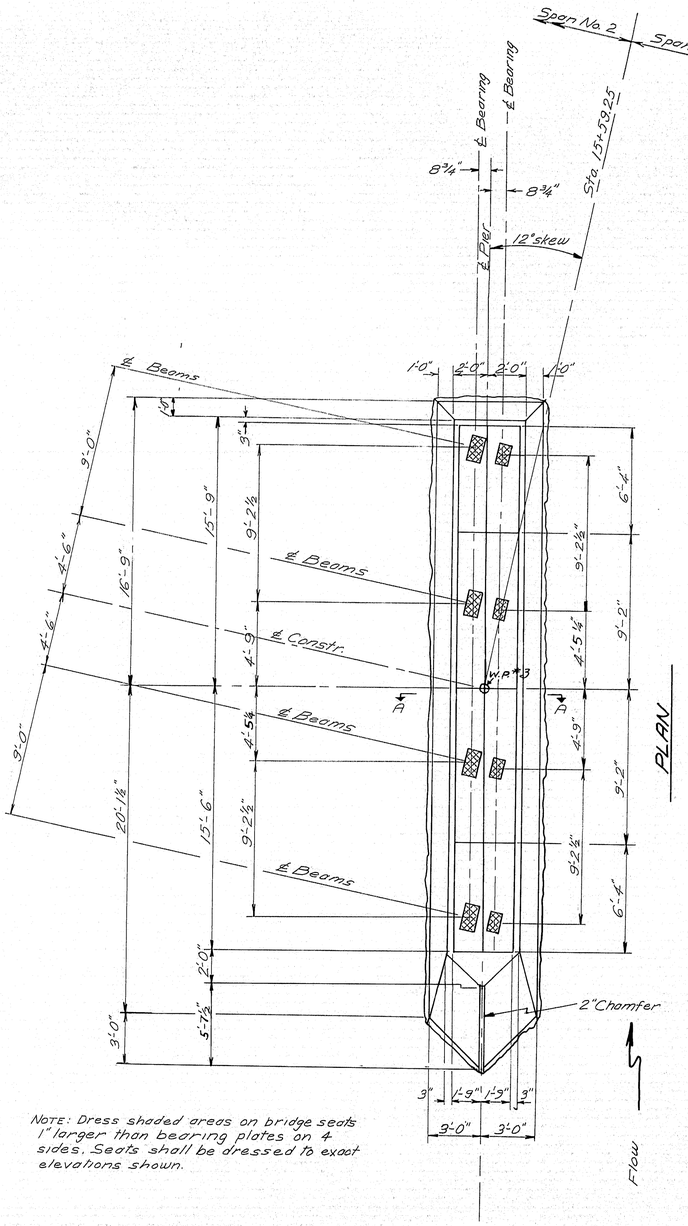
PIER NO. 1

SHEET 6 OF 10 AUGUSTA, MAINE JULY, 1958

M-985

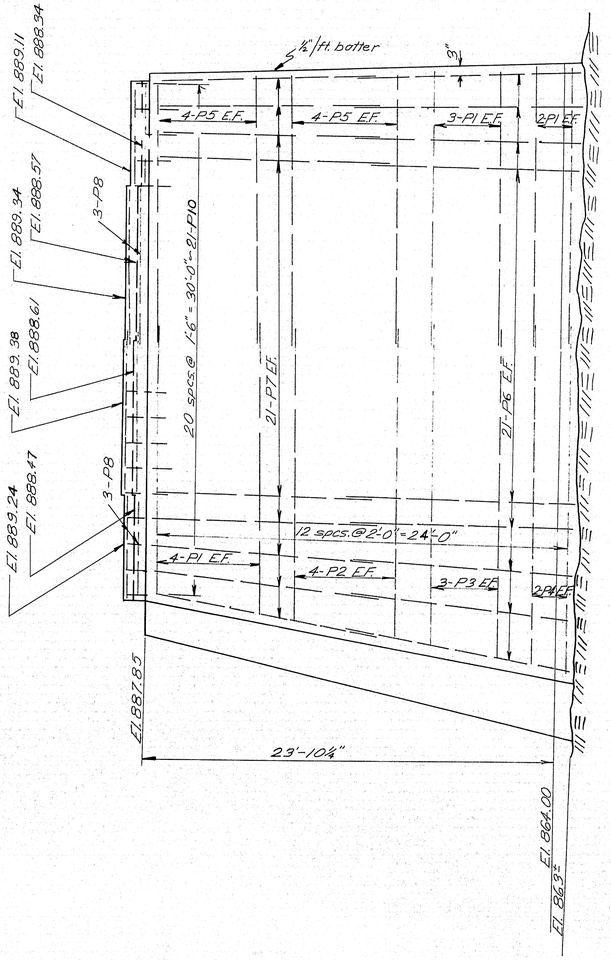


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	14	38

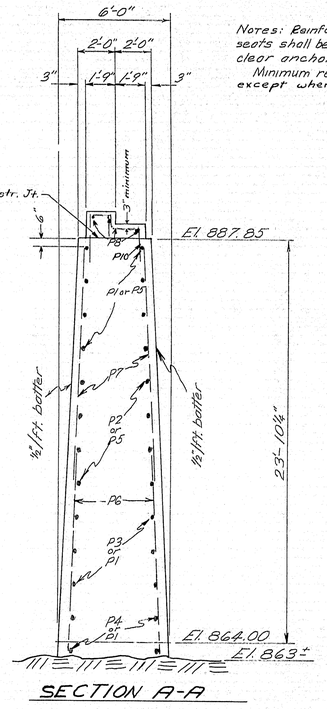


PLAN

NOTE: Dress shaded areas on bridge seats 1" larger than bearing plates on 4 sides. Seats shall be dressed to exact elevations shown.



ELEVATION



SECTION A-A

Notes: Reinforcing steel in bridge seats shall be placed so as to clear anchor bolts.
Minimum reinforcing cover 6" except where otherwise noted.

DESIGN – HAMILTON DET. H.F., R.D.
TRACE – CABBOLL
CHECK – C.S.A.

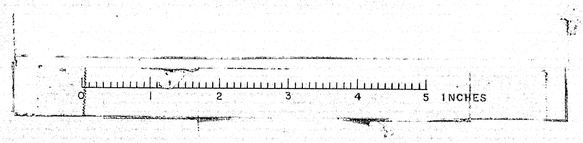
BRIDGE NO.
SURVEY –
PLOT –

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

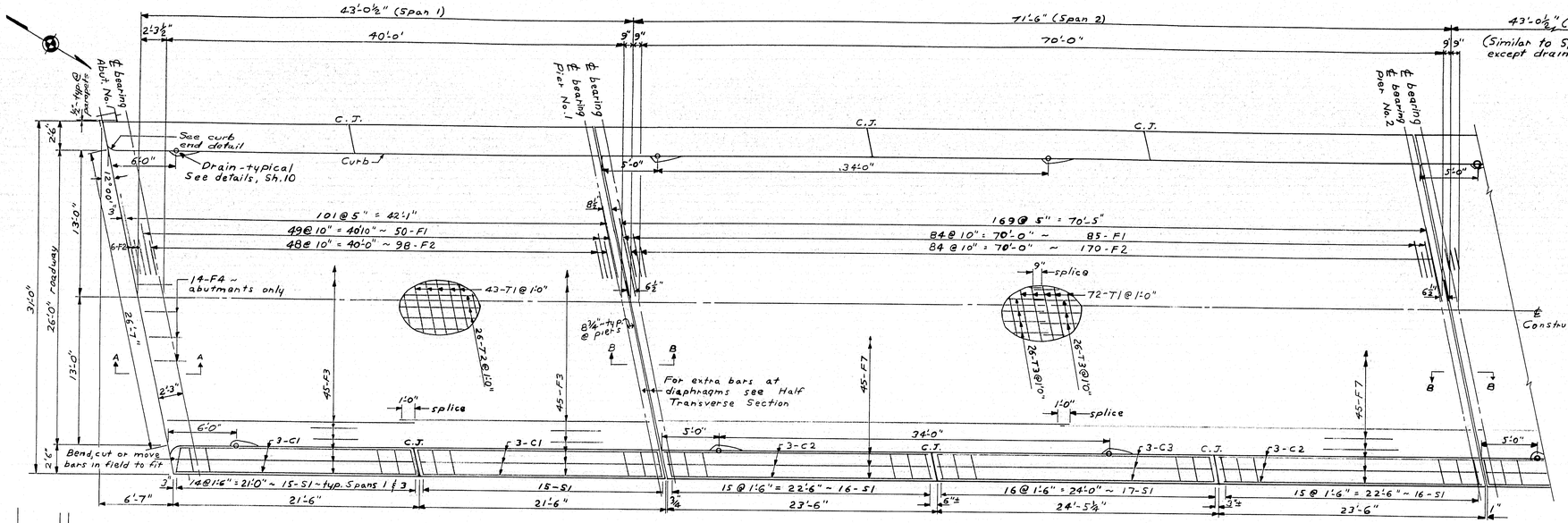
COÖS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY
PIER NO. 2

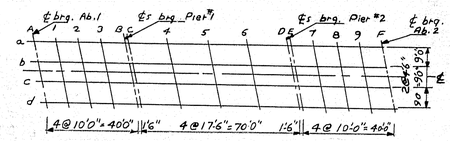
SHEET 7 OF 10 AUGUSTA, MAINE JULY, 1958

M-986



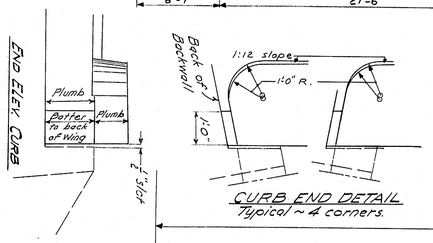
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(23)	15	38





PLAN ~ BLOCKING POINTS

ELEVATIONS ~ BOTTOM OF SLAB				
Point	Line a	Line b	Line c	Line d
A	890.74	890.94	890.95	890.78
1	890.84	891.05	891.06	890.90
2	890.95	891.16	891.18	891.01
3	891.06	891.27	891.29	891.11
B	891.17	891.38	891.41	891.25
C	891.19	891.40	891.43	891.27
4	891.51	891.74	891.77	891.60
5	891.83	892.05	892.10	891.94
6	892.15	892.38	892.41	891.26
D	892.44	892.67	892.71	892.57
E	892.48	892.71	892.75	892.60
7	892.73	892.96	893.00	892.86
8	892.98	893.21	893.26	893.12
9	892.23	893.47	893.52	893.38
F	893.48	893.72	893.77	893.64

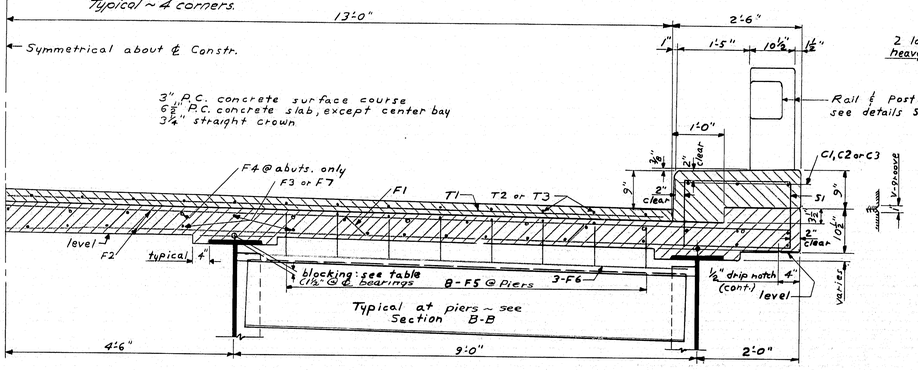


CURB END DETAIL
Typical ~ 4 corners.

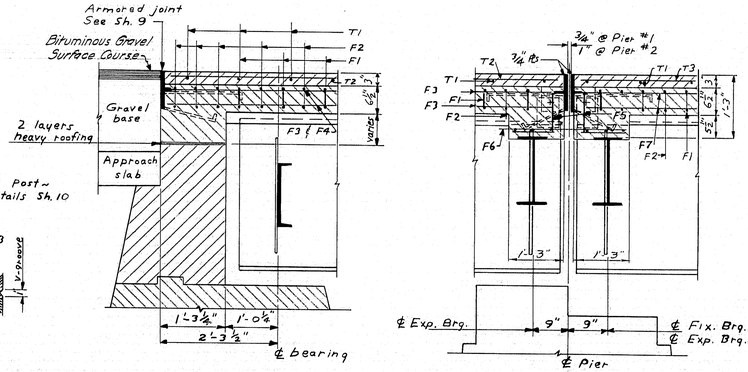
Reinforcing steel similar for curbs both sides.

Break bond at construction joints in curbs by painting the concrete with a suitable grade of asphalt. Form ½" V-grooves in interior & exterior faces of curb at constr. jts.

PLAN



HALF TRANSVERSE SECTION
(Composite ~ drain & spirals not shown)



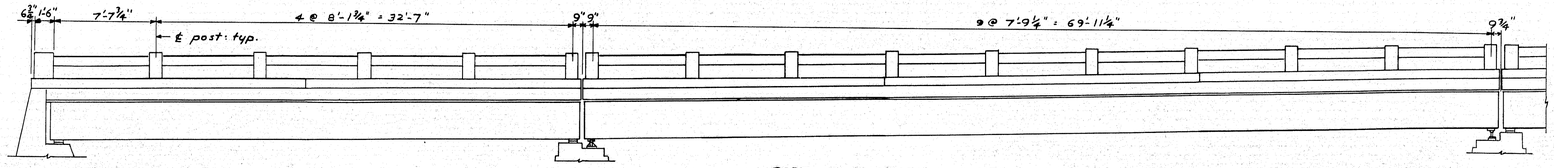
SECTION A-A

SECTION B-B
Reinforcing shown at Pier #1

In order to compensate for dead load deflection, as well as inequalities in rolling the beams, the following procedure shall be used. Before any slab forms are constructed, the engineer shall take elevations along the tops of the stringer flanges at the points indicated above. These elevations subtracted from those shown above will give the amount of blocking to be used for the floor slab forms.

NOTES

Curb joint & rail spacings are measured along outside edge of curbs.
All dimensions are horizontal; all joints plumb.
Chamfer exposed edges of concrete ½".
Minimum reinforcing cover ~ 1", except where otherwise noted.
See Sh. 10 for details not shown, & reinforcing schedule.
See General Notes, Sh. #, for covering back of ½" gaps between superstructure & parapets.
Concrete for curbs shall not be placed until concrete in slab has been in place for a minimum period of seven days. During this period form work for curbs may be placed but hand equipment only shall be allowed on slab.



PART ELEVATION ~ NORTH SIDE
Typical ~ South side same; rotated 180°

DESIGN ~ HAMILTON DETAIL ~ R.P.	BRIDGE NO.
TRACE ~ BLANCHARD	SURVEY ~
CHECK ~ G.S.H.	PLOT ~

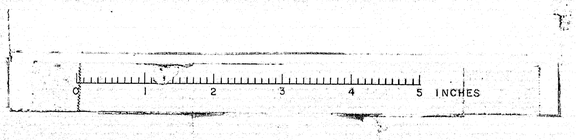
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY

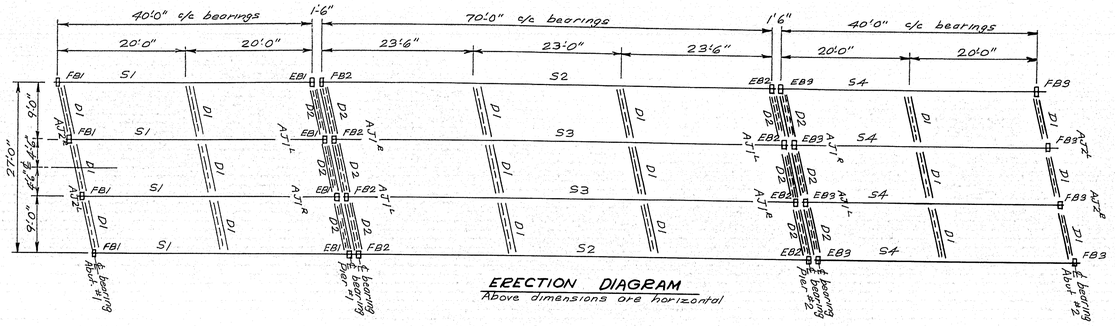
SUPERSTRUCTURE

SHEET 8 OF 10 AUGUSTA, MAINE JULY, 1958

M-987

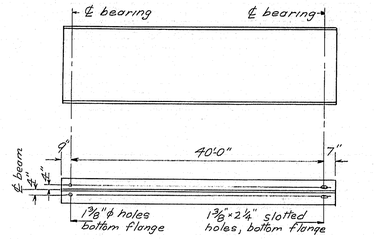


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-01801(2)	16	38



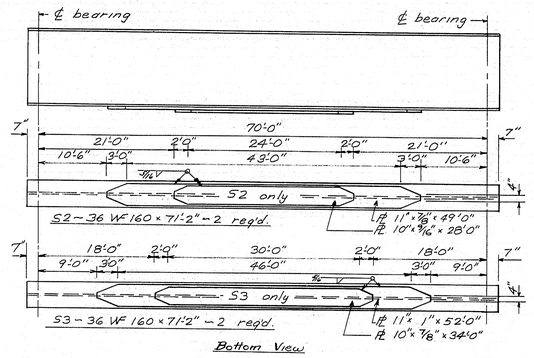
ERECTION DIAGRAM

Above dimensions are horizontal



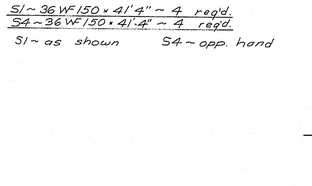
S1 ~ 36 WF 150 × 41'4" ~ 4 req'd.
S4 ~ 36 WF 150 × 41'4" ~ 4 req'd.

S1 ~ as shown S4 ~ opp. hand

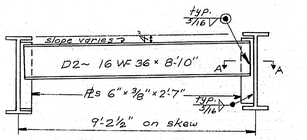


Bottom View

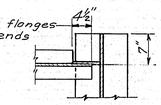
STRINGERS



D1 ~ 18 req'd.

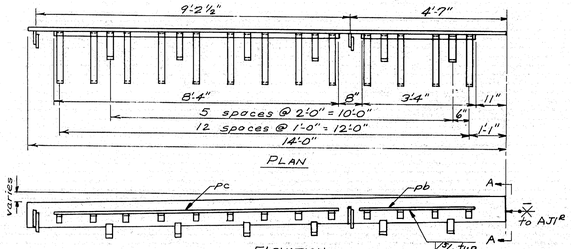


D2 ~ 12 req'd.



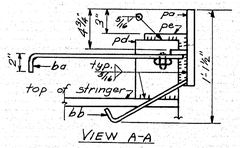
SECT. A-A

DIAPHRAGMS



AJ1L ~ as shown ~ 4 required AJ1R ~ opp. hand ~ 4 required
AJ2R ~ same as AJ1L, except omit pd, pe, & bolts ~ 2 ea. required

ELEVATION



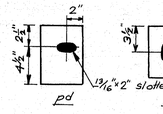
VIEW A-A

Set plate pd in field, as required to meet plate pe, and weld to stringer. Then set armored joint to grade by use of bolts and slotted holes, and weld as shown.

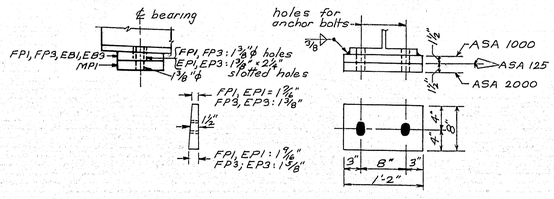
Required for each of 12 units:

1 Pl ~ 9"×¾"×1'4½"	~	pa
1 Pl ~ 2"×⅞"×3'4"	~	pb
1 Pl ~ 2"×½"×8'4"	~	pc
13 bars ~ 2"×⅜"×1'8" (bent)	~	ba
6 bars ~ 2"×⅜"×1'0" (bent)	~	bb
2 Pls ~ 5"×⅜"×0'7"	~	pd
2 Pls ~ 5"×⅜"×0'6"	~	pe
2 bolts ~ ¾"ϕ × 0'2", with nuts		

} omit for 4 units

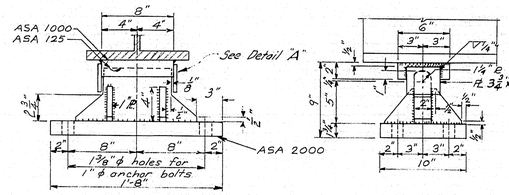


ARMORED JOINTS

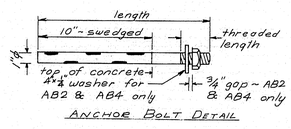


FP1 (for FB1) ~ bevelled as shown ~ 4 req'd
EP1 (for EB1) ~ " " " ~ 4 req'd
EP3 (for EB3) ~ " " " ~ 4 req'd
FP3 (for FB3) ~ " " " ~ 4 req'd
MP1 ~ 8"×1½"×1'2" Pl ~ 16 req'd

FB1, EB1, FB3, EB3



FB2 ~ 4 required

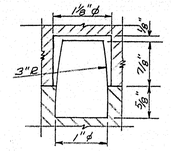


ANCHOR BOLT DETAIL

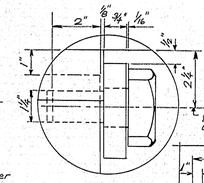
ANCHOR BOLT TABLE

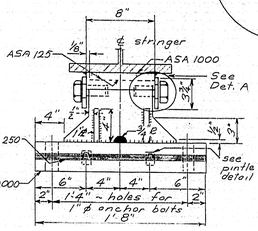
Bolt Mark	No. Req'd	For Bearing Devices, Marks	Bolt Length	Thread Length	Washers Req'd
AB1	16	FB1, FB3	1'-3½"	2"	0
AB2	16	EB1, EB3	1'-4½"	3"	1 each
AB3	16	FB2	1'-1½"	2"	0
AB4	8	EB2	1'-4"	3"	1 each

PINTLE DETAIL

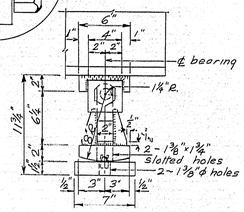


DETAIL A



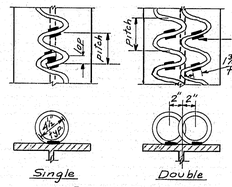


EB2 ~ 4 required

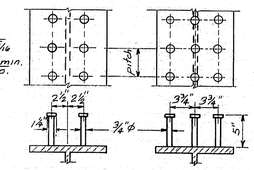


BEARING DEVICES

All welding to be ⅜" fillet unless otherwise noted



SPIRAL DETAILS ⅝"ϕ



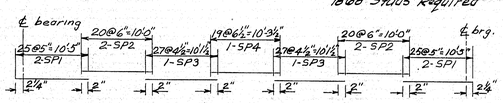
STUD DETAILS ¾"×5"

1868 Studs Required

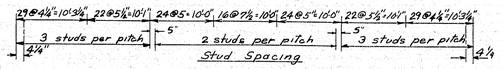
SPIRAL TABLE

Mark	No	Spaces	Pitch	Length
SP1	8	25	5"	10'5"
SP2	8	20	6"	10'0"
SP3	4	27	4½"	10'1½"
SP4	2	19	6½"	10'3½"
SP5	8	28	4½"	10'6"
SP6	10	22	5½"	10'1"
SP7	4	30	4"	10'0"

1868 Studs Required.

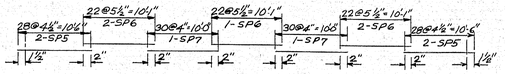


Spiral Spacing

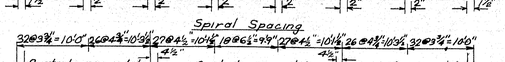


Stud Spacing

ALTERNATIVES ~ SPIRAL OR STUD SPACING ~ FOR STRINGERS S2



Spiral Spacing



Stud Spacing

ALTERNATIVES ~ SPIRAL OR STUD SPACING ~ FOR STRINGERS S3

SHEAR CONNECTORS

Shear connectors may be either welded spirals or automatically end welded studs. Studs to be granular or solid flux filled, shop or field welded

SPECIFICATIONS

Design & Detail: A.A.S.H.O. 1957 Loading H20-S16-44.
Materials, Fabrication & Erection: State of Maine, State Highway Commission, Standard Specifications, Highways & Bridges, Revision of January, 1956.
Where beams require cover plates, both beams and cover plates are to be of structural weldable steel, ASTM 373.

DESIGN — HAMILTON DET. B.D.	BRIDGE NO.
TRACE — CABEAU	SURVEY —
CHECK — C.S.A.	PLOT —

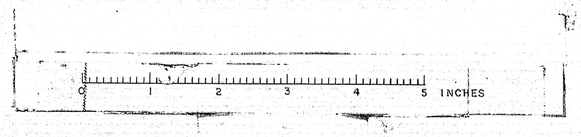
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COÖS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY

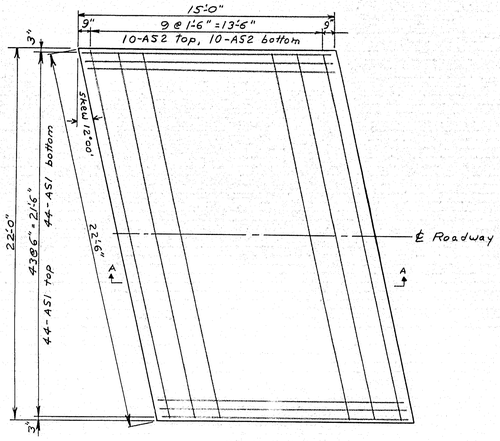
STRUCTURAL STEEL

SHEET 9 OF 10 AUGUSTA, MAINE JULY, 1958

M-988

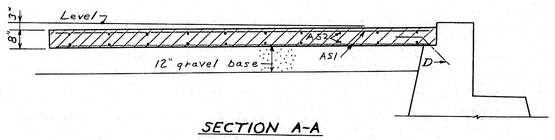


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	S-0180(2)	17	38



PLAN-APPROACH SLABS

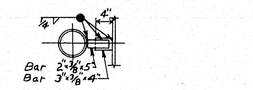
At Abut. #1: as shown.
At Abut. #2: rotate 180°
D-bars not shown above.



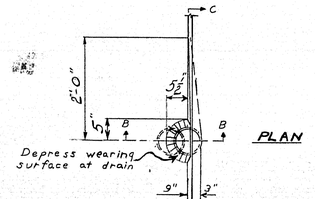
SECTION A-A

NOTES

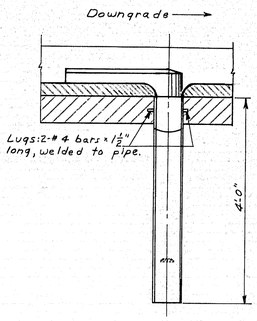
Minimum reinforcing cover = 1".
Concrete in approach slabs to be paid for under Item 701-40, Portland Cement Concrete in Roadway and Sidewalk Slabs on Steel Bridges.



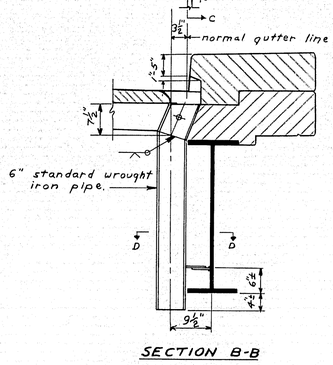
SECTION D-D



PLAN



SECTION C-C

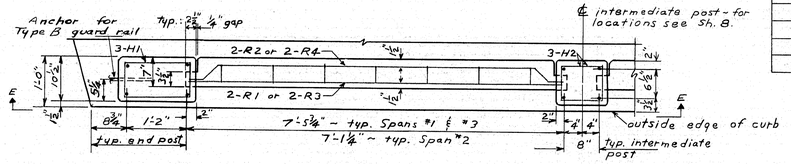


SECTION B-B

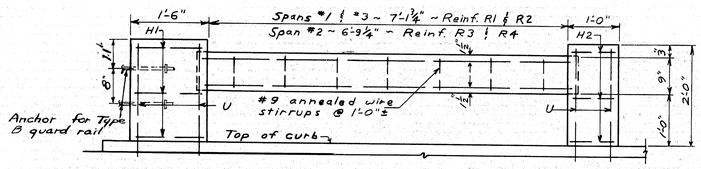
DRAIN DETAILS

8 drains required - see Sheet 8 for location.

Note: Drains shall be paid for as Structural Steel, Fabricated, Delivered and Erected, under Items 702-103 & 702-104.



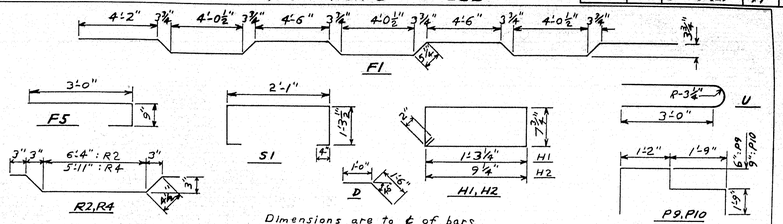
RAIL PLAN



VIEW E-E

Notes:
U bars to be in place before curb is cast.
Chamfer all exposed edges ½".
Rails to be precast. Ends of rails to project 2⅛" into rail posts and to be wrapped with 2 layers of roofing felt.
In forming #9 annealed wire stirrups make a complete turn around each R-bar.

REINFORCING STEEL



Dimensions are to ℄ of bars.

Straight Bars					Straight Bars				
Mark	Size	No.	Length	Location	Mark	Size	No.	Length	Location
F2	#5	378	31'-4"	All slabs - transverse	A6	#6	40	4'-0"	Abutments - lat. - br. seat
F3	4	180	21'-11"	End slabs - longitudinal	A7	5	42	9'-0"	" - vert. - back
F4	5	28	3'-0"	" " - over backwall	A8	5	42	4'-2"	" - " - front
F6	5	36	8'-8"	All slabs - over diaphragms	A9	6	40	6'-0"	" - lat. - bottom
F7	4	90	36'-1"	Center slab - long.	A10	6	8	2'-6"	" " "
T1	3	158	26'-3"	W.S. - transverse - all spans					
T2	3	52	42'-8"	" - long. - end spans					
T3	3	52	36'-0"	" - " - center span	W1	#5	8	7'-0"	Wing - vert.
C1	4	24	21'-3"	Curb - end spans	W2		8	7'-9"	" "
C2	4	12	23'-3"	" - center span	W3		8	8'-6"	" "
C3	4	6	24'-2"	" " "	W4		8	9'-3"	" "
A51	6	176	14'-8"	Approach slab	W5		8	10'-0"	" "
A52	4	40	22'-2"	" "	W6		44	7'-0"	" - horiz.
R1	4	40	7'-4"	Rail - end spans	W7		8	6'-2"	" - top.
R3	4	36	7'-0"	" - center span	Bent Bars				
					F1	#5	185	32'-1"	All slabs - transverse
P1	4	32	16'-11"	Piers - horiz.	F5	4	96	4'-5"	" " - at piers
P2	4	16	18'-10"	" "	H1	4	12	4'-2"	End rail posts
P3	4	12	19'-8"	" "	H2	4	120	3'-2"	Intermediate rail posts
P4	4	4	20'-7"	" "	U	6	88	6'-10"	All rail posts
P5	4	32	16'-3"	" "	R2	4	40	7'-7"	Rail - end span
P6	6	126	11'-2"	" - vert.	R4	4	36	7'-2"	" - center span
P7	6	42	14'-2"	Pier #2 - vert.	S1	4	218	5'-4"	Curb
P8	6	12	16'-0"	Piers - horiz. at br. seat	P9	4	42	7'-5"	Pier #1
					P10	4	42	7'-11"	" #2
A1	4	8	19'-6"	Abutments - long.	D	6	22	2'-6"	Abutment to approach slab
A2	4	8	22'-0"	" "					
A3	6	32	22'-3"	" " - bott. & br. seat					
A4	6	16	15'-9"	" " - br. seat					
A5	6	16	16'-10"	" " - bottom					

DESIGN - HAMILTON DET. - R.D.
TRACE - BLANCHARD
CHECK - C.S.A.
BRIDGE SURVEY PLOT -

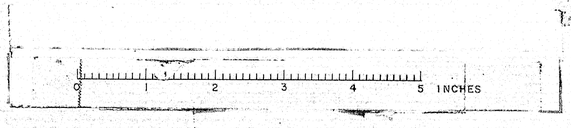
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

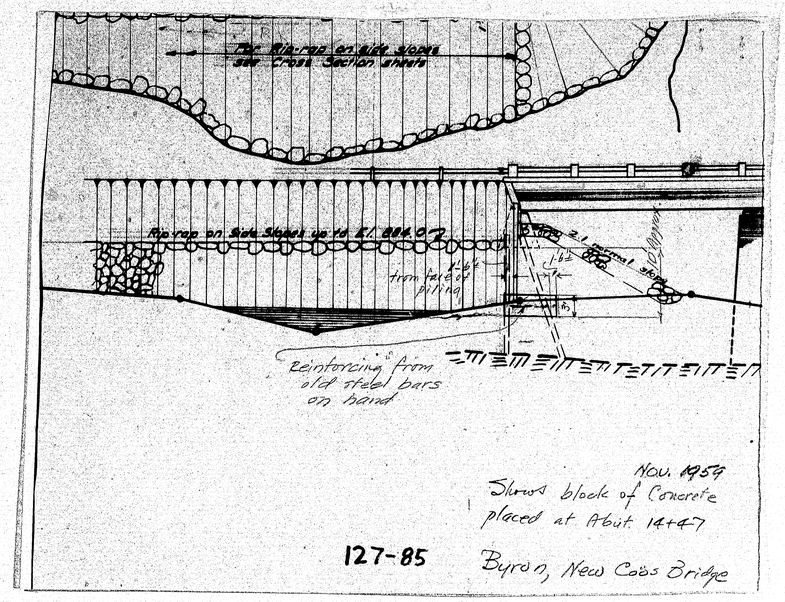
COOS BRIDGE
OVER
SWIFT RIVER
IN THE TOWN OF
BYRON
OXFORD COUNTY

POST, RAIL & DRAIN DETAILS
APPROACH SLAB & REINFORCING STEEL

SHEET 10 OF 10 AUGUSTA, MAINE JULY, 1958

M-989



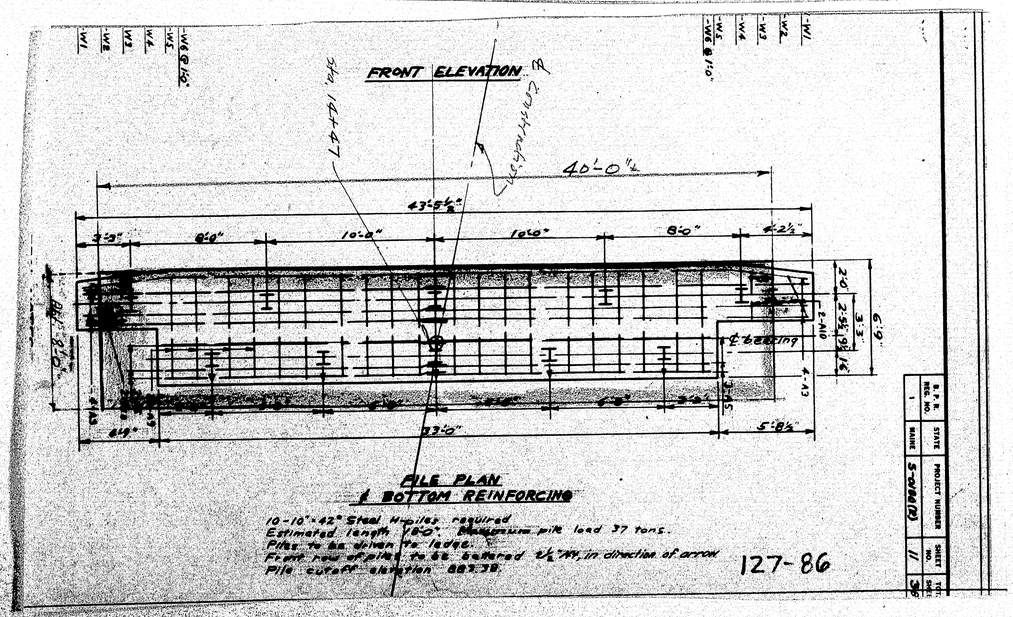


NOV. 1959

Shows block of Concrete placed at Abut. 14+47

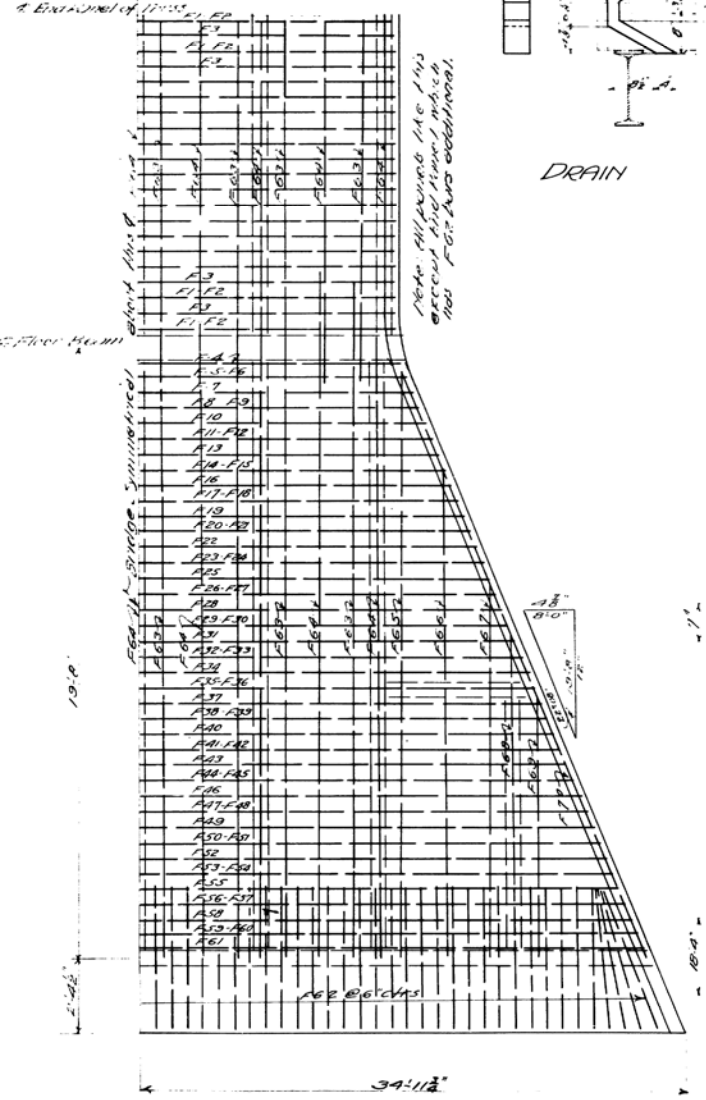
127-85

Byron, New Coös Bridge



B.R.S. REC. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOT. SHEETS
1	MAINE	S-0088(2)	11	39

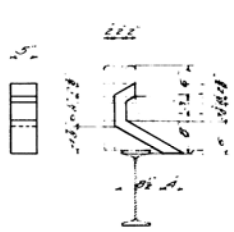
127-86

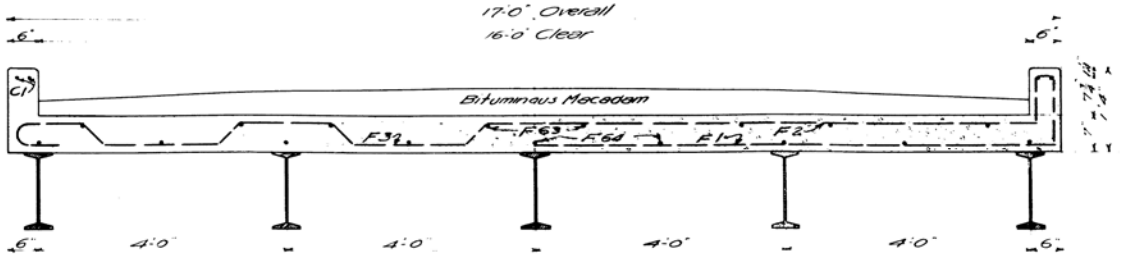


4 End Panel of Truss

5 Floor Beams Symmetrical about this line

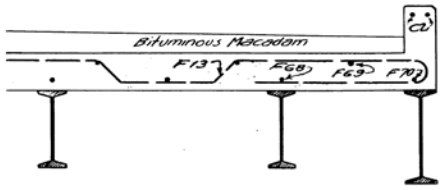
DRAIN



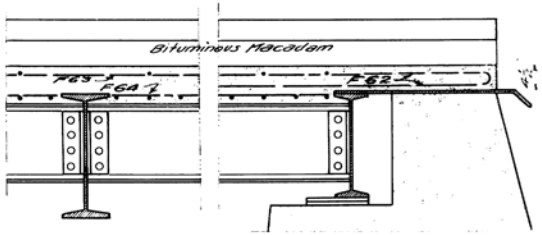


HALF SECTION SHOWING F-3 BARS

HALF SECTION SHOWING F-1 AND F-2 BARS



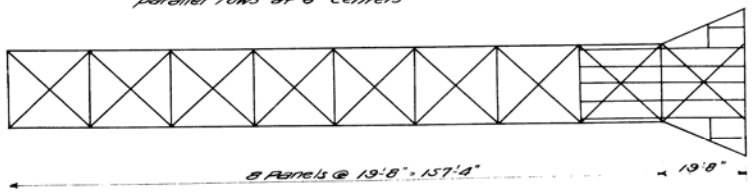
PART SECTION OF APPROACH



LONGITUDINAL SECTION

Note Apron plate and concrete over backwall the same on opposite end.

Note: All transverse steel spaced in parallel rows at 6" centers



Mark	Size	No. Req.	Length	Location
F62	1/8"	97	10'-4"	Over Joint

STRAIGHT BARS

Mark	Size	No. Req.	Length	Location
F1	5/8"	152	16'-9 1/2"	Truss
F6	5/8"	1	17'-6"	Approach
F9	5/8"	1	18'-4"	"
F12	5/8"	1	19'-1 1/2"	"
F15	5/8"	1	19'-11"	"
F18	5/8"	1	20'-9 1/2"	"
F21	5/8"	1	21'-7"	"
F24	5/8"	1	22'-5"	"
F27	5/8"	1	23'-2 1/2"	"
F30	5/8"	1	24'-0 1/2"	"
F33	5/8"	1	24'-10"	"
F36	5/8"	1	25'-8"	"
F39	5/8"	1	26'-5 1/2"	"
F42	5/8"	1	27'-3 1/2"	"
F45	5/8"	1	28'-1"	"
F48	5/8"	1	28'-11"	"
F51	5/8"	1	29'-8 1/2"	"
F54	5/8"	1	30'-6 1/2"	"
F57	5/8"	1	31'-4"	"
F60	5/8"	1	32'-2"	"
F63	1/2"	72	22'-2"	Truss & Approach
F64	1/2"	81	15'-10"	"
F65	1/2"	2	14'-0"	Approach
F66	1/2"	2	16'-0"	"
F67	1/2"	2	12'-0"	"
F68	1/2"	2	10'-6"	"
F69	1/2"	2	8'-6"	"
F70	1/2"	2	22'-0"	"
C1	5/8"	32	22'-2"	Curb
C2	1/2"	4	23'-6"	"

Note: Steel dimensions are c to c of bar. Bends = 2 1/4" radius except F62

Mark	Size	No. Req.	A	B	C	Total L	Location
F3	5/8"	152	11 3/4"	6"	1'-9"	19'-10 3/4"	Truss
F4	5/8"	1	1'-5 1/2"	1'-5"	1'-5"	22'-0"	Approach
F7	5/8"	1	1'-10 1/2"	1'-9 1/2"	1'-5"	23'-7"	"
F10	5/8"	1	2'-3 1/2"	2'-2 1/2"	1'-5"	25'-3"	"
F13	5/8"	1	2'-8"	2'-7"	1'-5"	26'-10"	"
F16	5/8"	1	3'-1"	3'-0 1/2"	1'-5"	28'-6"	"
F19	5/8"	1	3'-5 1/2"	3'-5 1/2"	1'-5"	30'-1"	"
F22	5/8"	1	3'-10 1/2"	3'-10 1/2"	1'-5"	31'-9"	"

Mark	Size	No. Req.	A	B	C	Total L	Location
F25	5/8"	1	8 1/2"	6"	1'-1 1/4"	26'-5 1/4"	Approach
F28	5/8"	1	8 1/2"	6"	1'-1 5/8"	27'-3 1/4"	"
F31	5/8"	1	8 1/2"	6"	2'-1 1/2"	28'-0 3/4"	"
F34	5/8"	1	8 1/2"	6"	F62	28'-11 3/4"	"
F37	5/8"	1	1'-7 1/2"	1'-2 1/2"	2'-1"	31'-1 3/4"	"
F40	5/8"	1	2'-0 3/4"	1'-7 1/2"	2'-1"	32'-9 3/4"	"
F43	5/8"	1	2'-5"	2'-0"	2'-1"	34'-4 3/4"	"
F46	5/8"	1	2'-9 1/2"	2'-4 1/2"	2'-1"	35'-10 3/4"	"
F49	5/8"	1	3'-2 1/2"	2'-9 1/2"	2'-1"	37'-7 3/4"	"
F52	5/8"	1	3'-7"	3'-2"	2'-1"	39'-2 3/4"	"
F55	5/8"	1	4'-0 1/2"	3'-7 1/2"	2'-1"	40'-10 3/4"	"
F58	5/8"	1	4'-5 1/4"	4'-0 1/2"	2'-1"	42'-5 3/4"	"
F61	7/8"	1	4'-10 3/4"	4'-5 1/2"	2'-1"	44'-1 3/4"	"

Mark	Size	No. Req.	A	Total L	Location
F2	5/8"	152	16'-2 3/4"	20'-6 1/2"	Truss
F5	5/8"	1	16'-11"	21'-3"	Approach
F8	5/8"	1	17'-9"	22'-1"	"
F11	5/8"	1	18'-6 1/2"	22'-10 1/2"	"
F14	5/8"	1	19'-4 1/2"	23'-8 1/2"	"
F17	5/8"	1	20'-2 1/2"	24'-6 1/2"	"
F20	5/8"	1	20'-11 1/2"	25'-5 1/2"	"
F23	5/8"	1	21'-10"	26'-2"	"
F26	5/8"	1	22'-7 1/2"	26'-11 1/2"	"
F29	5/8"	1	23'-5 1/2"	27'-9 1/2"	"
F32	5/8"	1	24'-3"	28'-"	"
F35	5/8"	1	25'-1"	29'-5"	"
F38	5/8"	1	25'-10 1/2"	30'-2 1/2"	"
F41	5/8"	1	26'-8 1/2"	31'-0 1/2"	"
F44	5/8"	1	27'-6"	31'-10"	"
F47	5/8"	1	28'-4"	32'-8"	"
F50	5/8"	1	29'-1 1/2"	33'-5 1/2"	"
F53	5/8"	1	29'-11 1/2"	34'-3 1/2"	"
F56	5/8"	1	30'-9"	35'-1"	"
F59	5/8"	1	31'-7"	35'-11"	"

MAINE HIGHWAY COMMISSION

BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE

IN THE TOWN OF

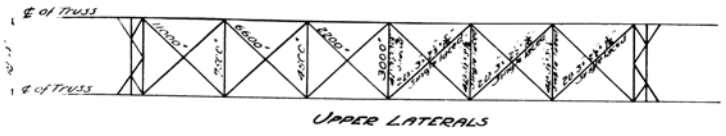
GILEAD, OXFORD COUNTY

Scale: As shown

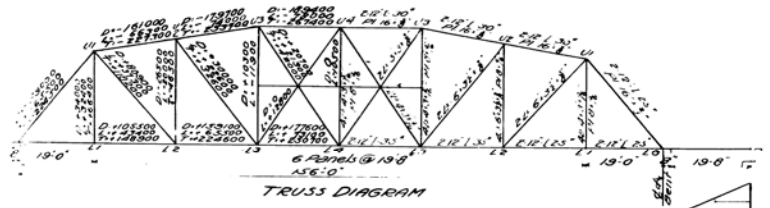
Mar 23, 1921

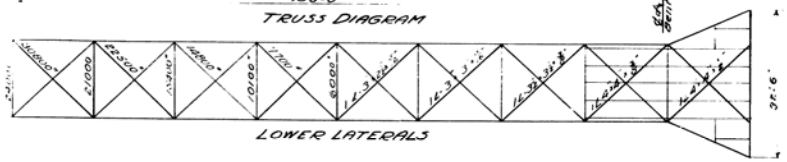
3-9

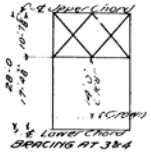
0 1 2 3 4 5 INCHES



UPPER LATERALS

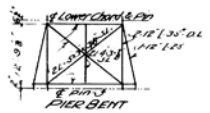


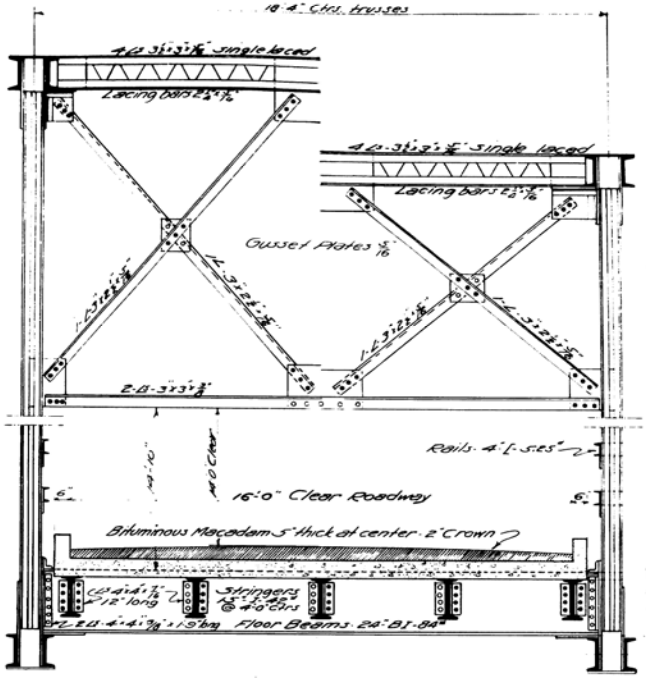




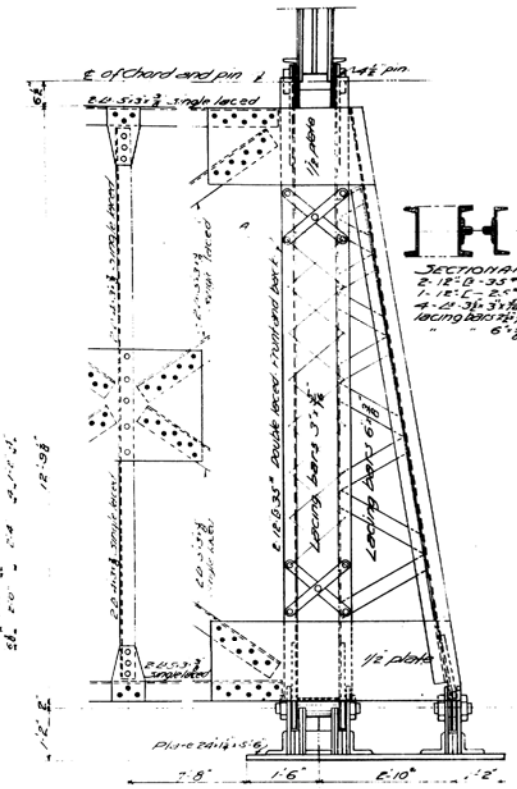






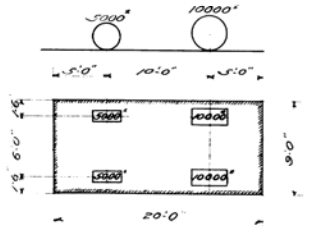


SECTION OF BRIDGE



PIER BENT

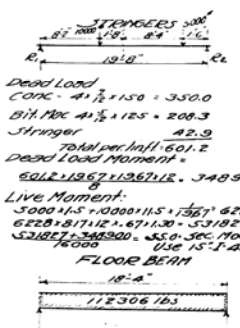
Loading:
Typical 15 Ton truck as shown
or 68 lbs per sq ft of roadway.
Impact = 30% live load stresses.



TYPICAL TRUCK

- LOADING -

Dead Load = 1720" per lin. ft. of truss
Live Load + 30% Impact = 907" per lin. ft. of truss
Floor System - 15 Ton truck as shown

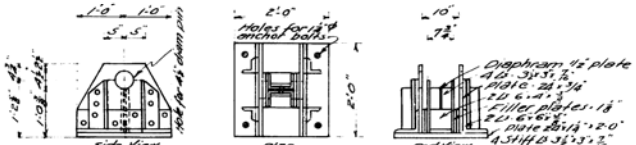


Dead Load
Conc: 4 L ⅞ x 150 = 350.0
Bit. Mac 4 L ⅝ x 125 = 208.3
Stringer 42.9
Total per lin ft = 601.2
Dead Load Moment =
$\frac{601.2 \times 19.67 \times 19.67 \times 12}{8}$ = 348900" lbs
Live Moment:
$\frac{5000 \times 1.5 + 10000 \times 11.5 \times \frac{13.67}{19.67}}{2}$ = 62281 lbs: R1
62281 x 8'1'12 x .67 x 1.30 = 531827" lbs
$\frac{531827 + 348900}{16000}$ = 55.0 Sec. Mod.
Use 15"[1.42#

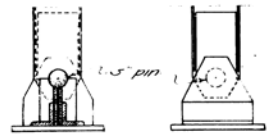
FLOOR BEAM

Dead Load
Stringers = 5 x 42.9 x 19.67 = 4213 lbs
Concrete = 17 x ½ x 150 x 19.67 = 29259 "
Bit. Mac. = 16 x ⅝ x 125 x 19.67 = 13113 "
Floor beam = 84 x 17.58 = 1477 "
Total 48068 lbs
Live Load = 2 trucks passing
4 x (10000 + 5000 x 13.67/19.67) x 1.30 = 64782 lbs
Total Load = 112850 lbs

$\frac{112850 \times 18.33 \times 12}{0.75 \times 16000}$ = 1945 Sec Mod
Use 24" B.F. 84#



BRIDGE SHOE
Scale ½" = 1'0"



MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRIDGE
IN THE TOWN
GILEAD, OXFORD COUNTY
Scale As shown
Sheet 1 of 3

0 1 2 3 4 5 INCHES

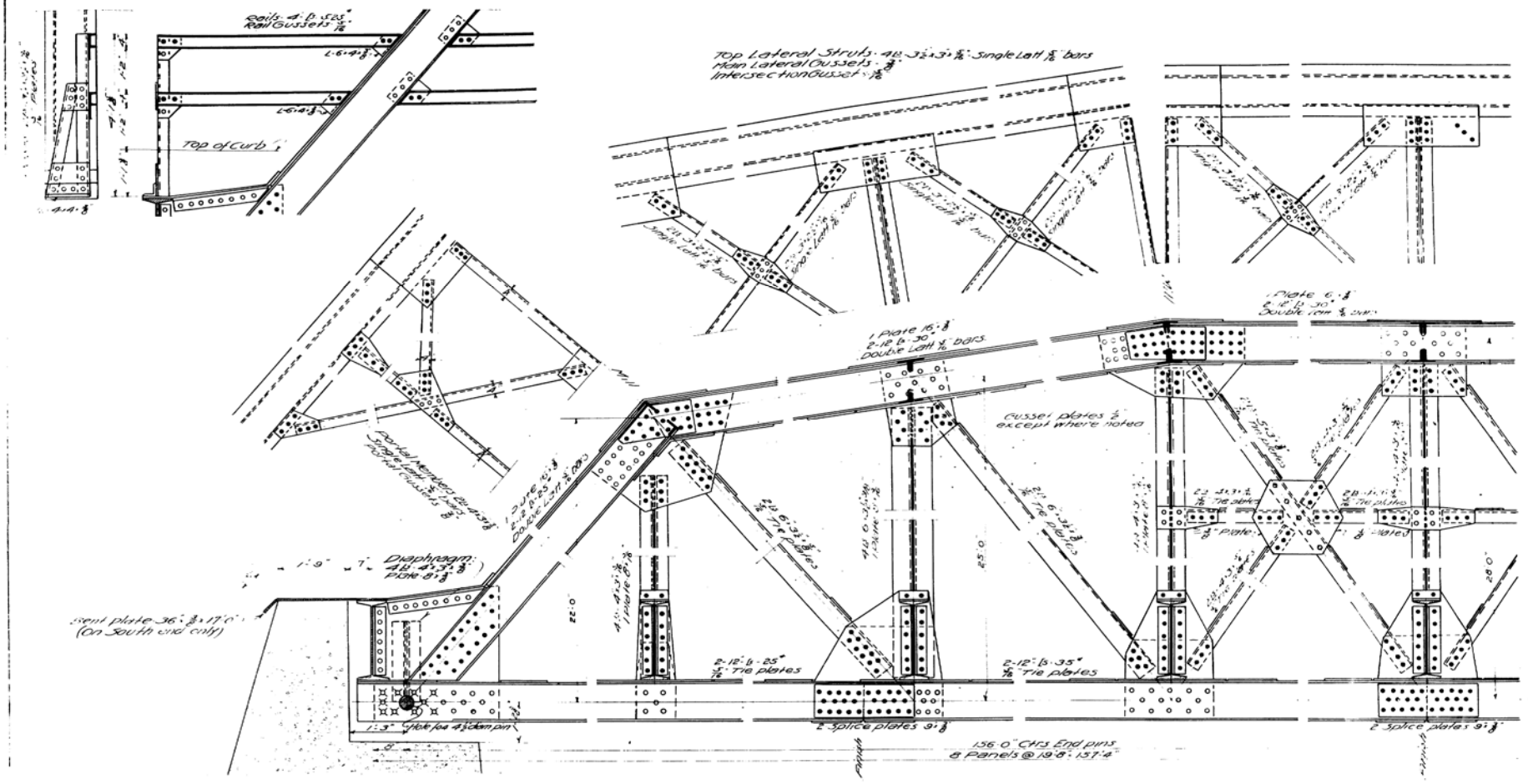
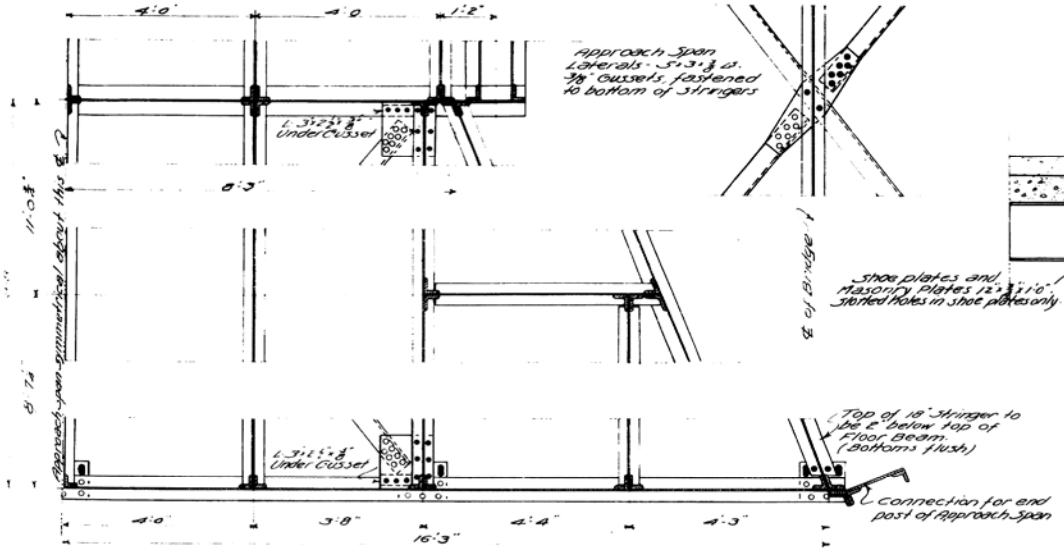


Plate Details shown ... signatives of those ... used in the preparation ... shop with the plans.
All details are ... prepared in accordance ... Maine Highway Commission ... Bridge Division Specifications ... for Metal Structures.

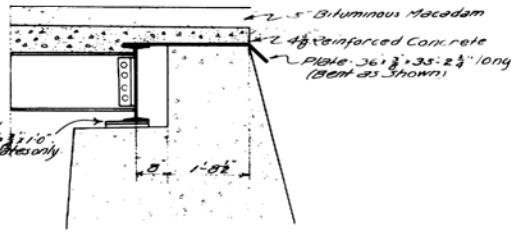
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER B...
GIL... COUN...
March ...
Sheet "24"

Drawn by ...
Checked by ...

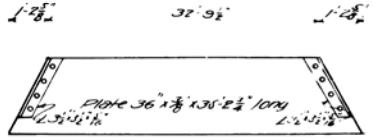
0 1 2 3 4 5 INCHES



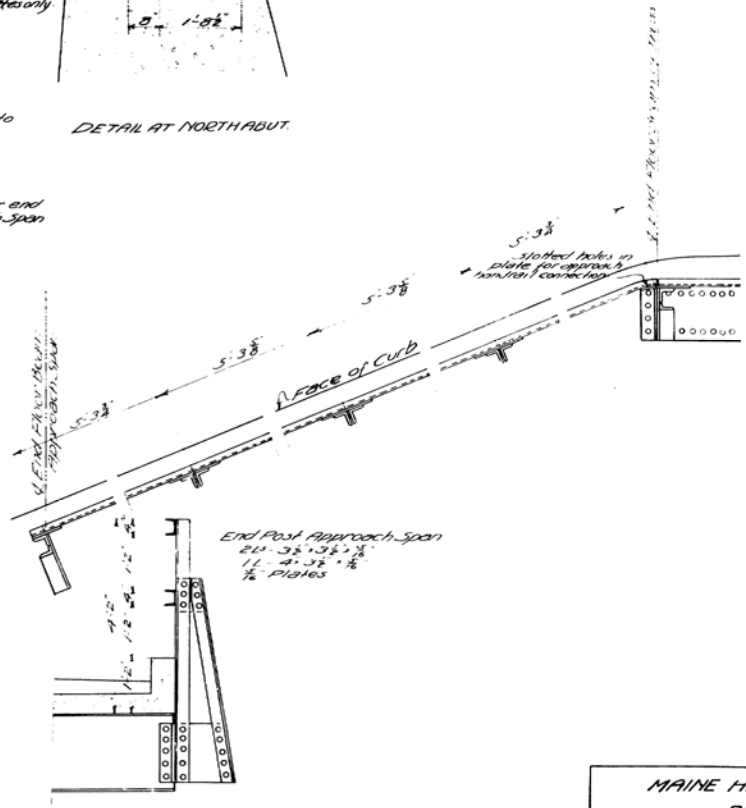
APPROACH SPAN

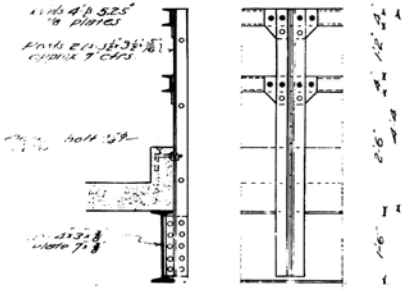


DETAIL AT NORTH ABUT.

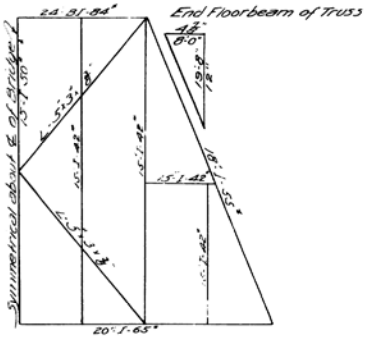


Detail of Plate over Backwall of North Abut.





RAIL DETAIL



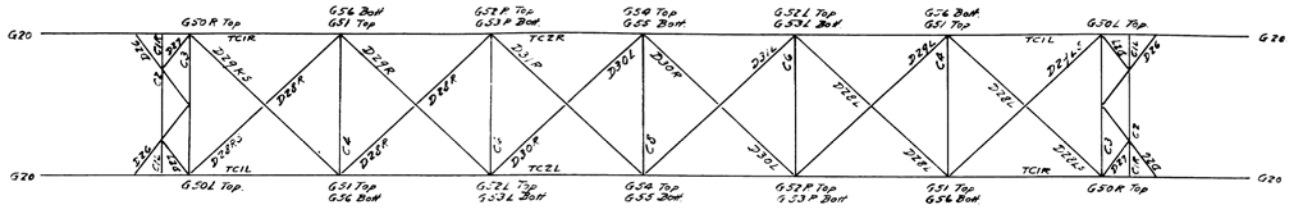
APPROACH SPAN DIAGRAM

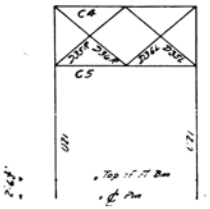
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRI
IN THE TOWN OF
GILEAD, OXFORD COUN
Scale: 3/4" = 1'-0" March 10,
Sheet 3 of 3

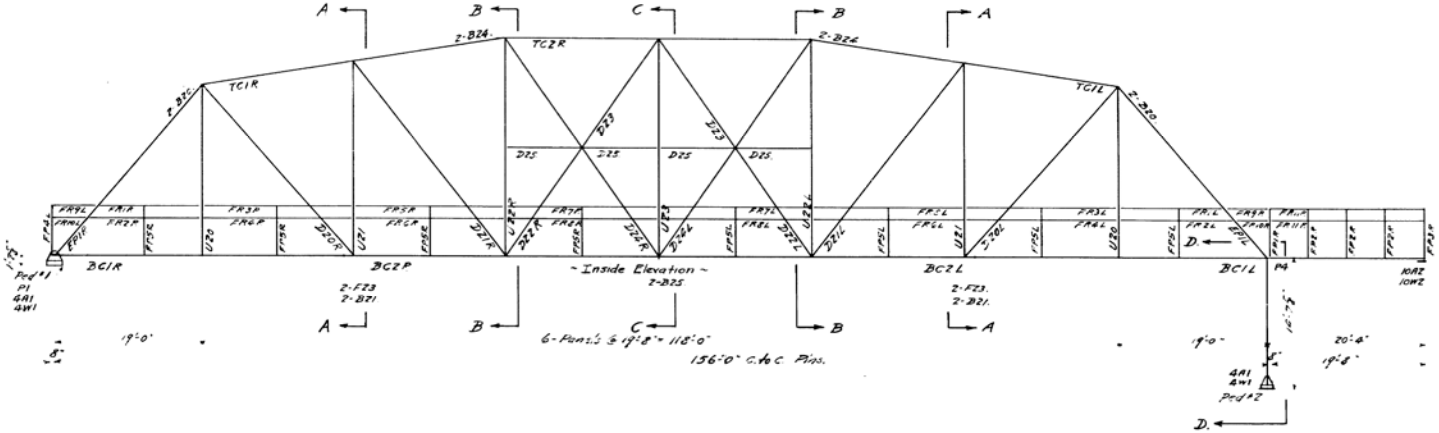
3-1

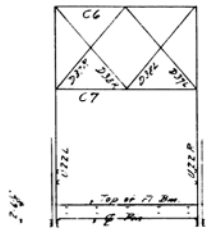
List of Drawings

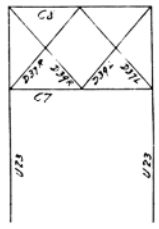
Sh°1 Erection Plan.
- 2 Truss
- 3 Truss
- 4 Beams & Bott. Chord Bracing
- 5 Fence, Beam & Gussets
- 6 Portal & Pier Bent
- 7 Pedestals, Pins & Anchors
- 8 Lat. Bracing & Top Chord
- 9 Top Chord Bracing.

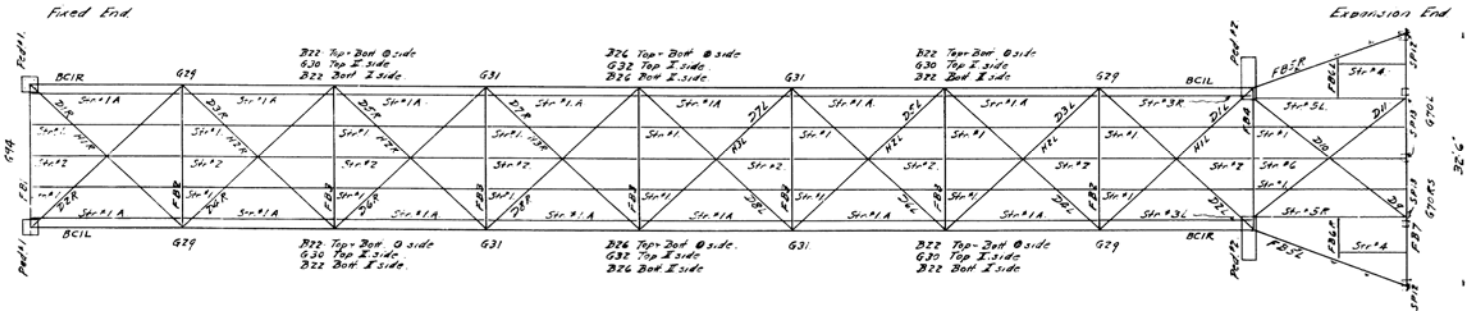


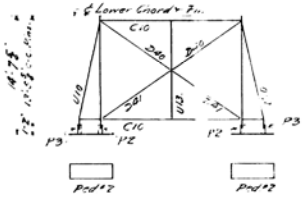












Note to Erector:-

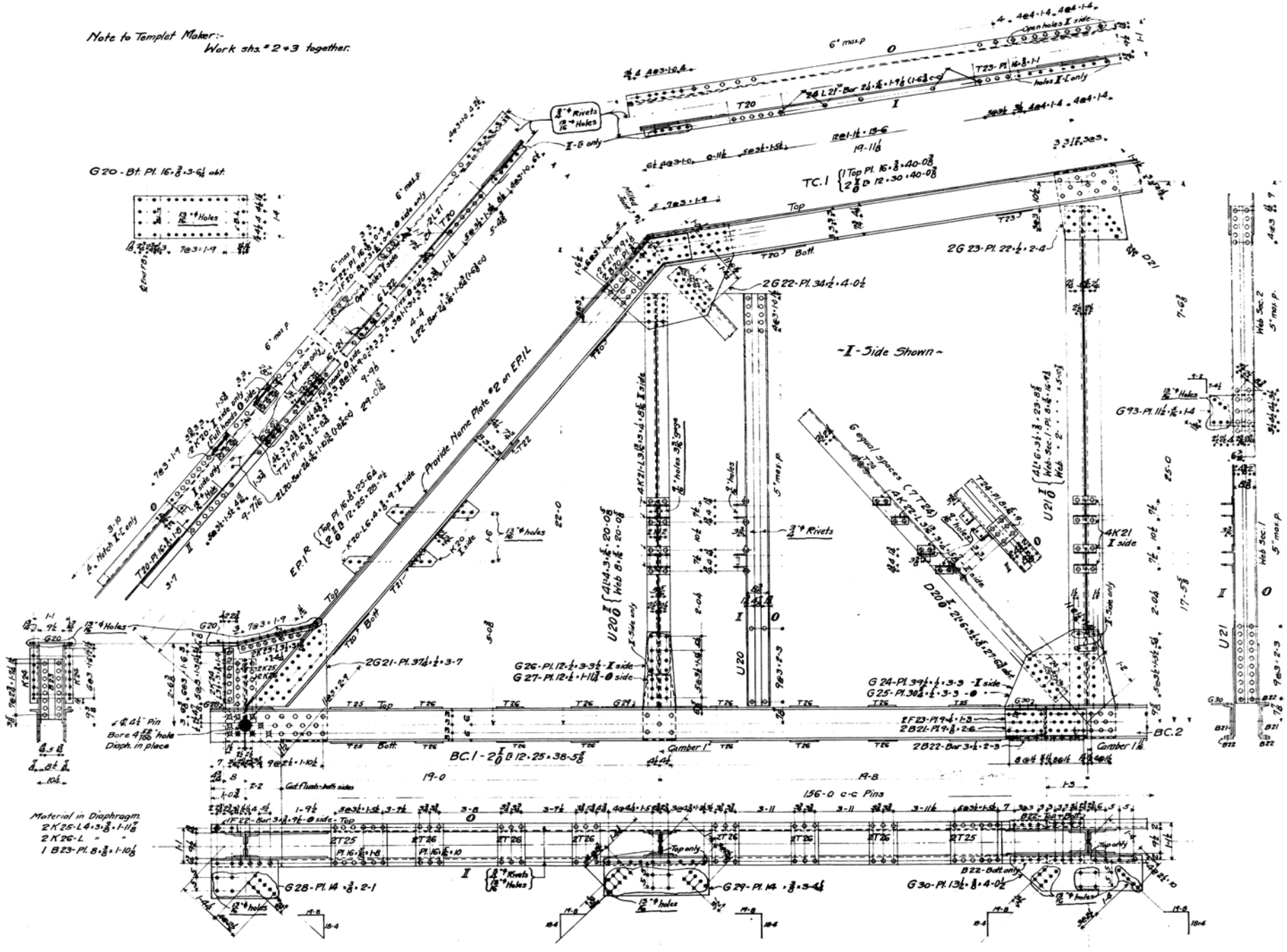
Thoroughly paint the top surface of the bridge seat bearing, and place upon it three layers of 12oz to 14oz. duck snubbed freely with red lead paint between each layer, and place the pedestal in position while the paint is plastic.

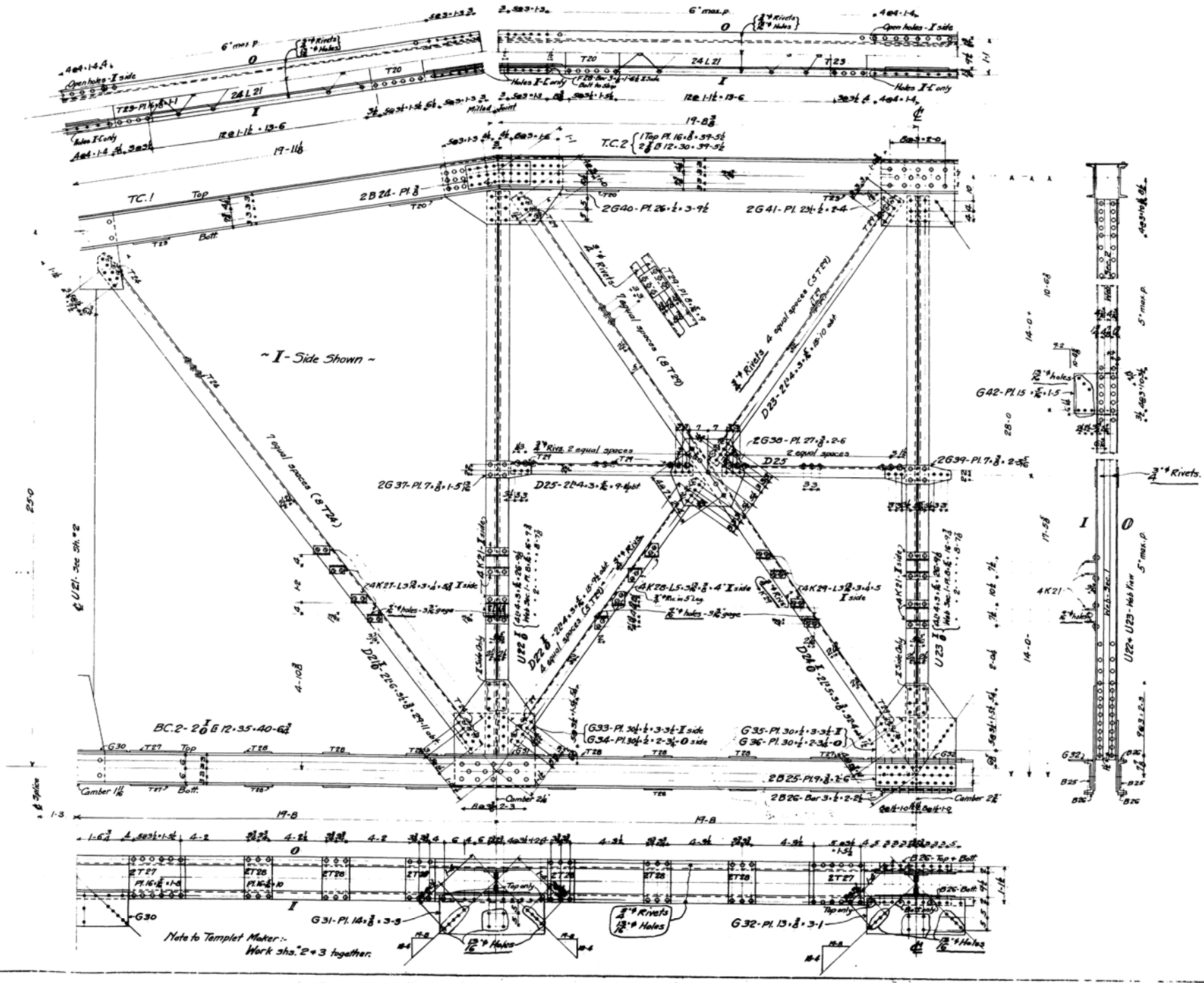
Fixed End =	6	sheets duck	26" Square	Mark: SP50
Pier Bent =	6	"	26"×5'-8"	" SP51
Exp. End	6	"	15"×1'-5"	" SP52
	9	"	15"×1'-2"	" SP53

THE BOSTON BRIDGE WORKS
BOSTON, MASS.

NAME Androscoggin River Br. Gilead Me.
DETAILS BY Erection Plan.
B'VETS EX. NOTED DRAWN BY
HOLES EX. NOTED CHEK'D BY
SCALE 1"=10' DATE 6-27-22 APP'D BY
Job 4986 Sh. 1.

0 1 2 3 4 5 INCHES


Note to Templet Maker:-
Work shs. 2 & 3 together.
-I-Side Shown-
Shipping List - 3
2-EP1 R
2-EP1 L
2-TC1 R
2- - 1L
1- - 2R
1- - 2L
2-BC1 R
2- - 1L
2- - 2R
2- - 2L
4-U20
4-U21
2-U22 R
2-U22 L
2-U23
2-D20 R
2-D20 L
2-D21 R
2-D21 L
2-D22 R
2-D22 L
4-D23
2-D24 R
2-D24 L
8-D25
4-G20
4-G29
4-G30
4-G31
2-G32
8-B20
8-B21
12-B22
8-B24
4-B25
6-B26
8-F23
2-G35
2-G36
Material in Diaphragm
2K25-L4×3/8×1-11/16
2K26-L " "
1 B23-Pl. 8×3/8×1-10 1/8
Note:
Rivets 3/4" ϕ Holes 13/16" ϕ in To
Flanges of Top & Bott. Chor
E.P.1, and as noted.
Androscoggin River
Gilead, M
Truss
4986
3-1
0 1 2 3 4 5 INCHES



THE BOSTON BRIDGE WORKS
BOSTON, MASS.

NAME Androscoggin River Bridge
Gilead, Maine

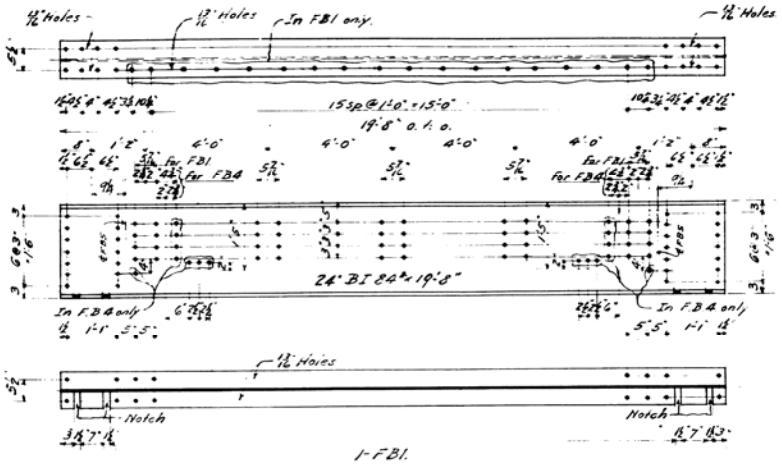
DETAILS OF Truss

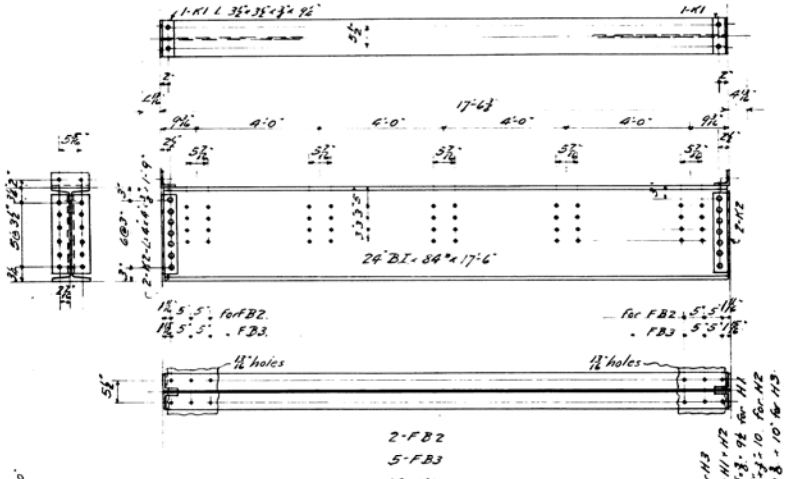
RIVETS 7/8" ENGLISH DRAWN BY

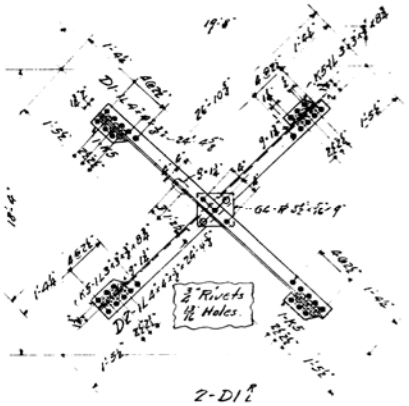
HOLES 1 1/16" CENTERS CHK'D BY

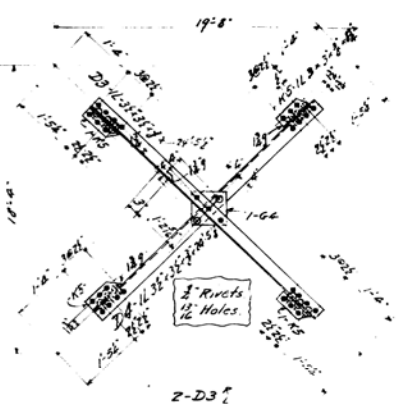
SCALE 1" = 1'-0" DATE 6-27-22 APP'D BY

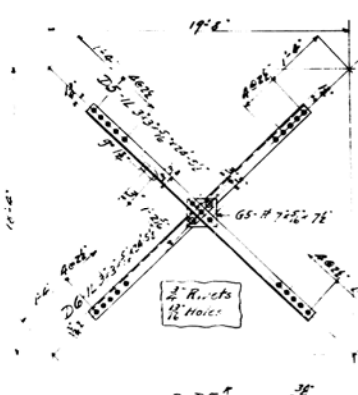
JOB 4986 SH.

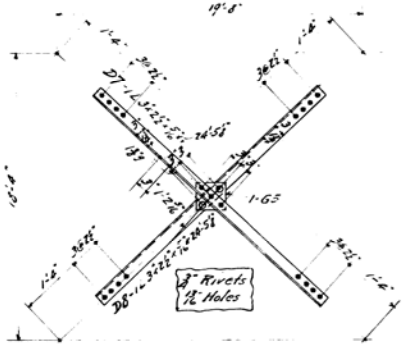


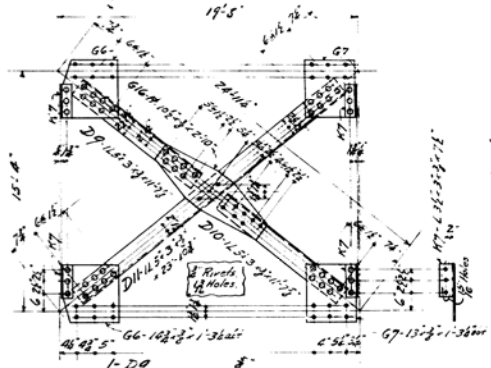


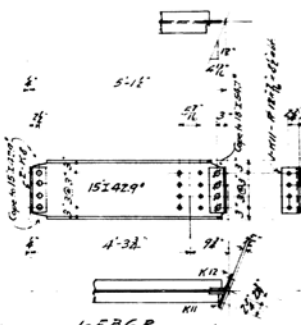


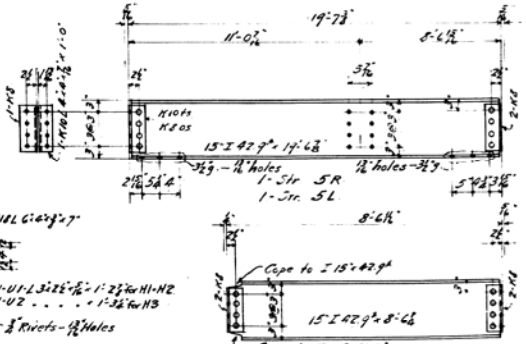


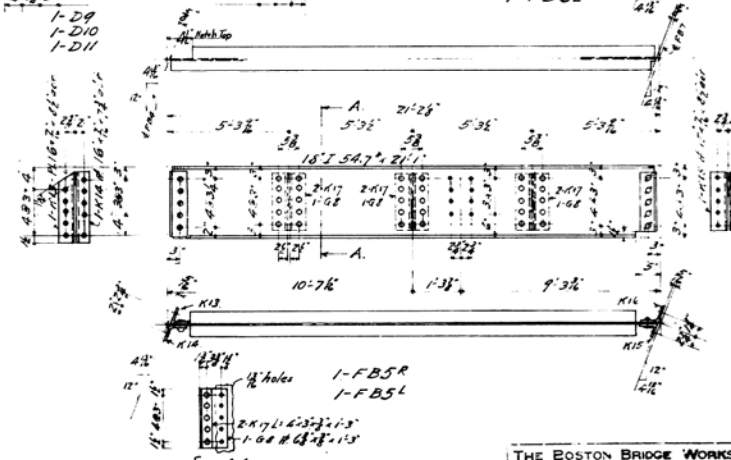


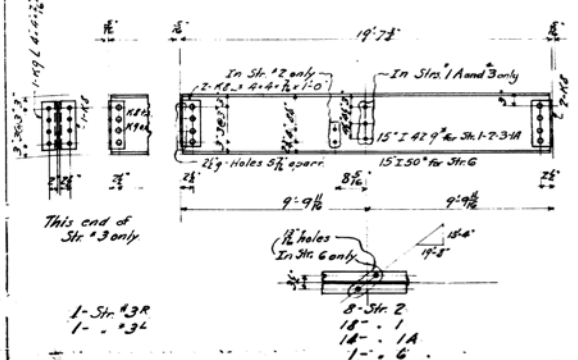


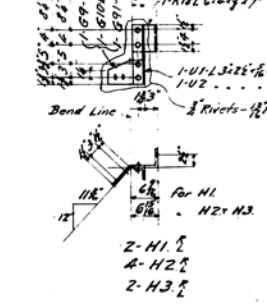










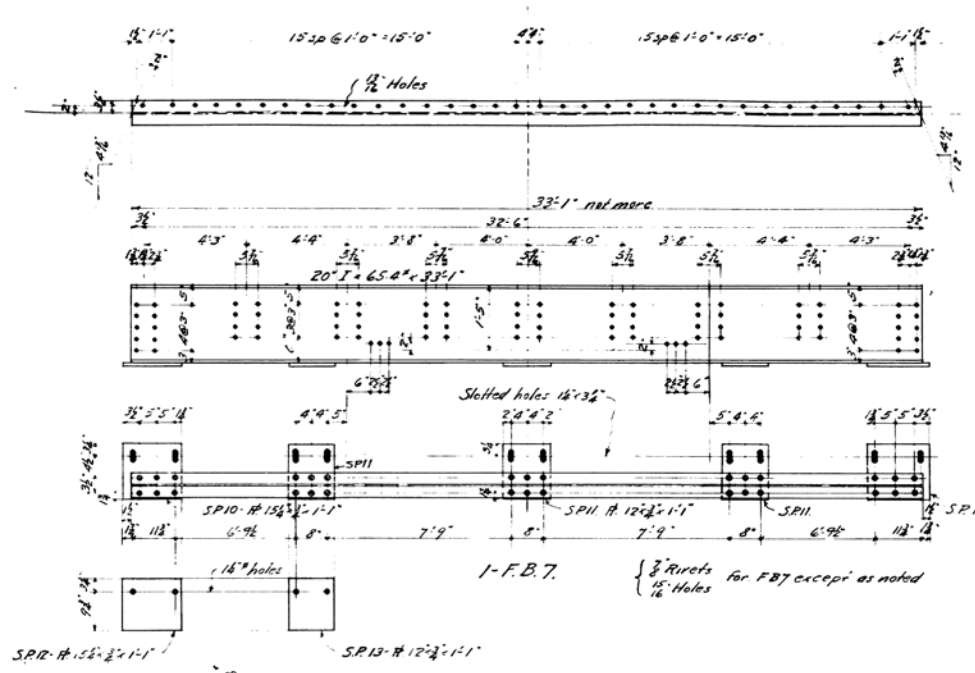


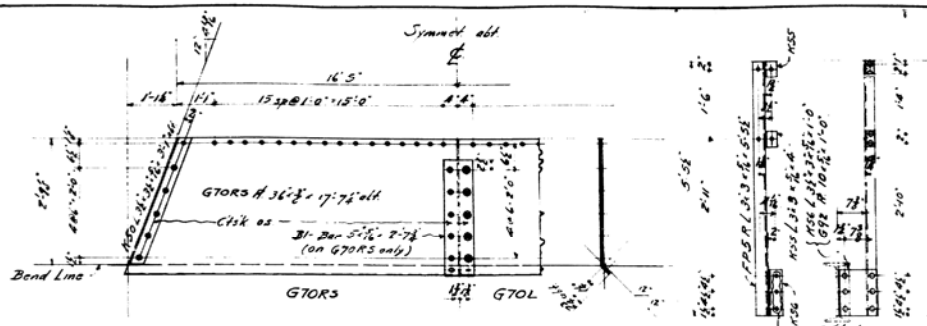
THE BOSTON BRIDGE WORKS
BOSTON, MASS.

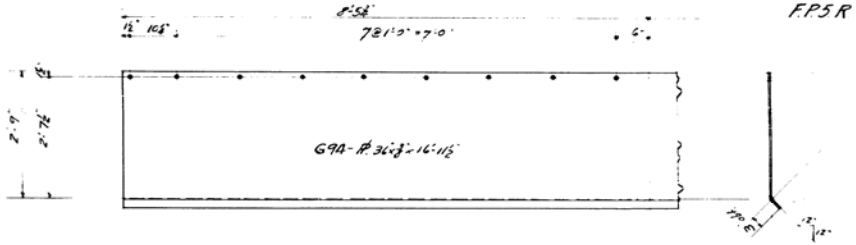
NAME Androscoggin River Bri... Gilead, Me...
DETAILS OF Beams - Bracing - Han...
PAINT ... DRAWN BY ...
HOLES ½" ... CHKD BY ...
SCALE 1"=1'-0" ... APP'D BY ...

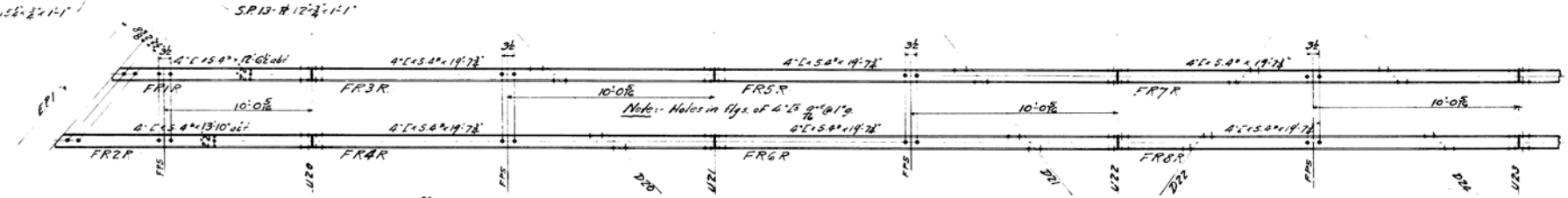
JOB 4986 SH.

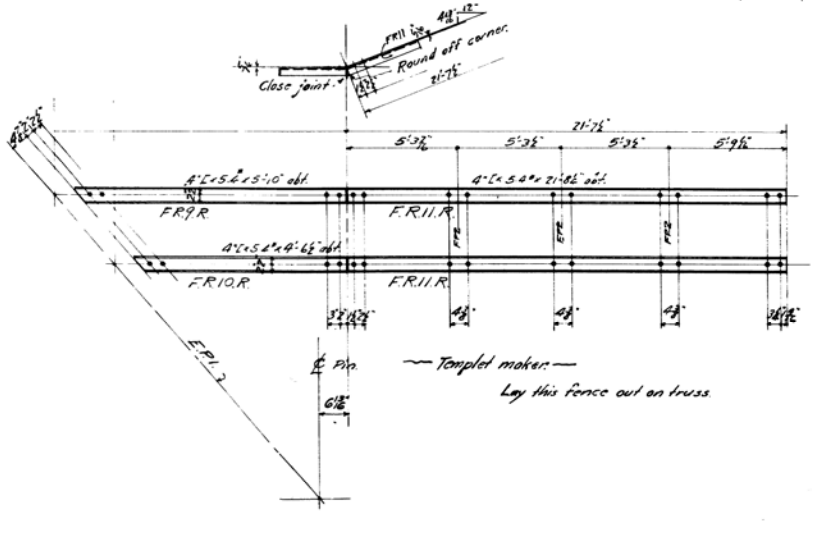
0 1 2 3 4 5 INCHES
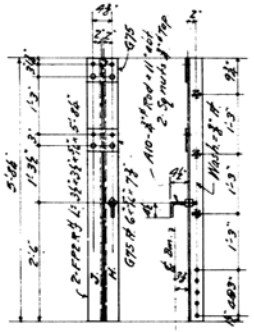

15 sp @ 1'-0" = 15'-0"
Holes
33'-1" not more
32'-6"
20" I - 65.4# - 33'-1"
Slotted holes 1⅛" x 3¼"
SP11
SP10 - # 15¼ - 1'-1"
SP11 - # 12¾ - 1'-1"
SP10
16" holes
SP12 - # 15¼ - 1'-1"
SP13 - # 12¾ - 1'-1"
1-F.B.7.
⅞" Rivets
15/16" Holes
for FB7 except as noted

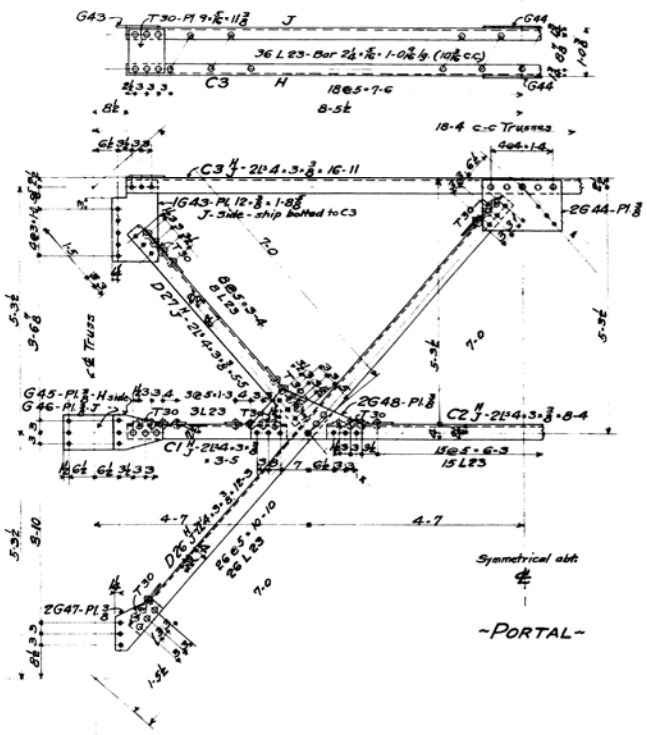

Symmet about ℄
16'-5"
15 sp @ 1'-0" = 15'-0"
G70R3 # 36-3/8 x 17-7/8 alt.
Clsk as
31 Bar 5-1/16 x 7-7/8
(on G70R3 only)
Bend Line
G70R3
G70L
FP5R L
FP5R
holes.

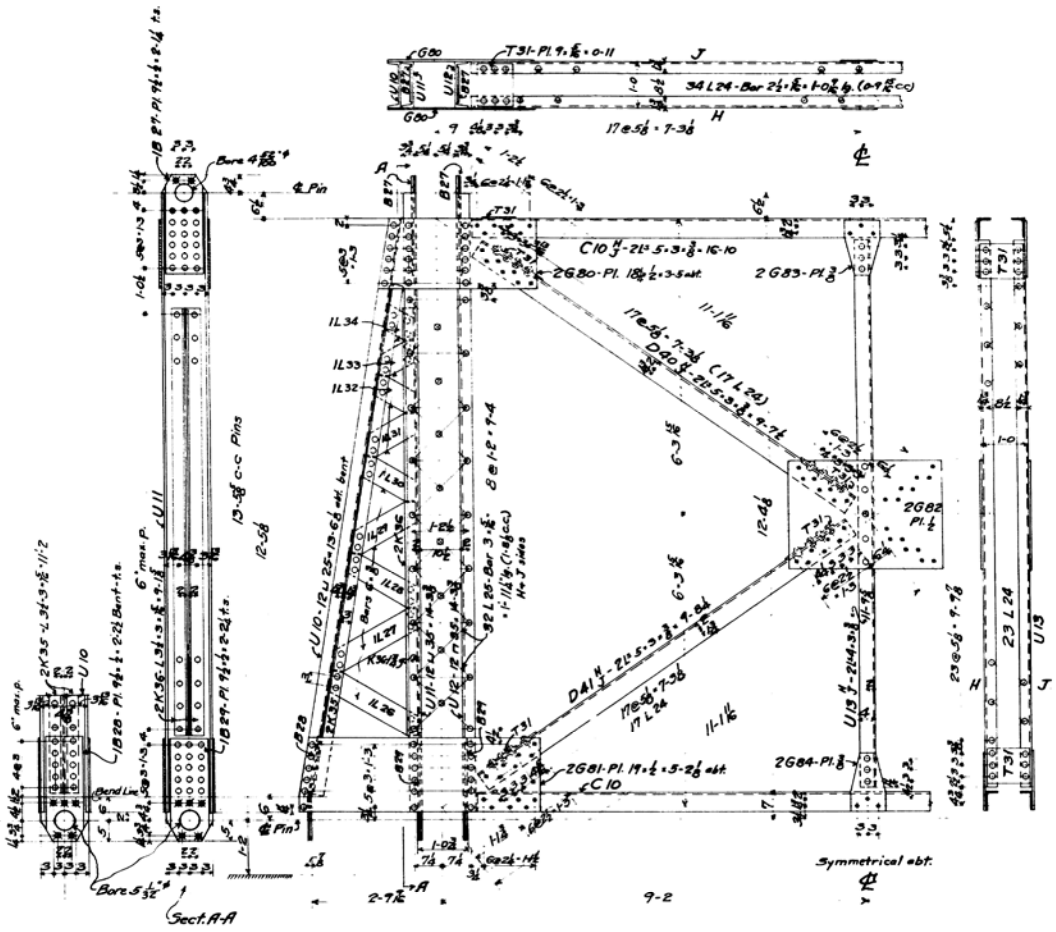

8'-5⅛"
7 @ 1'-0" = 7'-0"
G9A - # 36-3/8 x 16'-11½"


FP1R
FR2R
FR3R
FR4R
FR5R
FR6R
FR7R
FR8R
4'-L-5.4# x 19'-7¾"
4'-L-5.4# x 13'-10" alt.
10'-0⅝"
Note:- Holes in flgs. of 4'-L's 2 @ 1'-9"


Round off corner.
Close joint.
21'-7½"
5'-3½"
5'-9½"
4'-L-5.4# x 5'-10" alt.
4'-L-5.4# x 21'-8½" alt.
4'-L-5.4# x 9'-6½" alt.
FR9R
FR11R
FR10R
FR11R
FP1.3
℄ Pin
Templet maker.
Lay this fence out on truss.


G95
G96
G97
2-FP2R
FP2.2R
FP2.1R
FP2.3R
FP2.4R
FP2.5R
FP2.6R
FP2.7R
FP2.8R
FP2.9R
FP2.10R
FP2.11R
FP2.12R
FP2.13R
FP2.14R
FP2.15R
FP2.16R
FP2.17R
FP2.18R
FP2.19R
FP2.20R
FP2.21R
FP2.22R
FP2.23R
FP2.24R
FP2.25R
FP2.26R
FP2.27R
FP2.28R
FP2.29R
FP2.30R
FP2.31R
FP2.32R
FP2.33R
FP2.34R
FP2.35R
FP2.36R
FP2.37R
FP2.38R
FP2.39R
FP2.40R
FP2.41R
FP2.42R
FP2.43R
FP2.44R
FP2.45R
FP2.46R
FP2.47R
FP2.48R
FP2.49R



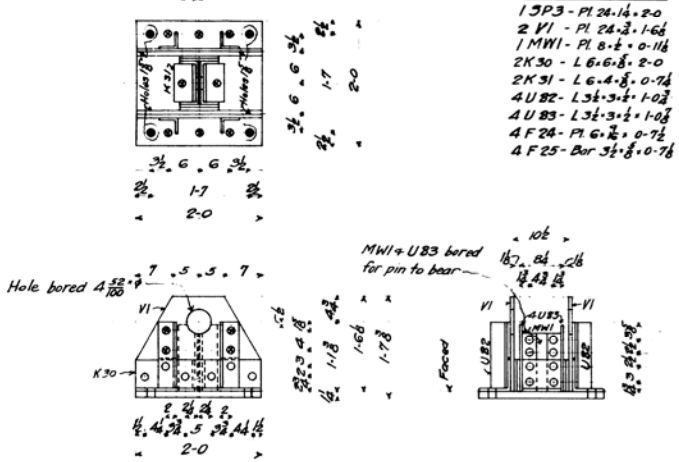


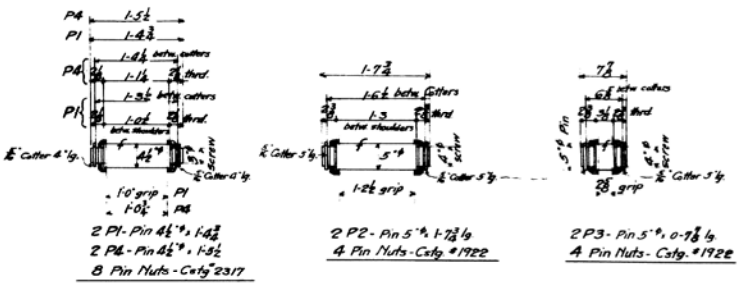
~Shipping List~

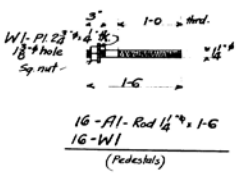
~Portal~	~Pier Bent~
2 C1 R	2 C10
2 C1 L	2 D40
2 C2	2 D41
2 C3	2 U10
4 D26	1 U13
4 D27	

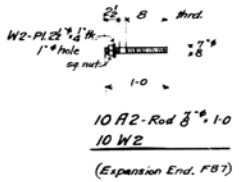
Androscoggin River Bridge
Gilead, Maine
Portal and Pier Bent
Job 4986 Sh. 6

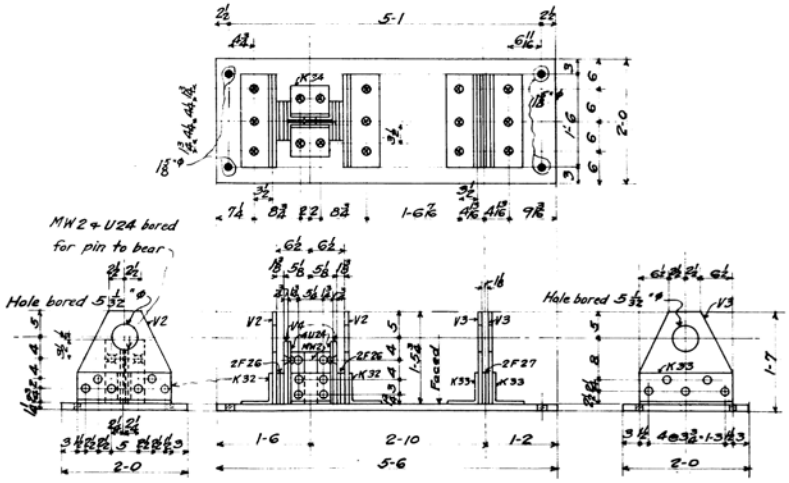
0 1 2 3 4 5 INCHES







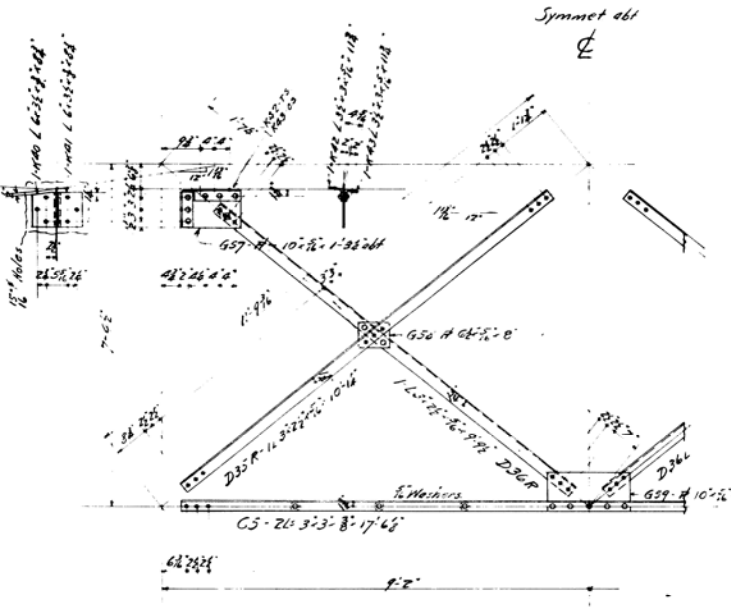


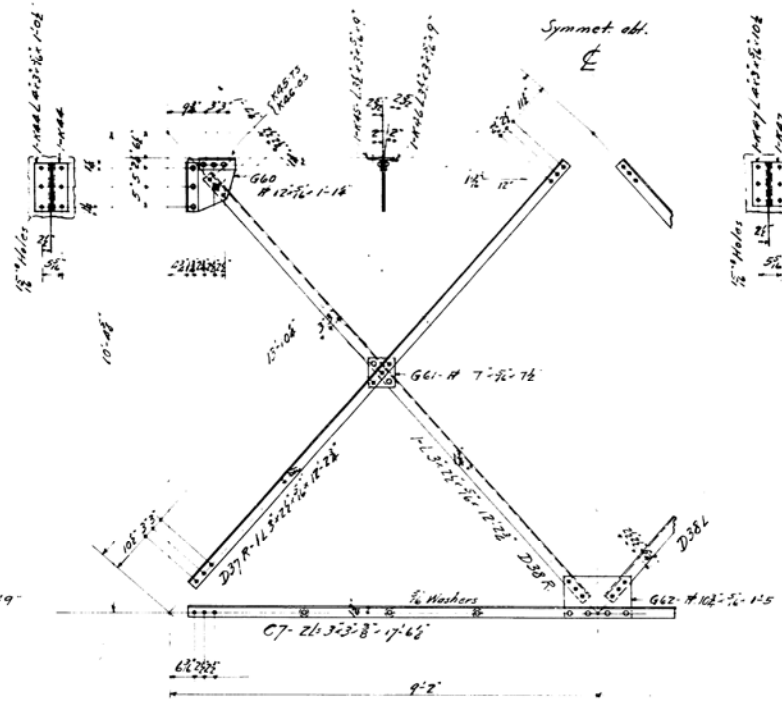


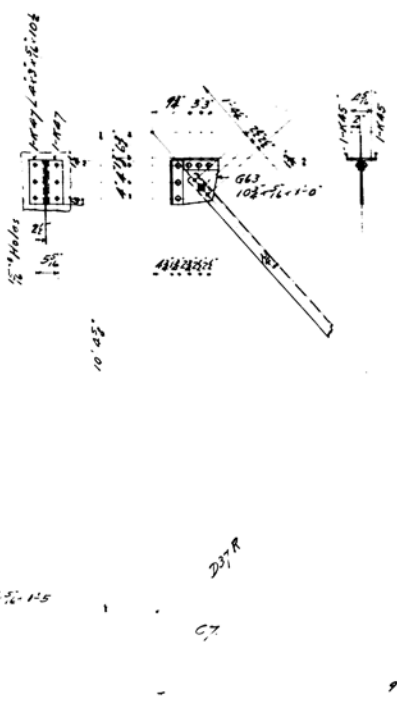
Androscoggin River Brid
Gilead, Mai
Pedestals, Pins + Anc
1"=1-0 6-27-22
4986 7

3-

0 1 2 3 4 5 INCHES



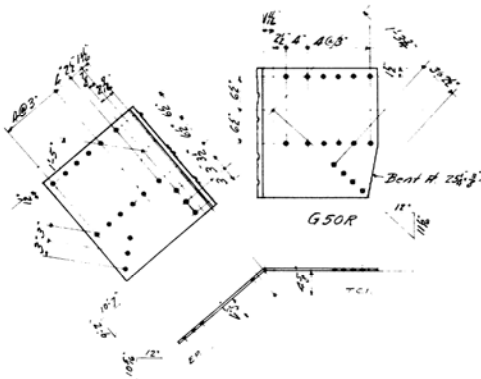


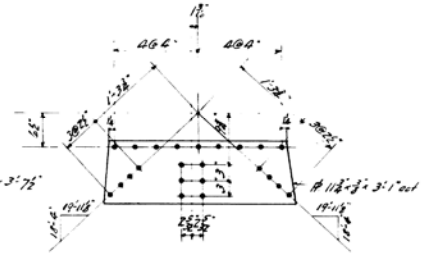


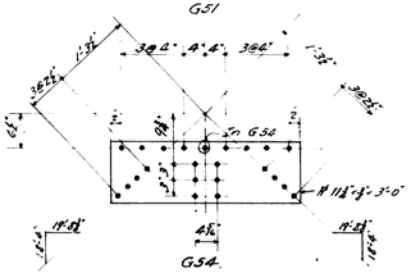
Shipping L

2-C5
3-C7
2-D35
2-D35
2-D36
2-D36
3-D37
3-D37
2-D38
2-D38
1-D39
1-D39

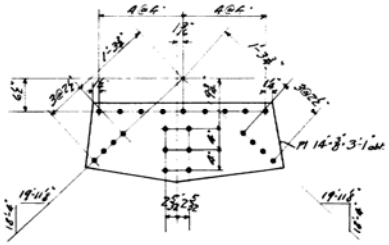
2-G5
2-G5
4-G5
2-G5
2-G5
2-G5
2-G5
2-G5
2-G5
4-G5

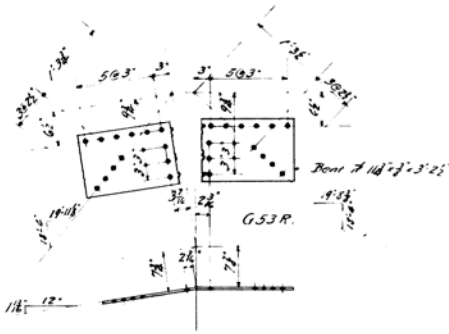








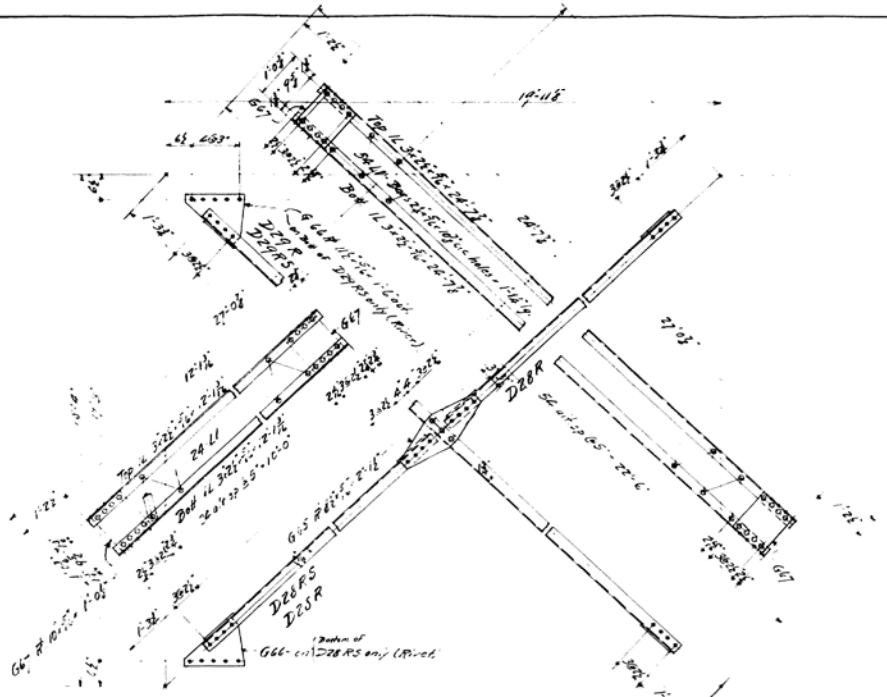


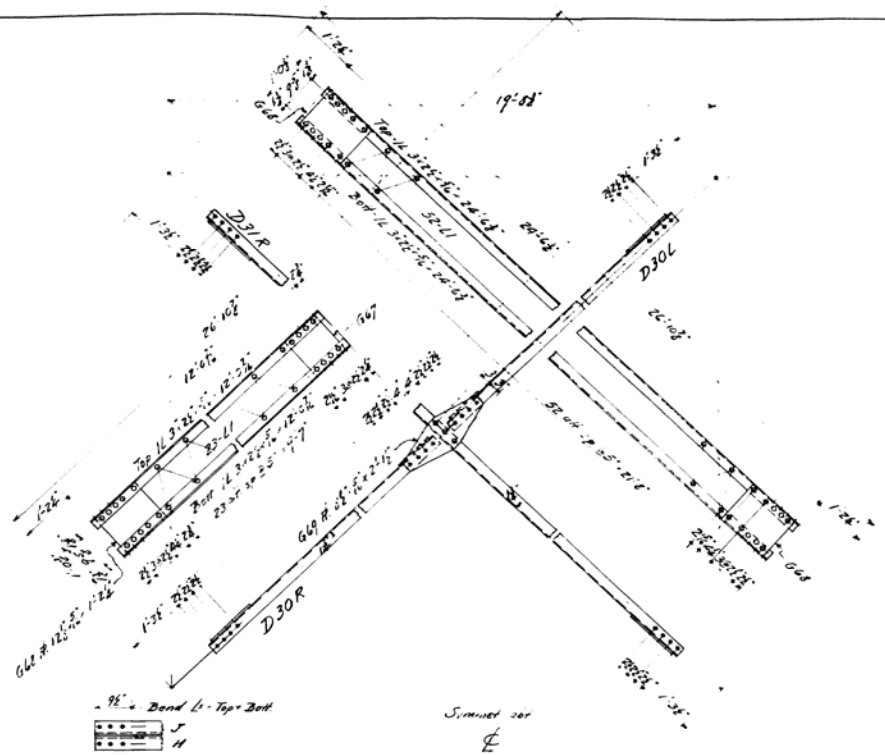


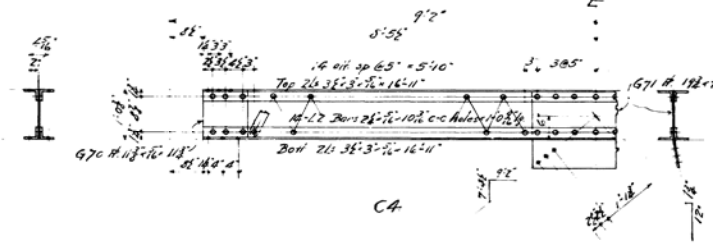
Min Edge Dist for ⅞" Rivet - 1½"
" " " - ⅞" " - 1½" except as noted

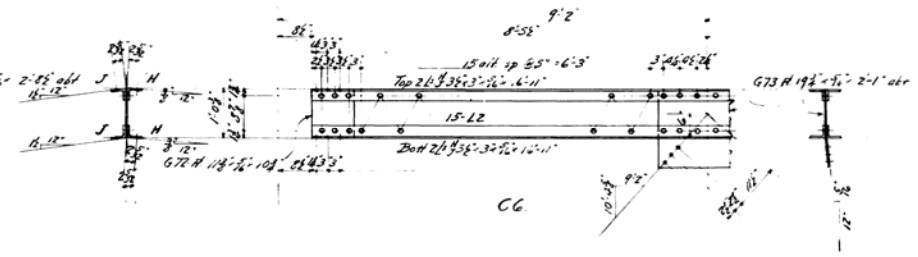
THE BOSTON BRIDGE WORKS
Androscoggin River Br
Gilead M
Sway Bracing & Plates
Job 4986 Sh. 8

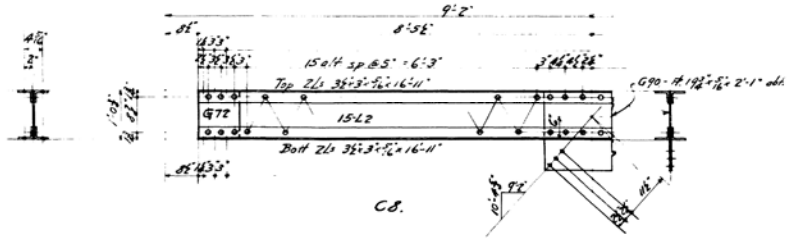
0 1 2 3 4 5 INCHES











Min. Edge Dist. for 3/4" Rivet = 1½".

Shipping List

2 - C4
2 - C6
1 - C8

1 - D28
3 - D28
1 - D28
3 - D28
1 - D29
1 - D29
1 - D29
1 - D29
2 - D30
2 - D30
1 - D31
1 - D31

THE [illegible] BRIDGE WORK

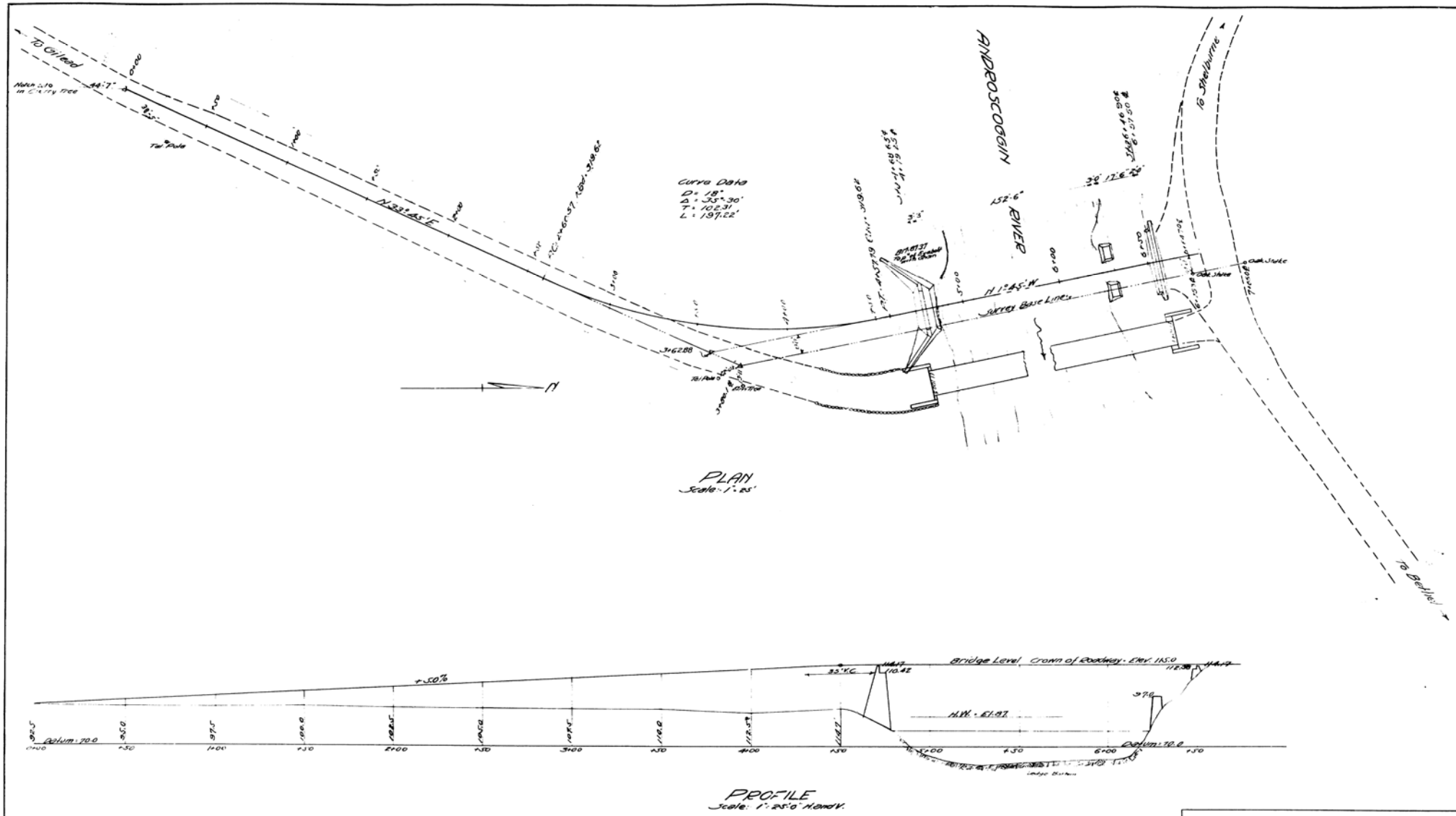
Androscoggin River B
Gilead M

Top Bracing.

SCALE 1"=1'-0" DATE 6-27-32 APPROVED

Job 498a Sh. 9

0 1 2 3 4 5 INCHES



PLAN
Scale: 1" = 25'

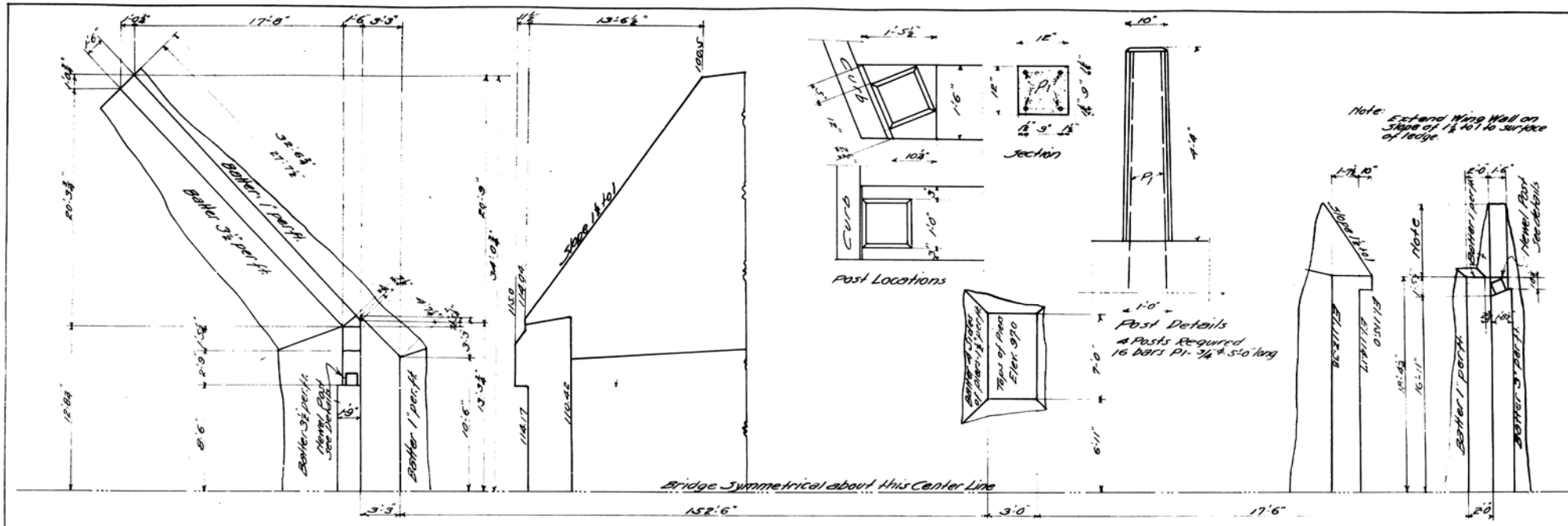
PROFILE
Scale: 1" = 25'0" Horiz.

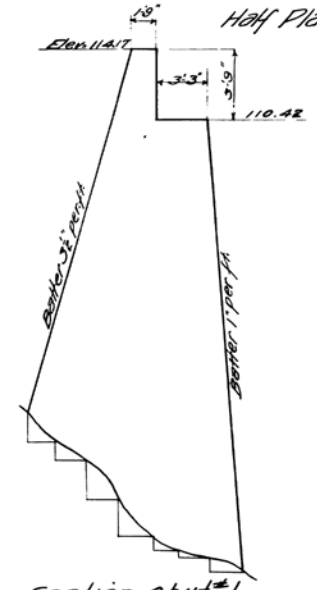
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRID
IN THE TOWN OF
GILEAD, OXFORD COUNT
Scale: 1" = 25'0" Oct. S. 19
Sheet 1.

Revised Mar 13, 19
Backwalls raised 2'

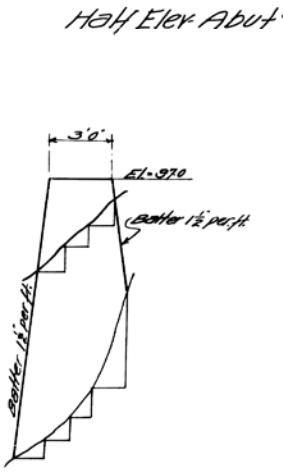
3-96

0 1 2 3 4 5 INCHES





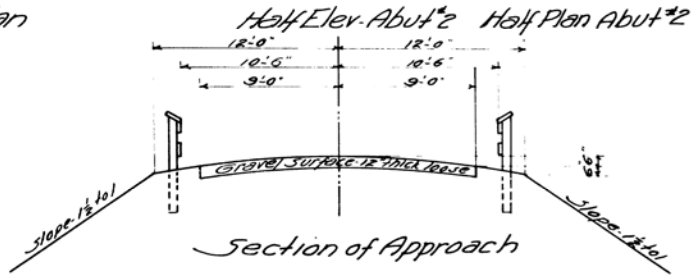
Section-Abut #1



Section thru Piers



Section Abut #2



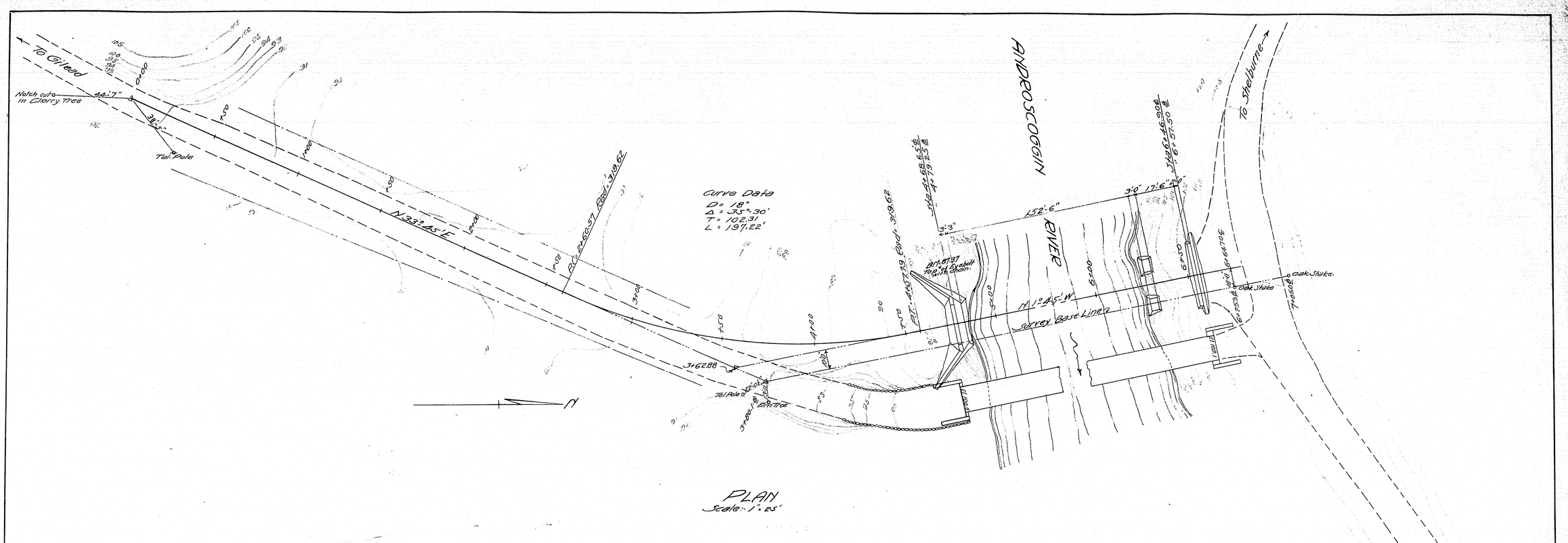
Note: Ledge rock under abutments, piers and wing walls will be leveled in horizontal steps. All exposed edges of concrete to be chamfered 1".

Revised Mar 29, 1922 Posts on Deckwalls.
Revised Mar 13, 1922 Deckwalls raised 2"

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRID
IN THE TOWN OF
GILEAD, OXFORD COUNT
Scale: 1½"-1'-0" Oct 5, 19
Sheet 2

3-97

0 1 2 3 4 5 INCHES



PLAN
Scale: 1" = 25'

PROFILE
Scale: 1" = 25'0" H and V.

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE

IN THE TOWN OF

GILEAD, OXFORD COUNTY

Scale: 1" = 25'0" Oct. 5, 1921

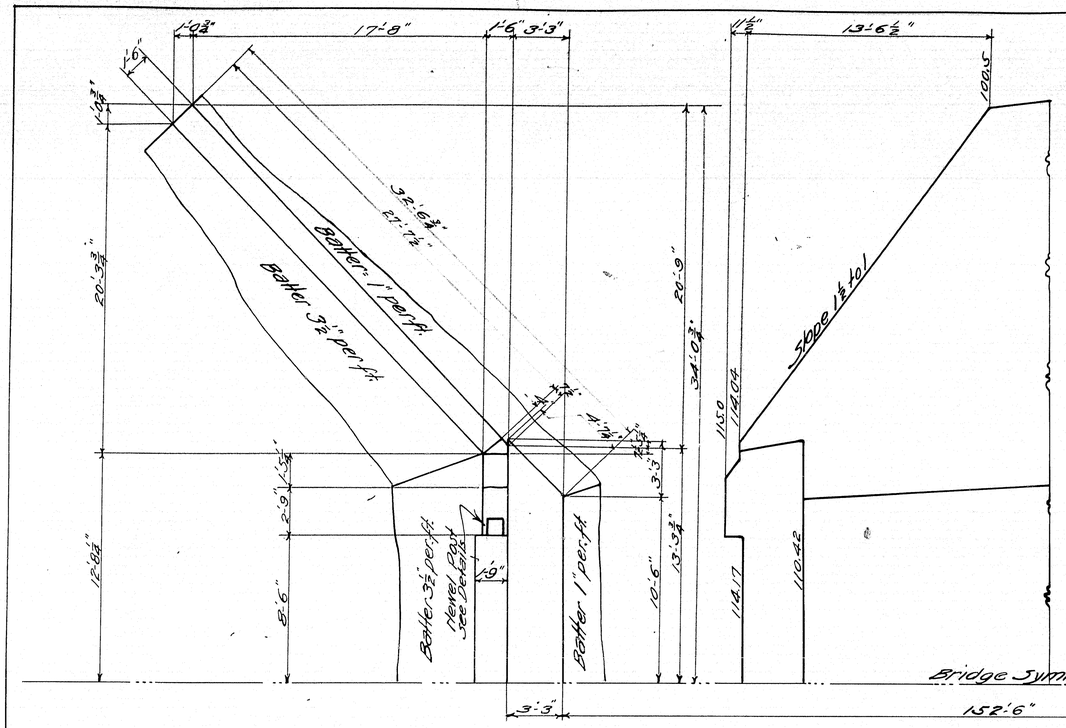
Sheet 1.

Revised Mar 13, 1922
Backwalls raised 2'

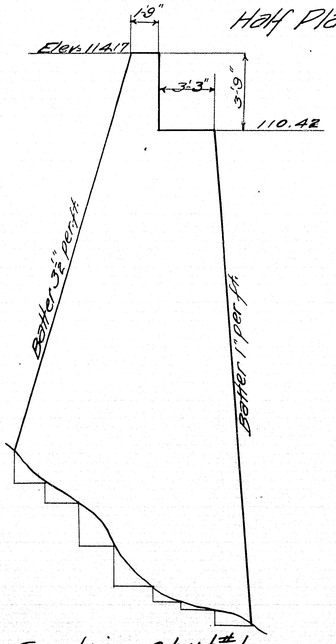
3-96

E. Linn by J.E.
Checked by

0 1 2 3 4 5 INCHES

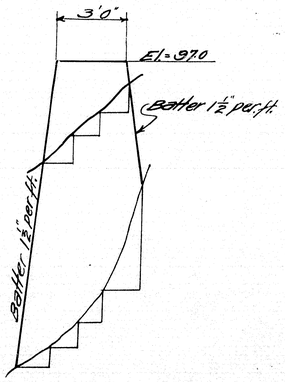


Half Plan-Abut #1

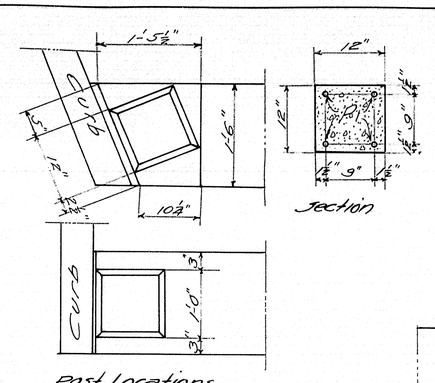


Section-Abut #1

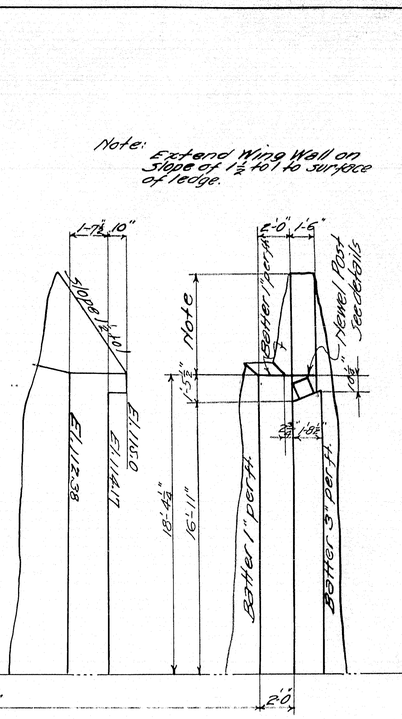
Half Elev-Abut #1



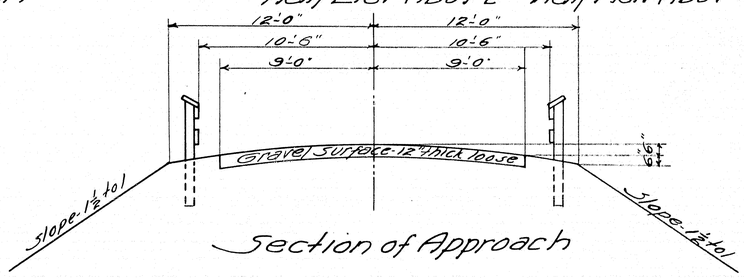
Section thru Piers



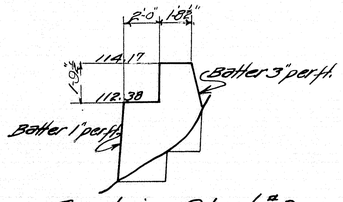
Pier Plan



Half Elev-Abut #2 Half Plan Abut #2



Section of Approach



Section Abut #2

Note: Ledge rock under abutments, piers and wingwalls will be leveled in horizontal steps. All exposed edges of concrete to be chamfered 1".

Revised Mar 29, 1922
Posts on Backwalls.
Revised Mar 13, 1922.
Backwalls raised 2 in.

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE

IN THE TOWN OF

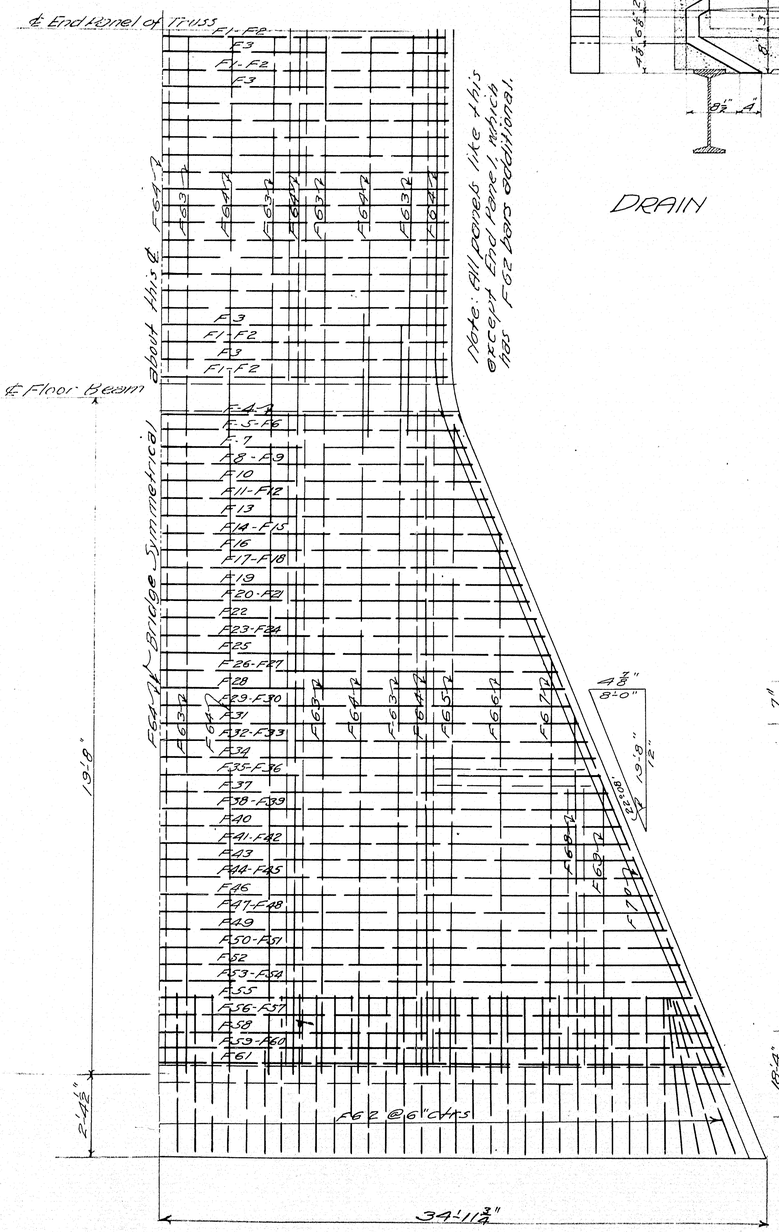
GILEAD, OXFORD COUNTY

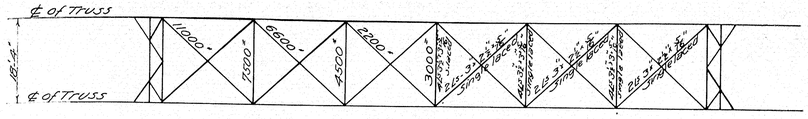
Scale:- 1¼"-1'-0" Oct 5, 1921.

Sheet 2

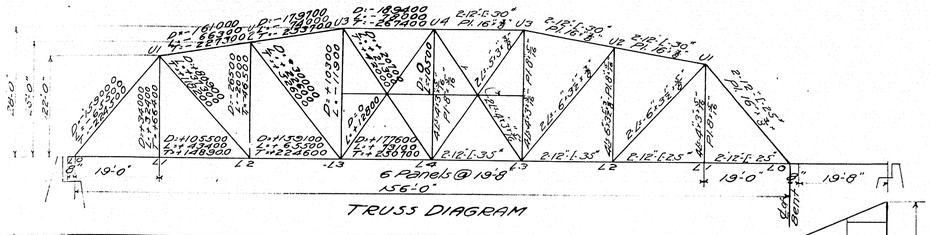
3-97

0 1 2 3 4 5 INCHES

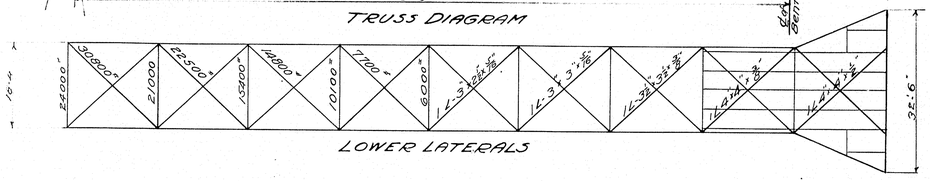

℄ End Kernel of Truss
F1-F2
F3
F1-F2
F3
F3
F1-F2
F3
F1-F2
F4-A
F5-F6
F7
F8-A9
F10
F11-F12
F13
F14-F15
F16
F17-F18
F19
F20-A21
F22
F23-F24
F25
F26-F27
F28
F29-F30
A31
A32-F33
A34
F35-F36
A37
F38-F39
F40
F41-F42
F43
F44-F45
F46
F47-F48
F49
F50-F51
F52
F53-F54
F55
F56-F57
F58
F59-A60
F61
F63
F63
F63



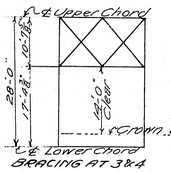
UPPER LATERALS



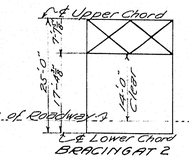
TRUSS DIAGRAM



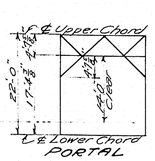
LOWER LATERALS



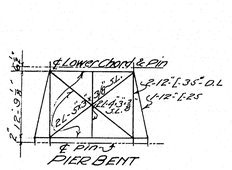
BRACING AT 3&4



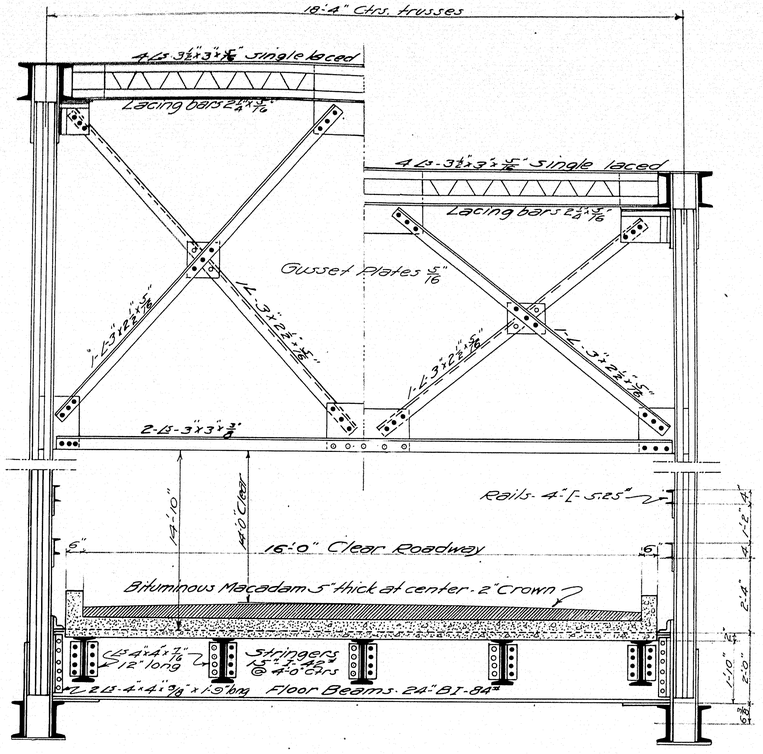
BRACING AT 2



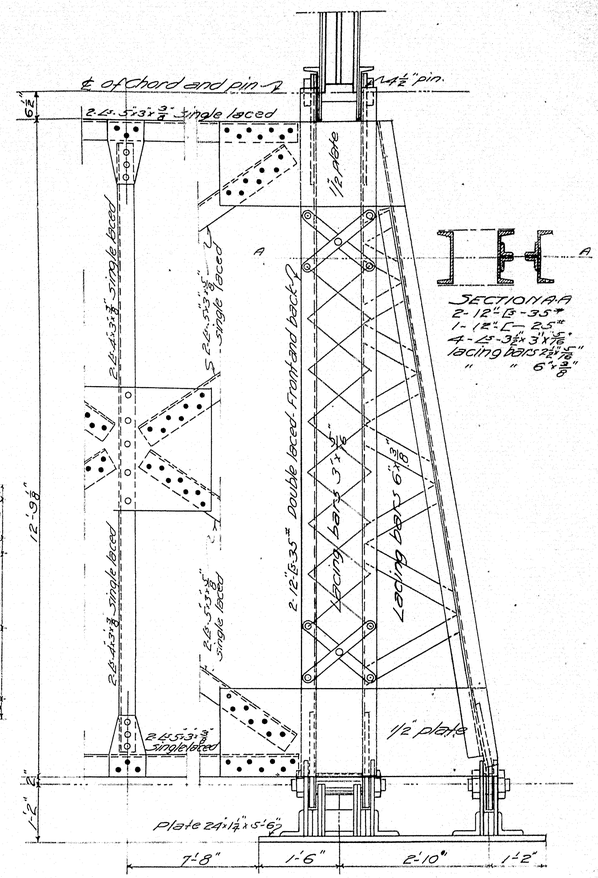
PORTAL



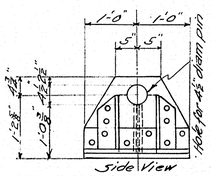
PIER BENT

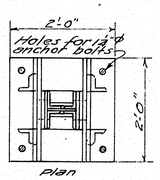


SECTION OF BRIDGE

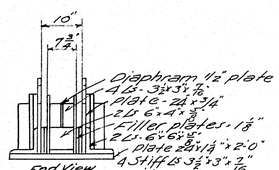


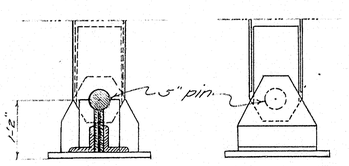
SECTION AA
2 - 12" [8 - 3.5#
1 - 12" [- 2.5#
4 - L's 3½"x3"x⅜"
lacing bars 2½"x⅜"
" " 6"x⅜"





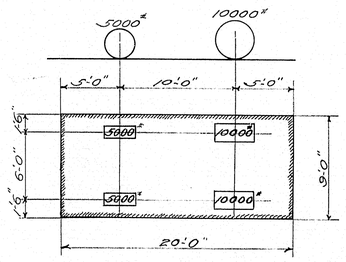
BRIDGE SHOE
Scale ¾" = 1'-0"





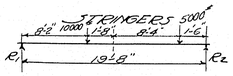
PIER BENT

Loading:
Typical 15 Ton truck as shown or 69 lbs per sq. ft. of roadway.
Impact = 30% live load stresses.



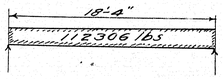
TYPICAL TRUCK

- LOADING -
Dead Load = 1720" per lin. ft. of truss
Live Load + 30% Impact = 707" per lin. ft. of truss
Floor System - 15 Ton truck as shown



Dead Load
Conc - 4 x 7/12 x 150 = 350.0
Bit. Mac 4 x 5/12 x 125 = 208.3
Stringer 42.9
Total per lin. ft. = 601.2
Dead Load Moment =
601.2 x 19.67 x 19.67 x 12 / 8 = 348 900" lbs
Live Moment:
5000 x 1.5 + 10000 x 11.5 x 13.67 / 19.67 = 6228 lbs = R1
6228 x 8.17 x 12 x .67 x 1.30 = 531827" lbs
(531827 + 348900) / 16000 = 55.0 Sec. Mod.
Use 15" I - 42#

FLOOR BEAM



Dead Load
Stringers = 5 x 42.9 x 19.67 = 4219 lbs
Concrete = 17 x 7/12 x 150 x 19.67 = 29259 "
Bit. Mac. = 16 x 5/12 x 125 x 19.67 = 13113 "
Floor beam = 84 x 17.58 = 1477 "
Total = 48068 lbs
Live Load = 2 trucks passing
4 x (10000 + 5000 x 13.67 / 19.67) x 1.30 = 64782 lbs
Total Load = 112850 lbs
(112850 x 18.33 x 12) / (8 x 16000) = 194 Sec Mod
Use 24" BI - 84#

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRIDGE
IN THE TOWN
GILEAD, OXFORD COUNTY
Scale - As shown — March 10, 1922
Sheet #1 of 3

Drawn by GPK
Checked by, ALFHB

-99

0 1 2 3 4 5 INCHES

Rails-4"ls-5.25#
Rail Gussets-⅜"

Posts-2 ls-3½"x3½"x½" plates

L-6"x4"x⅜"

L-6"x4"x⅜"

Top of Curb

L-4"x4"x⅜"

Top Lateral Struts-4 ls-3½"x3½"x⅝"-Single Latt ⅝" bars
Main Lateral Gussets-⅜"
Intersection Gusset s-⅜"

2 ls-3½"x3½"x⅝" Single Latt ⅝" bars

2 ls-3½"x3½"x⅝" Single Latt ⅝" bars

2 ls-3½"x3½"x⅝" Single Latt ⅝" bars

2 ls-3½"x3½"x⅝" Single Latt ⅝" bars

Mill

Portal Member-2 ls-4"x3"x⅜"
Portal Gussets-⅜"

1 Plate 16"x⅜"
2-12"ls-30"
Double Latt ⅝" bars.

1 Plate 16"x⅜"
2-12"ls-30"
Double Latt ⅝" bars.

Gussel plates ½" except where noted

1 Plate 6"x⅜"
2-12"ls-25"
Double Latt ⅝" bars

2 ls-6"x3½"x⅜" Tie Plates

4 ls-6"x3½"x⅜"
1 Plate 25"x⅜"

4 ls-4"x3½"x⅝"
1 Plate 8"x⅝"

25'-0"

2 ls-6"x3½"x⅜" Tie Plates

2 ls-5"x3½"x⅝" Tie Plates

2 ls-4"x3½"x⅝" Tie Plates

2 ls-4"x3"x⅝" Tie plates

2 ls-4"x3"x⅝" Tie plates

2 ls-4"x3"x⅝" Tie plates

2 ls-4"x3"x⅝" Tie plates

2"x½" Plates

2"x½" Plates

28'-0"

1'-9" 1'-7"

Diaphragm:
4 ls-4"x3½"x⅜"
Plate-8"x⅜"

Bent plate-36"x⅜"x17'-0"
(On South end only)

22'-0"

1'-3" Cl hole for 4½" dem. pin

2-12"ls-25"
⅝" Tie plates

2-12"ls-35"
⅞" Tie plates

2-Splice plates 9"x⅜"

2-Splice plates 9"x⅜"

156'-0" Ctrs End pins
5 Panels @ 19'-8"=157'-4"

Notch Flange of floor beam

2 Floor Stringers

L-3½"x2½"x⅝"

L-3"x2½"x⅝"

⅜" Plate (bent)

Lower Laterals

L-4"x4"x⅜"

L-4"x4"x⅜"

L-3½"x3½"x⅜"

L-3½"x3½"x⅜"

L-3"x3"x⅝"

L-3"x3"x⅝"

L-3"x2½"x⅝"

L-3"x2½"x⅝"

Floor Beams-24-WT-84#
Floor Stringers-15"I-42.9#

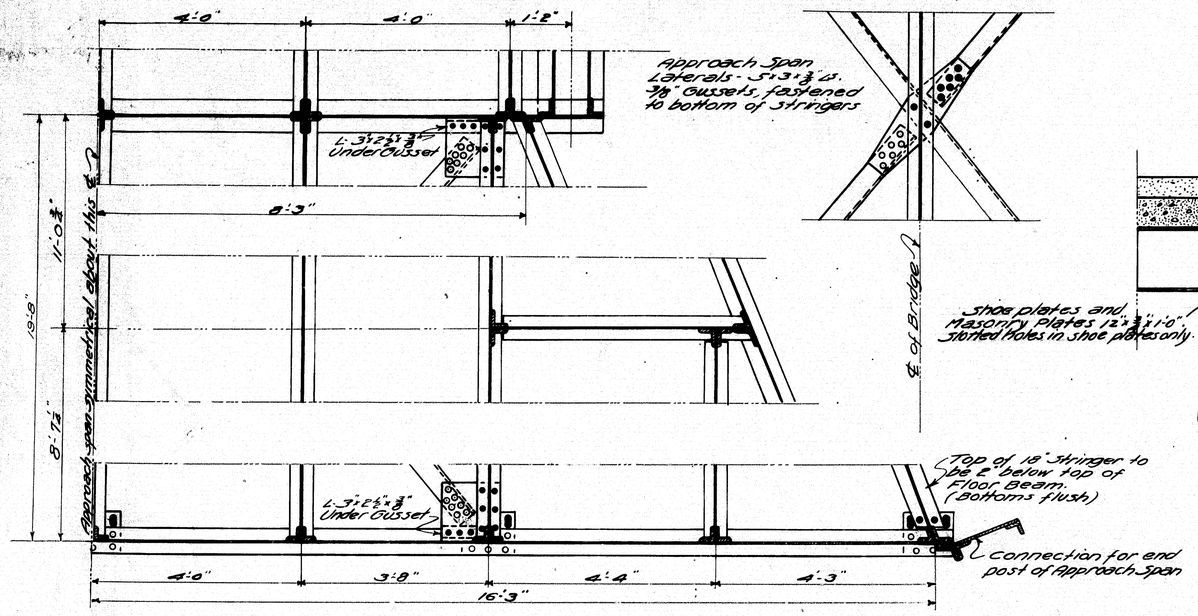
Main lateral gussets-⅜"
Intersection gussets ⅝"

Note "Details shown are suggestive of those to be used in the preparation of shop detail plans.
All details are to be prepared in accordance with Maine Highway Commission, Bridge Division Specifications for Metal Structures.

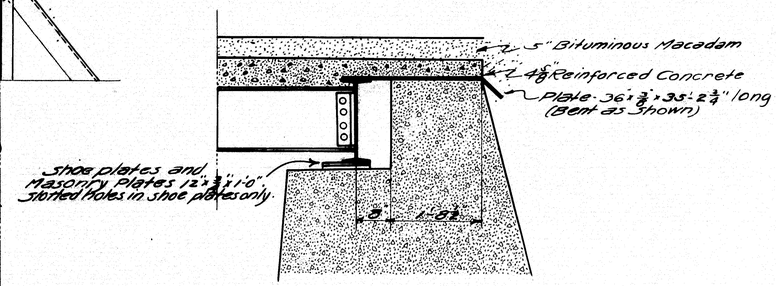
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BR
IN
GILE
March
Sheet "2 of 3

Drawn by C.W.R.
Checked by W.H.H.

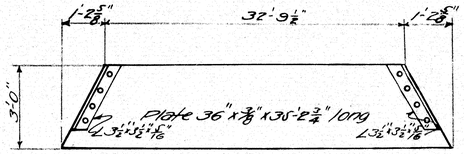
0 1 2 3 4 5 INCHES



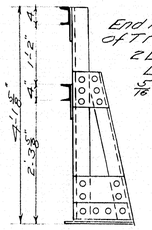
APPROACH SPAN

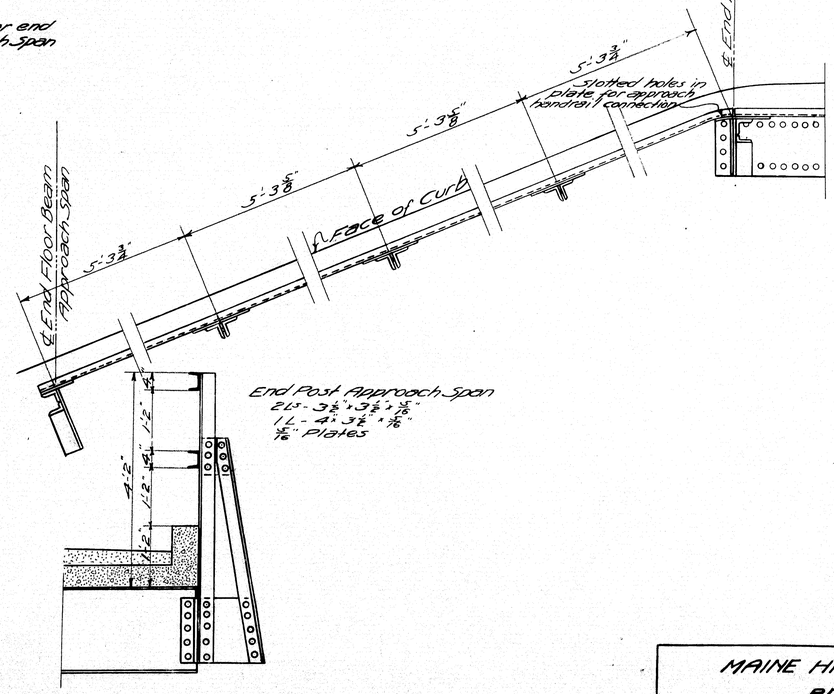


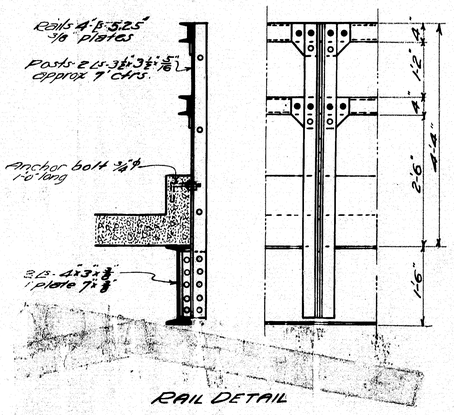
DETAIL AT NORTH ABUT.



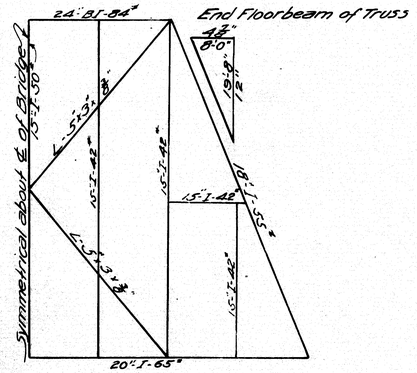
Detail of Plate over Backwall of North Abut.







RAIL DETAIL



APPROACH SPAN DIAGRAM

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRIDGE
IN THE TOWN OF
GILEAD, OXFORD COUNTY

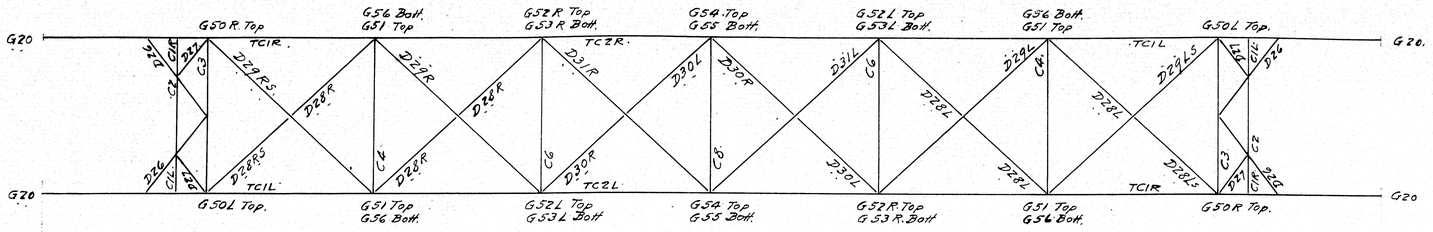
Scale: 3/4"=1'-0" March 10, 1922
Sheet #3 of 3

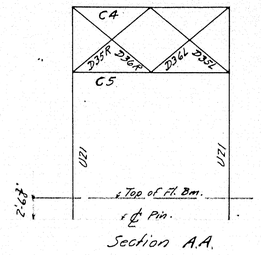
3-101

0 1 2 3 4 5 INCHES

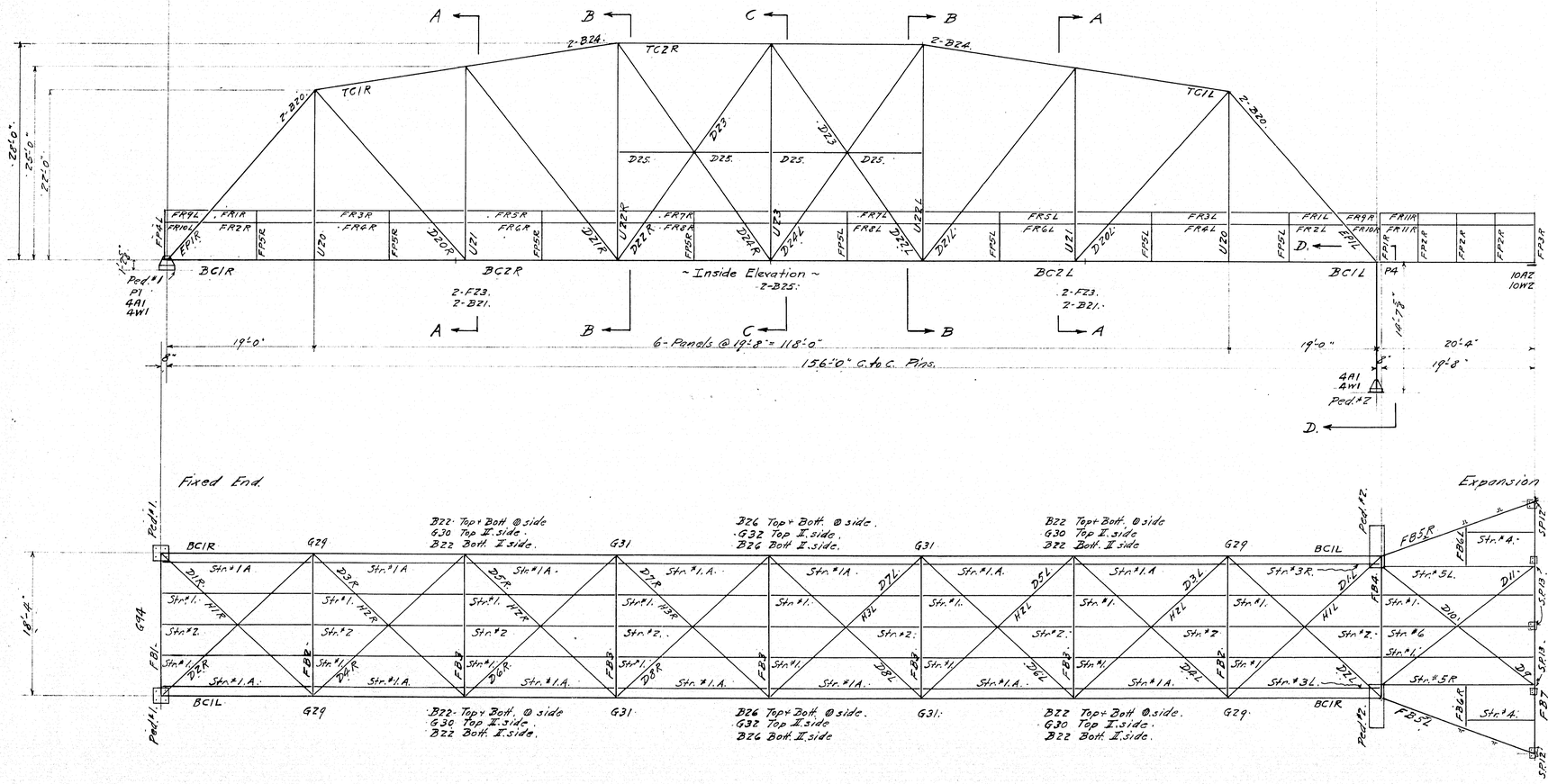
List of Drawings.

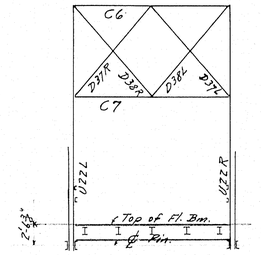
Sh*1. Erection Plan.
" 2 Truss.
" 3 Truss
" 4 Beams & Bott. Chord Bracing.
" 5 Fence, Beam & Gussets.
" 6 Portal & Pier Bent.
" 7 Pedestals, Pins & Anchors.
" 8 Sway Bracing & Top Chord Rks.
" 9 Top Chord Bracing.



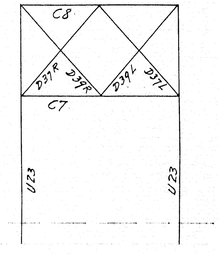


Section A.A.

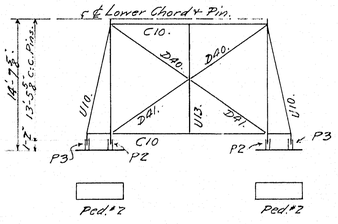




Section B.B.



Section C.C.



Section D.D.

Note to Erector:-
Thoroughly paint the top surface of the bridge seat bearing, and place upon it three layers of 12oz. to 14oz. duck swabbed freely with red lead paint between each layer, and place the pedestal in position while the paint is plastic.

Fixed End = 6 sheets duck 26" square Mark SP50
Pier Bent = 6 " " 26" × 5'-8" " SP51
Exp. End { 6 " " 15" × 1'-5" " SP52
9 " " 15" × 1'-2" " SP53

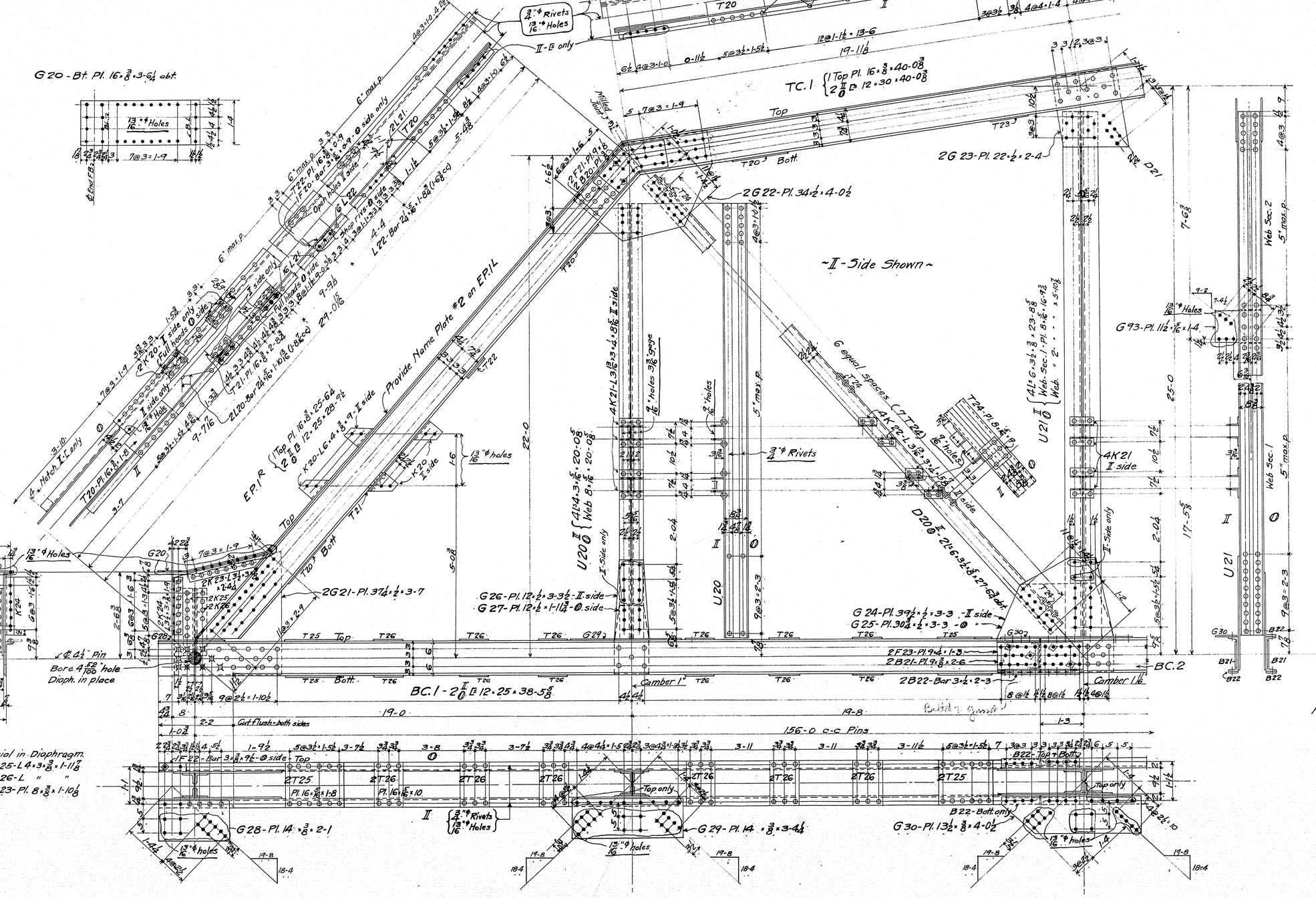
THE BOSTON BRIDGE WORKS, Inc.
BOSTON, MASS.
NAME Androscoggin River Bridge
Gilead Maine
DETAILS U1 Erection Plan
RIVETS EX. NOTED DRAWN BY E.W.
HOLES EX. NOTED CHE'K'D BY
SCALE 1/8" DATE 6-27-22 APP'D BY
Job 4986 Sh. 1.

3-102

0 1 2 3 4 5 INCHES

Note to Templet Maker:-
Work shs. #2 & 3 together.

G20 - Bt. Pl. 16 × 7/8 × 3-6 1/4 obt.



Shipping List - Shs. #2 & #3.

2 - EP I R
2 - EP I L
2 - TC I R
2 - " I L
1 - " 2R
1 - " 2L
2 - BC I R
2 - " I L
2 - " 2 R
2 - " 2 L
4 - U 20
4 - U 21
2 - U 22 R
2 - U 22 L
2 - U 23
2 - D 20 R
2 - D 20 L
2 - D 21 R
2 - D 21 L
2 - D 22 R
2 - D 22 L
4 - D 23
2 - D 24 R
2 - D 24 L
8 - D 25
4 - G 20
4 - G 29
4 - G 30
4 - G 31
2 - G 32
8 - B 20
8 - B 21
12 - B 22
8 - B 24
4 - B 25
6 - B 26
8 - F 23
2 - G 35
2 - G 36

Note:
Rivets 3/4" ϕ + Holes 13/16" ϕ in Top + Bott. flanges of Top + Bott. Chords and E.P. I, and as noted.

Name: Androscoggin River Bridge
Gilead, Maine.
Truss
RIVETS 7/8" ϕ — E.M.M.
HOLES 15/16" ϕ — Burnett
SCALE 1/2" = 1-0 — DATE 6-27-22 — APPD.
Job 4986 Sh. 2.

3-103

0 1 2 3 4 5 INCHES

~ II - Side Shown ~

Note to Templet Maker:-
Work this "2 + 3 together.

THE BOSTON BRIDGE WORKS INC.
BOSTON, MASS.

NAME Androscoggin River Bridge
Gilead, Maine

DETAILS OF Truss

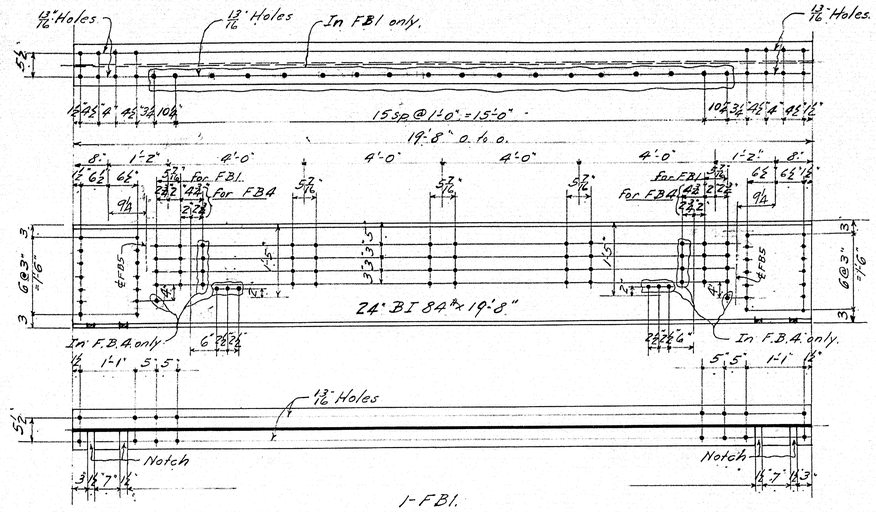
RIVETS 7/8" EX. NOTED. DRAWN BY E.M.M.

HOLES 13/16" EX. NOTED. CHK'D BY Brunch

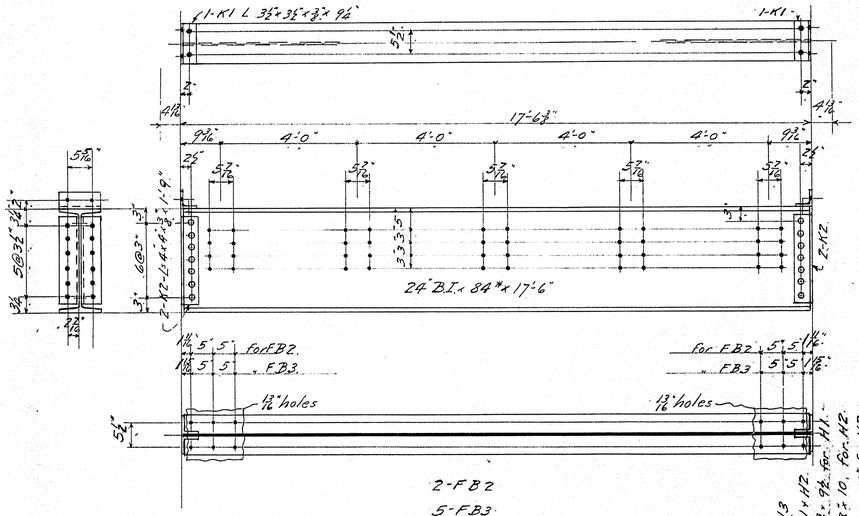
SCALE 1/4 + 3/4 = 1:0 DATE 6-27-22 APP'D BY

JOB 4986 SH. 3.1

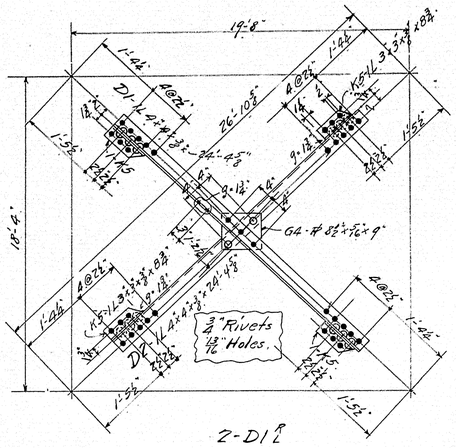
3-104



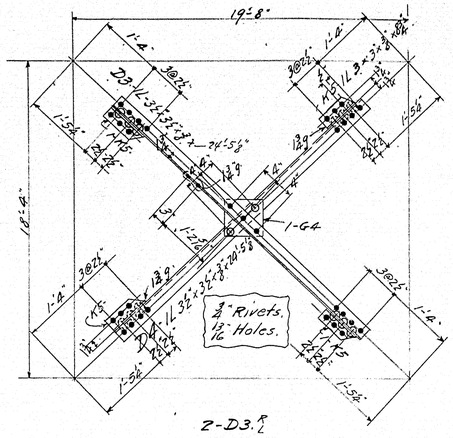
1-FB1.
1-FB4.



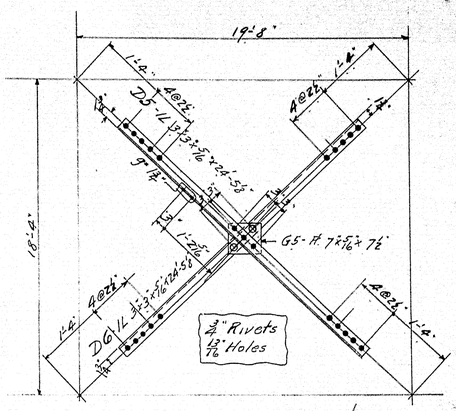
2-FB2
5-FB3
14-K1



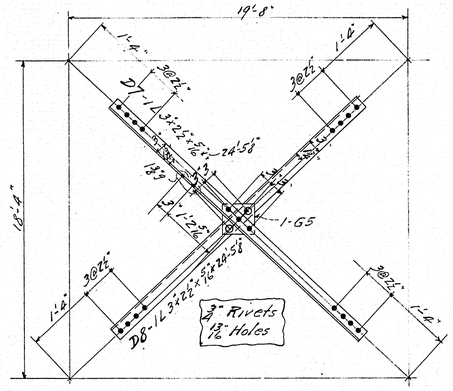
2-D1
2-D2



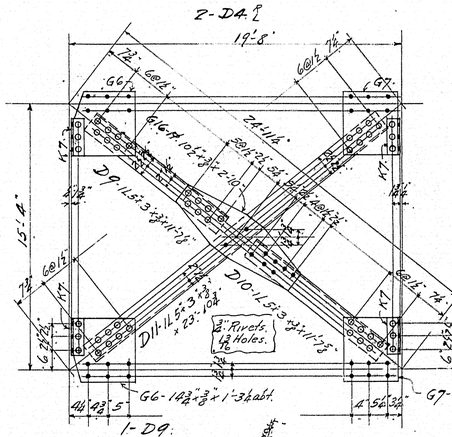
2-D3.
2-D4.



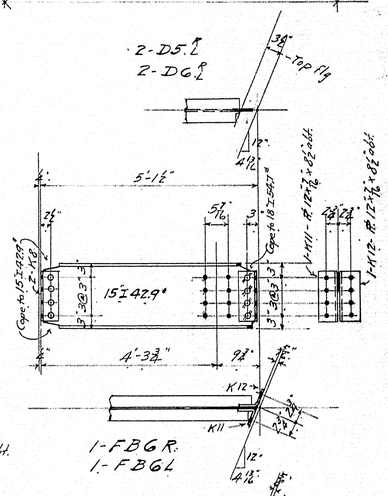
2-D5.
2-D6.



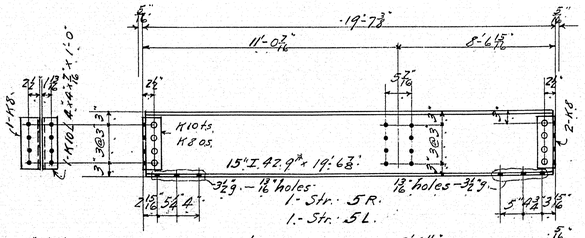
2-D7.
2-D8.

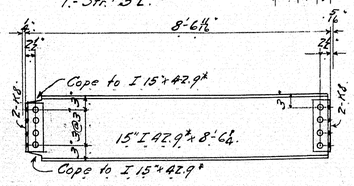


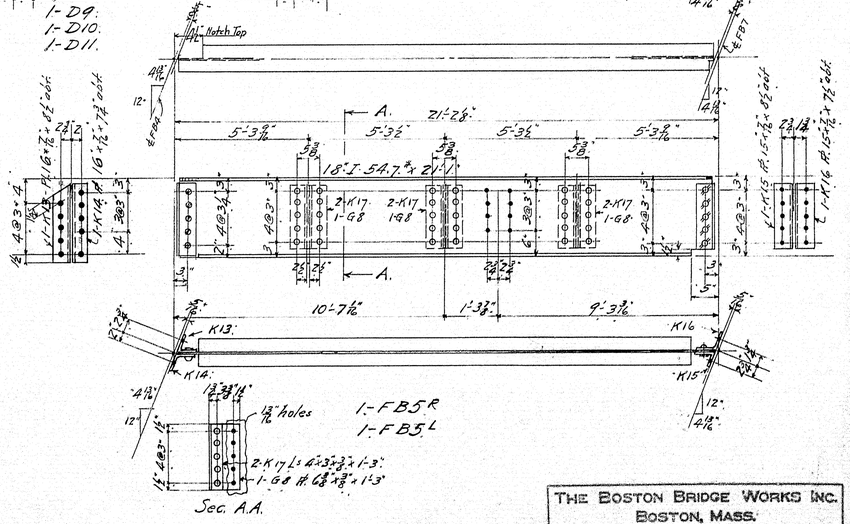
1-D9.
1-D10.
1-D11.

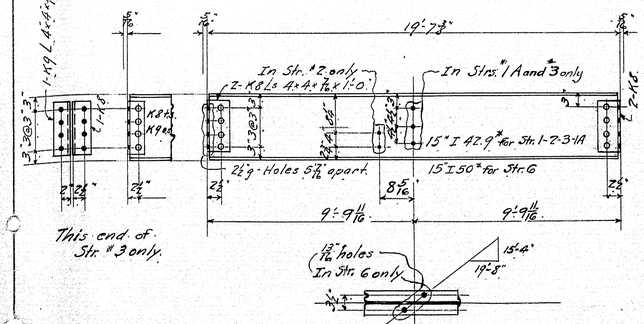


1-FB6R.
1-FB6L

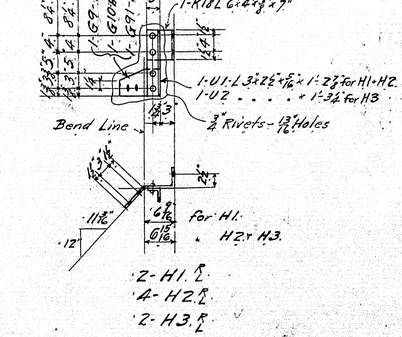








1-Str. #3R
1- " #3L



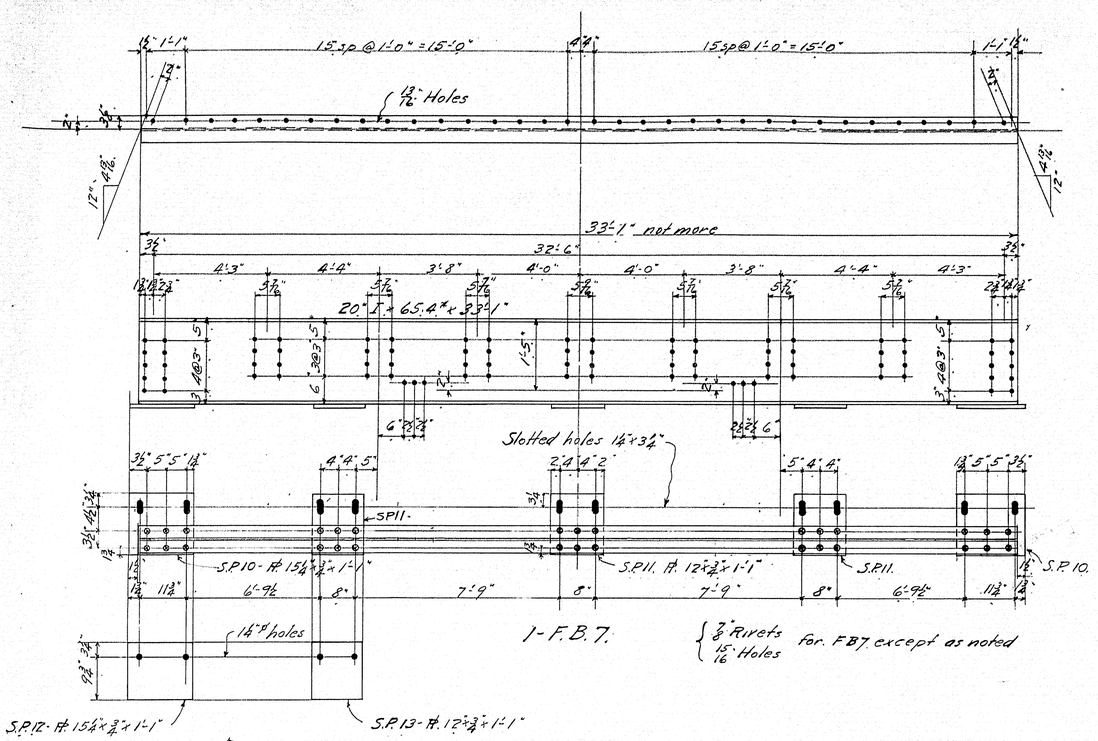
2-H1.
4-H2.
2-H3.

8-Str. 2.
18- " 1.
14- " 1A.
1- " 6.

0 1 2 3 4 5 INCHES

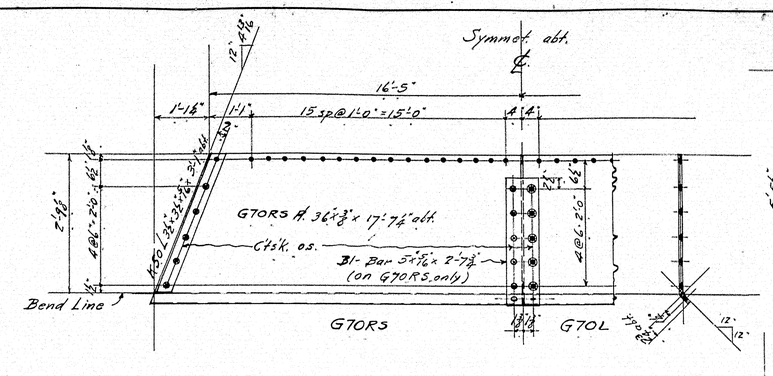
THE BOSTON BRIDGE WORKS INC.
BOSTON, MASS.

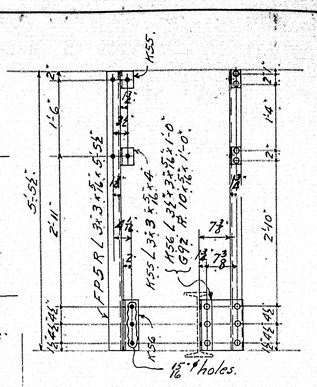
NAME Androscoggin River Bridge
Gilead Maine
DETAILS OF Beams - Bracing - Hangers.
RIVETS ⅞" EN. NOTED. DRAWN BY C.H.
HOLES 13/16" EN. NOTED. CHK'D BY
SCALE ¾" = 1'-0" DATE 6-27-22 APP'D BY
JOB 4986. SH. 4.



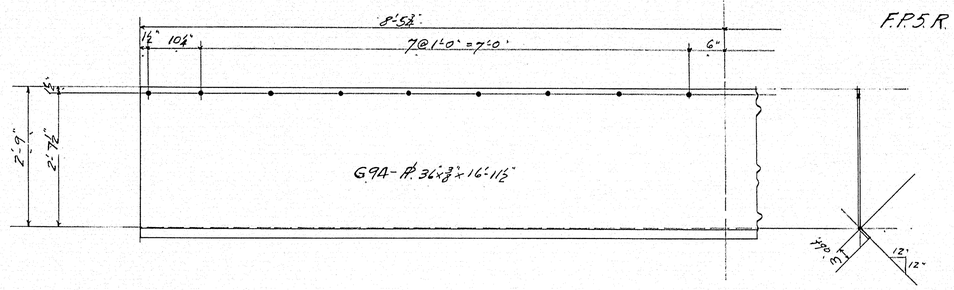
1-F.B.7.

{ 7/8" Rivets / 15/16" Holes } for FB7 except as noted





F.P.5.R.



Shipping List.

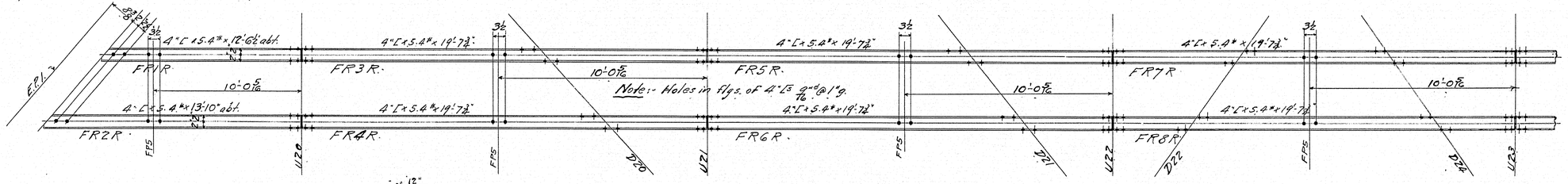
1-FB7

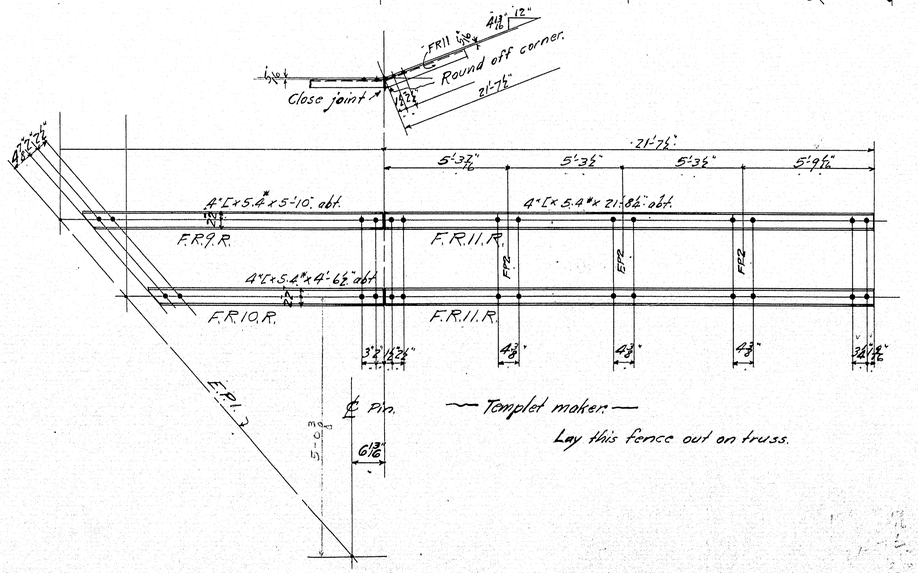
1-G70RS
1-G70L
1-G94

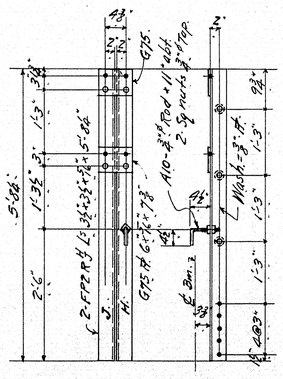
2-FR1R
2-" 1L
2-" 2R
2-" 2L
2-" 3R
2-" 3L
2-" 4R
2-" 4L
2-" 5R
2-" 5L
2-" 6R
2-" 6L
2-" 7R
2-" 7L
2-" 8R
2-" 8L
2-" 9R
2-" 9L
2-" 10R
2-" 10L
2-" 11R
2-" 11L

1-FP1R
1-" 1L
3-" 2R
3-" 2L
1-" 3R
1-" 3L
1-" 4R
1-" 4L
8-" 5R
8-" 5L

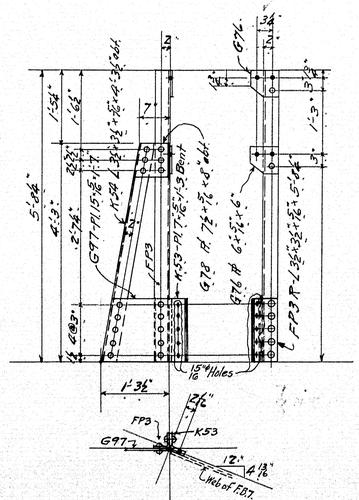
2-S.P.12
3-" 13



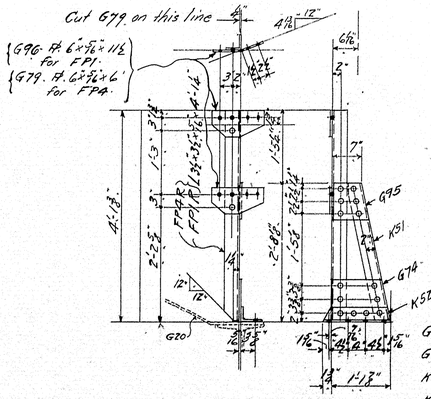




F.P.2.R.



F.P.3.R.



G95 - PL 7½" x ⅝" x 8" obt.
G74 - PL 9¾" x ⅝" x 1'-1½" obt.
K51 L 3½" x 3½" x ⅝" x 2'-8" obt.
K52 L 5" x 3½" x ⅝" x 1'-3⅜"

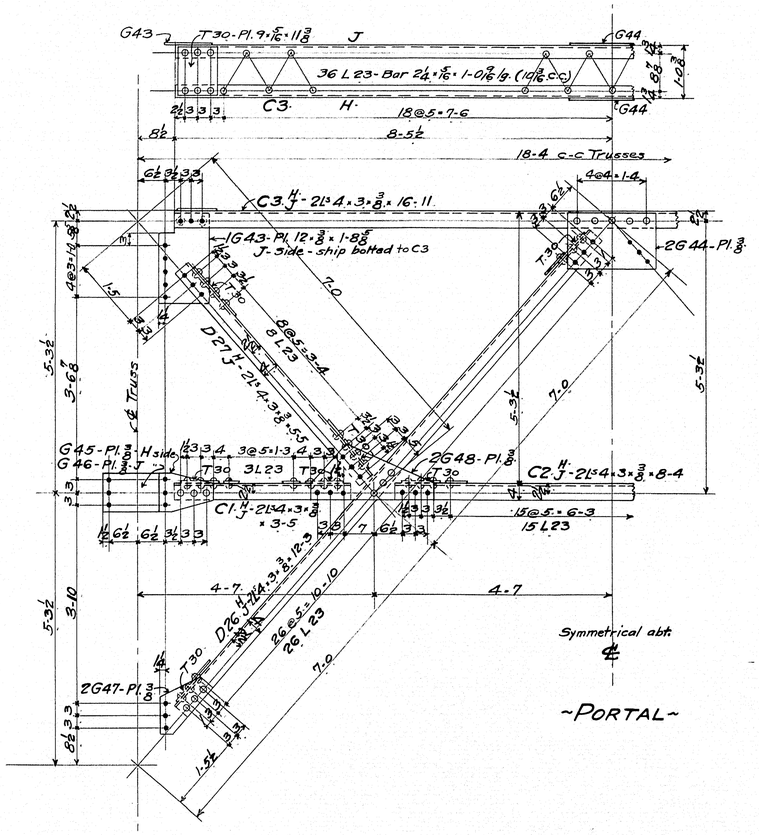
F.P.1.R.
F.P.4.R.

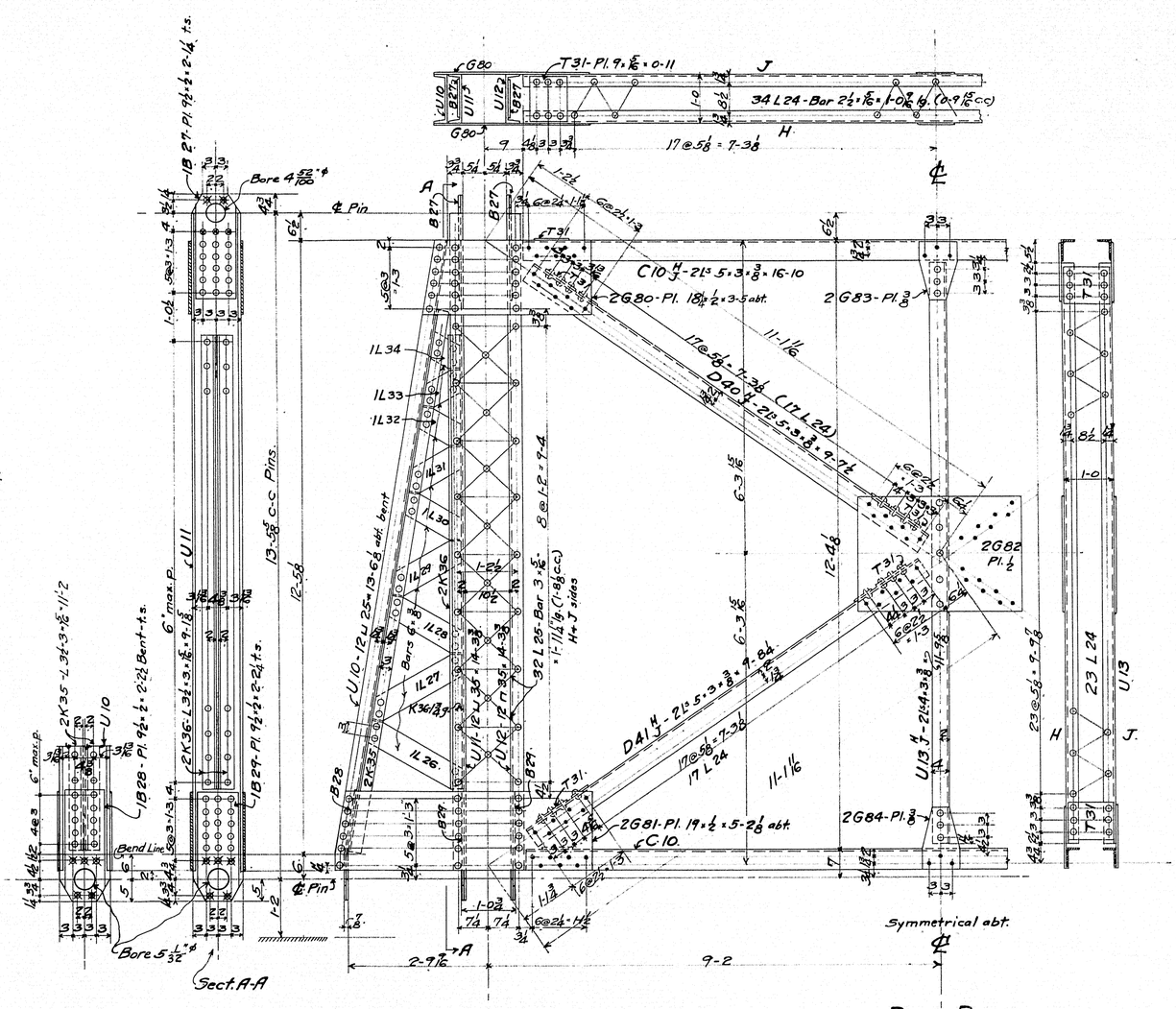
THE BOSTON BRIDGE WORKS, Inc.
BOSTON, MASS.

NAME Androscoggin River Bridge.
Gilead, Maine.
DETAILS OF Beam-Gussets-Fence.
RIVETS ⅞" EX. NOTED DRAWN BY C.H.
HOLES 15/16" EX. NOTED CHE'K'D BY
SCALE 1"=1'-0" DATE 6-27-22 APP'D BY
Job 4986. Sh. 5.

3-106

0 1 2 3 4 5 INCHES





~Shipping List~

~Portal~	~Pier Bent~
2 C1 R	2 C10
2 C1 L	2 D40
2 C2	2 D41
2 C3	2 U10
4 D26	1 U13
4 D27	

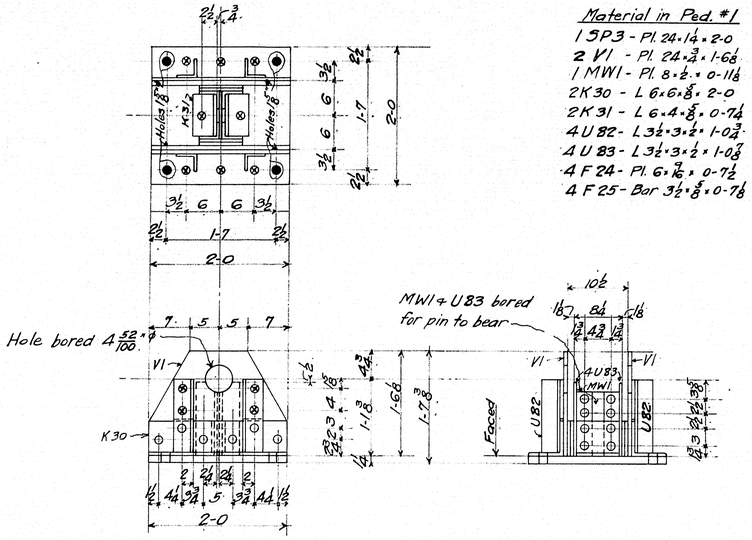
THE [illegible] BRIDGE WORKS, Inc.
BOSTON, MASS.

NAME Androscoggin River Bridge.....
Gilead, Maine.

DETAILS OF Portal and Pier Bent.....
RIVETS 3/4" EX. NOTED DRAWN BY E.M.M.
HOLES 13/16" EX. NOTED CHEK'D BY [illegible]
SCALE 3/4"=1'-0" DATE 6-27-22 APP'D BY.....
Job 4986 Sh. 6.

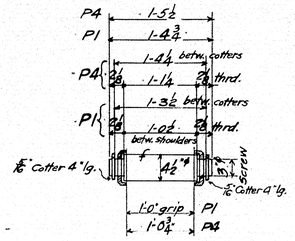
3-107

0 1 2 3 4 5 INCHES

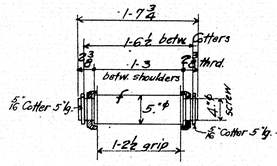


2 - Ped. #1
Fixed End.

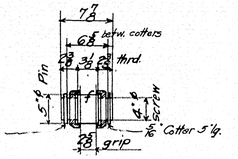
Material in Ped. #1
1 SP3 - Pl. 24 × 1¼ × 2-0
2 V1 - Pl. 24 × ¾ × 1-6½
1 MW1 - Pl. 8 × ½ × 0-11⅛
2 K30 - L 6 × 6 × ⅞ × 2-0
2 K31 - L 6 × 4 × ⅝ × 0-7½
4 U82 - L 3½ × 3 × ½ × 1-0⅜
4 U83 - L 3½ × 3 × ½ × 1-0⅜
4 F24 - Pl. 6 × 7/16 × 0-7½
4 F25 - Bar 3½ × ⅞ × 0-7⅛



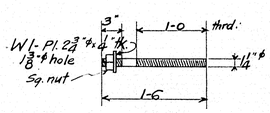
2 P1 - Pin 4½" ϕ × 1-4¾
2 P4 - Pin 4½" ϕ × 1-5½
8 Pin Nuts - Cstg. 2317.



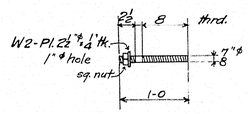
2 P2 - Pin 5" ϕ × 1-7¾ lg.
4 Pin Nuts - Cstg. #1922



2 P3 - Pin 5" ϕ × 0-7⅞ lg.
4 Pin Nuts - Cstg. #1922

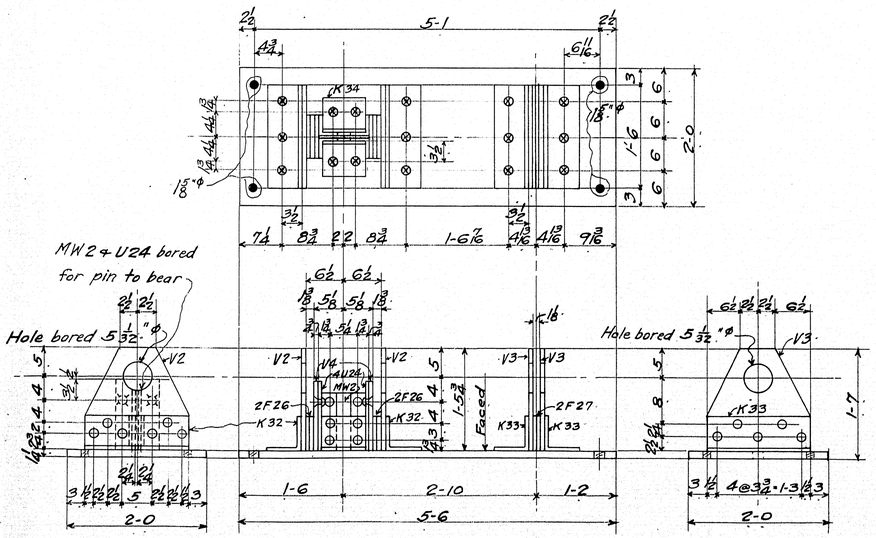


16 - A1 - Rod 1¼" ϕ × 1-6
16 - W1.
(Pedestals)



10 A2 - Rod ⅞" ϕ × 1-0
10 W2

(Expansion End. FB7)



2 - Ped. #2.
Pier Bent.

Material in Ped. #2
1 SP4 - Pl. 24 × 1¼ × 5-6
2 V2 - Pl. 18 × ¾ × 1-5¾
2 V3 - Pl. 18 × ¾ × 1-5¾
2 V4 - Pl. 7½ × ¾ × 1-0¼
1 MW2 - Pl. 8½ × ½ × 0-10¼
2 K32 - L 6 × 6 × ⅞ × 1-6
2 K33 - L 6 × 6 × ⅞ × 1-6
2 K34 - L 6 × 6 × ⅞ × 0-7¾
4 U24 - L 3½ × 3 × ½ × 1-0¼
4 F26 - Pl. 6 × 11/16 × 0-7½
2 F27 - Pl. 6 × 7/16 × 1-6

THE BOSTON BRIDGE WORKS, Inc.
BOSTON, MASS.
Androscoggin River Bridge
Gilead, Maine
DETAILS OF Pedestals, Pins & Anchors
RIVETS ¾" ϕ EX. NOTED DRAWN BY E.M.M.
HOLES 13/16" ϕ EX. NOTED CHECKED BY
SCALE 1" = 1-0 DATE 6-27-22 APP'D BY
Job 4986 Sh. 7 of 9

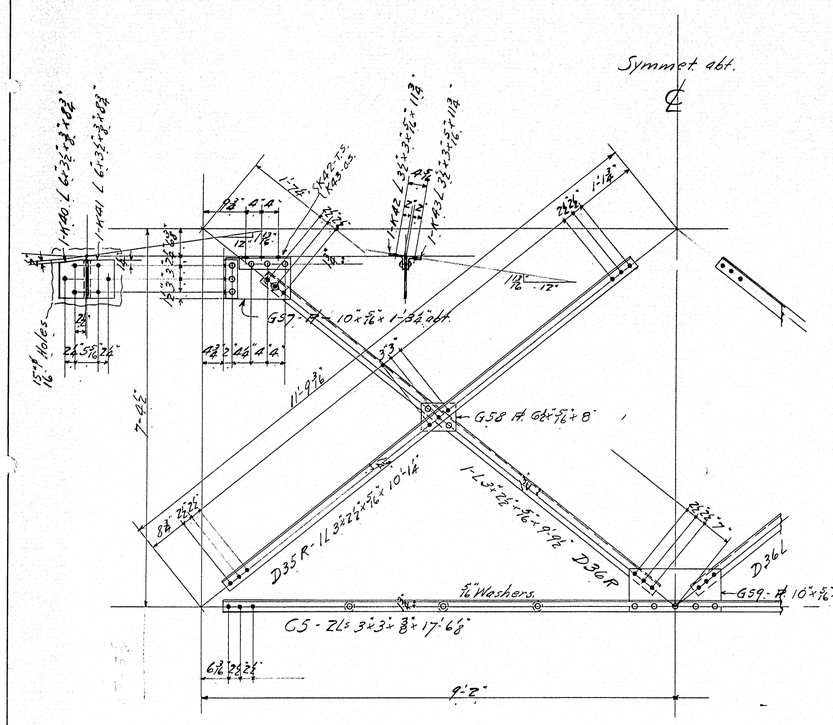
3-108

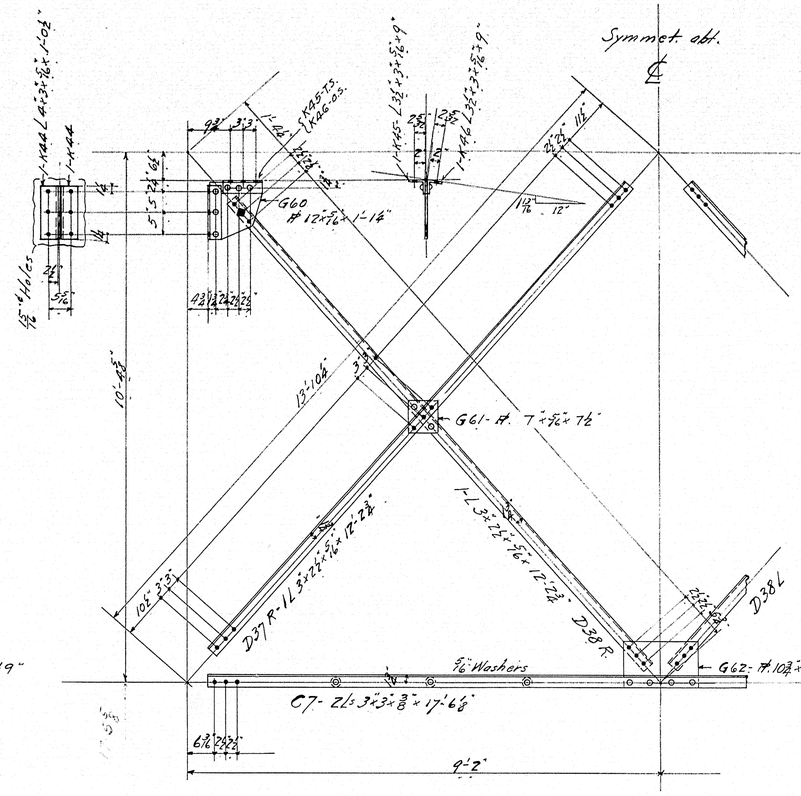
0 1 2 3 4 5 INCHES

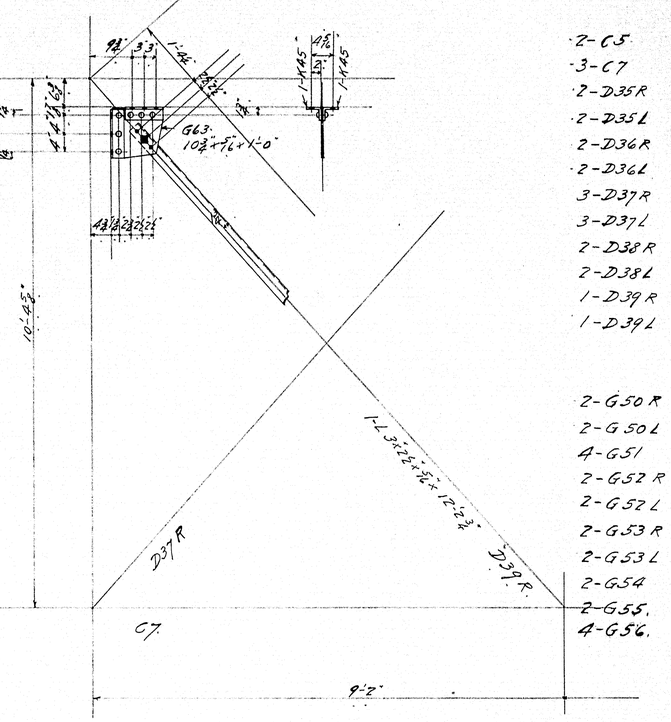
Shipping List.

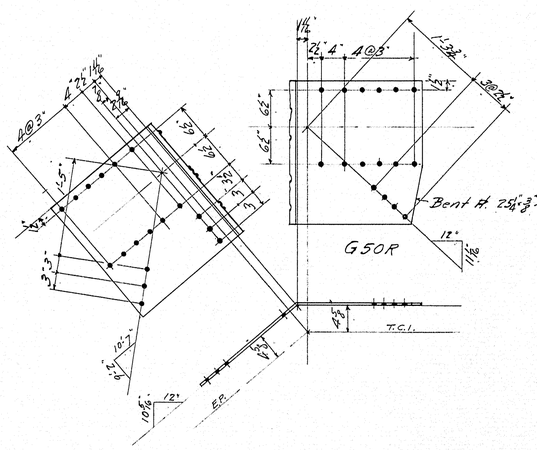
- 2-C5
- 3-C7
- 2-D35R
- 2-D35L
- 2-D36R
- 2-D36L
- 3-D37R
- 3-D37L
- 2-D38R
- 2-D38L
- 1-D39R
- 1-D39L

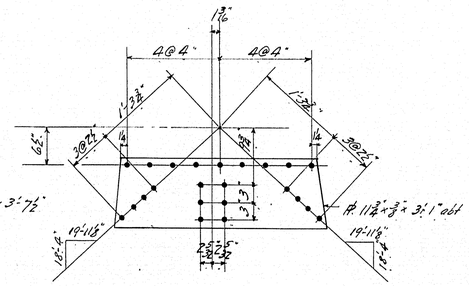
- 2-G50R
- 2-G50L
- 4-G51
- 2-G52R
- 2-G52L
- 2-G53R
- 2-G53L
- 2-G54
- 2-G55.
- 4-G56.

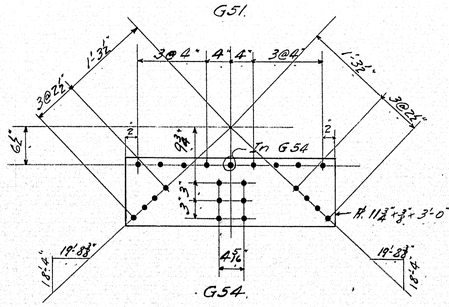


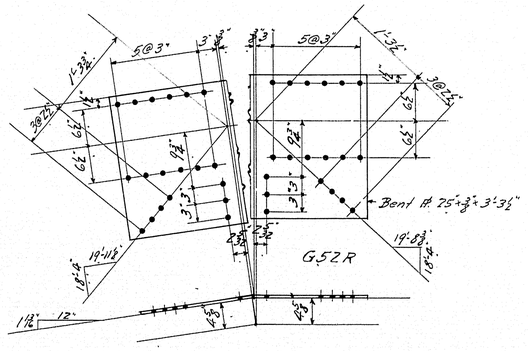


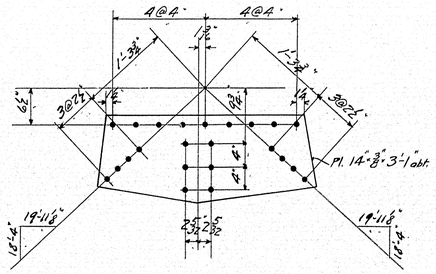


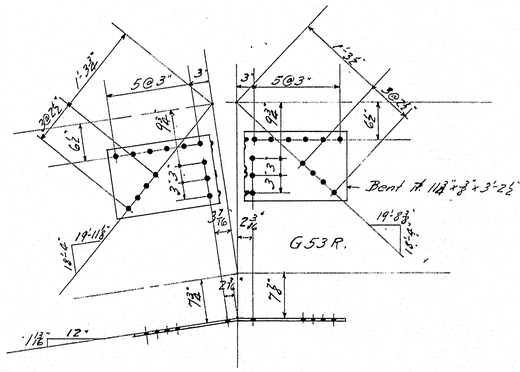










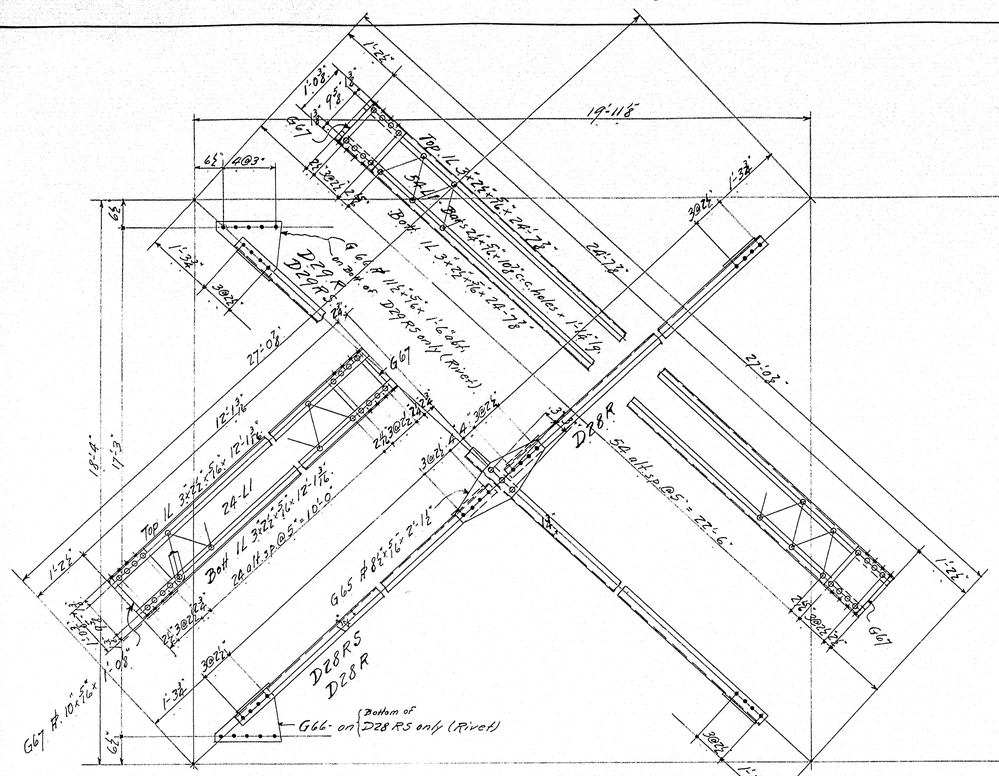


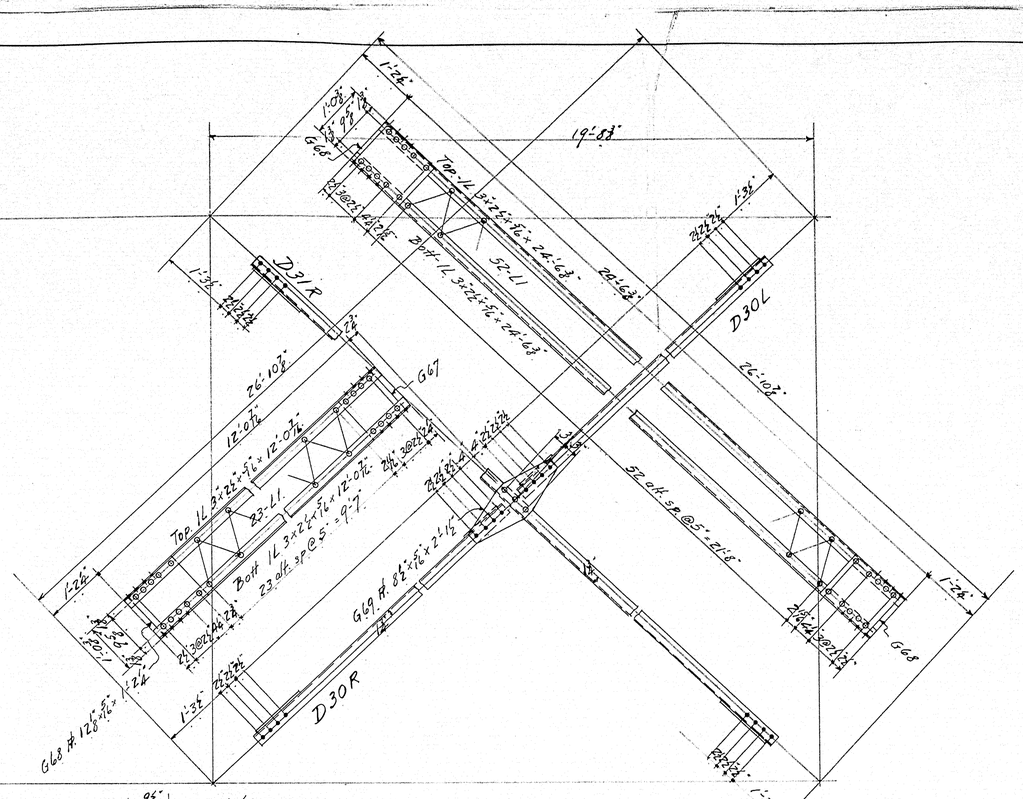
Min. Edge Dist. for ¾" ϕ Rivet = 1¼"
" " " " ⅞" " = 1½" except as noted.

THE BOSTON BRIDGE WORKS, Inc.	
BOSTON, MASS.	
NAME	Androscoggin River Bridge. Gilead, Maine.
DETAILS	Sway Bracing & Plates
RIVETS	¾" EX. NOTED DRAWN BY C.H.
HOLES	13/16" EX. NOTED CHE'K'D BY [illegible]
SCALE	¾"=1'-0" DATE 6-27-22 APP'D BY
Job	4986 Sh. 8. 19

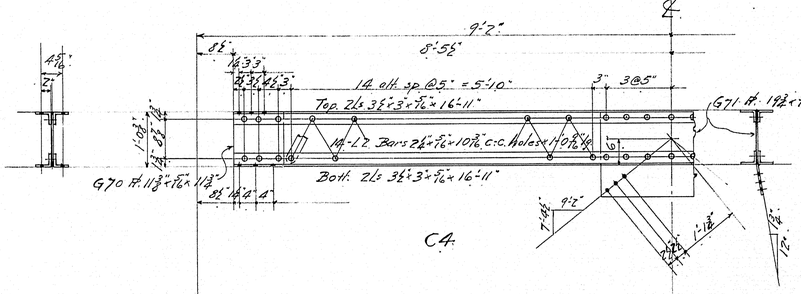
3-109

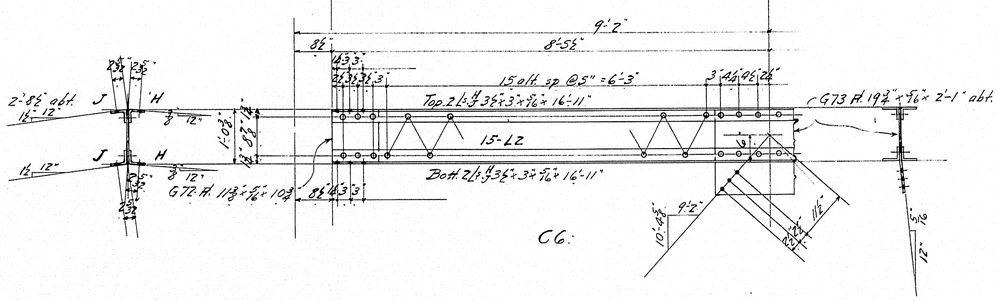
0 1 2 3 4 5 INCHES

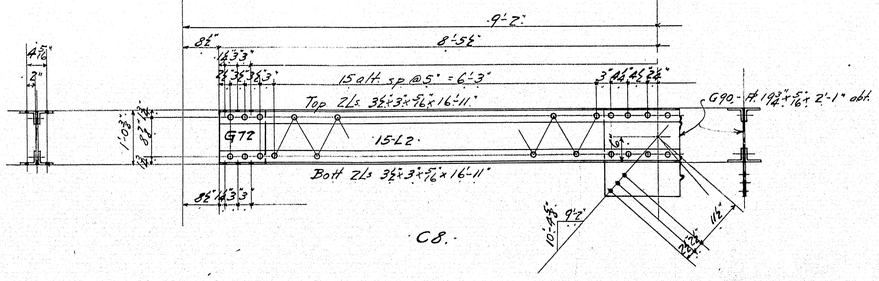












Shipping List.

- 2 - C4 as shown
- 2 - C6 - - -
- 1 - C8
- 1 - D28RS
- 3 - D28R
- 1 - D28LS
- 3 - D28L
- 1 - D29RS
- 1 - D29R
- 1 - D29LS
- 1 - D29L
- 2 - D30R
- 2 - D30L
- 1 - D31R
- 1 - D31L

Min. Edge Dist. for ¾" ø Rivet = 1½".

THE BOSTON BRIDGE WORKS, Inc.
BOSTON, MASS.
NAME Androscoggin River Bridge. Gilead, Maine.
DETAILS OF Top Bracing
RIVETS ¾" EX. NOTED DRAWN BY G.M.
HOLES 13/16" EX. NOTED CHE'K'D BY
SCALE 3"=1'-0" DATE 6-27-22 APP'D BY
Job 4986 Sh 9.

3-110

0 1 2 3 4 5 INCHES

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	1	14

SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1989 and Interim Specifications 1990.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of October 1990.

DESIGN LOADING

LIVE LOAD: HS25 STRESS CYCLES: 100,000 (500,000)

MATERIALS

CONCRETE: CLASS A
REINFORCING STEEL: ASTM A615 GRADE 60
STRUCTURAL STEEL: Existing Structural Steel and Rivets ..... ASTM A7-21
New Structural Steel ..... ASTM A36
New High Strength Bolts ..... ASTM A325, TYPE 1

BASIC DESIGN STRESSES

CONCRETE: f'c = 3,000 psi
REINFORCING STEEL: fy = 60,000 psi
STRUCTURAL STEEL: ASTM A7-21 Structural Steel ..... Fy = 30,000 psi
ASTM A7-21 Rivets ..... ΦFv = 13,500 psi
ASTM A36 ..... Fy = 36,000 psi
ASTM A325 ..... ΦFv = 28,000 psi

HYDRAULIC DATA

Not Required.

TRAFFIC DATA

AADT 1990	220
AADT 2010	310
DHV	40
T (%)	8
D (%)	60
18 Kips	8

SCOPE OF WORK

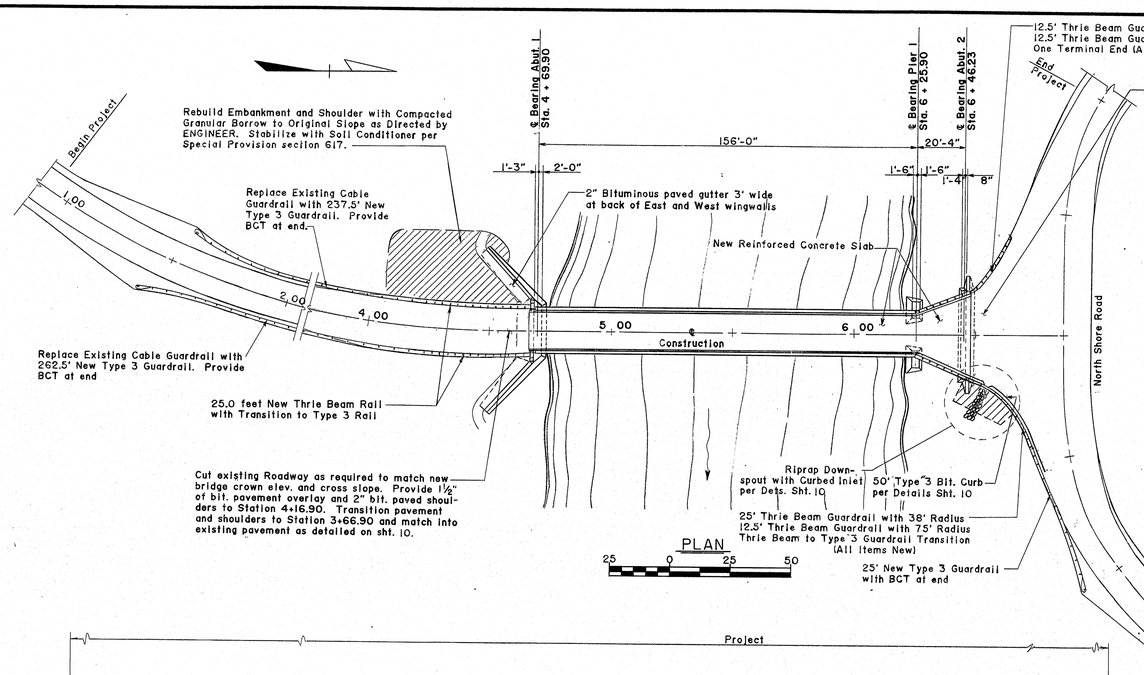
Work for this project includes detouring of traffic; removal of existing bridge deck; repair or replacement of bent and cracked steel; cleaning of existing structural steel; replacement of some rivets with bolts; installation of shear studs, bridge drains, and reinforced concrete deck; painting all steel; replacement of approach span guardrails with thrie beam guardrails; replacement of approach guardrails; moderate side slope stablization; approach repaving.

NOTES

1. All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of October 1990) and supplements thereto, except as modified on the plans and in the Special Provisions.
2. Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
3. All dimensions shown of the plans are based on original plans for the existing bridge. The Contractor is responsible for verifying the dimensions in the field and making the necessary adjustments for proper fit.
4. The Contractor is responsible for verifying all lengths and radii of approach railing prior to fabrication.

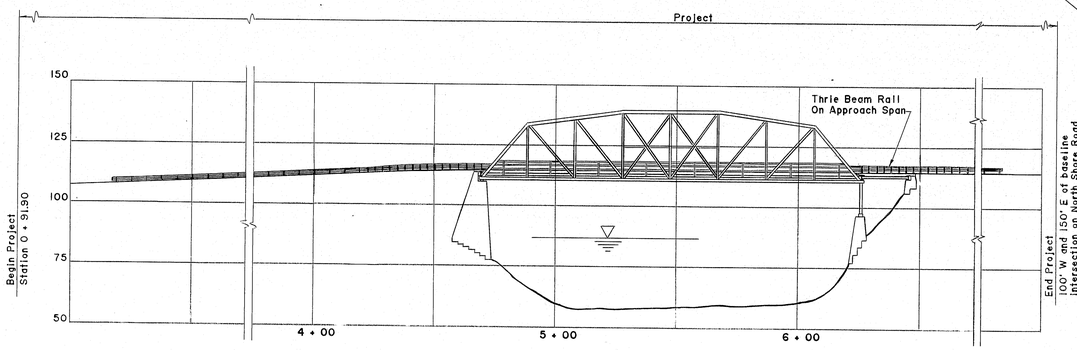
PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY 91
	CHECKED	J.K.M.	JULY 91
	REVISIONS	W. ATKINS	JULY 91
	FIELD CHANGES		

BRIDGING 457101

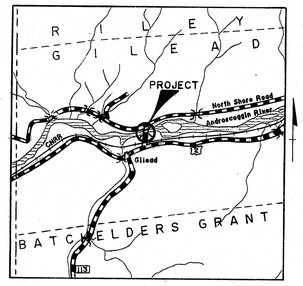


PLAN

25 0 25 50



PROFILE



LOCATION MAP

DRAWING LIST

SHEET NO.	DESCRIPTION
1	GENERAL PLAN AND PROFILE
2	ESTIMATED QUANTITIES, GENERAL CONSTRUCTION NOTES
3	STRUCTURAL STEEL FRAMING PLANS AND ELEVATIONS
4	PORTAL REPAIR DETAILS
5	DECK REINFORCEMENT PLAN AND SECTIONS
6	BRIDGE GUARDRAIL LAYOUT PLAN AND ELEVATION SECTION
7	BRIDGE GUARDRAIL DETAILS
8	BRIDGE GUARDRAIL DETAILS
9	REINFORCING STEEL SCHEDULE
10	CURB, BRIDGE DRAIN, RIPRAP DOWNSPOUT AND SHEAR CONNECTOR DETAILS
11 HD-6 JUNE 1990	TYPE 3 GUARDRAIL, BREAKAWAY CABLE TERMINAL STANDARD DETAILS
~~12~~	~~THRIE BEAM GUARDRAIL STANDARD DETAILS~~
~~13~~	~~THRIE BEAM TO TYPE 3 GUARDRAIL TRANSITION STANDARD DETAILS~~
~~14-16~~ 12-14	TRAFFIC CONTROL STANDARD DETAILS

AS Built by M. Stone, R 12/19/96

108-136

APPROVED

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISIONER — DATE 9-9-91

CHIEF ENGINEER — 9-9-91

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

423

GENERAL PLAN & PROFILE

SHEET 1 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	2	14

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVING EXISTING SUPERSTRUCTURE, PROP. OF CONTRACTOR (95 CY)	1	LS
202.15	REMOVING MANHOLES OR CATCH BASINS	1	EA
202.203	PAVEMENT BUTT JOINTS	204	SY
203.25	GRANULAR BORROW	120	CY
203.41	REHAB. EXISTING SHOULDER, PLAN QUANTITY	330	SY
409.15	BITUMINOUS TACK COAT, APPLIED	52	GAL
460.22	HOT BITUMINOUS PAVEMENT	90	T
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL		
	BRIDGES (90 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	25700	LB
503.13	REINFORCING STEEL, PLACING	25700	LB
504.70	STRUCTURAL STEEL, FABRICATED AND DELIVERED (1850 LB)	1	LS
504.71	STRUCTURAL STEEL, ERECTION (1850 LB)	1	LS
505.08	SHEAR CONNECTORS (1343 EA)	1	LS
506.17	FIELD PREP. EXISTING STRUCTURAL STEEL (240,000 LB)	1	LS
506.172	FIELD PAINT EXISTING STRUCTURAL STEEL (240,000 LB)		
	CODE NO.-ZHP-1	1	LS
506.18	CONTAINMENT AND POLLUTION CONTROL	1	LS
506.19	DISPOSAL OF HAZARDOUS OR TOXIC MATERIAL	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (454 SY)	1	LS
606.363	GUARDRAIL, REMOVE AND DISPOSE	675	LF
606.35	GUARDRAIL DELINEATOR POST	4	EA
606.55	GUARDRAIL TYPE 3-SINGLE RAIL	525	LF
606.65	GUARDRAIL THRIE BEAM-SINGLE RAIL	50	LF
606.66	TERMINAL END THRIE BEAM	1	EA
606.70	TRANSITION SECTION-THRIE BEAM	3	EA
606.72	GUARDRAIL THRIE BEAM-GREATER THAN 15 FOOT RADIUS	63	LF
606.73	GUARDRAIL THRIE BEAM-BRIDGE MOUNTED	75	LF
606.751	WIDEN SHOULDER FOR BREAKAWAY CABLE TERMINAL	3	EA
606.77	BREAKAWAY CABLE TERMINAL	3	EA
609.31	CURB TYPE 3	50	LF
610.09	HAND LAID RIPRAP	5	CY
617.30	COMPOSTED BARK MIX	44	CY
620.58	EROSION CONTROL GEOTEXTILE	24	SY
639.19	FIELD OFFICE TYPE B	1	EA
639.23	TESTING FACILITIES CONCRETE	1	LS
652.31	TYPE I BARRICADE	10	EA
652.312	TYPE III BARRICADE	3	EA
652.33	DRUM	10	EA
652.34	CONE	10	EA
652.35	CONSTRUCTION SIGNS	500	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (1.17 CD)	1	LS
652.37	WARNING LIGHTS	3	GROUP
652.38	FLAGGER	300	MH
656.63	TEMPORARY SILT FENCE	100	LF
659.10	MOBILIZATION	1	LS

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	JKM	JULY 91
CHECKED	W. AKERS	JULY 91
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-45710-1

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. During construction the bridge will be closed to traffic.
3. All embankment material, except as otherwise shown, placed below Elevation 87.00', shall be granular borrow meeting the requirements of subsection 703.19, Material for Underwater Backfill.
4. The exact limits of clearing will be established in the field by the Engineer. Payment for clearing will be incidental to contract items.
5. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. No separate payment will be made for hand raking and the cost will be considered to be incidental to Item 203.39, Preparation of Existing Shoulders.
6. One guardrail delineator post shall be installed at each guardrail end.
7. Breakaway cable terminals shall be installed concurrently with the placement of each section of beam guardrail.
8. Sodded gutters shall be constructed, after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion.
9. Reinforcing steel shall have a minimum cover of 2" unless otherwise noted.
10. Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.
11. The superstructure slab concrete shall be placed in one continuous operation and the concrete shall be kept plastic one complete span behind the span being placed.
12. Protective coating for concrete surfaces shall be applied to the following areas:

    Top of concrete curbs.
    Fascia down to the drip notch.
    Concrete wearing surface.
    Repaired surface at removed newel post locations.

13. Placement of approach railing (offset from centerline of road) shall be directed by the Engineer.
14. Remove all existing guardrail.
15. All existing temporary concrete barrier will remain the property of the Department.
16. Removal of the existing catch basin at the northeast corner of the bridge will be paid for under Item 202.15. Removal of the corrugated outlet pipe will be considered incidental to Item 202.15.
17. All approach pavement removal will be paid for under Item 202.203, Pavement Butt Joints.
18. All existing superstructure concrete shall be removed and paid for under Item 202.10, Removing Existing Superstructure. The following will be included for payment: curbs, wearing surface and reinforcing steel.
19. Preparation of existing shoulders for the installation of new guardrail will be as directed by the Engineer. Payment will be made under the appropriate contract items.

CROSS SECTION SYMBOLS

New Concrete
Existing Concrete
Steel
New Pavement
Existing Pavement

ABBREVIATIONS

BIT. = BITUMINOUS
BCT = BREAKAWAY CABLE TERMINAL
BTWN. = BETWEEN
C/C = CENTER TO CENTER
CONN. = CONNECTION
CONT. = CONTINUOUS
ELEV. = ELEVATION
(E) = EXISTING
INT. = INTERIOR
LONG. = LONGITUDINAL
MIN. = MINIMUM
(N) = NEW
O.C. = ON CENTER
REIN. = REINFORCEMENT
SYM. = SYMMETRICAL
T.O. = TOP OF
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE

108-137

429

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

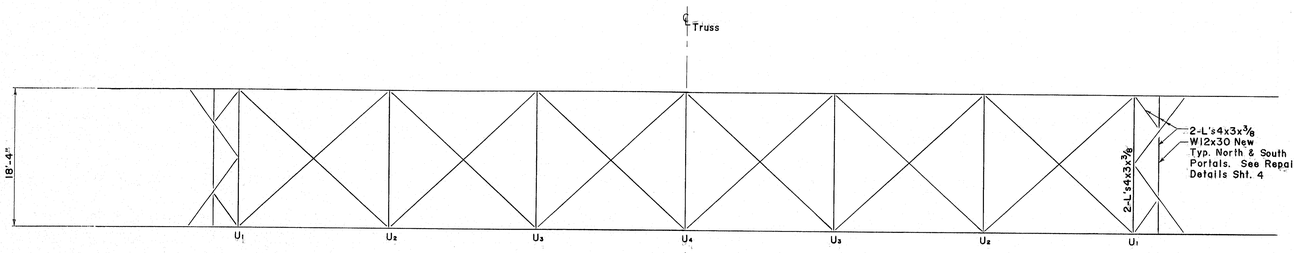
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

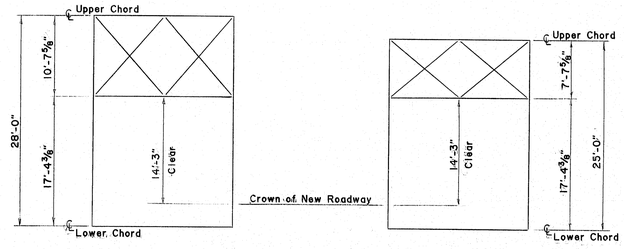
ESTIMATED QUANTITIES
GENERAL CONSTRUCTION NOTES

SHEET 2 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	3	14

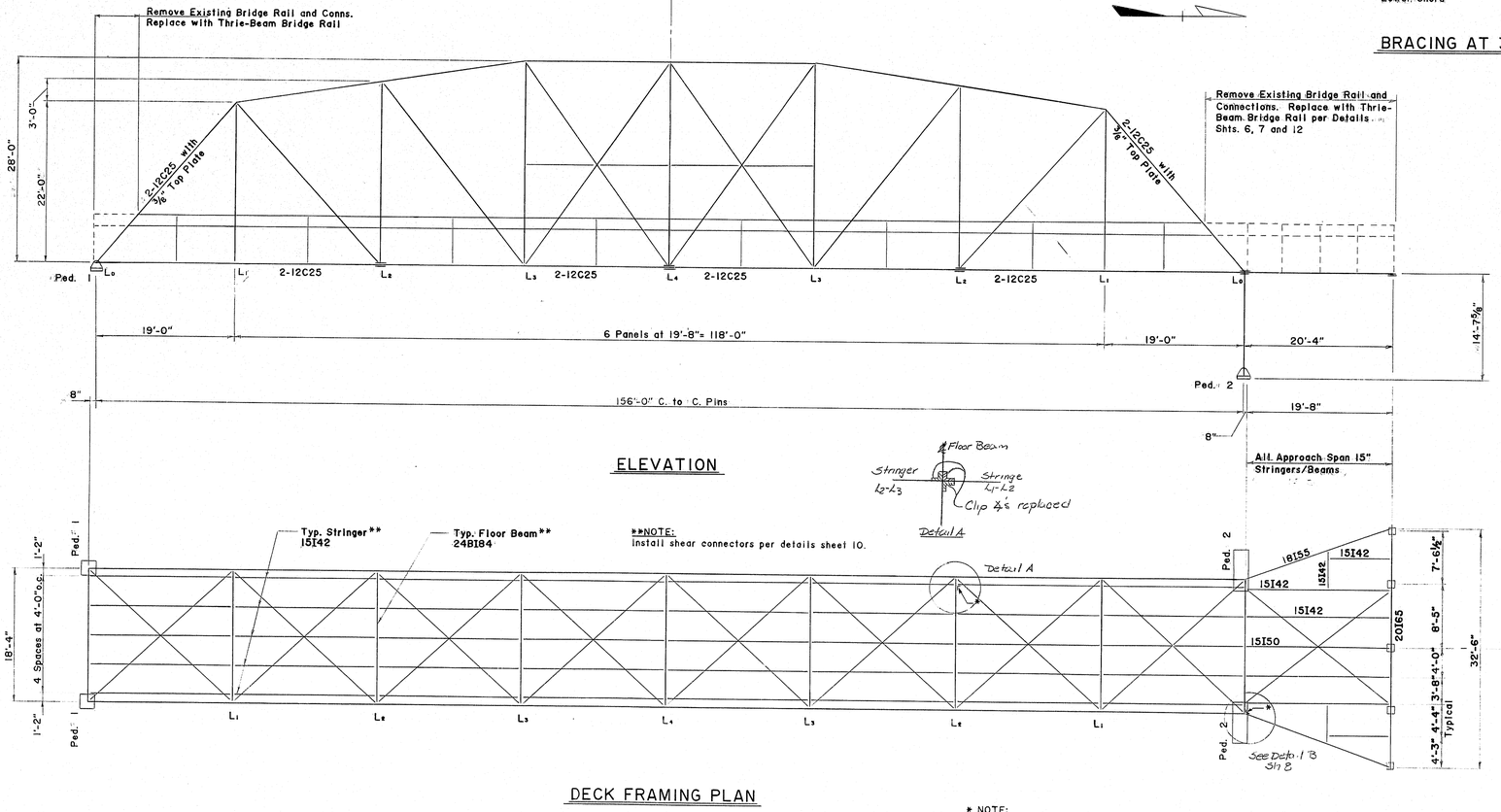


TRUSS FRAMING PLAN



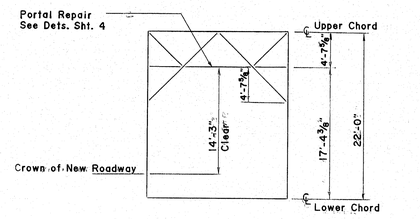
BRACING AT 3 & 4

BRACING AT 2

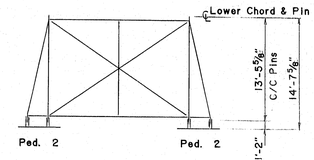


ELEVATION

DECK FRAMING PLAN



PORTAL BRACING



PIER BENT

Clip angle repaired by welding crack
NHS 6/24/92

Bridge Symmetrical

425

As Built by A Shreewsk 12/10/92

NOTE:
-Member sizes indicated are existing unless noted otherwise.
-Dimensions shown are to centerlines or working points.

* NOTE:
* Indicates known clip angle replacements. Remove existing rivets and replace cracked clip angles per Special Provision section 504.40. The exact number of clip angle replacements shall be determined by the Engineer. See connection details sheet 10.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. ARLIAS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132-45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

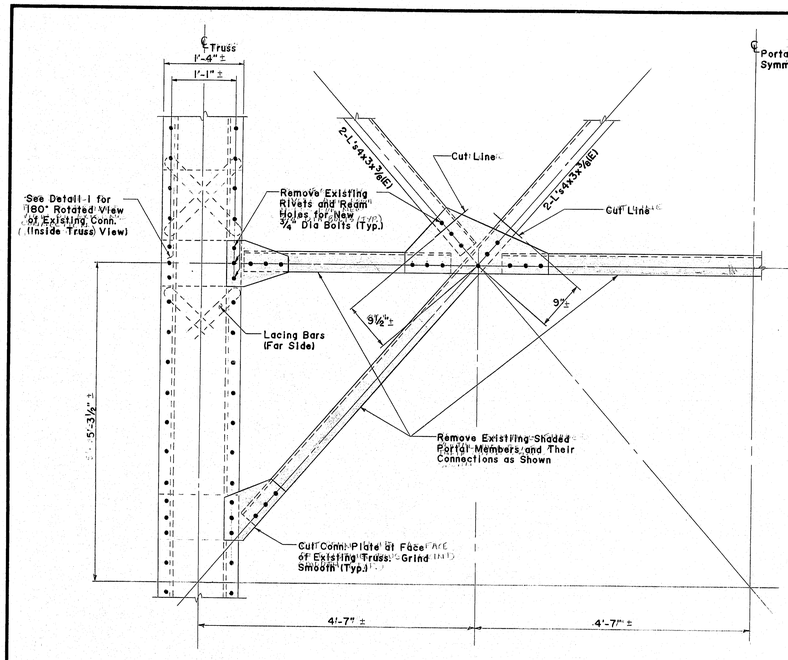
GILEAD
OXFORD COUNTY

STRUCTURAL STEEL
FRAMING PLANS & ELEVATIONS

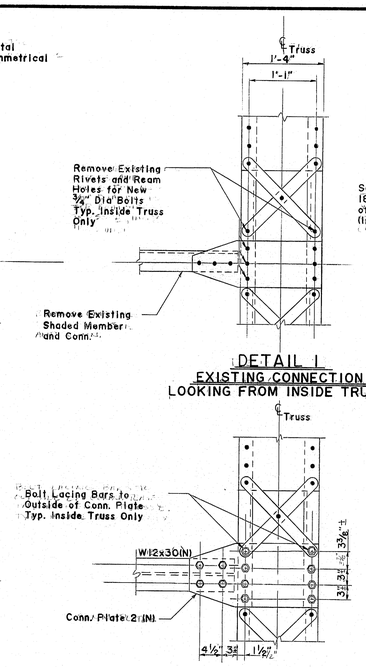
SHEET 3 OF 14 AUGUSTA, MAINE

108-138

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0005(186)	4	14

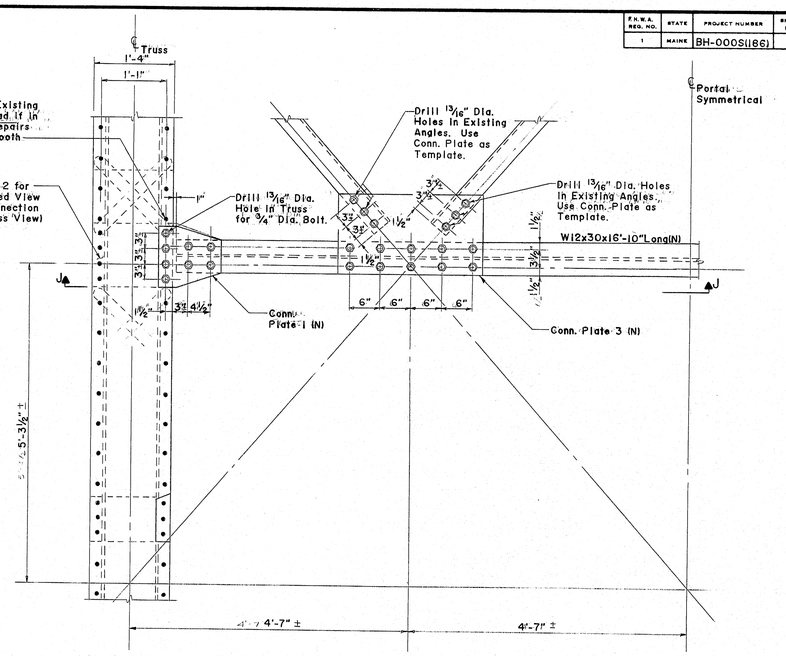


EXISTING PORTAL ELEVATION
LOOKING FROM OUTSIDE TRUSS

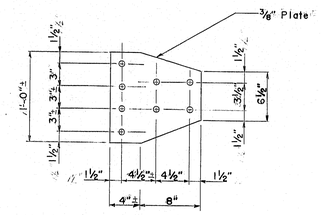


DETAIL 1
EXISTING CONNECTION
LOOKING FROM INSIDE TRUSS

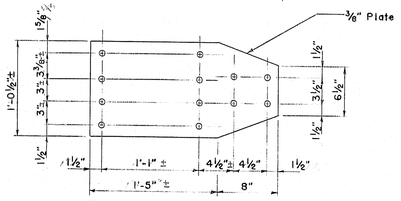
DETAIL 2
NEW CONNECTION
LOOKING FROM INSIDE TRUSS



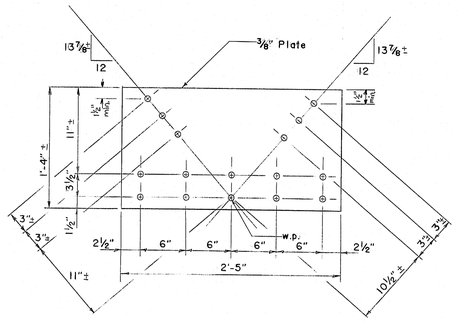
REPAIRED PORTAL ELEVATION
LOOKING FROM OUTSIDE TRUSS



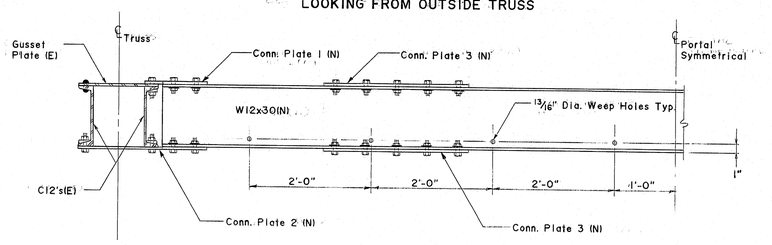
CONNECTION PLATE 1



CONNECTION PLATE 2



CONNECTION PLATE 3



SECTION J-J

108-139 426

NOTE:

1. All holes are 13/16" Dia. unless noted otherwise.
2. All bolts are ¾" Dia. ASTM A325 with plain (or beveled) hardened washers.
3. All holes in new steel that are to be matched to holes in existing steel shall be drilled in the field. Edge distances to bolt shall be 1½" minimum, unless otherwise noted.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. AKUS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRIGGS 457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

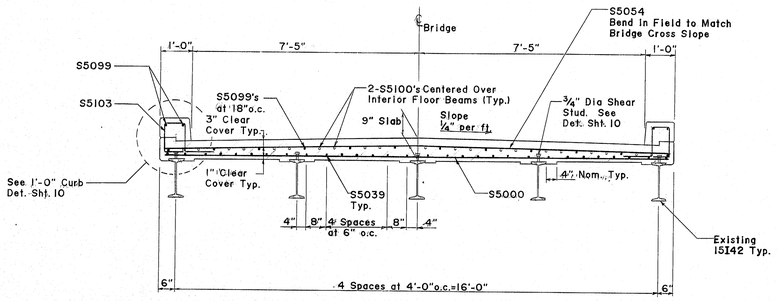
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

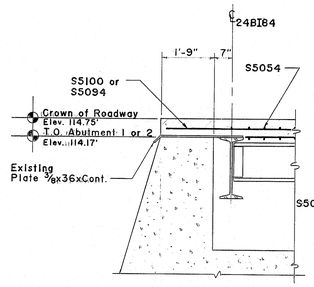
PORTAL REPAIR DETAILS

SHEET 4 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	5	14

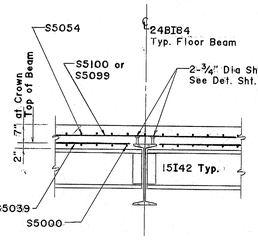


SECTION A-A

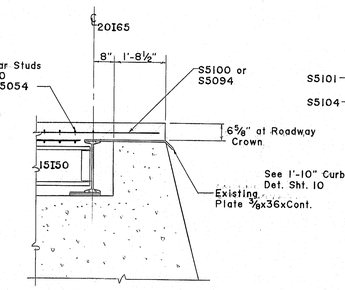


ABUTMENT 1 - FIXED END

SECTION B-B

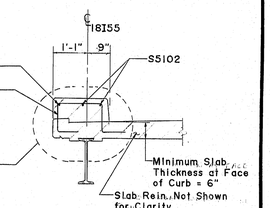


SECTION C-C

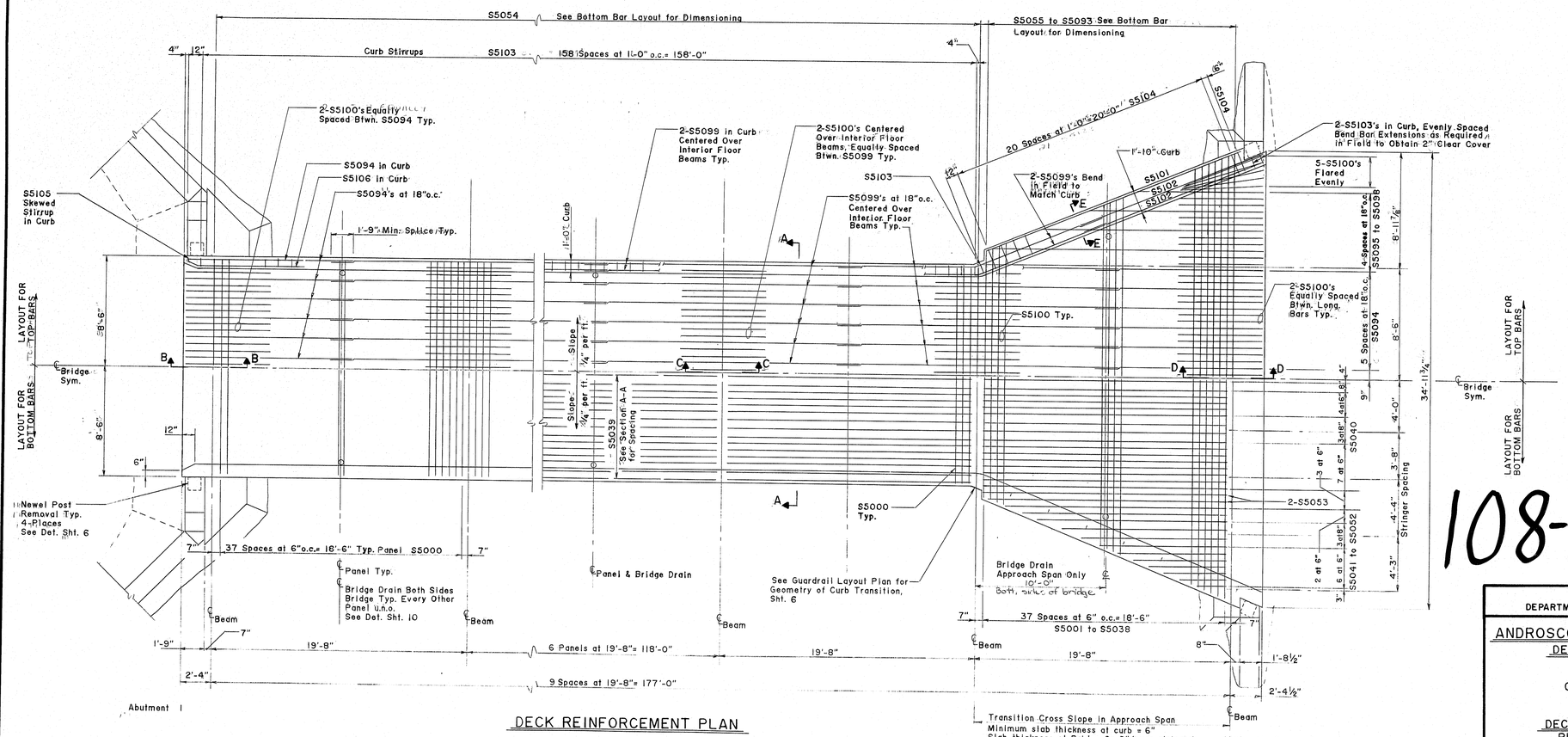


ABUTMENT 2 - EXPANSION END

SECTION D-D



SECTION E-E



DECK REINFORCEMENT PLAN

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. AKINS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRUNING 45710-1

108-140 427

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

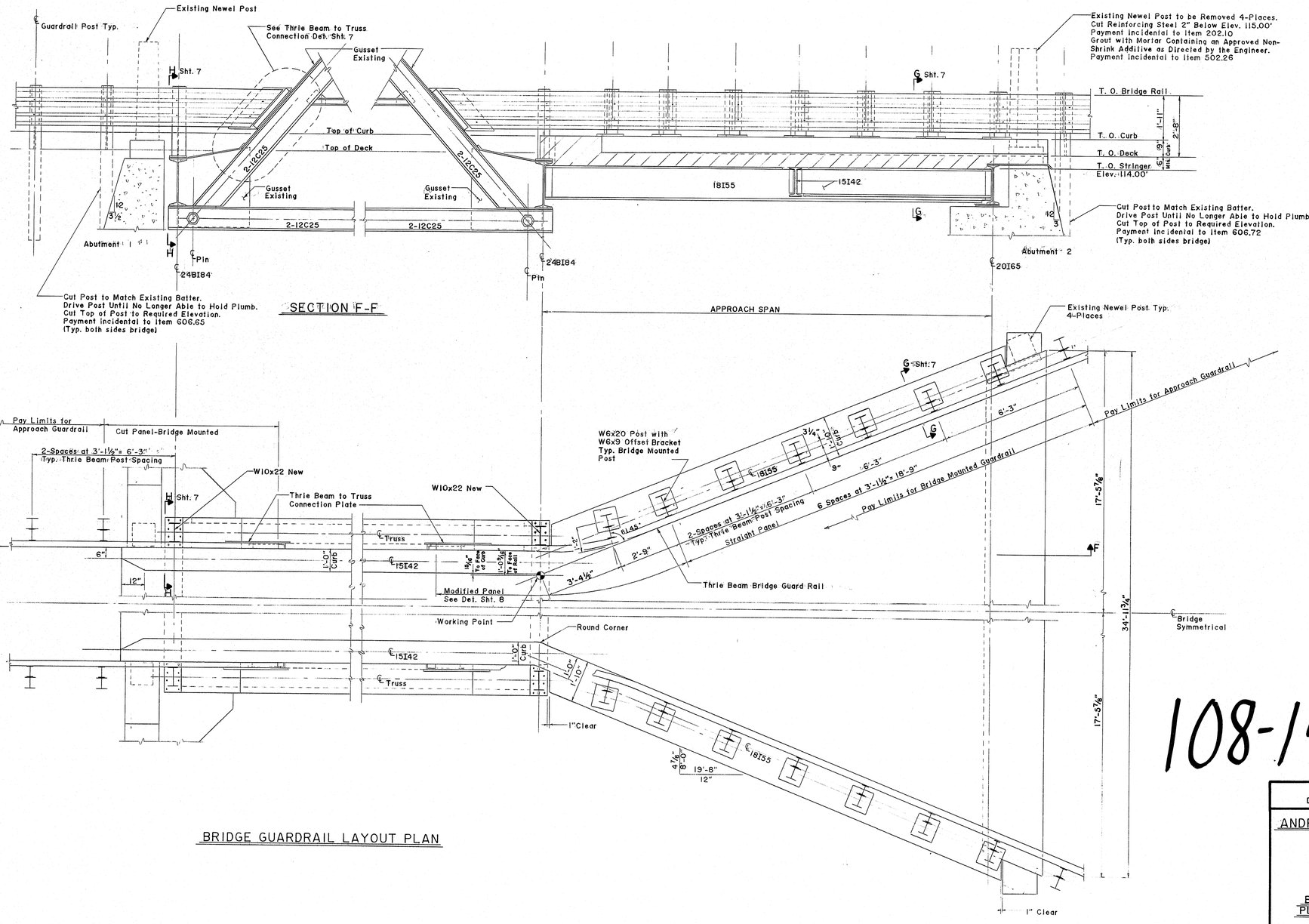
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

DECK REINFORCEMENT
PLAN & SECTIONS

SHEET 5 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-000S(186)	6	14



BRIDGE GUARDRAIL LAYOUT PLAN

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	JKM	10/24/91
CHECKED	JKM	10/24/91
REVISIONS	W. AKIANS	
FIELD CHANGES		

PLANS

BRUNING 457101

108-141

428

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

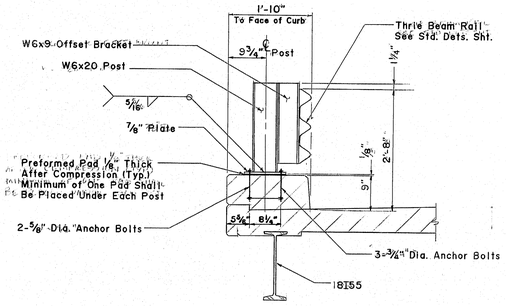
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

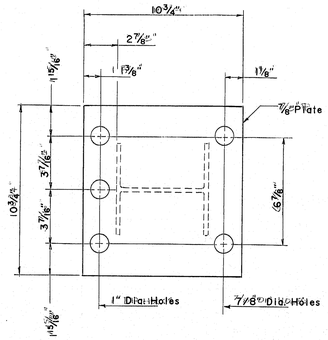
BRIDGE GUARDRAIL LAYOUT
PLAN & ELEVATION SECTION

SHEET 6 OF 14 AUGUSTA, MAINE

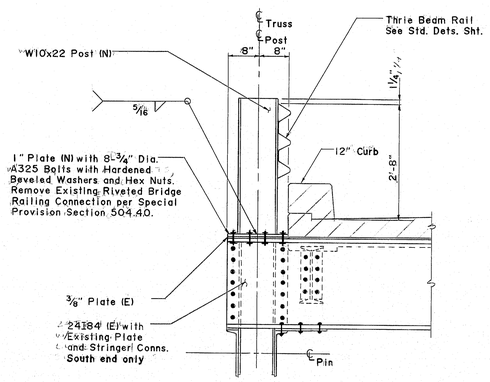
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-000S(186)	7	14



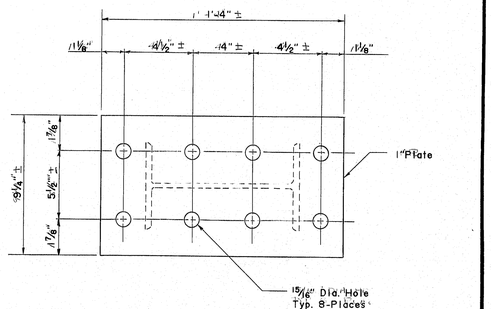
BRIDGE GUARDRAIL AT 1'-10" CURB
SECTION G-G



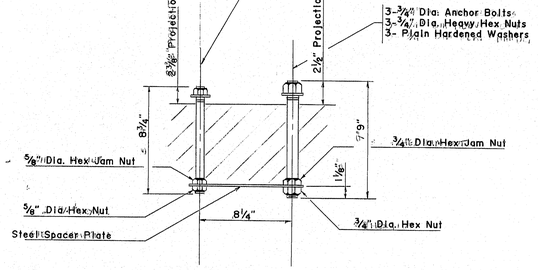
W6x20 POST BASE



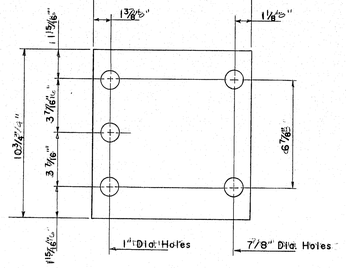
BRIDGE GUARDRAIL AT EXISTING FLOOR BEAM
SECTION H-H



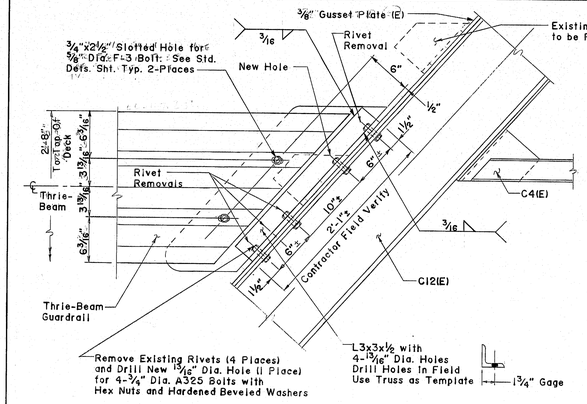
W10x22 POST BASE



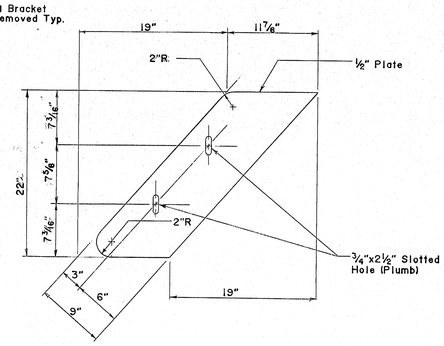
RAIL POST ANCHORAGE



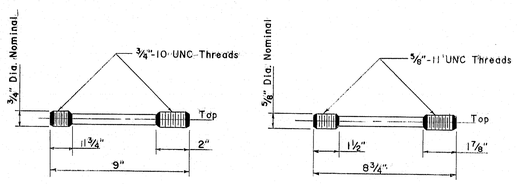
PREFORMED PAD



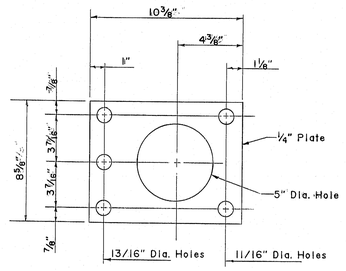
THRIE BEAM TO TRUSS CONNECTION DETAIL



CONNECTION PLATE



ANCHOR BOLT DETAILS



STEEL SPACER PLATE

MATERIALS

Posts and Plates----------ASTM A36
Bolts, Nuts, Washers------ASTM A325
Anchor Bolts-------------ASTM A449

NOTES

1. Fabrication shall conform to the applicable provisions of Section 504, Structural Steel, of the Standard Specifications (revision of October 1990).
2. All exposed cut or sheared edges shall be rounded and free of burrs. All exposed welds shall be ground smooth.
3. Sections of Traffic Rail between splices shall be long enough to be connected to at least two Rail Posts.

108-142 429

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	JKM	JULY '97
CHECKED	JKM	JULY '97
REVISIONS	W. AKINS	
FIELD CHANGES		

PLANS

45710-1

BRUNING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

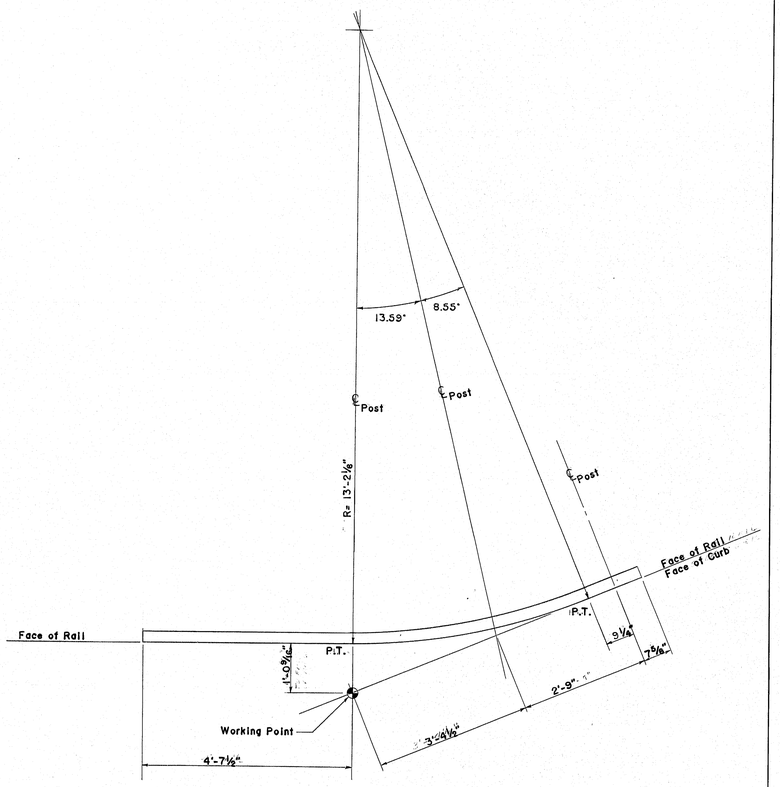
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

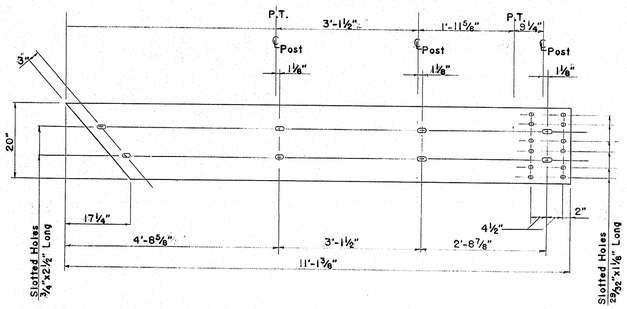
BRIDGE GUARDRAIL DETAILS

SHEET 7 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	8	14

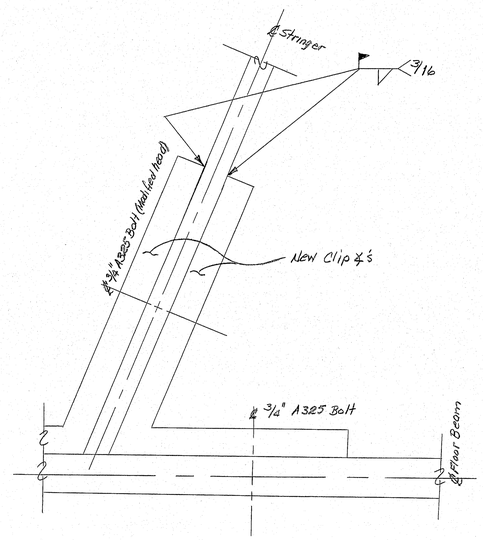


PLAN



MODIFIED THRIE BEAM GUARDRAIL PANEL

NOTE:
-P.T.= Point of Tangency
-See standard detail sheet for additional Thrie Beam information.
-Dimensions are along face of Rail.
-Two panels required; one opposite hand.



DETAIL B

12/9/92

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN- DETAILED	JKM	Nov. 92
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

45710-1

BRUNING

108-143

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

BRIDGE GUARDRAIL DETAILS

SHEET 8 OF 14 AUGUSTA, MAINE

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
			BRIDGE DECK
S5000	304	16'-8"	TRANSVERSE BOTTOM
			APPROACH SPAN DECK
S5001	1	18'-11"	TRANSVERSE BOTTOM
S5002	1	19'-4"	
S5003	1	19'-9"	
S5004	1	20'-2"	
S5005	1	20'-7"	
S5006	1	21'-0"	
S5007	1	21'-5"	
S5008	1	21'-9"	
S5009	1	22'-2"	
S5010	1	22'-7"	
S5011	1	23'-0"	
S5012	1	23'-5"	
S5013	1	23'-10"	
S5014	1	24'-3"	
S5015	1	24'-8"	
S5016	1	25'-1"	
S5017	1	25'-5"	
S5018	1	25'-10"	
S5019	1	26'-3"	
S5020	1	26'-8"	
S5021	1	27'-1"	
S5022	1	27'-6"	
S5023	1	27'-11"	
S5024	1	28'-4"	
S5025	1	28'-8"	
S5026	1	29'-1"	
S5027	1	29'-6"	
S5028	1	29'-11"	
S5029	1	30'-4"	
S5030	1	30'-9"	
S5031	1	31'-2"	
S5032	1	31'-7"	
S5033	1	32'-0"	
S5034	1	32'-4"	
S5035	1	32'-9"	
S5036	1	33'-2"	
S5037	1	33'-7"	
S5038	1	34'-0"	
			BRIDGE DECK
S5039	240	18'-8"	LONGITUDINAL BOTTOM
			APPROACH SPAN DECK
S5040	32	18'-10"	LONGITUDINAL BOTTOM
S5041	2	2'-8"	
S5042	2	3'-11"	
S5043	2	5'-5"	
S5044	2	6'-4"	

MARK	NO.	LENGTH	LOCATION
			APPROACH SPAN DECK
S5045	2	7'-7"	LONGITUDINAL BOTTOM
S5046	2	8'-10"	
S5047	2	10'-0"	
S5048	2	11'-3"	
S5049	2	12'-11"	
S5050	2	14'-7"	
S5051	2	16'-2"	
S5052	2	17'-5"	
S5053	2	18'-8"	
			BRIDGE DECK
S5054	313	16'-8"	TRANSVERSE TOP
			APPROACH SPAN DECK
S5055	1	16'-11"	TRANSVERSE TOP
S5056	1	19'-4"	
S5057	1	19'-9"	
S5058	1	20'-2"	
S5059	1	20'-7"	
S5060	1	21'-0"	
S5061	1	21'-5"	
S5062	1	21'-9"	
S5063	1	22'-2"	
S5064	1	22'-7"	
S5065	1	23'-0"	
S5066	1	23'-5"	
S5067	1	23'-10"	
S5068	1	24'-3"	
S5069	1	24'-8"	
S5070	1	25'-1"	
S5071	1	25'-5"	
S5072	1	25'-10"	
S5073	1	26'-3"	
S5074	1	26'-8"	
S5075	1	27'-1"	
S5076	1	27'-6"	
S5077	1	27'-11"	
S5078	1	28'-4"	
S5079	1	28'-8"	
S5080	1	29'-1"	
S5081	1	29'-6"	
S5082	1	29'-11"	
S5083	1	30'-4"	
S5084	1	30'-9"	
S5085	1	31'-2"	
S5086	1	31'-7"	
S5087	1	32'-0"	
S5088	1	32'-4"	
S5089	1	32'-9"	
S5090	1	33'-2"	

MARK	NO.	LENGTH	LOCATION
			APPROACH SPAN DECK
S5091	1	33'-7"	TRANSVERSE TOP
S5092	1	34'-0"	
S5093	1	34'-6"	
			BRIDGE DECK & APPROACH SPAN DECK
S5094	26	22'-9"	LONGITUDINAL TOP
S5095	2	20'-1"	
S5096	2	16'-5"	
S5097	2	12'-9"	
S5098	2	9'-0"	
S5099	128	21'-5"	
S5100	246	6'-6"	
S5101	2	21'-0"	
S5102	4	14'-8"	

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
S5103	324	4'-6"	S	1'-0"	0'-11"	8"	0'-11"			1'-0"				CURB
S5104	44	5'-4"	S	1'-0"	0'-11"	1'-6"	0'-11"			1'-0"				CURB
S5105	2	4'-2"	S	1'-0"	0'-11"	9"	0'-11"			1'-0"				CURB
S5106	2	22'-10"	V					1'-1"			6"			CURB

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

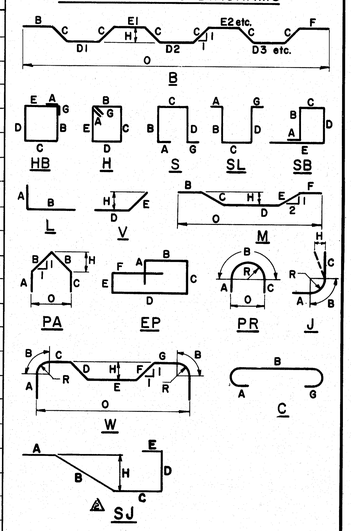
108-144

DESIGN - DETAIL	BY	DATE
CHECKED	JKM	JULY '91
REVISIONS		
FIELD CHANGES		

PLANS

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	9	14

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠1
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A502) bar size - #5
   Mark (P1001) bar size - #10
   Mark (S603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

A30

	DATE
⚠1 New Bent Bar Type SJ	9-28-82
⚠1 Revised ACI Standard	5-12-83

REVISIONS | DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

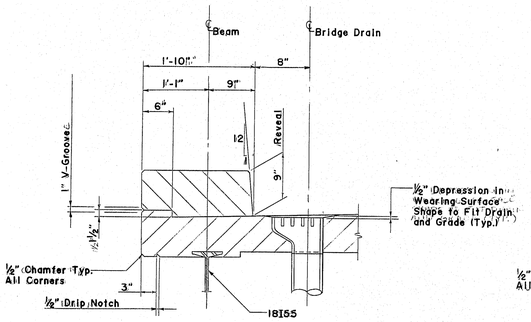
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

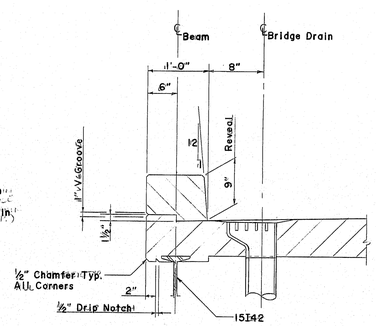
REINFORCING STEEL SCHEDULE

SHEET 9 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	10	14

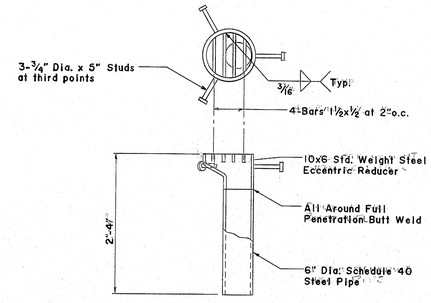


1'-10" CURB DETAIL



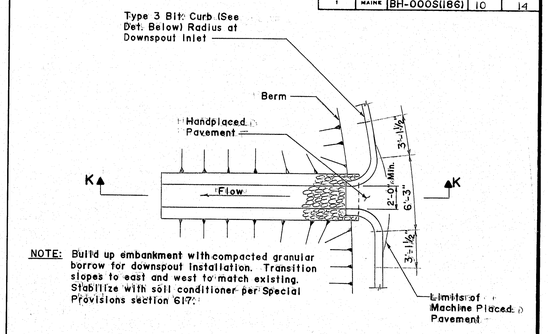
1'-0" CURB DETAIL

CURB DETAILS



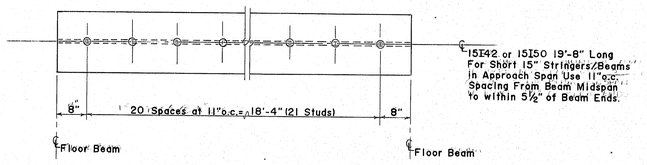
NOTE: All bridge drain materials galvanized.

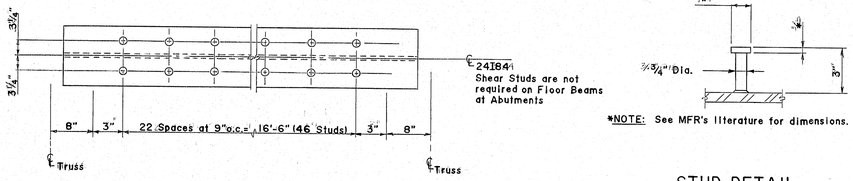
BRIDGE DRAIN



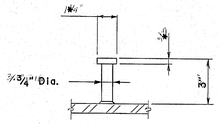
NOTE: Build up embankment with compacted granular borrow for downspout installation. Transition slopes to east and west to match existing. Stabilize with soil conditioner per Special Provisions section 617.

RIPRAP DOWNSPOUT WITH CURBED INLET PLAN





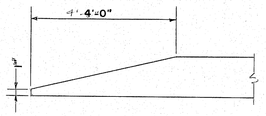
SHEAR STUD LAYOUT



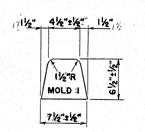
*NOTE: See MFR's literature for dimensions.

STUD DETAIL

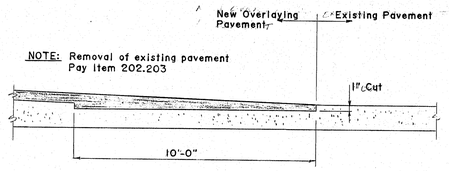
SHEAR CONNECTOR DETAILS



BIT. CURB RUNOUT

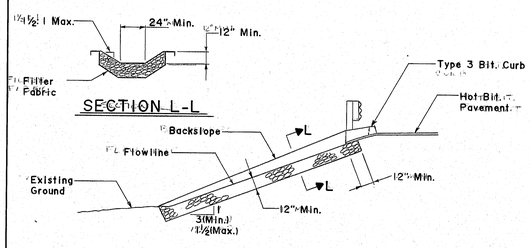


TYPE 3 CURB

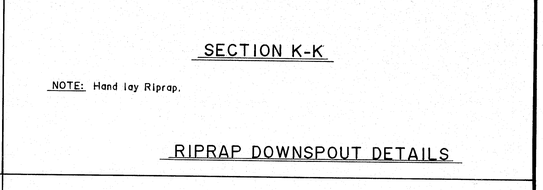


NEW PAVEMENT RUNOUT

PAVEMENT DETAILS



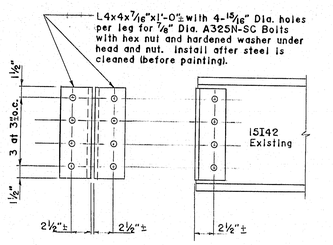
SECTION L-L



SECTION K-K

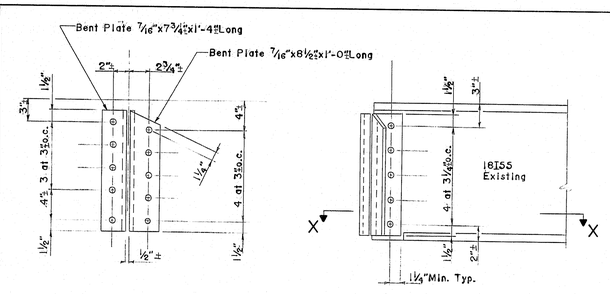
NOTE: Hand lay Riprap.

RIPRAP DOWNSPOUT DETAILS



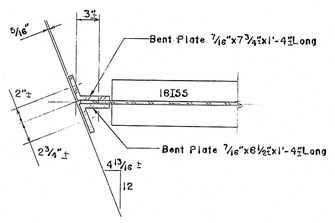
NOTE: Verify gage for each connection replacement location.

TYPICAL STRINGER TO FLOOR BEAM CONNECTION



NOTE: All holes are 15/16" Dia. for ⅞" Dia. A325N-SC Bolts with hex nuts and hardened washers under head and nut. Install Slip Critical Bolts after steel is cleaned (before painting).

18I55 STRINGER TO 24BI84 FLOOR BEAM CONNECTION



SECTION X-X

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	J.K.M.	JULY '91
CHECKED	W. AKINS	JULY '91
REVISIONS		
FIELD CHANGES		

PLANS

45710-1

BRIDGING

108-145 431

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

CURB, BRIDGE DRAIN, RIPRAP DOWNSPOUT & SHEAR CONNECTOR DETAILS

SHEET 10 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	1	14

SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1989 and Interim Specifications 1990.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of October 1990.

DESIGN LOADING

LIVE LOAD: HS25 STRESS CYCLES: 100,000 (500,000)

MATERIALS

CONCRETE: CLASS A
REINFORCING STEEL: ASTM A615 GRADE 60
STRUCTURAL STEEL: Existing Structural Steel and Rivets ..... ASTM A7-21
New Structural Steel ..... ASTM A36
New High Strength Bolts ..... ASTM A325, TYPE 1

BASIC DESIGN STRESSES

CONCRETE: f'c = 3,000 psi
REINFORCING STEEL: fy = 60,000 psi
STRUCTURAL STEEL: ASTM A7-21 Structural Steel ..... Fy = 30,000 psi
ASTM A7-21 Rivets ..... ΦFv = 13,500 psi
ASTM A36 ..... Fy = 36,000 psi
ASTM A325 ..... ΦFv = 28,000 psi

HYDRAULIC DATA

Not Required.

TRAFFIC DATA

AADT 1990	220
AADT 2010	310
DHV	40
T (%)	8
D (%)	60
18 Kips	8

SCOPE OF WORK

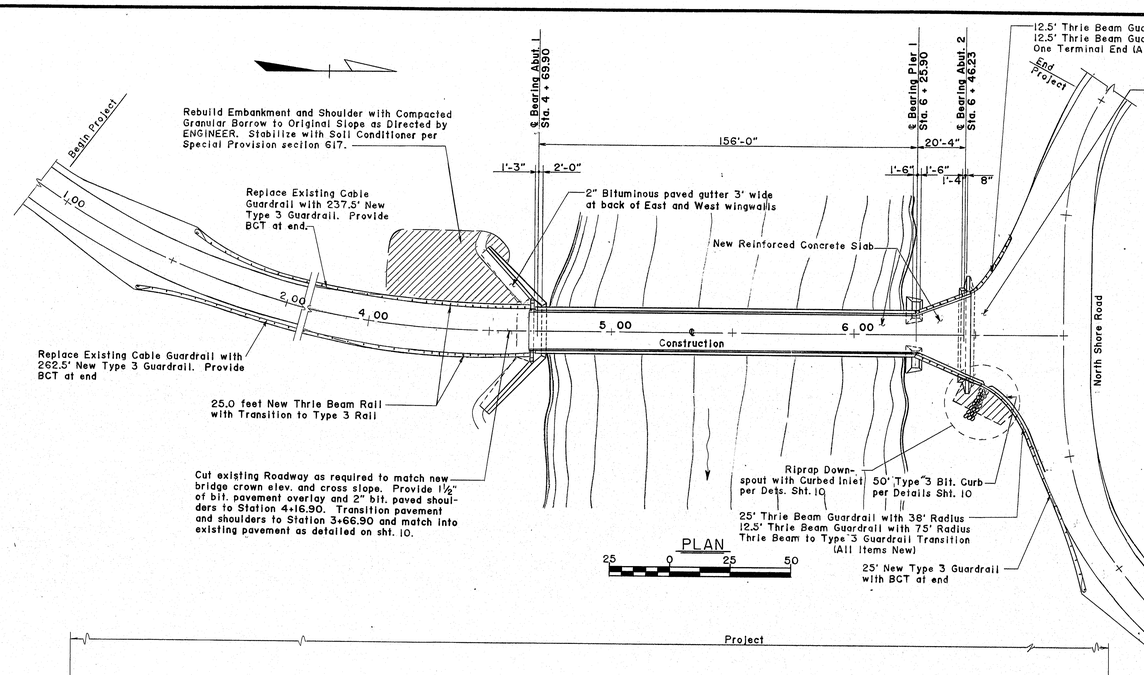
Work for this project includes detouring of traffic; removal of existing bridge deck; repair or replacement of bent and cracked steel; cleaning of existing structural steel; replacement of some rivets with bolts; installation of shear studs, bridge drains, and reinforced concrete deck; painting all steel; replacement of approach span guardrails with thrie beam guardrails; replacement of approach guardrails; moderate side slope stablization; approach repaving.

NOTES

1. All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of October 1990) and supplements thereto, except as modified on the plans and in the Special Provisions.
2. Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
3. All dimensions shown of the plans are based on original plans for the existing bridge. The Contractor is responsible for verifying the dimensions in the field and making the necessary adjustments for proper fit.
4. The Contractor is responsible for verifying all lengths and radii of approach railing prior to fabrication.

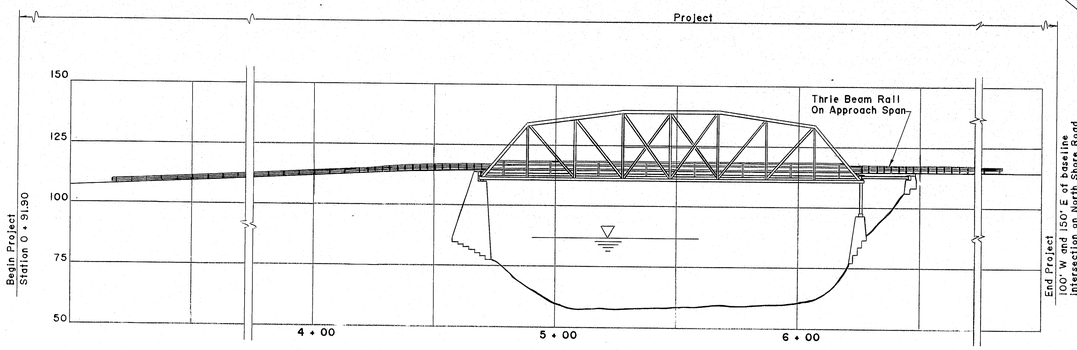
PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY 91
	CHECKED	J.K.M.	JULY 91
	REVISIONS	W. ATKINS	JULY 91
	FIELD CHANGES		

BRIDGING 457101

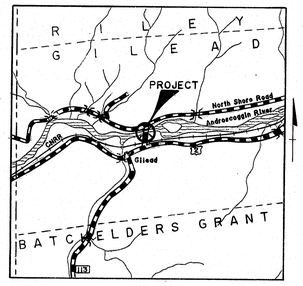


PLAN

25 0 25 50



PROFILE



LOCATION MAP

DRAWING LIST

SHEET NO.	DESCRIPTION
1	GENERAL PLAN AND PROFILE
2	ESTIMATED QUANTITIES, GENERAL CONSTRUCTION NOTES
3	STRUCTURAL STEEL FRAMING PLANS AND ELEVATIONS
4	PORTAL REPAIR DETAILS
5	DECK REINFORCEMENT PLAN AND SECTIONS
6	BRIDGE GUARDRAIL LAYOUT PLAN AND ELEVATION SECTION
7	BRIDGE GUARDRAIL DETAILS
8	BRIDGE GUARDRAIL DETAILS
9	REINFORCING STEEL SCHEDULE
10	CURB, BRIDGE DRAIN, RIPRAP DOWNSPOUT AND SHEAR CONNECTOR DETAILS
11 HD-6 JUNE 1990	TYPE 3 GUARDRAIL, BREAKAWAY CABLE TERMINAL STANDARD DETAILS
~~12~~	~~THRIE BEAM GUARDRAIL STANDARD DETAILS~~
~~13~~	~~THRIE BEAM TO TYPE 3 GUARDRAIL TRANSITION STANDARD DETAILS~~
~~14-16~~ 12-14	TRAFFIC CONTROL STANDARD DETAILS

AS Built by M. Stone, R 12/19/96

108-136

APPROVED

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISIONER — DATE 9-9-91

CHIEF ENGINEER — 9-9-91

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

423

GENERAL PLAN & PROFILE

SHEET 1 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	2	14

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVING EXISTING SUPERSTRUCTURE, PROP. OF CONTRACTOR (95 CY)	1	LS
202.15	REMOVING MANHOLES OR CATCH BASINS	1	EA
202.203	PAVEMENT BUTT JOINTS	204	SY
203.25	GRANULAR BORROW	120	CY
203.41	REHAB. EXISTING SHOULDER, PLAN QUANTITY	330	SY
409.15	BITUMINOUS TACK COAT, APPLIED	52	GAL
460.22	HOT BITUMINOUS PAVEMENT	90	T
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL		
	BRIDGES (90 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	25700	LB
503.13	REINFORCING STEEL, PLACING	25700	LB
504.70	STRUCTURAL STEEL, FABRICATED AND DELIVERED (1850 LB)	1	LS
504.71	STRUCTURAL STEEL, ERECTION (1850 LB)	1	LS
505.08	SHEAR CONNECTORS (1343 EA)	1	LS
506.17	FIELD PREP. EXISTING STRUCTURAL STEEL (240,000 LB)	1	LS
506.172	FIELD PAINT EXISTING STRUCTURAL STEEL (240,000 LB)		
	CODE NO.-ZHP-1	1	LS
506.18	CONTAINMENT AND POLLUTION CONTROL	1	LS
506.19	DISPOSAL OF HAZARDOUS OR TOXIC MATERIAL	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (454 SY)	1	LS
606.363	GUARDRAIL, REMOVE AND DISPOSE	675	LF
606.35	GUARDRAIL DELINEATOR POST	4	EA
606.55	GUARDRAIL TYPE 3-SINGLE RAIL	525	LF
606.65	GUARDRAIL THRIE BEAM-SINGLE RAIL	50	LF
606.66	TERMINAL END THRIE BEAM	1	EA
606.70	TRANSITION SECTION-THRIE BEAM	3	EA
606.72	GUARDRAIL THRIE BEAM-GREATER THAN 15 FOOT RADIUS	63	LF
606.73	GUARDRAIL THRIE BEAM-BRIDGE MOUNTED	75	LF
606.751	WIDEN SHOULDER FOR BREAKAWAY CABLE TERMINAL	3	EA
606.77	BREAKAWAY CABLE TERMINAL	3	EA
609.31	CURB TYPE 3	50	LF
610.09	HAND LAID RIPRAP	5	CY
617.30	COMPOSTED BARK MIX	44	CY
620.58	EROSION CONTROL GEOTEXTILE	24	SY
639.19	FIELD OFFICE TYPE B	1	EA
639.23	TESTING FACILITIES CONCRETE	1	LS
652.31	TYPE I BARRICADE	10	EA
652.312	TYPE III BARRICADE	3	EA
652.33	DRUM	10	EA
652.34	CONE	10	EA
652.35	CONSTRUCTION SIGNS	500	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (1.17 CD)	1	LS
652.37	WARNING LIGHTS	3	GROUP
652.38	FLAGGER	300	MH
656.63	TEMPORARY SILT FENCE	100	LF
659.10	MOBILIZATION	1	LS

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	JKM	JULY 91
CHECKED	W. AKERS	JULY 91
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-45710-1

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. During construction the bridge will be closed to traffic.
3. All embankment material, except as otherwise shown, placed below Elevation 87.00', shall be granular borrow meeting the requirements of subsection 703.19, Material for Underwater Backfill.
4. The exact limits of clearing will be established in the field by the Engineer. Payment for clearing will be incidental to contract items.
5. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. No separate payment will be made for hand raking and the cost will be considered to be incidental to Item 203.39, Preparation of Existing Shoulders.
6. One guardrail delineator post shall be installed at each guardrail end.
7. Breakaway cable terminals shall be installed concurrently with the placement of each section of beam guardrail.
8. Sodded gutters shall be constructed, after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion.
9. Reinforcing steel shall have a minimum cover of 2" unless otherwise noted.
10. Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.
11. The superstructure slab concrete shall be placed in one continuous operation and the concrete shall be kept plastic one complete span behind the span being placed.
12. Protective coating for concrete surfaces shall be applied to the following areas:

    Top of concrete curbs.
    Fascia down to the drip notch.
    Concrete wearing surface.
    Repaired surface at removed newel post locations.

13. Placement of approach railing (offset from centerline of road) shall be directed by the Engineer.
14. Remove all existing guardrail.
15. All existing temporary concrete barrier will remain the property of the Department.
16. Removal of the existing catch basin at the northeast corner of the bridge will be paid for under Item 202.15. Removal of the corrugated outlet pipe will be considered incidental to Item 202.15.
17. All approach pavement removal will be paid for under Item 202.203, Pavement Butt Joints.
18. All existing superstructure concrete shall be removed and paid for under Item 202.10, Removing Existing Superstructure. The following will be included for payment: curbs, wearing surface and reinforcing steel.
19. Preparation of existing shoulders for the installation of new guardrail will be as directed by the Engineer. Payment will be made under the appropriate contract items.

CROSS SECTION SYMBOLS

New Concrete
Existing Concrete
Steel
New Pavement
Existing Pavement

ABBREVIATIONS

BIT. = BITUMINOUS
BCT = BREAKAWAY CABLE TERMINAL
BTWN. = BETWEEN
C/C = CENTER TO CENTER
CONN. = CONNECTION
CONT. = CONTINUOUS
ELEV. = ELEVATION
(E) = EXISTING
INT. = INTERIOR
LONG. = LONGITUDINAL
MIN. = MINIMUM
(N) = NEW
O.C. = ON CENTER
REIN. = REINFORCEMENT
SYM. = SYMMETRICAL
T.O. = TOP OF
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE

108-137

429

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

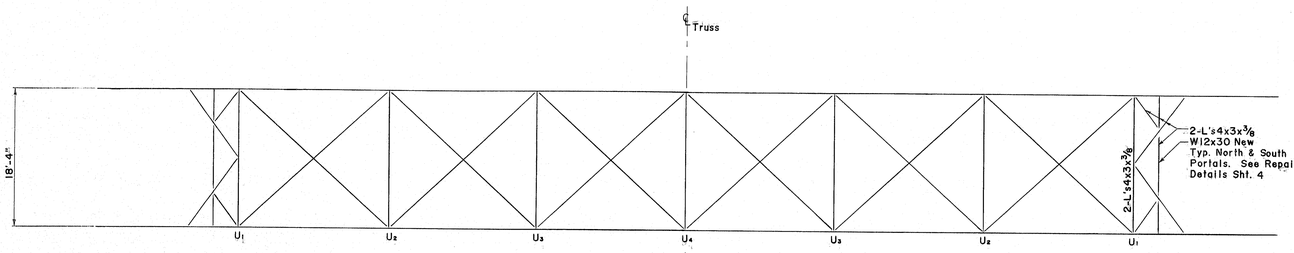
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

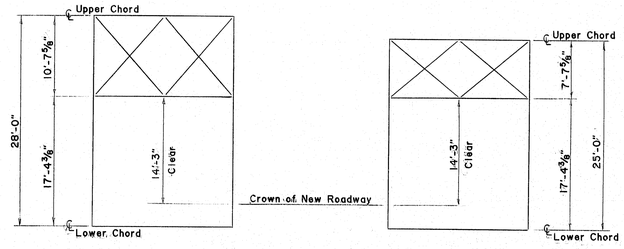
ESTIMATED QUANTITIES
GENERAL CONSTRUCTION NOTES

SHEET 2 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	3	14

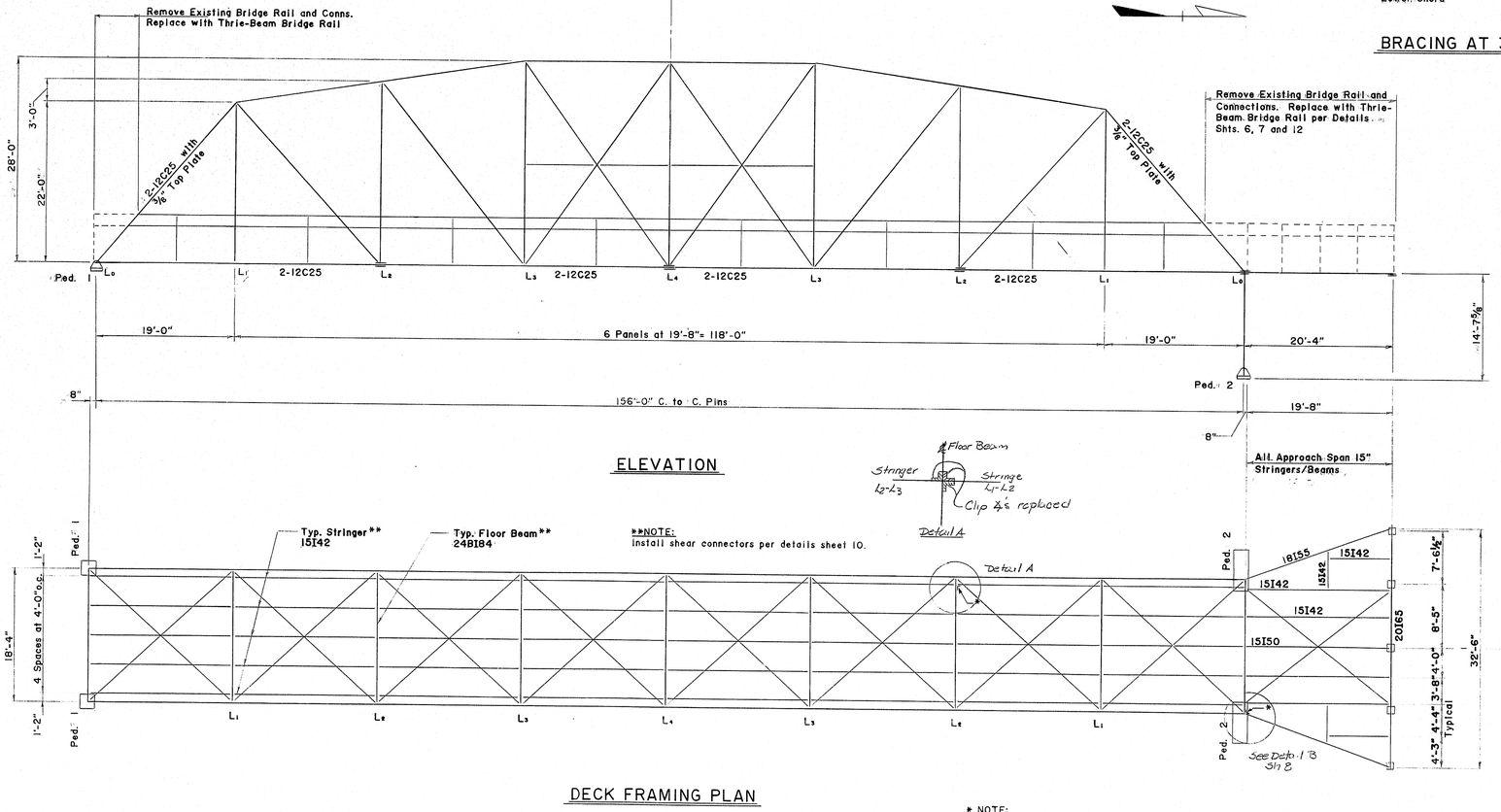


TRUSS FRAMING PLAN



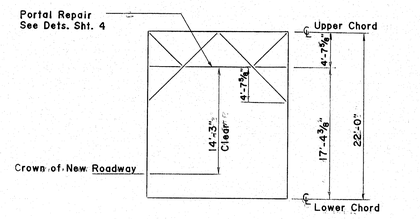
BRACING AT 3 & 4

BRACING AT 2

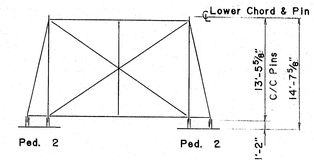


ELEVATION

DECK FRAMING PLAN



PORTAL BRACING



PIER BENT

Clip angle repaired by welding crack
NHS 6/24/92

Bridge Symmetrical

425

As Built by A Shreewsk 12/10/92

NOTE:
-Member sizes indicated are existing unless noted otherwise.
-Dimensions shown are to centerlines or working points.

* NOTE:
* Indicates known clip angle replacements. Remove existing rivets and replace cracked clip angles per Special Provision section 504.40. The exact number of clip angle replacements shall be determined by the Engineer. See connection details sheet 10.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. ARLIAS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132-45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

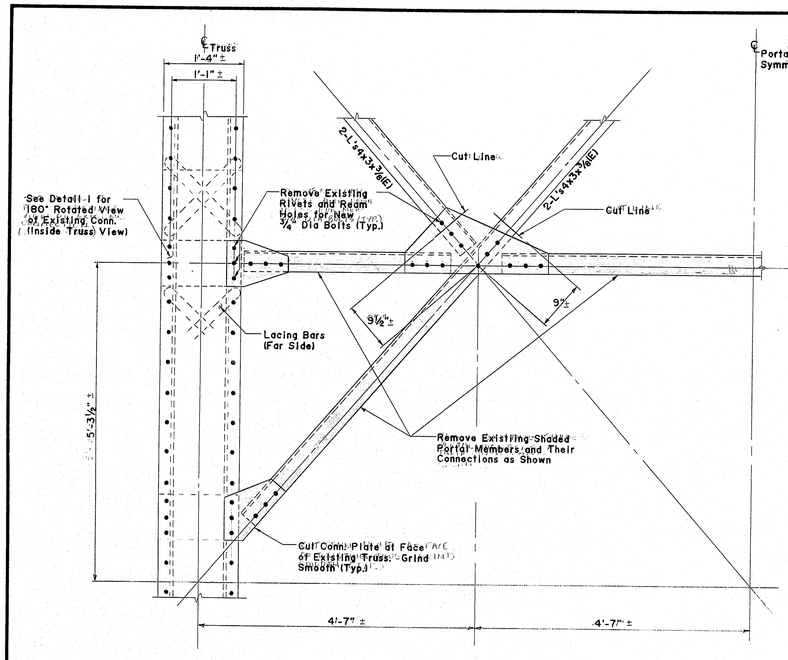
GILEAD
OXFORD COUNTY

STRUCTURAL STEEL
FRAMING PLANS & ELEVATIONS

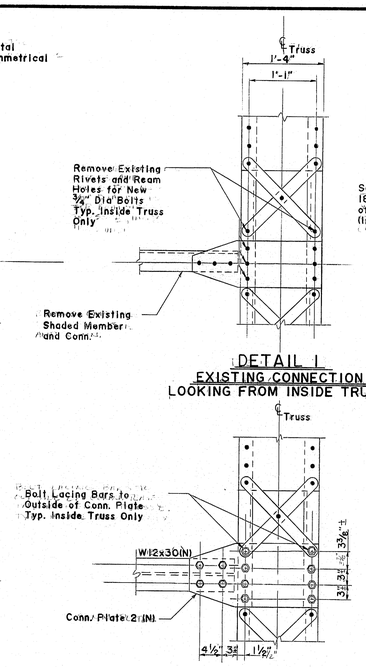
SHEET 3 OF 14 AUGUSTA, MAINE

108-138

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0005(186)	4	14

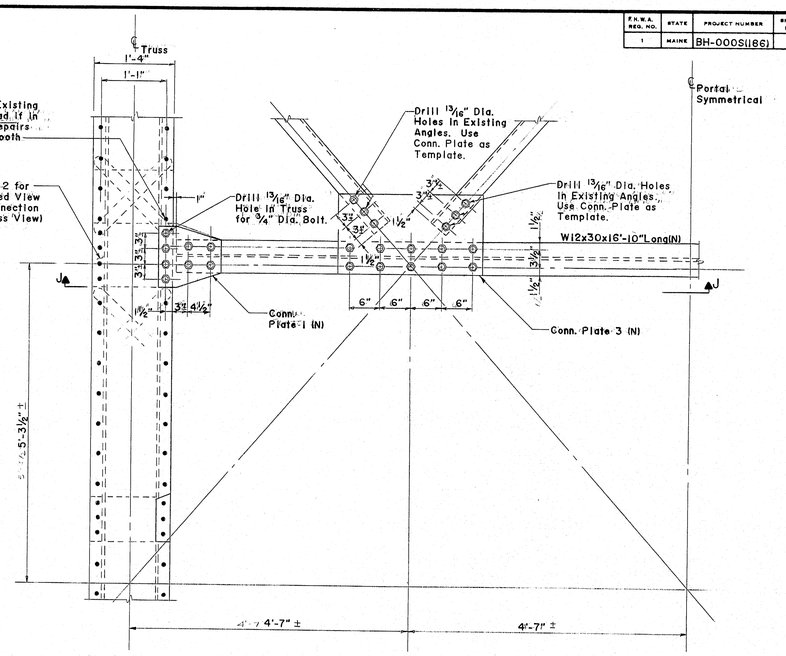


EXISTING PORTAL ELEVATION
LOOKING FROM OUTSIDE TRUSS

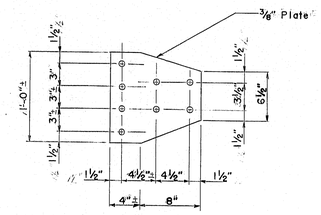


DETAIL 1
EXISTING CONNECTION
LOOKING FROM INSIDE TRUSS

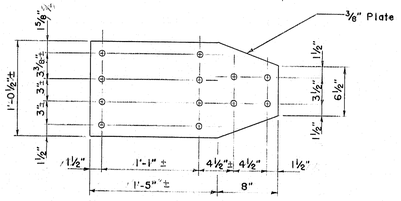
DETAIL 2
NEW CONNECTION
LOOKING FROM INSIDE TRUSS



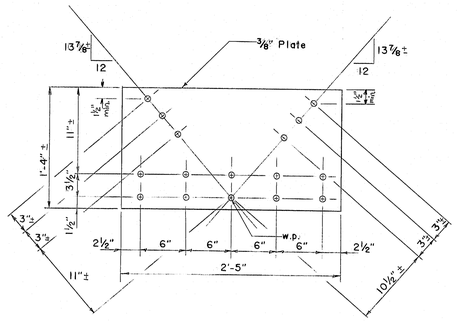
REPAIRED PORTAL ELEVATION
LOOKING FROM OUTSIDE TRUSS



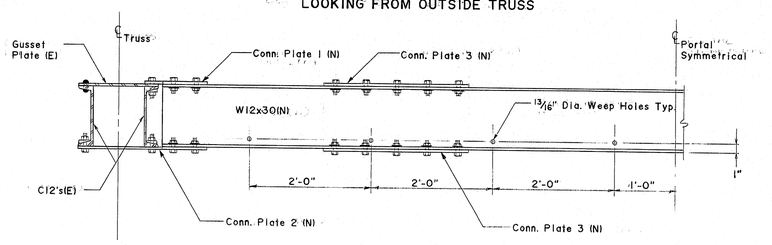
CONNECTION PLATE 1



CONNECTION PLATE 2



CONNECTION PLATE 3



SECTION J-J

108-139 426

NOTE:

1. All holes are 13/16" Dia. unless noted otherwise.
2. All bolts are ¾" Dia. ASTM A325 with plain (or beveled) hardened washers.
3. All holes in new steel that are to be matched to holes in existing steel shall be drilled in the field. Edge distances to bolt shall be 1½" minimum, unless otherwise noted.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. AKUS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRIGGS 457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

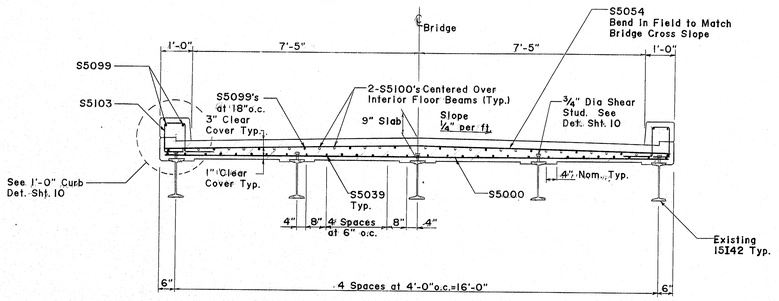
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

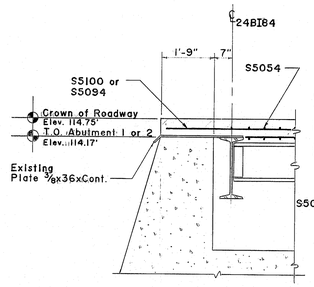
PORTAL REPAIR DETAILS

SHEET 4 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-000S(186)	5	14

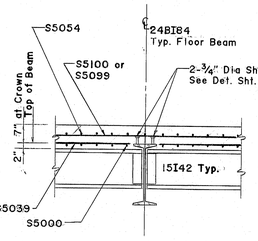


SECTION A-A

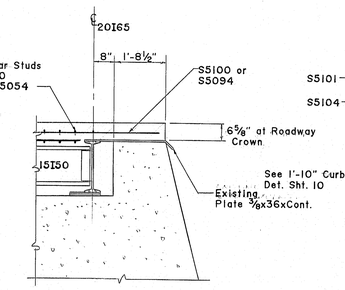


ABUTMENT 1 - FIXED END

SECTION B-B

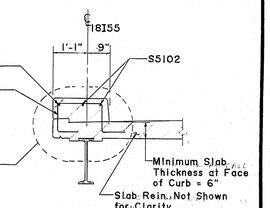


SECTION C-C

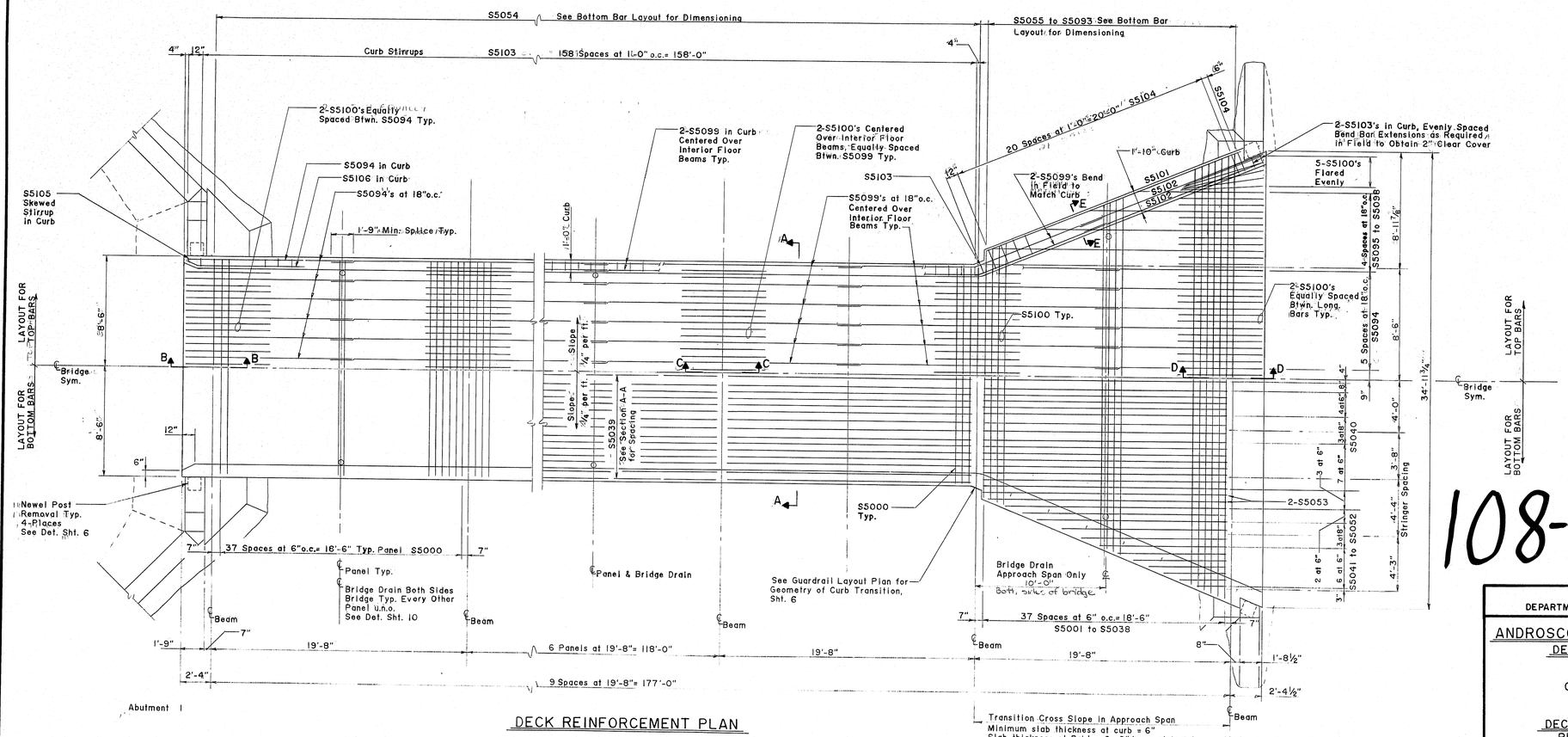


ABUTMENT 2 - EXPANSION END

SECTION D-D



SECTION E-E



DECK REINFORCEMENT PLAN

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	J.K.M.	JULY '91
	CHECKED	W. AKINS	JULY '91
	REVISIONS		
	FIELD CHANGES		

BRUNING 45710-1

108-140 427

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

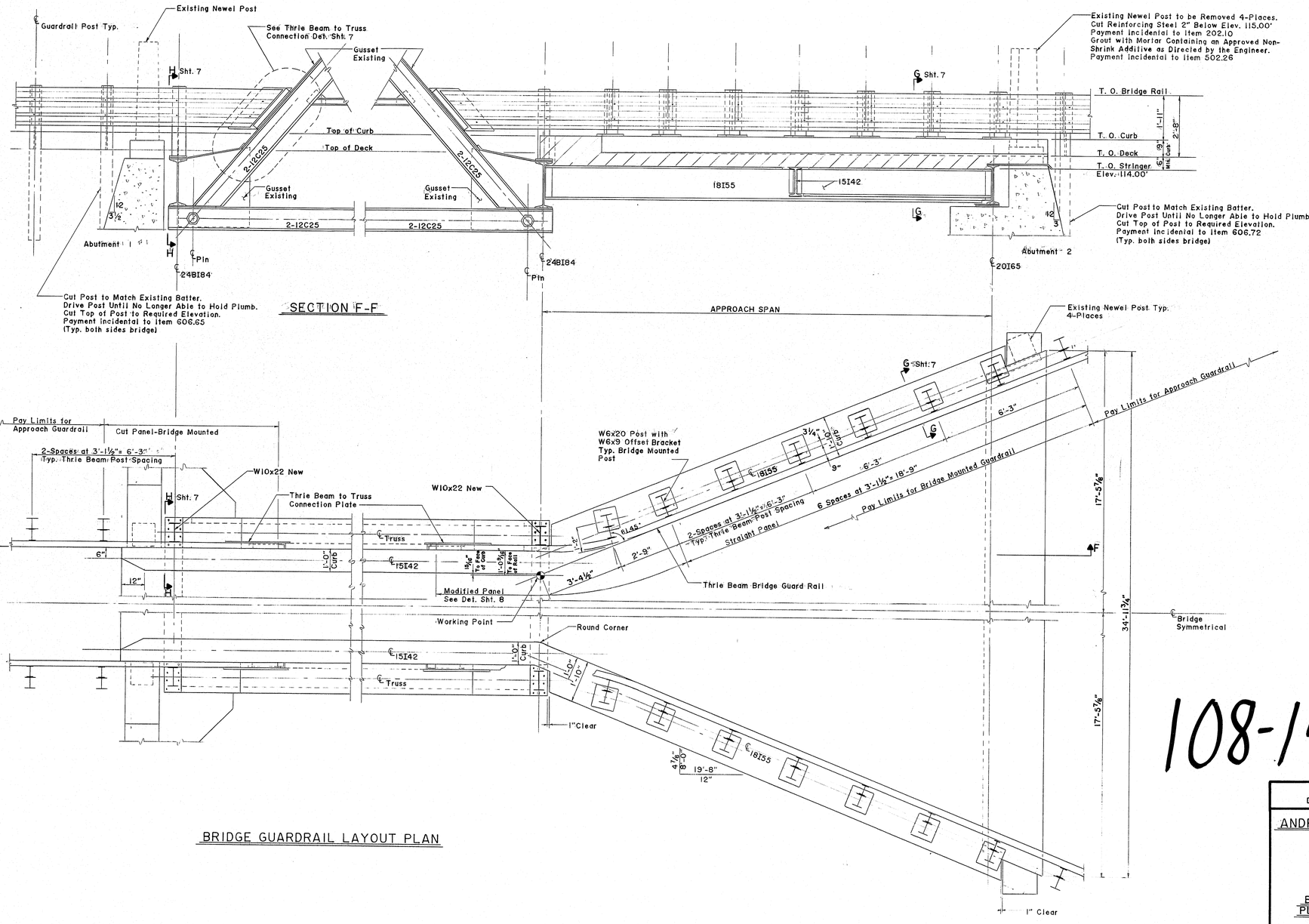
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

DECK REINFORCEMENT
PLAN & SECTIONS

SHEET 5 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-000S(186)	6	14



BRIDGE GUARDRAIL LAYOUT PLAN

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	JKM	10/24/91
CHECKED	JKM	10/24/91
REVISIONS	W. AKIANS	
FIELD CHANGES		

PLANS

BRUNING 457101

108-141

428

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

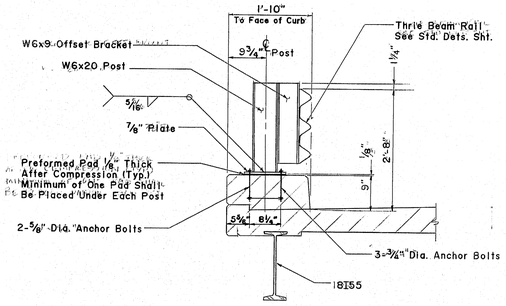
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

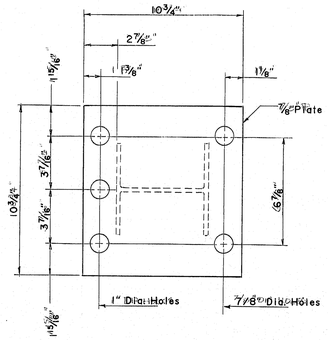
BRIDGE GUARDRAIL LAYOUT
PLAN & ELEVATION SECTION

SHEET 6 OF 14 AUGUSTA, MAINE

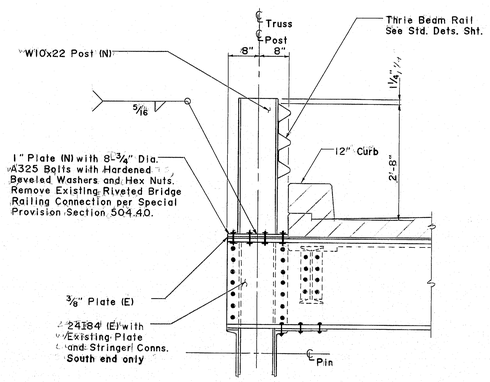
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-000S(186)	7	14



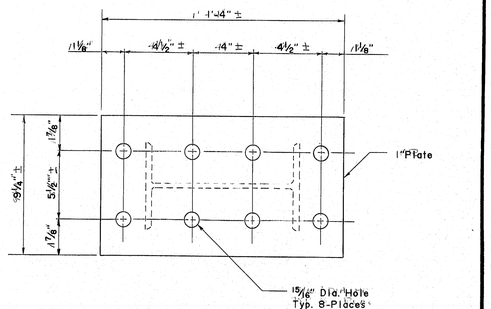
BRIDGE GUARDRAIL AT 1'-10" CURB
SECTION G-G



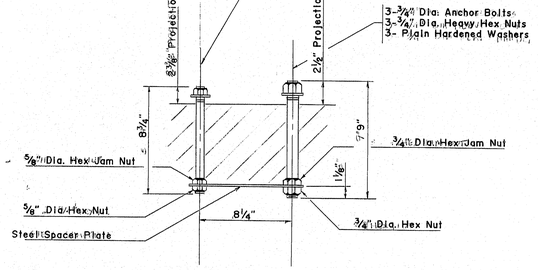
W6x20 POST BASE



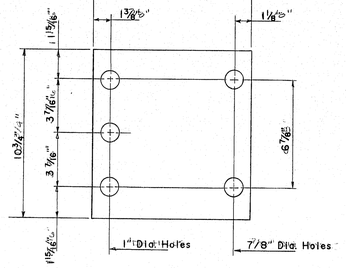
BRIDGE GUARDRAIL AT EXISTING FLOOR BEAM
SECTION H-H



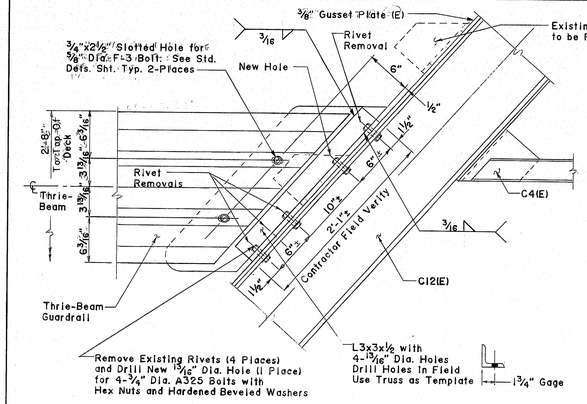
W10x22 POST BASE



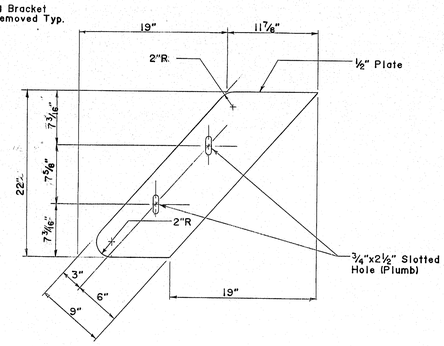
RAIL POST ANCHORAGE



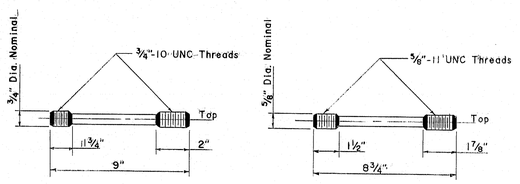
PREFORMED PAD



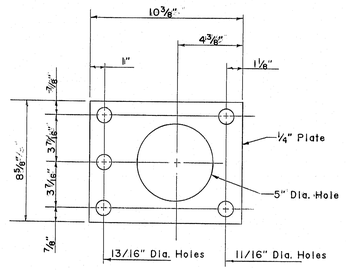
THRIE BEAM TO TRUSS CONNECTION DETAIL



CONNECTION PLATE



ANCHOR BOLT DETAILS



STEEL SPACER PLATE

MATERIALS

Posts and Plates----------ASTM A36
Bolts, Nuts, Washers------ASTM A325
Anchor Bolts-------------ASTM A449

NOTES

1. Fabrication shall conform to the applicable provisions of Section 504, Structural Steel, of the Standard Specifications (revision of October 1990).
2. All exposed cut or sheared edges shall be rounded and free of burrs. All exposed welds shall be ground smooth.
3. Sections of Traffic Rail between splices shall be long enough to be connected to at least two Rail Posts.

108-142 429

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	JKM	JULY '97
CHECKED	JKM	JULY '97
REVISIONS	W. AKINS	
FIELD CHANGES		

PLANS

45710-1

BRUNING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

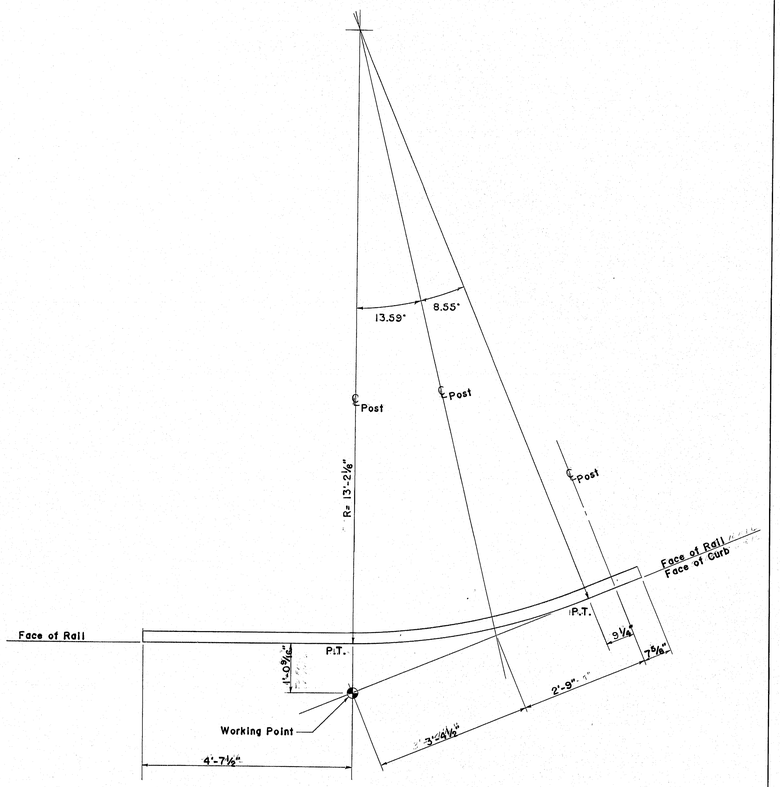
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

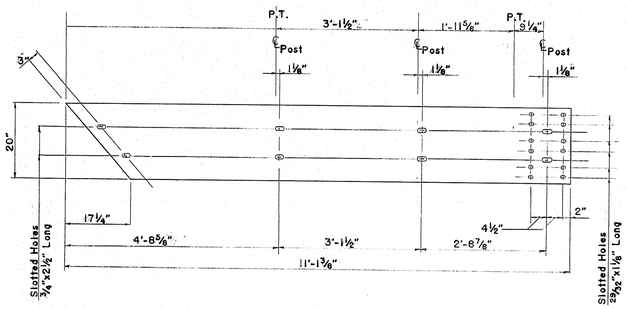
BRIDGE GUARDRAIL DETAILS

SHEET 7 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	8	14

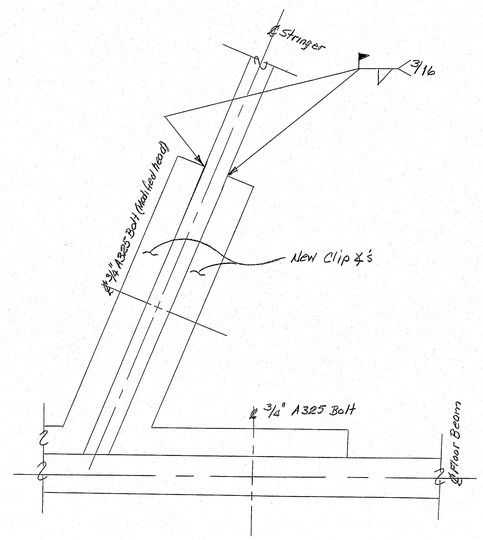


PLAN



MODIFIED THRIE BEAM GUARDRAIL PANEL

NOTE:
-P.T.= Point of Tangency
-See standard detail sheet for additional Thrie Beam information.
-Dimensions are along face of Rail.
-Two panels required; one opposite hand.



DETAIL B

12/9/92

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN- DETAILED	JKM	Nov. 92
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

45710-1

BRUNING

108-143

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

BRIDGE GUARDRAIL DETAILS

SHEET 8 OF 14 AUGUSTA, MAINE

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
			BRIDGE DECK
S5000	304	16'-8"	TRANSVERSE BOTTOM
			APPROACH SPAN DECK
S5001	1	18'-11"	TRANSVERSE BOTTOM
S5002	1	19'-4"	
S5003	1	19'-9"	
S5004	1	20'-2"	
S5005	1	20'-7"	
S5006	1	21'-0"	
S5007	1	21'-5"	
S5008	1	21'-9"	
S5009	1	22'-2"	
S5010	1	22'-7"	
S5011	1	23'-0"	
S5012	1	23'-5"	
S5013	1	23'-10"	
S5014	1	24'-3"	
S5015	1	24'-8"	
S5016	1	25'-1"	
S5017	1	25'-5"	
S5018	1	25'-10"	
S5019	1	26'-3"	
S5020	1	26'-8"	
S5021	1	27'-1"	
S5022	1	27'-6"	
S5023	1	27'-11"	
S5024	1	28'-4"	
S5025	1	28'-8"	
S5026	1	29'-1"	
S5027	1	29'-6"	
S5028	1	29'-11"	
S5029	1	30'-4"	
S5030	1	30'-9"	
S5031	1	31'-2"	
S5032	1	31'-7"	
S5033	1	32'-0"	
S5034	1	32'-4"	
S5035	1	32'-9"	
S5036	1	33'-2"	
S5037	1	33'-7"	
S5038	1	34'-0"	
			BRIDGE DECK
S5039	240	18'-8"	LONGITUDINAL BOTTOM
			APPROACH SPAN DECK
S5040	32	18'-10"	LONGITUDINAL BOTTOM
S5041	2	2'-8"	
S5042	2	3'-11"	
S5043	2	5'-5"	
S5044	2	6'-4"	

MARK	NO.	LENGTH	LOCATION
			APPROACH SPAN DECK
S5045	2	7'-7"	LONGITUDINAL BOTTOM
S5046	2	8'-10"	
S5047	2	10'-0"	
S5048	2	11'-3"	
S5049	2	12'-11"	
S5050	2	14'-7"	
S5051	2	16'-2"	
S5052	2	17'-5"	
S5053	2	18'-8"	
			BRIDGE DECK
S5054	313	16'-8"	TRANSVERSE TOP
			APPROACH SPAN DECK
S5055	1	16'-11"	TRANSVERSE TOP
S5056	1	19'-4"	
S5057	1	19'-9"	
S5058	1	20'-2"	
S5059	1	20'-7"	
S5060	1	21'-0"	
S5061	1	21'-5"	
S5062	1	21'-9"	
S5063	1	22'-2"	
S5064	1	22'-7"	
S5065	1	23'-0"	
S5066	1	23'-5"	
S5067	1	23'-10"	
S5068	1	24'-3"	
S5069	1	24'-8"	
S5070	1	25'-1"	
S5071	1	25'-5"	
S5072	1	25'-10"	
S5073	1	26'-3"	
S5074	1	26'-8"	
S5075	1	27'-1"	
S5076	1	27'-6"	
S5077	1	27'-11"	
S5078	1	28'-4"	
S5079	1	28'-8"	
S5080	1	29'-1"	
S5081	1	29'-6"	
S5082	1	29'-11"	
S5083	1	30'-4"	
S5084	1	30'-9"	
S5085	1	31'-2"	
S5086	1	31'-7"	
S5087	1	32'-0"	
S5088	1	32'-4"	
S5089	1	32'-9"	
S5090	1	33'-2"	

MARK	NO.	LENGTH	LOCATION
			APPROACH SPAN DECK
S5091	1	33'-7"	TRANSVERSE TOP
S5092	1	34'-0"	
S5093	1	34'-6"	
			BRIDGE DECK & APPROACH SPAN DECK
S5094	26	22'-9"	LONGITUDINAL TOP
S5095	2	20'-1"	
S5096	2	16'-5"	
S5097	2	12'-9"	
S5098	2	9'-0"	
S5099	128	21'-5"	
S5100	246	6'-6"	
S5101	2	21'-0"	
S5102	4	14'-8"	

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
S5103	324	4'-6"	S	1'-0"	0'-11"	8"	0'-11"			1'-0"				CURB
S5104	44	5'-4"	S	1'-0"	0'-11"	1'-6"	0'-11"			1'-0"				CURB
S5105	2	4'-2"	S	1'-0"	0'-11"	9"	0'-11"			1'-0"				CURB
S5106	2	22'-10"	V					1'-1"			6"			CURB

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

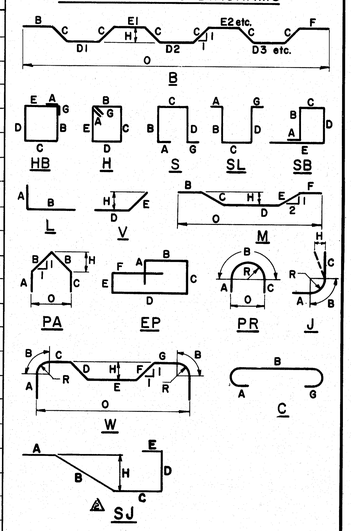
108-144

DESIGN - DETAIL	BY	DATE
CHECKED	JKM	JULY '91
REVISIONS		
FIELD CHANGES		

PLANS

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	9	14

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠1
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A502) bar size - #5
   Mark (P1001) bar size - #10
   Mark (S603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

A30

	DATE
⚠1 New Bent Bar Type SJ	9-28-82
⚠1 Revised ACI Standard	5-12-83

REVISIONS | DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

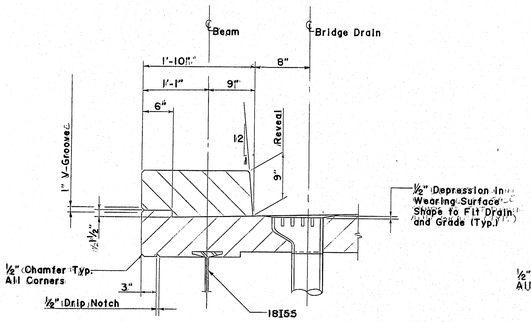
ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

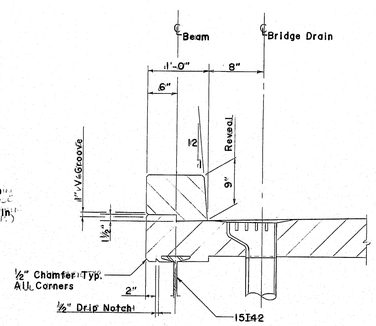
REINFORCING STEEL SCHEDULE

SHEET 9 OF 14 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(186)	10	14

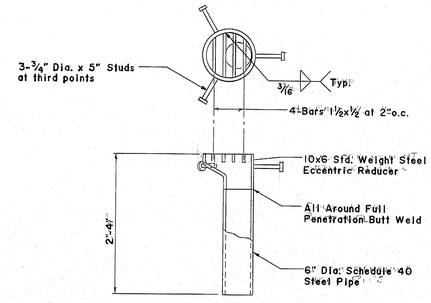


1'-10" CURB DETAIL



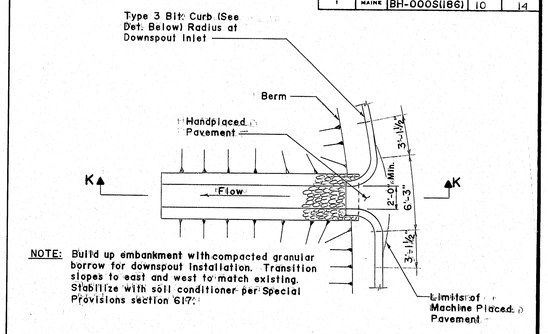
1'-0" CURB DETAIL

CURB DETAILS



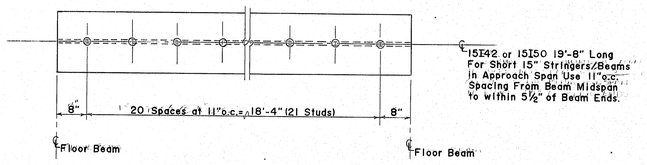
NOTE: All bridge drain materials galvanized.

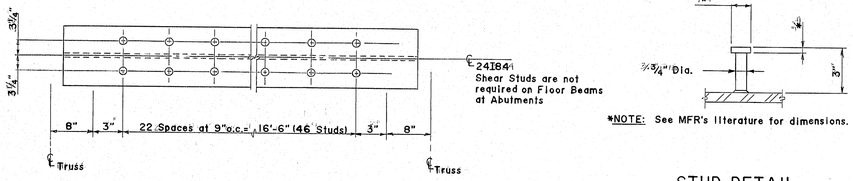
BRIDGE DRAIN



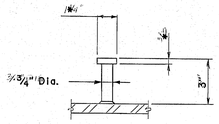
NOTE: Build up embankment with compacted granular borrow for downspout installation. Transition slopes to east and west to match existing. Stabilize with soil conditioner per Special Provisions section 617.

RIPRAP DOWNSPOUT WITH CURBED INLET PLAN





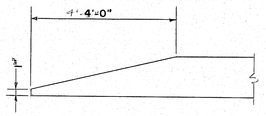
SHEAR STUD LAYOUT



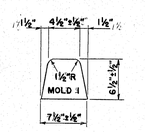
*NOTE: See MFR's literature for dimensions.

STUD DETAIL

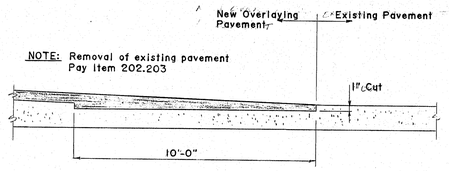
SHEAR CONNECTOR DETAILS



BIT. CURB RUNOUT

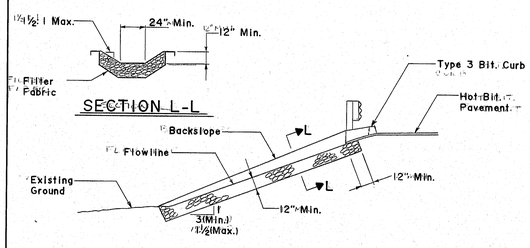


TYPE 3 CURB

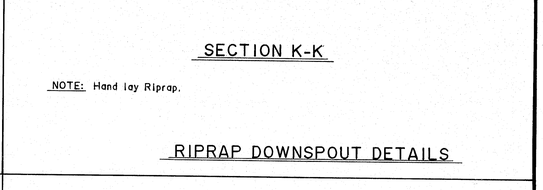


NEW PAVEMENT RUNOUT

PAVEMENT DETAILS



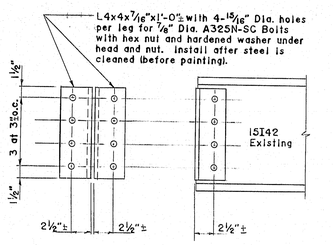
SECTION L-L



SECTION K-K

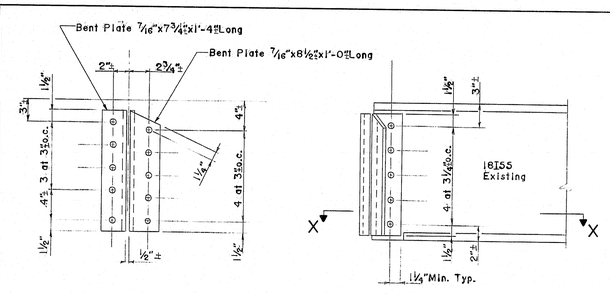
NOTE: Hand lay Riprap.

RIPRAP DOWNSPOUT DETAILS



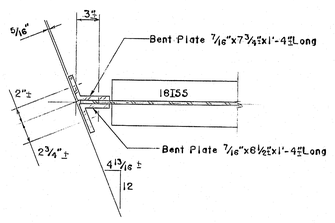
NOTE: Verify gage for each connection replacement location.

TYPICAL STRINGER TO FLOOR BEAM CONNECTION



NOTE: All holes are 15/16" Dia. for ⅞" Dia. A325N-SC Bolts with hex nuts and hardened washers under head and nut. Install Slip Critical Bolts after steel is cleaned (before painting).

18I55 STRINGER TO 24BI84 FLOOR BEAM CONNECTION



SECTION X-X

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	J.K.M.	JULY '91
CHECKED	W. AKINS	JULY '91
REVISIONS		
FIELD CHANGES		

PLANS

45710-1

BRIDGING

108-145 431

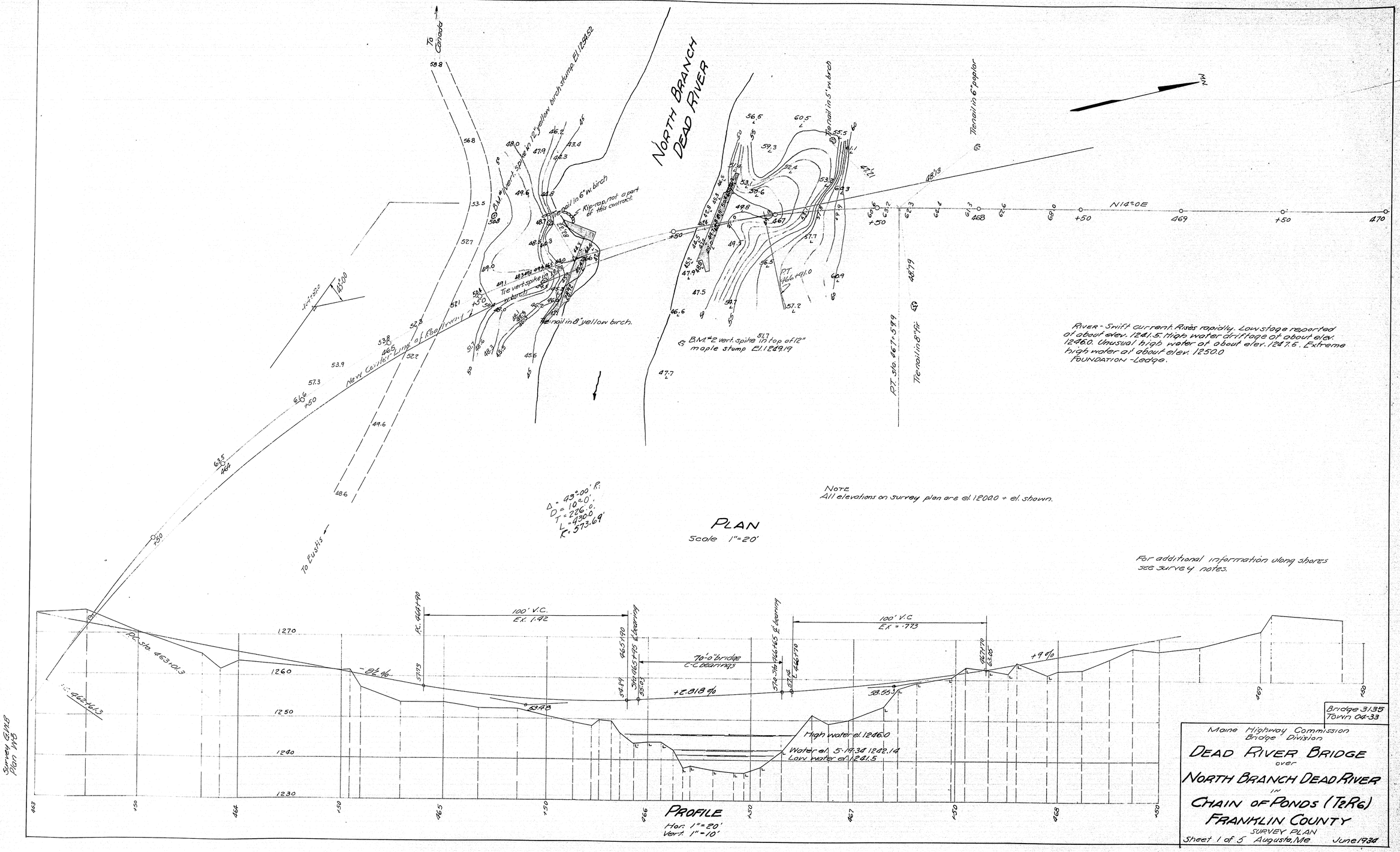
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
DECK REPLACEMENT

GILEAD
OXFORD COUNTY

CURB, BRIDGE DRAIN, RIPRAP DOWNSPOUT & SHEAR CONNECTOR DETAILS

SHEET 10 OF 14 AUGUSTA, MAINE



Bridge 3135
Town 04-33

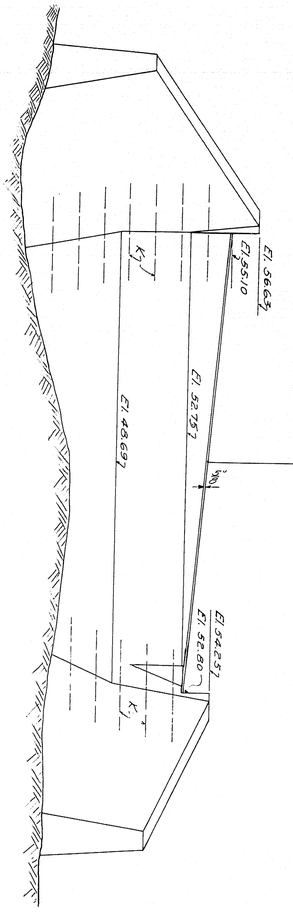
Maine Highway Commission
Bridge Division

DEAD RIVER BRIDGE
over
NORTH BRANCH DEAD RIVER
in
CHAIN OF PONDS (T2R6)
FRANKLIN COUNTY

SURVEY PLAN

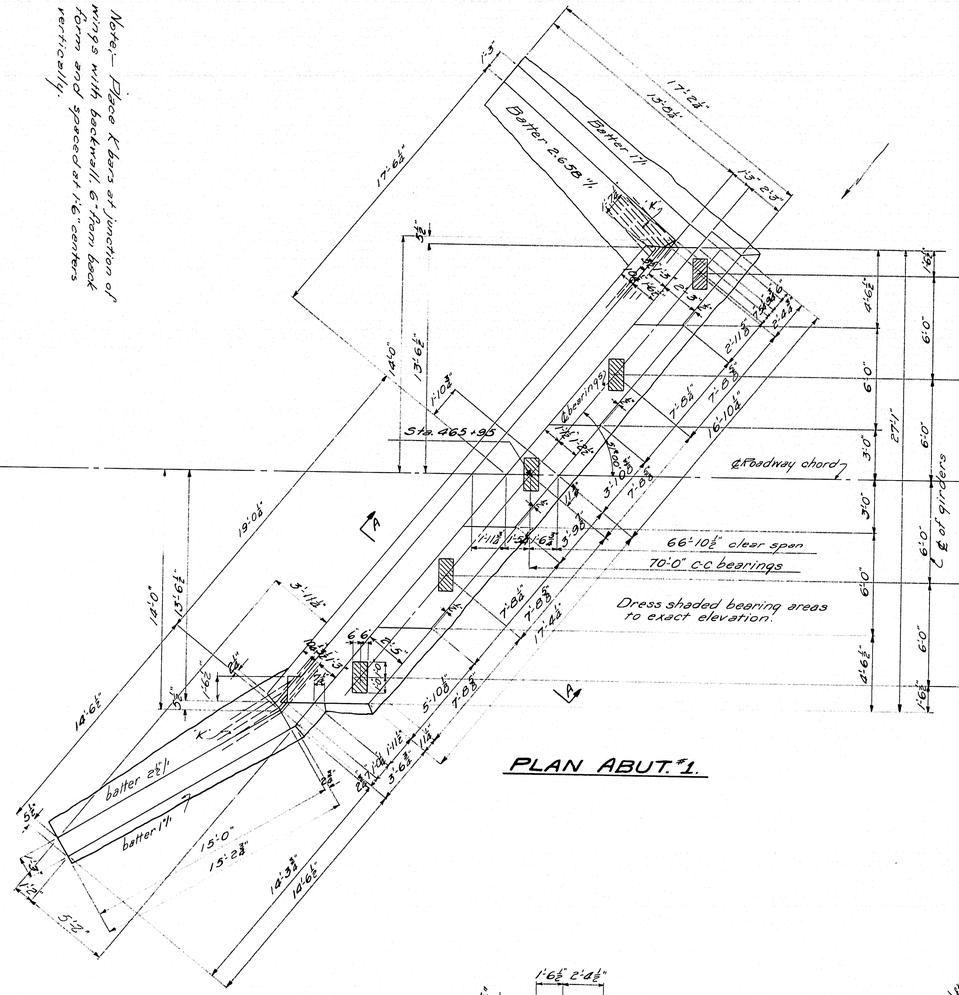
Sheet 1 of 5 Augusta, Me June 1938

22-171

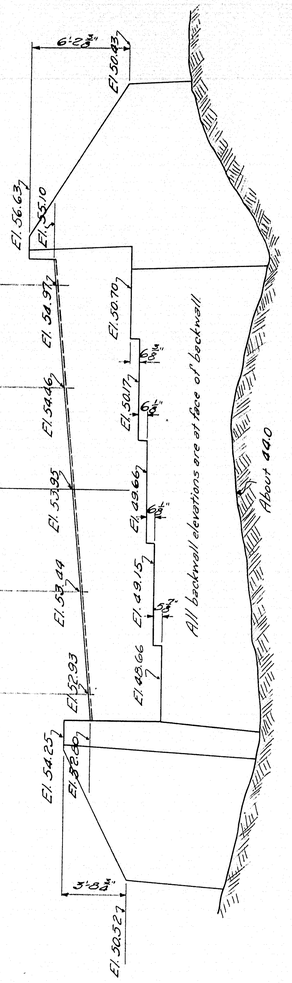


REAR ELEVATION

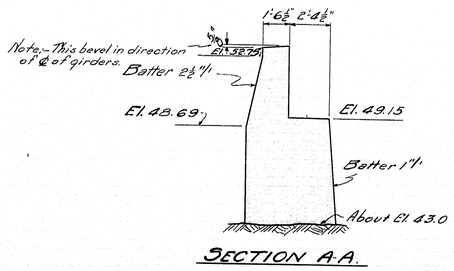
Note:- Place K bars at junction of wings with backwall, 6" from back face and spaced at 16" centers vertically.



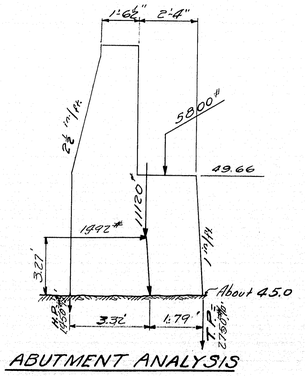
PLAN ABUT. #1.



FRONT ELEVATION



SECTION A-A.



ABUTMENT ANALYSIS

All elevations are 1200.0 plus elev. indicated on details.

Bridge 3135
Town 04-33

Maine Highway Commission
Bridge Division

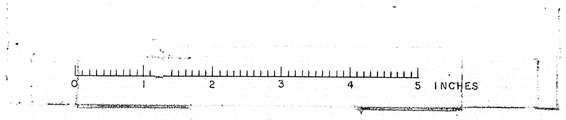
DEAD RIVER BRIDGE
over
NORTH BRANCH DEAD RIVER
in
CHAIN OF PONDS (T2R6)
FRANKLIN COUNTY

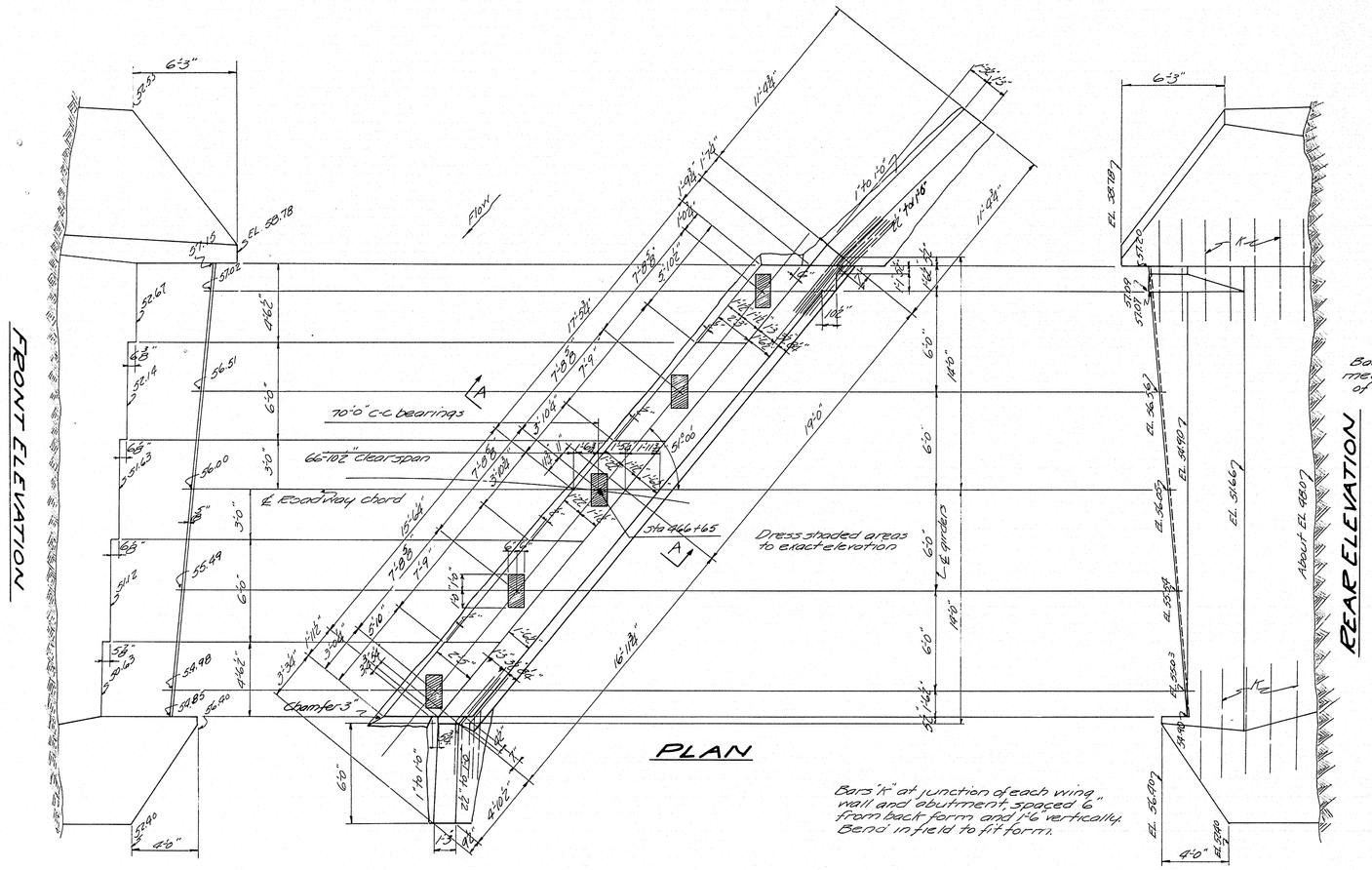
ABUTMENT NO 1

Sheet 2 of 5 Augusta, Me. August 1934

22-172

Plan by BPR
Traced by Con.
L.C.L.P.





All elevations are 12000 plus elev. indicated on details

Plan by KBE
Checked by C.L.P

Bridge 3135
Town 08-33

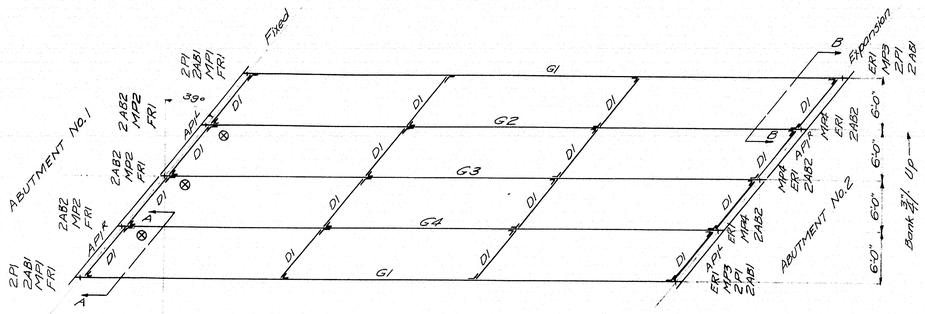
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

DEAD RIVER BRIDGE
over
NORTH BRANCH DEAD RIVER
in
CHAIN OF PONDS (T2-R6)
FRANKLIN COUNTY

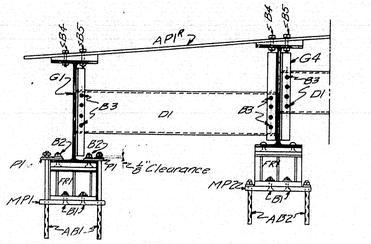
DETAIL ABUTMENT NO. 2.

Sheet 3 of 5 Augusta Me. August, 1934.

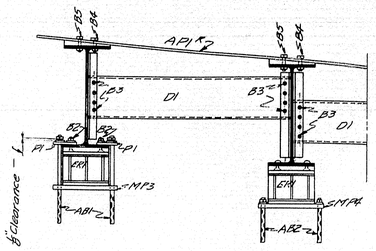
22-173



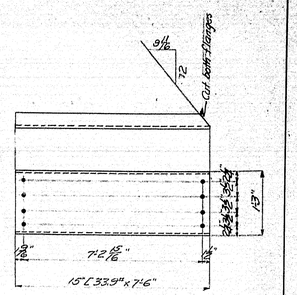
ERECTION DIAGRAM



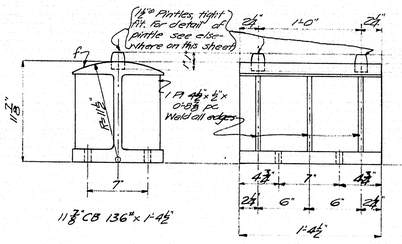
SECTION A-A



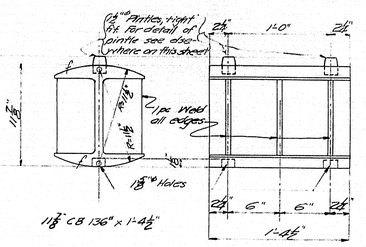
SECTION B-B



16 DIAPHRAGMS D1 AS SHOWN



5 FIXED ROCKERS FRI AS SHOWN

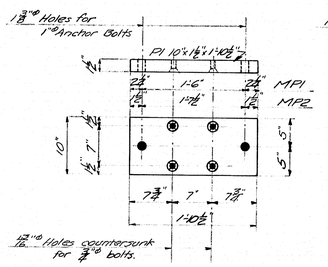


5 EXPANSION ROCKERS ERI AS SHOWN

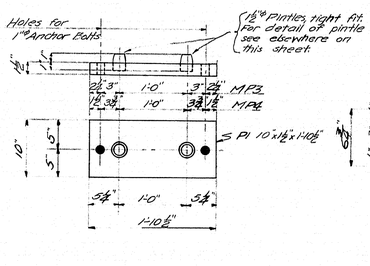


30 PINTLES AS SHOWN

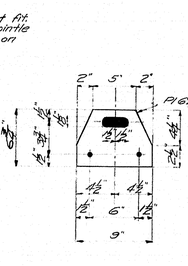
Pintles to be shop assembled tight fit to FRI, ERI, MP3 & MP4



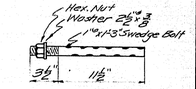
2 MASONRY PLATES MP1 AS SHOWN
3 " " MP2 " "



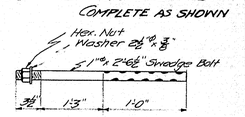
2 MASONRY PLATES MP3 AS SHOWN
3 " " MP4 " "



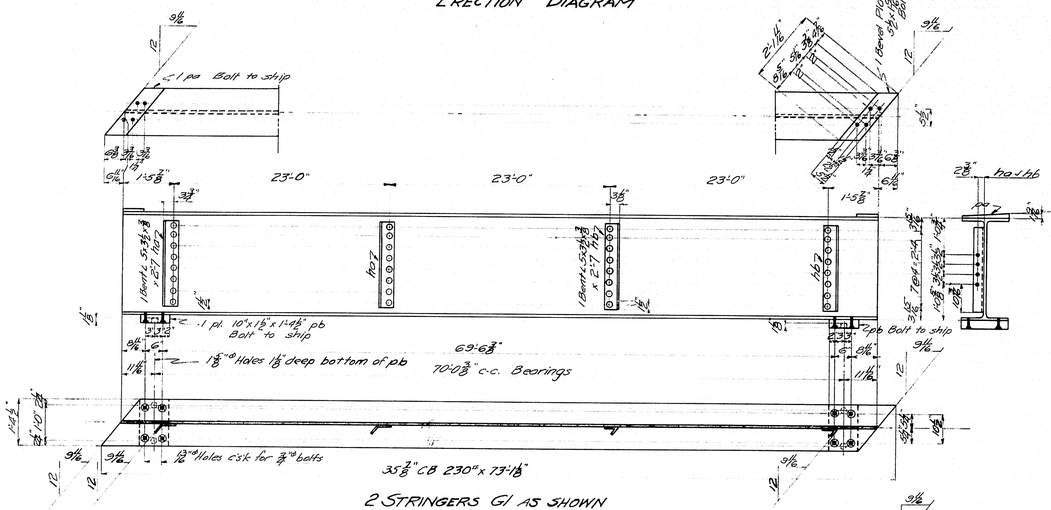
8 PLATES P1 AS SHOWN



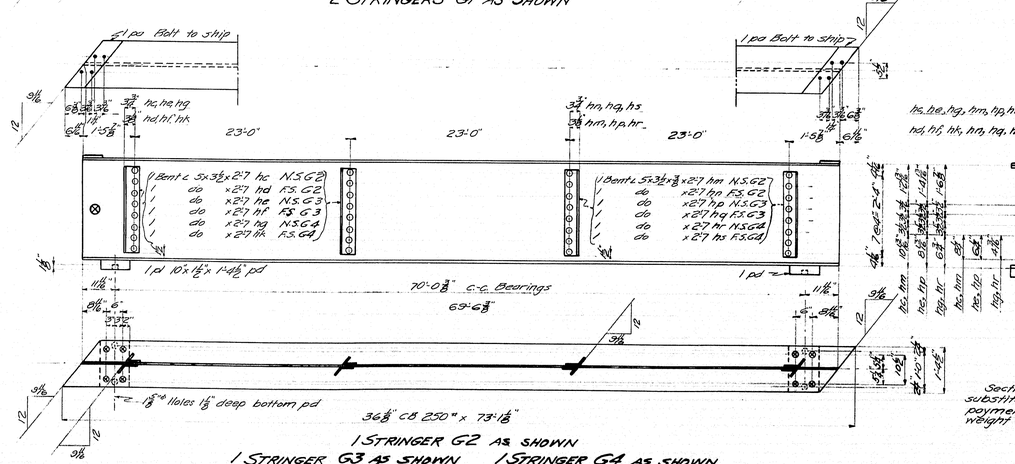
12 ANCHOR BOLTS AB2 COMPLETE AS SHOWN



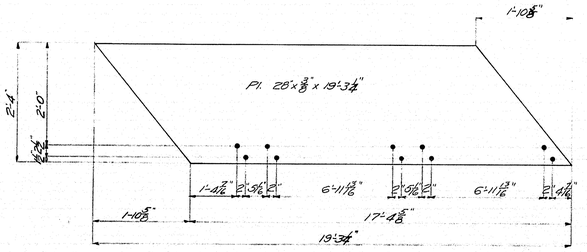
8 ANCHOR BOLTS AB1 COMPLETE AS SHOWN



2 STRINGERS G1 AS SHOWN



1 STRINGER G2 AS SHOWN
1 STRINGER G3 AS SHOWN
1 STRINGER G4 AS SHOWN



2 APRON PLATES API^R AS SHOWN
2 " " API^L OPP. HAND

BOLT SCHEDULE

MARK	SIZE	LENGTH	HEAD	NUT	No.
B1*	⅞" ø	4"	C'sk	Hex.	20
B2*	⅞" ø	4¾"	"	"	16
B3	⅞" ø	1¾"	Square	"	130
B4	⅞" ø	3½"	"	"	20
B5	⅞" ø	3¾"	"	"	20

* Each bolt to have 2½" ø x ¼" washer.

LOADING — H 15
Double Line end impact loads
Working Stress 24000 #/□"
Sections of equal strength may be substituted for those shown, but no payment will be made for additional weight caused by such substitutions.

All rivets to be ¾" ø
All open holes to be ⅞" ø unless otherwise indicated.
All field connections to be bolted.
Specifications - MAINE STATE HIGHWAY COMMISSION for STEEL HIGHWAY BRIDGES.

Design ℄ C.L.P
Details C.L.P & V.E.

Bridge 3135
Town 04 33

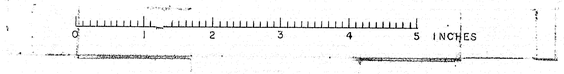
Maine Highway Commission
Bridge Division

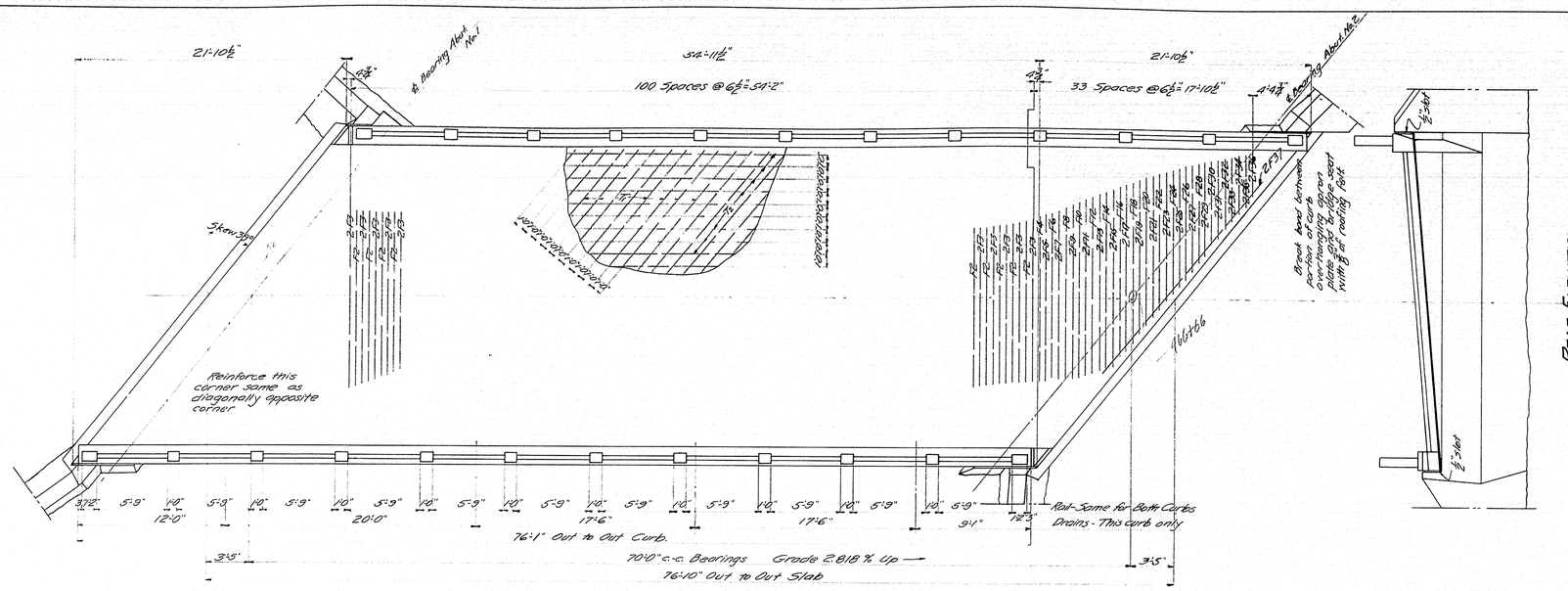
DEAD RIVER BRIDGE
over
NORTH BRANCH DEAD RIVER
in
CHAIN OF PONDS (T2 R6)
FRANKLIN COUNTY

STRUCTURAL STEEL

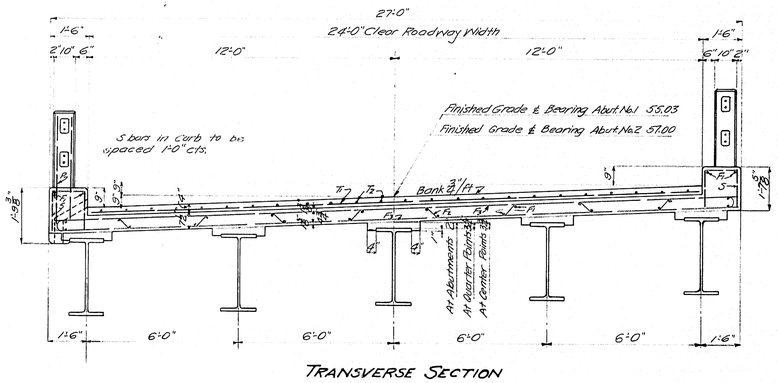
Sheet 4 of 5 Augusta, Me. August 1934

22-174

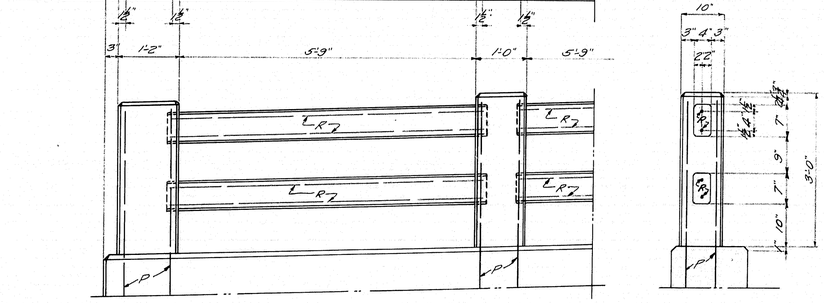


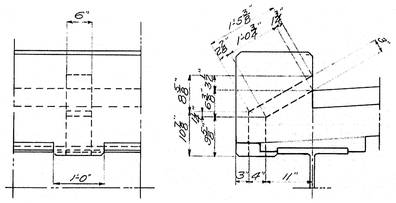


PLAN

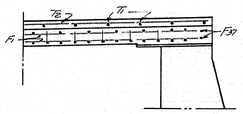


TRANSVERSE SECTION





METAL DRAIN FORMS
4 REQUIRED
26 Gage Galvanized Iron



See PLAN for mark and spacing of main slab steel.

LONGITUDINAL SECTION
AT
ABUTMENT

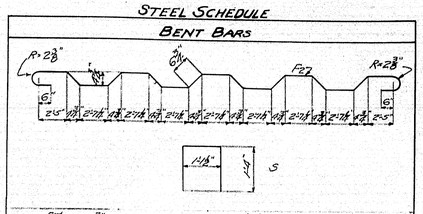
RAIL DETAILS

Curb and slab to be cast together. Steel for posts to be set in curb. Precast rail bars in lengths of 6'2". Place rail bars in position with ends projecting into post forms 2½". Wrap ends of rails for 6" with two thicknesses of light roofing felt. Raid in ends and when post forms are removed cut away all exposed felt. Chamfer all exposed edges of concrete ½" unless otherwise indicated.

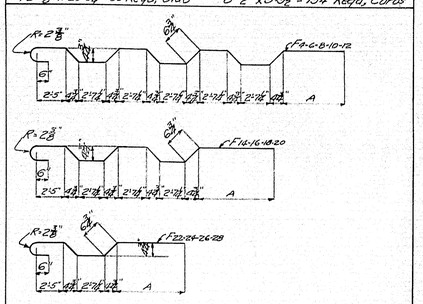
Cover the ½" slots between wing walls and superstructure on the back side with two layers of roofing felt 10" wide. Coat surface of concrete and back side of each layer of felt as applied with hot tar or asphalt. The area to be covered with felt is to be recessed ½" by nailing thin strips to the forms before the concrete is placed.

STEEL SCHEDULE

BENT BARS



Fz 5/8"ϕ x 29'-9⅜" - 50 Reqd, Slab S ½"ϕ x 3'-10½" - 15 Reqd, Curbs



Mark	Size	No.	A	Length	Location	Mark	Size	No.	A	Length	Location
F1	5/8"ϕ	2	7'-9"	27'-0½"	Slab	F18	5/8"ϕ	2	4'-5"	18'-0½"	Slab
F2	5/8"ϕ	2	6'-5"	26'-0½"	Slab	F20	5/8"ϕ	2	3'-1"	16'-0½"	Slab
F3	5/8"ϕ	2	5'-1"	25'-0½"	Slab	F22	5/8"ϕ	2	7'-9"	15'-0½"	Slab
F4	5/8"ϕ	2	3'-9"	23'-0½"	Slab	F24	5/8"ϕ	2	6'-5"	13'-0½"	Slab
F5	5/8"ϕ	2	2'-5"	22'-0½"	Slab	F26	5/8"ϕ	2	5'-1"	12'-0½"	Slab
F7	5/8"ϕ	2	7'-1"	20'-0½"	Slab	F28	5/8"ϕ	2	3'-9"	11'-0½"	Slab
F16	5/8"ϕ	2	5'-9"	19'-0½"	Slab						

STRAIGT BARS

Mark	Size	No.	Length	Location	Mark	Size	No.	Length	Location
F1	5/8"ϕ	48	35'-0"	Slab Curbs	F29	5/8"ϕ	4	3'-1"	Slab
F3	5/8"ϕ	102	26'-8"	Slab	F30	5/8"ϕ	4	8'-5"	Slab
F6	5/8"ϕ	4	25'-2"	Slab	F31	5/8"ϕ	4	7'-9"	Slab
F9	5/8"ϕ	4	23'-10"	Slab	F32	5/8"ϕ	4	7'-1"	Slab
F10	5/8"ϕ	4	22'-6"	Slab	F33	5/8"ϕ	4	6'-5"	Slab
F11	5/8"ϕ	4	21'-2"	Slab	F34	5/8"ϕ	4	5'-9"	Slab
F13	5/8"ϕ	4	19'-10"	Slab	F35	5/8"ϕ	4	5'-1"	Slab
F15	5/8"ϕ	4	18'-6"	Slab	F36	5/8"ϕ	4	4'-5"	Slab
F17	5/8"ϕ	4	17'-1"	Slab	F37	5/8"ϕ	4	3'-13"	Slab
F19	5/8"ϕ	4	15'-9"	Slab	T1	5/8"ϕ	61	30'-4"	Wearing Surface
F21	5/8"ϕ	4	14'-5"	Slab	T2	5/8"ϕ	48	33'-0"	Wearing Surface
F23	5/8"ϕ	4	13'-1"	Slab	R	5/8"ϕ	88	6'-1"	Rails
F25	5/8"ϕ	4	11'-9"	Slab	P	7/8"ϕ	96	4'-0"	Posts
F27	5/8"ϕ	4	10'-5"	Slab	K	3/4"	24	8'-0"	Abutments

All steel to be plain rounds structural grade.
All steel dimensions are to bar centers.

Design 18E LCLP
Details CLP-18E

Bridge 3135
Town 04-33

Maine Highway Commission
Bridge Division

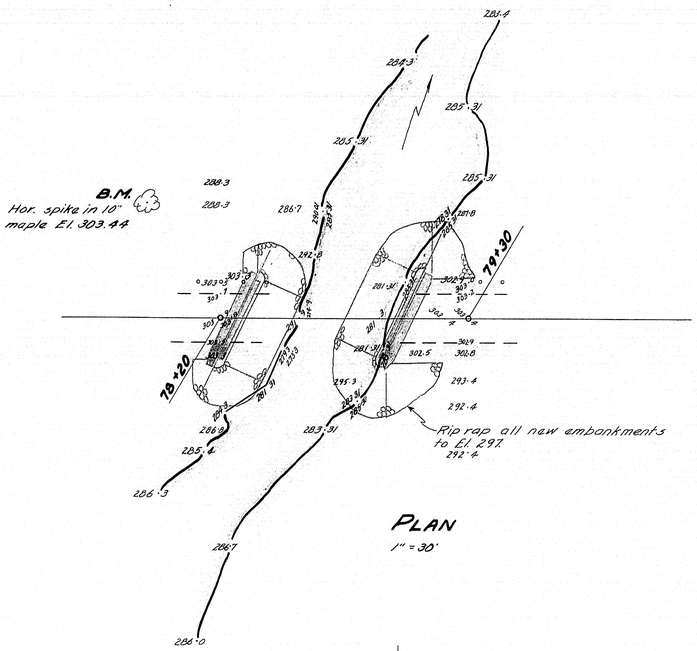
DEAD RIVER BRIDGE
over
NORTH BRANCH DEAD RIVER
in
CHAIN OF PONDS (T2R6)
FRANKLIN COUNTY

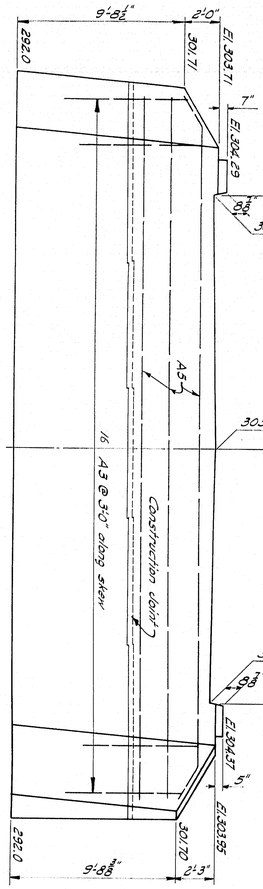
FLOOR PLAN

Sheet 5 of 5 Augusta, Me. August 1934

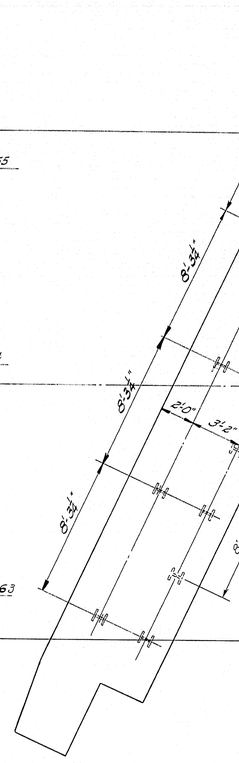
22-175

0 1 2 3 4 5 INCHES


B.M.
Hor. spike in 10" maple El. 303.44
78+20
78+30
Rip rap all new embankments to El. 297.
292.4
288.3
288.3
286.7
292.8
281.4
284.3
285.31
285.31
285.31
281.8
281.31
302.5
302.6
303.3
303.3
303.3

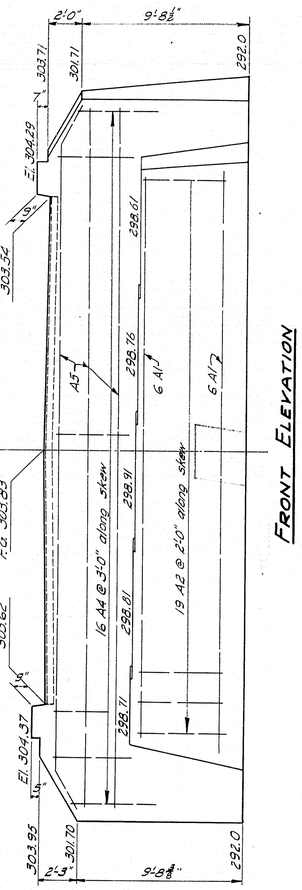


REAR ELEVATION



PILE PLAN





FRONT ELEVATION

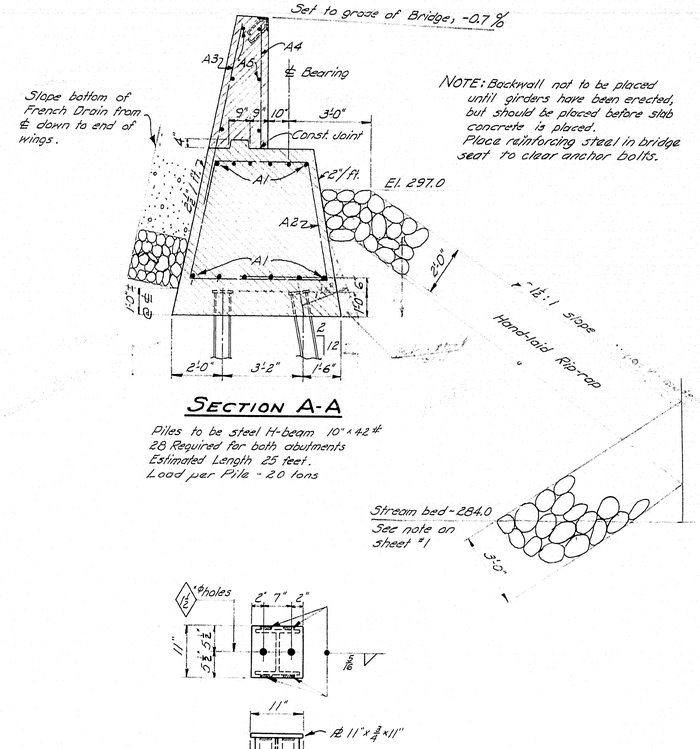
PLAN - ABUT. #1

Dress shaded areas on bridge seats to exact elevations, and 1" larger all around than pedestal plates.

Cover the construction joint on the back side with two layers of heavy roofing 10" wide. Coat the contact surfaces of roofing and concrete with a suitable grade of roofing cement. Recess area to be covered ¼ inch.

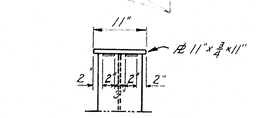
Any backfill required for Abutment #1, will be paid for under Item 205-9 Granular Borrow.

Excavation for Rip Rap to be paid for as Structural Earth Excavation, Abutments, Item 204-12.



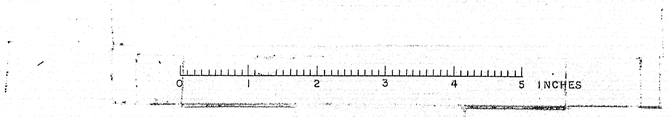
SECTION A-A

Piles to be steel H-beam 10" x 42 lbs.
28 Required for both abutments
Estimated Length 25 feet.
Load per Pile - 20 tons.



PILE CAP DETAIL

28 Req'd.



DESIGN - ALLEN
TRACE - CLARK
CHECK - A.B.P.

BRIDGE - 3842

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FILLIBROWN BROOK BRIDGE

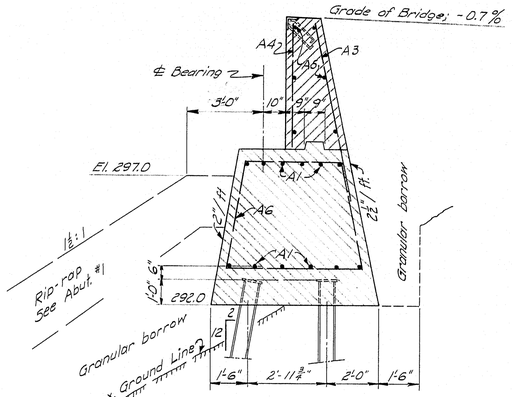
IN THE TOWN OF

NEW SHARON
FRANKLIN COUNTY

ABUTMENT NO. 1

SHEET 2 OF 6 AUGUSTA, MAINE OCT. 1954

59-117



Abut. #2 Section

Place granular borrow up to Elev. 292.0 or excavate as necessary before driving piles.

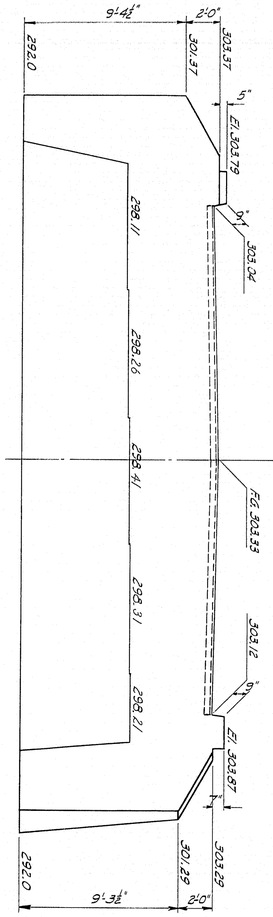
Reinforcing bars are the same for Abut. #2 as for Abut. #1 except for A6 instead of A2.

See Abut. #1 details for Piles, Pile Caps, note for bearing areas, construction joint, and placing the backwall.

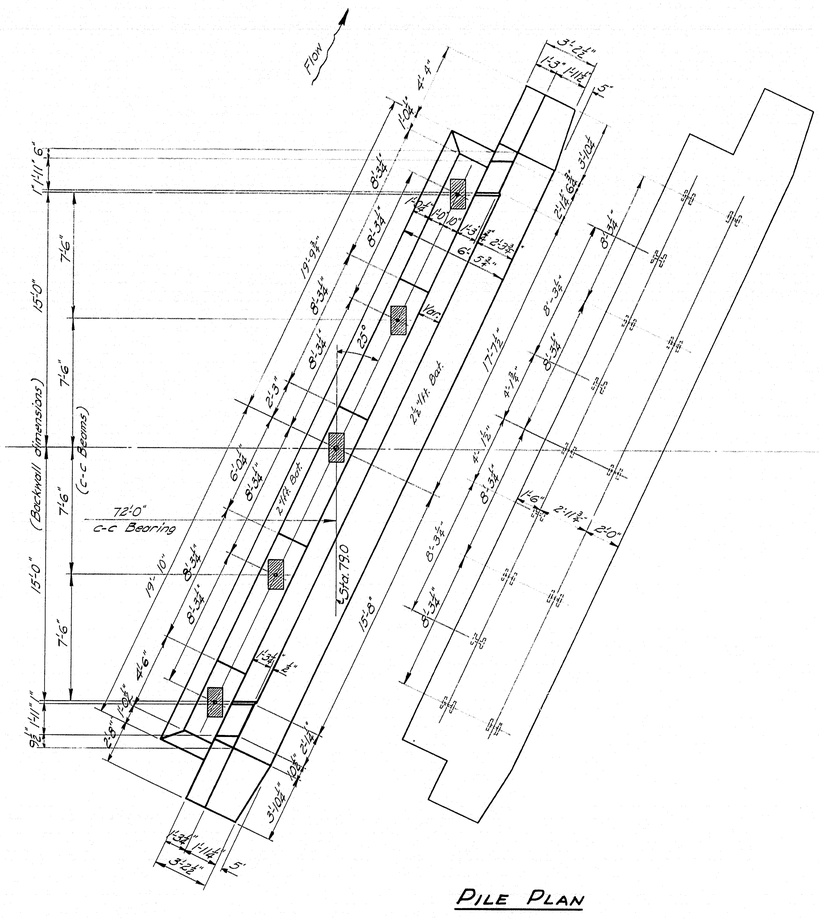
Place reinforcing steel in bridge seats to clear anchor bolts.

Any necessary overhaul for granular borrow will be paid for under Item 308-5.

Excavation for Rip-Rap to be paid for under Item 204-12.

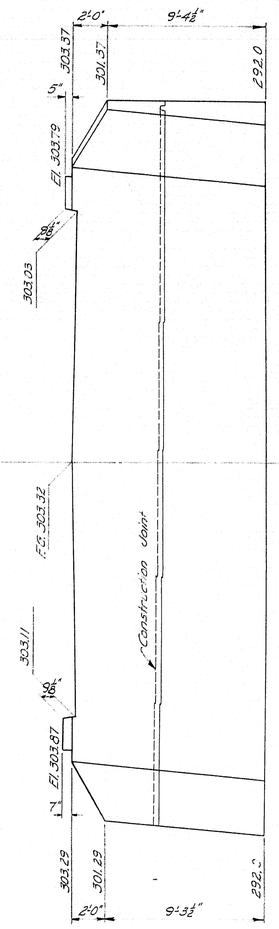


Front Elevation



Plan - Abut. #2

Pile Plan



Rear Elevation

DESIGN - ALLEN
TRACE - CLARK
CHECK - RBP

BRIDGE - 3842

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FILLIBROWN BROOK BRIDGE

IN THE TOWN OF

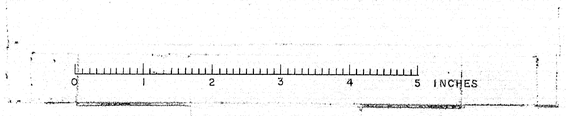
NEW SHARON

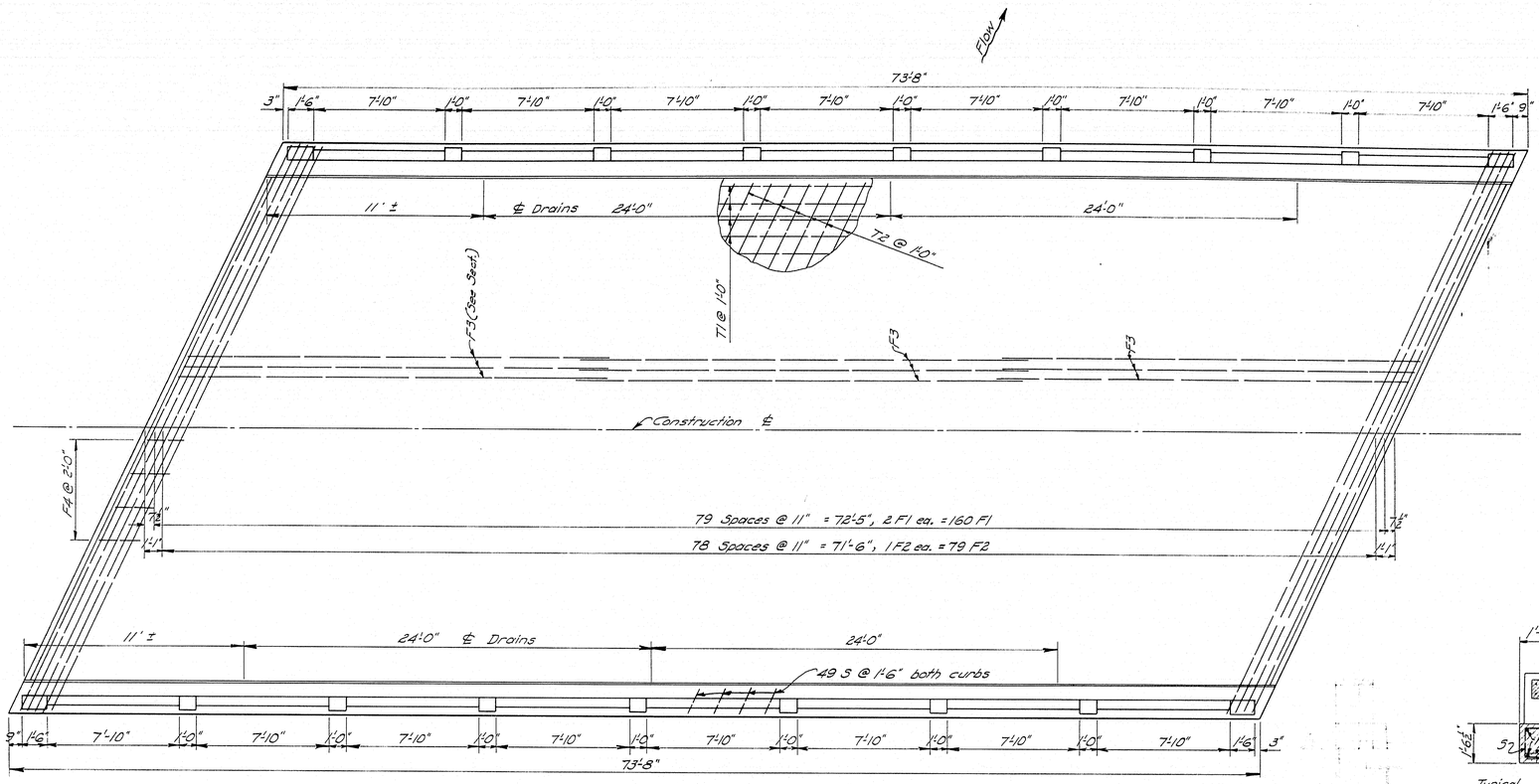
FRANKLIN COUNTY

ABUTMENT NO. 2

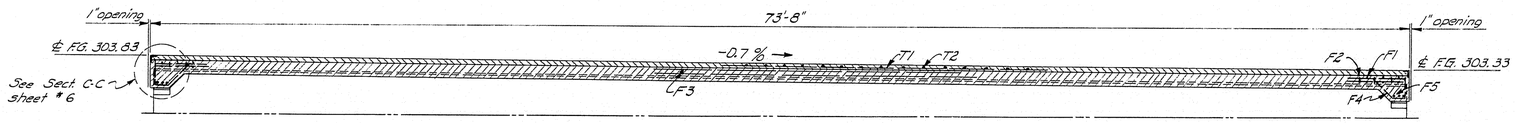
SHEET 3 OF 6 AUGUSTA, MAINE OCT. 1954

59-118

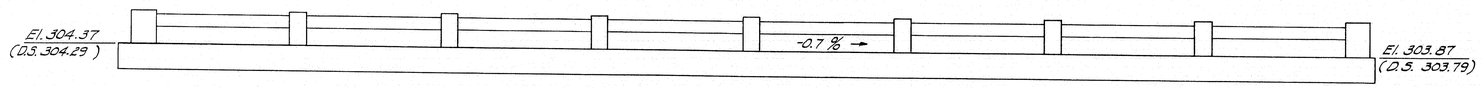




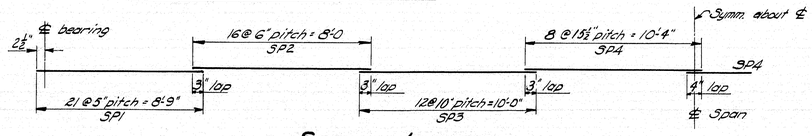
PLAN



LONG. SECTION

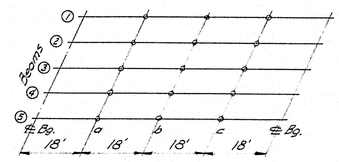


SIDE ELEVATION ~ CURB



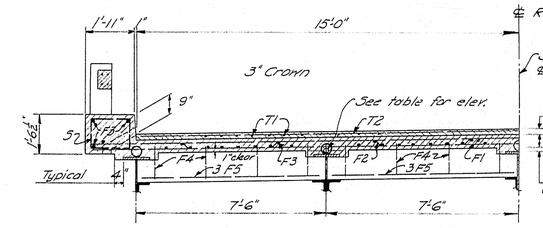
SPIRAL LOCATION

Required ~ 10-SP1, 10-SP2, 10-SP3, 10-SP4



ELEV. BOTTOM OF SLAB			
Beam	a	b	c
1	302.77	302.67	302.52
2	302.89	302.78	302.64
3	303.04	302.93	302.79
4	302.94	302.83	302.69
5	302.87	302.77	302.62

Build slab forms to the elevations shown in table above. These elevations are figured to compensate for dead load deflection.



HALF TRANSVERSE SECT.

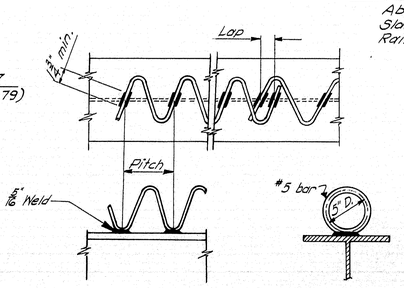
DESIGN

Loading H 20-44
fs = 18,000 fc = 1200 n = 10

NOTE:
Wearing surface and Rail shall not be placed until slab has cured 7 days.

CONCRETE CLASSIFICATION

Abutments _____ Class B
Slab & Wear. Surf. ___ " A
Rail _____ " Y



SPIRAL TO BEAM

DESIGN – ALLEN
TRACE – CLARK
CHECK – A.B.P

BRIDGE – 3842

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FILLIBROWN BROOK BRIDGE

IN THE TOWN OF

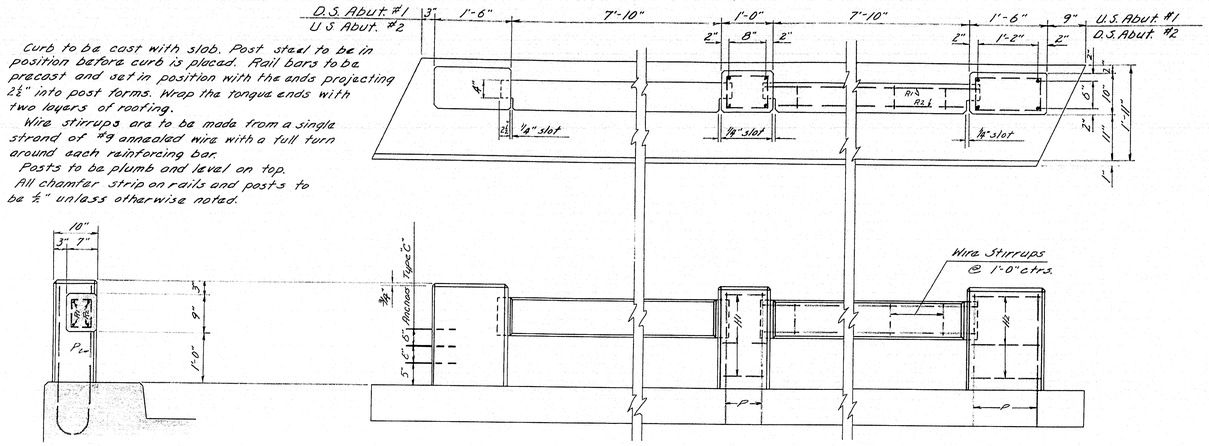
NEW SHARON
FRANKLIN COUNTY

SUPERSTRUCTURE

SHEET 4 OF 6 AUGUSTA, MAINE OCT. 1954

59-119

0 1 2 3 4 5 INCHES



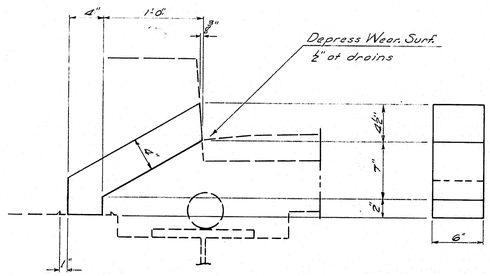
Curb to be cast with slab. Post steel to be in position before curb is placed. Rail bars to be precast and set in position with the ends projecting 2½" into post forms. Wrap the tongue ends with two layers of roofing.

Wire stirrups are to be made from a single strand of #9 annealed wire with a full turn around each reinforcing bar.

Posts to be plumb and level on top.

All chamfer strip on rails and posts to be ½" unless otherwise noted.

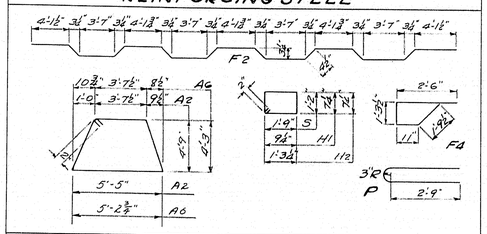
RAIL DETAIL



½" Drip Notch all around.

METAL DRAIN FORM
#24 Ga. galvanized iron
6 Req'd.

REINFORCING STEEL



MARK	SIZE	NO.	LENGTH	REMARKS
P	#6	36	6'-3"	All Rail Posts
F2	#5	79	38'-0"	Slab
F4	#4	32	6'-6"	Slab at ends
A2	#4	19	19'-0"	Abut. 1
A6	#4	19	17'-10"	" 2
S	#4	98	6'-2"	Curbs
H1	#3	42	3'-1"	Int. Rail Posts
H2	#3	12	4'-1"	End Rail Posts
			STRAIGHT BARS	
F5	#7	24	7'-10"	Slab at ends
A1	#6	24	37'-0"	Abutments
A3	#6	32	7'-0	"
A4	#5	32	6'-9"	"
F1	#5	160	37'-2"	Slab
A5	#4	24	24-0	Abut. backwall, splice
F3	#4	144	24'-9"	Slab, longitudinal, splice
R1	#4	32	8'-2"	Rail bars
R2	#4	32	7'-9"	" "
T1	#3	90	24'-9"	Wearing surface, long. splice
T2	#3	67	32'-9"	" "

Dimensions are to ℄ of bars.

DESIGN- ALLEN
CHECK - A.B.P.

BRIDGE - 3842

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FILLIBROWN BROOK BRIDGE

IN THE TOWN OF

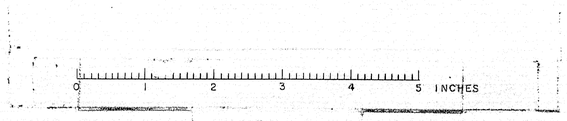
NEW SHARON

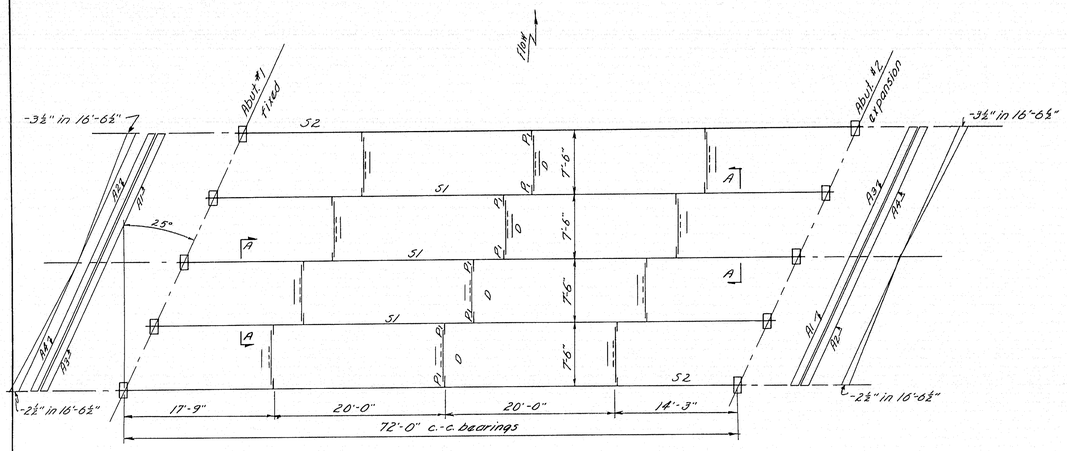
FRANKLIN COUNTY

RAIL DETAIL & REINF. STEEL

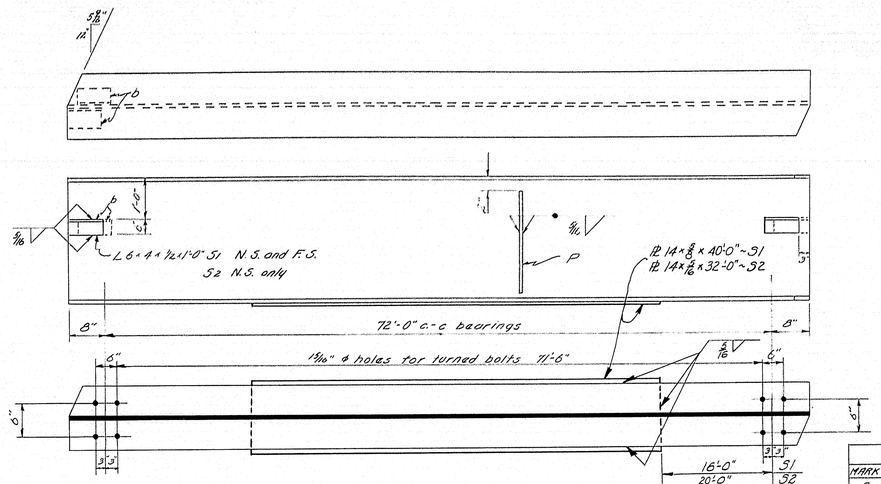
SHEET 5 OF 6 AUGUSTA, MAINE OCT. 1954

39-180





ERECTION DIAGRAM

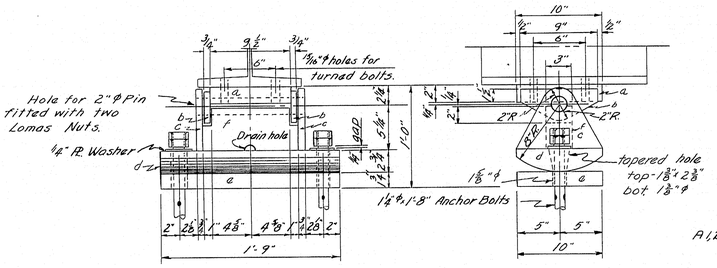


S1 - 36" WF 160# 73'-4" Camber 1½" - 3 REQ'D.

S2 - 36" WF 160# 73'-4" Camber 1½" - 2 REQ'D.

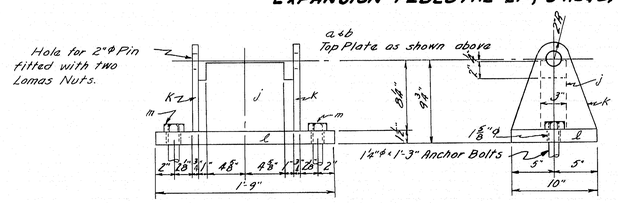
BILL OF MATERIALS

MARK	DESC.	NO
S1	36" WF 160# 73'-4" Pl ½ x ⅞ x 40'-0"	3
S2	36" WF 160# 73'-4" Pl ½ x 7/16 x 32'-0"	2
P1	Pl 6 x ⅜ x 2'-8"	24
D	15" C 33.9 # x 7'-1"	12
A1	L 5 x 3½ x ½ x 16'-8½"	2
A2	ditto	2
A3	ditto	2
A4	ditto	2
EP	As detailed	5
FP	" "	5
P2	Pl 6 x ½ x 9½	10
M	Pl 1½ x ⅜ x 10	132
D	L 6 x 4 x ½ x 1'-0"	10



EXPANSION PEDESTAL EP, 5 REQ'D.

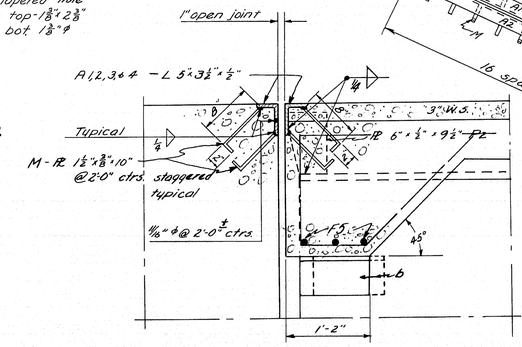
All welds ⅜" fillet



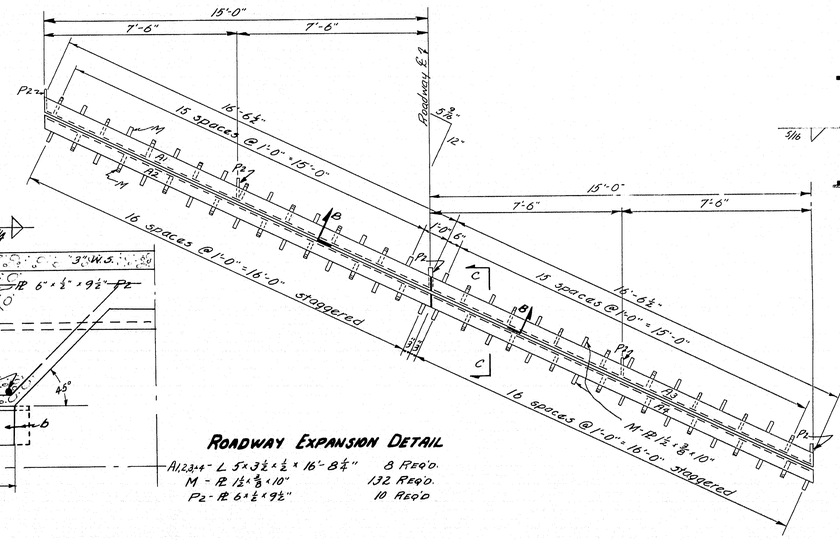
FIXED PEDESTAL FP, 5 REQ'D.

EP		
MARK	DESC.	QUANT.
a	Pl 9½ x 2 x 10	5
b	Pl 3½ x ¾ x 9	10
c	Pl 7¼ x ⅜ x 10	10
d	Pl 10 x 2¾ x 1'-9"	5
e	Pl 10 x 1¾ x 1'-9"	5
f	Pl 5 x 3 x 11¼	5
g	2" Pin w/2 Recessed Pin Nuts (PN21)	5
h	1¼" ø x 1'-8" w/2 hex. nuts and w/1 washer ¼" Pl.	10

FP		
MARK	DESC.	QUANT.
a	Pl 9½ x 2 x 10	5
b	Pl 3½ x ¾ x 9	10
g	2" Pin w/2 Recessed Pin Nuts (PN21)	5
j	Pl 8 x 3 x 11¼	5
k	Pl 10 x ¾ x 10½	10
l	Pl 10 x 1½ x 1'-9"	5
m	1¼" ø x 1'-3" Anchor Bolts w/1 hex. nut	10

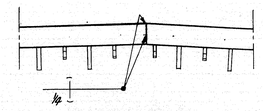


SECTION C-C

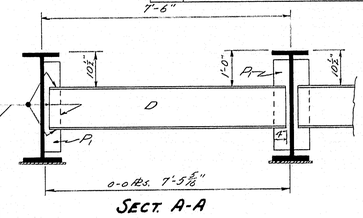


ROADWAY EXPANSION DETAIL

A1,2,3,4 - L 5 x 3½ x ½ x 16'-8½"	8 REQ'D.
M - Pl 1½ x ⅜ x 10"	132 REQ'D.
P2 - Pl 6 x ½ x 9½"	10 REQ'D



SECTION B-B



SECT. A-A

P1 - Pl 6" x ⅜" x 2'-8" 24 REQ'D.

D - 15" C 33.9# x 7'-1" 12 REQ'D.

DESIGN - ALLEN
DETAIL - SHAILER
CHECK - A.R.P.

BRIDGE - 3842

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FILLIBROWN BROOK BRIDGE

IN THE TOWN OF

NEW SHARON

FRANKLIN COUNTY

STRUCTURAL STEEL

SHEET 6 OF 6 AUGUSTA, MAINE OCT. 1954

59-121

0 1 2 3 4 5 INCHES