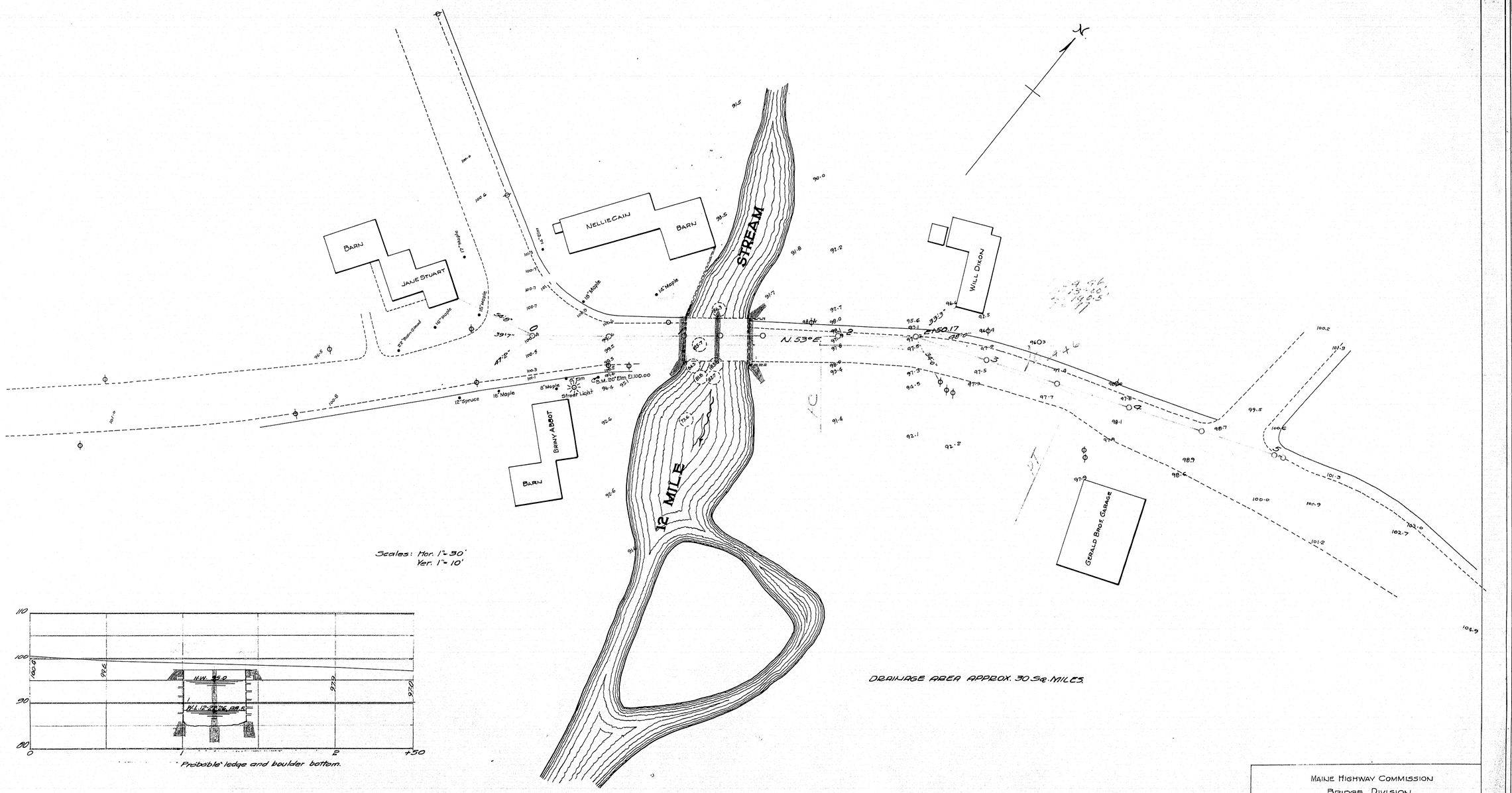


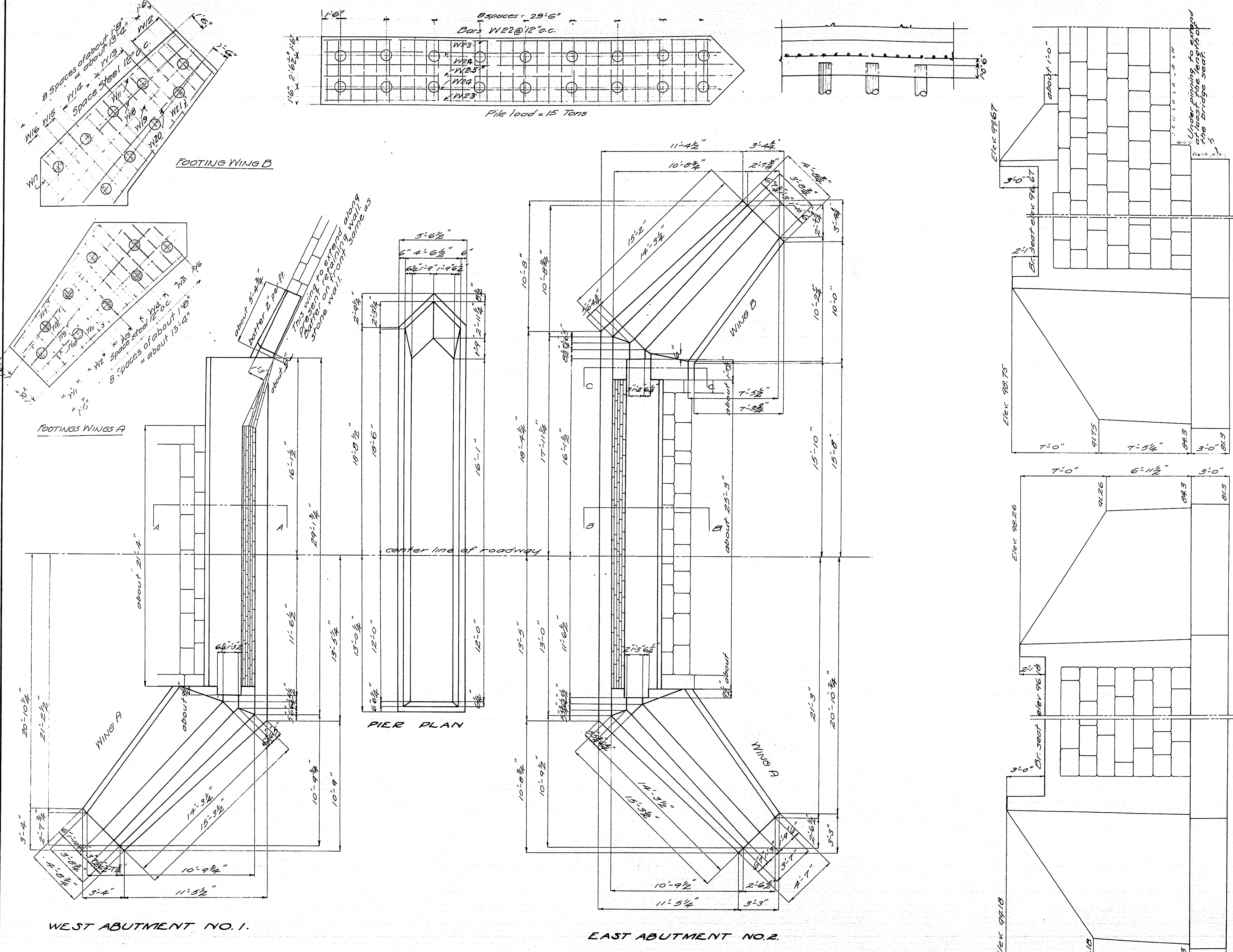
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

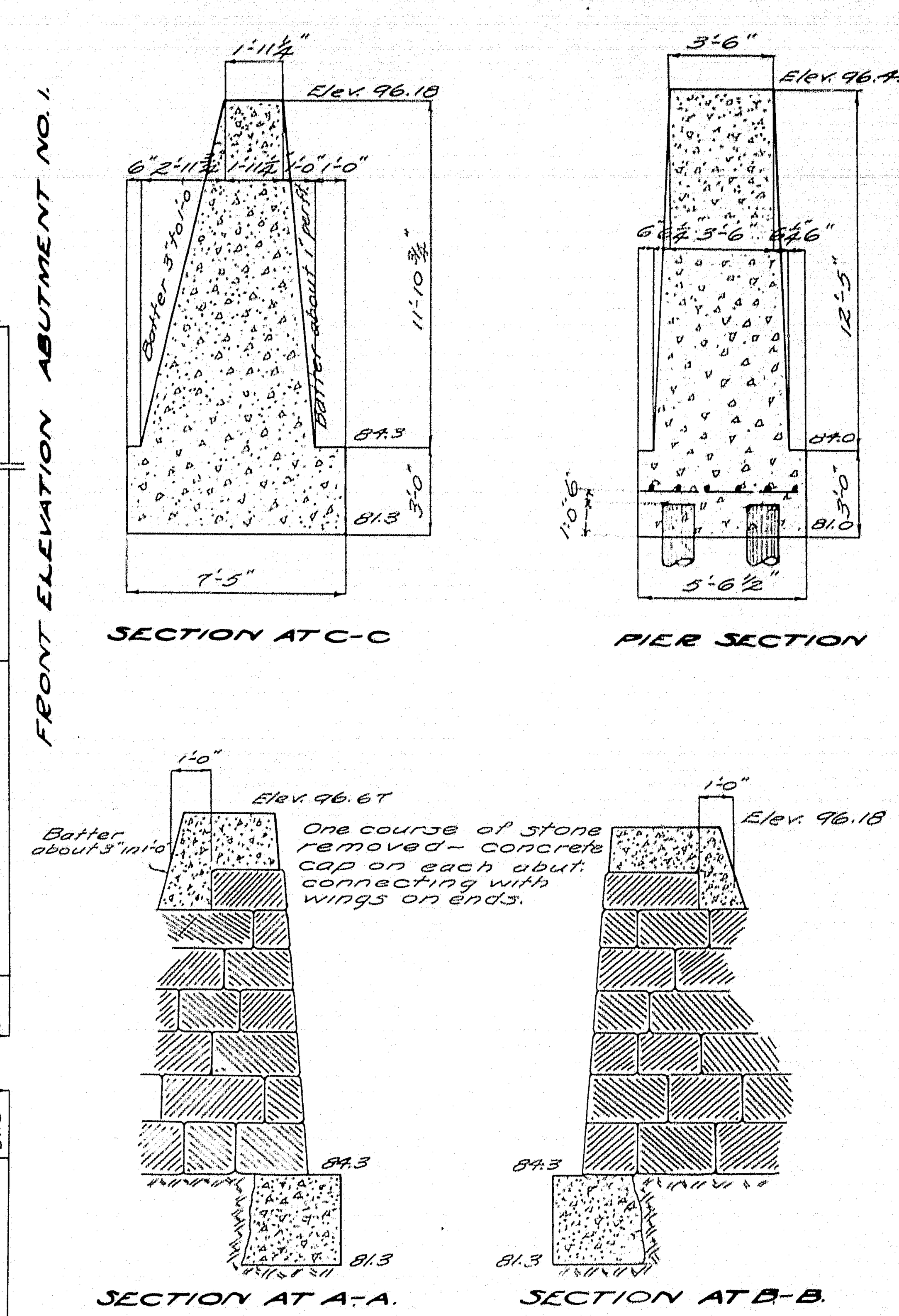
CAIN BRIDGE
OVER
12 MILE STREAM
IN THE TOWN OF
CLINTON, KENNEBEC, CO., ME

SHEET No. 1 OF 3 SURVEY JAN. 1ST 1927

2-183

0 1 2 3 4 5 INCHES

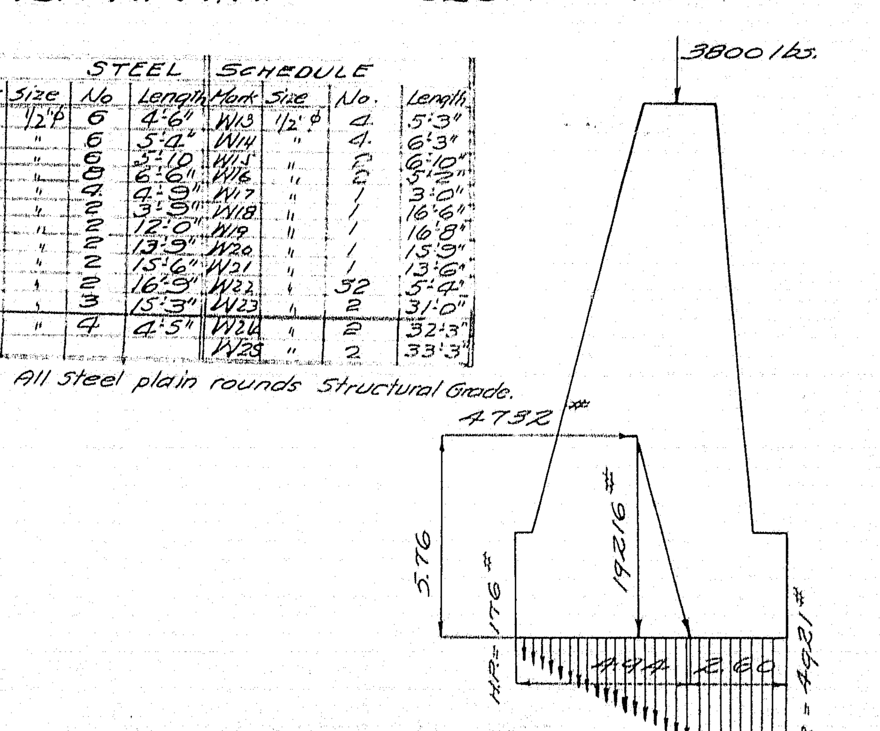




STEEL SCHEDULE

Mark	Size	No.	Length	Mark	Size	No.	Length
W1	½"φ	6	4'-6"	W13	½"φ	4	5'-3"
W2	"	6	5'-4"	W14	"	4	6'-3"
W3	"	6	5'-10"	W15	"	2	6'-10"
W4	"	8	6'-6"	W16	"	2	5'-2"
W5	"	4	4'-9"	W17	"	1	3'-0"
W6	"	2	3'-9"	W18	"	1	16'-6"
W7	"	2	12'-0"	W19	"	1	16'-8"
W8	"	2	13'-9"	W20	"	1	15'-9"
W9	"	2	15'-6"	W21	"	1	13'-6"
W10	"	2	16'-9"	W22	"	32	5'-4"
W11	"	3	15'-3"	W23	"	2	31'-0"
W12	"	4	4'-5"	W24	"	2	32'-3"
				W25	"	2	33'-3"

All Steel plain rounds Structural Grade.



ABUTMENT ANALYSIS

Drawn by RBC
Checked by T.H.

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

CAIN BRIDGE
over
12 MILE STREAM
in the town of
CLINTON, KENNEBEC
COUNTY

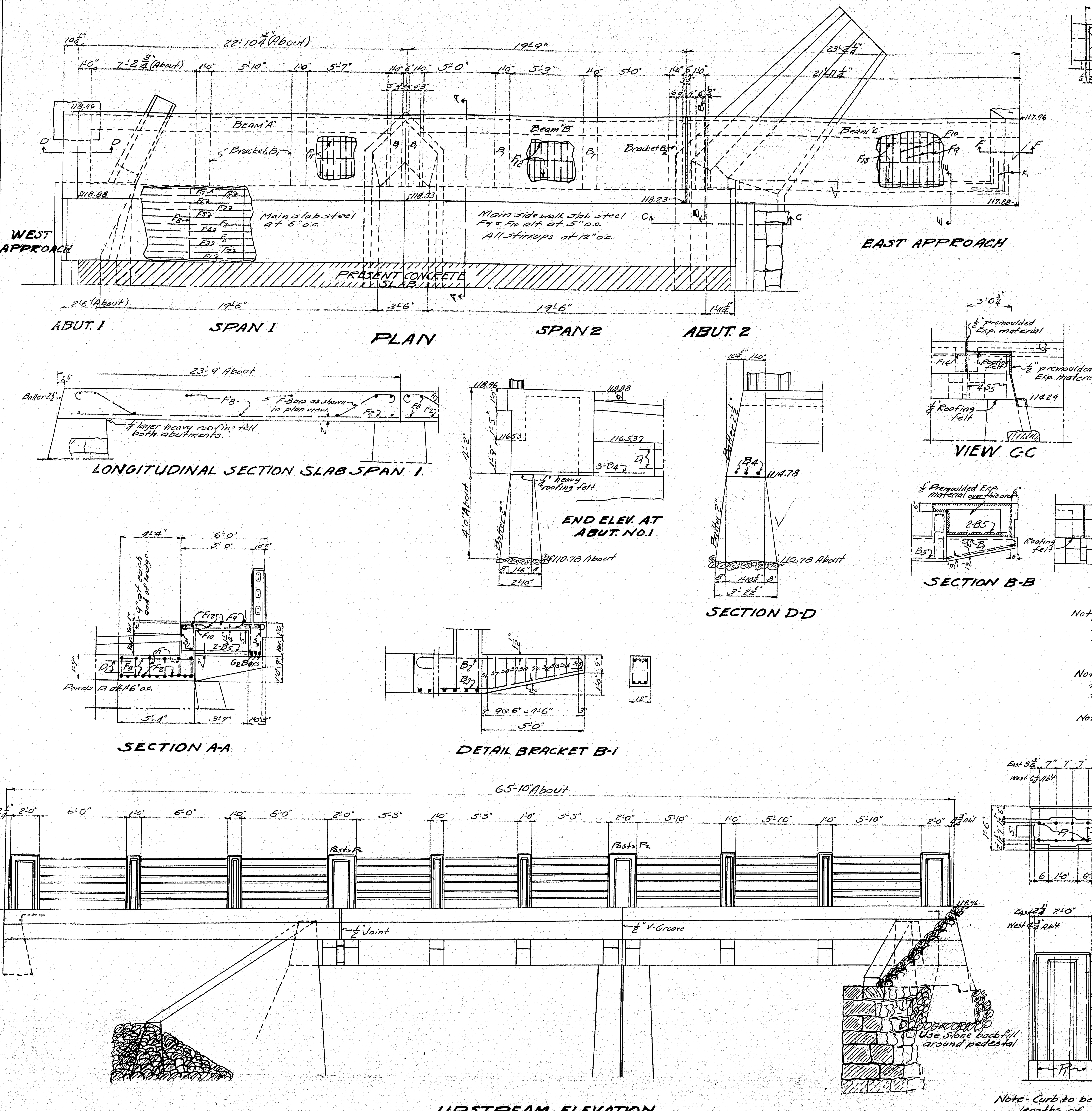
Sheet 2 of 3 May 16, 1927.

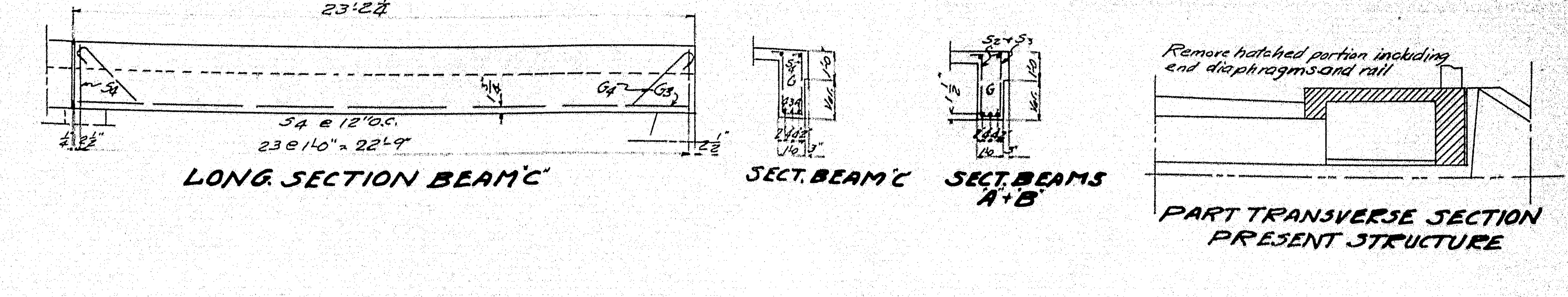
REVISED 7/1/27

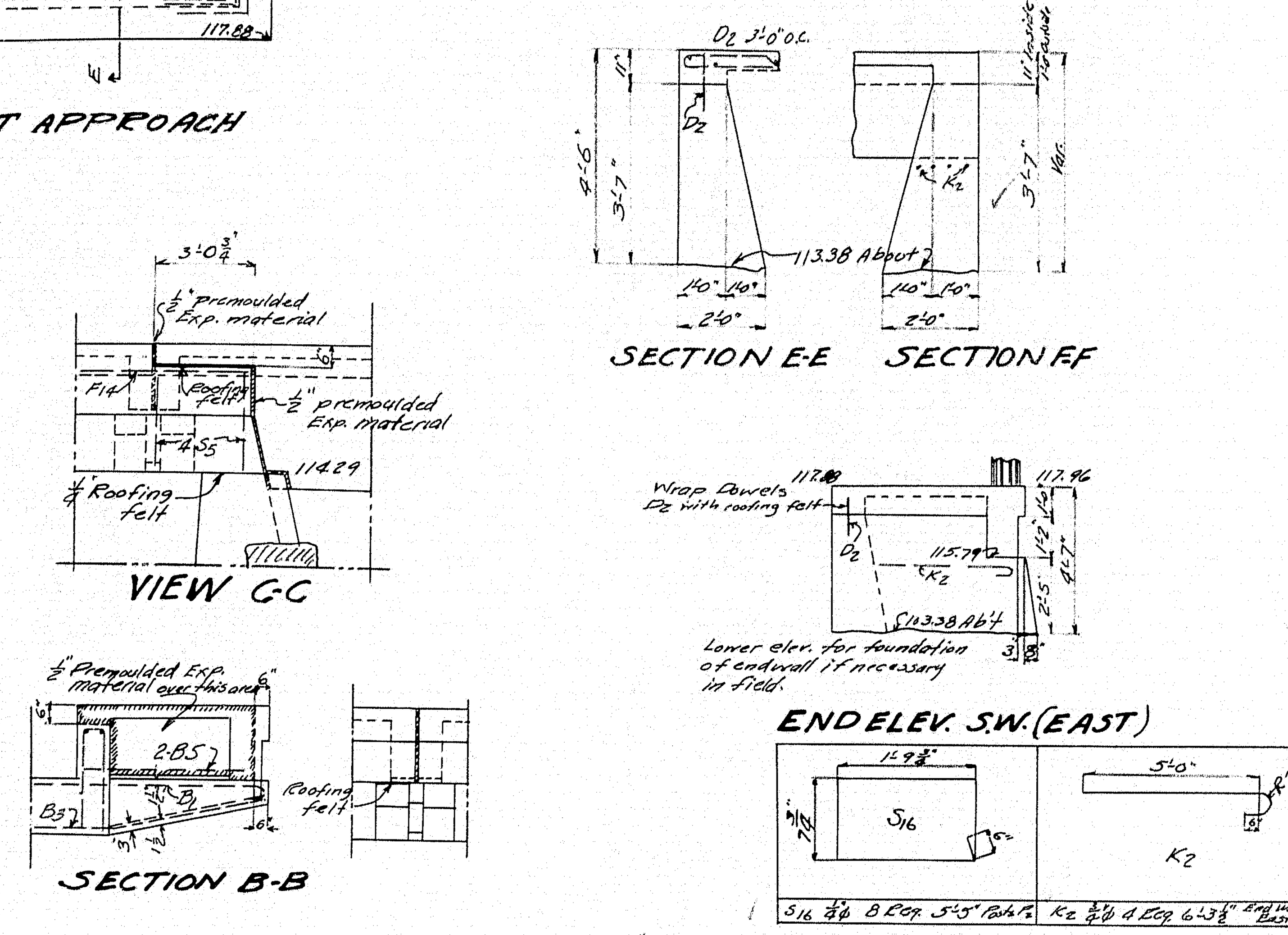
2-182

2-182

0 1 2 3 4 5 INCHES

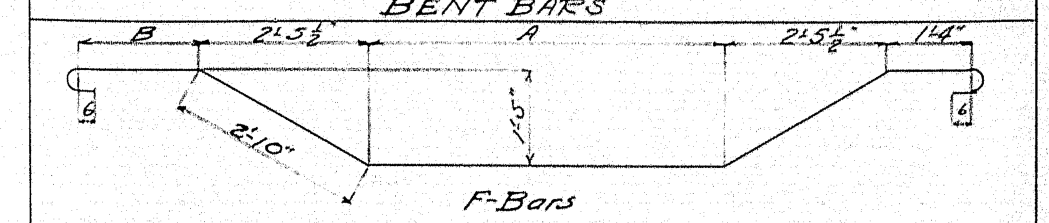






STEEL SCHEDULE

BENT BARS



Mark	Size	No.	Length A	Length B	Tot. Len	Location
F1	1"□	7	14'-7	1'-1"	25'-2¾"	Slab Spans 1+2
F3	"	1	14'-1½	1'-6½	25'-2¾	" Span 1
F4	"	1	13'-8"	2'-0	25'-2¾	" "
F5	"	1	13'-2½	2'-5½	25'-2¾	" "
F6	"	1	12'-9"	2'-11"	25'-2¾	" "
F7	"	1	12'-3½"	3'-4½	25'-2¾	" "

G4 ⅞"φ 2 Req. 26'-0¼" Beam "C"

F9 ⅜"φ 80 Req. 7'-4¾" S.W. Slab

S16 ¼"φ 8 Req. 5'-5" Posts P2 — K2 ½"φ 4 Req. 6'-3½" End Wall East

Mark	Size	No.	Length	Location	Mark	Size	No.	Length	Location
S1	½"φ	43 Req.	8'-3"	Rdwy Curbs Spans 1+2	S9	½"φ	8 Req.	4'-3"	Brackets
S2	"	23	5'-11	Beam "A"	S10	"	8	4'-0½"	"
S3	"	20	5'-9½"	" "B"	S11	"	8	3'-10"	"
S4	"	23	5'-7	" "C"	S12	"	8	3'-7½"	"
S5	"	4	7'-1½	Roadway Curb Ab.#2	S13	"	8	3'-5"	"
S6	"	8	4'-8½	Brackets	S14	"	8	3'-2½"	"
S7	"	8	4'-7"	"	S15	"	8	3'-0"	"
S8	"	8	4'-5"	"					

Mark	Size	No.	Length	Location
B1	⅞"φ	6 Req.	12'-0¼	Bracket No. 2
B2	⅞"φ	18 Req.	12'-0¼	" No. 1
B3	⅝"φ	24 "	7'-1¼"	All Brackets

STRAIGHT BARS

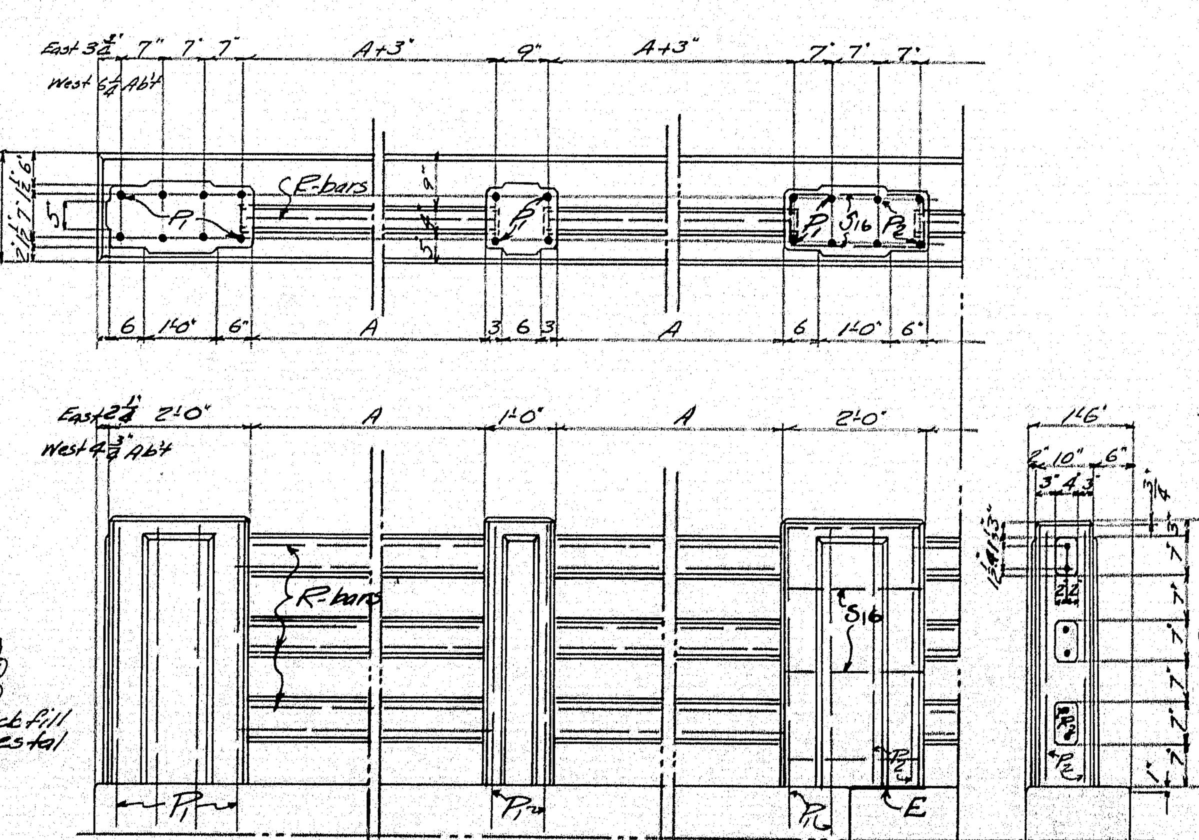
Mark	Size	No	Length	Location	Mark	Size	No	Length	Location
F2	1"□	10	22'-10"	Roadway Slabs	G3	⅞"φ	1	23'-0"	Beam "C"
F8	½"φ	22	5'-0	" "	R1	⅝"φ	18	6'-2"	Rail Span 1
F10	⅜"φ	78	5'-10	S.W. Slab	R2	⅝"φ	18	5'-7"	" " 2
F11	½"φ	7	22'-8½"	S.W. + Curb Span 1	R3	⅝"φ	18	6'-4"	" East App.
F12	"	7	19'-7	" " Span 2	P1	¾"φ	48	4'-7"	Posts P1+P2
F13	"	7	23'-0"	" " East App.	P2	¾"φ	8	3'-6"	Posts P2
B4	¾"φ	3	9'-0"	Abut No 1 Diaphragm	D1	1"φ	30	1'-6"	Roadway Slab
B5	¾"φ	8	5'-6"	Diaphragms	D2	¾"φ	7	1'-0"	Curb East App
G1	⅝"φ	3	23'-6"	Beam "A"	K	¾"φ	4	6'-0"	Curb Wall East App.
G2	⅝"φ	3	19'-6"	Beam "B"	F14	½"φ	2	6'-0"	Curb at Ab. #2.

All steel to be plain bars of structural grade. Dimensions are to centers of bars.

Note - Cover the ½" vertical slot between roadway curb and parapet on the backside with 2 layers of heavy roofing felt. Coat the concrete and backside of each layer of felt as applied with hot tar or asphalt. Felt is to be 10" wide

Note - K1-Bars in curb wall on East Approach to be placed 6" from back form and spaced 1'-0" vertically. Bend in field to fit form.

Note - Elevations shown on plans are referenced to Highway Dept. grades. Highway Dept. grades = present bridge grades + 18.11



Note - Curb to be cast with S.W. slab. Steel for posts to be set in curb. Precast rail bars in lengths of A+5". Place rail bars in position with ends projecting into post forms 2½". Wrap the end of each rail 6" with 2 thicknesses of heavy roofing felt. Fold in ends, and when post forms are removed cut away all exposed felt. Panels on posts to be ⅜" thick. Chamfer all exposed edges of concrete ½" unless otherwise indicated. Use 2 layers of roofing felt at "E"

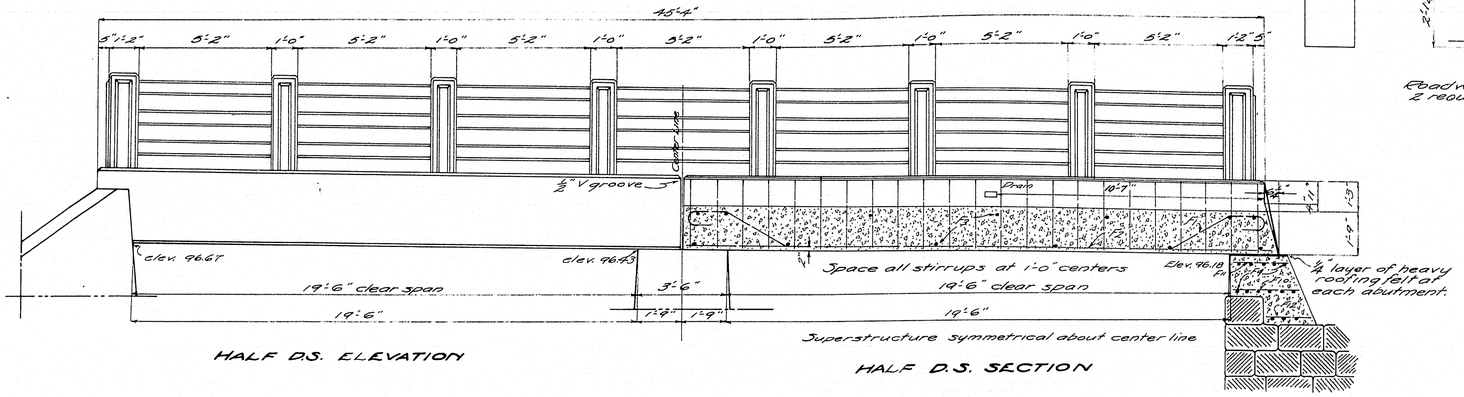
TOWN	06-07
BRIDGE	2117

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

CAIN BRIDGE
OVER
12 MILE STREAM
IN THE TOWN OF
CLINTON, KENNEBEC COUNTY
EXTENSION PLAN

AUGUSTA, ME. FEB. 18, 1932.

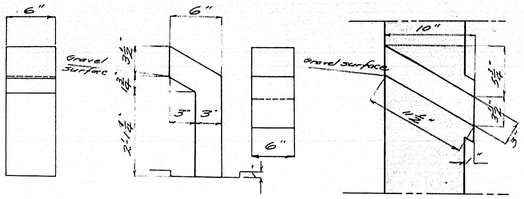
15-115



HALF D.S. ELEVATION

Superstructure symmetrical about center line

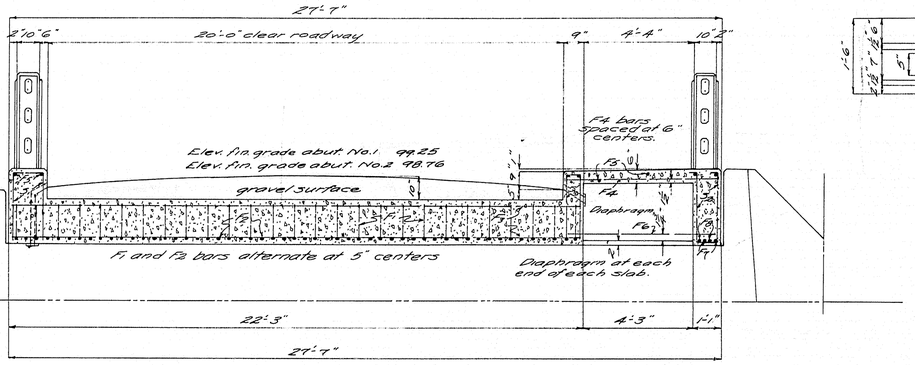
HALF D.S. SECTION



Roadway side 2 required.

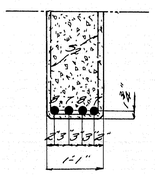
Side walk side 2 required.

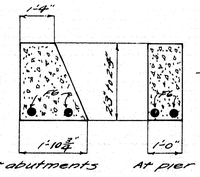
DRAIN DETAILS



TRANSVERSE SECTION

-Note-
The 1/2" vertical slot on each side between the superstructure and wings and also the 2" gaps between the diaphragm and bridge seat are to be covered on the backside with two layers of heavy roofing felt. Coat face of concrete and back of each layer as applied with hot tar or asphalt.

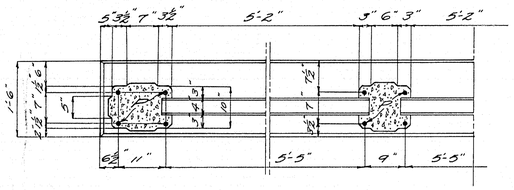


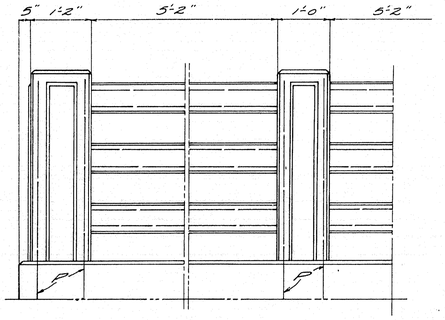


At abutments At pier

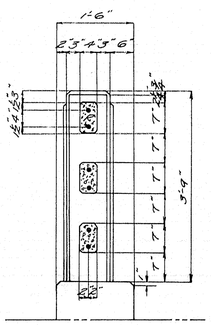
SECTION S.W. GIRDER DIAPHRAGM SECTIONS

-Note-
Roofing felt is to be 10" wide. The area to be covered by the felt is to be recessed 1/4" by nailing thin strips to the form before concrete is placed.



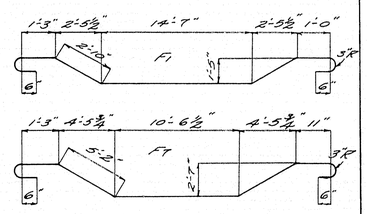


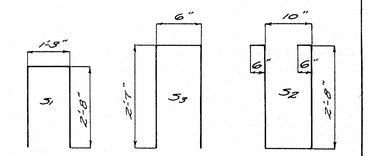
RAIL DETAILS



-Note-
Curb to be cast with slab. Steel for posts to be set in curb. Precast rail bars in lengths of 5'-7". Place rail bars in position with ends projecting into post forms 2 1/2". Wrap the end 6" of each rail with 2 thicknesses of heavy roofing felt. Fold in ends and cast posts. When post forms are removed cut away all felt leaving exposed. Panels on posts are raised 1/8". Chamfer all exposed edges of concrete 1/2" unless otherwise indicated

STEEL SCHEDULE





MARK	SIZE	No. PIECES	LENGTH	LOCATION
S1	1/2" ϕ	46	6'-7"	Curb
S2	1/2" ϕ	46	7'-2"	S.W. girder
S3	1/2" ϕ	46	5'-8"	Curb
F1	1" ϕ	54	25'-0 3/4"	Slab
F2	1" ϕ	52	22'-10 3/4"	Slab
F3	1/2" ϕ	26	22'-0"	Slab
F4	1/2" ϕ	90	5'-10"	S.W. Slab
F5	1/2" ϕ	18	22'-5"	" " "
F6	1/8" ϕ	8	5'-10"	Diaphragm
F7	1/8" ϕ	4	25'-7 1/4"	S.W. girder
F8	3/8" ϕ	4	22'-10 3/4"	" " "
F9	3/4" ϕ	28	29'-0"	Caps
F10	1/2" ϕ	12	2'-6"	"
F11	1/2" ϕ	12	2'-0"	"
F12	1/2" ϕ	12	1'-3"	"
P	3/4" ϕ	64	4'-6"	Posts
R	1/2" ϕ	84	5'-6"	Rails

Drawn by KBE
Checked by TH

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION

CAIN BRIDGE
OVER
12 MILE STREAM
IN the town of
CLINTON, KENNEBEC
— COUNTY —

SUPERSTRUCTURE DETAILS

Sheet 3 of 3 June 1, 1927

2-181

0 1 2 3 4 5 INCHES