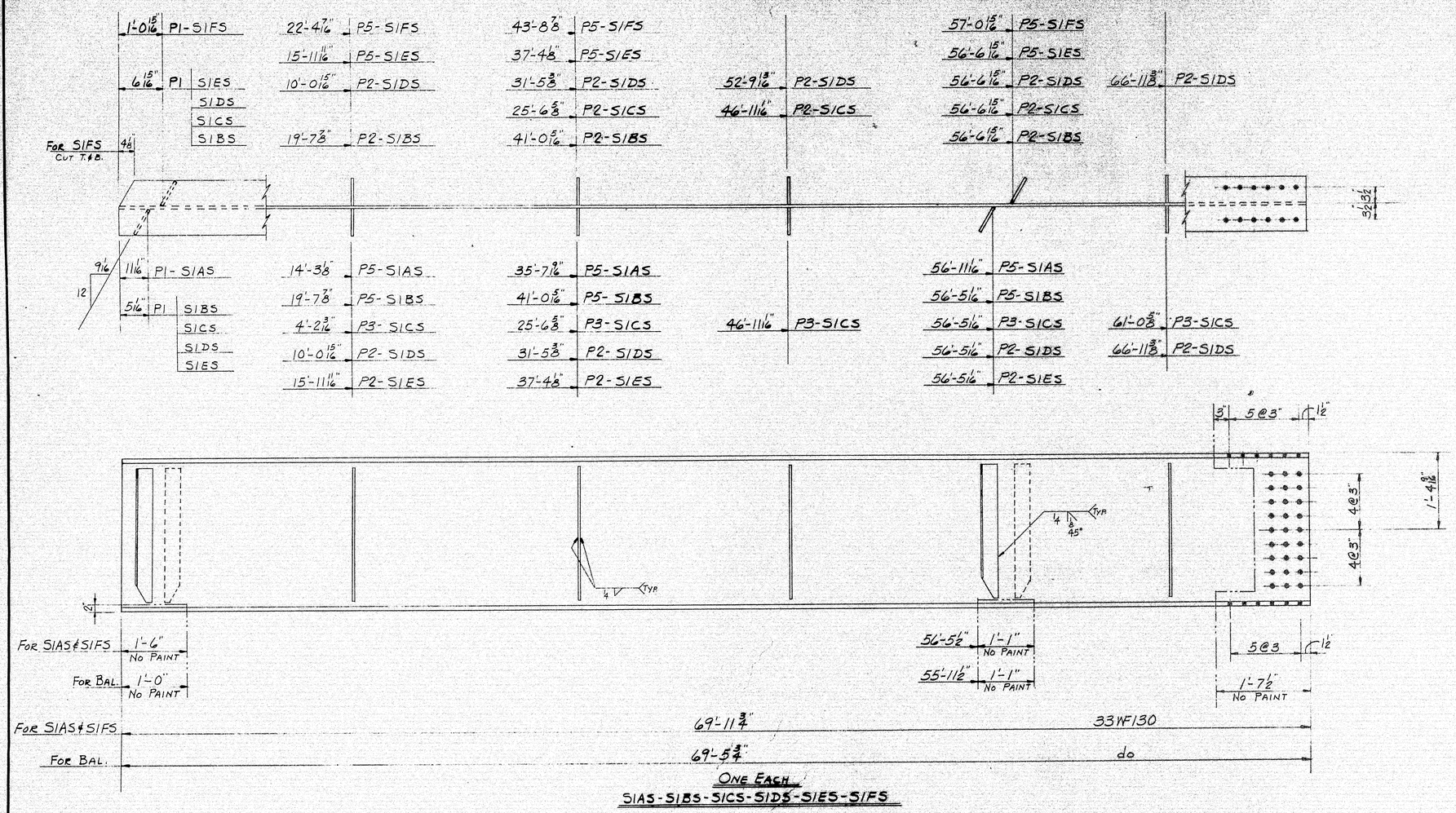


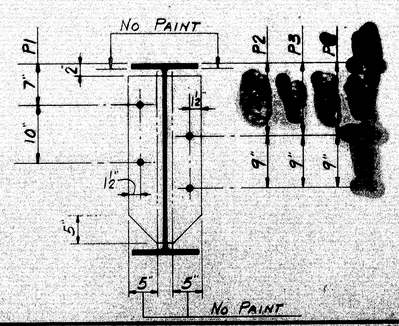
ONE EACH
S1AS-S1BS-S1CS-S1DS-S1ES-S1FS

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
S1AS	1		33WF130	69	11 3/4		A441
S1BS	1			69	5 3/4		
S1CS	1			69	5 3/4		
S1DS	1			69	5 3/4		
S1ES	1			69	5 3/4		
S1FS	1		do	69	11 3/4		do
	10	P1	PL 6 x 3/8	2	5		A36
	18	P2		2	5		
	5	P3		2	5		
	12	P5	do	2	5		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		do

BILL OF MATERIAL — DWG. B66-399-S8

PLACE ANY NATURAL CAMBER UP.

THIS END ABUT. #1



MATCH THIS END WITH STRINGERS MARKED "S2"

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 3/4 ϕ H.S. BOLTS
HOLES: 15/16 ϕ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34)258 — APP. AS NOTED 2-13-67

SOUTHBOUND STRINGERS SPAN #1

PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-27-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

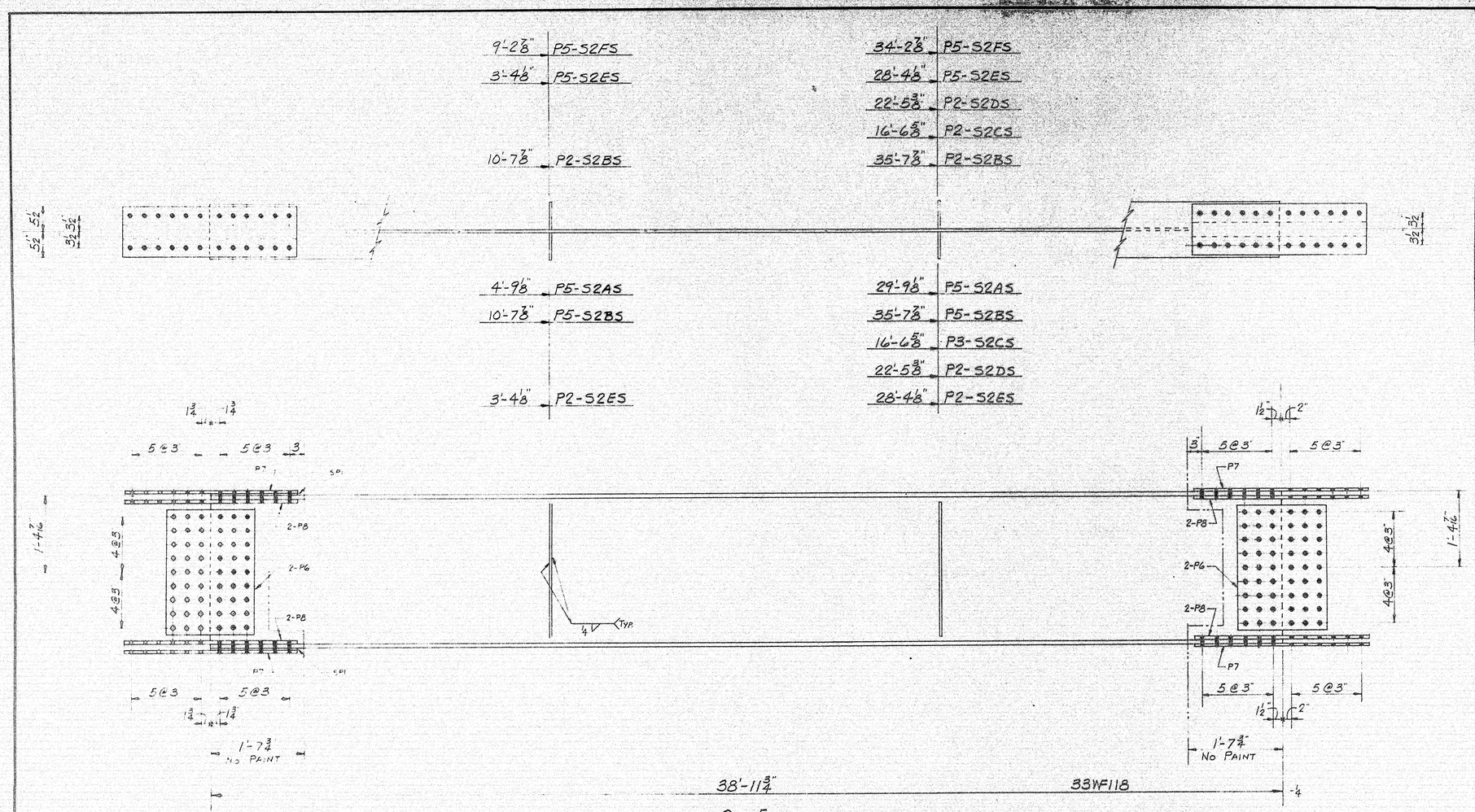
I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.

ORDER VERBAL — DWG. B66-399-S8

100-136

0 1 2 3 4 5 INCHES

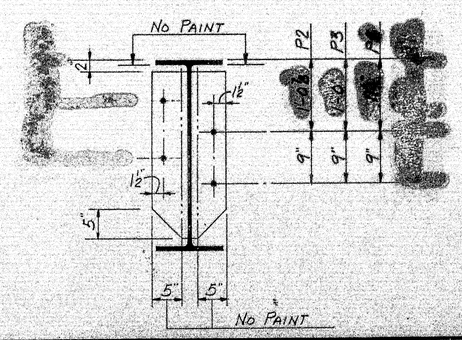


SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
S2AS	1		33WF118	38 11¾		A441
S2BS	1			38 11¾		
S2CS	1			38 11¾		
S2DS	1			38 11¾		
S2ES	1			38 11¾		
S2FS	1		do	38 11¾		do
	7	P2	PL 6x⅜	2 5		A36
	1	P3		2 5		
	8	P5	do	2 5		
	24	P6	PL 18½x⅝	2 3		
	24	P7	PL 11x7/16	3 0½		
	48	P8	PL 4x¾	3 0½		
	12	SP1	PL 11x⅛	1 6¼		do
	96	SHOP	⅞φ H.S. BOLT	0 3½		FLANGE BOLTS A325
	24	SHOP	do	0 3¼		WEB BOLTS "
FIELD	495		⅞φ H.S. BOLT	0 3½		FLANGE A325
do	636		do	0 3¼		WEB do
do	1250		⅞φ H.S. WASHER			
do	224		⅝φ M. BOLT	0 2		
do	448		⅝φ STD. WASHER			

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: ⅞φ H.S. BOLTS
HOLES: 15/16φ U.N.
PAINT: STATE OF MAINE SPECS

PLACE ANY NATURAL CAMBER UP

MATCH THIS END WITH STRINGERS MARKED "S1"



MATCH THIS END WITH STRINGERS MARKED "S3"

PROJ. No. I-95-9(34) 258 APP. AS NOTED 2-13-67

SOUTHBOUND STRINGERS SPAN #2

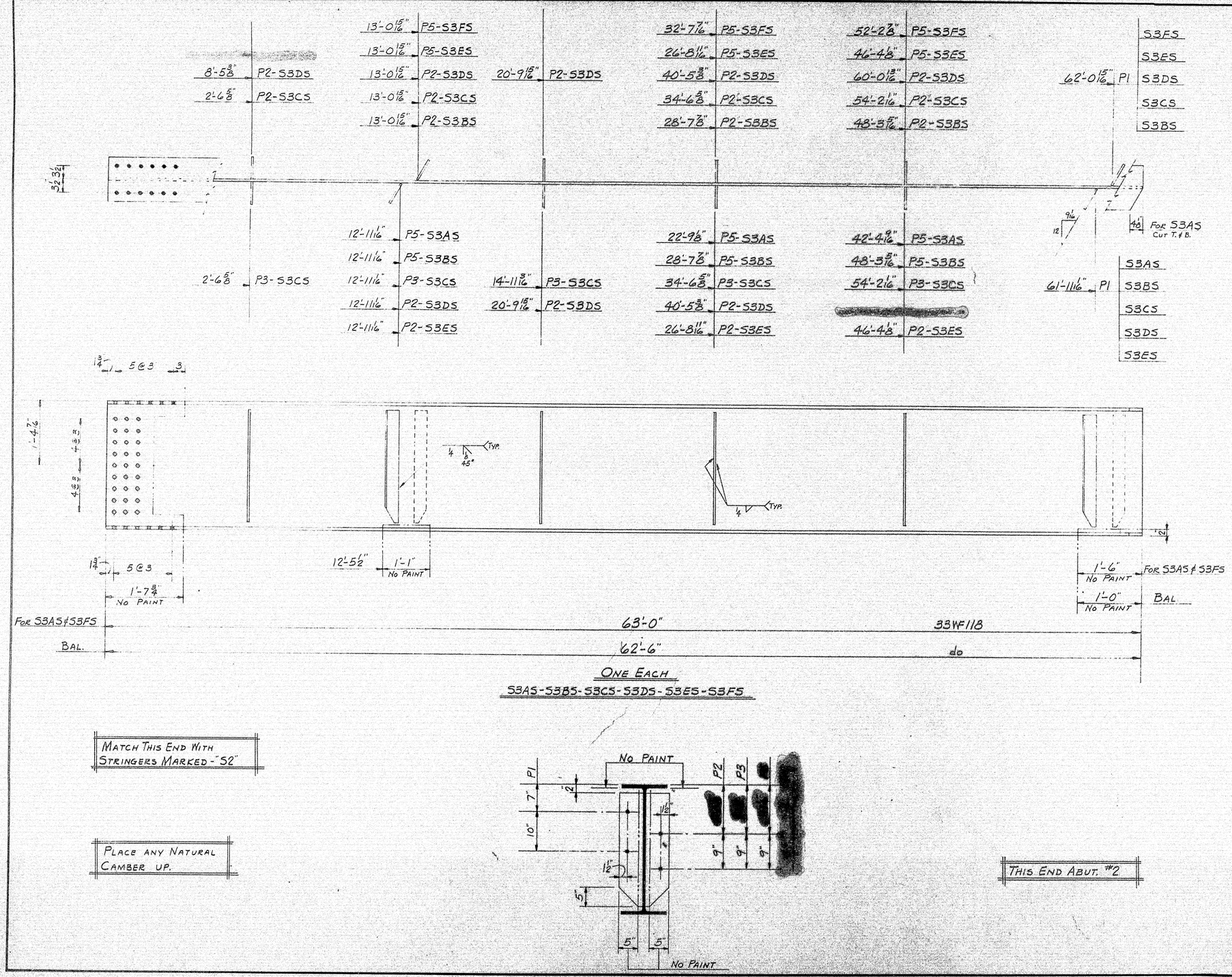
PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-27-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL DWG. B66-399-S9

100-137



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
S3AS	1		33WF118	63	0		A441
S3BS	1			62	6		
S3CS	1			62	6		
S3DS	1			62	6		
S3ES	1			62	6		
S3FS	1		do	63	0		do
	10	P1	PL 6 x 3/8	2	5		A36
	18	P2		2	5		
	5	P3		2	5		
	12		do	2	5		do

BILL OF MATERIAL — DWG. B66-399-S10

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 7/8 φ H.S. BOLT
HOLES: 15/16 φ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34)258 — APP. AS NOTED 2-13-67

SOUTHBOUND STRINGERS SPAN #3

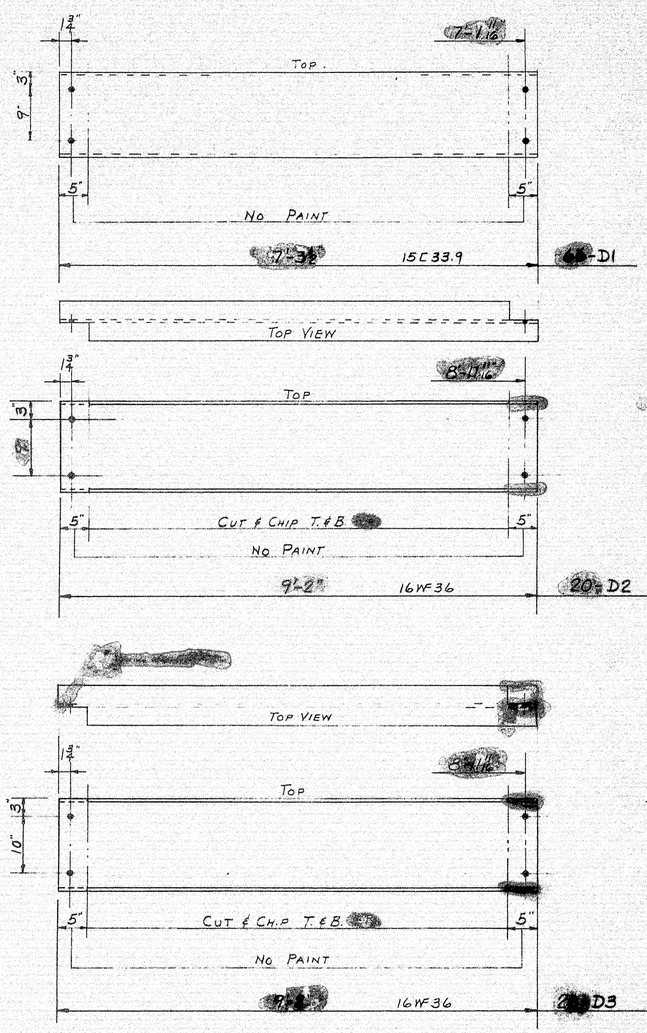
PRINT ISSUE		
2	M.S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-27-67	C.J.M.
REVISION		
REVISION		
REVISION		

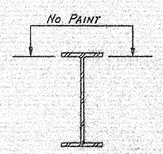
Bancroft & Martin Inc.
Brewer, Maine

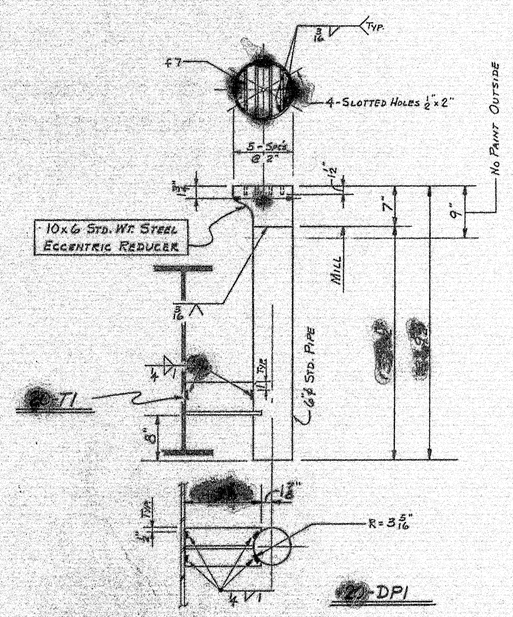
I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL — DWG. B66-399-S10

100-138







SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
			BILL OF MATERIAL				DWG [redacted]
D1	[redacted]		15C33.9	[redacted]	3½		A36
D2	20		16WF36	[redacted]	[redacted]		"
D3	20		do	[redacted]	[redacted]		
DP1	20		6ø STD. PIPE	3	2½		MIE A120
	20		10x6 STD STEEL WELDED ECCENTRIC REDUCER				REQ. Do
T1	20		ST6WF13.5	0	9¾		A36
	20	F7	F.B. 1½x½	0	10		CUT TO FIT

SHOP CONNECTIONS: WELD (E-70 LOW-HYDROGEN)
FIELD CONNECTIONS: BOLT & WELD
HOLES: 15/16ø UNLESS NOTED
PAINT: STATE OF MAINE SPECS.

PROJ. No I-95-[redacted]

DIAPHRAGMS & DRAIN PIPE

PRINT ISSUE		
5	S.H.C.	[redacted]
3	CUST	[redacted]
5	SHOP	[redacted]
3	F.A.	[redacted]
DRAWN		C.J.M.
REVISION		
REVISION		
REVISION		

APR AS NOTED 2-14-67

Bancroft & Martin Inc.
Brewer, Maine

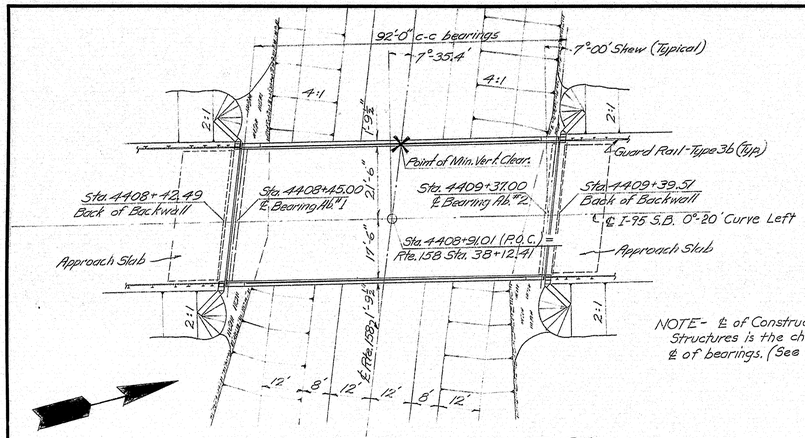
[redacted] ROAD
[redacted] LINE

CUSTOMER [redacted]
DESIGNER STATE HIGHWAY COMMISSION
ORDER VERBAL DWG [redacted]

100-139

0 1 2 3 4 5 INCHES

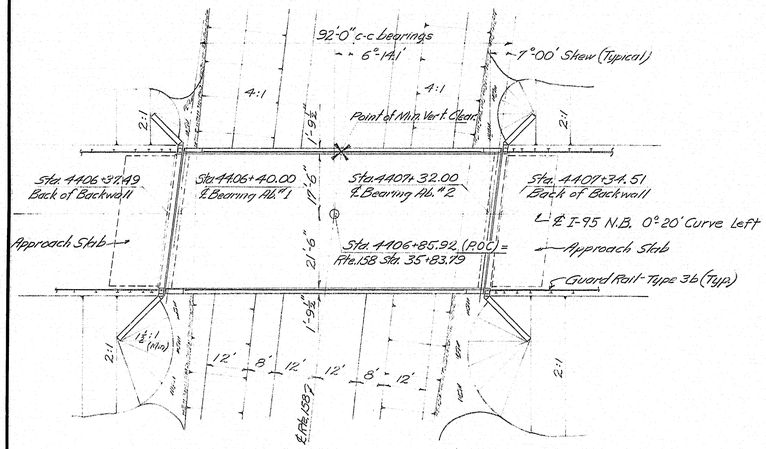
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	33	223



NOTE- ℄ of Construction for N.B. & S.B. Structures is the chord between ℄ of bearings. (See Sh. #8)

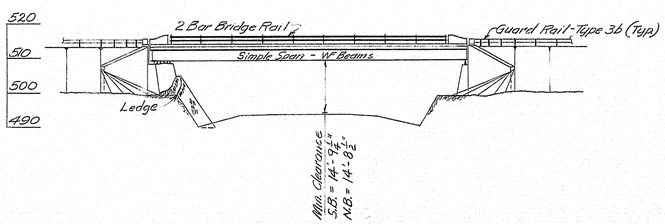
PLAN ~ SOUTHBOUND STRUCTURE

Scale : 1" = 20'



PLAN ~ NORTHBOUND STRUCTURE

Scale : 1" = 20'



ELEVATION VIEW

Scale : 1" = 20'

ESTIMATE OF BRIDGE QUANTITIES N.B. & S.B.

DESCRIPTION	UNIT	QUANTITY
Structural Earth Excavation Abutments & Retaining Walls	C.Y.	630
Structural Rock Excavation Abutments & Retaining Walls	C.Y.	185
Structural Concrete Abutments & Retaining Walls	C.Y.	290
Structural Concrete Roadway & Sidewalk Slabs on Steel Bridges (I-95 over Route 158)	L.S.	Lump Sum
Structural Concrete Approach Slabs (I-95 over Route 158)	L.S.	Lump Sum
Reinforcing Steel Fabricated & Delivered	Lbs.	70,850
Reinforcing Steel Placing	Lbs.	70,850
Structural Steel Fabricated & Delivered (I-95 over Route 158)	L.S.	Lump Sum
Structural Steel Erection (I-95 over Route 158)	L.S.	Lump Sum
Field Painting Structural Steel (I-95 over Route 158)	L.S.	Lump Sum
Shear Connectors (I-95 over Route 158)	L.S.	Lump Sum
Bridge Railing	Lin. Ft.	330
Membrane Waterproofing	S.Y.	815
French Drains	C.Y.	140
Epoxy Resin Surface Sealant	S.Y.	225
Vertical Bridge Curb, Type 2	Lin. Ft.	385
Hot Bituminous Pavement (Grading C-1 Crushed Stone)	Tons	90

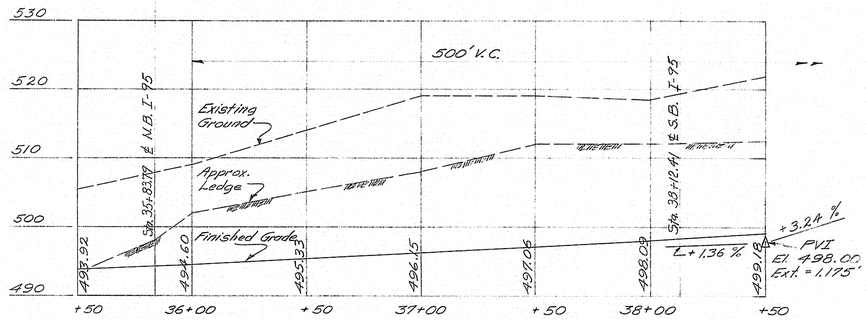
Estimated Quantity of Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges = 210 Cu. Yds.

Estimated Quantity of Structural Concrete Approach Slabs = 57 Cu. Yds.

Estimated Quantity of Structural Steel = 253,500 Lbs.

INDEX OF SHEETS

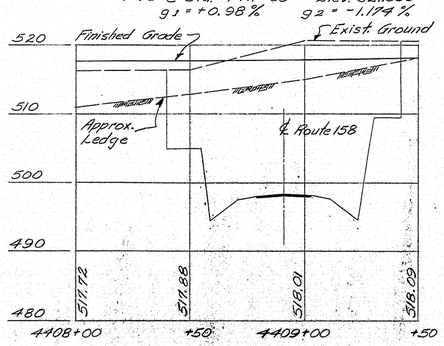
*For Bridge Standard Details see Benedicta Road Plans



PROFILE - ROUTE 158

Scale : Horiz. = 1" = 30'
Vert. = 1" = 10'

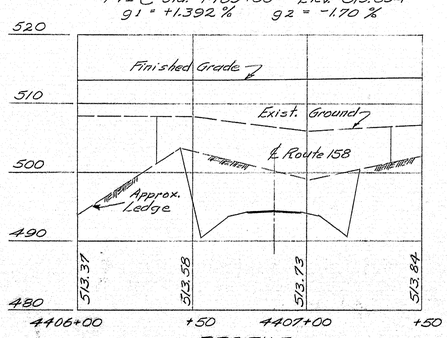
1400' V.C. Ext. = -3.7695
PVI @ Sta. 4411+00 Elev. 521.695
g1 = +0.98 % g2 = -1.174 %



PROFILE
INTERSTATE SOUTHBOUND

Scale : Horiz. = 1" = 30'
Vert. = 1" = 10'

1500' V.C. Ext. = -5.1975
PVI @ Sta. 4409+00 Elev. 519.634
g1 = +1.392 % g2 = -1.70 %

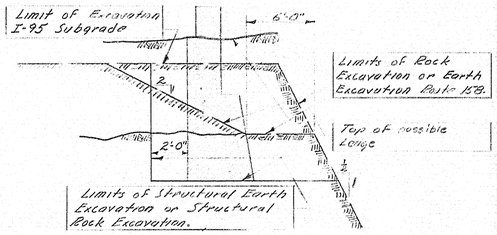


PROFILE
INTERSTATE NORTHBOUND

Scale : Horiz. = 1" = 30'
Vert. = 1" = 10'

SPECIFICATIONS

Design: A.A.S.H.O. Standard Specifications for Highway Bridges, 1961, with Interim Specifications thru 1964.
Contract: State of Maine, State Highway Commission, Standard Specifications for Highways and Bridges, Revision of June 1965.
Live Loading: HS20-44 as Modified for Interstate.
Concrete Classification: All concrete Class A.
Structural Steel Classification:
Stringers & Cover Plates - ASTM A441
All Other - ASTM A36
Allowable Stresses:
Concrete - f_c = 1200 psi ; n = 10
Reinforcing Steel, intermediate grade - f_s 20,000 psi
Structural Steel, A441 = 27,000 psi (Max.) adjusted for tension of material and fatigue.
A36 = 20,000 psi



EXCAVATION LIMITS

TRAFFIC DATA

	Route 158	I-95
1966 A.D.T.	1070	1490
1986 A.D.T.	1930	2150
D.H.V.	232	258
T	14%	14%
D	60%	60%
V	50 M.P.H.	60 M.P.H.

DESIGN-
TRACE- R.W.L.
CHECK- H.L.D.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

GENERAL PLAN & QUANTITIES

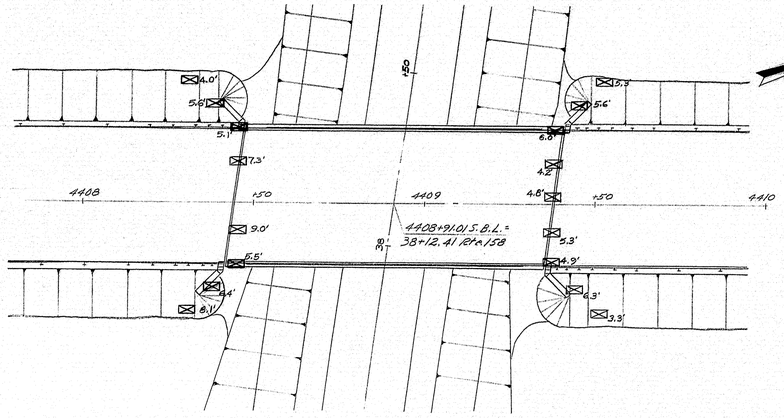
SHEET 1 OF 10 AUGUSTA, MAINE APRIL 1966

M-2516

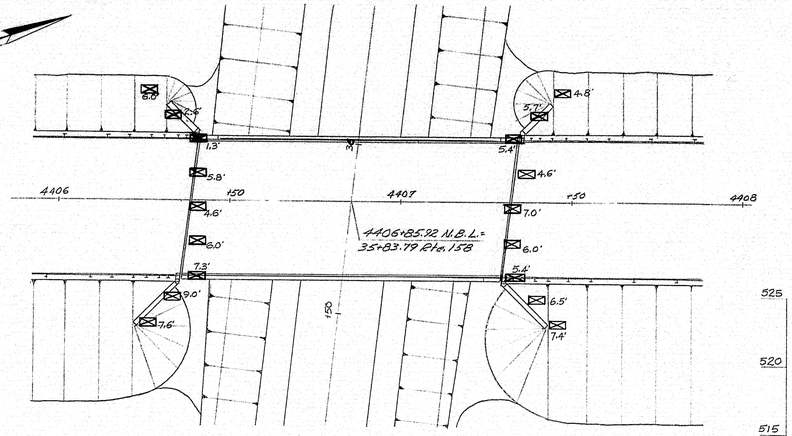
1

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9.34	34	223



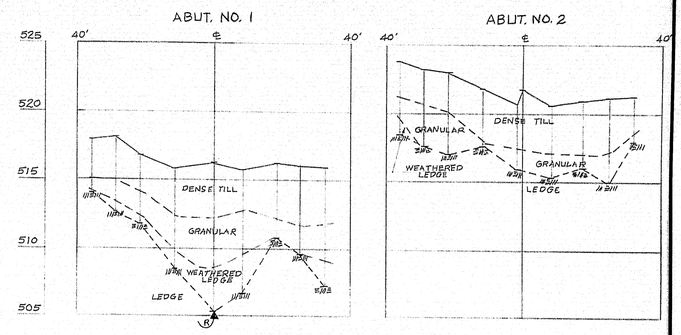
SOUTHBOUND LANE PLAN
Scale: 1" = 20'



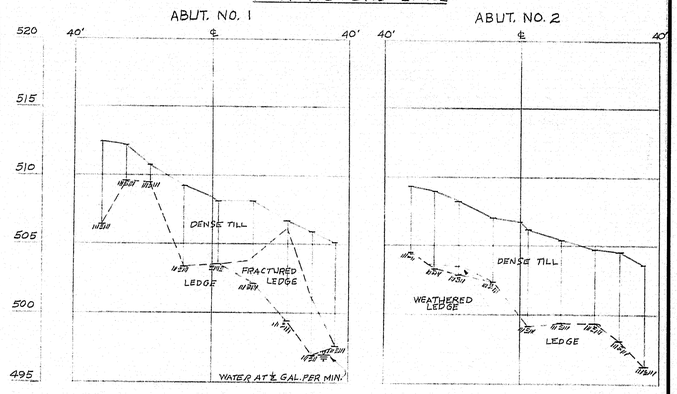
NORTHBOUND LANE PLAN
Scale: 1" = 20'

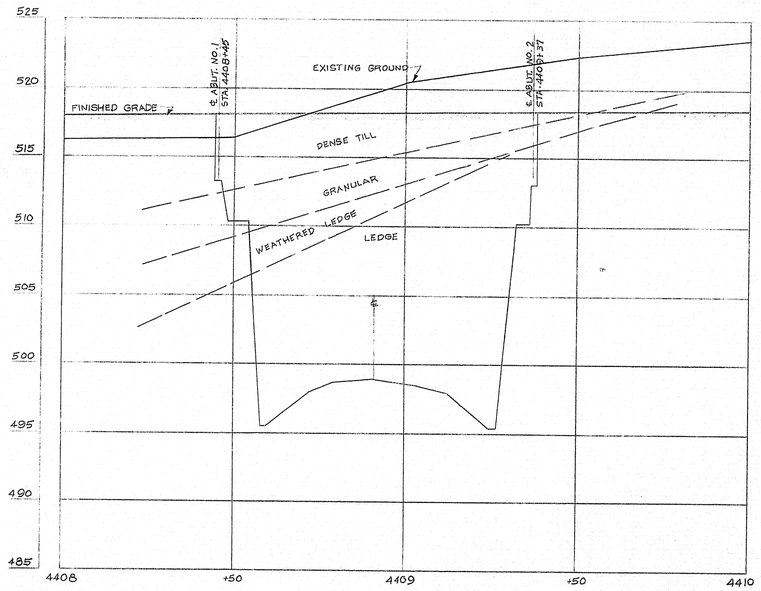
TRANSVERSE SECTIONS

SOUTHBOUND LANE

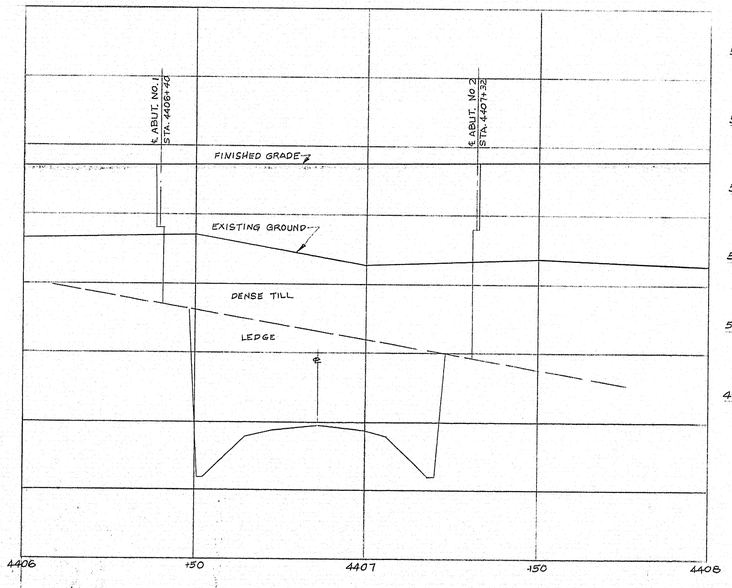


NORTHBOUND LANE





SOUTHBOUND LANE PROFILE
Scales: 1" = 5' Vert.
1" = 20' Horiz.



NORTHBOUND LANE PROFILE
Scales: 1" = 5' Vert.
1" = 20' Horiz.

Note - This sheet is for foundation information only
Do not use for construction details.

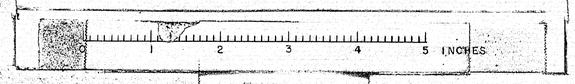
DESIGN– TRACE– CHECK– } Soils Division	BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

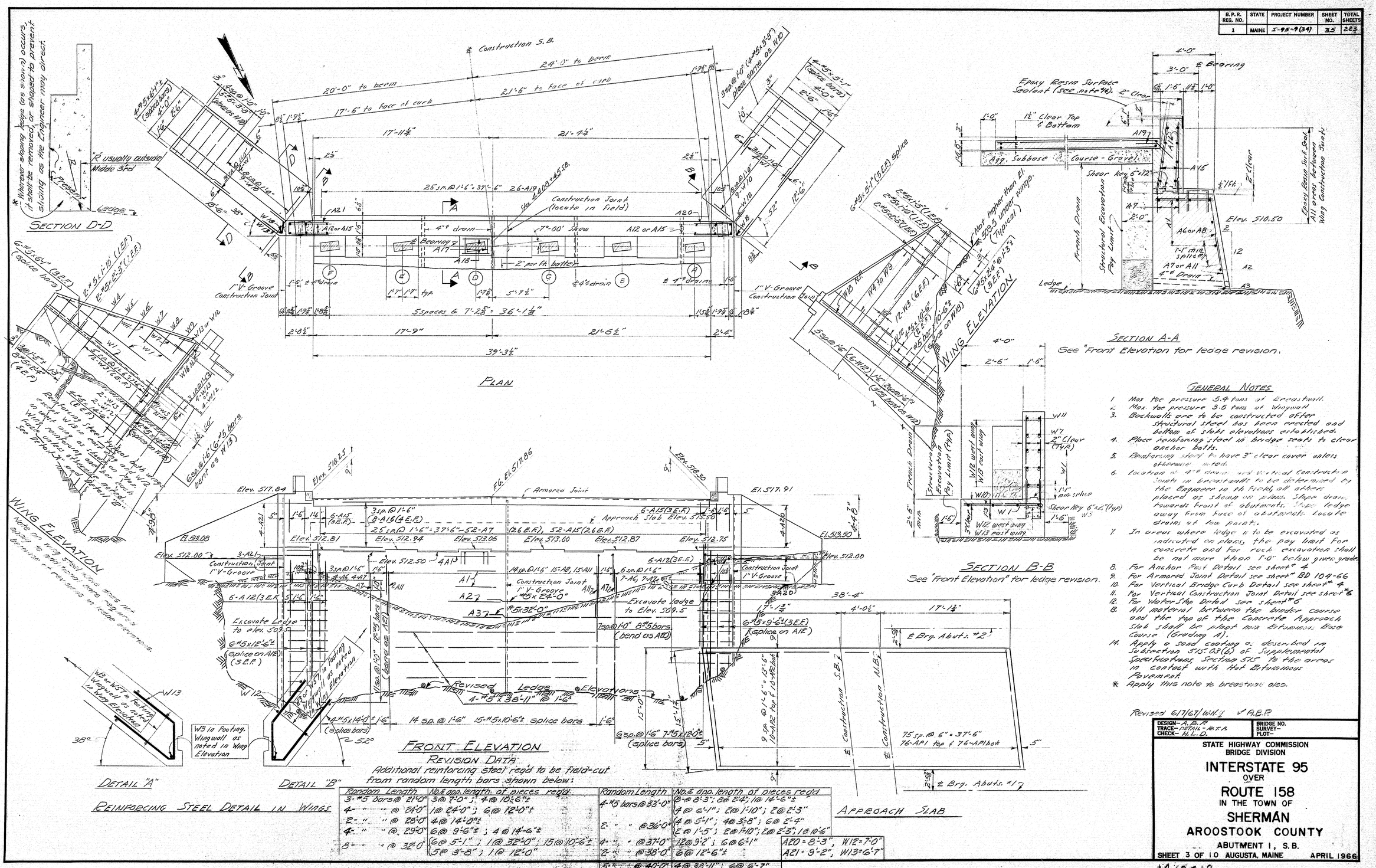
INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY
FOUNDATION SURVEY

SHEET 2 OF 10 AUGUSTA, MAINE AUG. 1966

M-2517



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	35	223



General Notes

1. Max. toe pressure 5.4 tons at Breastwall.
2. Max. toe pressure 3.5 tons at Wingwall.
3. Backwalls are to be constructed after structural steel has been erected and bottom of slabs elevations established.
4. Place reinforcing steel in bridge seats to clear anchor bolts.
5. Reinforcing steel to have 3" clear cover unless otherwise noted.
6. Location of 4" drain and Vertical Construction Joints in breastwalls to be determined by the Engineer in the field, all others placed as shown on plans. Slope drain towards front of abutments. Slope ledge away from face of abutments. Locate drains at low points.
7. In areas where ledge is to be excavated as indicated on plans, the pay limit for concrete and for rock excavation shall be not more than 1'-0" below given grade.
8. For Anchor Post Detail see sheet # 4
9. For Armored Joint Detail see sheet # BD 104-66
10. For Vertical Bridge Curb Detail see sheet # 4
11. For Vertical Construction Joint Detail see sheet # 6
12. For Water Stop Detail see sheet # 6
13. All material between the binder course and the top of the Concrete Approach Slab shall be plant mix Bituminous Base Course (Grading A).
14. Apply a seal coating as described in Subsection 515.03(b) of Supplemental Specifications, Section 515 to the areas in contact with Hot Bituminous Pavement.

* Apply this note to breastwall also.

Revised 6/7/67 / W.H.J. / P.A.B.P.

DESIGN– A.B.P. TRACE– DETAIL – B.T.A. CHECK– H.L.D.	BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95 OVER ROUTE 158 IN THE TOWN OF SHERMAN

AROOSTOOK COUNTY

ABUTMENT 1, S.B.

SHEET 3 OF 10 AUGUSTA, MAINE APRIL 1966

M-2518.

Revision Data

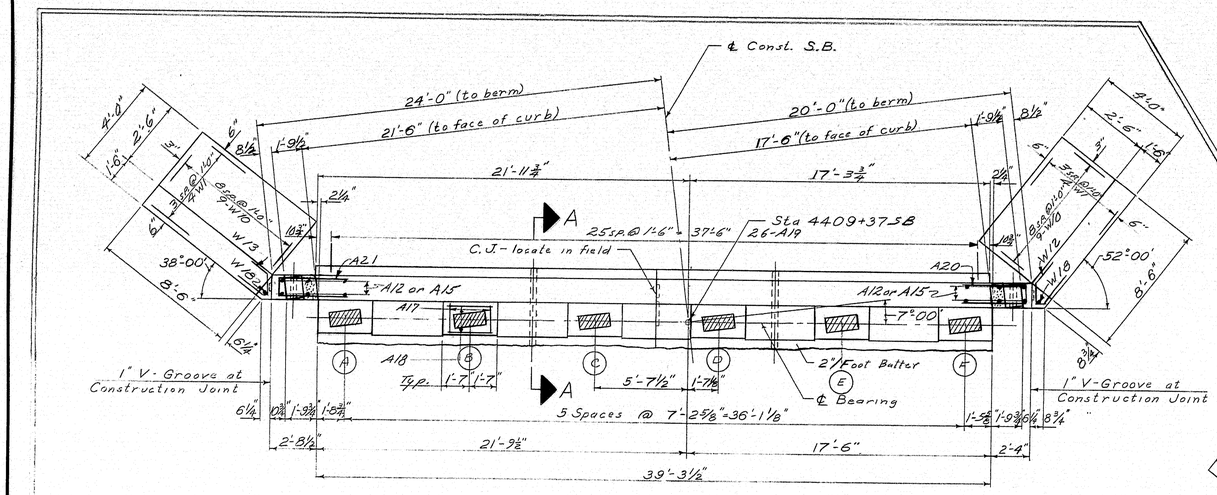
Additional reinforcing steel reqd to be field-cut from random length bars shown below:

Random Length	No. & app. length of pieces reqd.
3-#5 bars @ 21'-0"	3 @ 7'-0"; 4 @ 10'-6"±
4- " " @ 24'-0"	1 @ 24'-0"; 6 @ 12'-0"±
2- " " @ 28'-0"	4 @ 14'-0"±
4- " " @ 29'-0"	6 @ 9'-6"±; 4 @ 14'-6"±
8- " " @ 32'-0"	6 @ 5'-1"; 1 @ 32'-0"; 15 @ 10'-6"± (5 @ 3'-8"; 1 @ 12'-0")

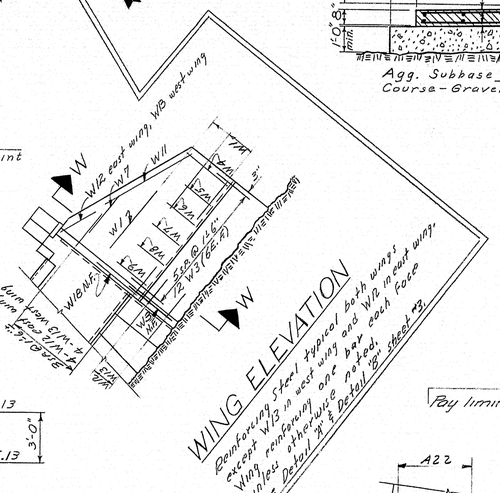
Random Length	No. & app. length of pieces reqd
4-#5 bars @ 33'-0"	9 @ 8'-3"; 8 @ 2'-4"; 1 @ 14'-6"±
2- " " @ 36'-0"	9 @ 6'-1"; 2 @ 1'-10"; 2 @ 2'-3" (4 @ 5'-1"; 4 @ 3'-8"; 6 @ 2'-4" (2 @ 1'-5"; 2 @ 1'-10"; 2 @ 2'-3"; 1 @ 10'-6")
4- " " @ 37'-0"	12 @ 9'-2"; 6 @ 6'-1"
2- " " @ 38'-0"	6 @ 12'-6"±
5- " " @ 40'-0"	4 @ 38'-11"; 6 @ 6'-7"

A20 = 8'-3", W12 = 7'-0"
A21 = 9'-2", W13 = 6'-7"

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(31)	36	223

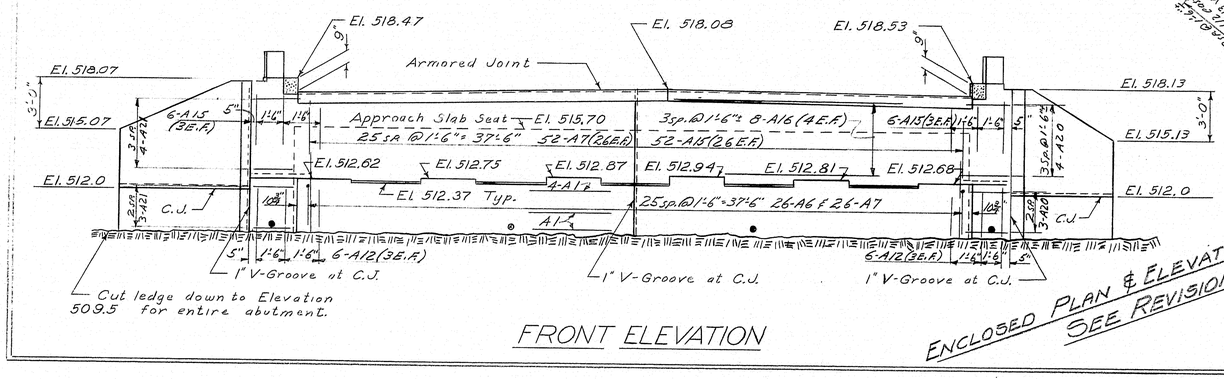


PLAN



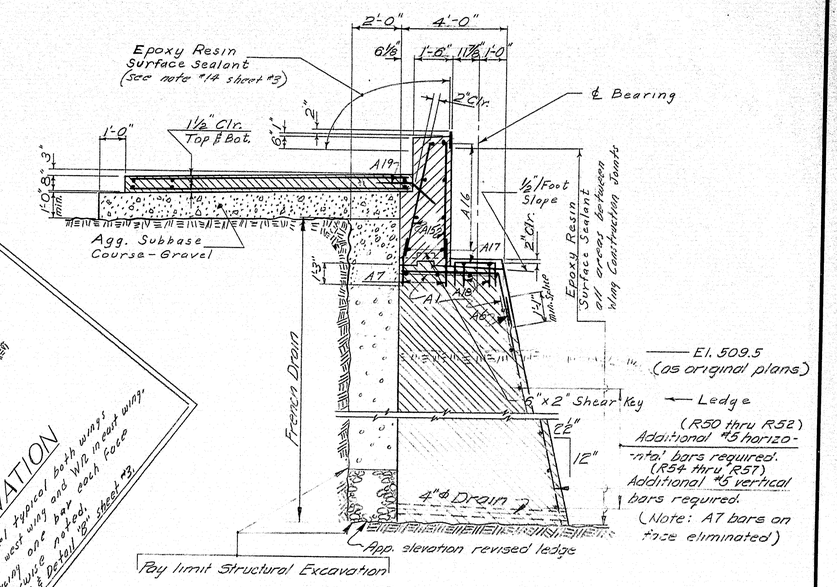
WING ELEVATION

Reinforcing steel typical both wings except W13 in west wing and W12 in east wing. Wingtest otherwise noted. See Detail "B" Detail #3 sheet #3.

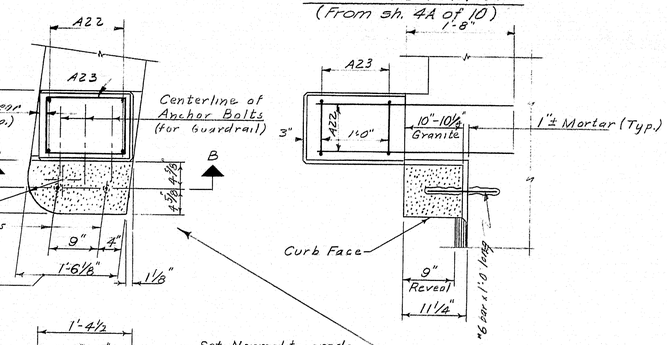


FRONT ELEVATION

ENCLOSED PLAN & ELEVATIONS VOID
SEE REVISION SH. 4A OF 10

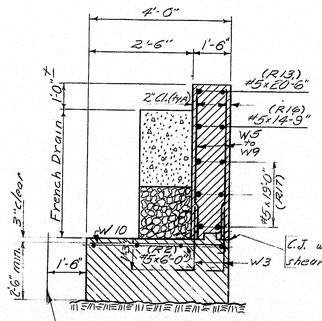


SECTION A-A
(From sh. 4A of 10)

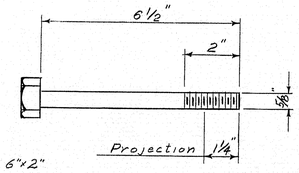


CURB DETAIL A

Left curb - Abuts. #1 N.B. & S.B.
Right curb - Abuts. #2 N.B. & S.B.

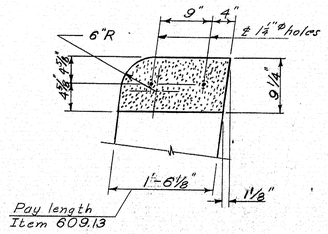


SECTION 3-3
(From sh. 4A of 10)



ANCHOR BOLT DETAIL

(24 Required)
(To include, one each, hexagon nut and one "G" Washer. See Guard Rail Standard Detail Sheet.)



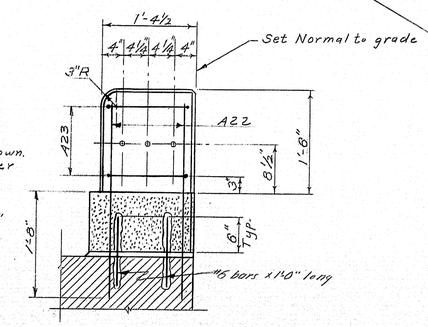
VERTICAL BRIDGE CURB - DETAIL B

Right curb - Abuts #1 N.B. & S.B.
Left curb - Abuts #2 N.B. & S.B.

~NOTES~

Grout anchors into 1¼" ϕ holes in stone prior to setting stone on backwall. Drill 1¼" holes in backwall to suit anchors.
Payment for drilling and grouting of anchors to be included in the price for Item 609.13, "Vertical Bridge Curb, Type 1."
8 Corner stones required - 4 of each type shown.
Concrete in Substructure posts to be paid for under Item 502.21, "Structural Concrete, Abutments & Retaining Walls."

See Sheet #3 for "General Abutment Notes."



SECTION B-B

SUBSTRUCTURE POST & VERTICAL BRIDGE CURB DETAIL

Revised 7/6/67 W.H.G. Checked A.B.P.

DESIGN- A.B.P.
TRACE- G.H.B.
CHECK- H.L.B.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

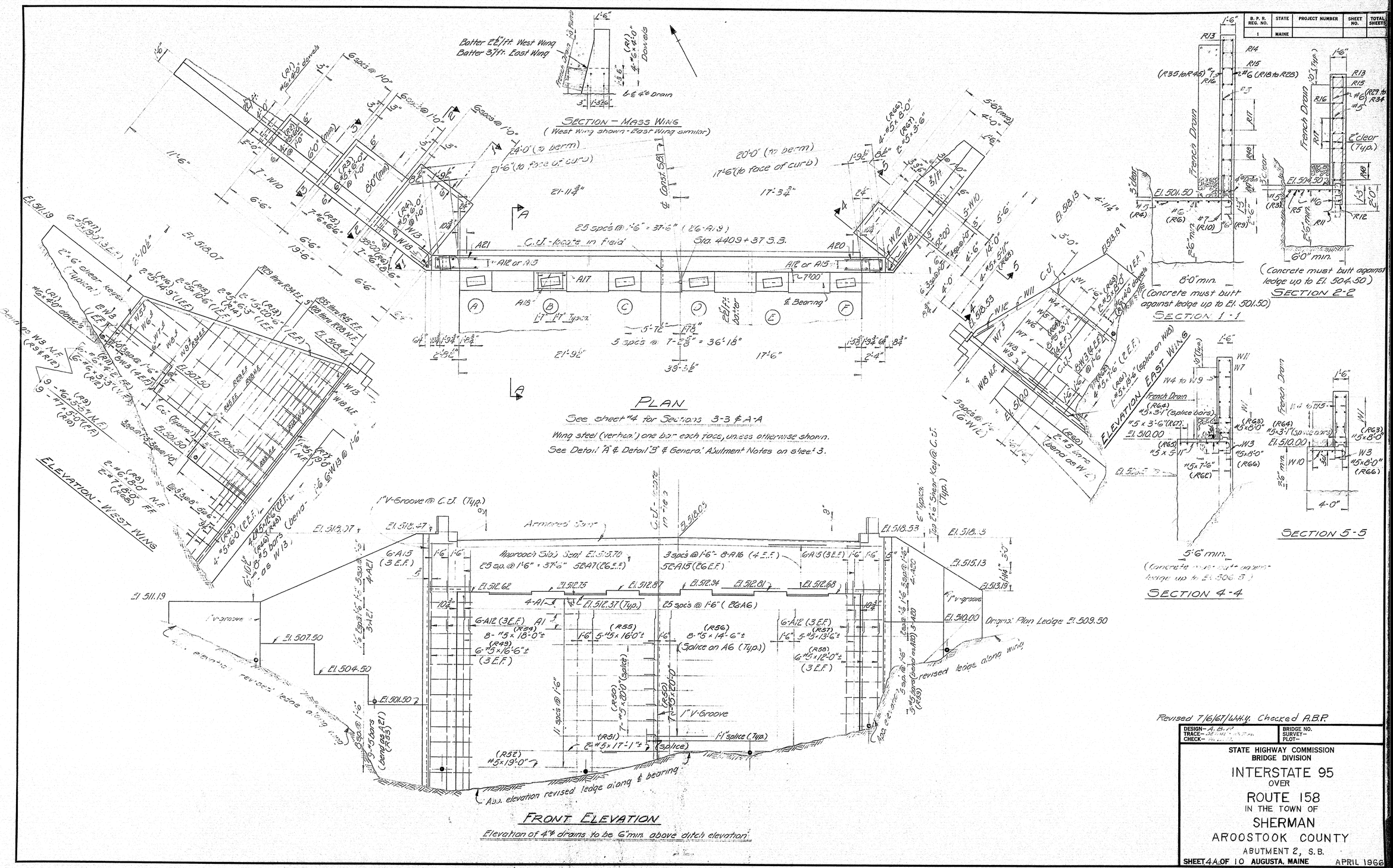
ABUTMENT 2, S.B.

SHEET 4 OF 10 AUGUSTA, MAINE APRIL 1966

M-2519

1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



DESIGN– A. B. P.
TRACE– J. E. W.
CHECK– W. H. Y.

BRIDGE NO.
SURVEY–
PLOT–

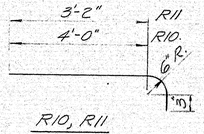
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY
ABUTMENT 2, S.B.

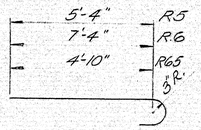
SHEET 4A OF 10 AUGUSTA, MAINE APRIL 1966

M-2520

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



R10, R11



R5, R6, R65

All dimensions to ℄ bars.
All reinforcing steel to be of intermediate grade - f_s=20,000 psi.

BENT BARS

Mark	Size	Length	No.	Remarks
R5	#6	6'-6"	7	Footing West Wing
R6	#6	8'-6"	7	" " "
R9	#6	3'-3"	9	Footing West Wing - bend as W3 sh. 10
R10	#7	5'-0"	9	" " "
R11	#6	4'-2"	6	" " "
R12	#6	3'-3"	6	" " " - bend as W3 sh. 10
R46	#5	6'-7"	8	West Wing - bend as W13 sh. 10
R53	#5	9'-2"	9	Breastwall - bend as A21 sh. 10
R59	#5	8'-3"	5	" - bend as A20 "
R60	#5	7'-0"	2	East Wing - bend as W12 "
R65	#5	5'-11"	4	Footing East Wing

STRAIGHT BARS

Mark	Size	Length	No.	Remarks
R1	#6	4'-0"	8	Dowels - Junction mass conc. wings
R2	#5	6'-0"	4	West Wing Footing
R3	#5	6'-0"	6	" " "
R4	#5	6'-0"	8	" " "
R7	#5	19'-0"±	1	West Wing Wall & Footing
R8	#6	8'-0"±	2	West Wing Footing
R13	#5	20'-6"±	2	" " Wall (Horiz.)
R14	#5	6'-3"±	2	" " "
R15	#5	10'-6"±	2	" " "
R16	#5	14'-9"±	2	" " "
R17	#5	19'-0"	6	" " " (Horiz.)
R18	#6	16'-4"	1	" " " (Vert.)
R19		16'-1"		" " "
R20		15'-11"		" " "
R21		15'-9"		" " "
R22		15'-7"		" " "
R23		15'-5"		" " "
R24		15'-2"		" " "
R25		14'-11"		" " "
R26		14'-8"		" " "
R27		14'-5"		" " "
R28	#6	14'-2"	1	" " "
R29	#6	10'-11"	2	" " "
R30		10'-7"		" " "
R31		10'-3"		" " "
R32		9'-10"		" " "
R33		9'-5"		" " "
R34	#6	9'-0"	2	" " "
R35	#7	16'-4"	1	" " "
R36		16'-1"		" " "
R37		15'-11"		" " "
R38	#7	15'-9"	1	" " " (Vert.)

STRAIGHT BARS CONT'D

Mark	Size	Length	No.	Remarks
R39	#7	15'-7"	1	West Wing Wall (Vert.)
R40		15'-5"		" "
R41		15'-2"		" "
R42		14'-11"		" "
R43		14'-8"		" "
R44		14'-5"		" "
R45	#7	14'-2"	1	" "
R47	#5	6'-0"	4	West Wing Wall (Horiz.)
R48	#5	12'-6"	4	" "
R49	#5	16'-6"±	6	Breastwall (West end)
R50	#5	20'-0"	14	Breastwall (Horiz.)
R51	#5	17'-1"±	2	" "
R52	#5	19'-0"±	1	" "
R54	#5	18'-0"±	8	Breastwall (Vert.)
R55	#5	16'-0"±	5	" "
R56	#5	14'-6"±	8	" "
R57	#5	13'-6"±	5	" "
R58	#5	12'-0"±	6	" (East end)
R61	#5	13'-6"±	1	East Wing Wall & Footing
R62	#5	7'-6"±	4	" "
R63	#5	8'-0"	2	East Wing Wall (Horiz.)
R64	#5	3'-1"	8	" (splice bars)
R66	#5	8'-0"	4	East Wing Footing
R67	#5	3'-6"	2	"
R68	#7	8'-0"	2	West Wing Footing

SCHEDULE FOR ORDERING RANDOM LENGTHS
(Bars to be "field-cut")

	No	Size	Random Lengths	Bars Produced
BARS FOR BREASTWALL & EAST WING	3	#5	21'-0"	2(R67+R60), 2(R51+R64)
	20		20'-0"	6(R49+R64), (14-R50)
	9		18'-0"	(8-R54), 1(R53+R59)
	8		16'-0"	(5-R55), (2-R63), (4-R66)
	10		15'-0"	(8-R56), 4(R62)
	6		14'-0"	(5-R57), (1-R61)
	8	#5	12'-0"	(6-R58), (4-R65)
	1	#6	16'-0"	(4-R1)
	5	#5	19'-0"	(8-R53), (1-R52)
	2	#5	17'-0"	(4-R59)
BARS FOR WEST WING	3	#5	21'-0"	(2-R15), (2-R13)
	7		19'-0"	(6-R17), (1-R7)
	2		18'-0"	(6-R3)
	2		15'-0"	(2-R16)
	4		14'-0"	(8-R46)
	8	#5	12'-0"	(4-R47), (8-R4), (4-R2)
	2	#6	22'-0"	(2-R29), (2-R30)
	1	#6	21'-0"	(2-R31)
	2		20'-0"	(6-R12) (2-R32)
	1		19'-0"	(2R33)
	1		17'-0"	(1-R18)
	8		16'-0'	(4-R1), (2-R8), (1-R19), (1-R20), (1-R21), (1-R22), (1-R23), (1-R24)
	11		15'-0"	(7-R5 +7-R6), (1-R25), (1-R26), (1-R27), (1-R28)
	2	#6	13'-0"	(6-R11)
	2	#7	17'-0"	(1-R35), (1-R36)
	6		16'-0"	(1-R40), (1-R41), (1-R37), (1-R38), (1-R39), (2-R68)
	7	#7	15'-0"	(1-R42), (1-R43), (1-R44), (1-R45), (9-R10)
	5	#5	13'-0"	(2-R14), (4-R48)
	1	#6	18'-0"	(2-R34)
	3	#6	10'-0"	(9-R9)

ADDITIONAL REINFORCING STEEL REQ'D DUE TO REVISION OF ABUT 2 S.B.

DESIGN- M.H.Y.	BRIDGE NO.
TRACE- DETAIL - M.H.Y.	SURVEY-
CHECK- A.B.P.	PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

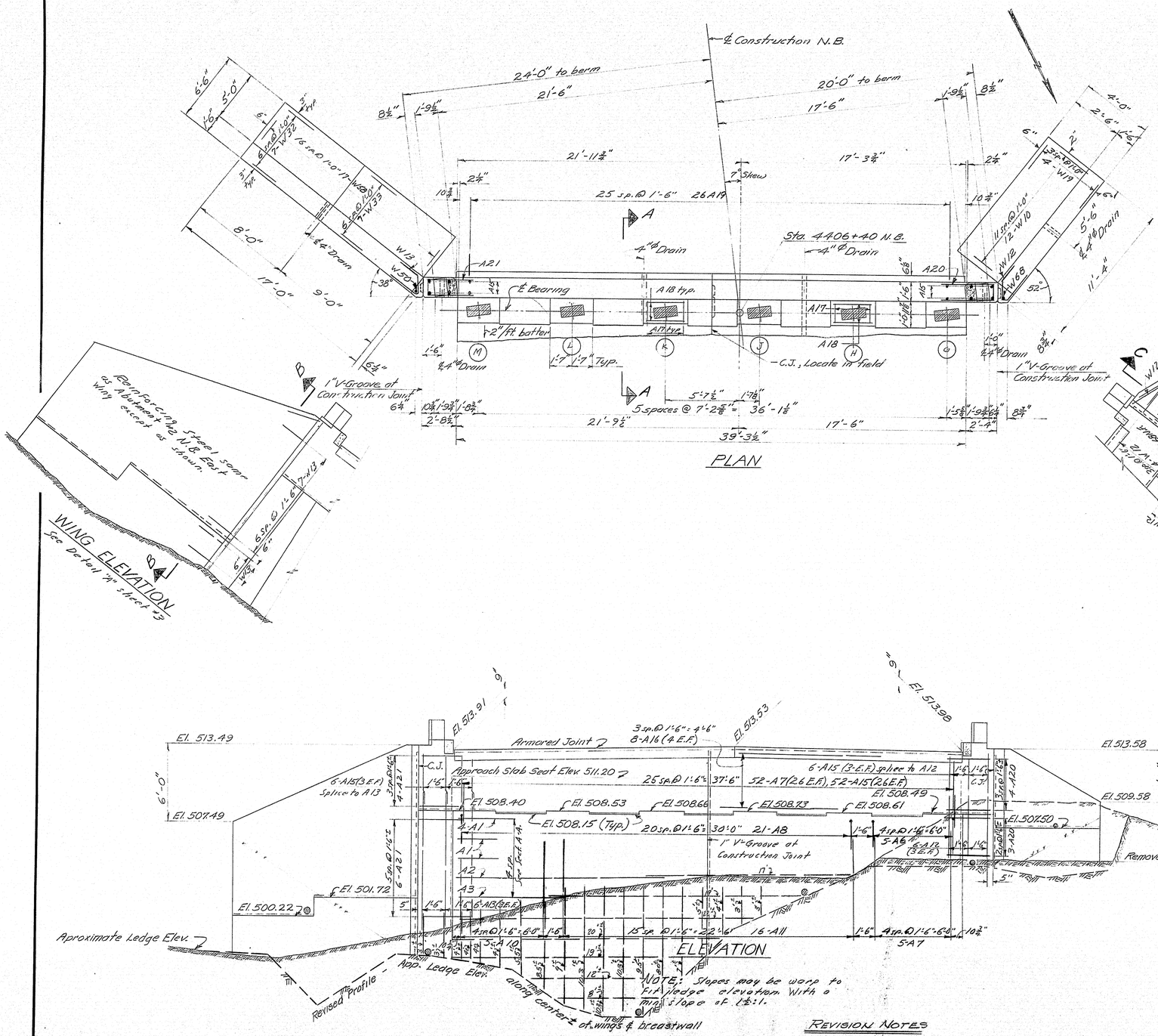
INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

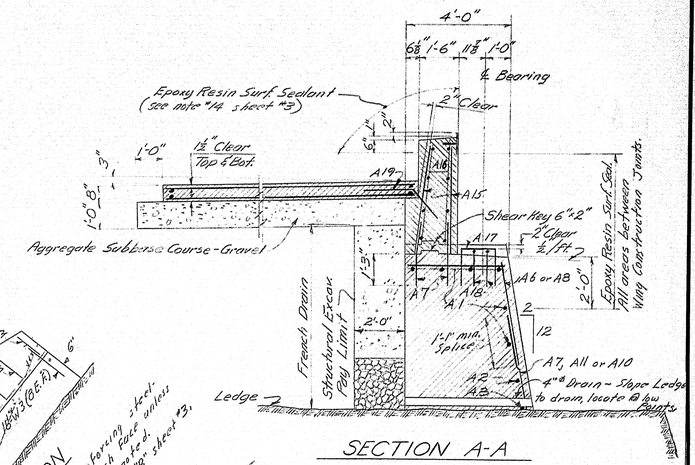
ADDITIONAL REINFORCING STEEL ABUT 2 S.B.

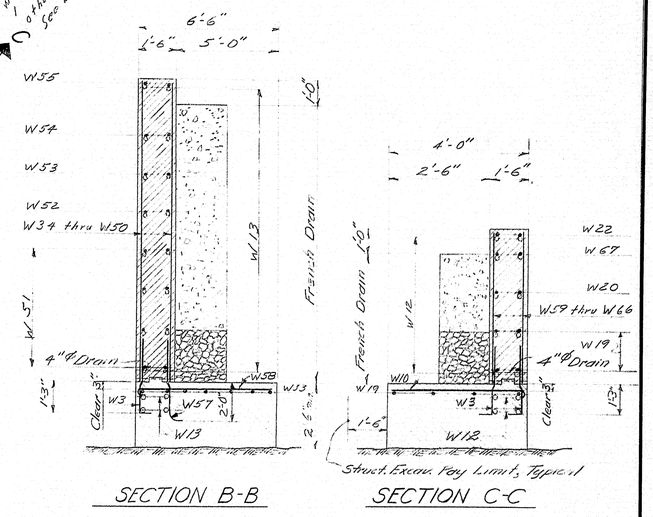
SHEET 4B OF 10 AUGUSTA, MAINE JULY 1967

M-2521

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	37	223







See sheet #3 for General Abutment Notes.

Ledge revised 4/28/67 / w.h.g. / A.B.P.

REVISION NOTES

Additional Reinforcing Steel Reqd:
9-#5 bars @ 20'-0" } Bars to be field cut for actual required length.
4-#5 bars @ 22'-0" }
4" Drains to be placed 3" min. above ditch grade.

DESIGN– A.B.P.
TRACE– A.W.L.
CHECK– H.L.D.

BRIDGE NO.
SURVEY–
PLOT–

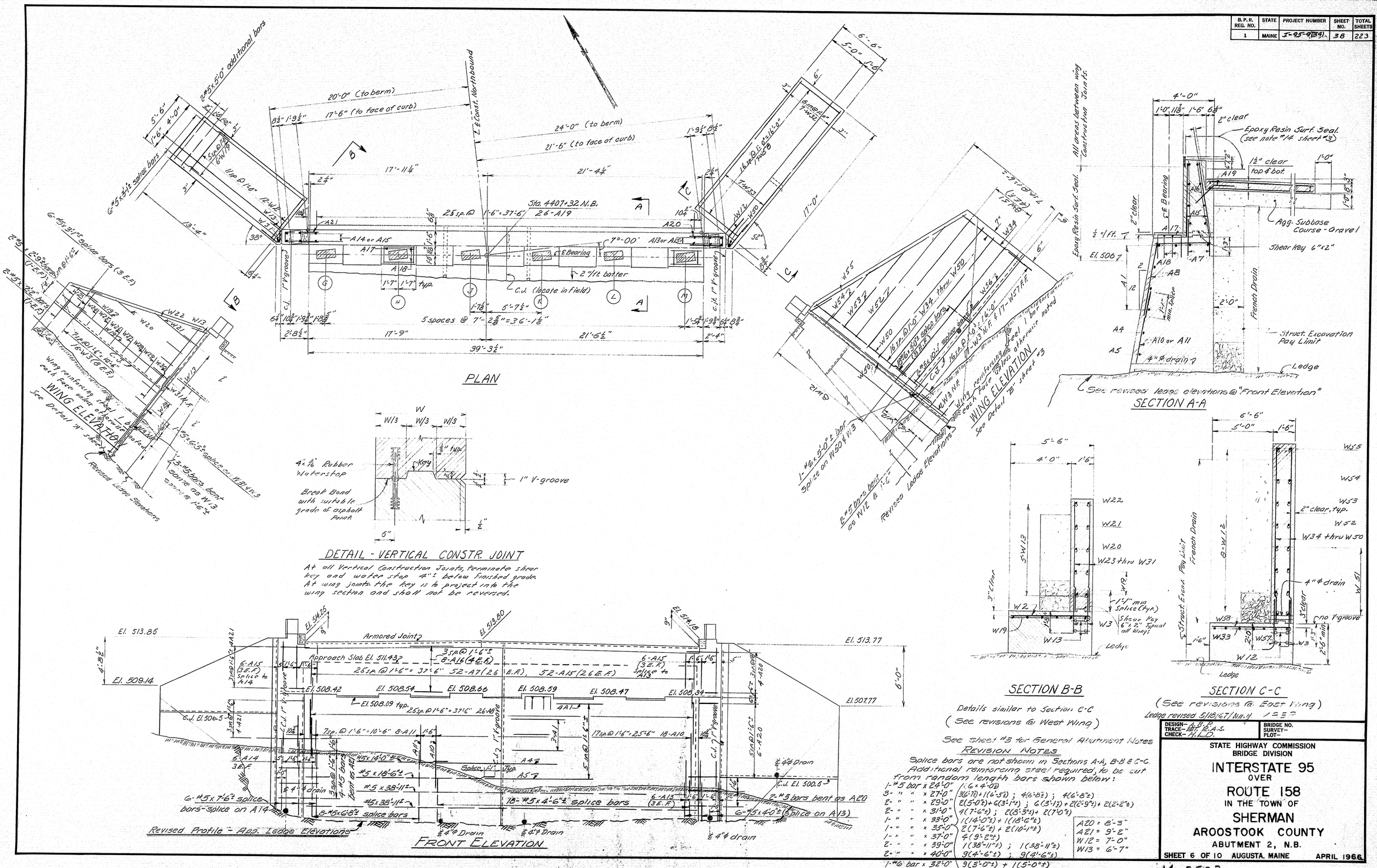
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY
ABUTMENT 1, N.B.

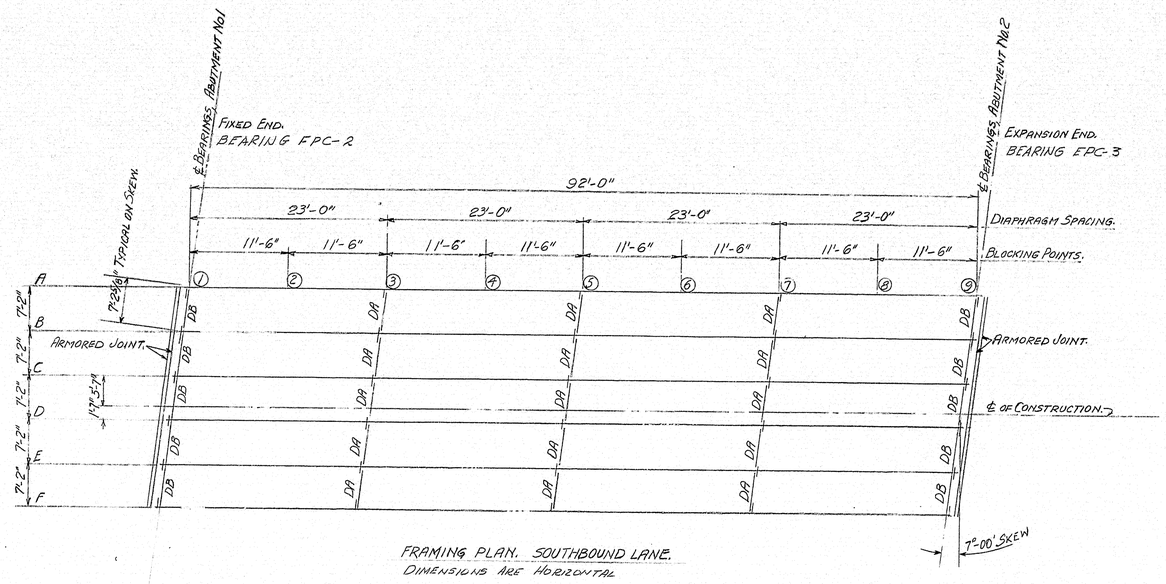
SHEET 5 OF 10 AUGUSTA, MAINE APRIL 1966

M-2522

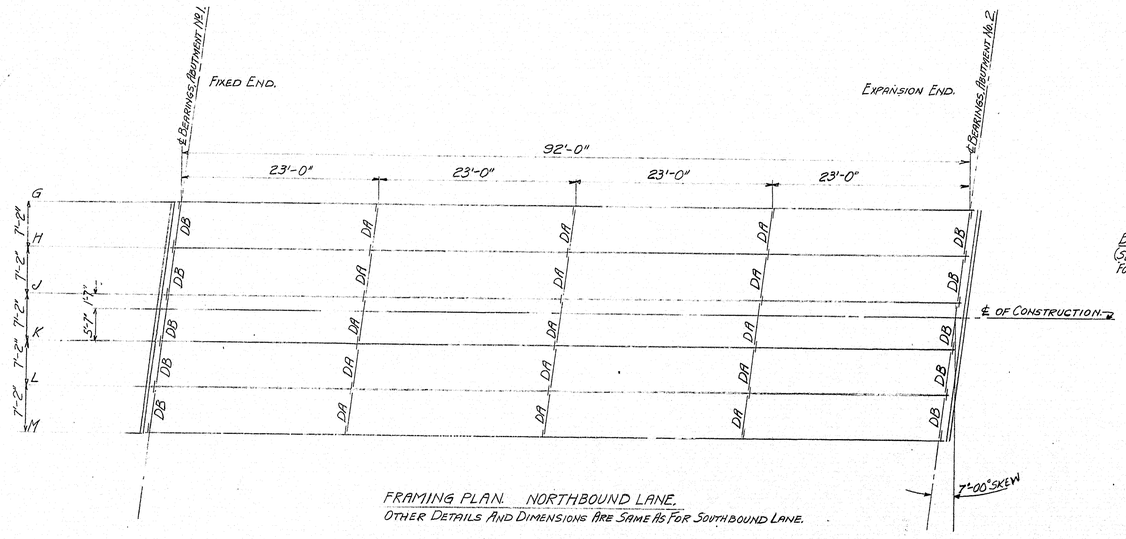
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	38	223



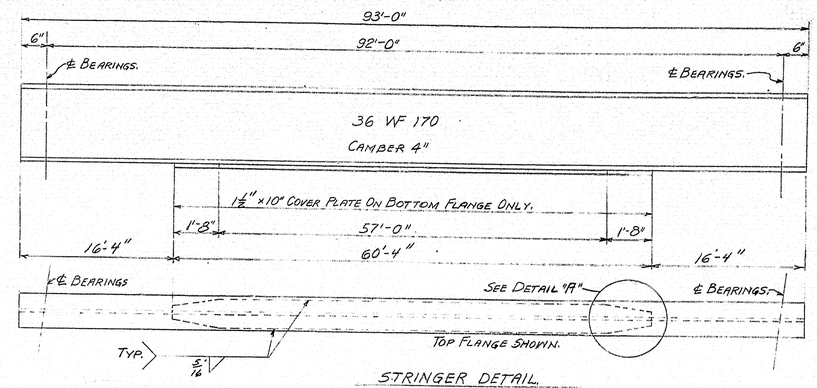
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(24)	39	223



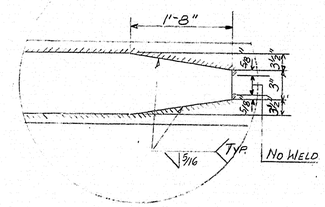
FRAMING PLAN. SOUTHBOUND LANE.
DIMENSIONS ARE HORIZONTAL



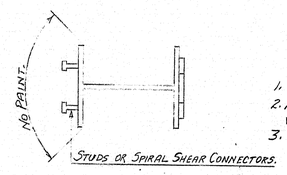
FRAMING PLAN. NORTHBOUND LANE.
OTHER DETAILS AND DIMENSIONS ARE SAME AS FOR SOUTHBOUND LANE.



STRINGER DETAIL.
12 STRINGERS REQUIRED.



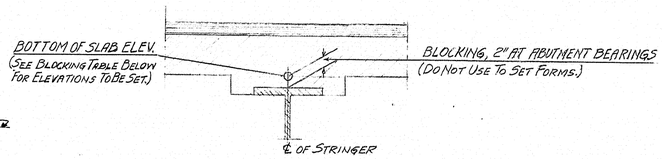
DETAIL "A" TYPICAL.



END VIEW OF STRINGER, TYPICAL.

NOTES

1. Set Diaphragms normal to grade.
2. Armored Joints shall consist of two elements with a joint at construction ℄.
3. All dimensions are horizontal.



STRUCTURAL STEEL CLASSIFICATION ASTM-A441 FOR STRINGERS AND COVER PLATES. ASTM-A36 FOR BEARINGS, SHEAR CONNECTORS, ARMORED JOINTS, AND DIAPHRAGMS, EXCEPT AS NOTED ON THE STANDARD DETAILS.

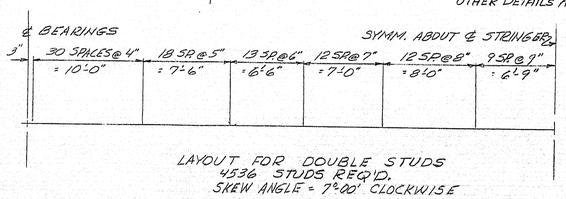
REFERENCES
BEARINGS BD 101-64
REQ'D 12 EPC-2, 12 EPC-3
DIAPHRAGMS BD 104-66
REQ'D 30 TYPE A, 20 TYPE B
ARMORED JOINT BD 104-66
REQ'D 4
SHEAR CONNECTORS - BD 104-66
DRAWS- Sheet 9 and BD-104-66

BOTTOM OF SLAB ELEVATIONS.
BLOCKING POINTS & ELEVATIONS — SOUTHBOUND LANE

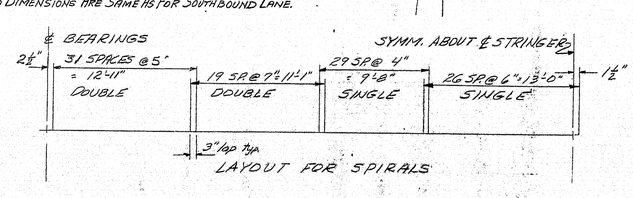
STRINGER	1	2	3	4	5	6	7	8	9
A	516.81	516.94	517.06	517.14	517.18	517.18	517.13	517.67	516.96
B	516.91	517.06	517.16	517.25	517.30	517.20	517.26	517.18	517.09
C	517.02	517.16	517.28	517.36	517.41	517.40	517.37	517.30	517.21
D	517.06	517.21	517.32	517.41	517.46	517.47	517.44	517.37	517.28
E	516.92	517.06	517.19	517.27	517.32	517.33	517.30	517.24	517.15
F	516.77	516.92	517.05	517.14	517.19	517.20	517.18	517.11	517.02

BLOCKING POINTS & ELEVATIONS — NORTHBOUND LANE

STRINGER	1	2	3	4	5	6	7	8	9
G	512.50	512.64	512.77	512.86	512.91	512.92	512.90	512.84	512.76
H	512.62	512.76	512.89	512.98	513.03	513.05	513.02	512.96	512.88
J	512.74	512.88	513.01	513.10	513.16	513.17	513.14	513.08	513.00
K	512.67	512.81	512.94	513.03	513.08	513.10	513.07	513.01	512.93
L	512.54	512.68	512.81	512.90	512.96	512.97	512.94	512.88	512.81
M	512.41	512.56	512.68	512.78	512.83	512.84	512.82	512.76	512.68



LAYOUT FOR DOUBLE STUDS
4536 STUDS REQ'D.
SKEW ANGLE = 7°-00' CLOCKWISE



LAYOUT FOR SPIRALS

SHEAR CONNECTORS
TYPICAL FOR EACH STRINGER

Revised - Table of Bottom of Slab Elevations - Southbound Lane 8-16-67

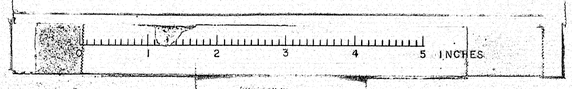
DESIGN- RAW	BRIDGE NO.
TRACE- JLF	SURVEY-
CHECK- J CHANDLER	PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

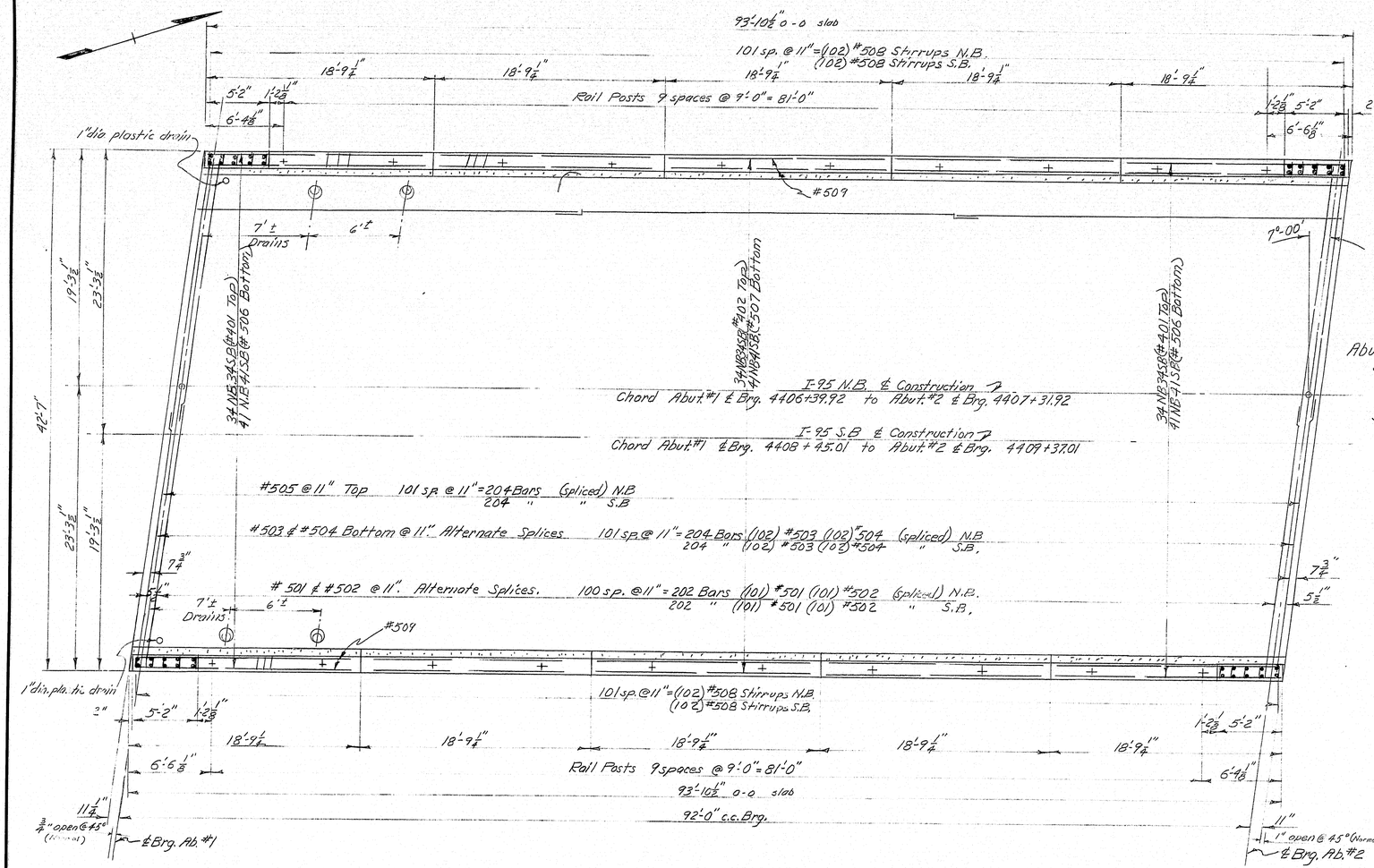
INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY
STRUCTURAL STEEL

SHEET 7 OF 10 AUGUSTA, MAINE APRIL 1966

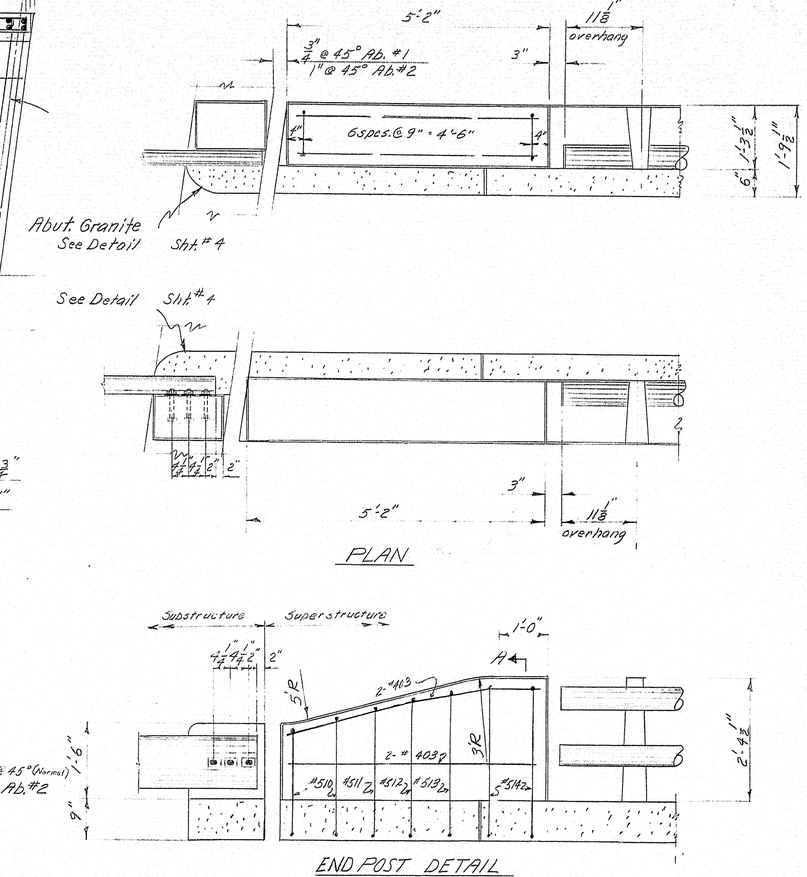
M-2524



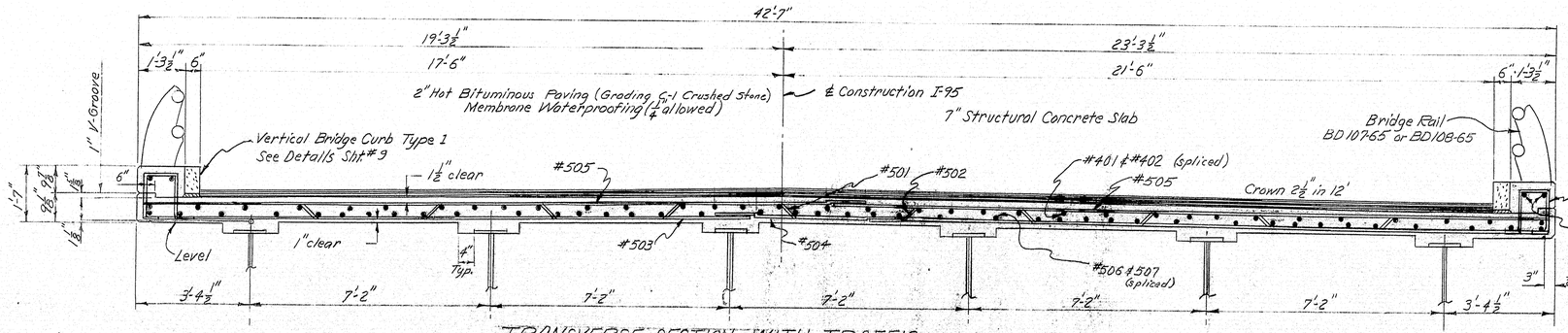
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	40	223



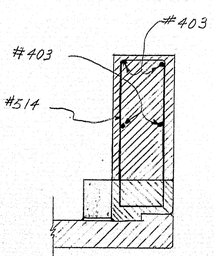
SUPERSTRUCTURE
NORTHBOUND and SOUTHBOUND



Concrete in superstructure end post to be paid for under Item 502.26 Structural Concrete. See Sh. #4 for details of substructure end post.



TRANSVERSE SECTION WITH TRAFFIC



SECTION A-A

DESIGN- P.M.W.
TRACE- B. DET.- E.V.S.
CHECK- J. Chandler
BRIDGE NO.
SURVEY-
PLOT-

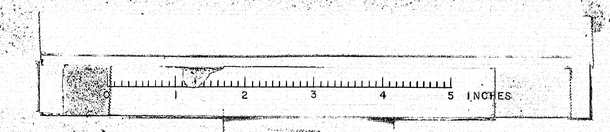
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

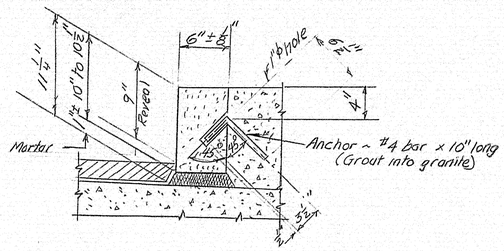
SUPERSTRUCTURE

SHEET 8 OF 10 AUGUSTA, MAINE APRIL 1966

M-2525



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	41	223



GRANITE CURB SECTION

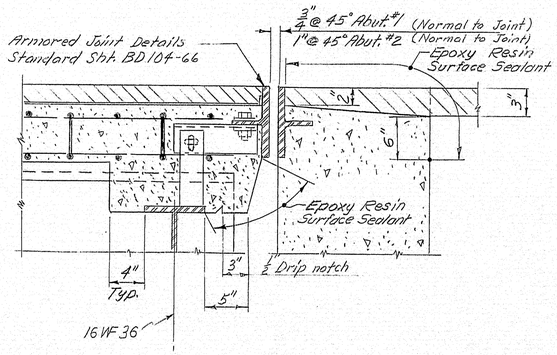
SUPERSTRUCTURE NOTES

All reinforcing to be 2" clear unless otherwise noted.

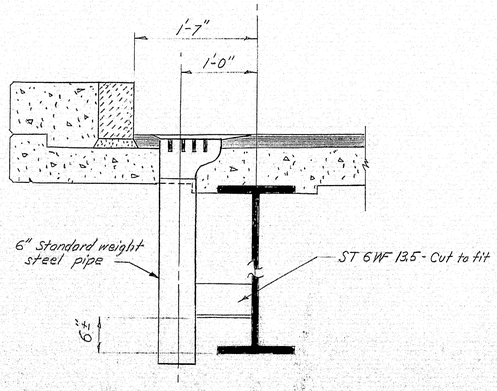
Form a 1" V-Groove on outside face of curb and slab at each contraction joint.

Reinforcing steel should not extend thru contraction joint in concrete curb.

Break the bond between concrete surfaces at contraction joints by coating contact areas with a suitable grade of asphalt paint.



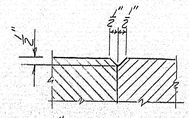
SECTION AT ABUTS.



DRAIN DETAIL

8 REQUIRED

NOTE: For fabrication & welding detail see Standard Sheet BD 104-66.



1" V-GROOVE

DESIGN– P.M.W. TRACE– S. DET. -E.V.S. CHECK– J. CHANDLER	BRIDGE NO. SURVEY– PLOT–

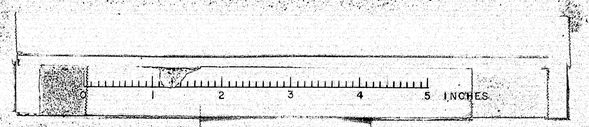
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

SUPERSTRUCTURE DETAILS

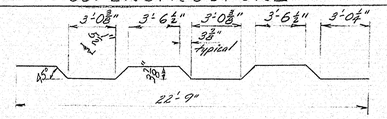
SHEET 9 OF 10 AUGUSTA, MAINE APRIL 1966

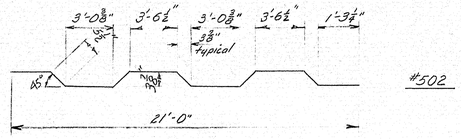
M-2526

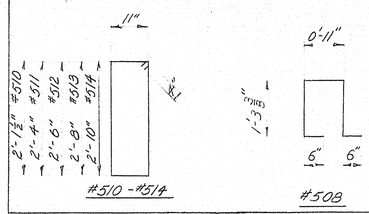


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(39)	42	223

SUPERSTRUCTURE







Note: All dimensions to ℄ bars.

BENT BARS

DESIG.	SIZE	NO.	LENGTH	LOCATION
#501	#5	202	23'-6"	Slab Transverse
#502		202	21'-9"	" "
#508		408	4'-6"	Curb Stirrups
#510		16	6'-9"	End Post Stirrups
#511		8	7'-2"	" " "
#512		8	7'-6"	" " "
#513		8	7'-10"	" " "
#514		16	8'-2"	" " "

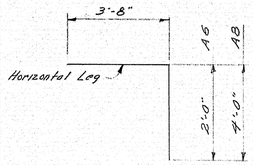
STRAIGHT BARS

DESIG.	SIZE	NO.	LENGTH	LOCATION
#401	#4	136	30'-0"	Slab Longitudinal Top
#402	#4	68	35'-7"	" " "
#403	#4	32	4'-10"	End posts horizontal
#503	#5	204	18'-3"	Slab transverse Bottom
#504		204	25'-5"	" " "
#505		408	21'-10"	" " Top
#506		164	30'-0"	" Longitudinal Bottom
#507		82	35'-7"	" " "
#509	#5	40	18'-5"	Curb Longitudinal

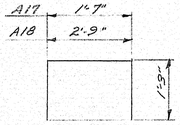
E.V.S.
J.E.

ABUTMENTS

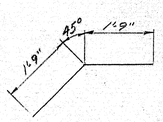
MARK	SIZE	LENGTH	NORTHBOUND Abut #1	NORTHBOUND Abut #2	SOUTHBOUND Abut #1	SOUTHBOUND Abut #2	TOTAL	REMARKS
BENT BARS								
A6	#5	4'-8"	2	—	11	26	42	Breastwall
A8	#5	5'-8"	21	26	15	—	62	Breastwall
A17	#4	5'-0"	12	12	12	12	48	Bearing Pad
A18	#4	5'-8"	12	12	12	12	48	Bearing Pad
A19	#6	3'-6"	26	26	26	26	104	Backwall to Approach Slab
A20	#5	8'-3"	7	10	7	7	31	Backwall
A21	#5	9'-2"	10	8	7	7	32	Backwall
A23	#5	4'-0"	4	4	4	4	16	Substructure Post
W2	#5	6'-0"	—	—	—	—	12	Wing Footing
W3		3'-3"	35	35	26	26	122	Wing Footing
W10		4'-5"	12	—	19	18	49	Wing Wall
W12		7'-0"	7	10	7	7	31	Wing Wall
W13	#5	6'-7"	10	7	7	7	31	Wing Wall
W57	#6	4'-2"	17	17	—	—	34	Wing Wall
W58	#6	7'-0"	17	17	—	—	34	Wing Wall
STRAIGHT BARS								
A1	#5	38'-11	6	7	6	6	25	Breastwall
A2		16'-0"	1	—	1	—	2	Breastwall
A3		8'-0"	1	—	1	—	2	Breastwall
A4		26'-0"	—	1	—	—	1	Breastwall
A5		21'-6"	—	1	—	—	1	Breastwall
A7		2'-6"	57	52	63	78	250	Breastwall & Backwall
A9		—	—	—	—	—	—	—
A10		5'-6"	5	18	—	—	23	Breastwall
A11		3'-0"	16	8	15	—	39	Breastwall
A12		4'-9"	6	—	12	12	30	Breastwall
A13		10'-6"	6	6	—	—	12	Breastwall
A14		6'-8"	—	6	—	—	6	Breastwall
A15	#5	4'-10"	64	64	64	64	256	Backwall
A16	#4	38'-11"	8	8	8	8	32	Backwall
A22	#7	3'-0"	8	8	8	8	32	Substructure Post
W1	#5	8'-2"	—	—	20	20	40	Wing Wall
W4		2'-9"	—	—	4	4	8	Wing Wall
W5		3'-3"	—	—	4	4	8	Wing Wall
W6		3'-10"	—	—	4	4	8	Wing Wall
W7		4'-4"	—	—	8	8	16	Wing Wall
W8		4'-10"	—	—	4	4	8	Wing Wall
W9		5'-5"	—	—	4	4	8	Wing Wall
W11		8'-7"	—	—	4	4	8	Wing Wall
W14		—	—	—	—	—	—	—
W15		—	—	—	—	—	—	—
W16		—	—	—	—	—	—	—
W17		—	—	—	—	—	—	—
W18		5'-8"	—	—	2	2	4	Wing Wall
W19		11'-0"	8	10	—	—	18	Wing Footing & Wing Wall
W20		8'-6"	2	2	—	—	4	Wing Wall
W21		4'-8"	—	2	—	—	2	Wing Wall
W22		12'-0"	2	2	—	—	4	Wing Wall
W23		3'-5"	—	2	—	—	2	Wing Wall
W24		3'-11"	—	2	—	—	2	Wing Wall
W25		4'-6"	—	2	—	—	2	Wing Wall
W26		5'-0"	—	2	—	—	2	Wing Wall
W27		5'-6"	—	2	—	—	2	Wing Wall
W28		6'-1"	—	2	—	—	2	Wing Wall
W29		6'-7"	—	2	—	—	2	Wing Wall
W30		7'-1"	—	2	—	—	2	Wing Wall
W31		7'-3"	—	1	—	—	1	Wing Wall
W32		9'-9"	7	7	—	—	14	Wing Footing
W33	#5	8'-8"	7	7	—	—	14	Wing Footing
W34	#6	7'-3"	2	2	—	—	4	Wing Wall
W35		7'-7"	2	2	—	—	4	Wing Wall
W36		8'-0"	2	2	—	—	4	Wing Wall
W37		8'-4"	2	2	—	—	4	Wing Wall
W38		8'-8"	2	2	—	—	4	Wing Wall
W39		9'-0"	2	2	—	—	4	Wing Wall
W40		9'-4"	2	2	—	—	4	Wing Wall
W41		9'-9"	2	2	—	—	4	Wing Wall
W42		8'-7"	2	2	—	—	4	Wing Wall
W43		8'-11"	2	2	—	—	4	Wing Wall
W44		9'-3"	2	2	—	—	4	Wing Wall
W45		9'-7"	2	2	—	—	4	Wing Wall
W46		10'-0"	2	2	—	—	4	Wing Wall
W47		10'-4"	2	2	—	—	4	Wing Wall
W48		10'-8"	2	2	—	—	4	Wing Wall
W49		11'-0"	2	2	—	—	4	Wing Wall
W50	#6	11'-4"	2	2	—	—	4	Wing Wall
W51	#5	16'-8"	8	8	—	—	16	Wing Wall
W52		14'-6"	2	2	—	—	4	Wing Wall
W53		10'-9"	2	2	—	—	4	Wing Wall
W54		6'-7"	2	2	—	—	4	Wing Wall
W55		18'-0"	2	2	—	—	4	Wing Wall
W56		7'-8"	2	2	—	—	4	Wing Wall
W59		2'-1"	2	—	—	—	2	Wing Wall
W60		2'-7"	2	—	—	—	2	Wing Wall
W61		3'-2"	2	—	—	—	2	Wing Wall
W62		3'-8"	2	—	—	—	2	Wing Wall
W63		4'-3"	2	—	—	—	2	Wing Wall
W64		4'-9"	2	—	—	—	2	Wing Wall
W65		5'-3"	2	—	—	—	2	Wing Wall
W66		5'-9"	2	—	—	—	2	Wing Wall
W67		3'-6"	2	—	—	—	2	Wing Wall
W68	#5	5'-11"	1	—	—	—	1	Wing Wall
A21	#6	14'-9"	152	152	152	152	608	Approach Slab
A22	#4	38'-0"	20	20	20	20	80	Approach Slab



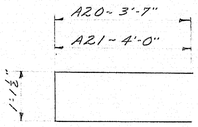
A6 & A8



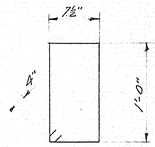
A17 & A18



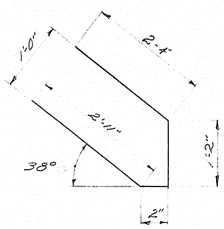
A19



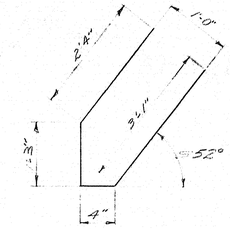
A20 & A21



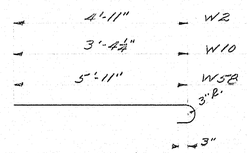
A23



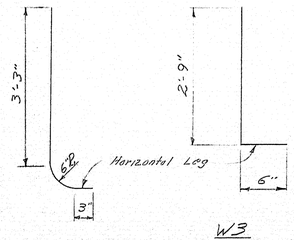
W13



W12



W2, W10 & W58



W57 W3

NOTE:
All reinforcing steel to be intermediate grade.
All dimensions to ℄ of bars.

Abutment Reinforcing Steel
Detailed by - R.T.A.
Checked by - H.L.D.

DESIGN-	BRIDGE NO.
TRACE- & DET. NOTED	SURVEY-
CHECK- As Noted	PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

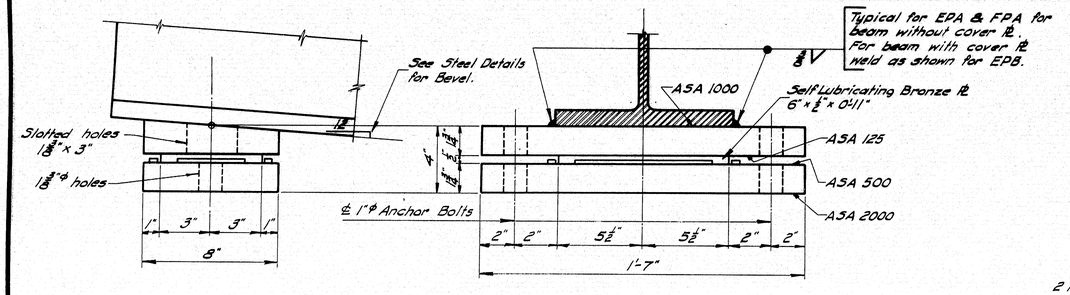
INTERSTATE 95
OVER
ROUTE 158
IN THE TOWN OF
SHERMAN
AROOSTOOK COUNTY

REINFORCING STEEL

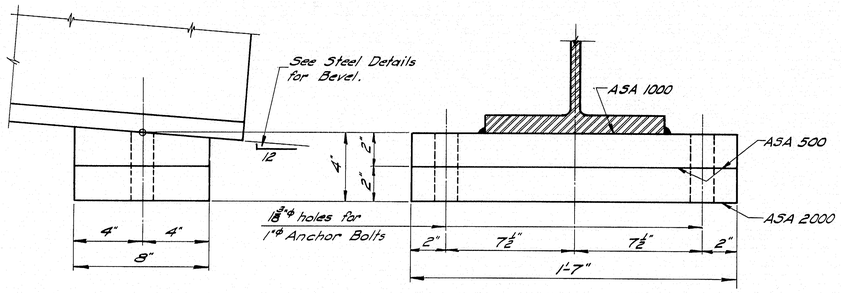
SHEET 10 OF 10 AUGUSTA, MAINE MAY 1966

M-2527

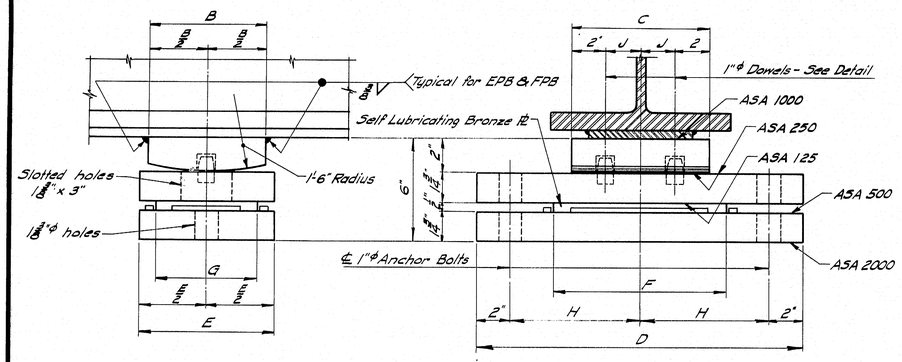
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	43	223



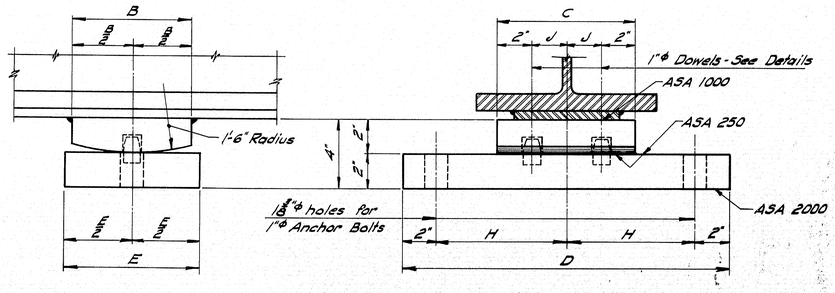
EXPANSION PEDESTAL - EPA



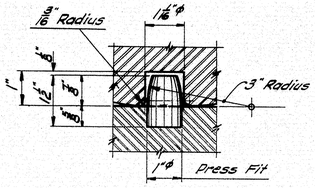
FIXED PEDESTAL - FPA



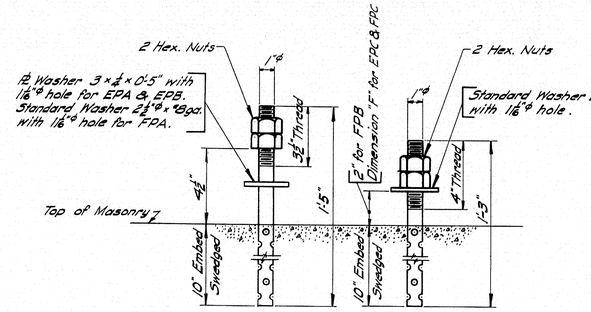
EXPANSION PEDESTAL - EPB



FIXED PEDESTAL - FPB



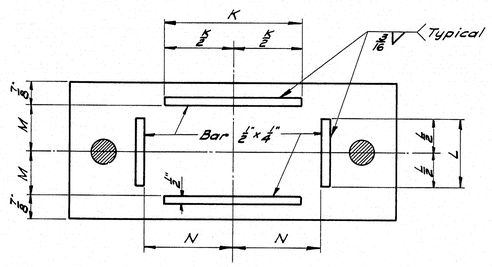
DOWEL DETAIL



For EPA - 2 req'd.
For FPA - 2 req'd.
For EPB - 2 req'd.

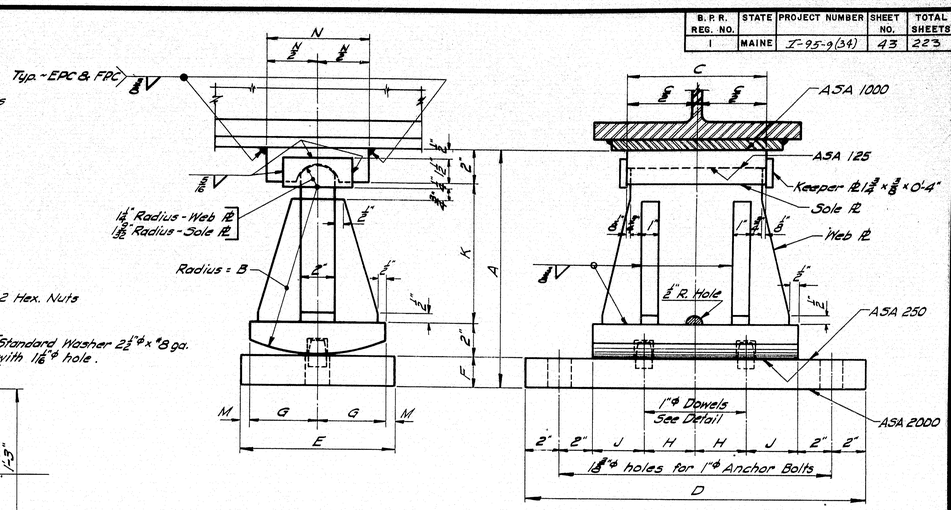
For FPB - 2 req'd.
For EPC - 2 req'd.
For FPC - 4 req'd.

ANCHOR BOLT DETAIL

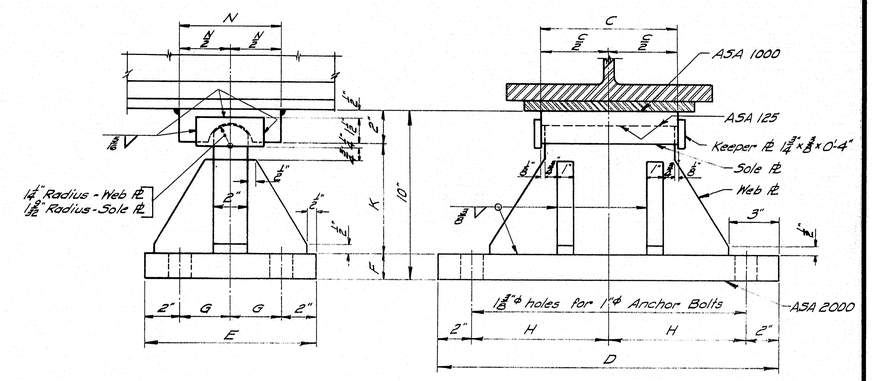


For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	—	—	—	—	—	—	—	—	—	8"	4"	3 1/8"	5 1/8"
FPA	150 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/8"	5 1/8"
EPB-2	165 K	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3 1/8"	6 1/8"
EPB-3	224 K	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3 1/8"	8 1/8"
FPB-1	120 K	—	6"	8"	1'-7"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 K	—	7"	10"	1'-8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224 K	—	8"	1'-2"	2'-0"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70 K	9 3/4"	6"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1/2"	6"
EPC-2	100 K	11 3/4"	8"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	1/2"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1 3/4"	4"	3"	3"	8 1/2"	—	1/2"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1 3/4"	4"	4"	3"	8 1/2"	—	1/2"	7"
EPC-5	190 K	1'-2 1/2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	1/2"	8"
EPC-6	220 K	1'-4 1/2"	1'-0"	10"	2'-0"	1'-0"	2 1/4"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 K	1'-4 1/2"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/4"	5"	5"	4"	10 1/2"	—	1"	8"
FPC-1	100 K	—	—	8"	1'-8"	9"	1 1/4"	2 1/2"	8"	—	6 1/2"	—	—	6"
FPC-2	160 K	—	—	8"	1'-8"	10"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	190 K	—	—	9"	2'-0"	10"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 K	—	—	10"	2'-0"	1'-0"	1 3/4"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 K	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1961, with Interim Specifications, 1961 & 1962

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A7, A36, or A 307
All other - A36.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

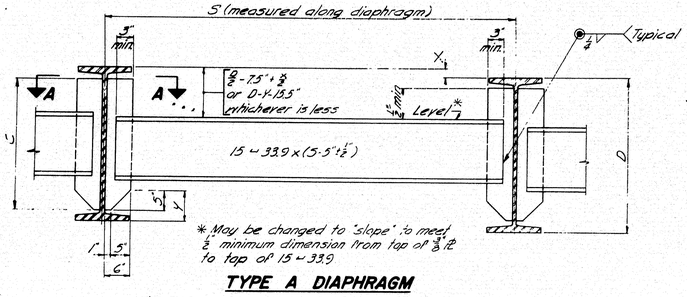
(BD 101 - 64)

BEARING PEDESTALS

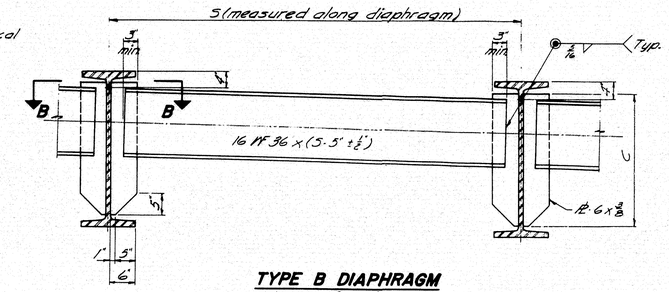
JANUARY 1964

N-25 I-95 over Benedicta Road - SHERMAN

B.P.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	44	223

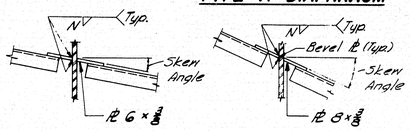


TYPE A DIAPHRAGM



TYPE B DIAPHRAGM

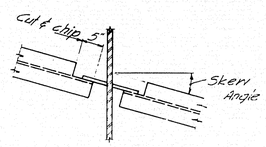
Welding 6 x 3/8 plates to web same as for Type A Diaphragm.



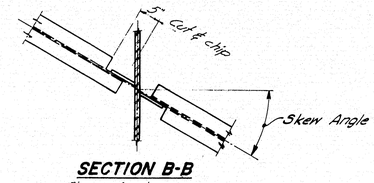
SECTION A-A
Skew Angle 0° to 10°-00'

SECTION A-A
Skew Angle over 10°-00' to 20°-00'

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 PF 84 to 114 incl.	1'-11"	5/16"
30 PF 99 to 132 incl.	2'-2"	3/8"
33 PF 118 to 152 incl.	2'-5"	3/8"
36 PF 135 to 194 incl.	2'-7"	3/8"
36 PF 230 to 300 incl.	2'-6"	3/16"



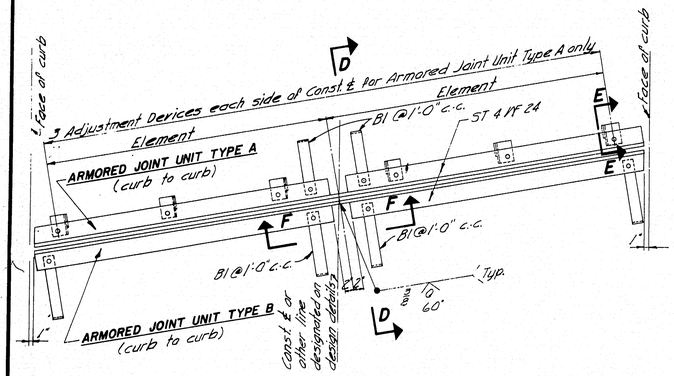
SECTION B-B
Skew Angle 0° to 10°-00'



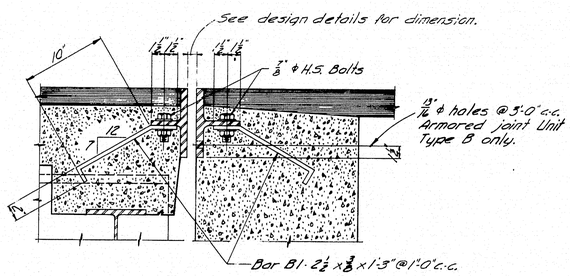
SECTION B-B
Skew Angle over 10°-00'

NOTE
See design details for diaphragm type, location and skew.

DIAPHRAGMS



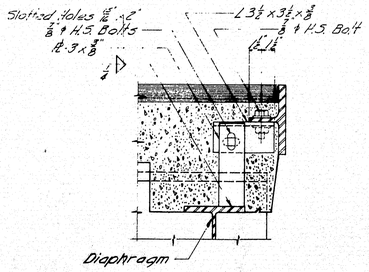
PLAN



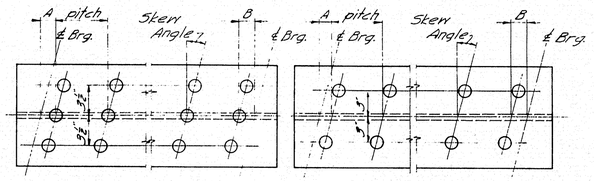
ARMORED JOINT UNIT TYPE A

ARMORED JOINT UNIT TYPE B

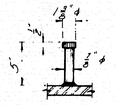
SECTION D-D



SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld 3/8 PL to angle with 1/4" fillet



TRIPLE STUDS **DOUBLE STUDS**



STUD DETAIL

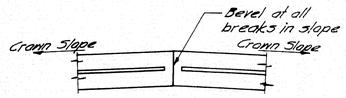
NOTE

1. Studs shall be granular or solid flux filled and automatically end welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

SHEAR CONNECTORS

SHEAR CONNECTOR NOTE

The connectors may be either steel studs or spirally formed bars. At the request of the Contractor a plan for using spirally formed bars will be provided.



SECTION F-F

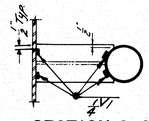
Note: See design details for constr. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. If more elements than the two shown in the "Plan" are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the "Plan".
3. Armored Joints to be paid for as Structural Steel.

ARMORED JOINT

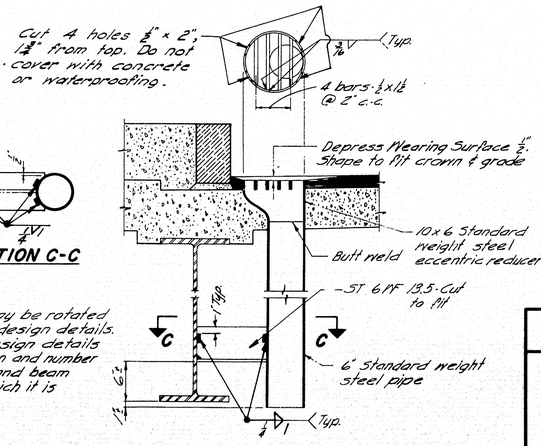
An armored joint consists of two armored joint units. See note 1.



SECTION C-C

NOTE

1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.



DRAIN

GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

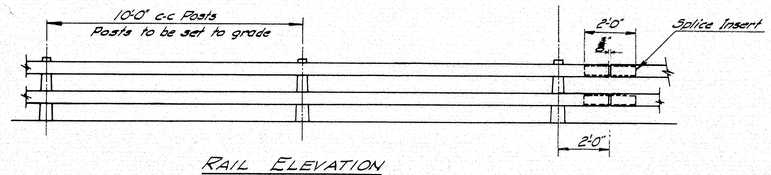
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 104-66)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

SEPTEMBER 1966

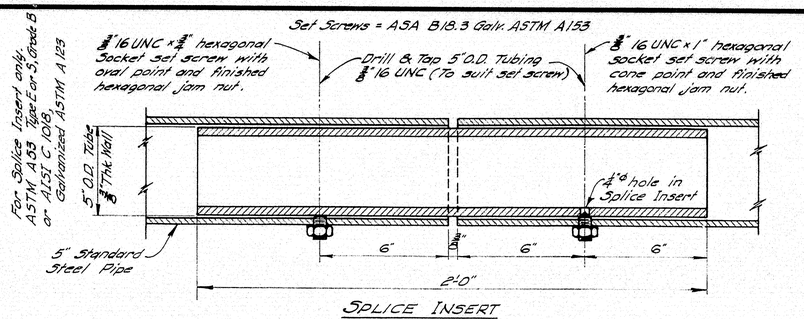
M-[redacted] 2527B

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(34)	45	223

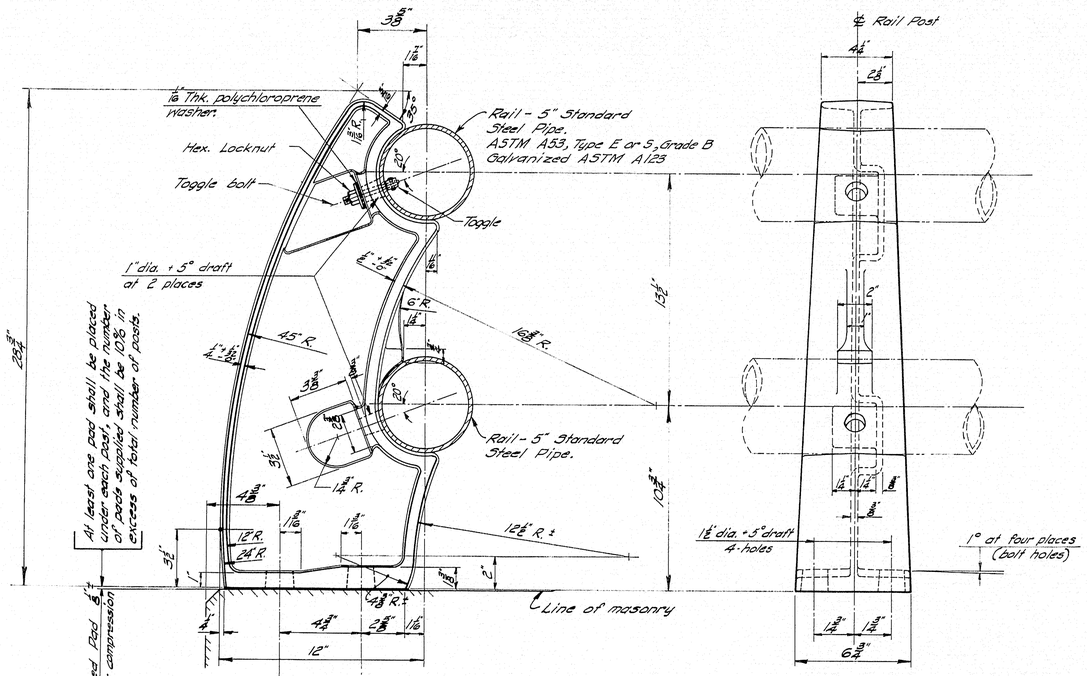


RAIL ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



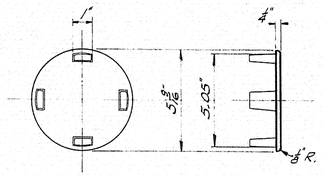
SPLICE INSERT



RAIL POST

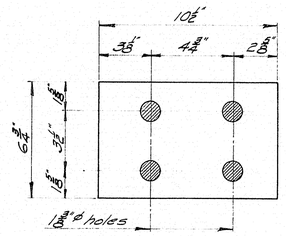
ASTM A27, Grade 65-35, Galvanized ASTM A153

FRONT ELEVATION



RAIL CAP

ASTM A27, Grade 65-35, Galv. ASTM A153



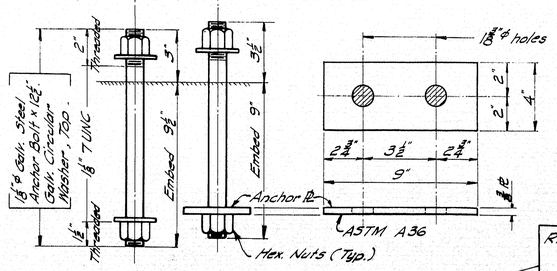
PREFORMED PAD

See Subsection 713.03 Standard Specifications Revision of June 1965 for pad and fabric washers.

Required 1-Pad per post

DESIGN SPECIFICATIONS

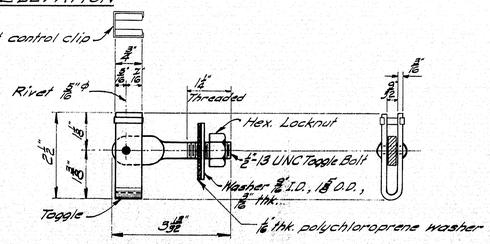
A.A.S.H.O. Interim Specifications Int. I (64)



RAIL POST ANCHORAGE

Anchor Bolts, Nuts, & Circular Washers = ASTM A325
Anchor Bolts, Nuts & Circular Washers at Top, (Galv.) ASTM A153

REQUIRED PER ANCHORAGE
4 - Anchor Bolts
6 - Circular Washers
1 - Anchor Pl.



TOGGLE BOLT ASSEMBLY

Cadmium Plate metal parts ASTM A165

Required 2-per post

Toggle	=	ASTM A303, 1015 H.R. Steel.
Rivet	=	ASTM A195. 1038 C.R. Steel, Heat Treated
Toggle Bolt	=	ASTM A354, 1335 C.R. Steel, Heat Treated RC 32-38.
Washer	=	ASTM A36 Steel
Hex. Locknut	=	Finished Hexagonal Locknut Prevailing Torque Type Steel Grade Cor D. Industrial Fasteners Institute.

Revised - Toggle Bolt Sept. 1966

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

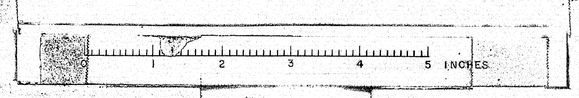
(BD 107 - 65)

STEEL RAILING

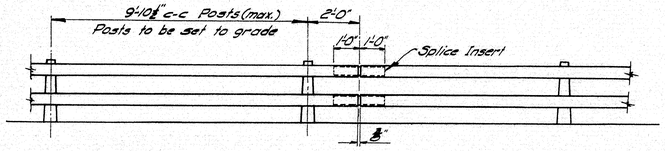
(2-BAR PIPE RAIL)
CAST POST

OCTOBER 1965

M-2527C I-95 over Deveaux Road - SHERMAN



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9 (39)	46	223

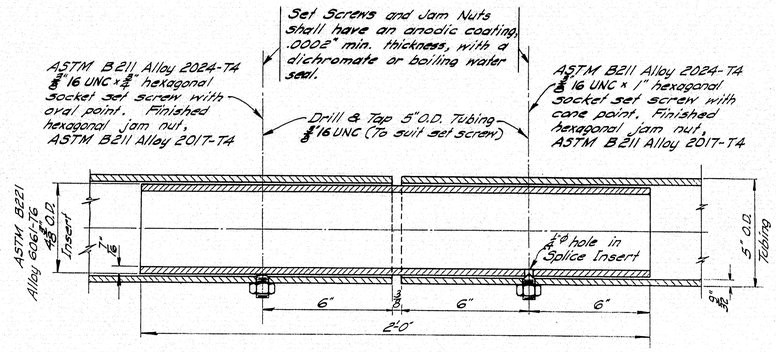


RAIL ELEVATION

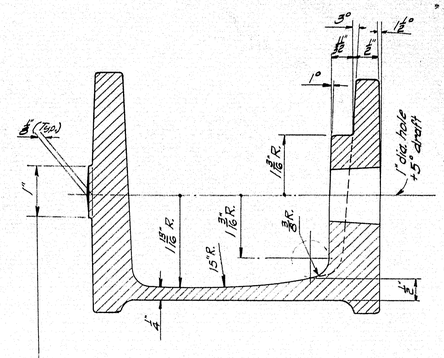
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.

ORIGIN LOCATION - PRINCIPAL CURVES

Curve	Radius	"X"	"Y"
#1	24"	24"	3 15/32"
#2	45"	45"	2 27/32"
#3	15"	15 11/16"	4 23/32"
#4	9 3/4"	20 11/16"	2 13/32"
#5	19"	28 17/32"	11"
#6	6"	16 17/32"	16 1/16"

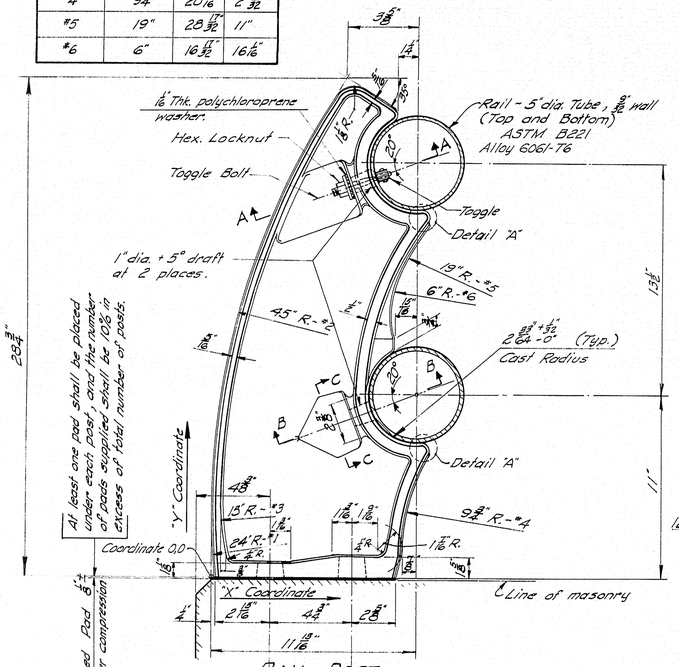


SPLICE



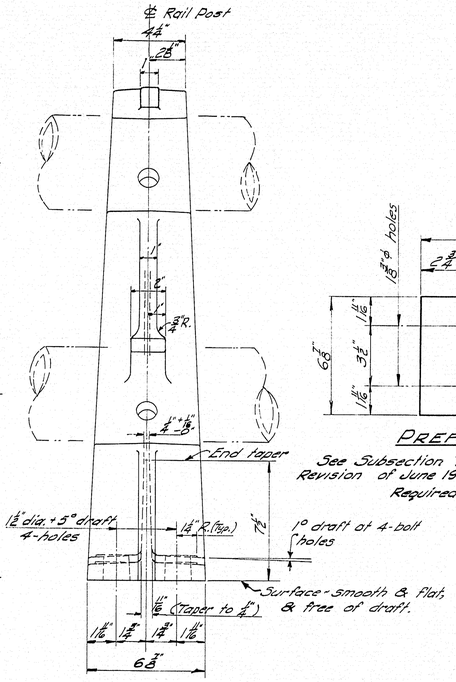
SECTION A-A

Casting to be supplied with a 60 grit belt grind. Finish on all gating rib surfaces ground entire casting.

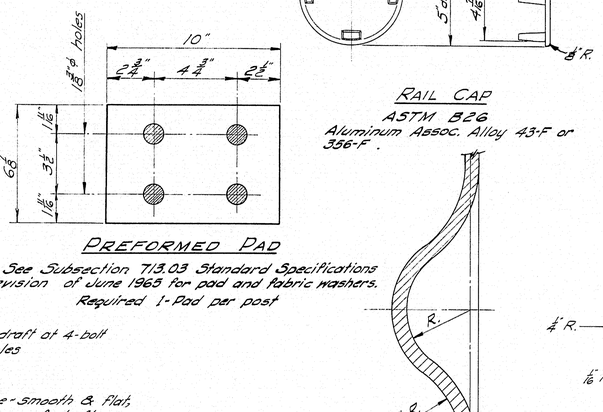


RAIL POST

ASTM B 108, Aluminum Assoc. Alloy A344-T4



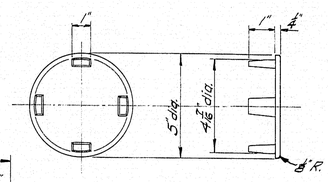
FRONT ELEVATION



PREFORMED PAD

See Subsection 713.03 Standard Specifications Revision of June 1965 for pad and fabric washers.

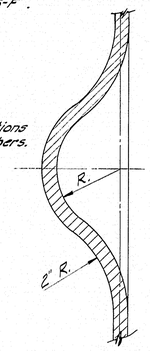
Required 1-Pad per post



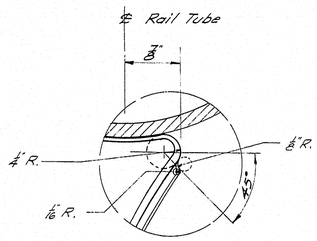
RAIL CAP

ASTM B26

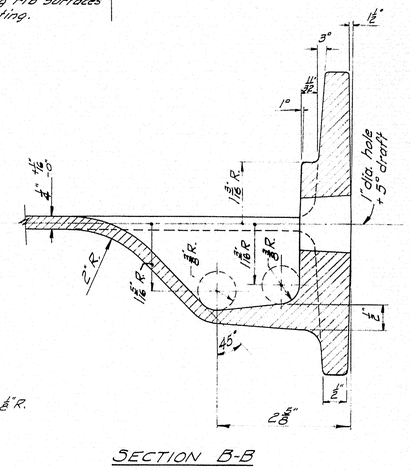
Aluminum Assoc. Alloy 43-F or 356-F.



SECTION C-C



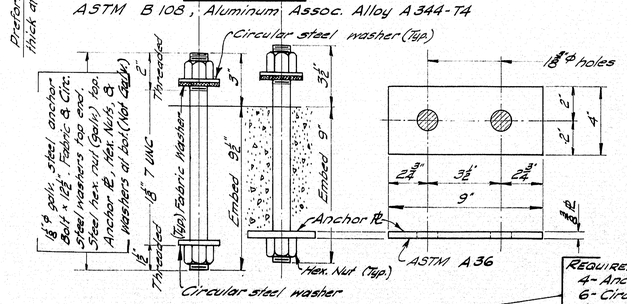
DETAIL "A"



SECTION B-B

DESIGN SPECIFICATIONS

A.A.S.H.O. Interim Specifications Int. I (64).

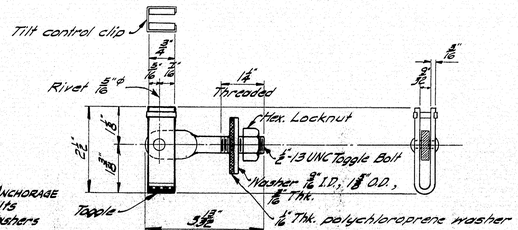


RAIL POST ANCHORAGE

Required Per Anchorage
4 - Anchor Bolts
6 - Circular Washers
4 - Fabric Washers
1 - Anchor ℞

Anchor Bolts, Nuts, & Circular steel washers = ASTM A325

Anchor Bolts, Nuts and Circular steel washers at Top, (Galv.) ASTM A153



TOGGLE BOLT ASSEMBLY

Required 2-per post

Cadmium Plate metal parts ASTM A165

Toggle = ASTM A303, 1015 H.R. Steel.
Rivet = ASTM A195, 1038 C.R. Steel, Heat Treated
Toggle Bolt = ASTM A354, 1335 C.R. Steel, Heat Treated RC 32-38.
Washer = ASTM A36 Steel
Hex. Locknut = Finished Hexagon Locknut Prevailing Torque Type Steel Grade C or D, Industrial Fasteners Institute.

Revised - Toggle Bolt Sept. 1966

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

(BD 108-65)

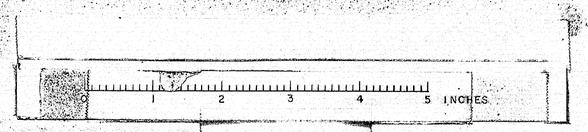
ALUMINUM RAILING

2 - BAR (TUBE RAIL)

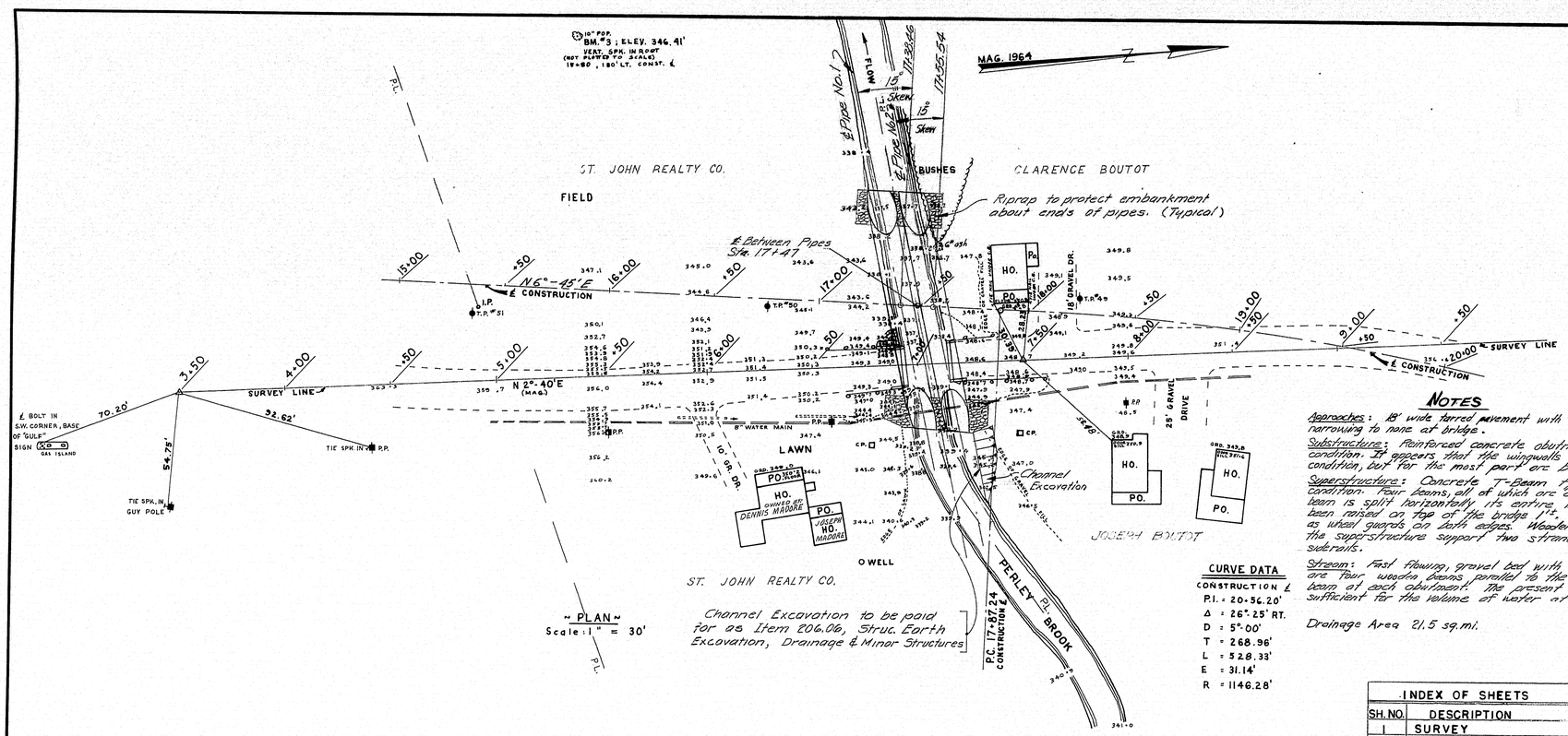
CAST POST

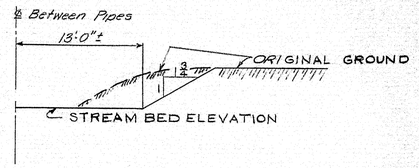
OCTOBER 1965

M-2527 D I-95 over Benedicta Road - SHERMAN



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	338 (502)	12	31





TYPICAL CHANNEL SECTION

NOTES

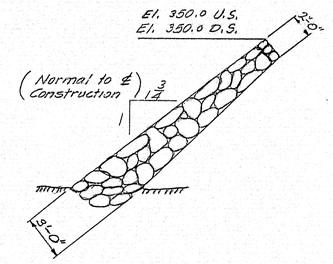
Approaches: 18' wide tarred pavement with 4' shoulders narrowing to none at bridge.

Substructure: Reinforced concrete abutments in very poor condition. It appears that the wingwalls are in very poor condition, but for the most part are buried.

Superstructure: Concrete T-Beam type in very poor condition. Four beams, all of which are cracked. The downstream beam is split horizontally its entire length. The road has been raised on top of the bridge 1". Wooden beams act as wheel guards on both edges. Wooden posts bolted to the superstructure support two strands wire cable for sidewalk.

Stream: Fast flowing, gravel bed with 4"± rocks. Under bridge are four wooden beams parallel to the road with a cross beam at each abutment. The present opening appears to be sufficient for the volume of water at high periods.

Drainage Area 21.5 sq.mi.



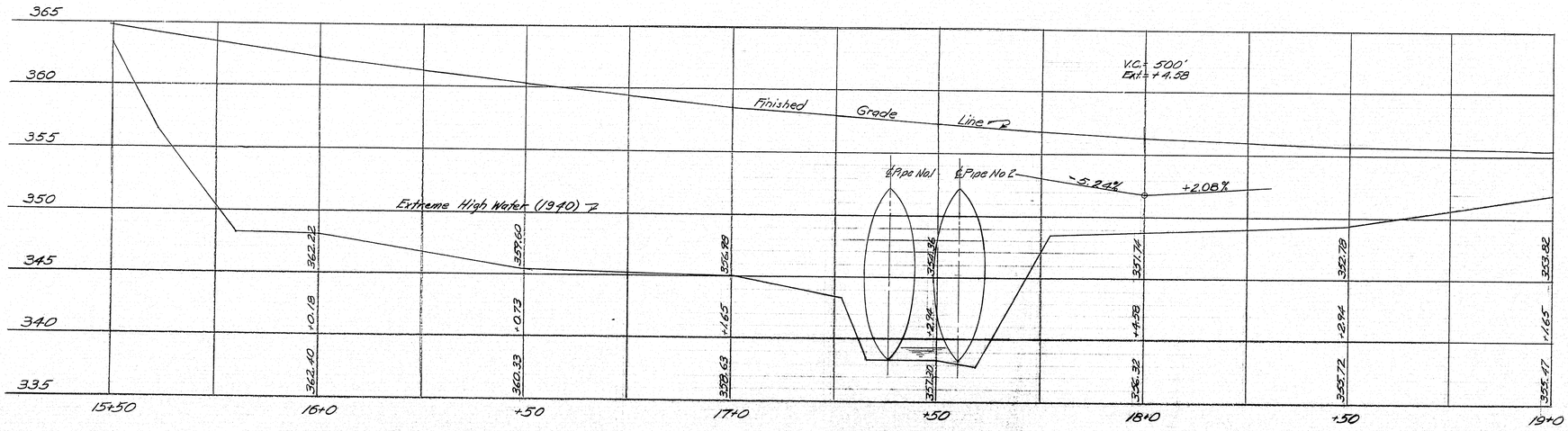
TYPICAL RIPRAP SECTION

CURVE DATA	
CONSTRUCTION ℄	
P.I. =	20+56.20'
Δ =	26°-25' RT.
D =	5°-00'
T =	268.96'
L =	528.33'
E =	31.14'
R =	1146.28'

INDEX OF SHEETS	
SH. NO.	DESCRIPTION
1	SURVEY
2	STRUCTURAL PLATE PIPES
3	FOUNDATION SURVEY

ESTIMATE OF QUANTITIES — PERLEY BROOK BRIDGE FORT KENT

DESCRIPTION	QUANTITY
Structural Earth Excavation, Drainage and Minor Structures	225 c.y.
Structural Rock Excavation, Drainage and Minor Structures	60 c.y.
Granular Borrow	1,200 c.y.
Removal of Existing Superstructure (Property of Contractor) Perley Brook Bridge,	Lump Sum
156" Structural Plate Pipes	Lump Sum
Hand Laid Riprap	65 c.y.



PROFILE ALONG ℄ CONSTRUCTION

Scale: Horiz. - 1" = 15'
Vert. - 1" = 5'

DESIGN- R. GRAY
TRACE-
CHECK- L. ROBERTS
BRIDGE NO. 3468
SURVEY- HARDISON
PLOT- LIBBY

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

PERLEY BROOK BRIDGE

IN THE TOWN OF

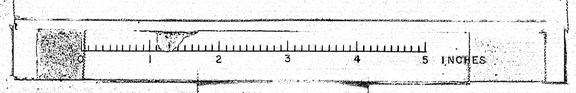
FORT KENT

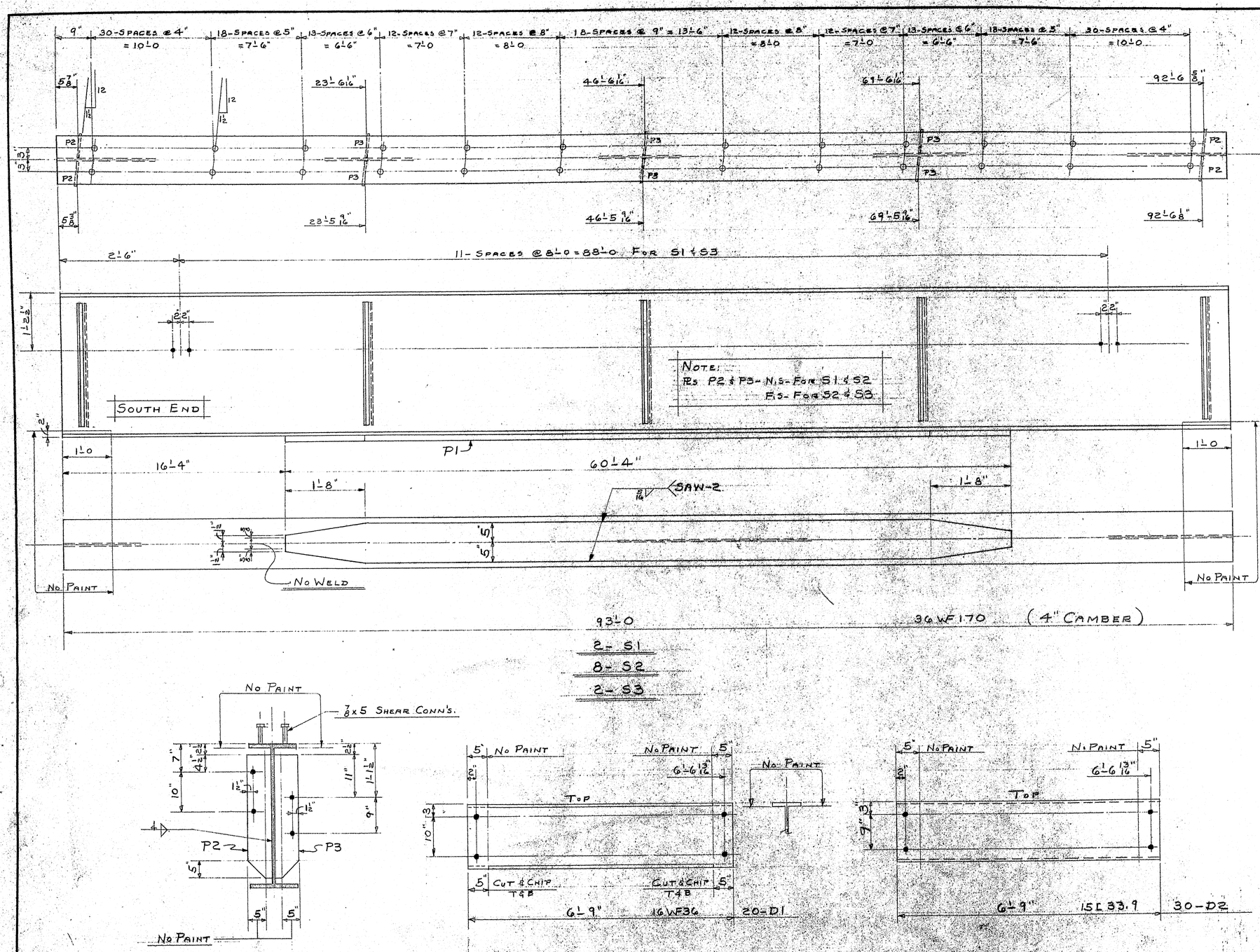
AROOSTOOK COUNTY

SURVEY

SHEET 1 OF 3 AUGUSTA, MAINE JANUARY, 1965

M-2528





SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
S1	2		36WF170	93	0		4" CAMBER
S2	8		Do	93	0		D.
S3	2		Do	93	0		D.
D1	20		16WF36	6	9		
D2	30		15[33.9	6	9		
	12	P1	PL 10 x 1 1/2	60	4		
	40	P2	PL 6 x 3/8	2	7		
	60	P3	Do	2	7		
	4536		7/8 STUDS	0	5		SHEAR CONNECTORS
FIELD	200		5/8 M.BOLT	0	2		
D.	400		5/8 WASHERS				

BILL OF MATERIAL — DWG. B66-398-S1

PROJ. No. I-95-9 (34)

SHOP CONNECTIONS: WELD (SAW-2)
FIELD CONNECTIONS: WELD
HOLES: 15/16" ϕ
PAINT: STATE OF ME. SPEC'S.

APP'D AS NOTED 1-17-67

STRINGERS & DIAPHRAGM'S

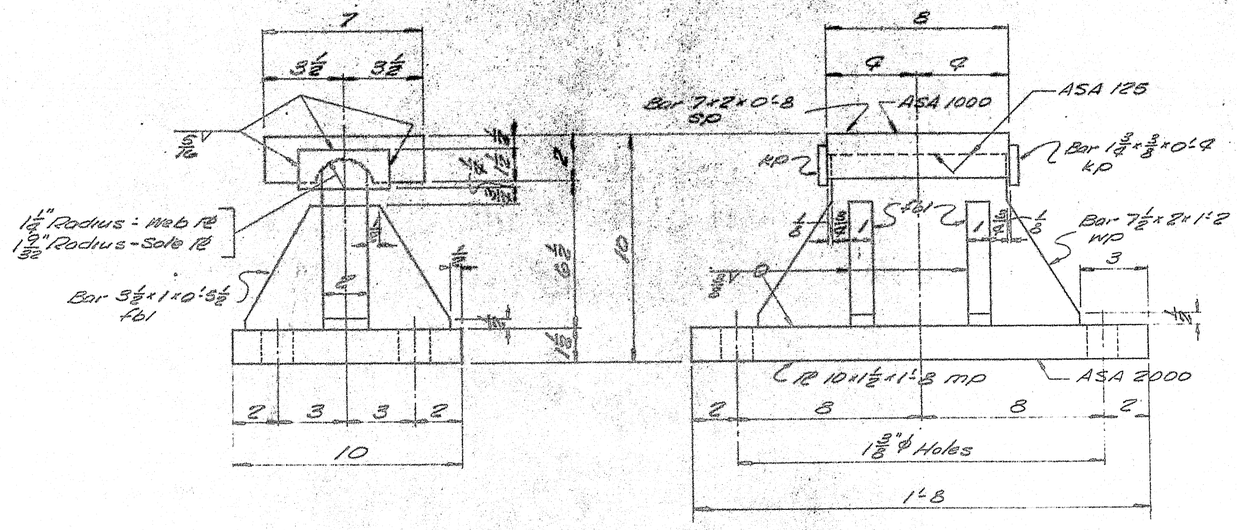
PRINT ISSUE		
6	SHOP	1-25-67
5	DIOT	1-25-67
2	F.A.	1-12-67
DRAWN	1-11-67	D.C.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I 95 over RTE. 158
SHERMAN ME.

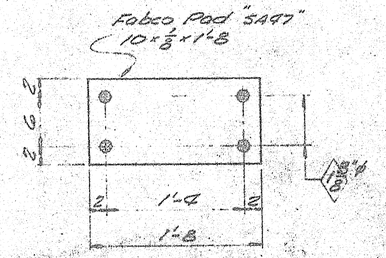
CUSTOMER CALLAHAN BROS.
DESIGNER STATE HIGHWAY COMM.
ORDER VERBAL DWG. B66-398-S1

100·122



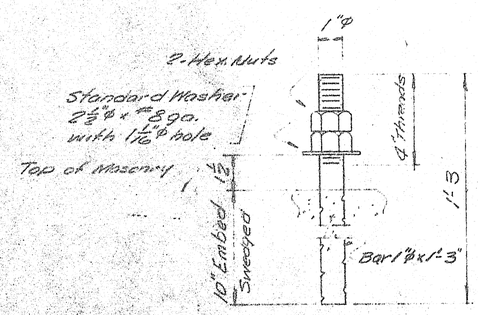
FIXED PEDESTAL FPC-2

12 - REQ'D.



FABCO "SA97" PAD

FP 12 - REQ'D.



ANCHOR BOLT AB1

48 - REQ'D.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
FPC2	12		FIXED PEDESTAL ASSY.				
	12	mp	Pl 10×1½	1	8		
	12	wp	Bar 7½×2	1	2		
	12	sp	Bar 7×2	0	8		
	24	kp	Bar 1¾×⅜	0	4		
	48	fbl	Bar 3½×1	0	5½		
AB1	48		Bar 1"ϕ	1	3		Swedged
	96	shop	1" Hex. Nut				
Field	48		1" Washer				Std. washer 2½" O.D. x #8 ga. with 1 5/16" ϕ hole
FP	12		Pad 10×⅜	1	8		Fabco Pad "SA97" Reg. #

Allowance to be made for machining when cutting above plates.

ITEM
PROJECT No. I-95-9 (34)

Sole plates "sp" to be field welded to stringers.

Bearing material to be ASTM A36, Anchor bolts to be A7, A36, or A307.
All welds to be made with E70 Electrodes.

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS:
HOLES: As noted
PAINT: Red lead per Maine S.H.C. spec, and as noted.

APP'D 1-17-67

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

I 95 OVER RTE. 158
SHERMAN Ma

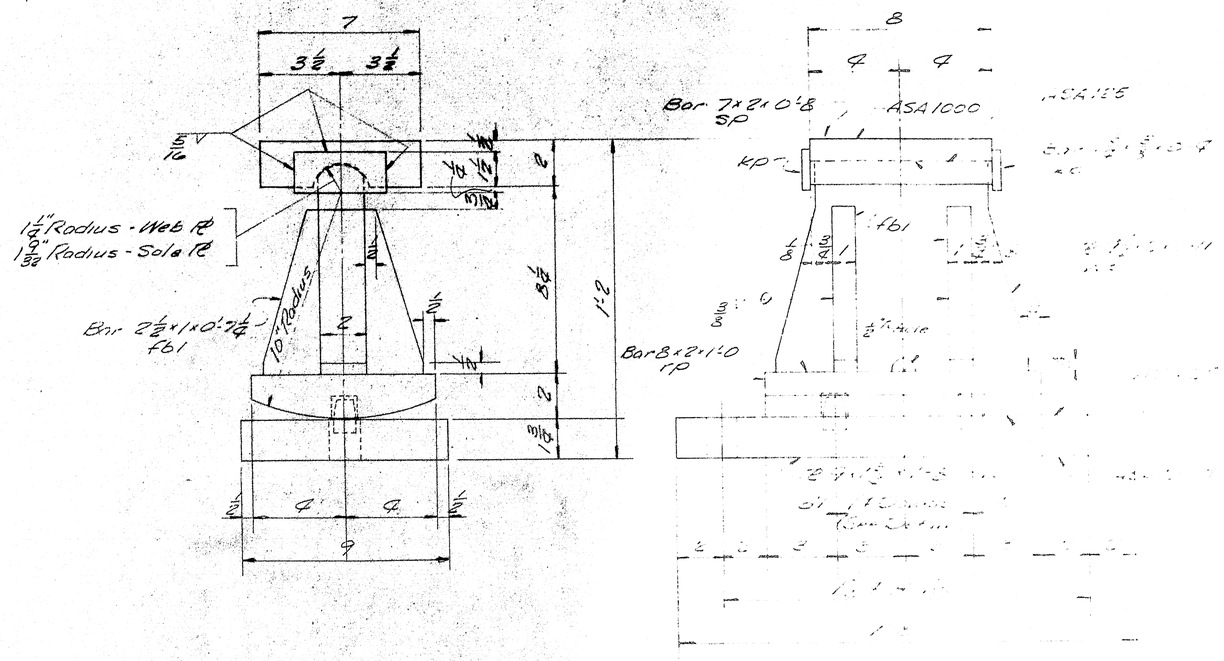
CUSTOMER CALLAHAN BROS.
DESIGNED M.S.H.C. BRIDGE ENG.
ORDER NO. 1 SERIAL

DRAWN 1-11-67
REVISION
REVISION
REVISION
REVISION

4 - PART. 1-25-67
5 - DIST. 1-25-67
2 - F.A. 1-12-67

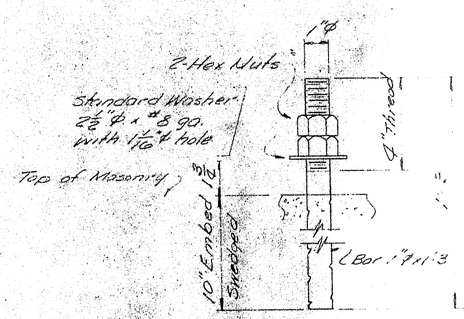
PAINT NOTE:
No paint on top of sole plates "sp" and 1" down from top on sides. Coat with boiled linseed oil.
No paint on surface with [illegible] coat with mixture [illegible]
No paint on [illegible]

100-12.0



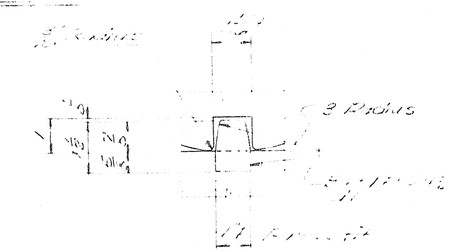
EXPANSION PEDESTAL EP-C-2

12 - REQ'D.

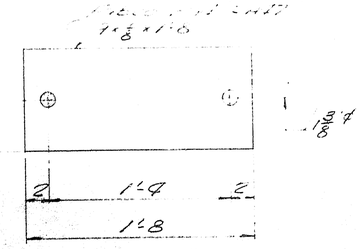


ANCHOR BOLT AB1

24 - REQ'D.



DOWEL DETAIL



FABCO "SA47" PAD

FP 12 - REQ'D.

PAINT NOTE:

No paint on top of sole plates "sp" and 1" down from top on sides, coat with boiled linseed oil.

No paint on surface with ASA 125 finish, coat with mixture of white lead and tallow.

No paint on Anchor Bolts - Oil thds.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
			BILL OF MATERIAL				DWG. NO. B66-398-53
EP-C-2	12		EXPANSION PEDESTAL ASS'Y.				
	12	PL	PL 1x1 3/8	1	6		
	12	PD	Bar 8x1/2	1	0		
	12	PD	PL 1/4 [illegible]	0	11		
	12	SP	Bar [illegible]	0	8		
	48	[illegible]	[illegible]	0	2 1/2		
	24	[illegible]	Bar 1/4	0	1 1/2		
	24	[illegible]	[illegible]		4		
[illegible]	24		Bar 1/4	1	5		Sole Pl. 90
	48	[illegible]	[illegible]				
[illegible]	24		" washer				Std Washer 2 1/2" O.D. x [illegible] with 1 1/16" φ hole.
[illegible]	12		[illegible]	[illegible]			[illegible] "SA47" [illegible]
	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]
	[illegible]	[illegible]	[illegible]	I-95-9			(34)
	[illegible]	[illegible]	[illegible]	[illegible]			Field welded

[illegible] Anchor [illegible] Electrodes.

SHOP CONNECTIONS: Welded

FIELD CONNECTIONS:

HOLES: [illegible] noted

PAINT: Red lead per Maine S.H.C. [illegible] noted.

APP'D 1-17-67

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

I 95 over Rte. 158
SHERMAN ME.

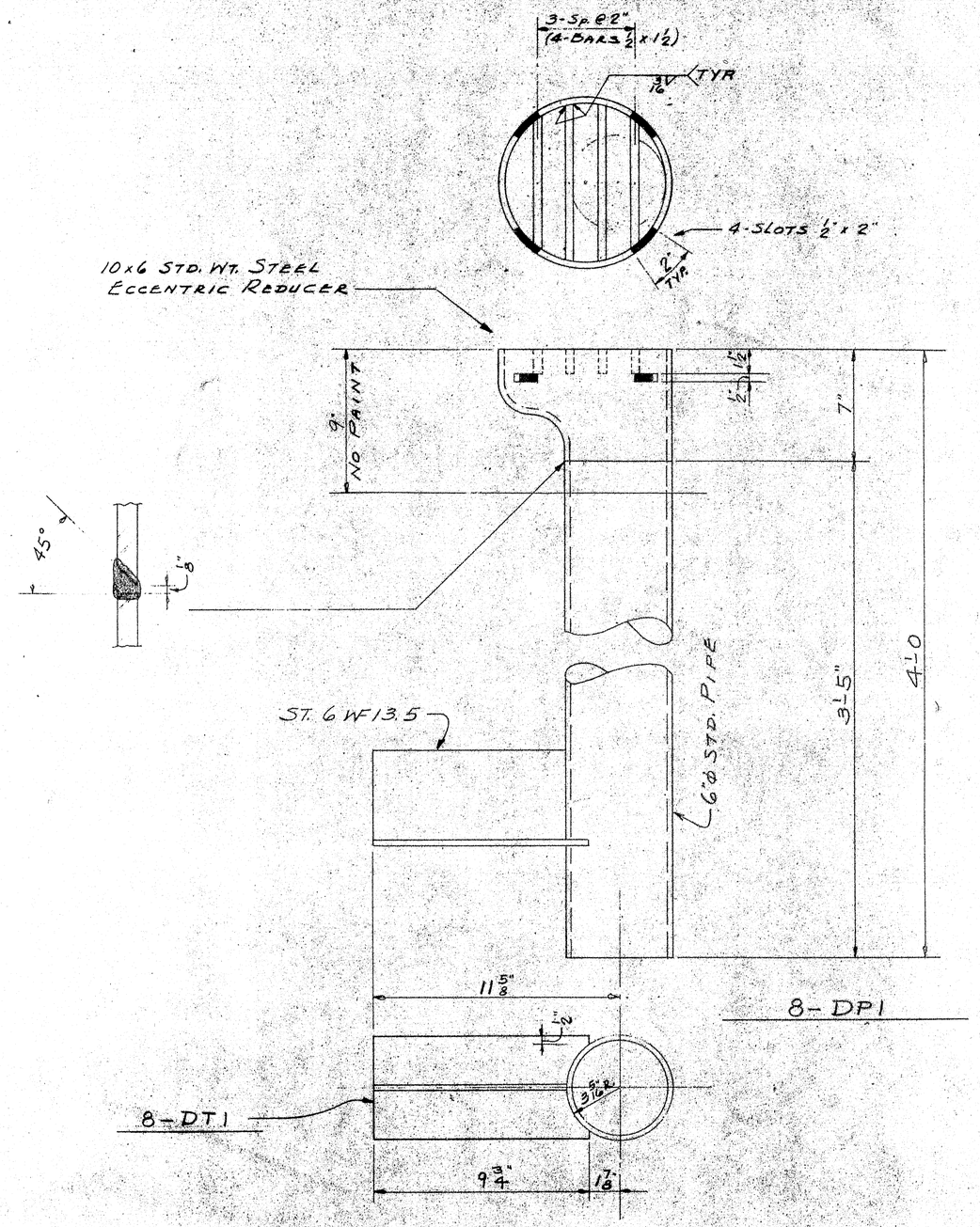
CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C. BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. B66-398-53

4 - PORT. 1-25-67
5 - DIST 1-25-67
2 - F.A. 1-12-67

DRAWN	1-11-67	D.C.
REVISION		
REVISION		
REVISION		

100-124



SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
DP1	8		6 STD. PIPE	3 5		
	8		10x6-ECC. REDUCER			
DT1	8		ST6WF13.5	0 9 3/4		

BILL OF MATERIAL — DWG. B66-398-S4

SHOP CONNECTIONS: WELD
FIELD CONNECTIONS: WELD
HOLES: AS NOTED
PAINT: STATE OF MAINE SPECS.

PROJECT No. I-95-9 (34)

BRIDGE DRAINS

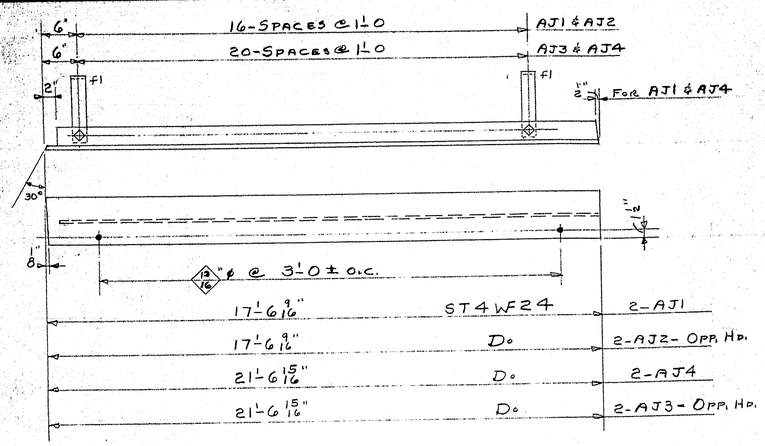
PRINT ISSUE		
6	SHOP	1-25-67
5	DIST	1-25-67
2	F.A.	1-12-67
DRAWN	1-11-67	D.C.
REVISION		
REVISION		
REVISION		

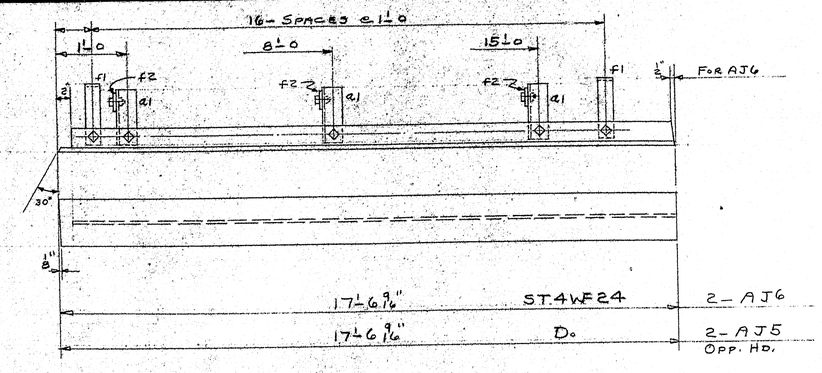
Bancroft & Martin Inc.
Brewer, Maine

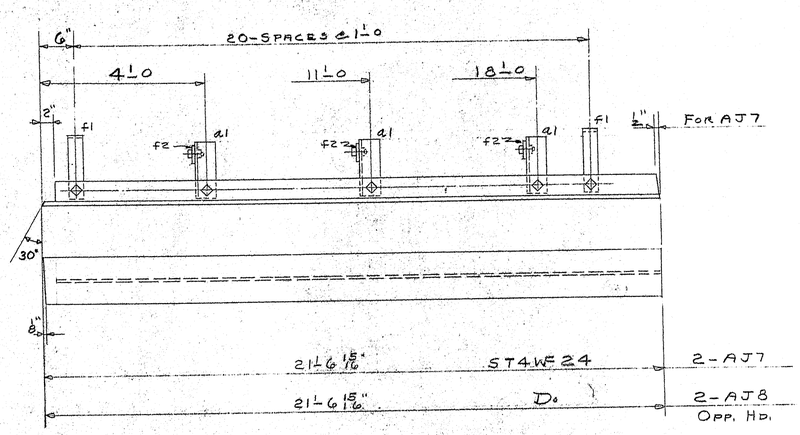
I95 OVER RTE. 158
SHERMAN ME.

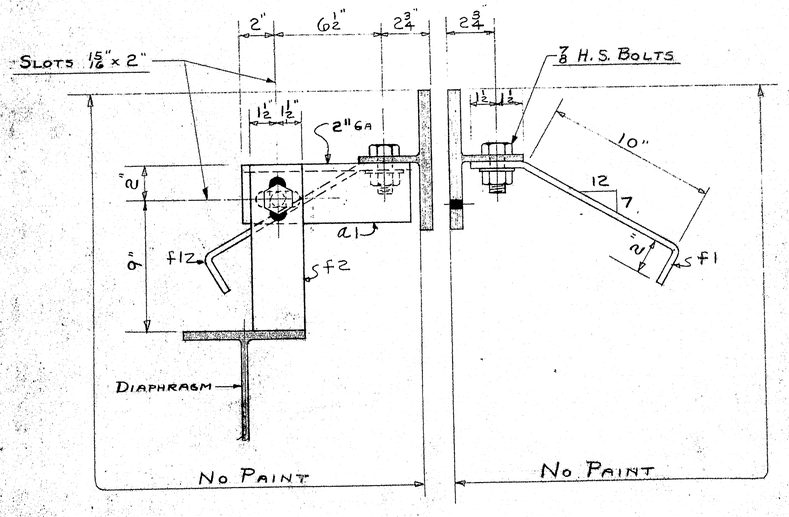
CUSTOMER CALLAHAN BROS.
DESIGNER STATE HIGHWAY COMM.
ORDER VERBAL DWG. B66-398-S4

100-125









SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
AJ1	2		ST4WF24	17	6 9/16		
AJ2	2		D°	17	6 9/16		
AJ3	2		D°	21	6 15/16		
AJ4	2		D°	21	6 15/16		
AJ5	2		D°	17	6 9/16		
AJ6	2		D°	17	6 9/16		
AJ7	2		D°	21	6 15/16		
AJ8	2		D°	21	6 15/16		
	304	f1	BAR 2 1/2 x 3/8	1	3		
	24	f2	BAR 3 x 3/8	0	11		
	24	a1	3 1/2 x 3 1/2 x 3/8 ∠	0	10		
	352	SHOP	7/8 H.S. BOLT	0	2 1/4		
	352	D°	7/8 H.S. WASHERS				

BILL OF MATERIAL — DWG. B66-398-S5

PROJ. No I 95-9 (34)

SHOP CONNECTIONS: 7/8 H.S. BOLTS
FIELD CONNECTIONS: WELD
HOLES: 15/16" ϕ UNLESS NOTED
PAINT: STATE OF ME. SPEC'S.

APP'D 1-17-67

ARMORED JOINTS

PRINT ISSUE		
6	SHOP	1-25-67
5	DIST.	1-25-67
2	F.A.	1-12-67
DRAWN	1-12-67	D.C.
REVISION		
REVISION		
REVISION		

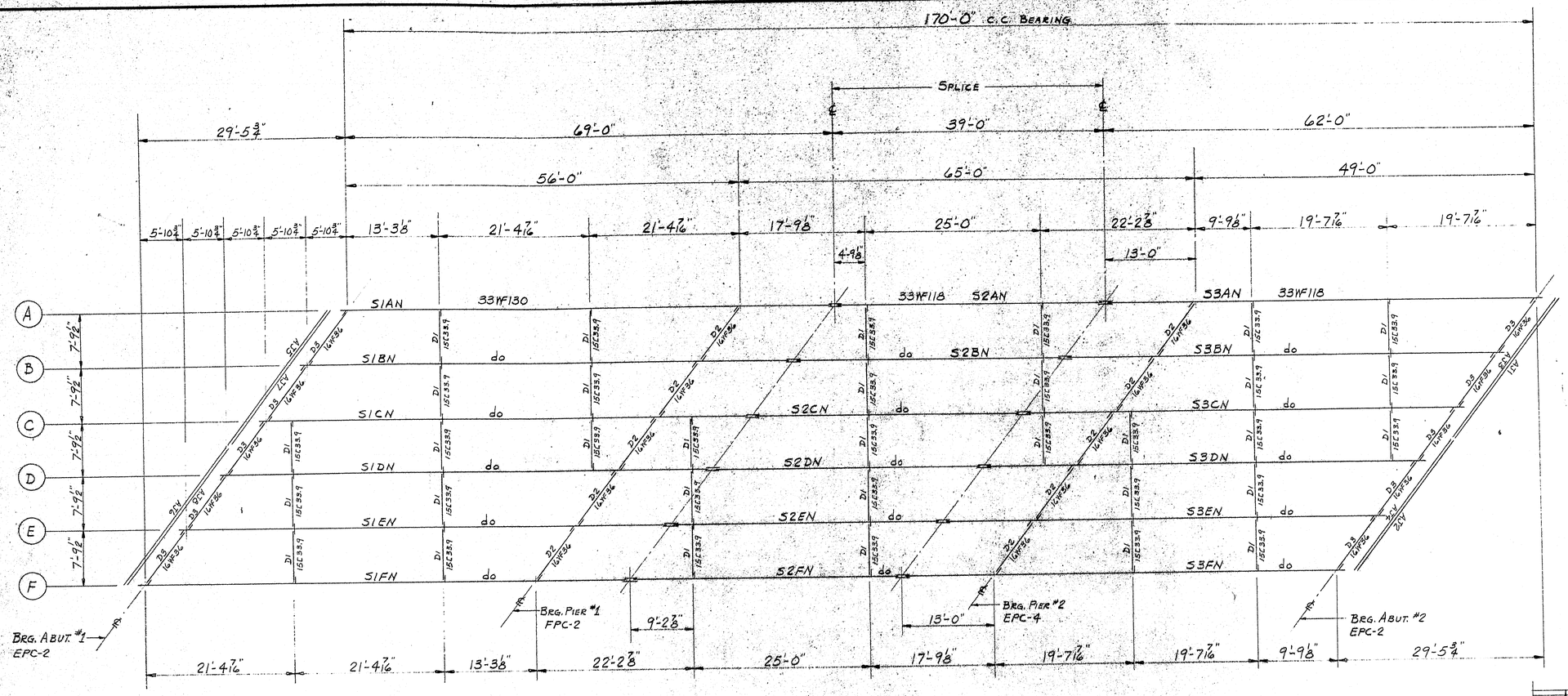
Bancroft & Martin Inc.
Brewer, Maine

I 95 OVER RTE. 158
SHERMAN ME.

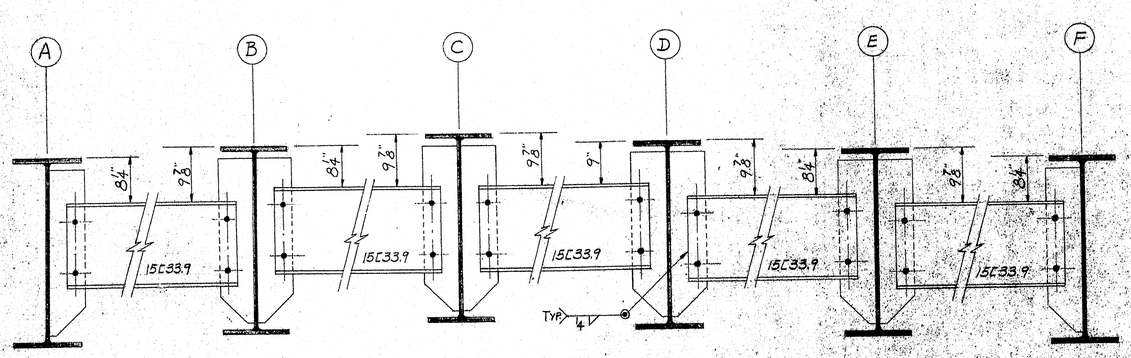
CUSTOMER CALLAHAN BROS.
DESIGNER STATE HIGHWAY COMM.
ORDER VERBAL
DWG. B66-398-S5

100-126

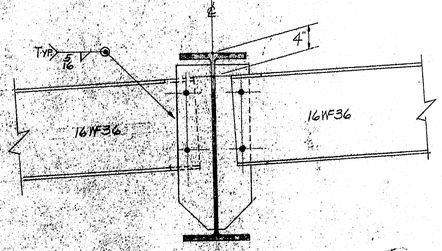
0 1 2 3 4 5 INCHES



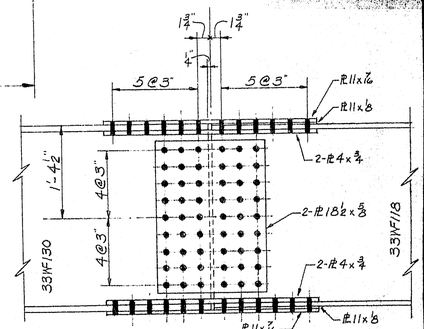
FRAMING PLAN
NORTHBOUND



DIAPHRAGM CONNECTION



DIAPHRAGM CONNECTION



SPLICE DETAIL

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 7/8" ϕ H.S. BOLTS
HOLES: 15/16" ϕ UN.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34) 258

APP. AS NOTED 2-13-67

NORTHBOUND FRAMING PLAN

PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
2	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-23-67	C.J.M.
REVISION		
REVISION		
REVISION		

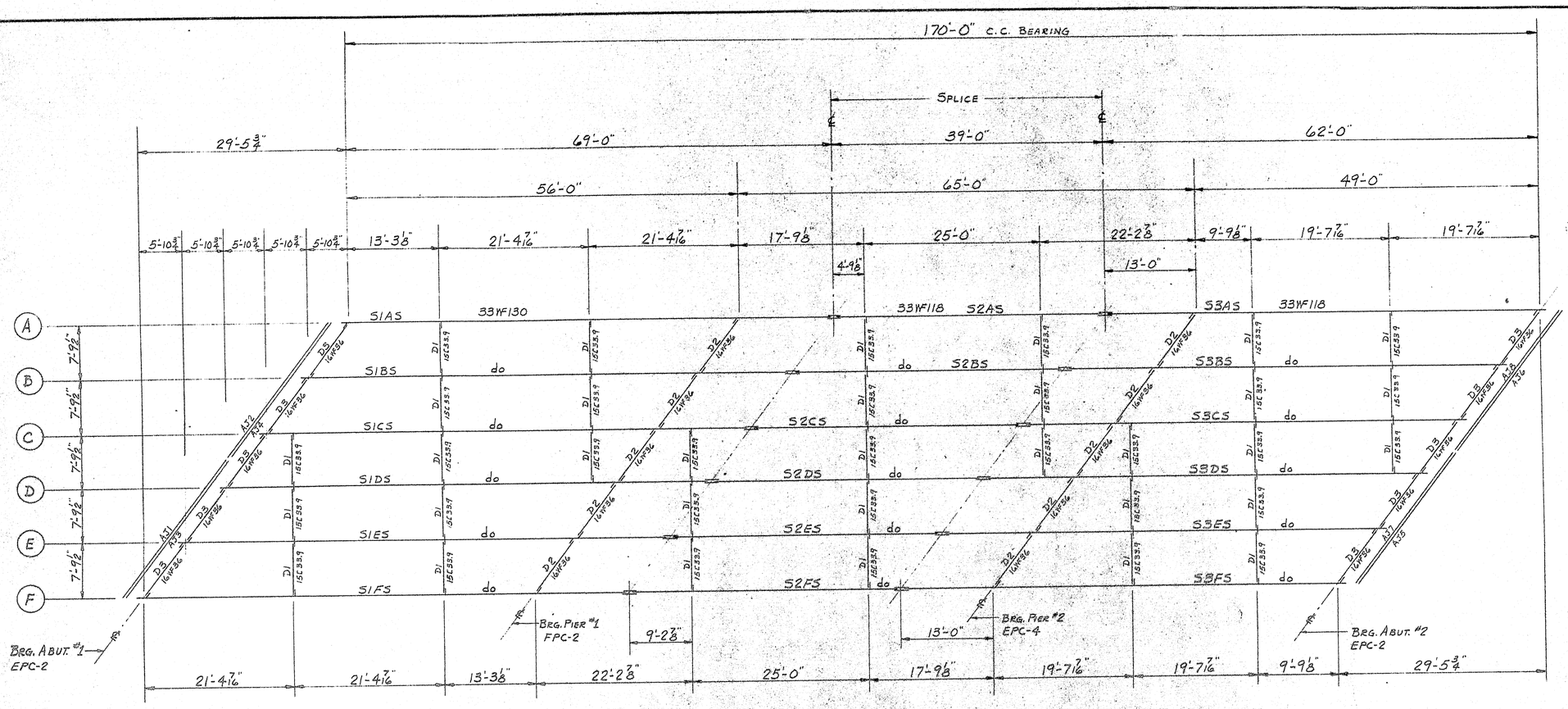
Bancroft & Marlin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

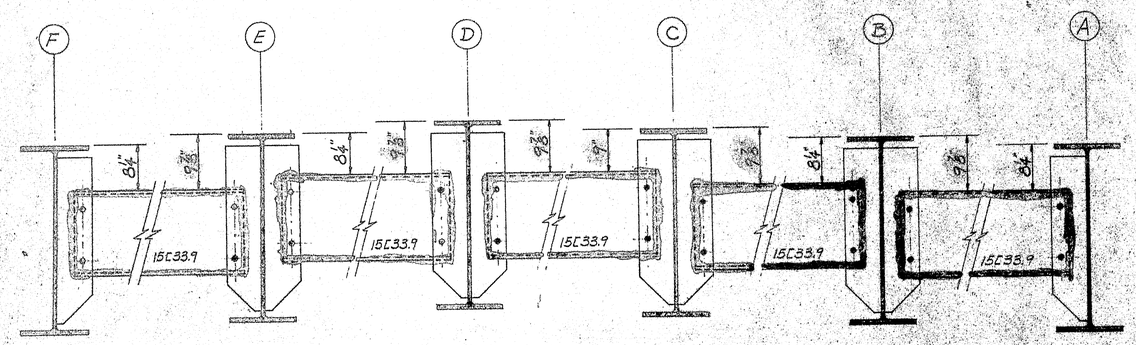
CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL
DWG. B66-399-E1

100-127

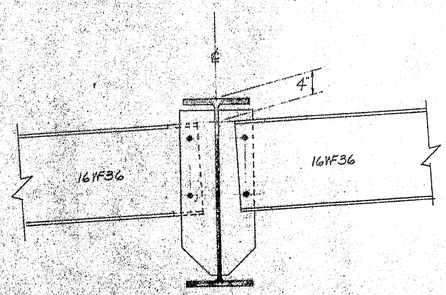
0 1 2 3 4 5 INCHES



FRAMING PLAN
SOUTHBOUND



DIAPHRAGM CONNECTION



DIAPHRAGM CONNECTION

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 3/4 ϕ H.S. BOLTS
HOLES: 15/16 ϕ UN.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34) 258 APP. AS NOTED 2-13-67

SOUTHBOUND FRAMING PLAN

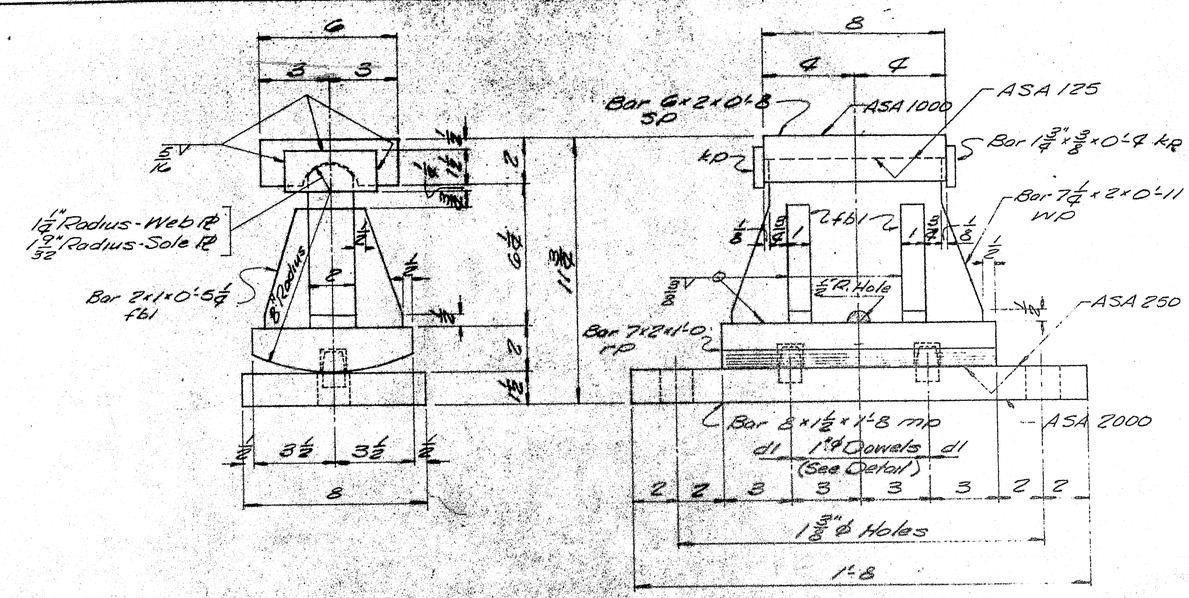
PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
2	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-23-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

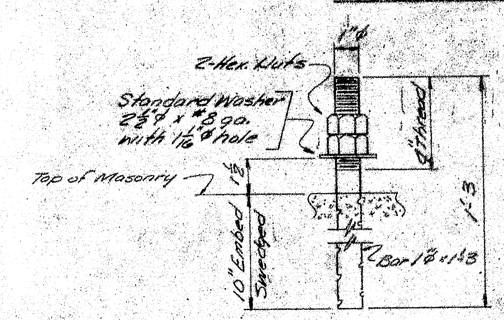
CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL DWG. B66-399-E2

100-128



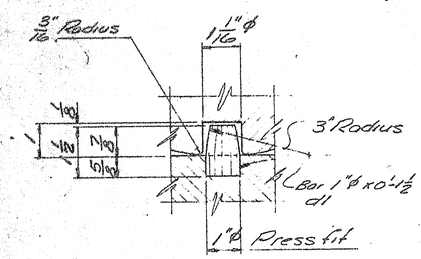
EXPANSION PEDESTAL EPC-2

24 - REQ'D.

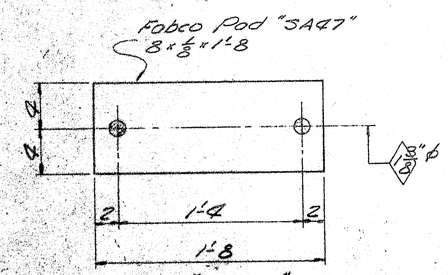


ANCHOR BOLT - AB1

48 - REQ'D.



DOWEL DETAIL



FABCO "SA47" PAD

FP1 24 - REQ'D.

PAINT NOTE:

No paint on top of sole plates "sp" and 1" down from top on sides, coat with boiled linseed oil.
No paint on surface with ASTM [illegible] finish, coat with mixture of white lead and [illegible].
No paint on Anchor bolts or [illegible].

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
EPC-2	24		EXPANSION PEDESTAL ASSY.				
	24	mp	Bar 8×½	1	8		
	24	rp	Bar 7×2	1	0		
	24	wp	Bar 7¼×2	0	11		
	24	sp	Bar 6×2	0	8		
	96	fbl	Bar 2×1	0	5¼		
	48	dl	Bar 1"φ	0	1½		
	48	kp	Bar 1¾×⅜	0	4		
AB1	48		Bar 1"φ	1	3		Sweeged
	96	shop	1" Hex. Nuts				
Field	48		1" Washer				Std. Washer - 2½" O.D. × #8 ga. with 1 1/16"φ hole
FP1	24		Pad 8×⅛	1	8		Fabco Pad "SA47" REQ. No.

Allowance to be made for Machining when cutting above plates.

ITEM
PROJECT NO. I-95-9(34) 258
Sole plates "sp" to be field welded to stringers.

Bearing material to be ASTM-A36, Anchor Bolts to be A7, A36, or A307.
All welds to be made with E70 Electrodes.

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS:
HOLES: As Noted
PAINT: Red lead per Maine S.H.C. Spec, and as noted.

NORTHBOUND & SOUTHBOUND

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

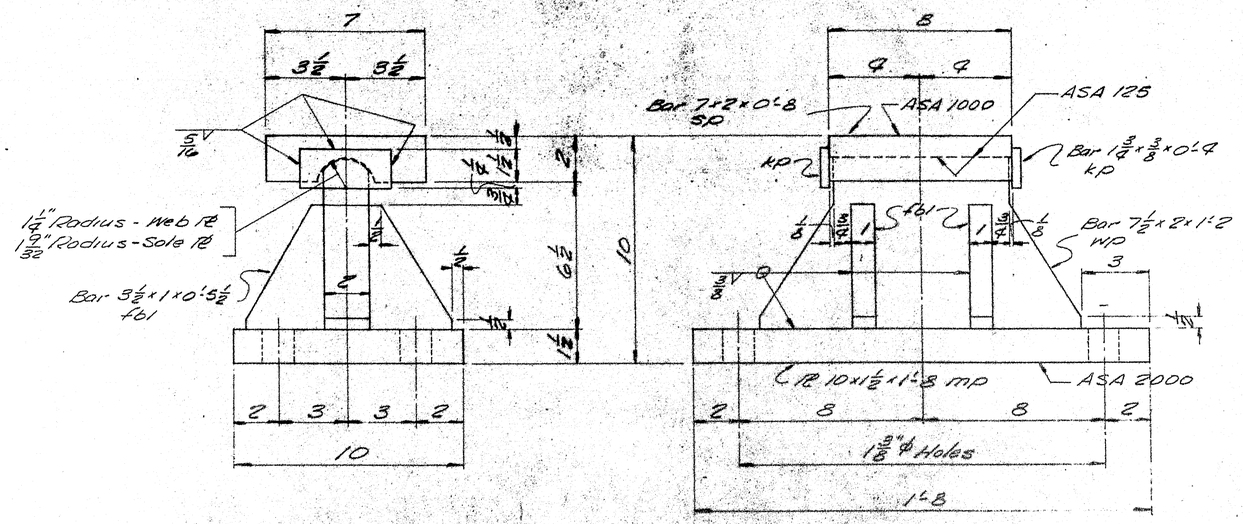
I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

2-S.H.C. 2-23-67
3-CUST. 11-18-66
4-PART. 11-18-66
3-F.A. 11-16-66

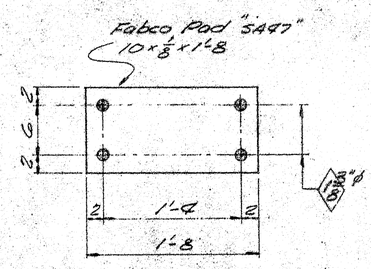
DRAWN	11-16-66	C.J.M.
REVISION		
REVISION		
REVISION		

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C. BRIDGE DIV.
ORDER NO. VERBAL
DWG. NO. B66-399-S1

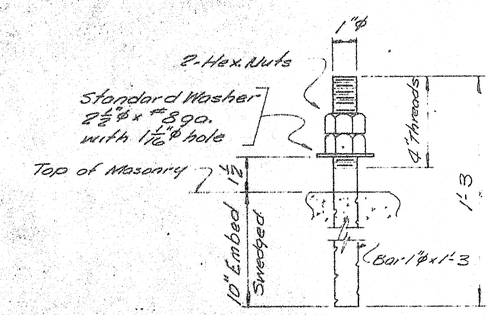
100-129



FIXED PEDESTAL FPC-2
12 - REQ'D.



FABCO "SA97" PAD
FP2 12-REQ'D.



ANCHOR BOLT AB1
48-REQ'D.

PAINT NOTE:
No paint on top of sole plates "sp" and 1" down from top on sides, coat with boiled linseed oil.
No paint on surface with ASA 125 finish, coat with mixture of white lead and tallow.
No paint on Anchor bolts - Oil threads.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
FPC2	12		FIXED PEDESTAL ASS'Y.				
	12	mp	Pl 10x1½	1	8		
	12	wp	Bar 7½x½	1	2		
	12	sp	Bar 7x2	0	8		
	24	kp	Bar 1¾x⅜	0	4		
	48	fbl	Bar 3½x1	0	5½		
AB1	48		Bar-1" ϕ	1	3		Swedged
	96	shop	1" Hex. Nut				
Field	48		1" Washer				Std. washer 2½" O.D. x #890. with 1 1/16" ϕ hole
FP2	12		Pad 10x⅛	1	8		Fabco Pad "SA97" Req. #

Allowance to be made for machining when cutting above plates.

ITEM
PROJECT No. I-95-9(34) 258

Sole plates "sp" to be field welded to stringers.

Bearing material to be ASTM A36, Anchor bolts to be A7, A36, or A307.
All welds to be made with E70 Electrodes.

SHOP CONNECTIONS: welded
FIELD CONNECTIONS:
HOLES: As noted
PAINT: Red lead per Maine S.H.C. spec., and as noted.

NORTHBOUND & SOUTHBOUND

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

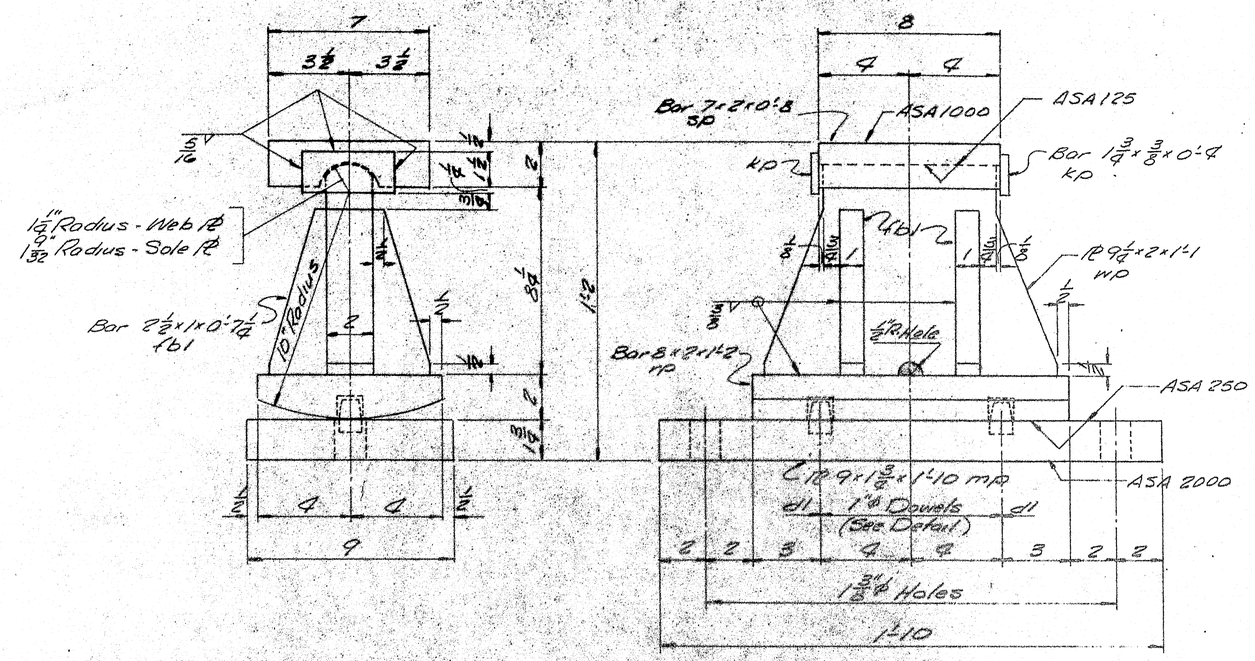
I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C. BRIDGE DIV.
ORDER NO. VERBAL
DWG. NO. B66-399-S2

2-S.H.C. 2-23-67
3-CUST. 11-18-66
4-PORT. 11-18-66
3-FA. 11-16-66

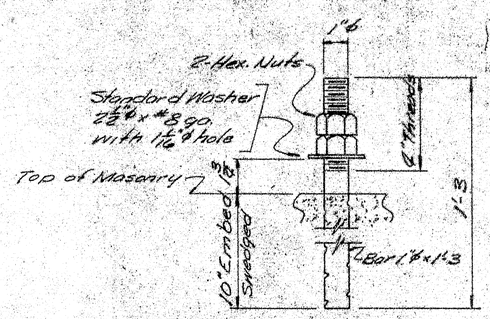
DRAWN	11-16-66	C.J.M.
REVISION		
REVISION		
REVISION		

100-130



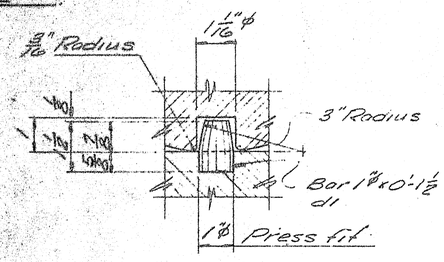
EXPANSION PEDESTAL EPC-4

12 - REQ'D.

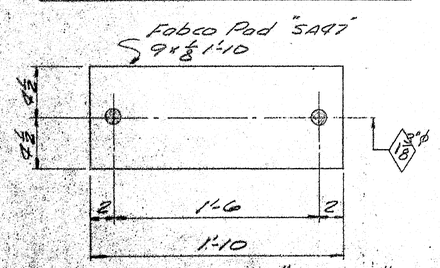


ANCHOR BOLT ABI

24 - REQ'D.



DOWEL DETAIL



FABCO PAD "SA97"

FP3 12- REQ'D.

PAINT NOTE:

No paint on top of sole plates "sp" and 1" down from top on sides, coat with boiled linseed oil.

No paint on surface with ASA 126 finish, coat with mixture of white lead and kollow.

No paint on Anchor Bolts - Oil Nuts.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
EPC-4	12		EXPANSION PEDESTAL ASS'Y.				
	12	mp	Pl 9 x 1 3/4	1	10		
	12	rp	Bar 8 x 2	1	2		
	12	wp	Pl 9 1/4 x 2	1	1		
	12	sp	Bar 7 x 2	0	8		
	48	tbl	Bar 2 1/2 x 1	0	7 1/4		
	24	dl	Bar 1" ϕ	0	1 1/2		
	24	kp	Bar 1 3/4 x 3/8	0	4		
ABI	24		Bar 1" ϕ	1	3		Sweeped
	48	shop	1" Hex Nut				
Field	24		1" washer				Std. washer - 2 1/2" O.D. x #8 ga. with 1 5/16" ϕ hole
FP3	12		Pad 9 x 3/8	1	10		Fabco Pad "SA97" REQ. NO.

Allowance to be made for machining when cutting above plates.

ITEM

PROJECT No. I-95-9(34) 258

Sole plates "sp" to be field welded to stringers.

Bearing material to be ASTM-A36, Anchor bolts to be A7, A36, or A307.
All welds to be made with E70 Electrodes.

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS:
HOLES: As noted
PAINT: Red lead per Maine S.H.C. Spec., and as noted.

NORTHBOUND & SOUTHBOUND

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

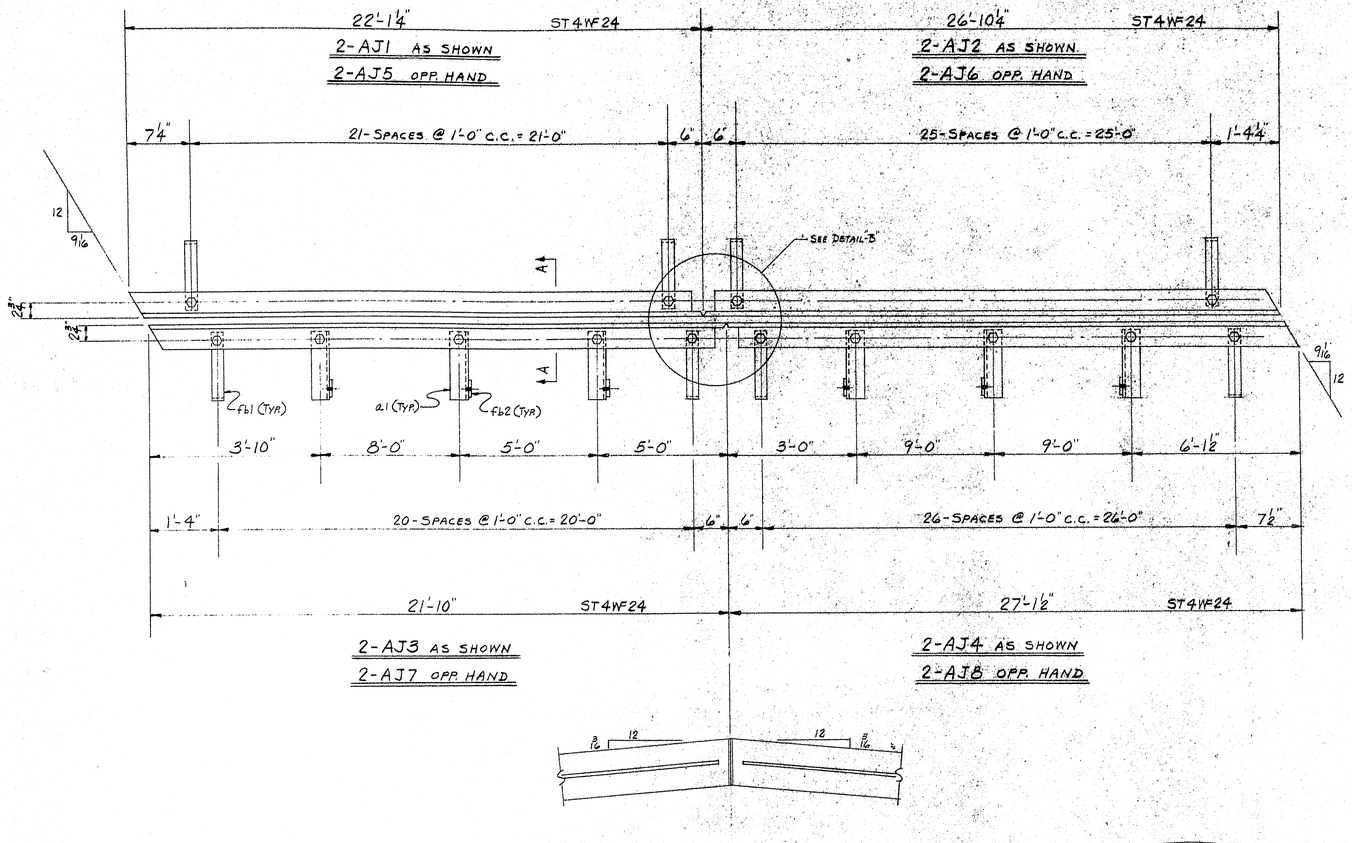
CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C. BRIDGE DIV.

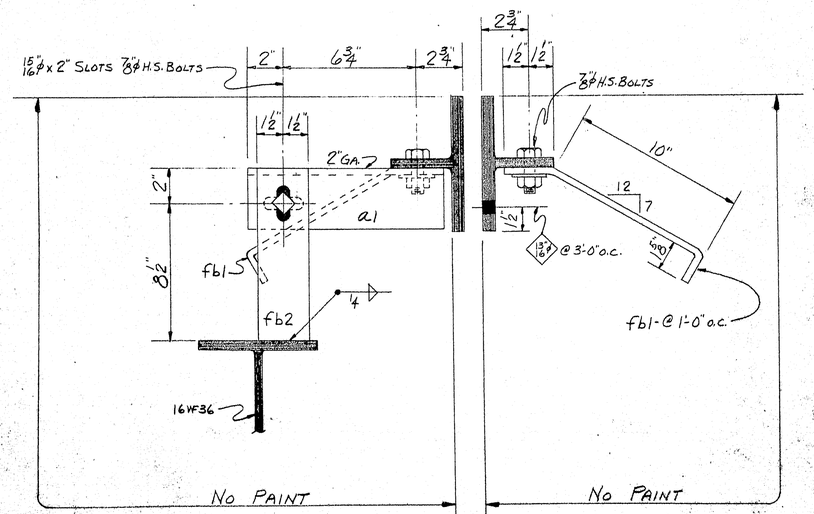
ORDER NO. VERBAL DWG. NO. B66-399-53

2-S.H.C. 2-23-67
3-CUST. 11-18-66
4-PRET. 11-18-66
3-F.A. 11-16-66

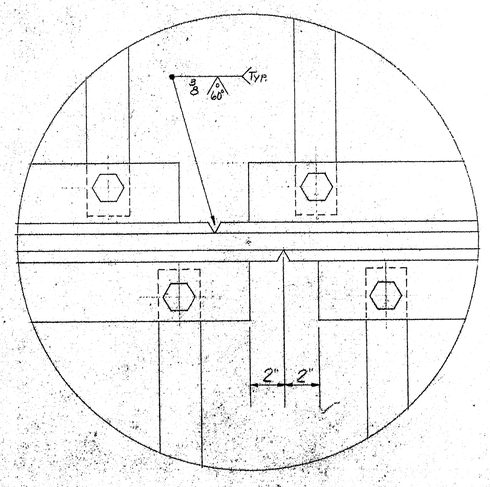
DRAWN	11-16-66	C.J.M.
REVISION		
REVISION		
REVISION		

100-131





SECTION A-A



DETAIL-"B"

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
							BILL OF MATERIAL DWG. B66-399-54
AJ1	2		ST4WF24	22	1¼		A36
AJ2	2			26	10¼		
AJ3	2			21	10		
AJ4	2			27	1½		
AJ5	2			22	1¼		
AJ6	2			26	10¼		
AJ7	2			21	10		
AJ8	2		do	27	1½		do
	24	a1	3½x3½x3/8	0	10¼		12-R 2-L
	384	fb1	F.B. 2½x3/8	1	3		BENT
	24	fb2	F.B. 3x3/8	0	10½		
	432	SHOP	7/8"ϕ H.S. BOLT	0	2¼		HEAVY NUTS A325
	432	SHOP	7/8"ϕ H.S. WASHERS				

SHOP CONNECTIONS: 7/8"ϕ H.S. BOLTS
FIELD CONNECTIONS:
HOLES: 15/16"ϕ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34) 258 APP. 2-13-67

NORTHBOUND & SOUTHBOUND ARMORED JOINT

PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-24-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

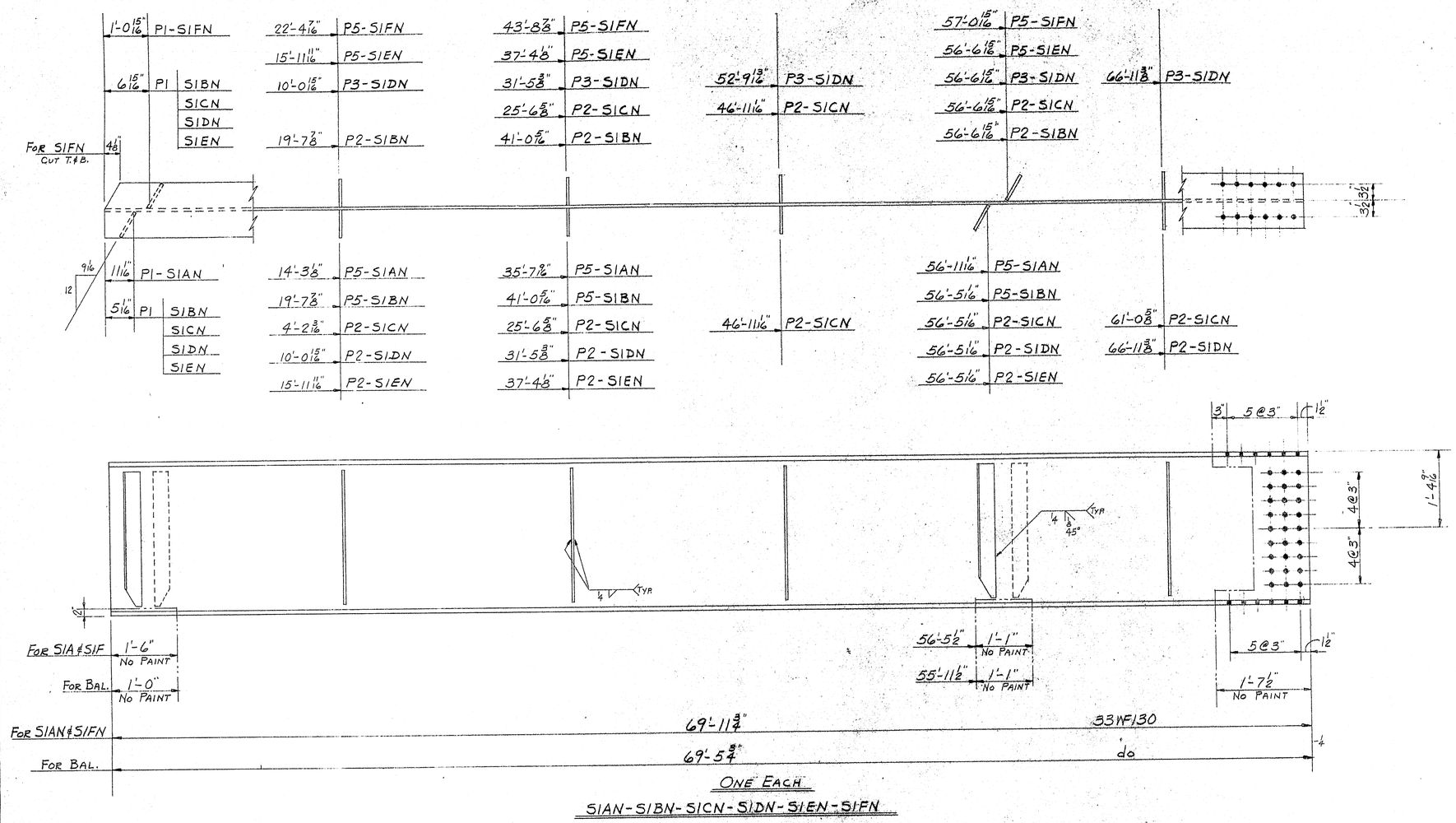
I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE.

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.

ORDER VERBAL DWG: B66-399-54

100·132

0 1 2 3 4 5 INCHES

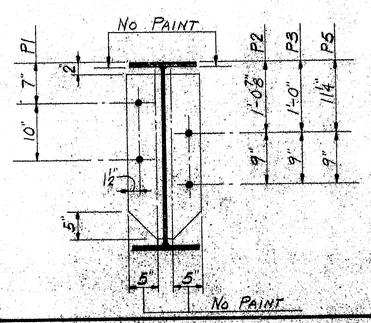


ONE EACH

S1AN-S1BN-S1CN-S1DN-S1EN-S1FN

PLACE ANY NATURAL CAMBER UP.

THIS END ABUT. #1



MATCH THIS END WITH STRINGERS MARKED "S2"

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
S1AN	1		33WF130	69	11 3/4		A441
S1BN	1			69	5 3/4		
S1CN	1			69	5 3/4		
S1DN	1			69	5 3/4		
S1EN	1			69	5 3/4		
S1FN	1		do	69	11 3/4		do
	10	P1	PL 6 x 3/8	2	5		A36
	18	P2		2	5		
	5	P3		2	5		
	12	P5	do	2	5		do

BILL OF MATERIAL — DWG. B66-399-S5

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 7/8" ϕ H.S. BOLTS
HOLES: 15/16" ϕ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34)258 — APP. AS NOTED 2-13-67

NORTHBOUND STRINGERS SPAN #1

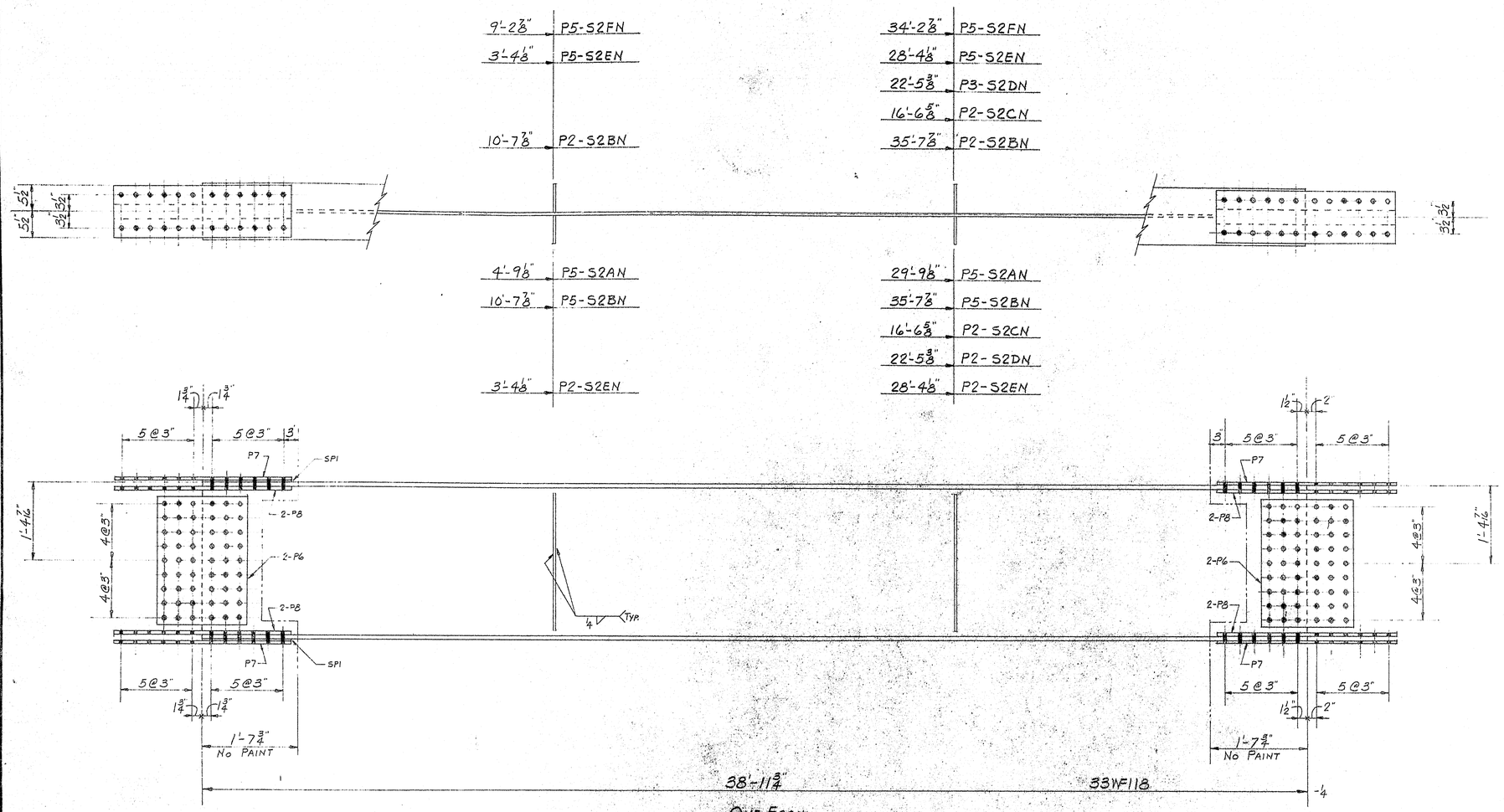
PRINT ISSUE		
6	SHOP	2-20-67
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-25-67	C.J.M.
P2 REVISION	2-20-67	C.J.M.
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL — DWG. B66-399-S5

100-133

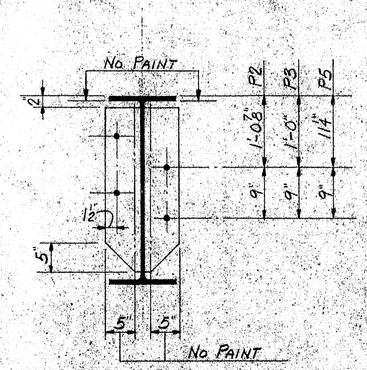


ONE EACH
S2AN-S2BN-S2CN-S2DN-S2EN-S2FN

PLACE ANY NATURAL CAMBER UP.

MATCH THIS END WITH STRINGERS MARKED -S1"

MATCH THIS END WITH STRINGERS MARKED -"S3"



SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
S2AN	1		33WF118	38 11 3/4		A-41
S2BN	1			38 11 3/4		
S2CN	1			38 11 3/4		
S2DN	1			38 11 3/4		
S2EN	1			38 11 3/4		
S2FN	1		do	38 11 3/4		do
	7	P2	PL 6 x 3/8	2 5		A36
	1	P3		2 5		
	8	P5	do	2 5		
	24	P6	PL 18 1/2 x 5/8	2 3		
	24	P7	PL 11 x 7/16	3 0 1/2		
	48	P8	PL 4 x 3/4	3 0 1/2		
	12	SP1	PL 11 x 1/8	1 6 4		do
	96	SHOP	7/8 φ H.S. BOLT	0 3 1/2		FLANGE BOLTS A325
	24	SHOP	do	0 3 1/4		WEB BOLTS "
FIELD	495		7/8 φ H.S. BOLT	0 3 1/2		FLANGE A325
do	636		do	0 3 1/4		WEB do
do	1250		7/8 φ H.S. WASHER			
do	224		5/8 φ M. BOLT	0 2		
do	448		5/8 φ STD. WASHER			

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 7/8 φ H.S. BOLTS
HOLES: 15/16 φ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34) 258 APP. AS NOTED 2-15-67

NORTHBOUND STRINGERS SPAN #2

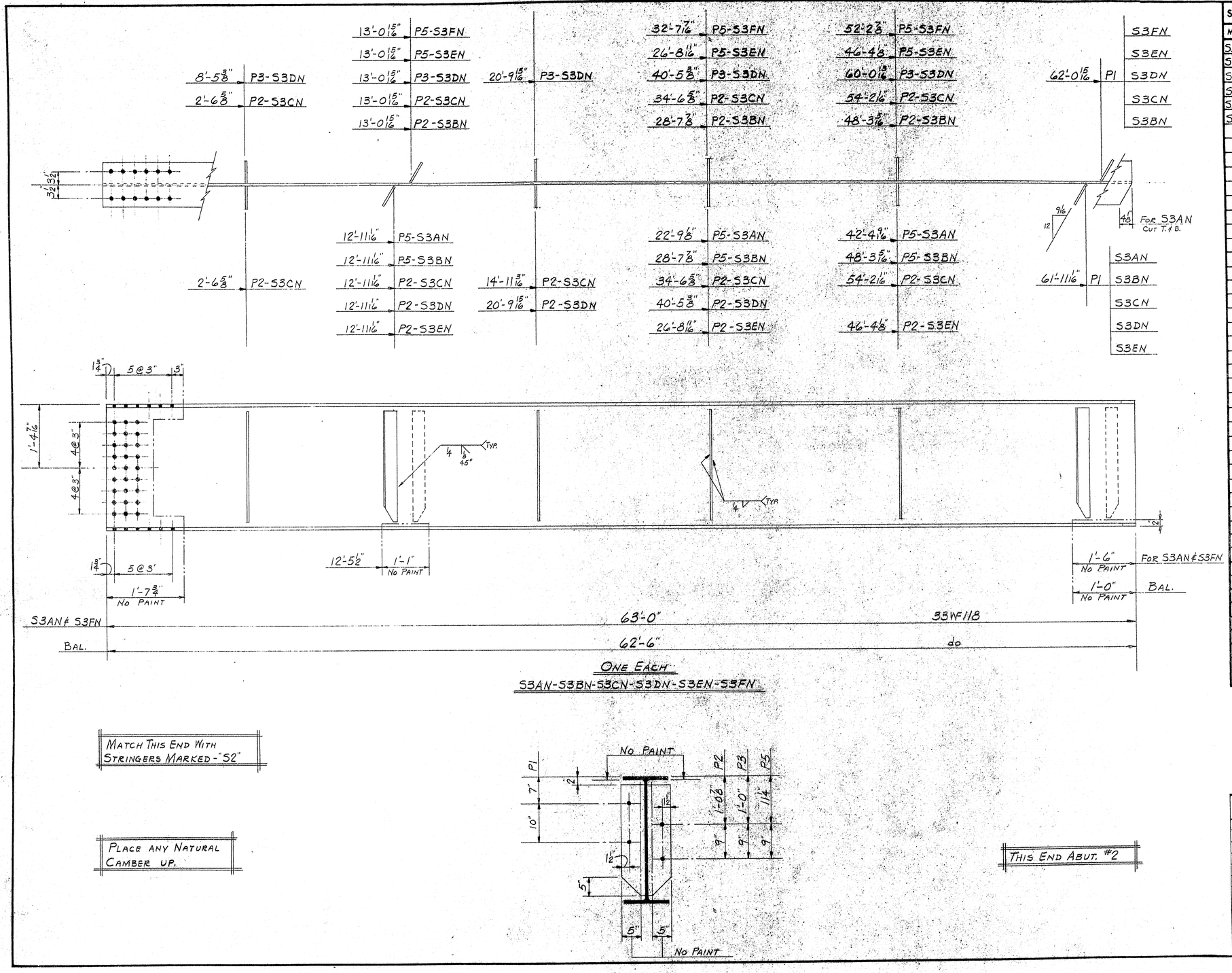
PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-26-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL DWG. B66-399-S6

100-134



ONE EACH
S3AN-S3BN-S3CN-S3DN-S3EN-S3FN

MATCH THIS END WITH STRINGERS MARKED-"S2"

PLACE ANY NATURAL CAMBER UP.

THIS END ABUT. #2

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
S3AN	1		33WF118	63	0		A441
S3BN	1			62	6		
S3CN	1			62	6		
S3DN	1			62	6		
S3EN	1			62	6		
S3FN	1		do	63	0		do
	10	P1	PL 6 x 3/8	2	5		A36
	18	P2		2	5		
	5	P3		2	5		
	12	P5	do	2	5		do

BILL OF MATERIAL — DWG. B66-399-S7

SHOP CONNECTIONS: WELD E70 LOW-HYDROGEN
FIELD CONNECTIONS: 7/8" ϕ H.S. BOLT
HOLES: 15/16" ϕ U.N.
PAINT: STATE OF MAINE SPEC'S.

PROJ. No. I-95-9(34)258 — APP AS NOTED 2-13-67

NORTHBOUND — STRINGERS SPAN #3

PRINT ISSUE		
2	S.H.C.	2-15-67
3	CUST.	2-15-67
6	SHOP	2-15-67
3	F.A.	1-30-67
DRAWN	1-27-67	C.J.M.
REVISION		
REVISION		
REVISION		

Bancroft & Martin Inc.
Brewer, Maine

I-95 OVER BENEDICTA ROAD
SHERMAN, MAINE

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C.
ORDER VERBAL — DWG. B66-399-S7

100-135

0 1 2 3 4 5 INCHES