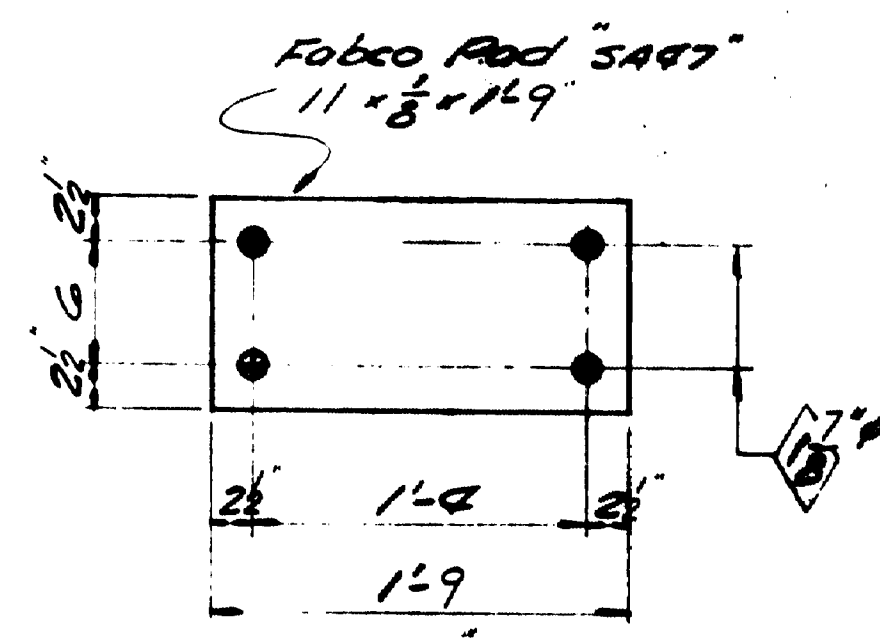
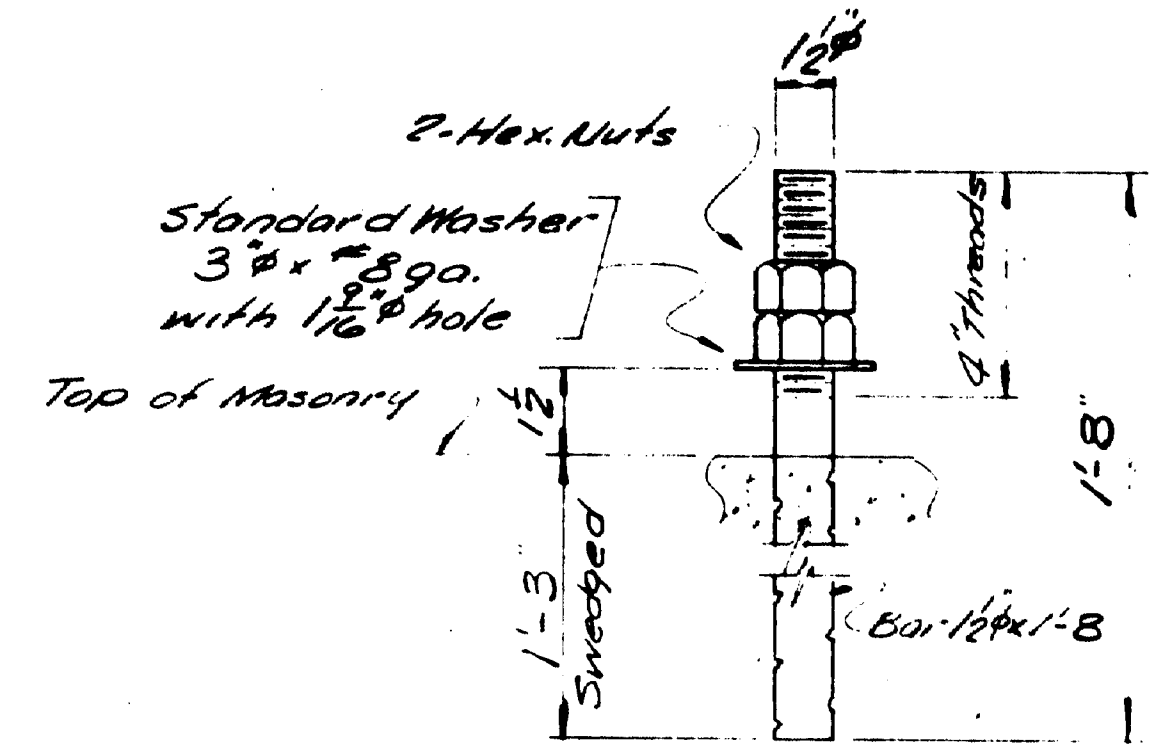


**FIXED PEDESTAL FPC-2A**  
16-REQ'D.



**FABCO "S497" PAD**  
FPI 16-REQ'D.



**ANCHOR BOLT ABI**  
64-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		BILL OF MATERIAL			DWG. NO.	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
FPC-2A	16		FIXED PEDESTAL ASSY.			
	16	MP	R 11 1/2	1 9		
	16	WP	Bar 7/8 x 2	1 2		
	16	SP	Bar 7/8 x 2	1 0 1/4		
	32	KP	Bar 1 1/8 x 3/8	0 2		
	64	FBI	Bar 4 x 1	0 5 1/2		
ABI	64		Bar 1 1/8	1 8		Swedged
Fabi	64		std. washer	3" dia		std. washer 3" dia with 1 1/2" hole
FPI	16		Pad 11 1/2	1 9		FABCO PAD S497

Allowance to be made for machining when cutting above plates.

IFEM PROJECT NO. I-295-3(33)

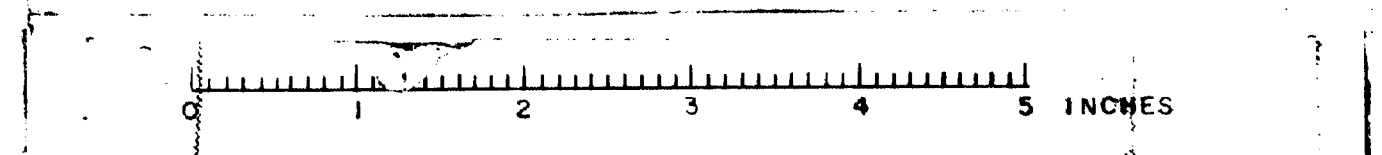
sole plates "sp" to be field welded to stringers.

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 Marine S.H.C. spec., and as noted.

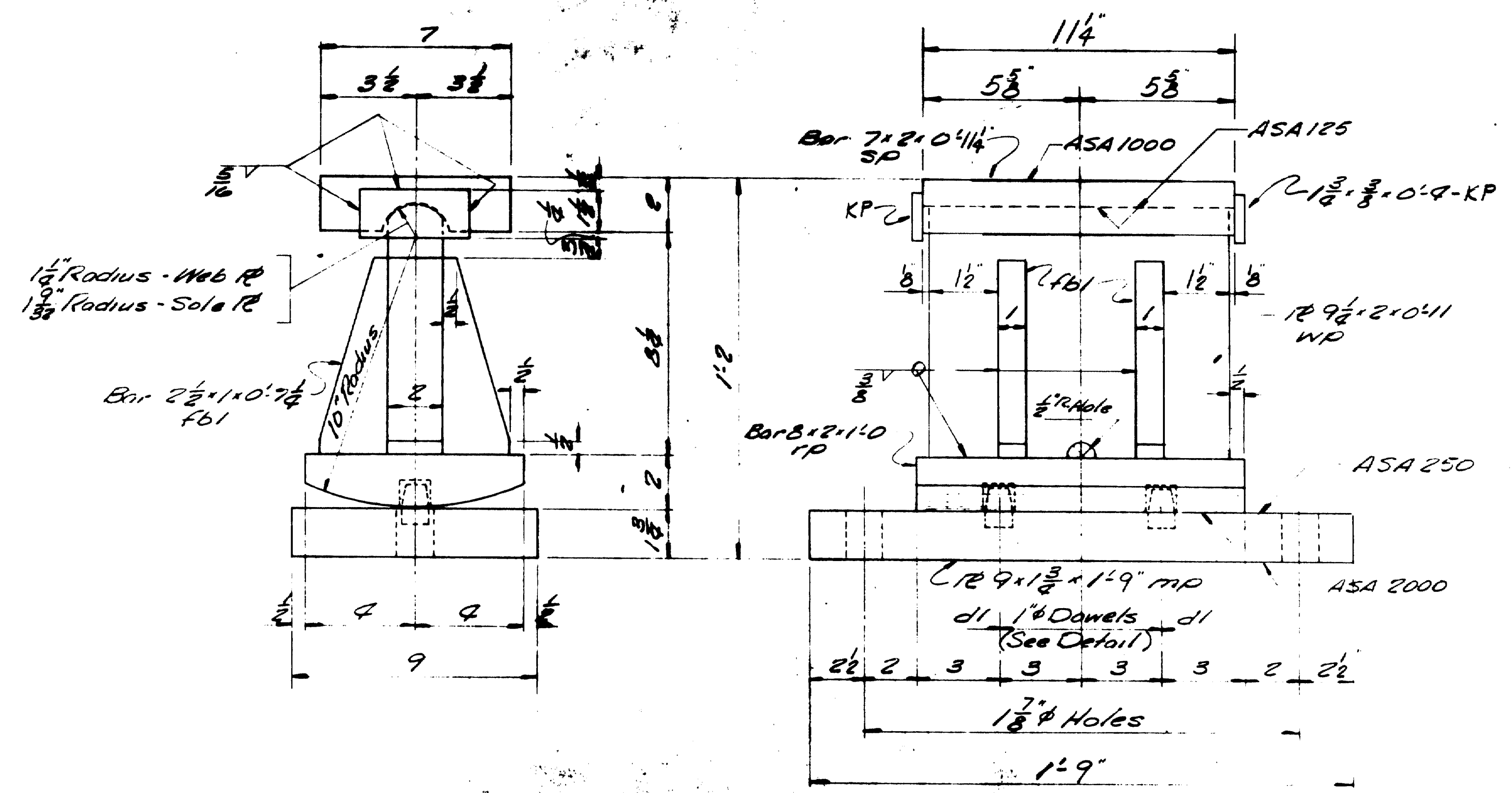
**BEARING PEDESTAL DETAIL**

Bancroft & Martin Inc.  
South Portland 7, Maine  
I-295 OVER WESTBROOK ST. NORTH & SOUTH BOUND LANES S. PORTLAND, ME.  
CUSTOMER: CIANCHETTE BROS.  
DESIGNER: M.S.H.C. BRIDGE DIV.  
ORDER NO. 395-A DWG. NO. B6B-71-51

1	S.H.C.	12-22-67
4	PORT	5-15-68
2	S.H.C.	5-15-68
3	CUST	5-15-68
3	F.A.	4-29-68
DRAWN	4-15-68	C.J.M.
REVISION		
REVISION		
REVISION		

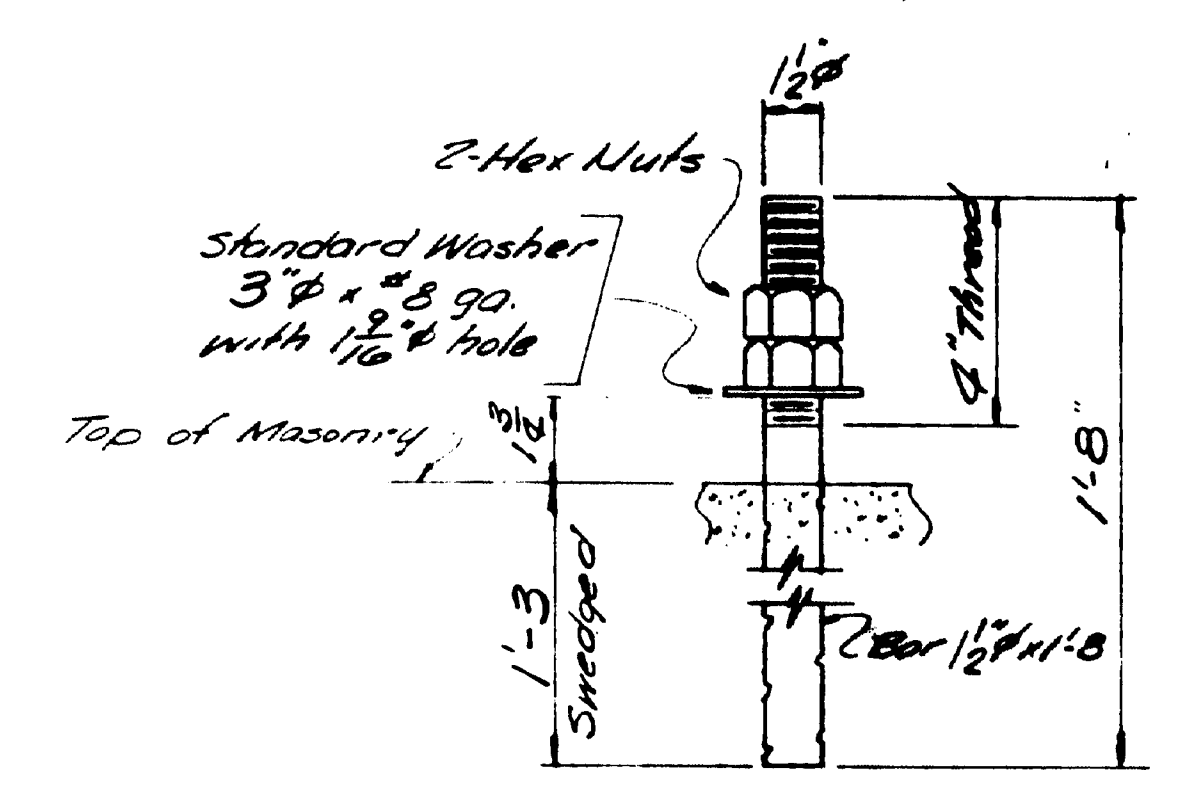


103-151



**EXPANSION PEDESTAL EPC-3A**

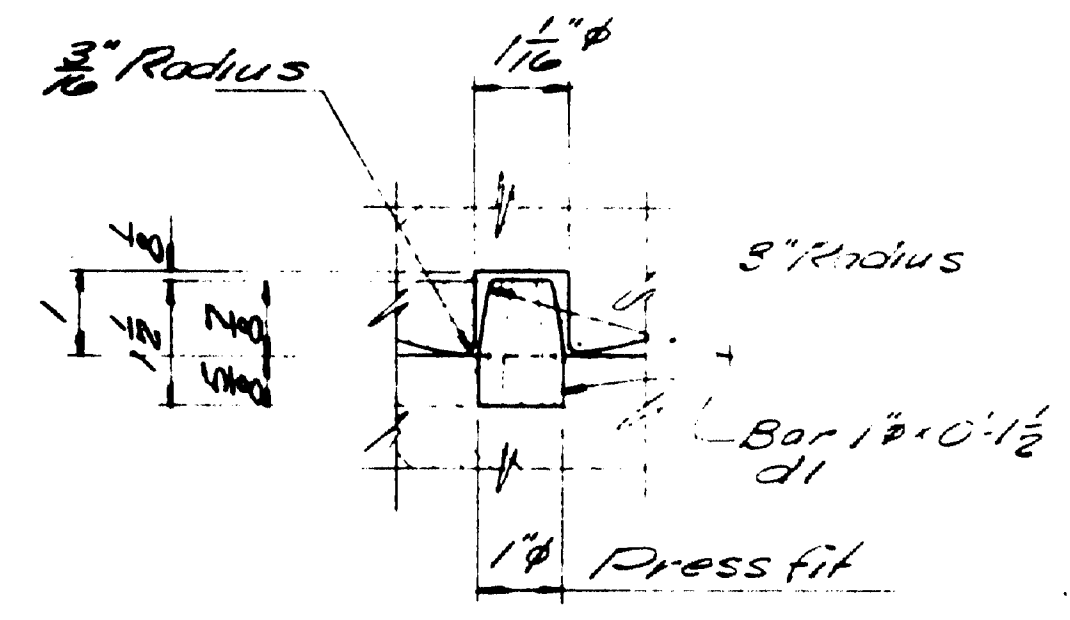
16 - REQ'D.



**ANCHOR BOLT ABI**

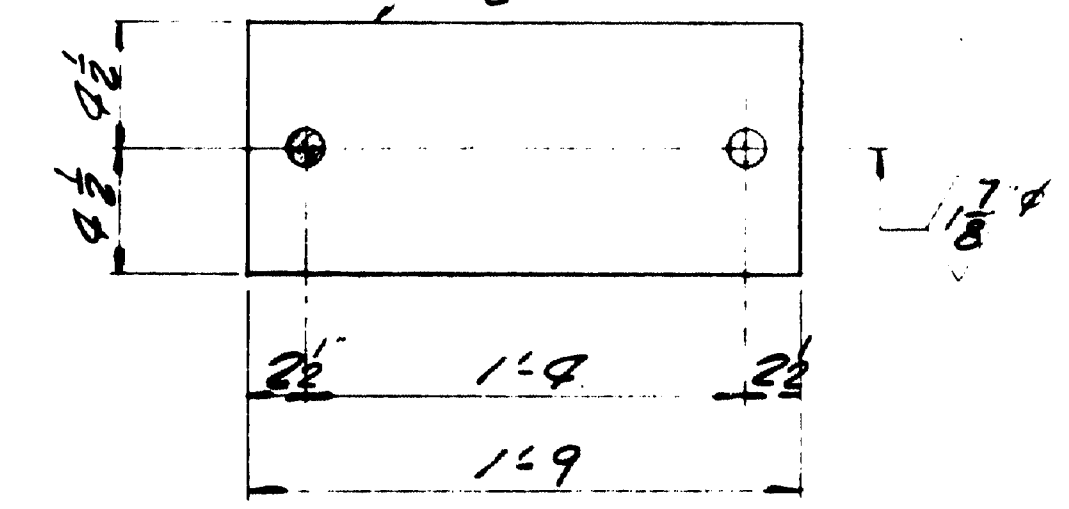
32 - REQ'D.

**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 Thts.



**DOWEL DETAIL**

Fabco Pad "SA97"  
 9 x 8 x 1 1/4



**FABCO "SA97" PAD**

FP2 16 - REQ'D.

SHIP		BILL OF MATERIAL				DWG. NO.
MARK	NO.	MARK	SHAPE	LENGTH	QTY.	REMARKS
EPC3A	16		EXPANSION PEDESTAL ASSY.			
	16	MP	12 9/16 x 1 1/8	1 9/16		
	16	MP	Bar 8 x 2	1 0		
	16	WD	12 9/16 x 2	0 11		
	16	S/O	Bar 7 x 2	0 11 1/4		
	64	FBI	Bar 2 1/2 x 1	0 7 1/2		
	32	d1	Bar 1 1/4	0 1 1/2		
	32	K/D	Bar 1 1/2 x 1/2	0 9		
ABI	32	Bar 1 1/2 x 1/8		1 8		Swaged
	64	shop 1 1/2	Washer			
Field	32	1 1/2	Washer			Std. Washer 3" O.D. x 1/8" sq. with 1/16" hole.
FP2	16	Pad 9 x 8		1 9		Fabco Pad "SA97" REQ. LD.

Allowance to be made for machining when cutting above plates.

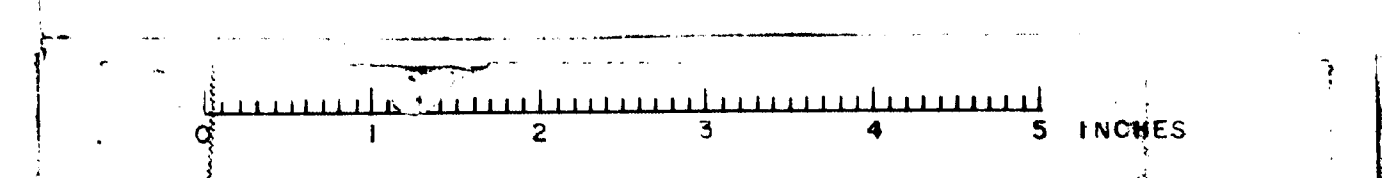
ITEM PROJECT NO. I-295-3 (33)  
 Sole plates "sp" to be field welded to stringers.

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

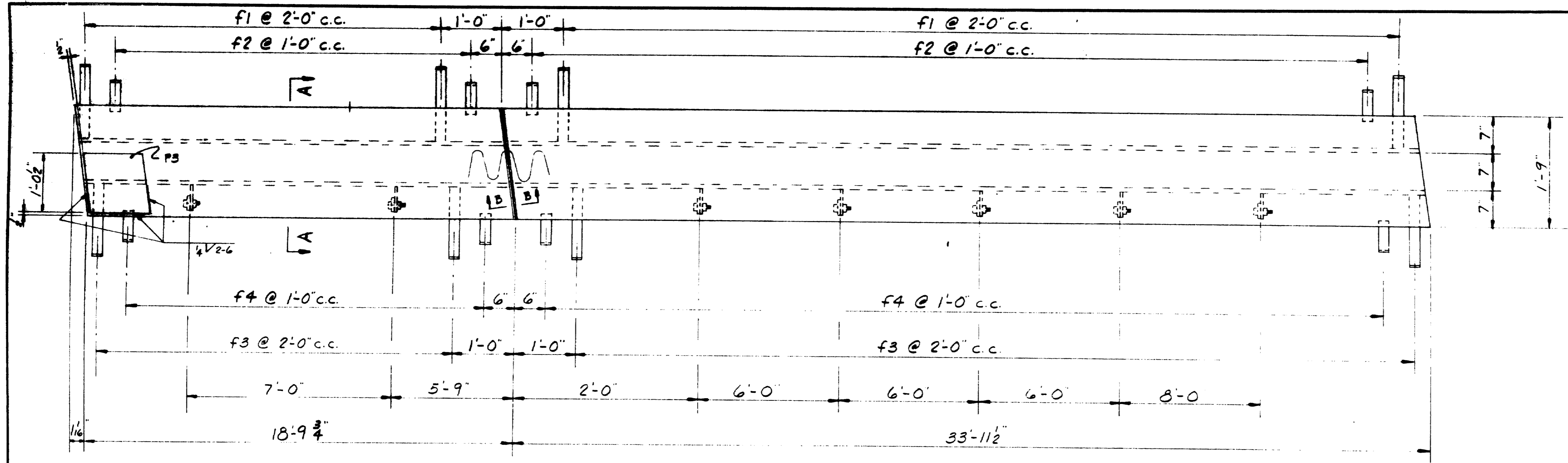
SHOP CONNECTIONS: Welded  
 FIELD CONNECTIONS:  
 HOLES: As noted  
 PAINT: Red lead per Maine S.H.C. spec., and as noted.

BEARING PEDESTAL DETAIL	
Bancroft & Martin Inc. South Portland 7, Maine	
I-295 OVER WESTBROOK ST. NORTH & SOUTH BOUND LANES So. PORTLAND, ME.	
CUSTOMER CIANCHETTE BROS. DESIGNER M.S.H.C. BRIDGE DIV.	
ORDER NO. 395-A	DWG. NO. BLS-71-52

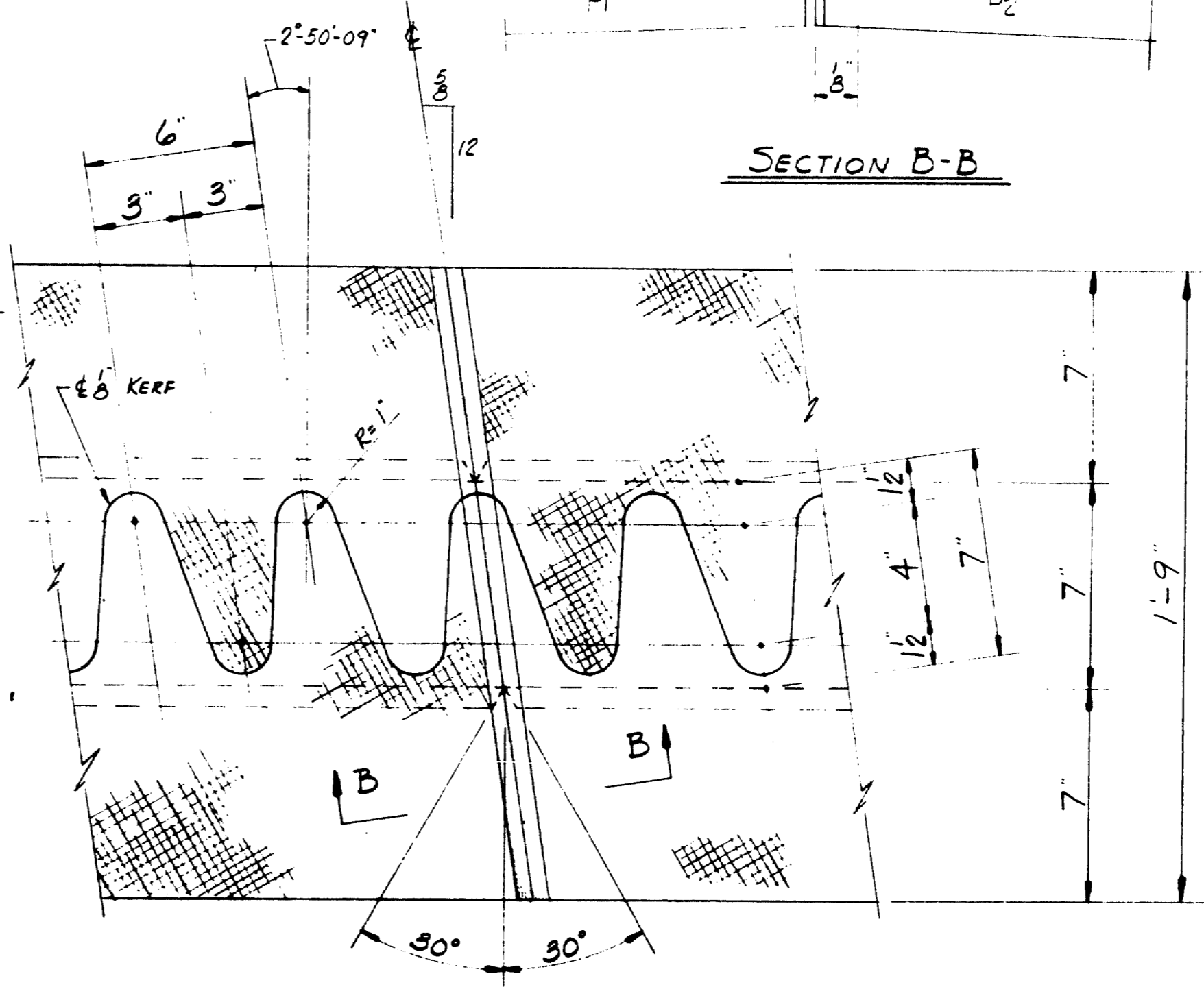
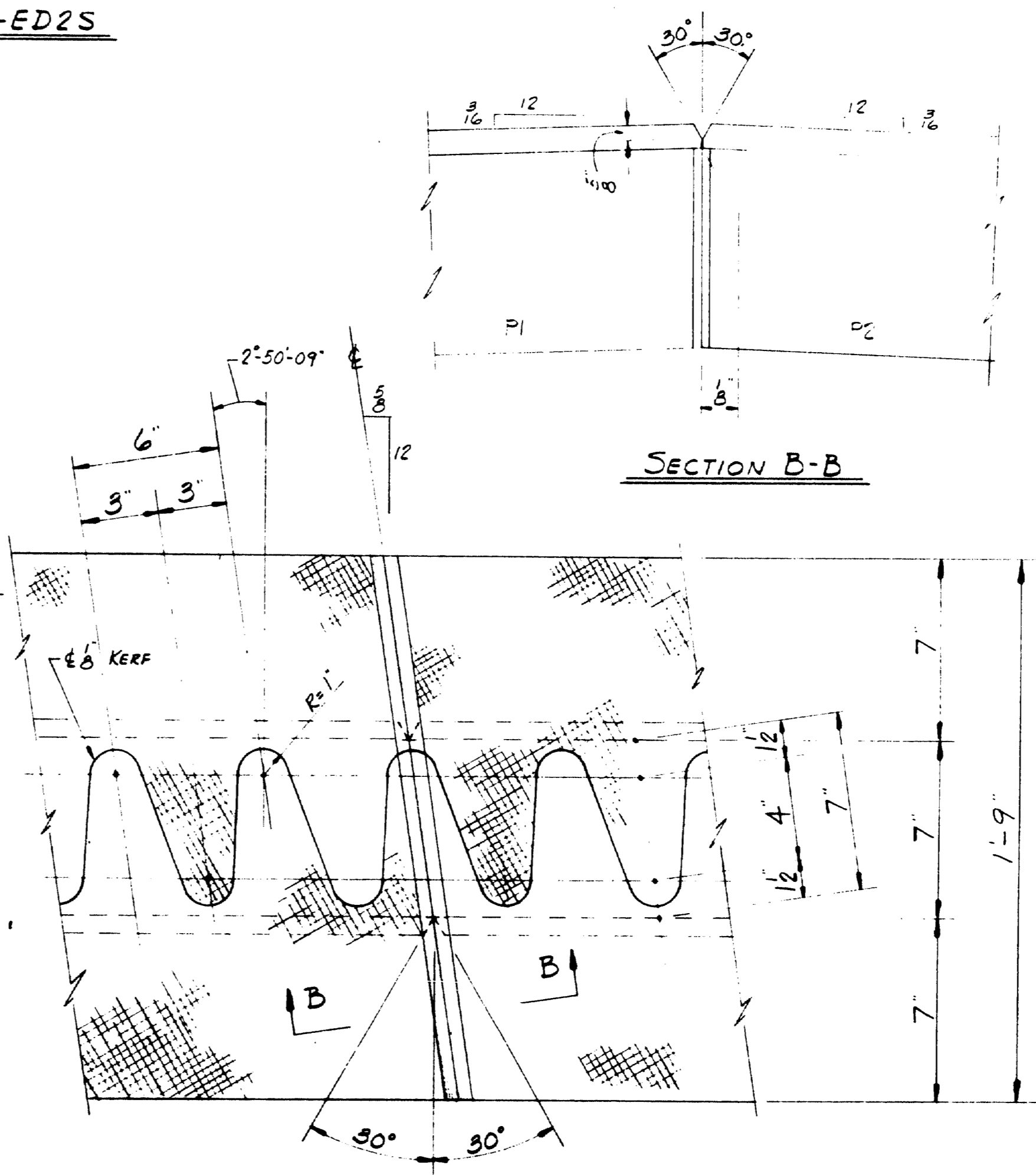
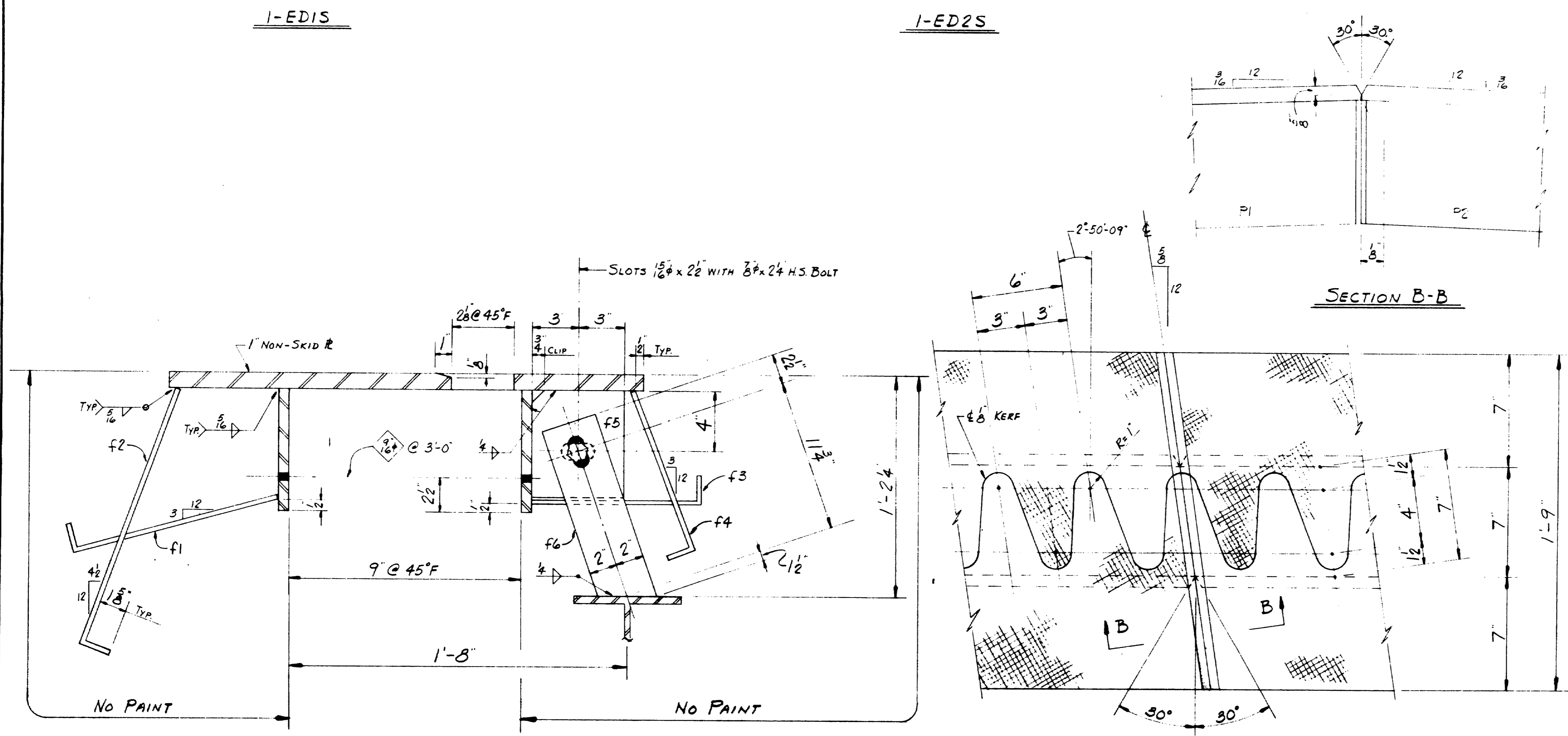
1 SEPA 12-22-69  
 4 PORT. 5-15-68  
 2-SHC 5-15-68  
 3-Cust 5-15-68  
 3-F.A. 4-29-68  
 DRAWN 4-17-68 C.J.M.  
 REVISION  
 REVISION  
 REVISION



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SHIP		BILL OF MATERIAL			JOB NO. B68-71	DWG. NO. 53
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
ED1S	1		P21x1	18'10 1/2		CHKD. R
ED2S	1		do	34'0 1/2		do
	2	P1	PB x 3/4	18'9 3/4		
	2	P2	do	33'1 1/2		
	1	P3	P14 x 3/8	1'0 1/2		
	26	f1	FB. 2 x 3/8	1'4		BENT
	53	f2	do	1'8		
	26	f3	do	1'1		
	53	f4	do	1'1		do
	7	f5	FB. 6 x 3/8	0'7		
	7	f6	FB. 4 x 3/8	1'3 3/4		
	7	SHOP	3\"/>			

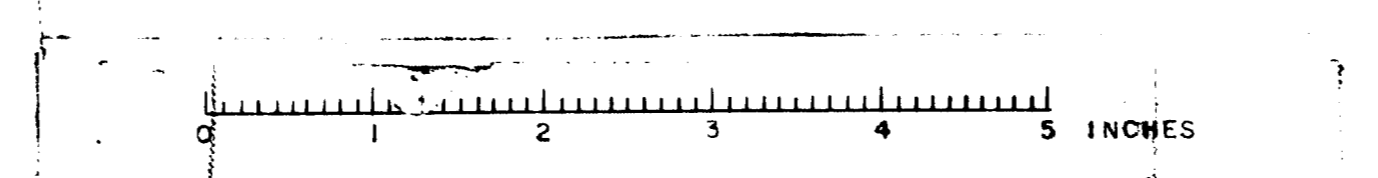


Steel: ASTM A36  
Welding Electrode: E70  
Shop Conn: WELD  
Field Conn: WELD  
Holes: 1/8\"/>

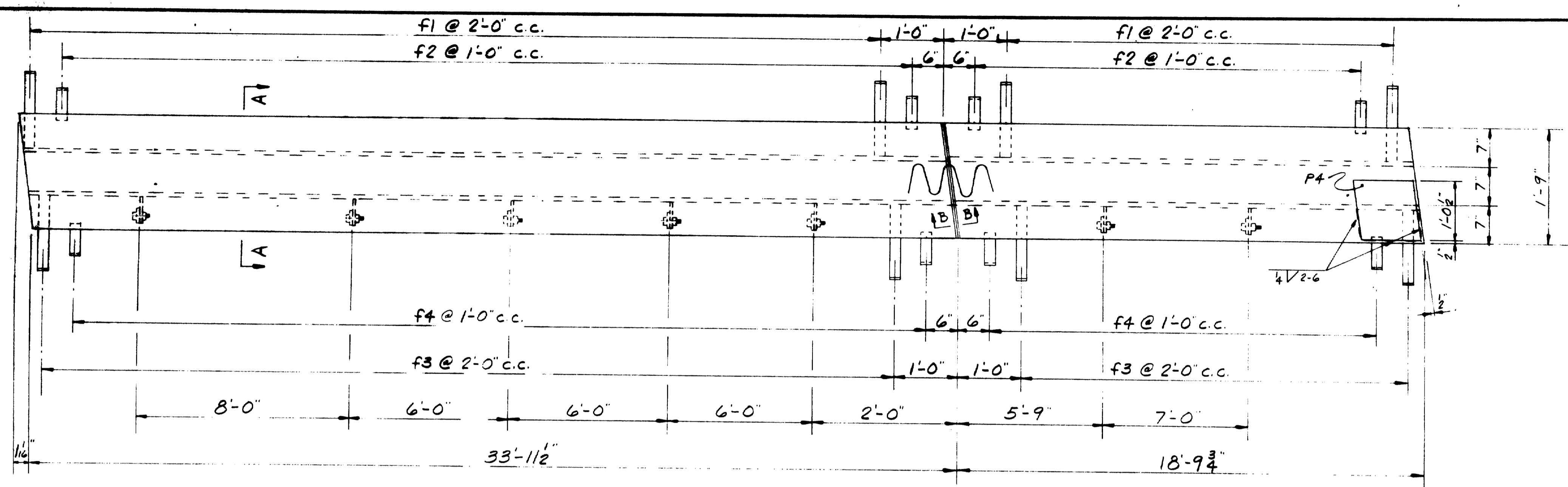
PAINT: STATE OF MAINE SPEC'S.  
SPECIAL CLEANING:  
APPROVED: AS NOTED 5-2-68

EXPANSION DAM ABUT. #1 SOUTH B.

PRINT DIST.	Pancroft & Martin Inc. Brewer, Maine		
1	12-22-69	J.M.C.	JOB: I-295 OVER WESTBROOK STREET
2	5-15-68	S.H.C.	SOUTH PORTLAND, MAINE
3	5-15-68	CUST.	CUSTOMER: CIANCHETTE BROS.
6	5-15-68	SHOP	DESIGNER: M. S. H. C.
3	4-29-68	F.A.	
REV.	ORDER NO.	JOB NO.	DRAWING NO.
CHECKED 5-14-68 R.G.B.	395-A	B68-71-	53
DRAWN 4-24-68 C.J.M.			

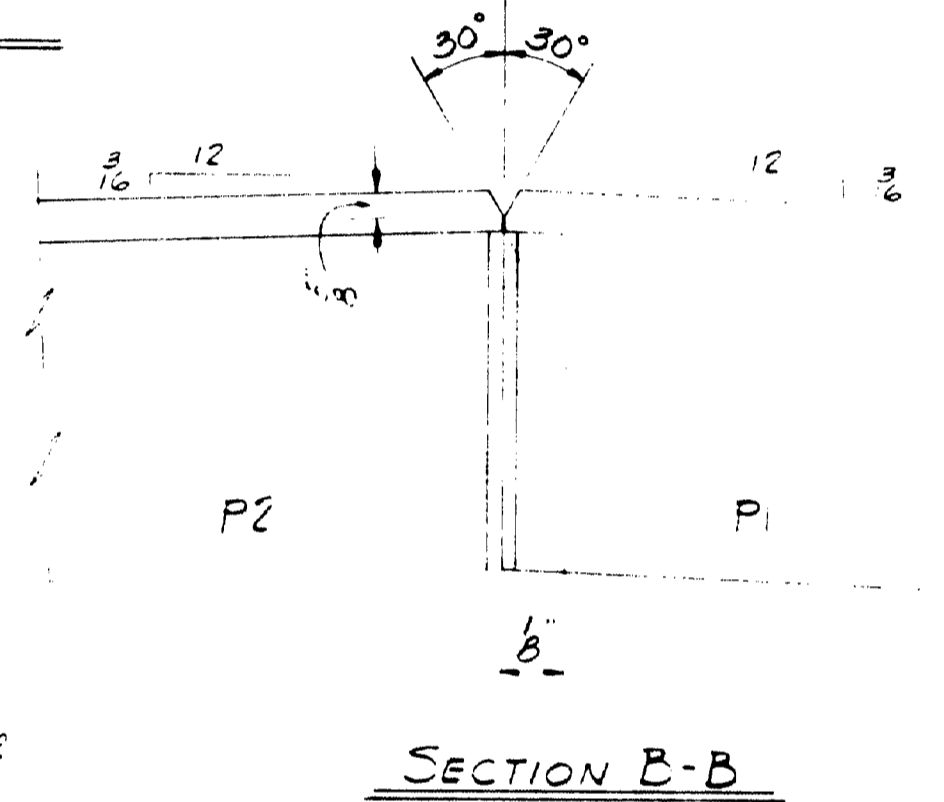


103-153.

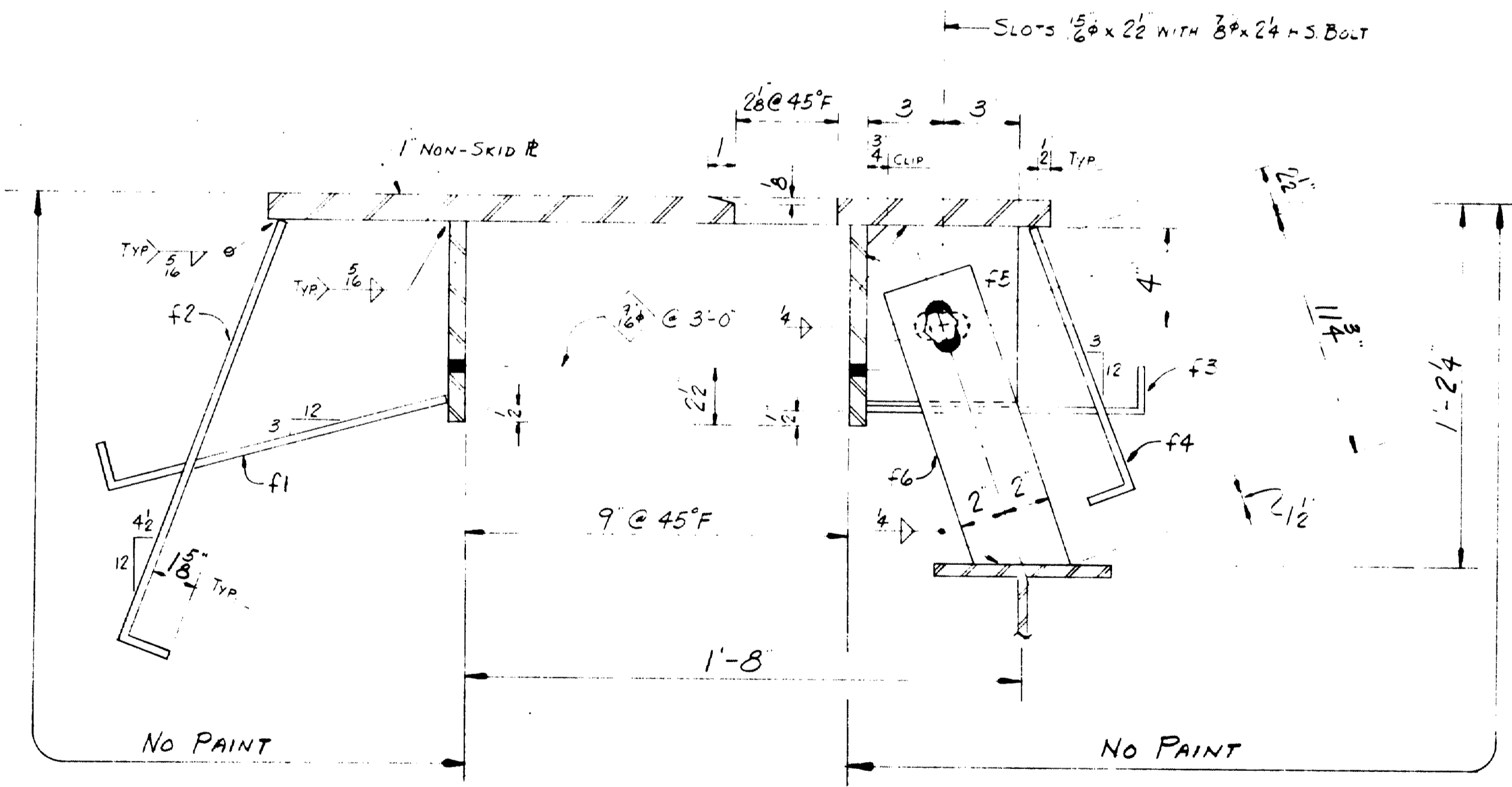


1-ED3N

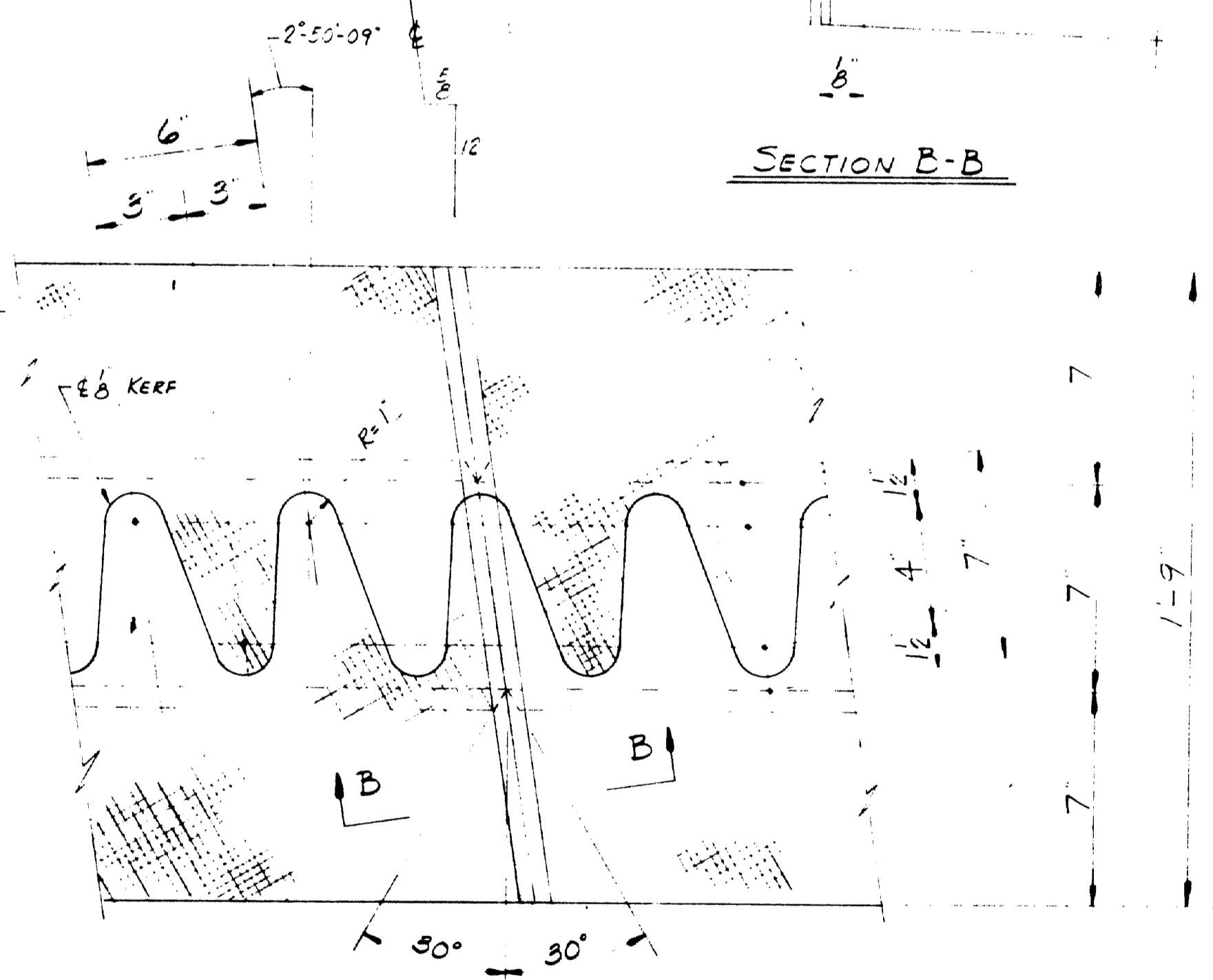
1-ED4N



SECTION B-B



SECTION A-A



CUTTING DETAIL

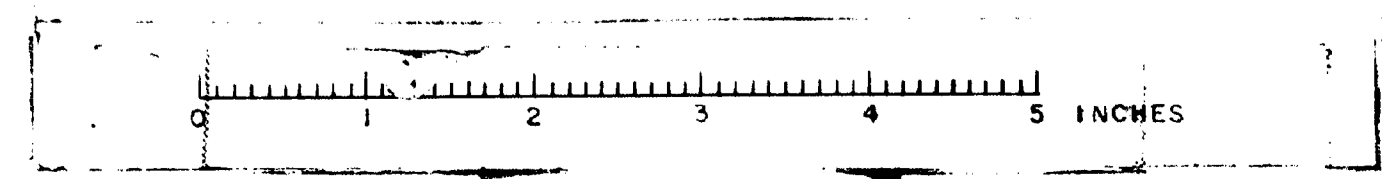
SHIP		BILL OF MATERIAL			JOB NO. 103-154	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
ED3N	1		R 21 x 1	34 0 1/2		CHEK R
ED4N	1		do	18 10 1/2		do
	2	P1	R 8 x 3/4	18 9 3/4		
	2	P2	do	33 1 1/2		
	1	P4	R 14 x 3/8	1 0 1/2		
	26	f1	FB 2 x 3	1 4		BENT
	53	f2	do	1 8		
	26	f3	do	1 1		
	53	f4	do	1 1		do
	7	f5	FB 6 x 3/8	0 7		
	7	f6	FB 4 x 3/8	1 3 3/4		
	7	SHOP	3/8 H.S. BOLT	0 24		
	7	do	3/8 H.S. WASHER			

Proj. No. I-295-3 (33)

STEEL ASTM A36  
 WELDING ELECTRODE E70  
 SHOP CONN. WELD  
 FIELD CONN. WELD  
 HOLES 1/8"  
 PAINT: STATE OF MAINE SPECS.  
 SPECIAL CLEANING:  
 APPROVED: AS NOTED 5-2-68

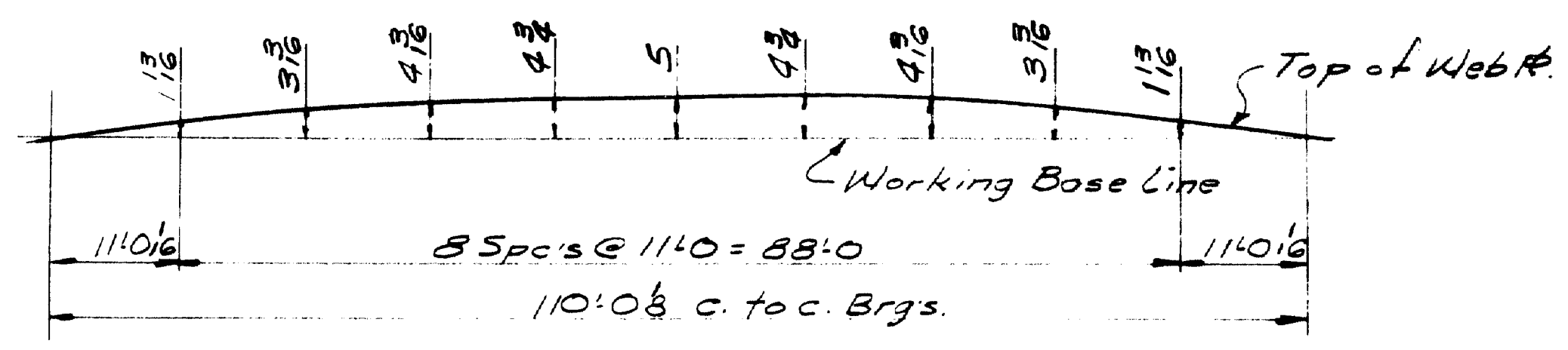
EXPANSION DAM ABUT. #1 NORTH BOUND	
PRINT DIST	
	Pennock & Martin Inc. Brunswick, Maine
	JOB I-295 OVER WESTBROOK STREET SOUTH PORTLAND, MAINE
	CUSTOMER CIANCHETTE BROS.
	DESIGNED BY S. H. C.

103-154







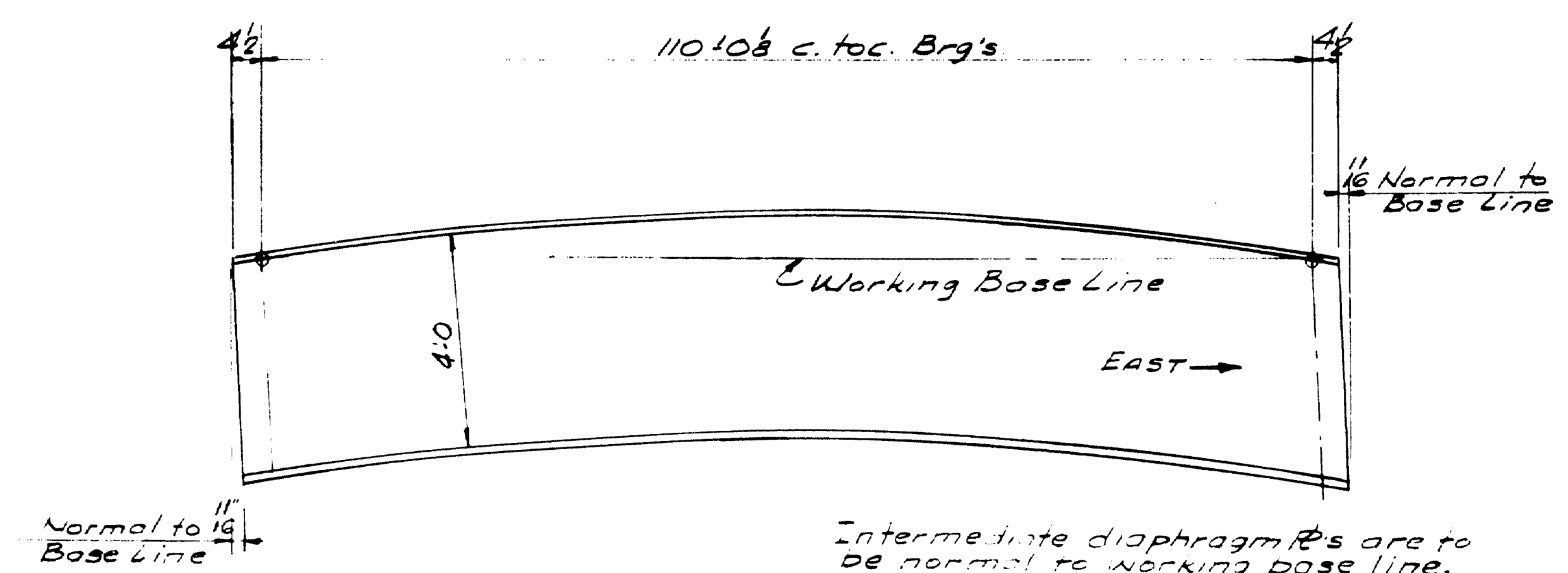


Camber Tolerance =  $\frac{3}{8} \pm$

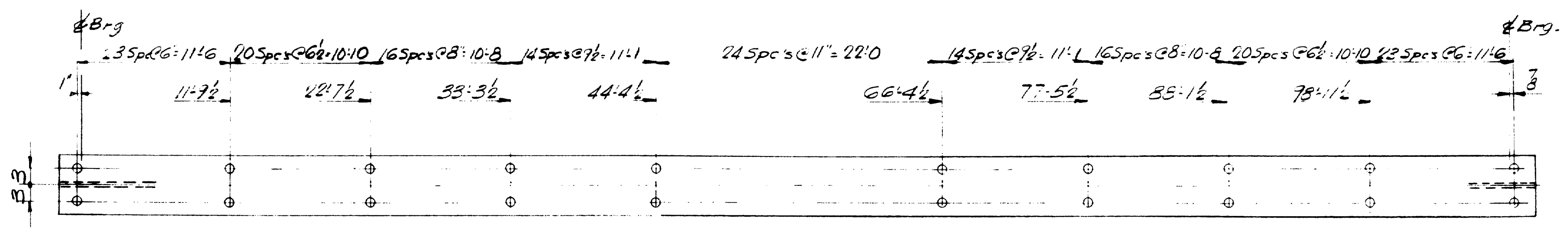
CAMBER DIAGRAM

For Dead Load + Vertical Curvature

Camber shown is finish camber, no allowance shown for shrinkage due to welding.



TYPICAL GIRDER LAYOUT



SHEAR CONNECTORS - TYPICAL LAYOUT

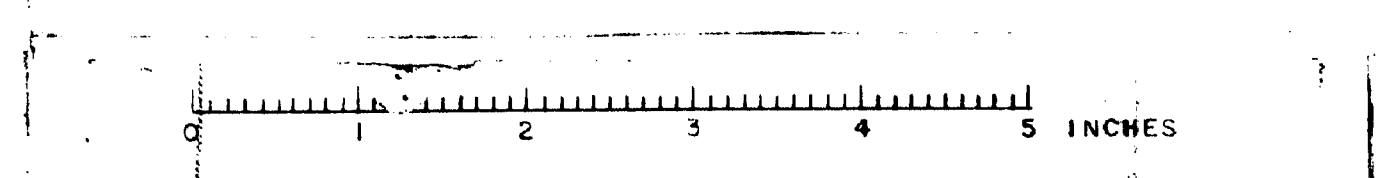
$\frac{3}{8} \times 5$  Studs

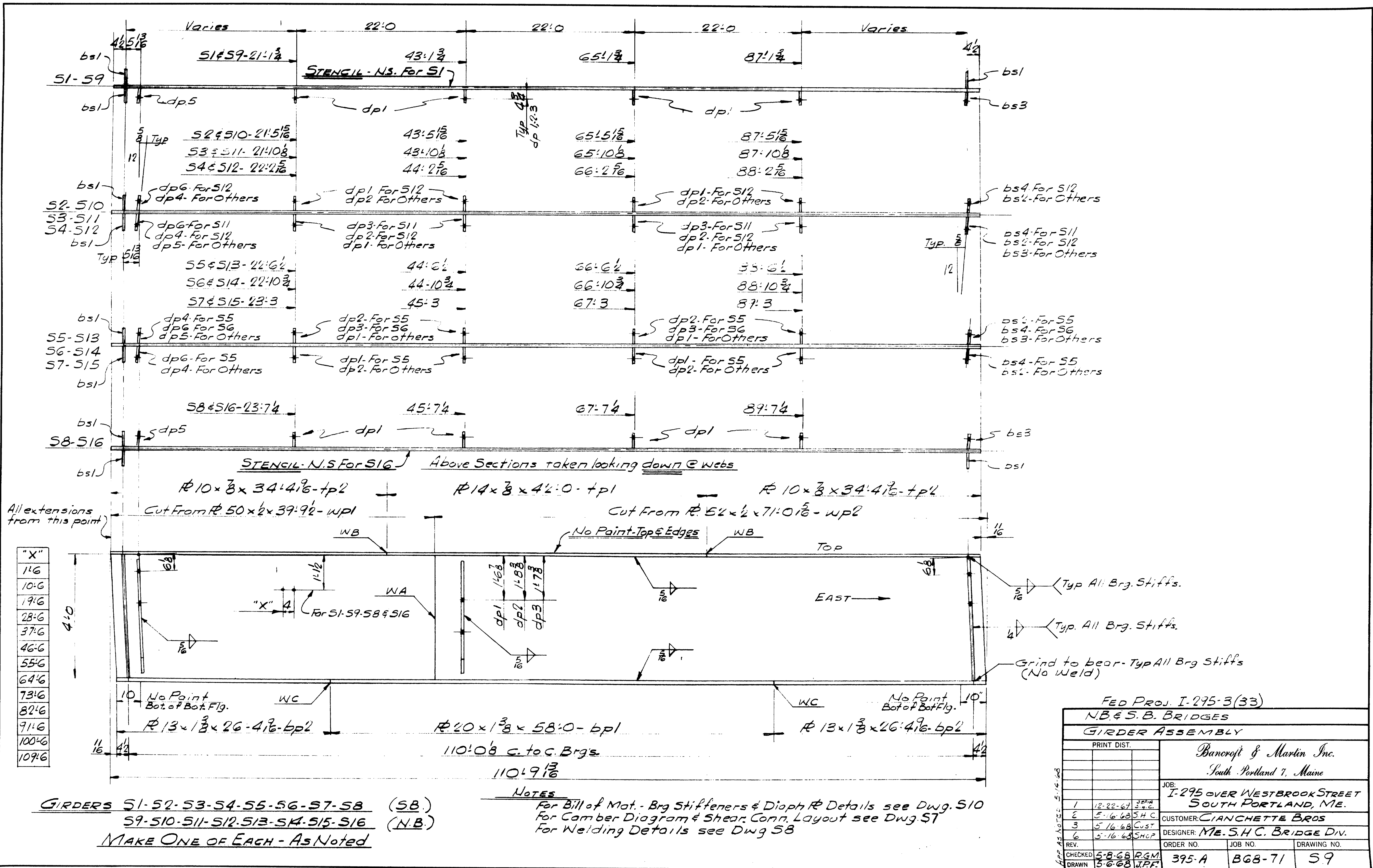
342 Req'd per Girder  
5472 Total Req'd.

FED PROJ I-295-3(33)  
N.B & S.B. BRIDGES.

CAMBER DIAGRAM & SHEAR CONN. LAYOUT			
PRINT DIST.		Bancroft & Martin Inc. South Portland 7, Maine	
JOB: I-295 OVER WESTBROOK STREET SOUTH PORTLAND, ME.			
CUSTOMER: CIANCHETTE BROS.			
DESIGNER: ME. S.H.C. BRIDGE DIV.			
REV.	ORDER NO.	JOB NO.	DRAWING NO.
CHECKED 5-8-68 RGM	395-A	B68-71	57
DRAWN 5-3-68 JFF			

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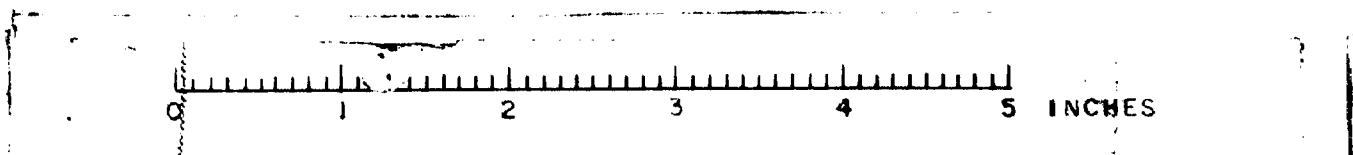


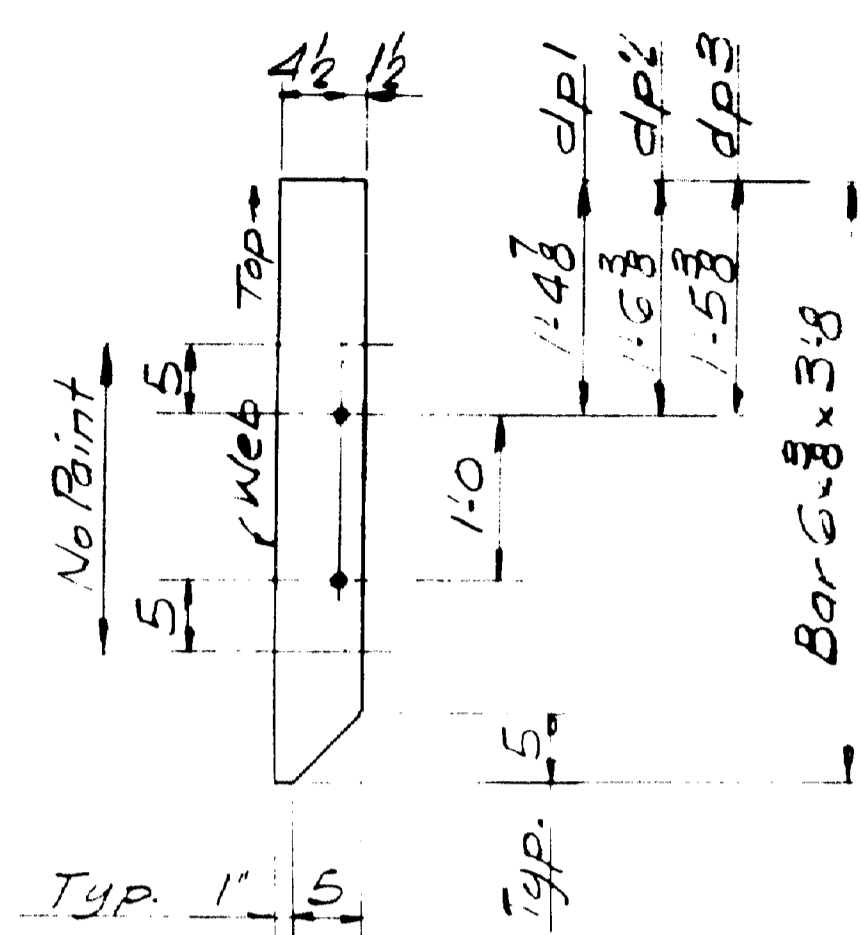
GIRDERS 51-52-53-54-55-56-57-58 (S.B.)  
 59-510-511-512-513-514-515-516 (N.B.)  
 MAKE ONE OF EACH - As Noted

NOTES  
 For Bill of Mat. - Brg Stiffeners & Diaph # Details see Dwg. 510  
 For Camber Diagram & Shear Conn. Layout see Dwg. 57  
 For Welding Details see Dwg. 58

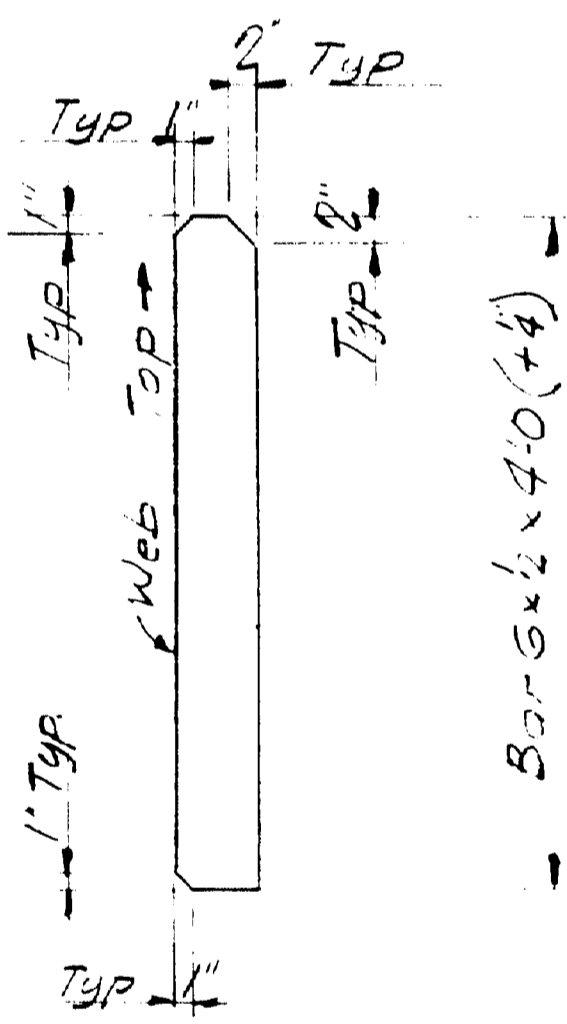
FED PROJ. I-295-3(33)			
NB & S.B. BRIDGES			
GIRDER ASSEMBLY			
PRINT DIST.		Bancroft & Martin Inc. South Portland 7, Maine	
JOB: I-295 OVER WESTBROOK STREET SOUTH PORTLAND, ME.			
1	12-22-67	376	CUSTOMER: CIANCHETTE BROS DESIGNER: ME. S.H.C. BRIDGE DIV.
2	5-16-68	S.H.C.	
3	5-16-68	Cust.	
6	5-16-68	SHOP	
REV.		ORDER NO.	JOB NO.
CHECKED	5-8-68 RGM	395-A	BGB-71
DRAWN	5-6-68 JPP		59

103-158

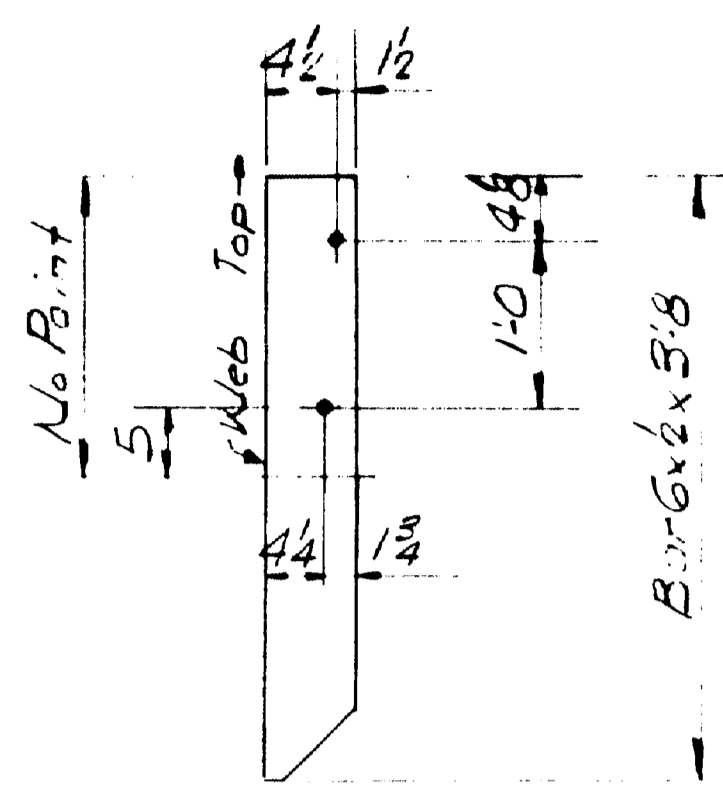




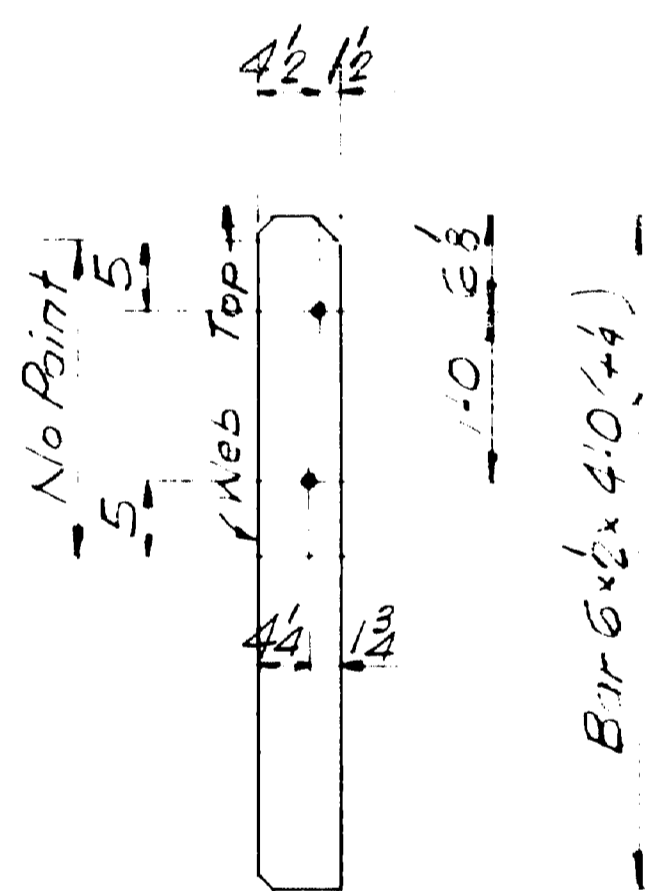
dp1-56-Req'd  
 dp2-48-Req'd  
 dp3-8-Req'd.



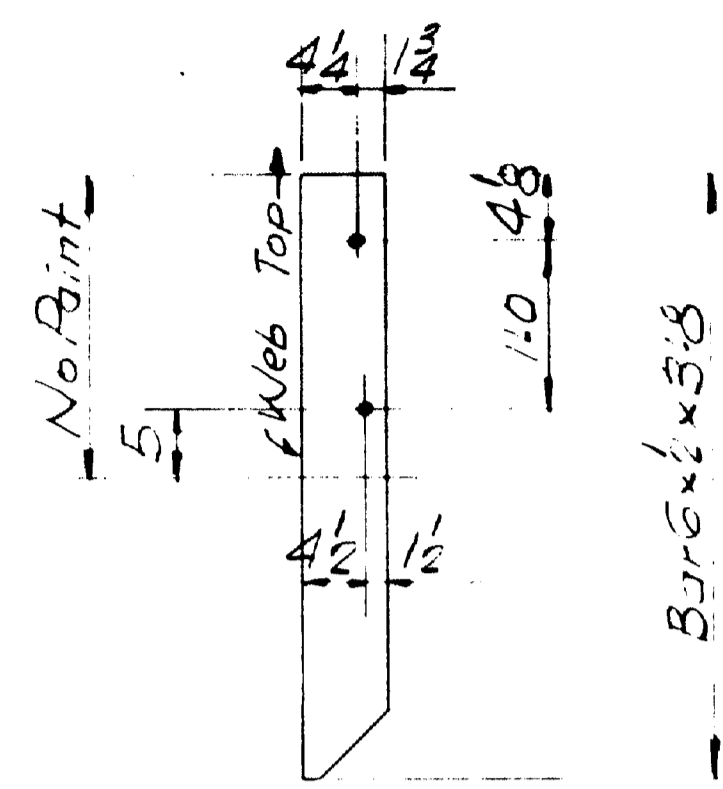
bs1-36-Req'd



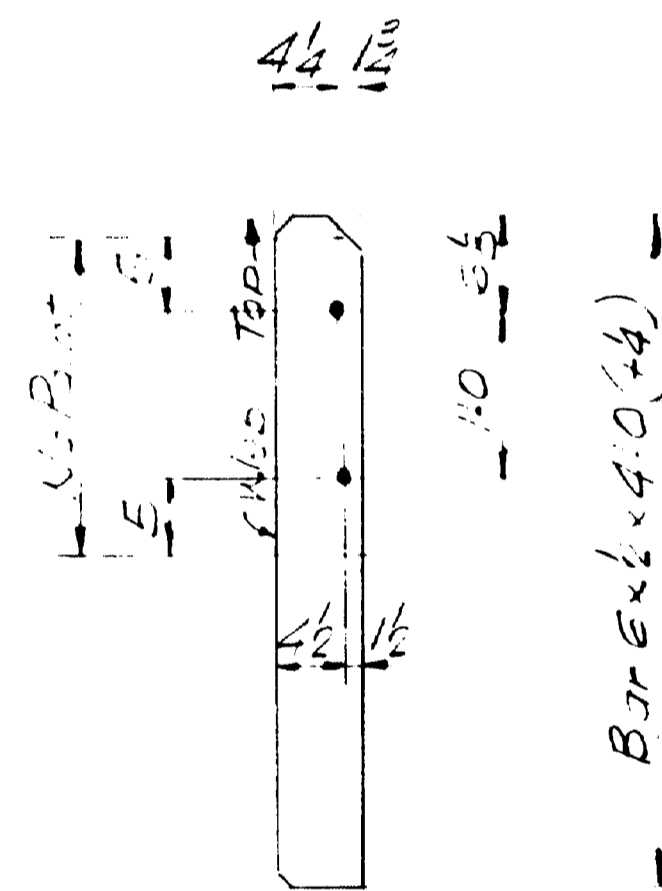
dp4-14-Req'd



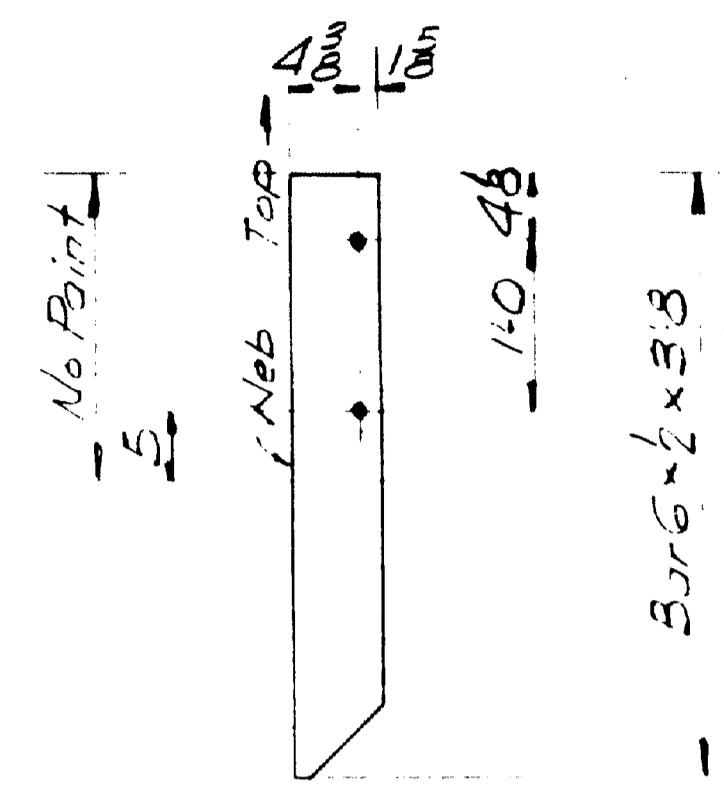
bs2-14-Req'd



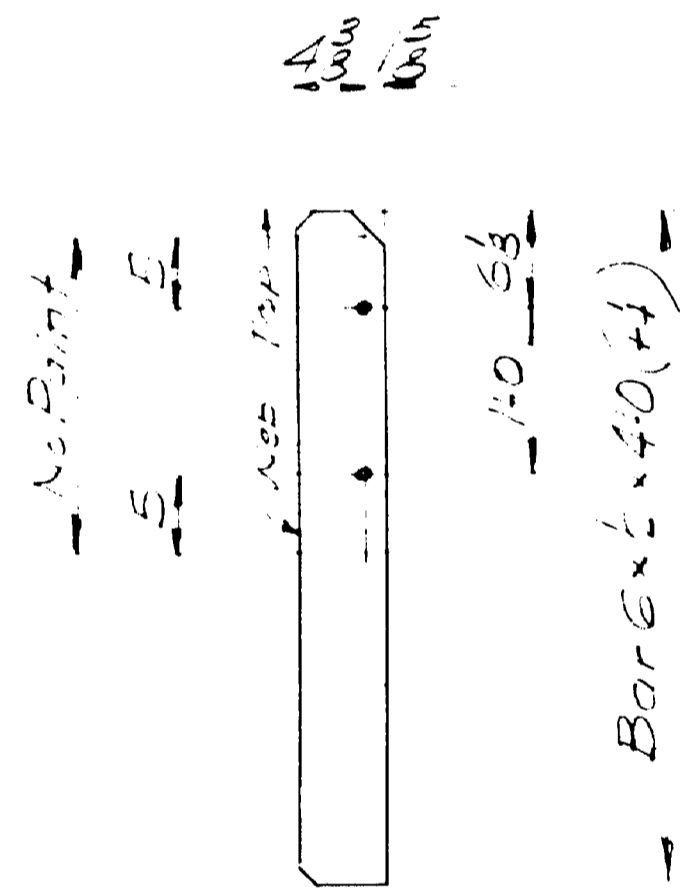
dp5-14-Req'd



bs3-14-Req'd



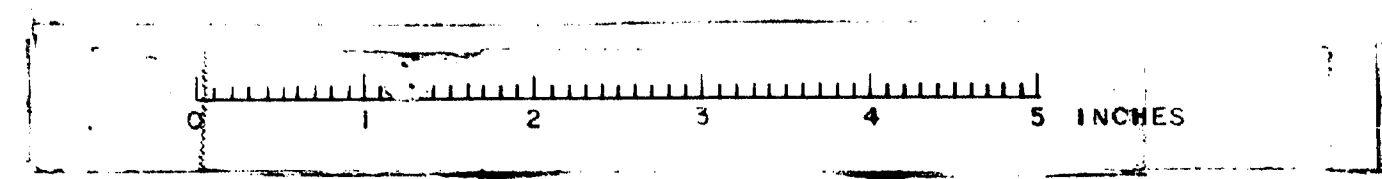
dp6-4-Req'd



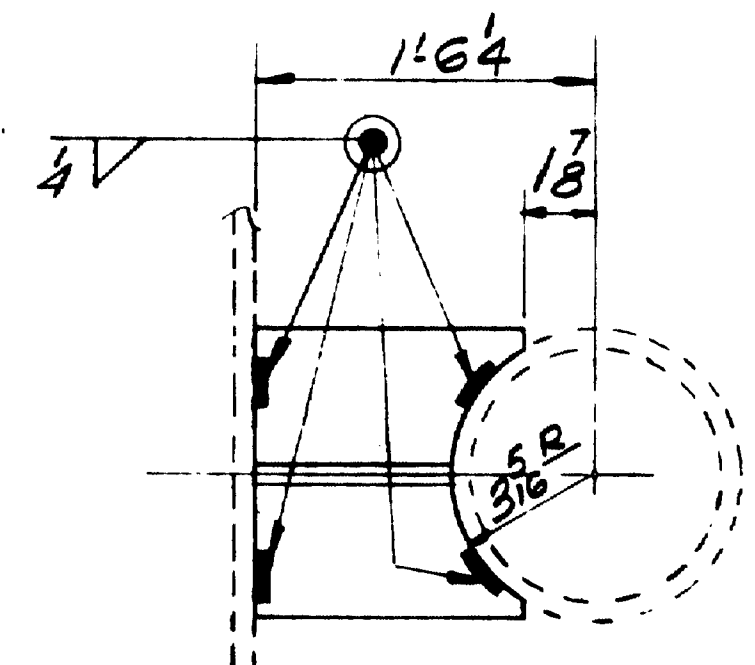
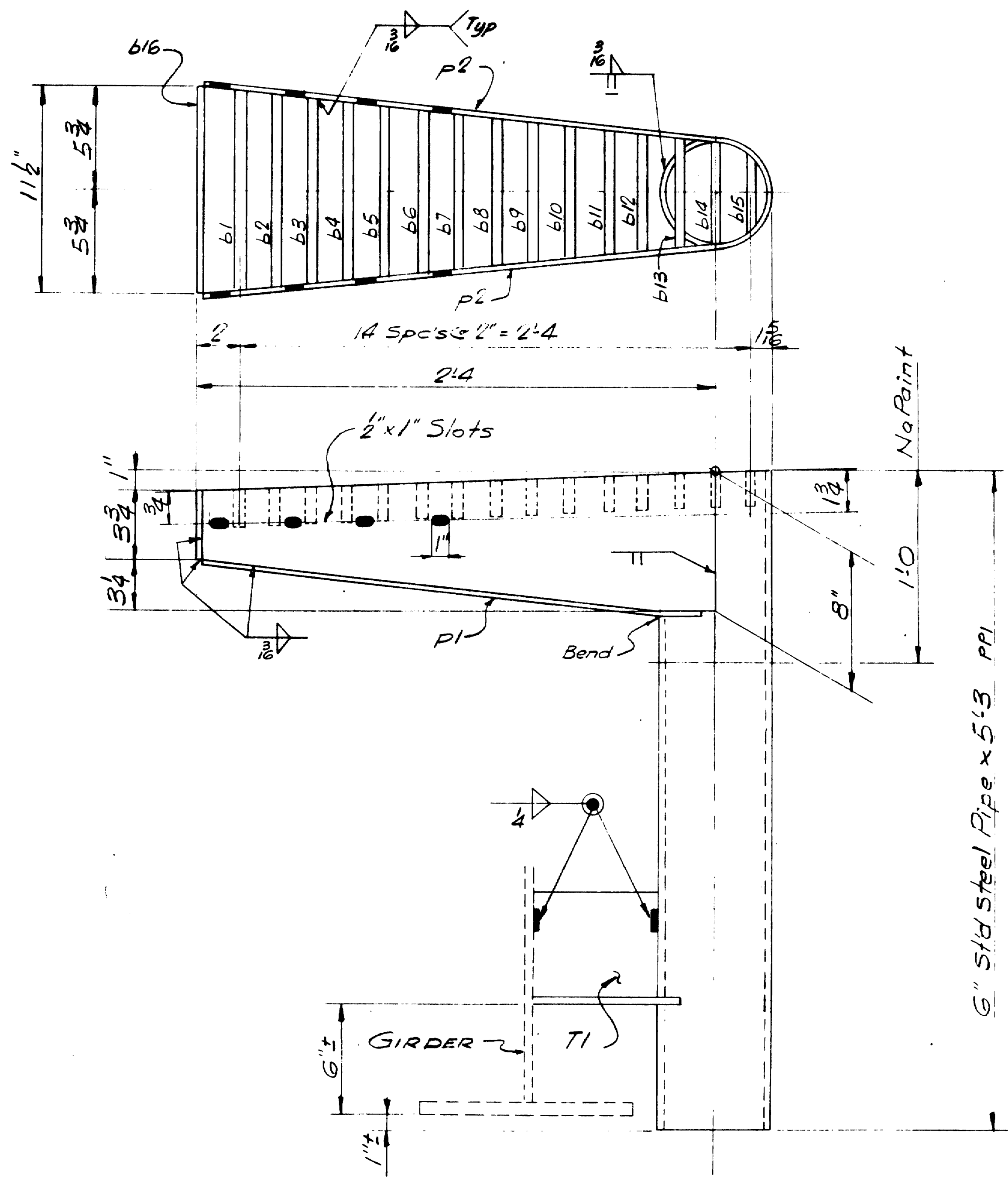
bs4-4-Req'd

SHIP		BILL OF MATERIAL				JOB NO. 868-71	DWG. NO. 510
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS
S1	1		GIRDER				
S2	1						
S3	1						
S4	1						
S5	1						
S6	1						
S7	1						
S8	1						
S9	1						
S10	1						
S11	1						
S12	1						
S13	1						
S14	1						
S15	1						
S16	1		GIRDER				
12	wp1		RS2x4	37	9 1/2		ASTM-A441
16	wp2		RS2x4	71	0 7/8		
18	wp3		RS4x3	42	0		
32	tp1		RS10x3	34	4 1/8		
6	bp1		RS20x3	58	0		
32	bp2		RS13x3	46	4 1/8		ASTM-A441
56	sp1		Bar 6 x 3	3	8		
48	sp2		Bar 6 x 3	3	8		
8	sp3		Bar 6 x 3	3	8		
1	dp4		Bar 6 x 1/2	3	3		
2	dp5		Bar 6 x 1/2	3	3		
4	sp6		Bar 6 x 1/2	3	3		
30	bs1		Bar 6 x 1/2	4	0 4		FIT
12	bs2		Bar 6 x 1/2	4	0 4		FIT
12	bs3		Bar 6 x 1/2	4	0 4		FIT
4	bs4		Bar 6 x 1/2	4	0 4		FIT
	54%	SHOP	FIELD SHEAR CONN	0	5		NELSON ITEM 505.08
ITEM 504.70 UNLESS NOTED							
FED PROJ NO I-295-B(33)							
STEEL: ASTM A36 & A441 - As Noted							
WELDING ELECTRODE E70-LH & As Noted on Draw. SB							
SHOP CONN: WELDED							
FIELD CONN: 3/4" MIN. BOLTS (TEMP. E-ECT.) - WELDED							
HOLES: 1/2"							
PAINT: Red Lead per Maine Specs. As Note 1							
SPECIAL CLEANING: Blast Clean							
APPROVED:							
GIRDERS - N. B & S. B.							
PRINT DIST.		Pancroft & Martin Inc.					
		South Portland, Maine 04106					
		JOB I-295 - OVER WESTBROOK STREET SOUTH PORTLAND, ME.					
		CUSTOMER: GANCHETTE BROS.					
		DESIGNER: M.E.S.H.C. - BRIDGE DIV.					
REV.	ORDER NO.	JOB NO.	DRAWING NO.				
CHECKED 5-9-68 R.S.M.	395-A	868-71	510				
DRAWN 5-6-68 J.P.P.							

103-159







STGNF 13.5 x 14 3/8 - T1  
 8 REQ'D.  
 No Paint

DRAIN DRI - 8 REQ'D.  
 See State's Dwg's for location

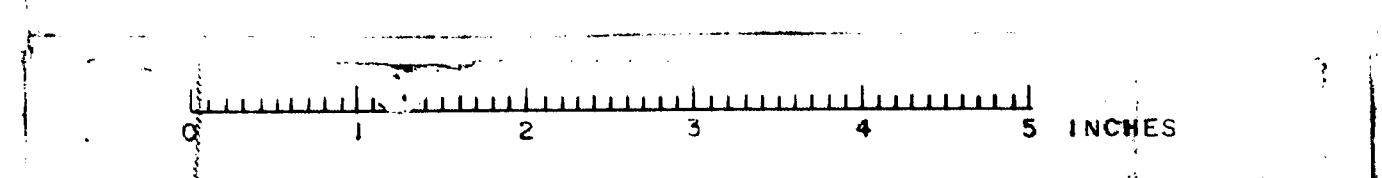
SHIP		BILL OF MATERIAL			JOB NO. B68-71	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	
DRI	8		SHOP ASSEMBLY			
T1	8		STGNF 13.5	14 3/8		
	8	p1	R 1 1/2 x 4	2	3 3/4	
	16	p2	R 8 x 4	2	3 3/4	
	8	b16	Bar 3/4 x 4	0	1 1/2	
	8	b1	Bar 2 x 2	0	1 1/2	
	8	b2		0	10 3/4	
	8	b3		0	10 3/4	
	8	b4		0	9 3/4	
	8	b5		0	9 3/4	
	8	b6		0	9 3/4	
	8	b7		0	8 3/4	
	8	b8		0	8 3/4	
	8	b9		0	8	
	8	b10		0	7 1/2	
	8	b11		0	7 1/2	
	8	b12		0	6 1/2	
	8	b13		0	6 1/2	
	8	b14		0	6	
	8	b15	Bar 2 x 2	0	5	
	8	ppl	6" STD PIPE	5	3	

ITEM No. 504.70  
 FED PROJ No. I 295-3(33)

STEEL: ASTM A36  
 WELDING ELECTRODE E70  
 SHOP CONN: Welded  
 FIELD CONN: Welded  
 HOLES: As Noted  
 PAINT: Red Lead per Maine Specs. As Noted  
 SPECIAL CLEANING: Blast Clean  
 APPROVED:

DRAINS			
PRINT DIST.			
Bancroft & Martin Inc. South Portland, Maine 04106			
JOB: I-295 OVER WESTBROOK STREET SOUTH PORTLAND, ME			
CUSTOMER: CLARKE BROS.			
DESIGNER: ME S.H.C. - BRIDGE DIV.			
REV.	ORDER NO.	JOB NO.	DRAWING NO.
CHECKED 5-8-68 RBM	395-A	B68-71	51
DRAWN 5-7-68 JPA			

103-761



# STATE OF MAINE STATE HIGHWAY COMMISSION

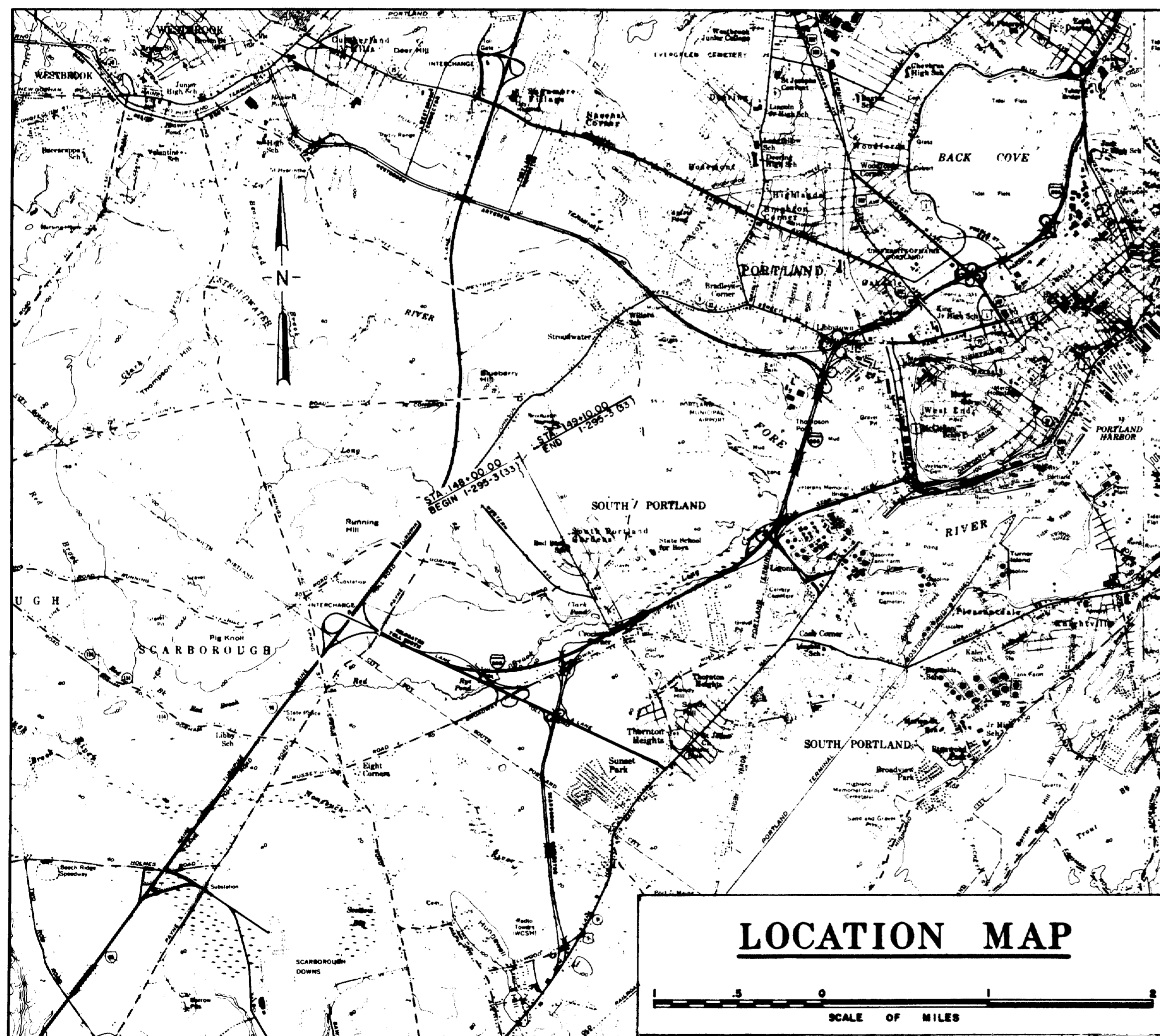


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3 (33)	1	24

CONVENTIONAL SYMBOLS	
STATE OR NATIONAL LINE	—————
COUNTY LINE	—————
TOWN LINE	—————
PROPERTY LINE	—————
BARBED WIRE FENCE	—————
OLD RIGHT OF WAY LINE	—————
TRAVELED WAY	—————
RAILROAD	—————
RETAINING WALL	—————
SURVEY LINE	—————
CULVERT	—————
CATCH BASIN	—————
HYDRANT	—————
POWER POLE	—————
TEL. POLE	—————
MARSH	—————
TREES	—————
STONE WALL	—————

## INTERSTATE 295 OVER WESTBROOK STREET IN THE CITY OF SOUTH PORTLAND CUMBERLAND COUNTY MAINE FEDERAL AID INTERSTATE PROJECT NO. I-295-3(33) 46 TOTAL LENGTH 0.021 MILES

INDEX OF SHEETS	
SHEET NO	DESCRIPTION
1	TITLE SHEET
2	STANDARD DETAILS, FIELD OFFICES
3-7	STANDARD DETAILS, BRIDGES
8-22	BRIDGE PLANS
23	RIGHT OF WAY PLAN
24	PROFILES, I-295 & WESTBROOK STREET



### TRAFFIC DATA

INTERSTATE 295		WESTBROOK ST.		
A.D.T.	1970	25,024	1970	9,500
A.D.T.	1990	30,750	1990	8,415
D.H.V.		3,075		1,010
T.		6.4%		5%
D.		6.0%		65%
V.		50 M.P.H.		30 M.P.H.

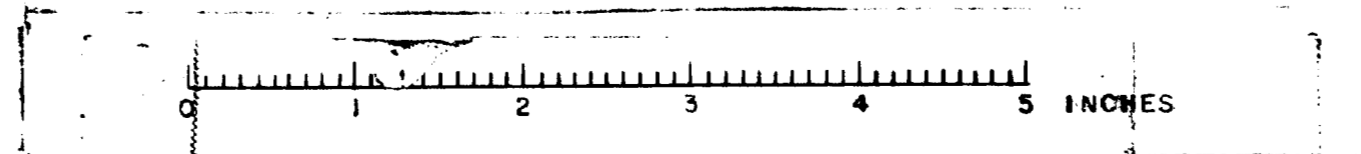
**NOTE**  
ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND IN CONFORMITY WITH STANDARD SPECIFICATIONS (REVISIONS OF JUNE 1965) AND SUPPLEMENTS THERETO, EXCEPT AS MODIFIED ON PLANS AND IN THE SPECIAL PROVISIONS.

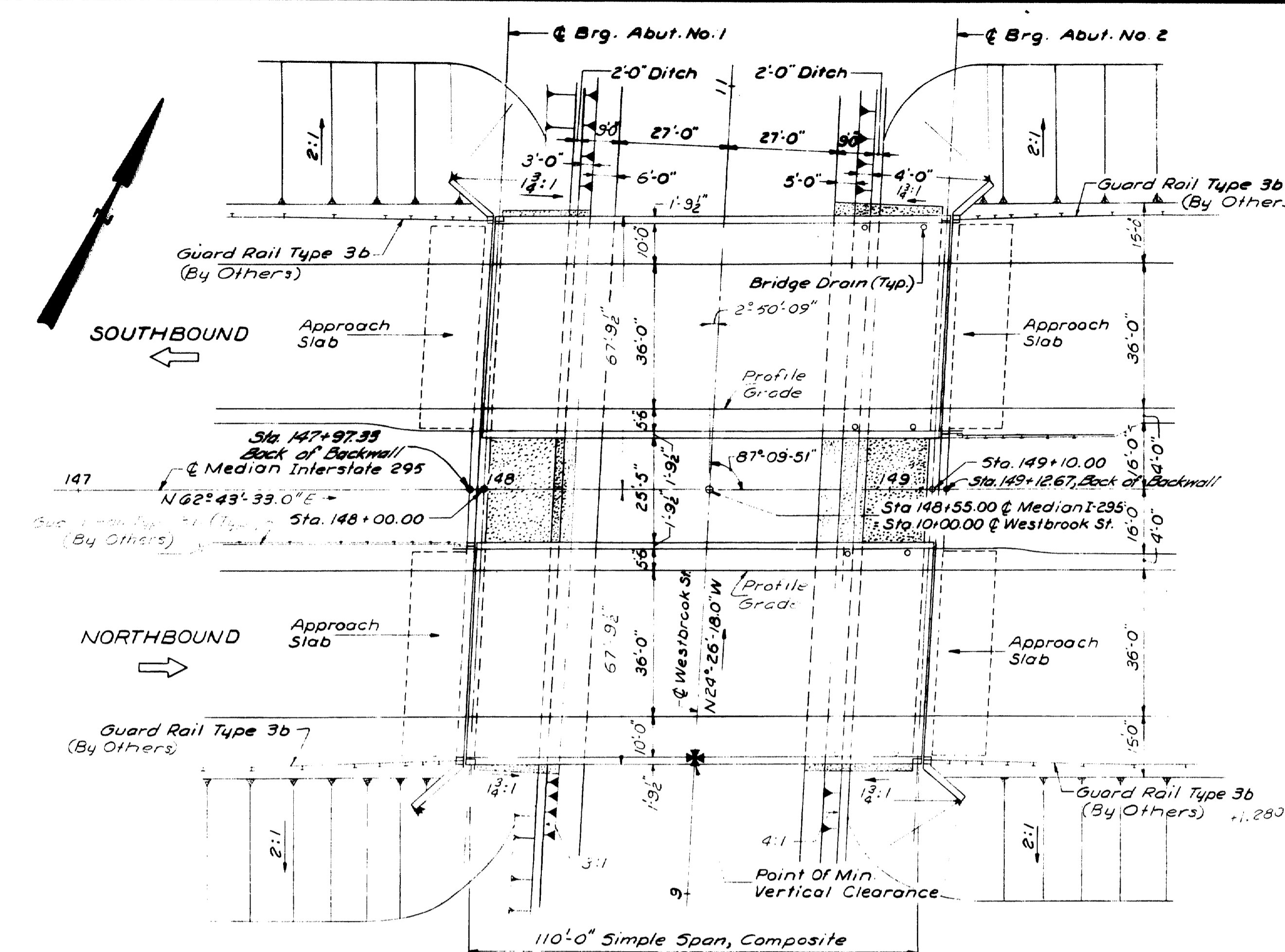
APPROVED  
MAINE STATE HIGHWAY COMMISSION  
*Dir. H. Stevens* CHAIRMAN 2-21-68  
*Stewart J. Shaw* 2-21-68  
*Sylvester P. L...* CHIEF ENGINEER 2-21-68

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY  
*Carl J. Miller* 1/22/68  
DATE

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
BUREAU OF PUBLIC ROADS  
REGION I  
APPROVED  
DIVISION ENGINEER DATE

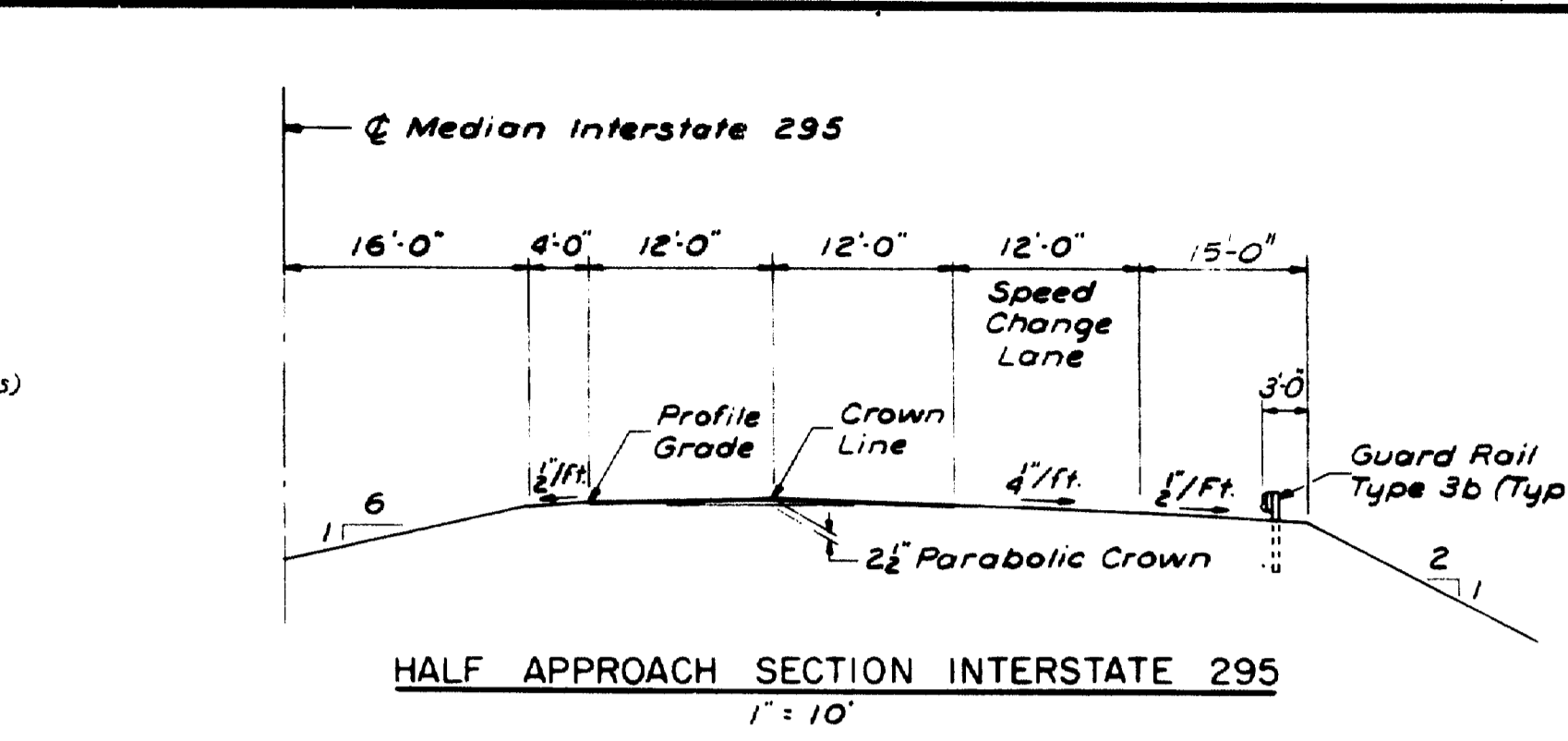
104-61 SOUTH PORTLAND



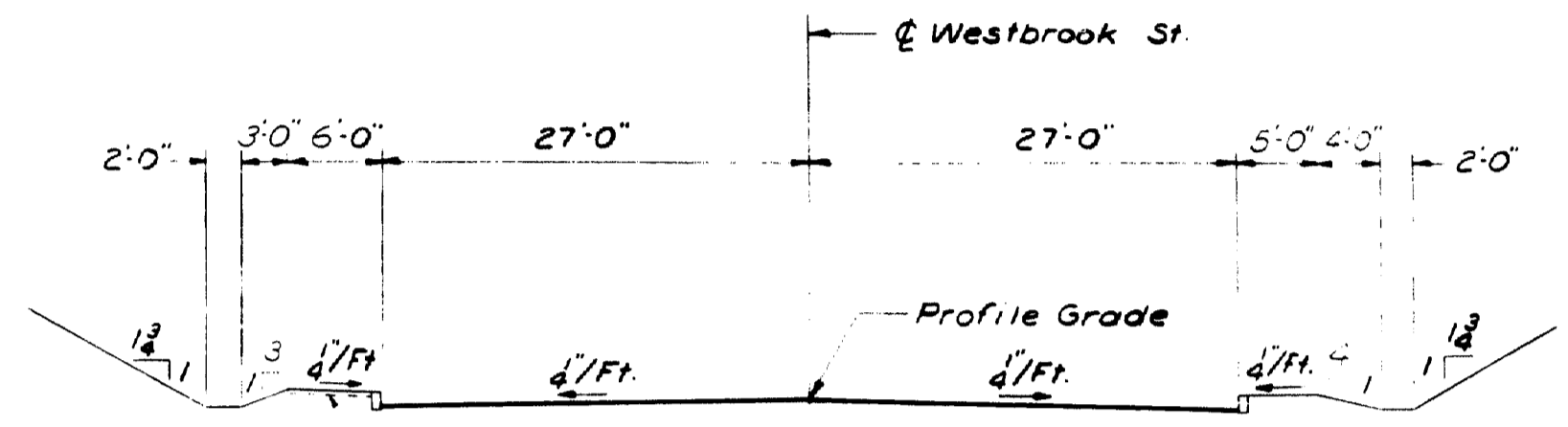


**NOTE:**  
Abutments parallel to Bearing N24°26'18"W.

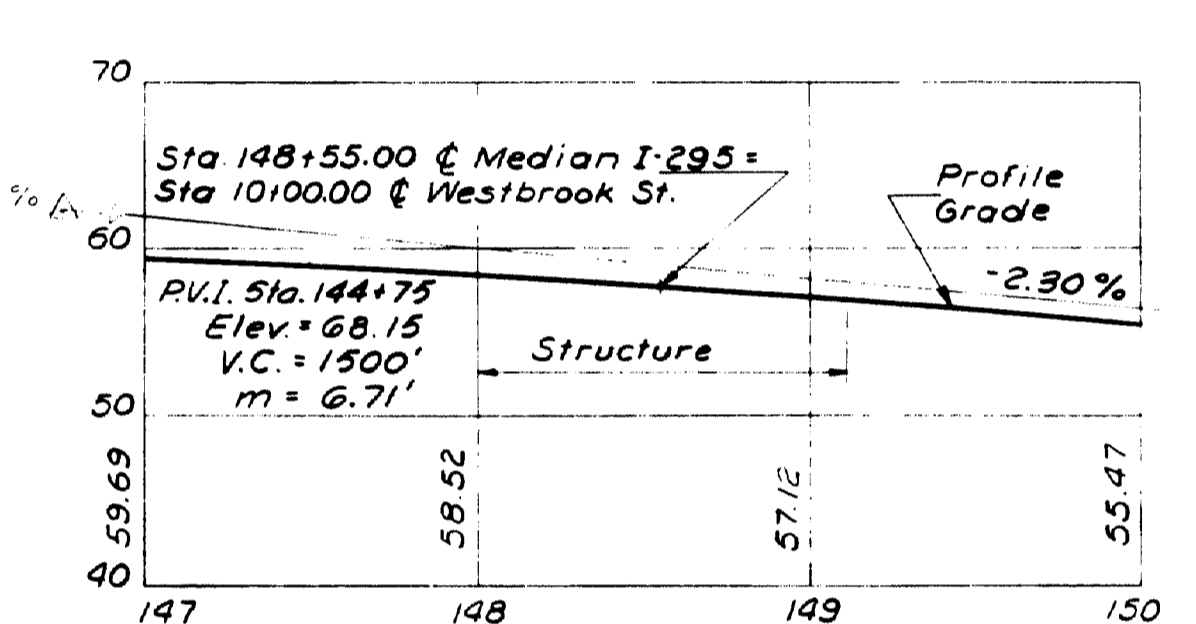
**PLAN**  
1" = 20'



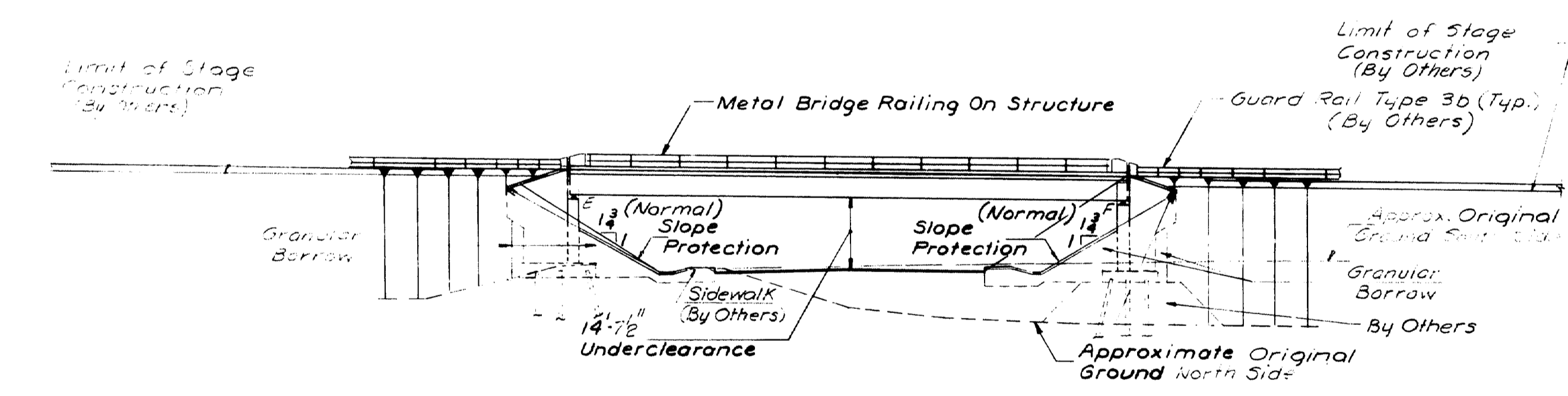
**HALF APPROACH SECTION INTERSTATE 295**  
1" = 10'



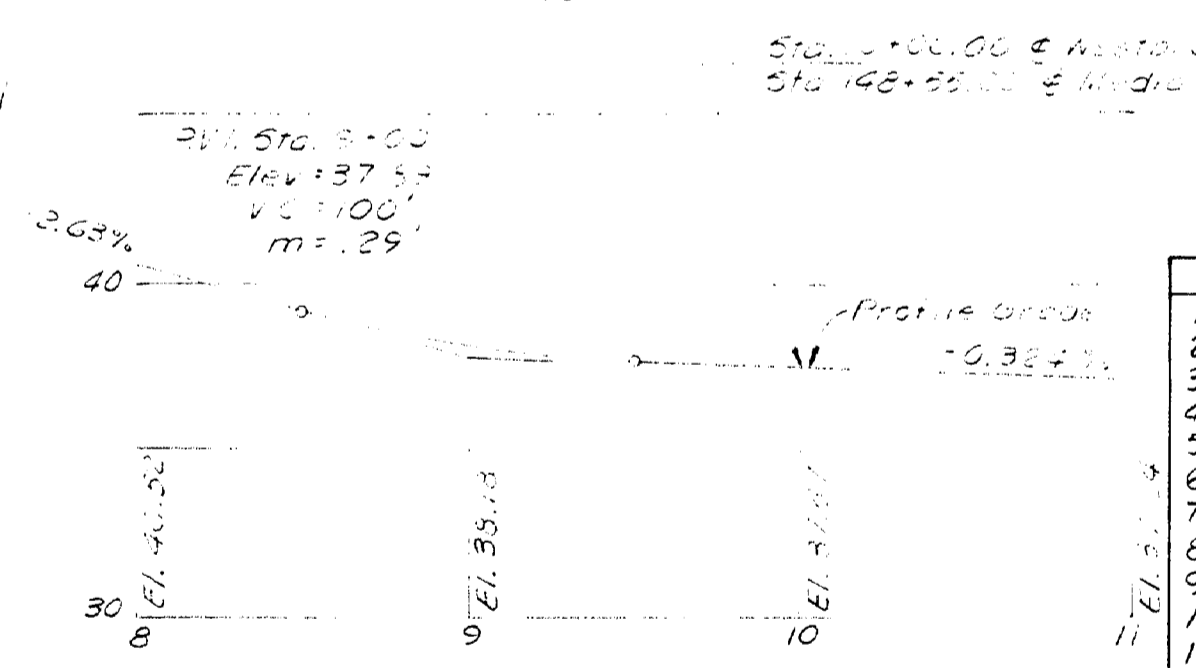
**SECTION - WESTBROOK ST.**  
1" = 10'



**PROFILE - INTERSTATE 295**  
Horiz. 1" = 50'  
Vert. 1" = 10'



**ELEVATION**  
1" = 20'



**PROFILE - WESTBROOK ST.**  
Horiz. 1" = 50'  
Vert. 1" = 10'

**SPECIFICATIONS**

**DESIGN**  
A.A.S.H.O. Standard Specifications for Highway Bridges 1965.

**CONTRACT**  
State of Maine, State Highway Commission Standard Specification for Highways and Bridges, Revised June 1965.

**LIVE LOADING**  
HS 20-44 - As modified for Interstate

**FOUNDATIONS**  
Abutments 1. 24" x 24" Precast Concrete Piles  
2. 36" x 36" Cast-in-place

**ALLOWABLE STRESSES**  
Concrete (n=10) ~ f<sub>c</sub> = 1200 p.s.i.  
Reinforcing Steel, Int. Grade ~ f<sub>s</sub> = 20,000 p.s.i.  
Structural Steel, A.S.T.M. Designation A441 for Main Beam Material, ~ f<sub>s</sub> = 27,000 p.s.i. 3/8" and under, f<sub>s</sub> = 25,000 p.s.i. over 3/8" to 1 1/2" included, f<sub>s</sub> = 23,000 p.s.i. over 1 1/2" all other structural steel, A.S.T.M. designation A36 f<sub>s</sub> = 20,000 p.s.i.

**CONCRETE CLASSIFICATION**  
All Concrete shall be Class "A" except slope protection which shall be Class "Y".

**BRIDGE QUANTITIES**

Item No.	Description	Quantity	Unit
50325	Granular Borrow	1500	C.Y.
50326	Structural Earth Excavation, Abuts & Ret. Walls	3000	C.Y.
5012	Steel H-beam Piles	57 lbs.	LF
50123	Loading Test	1	Each
50221	Structural Concrete, Abuts & Retaining walls	795	C.Y.
50226	Struct. Conc., Rdwy. & Sidw. Slabs on Steel Bridges	1	C.S.
50231	Structural Concrete, Approach Slab	1	C.S.
50312	Reinforcing Steel, Fabricated & Delivered	144,000	lbs
50313	Reinforcing Steel, Placing	144,000	lbs.
50470	Structural Steel, Fabricated & Delivered	1	C.S.
50471	Structural Steel, Erection	1	C.S.
50508	Shear Connectors	1	C.S.
50614	Field Painting, Structural Steel	1	C.S.
50708	Bridge Railing	484	LF
50806	French Drain	234	LF
51308	Slope Protection	706	S.Y.
51406	Curing Box For Concrete Cylinders	1	Each
51506	Epoxy Resin Surface Stucco	530	S.Y.
50903	Vertical Bridge Joints - Type 1	470	LF
63909	Field Office Type B	1	Each

**NOTE:**  
Estimated Quantity of Structural Steel - 200,500 Lbs.  
Estimated Quantity of Shear Connectors: Studs - 140 pieces  
Estimated Quantity of Concrete in Item 50226 = 5.1 C.Y.  
Estimated Quantity of Concrete in Item 50231 = 1 C.Y.

**INDEX OF SHEETS**

1. GENERAL PLAN AND QUANTITIES
2. FOUNDATION SURVEY
3. FOUNDATION SURVEY
4. FOUNDATION SURVEY
5. FOOTING PLAN
6. ABUTMENT NO. 1
7. ABUTMENT NO. 2
8. ABUTMENT AND WINGWALL DETAILS
9. STRUCTURAL STEEL AND BLOCKING
10. STRUCTURAL STEEL DETAILS
11. SUPERSTRUCTURE
12. SUPERSTRUCTURE DETAILS
13. SLOPE PROTECTION
14. REINFORCING STEEL
15. REINFORCING STEEL

**STANDARD DETAIL SHEETS**

- BD101-64 BEARING PEDESTALS
- BD104-66 DIAPHRAGMS, SHEAR CONNECTORS, ARMORED JOINT
- BD105-64 EXPANSION DAM
- BD107-65 STEEL RAIL
- BD108-65 ALUMINUM RAIL
- DEC. 1966 ⑧ FIELD OFFICES

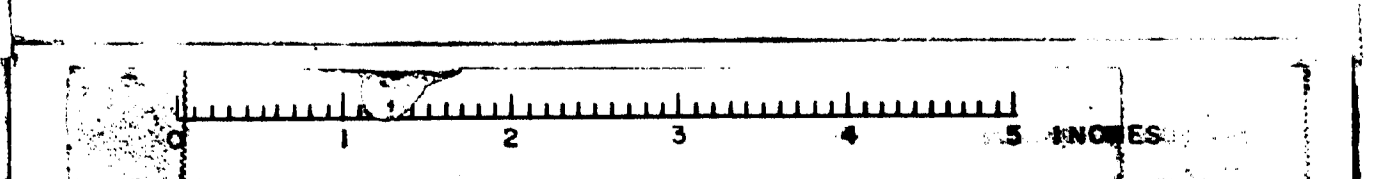
DESIGN - E.F.K. DETAIL - R.D.F. SURVEY - S.M. CHECK - S.M.

BRIDGE NO. SURVEY - PLOT -

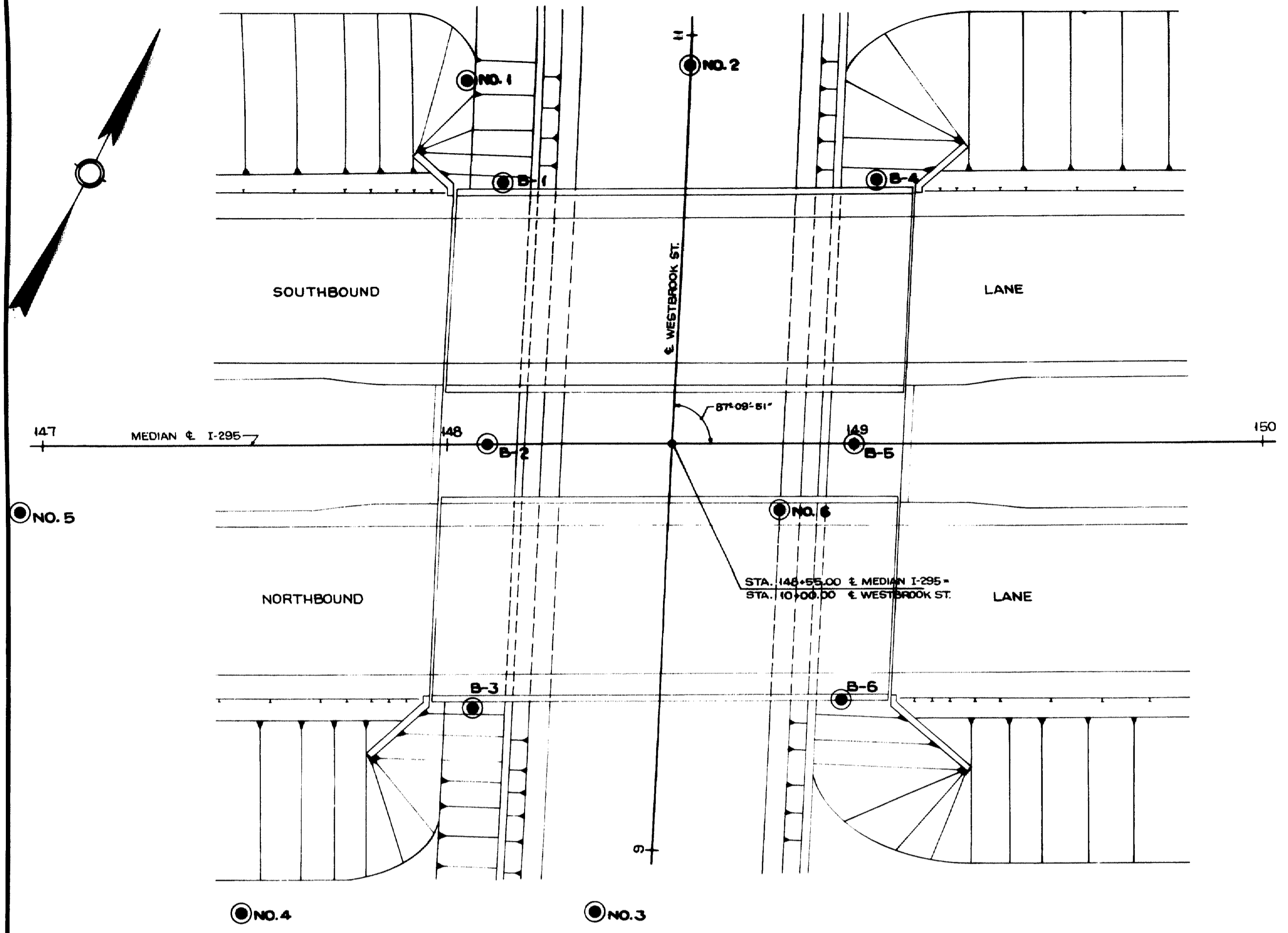
**STATE HIGHWAY COMMISSION**  
**BRIDGE DIVISION**

INTERSTATE ROUTE 295  
OVER  
WESTBROOK ST.  
IN THE CITY OF  
SOUTH PORTLAND  
CUMBERLAND COUNTY  
GENERAL PLAN & QUANTITIES

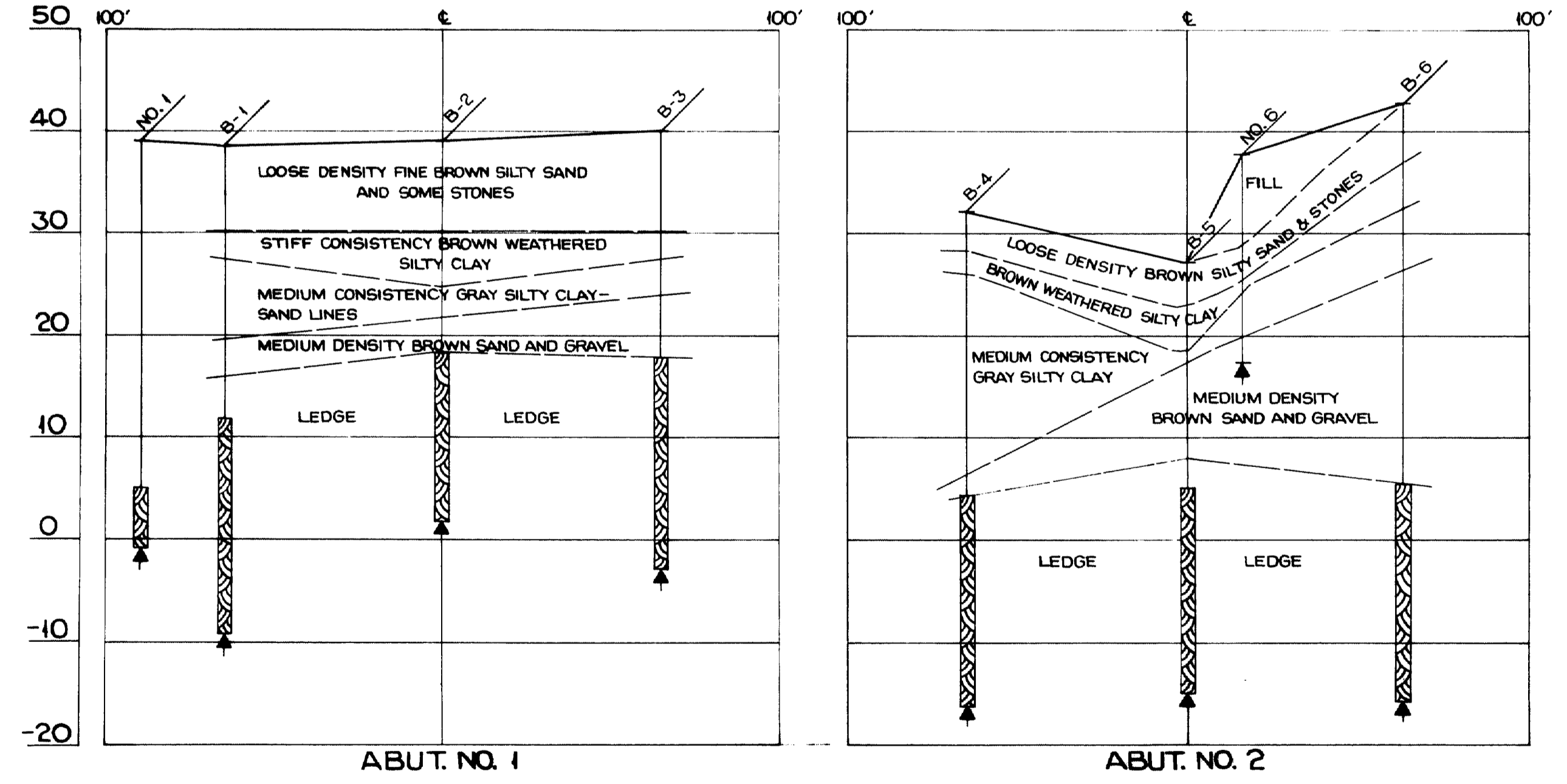
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY



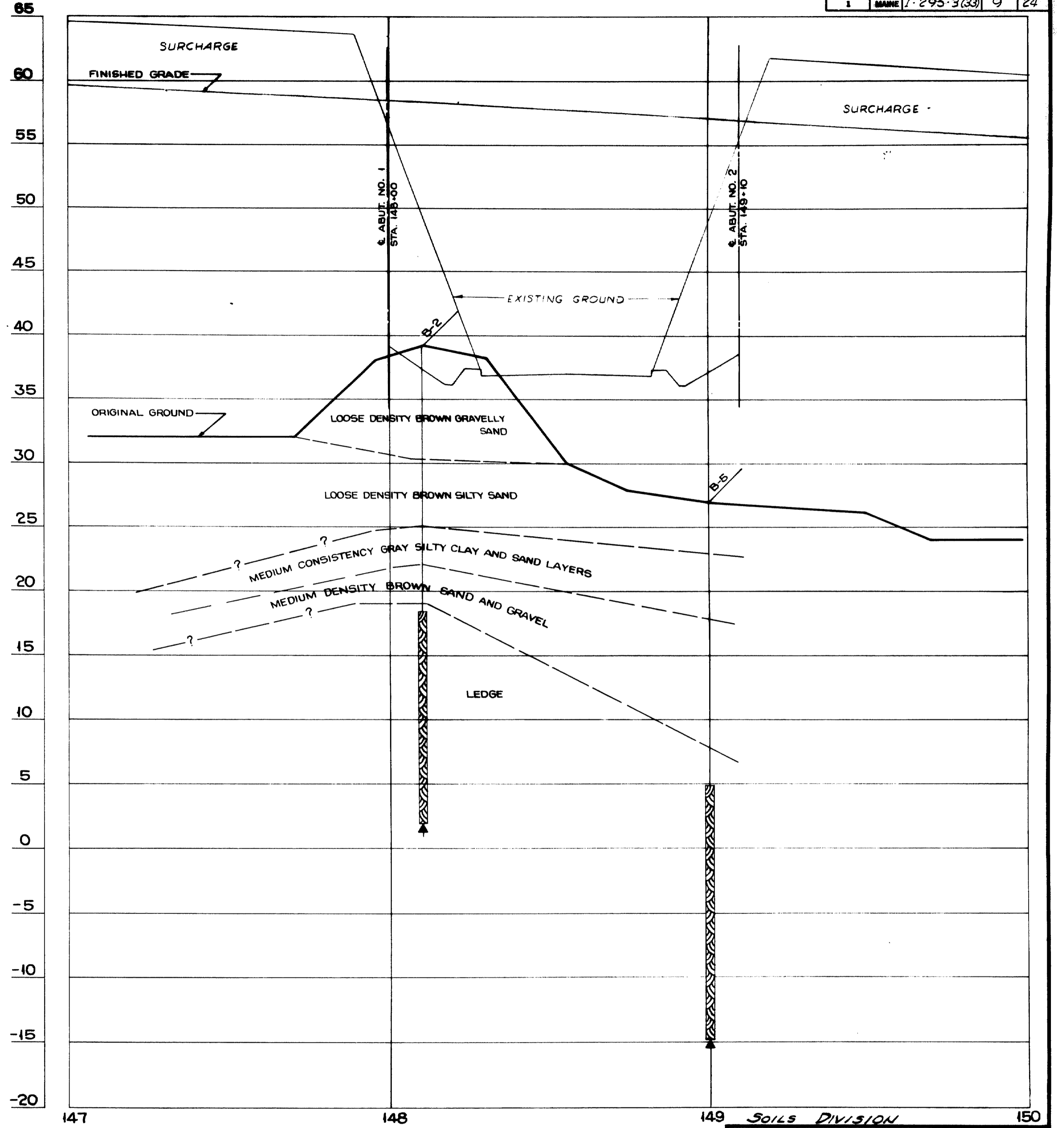
S.P.R. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(33)	9	24



**PLAN**  
SCALE: 1" = 20'



**TRANSVERSE SECTIONS**  
SCALE: 1" = 10' VERT.  
1" = 30' HORIZ.

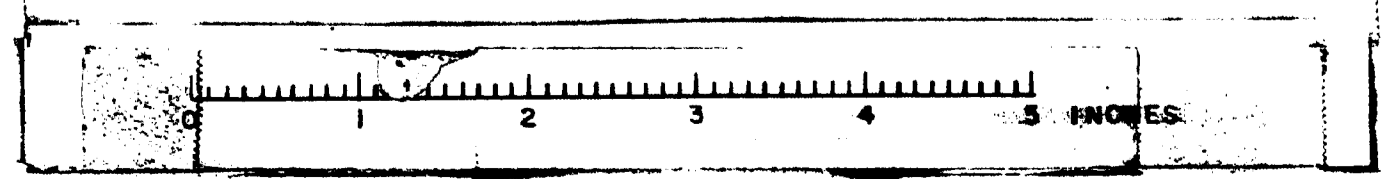


**PROFILE**  
SCALE: 1" = 5' VERT.  
1" = 20' HORIZ.

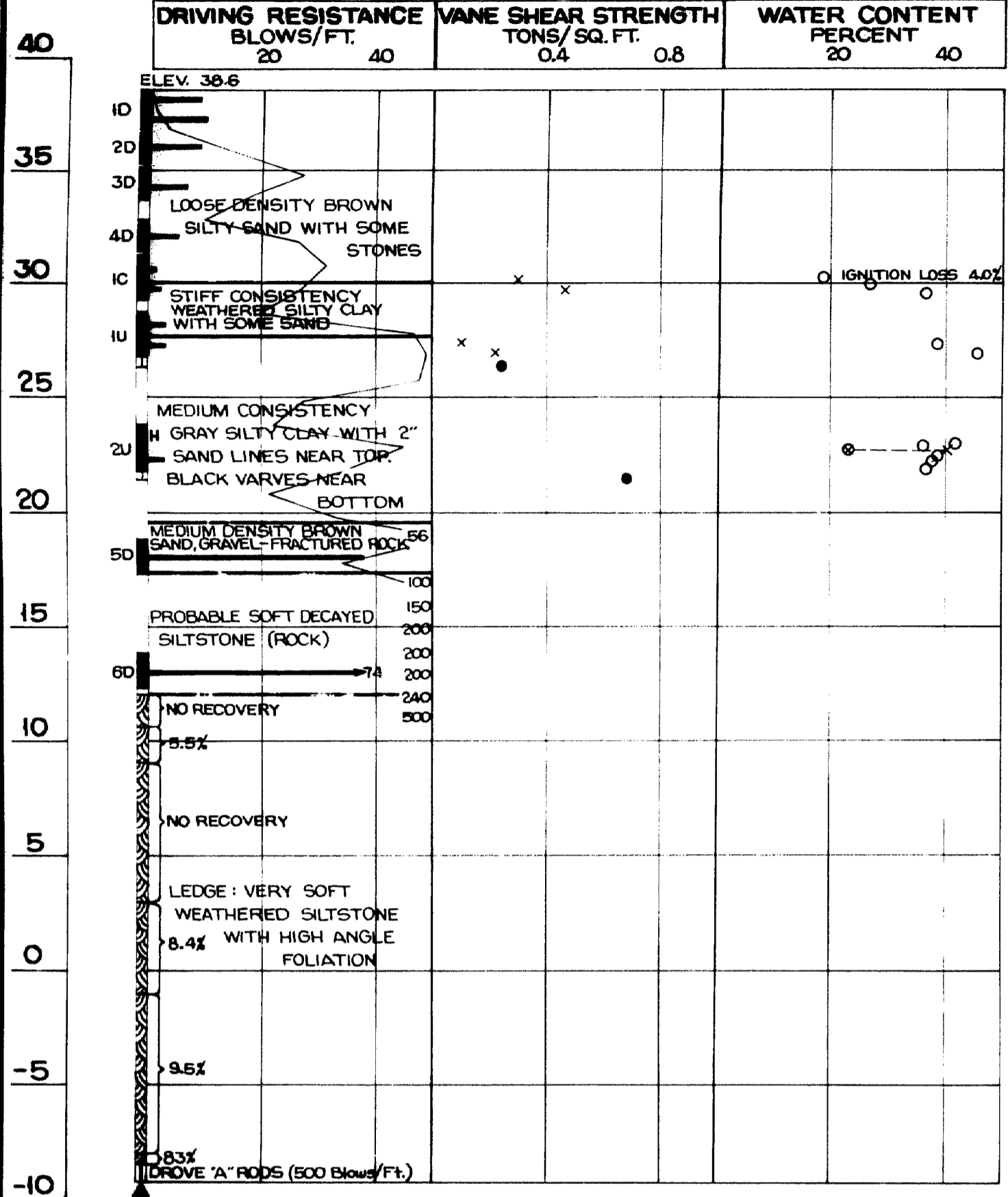
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
**INTERSTATE 295**  
OVER  
**WESTBROOK STREET**  
IN THE CITY OF  
**SOUTH PORTLAND**  
CUMBERLAND COUNTY  
FOUNDATION SURVEY

SHEET 2 OF 15 AUGUSTA, MAINE SEP. 1966

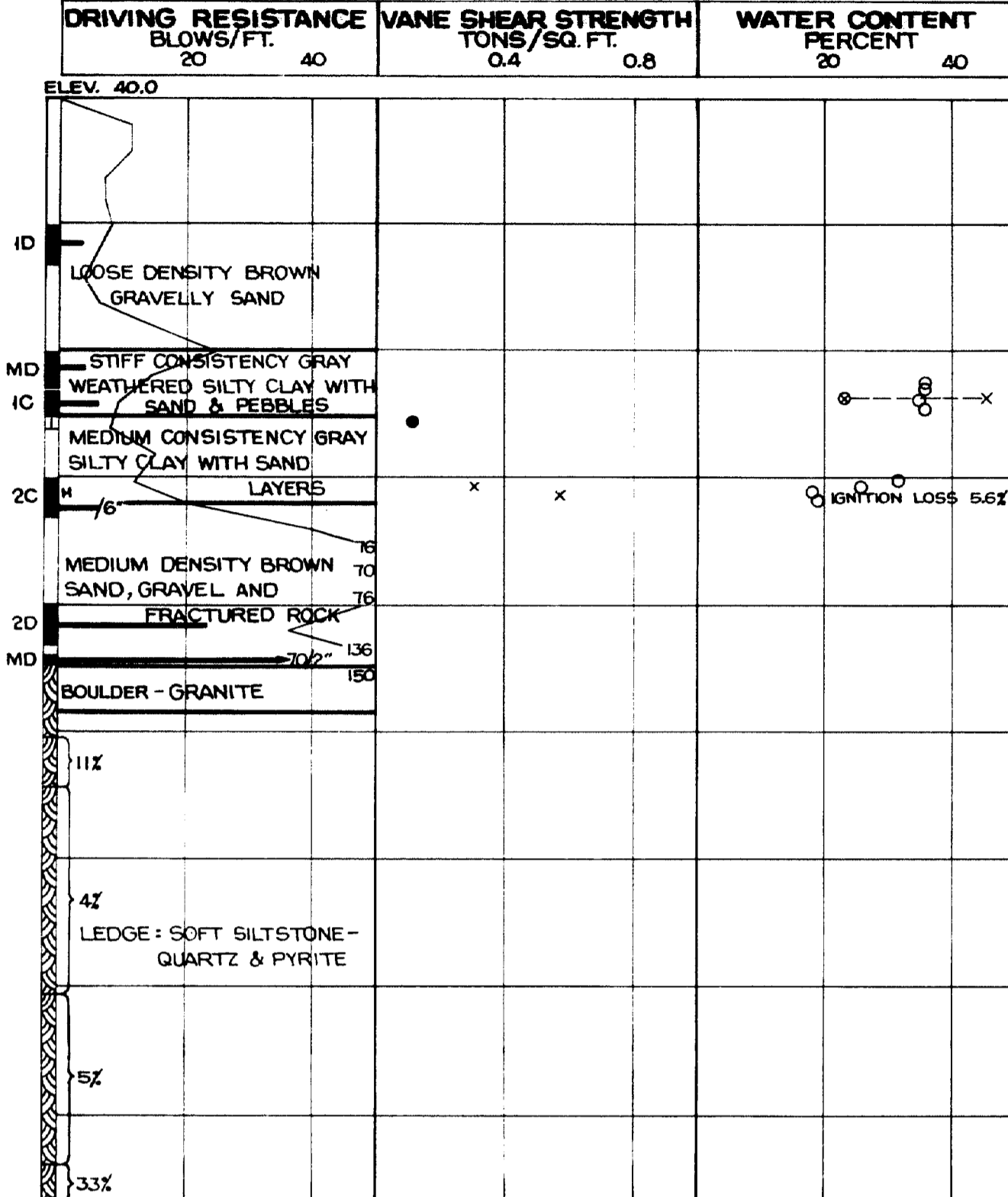
104-63 SOUTH PORTLAND



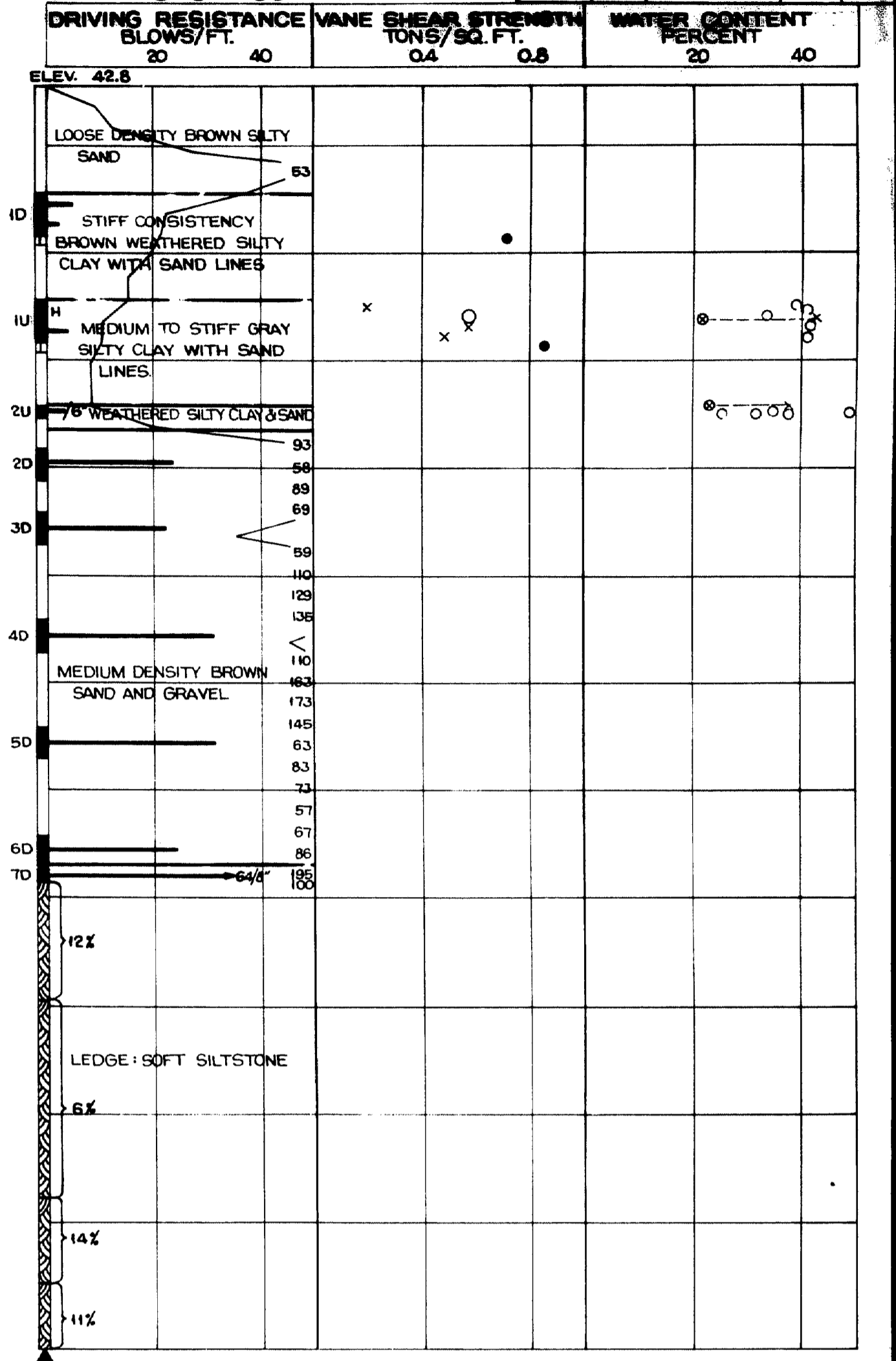
**BORING B-1 (CT-61)**  
STA. 148+13 65' LT.



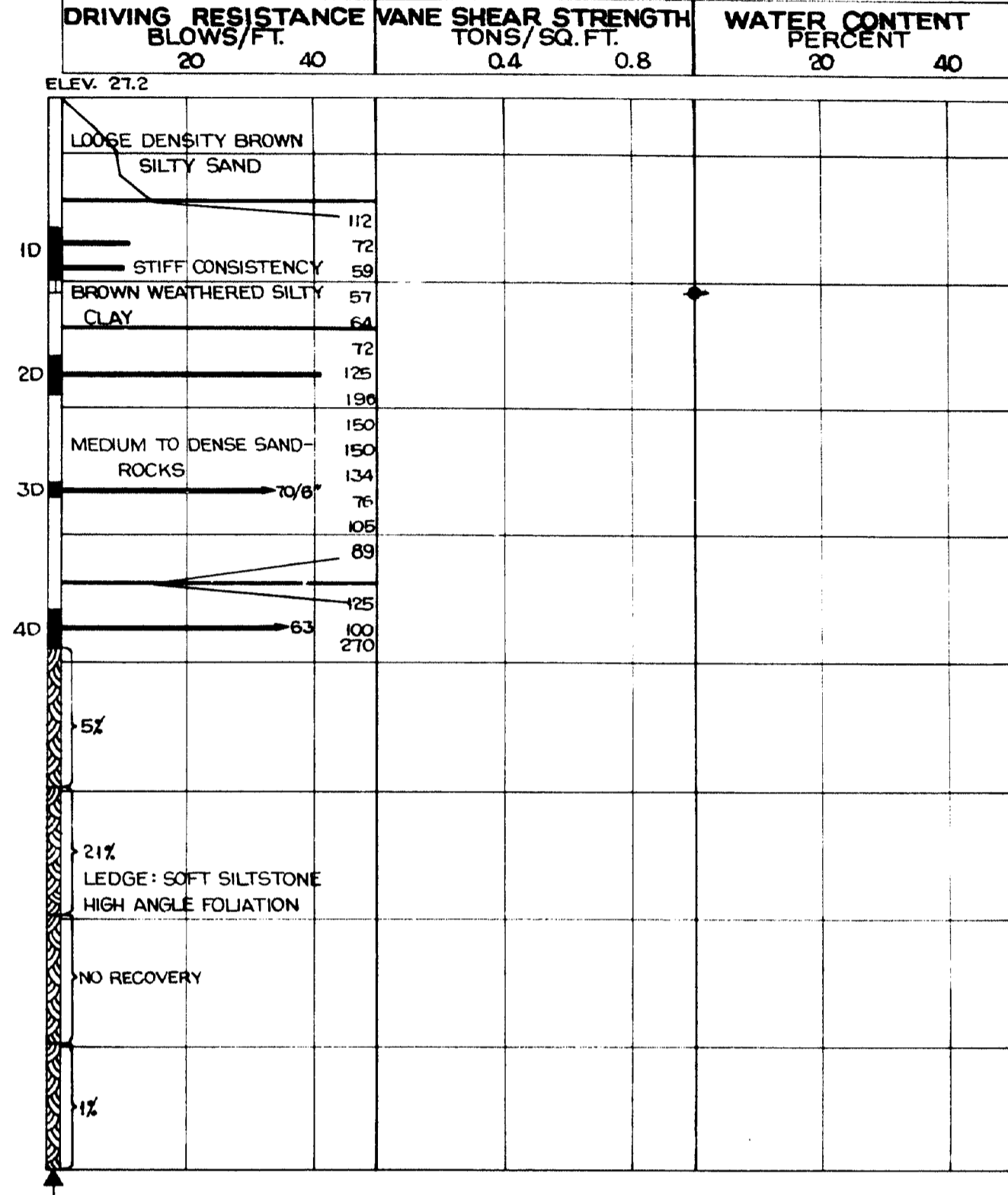
**BORING B-3 (CT-63)**  
STA. 148+07 65' RT.



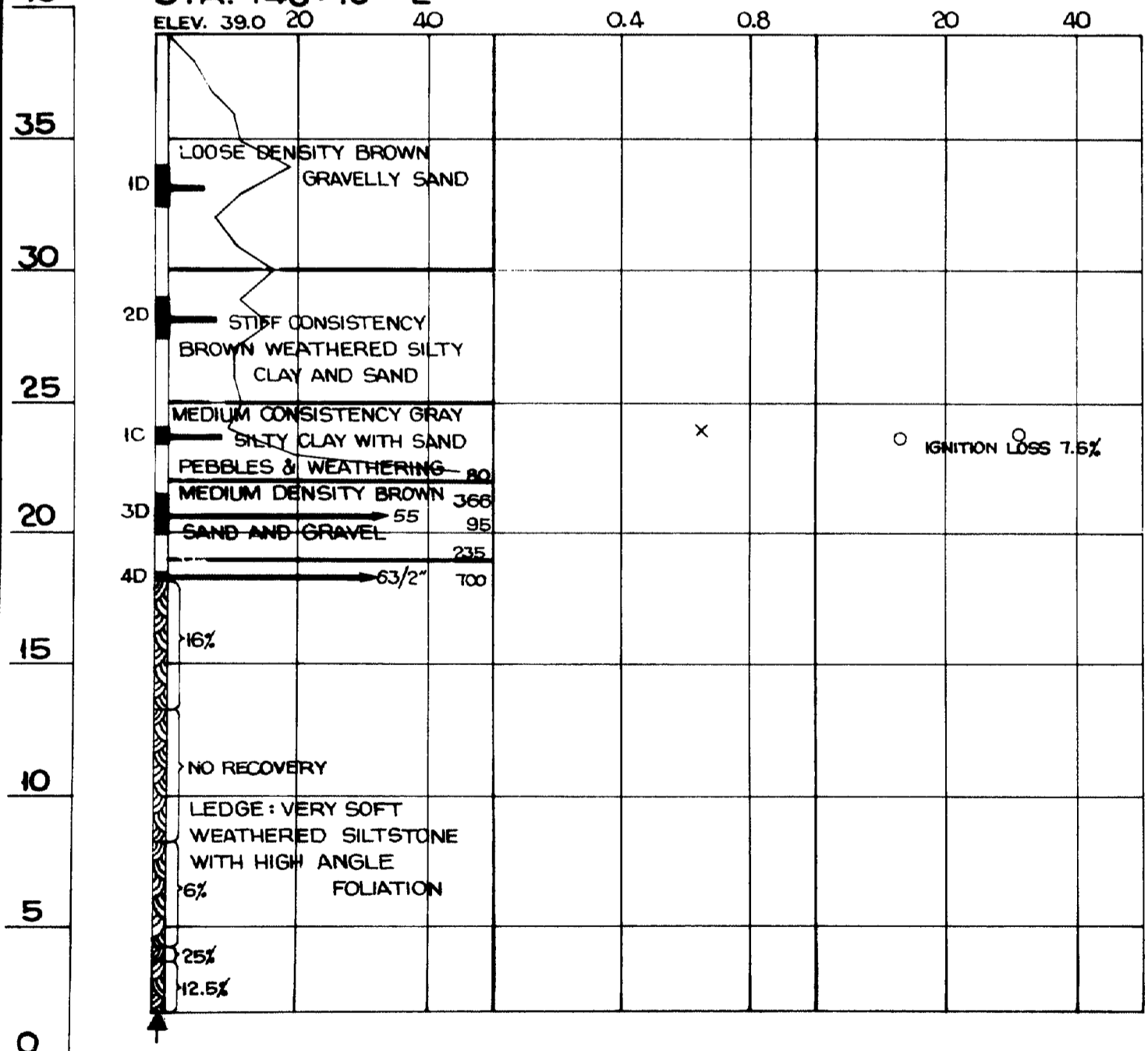
**BORING B-6 (CT-60)**  
STA. 148+97 63' RT.



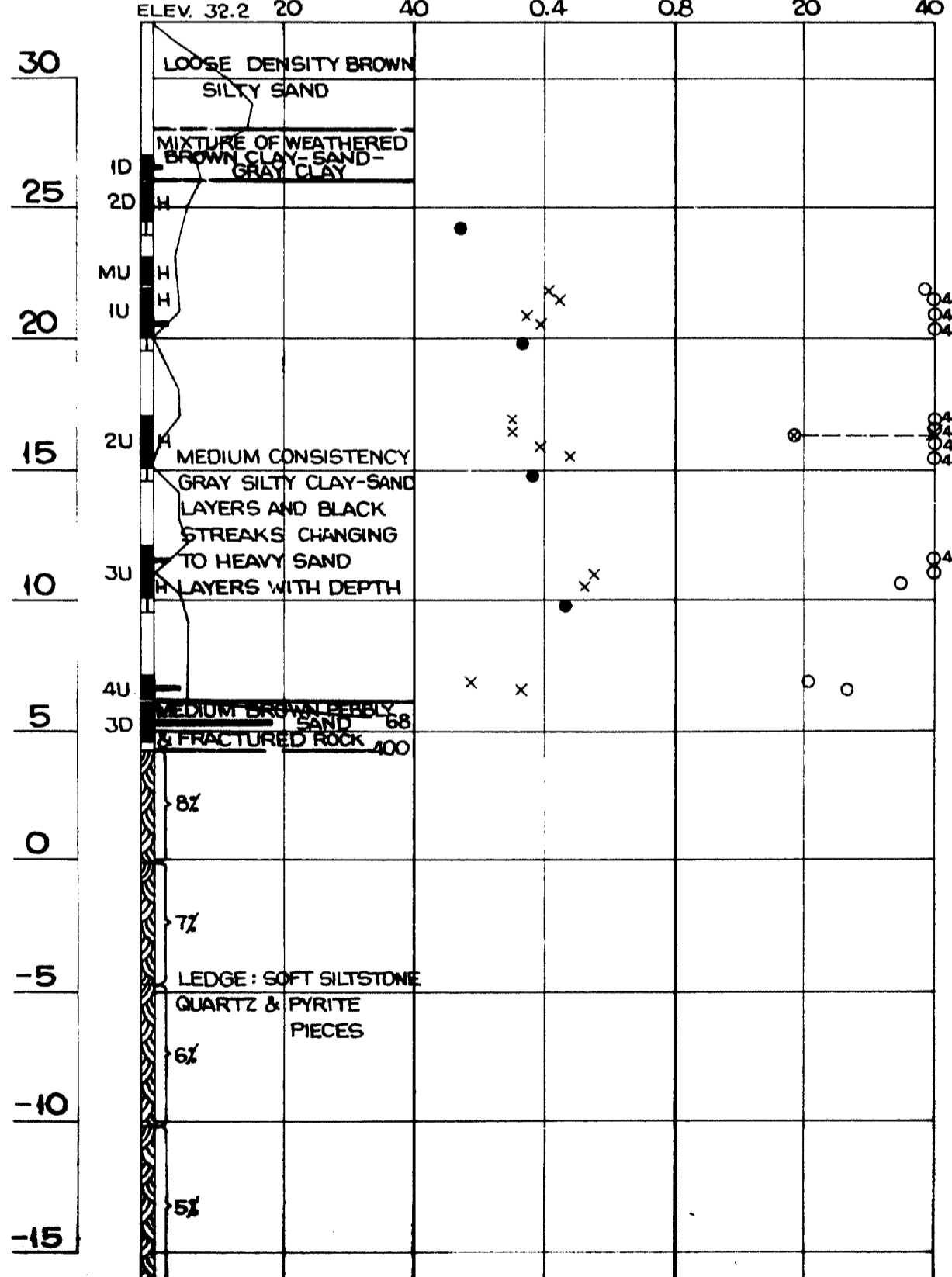
**BORING B-5 (CT-65)**  
STA. 149+00 C



**BORING B-2 (CT-62)**  
STA. 148+10 C



**BORING B-4 (CT-64)**  
STA. 149+03 65' LT.



**BORING NOTES**

- ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING
- NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 FT. LBS. OF ENERGY PER BLOW.
- LOCATION OF SAMPLE OR SAMPLE ATTEMPT
- NUMBER AND TYPE OF DRY SAMPLE
- ID 5 & H SAMPLER #1290's
- IC 2" O.D. 16 GA. SEAMLESS TUBING
- IU 3 1/2" O.D. 16 GA. SEAMLESS TUBING
- MD UNSUCCESSFUL SAMPLE ATTEMPT AND TYPE OF SAMPLER
- NUMBER OF BLOWS REQUIRED TO DRIVE SPOON OR TUBING ONE FOOT WITH 350 FT. LBS. OF ENERGY PER BLOW
- SAMPLING SPOON OR SEAMLESS TUBING DRIVEN BY STATIC WEIGHT OF DRILL RODS AND HAMMER
- FIELD VANE TEST
- BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)
- LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

**SHEAR NOTES**

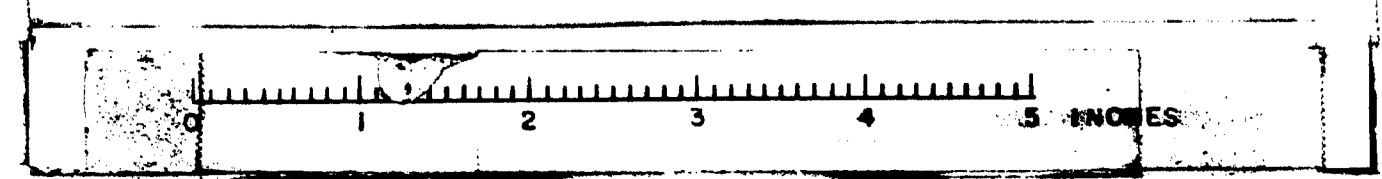
- FIELD VANE SHEAR STRENGTHS
- x LABORATORY VANE SHEAR STRENGTHS
- SHEAR STRENGTHS IN EXCESS OF CAPACITY OF EQUIPMENT
- o ONE HALF UNCONFINED COMPRESSIVE STRENGTHS

**WATER CONTENT NOTES**

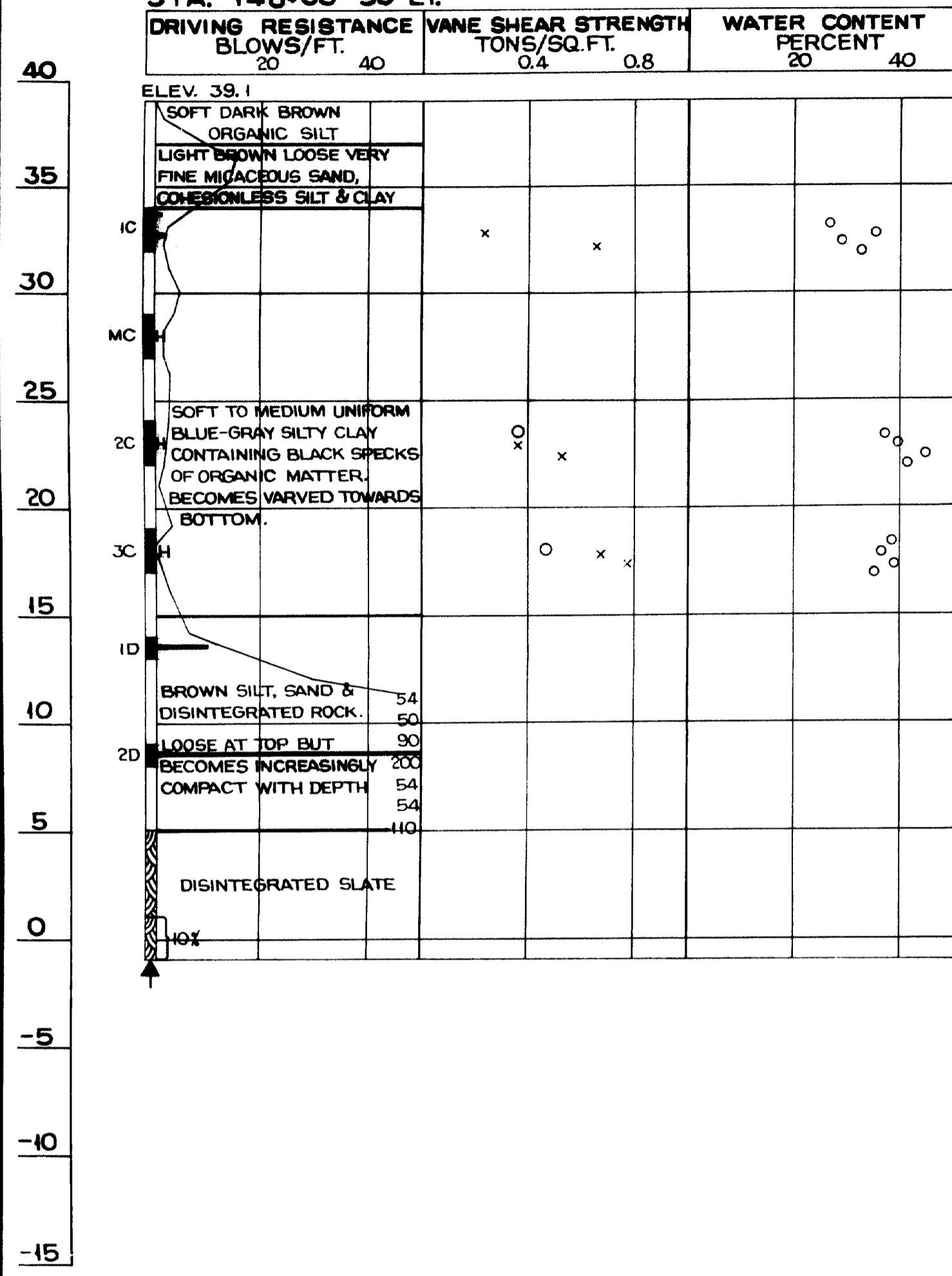
- o NATURAL WATER CONTENTS, GIVEN AS PER CENT OF DRY WEIGHT
- o-x PLASTIC AND LIQUID LIMITS
- o-x IGNITION LOSSES ARE GIVEN AS PER CENT OF DRY WEIGHT

DESIGN -	SOILS DIVISION	BRIDGE NO.	
TRACE -		SURVEY -	
CHECK -		PLOT -	
STATE HIGHWAY COMMISSION BRIDGE DIVISION			
<b>INTERSTATE 295</b> OVER <b>WESTBROOK STREET</b> IN THE CITY OF <b>SOUTH PORTLAND</b> <b>CUMBERLAND COUNTY</b> FOUNDATION SURVEY			
SHEET 3 OF 15 AUGUSTA, MAINE SEPT. 1966			

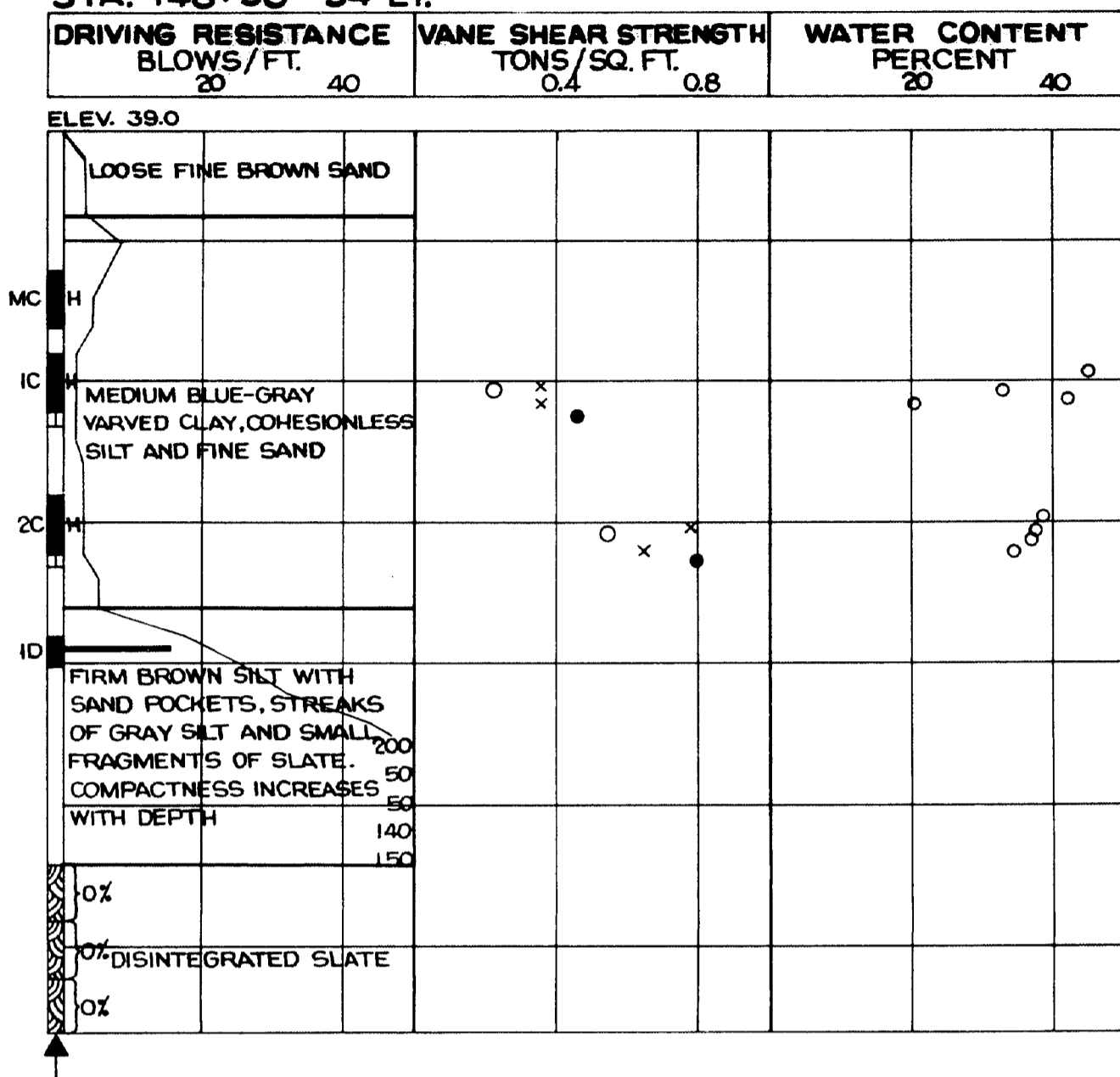
109-69 SOUTH PORTLAND



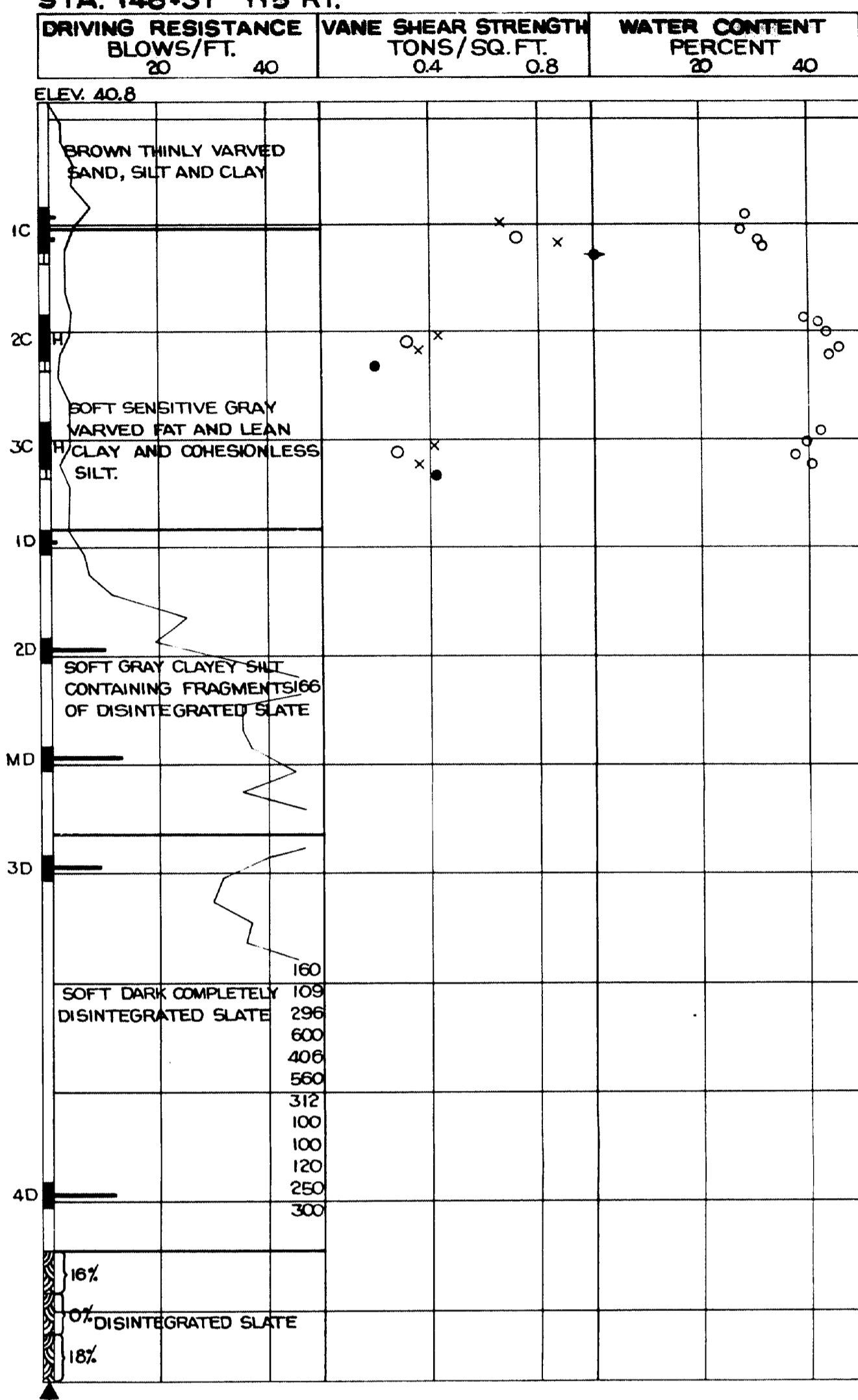
**BORING NO. 1**  
STA. 148+03 90' LT.



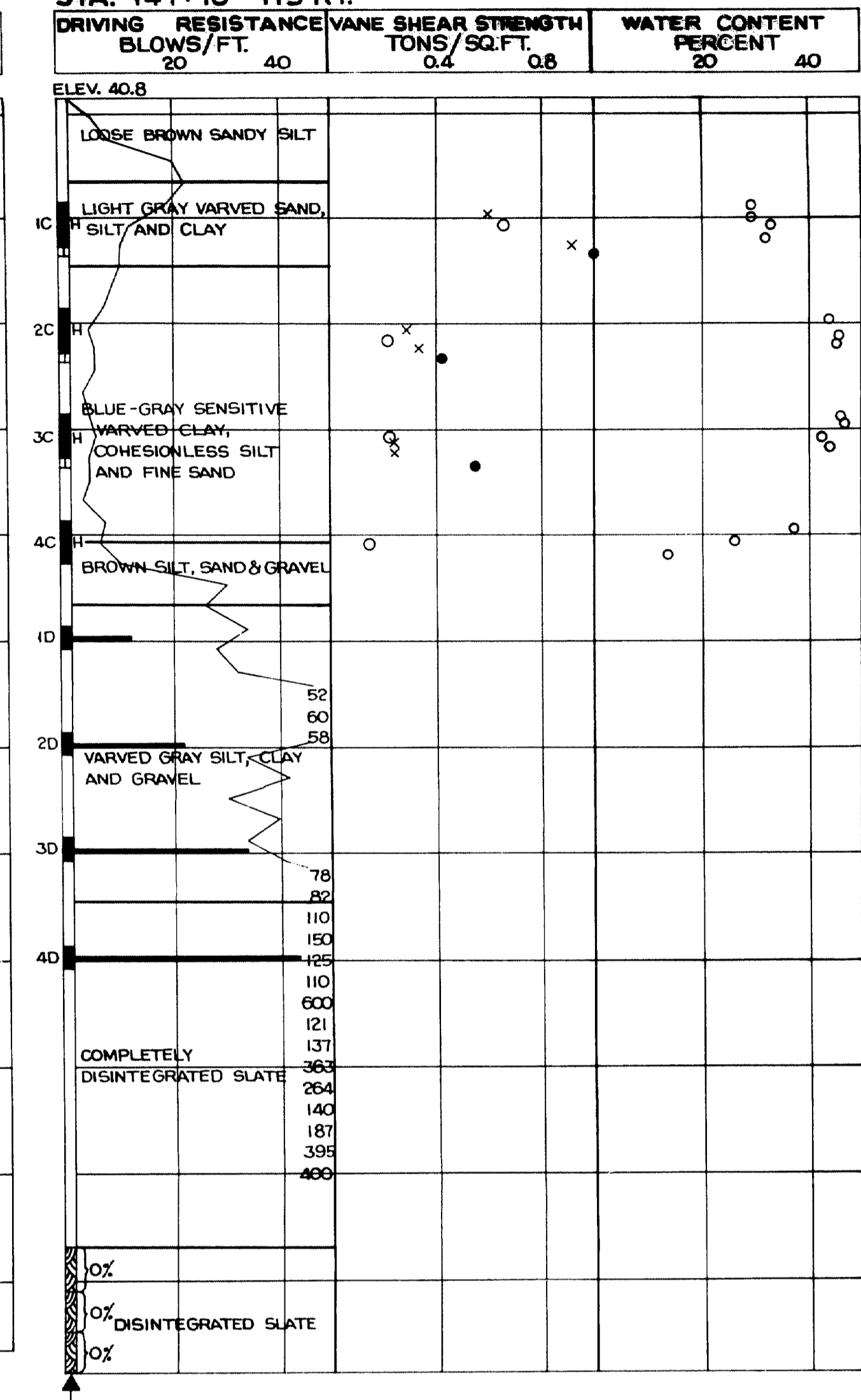
**BORING NO. 2**  
STA. 148+58 94' LT.



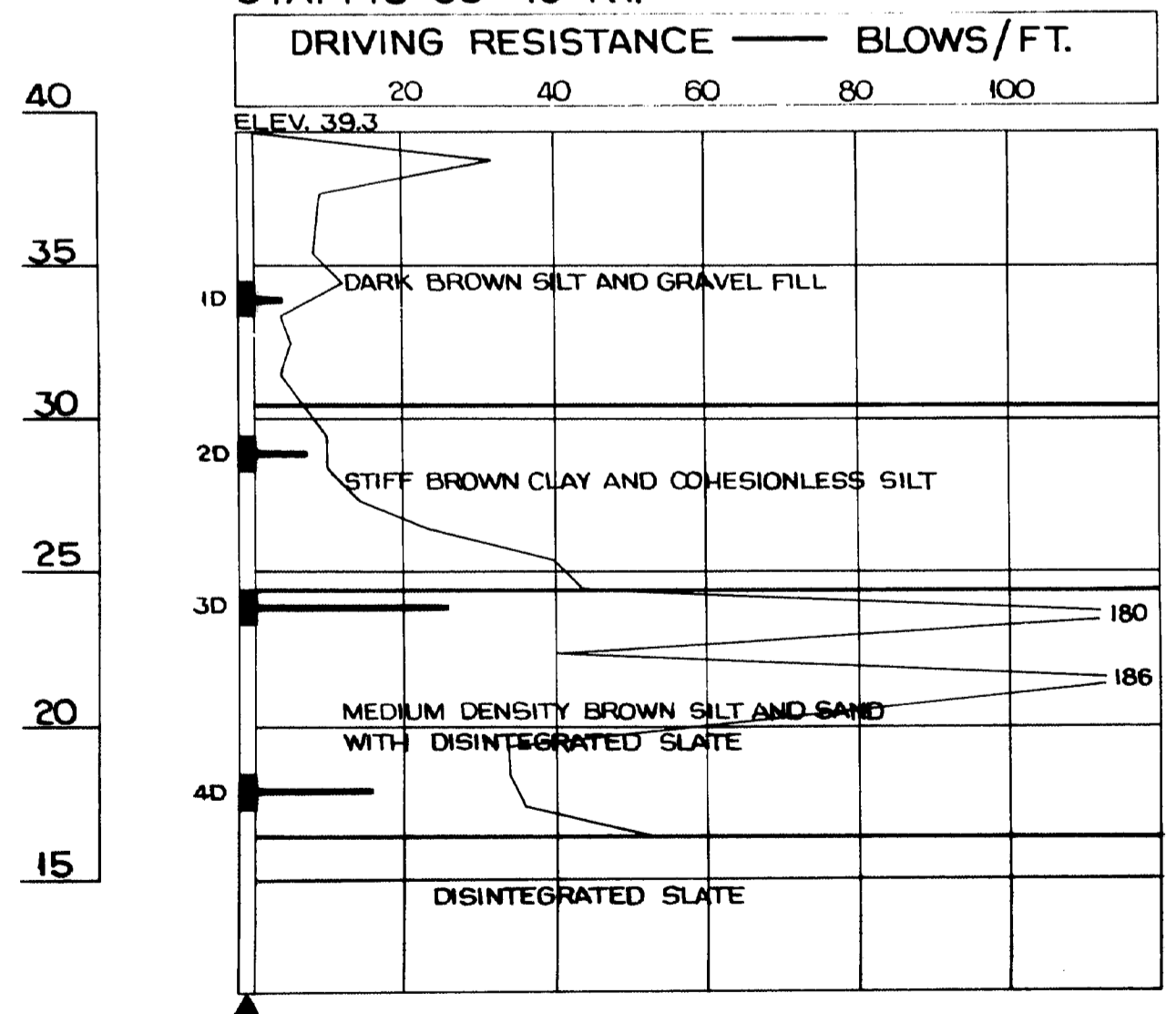
**BORING NO. 3**  
STA. 148+37 115' RT.



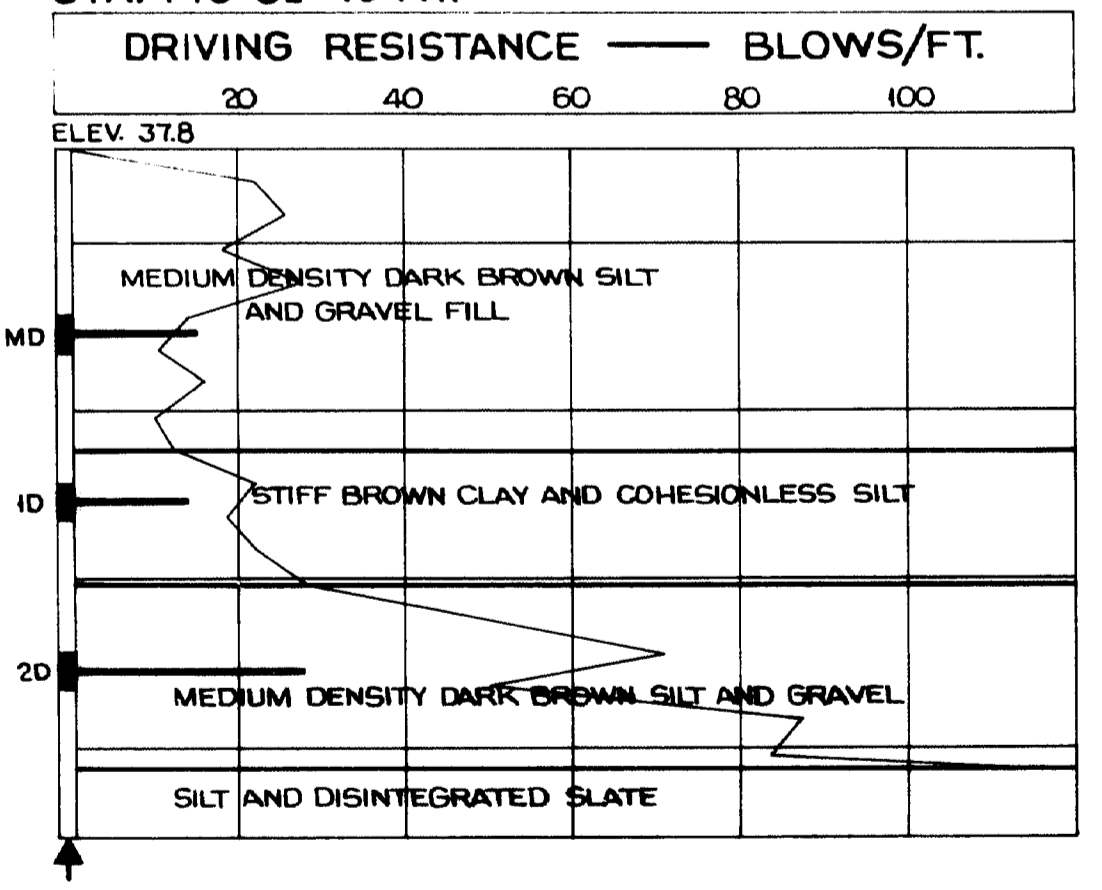
**BORING NO. 4**  
STA. 147+70 115' RT.



**BORING NO. 5**  
STA. 146+90 16' RT.



**BORING NO. 6**  
STA. 148+82 16' RT.



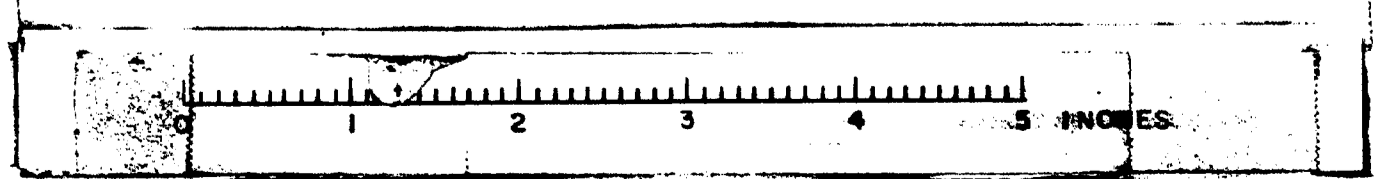
DESIGN— SOILS DIVISION BRIDGE NO. SURVEY— PLOT—

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

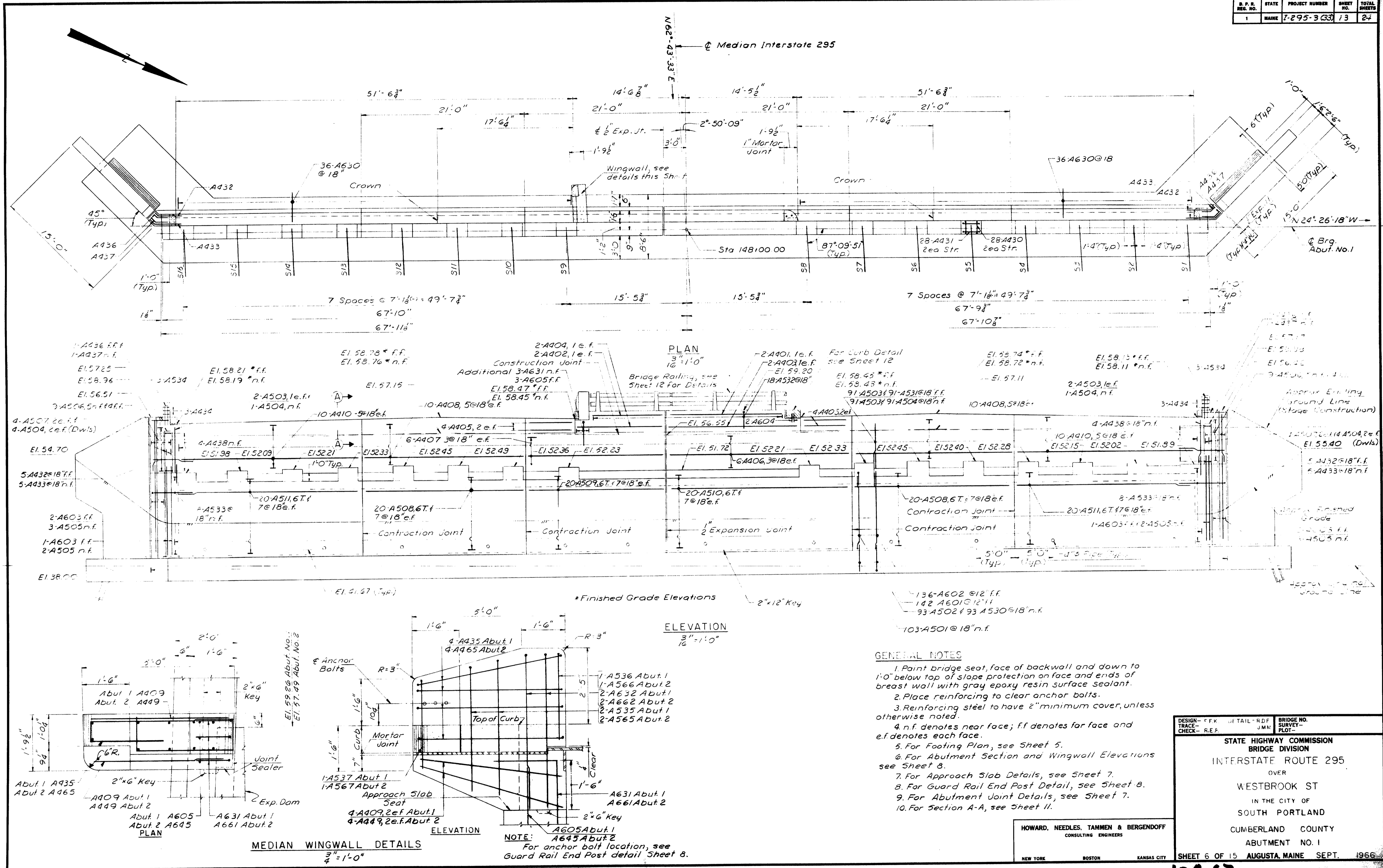
**INTERSTATE 295**  
OVER  
**WESTBROOK STREET**  
IN THE CITY OF  
**SOUTH PORTLAND**  
CUMBERLAND COUNTY  
FOUNDATION SURVEY

SHEET 4 OF 15 AUGUSTA, MAINE SEPT 1966

104-65 SOUTH PORTLAND







- GENERAL NOTES**
1. Point bridge seat, face of backwall and down to 1'-0" below top of slope protection on face and ends of breast wall with gray epoxy resin surface sealant.
  2. Place reinforcing to clear anchor bolts.
  3. Reinforcing steel to have 2" minimum cover, unless otherwise noted.
  4. n.f. denotes near face; f.f. denotes far face and e.f. denotes each face.
  5. For Footing Plan, see Sheet 5.
  6. For Abutment Section and Wingwall Elevations see Sheet 8.
  7. For Approach Slab Details, see Sheet 7.
  8. For Guard Rail End Post Detail, see Sheet 8.
  9. For Abutment Joint Details, see Sheet 7.
  10. For Section A-A, see Sheet 11.

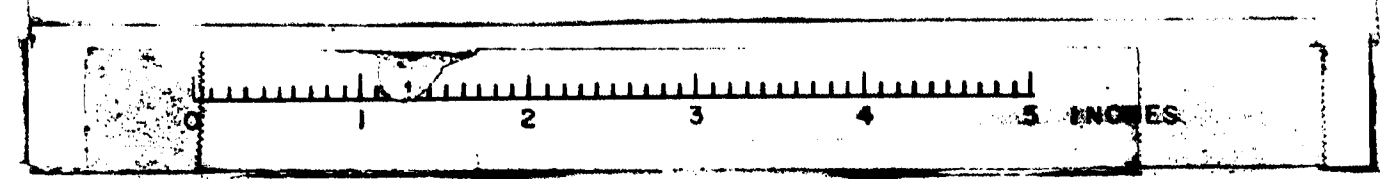
DESIGN - F.F.K.	DETAIL - R.D.F.	BRIDGE NO.
TRACE - R.E.F.	SURVEY - J.M.N.	104-67
CHECK - R.E.F.	PLOT -	

**STATE HIGHWAY COMMISSION**  
**BRIDGE DIVISION**  
**INTERSTATE ROUTE 295**  
 OVER  
**WESTBROOK ST**  
 IN THE CITY OF  
**SOUTH PORTLAND**  
 CUMBERLAND COUNTY  
**ABUTMENT NO. 1**

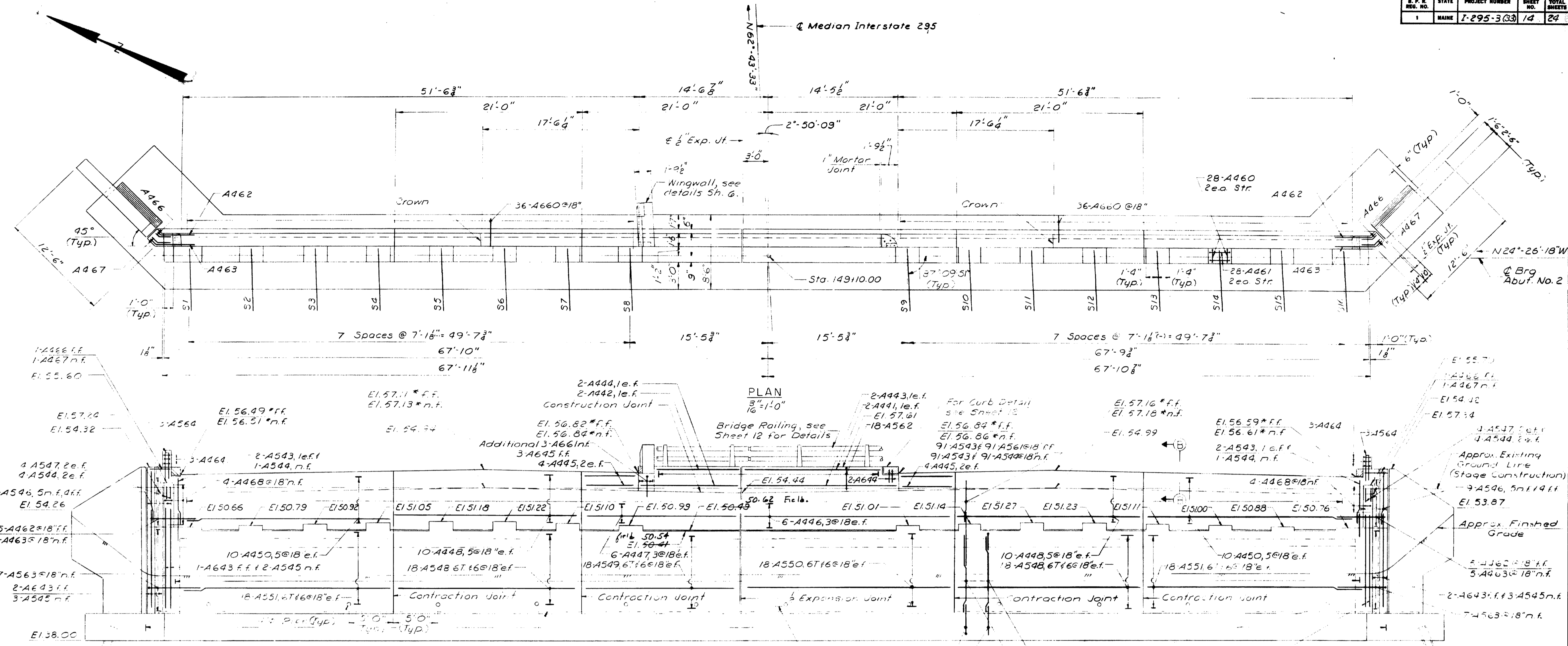
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 NEW YORK BOSTON KANSAS CITY  
 SHEET 6 OF 15 AUGUSTA, MAINE SEPT. 1966

**MEDIAN WINGWALL DETAILS**  
 $\frac{3}{4}'' = 1'-0''$

**NOTE:**  
 For anchor bolt location, see Guard Rail End Post detail Sheet 8.



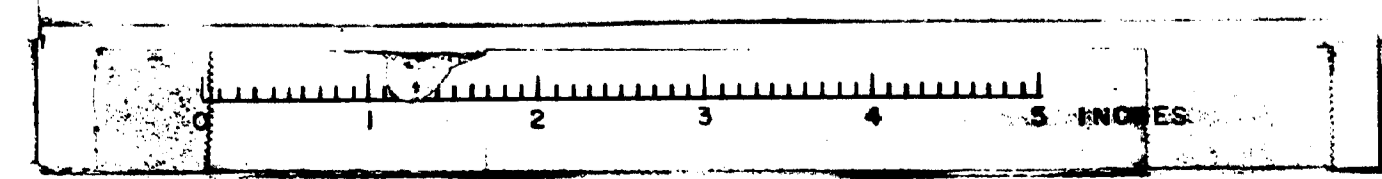
D.P. & REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(33)	14	24



- NOTES:**
- For general notes, see Sheet 3.
  - For Railing Plan, see Sheet 12.
  - For Wingwall Details, see Sheet 6.
  - For Section 7-5, see Sheet 11.

- NOTES:**
- Polyvinylchloride Waterstop shall conform to special provisions.
  - Above items shall be considered incidental to Item 502.21.

DESIGN - E.F.K.	DETAIL - R.D.F.	BRIDGE NO. SURVEY - J.M.M.
TRACE - C.H.F.	CHECK - R.E.F.	PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE ROUTE 295 OVER WESTBROOK ST. IN THE CITY OF SOUTH PORTLAND CUMBERLAND COUNTY ABUTMENT NO. 2		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS		NEW YORK BOSTON KANSAS CITY
SHEET 7 OF 15 AUGUSTA, MAINE SEPT. 1966		



104-68 SOUTH PORTLAND

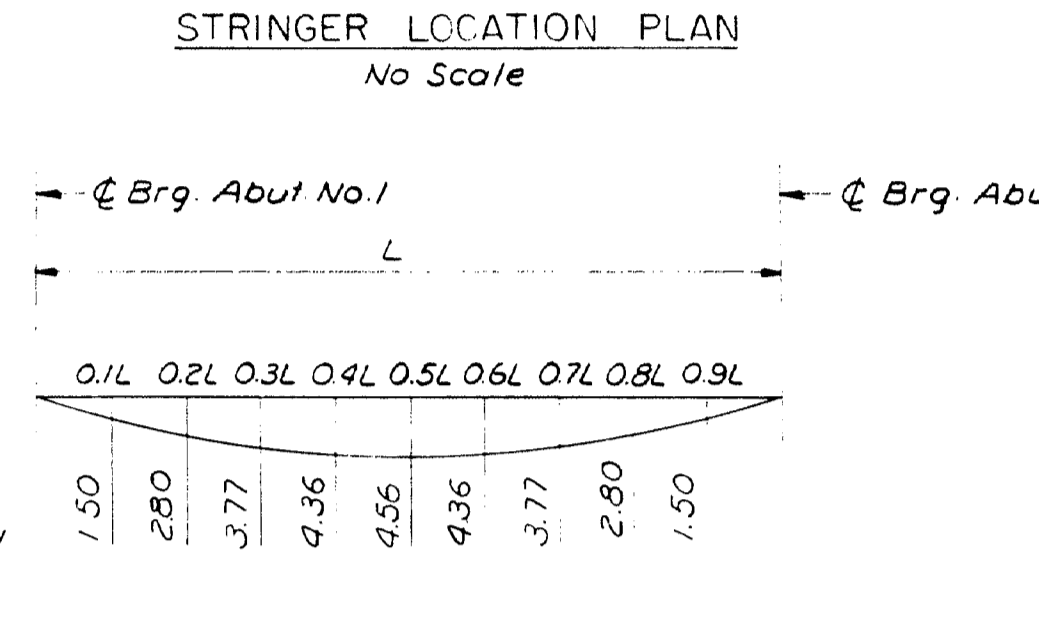
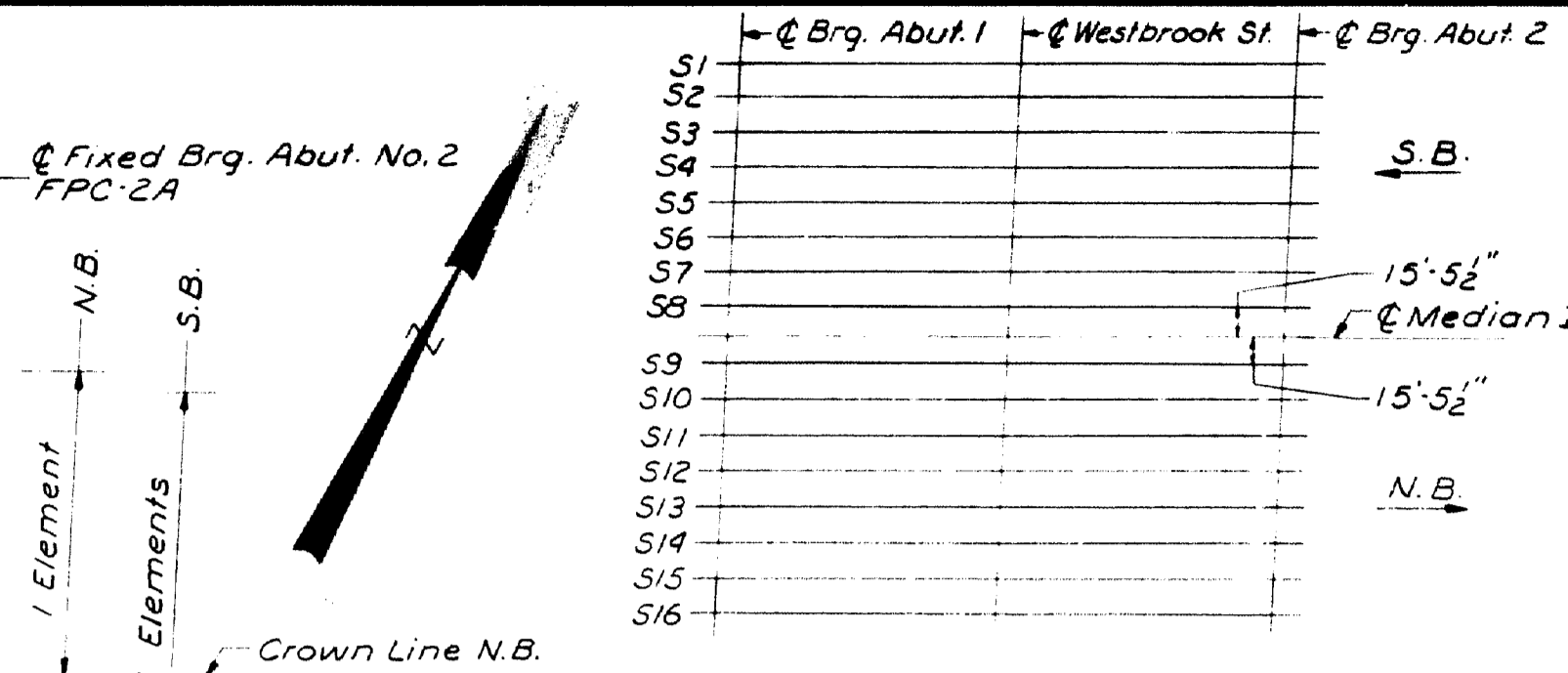
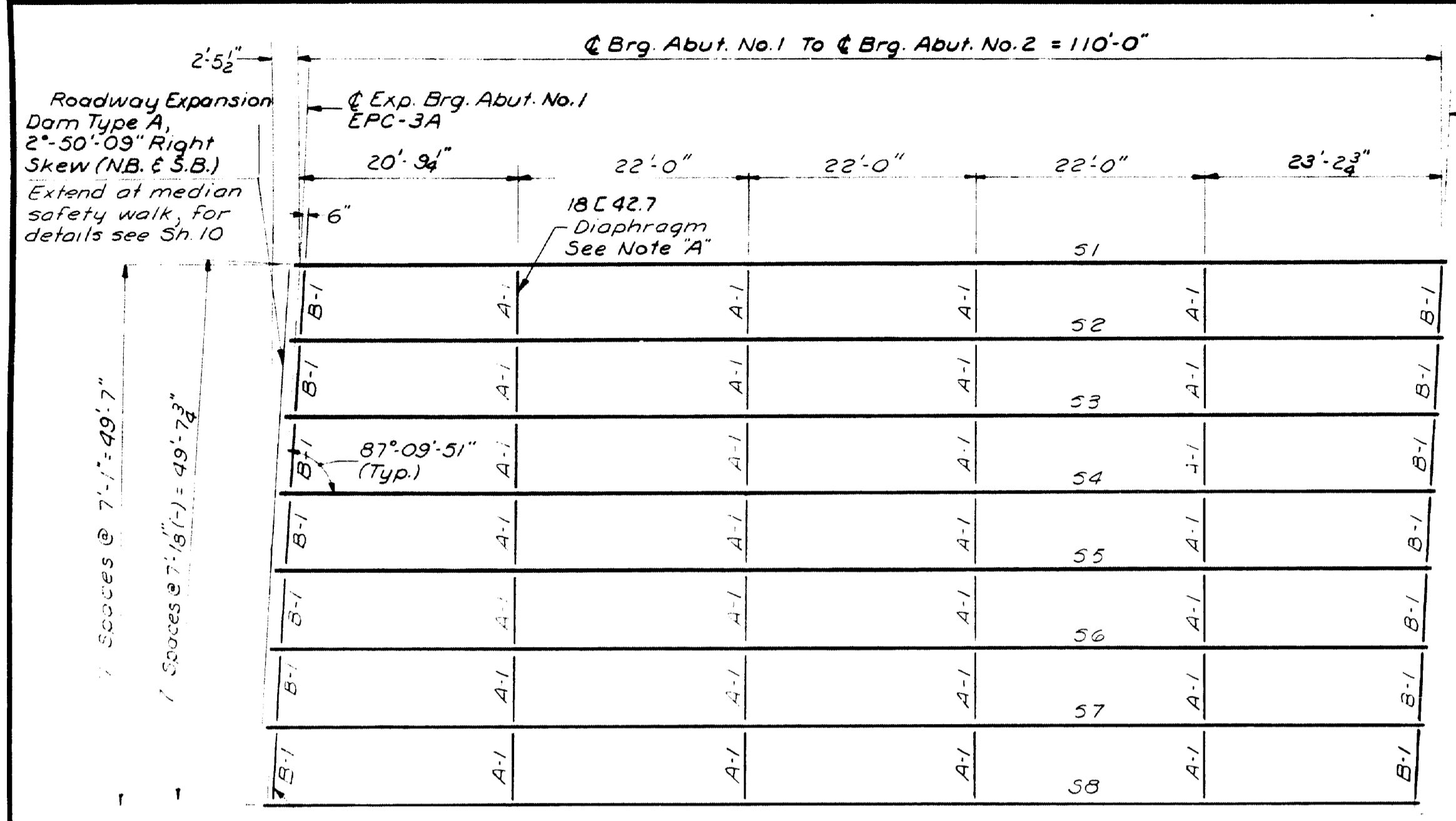


**REFERENCE**  
 Diaphragms - See Standard Details BD104-66 and Note "A" this sheet.  
 Pedestals - See Standard Details BD101-64 and Sh. 10.  
 Armored Joint - See Standard Details BD104-66 and Sheets 9 and 10.  
 Shear Connectors - See Standard Details BD104-66 and this sheet.  
 Expansion Dam - See Standard Details BD105-64 and Sh. 10.

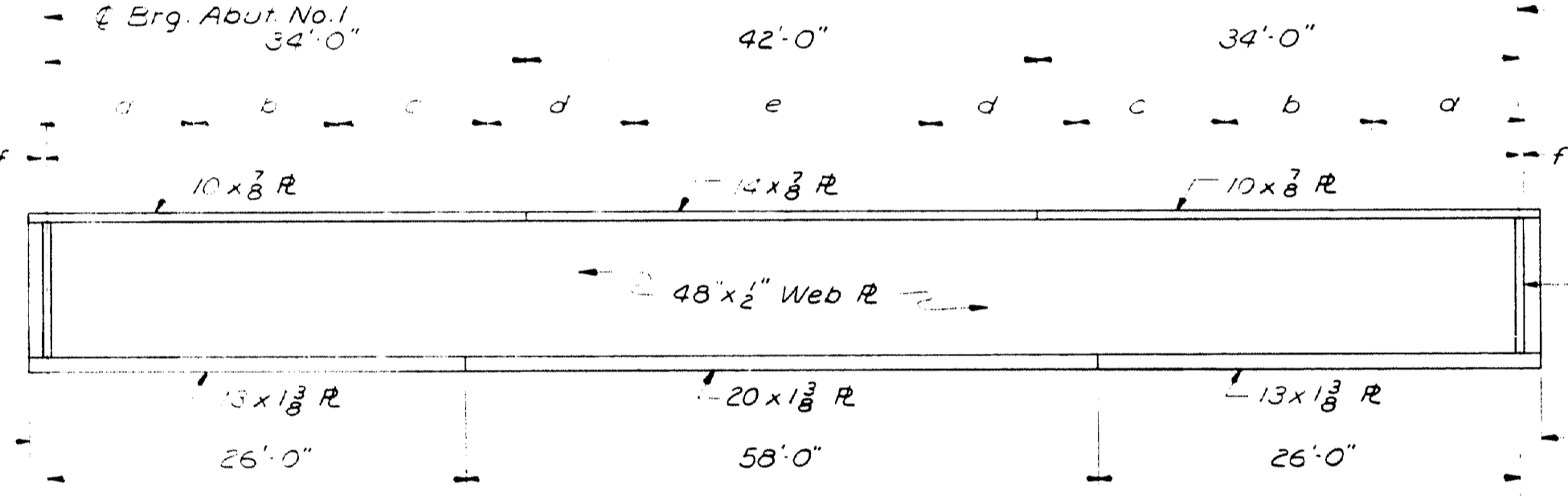
**SPECIFICATIONS**  
 Fabrication and Erection: State of Maine Standard Specifications, Highways and Bridges Revision of June 1965.  
 Design and Details: A.A.S.H.O. Standard Specifications for Highway Bridges of 1965.

Materials: Flanges and web for beams shall conform to A572 design or A-441. All other steel shall conform to A36 design or A-36. Unless otherwise noted on Standard Details.  
 Welding: Specifications for welded flange and flange to web connections shall conform to AWS D1.1 (AWS D1.1-66) as modified by Contract Specifications.

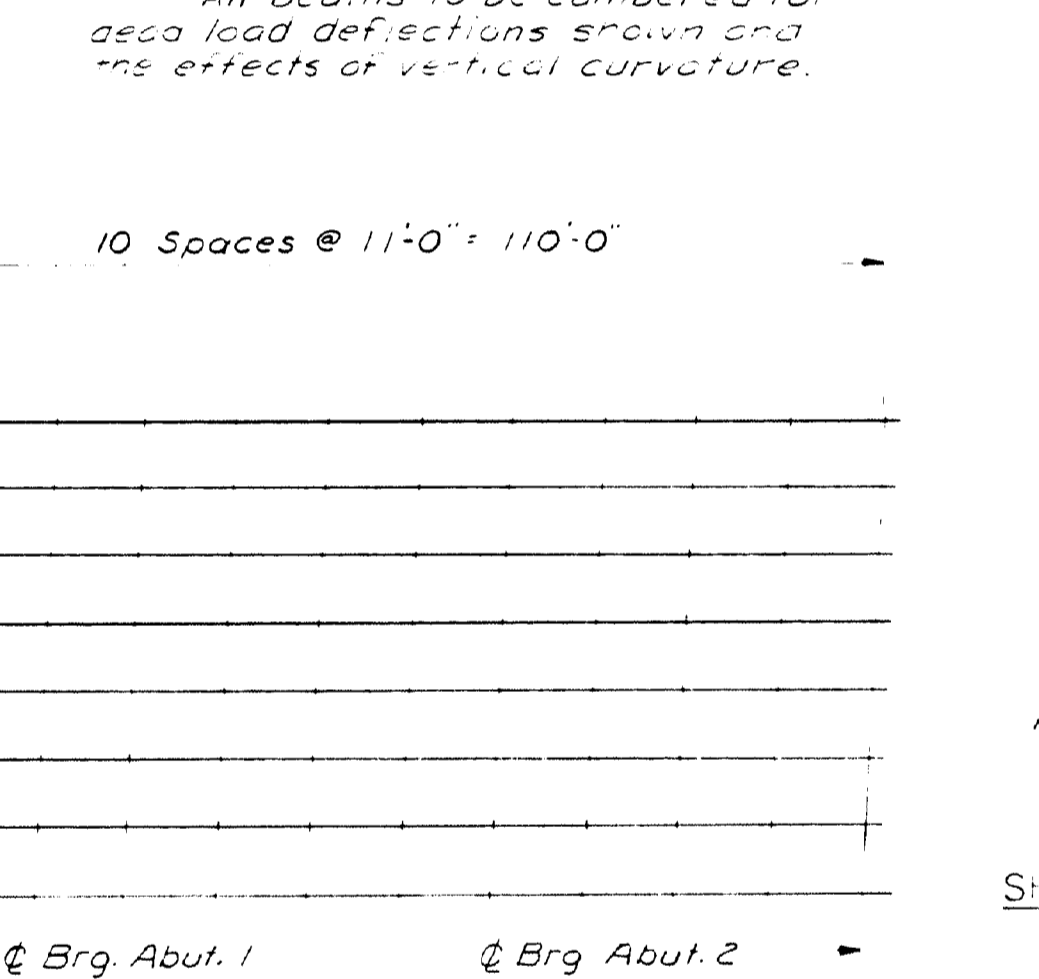
**NOTE "A" (STANDARD DIAPHRAGM MODIFICATION)**  
 The position of the diaphragm within the superstructure depth and the diaphragm connections shall conform to the Standard Details except as follows:  
 1. C = 3'-8"  
 2. N = 1/8" continuous fillet weld  
 3. Substitute proper dimensions for diaphragm depth when positioning intermediate diaphragm.  
 4. Connection R for end diaphragm:  
 a. 6"x2" @ Abut. No. 1  
 b. Brg. Stiffeners @ Abut. No. 2



**PEDESTALS**  
 EPC-3A 16 Required  
 EPC-2A 16 Required



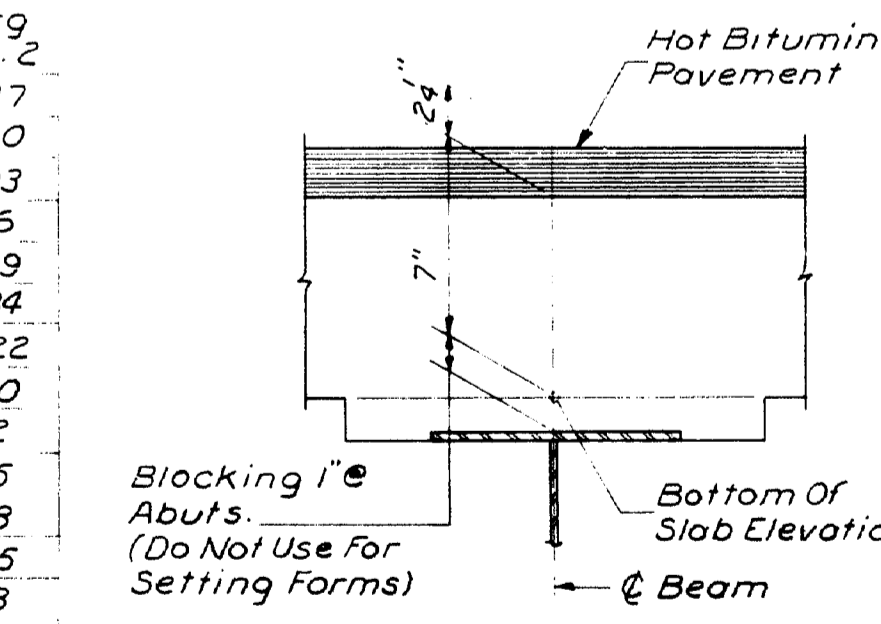
**CAMBER NOTE:**  
 All beams to be cambered for dead load deflections shown and the effects of vertical curvature.



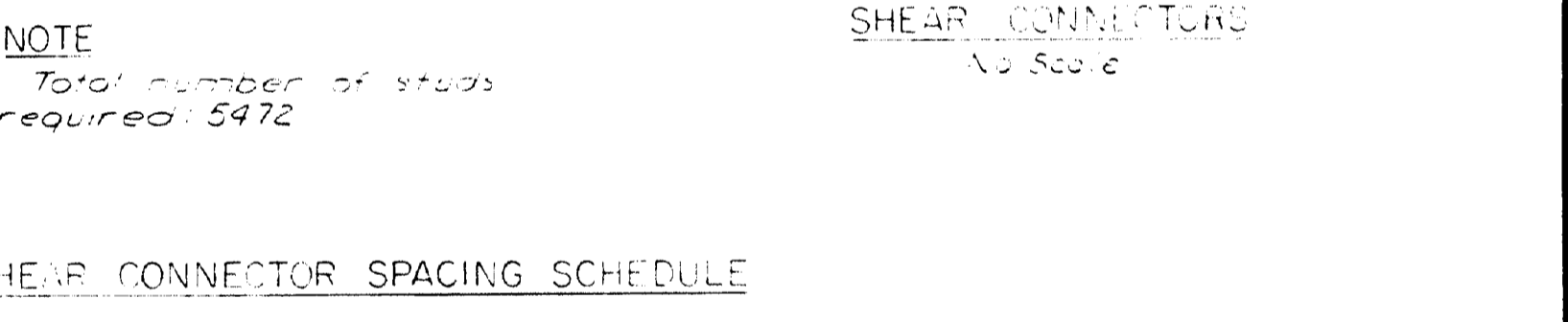
**NOTE**  
 All dimensions are horizontal.  
 For detail of flange plate transition see sheet 10.

**BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS**

	11'-0"	22'-0"	33'-0"	44'-0"	55'-0"	66'-0"	77'-0"	88'-0"	99'-0"	110'-0"
Line 1	57.34	57.32	57.28	57.22	57.11	56.97	56.80	56.59	56.34	56.07
Line 2	57.47	57.45	57.41	57.34	57.24	57.10	56.93	56.72	56.47	56.20
Line 3	57.60	57.58	57.54	57.47	57.37	57.23	57.06	56.85	56.60	56.33
Line 4	57.72	57.71	57.67	57.60	57.50	57.36	57.19	56.97	56.73	56.45
Line 5	57.85	57.83	57.80	57.73	57.63	57.49	57.31	57.10	56.86	56.58
Line 6	57.90	57.88	57.84	57.77	57.67	57.53	57.36	57.15	56.90	56.63
Line 7	57.78	57.76	57.72	57.65	57.55	57.41	57.24	57.03	56.79	56.51
Line 8	57.66	57.64	57.60	57.54	57.43	57.30	57.12	56.91	56.67	56.39
Line 9	57.68	57.66	57.62	57.56	57.46	57.32	57.14	56.93	56.69	56.42
Line 10	57.81	57.79	57.75	57.69	57.58	57.45	57.27	57.06	56.82	56.55
Line 11	57.94	57.92	57.88	57.81	57.71	57.57	57.40	57.19	56.95	56.67
Line 12	57.90	57.88	57.84	57.78	57.68	57.54	57.37	57.16	56.91	56.64
Line 13	57.78	57.76	57.73	57.66	57.56	57.42	57.25	57.04	56.79	56.52
Line 14	57.66	57.64	57.61	57.54	57.44	57.30	57.13	56.92	56.68	56.40
Line 15	57.54	57.53	57.49	57.42	57.32	57.18	57.01	56.80	56.56	56.28
Line 16	57.42	57.41	57.37	57.30	57.20	57.06	56.89	56.68	56.44	56.17

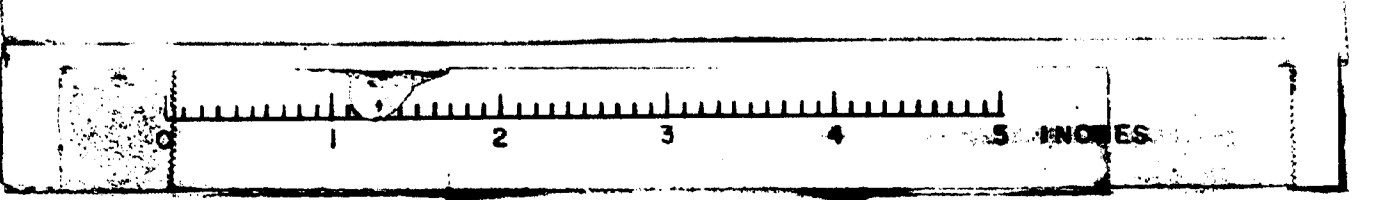


**NOTE**  
 To compensate for dead load deflections as well as possible irregularities in beams, set the bottom of slab elevations at the points indicated before any of the slab formwork is started. See Subsection 502.10a of the Standard Specifications, Revision of June 1965.



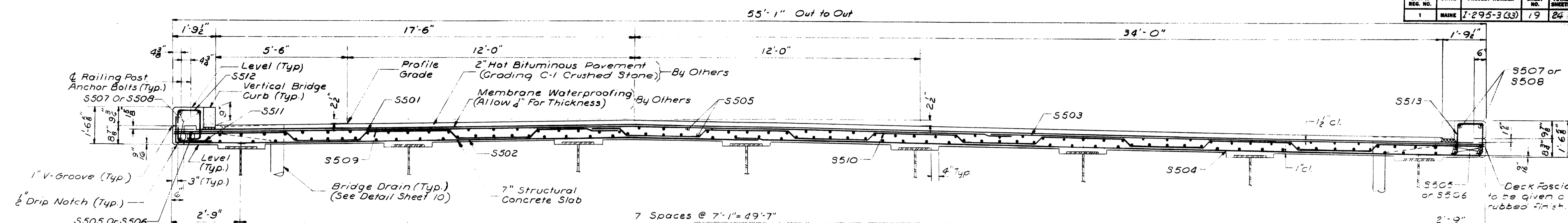
DESIGN - E.F.K.	DETAIL - R.D.F.	BRIDGE NO.
TRACE - S.M.	PLOT -	104-70
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE ROUTE 295		
OVER		
WESTBROOK ST.		
IN THE CITY OF		
SOUTH PORTLAND		
CUMBERLAND COUNTY		
STRUCTURAL STEEL & BLOCKING		
SHEET 9 OF 15 AUGUSTA, MAINE SEPT 1966		

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 NEW YORK BOSTON KANSAS CITY



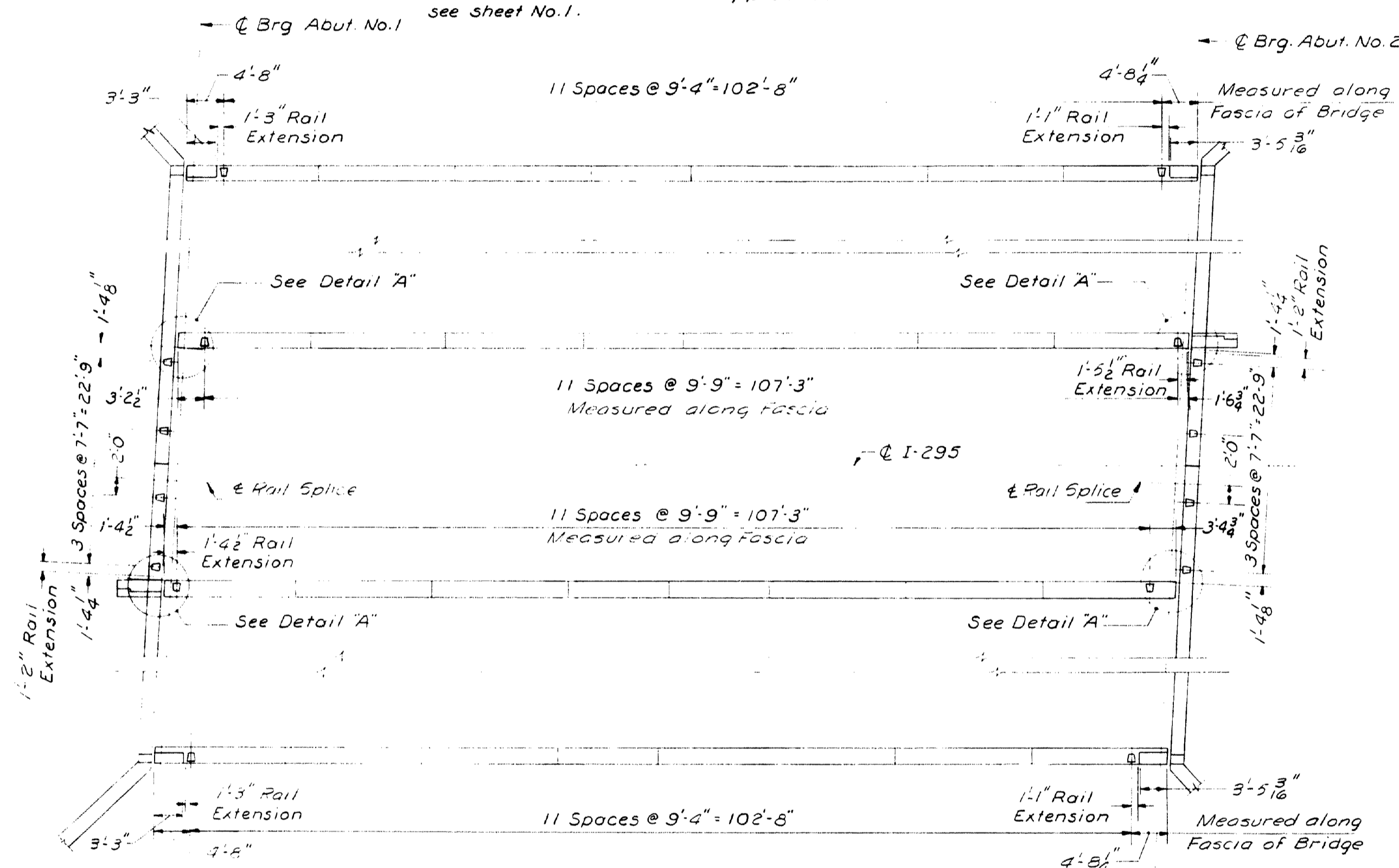




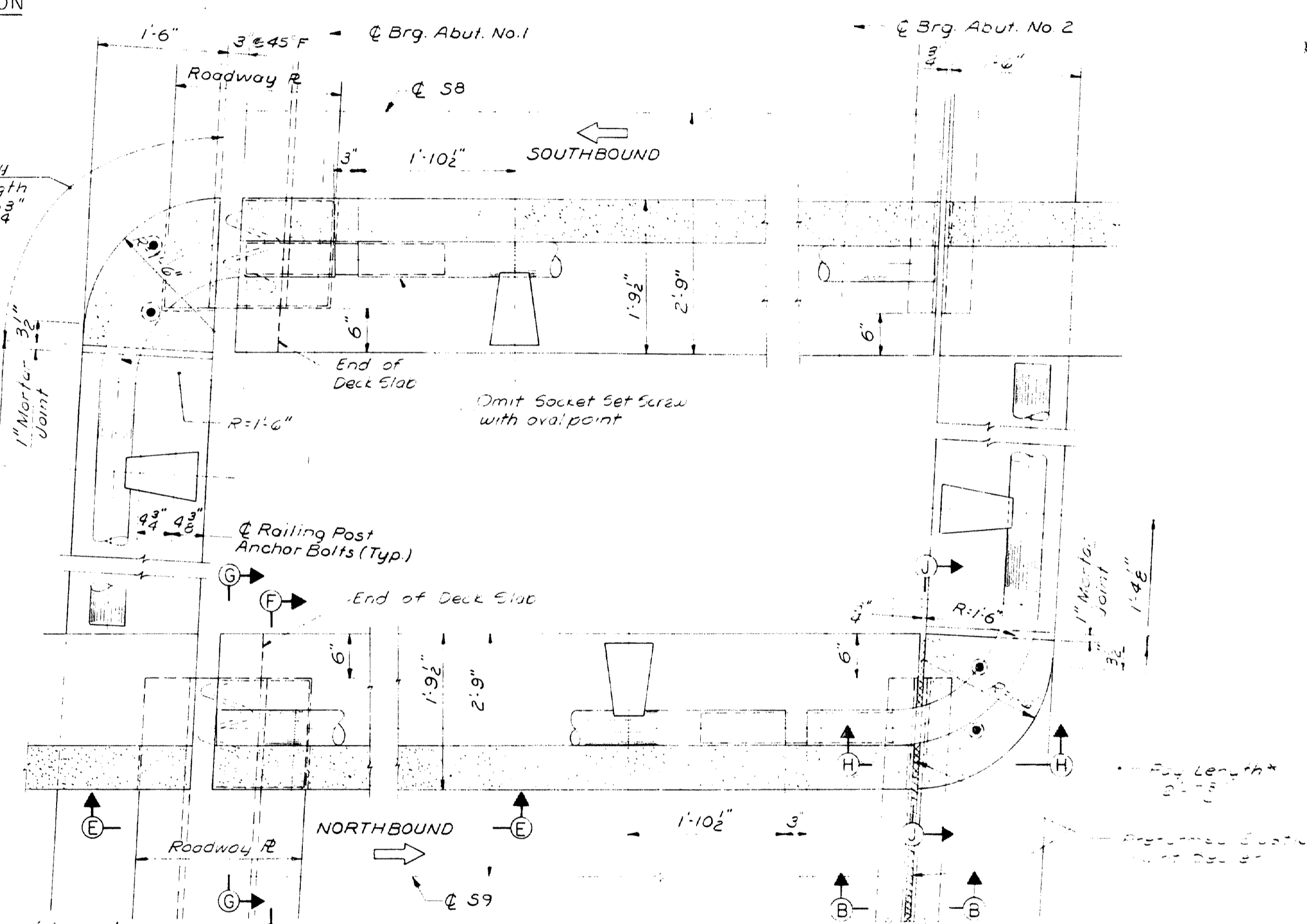


**BRIDGE DRAIN NOTES:**  
 1. Two bridge drains on each side of span  
 2. Drains shall be placed so they are at least 5'-0" clear of abutments; exact position to be determined in the field. For approximate locations see Sheet No. 1.

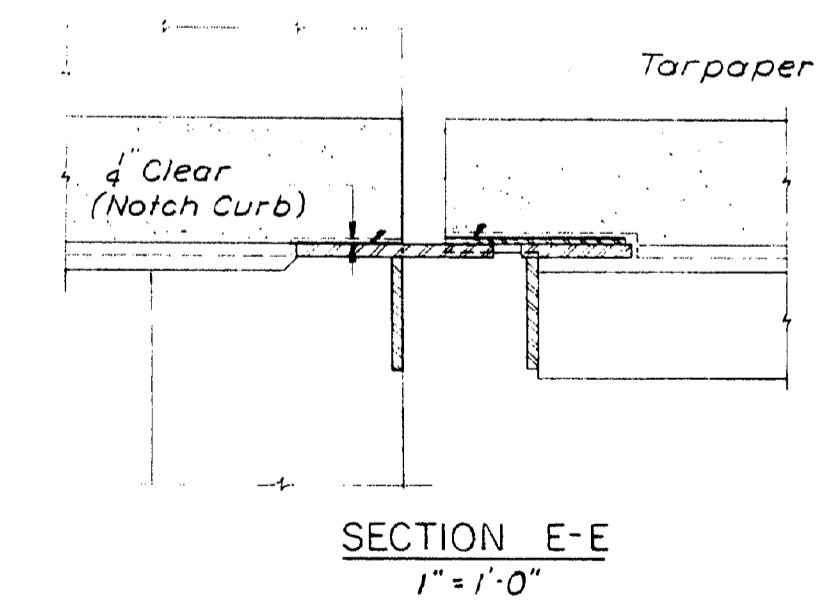
**TRANSVERSE SECTION**  
 1/2" = 1'-0"



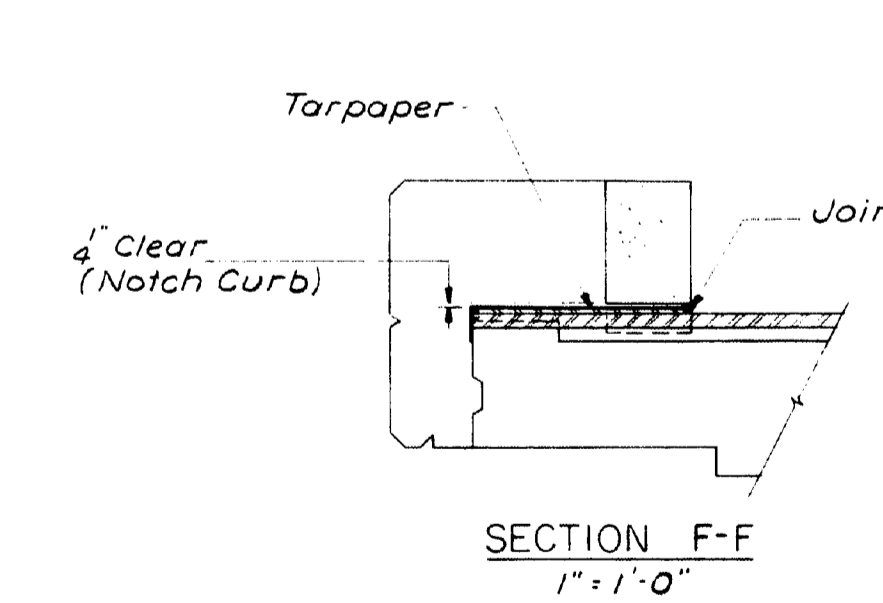
**RAILING LAYOUT**  
 1" = 10'



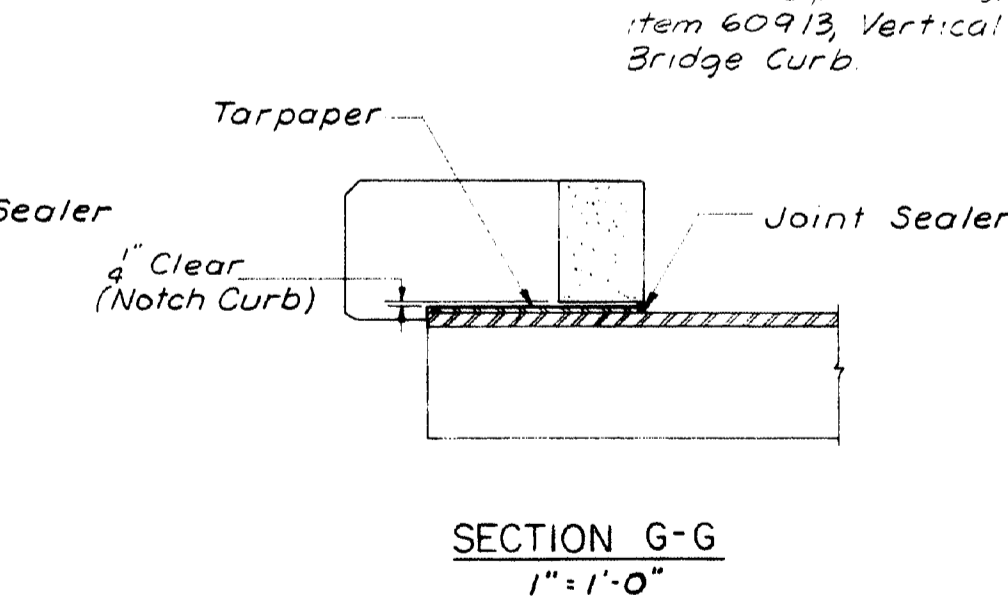
**NOTES:**  
 1. For Section B-B, see Sheet 11  
 2. For Section U-U, see Sheet 11



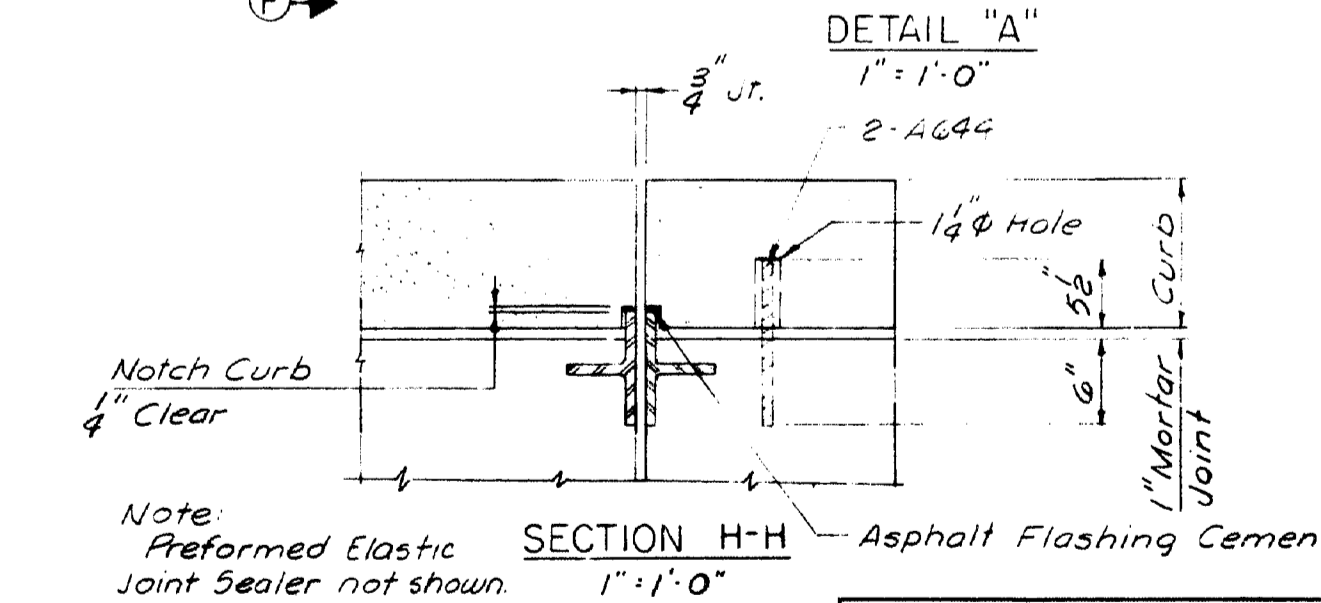
**SECTION E-E**  
 1" = 1'-0"



**SECTION F-F**  
 1" = 1'-0"



**SECTION G-G**  
 1" = 1'-0"

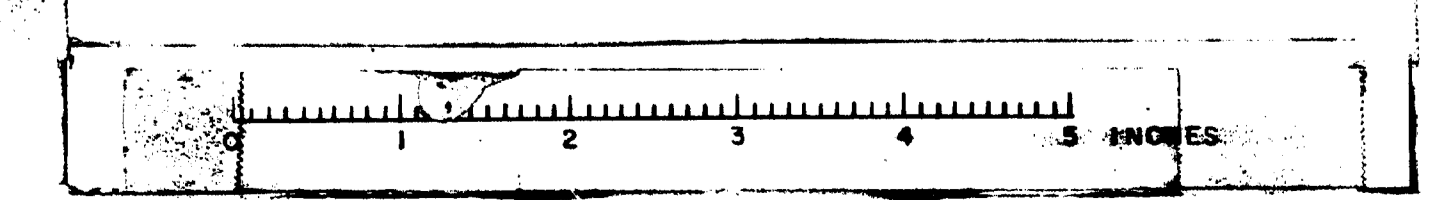


**SECTION H-H**  
 1" = 1'-0"

**DETAIL "A"**  
 1" = 1'-0"  
 2-A694

**HOWARD, NEEDLES, TAMMEN & BERGENDOFF**  
 CONSULTING ENGINEERS  
 NEW YORK BOSTON KANSAS CITY

DESIGN - E.F.K.	DETAIL - P.D.F.	BRIDGE NO.
TRACE		SURVEY
CHECK - S.M.		PLOT
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE ROUTE 295 OVER WESTBROOK ST. IN THE CITY OF SOUTH PORTLAND CUMBERLAND COUNTY SUPERSTRUCTURE DETAILS		
SHEET 12 OF 15		AUGUSTA, MAINE SEPT. 1966

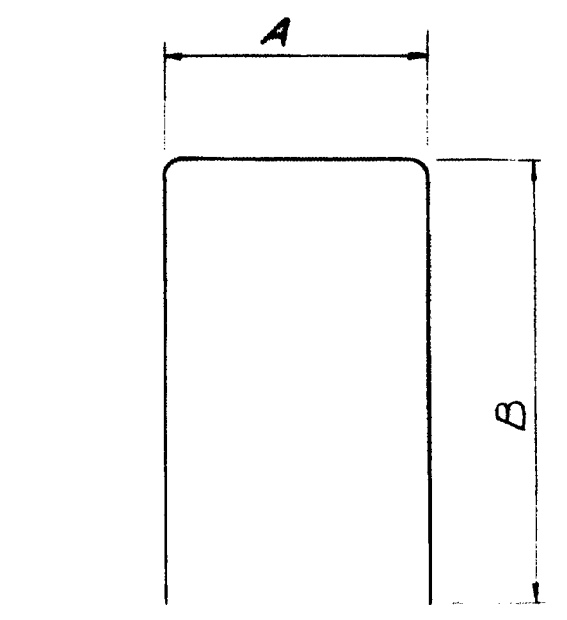




MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
<b>ABUTMENT NO. 1</b>					
<b>STRAIGHT BARS</b>					
A901	4	2	15'-2"		Median Backwall
A902	4	2	9'-4"		" "
A903	4	2	16'-11"		" "
A904	4	2	11'-1"		Median "
A905	4	8	6'-0"		" "
A906	4	6	23'-6"		" "
A907	4	6	17'-6"		" "
A908	4	20	20'-6"		Backwall
A909	4	4	4'-6"		End Post
A910	4	20	25'-0"		Backwall
A501	5	121	2'-6"		Footing Dowels
A502	5	93	9'-6"		Stem
A503	5	186	6'-0"		Backwall
A504	5	101	3'-3"		Backwall Dowels
A505	5	10	12'-3"		Stem
A506	5	22	6'-9"		Backwall and Wingwall
A507	5	8	5'-1"		Closure Wall
A508	5	40	20'-6"		Stem
A509	5	20	17'-6"		" "
A510	5	20	23'-6"		" "
A511	5	40	25'-4"		Stem
A512	5	40	8'-2"		Wingwall
A513	5	36	6'-9"		" "
A514	5	18	13'-0"		" "
A515	5	20	5'-11"		" "
A516	5	12	3'-3"		" "
A517	5	20	6'-3"		Wingwall
A602	6	36	0'-6"		Stem
A603	6	6	12'-3"		Stem
A604	6	2	1'-0"		Curb Dowels
A605	6	3	3'-0"		End Post Dowels
A606	6	16	6'-3"		Wingwall
A607	6	18	13'-0"		Wingwall
<b>BENT BARS</b>					
A430	4	28	5'-5"		Pad
A431	4	28	6'-2"		Pad
A432	4	10	3'-11"		Backwall
A433	4	10	4'-9"		Backwall
A434	4	6	4'-4"		End Post
A435	4	4	12'-5"		End Post
A436	4	2	1'-11"		Curb
A437	4	2	2'-9"		Curb
A438	4	8	6'-8"		Closure Wall
A530	5	93	4'-8"		Stem
A531	5	71	6'-0"		Backwall Dowels
A532	5	18	4'-6"		Median Backwall
A533	5	16	5'-0"		Stem
A534	5	2	8'-7"		End Post
A535	5	2	8'-6"		" "
A536	5	1	6'-4"		" "
A537	5	1	6'-0"		End Post
A538	5	4	13'-9"		Wingwall
A601	6	42	6'-7"		Footing Dowels
A630	6	72	3'-6"		Approach Slab Dowels
A631	6	3	5'-0"		End Post Dowels
A632	6	2	10'-6"		End Post
A730	7	34	6'-8"		Footing Dowels

MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
<b>FOOTING, ABUTMENT NO. 1</b>					
<b>STRAIGHT BARS</b>					
F607	6	54	7'-9"		Footing
<b>STRAIGHT BARS</b>					
F501	5	247	5'-8"		Footing
F502	5	12	34'-6"		" "
F503	5	12	35'-9"		" "
<b>APPROACH SLAB, ABUTMENT NO. 1</b>					
<b>STRAIGHT BARS</b>					
A5401	4	44	34'-6"		Approach Slab
A5402	4	44	17'-9"		" "
A5601	6	416	14'-6"		Approach Slab
<b>ABUTMENT NO. 2</b>					
<b>STRAIGHT BARS</b>					
A491	4	2	15'-2"		Median Backwall
A492	4	2	9'-4"		" "
A493	4	2	16'-11"		" "
A494	4	2	11'-1"		Median "
A495	4	8	6'-0"		" "
A496	4	6	23'-6"		" "
A497	4	6	17'-6"		" "
A498	4	20	20'-6"		Backwall
A499	4	4	4'-6"		End Post
A450	4	20	25'-0"		Backwall
A541	5	117	2'-6"		Footing Dowels
A542	5	93	9'-0"		Stem
A543	5	186	5'-1"		Backwall
A544	5	101	3'-9"		Backwall Dowels
A545	5	10	11'-0"		Stem
A546	5	18	6'-4"		Backwall
A547	5	8	4'-9"		Closure Walls
A548	5	36	20'-6"		Stem
A549	5	18	17'-6"		" "
A550	5	18	23'-6"		" "
A551	5	36	25'-4"		Stem
A552	5	36	5'-8"		Wingwall
A553	5	20	6'-3"		" "
A554	5	4	6'-9"		" "
A555	5	20	5'-11"		" "
A556	5	8	8'-9"		8 1/2" 4 groups of 5
A557	5	14	13'-0"		5'-0" 4 groups of 2
A558	5	28	4'-3"		Wingwall
A642	6	136	9'-2"		Stem
A643	6	6	11'-0"		Stem
A644	6	2	1'-0"		Curb Dowels
A645	6	3	3'-0"		End Post Dowels
A646	6	12	6'-3"		Wingwall
A647	6	14	13'-0"		Wingwall
<b>BENT BARS</b>					
A460	4	28	4'-11"		Pad
A461	4	28	5'-8"		Pad
A462	4	10	3'-11"		Backwall
A463	4	10	4'-9"		Backwall
A464	4	6	4'-4"		End Post
A465	4	4	12'-5"		End Post
A466	4	2	1'-11"		Curb
A467	4	2	2'-9"		Curb
A468	4	8	6'-8"		Closure Wall
A560	5	93	4'-8"		Stem
A561	5	91	7'-6"		Backwall Dowels
A562	5	18	5'-6"		Median Backwall
A563	5	14	5'-0"		Backwall
A564	5	6	8'-7"		End Post
A565	5	2	8'-6"		" "
A566	5	1	6'-4"		" "
A567	5	1	6'-0"		End Post
A568	5	4	11'-0"		Wingwall
A640	6	142	6'-7"		Footing Dowels
A650	6	72	3'-6"		Approach Slab Dowels
A661	6	3	5'-0"		End Post Dowels

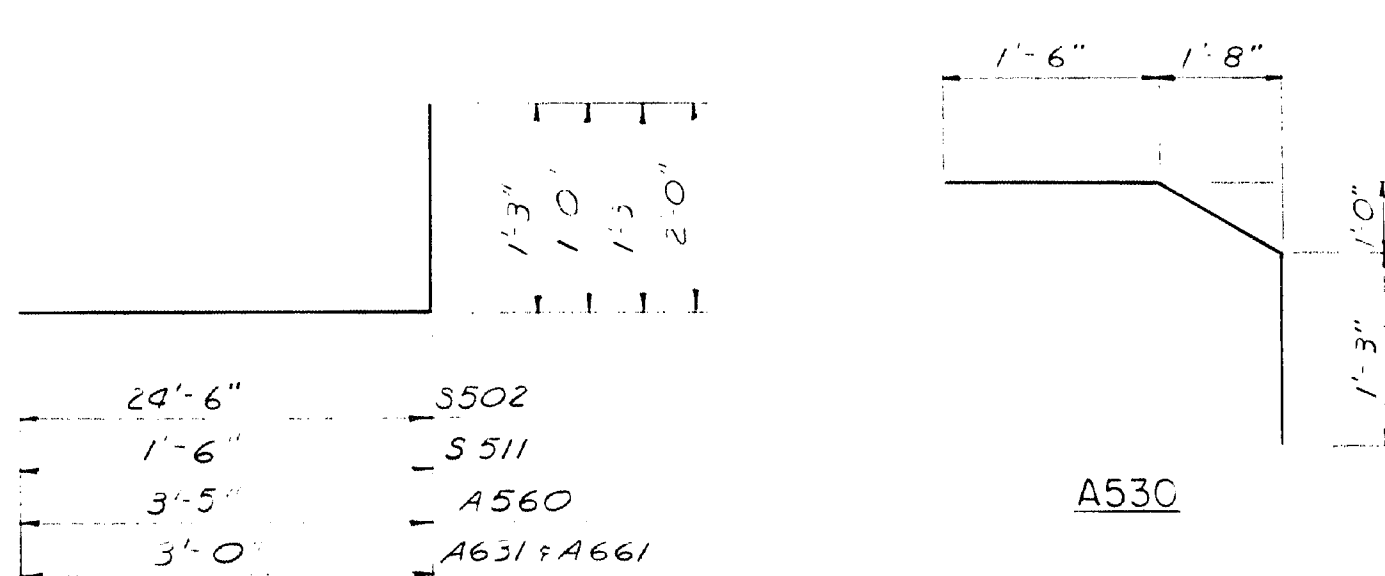
\* Abutment No. 2 continued Sheet 15.



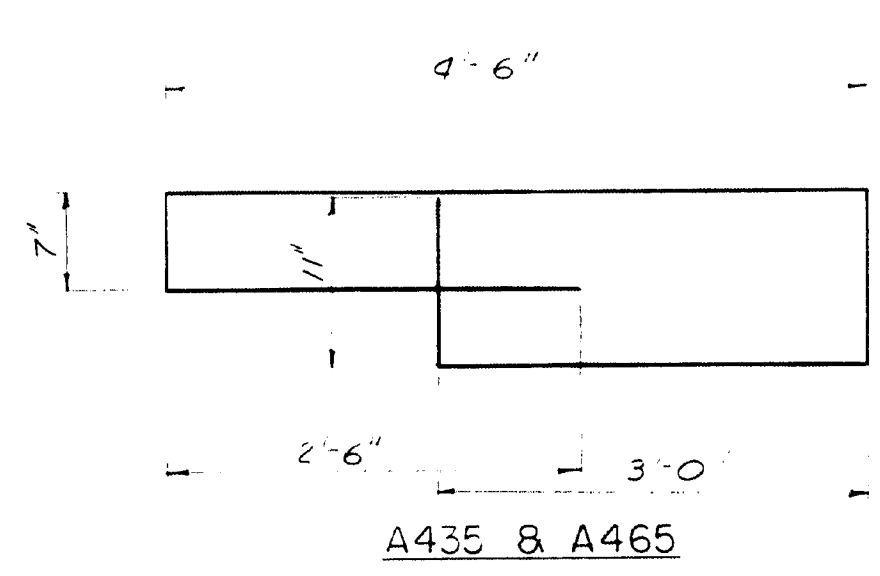
NOTE  
For dimensions A and B  
see Table I

TABLE I

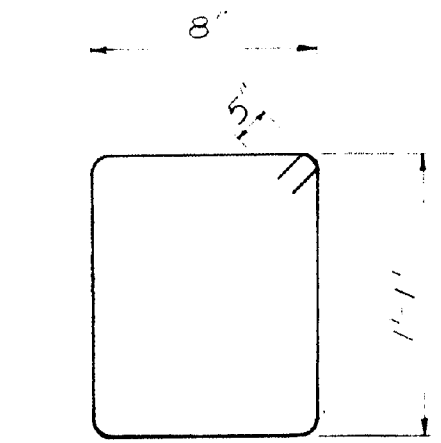
MARK	A	B
A430	1'-5"	2'-0"
A431	2'-2"	2'-0"
A438	8"	3'-0"
A460	1'-5"	1'-9"
A461	2'-2"	1'-9"
A468	8"	3'-0"
A532	1'-2"	1'-8"
A534	7"	4'-0"
A535	10"	3'-10"
A536	10"	2'-9"
A537	6"	2'-9"
A562	1'-2"	2'-2"
A564	7"	4'-0"
A565	10"	3'-10"
A566	10"	2'-9"
A567	6"	2'-9"
A632	10"	4'-10"
A662	10"	4'-10"



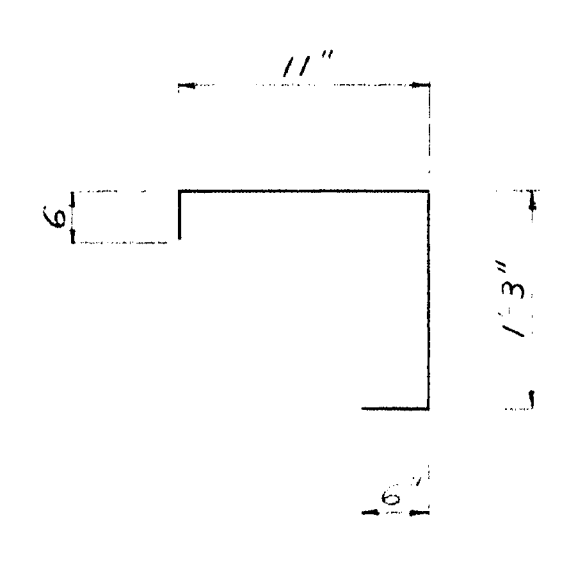
S502, S511, A560,  
A631 & A661



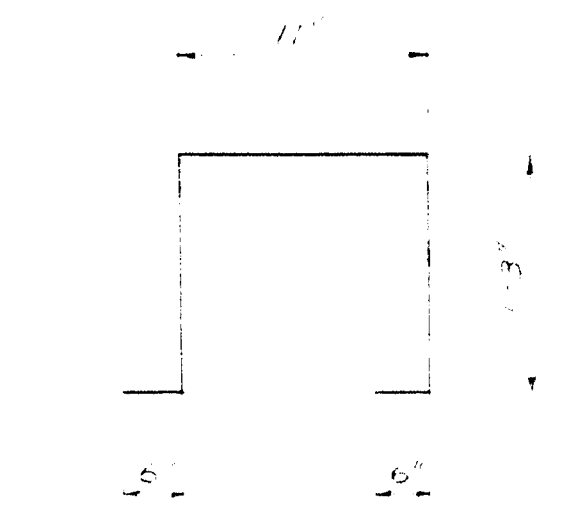
A435 & A465



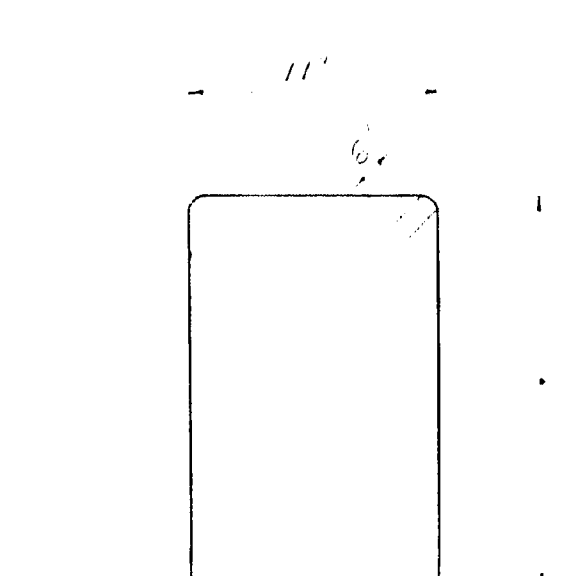
A434 & A464



S512



S513



S514, S515 & S516

NOTES  
1. All dimensions are to the face of bars.  
2. All reinforcing bars shall be intermediate grade steel.  
3. Reinforcing steel to have 1/2" minimum cover, unless otherwise shown.

DESIGN - E.K.	DETAIL - S.H.R.	BRIDGE NO.
TRACE - C.H.R.		SURVEY -
CHECK - R.E.F.		PLAT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE ROUTE 295 OVER WESTBROOK ST. IN THE CITY OF SOUTH PORTLAND CUMBERLAND COUNTY REINFORCING STEEL		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS NEW YORK BOSTON KANSAS CITY	SHEET 14 OF 15 AUGUSTA, MAINE SEPT. 1966	

104-75 SOUTH PORTLAND

