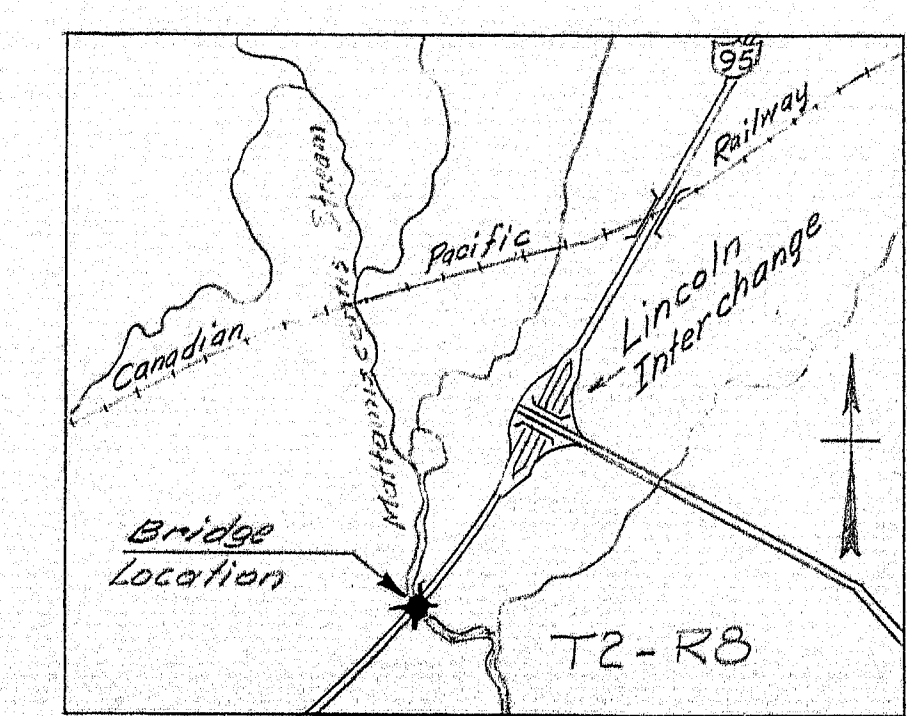
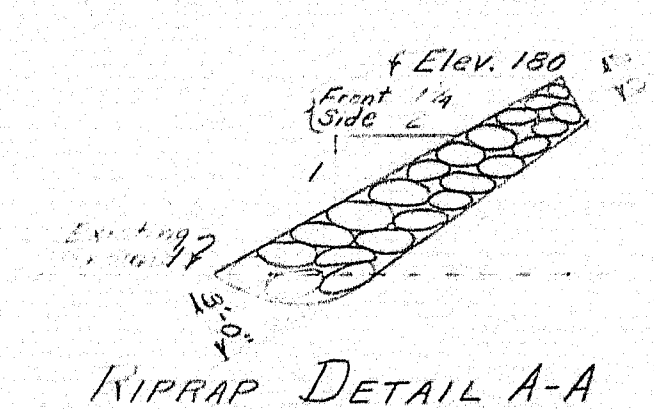
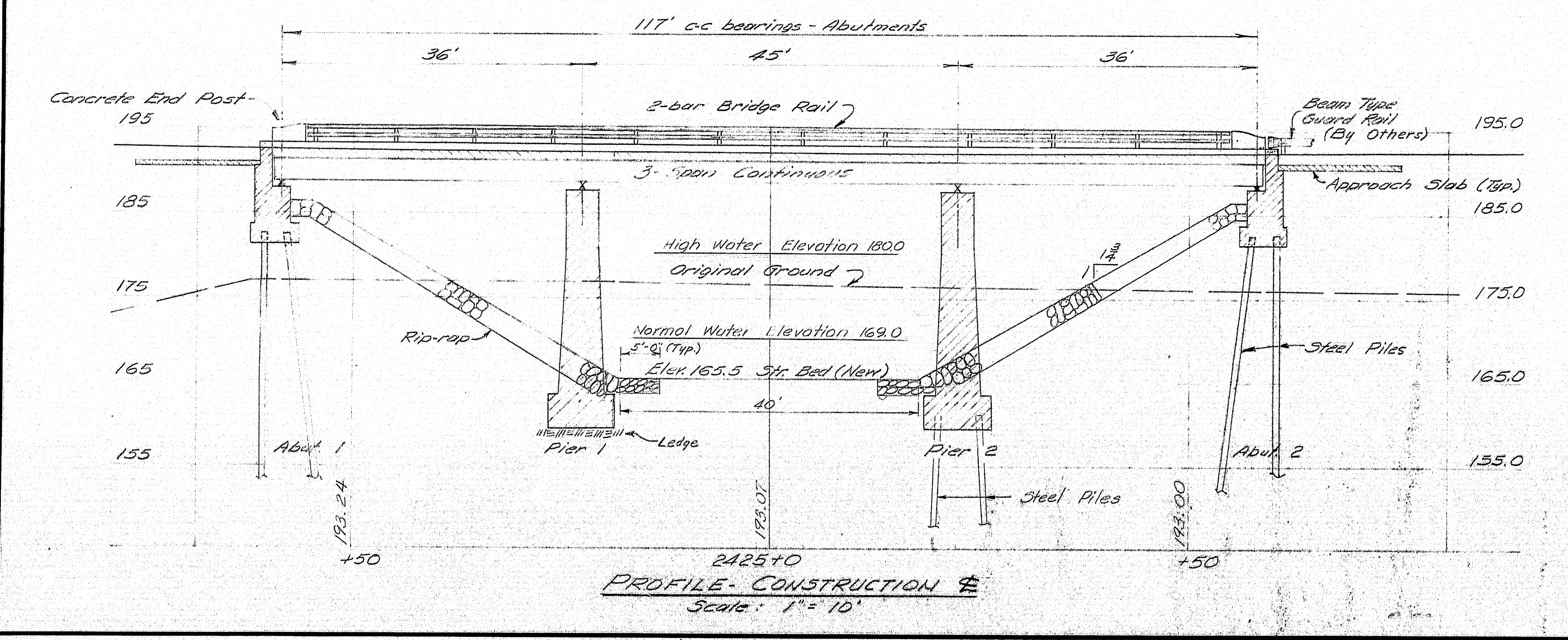
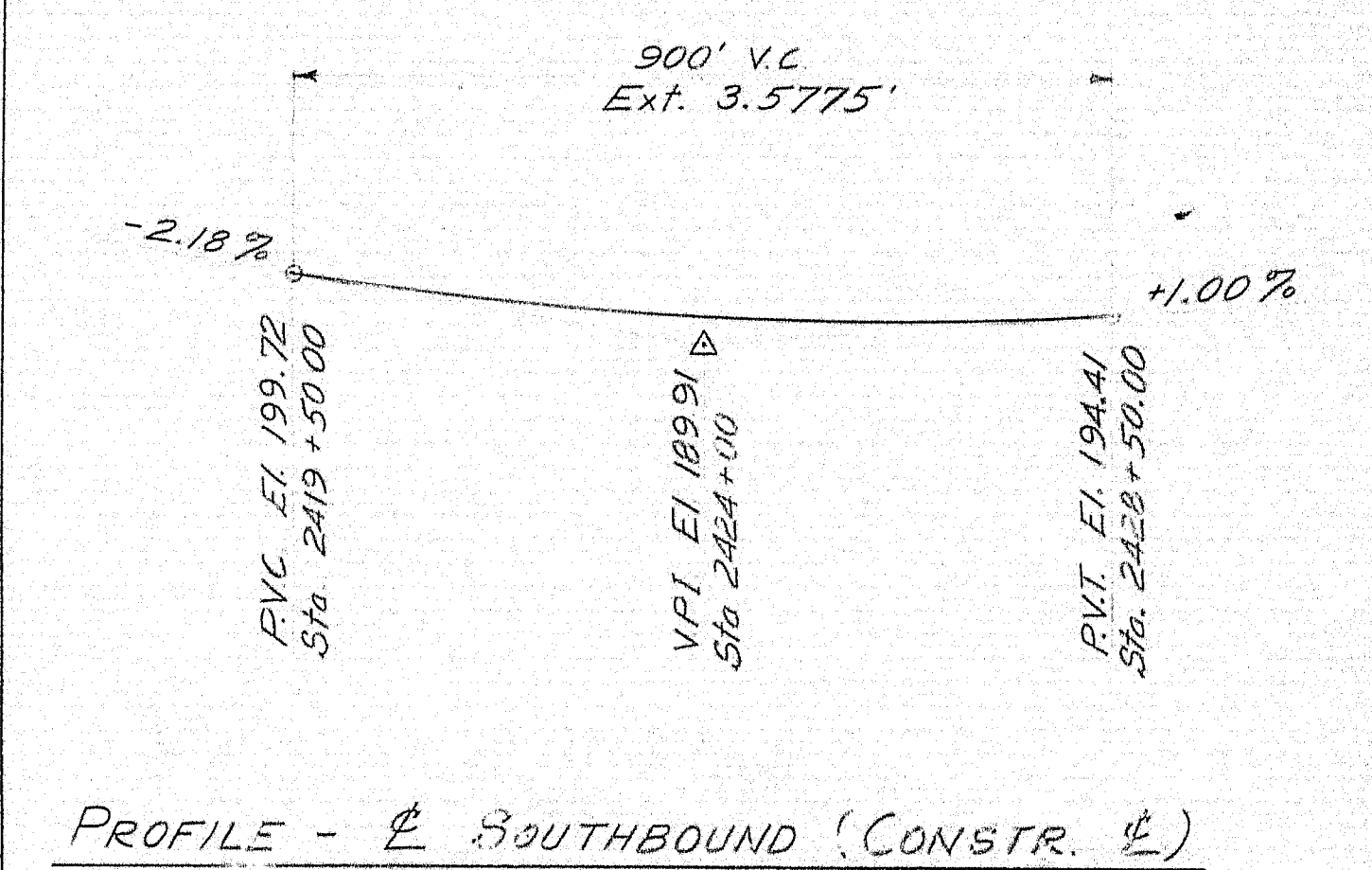


INDEX OF SHEETS	
1	General Plan
2	Survey and Quantities
3	Foundation Survey
4	Boring Details
5	Abutments
6	Piers
7	Structural Steel and Blocking
8	Superstructure
9	Reinforcing Steel
Standard Details	
BD 101-64	Bearing Pedestals
BD 103-64	Beam Splices
BD 104-64	Diaphragms, Armored
BD 107-64	Joint, Shear Connectors, Drain
BD 108-64	Steel Rail
BD 109-64	Aluminum Rail



Drainage Area = 71.0 sq. miles

Design: AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Revisions through 1964.

Contract: State of Maine, State Highway Commission, Standard Specifications for Highway and Bridges, Revision of Jan. 1956, and Supplemental Specifications Feb. 1960.

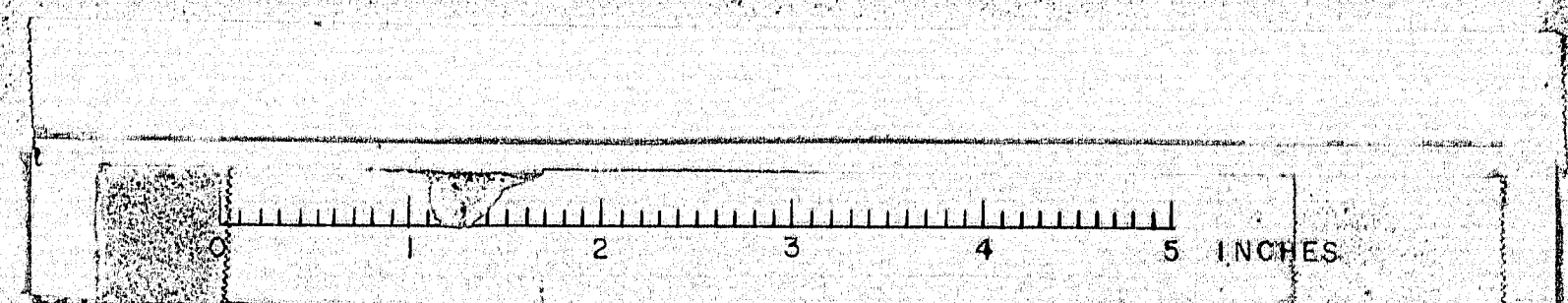
Loading: All loads as specified for Interstate.

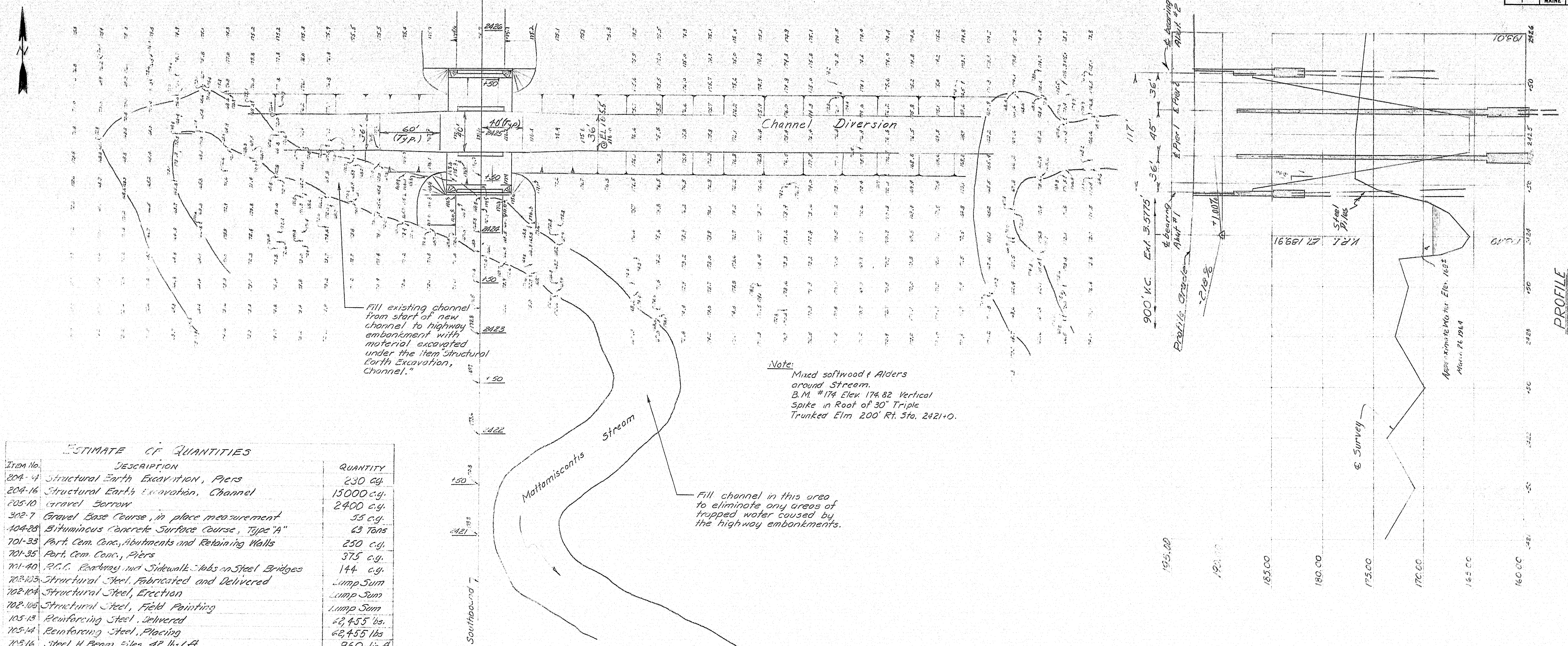
Allowable stresses: Steel, A588 - 20,000 psi. Intermediate - 18,000 psi. Concrete - 1,800 psi. Mortar - 1,000 psi. Grout - 1,000 psi.

Concrete: All concrete class A.

DESIGN - E.E.L.	BRIDGE NO. SURVEY - PLOT -
TRACE -	
CHECK -	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER MATTAMISCONTIS STREAM IN T2-R8 PENOBSCOT COUNTY	
GENERAL PLAN	
SHEET 1 OF 9	AUGUSTA, MAINE AUG. 1964

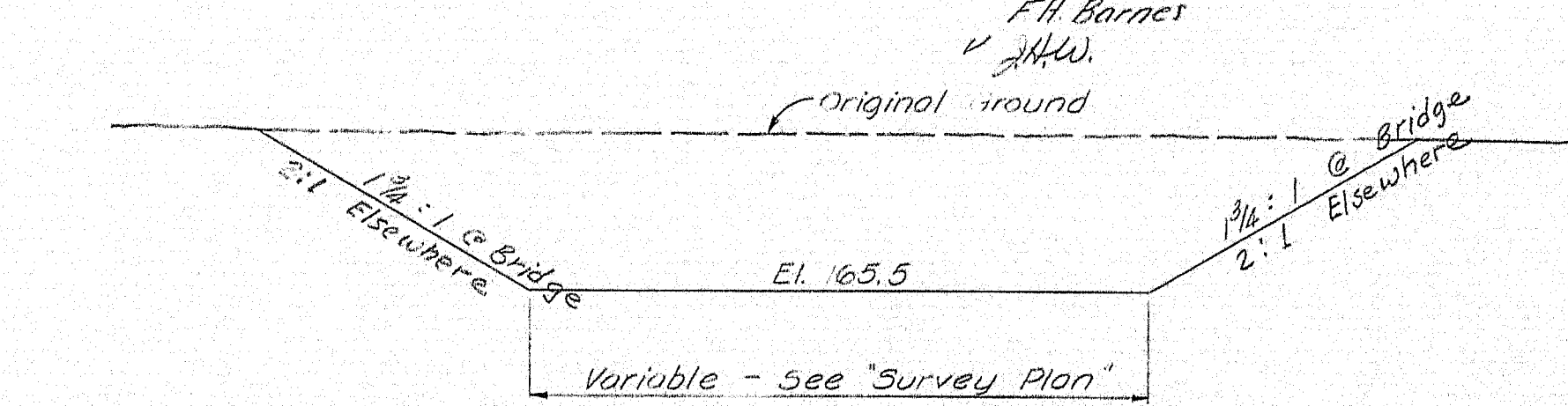
M-2288 MATTA T2-R8 562





ITEM NO.	DESCRIPTION	QUANTITY
204-14	Structural Earth Excavation, Piers	230 cu. yd.
204-16	Structural Earth Excavation, Channel	15000 cu. yd.
205-10	Gravel Borrow	2900 cu. yd.
302-7	Gravel Base Course, in place measurement	55 cu. yd.
104-28	Bituminous Concrete Surface Course, Type 'A'	63 tons
701-33	Port. Cem. Conc. Abutments and Retaining Walls	250 cu. yd.
701-35	Port. Cem. Conc. Piers	375 cu. yd.
701-40	P.C.C. Roadway and Sidewalk Slabs on Steel Bridges	144 cu. yd.
702-103	Structural Steel, Fabricated and Delivered	Lump Sum
702-104	Structural Steel, Erection	Lump Sum
702-105	Structural Steel, Field Painting	Lump Sum
105-13	Reinforcing Steel, Delivered	28,455 lbs.
105-14	Reinforcing Steel, Placing	28,455 lbs.
105-16	Steel H Beam Piles 42 lbs./ft.	960 lin. ft.
702-17	Steel H Beam Piles 53 lbs./ft.	300 lin. ft.
205-8	Bridge Rail	222 lin. ft.
107-9	Membrane Waterproofing	570 sq. yds.
207-11	Epoxy Resin Surface Sealant	150 sq. yd.
307-24	Vertical Bridge Curb Type 1	250 lin. ft.
307-10	Hand Laid Riprap	665 cu. yd.
702-39	Portland Cement for Riprap Grout	12 5/8 bbls.

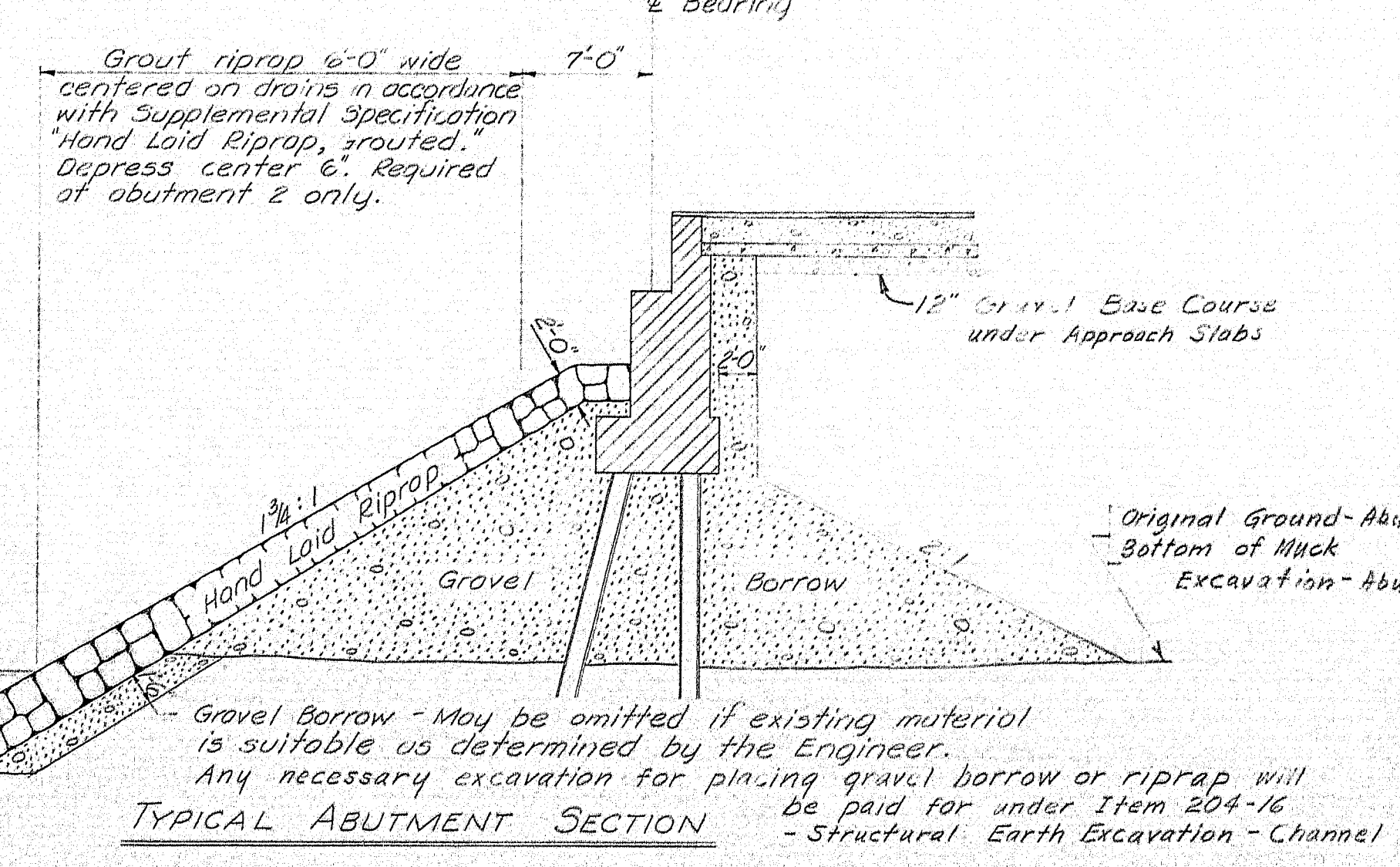
Structural Steel Estimated Weight = 101,700 lbs (includes drains)
 * Not included in this contract.



CHANNEL DIVERSION SECTION
 Payment for removal of muck in the area of the new channel will be made at the contract unit price per cubic yard for Item 204-16, Structural Earth Excavation, Channel.

SURVEY PLAN
 3-1/8" 1"=50'

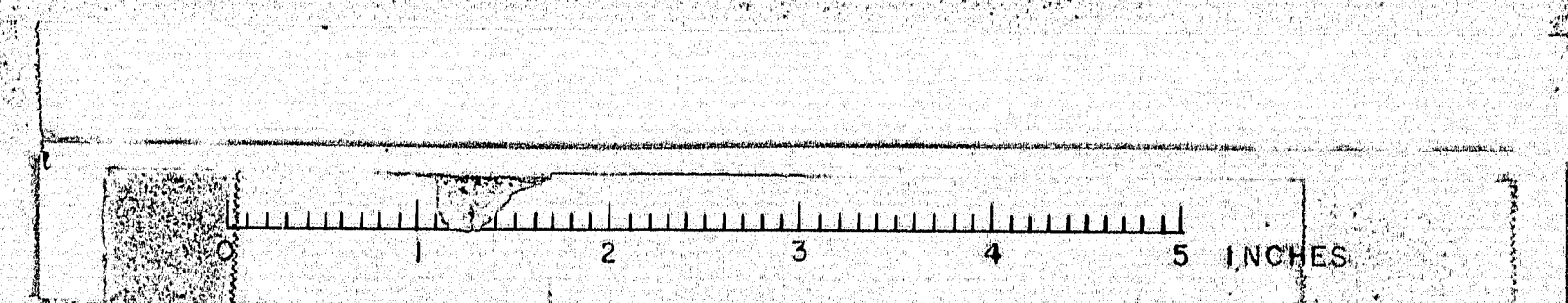
Note: In areas where piles are to be driven, the gravel borrow shall contain no rock with maximum dimensions over six (6) inches, and concentration of rocks shall be avoided. Gravel borrow shall be placed to elevation of bottom of footings before piles are driven.
 Payment for removal of the muck under the gravel borrow at Abutment #2 will be made under highway construction items which are not listed in the Estimate of Quantities shown on this sheet.

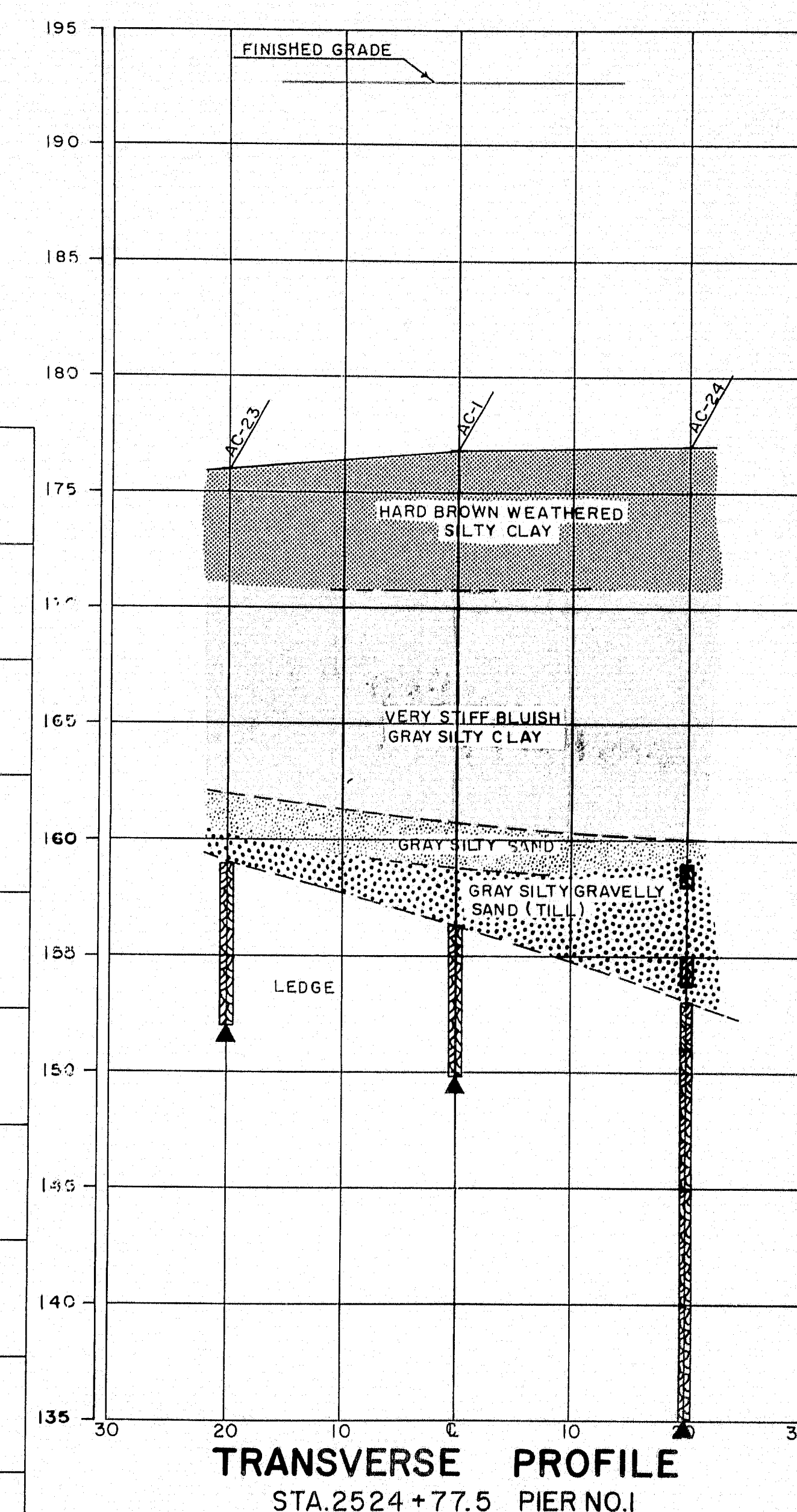
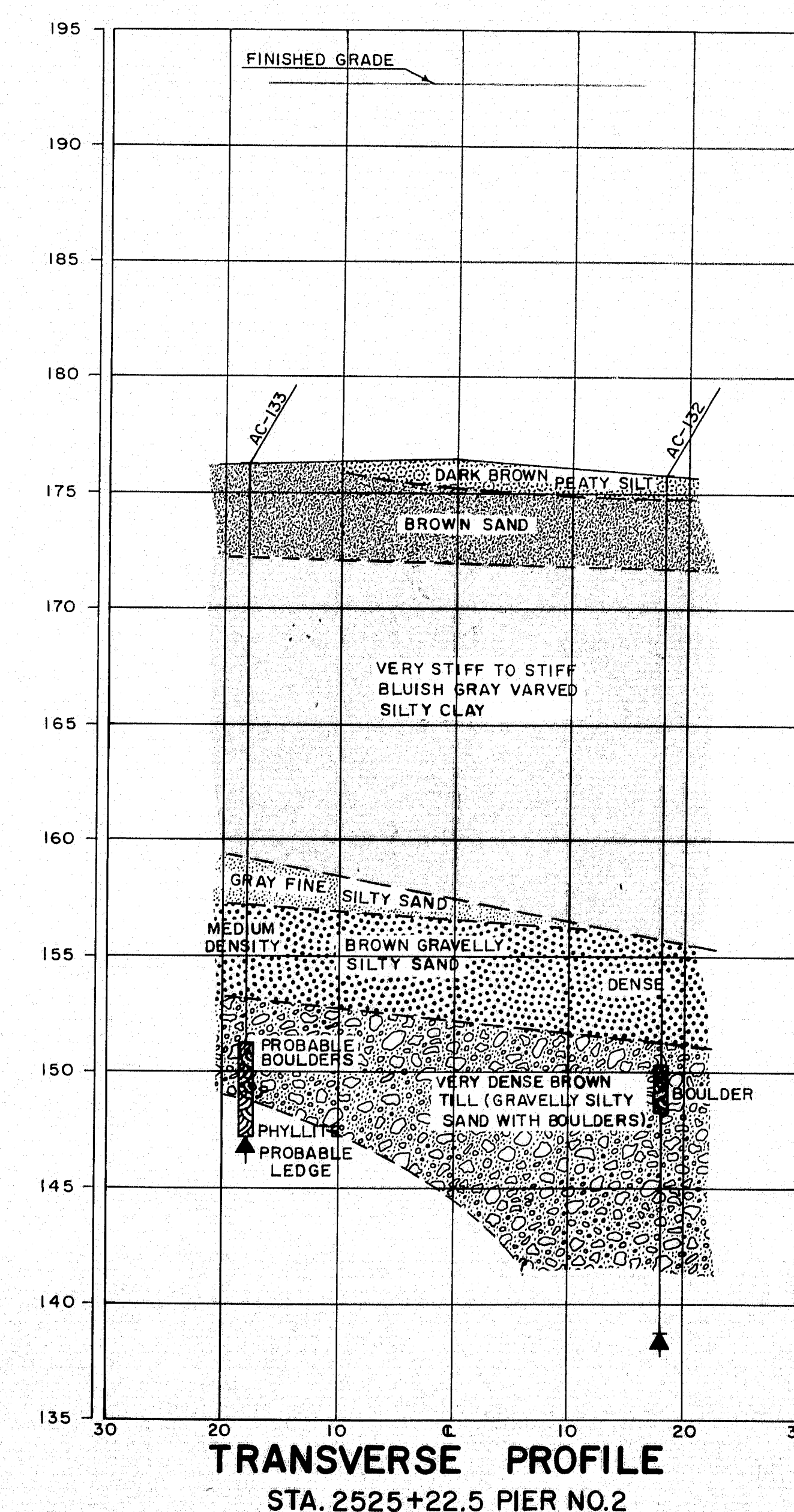
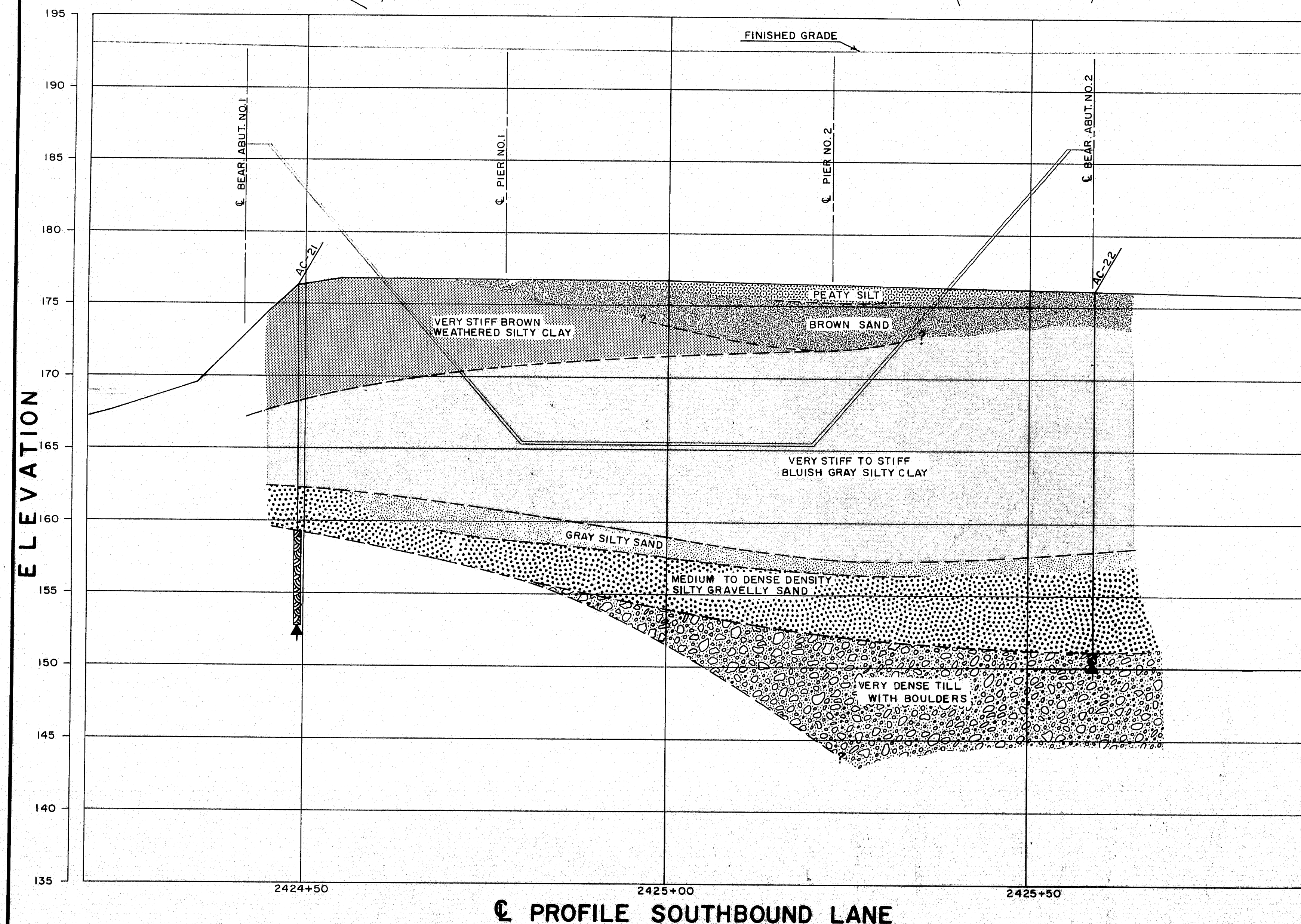
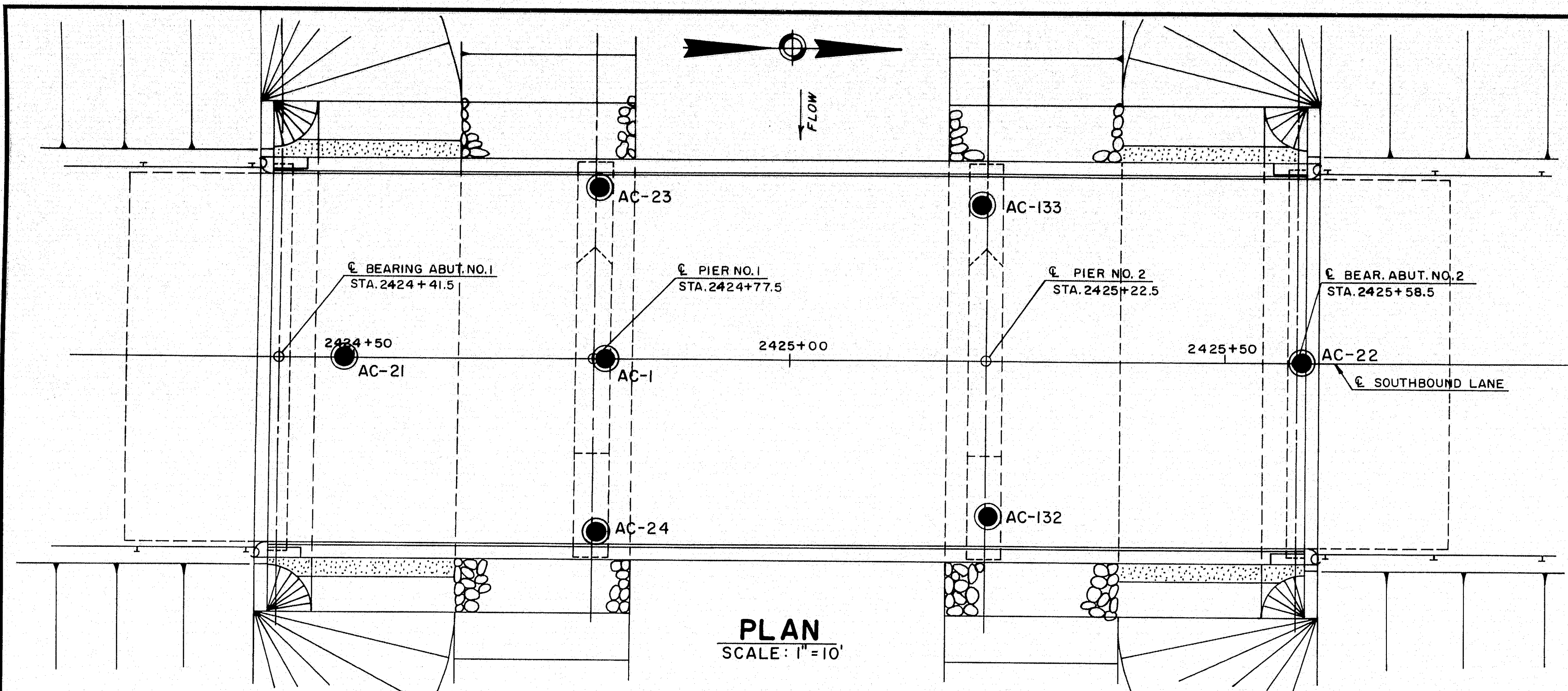


Note: All embankments within fifty (50) feet of the abutments shall be constructed by the "Controlled Density Method".

DESIGN - E.E.L.	BRIDGE NO.
TRACE - CDH	SURVEY -
CHECK - CDH	PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER MATTAMISCANTIS STREAM IN T2-R8 PENOBSCOT COUNTY	
SURVEY AND QUANTITIES	
SHEET 2 OF 9	AUGUSTA, MAINE AUG. 1964

M-2289

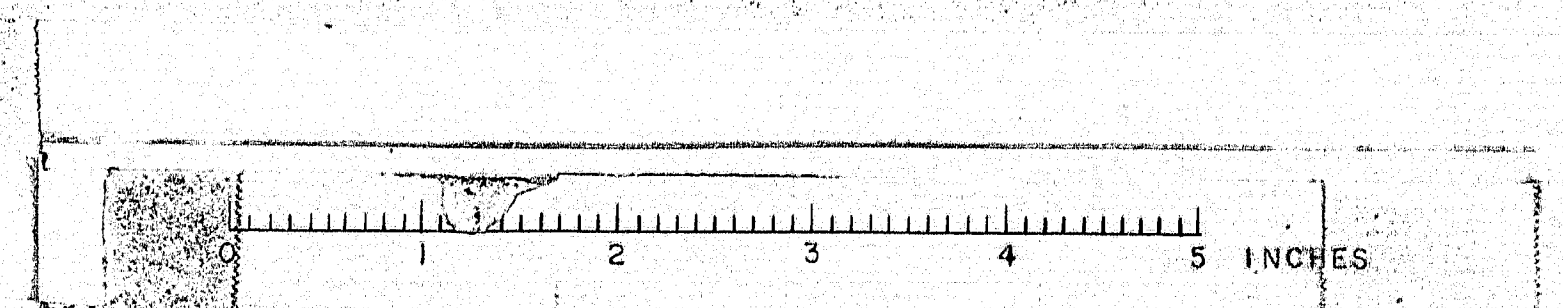


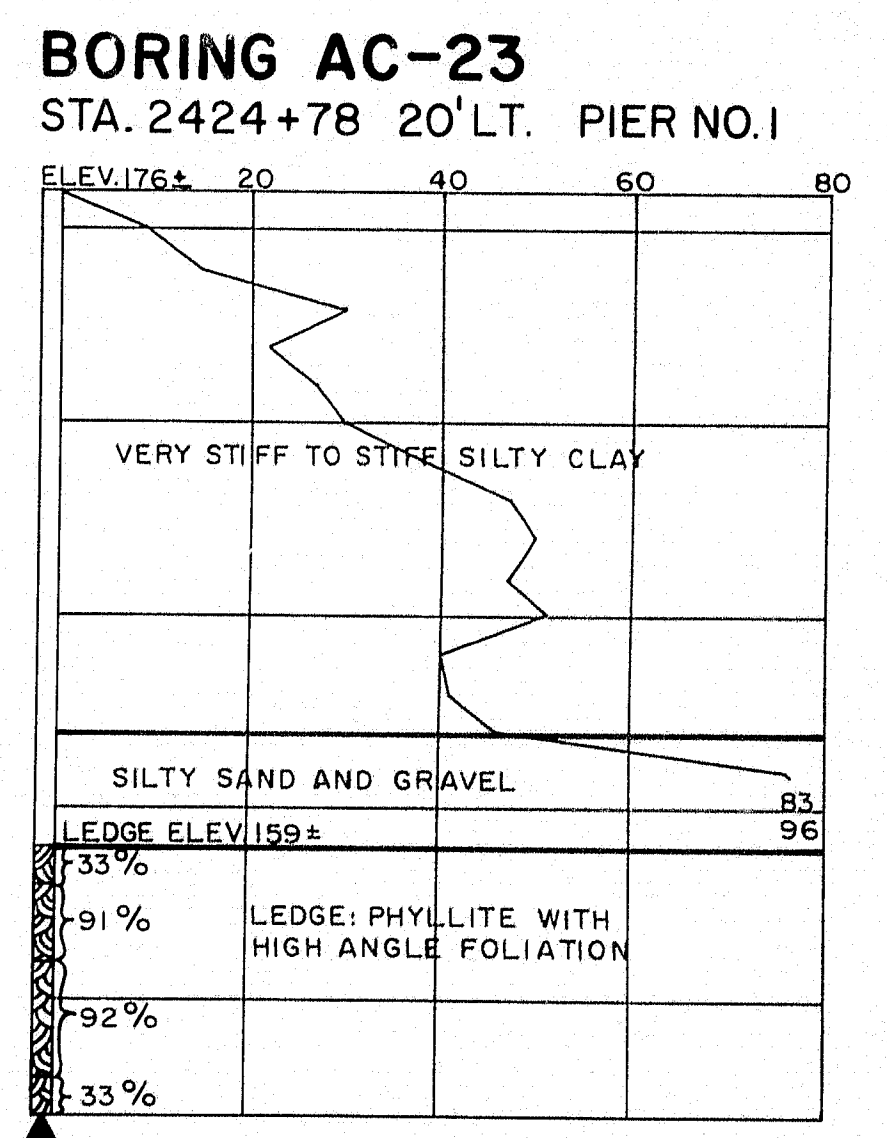
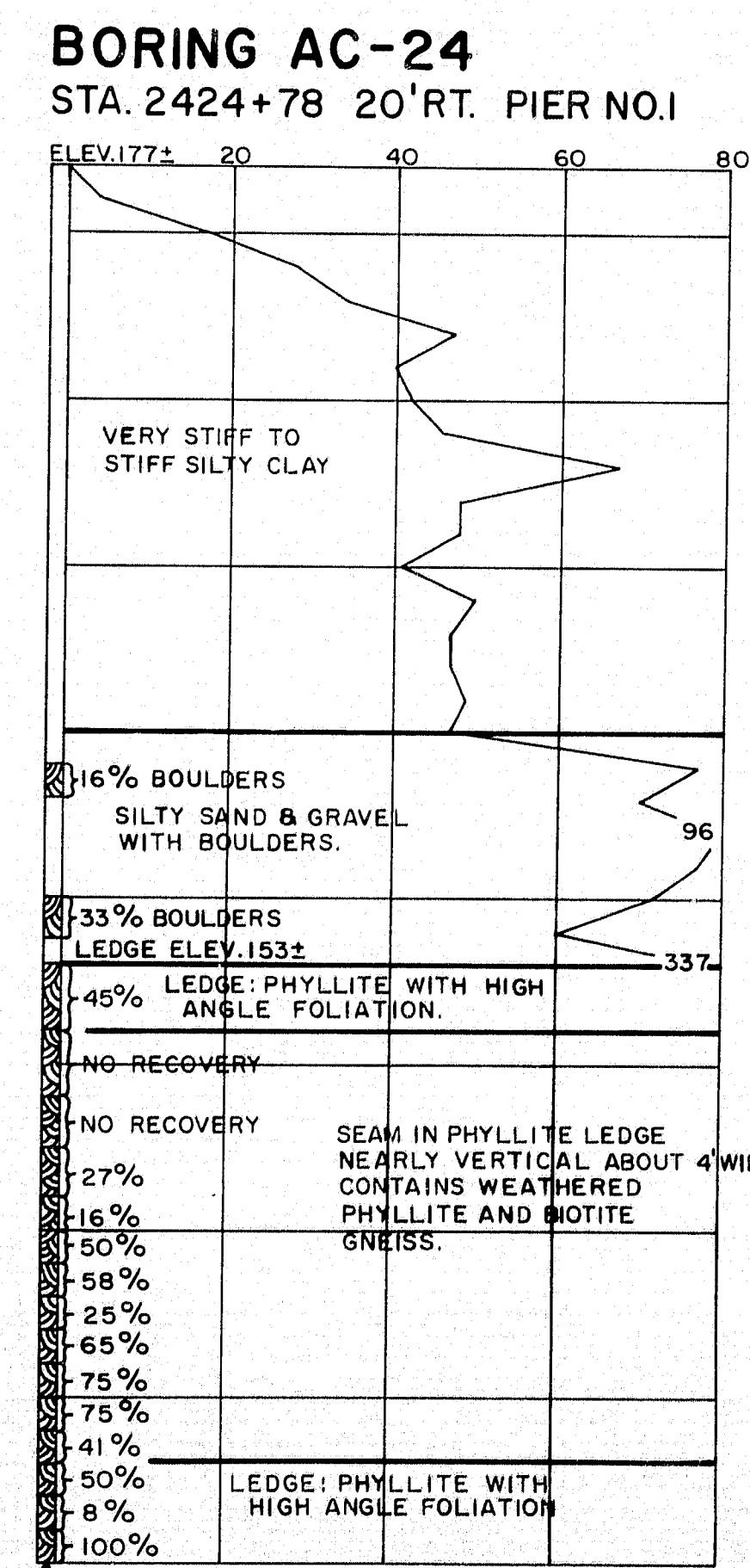
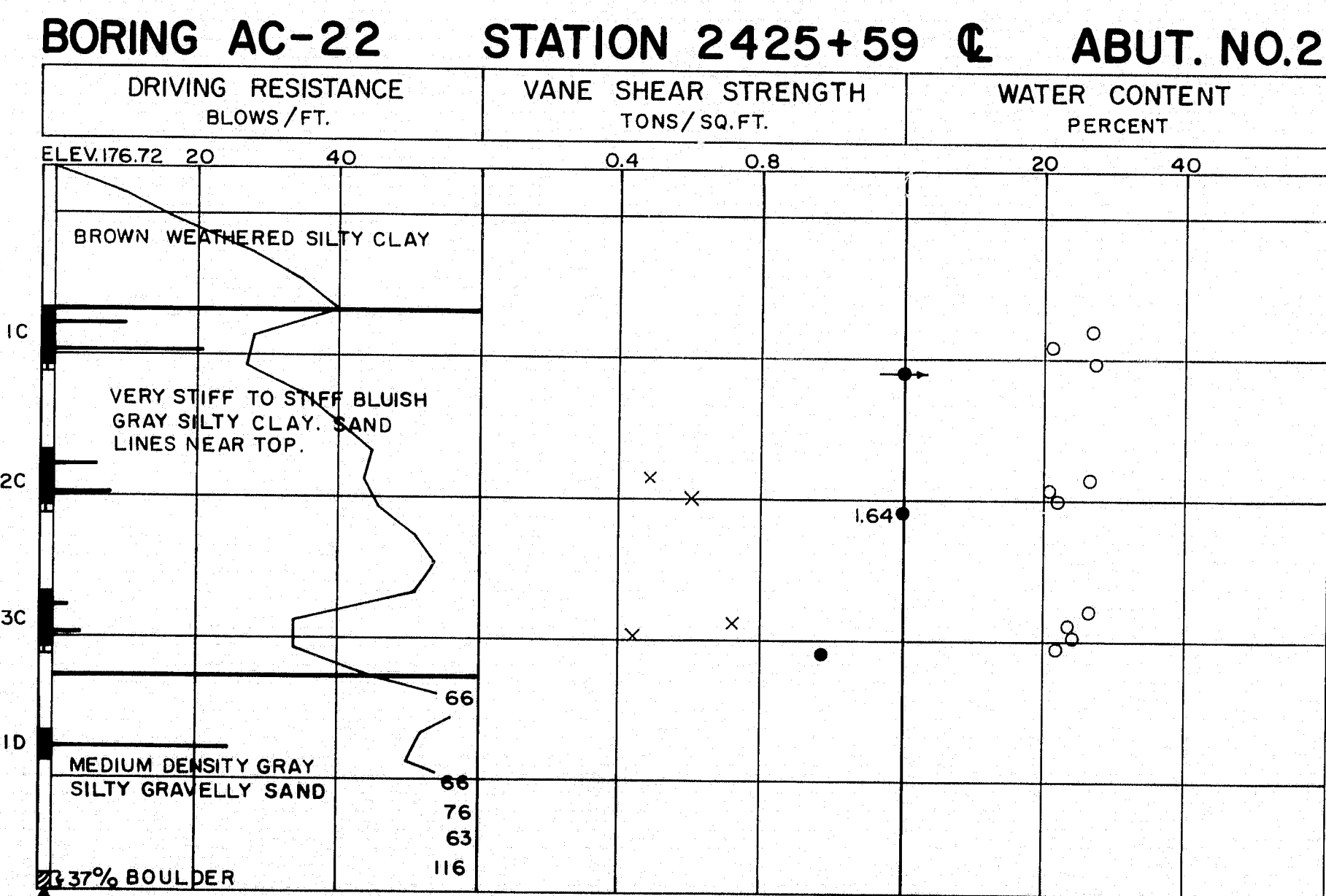
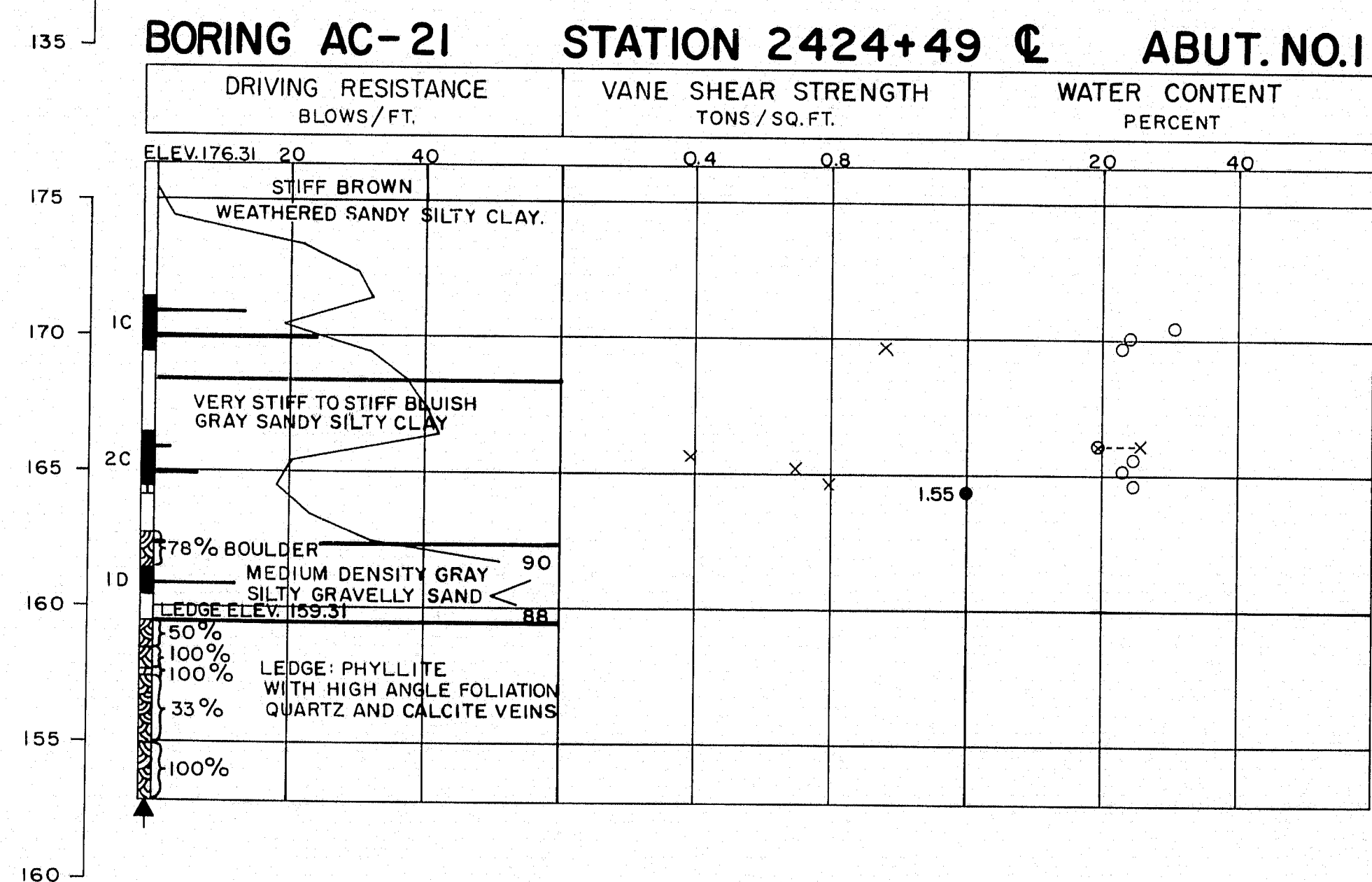
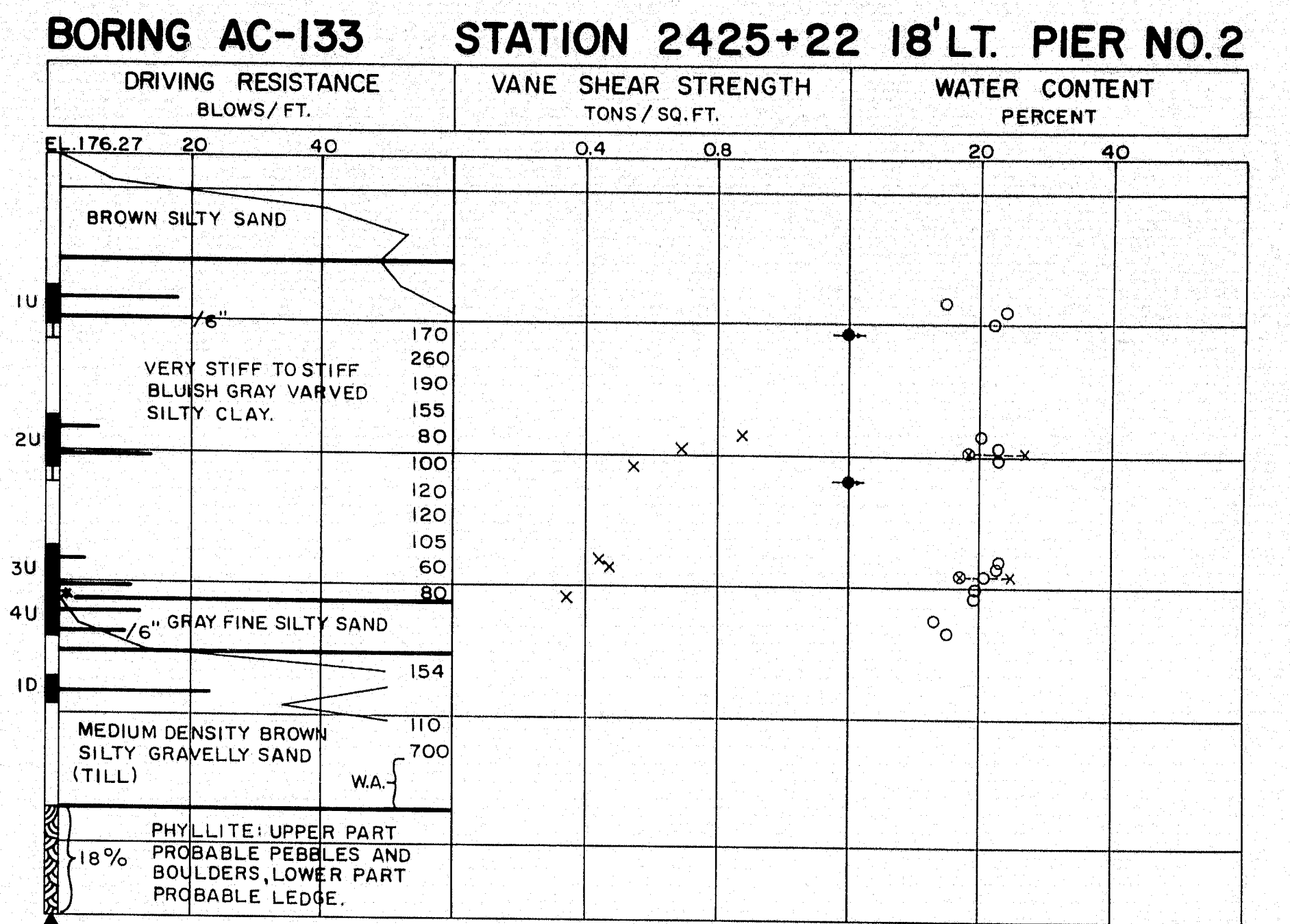
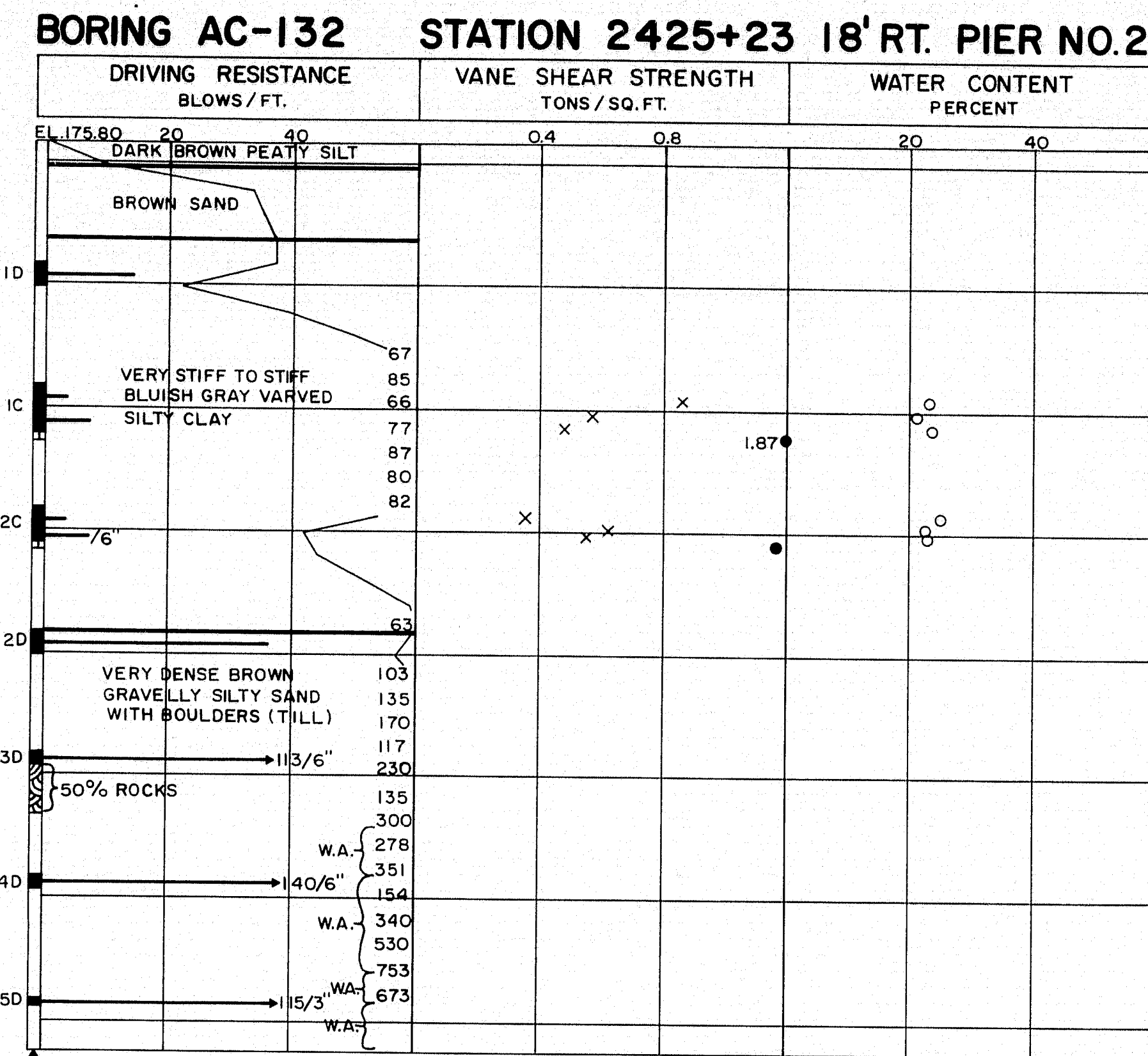
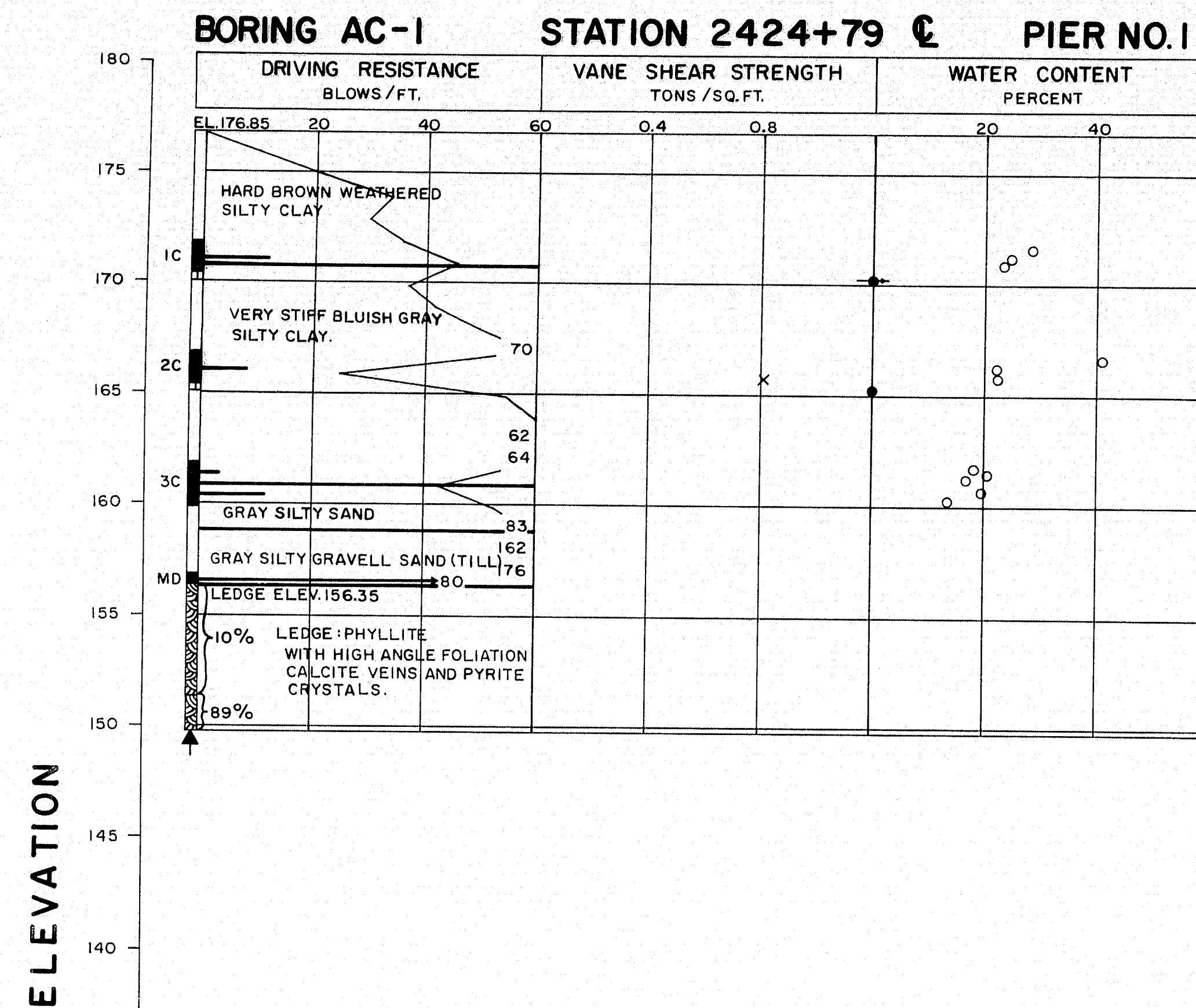


DESIGN: ☒ Soils Division
TRACE: ☒ SURVEY: ☒ PLOT: ☒

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
MATTAMISCONTIS STREAM
IN THE TOWN OF
T2-R8
PENOBSCOT COUNTY
FOUNDATION SURVEY
SHEET 3 OF 7 AUGUSTA, MAINE

M-2290 MATTA T2-R8 56





BORING NOTES

* Casing size 2 1/2" except AC-133. Changed from 4" casing to 2 1/2" casing. All samples and vanes are made ahead of casing. Number of blows required to drive extra heavy casing one foot with 400 foot lbs. of energy per blow. Location of sample or sample attempt. Number and type of dry sample. S & H Sampler No. 1290's 2" O.D. 16 ga. seamless tubing. 3 1/2" O.D. 16 ga. seamless tubing. 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. Field vane test. Bottom of boring (may not be bottom of soil strata.) 71% Locations cored by diamond bit and per cent recovery of rock.

SHEAR NOTES

• Field vane shear strengths.
x Lab vane shear strengths.
— Shear strengths in excess of capacity of equipment.

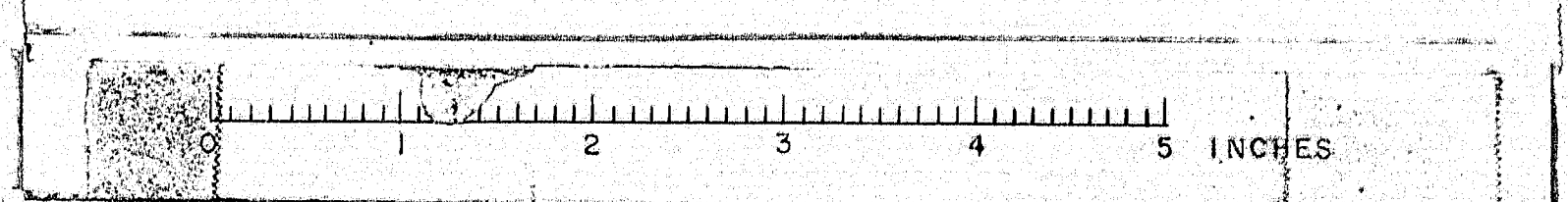
WATER CONTENT NOTES

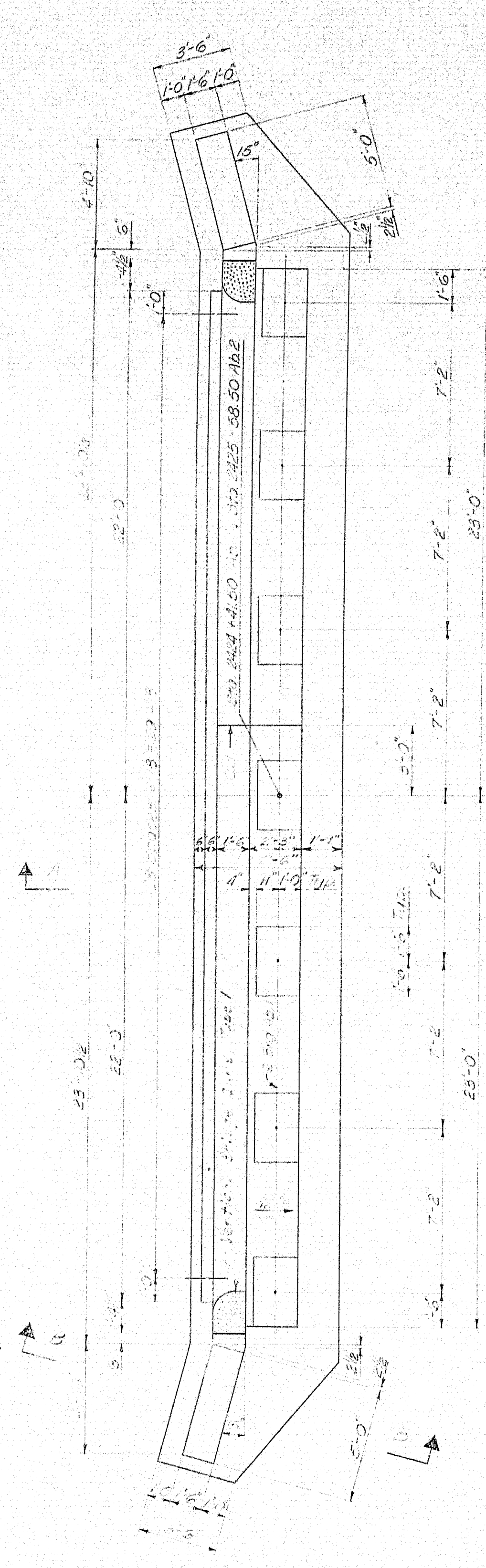
o Natural water contents, given as percent of dry weight.
o-x Plastic and liquid limits.

DESIGN: Soils Division
TRACE: SURVEY
CHECK: PLOT

BRIDGE NO. 95
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
MATTAMISCOTIS STREAM
IN THE TOWN OF
T2-R8
PENOBSCOT COUNTY
BORING DETAILS
SHEET 1 OF 9 AUGUSTA, MAINE

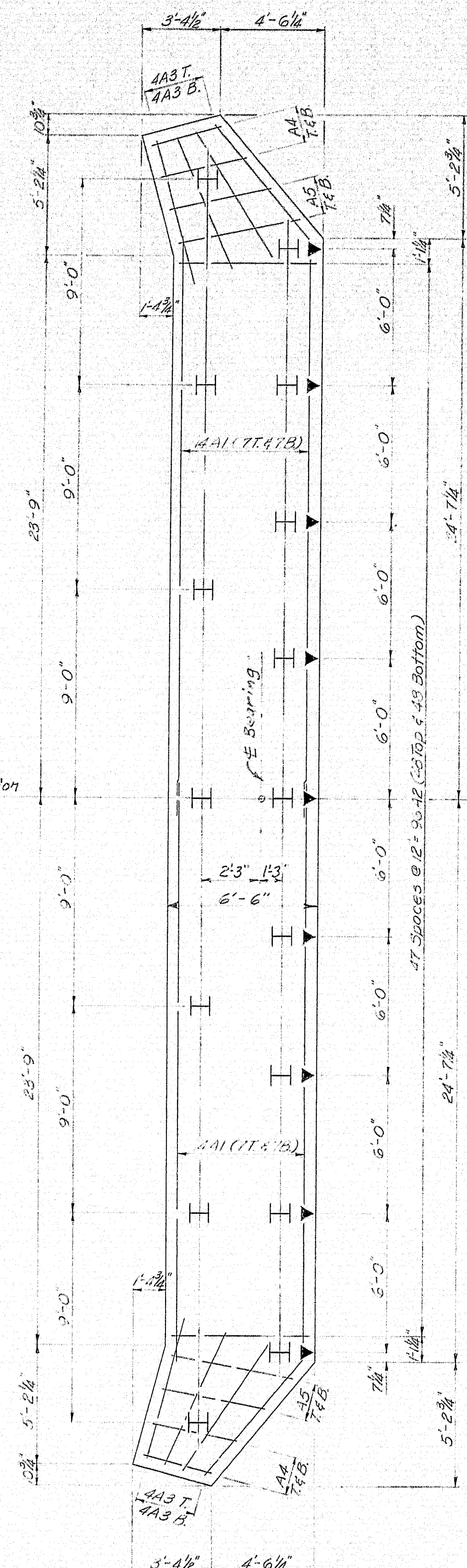
M-2291 MATIA: T2-R8 56





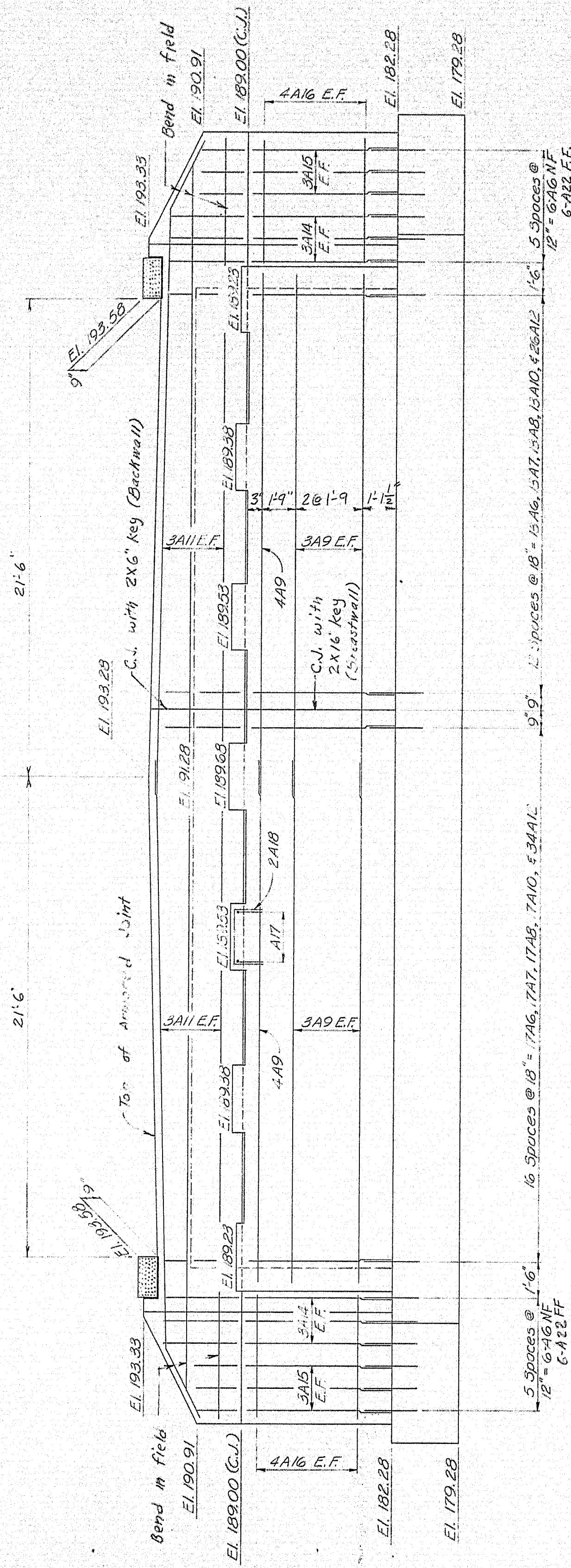
PLAN

Abutment 1 shown. For Abutment 2 rotate 130°.

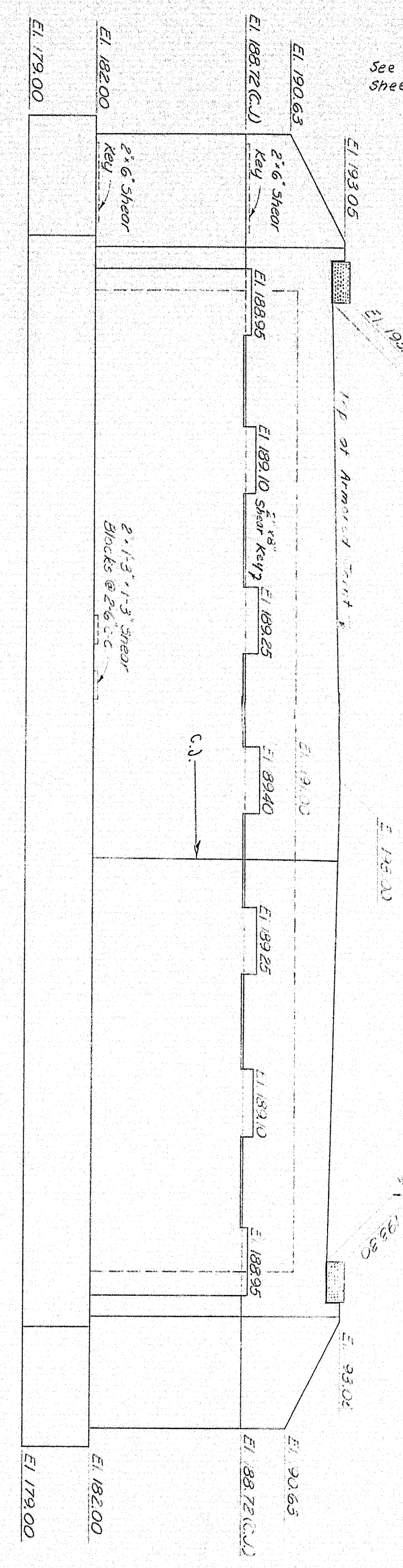


FOOTING & PILE PLAN

Abutment 1 shown. For Abutment 2 rotate 130°.

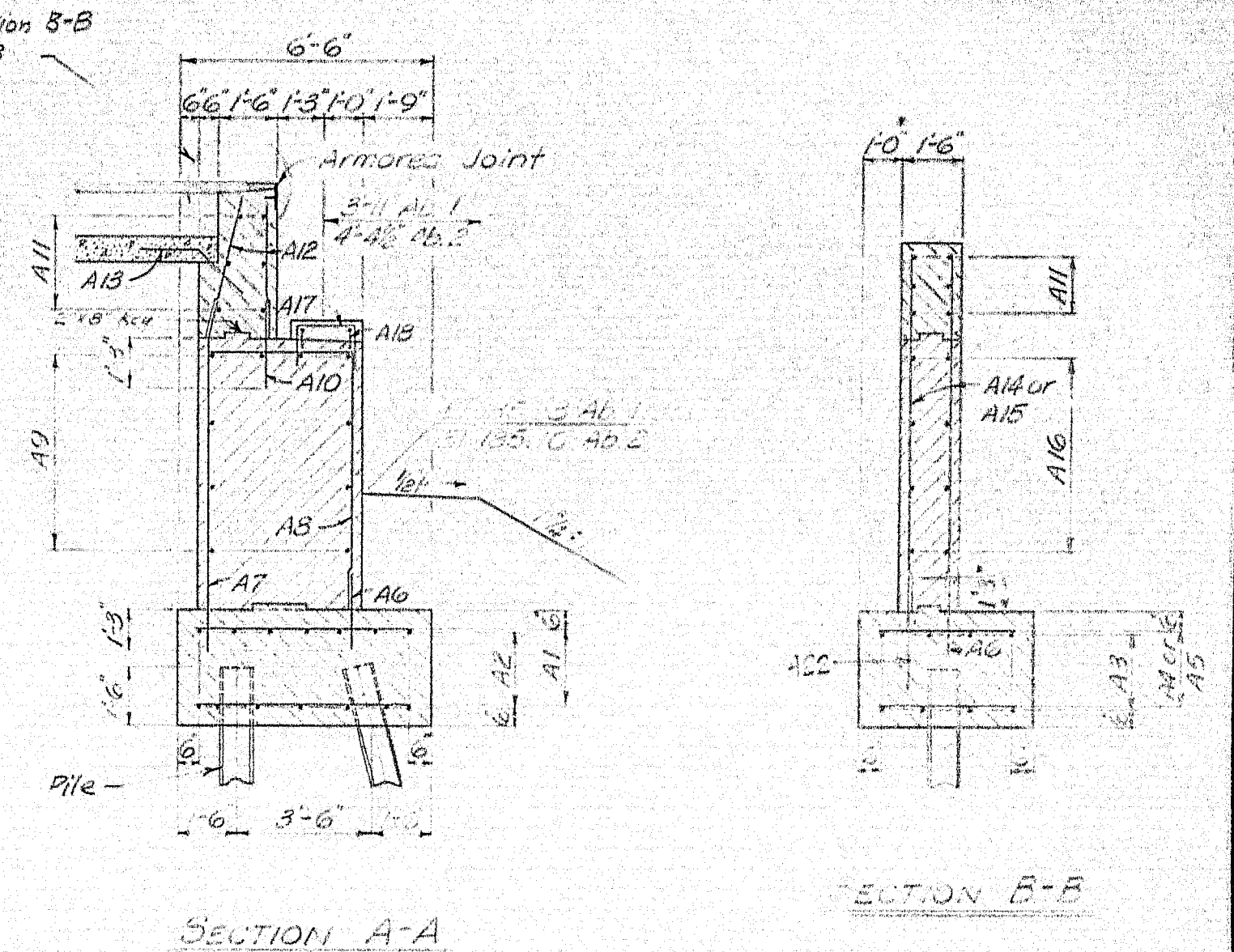


FRONT ELEVATION - ABUTMENT 1



FRONT ELEVATION - ABUTMENT 2

Reinforcing same as Abutment 1.



GENERAL ABUTMENT NOTES

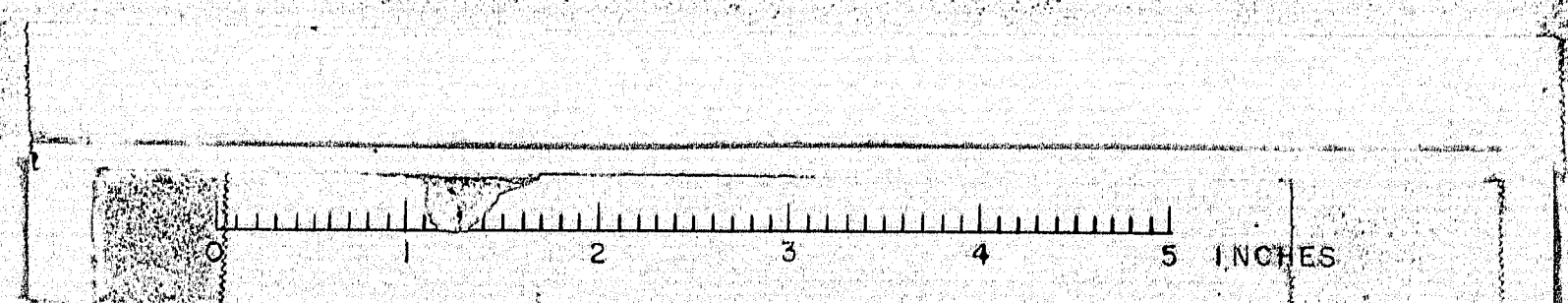
1. Build bridge seat, top of backwall, and grade down to 10' below top of riprap on face of backwall with any epoxy resin surface joint.
2. Cover the top side of concrete face joints with two layers of heavy roofing 9' wide bonded to concrete and to each other with suitable grade of roofing cement. Cover area to be covered 1/2" coat surface of joint with asphalt paint to break bond.
3. Reinforcing cover 3" unless noted.
4. For removal of formwork and repair at abutments see sheet 1.
5. For vertical bridge and deck see sheet 4.
6. For approach slab see sheet 5.
7. Grout the holes in backwall and be positioned in place after it at the same time as the grout is placed in the superstructure to grade.

PILE NOTES

1. Abutment piles to be 24" dia. piles driven to bottom of riprap layer. Allowance for pile movement after cast in place. The direction of the current.
2. In the vicinity of abutment estimated length of abutment = 20' (old rev. sec.)

DESIGN - E.E.L.	BRIDGE NO. SURVEY - PLOT -
TRACE -	
CHECK -	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER MATTAMISCONTIS STREAM IN T2-R8 PENOBSCOT COUNTY ABUTMENTS	
SHEET 5 OF 9	AUGUSTA, MAINE AUG. 1964

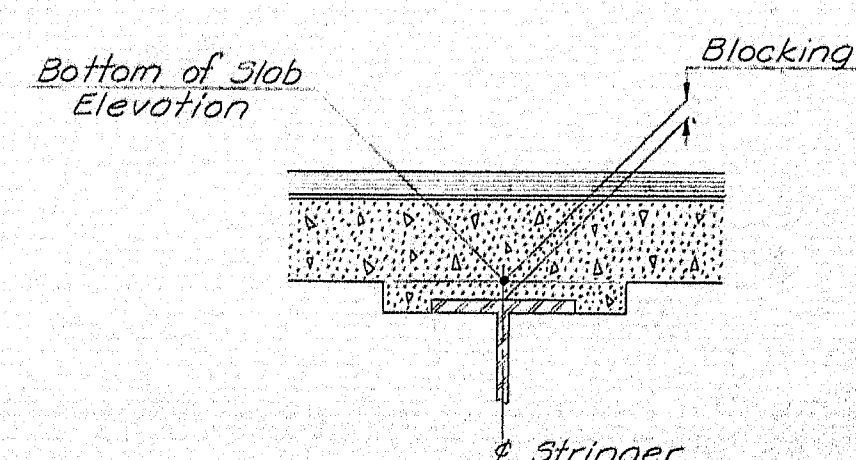
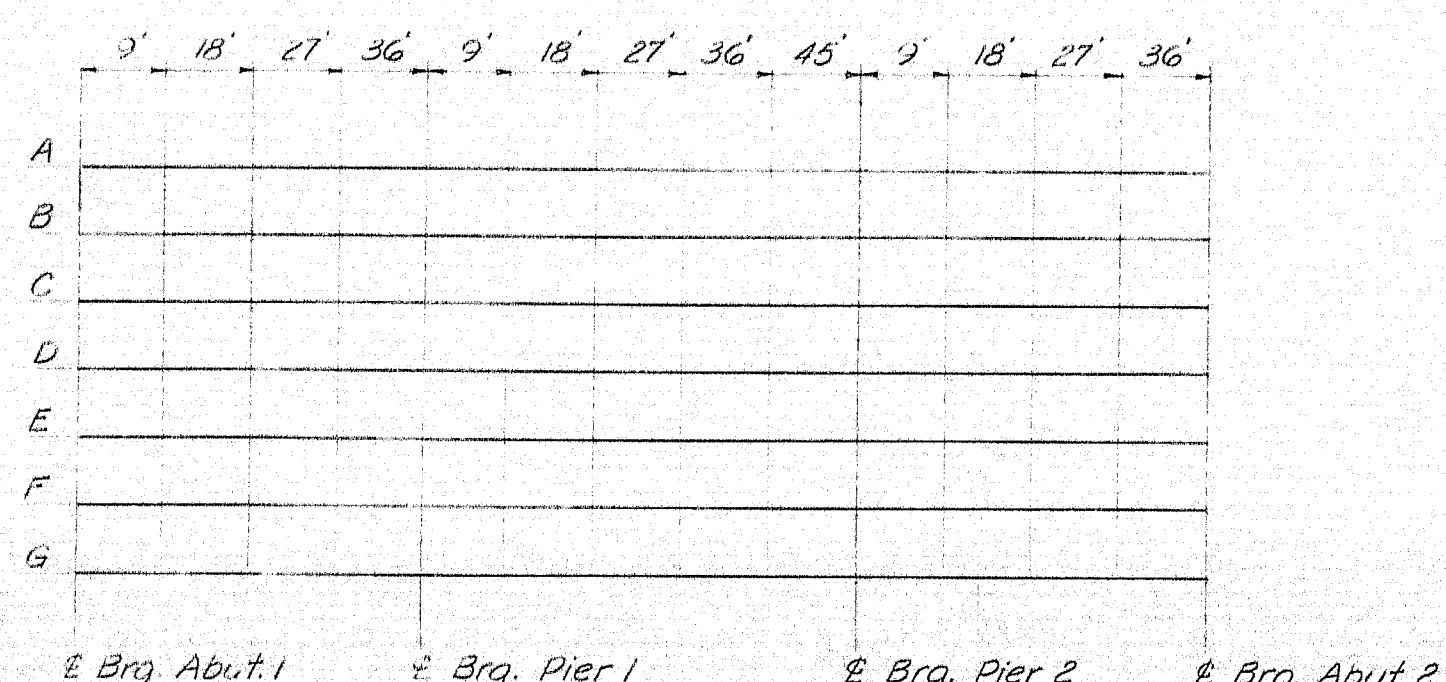
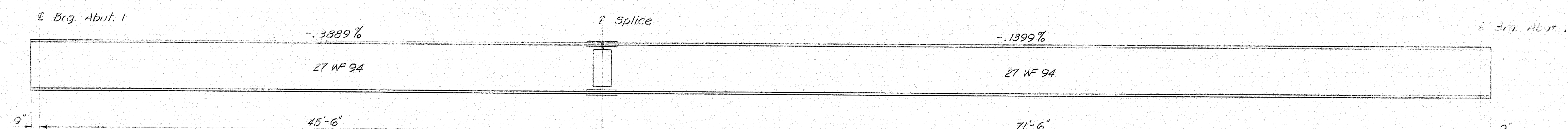
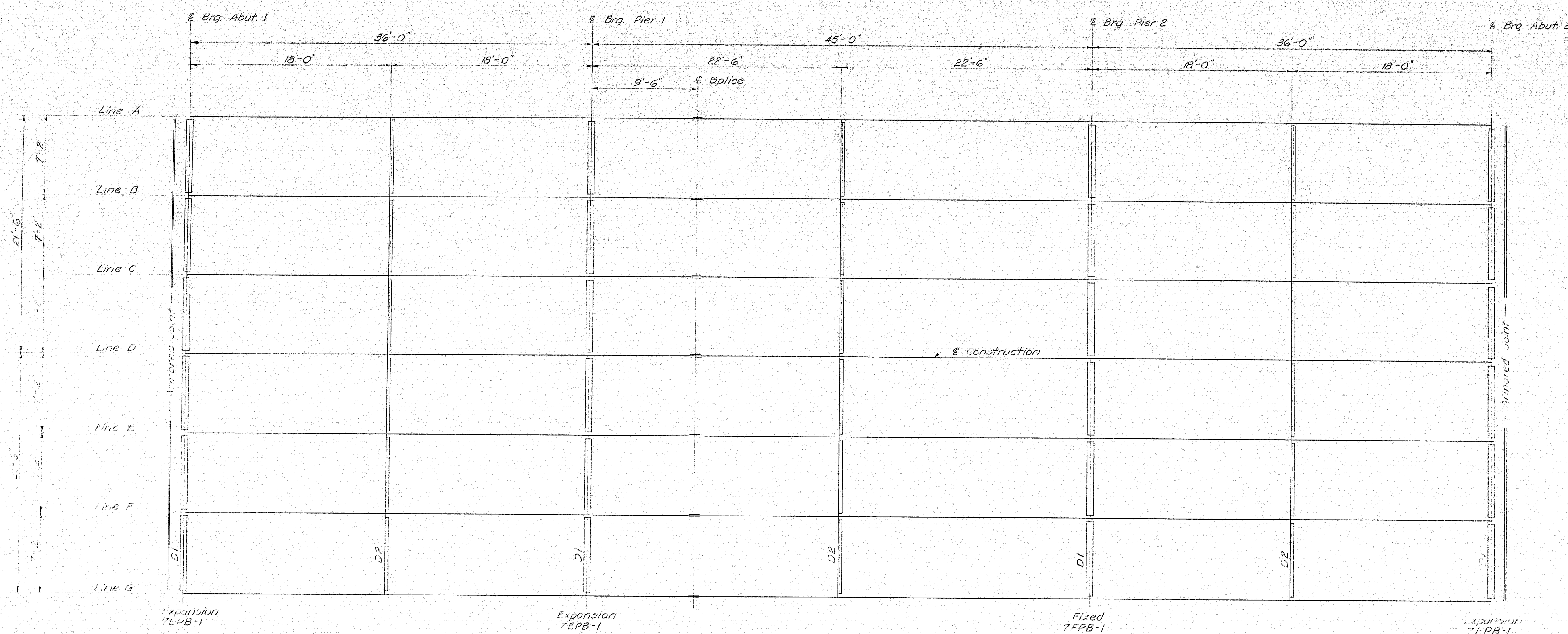
M-2292 MATTA T2-R8 56



STRUCTURAL STEEL NOTES

Structural Steel Classification: All structural steel shall conform to the latest revision of the specification A.S.T.M. Designation A36 unless otherwise noted on Standard Details.

- Bearing Receptacles: See Standard Details BD 101-64.
- Beam Splices: See Standard Details BD 103-64.
- Diaphragms: Diaphragms D1 are Type B. Diaphragms D2 are Type A. See Standard Details BD 104-64.
- Armored Joints: As required. See Standard Details BD 104-64.
- Drains: As required. See Standard Details BD 104-64 and sheet 8.
- Fabricate members with one natural corner up, unless otherwise required.



STRINGER SECTION

Theoretical blocking: Not to be used for setting forms.
Abuts. 1 & 2 & Pier 1 = 1" ±
Pier 2 = 3/4" ±

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 form work is started.

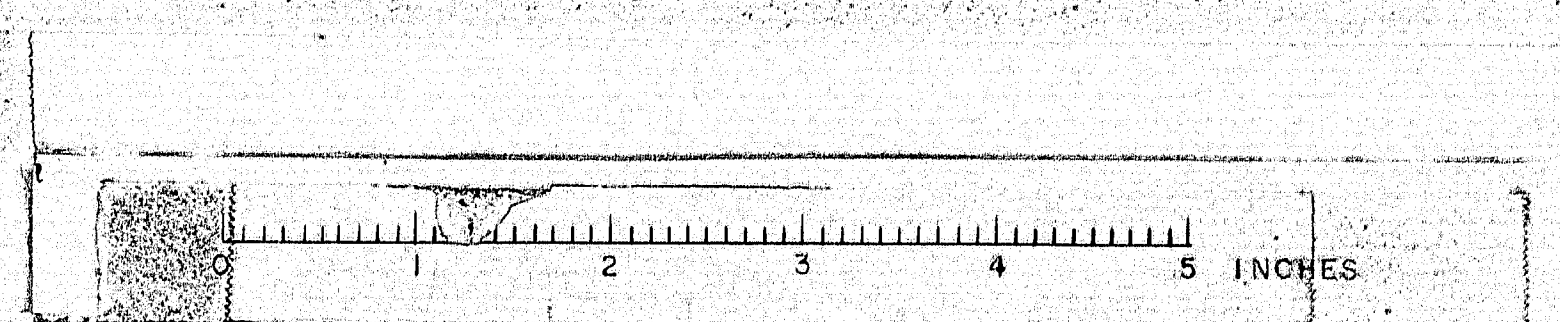
Dead load (minus weight of steel) deflection at midspan:
Span 1 & 3 = 1/16"
Span 2 = 1/8"

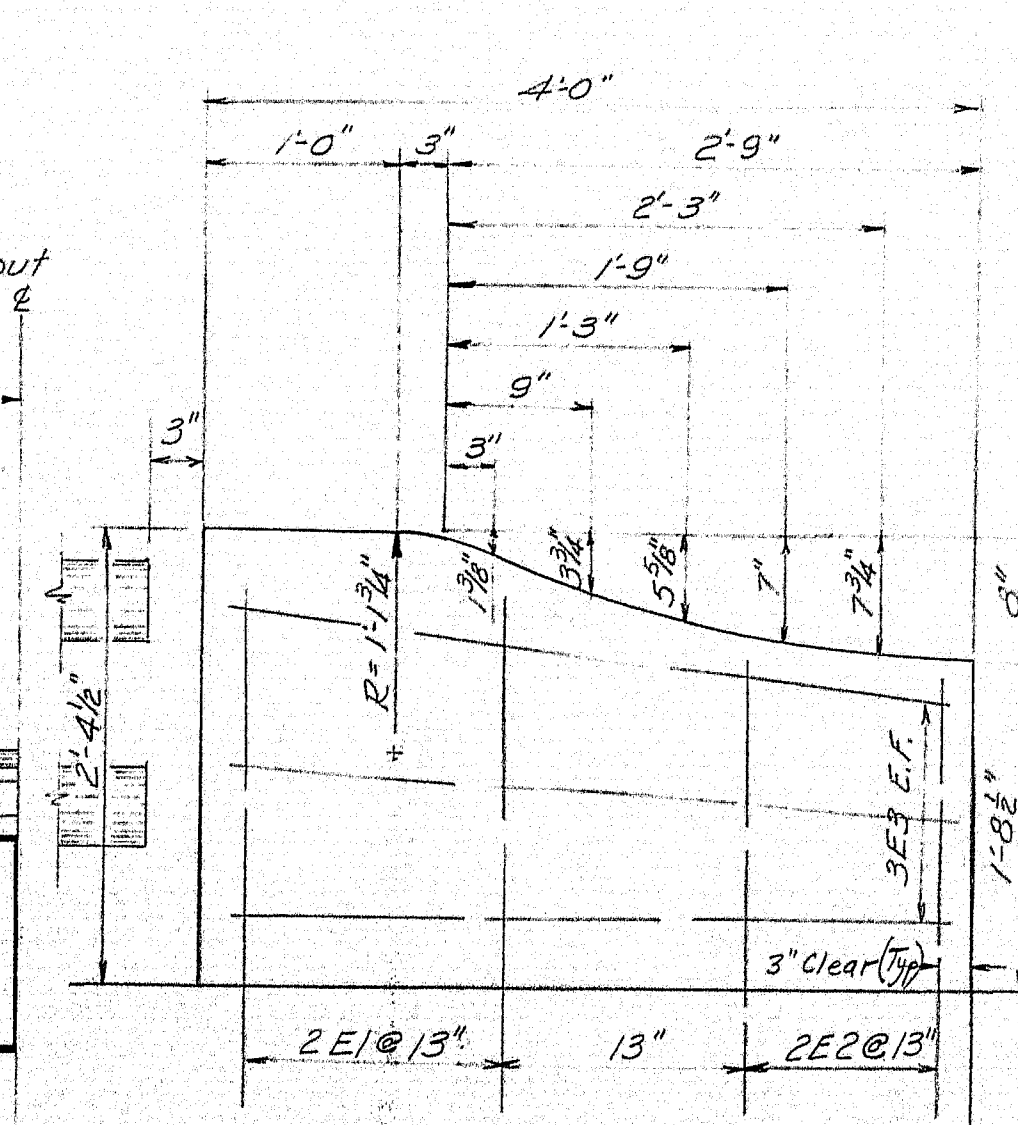
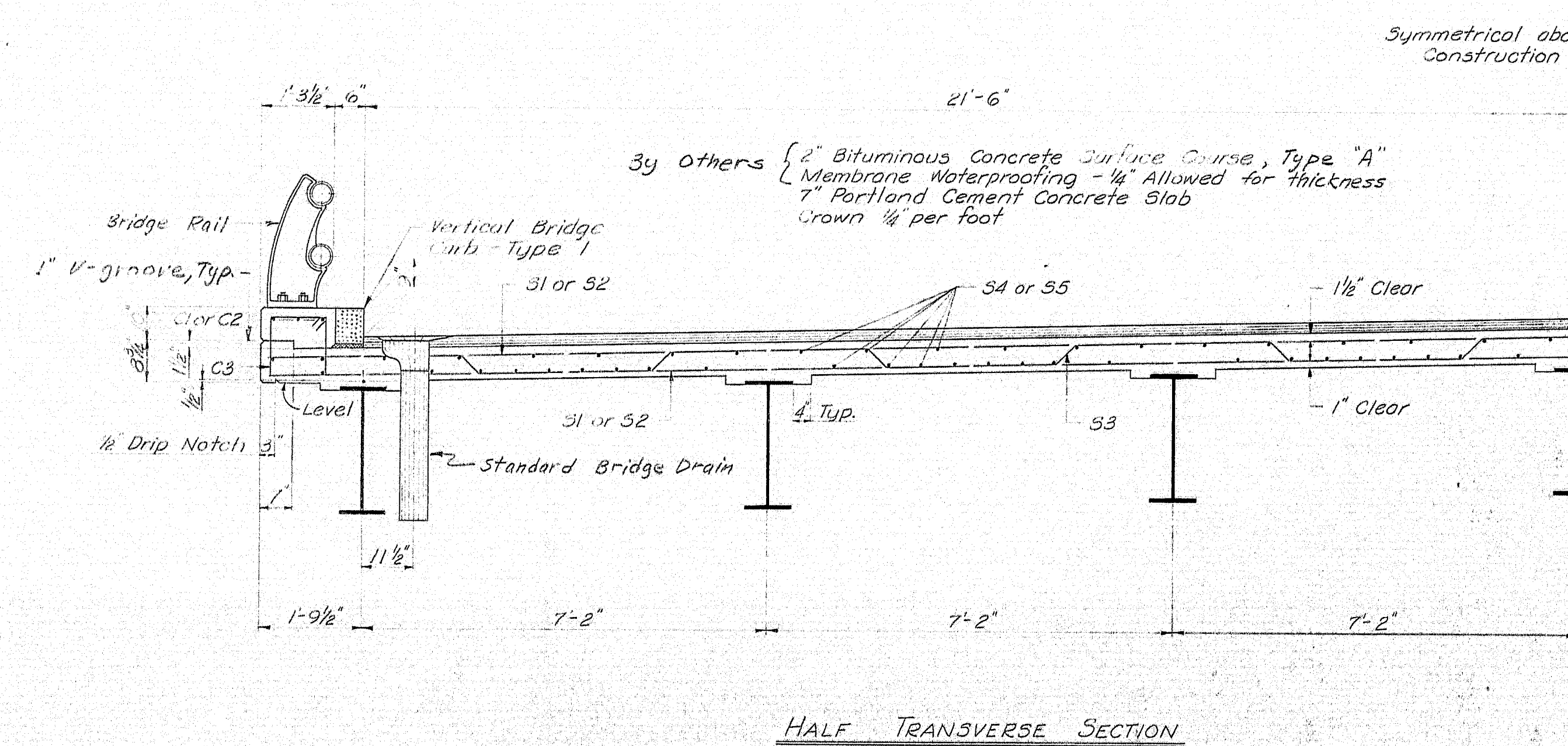
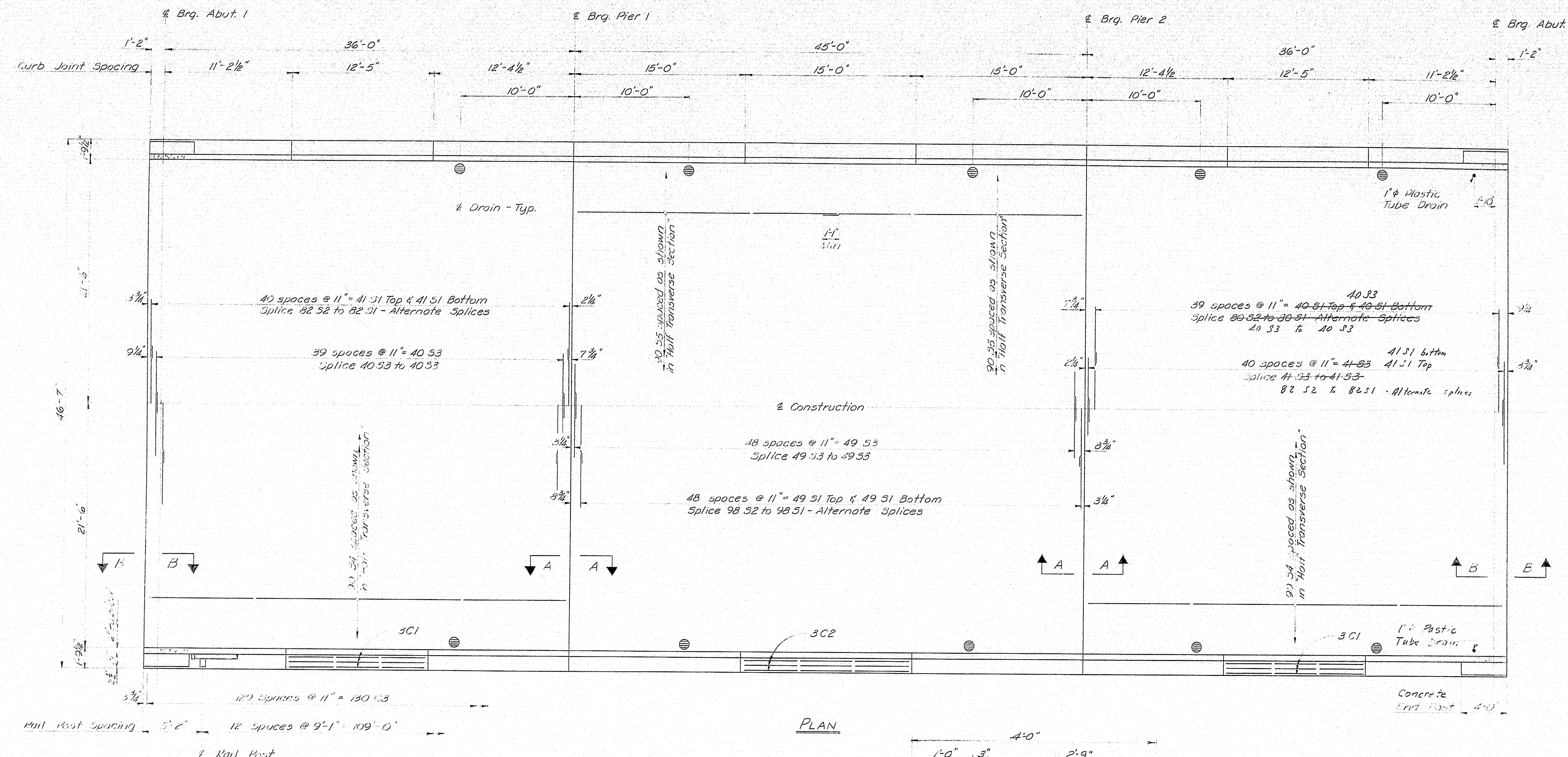
BOTTOM OF SLAB ELEVATIONS							
Point	Str. A	Str. B	Str. C	Str. D	Str. E	Str. F	Str. G
Brq. Abut. 1	192.05	192.20	192.35	192.50	192.35	192.20	192.05
+9'	192.03	192.18	192.32	192.47	192.32	192.18	192.03
+18'	191.99	192.14	192.29	192.44	192.29	192.14	191.99
+27'	191.95	192.10	192.25	192.40	192.25	192.10	191.95
Brq. Pier 1	191.92	192.07	192.22	192.37	192.22	192.07	191.92
+9'	191.90	192.05	192.20	192.35	192.20	192.05	191.90
+18'	191.88	192.03	192.18	192.33	192.18	192.03	191.88
+27'	191.86	192.01	192.16	192.31	192.16	192.01	191.86
+36'	191.83	191.98	192.13	192.28	192.13	191.98	191.83
Brq. Pier 2	191.81	191.96	192.11	192.26	192.11	191.96	191.81
+9'	191.80	191.95	192.10	192.25	192.10	191.95	191.80
+18'	191.80	191.95	192.10	192.25	192.10	191.95	191.80
+27'	191.79	191.94	192.09	192.24	192.09	191.94	191.79
Brq. Abut. 2	191.78	191.93	192.08	192.23	192.08	191.93	191.78

DESIGN - E.E.L. TRACE - C.D.H.	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER	
MATTAMISCONTIS STREAM IN	
T2-R8 PENOBSCOT COUNTY	
STRUCTURAL STEEL AND BLOCKING	
SHEET 7 OF 9 AUGUSTA, MAINE AUG. 1964	

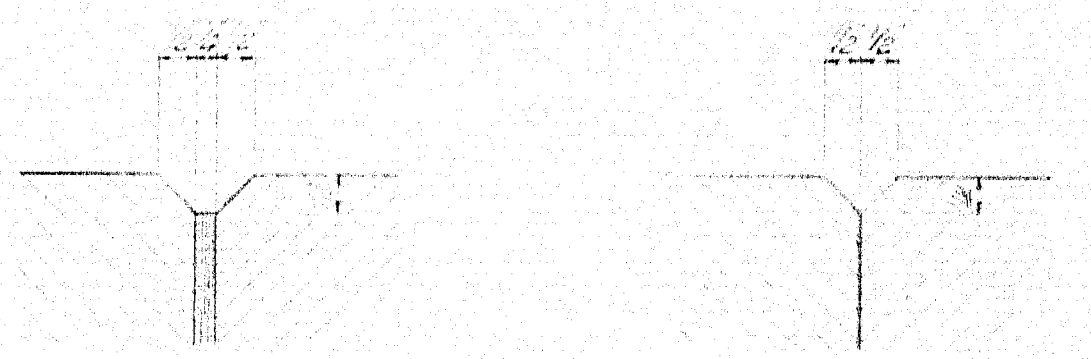
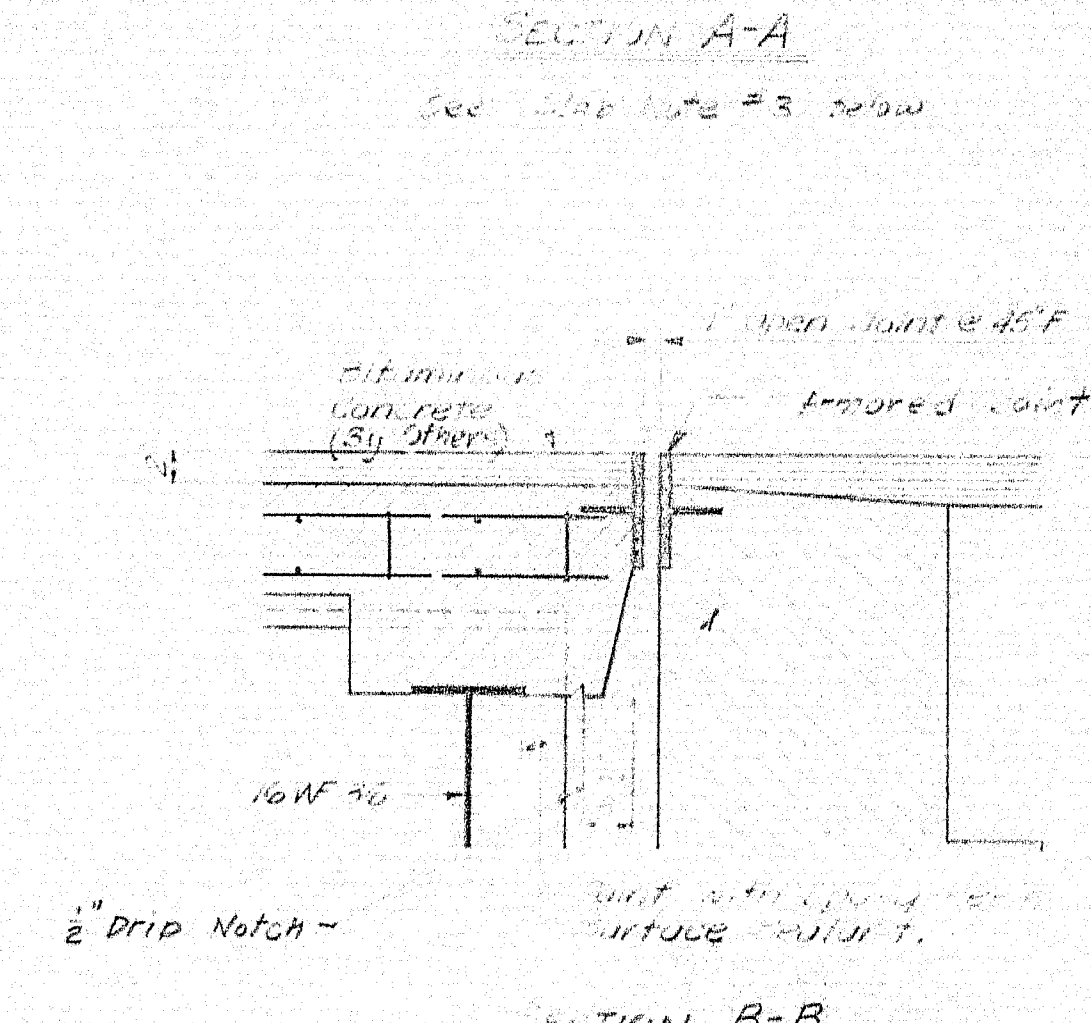
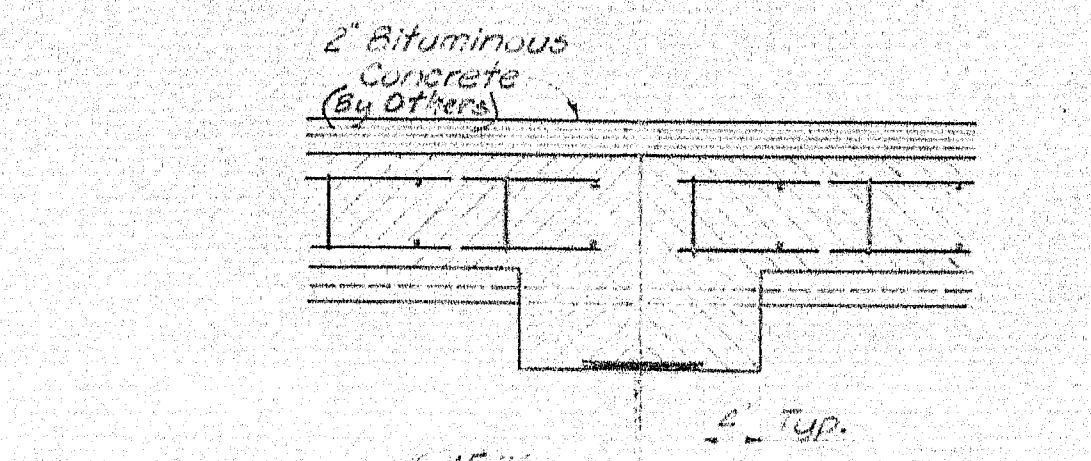
M-2294

MATTA T2-R8





- SLAB NOTES**
- Form 4" V-groove on the outside face of curb and slab at each construction joint.
 - 1" Plastic tube drains to extend through slab 2" below bottom of slab. Do not cover with membrane waterproofing. Payment to be incidental to Item 701.40 Portland Cement Concrete Roadway and Sidewalk Slabs on Steel Bridges. Two required.
 - At construction joints over & bearings of piers use 1/2" preformed expansion joint filler for granite curb and concrete curb. At all other construction joints in curbs break the bond between concrete surfaces by coating the contact areas with a suitable grade of asphalt paint. Joints in granite curb are to be provided of every construction joint in concrete curb.



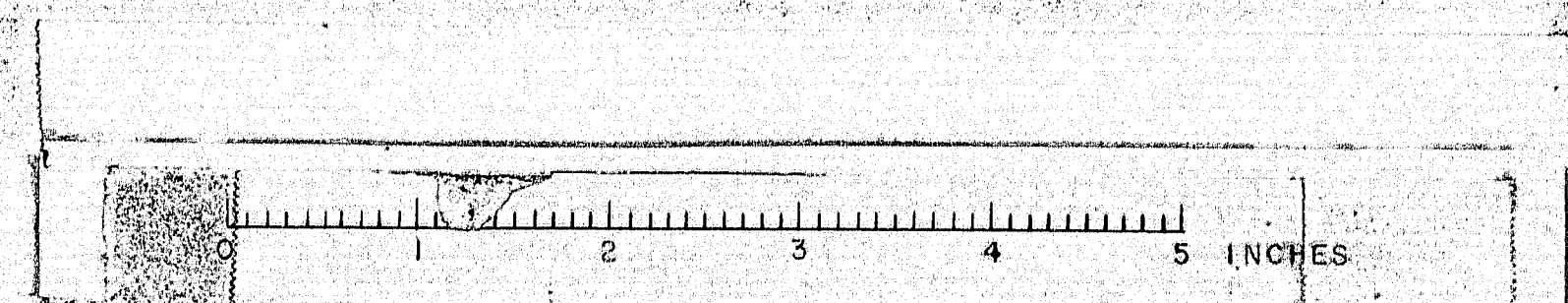
DESIGN - E.E.L.	BRIDGE NO.
TRACE - E.E.L.	1-95-8(56)
CHECK - C.D.H.	1-95-8(56)

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
MATTAMISCONTIS STREAM
IN
T2-R8
PENOBSCOT COUNTY
SUPERSTRUCTURE

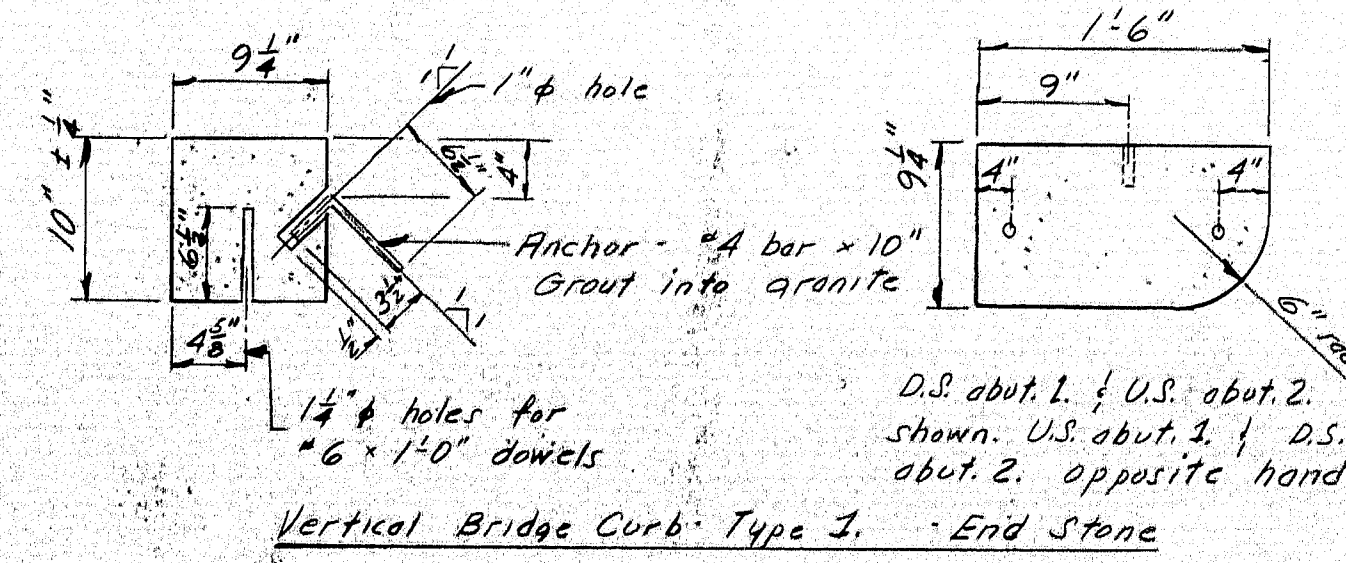
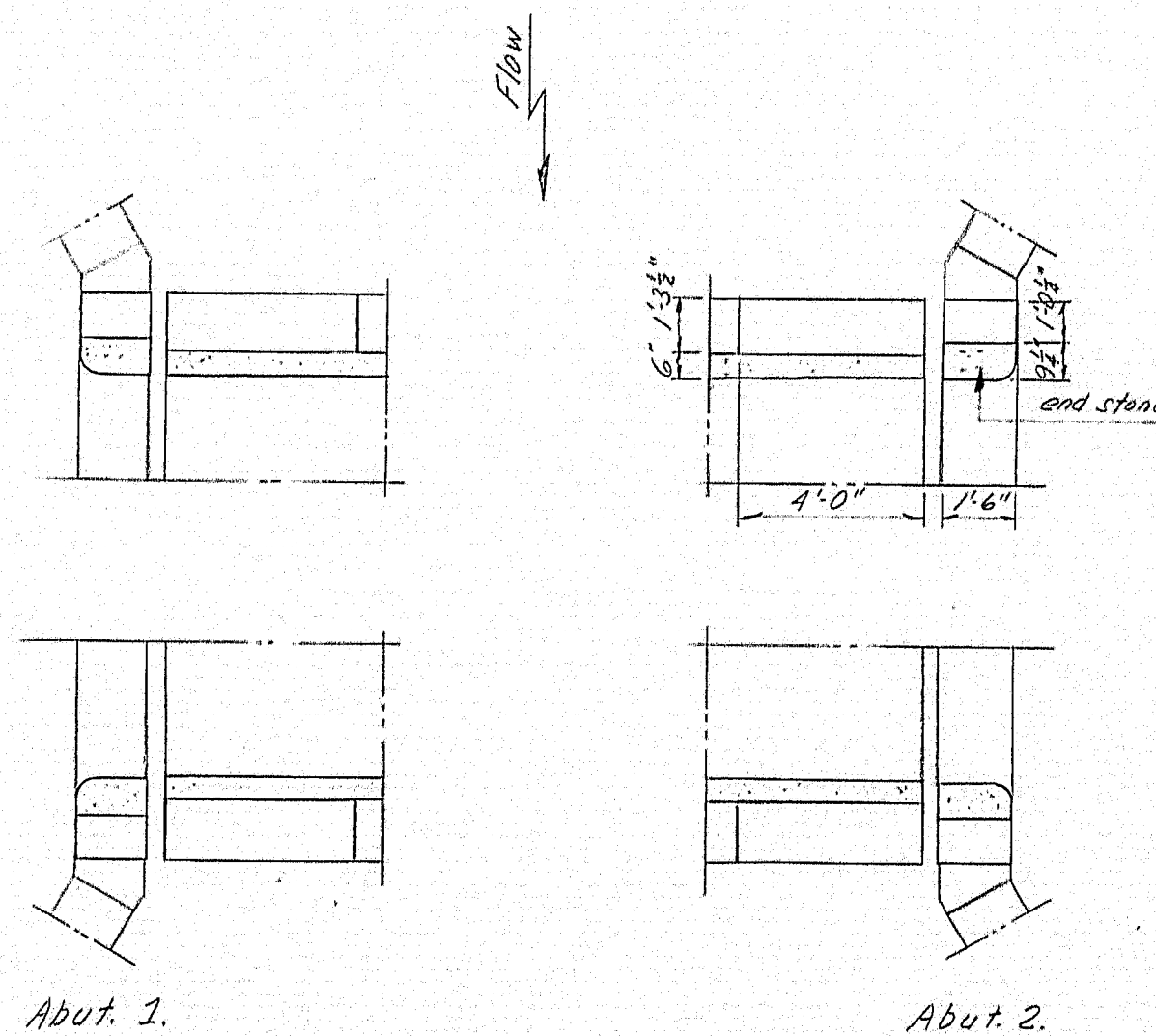
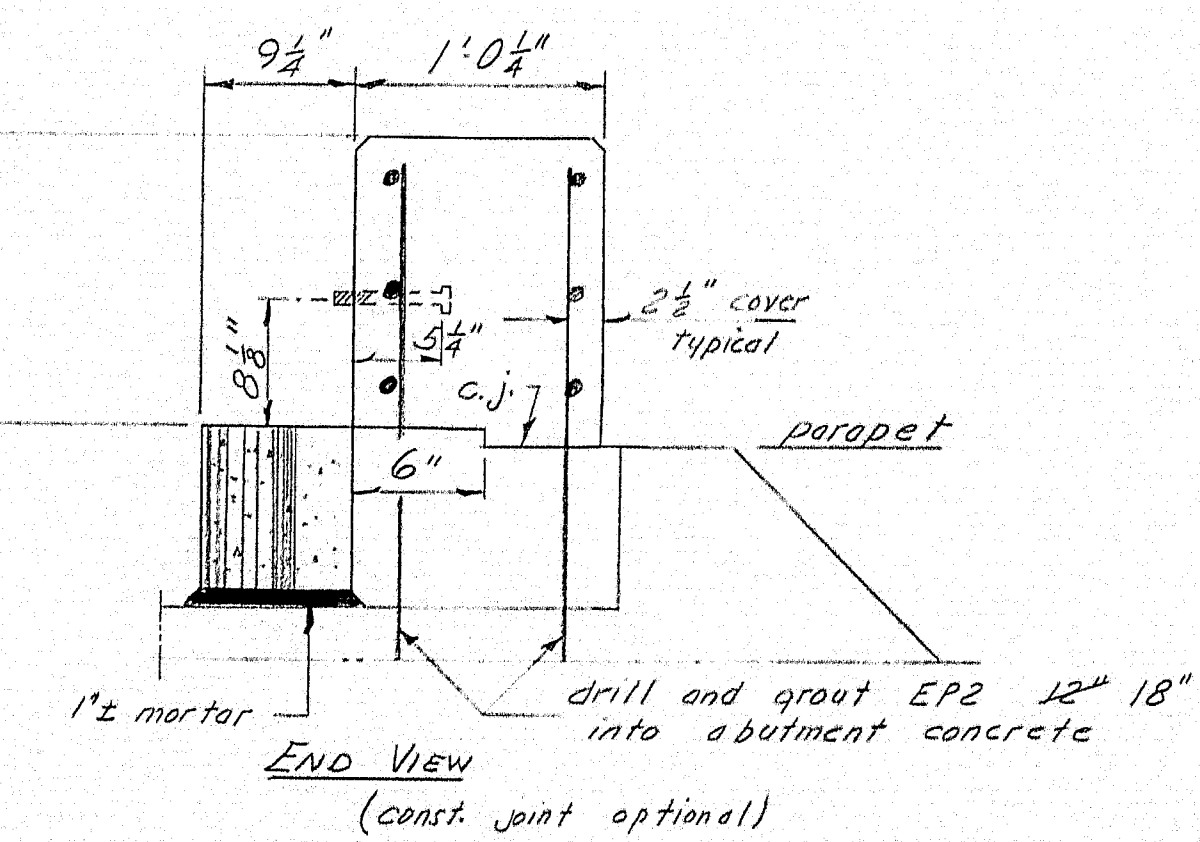
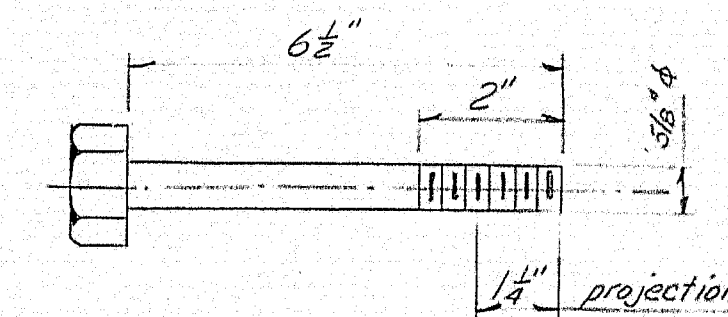
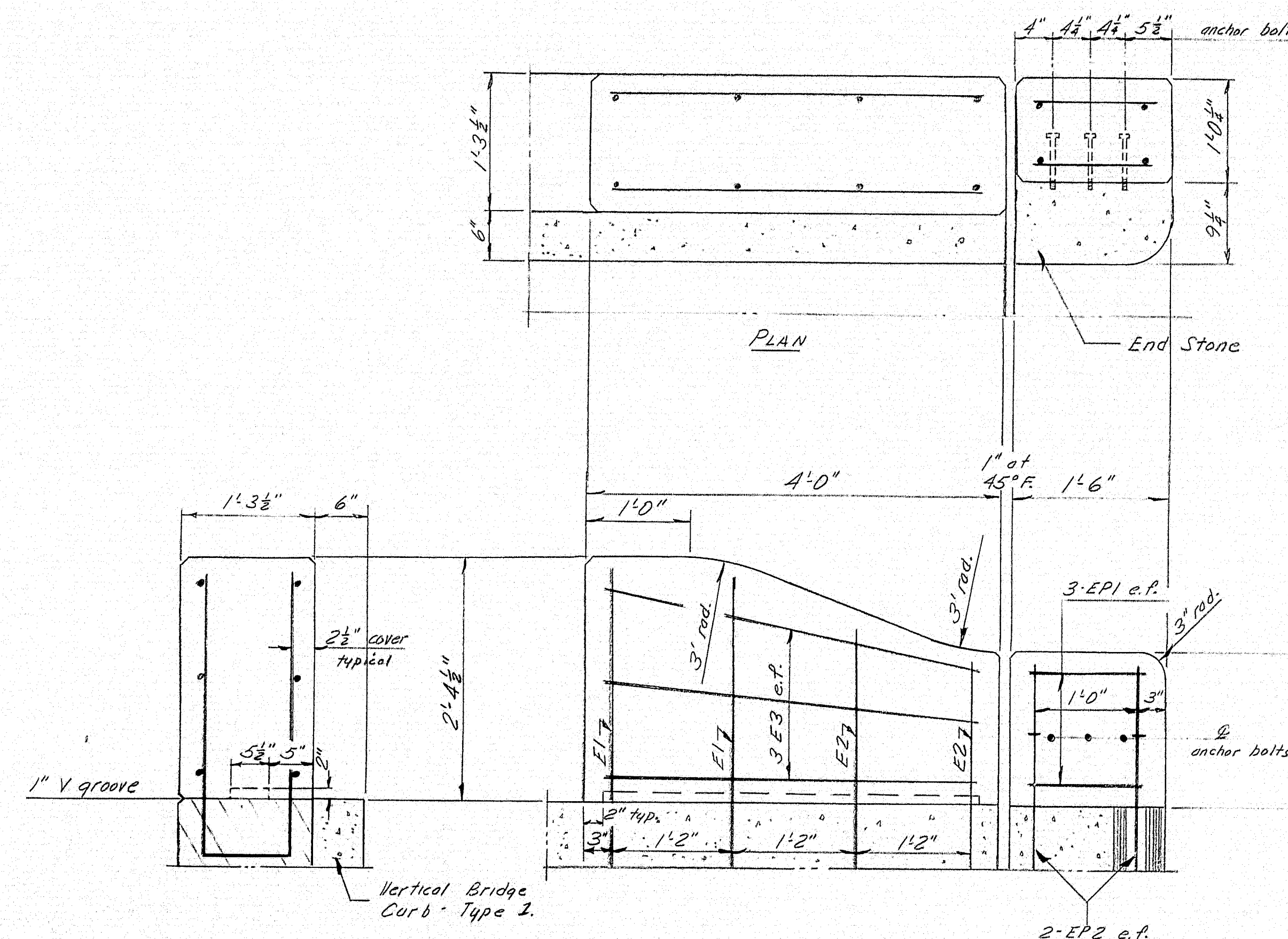
SHEET 19 OF 9 AUGUSTA, MAINE AUG. 1964

M-2295 MATTA T2-R8 56



TYPICAL END POST DETAIL

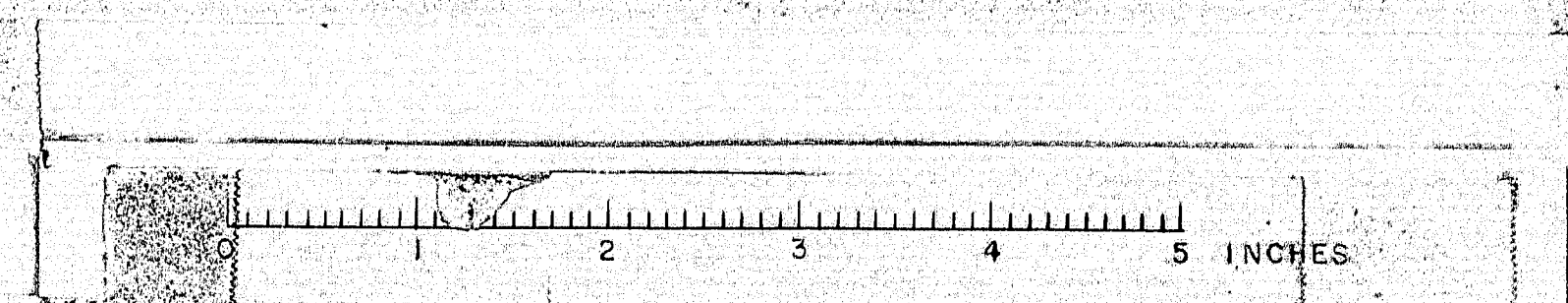
(U.S. Abutment 2. shown.
Other ends similar.)



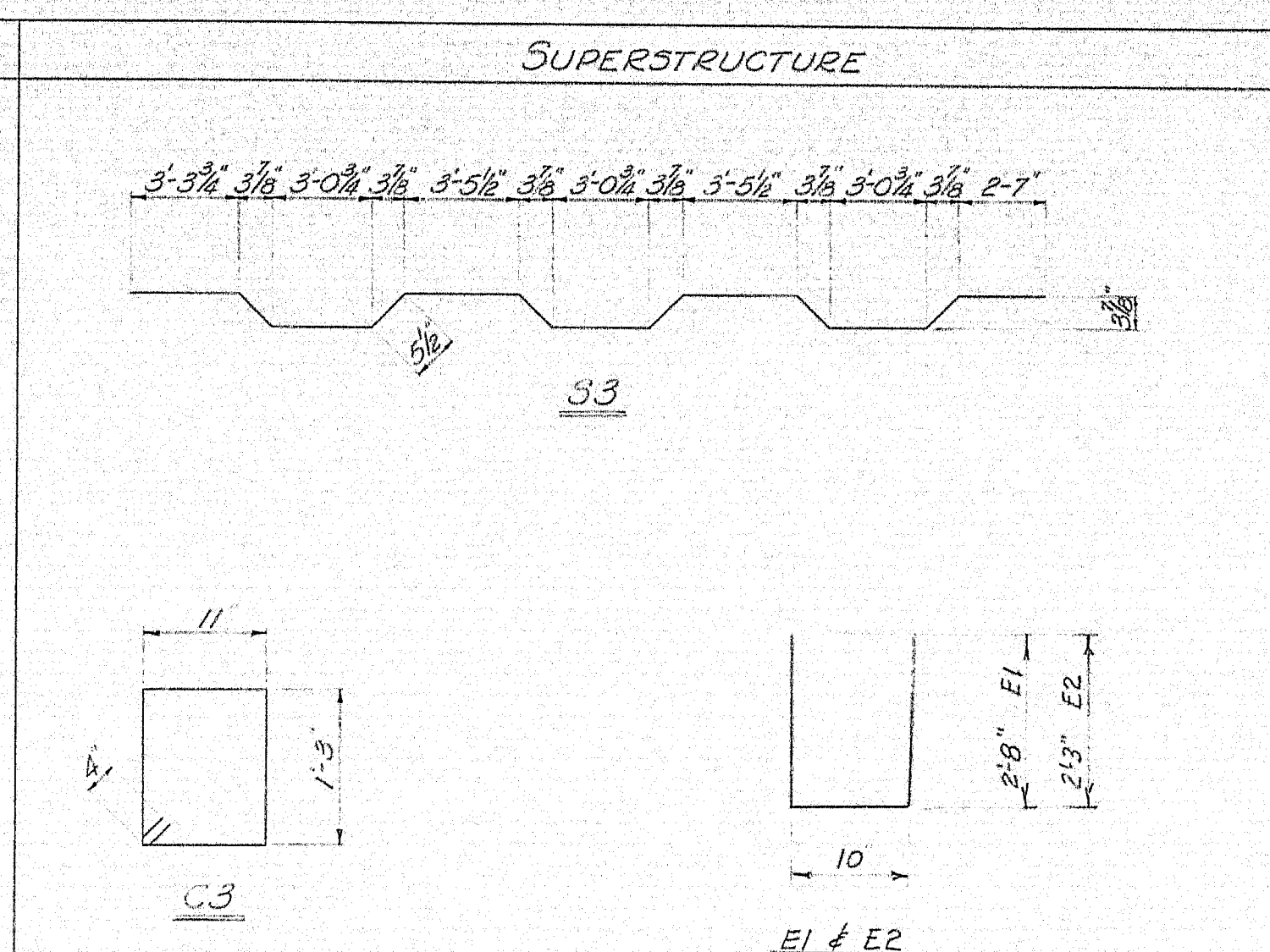
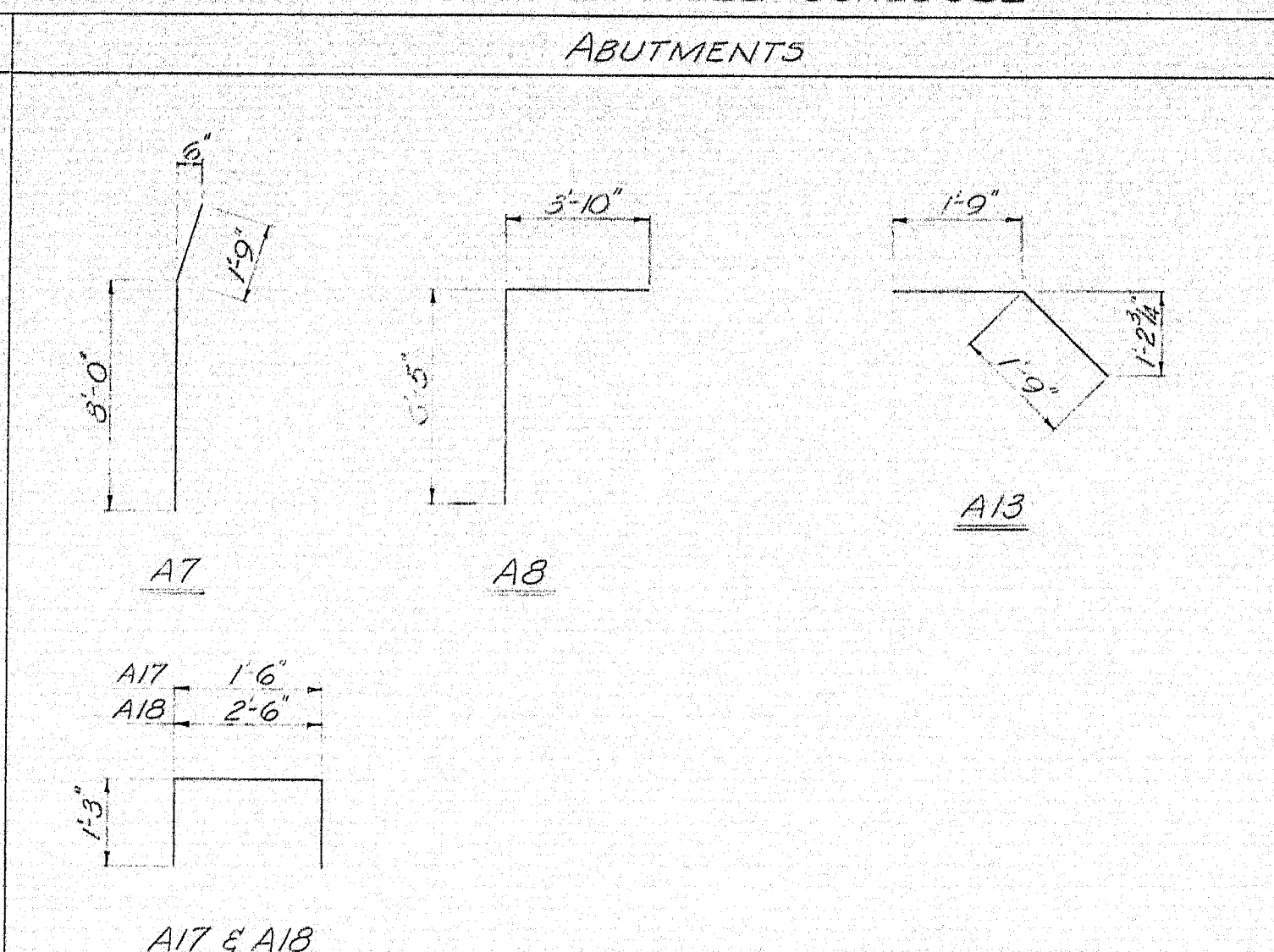
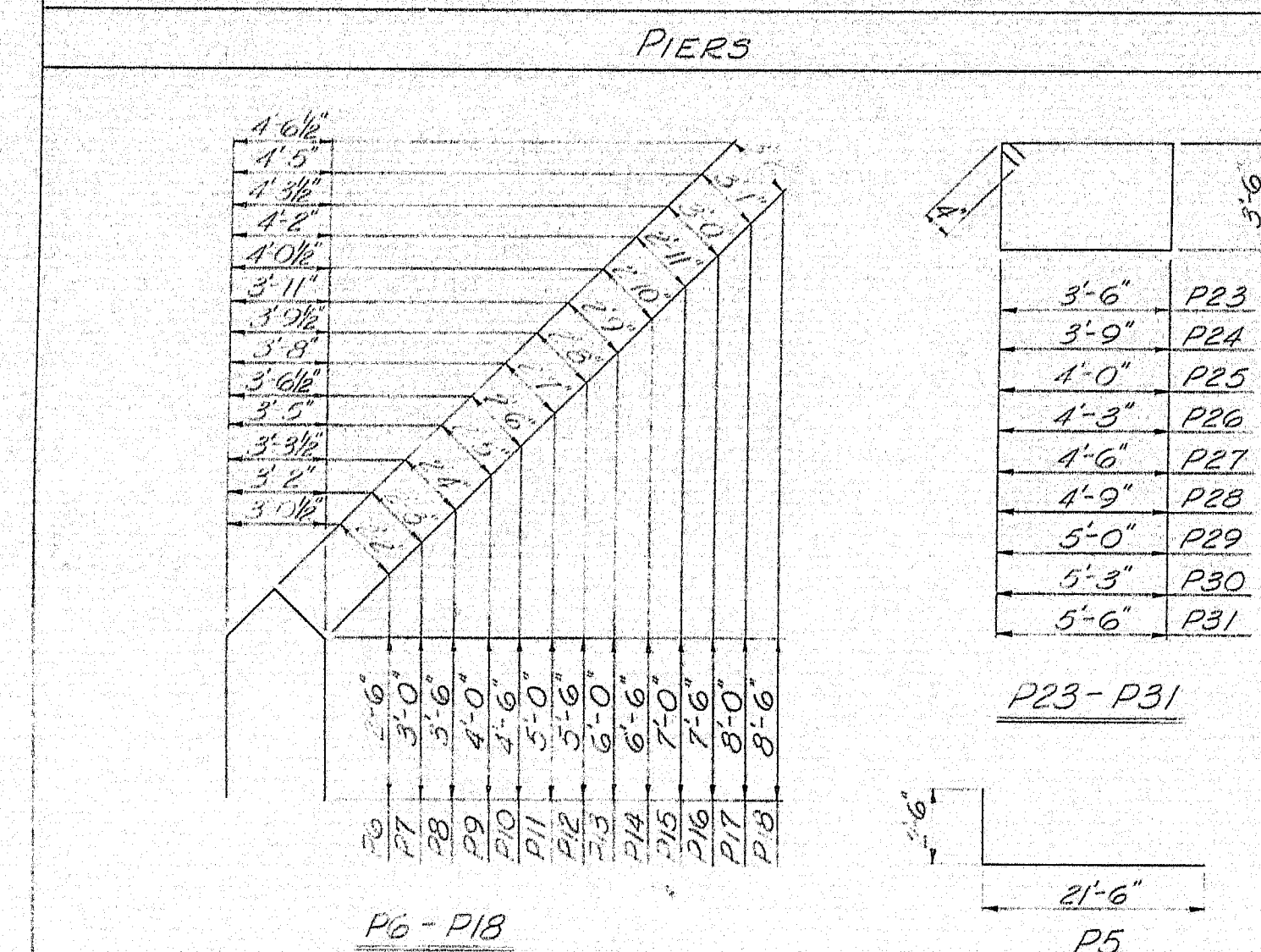
- Additional Materials Required -
- Concrete Class A - 0.60 c.y.
 - Reinforcing Steel:
 - 3-EP1 #4 - 1'0" 24 req'd.
 - 2-EP2 #7/8 - 3'9" 16 req'd.
 - Anchor Bolts - 12 req'd.
 - Vertical Bridge Curb - Type 1 - 4 req'd.
 - End Stone (complete with anchor, dowels)

Drill 1 1/2" holes 6" deep into existing abutment concrete. Grout #6 x 1'0" dowels into granite before setting granite on abutment.

DESIGN - MOLLICONE	BRIDGE NO. SURVEY PLOT -
CHECK -	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER MATTAMISCONTIS STREAM IN T2-R8 PENOBSCOT COUNTY END POST REVISIONS	
SHEET 8A OF 9 AUGUSTA, MAINE MARCH 1966	



REINFORCING STEEL SCHEDULE



BENT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
P5	#5	51	24' 0"	3rd off
P6	#5	6	9' 4"	"
P7	#5	2	11' 6"	"
P8	#5	6	11' 8"	"
P9	#5	2	12' 10"	"
P10	#5	2	14' 0"	"
P11	#5	2	15' 2"	"
P12	#5	2	16' 4"	"
P13	#5	6	17' 6"	"
P14	#5	6	18' 8"	"
P15	#5	2	19' 0"	"
P16	#5	2	21' 0"	"
P17	#5	2	22' 0"	"
P18	#5	2	23' 4"	"
P19	#5	3	24' 8"	3rd
P20	#5	3	25' 2"	"
P21	#5	3	26' 6"	"
P22	#5	3	27' 0"	"
P23	#5	3	27' 8"	"
P24	#5	3	28' 2"	"
P25	#5	32	28' 6"	"

BENT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
A7	#5	60	9'-9"	Footing
A8	#5	60	10'-3"	Bridge Seat
A13	#6	58	3'-6"	Backwall
A17	#4	28	4'-0"	Pedestals
A19	#4	28	5'-0"	"

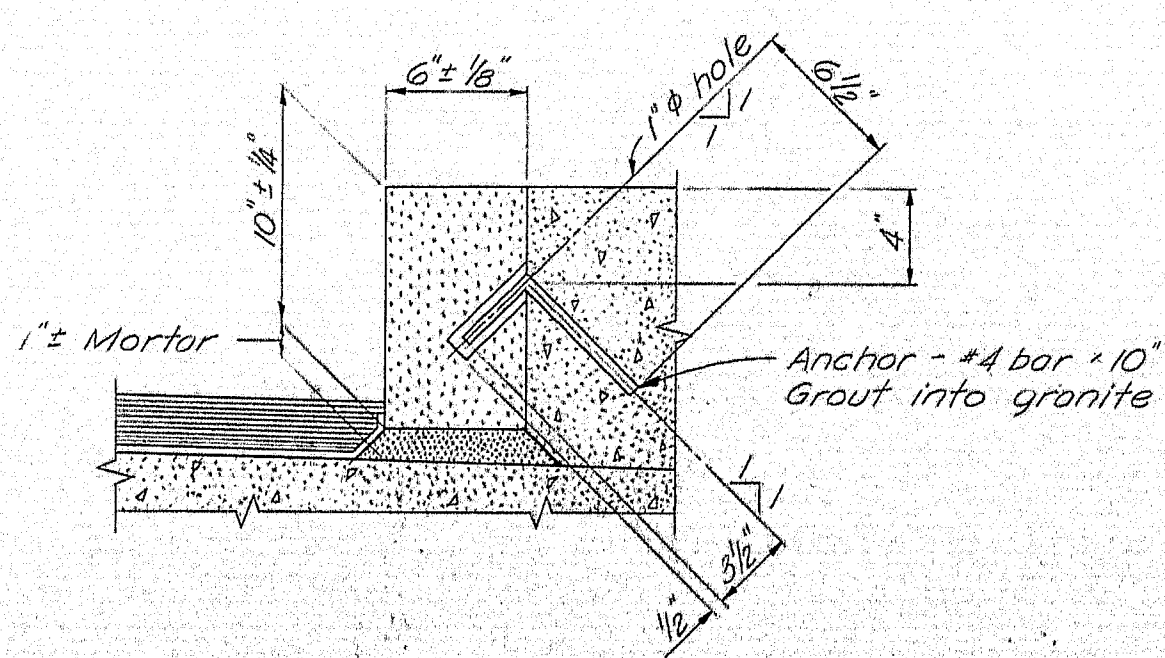
BENT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
E1	#5	8	6'-2"	Concrete End Posts
C3	#5	140-258	25'-0"	Slab
C3	#5	260	5'-0"	Curos
E2	#5	8	5'-4"	Concrete End Posts

STRAIGHT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
11	#6	5	25'-6"	Footing
12	#6	2	1'-0"	"
13	#7	5	3'-0"	"
14	#7	308	2'-0"	shaft
15	#6	16	25'-6"	23'-2" Cop
16	#6	3	25'-0"	23'-3
17	#10	16	23'-6"	"
18	#11	24	14'-9"	"
19	#6	8	23'-4	"

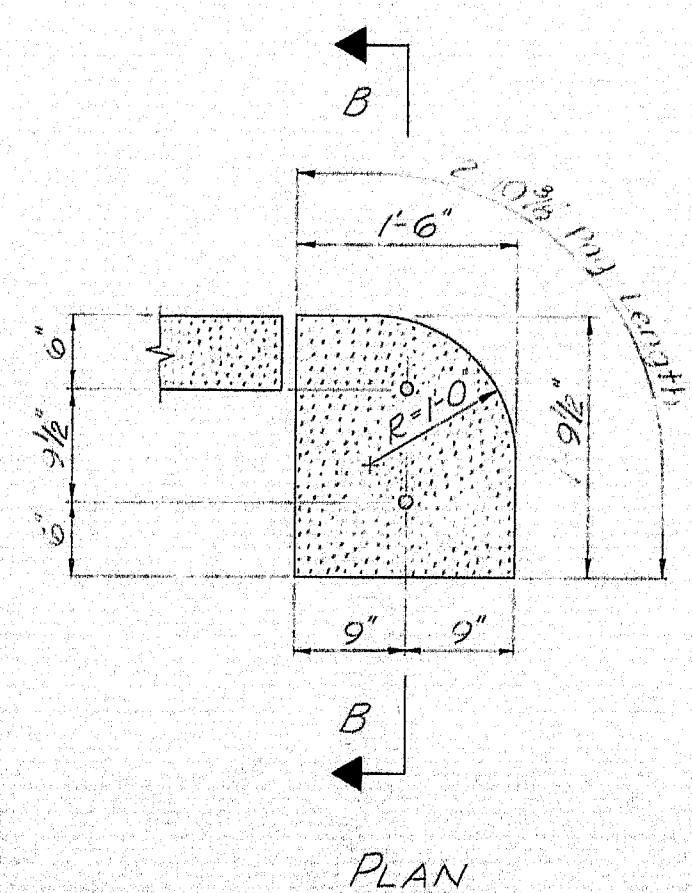
STRAIGHT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
A1	#6	56	25'-0"	Footing
A2	#6	192	6'-0"	"
A3	#6	32	7'-0"	"
A4	#6	16	3'-3"	"
A5	#6	16	4'-6"	"
A6	#5	84	2'-6"	"
A9	#5	40	23'-6"	Bridge Seat
A10	#5	611	3'-0"	"
A11	#4	24	29'-3"	Backwall
A12	#5	120	3'-6"	"
A14	#5	24	10'-3"	Wings
A15	#5	24	8'-6"	"
A16	#5	32	7'-0"	"
A19	#6	336	14'-6"	Approach Slab
A20	#4	40	22'-3"	"
A21	#6	8	1'-0"	Curb Dowels
A22	#4	24	3'-6"	Footing

STRAIGHT BARS				
MARK	SIZE	NUMBER	LENGTH	LOCATION
31	#5	262 260	19'-0"	310b
32	#5	262 260	28'-0"	"
34	#5	180	36'-9"	"
35	#5	180	28'-10"	"
C1	#5	36	12'-0"	Curbs
C2	#5	13	14'-8"	"
E3	#4	24	3'-8"	concrete End Posts

Reinforcing steel to be intermediate grade steel.
Dimensions to § of bars



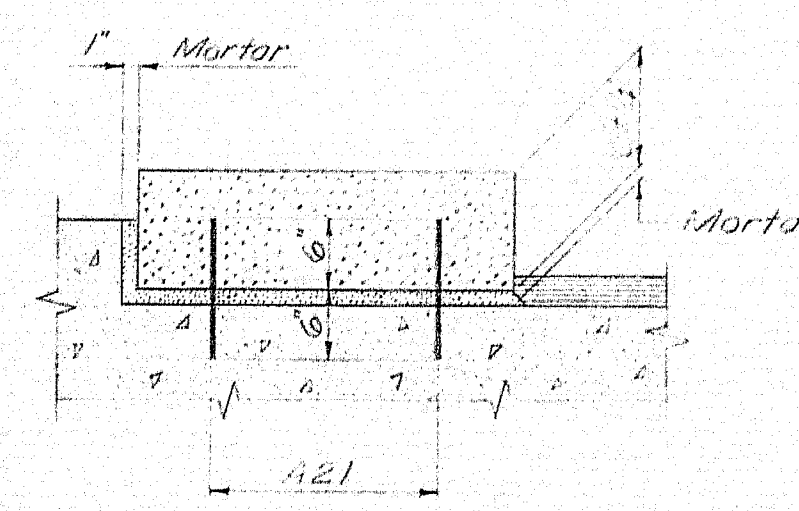
TYPICAL SECTION



PLAN

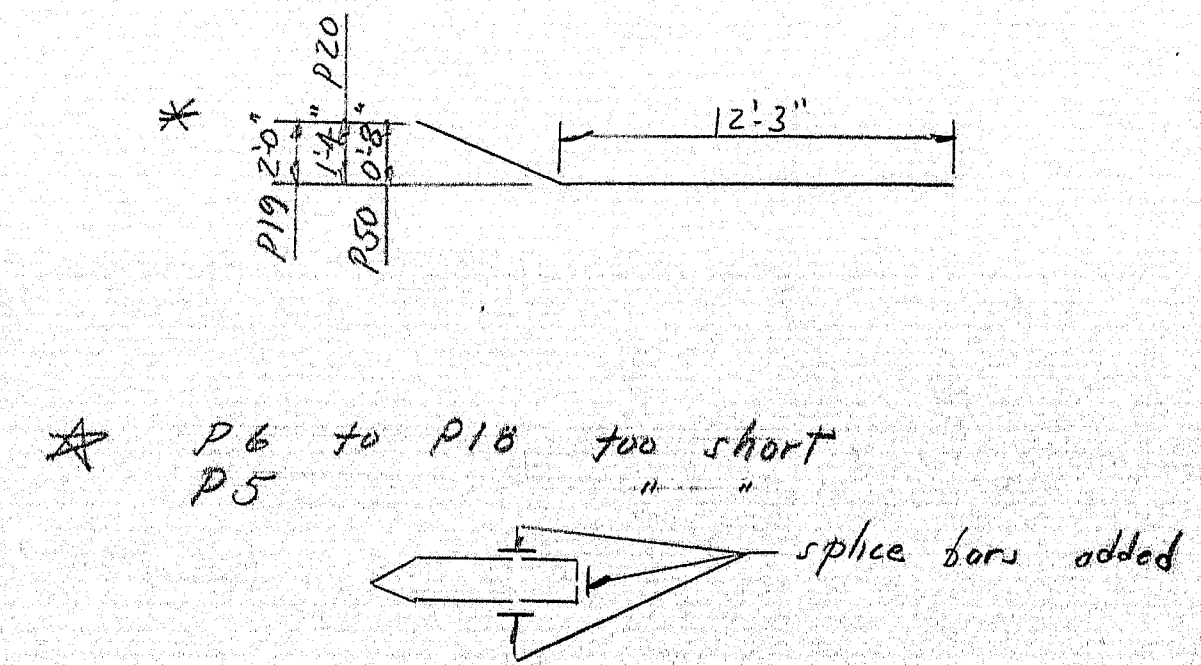
All Vertical Bridge Curb - Type 1 will be paid for under Item 901-24.

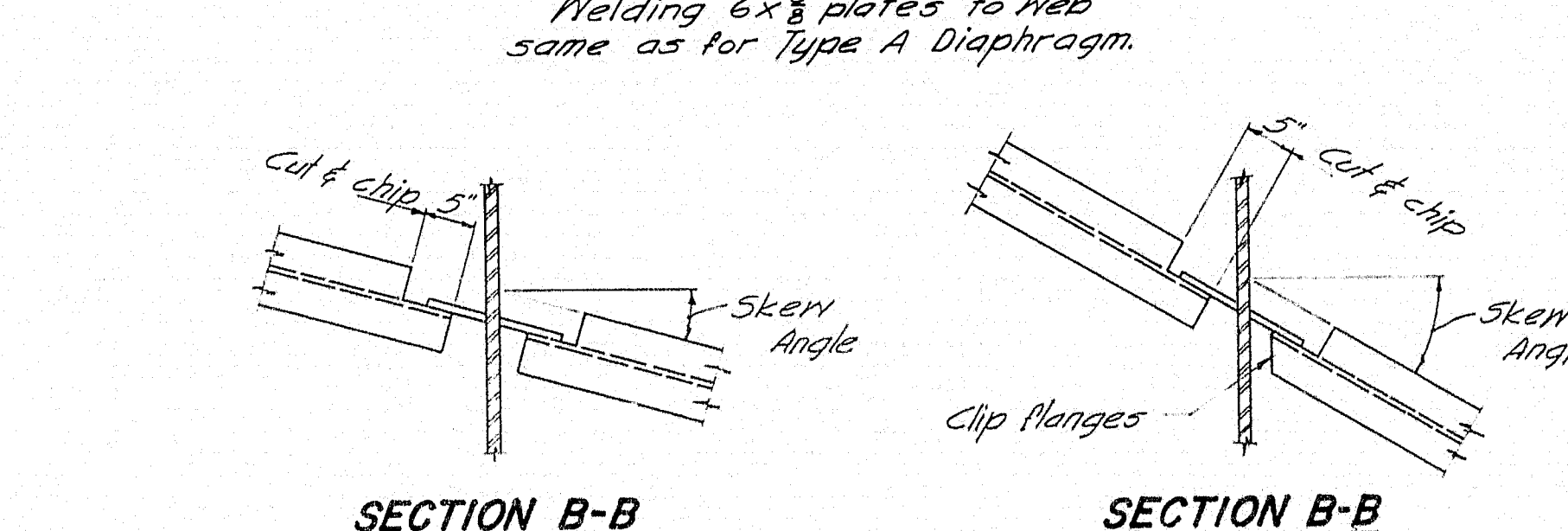
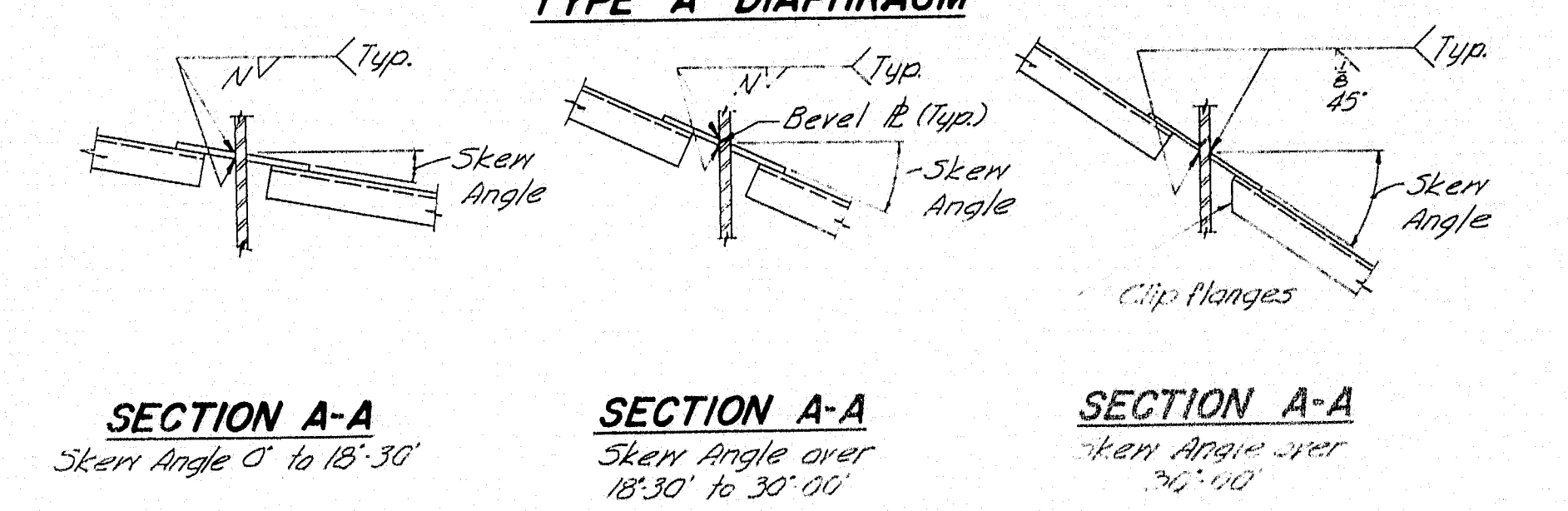
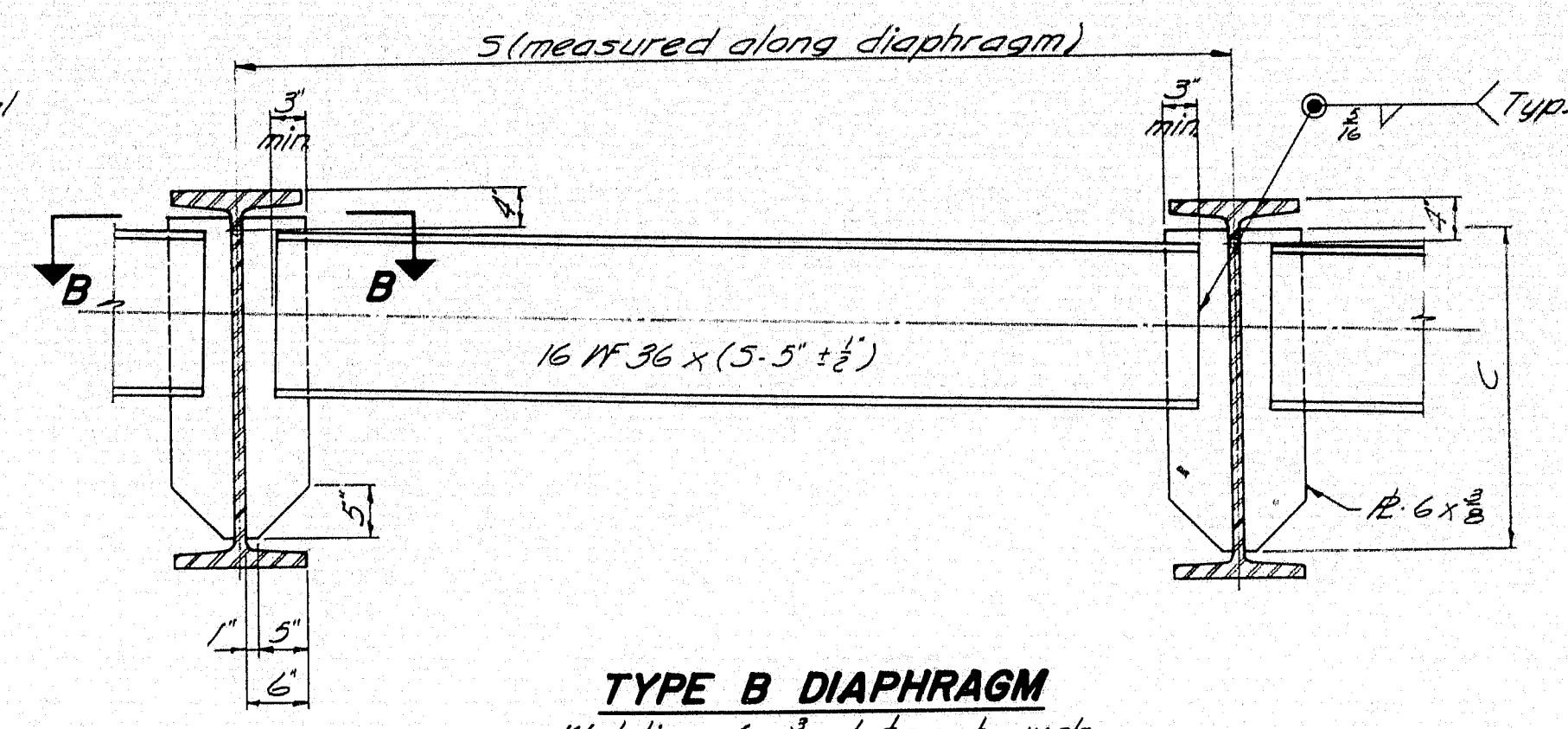
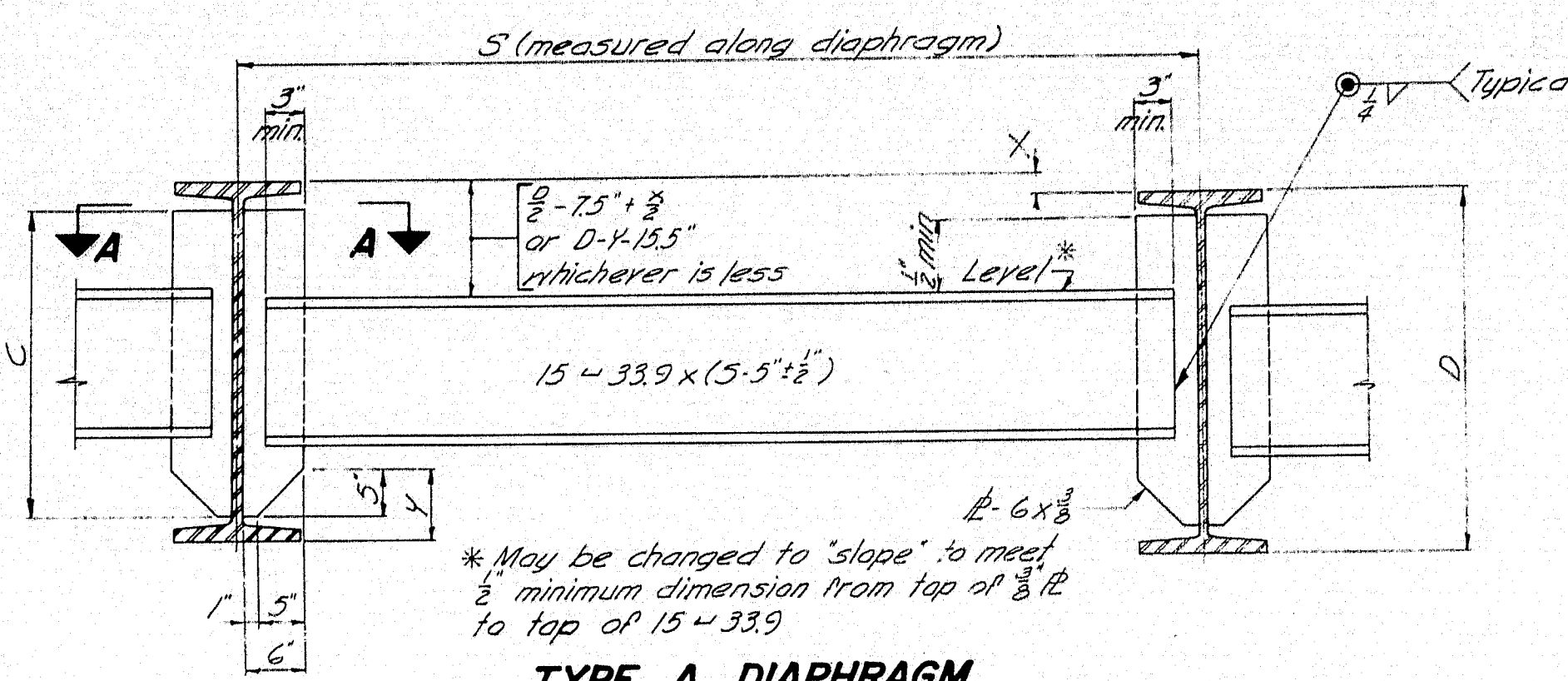
VERTICAL BRIDGE CURB - TYPE 1



SECTION B-B

Grout A21 bars into 1 1/2" ϕ holes in stone prior to setting stone on backwall. Drill 1 1/2" holes in backwall to suit A21 bars. Payment for drilling and grouting of A21 bars to be included in the price for Item 705-14, "Reinforcing Steel, Placing."

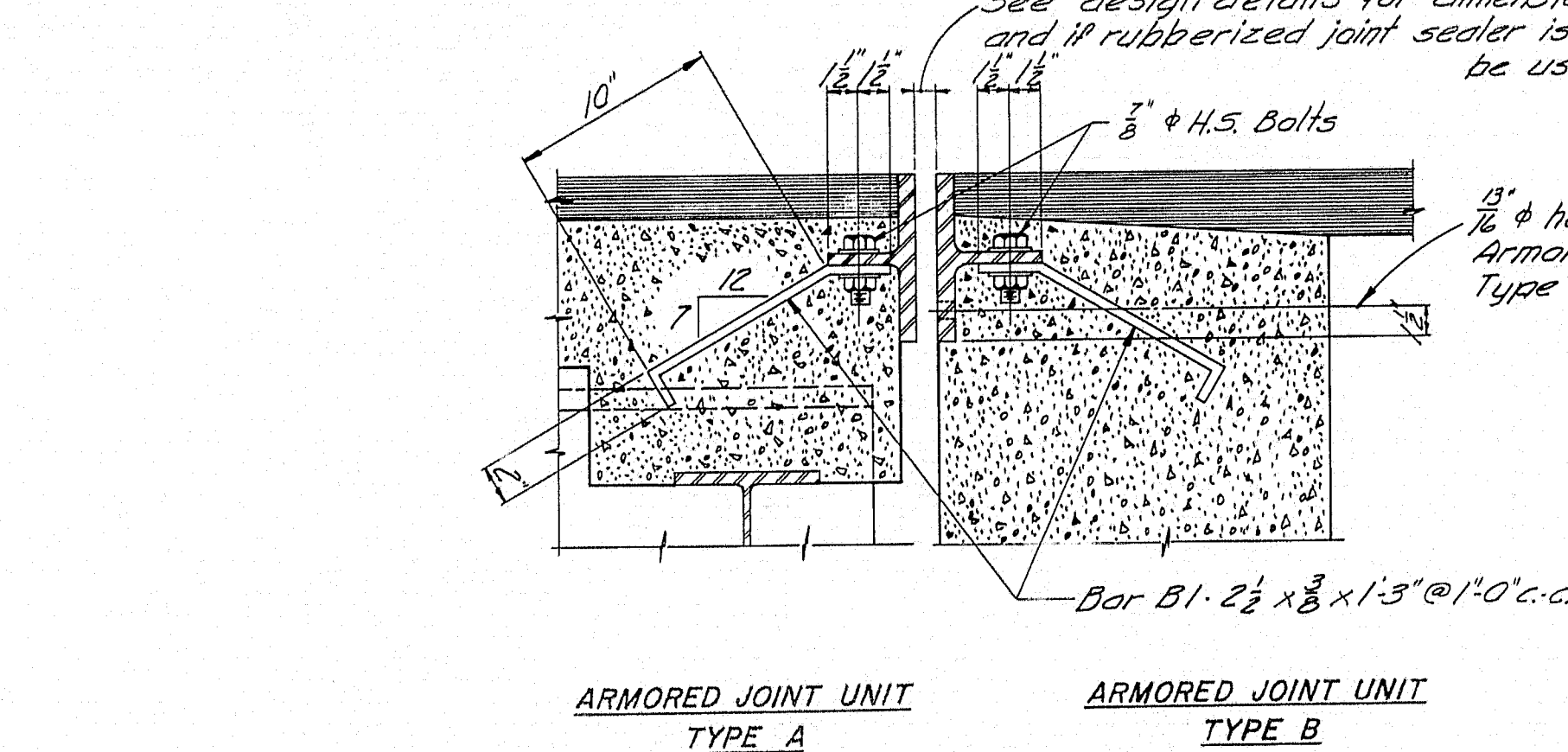
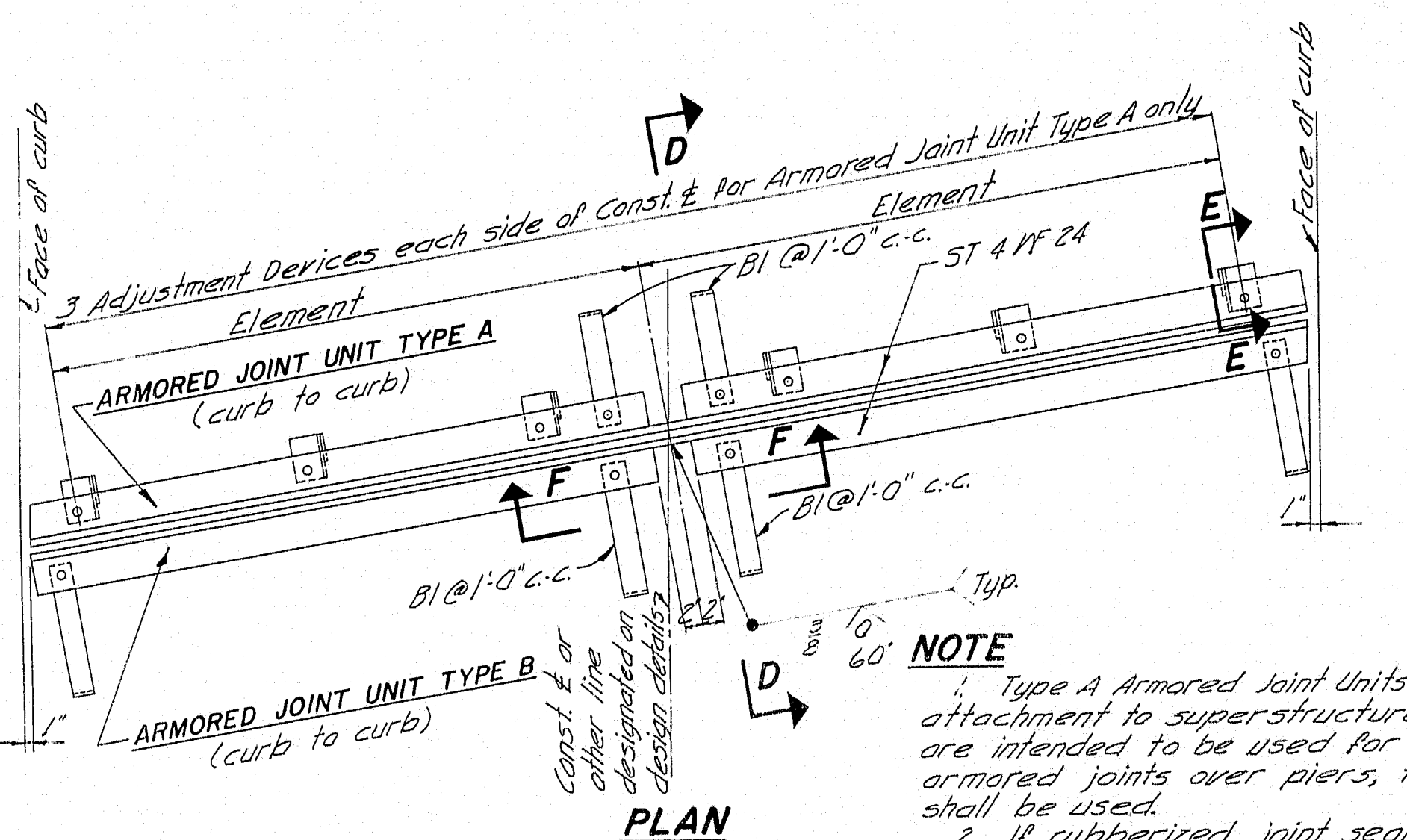




FILLET WELD SIZE "N" & DIMENSION "G" FOR DIAPHRAGM PLATES

BEAM	C	N
2" 11# 84 to 114 incl.	1'-11"	1/2"
30 11# 99 to 132 incl.	2'-2"	1/2"
33 11# 118 to 138 incl.	2'-5"	1/2"
36 11# 135 to 154 incl.	2'-7"	1/2"
36 11# 150 to 300 incl.	2'-6"	1/2"

DIAPHRAGMS

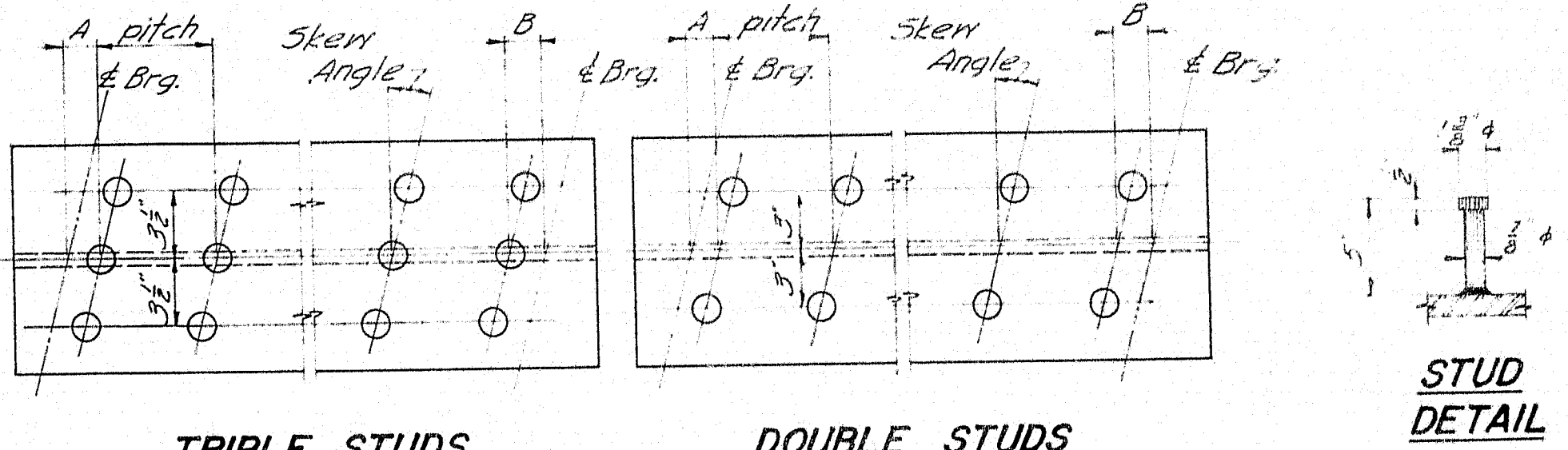
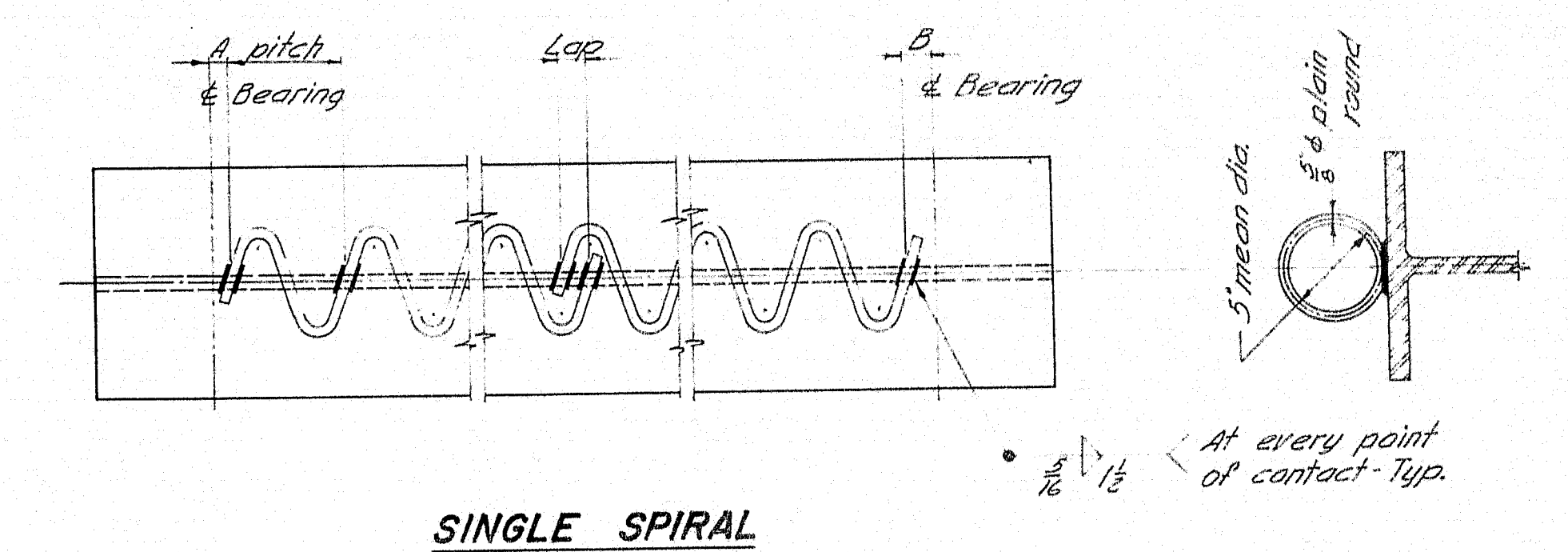
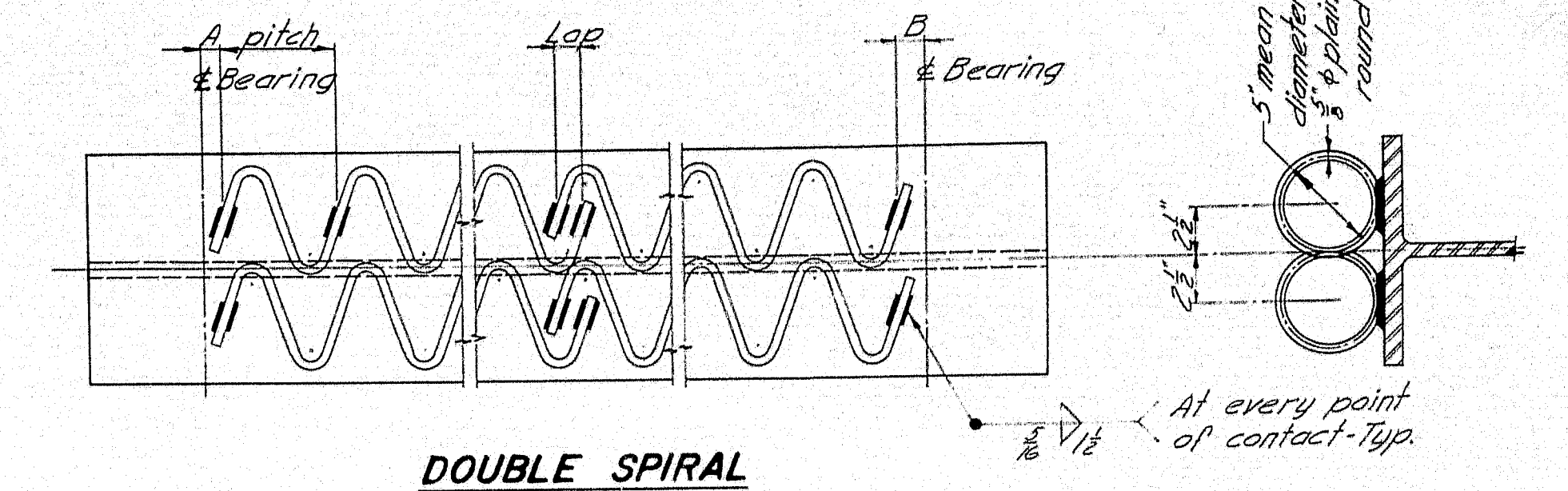


NOTE

- 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 Type A Armored Joint Units shall be used.
- If rubberized joint sealer is called for on the design details the area to which it is to be bonded shall not be painted and it shall be supported on non-bituminous material. At the Contractor's option the supporting material may be left in place or be removed. If the supporting material is left in place, it shall be compressible in accordance with specification AASHTO M 153-54. In either case bond between the supporting material and the rubberized joint sealer shall be prevented by a 1" minimum thickness of Poly-urethane foam.
- 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".
- Armored Joints to be paid for as Structural Steel.

ARMORED JOINT

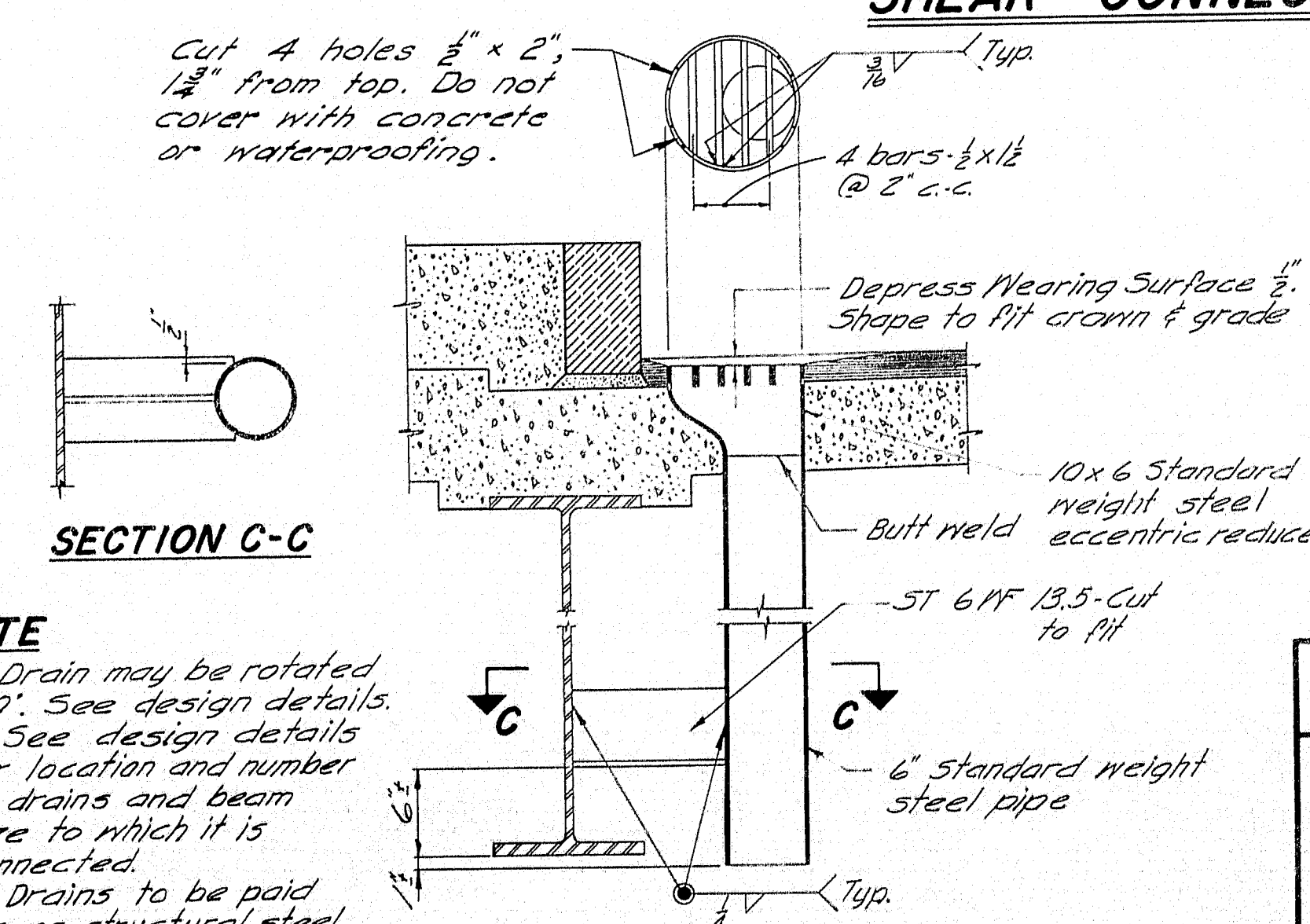
An armored joint consists of two armored joint units. See note 1.



NOTE

- Spiral reinforcing or studs may be used at the option of the Contractor.
- If studs are used they shall be granular or solid flux filled and automatically end welded to the top flange in the shop or field.
- Studs are a patented product. If the Contractor elects to use them, he shall pay the royalty and payment to the contractor will be included in the lump sum price for Shear Connectors.
- See the design details for Dimensions "A" and "B", spiral and stud pitch and skew angle for studs.

SHEAR CONNECTORS



NOTE

- Drain may be rotated 180°. See design details.
- See design details for location and number of drains and beam size to which it is connected.
- Drains to be paid for as structural steel.

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 104-64)

DIAPHRAGMS, ARMORED JOINT,
SHEAR CONNECTORS, DRAIN

JANUARY 1964

M-2299A

MATTIA T3-EP 36

