

STATE OF MAINE  
STATE HIGHWAY COMMISSION



# WEST ETNA ROAD BRIDGE

OVER

## INTERSTATE NO. 95

IN THE TOWN OF

### ETNA

### PENOBSCOT COUNTY

FEDERAL AID PROJECT NO. I-95-7(19)158

**SCALES:**

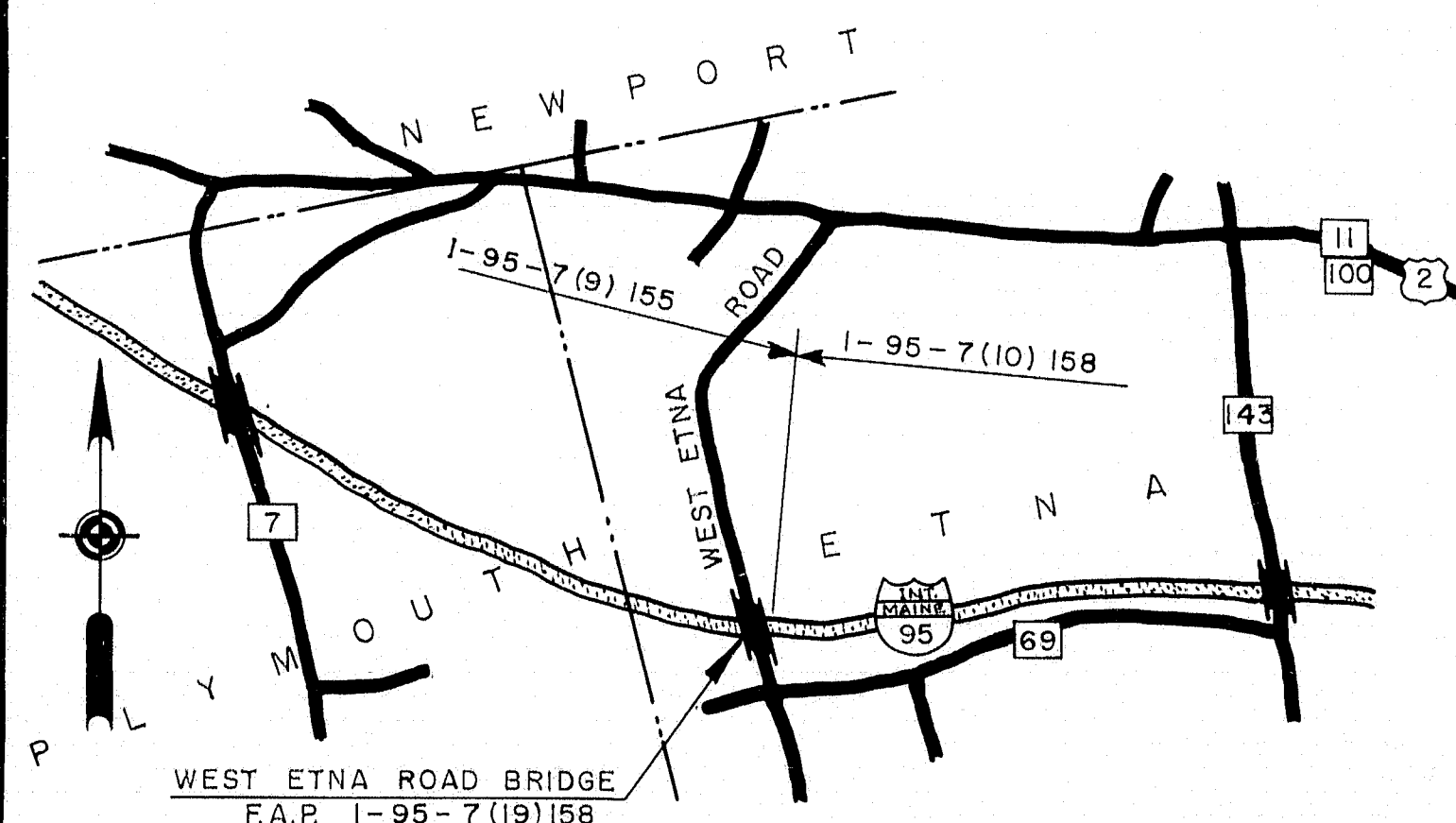
SURVEY PLAN \_\_\_\_\_ 1" = 50'  
SURVEY PROFILE \_\_\_\_\_  
HORIZONTAL \_\_\_\_\_ 1" = 50'  
VERTICAL \_\_\_\_\_ 1" = 5'  
CROSS SECTIONS \_\_\_\_\_ 1" = 5'

### INDEX OF SHEETS

1. TITLE SHEET, 1A. STANDARD DETAILS
2. SURVEY
- 3, 4. CROSS SECTIONS
5. SOIL SURVEY
6. GENERAL PLAN & ESTIMATE OF QUANTITIES
7. ABUTMENT NO. 1
8. ABUTMENT NO. 2
9. PIERS
10. STRUCTURAL STEEL
11. STRUCTURAL STEEL DETAILS
12. SUPERSTRUCTURE
13. SUPERSTRUCTURE & ALUMINUM RAIL
14. REINFORCING SCHEDULE & ESTIMATE OF BRIDGE QUANTITIES

### TRAFFIC

A.D.T. 1960 \_\_\_\_\_ 25  
A.D.T. 1980 \_\_\_\_\_ 35  
D.H.V. \_\_\_\_\_ 4  
T \_\_\_\_\_ 11 %  
D \_\_\_\_\_ 60 %  
V \_\_\_\_\_ 50 m.p.h.



### LOCATION MAP

APPROX. SCALE - 1 INCH = 1 MILE

APPROVED:  
MAINE STATE HIGHWAY COMMISSION

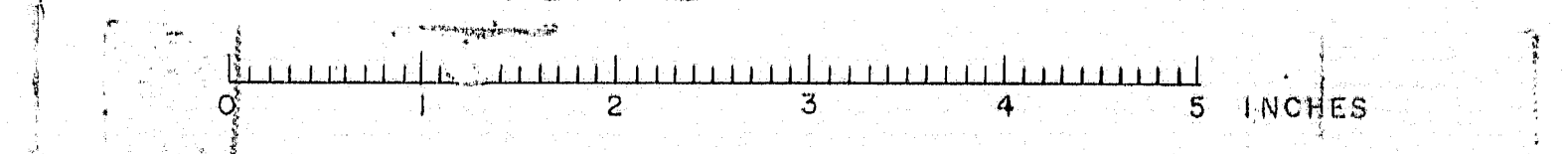
*David G. Stevens*  
CHAIRMAN  
*Leon Williams*  
CHIEF ENGINEER

DATE 9/14/1961

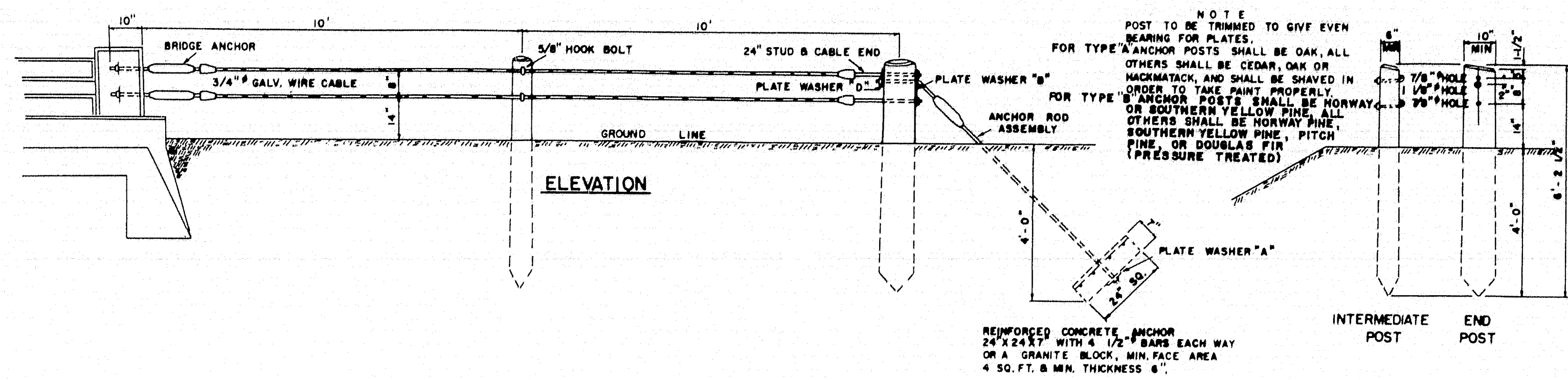
DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
REGION I

APPROVED:

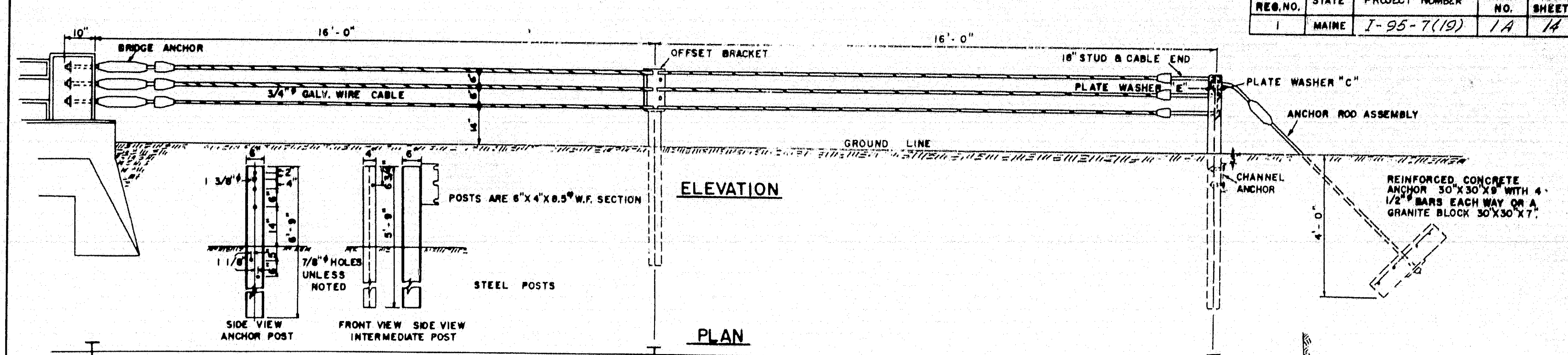
DISTRICT ENGINEER DATE



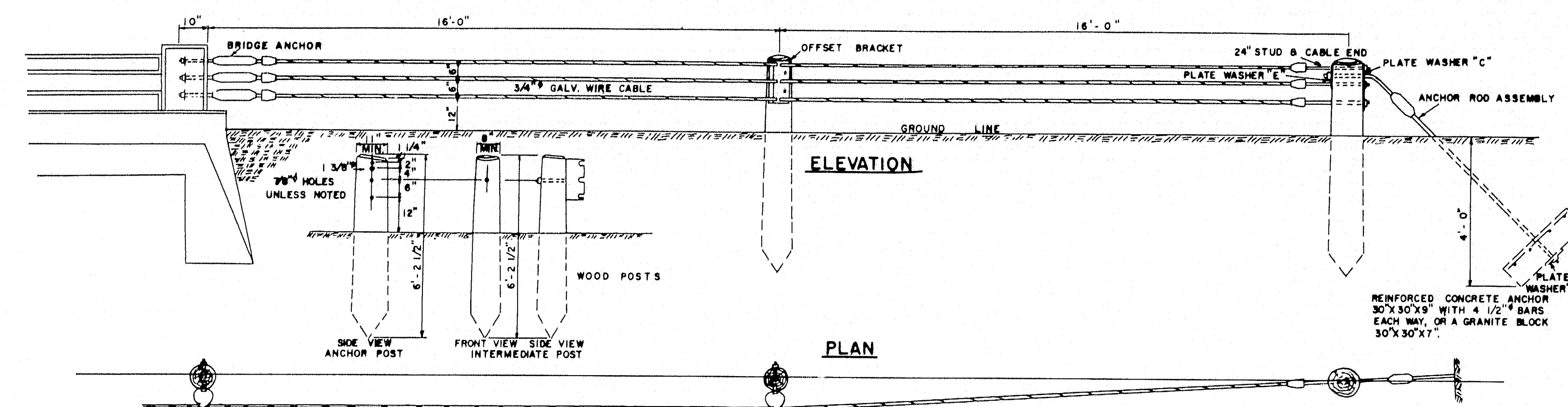




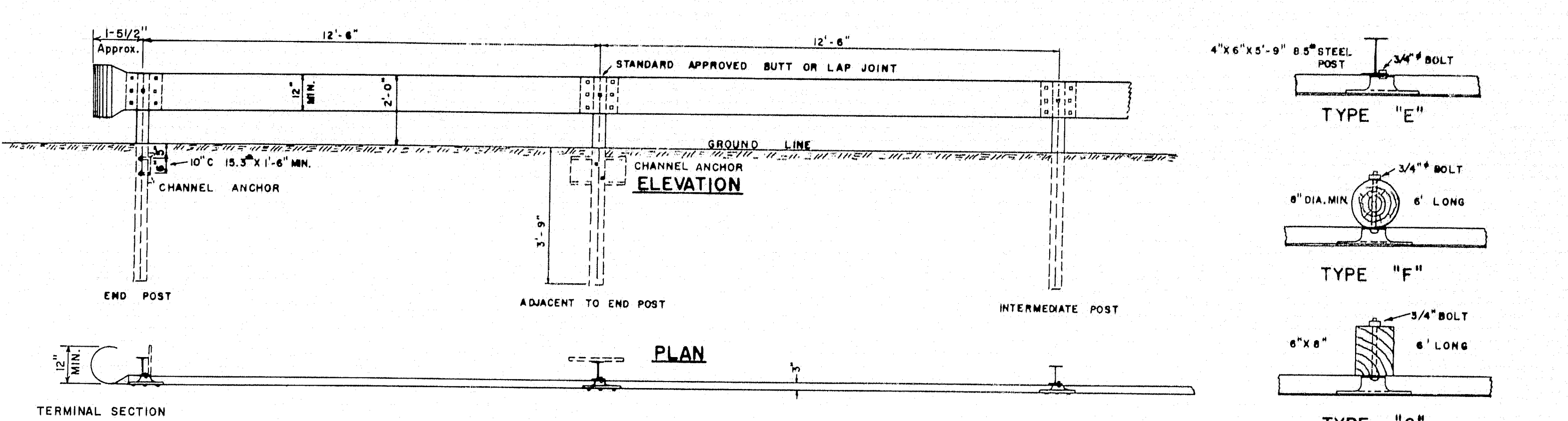
GUARD RAIL TYPE "A" & "B"



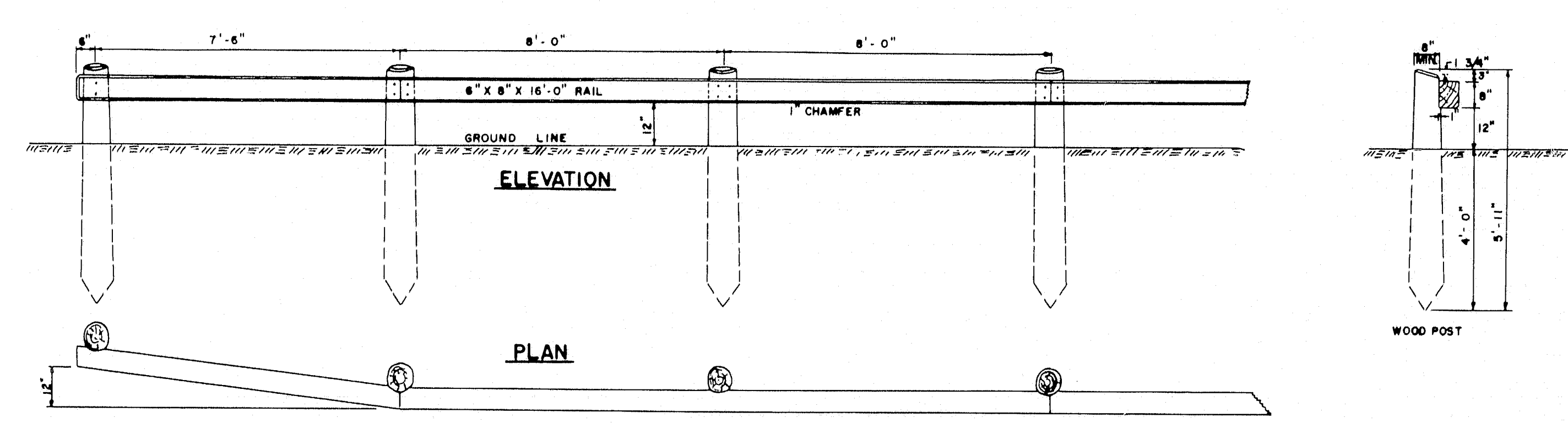
GUARD RAIL TYPE "C"



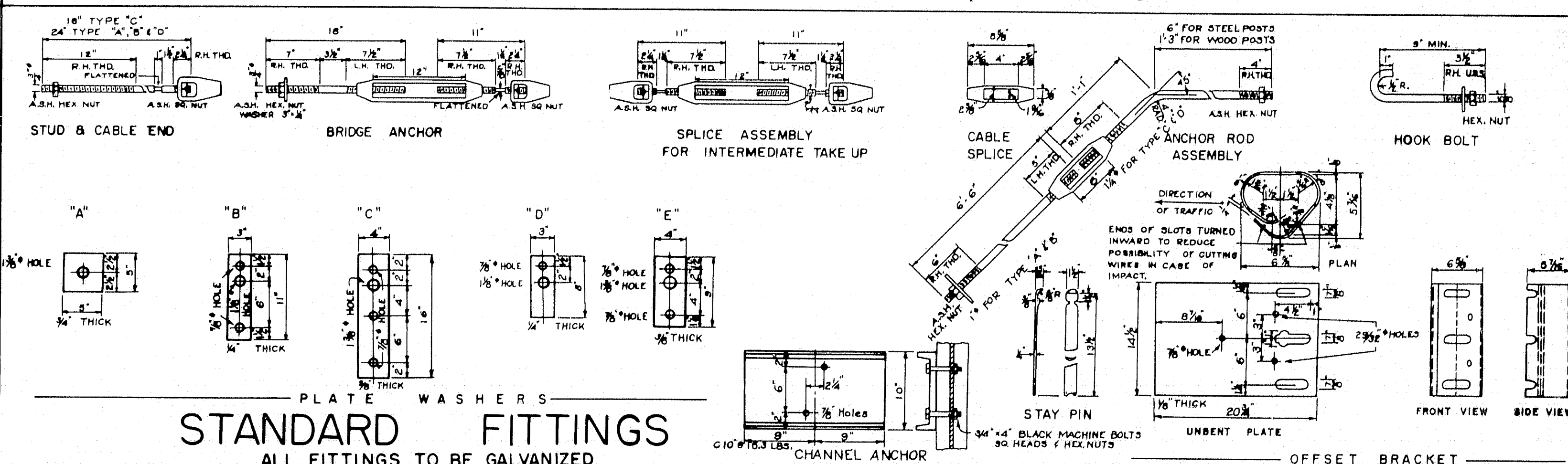
GUARD RAIL TYPE "D"



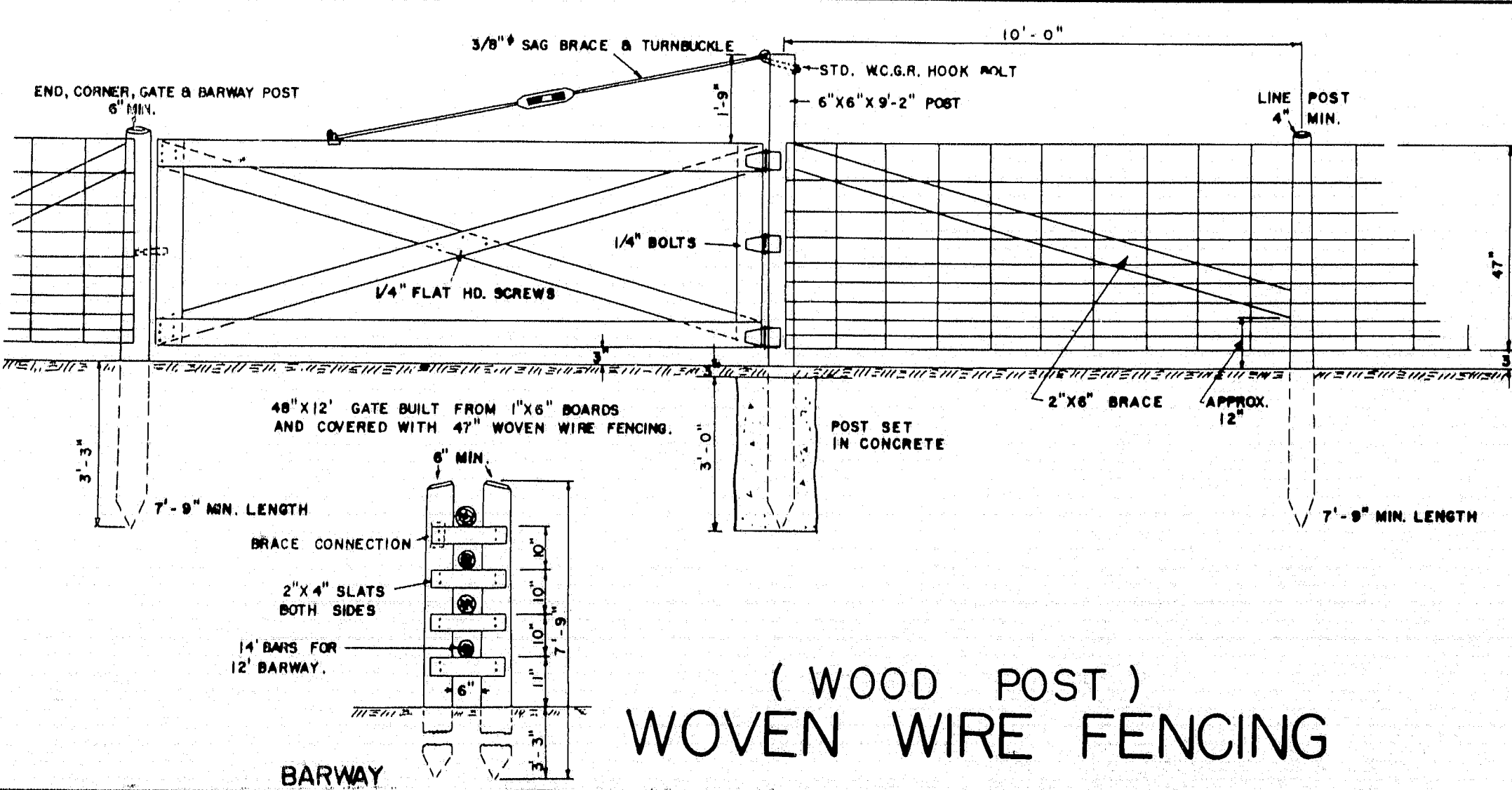
GUARD RAIL TYPE "E", "F" & "G"



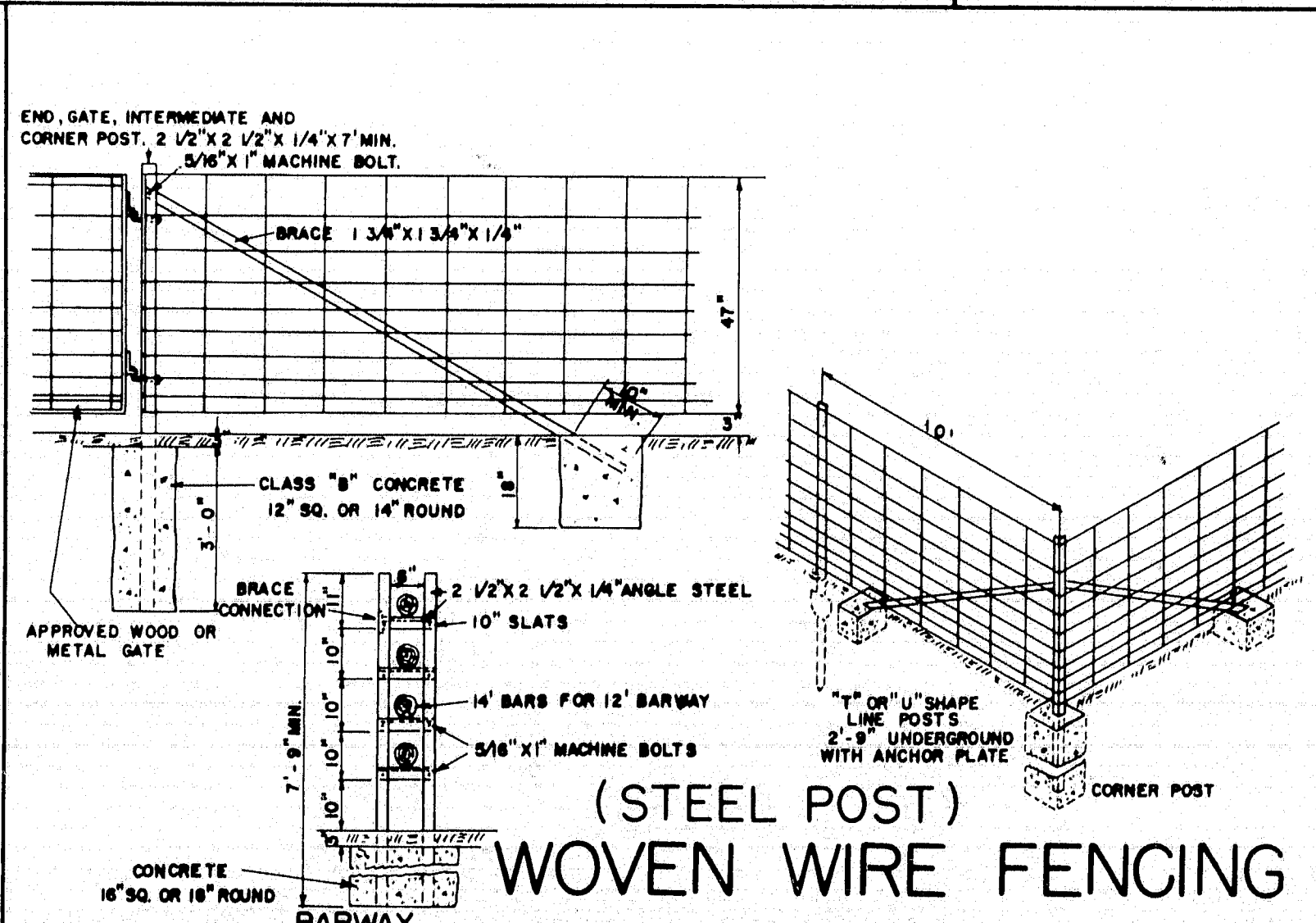
GUARD RAIL TYPE "H"



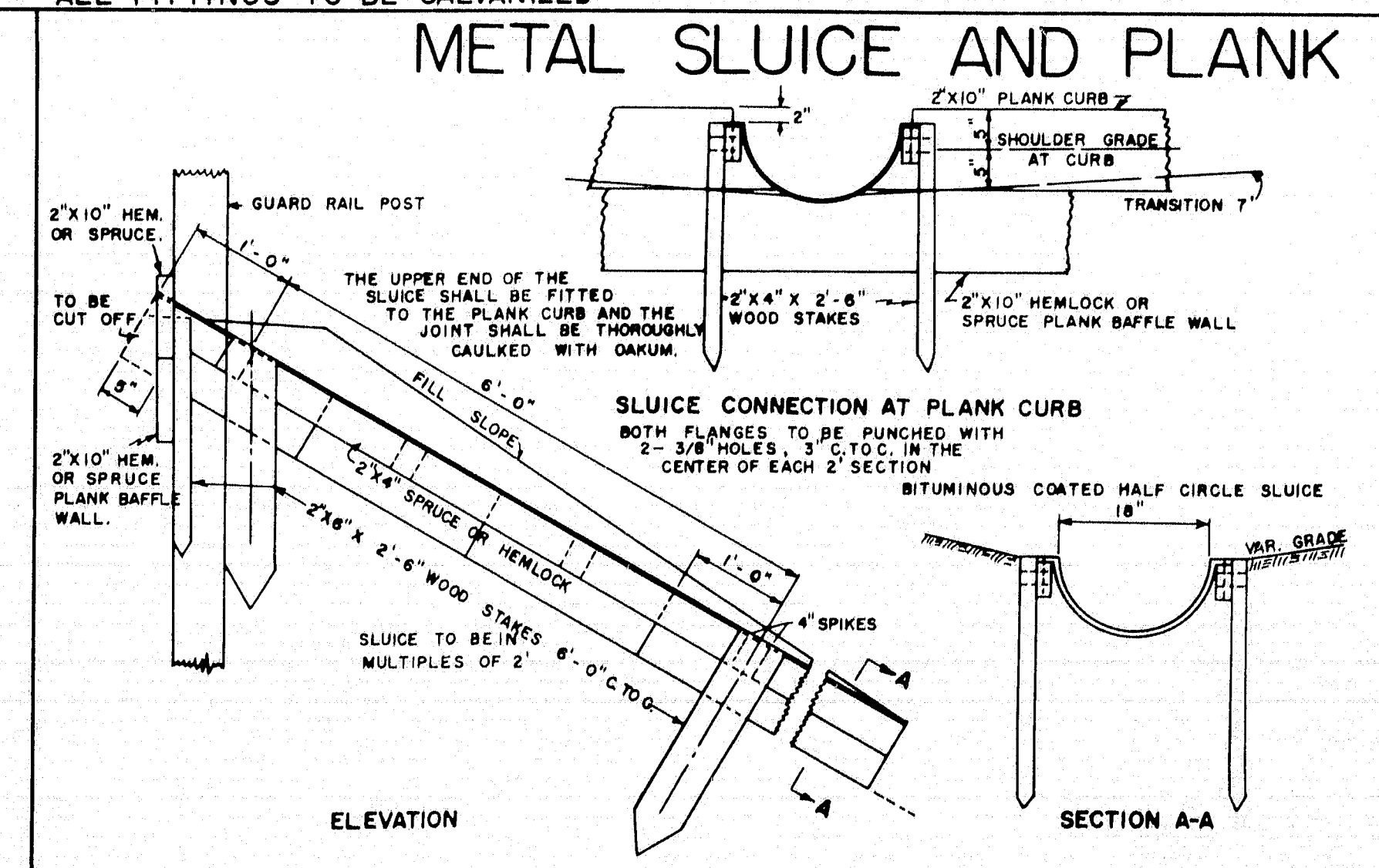
STANDARD FITTINGS  
ALL FITTINGS TO BE GALVANIZED



(WOOD POST)  
WOVEN WIRE FENCING



(STEEL POST)  
WOVEN WIRE FENCING



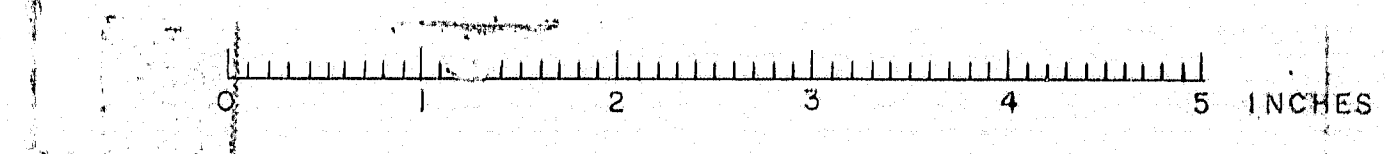
METAL SLUICE AND PLANK CURB

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

**STANDARD DETAILS**

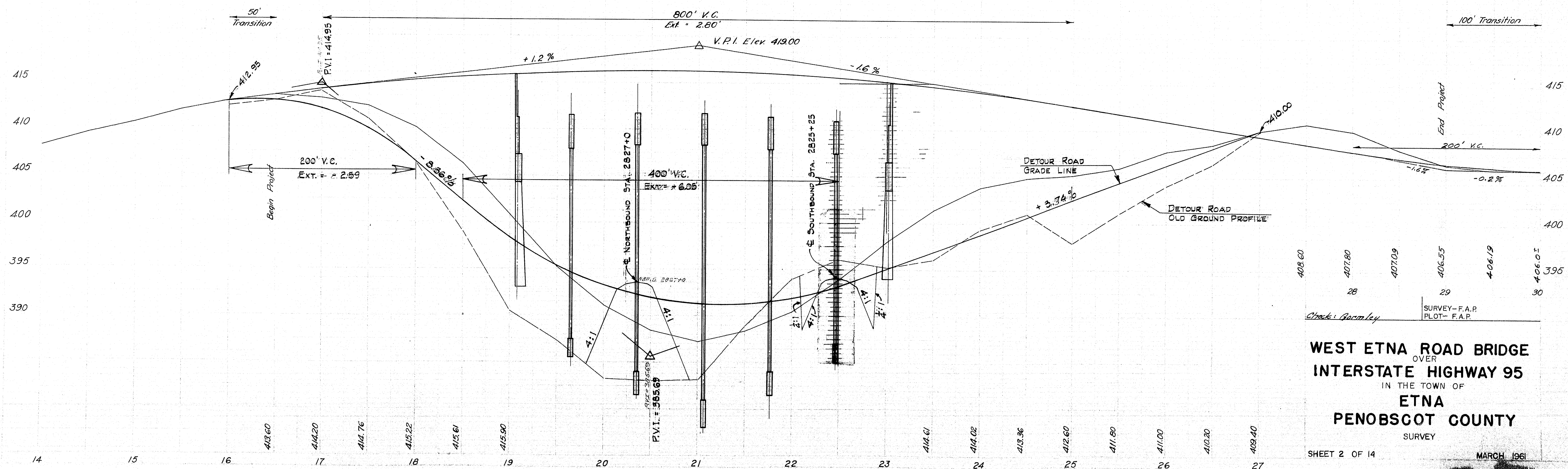
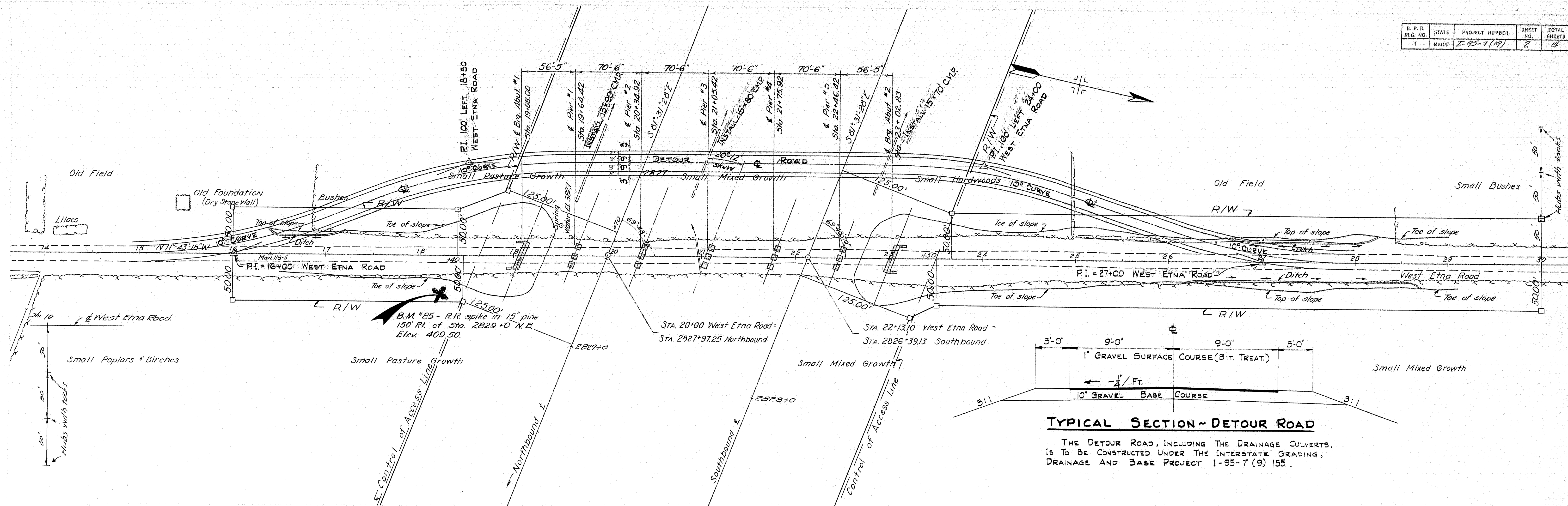
GUARD RAIL & FITTINGS  
WIRE FENCING, METAL SLUICE  
AND PLANK CURB

②



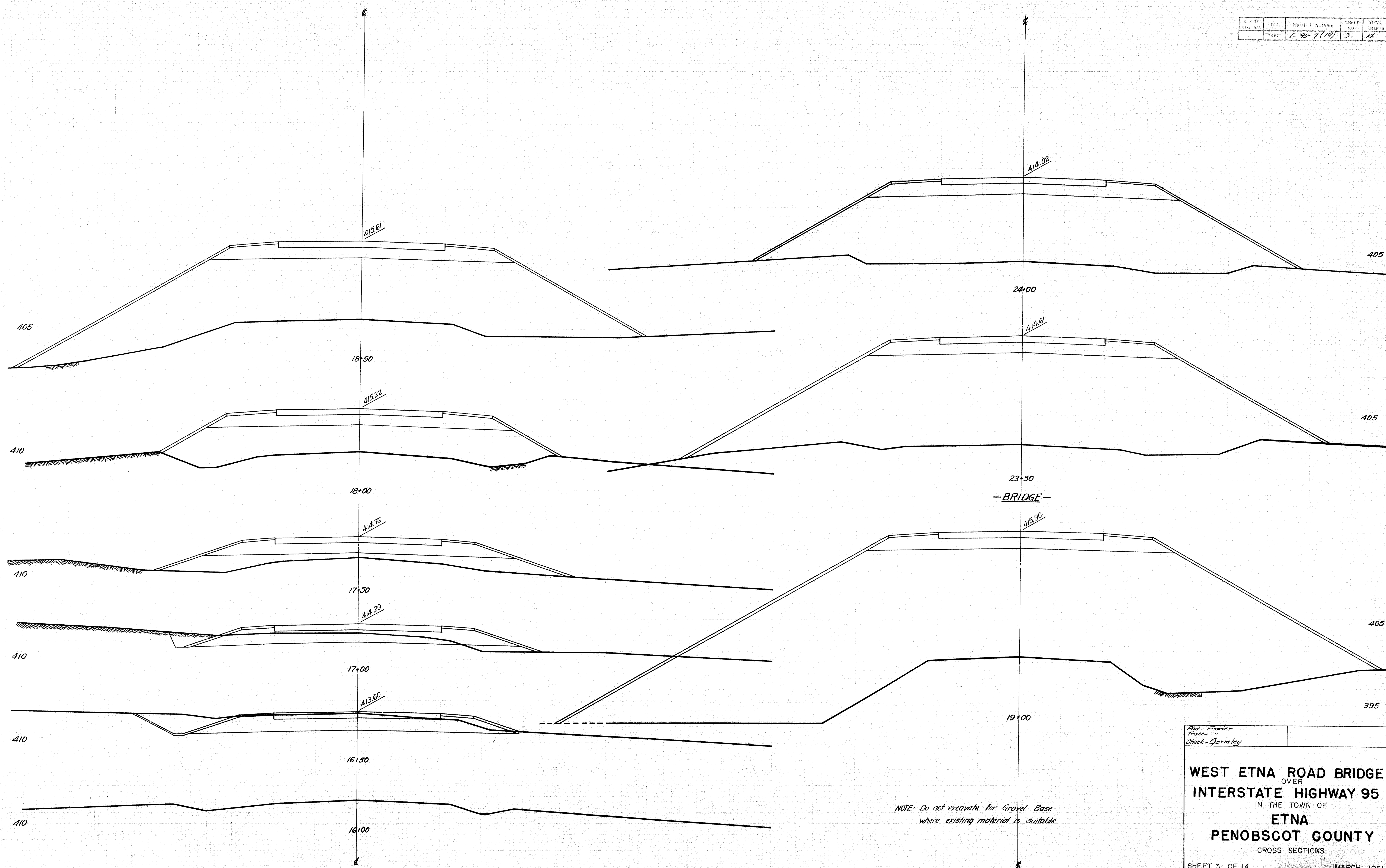


B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7 (19)	2	12





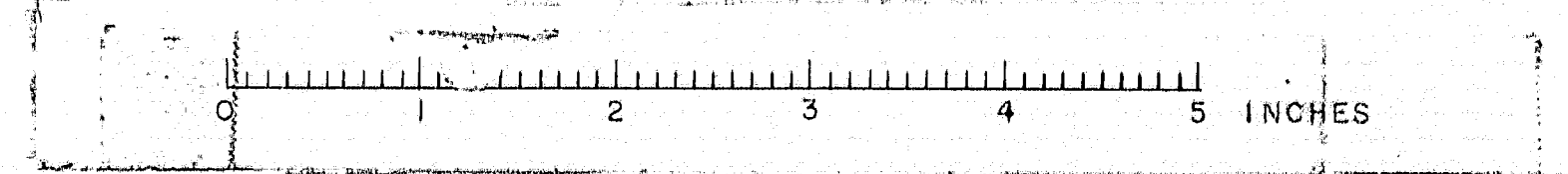
DATE	BY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
12-95	7(10)	3	14	



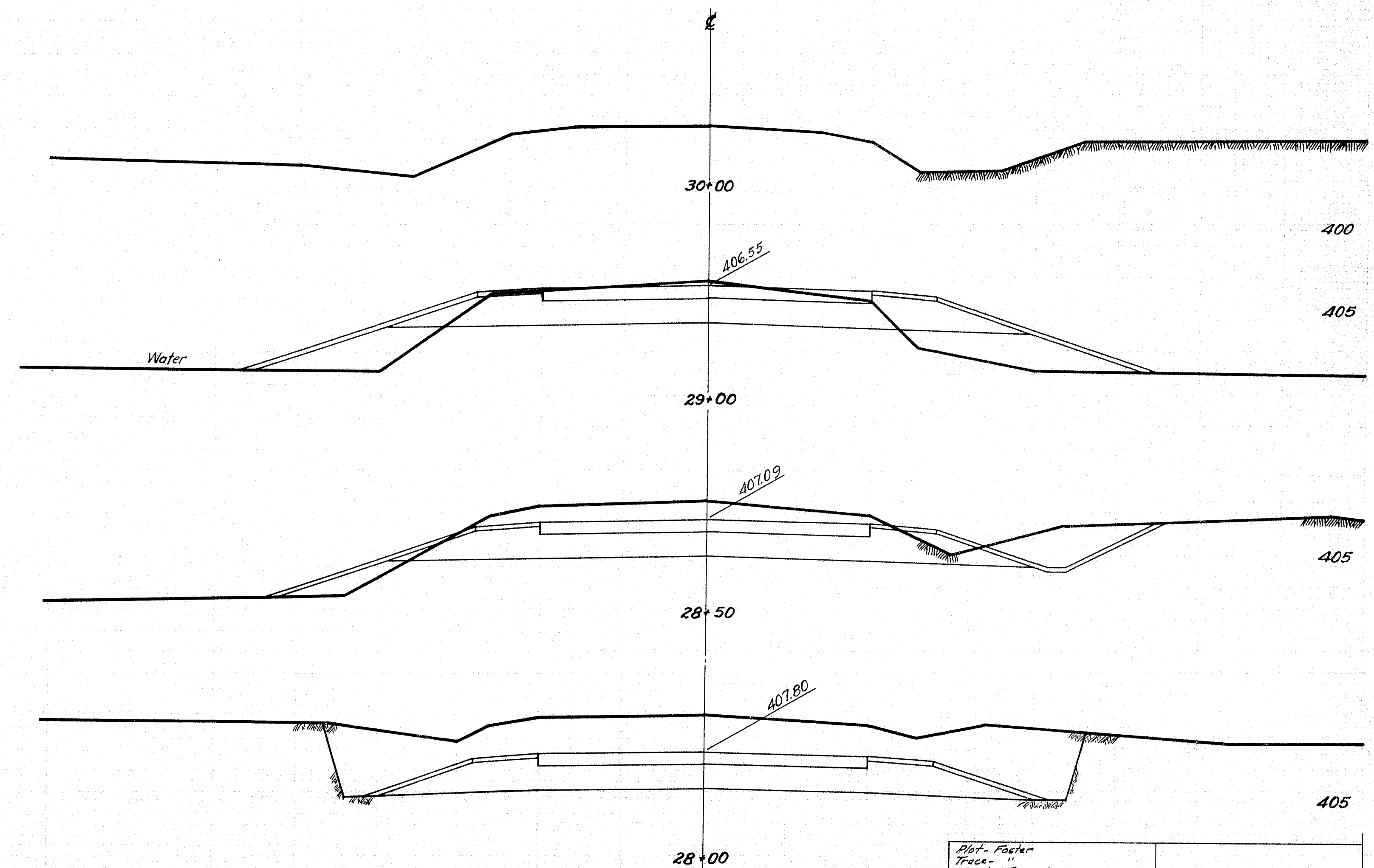
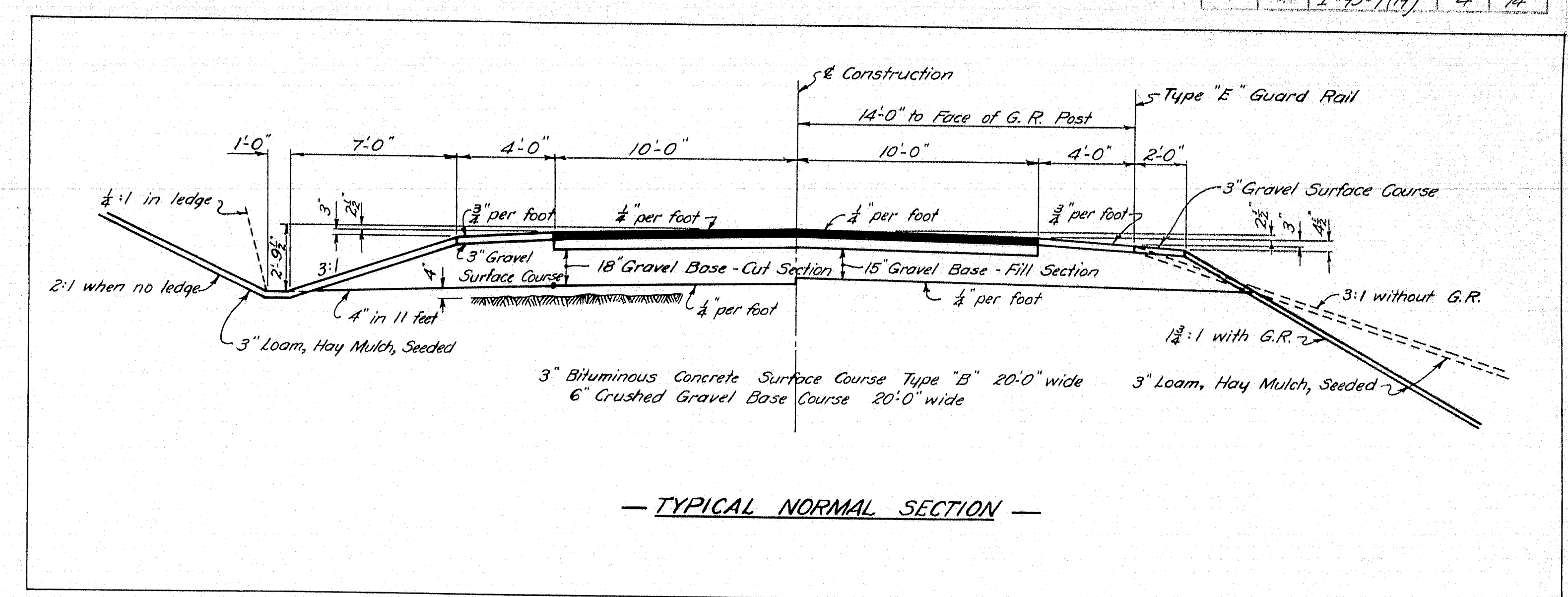
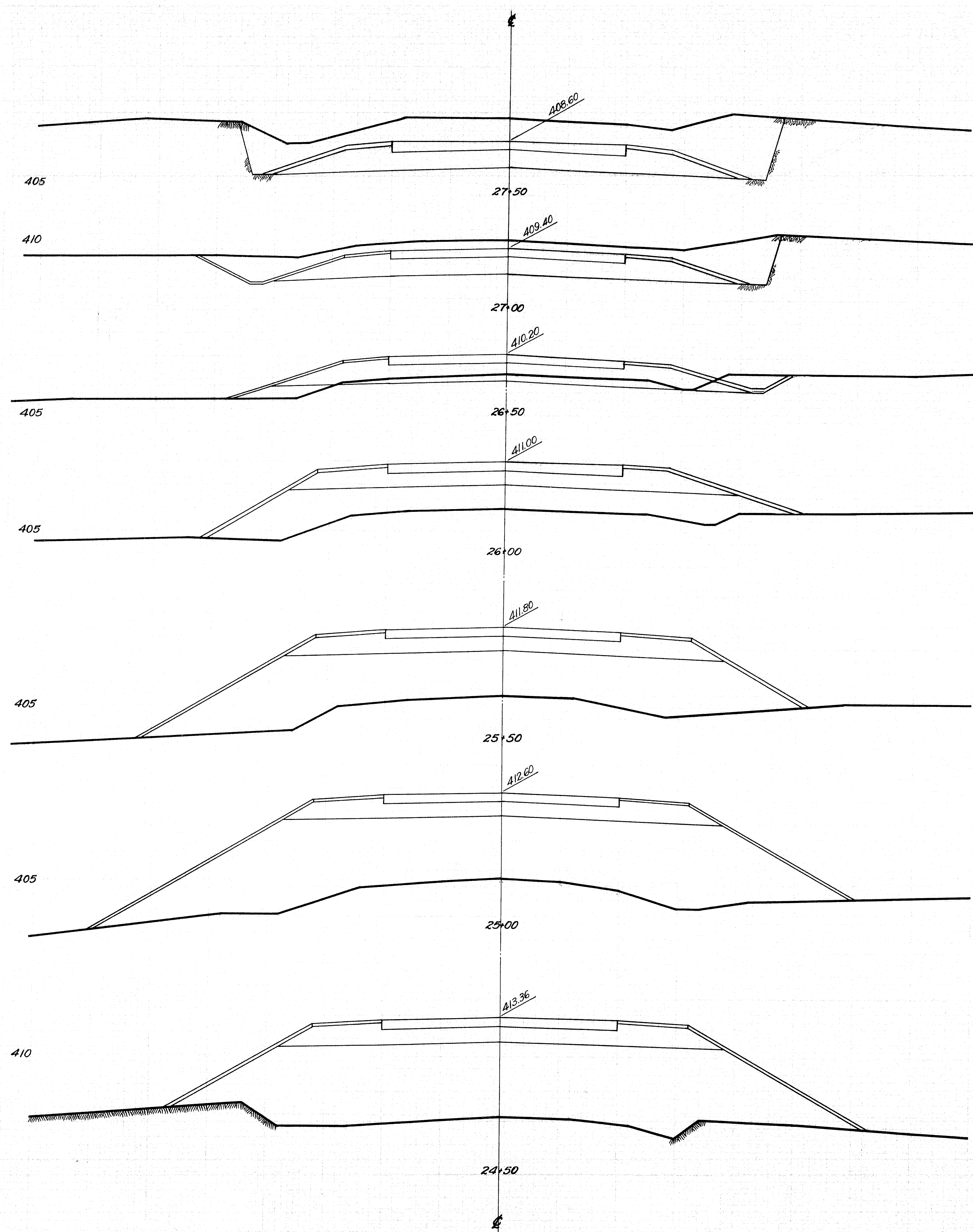
Plot - Foster  
 Trace - "  
 Check - Gormley

**WEST ETNA ROAD BRIDGE**  
 OVER  
**INTERSTATE HIGHWAY 95**  
 IN THE TOWN OF  
**ETNA**  
**PENOBSCOT COUNTY**  
 CROSS SECTIONS

SHEET 3 OF 14      MARCH 1961



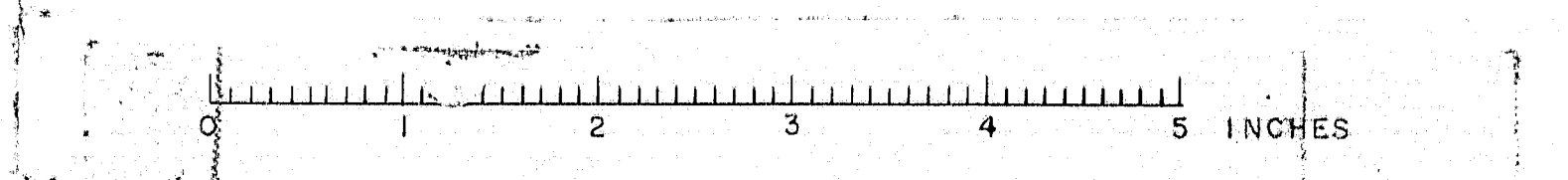




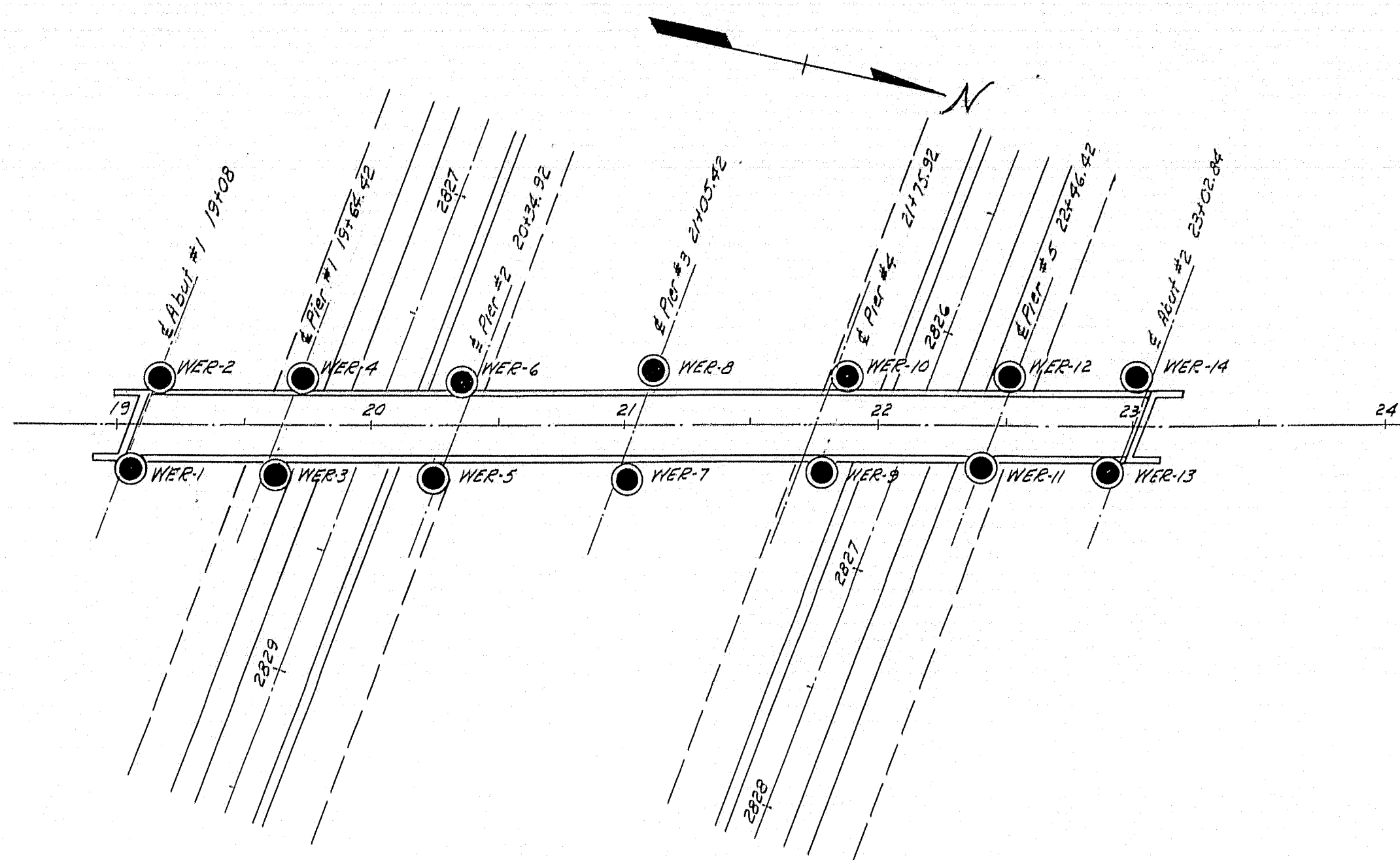
Plot - Foster  
Trace -  
Check - Gormley

**WEST ETNA ROAD BRIDGE**  
OVER  
**INTERSTATE HIGHWAY 95**  
IN THE TOWN OF  
**ETNA**  
**PENOBSCOT COUNTY**  
CROSS SECTIONS

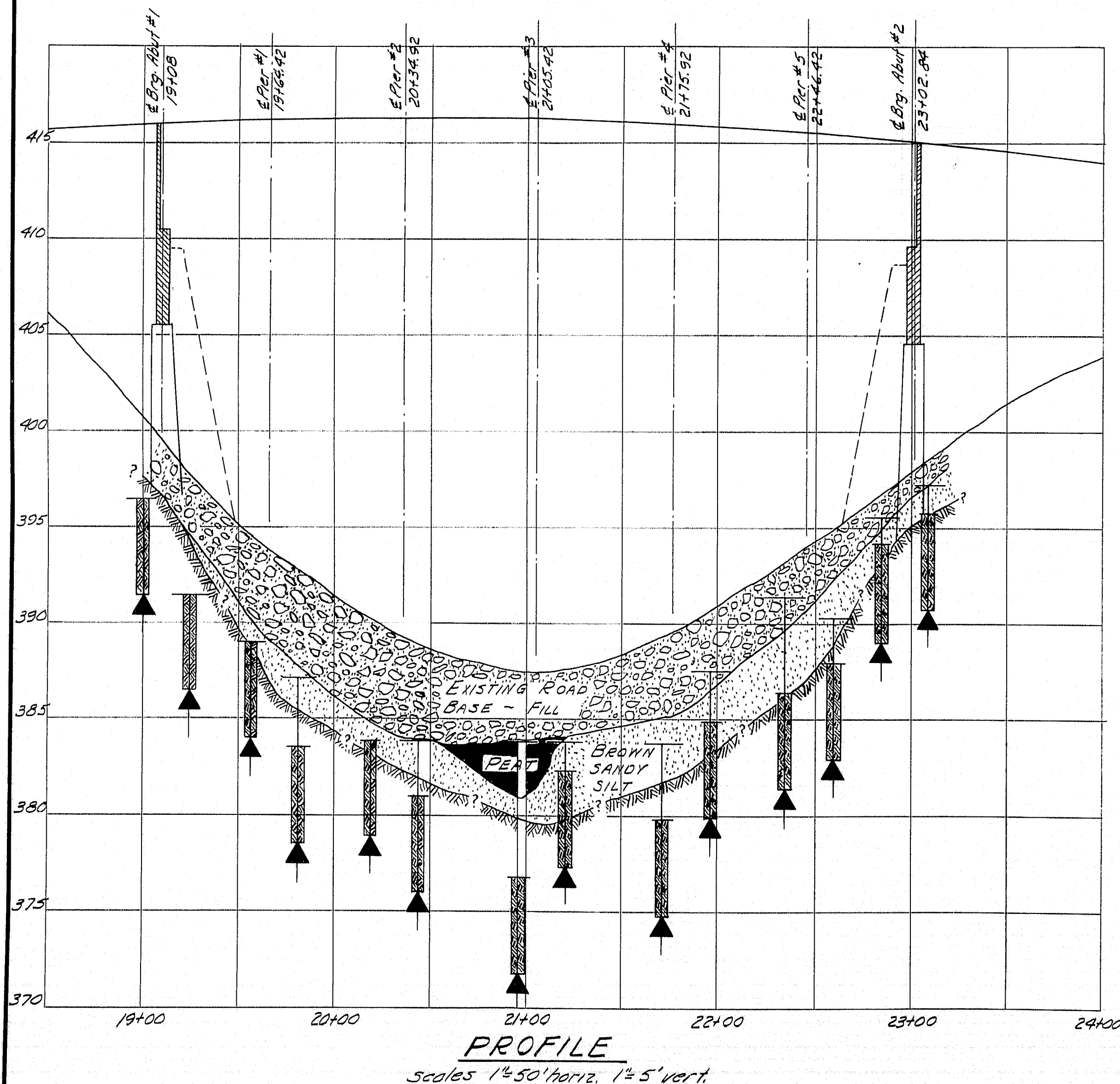
SHEET 4 OF 14 MARCH 1961







BORING PLAN



PROFILE

Scales 1"=50' horiz. 1"=5' vert.

DRIVING RESISTANCE (Blows/ft.)			
BORING NO. W.E.R.-1 Sta. 19+05 13-17' Lt. &			
El. 396.42	0	20	40
395	9%		Phyllite with high angle foliation. Quartz intrusions with depth.
391.42	17%		
	21%		
BORING NO. W.E.R.-2 Sta. 19+16 19' Lt. &			
El. 391.47	0	20	40
390	20%		Phyllite with high angle foliation. Fractured.
386.47	23%		
BORING NO. W.E.R.-3 Sta. 19+42 19' Lt. &			
El. 388.97	0	20	40
385	13%		Quartz with some included phyllite.
383.97			
BORING NO. W.E.R.-4 Sta. 19+72 2 1/2" casing 19' Lt. &			
El. 387.20	0	20	40
385	16%		Loose brown, fine, sandy silt.
380	13%		Phyllite with high angle foliation. Badly fractured.
378.53			
BORING NO. W.E.R.-5 Sta. 20+29 20' Lt. &			
El. 388.86	0	20	40
380	14%		Phyllite with high angle foliation. Badly fractured.
378.86			
BORING NO. W.E.R.-6 Sta. 20+35 2 1/2" casing 18' Lt. &			
El. 383.87	0	20	40
380	36%		Loose brown, fine, sandy silt.
376.04	45%		Phyllite with high angle foliation.

DRIVING RESISTANCE (Blows/ft.)			
BORING NO. W.E.R.-7 Sta. 21+01 2 1/2" casing 21' Lt. &			
El. 383.79	0	20	40
380	11%		Loose brown, fine, sandy silt. Gray silty sand & gravel. Quartz phyllite with high angle foliation.
375			
371.79			
BORING NO. W.E.R.-8 Sta. 21+11 22' Lt. &			
El. 384.85	0	20	40
380	33%		Loose brown, fine, sandy silt. Phyllite with high angle foliation. Quartz veins.
377.35	20%		
BORING NO. W.E.R.-9 Sta. 21+78 2 1/2" casing 18' Lt. &			
El. 383.79	0	20	40
380	10%		Loose brown, silty sand & gravel. Badly fractured phyllite.
374.79			
BORING NO. W.E.R.-10 Sta. 21+88 2 1/2" casing 20' Lt. &			
El. 387.57	0	20	40
385	9%		Loose brown silty sand. Badly fractured phyllite.
379.99			

DRIVING RESISTANCE (Blows/ft.)			
BORING NO. W.E.R.-11 Sta. 22+40 2 1/2" casing 16' Lt. &			
El. 391.42	0	20	40
390	10%		Loose, brown, silty sand & gravel. Badly fractured phyllite.
385			
381.42			
BORING NO. W.E.R.-12 Sta. 22+51 2 1/2" casing 20' Lt. &			
El. 390.32	0	20	40
385	12%		Loose brown silty sand. Quartz with included phyllite.
382.99			
BORING NO. W.E.R.-13 Sta. 22+90 2 1/2" casing 18' Lt. &			
El. 395.56	0	20	40
390	20%		Loose brown sand & gravel. Phyllite with high angle foliation.
389.06	40%		
BORING NO. W.E.R.-14 Sta. 23+01 2 1/2" casing 20' Lt. &			
El. 397.26	0	20	40
395	19%		Loose silty sand. Phyllite with high angle foliation. Quartz with depth.
390.76			

BORING NOTES:-

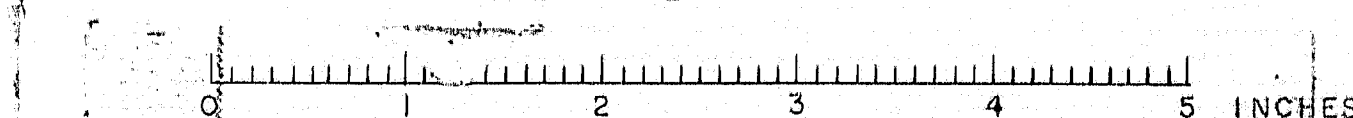
1. Number of blows of 275 lb hammer falling 18" required to drive extra heavy casing one foot. ----- (graphical)
2. Location and designation of dry samples taken in 2" O.D. 16 ga. seamless tubing. ----- 1C
3. Unsuccessful attempts to secure dry sample indicated thus followed by type of sampler. ----- Mc
4. Percent recovery of rock core by diamond bit. ----- 33%
5. Bottom of boring. -----

DESIGN - Soils Eng. Lab. (U.S.A.)  
TRACE - R. Barros  
CHECK - Phancy

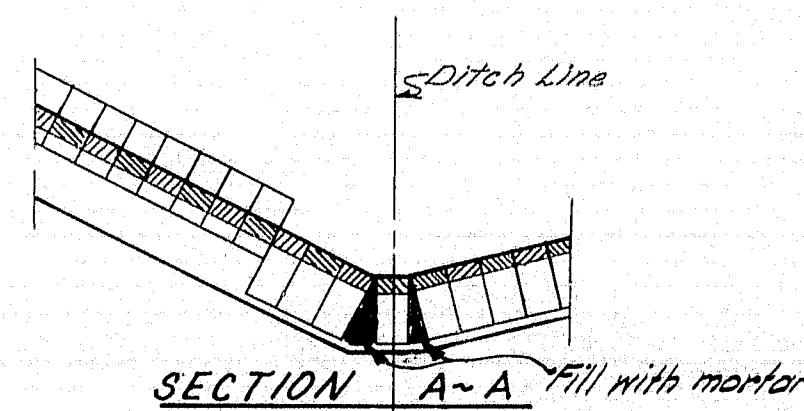
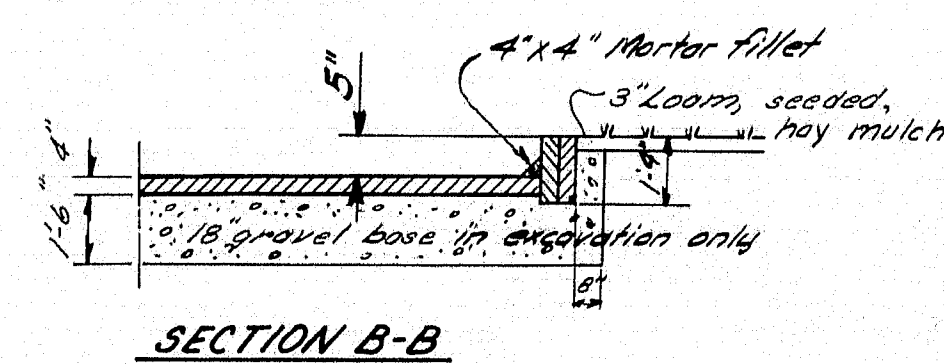
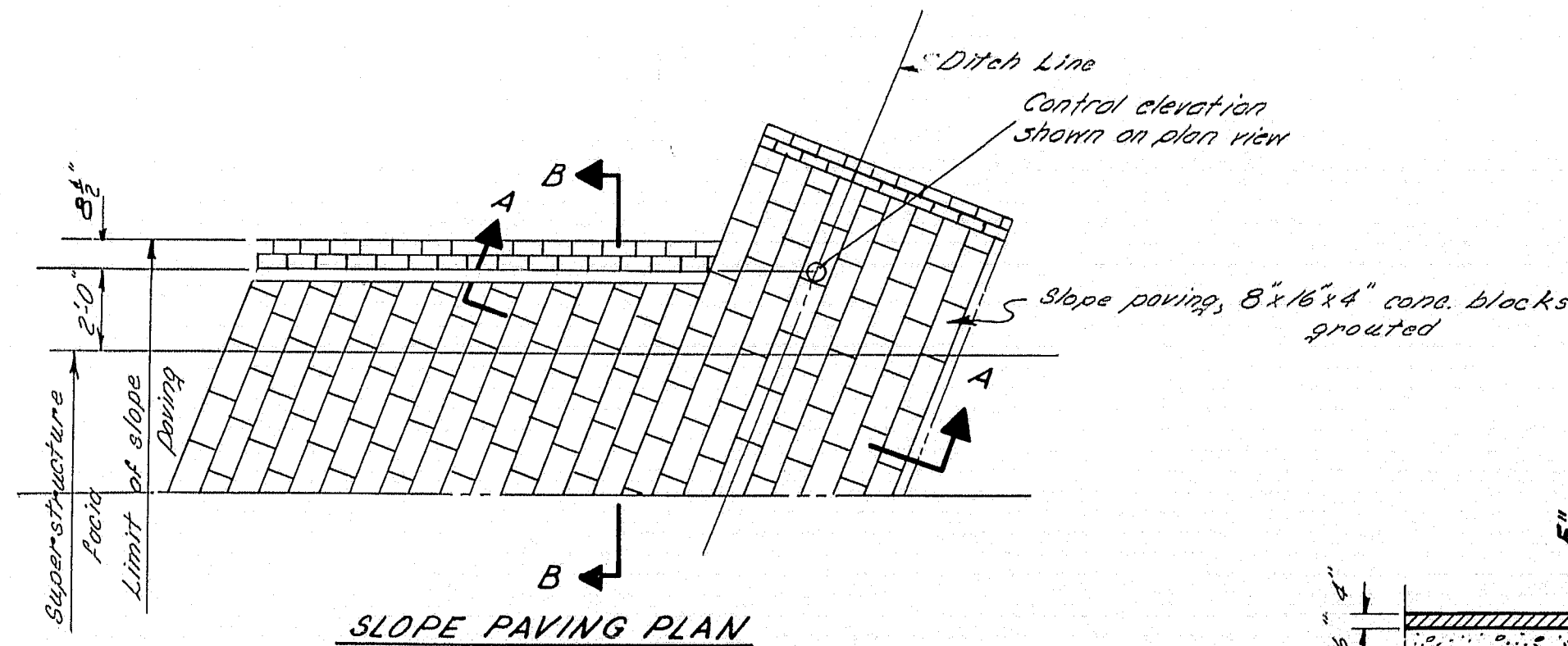
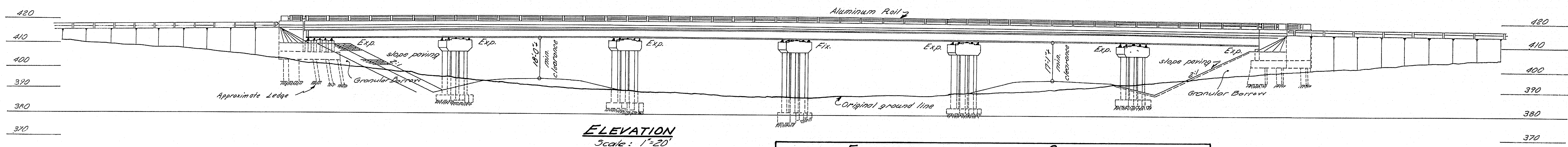
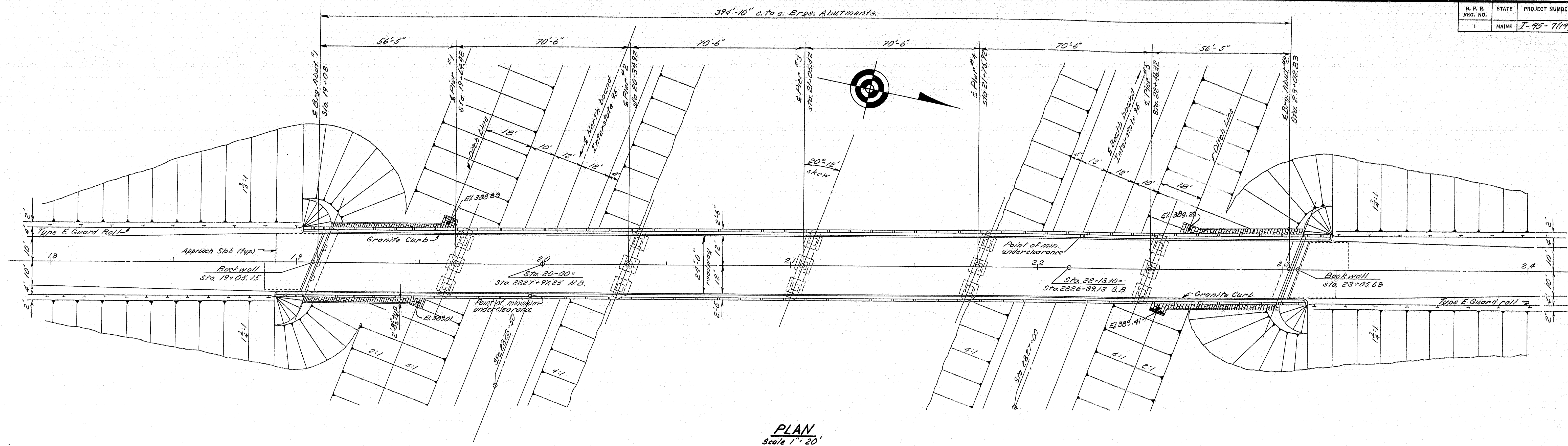
BRIDGE NO. SURVEY - PLOT -

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
WEST ETNA ROAD BRIDGE  
OVER  
INTERSTATE HIGHWAY 95  
IN THE TOWN OF  
ETNA  
PENOBSCOT COUNTY  
SOIL SURVEY

SHEET 5 OF 14 AUGUSTA, MAINE MARCH 1961







**Note 'A'**  
If the material adjacent to the ditch is not free draining, the gravel base under the slope paving shall be drained as directed by the Engineer.  
Payment for the excavation required for this drainage will be made under Item 203-9, Earth Excavation and 18" ledge is encountered, Item 203-10, Rock Excavation.  
Payment for the materials required for this drainage will be made under the appropriate items at the contract unit prices.

Payment for excavation for base of slope paving to be made under Item 203-9, Earth Excavation.  
The 18" gravel base under the slope paving may be reduced or omitted if in the opinion of the Engineer the existing material is suitable.

**SLOPE PAVING DETAILS**

ESTIMATE OF QUANTITIES		
DESCRIPTION	QUANTITY	
Earth Excavation	985	cu yd
Rock Excavation	650	cu yd
Structural Earth Excavation, Abutments & Retaining Walls	145	cu yd
Structural Rock Excavation, Abutments & Retaining Walls	18	cu yd
Structural Earth Excavation, Piers	330	cu yd
Structural Rock Excavation, Piers	70	cu yd
Common Borrow	5000	cu yd
Granular Borrow	1185	cu yd
Gravel Base Course, In Place Measurement	1830	cu yd
Crushed Gravel Base Course, In Place Measurement	340	cu yd
Gravel Surface Course	75	cu yd
Bituminous Concrete Surface Course, Type 'B'	428	tons
Portland Cement Concrete Abutments & Retaining Walls	164	cu yd
Portland Cement Concrete Piers	265	cu yd
Portland Cement Concrete Roadway & Sidewalk Slabs on Steel Bridges	390	cu yd
Portland Cement	1215	bags
Structural Steel, Fabricated & Delivered	331,500	lbs
Structural Steel, Erection	331,500	lbs
Structural Steel, Field Painting	331,500	lbs
Reinforcing Steel, Delivered	125,840	lbs
Reinforcing Steel, Placing	125,840	lbs
Aluminum Rail	820	l.f.
Membrane Waterproofing	1055	sq. yd
Slope Paving	390	sq. yd
Bridge Granite Curb	825	l.f.
Guard Rail, Type 'E'	750	l.f.
Guard Rail, Type 'E', Terminal Section	8	each
Loam Borrow	290	cu yd
Seeding, Method No. 2	32	units
Hay Mulch	3.5	tons
Asphalt Mulch Binder	890	gals
Epoxy Resin Surface Sealant	65	sq. yd

**DESIGN SPECIFICATIONS**

A.A.S.H.O. ~ 1957

**LOADING**

H20-44

**TRAFFIC DATA**

ADT 1960	25
ADT 1980	35
DHV	4
T	11%
D	60%
V	50 mph

**CONTRACT SPECIFICATIONS**

State of Maine, State Highway Commission, Standard Specifications, Revision of Nov. 1956

**CONCRETE CLASSIFICATION - All concrete Class 'A'**

DESIGN - F.H. Borries	BRIDGE NO.
TRACE - J.H.C.	SURVEY -
CHECK - J.H.C.	PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
<b>WEST ETNA ROAD BRIDGE</b>	
OVER	
<b>INTERSTATE HIGHWAY 95</b>	
IN THE TOWN OF	
<b>ETNA</b>	
<b>PENOBSCOT COUNTY</b>	
GENERAL PLAN	

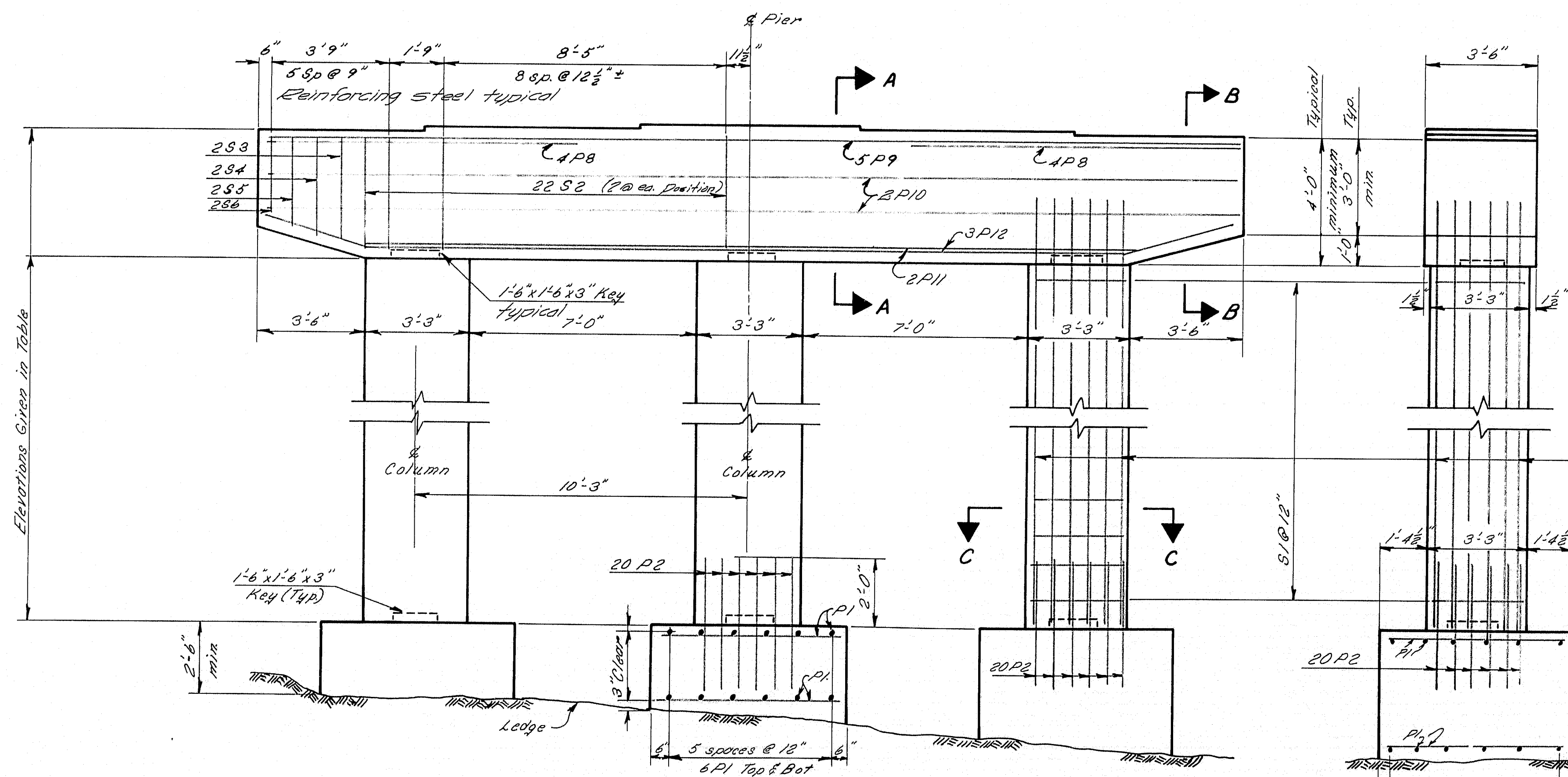
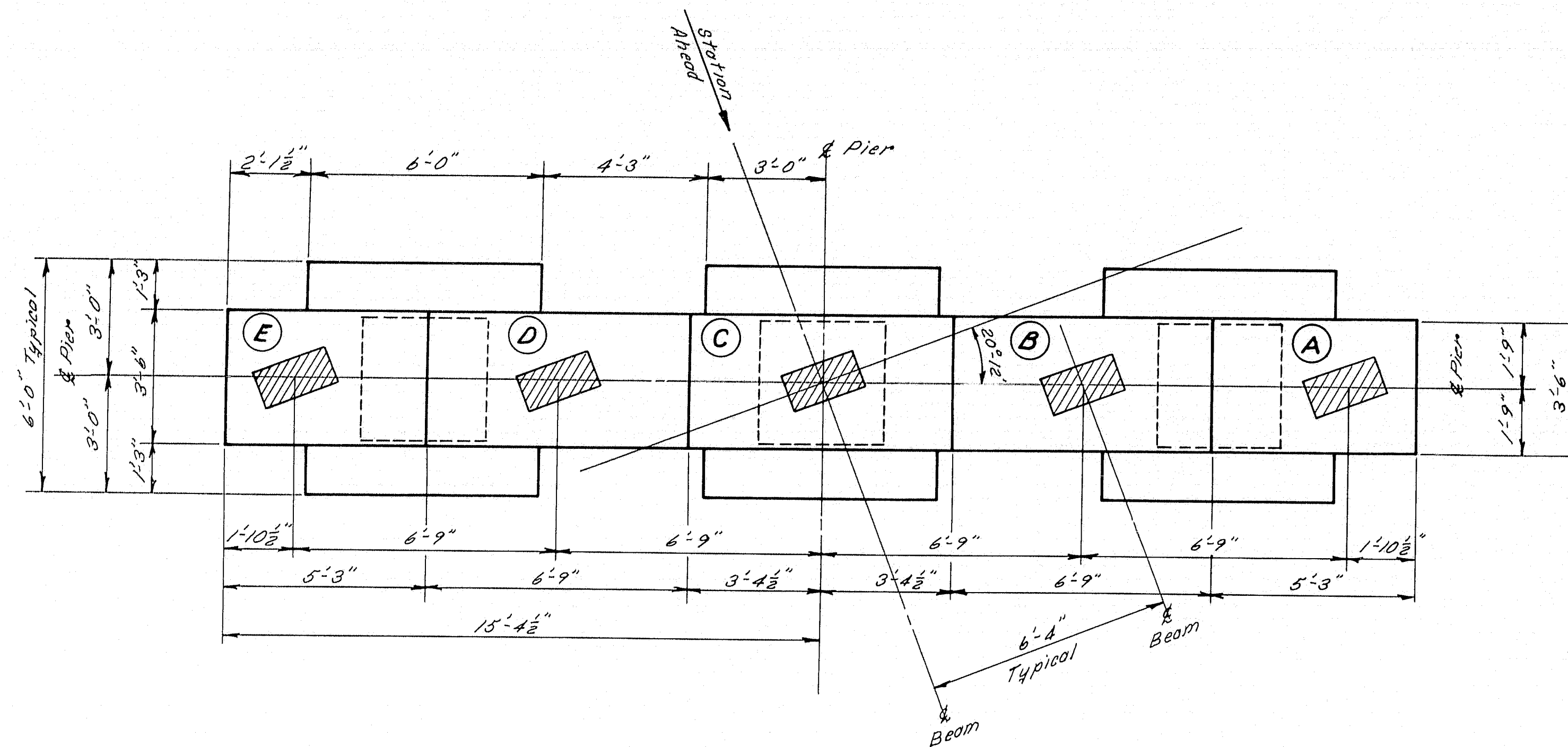




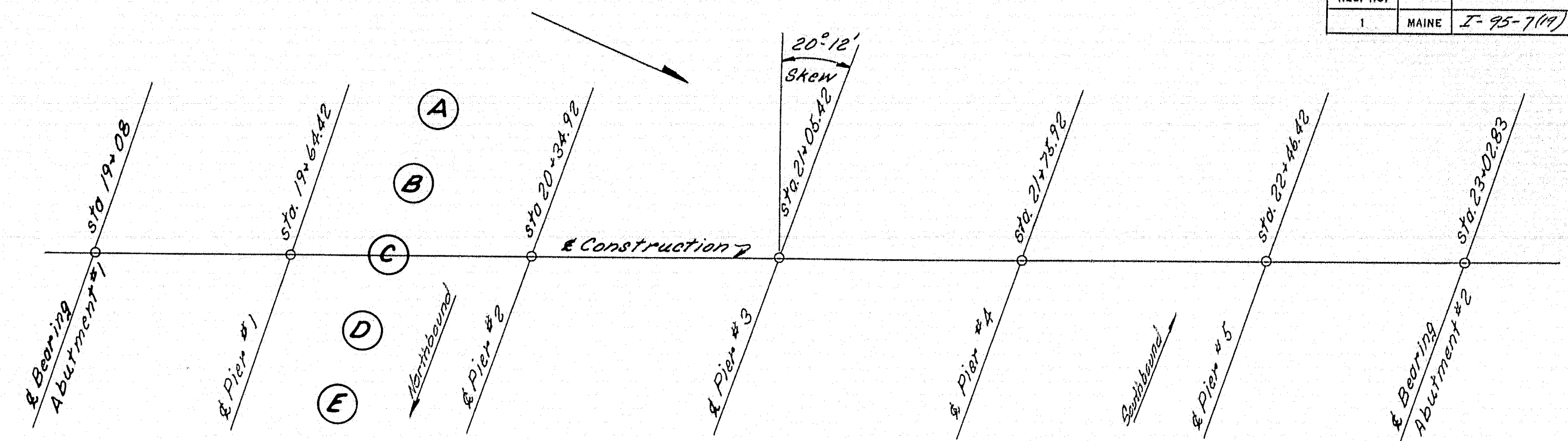






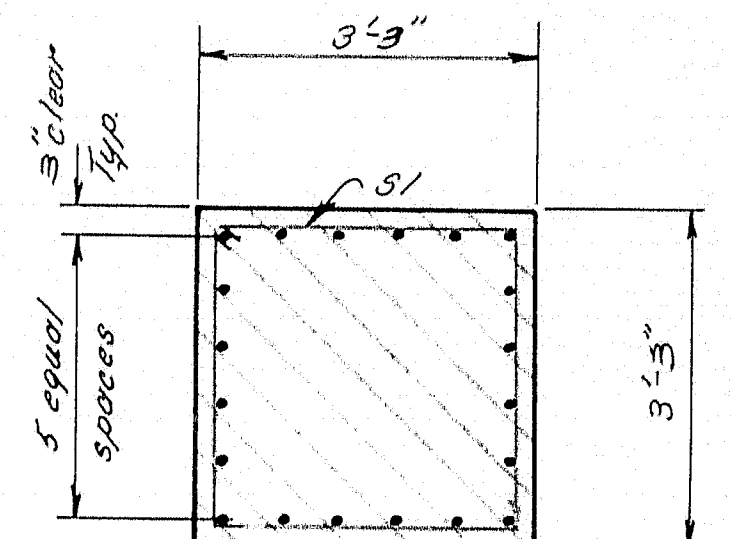
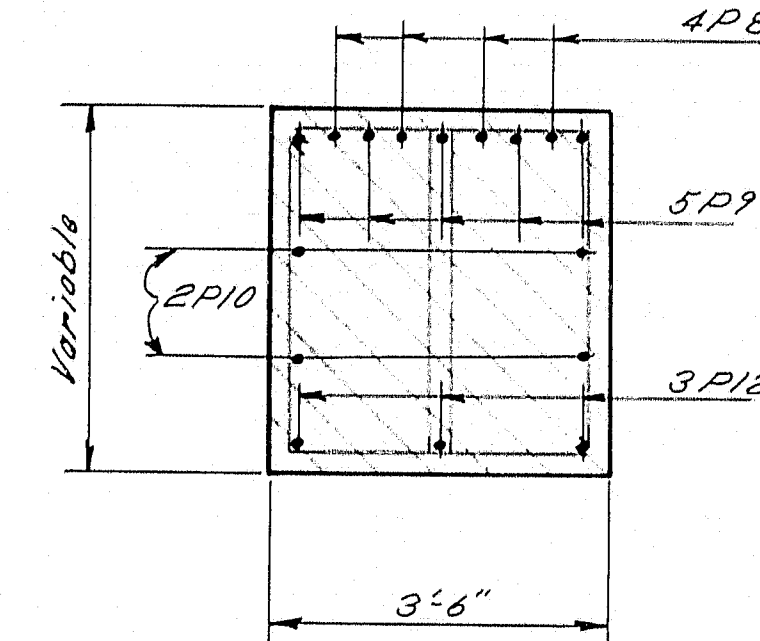
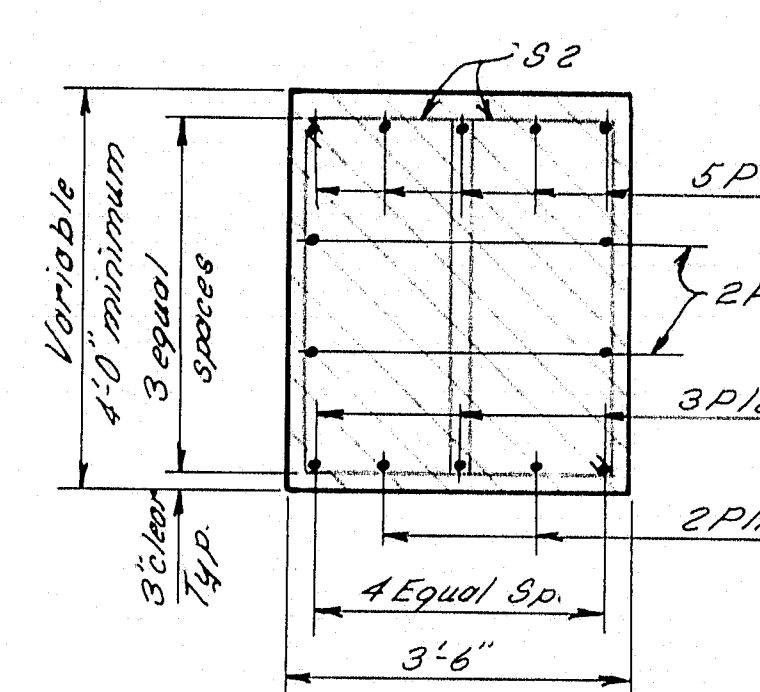


**ELEVATION ALL PIERS**  
Piers are symmetrical about both their longitudinal and transverse center lines. (except for bearing areas)



Pier Number	Top of Footing El.	Bottom of Cap Elev.	Bearing Area Elevations				
			A	B	C	D	E
Pier #1	387.50	407.23	411.25	411.38	411.50	411.37	411.23
Pier #2	384.00	407.34	411.34	411.47	411.60	411.47	411.34
Pier #3	381.00	407.26	411.26	411.40	411.53	411.41	411.28
Pier #4	385.00	407.01	411.01	411.15	411.29	411.17	411.05
Pier #5	388.00	406.59	410.59	410.74	410.89	410.77	410.66

\* See Note on this sheet.

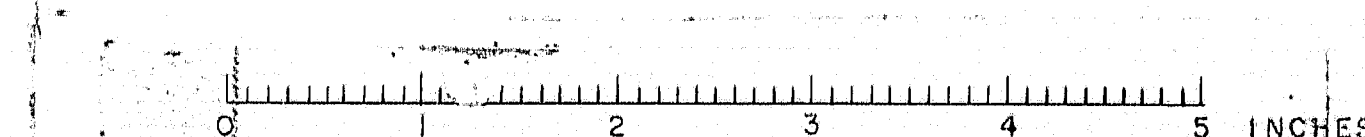


Pier #1 - 20 P3, 1981 per column  
Pier #2 - 20 P4, 2381 " "  
Pier #3 - 20 P5, 2681 " "  
Pier #4 - 20 P6, 2281 " "  
Pier #5 - 20 P7, 1881 per column

Note: Piers #2, #3 and #4 only.  
If sound ledge is encountered and excessive rock excavation would be required to obtain a 2'-6" minimum depth of footing, the elevation for the top of any footing may be raised. However, the top of the footing shall not be less than 1'-0" from the surface of the final ground elevation of the pier in question.  
In the case of overbreakage of ledge no payment will be made for rock excavation, concrete and cement of depths more than 6' below the elevation of the bottom of any column footing as previously determined by the Engineer.

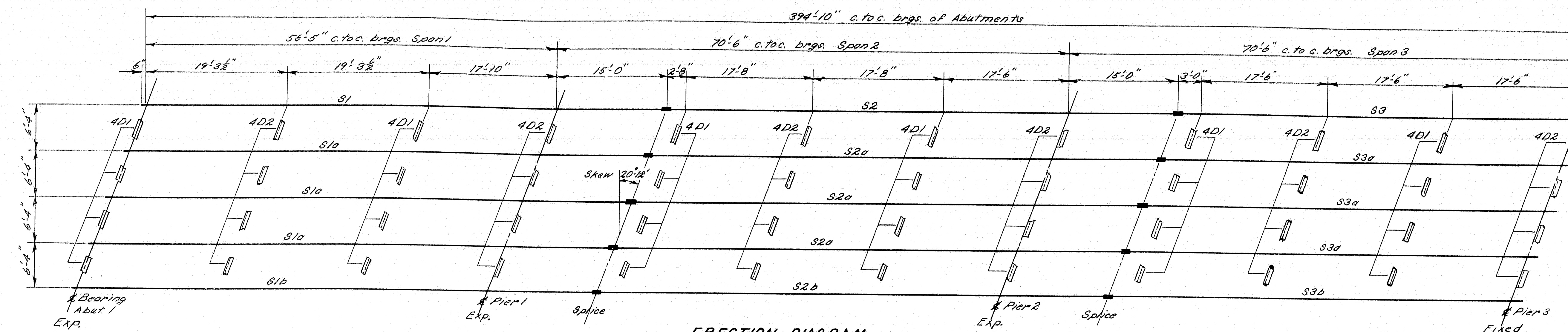
Notes:  
Dress shaded bearing areas to exact elevation shown and one inch larger all around than the required masonry plate. (See sheet #11 for size of masonry plate.)  
Reinforcing steel in top of cap to clear anchor bolts.  
All weathered and or broken ledge to be removed before any footing concrete is placed.  
Reinforcing steel 8" clear.  
Maximum Footing Pressure = 8 tons / sq. ft.

DESIGN - F.H.K.  
TRACE - L.M.G.  
CHECK - C.H.K.  
BRIDGE NO. SURVEY - PLOT -  
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
**WEST ETNA ROAD BRIDGE**  
OVER  
**INTERSTATE HIGHWAY 95**  
IN THE TOWN OF  
**ETNA**  
**PENOBSCOT COUNTY**  
PIERS  
SHEET 9 OF 14 AUGUSTA, MAINE MARCH 1961



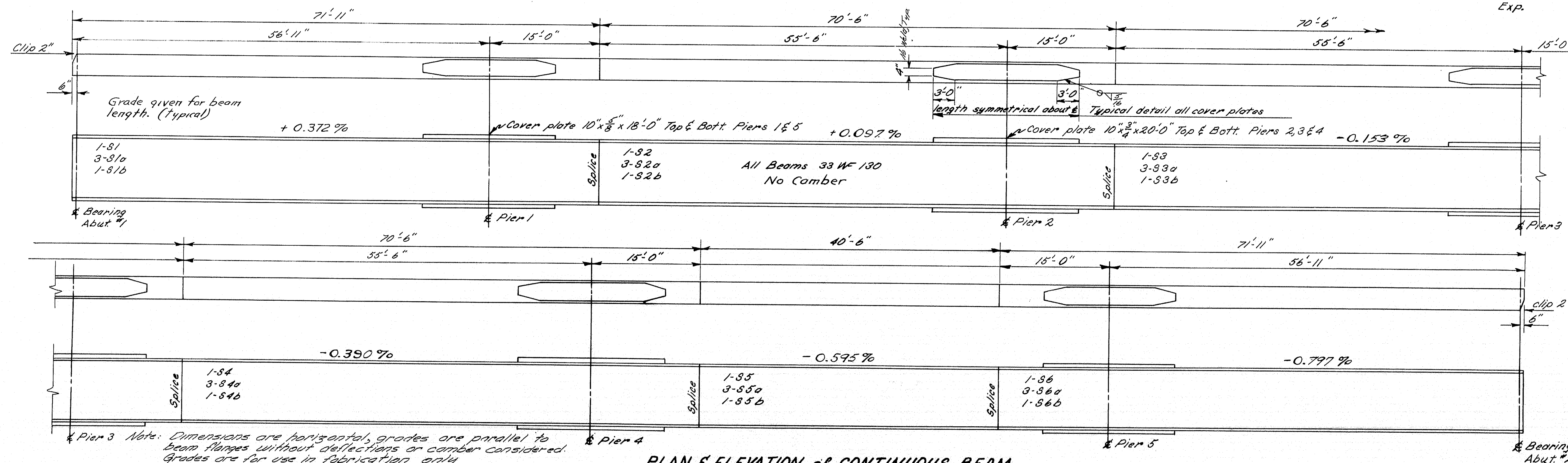
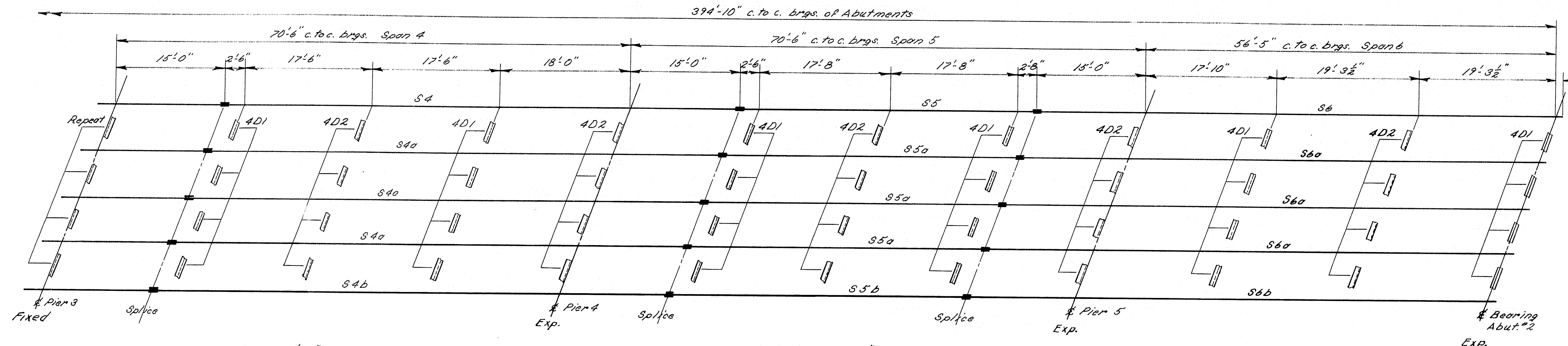


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE	I-95-7(19)	10	14



ERECTION DIAGRAM

D1-16 WF 36 dimensions to E of beams  
D2-15 [ 339 dimensions to back of channels  
394'-10" c. to c. brgs. of Abutments



PLAN & ELEVATION OF CONTINUOUS BEAM

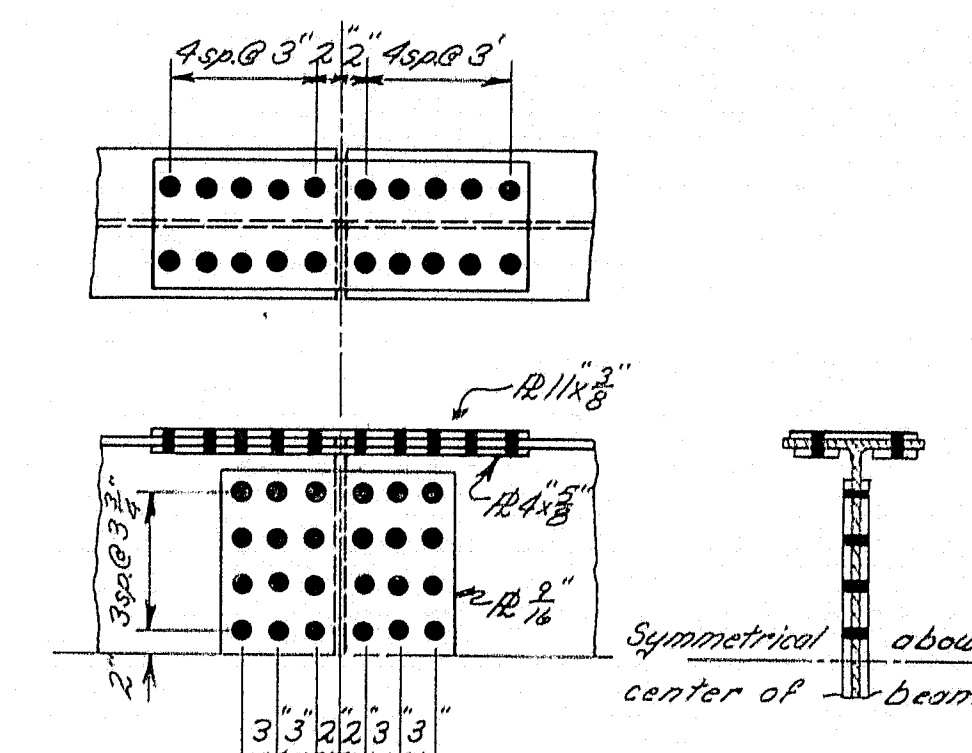
## SPECIFICATIONS

Materials: Structural steel shall conform to the latest revised Specification for Bridges and Buildings of the A.S.T.M. Designation A-7.

Design: A.A.S.H.O. 1957 and revisions.

Fabrication & Erection: State of Maine,  
Standard Specifications Highways and  
Bridges, Revision of January 1956.

Field Connections:  $\frac{7}{8} \phi$  rivets or  $\frac{7}{8} \phi$  high tensile strength bolts, holes  $\frac{13}{16} \phi$



TYPICAL DETAIL OF BEAM SPLICE

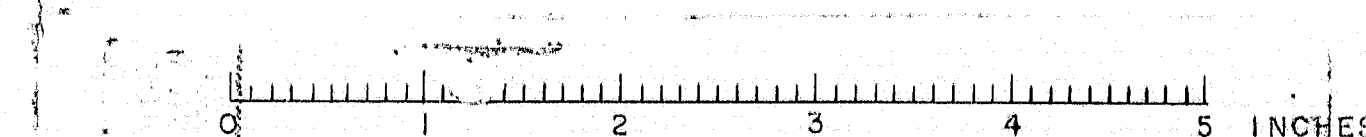
DESIGN - T.H.K. Det. *Borm lu* BRIDGE NO. \_\_\_\_\_  
TRACE - \_\_\_\_\_ SURVEY - \_\_\_\_\_  
CHECK - *Chap* PLOT - \_\_\_\_\_

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

WEST ETNA ROAD BRIDGE  
OVER  
INTERSTATE HIGHWAY 95  
IN THE TOWN OF  
ETNA  
PENOBSCOT COUNTY  
STRUCTURAL STEEL

SHEET 10 OF 14 AUGUSTA, MAINE MARCH 1961

SHEET 10 OF 14    AUGUSTA, MAINE    MARCH 1961

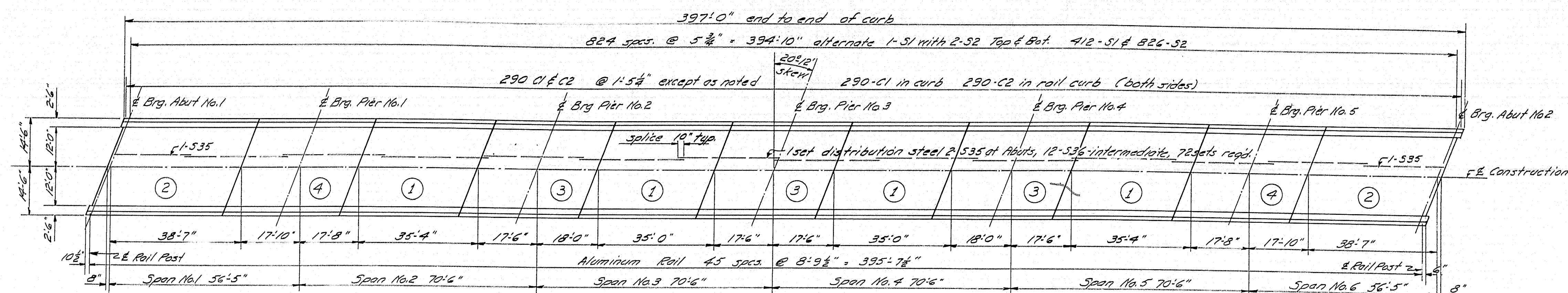






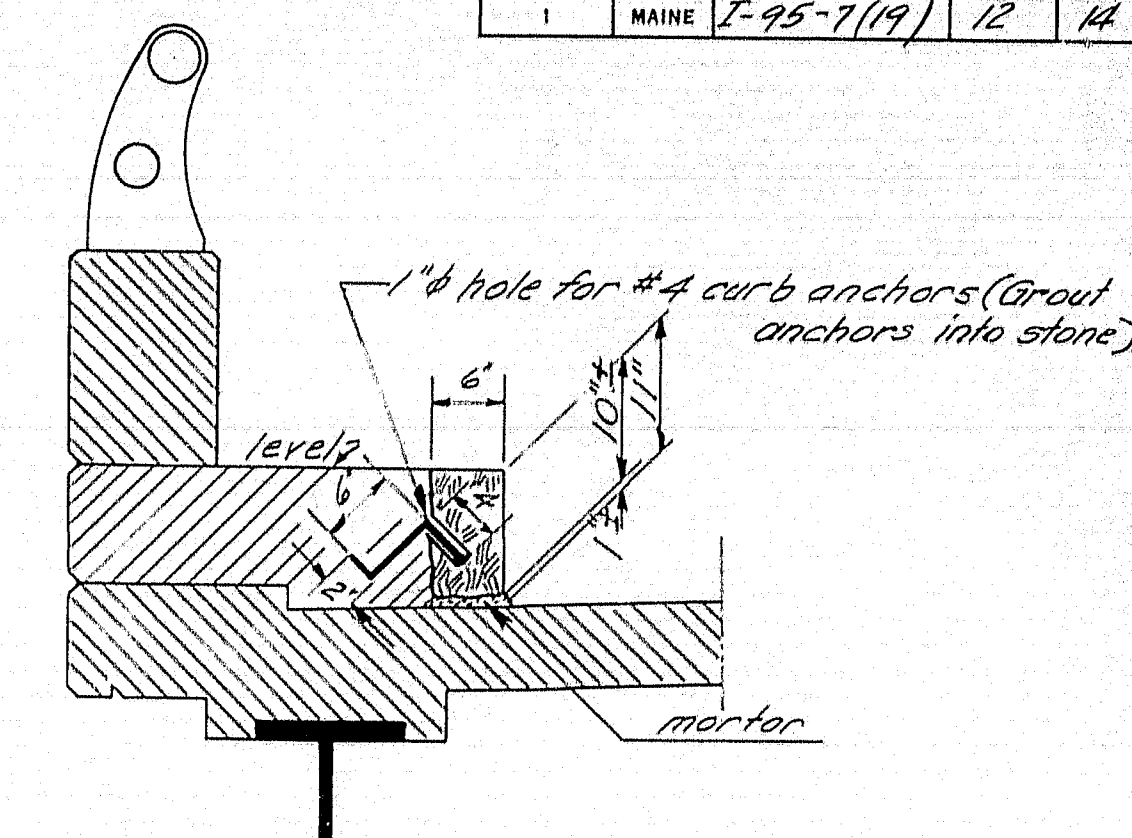


B. P. & R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7119	12	14



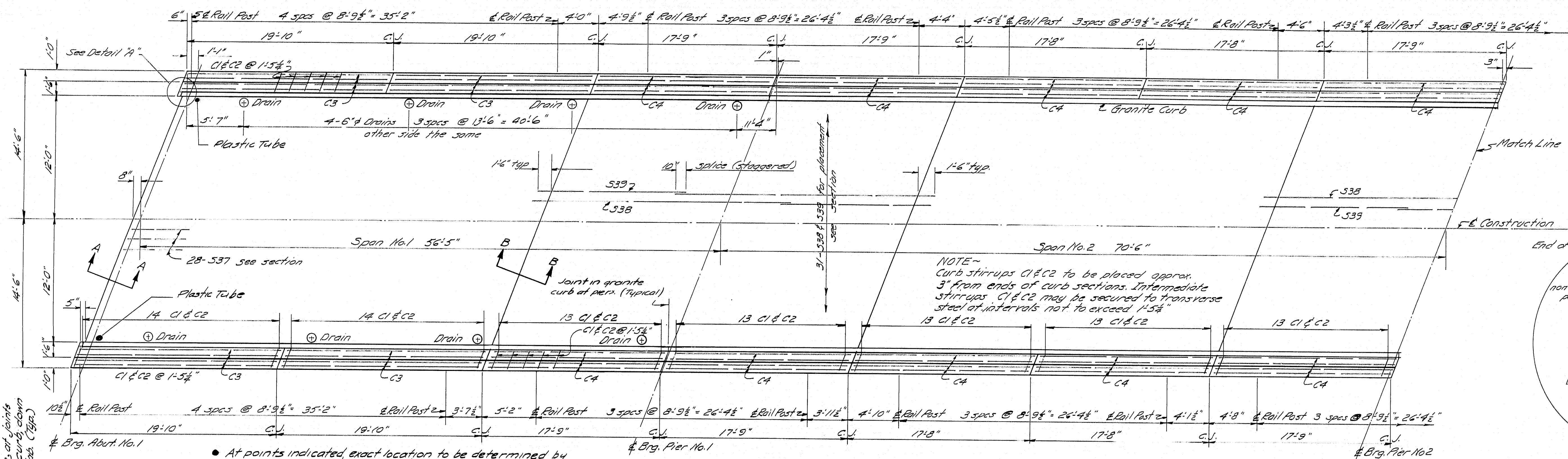
LAYOUT PLAN

○ CONCRETE PLACING SEQUENCE: All panels ① must be placed before starting panels ② etc.



GRANITE CURB DETAIL

Granite curb anchors to be spaced 2'0" c to c. maximum and 1'0" maximum from end of stone. Minimum of two anchors per stone. Granite shall conform to Supplemental Specifications Section 901 Granite Bridge Curb.

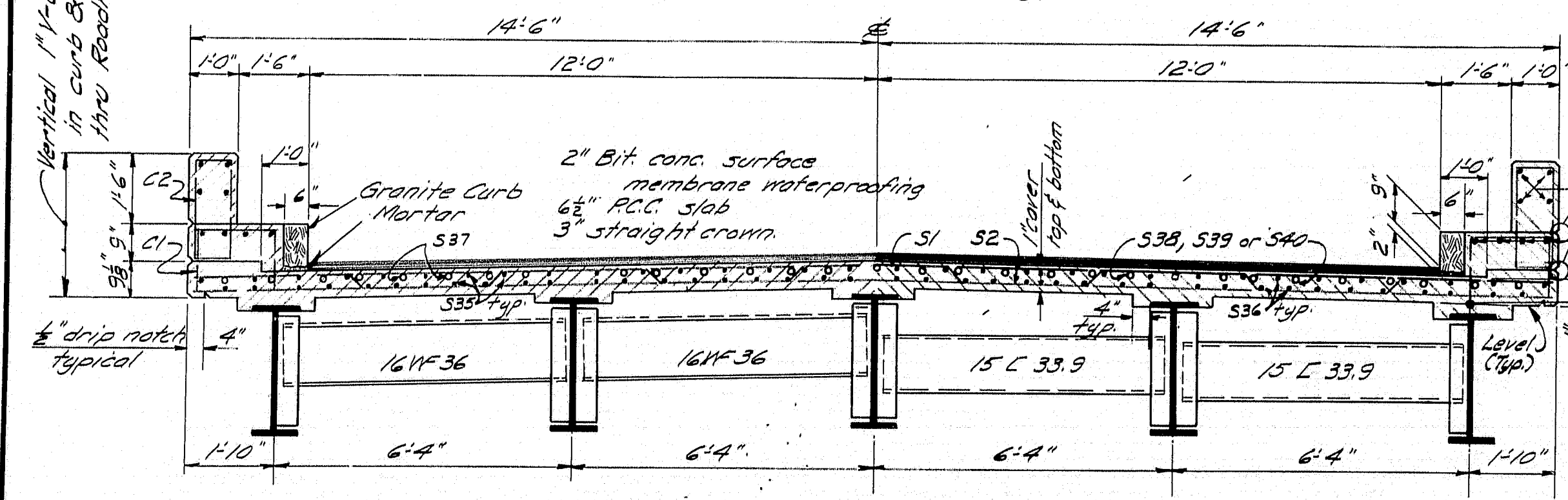


SUPERSTRUCTURE PLAN - SPANS 1&2

Rotate 180° for Spans 5&6

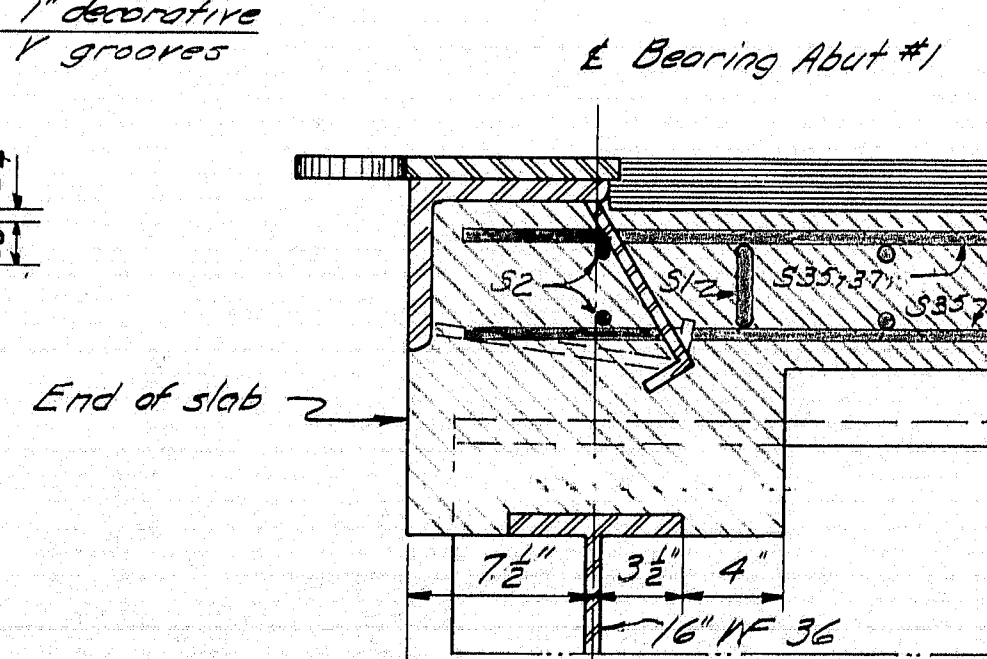
At points indicated, exact location to be determined by Engineer in the field, place a 1" plastic tube thru slab for drainage. Do not cover with waterproofing. This work to be incidental to contract items.

Vertical 1" grooves at joints in curb & rail curb down thru roadway slab (See)

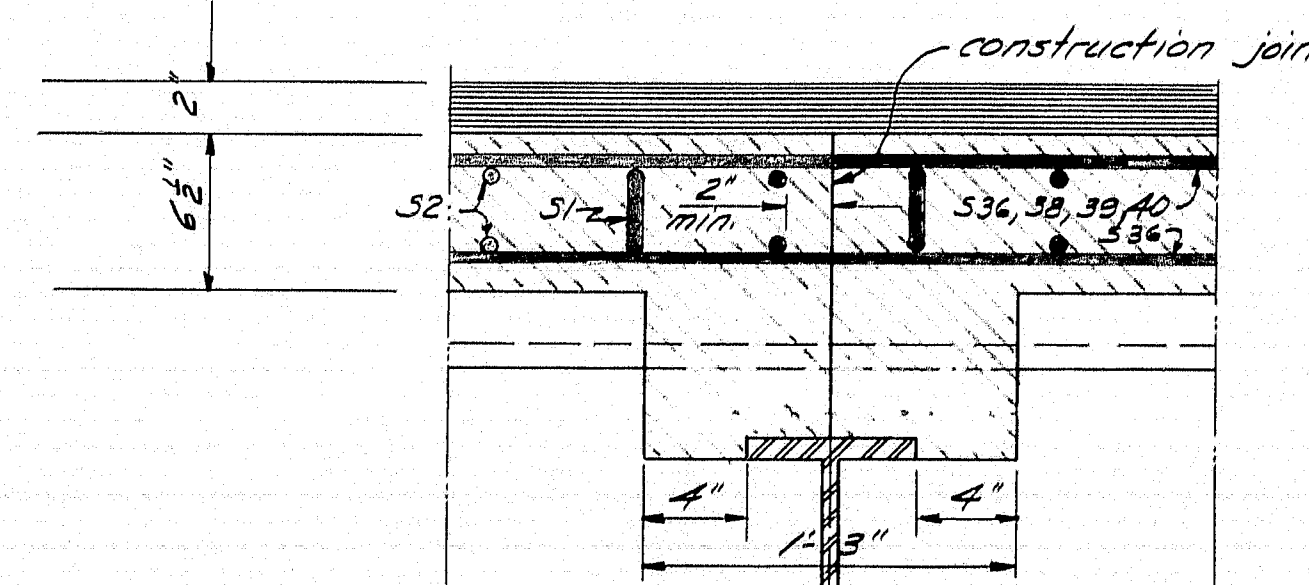


HALF TRANSVERSE SECTION @ ABUTS

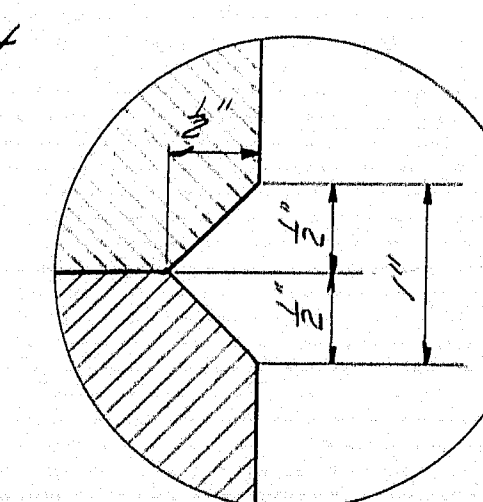
HALF TRANSVERSE SECTION @ PIERS



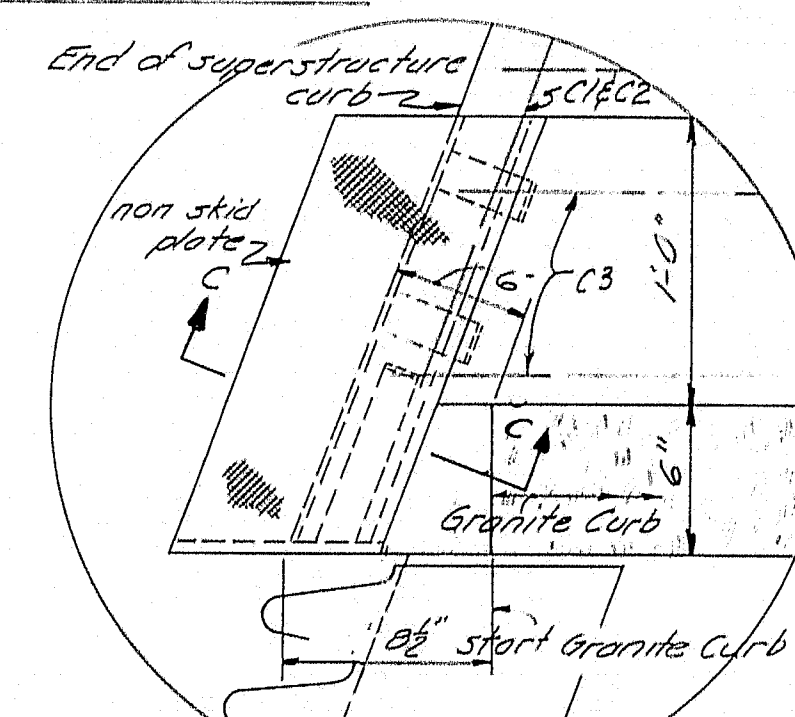
SECTION A-A



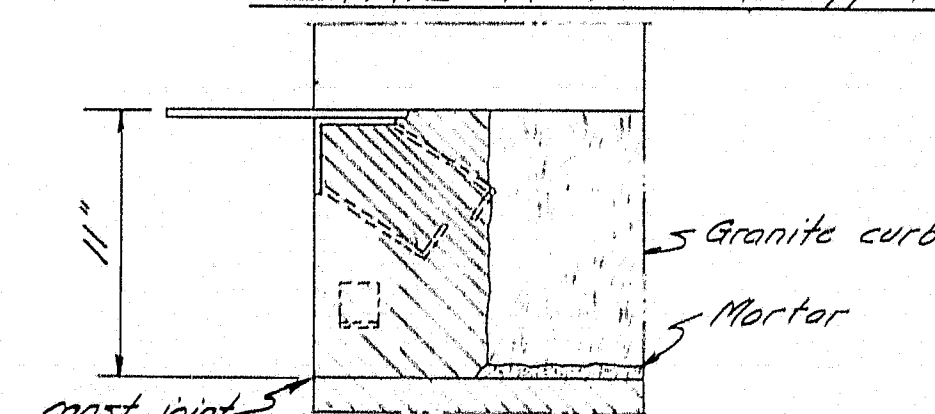
SECTION B-B



DETAIL 1" V GROOVE  
Use same detail for vertical construction joints both inside and outside face of curbs.



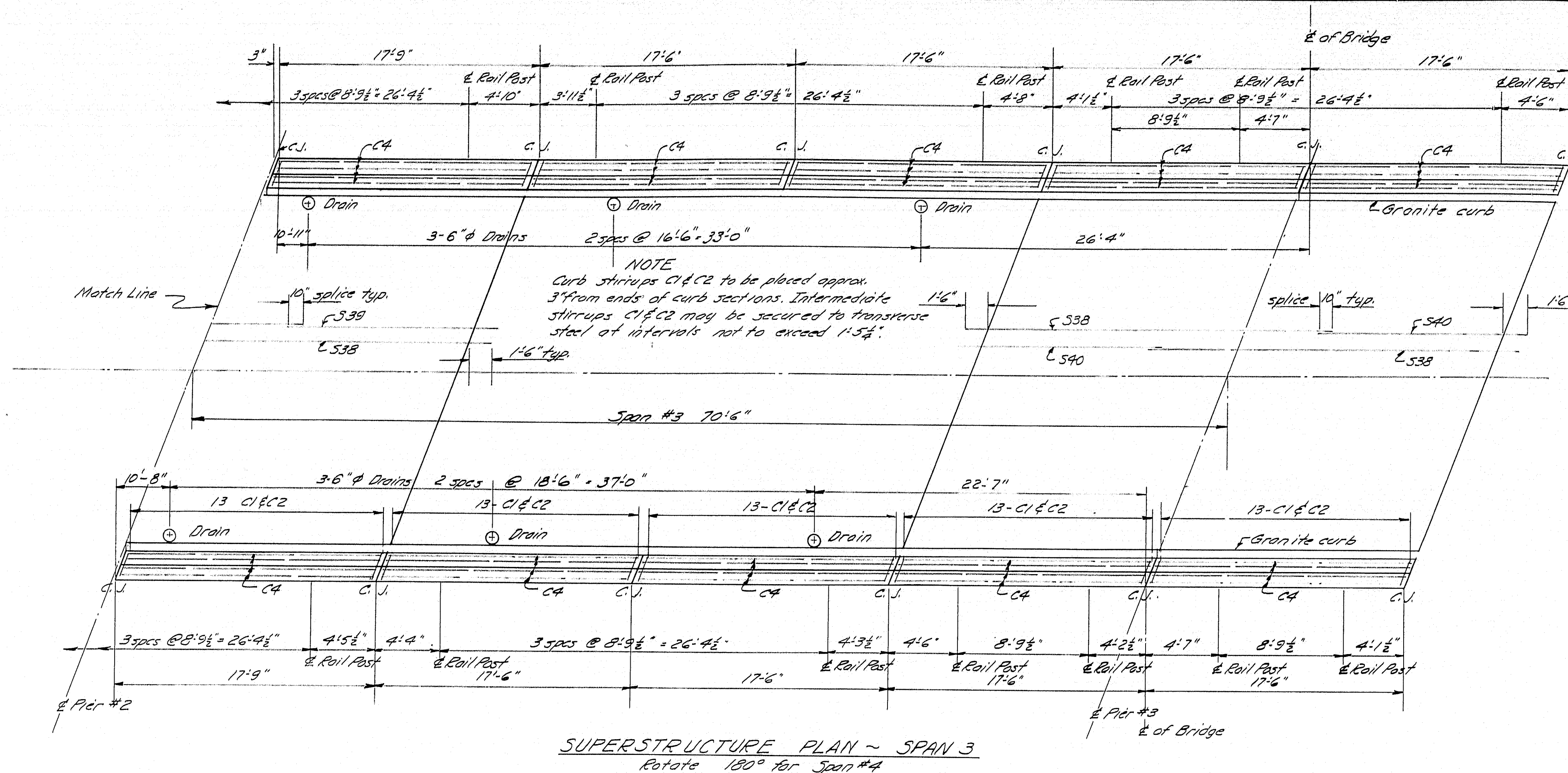
DETAIL 'A' (Other side opp. hand)



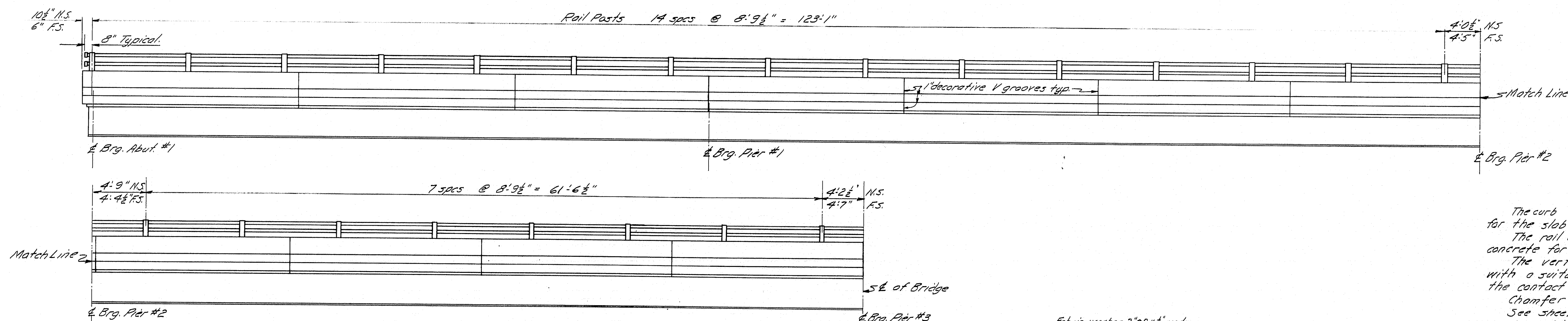
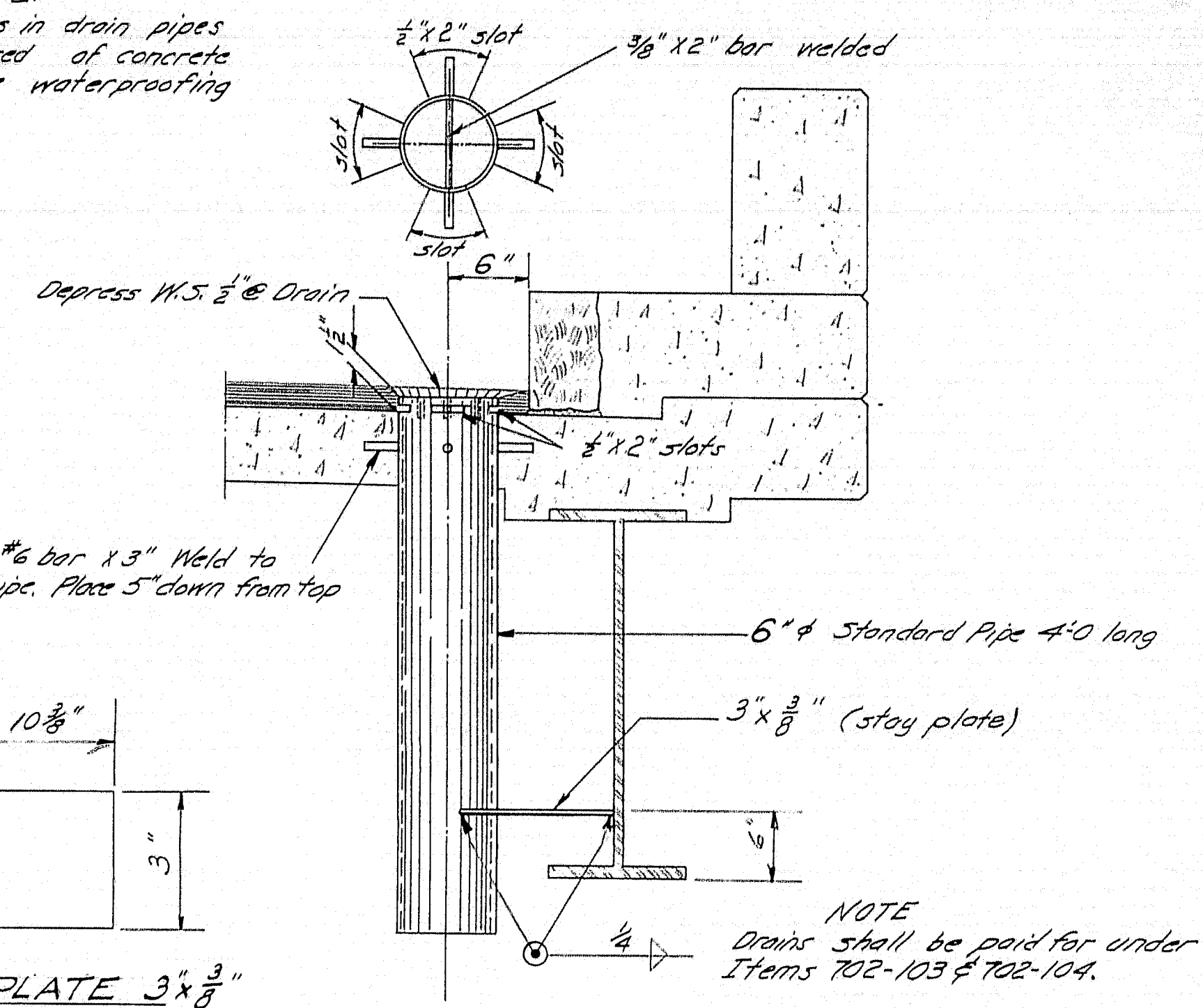
SECTION C-C

DESIGN - T. H. K.	DETAIL - F. Barnes	BRIDGE NO.
TRACE - F. Barnes	SURVY -	140
CHECK - Gormley	PLOT -	
STATE HIGHWAY COMMISSION		
BRIDGE DIVISION		
WEST ETNA ROAD BRIDGE		
OVER		
INTERSTATE HIGHWAY 95		
IN THE TOWN OF		
ETNA		
PENOBSCOT COUNTY		
SUPERSTRUCTURE		
SHEET 12 OF 14	AUGUSTA, MAINE	MARCH, 1961

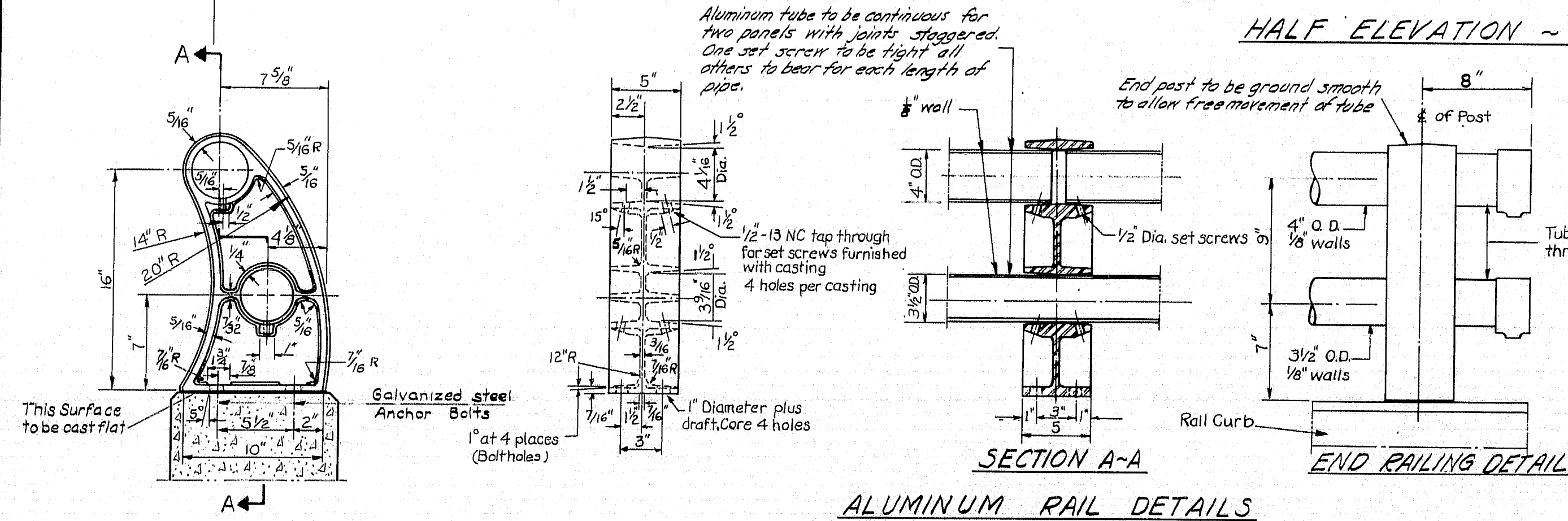




**NOTE.**  
1/2"x2" slots in drain pipes must be cleared of concrete and membrane waterproofing



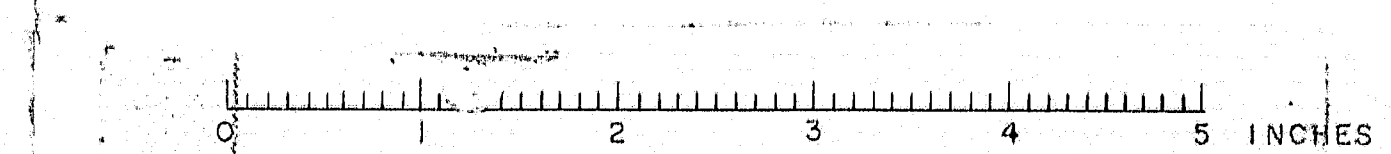
**GENERAL NOTES**  
The curb steel is to be in place before the concrete for the slab is placed.  
The rail curb steel is to be in place before the concrete for the curb is placed.  
The vertical construction joints are to be coated with a suitable grade of asphaltic paint applied to the contact surfaces.  
Chamfer all exposed edges of concrete 3/4".  
See sheet no. 11 for blocking table.  
Use edging tool along top of curb at construction joints.



- NOTES**
- Any variation in railing dimensions shall be submitted for approval.
  - All anchor bolts, nuts and washers to be of galvanized steel.
  - All anchor bolts to be 3/4" & L bolts (set 10" into concrete)
  - Provide shims for 30% of railing posts.

**ANCHOR BOLT**  
Structural Steel galvanized

DESIGN - F. H. K. DETAIL - F. BARNEZ	BRIDGE NO. SURVEY - PLOT -
TRACE - F. BARNEZ	CHECK - Gormley
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
<b>WEST ETNA ROAD BRIDGE</b>	
OVER	
<b>INTERSTATE HIGHWAY 95</b>	
IN THE TOWN OF	
<b>ETNA</b>	
<b>PENOBSCOT COUNTY</b>	
SUPERSTRUCTURE & ALUMINUM RAIL	
SHEET 13 OF 14 AUGUSTA, MAINE MARCH, 1961	

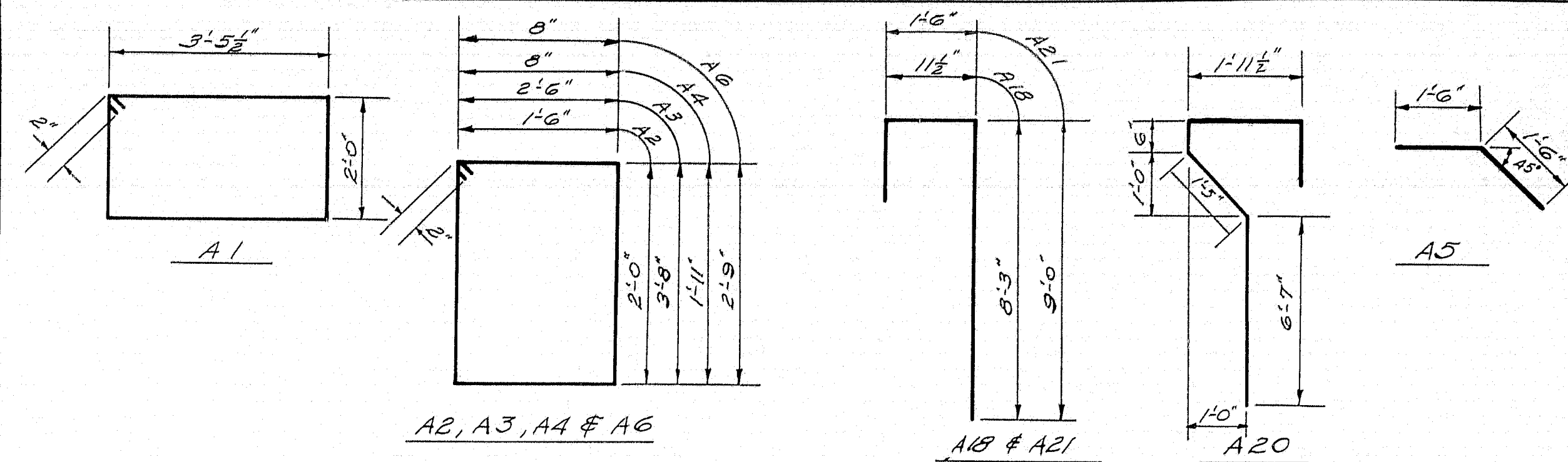




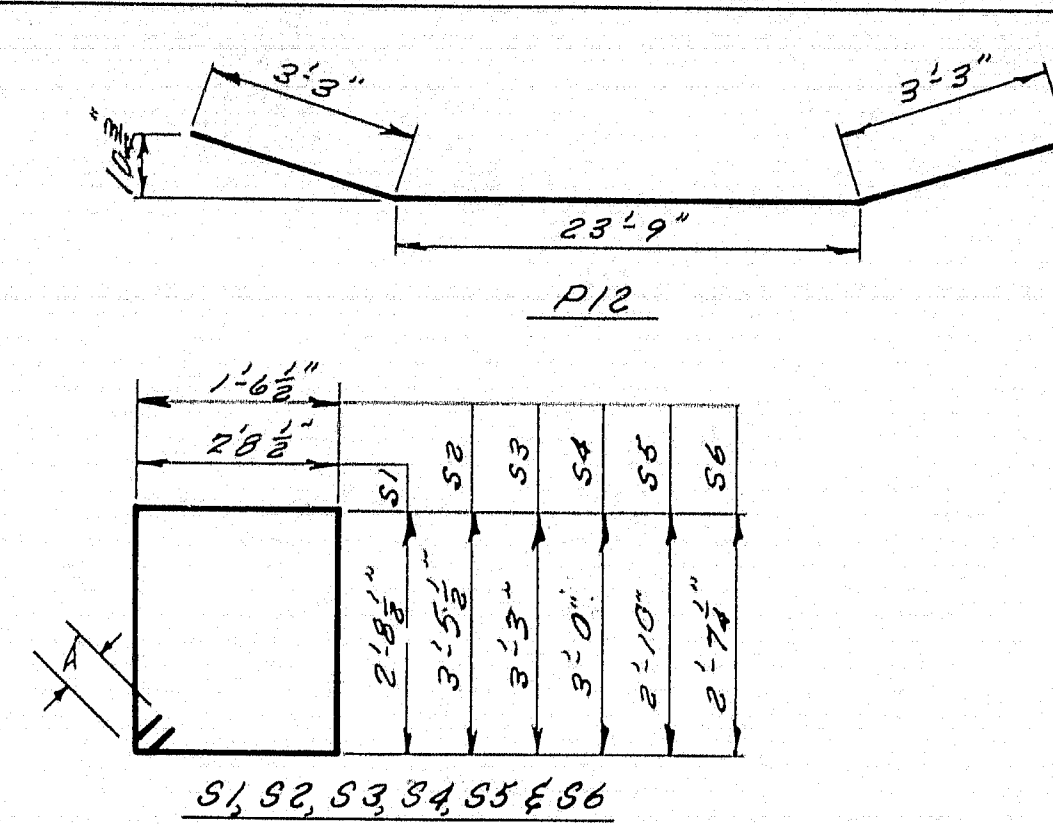
# REINFORCING STEEL SCHEDULE

D. P. N.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-1(19)	14	14

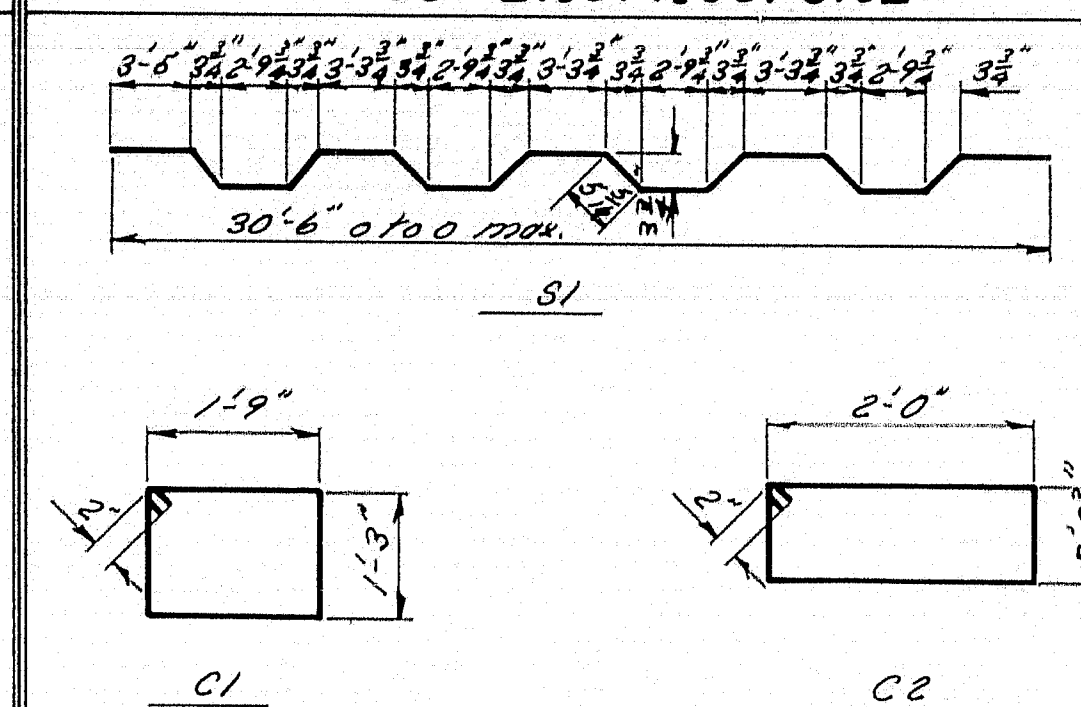
## ABUTMENTS & APPROACH SLABS



## PIERS



## SUPERSTRUCTURE



### BENT BARS

Mark	Size	Number	Length	Location
A1	#5	80	11'-3"	Footings
A2	#4	34	7'-4"	Footings Wings
A3	#4	30	12'-5"	Bridge Seats
A4	#4	28	5'-6"	Rail Curbs
A5	#5	26	3'-0"	Approach Slabs - Backwalls
A6	#4	12	7'-2"	End Posts
A18	#5	62	12'-6"	Abutment Backwalls
A20	#5	38	11'-6"	Wings
A21	#5	28	11'-10"	Wings

### STRAIGHT BARS

Mark	Size	Number	Length	Location
A24	#4	48	9'-6"	Wings & Rail Curbs
A25	#5	56	3'-0"	Backwall Corners
A26	#5	32	9'-0"	Wings
A27	#4	16	2'-8"	End Posts
A51	#6	32	14'-6"	Approach Slab
A52	#6	32	15'-3"	"
A53	#6	32	16'-0"	"
A54	#6	32	16'-9"	"
A55	#6	32	17'-6"	"
A56	#6	32	18'-2"	"
A57	#4	40	25'-1"	"
A58	#4	24	9'-6"	"

### BENT BARS

Mark	Size	Number	Length	Location
P12	#8	15	30'-3"	Caps - All Piers
S1	#4	324	11'-8"	Columns - All Piers
S2	#5	220	10'-8"	Caps - All Piers
S3	#5	20	10'-3"	"
S4	#5	20	9'-9"	"
S5	#5	20	9'-5"	"
S6	#5	20	8'-1 1/2"	Caps - All Piers

### BENT BARS

Mark	Size	Number	Length	Location
C1	#4	580	6'-4"	Curb
C2	#4	580	5'-9 1/2"	Rail Curb
S1	#5	412	31'-7"	Slab - All Spans

### STRAIGHT BARS

Mark	Size	Number	Length	Location
C3	#4	64	19'-6"	Sidewalk & Rail Curbs - Spans 1 & 2
C4	#4	288	17'-4"	" " " All Spans
S2	#5	886	30'-6"	Slab - All Spans
S35	#4	144	23'-3"	Slab - Abut. Spans
S36	#4	844	30'-0"	Slab - Interior Spans
S37	#4	56	5'-0"	Slab - Abut. Spans
S38	#4	155	25'-0"	Slab - Over All Piers
S39	#4	124	18'-4"	Slab - Over Piers 1, 2 & 3
S40	#4	31	13'-10"	Slab - Over Pier 3

### STRAIGHT BARS

Mark	Size	Number	Length	Location
A7	#8	10	30'-5"	Footings
A8	#8	6	30'-0"	"
A9	#8	8	29'-0"	"
A10	#7	16	8'-6"	"
A11	#8	10	11'-0"	"
A12	#6	12	14'-0"	Footings Wings
A13	#6	6	10'-0"	"
A14	#6	4	11'-6"	"
A15	#6	6	13'-0"	"
A16	#5	56	8'-0"	Abutment Backwalls
A17	#5	34	30'-5"	"
A19	#5	40	5'-6"	Bridge Seats
A22	#5	128	3'-6"	Wings & Breast Walls - Dowels
A23	#5	32	10'-2"	Wings

### STRAIGHT BARS

Mark	Size	Number	Length	Location
P1	#8	360	5'-6"	Footings - All Piers
P2	#8	300	4'-0"	"
P3	#8	60	22'-0"	Columns - Pier 1
P4	#8	60	25'-6"	Columns - Pier 2
P5	#8	60	28'-6"	Columns - Pier 3
P6	#8	60	24'-3"	Columns - Pier 4
P7	#8	60	21'-0"	Columns - Pier 5
P8	#9	40	10'-0"	Caps - All Piers
P9	#7	25	30'-3"	"
P10	#8	20	30'-3"	"
P11	#8	10	23'-9"	Caps - All Piers

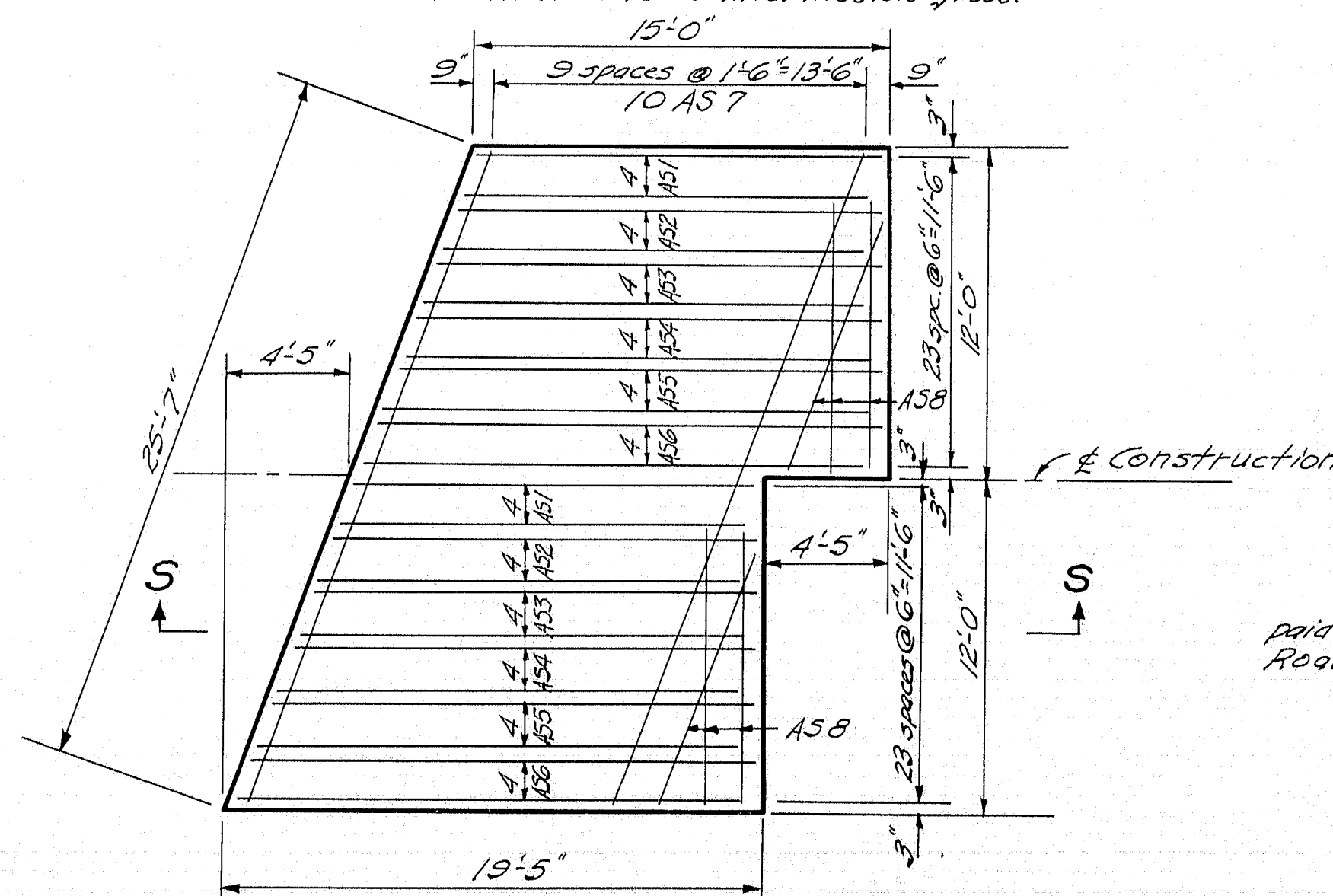
Note:

All dimensions to & of bars.  
All reinf steel to be intermediate grade.

Design: F. Barnes  
Detail: " "  
Check: T.H.K. & Coffin

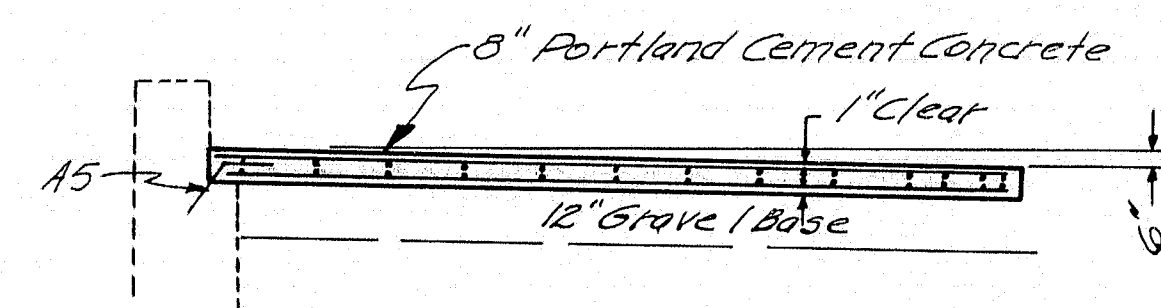
Design: T.H.K.  
Detail: " "  
Check: Coffin

Design: F. Barnes  
Detail: " "  
Check: Garimley



### PLAN

Top layer of reinforcing steel shown only.  
Bottom layer to be the same as top layer.



### SECTION S-S

Approach Slab concrete to be Class A and to be paid for under Item 701-40, Portland Cement Concrete Roadway and Sidewalk Slabs on Steel Bridges.

### APPROACH SLAB ABUT.#2

Abutment #1 Similar  
Detail: T.H. Karasopoulos Check: Coffin

## ESTIMATE OF BRIDGE QUANTITIES

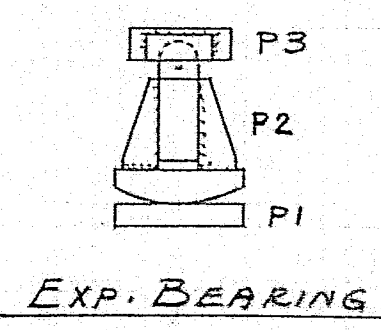
ITEM NO.	DESCRIPTION	QUANTITY
204-12	Structural Earth Excavation, Abutments & Retaining Walls	145 c.y.
204-13	Structural Rock Excavation, Abutments & Retaining Walls	18 c.y.
204-14	Structural Earth Excavation, Piers	350 c.y.
204-15	Structural Rock Excavation, Piers	70 c.y.
205-9	Granular Borrow	1185 c.y.
302-7	Gravel Base Course - In Place Measurement	140 c.y.
404-29	Bituminous Concrete Surface Course, Type "B"	116 tons
701-33	Portland Cement Concrete, Abutments & Retaining Walls	164 c.y.
701-35	Portland Cement Concrete, Piers	263 c.y.
701-40	Portland Cement Concrete, Roadway & Sidewalk Slabs on Steel Bridges	380 c.y.
701-47	Portland Cement	1215 bbls.
702-103	Structural Steel, Fabricated & Delivered	331,500 lbs.
702-104	Structural Steel, Erection	331,500 lbs.
702-105	Structural Steel, Field Painting	331,500 lbs.
703-13	Reinforcing Steel, Delivered	125,840 lbs.
703-14	Reinforcing Steel, Placing	125,840 lbs.
806-7	Aluminum Rail	520 lin.ft.
807-9	Membrane Waterproofing	1035 sq.
807-11	Epoxy Resin Surface Sealant	65 sq.
808-6	Slope Paving	390 sq.
901-21	Bridge Granite Curb	825 lin.ft.
908-9	Loam Borrow	60 c.y.
910-13	Seeding, Method No. 2	7 units
912-7	Hay Mulch	0.75 tons
913-7	Asphalt Mulch Binder	190 gals.

DESIGN - As noted  
TRACE - L.M.C. & P.M.V.  
CHECK - As noted

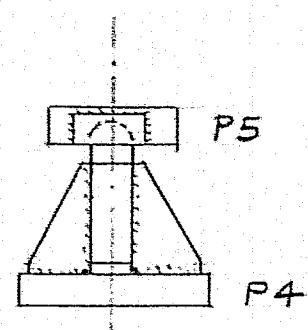
BRIDGE NO.  
SURVEY -  
PLOT -

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
**WEST ETNA ROAD BRIDGE**  
OVER  
**INTERSTATE HIGHWAY 95**  
IN THE TOWN OF  
**ETNA**  
**PENOBSCOT COUNTY**  
REINFORCING SCHEDULE &  
ESTIMATE OF BRIDGE QUANTITIES  
SHEET 14 OF 14 AUGUSTA, MAINE MARCH 1991



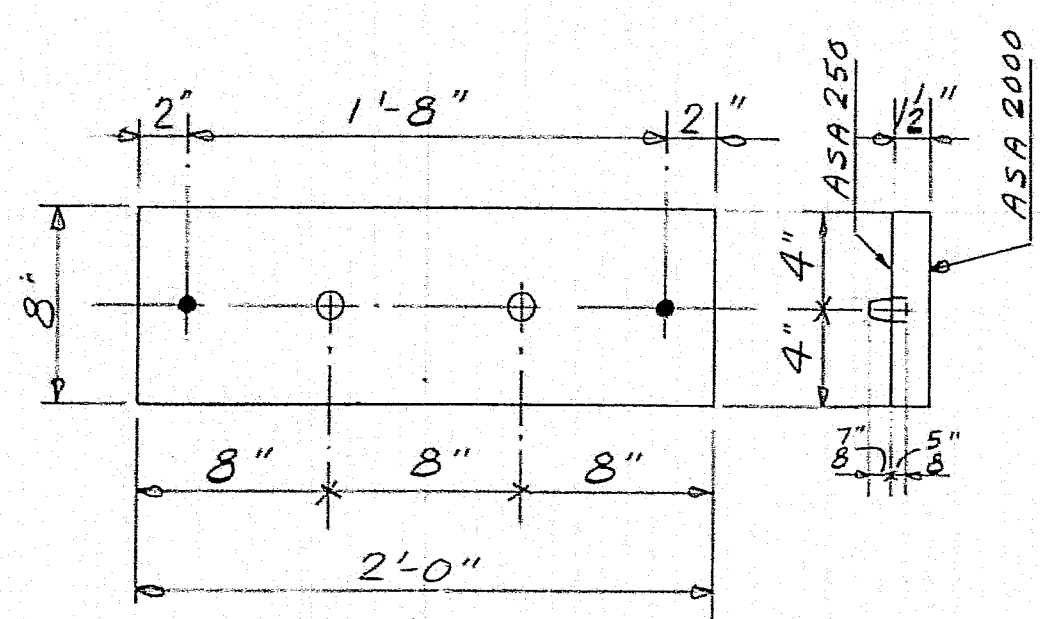


EXP. BEARING

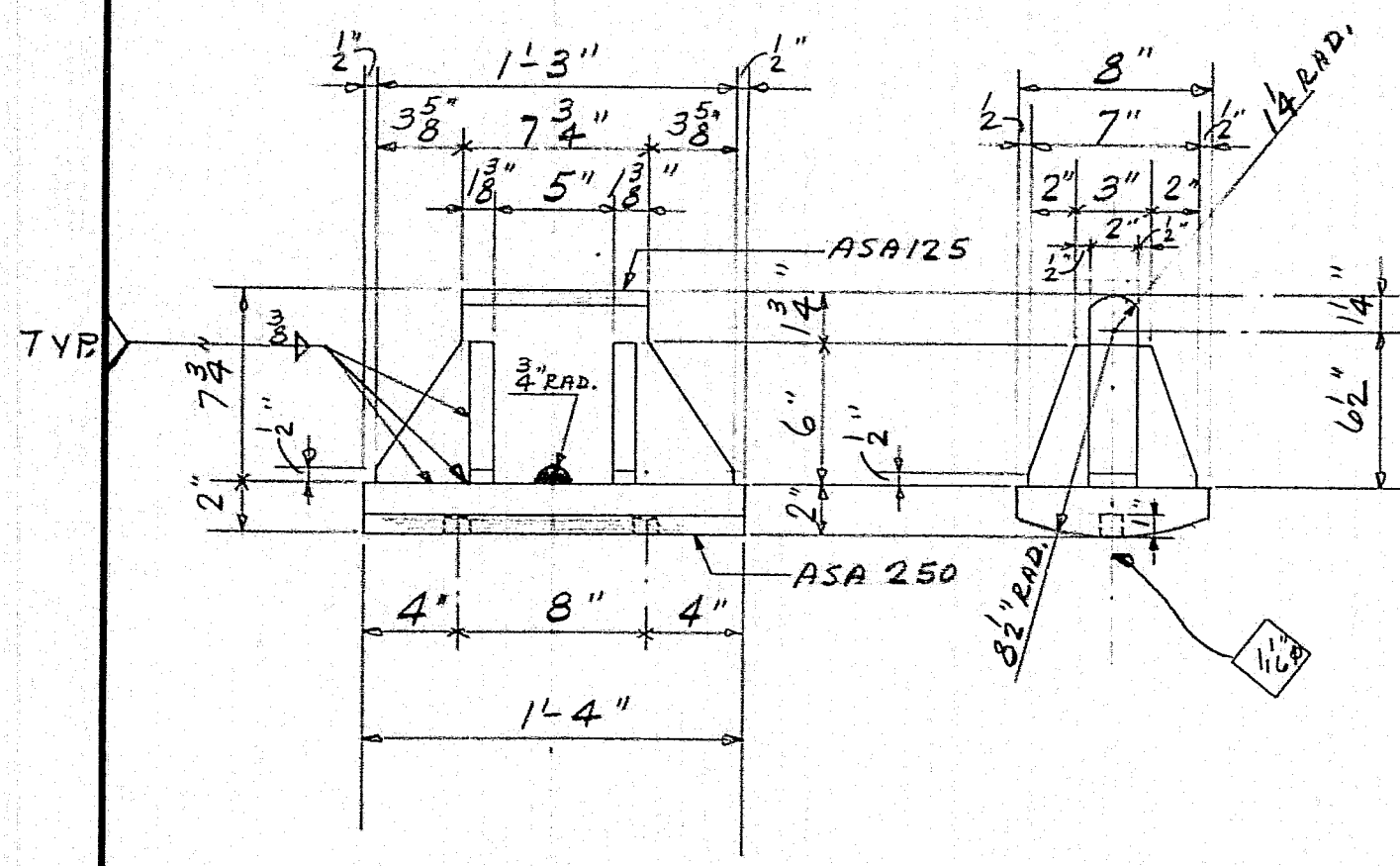


FIXED BEARING

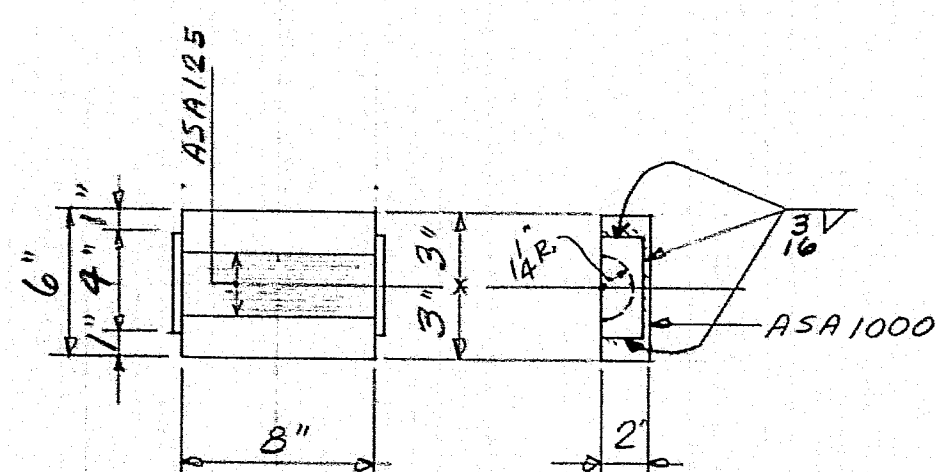
Rea. Part #1707



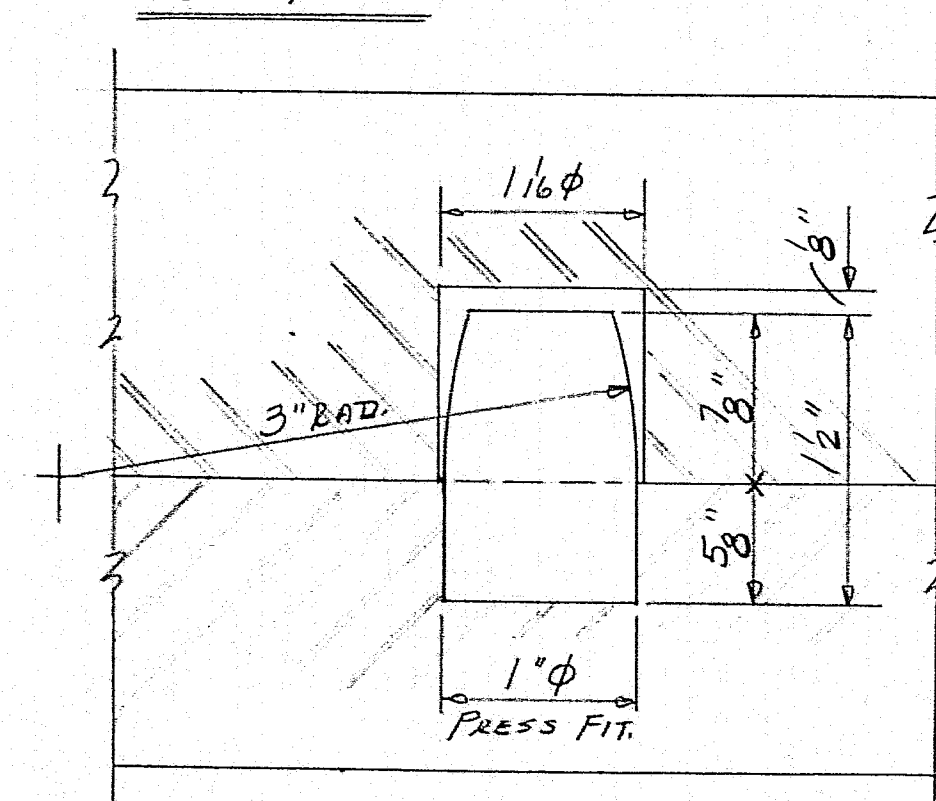
30-P1



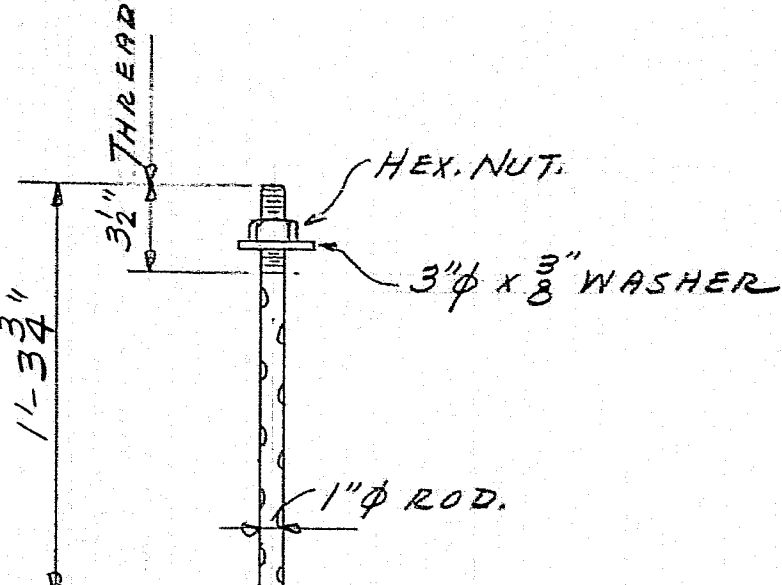
30-P2



30-P3



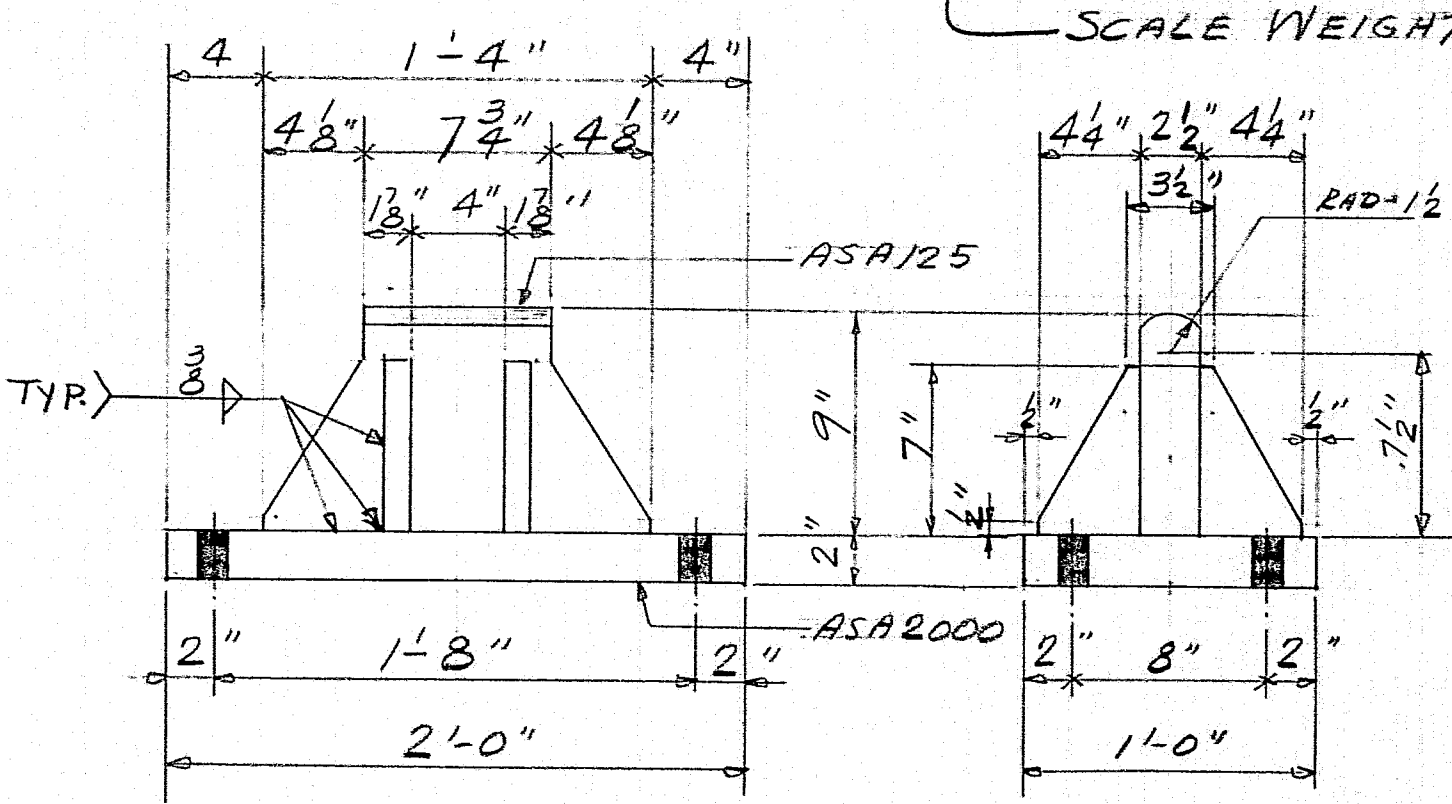
PINTLE DETAIL



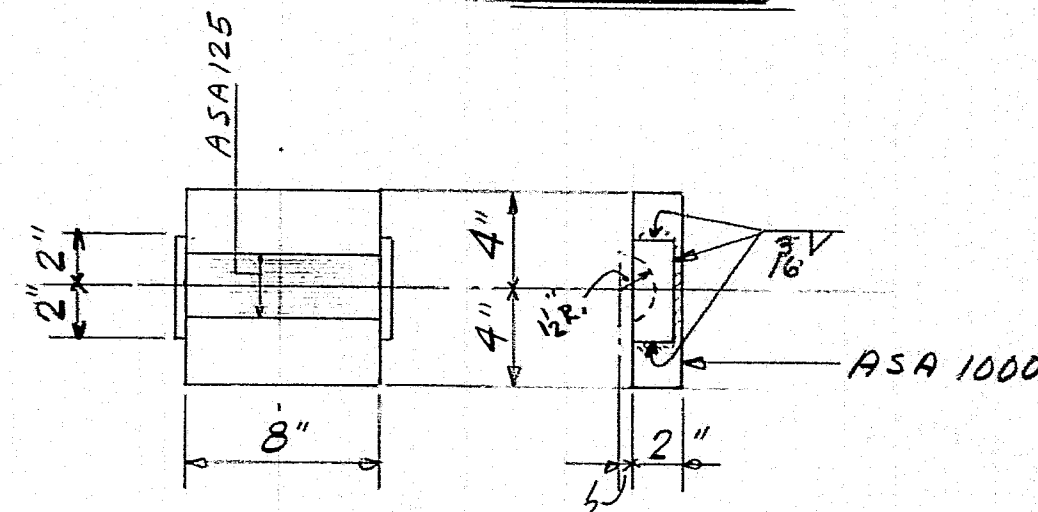
80-SWEDGED ANCHORS Rea'd.  
(20-SHIPED 6-4-62)

SHIP		BILL OF MATERIAL				DWG. B62-58-S9	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS	
P1	30		8x1 1/2	2 0			A7
P2	30		8x2	1 4			
	30		7 1/2x2	1 3			
	120		2 1/2x1	0 6			
P3	30		6x2	0 8			
	60		1 3/4x3	0 4			
P4	5		12x2	2 0			
	5		9x2 1/2	1 4			
	20		4x1	0 7			
P5	5		8x2	0 8			
	10		1 3/4x3	0 4			
	60		ROD 1"φ	0 1/2		PINTLE	
	80		ROD 1"φ	1 3/4		SWEDGED ANCHORS	A325
	80		1"φ HEX NUTS				
	80		3/4x3 WASHERS				A7

SCALE WEIGHTS



5-P4



5-P5

STRUCT. STEEL IS ITEM 702-103  
SHOP CONNECTIONS: WELD  
FIELD CONNECTIONS:  
HOLES: 1/8"φ UNLESS NOTED  
PAINT: STATE SPECS.

APP. AS NOTED 5-28-62

BEARING RES & ANCHORS

Bancroft & Martin Pottery Mills Company  
Brewer, Maine

WEST ETNA ROAD BRIDGE  
ETNA MAINE

CUSTOMER E. N. NASON  
DESIGNER STATE HIGHWAY COMM.

ORDER VERBAL DWG. B62-58-S9

DRAWN	5-21-62	E.M.
REVISION	6-4-62	E.M.
REVISION		
REVISION		

65-1584







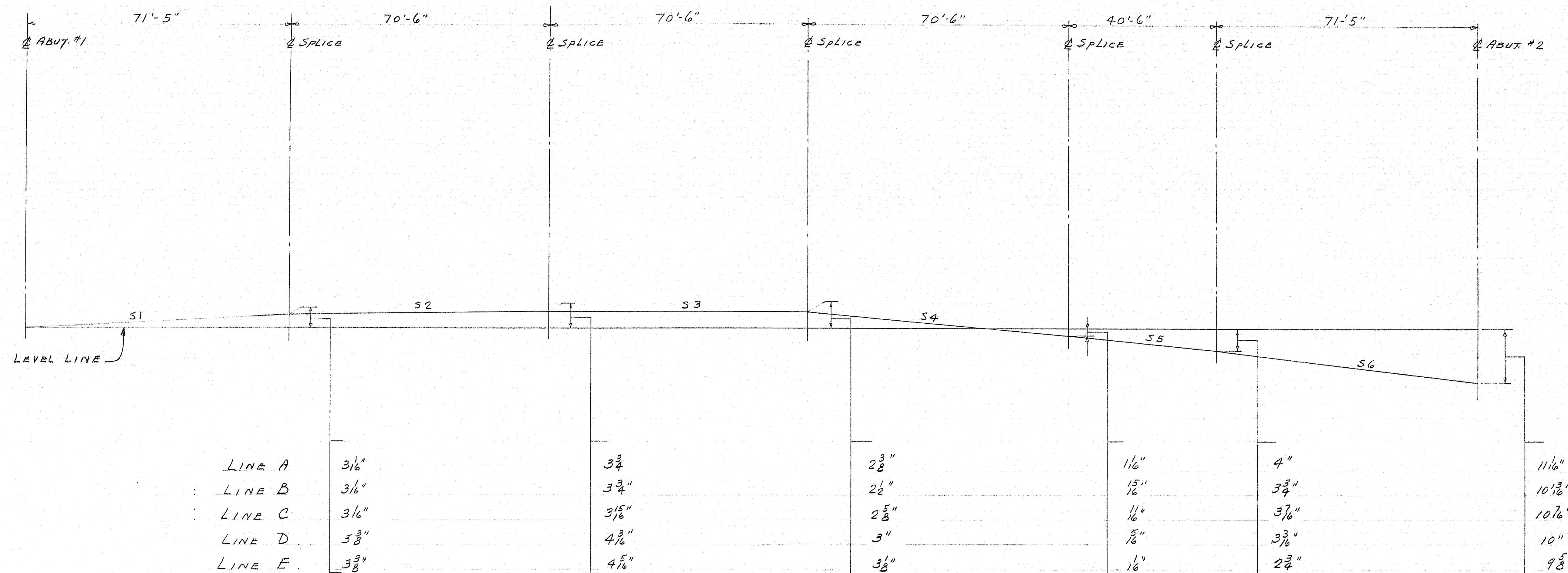
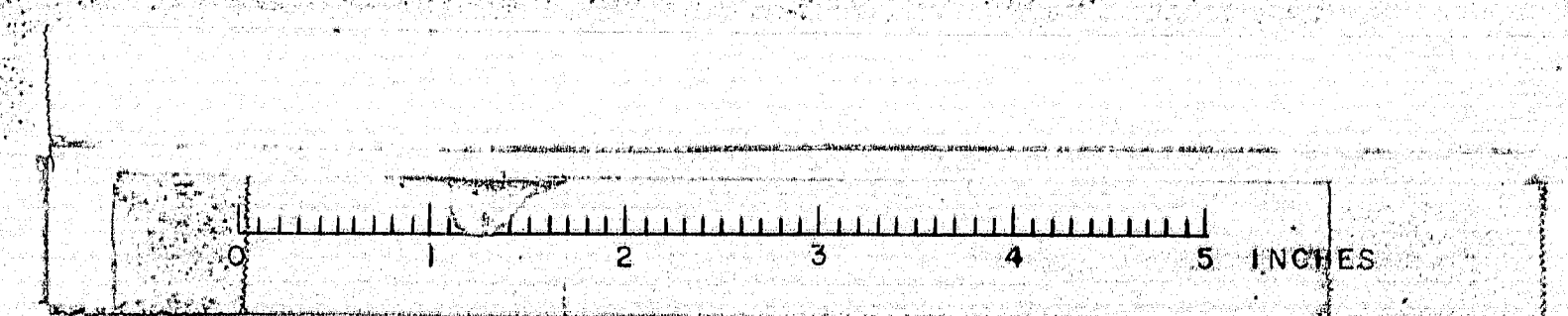


DIAGRAM OF STRINGER ELEVATIONS  
COMPUTATION OF DIMENSIONS ARE BASED ON "BEARING AREA ELEVATIONS"

SHOP CONNECTIONS:  
FIELD CONNECTIONS:  
HOLES:  
PAINT:

APP. AS NOTED 5-28-62

DIAGRAM OF STRINGER ELEVATIONS			
PRINT ISSUE		Bancroft & Martin Rolling Mills Company	
		Brewer, Maine	
		WEST ETNA ROAD BRIDGE	
		ETNA MAINE	
3	DIST	6-5-62	CUSTOMER E. N. NASON
1	SHOP	6-5-62	DESIGNER STATE HIGHWAY COMM.
2	F.A.	5-22-62	ORDER VERBAL
DRAWN	5-16-62	E.M.	DWG. B62-58-F2
REVISION	6-4-62	E.M.	
REVISION			
REVISION			























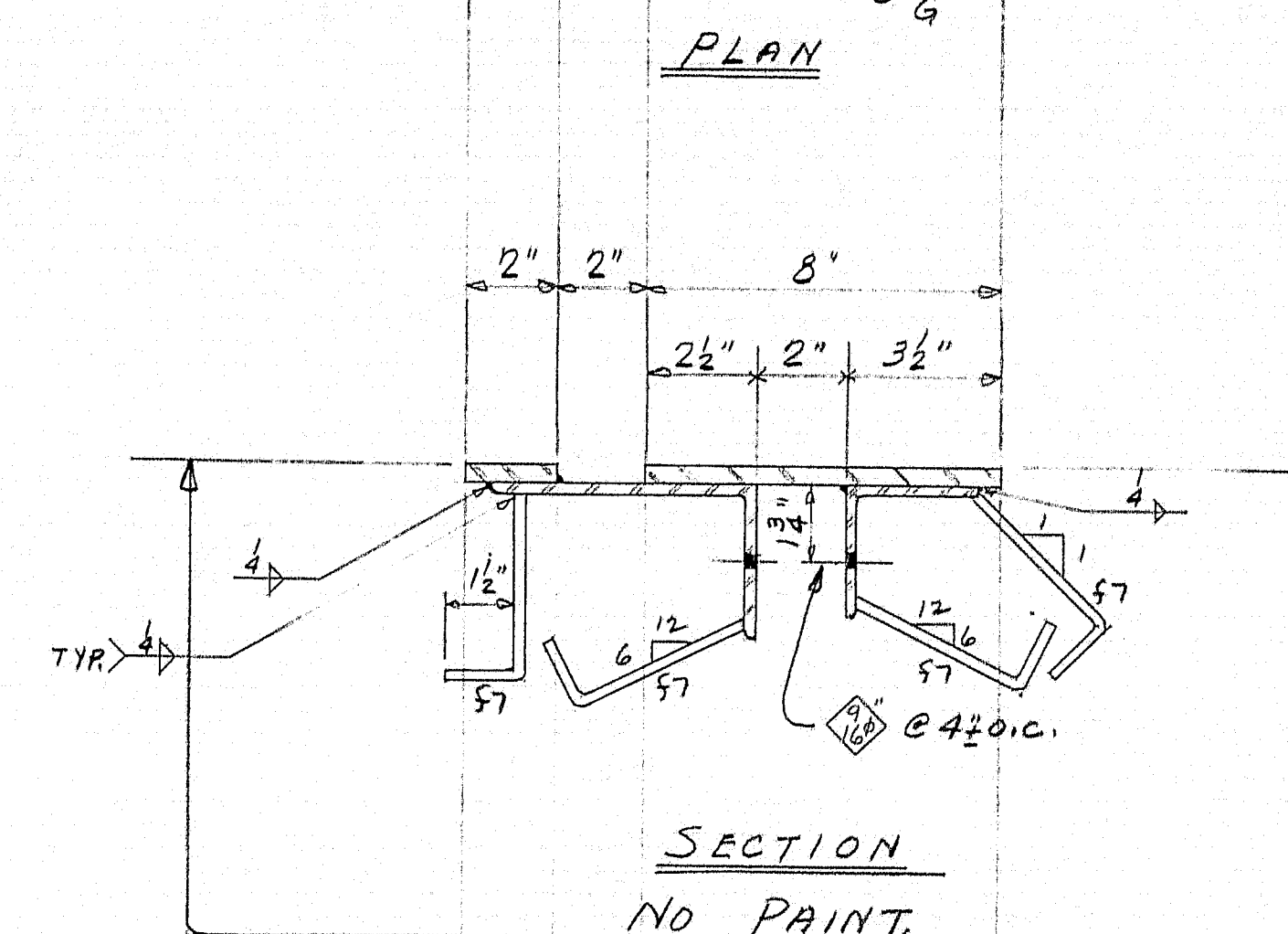
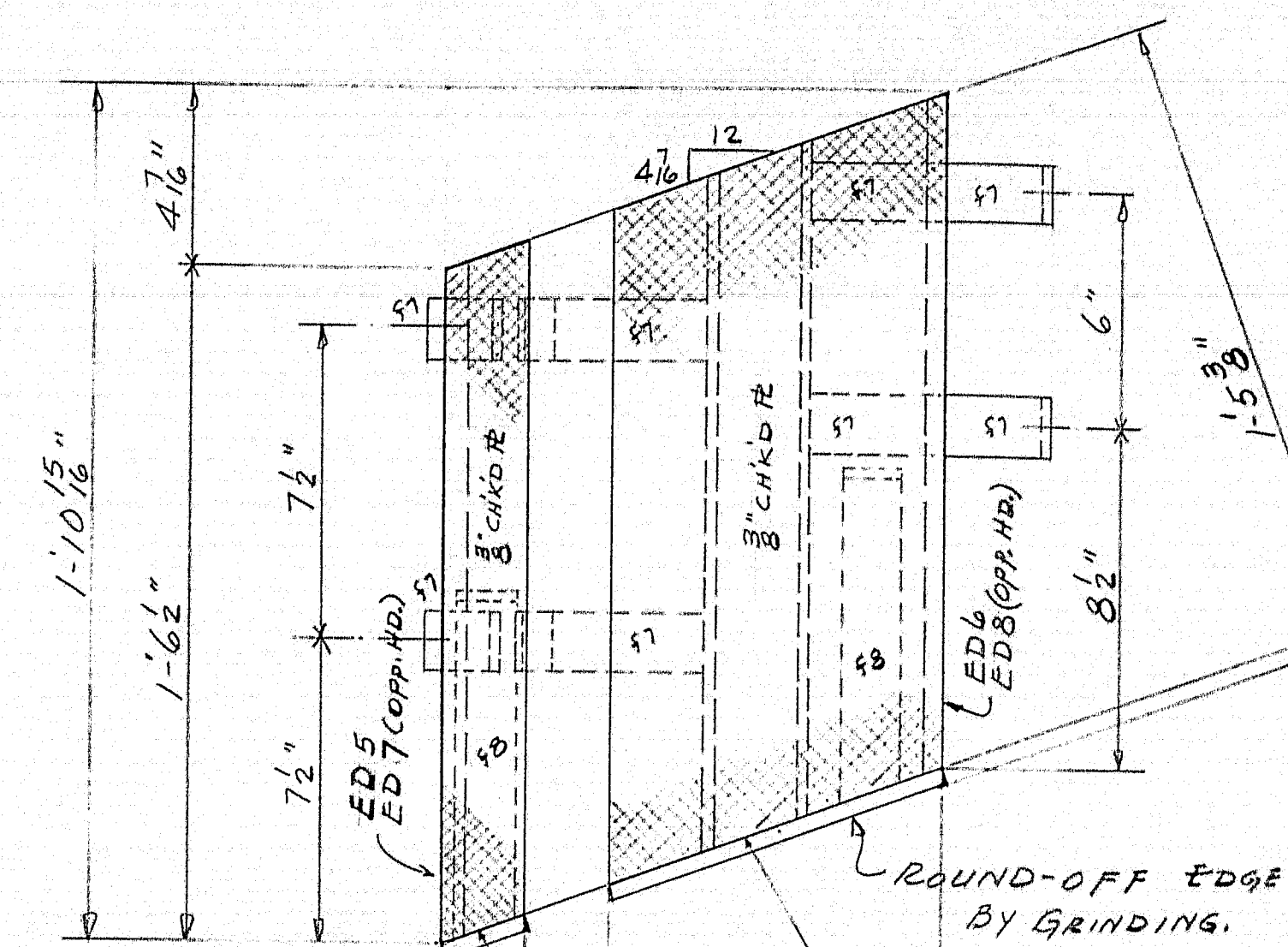
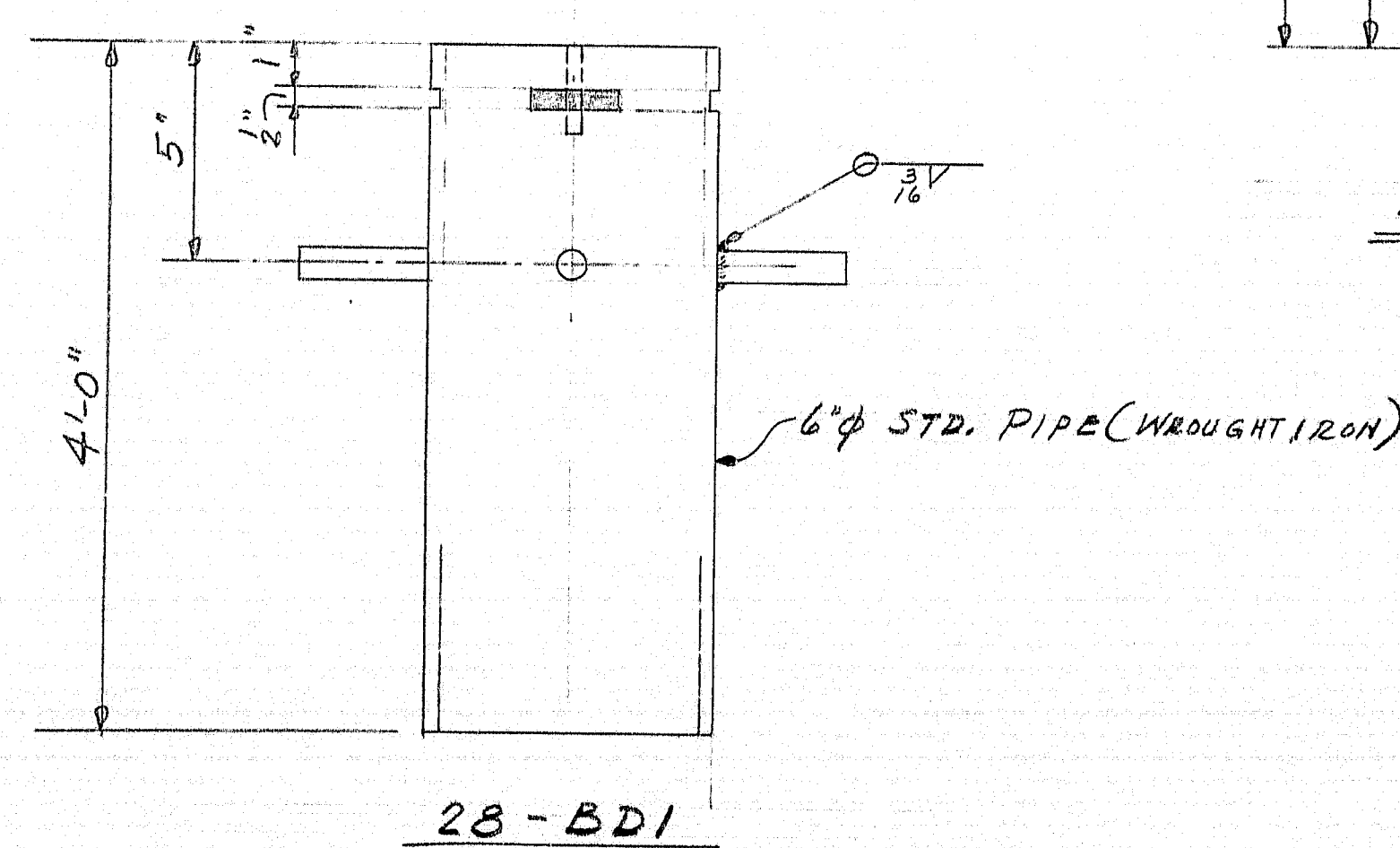
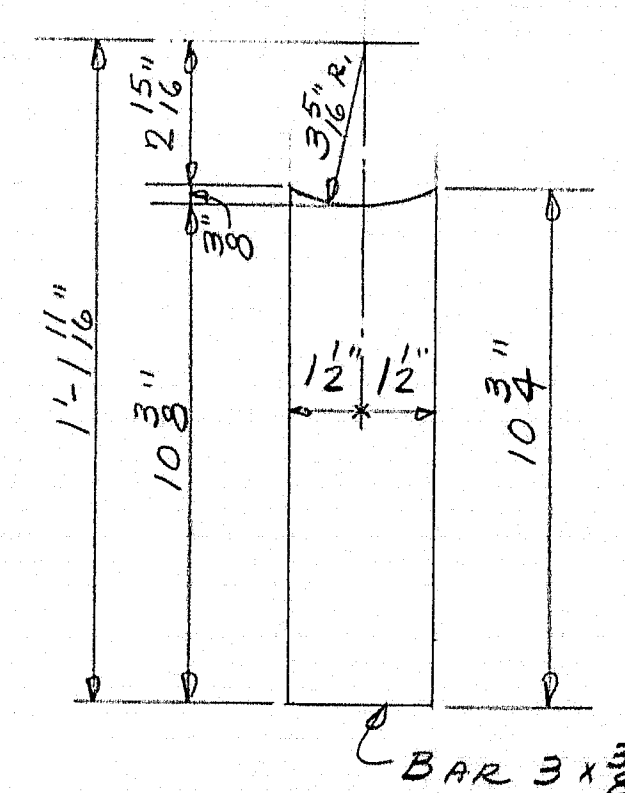
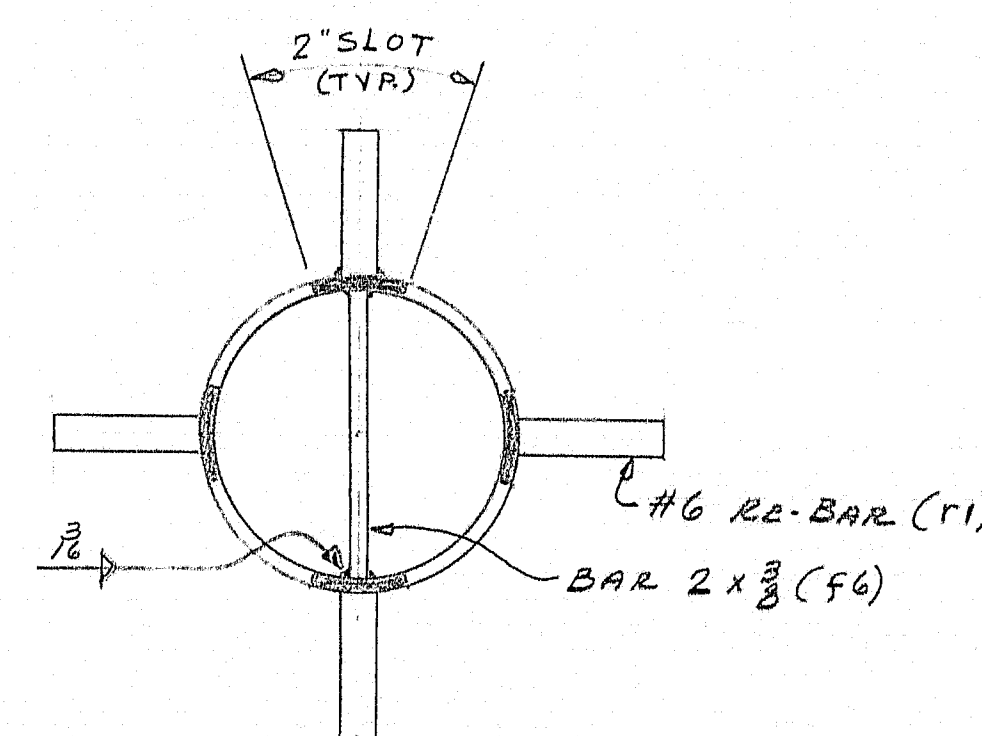
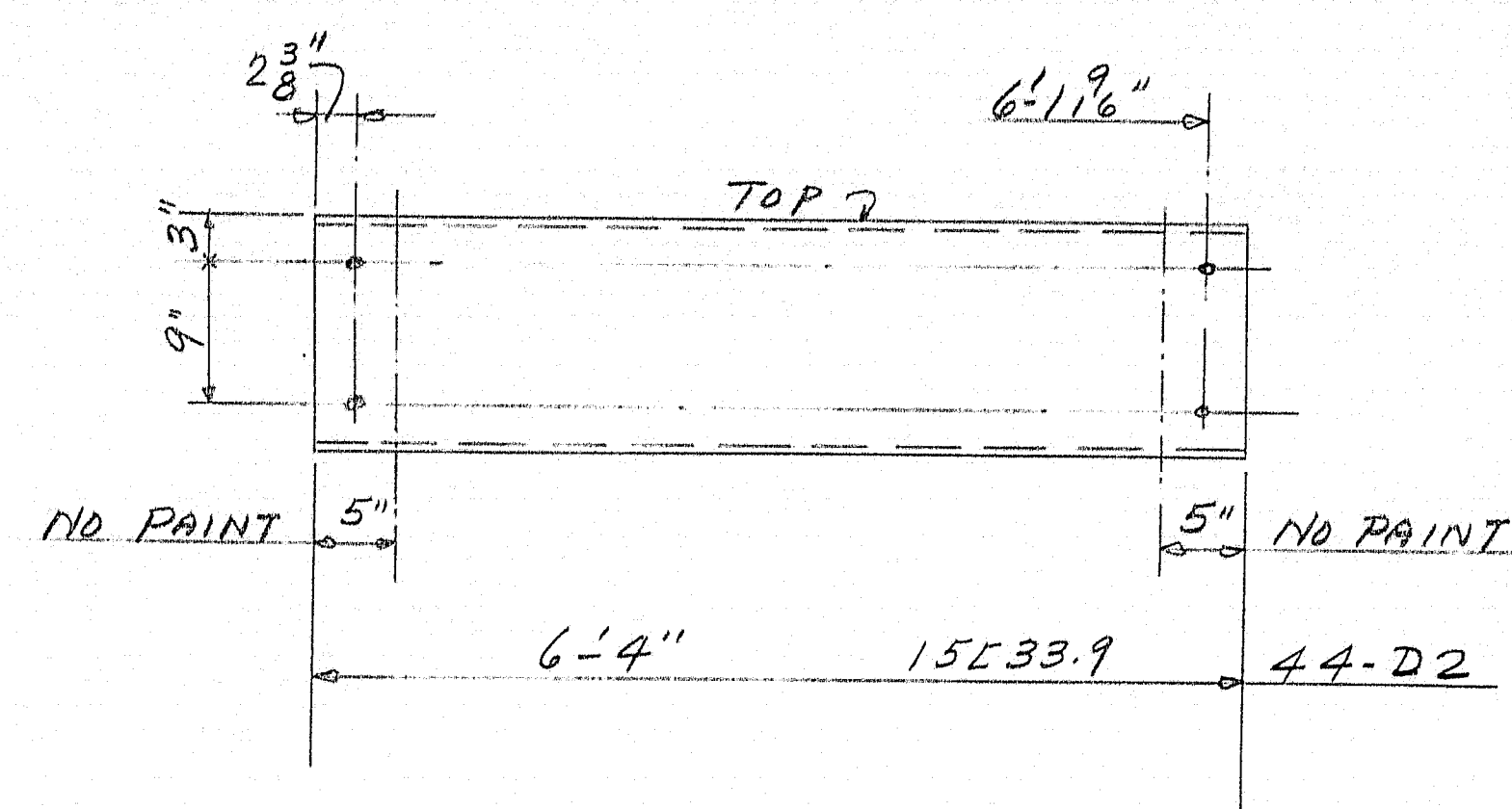
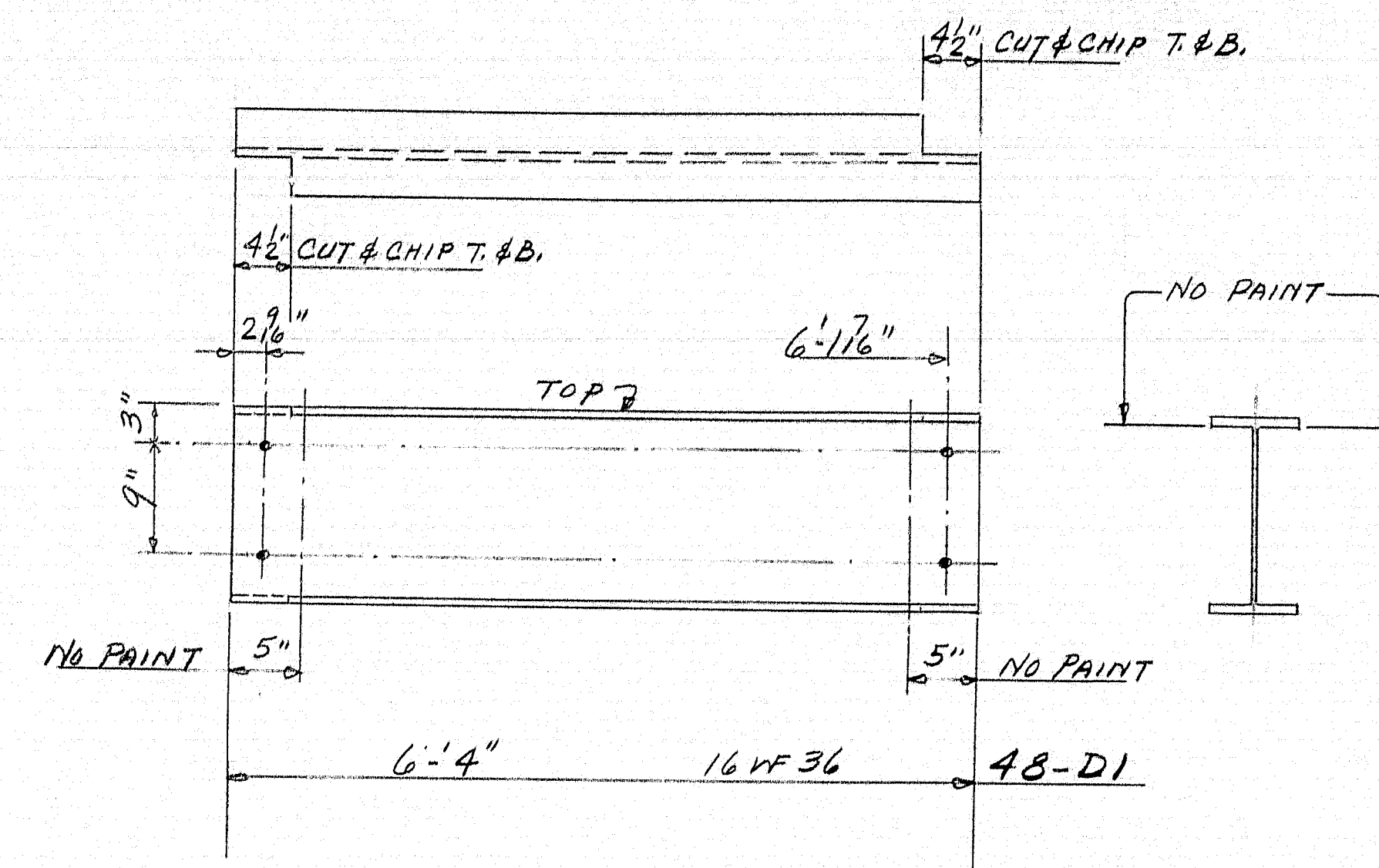












ELEVATION OF CURB DAM  
2-REQ'D AS SHOWN  
2-REQ'D OPP. HAND

SHIP		BILL OF MATERIAL				DWG. B62-58-58	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	DEDUCT	REMARKS
D1	48		16WF36	6	4	359.50#	A7
D2	44		15L33.9	6	4	150#	A7
BD1	28		6" STD. PIPE	4	0	13.1#	A72
	28	FL	BAR 2 x 3/8	0	6		FIT. A7
	112	r1	3" RE-BAR	0	3		
F1	28		BAR 3 x 3/8	0	10 3/4	1.5#	
ED5	2		6 x 3 1/2 x 7/16 L	1	8 3/8	3.77#	
ED6	2		3 x 3 x 4 L	1	7 1/2	1.00#	
ED7	2		6 x 3 1/2 x 7/16 L	1	8 3/8	3.77#	
ED8	2		3 x 3 x 4 L	1	7 1/2	1.00#	
	4		RE 8 x 3/8	1	9 1/2	10.00#	CHKED R
	4		RE 2 x 3/8	1	7 1/2	1.63#	DO
	4		RE 8 1/2 x 3/8	0	8 3/4		
	4		RE 2 1/2 x 3/8	0	8 3/4		
	16	57	BAR 1/2 x 4	0	5 1/2		
	8	58	DO	0	10		

STRUCT. STEEL IS ITEM 702-103

SHOP CONNECTIONS: WELD  
FIELD CONNECTIONS: 3/8" H.S. BOLTS  
HOLES: 1/8" UNLESS NOTED  
PAINT: STATE SPECS.

APP. AS NOTED 5-28-62

DIAPHRAGMS - DRAINS - CURB DAMS			
Bancroft & Martin Rolling Mills Company Brewer, Maine			
WEST ETNA ROAD BRIDGE ETNA MAINE			
CUSTOMER E.N. NASON DESIGNER STATE HIGHWAY COMM.			
ORDER VERBAL DWG. B62-58-58			

