

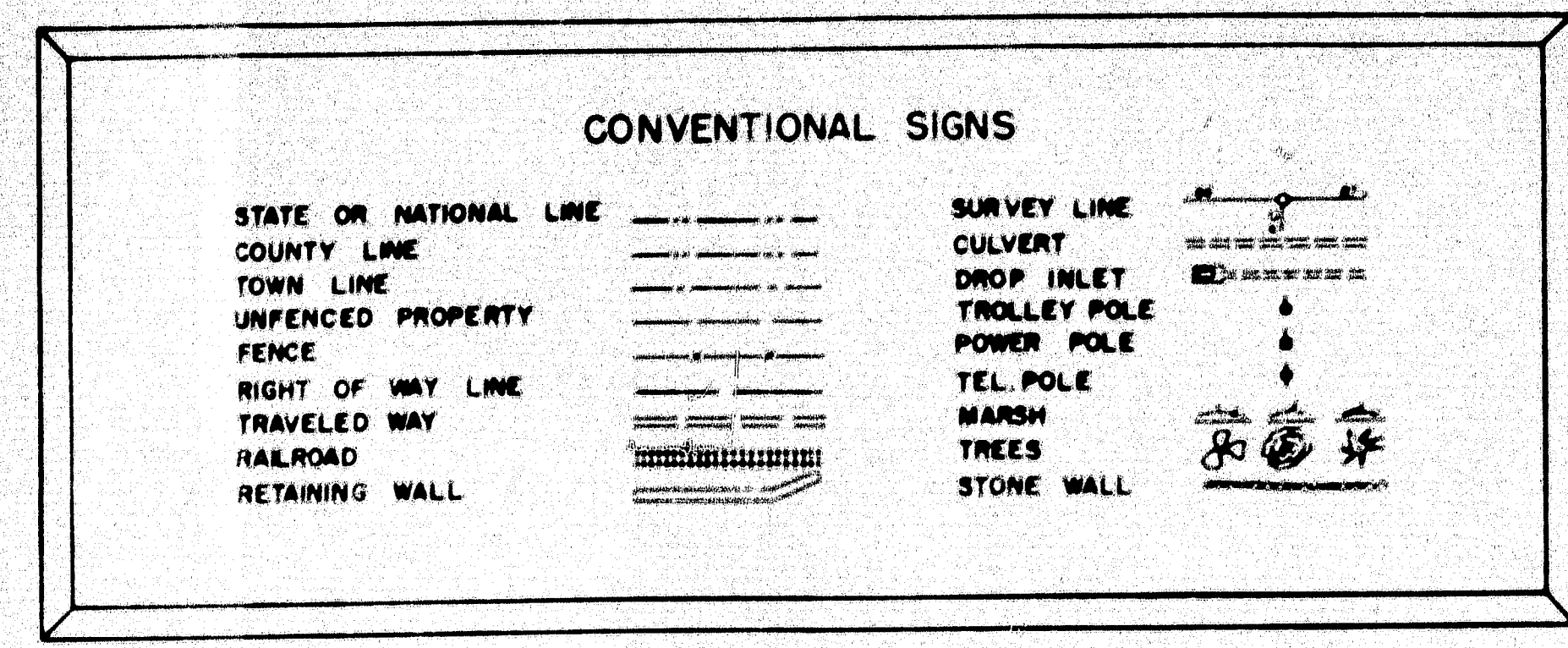
STATE OF MAINE STATE HIGHWAY COMMISSION

PLANS ORONO

PENOBSCOT COUNTY KELLEY RD. OVER INTERSTATE #95 MAINE FEDERAL AID INTERSTATE #95 PROJECT NO. I-95-8(10)184

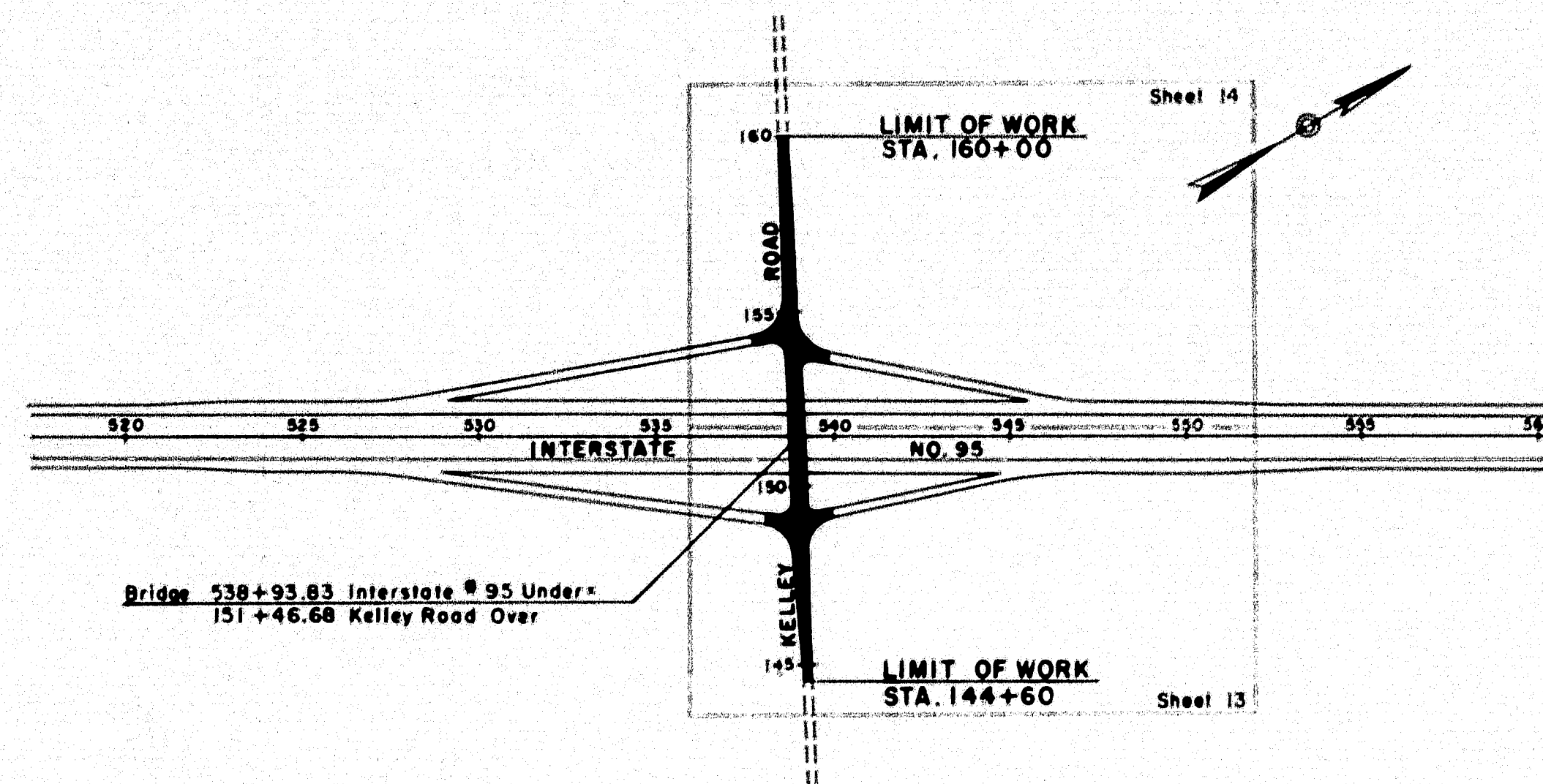
TOTAL LENGTH 0.00 MILES

SCALES { PLAN 1 IN. = 50 FT.
PROFILE HOR. 1 IN. = 50 FT.
VER. 1 IN. = 5 FT.
CROSS SECTIONS 1 IN. = 10 FT.

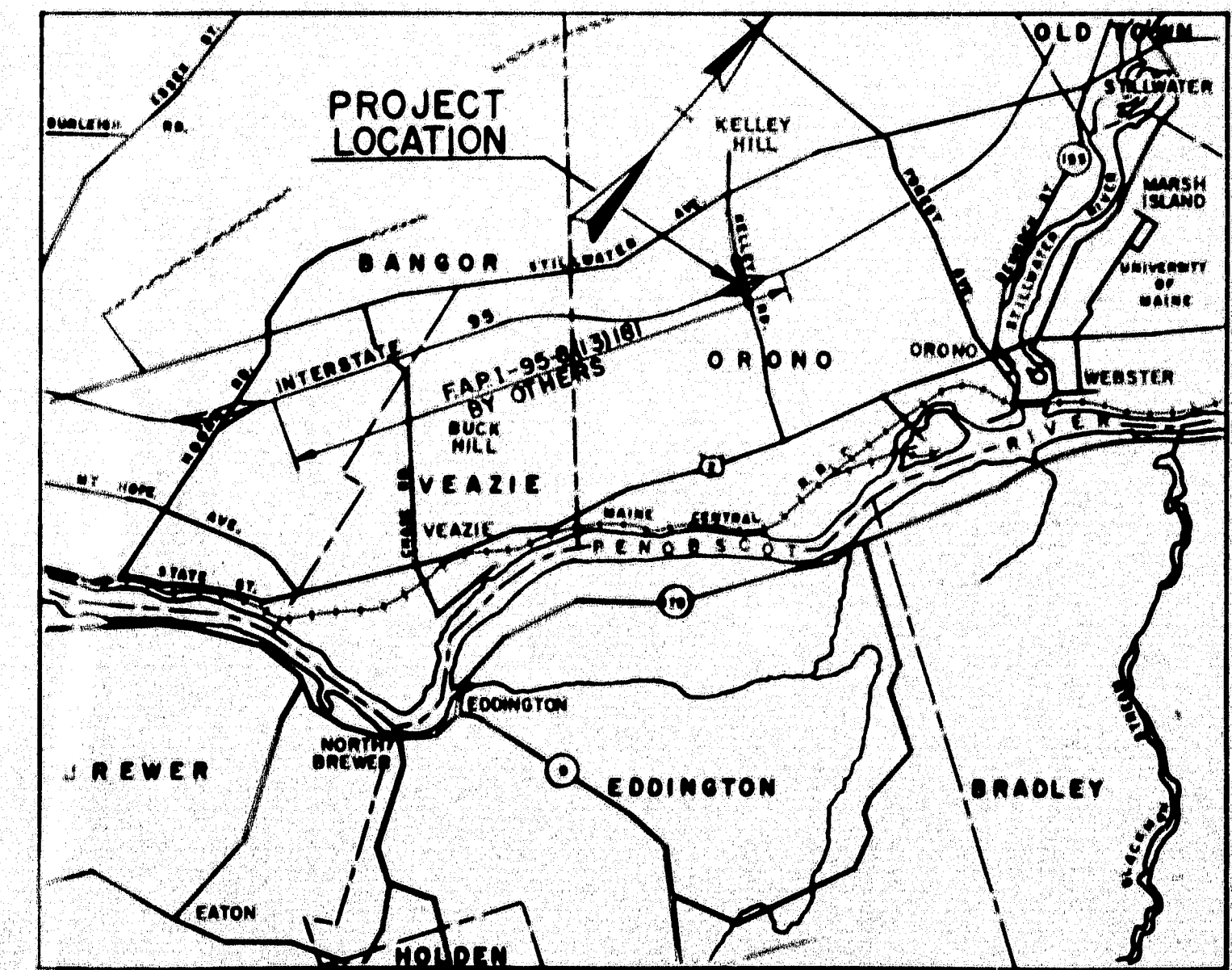


INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
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5-6	QUANTITY SHEETS
7-11	STANDARD DETAILS
12	SPECIAL DETAILS
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18-19	GRADING & TIE PLANS - KELLEY ROAD INTERCHANGE
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30	CROSS SECTIONS - INTERSTATE #95
31-38	BRIDGE PLANS



LAYOUT PLAN
Scale: 1" = 400'



A PORTION OF PENOBSCOT COUNTY
APPROX. SCALE 1 IN. = 1 MILE

All work contemplated under this contract to be governed by and in conformity with the standard specifications, Highways and Bridges, revision of Jan. 1956, except as modified on these plans and by the special provisions.

F.A.P. I-95-8(13)181 (on Interstate #95 grading contract) is a concurrent contract by others in the vicinity of the limits of this project.

A.D.T.(1960)	=	100 (Without interchange in operation)
A.D.T.(1960)	=	1840 (With interchange in operation)
A.D.T.(1980)	=	2510
D.H.V.(1980)	=	375
D.(1980)	=	65%
T.(1980)	=	15%
V.(M.P.H.)	=	50

APPROVED:
MAINE STATE HIGHWAY COMMISSION
David H. Stevens
James P. Wood
Robert Williams
Paul J. ...

CONSULTING ENGINEERS
THE CLARKSON ENGINEERING COMPANY, INC.
BOSTON MASS.
John Clarkson
CONSULTING ENGINEER
5/2/57
DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
REGION 1
APPROVED:
DIVISION ENGINEER DATE

S.P. No.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-3(10)	2	38

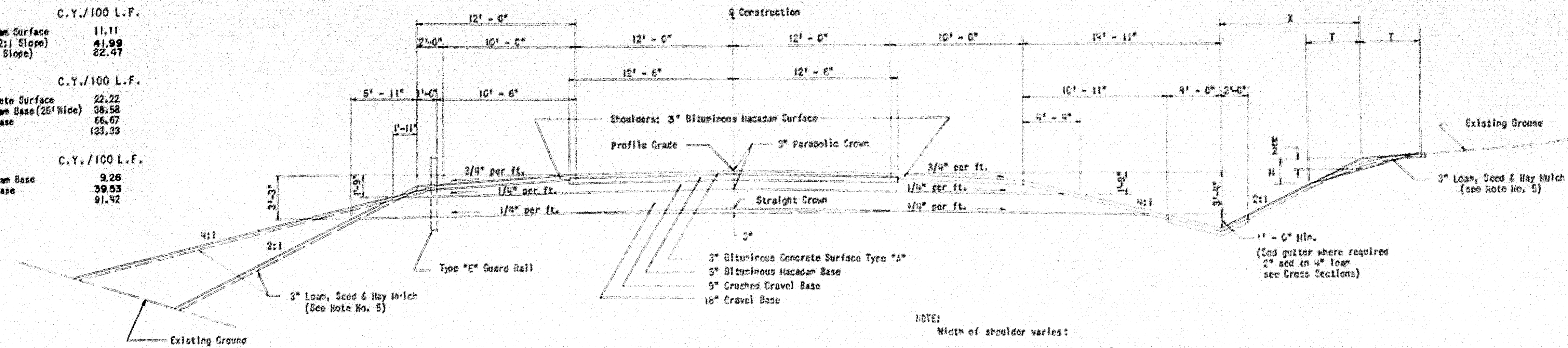
ORONO INTERSTATE
KELLEY ROAD

3" BITUMINOUS CONCRETE SURFACE COURSE

12' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam Surface	11.11
9" Crushed Gravel (2:1 Slope)	41.99
18" Gravel Base (2:1 Slope)	82.47

24' PAVEMENT	C.Y./100 L.F.
3" Bituminous Concrete Surface	22.22
5" Bituminous Macadam Base (25' Wide)	38.58
9" Crushed Gravel Base	66.67
18" Gravel Base	133.33

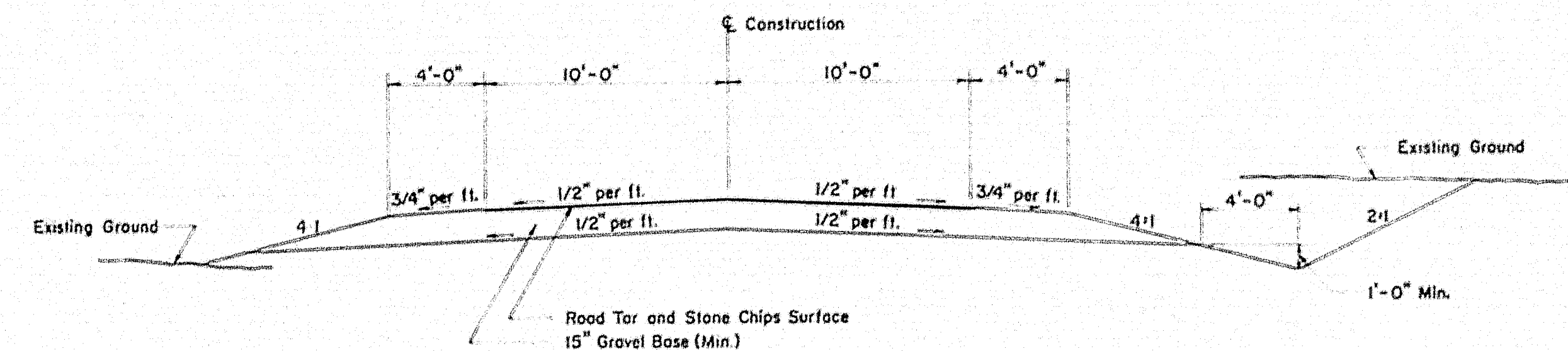
10' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam Base	9.26
9" Crushed Gravel Base	39.53
18" Gravel Base	91.42



KELLEY ROAD - NORMAL
Scale: 1" = 5'

NOTE:
Width of shoulder varies:
Sta. 144 + 60 to 147 + 00 Lt. & Rt.
Sta. 148 + 50 to 150 + 00 Lt. & Rt.
Sta. 153 + 05 to 153 + 50 Rt.
Sta. 153 + 05 to 153 + 55 Lt.
Sta. 158 + 00 to 160 + 00 Lt. & Rt.

NOTE:
1. Use 4:1 slopes on all side slopes for fills up to 10'.
2. Use 2:1 slopes on all side slopes for fills over 10'.
3. Bituminous Concrete Surface Type "A" to consist of 1" Surface and 2" Binder.
4. Steel posts for Type "E" Guard Rail to be 4"x7" by 5'-6" long (0.25) unless otherwise indicated or specified.
5. Side slopes of Kelley Road between Sta. 147 + 50 and 155 + 50 to have 6" Loose Seed and Hay Mulch. All other slopes as indicated.



KELLEY ROAD DETOUR - NORMAL
Scale: 1" = 5'

MAINE STATE HIGHWAY COMMISSION
AUGUSTA MAINE

TYPICAL SECTIONS

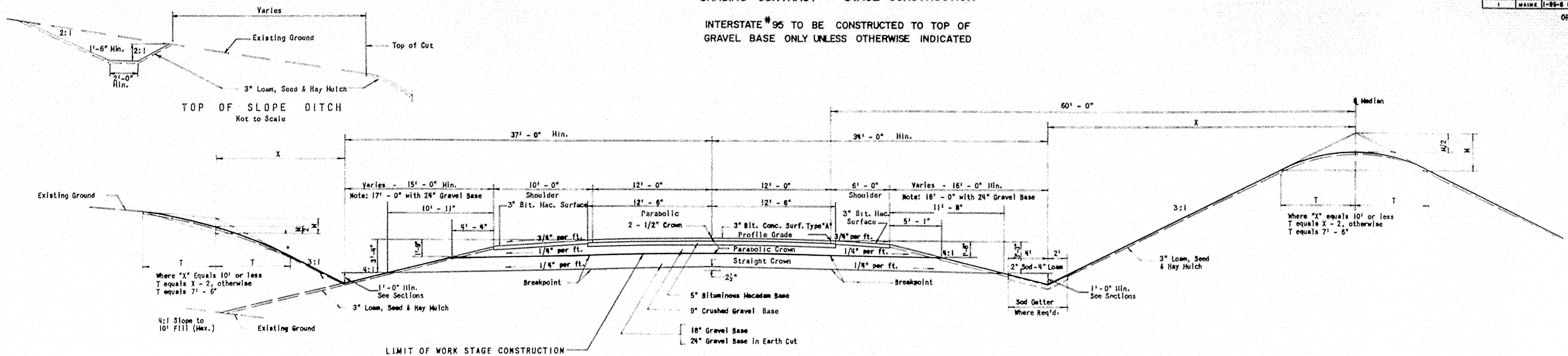
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

GRADING CONTRACT — STAGE CONSTRUCTION

INTERSTATE #95 TO BE CONSTRUCTED TO TOP OF GRAVEL BASE ONLY UNLESS OTHERWISE INDICATED

DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-B (10)	3	38

ORONO INTERSTATE



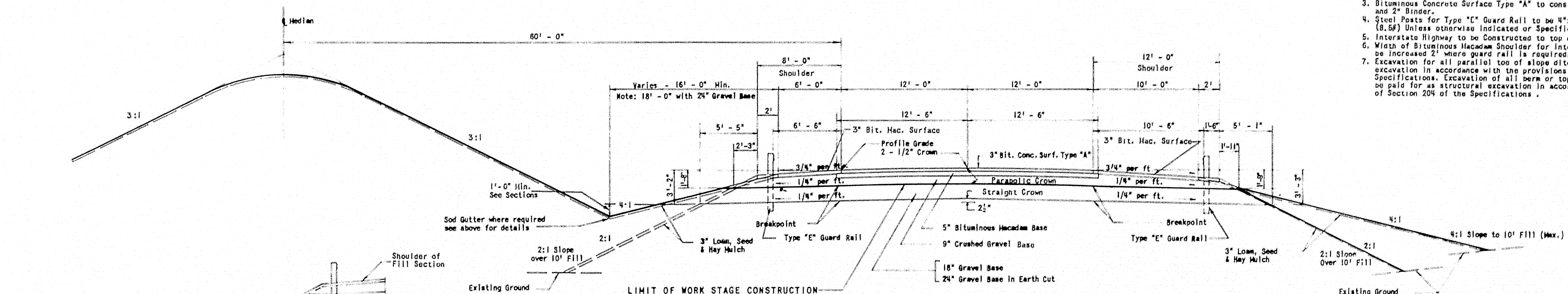
10' PAVED SHOULDER	CY/100 L.F.
3" Bituminous Macadam Surface	9.26
Crushed Gravel Base (to 4:1 Slope)	39.53
18" Gravel Base (to 4:1 Slope)	91.42
24" Gravel Base (to 4:1 Slope)	129.92

TYPICAL SECTION - NORMAL
Scale: 1" = 5'

24' PAVEMENT	CY/100 L.F.
3" Bituminous Concrete Surface	22.22
5" Bituminous Macadam Base (25' Wide)	38.58
9" Crushed Gravel Base	66.67
18" Gravel Base	136.92
24" Gravel Base	180.87

6' PAVED SHOULDER	CY/100 L.F.
3" Bituminous Macadam Surface	5.55
Crushed Gravel Base (to 4:1 Slope)	29.17
18" Gravel Base (to 4:1 Slope)	73.62
24" Gravel Base (to 4:1 Slope)	106.10

- NOTES:
- Use 4:1 Slopes on all side slopes for fills up to 10'.
 - Use 2:1 Slopes on all side slopes for fills over 10'.
 - Bituminous Concrete Surface Type "A" to consist of 1" Surface and 2" Binder.
 - Steel Posts for Type "E" Guard Rail to be 4"x6" by 5'-0" long (8.58) Unless otherwise indicated or Specified.
 - Interstate Highway to be constructed to top of Gravel Base only.
 - Width of Bituminous Macadam Shoulder for Interstate Highway to be increased 2' where guard rail is required.
 - Excavation for all parallel top of slope ditches will be paid for as excavation in accordance with the provisions of Section 203 of the Specifications. Excavation of all berm or top of slope ditches will be paid for as structural excavation in accordance with the provisions of Section 204 of the Specifications.



8' PAVED SHOULDER	CY/100 L.F.
3" Bituminous Macadam Surface	7.41
Crushed Gravel Base (to 2:1 Slope)	31.64
18" Gravel Base (to 2:1 Slope)	62.29

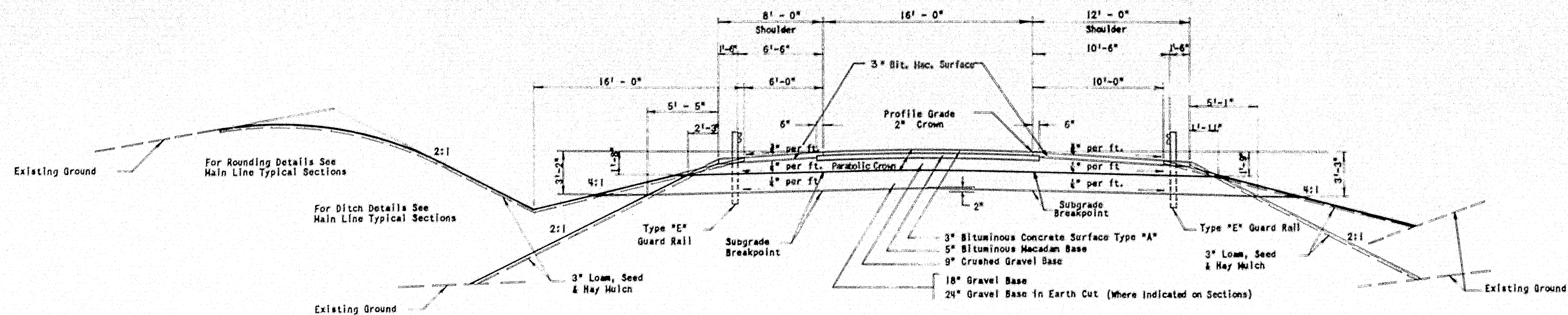
TYPICAL SECTION - NORMAL
Scale: 1" = 5'

12' PAVED SHOULDER	CY/100 L.F.
3" Bituminous Macadam Surface	11.11
Crushed Gravel Base (to 2:1 Slope)	41.99
18" Gravel Base (to 2:1 Slope)	82.47

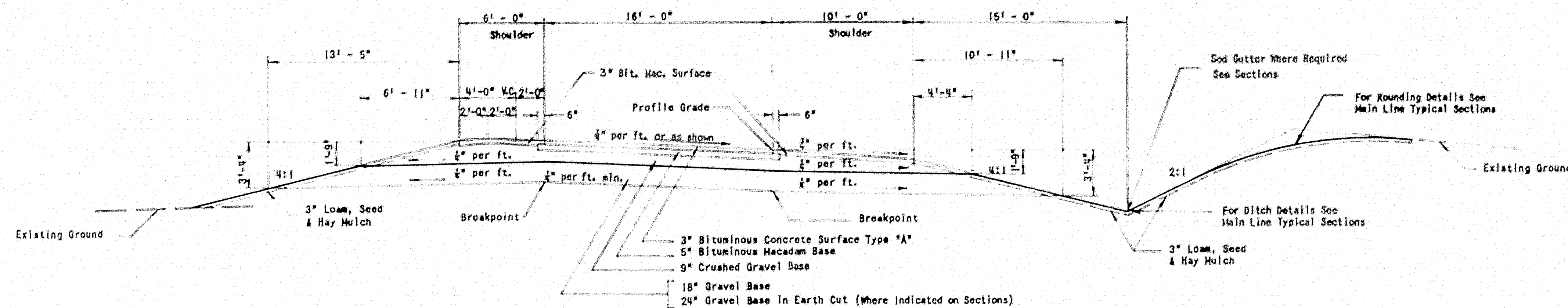
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

TYPICAL SECTIONS

THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS



TYPICAL SECTION - ONE WAY RAMP - NORMAL
Scale: 1" = 5'



TYPICAL SECTION - ONE WAY RAMP - SUPERELEVATED
Scale: 1" = 5'

0' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam	7.41
Crushed Gravel Base (to 2:1)	31.64
18" Gravel Base	62.29

10' PAVEMENT	C.Y./100 L.F.
3" Bituminous Concrete	14.81
5" Bituminous Macadam (17')	26.23
9" Crushed Gravel	44.44
18" Gravel Base	88.89

12' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam	11.11
Crushed Gravel Base (to 2:1)	41.99
18" Gravel Base	82.47

0' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam	5.55
Crushed Gravel Base (to 4:1)	39.78
18" Gravel Base	81.31

10' PAVEMENT	C.Y./100 L.F.
3" Bituminous Concrete	14.81
5" Bituminous Macadam (17')	26.23
9" Crushed Gravel	44.44
18" Gravel Base	88.89

10' SHOULDER	C.Y./100 L.F.
3" Bituminous Macadam	9.26
Crushed Gravel (to 4:1)	39.53
18" Gravel Base	81.42

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

TYPICAL SECTIONS

THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
251-5	Clearing	0.6	Acres
252-5	Removing Trees (0" - 24")	7	Each
252-6	Removing Trees (over 24")	1	Each
253-3	Earth Excavation	4560	C.Y.
253-10	Rock Excavation	1,100	C.Y.
254-10	Structural Earth Excavation - Drainage	950	C.Y.
254-12	Structural Earth Excavation, Abutments & Retaining Walls	85	C.Y.
254-14	Structural Earth Excavation - Piers	520	C.Y.
255-8	Common Borrow	31,400	C.Y.
255-9	Granular Borrow	9,950	C.Y.
257-10	Machine Grading	35	Hr.
352-7	Gravel Base Course - in Place Measurement	7,800	C.Y.
352-8	Gravel for Foundations	150	C.Y.
352-9	Crushed Gravel Base Course - in Place Measurement	1,900	C.Y.
353-9	Bituminous Macadam Base Course	1,200	Ton
353-10	Overhaul (in Place Measure)	32,500	Yd. Hl.
353-11	Overhaul (in Place Measure)	26700	Yd. Hl.
354-5	Crushing Pits	1000	C.Y.
354-6	Graveling	50	Unit
354-7	Calcium Chloride	1L	Ton
401-11	Gravel Surface Course	1L	C.Y.
402-10	Stone Chips	82	Ton
402-13	Bituminous Macadam Surface Course	110	Ton
404-28	Bituminous Concrete Surface Course, Type "A"	410	Ton
501-7	Base for	3,300	Gal.
502-7	Asphalt Lament	10,300	Gal.
503-8	Emulsion Asphalt (Quick Setting Grade)	5,000	Gal.
503-11	Asphalt Mulch Under	600	Gal.
602-11	15" Asphalt Center Corrugated Metal Pipe	152	L.F.
602-14	24" Asphalt Center Corrugated Metal Pipe	206	L.F.
602-25	15"x6" Asphalt Center Corrugated Metal Batten	4	Each
602-26	15"x6" Asphalt Center Corrugated Metal Corroding Bands	9	Each
603-11	15" Reinforced Concrete Pipe - Class III	290	L.F.
605-24	Catch Basin Type I	4	Each
605-26	Catch Basin Type II	4	Each
701-23	Portland Cement Concrete, Abutments & Retaining Walls	204	C.Y.
701-25	Portland Cement Concrete, Piers	237	C.Y.
701-40	Portland Cement Concrete, Roadway & Sidewalk Slabs on Steel Bridges	400	C.Y.
701-47	Portland Cement	1,260	Sol.
702-10a	Structural Steel, Fabricated and Delivered	225,200	Lb.
702-10b	Structural Steel, Erection	347,200	Lb.
705-13	Reinforcing Steel, Delivered	125,600	Lb.
705-14	Reinforcing Steel, Placing	125,600	Lb.
708-16	Steel H-beam Piles, 42 Lbs./ft.	995	L.F.
708-17	Bridge Drainage	1	L.F.
708-18	Shear Connectors, Delivered & Placed	145	Lb.
708-100	Structural Steel, Field Painting	325,200	Lb.
804-6	French Drains	95	C.Y.
806-7	Aluminum Siding	668	L.F.
807-9	Membrane Waterproofing	950	S.Y.
808-9	Slope Paving for Bridges	420	S.Y.
901-8	Granite Curb - Type I	160	L.F.
901-14	Granite Edging	120	L.F.
901-15	Granite Edging - Circular	90	L.F.
905-27	Guard Rail - Type "E"	730	L.F.
905-35	Guard Posts - Type "A"	18	Each
905-37	Guard Rail - Type "E" - Terminal Section	2	Each
905-38	Temporary Wooden Guard Fence	410	L.F.
907-10	Wood Lath Riprap	30	C.Y.
908-4	Loam Excavation	1,600	C.Y.
908-7	Sodding - Method "J"	2200	S.Y.
910-12	Sodding - Method "J"	119	Unit
912-7	Hay Mulch	6	Ton
915-5	Right of Way Monuments	12	Each
917-5	Traffic Officers	100	H. Hrs.
929-10	Portable Barricades	2	Each
930-13	Portable Barricade with Flashing Lights	2	Each
926-7	Removal or Razing Building No.1	1	Each

CLEARING			
STATION TO STATION	SIDE	REMARK	
Kelley Road			
148 + 00 to 152 + 10	Lt. & Rt.		
152 + 20 to 156 + 40	Lt.		
153 + 00 to 159 + 40	Rt.		

TREES REMOVED			
STATION	SIDE	OFFSET	DESCRIPTION
Kelley Road			
147 + 80	Rt.	7'	5 8"-12" Cedars
158 + 50	Rt.	25'	12" Maple
159 + 40	Rt.	15'	14" Maple
159 + 65	Rt.	18'	20" Maple

GRANITE CURB - TYPE I			
STATION TO STATION	LENGTH	KIND	
Kelley Road			
149 + 73 to 149 + 58 Lt.	15'	Straight	
149 + 73 to 149 + 58 Rt.	25'	"	
153 + 02 to 153 + 27 Lt.	25'	"	
153 + 02 to 153 + 27 Rt.	25'	"	

GRANITE EDGING			
STATION TO STATION	LENGTH	KIND	
Kelley Road			
148 + 85 to 149 + 15 Lt.	20'	Straight	
148 + 87 to 149 + 12 Rt.	25'	"	
153 + 72 to 154 + 68 Rt.	25'	"	
154 + 41 to 154 + 67 Lt.	26'	"	
148 + 85 Lt.	5,661	Circular R = 2'	
148 + 87 Rt.	5,661	" R = 2'	
152 + 12 Lt.	5,661	" R = 2'	
152 + 15 Lt.	5,661	" R = 2'	
153 + 75 Rt.	5,661	" R = 2'	
154 + 06 Rt.	5,661	" R = 2'	
154 + 41 Lt.	5,661	" R = 2'	
154 + 67 Lt.	5,661	" R = 2'	

GUARD RAIL - TYPE "E"			
STATION TO STATION	SIDE	LENGTH	REMARK
147 + 25 to 38 + 86 "C"	Lt.	153'	
147 + 75 to 39 + 10 "D"	Rt.	161'	
148 + 30 to 148 + 53	Lt.	23'	
148 + 30 to 148 + 54	Rt.	24'	
153 + 02 to 153 + 15	Lt.	13'	
153 + 02 to 153 + 15	Rt.	13'	
38 + 70 to 39 + 28 "A"	Lt.	57'	
38 + 42 to 38 + 97 "B"	Rt.	55'	
154 + 70 to 155 + 25	Rt.	55'	

GUARD RAIL - TYPE "E" - TERMINAL SECTION		
STATION	SIDE	REMARK
147 + 25	Lt.	
147 + 75	Rt.	
148 + 08	Lt.	
148 + 58	Rt.	
153 + 62	Lt.	
153 + 62	Rt.	
155 + 25	Rt.	
29 + 28	Lt.	Ramp "A"

LOAM EXCAVATION			
STATION TO STATION	EST. DEPTH	AVERAGE WIDTH	LENGTH
146 + 50 to 149 + 50 Rt.	0.5'	121'	250'
148 + 50 to 150 + 00 Lt.	0.5'	50'	150'
150 + 50 to 156 + 00 Rt.	0.5'	57'	150'
154 + 00 to 155 + 50 Lt.	0.5'	150'	150'

SODDING		
STATION TO STATION	SIDE	REMARK
144 + 50 to 147 + 50	Lt.	Near Home
148 + 50 to 148 + 00	Rt.	Near Home
145 + 10 to 147 + 50	Rt.	"
147 + 85 to 148 + 35 "D"	Rt.	"
149 + 23	Lt.	"
149 + 73	Rt.	"
150 + 00 to 152 + 00	Rt.	"
153 + 50 to 156 + 00	Lt.	Near Home
159 + 00 to 159 + 95	Rt.	"
38 + 50 "C" to 37 + 50 "C"	Rt.	"

GUARD POSTS - TYPE "A"	
STATION	REMARKS
Undetermined Location	Re-setting Rail Boxes
Sta. 47+25	6 Guard Posts
Sta. 52+85	6 " "

TEMPORARY WOODEN GUARD FENCE		
STATION	REMARKS	
Kelley Road Interchange		
Ramp "A"	60'	
Ramp "B"	50'	
Ramp "C"	50'	
Ramp "D"	50'	
Detour Road		
44 + 75 to 44 + 75	100'	
47 + 25	40'	
52 + 85	40'	

PORTABLE BARRICADES	
STATION	REMARKS
	2 Portable Barricades with Flashing Lights
	2 Portable Barricades without Flashing Lights for detour

GRAVEL BASE	
STATION TO STATION	DESCRIPTION
Ramp "A"	18" Gravel Base
Ramp "B"	18" " "
Ramp "C"	18" " "
Ramp "D"	18" " "
Kelley Road	18" " "
Kelley Road Detour	14" " " Min.

SUMMARY OF CLASSIFIED EXCAVATION AND BORROW	
Total Excavation from Cross-Section	7,230 C.Y.
Less Loam Excavation in Cuts	1,500
Sub-Total	7,110 C.Y.
Less 15% Estimated Ledge	1,066
Sub-Total	6,044 C.Y. x 1.15 = 6,950 C.Y.
Less Estimated Earth Shrinkage Factor (15%)	907
Available Earth Fill from Cross-Sections	5,137 C.Y.
Available Rock Fill from Ledge	1,066 C.Y. x 34 = 3,200 C.Y.
Total Earth Requirement from Cross-Section	40,980 C.Y.
Less Granular Borrow under Structures	1,500
Sub-Total	39,415 C.Y.
Plus Loam Excavation in Fills	1,581
Total Embankment Required	40,996 C.Y.
Less Available Rock Fill from Ledge	1,066
Embankment Sub-Total	39,930 C.Y.
Less 20% Granular Borrow	7,986
Embankment Sub-Total	31,944 C.Y.
Less Available Earth Fill from Cross-Sections	5,137
Common Borrow	26,807 C.Y. x 1.15 = 30,800 C.Y.
Excavation from Cross-Sections for Removal of Detour	1,000 C.Y.
Total Earth Excavation	1,000 C.Y. (Detour) + 35,800 C.Y. (Kelley Rd.) = 45,800

D.P.R. DES. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(10)	6	38

ORONO INTERSTATE

ROADWAY CULVERTS								
STATION	SIZE	A.C.C.M.P. LEFT	R.C.P.	A.C.C.M.P. RIGHT	PIPE CORR.	A.C.C.M. REMS	A.C.C.M. REMS	REMARK
Kelley Road								
146 + 50 to 146 + 30	15"			30				Driveway Culvert Temp. Loc. First See Plan.
146 + 35 to 146 + 65	15"	30						Driveway Culvert
146 + 75 to 146 + 87	15"	32	25		1	2	5	
146 + 87 to 146 + 88	15"		25					
146 + 87 to 149 + 04	15"		15					
146 + 88 to 146 + 02	15"		15					
153 + 80 to 153 + 88	15"		12					
154 + 50 to 155 + 00	15"	30	25		1	2	4	
153 + 88 to 154 + 40	15"		25					
154 + 40 to 154 + 52	15"		12					
156 + 85 to 160 + 15	15"			30				Driveway Culvert
Ramp "D"								
Detour Road								
52 + 8.5	24"	37		37				Temporary Culvert
49 + 6.9	24"	27		27				Temporary Culvert
47 + 2.5	24"	37		37				Temporary Culvert

CATCH BASINS & MANHOLES (DRAINAGE)

STATION	SIDE	CATCH BASIN	MANHOLE
Kelley Road			
146 + 87	Lt.	H	
146 + 88	Rt.	H	
146 + 02	Rt.	F	
149 + 04	Lt.	F	
153 + 80	Lt.	H	
153 + 89	Rt.	F	
154 + 40	Lt.	H	
154 + 52	Lt.	F	

DRIVEWAYS

STATION	SIDE	DESCRIPTION
Kelley Road		
146 + 40+	Rt.	1" Gravel Surface Course, 12" Gravel Base
146 + 00+	Rt.	"
146 + 55+	Lt.	"
160 + 00+	Rt.	"
160 + 15+	Lt.	"

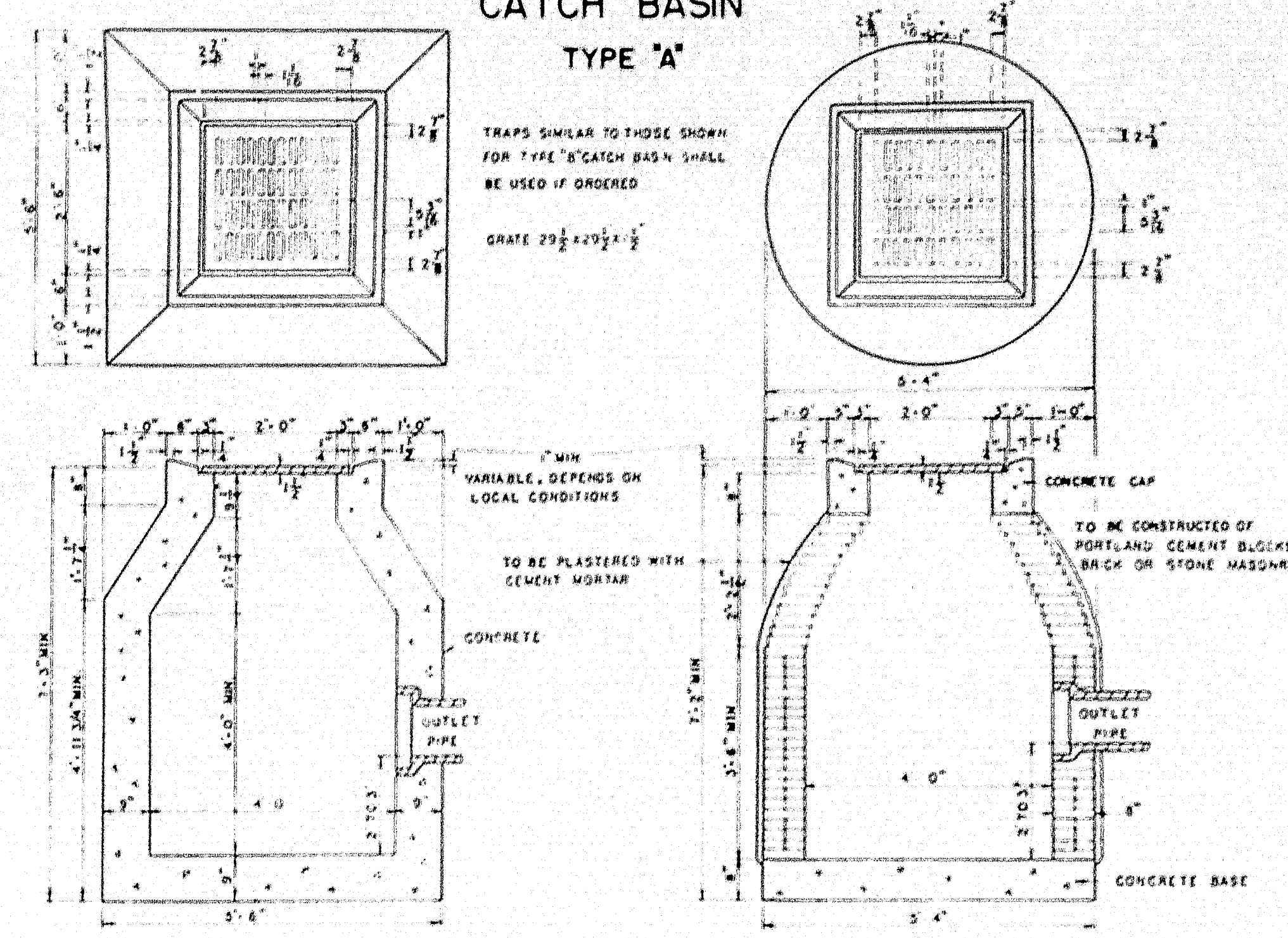
RIGHT OF WAY MONUMENTS

STATION	LEFT	RIGHT	NO.	REMARK
Kelley Road				
146 + 50.00		25.00	1	
147 + 00.00		50.00	1	
155 + 50.00	75.00	75.00	2	
158 + 00.00	75.00	75.00	2	
Ramp "A"				
37 + 85.63	100.00		1	
Ramp "B"				
39 + 73.74	100.00		1	
Ramp "C"				
39 + 03.00		75.00	1	
39 + 39.30		25.00	1	
Ramp "D"				
39 + 62.27		25.00	1	
39 + 66.74		100.00	1	

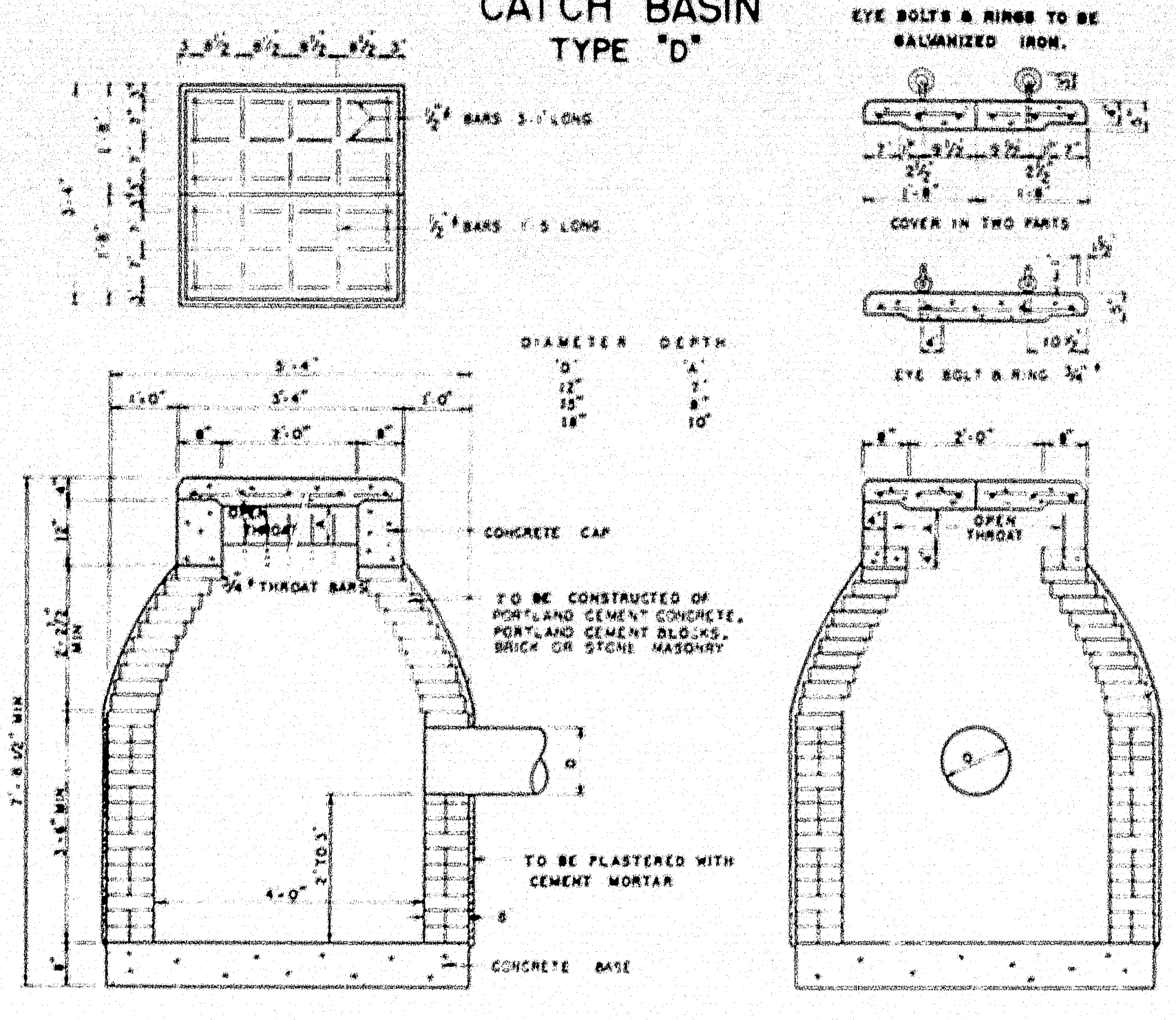
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	1-95-B (10)	7	36

ORONO INTERSTATE

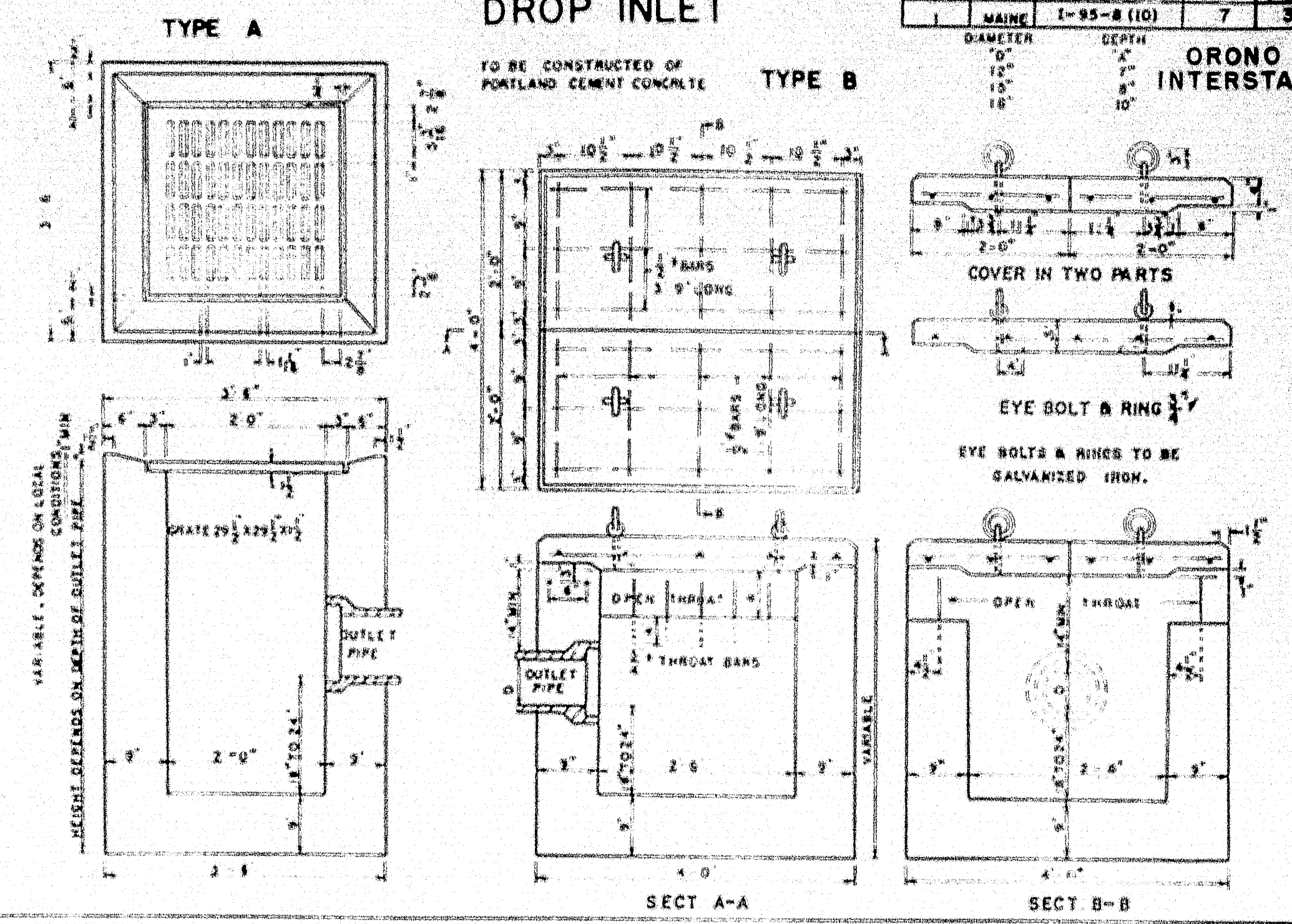
CATCH BASIN TYPE "A"



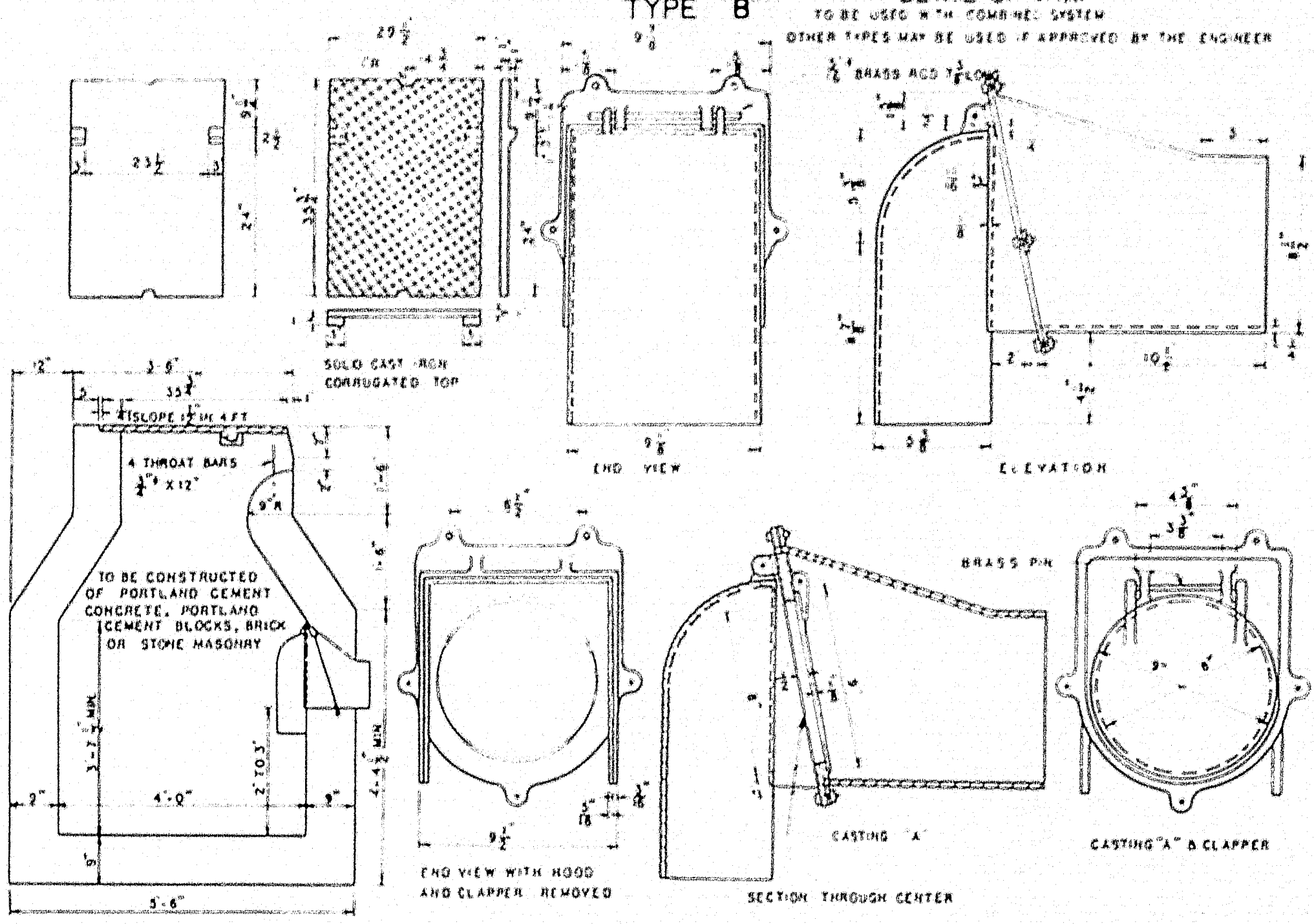
CATCH BASIN TYPE "D"



DROP INLET

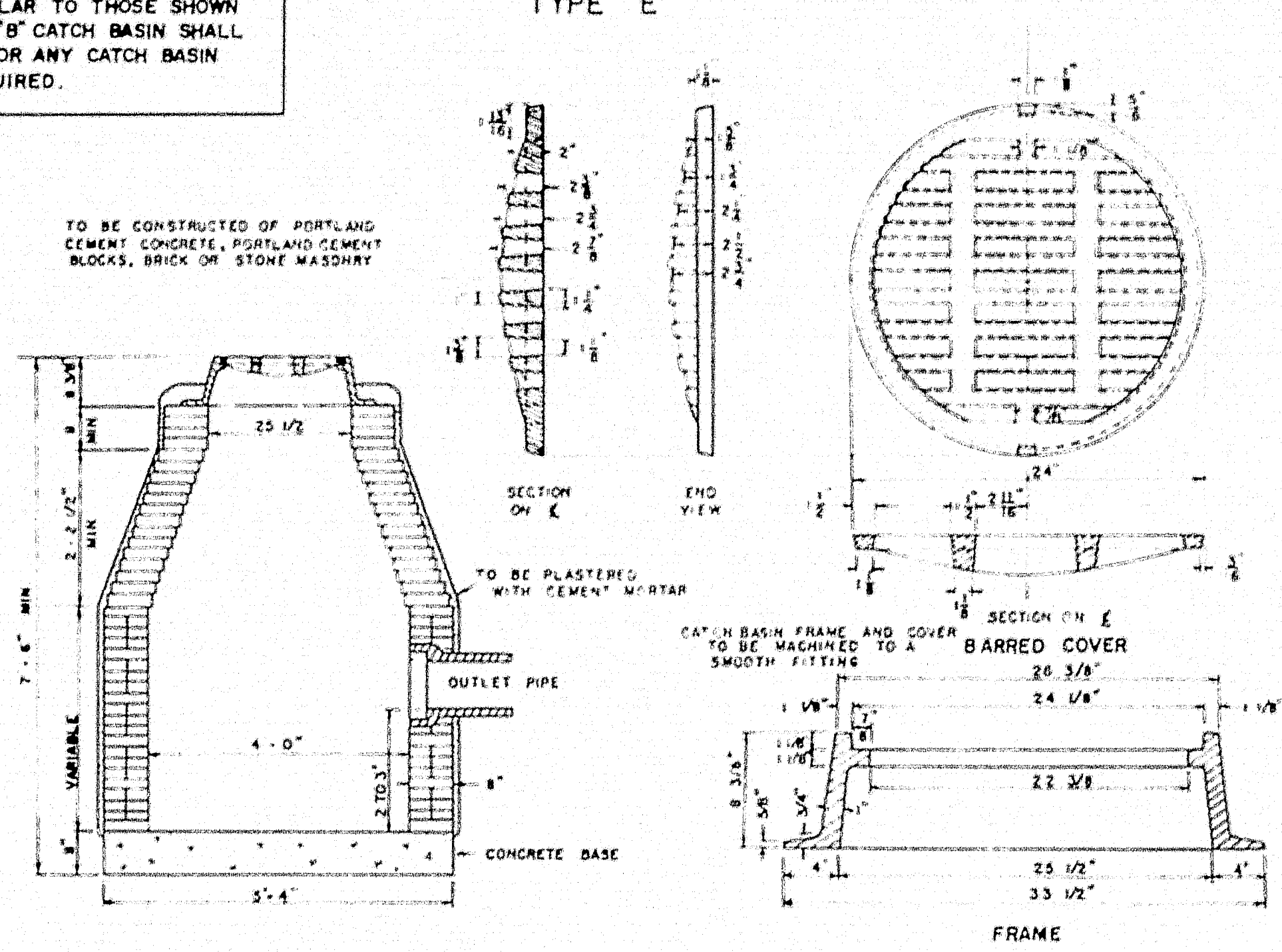


CATCH BASIN TYPE "B"

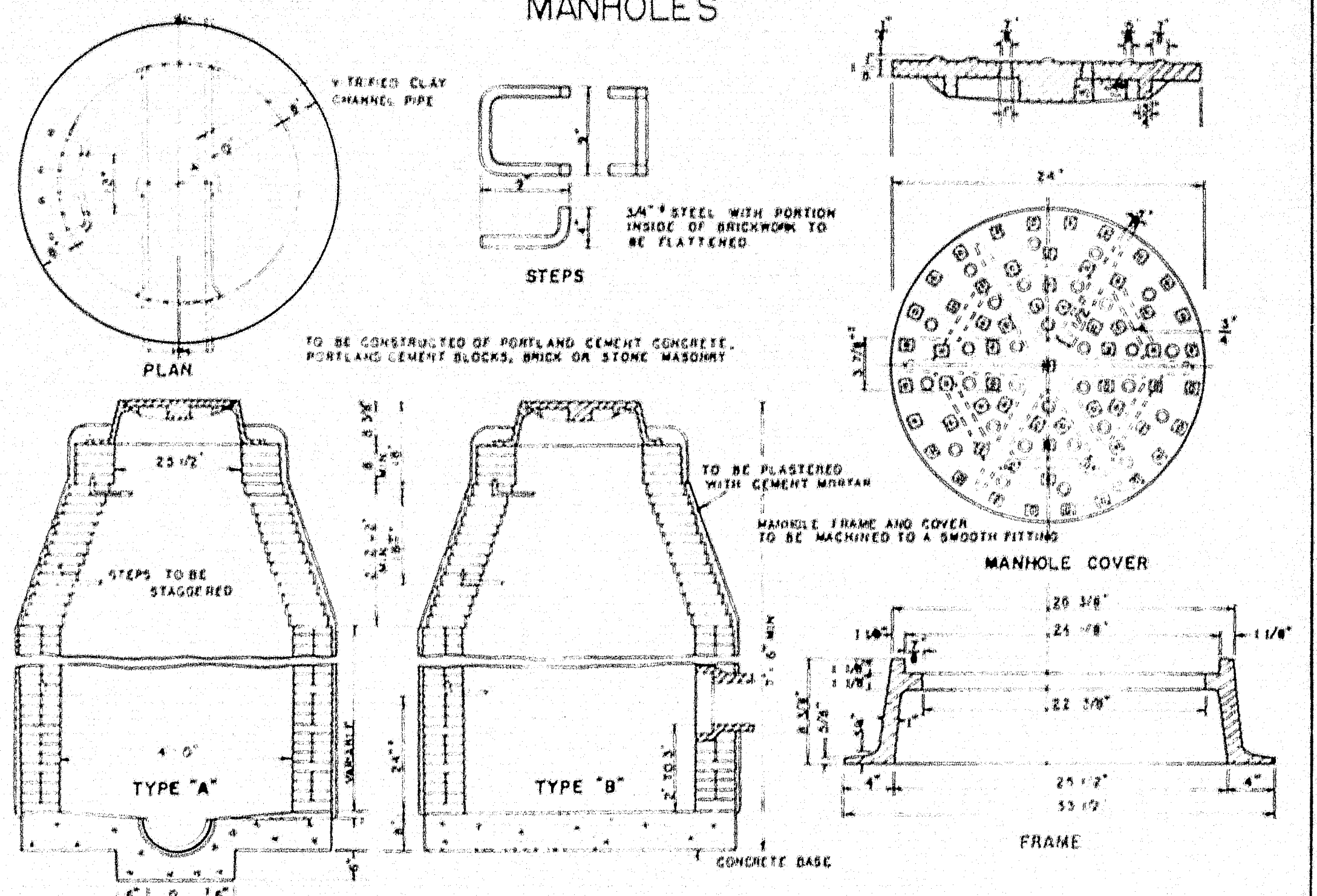


NOTE
TRAPS SIMILAR TO THOSE SHOWN FOR TYPE "B" CATCH BASIN SHALL BE USED FOR ANY CATCH BASIN WHEN REQUIRED.

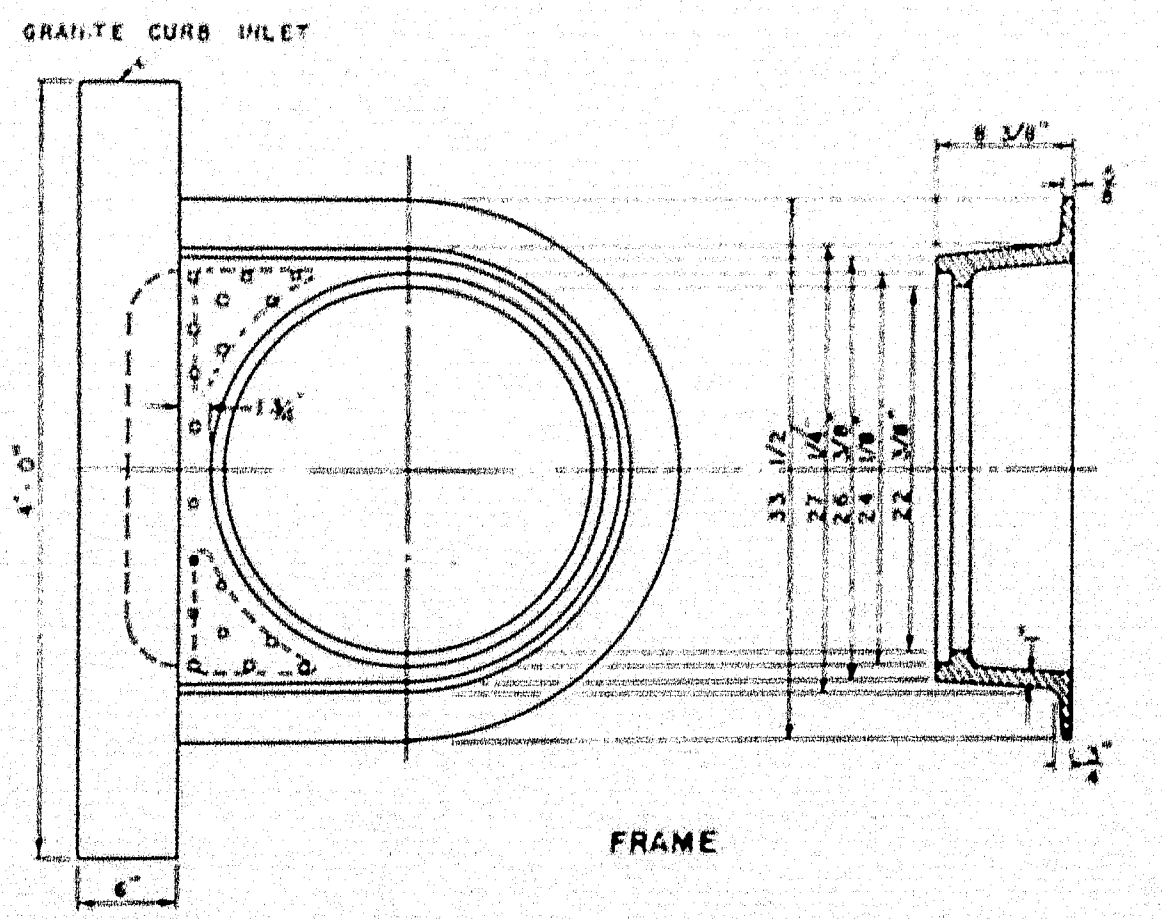
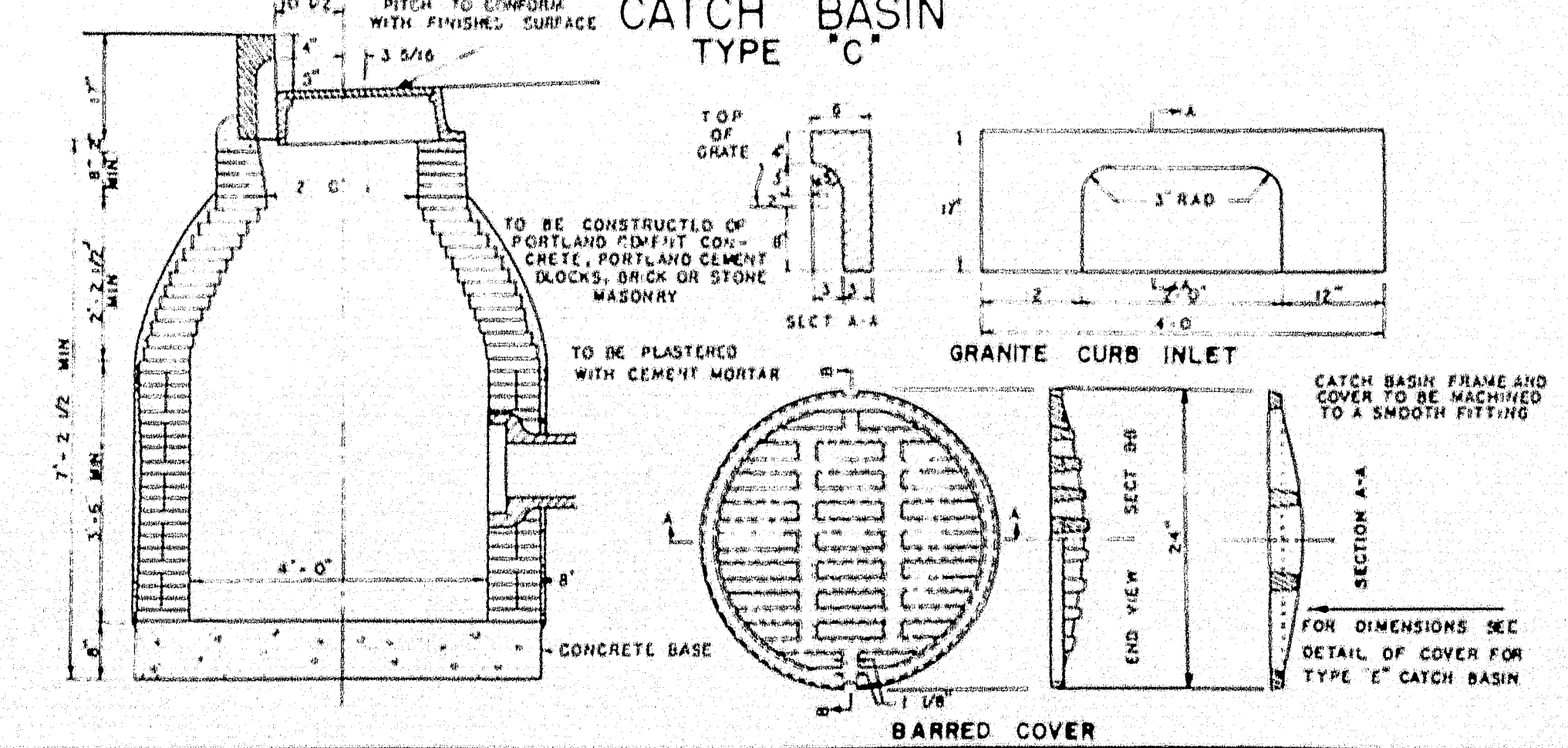
CATCH BASIN TYPE "E"



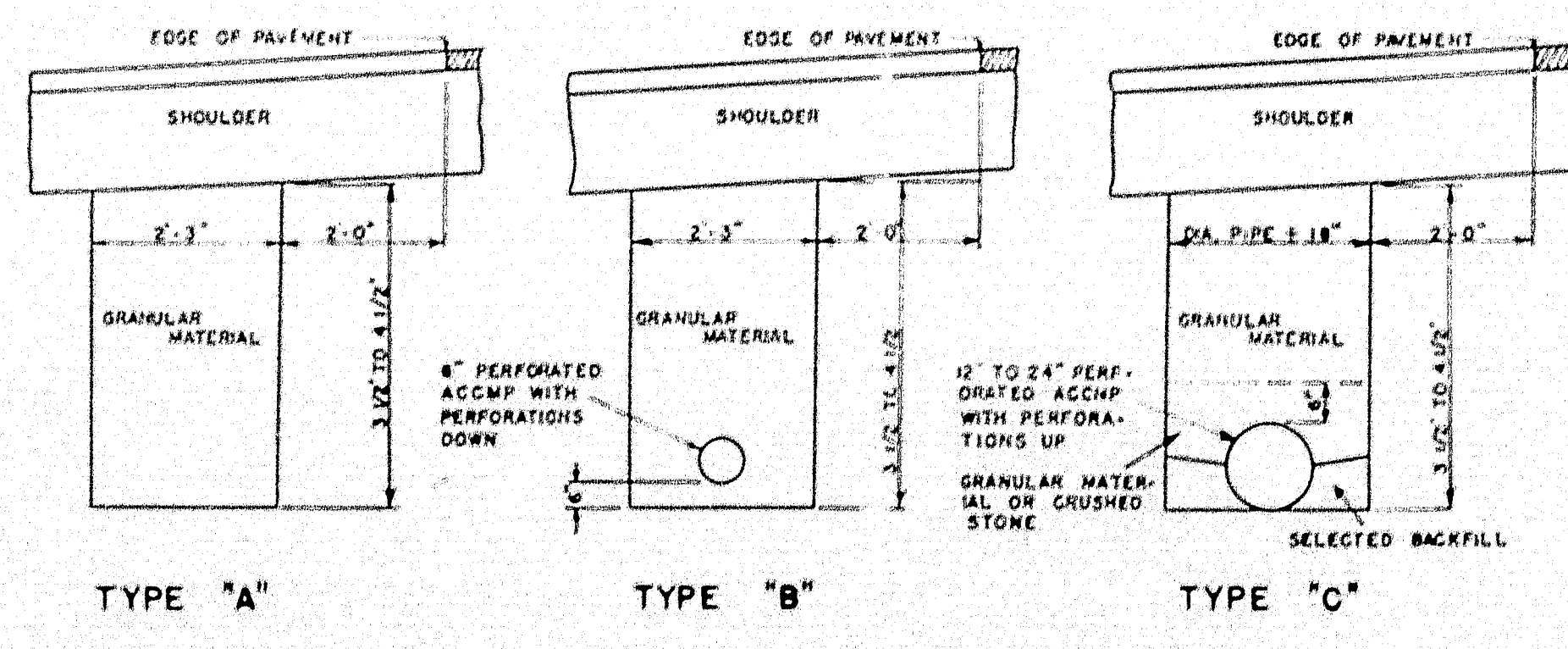
MANHOLES



CATCH BASIN TYPE "C"



UNDERDRAIN

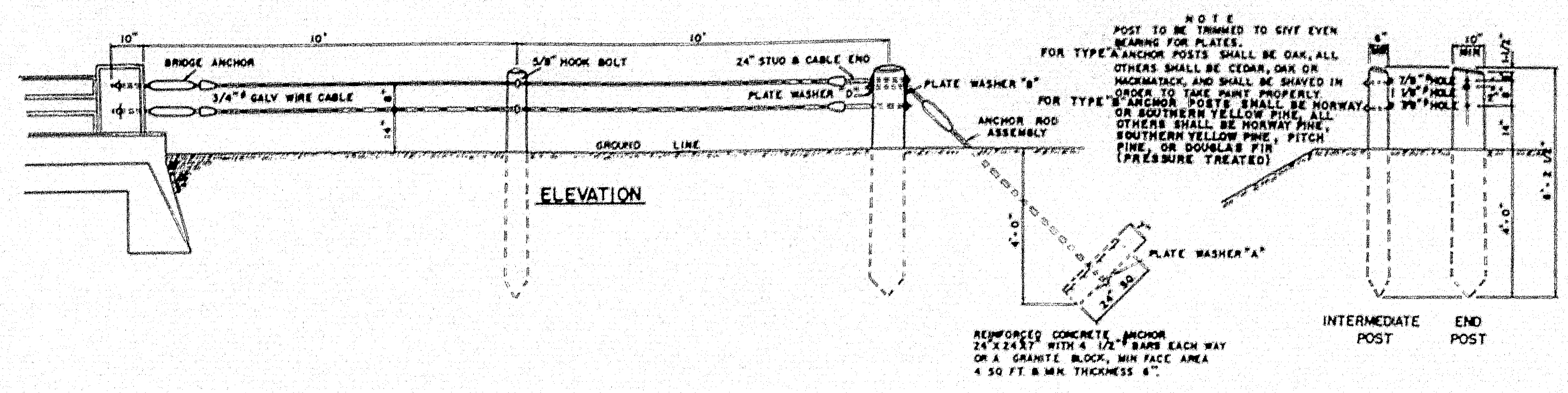


NOTE:
ALL CATCH BASINS AND MANHOLES CONSTRUCTED OF PORTLAND CEMENT BLOCKS, BRICK OR STONE MASONRY SHALL BE CYLINDRICAL IN SHAPE.

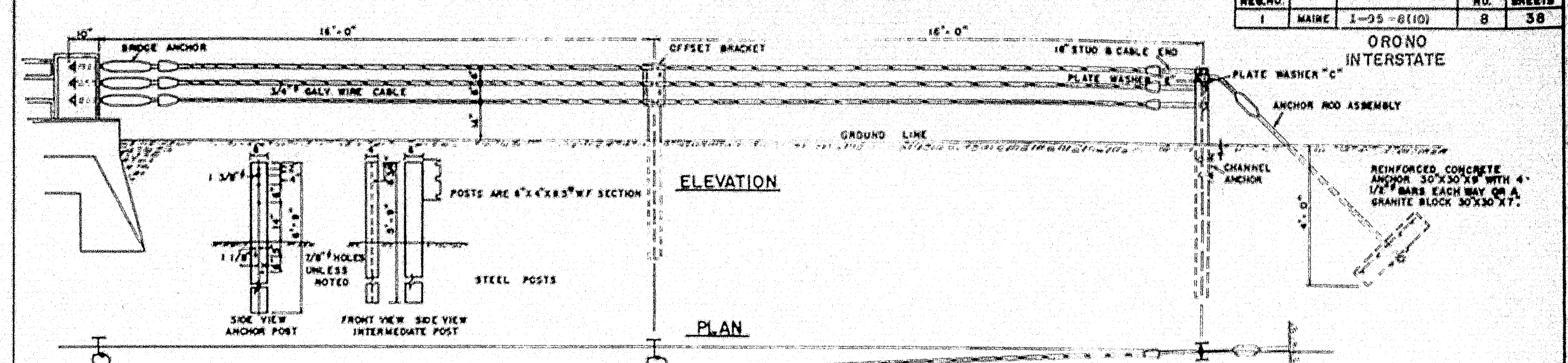
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

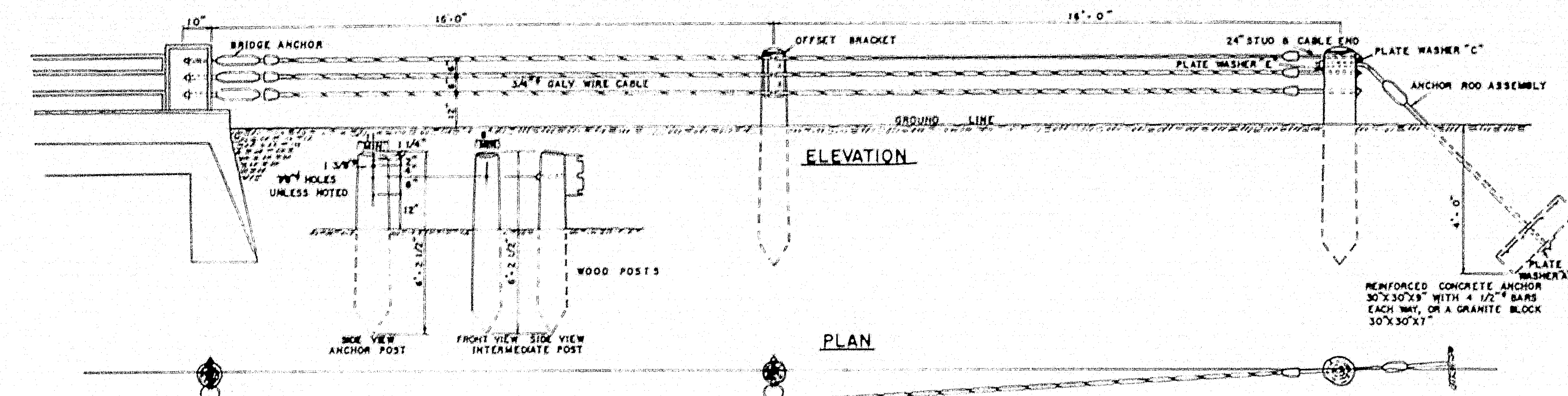
CATCH BASINS, MANHOLES,
DROP INLETS AND
UNDERDRAINS



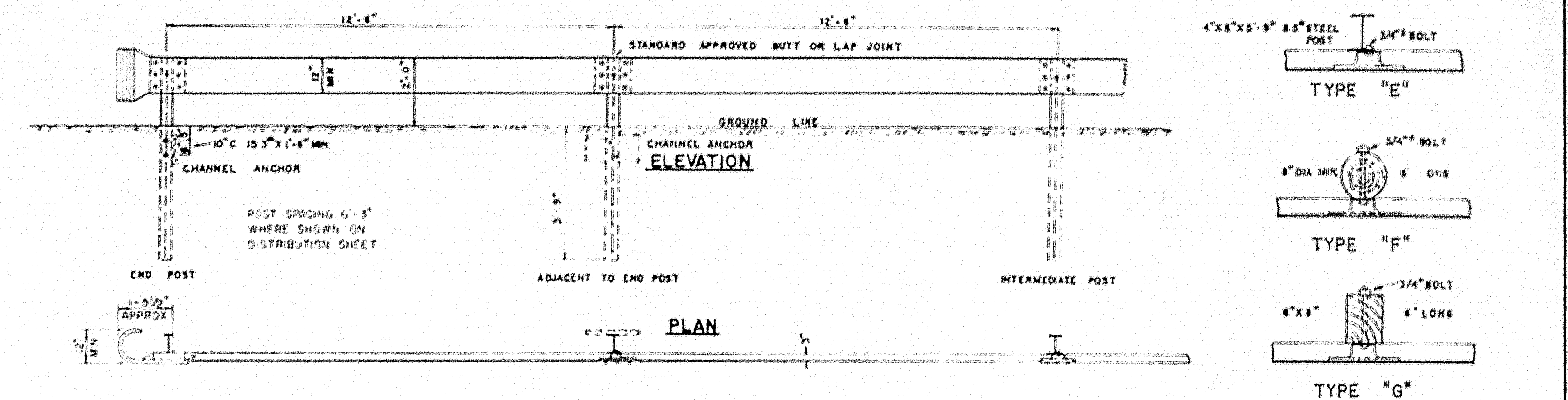
GUARD RAIL TYPE "A" & "B"



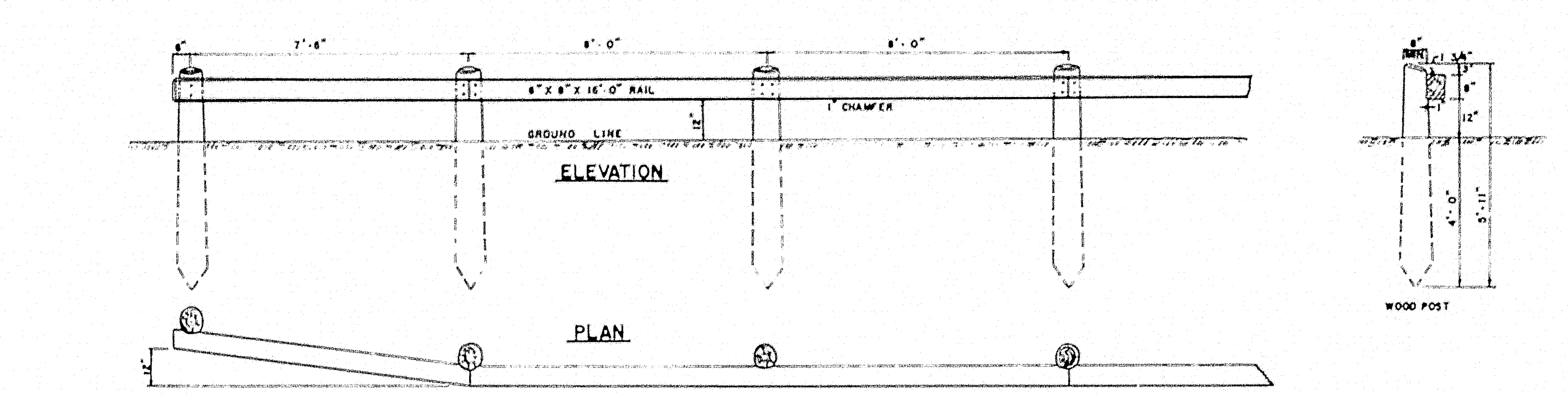
GUARD RAIL TYPE "C"



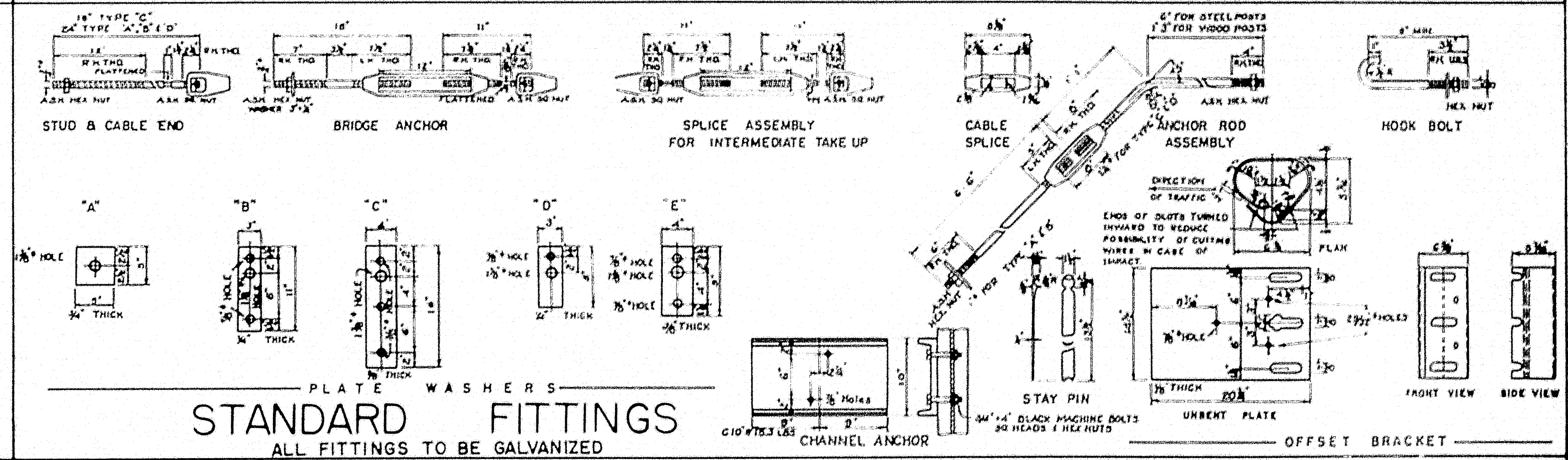
GUARD RAIL TYPE "D"



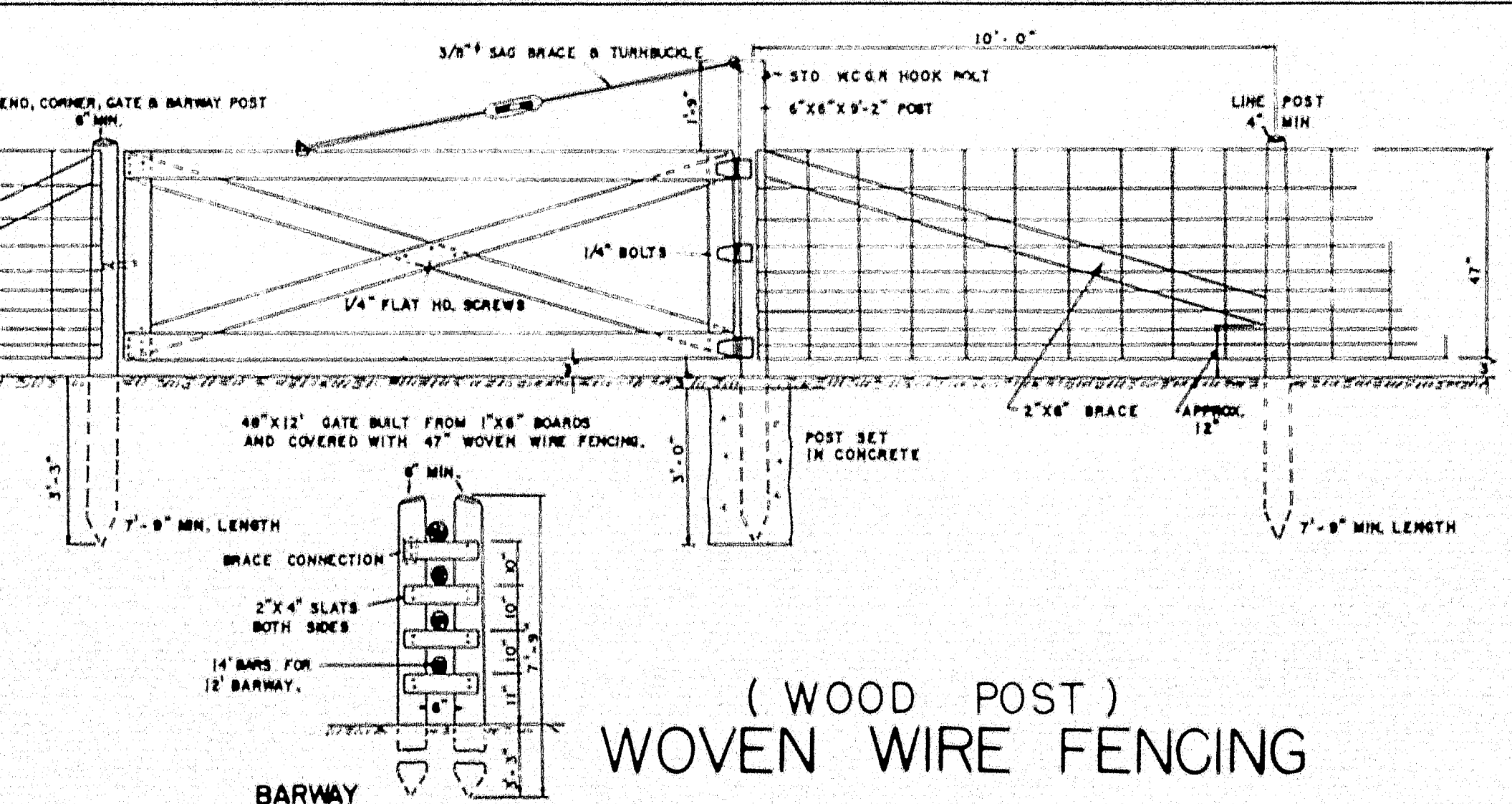
GUARD RAIL TYPE "E", "F" & "G"



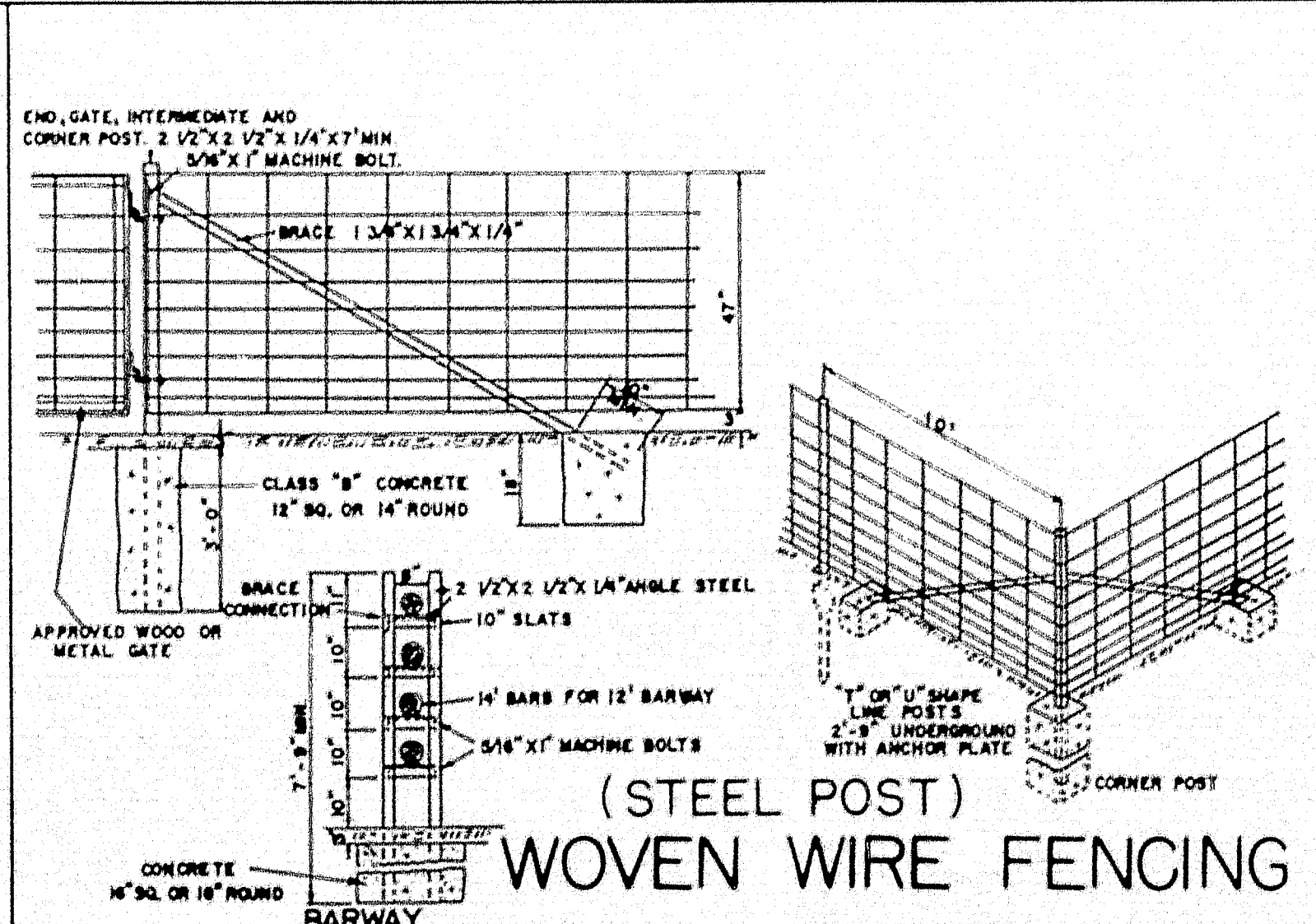
GUARD RAIL TYPE "H"



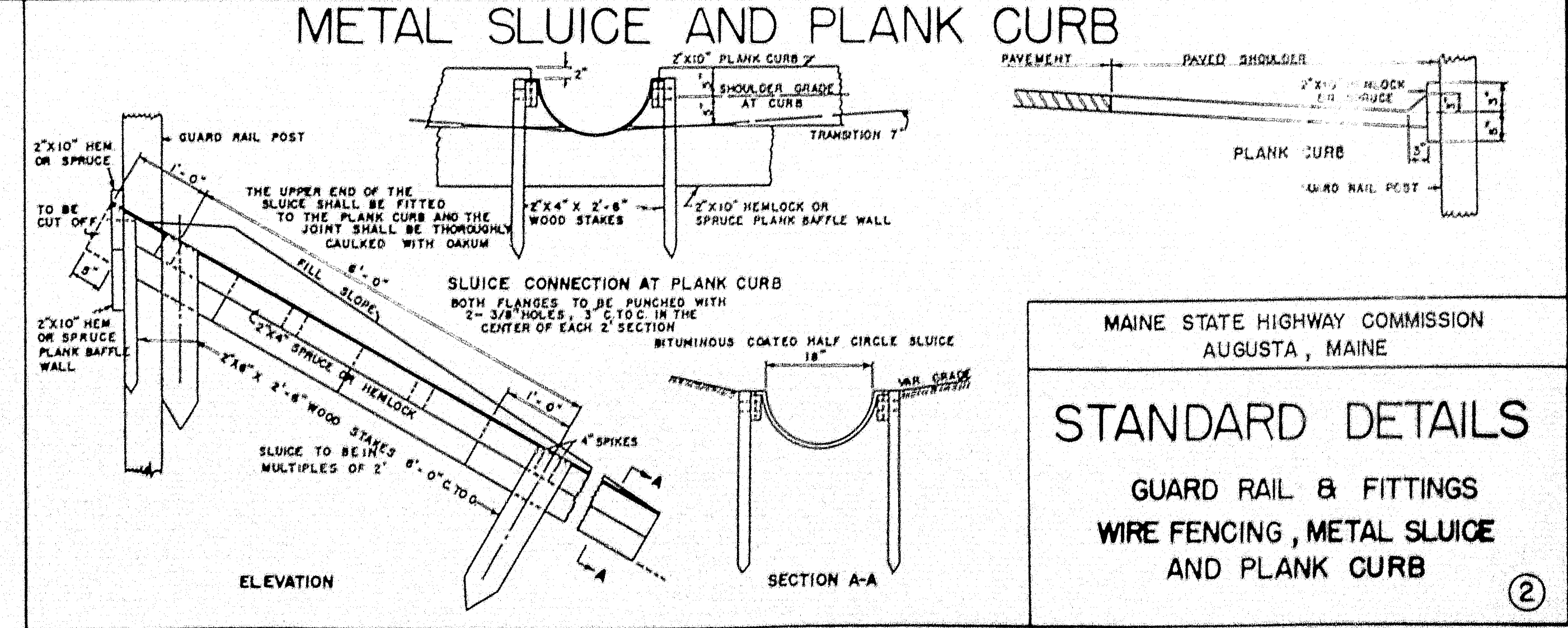
STANDARD FITTINGS
ALL FITTINGS TO BE GALVANIZED



(WOOD POST)
WOVEN WIRE FENCING



(STEEL POST)
WOVEN WIRE FENCING



METAL SLUICE AND PLANK CURB

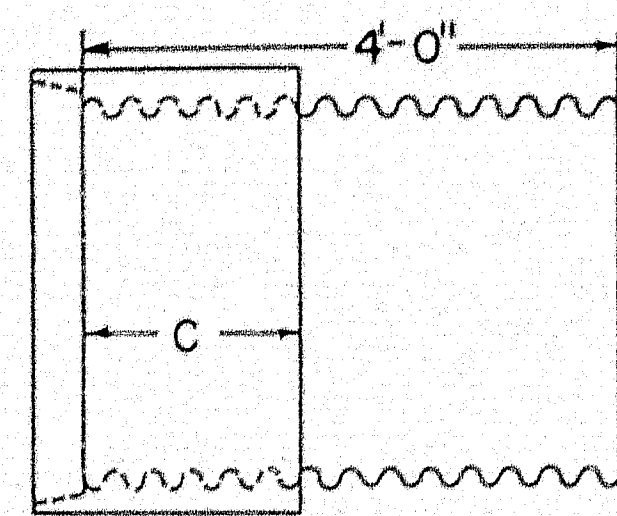
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

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

②

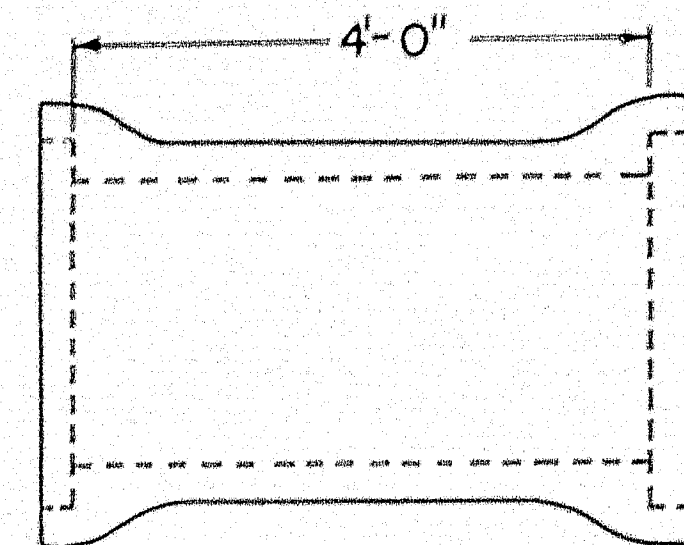
PIPE CONNECTIONS



GROOVE END COMBINATION
For 30" to 72" inclusive, diameter connection
between concrete and metal pipe

"C" = 17" min. for sizes 30" to 48" incl.
"C" = 23" min. for sizes over 48"

Asphalt coated corrugated metal pipe
shall conform to the latest
standard specifications

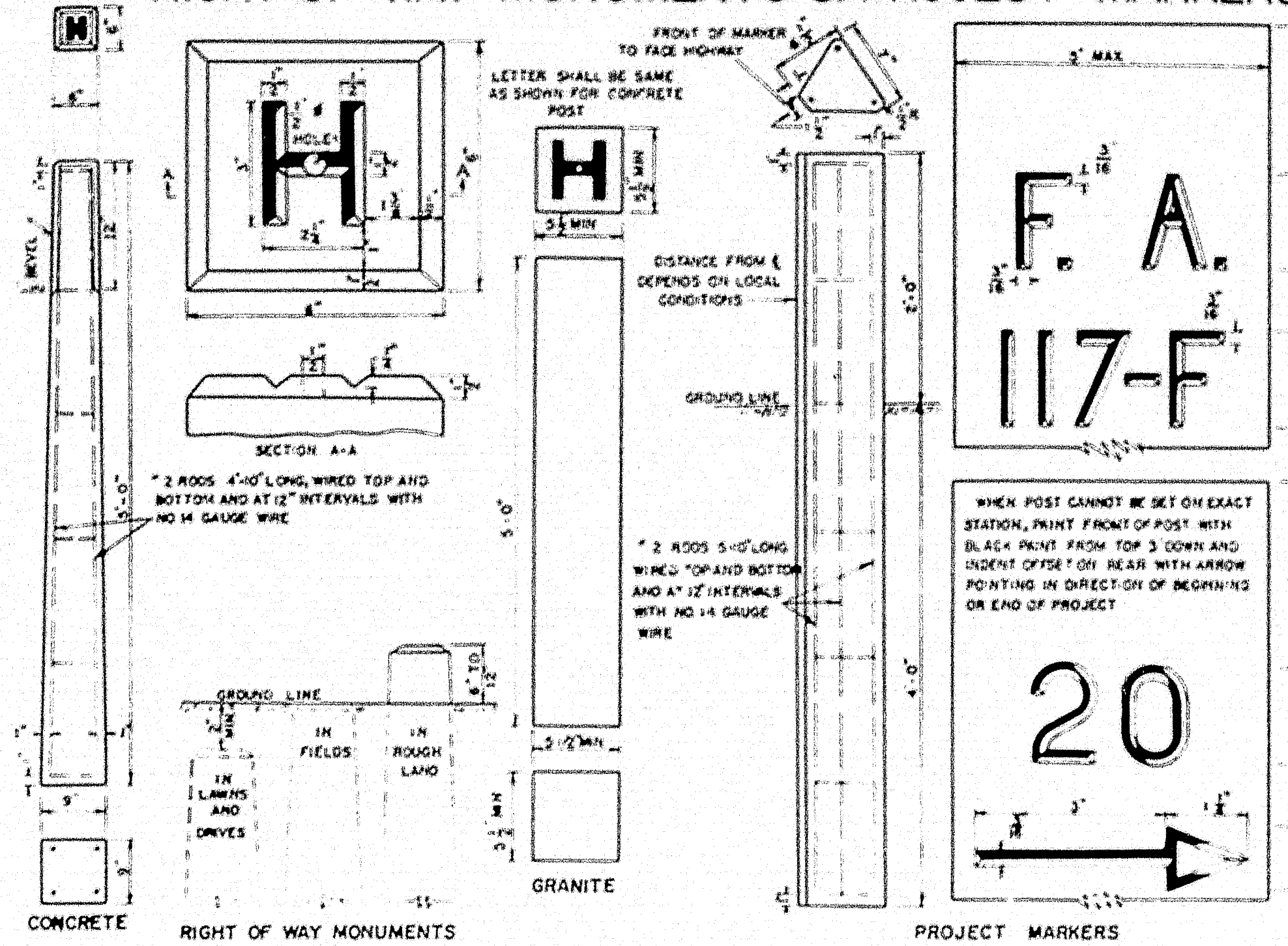


REINFORCED CONCRETE PIPE CONNECTOR
DOUBLE BELL

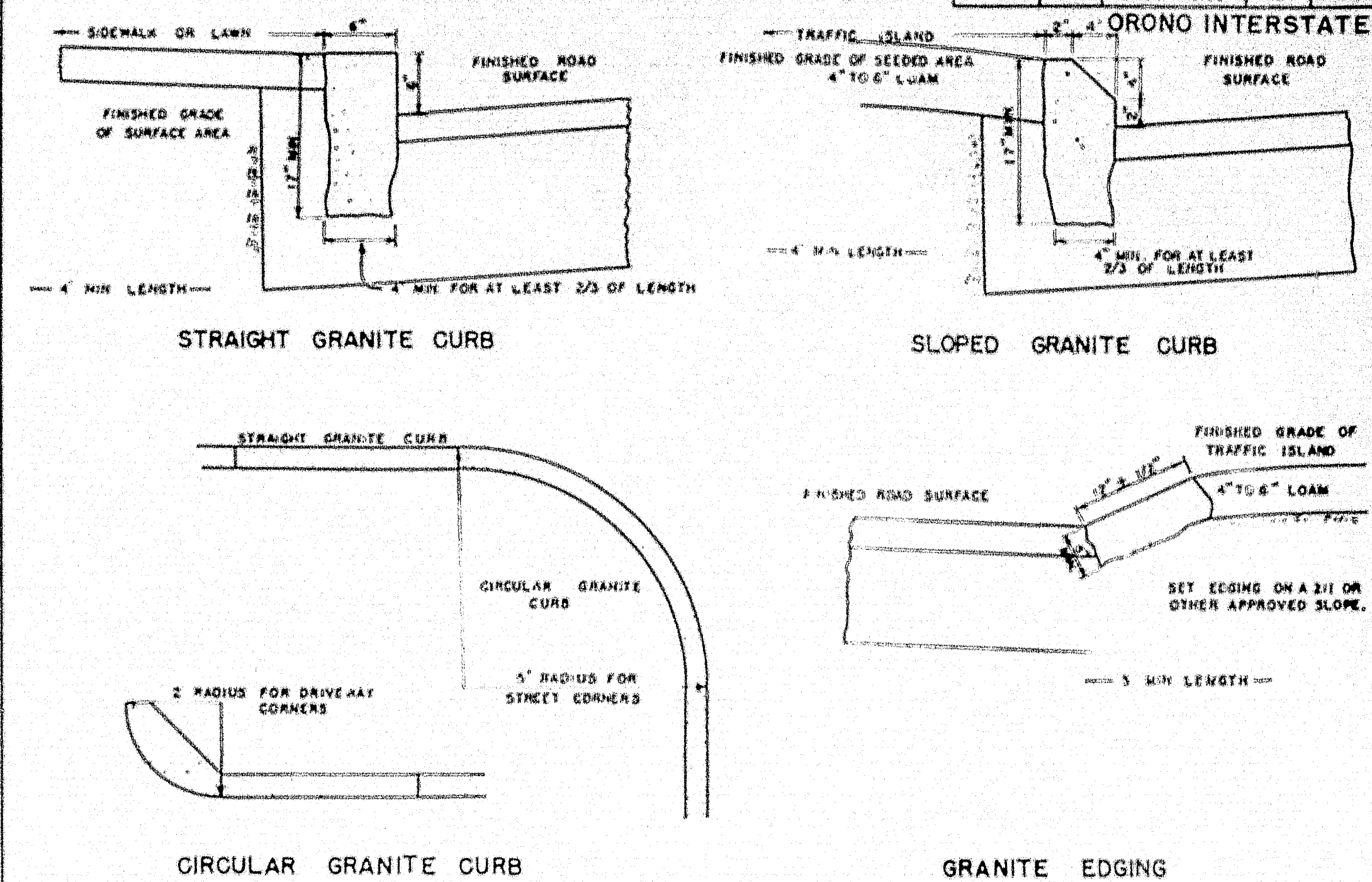
For 12" to 24" inclusive, diameter connection
between concrete and metal pipe

Reinforced concrete pipe shall
conform to the latest standard
specifications

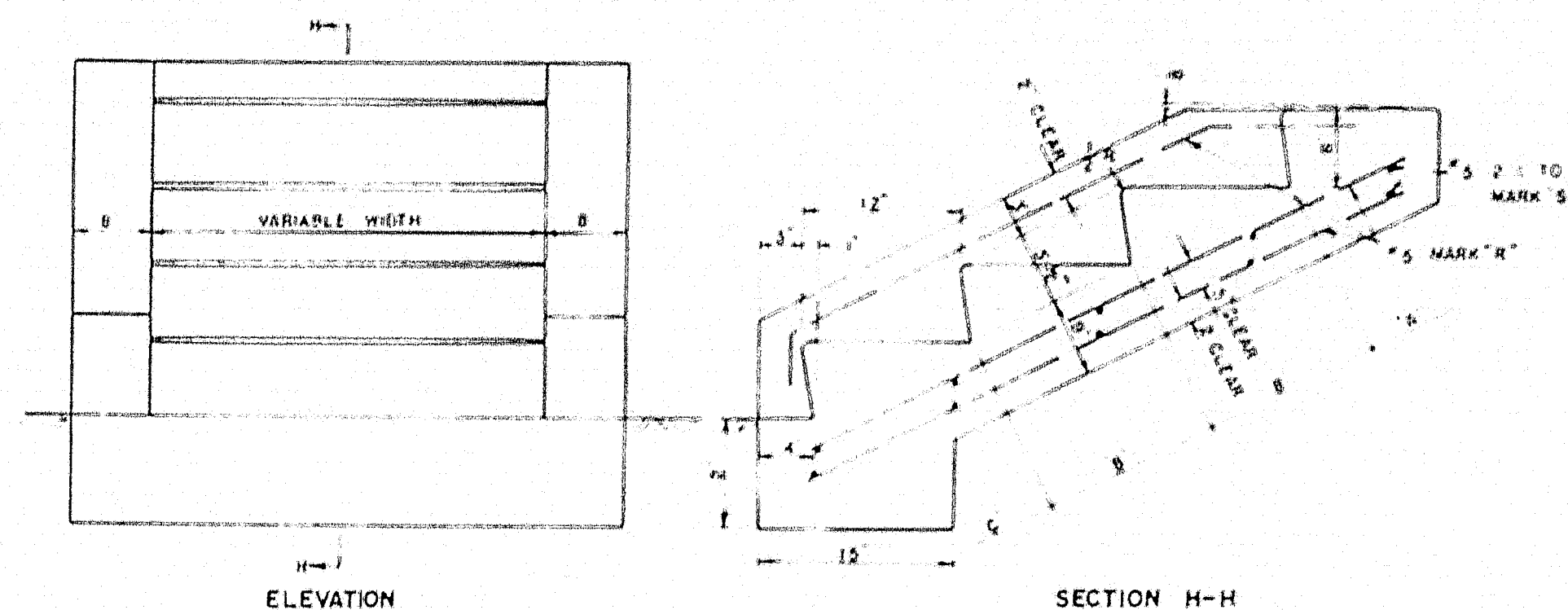
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



GRANITE CURB & EDGING



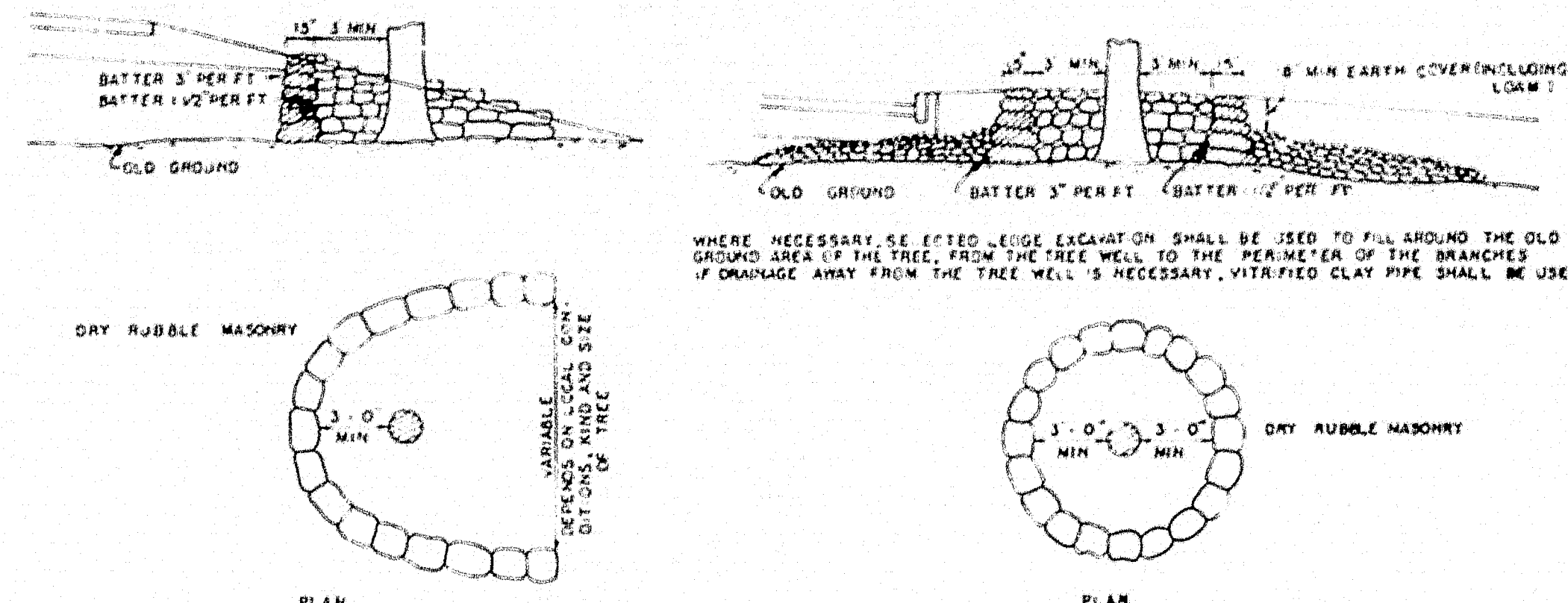
CONCRETE STEPS



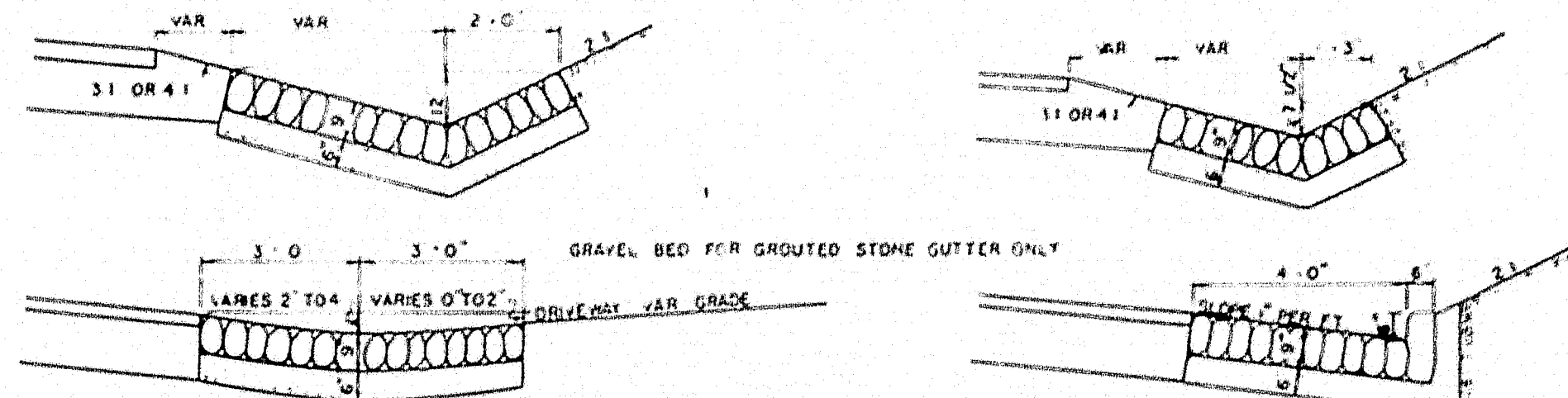
CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
A - HEADER	0.32 CU YDS	0.27 CU YDS
B - 1/4" INTER ST	0.40 CU YDS	0.40 CU YDS
C - FOOTER	0.71 CU YDS	0.65 CU YDS

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH EACH
R	#5	3 EACH PARAPET	8' FOR A
	#4	1 EACH FT OF WIDTH	+13' FOR EACH B
	#4	1 EACH FT OF WIDTH	HIG FOR C
S	#5	2 FOR "A"	6' EACH PARAPET
	#4	2 FOR EACH "B"	4' FOR C
	#4	1 EACH FT OF WIDTH	HIG FOR C

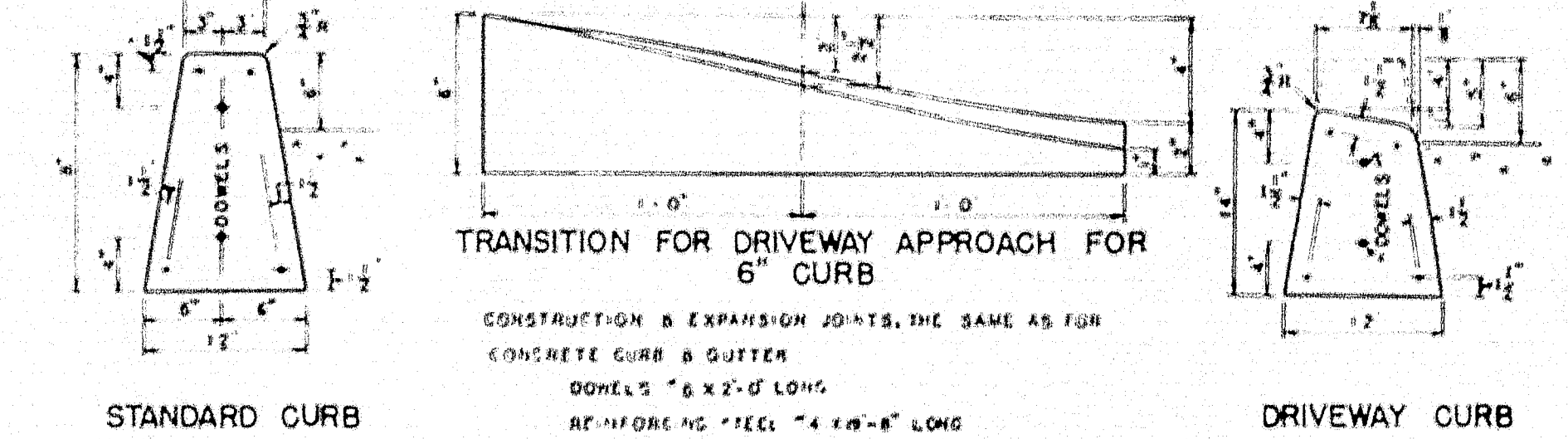
TREE WELLS



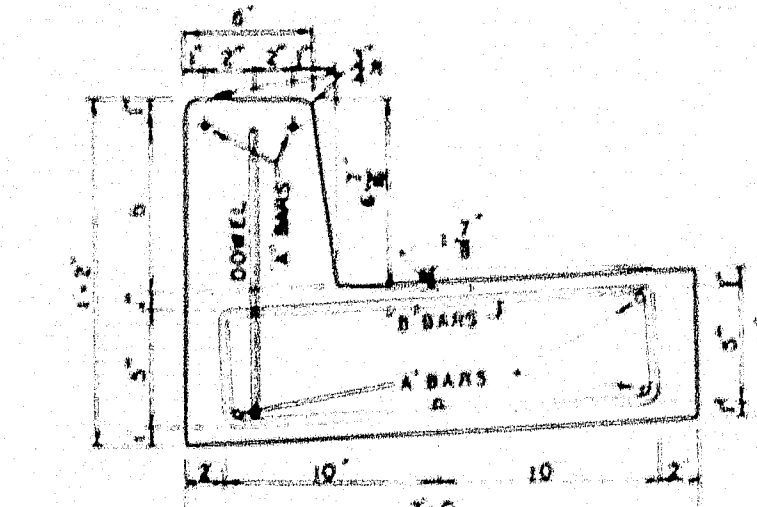
STONE GUTTER



CONCRETE CURB

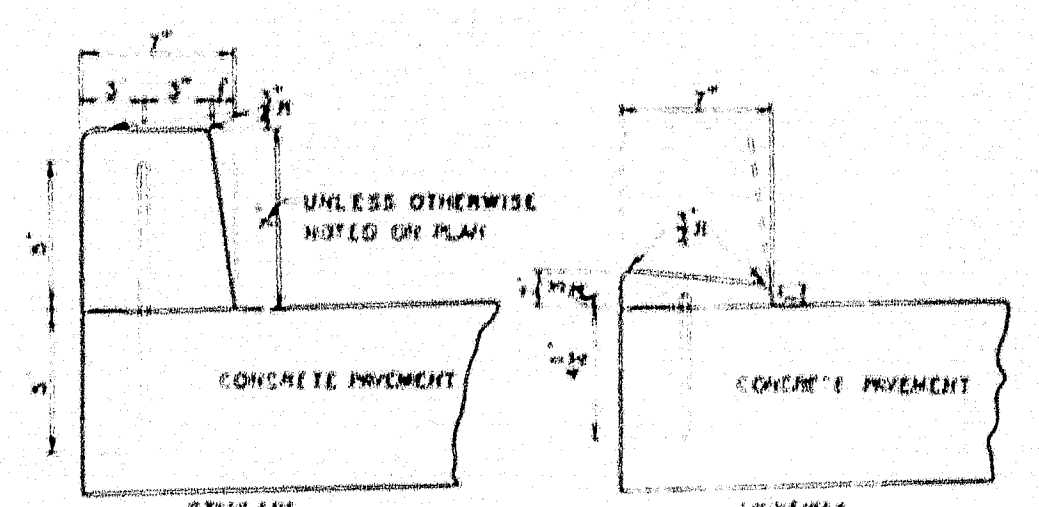


CONCRETE CURB & GUTTER



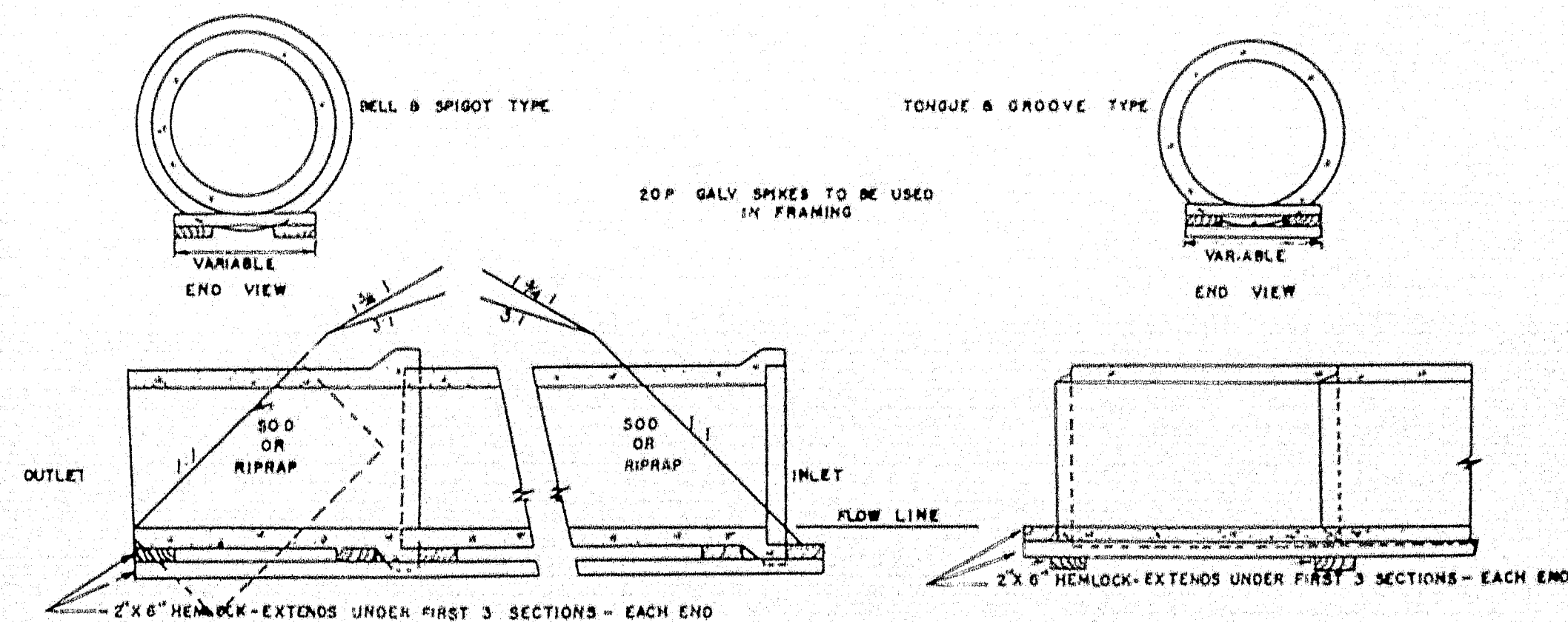
TO BE CONSTRUCTED IN 20 SECTIONS. CONSTRUCTION JOINTS TO BE PRINTED WITH
BITUMINOUS MATERIAL. EXPANSION JOINTS EVERY 40' TO 50' MAXIMUM. MATERIAL
SHALL BE PLACED IN EACH EXPANSION JOINT.
A BAR, 3" X 18" X 8' LONG. BARS 3" X 18" X 8' LONG. PLACE A BAR 1" FROM EACH
END OF THE SECTION AND THEN SPACE THEM 1'-6" TO 2'-0" TO THE REST OF THE SECTION.
DOWELS 4" X 1'-0" LONG, SPACED 1'-0" TO 2'-0" TO THE REST OF THE SECTION.

INTEGRAL CONCRETE CURB

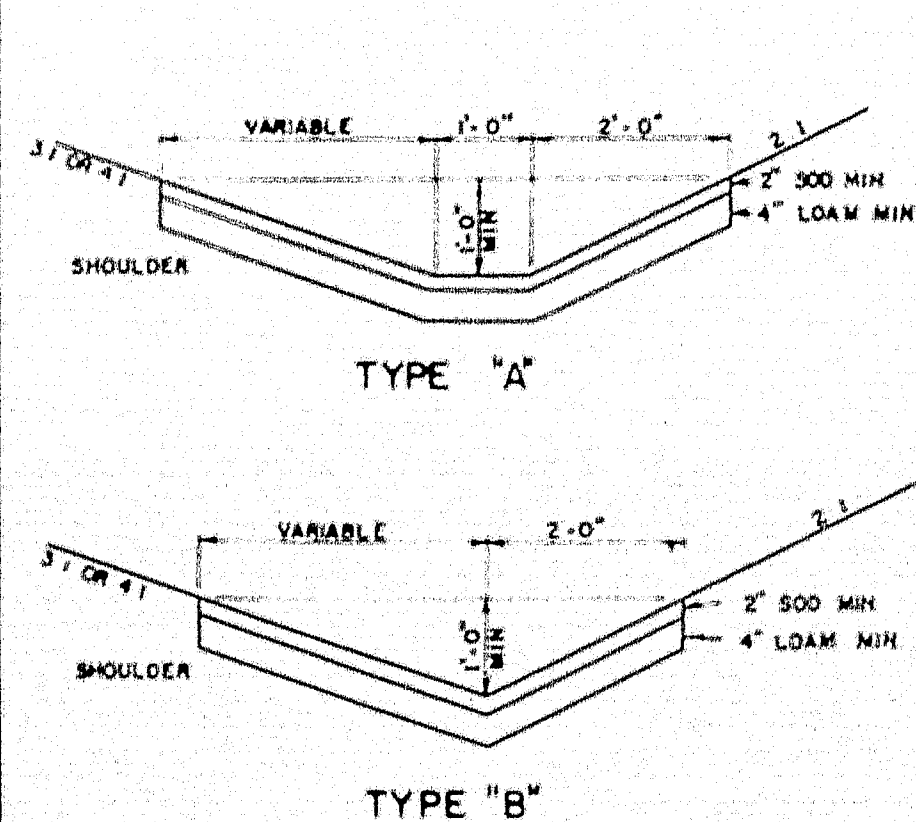


EXPANSION & DUMPY JOINTS IN CURB SHALL BE CONSTRUCTED
AT SAME LOCATION AS EXPANSION & DUMPY JOINTS IN CON-
CRETE PAVEMENT.
DOWELS 4" X 1'-0" LONG, SPACED 1'-0" TO 2'-0" TO THE REST OF THE SECTION.

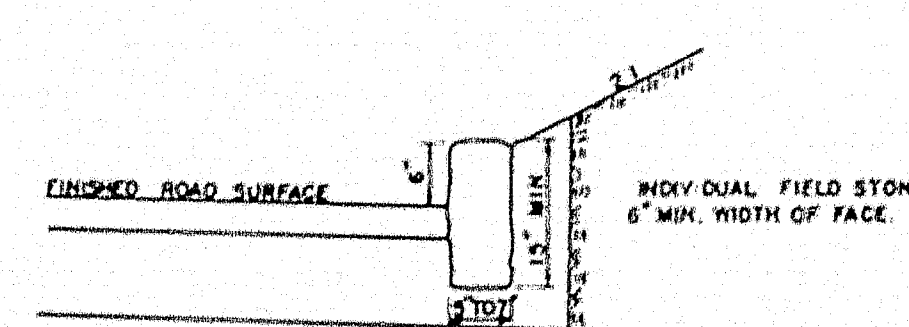
CONCRETE PIPE CRADLE



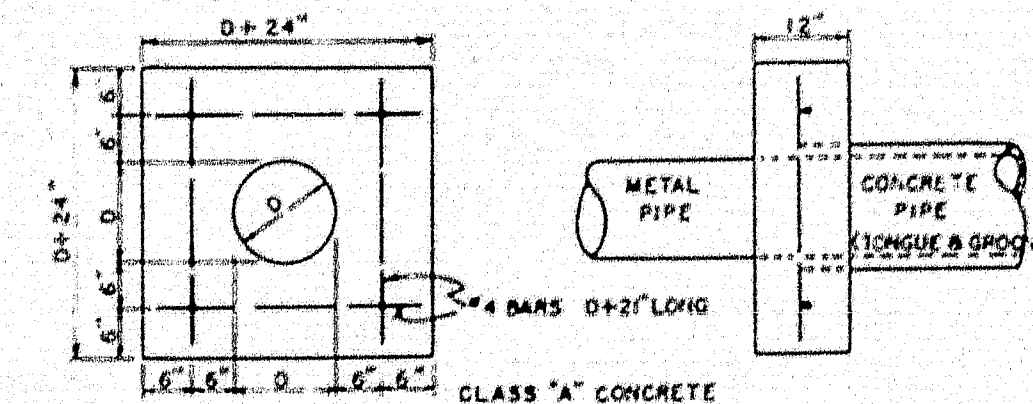
SODDED GUTTER



FIELD STONE CURB



CONCRETE COLLAR

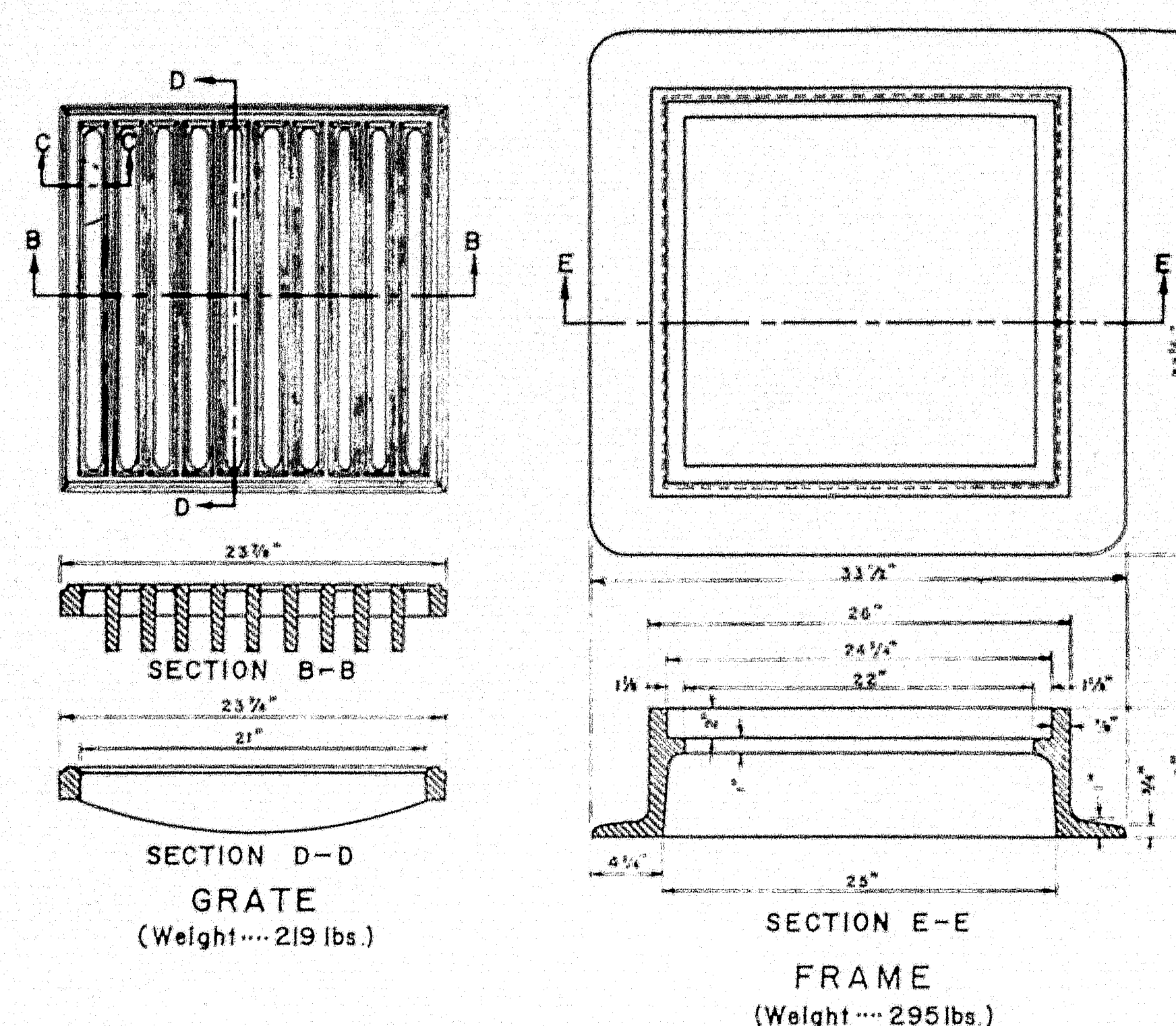
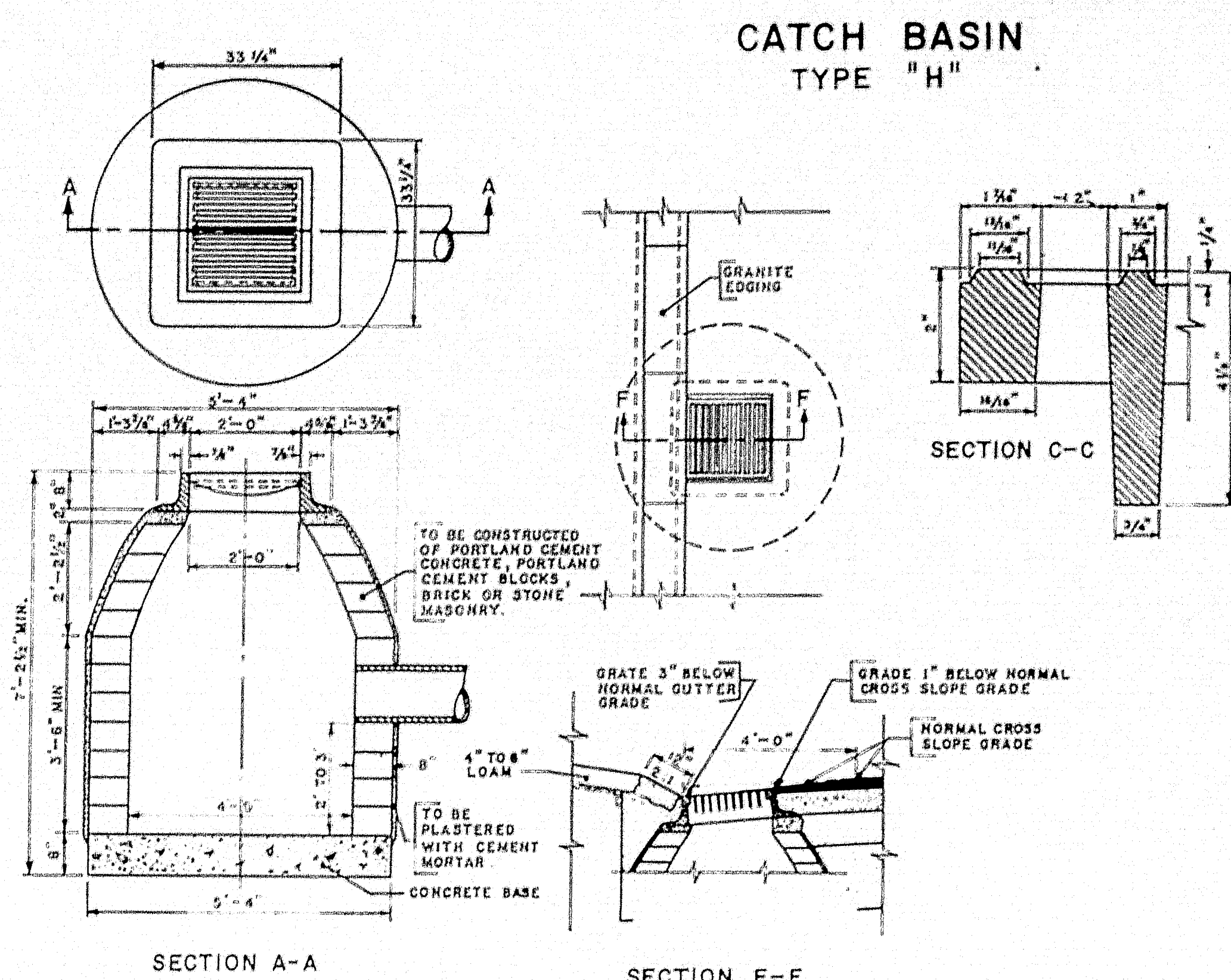


MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

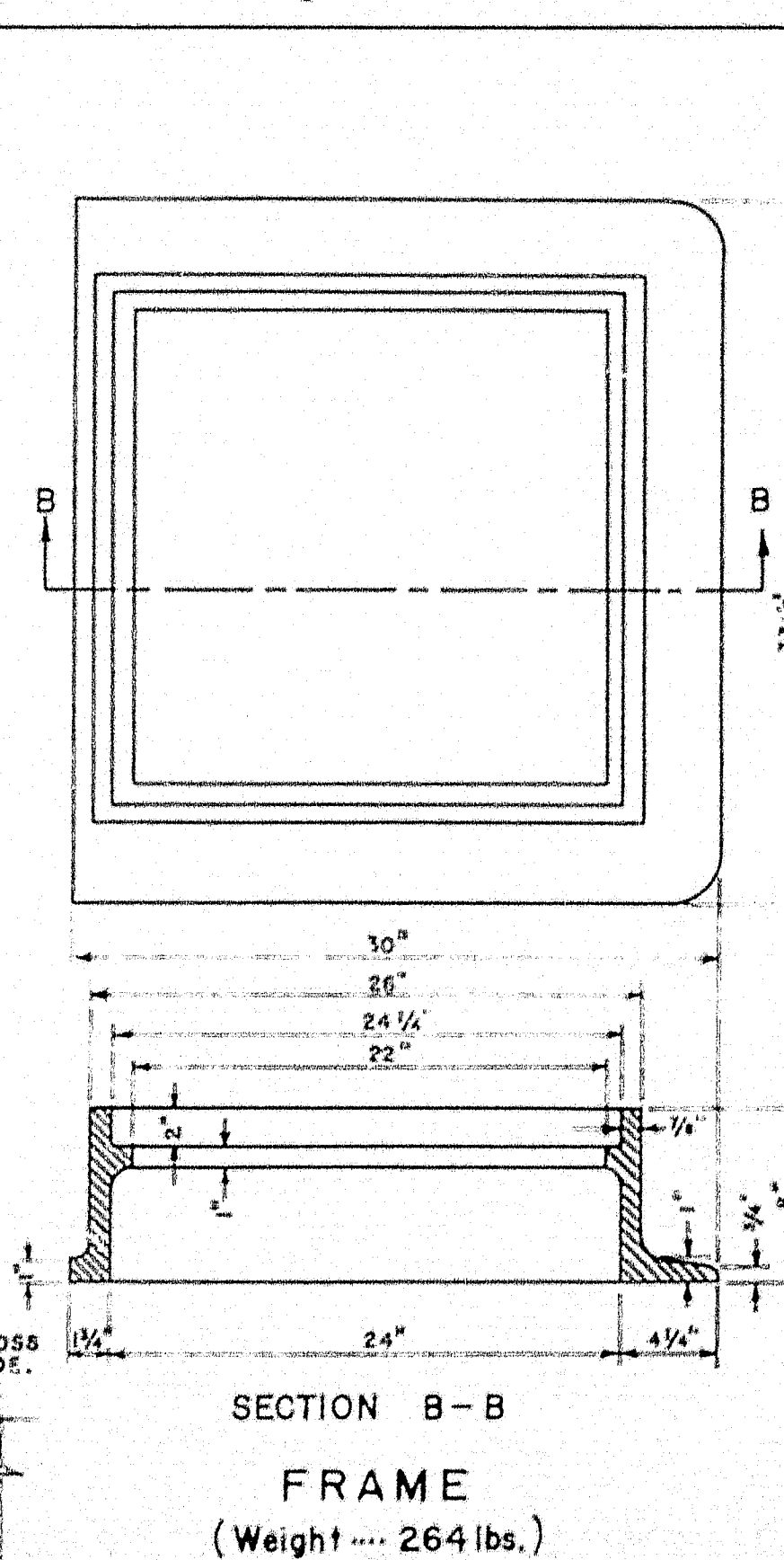
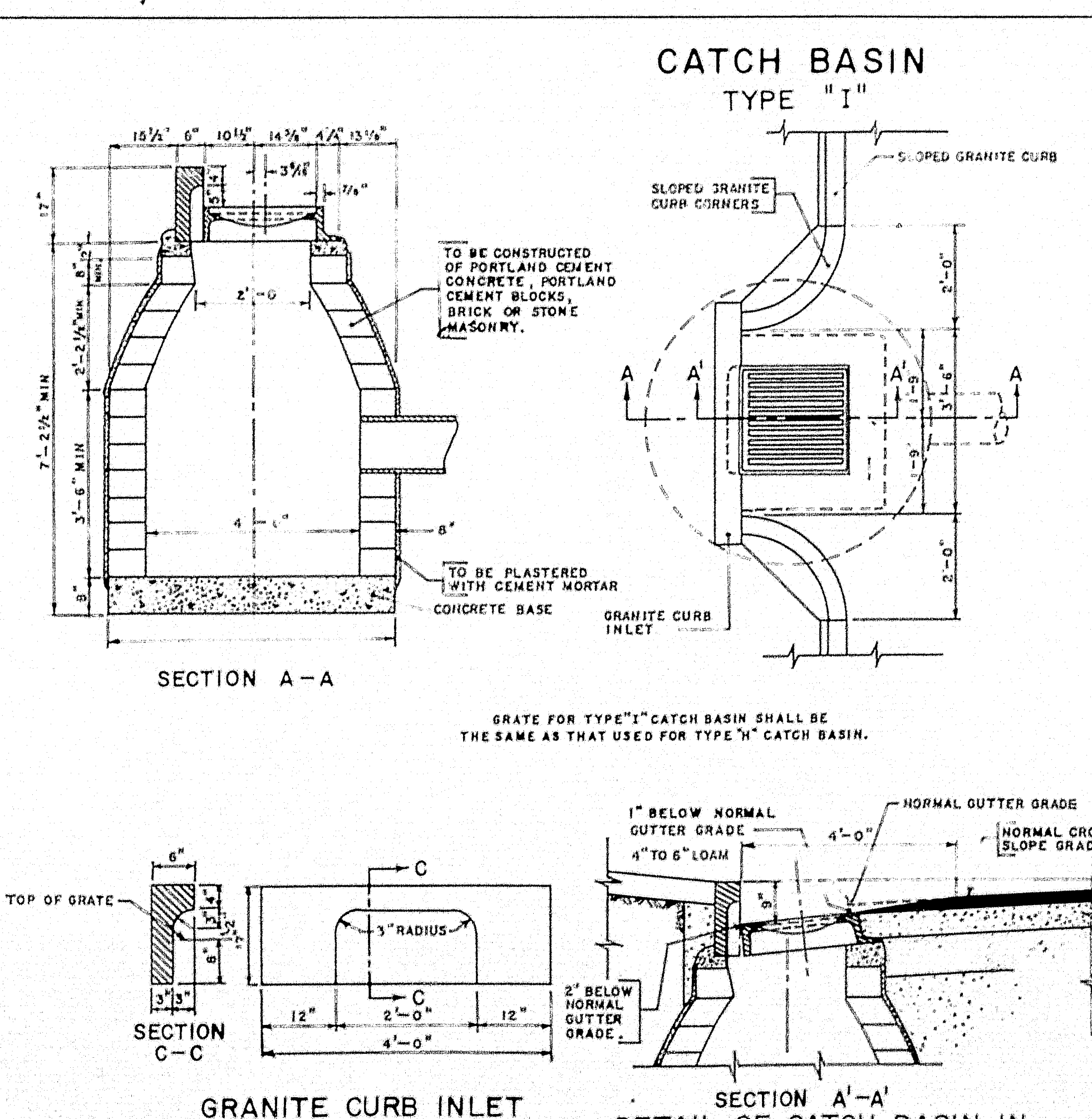
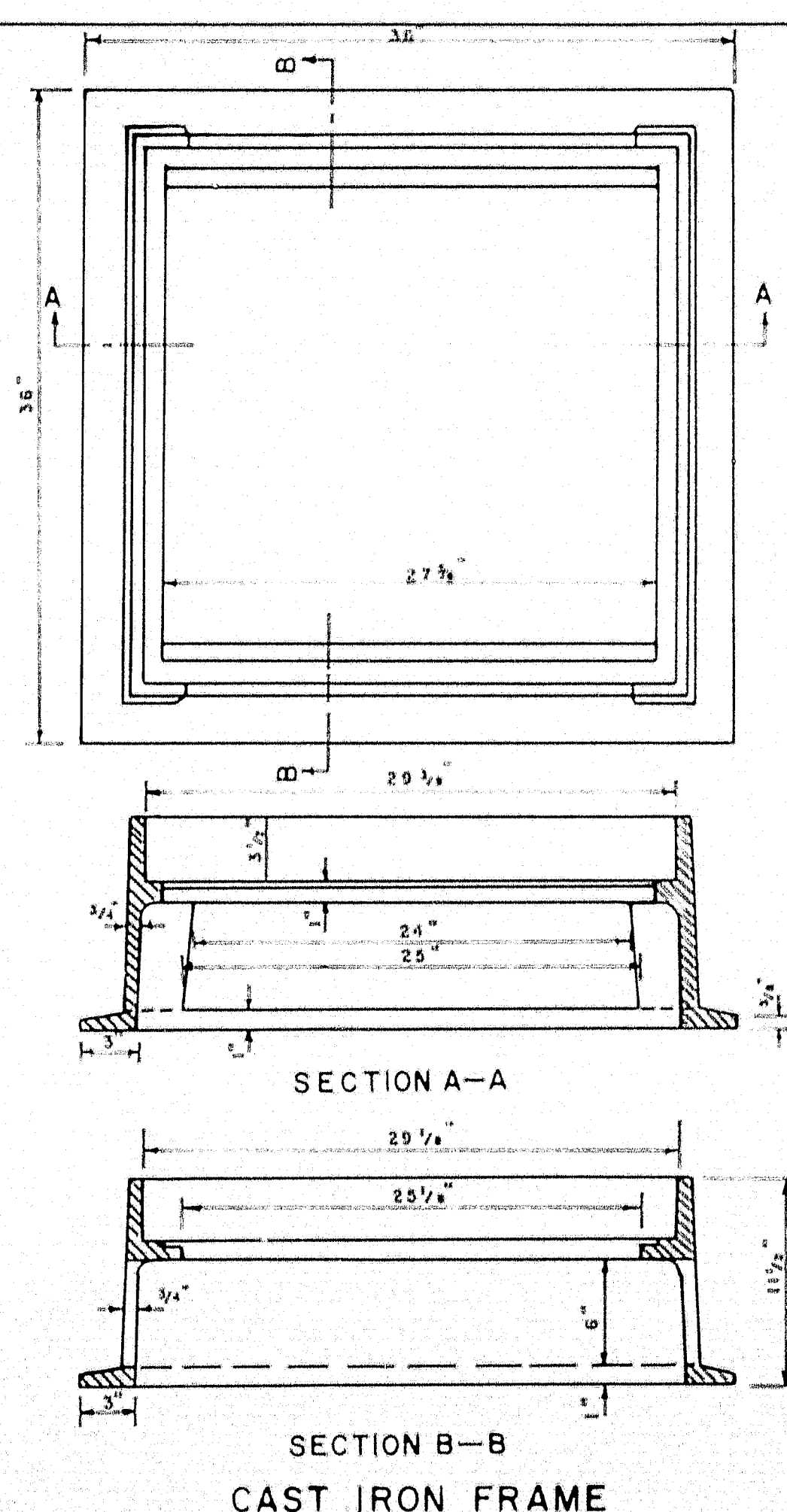
MISCELLANEOUS ITEMS

3

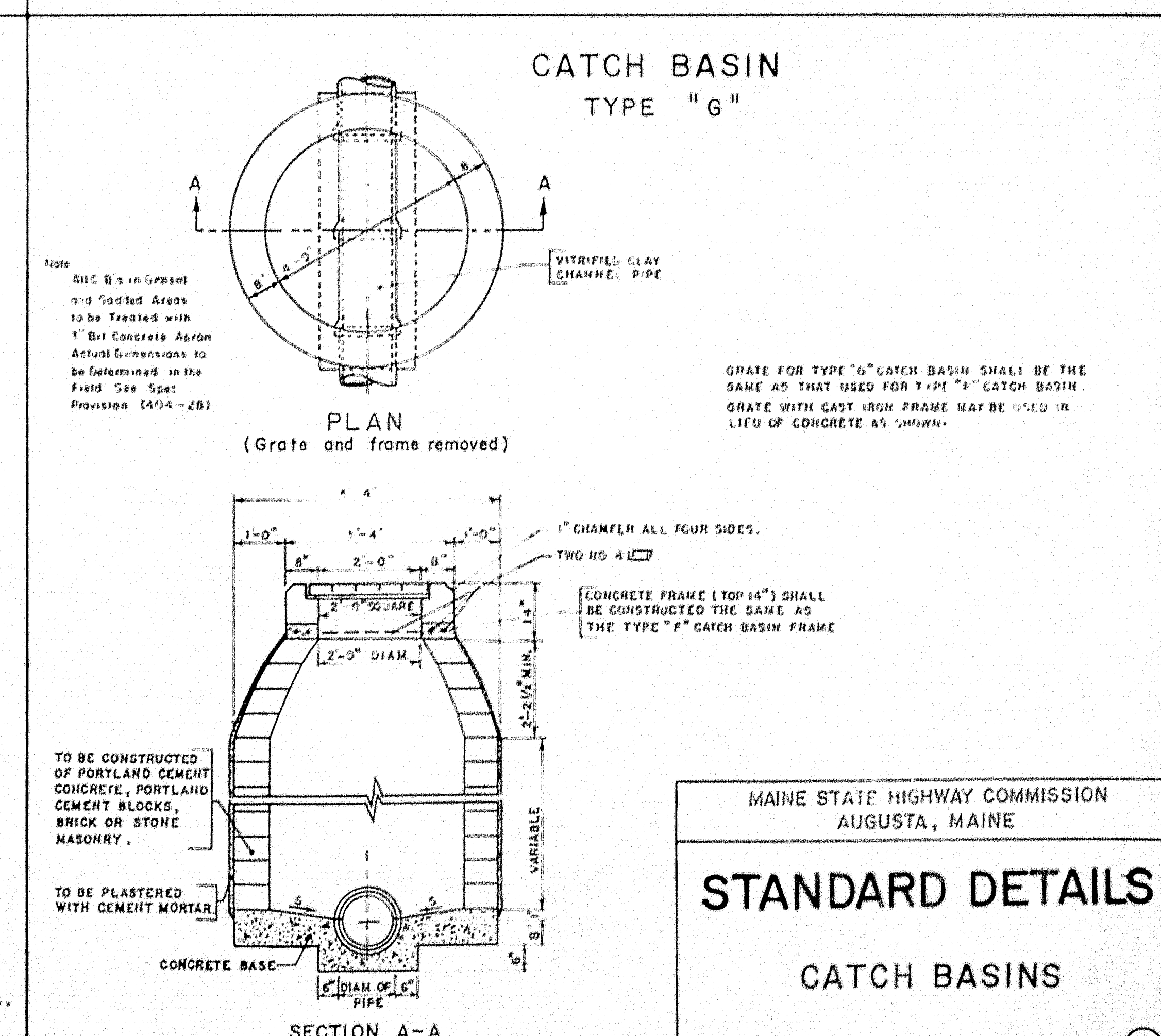
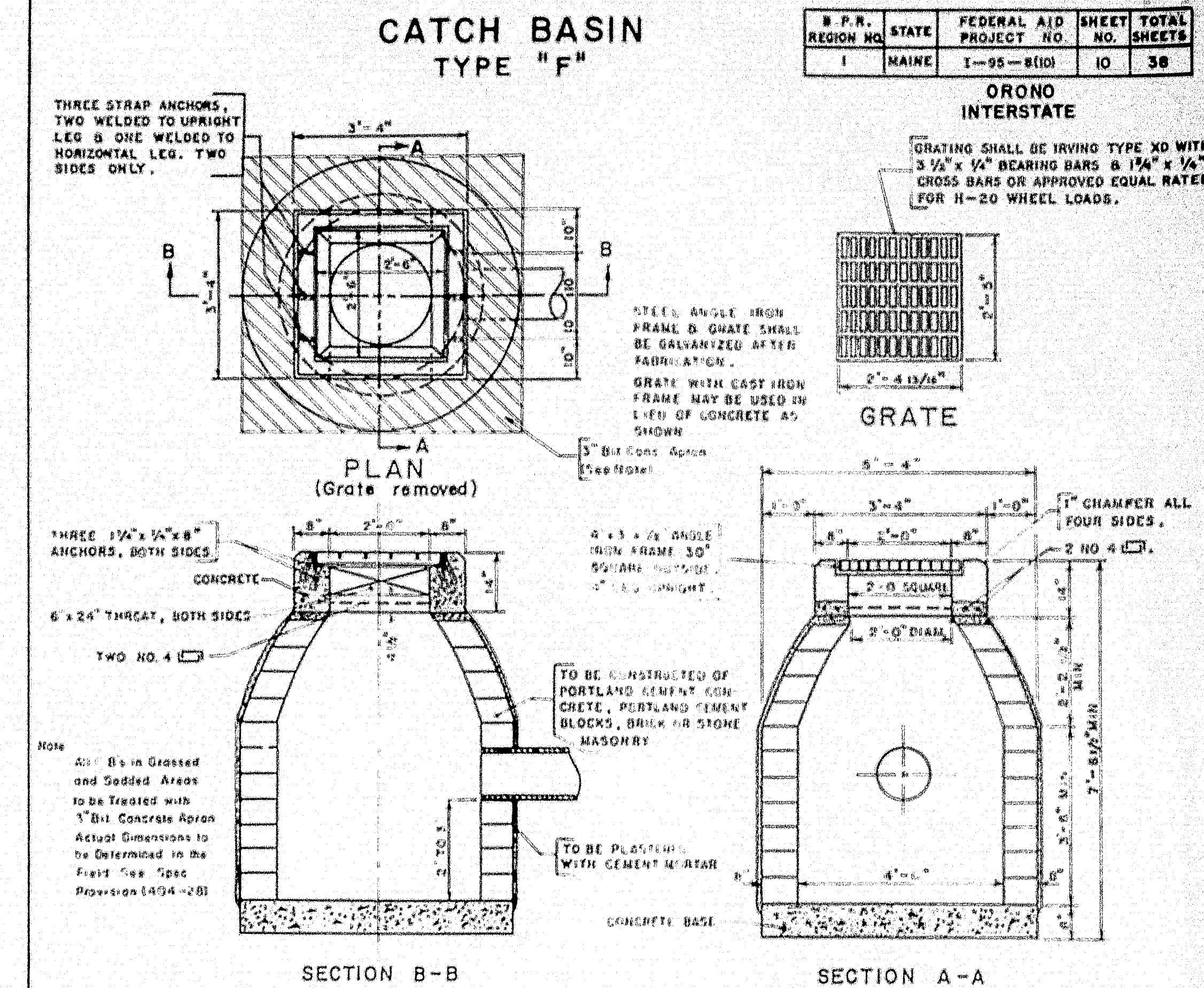


DETAIL OF CATCH BASIN
IN GRANITE EDGING AREA

Note:
TYPE "H" CATCH BASIN IS TO BE USED IN
GRANITE EDGING AREA. (When this type of catch basin
is used with sloped or straight curb, the curb on gutter
line shall be cut to fit flange.)

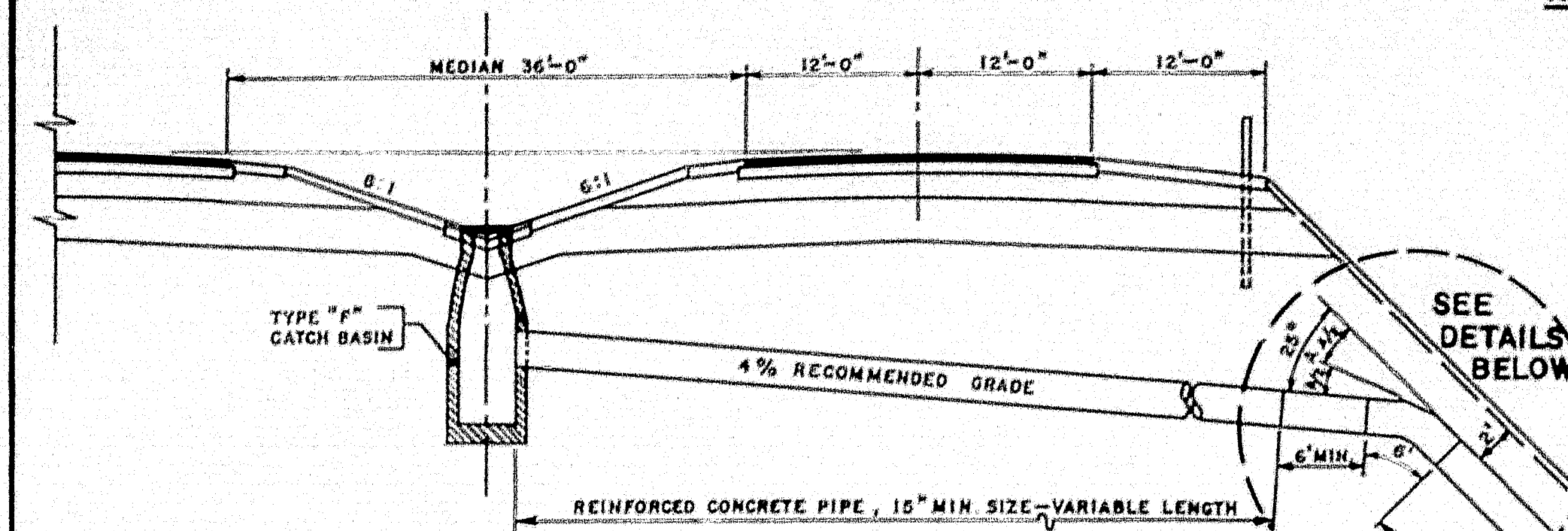


Note:
TYPE "I" CATCH BASIN IS
TO BE USED IN SLOPED CURB AREA.
(This type may also be used in straight
curb areas.)

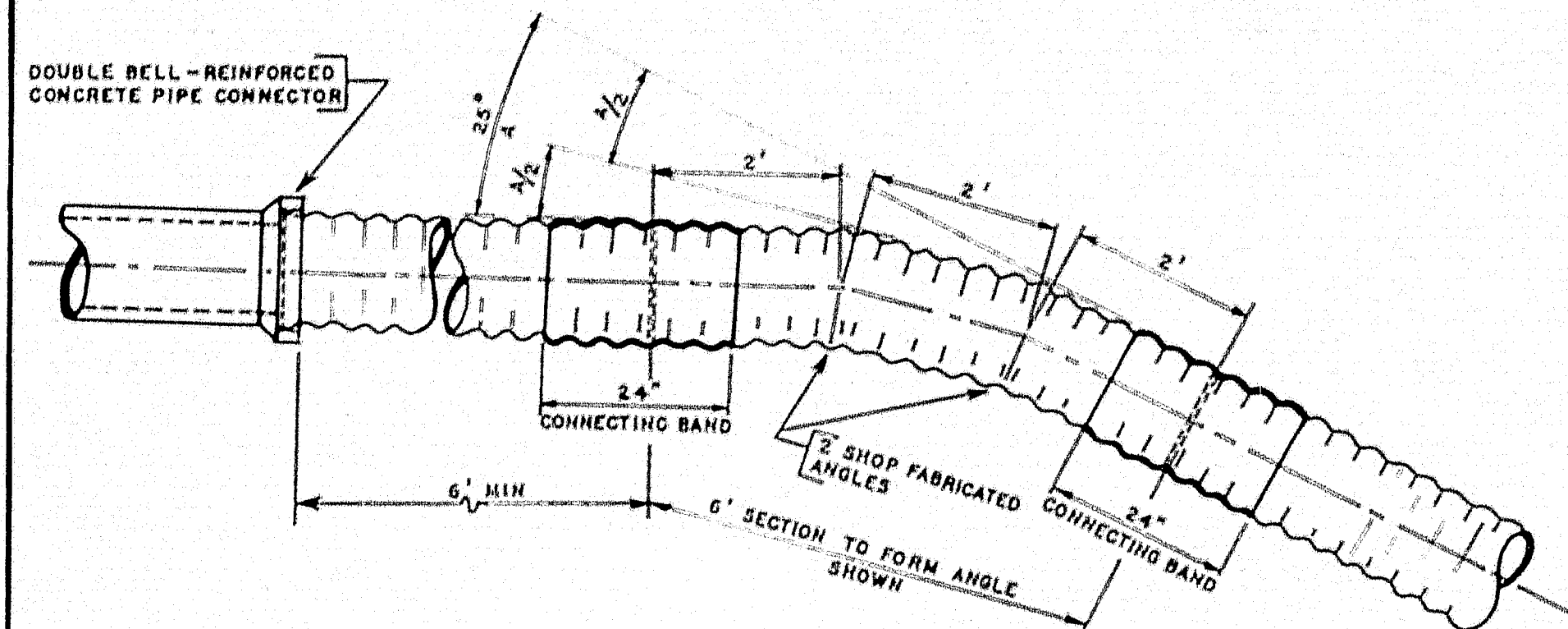


MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE
STANDARD DETAILS
CATCH BASINS

BENDS AND BANDS for A.C.C.M.P. MEDIAN DRAINAGE



DRAINAGE SECTION



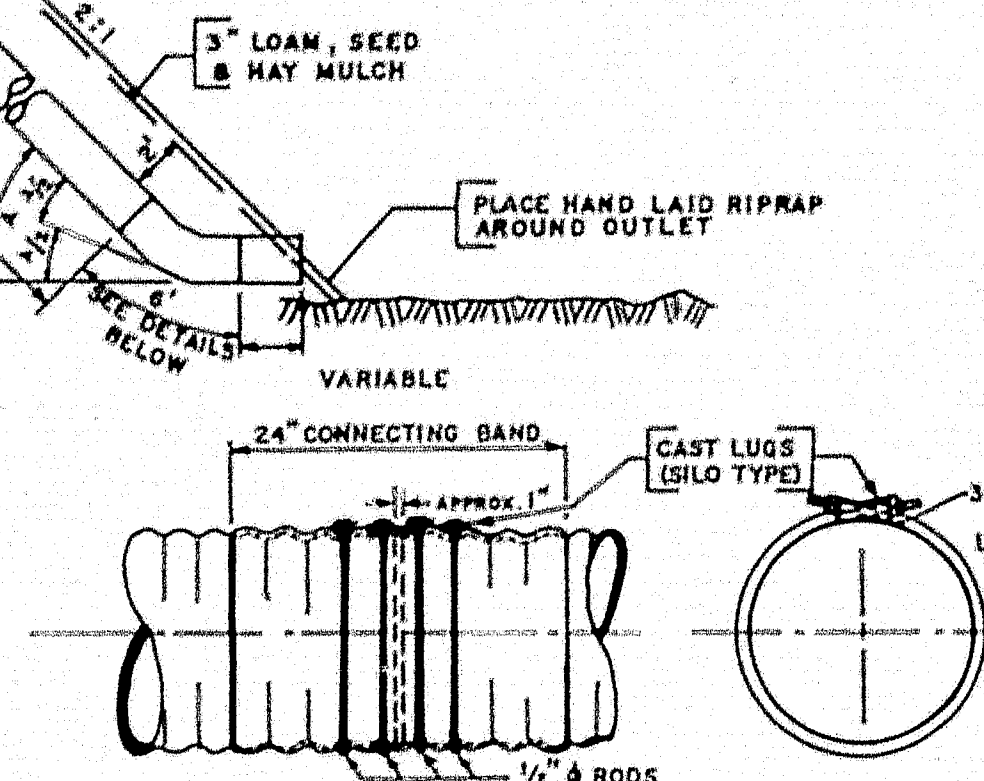
DETAIL OF SIX-FOOT BENDS

NOTE: 24" CONNECTING BANDS SHALL BE USED ON THE ENDS OF EACH ANGLE SECTION. THESE BANDS SHALL BE WATER TIGHT AND DRAWN SECURE BY MEANS OF FOUR THREADED GALVANIZED RODS 1/2" ROUND, PLACED UNIFORMLY EACH SIDE OF THE PIPE ENDS, AND TIGHTENED WITH SILO TYPE LUGS. THE LONGITUDINAL SEAM UNDER THE COLLAR SHALL BE WELDED AND RIVETS OMITTED.

WHEN STRAIGHT LENGTH OF A.C.C.M.P. ON SLOPE EXCEEDS 20 FEET, 24" BAND OR BANDS SHALL BE USED IN THE SAME MANNER AS DESCRIBED ABOVE. AN ITEM COVERING EACH SIZE OF 24" CONNECTING BANDS SHALL BE INCLUDED IN THE PROPOSAL.

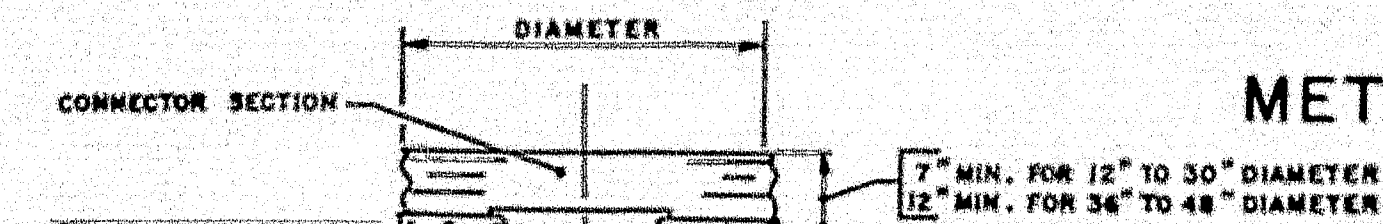
BID ITEMS FOR 15", 18" & 24" A.C.C.M.P. SIX FOOT SECTION TO FORM 25° ANGLE SHALL BE SHOWN IN THE ITEM DESCRIPTION AS "SIX FOOT BENDS".

WHEN FILL IS 10' OR MORE IN DEPTH AT THE OUTSIDE SHOULDER BERM USE OUTLET FROM CATCH BASIN AS SHOWN; WHEN FILL IS LESS THAN 10' USE STRAIGHT GRADE LINE FROM CATCH BASIN TO OUTLET END OF PIPE.

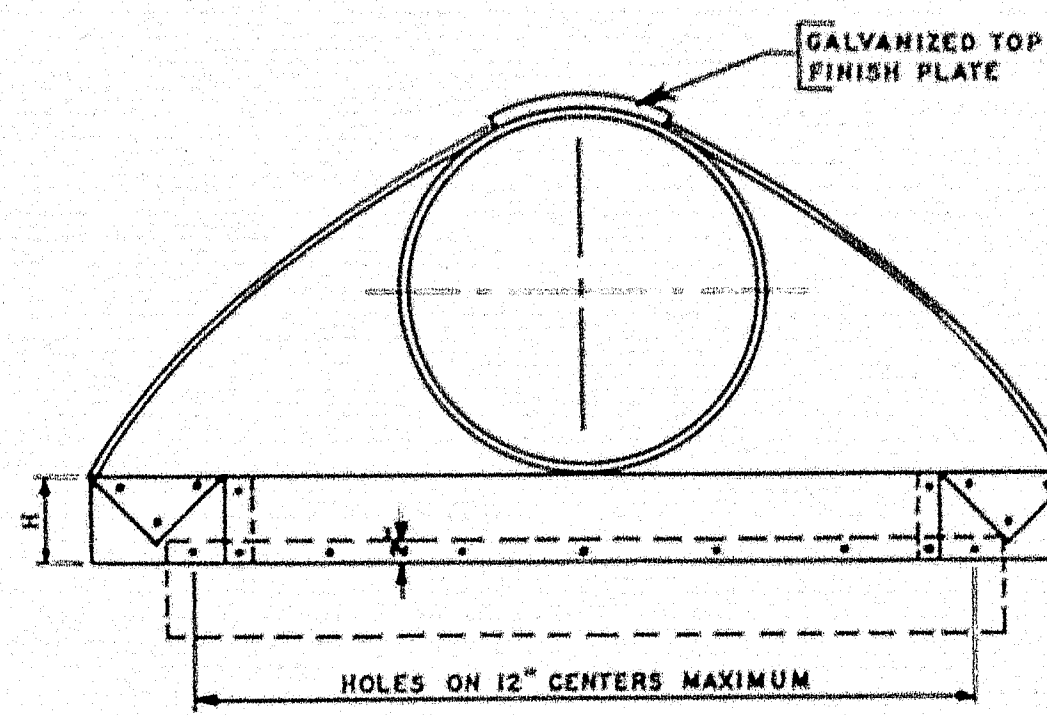


DETAIL OF 24" CONNECTING BANDS

METAL ENDWALLS



PLAN



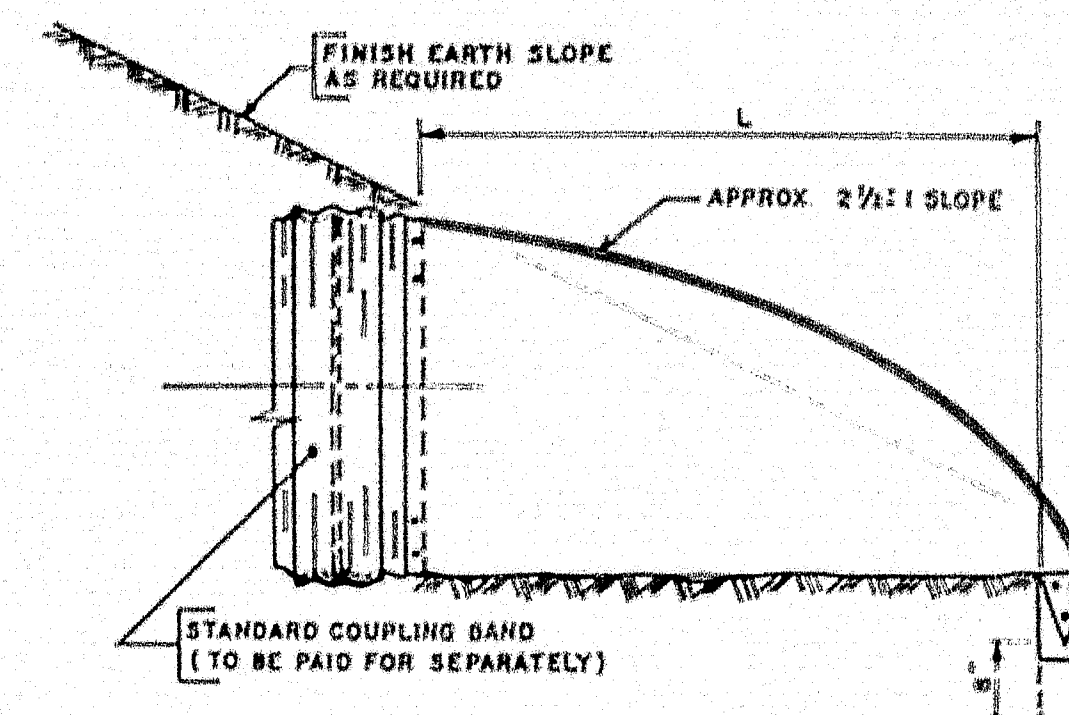
ELEVATION

PIPE DIAM.	GAUGE	DIMENSIONS					
		A	B	H	L	W	
12"	16	4 1/4"	6"	6"	21"	24"	
18"	16	6"	8"	8"	26"	30"	
24"	16	7"	9"	9"	31"	36"	
30"	16	8 1/4"	11"	11"	36"	42"	
36"	14	9 1/4"	12"	12"	42"	48"	
42"	14	12"	15"	15"	52 1/2"	60"	
48"	12	14"	18"	18"	63"	72"	
54"	12	16"	21"	21"	73 1/2"	84"	

TOE PLATE TO BE PUNCHED TO MATCH HOLES IN SKIRT LIP. LENGTH OF TOE PLATE IS W+10" FOR 12" TO 30" DIAMETER PIPE, INCLUSIVE, AND W+22" FOR 36" TO 42" DIAMETER PIPE INCLUSIVE.

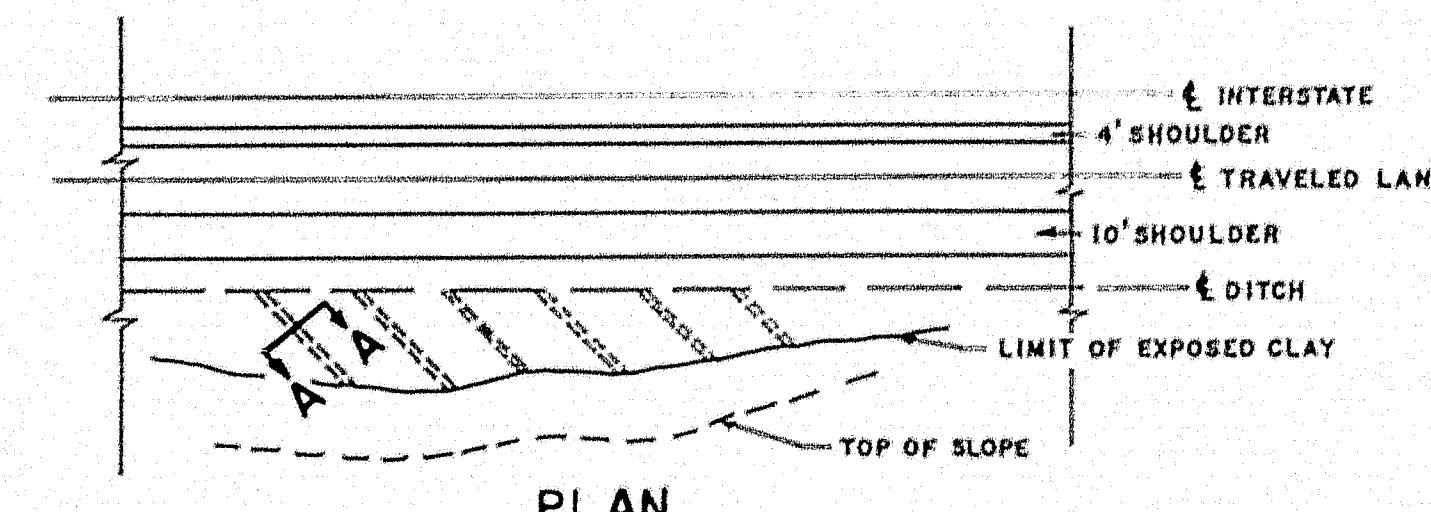
SKIRT SECTION FOR 12" TO 24" DIAMETER PIPE, INCLUSIVE, TO BE MADE IN ONE PIECE. SKIRT SECTION FOR 30" TO 48" DIAMETER PIPE MAY BE MADE FROM TWO SHEETS JOINED BY RIVETING OR BOLTING ON CENTERLINE.

CONNECTOR SECTION, CORNER PLATE AND TOE PLATE TO BE SAME GAUGE AS SKIRT AND EACH TO BE GALVANIZED. TOE PLATE TO BE INCLUDED IN UNIT COST.

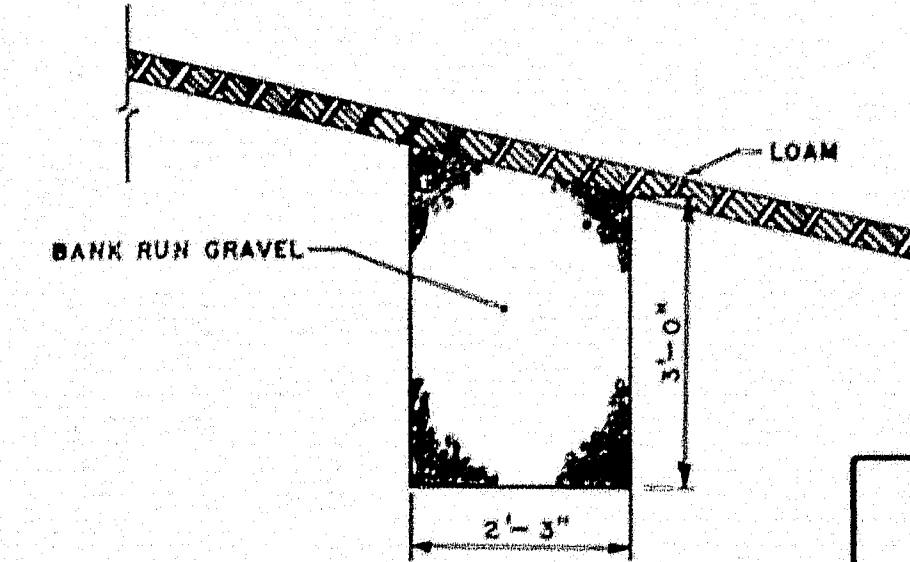


SIDE ELEVATION

CUT SLOPE DRAIN

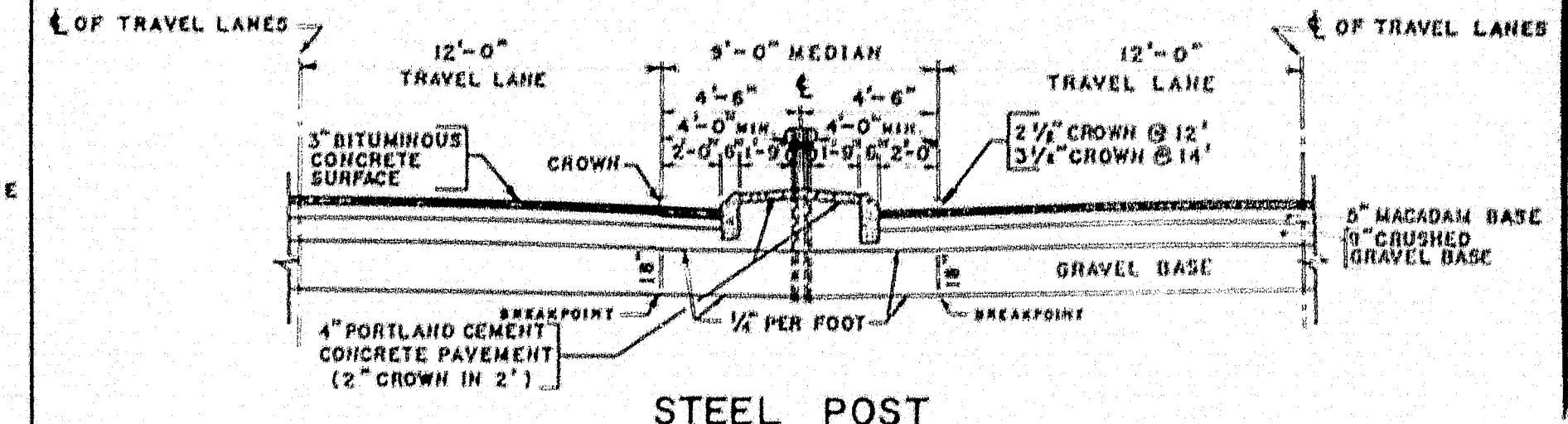


PLAN

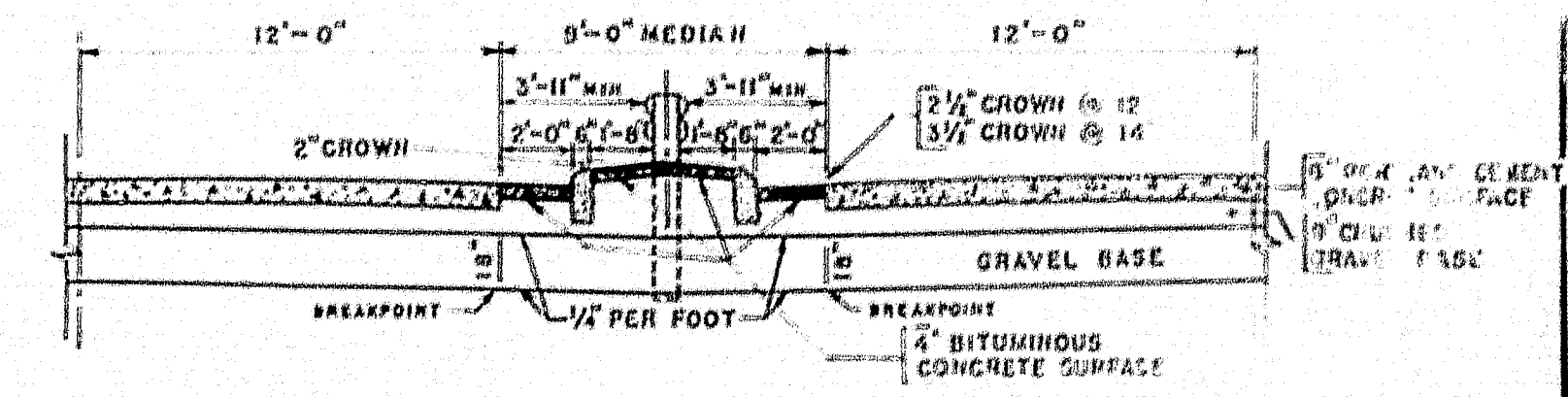


SECTION A-A

9-FOOT MEDIAN

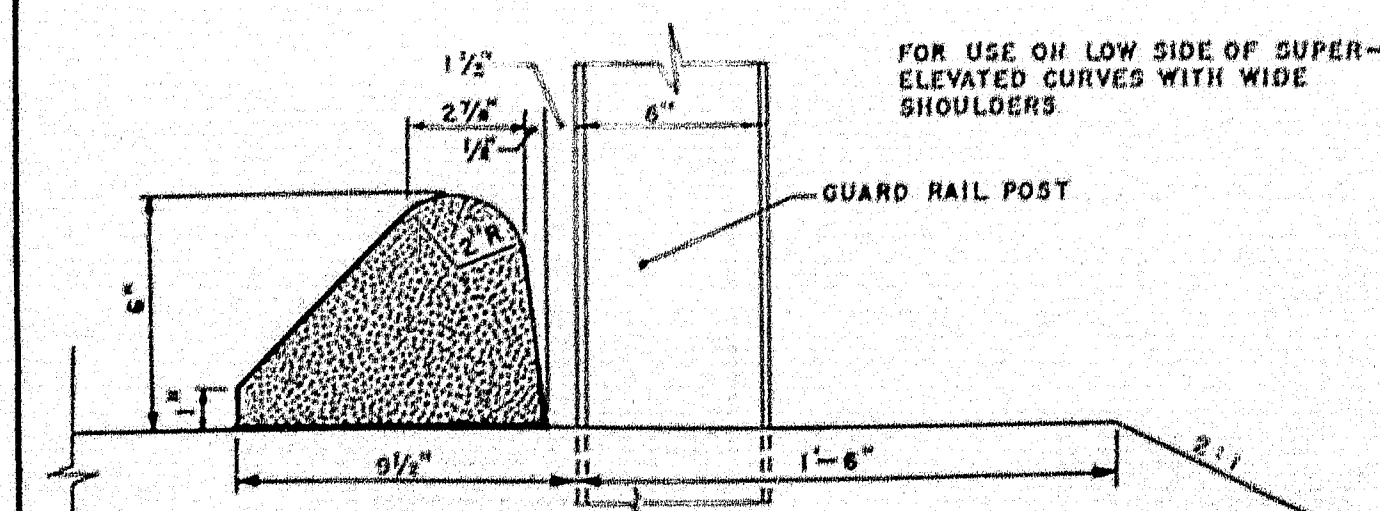


STEEL POST



WOOD POST

BITUMINOUS CONCRETE CURB



FOR USE ON LOW SIDE OF SUPER-ELEVATED CURVES WITH WIDE SHOULDERS

GUARD RAIL POST

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

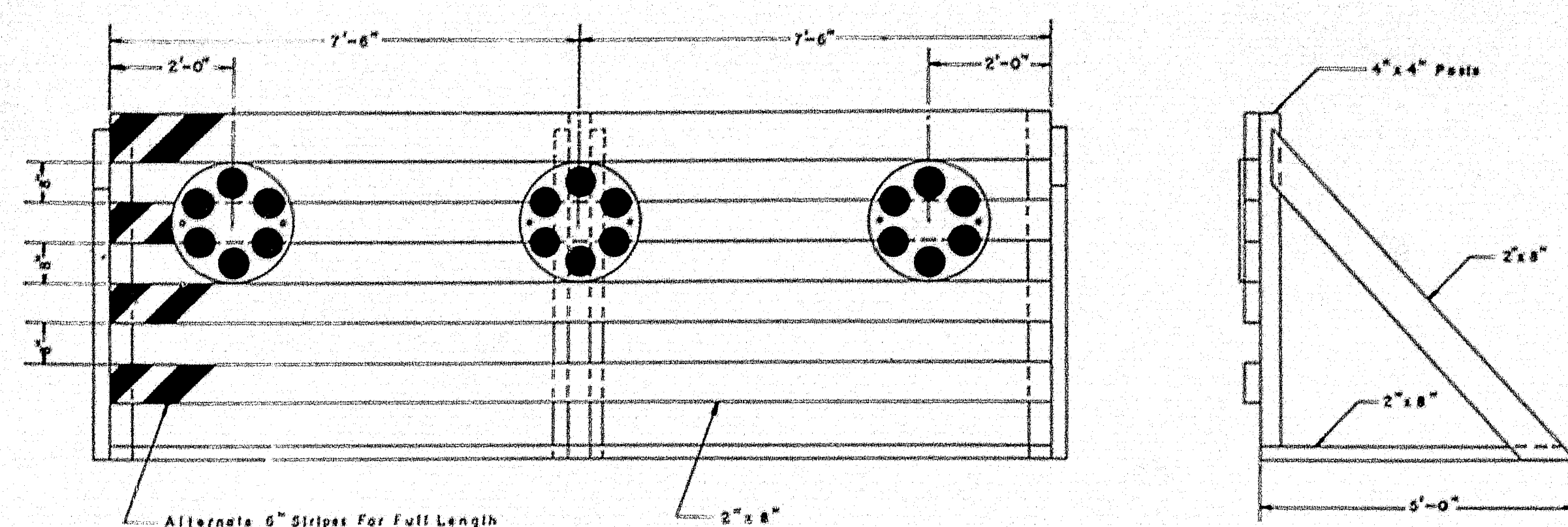
STANDARD DETAILS

BENDS & BANDS, METAL ENDWALLS,
GUARD RAIL ON RAMP, CUT SLOPE
DRAIN, 9-FOOT MEDIAN & BITUMINOUS
CONCRETE CURB

5

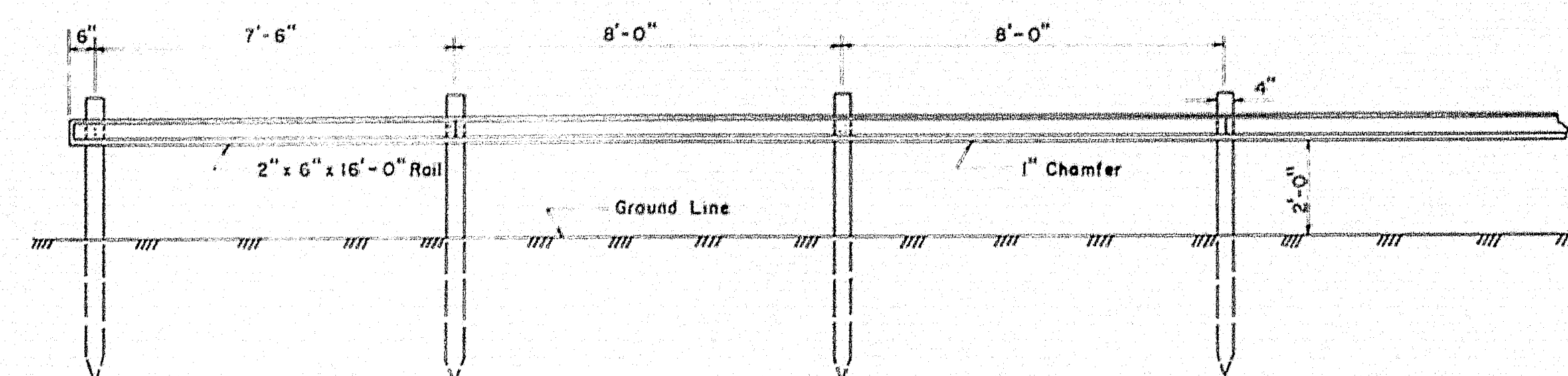
E.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8001	12	38

ORONO INTERSTATE



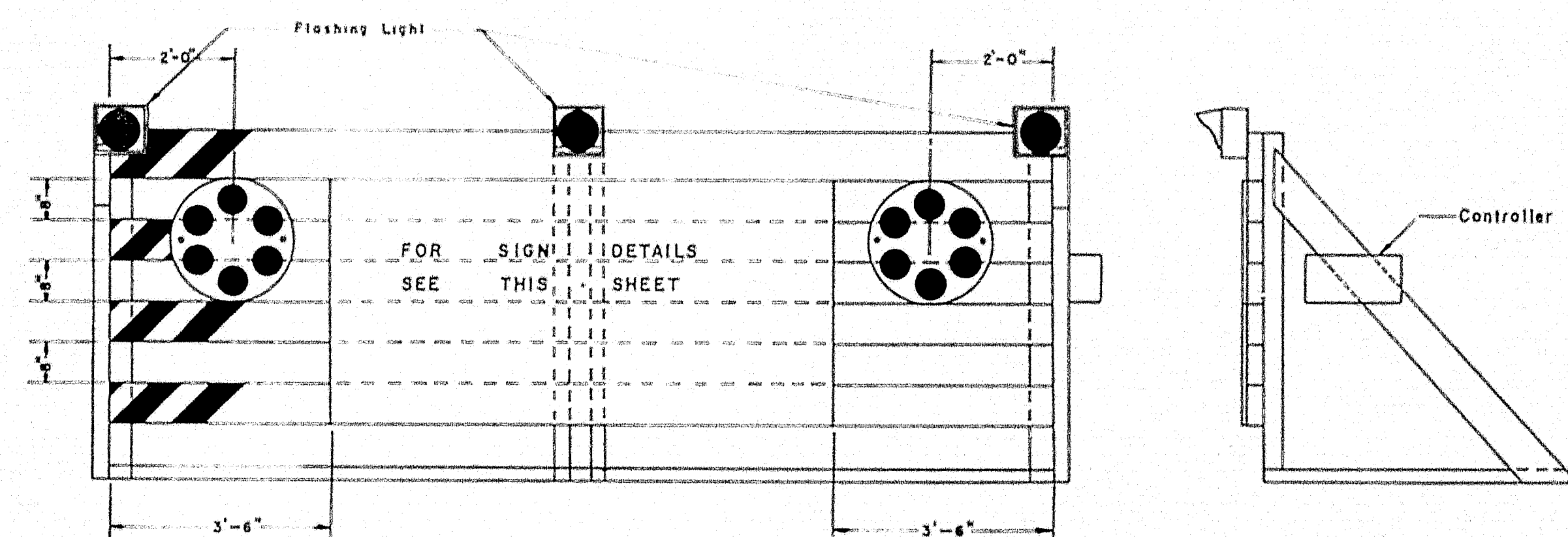
PORTABLE BARRICADE

Scale: $\frac{1}{2}'' = 1'$



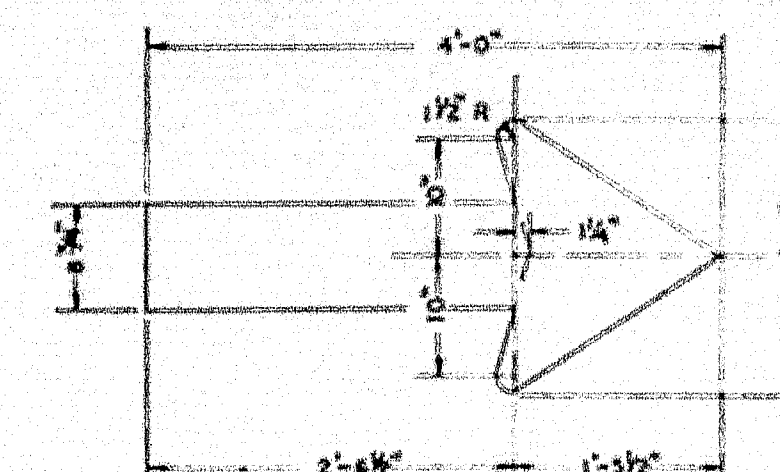
TEMPORARY WOODEN GUARD FENCE

Scale: $\frac{3}{8}'' = 1'$

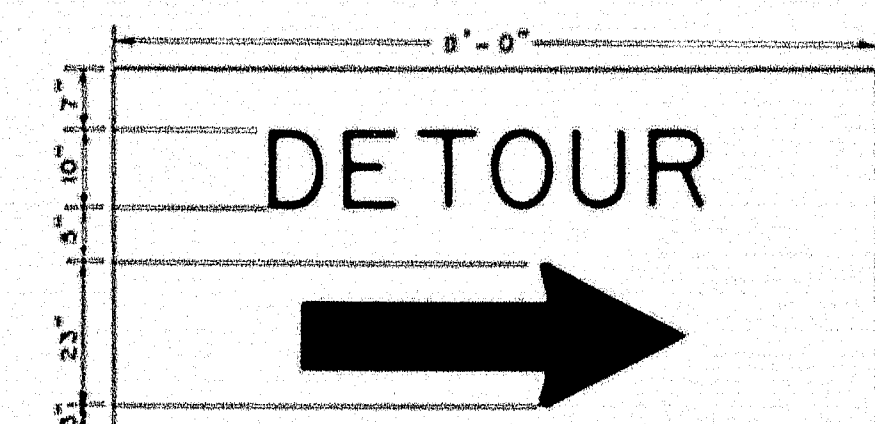


PORTABLE BARRICADE
WITH FLASHING LIGHTS
AND DETOUR SIGN

Scale: $\frac{1}{2}'' = 1'$



Scale: $\frac{3}{4}'' = 1'$



DETOUR SIGN FOR
PORTABLE BARRICADE

Scale: $\frac{1}{2}'' = 1'$

GENERAL NOTES:

1. Lumber sizes for use on Barricades shall be 2" x 8" except for Posts which shall be 4" x 4".
2. Detour Sign shall be $\frac{3}{8}$ " thick plywood.
3. Alternate 6" stripes shall be painted or screened in black on a background of silver reflective sheeting.
4. The word "DETOUR" and Arrow shall be painted or screened in black on a background of yellow reflective sheeting.
5. Flashing Lights shall be Mounted to permit rotation to face oncoming traffic.
6. Reflector clusters shall consist of a red background with red Reflectors similar to AGA Designation #1816-A1 (PDON).
7. The Barricades shall be securely anchored in place by means of sandbags, weights, or large stones.
8. Location of Service and Meter to be determined after Power Source has been decided.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

SPECIAL DETAILS

PORTABLE BARRICADES

SCALE: AS NOTED

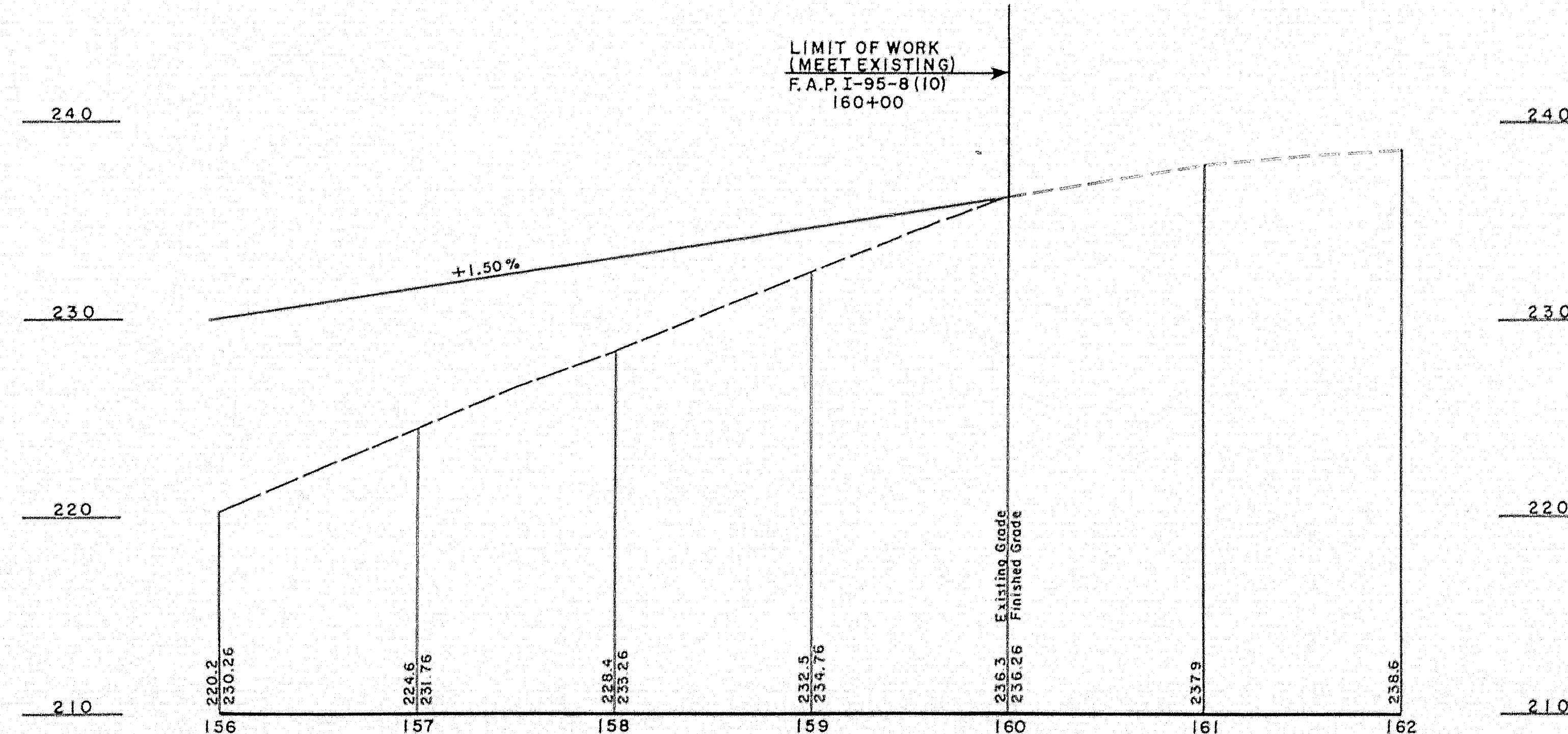
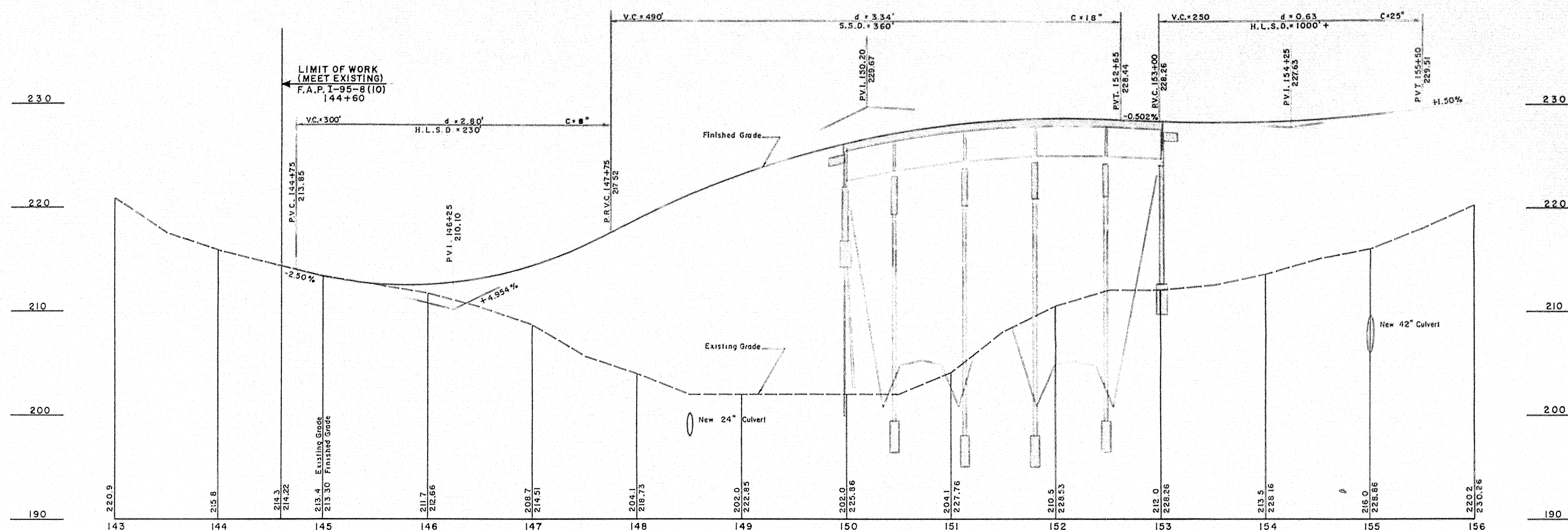
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

79-112



B.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(10)	15	38

ORONO INTERSTATE

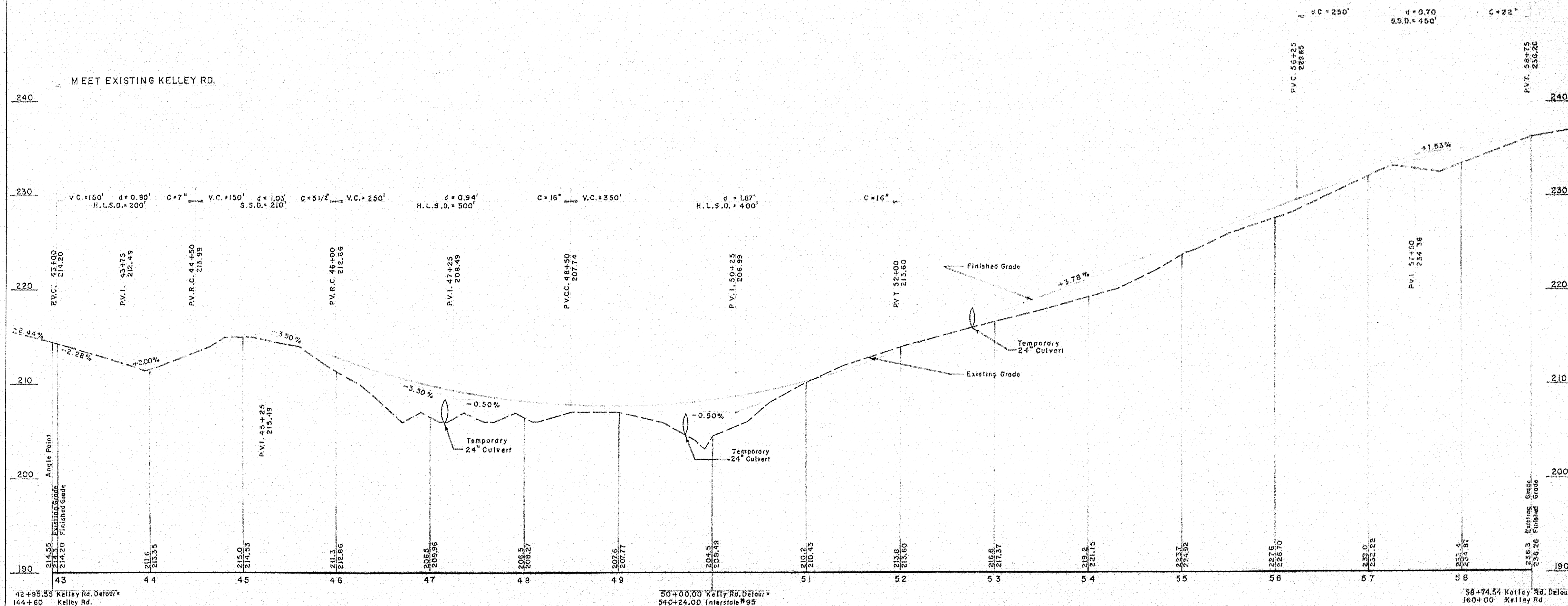


KELLEY ROAD

B.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-B(10)	16	38

ORONO INTERSTATE

MEET EXISTING KELLEY RD.

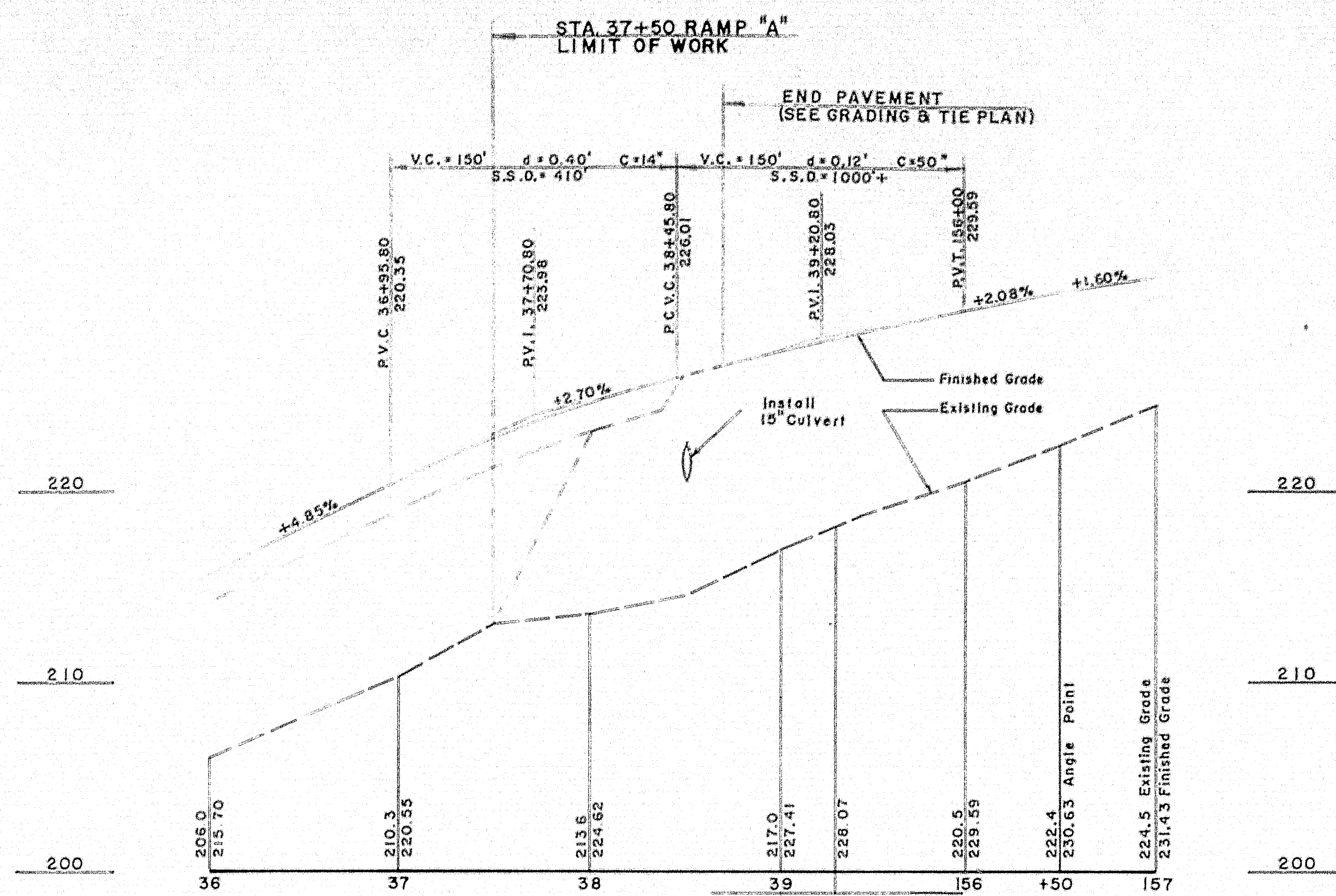


DETOUR-KELLEY ROAD

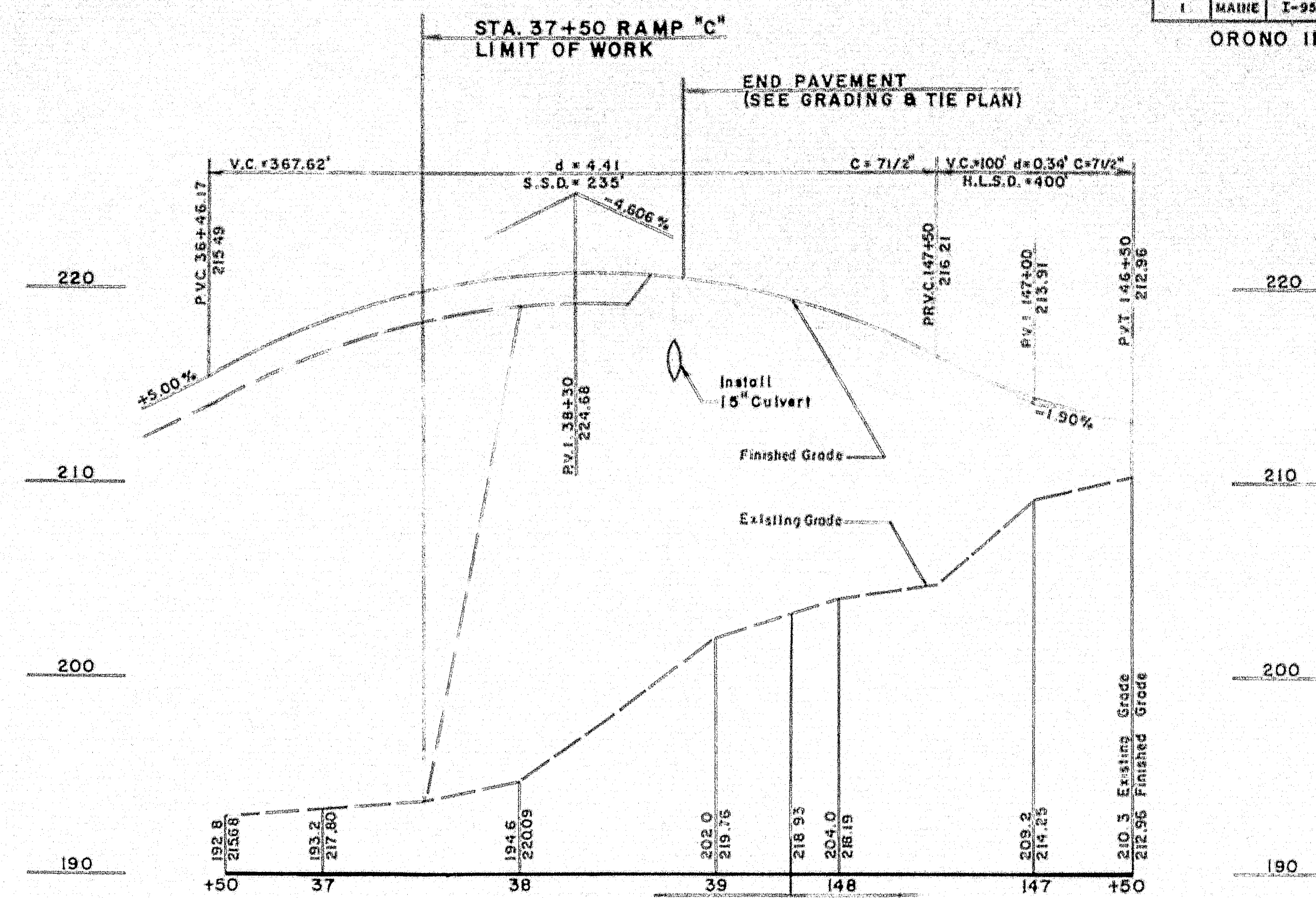
0 1 2 3 4 5 INCHES

B.P.R. RES. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8 (10)	17	38

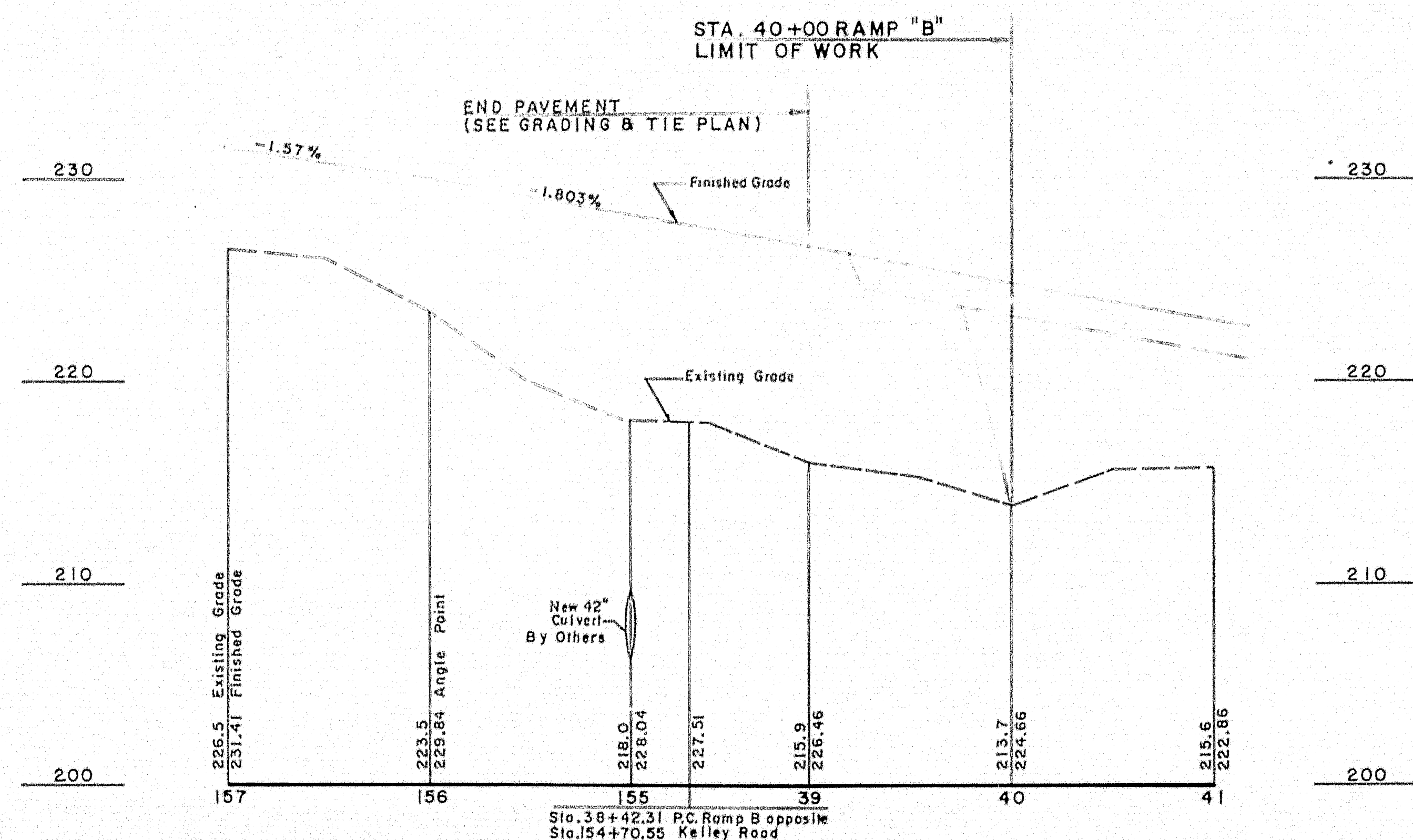
ORONO INTERSTATE



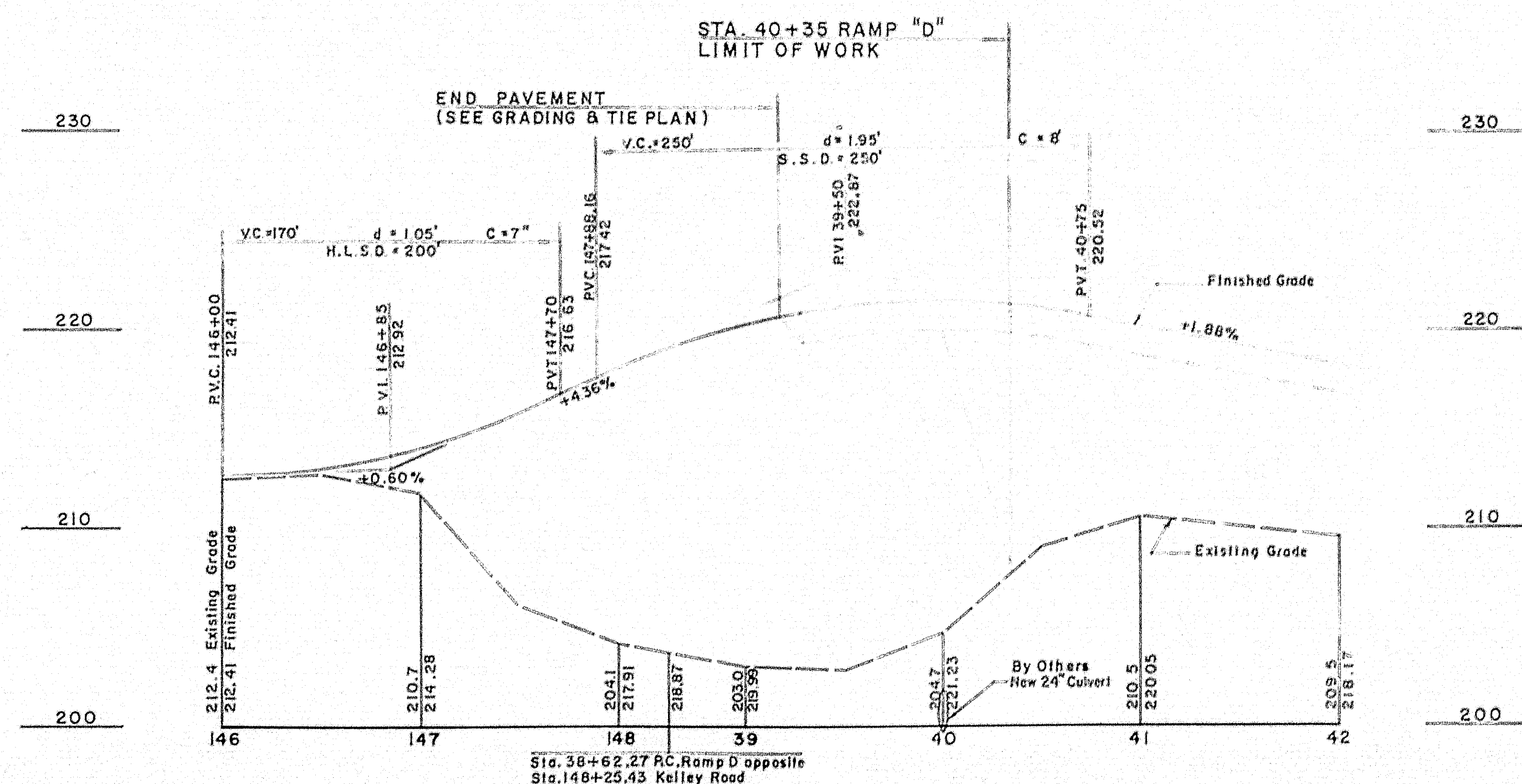
RAMP "A"



RAMP "C"



RAMP "B"



RAMP "D"

KELLEY ROAD INTERCHANGE

0 1 2 3 4 5 INCHES

S.P. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8 (10)	18	38

ORONO INTERSTATE

CURBING
 Install Granite Edging
 Kelley Road
 Sta. 148+85 to 149+15 Lt.
 Sta. 148+87 to 149+12 Rt.
 Ramp C - By Others
 Sta. 38+63 to 38+86 Lt. (2 Island Edges)
 Ramp D - By Others
 Sta. 39+16 to 39+40 Lt. (2 Island Edges)
 Install Granite Edging - Circular
 Kelley Road
 Sta. 148+85 Lt. (R=2')
 Sta. 149+15 Lt. (R=2')
 Sta. 148+87 Rt. (R=2')
 Sta. 149+12 Rt. (R=2')
 Ramp C - By Others
 Sta. 38+63 Lt. (R=2')
 Ramp D - By Others
 Sta. 39+40 Lt. (R=2')
 Install Granite Curb - Type I
 Kelley Road
 Sta. 149+73 to 149+98 Lt.
 Sta. 149+73 to 149+98 Rt.

Ramp C Const.
 $\Delta = 77^\circ 31' - 33^\circ$
 $D = 57^\circ 17' - 45^\circ$
 $T = 80.30'$
 $L = 135.31'$
 $E = 28.26'$
 $R = 100'$

Ramp D Const.
 $\Delta = 77^\circ 02' - 49^\circ$
 $D = 57^\circ 17' - 45^\circ$
 $T = 79.61'$
 $L = 134.47'$
 $E = 27.82'$
 $R = 100'$

LIMIT OF WORK
 MEET EXISTING
 F.A.P. 1-95-8 (10)
 144+60

37+50 RAMP "C"
 LIMIT OF WORK

149+000 Kelley Rd. =
 39+12.92 Ramp C =
 38+88.44 Ramp D =
 LIMIT OF PAVEMENT

LIMIT OF PAVEMENT
 Install Temporary Wooden
 Guard Fence.

40+35 RAMP "D"
 LIMIT OF WORK

538+93.83 Interstate #95 =
 151+46.68 Const. Kelley Rd

NOTES:
 1. Refer to GENERAL PLAN for Existing Detail,
 Layout & Curve Data Sheet 1/2
 2. Spot elevations indicate finished pavement grades.
 3. Interstate #95 and adjacent ramps to be
 constructed to top of Gravel Base Only.

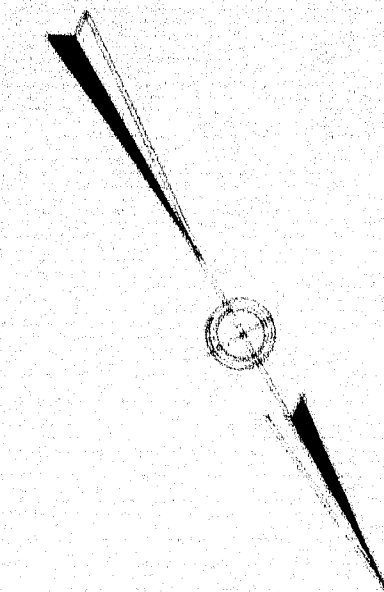
KELLEY ROAD INTERCHANGE
 GRADING AND TIE PLAN
 RAMPS C AND D

Scale: 1" = 30'

0 1 2 3 4 5 INCHES

W.P.R. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	2-95-8(10)	19	38

ORONO INTERSTATE



CURBING

Install Granite Edging
Kelley Road
Sta. 153+78 to 154+08 Rt.
Sta. 154+41 to 154+67 Lt.
Ramp A - By Others
Sta. 38+46 to 38+71 Rt. (2 Island Edges)
Ramp B - By Others
Sta. 39+00 to 39+22 Rt. (2 Island Edges)
Install Granite Edging - Circular
Kelley Road
Sta. 153+78 Rt. (R=2')
Sta. 154+08 Rt. (R=2')
Sta. 154+41 Lt. (R=2')
Sta. 154+67 Lt. (R=2')
Ramp A - By Others
Sta. 38+46 Rt. (R=2')
Ramp B - By Others
Sta. 39+22 Rt. (R=2')
Install Granite Curb - Type I
Kelley Road
Sta. 153+02± to 153+27± Lt.
Sta. 153+02± to 153+27± Rt.

LIMIT OF WORK
(MEET EXISTING)
F.A.P.I-95-8(10)
160+00

Ramp A Const.
Δ = 80°-45'-05"
D = 57°-17'-45"
T = 85.03'
L = 140.94'
E = 31.28'
R = 100'

37+50 RAMP "A"
LIMIT OF WORK

LIMIT OF
PAVEMENT
38+70

Install Temporary Wooden Guard Fence
154+50.00 C Kelley Rd. =
38+98.68 R Ramp A

R = 60'

LIMIT OF
PAVEMENT

LIMIT OF PAVEMENT
Install Temporary Wooden Guard Fence
154+00.00 C Kelley Rd. =
38+69.28 R Ramp B

R = 60'

40+00 RAMP "B"
LIMIT OF WORK

Ramp B Const.
Δ = 75°-01'-07"
D = 57°-17'-45"
T = 76.80'
L = 130.93'
E = 26.06'
R = 100'

KELLEY ROAD INTERCHANGE GRADING AND TIE PLAN RAMPS A AND B

Scale: 1" = 30'

- NOTES:
1. Refer to GENERAL PLAN for Existing Detail, Layout
 2. Curve Data, Sheet 1/4
 3. Spot elevations indicate finished pavement grades.
 4. Interstate #95 and adjacent ramps to be constructed to top of Gravel Base Only.

0 1 2 3 4 5 INCHES

12-8-58
C.R.P.
100' 30'

151+50

200

151+00

200

150+50

200

225.86



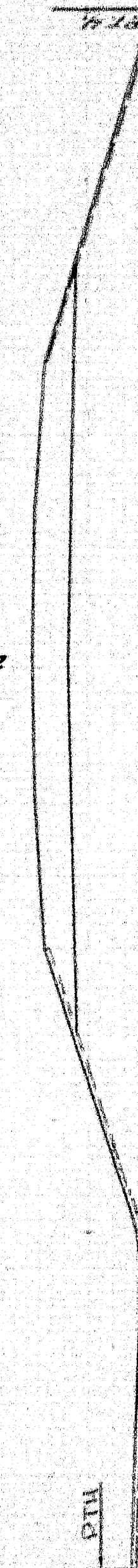
Gravel Barrow under Bridge Abutments
For Limits - See Bridge Plans

150+00

200

22+50

PTM



EMBANKMENT 222 CU. YD.

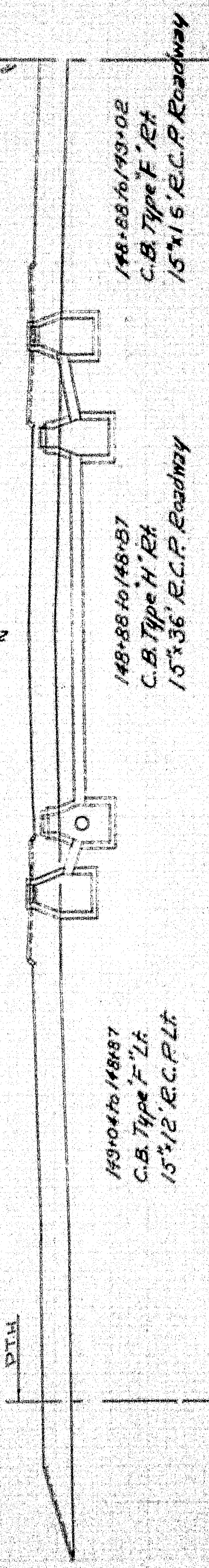
149+50

200

EMBANKMENT 4282 CU. YD.
EARTH EXCAVATION CU. YD.

222.85

PTM



149+04 to 148+87
C.B. Type F 2' Lt
15'x12' R.C.P. Lt

148+88 to 148+87
C.B. Type H 1' Lt
15'x36' R.C.P. Roadway

148+88 to 149+02
C.B. Type F 1' Lt
15'x16' R.C.P. Roadway

149+00

200

148+50 to 148+87
C.B. Type H 2' Lt
15'x36' R.C.P. Roadway
15'x32' ACC.M.P. Lt
2-15'x6' Bends Lt
5-15'x2' Bends Lt
Hand Laid Elongated Curb

EMBANKMENT 4048 CU. YD.
EARTH EXCAVATION 129 CU. YD.

220.93

By Others

148+50

148+50
24'x12' ACC.M.P. Lt
24'x12' R.C.P. Ex. Slip Roadway
24'x14' ACC.M.P. Lt
Metal Endwall 1' Lt
Pipe Connector Lt

EMBANKMENT 2700 CU. YD.
EARTH EXCAVATION 153 CU. YD.

218.73

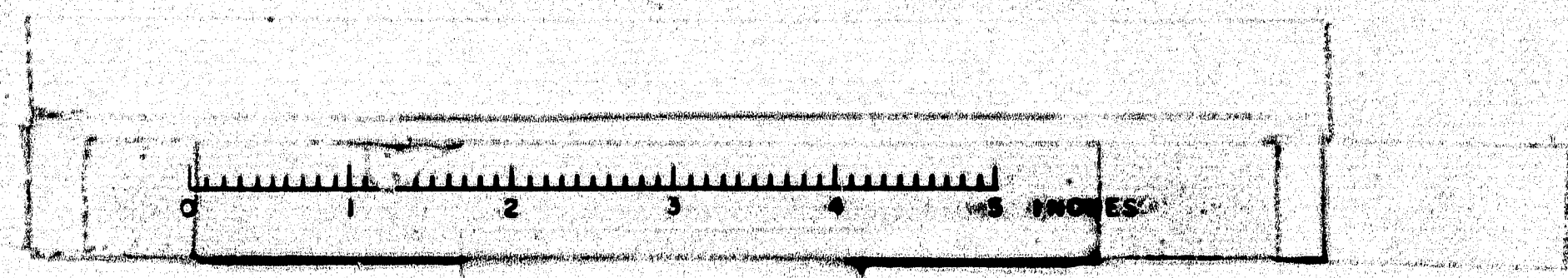
Bar Sill
201.31

148+00

200

EMBANKMENT 100 CU. YD.
EARTH EXCAVATION 100 CU. YD.

STATE	PROJECT NO.	SHEET NO.
MAINE	1-55-8400	11



B.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-84(0)	28	30

230

161+00

230

160+50

160+25
LIMIT OF WORK

230

EARTH EXCAVATION 87 CU. YD.

160+15±
DRIVEWAY LEFT

Construct Driveway Approach
1" Gravel Surface
12" Gravel Base

230

160+00±
DRIVEWAY RIGHT

159+85 to 160+15
15" x 30' A.C.C. M.P.R.A.

160+00
MEET EXISTING

230

EMBANKMENT CU. YD.
EARTH EXCAVATION 144 CU. YD.

24" Maple Sta 159+55± Left
to Barrier

230

EMBANKMENT CU. YD.
EARTH EXCAVATION 159 CU. YD.

2" Sub on 4" Loam

230

EMBANKMENT 22 CU. YD.
EARTH EXCAVATION 128 CU. YD.

2" Sub on 4" Loam

220

EMBANKMENT 118 CU. YD.
EARTH EXCAVATION 96 CU. YD.

220

EMBANKMENT 232 CU. YD.
EARTH EXCAVATION 66 CU. YD.

220

EMBANKMENT 420 CU. YD.
EARTH EXCAVATION 59 CU. YD.

220

EMBANKMENT 539 CU. YD.
EARTH EXCAVATION 46 CU. YD.

210

EMBANKMENT 917 CU. YD.
EARTH EXCAVATION 44 CU. YD.

210

EMBANKMENT 1200 CU. YD.
EARTH EXCAVATION 41 CU. YD.

KELLEY ROAD DETOUR
INTERSTATE #95-ORONO

SHEET NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8110	24	25

EMBANKMENT 83 CU. YD.
EARTH EXCAVATION 4 CU. YD.

47+25
12'x24" x 24" x 24"
Temporary Culvert
(See plan)

EMBANKMENT 150 CU. YD.

EMBANKMENT 218 CU. YD.

EMBANKMENT 222 CU. YD.
EARTH EXCAVATION 18 CU. YD.

EMBANKMENT 54 CU. YD.
EARTH EXCAVATION 137 CU. YD.

EMBANKMENT 2 CU. YD.
EARTH EXCAVATION 235 CU. YD.

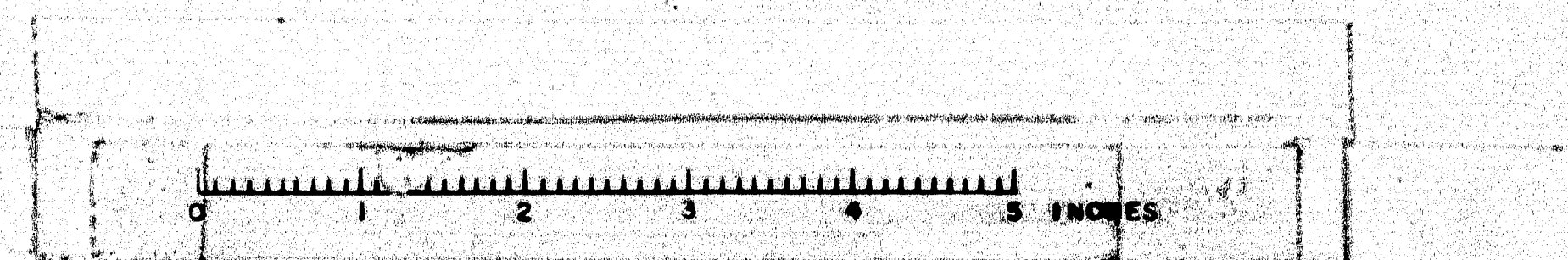
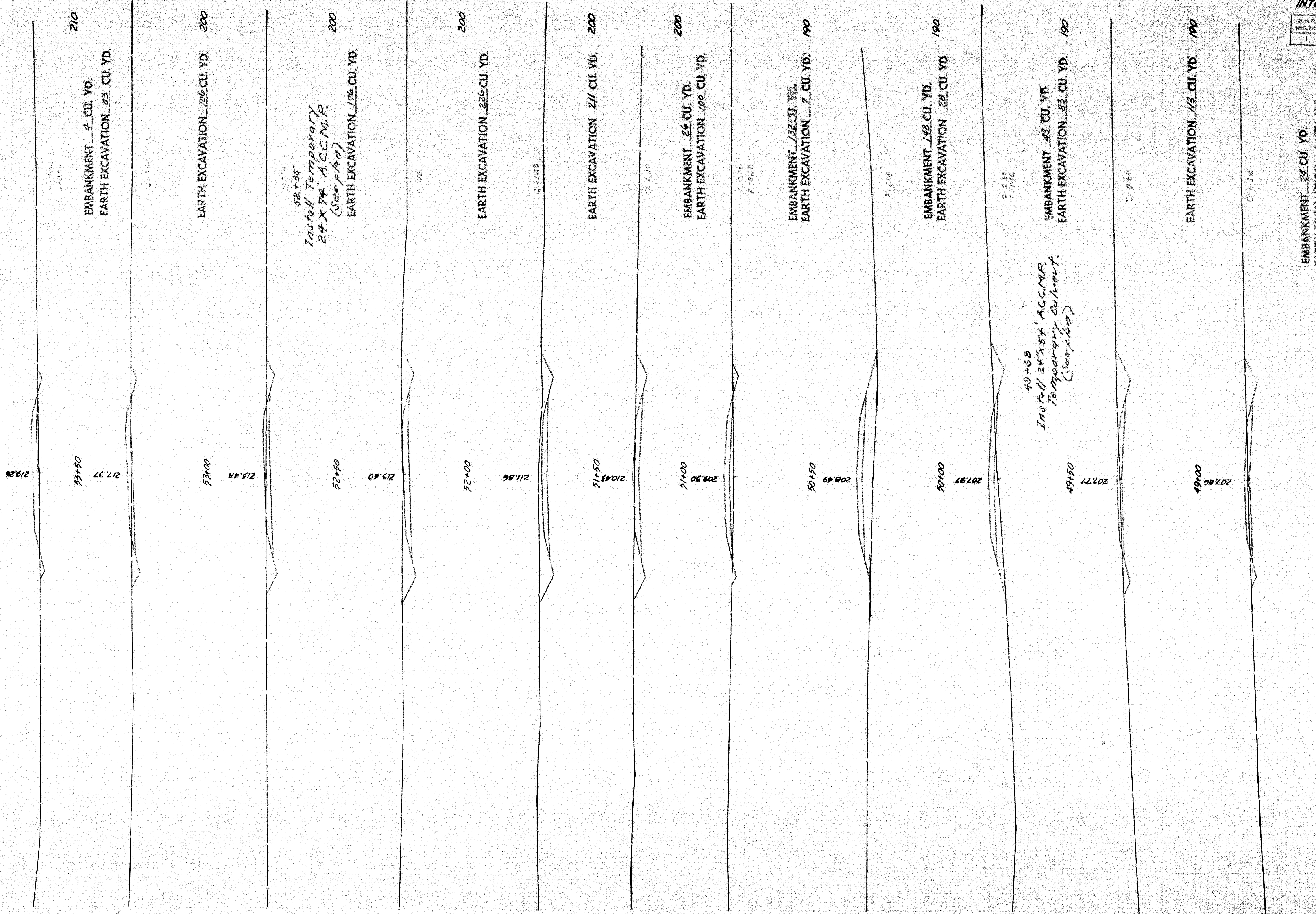
EMBANKMENT 12 CU. YD.
EARTH EXCAVATION 195 CU. YD.

EMBANKMENT 11 CU. YD.
EARTH EXCAVATION 73 CU. YD.

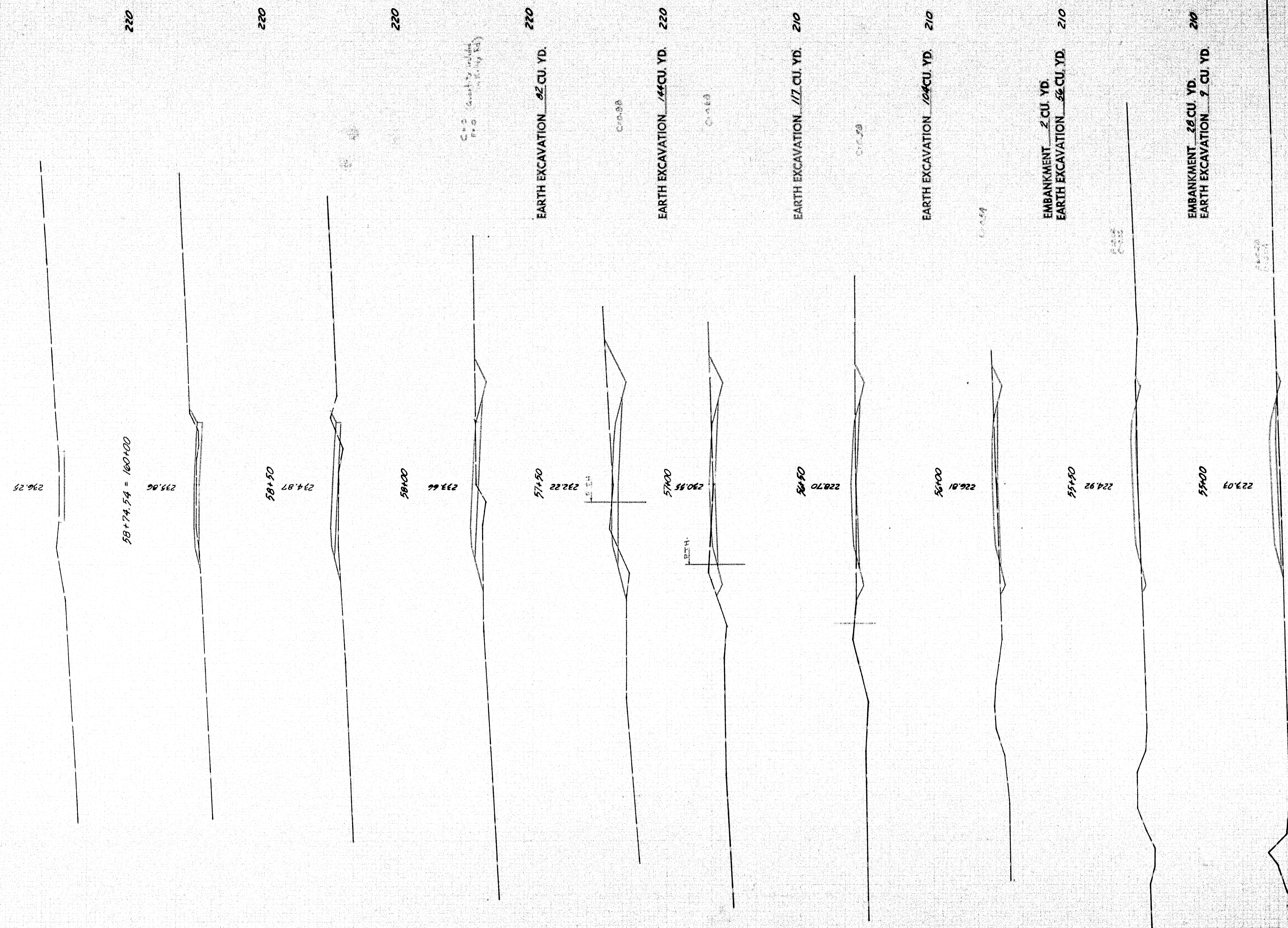
EMBANKMENT 24 CU. YD.
EARTH EXCAVATION 28 CU. YD.

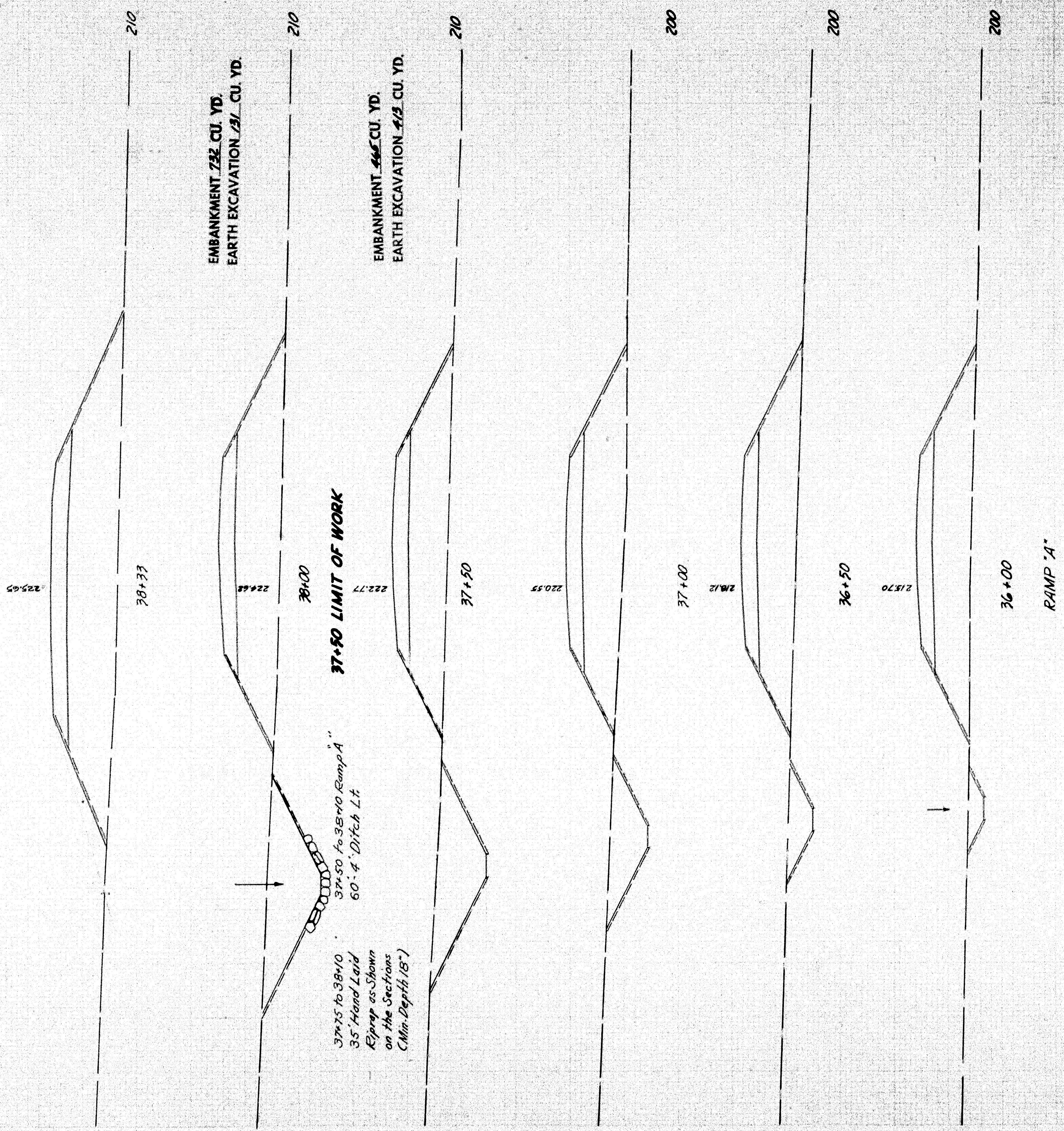
42+95.55 = 144+60

S. P. D. REL. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-65-81(0)	25	38

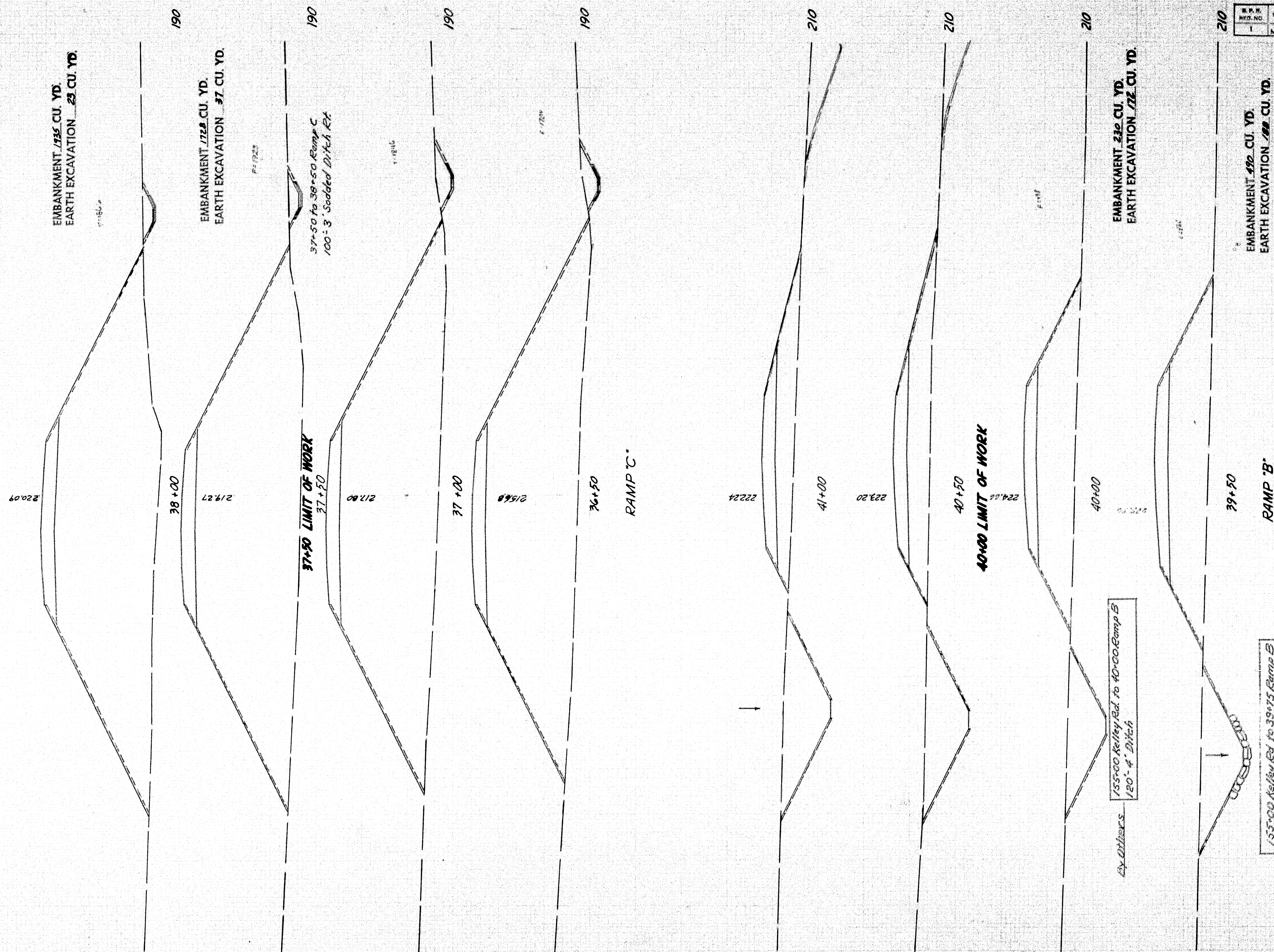


R.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-89(1)	28	38

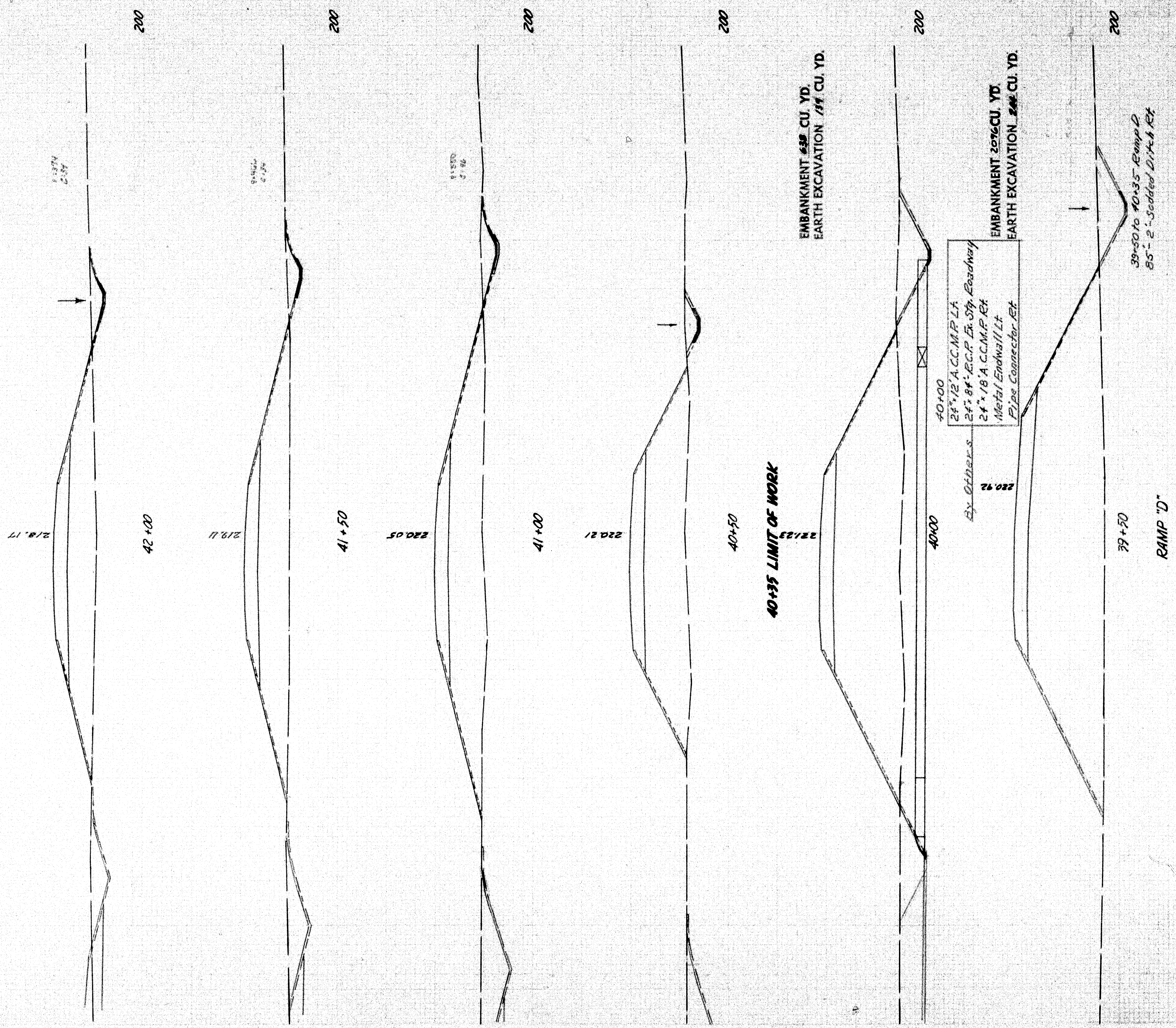




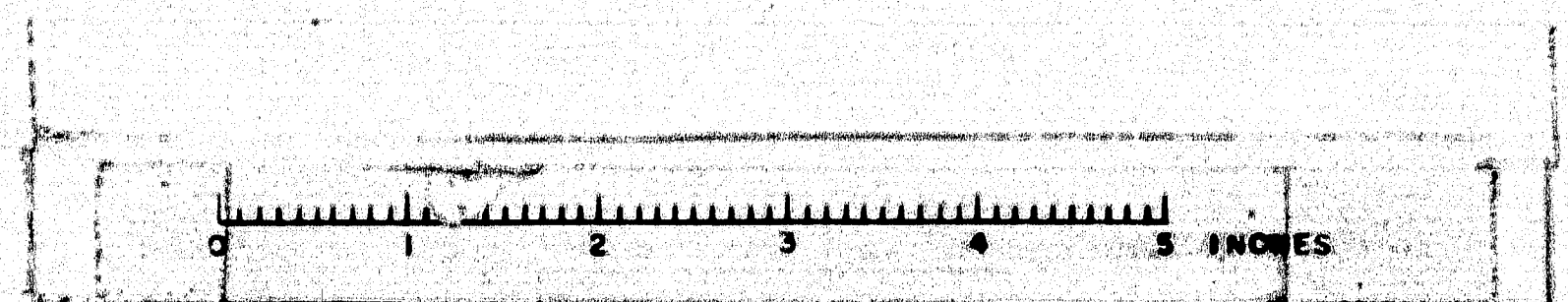
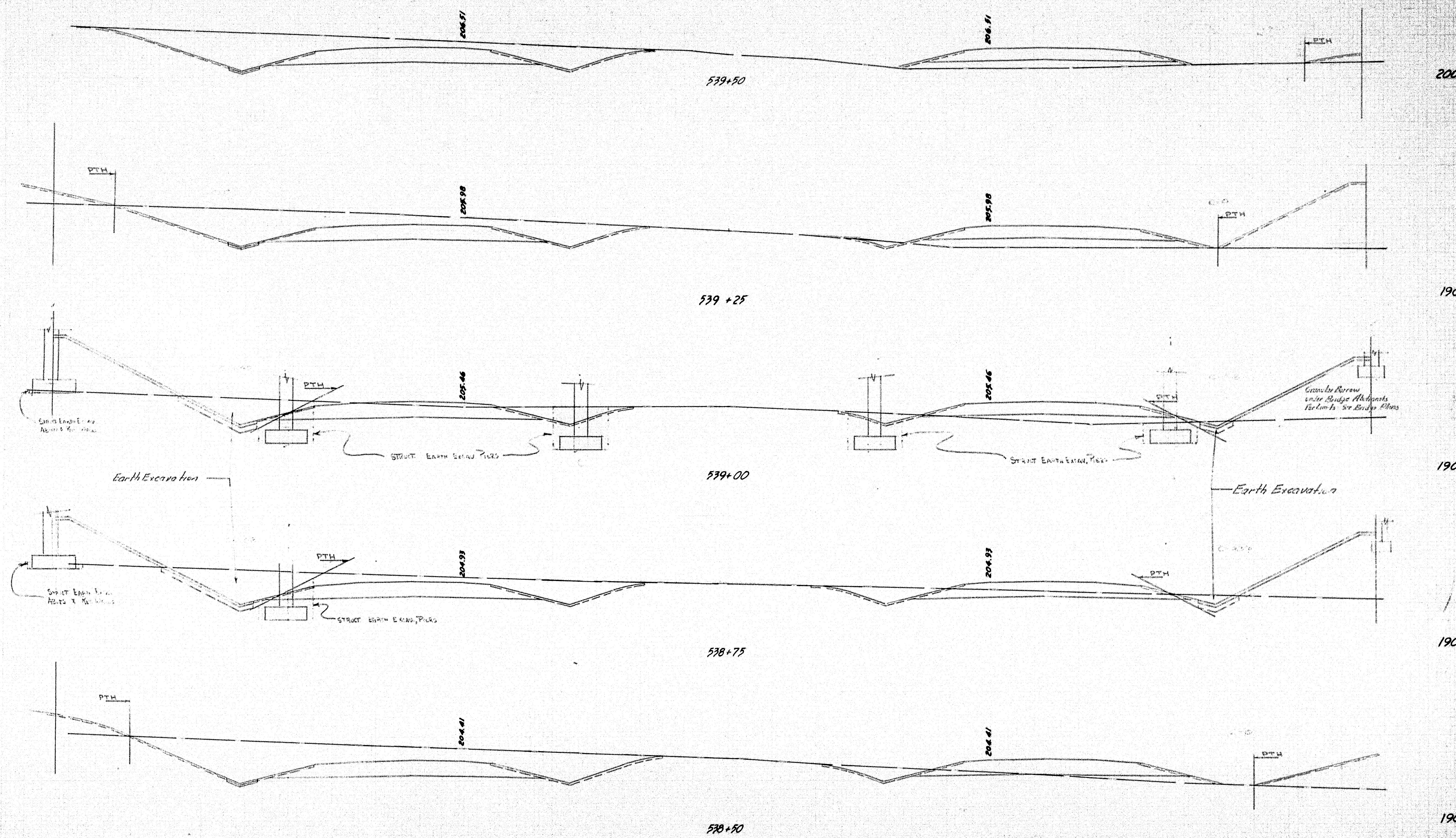
R.F.R. REF. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEET
1	MAINE	1-95-8(2)	28	38



S.P.R. REQ. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-8(10)	29	30



SHEET NO.	DATE	PROJECT NO.	SHEET TOTAL
1	1-95-8110	80	90



R.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(10)	31	38

ORONO INTERSTATE

GENERAL NOTES

FOUNDATION:

Foundations may be altered, if necessary, to suit conditions encountered in construction.

DESIGN:

In accordance with the specifications of the American Association of State Highway Officials for H20-S16-44 loading (1957 Edition) modified for military requirements.

Design Stresses: Structural Steel $f_s = 18,000$ psi
Reinforcing Steel $f_s = 18,000$ psi
Concrete (in situ) $f_c = 1,200$ psi

CONSTRUCTION:

State of Maine Standard Specifications to be followed except as noted in Special Provisions.

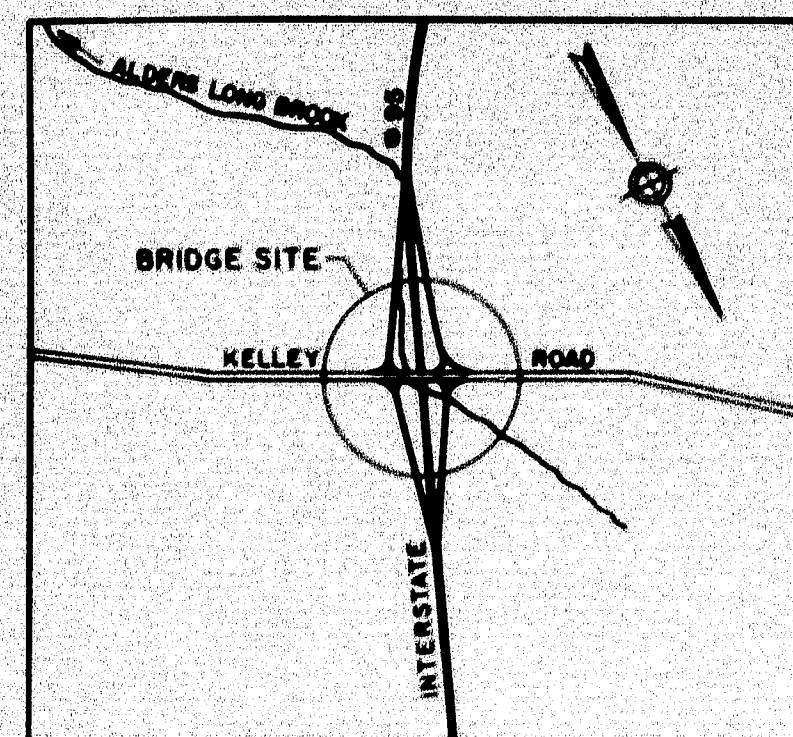
BENCH MARK:

B.M. #1-A Spike in 6" Pine Sta 543+12, 1" P.
Elevation 215.86 U.S.G.S. Datum

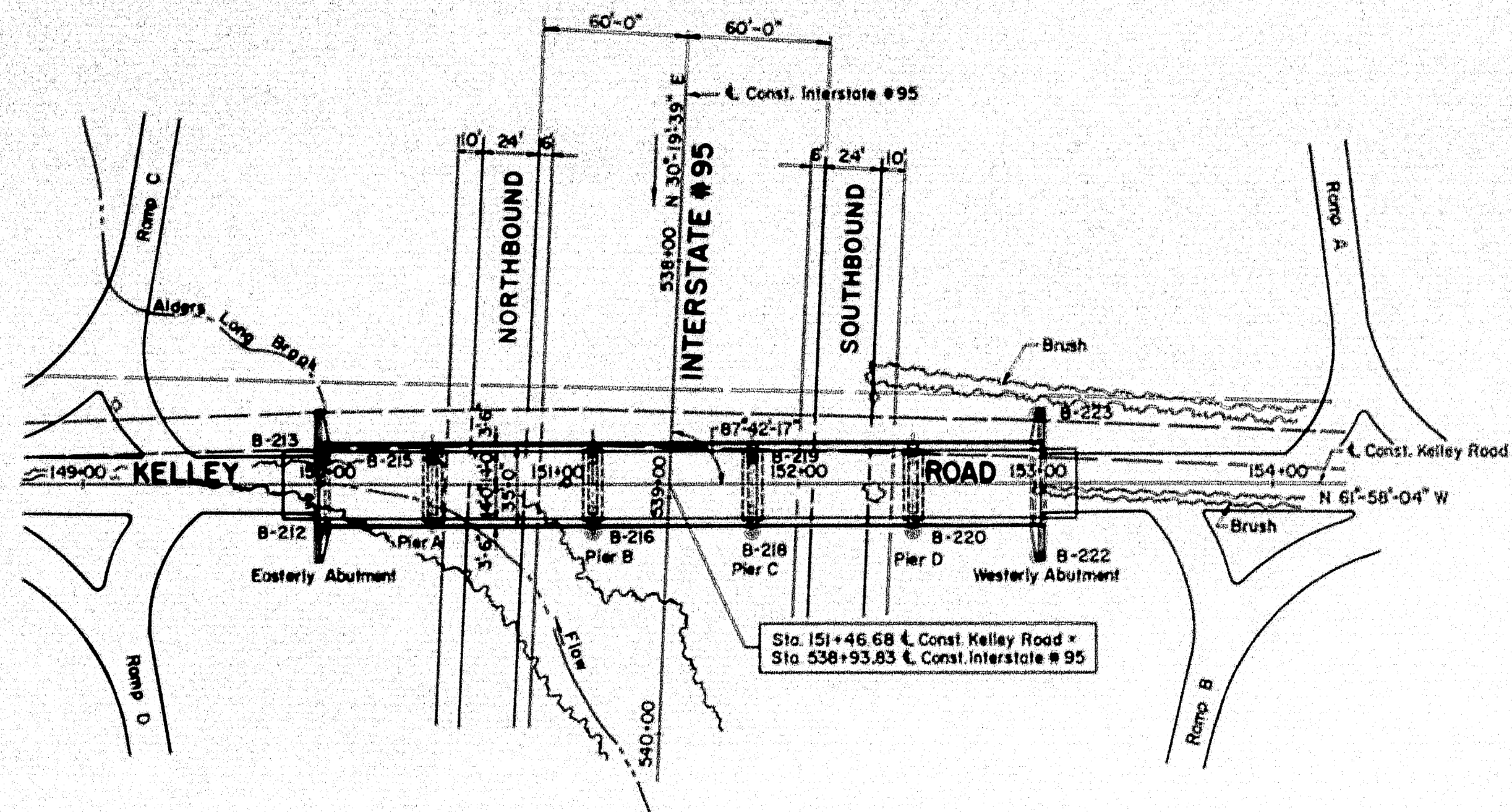
ESTIMATED QUANTITIES

(NOT GUARANTEED)

STRUCTURAL EARTH EXCAVATION, ABUTMENTS AND RETAINING WALLS	85 CU. YDS.
STRUCTURAL EARTH EXCAVATION, PIERS	520 CU. YDS.
GRAVEL BASE COURSE - IN PLACE MEASUREMENT	105 CU. YDS.
BITUMINOUS CONCRETE SURFACE COURSE, TYPE "A"	113 TONS
MEMBRANE WATERPROOFING (3 PLY)	950 SQ. YDS.
PORTLAND CEMENT CONCRETE, ABUTMENTS AND RETAINING WALLS	204 CU. YDS.
PORTLAND CEMENT CONCRETE, PIERS	237 CU. YDS.
PORTLAND CEMENT CONCRETE, ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	400 CU. YDS.
PORTLAND CEMENT	1260 BBLs.
BRIDGE DRAINAGE	1 LUMP SUM
STRUCTURAL STEEL, FABRICATED AND DELIVERED	325,200 LBS.
STRUCTURAL STEEL, ERECTION	325,200 LBS.
REINFORCING STEEL, DELIVERED	125,600 LBS.
REINFORCING STEEL, PLACING	125,600 LBS.
SHEAR CONNECTORS, DELIVERED AND PLACED	1 LUMP SUM
STEEL H-BEAM PILES, 42 LBS PER FOOT	595 LIN. FT.
FRENCH DRAINS	95 CU. YDS.
ALUMINUM RAILING	608 LIN. FT.
SLOPE PAVING FOR BRIDGES	420 SQ. YDS.
GRANULAR BORROW	1,505 CU. YDS.
STRUCTURAL STEEL, FIELD PAINTING	325,200 LBS.

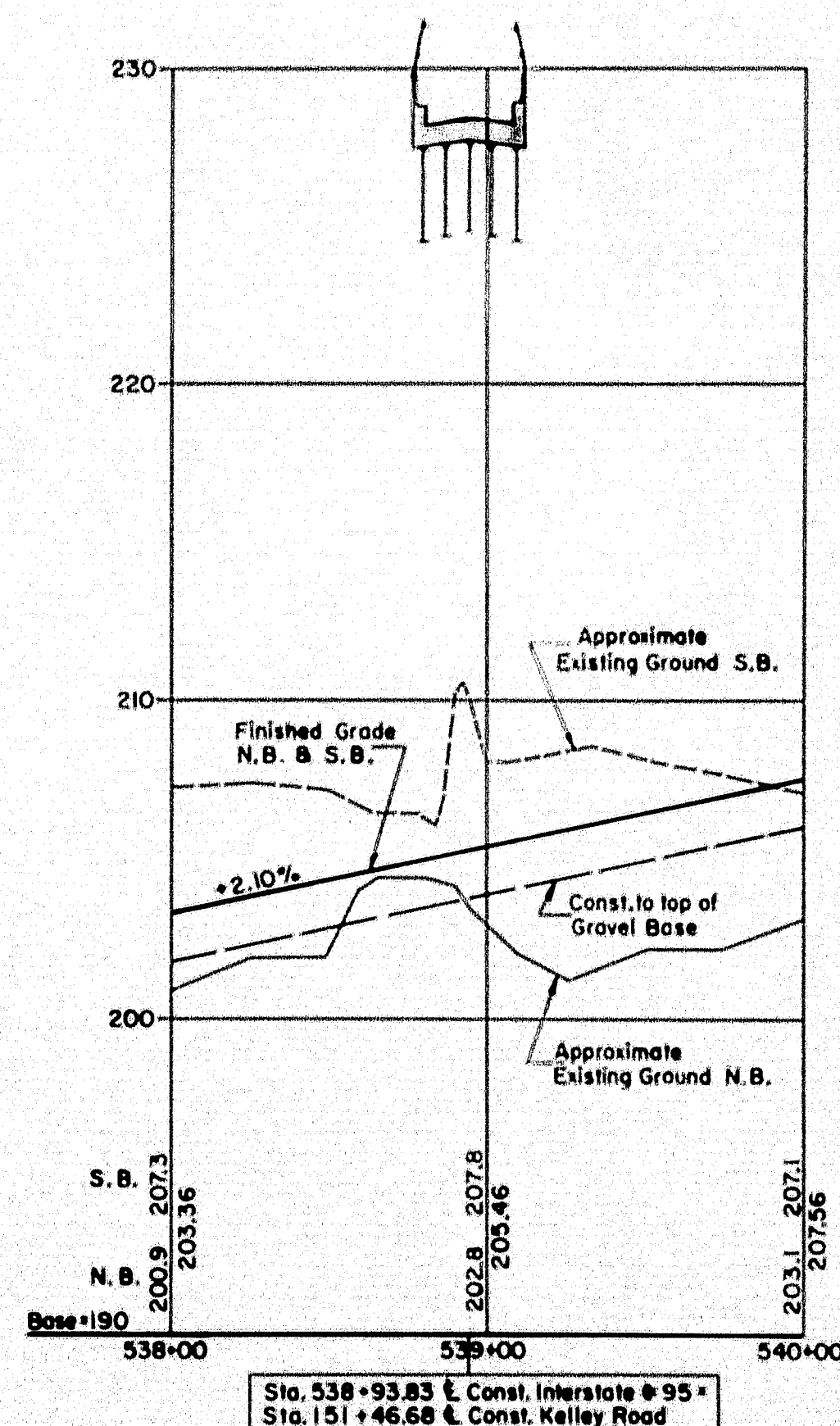


LOCATION MAP
No Scale



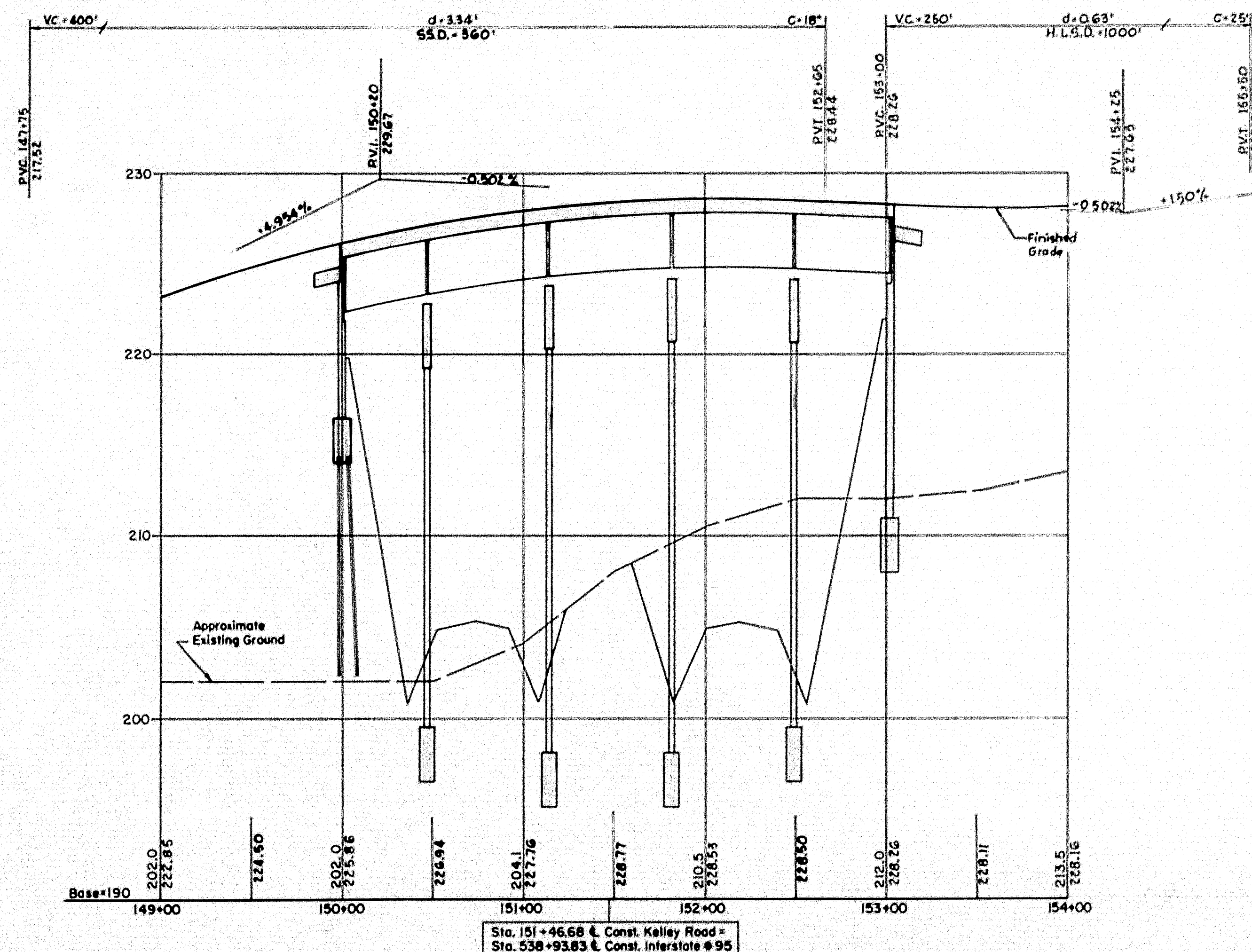
KEY PLAN

Scale 1" = 50'-0"



PROFILE ALONG INTERSTATE #95

Scale: Hor. 1" = 50'-0"
Vert. 1" = 5'-0"



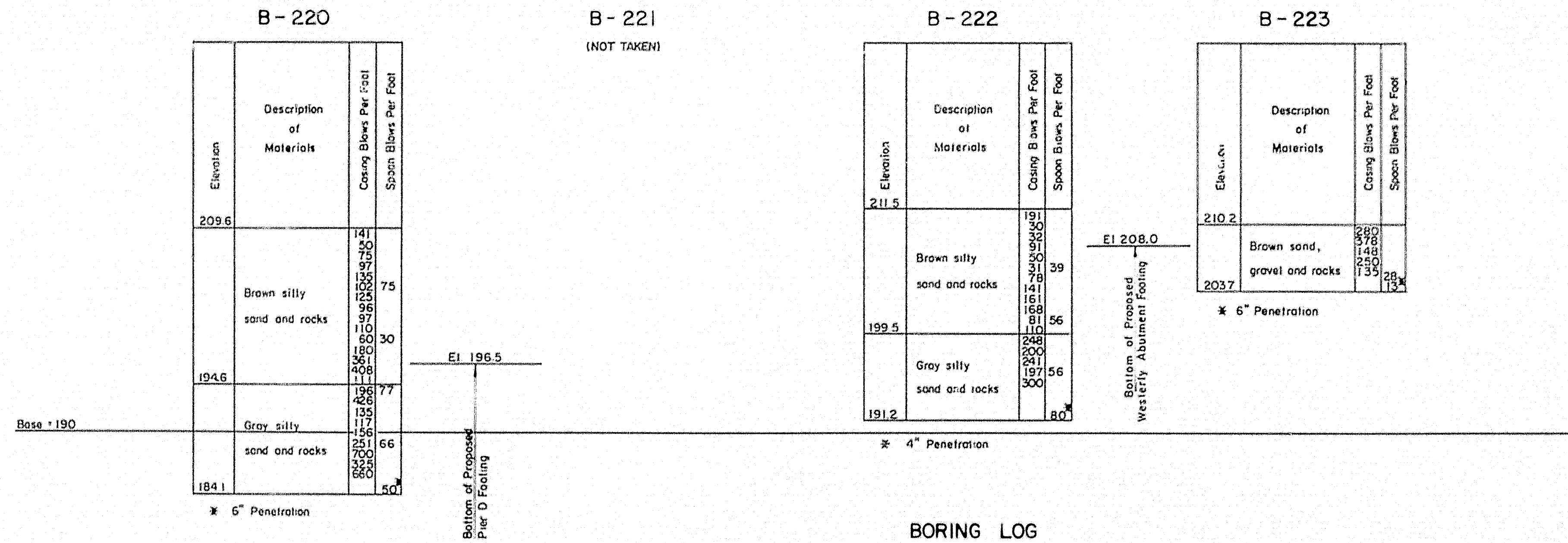
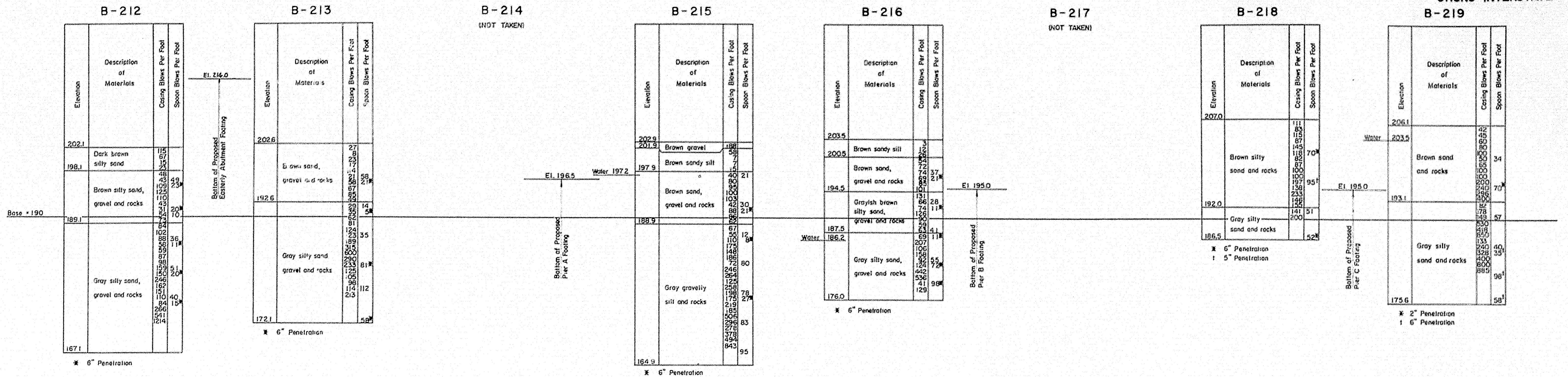
PROFILE ALONG KELLY ROAD

Scale: Hor. 1" = 50'-0"
Vert. 1" = 5'-0"

APPROVED BY *John A. Henderson* DATE 6-12-59
THE CLARKSON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

DESIGN B. J. K.	CHECK D. M. S.	BRIDGE NO.
DRAWN E. K.	APPROVED WAH-C.J.M.	SURVEY PLOT
STATE HIGHWAY COMMISSION		
KELLEY ROAD		
OVER		
INTERSTATE #95		
IN THE CITY OF		
ORONO		
PENOBSCOT COUNTY		
KEY PLAN & PROFILES		
SHEET 1 OF 8 SHEETS		AUGUSTA, MAINE

ORONO INTERSTATE



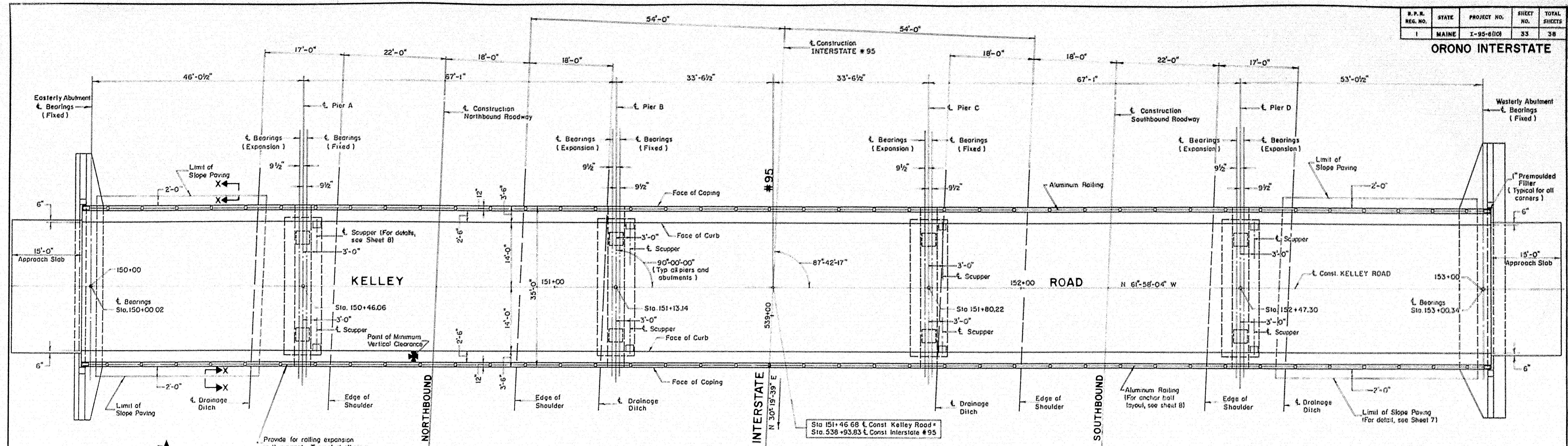
- Notes
- Location of borings are shown on Key Plan thus (B-212)
 - Borings are taken for the purpose of design and show condition at boring points only, but do not necessarily show nature of materials to be encountered during construction
 - Figures in boring columns indicate blows per foot on 2 1/2" casing or 1" spoon produced by
 - 10 lb hammer with a fall of 16" and 14" respectively for B-212, B-213, B-215, B-216, B-223
 - 35 lb hammer with a fall of 14" and 12" respectively for B-218, B-220, B-222
 - The Contractor is to form his own opinion of the character of the material, and to make his own interpretation of the borings
 - The Engineer does not warrant the findings as being accurate or complete
 - Borings were taken by the Maine State Highway Commission during the months of January 1959 and February 1959.

BORING LOG
Scale 1/4" = 1' - 0"

THE CLARKESON ENGINEERING CO., INC.		
DESIGN	CHECK H.P.	BRIDGE NO.
DRAWN S.A.L.	APPROVED W.A.H. - C.J.M.	SURVEY
STATE HIGHWAY COMMISSION		
KELLEY ROAD		
OVER		
INTERSTATE #95		
IN THE CITY OF		
ORONO		
PENOBSCOT COUNTY		
BORING LOG		
SHEET 2 OF 8 SHEETS		AUGUSTA, MAINE

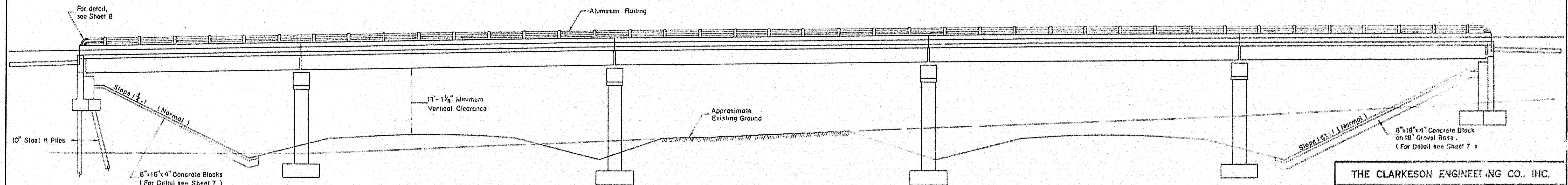
W.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-6101	33	38

ORONO INTERSTATE



GENERAL PLAN

Scale: 1" = 10'-0"

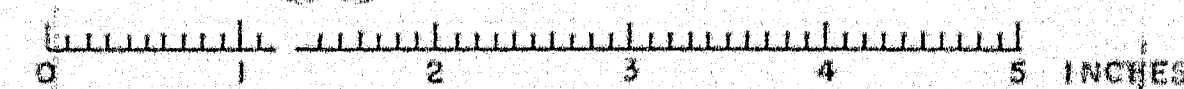


GENERAL ELEVATION

Scale: 1" = 10'-0"

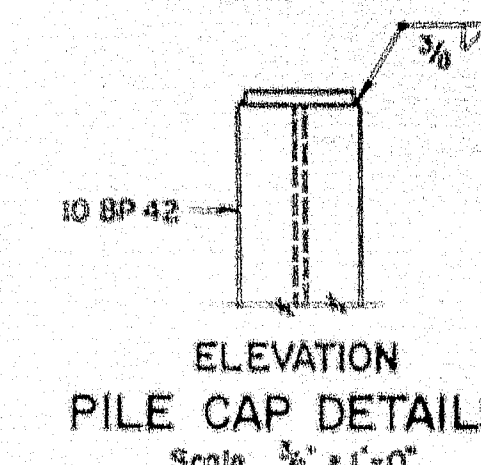
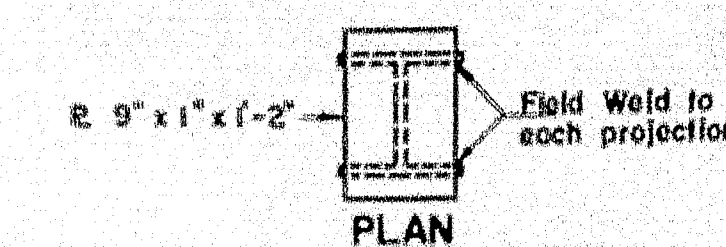
THE CLARKESON ENGINEERING CO., INC.			
DESIGN	B. J. K.	CHECK	D. M. S.
DRAWN	E. K.	APPROVED	W. A. H. - C. J. M.
STATE HIGHWAY COMMISSION		BRIDGE NO. SURVEY PLOT	
KELLEY ROAD			
OVER			
INTERSTATE # 95			
IN THE CITY OF			
ORONO			
PENOBSCOT COUNTY			
GENERAL PLAN & ELEVATION			
SHEET 3 OF 8 SHEETS		AUGUSTA, MAINE	

79-132

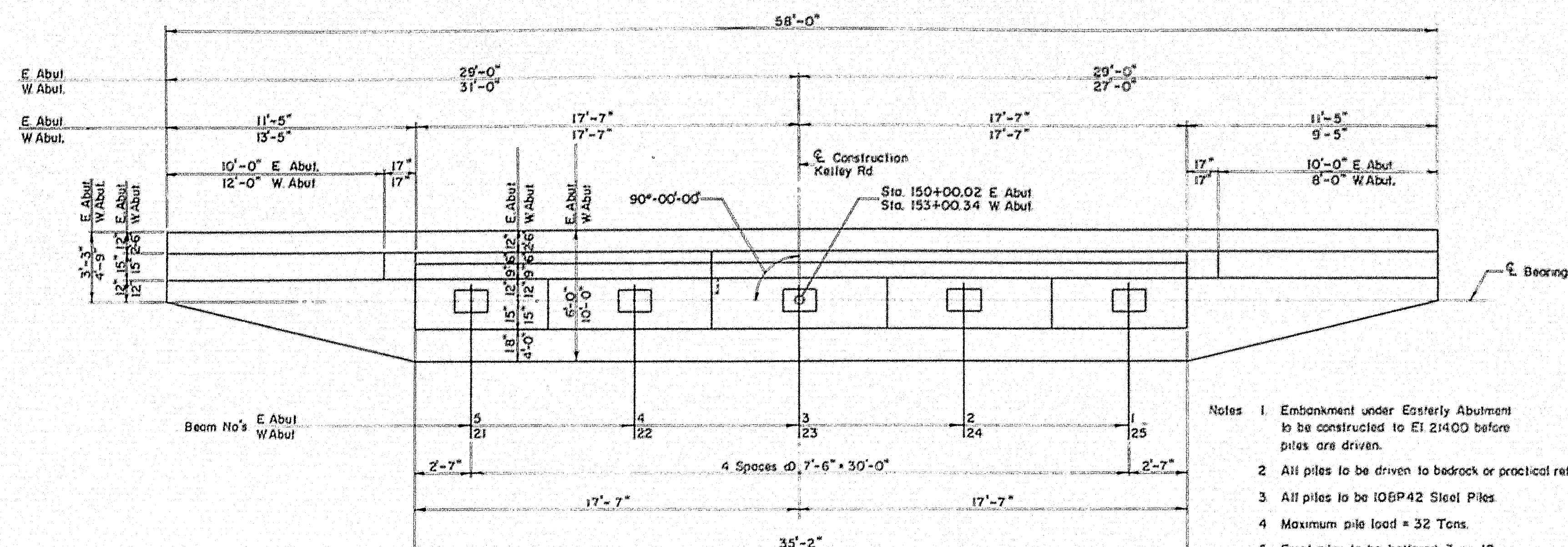


S.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	2-95-8 (10)	34	38

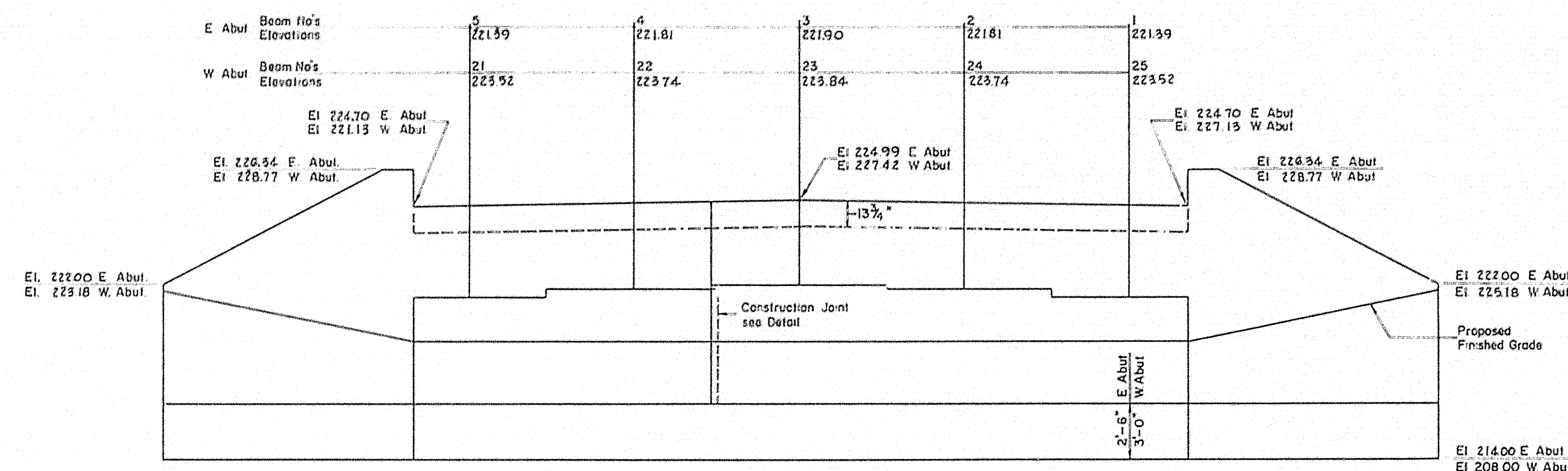
ORONO INTERSTATE



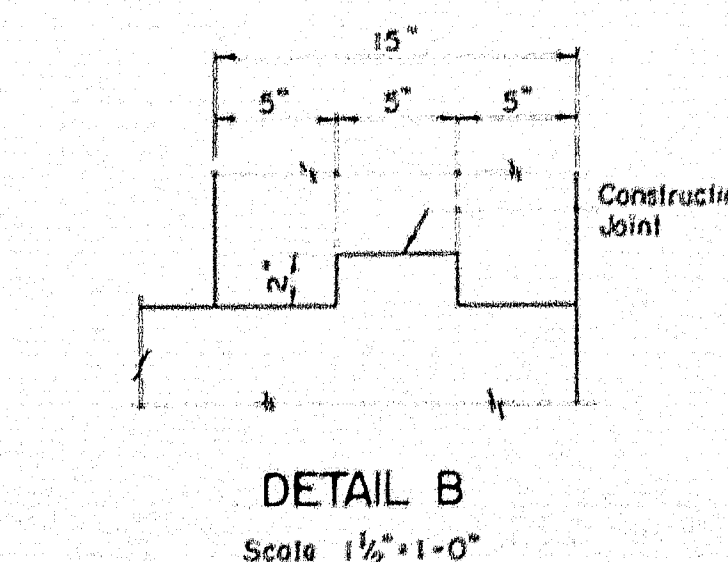
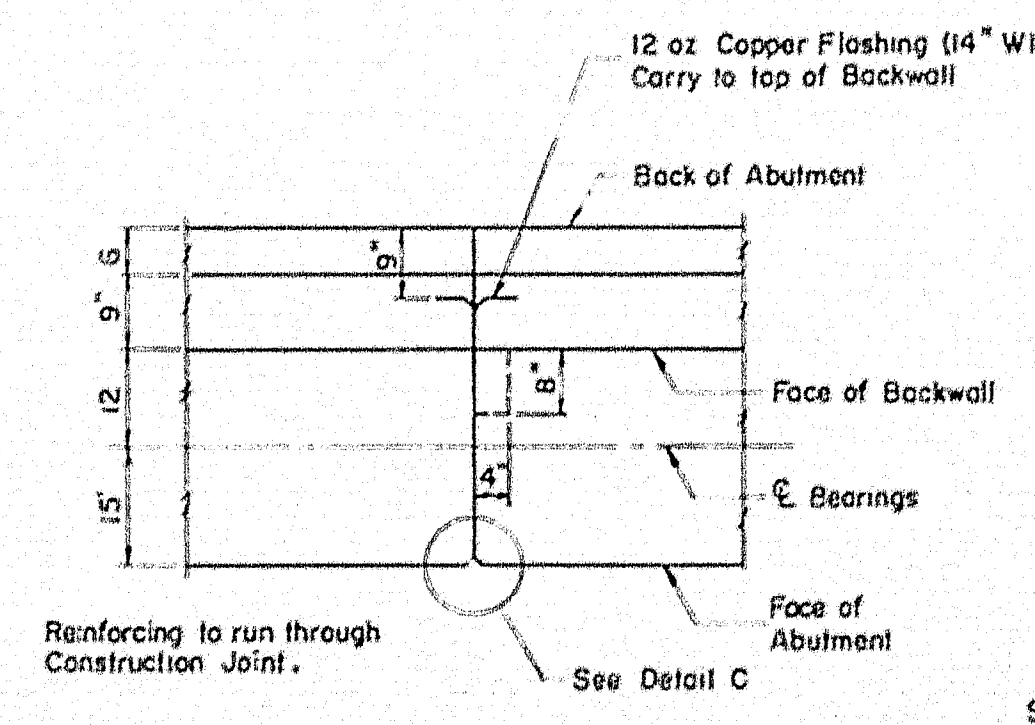
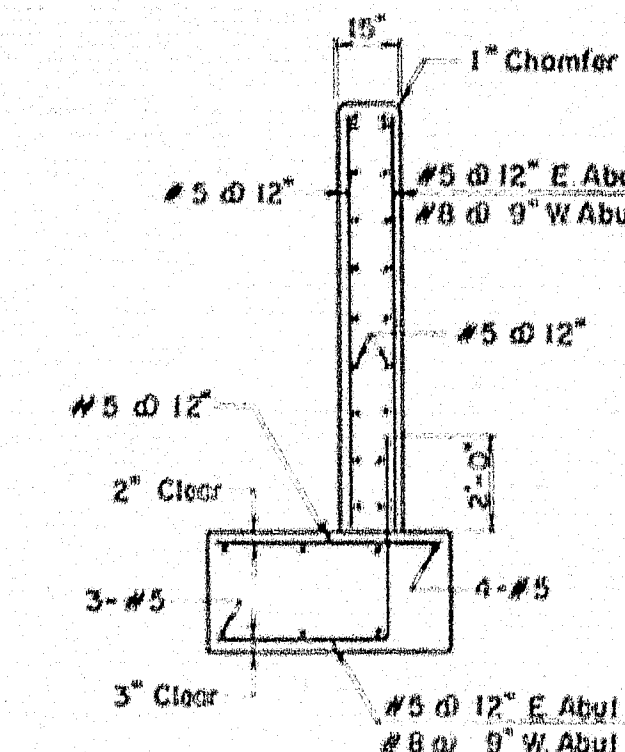
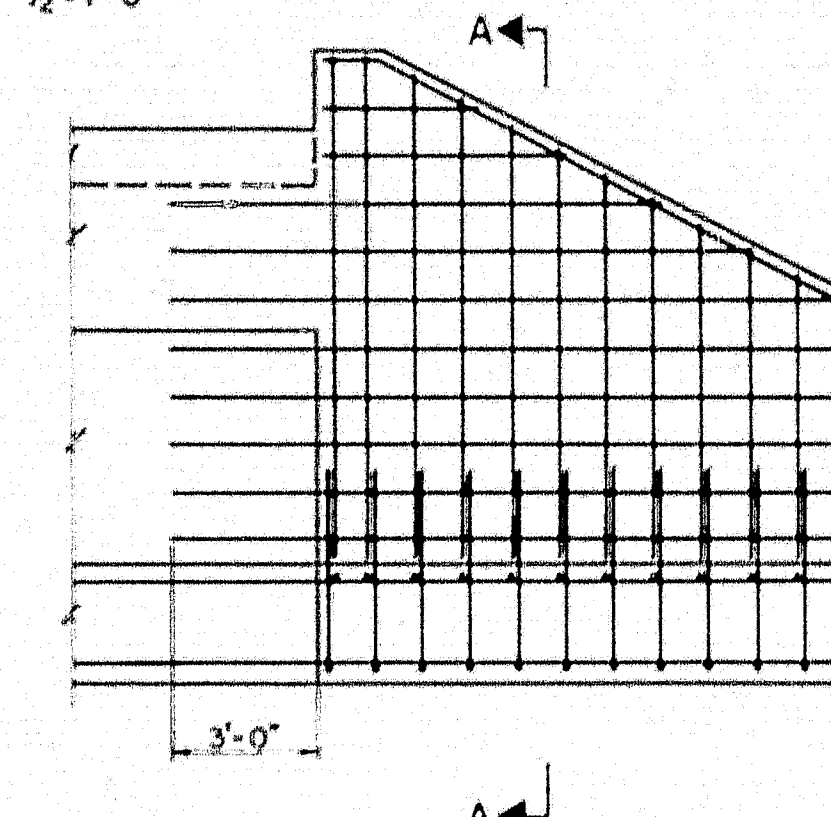
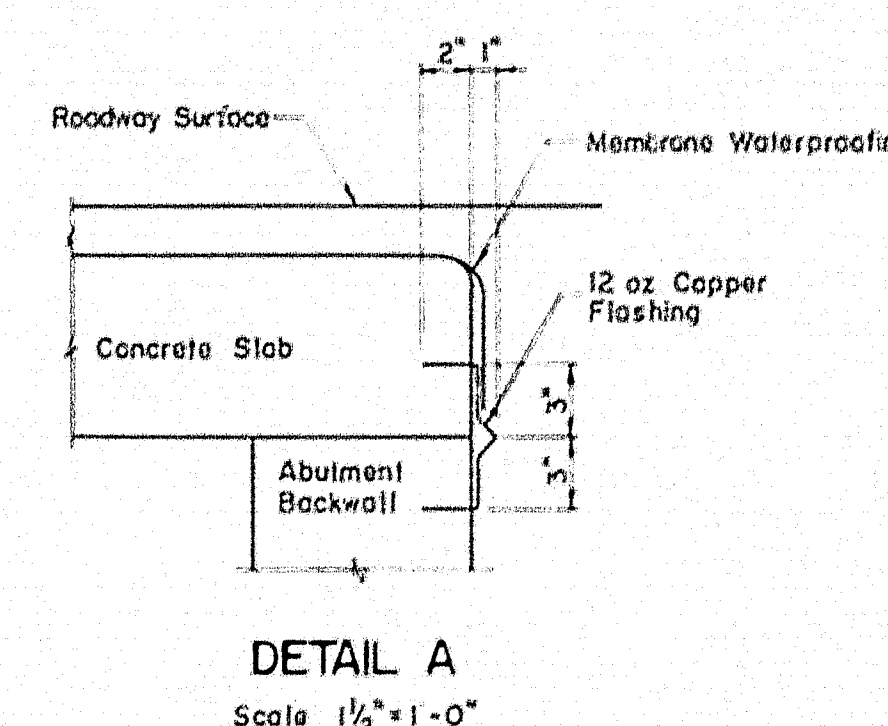
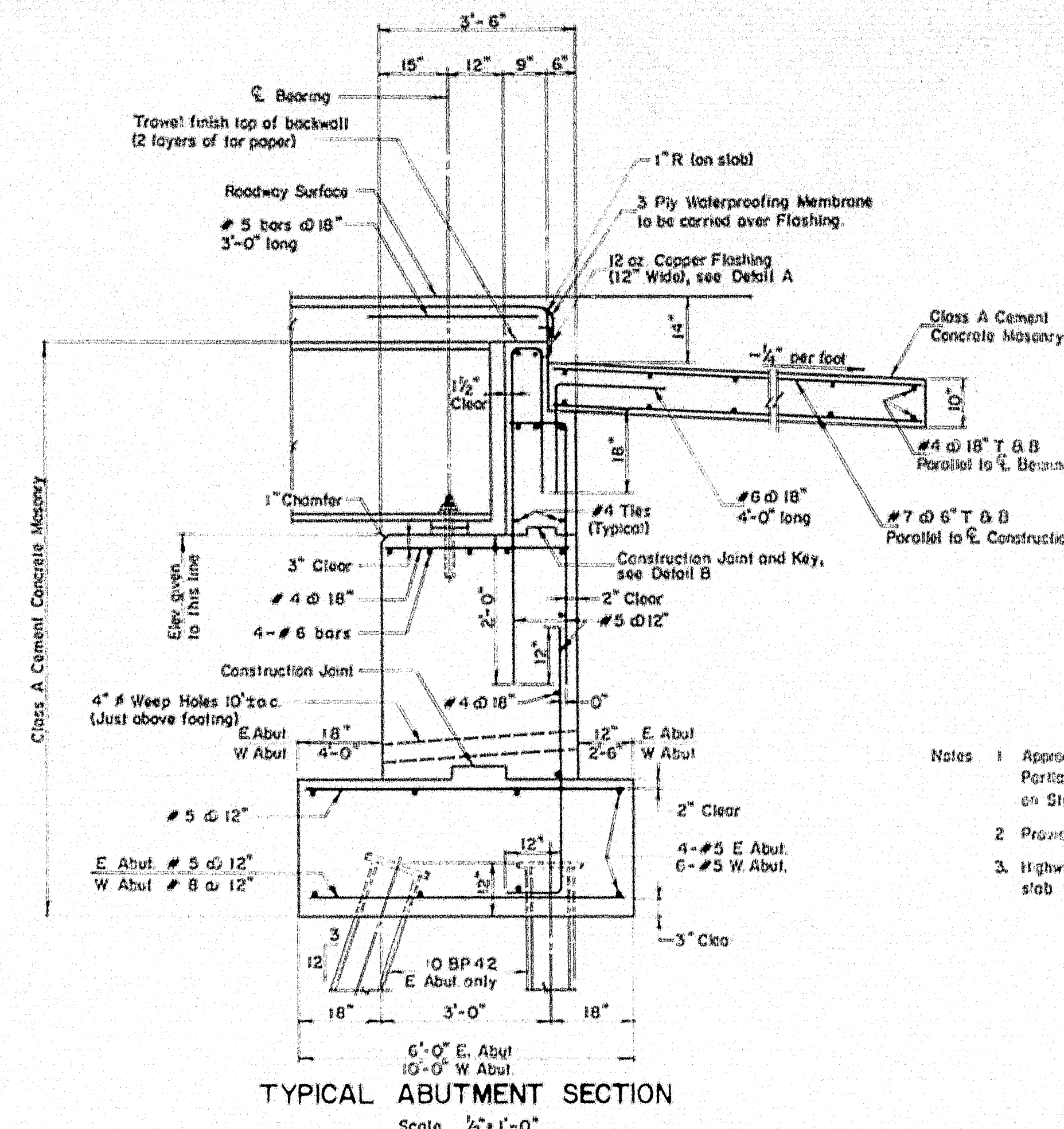
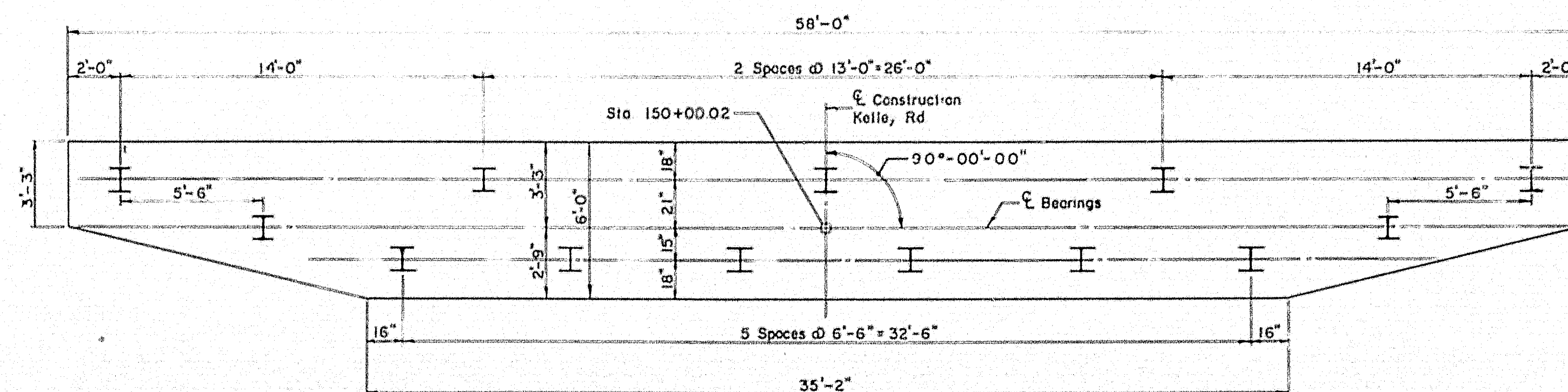
- Notes:
- Approach Slab shall be paid for under Item 701-40, Portland Cement Concrete Roadway and Sidewalk Slabs on Steel Bridges.
 - Provide French Drains behind abutments.
 - Highway gravel base to be continued under approach slab to meet French Drain.



- Notes:
- Embankment under Easterly Abutment to be constructed to El 21400 before piles are driven.
 - All piles to be driven to bedrock or practical refusal.
 - All piles to be 106P42 Steel Piles.
 - Maximum pile load = 32 Tons.
 - Front piles to be battered 3 on 12.
 - Cap all piles (See detail).
 - Piles to be used in Easterly Abutment only.
 - Maximum bearing pressure Westerly Abutment 4600 lbs. per sq. ft.

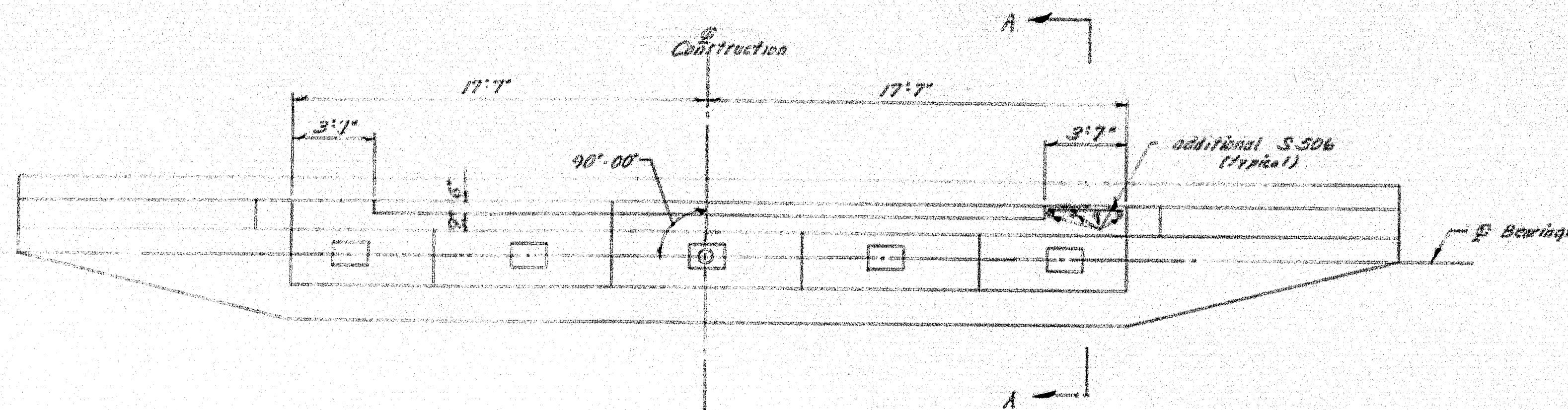


Note:
Provide sleeves for utilities through abutment backwall.
Location of sleeves to be determined in field.

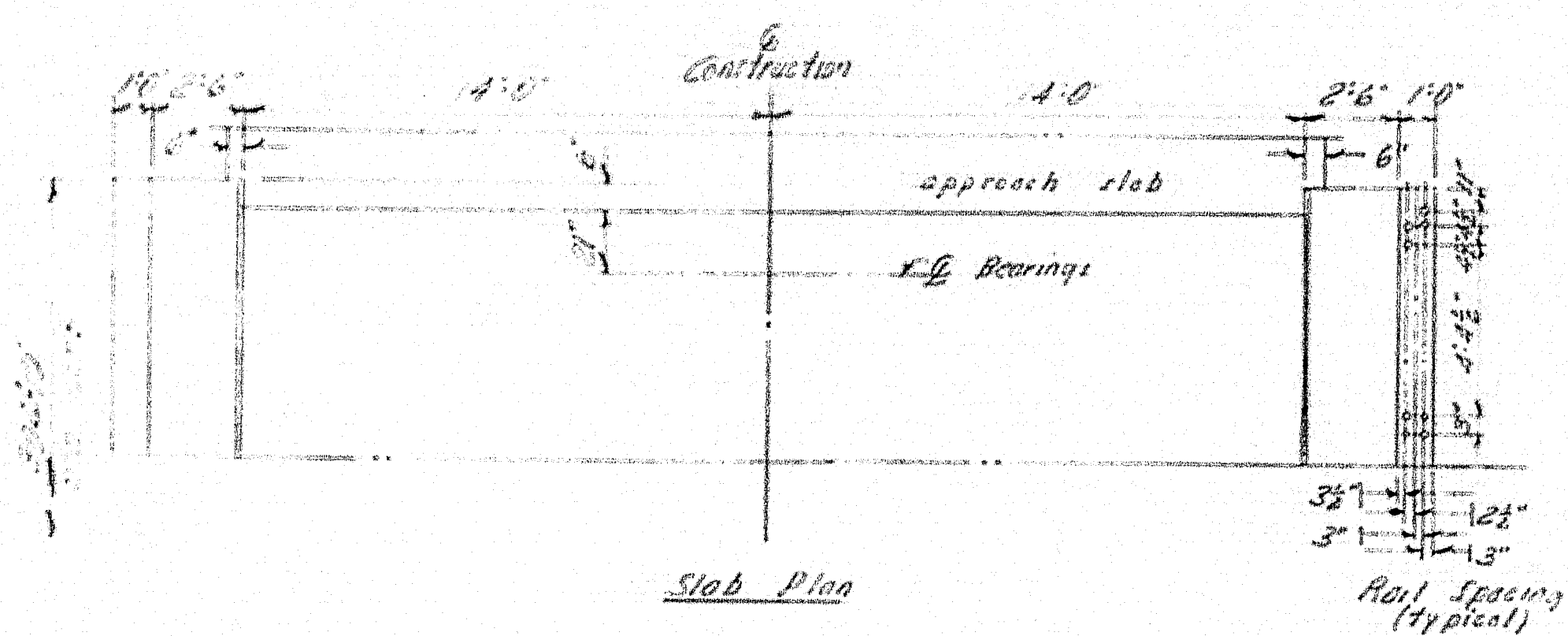


- Notes:
- Concrete in backwall not to be placed until Structural Steel has been erected.
 - Construction joint to be at or above Bridge Seat Elevations.

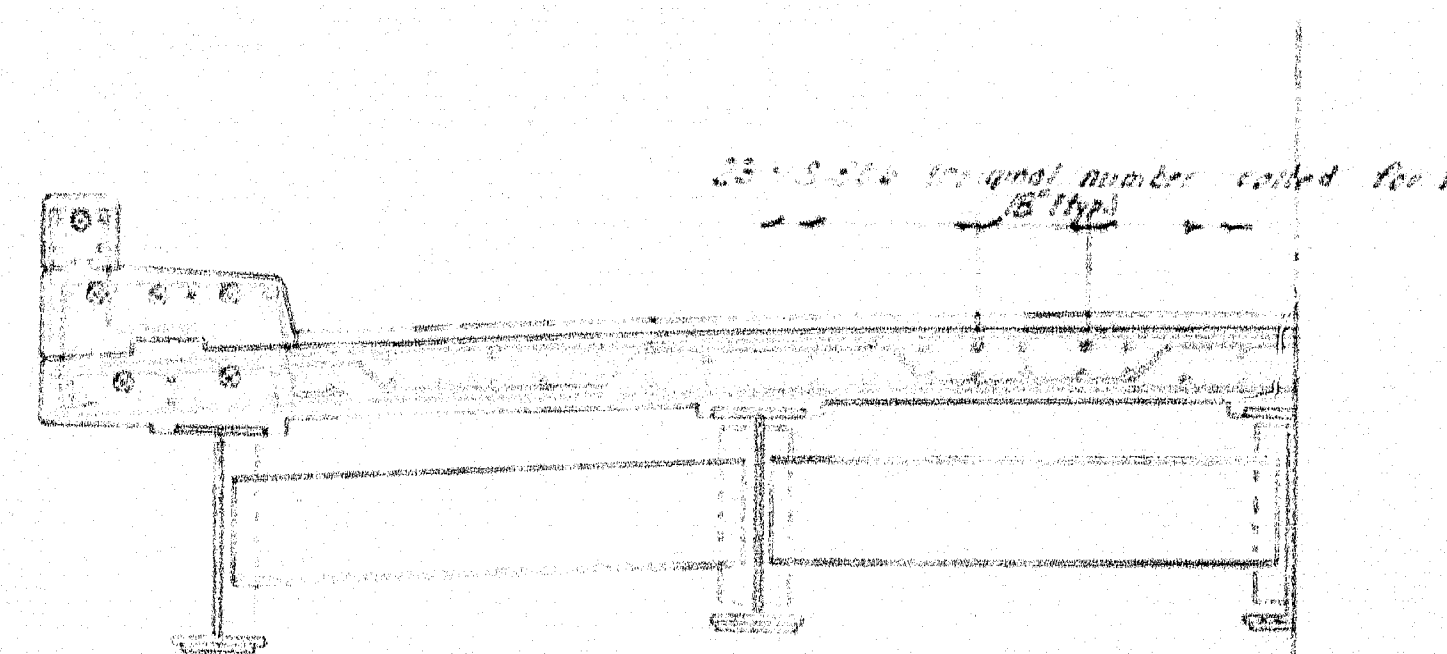
THE CLARKSON ENGINEERING CO., INC.			
DESIGN B.J.K.	CHECK D.M.S.	BRIDGE NO.	
DRAWN S.A.L.	APPROVED W.A.H.-C.J.M.	SURVEY PLOT	
STATE HIGHWAY COMMISSION			
KELLEY ROAD			
OVER			
INTERSTATE #95			
IN THE CITY OF			
ORONO			
PENOBSCOT COUNTY			
ABUTMENTS			
SHEET 4 OF 8 SHEETS		AUGUSTA, MAINE	



Abutment Plan Revision
(both similar)

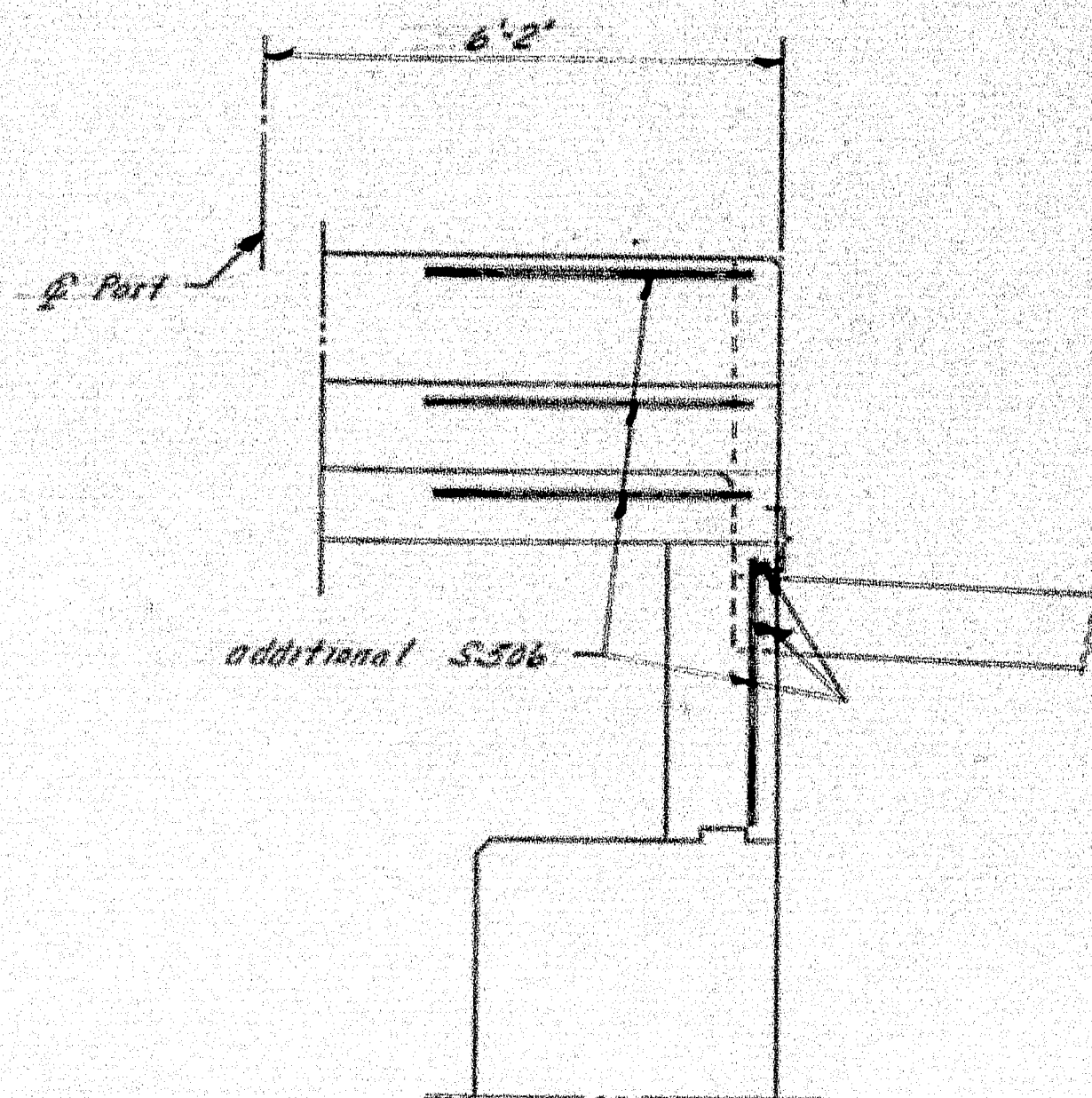


Slab Plan



Typical Cross Section

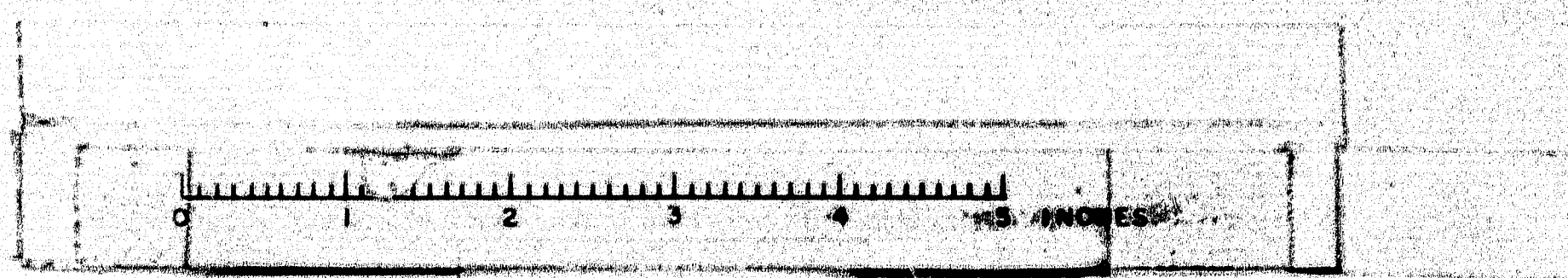
* indicates additional S-506
required : 48 - S-506 - 45 x 3'-0"
∴ Total S-506 = 94 bars



Section A-A

Kelley Road	
Orono	
abutment, deck, revisions additional steel	
Mollicone	June 1960
WJA	

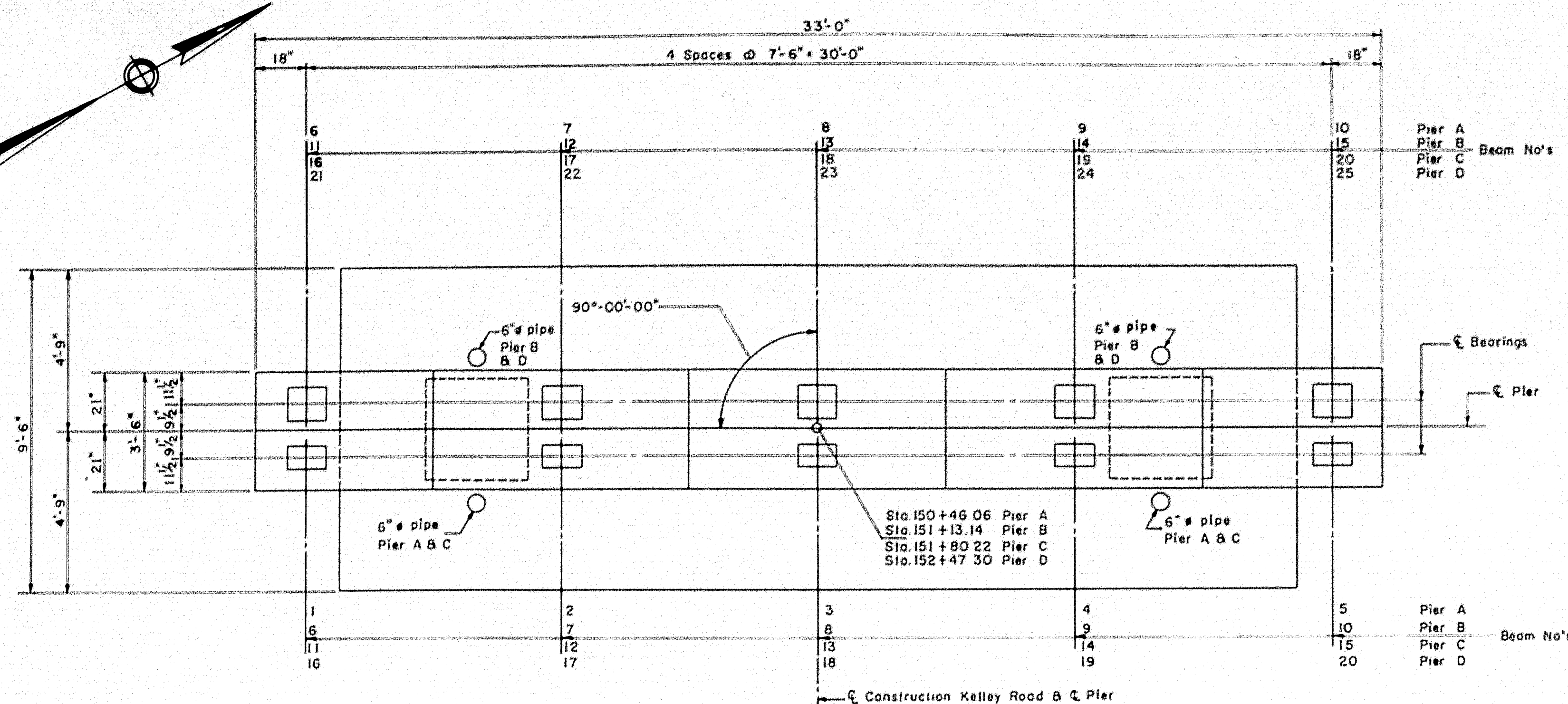
79-133A



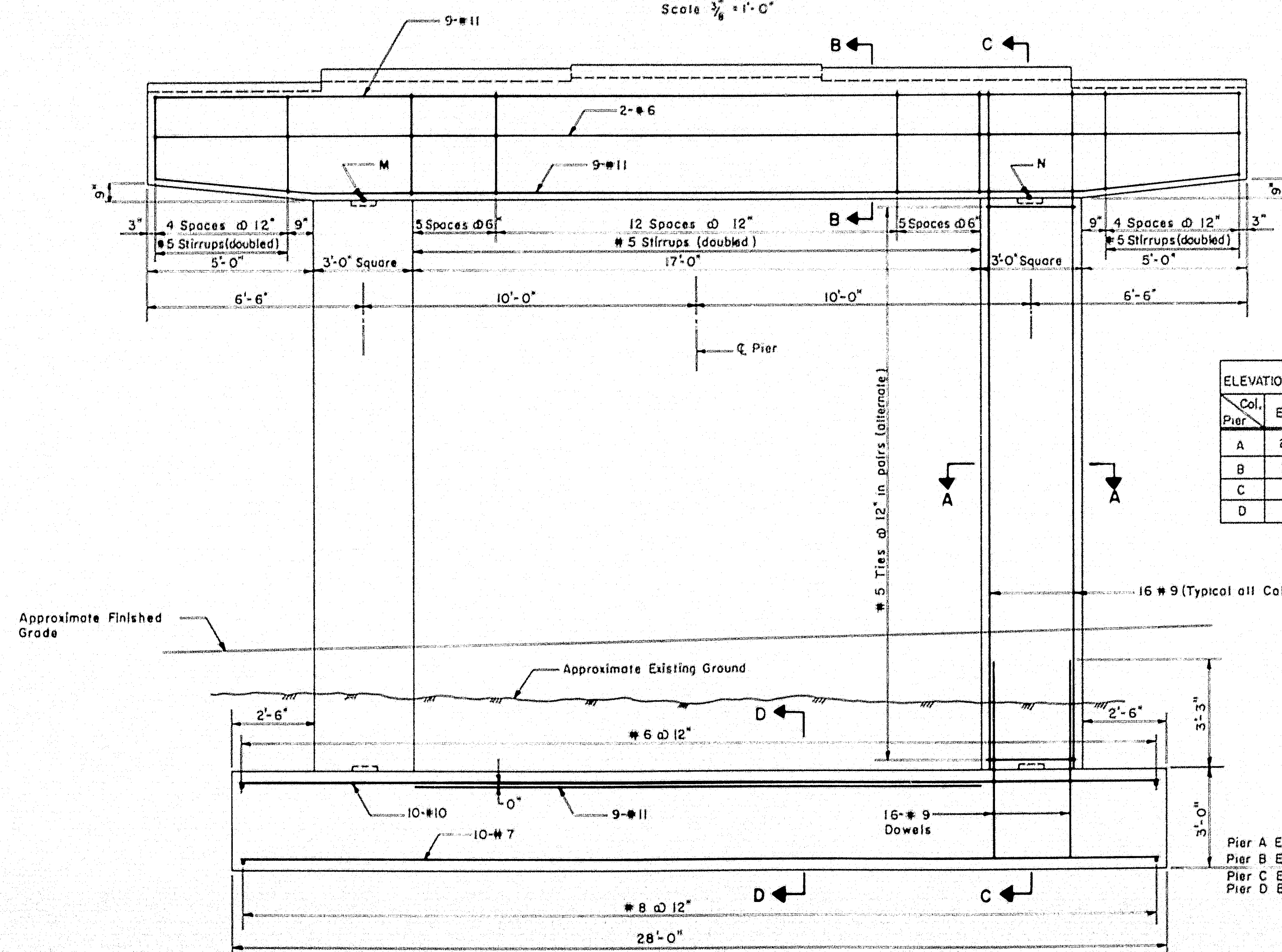
S.P.N.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	95-8 (10)	35	38

ORONO INTERSTATE

- Notes:
1. Reinforcing shall be placed to clear anchor bolts.
 2. Between bearings, slope bridge seat to face of pier cap.

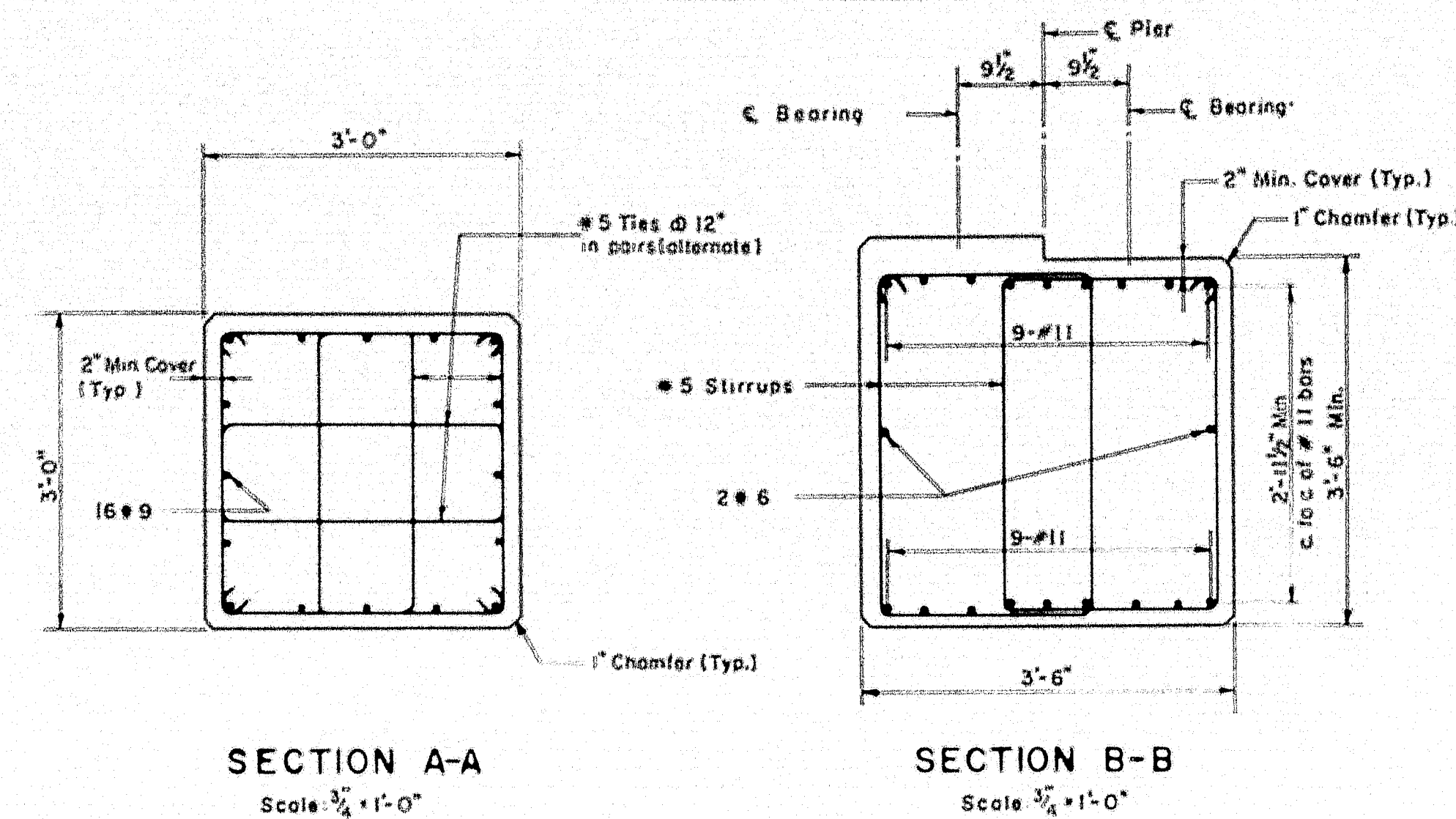


PLAN PIER A
PLAN PIERS B, C & D (SIMILAR)
Scale $\frac{3}{8}$ " = 1'-0"



ELEVATION PIER A
ELEVATION PIERS B, C & D (SIMILAR)
Scale $\frac{3}{8}$ " = 1'-0"

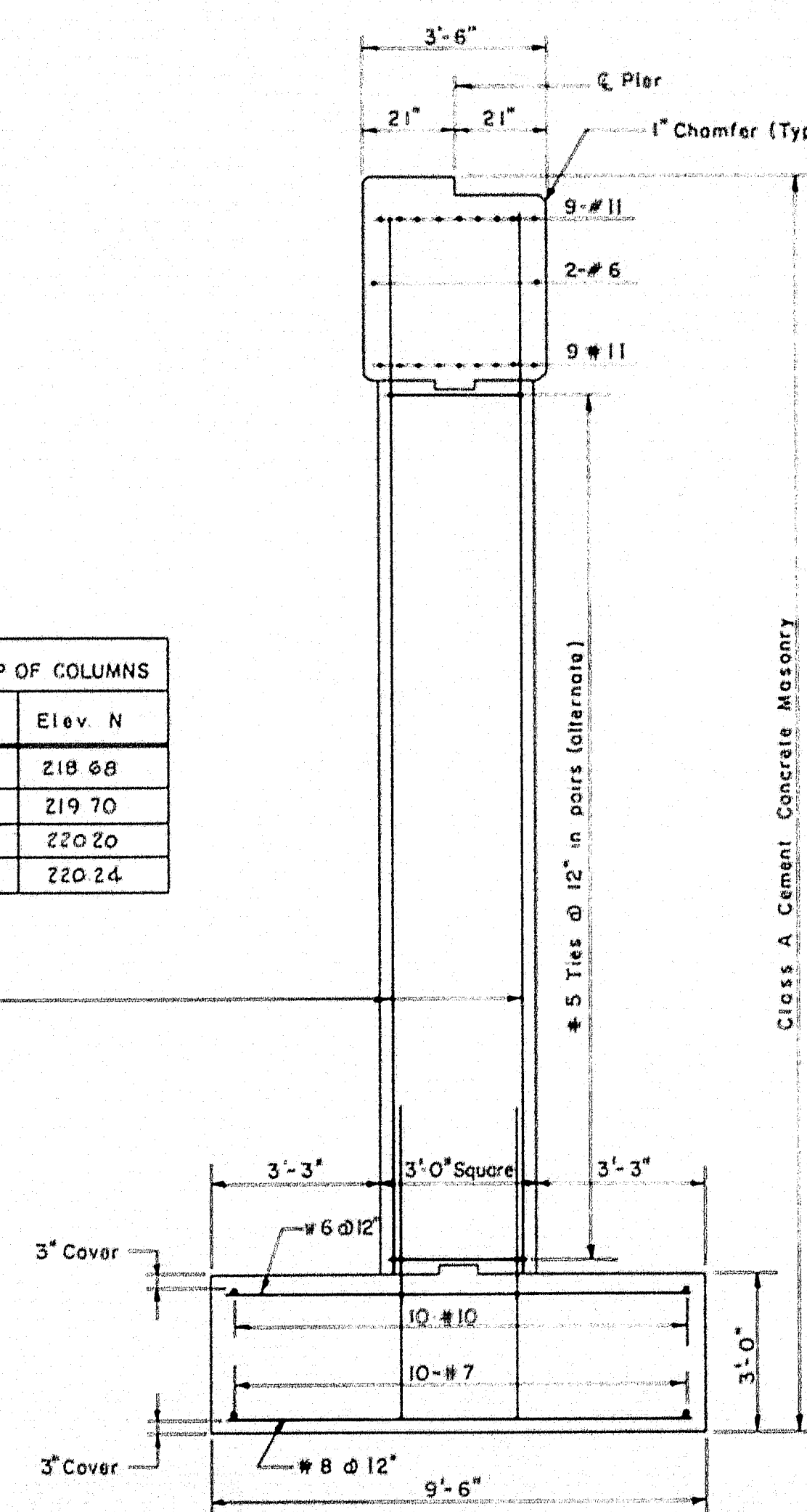
Maximum Bearing Pressure 5000 LBS. PER SQ. FT.



SECTION A-A
Scale $\frac{3}{8}$ " = 1'-0"

SECTION B-B
Scale $\frac{3}{8}$ " = 1'-0"

SCHEDULE OF BEAM SEAT ELEVATIONS											
Beam No.	Pier A	Beam No.	Pier B	Beam No.	Pier C	Beam No.	Pier D	Beam No.	Pier A	Beam No.	Pier B
1	222.38	222.18	6	223.20	223.22	11	223.75	223.77	16	223.74	223.78
2	222.80	222.39	7	223.42	223.44	12	223.97	223.99	17	223.96	223.99
3	224.00	222.49	8	223.51	223.53	13	224.06	224.01	18	224.05	224.09
4	222.80	222.39	9	223.42	223.44	14	223.97	223.91	19	223.95	223.99
5	222.38	222.18	10	223.20	223.22	15	223.75	223.70	20	223.74	223.78



SECTION C-C
Scale $\frac{3}{8}$ " = 1'-0"

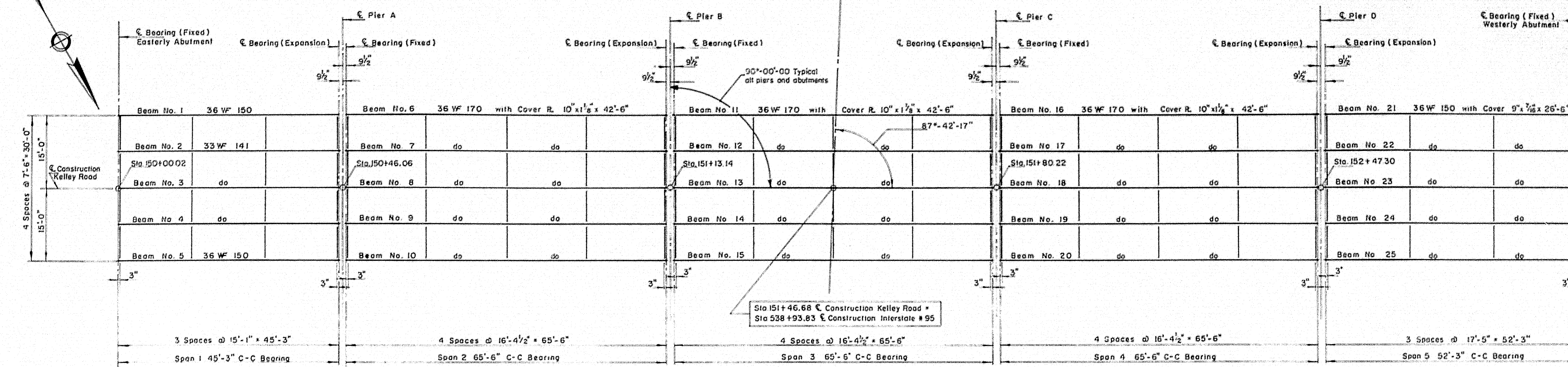
SECTION D-D
Scale $\frac{3}{8}$ " = 1'-0"

THE CLARKESON ENGINEERING CO., INC.
DESIGN B. J. K. CHECK D. M. S. BRIDGE TO SURVEY
DRAWN W. M. APPROVED W. M. S. C. J. M. PLOT
STATE HIGHWAY COMMISSION
KELLEY ROAD
OVER
INTERSTATE # 95
IN THE CITY OF
ORONO
PENOBSCOT COUNTY
PIERS

SHEET 5 OF 8 SHEETS

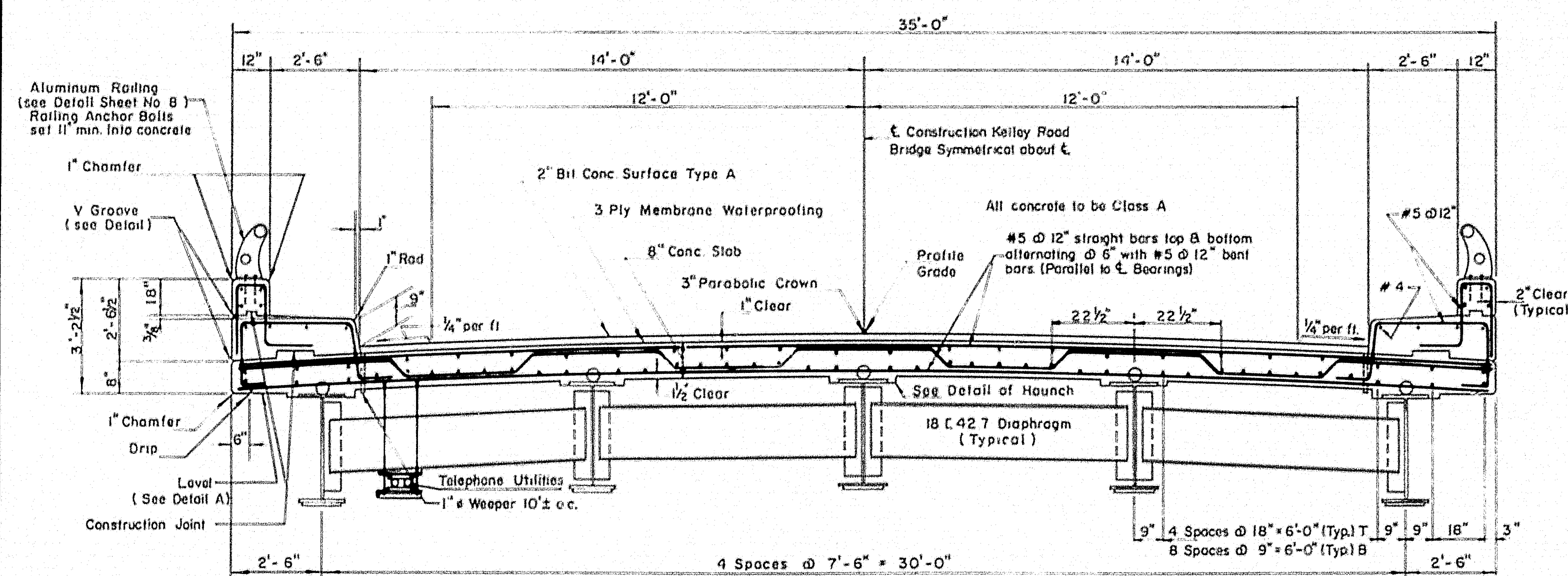
AUGUSTA, MAINE

79-134



FRAMING PLAN

Scale $\frac{3}{32} = 1'-0"$



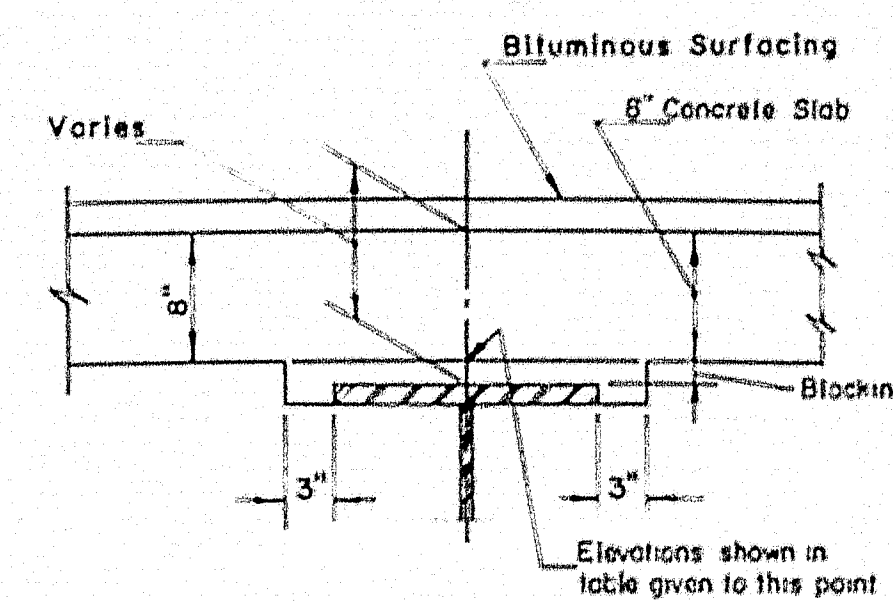
TYPICAL CROSS SECTION

Scale: $\frac{3}{8} = 1'-0"$

- Notes:
1. All longitudinal reinforcing to be #4 spaced as shown (parallel to C Construction).
 2. 1" x Weepers shall be paid for under Item 701-40, Portland Cement Concrete, Roadway and Sidewalk Slabs on Steel Bridges.
 3. Utilities & fastenings to be furnished & placed by others.

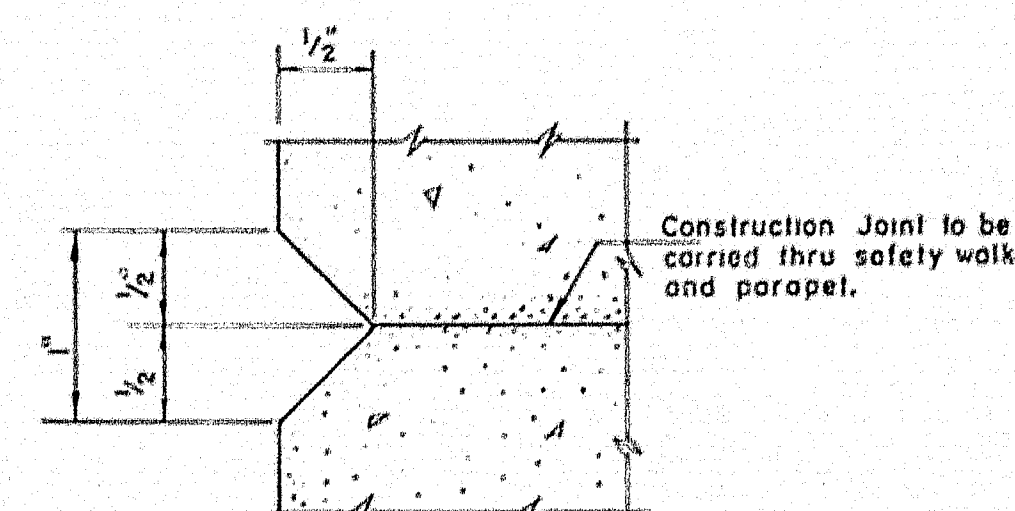
DETAIL A

Scale: $\frac{3}{4} = 1'-0"$



DETAIL OF HAUNCH

Scale: $1" = 1'-0"$



V-GROOVE DETAIL

Scale Full Size

Beam No.	Bearing	1/2 Point	3/4 Point	1 Point	1 1/2 Point	2 Point
1	224.69	224.98	225.25	225.48	225.68	225.84
2	224.90	225.20	225.47	225.70	225.90	226.07
3	225.00	225.30	225.57	225.80	226.00	226.17
4	224.90	225.20	225.47	225.70	225.90	226.07
5	224.69	224.98	225.25	225.48	225.68	225.84
6	225.72	226.09	226.38	226.60	226.74	226.84
7	225.93	226.30	226.60	226.81	226.96	227.06
8	226.03	226.40	226.70	226.91	227.05	227.15
9	225.93	226.30	226.60	226.81	226.96	227.06
10	225.72	226.09	226.38	226.60	226.74	226.84
11	226.78	227.01	227.19	227.27	227.30	227.34
12	226.97	227.13	227.40	227.49	227.51	227.54
13	227.07	227.33	227.50	227.59	227.61	227.64
14	226.97	227.23	227.40	227.49	227.51	227.54
15	226.78	227.01	227.19	227.27	227.30	227.34
16	227.29	227.41	227.47	227.44	227.34	227.24
17	227.51	227.62	227.68	227.66	227.56	227.46
18	227.61	227.72	227.78	227.76	227.66	227.56
19	227.51	227.62	227.68	227.66	227.56	227.46
20	227.29	227.41	227.47	227.44	227.34	227.24
21	227.35	227.32	227.26	227.10	227.09	227.08
22	227.56	227.53	227.47	227.39	227.31	227.23
23	227.66	227.63	227.57	227.48	227.41	227.33
24	227.56	227.53	227.47	227.39	227.31	227.23
25	227.35	227.32	227.26	227.10	227.09	227.08

* Low station end of beam.

Note: After the structural steel is erected and before forms are built or concrete is placed, elevations on the top flange of the beams are to be obtained at the points indicated in the table. The difference between these elevations and those shown in the table gives the actual blocking distance from the top of the beam to the bottom of the slab.

- NOTES:
1. All intermediate diaphragms to be 18 C 42.7, for detail see Sheet 7.
 2. All end diaphragms to be 15 C 33.9, for detail see Sheet 7.
 3. For Cover Plate and Shear Connector details, see Sheet 7.
 4. All beams to be cambered to the extent that the bridge deck under full dead load will follow as nearly as practicable the design profile, and in no case with less camber than is likely to remain permanent. The proposed camber diagram shall be submitted to the Engineer for approval.
 5. Parapets and sidewalks to have transverse construction joints 20'± on centers. Joints are not to be located under railing posts. Contact surfaces of joints to be painted with a bituminous material. Exposed surfaces are to be chamfered 1/2". Reinforcing steel to be carried thru joints.
 6. All concrete in the deck slab of each span shall be placed in one continuous operation.
 7. Wherever cover plates and/or shear connectors are welded to beams, beams and plates shall be weldable structural steel A.S.T.M. Designation A 373.

THE CLARKESON ENGINEERING CO., INC.

DESIGN B.J.K.	CHECK D.M.S.	BRIDGE NO. SURVEY PLOT
DRAWN D.E.S.	APPROVED W.A.M.-C.J.M.	

STATE HIGHWAY COMMISSION

KELLEY ROAD
OVER
INTERSTATE #95
IN THE CITY OF
ORONO
PENOBSCOT COUNTY

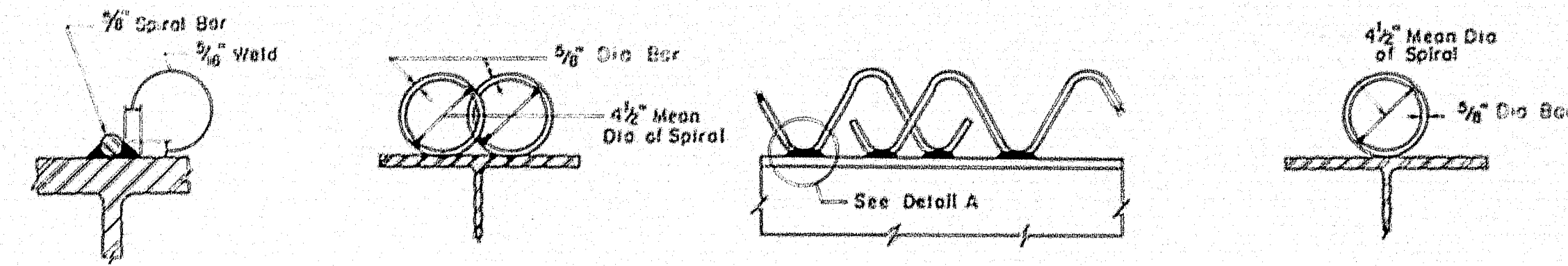
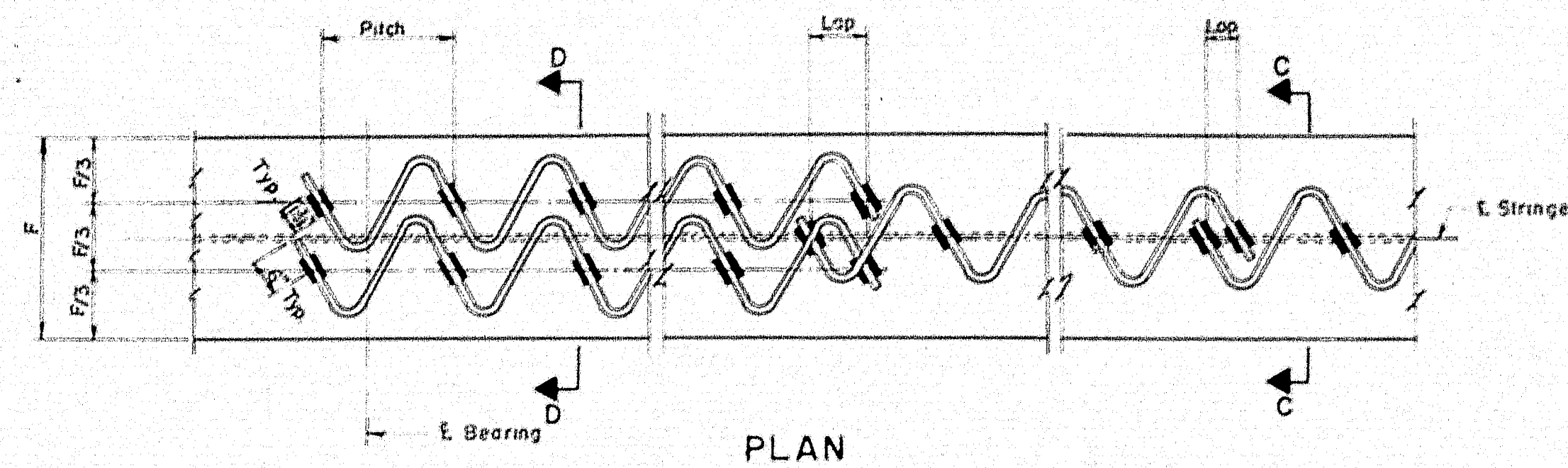
FRAMING PLAN & TYPICAL CROSS SECTION

SHEET 6 OF 8 SHEETS

AUGUSTA, MAINE

79-135

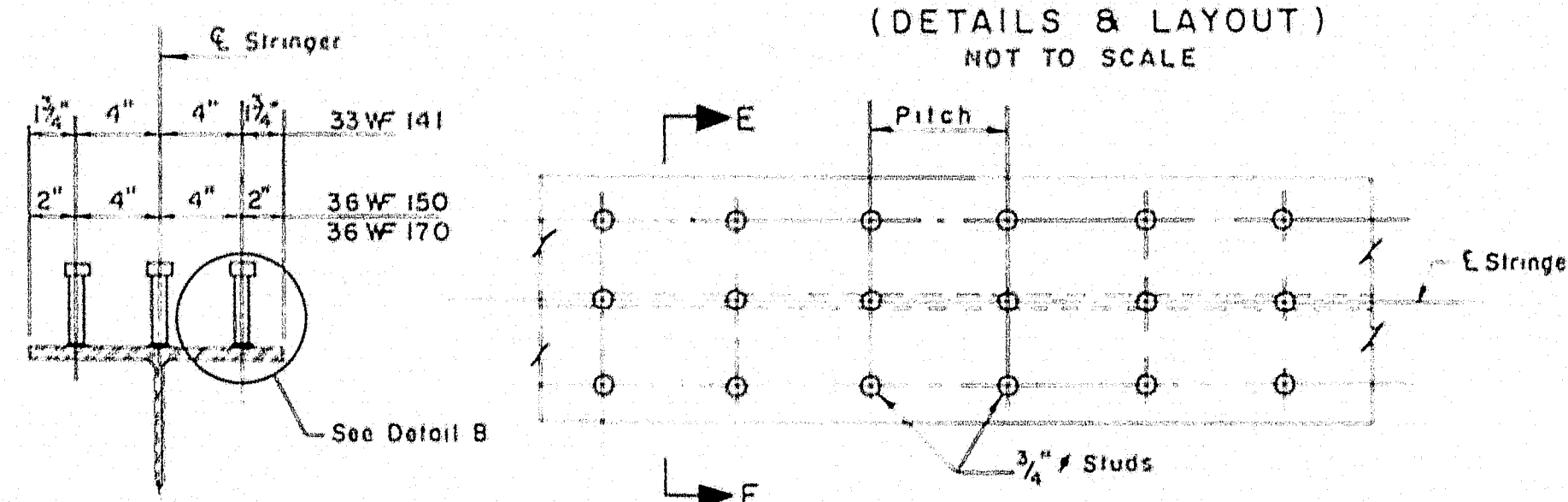
ORONO INTERSTATE



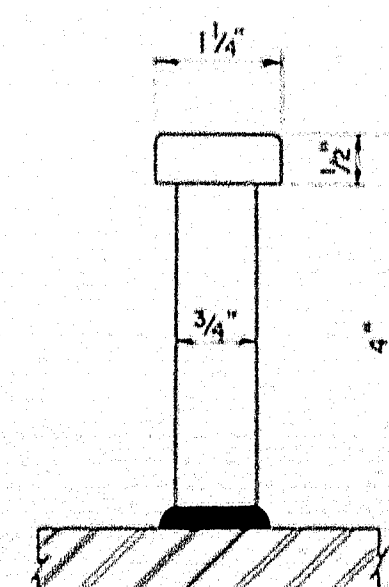
45'-3" SPAN 1									
Double	Double	Single	Double	Double	Double	Double	Double	Double	Double
30 @ 4" x 10'-0"	21 @ 5 1/2" x 9'-7 1/2"	14 @ 5 1/2" x 6'-5"	11 @ 7" x 6'-5"	20 @ 6" x 10'-0"	31 @ 4" x 10'-4"	20 @ 6" x 10'-0"	21 @ 5 1/2" x 9'-7 1/2"	30 @ 4" x 10'-0"	21 @ 5 1/2" x 9'-7 1/2"
Int. 6"	Ext. 5"								
65'-6" SPANS 2, 3 & 4									
Double	Double	Single	Double	Double	Double	Double	Double	Double	Double
24 @ 5" x 10'-0"	23 @ 5" x 9'-7"	13 @ 9" x 9'-9"	13 @ 9" x 9'-9"	13 @ 9 1/2" x 10'-3 1/2"	10 @ 7 1/2" x 6'-3"	13 @ 9 1/2" x 10'-3 1/2"	20 @ 6" x 10'-0"	23 @ 5" x 9'-7"	24 @ 5" x 10'-0"
Int. 6"	Ext. 5"								
52'-3" SPAN 5									
Double	Double	Single	Double	Double	Double	Double	Double	Double	Double
25 @ 5" x 10'-5"	18 @ 7" x 10'-6"	24 @ 6" x 12'-0"	24 @ 6" x 12'-0"	18 @ 7" x 10'-6"	15 @ 8 1/2" x 10'-7 1/2"	25 @ 5" x 10'-5"	20 @ 6" x 10'-0"	25 @ 5" x 10'-5"	20 @ 6" x 10'-0"
Int. 6"	Ext. 5"								

TYPICAL SPIRAL SHEAR CONNECTORS

(DETAILS & LAYOUT)
NOT TO SCALE



SECTION E-E



DETAIL B

45'-3" SPAN 1									
Int. 5 1/2"	29 @ 4" x 9'-8"	25 @ 5" x 10'-5"	7 @ 9 1/2" x 5'-6 1/2"	25 @ 5" x 10'-5"	29 @ 4" x 9'-8"	Int. 5 1/2"	29 @ 4" x 9'-8"	25 @ 5" x 10'-5"	7 @ 9 1/2" x 5'-6 1/2"
Ext. 5"	28 @ 4 1/2" x 10'-6"	16 @ 7" x 9'-4"	6 @ 12" x 6'-0"	16 @ 7" x 9'-4"	28 @ 4 1/2" x 10'-6"	Ext. 5"	28 @ 4 1/2" x 10'-6"	16 @ 7" x 9'-4"	6 @ 12" x 6'-0"
65'-6" SPANS 2, 3 & 4									
Double	Double	Single	Double	Double	Double	Double	Double	Double	Double
30 @ 4" x 10'-0"	25 @ 5" x 10'-5"	14 @ 8" x 9'-4"	6 @ 12" x 6'-0"	14 @ 8" x 9'-4"	25 @ 5" x 10'-5"	30 @ 4" x 10'-0"	25 @ 5" x 10'-5"	14 @ 8" x 9'-4"	6 @ 12" x 6'-0"
Int. 6"	Ext. 5"								
52'-3" SPAN 5									
Double	Double	Single	Double	Double	Double	Double	Double	Double	Double
29 @ 4" x 9'-8"	24 @ 5 1/2" x 11'-0"	14 @ 8 1/2" x 9'-11"	4 @ 13" x 4'-4"	14 @ 8 1/2" x 9'-11"	24 @ 5 1/2" x 11'-0"	29 @ 4" x 9'-8"	24 @ 5 1/2" x 11'-0"	14 @ 8 1/2" x 9'-11"	4 @ 13" x 4'-4"
Int. 6"	Ext. 5"								

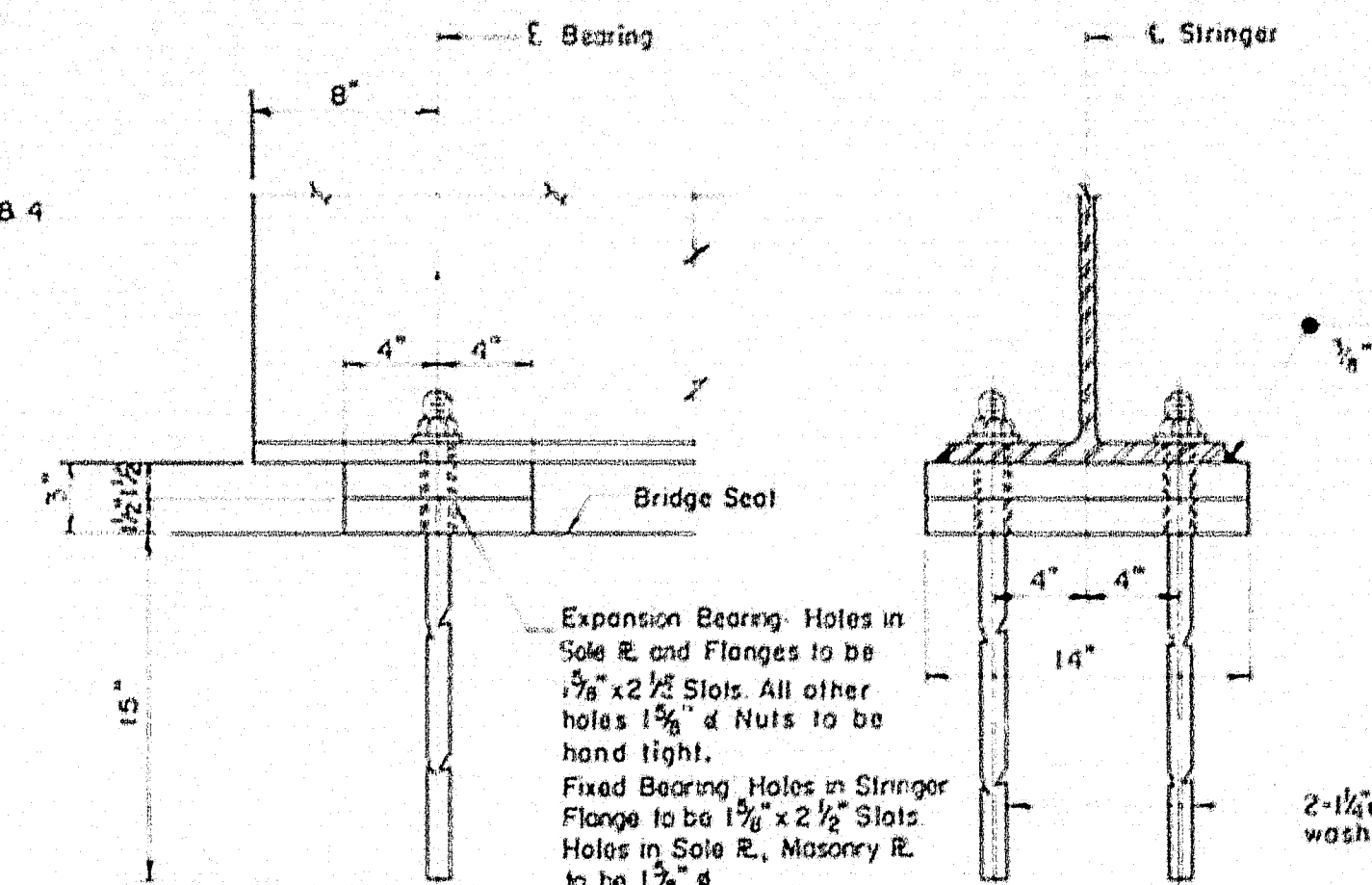
TYPICAL STUD SHEAR CONNECTORS

(DETAILS & LAYOUT)
NOT TO SCALE

Note: All stud spacings are for rows of 3 studs

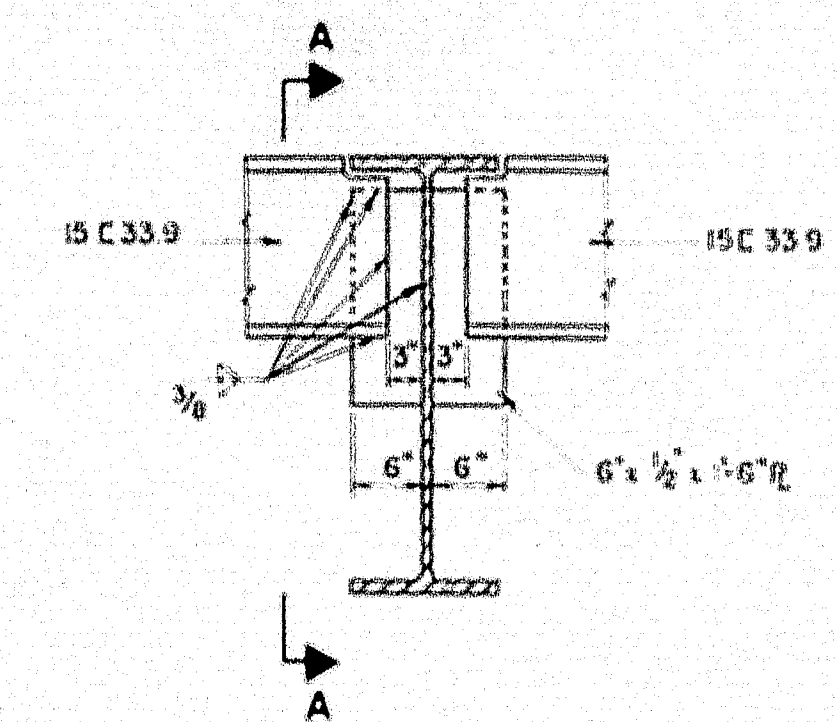
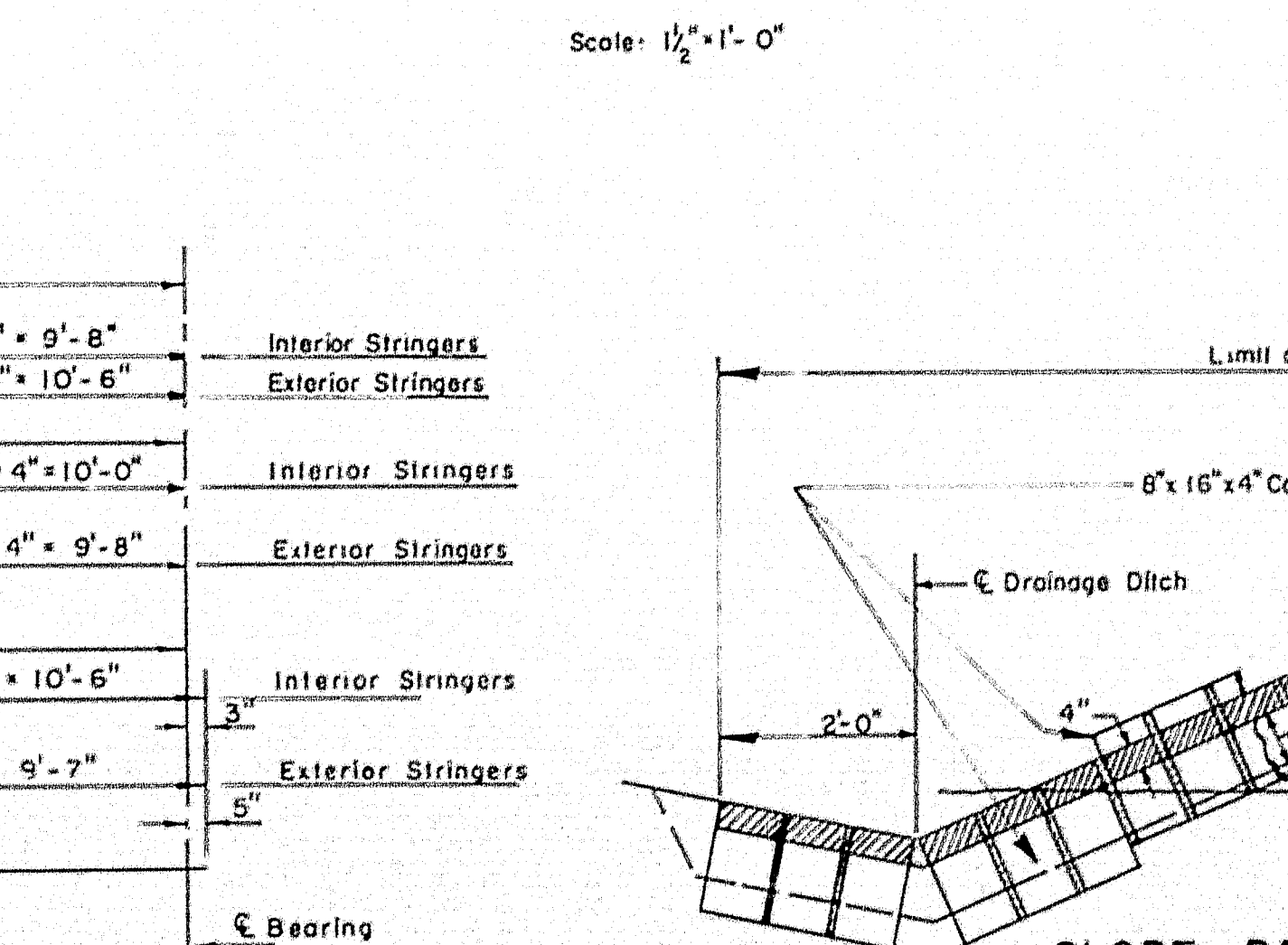
EXPANSION & FIXED BEARING DETAIL

SPANS 2 to 5
Scale: 1 1/2" = 1'-0"



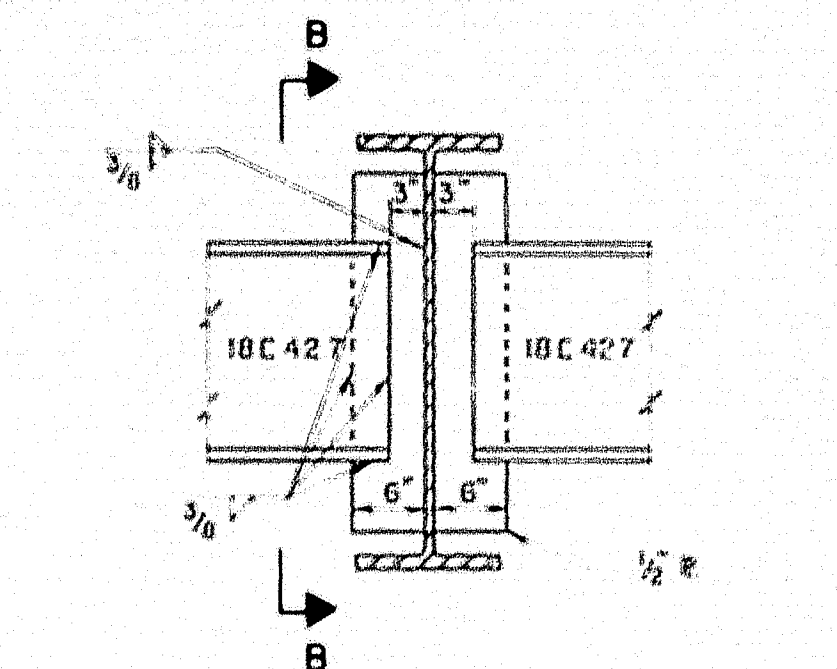
EXPANSION & FIXED BEARING DETAIL

SPAN 1
Scale: 1 1/2" = 1'-0"



WELDED END DIAPHRAGM CONNECTION

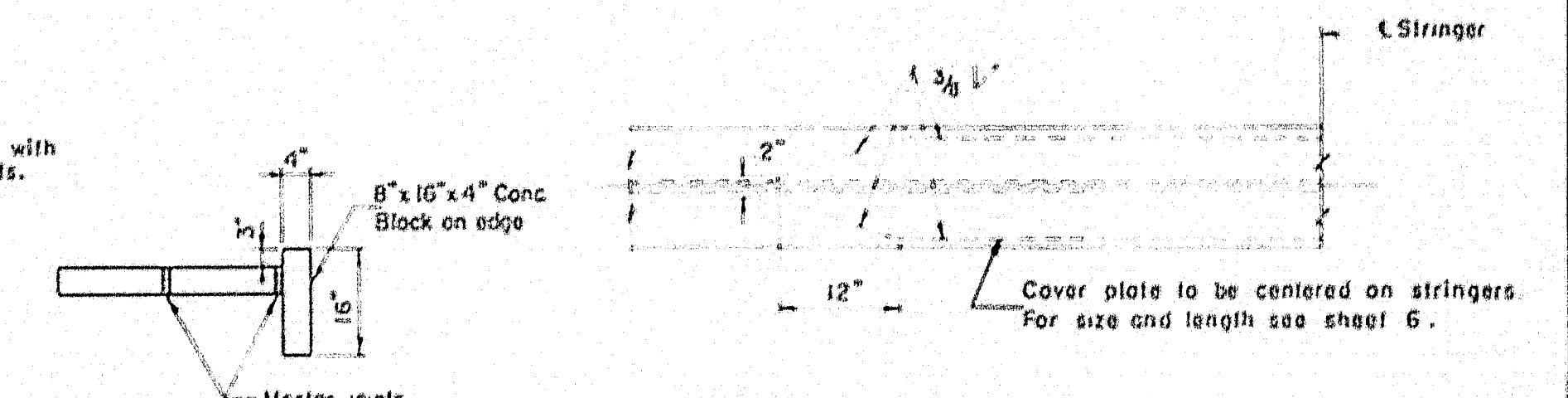
Scale: 1/4" = 1'-0"



WELDED INTERMEDIATE DIAPHRAGM CONNECTION

Scale: 1/4" = 1'-0"

Note: Welds may be shop or field welded.



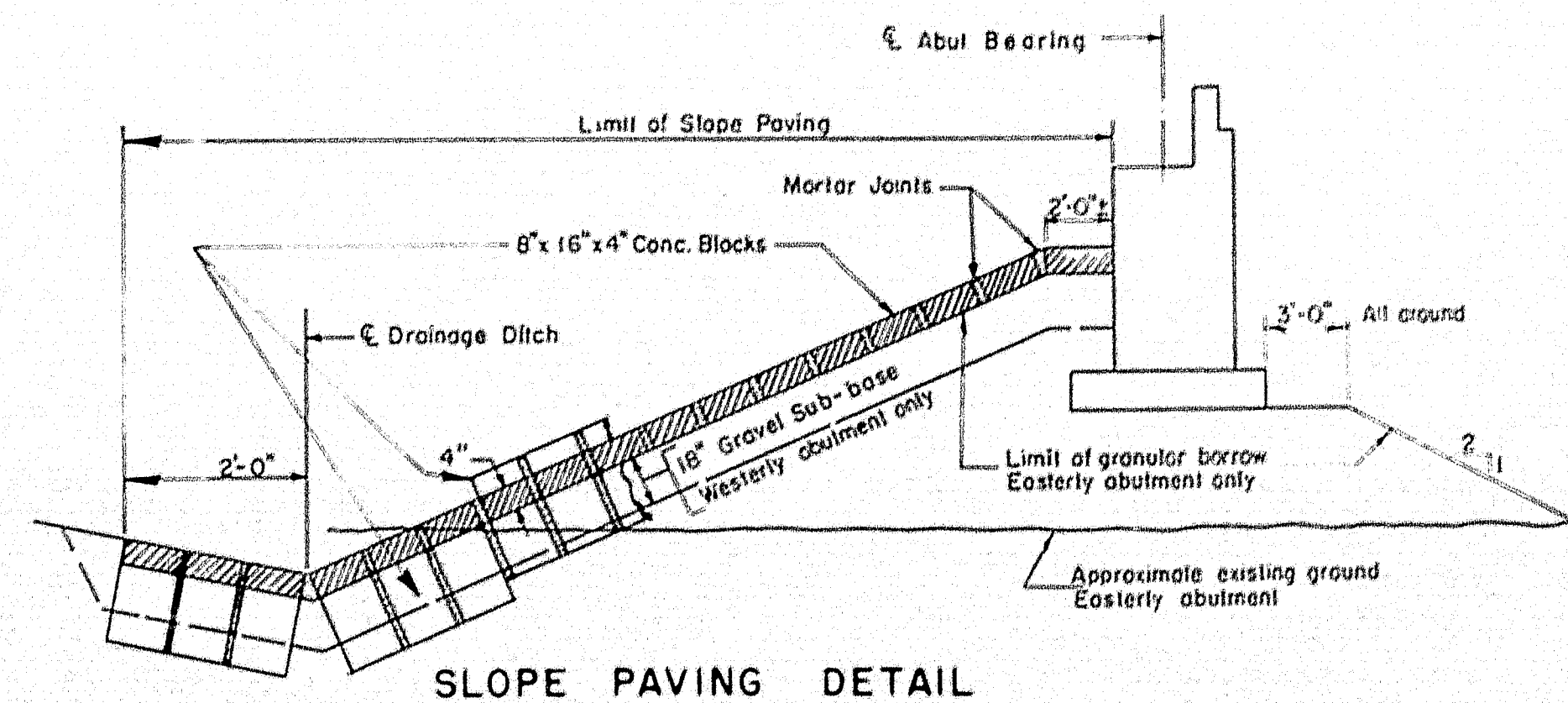
COVER PLATE DETAIL

NOT TO SCALE

SECTION X-X

Scale: 1/2" = 1'-0"

Note: Cover plate to be centered on stringers. For size and length see sheet 6.



SLOPE PAVING DETAIL

No Scale

THE CLARKSON ENGINEERING CO., INC.

DESIGN	B. J. K.	CHECK	D. M. S.	BRIDGE NO.	
DRAWN	F. E. T.	APPROVED	W. H. C. J. M.	SURVEY	

STATE HIGHWAY COMMISSION

KELLEY ROAD

INTERSTATE #95

IN THE CITY OF

ORONO

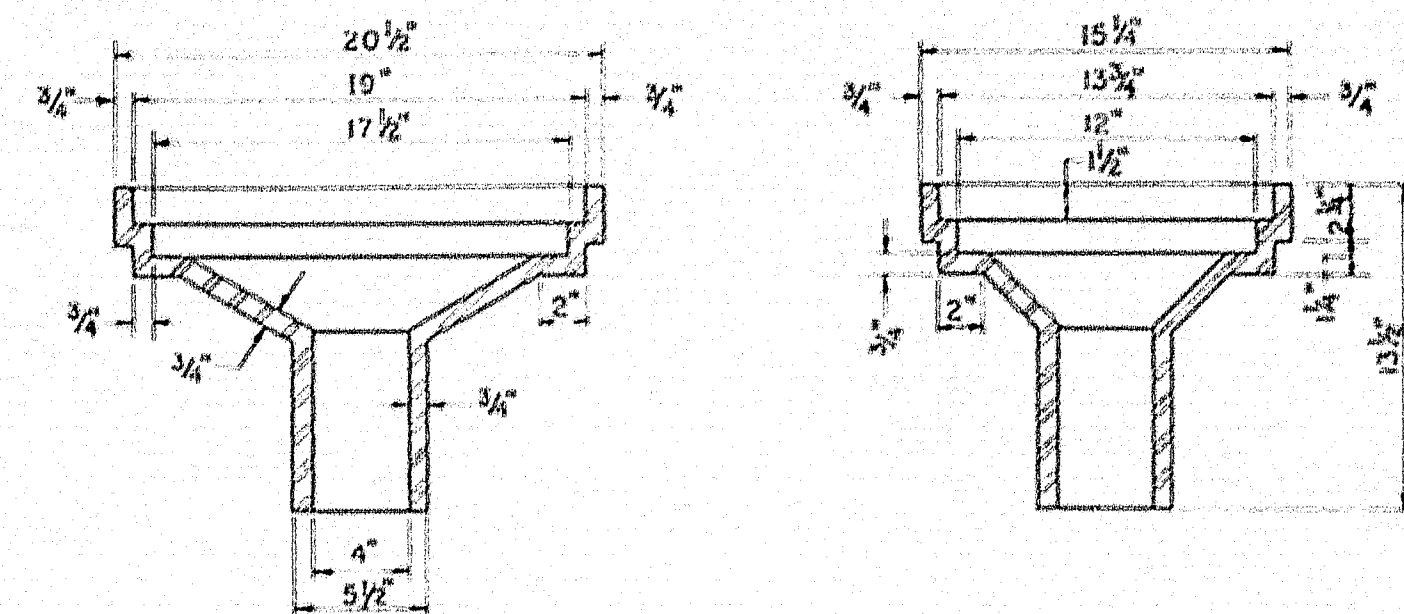
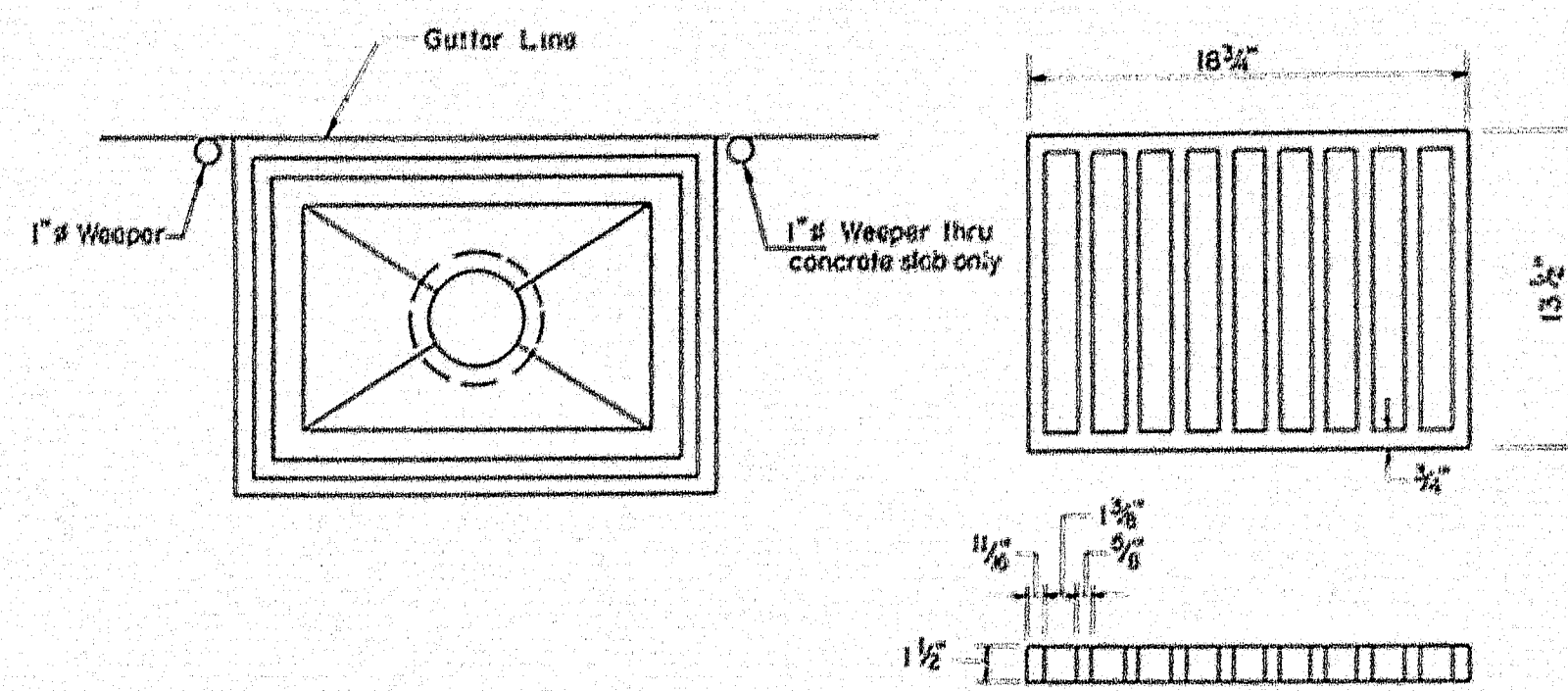
PENOBSCOT COUNTY

SUPERSTRUCTURE DETAILS

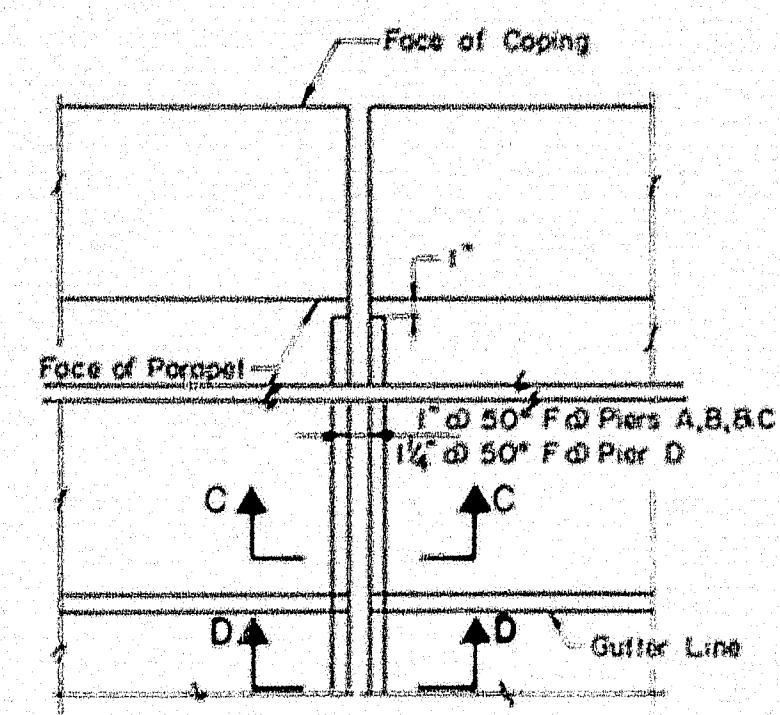
SHEET 7 OF 8 SHEETS AUGUSTA, MAINE

B.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	E-95-8(10)	38	38

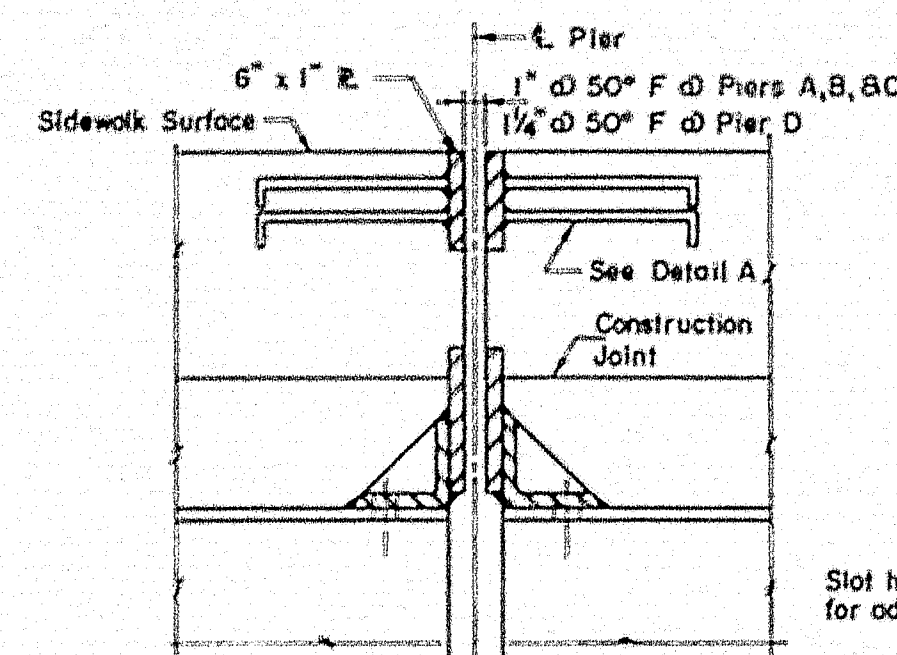
ORONO INTERSTATE



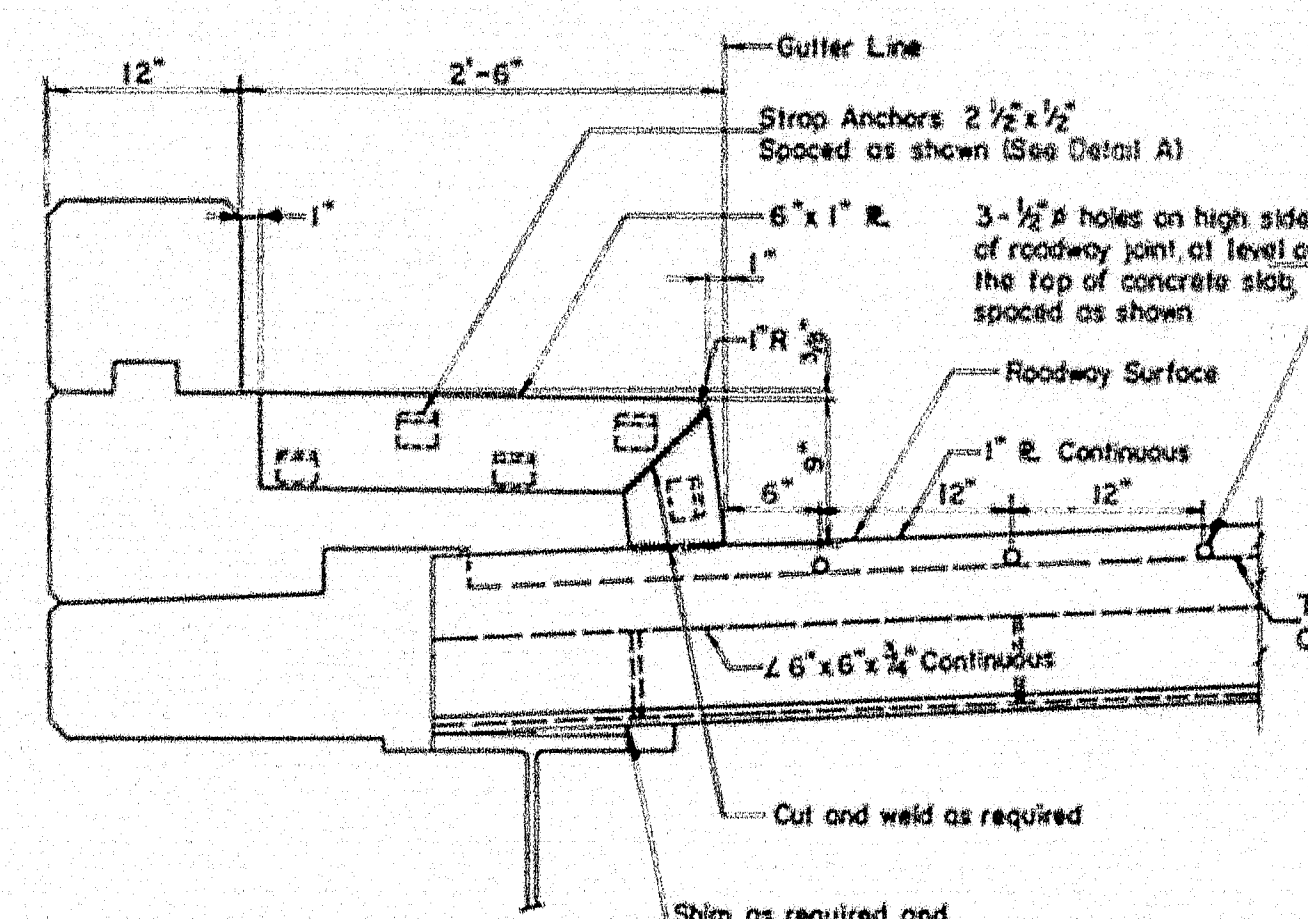
SCUPPER DETAILS
Scale 1 1/2" = 1' - 0"



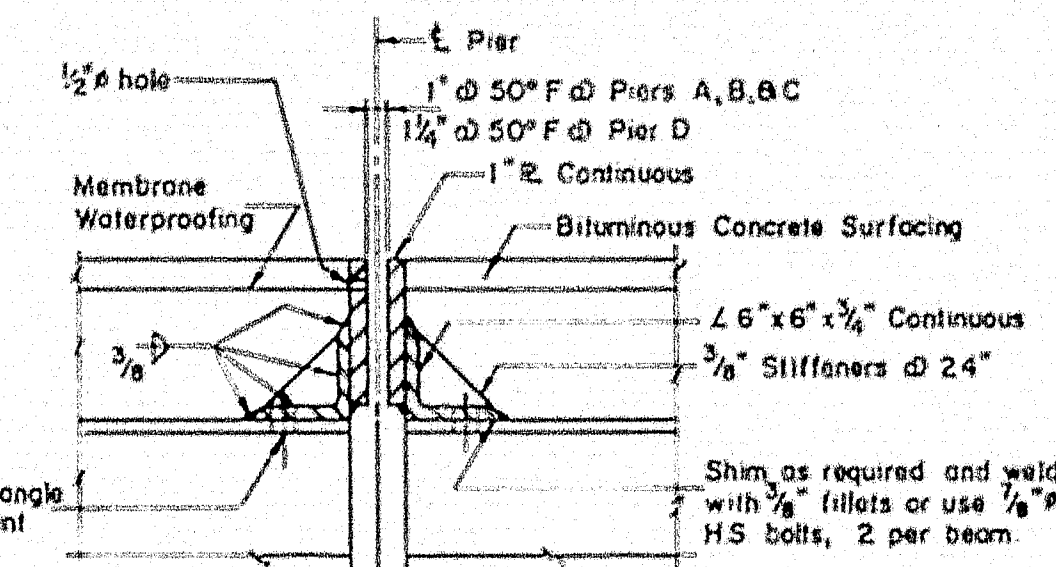
PLAN OF EXPANSION JOINT
Scale: 1" = 1'-0"



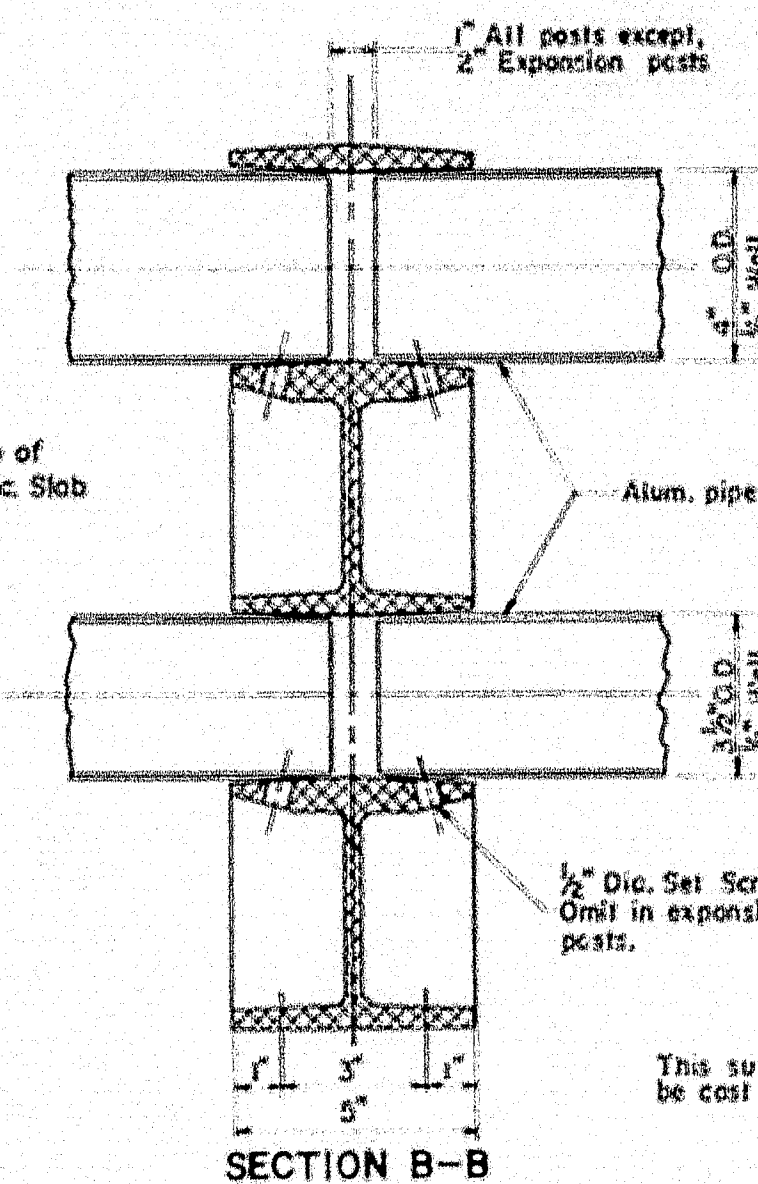
SECTION C-C



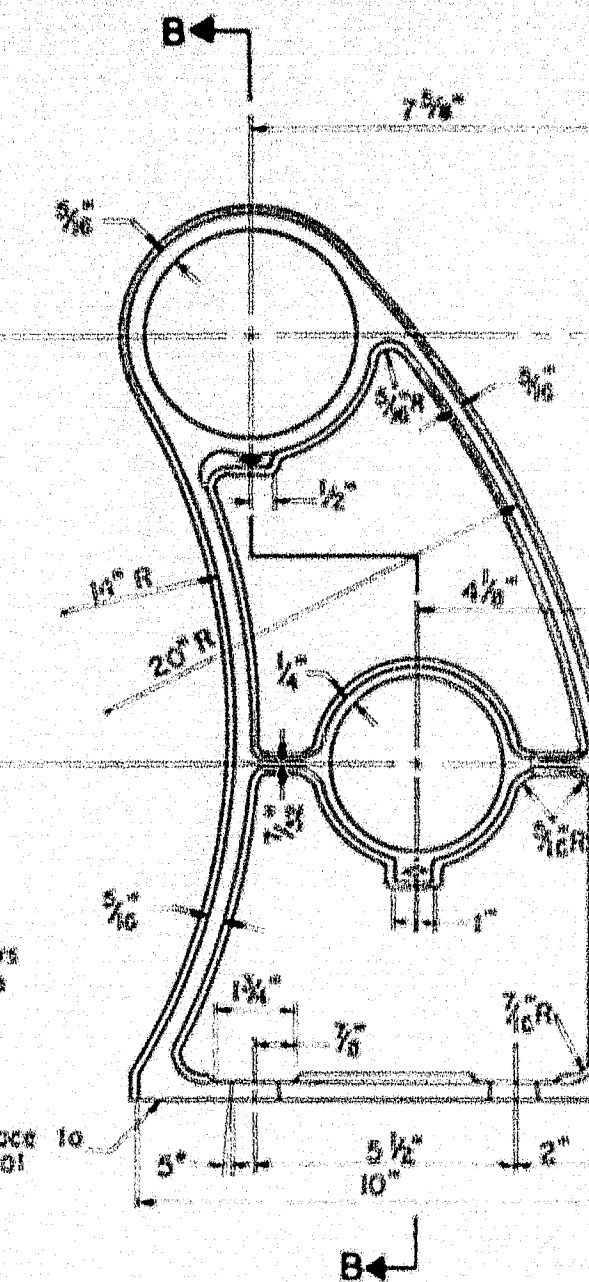
SAFETY WALK EXPANSION JOINT DETAIL



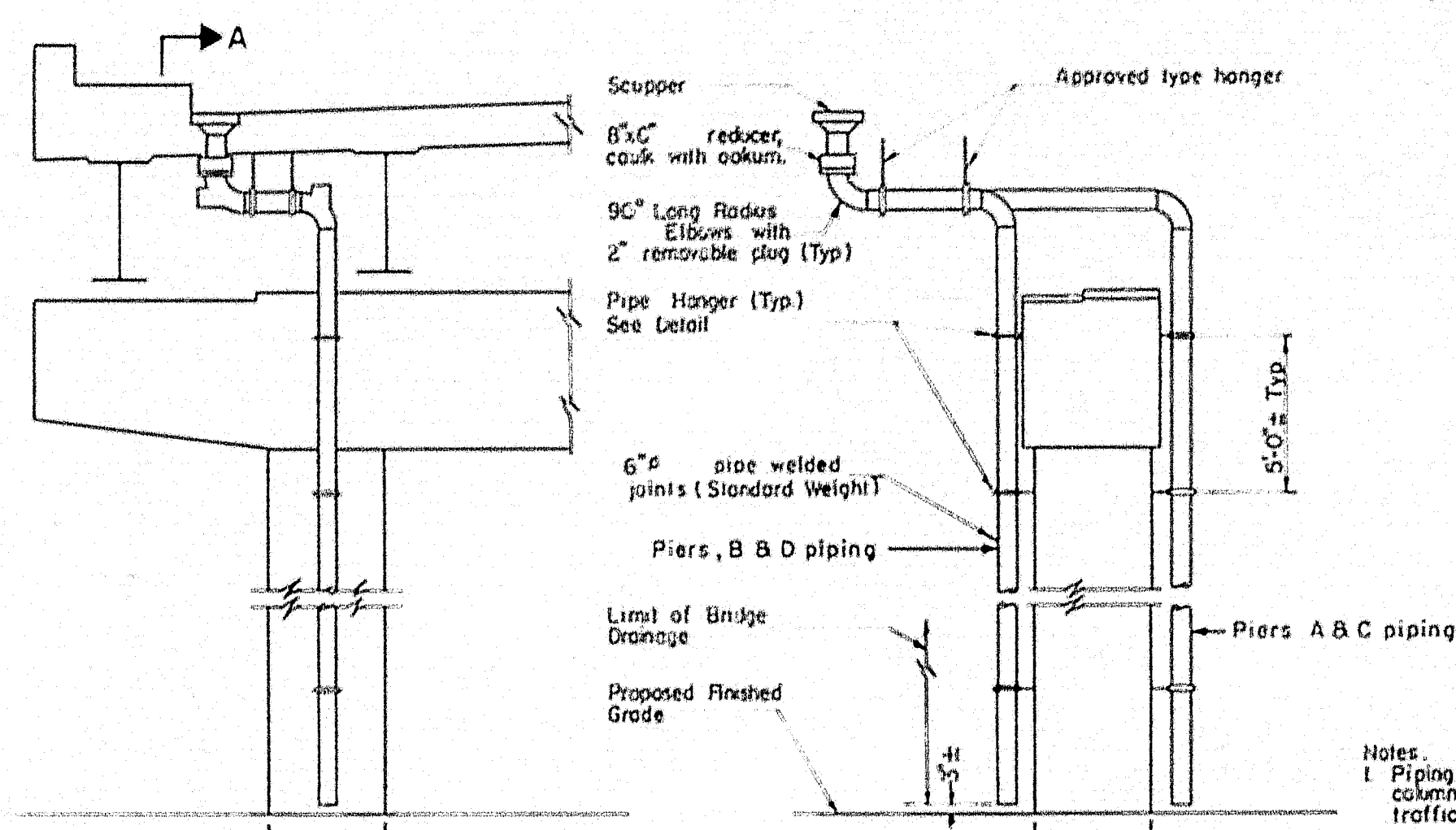
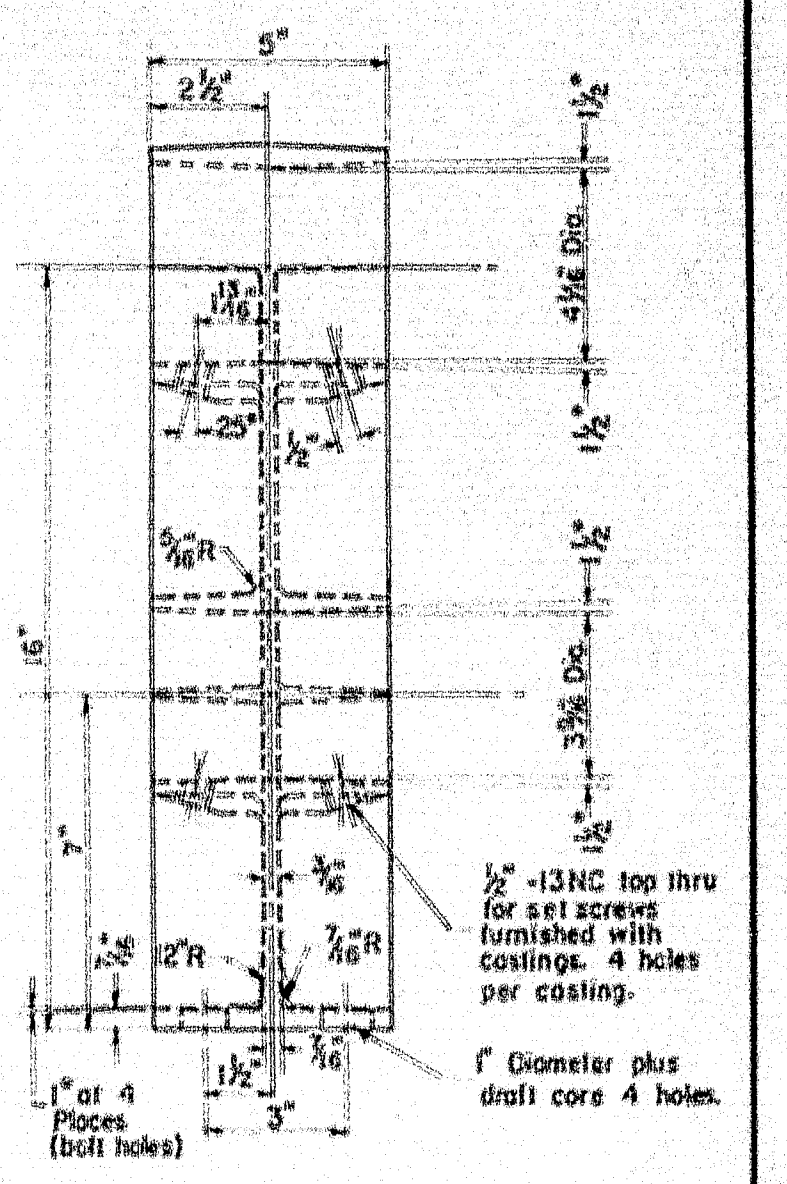
SECTION D-D



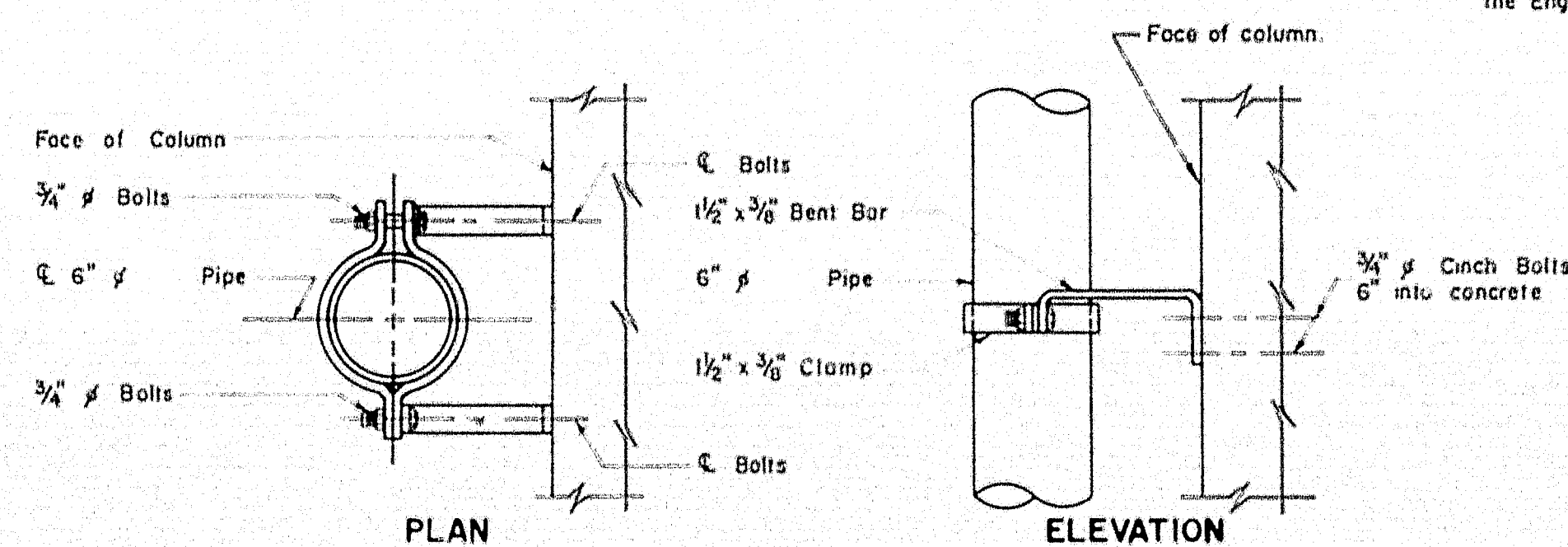
SECTION B-E



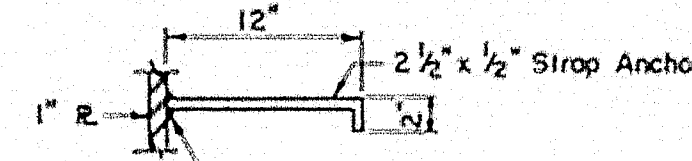
ALUMINUM RAIL DETAILS
Scale: 3" = 1' - 0"



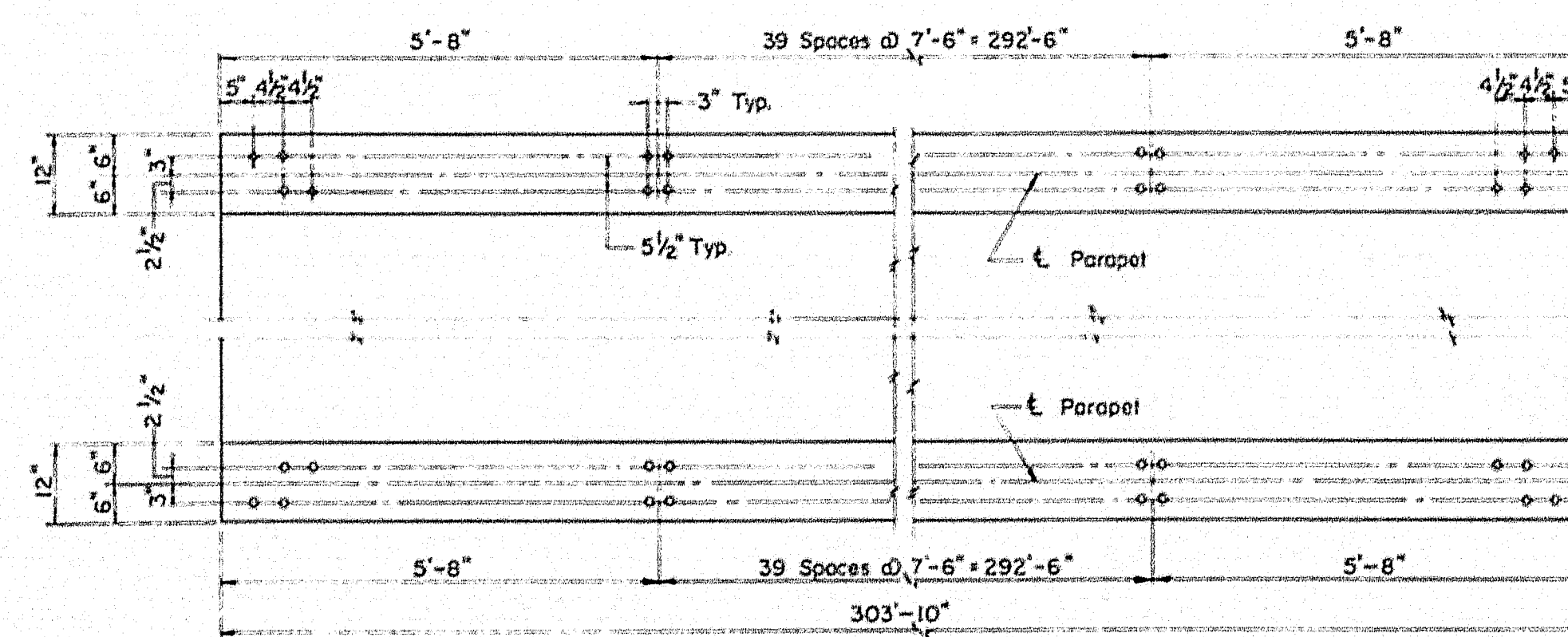
PIPE DETAILS AT PIERS
Scale: $\frac{1}{4}" = 1' - 0"$



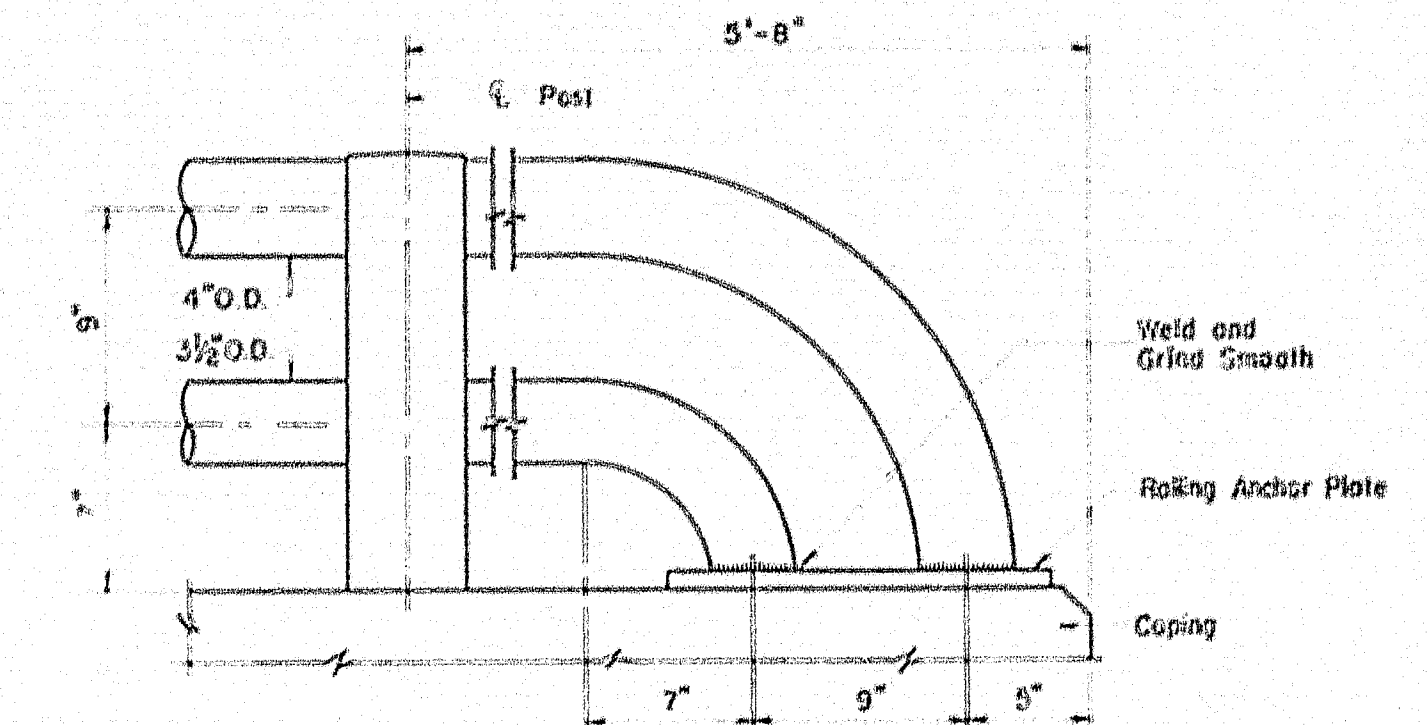
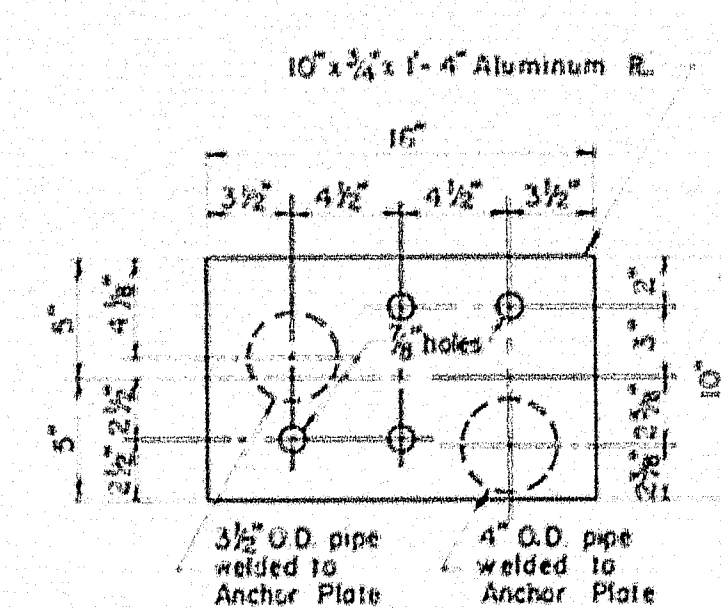
PIPE HANGER DETAILS



DETAIL A
Scale 1" = 1'-0"



RAILING LAYOUT
Scale $\frac{1}{2}" = 1'-0"$



END RAILING DETAIL
Scale: $1\frac{1}{2}" = 1' - 0"$

- Notes**
1. Any variation in railing dimensions shall be submitted for approval
 2. All anchor bolts, nuts and washers to be aluminum alloy
 3. All anchor bolts to be $\frac{3}{4}$ " ϕ bolts set 12" in concrete.

Edge of deck and
back face of 9"
abutment backwall

THE CLARKESON ENGINEERING CO., INC.

DESIGN BJK	CHECK DMS	BRIDGE NO
DRAWN SAL	APPROVED WAH-CJM	SURVEY
		PLOT

STATE HIGHWAY COMMISSION

KELLEY ROAD

OVER
INTERSTATE #95

IN THE CITY OF

ORONO

PENOBSCOT CO

ENCLOSURE 33333333
MIDDLE ANCHOR DETAIL 2

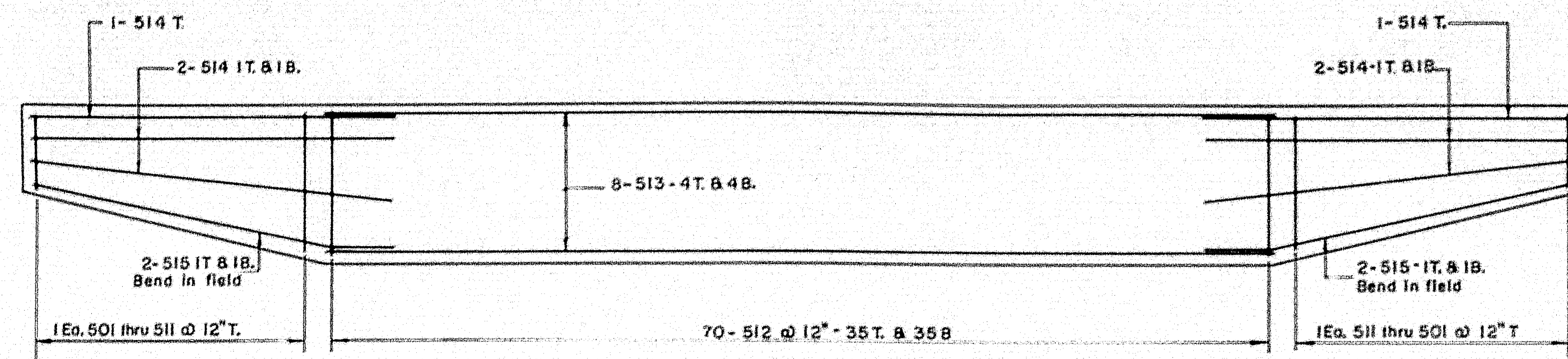
MISCELLANEOUS DETAILS

SHEET 8 OF 8 SHEETS

AUGUSTA, MAINE

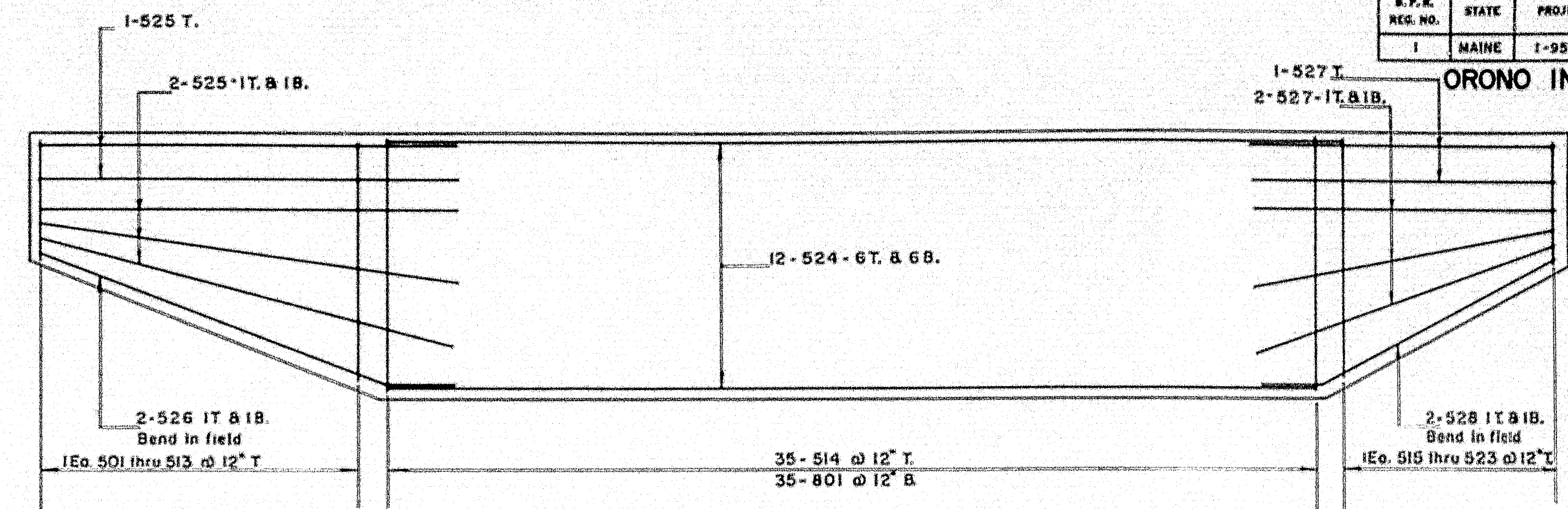
S.P.R.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-6101	1	5

ORONO INTERSTATE



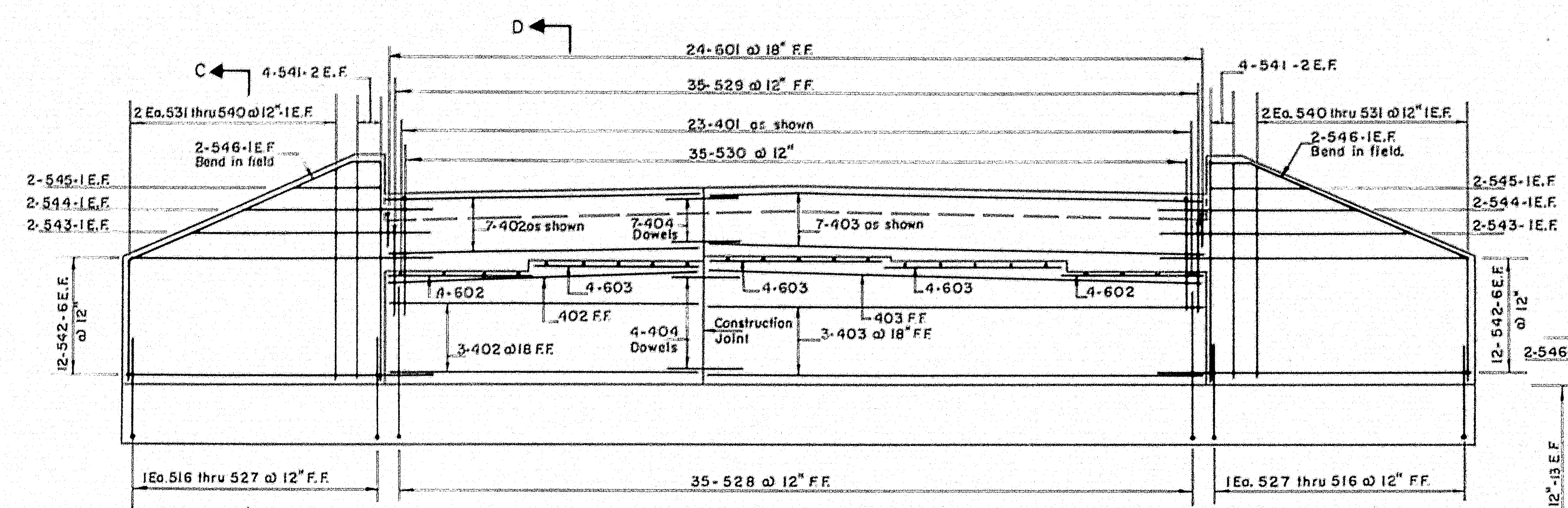
PLAN EASTERLY ABUTMENT FOOTING

Scale: $\frac{1}{4}$ " = 1'-0"



PLAN WESTERLY ABUTMENT FOOTING

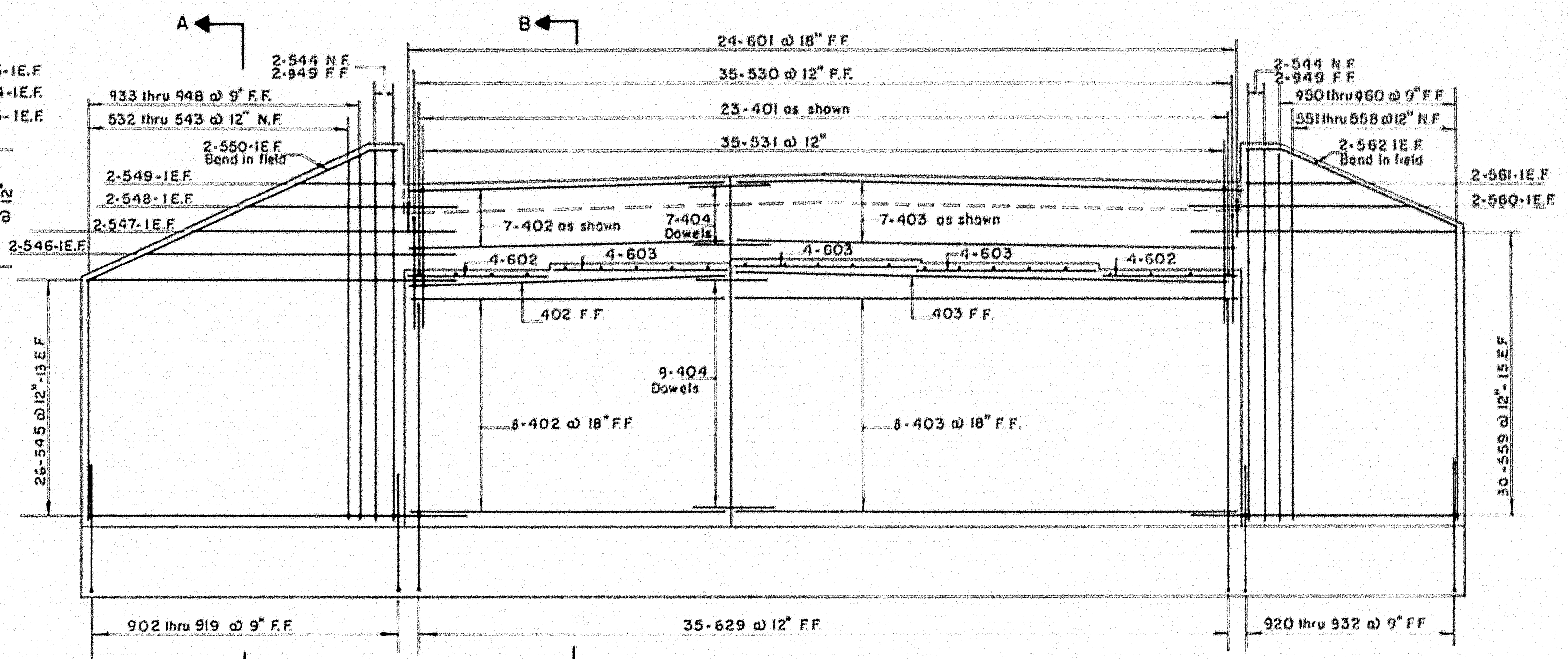
Scale: $\frac{1}{4}$ " = 1'-0"



ELEVATION EASTERLY ABUTMENT

Scale: $\frac{1}{4}$ " = 1'-0"

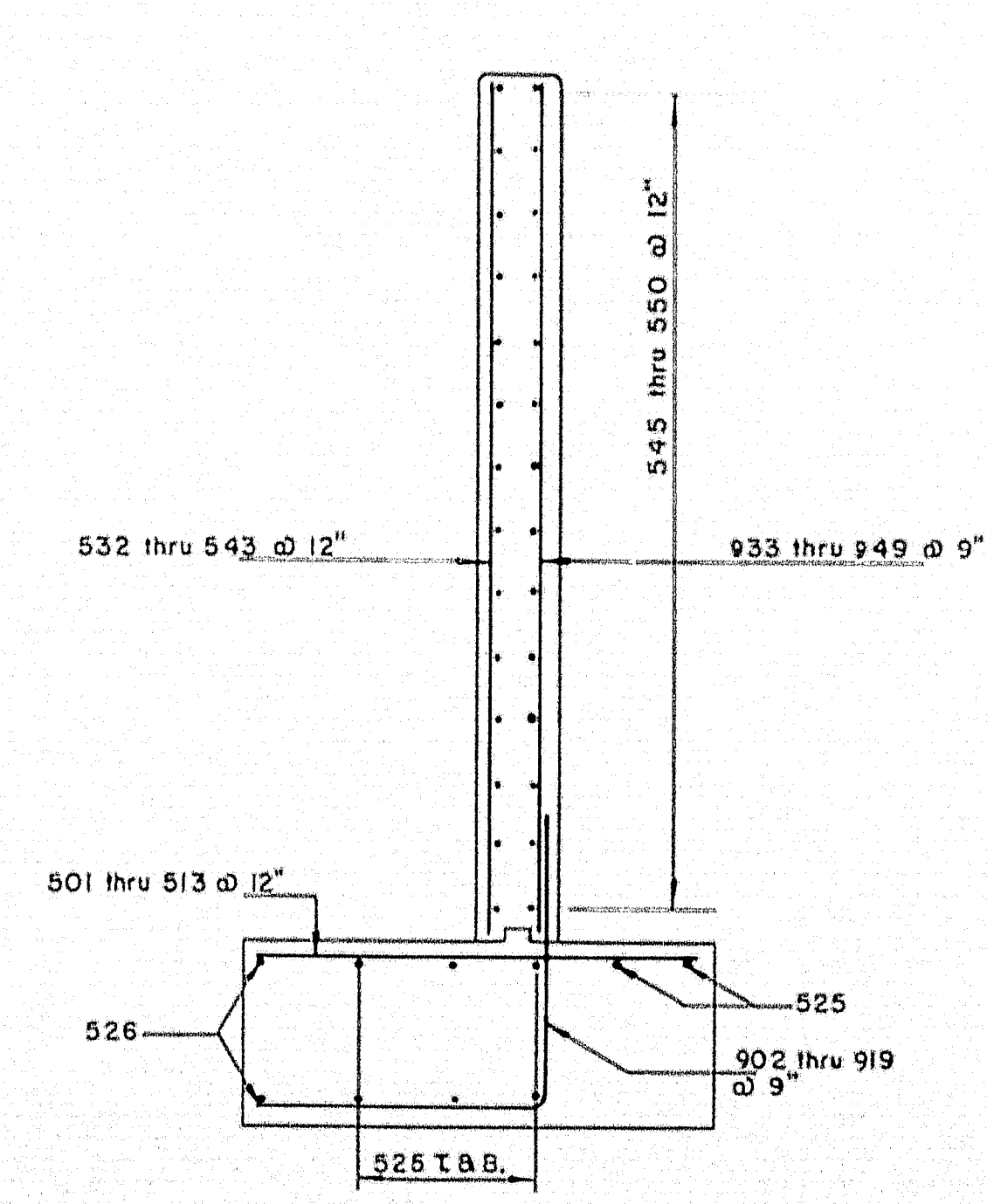
Note: All bars prefixed AE



ELEVATION WESTERLY ABUTMENT

Scale: $\frac{1}{4}$ " = 1'-0"

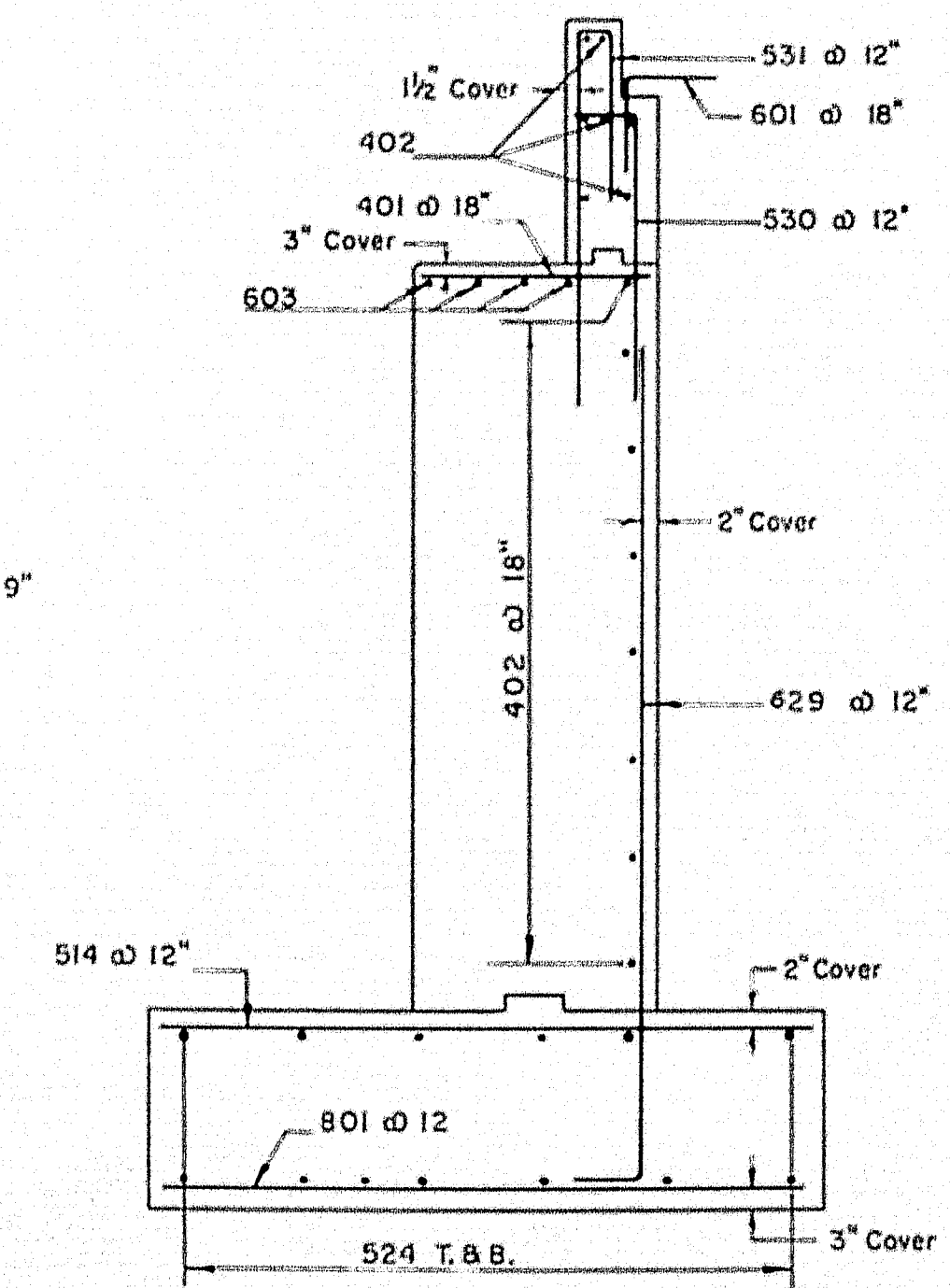
Note: All bars prefixed AW



SECTION A-A

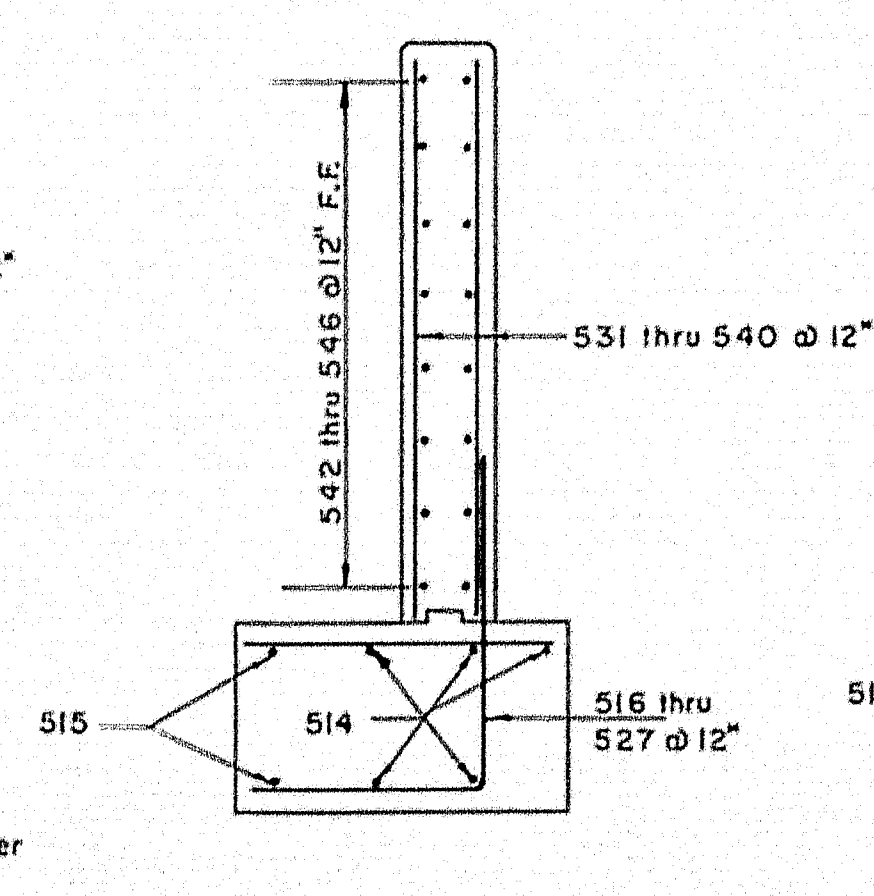
Scale: $\frac{3}{8}$ " = 1'-0"

Note: All bar marks to be prefixed AW



SECTION B-B

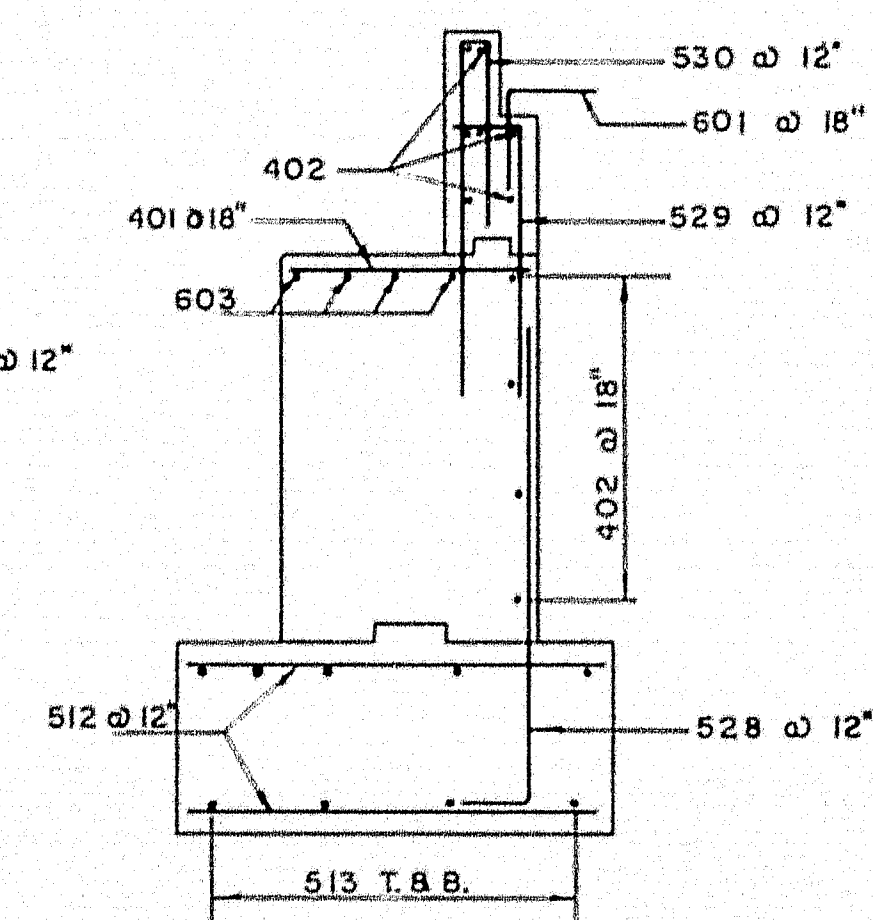
Scale: $\frac{3}{8}$ " = 1'-0"



SECTION C-C

Scale: $\frac{3}{8}$ " = 1'-0"

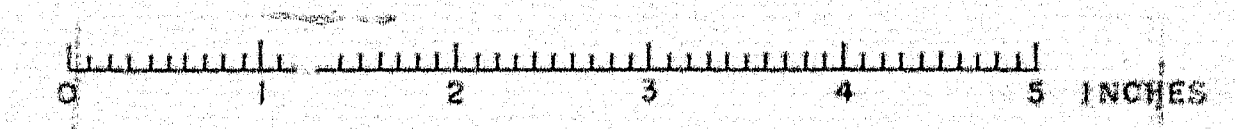
Note: All bar marks to be prefixed AE



SECTION D-D

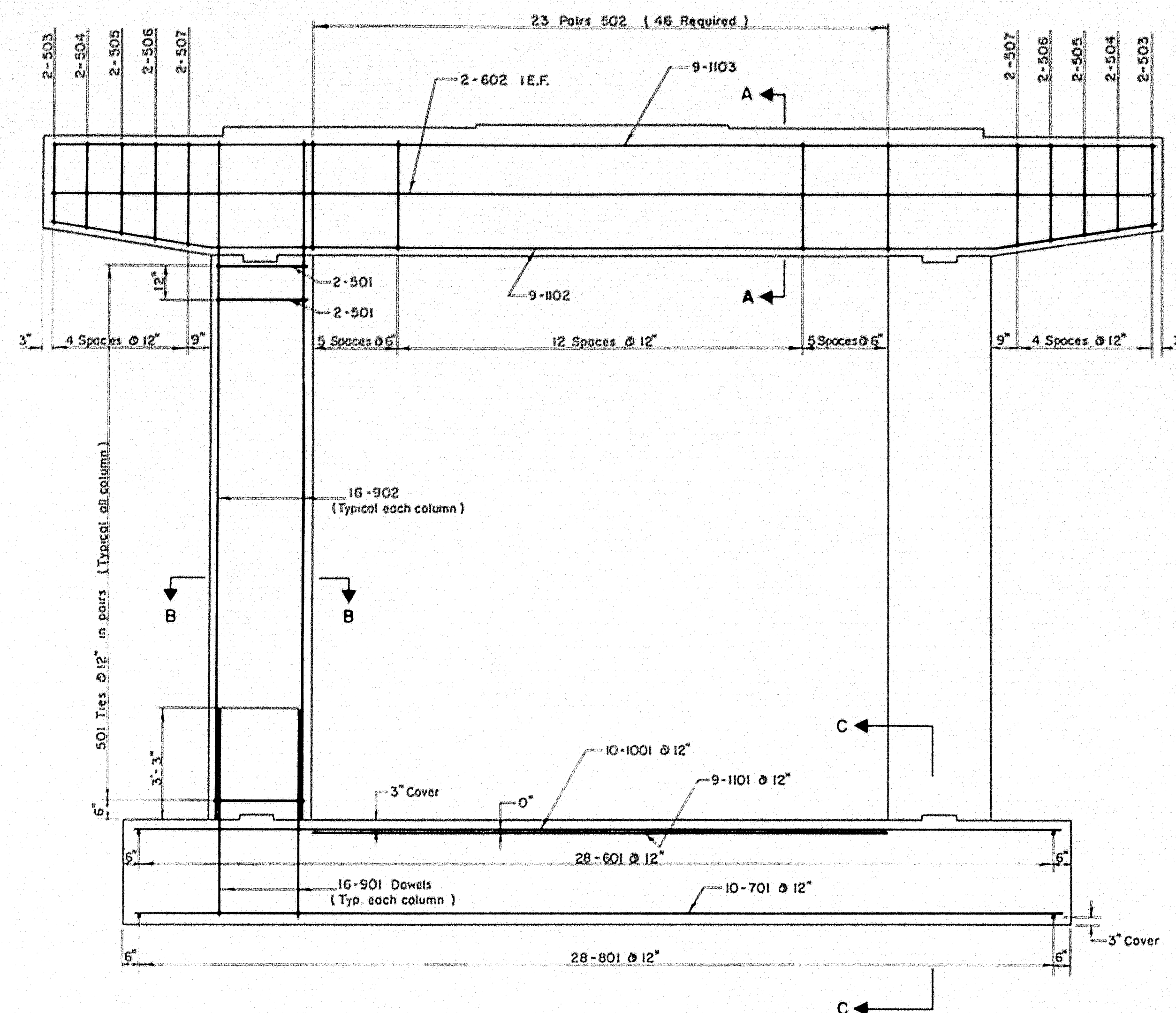
Scale: $\frac{3}{8}$ " = 1'-0"

THE CLARKESON ENGINEERING CO., INC.			
DESIGN B.J.K.	CHECK D.M.	BRIDGE NO.	
DRAWN D.E.S.	APPROVED W.A.H.	SURVEY PLOT	
STATE HIGHWAY COMMISSION			
KELLEY ROAD			
OVER			
INTERSTATE #95			
IN THE CITY OF			
ORONO			
PENOBSCOT COUNTY			
ABUTMENTS			
SHEET 1 OF 5 SHEETS		AUGUSTA, MAINE	



N.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-B(10)		

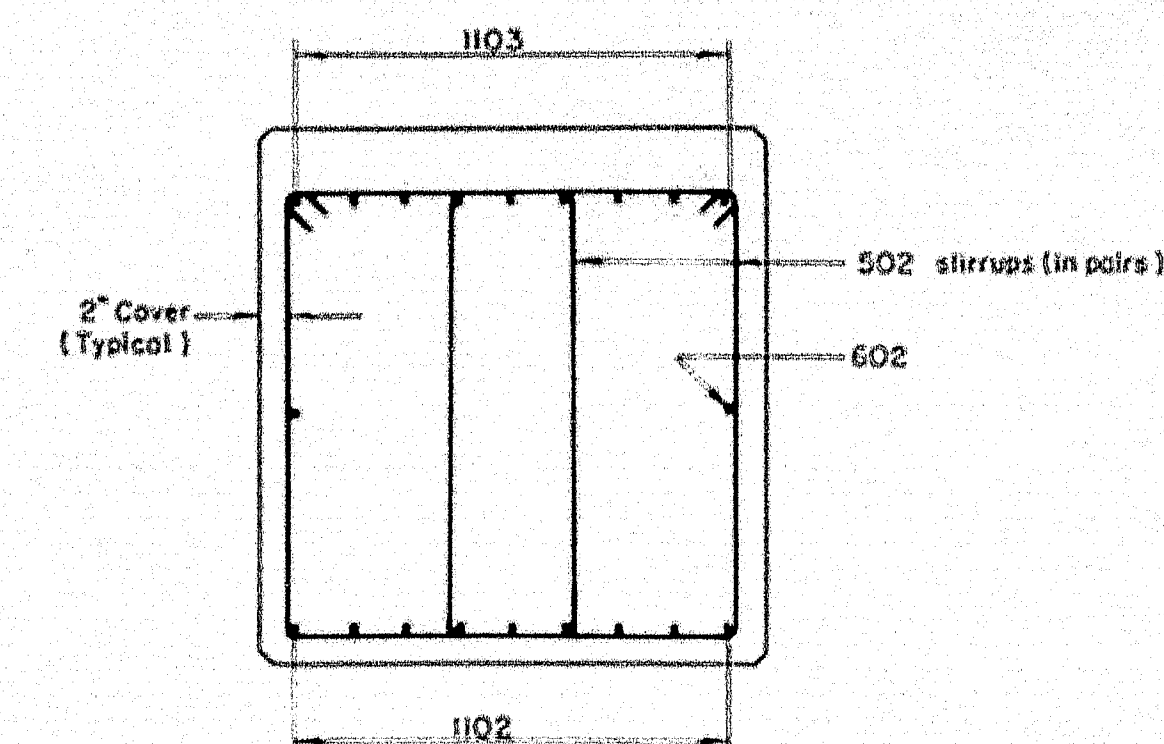
ORONO INTERSTATE



TYPICAL PIER ELEVATION

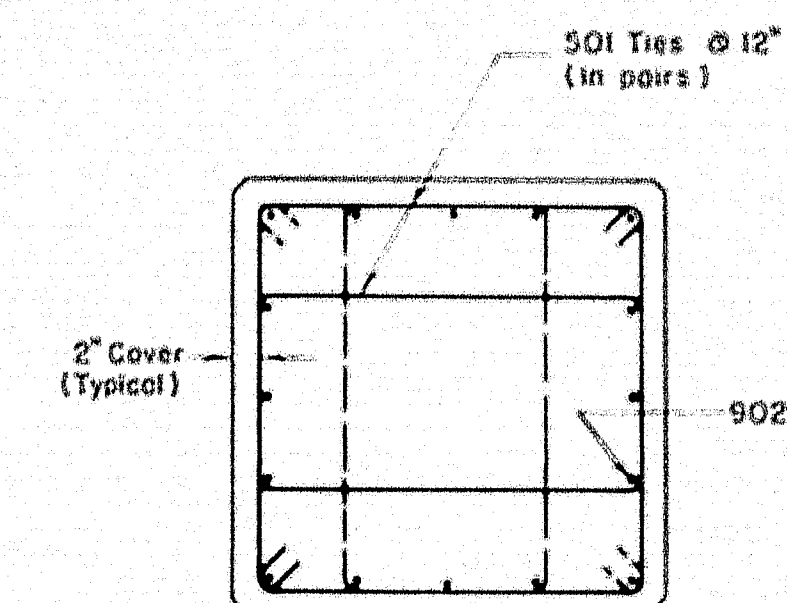
Scale $\frac{3}{8}$ " = 1'-0"

Note:
All bars to be prefixed "PA", "PB", "PC", "PD"
for Piers A, B, C, & D respectively.



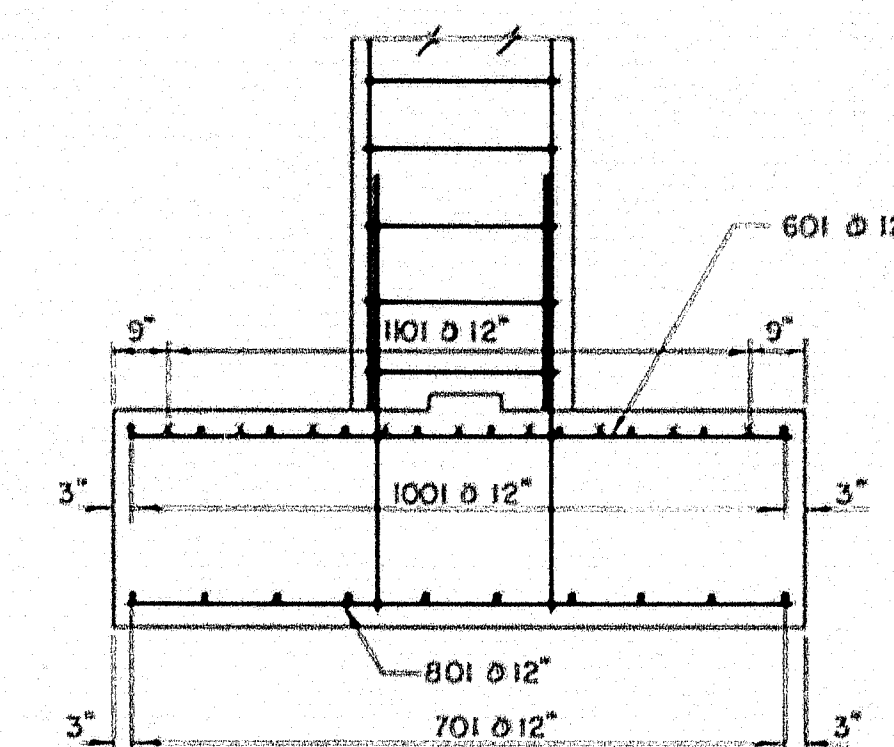
SECTION A-A

Scale $\frac{3}{4}$ " = 1'-0"



SECTION B-B

Scale $\frac{3}{4}$ " = 1'-0"



SECTION C-C

Scale $\frac{3}{8}$ " = 1'-0"

THE CLARKESON ENGINEERING CO., INC.			
DESIGN	D. M. S.	CHECK	B. J. F.
DRAWN	E. K.	APPROVED	C. J. F.
STATE HIGHWAY COMMISSION			
KELLEY ROAD			
OVER			
INTERSTATE #95			
IN THE CITY OF			
ORONO			
PENOBSCOT COUNTY			
PIER REINFORCEMENT			
SHEET 2 OF 5 SHEETS		AUGUSTA, MAINE	

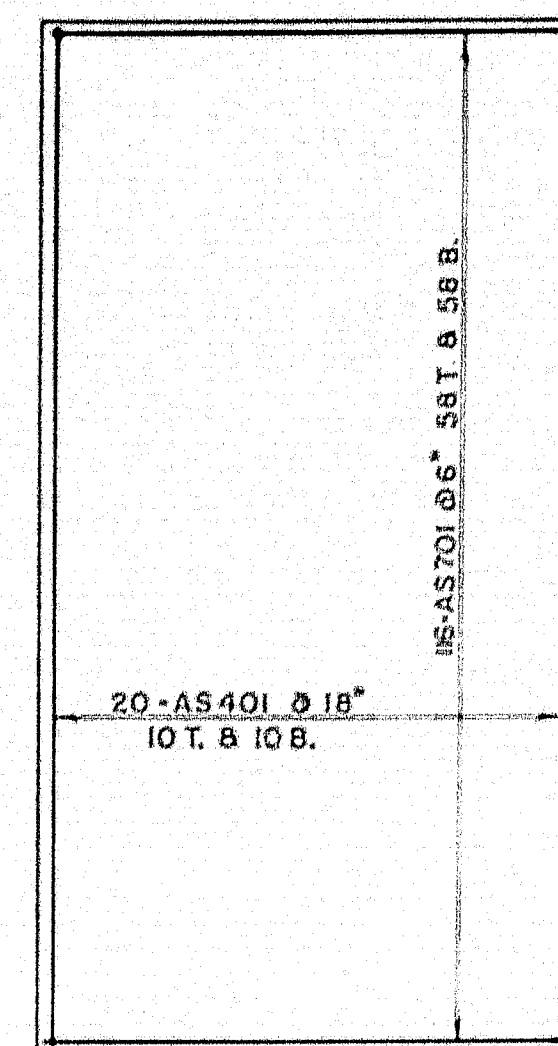
N.E. 2070101 11/11/11 44100

79-139

0 1 2 3 4 5 INCHES

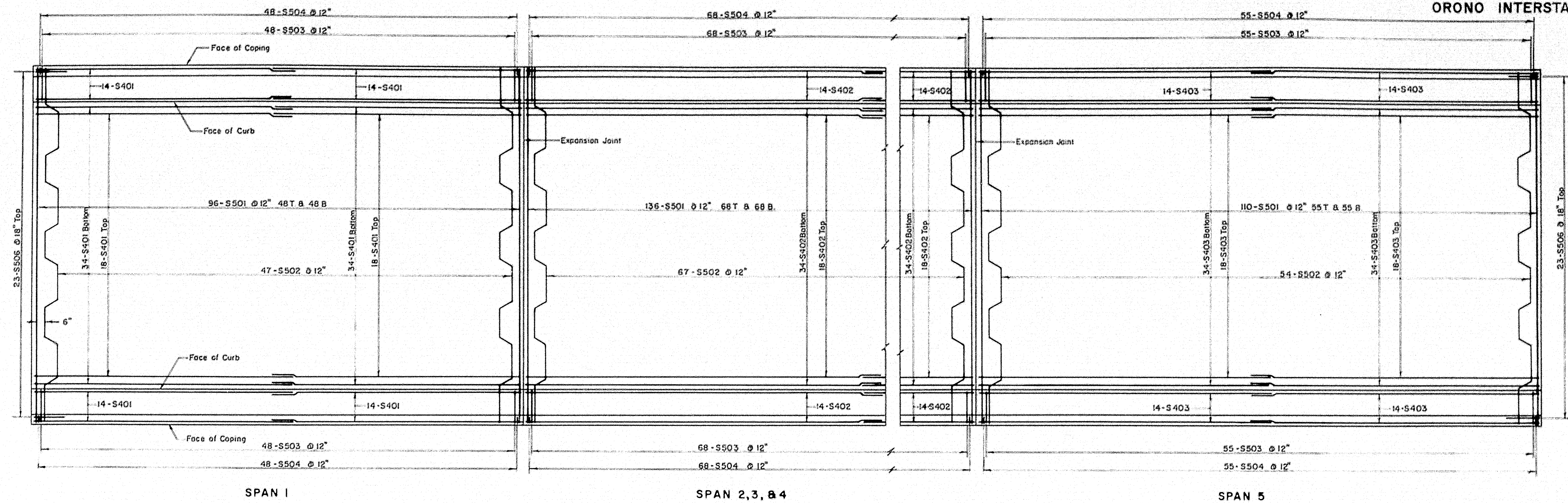
R.F.R.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8(10)		

ORONO INTERSTATE



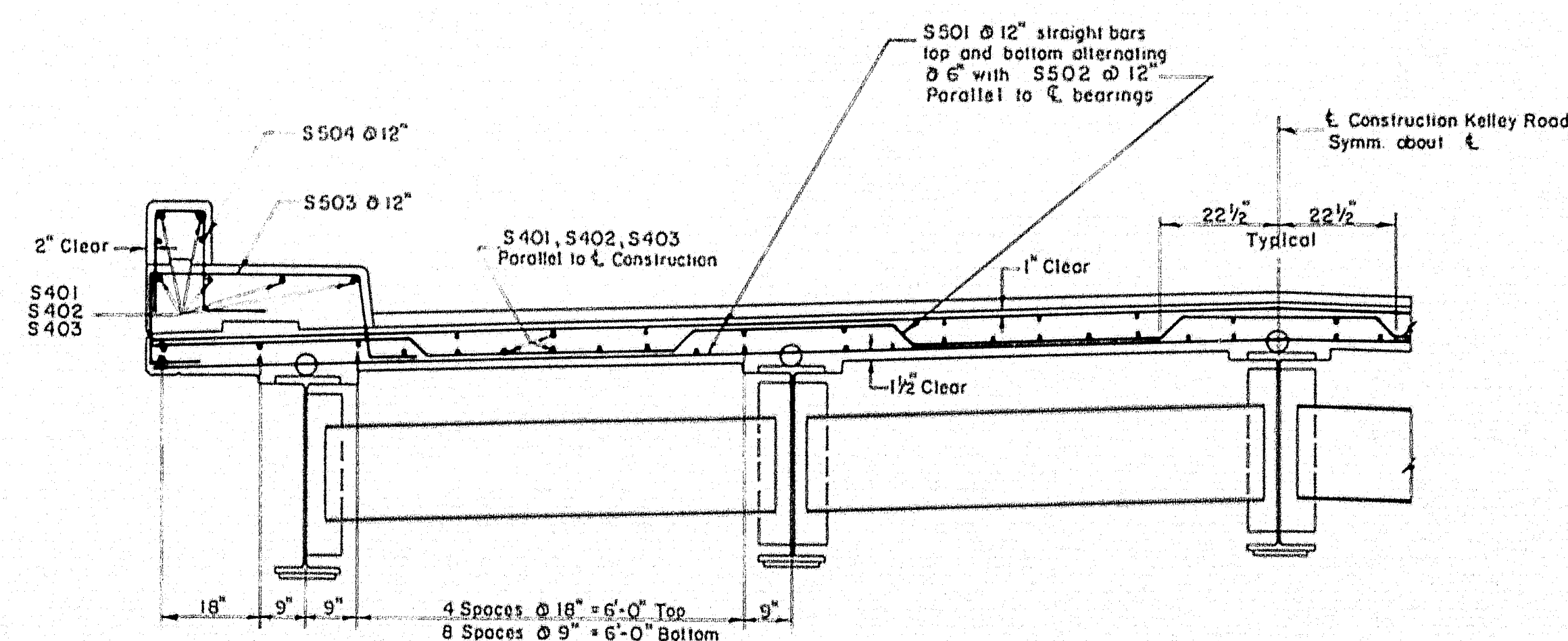
APPROACH SLABS

Scale: $\frac{3}{16}$ " = 1'-0"



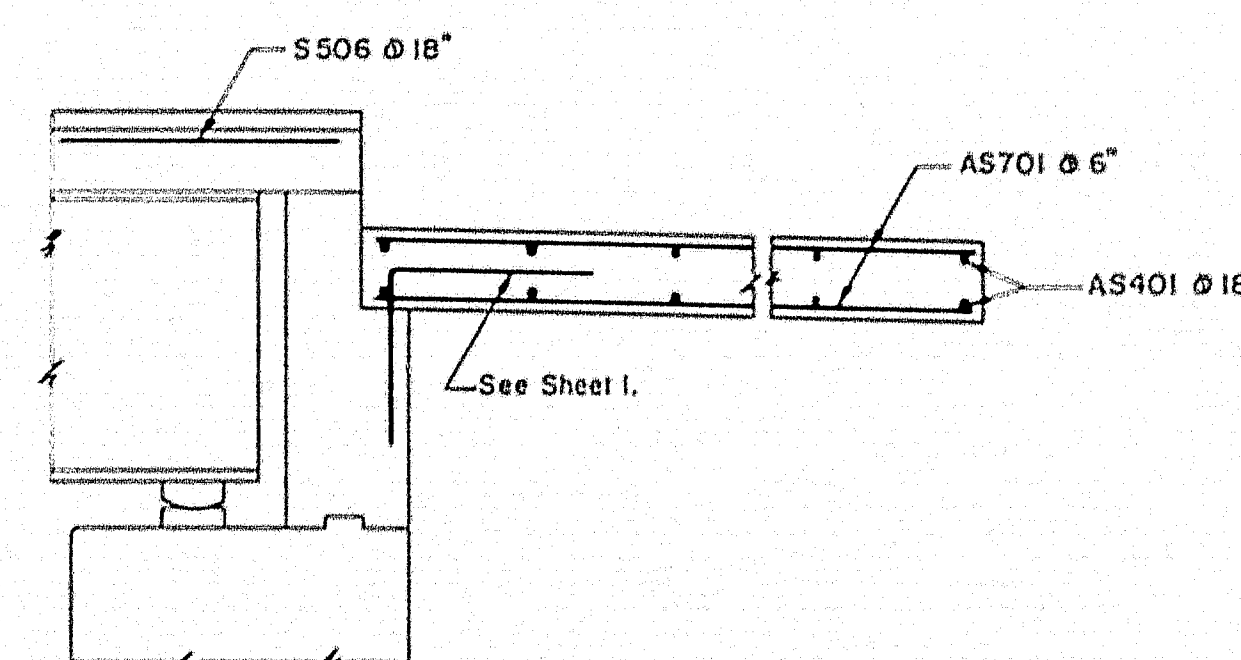
DECK SLAB REINFORCEMENT

Scale: $\frac{3}{16}$ " = 1'-0"



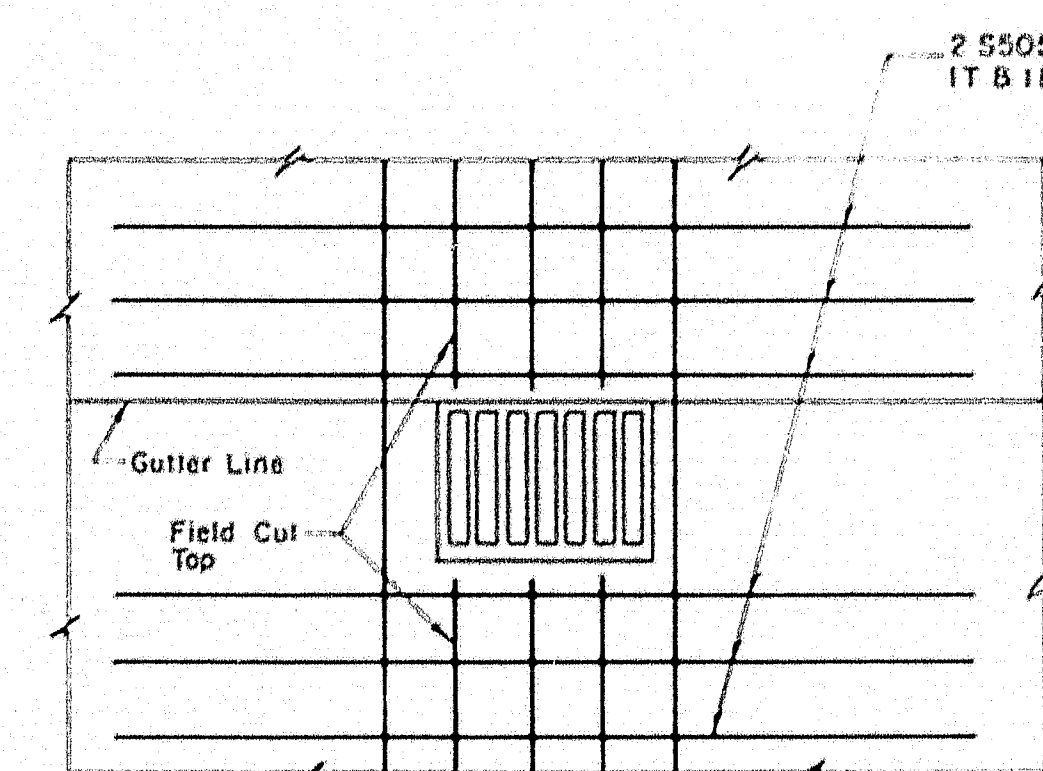
TYPICAL CROSS SECTION

Scale: $\frac{1}{2}$ " = 1'-0"



TYPICAL CROSS SECTION
(APPROACH SLABS)

Scale: $\frac{1}{2}$ " = 1'-0"



TYPICAL SCUPPER REINFORCEMENT

Scale: $\frac{3}{16}$ " = 1'-0"
(B Required)

THE CLARKSON ENGINEERING CO., INC.

DESIGN D.M.S.	CHECK B.J.P.	BRIDGE NO.
DRAWN E.K.	APPROVED W.A.H.-C.J.M.	CURVEY

STATE HIGHWAY COMMISSION

KELLEY ROAD

OVER

INTERSTATE #95

IN THE CITY OF

ORONO

PENOBSCOT COUNTY

DECK REINFORCEMENT

SHEET 3 OF 5 SHEETS

AUGUSTA, MAINE

79-140



ORONO INTERSTATE

[illegible]

NOTES

- STANDARD HOOK DETAIL

6. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.S.T.M. M31-48 or its latest revision. All bars shall be determined to conform with A.S.T.M. Specifications A305-49.

THE CLARKESON ENGINEERING CO., INC.		
DISTRICT DMS	CHECKED BY R	DATE AND DRAWN
DRAWN BY O	APPROVED BY W.A.H.M.	PLAT

STATE HIGHWAY COMMISSION

KELLEY ROAD

OVER

INTERSTATE # 95

IN THE CITY OF

ORONO

PENOBSCOT COUNTY

REINFORCEMENT SCHEDULE

SHEET 4 OF 5 SHEETS

AUGUSTA, MAINE

ORONO INTERSTATE

[illegible]

Figure 1 illustrates various types of reinforcement bars and their bending details. The diagrams are numbered 1 through 27. The diagrams show different cross-sections and bending configurations for bars, including straight bars, bent bars, and bars with hooks. Some diagrams include dimensions like 'C', 'D', 'H', 'K', 'L', 'M', 'N', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z'.

1. A straight bar with dimensions C and D.

2. A bent bar with dimensions C, D, and H.

3. A bent bar with dimensions C, D, and H.

4. A bent bar with dimensions C, D, and H.

5. A bent bar with dimensions C, D, and H.

6. A bent bar with dimensions C, D, and H.

7. A bent bar with dimensions C, D, and H.

8. A bent bar with dimensions C, D, and H.

9. A bent bar with dimensions C, D, and H.

10. A bent bar with dimensions C, D, and H.

11. A bent bar with dimensions C, D, and H.

12. A bent bar with dimensions C, D, and H.

13. A bent bar with dimensions C, D, and H.

14. A bent bar with dimensions C, D, and H.

15. A bent bar with dimensions C, D, and H.

16. A bent bar with dimensions C, D, and H.

17. A bent bar with dimensions C, D, and H.

18. A bent bar with dimensions C, D, and H.

19. A bent bar with dimensions C, D, and H.

20. A bent bar with dimensions C, D, and H.

21. A bent bar with dimensions C, D, and H.

22. A bent bar with dimensions C, D, and H.

23. A bent bar with dimensions C, D, and H.

24. A bent bar with dimensions C, D, and H.

25. A bent bar with dimensions C, D, and H.

26. A bent bar with dimensions C, D, and H.

27. A bent bar with dimensions C, D, and H.

Enlarged View Showing Bar Bending Details

Where slope offset of 1/4" or more must be shown

NOTES

1. All dimensions are out to out of bar
2. "J" dimensions or "B" hooks to be shown only where necessary for alternative standard hooks are to be used
3. Where "J" is not shown, "J" will be not equal to or less than "H". Where "J" can exceed "H", it should be shown
4. "H" dimension on stirrups to be shown where necessary to restrict hook
5. Where bars are to be bent more accurately than standard bending bar dimensions which require closer working should have limits indicated
6. Figures in circles show types

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' is to be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks
5. Where bars are to be bent more accurately than standard bending tolerances, bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of some.

Diagram illustrating the Standard Hook Detail for reinforcement bars. The hook is labeled "Hook A or G". The development length is specified as "13d or 25 min". The overall length is labeled "Detailing Dimension O". The bar diameter is denoted by "d". The height of the hook is denoted by "H".

BAR SIZES

Equivalent Size	Present (Numbers)
1" ⁰	#2
1 1/8"	#3
1 1/4"	#4
1 3/8"	#5
1 1/2"	#6
1 3/4"	#7
1 7/8"	#8
1 15/16"	#9
1 1/2"	#10
1 3/4"	#11

6. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or its latest revision.
All bars shall be determined to conform with A.S.T.M. Specifications A305-49.

Footings	3919 #
Slabs	1300 #
Wings	2992 #
Total	8211 #

DESIGN O.M.S.	CHECK BJK	BRIDGE NO.
DRAWN B O	APPROVED WAH-CJM	SURVEY PLOT

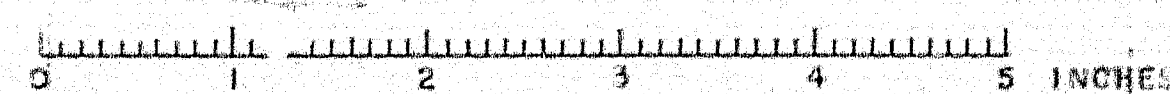
KELLEY ROAD

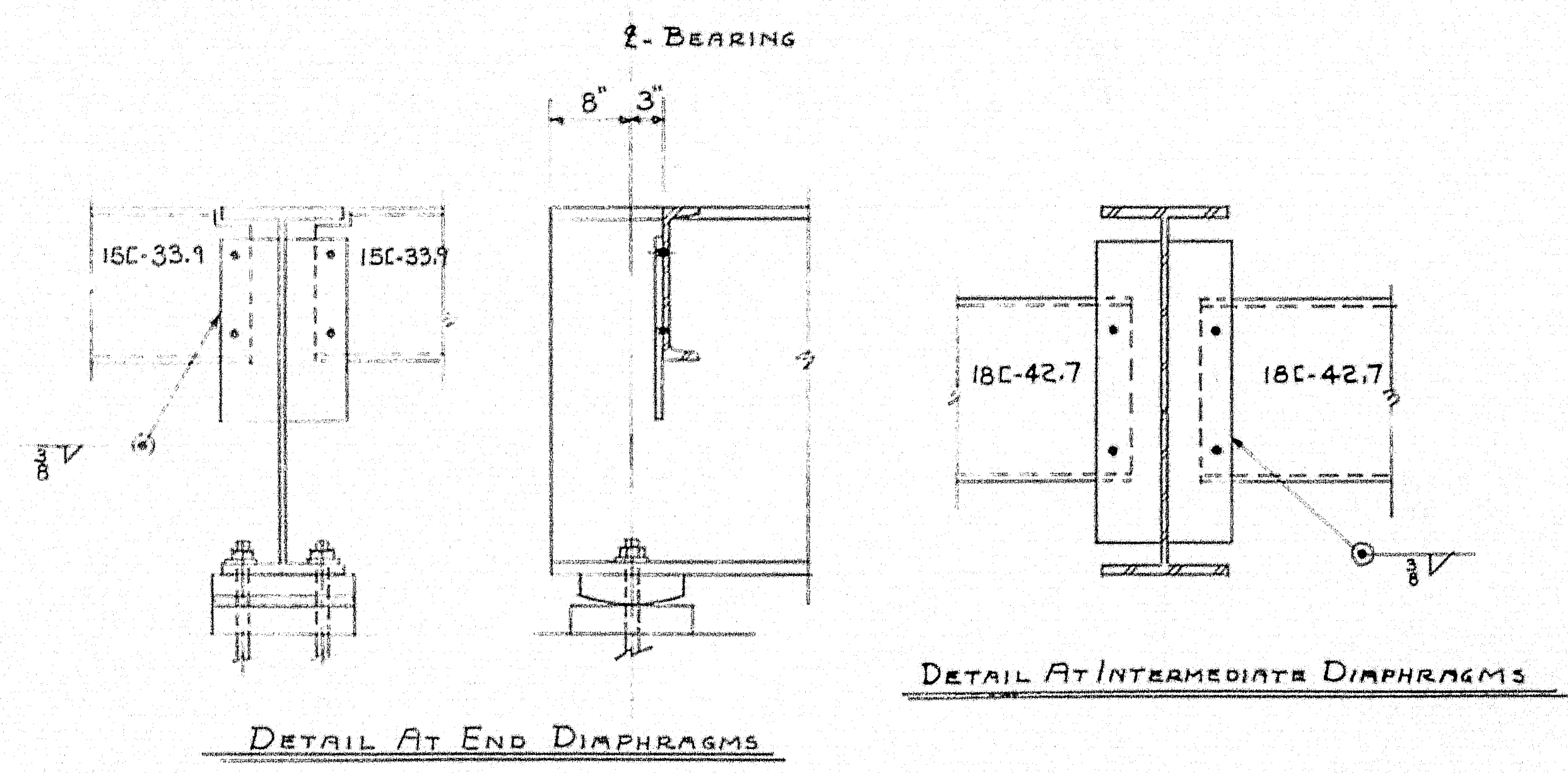
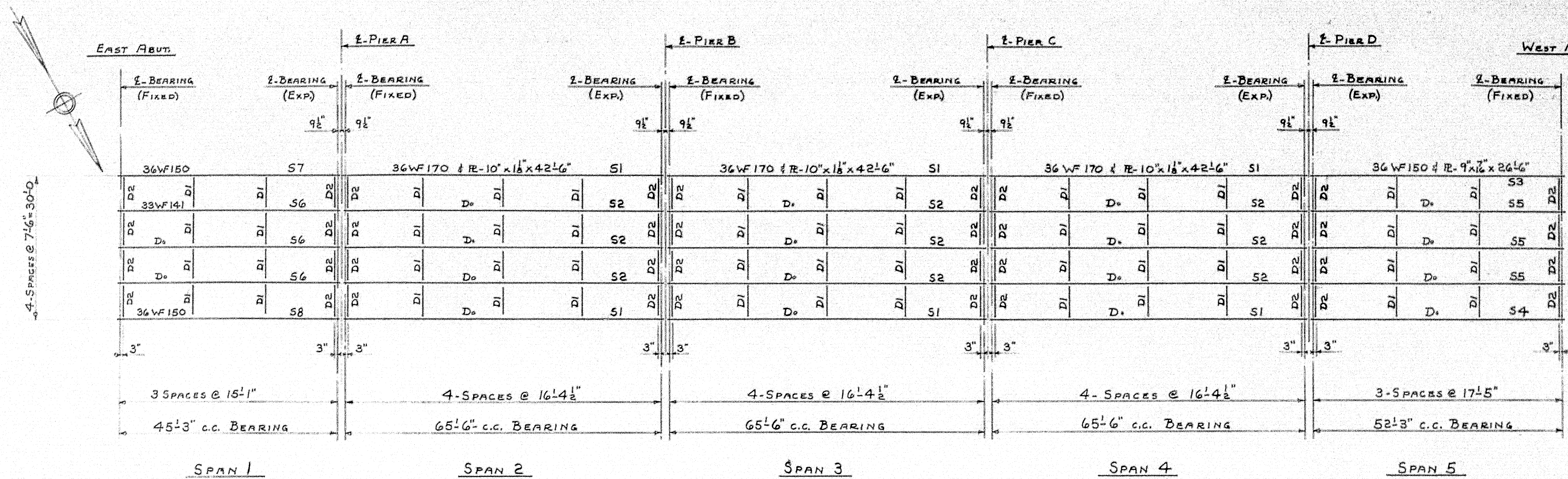
ORONO

PERDUE SCOT COUNTY

REINFORCEMENT SCHEDULE

SHEET 5 OF 5 SHEETS AUGUSTA, MAINE





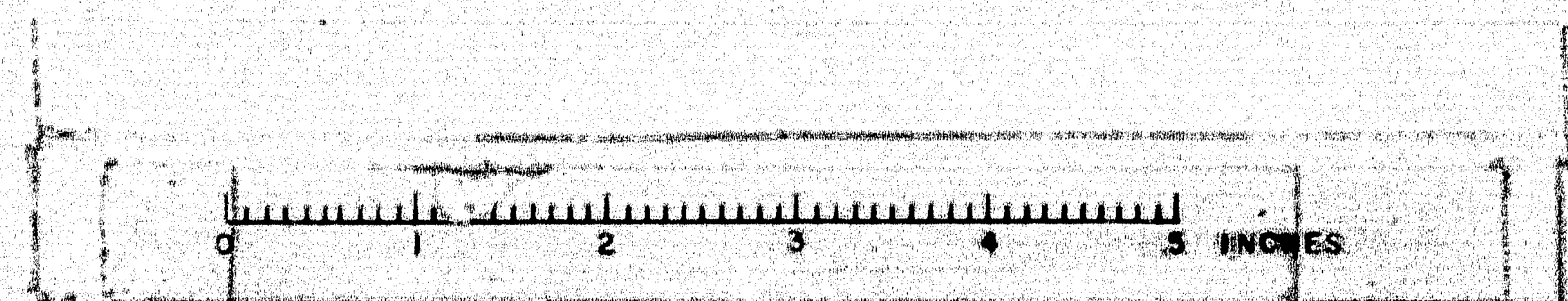
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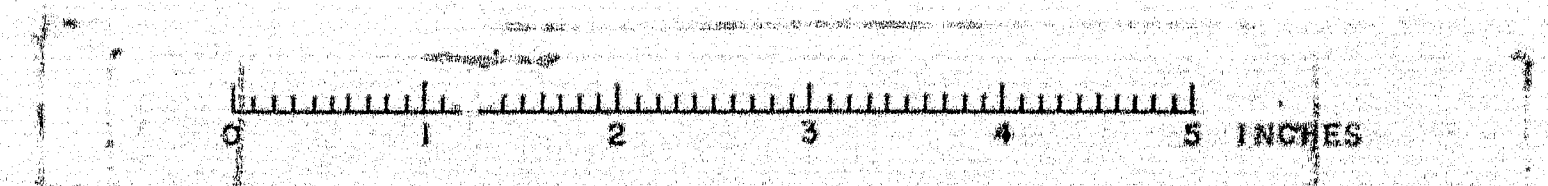
APPROVED 7-18-60

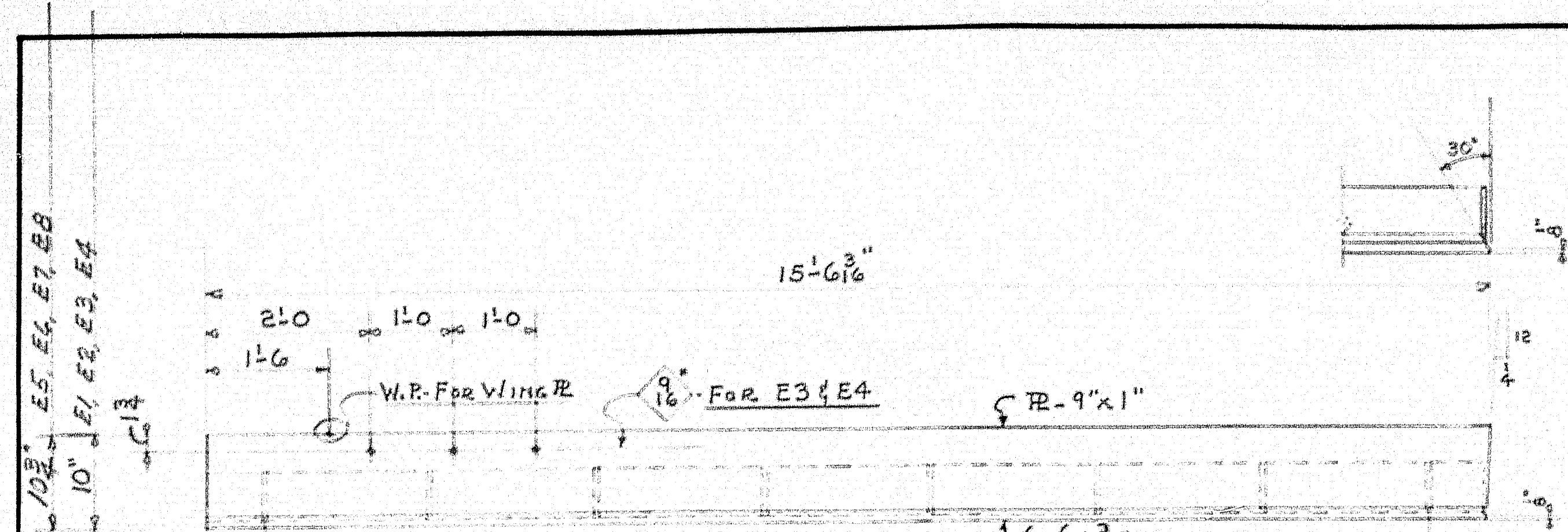
FRAMING PLAN	
Bancroft & Weston Rolling Mills Company Brewer, Maine	
KELLY ROAD BRIDGE OVER INTERSTATE #95 ORONO MAINE	
CUSTOMER H.B. FLEMING, INC.	
DESIGNER CLARKSON ENG. CO., INC.	
ORDER VERBAL	DWG. B60-192-E1

3 - DIST. 7-23
1 - SHOP 7-23
2 - F/A-7-5-60

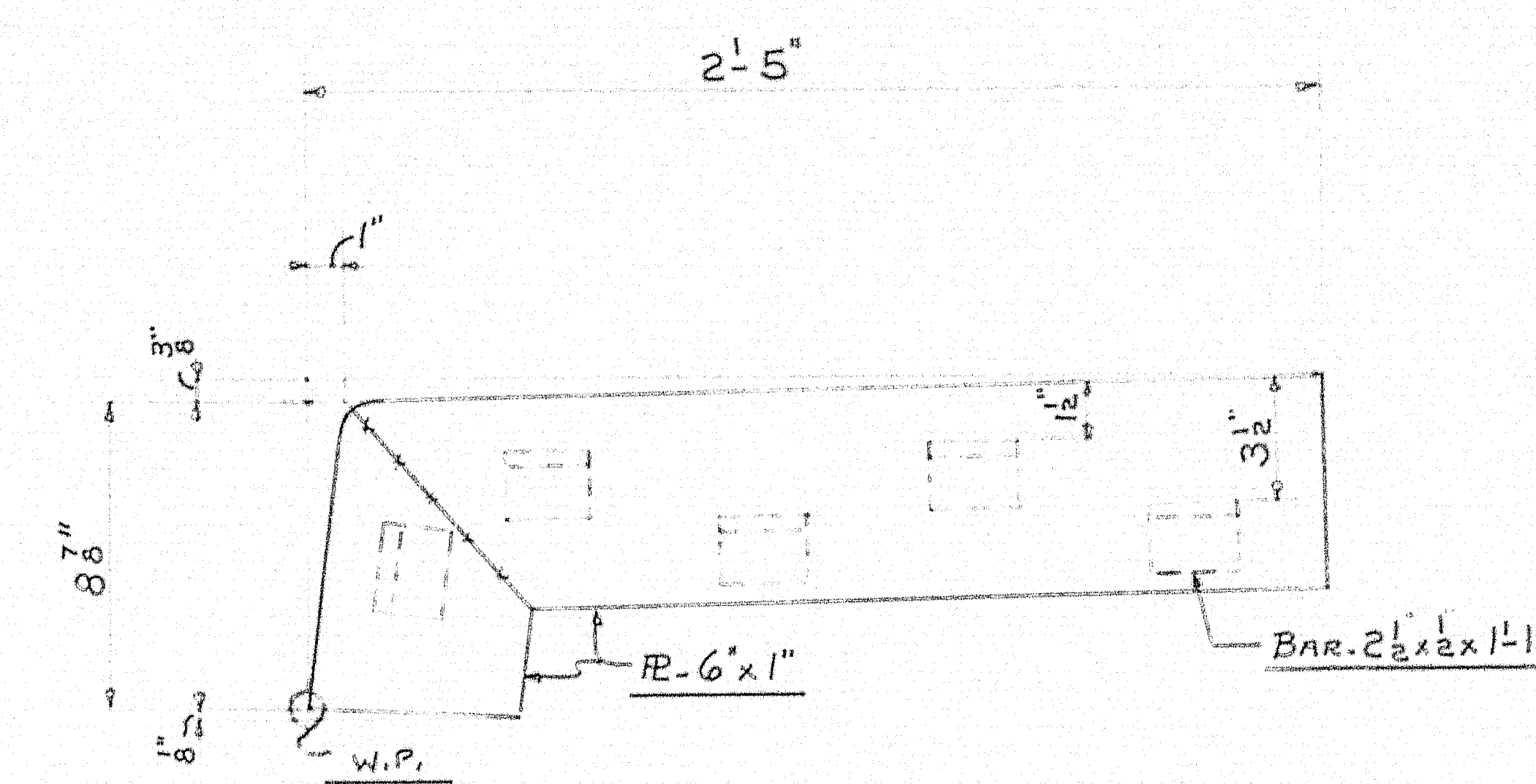
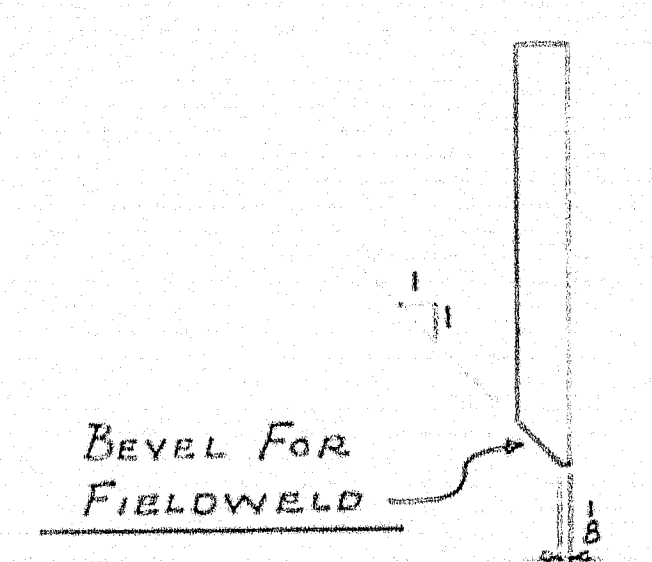
DRAWN	6-9-60 D.C.
REVISION	
REVISION	
REVISION	



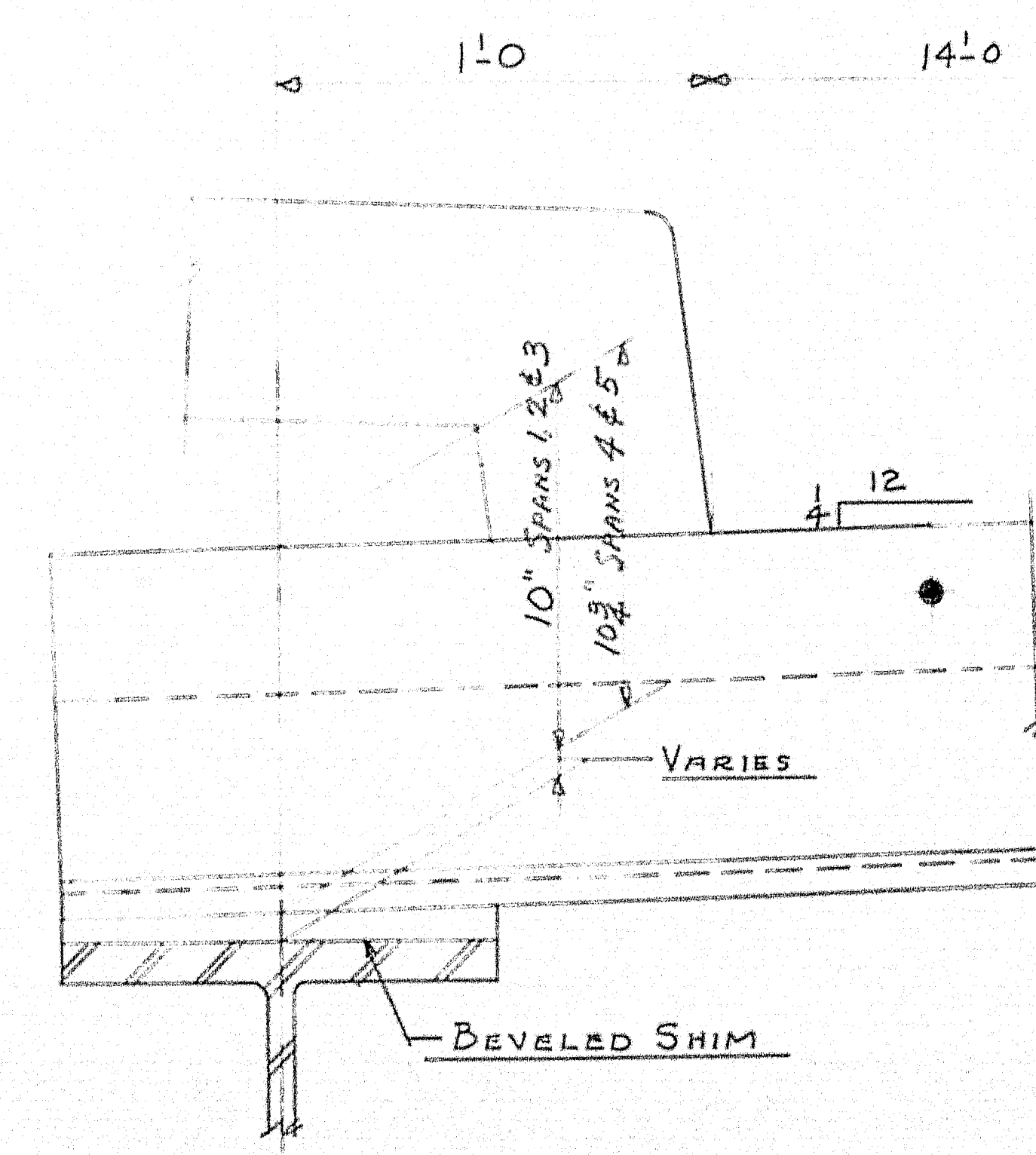
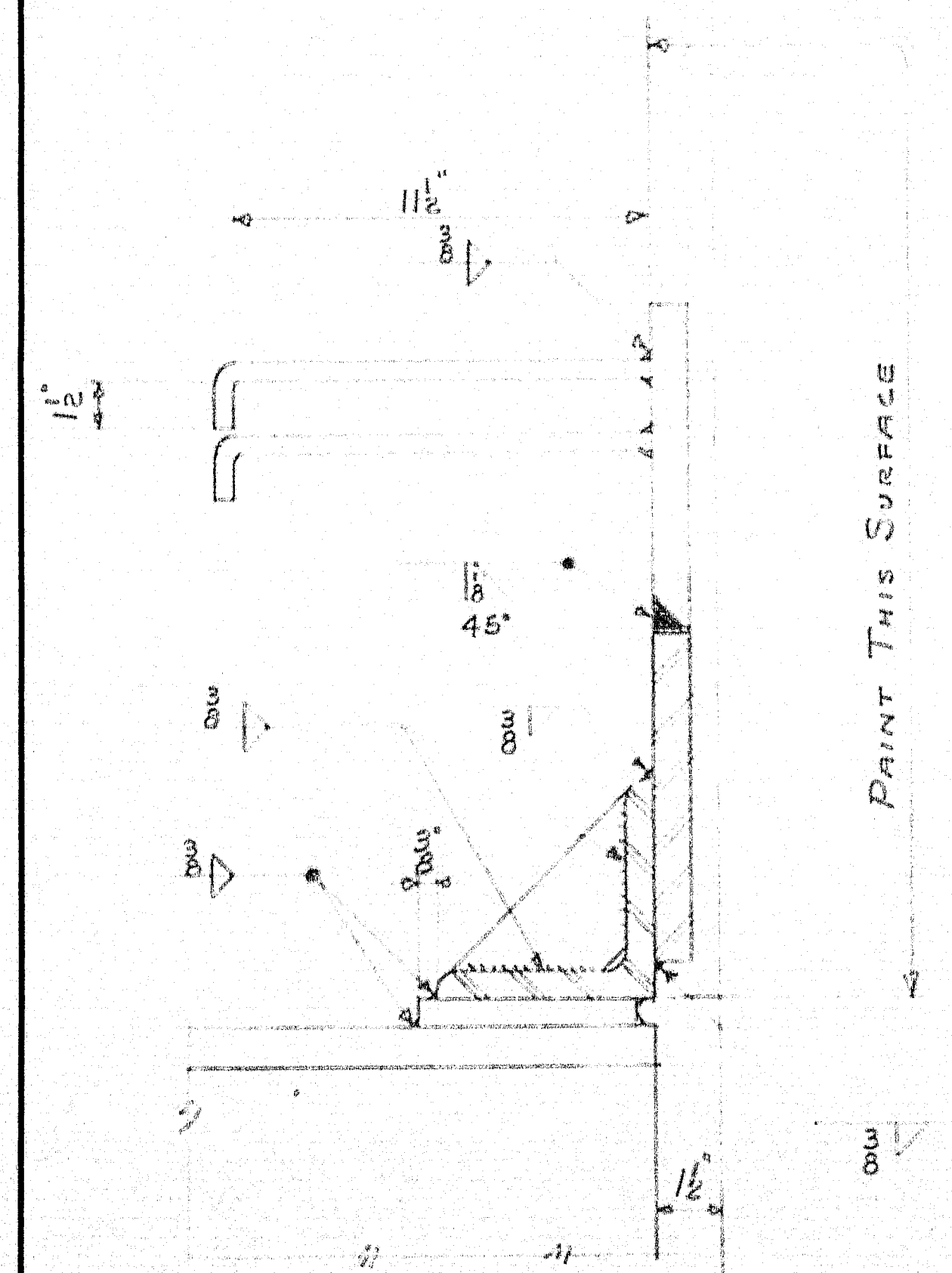




- BAR-3" x 3/8" x 0'-7" @ 2'-0" O.C.
- 3 - E1 - As Shown
 - 3 - E2 - Opp. Hd.
 - 2 - E3 - As Shown
 - 2 - E4 - Opp. Hd.
 - 2 - E5 - As Shown
 - 2 - E6 - Opp. Hand
 - ONE - E7 As Shown
 - ONE - E8 Opp. Hand
- SPANS 1, 2 & 3
- SPANS 4 & 5
- # - PIER
- 50' F. @ Piers A, B & C.
- 50' F. @ PIER D.



- 8 - W1 - As Shown
- 8 - W2 - Opp. Hand



SHIP		BILL OF MATERIAL				DWG. B60-192-S4	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	DEDUCT.	REMARKS
E1	3		6x6x3/8	15'6"		7#	
E2	3		D.	15'6"		7#	
E3	2		D.	15'6"		7#	
E4	2		D.	15'6"		7#	
E5	2		D.	15'6"		7#	
E6	2		D.	15'6"		7#	
E7	1		D.	15'6"		7#	
E8	1		D.	15'6"		7#	
	16		R 9 x 1	15'6"		16#	
	128		Bar 3 x 3/8	0'7"		122#	
W1	8		R 6 x 1	2'7 1/2"			
W2	8		D.	2'7 1/2"			
	80		Bar 2 1/2 x 1/2	1'1"			
	1		3/8" WELD	620'0"			@ .24 lb. Per Ft.

SHOP CONNECTIONS: WELD
 FIELD CONNECTIONS: D.
 HOLES: As NOTED
 PAINT: STATE OF MAINE SPEC'S.

3-List. 7-23-60
 4-SHIP 7-23-60
 2-FIA-7-5-60

EXPANSION DAMS
 Bancroft & Martin Rolling Mills Company
 Brewer, Maine

KELLY ROAD BRIDGE
 OVER INTERSTATE #95
 ORONO MAINE

CUSTOMER H.B. FLEMING INC.
 DESIGNER CLARKSON ENG. CO., INC.

ORDER VERBAL DWG. B60-192-S4

