

# STATE OF MAINE STATE HIGHWAY COMMISSION



## PORTLAND CUMBERLAND COUNTY MAINE FEDERAL AID INTERSTATE PROJECT NO. 1-295-3 (54)48

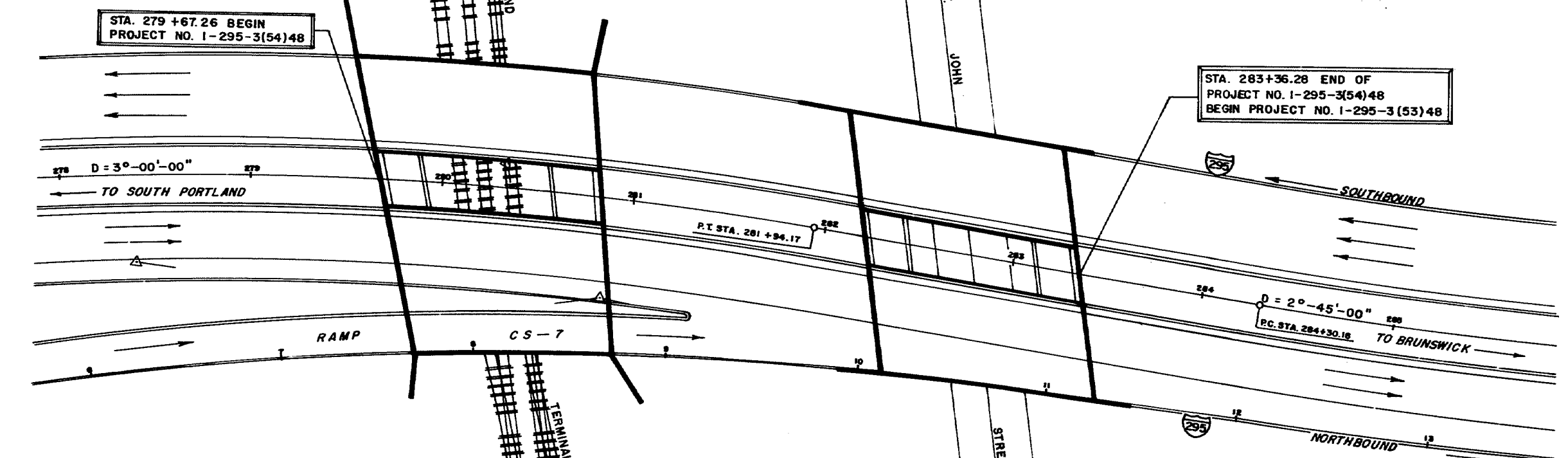
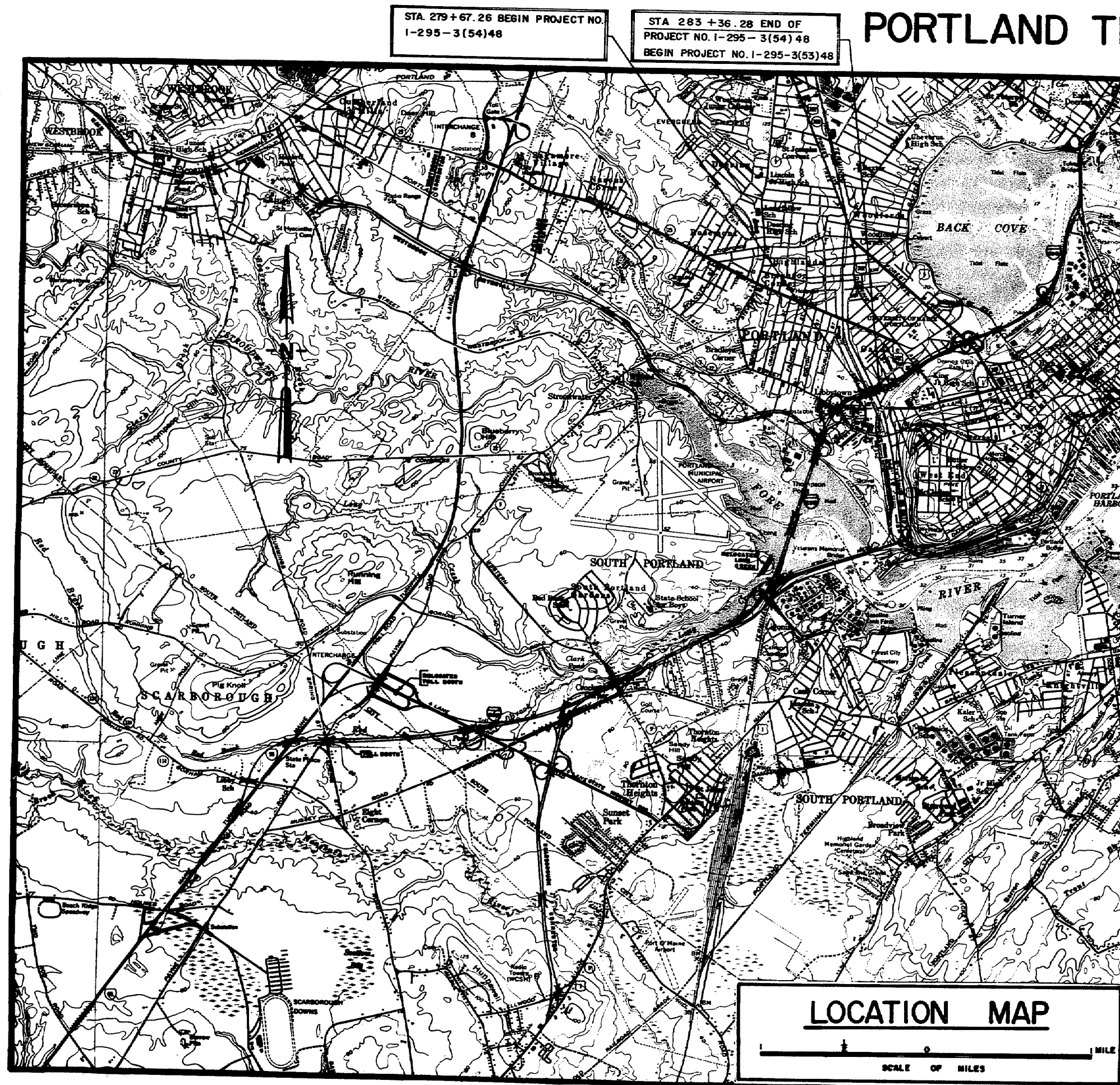
TOTAL LENGTH 0.070 MILES

1-295 AND CS-7  
OVER

## PORTLAND TERMINAL RAILROAD MAIN LINE CROSSING AND ST. JOHN STREET

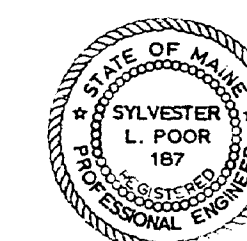
CONVENTIONAL SIGNS	
COUNTY LINES	TRAVELLED WAY - PROPOSED
TOWN LINES	UNDERGROUND UTILITIES - EXISTING
PROPERTY LINES	UNDERGROUND UTILITIES - PROPOSED
R/W LINES - EXISTING	RAILROAD - SINGLE TRACK
R/W LINES - NEW - ACCESS CONTROL	RAILROAD - DOUBLE TRACK
R/W LINES - NEW - NO ACCESS CONTROL	UTILITY POLE - EXISTING
CULVERT - EXISTING	UTILITY POLE - JOINT OCCUPANCY
CULVERT - PROPOSED	PROPOSED UTILITY POLE - TEMPORARY
CURBING - EXISTING	PROPOSED UTILITY POLE - PERMANENT
CURBING - PROPOSED	TREES
TRAVELLED WAY - EXISTING	WOODS

INDEX OF SHEETS	
SHEET NO.	CONTENTS
1	TITLE SHEET
2	GENERAL PLAN
3	QUANTITIES & R/W MON. LIST
4-5	RIGHT OF WAY
6	PLAN SHEET
7	TYPICAL SECTIONS
8-9	PROFILES
10-18	CROSS SECTIONS 1-295
19-28	CROSS SECTIONS RAMP CS-7
29-33	SOILS
34-61	STRUCTURAL PLANS 1-295 & CS-7 OVER MAIN LINE PORTLAND TERMINAL RAILROAD
62-79	STRUCTURAL PLANS 1-295 & CS-7 OVER ST. JOHN STREET
80-85	STANDARD DETAIL SHEETS



TRAFFIC DATA		
A.D.T.	1970	1990
RAMP CS-7	830	23,846
1-295		27,430
D.H.V.	108	2,743
T. (%)	5%	5%
D. (%)		55%
V.	50 mph	50 mph
P.S.D. (%)	N/A	N/A
18 KIPS	N/A	N/A

LAYOUT PLAN  
SCALE: 1" = 50'



APPROVED:  
MAINE STATE HIGHWAY COMMISSION

*David W. Sturges*  
CHAIRMAN  
*Barbara G. Leach*  
*Steven J. Shaw*  
*Sylvester L. Poor*  
CHIEF ENGINEER

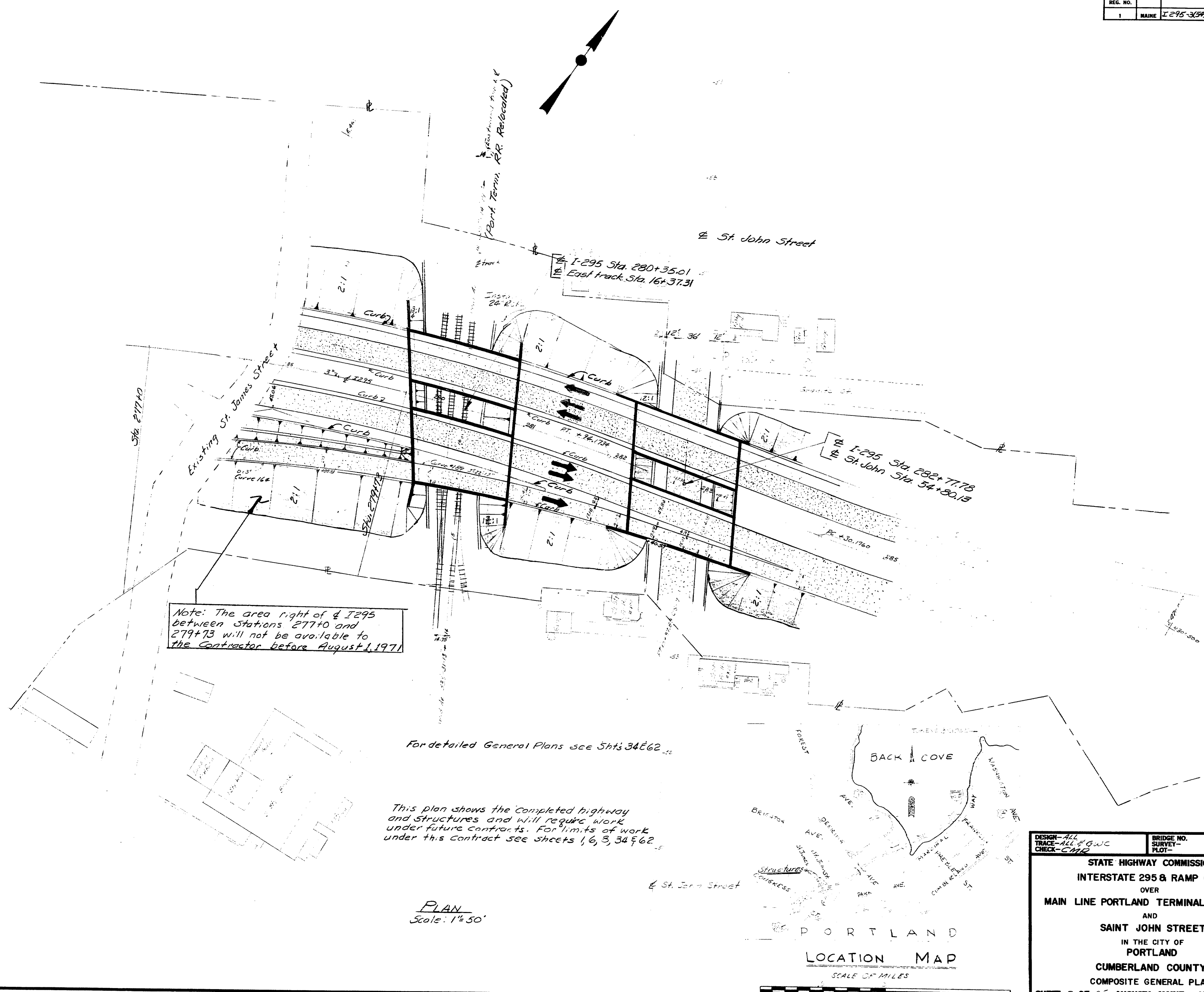
DATE  
MAY 19, 1971  
MAY 19, 1971  
MAY 19, 1971  
MAY 19, 1971

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 1  
APPROVED:  
DIVISION ENGINEER  
DATE

NOTE  
ALL WORK CONTEMPLATED UNDER THIS CONTRACT  
SHALL BE GOVERNED BY AND IN CONFORMITY WITH  
THE STANDARD SPECIFICATIONS (REVISION OF JUNE)  
1968 AND SUPPLEMENTS THERETO, EXCEPT AS MOD-  
IFIED ON THE PLANS AND IN THE SPECIAL PROVIS-  
IONS.

152-87

S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3591-48	2	85



DESIGN-ALL TRACE-ALL CHECK-CHB	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION INTERSTATE 295 & RAMP CS-7 OVER MAIN LINE PORTLAND TERMINAL RAILROAD AND SAINT JOHN STREET IN THE CITY OF PORTLAND CUMBERLAND COUNTY COMPOSITE GENERAL PLAN SHEET 2 OF 85 AUGUSTA, MAINE MAY 1971	

152-88



ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	Common Excavation	600	Cu. Yd.
203.25	Granular Borrow	55,000	Cu. Yd.
203.26	Gravel Borrow	910	Cu. Yd.
*304.10	Aggregate Subbase Course - Gravel	250	Cu. Yd.
501.215	Steel H-beam Piles 74 lbs./ft.	5050	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls	2140	Cu. Yd.
502.2601	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges - Portland Terminal Railroad	/	L.S.
502.2602	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges - St. John St.	/	L.S.
*502.3101	Structural Concrete, Approach Slabs - P.T.R.R.	/	L.S.
*502.3102	Structural Concrete, Approach Slabs - St. John	/	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	377,000	Lb.
503.13	Reinforcing Steel, Placing	377,000	Lb.
504.7001	Structural Steel, Fab. & Delivered - P.T.R.R.	/	L.S.
504.7002	Structural Steel, Fab. & Delivered - St. John St.	/	L.S.
504.7101	Structural Steel, Erection - P.T.R.R.	/	L.S.
504.7102	Structural Steel, Erection - St. John St.	/	L.S.
505.0801	Shear Connectors - P.T.R.R.	/	L.S.
505.0802	Shear Connectors - St. John St.	/	L.S.
506.1401	Field Painting, Structural Steel - P.T.R.R.	/	L.S.
506.1402	Field Painting, Structural Steel - St. John St.	/	L.S.
507.05	Bridge Railing	1140	L.F.
*508.10	Membrane waterproofing	2560	Sq. Yd.
512.07	French Drains (Stones only)	115	Cu. Yd.
513.09	Slope Protection - Port. Cem. Concrete	760	Sq. Yd.
513.10	Slope Protection - Bit. Treated Stone	1050	Sq. Yd.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	540	Sq. Yd.
520.07	Elastomeric Expansion Device (Type I)	231	L.F.
609.13	Vertical Bridge Curb - Type I	1190	L.F.
610.03	Hand Laid Riprap	20	Cu. Yd.
615.07	Loam	200	Cu. Yd.
616.08	Sodding	225	Sq. Yd.
617.09	Erosion Control Mesh (Standard) (Not used)	200	Sq. Yd.
618.13	Seeding, Method Number 1	25	Unit
618.15	Temporary Seeding	20	Lbs.
619.08	Hay Mulch	1	Ton
623.06	Right-of-way Monuments	11	Each
629.05	Labor, Straight Time (Not used)	100	M.Hr.
632.08	Warning Lights	2	Group
637.07	Sprinkling (Not used)	10	M.G.
637.08	Calcium Chloride (Not used)	2	Ton
638.0101	Embedded Work in Structures - P.T.R.R.	/	L.S.
638.0102	Embedded Work in Structures - St. John St.	/	L.S.
639.08	Field Office, Type A	/	Each

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.25	Maintenance of Traffic	/	L.S.
657.20	Seed and Application Method A (Not used)	1	Acre
660.20	On The Job Training	2000	M.Hr.
EW 0#4	7" x 12" TIES REMOVE	9	Each
EW 0#4	8" x 12" TIES REMOVE	9	Each
EW 0#4	STUMPS REMOVE	9	Each
EW 0#7	24" R.C.P.	235	L.F.
EW 0#7	All Purpose Excavation Item 631.12	4.5	Hrs
EW 0#7	Truck-haul Item 631.12	8.0	Hrs

# ESTIMATED QUANTITIES FOR LUMP SUM ITEMS

502.2601 - Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges - P.T.R.R. - 435 c.y.  
502.2602 - Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges - St. John St. - 355 c.y.  
\* 502.3101 - Structural Concrete, Approach Slabs - P.T.R.R. - 75 c.y.  
\* 502.3102 - Structural Concrete, Approach Slabs - St. John St. - 71 c.y.  
504.7001 - Structural Steel, Fab. & Delivered - P.T.R.R. - 410,000 lbs.  
504.7002 - Structural Steel, Fab. & Delivered - St. John St. - 398,000 lbs.  
504.7101 - Structural Steel, Erection - P.T.R.R. - 410,000 lbs.  
504.7102 - Structural Steel, Erection - St. John St. - 398,000 lbs.  
505.0801 - Shear Connectors - P.T.R.R. - 8840 = 2360 lbs.  
505.0802 - Shear Connectors - St. John St. - 8382 = 2360 lbs.  
506.1401 - Field Painting, Structural Steel - P.T.R.R. - 410,000  
506.1402 - Field Painting, Structural Steel - St. John St. - 398,000  
638.0101 - Embedded Work in Structures - P.T.R.R. - 280' lin. ft. of 3" P.V.C. conduit plus fittings  
638.0102 - Embedded Work in Structures - St. John St. - 310' lin. ft. of 3" P.V.C. conduit plus fittings

## RIGHT OF WAY MONUMENT LOCATIONS

### I - 295 - STATIONS

279+33 - - - - - 289' LEFT  
279+46 - - - - - 175' LEFT  
280+92 - - - - - 175' LEFT  
281+00 - - - - - 142' LEFT  
281+99 - - - - - 171' LEFT  
282+18 - - - - - 100' LEFT  
281+75 - - - - - 151' RIGHT  
281+80 - - - - - 165' RIGHT  
282+83 - - - - - 120' RIGHT

### RAMP CS-7 - STATIONS

5+50 - - - - - 95' RIGHT  
7+50 - - - - - 105' RIGHT

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
OVER  
**ST. JOHN STREET**  
AND  
**PORTLAND TERMINAL RAILROAD**  
IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
QUANTITIES  
SHEET 3 OF 85 AUGUSTA, MAINE MAY, 1971

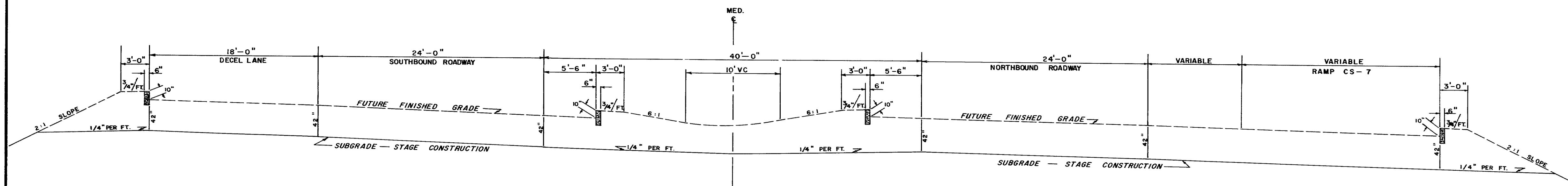
\* Not a part of this Contract

152-89

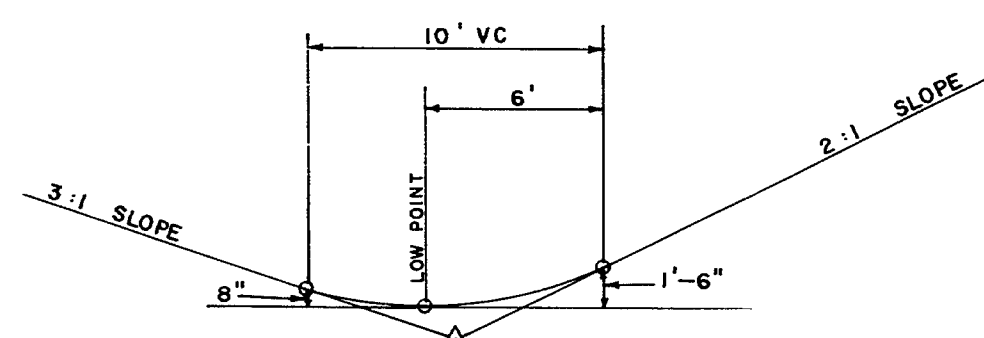




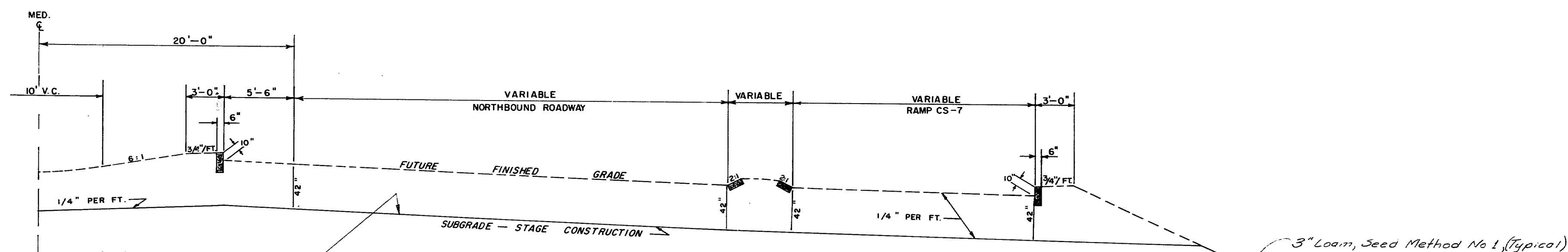
S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	152-91(2) 88	7	85



TYPICAL SECTION



CIRCULAR DITCH



Apply Calcium Chloride to Subgrade and surfaces of the embankment not protected by Loam & Seeding (Typical for this contract). The amount of Calcium Chloride shall be as directed by the Engineer.

TYPICAL SECTION

(MAIN LINE & RAMP CS-7)

STATE HIGHWAY COMMISSION

TYPICAL SECTIONS

MAIN LINE & RAMP CS-7

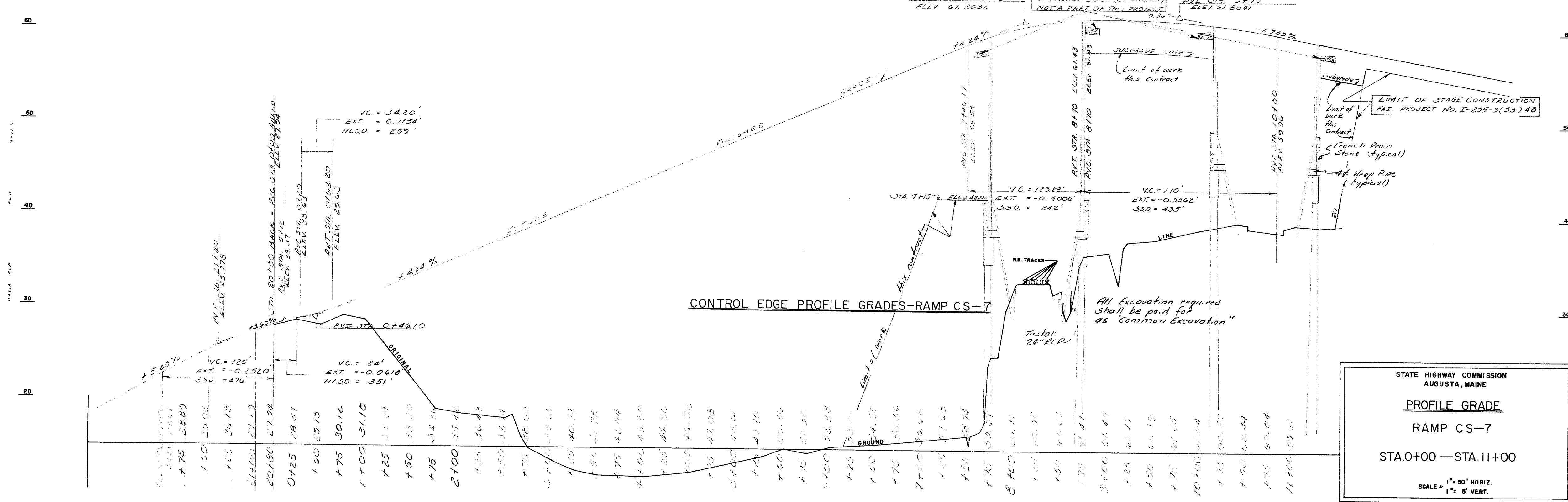
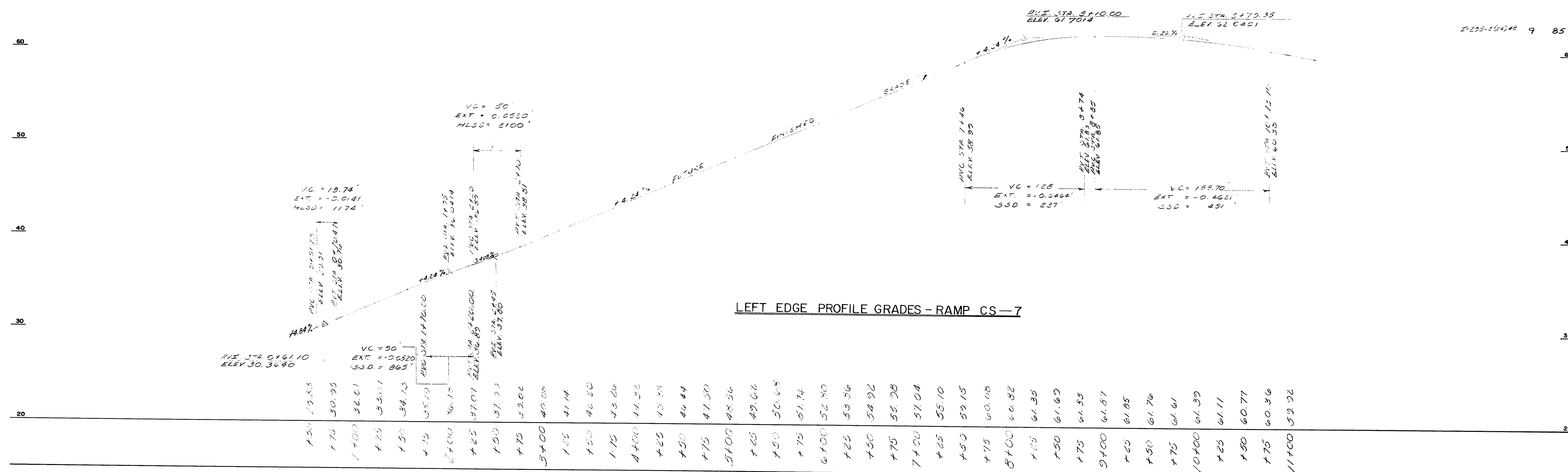
SHEET 7 OF 85 AUGUSTA, MAINE

152-91

2001 2000

PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY	J.E.T.			
DATE	5/2/77			





STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

**PROFILE GRADE**

RAMP CS-7

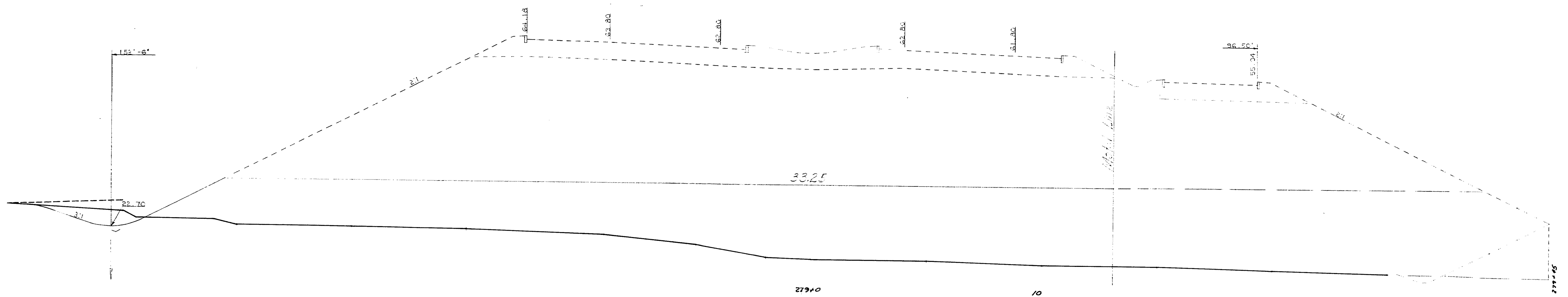
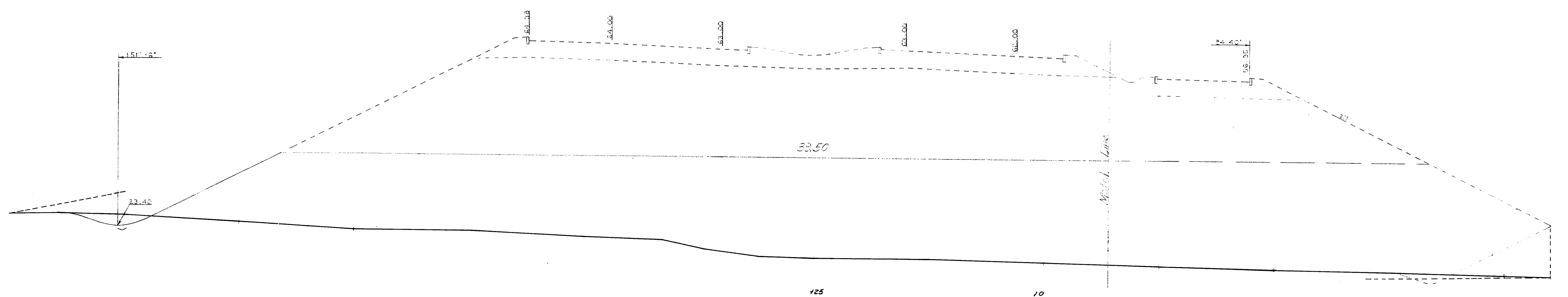
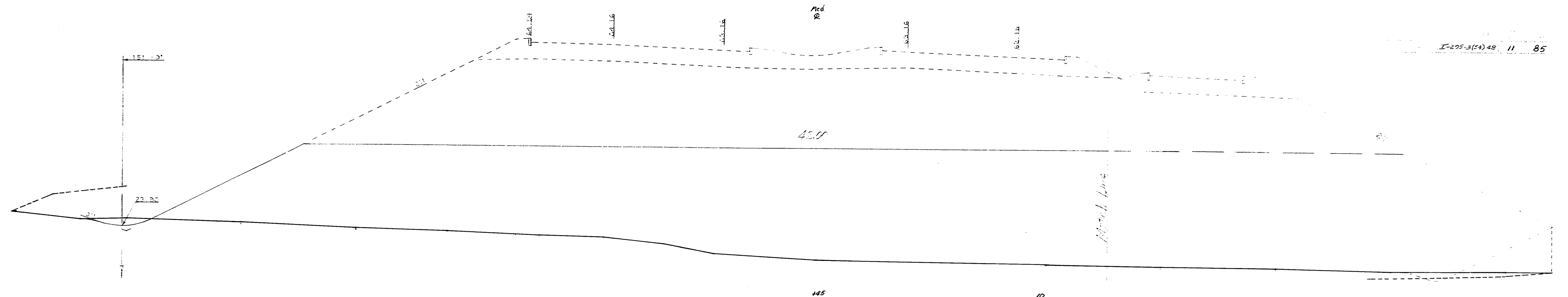
STA. 0+00 — STA. 11+00

SCALE = 1" = 50' HORIZ.  
1" = 5' VERT.

152-93







I-295-3(24)48 11 85

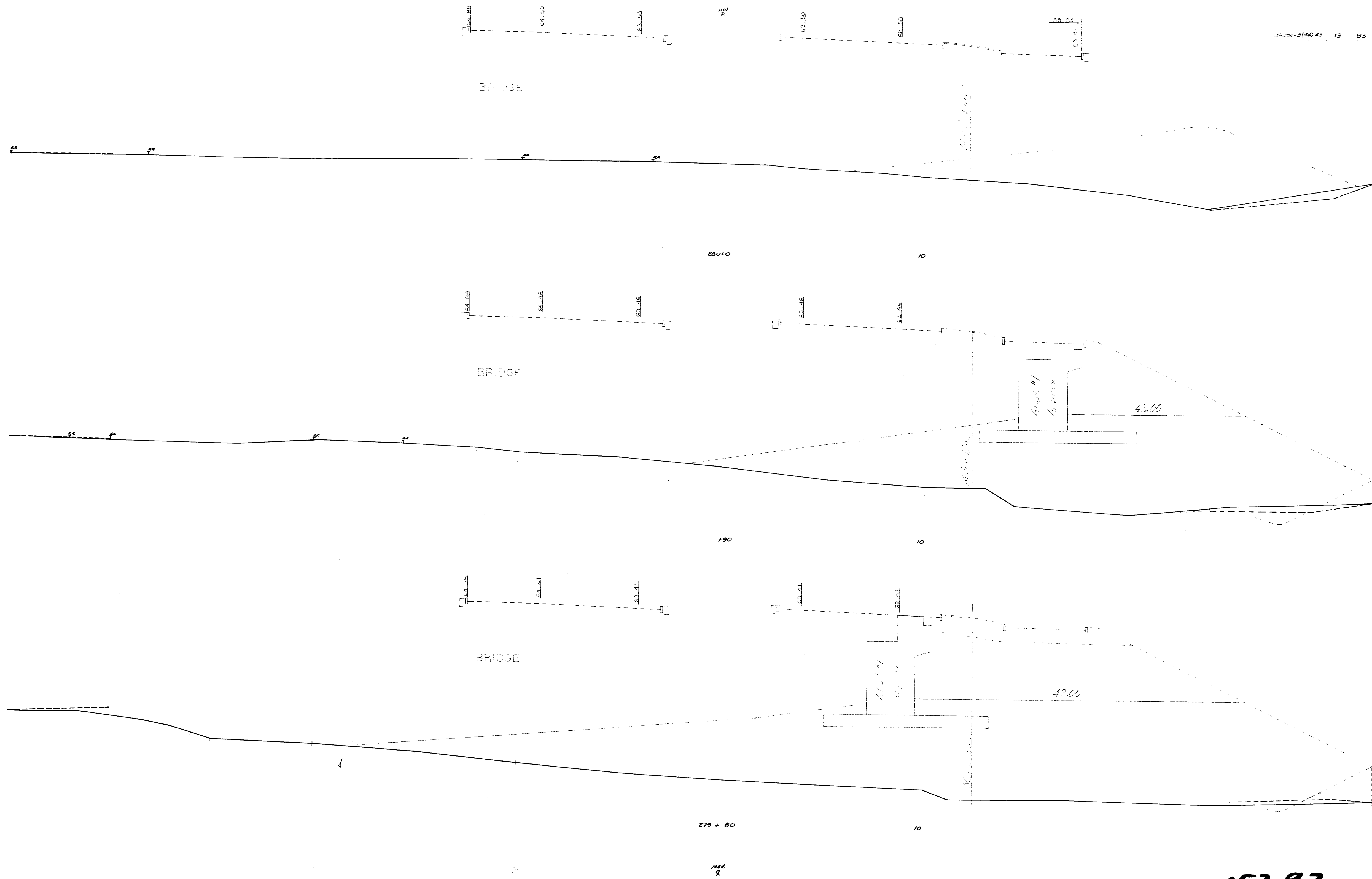
152-95

See 279-40 to 279-45

Scale 1"=10'



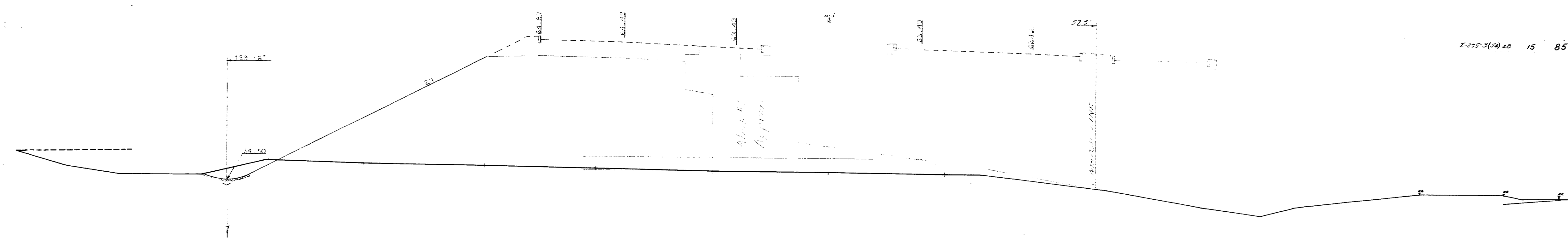




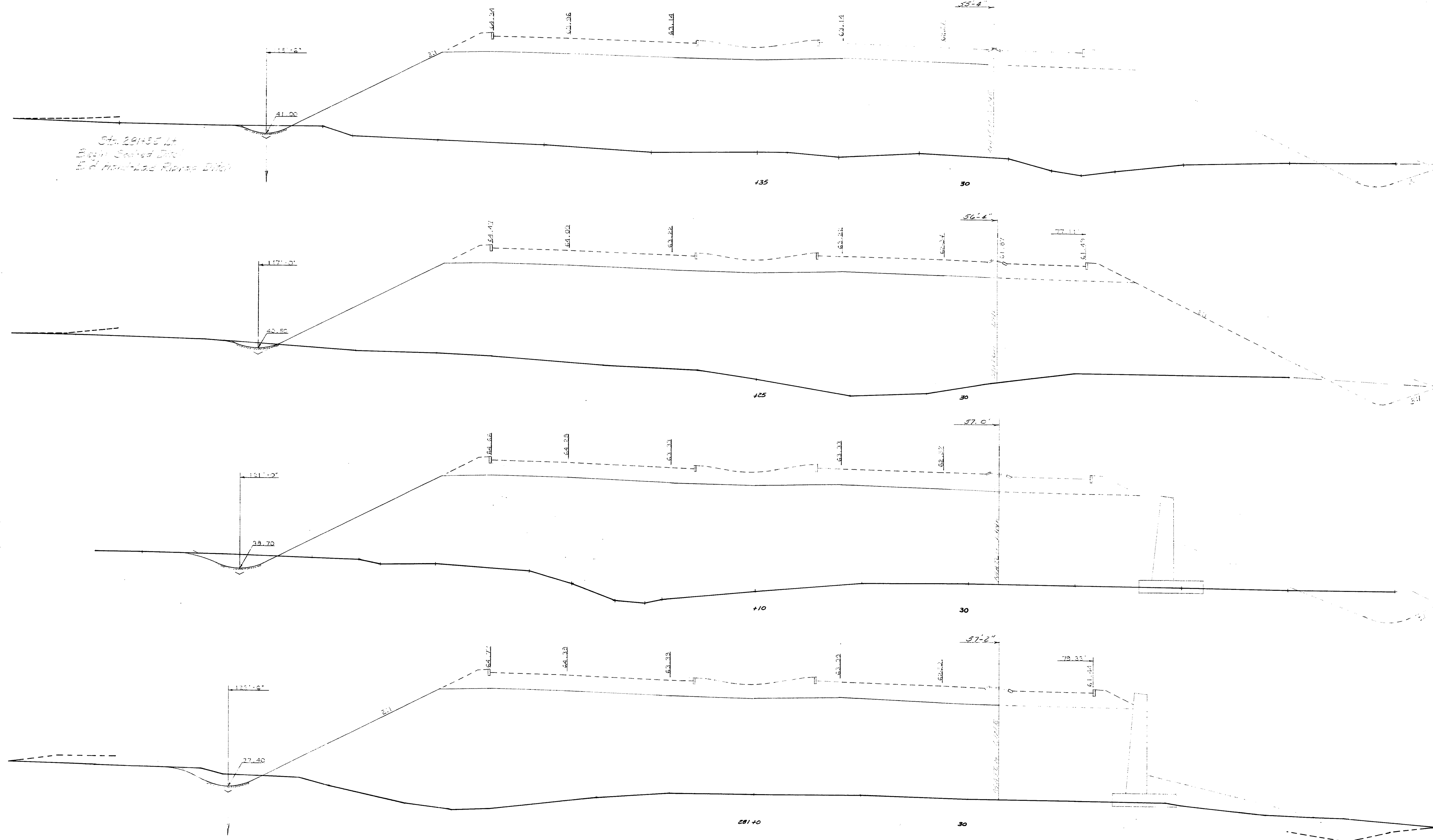
152-97

SCALE 1"=10'









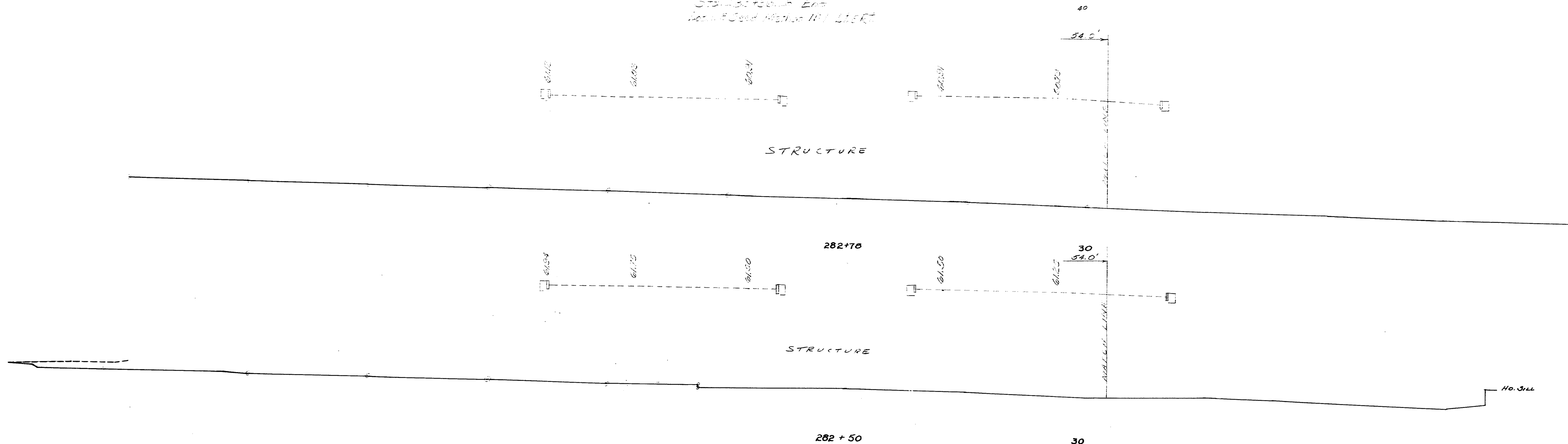
152-100

Sheets 100 to 201, 25



Sta. 282+36.25 End Project A? I-225-2(54)48

Sta. 282+36.25 End  
Revised Road Station 11/1 11/85



152-102

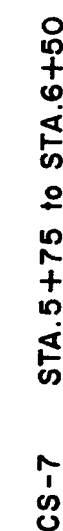
Scale 1" = 40'

282+50' to 282+78 M.L.



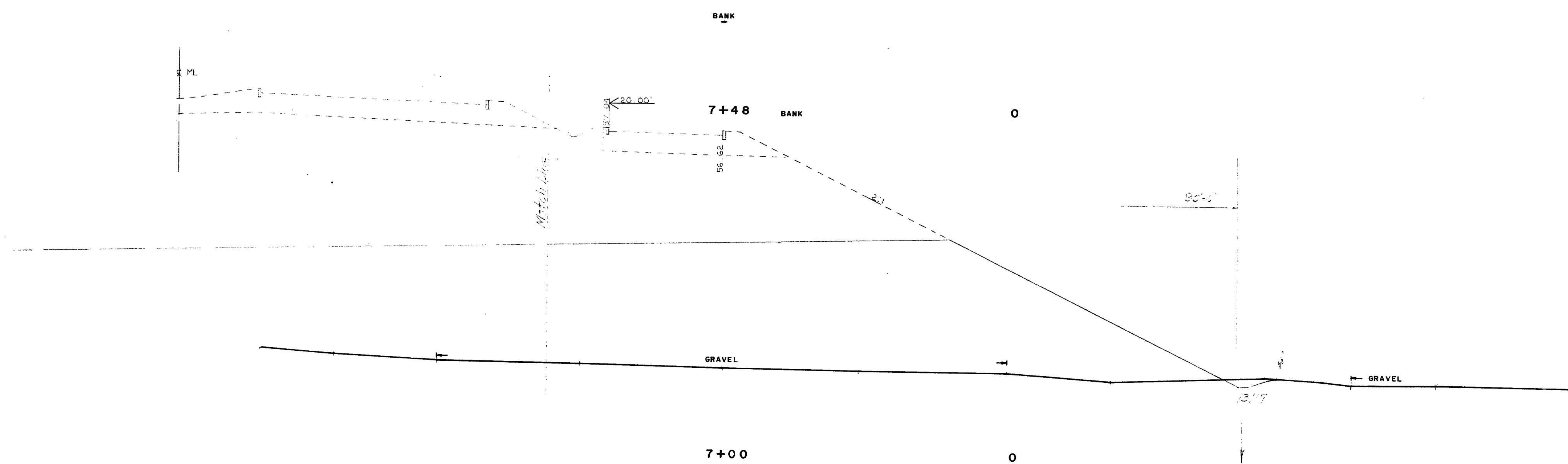
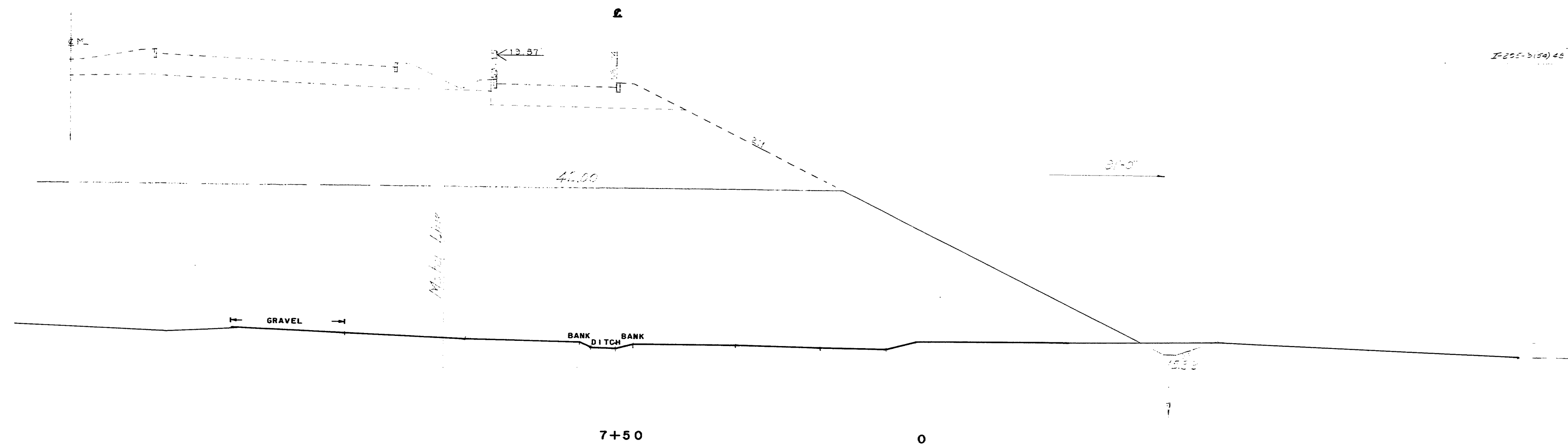
WELLS & CREW  
S.M.B.  
4-69  
4-69

295-240



**152-103**

SCALE 1:10



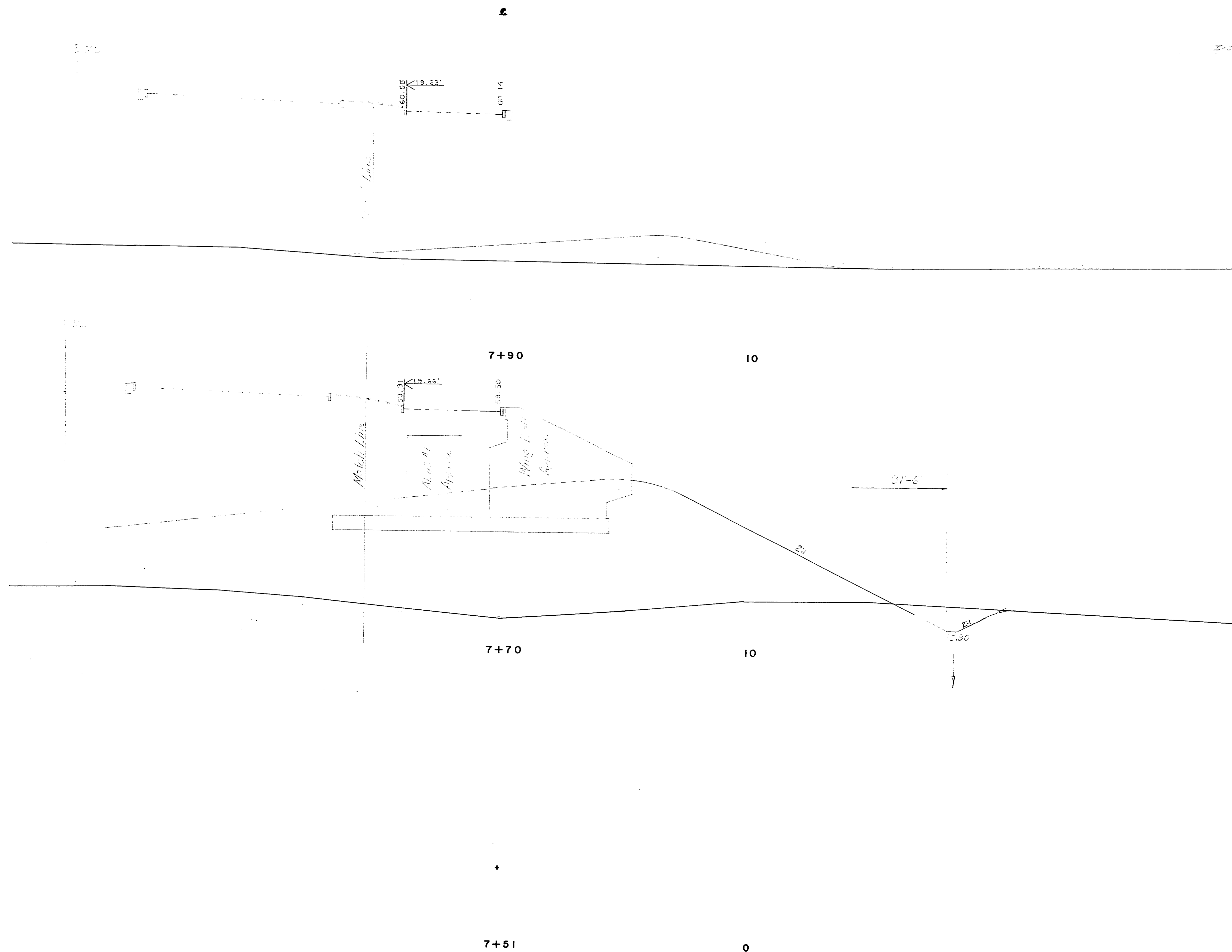
WELLS & CREW  
S.M.S.  
4-60  
4-69

285-240

CS-7 STA. 7+00 to STA. 7+50

152-104 SCALE 1"=10'

**295-240**



CS-7 STA.7+51 to STA.7+90

152-105 SCALE 1"=10'

**E**

10

10

10

**2**

SCALE 1"=10'

295-240



2205-2(54)48 23 85

2

8+48.6 M.L. RAIL

10

8+43.6 M.L. RAIL

10

8+42 SPUR RAIL

10

2

CS-7 STA. 8+42 to STA. 8+48.6

152-107 SCALE 1"=10'

WELLS & CREW  
S.M.S.  
4-69  
4-69

285-240

225-3(24) 24 85

2

+

8+57 SPUR RAIL 30

+

8+56.7 M.L. RAIL 20

+

8+53 M.H.-W.U.TEL.CO. 20



8+50 20

2

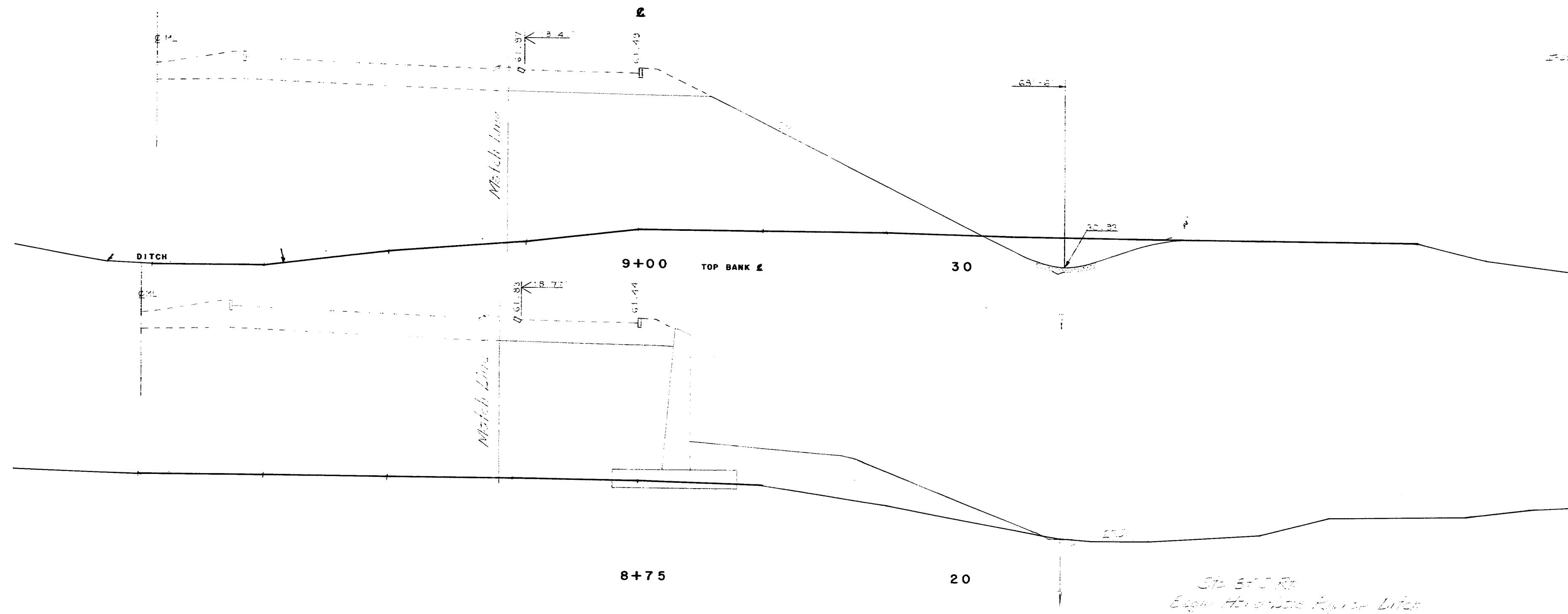
WELLS & CREW  
S.M.S.  
4-89  
4-89

225-240

CS-7 STA. 8+50 to STA. 8+57

152-108

SCALE 1"=10'



WELLS & CREW  
SMB  
4-89  
4-89

895-240

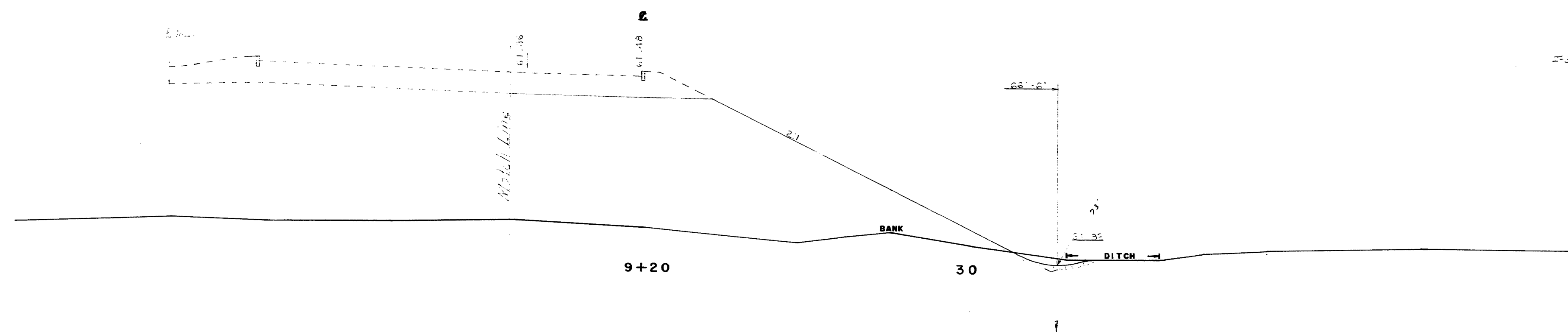
8+62 SPUR RAIL 20

8+61.6 M.L. RAIL 20

CS-7 STA. 8+61.6 to STA. 9+00

152-109 SCALE 1"=10'

26 85



+

9+17 TOP BANK 20

+

9+10 DITCH 20

+

9+08 DITCH 20

2

152-110 SCALE 1"=10'

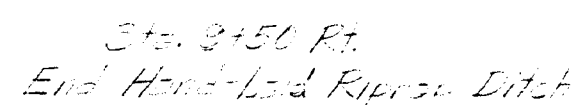
CS-7 STA. 9+08 to STA. 9+20

WELLS & CREW  
S.M.B.  
4-69  
4-69

288-240

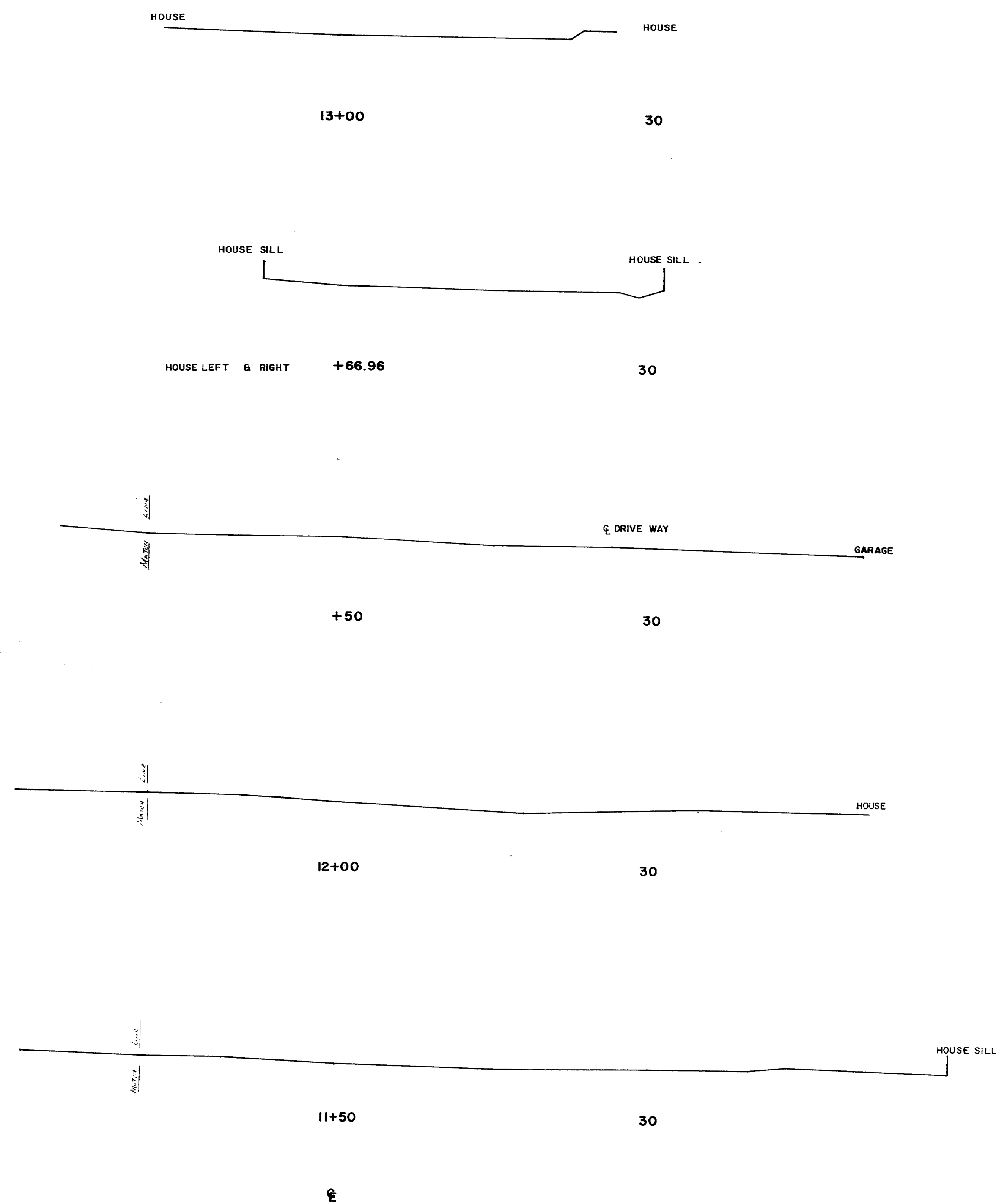
GOBEL & CREW  
PRAY & BRIGGS

295240



Since  $1'' = 10$

STA 9+50 TO 11+00



103069  
112559  
CASEL & CREW  
PRINT & BRASS

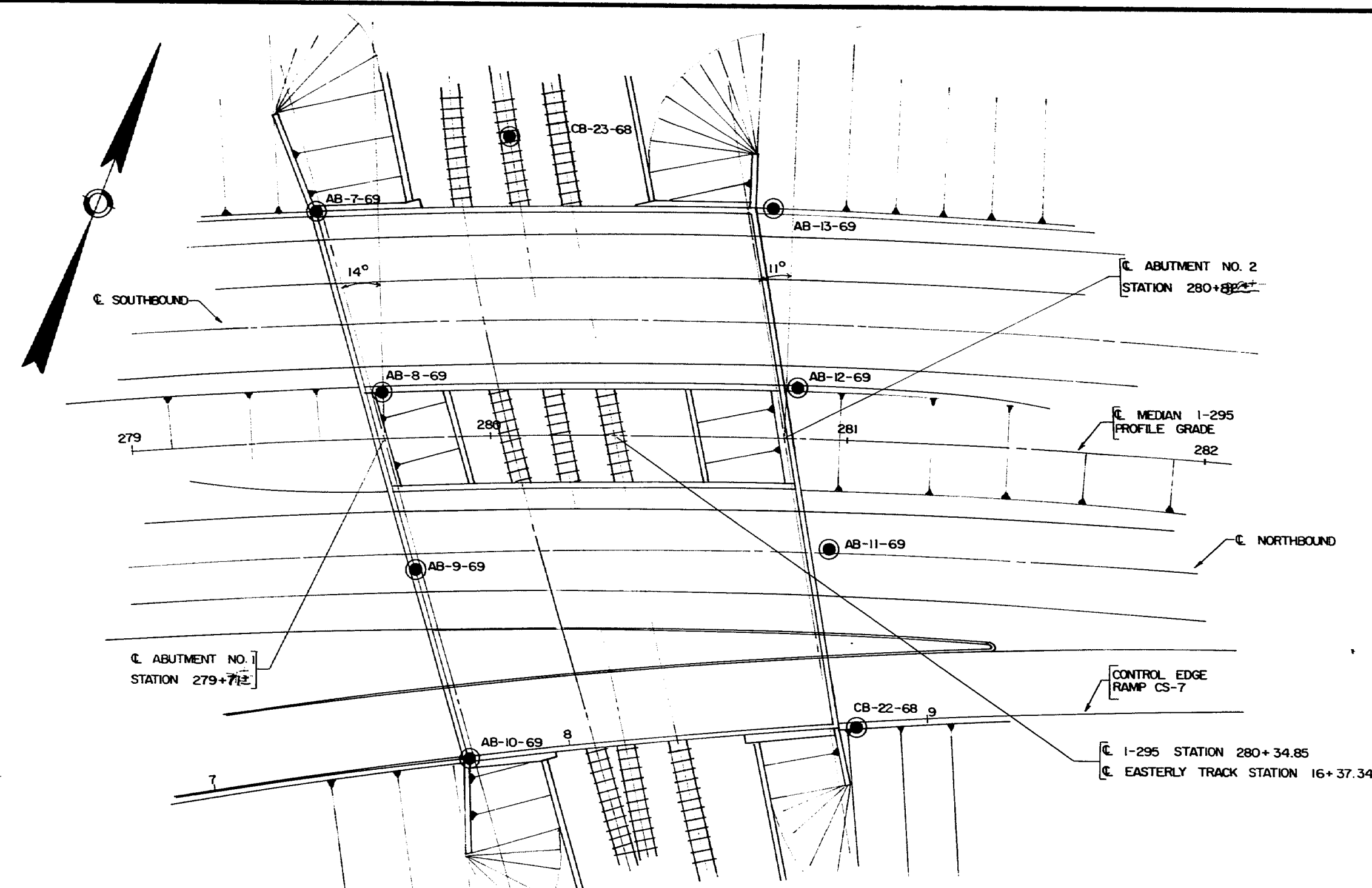
295/290

CS-7 STA. 11+50 to 13+00

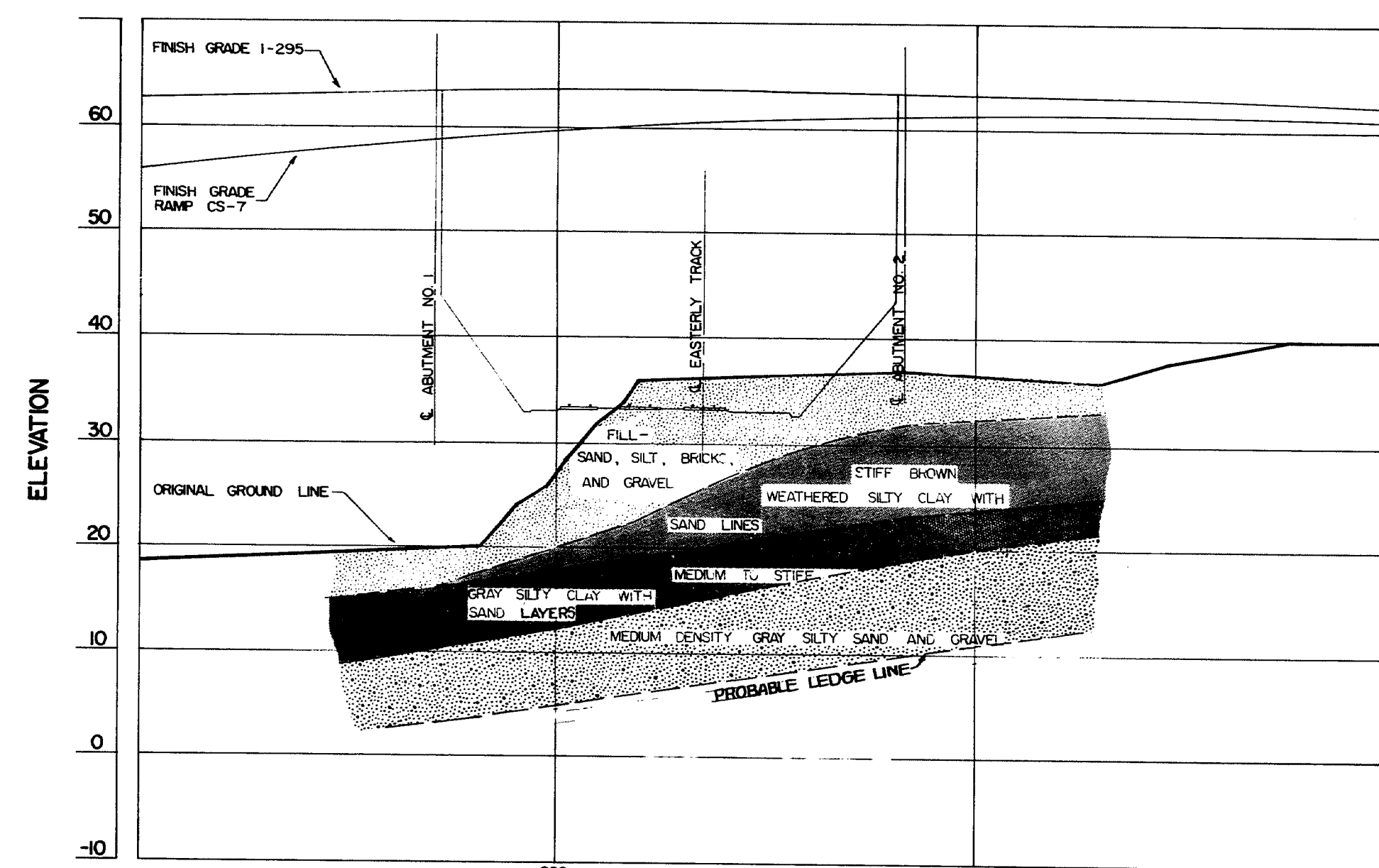
152-112 SCALE 1"=10'



R.F.D.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(58) 48	29	25

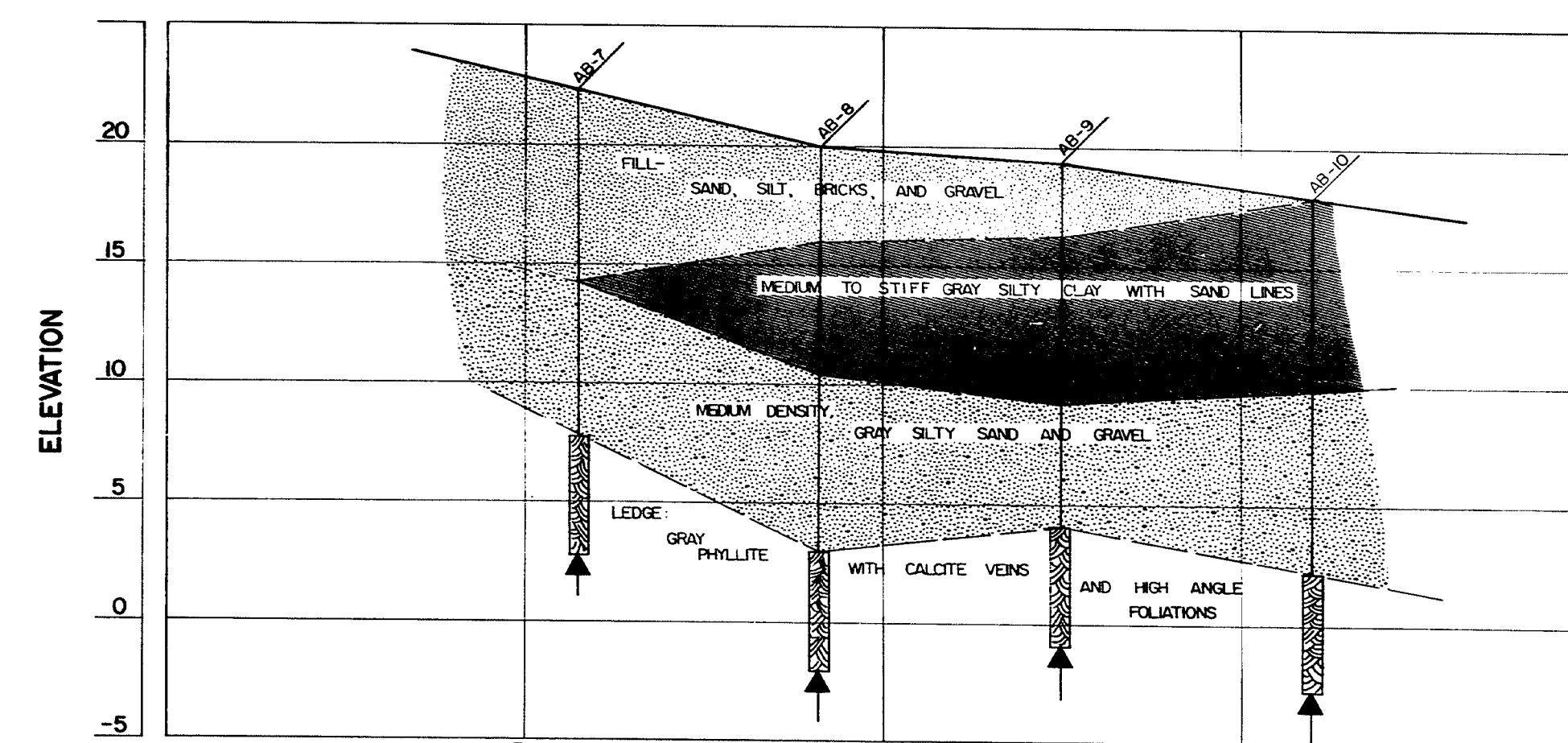


PLAN  
SCALE: 1" = 25'

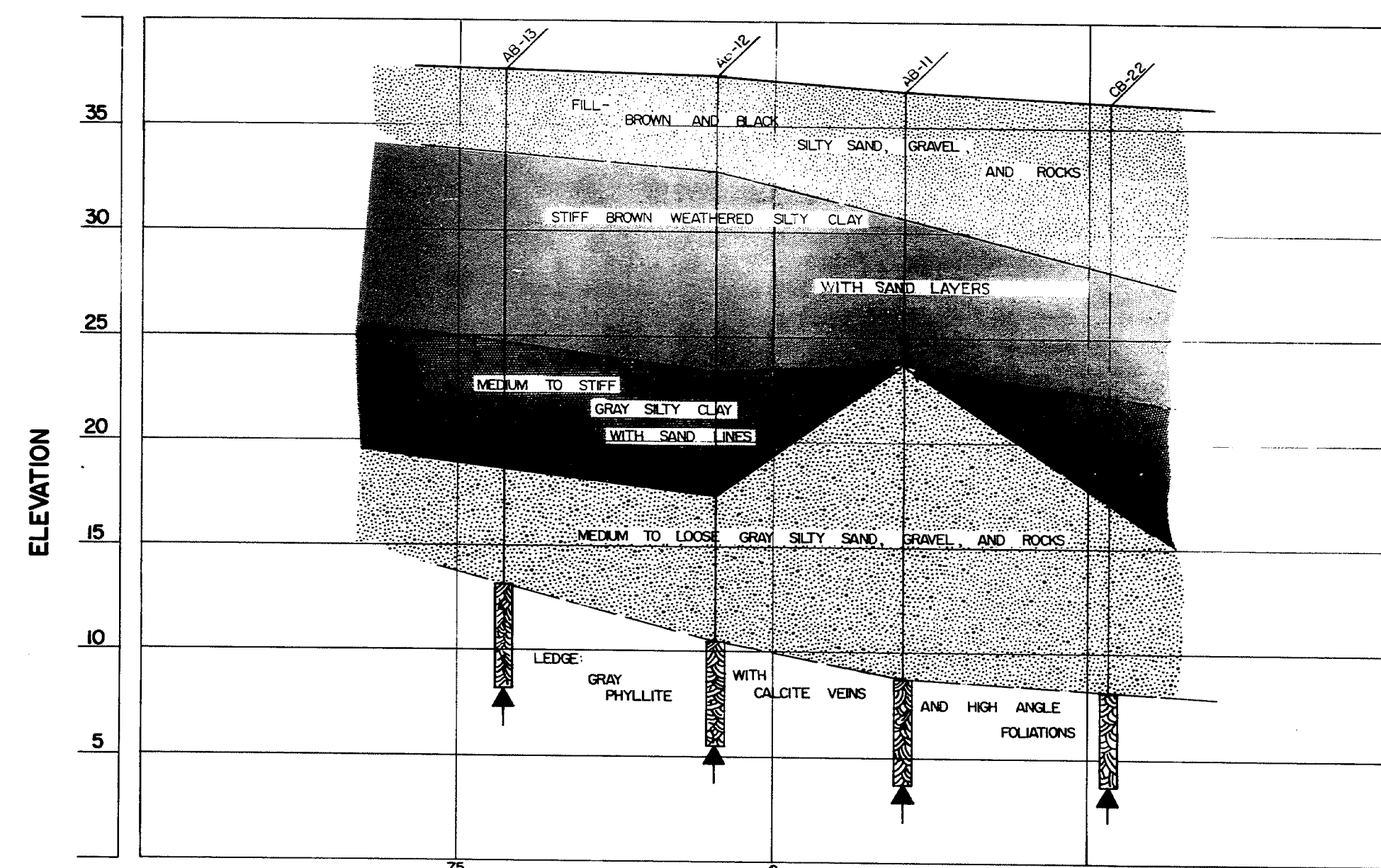


PROFILE  
SCALE: HORIZ. 1" = 25' - VERT. 1" = 10'

### TRANSVERSE SECTIONS



ABUTMENT NO. 1  
STATION 279 +



ABUTMENT NO. 2  
STATION 280 +

STATE HIGHWAY COMMISSION

INTERSTATE 295 & RAMP CS-7  
OVER RELOCATED TRACKS OF  
PORTLAND TERMINAL RAILROAD  
IN THE CITY OF  
**PORTLAND**  
CUMBERLAND COUNTY  
FOUNDATION SURVEY

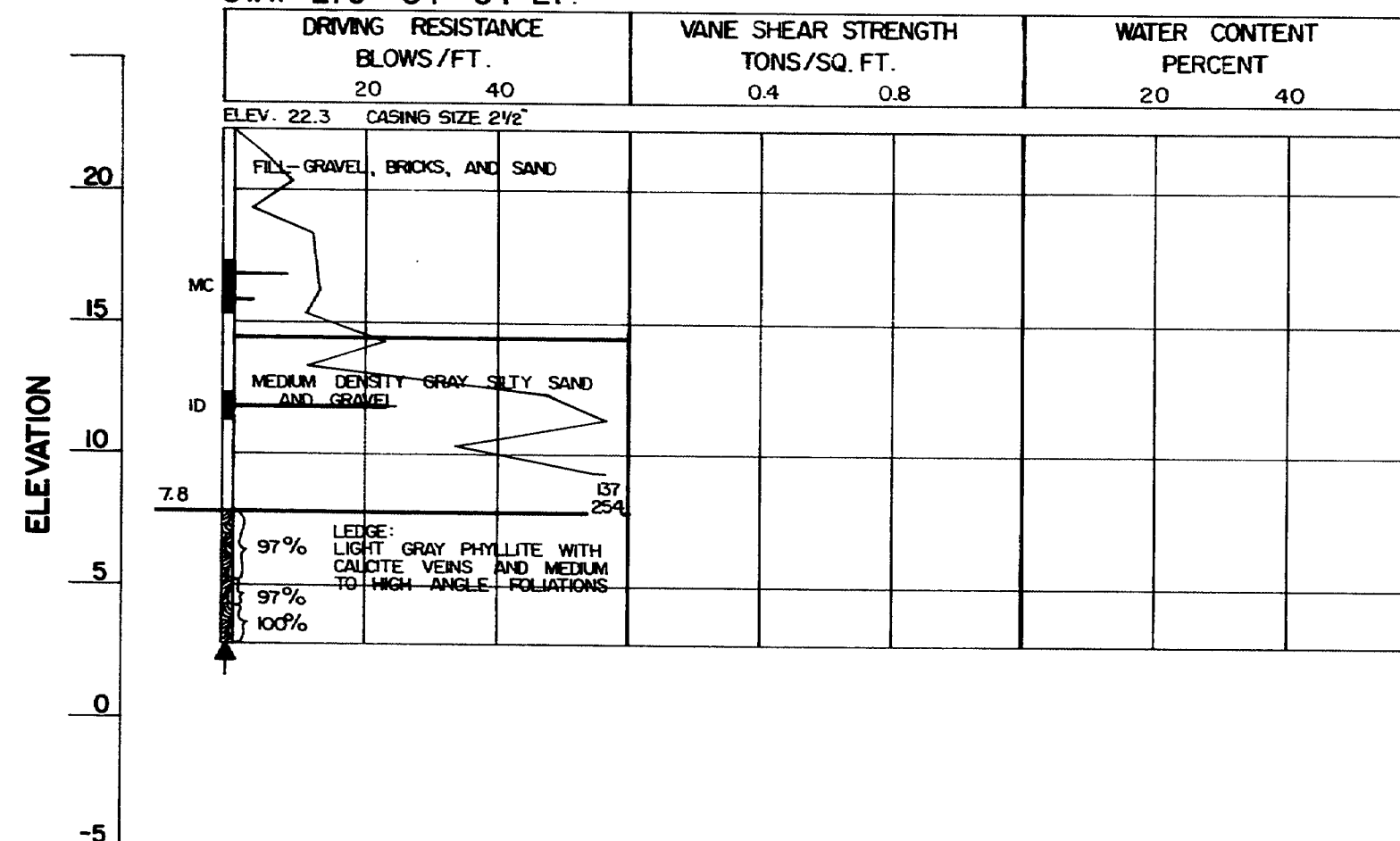
SHEET 29 OF 25 AUGUSTA, MAINE

152-113

B.P.P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(54) 48	30	85

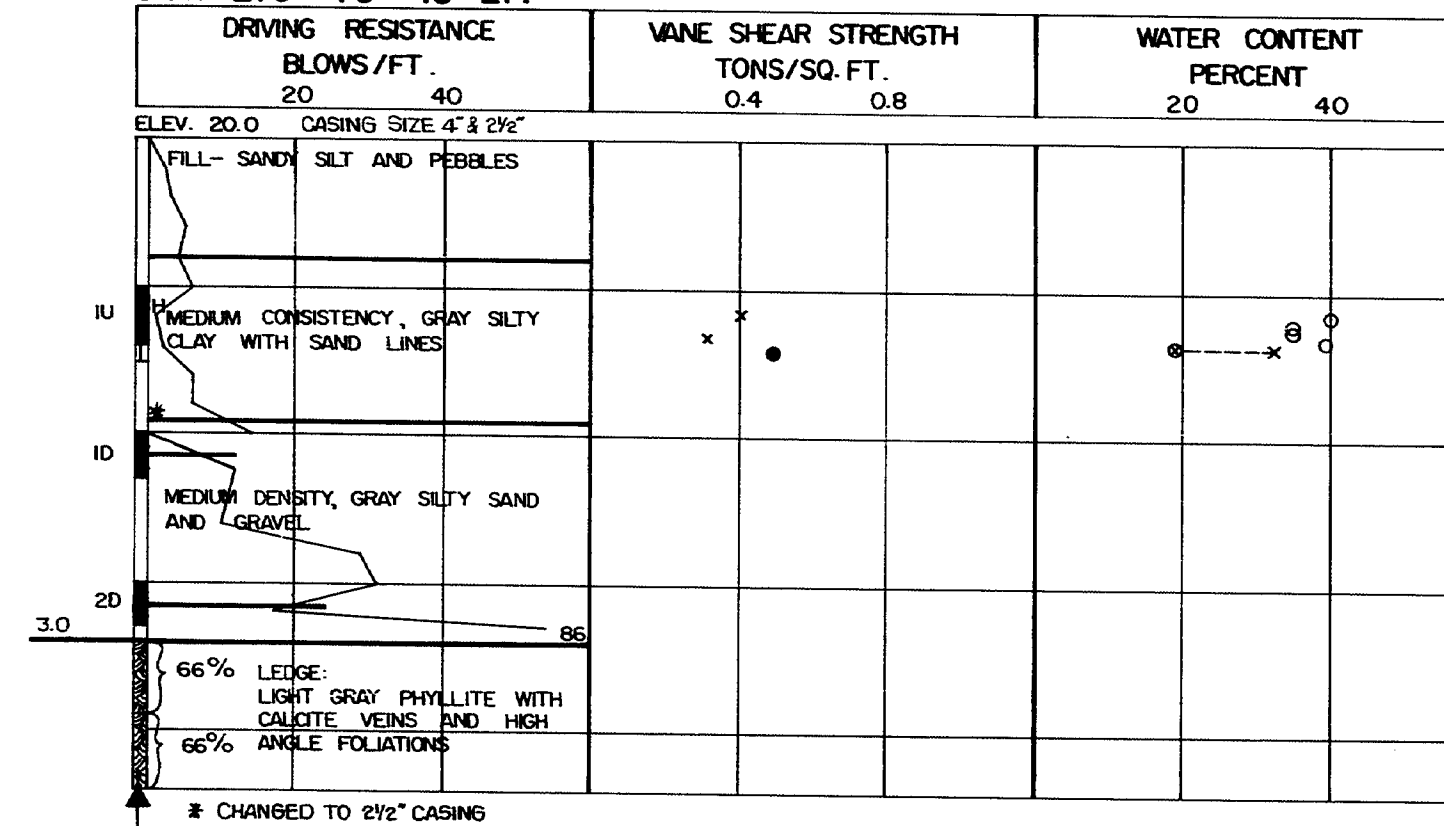
### BORING AB-7-69

STA. 279+54 64' LT.



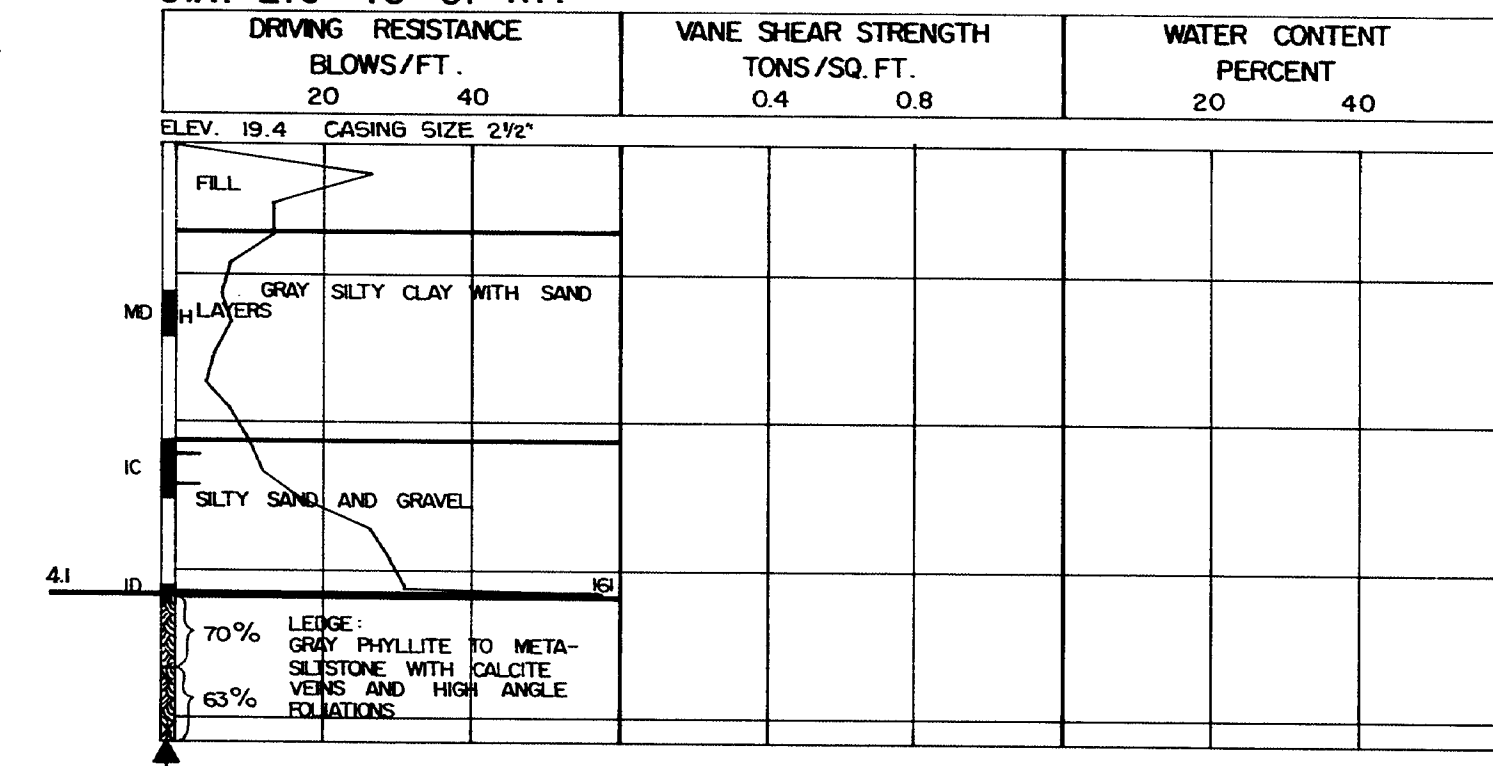
### BORING AB-8-69

STA. 279+70 13' LT.



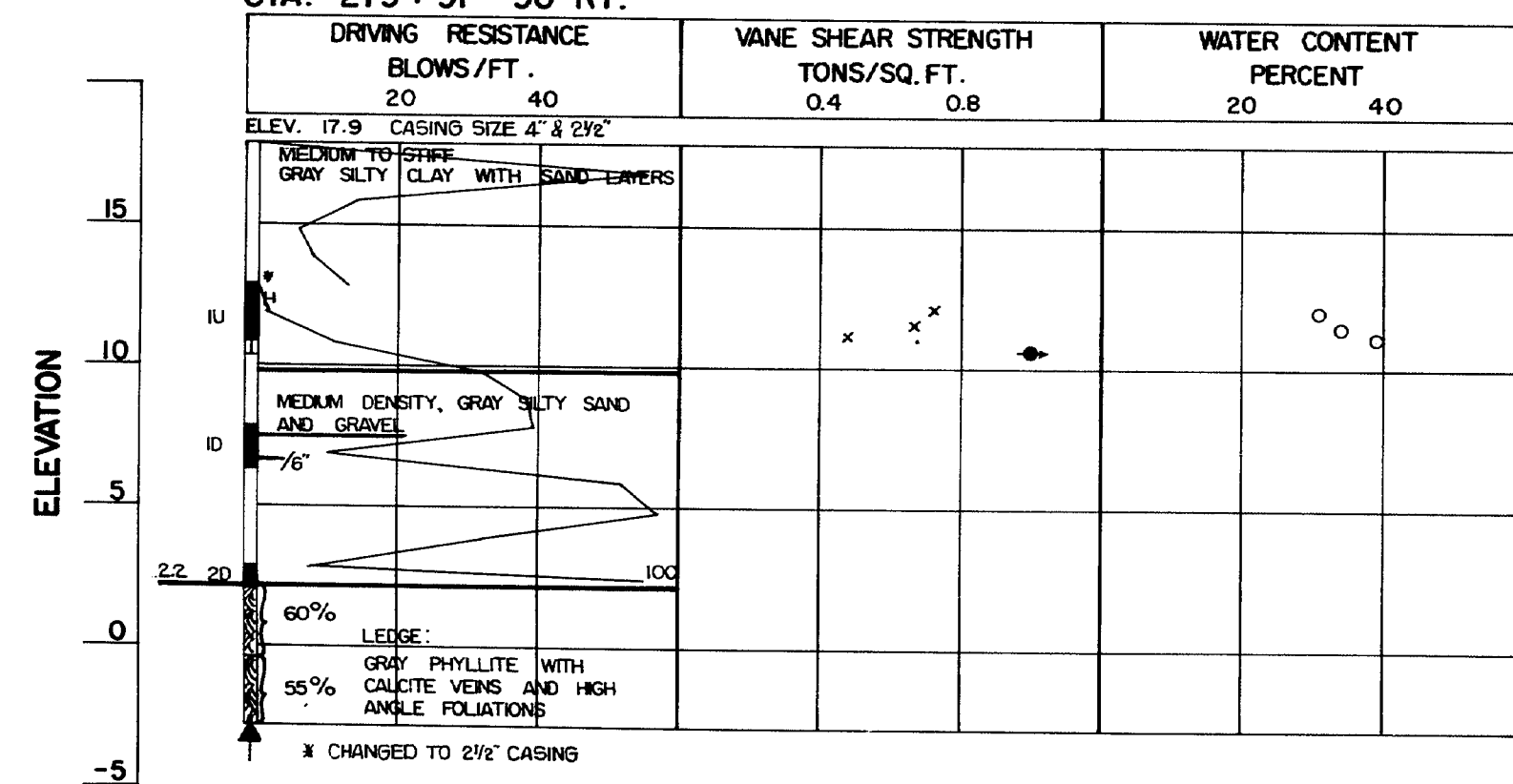
### BORING AB-9-69

STA. 279+78 37' RT.



### BORING AB-10-69

STA. 279+91 90' RT.



### BORING NOTES

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

### SHEAR NOTES

- FIELD VANE SHEAR STRENGTHS
- x LABORATORY VANE SHEAR STRENGTHS
- SHEAR STRENGTHS IN EXCESS OF CAPACITY OF EQUIPMENT

### WATER CONTENT NOTES

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

STATE HIGHWAY COMMISSION

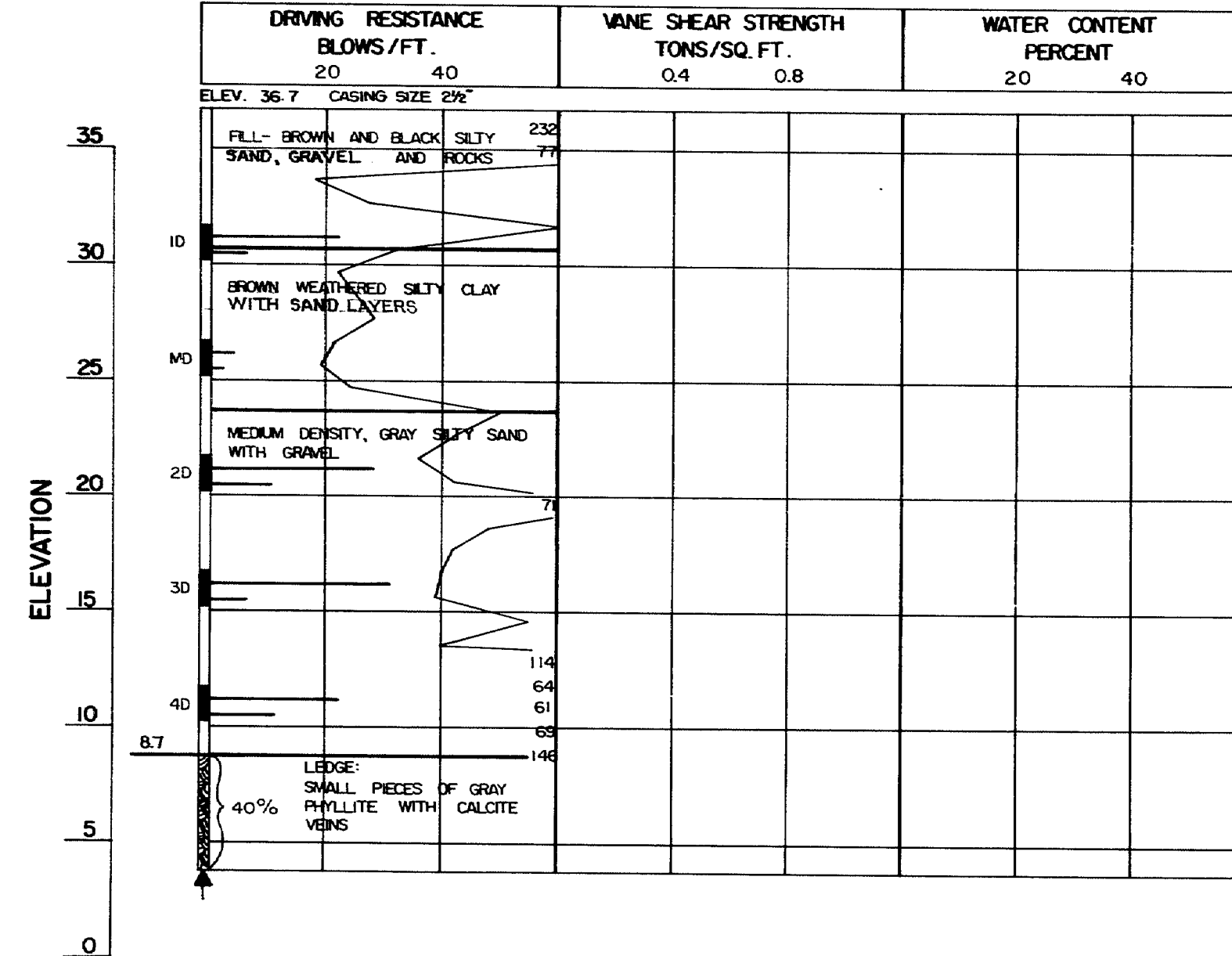
INTERSTATE 295 & RAMP CS-7  
OVER RELOCATED TRACKS OF  
PORTLAND TERMINAL RAILROAD  
IN THE CITY OF  
**PORTLAND**  
CUMBERLAND COUNTY  
BORING DETAILS

SHEET 30 OF 85 AUGUSTA, MAINE

152-114

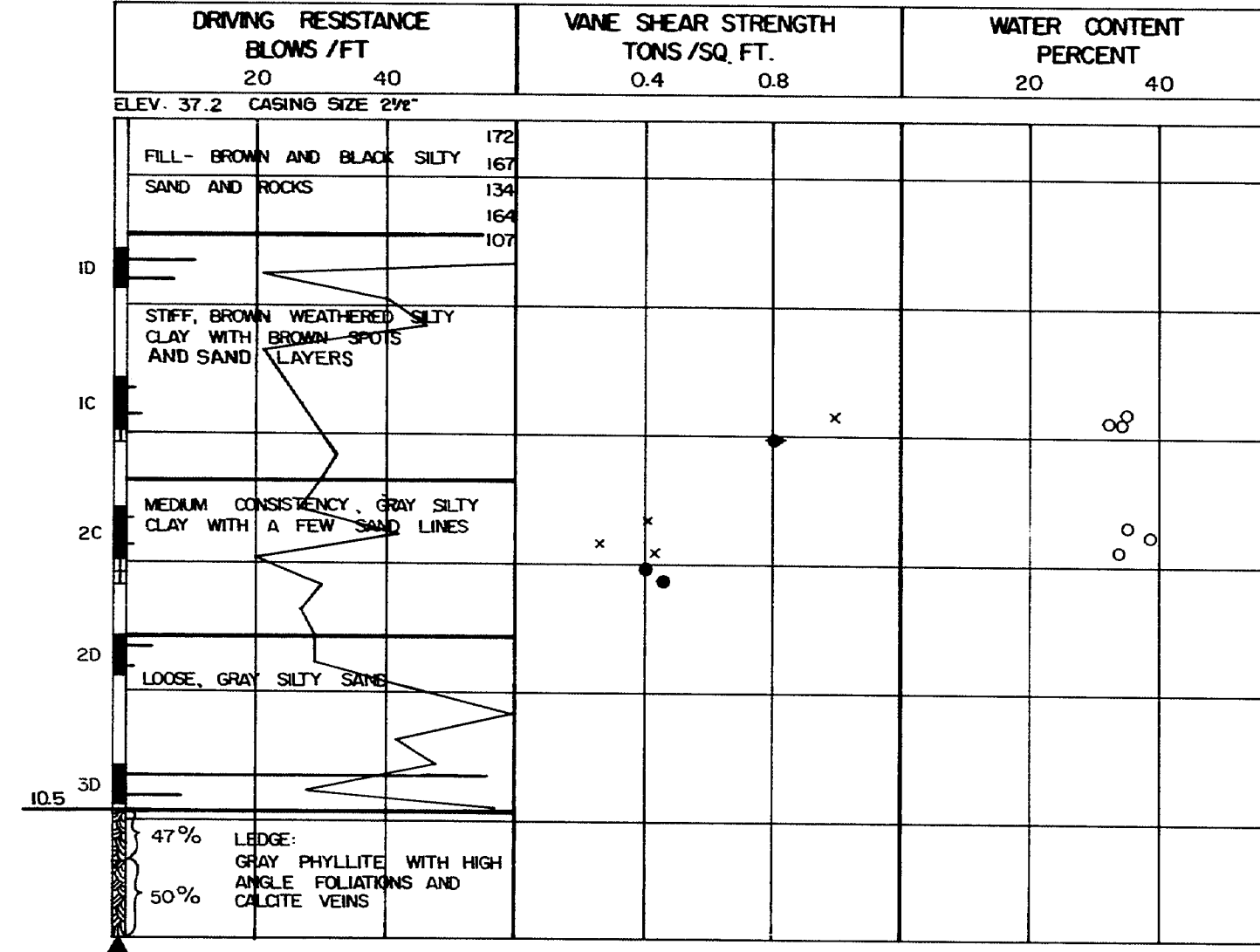
# **BORING AB-11-69**

STA. 280+95 31' RT.



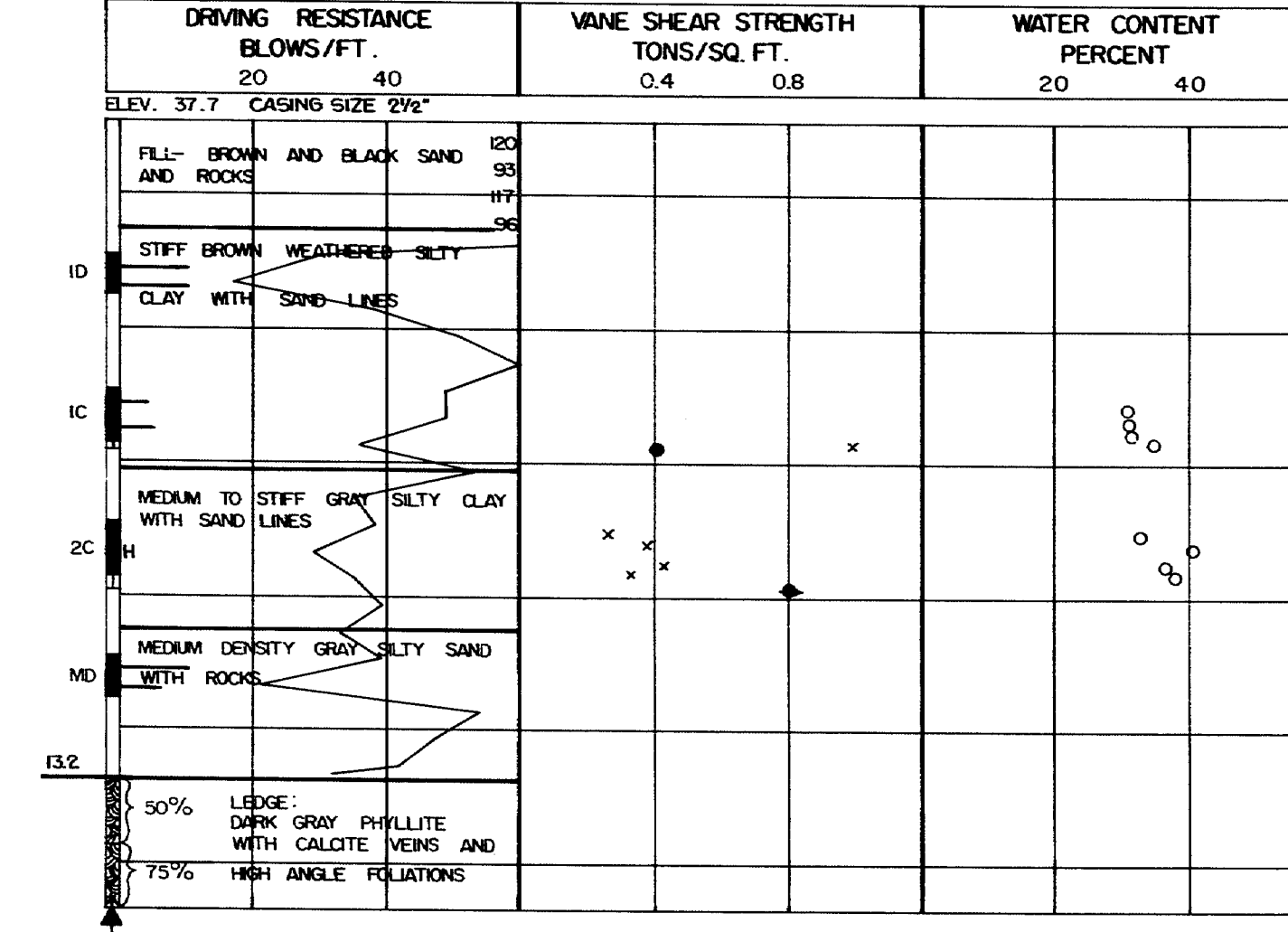
# **BORING AB-12-69**

STA. 280+85 14' LT.



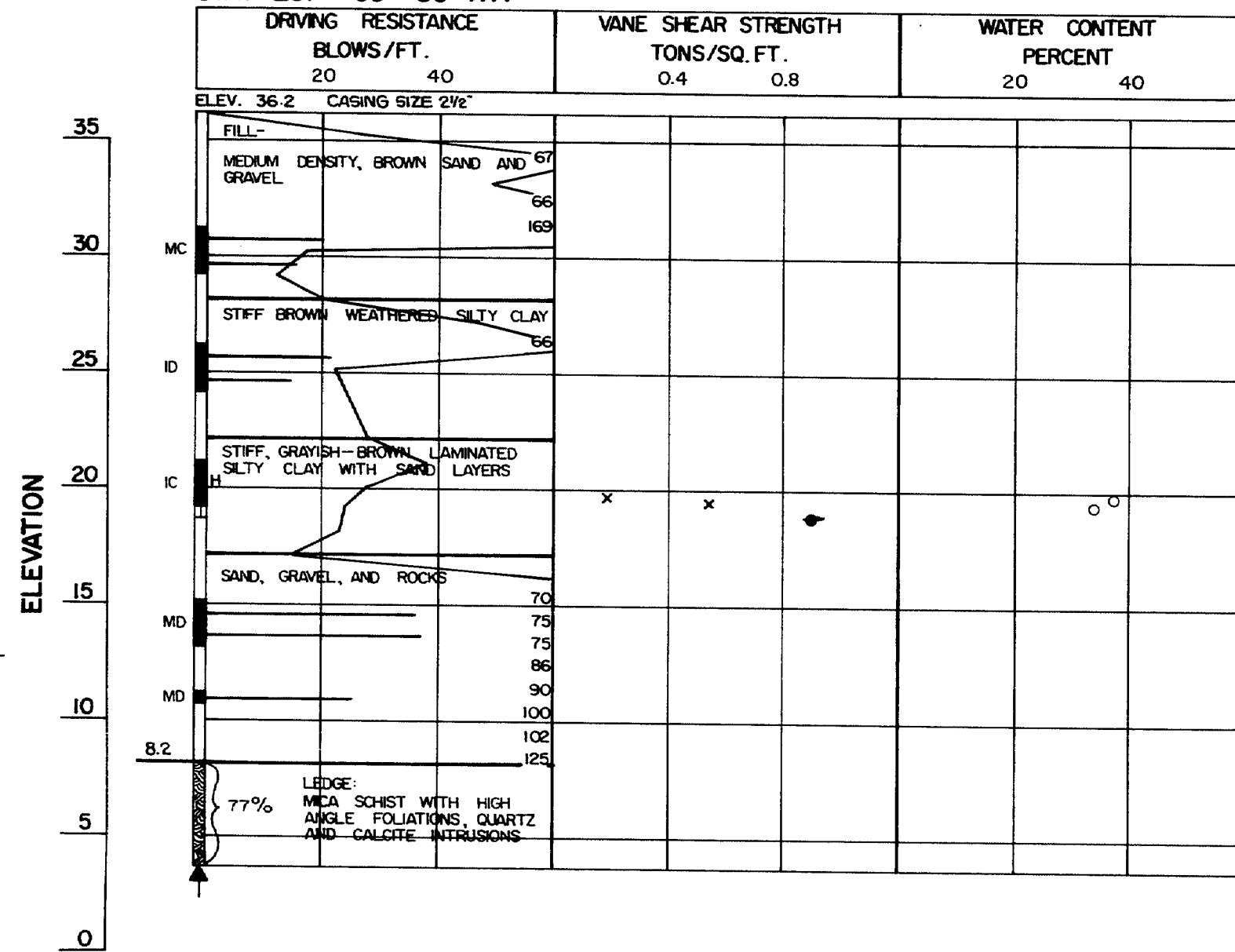
# **BORING AB-13-69**

STA. 280+77 64' LT.



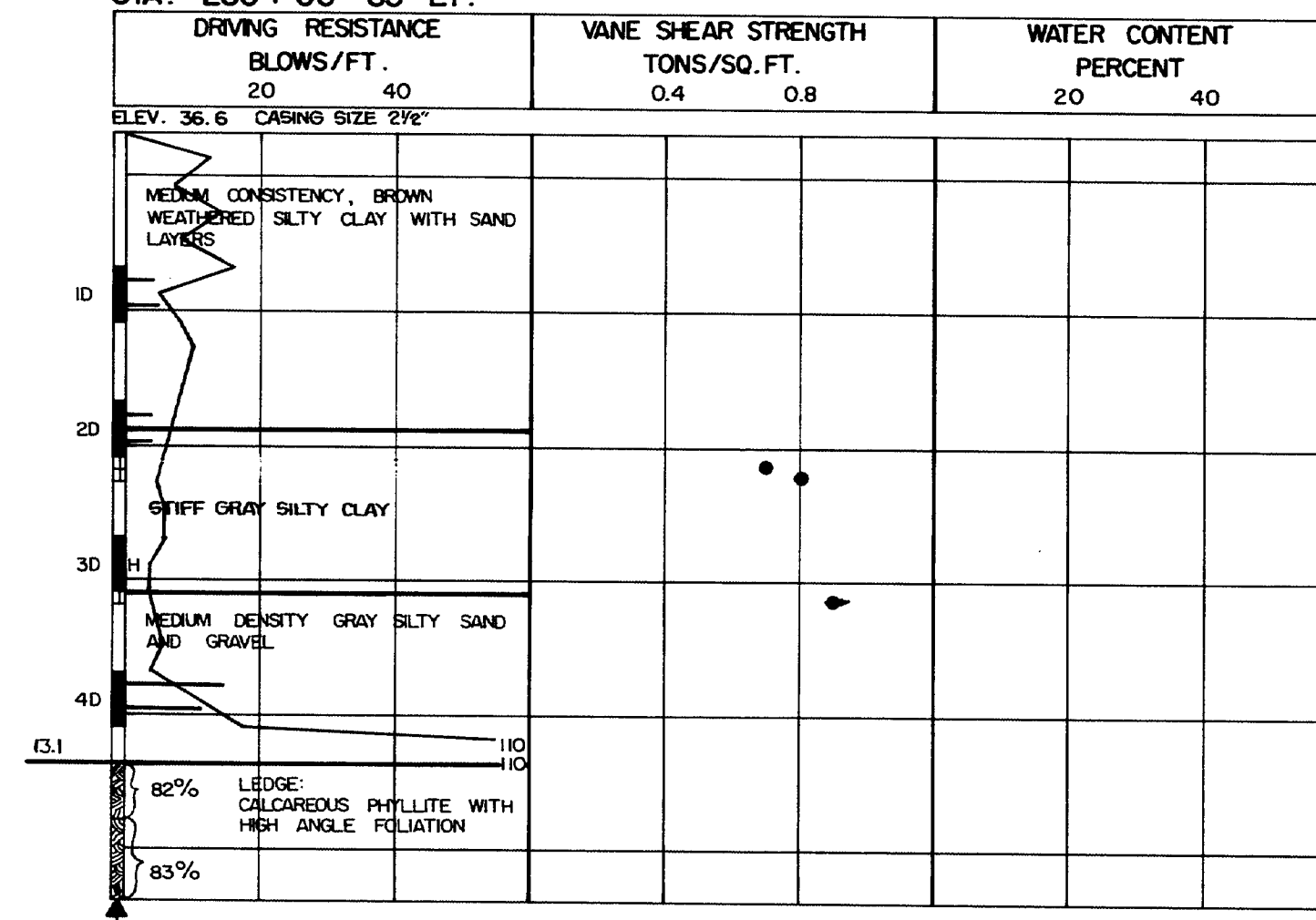
# **BORING CB-22-68**

STA. 281+05 80' RT.



# **BORING CB-23-68**

STA. 280+06 83' LT.



DESIGN - DETAILED  
CHECKED  
REVISIONS  
FIELD CHANGES

PLANS

BY  
DATE

STATE HIGHWAY COMMISSION

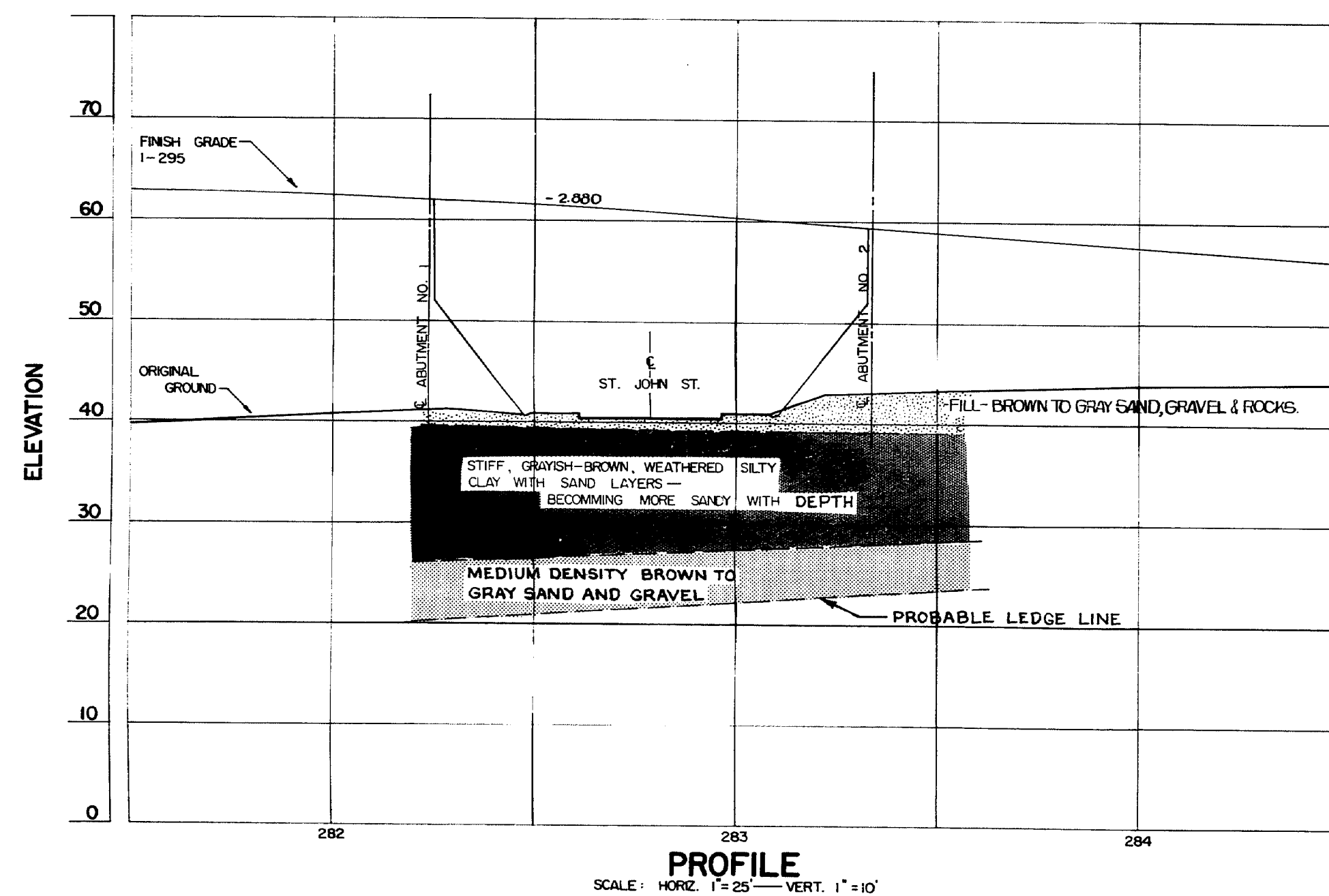
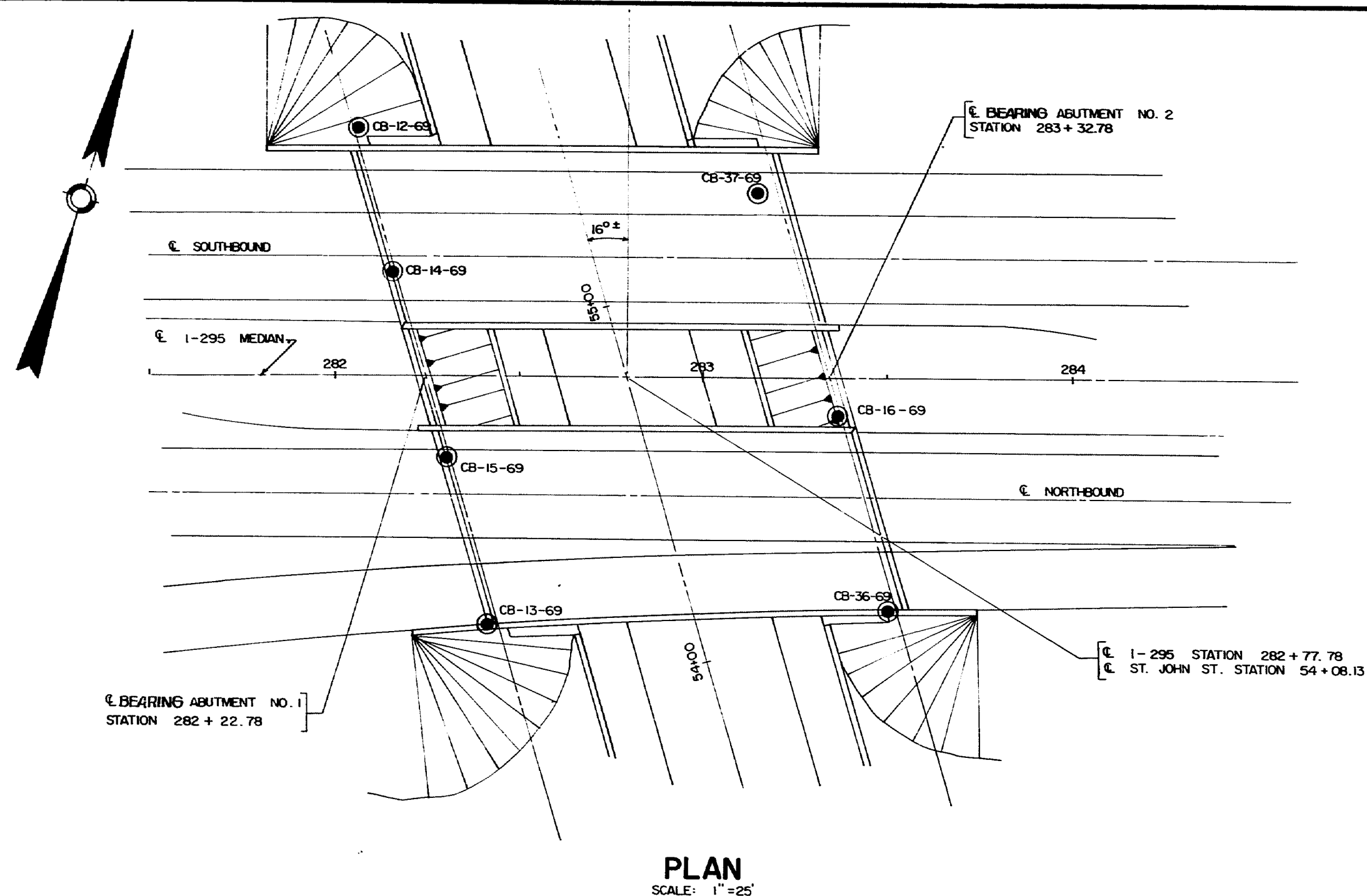
INTERSTATE 295 & RAMP CS-7  
OVER RELOCATED TRACKS OF  
PORTLAND TERMINAL RAILROAD  
IN THE CITY OF  
**PORTLAND**  
CUMBERLAND COUNTY  
BORING DETAILS

SHEET 3 OF 85 AUGUSTA, MAINE

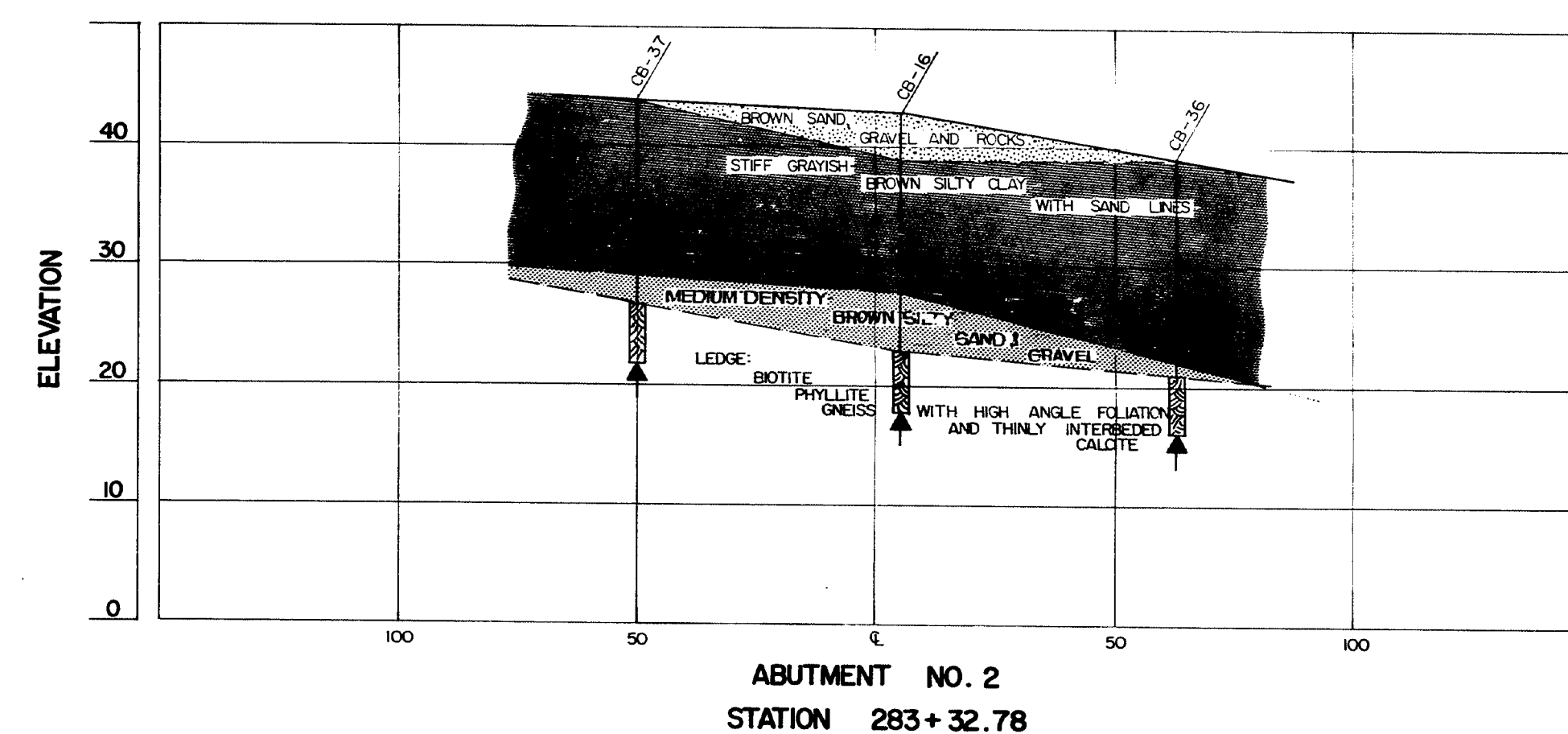
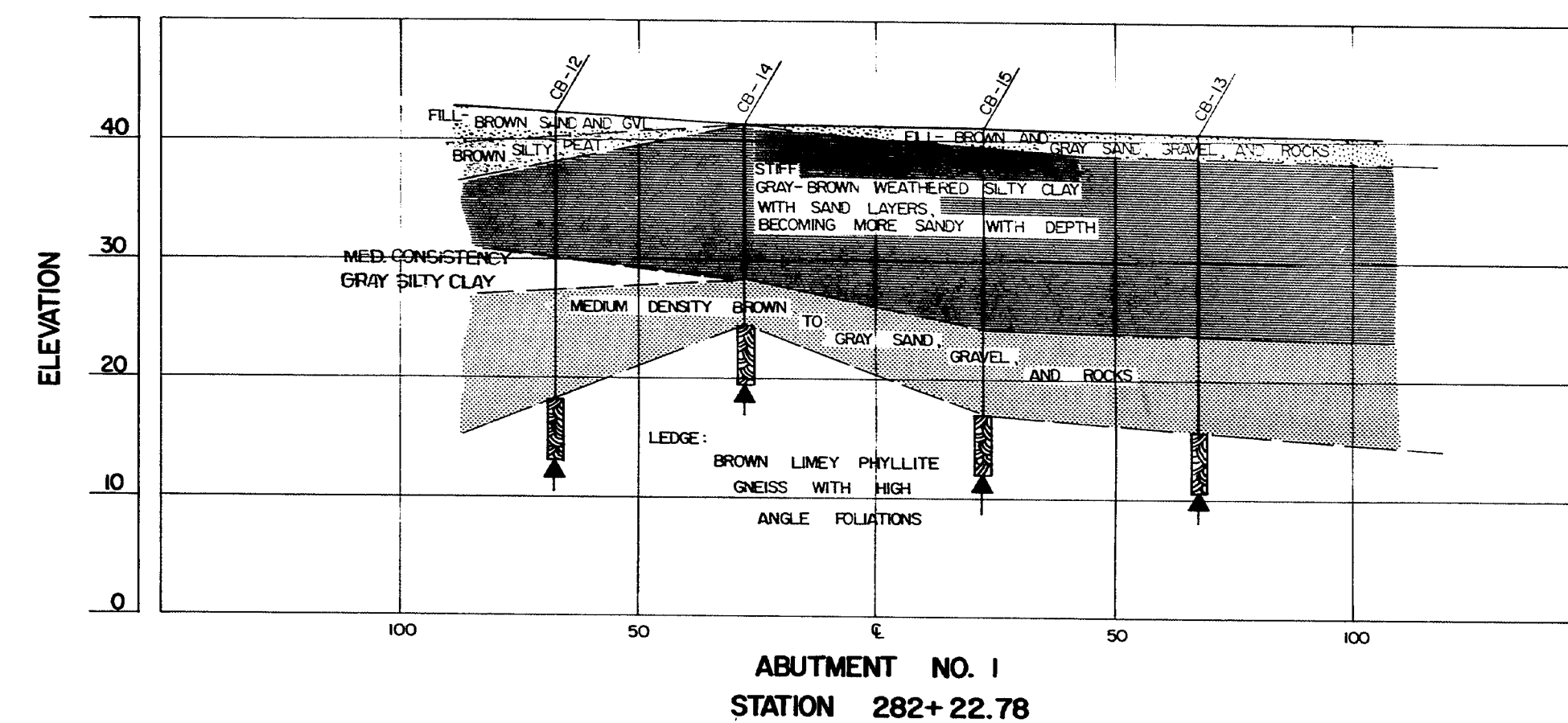
152-115



R.P.D. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(84)48	32	85



### TRANSVERSE SECTIONS



STATE HIGHWAY COMMISSION

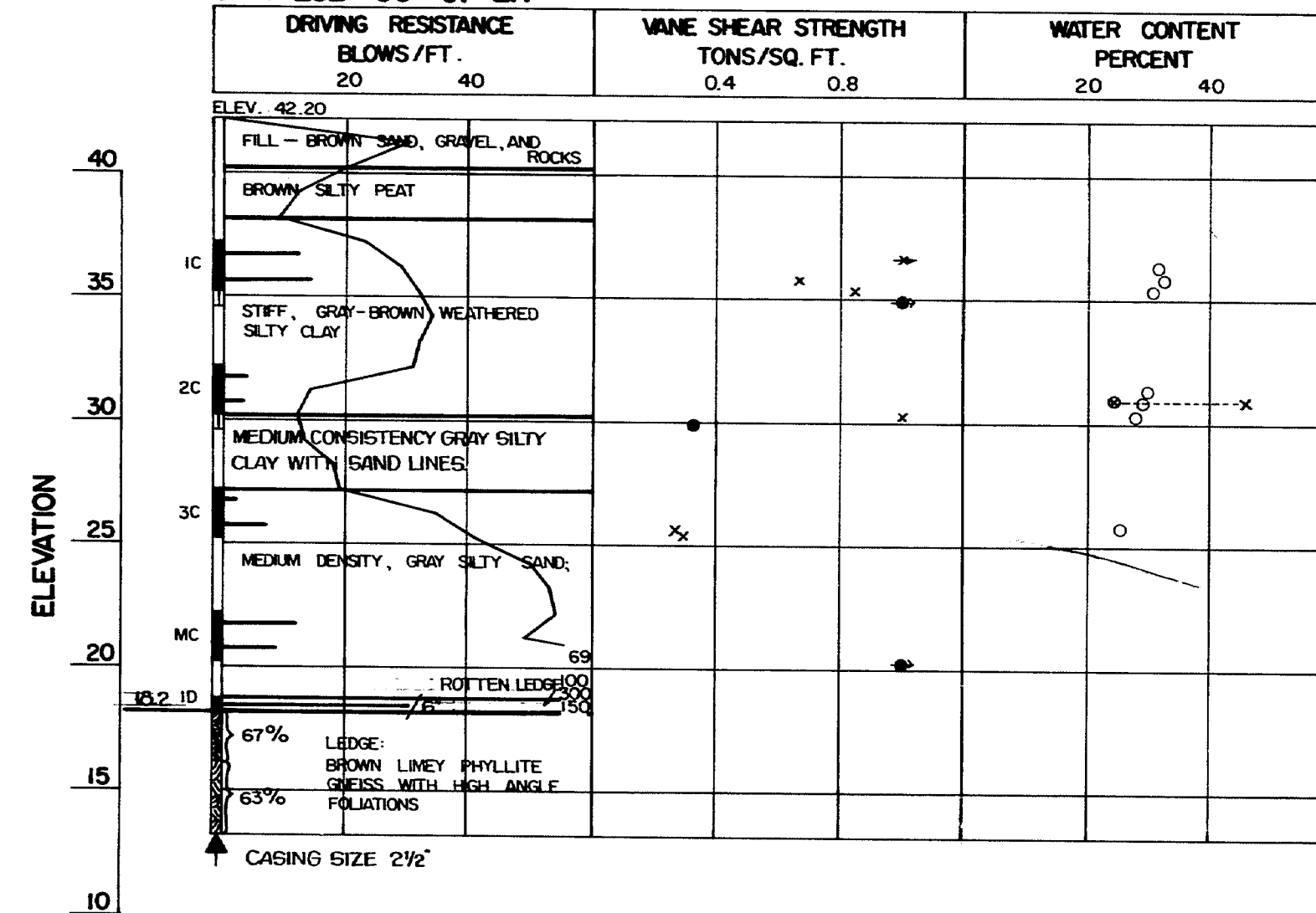
INTERSTATE 295 & RAMP CS-7  
OVER  
ST. JOHN STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
FOUNDATION SURVEY

SHEET 32 OF 85 AUGUSTA, MAINE

152-116

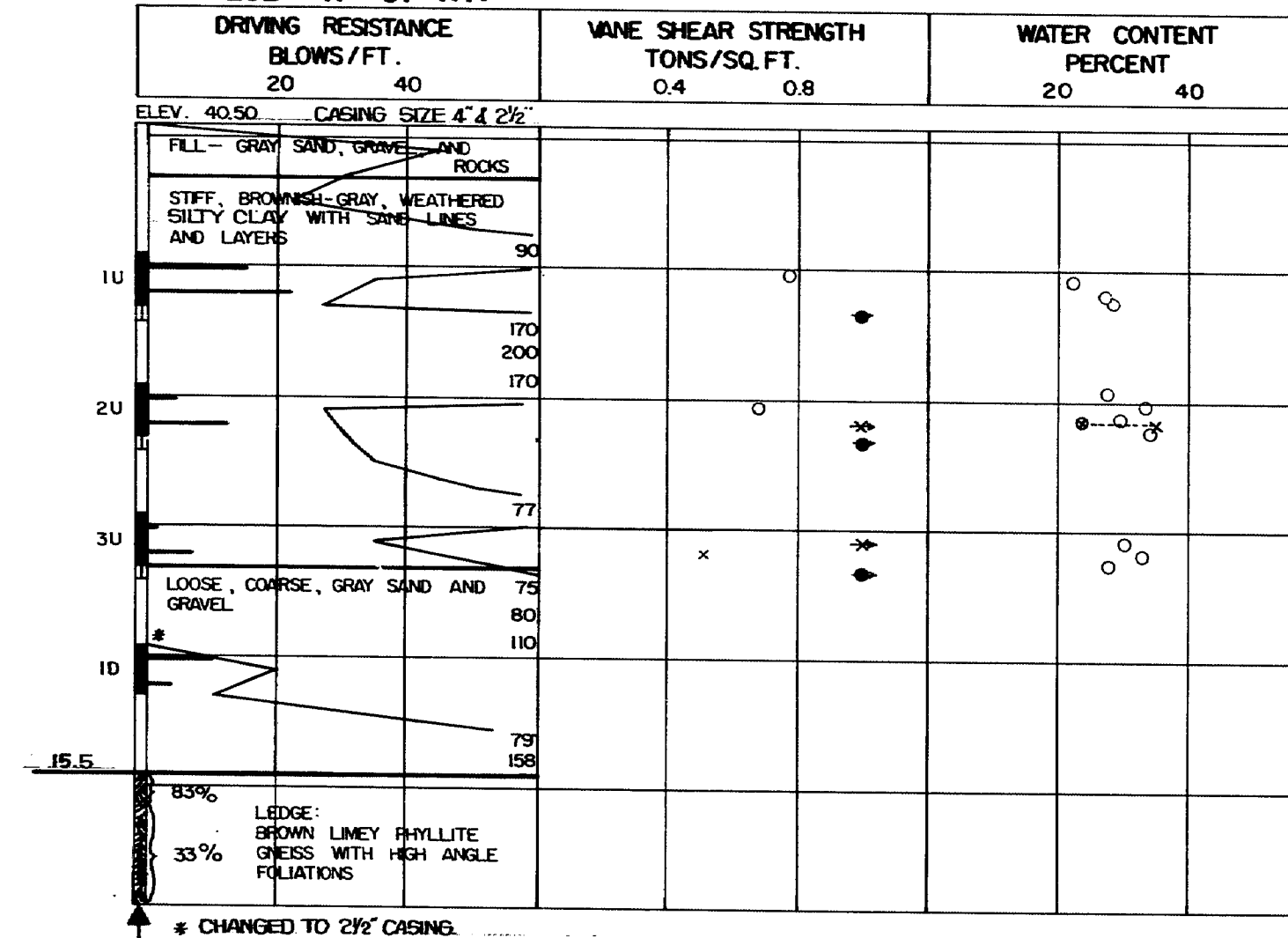
### BORING CB-12-69

STA. 282+06 67' LT.



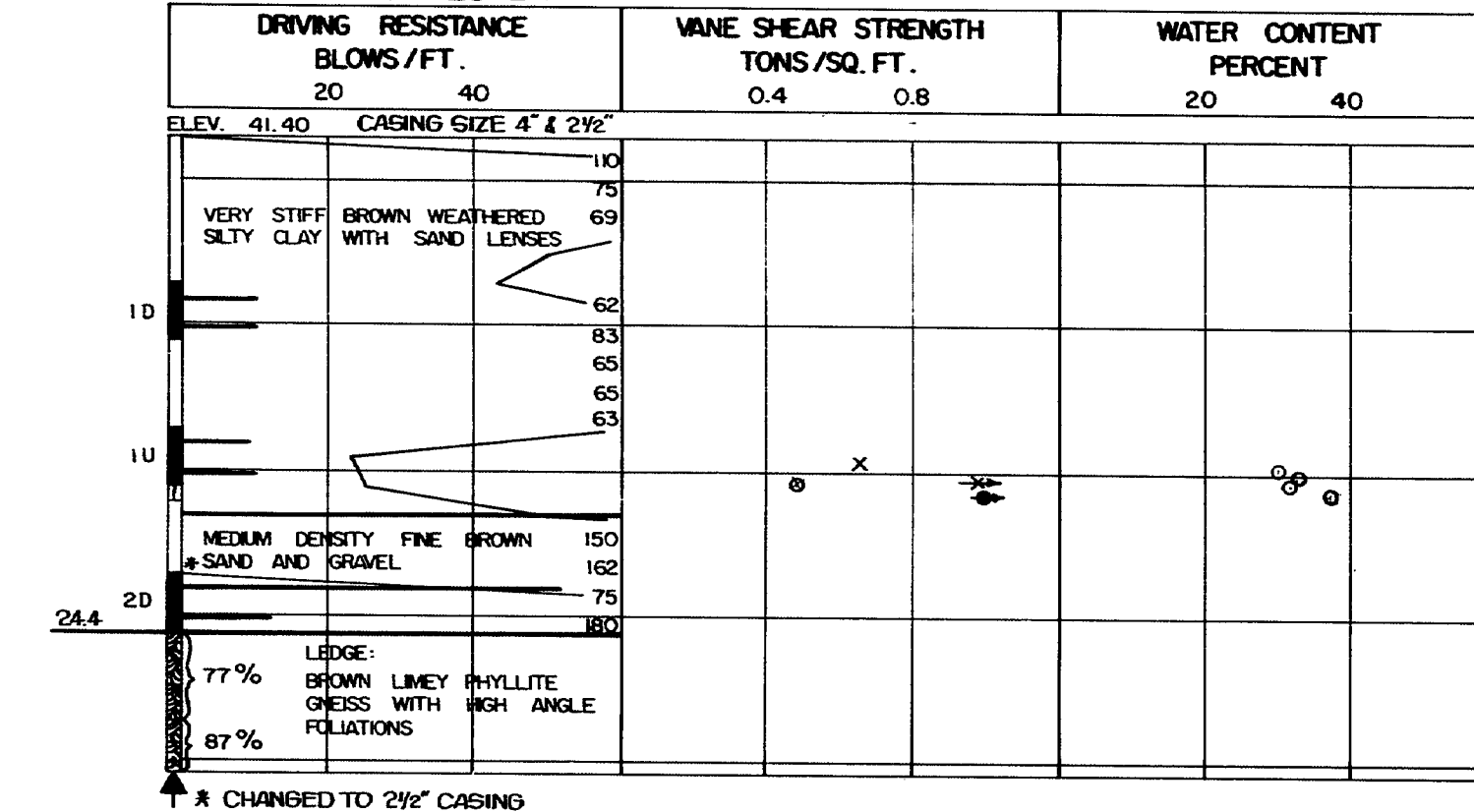
### BORING CB-13-69

STA. 282+41 67' RT.



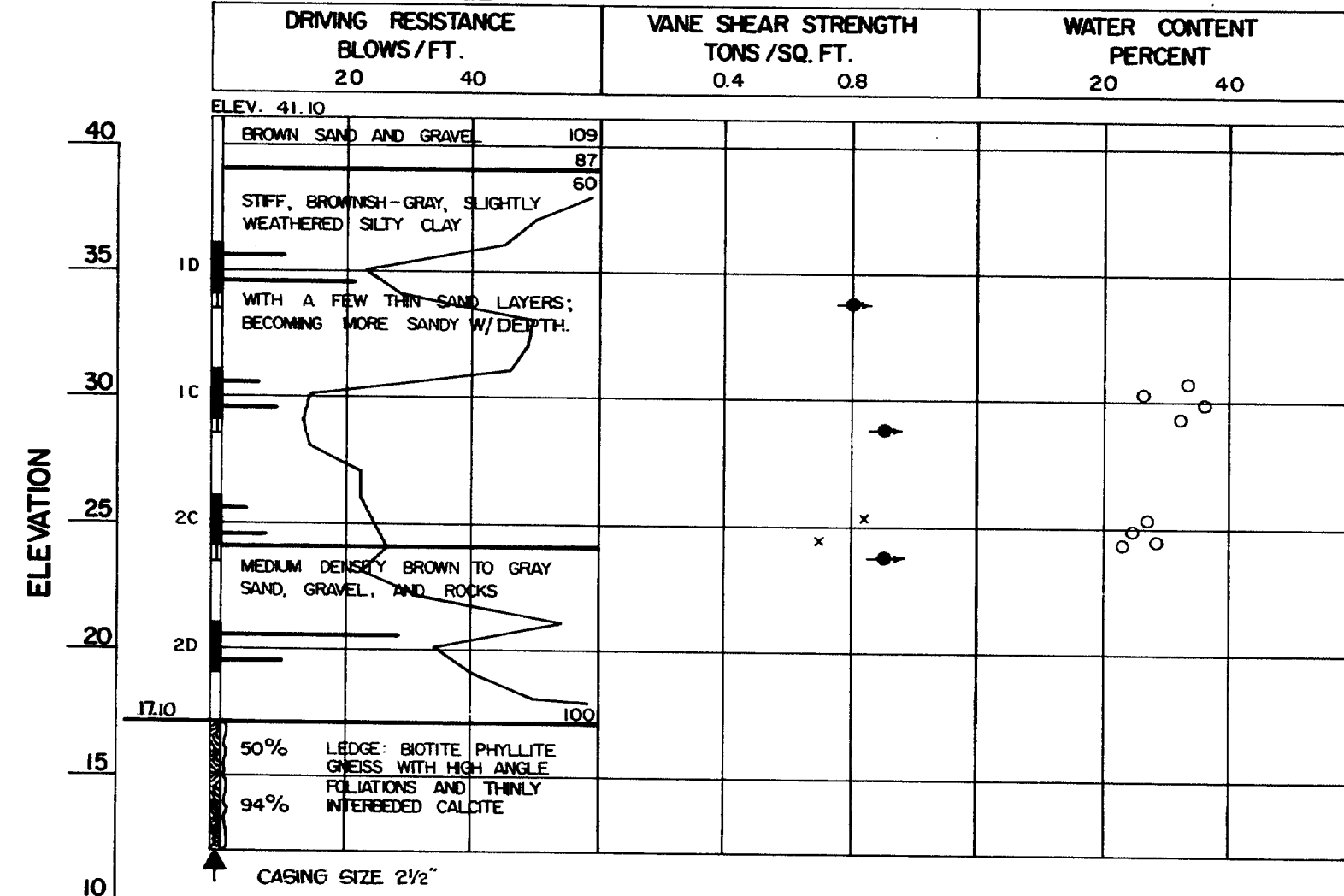
### BORING CB-14-69

STA. 282+16 28' LT.



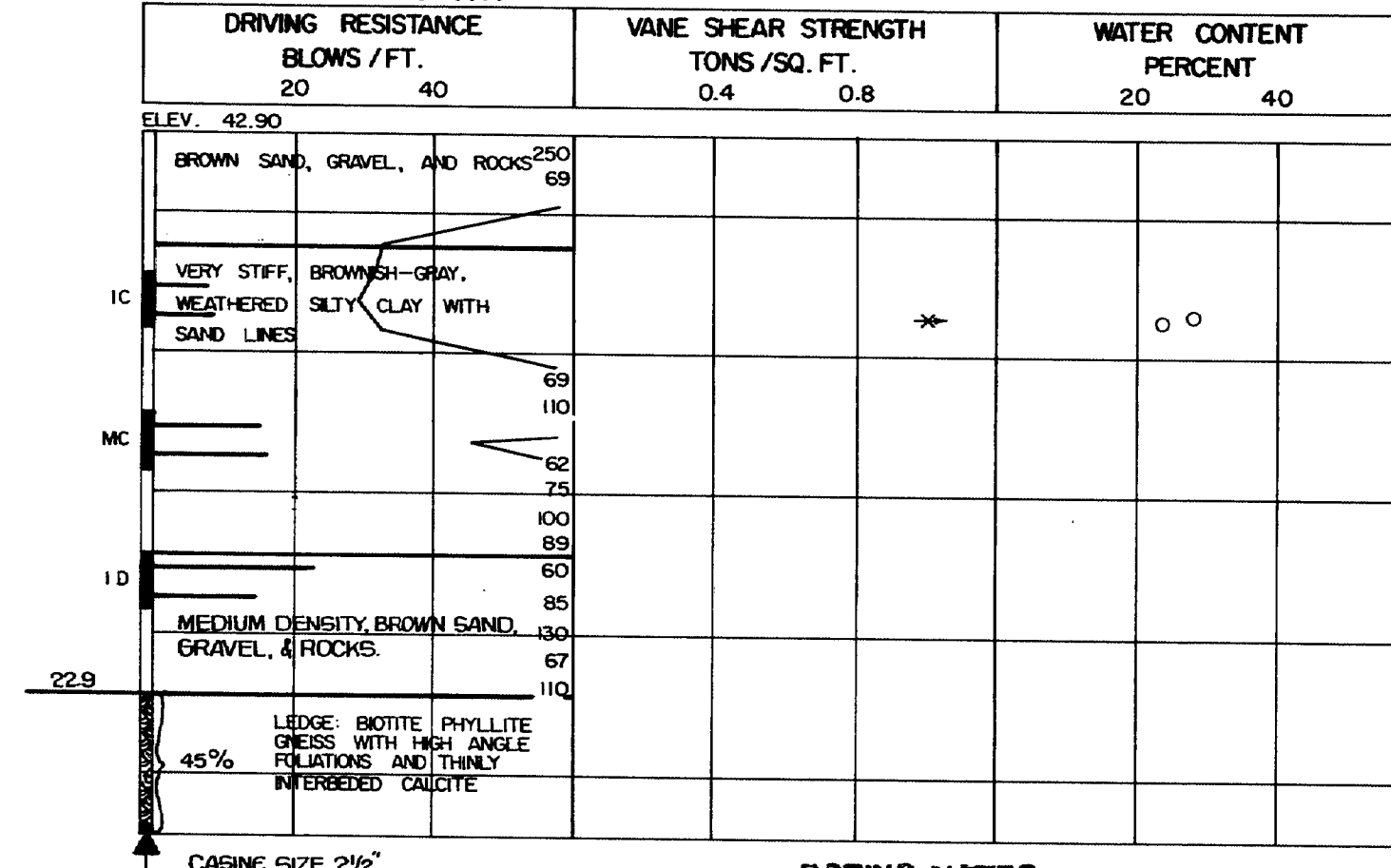
### BORING CB-15-69

STA. 282+30 22' RT.



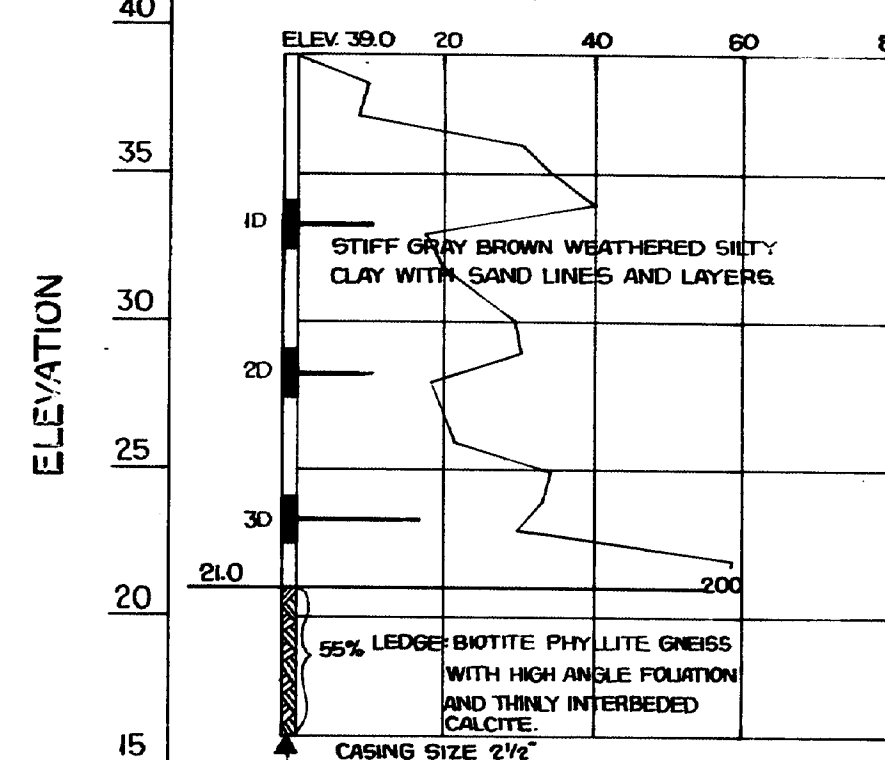
### BORING CB-16-69

STA. 283+36 5' RT.



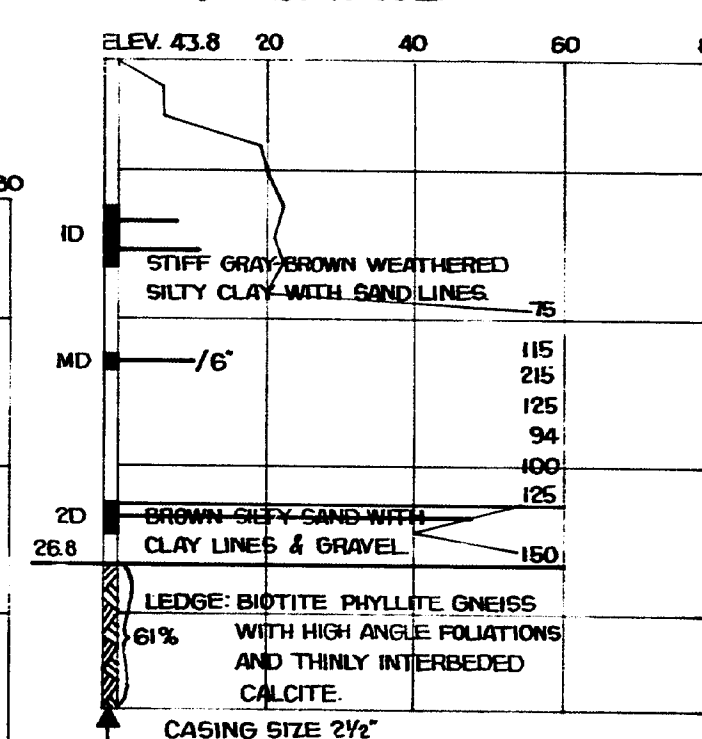
### BORING CB-36 69

STATION 283+50 63' RT.



### BORING CB-37-69

STATION 283+50 60' LT.



#### BORING NOTES

- ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING
- WATER ELEVATION
- NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 FT. LBS. OF ENERGY PER BLOW
- LOCATION OF SAMPLE OR SAMPLE ATTEMPT
- NUMBER AND TYPE OF DRY SAMPLE
- ID 5 & H SAMPLER #12905
- IC 2" O.D. 16 GA. SEAMLESS TUBING
- IU 3" O.D. 16 GA. SEAMLESS TUBING
- MD UNSUCCESSFUL SAMPLE ATTEMPT AND TYPE OF SAMPLER
- NUMBER OF BLOWS REQUIRED TO DRIVE SPOON OR TUBING ONE FOOT WITH 350 FT. LBS. OF ENERGY PER BLOW

#### FIELD VANE TEST

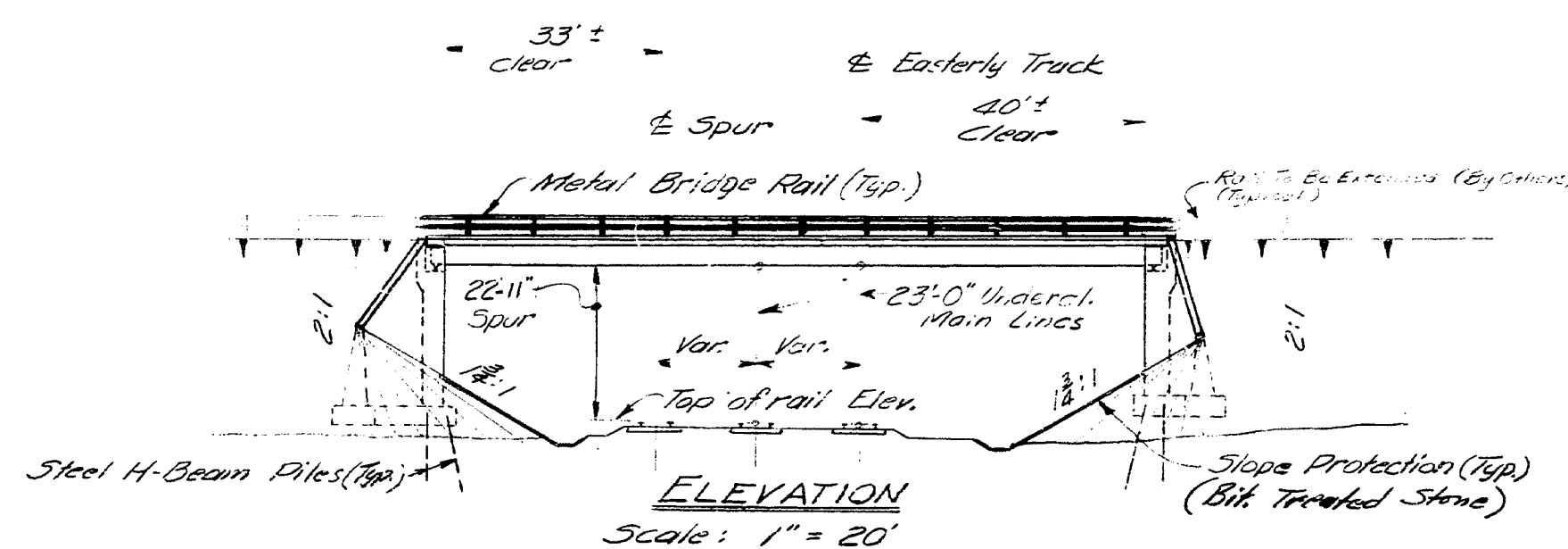
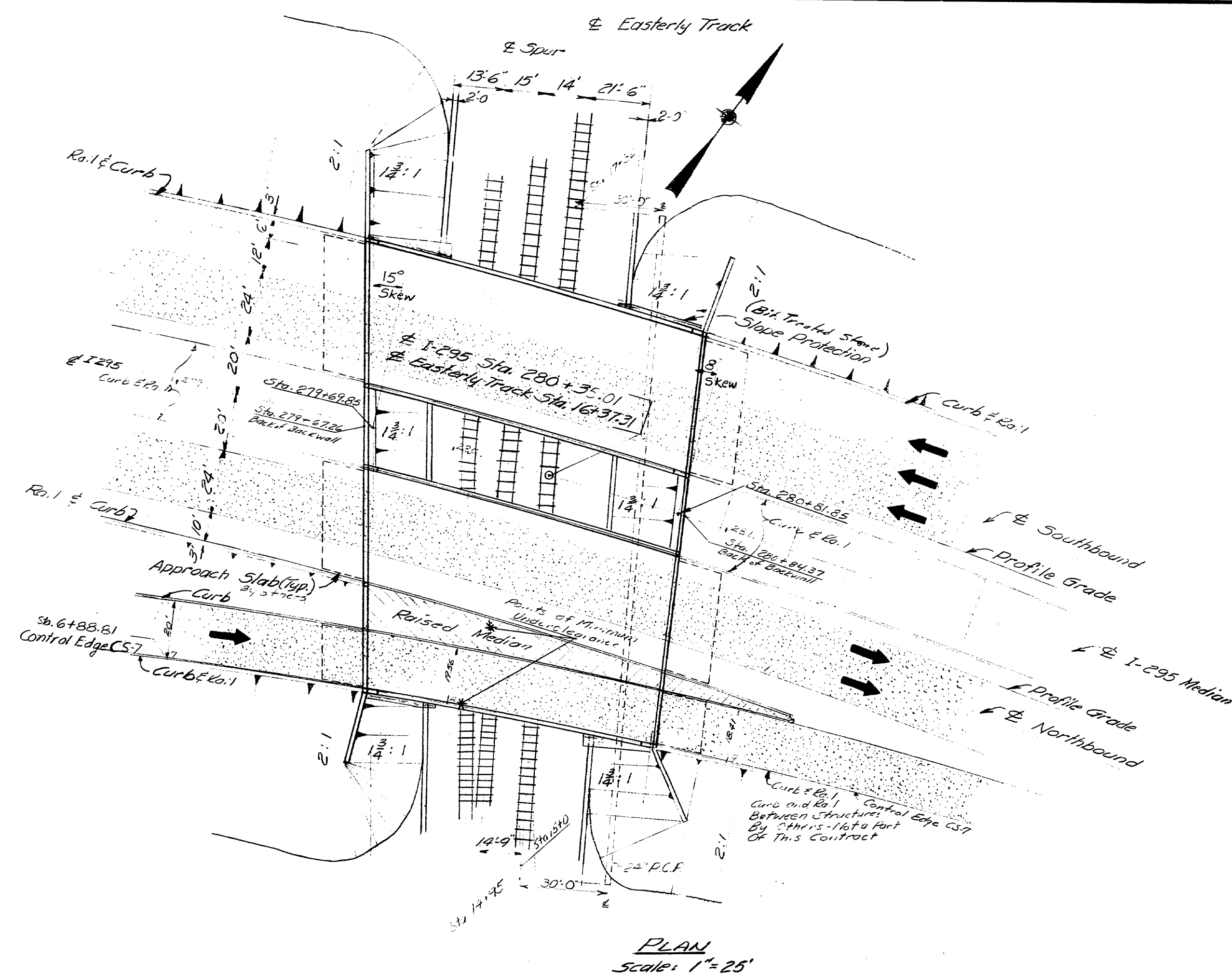
- FIELD VANE SHEAR STRENGTHS
- LABORATORY VANE SHEAR STRENGTHS
- SHEAR STRENGTHS IN EXCESS OF CAPACITY OF EQUIPMENT
- ONE HALF UNCONFINED COMPRESSIVE STRENGTHS

#### WATER CONTENT NOTES

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

#### STATE HIGHWAY COMMISSION

INTERSTATE 295 & RAMP CS-7  
OVER  
ST. JOHN STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
BORING DETAILS



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(54) 48	34	85

BRIDGE QUANTITIES			
Item No.	DESCRIPTION	Quantity	Unit
20326	Gravel Borrow	530	Cu Yd.
* 30410	Aggregate Subbase Course - Gravel	120	Cu Yd.
50125	Steel H-beams Pile 74 lbs/ft.	4000	L.F.
50221	Structural Concrete, Abuts. & Retaining Walls	1350	Cu Yd.
512201	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges - Portland Term. R.R.	1	L.S.
* 502301	Structural Concrete approach Slabs Pile	1	L.S.
50312	Reinforcing Steel, Fab. & Delivered	217,000	Lb.
50313	Reinforcing Steel, Placing	217,000	Lb.
5047001	Structural Steel, Fab. & Delivered - Portland Term. R.R.	1	L.S.
504701	Structural Steel, Erection - Portland Term. R.R.	1	L.S.
5052501	Steel Connectors - Portland Term. R.R.	1	L.S.
5064001	Field Painting Structural Steel - Portland Term. R.R.	1	L.S.
50708	Bridge Railing	570	L.F.
* 50810	Membrane Waterproofing	1850	Sq. Yd.
51207	French Drains - Stones only	65	Cu Yd.
51310	Slope Protection - 8" x 16" Teamed Stone	1050	Sq. Yd.
51520	Protective Coating for Concrete Surfaces	340	Sq. Yd.
52007	Elastomeric Expansion Device (Type I)	123	L.F.
60913	Vertical Enrage Curb - Type I	660	L.F.
635.001	Embedded Works in Structures - Portland Term. R.R.	1	L.S.

\* Not part of this contract.

NOTE:

NOTE:  
Estimated Quantity of Structural Steel, Fab. Del. Erected and Painted = 410,000

Estimated Quantity of Shear Connectors = 2840 Studs = 2800 lbs

Estimated Quantity of Concrete Item 502.2601 = 435 CY

Estimated Quantity of Concrete Item 502.3101 = 75 C.Y.

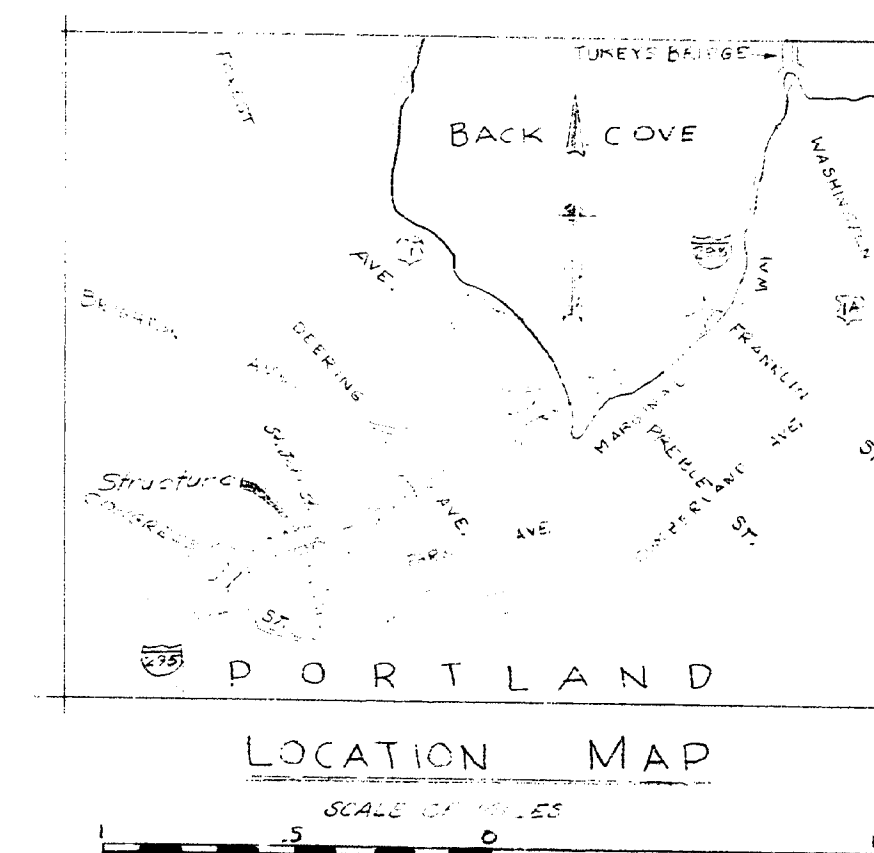
Estimated Quantity of Embedded Work in Structures PTRR = 230<sup>±</sup> lin ft. 3" Ø R/C. Plus Fittings

### SPECIFICATIONS

DESIGN - A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 with Interim Specifications 1970.

CONTRACT - State of Maine, State Highway Commission,  
Standard Specifications, Highways and Bridges,  
Revision of June 1968.

LIVE LOADING - HS 20-44



DESIGN - ALL  
TRACE - 44' of G.W.  
CHECK - J. L. RAY, E.C. M.K.

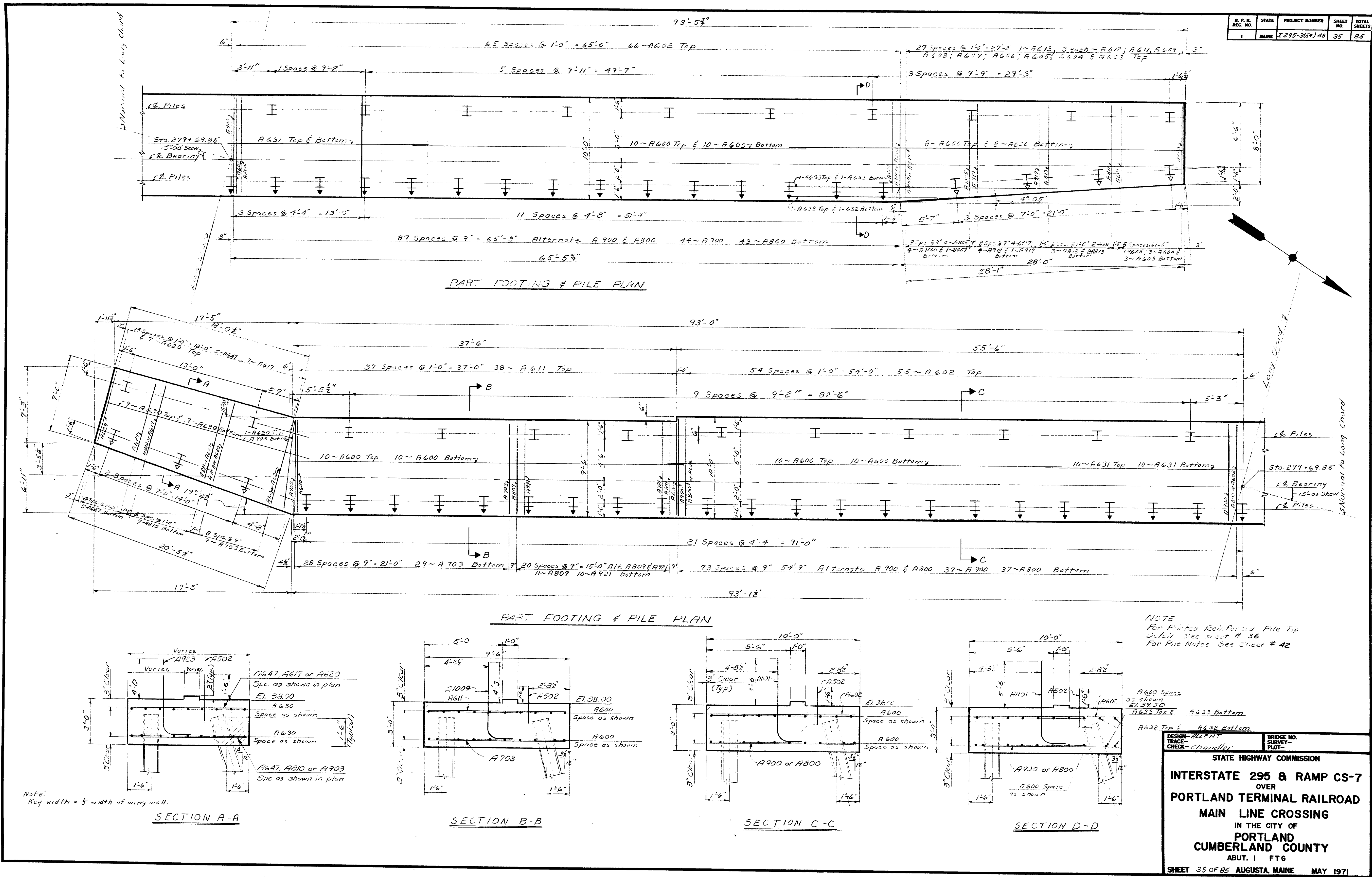
K-1 Added 7-25-71  
BRIDGE NO.  
SURV.  
PLOT -

STATE HIGHWAY COMMISSION

INTERSTATE 295 & RAMP CS-  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
GENERAL PLAN

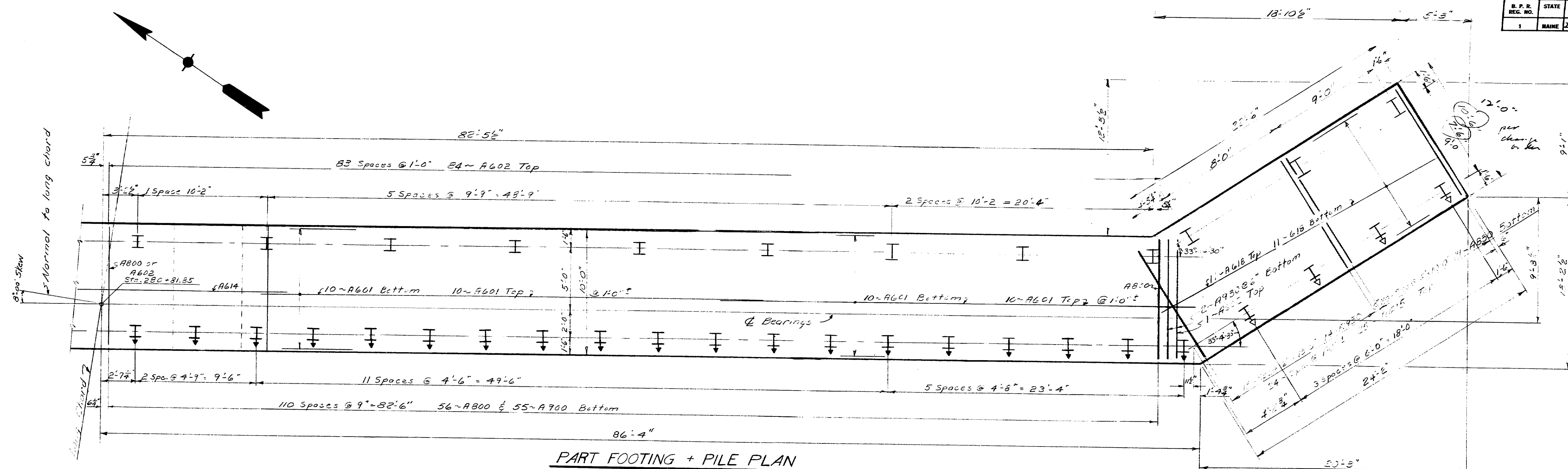
SHEET 44 OF 85 AUGUSTA, MAINE MAY 1971



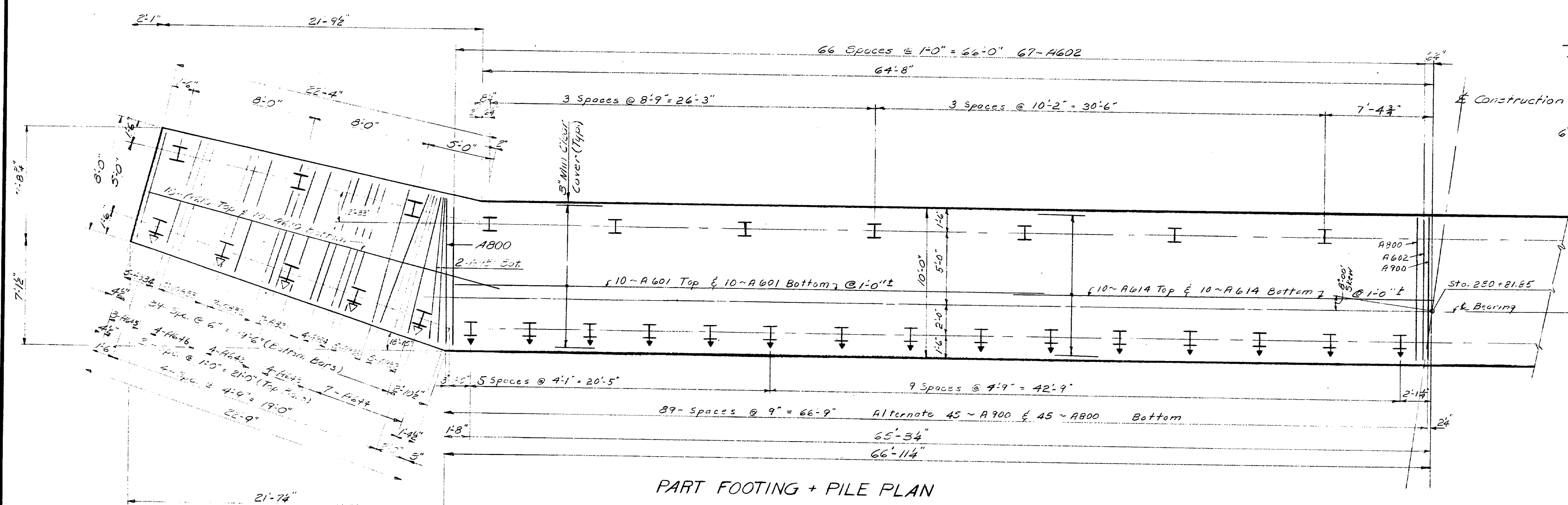


**AUGUSTA, MAINE      MAY 1971**

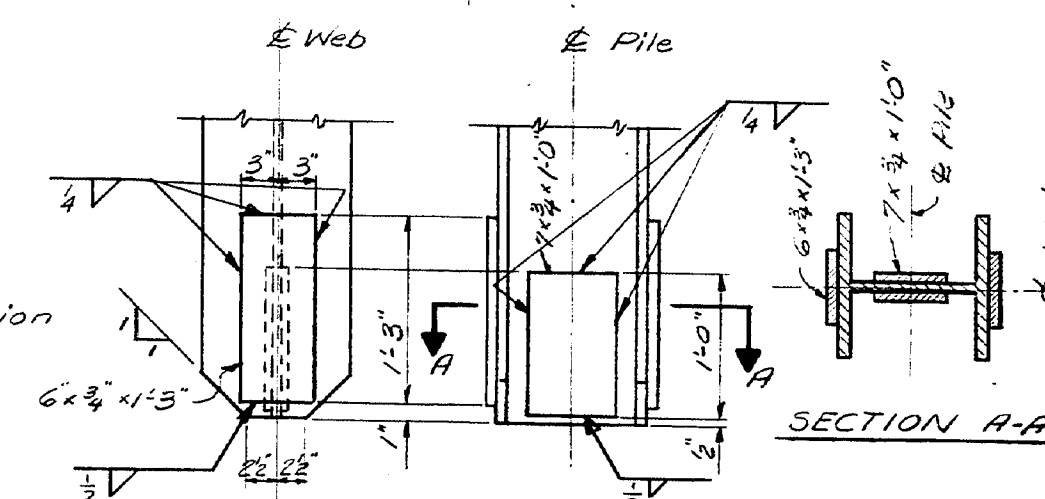
S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-36541-48	36	85



PART FOOTING + PILE PLAN



PART FOOTING + PILE PLAN



POINTED REINFORCED PILE TIP

Alternate types of pointed pile tips may be used if they are equal to or better than the pointed reinforced pile tip shown, if approved by the Engineer.

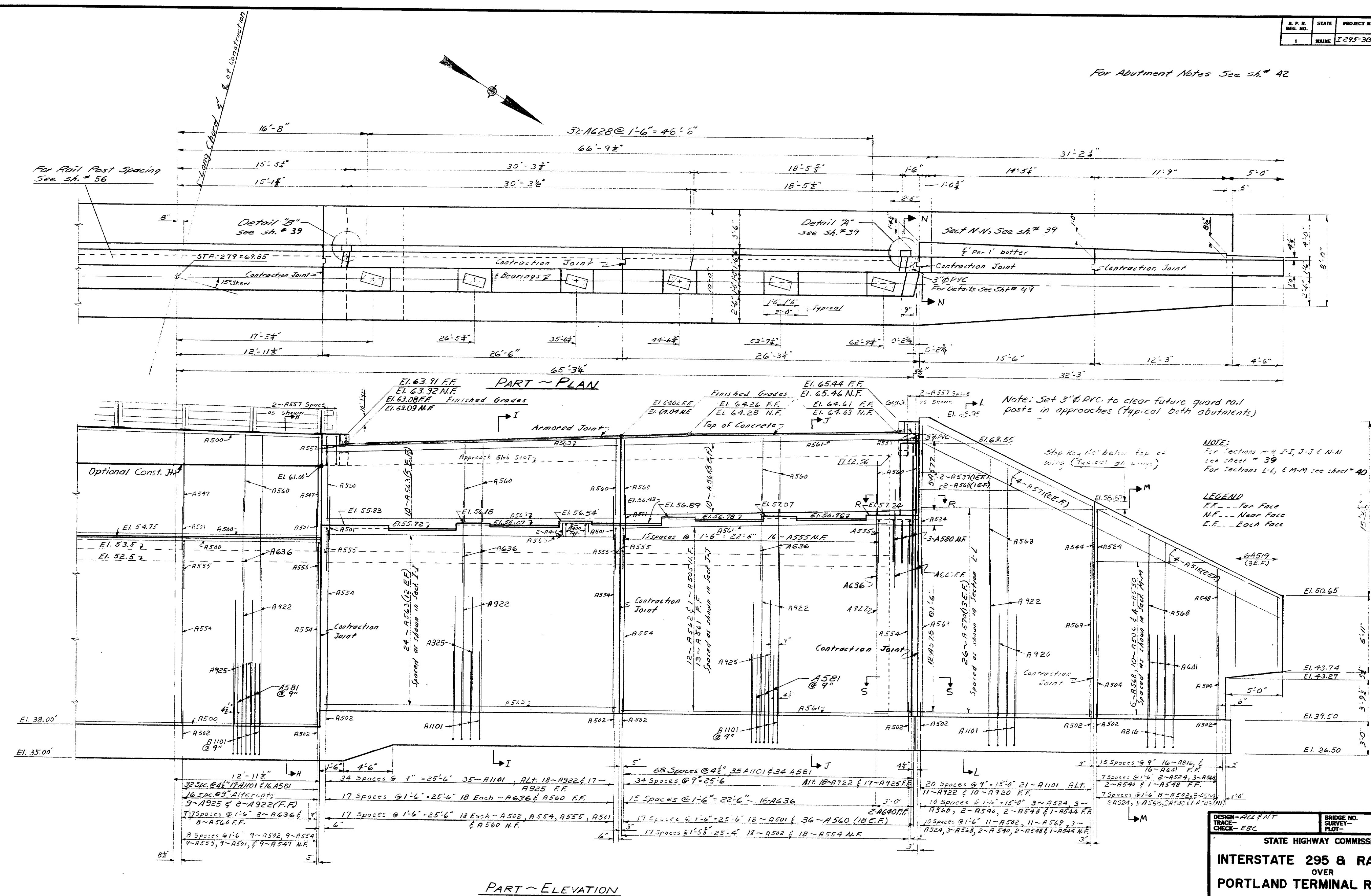
NOTE For Pile Notes See Sheet 42

DESIGN - ALLEN	BRIDGE NO.
TRACE - CHANDLER	SURVEY -
CHECK - CHANDLER	PLOT -
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
ABUT 2 FTG	
SHEET 36 OF 85 AUGUSTA, MAINE MAY 1971	

152-120

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
REG. NO.	MAINE	I-295-309(48)	37	85

For Abutment Notes See sh. # 42



NOTE: Set 3" PRC to clear future guard rail posts in approaches (typical both abutments)

NOTE: For Sections M-L, J-I, J-J & N-N see sheet # 39  
For Sections L-L, L-M-M see sheet # 40

LEGEND  
FF - Far Face  
NF - Near Face  
EF - Each Face

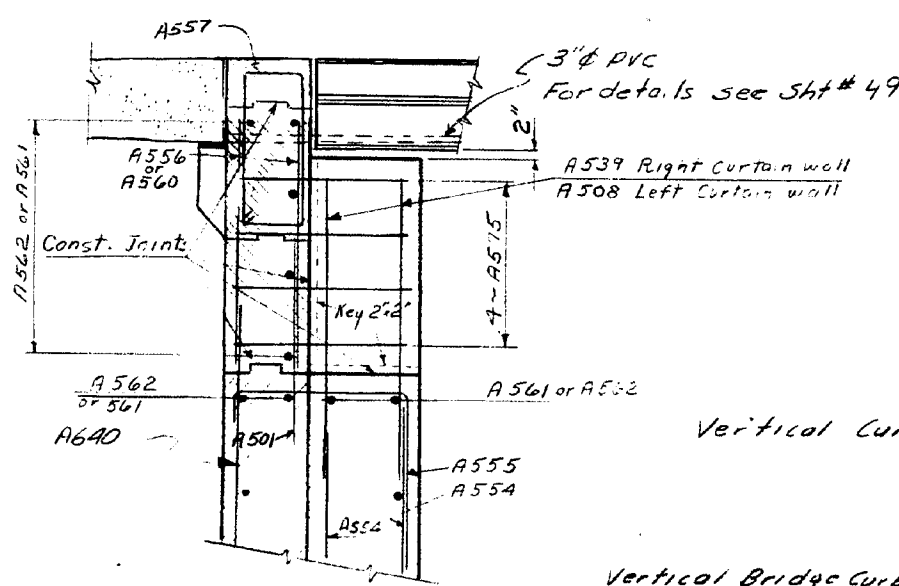
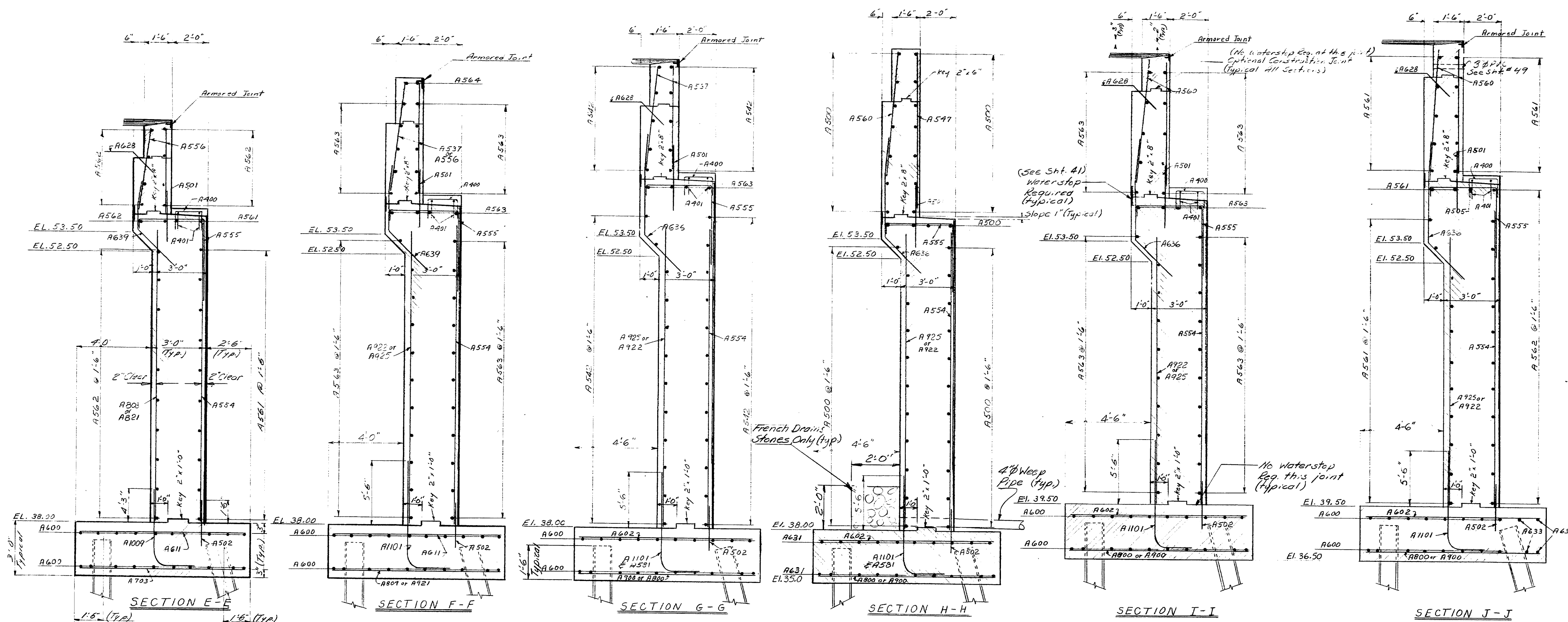
DESIGN - ALLIANT	BRIDGE NO.
TRACE - EBC	SURVEY -
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
ABUT. 1	
SHEET 37 OF 85 AUGUSTA, MAINE MAY 1971	

152-121

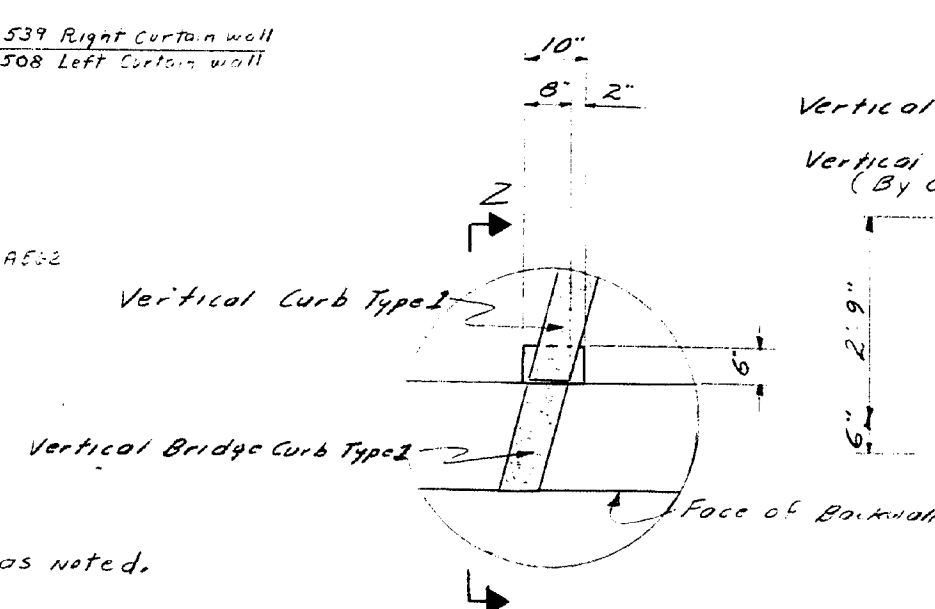




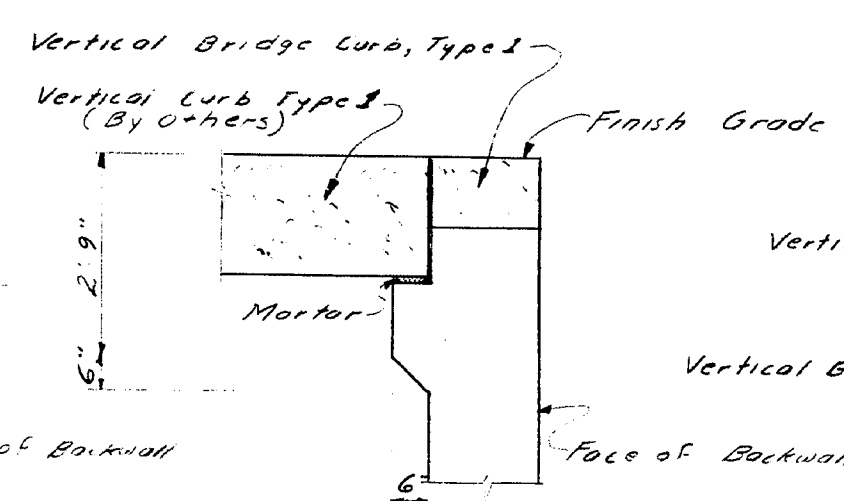
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(99) 48	39	85



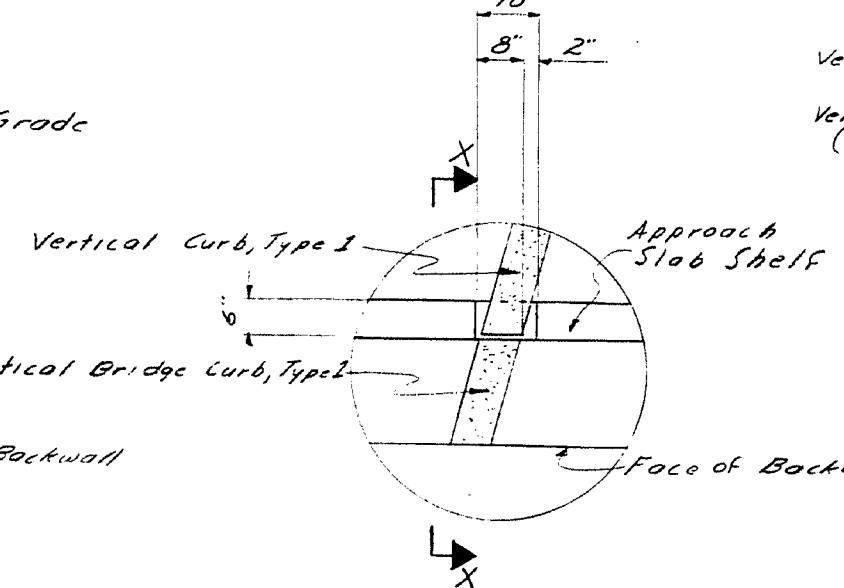
Right Curbside Wall  
Left curbside wall similar except as noted.  
SECTION N-N



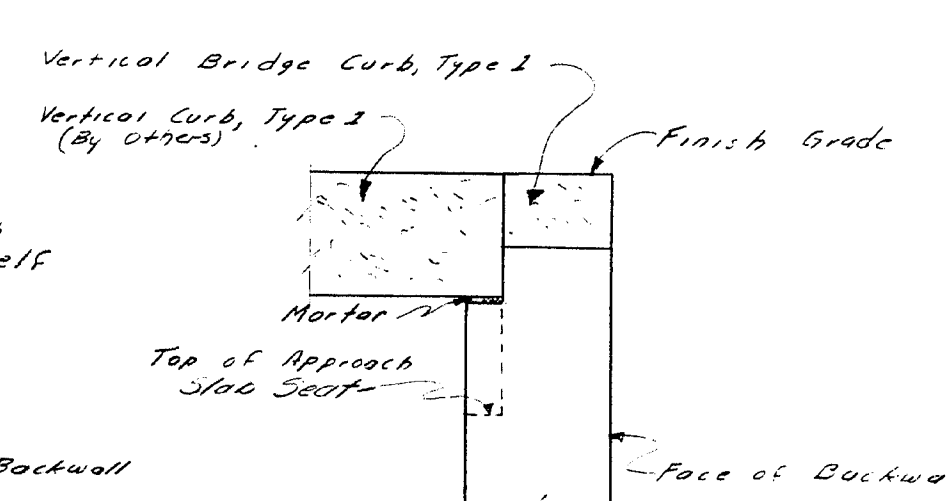
DETAIL A



SECTION Z-Z



DETAIL B







[illegible]

JOINT DETAIL  
Contractor - T. (1)

JOINT DETAIL  
(Contraction Joint)

NOTE:  
Break bond at Vertical contraction Joints by a method approved by the Engineer.  
Step key 12" below top surface of concrete, in all Vertical Joints

HORIZONTAL SHEAR KEY  
JOINT DETAIL

For Abut. Notes See sh. # 42

Note: For Sections U-U thru  
W-W See Sh. # 43

### EXPANSION JOINT DETAIL

DESIGN-ALL E.N.  
TRACE-  
CHECK-JC & E

BRIDGE NO.  
SURVEY-  
PLOT-

STATE HIGHWAY COMMISSION

**INTERSTATE 295 & RAMP CS-7  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
ABUT. 2**

SHEET 41 OF 85 AUGUSTA, MAINE MAY 1977

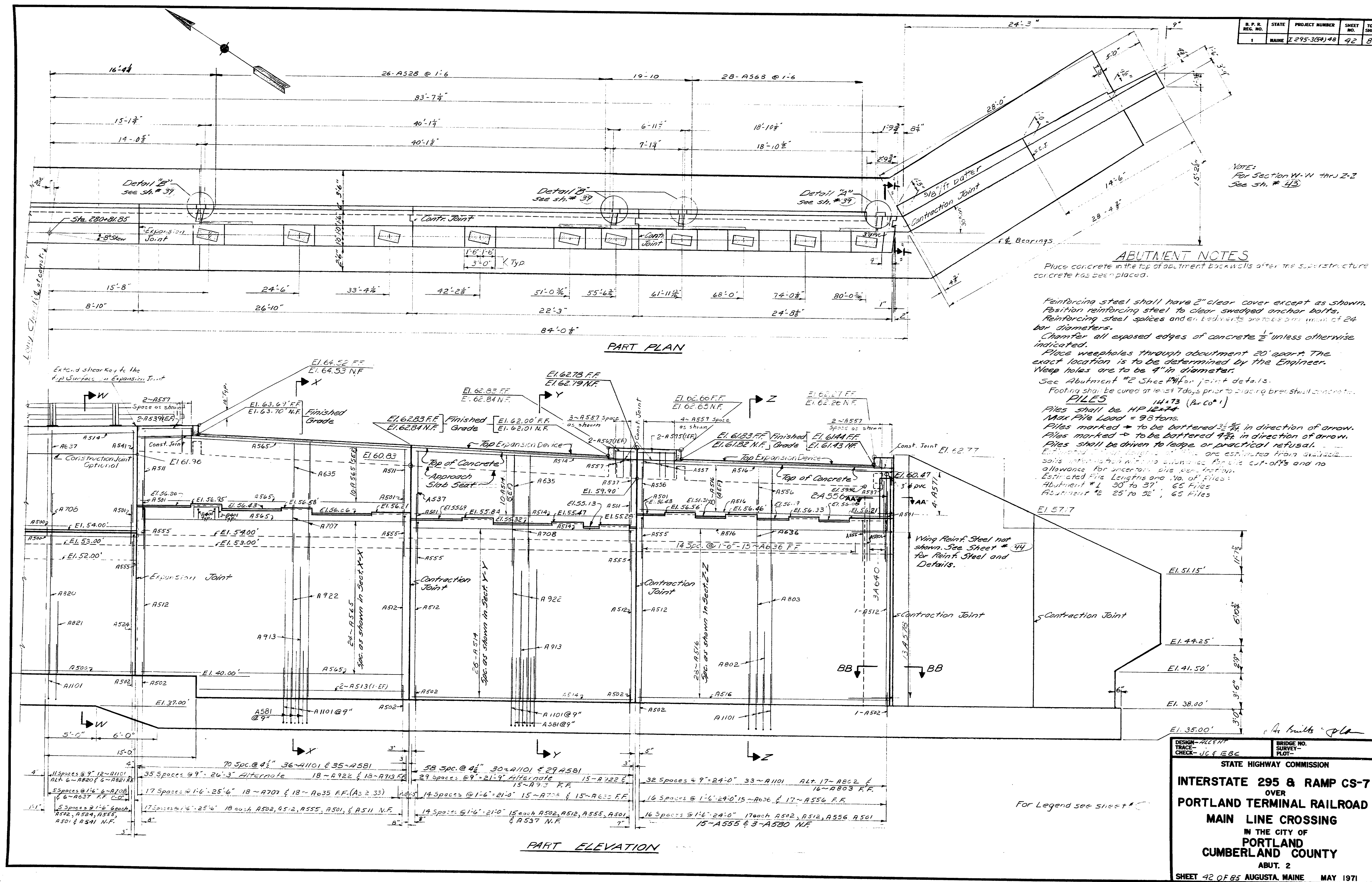
**152-125**

C.J. = Contr. Joint = Contraction Joint  
PVC = Polyvinylchloride

PART ~ ELEVATION

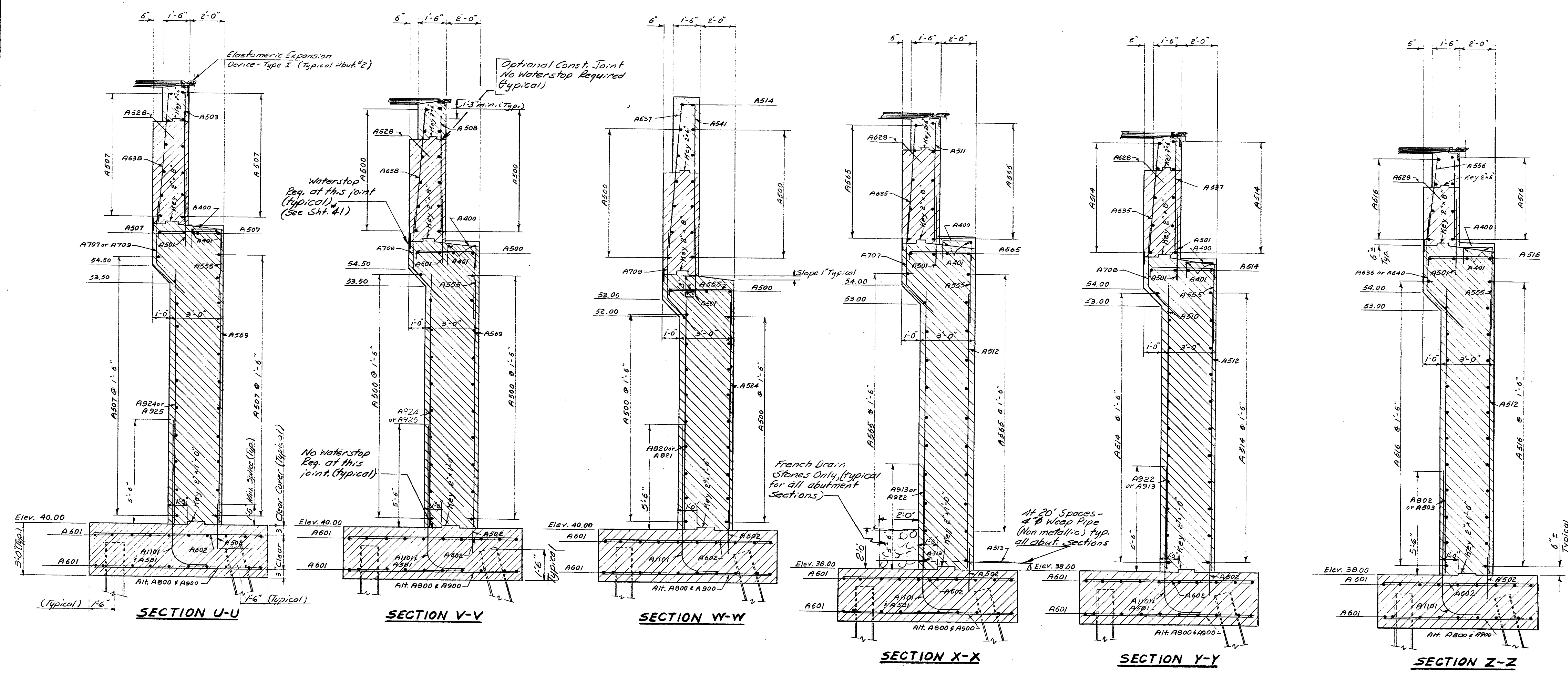
**152-125**

S. P. & R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-359-48	42	85



152-126

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(94) 48	43	85



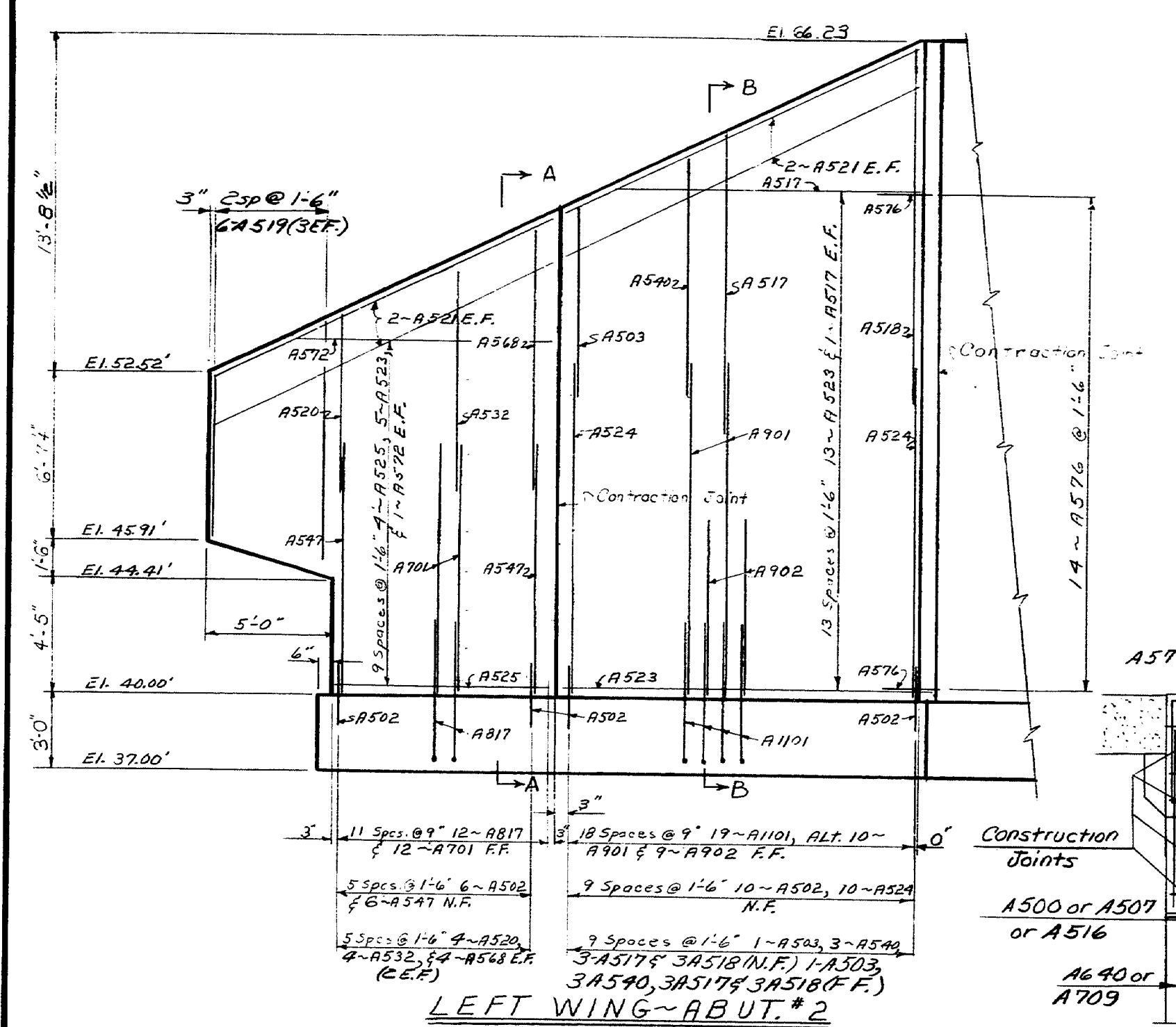
Note: See Section X-X For Location Of French Drain Stone and Weep Pipe. Weep Pipe Is To Extend Through Slope Protection, Typical All Wall Sections at Abutments.

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
 OVER  
**PORTLAND TERMINAL RAILROAD**  
**MAIN LINE CROSSING**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 ABUT. 2 X-SECTIONS  
 SHEET 43 OF 85 AUGUSTA, MAINE MAY 1971

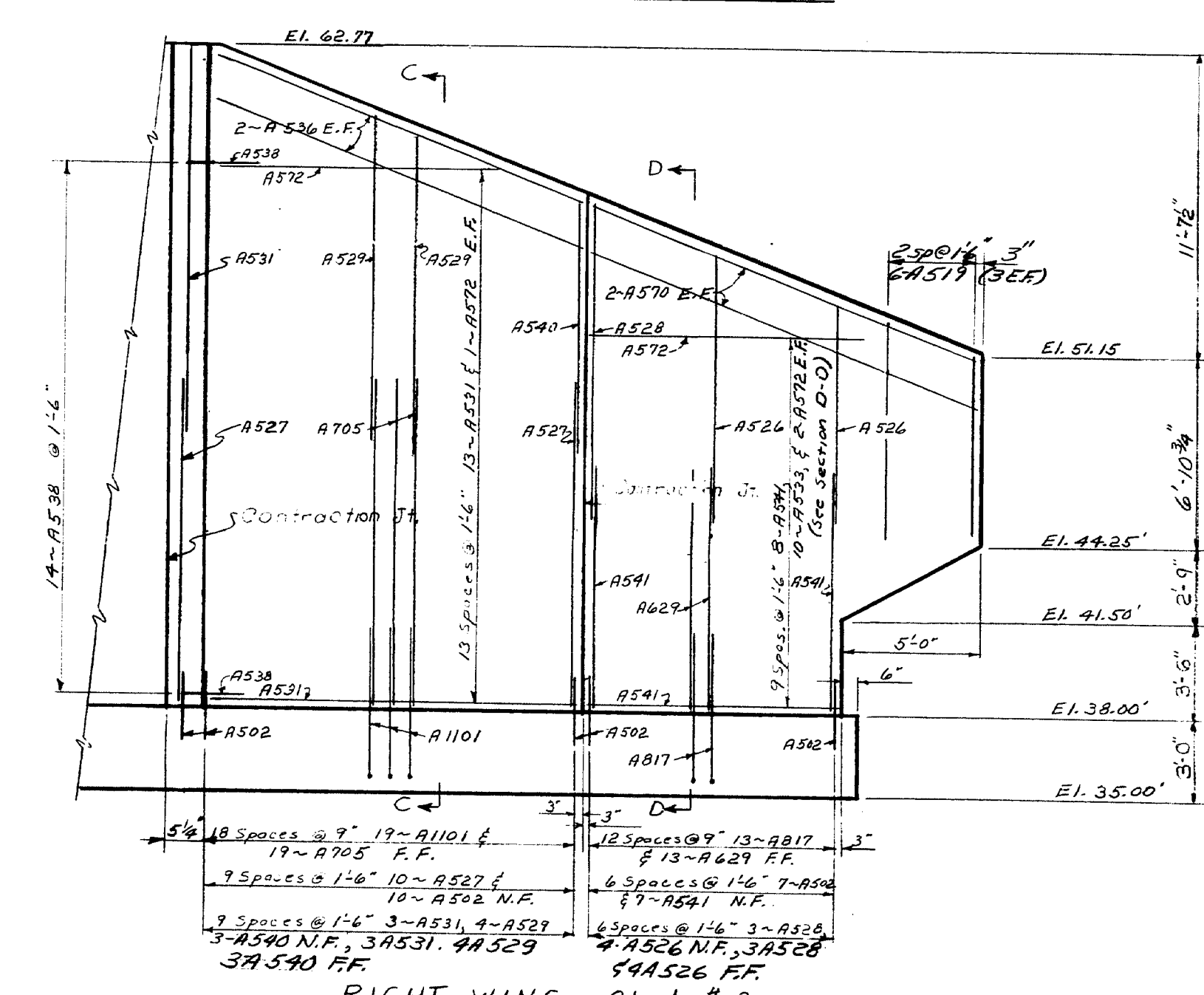
152-127



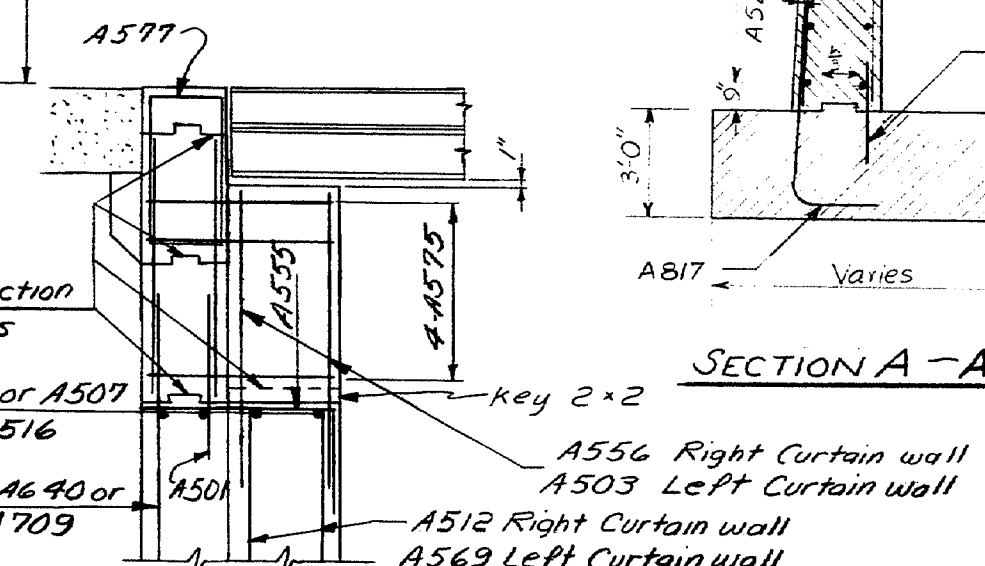
S.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-364	44	85



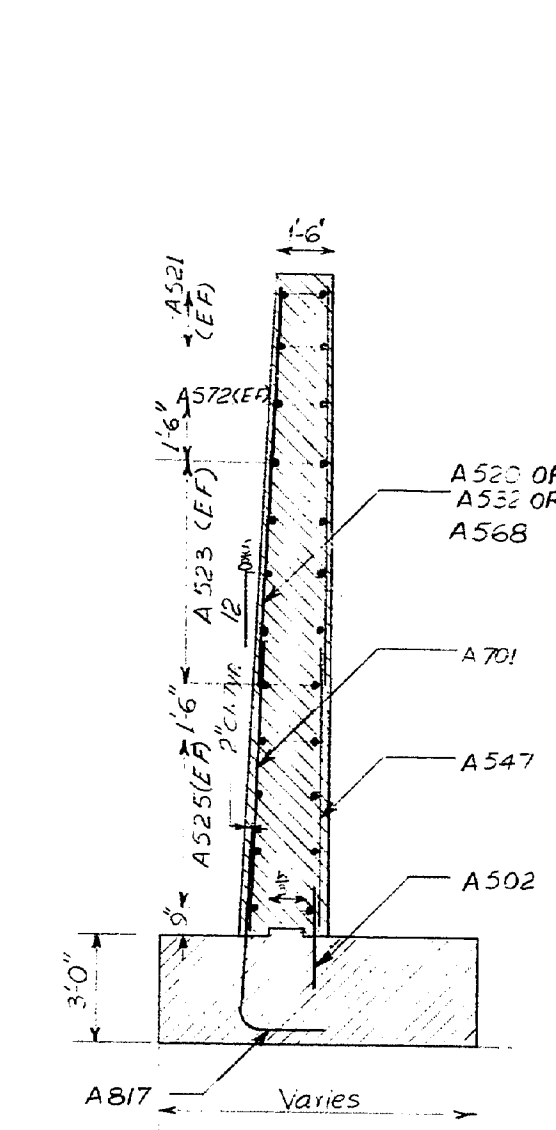
LEFT WING - ABUT. #2



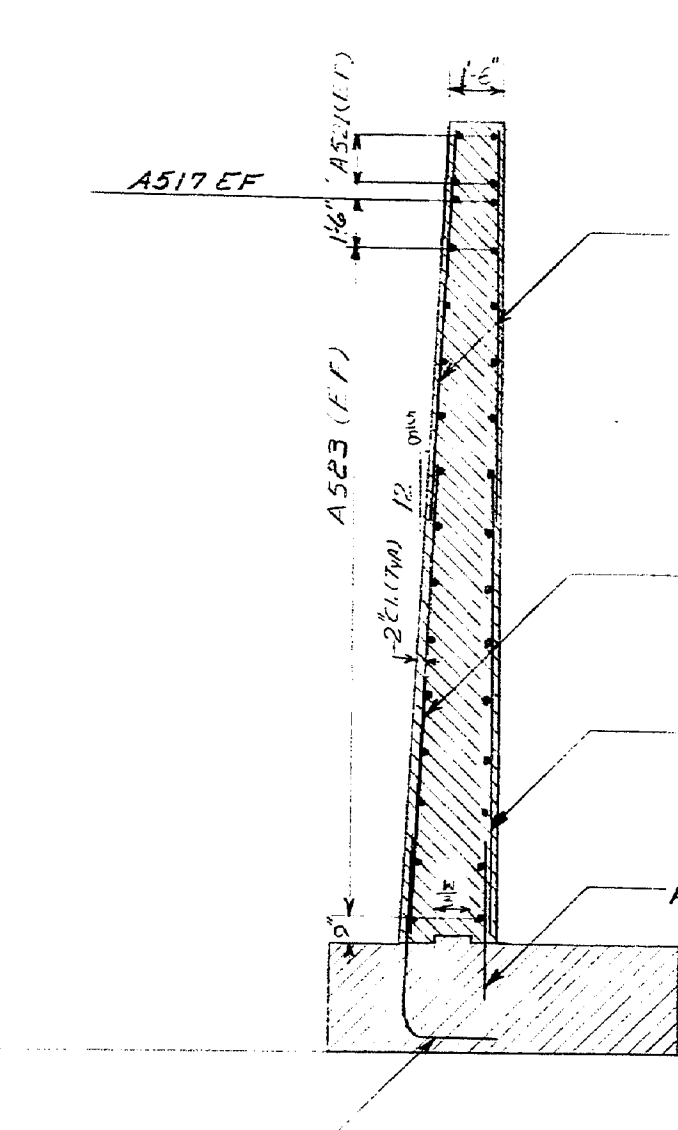
RIGHT WING - ABUT. #2



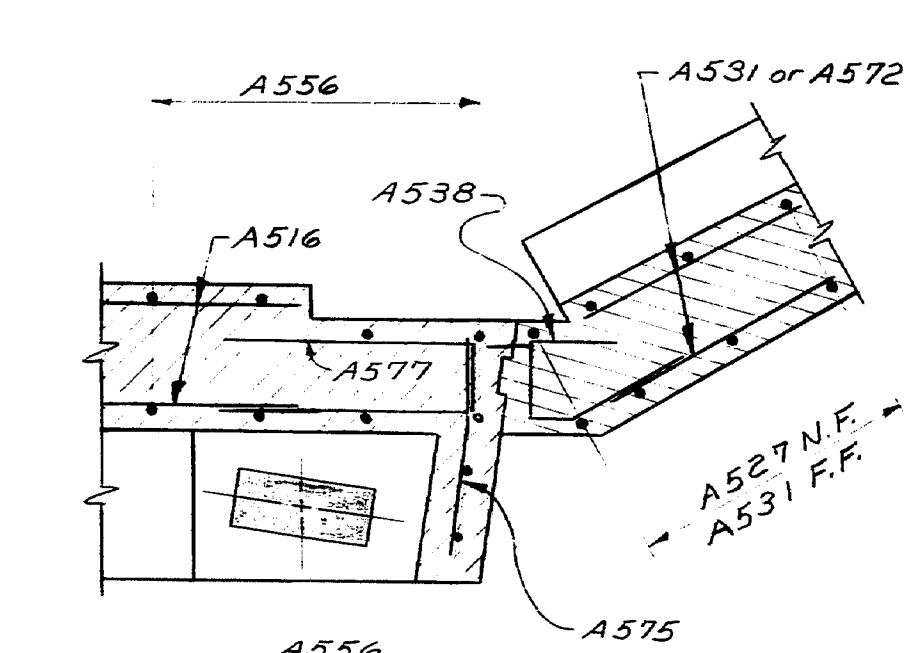
SECTION T-T



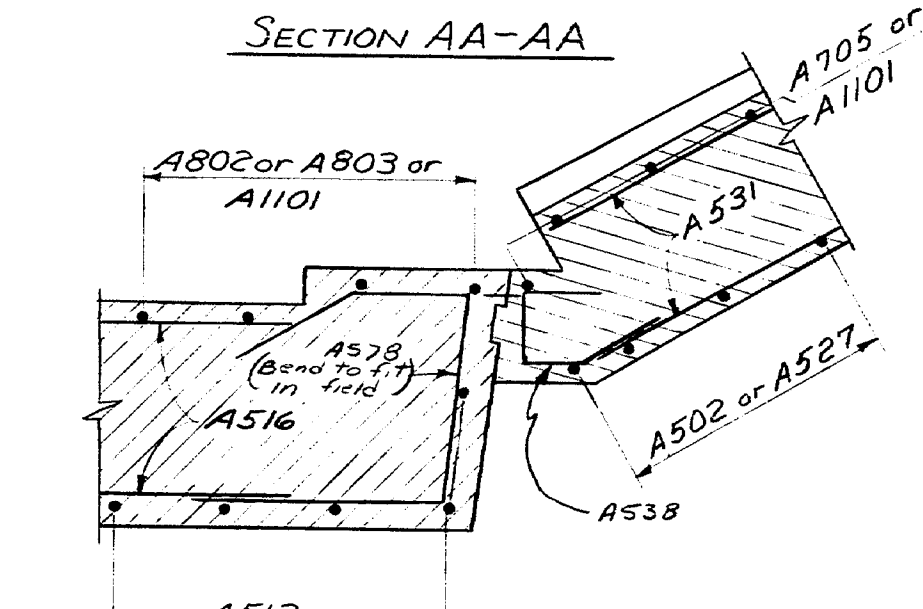
SECTION A-A



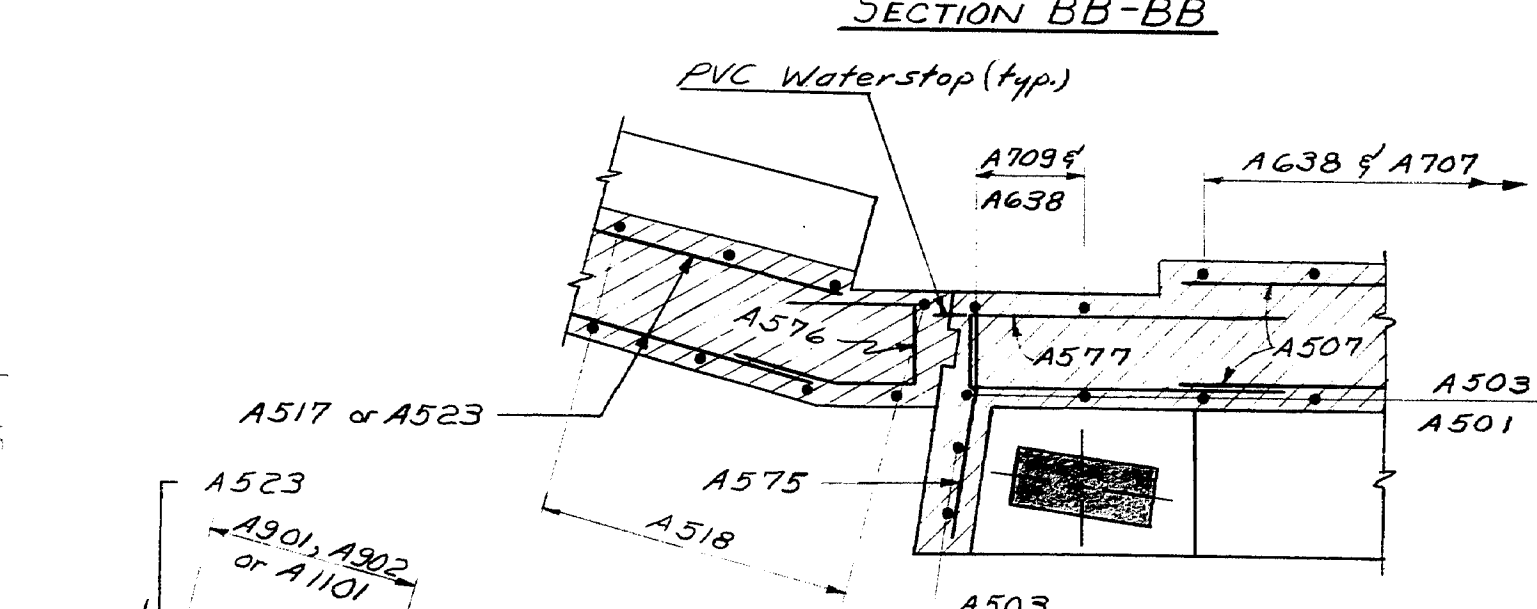
SECTION B-B



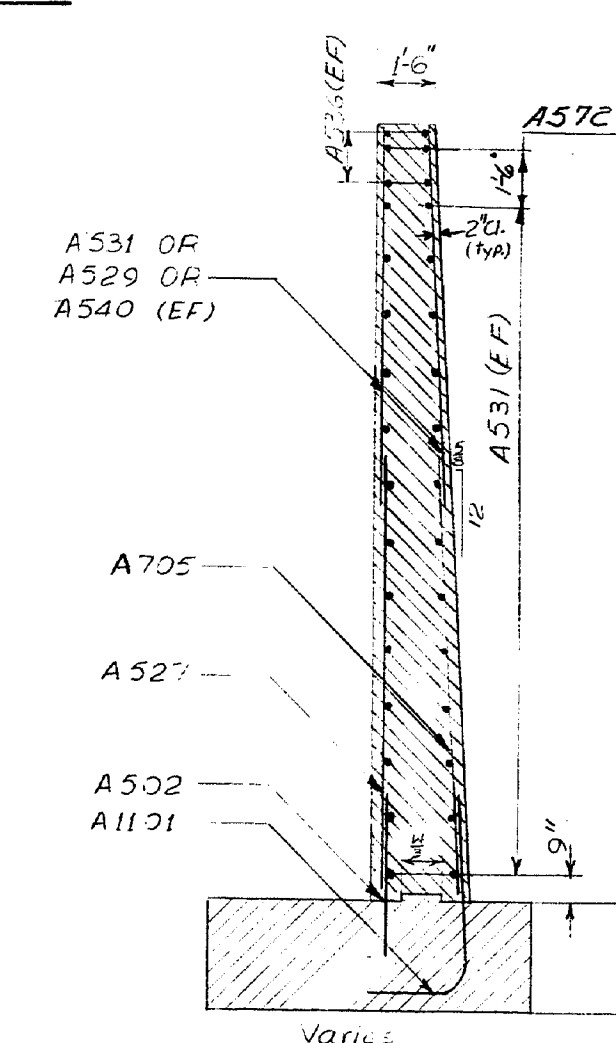
SECTION AA-AA



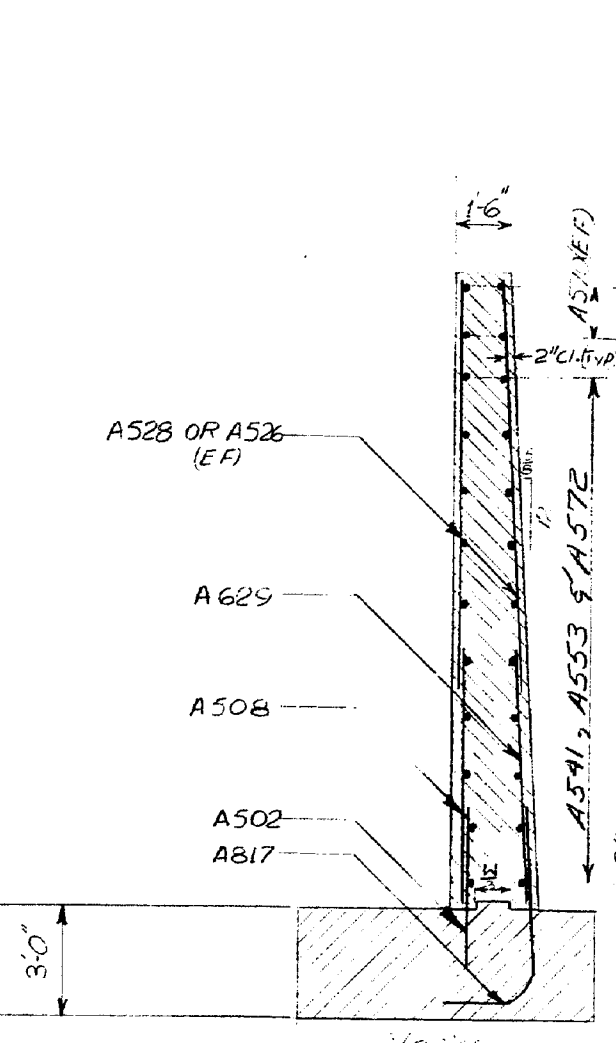
SECTION BB-BB



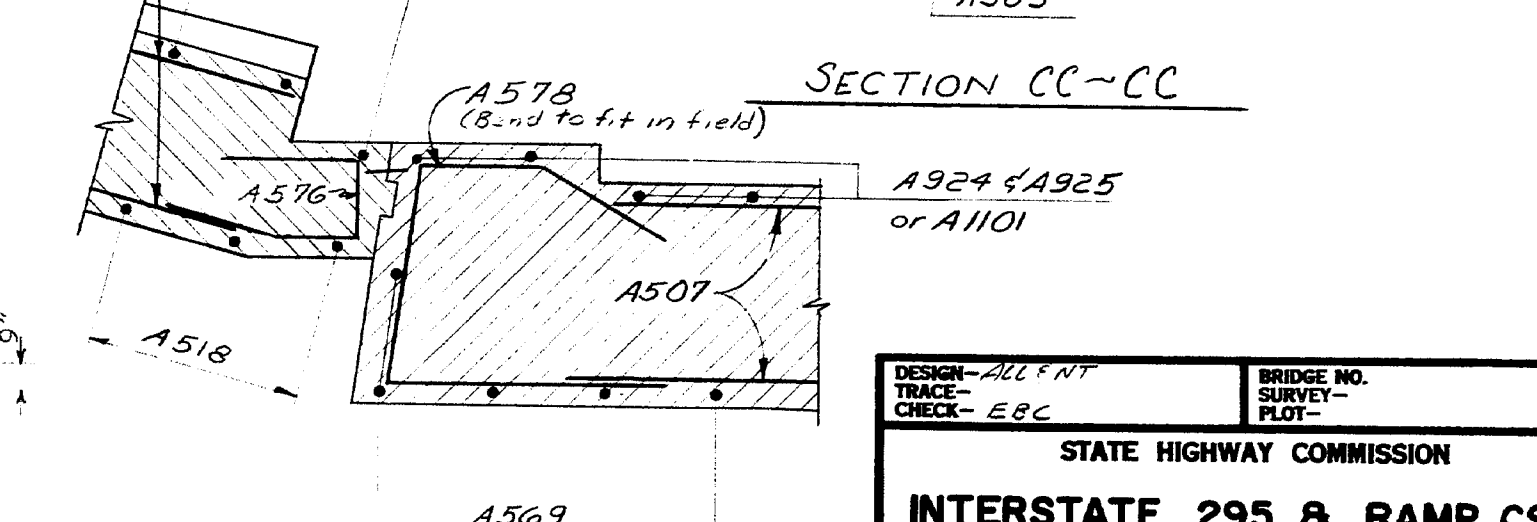
SECTION CC-CC



SECTION C-C



SECTION D-D



SECTION DD-DD

DESIGN - ALL F.N.T.  
TRACE - E.B.C.  
CHECK - E.B.C.

BRIDGE NO.  
SURVEY -  
PLOT -

STATE HIGHWAY COMMISSION

INTERSTATE 295 & RAMP CS-7  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
ABUT. 2 WINGWALLS

SHEET 44 OF 85 AUGUSTA, MAINE MAY 1971

152-128

B. P. R. REC. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-3(50) 48	45	85

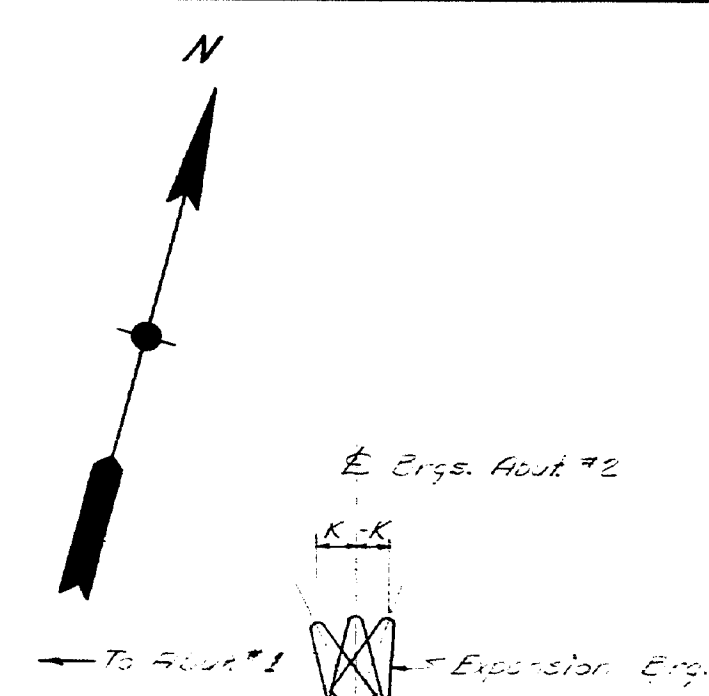
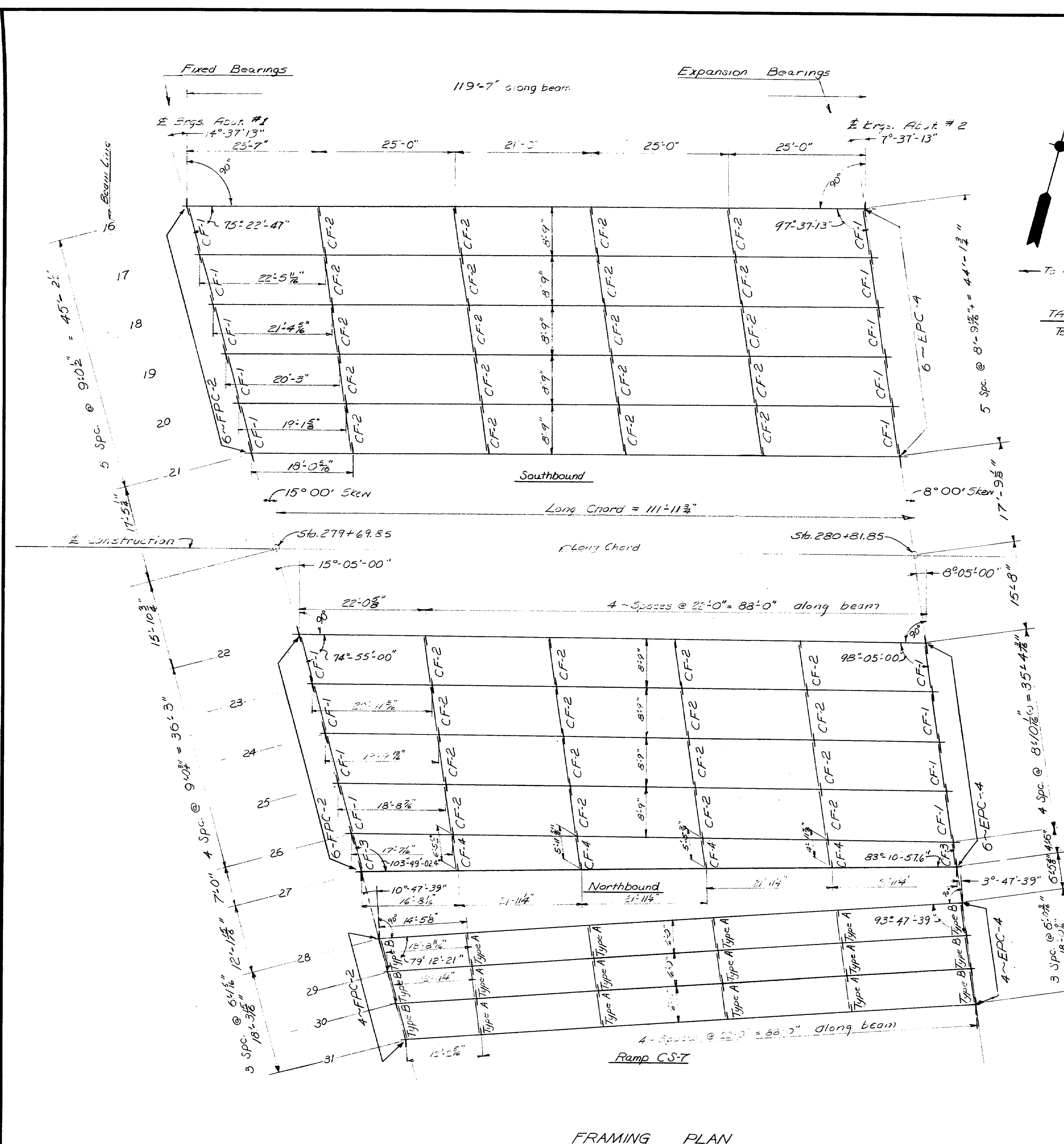


TABLE FOR SETTING EXP. JOINTS.

Temp. Degrees F.	K
-30	1 1/4"
-15	1 1/8"
0	1 1/2"
15	1 3/4"
30	2 1/8"
45	2 1/2"
60	2 3/4"
75	3 1/8"
90	3 1/2"
105	3 3/4"

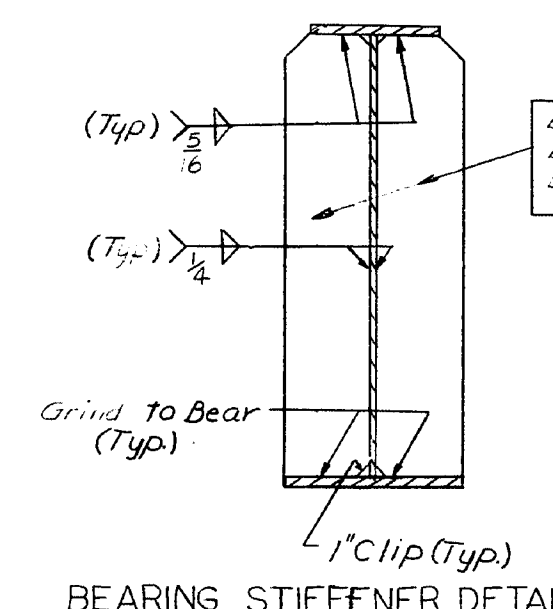
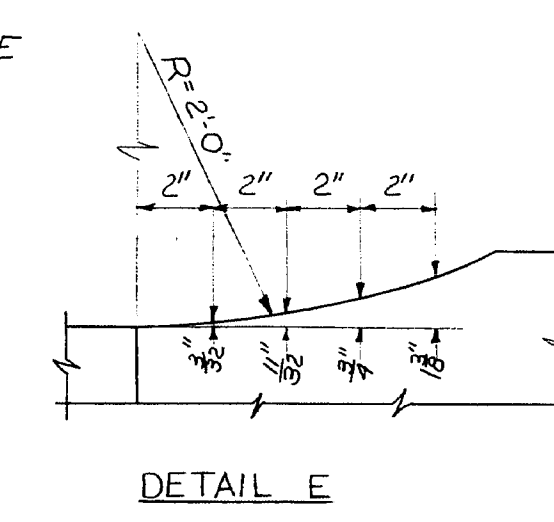
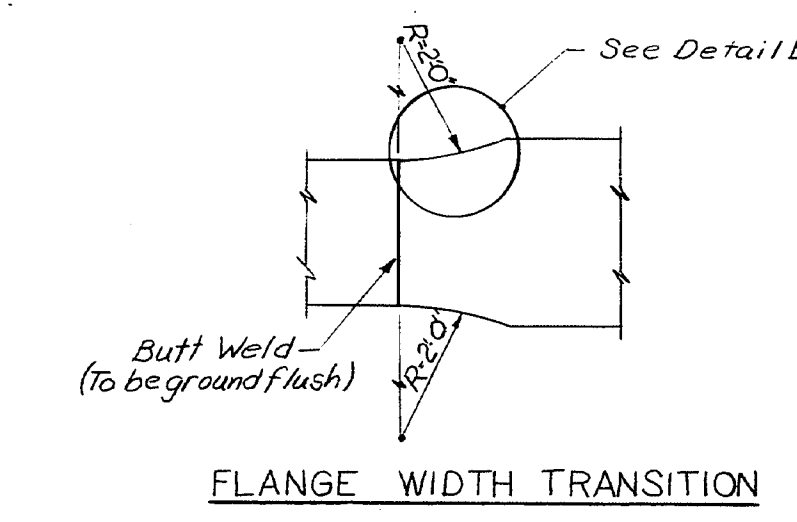
# REFERENCES

Diaphragms - See Standard Details BD104-66  
Cross Frames - See sheet #48  
Pedestals - See Standard Details BD101-70 and this sheet  
Armored Joint - See Standard Details BD104-66 and  
Sheets No. 47 & 50  
Shear Connectors - See Standard Details BD104-66 and Sheet #46  
Elastic Expansion Device - See sheet #51

# SPECIFICATIONS

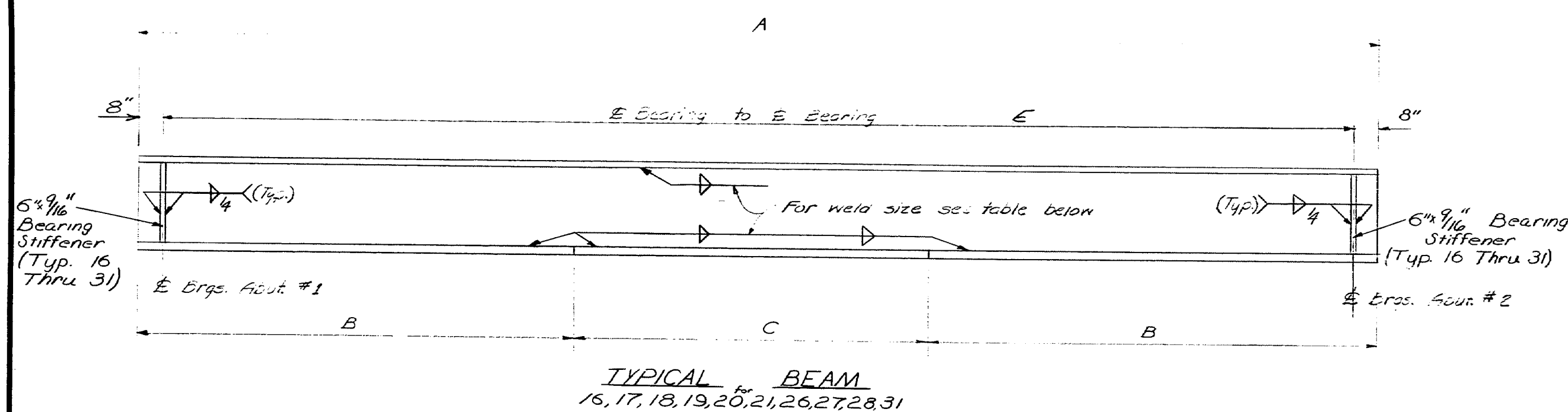
Contract: State of Maine, State Highway Commission, Standard  
Specifications, Highways and Bridges, Revision of June, 1968  
Design: A.A.S.H.O. Standard Specifications  
for Highway Bridges, 1969 with Interim Specifications 1970.

**Materials:** Flanges & Web for beams shall conform to ASTM designation  
A-572 (Grade 50). All other steel shall conform to A.S.T.M. designation A-36,  
unless otherwise noted.  
Reinforcing Steel shall conform to A.S.T.M. designation A-615  
(Grade 60) or A-615-40 M31, Intermediate Grade.  
Concrete: All concrete shall be Class A.  
**Allowable Stresses:**  
Structural Steel - A-572 (Grade 50)  $f_t = 27,000$  psi  
A-36  $f_t = 20,000$  psi  
Reinforcing Steel  $f_t = 22,000$  psi  
Concrete  $f_c = 1,200$  psi



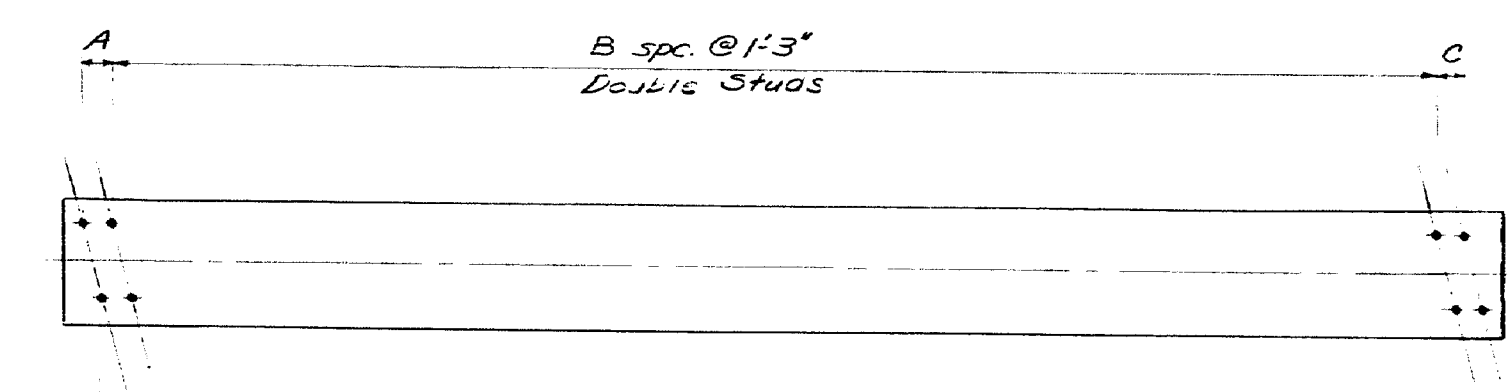
DESIGN - ZLL  
TRACE - D.D.  
CHECK - PLOT  
BRIDGE NO.  
SURVEY -  
PLOT -  
STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
STRUCTURAL STEEL  
SHEET 45 OF 85 AUGUSTA, MAINE MAY 1971

152-129



BEAM	WEB	A			B			C			E
		LENGTH	FLANGE	WELD	LENGTH	FLANGE	WELD	LENGTH	FLANGE	WELD	C. to C. Ergs.
16	64"x $\frac{3}{8}$ "	120'-11"	14"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	30'-5 $\frac{3}{8}$ "	15"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	60'-0"	22"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	119'-7"
17	64"x $\frac{3}{8}$ "	119'-9 $\frac{1}{8}$ "	14"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	29'-4 $\frac{3}{8}$ "	15"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	22"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	118'-5 $\frac{1}{8}$ "
18	64"x $\frac{3}{8}$ "	118'-8 $\frac{5}{16}$ "	14"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	29'-4 $\frac{3}{8}$ "	15"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	22"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	117'-4 $\frac{5}{16}$ "
19	64"x $\frac{3}{8}$ "	117'-7"	13"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	28'-9 $\frac{1}{2}$ "	14"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	21"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	116'-3"
20	64"x $\frac{3}{8}$ "	116'-5 $\frac{5}{8}$ "	13"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	28'-2 $\frac{3}{8}$ "	14"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	21"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	115'-1 $\frac{5}{8}$ "
21	64"x $\frac{3}{8}$ "	115'-4 $\frac{5}{8}$ "	13"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	27'-8 $\frac{3}{8}$ "	14"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	21"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	114'-0 $\frac{5}{8}$ "
26	52"x $\frac{3}{8}$ "	106'-11 $\frac{1}{2}$ "	12"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	23'-5 $\frac{3}{8}$ "	12"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	17"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	105'-1 $\frac{1}{2}$ "
27	52"x $\frac{3}{8}$ "	105'-9 $\frac{1}{2}$ "	12"x $\frac{3}{8}$ "	$\frac{1}{4}$ "	22'-10 $\frac{3}{8}$ "	12"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	17"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	104'-5 $\frac{1}{2}$ "

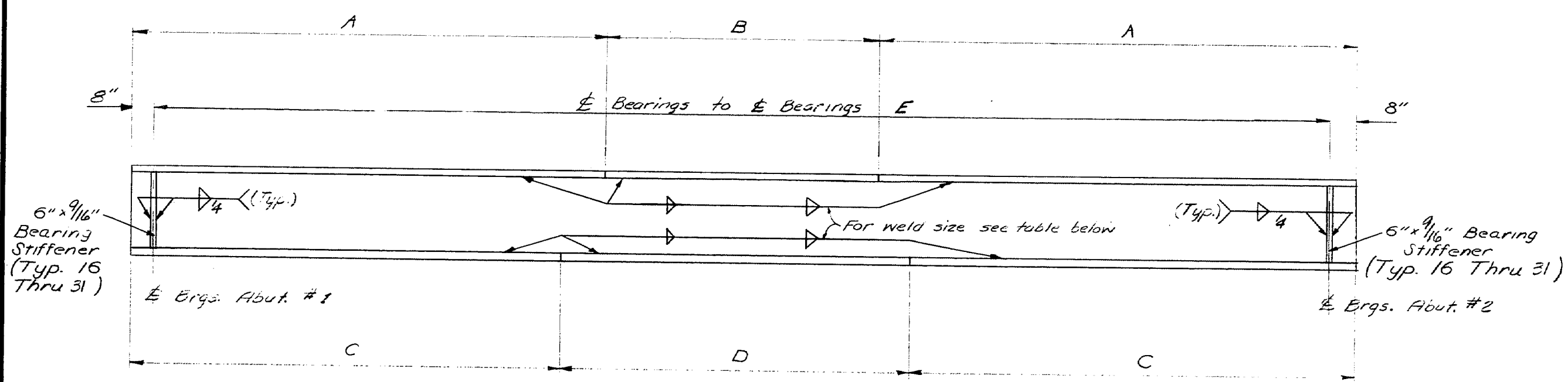
Beams 16 thru 26 = 5°  
Beam 27 = 7°  
Beams 28 thru 31 = 4°



**SHEAR CONNECTORS**  
Beams 16 to 31

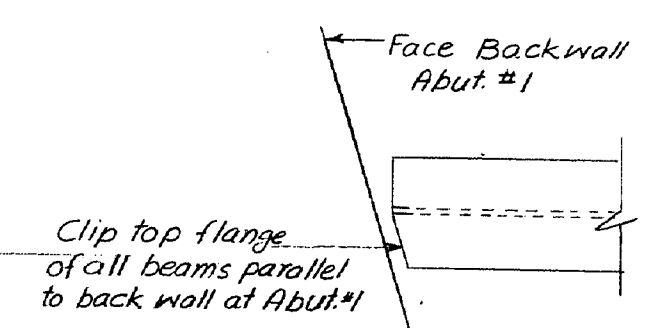
Beam	A	B	C	Total
16	1 spc. @ 1'-0 $\frac{1}{2}$ "	94 spc. @ 1'-3"	1 spc. @ 1'-0 $\frac{1}{2}$ "	119'-7"
17	1 spc. @ 1'-1 $\frac{1}{4}$ "	93 spc. @ 1'-3"	1 spc. @ 1'-1 $\frac{1}{2}$ "	118'-5 $\frac{3}{8}$ "
18		94 spc. @ 1'-3"		117'-4 $\frac{5}{16}$ "
19		93 spc. @ 1'-3"		116'-3"
20		92 spc. @ 1'-3"		115'-1 $\frac{5}{8}$ "
21	1 spc. @ 9"	90 spc. @ 1'-3"	1 spc. @ 9 $\frac{1}{4}$ "	114'-0 $\frac{5}{16}$ "
22		88 spc. @ 1'-3"		110'-0 $\frac{3}{8}$ "
23		87 spc. @ 1'-3"		108'-11 $\frac{3}{16}$ "
24	1 spc. @ 9 $\frac{1}{2}$ "	85 spc. @ 1'-3"	1 spc. @ 9 $\frac{1}{2}$ "	107'-9 $\frac{3}{16}$ "
25	1 spc. @ 10 $\frac{1}{2}$ "	84 spc. @ 1'-3"	1 spc. @ 10 $\frac{1}{2}$ "	106'-8 $\frac{1}{8}$ "
26	1 spc. @ 11"	83 spc. @ 1'-3"	1 spc. @ 11"	105'-7 $\frac{1}{2}$ "
27	1 spc. @ 11 $\frac{1}{2}$ "	82 spc. @ 1'-3"	1 spc. @ 11 $\frac{1}{2}$ "	104'-5 $\frac{1}{4}$ "
28		82 spc. @ 1'-3"		102'-5 $\frac{1}{4}$ "
29	1 spc. @ 10"	80 spc. @ 1'-3"	1 spc. @ 10"	101'-8 $\frac{3}{16}$ "
30	1 spc. @ 12 $\frac{1}{2}$ "	79 spc. @ 1'-3"	1 spc. @ 12 $\frac{1}{2}$ "	100'-11 $\frac{1}{4}$ "
31		80 spc. @ 1'-3"		100'-2 $\frac{3}{16}$ "

Total Number of Studs = 2,840



NOTE: All beam dimensions are horizontal. For slope of beams see bottom of Table Elevations Sheet 47.

BEAM	WEB	A			B			C			D			E
		LENGTH	FLANGE	WELD	LENGTH	FLANGE	WELD	LENGTH	FLANGE	WELD	LENGTH	FLANGE	WELD	
22	52"x $\frac{3}{8}$ "	27'-8 $\frac{3}{8}$ "	(2) " $\frac{1}{8}$ "	$\frac{3}{16}$ "	56'-0"	14"x $\frac{1}{8}$ "	$\frac{3}{16}$ "	25'-8 $\frac{3}{16}$ "	16"x $\frac{1}{4}$ "	$\frac{3}{16}$ "	60'-0"	23"x $\frac{1}{4}$ "	$\frac{3}{16}$ "	110'-0 $\frac{3}{8}$ "
23	52"x $\frac{3}{8}$ "	27'-1 $\frac{5}{8}$ "				14"x $\frac{1}{8}$ "		25'-1 $\frac{5}{8}$ "	16"x $\frac{1}{4}$ "			23"x $\frac{1}{4}$ "		108'-11 $\frac{5}{8}$ "
24	52"x $\frac{3}{8}$ "	26'-6 $\frac{3}{8}$ "				13"x $\frac{1}{8}$ "		24'-6 $\frac{3}{8}$ "	14"x $\frac{1}{4}$ "			22"x $\frac{1}{4}$ "		107'-9 $\frac{3}{8}$ "
25	52"x $\frac{3}{8}$ "	26'-0 $\frac{1}{4}$ "				13"x $\frac{1}{8}$ "		24'-0 $\frac{1}{4}$ "	14"x $\frac{1}{4}$ "			22"x $\frac{1}{4}$ "		106'-8 $\frac{1}{4}$ "
28	36"x $\frac{7}{16}$ "	23'-10 $\frac{1}{16}$ "				15"x $\frac{1}{8}$ "		21'-10 $\frac{1}{16}$ "	14"x $\frac{1}{8}$ "			23"x $\frac{1}{8}$ "		102'-5 $\frac{1}{2}$ "
29	36"x $\frac{7}{16}$ "	23'-6 $\frac{1}{8}$ "				15"x $\frac{1}{8}$ "		21'-6 $\frac{1}{8}$ "	14"x $\frac{1}{8}$ "			23"x $\frac{1}{8}$ "		101'-8 $\frac{3}{16}$ "
30	36"x $\frac{7}{16}$ "	23'-1 $\frac{5}{8}$ "				15"x $\frac{1}{8}$ "		21'-1 $\frac{5}{8}$ "	14"x $\frac{1}{8}$ "			23"x $\frac{1}{8}$ "		100'-11 $\frac{1}{4}$ "
31	36"x $\frac{7}{16}$ "	22'-9 $\frac{1}{8}$ "				15"x $\frac{1}{8}$ "		20'-9 $\frac{1}{8}$ "	14"x $\frac{1}{8}$ "			23"x $\frac{1}{8}$ "		100'-2 $\frac{3}{16}$ "



**NOTE:**

- After flange to web welds have been completed and before any bearing stiffeners or cross frame connection plates are attached to it, the beams shall be inspected, and shall be in accordance with American Welding Society Specifications for Welded Highway and Railway Bridges, D-20-69 Art. 305.
- A maximum of two (2) transverse shop butt weld splices will be permitted to fabricate any complete web plate or flange plate, per beam. Transverse web splices shall not be nearer than 1'-0" to a flange splice. Location and details of butt weld shop splices shall be shown on shop detail drawings for approval by the Engineer. (See Note 4. A) (50)
- The bearing stiffeners shall be so as to be plumb after erection. Cross frame connection plates may be set plumb or normal to flange plates. Whichever method is chosen, shall be used throughout the entire job.
- No web butt welds will be allowed within 10' of the center of any given beam.

As Built 1972

DESIGN - ALL	BRIDGE NO.
TRACE - Det. D. 2	SURVEY -
CHECK - Phil 2-7-71	PLOT -

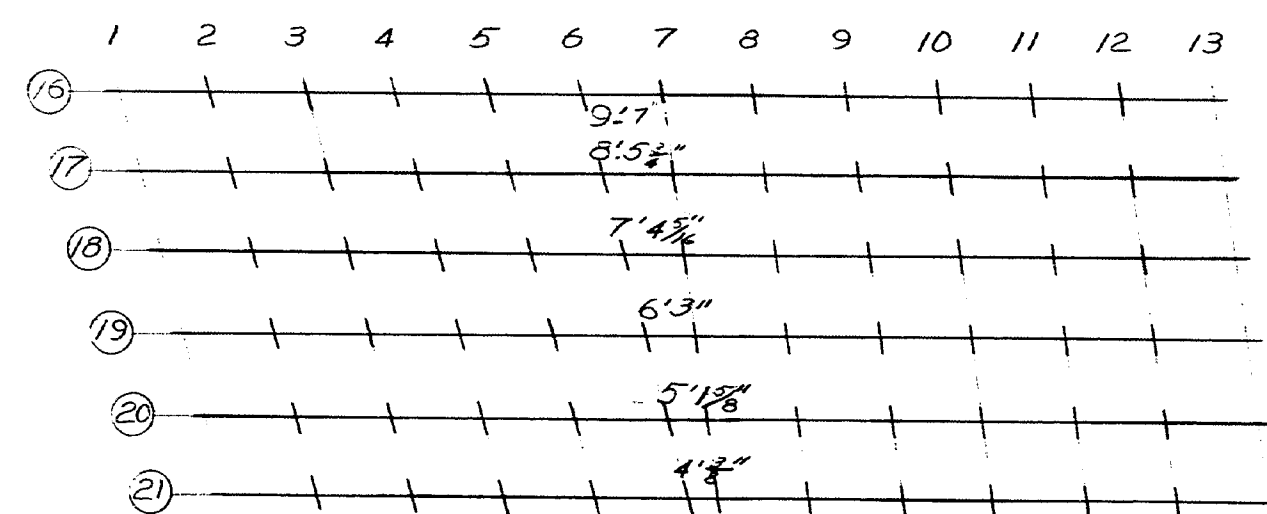
STATE HIGHWAY COMMISSION

**INTERSTATE 295 & RAMP CS-7**  
OVER  
**PORTLAND TERMINAL RAILROAD**  
**MAIN LINE CROSSING**  
IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
STRUCTURAL STEEL

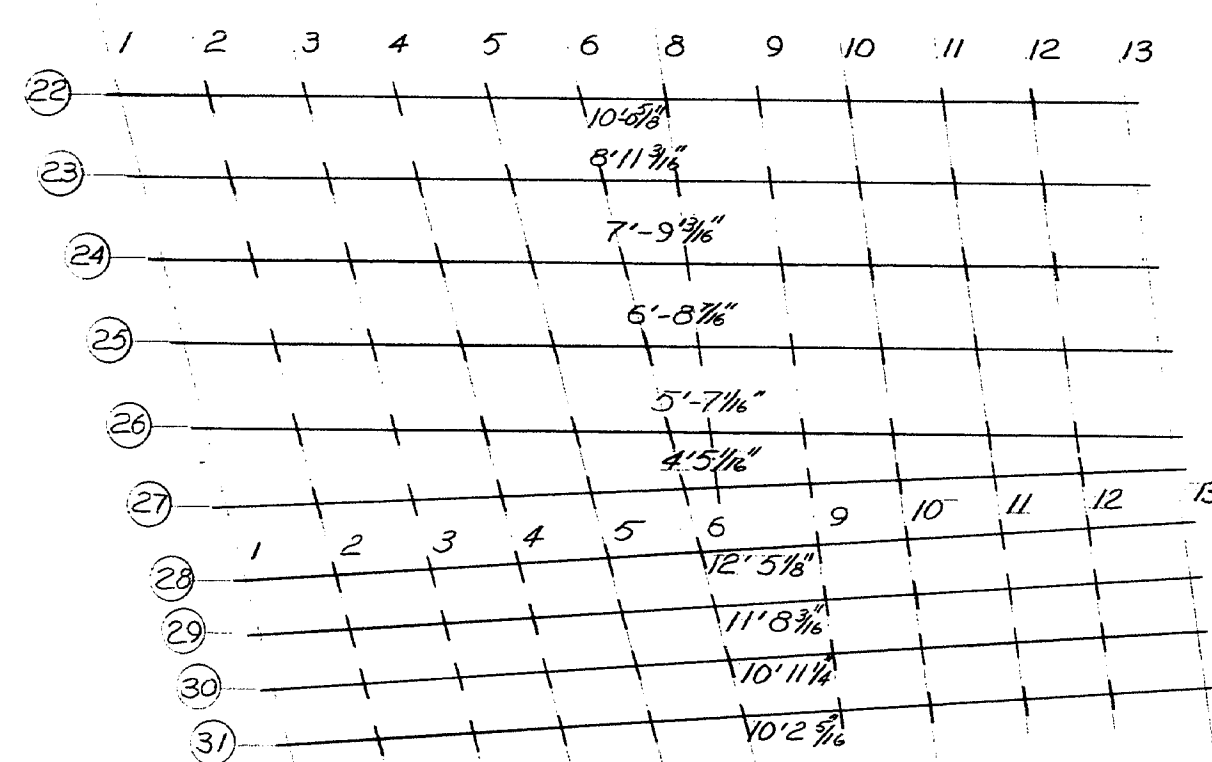
SHEET 46 OF 85 AUGUSTA, MAINE MAY 1971

152-136





NOTE: Spaces are 10'-0" along  $\angle$  of beams except as noted.



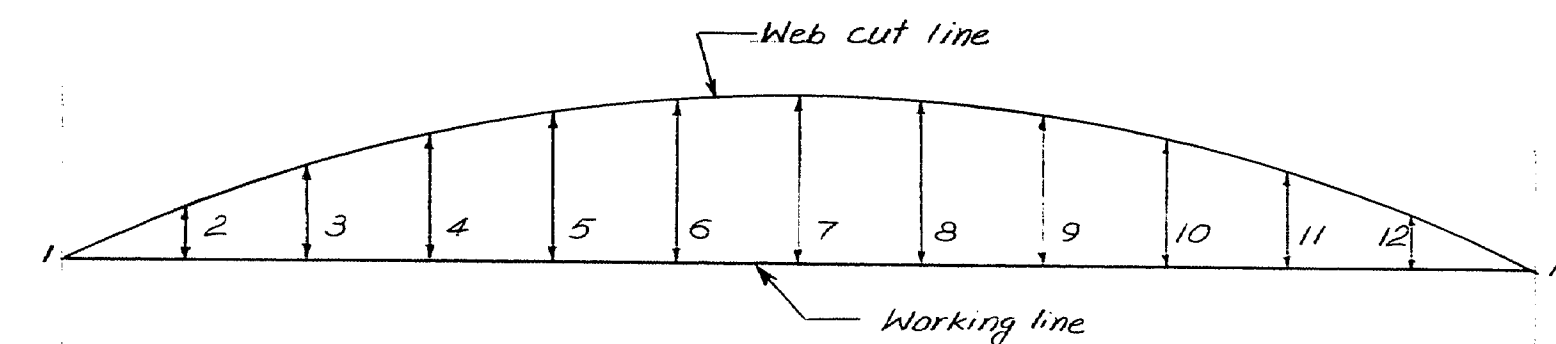
$\angle$  Brgs. Abutment #1

$\angle$  Brgs. Abutment #2

BLOCKING POINT DIAGRAM

BOTTOM OF SLAB ELEVATION													
POINT	1	2	3	4	5	6	7	8	9	10	11	12	13
16	63.71	63.87	64.01	64.13	64.22	64.29	64.33	64.33	64.31	64.26	64.19	64.09	63.97
17	63.54	63.69	63.83	63.94	64.03	64.09	64.12	64.13	64.11	64.06	63.99	63.90	63.79
18	63.36	63.50	63.63	63.73	63.82	63.88	63.90	63.91	63.89	63.85	63.78	63.70	63.59
19	63.01	63.15	63.27	63.38	63.46	63.52	63.54	63.55	63.53	63.48	63.42	63.33	63.23
20	62.65	62.79	62.91	63.01	63.09	63.15	63.17	63.17	63.15	63.11	63.04	62.96	62.86
21	62.30	62.44	62.56	62.67	62.75	62.80	62.82	62.83	62.80	62.76	62.68	62.60	62.49
22	62.66	62.81	62.94	63.04	63.12	63.16	—	63.17	63.14	63.09	63.00	62.89	62.76
23	62.31	62.45	62.58	62.69	62.76	62.79	—	62.80	62.77	62.72	62.64	62.52	62.39
24	61.96	62.10	62.22	62.32	62.39	62.43	—	62.43	62.41	62.35	62.27	62.15	62.02
25	61.60	61.74	61.86	61.95	62.02	62.05	—	62.06	62.03	61.98	61.89	61.78	61.65
26	61.24	61.39	61.50	61.60	61.66	61.69	—	61.69	61.67	61.62	61.54	61.42	61.28
27	60.97	61.10	61.24	61.34	61.42	61.45	—	61.46	61.44	61.39	61.31	61.20	61.10
28	59.10	59.55	59.96	60.31	60.61	60.83	—	61.03	61.12	61.15	61.12	61.05	—
29	59.01	59.47	59.86	60.21	60.50	60.73	—	60.91	61.00	61.03	61.00	60.93	—
30	58.91	59.36	59.77	60.11	60.40	60.62	—	60.77	60.86	60.91	60.88	60.81	—
31	58.82	59.27	59.67	60.01	60.30	60.51	—	60.68	60.76	60.79	60.76	60.68	—

NOTE: For dimension between points see Blocking Point Diagram, this sheet.



$\angle$  Brgs. Abut #1

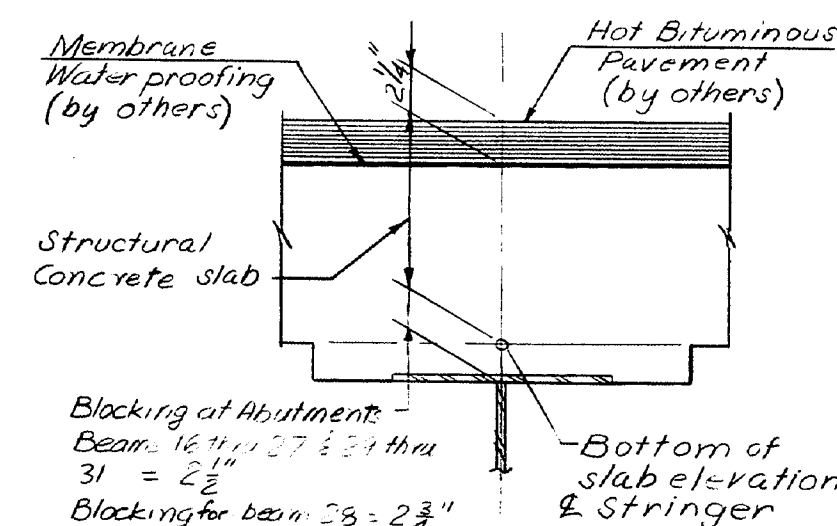
$\angle$  Brgs. Abut #2

CAMBER DETAIL

CAMBER NOTE: All beams to be cambered in accordance with the Camber Table below to compensate for dead load deflections & vertical curvature.

CAMBER TABLE													
BEAMS	1	2	3	4	5	6	7	8	9	10	11	12	13
16	0	1 1/8"	3 1/2"	4 7/8"	5 3/4"	6 1/4"	6 3/4"	6 1/2"	5 3/4"	4 7/8"	3 3/4"	1 7/8"	0
17	—	1 7/8"	3 7/8"	4 7/8"	5 7/8"	6 1/4"	6 7/8"	6 1/4"	5 7/8"	4 7/8"	3 7/8"	1 7/4"	—
18	—	1 7/8"	3 7/8"	4 7/8"	5 7/8"	5 7/4"	6"	5 7/4"	5 1/4"	4 7/8"	3 7/8"	1 7/8"	—
19	—	1 7/4"	3 7/4"	4 7/8"	5 7/4"	5 7/8"	5 7/8"	5 7/8"	5 1/4"	4 3/8"	3 7/8"	1 7/8"	—
20	—	1 7/8"	3"	4 1/4"	5 1/8"	5 7/8"	5 7/4"	5 7/8"	5 1/8"	4 1/4"	3"	1 7/8"	—
21	—	1 7/8"	3"	4 1/4"	5"	5 3/4"	5 3/4"	5 3/4"	5"	4 1/4"	3"	1 7/8"	—
22	—	2"	3 7/8"	4 7/8"	5 7/4"	6 1/4"	—	6 1/4"	5 7/4"	4 7/8"	3 7/8"	2"	—
23	—	1 7/8"	3 7/8"	4 7/8"	5 7/4"	6 1/4"	—	6 1/4"	5 7/4"	4 7/8"	3 7/8"	1 7/8"	—
24	—	1 7/8"	3 7/8"	4 7/8"	5 7/4"	6 1/4"	—	6 1/4"	5 7/4"	4 7/8"	3 7/8"	1 7/8"	—
25	—	1 7/8"	3 7/8"	4 7/8"	5 7/4"	5 7/8"	—	5 7/8"	5 1/2"	4 7/8"	3 7/8"	1 7/8"	—
26	—	2"	3 1/2"	4 3/4"	5 1/2"	6"	—	6"	5 1/2"	4 3/4"	3 5/8"	2"	—
27	—	2"	3 1/2"	4 3/4"	5 7/8"	6"	—	6"	5 7/8"	4 3/4"	3 1/2"	2"	—
28	—	3 7/8"	6 1/2"	8 3/4"	10"	10 1/2"	—	—	10"	8 3/4"	6 1/2"	3 5/8"	—
29	—	3 5/8"	6 3/8"	8 5/8"	10"	10 5/8"	—	—	10"	8 5/8"	6 3/8"	3 5/8"	—
30	—	3 5/8"	6 5/8"	8 5/8"	10 1/8"	10 7/8"	—	—	10 1/8"	8 5/8"	6 5/8"	3 5/8"	—
31	0	3 5/8"	6 5/8"	8 5/8"	10"	10 1/2"	—	—	10"	8 5/8"	6 5/8"	3 5/8"	0

Note: Dead load deflections will be furnished by the Engineer if required.



Blocking at Abutment:  
Beams 16 1/4" x 27 1/2" x 21 1/2"  
31' x 21 1/2"  
Blocking for beam 28: 21 1/2" x 21 1/2"  
(Do not use for setting forms)

NOTE

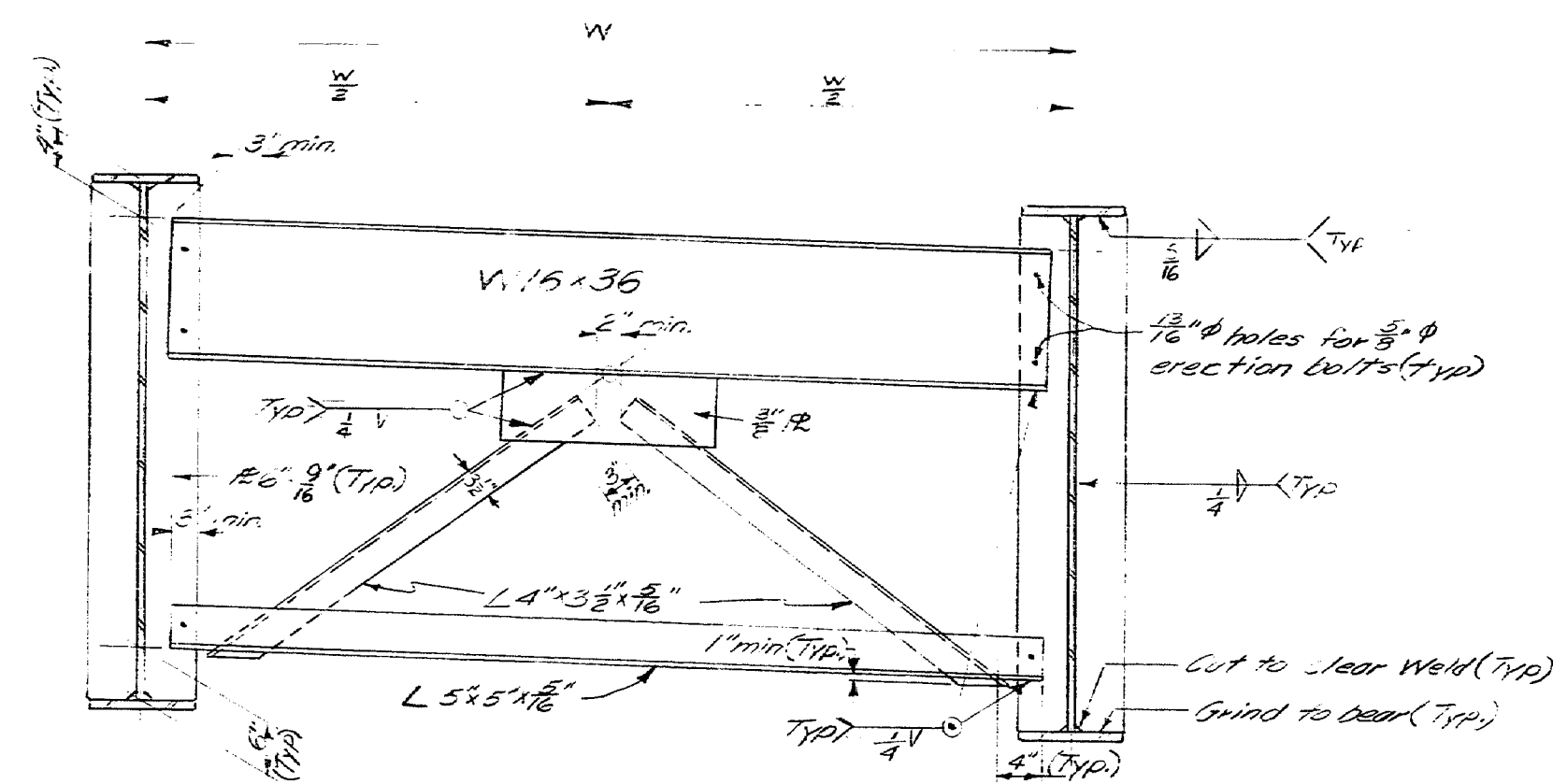
To compensate for dead load deflections, as well as possible irregularities in beam, the bottom of slab elevation shall be set at the points indicated before any of the slab formwork is started.

DESIGN: ALL	BRIDGE NO.
TRACE: Det. D.D.	295
CHECK: S.M.	71
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
BOTTOM OF SLAB ELEV., CAMBER TABLE	
SHEET 47 OF 85	AUGUSTA, MAINE MAY 1971

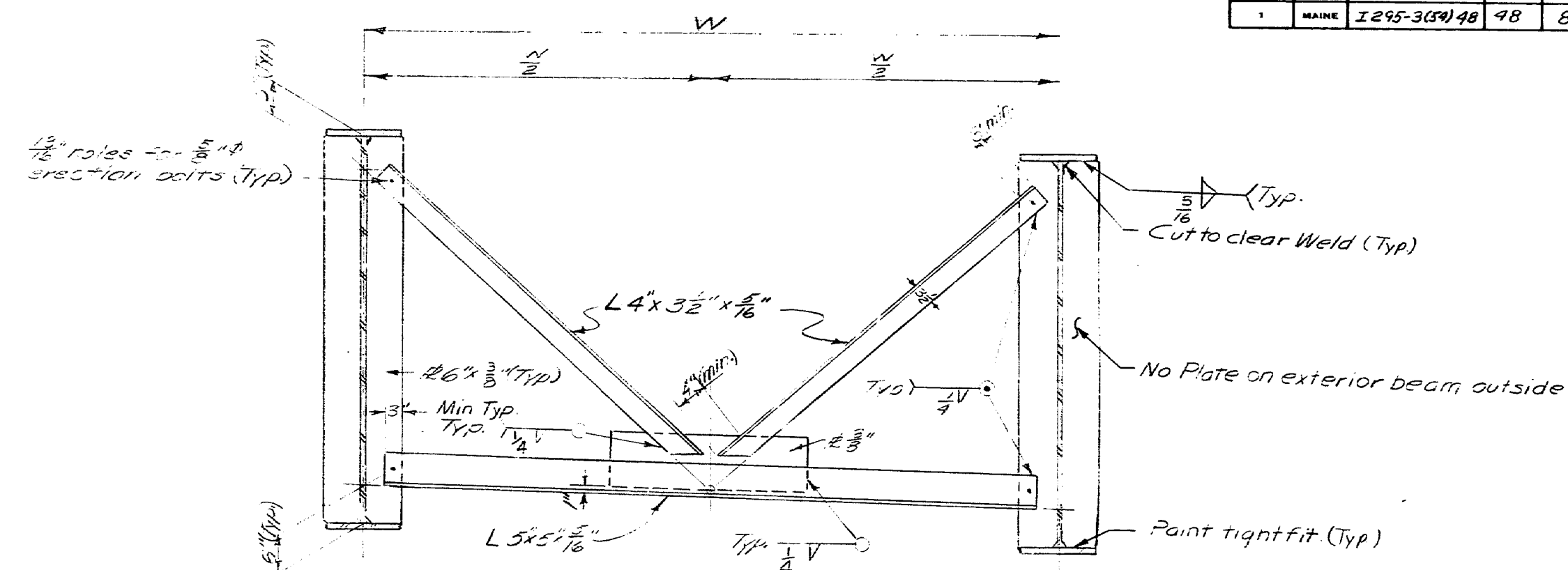
152-191



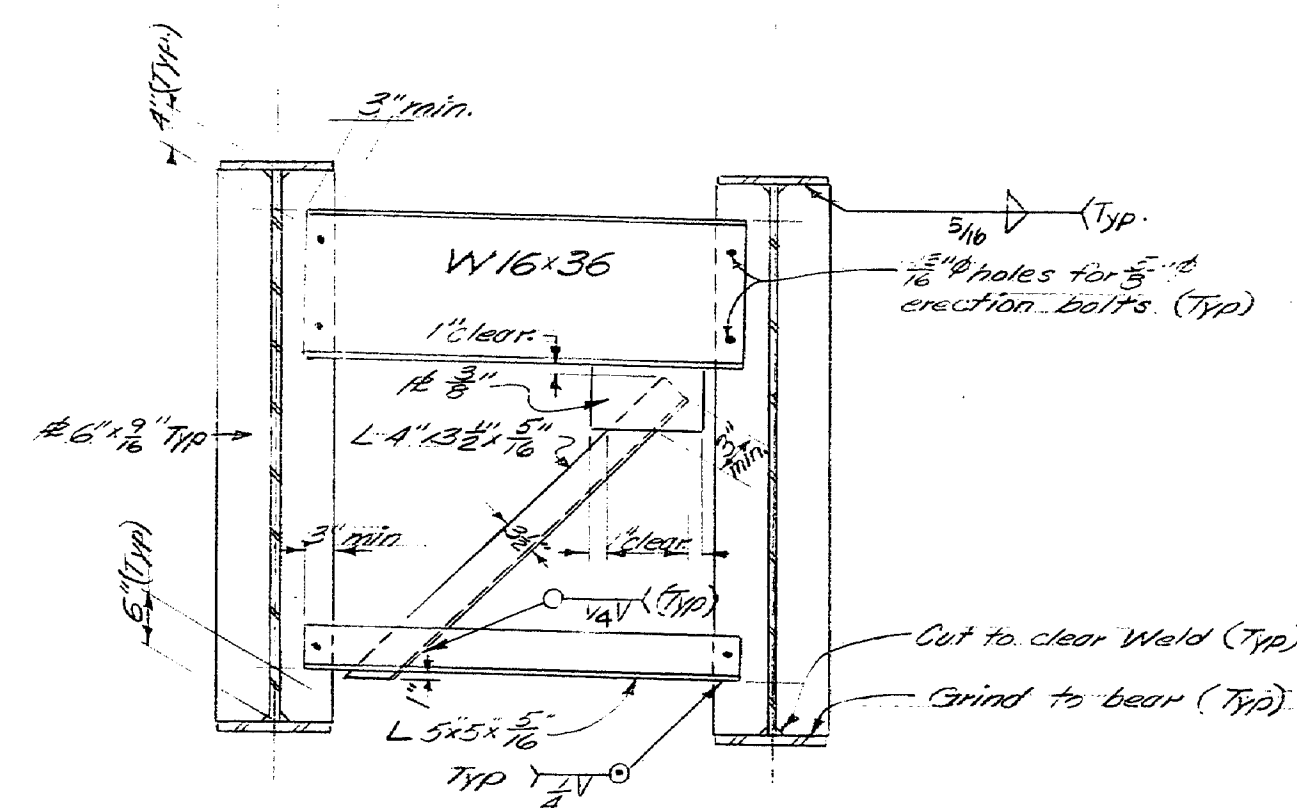
PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY				
DATE				



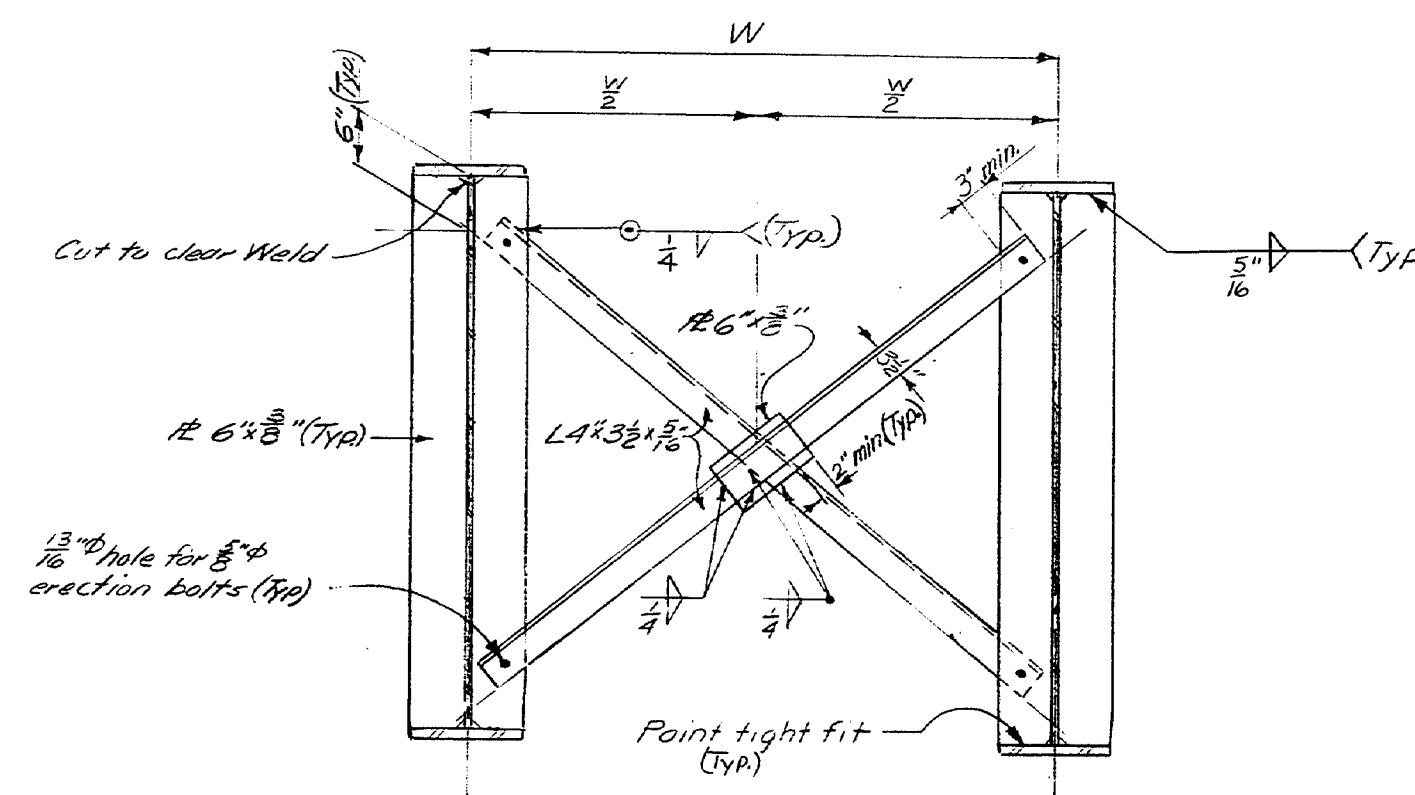
CROSS FRAME "CF-1"  
16 Required



CROSS FRAME "CF-2"  
36 Required



CROSS FRAME "CF-3"  
2 Required

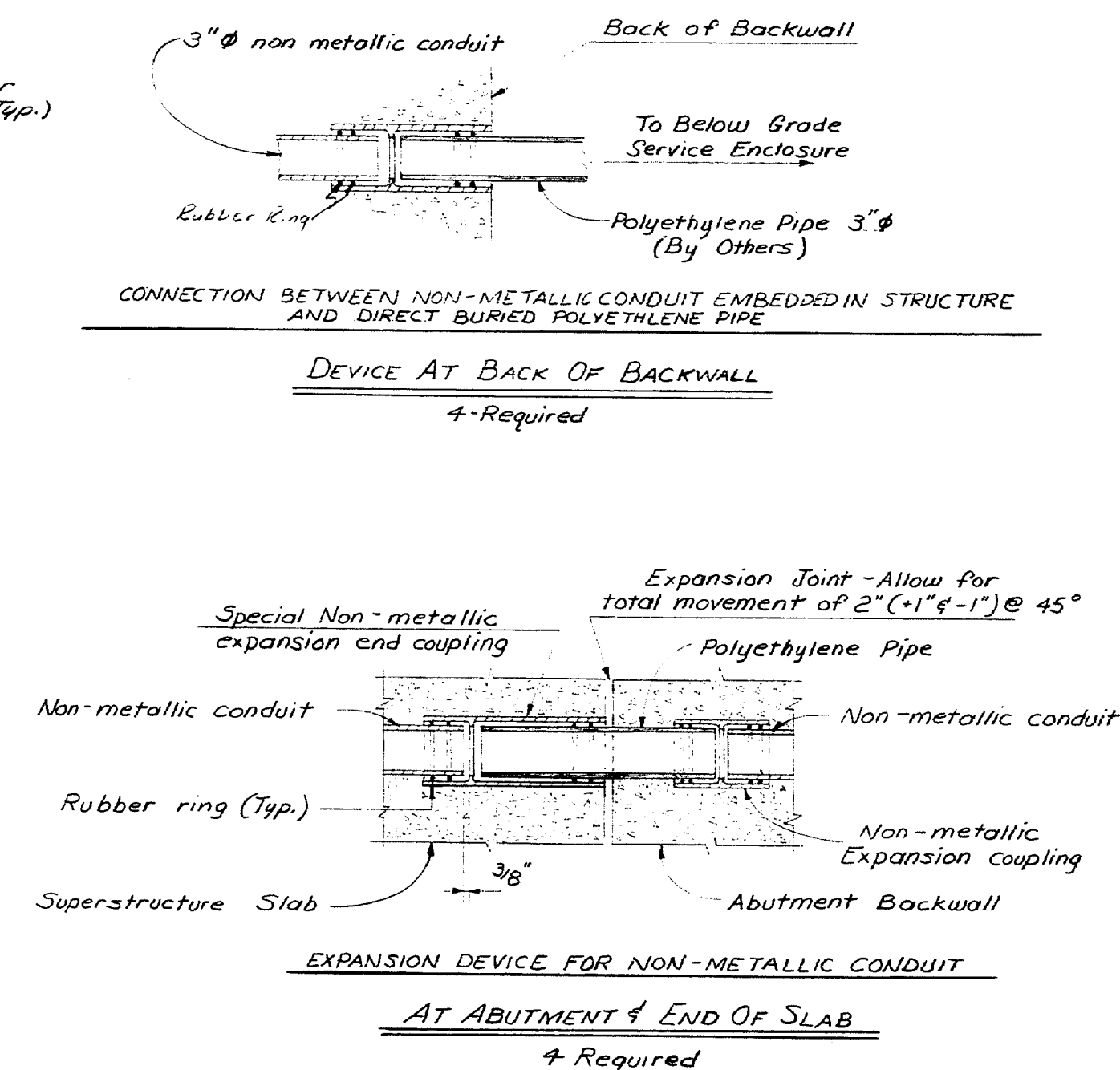
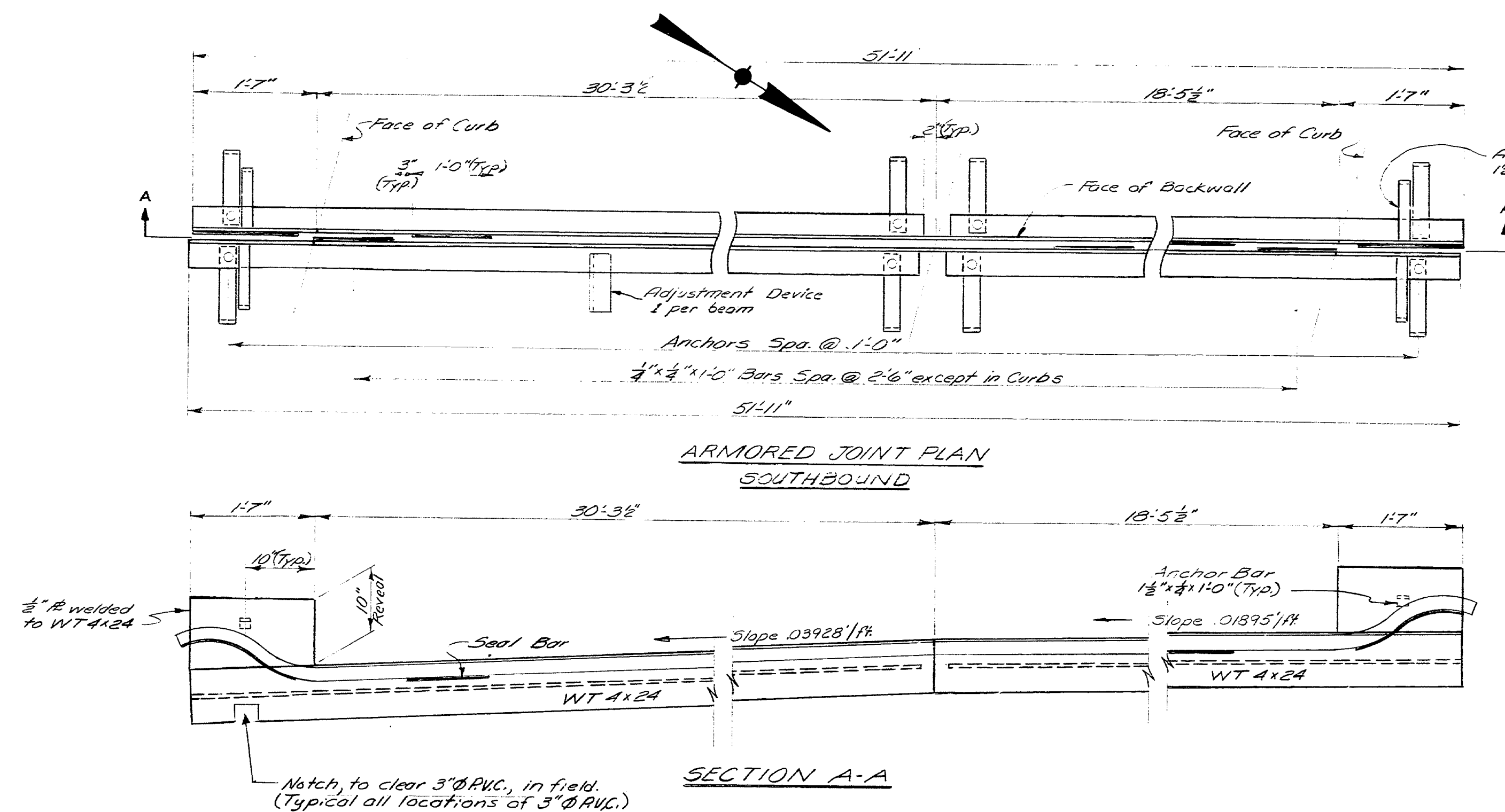


CROSS FRAME "CF-4"  
4 Required

DESIGN - G.P.T.	BRIDGE NO.
CHECK - J.B.W. 6-8-71	SURVEY -
	PLAT -
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
CROSS FRAMES	
SHEET 48 OF 85	AUGUSTA, MAINE MAY 1971

152-132

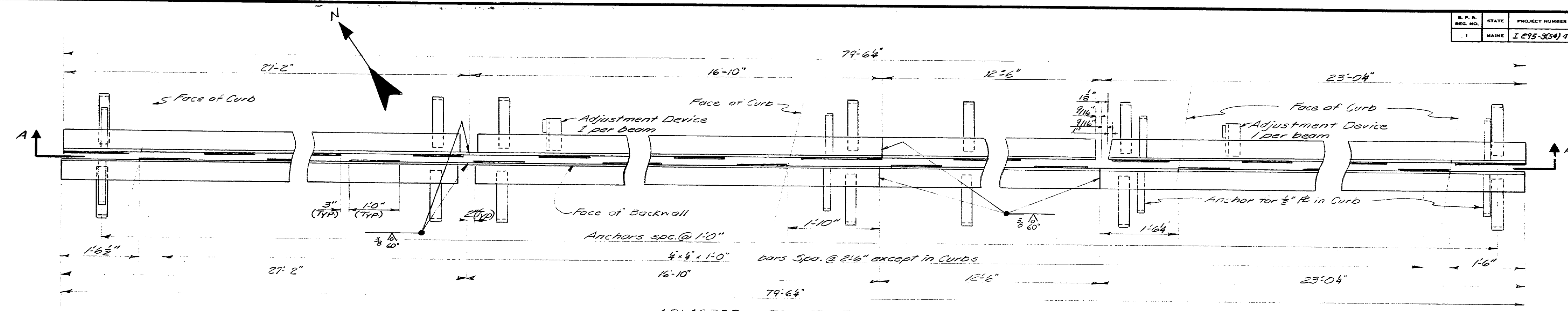
PLANS	BY	DATE
DESIGN - DETAILED	GP	1/12
CHECKED	TRC	6/11/77
REVISIONS		
FIELD CHANGES		



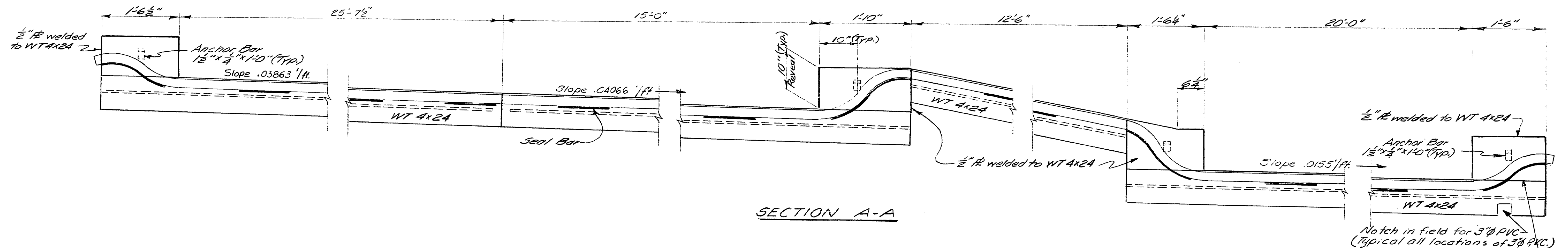
STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
 OVER  
**PORTLAND TERMINAL RAILROAD**  
**MAIN LINE CROSSING**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 ARMORED JOINT ABUTMENT NO. 1  
 SHEET 49 OF 85 AUGUSTA, MAINE MAY 1971

152-133

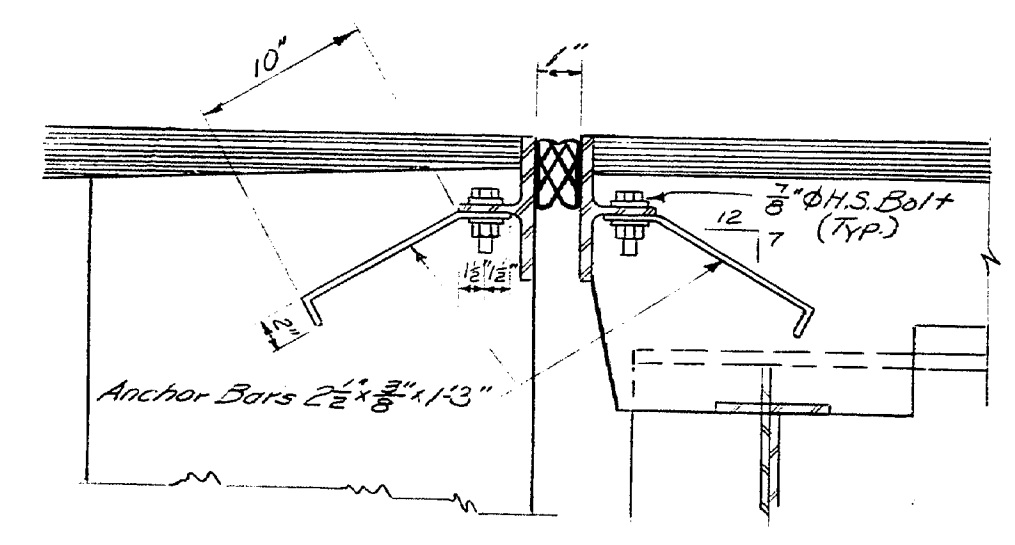
S.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-354 98	50	85



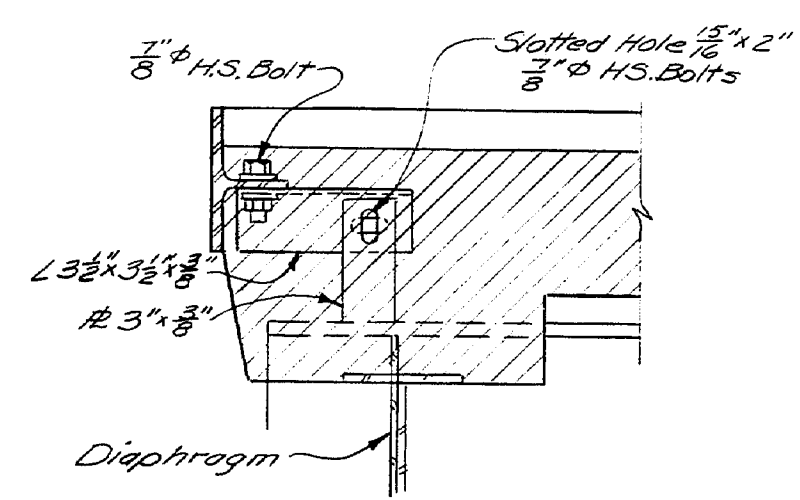
ARMORED JOINT PLAN  
NORTHBOUND AND RAMP CS-7



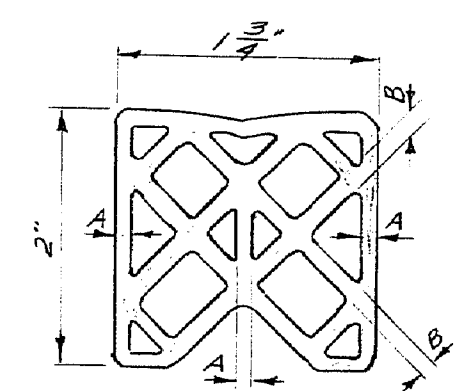
SECTION A-A



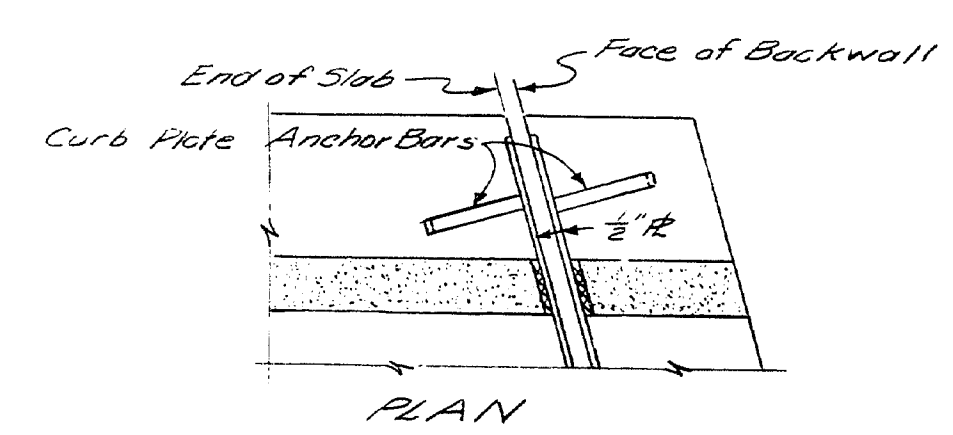
ANCHOR BAR DETAIL



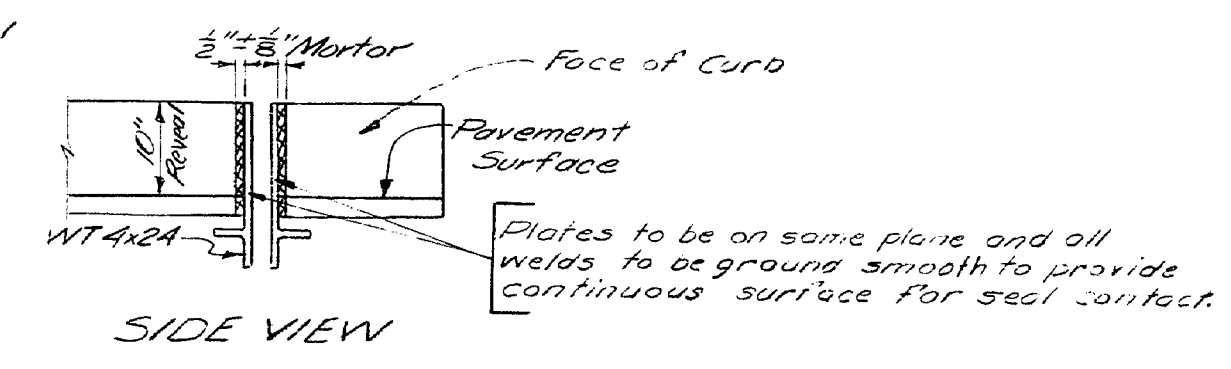
ADJUSTMENT DEVICE DETAIL  
16 Adjustment Devices Superstructure side only 1 each beam.



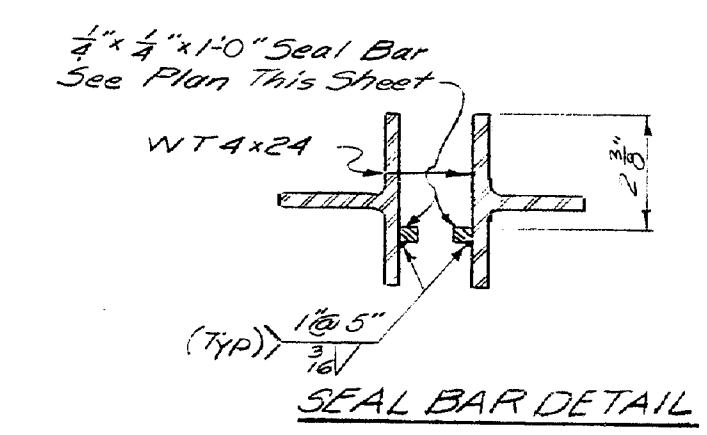
**PREFORMED ELASTIC JOINT SEALER**  
The configuration of the Preformed Elastic Joint Sealer may be changed from that shown in order to conform with shapes as produced by various manufacturers. However, the cross-sectional (A-B) dimensions, including those of the internal elements & the shell (A-B) shall be approved by the Engineer before ordering the Preformed Elastic Joint Sealer.



PLAN



SIDE VIEW



SEAL BAR DETAIL

Grind face in contact with seal flush and smooth. Typical all plates to structural Tee welds.

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
OVER  
**PORTLAND TERMINAL RAILROAD**  
MAIN LINE CROSSING  
IN THE CITY OF  
**PORTLAND**  
CUMBERLAND COUNTY  
ARMORED JOINT ABUTMENT NO. 1  
SHEET 50 OF 85 AUGUSTA, MAINE MAY 1971

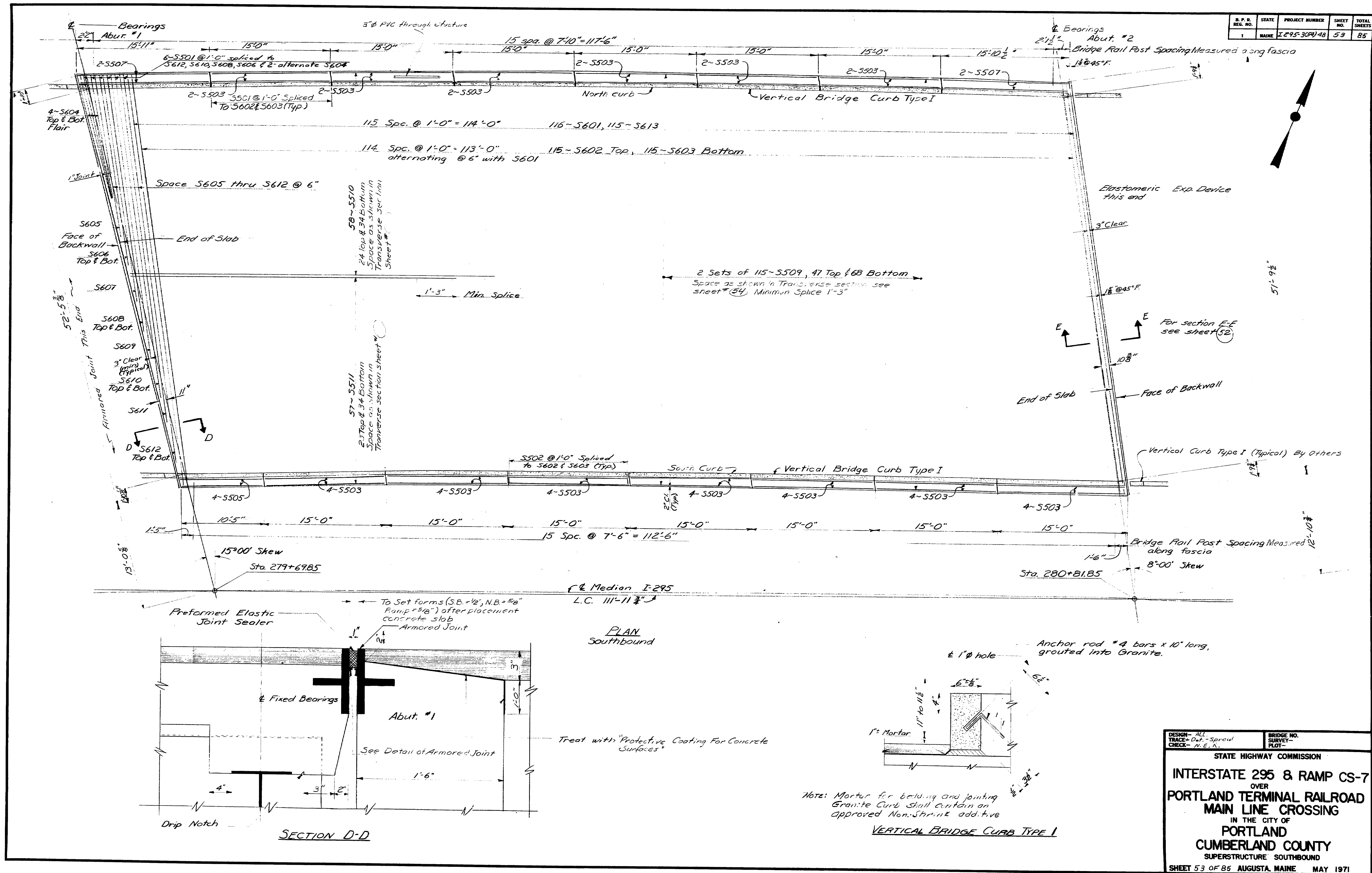
152-134

PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
	6/27/71	6/27/71		
	6/27/71	6/27/71		
	6/27/71	6/27/71		









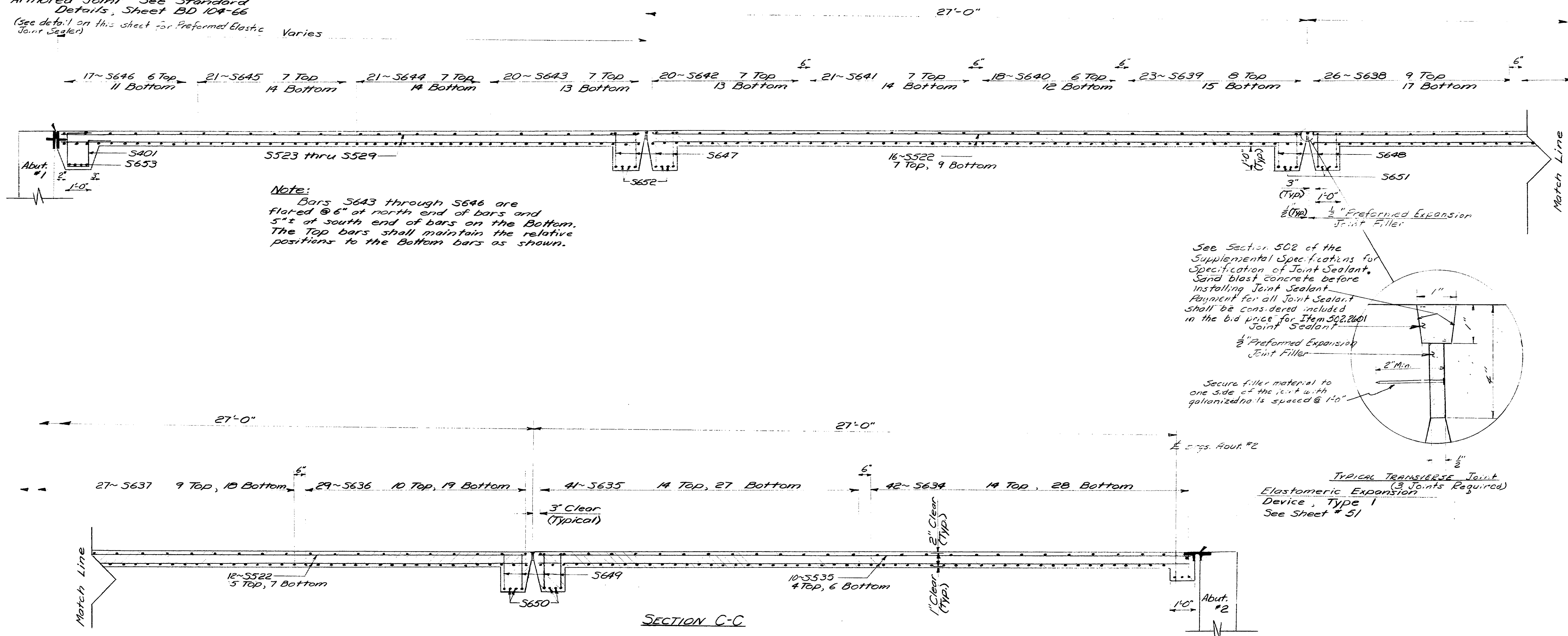
152-137





R. P. E. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1295-3(51)48	55	85

Armored Joint See Standard  
Details, Sheet BD 104-66  
(See detail on this sheet for Preformed Elastic  
Joint Sealer) Varies

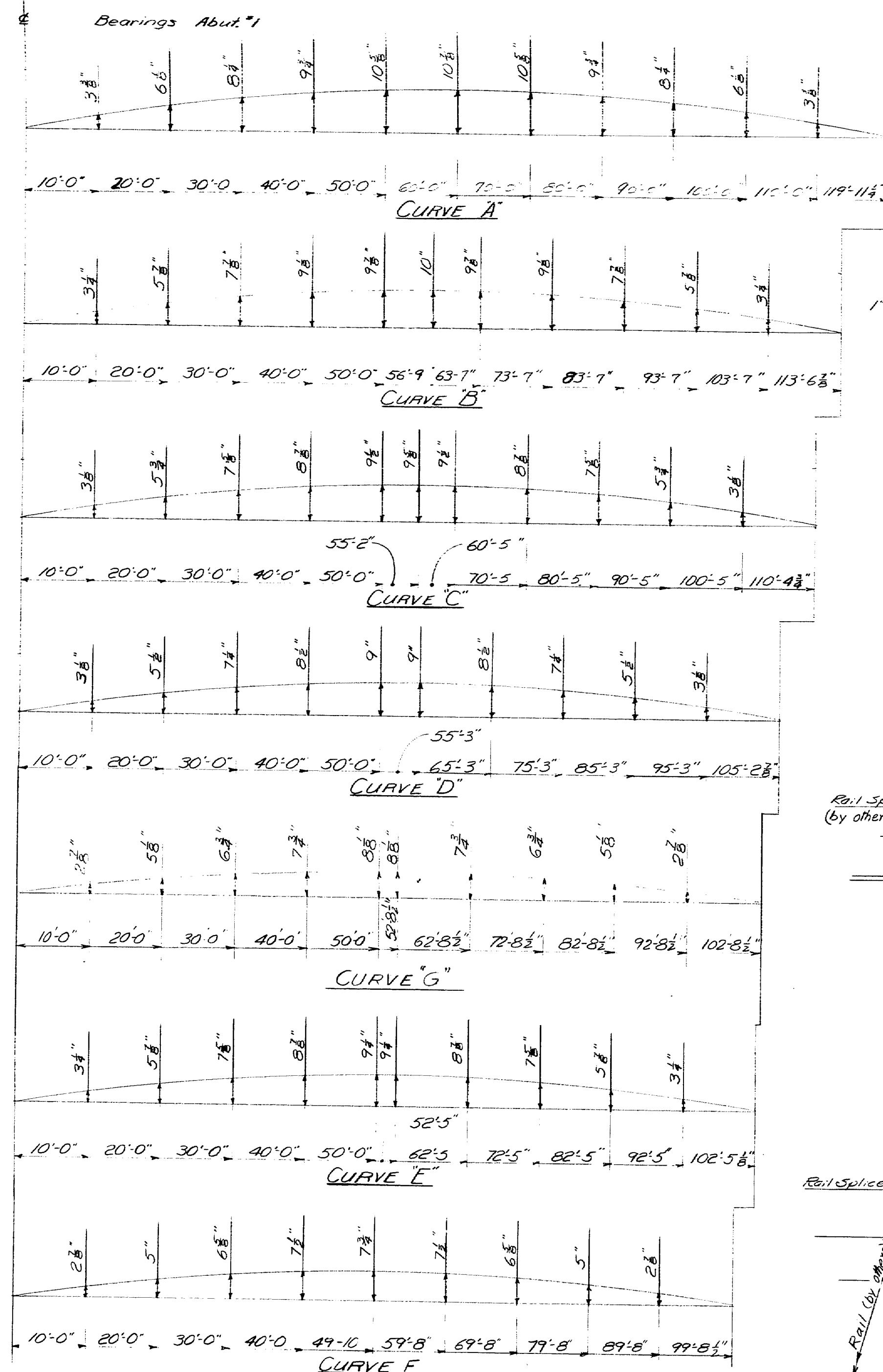


DESIGN- ALL	BRIDGE NO.
TRACE- 1295-3(51)48	SURVEY- 1295-3(51)48
CHECK- M.E.R.	PLAT- 1295-3(51)48
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
SUPERSTRUCTURE	
SHEET 55 OF 85	AUGUSTA, MAINE MAY 1971

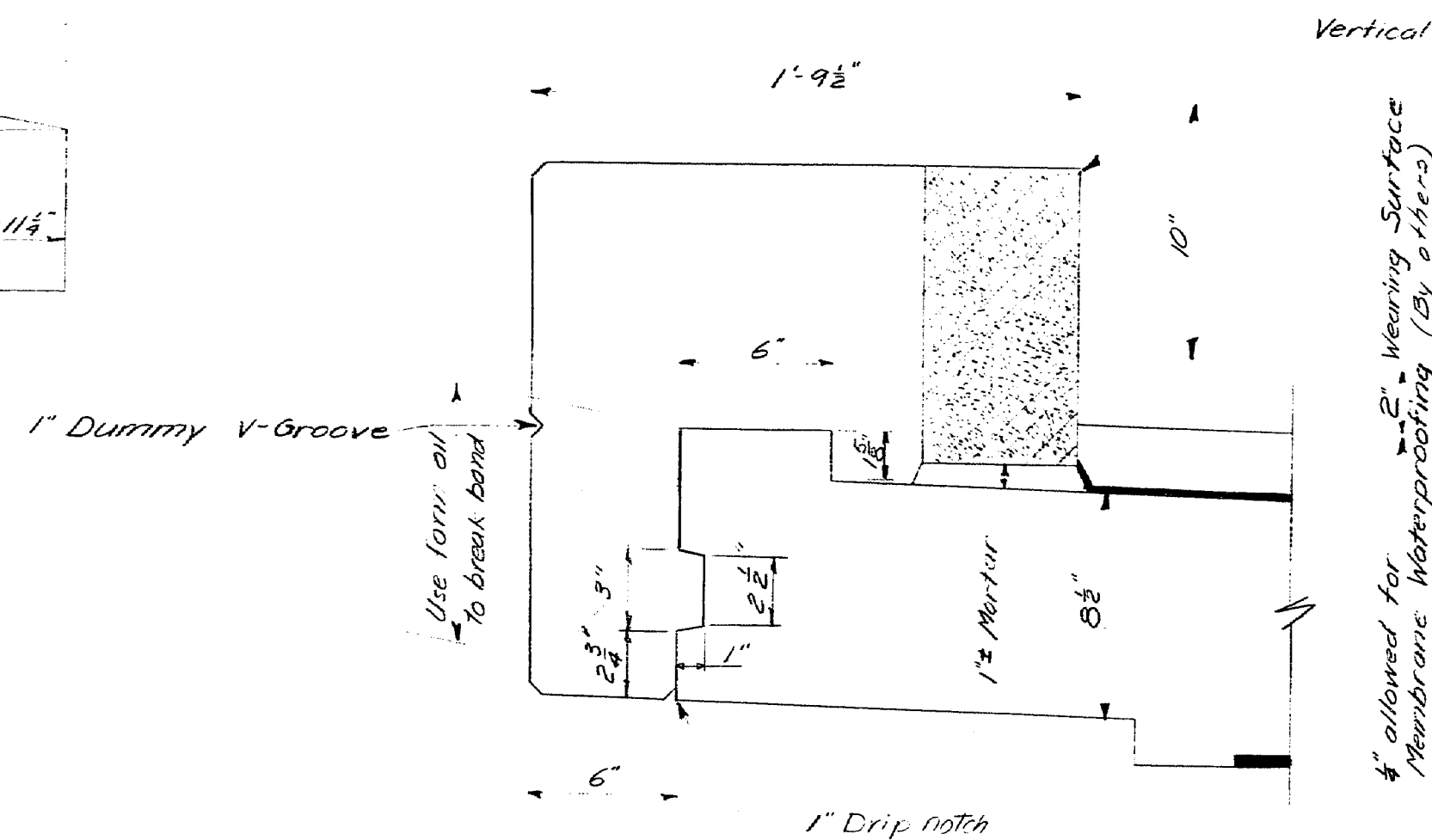
152-139



B. P. R. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(34) 48	56	85



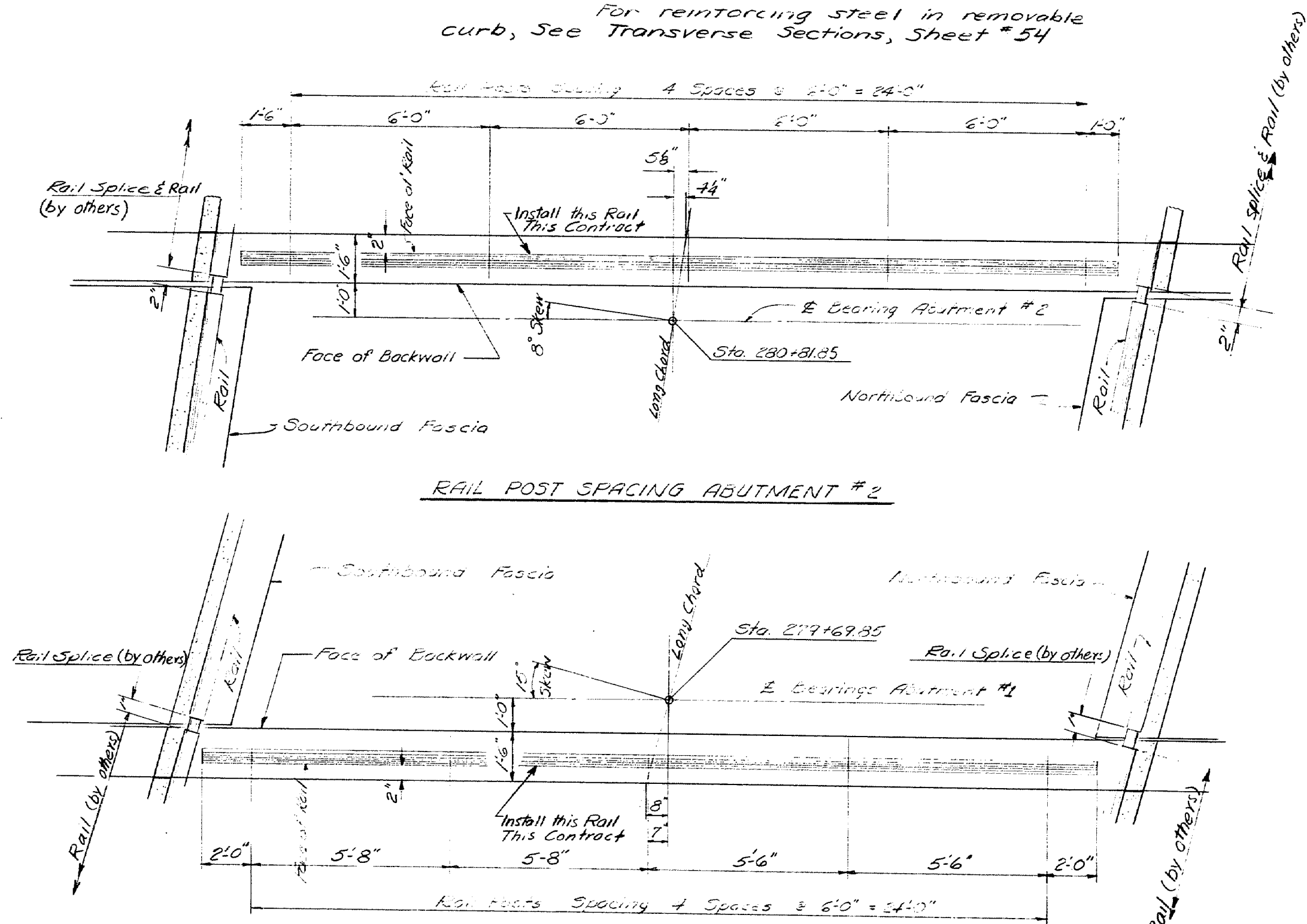
**OFFSETS**  
 NOTE: Horizontal dimensions are measured along chord drawn from E of Bearing @ Abut. #1 to E of Bearing @ Abut. #2. See sheet # 54 for curve location.



**NOTE:**  
 Mortar for bedding of and for joints in Granite Curb shall contain an approved Non-Shrink additive.

# REMOVABLE CURB DETAIL

**NOTE:**  
 For reinforcing steel in removable curb, See Transverse Sections, Sheet # 54



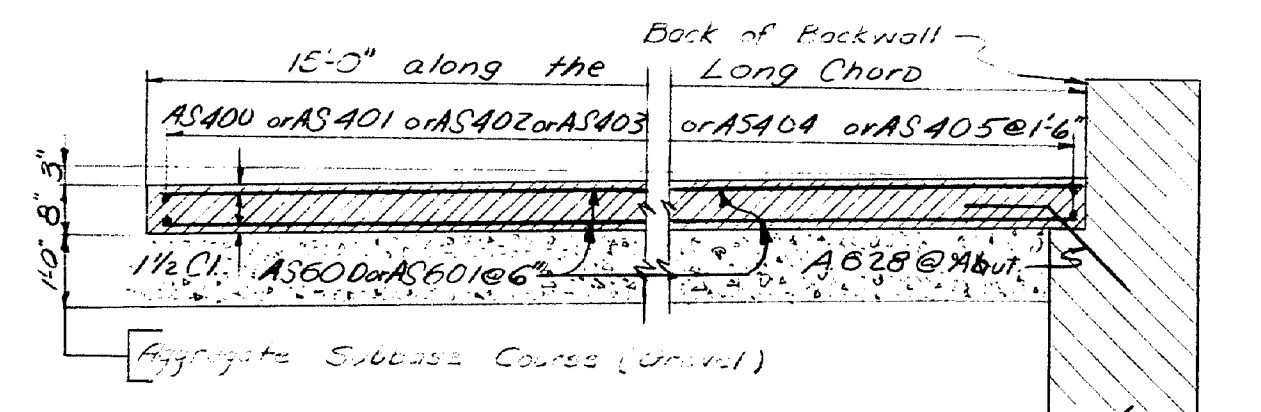
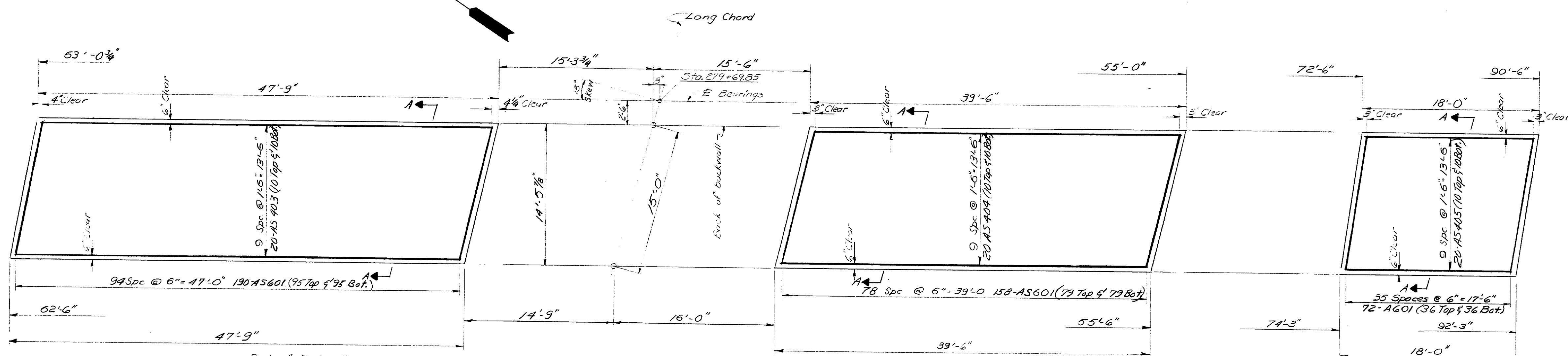
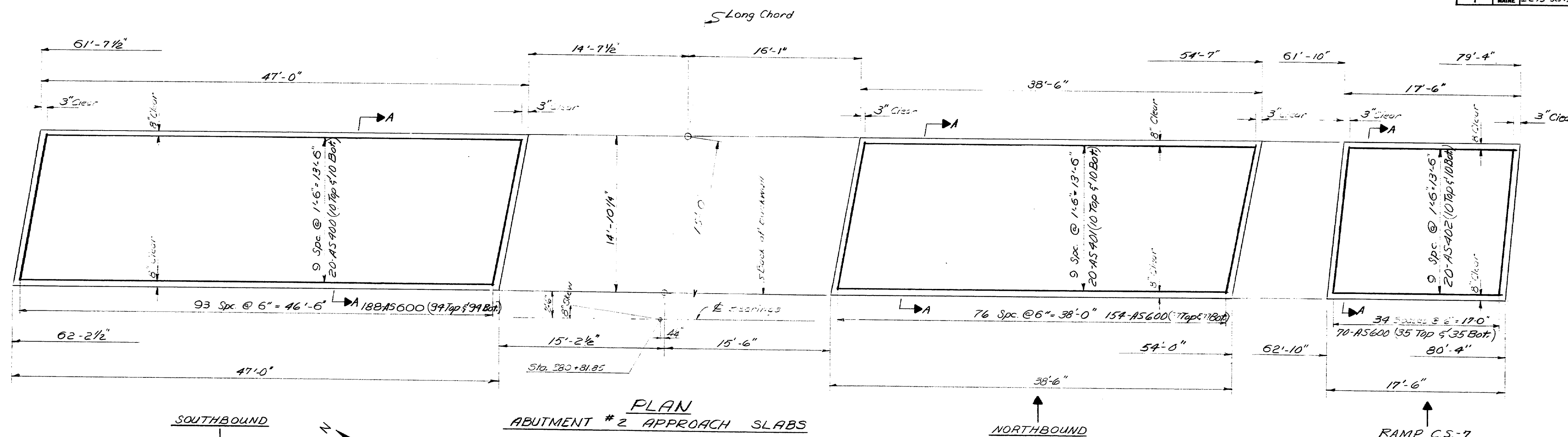
**NOTE:**  
 For Rail Post Anchor Bolt setting see Standard Detail Sheet (BD-106-69)

# RAIL POST SPACING ABUTMENT #1

DESIGN: ALL Spraul	BRIDGE NO.
CHECK: (P.W.) 6-11-71	SURVEY PLOT
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
SUPERSTRUCTURE	
SHEET 56 OF 85 AUGUSTA, MAINE MAY 1971	

152-140

D. R. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-RP) 48	57	85

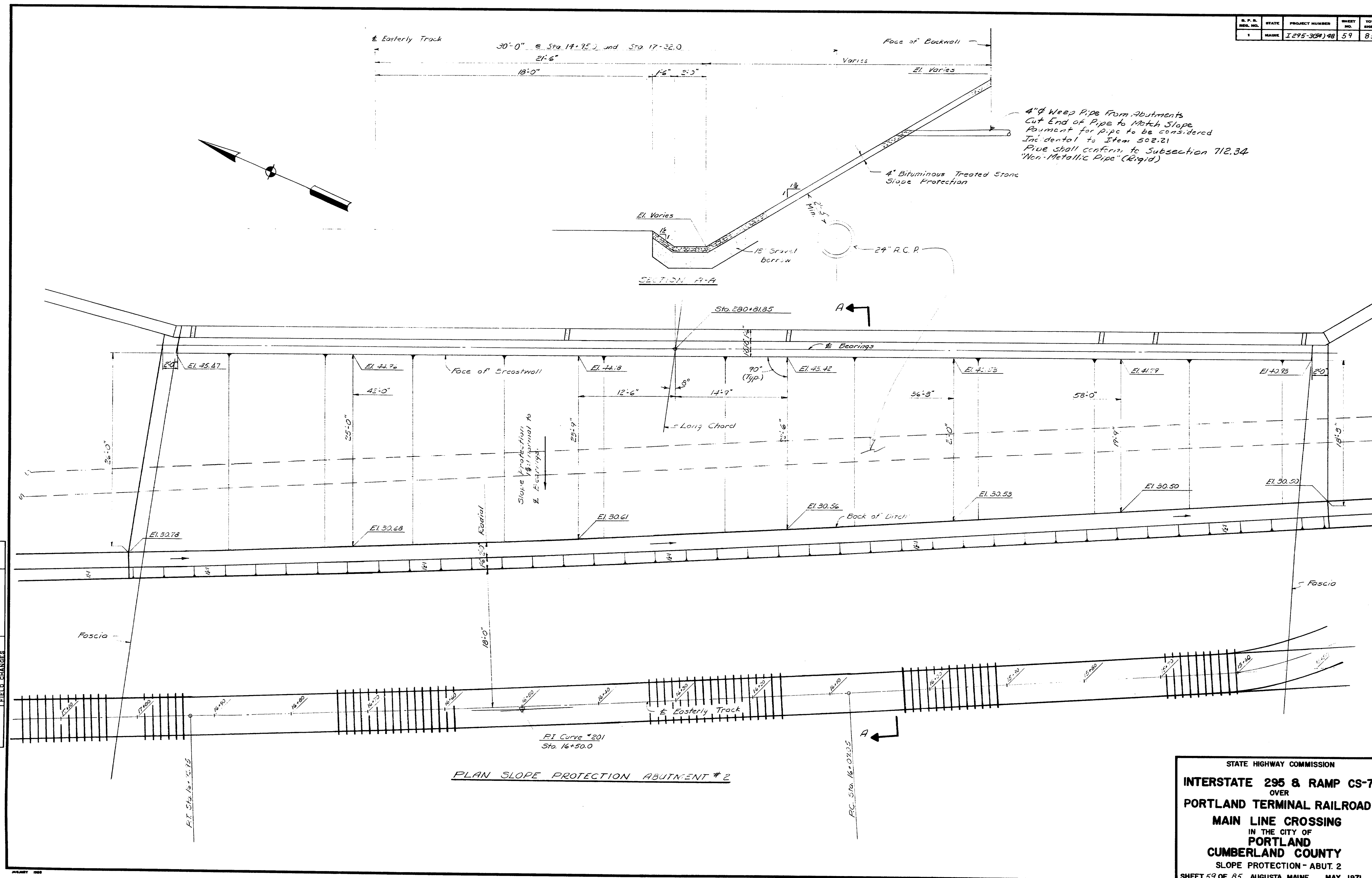


DESIGN - ALLIANCE	BRIDGE NO.
TRACE - DET D.D.	SURVEY - PLOT
CHECK - JER - EBC	
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7	
OVER	
PORTLAND TERMINAL RAILROAD	
MAIN LINE CROSSING	
IN THE CITY OF	
PORTLAND	
CUMBERLAND COUNTY	
APPROACH SLABS	
SHEET 57 OF 85 AUGUSTA, MAINE MAY 1971	

152-141



S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TO END
1	MAINE	I 295-3(54) 48	59	83



STATE HIGHWAY COMMISSION

INTERSTATE 295 & RAMP CS-7  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
SLOPE PROTECTION - ABUT. 2

SHEET 59 OF 85 AUGUSTA, MAINE MAY 1971

152-143



# ABUTMENTS 1 & 2

## Straight Bars

MARK	SIZE	LENGTH	ABUT 1	ABUT 2	LOCATION
A 500	#5	24'-0"	40	70	Backwall & Breastwall
A 501	#5	3'-10"	108	101	" " " dowels
A 502	#5	3'-0"	142	136	Footing, Breastwall, & Wing dowels
A 503	#5	7'-3"	21	-	Backwall, left wing & curtain wall
A 504	#5	7'-6"	8	-	Wing
A 505	#5	25'-6"	5	-	Breastwall & Wing
A 506	#5	18'-3"	10	-	Wing
A 507	#5	20'-0"	38	-	Breastwall & Backwall
A 508	#5	7'-6"	2	17	Backwall & Curtain wall
A 511	#5	6'-3"	-	18	Backwall
A 512	#5	15'-6"	-	51	Breastwall
A 513	#5	20'-0"	-	2	Breastwall
A 514	#5	21'-9"	-	38	Breastwall & Backwall
A 515	#5	17'-8"	6	-	Wing
A 516	#5	21'-4"	-	36	Breastwall
A 517	#5	11'-7"	-	8	Wing
A 518	#5	13'-9"	-	6	"
A 519	#5	6'-0"	12	12	"
A 520	#5	8'-5"	-	4	"
A 521	#5	14'-9"	-	8	"
A 522	#5	5'-9"	3	-	"
A 523	#5	13'-3"	-	36	"
A 524	#5	13'-0"	13	27	"
A 525	#5	8'-3"	-	8	"
A 526	#5	9'-3"	-	10	"
A 527	#5	12'-0"	5	10	"
A 528	#5	10'-10"	-	6	"
A 529	#5	11'-9"	-	8	"
A 530	#5	12'-4"	3	-	"
A 531	#5	13'-5"	-	32	"
A 532	#5	9'-10"	3	4	"
A 533	#5	14'-0"	-	10	"
A 534	#5	8'-0"	3	-	"
A 535	#5	8'-9"	4	-	"
A 536	#5	14'-6"	-	4	"
A 537	#5	6'-0"	72	4	Backwall & Wing
A 538	#5	4'-10"	2	12	Curtain Wall & Backwall
A 540	#5	9'-4"	6	12	Wing
A 541	#5	9'-0"	2	32	"
A 542	#5	28'-3"	38	-	Breastwall
A 544	#5	6'-5"	2	-	Wing
A 547	#5	8'-0"	17	6	Backwall Abut #1 & Wing Abut #2
A 548	#5	7'-9"	4	-	Wing & Breastwall
A 550	#5	9'-11"	4	-	"
A 554	#5	15'-10"	108	-	Breastwall
A 556	#5	4'-6"	37	36	Backwall & Curtain Wall
A 560	#5	6'-8"	88	-	"
A 561	#5	23'-0"	35	-	Breastwall & Backwall
A 562	#5	22'-7"	32	-	Breastwall & Backwall
A 563	#5	26'-0"	70	-	Breastwall & Backwall
A 564	#5	3'-6"	5	-	Parapet & Wing
A 565	#5	26'-3"	-	34	Backwall & Breastwall
A 567	#5	7'-3"	2	2	"
A 568	#5	11'-4"	33	4	Wing
A 569	#5	14'-0"	11	35	Wing & Breastwall
A 570	#5	15'-0"	28	4	Wing
A 571	#5	16'-6"	4	-	"
A 572	#5	10'-0"	3	6	"
A 573	#5	22'-6"	10	-	"
A 574	#5	17'-6"	6	-	"
A 575	#5	3'-0"	8	10	Curtain wall & Backwall
A 600	#6	38'-6"	76	-	Footing
A 601	#6	39'-6"	-	60	"
A 602	#6	9'-6"	121	151	"
A 603	#6	7'-6"	6	-	Footing
A 604	#6	7'-9"	6	-	Footing
A 605	#6	7'-11"	4	-	"
A 606	#6	8'-1"	3	-	"
A 607	#6	8'-4"	3	-	"
A 608	#6	8'-6"	3	-	"
A 609	#6	8'-8"	3	-	"
A 610	#6	24'-0"	-	20	Wing Footing
A 611	#6	9'-0"	41	-	Footing
A 612	#6	9'-3"	3	-	"
A 613	#6	9'-5"	1	-	"
A 614	#6	10'-0"	7	25	"
A 617	#6	7'-5"	1	23	"
A 618	#6	25'-0"	7	-	"
A 620	#6	24'-0"	3	-	"
A 629	#6	9'-0"	-	13	Wing
A 630	#6	20'-6"	18	-	Footing
A 632	#6	14'-3"	2	-	"
A 633	#6	28'-4"	2	-	"
A 634	#6	3'-0"	13	-	Wing
A 635	#6	6'-2"	-	33	Backwall
A 637	#6	9'-6"	-	17	"
A 638	#6	7'-6"	-	33	"

## Straight Bars - continued

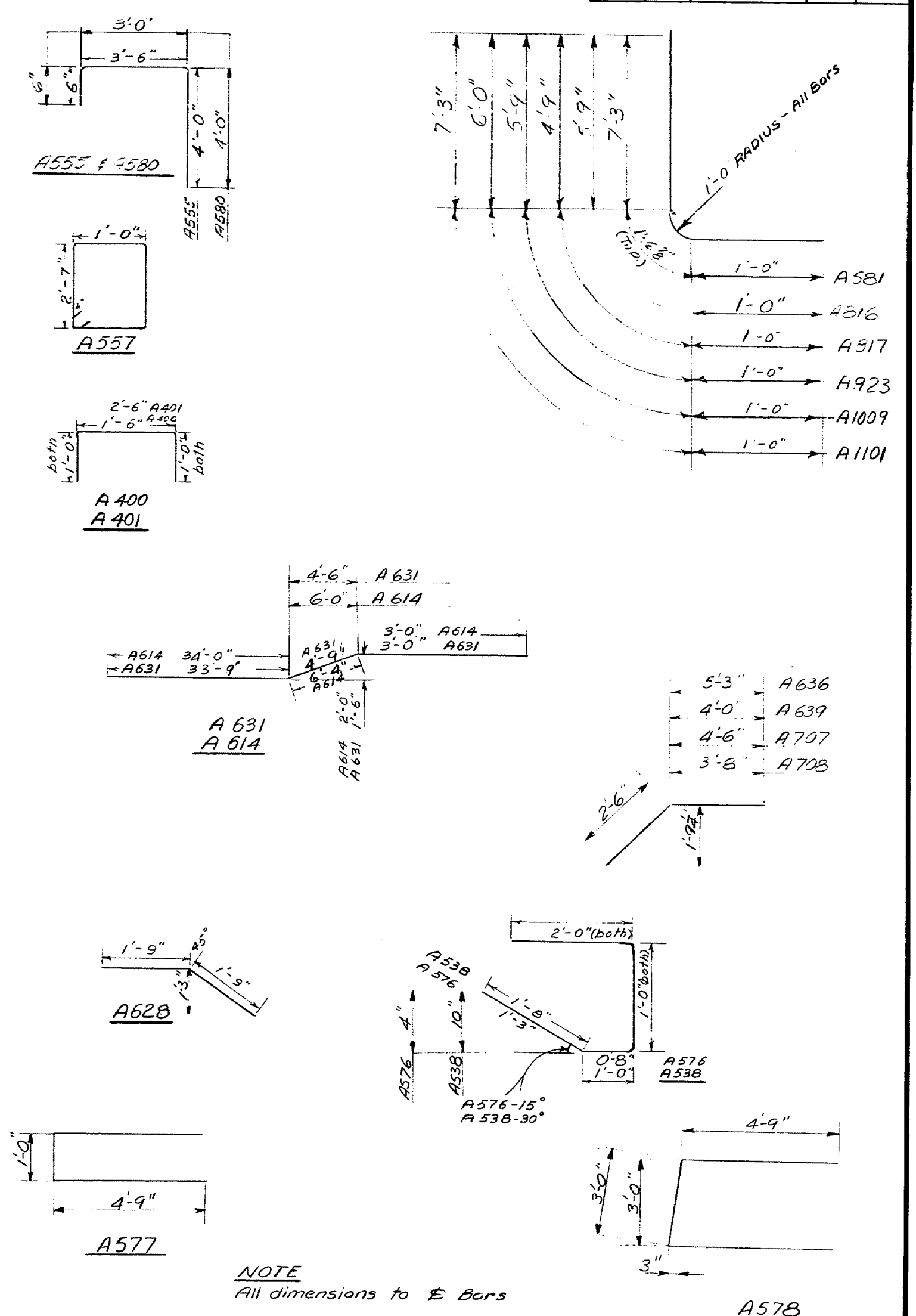
MARK	SIZE	LENGTH	ABUT 1	ABUT 2	LOCATION
A 640	#6	7'-0"	4	3	Breast wall
A 641	#6	9'-2"	16	-	Wing
A 642	#6	8'-3"	-	4	Footing
A 643	#6	8'-7"	-	4	"
A 644	#6	8'-2"	-	4	"
A 645	#6	7'-6"	-	7	"
A 646	#6	7'-9"	-	4	"
A 647	#6	7'-0"	10	-	Footing
A 703	#7	9'-0"	35	-	" & Wing
A 705	#7	14'-0"	-	19	Wing
A 709	#7	6'-6"	-	3	Breast wall
A 800	#8	9'-5"	80	101	Footing
A 802	#8	12'-0"	17	17	Breastwall
A 803	#8	16'-3"	17	16	"
A 809	#8	9'-0"	11	-	Footing
A 810	#8	7'-5"	7	-	"
A 811	#8	8'-0"	2	-	"
A 812	#8	8'-2"	3	-	"
A 813	#8	8'-4"	2	-	"
A 820	#8	13'-3"	-	17	Breastwall
A 821	#8	10'-3"	17	16	"
A 830	#8	10'-0"	-	21	Footing
A 831	#8	8'-7"	-	7	"
A 832	#8	8'-3"	-	7	"
A 833	#8	7'-9"	-	7	"
A 834	#8	7'-6"	-	5	"
A 900	#9	9'-6"	81	100	Footing
A 901	#9	13'-0"	10	10	Wing
A 902	#9	7'-0"	-	9	"
A 903	#9	7'-11"	10	-	Footing
A 913	#9	12'-0"	-	33	Breastwall
A 918	#9	8'-6"	4	-	Footing
A 919	#9	8'-11"	4	-	"
A 920	#9	10'-0"	1	-	"
A 922	#9	16'-0"	100	33	Wing
A 930	#9	10'-0"	-	16	Breastwall & Wing
A 931	#9	9'-3"	-	2	Footing
A 932	#9	9'-6"	-	5	"
A 933	#9	9'-2"	-	5	"
A 934	#9	8'-10"	-	4	"
A 1005	#10	9'-0"	4	-	Footing
A 1006	#10	9'-3"	4	-	"
A 1007	#10	9'-5"	4	-	"
A 921	#9	9'-0"	10	-	"
A 924	#9	14'-3"	-	33	Breastwall
A 925	#9	10'-3"	87	32	Breastwall

MARK	SIZE	LENGTH	ABUT 1	ABUT 2	LOCATION
A 400	#4	3'-6"	32	32	Breastwall
A 401	#4	4'-6"	32	32	"
A 538	#5	5'-8"	-	14	Wing
A 539	#5	5'-0"	104	97	Breastwall
A 555	#5	7'-10"	15	15	Backwall
A 576	#5	4'-11"	13	14	Wing
A 577	#5	10'-6"	9	10	Backwall
A 578	#5	12'-6"	23	25	Backwall
A 580	#5	7'-6"	7	7	Breast Wall
A 581	#5	9'-10"	102	127	"
A 614	#6	43'-4"	-	20	Footing
A 626	#6	3'-6"	70	70	Approach slab seat
A 631	#6	41'-6"	20	-	Footing
A 636	#6	7'-9"	69	15	Breast Wall
A 639	#6	6'-6"	35	-	"
A 707	#7	7'-0"	-	32	"
A 708	#7	6'-2"	-	49	"
A 816	#8	8'-4"	16	-	Wing & Footing
A 817	#8	7'-4"	13	25	"
A 923	#9	8'-4"	12	-	Wing
A 1009	#10	8'-7"	34	-	Footing & Breastwall
A 1101	#11	9'-10"	197	197	"

## \* APPROACH SLAB - STRAIGHT BARS

MARK	SIZE	LENGTH	ABUT 1	ABUT 2	LOCATION
A 5400	#4	46'-6"	-	20	Longitudinal
A 5401	#4	38'-0"	-	20	"
A 5402	#4	17'-0"	-	20	"
A 5403	#4	47'-3"	-	20	"
A 5404	#4	39'-0"	-	20	"
A 5405	#4	17'-6"	-	20	"
A 5600	#6	14'-6"	-	412	Transverse
A 5601	#6	14'-6"	420	-	"

\* Approach Slab Straight Bars are not a part of this contract

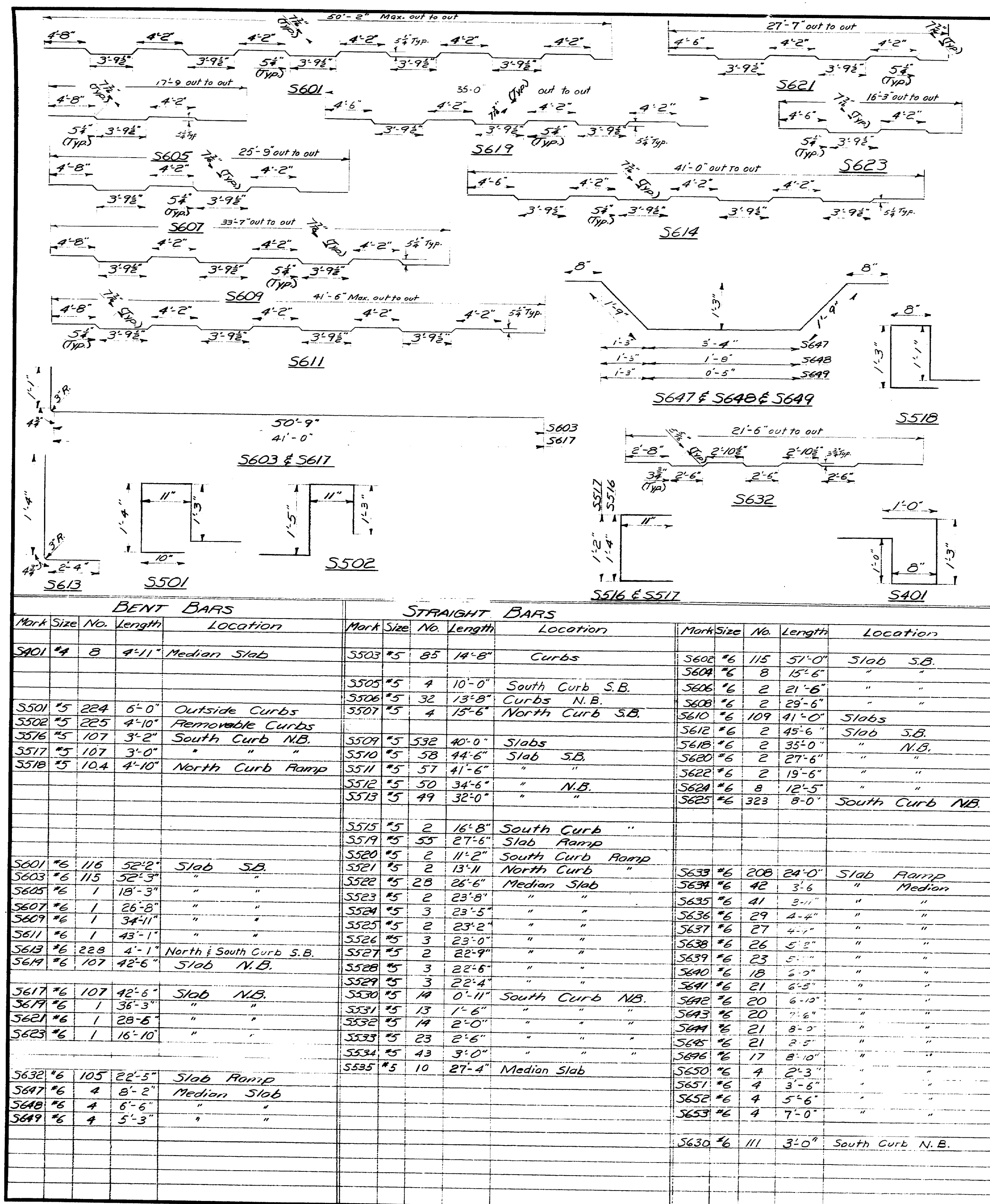


NOTE  
All dimensions to E Bars

STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
PORTLAND TERMINAL RAILROAD  
MAIN LINE CROSSING  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
REINFORCING STEEL  
SHEET 60 OF 85 AUGUSTA, MAINE MAY 1971

152-144

S.P. & R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-304	61	85



1. Dimensions are to center of bars
2. Reinforcing steel bars shall conform to the requirements of AASHTO Designation M31, Intermediate Grade, or to ASTM Designation A615, Grade 60.

DESIGN - ALL TRACE - DET - SPROLL CHECK - N.E.E. 6/14/71	BRIDGE NO. SURVEY PLOT
STATE HIGHWAY COMMISSION	
INTERSTATE 295 & RAMP CS-7 OVER PORTLAND TERMINAL RAILROAD MAIN LINE CROSSING IN THE CITY OF PORTLAND CUMBERLAND COUNTY REINFORCING STEEL SCHEDULE SHEET 61 OF 85 AUGUSTA, MAINE MAY 1971	

152-146