

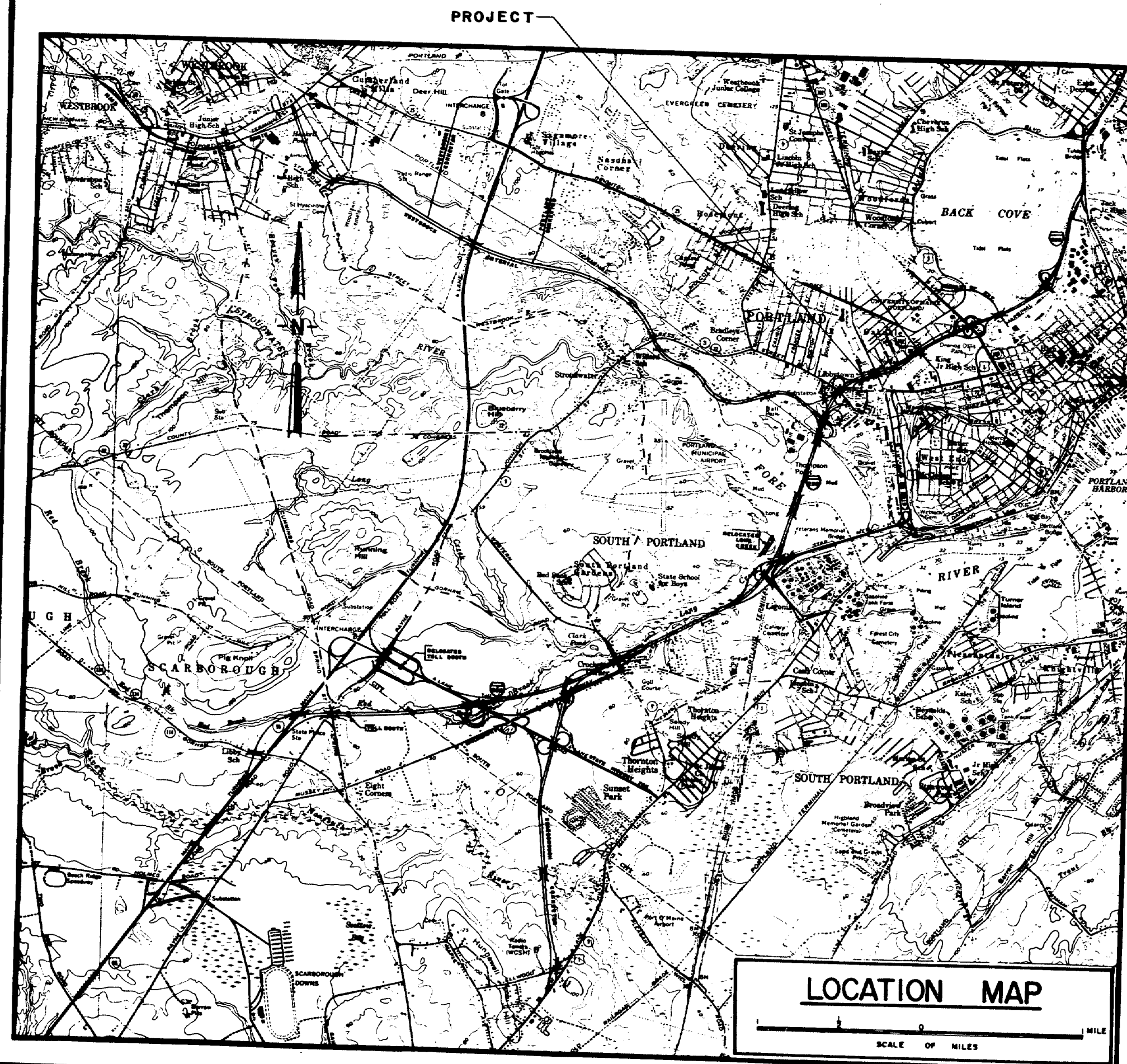
# STATE OF MAINE STATE HIGHWAY COMMISSION



## CITY OF PORTLAND CUMBERLAND COUNTY MAINE FEDERAL AID PROJECT NO. I-295-3(59)48 TOTAL LENGTH .061 MILES INTERSTATE 295 AND RAMP CS7 OVER RELOCATED ST. JAMES STREET

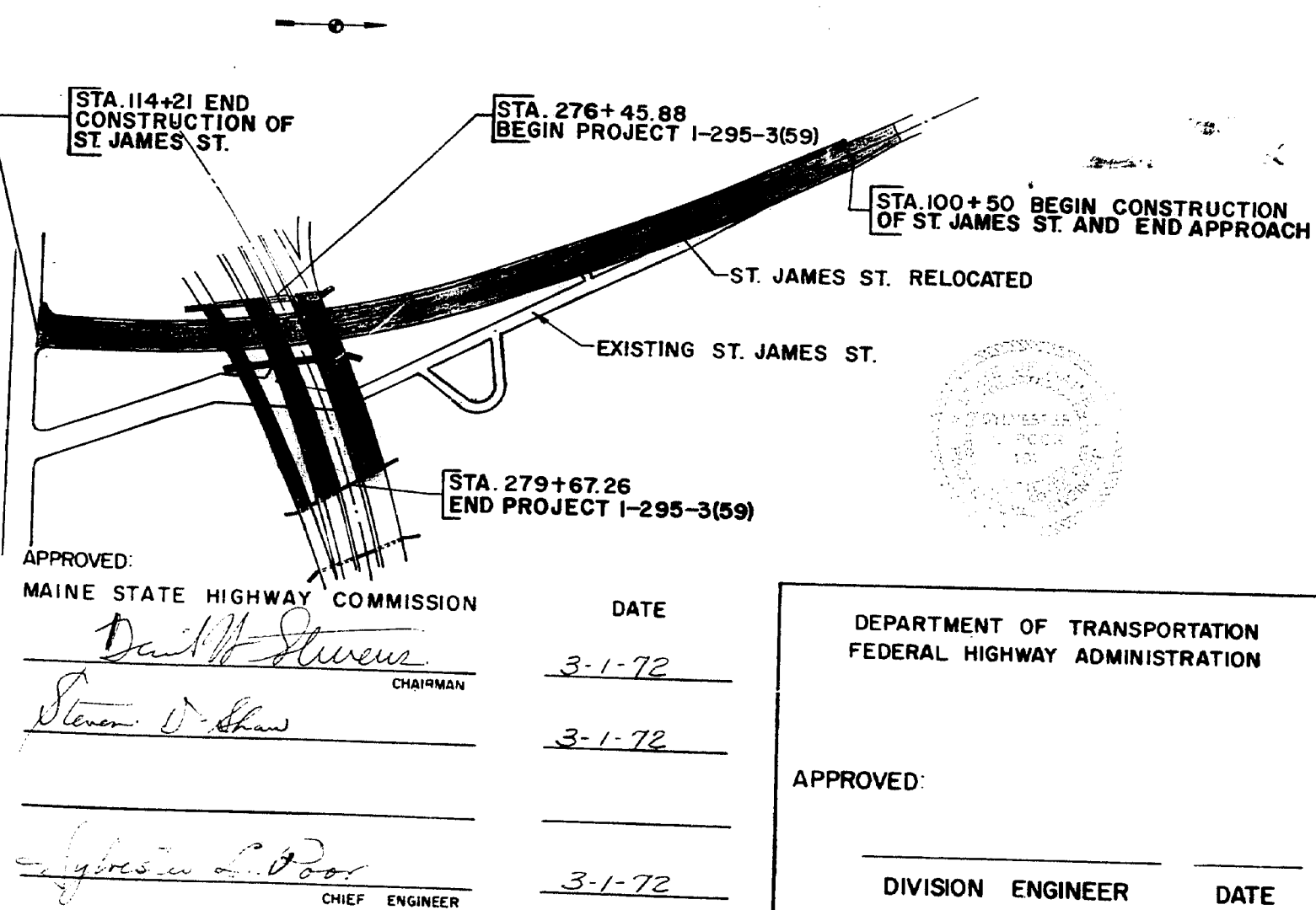
As Built Oct., 1973

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	CONTENTS
1	TITLE SHEET.
2	QUANTITIES.
3	DRAINAGE.
4-5	RIGHT OF WAY.
6	BRIDGE GENERAL PLAN.
7-9	SOILS.
10-23	ABUTMENTS.
24-27	STRUCTURAL STEEL.
28-30	SUPERSTRUCTURE.
31-32	ARMORED JOINT & ELASTOMERIC DEVICE.
33	SLOPE PROTECTION.
34	APPROACH SLABS.
35	BRIDGE RAIL DETAILS ALONG ABUTMENTS.
36-37	REINFORCING STEEL.
38-71	ROADWAY PLANS & CROSS-SECTIONS.
72	BD 101-70.
73	BD 104-71.
74	BD 106-69.
75	STANDARD DETAILS ①
76	" " ②
77	" " ③
78	" " ④
79	" " ⑤
80	" " ⑥
81	" " ⑦
82	" " ⑧
83	" " ⑨
84	" " ⑩

TRAFFIC DATA	I-295	RAMP CS7	ST. JAMES ST.
A.D.T. 1972	33,580	2,000	500
A.D.T. 1992	51,760	2,140	750
D.H.V.	5,176	214	75
T. (%) D.H.V.	5	5	5
D. (%)	NA	NA	70
V. M.P.H.	50	50	as posted
P.S.D. (%)	NA	NA	NA
18 KIPS		68	10



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

APPROVED:  
MAINE STATE HIGHWAY COMMISSION  
*David W. Stevens*  
CHAIRMAN  
*Steven D. Shaw*  
CHIEF ENGINEER

DATE  
3-1-72  
3-1-72  
3-1-72

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
APPROVED:  
DIVISION ENGINEER  
DATE

153-35

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.11	Clearing	0.50	Acre
203.20	Common Excavation	6700	Cu. Yd.
203.23	Muck Excavation	6000	Cu. Yd.
203.25	Granular Borrow	128,000	Cu. Yd.
206.06	Str. Earth Excav. - Drainage & Minor Strs.	750	Cu. Yd.
304.09	Aggregate Base Course - Crushed	400	Cu. Yd.
304.10	Aggregate Subbase Course - Gravel	6600	Cu. Yd.
403.07	Hot Bit. Pavement, Grading B	900	Ton
403.08	Hot Bit. Pavement, Grading C	500	Ton
403.12	Hot Bit. Pavement, Grading E (Sidewalks, Drives, Etc.)	140	Ton
501.215	Steel H-beam Piles - 74 Lbs / ft.	5305	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls	1415	Cu. Yd.
502.26	Structural Concrete, Rdwy. & Sdk., Steel Bridges	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	220,371	Lb.
503.13	Reinforcing Steel, Placing	220,371	Lb.
504.70	Structural Steel, Fab. & Delivered	1	L.S.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
506.14	Field Painting, Structural Steel	1	L.S.
507.08	Bridge Railing	771	L.F.
512.07	French Drains (Stones Only)	68	Cu. Yd.
513.09	Slope Protection - Port. Cem. Concrete	1200	Sq. Yd.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective coating for Concrete surfaces	120	L.F.
520.07	Elastomeric Expansion Device (Type 2)	270	Sq. Yd.
603.155	12 inch Reinforced Conc. Pipe Class III	708	L.F.
603.175	18 inch Reinforced Conc. Pipe Class III	340	L.F.
603.185	21 inch Reinforced Conc. Pipe Class III	24	L.F.
603.195	24 inch Reinforced Conc. Pipe Class III	48	L.F.
603.76	12 inch Inlet Grate Unit	1	Each
603.78	18 inch Inlet Grate Unit	1	Each
604.07	Catch Basins Type A1	9.5	Each
604.09	Catch Basins Type B1	2	Each
604.15	Manholes	525	Each
604.20	12 inch Traps	2	Each
604.221	21 inch Traps	1	Each
604.222	24 inch Traps	1	Each
604.23	Steps	50	Each
605.09	6 inch Underdrain Type "B"	550	L.F.
609.11	Vertical Curb - Type I	2654	L.F.
609.12	Vertical Curb - Circular - Type I	78	L.F.
609.13	Vertical Bridge Curb - Type I	679	L.F.
609.23	Terminal Curb, Type I	7	Each
609.25	Curb Transition Section A - Type I	7	Each
609.32	Curb Type 3a	306	L.F.
612.07	Bituminous Hand Sealing - Green	65	Sq. Yd.
615.07	Loom	1050	Cu. Yd.
616.08	Sodding	365	Sq. Yd.
618.13	Seeding, Method Number 1	140	Unit
618.15	Temporary Seeding	20	Lb.
619.09	Hay Mulch	140	Unit
629.05	Labor, Straight Time	40	M. Hr.
630.06	Traffic Officers	100	M. Hr.
631.12	All Purpose Excavator (inc. operator)	10	Hour
631.13	Bulldozer (including operator)	40	Hour
631.171	Truck - Small (including operator)	20	Hour
632.08	Warning Lights	3	Group
633.09	Portable Barricade	2	Each
636.06	Reflectorization of Bit. Concrete	25	Sq. Yd.
637.07	Sprinkling	60	M. G.
637.08	Calcium Chloride	6	Ton
638.01	Expended Work in Structures	LS	
639.08	Field Office, Type A	1	Each
639.11	Testing Facilities, Soils	1	L.S.
639.12	Testing Facilities, Bit. Mixes	1	L.S.
639.13	Testing Facilities, Bit. Lq. & Cement	1	L.S.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
657.201	Seed and Application, Method A	170	Unit
657.21	Reforestation, Method B	4	Acre
660.20	On-the-job Training	1000	M. Hr.

# SUMMARY OF EXCAVATION AND BORROW FOR ST. JAMES ST., MAIN LINE (I-295) AND RAMP CS-7

## COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	5158
EARTH FROM DRIVES	150
GRUBBING IN FILL SECTION	201
TOTAL COMMON EXCAVATION	5509

## FILL FOR GRANULAR BORROW CALCULATIONS

GRANULAR FILL (FROM CROSS SECTIONS)	112,125
GRUBBING (FILL AREAS)	201
MUCK EXCAVATION	5673
2' COMMON EXCAVATION ABOVE MUCK	932
ABANDONED SEWERS	450
TOTAL FILL	119,381

## AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION	5509
DEDUCTIONS:	
GRUBBING IN CUT AREAS $300 \times 100\% = 300$	
GRUBBING IN FILL AREAS $201 \times 100\% = 201$	
(2) TOTAL DEDUCTIONS	501
TOTAL AVAILABLE COMMON EXCAV. (1) MINUS (2)	5008
TOTAL AVAILABLE STRUCTURAL EXCAVATION	879
TOTAL AVAILABLE EXCAVATION IN MUCK AREAS	3971
TOTAL AVAILABLE FROM DRIVES	150
TOTAL AVAILABLE NON-ROCK EXCAVATION	10,008

## COMPUTATION OF GRANULAR BORROW FOR ESTIMATE

TOTAL FILL	119,381
TOTAL AVAILABLE NON-ROCK EXCAVATION $10,008 \times 0.85 =$	8,507
TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION	110,874
GRANULAR BORROW $110,874 \times 1.15 =$	127,505

## NOTE:

Estimated Quantity of Structural Steel, Fab., Del., Erected & Painted 393,000 Lbs.  
Estimated Quantity of Shear Connectors 2434 @ 0.977 lbs. = 2,378 Lbs.  
Estimated Quantity of Concrete Item 502.26 394 CY.



DRAINAGE																				
STATION	RCP			BCCMP		CMP		CULVERT PIPE		CATCH BASINS					MAN HOLES	UNDERDRAINS				REMARKS
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1	A2	B1	B2	C1		C2	E	B' LENGTH	C' SIZE	
RELOCATED ST. JAMES ST.																				
97+78 to 105+48, LT																				
105+50, LT																				
105+50, RT																				
105+50	12"	38'	III																	
105+52, LT to 108+00	12"	25'	III																	
108+00 to 108+98, LT	12"	98'																		
108+32 to 108+41, LT	18"	9'	III																	
108+32, LT																				
109+00, LT																				
109+07, RT																				
109+00, RT	12"	17.5'	III																	
109+00, LT	12"	18.5'	III																	
109+00, &																				
109+00, &																				
111+10, & 3' LT																				
112+57, LT to 112+90	24"	18'	III																	
112+67, LT																				
112+57 to 112+62, LT	12"	48'	III																	
112+67, LT																				
112+67, LT to 112+67, RT	12"	39'	III																	
112+67, RT																				
112+67, RT to 112+75	12"	32'	III																	
112+69, RT to 113+61	12"	53.5'	III																	
112+75, RT	12"	2'	III																	
113+63, RT																				
CS-7																				
5+25, RT to 7+80	18"	24'	III																	
5+25	18"	10'	III																	
7+80, RT																				
CS-4																				
2+00, RT																				
2+00, RT	12"	92'	III																	
NOTE: THIS WORK WAS ELIMATED FROM THIS CONTRACT																				

DRAINAGE CONT'D.																				S.P.R. REG. NO.		STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
																				1		MAINE	1-005343	3	84
STATION	RCP			BCCMP		CMP		CULVERT PIPE		CATCH BASINS					MAN HOLES	UNDERDRAINS				REMARKS					
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A 1	A 2	B 1	B 2	C 1		C 2	E	B' OUTLET							
																		LENGTH	SIZE		LENGTH	LENGTH			

**GENERAL NOTES**

The following general notes shall apply unless otherwise shown or directed by the engineer:

Residential and commercial entrances being reconstructed and having a grade of 10% or greater shall be paved.

**Entrance Construction Materials -**

2" Bituminous Concrete.

12" Aggregate Subbase Course - Gravel

width of residential and miscellaneous entrances shall be the same as existing. Curb openings shall be 20".

Loam and Sod inlets and outlets of all entrance and Roadway Culverts.

All embankment slopes, ditches, and back-slopes shall be loamed and seeded, Method No. 1

Depths of loam shall be as follows:

Under Sodding 4"

Seeded Areas, Method No. 1 3"

Seeded Areas, Method No. 2 2"

Hay mulch shall be used on all seeded areas.

Install sod strip 1' wide in the following locations:

Outside edge of sidewalks.

Edges of private walks.

Behind Curbs in box sections.

Muck excavation limits shown on cross sections are for estimating purposes only. Actual limits to be determined in the field.

Suitable excavation in muck areas shall be used in the embankment.

The following are the utilities involved in the subject project:

Central Maine Power Company - distribution

New England Telephone & Telegraph Company

City of Portland - sewers

Portland Water District

Northern Utilities - (Gas)

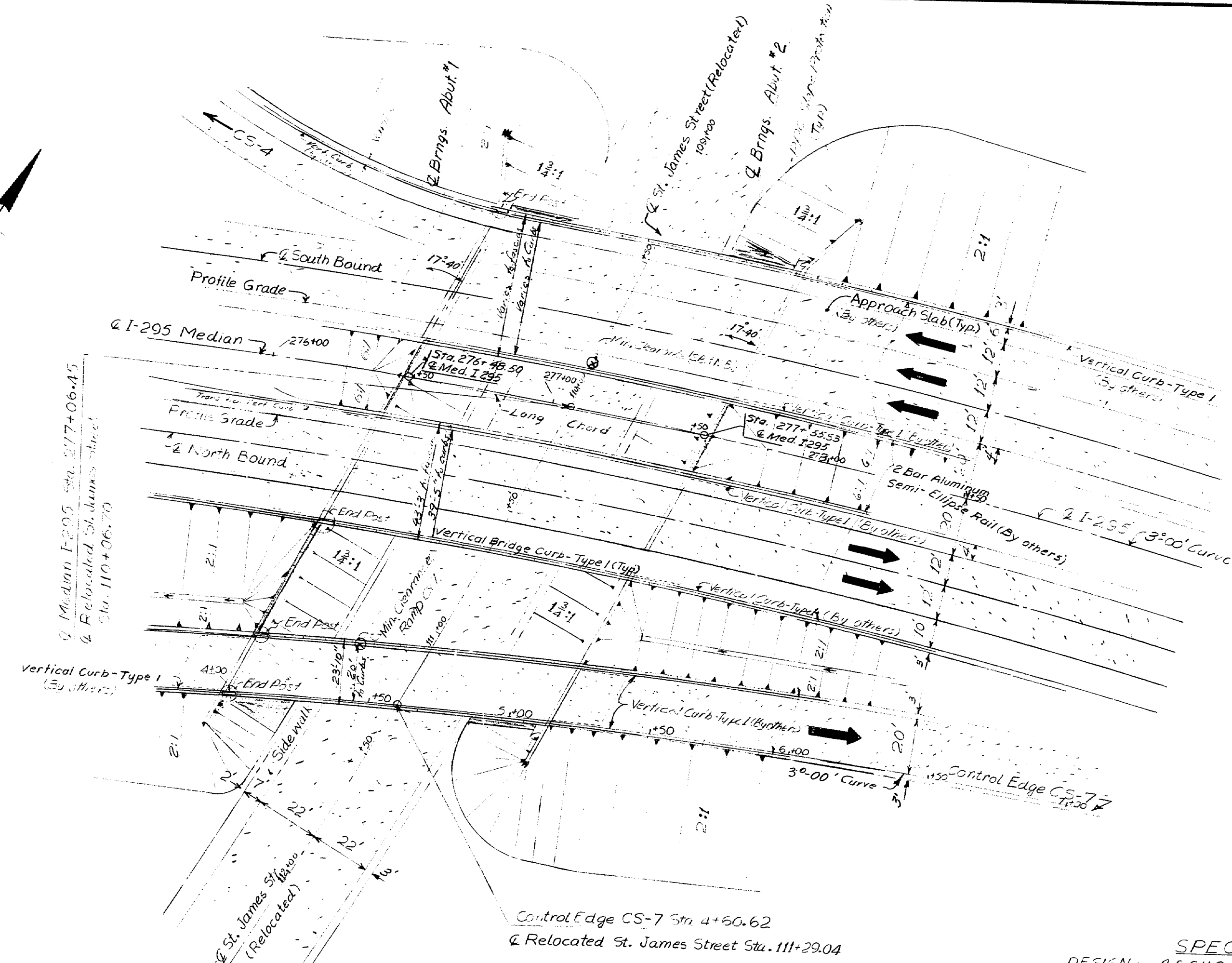
All utility plants to be adjusted by the respective utility involved, unless otherwise noted.

NOTE: EXCAVATION.

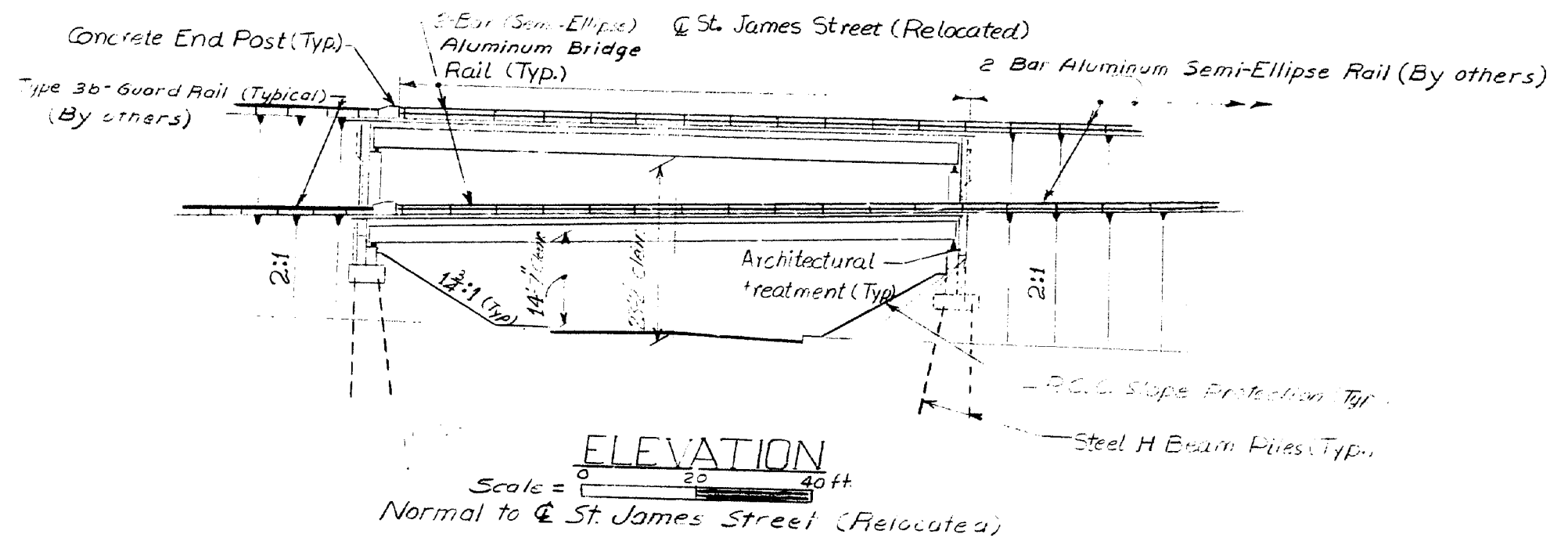
EXCAVATION TO BE PLACED IN AREA ON ST. JAMES ST. BETWEEN STA. 103+50 TO 108+50.

AS BUILT OCT. 1973

R.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	-295-333-78	6	34



PLAN  
0 25 50 ft.  
Scale



ELEVATION  
0 20 40 ft.  
Scale  
Normal to St. James Street (Relocated)

BRIDGE QUANTITIES		
Item No.	DESCRIPTION	Quantity Unit
203.20	Common Excavation	C.Y. 1100
501.26	Steel H-Beam Piles, 74 Lbs./ft.	L.F. 5305
502.21	Structural Concrete, Abuts. & Retaining Walls	Cu.Yd. 1415
502.26	Structural Concrete, Advy. & Sdwk. Slabs, Steel Bridges	L.S. 1
* 502.31	Structural Concrete, Approach Slabs (By Others)	L.S. 1
503.12	Reinforcing Steel, Fab. & Delivered	Lb. 220,371
503.13	Reinforcing Steel, Placing	Lb. 220,371
504.70	Structural Steel, Fab. & Delivered	L.S. 1
504.71	Structural Steel, Erection	L.S. 1
505.08	Shear Connectors	L.S. 1
506.14	Field Painting, Structural Steel	L.S. 1
507.08	Bridge Railing	L.F. 771
* 508.10	Membrane Waterproofing (By Others)	Sq.Yd. 1300
512.07	French Drains (Stones Only)	Cu.Yd. 68
513.09	Slope Protection - Port. Cem. Concrete	Sq.Yd. 1200
514.06	Curing Box for Concrete Cylinders	Each 1
515.20	Protective Coating for Concrete Surfaces	Sq.Yd. 270
520.07	Elastomeric Expansion Device - Type I	L.F. 120
609.13	Vertical Bridge Curb, Type I	L.F. 679
638.01	Embedded Work In Structures	L.S. 1
639.08	Field Office, Type A	Each 1
660.20	On-the-job Training	M.H. 1000

\* Item by others, not a part of this contract.

NOTE:  
Estimated Quantity of Structural Steel, Fab., Del., Erected and Painted 393,000 Lbs.  
Estimated Quantity of Shear Connectors 2434 @ 0.977 lbs = 2,378 Lbs.  
Estimated Quantity of Concrete Item 502.26 394 C.Y.  
\* Estimated Quantity of Concrete Item 502.31 83 C.Y.

**SPECIFICATION**  
DESIGN - A.A.S.H.O. Standard Specifications for Highway Bridges 1969, and Interim Specifications 1970 & 1971.

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

**LOADING** - HS 20-44 as Modified for Interstate Highway.

**MATERIALS** -  
Concrete - All concrete shall be class A.  
Structural Steel - Beam web & flange plates shall be ASTM A572 Grade 50. All other shall be A36.  
Reinforcing Steel - ASTM A615 Grade 60.

**BAR REINFORCEMENT SIZES**  
Concrete -  $f_c = 1200 \text{ psi}$ ;  $n = 10$   
Structural Steel -  
A572 Grade 50  $f_y = 50,000 \text{ psi}$   
A36  $f_y = 36,000 \text{ psi}$   
Reinforcing Steel -  $f_y = 60,000 \text{ psi}$

of the sheets.

Sheet No.	Description
1	General Plan
2	Foundation Survey
3	Survey Detail
4	Footings & Pile Plan, Abut #1
5	Abutment #1
6	Section - Abut #1
7	Footings & Pile Plan, Pier #2
8	Abutment #2
9	Section - Abut #2
10	Architectural Treatment
11	Framing Plan
12	Structural Steel Detail
13	Cross Frame
14	Bottom of Deck Elements
15	Superstructure - South Bound
16	Superstructure - North Bound
17	Superstructure - Pier CS-7
18	Embedded Work - Pier #1
19	Elastomeric Exp. Device - Abut #2
20	Slope Protection
21	Approach Slab
22	Bridge Rail along Abut.
23	Bridge Rail along Pier
24	Painting & Steel Superstructure
25	STANDARD DETAILS
26	General Notes
27	Foundation & Piles
28	Foundation & Piles
29	Foundation & Piles
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31	Foundation & Piles
32	Foundation & Piles
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100	Foundation & Piles

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
GENERAL PLAN**

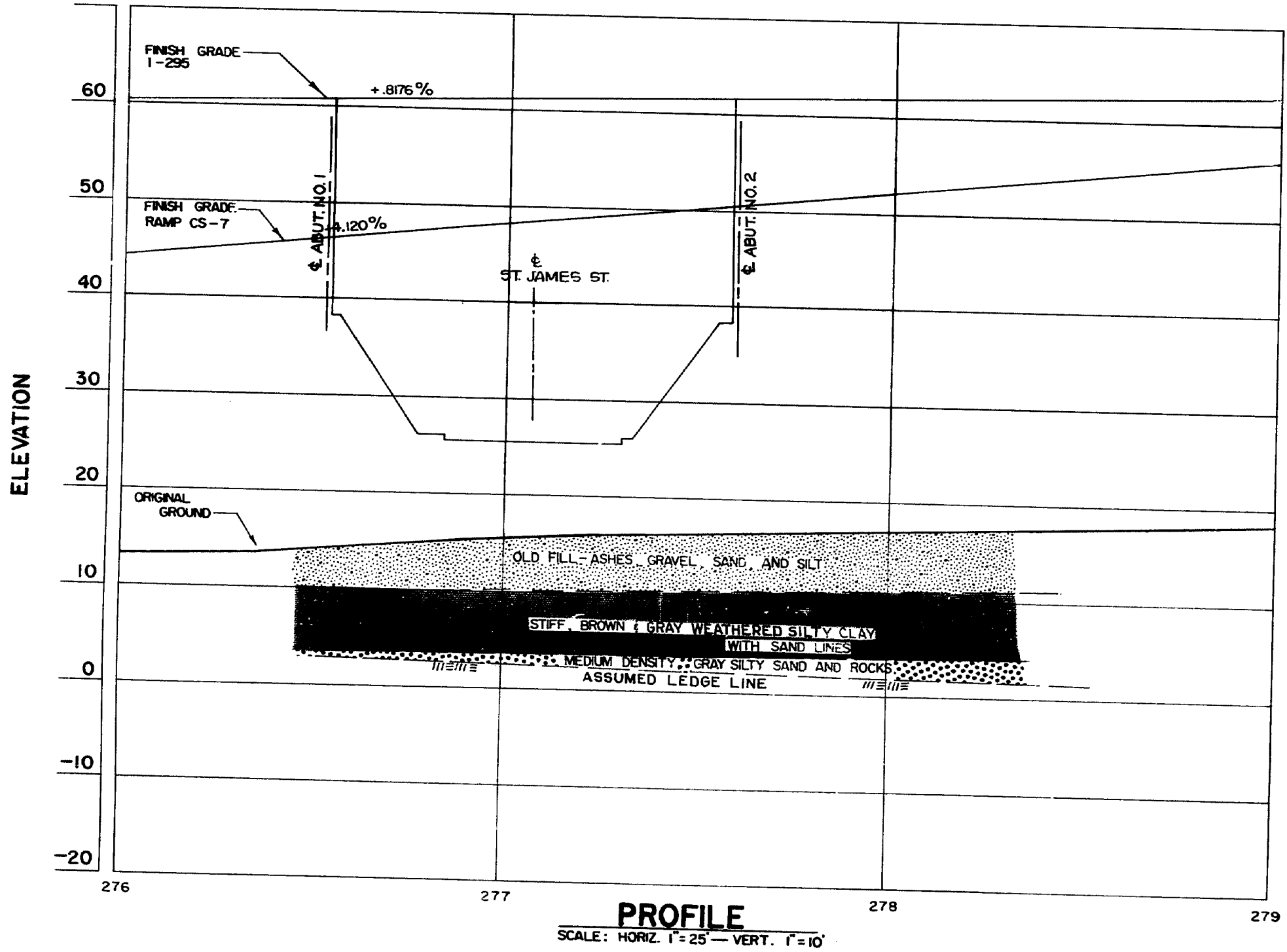
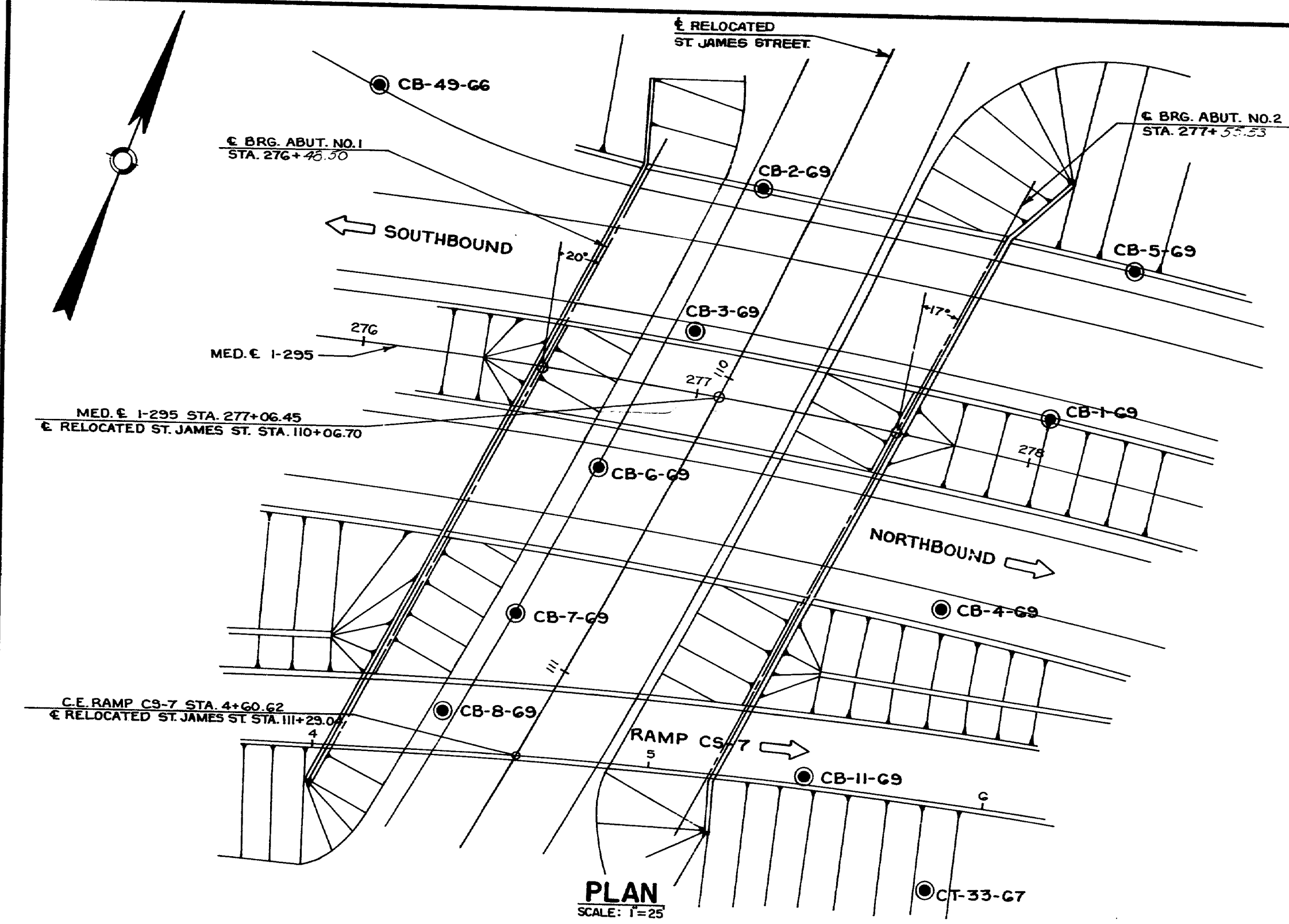
SHEET 1 OF 3 AUGUSTA, MAINE JULY 1971

153-38 AS BUILT 1973

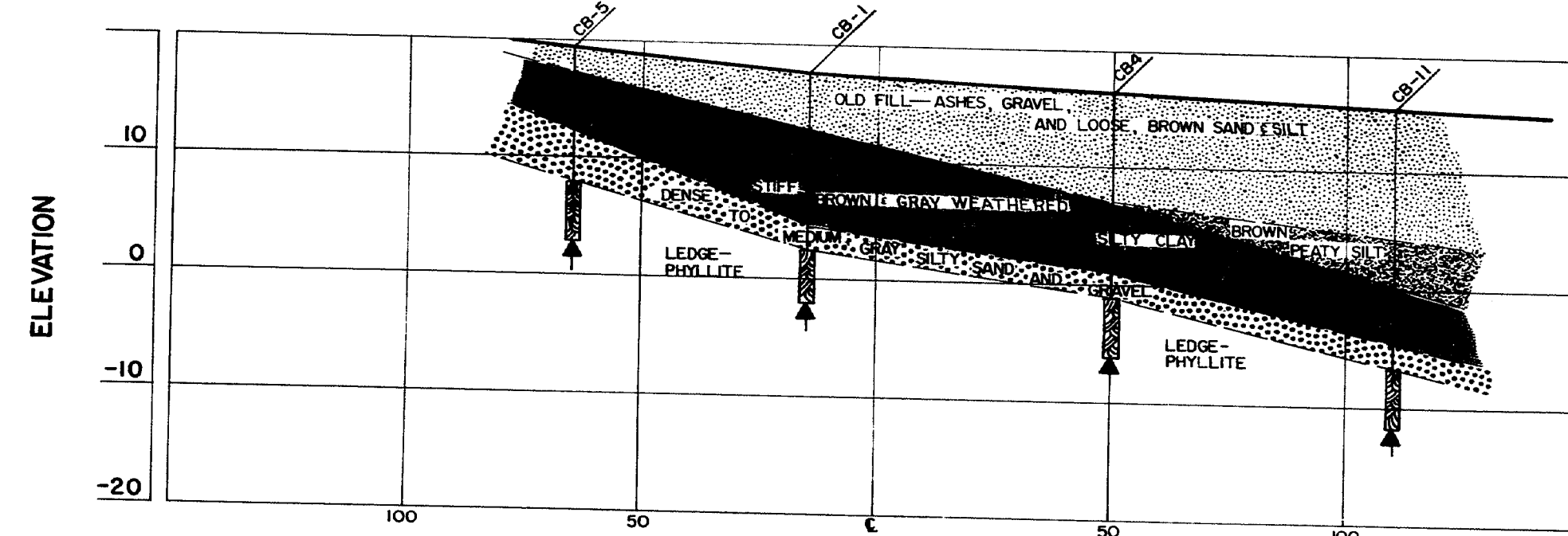
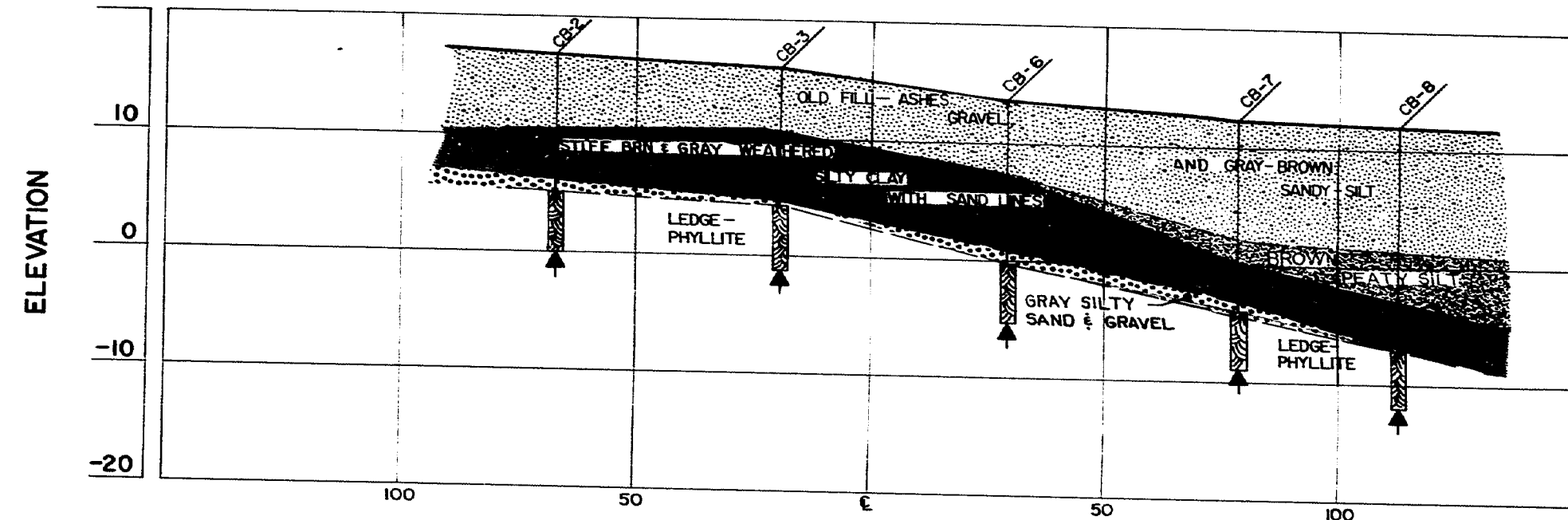
DATE	BY	REVISIONS	FIELD CHANGES
11/70	MR. J. L. WILSON	DESIGN - DETAILED	
12/70	BY J. L. WILSON	CHECKED	
12/70	BY J. L. WILSON	REVISIONS	
12/70	BY J. L. WILSON	FIELD CHANGES	

JANUARY 1968

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	12153-593	7	34



### TRANSVERSE SECTIONS



STATE HIGHWAY COMMISSION

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

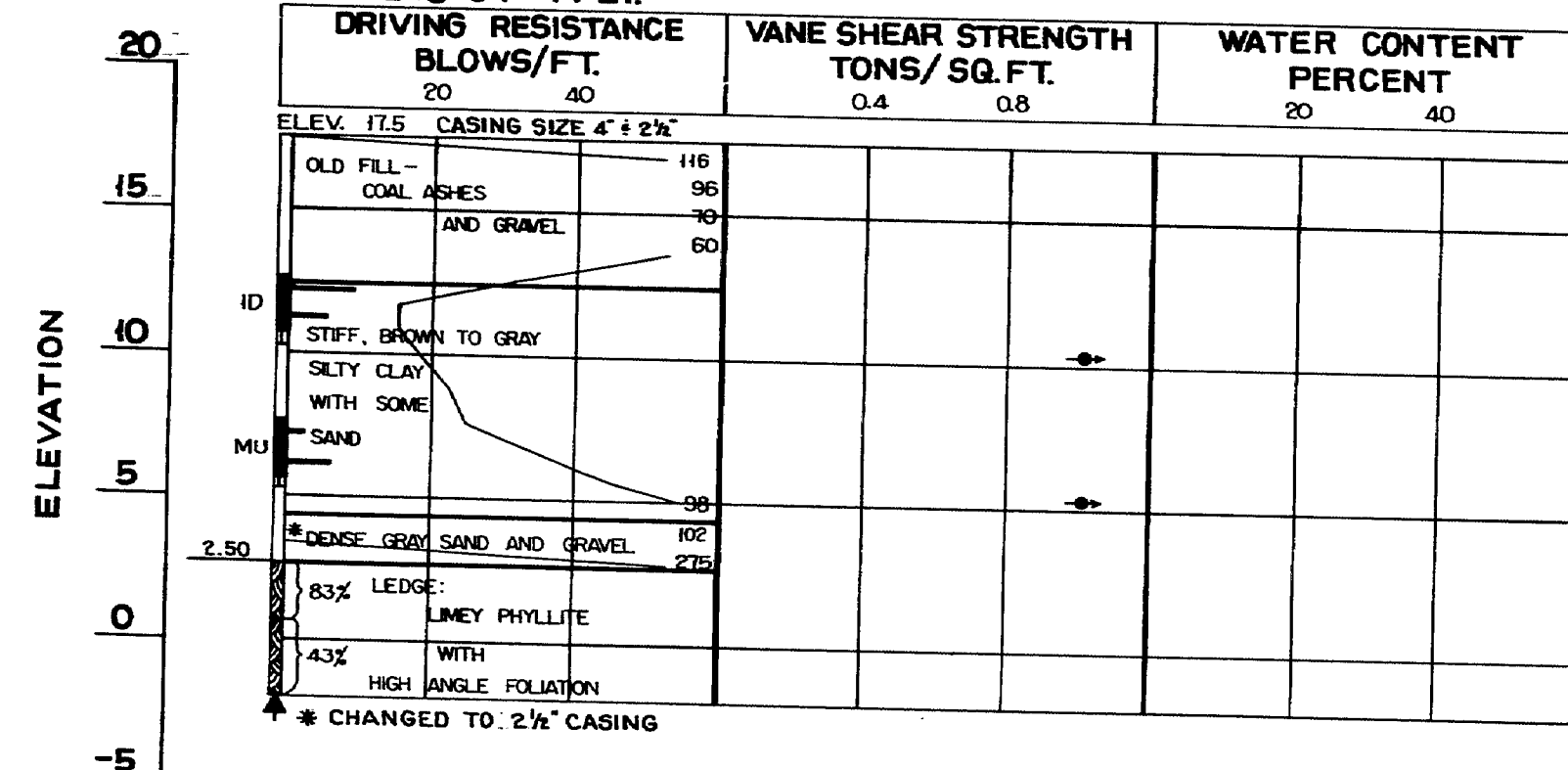
SHEET 2 OF 32 AUGUSTA, MAINE July 1977

153-39

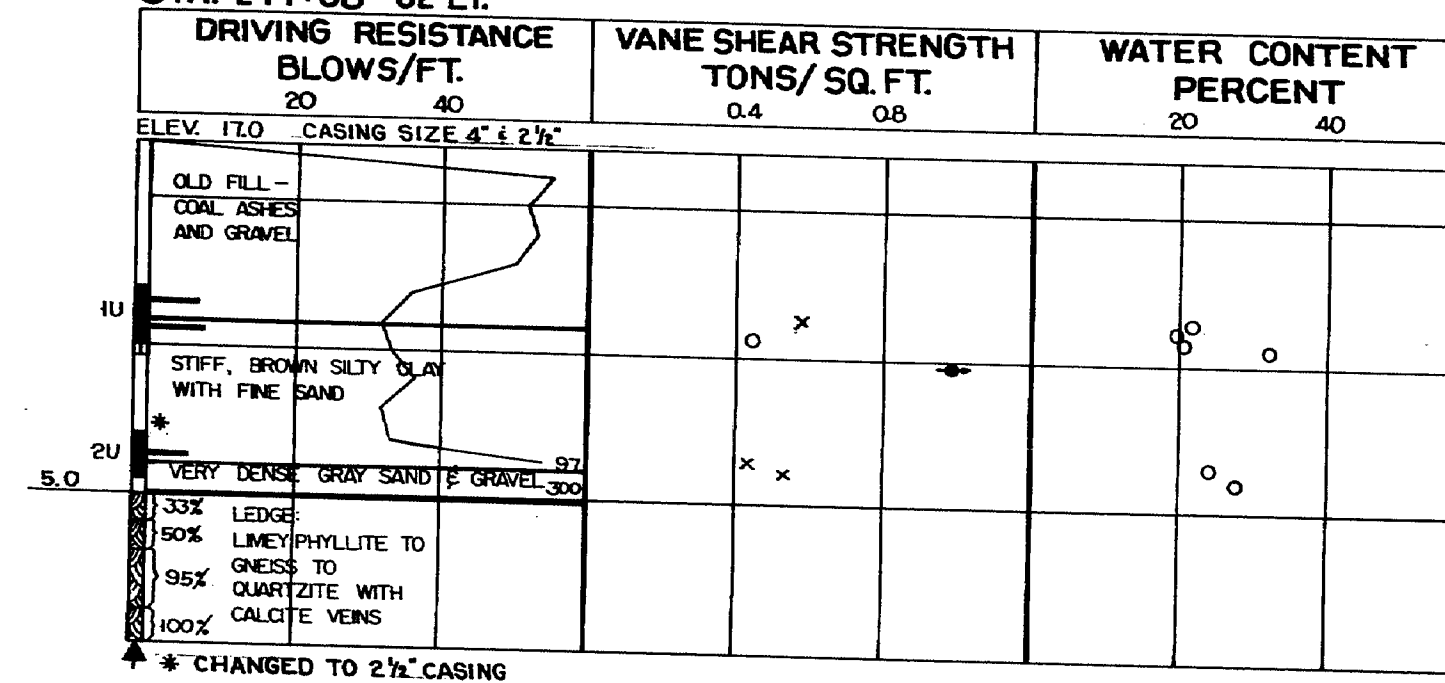


R.P.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1295-3 (59)	8	84

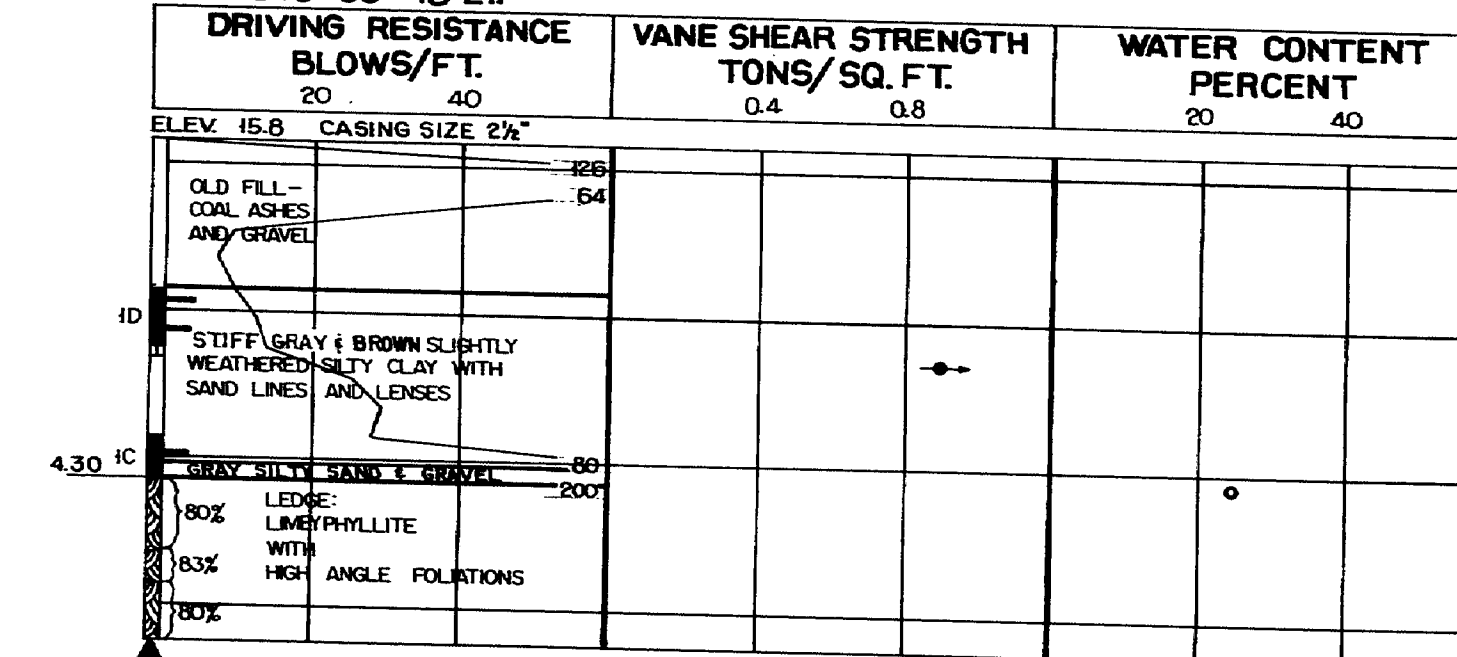
# **BORING CB-1-69** STA. 278+04 14' LT.



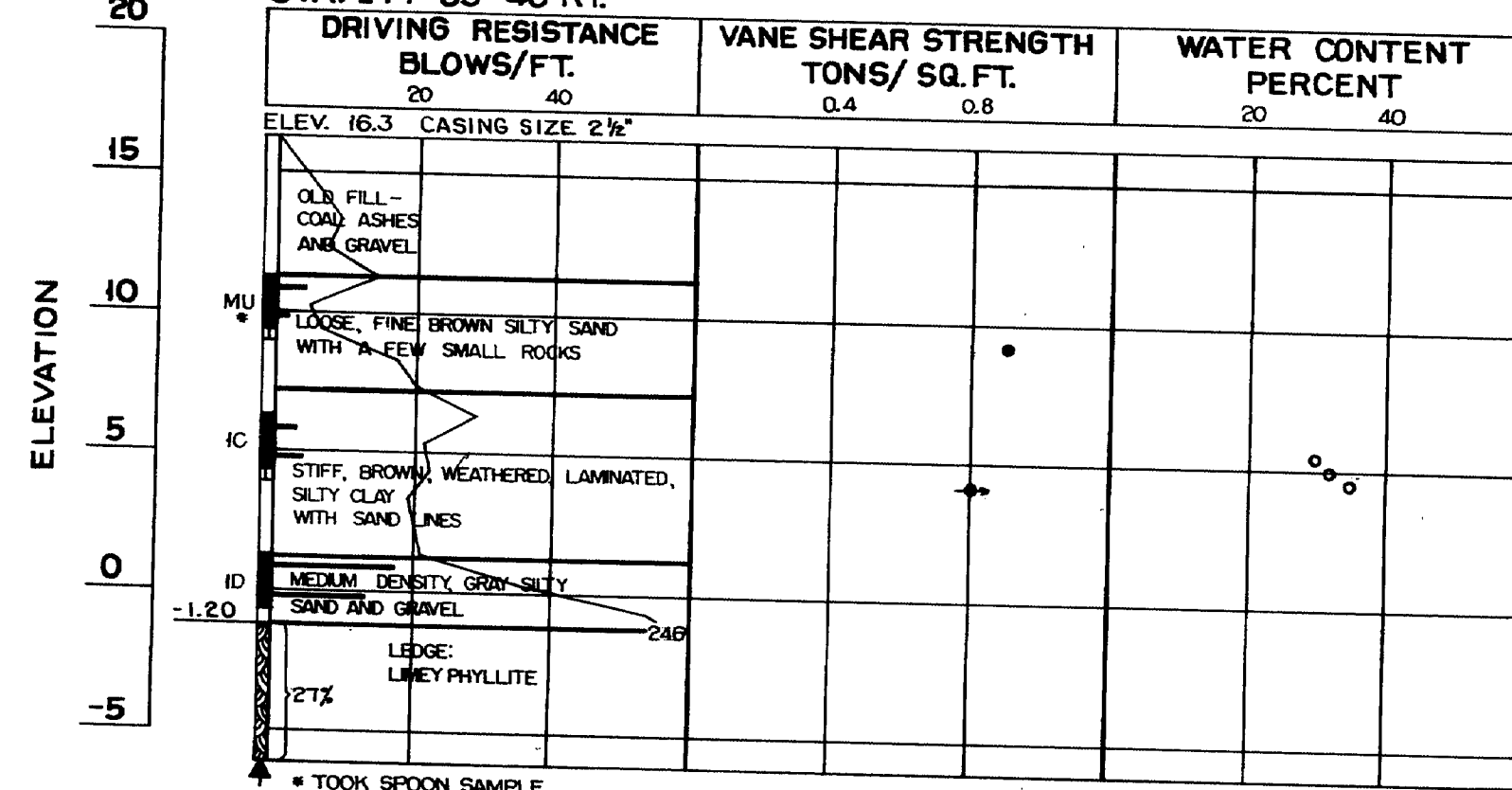
# **BORING CB-2-69** STA. 277+08 62' LT.



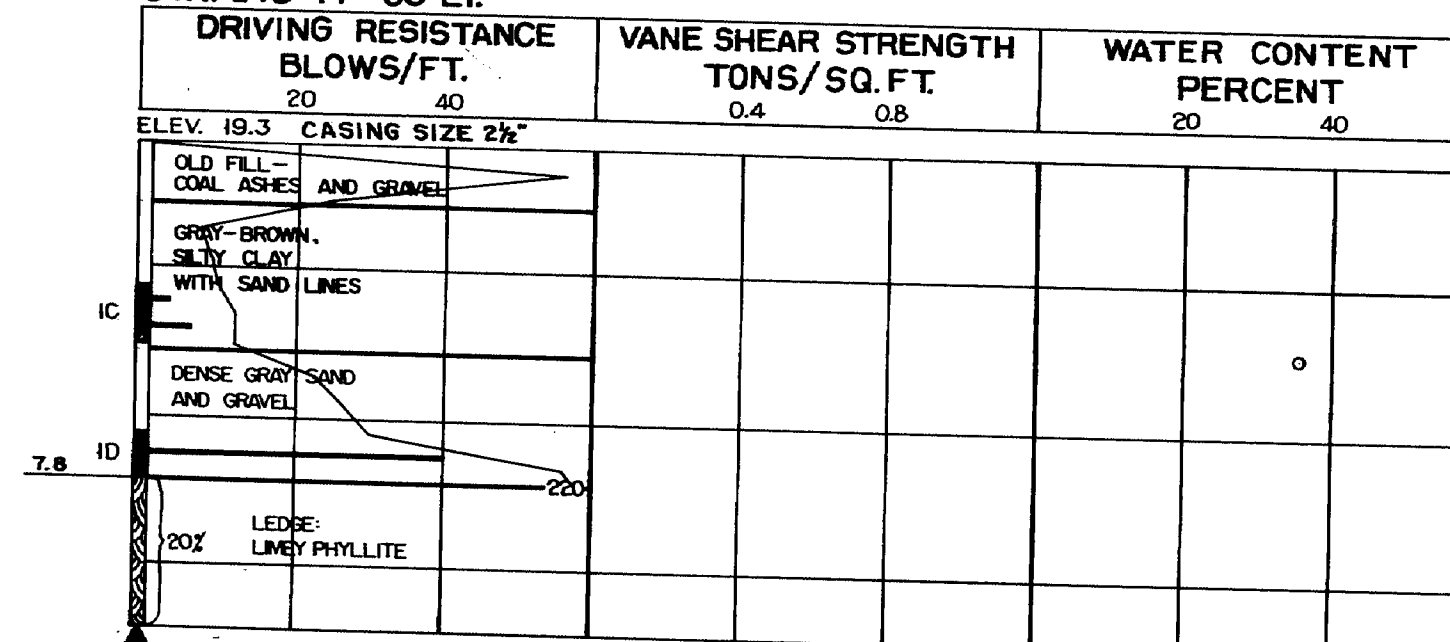
# **BORING CB-3-69** STA. 276+96 18' LT.



# **BORING CB-4-69** STA. 277+85 48' RT.



# **BORING CB-5-69** STA. 278+17 63' LT.



## **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 & H SAMPLER # 1290's
- IC 2" O.D. 16 GA. SEAMLESS TUBING
- IU 3 1/2" O.D. 16 GA. SEAMLESS TUBING
- IW WASH SAMPLE AND NUMBER
- 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
- 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
- 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

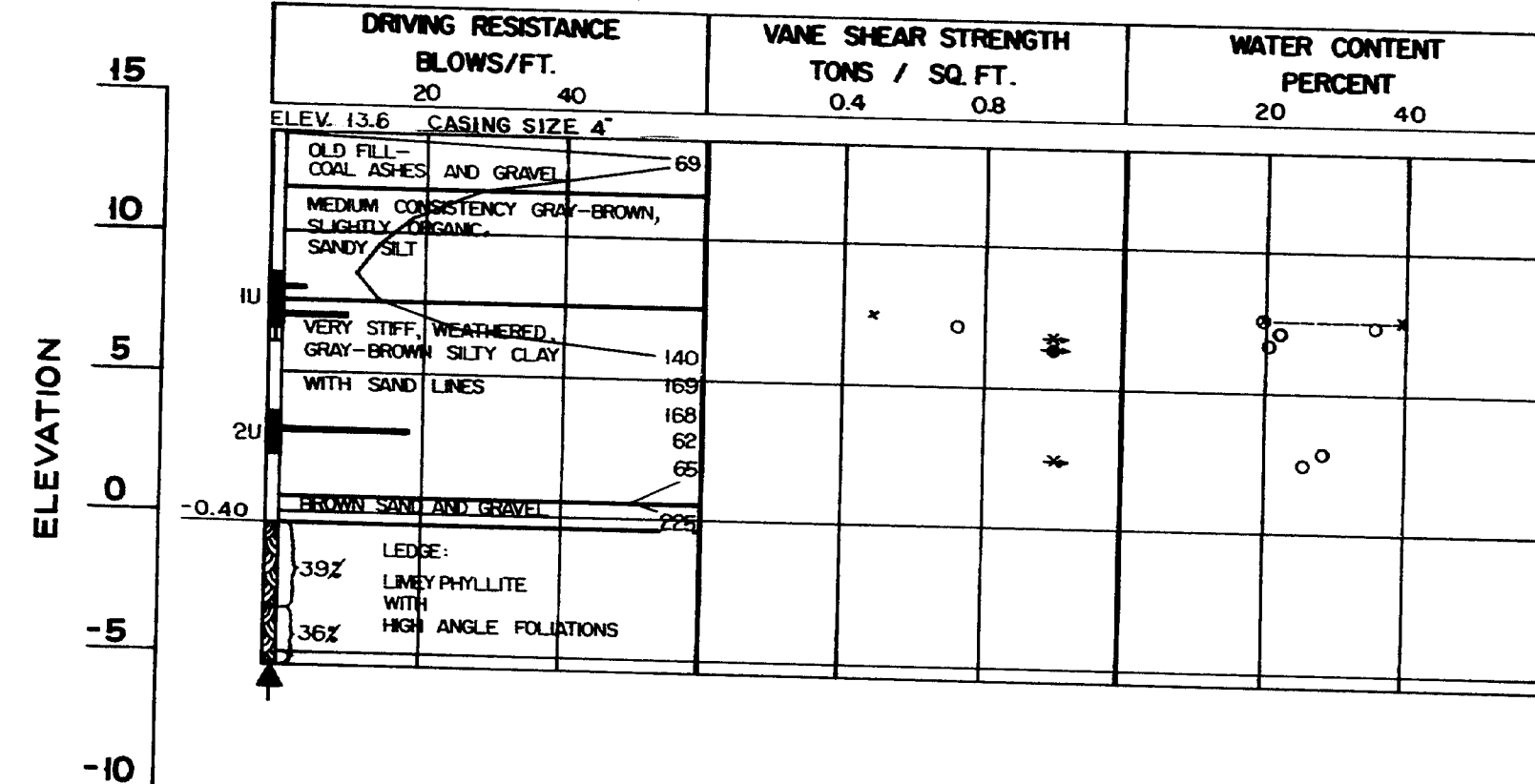
STATE HIGHWAY COMMISSION

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

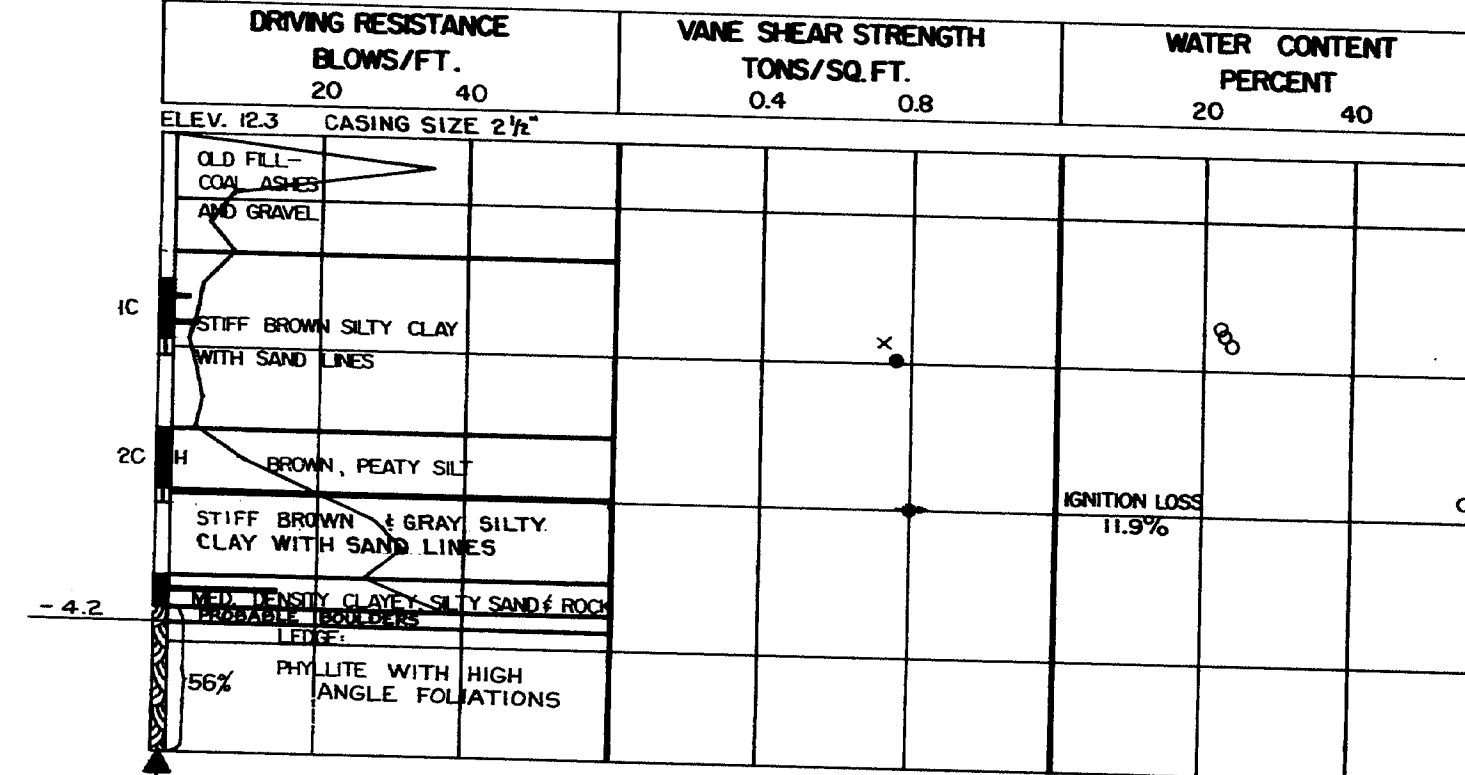
SHEET 3 OF 32 AUGUSTA, MAINE July 1971

153-40

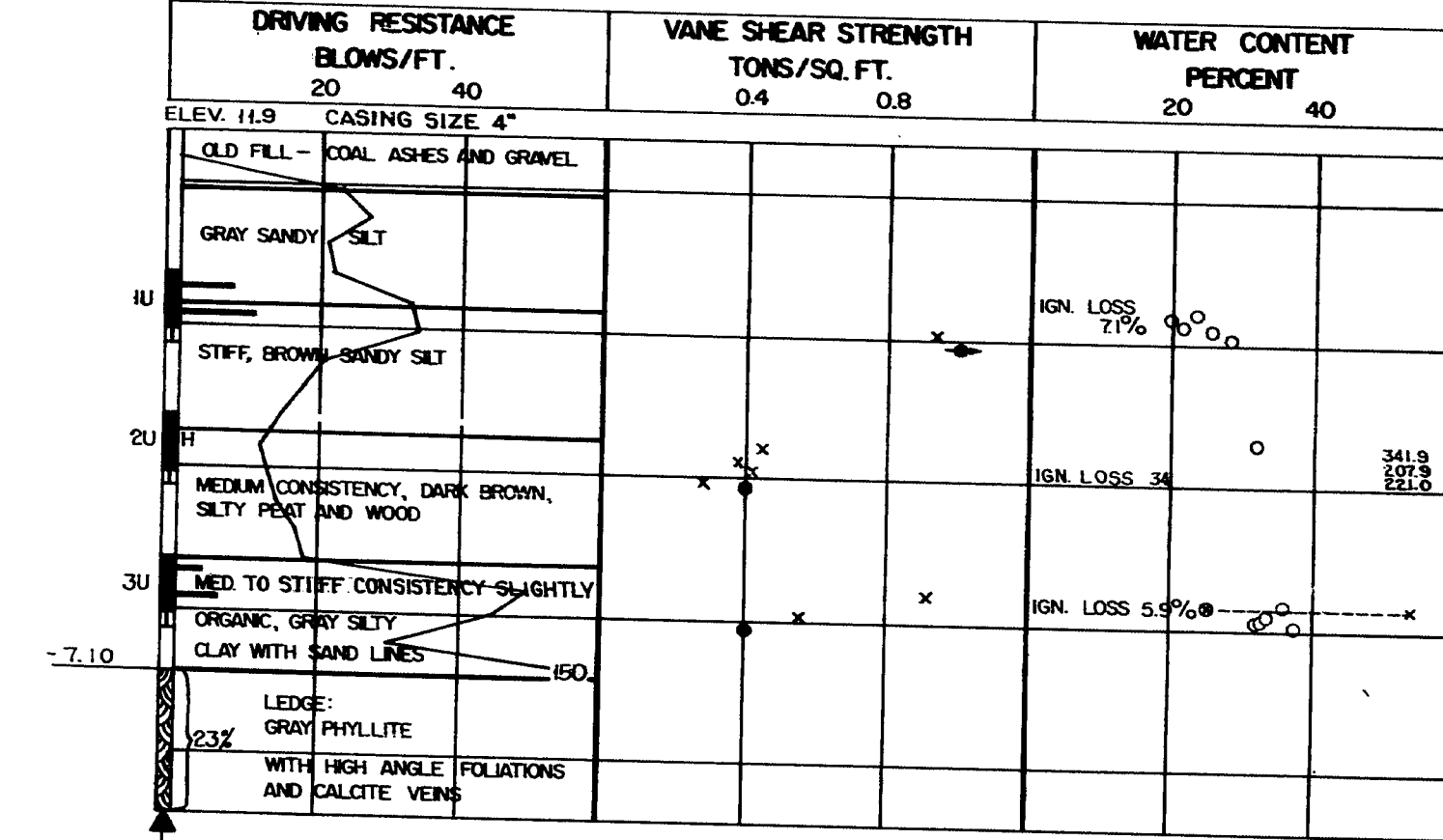
**BORING CB-6-69**  
STA. 276+75 27' RT.



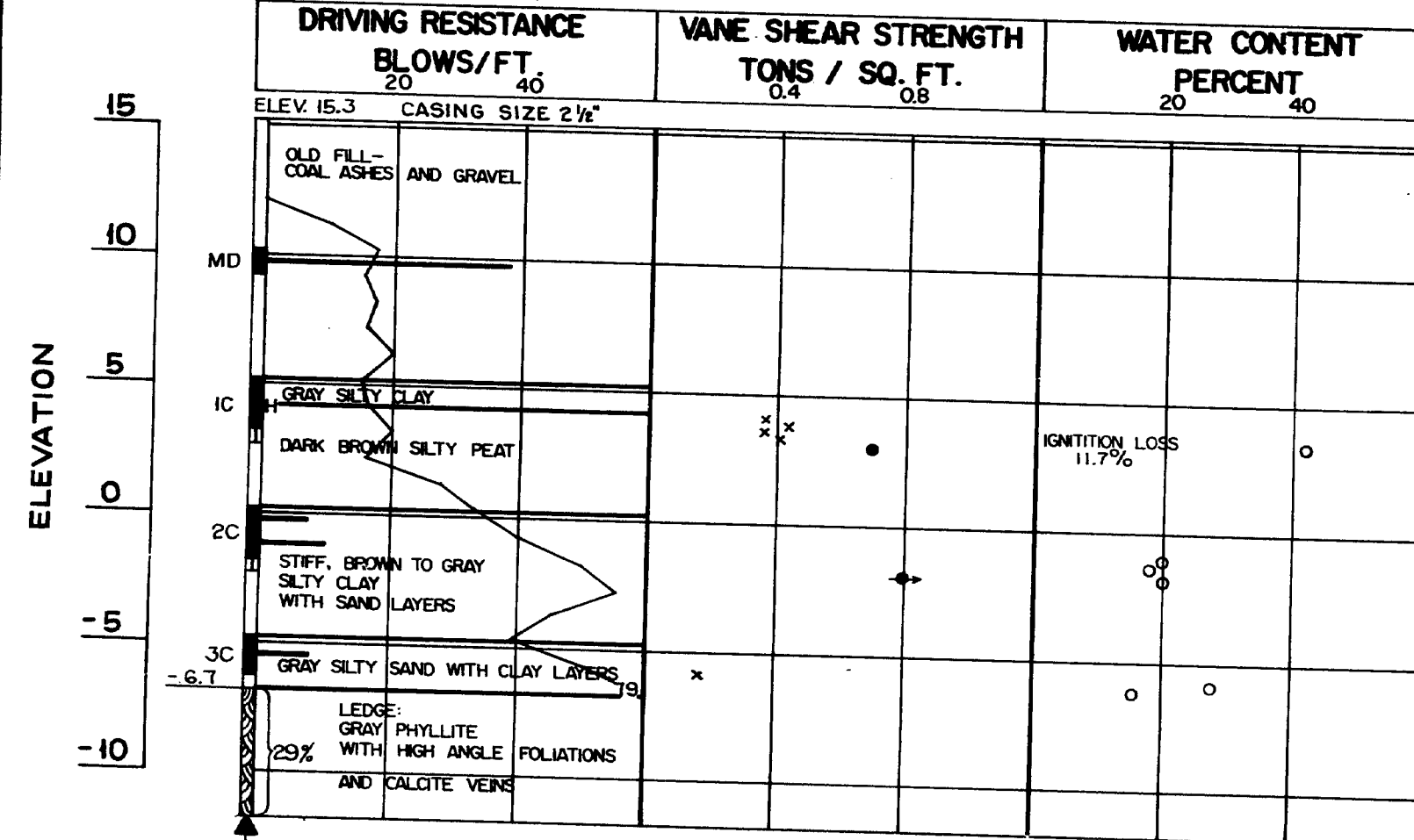
**BORING CB-7-69**  
STA. 276+57 74' RT.



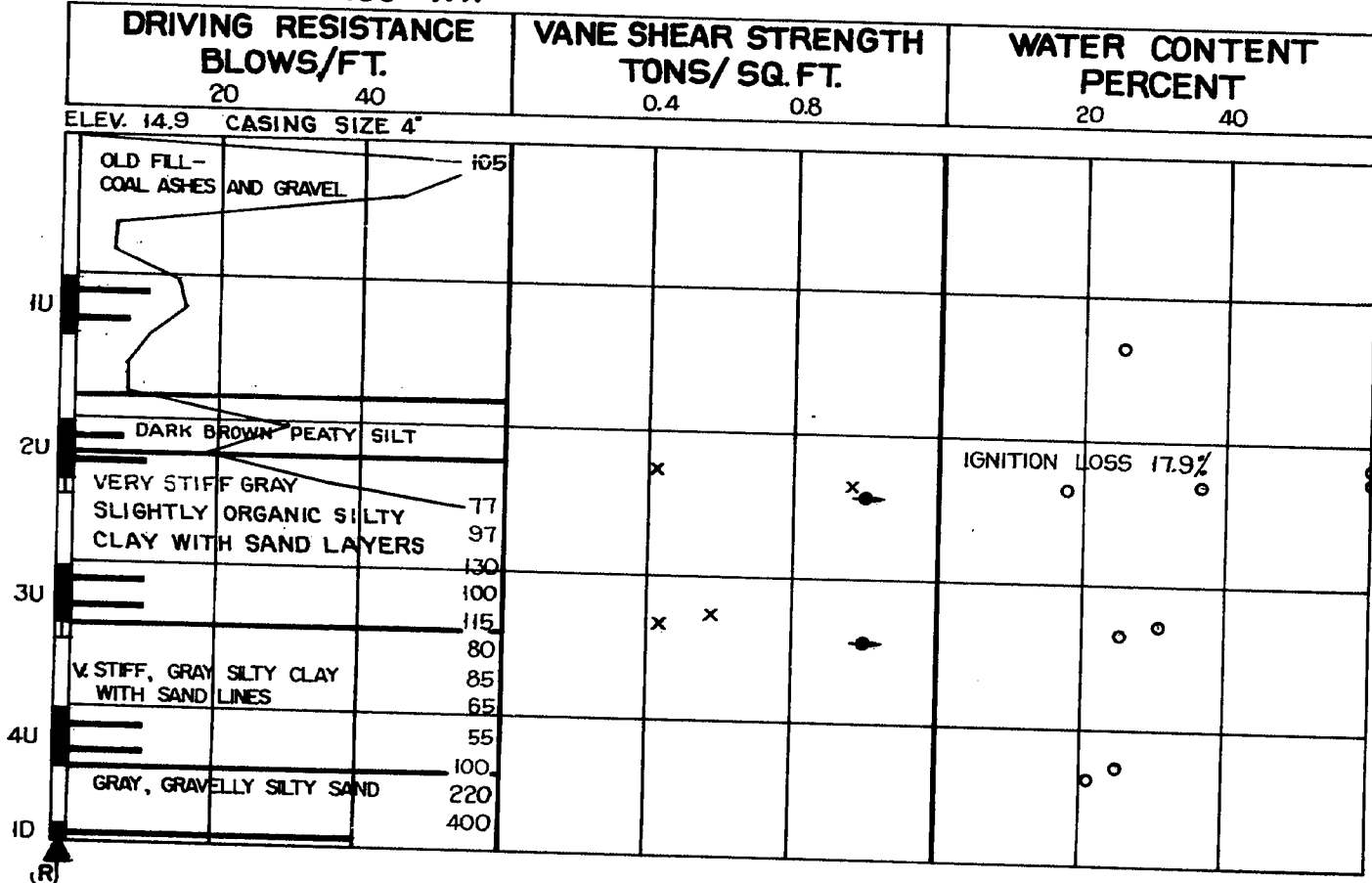
**BORING CB-8-69**  
STA. 276+40 105' RT.



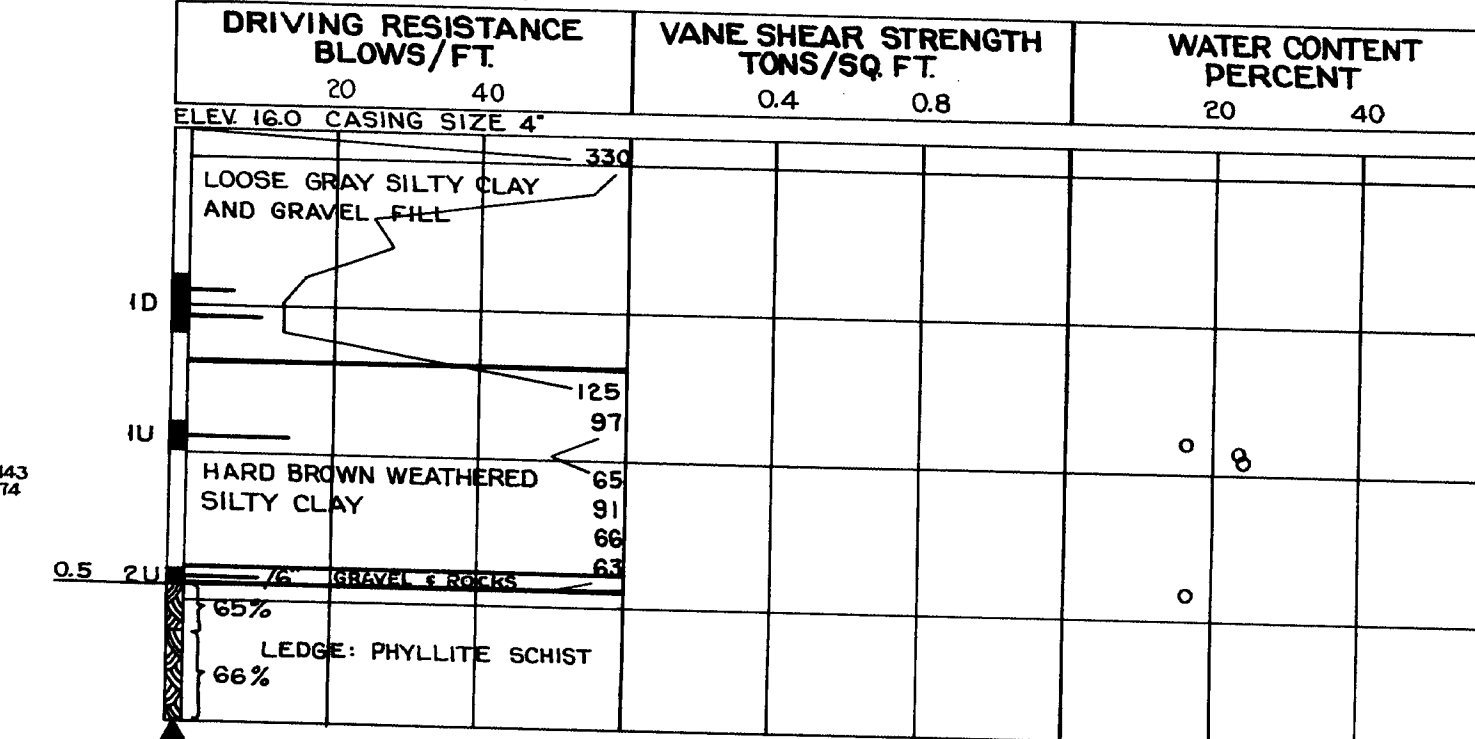
**BORING CB-11-69**  
STA. 277+56 105' RT.



**BORING CT-33-67**  
STA. 278+00 130' RT.



**BORING CB-49-66**  
STA. 275+95 75' LT.



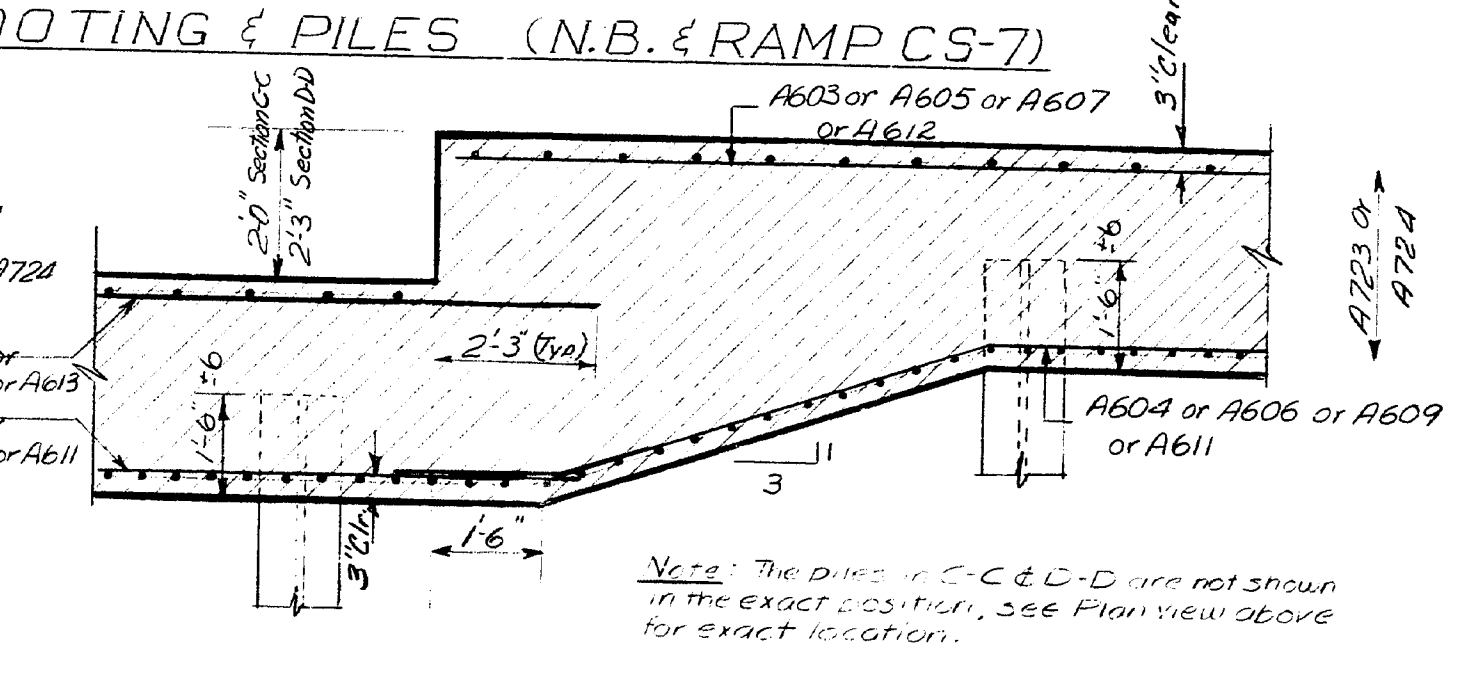
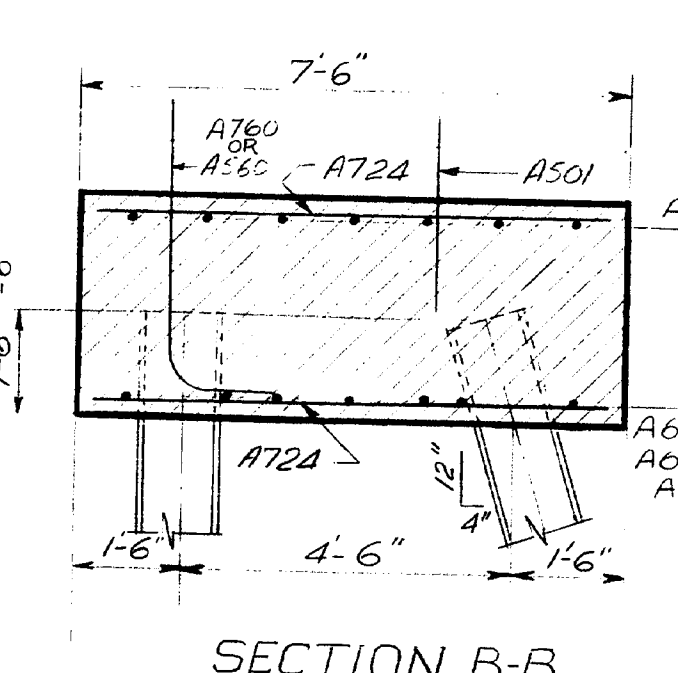
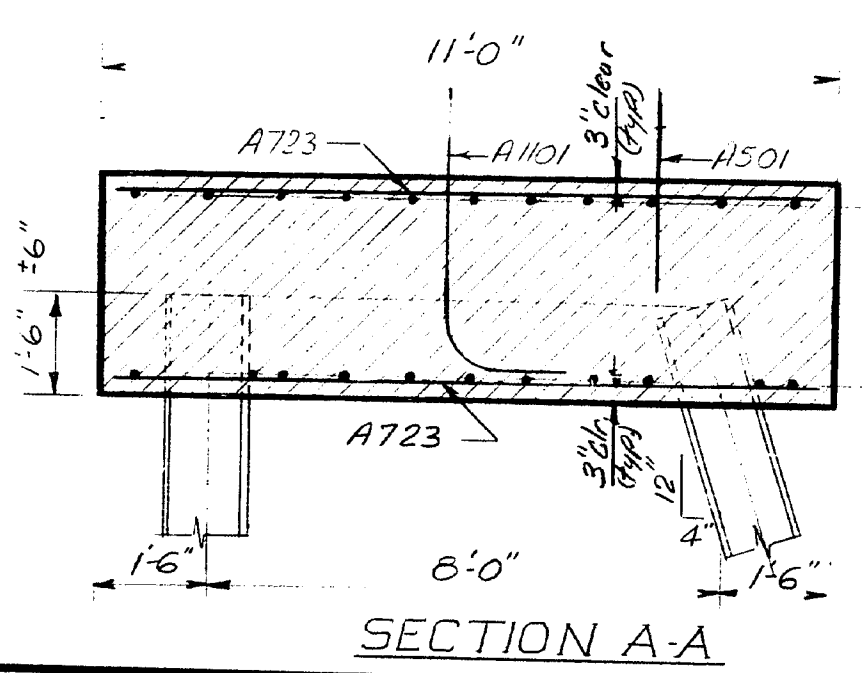
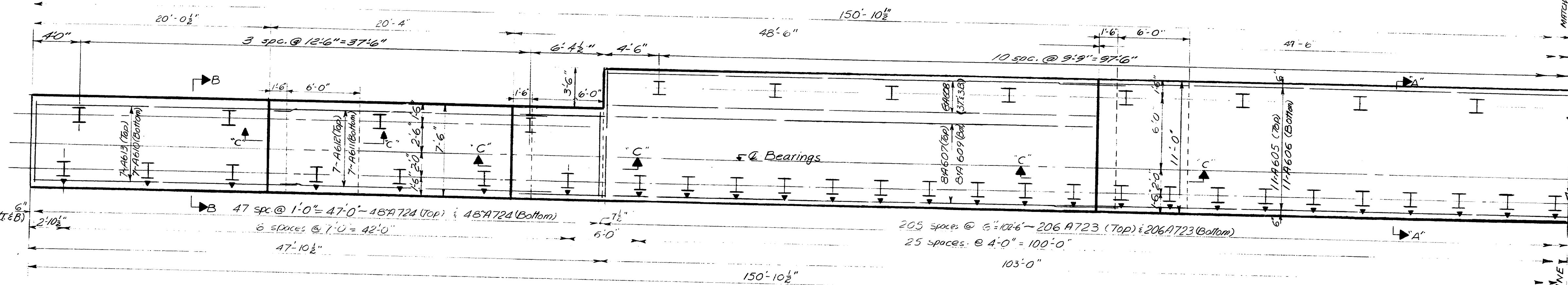
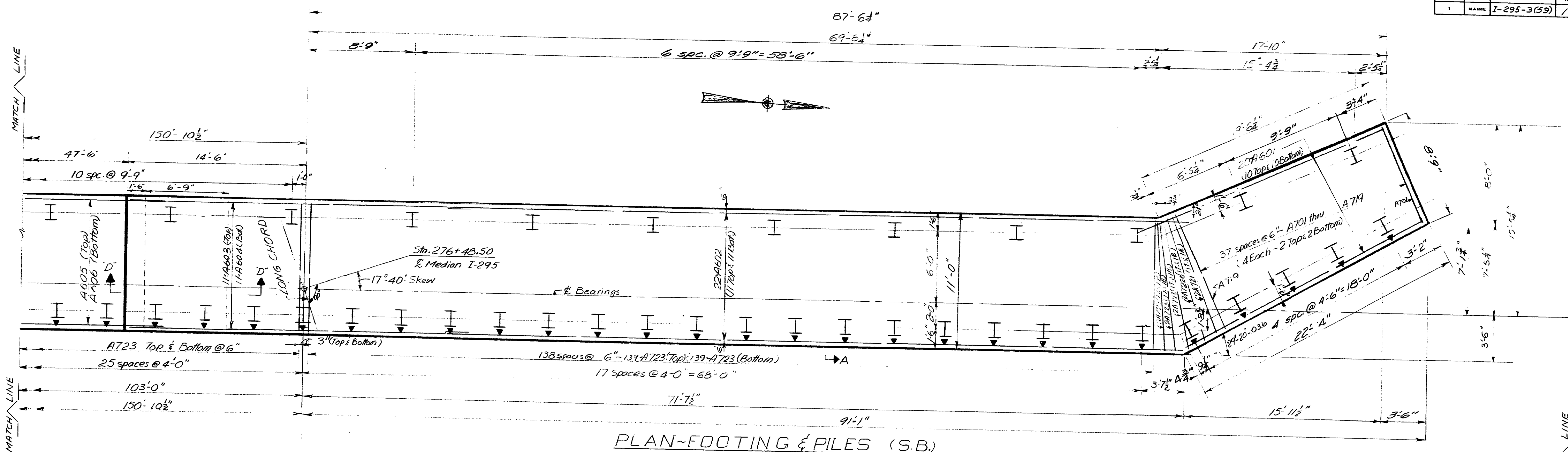
STATE HIGHWAY COMMISSION

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

SHEET 9 OF 32 AUGUSTA, MAINE July 1971

153-41

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(59)	10	84



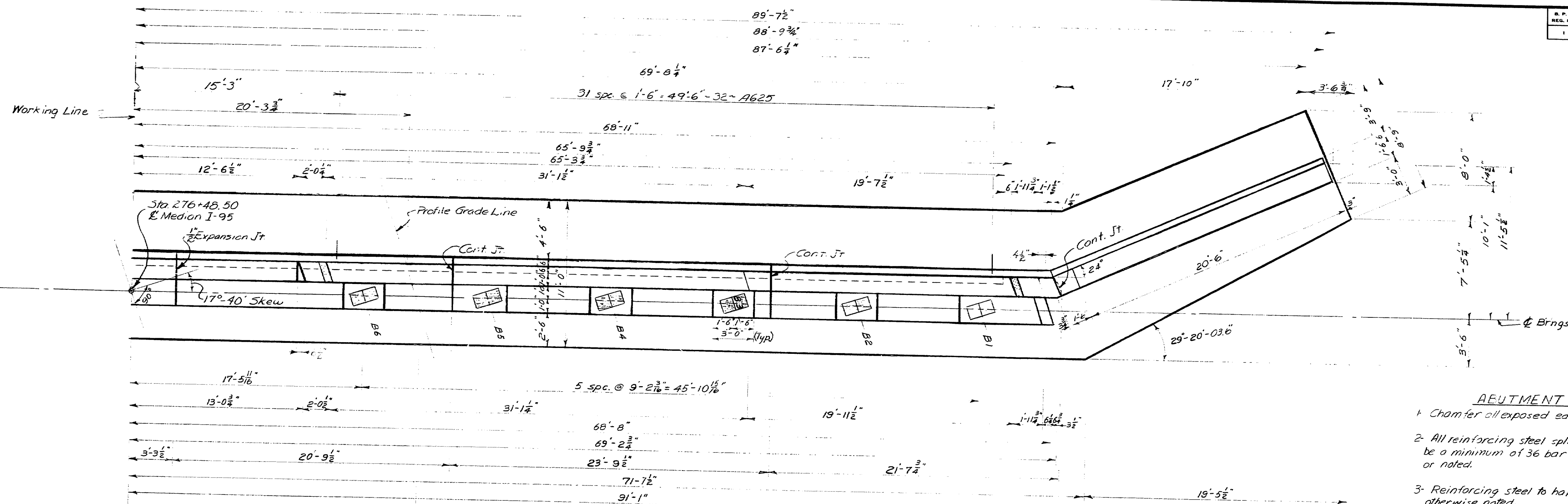
NOTE  
For Footing & Piles Notes and details of  
Reinforced Pile Tip see Sheet # 11

STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
FOOTING & PILE PLAN - ABUT. 1  
SHEET 5 OF 32 AUGUSTA, MAINE JULY 1971

153-42



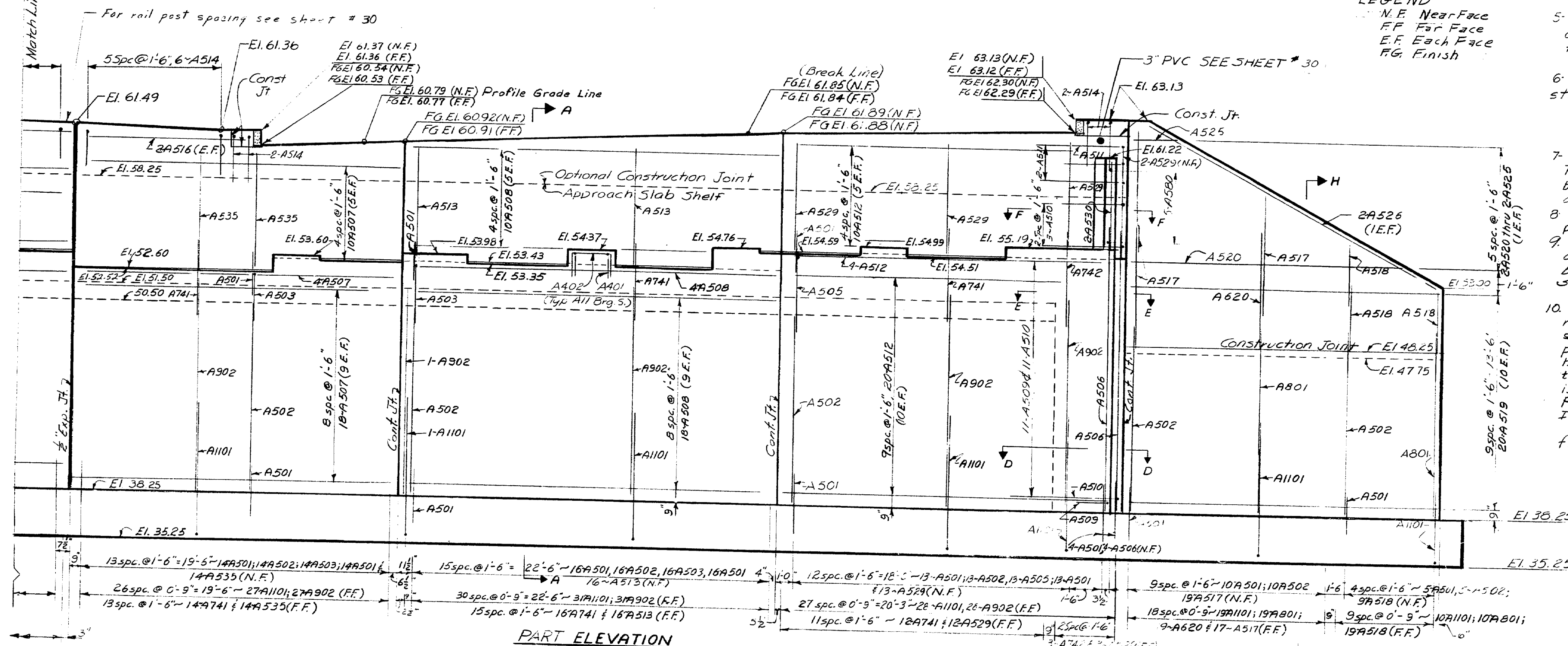
R.P. No.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(59)	11	84



PART PLAN

LEGEND  
 N.F. Near Face  
 F.F. Far Face  
 E.F. Each Face  
 F.G. Finish

- ABUTMENT NOTES**
1. Chamfer all exposed edges of concrete  $\frac{1}{2}$ ".
  2. All reinforcing steel splices and embedments shall be a minimum of 36 bar diameters, except as shown or noted.
  3. Reinforcing steel to have 2" clear cover unless otherwise noted.
  4. Place reinforcing steel in bridge seat to clear anchor bolts.
  5. Break bond between concrete surfaces of vertical contraction joints by a method to be approved by the Engineer.
  6. Place concrete in top of backwall after superstructure is in place.
  7. Place weep pipes through abutment 20' apart. The exact location and number of weep pipes shall be determined in the field by the Engineer. See also note #10 below.
  8. Footing concrete shall be cured for at least 7 days prior to placing breast wall concrete.
  9. Abutments shall be backfilled to a point a minimum of 8 feet above the bottom of footings before any superstructure concrete is placed.
  10. Weep hole pipe shall be 4 inch diameter rigid non-metallic pipe. It may be rigid extrudable synthetic thermoplastic of styrene copolymer, polyethylene, or polyvinylchloride. It shall have a wall thickness large enough to support the loads imposed under this use. The pipe is subject to the approval of the Engineer. Payment to be considered incidental to Item 502.21. Weep hole pipes shall be cut flush with the slope protection.

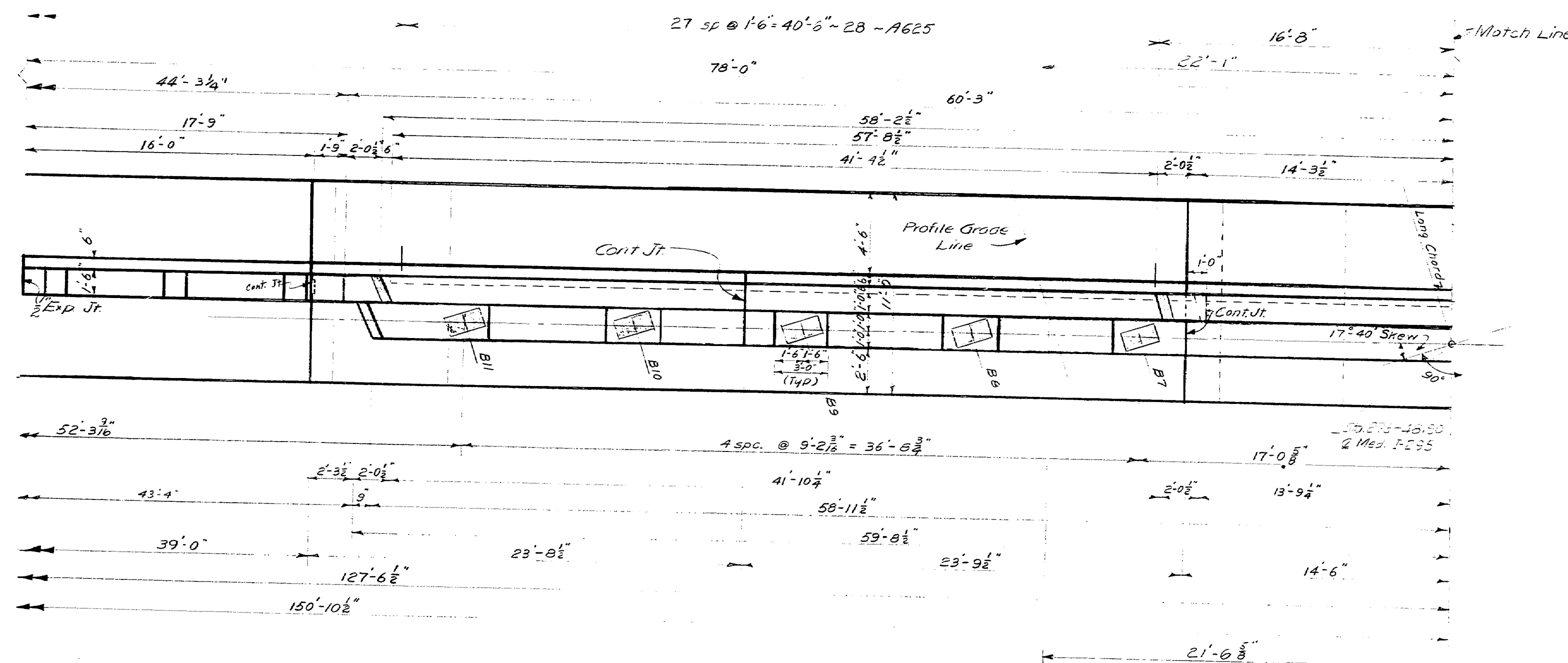


PART ELEVATION

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP-CS-7**  
 OVER  
**RELOCATED ST. JAMES STREET**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 PART ABUTMENT 1 (SOUTHBOUND)  
 SHEET 6 OF 32 AUGUSTA, MAINE JULY 1971

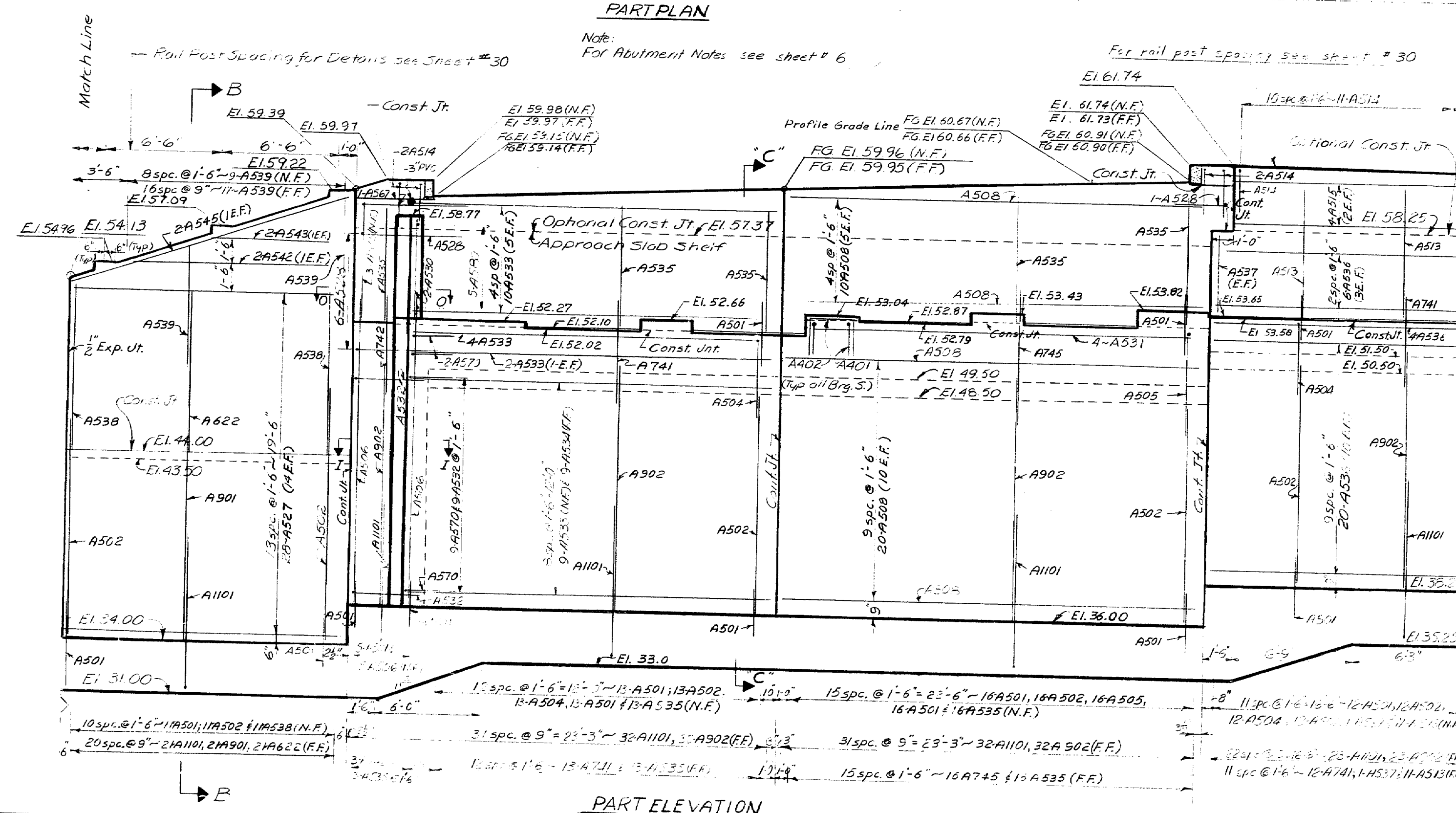
153-43

PLANS		BY	DATE
DESIGN - DETAILED	MAH	6-71	
CHECKED	MAH	11-72	
REVISIONS			
FIELD CHANGES			



PART PLAN

Note:  
For Abutment Notes see sheet # 6



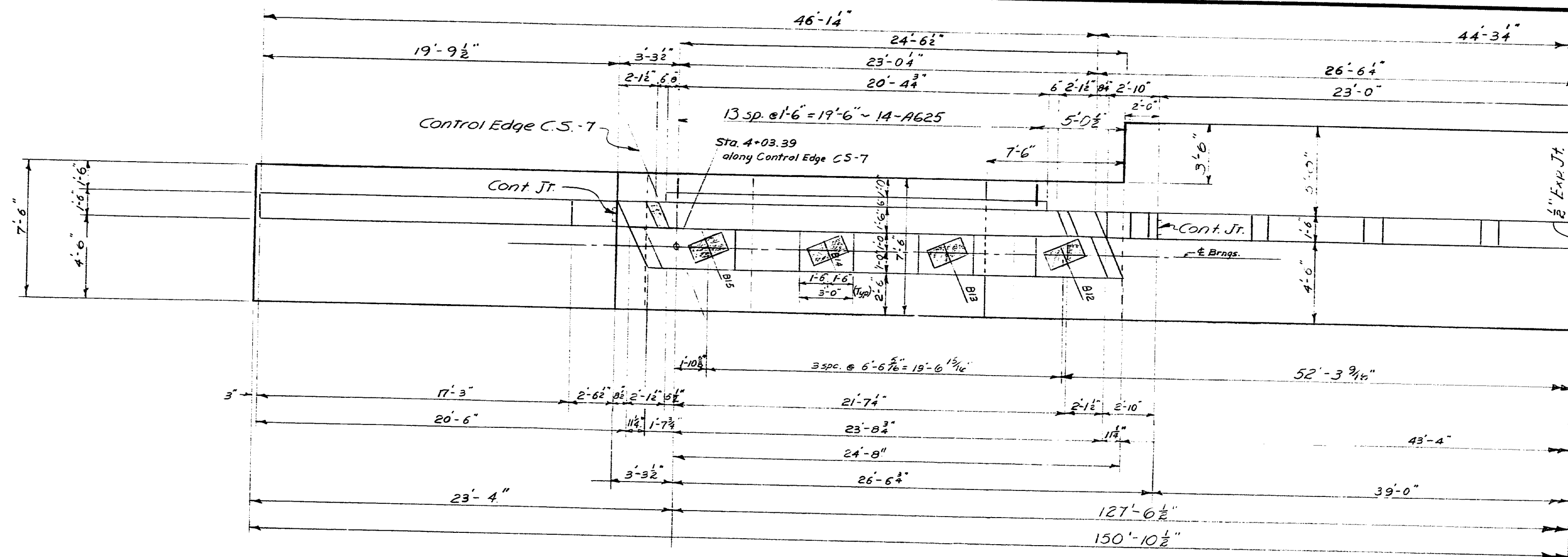
PART ELEVATION

LEGEND  
 NF = Near Face  
 FF = Far Face  
 FG = Finish Grade  
 EF = Each Face

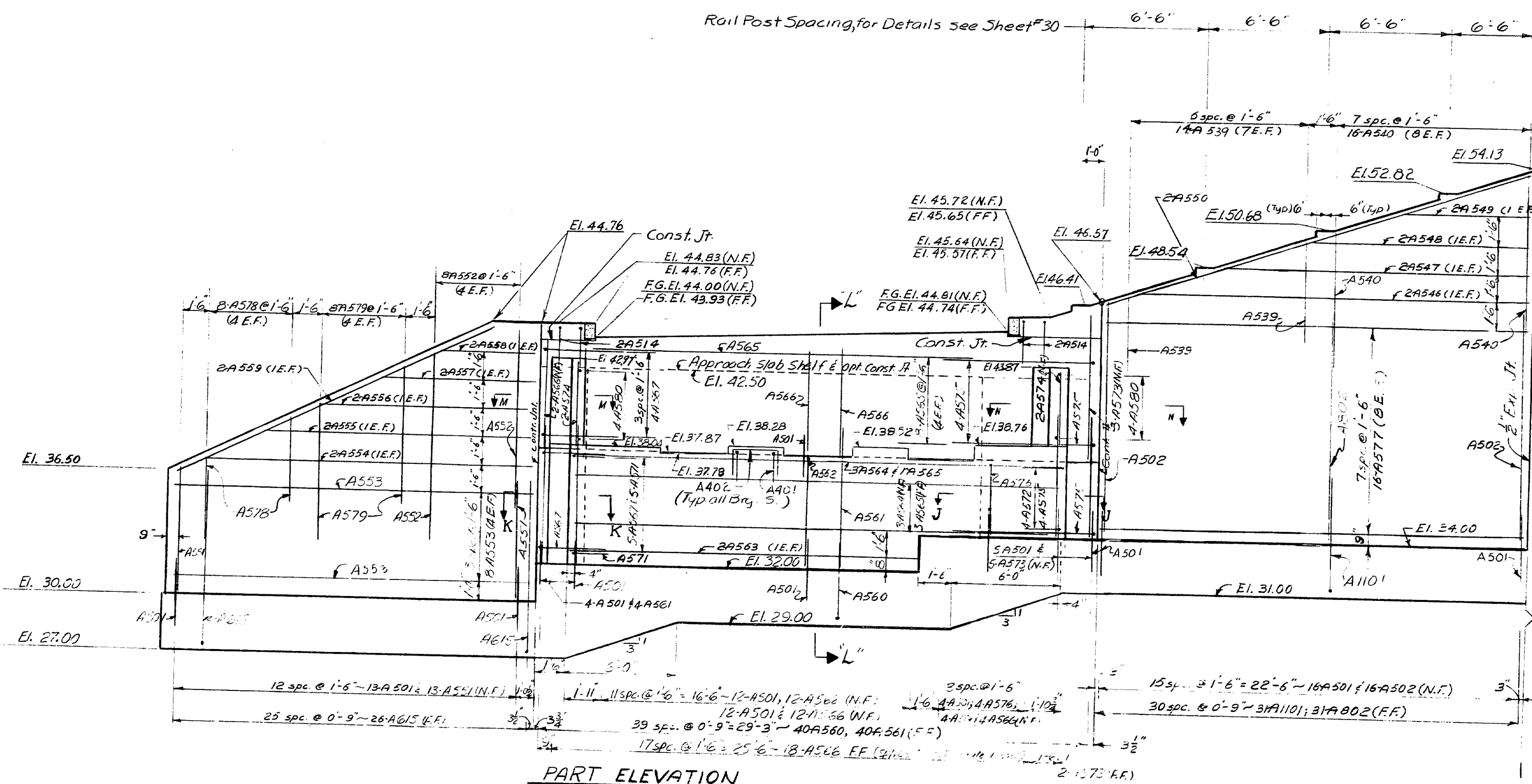
STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
PART ABUTMENT I (NORTHBOUND)  
SHEET 7 OF 32 AUGUSTA, MAINE JULY 1968

153-44

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-295-3(59)	13	84



PART PLAN



PART ELEVATION

NOTE  
 1. For contraction joint, expansion joint, horizontal shear key details see Abut. #2, Sheet No. 14.  
 2. For Abutment Notes, see sheet # 6.

LEGEND  
 N.F. = Near Face  
 F.F. = Far Face  
 F.G. = Finish Grade  
 E.F. = Each Face

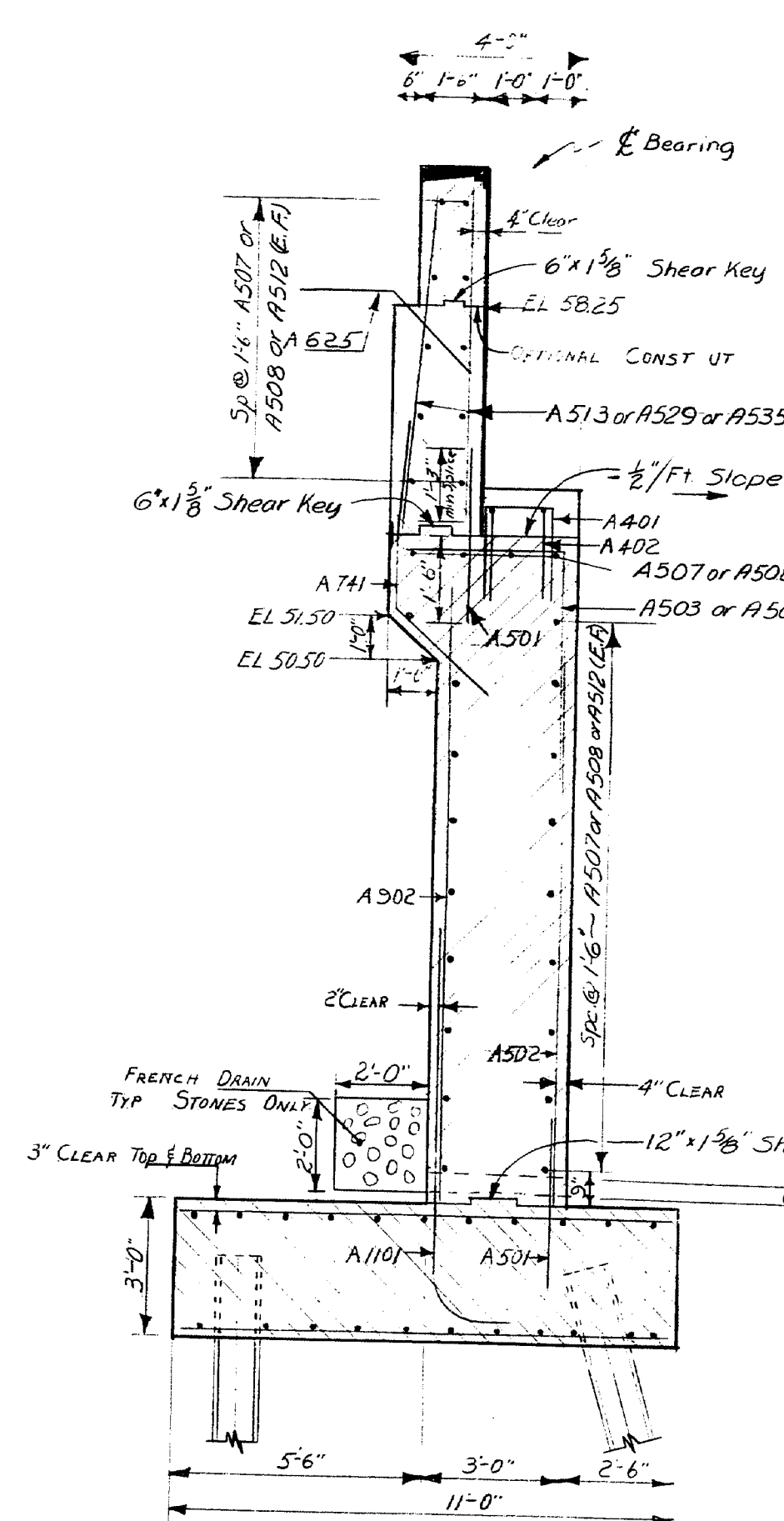
PLANS	BY	DATE
DESIGN - DETAILED	M.M.	6/7
CHECKED	M.E.R.	1/1/72
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
 OVER  
**RELOCATED ST. JAMES STREET**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 PART ABUTMENT 1 (CS-7)  
 SHEET 2 OF 32 AUGUSTA, MAINE JULY 1971

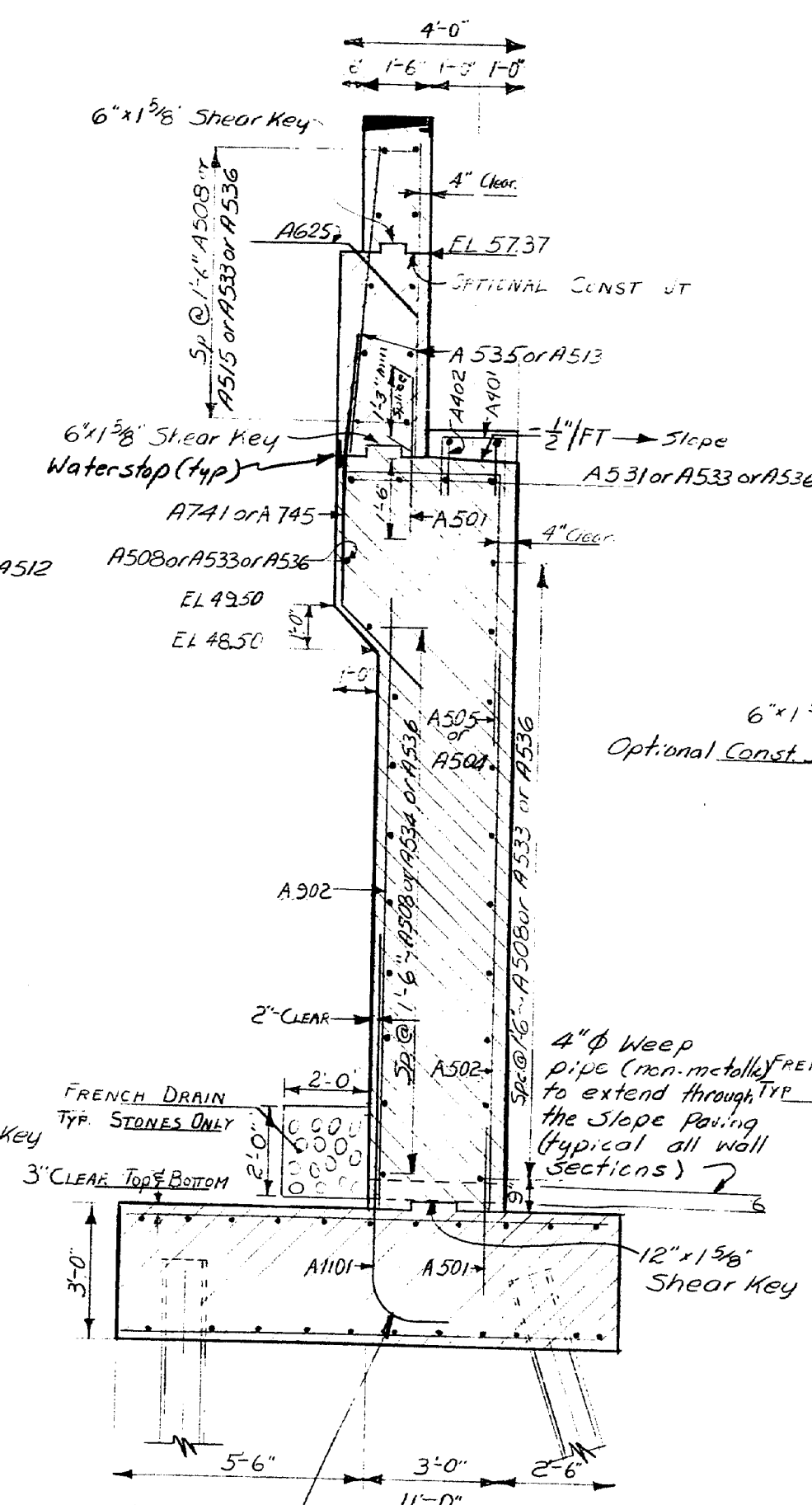
153-45



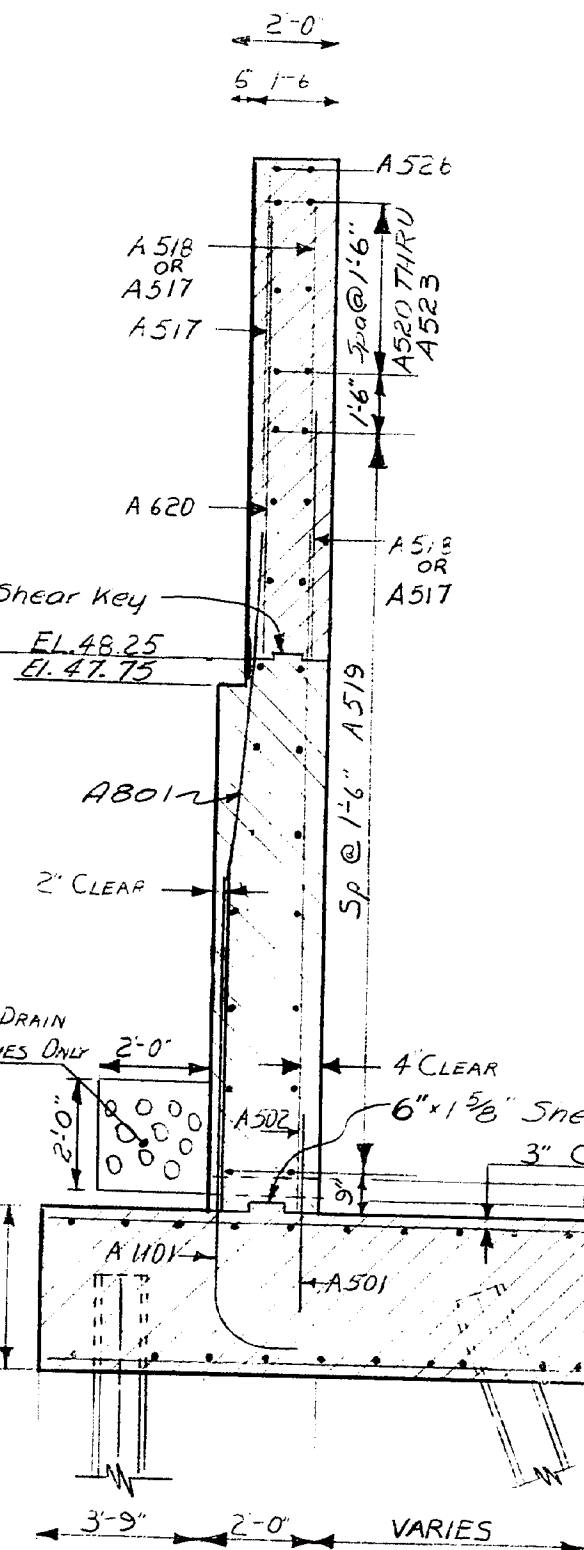
S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-295-3(69)	14	54



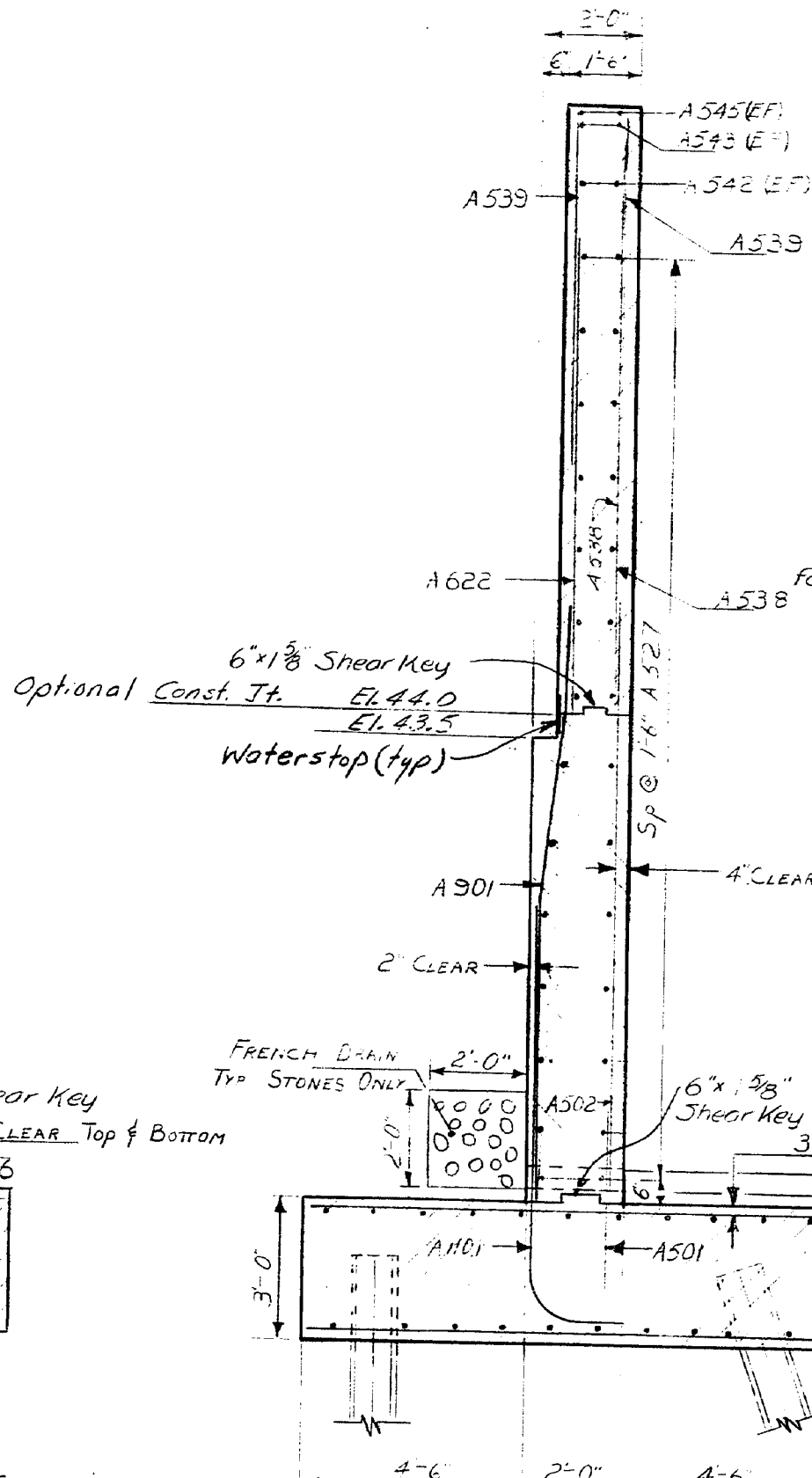
SECTION A-A  
(Southbound)



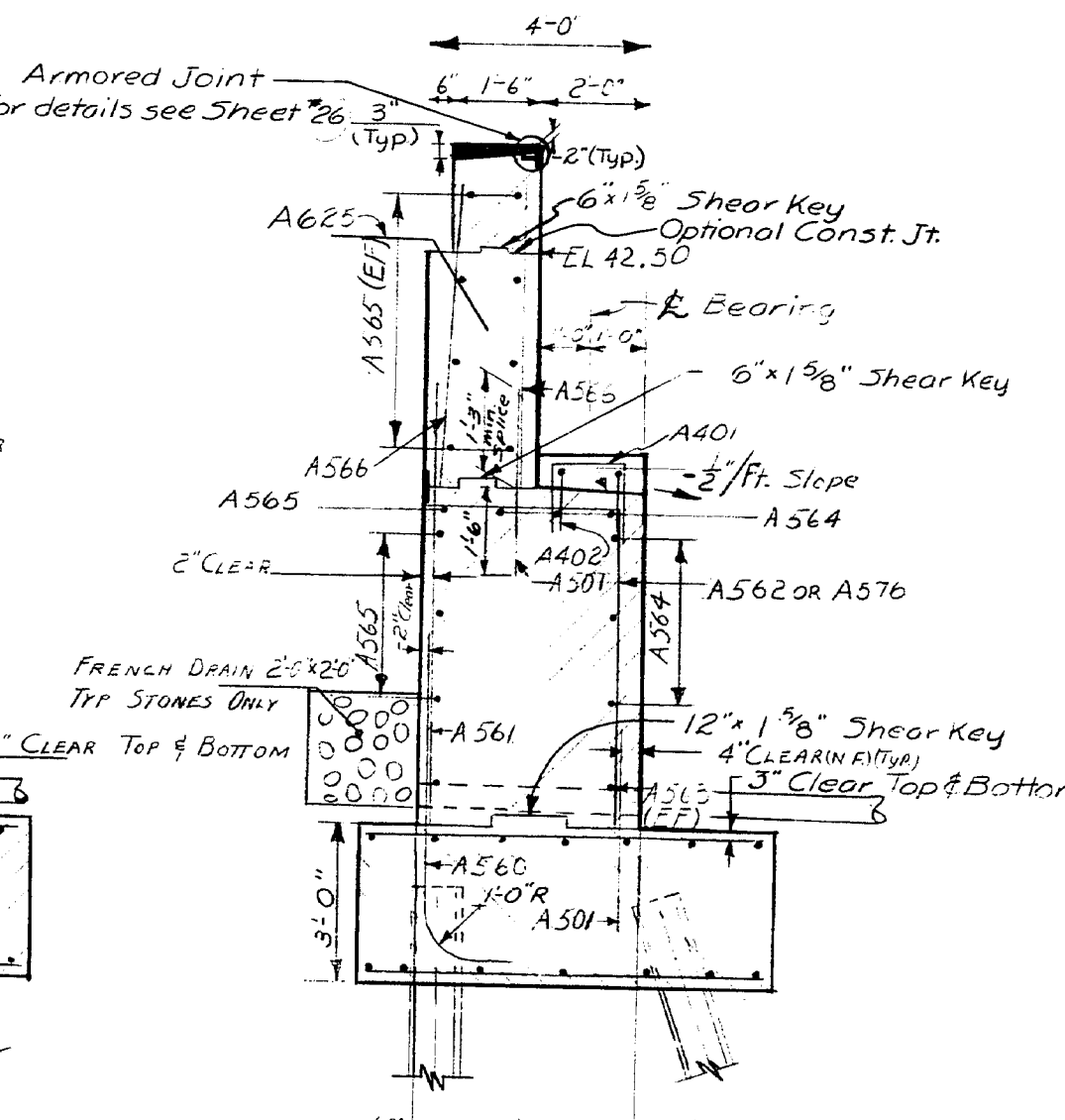
SECTION C-C  
(Northbound)



SECTION H-H  
(Wing Southbound)



SECTION E-B  
(Retaining Wall)



SECTION L-L  
(Ramp C 5-7)

STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
X-SECTIONS ABUT. I  
SHEET 9 OF 32 AUGUSTA, MAINE JULY 1971

153-46



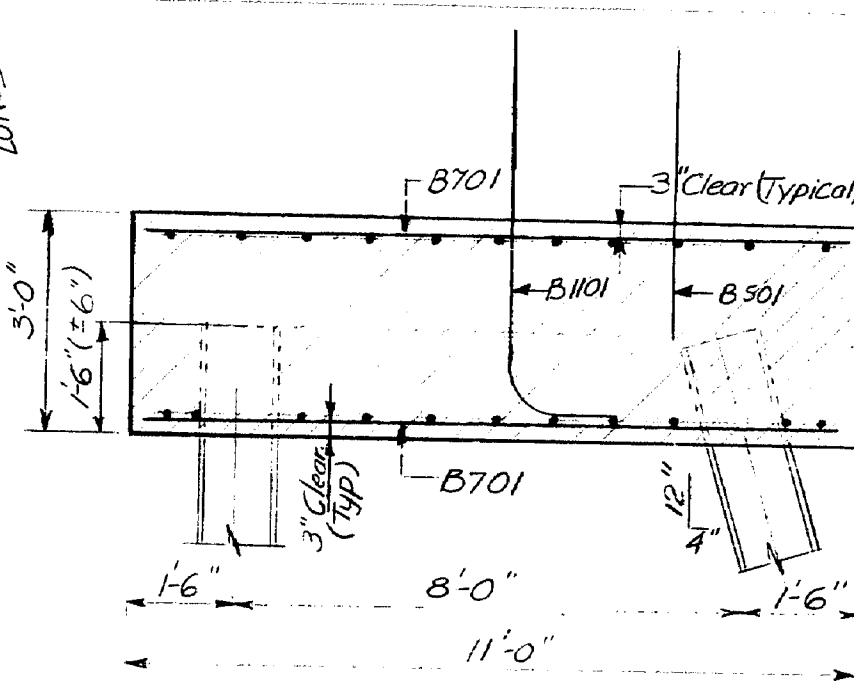
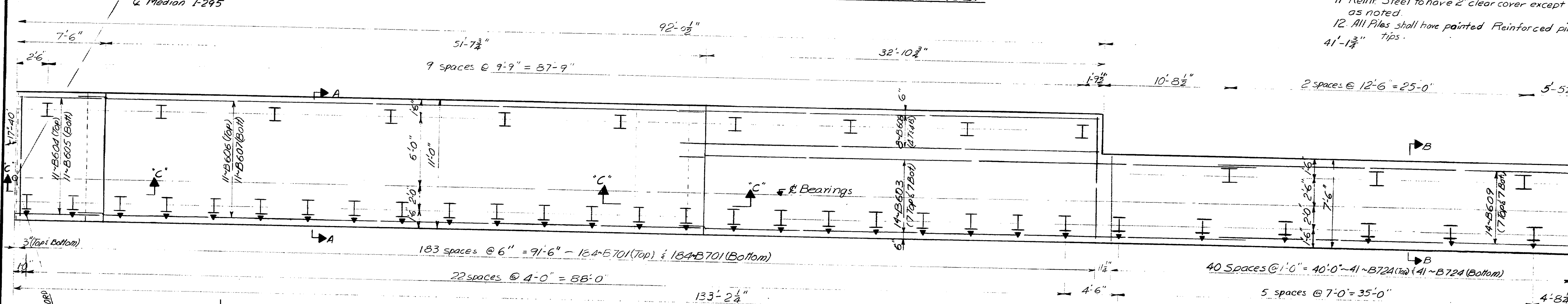
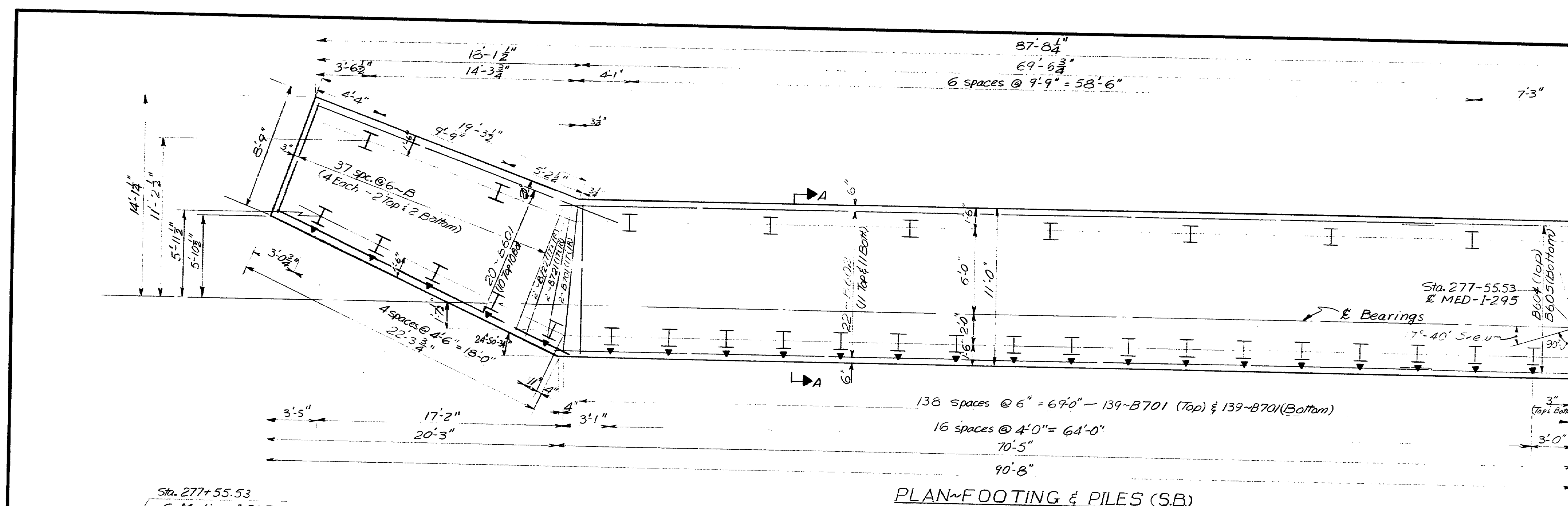
B. P. D. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3 (59)	16	84

# ABUTMENT PILE NOTES

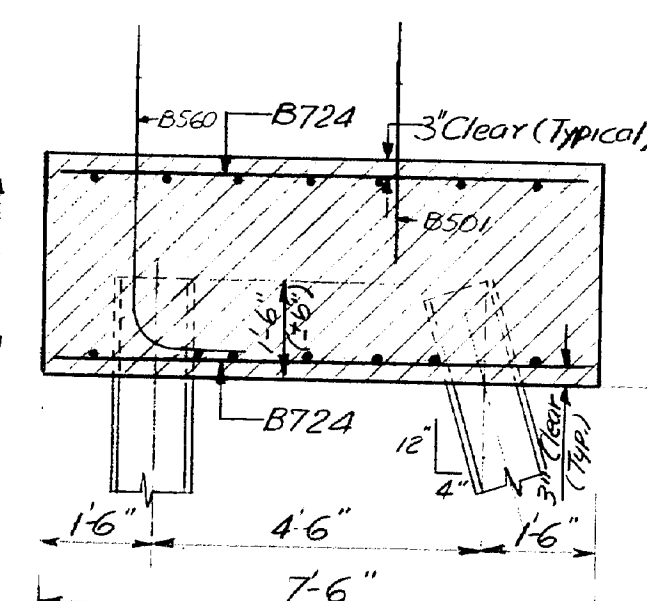
- All piles shall be HP 12x74
- Max. pile load equals 98 Tons.
- Piles to be driven to ledge or practical refusal.
- Alternate types of pointed pile tips may be used if they are equal to or better than the pointed reinforced pile tips shown, if approved by the Engineer.
- Estimated Driven Lengths of Piles are estimated from available Soil information with no allowance of pile cut-offs and no allowance for uncertain pile penetration.
- Batter the piles in the front row @ 4 1/4" in the direction of arrow.
- Following are the Pile Locations, Estimated Driven Lengths & Number Required:

	Abut #1		Abut #2	
South Bound	31	32'-0"	31	32'-0"
North Bound	24	35'-0"	21	36'-0"
Ref. Wall & Ramp CS-7	24	36'-0"	21	41'-0"

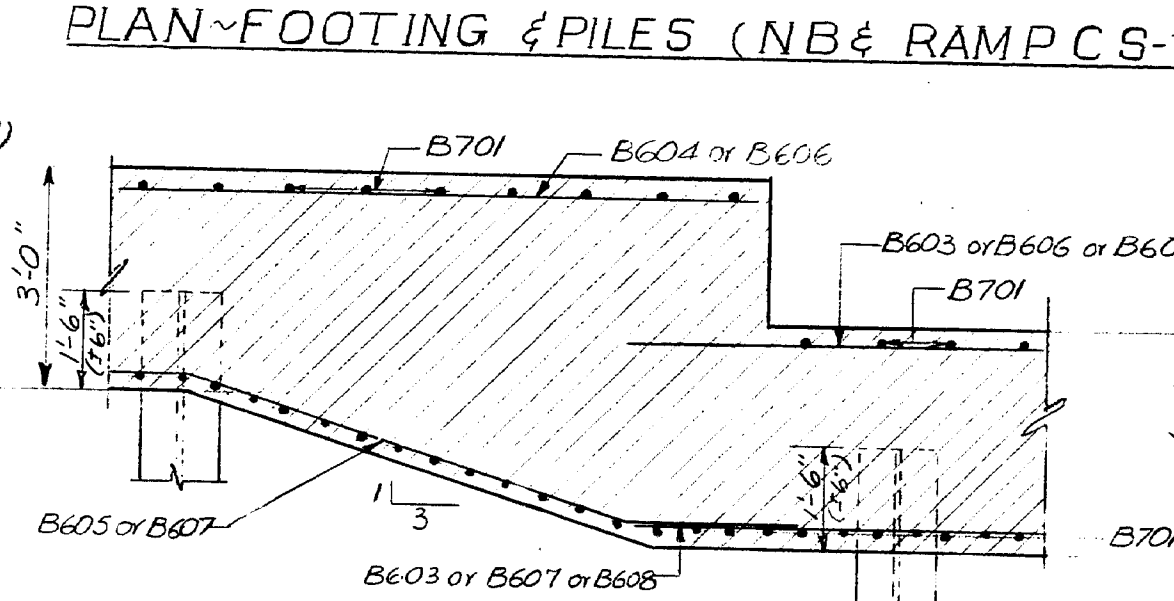
- For reinforcing steel details see sheet # 31
- For details of details for Abut. wall & wings, see Section sheet # 9, 10, 15 & 16
- For loading elevations see Abutment Elevation
- Reinf. Steel to have 2" clear cover except as noted.
- All Piles shall have painted Reinforced pile 41'-1 3/4" tips.



SECTION A-A

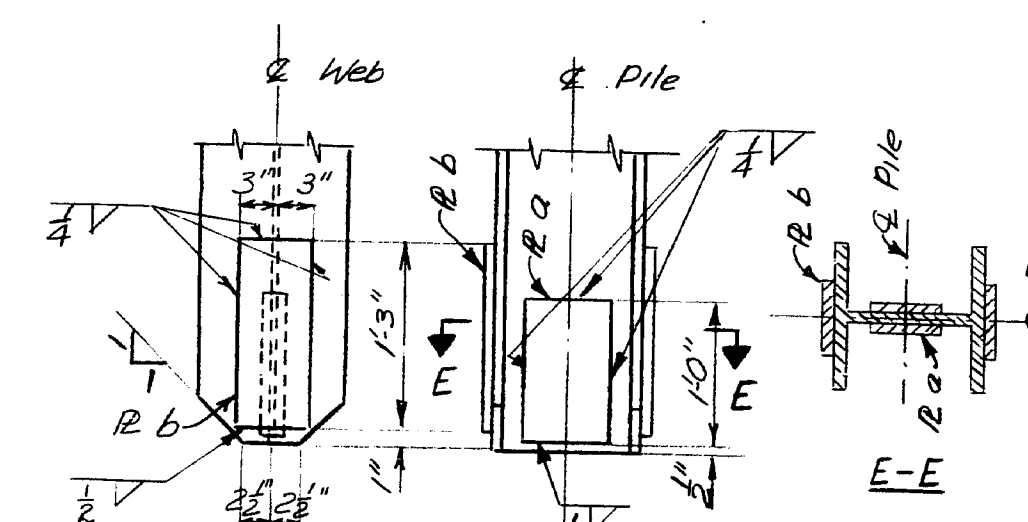


SECTION B-B



SECTION C-C

Note: The piles in C.C. are not shown in the exact position, see Plan View above for exact location.



POINTED REINFORCED PILE TIP

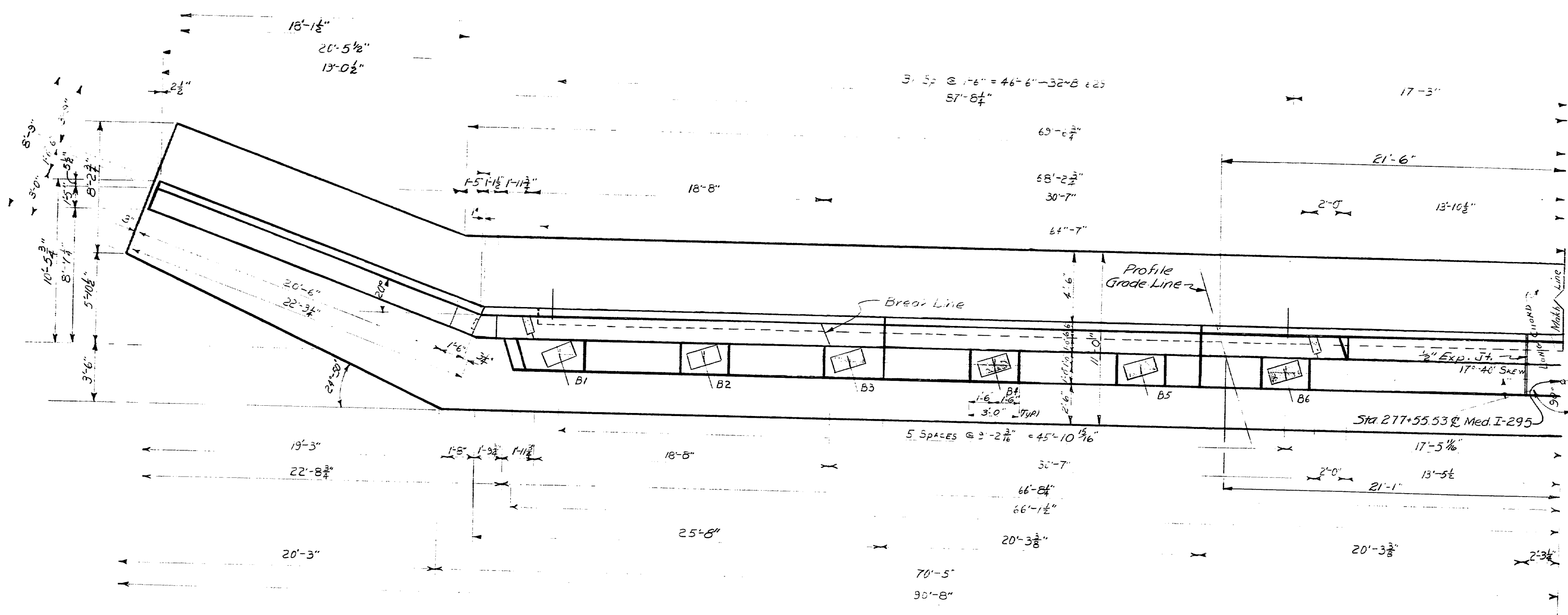
(Reinforced Pile Tips shall be used)  
Plate a ~ 7"x3/4"x1'-0", Plate b ~ 6"x3/4"x1'-3"  
Plates a & b may be shop or field welded and shall be placed symmetrically about E as indicated.

STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
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FOOTING & PILE PLAN - ABUT. 2  
SHEET 11 OF 32 AUGUSTA, MAINE JULY 1971

153-48

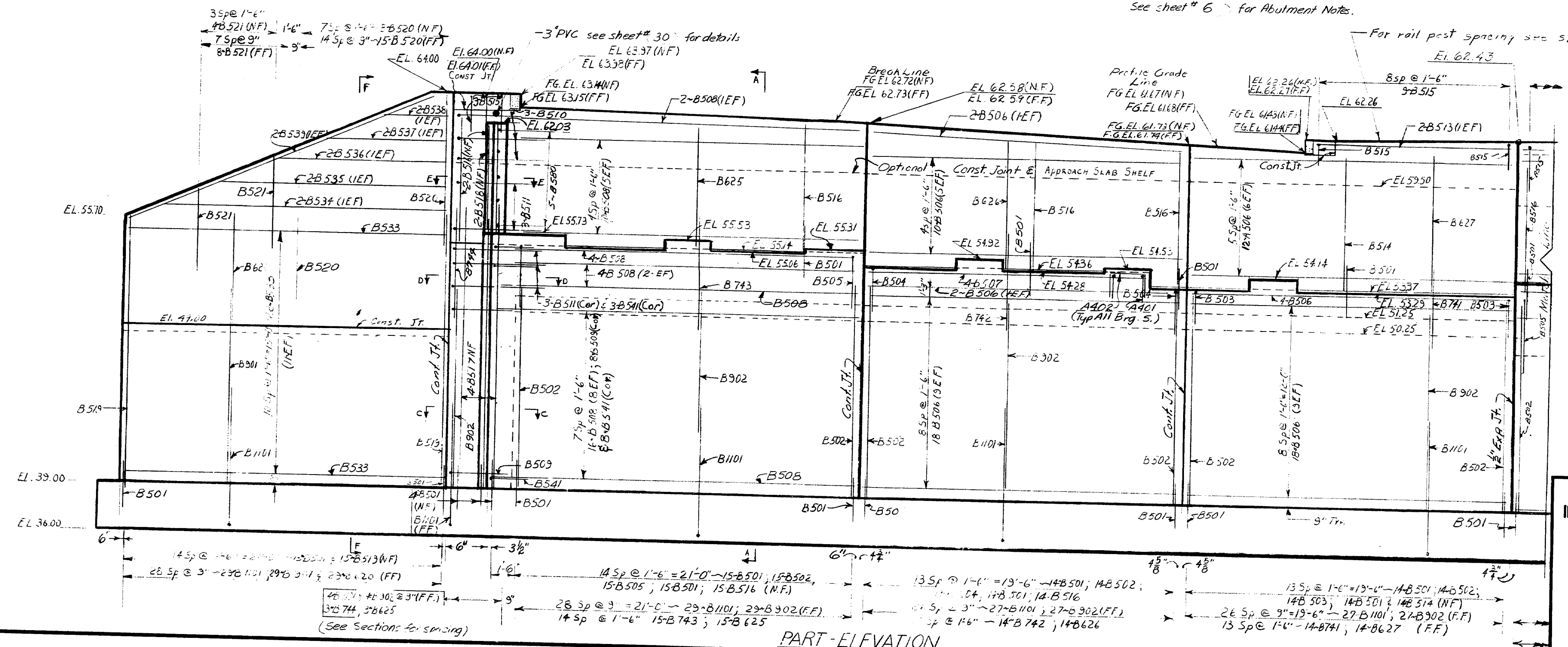


S.P. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(59)	17	84



PART-PLAN

Note:  
See sheet # 6 for Abutment Notes.



PART-ELEVATION

NOTE:  
N.F. = Near Face  
F.F. = Far Face  
F.G. = Finish Grade  
E.F. = Each Face

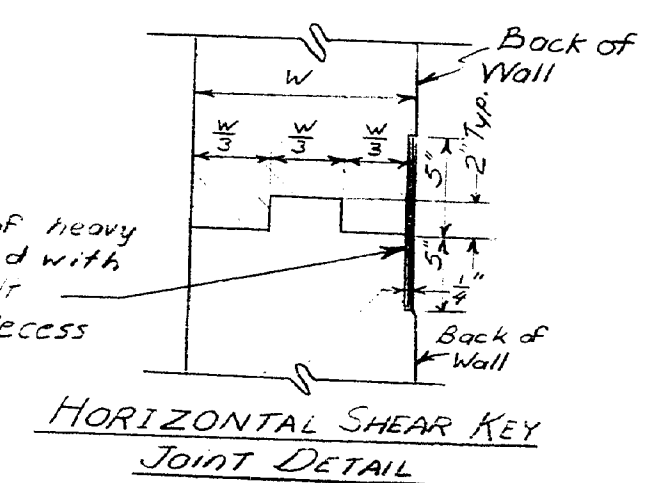
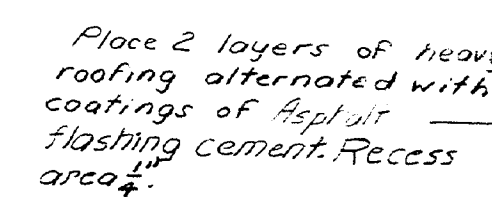
STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
PART ABUTMENT 2 (SOUTHBOUND)  
SHEET 12 OF 32 AUGUSTA, MAINE JULY 1971

PLANS	DESIGN	CHECKED	REVISIONS	FIELD CHANGES
1	1	1	1	1

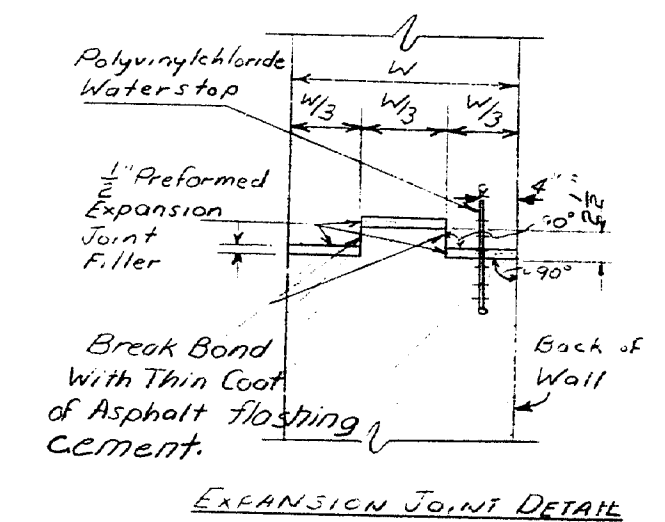
153-49



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



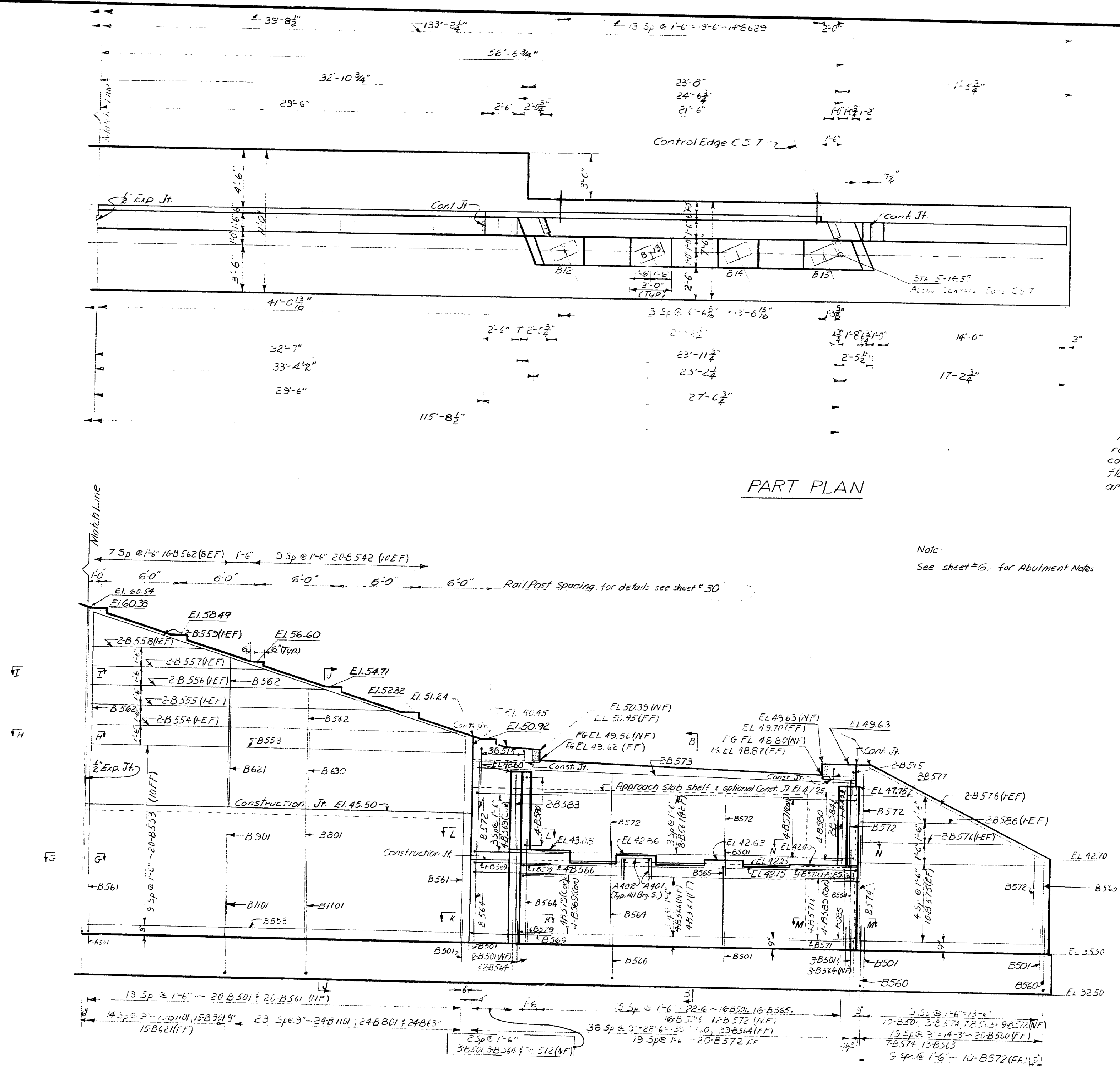
**POLYVINYLCHLORIDE WATERSTOP**  
(Transverse Section)



LEGEND  
N.F. = Near Face  
F.F. = Far Face  
F.G. = Finish Grade  
E.F. = Each Face

STATE HIGHWAY COMMISSION  
INTERSTATE 295 & RAMP CS-7  
OVER  
RELOCATED ST. JAMES STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY  
PART ABUTMENT 2 (C.S. 7)  
SHEET 14 OF 32 AUGUSTA, MAINE JULY 1971

SHEET 14 OF 32 AUGUSTA, MAINE JULY 1971



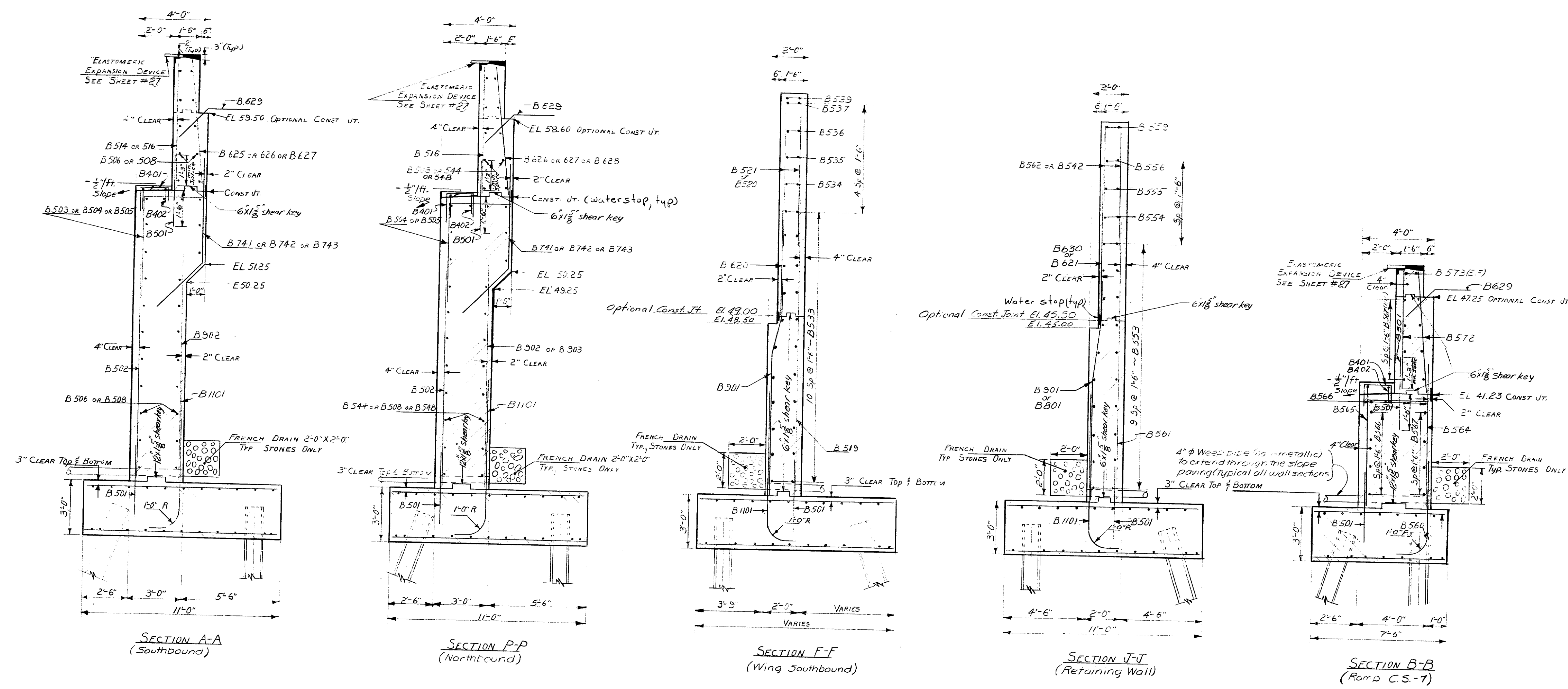
PART PLAN

PART TECH

PLANS	By: <i>Harque Exp. Mkt</i>		BY	DATE
	DESIGN - DETAILED		<i>M.M.S.</i>	<i>6-71</i>
	CHECKED		<i>M.E.R.</i>	<i>1/20/72</i>
	REVISIONS			
	FIELD CHANGES			



S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	J-295-3 (29)	20	84

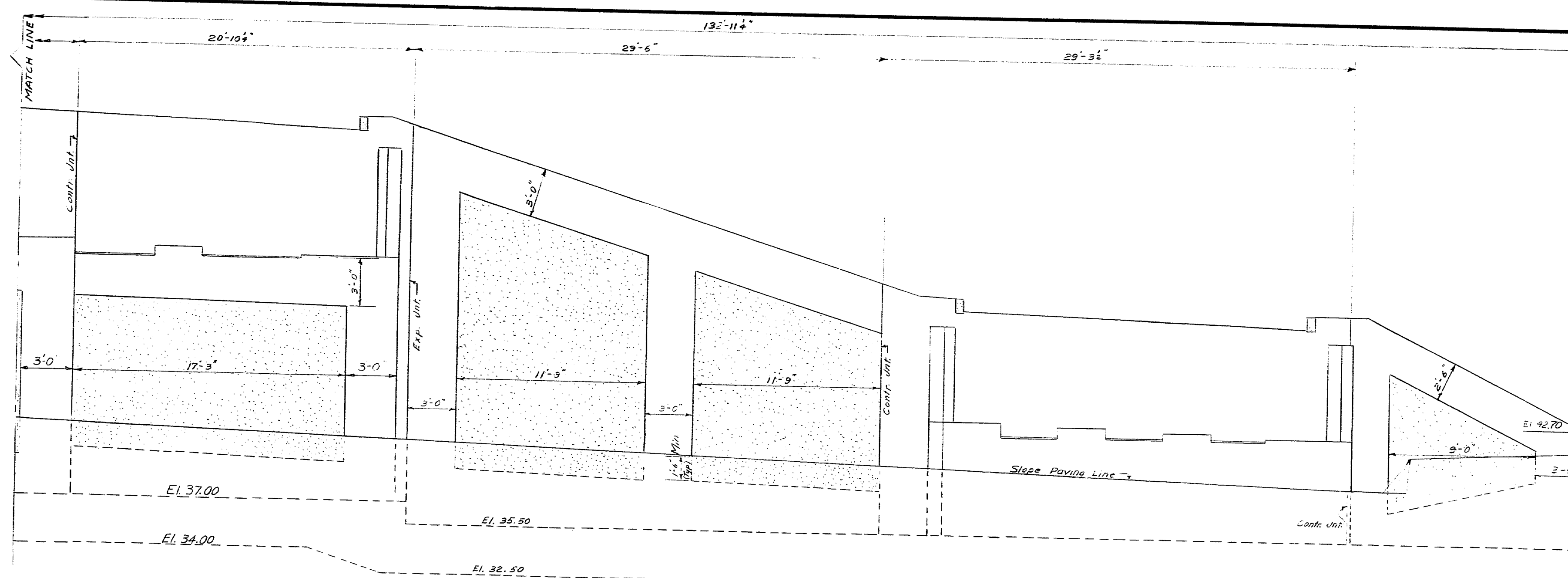


PLANS	DATE	BY	CHECKED	REVISIONS	FIELD CHANGES
	8-77	W.M.C.	W.M.C.		
	10/2/78	W.M.C.	W.M.C.		
	11/2/78	W.M.C.	W.M.C.		

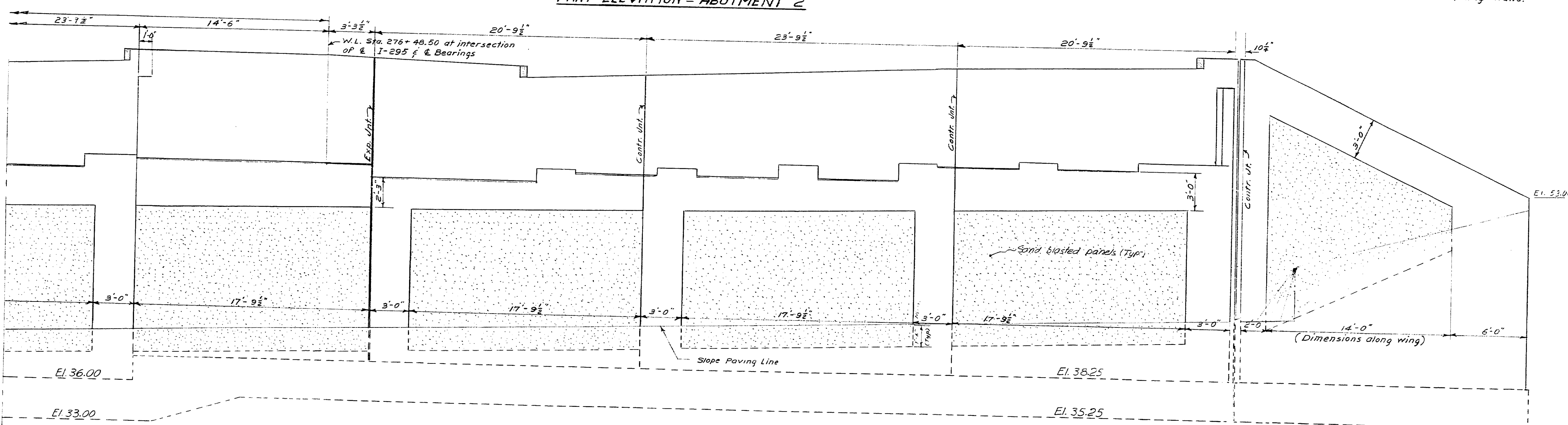
STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
 OVER  
**RELOCATED ST. JAMES STREET**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 X-SECTIONS ABUT. 2  
 SHEET 15 OF 32 AUGUSTA, MAINE JULY 1971  
**153-52**



PLANS	DATE	BY	CHECKED	REVISIONS	FIELD CHANGES
DESIGN - DETAIL	1/77	CU	ALL		
CHECKED					
REVISIONS					
FIELD CHANGES					



PART ELEVATION - ABUTMENT 2



PART ELEVATION - ABUTMENT 1

S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 295-3(29)48	22	54

**NOTES:**

All surfaces so designated on the plans shall be sandblasted. These surfaces shall be carried to a minimum depth of 1/8 inch below the finished ground.

Special care shall be exercised so that form joints at the exposed face of concrete shall be tight.

Before sandblasting, all fins and projections in the concrete shall be removed and all holes patched to create a surface of uniform texture.

In order to insure a consistent surface texture for the areas to be architecturally treated, concrete aggregate shall be from the same source and portland cement shall be from the same manufacturer throughout the entire placement of the abutment wings and breastwall.

At the time the concrete is placed, the contractor shall cast 3 sample 10lbs (2x2x4). Prior to sandblasting, the samples shall be sandblasted, each a different degree of penetration with a maximum depth of 3/16 inch approximately, and under the direction of the Engineer. The most desirable sample will be chosen by the Engineer, and the designated areas shall be sandblasted to match this sample.

Concrete shall not be sandblasted for at least 28 days after placement.

The contractor shall take all the necessary steps to protect materials and equipment from damage by the sandblasting operation. Personnel shall be properly equipped: sandblast hood for operator, and respirators and goggles for all other personnel exposed to dust.

Payment for the sandblasting shall be included in the contract unit price for Item 502.21, "Structural Concrete - Abutments and Retaining Walls."

STATE HIGHWAY COMMISSION  
**INTERSTATE 295 & RAMP CS-7**  
 OVER  
**RELOCATED ST. JAMES STREET**  
 IN THE CITY OF  
**PORTLAND**  
**CUMBERLAND COUNTY**  
 ARCHITECTURAL TREATMENT

SHEET 17 OF 32 AUGUSTA, MAINE JULY 1971

153-54