B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3 (48) 49	1	76

STATE OF MAINE
STATE HIGHWAY COMMISSION

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	J
CULVERT - PROPOSED		PROPOSED UTILITY POLE - TEMPORARY	X
CURBING - EXISTING		PROPOSED UTILITY POLE - PERMANENT	
CURBING - PROPOSED		TREES	hardwood softwood
TRAVELLED WAY - EXISTING		WOODS	

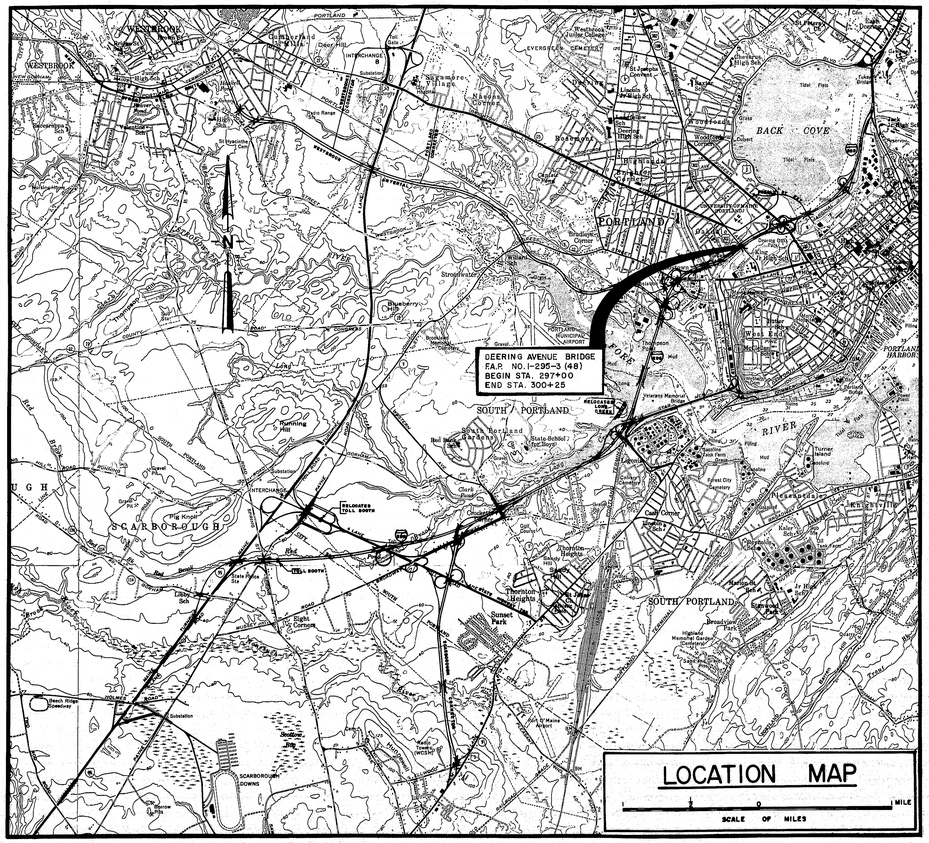
DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY

MAINE FEDERAL AID PROJECT NO. I-295-3 (48) 49
TOTAL LENGTH 0.062 MILES

As BUILT
COMPLETED JUNE 1972

INDEX OF SHEETS

SHEET NO.	TITLE
1.	TITLE SHEET.
2.	GENERAL PROJECT INFORMATION.
3.	TYPICAL SECTIONS (MAIN LINE).
4.	TYPICAL SECTIONS (DEERING AVE. AND WASHBURN AVE.).
5.	DRAINAGE, EXCAVATION AND BORROW SUMMATION.
6.	QUANTITY LISTS.
7.	QUANTITIES.
8.-16.	HIGHWAY STANDARDS.
17.-18.	BRIDGE STANDARDS.
19.	RIGHT OF WAY MAP.
20.	FOUNDATION SURVEY.
21.-22.	BORING DETAILS.
23.-41.	BRIDGE PLANS.
42.-43.	SURVEY PLANS (SCALE: 1" = 50').
44.	PROFILE (MAIN LINE).
45.-46.	SURVEY PLANS (SCALE: 1" = 25').
47.	PROFILE (DEERING AVE.).
48.	PROFILE (WASHBURN AVE.).
49.	DEERING AVE. (PARK ENTRANCE AND GRADING PLAN).
50.	DEERING AVE. (DETOUR ROAD AND SIGNING DETAIL).
51.	DEERING AVE. (DETOUR ROAD CROSS-SECTIONS).
52.	EMBANKMENT AREA FOR SURPLUS FILL.
53.-58.	MAIN LINE CROSS-SECTIONS.
59.-69.	DEERING AVE. CROSS-SECTIONS.
70.-76.	WASHBURN AVE. CROSS-SECTIONS.
1A.-4A	RELOCATED RAILROAD EMBANKMENT



LOCATION MAP

SCALE OF MILES

TRAFFIC DATA

	DEERING AVENUE	INTERSTATE 295
A.D.T. 1970	9980	24676
A.D.T. 1990	15000	28510
D.H.V.	1350	2851
T. (%) OF D.H.V.	5	5
D. (%) OF D.H.V.	55	55
V.	30	50
P.S.D. (%)	NOT APPLICABLE	
18 KIPS	88	NOT APPLICABLE

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 MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

STATE OF MAINE SYLVESTER L. POOR 187 REGISTERED PROFESSIONAL ENGINEER

APPROVED:
MAINE STATE HIGHWAY COMMISSION

	DATE
CHAIRMAN	7-29-70
	7-29-70
	7-29-70
CHIEF ENGINEER	7-29-70

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
REGION 1

APPROVED:

DIVISION ENGINEER DATE

JANUARY 1968

203-1 2080

122-13

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	2	76

GENERAL PROJECT INFORMATION

GENERAL NOTES

1. UTILITIES INVOLVED
   CENTRAL MAINE POWER CO.
   CITY OF PORTLAND (SEWER)
   NEW ENGLAND TELEPHONE AND TELEGRAPH CO.
   NORTHERN UTILITIES, INC. (GAS)
   PORTLAND WATER DISTRICT
   PORTLAND TERMINAL CO. (RAILROAD)
   ALL UTILITY FACILITIES TO BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS NOTED.

2. CLEARING
   CLEARING SHALL BE PERFORMED WITHIN THE CLEARING LIMIT LINES AS SHOWN ON THE 50 SCALE PLANS.
   THE ACTUAL AREA TO BE CLEARED AND QUANTITY OF CLEARING FOR PAYMENT SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

3. CONSTRUCTING ACCESS ROAD
   THE CONTRACTOR MAY USE THE AREA BETWEEN I-295 STA 300+25 AND STA 302+50 TO BUILD AN ACCESS TO THE INTERSTATE EXCAVATION AREA. THE LOCATION OF THIS ROAD SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. EXCAVATING OF THIS AREA FOR AN ACCESS ROAD WILL BE MEASURED AND CONSIDERED FOR PAYMENT UNDER ITEM NO. 203.20 COMMON EXCAVATION PROVIDING THAT THE USEABLE EXCAVATION IS INCORPORATED INTO THE EMBANKMENTS TO BE CONSTRUCTED UNDER THIS CONTRACT.

4. TRAFFIC SIGNING
   THE DETOUR SIGNING SHALL BE PLACED AS SHOWN ON THE PLANS AND SHALL REMAIN IN PLACE WHILE THE DETOUR IS IN USE. THE SIGNING SHALL BE POST MOUNTED WITH THE NEAR EDGE 2 FT. FROM THE PAVEMENT AND 5 FT. ABOVE THE PAVEMENT. WHEN THE CONTRACTOR STARTS ROAD WAY WORK ON DEERING AVE, THE APPLICABLE SIGNING SHALL BE MOVED TO BEYOND THE LIMIT OF WORK AND SHALL CONFORM TO THE SIGNING DETAILS AS SHOWN IN THE STANDARD DETAILS. THE SPACING OF SIGNS AS SHOWN IN THE STANDARD DETAILS MAY BE VARIED TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.
   THE COST OF RELOCATING APPLICABLE SIGNS, INCLUDING WARNING LIGHTS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONSTRUCTION OF THE PROJECT.

5. PORTABLE BARRICADES - WITH FLASHING LIGHTS
   3 PORTABLE BARRICADES - WITH FLASHING LIGHTS SHALL BE ERECTED AT THE TWO LOCATIONS SHOWN ON THE DETOUR SIGNING PLAN.

6. UNDERGROUND UTILITIES
   ALL UTILITIES IN EXCAVATION AREAS SHALL BE LOCATED PRIOR TO EXCAVATING IN THE AREA.

7. REMOVAL OF EXISTING DRAINAGE
   REMOVAL, ABANDONMENT OR OBSTRUCTING OF ANY EXISTING DRAINAGE MUST FIRST BE APPROVED BY THE ENGINEER AND THE CITY OF PORTLAND.

8. ABANDONING OF CATCH BASINS
   THE ABANDONING OF THE CATCH BASINS AT LOCATIONS NOTED ON THE PLANS SHALL CONSIST OF REMOVING THE GRATE AND FRAME, REMOVING THE CATCH BASIN WALLS TO 3 FT BELOW THE PROPOSED SUBGRADE, BREAKING THE FLOOR OF THE CATCH BASIN TO PROVIDE DRAINAGE, CEMENTING THE EXISTING OUTLETS FROM THE CATCH BASIN AND BACK FILLING THE CATCH BASIN WITH EXCAVATION IN COMPACTED 12" LAYERS. PAYMENT FOR THE WORK SHALL BE CONSIDERED INCIDENTAL TO RELATED DRAINAGE ITEMS.

9. EXCAVATION
   REMOVAL OF THE EXISTING ABUTMENTS AND RETAINING WALLS TO 1 FOOT BELOW THE I-295 SUBGRADE SHALL BE EXCAVATED AND MEASURED FOR PAYMENT UNDER ITEMS 203.20 COMMON EXCAVATION AND 203.21 ROCK EXCAVATION.

10. EMBANKMENT CONSTRUCTION

    SURPLUS FILL EMBANKMENT AREAS
    THE EMBANKMENTS IN THESE AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBSECTION 203.11 CONSTRUCTION OF EMBANKMENT-LAYER METHOD, AND SUBSECTION 203.15 CONSTRUCTION OF EMBANKMENT - ROCK.

11. DISPOSITION OF EXISTING CURB
    THE EXISTING CURB, WITHIN THE LIMITS OF EXCAVATION, SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH SUBSECTION 104.07 OF THE STANDARD DETAILS.

12. PAVED DRIVES
    2" HOT BIT PAVEMENT - GRADING E
    6" AGG. BASE COURSE - CRUSHED
    6" AGG. SUBBASE COURSE - SAND

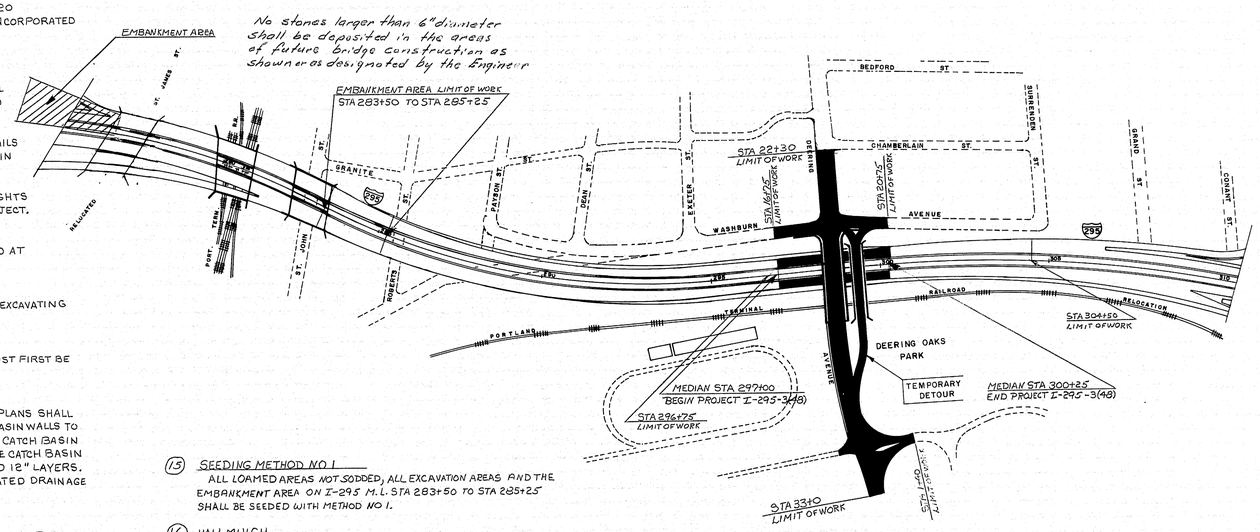
13. LOAM
    LOAM WILL BE REQUIRED ON ALL FILL SLOPES AND CUT BACK SLOPES ON I-295 BETWEEN STA 296+75 AND STA 300+25, ON DEERING AVE, AND ON WASHBURN AVE. THE LOAM DEPTH SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

14. SOD
    SLOPES, 3:1 AND STEEPER, WHICH ARE ADJACENT TO PRIVATELY OWNED LAWNS SHALL BE SODDED.

15. SEEDING METHOD NO 1
    ALL LOAMED AREAS NOT SODDED, ALL EXCAVATION AREAS AND THE EMBANKMENT AREA ON I-295 M.L. STA 283+50 TO STA 285+25 SHALL BE SEEDED WITH METHOD NO 1.

16. HAY MULCH
    HAY MULCH SHALL BE APPLIED TO THE SEEDED AREAS AS DIRECTED BY THE ENGINEER.

17. FIELD OFFICE AND TESTING FACILITIES
    THE LOCATION OF THE FIELD OFFICE AND TESTING FACILITIES FOR THIS PROJECT SHALL BE APPROVED BY THE ENGINEER



LAYOUT PLAN

SCALE : 1" = 200'

FIELD BOOKS RELATIVE TO PROJECT I-295-3(48)

295/131	TOPO.
295/134	UTILITIES
295/135	TOPO.
295/139	TOPO.
295/168	X-SECTIONS
295/169	X-SECTIONS
295/180	X-SECTIONS (RAILROAD)
295/227	X-SECTIONS

As BUILT JUNE, 1972

STATE HIGHWAY COMMISSION

GENERAL PROJECT INFORMATION
LAYOUT PLAN
GENERAL NOTES
FIELD BOOKS
RELATIVE TO PROJECT

SHEET OF AUGUSTA, MAINE

122-14

PLANS	BY	DATE
DESIGN - DETAILED	VFT	6/4/68
CHECKED		
REVISIONS		
FIELD CHANGES		

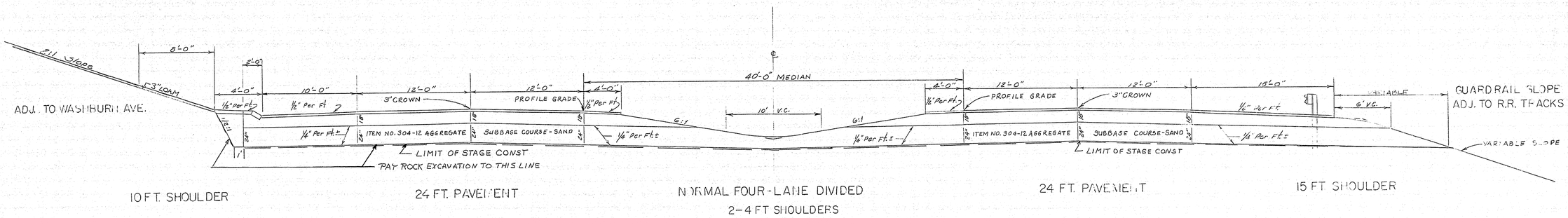
JANUARY 1968

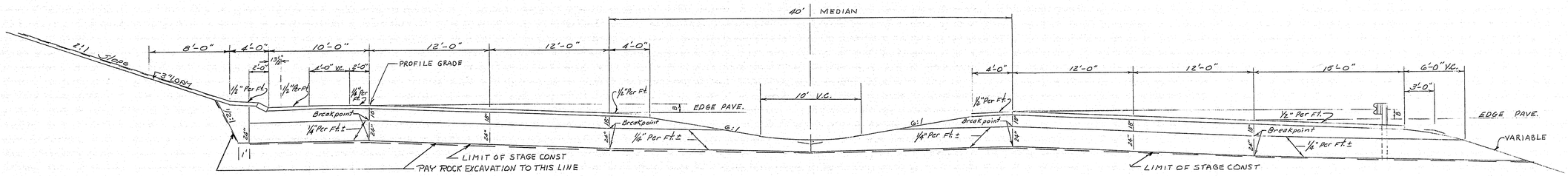
203-1 2050

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-295-3(48)49	3	76

STAGE CONSTRUCTION
GRADING AND DRAINAGE

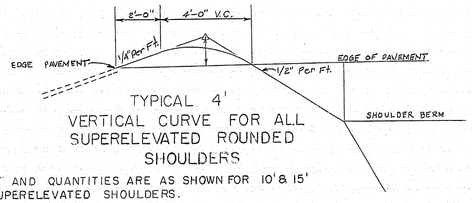




NOTE:
SUPERELEVATION SHALL BE AS SPECIFIED IN A.A.S.H.O. POLICY OF GEOMETRIC DESIGN OF RURAL HIGHWAYS.(E)THE MAXIMUM SUPERELEVATION SHALL NOT EXCEED 0.06' PER FOOT WIDTH OF PAVEMENT.
WHEN SUPERELEVATION EXCEEDS 1/2" PER FOOT, INSIDE SHOULDER SHALL HAVE SAME SLOPE AS PAVEMENT.

NOTE:
FOR ALL SECTIONS DEPTH OF DITCH DEPENDS ON LOCAL CONDITIONS. DEPTH OF SUBBASE AS SHOWN MAY BE CHANGED TO MEET LOCAL CONDITIONS.

NOTE:
THE SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.



TYPICAL 4' VERTICAL CURVE FOR ALL SUPERELEVATED ROUNDED SHOULDERS

A" AND QUANTITIES ARE AS SHOWN FOR 10' & 15' SUPERELEVATED SHOULDERS.

PLANS	BY	DATE
DESIGN - DETAILED	J.F.T.	6/6/62
CHECKED		
REVISIONS		
FIELD CHANGES		

AS BUILT JUNE, 1972

STATE HIGHWAY COMMISSION

TYPICAL SECTIONS
MAIN LINE

SHEET OF AUGUSTA, MAINE

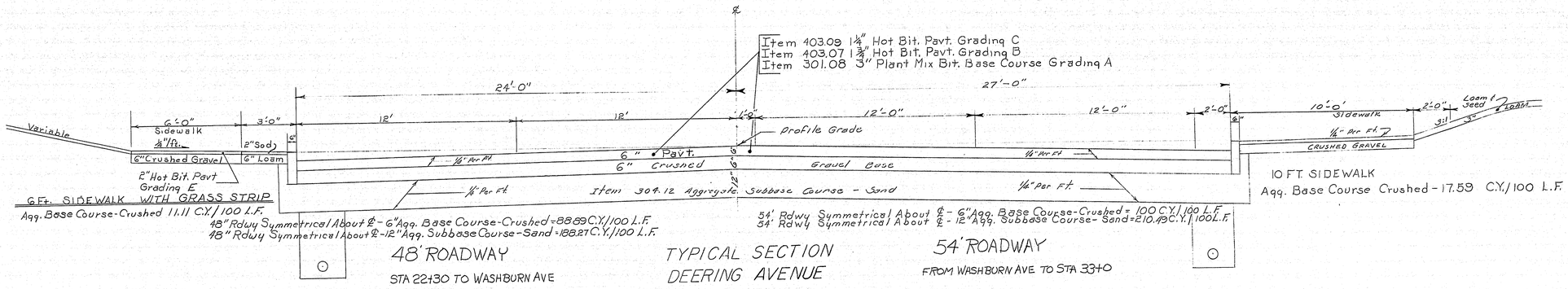
122-15

JANUARY 1960

203-1 2060

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	4	76

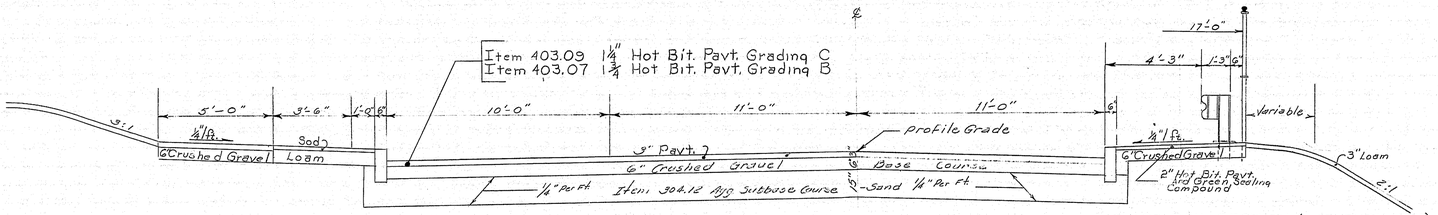
TYPICAL SECTIONS



48' ROADWAY
STA 22+30 TO WASHBURN AVE

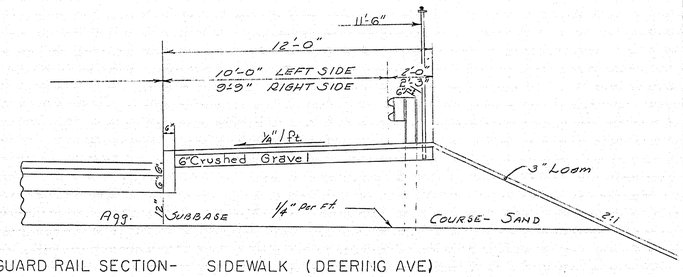
TYPICAL SECTION
DEERING AVENUE

54' ROADWAY
FROM WASHBURN AVE TO STA 33+0

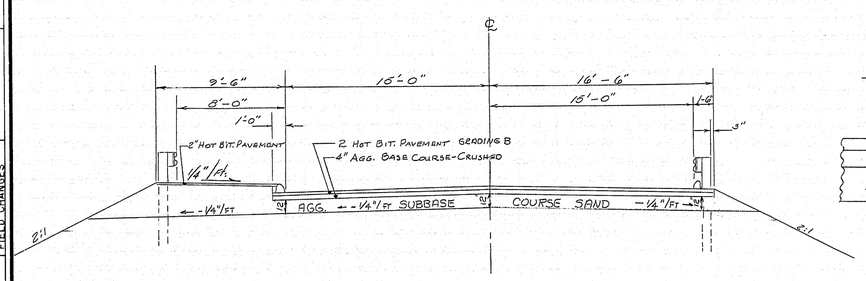


TYPICAL SECTION
WASHBURN AVENUE

6" AGG. BASE COURSE-CRUSHED = 59.26 C.Y. PER 100 L.F.
15" AGG. SUBBASE COURSE-SAND = 158.64 C.Y. PER 100 L.F.

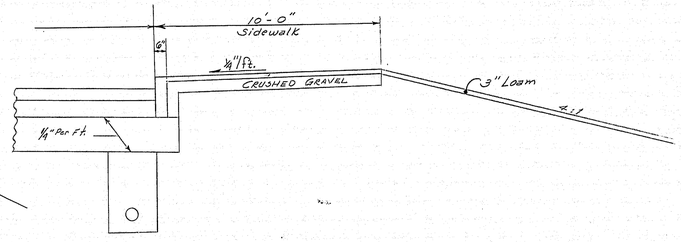


GUARD RAIL SECTION- SIDEWALK (DEERING AVE)
6" AGG. Base Course Crushed = 21.30 C.Y. PER 100 L.F.
12" AGG. SUBBASE COURSE-SAND = 119.88 C.Y. PER 100 L.F.



TYPICAL SECTION - DETOUR ROAD

NOTE: THE ROADWAY TYPICAL FOR THE DETOUR ROAD SHALL CONFORM TO THE ABOVE WIDTHS AND PAVEMENT AND BASE TYPES AND DEPTHS. PAYMENT FOR THIS WORK AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM COST OF THE DETOUR ITEM



NORMAL SECTION - 10' SIDEWALK (DEERING AVE)
AGG. BASE COURSE - CRUSHED (UNDER SW.) = 17.59 C.Y. PER 100 L.F.

PLANS	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

As Built June, 1972

STATE HIGHWAY COMMISSION

TYPICAL SECTIONS
DEERING AVENUE
AND
WASHBURN AVENUE

SHEET OF AUGUSTA, MAINE

12.2-16

203-1 2080

JANUARY 1968

0 1 2 3 4 5 6

S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	5	76

DRAINAGE

STATION	RCP SIZE	RCP LENGTH	RCP CLASS	BCCMP SIZE	BCCMP LENGTH	CMP SIZE	CMP LENGTH	CULVERT PIPE SIZE	CULVERT PIPE LENGTH	CATCH BASINS A1	A2	B1	B2	C1	C2	F	MAN HOLES	UNDERDRAINS 'B' LENGTH	'C' SIZE	'C' LENGTH	'B' OUTLET LENGTH	REMARKS
I-295																						
299+20 ℄ MEDIAN												1										
299+20 84' RT.												1										
299+20 120.5' RT.												1										INCLUDES 2-18" Traps
299+20, 2' RT. TO 82' RT.				24"	80'																	0.079" THICK
299+20, 86' RT. TO 118' RT.				24"	34'																	0.079" THICK
299+20, 122.5' RT. TO 28+77 82' LT. OF DEERING AVE.				18"	321'																	TWIN 18" BCCMP
WASHBURN AVE.																						
17+13 10' RT.										1												INCLUDES 12" TRAP
17+07 20' LT.										1												INCLUDES 12" TRAP
17+13 ℄																	1					
17+13, 10' RT. TO 17+13 ℄	12"	7'	III																			
17+07, 18' LT. TO 17+13 ℄	12"	17'	III																			
18+53 ℄																						ADJUST EXISTING M.H.
19+12 ℄																						ADJUST EXISTING M.H.
19+59 45' LT.																1						
19+59 45' LT. TO 43' RT.	12"	86'	III																			
DEERING AVE																						
22+40, 23' LT. TO 24+06.37, 23' LT.																		167'				
22+30 23' RT TO 24+06.37 23' RT.																		176'				
24+08.37' 23' LT.										1												INCLUDES 12" TRAP
24+08.37' 23' RT.										1												
24+08.37 LT. TO 19+12 WASHBURN AVE	12"	43.5'	III																			
24+08.37, 21' RT. TO 21' LT.	12"	42'	III																			
28+78 82' LT.																						ADJUST EXISTING MH
30+50, 26' RT. TO 32+23, 24' RT.																		176'				
30+80, 36' LT. TO 32+12, 36' LT.																		130'				
31+09 80' LT.																						ADJUST EXISTING M.H.
31+10 97' LT.																						ALTERING EXISTING C.B. TO TYPE A1
31+50 42' RT																						ALTER EXISTING CATCH BASIN TO MANHOLE
31+50 55' LT.												1										
31+62 96' LT.																						ALTER EXISTING CATCH BASIN TO TYPE B-1
31+50, 55' RT. TO 32+25, 24' RT.								12"	74'													OPTION 2
32+12, 33.5' LT. TO 71' LT.								12"	36.5'													OPTION 2
32+12, 33.5' LT.										1												INCLUDES 12" TRAP
32+15, 73'± LT.																1						CONST. IN EXIST. SEWER
32+12, 33.5' LT. TO 33+00, 25' LT.																		82'				
32+12, 33.5' LT. TO 32+25, 24' RT.	12"	54'	III																			
32+25, 24' RT.										1												
32+25 24' RT. TO 33+00, 21.5' RT.																		70'				

DRAINAGE CONT'D.

STATION	RCP SIZE	RCP LENGTH	RCP CLASS	BCCMP SIZE	BCCMP LENGTH	CMP SIZE	CMP LENGTH	CULVERT PIPE SIZE	CULVERT PIPE LENGTH	CATCH BASINS A1	A2	B1	B2	C1	C2	E	MAN HOLES	UNDERDRAINS 'B' LENGTH	'C' SIZE	'C' LENGTH	'B' OUTLET LENGTH	REMARKS
CATCH BASINS TO BE ABANDONED																						
WASHBURN AVE.																						
18+25, 20' LT.																						ABANDON
18+25, 20' RT.																						ABANDON
18+39.22, 40' RT.																						ABANDON
18+86, 16' RT.																						ABANDON
18+58, 19' RT																						ABANDON
DEERING AVE.																						
24+13 22' LT.																						ABANDON
24+28' 22' RT.																						ABANDON
30+72, 40' LT.																						ABANDON
31+27' 25' RT.																						ABANDON
31+27' 5' LT manHole																						ABANDON
32+00 45' LT																						ABANDON
31+25, 25' LT																						ABANDON

SUMMARY OF EXCAVATION AND BORROW

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	24,268	
TOTAL COMMON EXCAVATION		24,268

FILL FOR COMMON BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	8,727	
TOTAL FILL		8,727

ROCK EXCAVATION FOR ESTIMATE

ROCK EXCAVATION (TO 1/4:1, 2:1, OR 3:1 BACK SLOPE)	3,484	
TOTAL ROCK EXCAVATION		3,484

AVAILABLE COMMON EXCAVATION FOR COMMON BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		24,268
DEDUCTIONS:		
GRUBBING IN CUT AREAS 1,512 X 100% =	1,512	
(2) TOTAL DEDUCTIONS		1,512
TOTAL AVAILABLE COMMON EXCAV. (1) MINUS (2)		22,756
TOTAL AVAILABLE STRUCT. EXCAV. (USUALLY UNDERDRAIN ONLY)		900
TOTAL AVAILABLE NON-ROCK EXCAVATION		23,656

COMPUTATION OF COMMON BORROW FOR ESTIMATE

TOTAL FILL		8,727
TOTAL AVAILABLE NON-ROCK EXCAV. 23,656 X 0.85 =	20,108	
TOTAL AVAILABLE ROCK EXCAV. 3,484 X 1.33 =	4,634	
TOTAL AVAILABLE EXCAVATION		24,742
TOTAL SURPLUS FILL		16,015

SURPLUS FILL FOR EMBANKMENT AREAS

EMBANKMENT AREAS TO BE CONSTRUCTED WITH SURPLUS FILL	
I-295 STA 283+50 TO STA 285+25	8,000
I-295 STA 274+00 TO STA 277+00	8,015

As Built June, 1972

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

DRAINAGE SUMMARY SHEET
AND
SUMMATION OF EXCAV. & BORROW

REVISED 9-2-1970

12.2.-17

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	6	76

ITEM 201.11 CLEARING

MAINLINE STA. 296+35 — 298+24
298+95 — 304+30

ITEM 201.13 REMOVING SINGLE TREES 9" TO 24" TOPS ONLY

WASHBURN AVENUE STA.	18+16	22' Lt.	16" MAPLE
	19+06	7' Rt.	16" MAPLE
	19+08	26' Lt.	16" MAPLE
	20+10	16' Lt.	16" MAPLE
DEERING AVENUE STA.	22+58	25' Lt.	19" MAPLE
	22+95	25' Lt.	10" MAPLE
	23+98	27' Lt.	15" MAPLE
	24+90	24' Lt.	15" MAPLE
	25+20	25' Lt.	21" MAPLE
	26+73	87' Rt.	17" MAPLE
	26+77	118' Rt.	17" MAPLE
	26+87	92' Rt.	14" MAPLE
	26+94	72' Rt.	16" MAPLE
	27+08	111' Rt.	15" MAPLE
	27+11	90' Rt.	14" MAPLE
	27+20	72' Rt.	16" MAPLE
	27+25	27' Lt.	21" ELM
	27+39	70' Rt.	16" MAPLE
	27+77	27' Lt.	21" ELM
	28+13	41' Rt.	12" SPRUCE
	28+32	46' Rt.	10" SPRUCE
	28+32	70' Rt.	11" SPRUCE
	28+37	60' Rt.	11" SPRUCE
	28+45	66' Rt.	10" SPRUCE
	28+48	65' Rt.	11" SPRUCE
	29+05	42' Rt.	12" MAPLE
	29+23	50' Rt.	12" MAPLE
	29+35	45' Rt.	13" MAPLE
	29+55	37' Lt.	15" ELM
	29+71	42' Rt.	12" MAPLE
	29+99	42' Rt.	15" MAPLE
	30+24	41' Rt.	13" MAPLE
WASHBURN AVENUE STA.	19+50	26' Lt.	16" MAPLE
MAINLINE I-295 STA.	284+0	105' Lt.	19" MAPLE
	284+07	90' Lt.	12" MAPLE
	284+10	90' Lt.	14" MAPLE
	284+0	47' Rt.	15" PINE
	284+40	23' Rt.	9" PINE
	284+40	38' Rt.	15" ELM

ITEM 201.14 REMOVING SINGLE TREES 24" TO 48" TOPS ONLY

DEERING AVENUE STA.	29+05	35' Lt.	25" ELM
MAINLINE I-295 STA.	284+33	34' Lt.	30" ELM

ITEM 201.15 REMOVING SINGLE TREES OVER 48" TOPS ONLY

MAINLINE I-295 STA.	284+0	95' Lt.	49" ELM
	284+40	23' Rt.	53" ELM
	299+81	25' Lt.	49" OAK

ITEM 201.19 REMOVING STUMPS 9" TO 24"

WASHBURN AVENUE STA.	18+16	22' Lt.	16" MAPLE
	19+06	7' Rt.	16" MAPLE
	19+08	26' Lt.	16" MAPLE
	19+50	26' Lt.	16" MAPLE
	19+50	8' Rt.	22" STUMP
	19+70	19' Rt.	18" STUMP
	19+72	9' Rt.	18" STUMP
	20+10	16' Lt.	16" MAPLE
	20+33	16' Rt.	17" STUMP
DEERING AVENEUE	22+58	25' Lt.	19" MAPLE
	22+95	25' Lt.	10" MAPLE
	23+98	27' Lt.	15" MAPLE
	24+90	24' Lt.	15" MAPLE
	25+20	25' Lt.	21" MAPLE
	26+73	87' Rt.	17" MAPLE
	26+77	118' Rt.	17" MAPLE
	26+78	27' Lt.	23.5" STUMP
	26+87	92' Rt.	14" MAPLE
	26+94	72' Rt.	16" MAPLE
	27+08	111' Rt.	15" MAPLE
	27+11	90' Rt.	14" MAPLE
	27+25	27' Lt.	21" ELM
	27+39	70' Rt.	16" MAPLE
	27+58	72' Rt.	18" STUMP
	27+75	68' Rt.	19" STUMP
	27+77	27' Lt.	21" ELM
	27+93	78' Rt.	15" ELM
	28+13	41' Rt.	12" SPRUCE
	28+32	46' Rt.	10" SPRUCE
	28+32	70' Rt.	11" SPRUCE
	28+37	60' Rt.	11" SPRUCE
	28+45	66' Rt.	10" SPRUCE

ITEM 201.19 REMOVING STUMPS 9" TO 24" (Continued)

DEERING AVENUE STA.	28+48	65' Rt.	11" SPRUCE
	29+05	42' Rt.	12" MAPLE
	29+23	50' Rt.	12" MAPLE
	29+35	45' Rt.	13" MAPLE
	29+55	37' Lt.	15" ELM
	29+71	42' Rt.	12" MAPLE
	29+99	42' Rt.	15" MAPLE
	30+24	41' Rt.	13" MAPLE
MAINLINE I-295 STA.	284+0	105' Lt.	19" MAPLE
	284+0	47' Lt.	15" PINE
	284+0	23' Rt.	9" PINE
	284+07	90' Lt.	12" MAPLE
	284+10	90' Lt.	14" MAPLE
	284+40	38' Rt.	15" ELM

ITEM 201.20 REMOVING STUMPS 24" TO 48"

DEERING AVENUE STA.	29+05	35' Lt.	25" ELM
MAIN LINE I-295 STA	284+33	34' Lt.	30" ELM

ITEM 201.21 REMOVING STUMPS OVER 48"

MAINLINE I-295 STA.	284+0	95' Lt.	49" ELM
	284+40	23' Rt.	53" ELM
	299+81	25' Lt.	49" OAK

ITEM 606.17 GUARD RAIL TYPE 3b SINGLE RAIL

WASHBURN AVENUE STA. 17+03.8* — 18+03.8 Rt.
19+26.1 — 20+38.6* Rt. } ELIMINATED

DEERING AVENUE STA. 27+63.85 — 28+44** 37' Lt.
27+63.85 — 28+37** 36'-9" Rt.
28+60* — 30+30 37' Lt.
28+53* — 30+24 36'-9" Rt.

ITEM 606.22 GUARD RAIL TYPE 3b CIRCULAR (GREATER THAN 15' RADIUS)

24' RADIUS
WASHBURN AVE. STA. 18+03.8 Rt — DEERING AVE. 24+99.56 Rt.
WASHBURN AVE. STA. 19+22.5 Lt. — DEERING AVE. 24+99.56 Lt.
30' RADIUS
DEERING AVE. STA. 30+30 37' Lt. — 30+40 43.6'* Lt.

ITEM 606.26 TERMINAL ENDS SINGLE RAIL

THE ASTERISK (*) NOTED IN ITEM 606.17 AND ITEM 606.22 INDICATE THE NUMBER AND LOCATION OF TERMINAL ENDS

ITEM 607.17 CHAIN LINK FENCE 6 FOOT

WASHBURN AVE. STA. 17+0 17' Rt. — DEERING AVENUE 25+04.85 39' Rt.
WASHBURN AVE. STA. 20+46 17' Rt. — DEERING AVENUE 25+04.85 43' Lt.
I-295 STA. 297+25 80' Rt — 137' Rt — 299+50, 132' Rt.
DEERING AVE. STA. 27+20 Rt — 30+35 Rt.
30+55 Rt. — 30+97 Rt.

ITEM 607.23 AND ITEM 607.231 CHAIN LINK FENCE GATE 4' & 16'

DEERING AVE. STA. 30+35 Rt — 30+51 Rt. 16' GATE
30+51 Rt. — 30+55 Rt. 4' GATE

ITEM 609.11 AND ITEM 609.23 VERTICAL & TERMINAL CURB TYPE I

DEERING AVE. STA. 23+30 — 24+06.37 Rt. 116.4'
INCLUDES 3 Lt. & 3 Rt. TERMINALS
23+49 — 24+10.37 Lt. 60.4'
INCLUDES 2 Lt. & 2 Rt. TERMINALS
22+94.04 — 24+98.85 Rt. 49'
24+92.81 — 24+98.85 Lt. 6.0'
27+44.35 — 30+55.99 Lt. 312'
27+44.35 — 30+30 Rt. 282'
INCLUDES 1 TERMINAL END Lt.
30+60 — 30+89 Rt. 29'
INCLUDES 1 Lt. & 1 Rt. TERMINAL ENDS
31+28 — 32+41 Rt. 108'
INCLUDES 1 Lt. & 1 Rt. TERMINAL ENDS
32+05.45 — 33+00 Lt (Match Existing) 99.6'

℄ PARK ENT. STA. 0+70.54 — 1+40 Lt. 70'
0+70.54 — 1+40 Rt. 71'

WASHBURN AVE. STA. 17+0 — 18+06.6 Lt.
INCLUDES 1 Lt. & 1 Rt. TERMINAL 84.6'
17+0 — 18+11.14 Rt. 111.4'
19+54 — 20+46 Lt. 108.9'
INCLUDES 1 Lt. & 1 Rt. TERMINAL
19+16.80 — 20+46 Rt. 129.8'

ITEM 609.12 VERTICAL CURB CIRCULAR - TYPE I

25' Rad.
DEERING AVE. STA. 24+12.32 Rt. — WASHBURN AVE. STA. 18+16.29 Lt. 37.90'
DEERING AVE STA. 24+10.19 Lt. — WASHBURN AVE STA. 19+11.28 Lt. 38.98'
WASHBURN AVE. STA. 18+11.41 Lt — DEERING AVE STA. 24+98.85 Rt. 38.2'
WASHBURN AVE STA. 19+16.20 — DEERING AVE STA. 24+98.85 Lt. 39.8'

50' Rad.
DEERING AVE. STA. 30+55.99 Lt. — PARK ENTRANCE STA. 0+70.54 Lt. 72.0'
DEERING AVE STA. 32+05.45 Lt. — PARK ENTRANCE STA. 0+70.54 Rt. 55.5'

ITEM 609.34 CURB TYPE 5

PARK ENTRANCE STA. 0+62.35 Lt. — 1+20.27 Lt. 58.5'
0+62.35 Rt. — 1+20.27 Rt. 58.5'
DEERING AVE. STA. 30+98.99 Lt. — PARK ENT. STA. 0+62.35 Lt. 32.9'
DEERING AVE. STA. 31+78.23 Lt. — PARK ENT. STA. 0+62.35 Rt. 32.9'

ITEM 609.35 CURB CIRCULAR TYPE 5

5' Rad. PARK ENTRANCE STA. 0+29 ℄ 8.4'
2' Rad. 1+18 ℄ 5.7'

ITEM 616.08 SODDING

WASHBURN AVE.	STA. 17+0 — 18+24 Lt.		ESPLANADE
	19+0 — 20+46 Lt.		ESPLANADE
	19+59	43' Rt.	DOWNSPOUT
DEERING AVE	STA. 22+30 — 24+13 Rt.		ESPLANADE
	22+40 — 24+10 Lt.		ESPLANADE
	31+30 — 31+50 Lt.		BEHIND CURB AROUND ISLAND
	31+50	55' Rt.	AROUND C.B.
I-295	STA. 299+20	℄ MED.	AROUND C.B.
		84' Rt.	AROUND C.B.
		120' Rt.	AROUND C.B.

ITEM 623.06 R/W MONUMENTS

DEERING AVE. STA. 31+56.84 40' Rt.

ITEM 623.07 SURVEY MONUMENTS

DEERING AVE. STA. 31+56.84' 130' Lt.

ITEM 612.07 BITUMINOUS HAND SEALING - GREEN

WASHBURN AVE. STA. 17+0 — 18+15 Rt.
19+15 — 20+46 Rt.

ITEM 604.20 12" TRAPS

WASHBURN AVE. STA. 17+13 10' Rt.
17+13 20' Lt.
DEERING AVE. STA. 24+08 23' Lt.
32+15 32' Lt.

ITEM 604.221 24" TRAPS

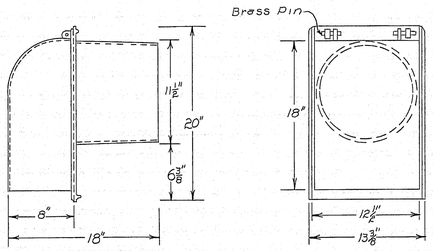
I-295 STA. 299+20 120.5' Lt. } ELIMINATED changed To 2-18" TRAPS.

BITUMINOUS MATERIALS

DESCRIPTION OF COURSE	GRADATION DESIGNATION	ITEM NO.	BITUMEN CONTENT PER CENT MIX	TOTAL THICKNESS INCHES	NUMBER OF LAYERS	COMPLEMENTARY NOTES
DEERING AVENUE						
WEARING	"C"	403.09	7.0	1½"	1	1,2
BINDER	"B"	403.07	5.5	1¾"	1	1,2
BASE	"A"	301.08	5.0	3"	2	1,2,5
DEERING AVENUE BRIDGE						
WEARING	"C"	403.09	7.0	2"	2	1,2
WASHBURN AVENUE						
WEARING	"C"	403.09	7.0	1½"	1	1,2
BINDER	"B"	403.07	5.5	1¾"	1	1,2
SHIM COURSE						
LEVELING	"E"	403.121	7.5	VARIABLE	1 or More	1,2,4
PAVED SIDEWALKS, DRIVES, ISLANDS, INCIDENTALS						
WEARING & BINDER	"E"	403.12	7.5	2	2	1,2,3,4

COMPLEMENTARY NOTES

1. The bituminous binder material for the mixtures shall be penetration grade (85-100) asphalt cement and will be paid for separately.
2. The asphalt contents shown are to serve as a guide only and are not specifications.
3. Mixtures meeting the aggregate gradation of "C" and "B" above may be used for the bottom layer with payment to be made under Item 403.12
4. The density requirements are waived.
5. This Course shall be placed in 2 layers of approximately equal thickness. In cool weather, this course may be placed in one layer when so directed by the Engineer.



12" TRAP

BY	DATE
D.P.B.	AUG.70

PLANS
DESIGN - DETAILED
CHECKED
REVISIONS
FIELD CHANGES

As Built June, 1972

STATE HIGHWAY COMMISSION

QUANTITY LISTS

SHEET OF AUGUSTA, MAINE

122-18

JANUARY 1968

203-1 2080

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	7	76

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.11	Clearing.	1	Acre
201.13	Removing Single Trees, 9" to 24", Tops only.	39	Each
201.14	Removing Single Trees, over 24" to 48", Tops only.	2	Each
201.15	Removing Single Trees, over 48", Tops only.	3	Each
201.19	Removing Stumps, 9" to 24".	46	Each
201.20	Removing Stumps, over 24" to 48".	2	Each
201.21	Removing Stumps, over 48".	3	Each
202.10	Removal of Existing Superstructure (Property of Contractor)	L.S.	L.S.
203.20	Common Excavation.	28,500	Cu.Yd.
	Excavation for Slope Blanket.	100	Cu.Yd.
203.21	Rock Excavation.	3,500	Cu.Yd.
*203.25	Granular Borrow.	500	Cu.Yd.
203.26	Gravel Borrow.	575	Cu.Yd.
206.06	Str. Earth Excav. - Drainage & Minor Strs.	1,100	Cu.Yd.
206.07	Str. Rock Excav. - Drainage & Minor Strs.	200	Cu.Yd.
206.08	Str. Earth Excav. - Abuts. & Ret. Walls.	1,100	Cu.Yd.
206.10	Str. Earth Excav. - Piers.	100	Cu.Yd.
206.11	Str. Rock Excav. - Piers.	50	Cu.Yd.
301.08	Plant Mix Bit. Base Crs., Grading A.	1,000	Ton
301.12	Asphalt Cement, Base Course.	50	Ton
304.09	Aggregate Base Course - Crushed.	1,700	Cu.Yd.
304.10	Aggregate Subbase Course - Gravel.	150	Cu.Yd.
304.12	Aggregate Subbase Course - Sand.	3,500	Cu.Yd.
*	Aggregate Subbase for Slope Blanket - Sand.	100	Cu.Yd.
403.07	Hot Bit. Pavement, Grading B.	700	Ton
403.09	Hot Bit. Pavement, Grading C (Crushed Ledge)	700	Ton
403.12	Hot Bit. Pavement, Grading E (Sidewalks, Drives, Etc.).	240	Ton
403.121	Hot Bituminous Pavement, Grading E (Shimming).	50	Ton
403.14	Asphalt Cement, Hot Bit. Surface Pavements.	110	Ton
501.21	Steel H-Beam Piles 42 lbs./ft.	1,610	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls.	495	Cu.Yd.
502.23	Structural Concrete, Piers.	175	Cu.Yd.
502.26	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges.	L.S.	L.S.
502.31	Structural Concrete, Approach Slabs.	L.S.	L.S.
503.12	Reinforcing Steel, Fab. & Delivered.	168,400	Lb.
503.13	Reinforcing Steel, Placing.	168,400	Lb.
504.70	Structural Steel, Fab. & Delivered.	L.S.	L.S.
504.71	Structural Steel, Erection.	L.S.	L.S.
504.72	16" Pipe Sleeve.	16	L.F.
504.73	Pipe Hangers.	11	Each
505.08	Shear Connectors.	L.S.	L.S.
506.14	Field Painting, Structural Steel.	L.S.	L.S.
507.08	Bridge Railing.	510	L.F.
507.09	Steel Pipe Hand Railing.	470	L.F.
507.12	Steel Pipe Rail.	100	L.F.
508.10	Membrane Waterproofing. **	1,450	Sq.Yd.
510.12	Special Detour, 30 Foot Roadway Width Vehicular & Pedestrian Traffic Separated.	L.S.	L.S.
512.06	French Drains (Stones Only)	35	Cu.Yd.
513.09	Slope Protection - Port. Cem. Concrete.	345	Sq.Yd.
514.06	Curing Box for Concrete Cylinders.	1	Each
520.07	Elastomeric Expansion Device (Type 1).	80	L.F.
603.155	12 inch Reinforced Conc. Pipe Class III.	256	L.F.
603.158	12 inch Culvert Pipe, Option II.	112	L.F.
603.196	24 inch Bit. Coated Corr. Metal Pipe, .079" thick.	112	L.F.
603.198	24 inch Culvert Pipe, Option II.	168	L.F.
603.88	6 inch C.M.P.	96	L.F.
604.07	Catch Basins Type A1	6	Each
604.09	Catch Basins Type B1	4	Each
604.15	Manholes	2	Each

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
604.16	Altering Catch Basins to Manholes.	1	Each
604.161	Altering Catch Basins.	2	Each
604.18	Adjusting Manholes & Catch Basins to Grade.	5	Each
604.20	12" TRAPS	4	Each
604.221	24" TRAPS	1	EACH
604.24	CATCH BASINS TYPE "E"	1	EACH
605.09	6 inch Underdrain Type "B".	810	L.F.
606.17	Guard Rail Type 3b - Single Rail.	725	L.F.
606.22	Guard Rail Type 3b - Circular - Greater than 15 foot radius	87.5	L.F.
606.26	Terminal Ends - Single Rail.	8	Each
607.17	Chain Link Fence - 6 feet.	975	L.F.
607.23	Chain Link Fence Gate - 4 feet.	1	Each
607.231	Chain Link Fence Gate - 16 feet.	1	Each
607.25	Remove & Reset Chain Link Fence	400	L.F.
607.36	Bracing Assembly, Type I - Chain Link Fence - 6 feet	10	Each
607.37	Bracing Assembly, Type II - Chain Link Fence - 6 feet	6	Each
607.39	Pedestrian Fence	475	L.F.
609.11	Vertical Curb - Type 1.	1,700	L.F.
609.12	Vertical Curb - Circular - Type 1.	180	L.F.
609.13	Vertical Bridge Curb - Type 1.	482	L.F.
609.23	Terminal Curb, Type 1.	19	Each
609.34	Curb Type 5.	182	L.F.
609.35	Curb - Circular - Type 5.	14	L.F.
612.07	Bituminous Hand Sealing - Green.	150	Sq.Yd.
615.07	Loam.	500	Cu.Yd.
616.08	Sodding.	350	Sq.Yd.
618.13	Seeding, Method Number 1.	120	Unit
619.08	Hay Mulch.	7	Ton
623.06	Right-of-Way Monuments.	1	Each
623.07	Survey Monuments.	1	Each
* 629.05	Labor, Straight Time.	100	M.Hr.
* 630.06	Traffic Officers.	125	M.Hr.
* 631.09	Aerator (inc. operator & hauler).	25	Hour
* 631.10	Air Compressor (inc. operator).	10	Hour
* 631.11	Air Tool (inc. operator).	20	Hour
* 631.171	Truck - Small (including operator).	20	Hour
* 631.22	Front End Loader (inc. operator).	10	Hour
632.08	Warning Lights.	2	Group
633.10	Portable Barricade with Flashing Lights.	6	Each
634.18	Steel Conduit.	30	L.F.
634.19	Non-metallic Conduit.	700	L.F.
637.07	Sprinkling.	100	M.G.
637.08	Calcium Chloride.	10	Ton
638.101	Bridge Lighting. ALUM. POLES ALT. 1	L.S.	L.S.
638.102	BRIDGE LIGHTING STEEL POLES ALT. 2	L.S.	L.S.
639.08	Field Office, Type A.	1	Each
639.11	Testing Facilities, Soils.	L.S.	L.S.
639.12	Testing Facilities, Bit. Mixes.	L.S.	L.S.
639.13	Testing Facilities, Bit. Liq. & Cement.	L.S.	L.S.
657.20	Seed and Application, Method "A"	0.75	Acres.
657.21	Reforesting, Method "B"	0.25	Acres.

SUMMARY OF EXCAVATION AND BORROW

SPECIFICATIONS

DESIGN:
A.A.S.H.O. Standard Specification for Highway Bridges 1969.

CONTRACT:
State of Maine State Highway Commission Standard Specifications for Highways and Bridges Revision of June 1967.

LIVE LOADING
HS 20-44

ALLOWABLE STRESSES
Concrete [illegible] fc = 1,200 psi
Reinforcing Steel [illegible]
Structural Steel A.S.T.M. Designation A-7[illegible] Grade 50 Bare Steel [illegible] A.S.T.M. Designation A-5[illegible] = 20,000 psi

CONCRETE [illegible]-FLATWU
All concrete [illegible] except Slope Protection [illegible]

ESTIMATED QUANTITIES for LUMP SUM ITEMS

502.26 - Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges, 635 Cubic Yards.
502.31 - Structural Concrete, Approach Slabs, 40 Cubic Yards.
504.70 - Structural Steel, Fab. & Delivered, 494,500 Pounds.
504.71 - Structural Steel, Erection, 494,500 Pounds.
505.08 - Shear Connectors, 5,684 Pieces.
506.14 - Field Painting, Structural Steel, 506,500 Pounds.

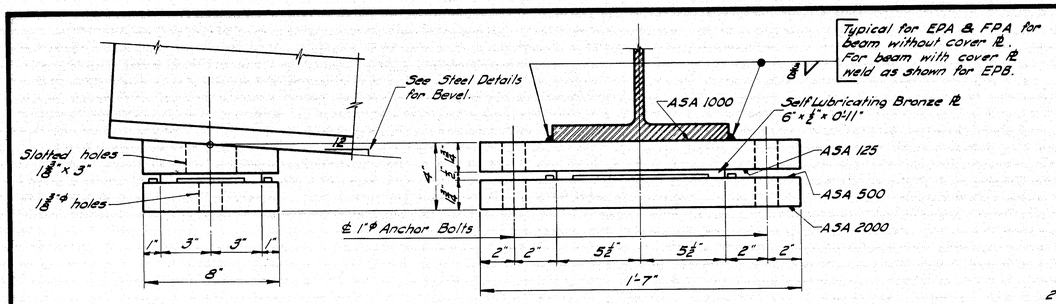
* = Undetermined Location.
** Bituminous Material for Membrane Waterproofing is to be Asphalt - Type B

STATE HIGHWAY COMMISSION
DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
QUANTITIES
SHEET OF AUGUSTA, MAINE JUNE 1970

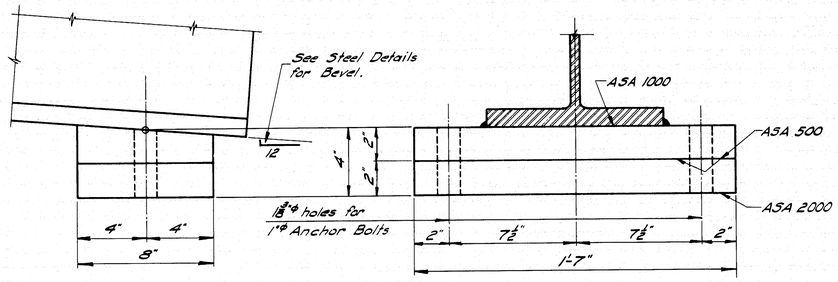
303-1 2060

122-19

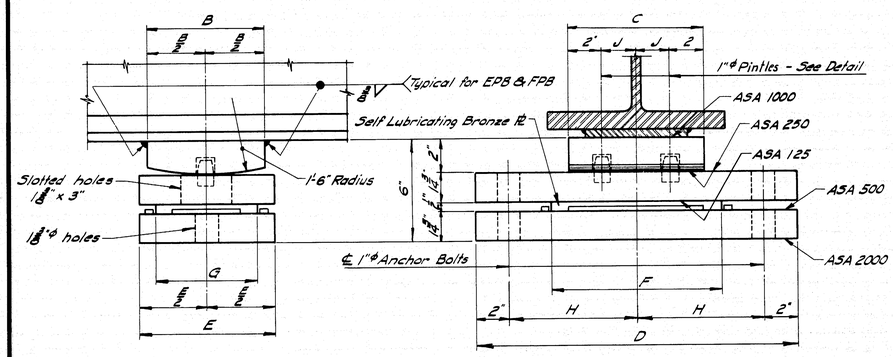
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	17	76



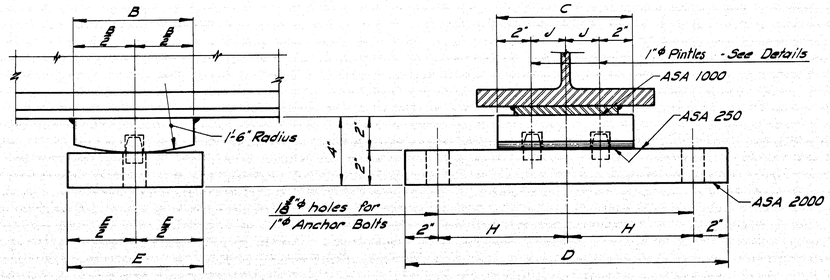
EXPANSION PEDESTAL - EPA



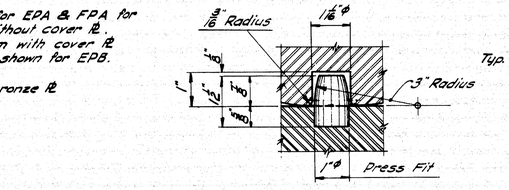
FIXED PEDESTAL - FPA



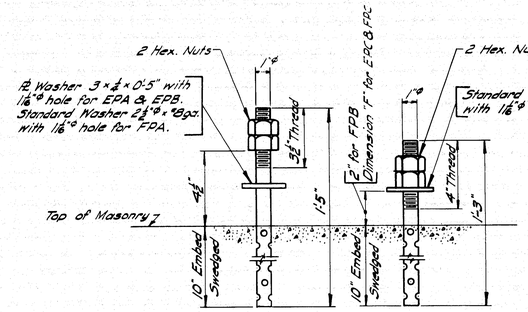
EXPANSION PEDESTAL - EPB



FIXED PEDESTAL - FPB



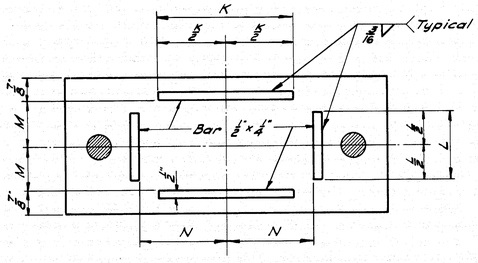
PINTLE DETAIL



For EPA - 2 req'd.
For FPA - 2 req'd.
For EPB - 2 req'd.

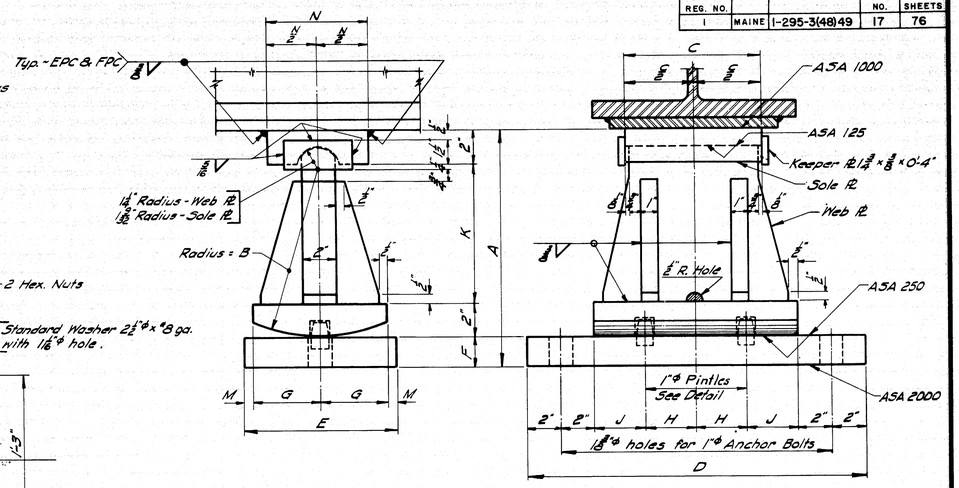
For FPB - 2 req'd.
For EPC - 2 req'd.
For FPC - 4 req'd.

ANCHOR BOLT DETAIL

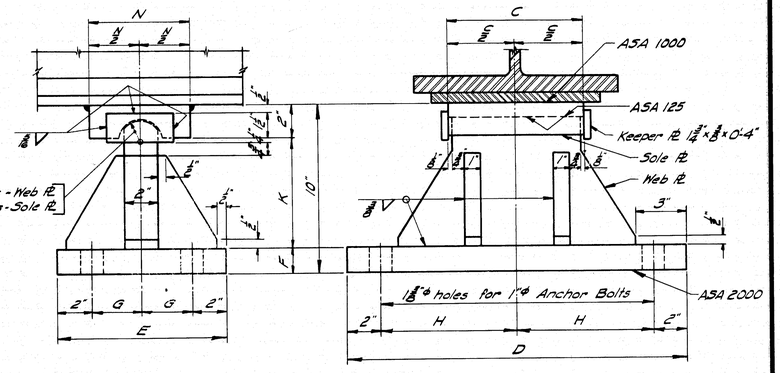


For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 k	—	—	—	—	—	—	—	—	—	8"	4"	3 1/2"	5 3/8"
FPA	150 k	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 k	—	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	2 1/8"	5 3/8"
EPB-2	165 k	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3 3/8"	6 3/8"
EPB-3	224 k	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3 3/8"	8 3/8"
FPB-1	120 k	—	6"	8"	1'-7"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 k	—	7"	10"	1'-8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224 k	—	8"	1'-2"	2'-0"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70 k	9 3/4"	6"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1/2"	6"
EPC-2	100 k	11 3/4"	8"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	1/2"	6"
EPC-3	130 k	1'-2"	10"	8"	1'-8"	9"	1 3/4"	4"	3"	3"	8 1/2"	—	1/2"	7"
EPC-4	160 k	1'-2"	10"	8"	1'-10"	9"	1 3/4"	4"	4"	3"	8 1/2"	—	1/2"	7"
EPC-5	190 k	1'-2 1/2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	1/2"	8"
EPC-6	220 k	1'-4 1/2"	1'-0"	10"	2'-0"	1'-0"	2 1/4"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 k	1'-4 1/2"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/4"	5"	5"	4"	10 1/2"	—	1"	8"
FPC-1	100 k	—	—	8"	1'-8"	9"	1 1/2"	2 1/2"	8"	—	6 1/2"	—	—	6"
FPC-2	160 k	—	—	8"	1'-8"	10"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	190 k	—	—	9"	2'-0"	10"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 k	—	—	10"	2'-0"	1'-0"	1 3/4"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 k	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/2 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1969

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A36
All other - A36.

Revised - Design Specifications and A.S.T.M. Steel Classification 1969.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 101 -70)

BEARING PEDESTALS

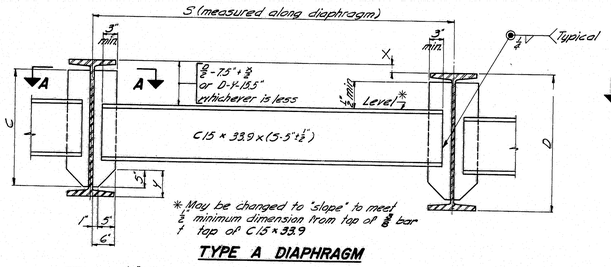
JANUARY 1970

122-29

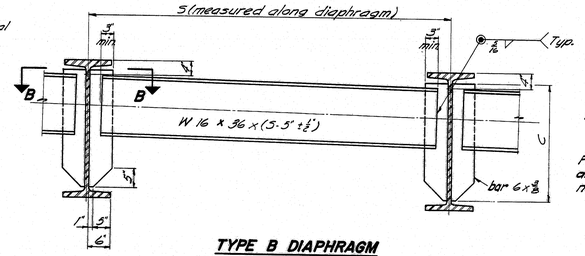
BRUNING 44-131 11224

0 1 2 3 4 5 6

B.P.R. DIV. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-3(75)50	32	36

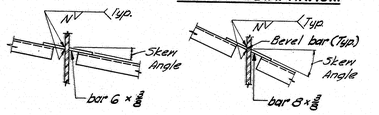


TYPE A DIAPHRAGM



TYPE B DIAPHRAGM

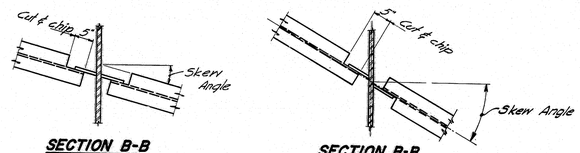
Welding 6 × $\frac{3}{8}$ bars to web same as for Type A Diaphragm.



SECTION A-A
Skew Angle 0° to 10°-00'

SECTION A-A
Skew Angle over 10°-00' to 20°-00'

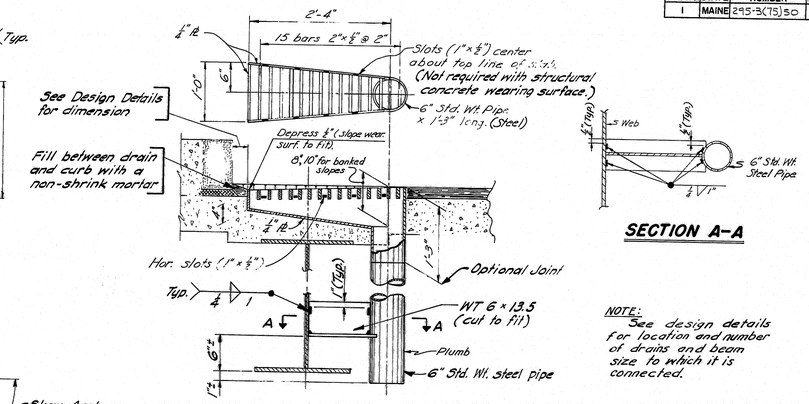
FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM BARS		
BEAM	C	N
W27 × 84 to 114 incl.	1'-11"	$\frac{1}{4}$"
W30 × 99 to 132 incl.	2'-2"	$\frac{1}{4}$"
W33 × 118 to 152 incl.	2'-5"	$\frac{1}{4}$"
W36 × 135 to 194 incl.	2'-7"	$\frac{1}{4}$"
W36 × 230 to 300 incl.	2'-6"	$\frac{5}{16}$"



SECTION B-B
Skew Angle 0° to 10°-00'

SECTION B-B
Skew Angle over 10°-00'

NOTE
See design details for diaphragm type, location and skew.

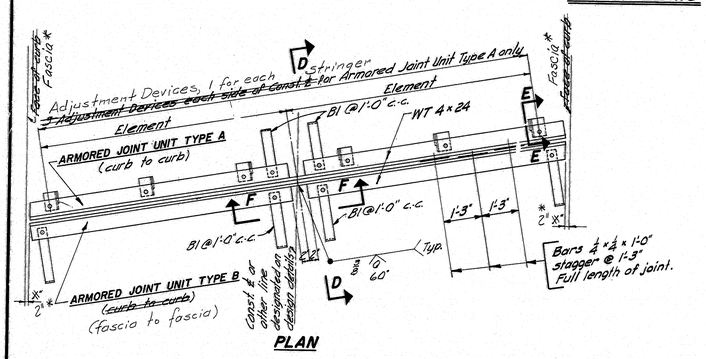


SECTION A-A

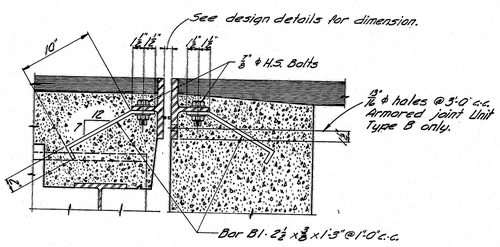
DRAIN NO. 1

NOTE:
See design details for location and number of drains and beam size to which it is connected.

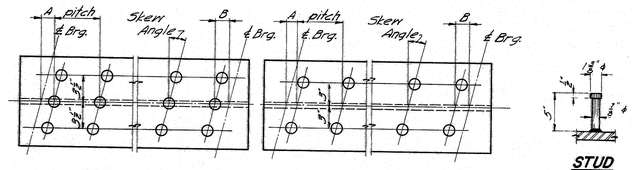
DIAPHRAGMS



PLAN



SECTION D-D

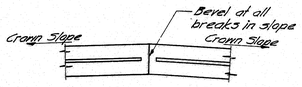


TRIPLE STUDS **DOUBLE STUDS** **STUD DETAIL**

NOTE

1. Studs shall be granular or solid flux filled and automatically and welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

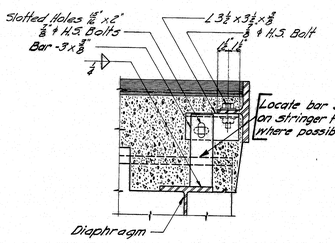
SHEAR CONNECTORS



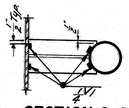
SECTION F-F
Note: See design details for Const. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. If more elements than the two shown in the "Plan" are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the "Plan".
3. Armored Joints to be paid for as Structural Steel.



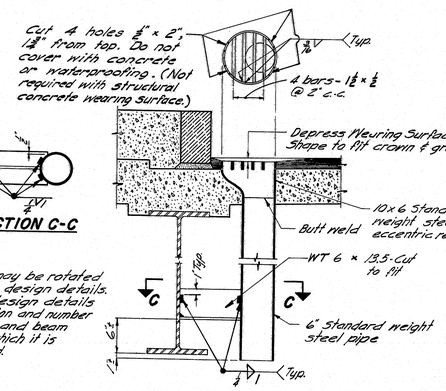
SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld $\frac{3}{8}$ bar to angle with $\frac{1}{4}$" fillet



SECTION C-C

NOTE

1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.



DRAIN NO. 2

GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

Drains to be incidental, see Section 502.20

* Rev. 11-12-78

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 104-71)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

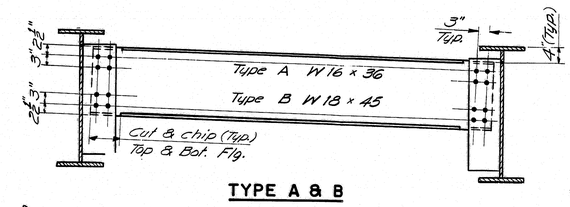
DECEMBER 1971

146-45

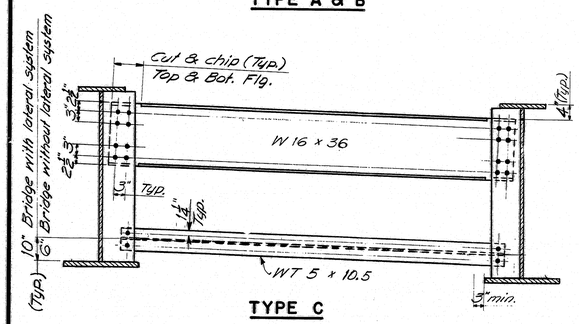
touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-3(78)50	33	36

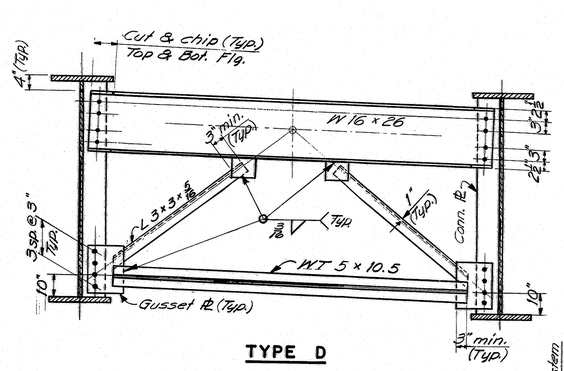
NOTE A — This dimension may be varied (±1") to allow a series of diagonals to have the same slope.



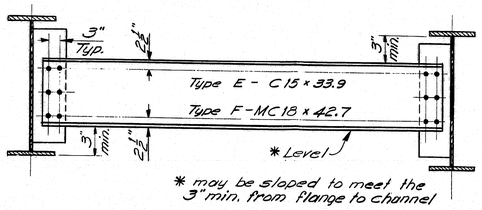
TYPE A & B



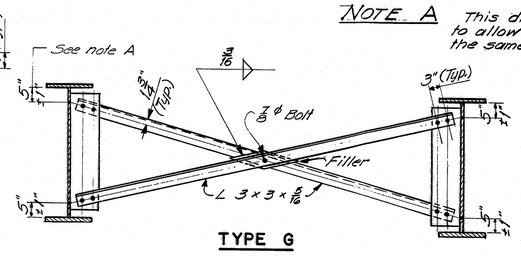
TYPE C



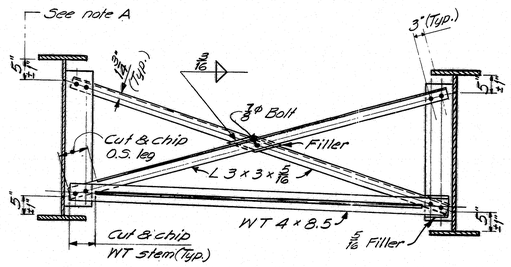
TYPE D



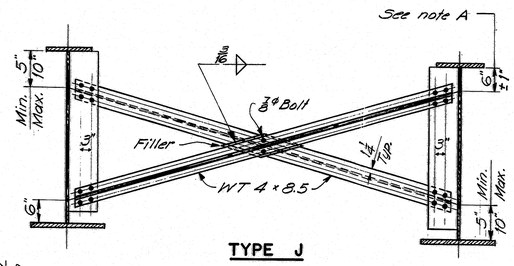
TYPE E & F



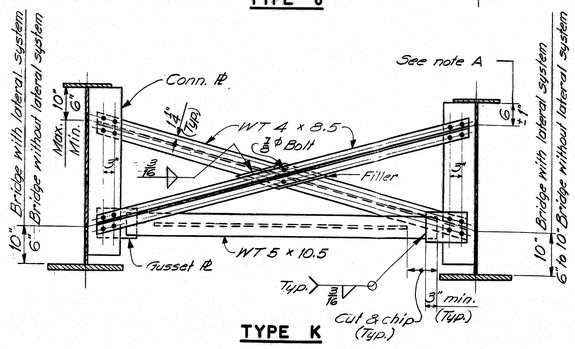
TYPE G



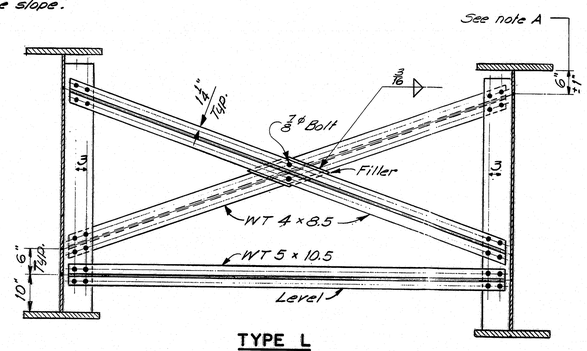
TYPE H



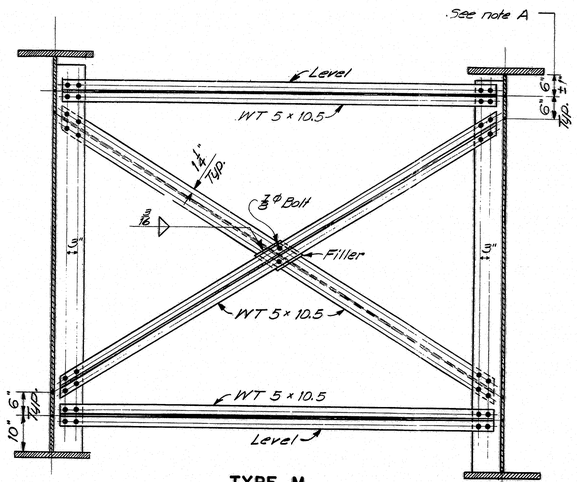
TYPE J



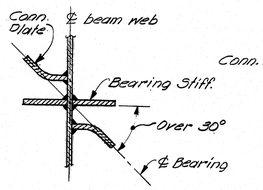
TYPE K



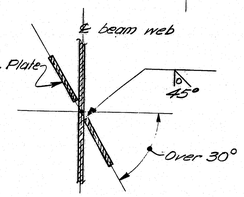
TYPE L



TYPE M



DETAIL A
Referenced from Note 5



DETAIL B
Referenced from Note 4

FABRICATION NOTES

1. For location and type of diaphragm or crossframe see design details.
2. Holes for 7/8" diameter bolts shall be 15/16" dia. and Edge distances shall be 1 1/4" minimum unless otherwise shown.
3. Connection plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. When bearing stiffeners or intermediate stiffeners are used as connection plates, the plate size will be given on the design details.
4. Connection plates shall be fastened to beam and girder webs as follows:
   - 0° to 30° skew --- fillet weld both sides.
   - Over 30° skew --- full penetration groove weld (See Detail B) except as indicated in Note 5
   - Over 45° skew - weld prequalification will be required.

   The skew angle is the angle between the connection plate and a line normal to the beam.
5. Bearing stiffeners shall be used as connection plates when the skew is not over 30°. When the skew is over 30° a bent connection plate shall be attached to the web adjacent to the bearing stiff. as shown in Detail A.
6. All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
7. Connection plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression or when used as a bearing stiffener or intermediate stiff.
8. Connection plates shall extend to the bottom flange when used as a bearing stiffener, at points where lateral bracing is attached & on welded beams and girders in areas where the bottom flange is always in compression.
9. When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
10. Conn. plates shall be 2 1/2" clear from flanges, except as indicated by Notes 7&8.
11. Use only those items called for on the design details. In case of conflict between these standard details and the design details, the design details shall be followed.

MATERIALS

Diaphragms, Crossframes and All Plates (Filler, gusset, and connection) - ASTM A36
High Strength Bolts 7/8" diameter - - - - ASTM A325

PLANS	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 113 - 72)
DIAPHRAGMS & CROSSFRAMES

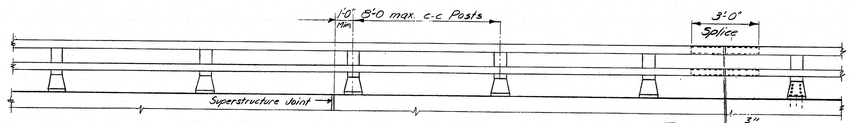
SHEET 33 OF 36 AUGUSTA, MAINE SEPT. 1972

146-46

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

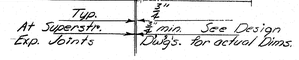
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-B(75)S0	34	36

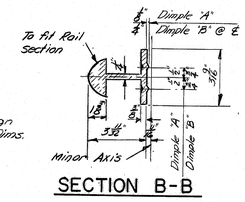
DESIGN SPECIFICATIONS
AASHO Standard Specifications for Highway Bridges 1969 and Interim Specifications.



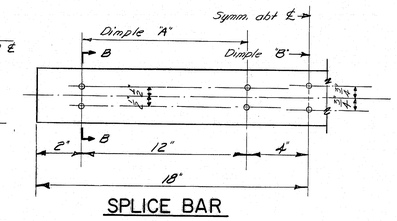
RAIL - ELEVATION

Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on the Bridge Plans.



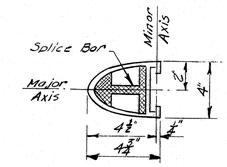


SECTION B-B

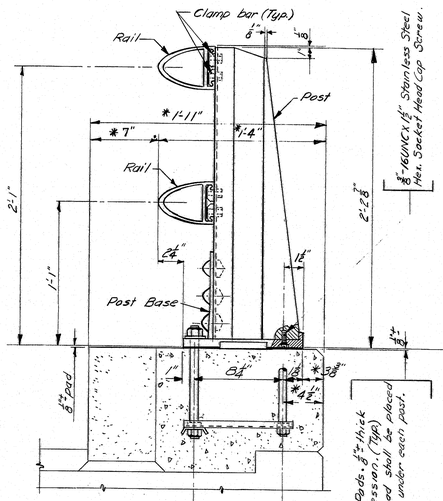


SPLICE BAR

Note - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.

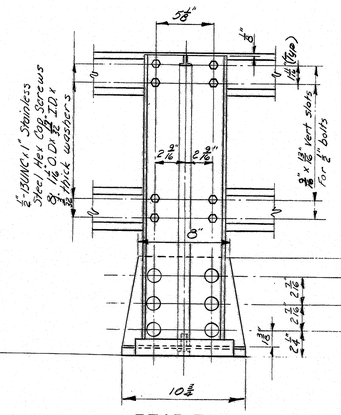


RAIL SECTION
See "Rail Detail"

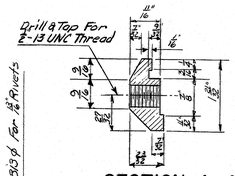


BRIDGE RAIL
(Assembly)

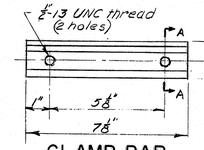
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



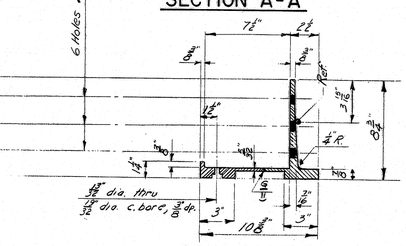
REAR ELEV.



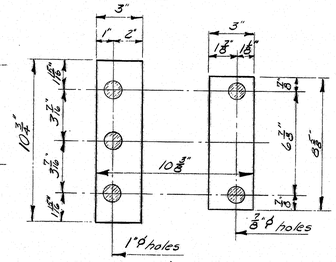
SECTION A-A



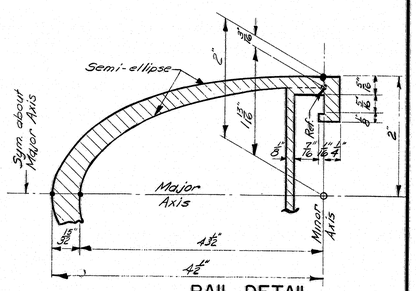
CLAMP BAR



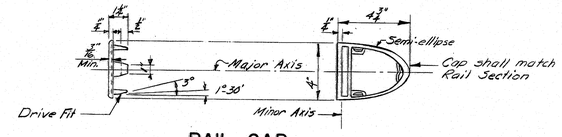
POST BASE SECTION



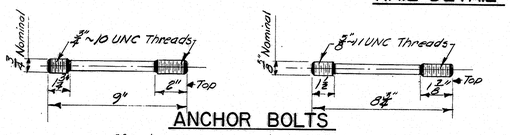
PREFORMED PADS



RAIL DETAIL

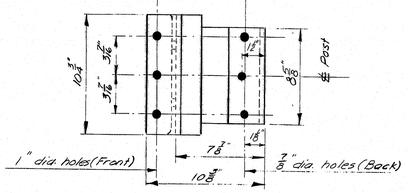


RAIL CAP



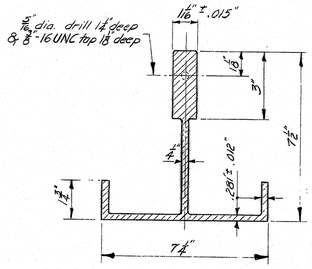
ANCHOR BOLTS

If cut threads are used, body diameter shall be not less than nominal diameter. If rolled threads are used, body diameter shall be not less than root diameter of the threads.

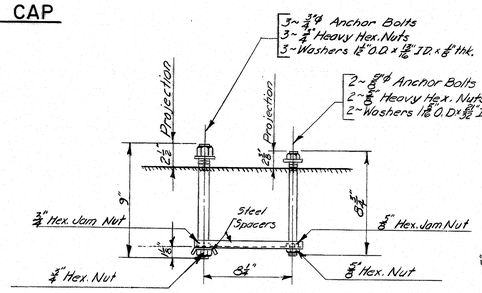


POST BASE
(Bottom View)

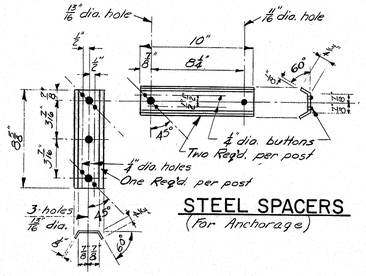
Preformed Pads, 1/8" thick after compression (Typ.). At least one pad shall be placed at Post & back under each post.



POST SECTION



RAIL POST ANCHORAGE
(Assembly)



STEEL SPACERS
(For Anchorage)

PLANS	BY	DATE
DESIGN - DETAILED	K. Leach	Nov. 1969
CHECKED	K. Leach	
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 114-73)

ALUMINUM RAILING
2 - BAR (SEMI-ELLIPSE)
EXTRUDED POST

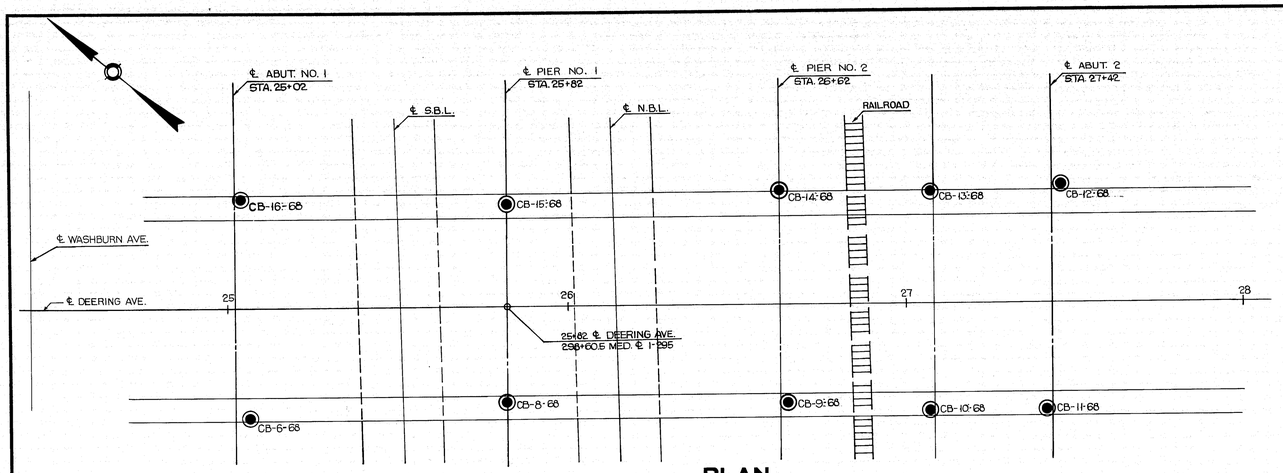
SHEET 34 OF 36 AUGUSTA, MAINE FEBRUARY 1973

JANUARY 1968

146-47

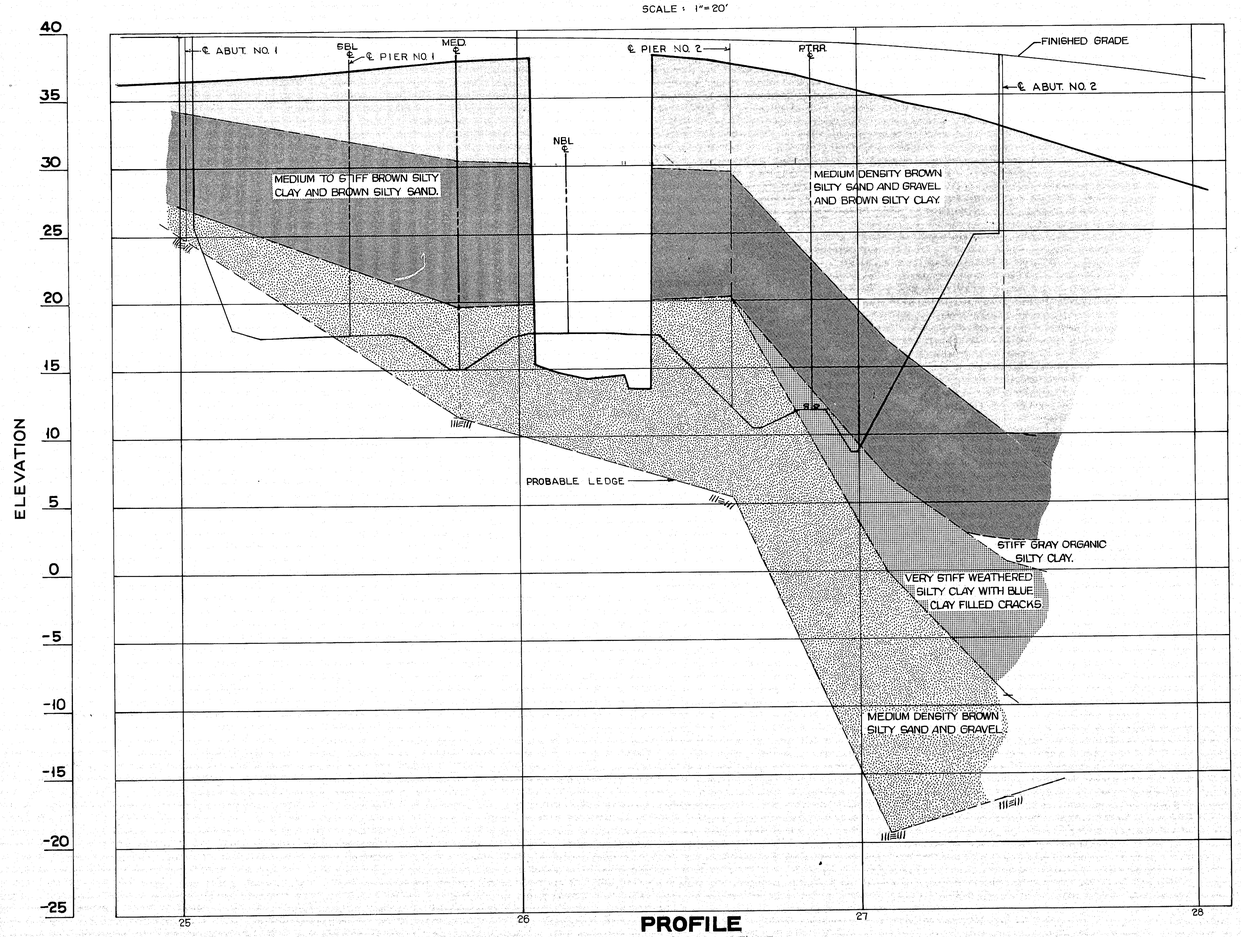
touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

R. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	20	76



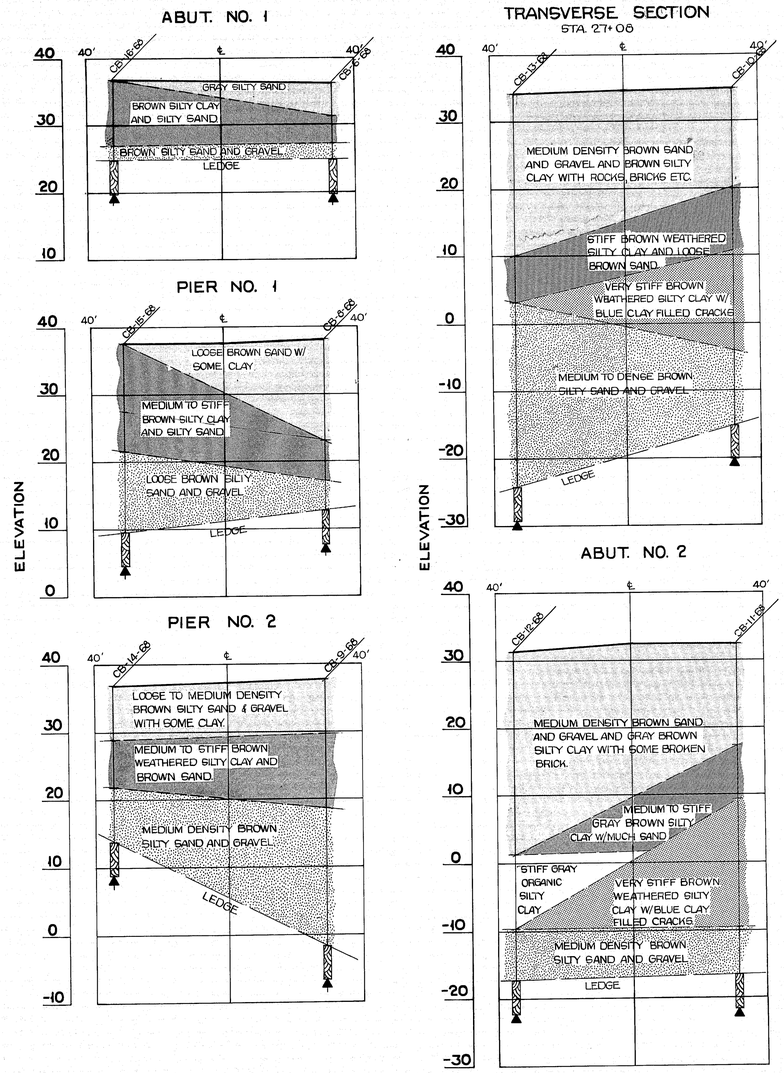
PLAN

SCALE : 1"=20'



PROFILE

SCALE : 1"=20' HORIZ. ; 1"=5' VERT.



PLANS	DATE	BY
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
FOUNDATION SURVEY

AUGUSTA, MAINE

JANUARY 1968

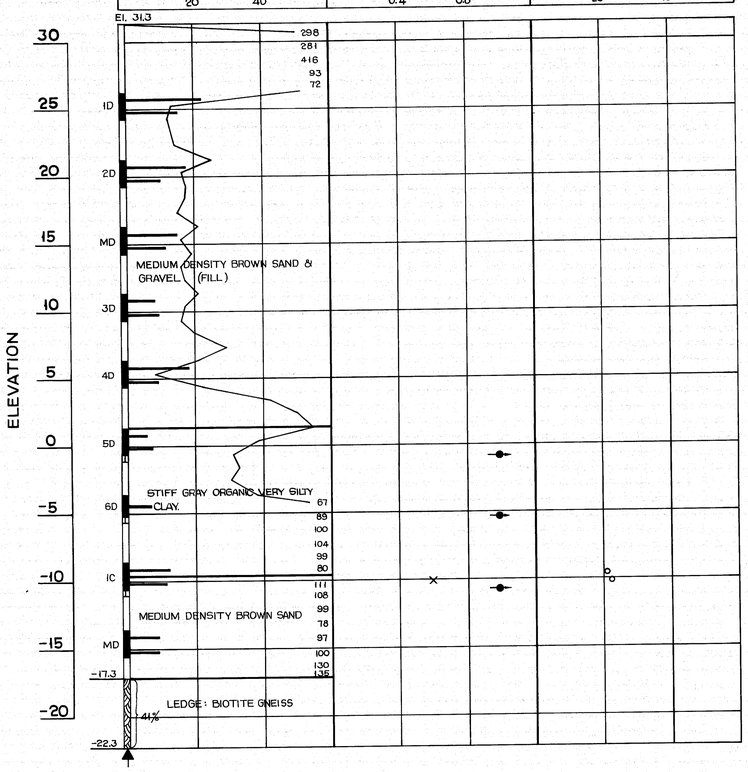
203-1 2050

122-30

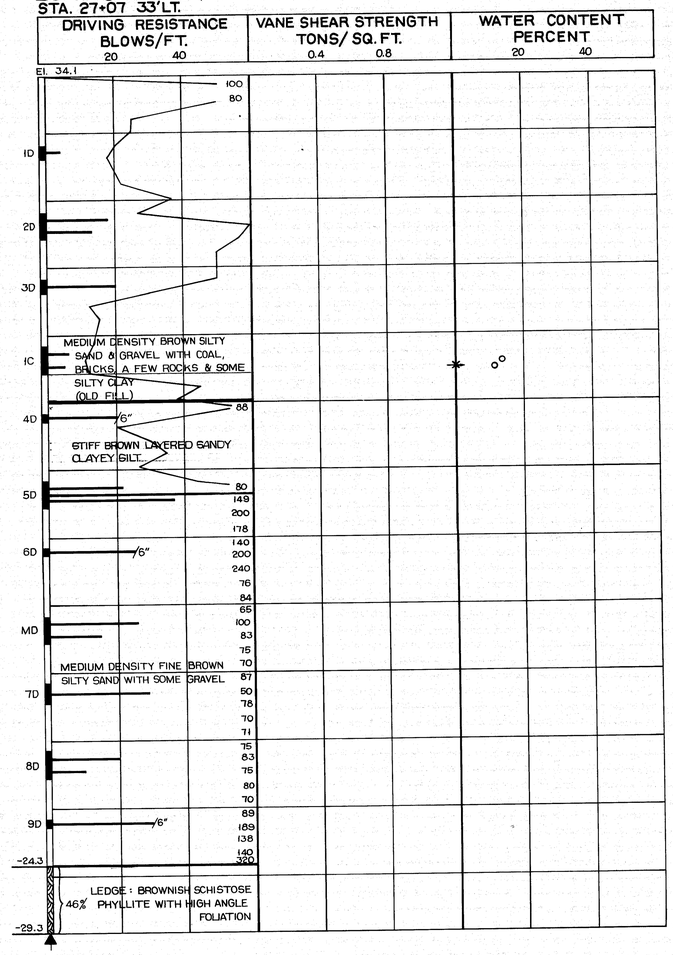
0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	21	76

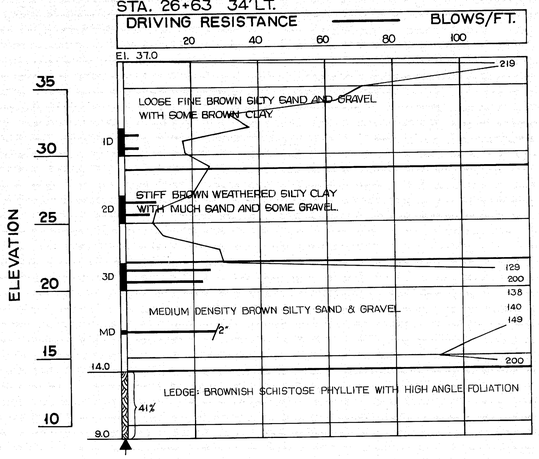
BORING CB-12 (68)
STA. 27+46 35'LT.



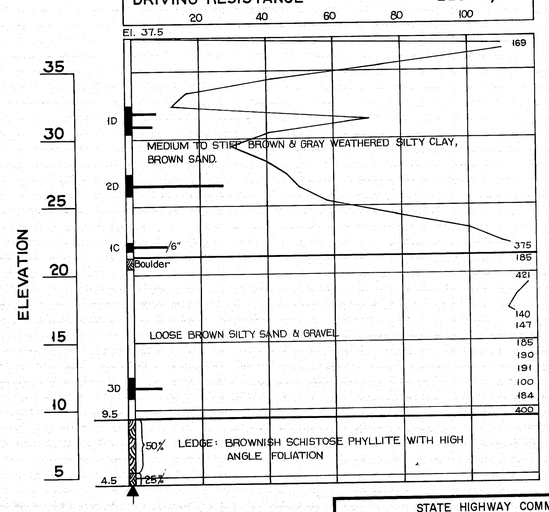
BORING CB-13 (68)
STA. 27+07 33'LT.



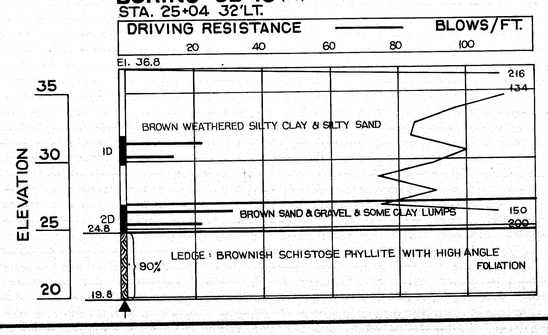
BORING CB-14 (68)
STA. 26+63 34'LT.



BORING CB-15 (68)
STA. 25+82 30'LT.



BORING CB-16 (68)
STA. 25+04 32'LT.



PLANS	DATE	BY
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
BORING DETAILS

AUGUSTA, MAINE

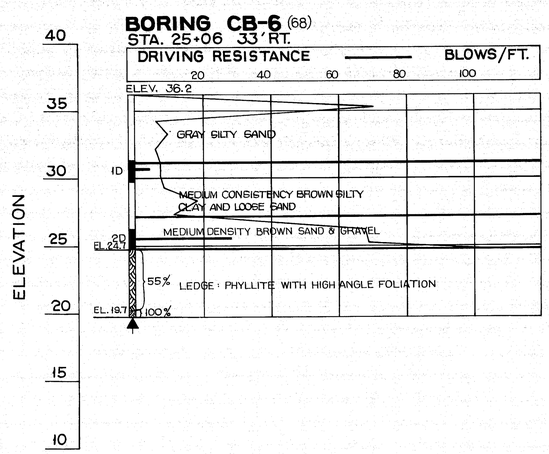
JANUARY 1968

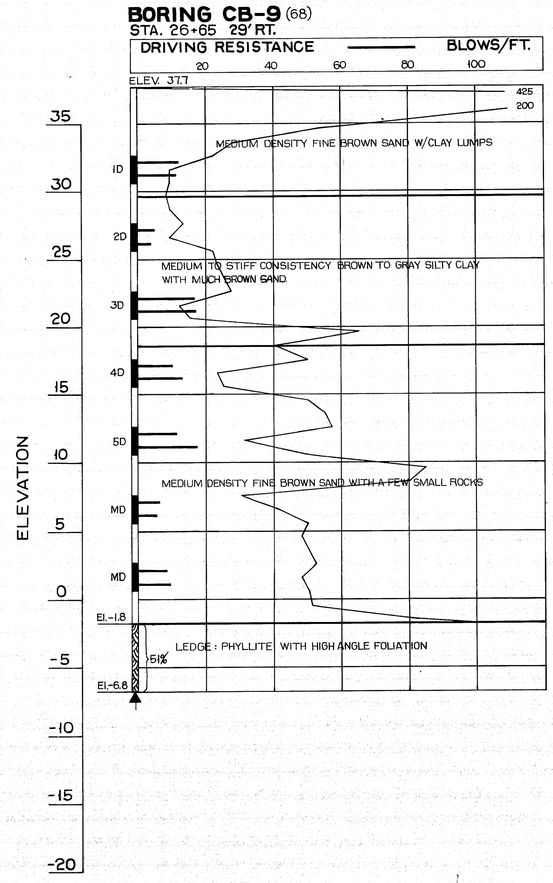
203-1 2080

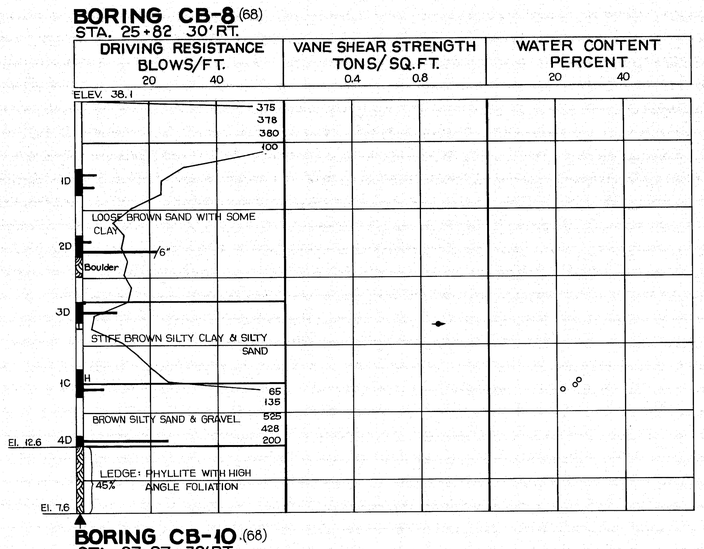
122-37

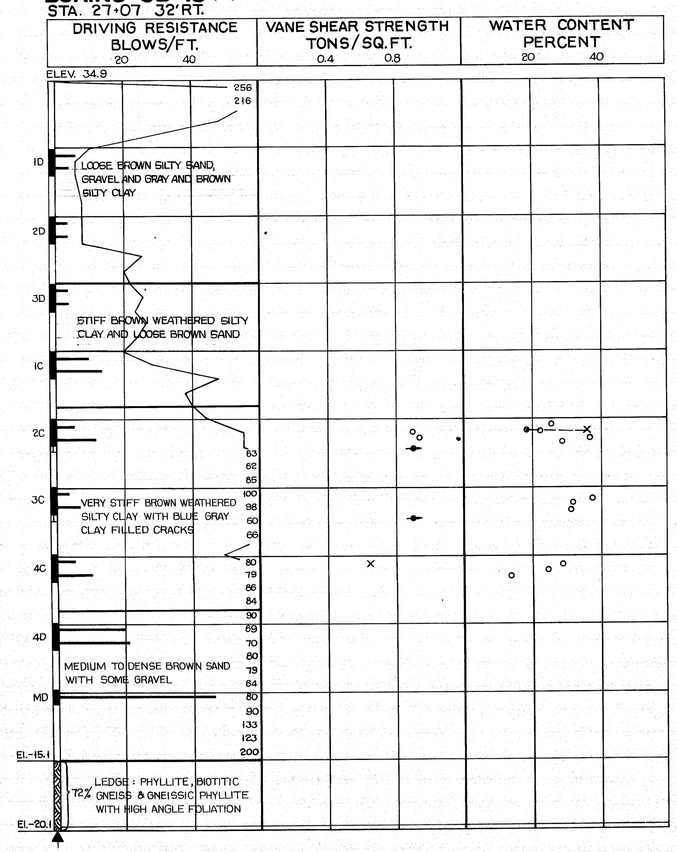
0 1 2 3 4 5 6

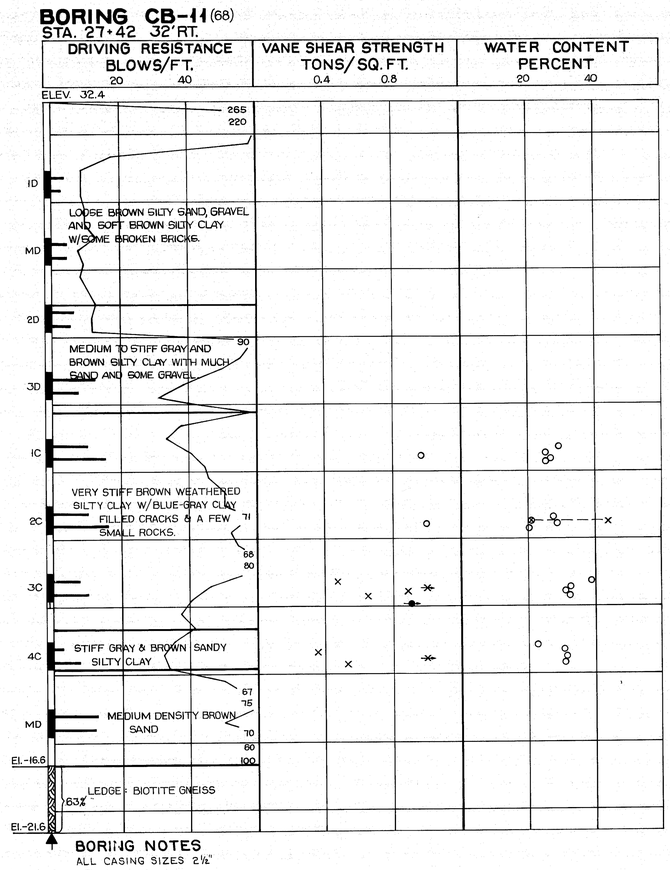
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	22	76











BORING NOTES

ALL CASING SIZES 2½"

ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING

N — 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

1D — S & H SAMPLER #1290's

1C — 2" 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

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)

71% — LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

SHEAR NOTES

● 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

DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
BORING DETAILS

AUGUSTA, MAINE

203-1 2060

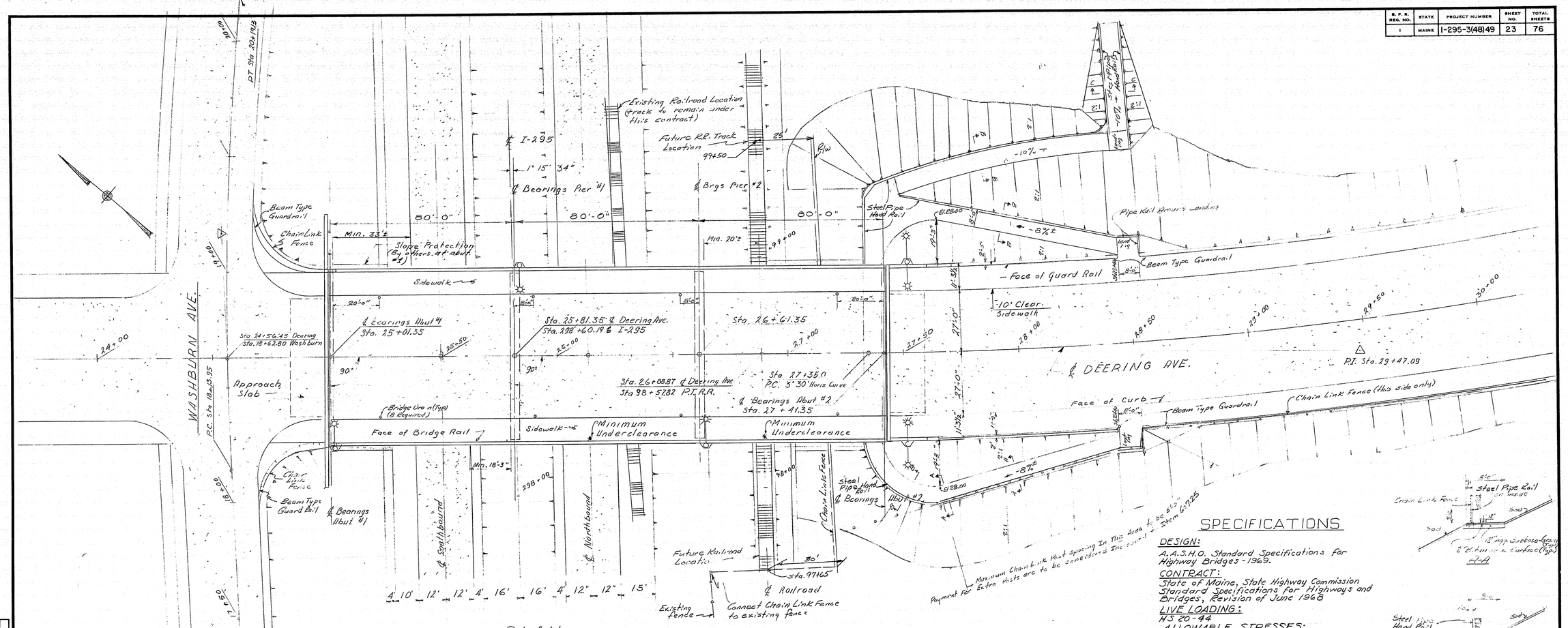
122-32

PLANS	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

JANUARY 1968

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	23	76



PLAN
scale: 1" = 20'

ELEVATION
Scale 1" = 20'

SPECIFICATIONS

DESIGN:
A.A.S.H.O. Standard Specifications for Highway Bridges - 1969.

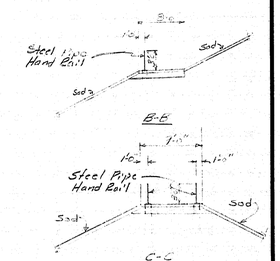
CONTRACT:
State of Maine, State Highway Commission Standard Specifications for Highways and Bridges, Revision of June 1968

LIVE LOADING:
HS 20-44

ALLOWABLE STRESSES:
Concrete (n=10) fc = 1,200 psi.
Reinforcing Steel fs = 20,000 psi.
Structural Steel, A.S.T.M. Designation A572 - Grade 50 Base Metal fs = 27,000 psi; A.S.T.M. Designation A36 fs = 20,000 psi.

CONCRETE CLASSIFICATION:
All Concrete shall be Class A except Slope Protection which shall be Class "Y"

BITUMINOUS MATERIAL:
Bituminous Material for Membrane Waterproofing is to be Asphalt - Type B



PLANS	BY	DATE
DESIGN - DETAILED	AHL	6-70
CHECKED	AD	6-70
REVISIONS	AHL	7-4-70
FIELD CHANGES		

Position Plan : AHL

As Built June, 1972

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

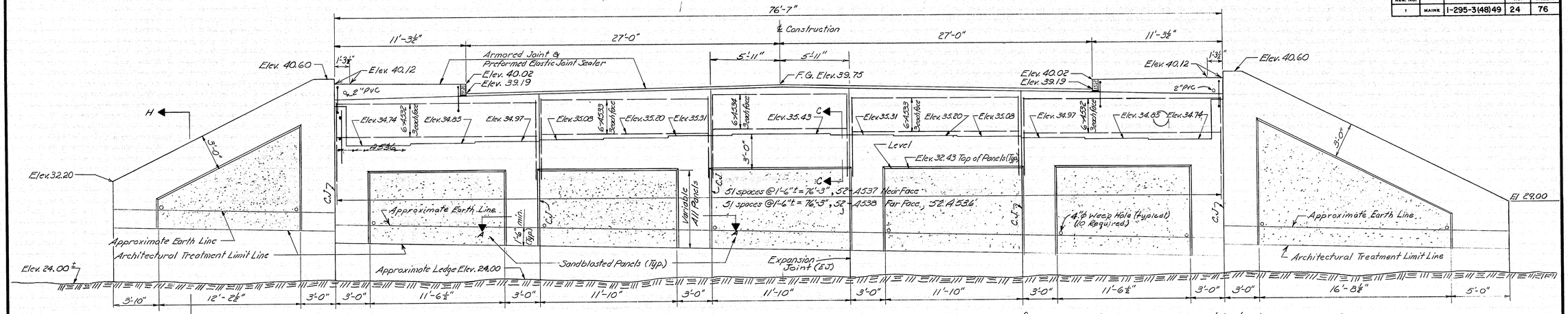
GENERAL PLAN

SHEET 1 OF 19 AUGUSTA, MAINE JUNE 1970

122-33

JANUARY 1969

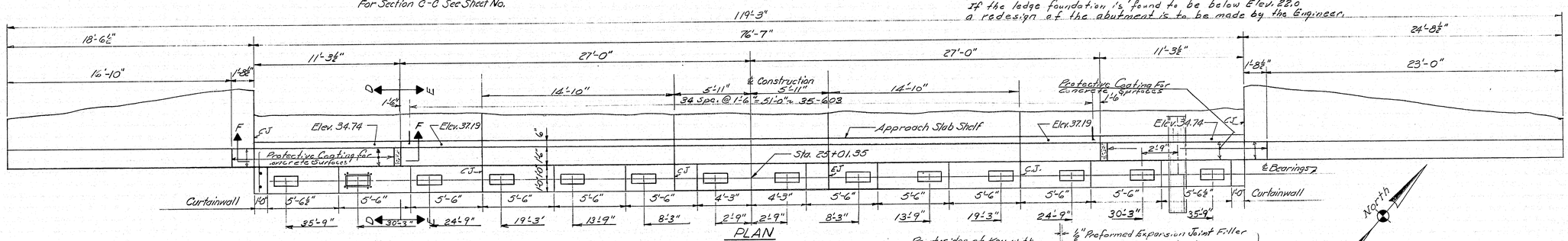
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	24	76



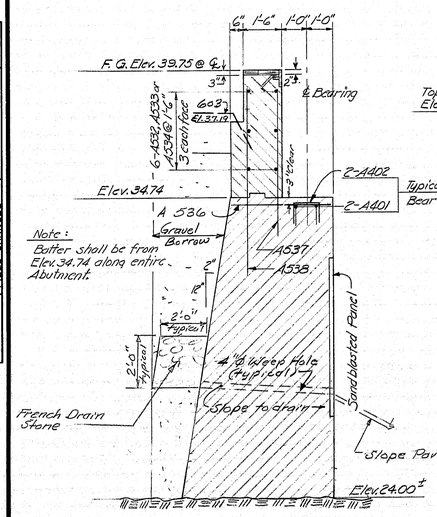
Note:
For Section A-A See Sheet No.
For Section C-C See Sheet No.

ELEVATION

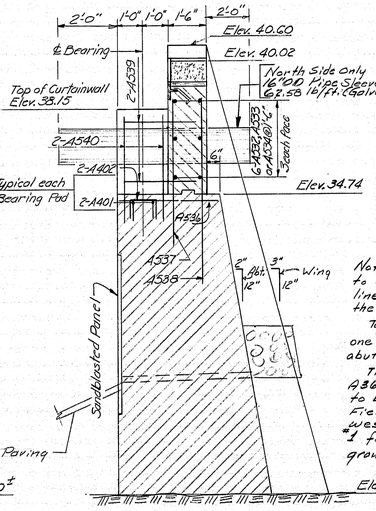
Note: Ledge foundation is to be made approximately level normal to ℄ of bearings, and roughened at the direction of the Engineer.
If the ledge foundation is found to be below Elev. 22.0 a redesign of the abutment is to be made by the Engineer.



PLAN



SECTION E-E



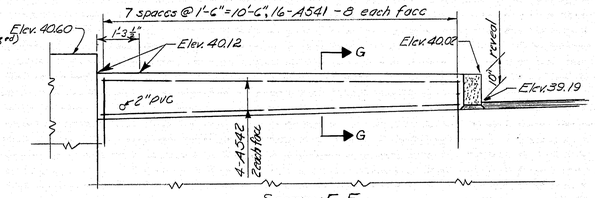
SECTION D-D

Note: 16" OD Pipe Sleeves are to be in place on the 12" gas line before the concrete of the backwall is placed.

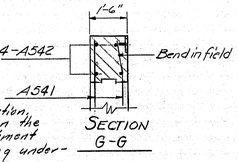
Two sleeves are required - one at abutment #1 and one at abutment #2. See Sheet 4.

The sleeves are to be of A36 or A53 steel and are to be galvanized after fabrication. Field welding will be allowed on the west end of sleeve at abutment #1 for the purpose of connecting underground gas main sleeve.

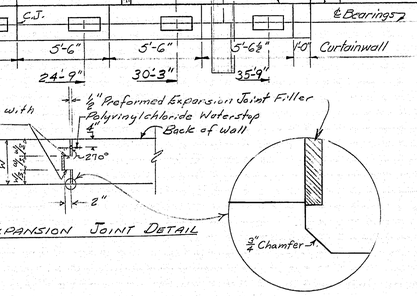
16" O.D. Pipe sleeves are to be paid for under Item 504.72



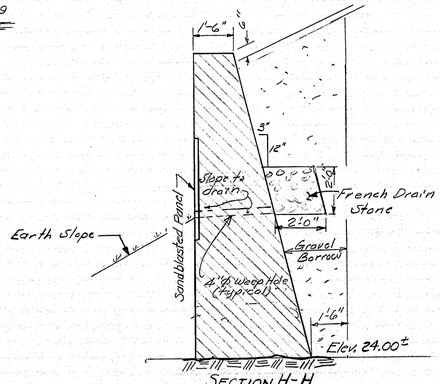
SECTION F-F
Typical for North Sidewalk Also



SECTION G-G



EXPANSION JOINT DETAIL



SECTION H-H
Typical

GENERAL ABUTMENT NOTES

1. See Sheet No. 6 for Notes concerning Architectural Treatment.
2. See Sheet No. 4 General Abutment Notes.
3. See Sheet No. 4 for Construction Joint Detail
4. See Sheet No. 12 for Armored Joint & Preformed Elastic Joint Sealer - Details
5. Fascia area of Abutment other than sandblasted panels, shall be hand rubbed to Architectural Treatment Limit Line and down to 1'-6" below earth line.
6. Structure foundation shall be solid ledge. All excavation to solid ledge will be paid for at the unit bid price for the respective excavation item.

All Abutment Concrete to be Class A

PLANS	BY	DATE
DESIGN - DETAILED	G.D.T.	6/12/70
CHECKED	G.P.W.	7-31-70
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

ABUTMENT NO. 1

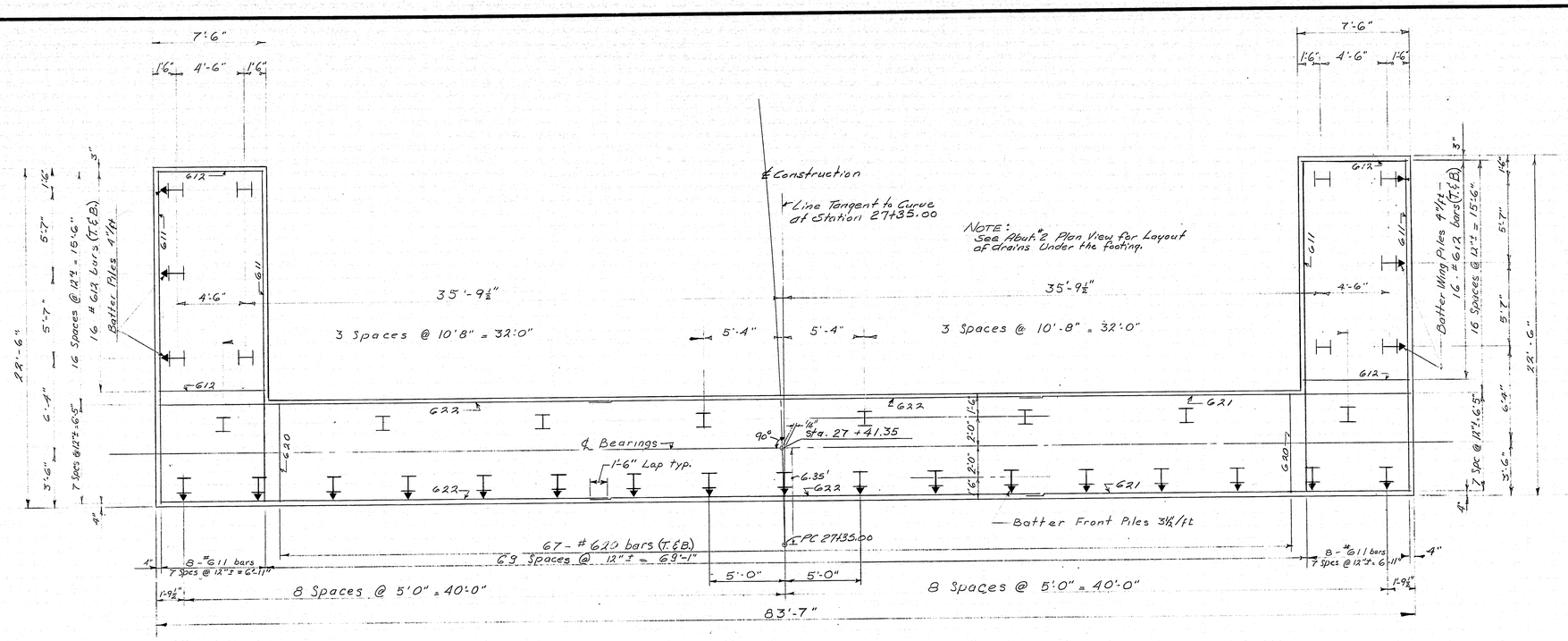
SHEET 2 OF 19 AUGUSTA, MAINE JUNE 1970

122-34

JANUARY 1969

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	25	76

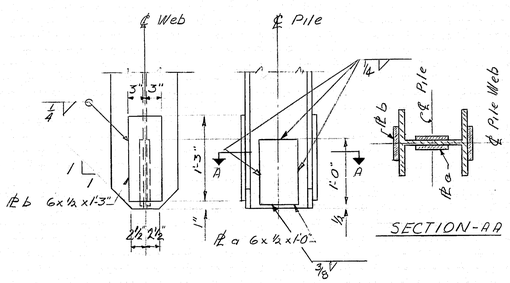


ABUTMENT NO. 2 FOOTING PLAN

Legend:
T. = Top
B = Bottom

ABUTMENT PILE NOTES

1. All Abutment Piles shall be 10BP42
2. Maximum Pile Load = 46.5 Tons
3. Piles marked thus ⊢▶ shall be battered in the direction of the arrow as follows:
   17 Piles on the front, battered 3½"/ft.
   3 Piles on each side battered 4"/ft
4. Piles shall be driven to ledge or practical refusal.
5. Piles shall be cut off at 1'-6" ±6" above the elevation of the bottom of the footing.
6. Piles required for Abutment #2 = 35
7. Estimated Pile length = 46 ft.
8. All Piles shall have Pointed Reinforced Tips; see detail, this sheet.



POINTED REINFORCED PILE TIP DETAIL

All Abutment Concrete to be Class A

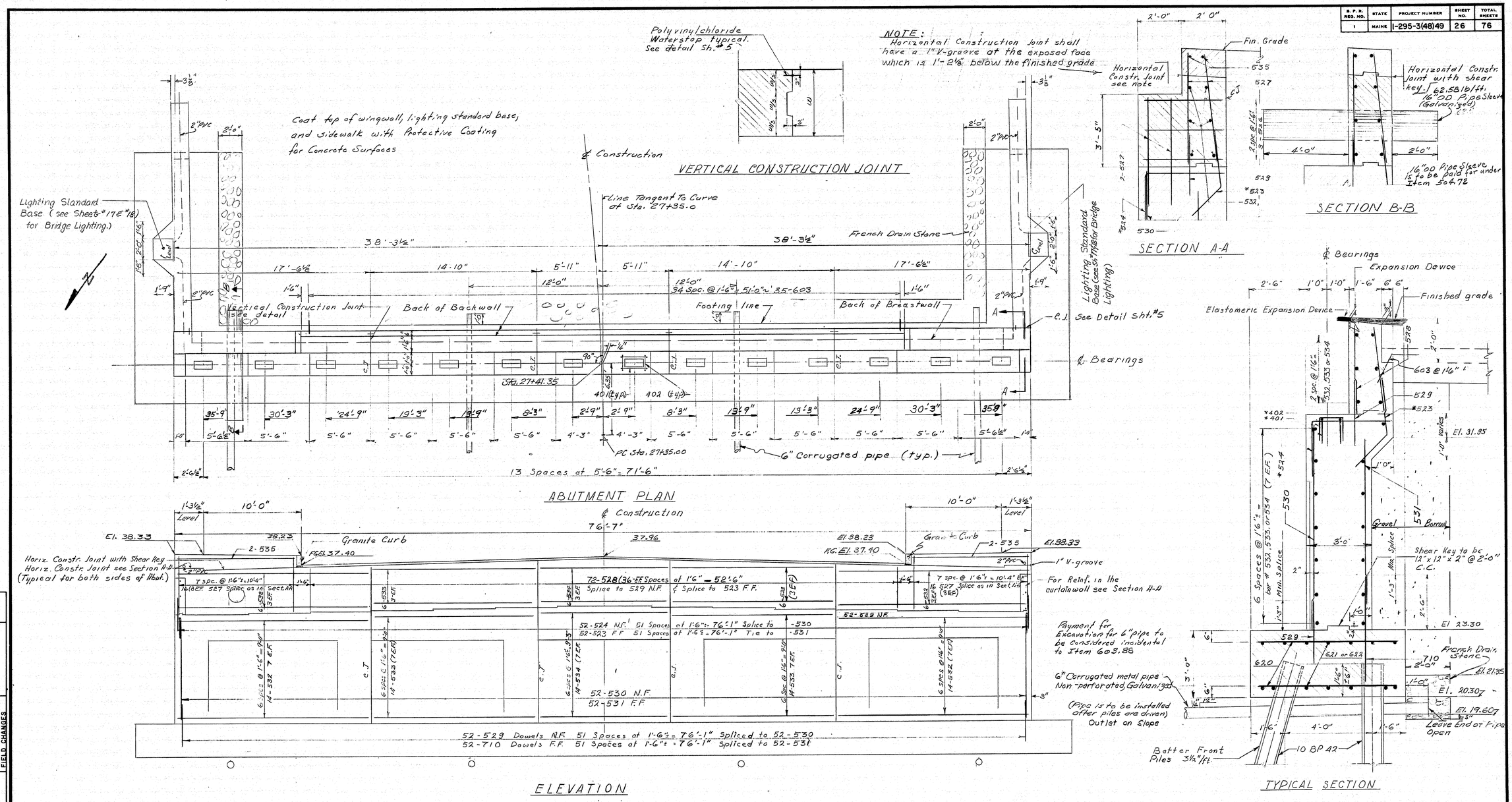
PLANS		BY	DATE
	DESIGN - DETAILED	GDT	6-70
	CHECKED	CDH	12-28-70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION
DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
FOOTING—ABUT. NO. 2
SHEET 3 OF 19 AUGUSTA, MAINE JUNE 1970

122-35

JANUARY 1968

F. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	26	76



GENERAL ABUTMENT NOTES

1. All reinforcing steel shall be 2" clear except as indicated
2. All reinforcing steel splices shall be a minimum length of 24 bar diameters unless otherwise indicated.
3. Chamfer all exposed edges of concrete 3/4", unless otherwise indicated
4. Position reinforcing steel to clear swedged anchor bolts.
5. For Elastomeric Expansion Device details see Sheet #12
6. For Architectural Treatment see Sheet #6 includes Bearing Elevations
7. For Abutment no. 2 Wing details see Sheet #5
8. For Abutment no. 2 Footing details see Sheet #3
9. For Reinforcing Steel Schedule see Sheet #19
10. For Curb Details see Sheet #11
11. Elevations shown are at front face of backwall
12. See Sheets #17 & #18 for Bridge Lighting Details

LEGEND:

C.J.	Construction Joint
E.F.	Each Face
N.F.	Near Face.
F.F.	Far Face.

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

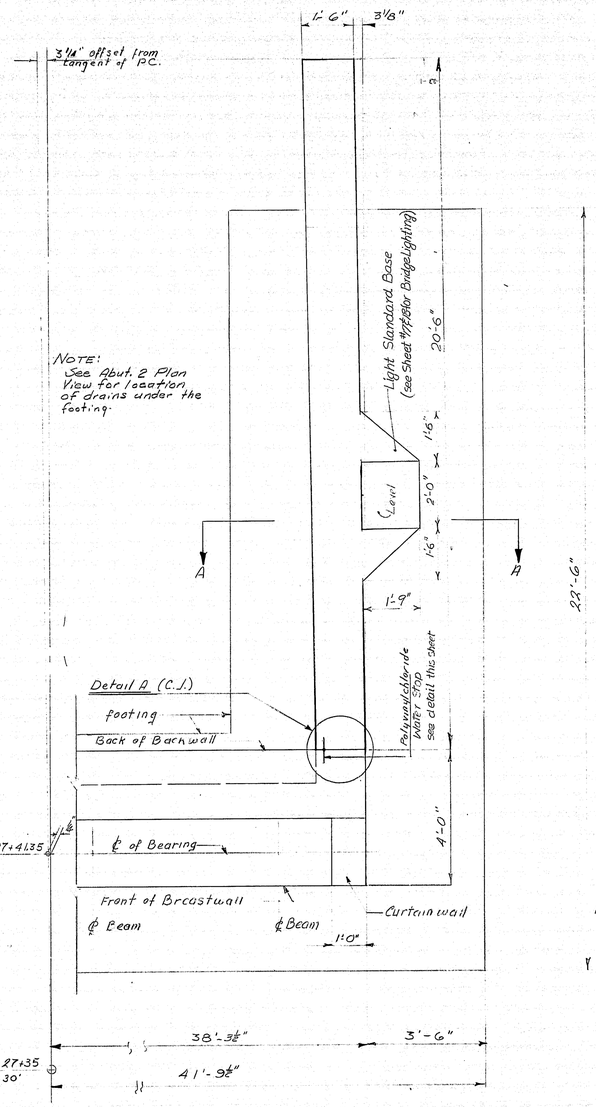
ABUTMENT NO. 2

SHEET 4 OF 19 AUGUSTA, MAINE JUNE 1970

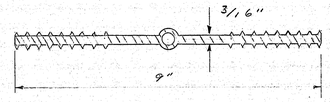
122336

PLANS	BY	DATE
DESIGN - DETAILED	G.O.T.	5-70
CHECKED	A.D.D.	5-70
REVISIONS	C.D.H.	7-28-70
FIELD CHANGES		

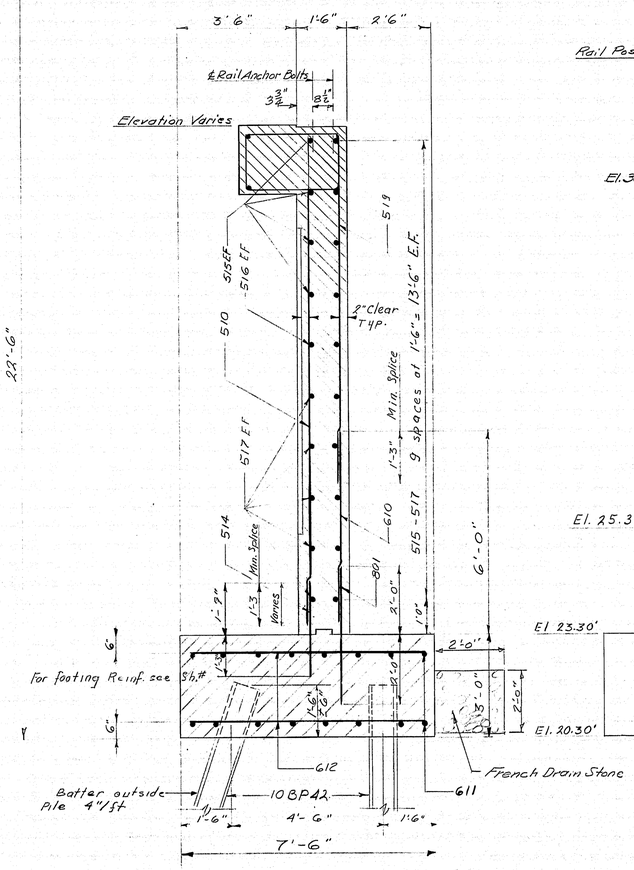
S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	27	76



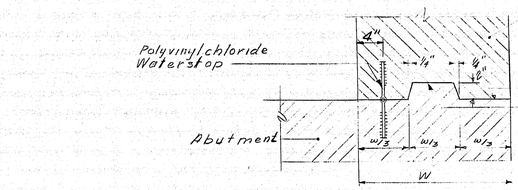
WING PLAN



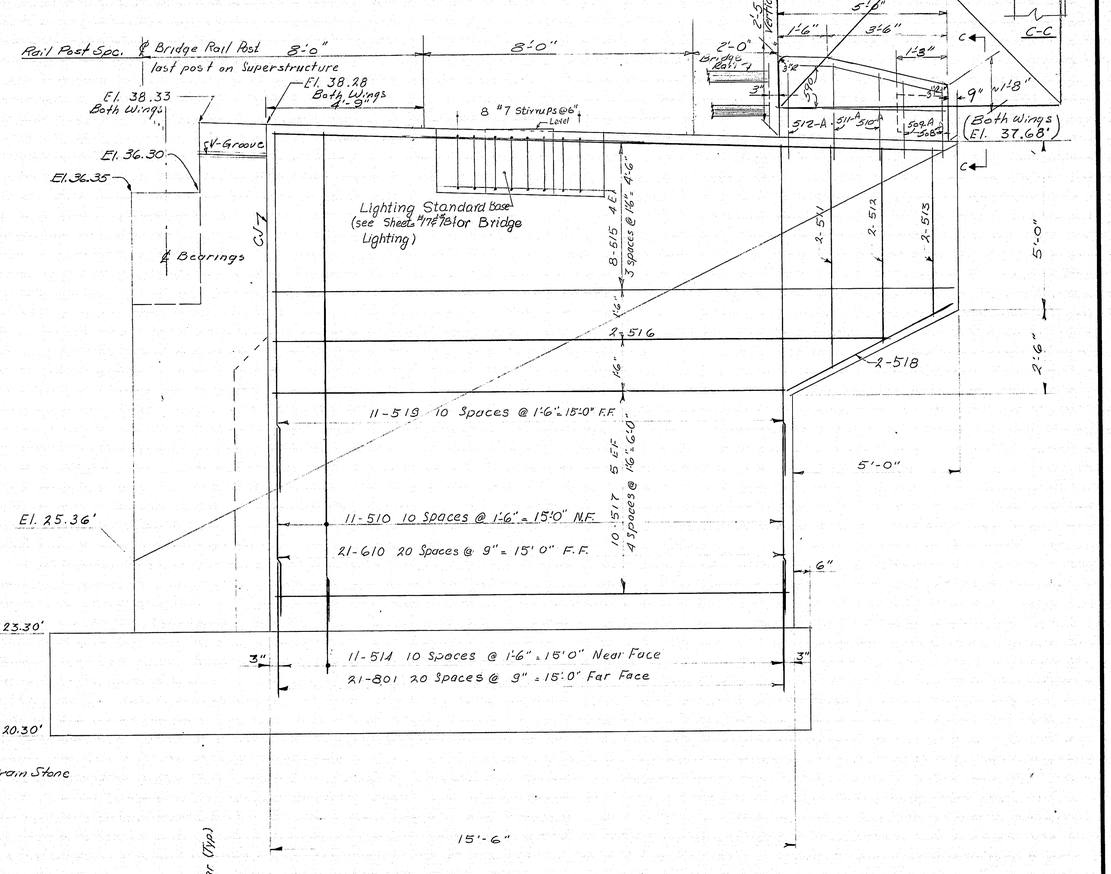
POLYVINYLCHLORIDE WATERSTOP DETAIL



SECTION A-A



DETAIL A Construction Joint at Wingwall

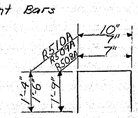


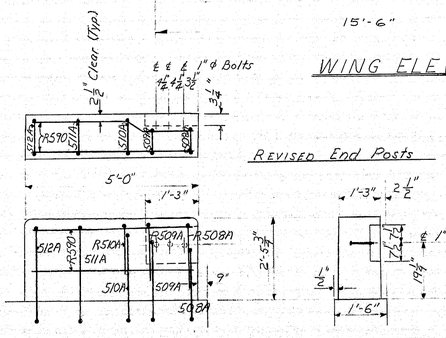
WING ELEVATION

NOTE:
New Reinforcing Steel Needed
(508-A thru 512-A Remain in Place)

Mark	Size	No.	Length
* R508A	5	2	4'-7"
* R509A		2	4'-7"
* R510A		2	4'-10"
R590		8	4'-7"

* Bent Bars





REVISED End Posts

Revision
End Post Revised 10-11-71 W.L.K.

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

WINGS-ABUT. NO. 2

SHEET 5 OF 19 AUGUSTA, MAINE JUNE 1970

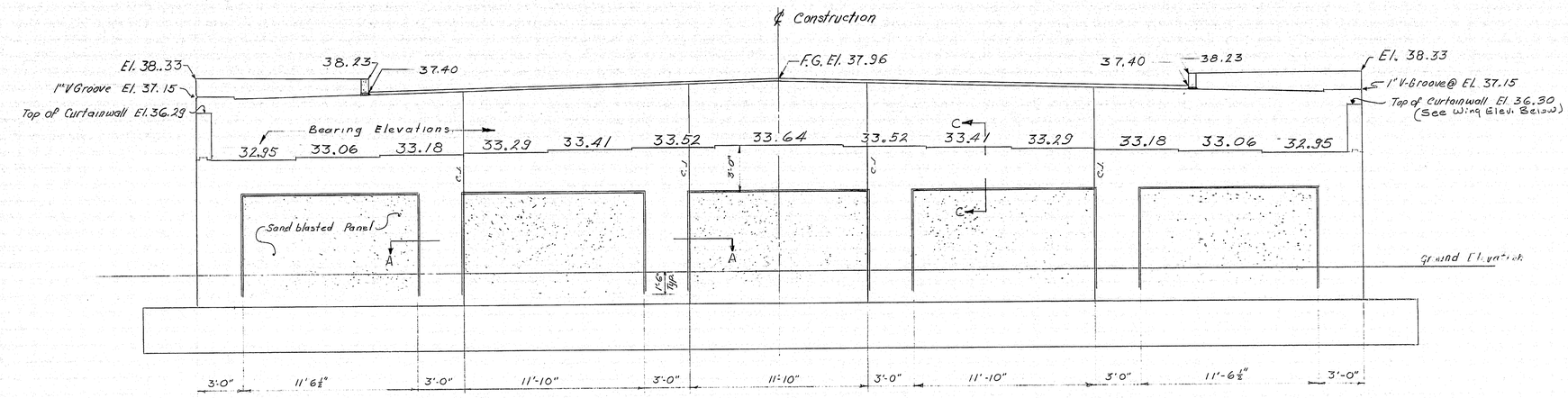
1222-37

PLANS	BY	DATE
DESIGN-DETAILED	G.O.T.	8-3-70
CHECKED	C.D.H.	10-11-71
REVISIONS	W.L.K.	
FIELD CHANGES		

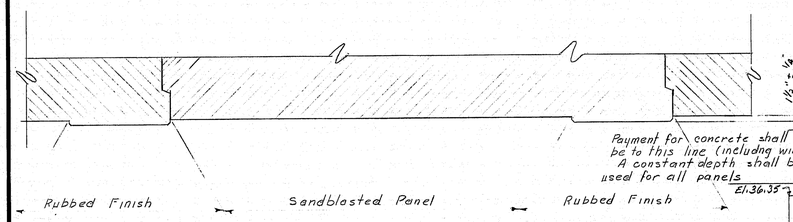
JANUARY 1969

0 1 2 3 4 5 6

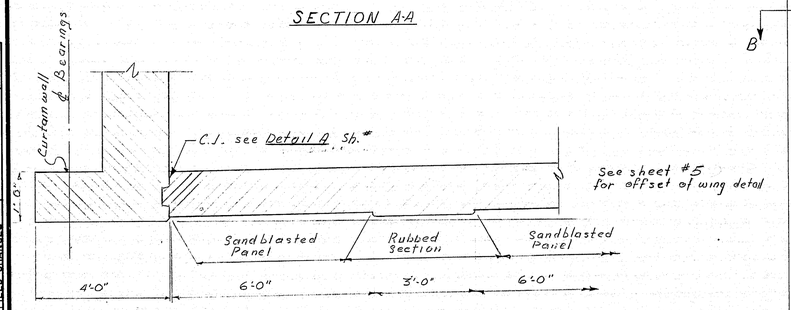
S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	28	76



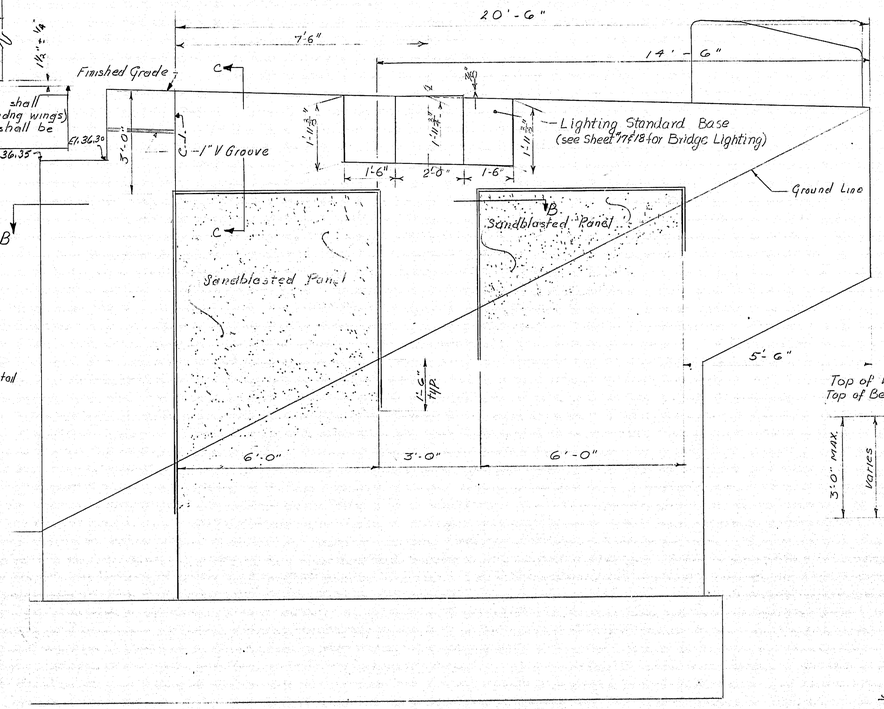
ARCHITECTURAL TREATMENT OF ABUTMENT



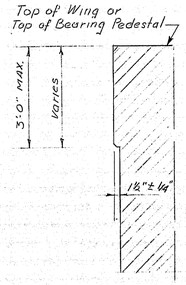
SECTION A-A



SECTION B-B



ARCHITECTURAL TREATMENT OF WING



SECTION C-C

NOTES:

All surfaces so designated on the plans shall be sandblasted. These surfaces shall be carried to a minimum depth of 18" 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 slabs (2'x2'x4"). 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."

PLANS	BY	DATE
DESIGN - DETAILED	GDT	6-70
CHECKED	ADD	7-30-70
REVISIONS	CDH	
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

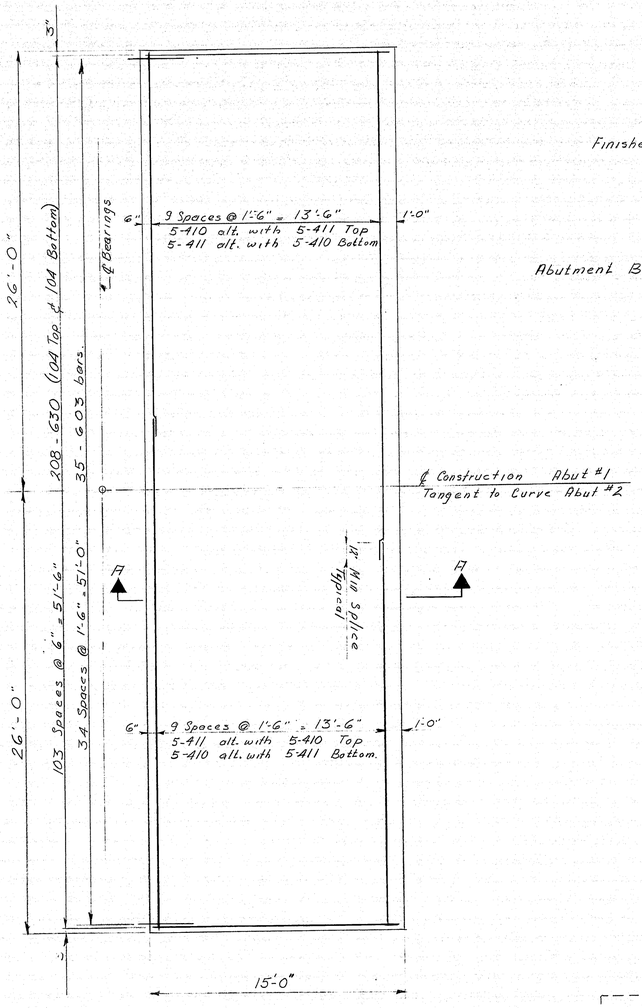
ARCHITECTURAL TREATMENT

SHEET 6 OF 19 Sheet No. AUGUSTA, MAINE JUNE 1970

122-38

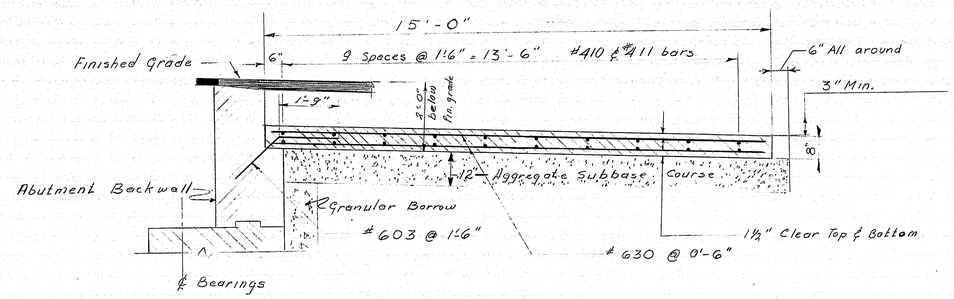
JANUARY 1968

R. F. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	29	76

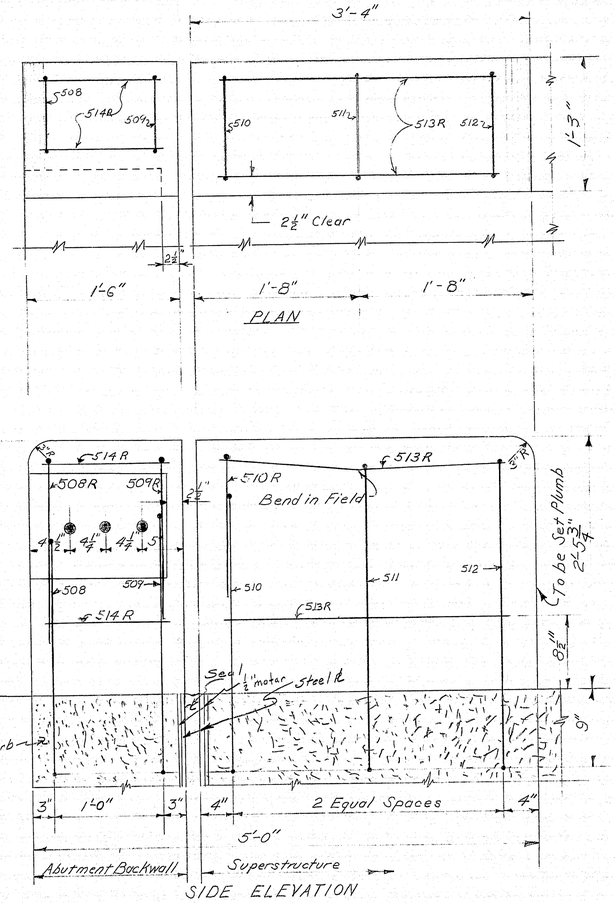


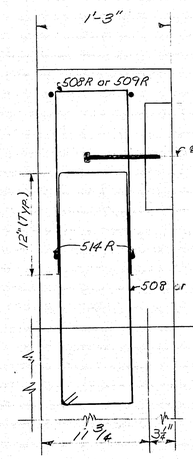
APPROACH SLAB PLAN

Slab for Abut #2 as shown
Slab for Abut #1 opposite hand.

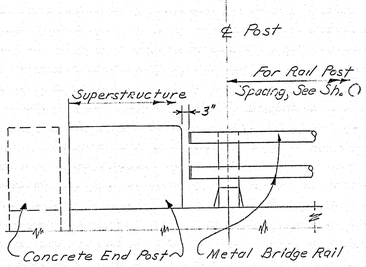


SECTION A-A





END ELEVATION



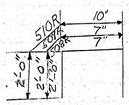
BRIDGE RAIL DETAIL

(Elevation View - Abutment #1 End)

NOTE:
New Reinforcing Steel Needed For Revision
(508 thru 512 Remain in Place)

Mark	Size	No.	Length
* 508R	5	2	4'-7"
* 509R		2	4'-7"
* 510R		2	4'-10"
513R		8	3'-0"
514R		8	1'-1"

* Bent Bars.



CONCRETE END POST DETAILS

Two Concrete End Posts as shown above are required and are to be located at abutment #1 end of the bridge. See abutment #2 sheets for end posts at abutment #2.

Payment for these posts is to be incidental to Item 502.26 "Structural Concrete, Roadway and Sidewalk Slabs on Steel Bridges" except that the reinforcing steel in the end posts will be paid for under Item 503.12 and Item 503.13

Revision:
End Post Revised 10-11-71 W.L.K.

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND

CUMBERLAND COUNTY

APPROACH SLAB & END POST DETAILS

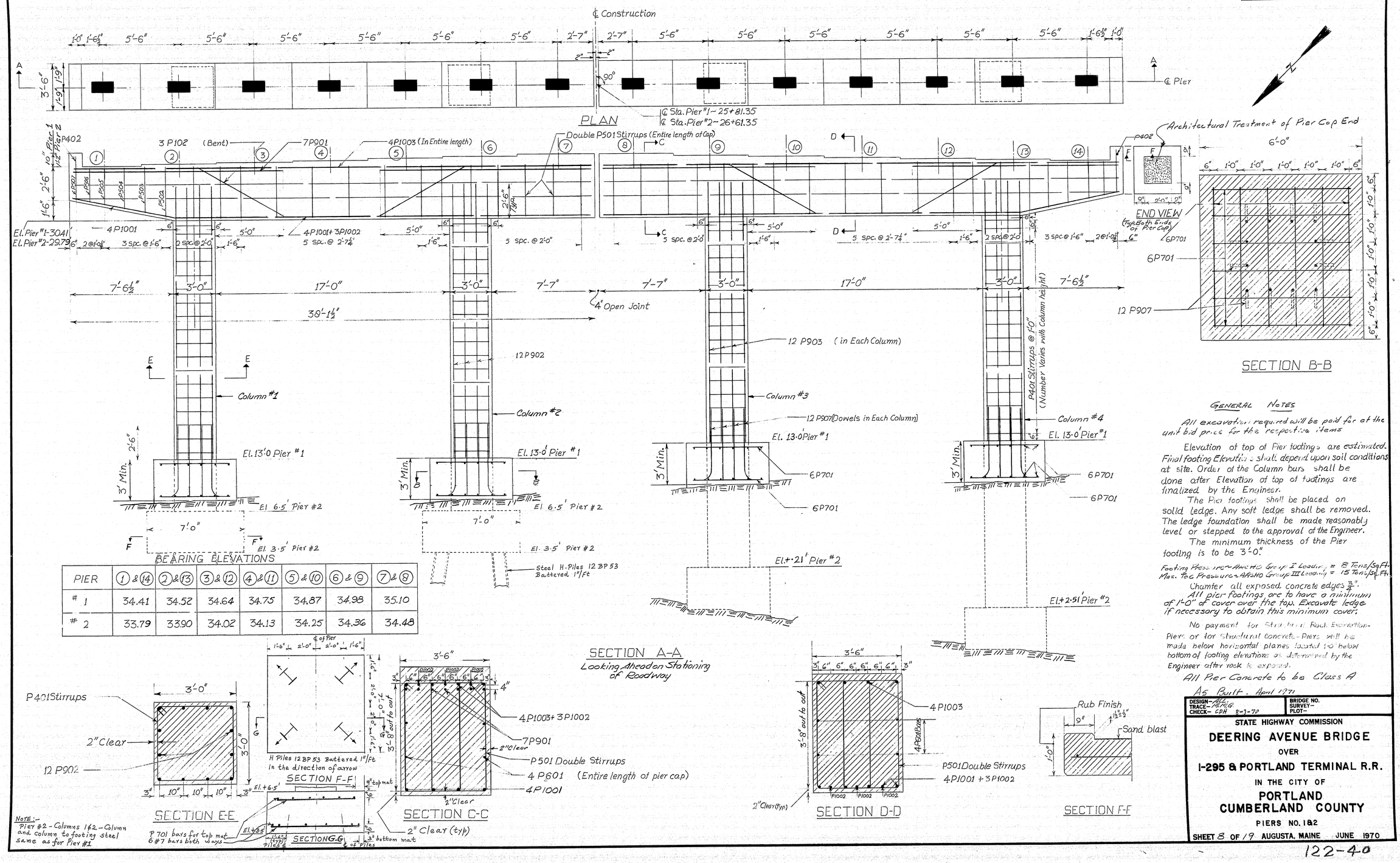
SHEET 7 OF 19 AUGUSTA, MAINE JUNE 1970

122-39

PLANS	BY	DATE
DESIGN - DETAILED	ALL	6-70
CHECKED	GDM	5-28
REVISIONS	W.L.K.	10-71
FIELD CHANGES		

JANUARY 1969

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	30	76



BEARING ELEVATIONS

PIER	1 & 14	2 & 13	3 & 12	4 & 11	5 & 10	6 & 9	7 & 8
# 1	34.41	34.52	34.64	34.75	34.87	34.98	35.10
# 2	33.79	33.90	34.02	34.13	34.25	34.36	34.48

NOTE:– Pier #2 – Columns 1 & 2 – Column and column to footing steel same as for Pier #1

GENERAL NOTES

All excavation required will be paid for at the unit bid price for the respective items

Elevation of top of Pier footings are estimated. Final footing Elevations shall depend upon soil conditions at site. Order of the Column bars shall be done after Elevation of top of footings are finalized by the Engineer.

The Pier footings shall be placed on solid ledge. Any soft ledge shall be removed. The ledge foundation shall be made reasonably level or stepped to the approval of the Engineer.

The minimum thickness of the Pier footing is to be 3'-0".

Footing Pressure – AASHTO Group I Loading = 8 Tons/Sq Ft
Max. Toe Pressure – AASHTO Group III Loading = 15 Tons/Sq Ft

Chamfer all exposed concrete edges ¾".

All pier footings are to have a minimum of 1'-0" of cover over the top. Excavate ledge if necessary to obtain this minimum cover.

No payment for Structural Rock Excavation – Piers or for Structural Concrete – Piers will be made below horizontal planes located 1'-0" below bottom of footing elevations as determined by the Engineer after rock is exposed.

All Pier Concrete to be Class A

As Built. April 1971

DESIGN– ALL
TRACE– VAPHG
CHECK– CDH 8-3-70

BRIDGE NO.
SURVEY–
PLOT–

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

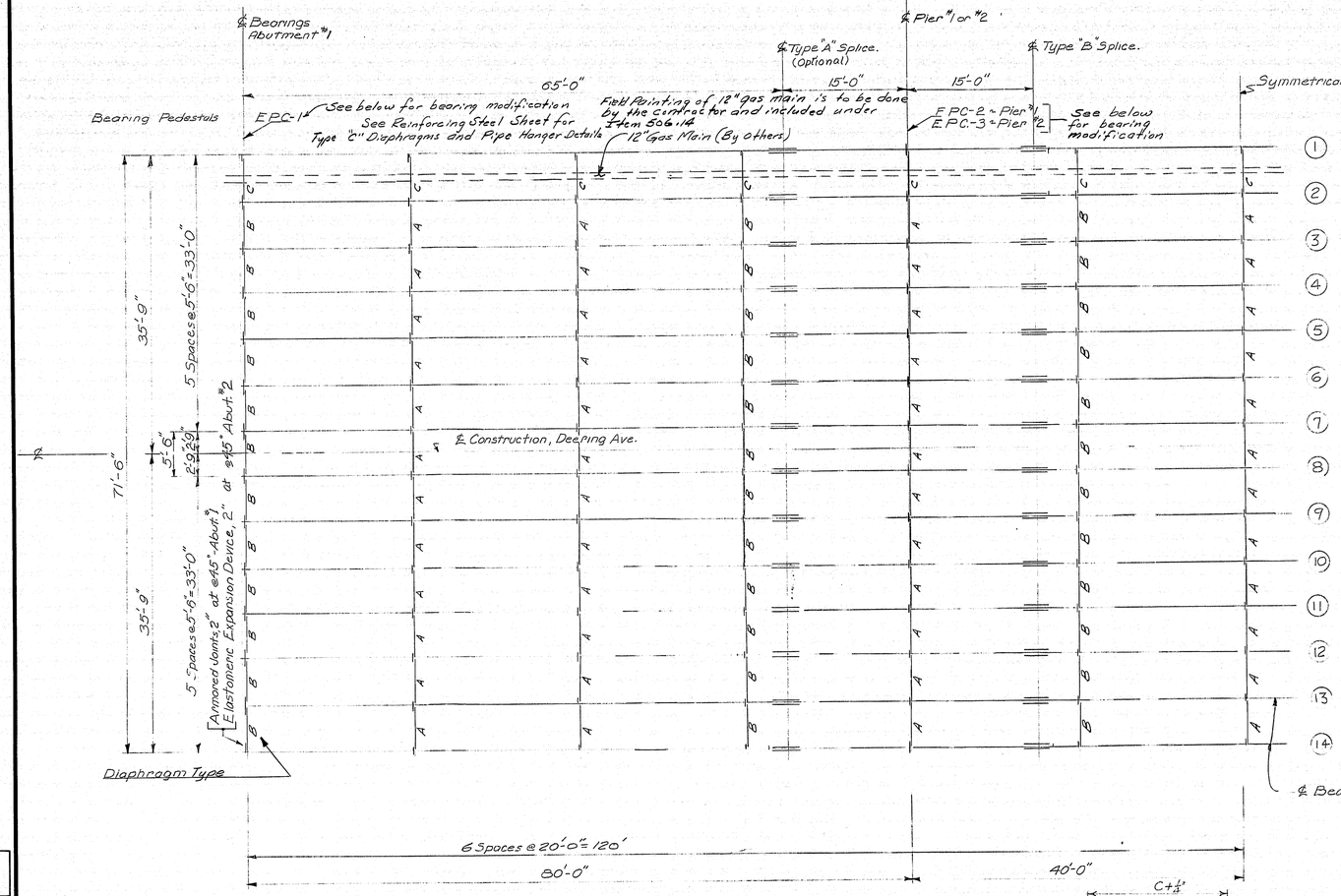
PORTLAND
CUMBERLAND COUNTY

PIERS NO. 1 & 2

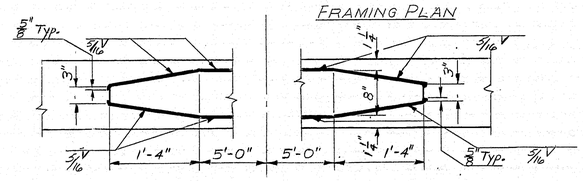
SHEET 8 OF 19 AUGUSTA, MAINE JUNE 1970

122-40

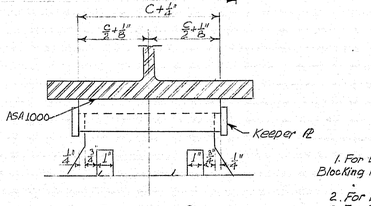
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	31	76



FRAMING PLAN

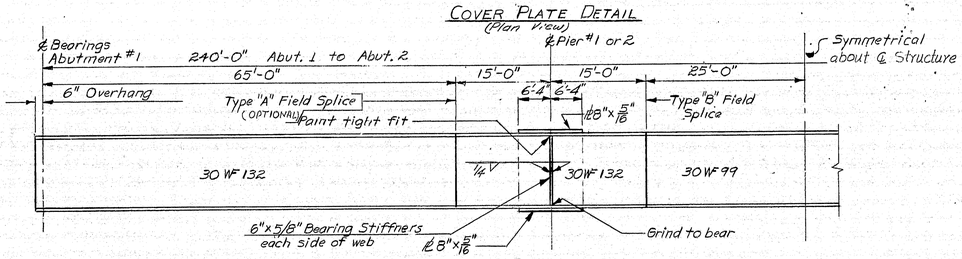


COVER PLATE DETAIL
(Plan View)

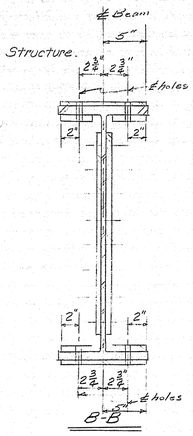


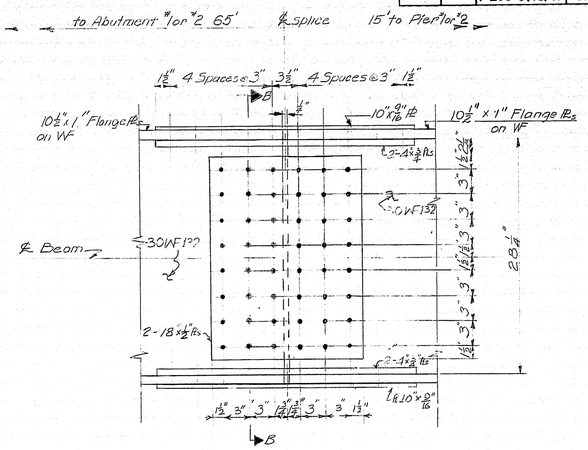
MODIFIED PADESTAL CAPS

Modified Pedestals to be used on stringer lines 1 thru 4 & 11 thru 14 for bearing padestals type EPC1", EPC 3 & EPC 2.
See Sheet BD 101-70

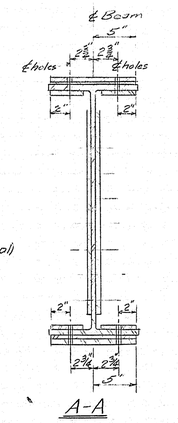


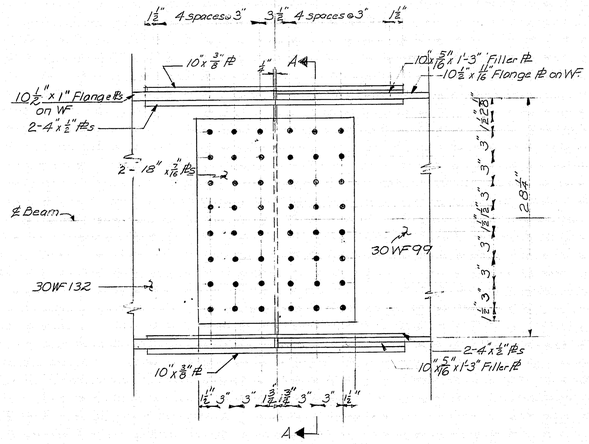
ELEVATION





TYPE "A" FIELD SPLICE
(Optional - see notes)
℄ splice (For Location see Elevation View this sheet)





TYPE "B" FIELD SPLICE

REFERENCES

1. For Bottom of Slab Elevations, Slope & Shear Connector Diagrams, Blocking Point Diagram + Detail, Typical Beam section see Sh. #10
2. For Elastomeric Expansion Device Details see sheet #12
3. For Bearing Pedestals see Standard Details, BD 101-70
4. For Armored Joint Details see Sheet BD 104-66 and Sheet 12
5. For Type "C" Diaphragms See Sheet #19
6. For Lighting Bracket see Sheet #17

NOTES

1. 30WF 132, 30WF 99, Bearing Stiffeners & Splice PL shall be of ASTM A572 Grade 50 Steel
2. Diaphragms and diaphragm connection plates shall be A.S.T.M. A36 Steel
3. Type 'A' Field Splice may be omitted at the option of the Contractor. The beams will be required to meet the Camber Diagram shown on Sh. #10
4. For Rocker Setting Data, see Sh. #10

SPLICE NOTES

All splice steel to be ASTM A 572 Grade 50.
Bolts to be 5/8" Ø High Strength Bolts, ASTM A325, Holes to be 11/16" Ø.

		BY	DATE
PLANS	Prel. Plans Eng. Hdq.		
	DESIGN - DETAILED	P.M.	6-70
	CHECKED	AD	
	REVISIONS	CDH	7-28-70
	FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
FRAMING & SPLICES

SHEET 9 OF 19 AUGUSTA, MAINE JUNE 1970

122-41

JANUARY 1969

295-1 2066

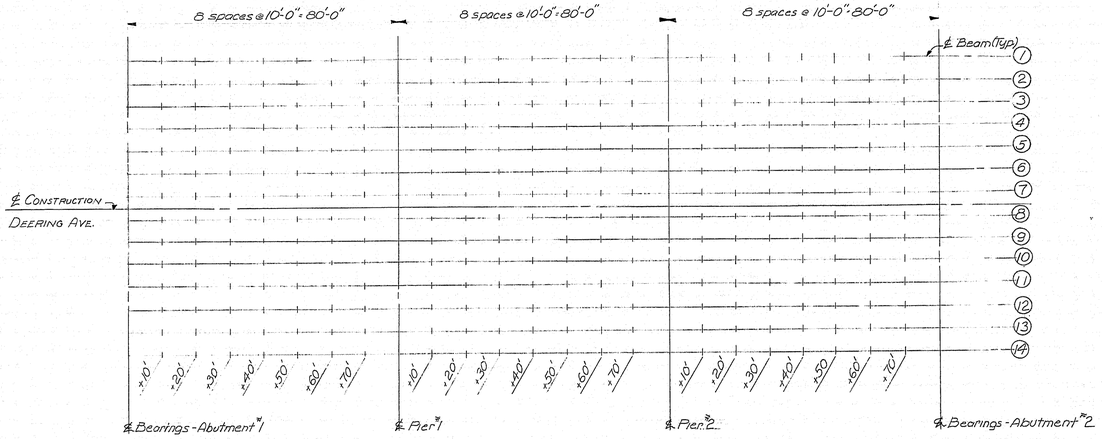
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	32	76

~ BOTTOM OF SLAB ELEVATIONS ~

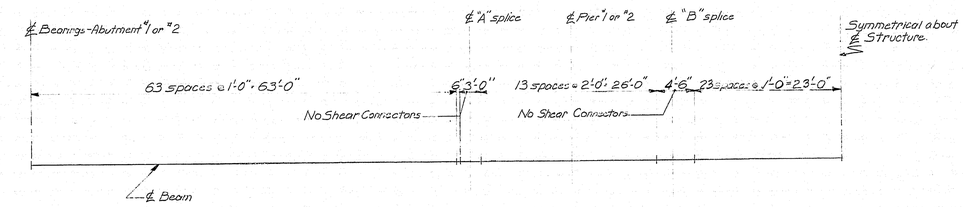
BEAM	POINT	SPAN #1 ℄ Brg Abut #1	+10'	+20'	+30'	+40'	+50'	+60'	+70'	℄ Pier #1	SPAN #2 +10'	+20'	+30'	+40'	+50'	+60	+70'	℄ Pier #2	SPAN #3 +10'	+20'	+30'	+40'	+50'	+60'	+70'	℄ Brg. Abut #2	POINT	BEAM
1	14	38.23	38.27	38.29	38.29	38.27	38.20	38.12	38.03	37.96	37.92	37.89	37.86	37.84	37.80	37.76	37.71	37.67	37.64	37.60	37.53	37.41	37.24	37.02	36.75	36.44	1	14
2	13	38.34	38.39	38.41	38.41	38.38	38.32	38.24	38.15	38.07	38.04	38.00	37.98	37.95	37.92	37.87	37.83	37.78	37.76	37.72	37.65	37.52	37.36	37.14	36.87	36.55	2	13
3	12	38.46	38.50	38.52	38.52	38.49	38.43	38.35	38.26	38.19	38.15	38.12	38.09	38.06	38.03	37.99	37.94	37.90	37.87	37.83	37.76	37.63	37.47	37.25	36.98	36.67	3	12
4	11	38.57	38.62	38.63	38.64	38.61	38.54	38.47	38.37	38.30	38.26	38.23	38.20	38.18	38.14	38.10	38.05	38.01	37.98	37.95	37.87	37.75	37.59	37.36	37.10	36.78	4	11
5	10	38.69	38.73	38.75	38.75	38.72	38.66	38.58	38.49	38.42	38.38	38.35	38.32	38.29	38.26	38.22	38.17	38.13	38.10	38.06	37.99	37.88	37.70	37.48	37.21	36.90	5	10
6	9	38.80	38.85	38.86	38.86	38.84	38.77	38.69	38.60	38.53	38.49	38.46	38.43	38.41	38.37	38.34	38.28	38.24	38.21	38.17	38.10	37.98	37.81	37.59	37.32	37.01	6	9
7	8	38.92	38.96	38.98	38.98	38.95	38.89	38.81	38.72	38.65	38.61	38.58	38.55	38.53	38.49	38.45	38.40	38.36	38.33	38.29	38.22	38.09	37.93	37.71	37.44	37.13	7	8

NOTES

1. The "Bottom of Slab Elevations" in the Table include "Dead Load Deflections".
2. Before these elevations are used in setting forms, the Welding of Shear connectors to the top flanges and welding of the cross frames to the Connection Plates must be completed. No Slab formwork must be started before Slab Elevations are taken.



BLOCKING POINT DIAGRAM

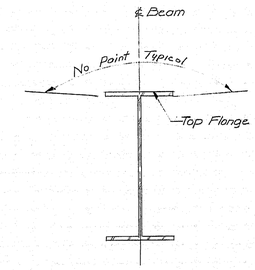


NOTES

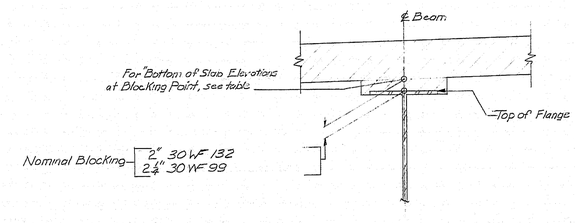
1. Skew angle of Connectors = 0°-0'.
2. For dimensions not shown, see Standard Details, BD-104-66.

DOUBLE SHEAR CONNECTOR DIAGRAM ~ (TYPICAL)

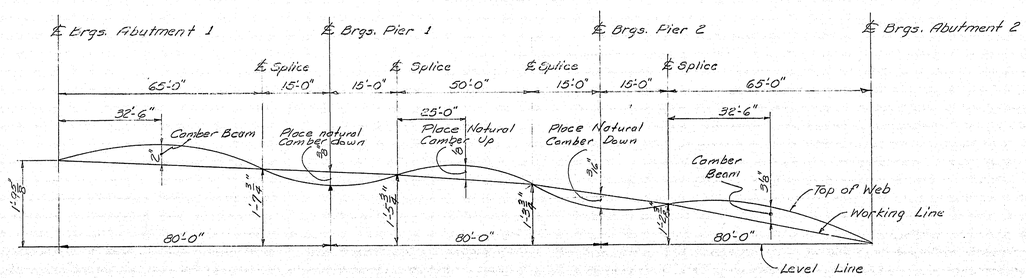
(5,684 Stud Shear Connectors required)



TYPICAL BEAM SECTION

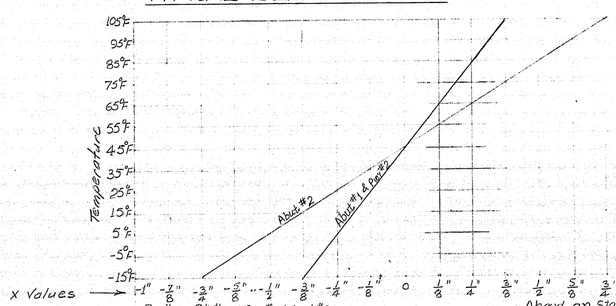


BLOCKING POINT DETAIL



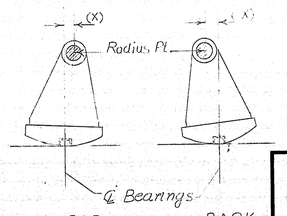
CAMBER DIAGRAM

(Camber shown compensates for all dead load deflections and effect of roadway vertical curvature.)



ROCKER SETTING DATA

(Reflects Temperature Only)



ROCKERS

NOTE

For References see Sh. #

PLANS	BY	DATE
DESIGN - DETAILED	DMJ	6-70
CHECKED	CPH	7-30-70
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND

CUMBERLAND COUNTY

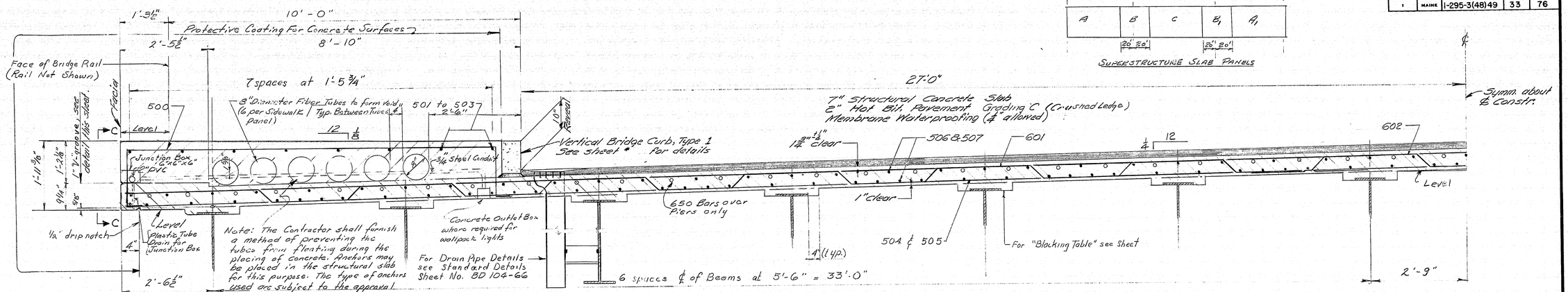
BOTTOM OF SLAB ELEVATIONS

SHEET 10 OF 19 AUGUSTA, MAINE JUNE 1970

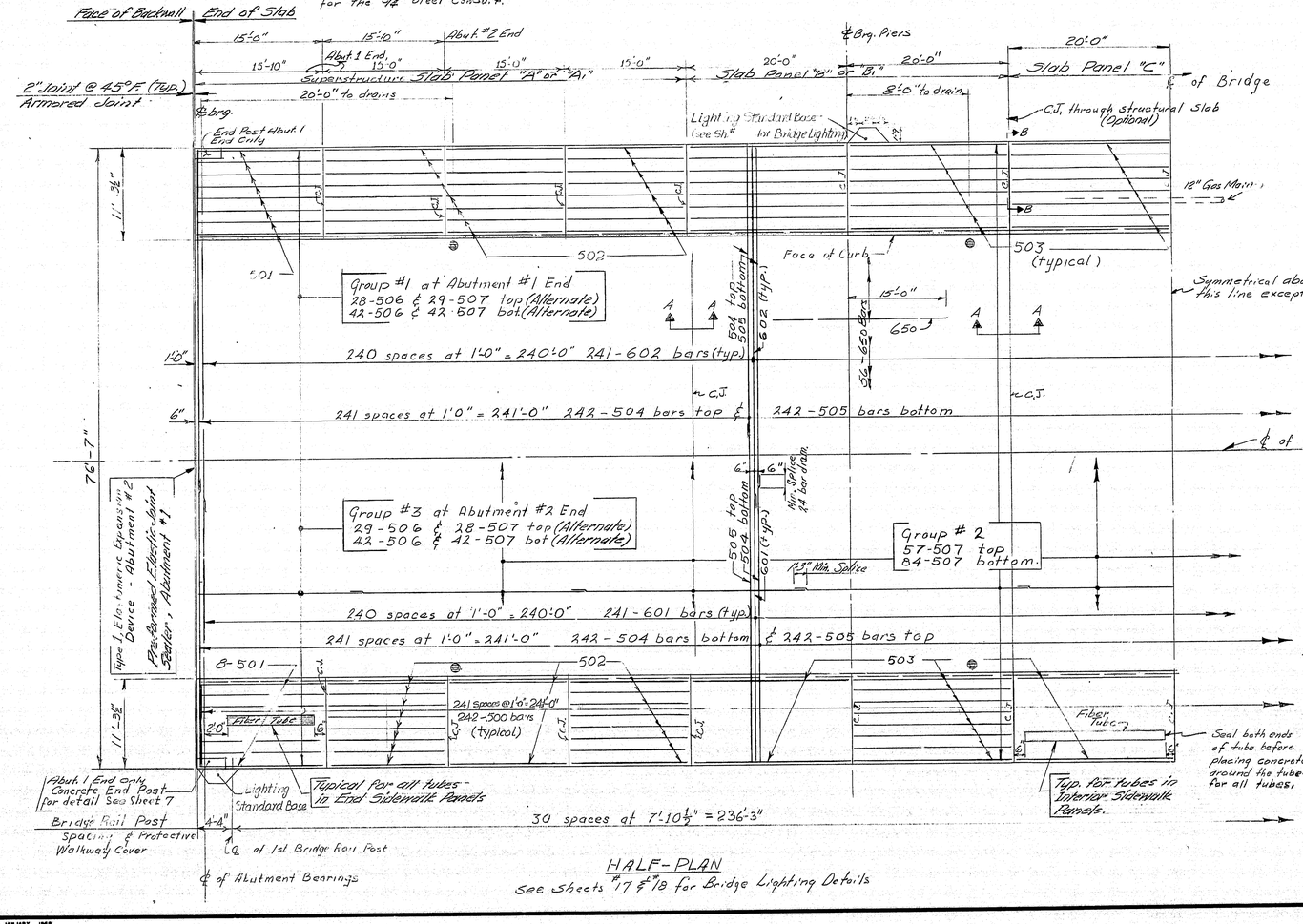
122-42

JANUARY 1968

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	33	76

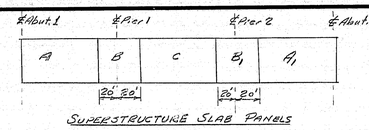


HALF TRANSVERSE SECTION

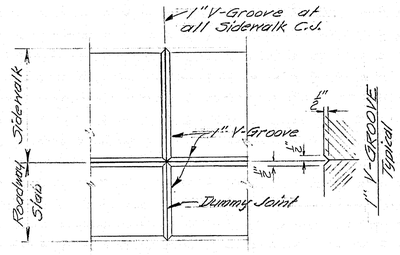


HALF-PLAN

See Sheets #17 & #18 for Bridge Lighting Details



SUPERSTRUCTURE SLAB PANELS



VIEW C-C
(Fascia)

SUPERSTRUCTURE NOTES

For Superstructure reinforcing steel, see sheet #19

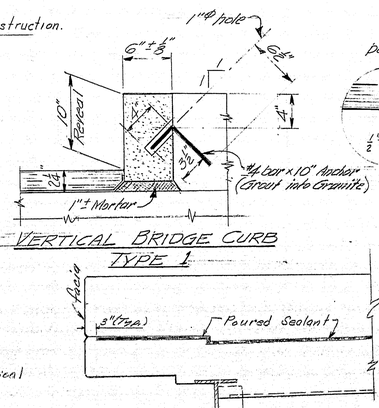
All reinforcing steel to have 2" clearance, and a minimum splice of 24 bar dia., except as noted.

A Set Retarder may be used in amounts as designated by the Engineer.
The preformed elastic joint sealer, the poured joint sealant and the concrete in the End Posts, including fabrication and installation, shall be included in Item 502.26. "Structural Concrete, Roadway and Sidewalk Slabs on Steel Bridges."
Break the bond at all contraction joints in the sidewalk by applying a suitable grade of clear form oil to the exposed faces, between placements. Provide a joint in Vert. Bridge Curb, at each sidewalk contraction joint.

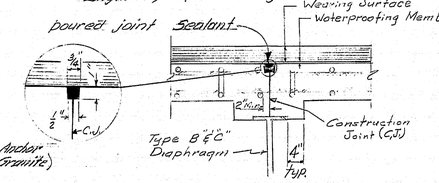
Fiber tubes to form voids in the sidewalk panels are to be of a non-metallic material. They are to be of a type generally used in the construction industry. The type of tube to be used shall be subject to the approval of the Engineer. Payment for the tubes and their installation shall be considered to be incidental to Item 502.26 "Structural Concrete, Roadway and Sidewalk Slabs on Steel Bridges".

Optional sequences of Superstructure Slab Panel placement; 1, 2 or 3 shall be used. There shall be a curing period of Seven (7) days between placement of panels in any sequence.

Sequence 1: Panel C, then A & A1, then B & B1
Sequence 2: Panel C, A & A1, then B & B1
Sequence 3: Panel C, then A, then A1, then B & B1
Sequence 4: Continuous placement (Abut. to Abut.)
The contractor must have approval by the Engineer, before using Sequence 4.



VERTICAL BRIDGE CURB
TYPE 1



SECTION A-A
Slab Construction Joint

SECTION B-B
Limit of poured sealant at Slab Constr. Joints

		BY	DATE
PLANS	DESIGN - DETAILED	JDD	6-70
	CHECKED	CDH	7-28-70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

SUPERSTRUCTURE

SHEET 11 OF 19 AUGUSTA, MAINE JUNE 1970

12.2-43

JANUARY 1969

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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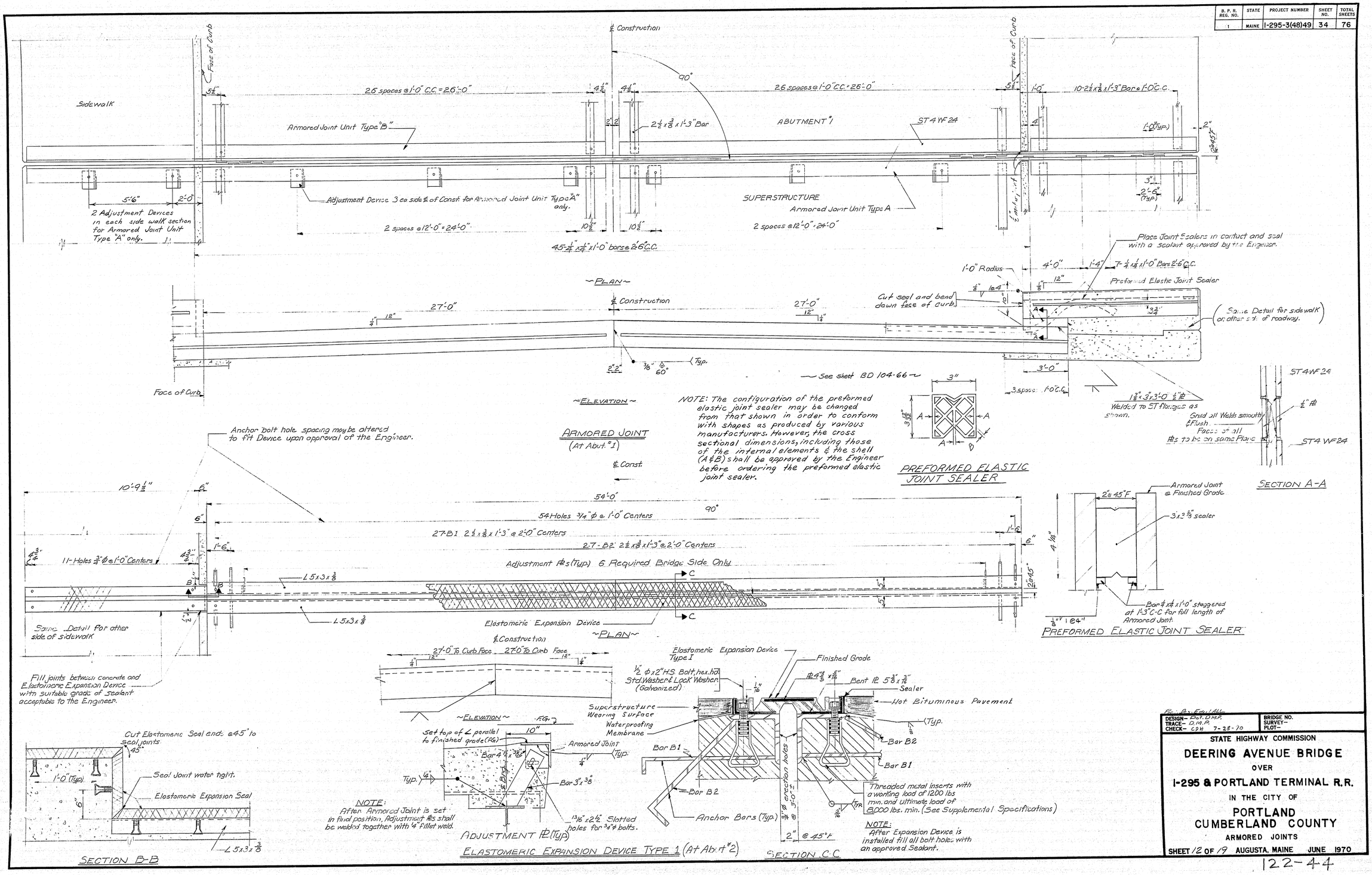


DESIGN- Bat. D.M.P. TRACE- D.M.P. CHECK- CPH 7-28-70	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

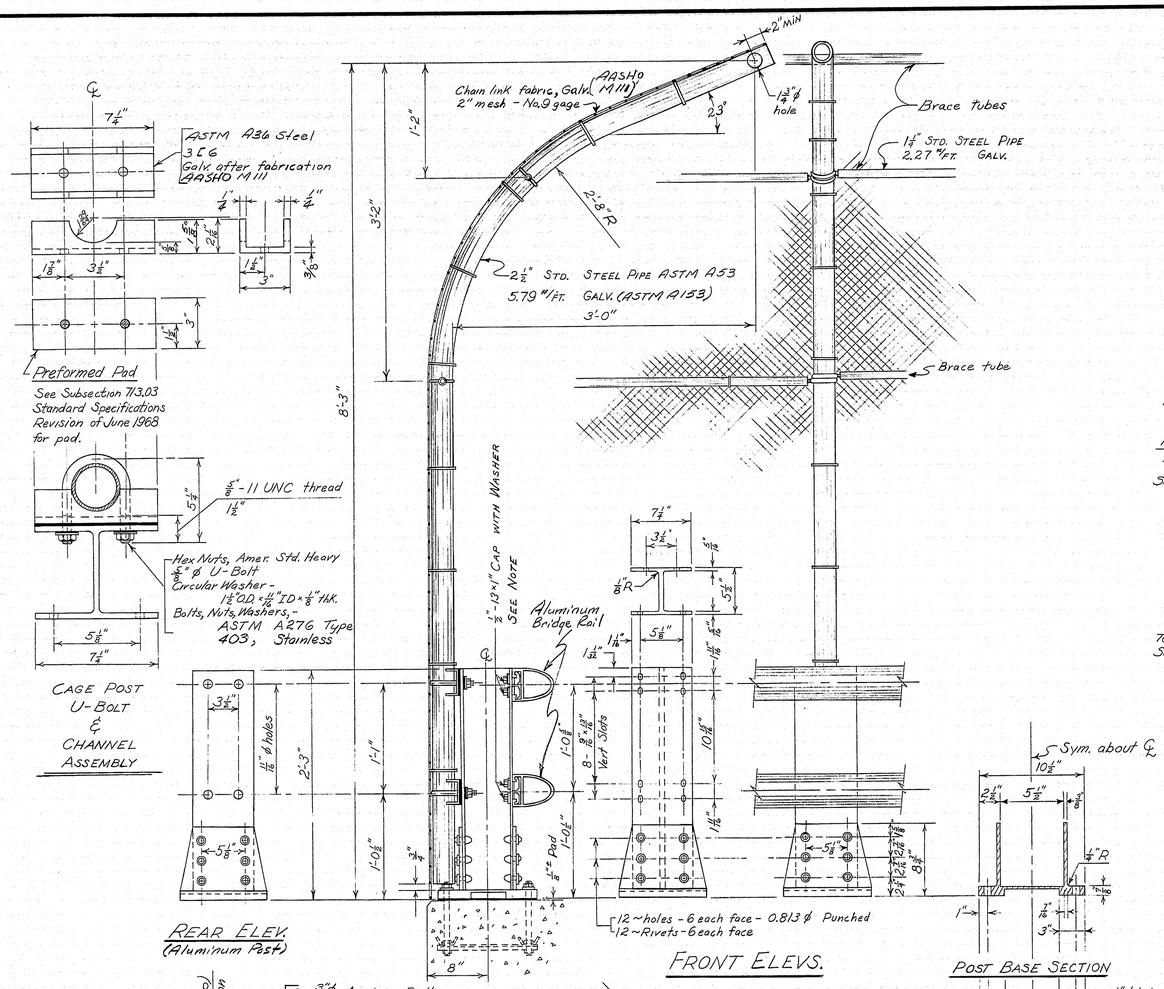
PORTLAND
CUMBERLAND COUNTY

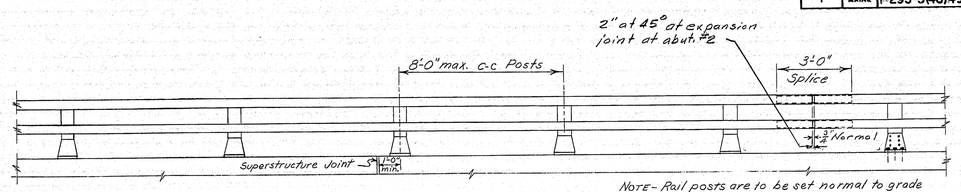
ARMORED JOINTS

SHEET 12 OF 19 AUGUSTA, MAINE JUNE 1970

122-44

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	35	76

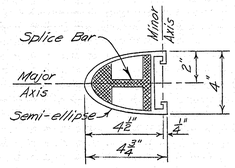




NOTE - Rail posts are to be set normal to grade unless otherwise shown on Bridge Plans.

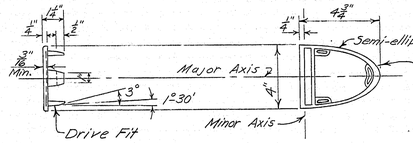
RAIL - ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



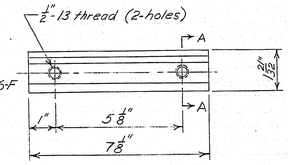
RAIL SECTION

See "Rail Detail"

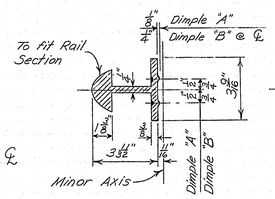


RAIL CAP

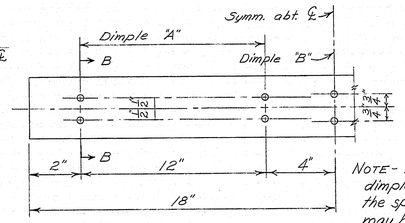
ASTM B26 or B108, Aluminum Assoc. Alloy 43-F or 356-F



CLAMP BAR



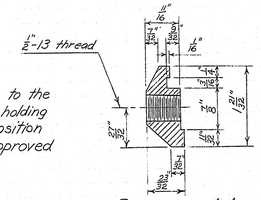
SECTION B-B



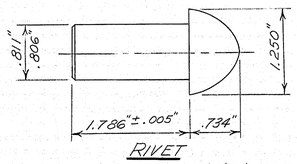
SPLICE BAR

Rail, Splice Bar, & Clamp Bar = ASTM B221, Alloy 6351-T5 or 6061-T6

NOTE - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.



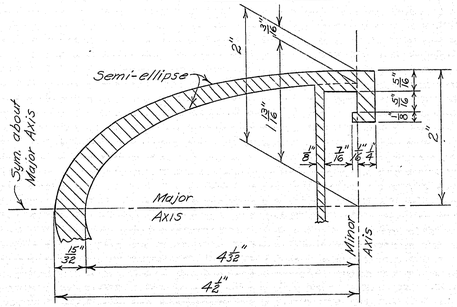
SECTION A-A



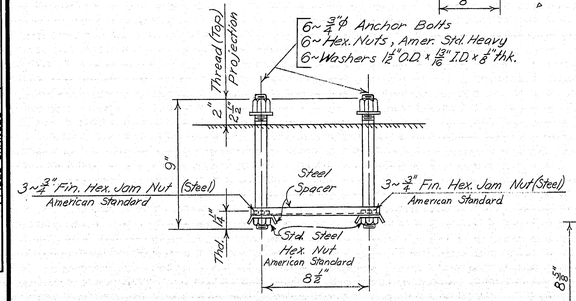
RIVET

Shop rivet rail post to base
Rivets - ASTM B221, Alloy 6061-T6 or 6062-T6
or
ASTM B316, Alloy 6061-T6

NOTE: CAP SCREW & WASHERS
Cap Screw = 1/2"-13 × 1" Hex. Hd.
Stainless Steel, ASTM A276 type 430
Washer = ASTM B209 Alloy Alclad 2024-T4
1 1/16" O.D. × 13/32" I.D. × 3/32" thick



RAIL DETAIL



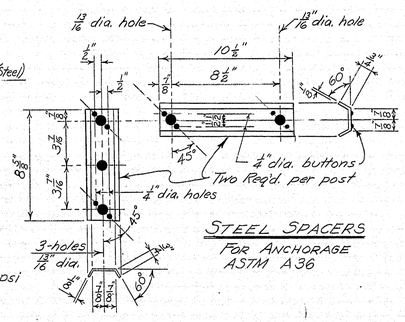
RAIL POST ANCHORAGE

Assembly

Post & Post Base = ASTM B221, Alloy 6061-T6

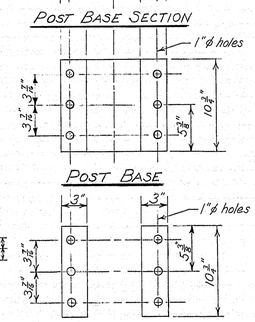
NOTE: Anchor Bolts, exposed Hex. Nuts (Amer. Std. Heavy) and washers shall conform to Designation Stainless ASTM A276 Type 403, Ultimate Tensile Strength 100,000 psi minimum, Elongation 15% minimum.

Hex. Nuts embedded in concrete shall conform to Steel Designation ASTM A 307.



STEEL SPACERS

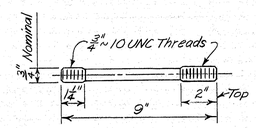
FOR ANCHORAGE ASTM A36



POST BASE

PREFORMED PADS

See Subsection 713.03 Standard Specifications Revision of June 1968 for pad.
Contractor shall supply 10% excess number of pads for use in adjusting posts.



ANCHOR BOLTS

If cut threads are used bolt diameter shall be not less than nominal diameter.
If rolled threads are used bolt diameter shall be not less than root diameter of nominal diameter.

LEGEND:
Galv. = Galvanized

Note: All galvanizing is to be done after the component parts are fabricated.
All components of fence are to be galvanized unless otherwise noted.

~ See Also Sheet No. 14 ~

PLANS	BY	DATE
DESIGN - DETAILED	CB	6-70
CHECKED	CB	7-28-70
REVISIONS	CDH	
FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

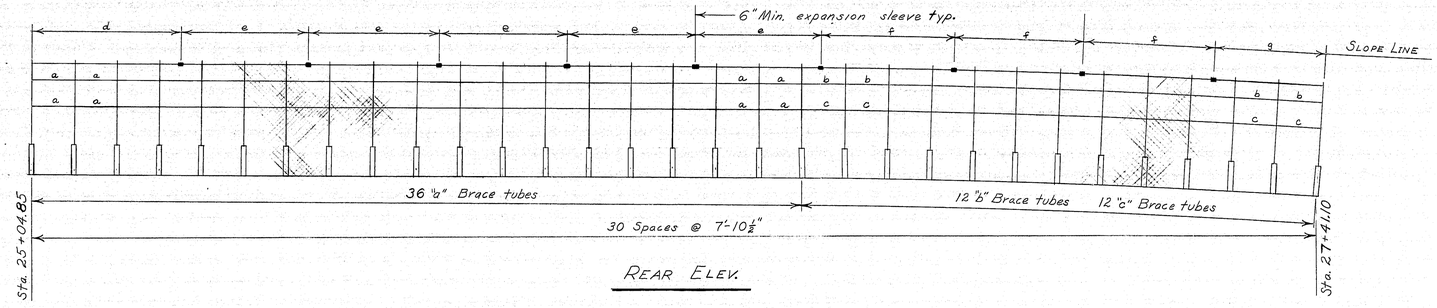
BRIDGE RAIL AND PEDESTRIAN FENCE

SHEET 13 OF 19 AUGUSTA, MAINE JUNE 1970

122-45

JANUARY 1968

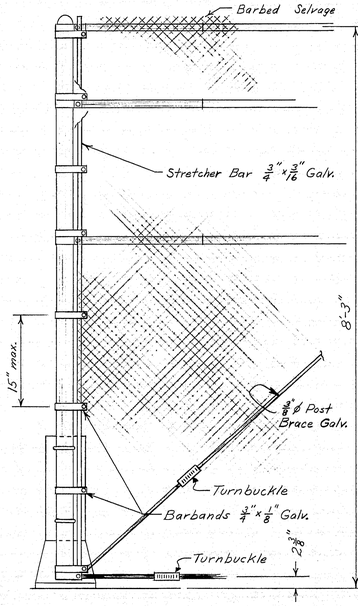
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	36	76



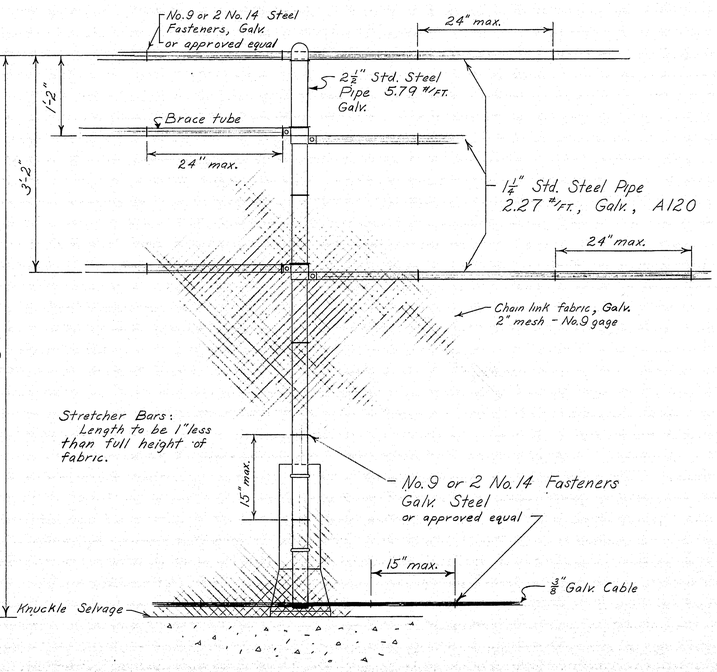
REAR ELEV.

Brace Tubes
C-C of posts
and/or
Expansion sleeves

Mark	Length
a	7'-10½"
b	7'-10 11/16"
c	7'-10⅝"
d	27'-6¾"
e	23'-7½"
f	23'-8⅛"
g	19'-8¾"



END POST
REAR ELEV.



INTERMEDIATE POST
REAR ELEV.

Note: Pedestrian fence shall consist of all materials and fixtures, as shown on this sheet and sheet No 13 of 19 exclusive of the Aluminum Bridge Rails, Aluminum Posts, the post anchor bolt assembly which anchors the post into the concrete and the bolt and clip assembly which connects the Aluminum Bridge Rail to the Aluminum Posts.

Pedestrian Fence is to be paid for under Item 607.39

LEGEND:
Galv. = Galvanized

Note: All galvanizing is to be done after the component parts are fabricated.
All components of fence are to be galvanized unless otherwise noted.

— See Also Sheet No 13 —

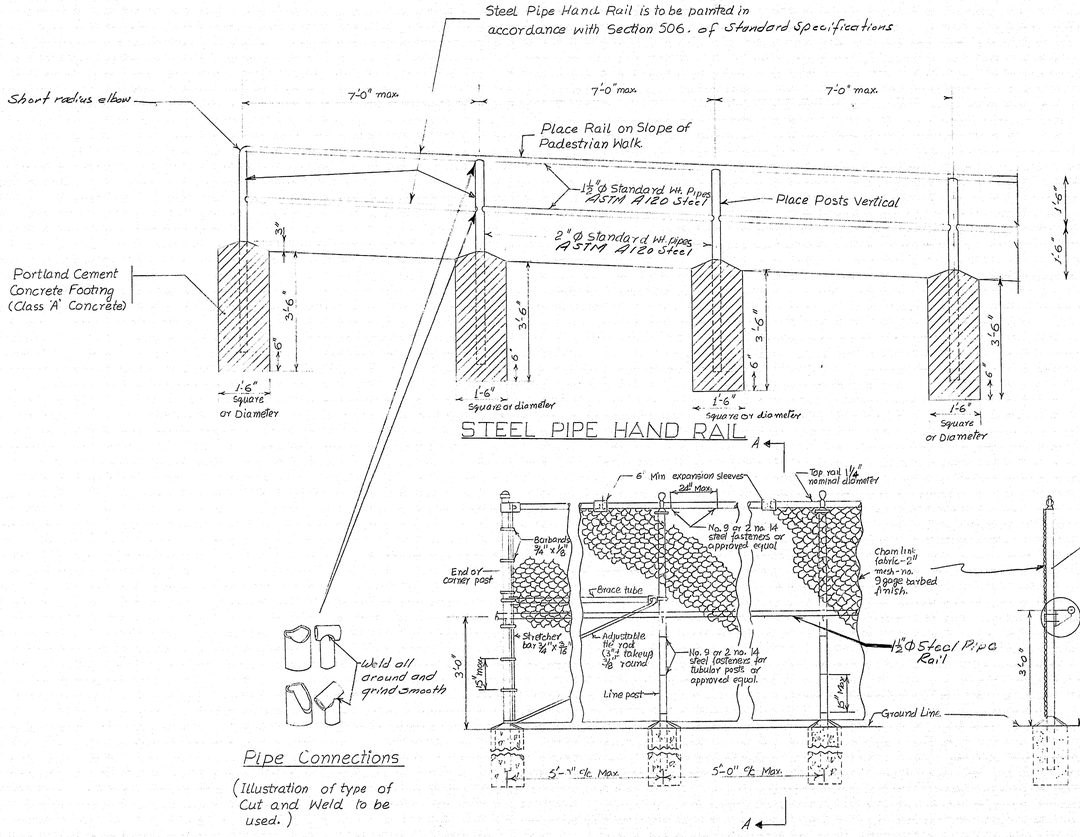
PLANS		BY	DATE
	DESIGN - DETAILED	CB	6-70
	CHECKED	CDH	7-28-70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION
DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
PEDESTRIAN FENCE
SHEET 14 OF 19 AUGUSTA, MAINE JUNE 1970

122-46

JANUARY 1969

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	37	76



STEEL PIPE HAND RAIL

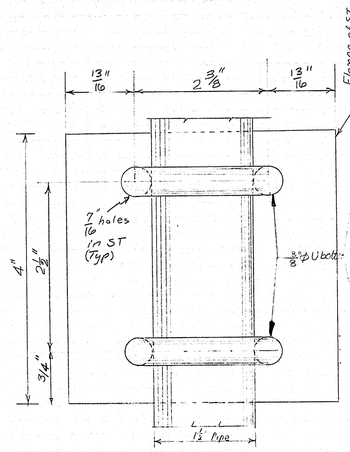
Pipe Connections

(Illustration of type of Cut and Weld to be used.)

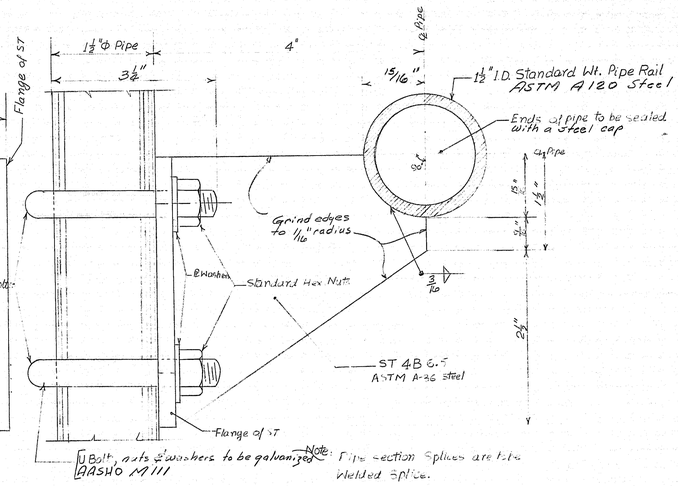
STEEL PIPE RAIL

Showing Connection to and location on 6'-0" high Chain Link Fence.

ELEVATION A-A



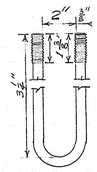
SIDE ELEVATION



ELEVATION

DETAIL-A

The 1½" Pipe Rail is to be fastened to the chain link Fence Posts which are to be placed at 5'-0" intervals where Steel Pipe Rail is required. There is to be a bracket at each post as shown above.



U-BOLT

To Be Galvanized AASHO M111

NOTES:

1. For Plan of both type Rails. see Sheet # 1 'General Plan'
2. For Chain Link Fence Details. see Standard Details 'FENCING' August 1969.
3. Steel Pipe Rail is to be paid for under Item 507.12
4. Steel Pipe Hand Rail is to be paid for under Item 507.09
5. Measurements are to be taken in the field by the Contractor before fabrication of any railing to insure fitting of railing to slope and horizontal placement. Location of posts shall be as shown on the Plans and is subject to approval of the engineer.

NOTE: 'Steel Pipe Rail' shall consist of ⅜"ΦU Bolts, nuts, Plate washers, ST 4B 6.5 Brackets and 1½" I.D. Standard Pipe Rail. U-Bolts, Nuts and washers are to be galvanized. The ST brackets and Pipe are to be painted in accordance with Section 506.

Payment for Steel Pipe Rail shall include the furnishing of all materials and labor required for fabrication, delivery and erection of rail. Rail will be measured in accordance with Section 507.06.

The Basis of Payment will be in accordance with Section 507.07.

Payment will be made under Item 507.12 'Steel Pipe Rail'

PLANS		BY	DATE
	DESIGN-DETAILED	MMS	1/28/70
	CHECKED	EDH	2-6-70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

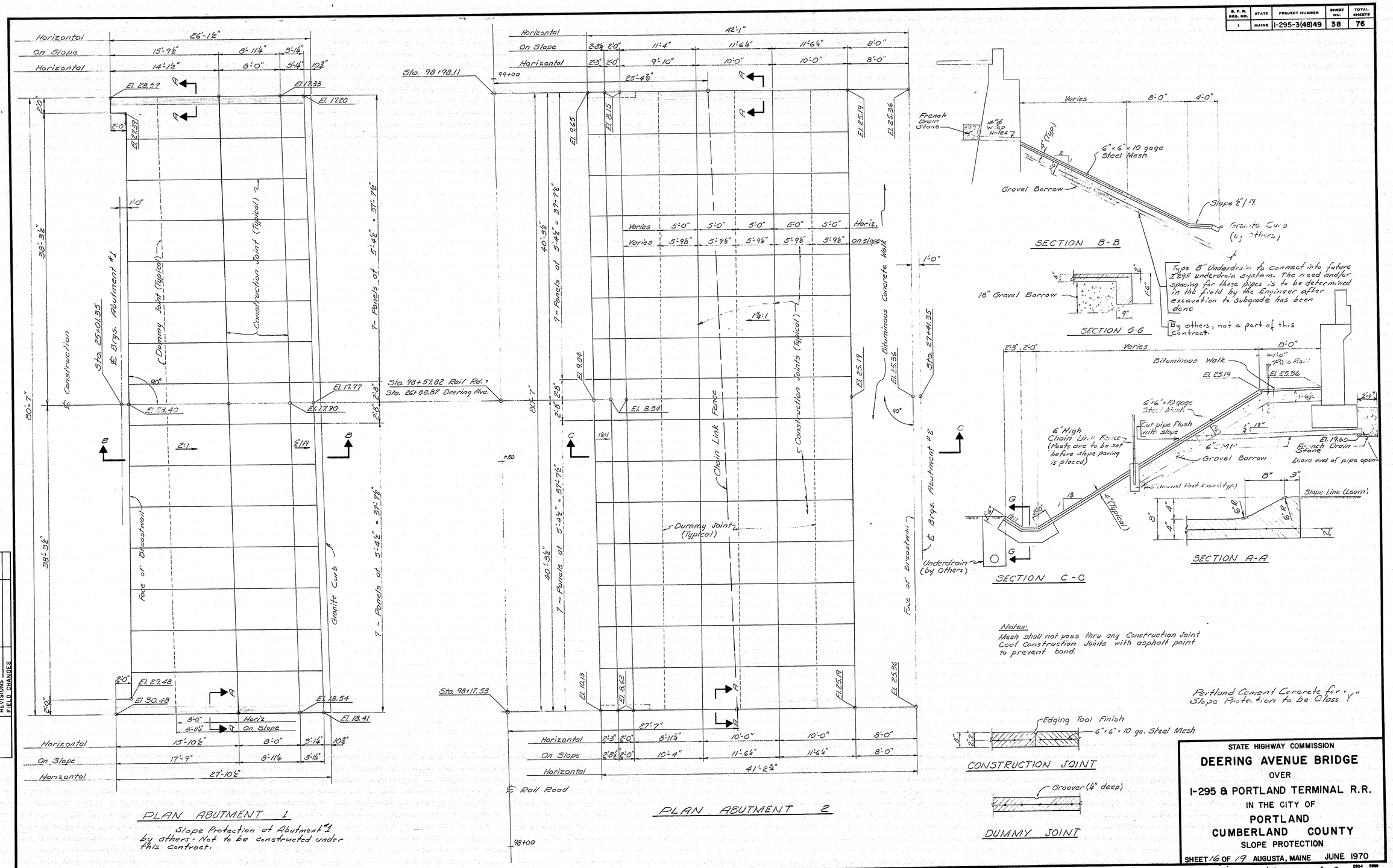
PIPE RAIL AND PIPE HAND RAIL

SHEET 15 OF 19 AUGUSTA, MAINE JUNE 1970

12247

JANUARY 1969

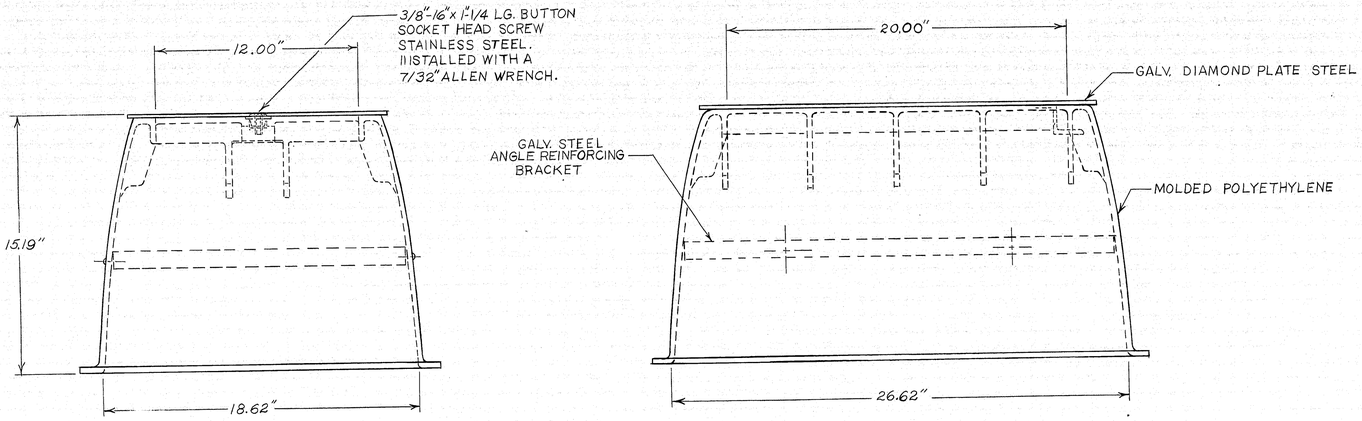
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	38	76



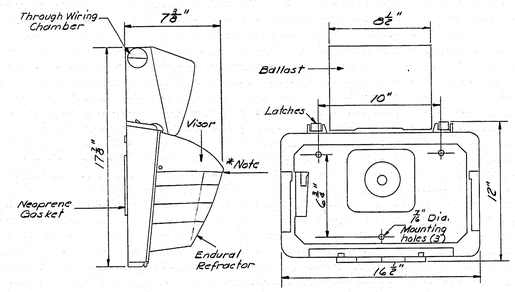
PLANS	BY	DATE
DESIGN - DETAILED	G.A.T.	6-70
CHECKED	E.D.H.	7-10-70
REVISIONS		
FIELD CHANGES		

JANUARY 1968

R. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	39	76



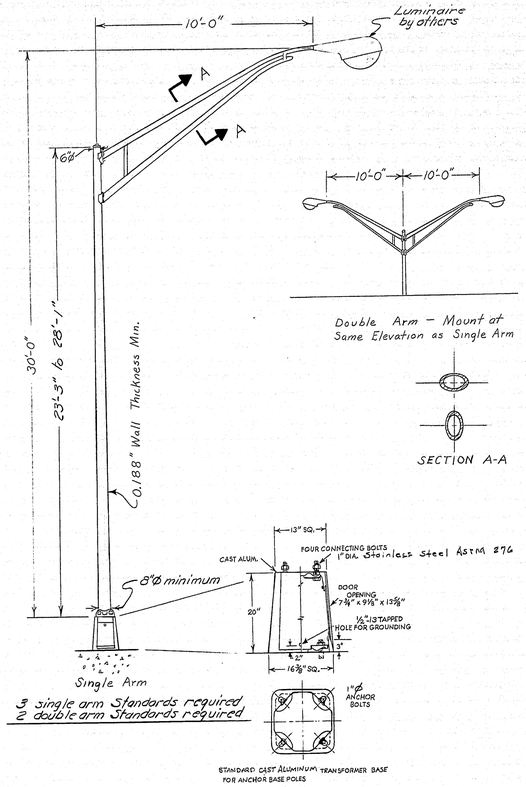
JUNCTION BOX TYPE I



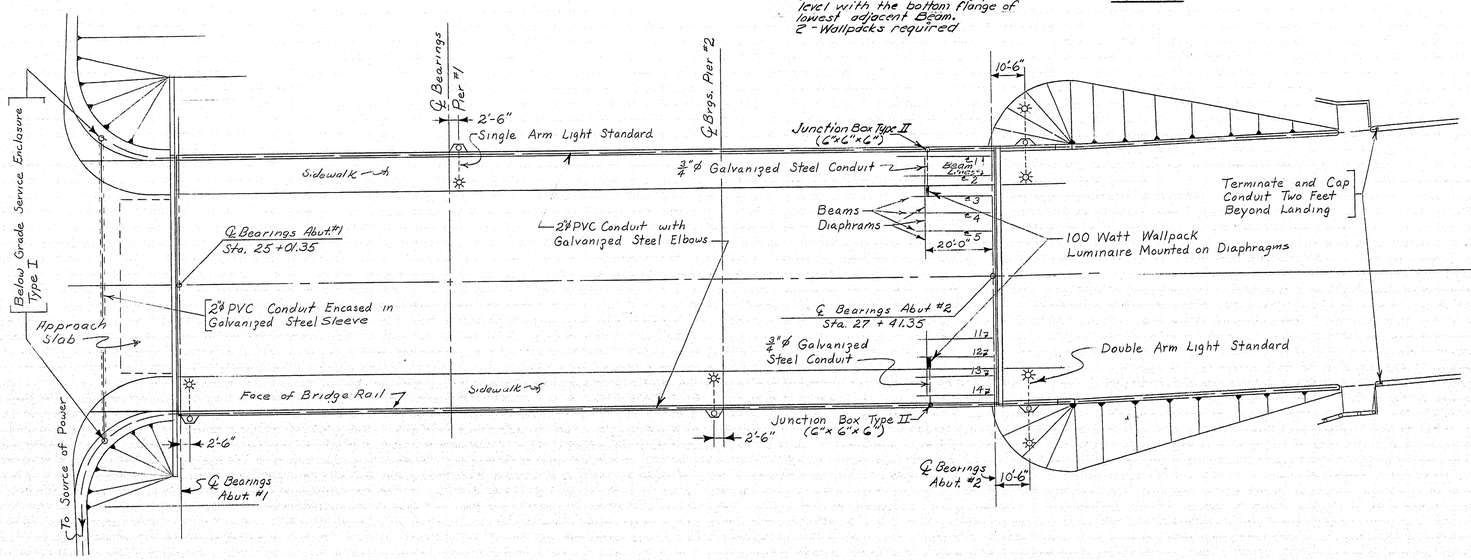
WALL PACK WITH BILT IN BALLAST

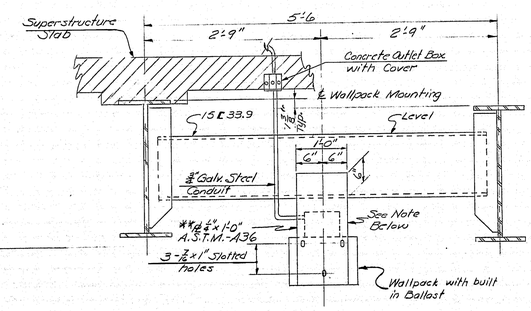
*NOTE: Wallpack shall be installed so that the bottom of the visor is level with the bottom flange of lowest adjacent Beam. 2 - Wallpacks required

BACK VIEW OF WALL PACK, SHOWING INSTALLATION - DETAILS



LIGHT STANDARD (Aluminum or Galvanized Steel)





TYPE A DIAPHRAGM (TYP.)

NOTE:
** 1. 1/4" Ø to be incidental to related Structural Steel Items.
2. 1/4" Ø shall be welded or bolted to the Diaphragm, to the approval of the Engineer.

See Also Sheet 18

	BY	DATE
Preparing Office		
DESIGN - DETAILED	EJM	7-70
CHECKED	CGP	8-70
REVISIONS	EJM	
FIELD CHANGES		

PLANS

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND
CUMBERLAND COUNTY

BRIDGE LIGHTING

SHEET 17 OF 19 AUGUSTA, MAINE JUNE 1970

203-1 2060

122-49

JANUARY 1969

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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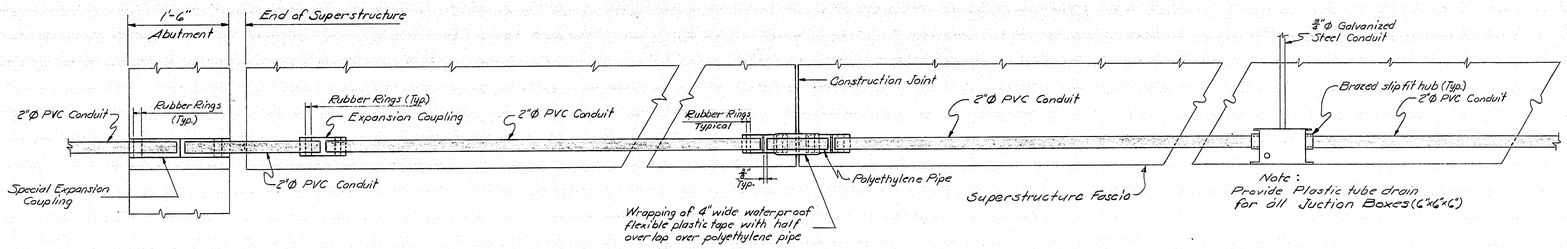
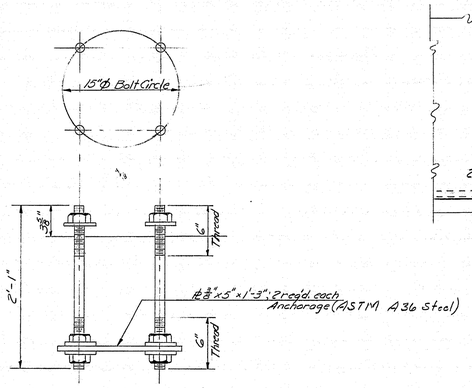


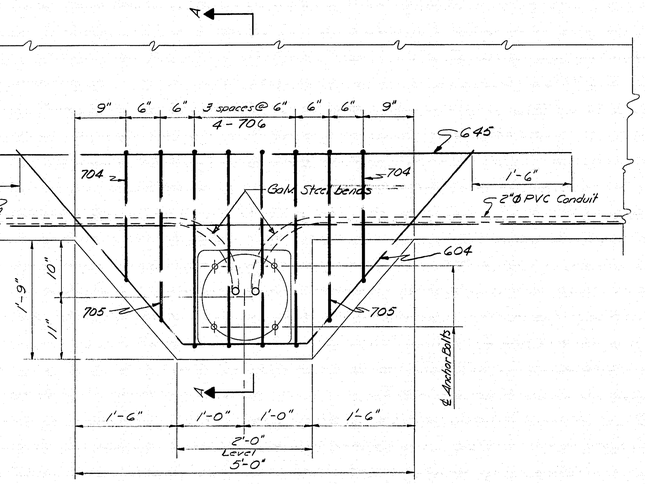
DETAIL AT ABUTMENTS AND ENDS OF SUPERSTRUCTURE
TYPICAL AT BOTH ENDS

TYPICAL DETAIL AT SLAB CONSTRUCTION JOINTS

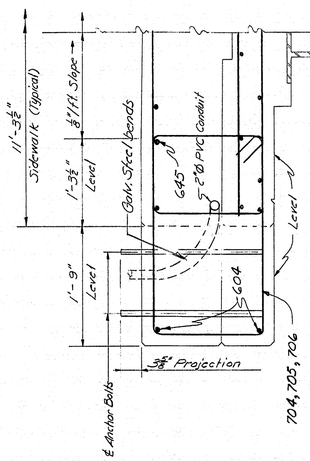
DETAIL AT JUCTION BOX



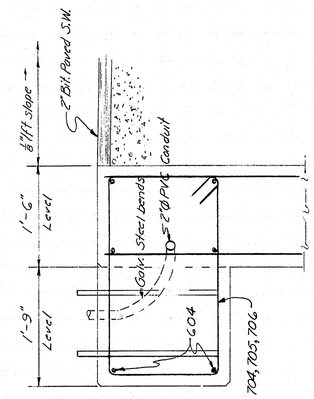
ANCHOR BOLT DETAIL
4 - 1"Ø " Bolts Req'd. with
3 - hex nuts & 3 std. washers
for each bolt (All bolts, nuts & washers
to be Stainless Steel, ASTM A276
Type 403 Ultimate Strength 100,000 psi,
Elongation 15% minimum
Hex nuts embedded in concrete shall
Conform to ASTM A307



PLAN

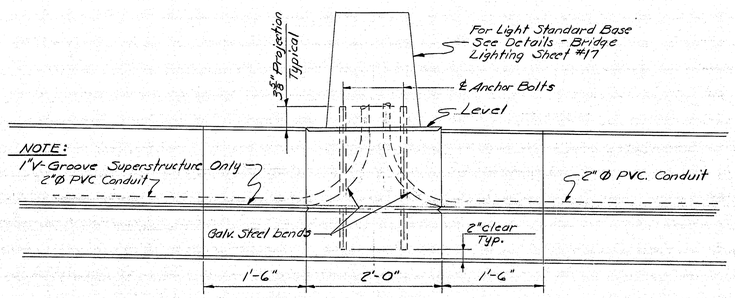


SECTION A-A AT SUPERSTRUCTURE LIGHT STANDARD LOCATIONS



SECTION A-A AT RETURN WING LIGHT STANDARD LOCATIONS TYPICAL ABUTMENT #2 ONLY

NOTE:
NO horizontal 1" V-Groove on Return Wings



ELEVATION

PLANS		BY	DATE
	DESIGN - DETAILED	E.M. C.B.	7-70
	CHECKED	E.M.	8-70
	REVISIONS		
	FIELD CHANGES		

See Also Sheet 17

STATE HIGHWAY COMMISSION
DEERING AVENUE BRIDGE
OVER
I-295 & PORTLAND TERMINAL R.R.
IN THE CITY OF
PORTLAND
CUMBERLAND COUNTY
BRIDGE LIGHTING
SHEET 18 OF 19 AUGUSTA, MAINE JUNE 1970

203-1 2060

122-50

JANUARY 1968

0 1 2 3 4 5 6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-295-3(48)49	41.	76

SUPERSTRUCTURE

Note: See Schedule below for more Bent Bars

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
500	#5	434	14'-4"	Walkway
601	#6	241	34'-6"	Roadway
602	#6	241	46'-9"	"
604	#6	10	9'-2"	Light Std. Base
704	#7	10	8'-0"	on superstructure
705	#7	10	9'-2"	and return wings
706	#7	20	10'-0"	Abutment #2.

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
501	#5	32	15'-6"	Walkway
502		96	14'-8"	"
503		96	19'-8"	"
504		484	35'-6"	Roadway
505		484	42'-4"	"
506		141	12'-0"	"
507	#5	1128	30'-0"	"
513	#5	9	2'-11"	End Post
514	#5	8	1'-1"	"
650	#6	112	30'-0"	Slab over pier Brg. lines
645	#6	3	10'-0"	Light Std. Base

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
508	#5	2	6'-1"	End Post
509		2	6'-7"	"
510		2	7'-5"	"
511		2	7'-11"	"
512	#5	2	8'-1"	"

APPROACH SLABS

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
410	#4	40	22'-6"	Approach Slab
411	#4	40	30'-0"	" "
630	#5	~~203~~ 416	14'-8"	Approach Slab

ABUTMENT No. 1

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A401	#4	28	4'-4"	Bearing Pad
A402	#4	28	3'-5"	"
603	#6	35	3'-6"	Approach Slab

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A532	#5	12	17'-2"	Backwall
A533		12	14'-6"	"
A534		6	11'-6"	"
A537		52	5'-6"	"
A538		52	7'-6"	"
A539		4	3'-0"	Curtainwall
A540		4	4'-6"	"
A541		32	3'-0"	Sidewalk
A542	#5	8	10'-6"	"
A536	#5	52	3'-6"	Bridge seat

ABUTMENT No. 2

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
401	#4	28	4'-4"	Pedestal
402	#4	28	3'-5"	"
508-A	#5	2	6'-1"	End Post
509-A		2	6'-7"	End Post
510-A		2	7'-5"	End Post
511-A		2	7'-11"	End Post
523	#5	52	6'-0"	Backwall
524	#5	52	5'-11"	Breastwall
512A	#5	2	8'-1"	End Post
*603	#6	35	3'-6"	Approach Slab

(End Post: * See Bent Bars Superstructure)

* For 603 See Bent Bars-Abut. #1

note: For all reinf. steel in light std. base see superstructure schedule

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
510	#5	22	14'-4"	Wings
511		4	6'-6"	
512		4	5'-9"	
513		4	5'-0"	
514		22	3'-0"	
515		16	20'-0"	
516		4	18'-2"	
517		20	15'-0"	
518		4	5'-0"	
519		22	10'-5"	Wings
527		38	4'-10"	Backwall & Curtain Wall
528		72	3'-8"	"
529		104	3'-0"	Dowels & Backwall
530		52	9'-5"	Breastwall
531		52	7'-5"	"
532		40	17'-2"	"
533		40	14'-8"	"
534		20	11'-6"	"
535		4	10'-5"	Backwall
536	#5	6	3'-6"	"
590	#5	4	4'-6"	End Posts
610	#6	42	5'-9"	Wings
611		32	22'-0"	Wing Footing
612		64	7'-0"	" "
620		134	6'-6"	Footing
621		16	26'-0"	"
622	#6	32	30'-0"	"
801	#8	42	4'-0"	Wing
710	#7	52	4'-6"	Footing

PIERS

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
P401	#4	~~164~~ 172	11'-2"	Columns
P501	#5	112	12'-3"	Pier Cap
P502		8	12'-6"	
P503		8	11'-5"	
P504		8	10'-10"	
P505		8	10'-3"	
P506		8	9'-10"	
P507	#5	8	11'-2"	Pier Cap
P907	#9	96	6'-10"	Footing
P1001	#10	16	37'-11"	Pier Cap
P1002	#10	12	39'-4"	" "

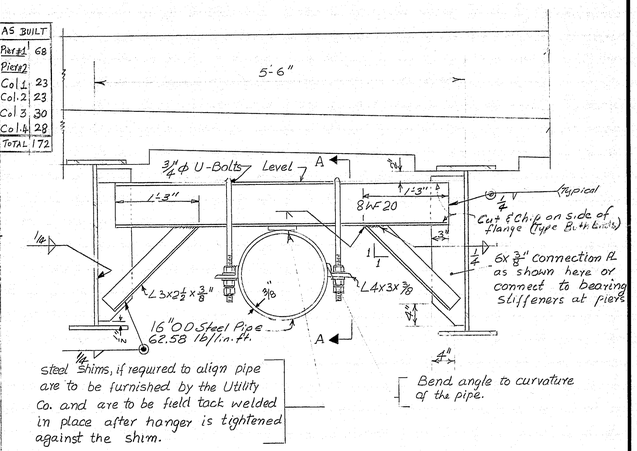
AS BUILT	
Pier #1	68
Pier #2	
Col. 1	23
Col. 2	23
Col. 3	30
Col. 4	28
TOTAL	172

* Quantity for estimate only. Actual number to be determined in field.

STRAIGHT BARS

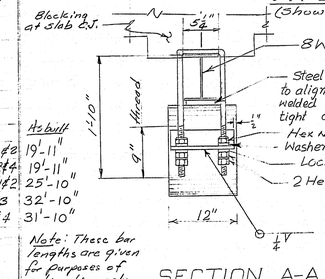
MARK	SIZE	NO.	LENGTH	LOCATION
P402	#4	4	3'-0"	Pier Cap
P601	#6	16	37'-9"	Pier Cap Sides
P701	#7	192	6'-0"	Footing
P901	#9	56	15'-5"	Pier Cap
P902		24	~~19'-11"~~	Pier #1 Column #1 & 2 — As built 19'-11"
P903		24	~~18'-11"~~	Pier #1 Column #3 & 4 — As built 19'-11"
P904		24	~~21'-4"~~	Pier #2 Column #1 & 2 — As built 25'-10"
P905		12	~~27'-4"~~	Pier #2 Column #3 — As built 32'-10"
P906	#9	12	~~30'-4"~~	Pier #2 Column #4 — As built 31'-10"
P1003	#10	16	37'-9"	Pier Cap

Note: These bar lengths are given for purposes of estimating only. The actual lengths are to be determined in the field before ordering the bars.



TYPE-C DIAPHRAGM

(Showing Also Pipe Hanger)



SECTION A-A

Note: Each pipe hanger shall consist of a 12" long section of 16" OD pipe, 2-11" long L4x3x3/8 shop welded to the pipe as shown with 13/16" ϕ holes to receive the 3/4" ϕ U-Bolts as shown, 2-3/4" ϕ U-Bolts, 12 Hex nuts, 4 lock washers, and 4 standard washers.

Materials:
U-Bolts, Hex Nuts — ASTM A307
16" OD Pipe: ASTM A36 or A53
L4x3x3/8, Shims — ASTM A36

11 Pipe hangers are required, none at E. Brgs. of Abutments. The steel shims if required are to be furnished by the gas utility company.

All steel is to receive 1 shop coat of paint except the threaded areas of the U-Bolts and the nuts and washers.

Pipe hangers are to be paid for under Item 504.73

All Reinforcing Steel to be Intermediate Grade or ASTM 615 Grade 60. Dimensions are to ℄ of bars.

Proj. Des. Eng. Alt.

DESIGN— TRACE—J.J.O. CHECK—CDH 7-4-70

BRIDGE NO. SURVEY— PLOT—

STATE HIGHWAY COMMISSION

DEERING AVENUE BRIDGE

OVER

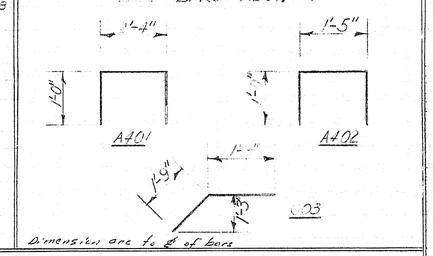
I-295 & PORTLAND TERMINAL R.R.

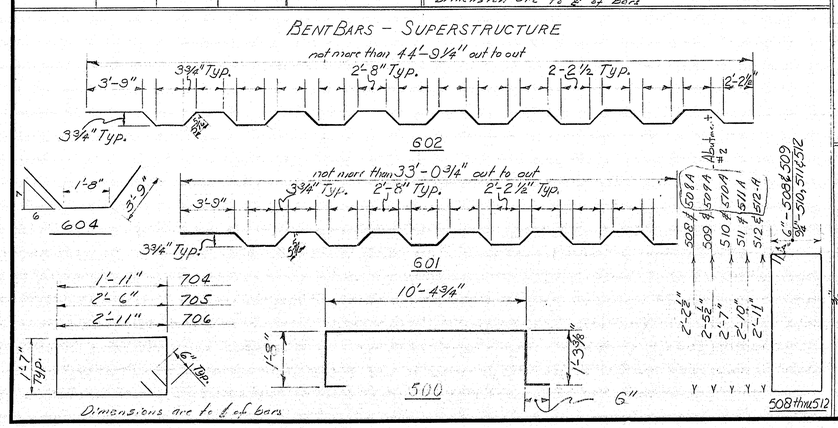
IN THE CITY OF

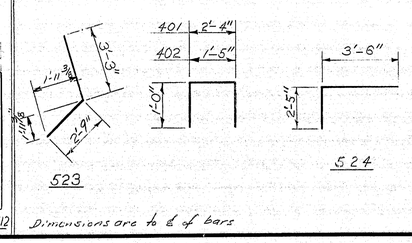
PORTLAND
CUMBERLAND COUNTY

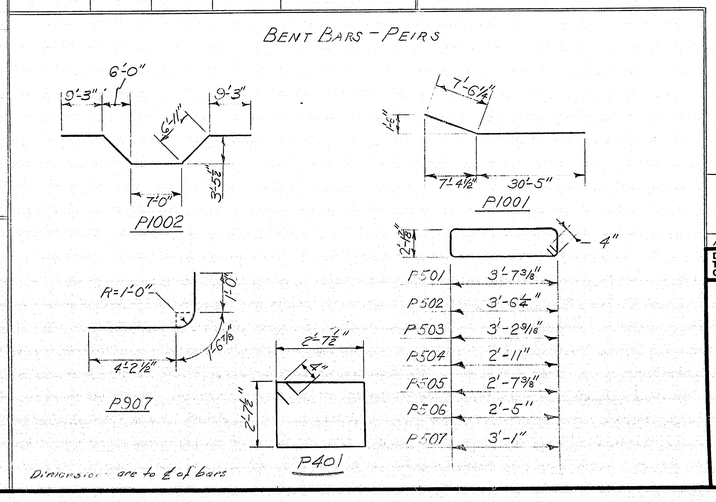
REINFORCING STEEL SCHEDULE

SHEET 19 OF 19 AUGUSTA, MAINE JUNE 1970









122-51

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-3(75)50	1	36

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

PORTLAND

CUMBERLAND COUNTY

MAINE FEDERAL AID INTERSTATE

PROJECT NO. I-295-3(75)50

TOTAL LENGTH 0.0222 MILES

I-295 BRIDGE OVER FRANKLIN STREET

AND

SLOPE PROTECTION AT

DEERING AVE. OVER I-295

RAMP CS-6 OVER RAMP WA-2

I-295 OVER

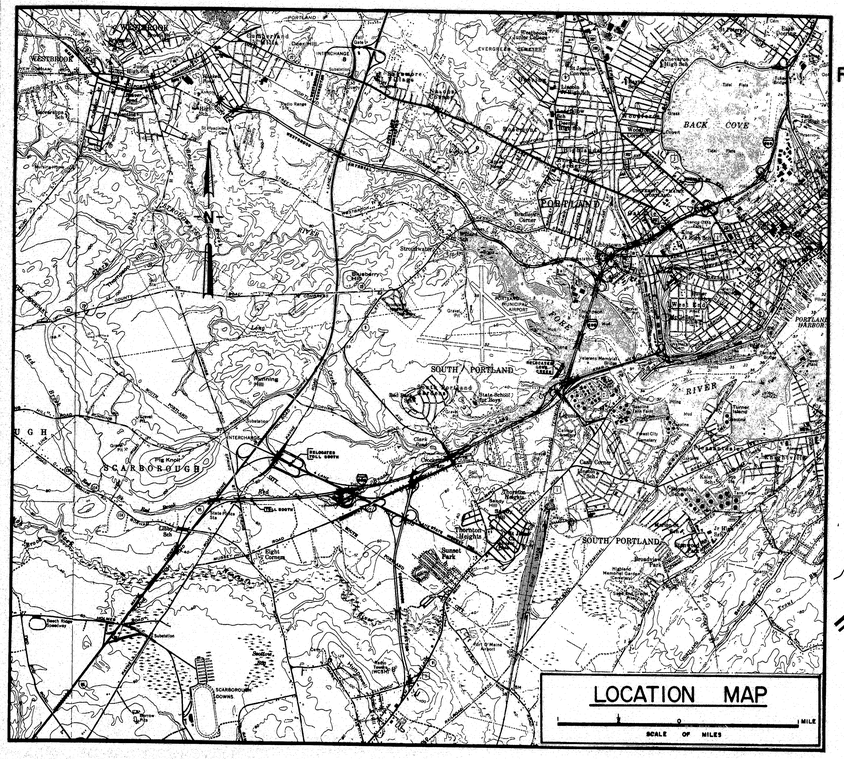
WESTBROOK ARTERIAL

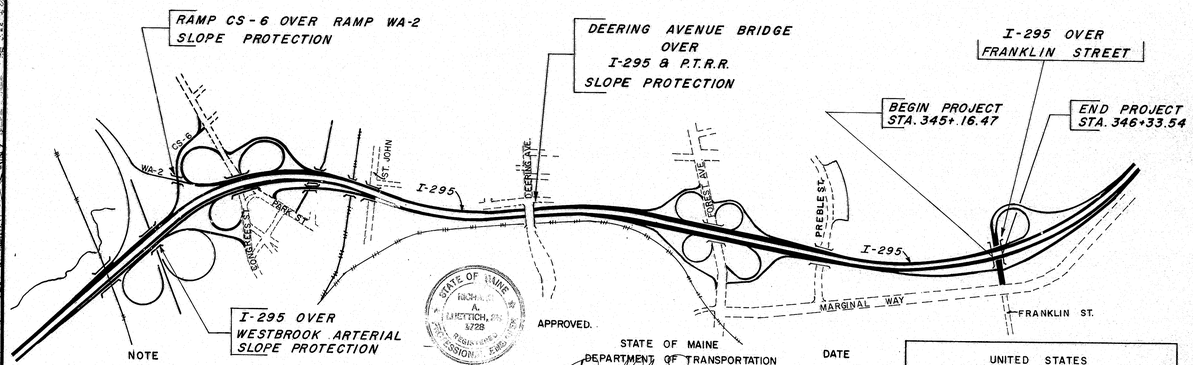
CONVENTIONAL SIGNS

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

INDEX OF SHEETS

SHEET NO.	SUBJECT
1.	TITLE SHEET
2.	QUANTITIES & PROFILE I-295
3.	GENERAL PLAN
4.	FOUNDATION SURVEY
5 & 6.	BORING DETAILS
7-9.	ABUTMENT FOOTINGS
10-15.	ABUTMENTS & WINGS
16.	ARCHITECTURAL TREATMENT
17.	APPROACH SLABS
18.	SLOPE PROTECTION
19.	STRUCTURAL STEEL
20.	BLOCKING DETAIL
21-23.	SUPERSTRUCTURE
24.	DETAILS
25.	FASCIA & CONDUIT DETAILS
26-27.	REINFORCING STEEL SCHEDULES
28.	SLOPE PROTECTION - DEERING AVENUE
29.	SLOPE PROTECTION - RAMP CS-6 OVER RAMP WA-2
30.	SLOPE PROTECTION - I-295 OVER WESTBROOK ARTERIAL
31-36.	STANDARD DETAILS





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 MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

STATE OF MAINE
RICHARD A. LUSTICH, 3728
REGISTERED PROFESSIONAL ENGINEER

APPROVED.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER	9-19-73
CHIEF ENGINEER AND BUREAU DIRECTOR	9-19-73

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ENGINEER DATE

JANUARY 1968

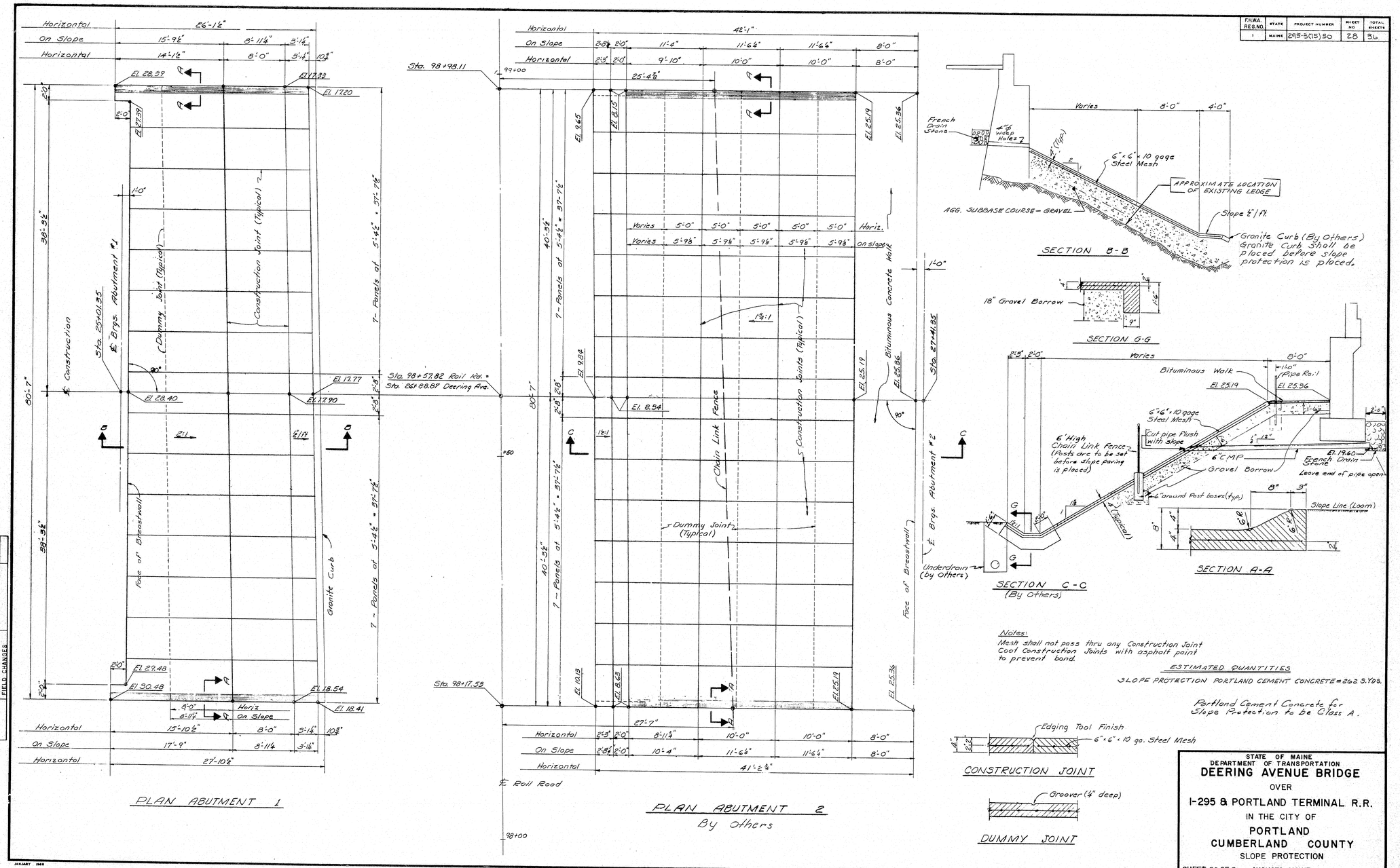
No change in plans "Revised As Built" by HCot 11-12-76

146-14

203-1 2080

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

FHWA REG.NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	295-3(15)50	28	36



Notes:
Mesh shall not pass thru any Construction Joint
Coat Construction Joints with asphalt paint to prevent bond.

ESTIMATED QUANTITIES

SLOPE PROTECTION PORTLAND CEMENT CONCRETE = 262 S.YDS.

Portland Cement Concrete for Slope Protection to Be Class A.

PLANS	BY	DATE
DESIGN - DETAILED	G.o.T	6-70
CHECKED	E.D.H.	7-10-70
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEERING AVENUE BRIDGE

OVER

I-295 & PORTLAND TERMINAL R.R.

IN THE CITY OF

PORTLAND

CUMBERLAND COUNTY

SLOPE PROTECTION

SHEET 28 OF 36 AUGUSTA, MAINE

146-41

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX