F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)1	1	37

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CONVENTIONAL SIGNS

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

BUREAU OF HIGHWAYS

SACO

YORK COUNTY

MAINE FEDERAL AID INTERSTATE

PROJECT NO. I-IG-195-2(9)35

TOTAL LENGTH 0.0464 MILES

ROUTE 195

OVER

MAINE TURNPIKE

AND

ROUTE 195

OVER

INDUSTRIAL PARK RAILROAD SPUR

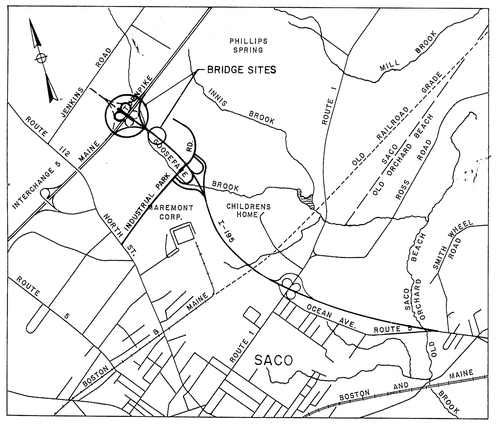
completed 1982

INDEX OF SHEETS (TURNPIKE STRUCTURE)

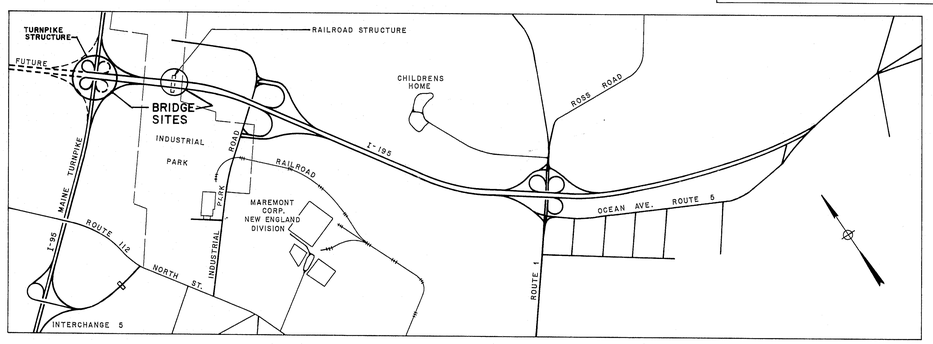
STANDARD DETAILS

BD 101-74	BEARING PEDESTAL
BD 104-77	ARMORED JOINT, DRAIN, SHEAR CONNECTORS AND MISCELLANEOUS STRUCTURAL DETAILS
BD 113-78	DIAPHRAGMS AND CROSSFRAMES
BD 114-77	ALUMINUM BRIDGE RAILING, 2-BAR
BD 120-79	END POSTS
(12)	FIELD OFFICE

MAINTENANCE OF TRAFFIC (3 SHEETS)



A PORTION OF YORK COUNTY



LAYOUT PLAN

0 1000 2000 3000

TRAFFIC DATA

A.D.T. 19____

A.D.T. 19____

D.H.V.____

T. (%)____

D. (%)____

V.____

P.S.D. (%)____

18 KIPS____

NOTE:
ALL WORK CONTEMPLATED UNDER THIS CONTRACT TO BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF JUNE 1968) AND SUPPLEMENTS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

STATE OF MAINE — CARL J. MELLEA 1118 — REGISTERED PROFESSIONAL ENGINEER

Carl J. Mellea

CARL J. MELLEA

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Jerge N. Cahill — COMMISSIONER — DATE 11-17-81

STATE OF MAINE — RICHARD A. COLEMAN 1569 — REGISTERED PROFESSIONAL ENGINEER

Richard A. Coleman — BUREAU DIRECTOR AND CHIEF ENGINEER — DATE 11-17-81

R92-192

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

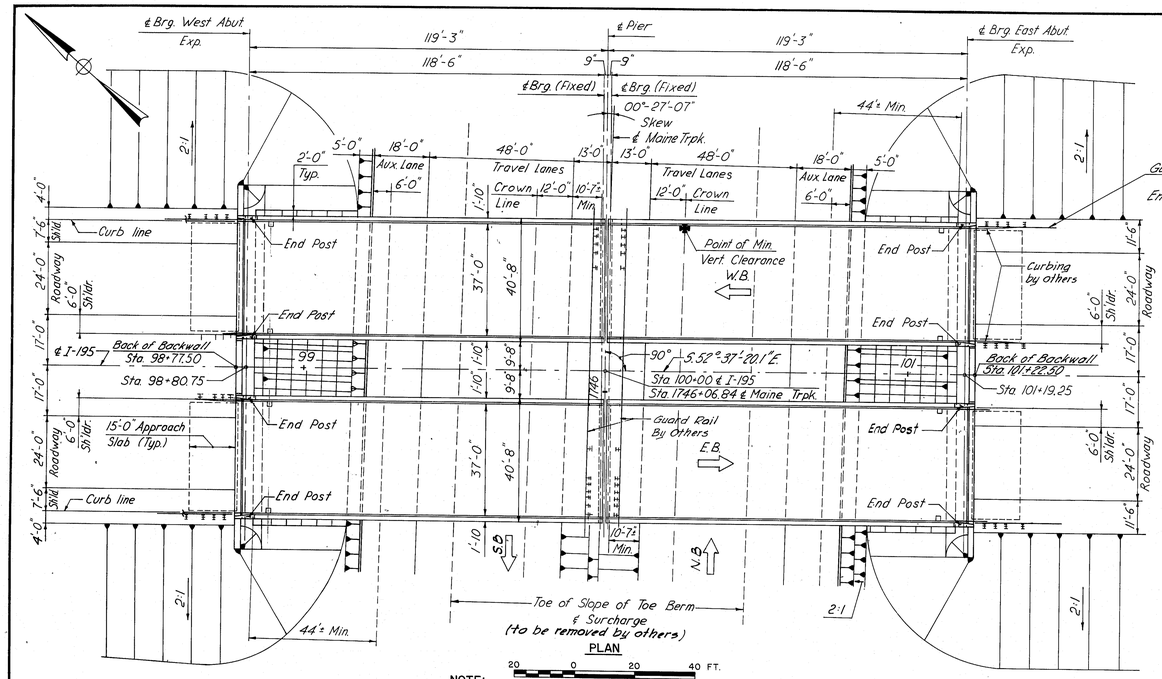
APPROVED:

DIVISION ADMINISTRATOR — DATE

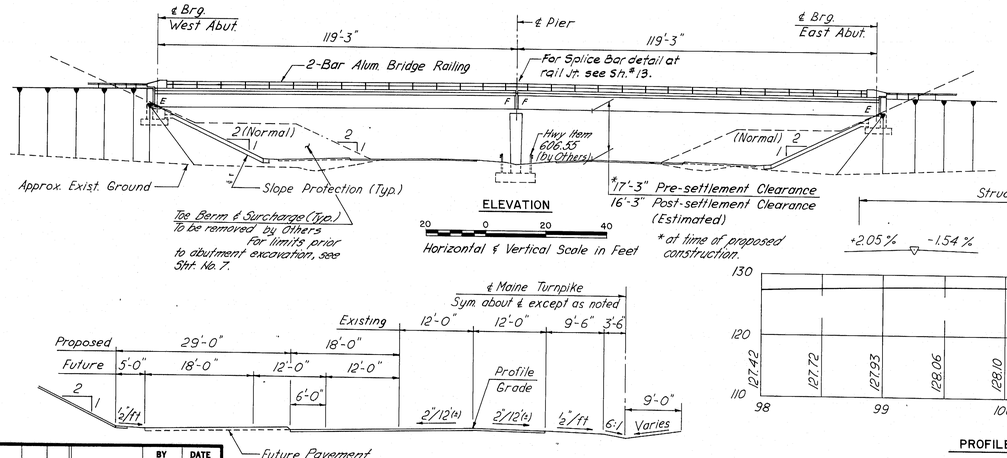
JANUARY 1980

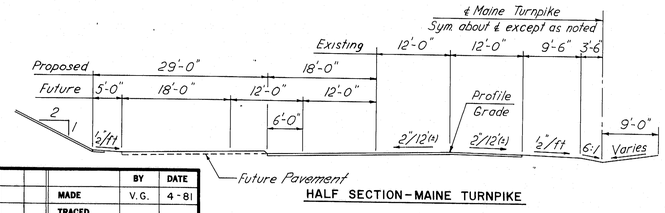
2934 2940

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	2	37

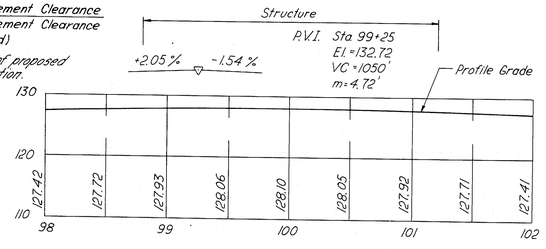


NOTE:
Ultimate construction shown for Maine Turnpike

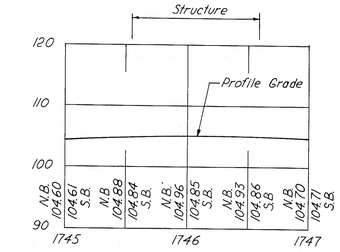




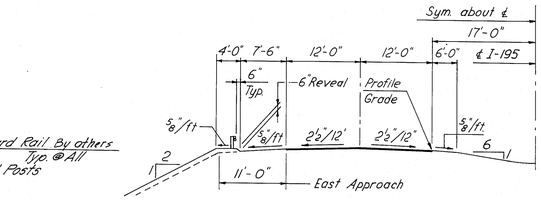
HALF SECTION-MAINE TURNPIKE



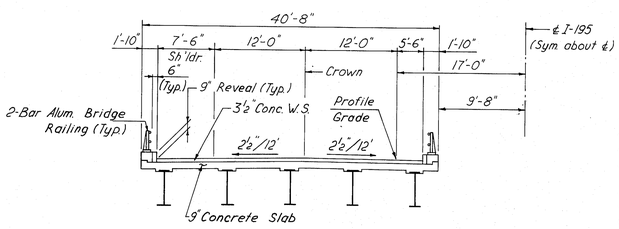
PROFILE - I-195



PROFILE - MAINE TURNPIKE



HALF SECTION-ROUTE I-195



TYPICAL CROSS SECTION

NO.	REVISION	BY	DATE
		MADE	V.G.	4-81
		TRACED		
		CHECKED	N.F.O.	4-81
		IN CHARGE OF	J.A.E.	

DESIGN

AASHTO Specifications for Highway Bridges' 1977 and Interim Specifications 1978 & 1979

CONTRACT

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

DESIGN LOADING

LIVE LOAD

HS25 as modified for Interstate

MATERIALS

CONCRETE

Wearing Surface ..... Class AA
Slope Protection ..... Class Y
All Others ..... Class A

REINFORCING STEEL

ASTM A615 Grade 60

STRUCTURAL STEEL

Welded Girders ASTM { A572, Grade 50 Flanges / A36 Webs
High Strength Bolts - ASTM A325
Joints ASTM A588 (any grade)
All Others ASTM A36

BASIC ALLOWABLE STRESSES

REINFORCING STEEL

f_s = 24,000 p.s.i.

STRUCTURAL STEEL

ASTM	A588	f_s = 27,000 p.s.i.
ASTM	A36	f_s = 20,000 p.s.i.
ASTM	A325	f_v = 25,000 p.s.i.
ASTM	A572	f_s = 27,000 p.s.i.

CONCRETE

f_c = 1200 p.s.i. n = 9

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE

GENERAL PLAN

SACO, MAINE

SHEET 2 OF 16 AUGUSTA, MAINE

R92-193

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	3	37

BRIDGE QUANTITIES

ITEM NUMBER	DESCRIPTION	QUANTITIES	UNIT
203.26	Gravel Borrow	442	C.Y.
206.081	Structural Earth Excavation - Abutments and Retaining Walls	584	C.Y.
206.10	Structural Earth Excavation - Piers	206	C.Y.
502.21	Structural Concrete, Abutments & Retaining Walls	427	C.Y.
502.23	Structural Concrete Piers	225	C.Y.
502.26	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges	Nec.	L.S.
502.29	Structural Concrete, Wearing Surface on Bridges	Nec.	L.S.
502.3101	Structural Concrete, Approach Slabs	1	L.S.
503.12	Reinforcing Steel, Fabricated and Delivered	190,400	Lb.
503.13	Reinforcing Steel Placing	196,400	Lb.
504.70	Structural Steel, Fabricated and Delivered	Nec.	L.S.
504.71	Structural Steel, Erection	Nec.	L.S.
505.08	Shear Connectors	Nec.	L.S.
506.141	Field Painting, Structural Steel	Nec.	L.S.
507.141	Aluminum Bridge Railing, Type 'A'	935	L.F.
512.07	French Drains (Stones Only)	36	C.Y.
513.09	Slope Protection Portland Cement Concrete	880	S.Y.
514.06	Curing Box For Concrete Cylinder	0.5	Ea.
515.20	Protective Coating For Concrete Surfaces	2370	S.Y.
520.201	Expansion Devices	Nec.	L.S.
609.13	Vertical Bridge Curb - Type 1	948	L.F.
633.22	2" Thick Polystyrene Plastic Insulation	206	S.Y.
639.05	Labor, Straight Time	20	M.Hr.
631.10	Air Compressor (Incl. op.)	10	Hour
631.11	Air Tool (Incl. op.)	10	Hour
631.13	Gulldozer (Incl. op.)	10	Hour
631.171	Truck - Small (Incl. op.)	10	Hour
631.22	Front End Loader (Incl. op.)	10	Hour
639.09	Field Office, Type B	.5	Each
645.67	Removing Pavement Markings	730	S.F.
645.70	Temporary 4" Painted Pavement Markings, White or Yellow	2400	L.F.
652.30	Flashing Arrow Board	2	Each
652.31	Type I Barricades	50	Each
652.33	Drums	10	Each
652.35	Construction Signs	660	S.F.
652.36	Maintenance of Traffic Control Devices	260	C.D.
659.10	Mobilization	.75	L.S.
660.21	On-the-Job Training (Bid)	1000	M.hr.
630.0606	Traffic Officers (Non-bid Item)	100	Hl.hr.
632.08	Warning Lights	2	Grp.

NOTES:

Estimated Quantity of Structural Steel, Fab., Del, Erected & Painted.
ASTM A36 351,000 lbs; ASTM A572 424,000 lbs; ASTM A588 8,000 lbs.
Estimated Quantity of Shear Connectors 5,800 Ea. (5,684 lbs).
Estimated Quantity of Concrete Item 502.26 - 625 C.Y.
Estimated Quantity of Concrete Item 502.29 - 192 C.Y.
Estimated Quantity of Concrete Item 502.31 - 55 C.Y.

NO.	REVISION	BY	DATE

	BY	DATE
MADE	F.C.S.	7-81
TRACED		
CHECKED	V.G.	7-81
IN CHARGE OF	J.A.E.	

R92-194

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE
ESTIMATED QUANTITIES
SACO, MAINE

SHEET 3 OF 16 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	4	37

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

1050.00' V.C.
M = 4.72'

℄ BRG. STA. 98+80.75

119'-3"

P.V.I. STA. 99+25
EL. 132.72

2.65% Δ -1.54%

119'-3"

℄ PIER

℄ BRG. STA. 101+19.25

SURCHARGE

SURCHARGE
(TO BE REMOVED BY OTHERS)

GRAVEL BORROW

FRENCH DRAIN (STONE ONLY) TYP.

TOE BERM
(TO BE REMOVED BY OTHERS)

TOE BERM

2
1

PORTLAND CEMENT CONC.
SLOPE PROTECTION TYP.

5' V.C. PAVED SWALE

5' V.C. PAVED SWALE

MAINE TURNPIKE
SOUTHBOUND

MAINE TURNPIKE
NORTHBOUND

140
130
120
110
100
90
80

125.37 126.01 126.57 127.04 127.48 127.72 127.93 128.06 128.10 128.05 127.92 127.71 127.41 127.02 126.55 125.99 125.35

96 97 98 99 100 101 102 103 104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

RTE. I-195
OVER
MAINE TURNPIKE

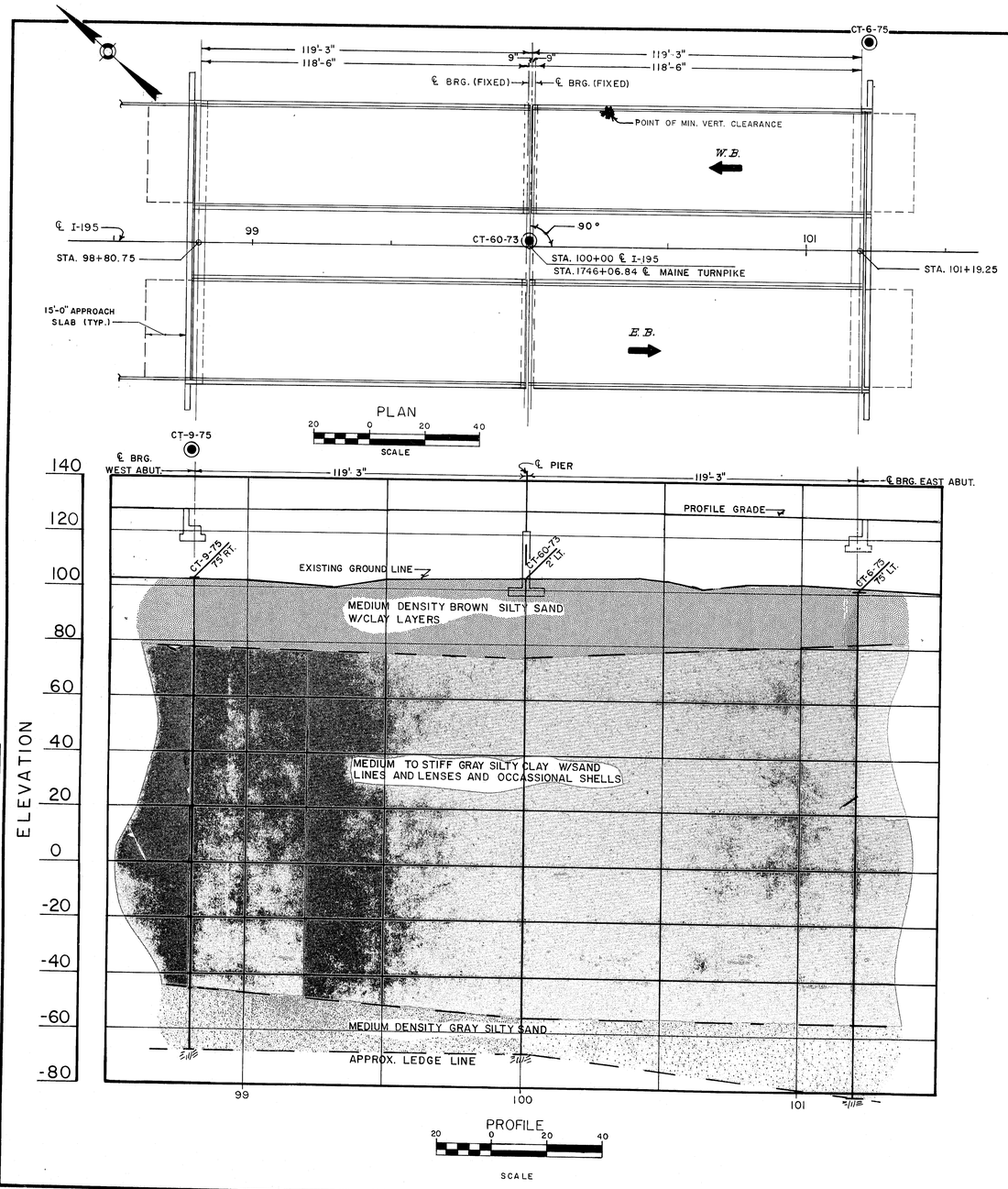
Horiz. 0 5' 10'
Vert. 0 5' 10'

SHEET 4 OF 16 AUGUSTA, MAINE

R92-195

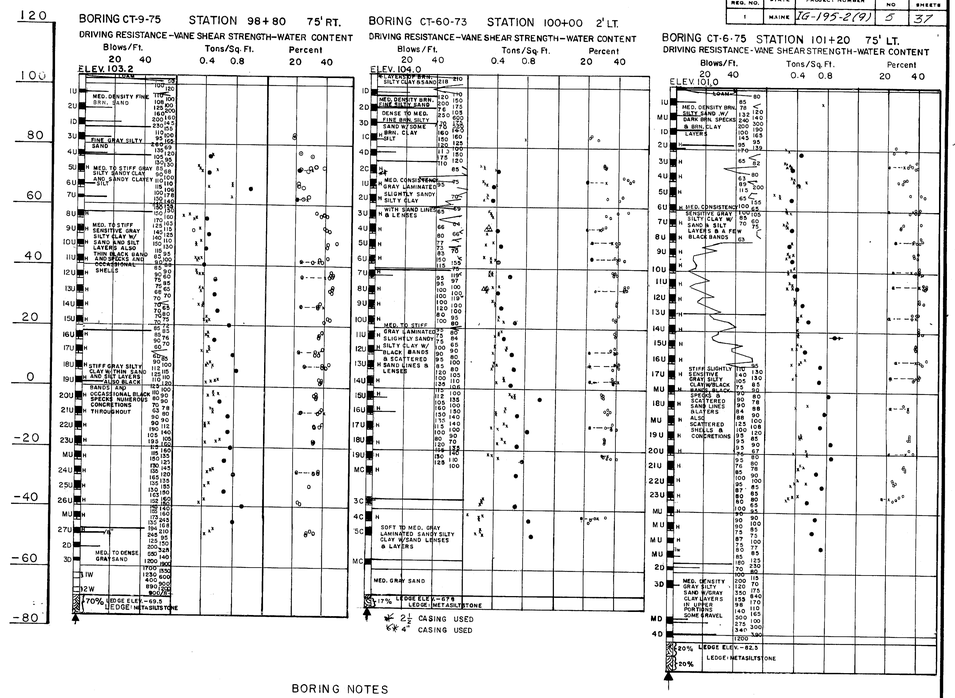
Saco I-195-2( )

K-E PLATE 3, CROSS SECTION
KEUFFEL & ESSER CO.



PROJECT DESIGN ENGINEER | BY | DATE
PLANS | DESIGN - DETAILED | CHECKED | REVISIONS | FIELD CHANGES

JANUARY 1968



BORING NOTES

All samples and vanes are made ahead of casing
2-1/2" & 4" Casing used

N — Number of blows required to drive extra heavy casing one foot with 490 ft. lbs. of energy per blow
Location of sample or sample attempt
Number and type of dry sample
ID — S&H Sampler @ 1290 #
IC — 2" O.D. 16 ga. seamless tubing
IU — 3-1/2" O.D. 16 ga. seamless tubing
IW — Wash sample and number
MD — Unsuccessful sample attempt and type of sampler
N — 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
P — Piston sampler
H — Field vane test
Bottom of boring (may not be bottom of soil strata)
71% — Locations cored by diamond bit and percent recovery of rock

SHEAR NOTES

● Field vane shear strengths
X Laboratory vane shear strengths
→ Shear strengths in excess of capacity of equipment
△ Triaxe shear strengths

WATER CONTENT NOTES

O Natural water content, given as percent of dry weight
⊕--X Plastic and liquid limits

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	IG-195-2(9)	5	37

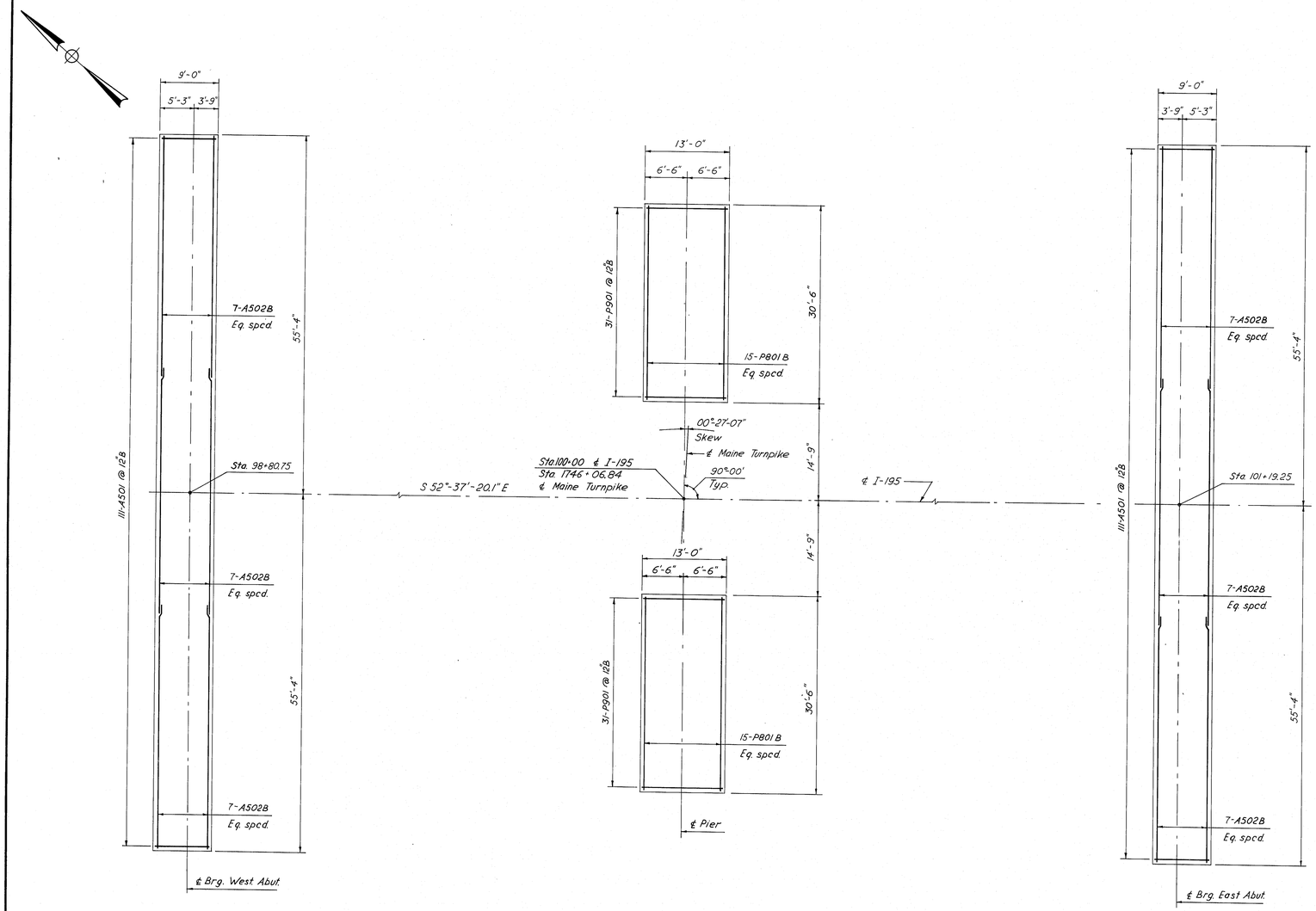
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE
IN THE CITY OF
SACO
YORK COUNTY
FOUNDATION SURVEY
SHEET 5 OF 16 AUGUSTA, MAINE

R92-196

BRJ-1 2000

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	6	37



FOOTING PLAN

NOTES:

Abutment Notes:

1. Chamfer all exposed edges of concrete a consistent dimension between 1/2" and 3/4" inclusive, unless otherwise indicated.
2. Reinforcing steel shall have 2" cover unless otherwise indicated.
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. Polyvinylchloride waterstops as shown on Standard Details BD 104 shall be placed in all vertical construction joints.
5. Waterstops are not required in horizontal construction joints.
6. The top portion of the abutment backwall shall be placed after all superstructure structural slab concrete is in place and after all necessary adjustments to the joint armor have been made, unless another method, which allows for the proper alignment and adjustment of the joint armor, is approved by the Engineer.
7. Maximum calculated footing pressure is 2 T/a'
8. N.F. denotes near face; F.F. denotes far face; E.F. denotes each face; B & T denotes bottom & top bars.
9. Protective coating for concrete surfaces shall be applied to the top of backwall.
10. For approach slab details see Sh. 9.
11. For joint details see Sh. 14.
12. For construction joint details & shear keys see Standard Detail Sheet BD 104-77

NO.	REVISION	BY	DATE
		MADE	V.G. 4-81
		TRACED	
		CHECKED	N.F.O. 4-81
		IN CHARGE OF J.A.E.	

R92-197

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

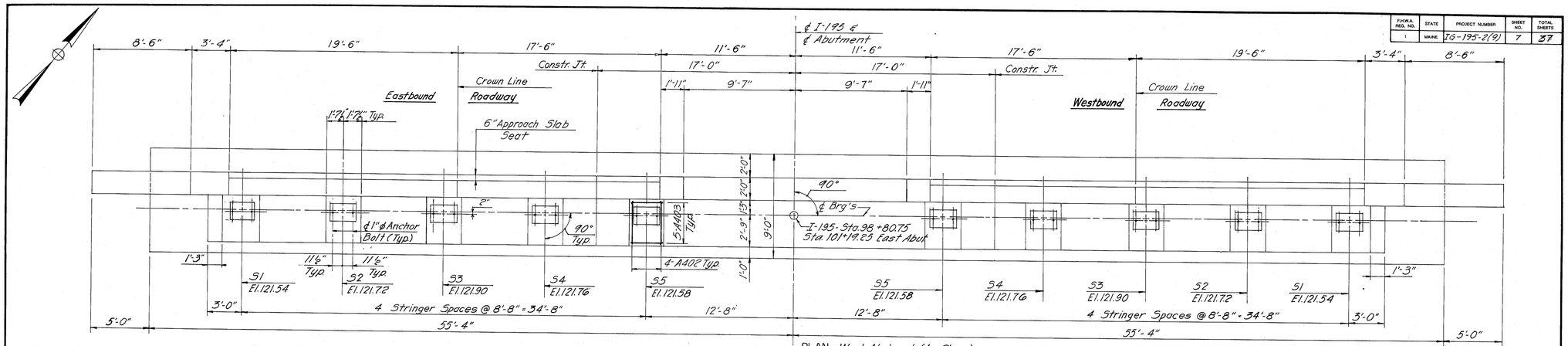
ROUTE I-195
OVER
MAINE TURNPIKE

FOOTING PLAN

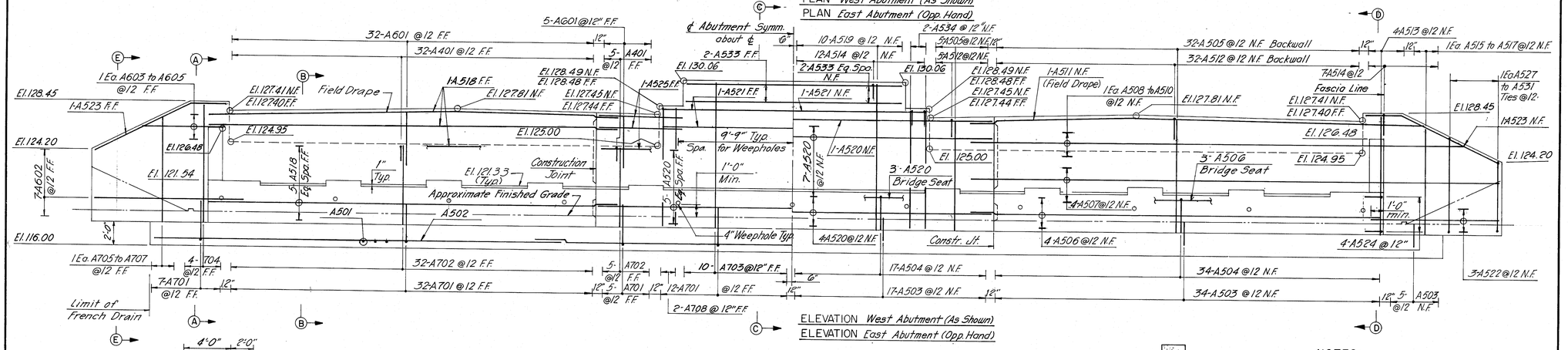
SACO, MAINE

SHEET 6 OF 16 AUGUSTA, MAINE

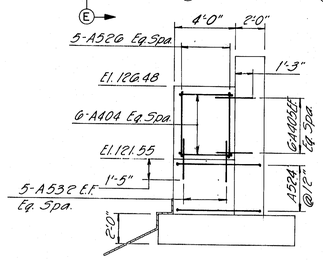
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	7	37



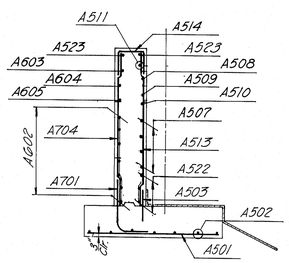
PLAN West Abutment (As Shown)
PLAN East Abutment (Opp. Hand)



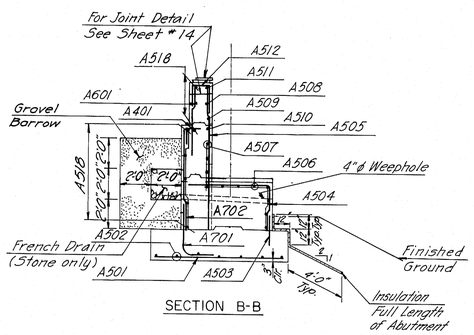
ELEVATION West Abutment (As Shown)
ELEVATION East Abutment (Opp. Hand)



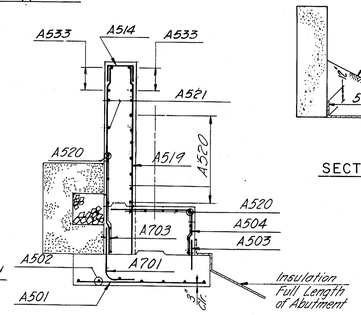
SECTION D-D



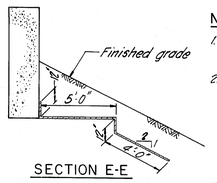
SECTION A-A



SECTION B-B



SECTION C-C



SECTION E-E

NOTES:

1. For Abutment Notes and Footing Reinforcement, see Sht. No. 6.
2. Insulation to be 2" polystyrene plastic insulation with 20 gauge ½" wire mesh screening on both sides, except on surfaces which are to be in contact with concrete. Insulating panels to be placed on existing embankment whose surface shall be free of rocks which would cause damage to the panels.

NO.	REVISION	BY	DATE
	MADE	S.A.	4-81
	TRACED		
	CHECKED	N.F.O.	4-81
	IN CHARGE OF J.A.E.		

HNTB

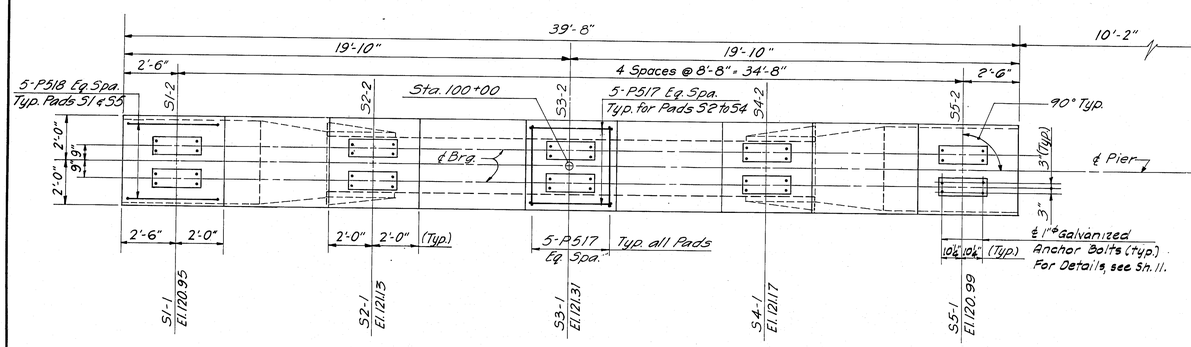
R92 198

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

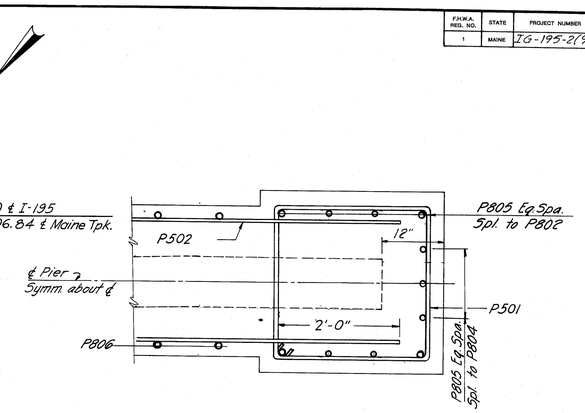
ROUTE I-195
OVER
MAINE TURNPIKE
ABUTMENTS
SACO, MAINE

SHEET 7 OF 16 AUGUSTA, MAINE JUNE 1980

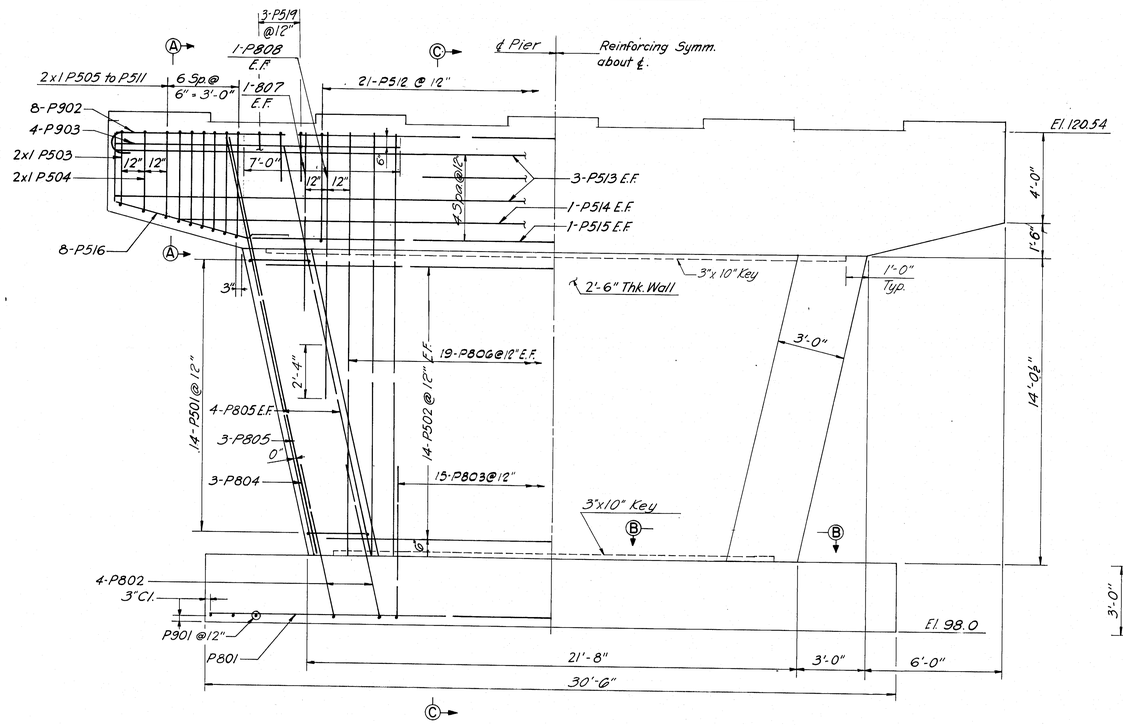
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	8	37



PLAN Westbound Pier (As Shown)
PLAN Eastbound Pier (Opp. Hand)

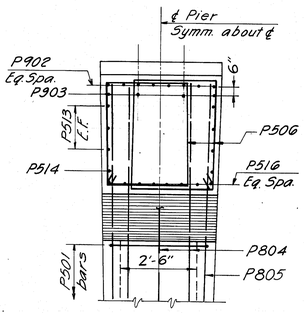


SECTION B-B

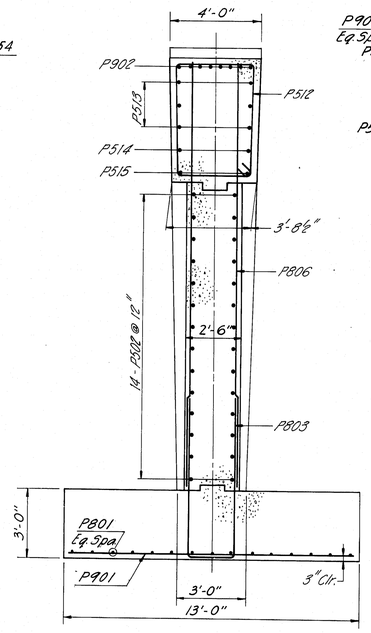


ELEVATION

SECTION B-B



SECTION A-A



SECTION C-C

NOTES:

1. Chamfer all exposed edges of concrete a consistent dimension between ½" and ¾" inclusive, unless otherwise indicated.
2. Reinforcing steel shall have 2" minimum cover unless otherwise indicated.
3. Place reinforcing steel on bridge seats to clear anchor bolts.
4. Maximum calculated footing pressure-3½ tsf.
5. For Footing Plan & Footing Reinforcement, See Sheet No. 6.

NO.	REVISION	BY	DATE
		BY	DATE
	MADE	S.A.	4-81
	TRACED		
	CHECKED	N.F.O.	4-81
	IN CHARGE OF J.A.E.		

R92-199

HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

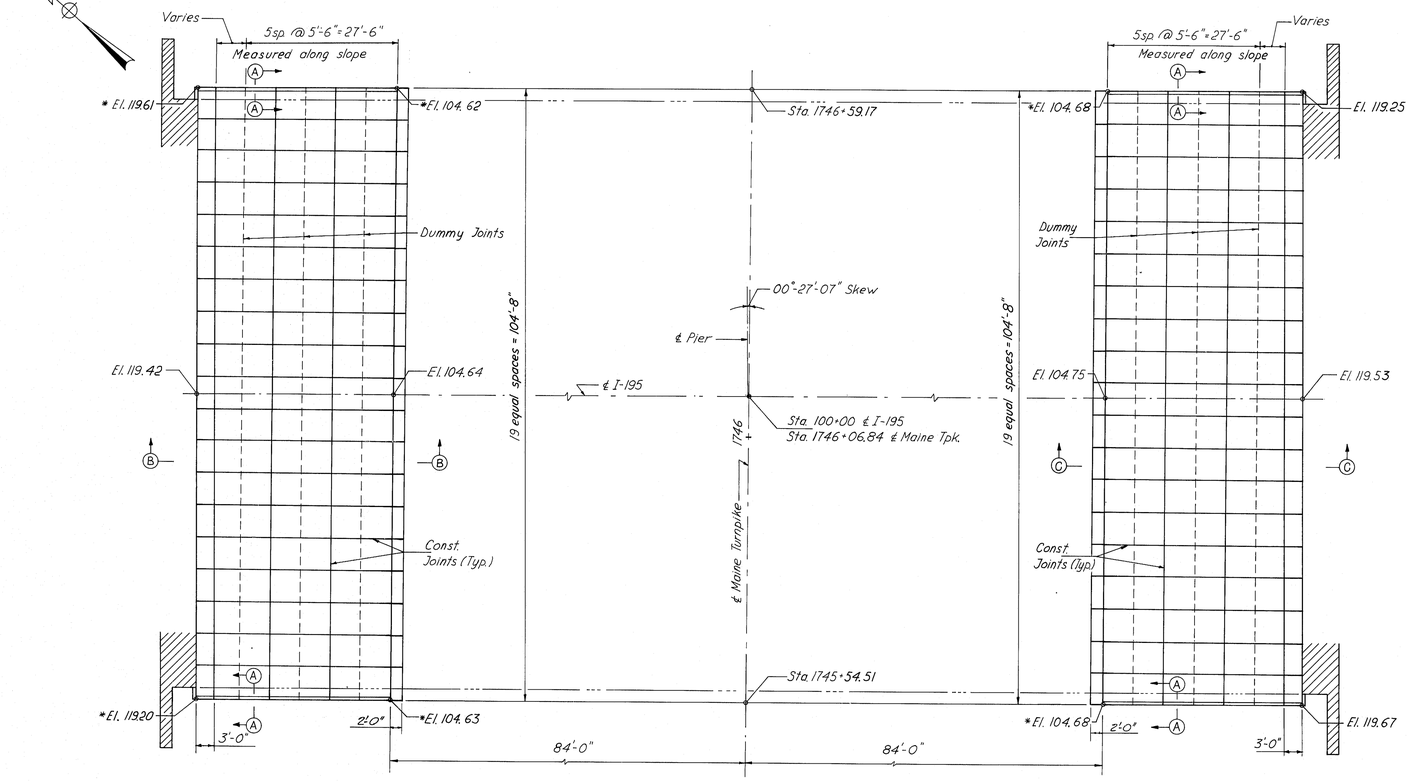
ROUTE I-195
OVER
MAINE TURNPIKE

PIER

SACO, MAINE

SHEET 8 OF 16 AUGUSTA, MAINE MAY 1980

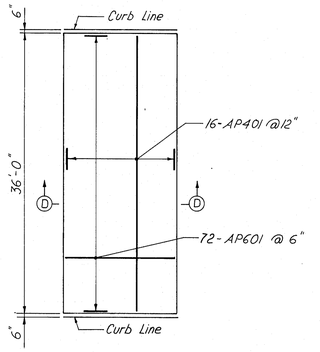
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	9	37



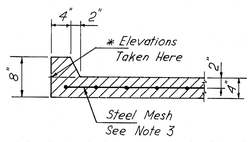
PLAN

NOTES:

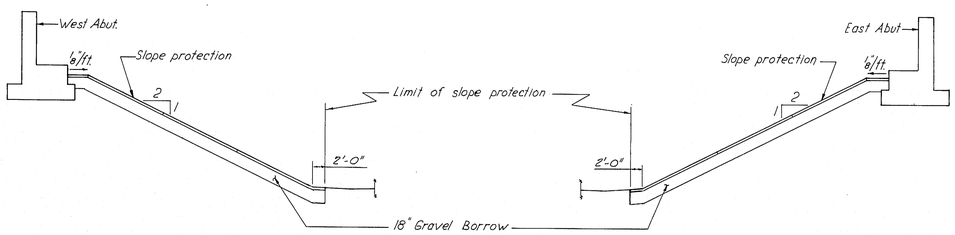
1. The 18" of Gravel Borrow under Slope Protection may be reduced or omitted if in the opinion of the Engineer the existing material is suitable.
2. Break bond at construction joints with a coat of asphalt paint
3. Reinforce with #10 gage 6"×6" steel mesh, not to pass through construction joints.
4. Dummy joints shall be made with a groover to a depth of 1/4".
5. Edges of construction joints shall be finished with a sidewalk edging tool to a depth of 1/4".



APPROACH SLAB



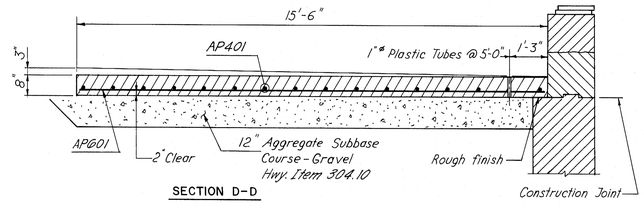
SECTION A-A



SECTION B-B

SECTION C-C

Approach Slab at West Abut. shown.
Approach Slab at East Abut. similar.



SECTION D-D

NO.	REVISION	BY	DATE

	BY	DATE
MADE	V.G.	4-81
TRACED		
CHECKED	N.F.O.	4-81
IN CHARGE OF	J.A.E.	

HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

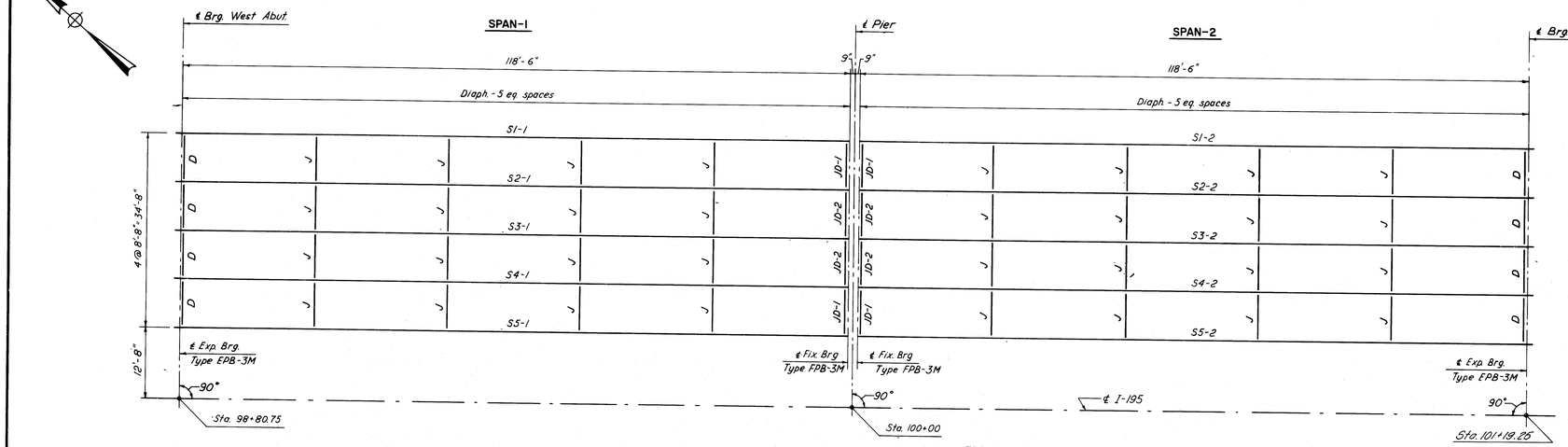
ROUTE I-195
OVER
MAINE TURNPIKE

SLOPE PROTECTION
APPROACH SLAB
SACO, MAINE

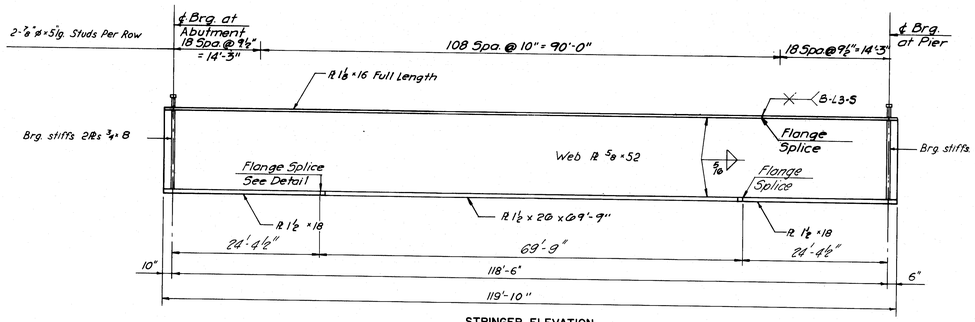
SHEET 9 OF 16 AUGUSTA, MAINE

R92-200

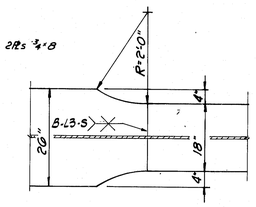
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	10	37



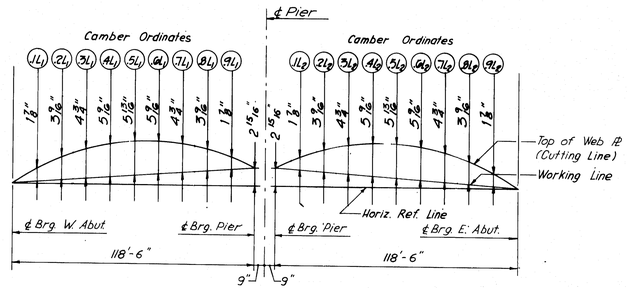
FRAMING PLAN
Westbound Roadway Shown
Eastbound Roadway Similar



STRINGER ELEVATION
Typ. for all stringers

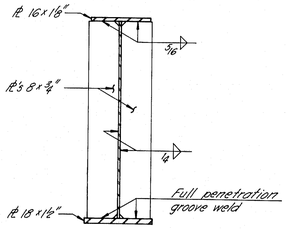


BOTTOM FLANGE SPLICE



CAMBER DIAGRAM

Total shear connectors required = 290 x 10 girders = 2900
Total weight of shear connectors = 2,842 lbs.



BEARING STIFFENER DETAIL

NOTE:
Camber ordinates shown include total dead load deflection and vertical curvature. All dimensions are horizontal or vertical.

STRUCTURAL STEEL NOTES:

1. No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet from the point of maximum positive moment.
2. Butt weld splices in flanges shall be not less then one foot from transverse welds in the web plate.
3. Bearing stiffeners shall be plumb after erection and dead loading of the structure.
4. Cross frame or diaphragm connection plates may be either plumb or normal to the top flange.
5. For shear connector details see std. drawing BD 104-77.
6. For details of JD-1 & JD-2 diaphragms see Sheet 11.
7. For details of diaphragms D, cross frames J, bearing stiff. and conn. PL's, see Std. Dwg. BD 113-78.
8. All structural steel to conform to ASTM A36, fs 20,000 psi, except as follows:
   Girder Flange PL's to be ASTM A572 Grade 50 fs 27,000 psi
   Bridge Joints to be ASTM A588, fs 27,000 psi.
   Bolts to be ASTM A325, Fv 25,000 psi.

NO.	REVISION	BY	DATE
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R92-201

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HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

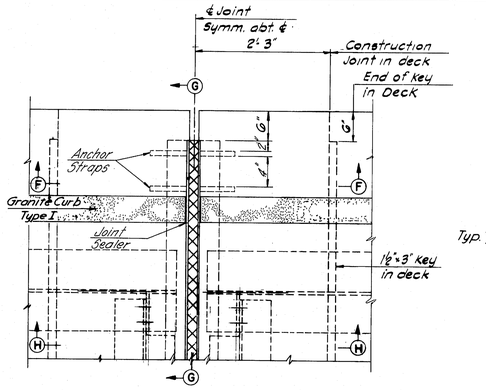
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE

FRAMING PLAN & DETAILS

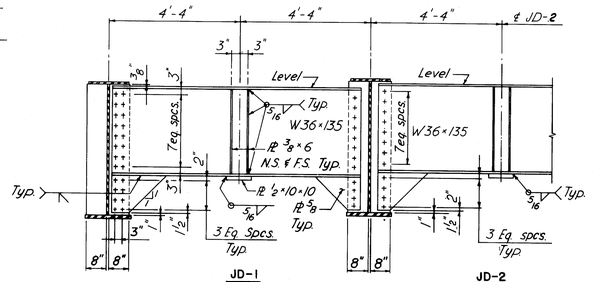
SACO, MAINE

SHEET 10 OF 16 AUGUSTA, MAINE



PLAN

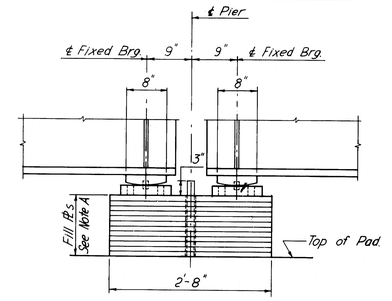
All exposed welds and welds in contact with preformed elastic joint sealer to be ground smooth.



JD-1

JD-2
For Details not shown, see JD-1.

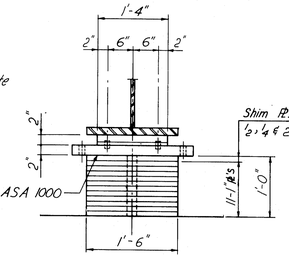
TYPICAL JACKING DIAPHRAGMS AT PIER



SECTION A-A

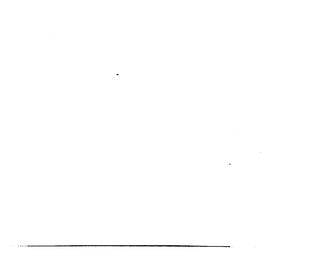
NOTE A:

Top & Bottom of each fill plate to be planed, straightened or otherwise treated to secure true level surfaces. Fill PLs are for future adjustment as may be necessary to compensate for anticipated differential settlement between Pier & Abut. e.g. whenever differential settlement is 2" at the Abut. remove two 1" fill PLs. at the Pier.



SECTION B-B

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	11	37



SECTION G-G

℄ Radius R, to be large enough to prevent cutting, crimping or breaking Joint Sealer.

DETAIL E

SECTION F-F

SECTION H-H

JOINT NOTES:

1. The seal furnished shall have a minimum movement rating of 1".
2. The movement rating noted is for design only and is subject to change due to differences in seals as supplied by various manufacturers. Do not use for setting the joint opening during construction.
3. The seal characteristics shall be submitted to the Engineer for approval prior to the fabrication of the Armored Joint.
4. Set joint opening according to the joint opening shown on the approved "Armored Joint" shop detail drawings.
5. The Armored Joint and seal shall be assembled in the shop prior to shipment. The contractor shall be responsible for the proper placement and final opening of the armored joint. Joint to be installed after main part of deck is poured to within 2'-3" of ℄ Pier.
6. For additional joint details not shown, see standard Detail Sheet BD 104-77.

ARMORED JOINT UNIT TYPE A AT PIER

NO.	REVISION	BY	DATE
		BY	DATE
	MADE	V. G.	4-81
	TRACED		
	CHECKED	N.F.O.	4-81
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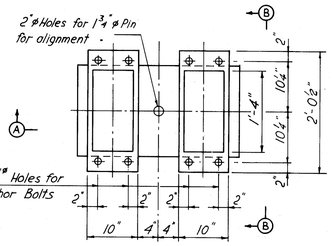
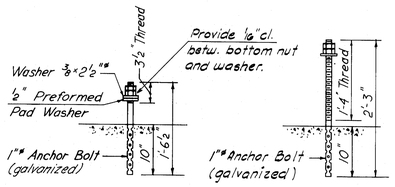
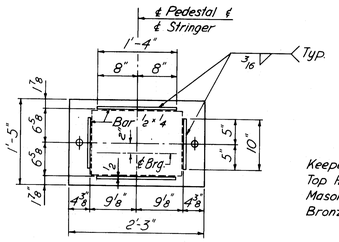


FPB-3M-PLAN

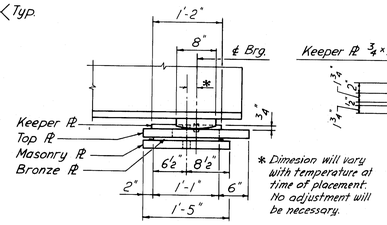


FOR EPB-3M FOR FPB-3M

ANCHOR BOLT DETAIL

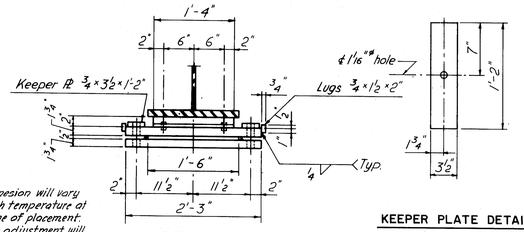


MASONRY PLATE - PLAN



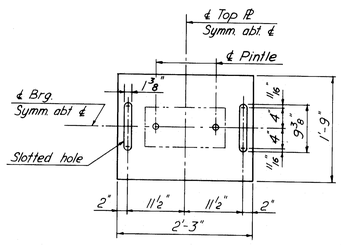
SECTION C-C

* Dimension will vary with temperature at time of placement. No adjustment will be necessary.

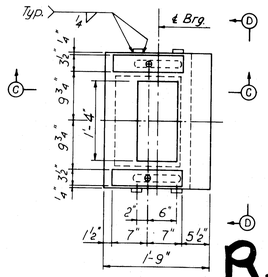


SECTION D-D

KEEPER PLATE DETAIL



TOP PLATE - PLAN



EPB-3M PLAN

STANDARD PEDESTAL MODIFICATION

NOTES:

1. For dimensions and details not shown, see FPB-3, EPB-3 & anchor bolt detail on Standard Detail Sheet BD101-74
2. Bearing pedestal to be placed normal to ℄ stringer.
3. For treatment of Bearing Pads, see Std. Detail Sheet BD 101-74.

R92-202

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CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

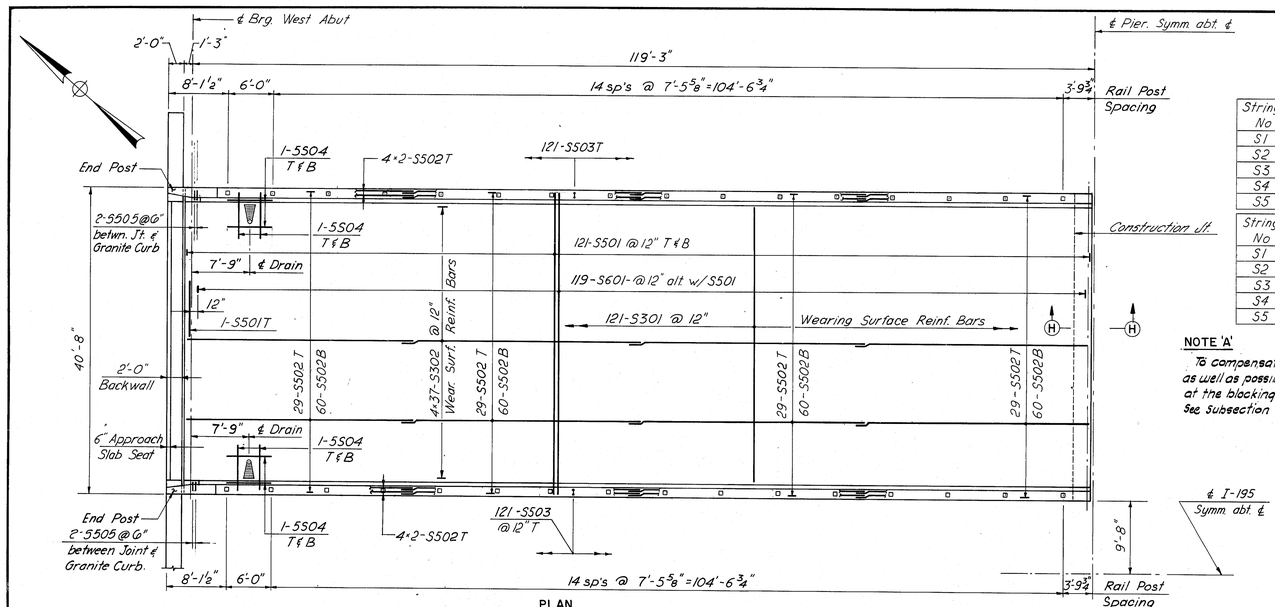
ROUTE I-195
OVER
MAINE TURNPIKE

STRUCTURAL STEEL DETAILS

SACO, MAINE

SHEET 11 OF 16 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	12	37



PLAN

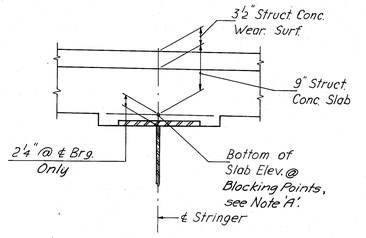
BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS

Stringer No	℄ Brg W. Abut.	Span 1 .1L1	.2L1	.3L1	.4L1	.5L1	.6L1	.7L1	.8L1	.9L1	℄ Brg Pier
S1	126.69	126.84	126.97	127.08	127.16	127.20	127.21	127.17	127.12	127.03	126.93
S2	126.87	127.02	127.15	127.26	127.34	127.38	127.39	127.35	127.30	127.21	127.11
S3	127.05	127.20	127.33	127.44	127.52	127.56	127.57	127.53	127.48	127.39	127.29
S4	126.91	127.06	127.19	127.30	127.38	127.42	127.43	127.39	127.34	127.25	127.15
S5	126.73	126.88	127.01	127.12	127.20	127.24	127.25	127.21	127.16	127.07	126.97

Stringer No	℄ Brg Pier	Span 2 .1L2	.2L2	.3L2	.4L2	.5L2	.6L2	.7L2	.8L2	.9L2	℄ Brg E. Abut.
S1	126.93	127.03	127.12	127.17	127.21	127.20	127.16	127.08	126.97	126.84	126.69
S2	127.11	127.21	127.30	127.35	127.39	127.38	127.34	127.26	127.15	127.02	126.87
S3	127.29	127.39	127.48	127.53	127.57	127.56	127.52	127.44	127.33	127.20	127.05
S4	127.15	127.25	127.34	127.39	127.43	127.42	127.38	127.30	127.19	127.06	126.91
S5	126.97	127.07	127.16	127.21	127.25	127.24	127.20	127.12	127.01	126.88	126.73

NOTE 'A'

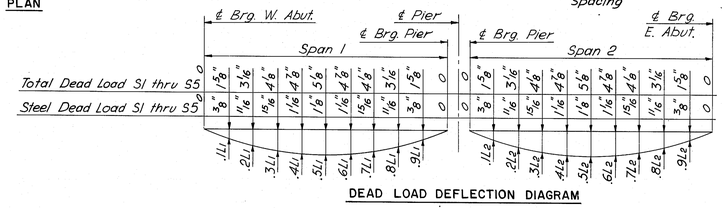
To compensate for all dead load deflections except structural steel, as well as possible irregularities in girders, set the bottom of slab elevations at the blocking points indicated before any of the slab formwork is started. See subsection 502.10(a) of the Standard Specifications.



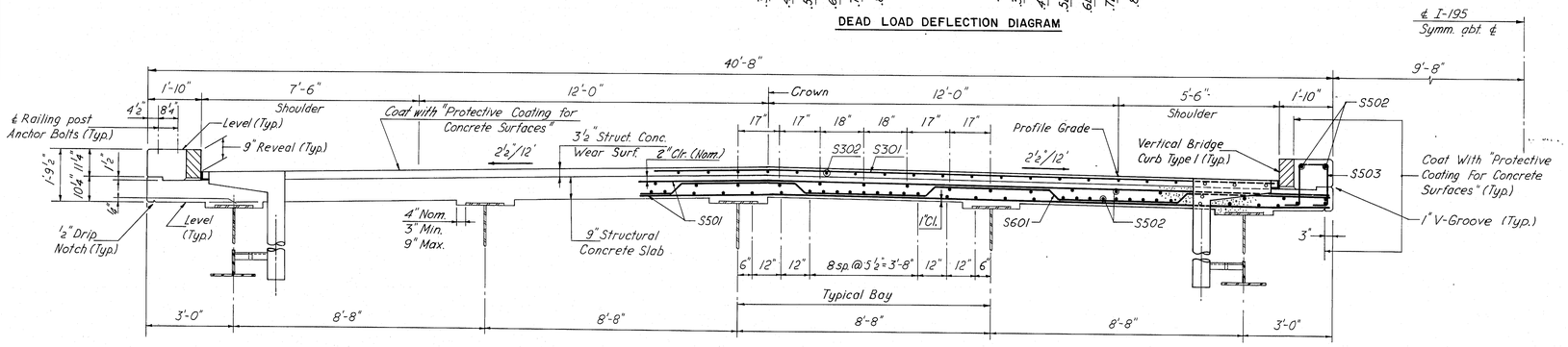
BLOCKING DETAIL

SUPERSTRUCTURE NOTES:

1. *Chamfer all exposed edges of concrete a consistent dimension between ½" & ¾" inclusive, unless otherwise indicated.*
2. *Form a 1 inch V-groove at the horizontal joint between the curb & slab.*
3. *Reinforcing steel to have a minimum cover of 2" unless otherwise indicated.*
4. *Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.*
5. *The superstructure slab concrete shall be placed continuously and kept plastic until the entire slab concrete has been placed. Set retarding admixture shall be used when authorized by the Engineer.*
6. *Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.*
7. *Protective Coating for Concrete Surfaces shall be applied to the following areas: Top of concrete curb, facia down to drip notch and Concrete wearing surface.*



DEAD LOAD DEFLECTION DIAGRAM



TRANSVERSE SECTION

NOTES:

1. *For additional details & dimensions not shown for curb and roadway see std. detail sheet BD 104-77.*
2. *For 2-bar Alum. Bridge Railing details see std. detail sheet BD 114-77.*
3. *For End Post Details see sheet No. 13.*
4. *For Joint Details see sheet No. 14.*
5. *For Reinforcing Steel Schedule see sheets No. 15 & 16.*
6. *For Drain Details see sheet BD 104-77.*
7. *For Section H-H, see Sht. No. 11.*

NO.	REVISION	BY	DATE
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R92-203

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CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

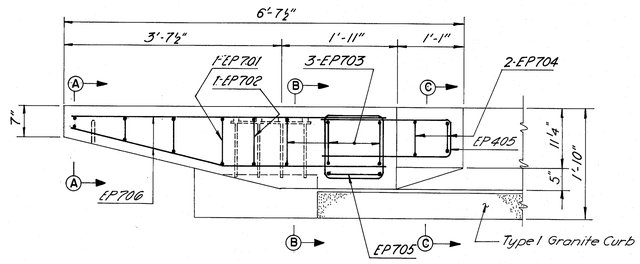
ROUTE I-195
OVER
MAINE TURNPIKE

SUPERSTRUCTURE DETAILS

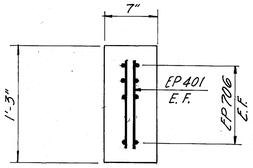
SACO, MAINE

SHEET 12 OF 16 AUGUSTA, MAINE

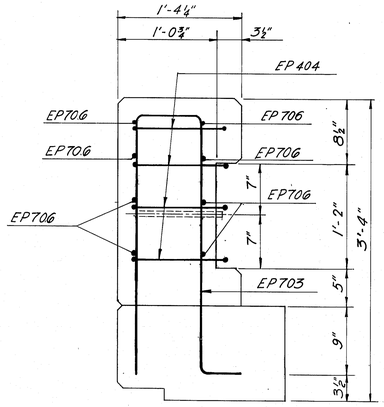
F.A.H.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	13	37



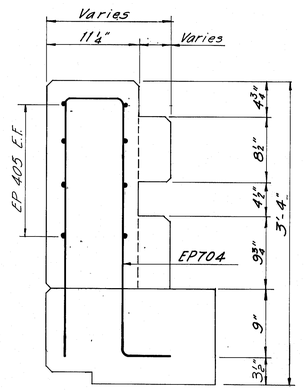
PLAN



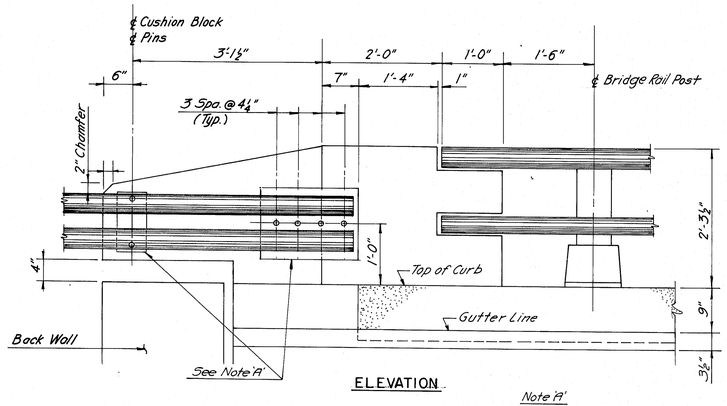
SECTION A-B



SECTION B-B
Insert for guard rail shown.
See Note 'A'.

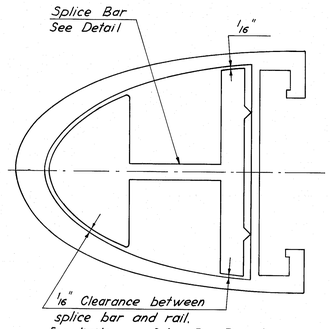


SECTION C-C

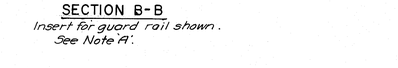


ELEVATION

Note 'A'
Beam guard rail not required at N.E. corner of E.B. Rdwy., therefore omit insert and wood block at this end post.



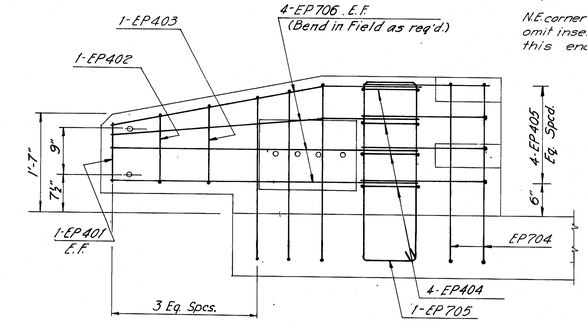
RAIL SECTION



SPLICE BAR DETAIL

Note:
This portion of the splice bar to be finished to provide a 1/16" min. clearance between splice bar and rail section. Remaining portion and additional details to be as shown on Standard Detail Sheet BD 114-77.
The 1/16" min. clearance is provision for each 2" of differential settlement which may occur between the Abutment and Pier.

Notes:
For dimensions and details not shown, see Concrete End Posts on Standard Detail Sheet BD 120-79.



ELEVATION

NO.	REVISION	BY	DATE

	BY	DATE
MADE	S.A.	4-81
TRACED		
CHECKED	N.F.O.	4-81
IN CHARGE OF	J.A.E.	

R92-204

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS BOSTON

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

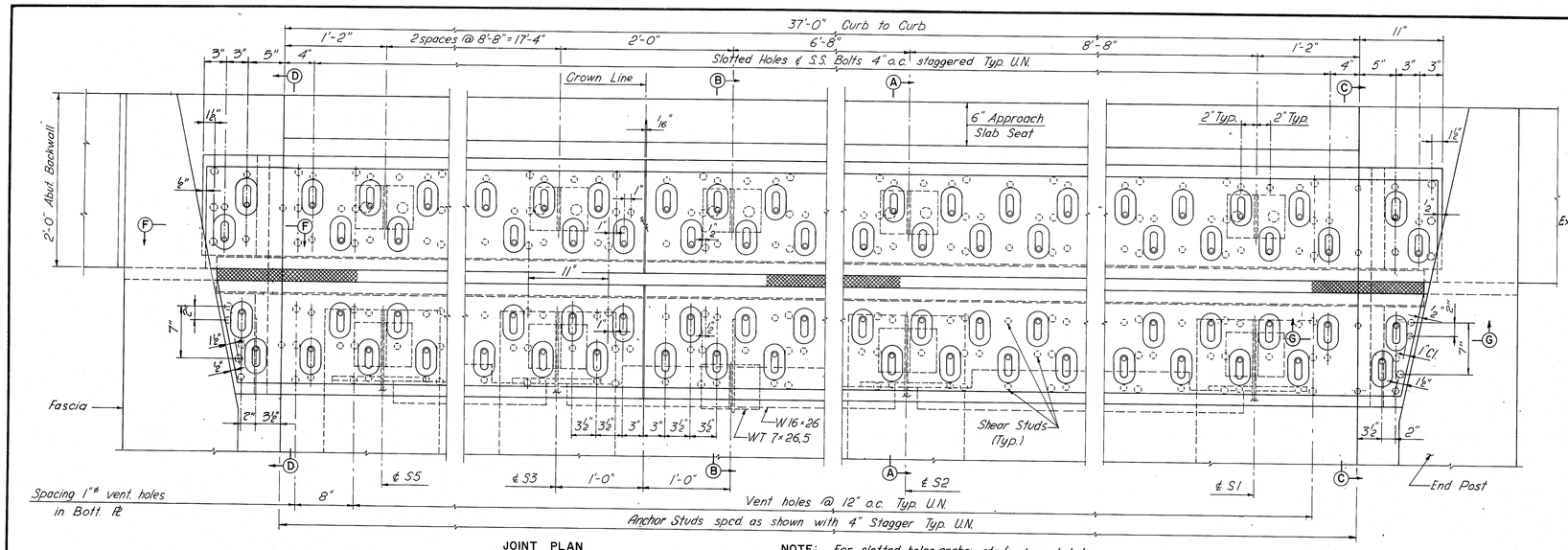
ROUTE I-195
OVER
MAINE TURNPIKE

END POST DETAIL

SACO, MAINE

SHEET 13 OF 16 AUGUSTA, MAINE MAY 1980

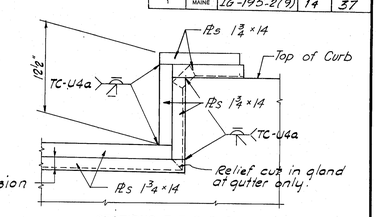
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	14	37



JOINT PLAN

Joint at West Abut. W.B. Rdwy or Joint at East Abut. E.B. Rdwy shown.
Joint at West Abut. E.B. Rdwy or Joint at East Abut. W.B. Rdwy opposite hand.

NOTE: For slotted holes, anchor studs ℄ vent holes details see Detail A

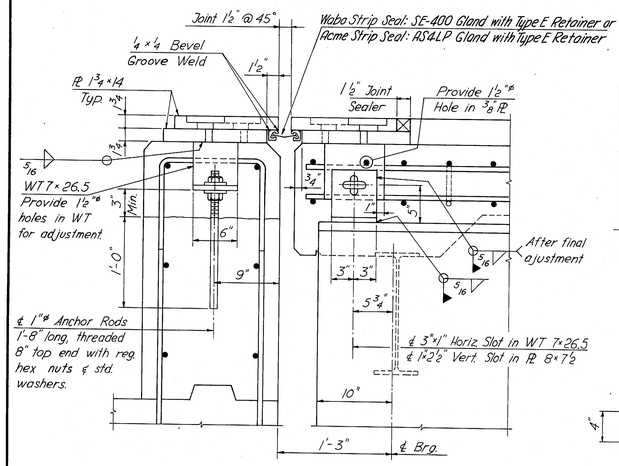


SECTIONS F-F & G-G

Slotted holes, anchor studs ℄ vent holes are not shown.

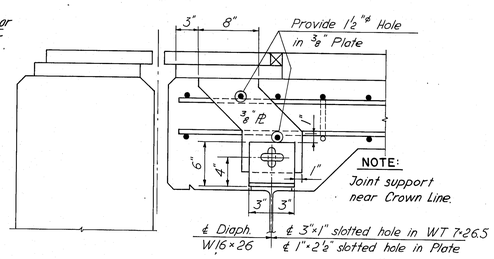
NOTES:

1. Structural steel to conform to ASTM A588, any grade.
2. Slots in upper plate for stainless steel bolts allow for future adjustment as may be necessary to compensate for movement due to settlement. When placing concrete, upper plate shall not be in place and threaded holes shall be plugged with temporary bolts.
3. Joint plates to be planed straightened or otherwise treated to secure true level surfaces.
4. Use ⅞"ø H.S. bolts in joint support over stringer and diaphragm.
5. For Type A Joint @ Pier, see Sh. No. 11.



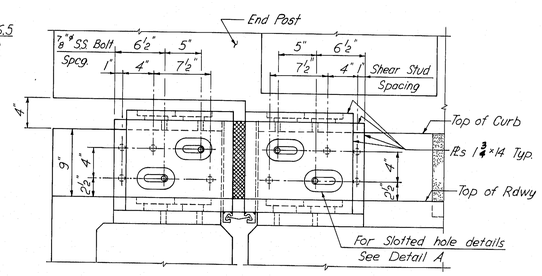
SECTION A-A

For Shear Stud location and additional Plate details see Detail A



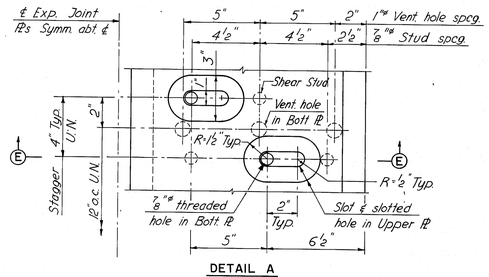
SECTION B-B

For details not shown see Section A-A

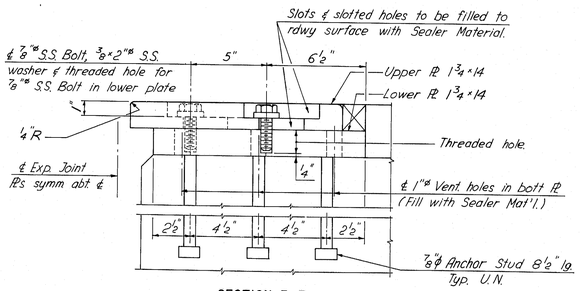


SECTION C-C

Section D-D similar



DETAIL A



SECTION E-E

Use 2¼" lg. ⅞"ø S.S. Bolts for Rdwy. Pls.
Use 1¼" lg. ⅞"ø S.S. Bolts for Curb Pls.

NO.	REVISION	BY	DATE
		BY	DATE
	MADE	V.G.	4-81
	TRACED		
	CHECKED	N.F.O.	4-81
	IN CHARGE OF	J.A.E.	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE

JOINT DETAILS

SACO, MAINE

R92-205

HUTCHINSON, RICHARD NEILSON, HAMMEN & HUTCHINSON, ENGINEERS

SHEET 14 OF 16 AUGUSTA, MAINE

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
WEST ABUTMENT			
A405	24	2-6	Dowels
A501	111	8-6	Footing
A502	21	38-0	"
A503	112	2-0	Dowels
A505	74	9-2	Backwall
A506	14	35-0	Breastwall
A507	8	45-0	Backwall
A508	2	39-7	"
A509	2	41-7	"
A510	2	43-7	"
A511	2	38 5	"
A513	8	10-2	"
A515	2	9-8	Wingwall
A516	2	9-2	"
A517	2	8-8	"
A518	16	35-1	Backwall
A519	20	11-11	"
A520	20	33-8	Breastwall
A521	3	22-8	Backwall
A522	6	11-0	Wingwall
A525	6	7-3	Backwall
A532	20	2-10	Dowels
A533	4	18-10	Backwall
A534	4	10-4	Backwall
A601	74	4-9	Backwall
A602	14	12-10	Wingwall
A603	2	5-2	"
A604	2	7-2	"
A605	2	9-2	"
A702	74	6-10	Backwall
A703	20	11-11	"
A704	8	10-2	"
A705	2	8-8	Wingwall
A706	2	9-2	"
A707	2	9-8	"
A708	4	10-4	Backwall
EAST ABUTMENT same as West Abutment			

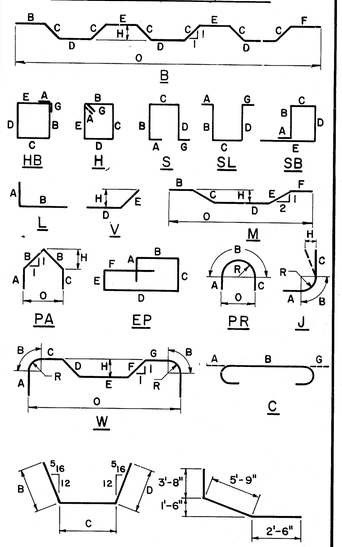
MARK	NO.	LENGTH	LOCATION
WESTBOUND RDWY. PIER			
P502	28	20-3 to 26-3	2 Groups of 14 - Shaft
P513	6	39-4	Cap
P514	2	35-0	"
P515	2	26-6	"
P801	15	30-0	Footing
P804	6	7-2	Shaft
P805	22	19-4	"
P806	38	19-3	"
P807	4	7-7	Cap
P808	4	12-0	"
P901	31	12-0	Footing
P903	8	12-10	Cap
EASTBOUND RDWY. PIER same as Westbound Rdwy. Pier			

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
WEST ABUTMENT														
A401	74	2-0	L	1-0	1-0									Approach Slab Seat
A402	40	7-8	S	0	2-0	3-8	2-0			0				Bridge Seat
A403	50	6-11	S	0	2-0	2-11	2-0			0				" "
A404	12	8-7	S	0	3-10	0-11	3-10			0				Curtain Wall
A504	102	8-4	L	3-1	5-3									Breastwall
A512	74	4-3	S	0	1-9	1-2	1-4			0				Backwall
A514	38	4-4	S	0	1-4	1-8	1-4			0				"
A523	4	12-6	V				9-4	3-2			1-5			Wingwall
A524	8	8-4	S	0	1-4	5-8	1-4			0				Breastwall
A526	10	10-1	S	0	4-9	0-10	4-9			0				Curtain Wall
A527	2	16-3	H	0-5½	1-8	6-0	1-8	6-0		0-5½				Wingwall
A528	2	17-3	H	0-5½	1-8	6-6	1-8	6-6		0-5½				"
A529	2	18-3	H	0-5½	1-8	7-0	1-8	7-0		0-5½				"
A530	2	19-3	H	0-5½	1-8	7-6	1-8	7-6		0-5½				"
A531	2	20-3	H	0-5½	1-8	8-0	1-8	8-0		0-5½				"
A701	112	4-10	J	1-0	0-10	3-0							0-6	Dowels
EAST ABUTMENT same as West Abutment														
WESTBOUND RDWY. PIER														
P501	28	11-7 to 13-0	H	0-5½	2-8 to 3-4	2-8½	2-8 to 3-4	2-8½		0-5½				2 Groups of 14 - Shaft
P503	4	13-11	H	0-5½	2-7	3-10	2-9	3-10		0-5½				Cap
P504	4	14-5	H	0-5½	2-7	4-1	2-9	4-1		0-5½				"
P505	4	14-10	H	0-5½	2-6	4-4	2-9	4-4		0-5½				"
P506	4	15-2	H	0-5½	2-6	4-6	2-9	4-6		0-5½				"
P507	4	15-4	H	0-5½	2-6	4-7	2-9	4-7		0-5½				"
P508	4	15-8	H	0-5½	2-6	4-9	2-9	4-9		0-5½				"
P509	4	15-10	H	0-5½	2-6	4-10	2-9	4-10		0-5½				"
P510	4	16-2	H	0-5½	2-6	5-0	2-9	5-0		0-5½				"
P511	4	16-4	H	0-5½	2-6	5-1	2-9	5-1		0-5½				"
P512	21	18-1	H	0-5½	3-4	5-1	3-8	5-1		0-5½				"
P516	16	11-11	PD		See Bending Diagram									"
P517	40	7-8	S	0	2-0	3-8	2-0			0				Bridge Seat
P518	10	8-2	S	0	2-0	4-2	2-0			0				" "
P519	6	6-2	S	0	1-3	3-8	1-3			0				Cap
P802	8	16-10	P		7-2	2-6	7-2							Footing
P803	15	16-4	S	0	7-2	2-0	7-2			0				"
P902	8	41-10	C	1-3	39-4					1-3				Cap
EASTBOUND RDWY. PIER same as Westbound Rdwy. Pier														
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IG-195-2(9)	15	37

TYPE - BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 318-71

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A 502) bar size - #5
   Mark (P 1001) bar size - #10
   Mark (S 603) bar size - #6
2. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

PLANS	BY	DATE
DESIGN - DETAIL	N.F.O.	4-81
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE
REINFORCING STEEL SCHEDULE
SACO, MAINE

SHEET 15 OF 16 AUGUSTA, MAINE

R92-206

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
WESTBOUND RDWY. APPROACH SLABS			
AP401	32	35-8	Approach Slab
AP601	144	15-0	Approach Slab
EASTBOUND RDWY. APPROACH SLABS			
same as Westbound Rdwy. Approach Slabs			
WESTBOUND RDWY. DECK SLABS			
5301	242	36-8	Wearing Surface
5302	290	30-6	" "
5501	486	40-4	Slab
5502	744	31-4	Slab & Curb
5504	32	6-6	Slab
EASTBOUND RDWY. DECK SLABS			
same as Westbound Rdwy. Deck Slabs			
WESTBOUND RDWY. END POSTS			
EP401	8	1-1	
EP706	32	5-3	
EASTBOUND RDWY. END POSTS			
same as Westbound Rdwy. End Posts			

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
WESTBOUND RDWY. DECK SLABS														
5503	484	5-1	5	0-6	1-6	1-1	1-6			0-6				Curb
5505	8	2-9	L	1-3	1-6									"
5601	238	42-0	B		4-8	0-8½	4-0	3-8	4-8		0-6	40-4		Slab
EASTBOUND RDWY. DECK SLABS														
same as Westbound Rdwy. Deck Slabs														
WESTBOUND RDWY. END POSTS														
EP402	4	3-9	H	0-4½	0-4	1-2	0-4	1-2		0-4½				
EP403	4	4-5	H	0-4½	0-6	1-4	0-6	1-4		0-4½				
EP404	16	4-9	H	0-4½	1-0	1-0	1-0	1-0		0-4½				
EP405	10	5-1	S	0	2-3	0-7	2-3			0				
EP701	4	6-5	S	0	2-8	0-7½	2-8			0-5½				
EP702	4	6-7	S	0	2-9	0-7½	2-9			0-5½				
EP703	12	6-9	S	0	2-10	0-7½	2-10			0-5½				
EP704	8	6-8	S	0	2-10	0-6	2-10			0-6				
EP705	4	8-5	H	0-5½	2-10	0-11	2-10	0-11		0-5½				
EASTBOUND RDWY. END POSTS														
same as Westbound Rdwy. End Posts														

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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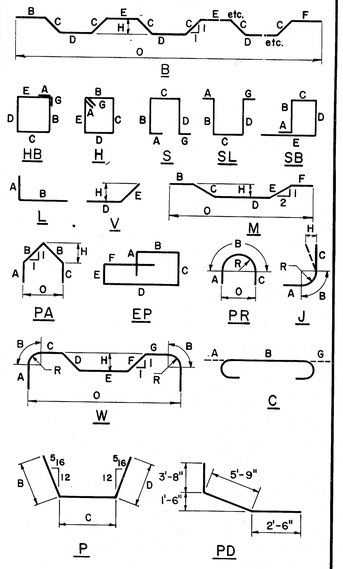
TYPE-BENDING DIAGRAMS



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PLANS — DESIGN-DETAIL BY — CHECKED 4-81 — REVISIONS N.F.O. — FIELD CHANGES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE I-195
OVER
MAINE TURNPIKE

REINFORCING STEEL SCHEDULE

SACO, MAINE

SHEET 16 OF 16 AUGUSTA, MAINE

R92-207