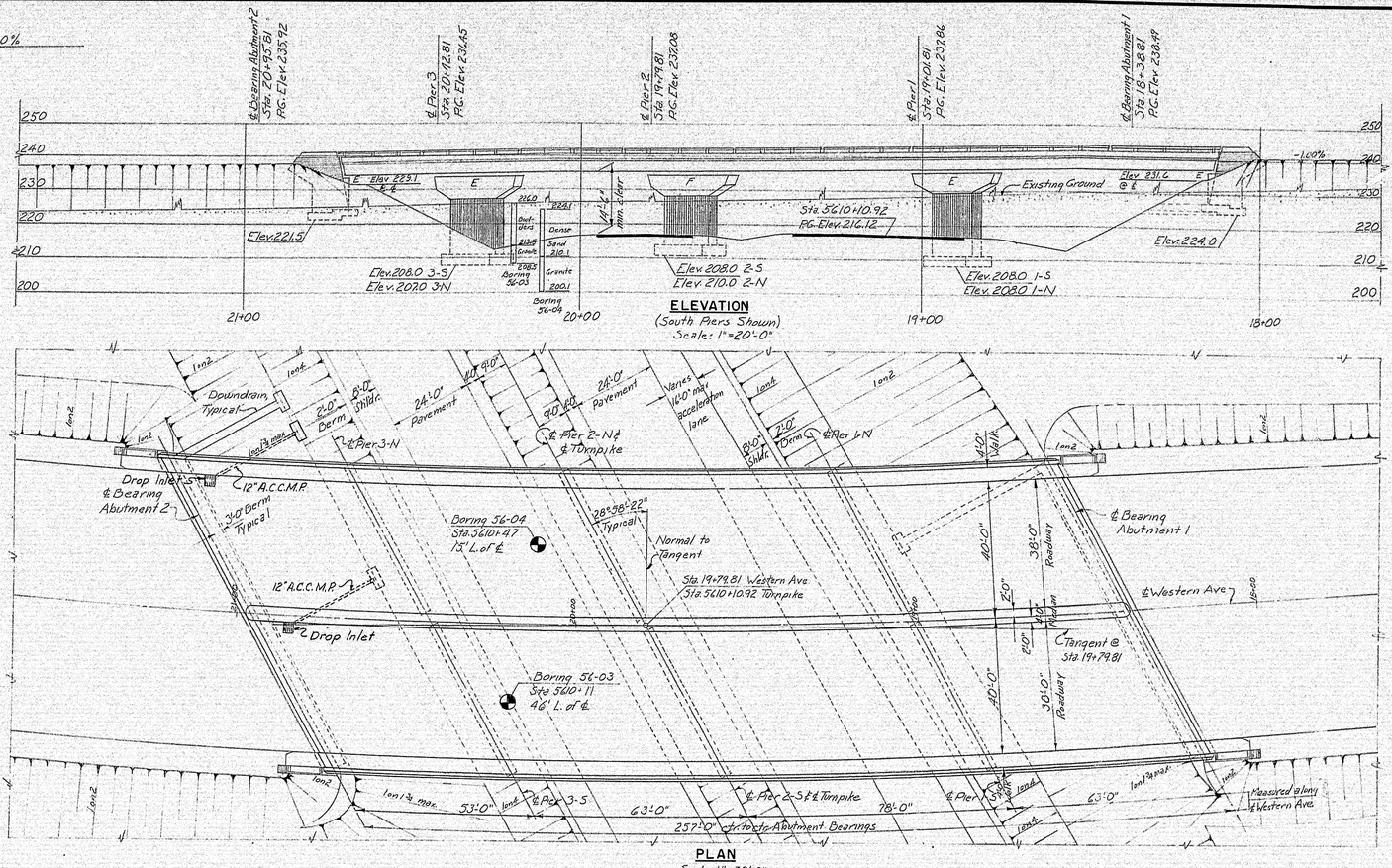
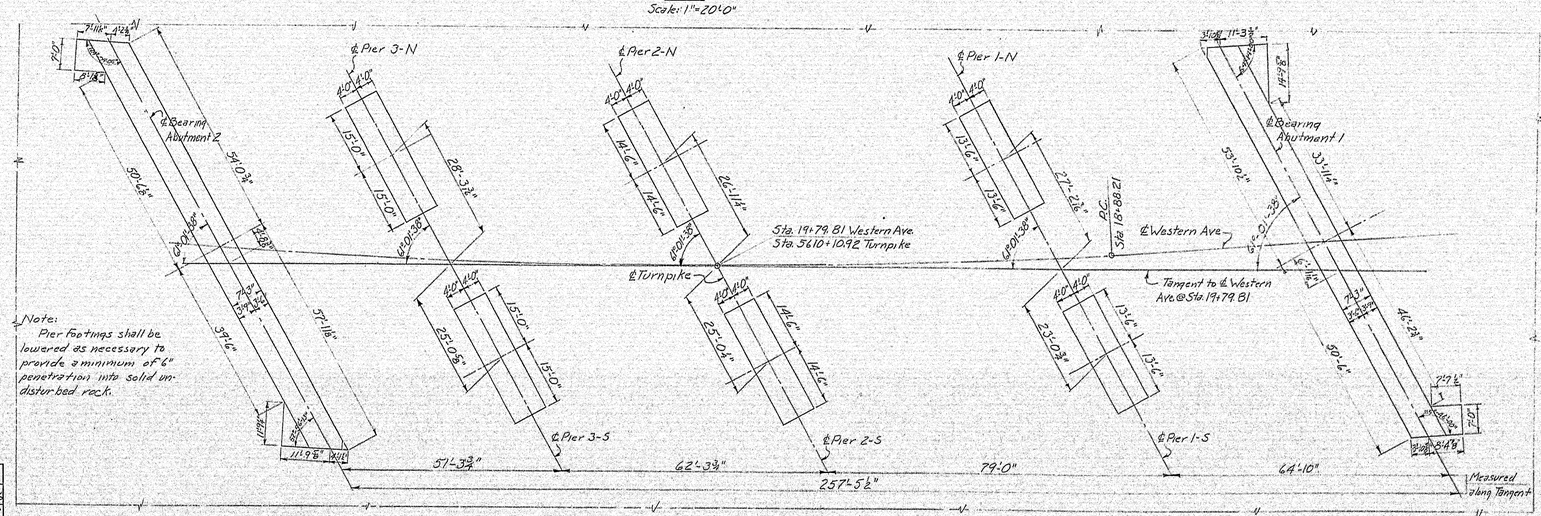
88.01.08



ELEVATION
(South Piers Shown)
Scale: 1"=20'-0"

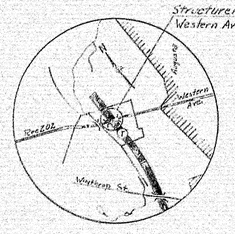
PLAN
Scale: 1"=20'-0"

WESTERN AVE CURVE DATA
P.I. Sta. 22+31.94
Δ = 23°-43'-00"
D = 3°-30'-00"
R = 1637.02'
T = 343.23'
L = 677.62'
E = 35.70'



FOOTING PLAN
Scale: 1/16"=1'-0"

Note:
Pier footings shall be lowered as necessary to provide a minimum of 6" penetration into solid undisturbed rock.



VICINITY MAP
Scale: 1"=1 mi.±

REFERENCES

Drawing Number	Title	Substructure Contractor	Superstructure: Steel Fabricator	Superstructure: Steel Erector	Superstructure: Floor Contractor
SD1A	Standard Abutment Details	✓	✓	✓	✓
SD2	Standard Pier Details	✓	✓	✓	
SD3	Standard Abutment Drainage Details	✓	✓	✓	
SD5	Standard Handrail, Bearing Devices and Miscellaneous Details	✓	✓	✓	✓
SD6	Standard Diaphragm Details		✓	✓	✓
SD10	Standard Type "A" Splices for 36" WF Beams		✓	✓	✓
SD12A	Type Z Expansion Joint, Expanding Length Over 100 feet.	✓	✓	✓	✓
SD21	Standard Bridge Floor Drainage Details		✓	✓	✓

GENERAL NOTES

Design Specifications: AASHO (1953) with minor modifications
Design Live Load: H20-S16
Maximum Base Pressures:
Abutments: 2.6 tons per square foot
Piers: 5.2 tons per square foot

DRAWING 88.01.08

	BY	DATE	No.	REVISION	BY	DATE
MADE	RSG	6-2-54	3	As-Built	HBH	12-55
TRACED			2	Added Drop Inlet	WCM	10-55
CHECKED	RFS	6-10-54	1	Revised Abutment Footing dimensions	RSG	9-15-54
IN CHARGE OF	I.D.S.K.					

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STRUCTURE NO. 88 — TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610+10.92
GENERAL PLAN AND ELEVATION

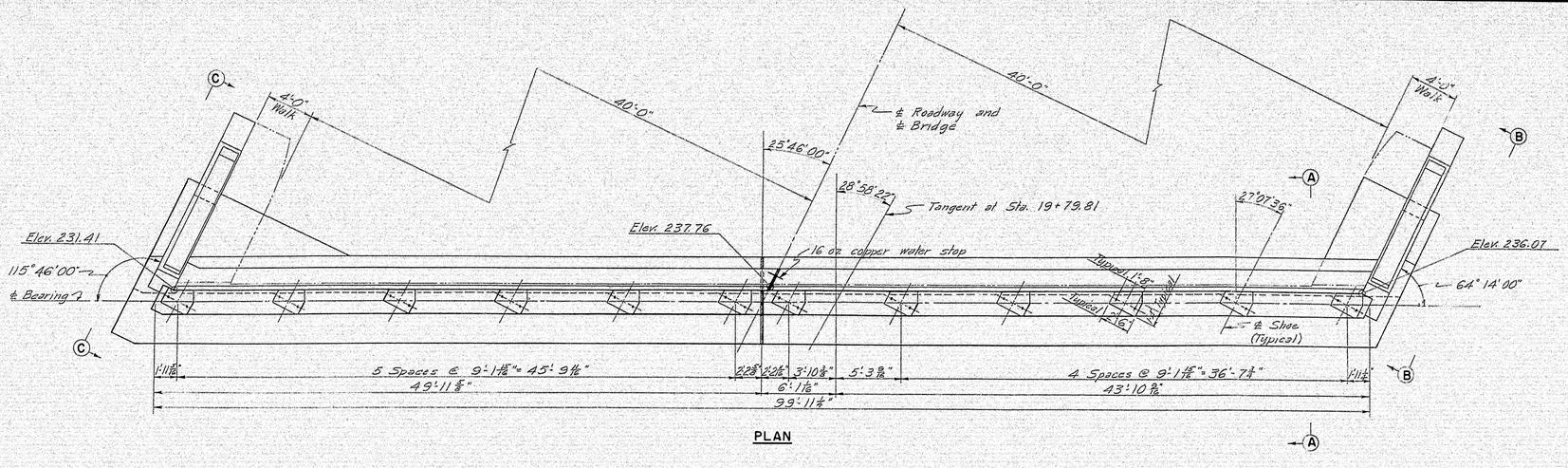
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK — KANSAS CITY

SCALE: As Shown
CONTRACT NO.
SHEET NO. 272 OF 382

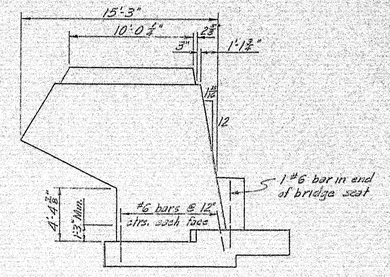
102-196



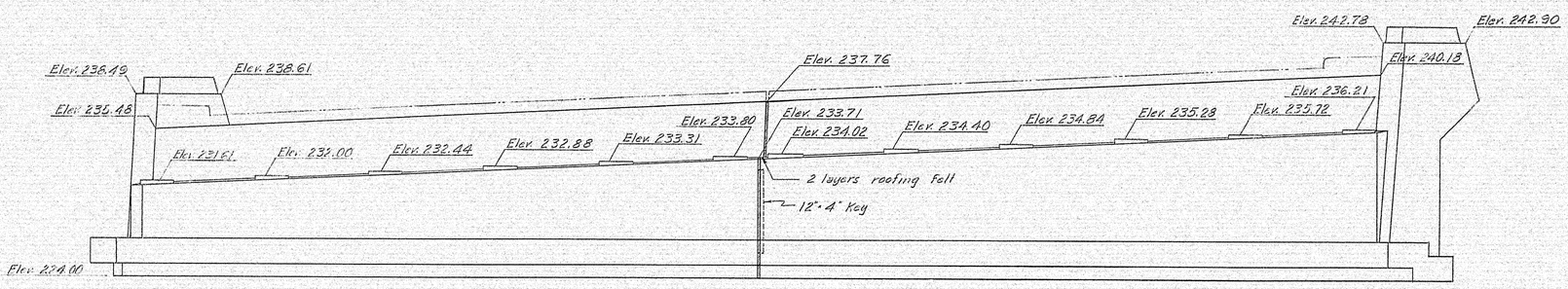
88.02.08



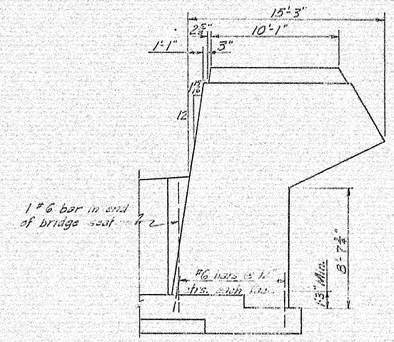
PLAN



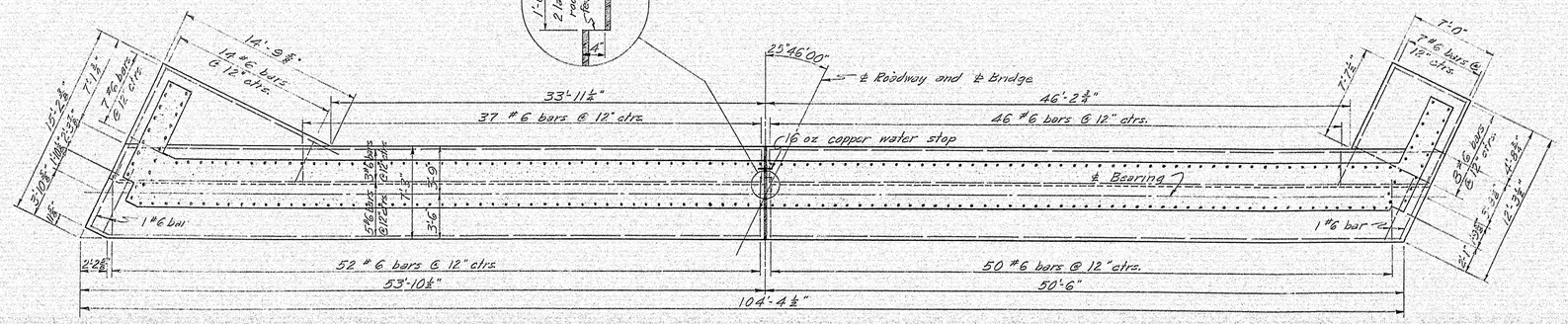
END ELEVATION C-C



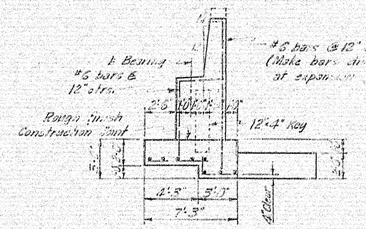
ELEVATION



END ELEVATION B-B



FOOTING PLAN



SECTION A-A

Note: For details of copper water stop see sheet 88.03.08

DRAWING NO 88.02.08

	BY	DATE				
MADE	RFS	6-8-54				
TRACED						
CHECKED	WCM	6-9-54	1	As-Built	WBH	12-56
IN CHARGE OF IDSK			No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2 — PORTLAND TO AUGUSTA

STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610 + 10.92
ABUTMENT 1

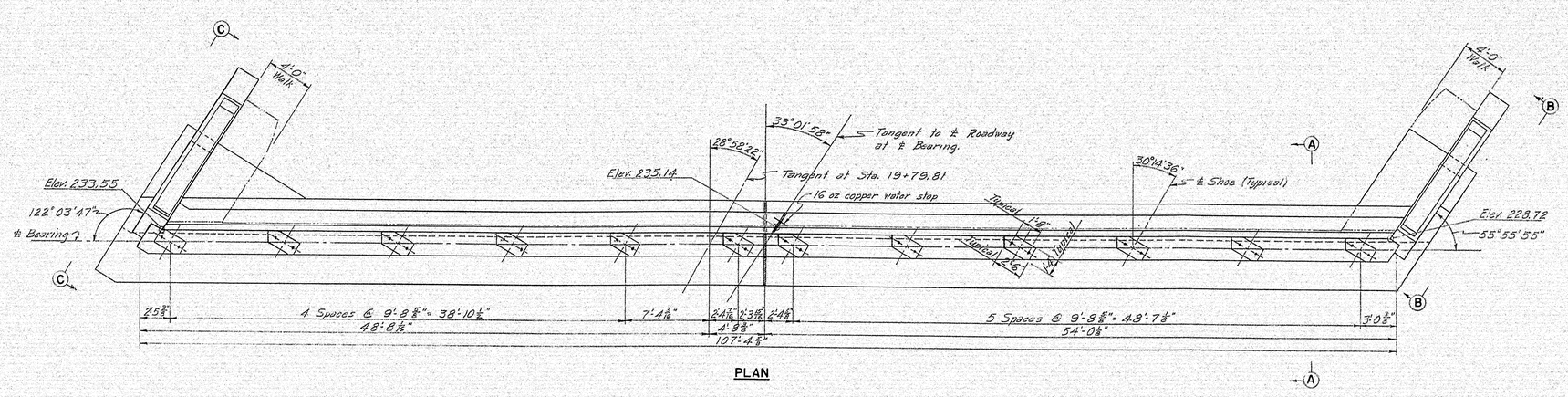
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/8" = 1'-0"
CONTRACT NO.
SHEET NO. 375 OF 382

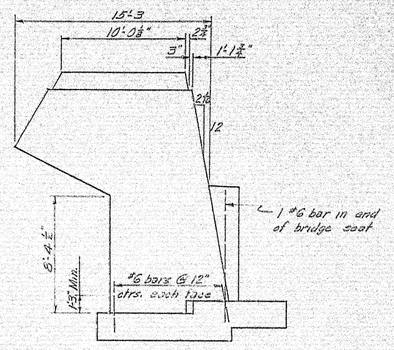
102-197

0 1 2 3 4 5 INCHES

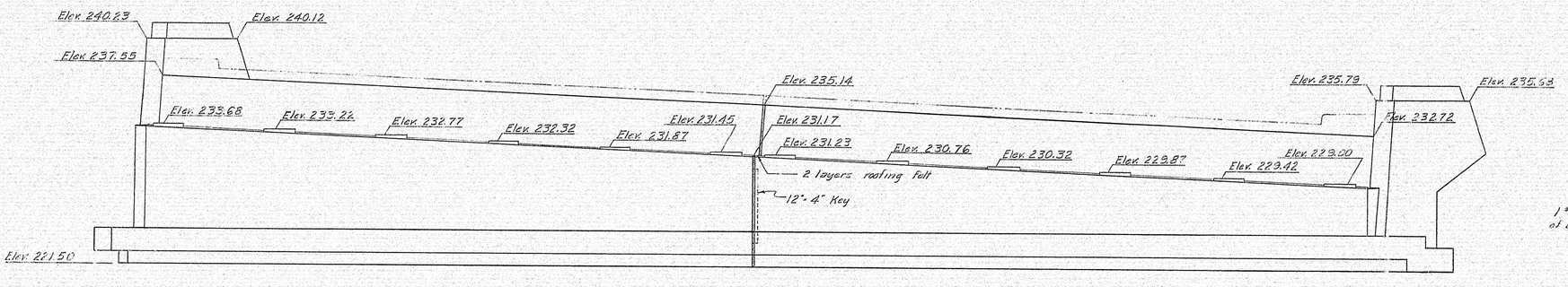
88.03.08



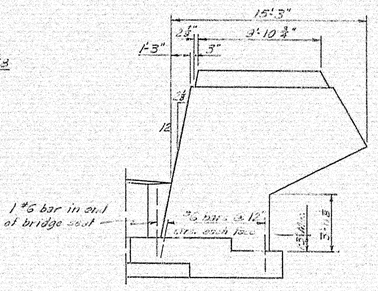
PLAN



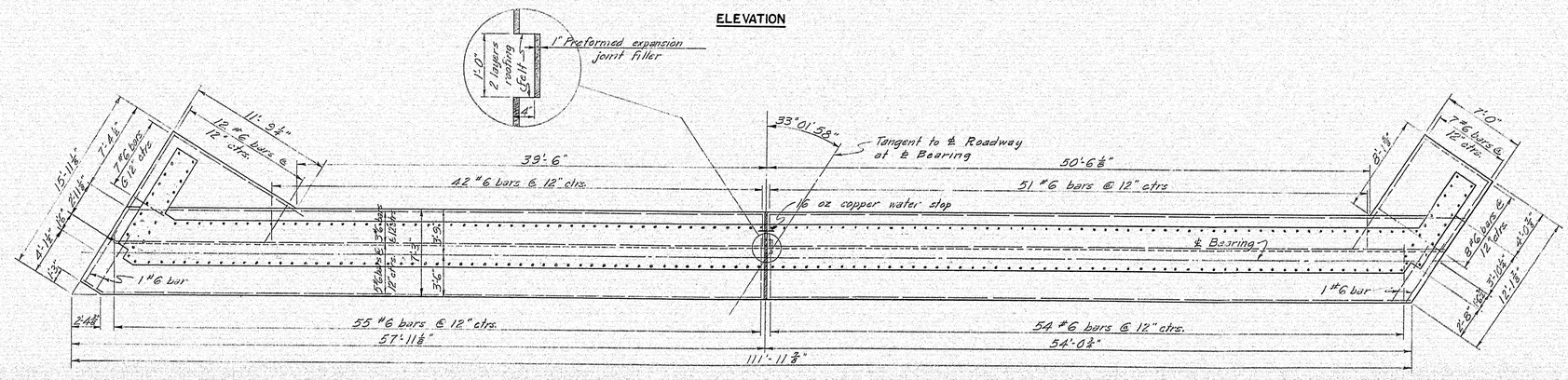
END ELEVATION C-C



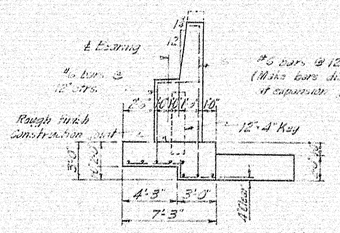
ELEVATION



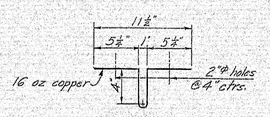
END ELEVATION B-B



FOOTING PLAN



SECTION A-A



COPPER WATERSTOP DETAIL

Scale: 1½"=1'0"

DRAWING NO 88.03.08

	BY	DATE	No.	REVISION	BY	DATE
MADE	R.F.S.	6-5-54				
TRACED						
CHECKED	WCM	6-10-54	1	As-Built	HBH	12-5-56
IN CHARGE OF IDSK						

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2 — PORTLAND TO AUGUSTA

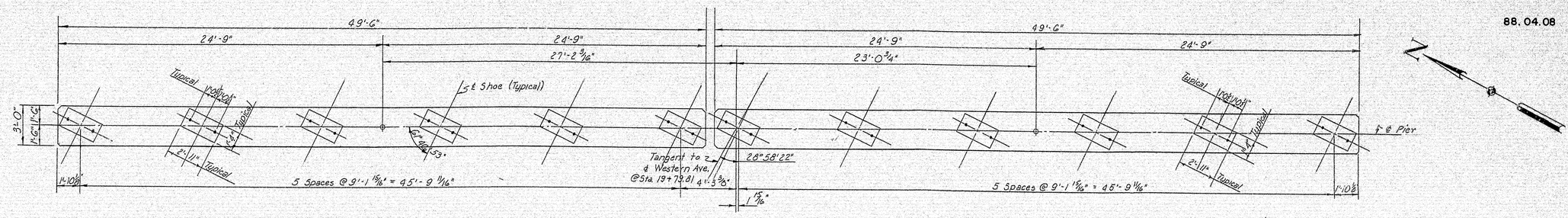
STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610 + 10.92
ABUTMENT 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

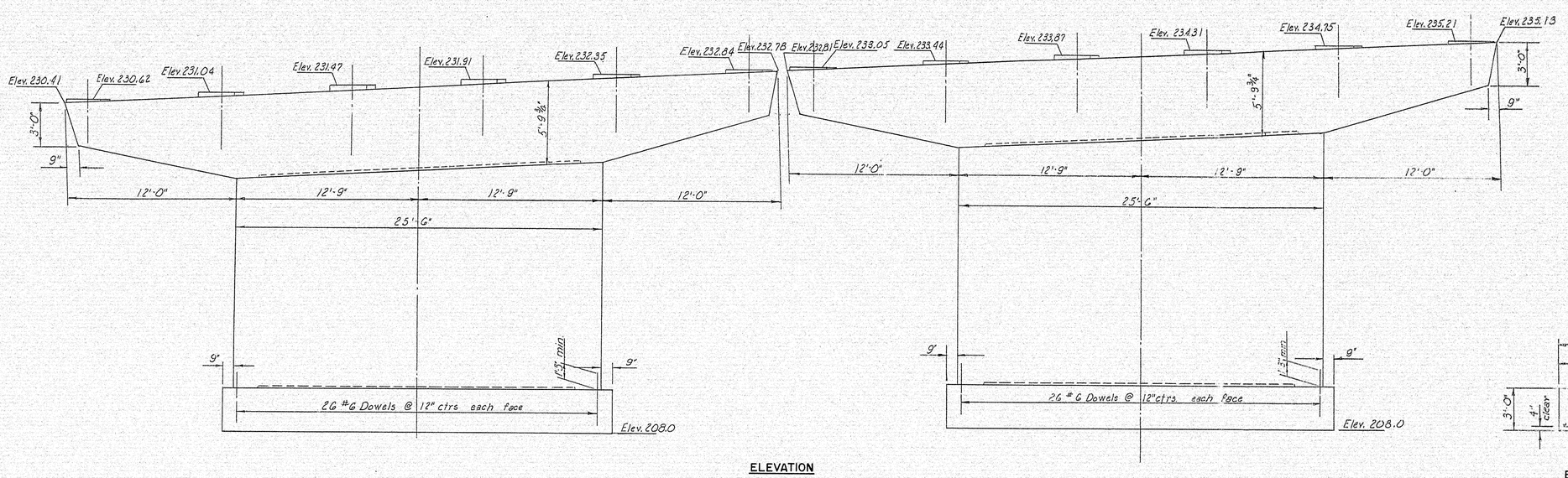
SCALE: ¼"=1'-0"
CONTRACT NO.
SHEET NO. 376 OF 382

102-198

88.04.08



PLAN



ELEVATION

END ELEVATION



FOOTING PLAN

Note:
Pier footings shall be lowered as necessary to provide 3" penetration into solid undisturbed rock

DRAWING 88.04.08

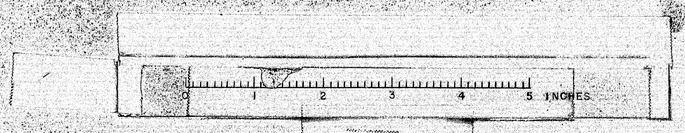
	BY	DATE				
MADE	BK	6-2-54				
TRACED						
CHECKED	H.J.G.	6-7-54	1	As-Built	WBW	12-5-56
IN CHARGE OF	JDSK		No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610 + 10.92
PIER 1

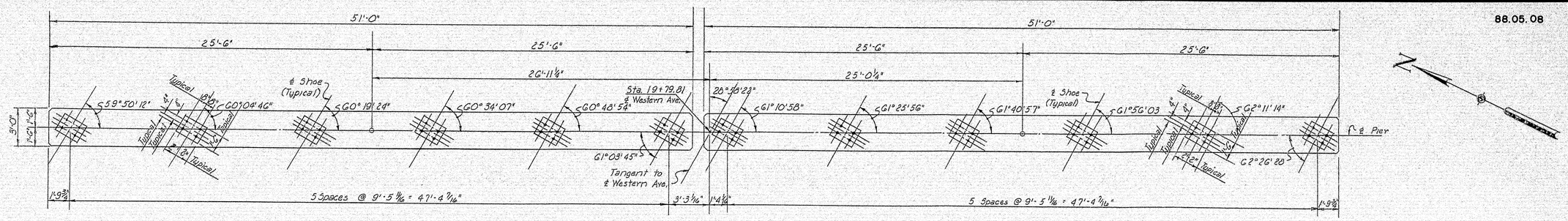
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/2" = 1'-0"
CONTRACT NO.
SHEET NO. 377 OF 382

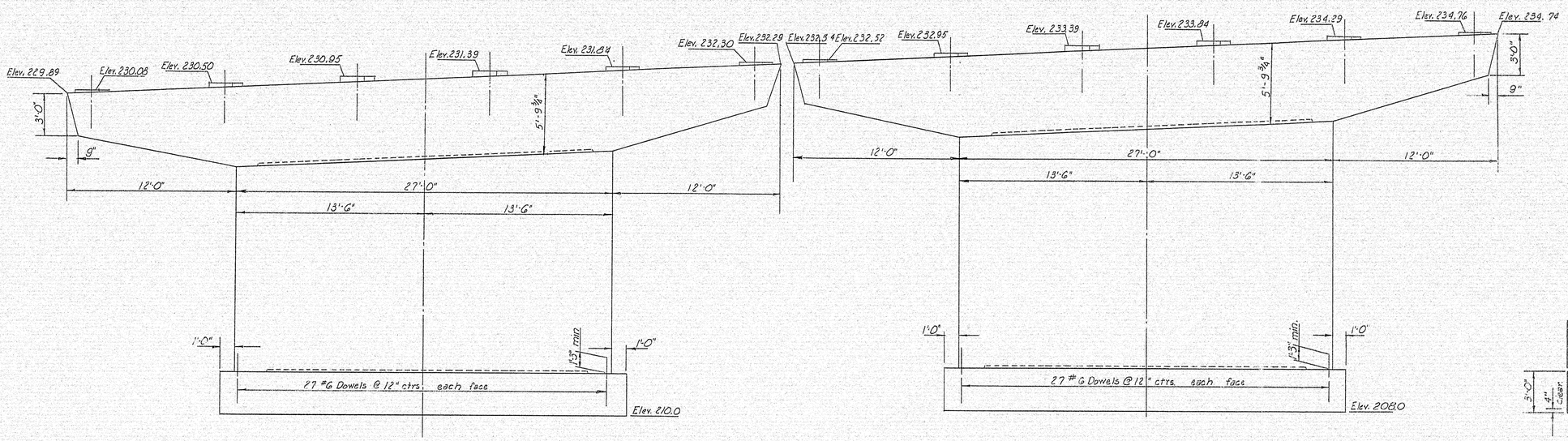
102-199



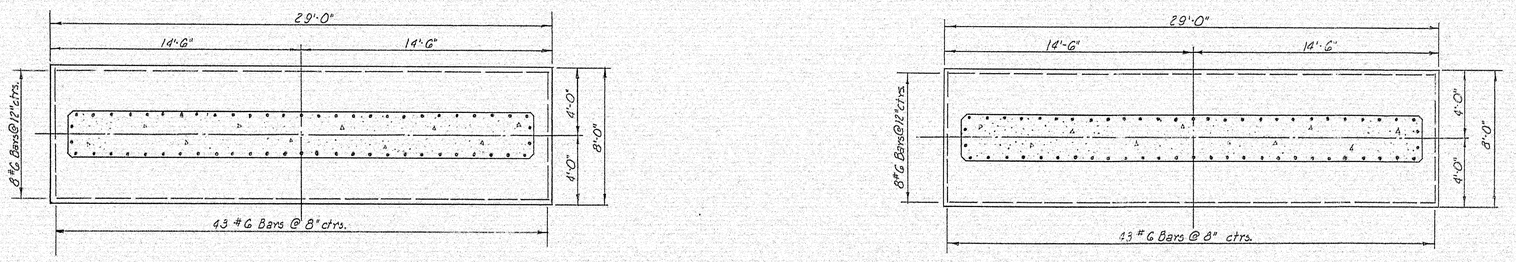
88.05.08



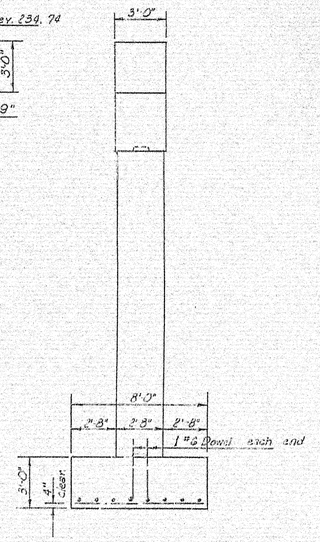
PLAN



ELEVATION



FOOTING PLAN



END ELEVATION

Note:
Pier footings shall be lowered as necessary to provide 6" penetration into solid undisturbed rock.

DRAWING 88.05.08

	BY	DATE				
MADE	BK	6-2-54				
TRACED						
CHECKED	H.J.G.	6-7-54	1	As-Built	HBH	12556
IN CHARGE OF	IDSK		No.	REVISION	BY	DATE

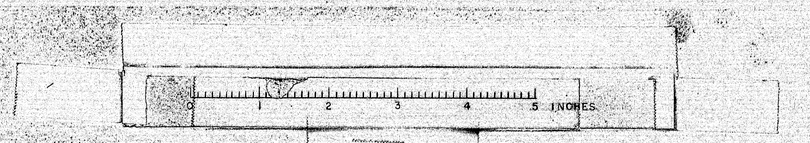
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610 + 10.92
PIER 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

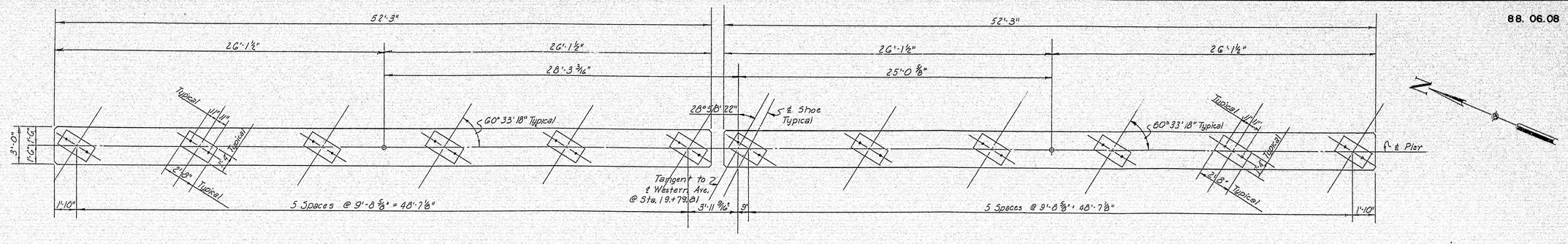
SCALE: 1/4"=1'0"
CONTRACT NO.
SHEET NO. 378 OF 382

102-200

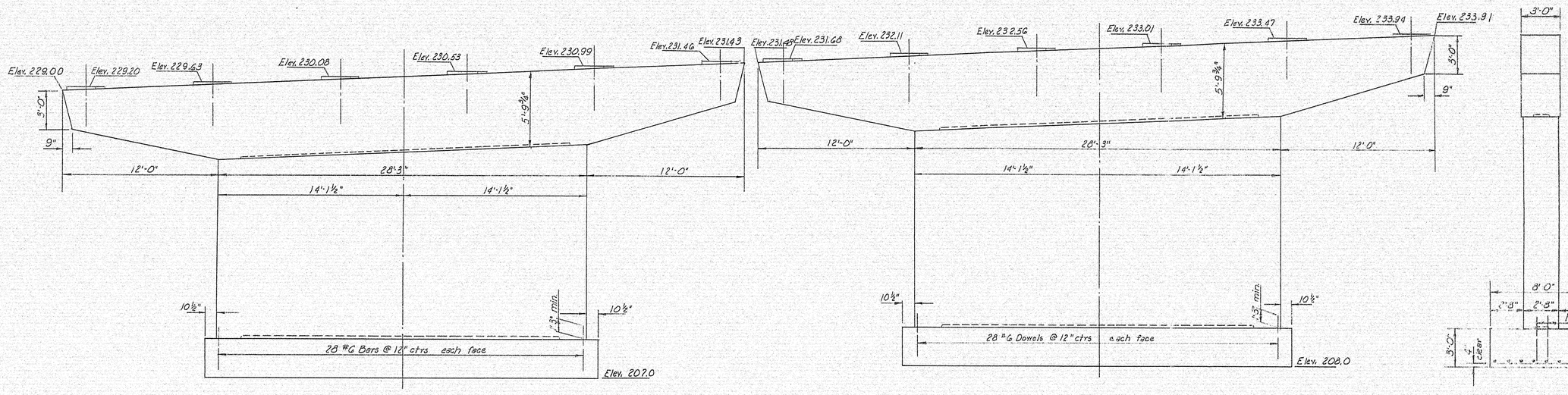
K&E ALBANENE 100M 8000



88. 06.08

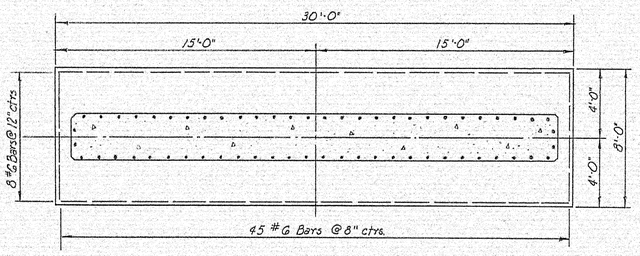


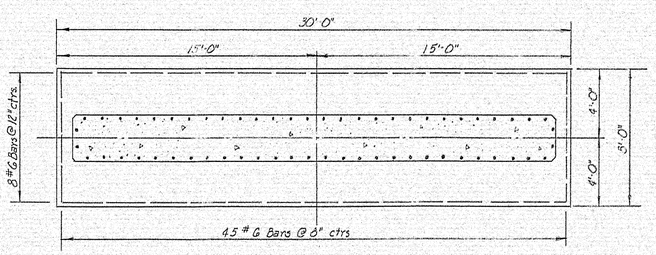
PLAN



ELEVATION

END ELEVATION





FOOTING PLAN

Note:
Pier footings shall be lowered as necessary to provide 6" minimum penetration into solid undisturbed rock.

DRAWING 88. 06.08

	BY	DATE				
MADE	BK	6-4-54				
TRACED						
CHECKED	H.J.G.	6-7-54	1	As-Built	HBH	12-5-56
IN CHARGE OF	LDSK		No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA

STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA. 5610 + 10.92
PIER 3

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

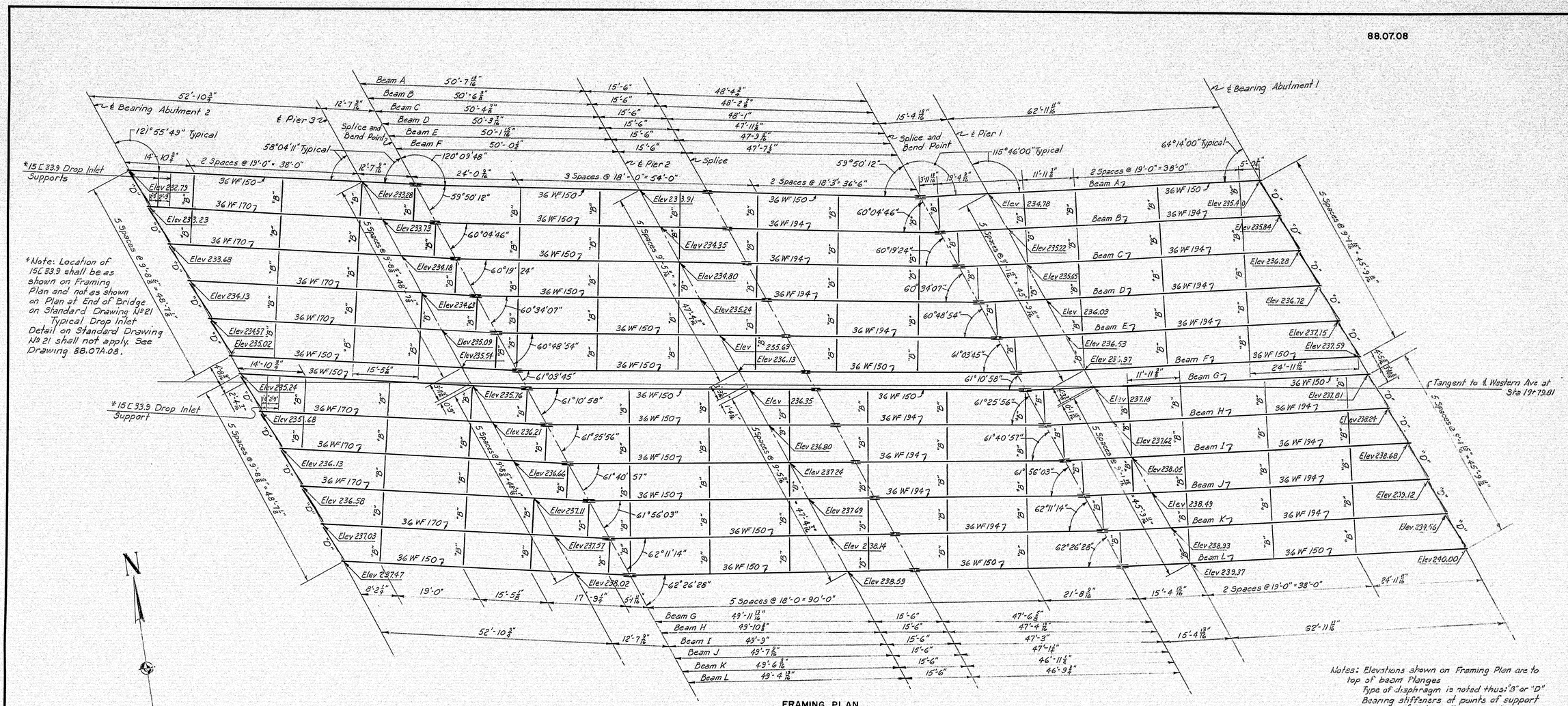
SCALE: 1/8" = 1'-0"
CONTRACT NO. _____
SHEET NO. 379 OF 382

102-201

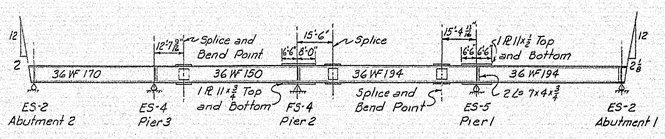
K+E ALBANENE 100M TRACING PAPER 8388

0 1 2 3 4 5 INCHES

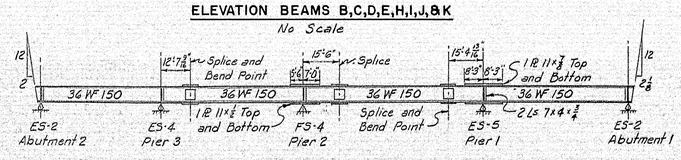
88.07.08



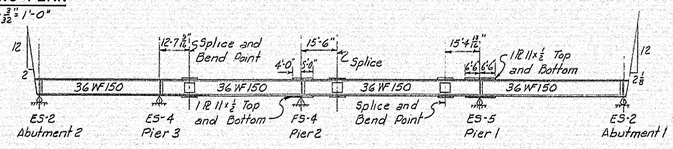
FRAMING PLAN
Scale: 3/32" = 1'-0"



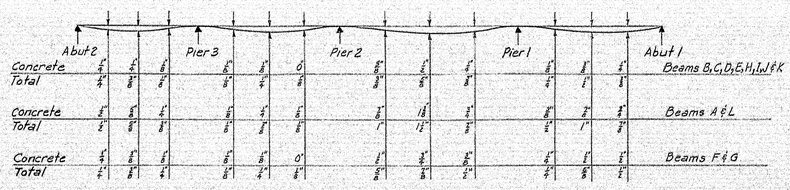
ELEVATION BEAMS B,C,D,E,H,I,J,&K
No Scale



ELEVATION BEAMS A & L
No Scale



ELEVATION BEAMS F & G
No Scale



DEAD LOAD DEFLECTIONS
No Scale

Notes: Elevations shown on Framing Plan are to top of beam flanges
Type of diaphragm is noted thus: "S" or "D"
Bearing stiffeners at points of support are 2 Ls 7"x4"x3/8" unless otherwise noted.
Bevels of beam ends shown are true with respect to beam axis.
Deflections shown are at quarter points of spans.

DRAWING 88.07.08

	BY	DATE	No.	REVISION	BY	DATE
MADE	WCM	6-3-54				
TRACED			2	As-Built	HBH	12-5-56
CHECKED	RFS	6-10-54	1	Added Drop Inlet	WCM	1-30-55
IN CHARGE OF I.D.S.K.						

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STRUCTURE NO 88 — TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA 561 0 + 10.92
SUPERSTRUCTURE

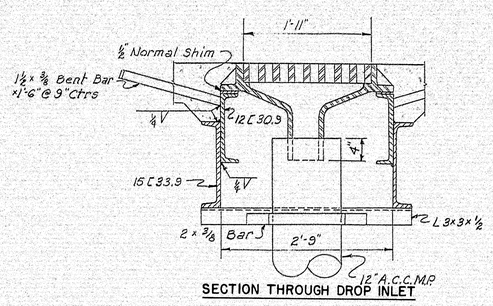
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As noted
CONTRACT NO.
SHEET NO. 380 OF 382

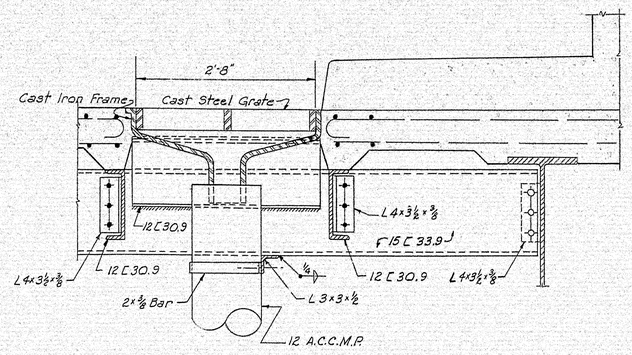
102-202

KEUFFEL & ESSER CO. MADE IN U.S.A.
0 1 2 3 4 5 INCHES

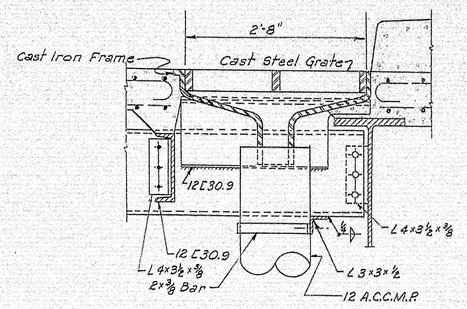
88.07A.08



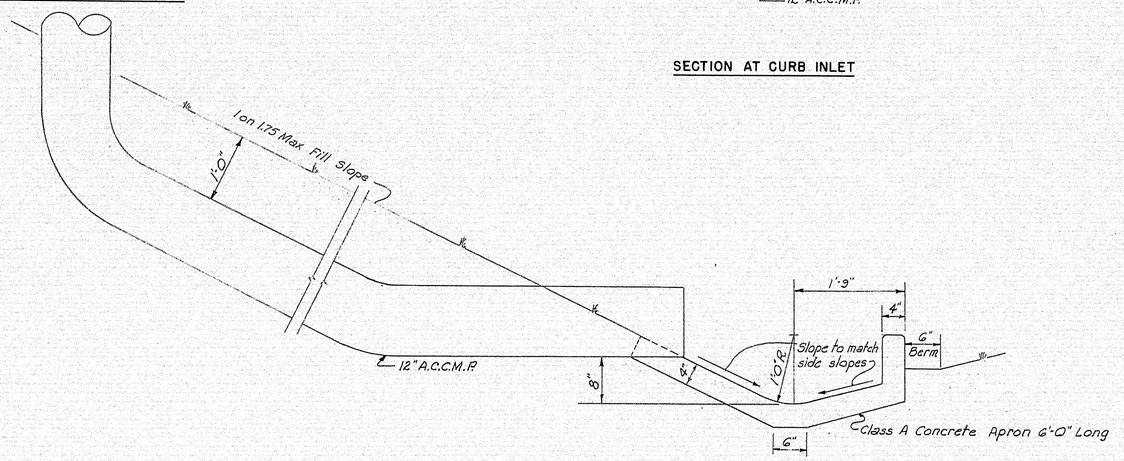
SECTION THROUGH DROP INLET



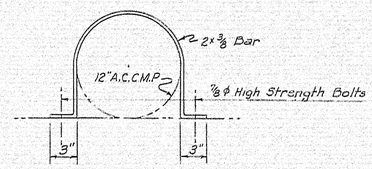
SECTION AT CURB INLET



SECTION AT MEDIAN INLET



PIPE AND APRON DETAIL



PIPE SUPPORT
Scale: 1½"=1'-0"

DRAWING 88.07A.08

	BY	DATE				
MADE	WCM	1-30-55				
TRACED						
CHECKED			1	As-Built	HBH	12556
IN CHARGE OF J.P.S			No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 – PORTLAND TO AUGUSTA

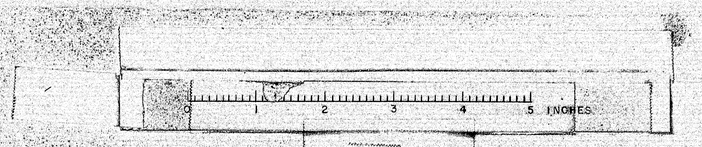
STRUCTURE NO. 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA 5610 + 10.92
TYPICAL DROP INLET

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

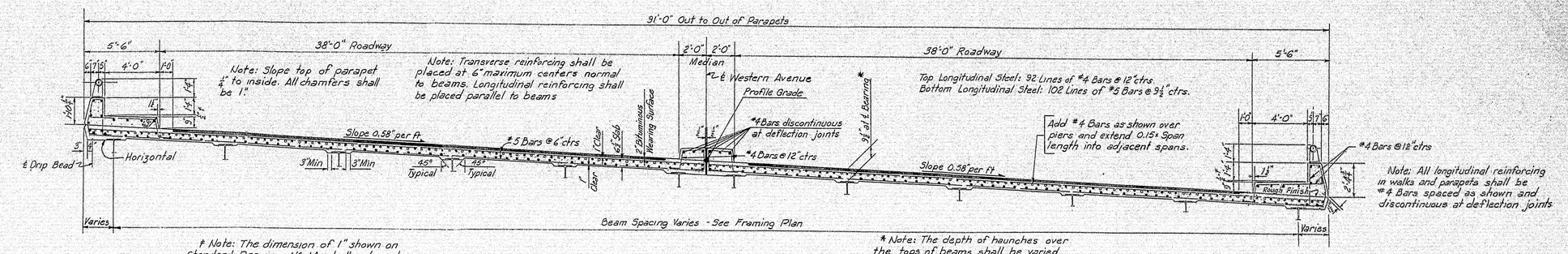
SCALE: 1"=1'-0" except as noted
CONTRACT NO.
SHEET NO. 381 OF 382

102-203

KE ALBANENE 100M © 1955 TRACING PAPER 4229



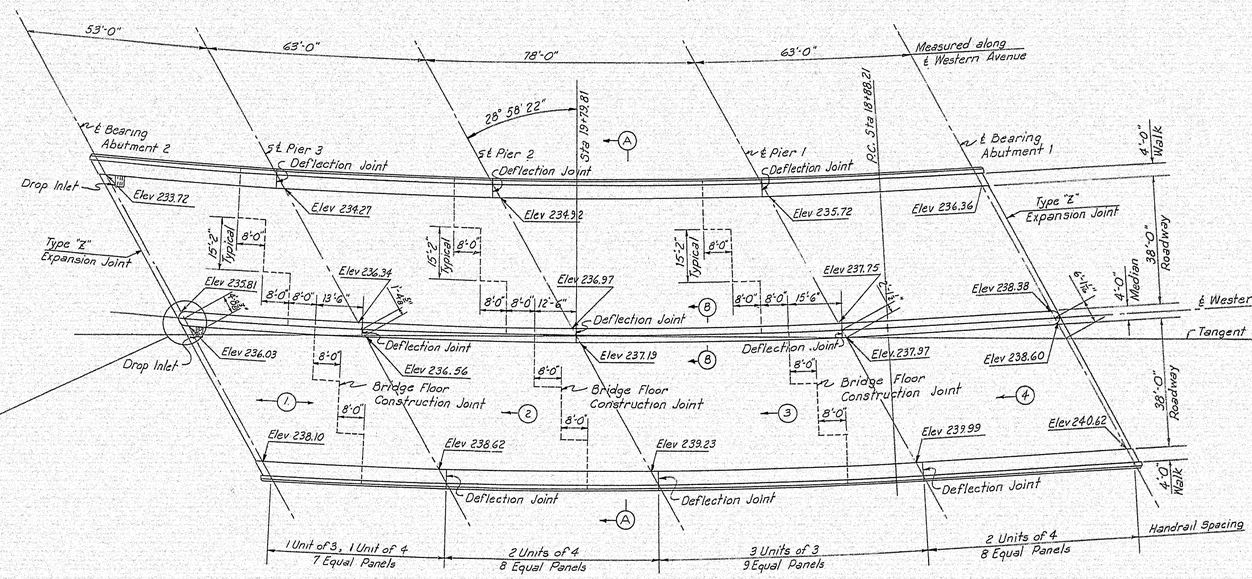
88.08.08



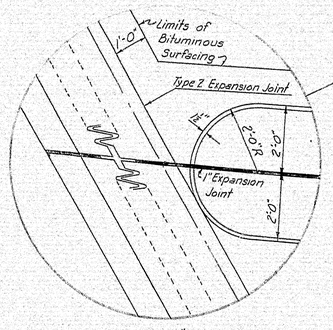
† Note: The dimension of 1" shown on Standard Drawing № 1A shall not apply

* Note: The depth of haunches over the tops of beams shall be varied as necessary to insure conformity of final surface of bridge floor with required elevations after deflection under full dead load.

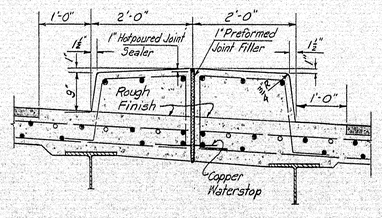
SECTION A-A
Scale: 1¼"=1'-0"



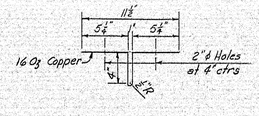
PLAN
Scale: 1"=20'-0"



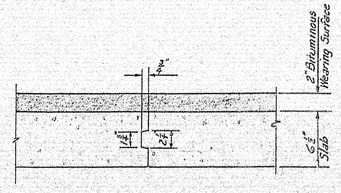
Scale: ½"=1'-0"
Note: The angle between ℄ Bearing and ℄ teeth of Type Z Expansion Joint is the same as the angle between ℄ Bearing and ℄ Shoe. See Drawings 88.02.08 and 88.03.08.



SECTION B-B
Scale: ¾"=1'-0"



COPPER WATERSTOP DETAIL
Scale: 1½"=1'-0"



Note: Joint shall be finished with ½" edging tool.

BRIDGE FLOOR CONSTRUCTION JOINT
Scale: 1½"=1'-0"

Notes: Elevations shown are to top of Finished Roadway.
Sequence and direction of placing concrete are noted thus: →(N)
Use a 6½" bridge floor (non-composite design) with a 2" Bituminous Wearing Surface as shown in Section A-A.

DRAWING 88.08.08

	BY	DATE				
MADE	WCM	6-7-54				
TRACED			2.	As-Built	HBH	125.56
CHECKED	RFS	6-10-54	1.	Added Drop Inlet	WCM	130.55
IN CHARGE OF I.D.S.K.			No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STRUCTURE NO 88 TURNPIKE UNDER
WESTERN AVENUE (ROUTE 202)
STA 561.0 + 10.92
SUPERSTRUCTURE
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY
SCALE: As noted.
CONTRACT NO.
SHEET NO. 382 OF 392

102-204



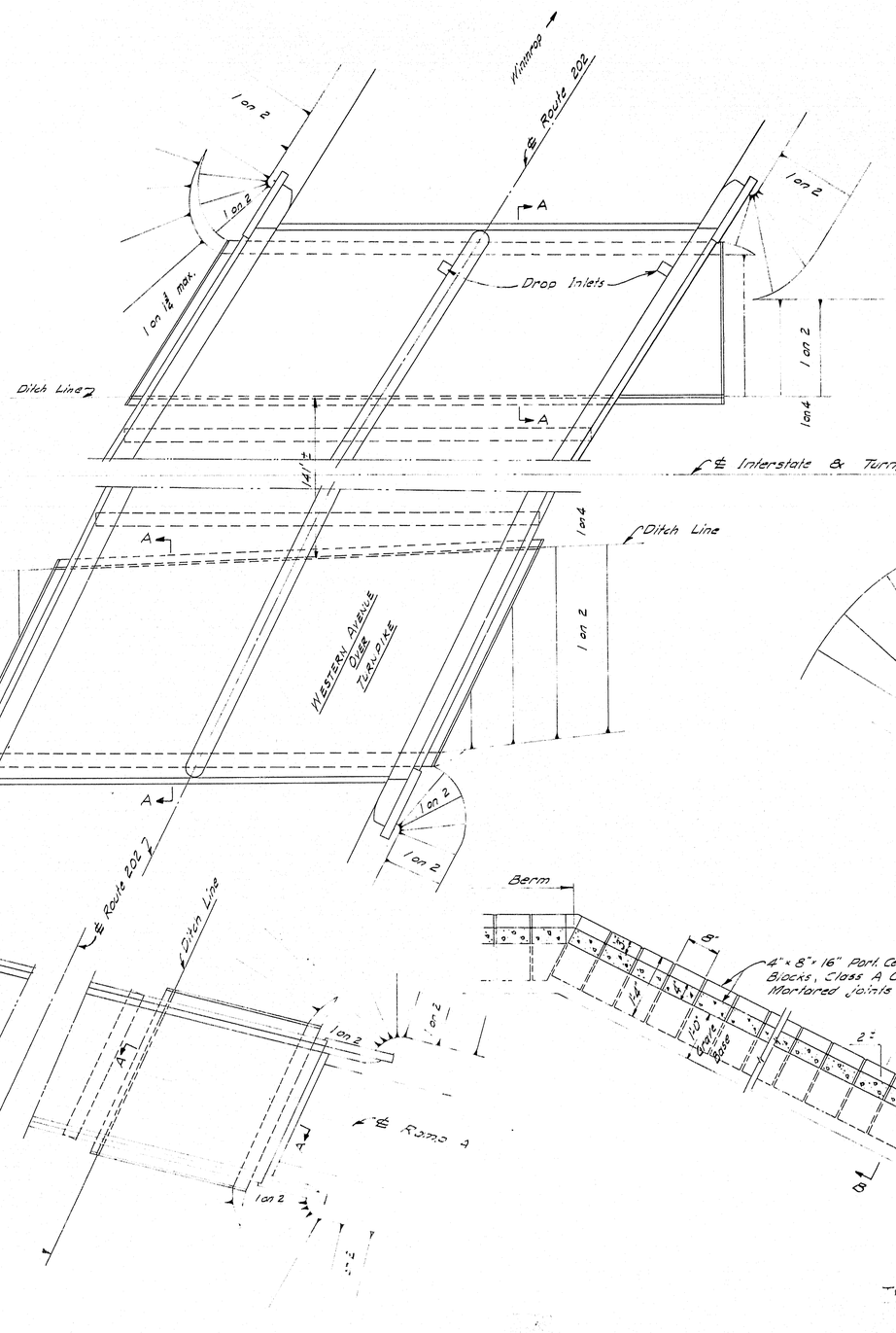
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

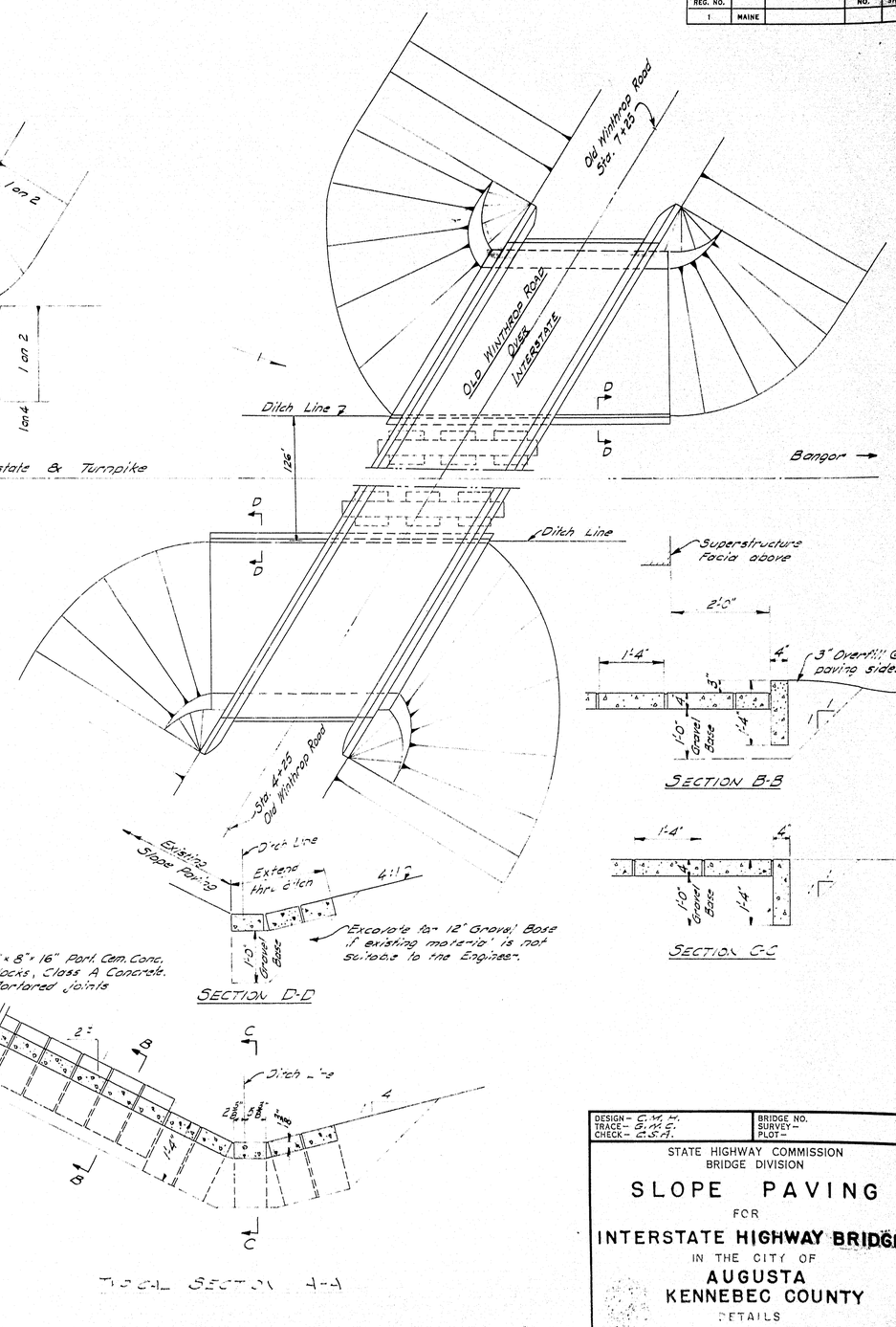
NOTES

Remove the existing abutment drainage trough, down drain and ditch apron at each abutment of "Western Avenue over Turnpike" and "Ramp A over Western Ave."

At the Drop Inlets thru the slab of "Western Avenue over Turnpike", remove the existing concrete aprons in ditch and that portion of the 12" ACCMP that is less than 12" below the slope fill.

Excavate for 12" Gravel Base under the Slope Paving at each abutment of "Western Avenue over Turnpike" and "Ramp A over Western Avenue."





DESIGN – C. M. P.
TRACE – B. M. E.
CHECK – C. S. A.

BRIDGE NO.
SURVEY –
PLOT –

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

SLOPE PAVING

FOR

INTERSTATE HIGHWAY BRIDGES

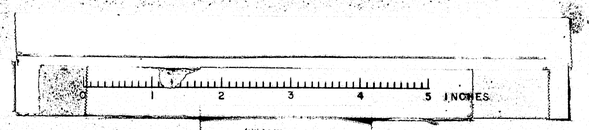
IN THE CITY OF

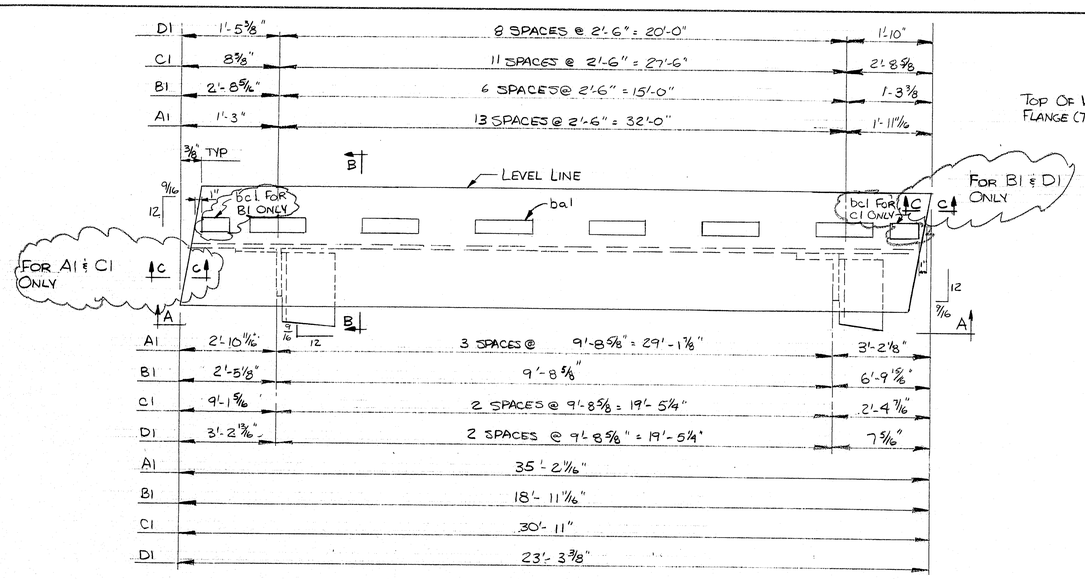
AUGUSTA
KENNEBEC COUNTY

DETAILS

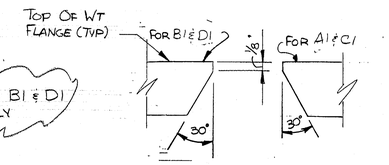
SHEET ... OF AUGUSTA MAINE JULY 1958

1298

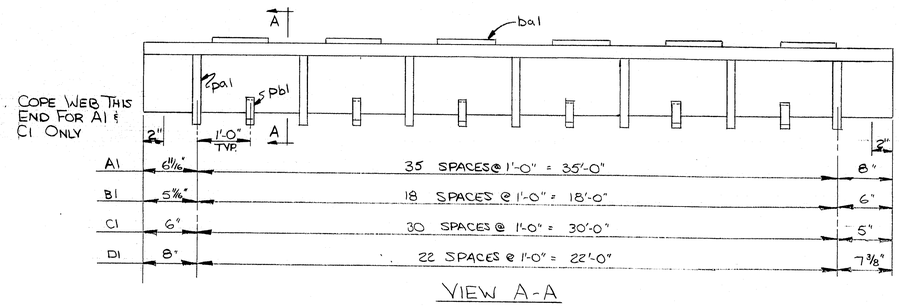




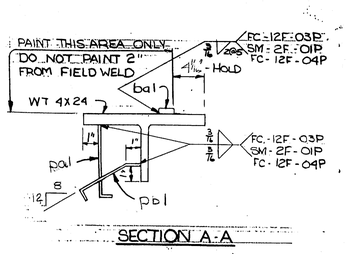
ELEVATION



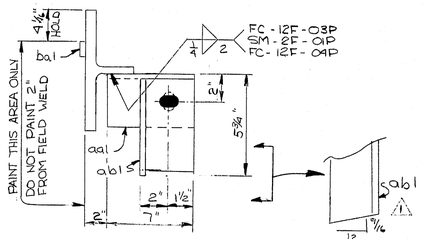
PREP. DETAIL - C - C



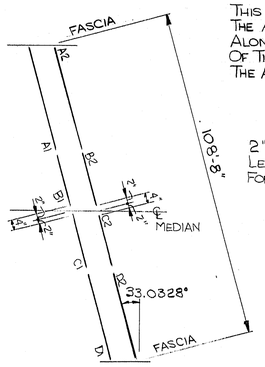
VIEW A-A



SECTION A-A



SECTION B-B



THIS DIMENSION IS THE ACTUAL LENGTH ALONG THE SLOPE OF THE BRIDGE & THE ANGLE SHOWN

2" ADDED TO OUTSIDE LENGTHS TO ALLOW FOR FIELD ADJUSTMENT

ERECTION DIAGRAM
ABUTMENT # 2

	ba	pb
	18	10
	10	9
	15	16
	42	4
	55	

MINIMUM MOVEMENT = 1.5"
JOINT OPENING @ 45°F = 2.27"

MATERIAL SCHEDULE

SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM SIZE	CUT FROM LENGTH FT.	CUT FROM LENGTH IN.	REMARKS	WT.
A1	1		WT 4X24	35	2 1/16	#22571	1	WT 4X24	40	0	cop to A1X, B2E	546 (902)
B1	1		DO	18	11 1/16		1	WT 4X24	20	0	cop to B2	456 (612)
C1	1		DO	30	11		1	WT 4X24	40	0	cop to C2	742 (998)
D1	1		DO	23	3 1/8		1	WT 4X24	23	0	cop to D2	559 (616)
	42	ba1	BAR 1X 3/8	1	0		5	PL 1/4 X 1	20	0	cop to D2	54
	55	pa1	PL 1/4 X1	0	8		4	PL 1/4 X 1	20	0	BEND 2 @ 6	31
	59	pb1	PL 1/4 X1	0	9						BEND 6 @ 1 2	34
	12	aa1	L 3 1/2 X 3 1/2 X 3/8	0	7		1	40	0		cop to A3 & B3 & A4	59
	12	ab1	L 3 1/2 X 3 1/2 X 3/8	0	5 3/8							46
	12	SHOP	3/4 Ø HEX A307	0	2	STK.					W/NUT & WASH	—
	2	ba1	BAR 1 X 3/8	0	6	#22571	a-above					1
E1	2		COMP. SEAL	59	6	#27407	2	54	6		ACME J350	—

TOTAL WEIGHT 5828 #

PRINT DISTRIBUTION	
FA	4-18-89
FA	4-18-89
FA	4-23-89
SHOP	4-26
SHOP	9-27-89
APPR	5-1-89
FE	5-1-89

MATERIAL	A 36
BOLTS	
SURFACE PREP	SP 6
PRIMER	3 COATS OF BASIC LEAD SILICO CHROMATE
FINISH	PAINT TO MEET SEC. 708.02 MDOT STD. SPEC. 4.0 MILS WET FILM EACH COAT - ORANGE COLOR
HOLES	13/16 X 1 1/2 SLOT
ELECTRODE	SEE WELDING PROCEDURES
REF. DWG.	MDOT # 2

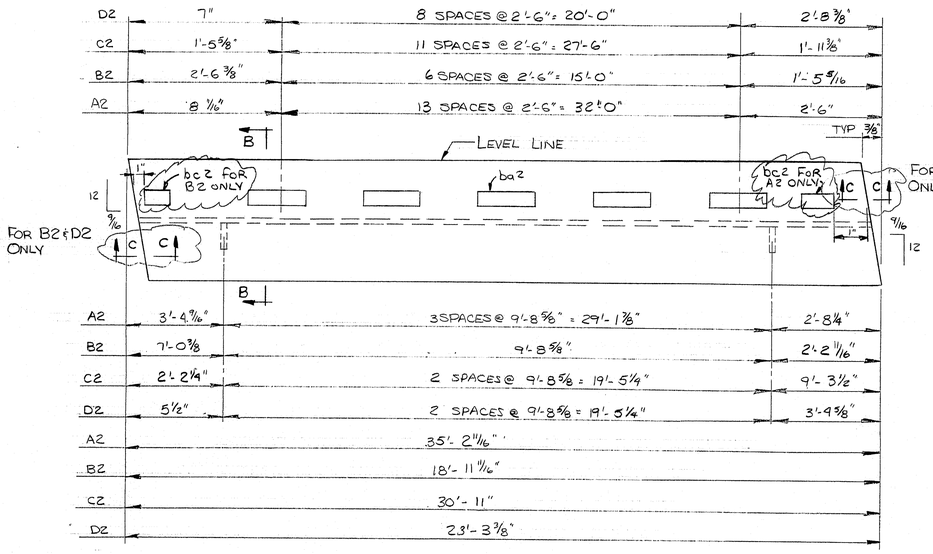
MAINE-CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2671

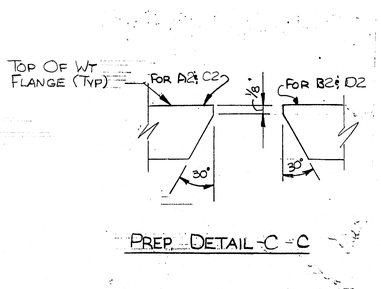
DESCRIPTION	EXPANSION JOINT & SEAL @ ABUT # 2
PROJECT	INTERSTATE 95 OVERPASS ON WESTERN AVE.
LOCATION	AUGUSTA, MAINE BH-F-015-1(35)
DESIGNER	M.D.O.T.
CUSTOMER	STETSON & WATSON
JOB NO.	7717
DWG. NO.	1
REV.	1

REV. 1	JHS	4-27-89
CHK'D	TT	4/27/89
DRWN	JHS	4-9-89

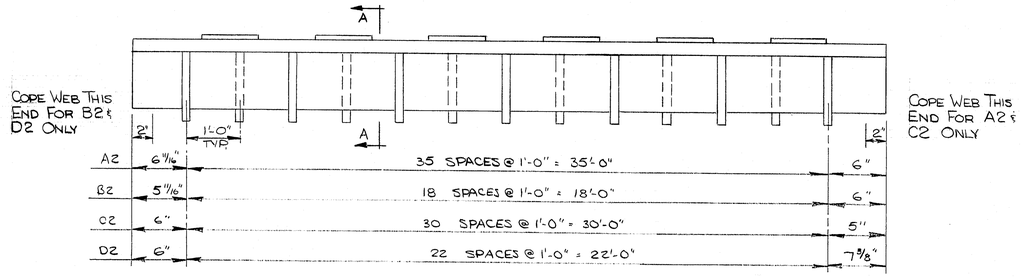
Br. # 5808

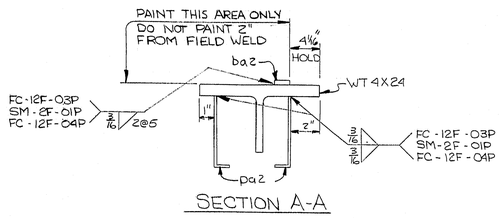
R89-30



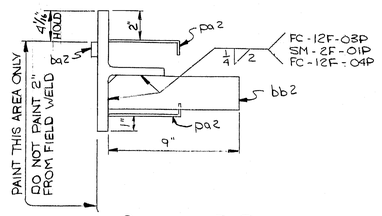


PREP. DETAIL - C = C





SECTION A-A



SECTION B-B

MATERIAL SCHEDULE

SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS		WT.
A2	1		WT 9X24	35	2 11/16	#22571	crop	from	A1	B2E	(684)	846
B2	1		DO	18	11 11/16		crop	from	B1		(494)	456
C2	1		DO	30	11		crop	from	C1		(786)	742
D2	1		WT 4X24	23	3 3/8		crop	from	D1		(596)	559
	42	ba2	BAR 1X 3/8	1	0		crop	from	B1			54
	12	bb2	BAR 2 1/4 X 1/2	0	9	crops						34
	109	pa2	R 1/4 X 1	0	8	#22571	crop	from	D1	BEND 21°		62
	2	bc2	BAR 1X 3/8	0	6		as	above		FOR A2 & B2 ONLY		1

14 1/2%

TOTAL WEIGHT 3764#

PRINT DISTRIBUTION	
FA	4-13-89
FA	11-18-84
FA	9-23-88
SHOP	4-26
APPR	5-1-89
FE	5-1-89
REV. △	
CHK'D	TF 4/10/89
DRWN	JHS - 4-10-89

MATERIAL A 36 — HOLES

BOLTS — ELECTRODE SEE WELDING PROCEDURES

SURFACE PREP SP 6 — REF. DWG. MDOT # 2

PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE

FINISH PAINT TO MEET SEC. 708.02 MDOT STD. SPEC. 4.0 MILS WET FILM EACH COAT - ORANGE COLOR

MAINE-CASCADE IRON WORKS

BAKER STREET, CLINTON, MAINE 04927

PHONE 207-426-2671

DESCRIPTION EXPANSION JOINT @ ABUT #2 (BACKWALL)

PROJECT INTERSTATE 95 OVERPASS ON WESTERN AVE.

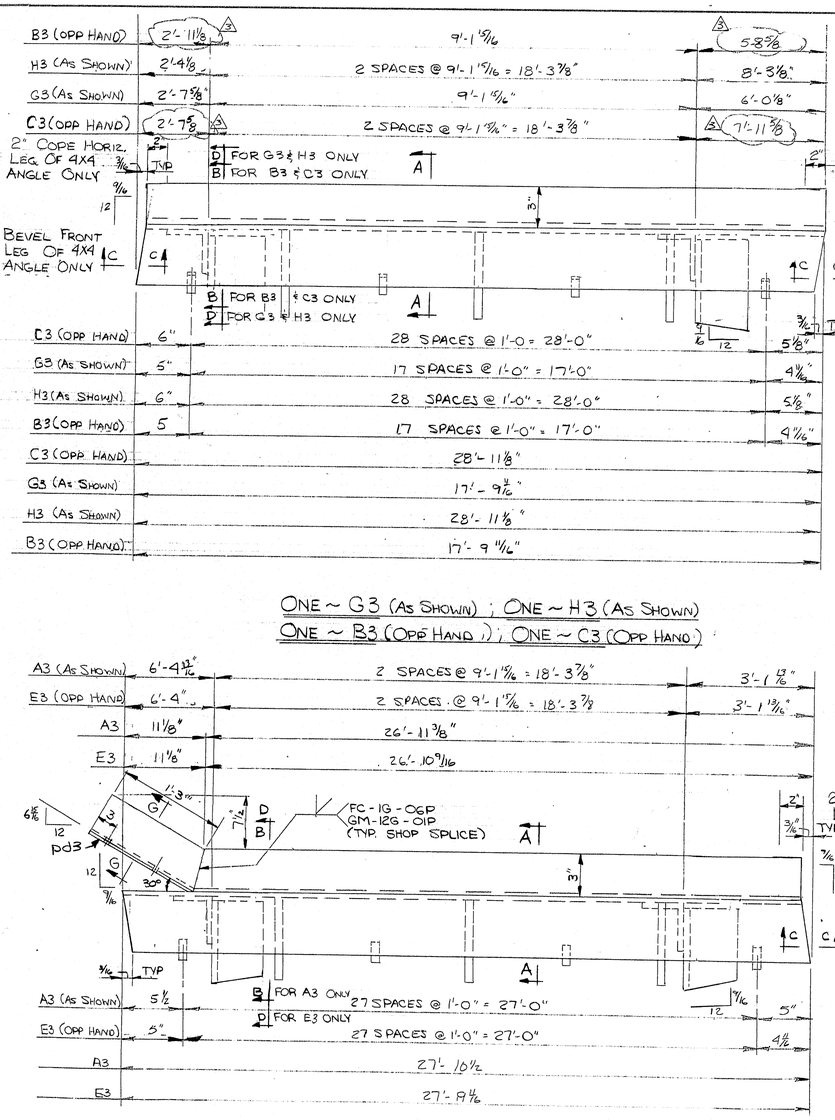
LOCATION AUGUSTA, MAINE BH-F-015-1(35)

DESIGNER M.D.O.T.

CUSTOMER STETSON & WATSON

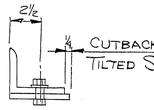
JOB NO. 7717 — DWG. NO. 2 — REV. △

R89-31

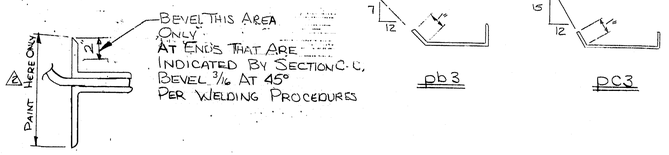


ONE ~ G3 (AS SHOWN) ; ONE ~ H3 (AS SHOWN)
ONE ~ B3 (OPP HAND) ; ONE ~ C3 (OPP HAND)

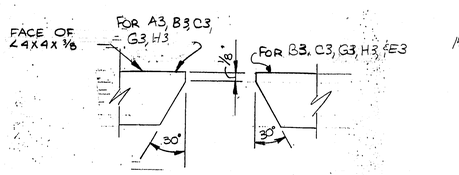
ONE ~ A3 (AS SHOWN) ; ONE ~ E3 (OPP HAND)



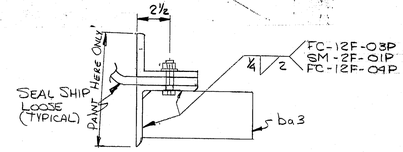
SECTION G-G



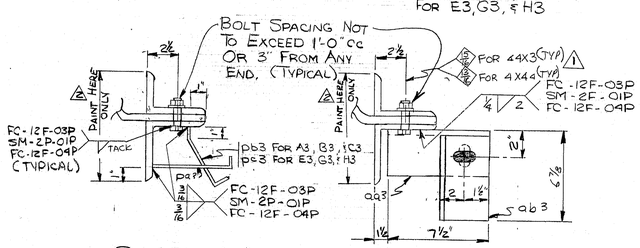
TYPICAL SPLICE DETAIL



PREP DETAIL -C- C'

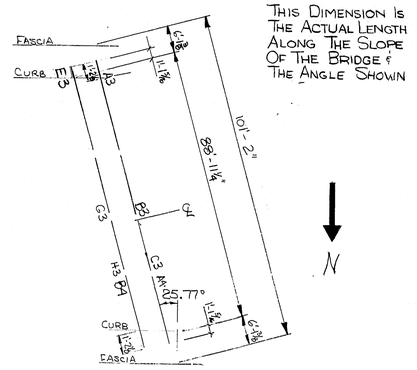


SECTION D-D
FOR E3, G3, & H3



SECTION A-A

SECTION B-B
FOR A3, B3 & C3 ONLY



THIS DIMENSION IS THE ACTUAL LENGTH ALONG THE SLOPE OF THE BRIDGE & THE ANGLE SHOWN

N

ERECTION DIAGRAM
ABUTMENT #1

MATERIAL SCHEDULE

SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS (682)	WT.
A3	1		∠4X4X3/8	27	10½	#22571	1	40	0	AS SHOWN B2E	273
E3	1		∠4X4X3/8	27	8 11/16	⊥	1	40	0	OPP HAND ⊥(688)	273
	1	ac3	∠4X3X1/2	28	2 7/8	#22583	1	40	0	FOR E3	314
	3	aa3	∠ 3½ X 3½ X 3/8	0	7½	#22571	crop from D1			FOR A3	16
	3	ab3	∠ 3½ X 3½ X 3/8	0	6½	⊥	⊥				14
	3	SHOP	¾ ø HEX A307	0	2	STK					—
	14	pb3	R ¼ X 1	0	9	#22571	crop from D5	0	20	⊥ BEND 1 1/2	9
	3	ba3	BAR 2¼ X ½	0	9	CROPS				FOR E3	9
	14	pc3	R ¼ X 1	0	9	#22571	a above			⊥ BEND 1 1/2	9
	28	pa3	R ¼ X 1	0	8	⊥	⊥			BEND 2L	16
	1	ad3	∠4X3X½	28	3 7/16	#22583	1	40	0	FOR A3	314
	58	SHOP	¾ A307 HEX	0	2¼	#22567				W/NEW LOCK WASH	—
	2	pd3	R ½ X 4	1	3 7/16						
B3	1		∠4X4X3/8	17	9½	#22571	crop from C3	1	40	0 OPP HAND B2E (684)	175
C3	1		∠4X4X3/8	28	11⅛	⊥	1	40	0	OPP HAND B2E (688)	284
	1	af3	∠4X3X1/2	17	9 11/16	#22583	crop from H3	1	40	0 FOR B3	198
	1	ag3	∠4X3X1/2	28	11⅛	⊥	1	40	0	FOR C3	321
	5	SHOP	¾ ø HEX A307	0	2	STK					—
	23 24	pa3 pb3				#22571	a above				13 8
	48	SHOP	¾ A307 HEX	0	2¼	#22567				W/NEW LOCK WASH	—
	5	aa3				#22571	crop from D1				27
	5	ab3				⊥	⊥				23
G3	1		∠4X4X3/8	17	9 11/16	⊥	crop from B3	1	40	0 AS SHOWN B2E (684)	175
H3	1		∠4X4X3/8	28	11⅛	⊥	1	40	0	AS SHOWN ⊥(688)	284
	1	ah3	∠4X3X1/2	17	9 11/16	#22583	crop from C3			FOR G3	198
	1	ai3	∠4X3X1/2	28	11⅛	⊥	1	40	0	FOR H3	321
	5	ba3				CROPS					14
	29	pa3				#22571	a above				14
	23	pc3				⊥	⊥				15
	48	SHOP	¾ A307 HEX	0	2¼	#22567				W/NEW LOCK WASH	—
K3	2		GLAND SEAL TO BE SHIPPED LOOSE NO HOLES PROVIDED	46	0 7/8	#22567	2	46	1	BENDOFLEX 450	—

TOTAL WEIGHT 3317#

PRINT DISTRIBUTION		
	FA	11-12-84
	FA	4-23-84
	FA	4-25-84
	SHOP	4-27
	FE	5-1-84
	FA?	5-1-84
	SHOP Δ	5-1-84
	SHOP Δ	5-1-84
	SHOP Δ	5-3-84

MATERIAL A 36
BOLTS
SURFACE PREP SP 6
PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE
FINISH PAINT TO MEET SEC. 708.02 MDOT STD. SPEC.
4.0 MILS WET FILM EACH COAT - ORANGE COLOR
HOLES 13/16 X 1½ SLOT UNO
ELECTRODE SEE WELDING PROCEDURES
REF. DWG. MDOT # 2

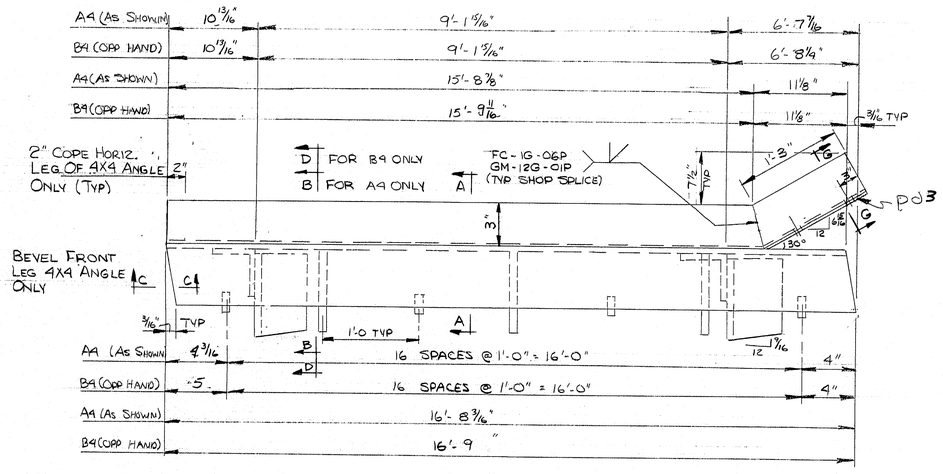
MAINE-CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2671

DESCRIPTION GLAND EXPANSION & SEAL @ ABUT # 1
PROJECT INTERSTATE 95 OVERPASS ON WESTERN AVE.
LOCATION AUGUSTA, MAINE BH-F-015-1(35)
DESIGNER M.D.OT.
CUSTOMER STETSON & WATSON

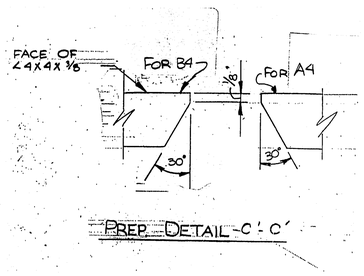
Δ	JHJ	5-3-84
REV. Δ	JHJ	5-1-84
CHK'D	TK	
DRWN	JHS	4-12-84

JOB NO. 7717 | DWG. NO. 3 | REV. Δ3

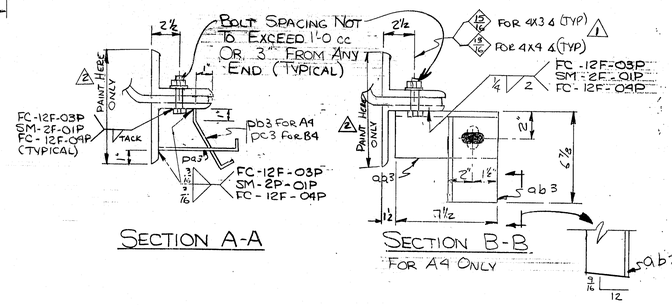
R89-32



ONE ~ A9 (As Shown) & ONE ~ B9 (Opp Hand)

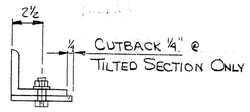


PREP. DETAIL - C' - C'

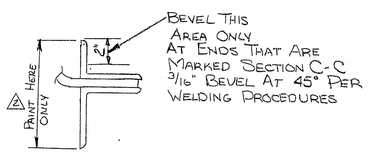


SECTION A-A

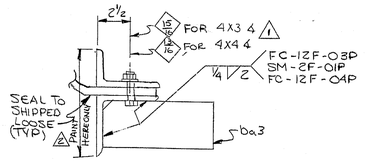
SECTION B-B
FOR A9 ONLY



SECTION G-G



TYPICAL SPLICE DETAIL



SECTION D-D
FOR B9 ONLY

MATERIAL SCHEDULE

SHIPPING MARK	NO. POS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WT.
A9	1		∠ 9X9X 3/8	16	8 3/16	#29571	1	40	8	AS SHOWN (389)	163
B9	1		∠9X9X 3/8	16	9	⊥	1			OPP HAND (390)	164
	1	qc4	∠9X3X 1/2	17	1 11/16	#29583	1	40	12	FOR A9	191
	4	qa3	∠3 1/2 X 3 1/2 X 3/8	0	7 1/2	#29571				FOR A9	21
	4	qb3	∠3 1/2 X 3 1/2 X 3/8	0	6 1/2	1					18
	4	SHOP	3/4 ø HEX A307	0	2	SHK					—
	8	pb3	R 1/4 X 1	0	9	#29571				BEND 2	15
	4	qa3	BAR 2 1/4 X 1/2	0	9	2 REQ'S				FOR B9	11
	8	pc3	R 1/4 X 1	0	9	#29571				BEND 1	5
	18	pa3	R 1/4 X 1	0	8	⊥				BEND 2	10
	2	pd3	R 1/2 X 4	1	3 1/2						
	1	qd4	∠9X3 X 1/2	17	2 3/4	#29583				FOR B9	191
	36	SHOP	3/4 ø A307 HEX	0	2 1/4	#29582				W/NUT, WASH, LOCK WASH	—

TOTAL WEIGHT 7719

PRINT DISTRIBUTION	
FH	11-13-84
FA	9-27-84
EA	9-25-84
SHOP	4-84
FE	5-1-84
FH	5-1-84
SHOP 1	5-1-84
SHOP 2	5-1-84

MATERIAL	A 36
BOLTS	
SURFACE PREP	SP6
PRIMER	3 COATS OF BASIC LEAD SILICO CHROMATE
FINISH	PAINT TO MEET SEC. 708.02 MDOT STD SPEC 4.0 MILS WET FILM EACH COAT - ORANGE COLOR
HOLES	13/16 X 1 1/2 SLOT UNO
ELECTRODE	SEE WELD PROCEDURES
REF. DWG.	MDOT # 2

MAINE-CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2671

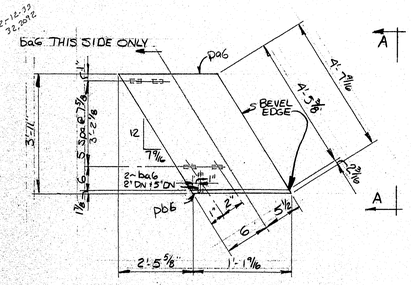
DESCRIPTION	GLAND EXPANSION JOINT ABUTMENT #1
PROJECT	INTERSTATE 95 OVERPASS ONE WESTERN AVE.
LOCATION	AUGUSTA, MAINE BH-F-015-1(35)
DESIGNER	M.D.O.T.
CUSTOMER	STETSON & WATSON

REV.	JHS 5-1-84
CHK'D	JK
DRWN	JHS 4-17-84

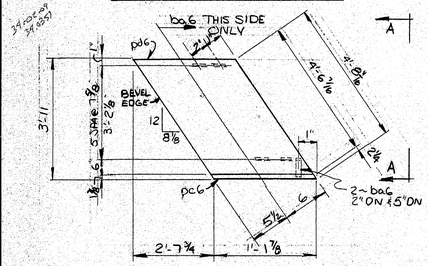
JOB NO. 7717 | DWG. NO. 4 | REV. 2

R89-33

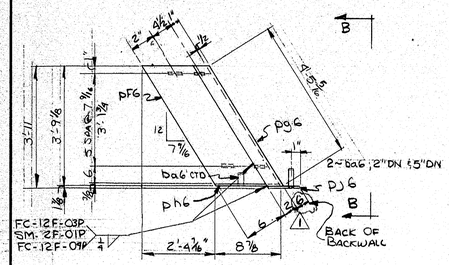
32-16-22
32-2012



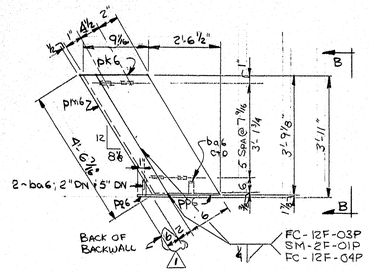
ONE ~ AG (SOUTH SIDE)



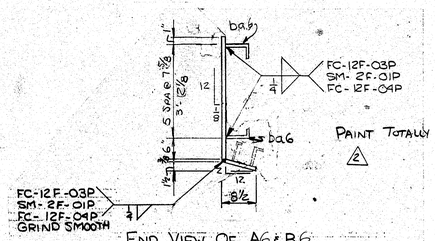
ONE ~ BG (NORTH SIDE)



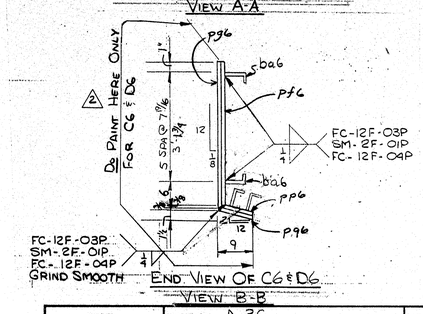
ONE ~ C6 (SOUTH SIDE)



ONE ~ D6 (NORTH SIDE)



END VIEW OF A6 & B6
VIEW A-A



END VIEW OF C6 & D6
VIEW B-B

MATERIAL SCHEDULE

SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WT.
AG	1		ASSEMBLY (SOUTH SIDE)								(241)
	1	pa6	PL 3/8 X 43 3/16	3	9 1/8	#99571	cut from BS				221
	1	pb6	PL 3/8 X 8 1/4	1	1 7/8	STK					12
	19	ba6	BAR 1 X 1/4	0	8	#99571	3	20	0	BEND 2 L 6	8
BG	1		ASSEMBLY (NORTH SIDE)								(254)
	1	pc6	PL 3/8 X 8 1/4	7	1 7/8	STK	cut from BS				12
	1	pd6	PL 3/8 X 45 5/8	3	9 1/8	#99571	cut from BS				234
	19	ba6	"			"	as above				8
CG	1		ASSEMBLY (SOUTH SIDE)								(215)
	1	pf6	PL 3/8 X 37 5/16	3	8 3/4	STK	cut from BS				177
	1	pg6	PL 3/8 X 2	4	7 7/8	#99571	cut from BS			B2E	13
	1	ph6	PL 3/8 X 8 3/8	0	8 3/8	STK	as above				8
1	1	pj6	PL 3/8 X 8 1/4	0	9 7/8	#99571					8
	15	ba6	"			"					9
DG	1		ASSEMBLY (NORTH SIDE)								(222)
	1	pk6	PL 3/8 X 39 9/16	3	8 3/4	STK	as above				188
	1	pm6	PL 3/8 X 2	4	8 3/8	#99571	cut from BS			B2E	13
	1	pp6	PL 3/8 X 8 3/8	0	9 1/16	STK	as above				8
1	1	pg6	PL 3/8 X 8 1/4	0	9 7/8	#99571					8
	15	ba6	"			"					9

TOTAL 986 lbs

14186

PRINT DISTRIBUTION	
23 FA	9-23-19
SHOP	4-26
FE	5-1-84
FA	5-1-84
SHOP 3	5-23-84
SHOP 2	5-9-19
2	JHS - 5-9-19
REV. 1	JHS 5-1-84
CHK'D	TK 4/23/84
DWN	JHS 4-20-84

MATERIAL A 36		HOLES	
BOLTS		ELECTRODE	SEE WELDING PROCEDURES
SURFACE PREP SP6		REF. DWG.	MDOT # 2
PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE			
FINISH PAINT TO MEET SEC 708.02 MDOT STD SPEC. 4.0. MILS WET FILM EACH COAT - ORANGE COLOR			

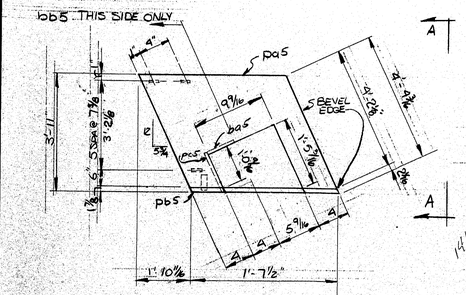
MAINE-CASCADE IRON WORKS

BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2871

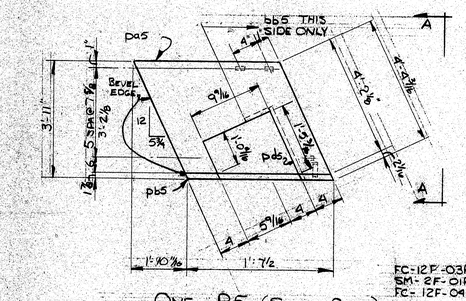
DESCRIPTION SIDEWALK EXPANSION DAM FOR ABUT #2
PROJECT INTERSTATE 95 OVERPASS ON WESTERN AVE.
LOCATION AUGUSTA, MAINE
DESIGNER M.D.O.T.
CUSTOMER STETSON & WATSON

JOB NO. 7717 | DWG. NO. 6 | REV. 2

R89-34



ONE ~ A5 (NORTH SIDE)

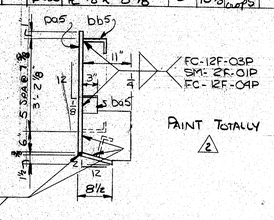


ONE ~ B5 (SOUTH SIDE)

MATERIAL SCHEDULE

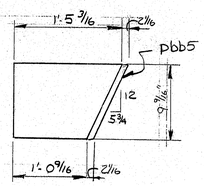
SHIPPING MARK	NO. POS.	SUB-ASSEM.	SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WT.
A5	1		ASSEMBLY NORTH SIDE								
B5	1		ASSEMBLY SOUTH SIDE							(049) (050)	
	2	pa5	PL 3/8 X 9 1/16	3	9 1/8	*#2057	1	96x 120		crop to DE, AB, CD6	423
	2	pb5	PL 3/8 X 8 5/8	1	7 1/2	STK	1	55X240		crop to DE & AB, CD6	36
	2	ba5	BAR 3X1/4	0	4	CRPS					2
	22	bb5	BAR 1X1/4	0	8	*#2057				crop from E3 BEND 2	12
	1	pc5	PL 1/4 X 11	1	2 3/8	STK				FOR A5 B1E	11
	1	pd5	PL 1/4 X 11	1	7 1/4	⊥				FOR B5 B1E	15
C5	1		ASSEMBLY NORTH SIDE							(016)	
D5	1		ASSEMBLY SOUTH SIDE							(014)	
	2	pf5	◊PL 3/8 X 2	4	9 3/8	*#2057				crop from B5	24
	2	pg5	PL 3/8 X 8 3/8	0	8 5/8	STK					16
1	2	ph5	PL 3/8 X (8 3/8)	0	(8 5/8)	⊥					16
	2	ba5				CRPS					2
	30	bb5				*#2057				crop from B4	17
	1	pj5	PL 1/4 X 11	1	6 3/8	STK				FOR C5	15
1	1	pk5	PL 1/4 X 11	(1	1 7/8)					FOR D5	13
	1	pm5	PL 3/8 X 39 7/16	3	6 3/4					FOR C5	164
	1	pp5	PL 3/8 X 39 7/16	3	8 3/4	⊥				FOR D5	164
E5	2		◊PL 3/8 X 12 7/16	1	5 3/16	*#2057				CROPS FROM pa5 (34)	49
	2	pb5	PL 3/8 X 8 3/8	0	10 3/8	CRPS				CROPS FROM pb5	19

TOTAL: 998#



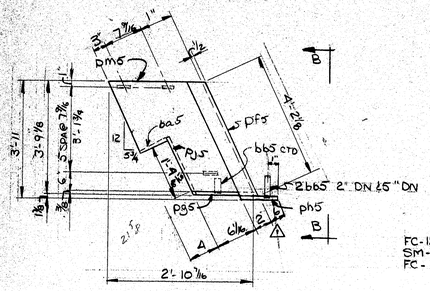
END VIEW OF A5 & B5
VIEW A-A

PAINT TOTALLY
2

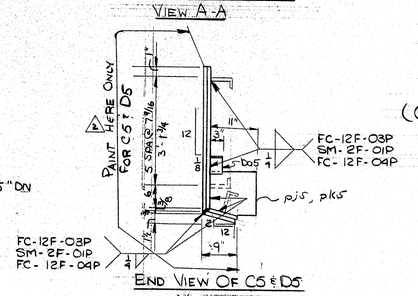


2 ~ E5
(CROP FROM A5 & B5)

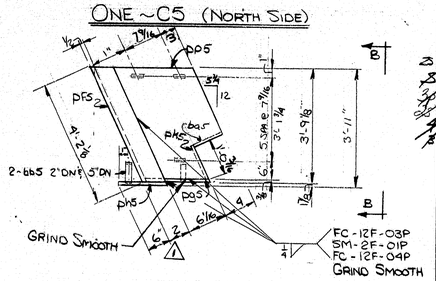
SEE JANET FOR EXPLANATION BEFORE FAB



ONE ~ C5 (NORTH SIDE)



END VIEW OF C5 & D5
VIEW B-B



ONE ~ D5 (SOUTH SIDE)

PRINT DISTRIBUTION		
FA	4-23-84	
SHOP	4-27	
FE	5-1-84	
ED	5-1-84	
SHOP 1	5-3-84	
SHOP 2	5-9-84	

2	JHS	5-9-84
REV 1	JHS	5-3-84
CHK'D	TK	4/23/84
DRWN	JHS	4-20-84

MATERIAL A 36		HOLES	
BOLTS		ELECTRODE	SEE WELDING PROCEDURES
SURFACE PREP SP-6		REF. DWG.	MDOT #2
PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE			
FINISH PAINT TO MEET SEC. 708.02 MDOT STD. SPEC.			
4.0 MILS WET FILM EACH COAT - ORANGE COLOR			

MAINE-CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2671

DESCRIPTION	SIDE WALK EXPANSION DAM FOR ABUT #1		
PROJECT	INTERSTATE 95 OVERPASS ON WESTERN AVE.		
LOCATION	AUGUSTA, MAINE		
DESIGNER	M.D.O.T.		
CUSTOMER	STETSON & WATSON		
JOB NO.	7717	DWG. NO. 5	REV. 2

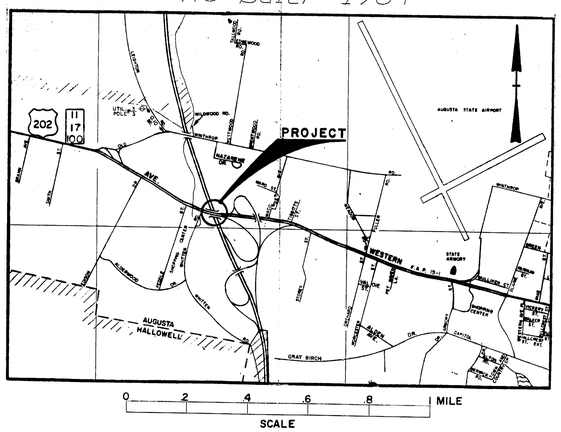
R89-35

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F-015-1(35)	1	12

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AUGUSTA
KENNEBEC COUNTY
MAINE FEDERAL AID PRIMARY
PROJECT NO. BH-F-015-1(35)
WESTERN AVENUE
OVER
INTERSTATE 95
PROJECT LENGTH 0.055 MILES

"AS BUILT"-1984



LOCATION MAP

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
202.121	Remove Existing Concrete	L.S.	1
202.123	Scarifying Concrete Deck - Top $\frac{1}{4}$"	L.S.	1
202.124	Remove Existing Structural Concrete Slab - To Reinforcing Steel	S.Y.	240
202.125	Remove Existing Structural Concrete Slab - To Below Reinforcing Steel	S.Y.	45
202.127	Remove Existing Bituminous Pavement	L.S.	1
301.09	Plant Mix Bituminous Base Course, Grading B	Ton	50
304.103	Aggregate Subbase Course - Gravel, Truck Measure	C.Y.	50
403.07	Hot Bituminous Pavement, Grading B	Ton	50
403.10	Hot Bituminous Pavement, Grading D	Ton	50
403.101	Hot Bituminous Pavement, Grading D (Sidewalks, Shims, Drives, etc.)	Ton	22
502.29	Structural Concrete Wearing Surface on Bridges	L.S.	1
506.142	Field Painting Existing Structural Steel	L.S.	1
506.16	Surface Preparation of Existing Structural Steel	M.H.	500
514.06	Curing Box for Concrete Cylinders	EACH	1
515.21	Protective Coating for Concrete Surface	L.S.	1
520.24	Bridge Joint Modifications	EACH	4
526.301	Temporary Concrete Barrier, Type I	L.S.	1
609.38	Reset Curb, Type I	L.F.	470
627.61	4" Solid White Pavement Marking Line	L.F.	525
627.62	4" Broken White Pavement Marking Line	L.F.	675
627.65	White or Yellow Pavement and Curb Marking	S.F.	175
627.67	Removing Pavement Marking	S.F.	200
627.68	Temporary 4" Painted Pavement Marking Line, White or Yellow	L.F.	1500
629.05	Hand Labor, Straight Time	M.H.	50
	Air Compressor (including operator)	H.R.	40
	Air Tool (including operator)	H.R.	40
	Truck - small (including operator)	H.R.	20
	Front End Loader (including operator)	H.R.	20
639.19	Field Office Type B	EACH	1
652.31	Type I Barricades	EACH	25
652.33	Drums	EACH	10
652.34	Cones	EACH	15
652.35	Construction Signs	S.F.	600
652.36	Maintenance of Traffic Control Devices	C.D.	130
652.38	Flagger	M.H.	400
658.20	Acrylic Latex Color Finish, Green	S.Y.	200
659.10	Mobilization	L.S.	1

Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

NOTE:
All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of June 1981) and supplements thereto except as modified on the plans and in the Special Provisions.

TRAFFIC DATA

WESTERN AVENUE (OVER I-95)		SLIP RAMP
A.D.T. 1984	21170	1125
A.D.T. 2004	25400	1825
D.H.V.	2540	237
T. (%)	5	4
D. (%)	60	100
V.		
P.S.D. (%)		
18 KIPS P2.5	299	44

Br.# 5803

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
GENERAL PLAN	2
STAGE CONSTRUCTION SEQUENCE	3
JOINT SEAL DETAILS	4
NOTES AND MISCELLANEOUS DETAILS	5
ADDITIONAL LEFT LANE STORAGE	6
STANDARD DETAILS	7-9
TRAFFIC CONTROL PLANS	10-12
STANDARD DETAILS	
(BD 124-81) EXPANSION DEVICE	7
(BD 126-81) MISCELLANEOUS DETAILS	8
(BD 127-81) MISCELLANEOUS DETAILS	9

SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway Bridges, 1977 and interim specifications thru 1983.
CONTRACT: STATE of MAINE, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of June 1981.

EXISTING STRUCTURE LIVE LOAD . . . . . HS 20

MATERIALS

CONCRETE	Class A
STRUCTURAL CONCRETE WEARING SURFACE	Class AA (Modified)
REINFORCING STEEL	ASTM A615 Grade 60
STRUCTURAL STEEL	ASTM A36
HIGH STRENGTH BOLTS	ASTM A325 Type I

BASIC ALLOWABLE STRESSES

CONCRETE	f'c 3,000 psi n=9
REINFORCING STEEL	fy = 60,000 psi
STRUCTURAL STEEL:	ASTM A36 fy = 36,000 psi
HIGH STRENGTH BOLTS	ASTM A325 fv = 33,000 psi

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION — DATE

Daniel Wathen — COMMISSIONER — 12/29/83

Richard A. Coleman — CHIEF ENGINEER — 12/29/83

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

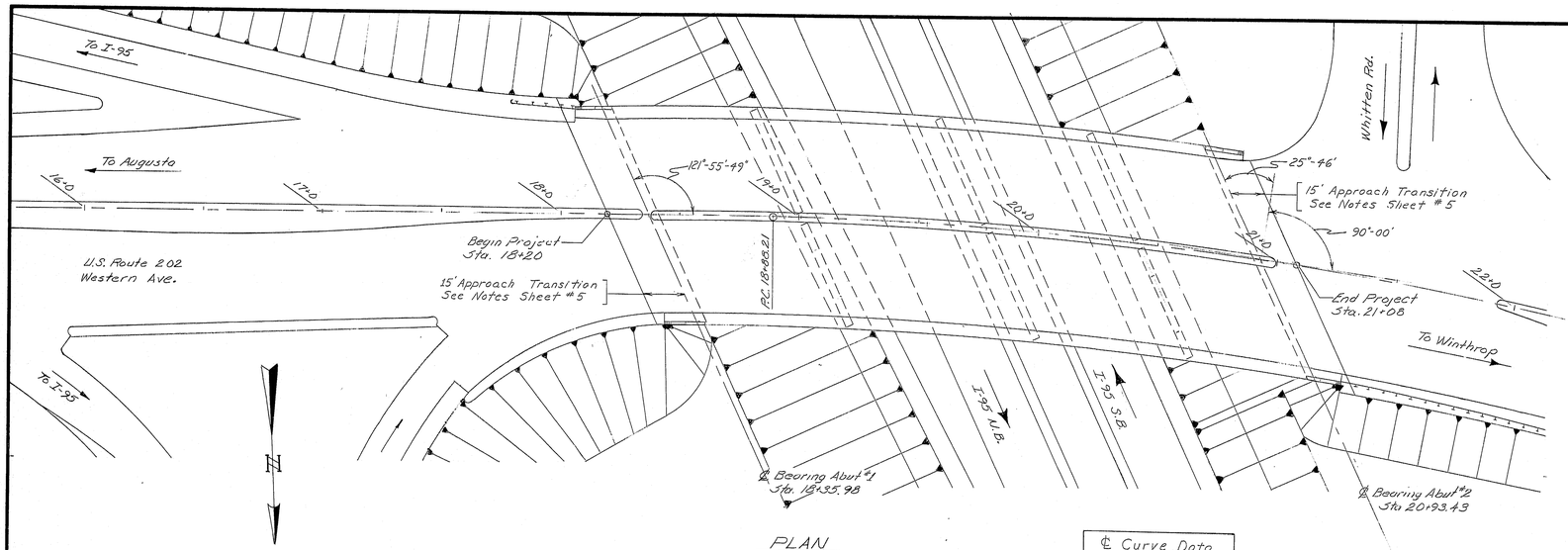
APPROVED:

DIVISION ADMINISTRATOR — DATE

R89-484

DRAWING 44-132.39526
JANUARY 1980
203-1 2080

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F-015-1(35)	2	12

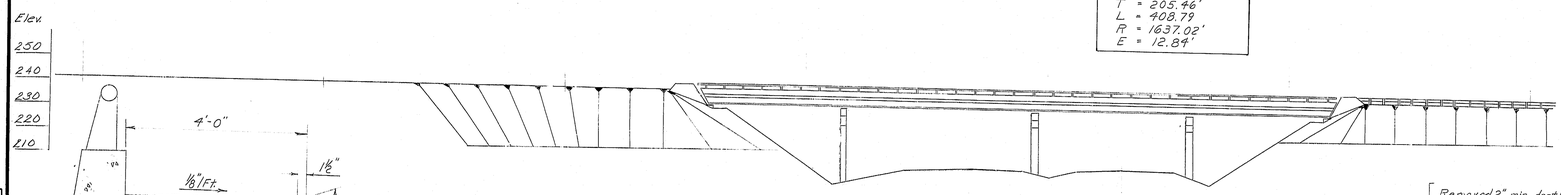


PLAN

3cale 25' 0 25 50

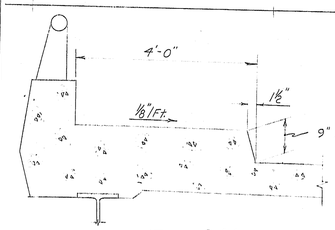
℄ Curve Data

PI = Sta. 20+93.67
Δ = 14°-18'-27"
D = 3°-30'
T = 205.46'
L = 408.79
R = 1637.02'
E = 12.84'

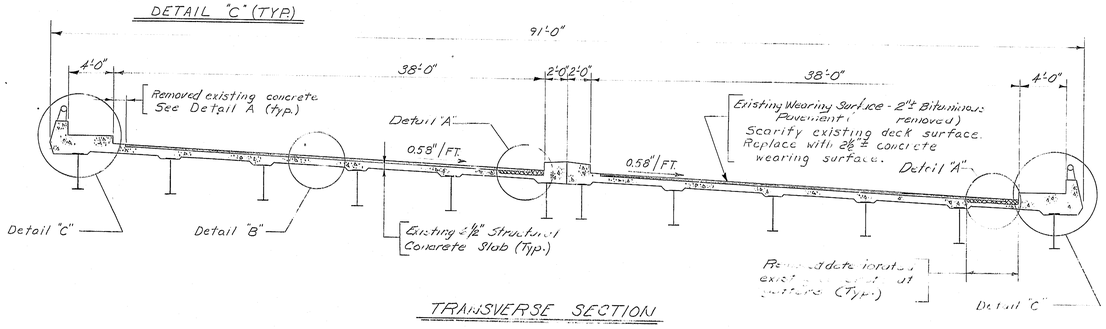


ELEVATION

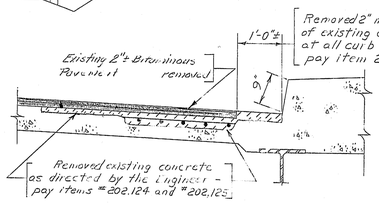
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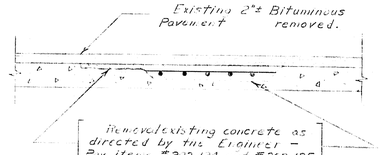
DETAIL "C" (TYP.)



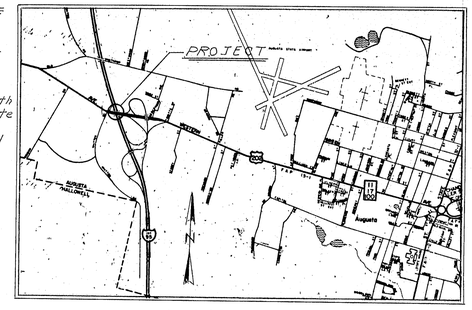
TRANSVERSE SECTION



DETAIL "A"



DETAIL "B"



LOCATION MAP

SPECIFICATIONS

Design: Per AASHTO
Standard Specifications for Highway Bridges 1977 and Interim Specifications 1978, 1979, 1980, 1981, and 1982.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of June 1982

DESIGN LOADING

Existing Structure Live Load: HS20

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	MCS	3/83
CHECKED	MJS	11/83
QUANTITIES	GDC	
FIELD CHANGES		

BRUNING 44-132 45710-1

Bridge No. 5808

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

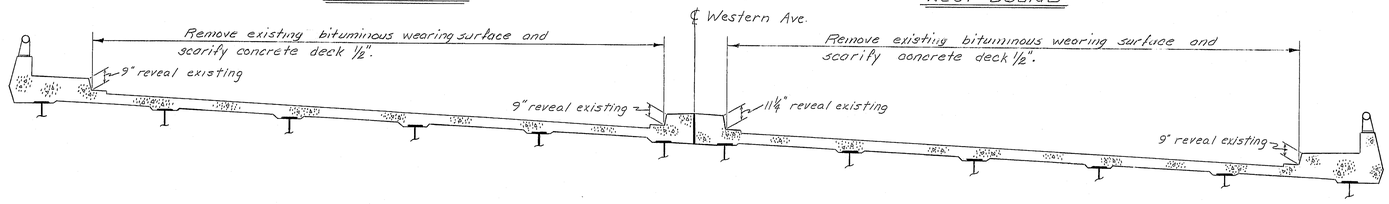
WESTERN AVE. - RT 202
over
I-95 N.B. & S.B.
AUGUSTA
"AS BUILT" D.Rice-Mar.'85
General Plan

SHEET 2 OF 12 AUGUSTA, MAINE Dec. 1983

R89-485

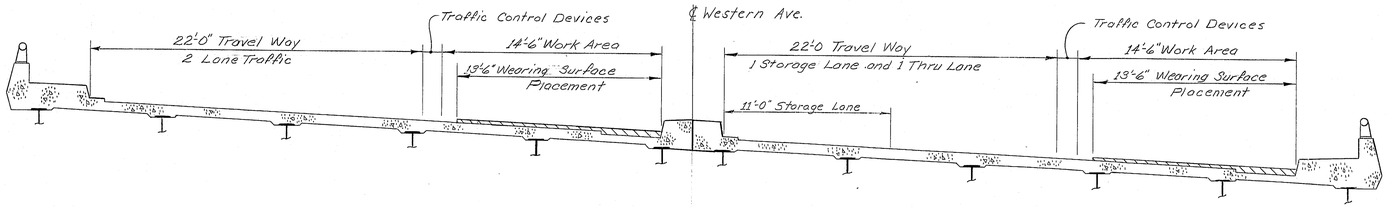
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F-015-1(35)	3	12

EAST BOUND

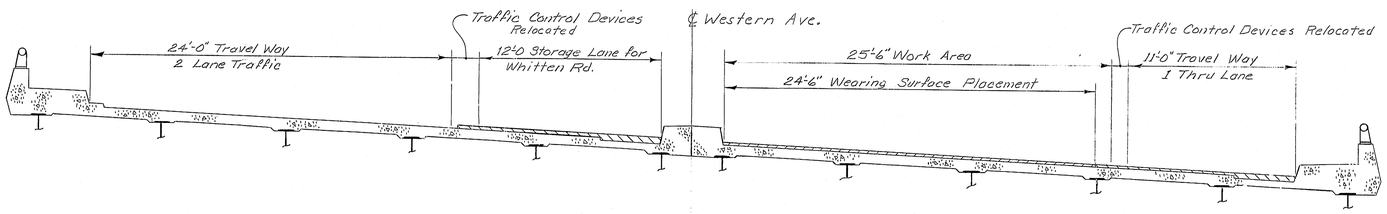


WEST BOUND

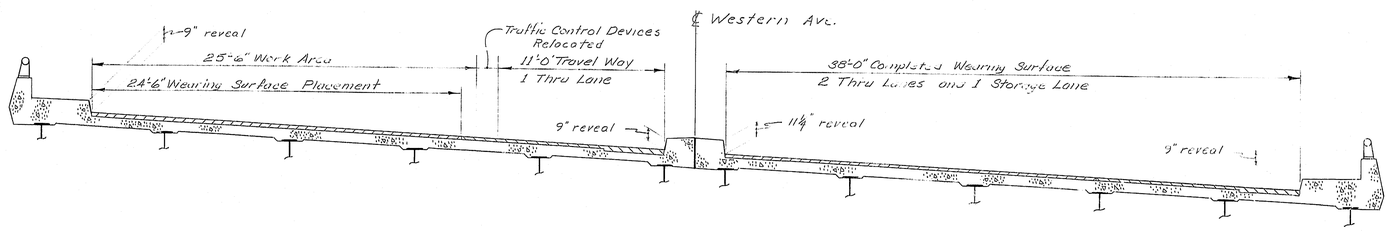
STAGE ONE



STAGE TWO



STAGE THREE



EAST BOUND

STAGE FOUR

WEST BOUND

STAGE CONSTRUCTION SEQUENCE

STAGE One
East and West Bound Structures - Remove existing bituminous wearing surface and scarify concrete slab ½".
Remove pavement for a 2" depth on the 15' bridge approach transitions and place a 1" depth of Hot Bituminous Pavement, Grading D.

STAGE TWO
East Bound - Install traffic control devices.
Maintain 22'-0" 2 lane travel way.
Remove existing fingerjoints and replace with new gland seal at Abut #1 and compression seal at Abut #2.
Remove northerly curb line concrete. See Detail "A" Sheet #2
Place concrete wearing surface over 13'-6" width.

West Bound - Install traffic control devices.
Maintain 22'-0" travelway (1 thru lane and 1 storage lane for Whitten Rd).
Remove northerly curb line concrete. See Detail "A" Sheet #2
Remove existing fingerjoints and replace with new gland seal at Abut #1 and compression seal at Abut #2.
Place concrete wearing surface over 13'-6" width.

STAGE THREE
East Bound - Relocate traffic control devices.

Remove a section of existing approach median and transfer storage lane from westbound to eastbound structure.
Maintain a 24'-0" 2 lane travelway.
West Bound - Relocate traffic control devices to maintain an 11'-0" 1 lane travel way.
Place a 24'-6" concrete wearing surface.

STAGE FOUR
East Bound - Transfer storage lane from eastbound to completed westbound structure.
Relocate traffic control devices.
Place a 24'-6" concrete wearing surface.
Maintain one 11'-0" travelway.

West Bound - Maintain a 38'-0" 3 lane travel way (1 storage lane and 2 thru lanes).
Reset approach median curb and reconstruct the median as shown.

STAGE FIVE
Complete the 15' bridge approach transitions by placing a 1"± depth of Hot Bituminous Pavement, Grading D to match the profile grade.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MEB	3/83
	CHECKED	HJS	12/83
	REVISIONS	GDF	
	FIELD CHANGES		

BRIMING 44-132-45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

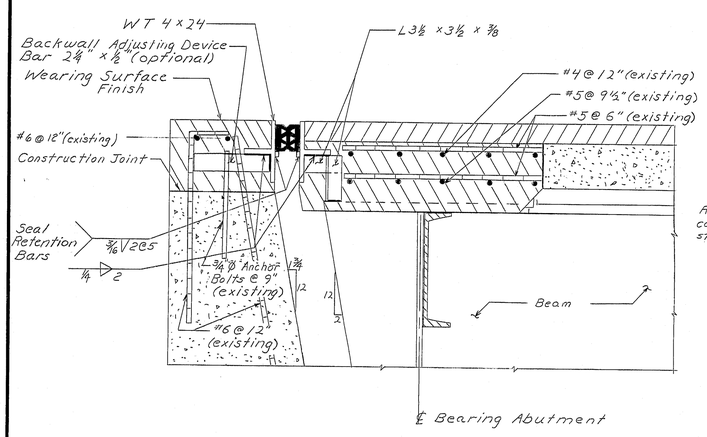
WESTERN AVE. - RT 202
over
I-95 N.B. & S.B.
AUGUSTA
"AS BUILT" D.Pike MAR.'85

Stage Construction Sequence

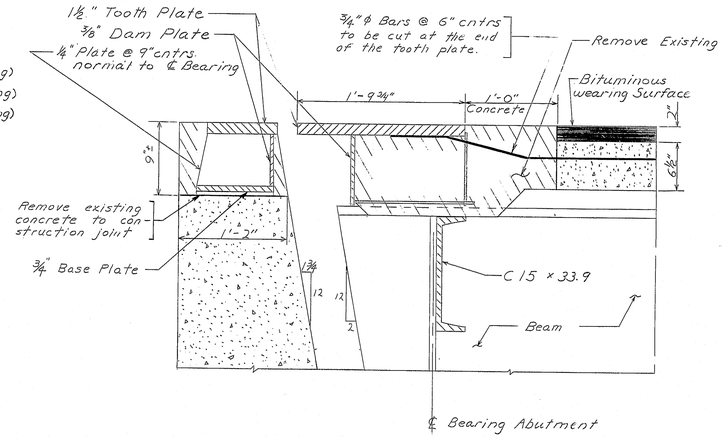
SHEET 3 OF 12 AUGUSTA, MAINE Dec. 1983

R89-486

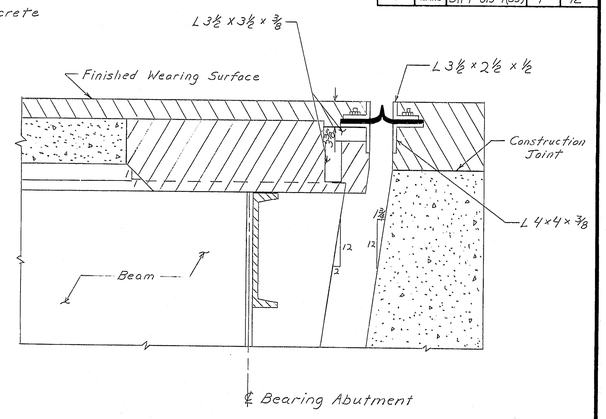
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F-015-1(35)	4	12



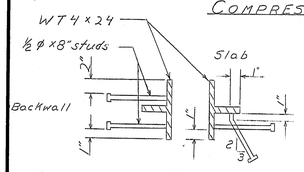
COMPRESSION SEAL DETAIL - ABUTMENT #2



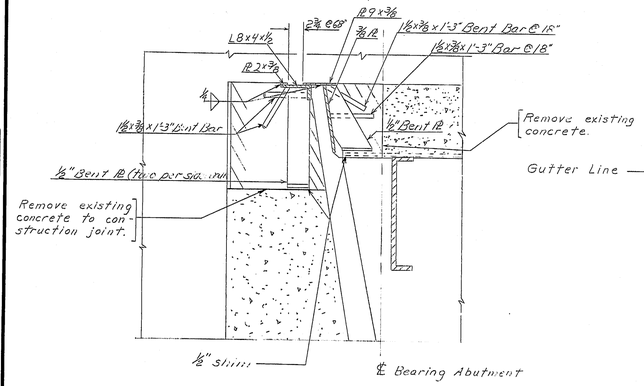
EXPANSION PLATE DETAIL - EXISTING (TYP.)
(FINGER JOINT)



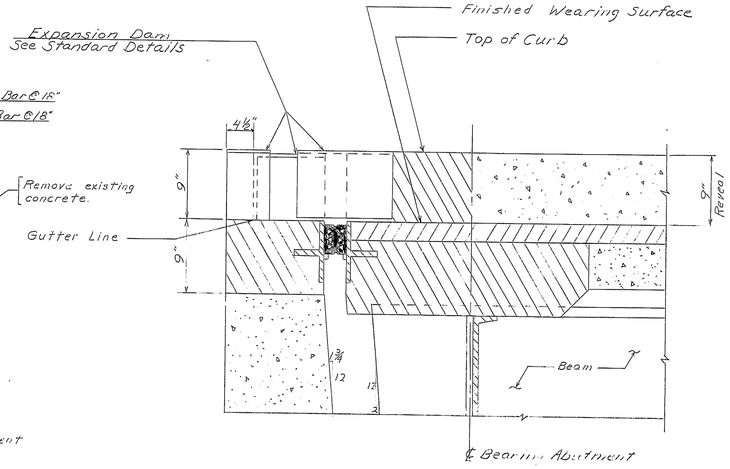
GLAND SEAL DETAIL - ABUTMENT #1
(See Abutment #2 for the reinforcing steel.)



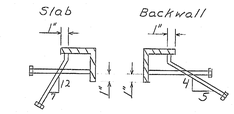
COMPRESSION SEAL STUD MODIFICATION



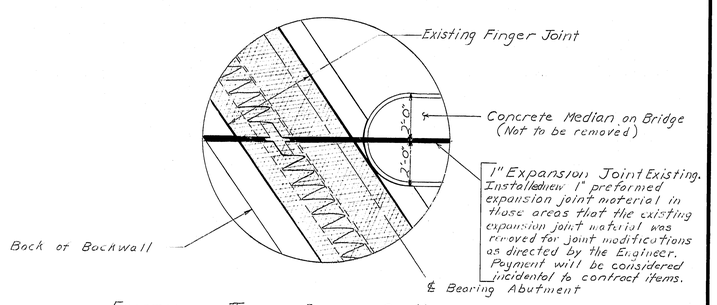
SIDEWALK EXPANSION JOINT - EXISTING (TYP.)



CURB ELEVATION (TYP.)
(Compression Seal Shown)



GLAND SEAL STUD MODIFICATION



EXISTING JOINT DETAIL @ MEDIAN

NOTE: The existing reinforcing steel is shown in the Compression Seal Detail - Abutment #2. At the Contractor's Option, the existing reinforcing steel shall be either cleaned and remain in place or new reinforcing steel substituted that is the same size. Payment for all new reinforcing steel will be considered incidental to Item 520.64, Bridge Joint Modifications. - NEW REF. STEEL SUBSTITUTED - D.R.K.

NOTE: See Standard Detail Sheet BD124-81 For Details Not Shown.

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	MRB	5/83
CHECKED	GDF	12-83
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-45710-1

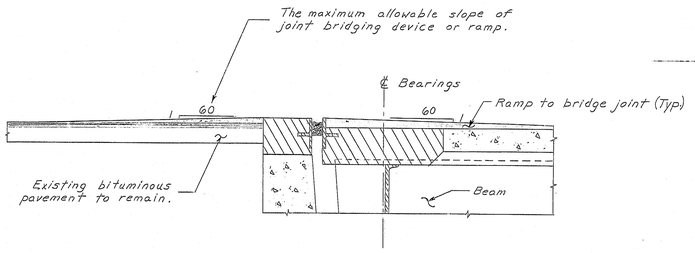
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTERN AVE. - RT. 202
OVER
I-95 N.B. & S.B.
AUGUSTA
"AS BUILT" - D.R.K. MAR. '85
Joint Seal Details

SHEET 4 OF 12 AUGUSTA, MAINE Dec. 1983

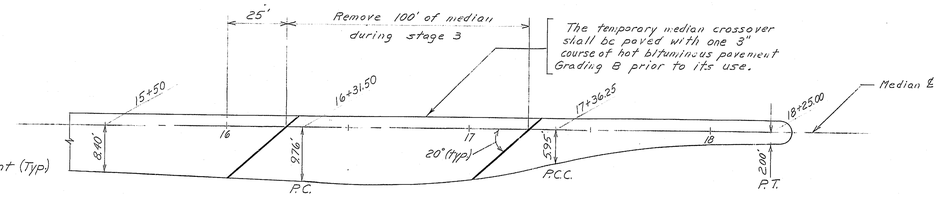
R89-487

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F015-1(35)	5	12

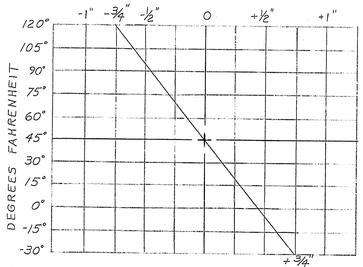


JOINT RAMPING DETAIL

(The new compression seal ramp is shown -similar for the new gland seal and the existing finger joint.



TEMPORARY MEDIAN CROSSOVER



COMPRESSION SEAL ADJUSTMENT CHART

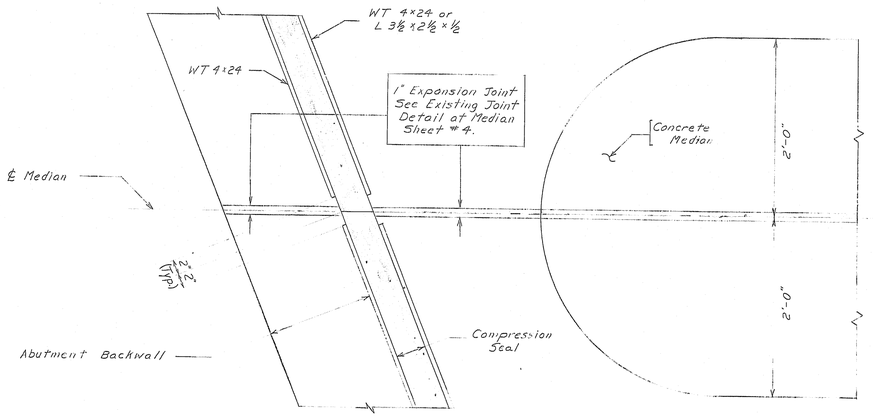
1. The seals to be furnished shall have a minimum Movement Rating of :

   Abutment No. 2 = 1.50 inches

2. The seal shall be approved by the Engineer prior to fabrication of the joint armor.

3. The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved shop detail drawings.

4. The Compression Seal adjustment chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temperatures other than 45° F. Adjustment is to be measured parallel to the centerline of construction.



JOINT DETAIL AT MEDIAN

~ NOTES ~

1. ~ All steel for joint armor shall conform to ASTM A36 and shall be field measured for length.

2. ~ Traffic shall be maintained over the joints in accordance with the traffic control items. The Contractor shall bridge or ramp the joints as required during construction by a method approved by the Engineer. See Joint Ramping Detail for the maximum allowable slope of the ramp. Payment for bridging the joints in order to maintain traffic shall be incidental to item 520.24

3. ~ The new WT 9x24 shall be painted with 3 coats of shop paint in the areas designated on the plans. Payment for painting shall be considered incidental to item 520.24, Bridge Joint Modifications.

4. ~ Two compression seals are required at Abutment #2, one each for the Eastbound and Westbound structures.

5. ~ Two gland seals are required at Abutment No.1, one each for the Eastbound and Westbound structures.

6. ~ 2 inches of the existing bituminous pavement on both 15'-0" approach transitions shall be removed for the full bridge width. Payment for this work shall be incidental to item 202.123, Scarifying Concrete Deck - Top ½". Pavement removed shall be replaced with Hot Bituminous Pavement - Grading D to match the new wearing surface finished profile grade.

7. ~ Remove deteriorated concrete along the crack in Abutment #2 backwall and bridge seat as directed by the Engineer. All new concrete shall be bonded to the existing concrete remaining with an epoxy resin material specifically designed to bond fresh concrete to hardened concrete. The surface of the existing concrete shall be cleaned and prepared in accordance with the manufacturer's recommendation. Payment for all work and materials will be made in accordance with the Force Account provisions of Subsection 104.03, Extra Work.

SEE NOTE 11A BELOW

8. ~ The existing structural steel and bridge railings shall be cleaned and painted under Items 506.142, Field Painting Existing Structural Steel and 506.16 Surface Preparation of Existing Structural Steel.

9. ~ Protective Coating shall be applied to all new and existing concrete on the top of the bridge superstructure from fascia to fascia including the fascia, concrete endposts, top of backwall, and top of wingwalls.

10. ~ The ends of the compression seals at the median centerline shall be butted together and glued with the lubricant adhesive as specified in section 714.03.

11. ~ The gland seals to be furnished at Abutment No. 1 shall have a Movement Rating of 2.00 inches.

11A. ~ ABUT. #1 & 2 BACKWALL & BRIDGESEATS; USE REPAIRED OF DETERIORATED AREAS AS REQUIRED - E.W.O. #1

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MES	11/83
	CHECKED	RAV	11/83
	REVISIONS	GOT	12/83
	FIELD CHANGES		

BRUNING 44-132-42710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTERN AVE. - RT. 202
OVER
I-95 N.B. & S.B.
AUGUSTA
"AS BUILT" D. RICE MAR. '85

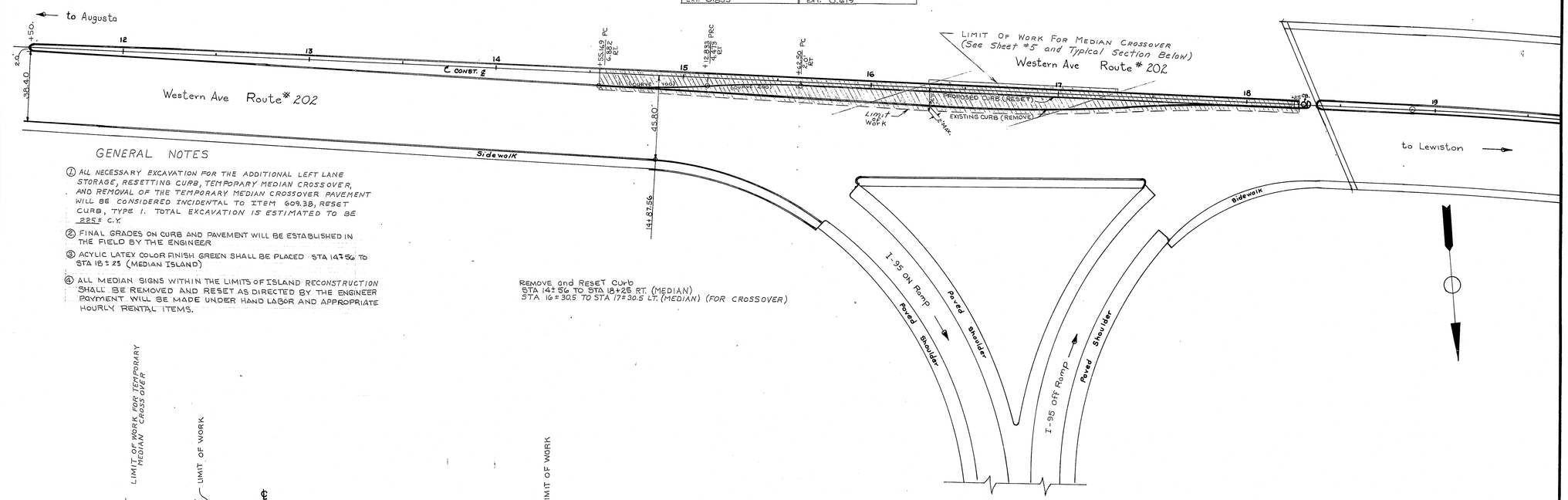
Notes and Misc. Details

SHEET 5 OF 12 AUGUSTA, MAINE DEC. 1983

R89-488

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-F-015-1(35)	6	12

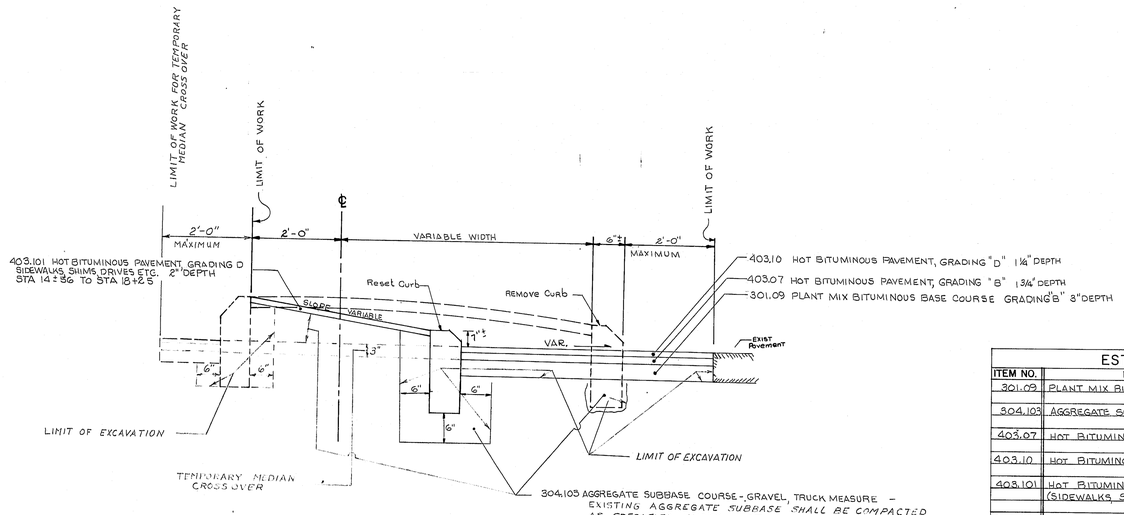
CURVE 100	CURVE 200
Δ 6°-37'-02.2" L	Δ 5°-42'-02.8 R
D 11°-27'-33.0"	D 11°-27'-33.0"
R 500'	R 500'
T 28.906'	T 24.895'
L 57.747'	L 49.749'
EXT. 0.835'	EXT. 0.619'



GENERAL NOTES

1. ALL NECESSARY EXCAVATION FOR THE ADDITIONAL LEFT LANE STORAGE, RESETTING CURB, TEMPORARY MEDIAN CROSSOVER, AND REMOVAL OF THE TEMPORARY MEDIAN CROSSOVER PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 609.38, RESET CURB, TYPE 1. TOTAL EXCAVATION IS ESTIMATED TO BE 225± C.Y.
2. FINAL GRADES ON CURB AND PAVEMENT WILL BE ESTABLISHED IN THE FIELD BY THE ENGINEER
3. ACYLIC LATEX COLOR FINISH GREEN SHALL BE PLACED STA 147±50 TO STA 18±25 (MEDIAN ISLAND)
4. ALL MEDIAN SIGNS WITHIN THE LIMITS OF ISLAND RECONSTRUCTION SHALL BE REMOVED AND RESET AS DIRECTED BY THE ENGINEER PAYMENT WILL BE MADE UNDER HAND LABOR AND APPROPRIATE HOURLY RENTAL ITEMS.

Remove and Reset Curb
STA 14±50 TO STA 18+25 RT. (MEDIAN)
STA 16±30.5 TO STA 17±30.5 LT. (MEDIAN) (FOR CROSSOVER)



TYPICAL SECTION DETAIL

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	AMOUNT	UNITS
301.09	PLANT MIX BITUMINOUS BASE COURSE - GRADING B	50	TON
304.103	AGGREGATE SUBBASE COURSE, GRAVEL TRUCK MEASURE	50	C.Y.
403.07	HOT BITUMINOUS PAVEMENT GRADING B	50	TON
403.10	HOT BITUMINOUS PAVEMENT GRADING D	50	TON
403.101	HOT BITUMINOUS PAVEMENT GRADING D (SIDEWALKS, SHIMS, DRIVES, ETC.)	22	TON
609.38	RESET CURB, TYPE 1	470	L.F.
658.20	ACRYLIC LATEX COLOR FINISH, GREEN	200	S.Y.

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

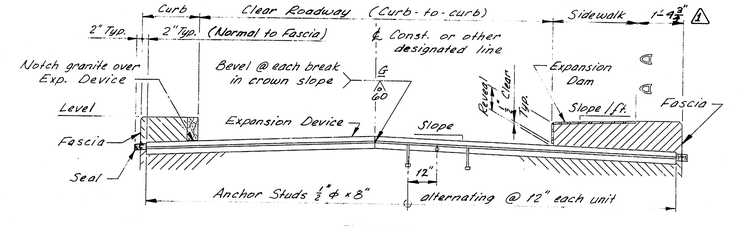
BROWNS 44 1/2 X 40 7/10-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

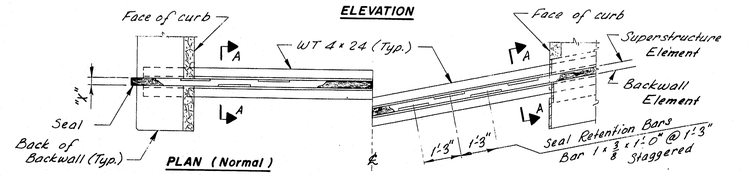
WESTERN AVE. - RT. 202
over
I-95 N.B. & S.B.
AUGUSTA
"AS BUILT" - D. Rich - MAR. '88
ADDITIONAL LEFT LANE STORAGE

SHEET 6 OF 12 AUGUSTA, MAINE Dec. 1983

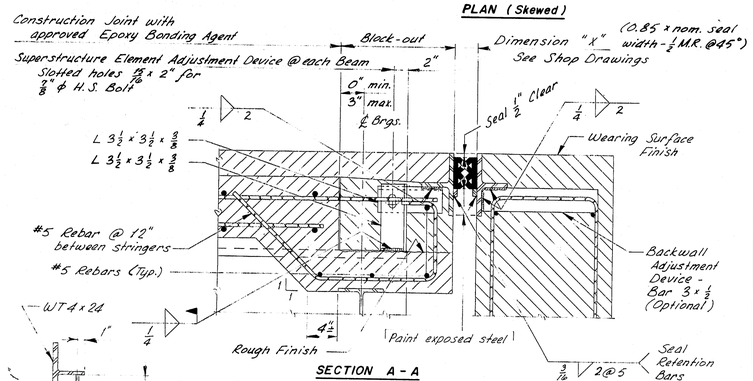
R89-489



ELEVATION

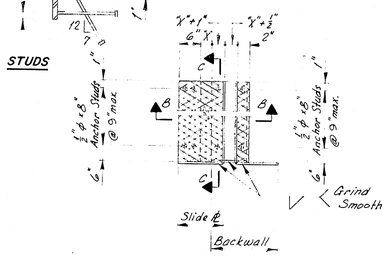


PLAN (Normal) **PLAN (Skewed)**

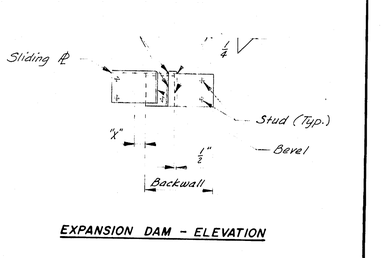


SECTION A - A

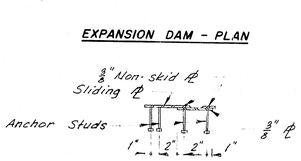
STUDS



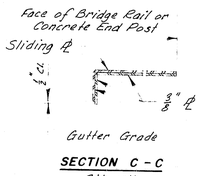
EXPANSION DAM - PLAN



EXPANSION DAM - ELEVATION

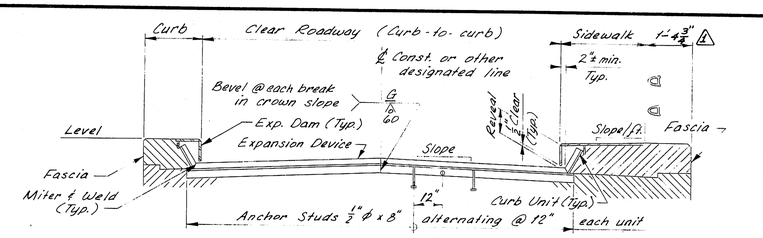


SECTION B - B

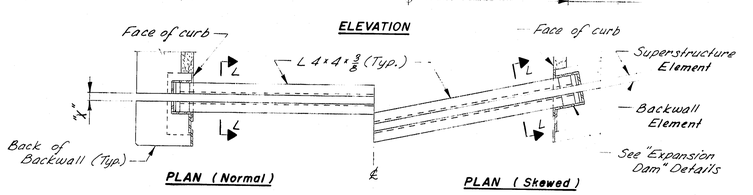


SECTION C - C
Sidewalk

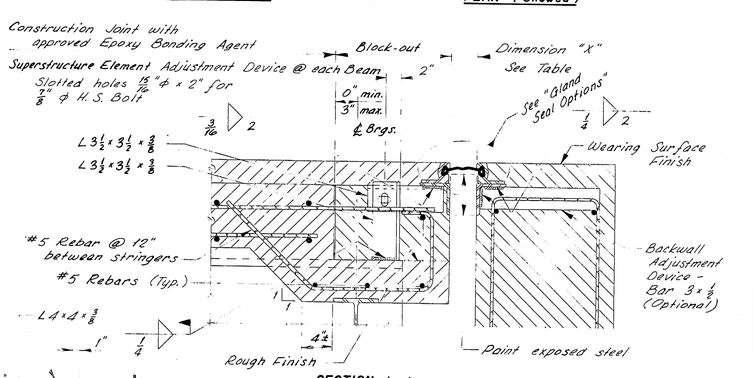
COMPRESSION SEAL



ELEVATION

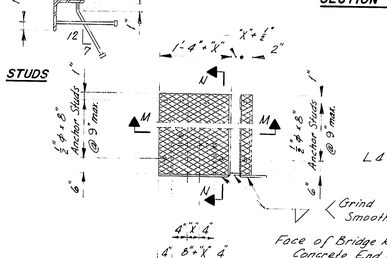


PLAN (Normal) **PLAN (Skewed)**

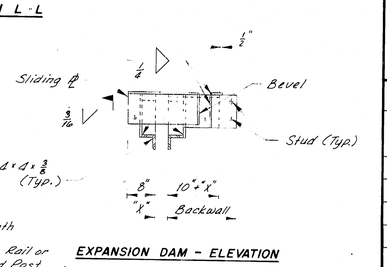


SECTION L - L

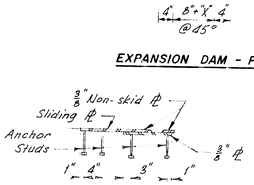
STUDS



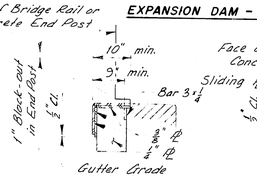
EXPANSION DAM - PLAN



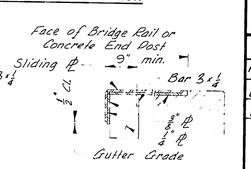
EXPANSION DAM - ELEVATION



SECTION M - M



SECTION N - N
Curb



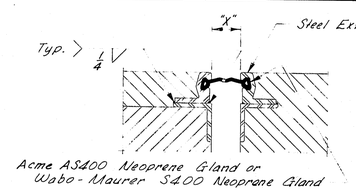
SECTION N - N
Sidewalk

GLAND SEAL

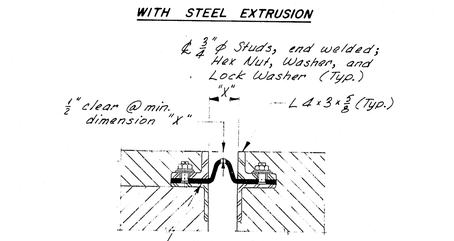
NOTES: 2

1. Each Expansion Device Unit consists of one pair of matching Elements and Expansion Dams as required. At joints over Piers, two Superstructure Elements shall be used.
2. Welding to reinforcing steel will be allowed in the top 1'-6" of the Abutment backwall.
3. See Design Drawings for dimensions, slopes, skew, and all other information necessary to fabricate and install the units. Expansion Devices shall be installed normal to grade.
4. The concrete in the Superstructure Adjustment Device Block-out may be placed with the Sidewalk, and Curb Concrete.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE			



WITH STEEL EXTRUSION



WITH STEEL ANGLE

GLAND SEAL OPTIONS

GLAND SEAL SETTING TABLE

Total Movement Required *	Dim. "X" (Measured parallel to ℄ of Roadway) TEMPERATURE (°F)									
	120°	105°	90°	75°	60°	45°	30°	15°	0°	-15°	-30°
1½"	1"	1⅛"	1¼"	1⅜"	1⅝"	1⅞"	1⅞"	2"	2¼"	2⅜"	2½"
2"	¾"	1"	1⅛"	1⅛"	1½"	1⅜"	2"	2⅛"	2⅜"	2½"	2⅝"
2½"	½"	¾"	1"	1¼"	1⅜"	1⅝"	2"	2¼"	2½"	2⅝"	3"
3"	½"	¾"	1⅛"	1⅜"	1⅝"	2"	2¼"	2⅜"	2⅝"	2⅞"	3½"

* Multiply expanding length of Superstructure, in feet, by .0125 in./ft.
Max. Dimension "X" allowed = 3½" @ -30°F

REVISIONS	DATE
Revised Title Block	7-82
1 Revised dimension	1-83
2 Revised Note #4	1-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 124 - 81)
(FOR USE WITH STRUCTURAL CONCRETE WEARING SURFACE)

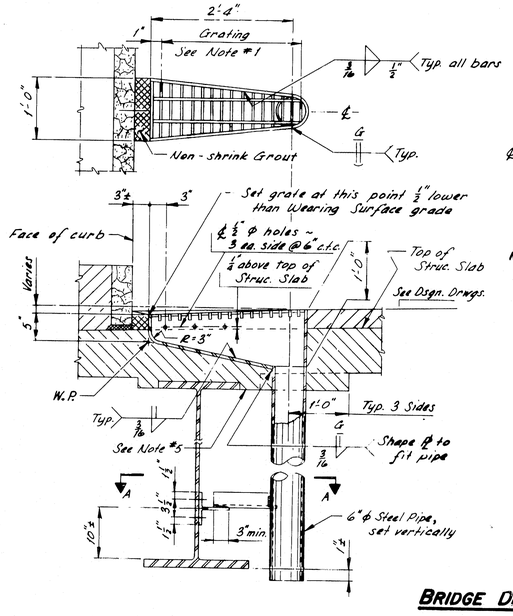
EXPANSION DEVICE
COMPRESSION SEAL
GLAND SEAL

SHEET OF AUGUSTA, MAINE JUNE 1981

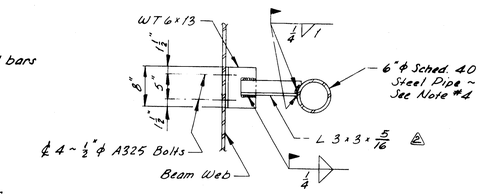
PROJECT DESIGN ENGINEER	DESIGNED - DETAILED	CHECKED	REVISIONS	FIELD CHANGES	DATE	BY
PLANS					10 Dawn Aug 81	

BRIMING 44-132-4710

R89-490



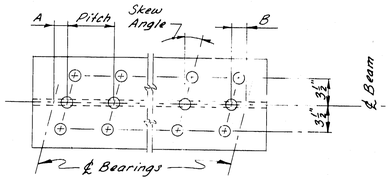
BRIDGE DRAIN



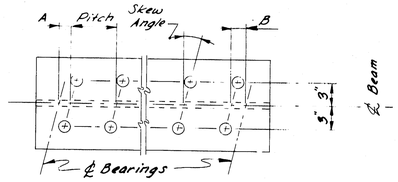
SECTION A-A

NOTES:

1. Grating shall be a commercial heavy-duty grating with 1 1/4" x 3/16" bearing bars spaced at 2 3/8" c.t.c., and 3/8" ϕ cross bars spaced at 4" c.t.c.
2. Plates shall be A.S.T.M. A36, 1/4" thick.
3. WT 6x13 shall be of the same material as the beam web.
4. At the option of the Contractor, the Bridge Drain may be modified to allow the use of T.S. 6x6x1/4 conforming to A.S.T.M. A501 or A.S.T.M. A500, Gr. "A", in place of the 6" ϕ steel pipe.
5. If the minimum thickness of concrete below the Drain is 2" or less, the haunch shall be extended as shown.
6. Painting will not be required when the structural steel is specified to be unpainted.
7. Payment for Bridge Drain shall be as specified under subsection 502.19 of the Standard Specifications.



TRIPLE STUDS



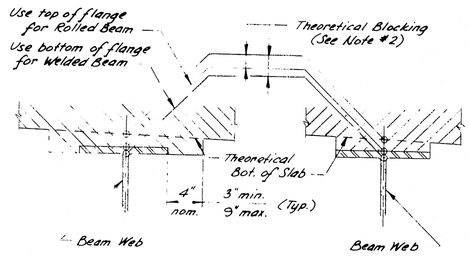
DOUBLE STUDS

NOTE:

1. See Design Drawings for Dim's. "A" & "B", stud pitch, and skew angle.

STUD DETAIL

SHEAR CONNECTORS

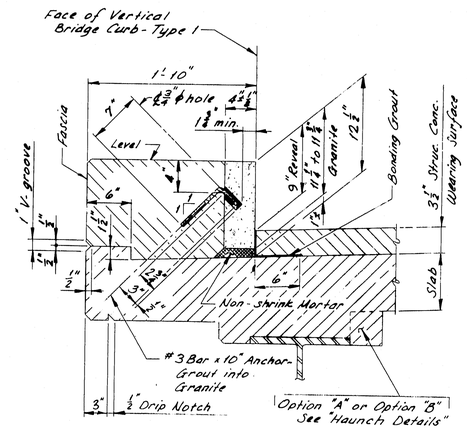


OPTION "A" OPTION "B"

NOTE:

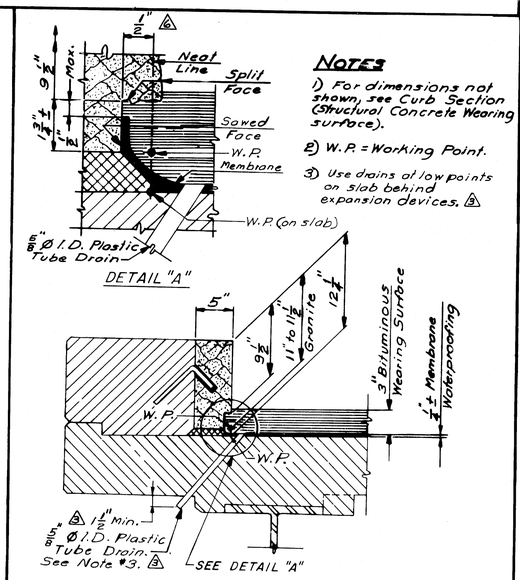
1. Haunch Option "A" or Option "B" may be used at the Contractor's discretion. Only one option shall be used on each structure, except that Option "A" must always be used on the fascia side of all fascia beams and on beams designed without shear connectors.
2. Theoretical Blocking shall be as indicated on Design Drawings.
3. Do not use Theoretical Blocking for setting of formwork.

HAUNCH DETAILS



CURB SECTION TYPE 1A ⚠4 ⚠5

(STRUCTURAL CONCRETE WEARING SURFACE)

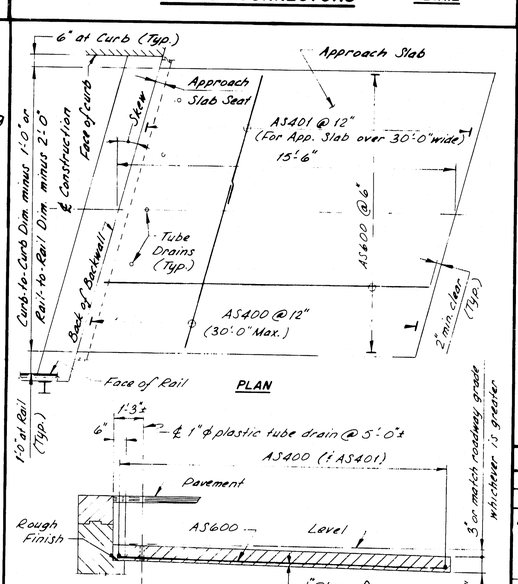


NOTES

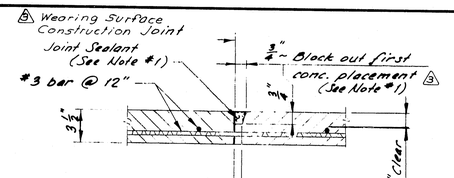
1) For dimensions not shown, see Curb Section (Structural Concrete Wearing surface).
2) W.P. = Working Point.
3) Use drains at low points on slab behind expansion devices. ⚠5

CURB SECTION TYPE 1B ⚠2 ⚠3 ⚠5 ⚠6

(BITUMINOUS WEARING SURFACE)



APPROACH SLAB



WEARING SURFACE DETAIL

NOTE:

⚠5 1. Use Block-out and Sealant only at Wearing Surface Construction Joints over Structural Slab Construction Joints. At all other joints, brush joint with neat cement paste before making adjacent concrete placement.

STRUCTURAL CONCRETE WEARING SURFACE ⚠5

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

BRUNING 44-132 45710

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE			

REVISIONS		DATE
⚠1	Revised stud Detail	3-82
⚠2	Added Curb Section	7-82
⚠3	Added Plastic Tube Drain & modified Structural Concrete Wearing Surface.	11-82
⚠4	Revise Curb Anchorage	2-83
⚠5	Revise Curb Title	6-83
⚠6	Revise Curb Type 1B	11-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

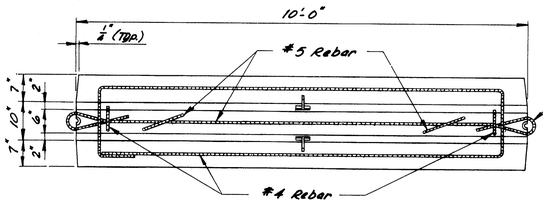
STANDARD DETAILS
(BD 126-81)

MISCELLANEOUS DETAILS

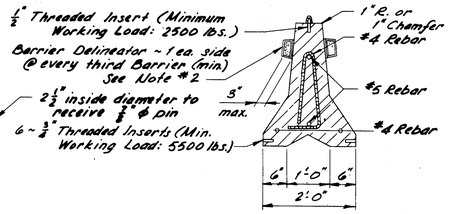
BRIDGE DRAIN - SHEAR CONNECTORS
STRUC. CONC. WEAR. SURFACE
CURB SECTION - APPROACH SLAB
HAUNCH DETAILS

SHEET OF AUGUSTA, MAINE JUNE 1981

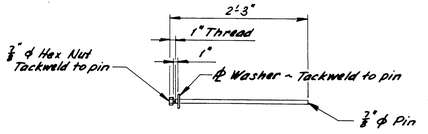
R89-491



PLAN



TYPICAL SECTION

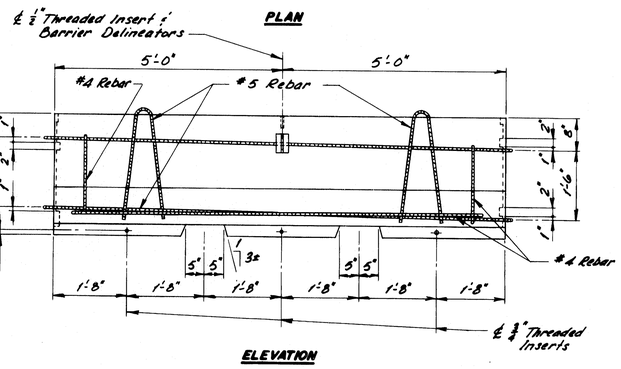


CONNECTING PIN

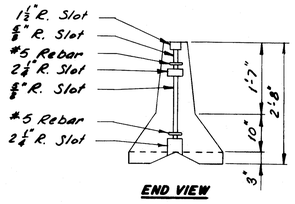
NOTES:

1. The reinforcing steel, end connections, lifting arrangement, and sizes and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate reinforcing, and connections, lifting points, and hold-down arrangements.

2. Barrier Delineators shall be bi-directional with a minimum effective reflex area of 8.0 square inches as approved by the Engineer. The Reflector shall preferably be of Methyl Methacrylate, and the Housing of Acrylonitrile Butadiene Styrene.



ELEVATION

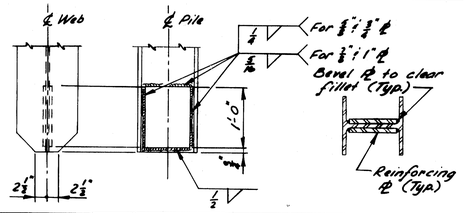


END VIEW

TEMPORARY CONCRETE BARRIER - TYPE 1

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE			

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



Pile Size	Reinf. ℄ Size	Pile Size	Reinf. ℄ Size
HP 10x42	8¾" x ⅝" x 1'-0"	HP 13x60 ⚠	11½" x ¾" x 1'-0"
HP 10x57	8¾" x ⅞" x 1'-0"	HP 13x73 ⚠	11½" x ⅞" x 1'-0"
HP 12x53	10¾" x ⅝" x 1'-0"	HP 13x87 ⚠	11½" x 1" x 1'-0"
HP 12x63	10¾" x ¾" x 1'-0"	HP 14x73	12½" x ⅞" x 1'-0"
HP 12x74	10¾" x ⅞" x 1'-0"	HP 14x89	12½" x 1" x 1'-0"

NOTES:

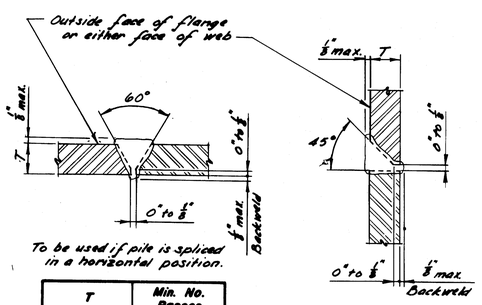
1. Alternate Pointed Reinforced Pile Tips may be used if they have at least the cross-sectional area of the pile tip shown and are approved by the Engineer.

2. Plates may be shop or field welded.

3. Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.

4. Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.

POINTED REINFORCED PILE TIP



T	Min. No. Passes
3/16	3
¼, ⅜, ½	4
9/16, ¾	5

NOTES:

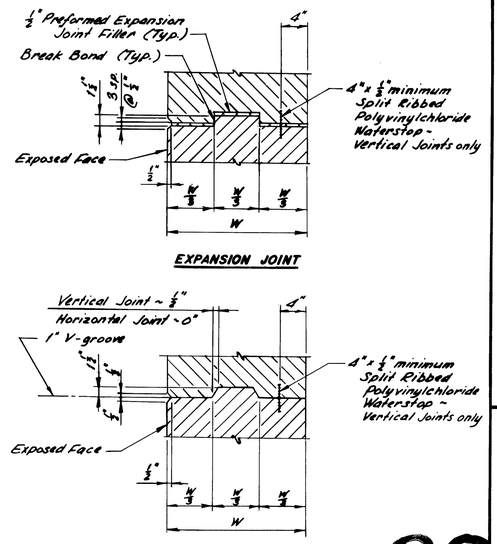
1. All cutting shall be done with the use of a mechanical guide.

2. Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.

3. Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.

4. Gouge root before welding second side.

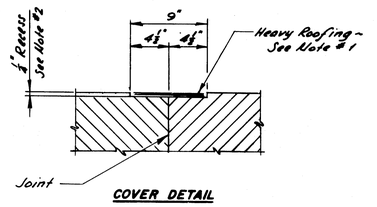
PILE SPLICE



EXPANSION JOINT

CONSTRUCTION OR CONTRACTION JOINTS

CONCRETE JOINTS



COVER DETAIL

NOTES:

1. Where called for, cover horizontal and vertical construction, contraction, or expansion joints with two (2) 9" wide layers of heavy roofing felt. Coat the concrete and back of each layer as applied with plastic roofing cement.

2. Recess the covered area ¼" unless otherwise indicated on Design Drawings.

CONCRETE JOINT COVER

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 127-81)

MISCELLANEOUS DETAILS
TEMP. CONC. BARRIER - TYPE 1
POINTED REINF. PILE TIP
PILE SPLICE - CONC. JOINTS
CONCRETE JOINT COVER

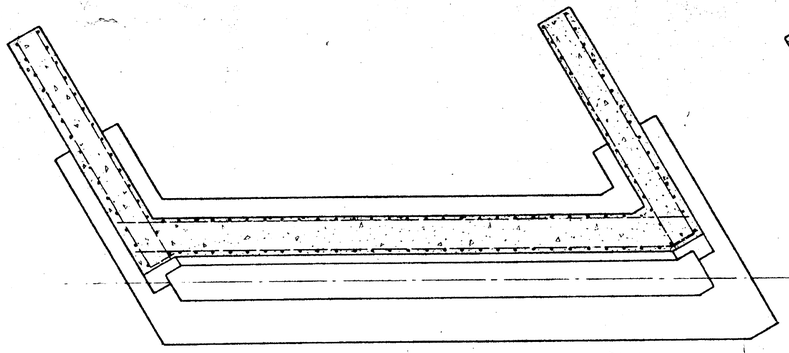
R89-492

REVISIONS	Date
⚠ Added 13 HP's	7-83

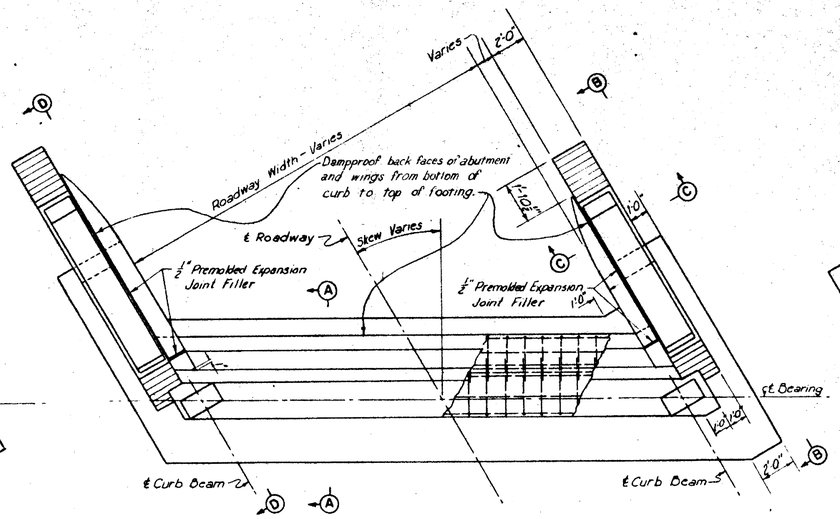
SHEET OF AUGUSTA, MAINE JUNE 1981

DRAWING 44-132 (R710)

AS-BUILT FOR STRUCTURES:
42- WEYMOUTH ROAD
43- MAYALL ROAD
44- BENNETT ROAD
44A- CHANDLER MILL ROAD
45- SHAKER ROAD

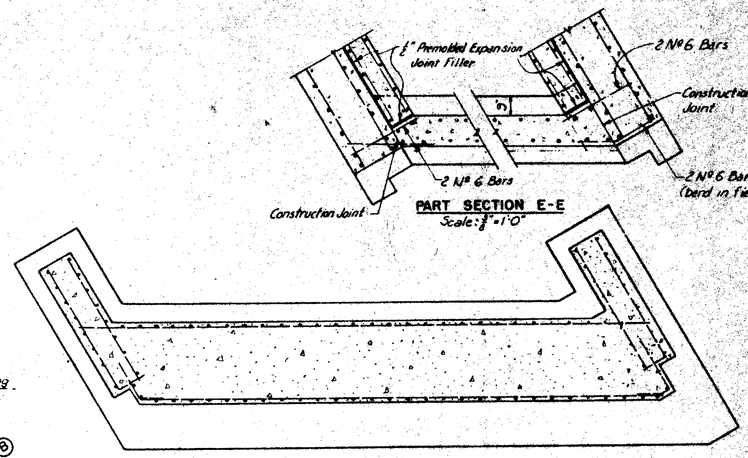


SECTION F-F
Scale: 1/4" = 1'-0"



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

Note: Floor Expansion Joint not shown in section below.

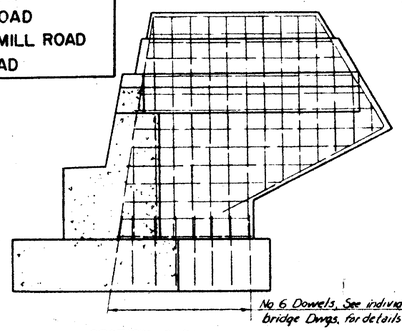


PART SECTION E-E
Scale: 1/2" = 1'-0"

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

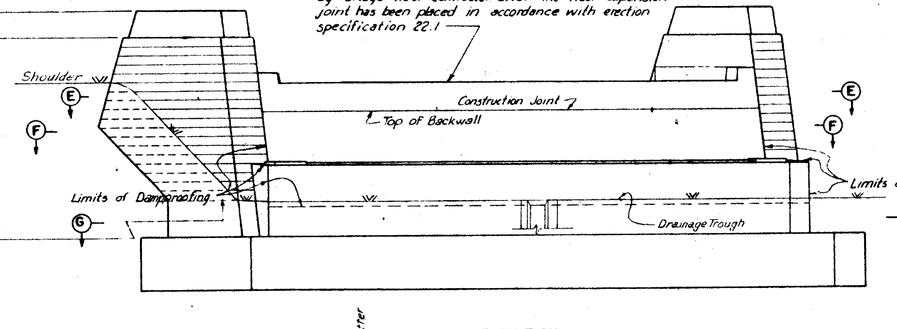
Line forms with tempered hardboard, masonite or equal with smooth side against concrete.

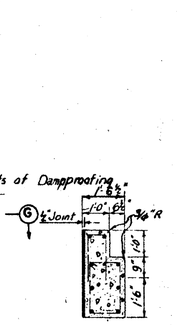
Use 2-6 each sawn random length form lumber placed parallel to top of parapet wall. See items this sheet for surfaces to be marked.



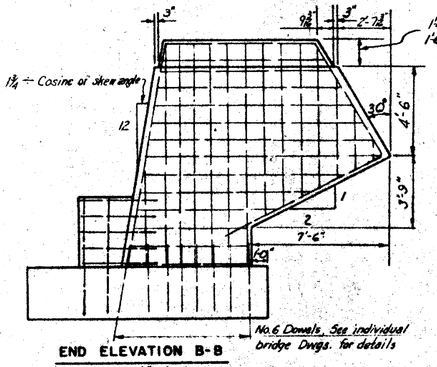
SECTION D-D
Scale: 1/4" = 1'-0"

Note. Concrete above top of abutment backwall between wings to be placed by bridge floor contractor after the floor expansion joint has been placed in accordance with erection specification 22.1



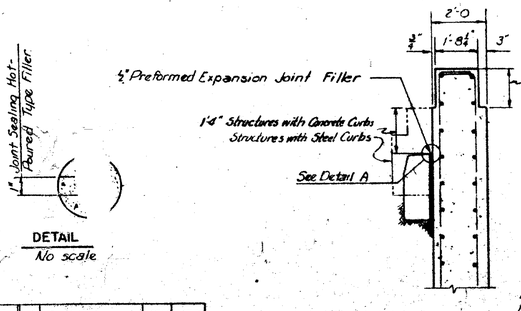


SECTION W-W



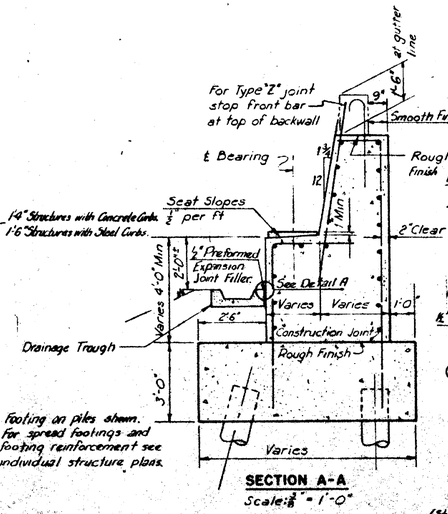
END ELEVATION B-B
Scale: 1/4" = 1'-0"

1¼" Structures with concrete Curbs
1'-6" Structures with steel Curbs



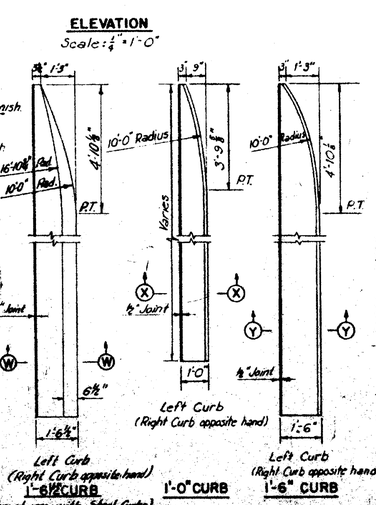
DETAIL
No scale

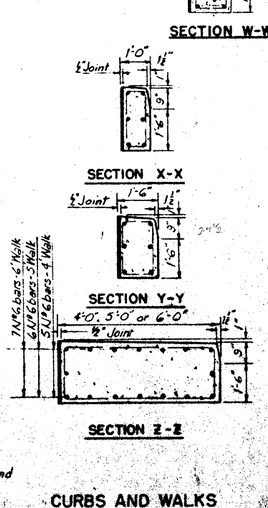
SECTION C-C
Scale: 1/8" = 1'-0"



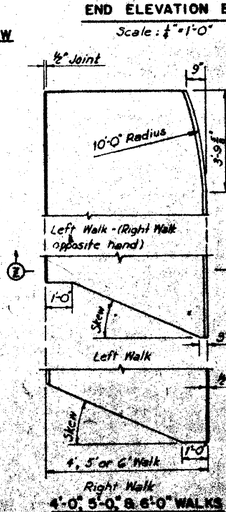
SECTION A-A
Scale: 1/8" = 1'-0"

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





CURBS AND WALKS
Scale: 1/2" = 1'-0"



Right Walk
4'-0", 5'-0" & 6'-0" WALKS

Note: All bars in abutments shall be N° 6 bars @ 12" ctrs.
Concrete surfaces between the limits shown shall be dampproofed in accordance with the provisions of Section 20 of the General Specifications.

All bars in curbs and walks shall be N° 6 bars @ 12" ctrs.

Curbs and walks between abutment wingwalls shall be placed by the roadway contractor after completion of abutment and backfill in accordance with erection specifications.

	BY	DATE				
			4	As-Built	HBH	1-17-55
MADE	WCM	10-7-53	3	Provision for P&T Cos. added Dampproofing shown	H.J.G.	12-21-53
TRACED			2	Lowered Top of Wings	H.J.G.	11-16-53
CHECKED	F.S. Jr.	11-11-53	1	Added Dowels	H.J.G.	10-19-53
IN CHARGE OF	IDSK.		No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA

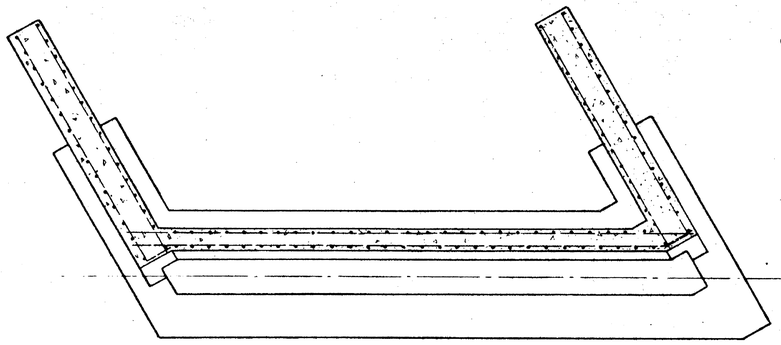
STANDARD ABUTMENT DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

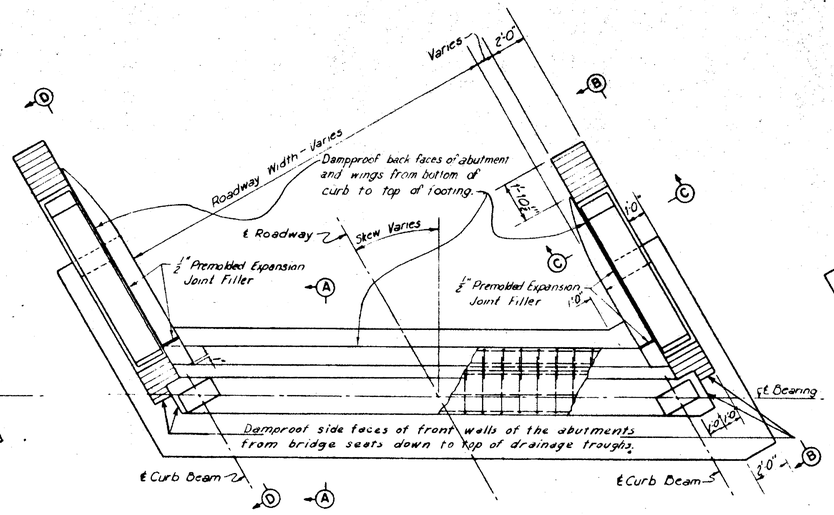
SCALE: As Shown
CONTRACT NO.
SHEET NO. 1 OF 2SS

STANDARD DRAWING NO. 1

AS-BUILT FOR ALL STRUCTURES EXCEPT THOSE LISTED ON STANDARD DRAWING NO. I

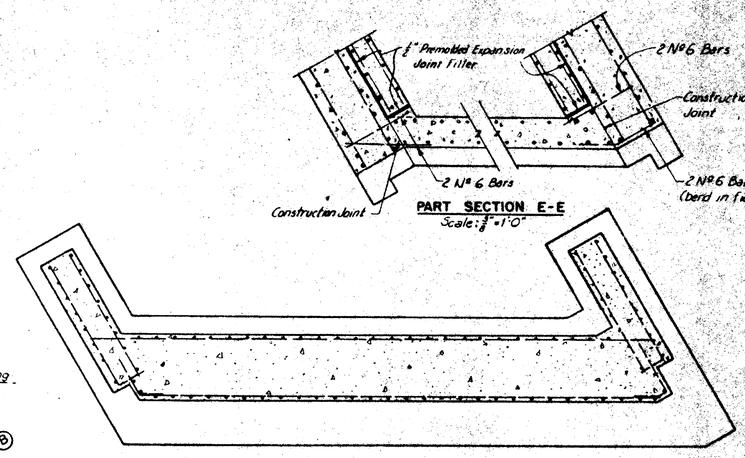


SECTION F-F
Scale: $\frac{1}{4}$" = 1'-0"



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

Note: Floor Expansion Joint not shown in section below.

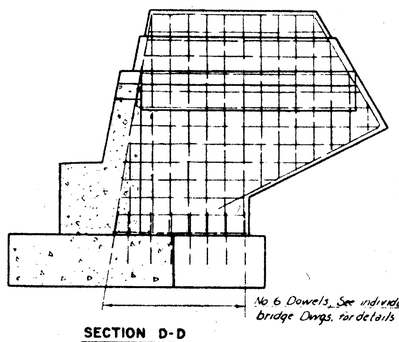


PART SECTION E-E
Scale: $\frac{3}{8}$" = 1'-0"

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

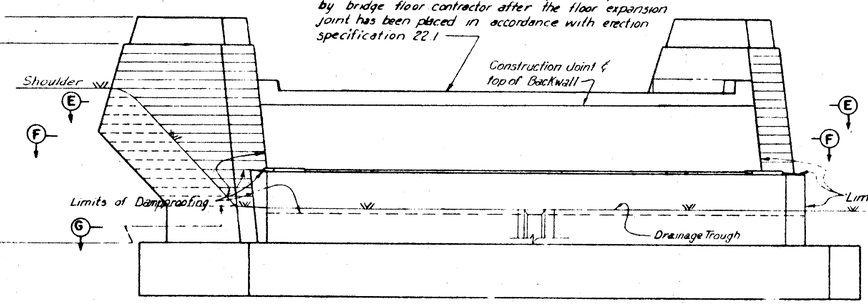
Use 2-6 rough sawn random length form lumber placed parallel to top of parapet wall. See view. This sheet for surfaces to be marked.

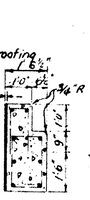
Line forms with tempered hardboard, masonite or equal with smooth side against concrete.



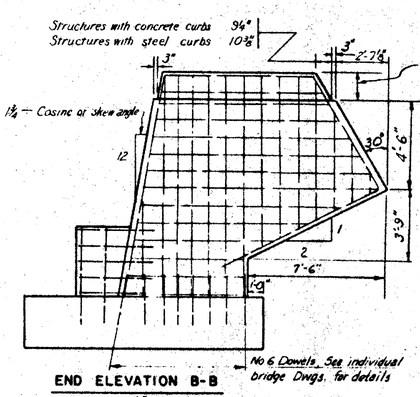
SECTION D-D
Scale: $\frac{1}{4}$" = 1'-0"

Note: Concrete above top of abutment backwall between wings to be placed by bridge floor contractor after the floor expansion joint has been placed in accordance with erection specification 22.1

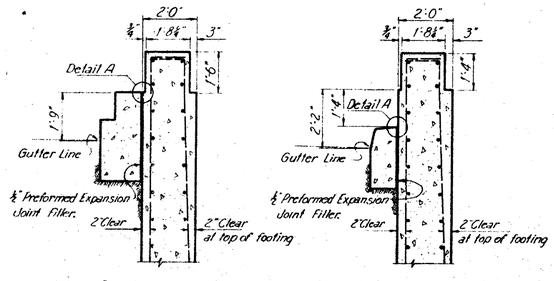




SECTION W-W

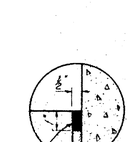


END ELEVATION B-B
Scale: $\frac{1}{4}$" = 1'-0"

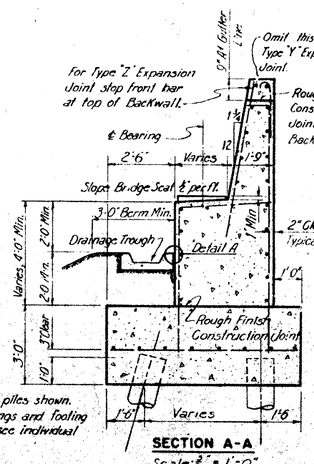


Structures with steel curbs | Structures with concrete curbs

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



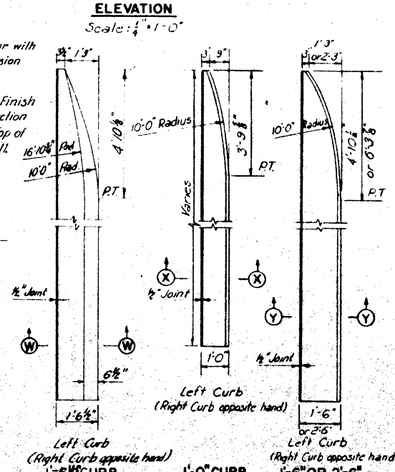
DETAIL A

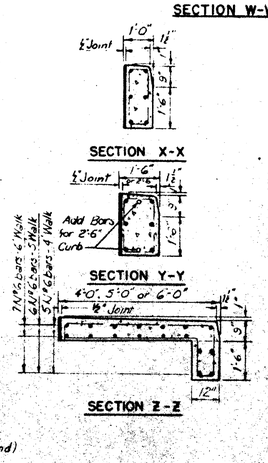


SECTION A-A
Scale: $\frac{1}{4}$" = 1'-0"

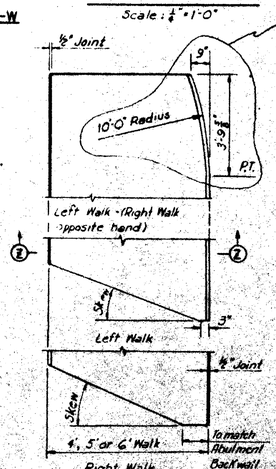
Note: Footing on piles shown. For spread footings and footing reinforcement see individual structure plans.

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





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



4'-0", 5'-0" & 6'-0" WALKS

To be deleted where there is an abutting sidewalk.

Notes:

All reinforcing steel in abutments shall be No 6 bars at 12" ctrs.

Concrete surfaces between the limits shown shall be dampproofed in accordance with the provisions of Section 20 of the "General Specifications."

All reinforcing steel in curbs and walks shall be No 6 bars at 12" ctrs unless otherwise noted.

Curbs and walks along abutment wingwalls shall be placed by the roadway contractor after completion of abutment and backfill in accordance with erection specifications.

Tie bars in curbs of abutments to be # 3 bars.

	BY	DATE
MADE	WCM	10-7-53
TRACED		
CHECKED	F.S. JR.	12-17-53
IN CHARGE OF	IDSK	

No	REVISION	BY	DATE
4	Revised Seal for approval Bid Plans Sept 1954 Set Sheet No 2	HCH	1-1954
3	Conversion F&S Curb added Wingwalls shown	F.S. Jr. H.N.G.	4-8-55 4-11-55
2	Lowered Top of Wings	H.J.G.	11-16-53
1	Added Dowels	H.J.G.	10-1953

NO	REVISION	BY	DATE
9	As-Built	HBH	11-1955
6a	Added 2'-6" Curb	HBH	2-8-55
8	Added note on walls	HBH	4-9-55
6	Revised arrangement and added data	HBH	12-15-54
7	Revised abutment curb tie bars	CGP	4-20-55
5	Revised Sections AA & CC	ALR	3-11-54

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

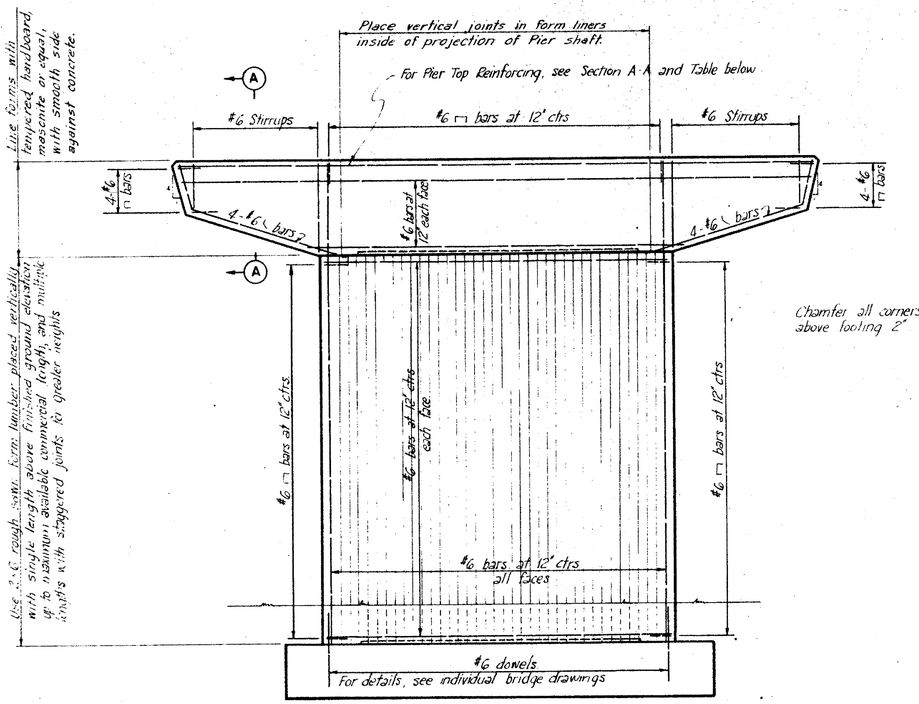
SECTION 2— PORTLAND TO AUGUSTA

STANDARD ABUTMENT DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

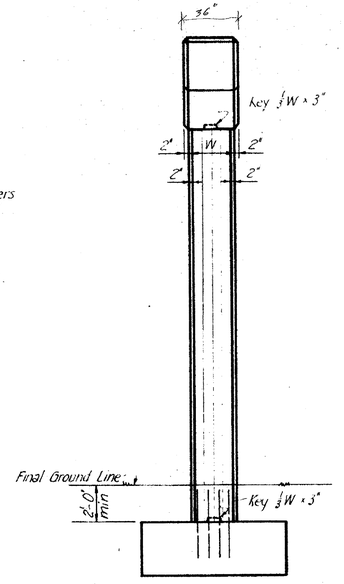
SCALE: As Shown
CONTRACT NO.
SHEET NO. 2 OF 282

STANDARD DRAWING NO. IA



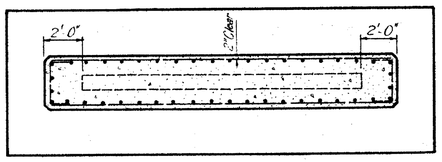
ELEVATION

Chamfer all corners above footing 2"

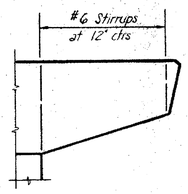


END VIEW

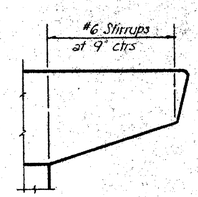
For Footing Reinforcing see individual bridge drawings



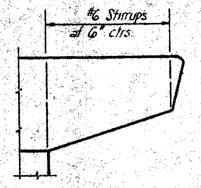
FOOTING PLAN



TYPE "M"



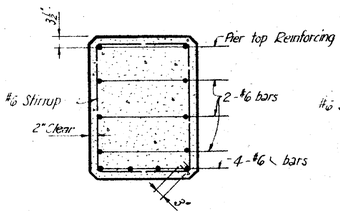
TYPE "N"



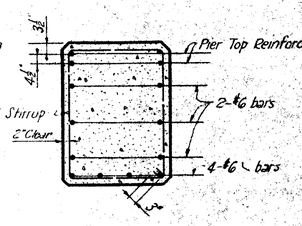
TYPE "O"

STIRRUP SPACING

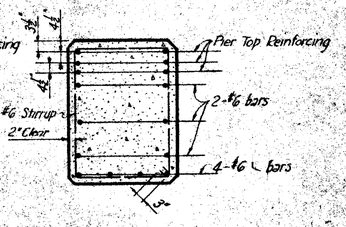
Note:
For Pier Top Reinforcing, (per layer) see Table below



TYPE "A"



TYPE "B"



TYPE "C"

SECTION A-A

Bridge Number	1	2	3	4	5	6	7	8	9 Pier 1	9 Pier 2&3	11	12 W	12 E	13	14	15	16 W	16 E	17	18	19		21	22	23	24	25	26	27	28	29	30	31		33	34	35			38	39	40	41	42	43	44	45
Type of Section A-A	B	B	B	B	B	C	B	C	B	B	D	B	B	B	B	B	B	B	B	B	B		B	B	B	B	B	B	*	—	B	A	—		B	A	B			B	B	B	C	A	A	A	B
Pier Top Reinforcing - Per Layer	5-#11	7-#11	7-#10	5-#11	4-#11	5-#10	7-#11	6-#10	4-#11	5-#11	5-#11	7-#10	4-#11	5-#11	5-#11	5-#11	5-#11	7-#11	7-#11	6-#11	5-#11		5-#11	4-#10	6-#11	4-#11	4-#11	5-#11	*	—	4-#10	5-#11	—		4-#10	5-#11	4-#10			4-#11	5-#11	4-#10	6-#11	5-#11	5-#9	5-#9	4-#10
Type of Stirrup Spacing	M	M	M	M	M	M	M	O	M	M	M	M	M	M	M	M	M	M	M	M	M		M	M	M	M	M	M	M	—	M	M	—		M	M	M			M	M	M	M	M	M	M	M

Bridge Number	46	47	48	49	50	51	52	53	54	55	56	57 N	57 S	58	59	60 Pier 1	60 Pier 2&3	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75 Pier 1	75 Pier 2&3	76	77	78	79	80	81	82	83		85	86	87	88 Pier 1	88 Pier 2	88 Pier 3
Type of Section A-A	—	B	B	B	—	B	B	A	B	—	B	B	B	B	B	B	C	A	B	B	B	B	A	B	A	A	B	B	B	B	B	B	A	B	B	C	B	B	—	A	B		B	B	B	C	B	B
Pier Top Reinforcing - Per Layer	—	4-#10	4-#11	4-#10	—	5-#11	4-#10	5-#11	4-#11	—	4-#11	4-#10	5-#11	4-#10	6-#11	5-#11	4-#10	4-#10	4-#11	4-#10	4-#10	4-#11	4-#11	5-#11	5-#11	5-#9	5-#9	5-#11	4-#11	5-#11	5-#11	6-#11	4-#10	5-#11	4-#10	4-#10	5-#10	4-#11	4-#11	—	5-#11	4-#10		4-#11	4-#11	5-#11	5-#11	7-#11	6-#11
Type of Stirrup Spacing	—	M	M	M	—	M	M	M	M	—	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	—	M	M		M	M	M	M	M	M

* Pier top reinforcing shown on Bridge Drawing 27.03.05

Bridge Number	1A	3A	44A	10A	69A	56A	58A	58B		
Type of Section A-A	C	B	A	B	A	B	—	B		
Pier Top Reinforcing - Per Layer	5-#10	4-#10	5-#11	5-#10	5-#9	4-#10	—	4-#11		
Type of Stirrup Spacing	M	M	M	M	M	M	—	M		

	BY	DATE
MADE	TKC	9-22-53
TRACED	TKC	10-22-53
CHECKED		
IN CHARGE OF	DSK	

No.	REVISION	BY	DATE
4	As-Built	WBH	11-7-56
3	Bridge 26 Pier Top Reinforcing Per Layer	WCM	4-28-54
2	Bridge 8 Pier Top Reinforcing Per Layer	WCM	4-27-54
1	Added clear distance of rebars to edge of face	HRR	3-9-54

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

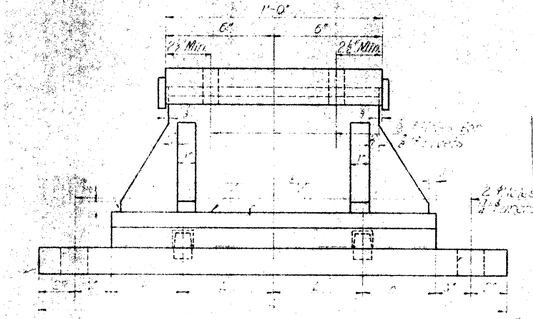
STANDARD, PIER DETAILS

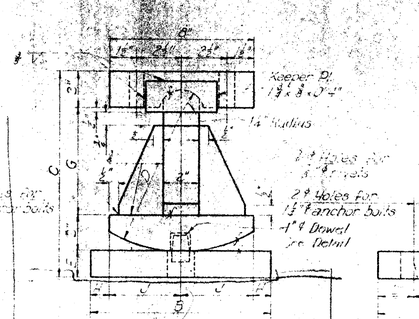
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: No SCALE
CONTRACT NO.
SHEET NO. 9 OF 36R

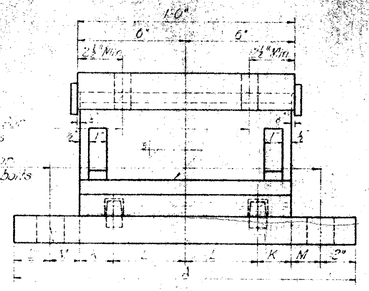
STANDARD DRAWING NO. 2

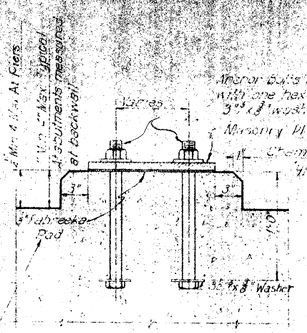
DEVICE	Wt.	REACTION	A	B	C	D	E	F	G	H	J	K	L	M
ES-1	245	65 kip	1′-8"	10"	9 1/2"	5 3/4"	1 1/2"	-	4"	1 1/2"	3 1/2"	1 7/8"	4"	2 1/4"
ES-2	280	95 kip	2′-0"	10"	9 1/2"	5 3/4"	1 1/2"	-	4"	1 1/2"	3 1/2"	3"	5"	2"
ES-3	320	125 kip	2′-2"	10"	11 1/2"	7 3/4"	1 1/2"	-	6"	1"	4"	4"	5"	2"
ES-4	355	155 kip	2′-2"	10"	1′-1"	9"	1 3/4"	-	7 1/4"	1/2"	4 1/2"	4"	5"	2"
ES-5	395	185 kip	2′-5"	10"	1′-1"	9"	1 3/4"	-	7 1/4"	1/2"	4 1/2"	4"	6 1/2"	2"
ES-6	420	215 kip	2′-8"	10"	1′-1"	9"	1 3/4"	-	7 1/4"	1/2"	4 1/2"	4"	8"	2"
ES-7	455	245 kip	2′-11"	10"	1′-1"	9"	1 3/4"	-	7 1/4"	1/2"	4 1/2"	4"	9 1/2"	2"
ES-8	480	270 kip	2′-11"	10"	1′-1 1/4"	9"	2"	-	7 1/4"	1/2"	4 1/2"	4"	9 1/2"	2"
FS-1	235	95 kip	1′-4"	9"	-	-	1 1/2"	2 1/2"	6"	-	-	-	6"	1 5/8"
FS-2	260	125 kip	1′-4"	10"	-	-	2"	3"	5 1/2"	-	-	-	6"	1 5/8"
FS-3	325	155 kip	1′-6"	1′-0"	-	-	2 1/2"	4"	5"	-	-	-	7"	5/8"
FS-4	350	185 kip	1′-8"	1′-0"	-	-	2 1/2"	4"	5"	-	-	-	8"	1/2"
FS-5	360	215 kip	1′-10"	1′-0"	-	-	2 1/2"	4"	5"	-	-	-	9"	1/2"
FS-6	380	245 kip	2′-0"	1′-0"	-	-	2 1/2"	4"	5"	-	-	-	10"	1/2"



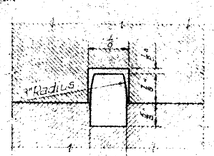


EXPANSION BEARING DEVICES
Scale 3"=1'-0"





BEARING DEVICE ANCHOR BOLT DETAIL
Scale 12"=1'-0"

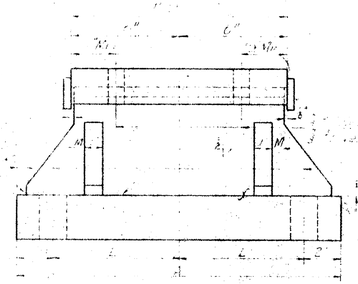


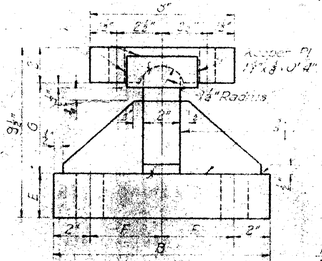
DOWEL DETAIL
Scale 6"=1'-0"

S & P

BEARING DEVICE	BEARING DEVICE DIMENSIONS																	
	W	P.L. "D"	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
ES-1	245	85 kip	1'-8"	1'-0"	2'-0"	3/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-2	280	95 kip	1'-9"	1'-0"	2'-0"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-3	320	125 kip	2'-0"	1'-0"	2'-0"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-4	355	155 kip	2'-0"	1'-0"	2'-0"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-5	395	185 kip	2'-3"	1'-0"	2'-0"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-6	430	215 kip	2'-6"	1'-0"	2'-0"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-7	455	245 kip	2'-9"	1'-0"	2'-0"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
ES-8	480	270 kip	2'-11"	1'-0"	2'-0"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-1	235	95 kip	1'-4"	0'-9"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-2	260	125 kip	1'-4"	1'-0"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-3	295	155 kip	1'-6"	1'-0"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-4	330	185 kip	1'-8"	1'-0"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-5	360	215 kip	1'-10"	1'-0"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
FS-6	380	245 kip	2'-0"	1'-0"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"

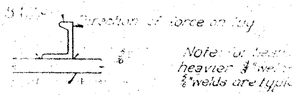
ES Denotes Expansion Bearing Devices.
FS Denotes Fixed Bearing Devices

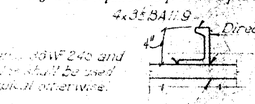




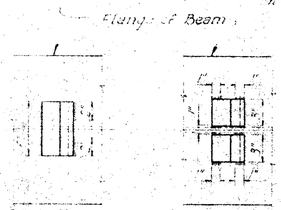
FIXED BEARING DEVICE
Scale 3"=1'-0"

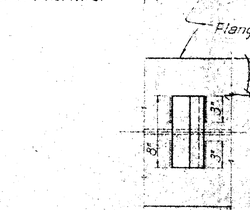
Steel for Bearing Devices shall be structural steel. Plates or slabs may be hot straightened in lieu of machine finishing where required to provide a plane surface.

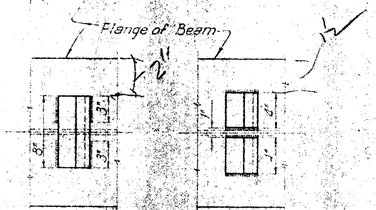




Note: If beam is 36WF 245 and heavier 3/8" welds shall be used. 5/16" welds are typical otherwise.



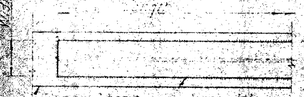




CURB BEAM SHEAR LUGS

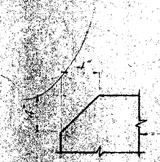
ROADWAY BEAM SHEAR LUGS

SHEAR LUGS
Scale 1½"=1'-0"

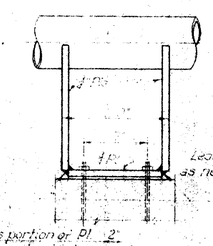


COVER PLATE END DETAIL
No Scale

		5	As Built	WHJ	11/06
		4	Note Added	WHJ	9/354
		3	Note Added	CJM	3/4/91
		2	Miscellaneous Change	JLS	3/1/90
		1	Vertical Bolts	WCM	11/4/87
CHANGE FOR FCSA		No.	REVISION	BY	DATE

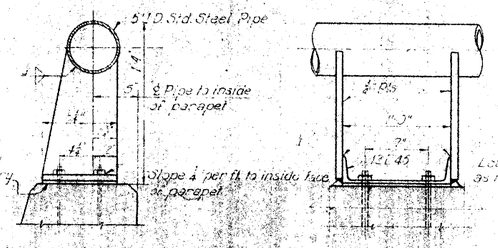


TYPICAL CLIPPED CORNER FOR EXPANSION SHOE
No Scale

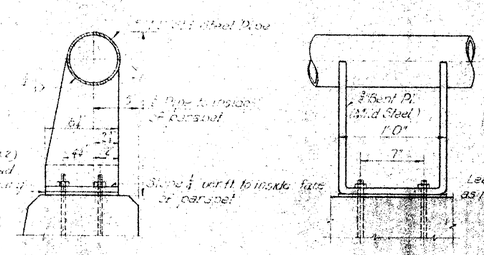


This portion of Pl. 2" to be cut out where post is between units or over deflection joints. Typical for all types.

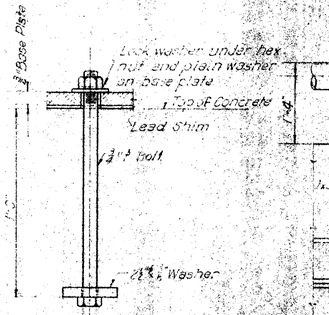
TYPE A HANDRAIL POST
Scale 1½"=1'-0"



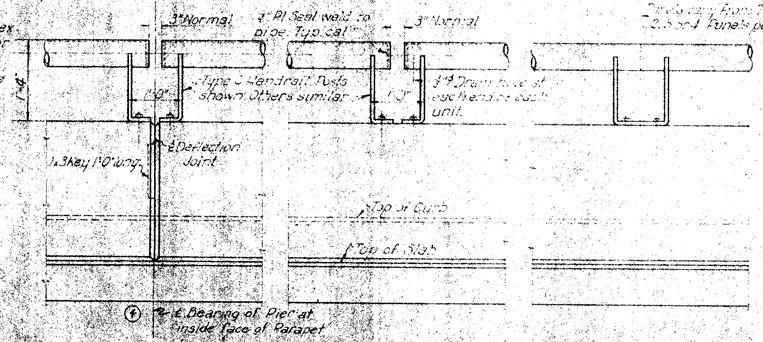
TYPE B HANDRAIL POST
Scale 1½"=1'-0"



TYPE C HANDRAIL POST
Scale 1½"=1'-0"



HANDRAIL ANCHOR BOLT DETAIL
Scale 3"=1'-0"



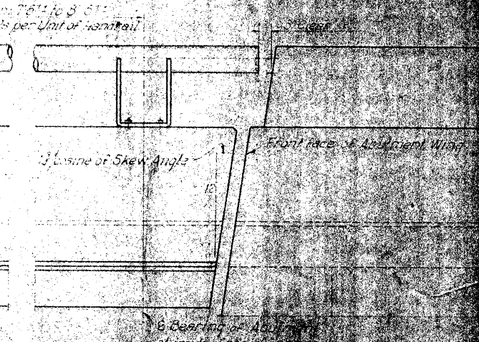
DETAIL AT DEFLECTION JOINTS
Scale 1"=1'-0"

DETAIL BETWEEN HANDRAIL UNITS
Scale 1"=1'-0"

TYPICAL ELEVATION
Scale 1"=1'-0"

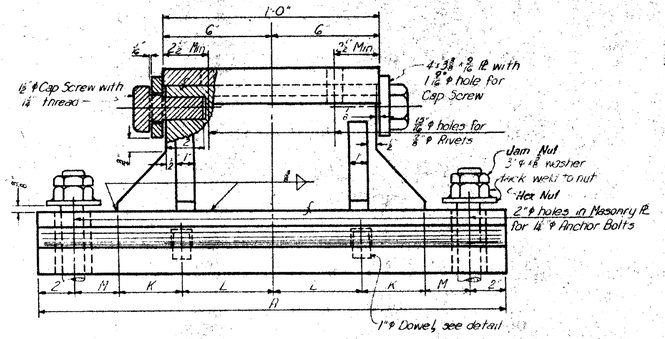
STANDARD HANDRAIL

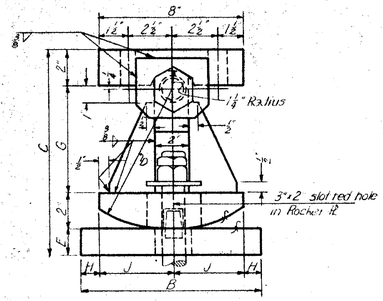
Note: Contractor has the option of welding the type B or C Handrail Post to the Steel Backing Plate or Anchor Bolt as shown or substituting a galvanized Sch. 80 pipe.



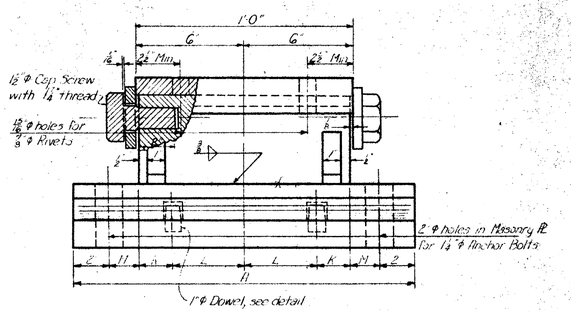
END DETAIL AT ABUTMENT
Scale 1"=1'-0"

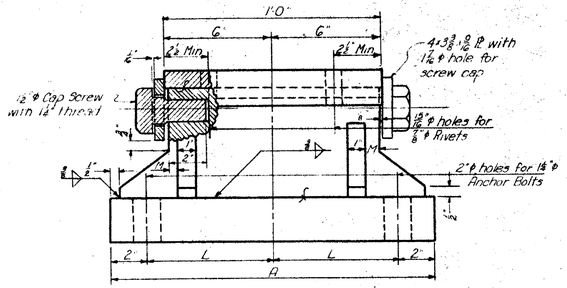
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STANDARD HANDRAIL, BEARING DEVICES AND MISCELLANEOUS DETAILS

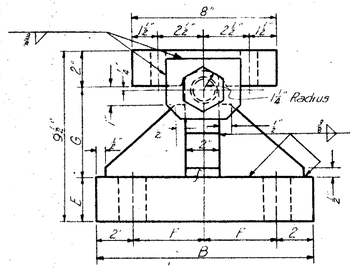




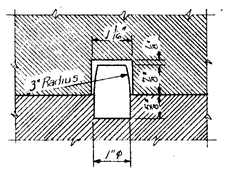
EXPANSION BEARING DEVICES
Scale: 3"=1'-0"







FIXED BEARING DEVICES
Scale: 3"=1'-0"



DOWEL DETAIL
Scale: 6"=1'-0"

BEARING DEVICE	BEARING DEVICE DIMENSIONS													
	Wt	Reaction	H	B	C	D	E	F	G	H	J	K	L	M
ES-11	270	65 Kips	1'-8"	10"	10½"	6½	1⅛		5"	1⅝	3½	1⅝	4"	2⅛
ES-12	315	95 "	2'-0"	10"	9½	5	1 1/16		4"	1⅝	3½	2⅜	5"	2⅜
ES-13	355	125 "	2'-2"	10"	11½"	7½	1⅛		6"	1"	4"	3½	5"	2⅜
ES-14	390	155 "	2'-2"	10"	11½	8"	1⅜		7½	1"	4½	3½	5"	2⅜
ES-15	430	185 "	2'-5"	10"	11½	9"	1⅜		7½	1"	4½	3½	6½	2⅜
ES-16	455	215 "	2'-8"	10"	11½	9"	1⅜		7½	1"	4½	3½	8"	2⅜
ES-17	400	245 "	2'-11"	10"	11½	9"	1⅜		7½	1"	4½	3½	9½	2⅜
ES-18	515	270 "	2'-11"	10"	11½	9"	2"		7½	1"	4½	3½	9½	2⅜
FS-11	240	95 "	1'-4"	8"	-		¾	2½	6				6"	1⅜
FS-12	265	125 "	1'-4"	10"			2"	3"	5½				6	1⅜
FS-13	330	155 "	1'-6"	1'-0"			2½	4"	5"				7"	1⅜
FS-14	355	185 "	1'-8"	1'-0"			2½	4"	5"				8"	1⅜
FS-15	366	215 "	1'-10"	1'-0"			2½	4"	5"				9"	1⅜
FS-16	385	245 "	2'-0"	1'-0"			2½	4"	5"				10"	1⅜

ES denotes Expansion Bearing Devices
FS denotes Fixed Bearing Devices

Notes:
All material for Bearing Devices shall be structural steel. Plates or slabs may be hot straightened in lieu of machine finishing where required to provide a plane surface.
For Anchor Bolt Details and other details not shown, see Standard Drawing No. 5

	BY	DATE				
MADE	VDG	1-15-54				
TRACED			2	As-Built	HBH	11-7-55
CHECKED	FSJr.	1-19-54	1	Revised "M" dimension for ES-11	AEK	3-23-54
IN CHARGE OF	I.D.S.K		No.	REVISION	BY	DATE

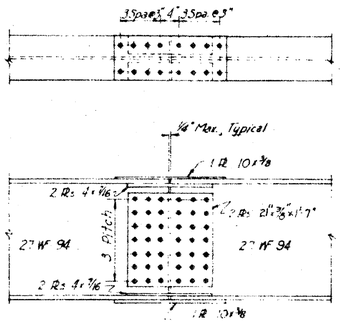
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA

STANDARD BEARING DEVICES
FOR BRIDGES OVER STREAMS

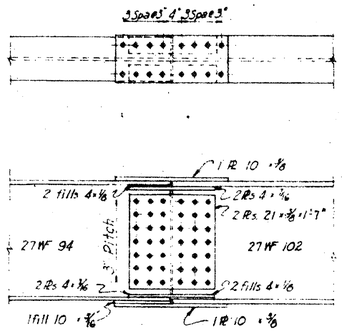
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Shown
CONTRACT NO.
SHEET NO. 7 OF 332

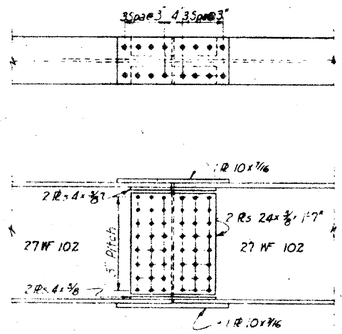
STANDARD DRAWING NO. 5A



SPLICE 27-1



SPLICE 27-2



SPLICE 27-3

IDENTIFICATION AND WEIGHT IN POUNDS OF 27 WF BEAM SPLICES

LIGHTER BEAM	SPLICE NO. AND HEAVIER BEAM SIZE							
	NO. 177	NO. 160	NO. 145	NO. 114	NO. 102		NO. 94	
94					27-2	220	27-1	205
102					27-3	225		
114								
145								
160								
177								

CAPACITY OF SPLICES

BEAM	MOMENT IN KIPS	SHEAR KIPS
94	2640	103
102	2890	109
114		
145		
160		
177		

Note: Type "A" Splices are designed for 75% of the capacity of the smaller of the two beams being spliced together, with 2 holes out of each flange and 7 or 8 holes out of the web. The simultaneous shear capacities are as tabulated and are in all cases equal to or greater than 75% of the shear capacity of the lighter web.

All rivets are 7/8" ϕ, holes 1" ϕ

Web splice plates shall have horizontal rolled or mill sheared edges.

Vertical edges may be shop sheared or flame cut.

	BY	DATE
MADE	LLD	9-23-53
TRACED		
CHECKED	HJG	10-6-53
IN CHARGE OF	J.D.K.	

No	REVISION	BY	DATE
1	Checking Revisions	HJG	10-13-53

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2-- PORTLAND TO AUGUSTA

STANDARD

TYPE "A" SPLICES FOR 27 WF BEAMS

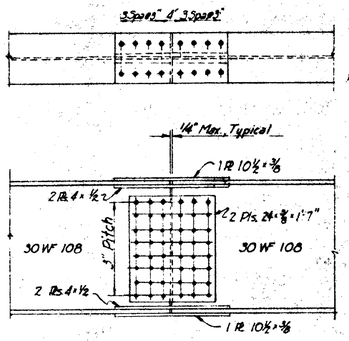
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/4" = 1'-0"

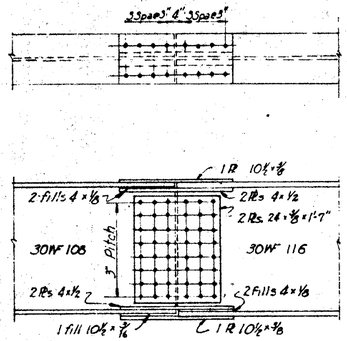
CONTRACT NO. 212

SHEET NO. 37 OF 41

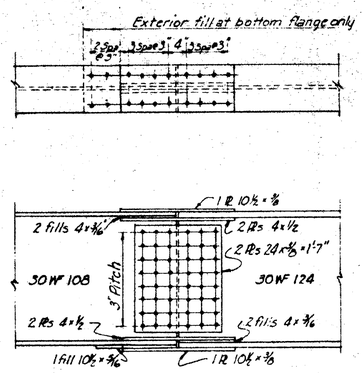
STANDARD DRAWING NO. 7



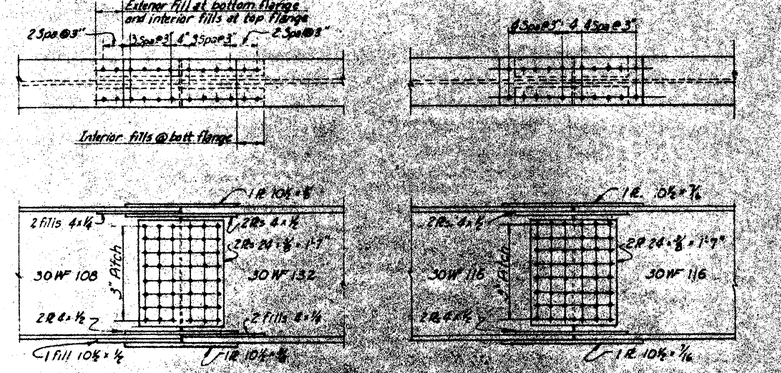
SPLICE 30-1



SPLICE 30-2

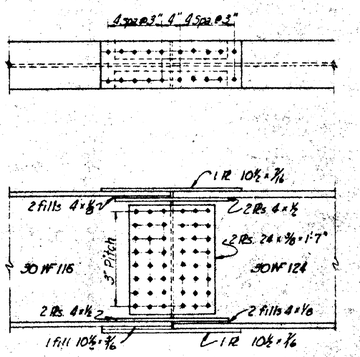


SPLICE 30-3

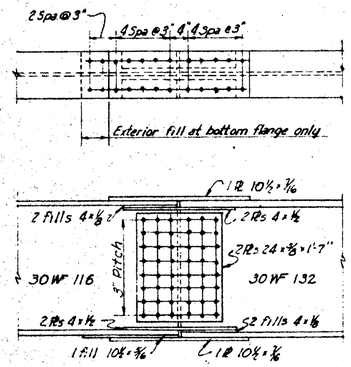


SPLICE 30-4

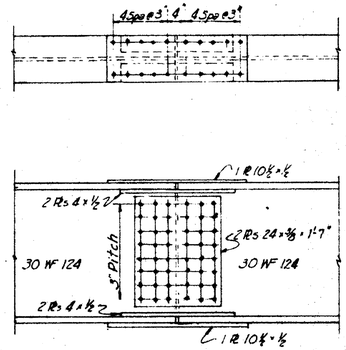
SPLICE 30-5



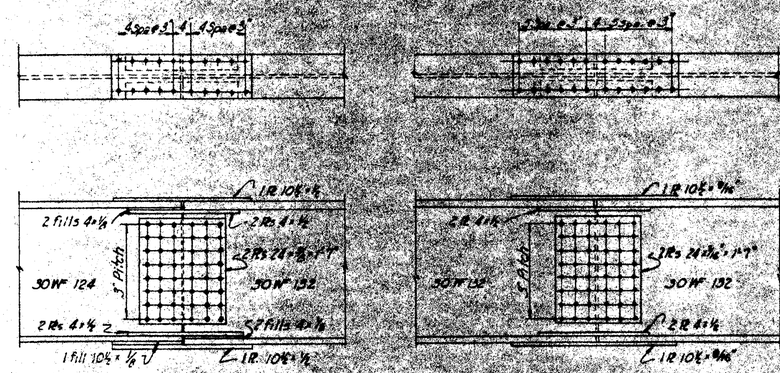
SPLICE 30-6



SPLICE 30-7

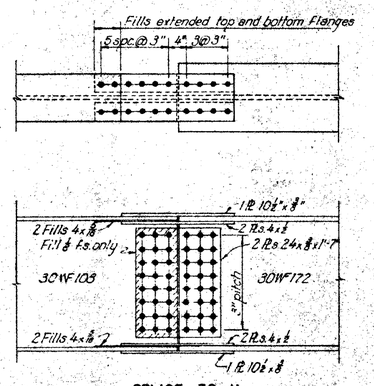


SPLICE 30-8

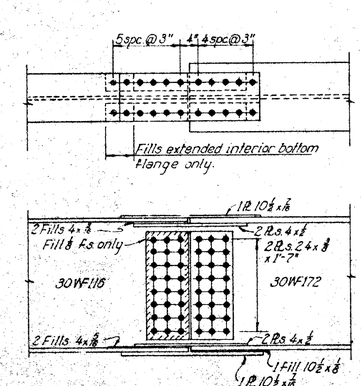


SPLICE 30-9

SPLICE 30-10



SPLICE 30-11



SPLICE 30-12

	BY	DATE				
MADE	LLD	9-24-53	3	As-Built	HBH	11-7-56
TRACED			2	Splices 30-11 & 30-12	LJB	4-16-54
CHECKED	HJG	10-6-53	1	Checking Revisions	HJG	10-19-53
IN CHARGE OF	IDSK		No	REVISION	BY	DATE

IDENTIFICATION AND WEIGHT IN POUNDS OF 30 WF BEAM SPLICES

LIGHTER BEAM	SPLICE NO. AND HEAVIER BEAM SIZE													
	NO.	210	NO.	190	NO.	172	NO.	132	NO.	124	NO.	116	NO.	108
108					30-11	275	30-4	290	30-5	265	30-2	235	30-1	240
116					30-12	300	30-7	295	30-6	280	30-5	265		
124							30-9	290	30-8	280				
132							30-10	330						
172														
190														
210														

Note: Type "A" splices are designed for 75% of the capacity of the smaller of the two beams being spliced together with 2 holes out of each flange and 8 holes out of the web. The simultaneous shear capacities are as tabulated and are in all cases equal to or greater than 75% of the shear capacity of the lighter web.

All rivets are ⅞" ϕ holes ⅞" ϕ

Web splice plates shall have horizontal rolled or mill sheared edges.

Vertical edges may be shop sheared or flame cut.

CAPACITY OF SPLICES

BEAM	MOMENT IN KIPS	SHEAR KIPS
108	3270	126
116	3580	132
124	3870	137
132	4140	145
172		
190		
210		

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STANDARD

TYPE "A" SPLICES FOR 30 WF BEAMS

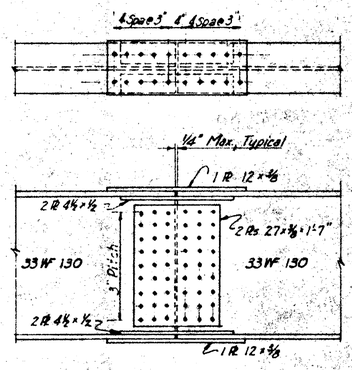
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/4" = 1'-0"

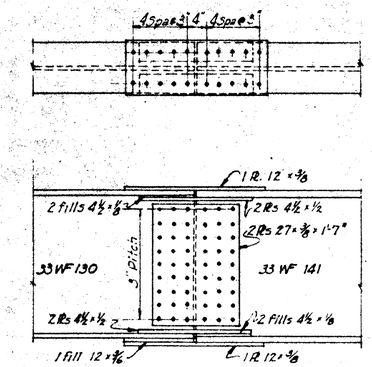
CONTRACT NO.

SHEET NO. 10 OF 352

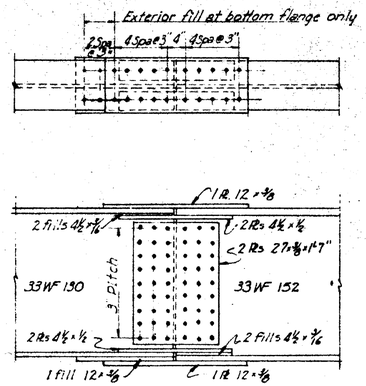
STANDARD DRAWING NO. 6



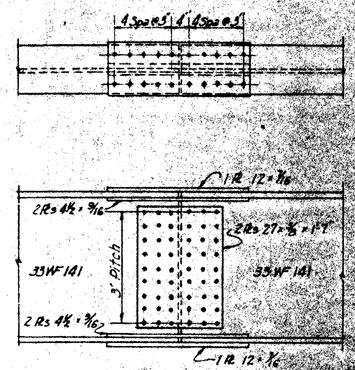
SPLICE 33-1



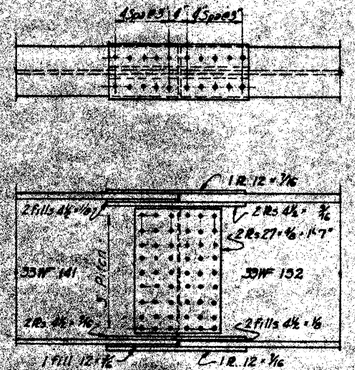
SPLICE 33-2



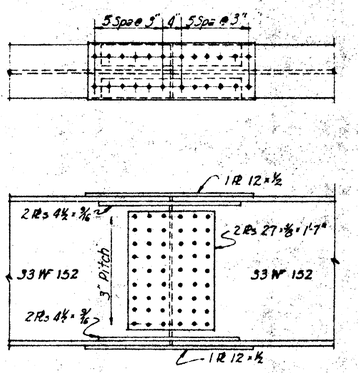
SPLICE 33-3



SPLICE 33-4



SPLICE 33-5



SPLICE 33-6

Note: Type A splices are designed for 75% of the capacity of the smaller of the two beams being spliced together with 2 holes out of each flange and 9 holes out of the web. The simultaneous shear capacities are as tabulated and are in all cases equal to or greater than 75% of the shear capacity of the lighter web.

All rivets are ¾ holes.

Web splice plates shall have horizontal rolled or mill sheared edges.

Vertical edges may be shop sheared or flame cut.

IDENTIFICATION AND WEIGHT IN POUNDS OF 33 WF BEAM SPLICES

LIGHTER BEAM	SPLICE NO. AND HEAVIER BEAM SIZE						
	NO. 240	NO. 220	NO. 200	NO. 152	NO. 141	NO. 130
130				33-3 330	33-2 300	33-1 290
141				33-5 345	33-4 325	
152				33-6 360		
200						
220						
240						

CAPACITY OF SPLICES

BEAM	MOMENT IN KIPS	SHEAR KIPS
130	4480	150
141	4950	157
152	5390	165
200		
220		
240		

	BY	DATE
MADE	L.L.D.	9-28-53
TRACED		
CHECKED	HJG	10-6-53
IN CHARGE OF	IDSK	

No.	REVISION	BY	DATE
2	As-Built	HBH	11-7-56
1	Checking Revisions	HJG	10-13-53

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STANDARD

TYPE "A" SPLICES FOR 33 WF BEAMS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE 3/4" = 1'-0"

CONTRACT NO. _____

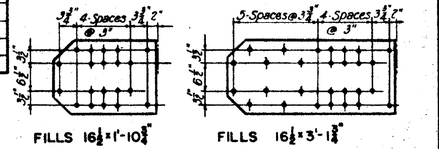
SHEET NO. 11 OF 332

STANDARD DRAWING NO. 9

TABULATION OF FLANGE FILLS TO BE USED IN SPLICES OF BEAMS DIFFERING IN WEIGHT

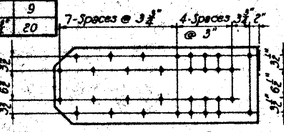
LIGHTER BEAM WEIGHT	FILLS LOCATION	FILLS NO. REQ'D	HEAVIER BEAM 300 FILL SIZE	300 RIVETS	280 FILL SIZE	280 RIVETS	260 FILL SIZE	260 RIVETS	245 FILL SIZE	245 RIVETS	230 FILL SIZE	230 RIVETS	194 FILL SIZE	194 RIVETS	182 FILL SIZE	182 RIVETS	170 FILL SIZE	170 RIVETS	160 FILL SIZE	160 RIVETS
150	A	2	4½ x 7/8 x 2'-0¼"	8	4½ x 7/8 x 2'-0¼"	8	4½ x 5/8 x 2'-0¼"	6	4½ x 11/16 x 1'-9¼"	7	4½ x 7/8 x 1'-9¼"	7	4½ x 7/8 x 1'-9¼"	7	4½ x 1/2 x 1'-9¼"	7	4½ x 3/8 x 1'-3½"	5	4½ x 1/2 x 1'-3½"	5
	B	2					4½ x 5/8 x 1'-3¼"	5	4½ x 11/16 x 1'-3¼"	5	4½ x 1/2 x 1'-9¼"	7								
	C	2	4½ x 5/8 x 1'-3¼"	5									4½ x 7/8 x 1'-9¼"	7	4½ x 1/2 x 1'-9¼"	7	4½ x 3/8 x 1'-3½"	5	4½ x 1/2 x 1'-3½"	5
	D	1	12 x 5/8 x 2'-3½"	18	12 x 5/8 x 2'-3½"	18	12 x 5/8 x 2'-0¼"	16	12 x 1/2 x 2'-0¼"	16			12 x 5/8 x 2'-3½"	18	12 x 1/2 x 2'-0¼"	16	12 x 3/8 x 2'-0¼"	16	12 x 1/2 x 1'-3½"	10
160	A	2	4½ x 11/16 x 2'-0¼"	8	4½ x 11/16 x 2'-3½"	8	4½ x 11/16 x 1'-9¼"	7	4½ x 11/16 x 1'-9¼"	7	4½ x 1/2 x 1'-9¼"	7	4½ x 1/2 x 1'-9¼"	7						
	B	2					4½ x 11/16 x 1'-3½"	5	4½ x 1/2 x 1'-9¼"	7	4½ x 5/8 x 1'-9¼"	7								
	C	2											4½ x 1/2 x 1'-9¼"	7	4½ x 3/8 x 1'-3½"	5	4½ x 1/2 x 1'-3½"	5		
	D	1	12 x 3/4 x 2'-3½"	18	12 x 1/2 x 2'-0¼"	16	12 x 1/2 x 2'-0¼"	16					12 x 1/2 x 2'10¼"	16	12 x 3/8 x 2'-0¼"	16	12 x 1/2 x 1'-3½"	10		
	E	1									12 x 5/8 x 1'-3½"	16								
170	A	2	4½ x 13/16 x 2'-0¼"	8	4½ x 1/2 x 2'-0¼"	8	4½ x 11/16 x 1'-9¼"	7	4½ x 1/2 x 1'-9¼"	7	4½ x 5/8 x 1'-3¼"	5	4½ x 3/8 x 1'-3¼"	5	4½ x 3/8 x 1'-3¼"	5				
	B	2			4½ x 5/8 x 1'-3¼"	5	4½ x 11/16 x 1'-9¼"	7	4½ x 5/8 x 1'-9¼"	7	4½ x 5/8 x 1'-9¼"	7								
	C	2											4½ x 3/8 x 1'-3¼"	5	4½ x 5/8 x 1'-3¼"	5				
	D	1	12 x 7/8 x 2'-6½"	20	12 x 5/8 x 2'-3½"	16	12 x 5/8 x 1'-6½"	12					12 x 3/8 x 2'-0¼"	16	12 x 5/8 x 1'-6½"	12				
	E	1							12 x 5/8 x 1'-6½"	12	12 x 5/8 x 2'-0¼"	16								
182	A	2	4½ x 1/2 x 2'-3½"	9	4½ x 5/8 x 2'-0¼"	8	4½ x 7/16 x 2'-0¼"	6	4½ x 5/8 x 1'-6½"	6	4½ x 7/16 x 1'-6½"	6	4½ x 1/2 x 1'-6½"	6						
	B	2	4½ x 5/8 x 1'-6½"	6	4½ x 5/8 x 1'-6½"	6	4½ x 5/8 x 2'-0¼"	8	4½ x 7/16 x 2'-0¼"	8	4½ x 1/2 x 2'-3½"	9								
	C	2											4½ x 5/8 x 1'-6½"	6						
	D	1	12 x 7/16 x 2'-3½"	16	12 x 7/16 x 1'-6½"	12							12 x 7/16 x 1'-6½"	12						
	E	1					12 x 5/8 x 1'-6½"	12	12 x 1/2 x 2'-0¼"	16	12 x 7/16 x 2'-0¼"	16								
194	A	2	4½ x 13/16 x 2'-0¼"	8	4½ x 13/16 x 2'-0¼"	8	4½ x 11/16 x 1'-6½"	6	4½ x 7/16 x 1'-6½"	6										
	B	2	4½ x 13/16 x 1'-6½"	6	4½ x 13/16 x 2'-0¼"	8	4½ x 11/16 x 2'-0¼"	8	4½ x 1/2 x 2'-3½"	9	4½ x 5/8 x 2'-3½"	9								
	D	1	12 x 1/2 x 2'-6½"	20																
	E	1					12 x 1/2 x 2'-3½"	16	12 x 7/16 x 2'-3½"	16	12 x 5/8 x 2'-6½"	20								
230	A	2	6½ x 7/8 x 2'-10"	13	6½ x 13/16 x 2'-6½"	12	6½ x 11/16 x 1'-7"	9	6½ x 5/8 x 1'-7"	9										
	C	2	6½ x 7/8 x 2'-10"	13	6½ x 13/16 x 2'-6½"	12	6½ x 11/16 x 1'-7"	9	6½ x 5/8 x 1'-7"	9										
	D	1	16½ x 7/8 x 3'-9¾"	32	16½ x 7/8 x 3'-5½"	30	16½ x 5/8 x 3'-1½"	28	16½ x 1/2 x 2'-10¾"	20										
245	A	2	6½ x 7/8 x 2'-6½"	12	6½ x 7/8 x 2'-6½"	12	6½ x 5/8 x 1'-7"	9												
	C	2	6½ x 7/8 x 2'-6½"	12	6½ x 7/8 x 2'-6½"	12	6½ x 5/8 x 1'-7"	9												
	D	1	16½ x 7/8 x 3'-5½"	30	16½ x 7/8 x 3'-1½"	28	16½ x 5/8 x 1'-10¾"	20												
260	A	2	6½ x 7/8 x 2'-6½"	12	6½ x 7/8 x 1'-7"	9														
	C	2	6½ x 7/8 x 2'-6½"	12	6½ x 5/8 x 1'-7"	9														
	D	1	16½ x 7/8 x 3'-5½"	30	16½ x 7/8 x 3'-1½"	28														
280	A	2	6½ x 7/8 x 1'-7"	9																
	C	2	6½ x 5/8 x 1'-7"	9																
	D	1	16½ x 7/8 x 3'-7¾"	32																

Flange fill plates 4½" wide will have rivets on one gage line at 3" pitch. Flange fill plates 12" wide will have rivets on two lines at 7½" gage, 3" pitch each line.

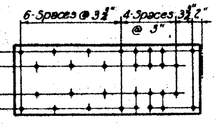


FILLS 16½ x 1'-10¾"

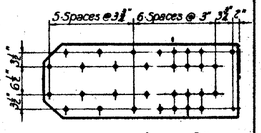
FILLS 16½ x 3'-1¾"



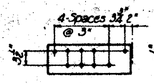
FILLS 16½ x 3'-9¾"



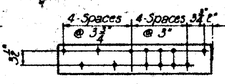
FILLS 16½ x 3'-5½"



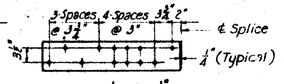
FILLS 16½ x 3'-7¾"



FILLS 6½ x 1'-7"



FILLS 6½ x 2'-10"



FILLS 6½ x 2'-6¼"

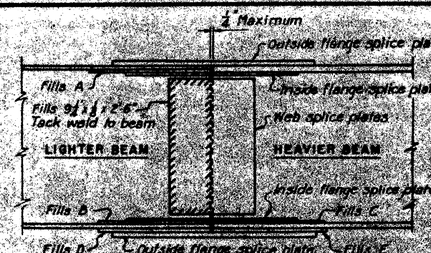


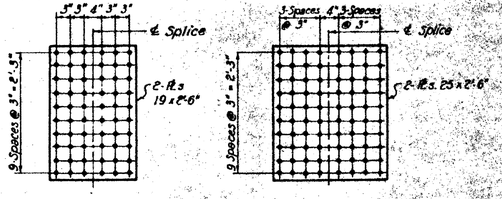
DIAGRAM SHOWING ARRANGEMENT OF SPLICE PLATES AND FILLS

WEIGHT OF 36 WF BEAM SPLICES IN POUNDS

LIGHTER BEAM	HEAVIER BEAM 300	280	260	245	230	194	182	170	160	150
150	460	420	400	350	340	280	270	350	320	300
160	450	410	390	370	360	300	290	330	310	
170	480	460	430	410	400	340	330	370		
182	510	480	480	470	390	380	410			
194	540	490	510	430	360	350				
230	860	740	640	590	550					
245	810	730	640	600						
260	790	690	640							
280	890	820								
300	960									

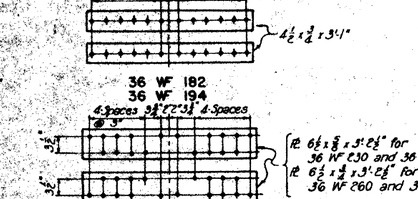
TABULATION OF FILLS FOR WEB SPLICES

LIGHTER BEAM	HEAVIER BEAM 300	280	260	245	194
150	2-⅞	2-⅞	2-⅞	2-⅞	2-⅞
160	2-⅞	2-⅞	2-⅞	2-⅞	
170	2-⅞	2-⅞	2-⅞		
182	2-⅞	2-⅞			
194	2-⅞				
230	2-⅞				
245	2-⅞				

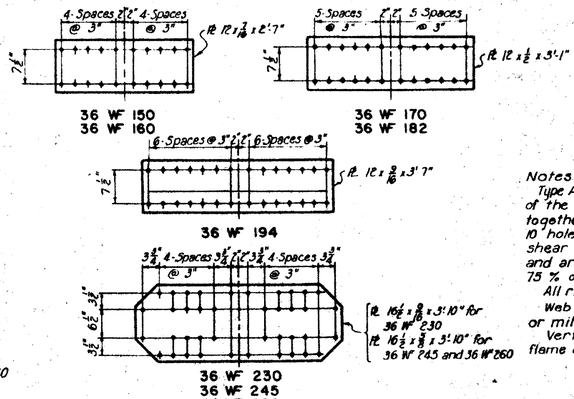


BEAM	WEB SPLICE PLATES
36 WF 150	19 x 3/8 x 2'-6"
36 WF 160	19 x 3/8 x 2'-6"
36 WF 170	19 x 7/16 x 2'-6"
36 WF 182	19 x 7/16 x 2'-6"
36 WF 194	19 x 7/16 x 2'-6"
36 WF 230	19 x 7/16 x 2'-6"
36 WF 245	19 x 1/2 x 2'-6"
36 WF 260	19 x 1/2 x 2'-6"

BEAM	WEB SPLICE PLATES
36 WF 280	25 x ½ x 2'-6"
36 WF 300	25 x 9/16 x 2'-6"



INSIDE FLANGE SPLICE PLATES FOR TOP AND BOTTOM FLANGES



OUTSIDE FLANGE SPLICE PLATES FOR TOP AND BOTTOM FLANGES

CAPACITY OF SPLICES

BEAM	MOMENT IN KIPS	SHEAR KIPS
150	5580	213
160	6000	198
170	6430	254
182	6900	247
194	7380	226
230	9760	228
245	10390	246
260	11070	242
280	12080	250
300	12690	295

Notes:
Type A splices are designed for 75% of the capacity of the smaller of the two beams being spliced together, with 2 holes out of each flange and 10 holes out of the web. The simultaneous shear capacities are as tabulated above and are in all cases equal to or greater than 75% of the shear capacity of the lighter web.
All rivets are ⅞" ϕ, holes 15/16" ϕ.
Web splice plates shall have horizontal rolled or mill sheared edges.
Vertical edges may be shop sheared or flame cut.

	BY	DATE				
MADE	G.A.					
TRACED	K.W.L. & A.H.					
CHECKED	L.I.D.	12-1753	/	As-Built	W.B.H.	4-7-56
IN CHARGE OF	T.D.S.K.		No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 — PORTLAND TO AUGUSTA
STANDARD
TYPE "A" SPLICES FOR 36 WF BEAMS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK, KANSAS CITY

SCALE: No scale
CONTRACT NO.
SHEET NO. 12 OF 342

STANDARD DRAWING NO. 10