MAINE TURNPIKE AUTHORITY

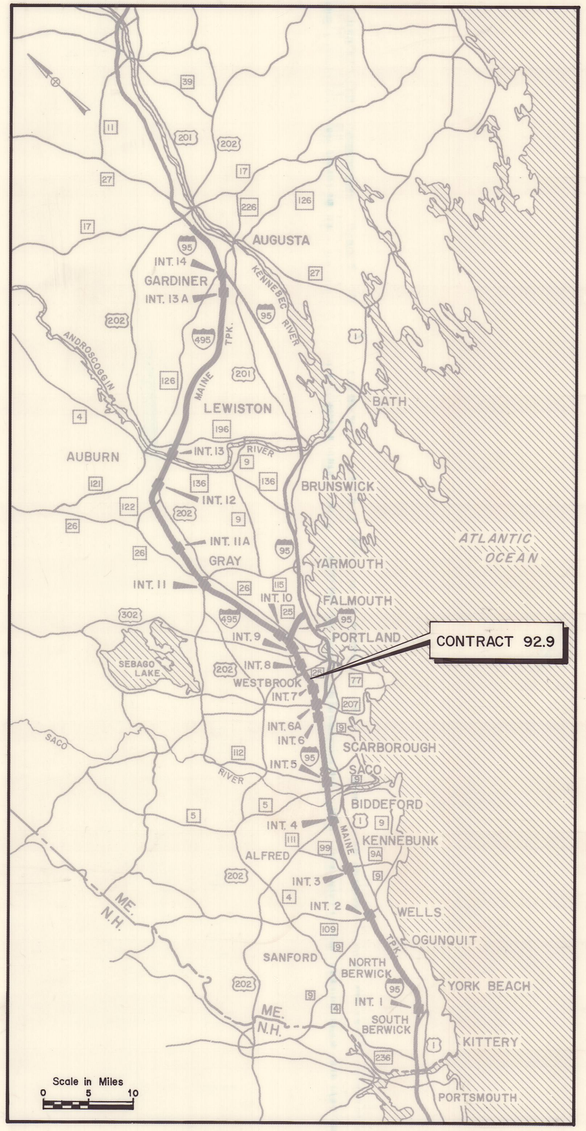
MAINE TURNPIKE

ROBERT K. PACIOS, CHAIRMAN
JULIAN R. COLES, VICE CHAIRMAN
PETER W. DANTON, SECRETARY TREASURER
DANIEL J. CALLAHAN, MEMBER
DANA F. CONNORS, MEMBER EX-OFFICIO

PAUL E. VIOLETTE, EXECUTIVE DIRECTOR

INDEX OF SHEETS

TOTAL SHEETS = 32



LOCATION MAP

CONTRACT 92.9

BRIDGE DECK REPLACEMENT
MAINE CENTRAL RAILROAD
MM 45.77

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER _____ DATE _____

BUREAU DIRECTOR AND CHIEF ENGINEER _____ DATE _____

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

STATE OF MAINE * ROLAND A. LAVALLEE 6452 * REGISTERED PROFESSIONAL ENGINEER

Roland A. Lavallee 3/17/92
ROLAND A. LAVALLEE P.E. DATE
PROJECT MANAGER

APPROVED:

MAINE TURNPIKE AUTHORITY

_____ CHAIRMAN

_____ EXECUTIVE DIRECTOR

DATE _____

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVING EXISTING SUPERSTRUCTURE - PROPERTY	1	LS
	OF THE CONTRACTOR		
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	44	CY
202.14	REMOVING EXISTING RAILING - PROPERTY OF CONTRACTOR	980	LF
202.20	PROTECTIVE SHIELD	2,150	SY
202.202	REMOVING PAVEMENT SURFACE	1,476	SY
203.20	COMMON EXCAVATION	1,524	CY
203.24	COMMON BORROW	30	CY
203.25	GRANULAR BORROW	510	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	270	CY
206.10	STRUCTURAL EARTH EXAVATION - PIERS	205	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	910	CY
401.10	SAWING BITUMINOUS CONCRETE	700	LF
403.07	HOT BITUMINOUS PAVEMENT, GRADING B	153	TONS
403.08	HOT BITUMINOUS PAVEMENT, GRADING C	530	TONS
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	50	TONS
409.15	BITUMINOUS TACK COAT, APPLIED	37	GAL
421.01	PRECAST CONCRETE DOWNSPOUT	144	LF
501.212	STEEL H-BEAM PILES 42 LB./FT.	600	LF
501.214	STEEL H-BEAM PILES 53 LB./FT.	420	LF
502.21	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	114	CY
502.23	STRUCTURAL CONCRETE PIERS	166	CY
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK	1	LS
	SLABS ON STEEL BRIDGES		
502.4712	SILICA FUME ADDITIVE	2,400	LBS
502.48	PIER PREPARATION	230	SF
502.50	BRIDGE DECK REPAIR	11	CY
502.60	BACKWALL REPAIR - SURFACE REPAIR - SECTION II	10	SF
502.62	ABUTMENT AND BRIDGE SEAT REPAIR - SECTION II	30	SF
502.63	PIER REPAIR	40	SF
502.71	PATCHROC 10-60	10	EA
			(50 LB. BAG)
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	18,753	LBS
503.13	REINFORCING STEEL, PLACING	18,753	LBS
503.14	EPOXY - COATED REINFORCING STEEL, FABRICATED AND	217,200	LBS
	DELIVERED		
503.15	EPOXY - COATED REINFORCING STEEL, PLACING	217,200	LBS
504.701	STRUCTURAL STEEL FABRICATED & DELIVERED, ROLLED		
	(104,700 LBS., GRADE 36, 1800 LBS., GRADE 50)	1	LS
504.71	STRUCTURAL STEEL ERECTION (106,500 LBS.)	1	LS
504.72	STEEL BEAM MODIFICATIONS	14,240	LBS
504.73	STRUCTURAL STEEL REPAIRS	400	LBS
505.08	SHEAR CONNECTORS	1	LS

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QUANTITY	UNIT
506.30	SHOP COATING OF STRUCTURAL STEEL	1	LS
506.31	FIELD REPAIR OF DAMAGED COATING	1	LS
507.092	ALUMINUM BRIDGE RAILING, 2 BAR	1,056	LF
508.13	MEMBRANE WATERPROOFING	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	510	SY
515.22	THOROSEAL COATING FOR CONCRETE SURFACES	40	SY
520.22	EXPANSION DEVICE EXTENSION - COMPRESSION SEAL	4	EA
527.101	TEMPORARY IMPACT ATTENUATOR SYSTEM	1	LS
603.159	12 INCH CULVERT PIPE OPTION III	15	LF
606.174	GUARDRAIL ATTACHMENT - TYPE A	6	EA
606.371	GUARDRAIL REMOVE AND STACK, SINGLE RAIL	108	LF
606.372	GUARDRAIL REMOVE AND STACK, DOUBLE RAIL	54	LF
606.381	GUARDRAIL REMOVE AND RESET, SINGLE RAIL	512	LF
606.382	GUARDRAIL REMOVE AND RESET, DOUBLE RAIL	800	LF
606.48	SINGLE GALVANIZED STEEL POST	10	EA
609.131	VERTICAL BRIDGE CURB - TYPE IA	100	LF
609.132	VERTICAL BRIDGE CURB - TYPE IB	976	LF
610.20	TYPE II STONE	25	CY
613.319	TEMP. EROSION CONTROL BLANKET	3,340	SY
615.07	LOAM	422	CY
618.14	SEEDING METHOD NUMBER 2	35	UNIT
618.25	APPLIED WATER	10	MG
619.12	MULCH	35	UNIT
619.14	TEMPORARY MULCH	35	UNIT
620.58	EROSION CONTROL GEOTEXTILE	82	SY
627.671	REMOVING PAINTED PAVEMENT MARKINGS	7,536	LF
627.70	4 INCH YELLOW TEMPORARY PAVEMENT MARKINGS - TAPE	7,440	LF
627.71	4 INCH WHITE TEMPORARY PAVEMENT MARKINGS - TAPE	8,850	LF
629.05	HAND LABOR, STRAIGHT TIME	50	MH
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	25	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	25	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	25	HR
639.18	FIELD OFFICE TYPE A	1	EA
645.107	REMOVE AND RESET WARNING SIGNS	4	EA
645.302	DEMOUNTABLE REFLECTORIZED DELINEATOR, DOUBLE	20	EA
652.30	FLASHING ARROW BOARD	2	EA
652.33	DRUM	280	EA
652.35	CONSTRUCTION SIGNS	512	SF
652.351	ALTERNATE ROUTE CONSTRUCTION SIGNS	1,160	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGERS	20	MH
656.50	BALED HAY IN PLACE	192	EA
656.632	30 INCH SILT FENCE	480	LF
663.05	TEMPORARY CONCRETE BARRIER	2,720	LF
663.06	RESETTING TEMPORARY CONCRETE BARRIER	3,810	LF

SUMMARY OF EXCAVATION AND BORROW

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION	1,090	
EXISTING PAVEMENT REMOVED	34	
GRUBBING IN FILL	400	
TOTAL COMMON EXCAVATION		1,524

FILL FOR BORROW CALCULATIONS

COMMON FILL	960	
GRUBBING IN FILL	400	
TOTAL FILL		1,360

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		1,524
DEDUCTIONS:		
EXISTING PAVEMENT REMOVED	34	
GRUBBING IN FILL	400	
(2) TOTAL DEDUCTIONS:		434
TOTAL COMMON EXCAVATION (1) MINUS (2)		1,090
(3) AVAILABLE STRUCTURAL EARTH EXCAVATION		475
TOTAL AVAILABLE NON-ROCK EXCAVATION		1,565

COMPUTATION OF COMMON BORROW FOR ESTIMATE

TOTAL FILL	1,360
TOTAL AVAILABLE NON-ROCK EXCAV. 1,565 x 0.85 =	
TOTAL AVAILABLE EXCAVATION	1,330
TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION	30
TOTAL COMMON BORROW	30
WASTE	0

GENERAL NOTES

1. UNSUITABLE EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
2. SEEDING AND LOAMING SHALL CONFORM TO SECTION 618 METHOD 2 AND SECTION 615 OF THE STANDARD SPECIFICATIONS, RESPECTIVELY AND SHALL BE APPLIED TO ALL SLOPES.
3. MULCH SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHOD NO. 2.
4. LOAM DEPTHS UNDER SEEDING METHOD NO. 2 ARE 4" AND ARE NOMINAL.
5. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER AS TO LEAVE A CLEAN VERTICAL FACE.
6. WHERE HOT BITUMINOUS PAVEMENT GRADING "C" IS TO MEET EXISTING PAVEMENT A BUTT JOINT WILL BE REQUIRED - SEE PAVEMENT DETAILS.
7. PAYMENT FOR REMOVAL OF THE ENDS OF EXISTING PIPE TO BE EXTENDED, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS DRAINAGE ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE THEREFORE.
8. REQUIRED EROSION AND SEDIMENTATION CONTROL SHOWN ON THE PLAN IS APPROXIMATE ONLY. ACTUAL TYPE AND LOCATION FOR HAY BALES AND SILT FENCE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
9. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED THE CONTRACTOR DUE TO ANY VARIANCE BET DATA SHOWN ON THE PLANS AND ACTUAL FIELD CONDITIONS ENCOUNTERED.
10. WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH THE CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.
11. REMOVING AND RESETTING EXISTING SIGNS WITHIN THE LIMITS OF THE PROPOSED TRAFFIC CROSSOVERS WILL NOT BE MEASURED FOR PAYMENT AND WILL BE CONSIDERED INCIDENTAL TO ITEM 652.361.

No.	Revision	By	Date

	By	Date
Designed	JFC	2/92
Drawn	SV	2/92
Checked	BJB	2/92
In Charge Of:	RAL	

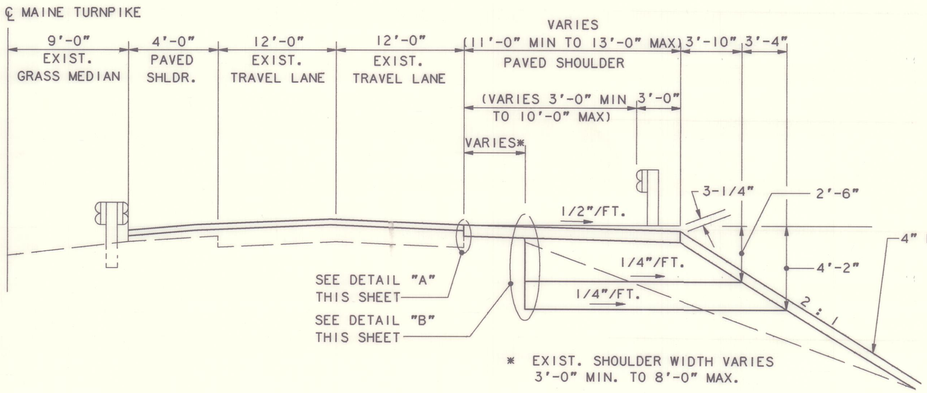
Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL RAILROAD
ESTIMATED QUANTITIES
AND GENERAL NOTES

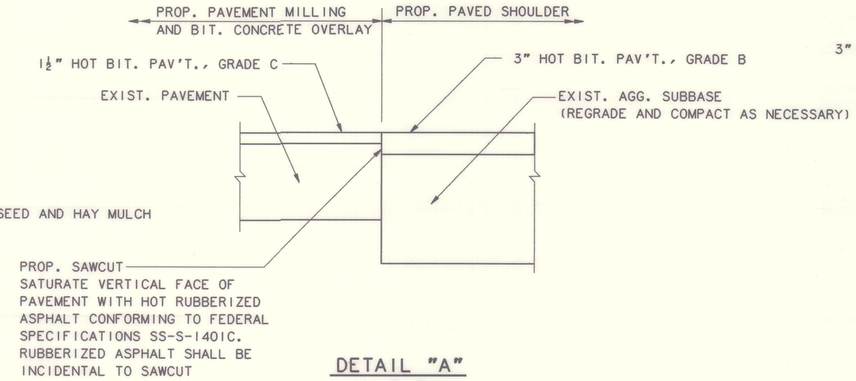
HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

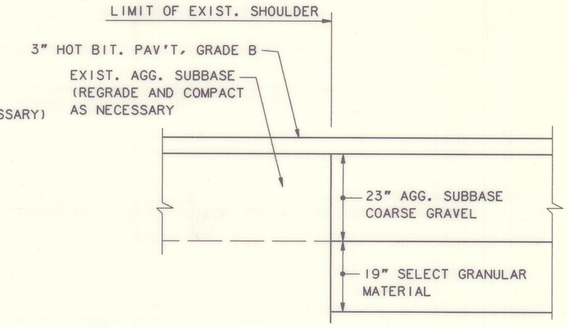
Sheet No. 2 of 32



TYPICAL SECTION
N.T.S.



DETAIL "A"
N.T.S.



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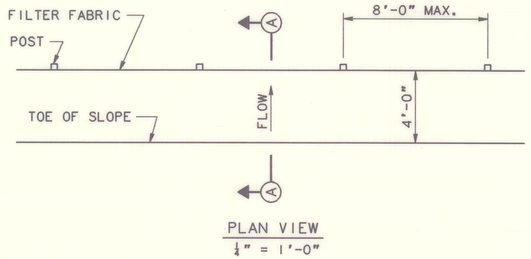
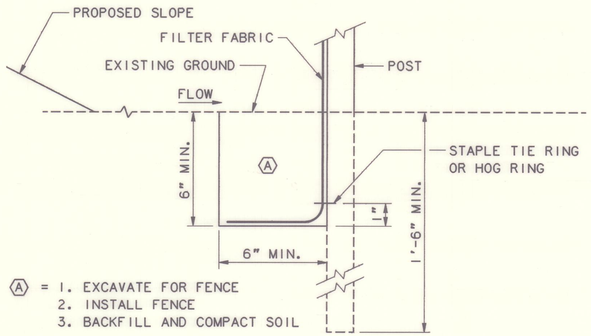
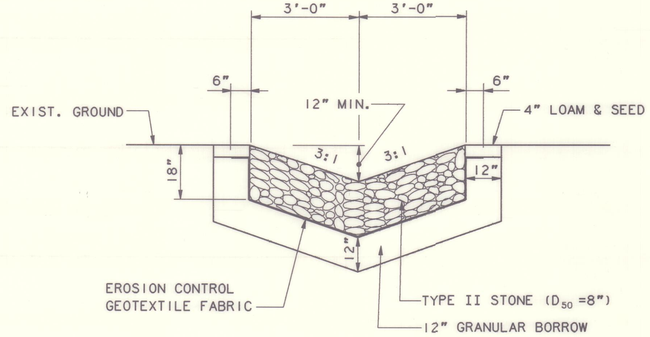


PLAN VIEW
1/4" = 1'-0"

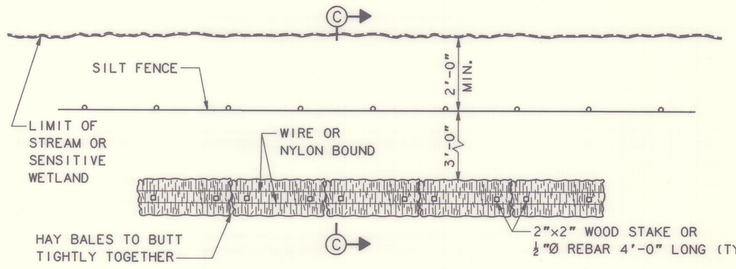


SECTION A-A
3" = 1'-0"

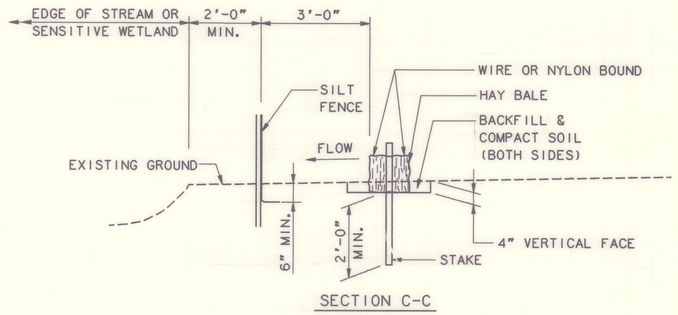
SILT FENCE



6' STONE DITCH DETAIL
1/2" = 1'-0"



HAY BALE AND SILT FENCE BARRIER



SECTION C-C

DOUBLE LAYER OF PROTECTION
HAY BALE AND SILT FENCE BARRIER
1/2"=1'-0"

No.	Revision	By	Date

	By	Date
Designed	JFC	1/92
Drawn	LS	1/92
Checked	RJD	1/92
In Charge Of: RAL		

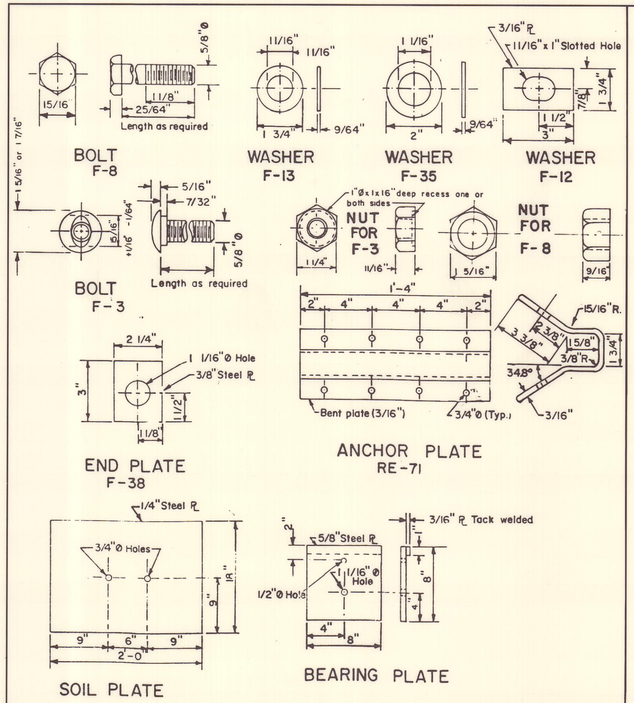
Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL R.R.
TYPICAL SECTION &
EROSION CONTROL DETAILS

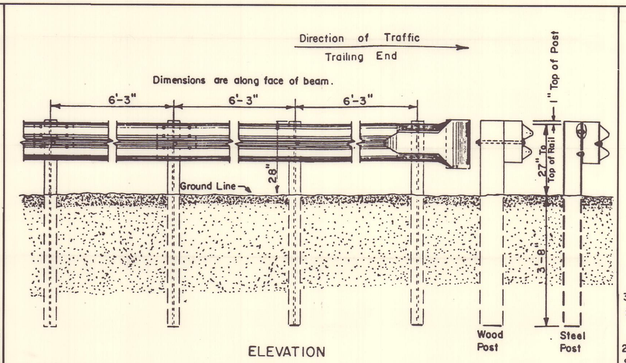
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

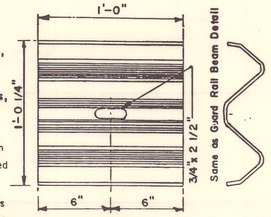
Sheet No. 3 of 32



BREAKAWAY CABLE TERMINAL

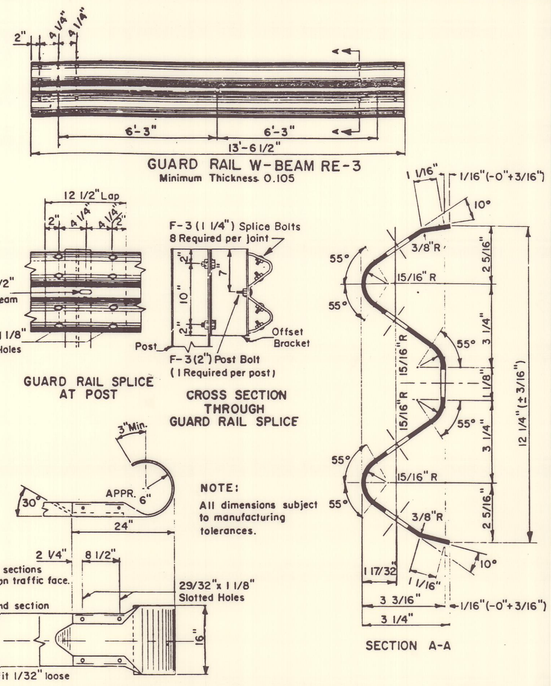


1. Intermediate post spacing shall be 6'-3" unless otherwise shown.
2. Wood posts for Guard Rail shall be 6" Nom.(5 1/2" Min.)x 8" Nom (7 1/2" Min.) and offset blocks for type "3a" Guard Rail shall be 6"x 6".
3. Steel posts and offset brackets for Guard Rail shall be W6 x 8.5 or W6 x 9.0.
4. Steel posts punched with holes in addition to those specified, to accomodate other types of Guard Rail, will be accepted subject to the approval of the engineer.
5. "W" Beam Back up Plates shall be placed behind rail elements at intermediate steel posts (non splice posts).
6. Beam Type Guard Rail set on radius of 150' or less shall be Circular Guard Rail.
7. Offset Bracket shall be installed on all posts, except at B.C.T. and twisted end sections.
8. Guard Rail – Terminal End (RE-6) to be used only on off – traffic end of guard rail, on divided highway Washers F-12 shall be installed on the last 9 posts.
9. Identification letters and numbers on drawings refer to the standard detail drawings shown in "A Guide to Standardized Highway Barrier Rail Hardware" by AASHTO-AGC-ARTBA Joint Cooperative Committee.

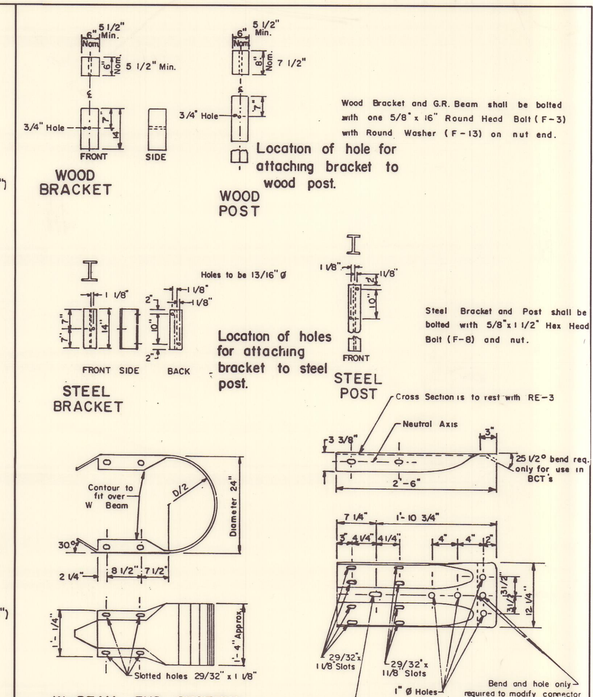


"W" Beam Backup Plate RE-4

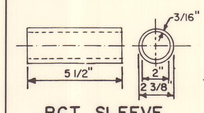
W-BEAM GUARD RAIL DETAIL

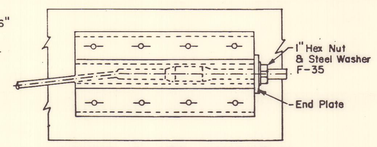


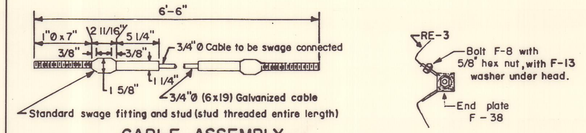
W-BEAM GUARD RAIL DETAIL

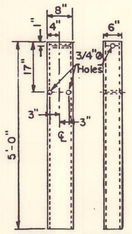


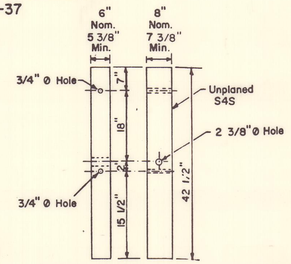
W-BEAM TERMINAL CONNECTOR



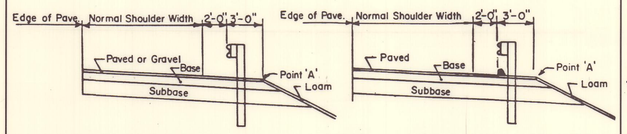




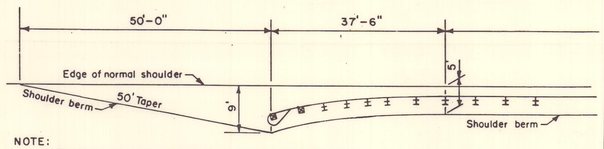




BREAKAWAY CABLE TERMINAL

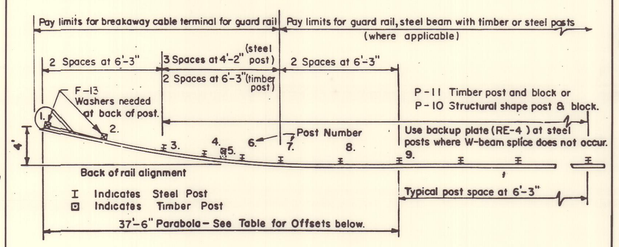


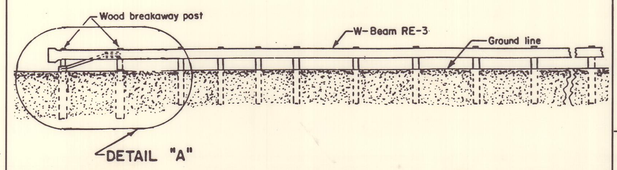
LOCATION OF GUARD RAIL - TYPE 3



NOTE:
Two lane road – use shoulder flare on both ends of guardrail.
Four lane road – use shoulder flare on end facing on-coming traffic only.

SHOULDER WIDENING FOR BREAKAWAY CABLE TERMINAL SECTION

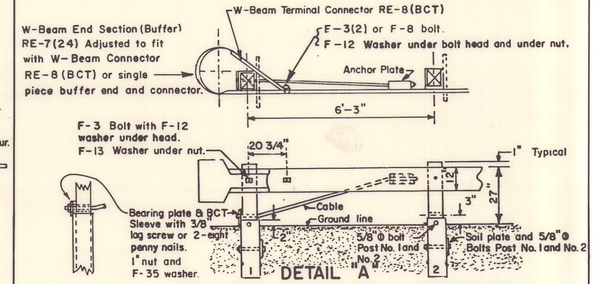




Offsets to face of post from back of rail alignment		
Post No.	Steel	Timber
1	—	4'-0"
2	—	2'-9 1/2"
3	2'-3 1/2"	2'-3"
4	1'-9"	—
5	—	1'-5 3/4"
6	1'-3 1/2"	—
7	0'-11 1/2"	0'-11"
8	0'-7 1/4"	0'-6 3/4"
9	0'-6"	0'-5 1/2"

TABLE OF OFFSETS

BREAKAWAY CABLE TERMINAL



BREAKAWAY CABLE TERMINAL

THESE DETAILS COPIED FROM MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS SHEETS.

Maine Turnpike Authority
Maine Turnpike

STANDARD DETAILS
TYPE 3 GUARD RAIL
BREAKAWAY CABLE TERMINAL

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By:	Date:

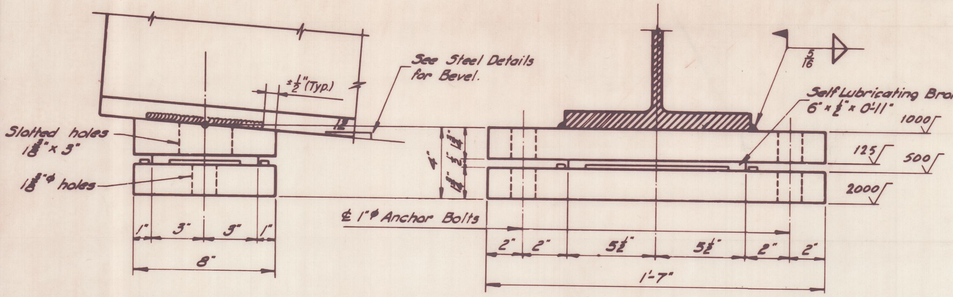
	By:	Date:
Designed		
Drawn		
Checked		
In charge of:		

Contract 92.9

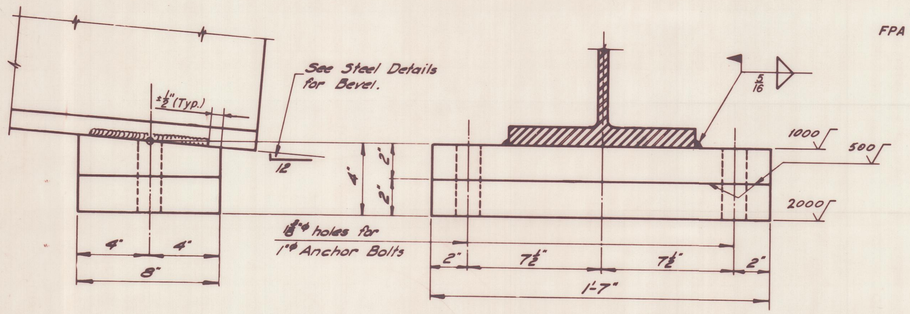
Sheet No. 4 of 32

157222

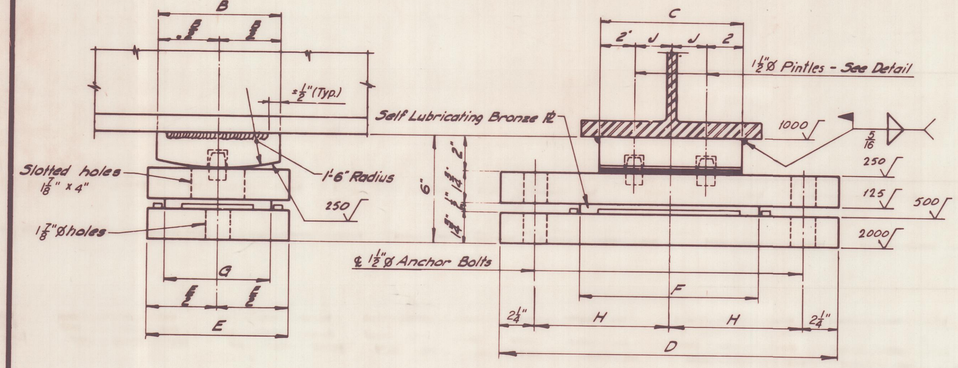
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
I	MAINE			



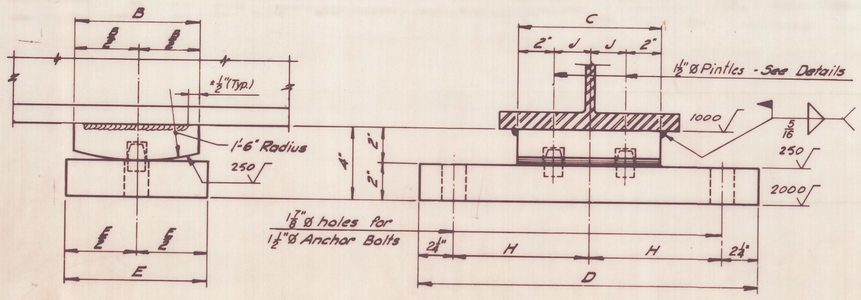
EXPANSION PEDESTAL - EPA



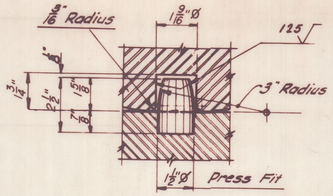
FIXED PEDESTAL - FPA



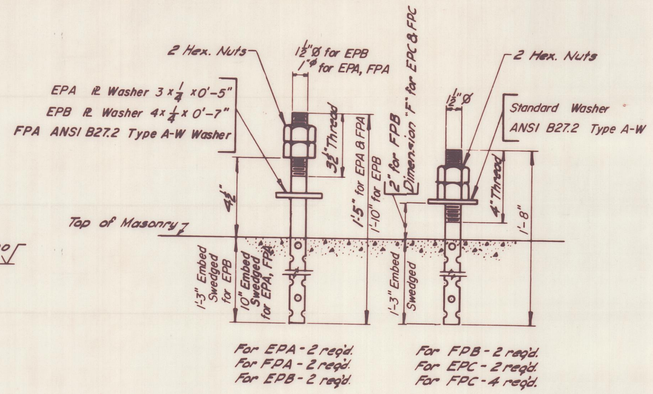
EXPANSION PEDESTAL - EPB



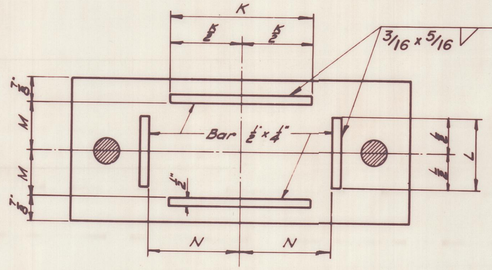
FIXED PEDESTAL - FPB



PINTLE DETAIL

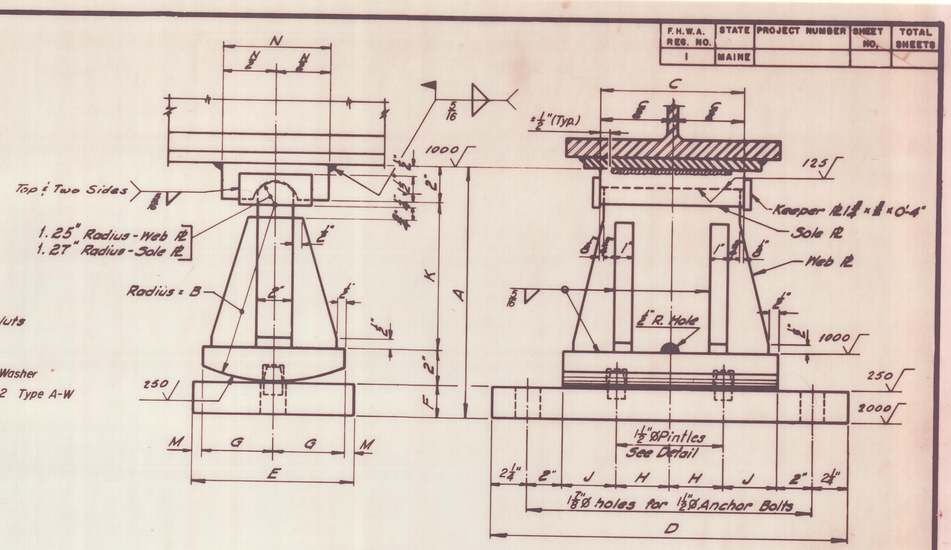


ANCHOR BOLT DETAIL

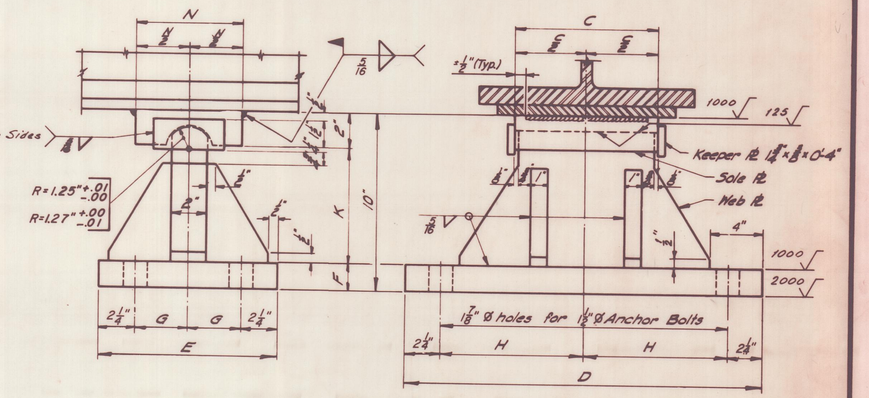


For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	—	—	—	—	—	—	—	—	—	8"	4"	3 1/8"	5 3/8"
FPA	130 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7 1/2"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/2"	5 3/8"
EPB-2	165 K	—	7"	10"	1'-8 1/2"	9"	1'-0"	7"	8"	3"	10"	5"	3 1/2"	6 3/8"
EPB-3	250 K	—	8"	1'-1"	2'-0 1/2"	10"	1'-4"	8"	10"	4 1/2"	1'-2"	5"	4 1/2"	8 3/8"
FPB-1	120 K	—	6"	8"	1'-7 1/2"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 K	—	7"	10"	1'-8 1/2"	9"	—	—	8"	3"	—	—	—	—
FPB-3	250 K	—	8"	1'-2"	2'-0 1/2"	10"	—	—	10"	5"	—	—	—	—
EPC-1	100 K	2 3/8"	6"	8"	1'-8 1/2"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1 1/2"	6"
EPC-2	150 K	1 1/8"	8"	8"	1'-8 1/2"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	2"	6"
EPC-3	200 K	1'-2"	10"	8"	1'-9"	9"	1 3/4"	4"	3 1/2"	3"	8 1/2"	—	2"	7"
EPC-4	250 K	1'-2"	10"	8"	1'-11"	9"	1 3/4"	4"	4 1/2"	3"	8 1/2"	—	2"	7"
EPC-5	300 K	1'-2 1/2"	10"	9"	2'-1"	10"	2"	4 1/2"	5 1/2"	3"	8 1/2"	—	2"	8"
EPC-6	350 K	1'-4 1/2"	1'-0"	10"	2'-1"	1'-0"	2 1/2"	5"	5 1/2"	3"	10 1/2"	—	1"	8"
EPC-7	400 K	1'-4 1/2"	1'-0"	1'-0"	2'-3"	1'-0"	2 1/2"	5"	5 1/2"	4"	10 1/2"	—	1"	8"
FPC-1	200 K	—	—	8"	1'-8 1/2"	9 1/2"	1 1/2"	2 1/2"	8"	—	6 1/2"	—	—	6"
FPC-2	250 K	—	—	8"	1'-8 1/2"	10 1/2"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	300 K	—	—	9"	2'-0 1/2"	10 1/2"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	350 K	—	—	10"	2'-0 1/2"	1'-0 1/2"	1 1/2"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	400 K	—	—	1'-0"	2'-2 1/2"	1'-0 1/2"	2"	4"	11"	—	6"	—	—	8"

MATERIALS

1. All steel, including the anchor bolts, shall be ASTM A572, Grade 50. For unpainted applications, ASTM A588 steel shall be used. ASTM A588 steel may also be used as an alternate for ASTM A572 steel.

2. Nuts for painted applications shall conform to ASTM A563, Heavy Hex, Grade A. Nuts for unpainted applications shall conform to ASTM A563, Heavy Hex, Grade C3 or DH3.

3. Charpy V-Notch tests are not required for steel used in bearing pedestals.

GENERAL NOTES

1. Bearings for use with painted structural steel shall be painted to conform to Section 504.36 of the Standard Specifications.

2. Upset threads on anchor bolts after assembly.

3. If there is a conflict between these Standard Details and the Design Drawings, the Design Drawings shall be followed.

REVISIONS Description	APPROVED Me.DOT	APPROVED FHWA
Original Plan	FEB. 1989	MAR. 16, 1989

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

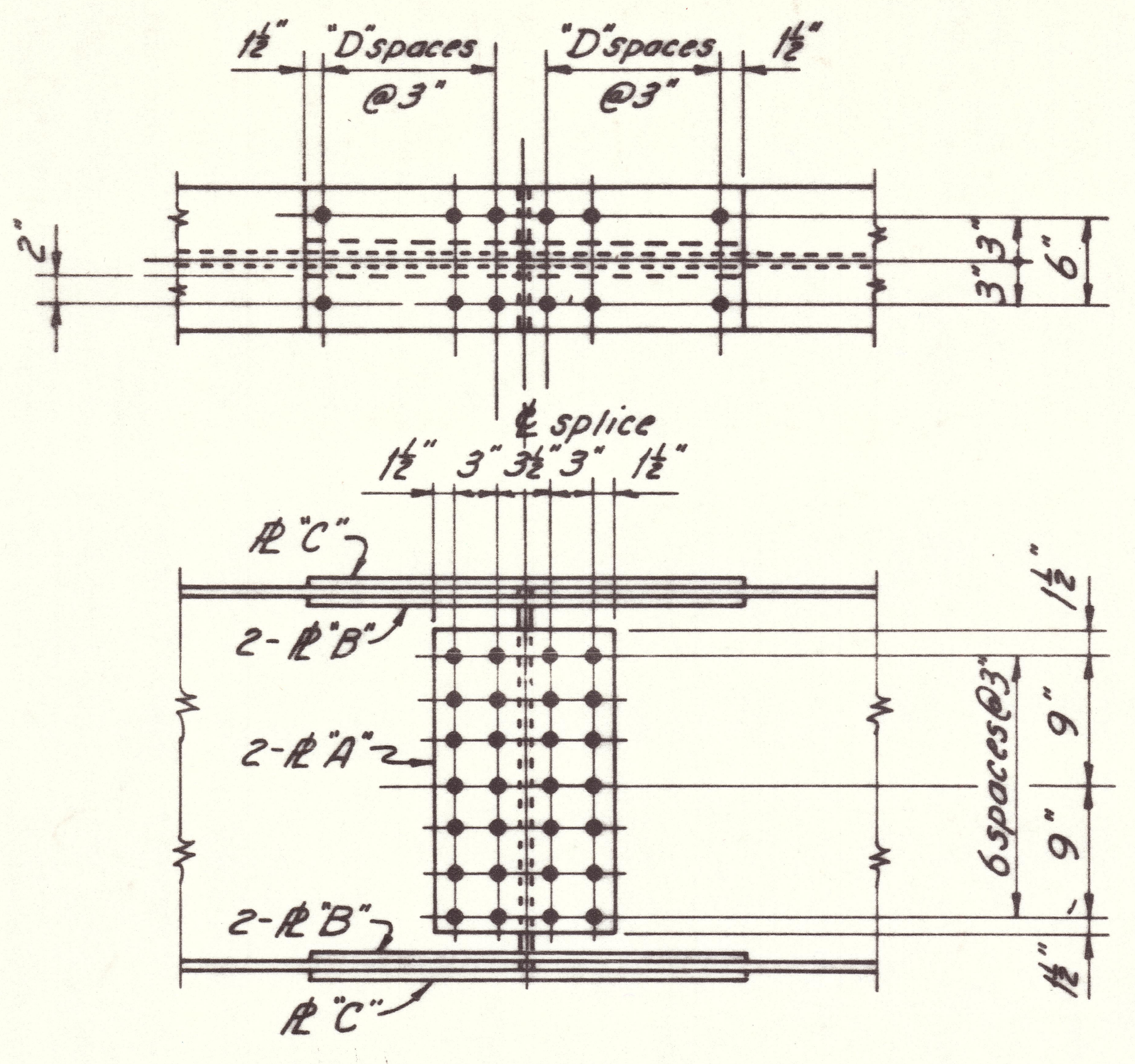
MAINE TURNPIKE
STANDARD DETAILS
BD 101 - 89

BEARING PEDESTALS

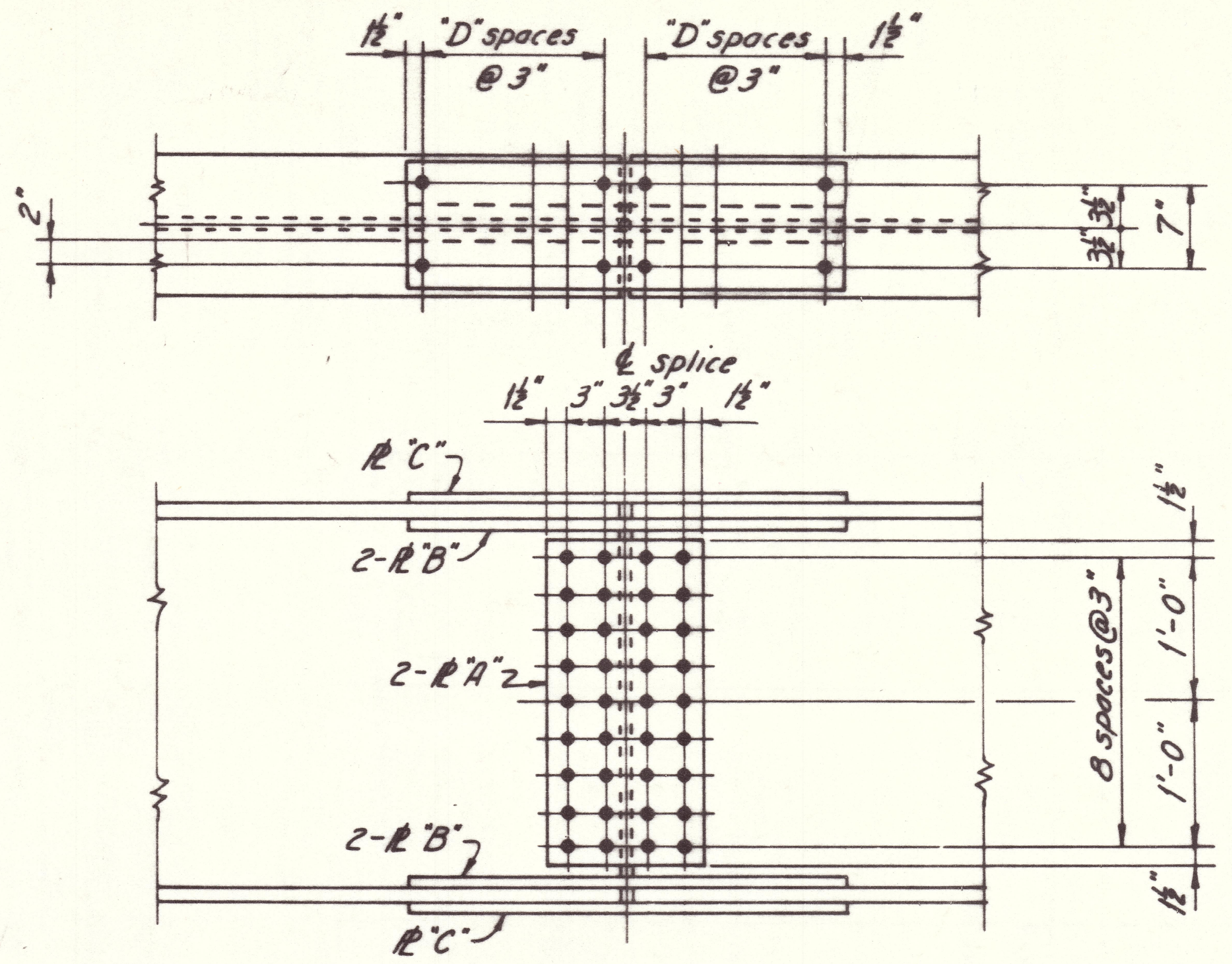
SHEET OF Feb. 1989

MAINE CENTRAL R.R.
SHEET NO. 5 OF 32
CONTRACT NO. 92.9

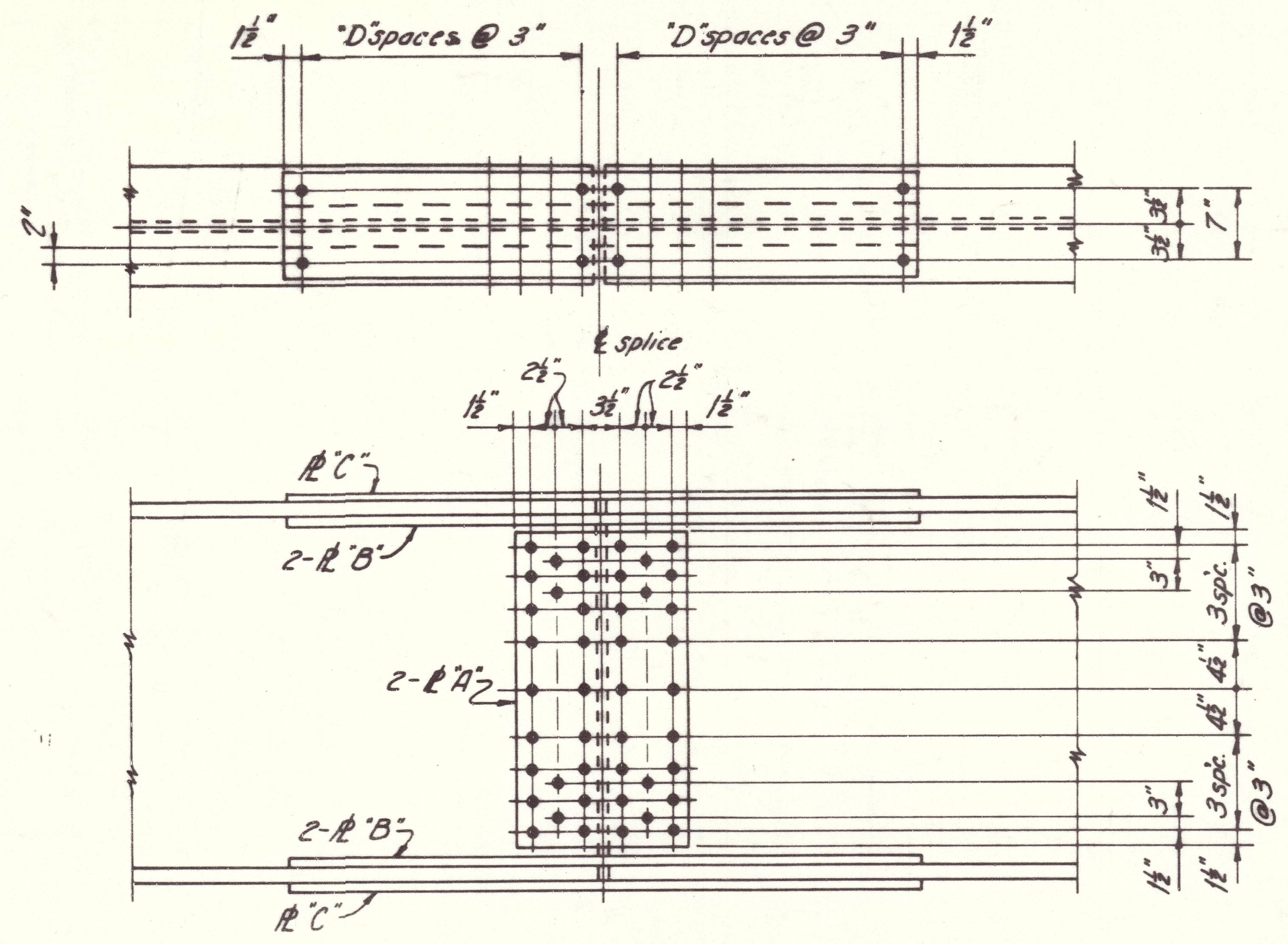
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



W27 x 84, 94, 102, 114



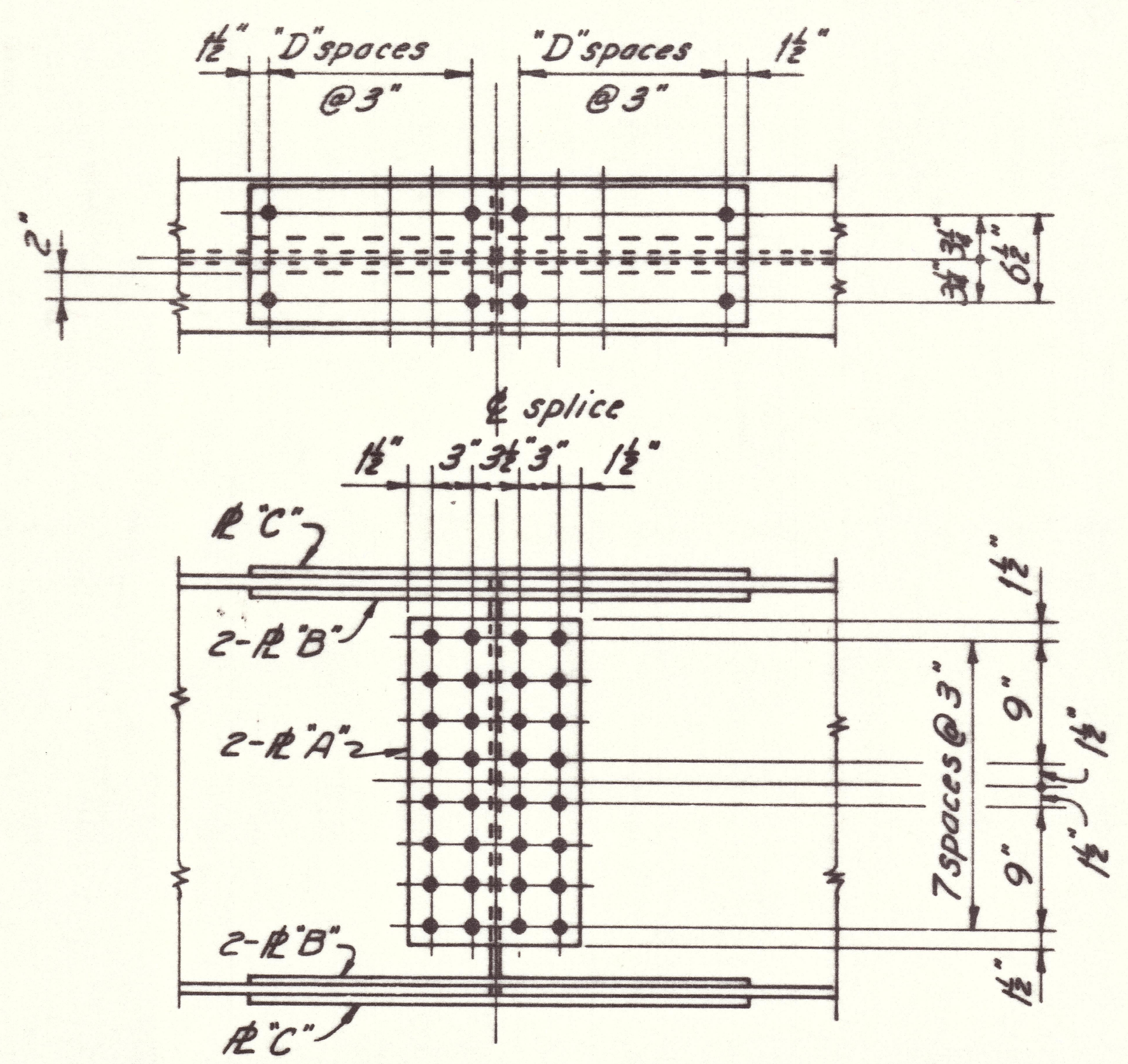
W33 x 118, 130, 141, 152



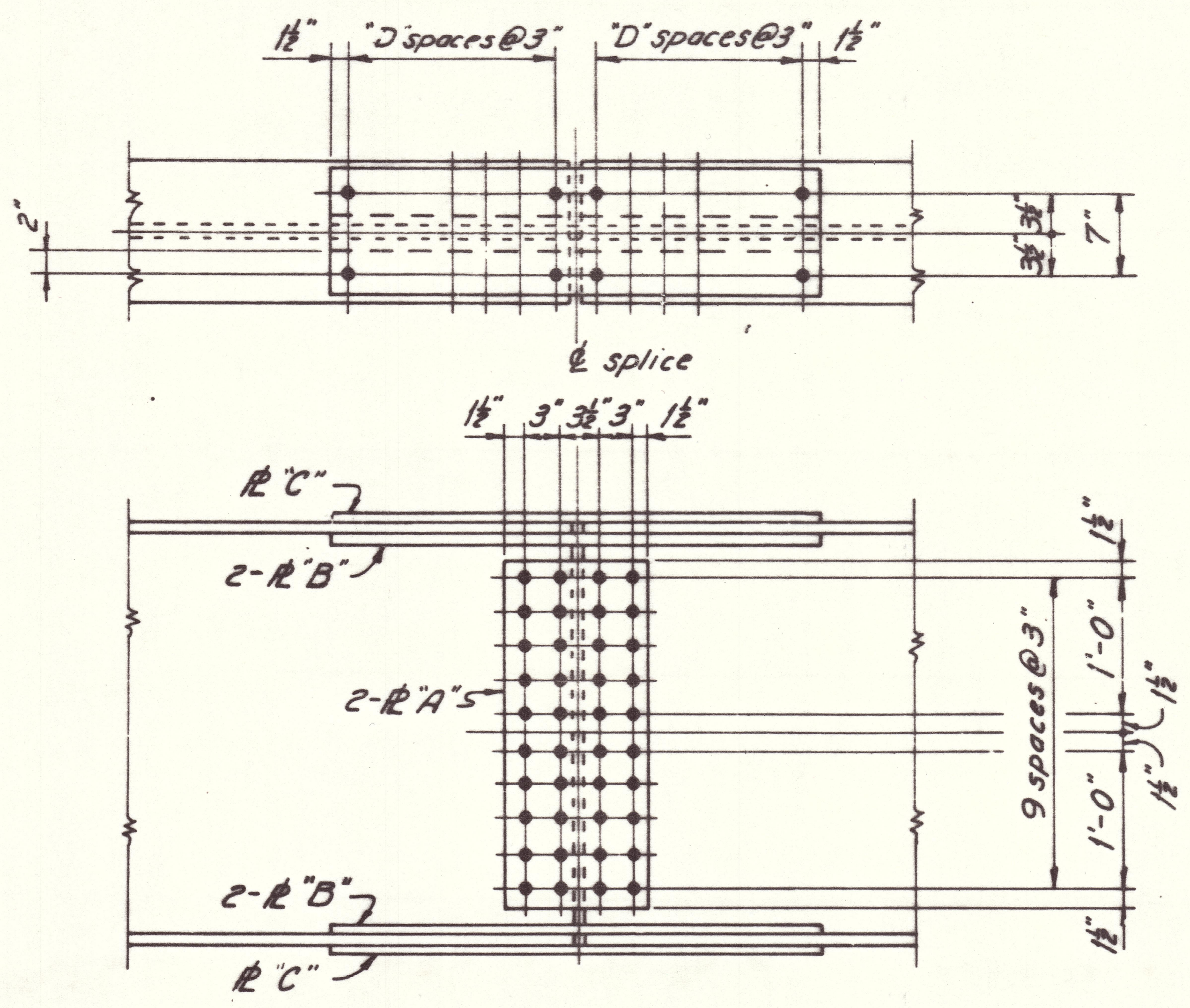
W36 x 182, 194, 210

SPLICE PLATES AND FLANGE HOLES

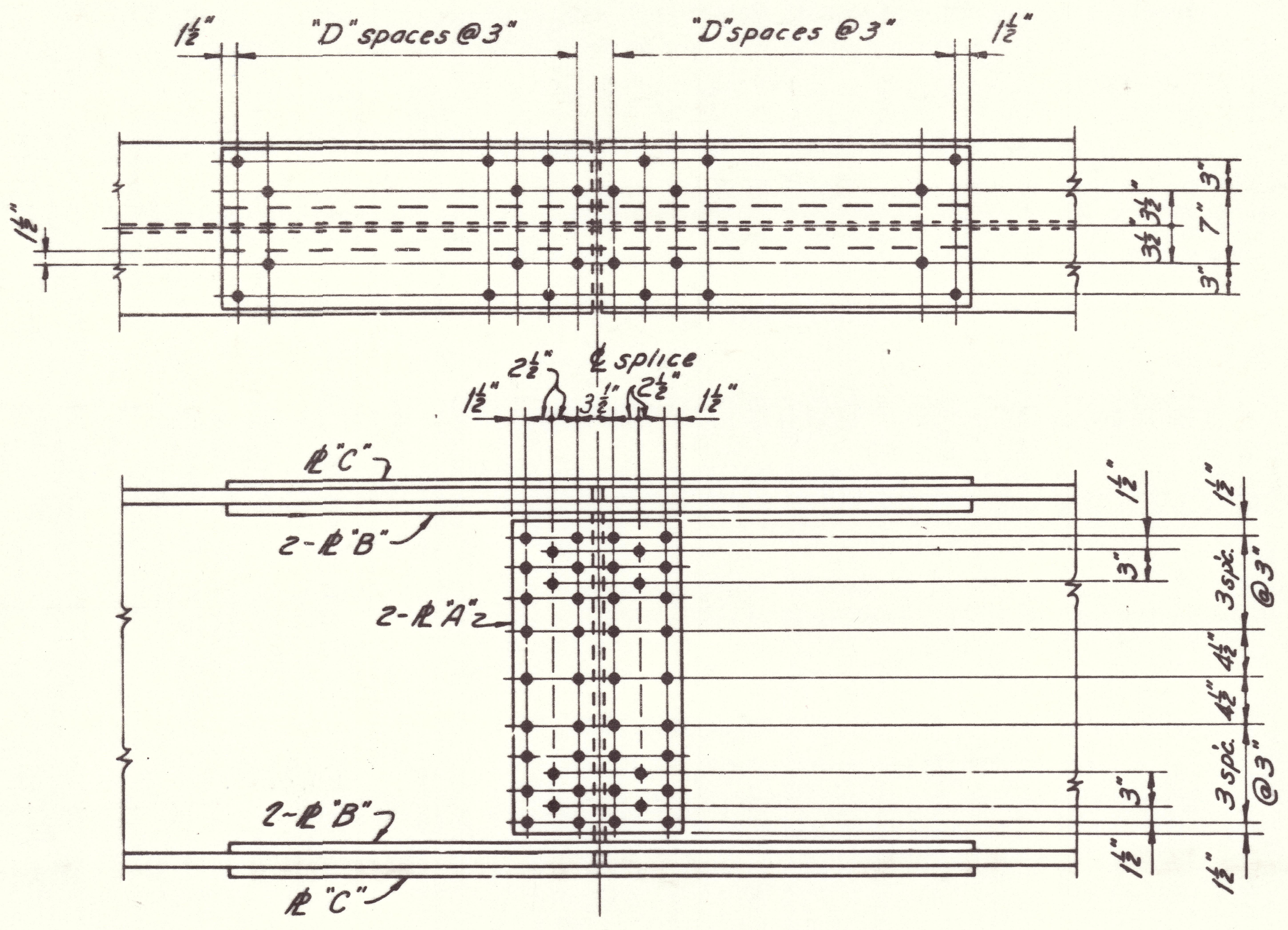
BEAM	PLATE "A"	PLATE "B"	PLATE "C"	"D"
W 27 x 84	12 1/2" x 1/2"	4" x 1/2"	10" x 1/2"	3
x 94	12 1/2" x 1/2"	4" x 1/2"	10" x 1/2"	3
x 102	12 1/2" x 1/2"	4" x 9/16"	10" x 1/2"	3
x 114	12 1/2" x 9/16"	4" x 5/8"	10" x 1/2"	4
W 30 x 99	12 1/2" x 1/2"	4" x 1/2"	10" x 1/2"	3
x 108	12 1/2" x 1/2"	4" x 9/16"	10" x 1/2"	3
x 116	12 1/2" x 1/2"	4" x 5/8"	10" x 1/2"	3
x 124	12 1/2" x 1/2"	4" x 11/16"	10" x 1/2"	4
x 132	12 1/2" x 9/16"	4" x 13/16"	10" x 1/2"	4
W 33 x 118	12 1/2" x 1/2"	4" x 9/16"	11" x 1/2"	3
x 130	12 1/2" x 1/2"	4" x 3/4"	11" x 1/2"	4
x 141	12 1/2" x 1/2"	4" x 13/16"	11" x 1/2"	4
x 152	12 1/2" x 1/2"	4" x 7/8"	11" x 9/16"	5
W 36 x 135	12 1/2" x 1/2"	4" x 11/16"	11" x 1/2"	4
x 150	12 1/2" x 1/2"	4" x 13/16"	11" x 1/2"	5
x 160	12 1/2" x 1/2"	4" x 7/8"	11" x 9/16"	5
x 170	12 1/2" x 1/2"	4" x 15/16"	11" x 5/8"	6
x 182	16 1/2" x 9/16"	4" x 1"	11" x 11/16"	6
x 194	16 1/2" x 9/16"	4" x 1 1/16"	11" x 11/16"	6
x 210	16 1/2" x 5/8"	4" x 1 1/8"	11" x 3/4"	7
x 230	16 1/2" x 9/16"	6" x 1"	16" x 5/8"	9
x 245	16 1/2" x 9/16"	6" x 1"	16" x 11/16"	9
x 260	16 1/2" x 5/8"	6" x 1 1/16"	16" x 3/4"	11
x 280	16 1/2" x 5/8"	6" x 1 3/16"	16" x 13/16"	11
x 300	16 1/2" x 11/16"	6" x 1 1/4"	16" x 7/8"	13



W30 x 99, 108, 116, 124, 132



W36 x 135, 150, 160, 170



W36 x 230, 245, 260, 280, 300

GENERAL NOTES

1.) Splice connections shall be made with 7/8" Ø ASTM A325 high tensile strength bolts. Holes shall be 15/16" Ø.

2.) Web and flange filler plates shall be used as required when splicing beams of different sizes. Filler plates of 1/16" or less in thickness are not required.

3.) If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design drawings.

4.) For material specifications and details not shown, refer to design drawings.

5.) If there is a conflict between this standard detail and the design drawings, the requirements of the design drawings shall be followed.

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

REVISIONS	APPROVED	
Description	Me.DOT	FHWA
Original Plan	FEB. 1989	MAR. 16, 1989

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE TURNPIKE

STANDARD DETAILS

BD III - 89

BEAM SPLICES

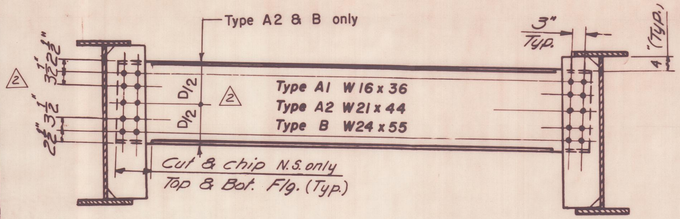
ROLLED BEAMS

SHEET OF

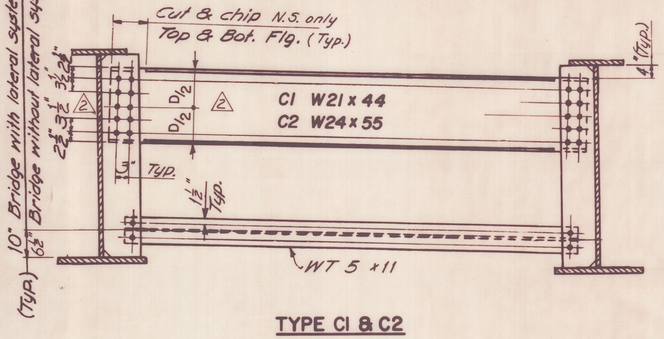
Feb. 1989

JANUARY 1988

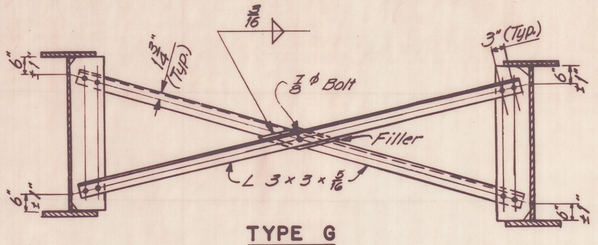
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



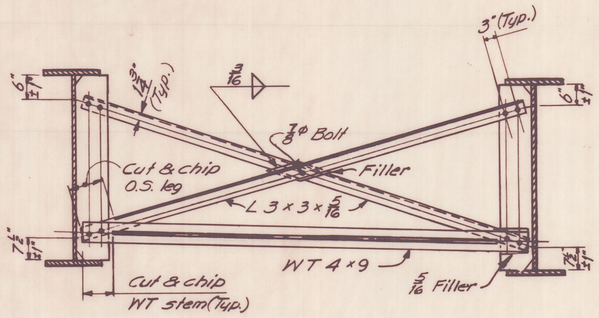
TYPE A1, A2, & B



TYPE C1 & C2



TYPE G



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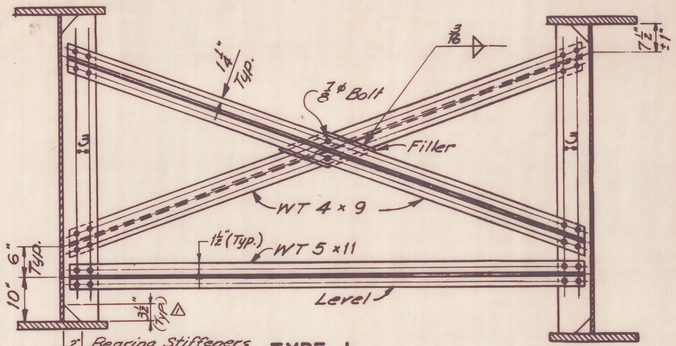

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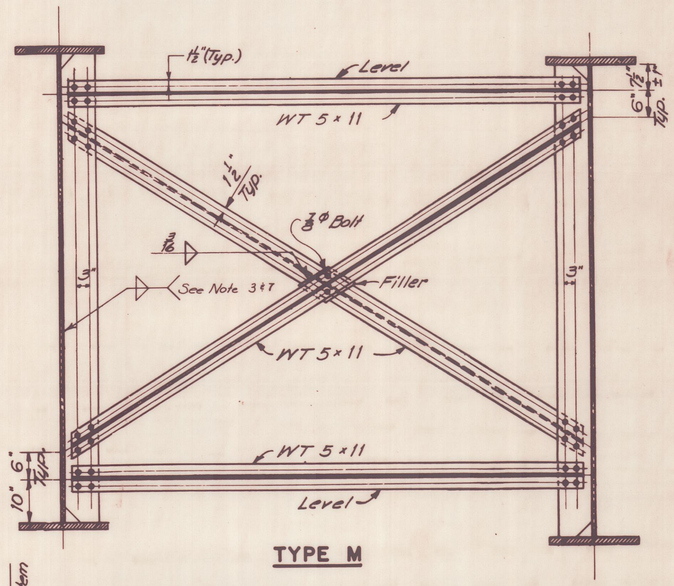

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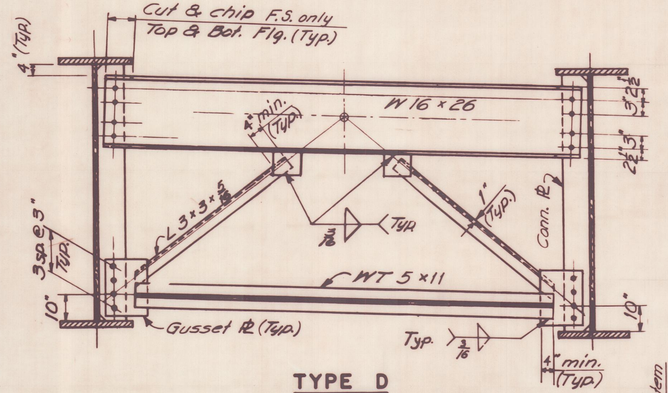

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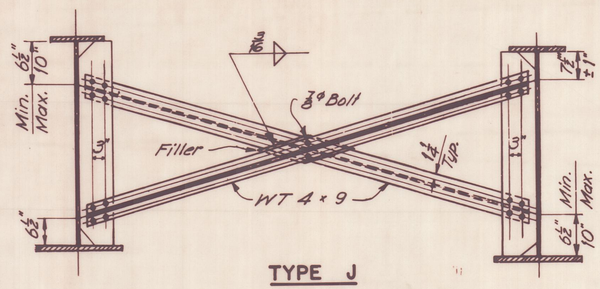

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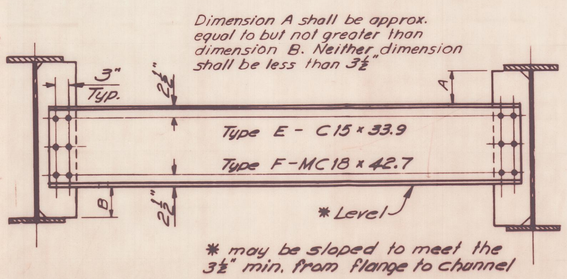
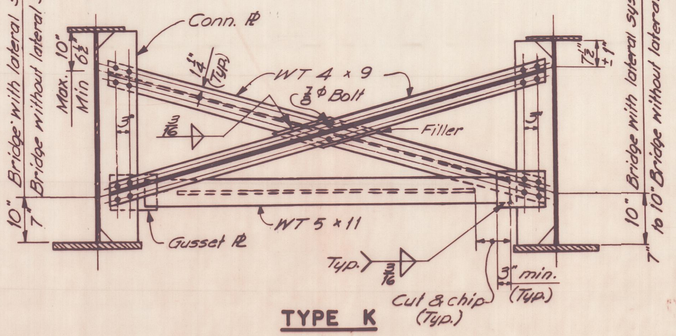


* may be sloped to meet the 3½" min. from flange to channel

TYPE E & F



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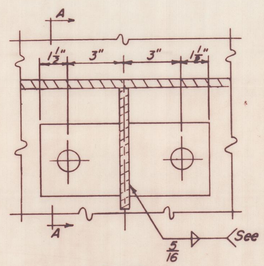
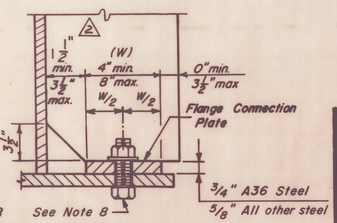


PLAN



SECT. A-A

TENSION – FLANGE CONNECTION

FABRICATION NOTES

1.) All bolts shall be $\frac{7}{8}$" ϕ H.S. Bolts. Hole sizes for bolts shall conform to Section 504.23 of the Standard Specifications, and edge-distances shall be $1\frac{1}{2}$" min. unless otherwise shown.

2.) Connection plates and gusset plates shall have a minimum thickness of $\frac{3}{8}$" and shall have sufficient width to provide erection clearance. Connection plates shall have a minimum width of 7". For all stiffeners and bent connection plates, the plate thickness will be given on the design drawings.

3.) Depending on the skew-angle, stiffeners and connection plates shall be welded to the web plates with either fillet welds or a single bevel groove weld. Fillet welds shall be the minimum size specified by the AWS Structural Welding Code D1.1, table 2.7, unless otherwise shown on the design drawings. Fit-up shall meet the requirements of AWS D1.1, Art 3.3, Assembly.

4.) All stiffeners and connection plates shall extend to both the top and bottom flanges and shall be welded to the flanges with a fillet weld on both sides of the plate, except as indicated by note 5 and/or 6. Fillet weld size shall be as specified under note 3.

5.) Connection plates and stiffeners used as connection plates shall be connected to flanges in tension and stress reversal areas with the "Tension-Flange Connection" detail. All other stiffeners shall fit within $\frac{1}{16}$" (tight fit) at flanges in tension and stress reversal areas and shall not be welded.

6.) Bearing stiffeners through $\frac{3}{4}$ inch thick shall be connected to the bottom flange with a full penetration groove weld. Bearing stiffeners over 3/4 inch thick shall be connected to the bottom flange with a full penetration double bevel groove weld or shall be machined to have full bearing, at the option of the contractor.

7.) All fillet welds which connect stiffeners or connection plates to either a flange or web plate, shall be started and stopped approximately $\frac{1}{2}$ inch from the ends or edges of the plate.

8.) Bolt tension-flange connection plate to flange before welding stiffener or diaphragm connection plate to it.

9.) All dimensions shown as "__ ± 1" are variable in order to allow a series of crossframes to have the same slopes and/or dimensions.

10.) For unpainted applications all steel for diaphragms and crossframes shall be A.S.T.M.-A588. For bridges specified to be painted the steel for diaphragms and connection plates shall be A.S.T.M.-A36, except other steel classifications may be used subject to the approval of the Engineer.

11.) Use only those items called for on the design drawings. In case of conflict between these standard details and design drawings, the design drawings shall be followed.

REVISIONS Description	APPROVED Me.DOT	FHWA
Original Plan	FEB. 1989	MAR. 16, 1989
2 Connection Clip	SEP. 1989	
1 Revision	OCT. 1990	

DATE	BY	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
PLANS					

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE TURNPIKE

STANDARD DETAILS

BD 112 - 89

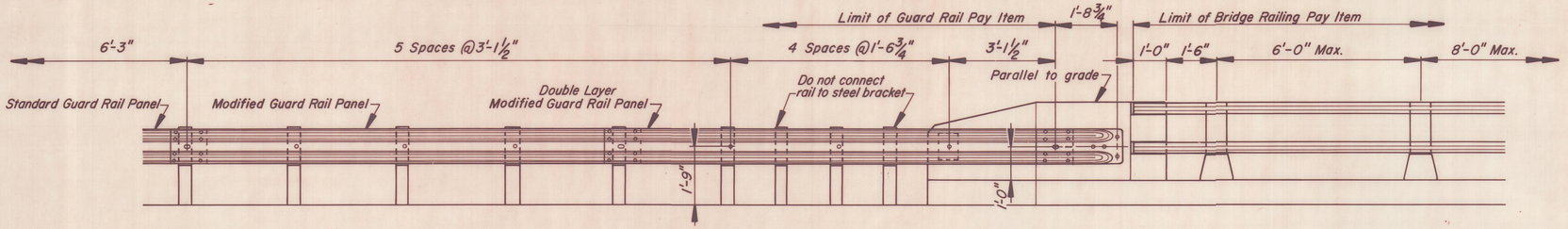
DIAPHRAGMS & CROSSFRAMES

SHEET C-F Feb. 1989

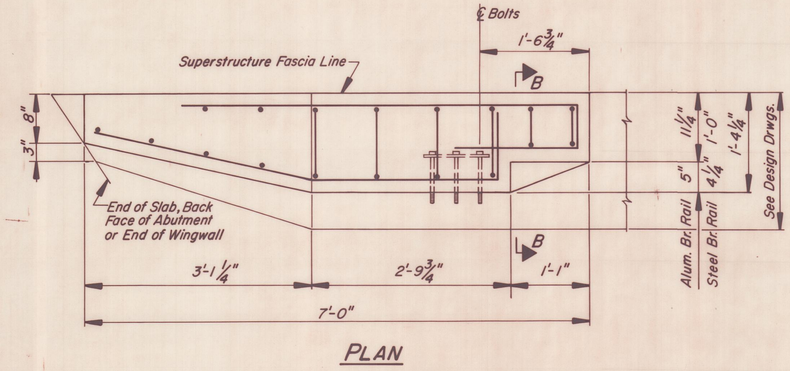
MAINE CENTRAL R.R.
SHEET NO. 7 OF 32

CONTRACT NO. 92.9

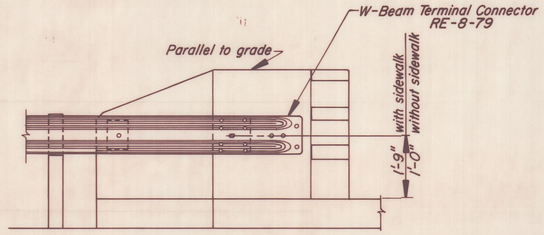
F.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



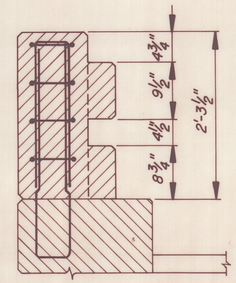
ELEVATION WITH RAILING
2-Bar Bridge Rail (Aluminum or Steel)



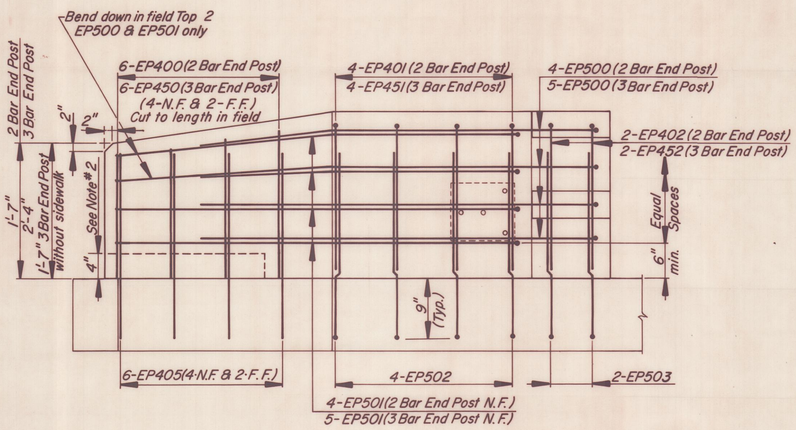
PLAN



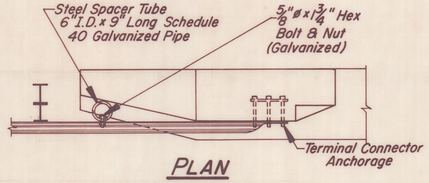
ELEVATION
3-Bar Bridge Rail (Aluminum or Steel)



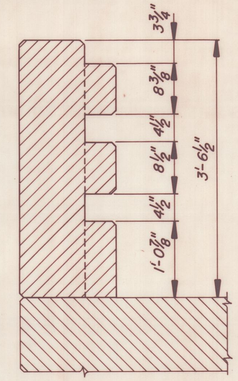
SECTION B-B
2-Bar Bridge Rail (Aluminum or Steel)



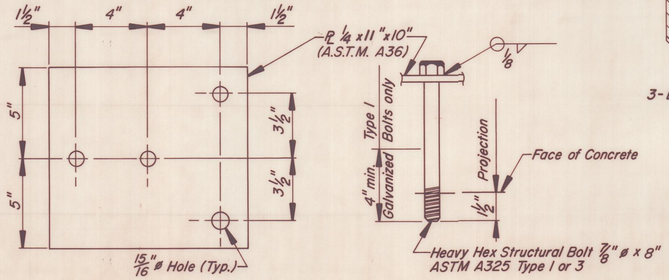
ELEVATION



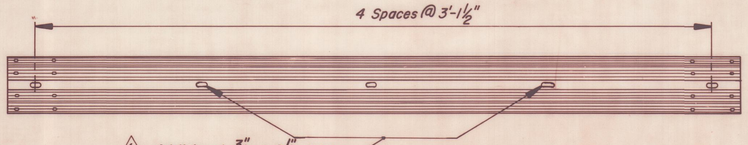
PLAN



SECTION B-B
3-Bar Bridge Rail (Aluminum or Steel)



TERMINAL CONNECTOR ANCHORAGE



MODIFIED GUARD RAIL PANEL
RE-3-(4 @ 3'-1½"=12'-6")-73

NOTES

1. For locations of End Posts on the structure, see Design Drawings.
2. At times, an End Post Wing may be cantilevered for all or part of its length. For details, see Design Drawings.
3. If an End Post Wing is cantilevered, bars EP405 are to be omitted as needed.
4. When End Post Wing is cantilevered more than 2'-0", all #5 bars shall be replaced by #7 bars.
5. Nuts and washers for ⅞"ø anchor bolts shall be incidental to Guard Rail Pay Items. Nuts shall conform to A.S.T.M. A563, Grade DH, galvanized in accordance with A.S.T.M. A153, or Grade C3, plain.
6. Additional holes in the Modified Guard Rail Panel may be made by drilling, punching or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
7. Spacer Tube shall conform to the requirements of A.S.T.M. A53, galvanized, Grade B Type E or S. Hex bolt and nut on spacer tube shall conform to A.S.T.M. A307. Payment for spacer tube, bolt and nut shall be incidental to the Guard Rail pay item.
8. Reinforcing Steel shall have 2" min. concrete cover.
9. After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
10. Terminal Connector Anchorage shall be incidental to the applicable concrete pay item.
11. End Post shall be constructed normal to grade unless otherwise shown on Design Drawings.
12. All accessories (posts, bolts, nuts etc.) shall be as detailed for Standard Type 3 Guard Rail, except as otherwise detailed.
13. If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.
2 14. Concrete shall be Class A with a silica fume additive

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	6-88
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

REVISIONS		DATE
1	Revision	DEC.89
2	Revision	OCT.90

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE TURNPIKE

STANDARD DETAILS

BD 201 - 89

CONCRETE END POSTS

SHEET OF Feb 1989

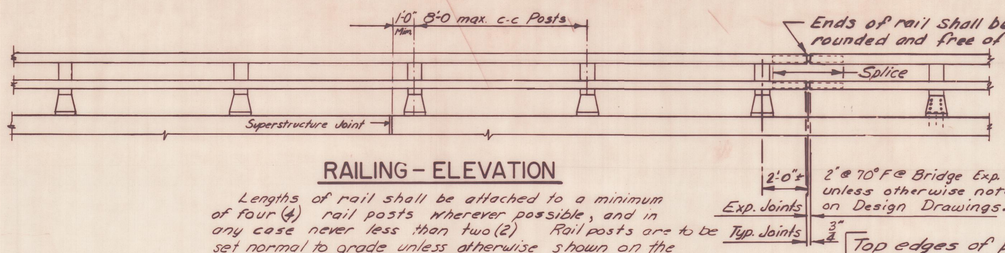
MAINE CENTRAL R.R.
SHEET NO. 8 OF 32
CONTRACT NO. 92-9

BRUNING 44-132 45710-1

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

If there is a conflict between this standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

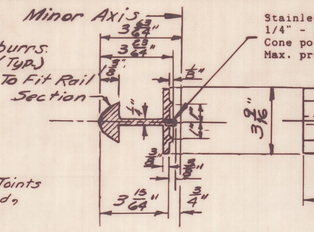
RAILING - ELEVATION



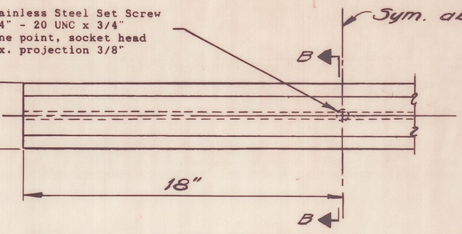
Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on the Bridge Plans.

Top edges of post shall be rounded and free of burrs. Typical all posts.

SECTION B-B

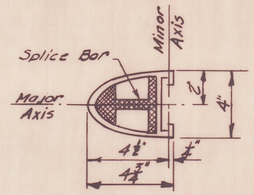


SPLICE BAR



Alternate splice bars may be substituted if approved by the Engineer.

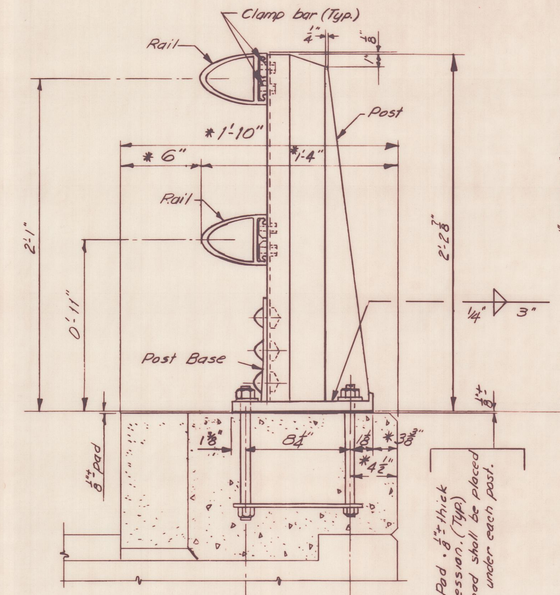
RAIL SECTION



See "Rail Detail"

BRIDGE RAILING

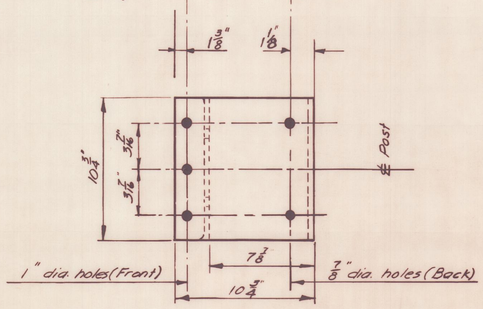
(Assembly)



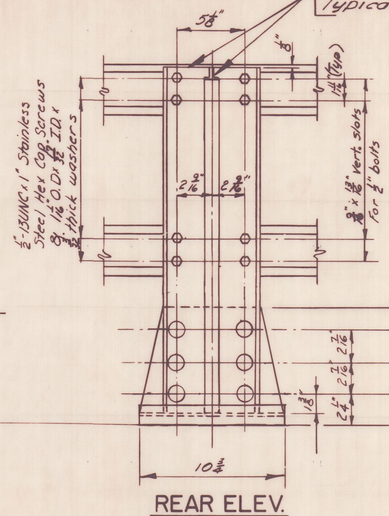
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.

POST BASE ⚠2

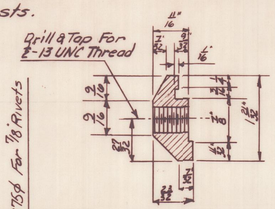
(Bottom View)



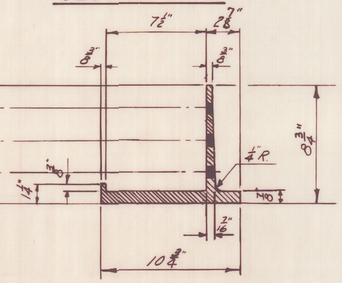
REAR ELEV.



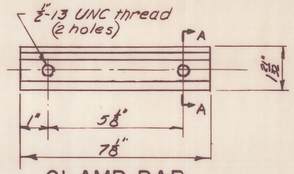
SECTION A-A



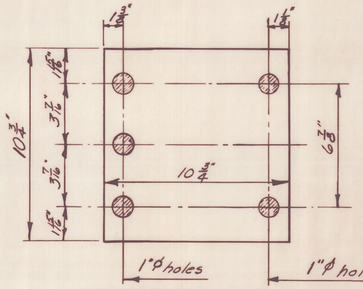
POST BASE SECTION



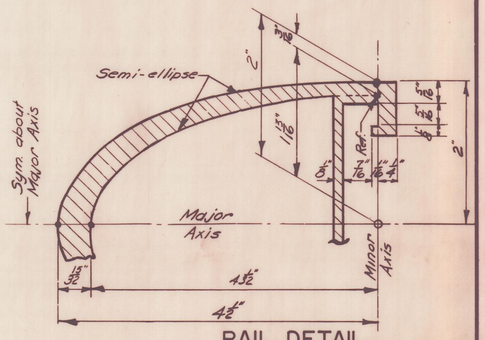
CLAMP BAR



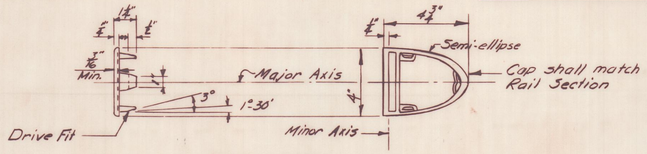
PREFORMED PAD



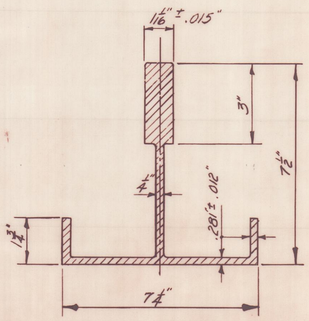
RAIL DETAIL



RAIL CAP

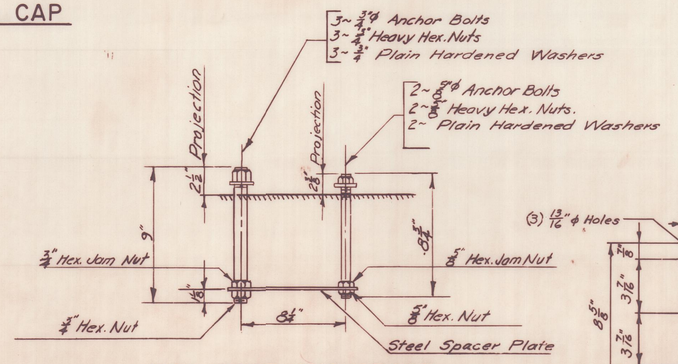


POST SECTION



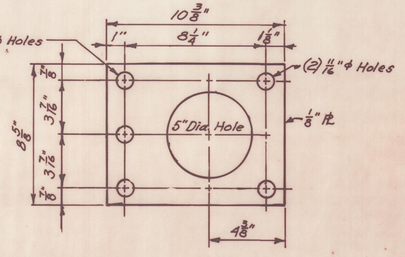
RAIL POST ANCHORAGE

(Assembly)

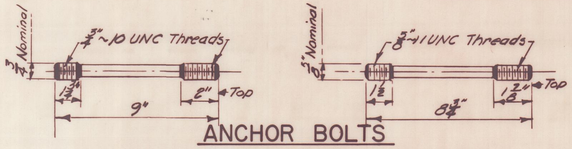


STEEL SPACER PLATE

(For Anchorage)



ANCHOR BOLTS



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

PLANS	BY	DATE
DESIGN - DETAILED	K. Lacasse	Jan. 1989
CHECKED	K. Leach	
REVISIONS		
FIELD CHANGES		

REVISIONS	DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE TURNPIKE

STANDARD DETAILS

BD 401 - 89

ALUMINUM BRIDGE RAILING
2 - BAR (SEMI-ELLIPSE)

SHEET OF

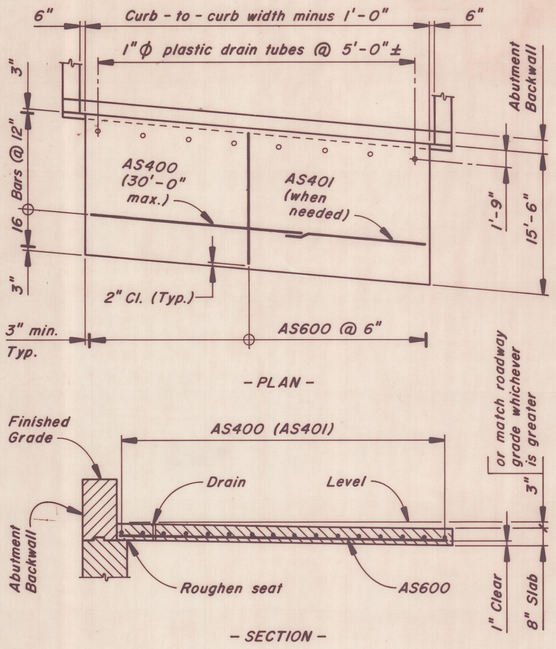
Feb. 1989

JANUARY 1988

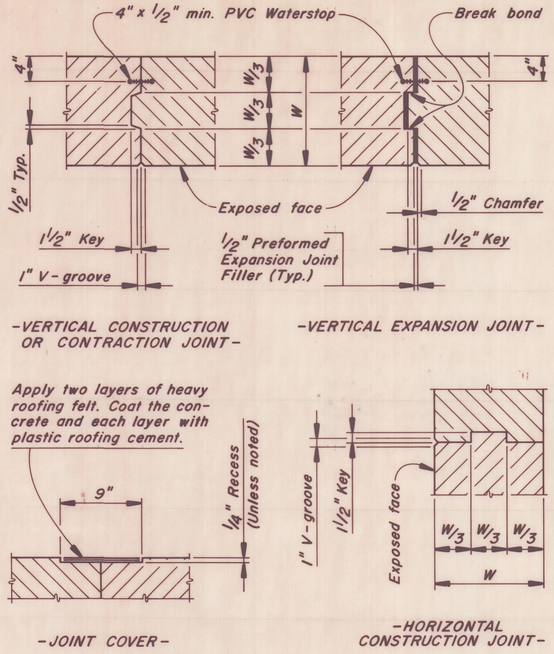
MAINE CENTRAL R.R.
SHEET NO. 9 OF 32

203-1 2080
CONTRACT NO. 92.9

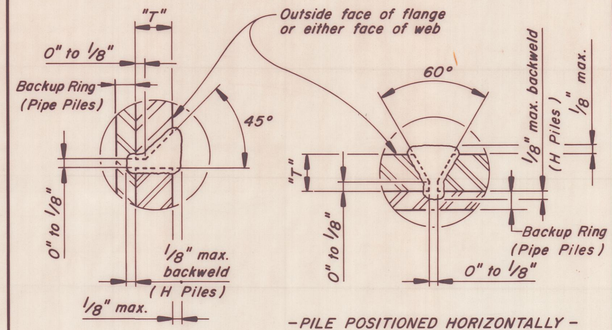
F.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



APPROACH SLAB



CONCRETE JOINT DETAILS

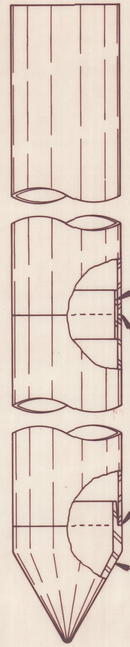


NOTES:

1. _____ All cutting shall be done with the use of a mechanical guide.
2. _____ Gouge root before welding second side. (H Piles).
3. _____ Use Manual Shielded-Arc Process and 6010 or 6011 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.

Base Metal Thickness "T"	Min. Number of Passes
3/8, 7/16	3
1/2, 9/16, 5/8	4
11/16, 3/4, 13/16	5

PILE SPLICE



NOTES:

1. _____ Pile diameter and wall thickness shall be as indicated on the Design Drawings.
2. _____ Pile tips shall be prefabricated cast steel tips with 60° conical points and internal flanges. Pile tips shall be approved by the Engineer.
3. _____ Prefabricated internal splicer sleeves may be used if approved by the Engineer.
4. _____ Refer to "Pile Splice" details at left for welding procedures.

PIPE PILES

PROJECT DESIGN ENGINEER

PLANS

	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

BRUNING 44-132 45710-1

GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

REVISIONS Description	APPROVED Me.DOT	FHWA
Original Plan	FEB. 1989	MAR. 16, 1989
⚠ Delete Pile Tip Details	OCT. 1990	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE TURNPIKE

STANDARD DETAILS

BD 501 - 89

SUBSTRUCTURE DETAILS

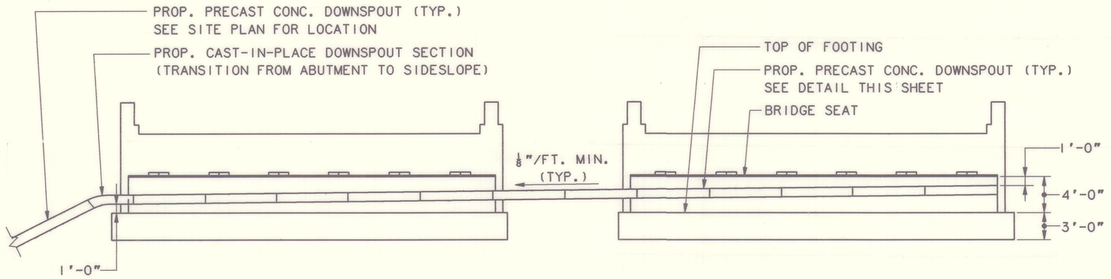
APPROACH SLAB
CONCRETE JOINT DETAILS
PILE SPLICE · PIPE PILES

SHEET OF

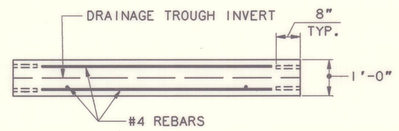
Feb. 1989

MAINE CENTRAL R.R.
SHEET NO. 10 OF 32

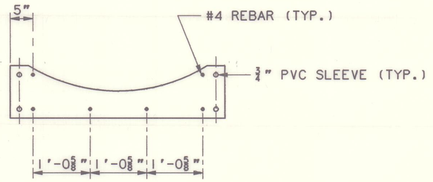
CONTRACT NO. 92.9



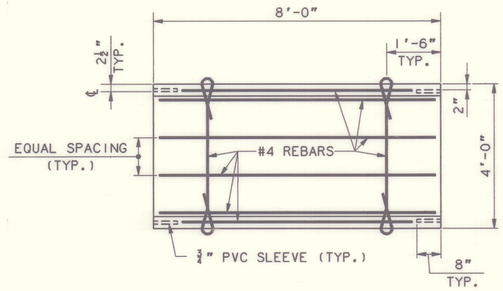
DOWNSPOUT AT SOUTH BRIDGE ABUTMENT
1/8" = 1'-0"



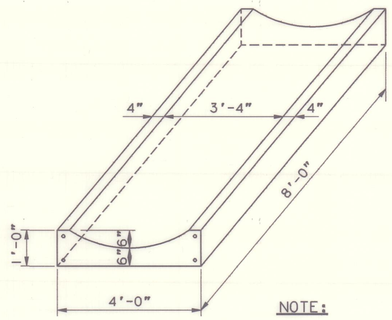
PROFILE ELEVATION



END VIEW



TOP VIEW

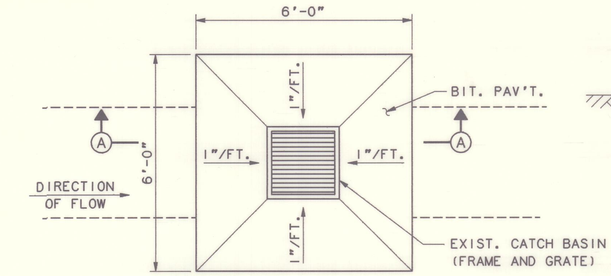


NOTE:

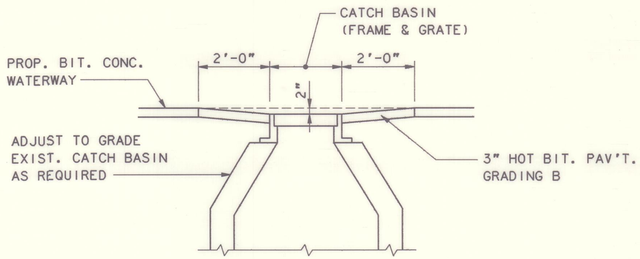
BOND DOWELS (REBARS) & END SURFACES OF DOWNSPOUT WITH SIKADUR LO-MOD GEL.
REBAR USED AS DOWELS SHALL BE EPOXY COATED.

ALL REBARS 2" (TYP.) CLEARANCE.
ALL REBARS SHALL BE EPOXY COATED (TYP.).

PRECAST CONCRETE DOWNSPOUT (MDOT - CLASS AA CONCRETE)
NOT TO SCALE

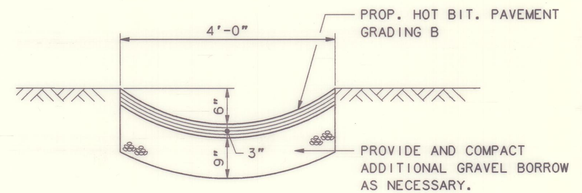


PLAN VIEW

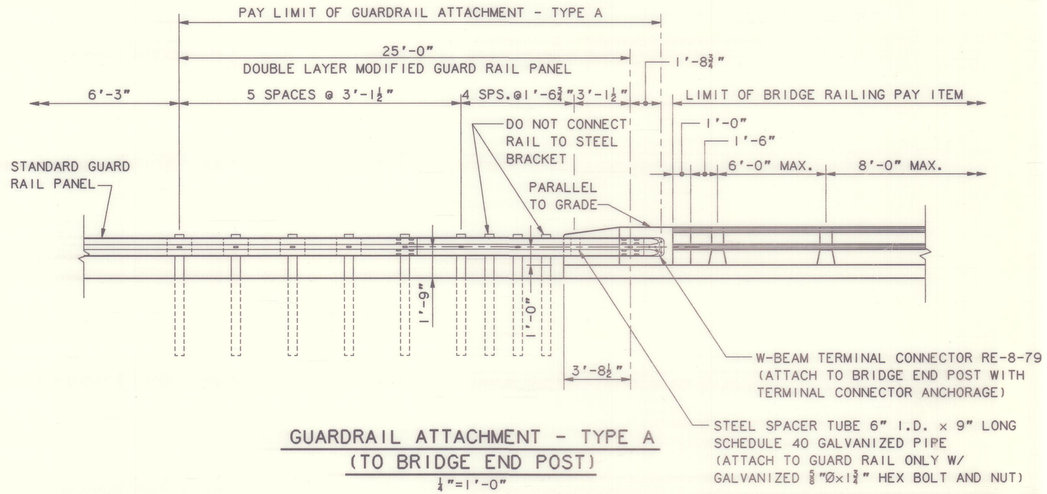


SECTION A-A

BITUMINOUS CONCRETE WATERWAY AT CATCH BASIN IN GRASS AREAS
1/4" = 1'-0"



BITUMINOUS CONCRETE WATERWAY
3/4"= 1'-0"



GUARDRAIL ATTACHMENT - TYPE A (TO BRIDGE END POST)
1/4"=1'-0"

NOTE: FOR ADDITIONAL GUARDRAIL DETAILS SEE STANDARD DETAIL BD-201-89

No.	Revision	By	Date

	By	Date
Designed	JFC	1/92
Drawn	LS	1/92
Checked	BJB	1/92

In Charge Of: RAL

Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL R.R.

MISC. HIGHWAY DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 11 of 32

SPECIFICATIONS

DESIGN
AASHTO Standard Specifications For Highway Bridges 1989
And Interim Specifications.

CONTRACT
State of Maine, Department of Transportation Standard Specifications, Highways And Bridges, Revision of October 1990.

DESIGN LOADING

LIVE LOAD
HS20 500,000 Cycles

FOUNDATIONS
Abutments - HP10x42
Pier - HP12x53

MATERIALS

CONCRETE
Superstructure Slab Concrete Shall Be Class AAA.
All Other Concrete Shall Be Class A.

REINFORCING STEEL
ASTM-A615 Grade 60. (Epoxy Coated And Non-Epoxy Coated Bars. See Reinforcing Schedules).

STRUCTURAL STEEL
Bearing Shoes-See Standard Details BD 101-89
High Strength Bolts To Be ASTM A325.
All Other Structural Steel Shall Be ASTM A709, Grade 36.

BASIC ALLOWABLE STRESSES

CONCRETE
fc = 1,800 psi n=8 (Superstructure Slab)
fc = 1,600 psi n=8 (All Other)

REINFORCING STEEL
fb = 24,000 psi

STRUCTURAL STEEL
A709 Grade 36, fb = 20,000 psi
A709 Grade 50, fb = 27,000 psi

INDEX OF DRAWINGS

STANDARD DETAIL SHEETS

SHEET NO	TITLE
BD 101-89	BEARING PEDESTALS
BD 111-89	BEAM SPLICES: ROLLED BEAMS
BD 112-89	DIAPHRAGMS & CROSSFRAMES
BD 201-89	CONCRETE END POSTS
BD 401-89	ALUMINUM BRIDGE RAILING: 2 BAR
BD 501-89	SUBSTRUCTURE DETAILS

GENERAL NOTES

1. Reinforcing Steel To Have A Clear Cover Of 2", Unless Otherwise Specified.
2. Chamfer All Exposed Edges 1" Unless Otherwise Noted.
3. Plans of Existing Bridges Are Available At The Authority's Office At 430 Riverside St., Portland, Maine.
4. Shielding Required During Concrete Removal Shall Not Project Below The Bottom Flanges Of The Stringers. The Estimated Quantity Of Shielding Is The Minimum Required And Is Based On The Following Limits:
   a. Normal To ℄ Bridge: As Shown On Plans
   b. Parallel To ℄ Bridge: Abutment To Abutment
5. The Authority's Personnel Will Profile The Tops Of All Stringers Before The Form Work Is Started And Supply The Contractor With Final Bottom Of Slab Elevations.

SUPERSTRUCTURE NOTES

1. All Brush Curb, End Post And Top Pour Of Wingwall Concrete Shall Contain A Silica Fume Additive.
2. Longitudinal Reinforcement Shown In Deck Plan Is Symmetrical About ℄ Bridge.
3. Mortar For Bedding And For Joints In The Granite Curb Shall Contain A Non-shrink Additive.
4. The Superstructure Slab Concrete Shall Be Placed In One Continuous Operation And Shall Be Kept Plastic One Complete Span Behind The Span Being Placed.
5. If The Slab Placement Has To Be Terminated, The Termination Point Must Be At The Points Indicated In The Placement Details, Shown On The Superstructure Detail Sheet.
6. Adjust Reinforcing Steel To Fit Around The Scuppers In A Manner Approved By The Engineer. Do Not Cut Transverse Re-steel.
7. Depress 1"Ø Drains ⅜" Below Top Of Slab. Do Not Cover Drains With Membrane. Provide 23 Gauge Galvanized Screens (⅛" Mesh) Over Drains.
8. Seal Membrane At Deck Joints, Along Curb, And All Drains. Allow ¼" For Thickness.
9. Locate Scupper In Field To Discharge Into Drainage Trough. For Scupper Details, See Sheet 22.
10. Protective Coating For Concrete Surfaces Shall Be Used At The Following Areas: Top Of Concrete Curb, Fascia, Down To Drip Notch, And All Exposed Concrete Surfaces On The End Posts.

QUANTITY ITEMS AND UNITS

ITEM NO.	DESCRIPTION	QUANTITY NB	QUANTITY SB	UNIT
202.10	Removing Existing Superstructure - Property of Contractor (820 SY Each Deck)*	ONE		LS
202.12	Removing Existing Structural Concrete	22	22	CY
202.14	Removing Existing Railing - Property Of Contractor	490	490	LF
202.20	Protective Shield	1075	1075	SY
203.25	Granular Borrow	40	40	CY
206.082	Structural Earth Excavation - Major Structures	135	135	CY
206.10	Structural Earth Excavation - Piers	95	110	CY
403.08	Hot Bituminous Pavement, Grading C	95	95	Ton
501.212	Steel H-Beam Piles 42 Lb./Ft.	300	300	LF
501.214	Steel H-Beam Piles 53 Lb./Ft.	210	210	LF
502.21	Structural Concrete Abutments & Retaining Walls	57	57	CY
502.23	Structural Concrete Piers	83	83	CY
502.26	Structural Concrete Roadway & Sidewalk Slabs On Steel Bridges (285 CY Each Deck)*	ONE		LS
502.4712	Silica Fume Additive	1200	1200	Lbs.
502.48	Pier Preparation	105	125	SF
502.60	Backwall Repair - Surface Repair - Section II	10	0	SF
502.62	Abutment and Bridge Seat Repair - Section II	20	10	SF
502.63	Pier Repairs	25	15	SF
503.12	Reinforcing Steel, Fabricated And Delivered	9364	9389	Lbs.
503.13	Reinforcing Steel, Placing	9364	9389	Lbs.
503.14	Epoxy-Coated Reinforcing Steel, Fabricated & Delivered	108600	108600	Lbs.
503.15	Epoxy-Coated Reinforcing Steel, Placing	108600	108600	Lbs.
504.701	Structural Steel Fabricated & Delivered, Rolled (52350 Lbs,Grade 36 Ea.Deck, 900 Lbs,Grade 50 Ea.Deck)*	ONE		LS
504.71	Structural Steel Erection (53250 Lbs. Each Deck)*	ONE		LS
504.72	Steel Beam Modifications	7120	7120	Lbs.
504.73	Structural Steel Repairs	200	200	Lbs.
505.08	Shear Connectors (466 Units Each Deck)*	ONE		LS
506.30	Shop Coating Of Structural Steel (27 Ton Each Deck)*	ONE		LS
506.31	Field Repair Of Damaged Coating (3 Ton Each Deck)*	ONE		LS
507.092	Aluminum Bridge Railing, 2 Bar	528	528	LF
508.13	Membrane Waterproofing (1030 SY Each Deck)*	ONE		LS
514.06	Curing Box For Concrete Cylinders	ONE		Each
515.20	Protective Coating for Concrete Surfaces	255	255	SY
515.22	Thoroseal Coating for Concrete Surfaces	20	20	SY
520.221	Expansion Device Extension - Compression Seal	2	2	Each
609.131	Vertical Bridge Curb - Type 1A	50	50	LF
609.132	Vertical Bridge Curb - Type 1B	488	488	LF

* Quantities For Estimating Purposes Only

No.	Revision	By	Date

	By	Date
Designed	SHR	11/91
Drawn	LS	11/91
Checked	IS	12/91
In Charge Of: RAL		

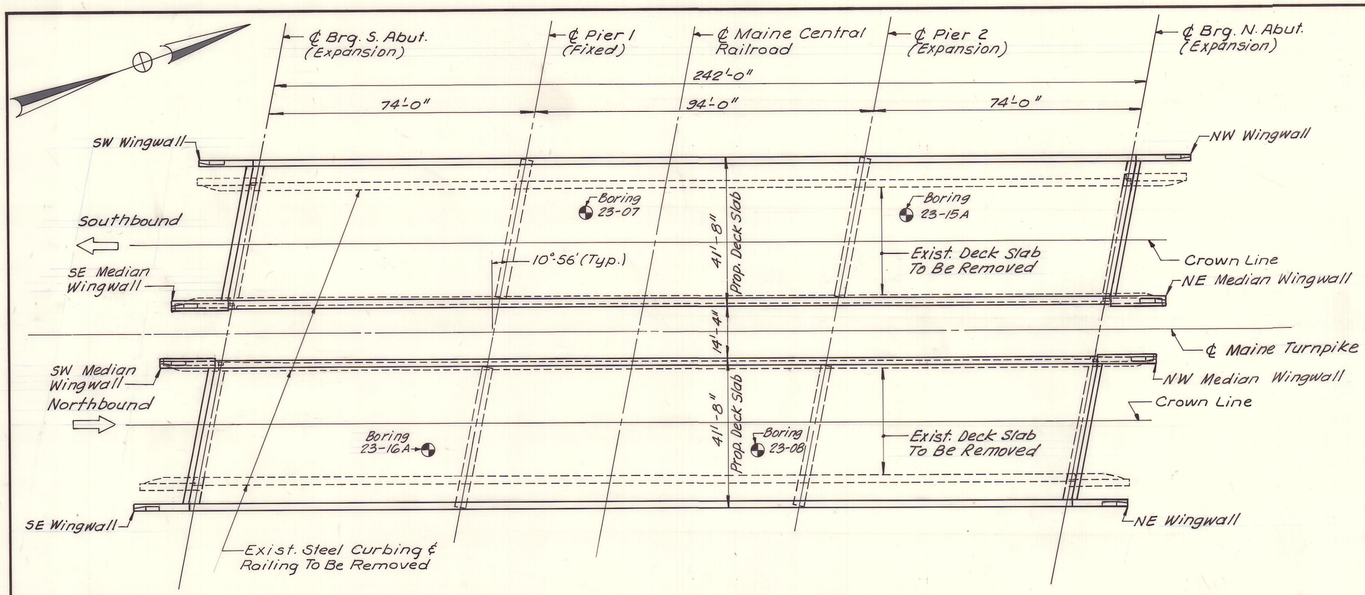
Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL RR
INDEX, QUANTITIES, AND NOTES

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 12 of 32



PLAN
1"=20'

ESTIMATED PILE LENGTHS *	
South Abutment	50'
Pier 1	35'
Pier 2	35'
North Abutment	50'

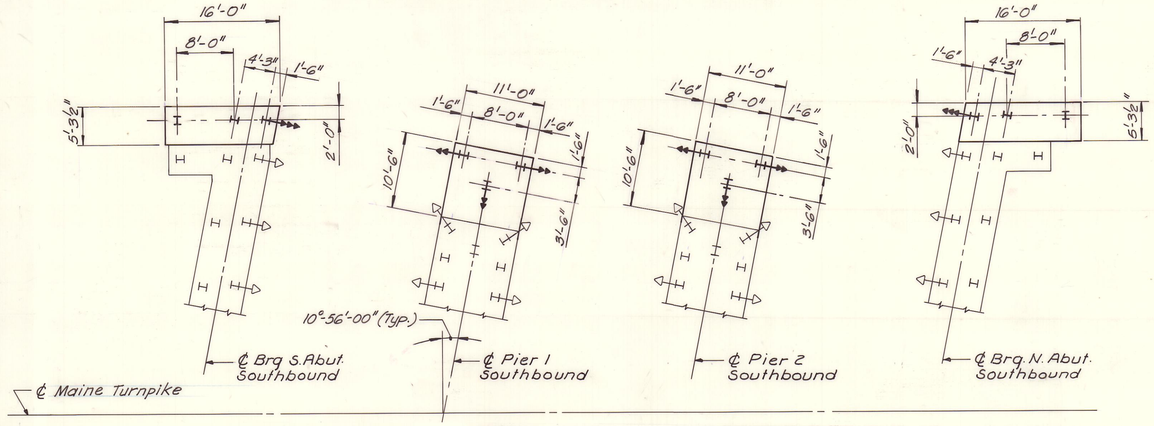
* See Note 3

LEGEND

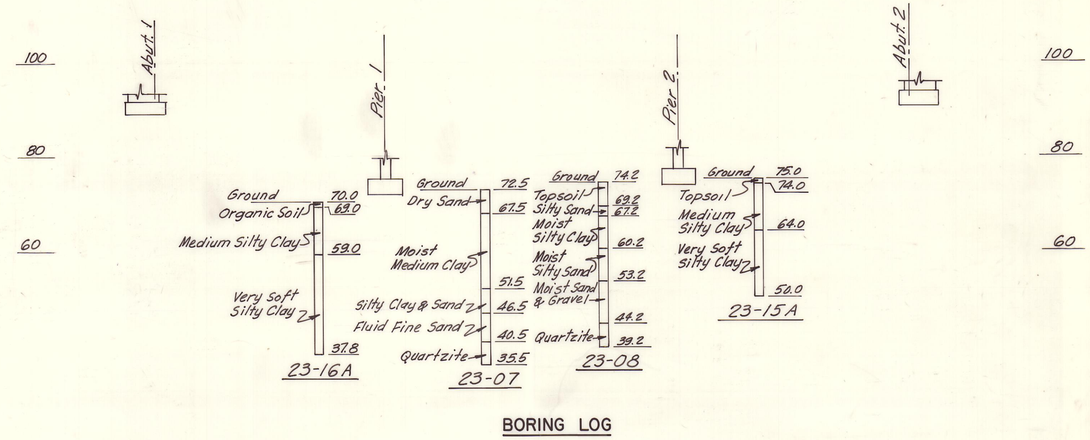
- H — Existing Pile (Vertical)
- H — Existing Pile (Batter 3"/Ft.)
- H — Proposed Pile HP 10×42 (Vertical)
- H — Proposed Pile HP 12×53 (Batter 2"/Ft.)
- H — Proposed Pile HP 10×42 (Batter 3"/Ft.)
- Existing Boring

BORING NOTES

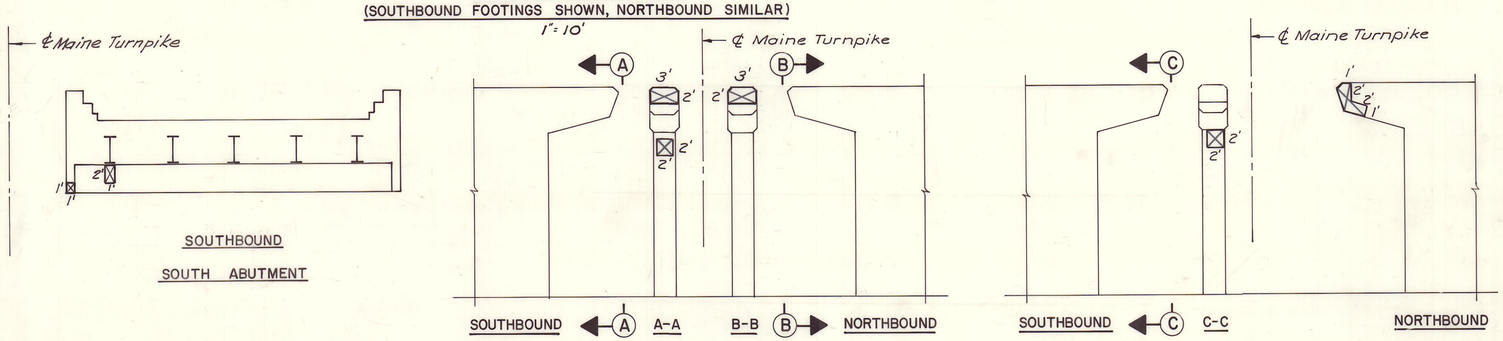
1. The Borings Shown Were Taken For Original Construction. The Borings Were Taken For Design Purposes, And Show Conditions At The Boring Locations Only. They Do Not Necessarily Show The Nature Of Materials To Be Encountered During Construction.
2. Datum Correction: Based On 1991 Survey Information, Add 0.36 Ft. To Elevations Shown On Boring Log.
3. Estimated Pile Lengths Are Taken From The Original Construction Drawings And Are Not Guaranteed.



PARTIAL FOOTING PLAN
(SOUTHBOUND FOOTINGS SHOWN, NORTHBOUND SIMILAR)
1"=10'



BORING LOG



SUBSTRUCTURE REPAIRS
TO EXISTING STRUCTURE
No Scale

No.	Revision	By:	Date:

	By:	Date:
Designed	IS	11/91
Drawn	RDF	11/91
Checked	SHR	12/91
In charge of: RAL		

Maine Turnpike Authority
Maine Turnpike

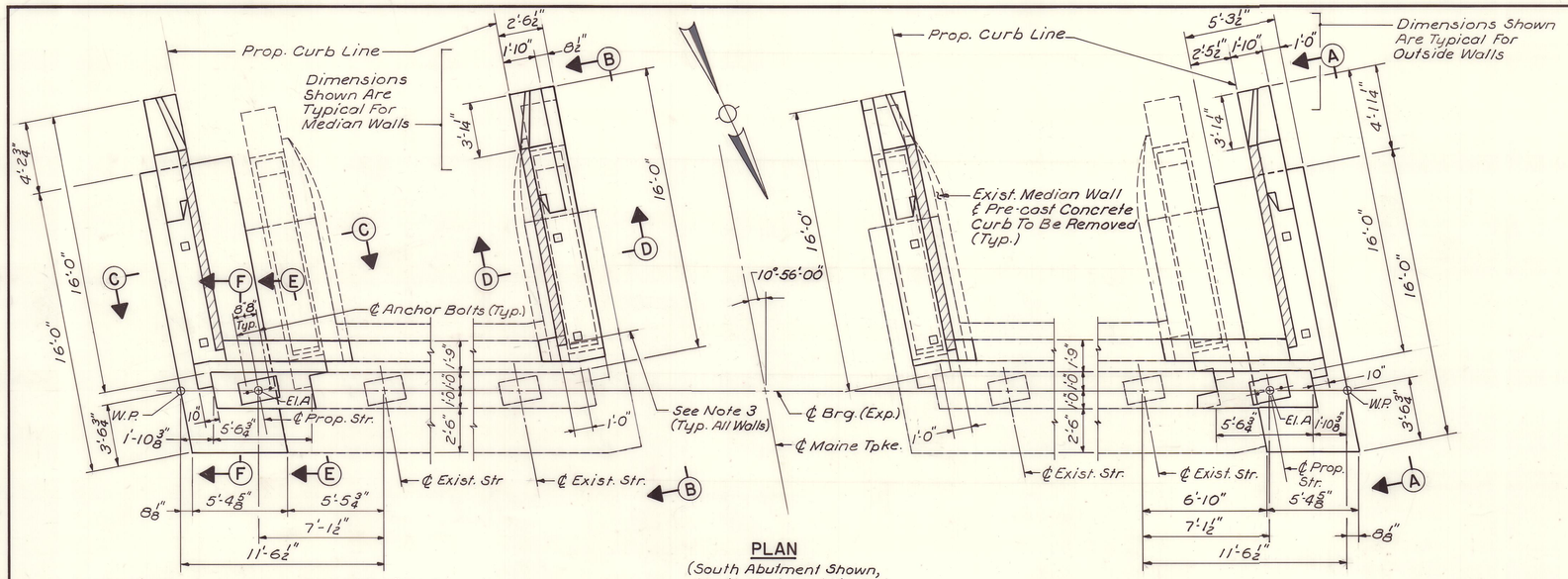
MAINE CENTRAL R.R.
GENERAL PLAN & FOOTING PLAN

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

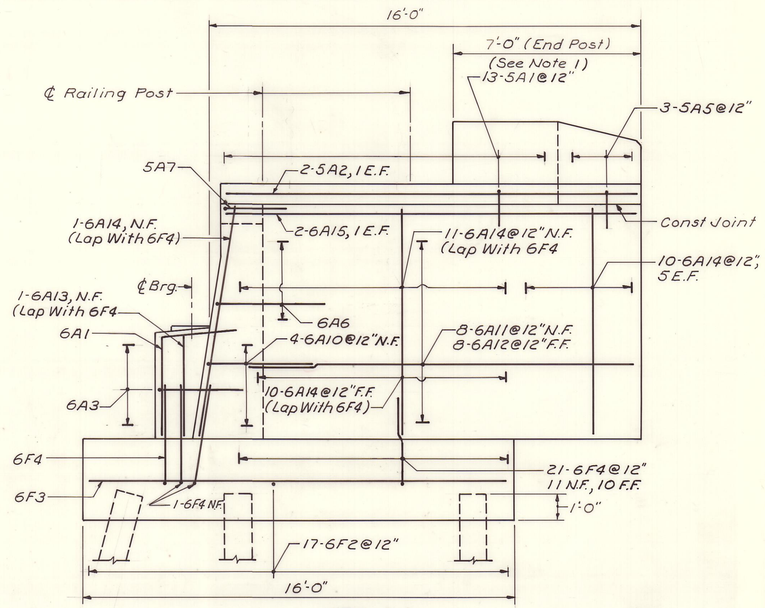
Contract 92.9

Sheet No. 13 of 32

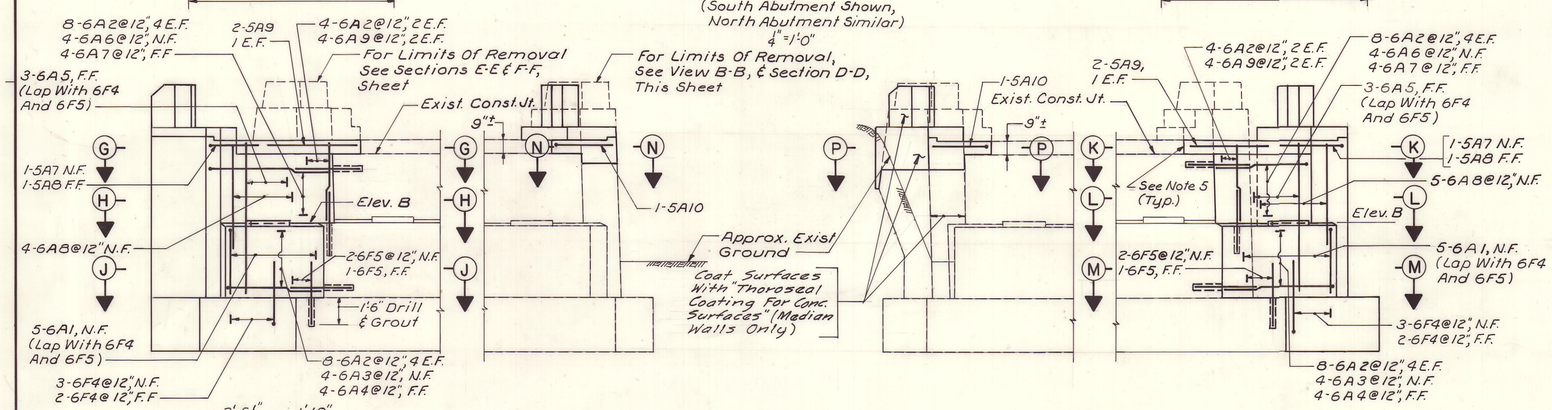
181009
MAKEPEACE



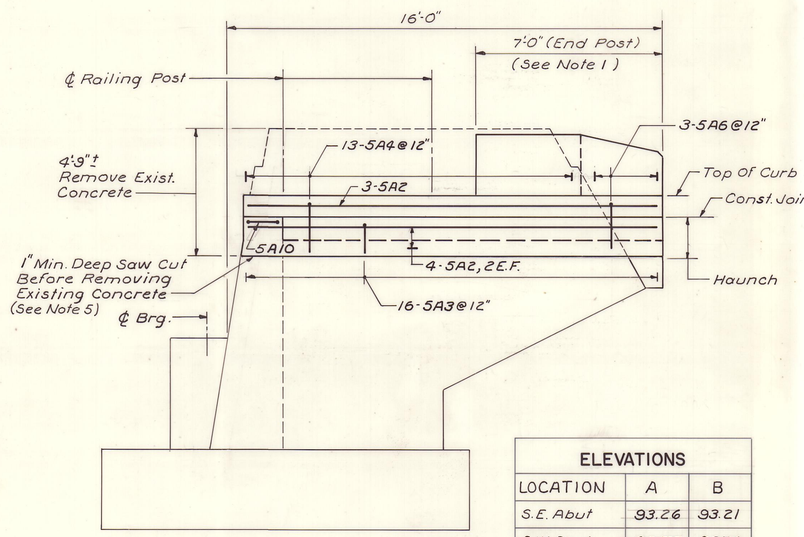
PLAN
(South Abutment Shown, North Abutment Similar)
$\frac{1}{4}$" = 1'-0"



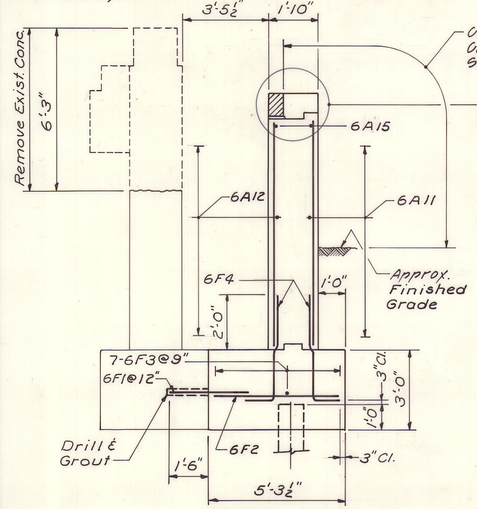
VIEW A-A
$\frac{3}{8}$" = 1'-0"



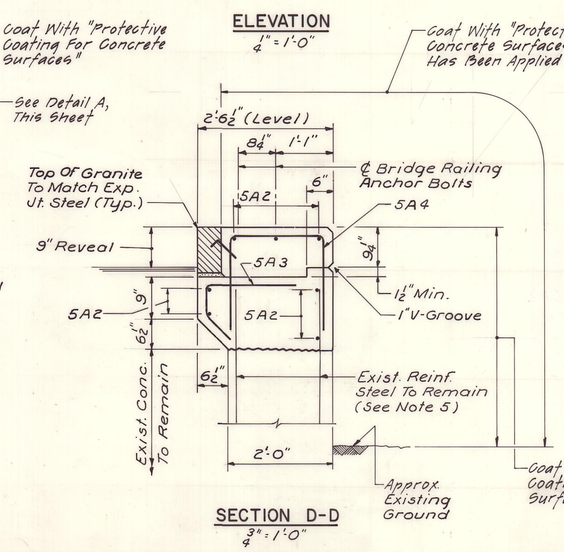
ELEVATION
$\frac{1}{4}$" = 1'-0"



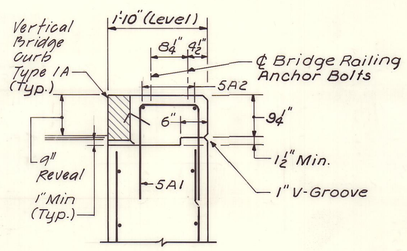
VIEW B-B
$\frac{3}{8}$" = 1'-0"



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



SECTION D-D
$\frac{3}{4}$" = 1'-0"



DETAIL A
$\frac{3}{4}$" = 1'-0"

ELEVATIONS		
LOCATION	A	B
S.E. Abut	93.26	93.21
S.W. Abut.	93.79	93.74
N.W. Abut.	100.70	100.62
N.E. Abut.	100.25	100.17

NOTES

1. For End Post Reinforcing, See Standard Detail BD 201-89.
2. Top Of Wall To Be Constructed Parallel To Roadway.
3. For Limit Of Granite Curb See Sh. 16.
4. For Sections E-E, F-F, G-G, H-H, J-J, K-K, L-L, M-M, N-N, & P-P, See Sh. 15.
5. Cut & Clean Exist. Reinf. Steel To Provide A Min. 12" Lap With Prop. Reinf. The Contractor Will Be Required To Dowel Into Exist. Conc. When, As Determined By The Engineer, The Exist Steel Is Unsuitable Or Missing. The Work Involved In Drilling & Grouting Will Be Considered Incidental.

No.	Revision	By:	Date:

	By:	Date:
Designed	R.J.R.	10-91
Drawn	R.D.F.	10-91
Checked	R.A.L.	11-91
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

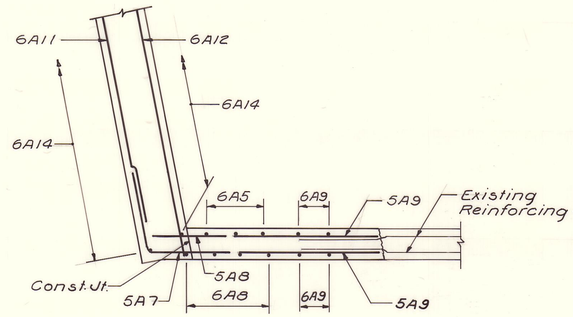
ABUTMENT DETAILS I

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

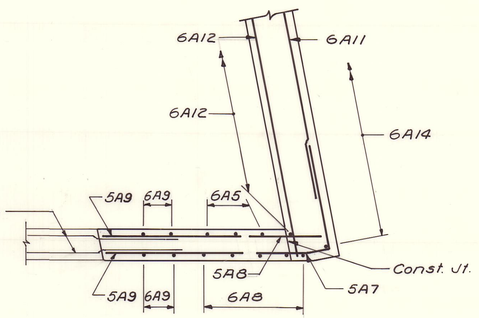
Contract 92.9

Sheet No. 14 of 32

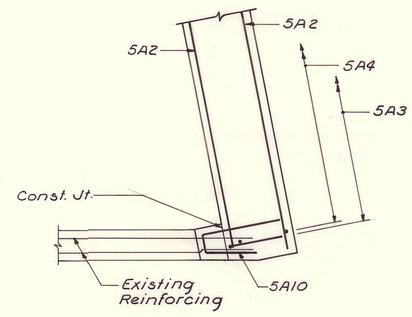
181809
MAKEPEACE



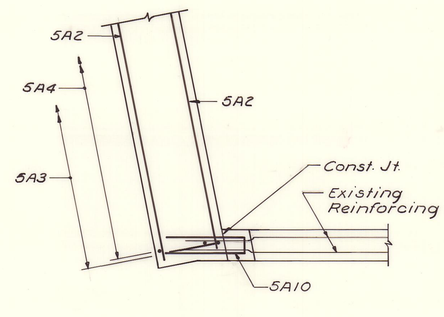
SECTION G-G
3/8" = 1'-0"



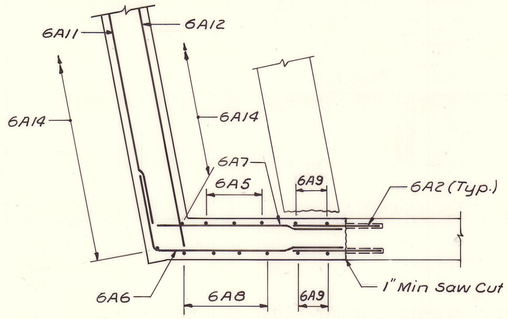
SECTION K-K
3/8" = 1'-0"



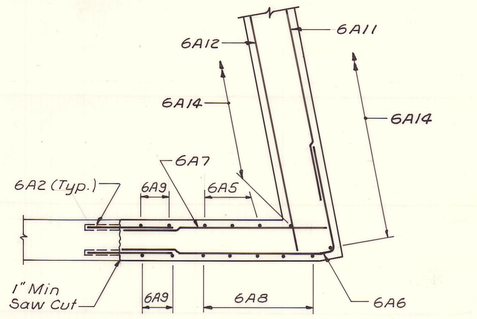
SECTION N-N
3/8" = 1'-0"



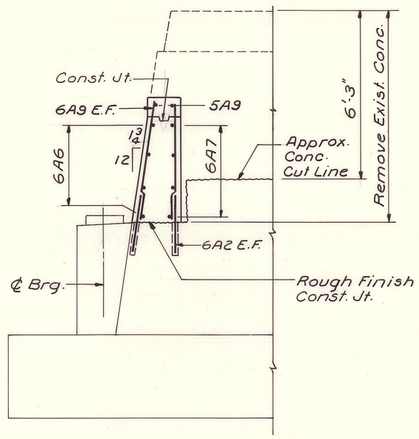
SECTION P-P
3/8" = 1'-0"



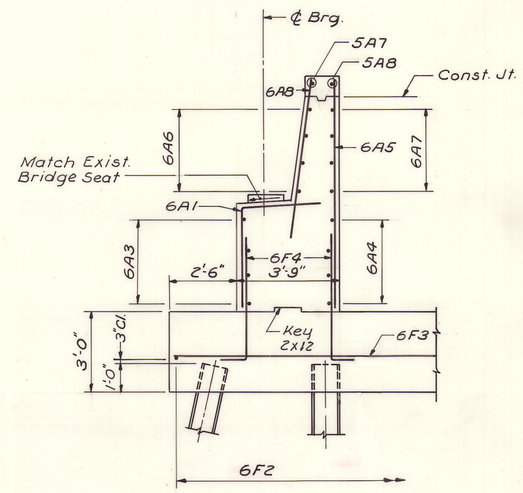
SECTION H-H
3/8" = 1'-0"



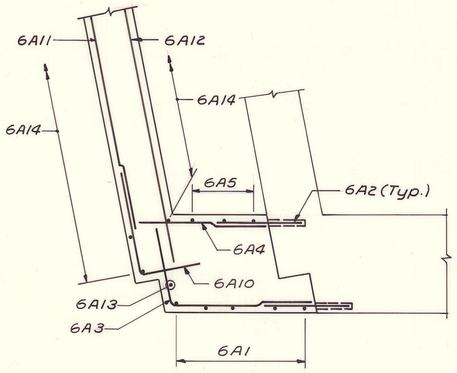
SECTION L-L
3/8" = 1'-0"



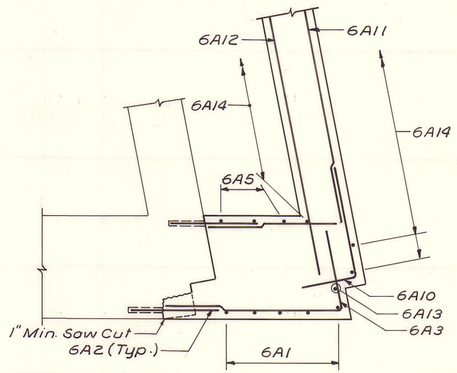
SECTION E-E
3/8" = 1'-0"



SECTION F-F
3/8" = 1'-0"



SECTION J-J
3/8" = 1'-0"



SECTION M-M
3/8" = 1'-0"

NOTES

1. For Location Of Sections E-E Thru P-P, See Sheet 14.

No.	Revision	By:	Date:

	By:	Date:
Designed	R.J.R.	12-91
Drawn	R.D.F.	12-91
Checked	R.A.L.	12-91
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

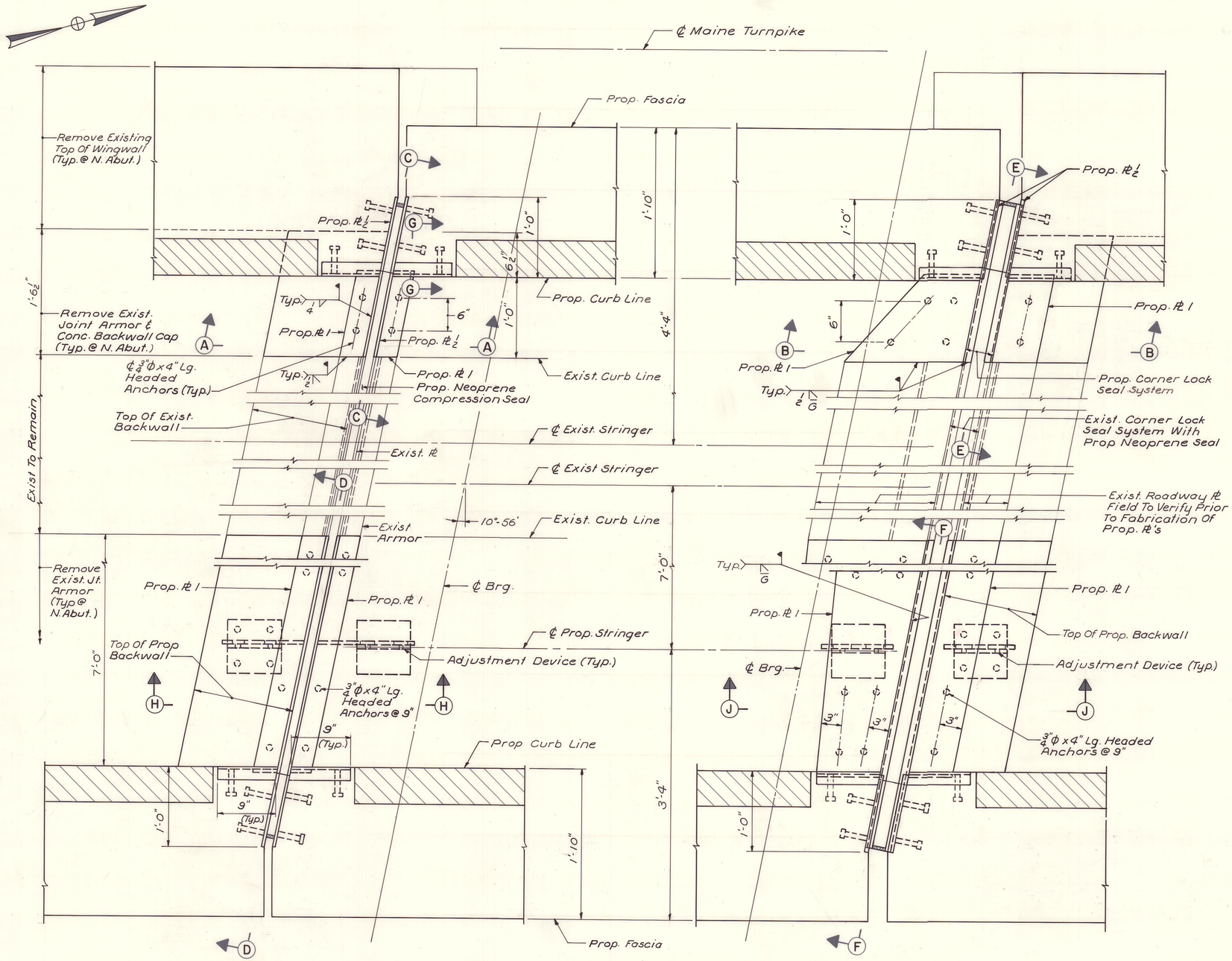
ABUTMENT DETAILS II

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 15 of 32

161009
MAKEPEACE



SOUTH ABUTMENT

NORTH ABUTMENT

PLAN
ABUTMENT JOINT DETAILS
1½"= 1'-0"

NOTES

1. For Sections A-A, B-B, C-C, D-D, E-E, F-F, G-G, H-H, And J-J, See Sheet 17.

No.	Revision	By:	Date:

	By:	Date:
Designed	S.H.R.	11-91
Drawn	R.D.F.	11-91
Checked	R.A.L.	11-91
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

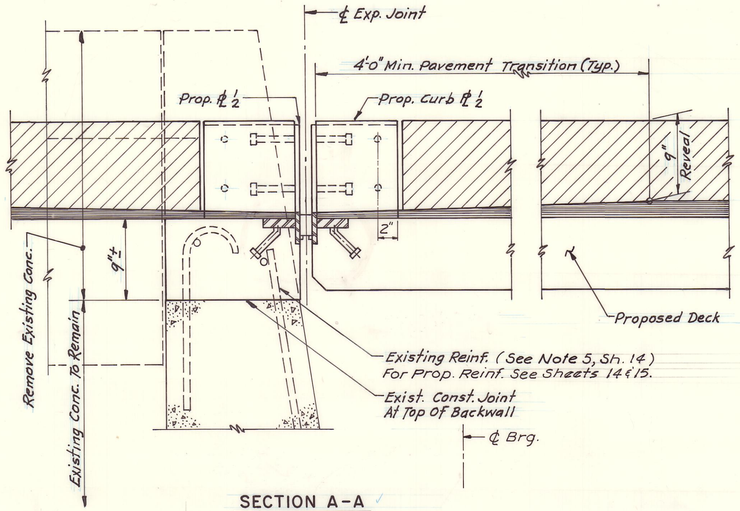
ABUTMENT JOINT DETAILS I

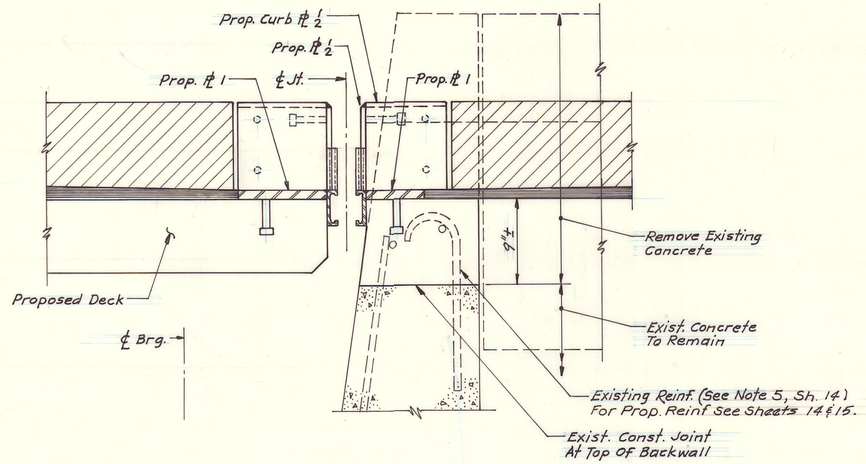
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

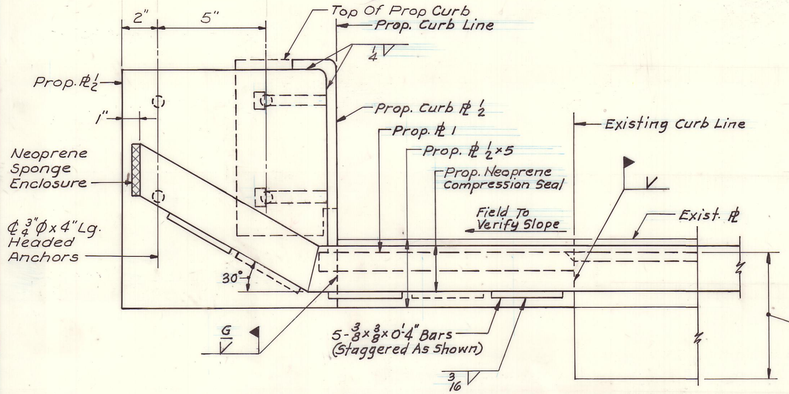
Sheet No. 16 of 32

181009
MAKEPEACE

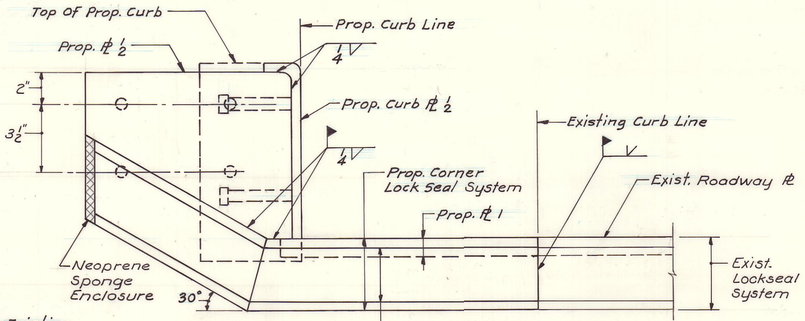




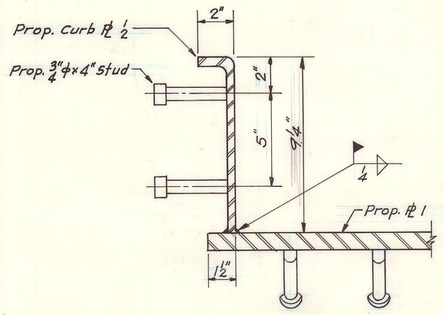
SECTION A-A
1½"=1'-0"



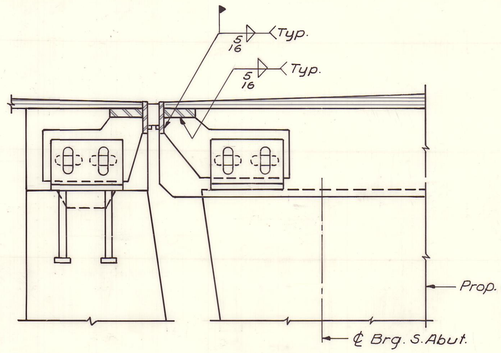
SECTION B-B
1½"=1'-0"



SECTION C-C (SHOWN)
SECTION D-D (SIMILAR)
3"=1'-0"

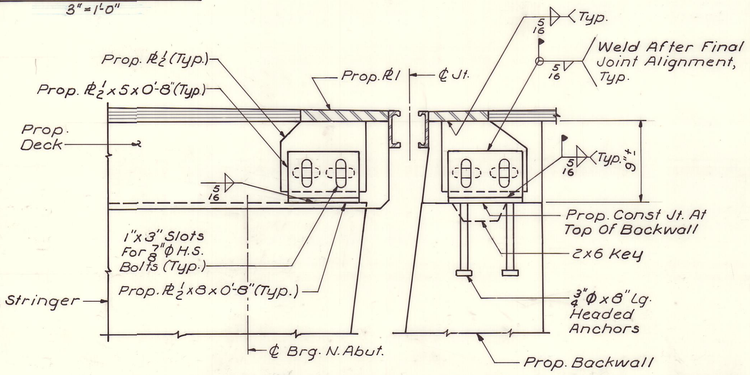


SECTION G-G
(Typical @ Curb ℔'s)
3"=1'-0"



SECTION H-H
(Similar To Section JJ)

SECTION E-E (SHOWN)
SECTION F-F (SIMILAR)
3"=1'-0"



SECTION J-J

ADJUSTMENT DEVICE DETAILS
1½"=1'-0"

NOTES
1. For Location Of Sections A-A, B-B, C-C, D-D, E-E, F-F, G-G, H-H, And J-J, see Sh. 16.

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

ABUTMENT JOINT DETAILS II

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

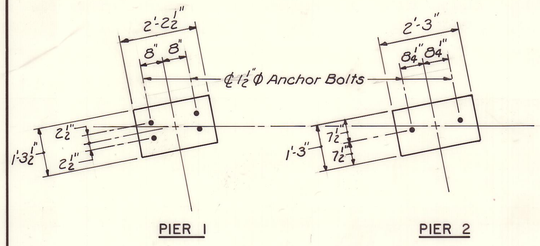
No.	Revision	By:	Date:

	By:	Date:
Designed	S.H.R.	10-91
Drawn	R.D.F.	10-91
Checked	R.A.L.	10-91
In charge of:	R.A.L.	

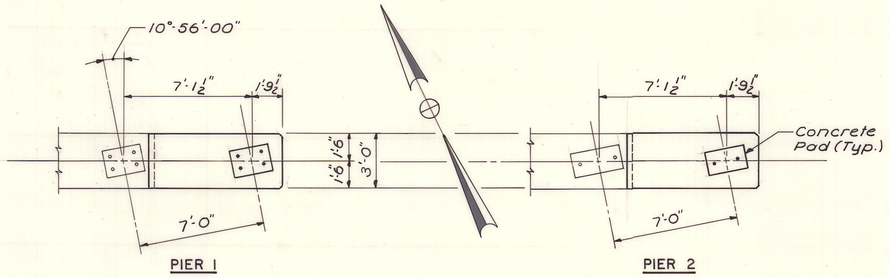
Contract 92.9

Sheet No. 17 of 32

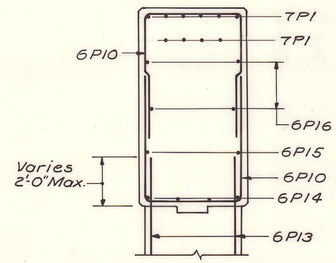
MAKEPEACE



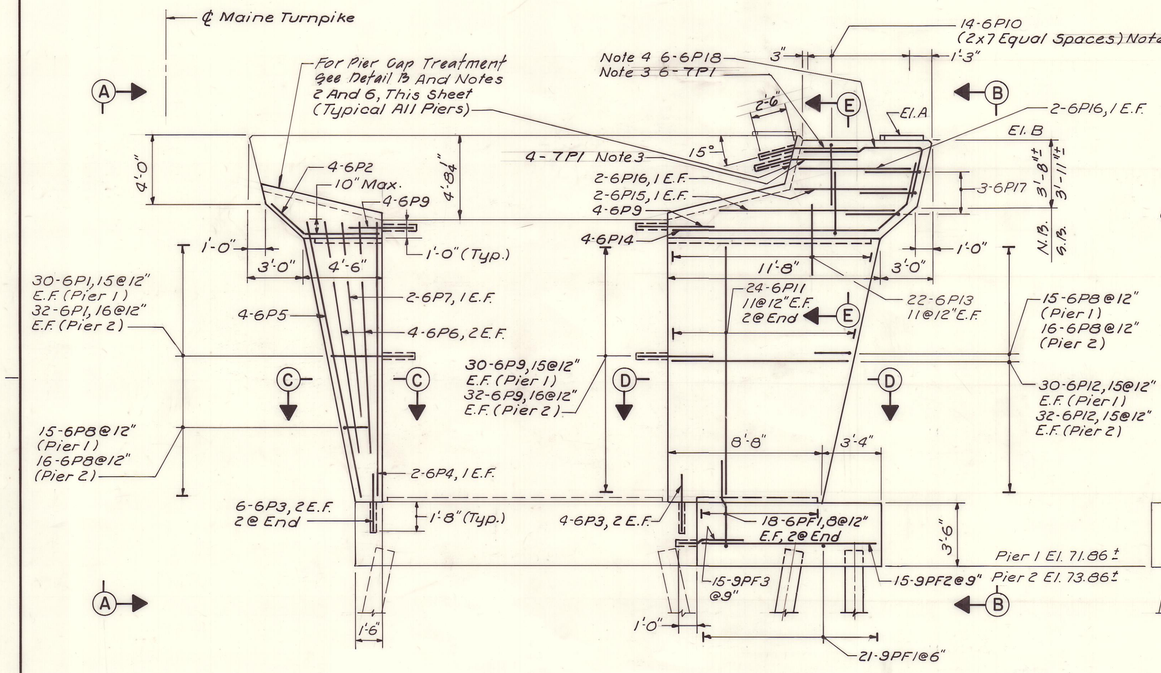
CONCRETE PADS
(Anchor Bolt Locations)
2" = 1'-0"



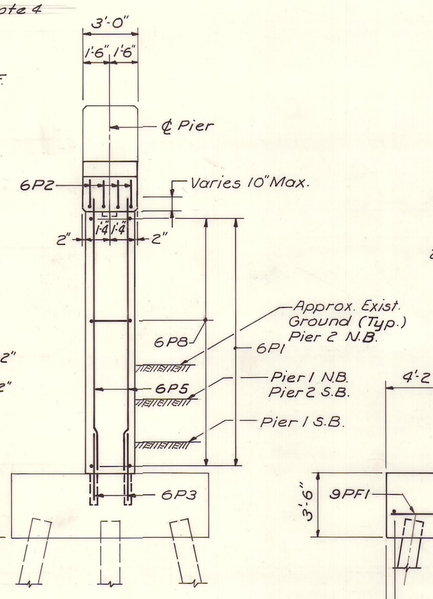
PIER EXTENSIONS
¼" = 1'-0"



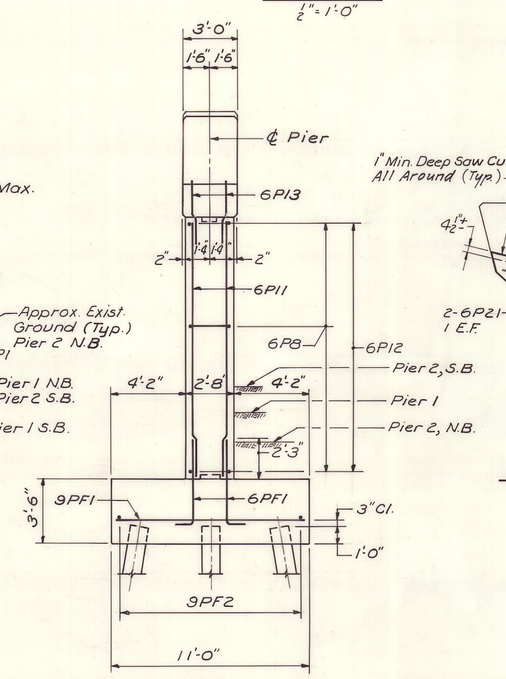
ELEVATIONS		
LOCATION	A	B
Pier 1 N.B.	95.30	95.26
Pier 2 N.B.	97.88	97.84
Pier 1 S.B.	95.87	95.80
Pier 2 S.B.	98.39	98.35



ELEVATION PIER 1 NORTHBOUND
PIER 1 SOUTHBOUND SIMILAR
PIER 2 NORTHBOUND & SOUTHBOUND SIMILAR
¼" = 1'-0"

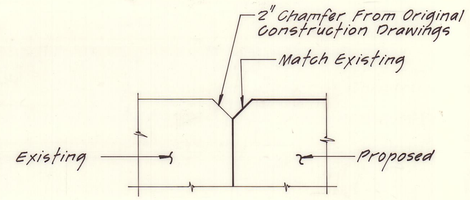


VIEW A-A
¼" = 1'-0"

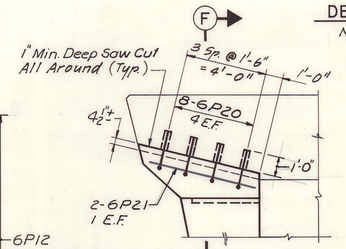


VIEW B-B
¼" = 1'-0"

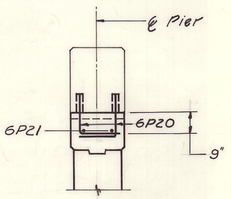
SECTION E-E
½" = 1'-0"



DETAIL A
No Scale



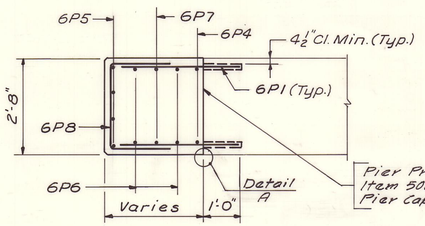
DETAIL B
¼" = 1'-0"



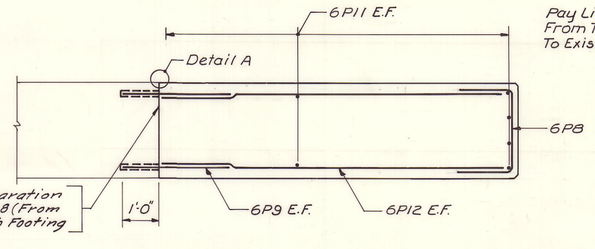
SECTION F-F
¼" = 1'-0"

NOTES:

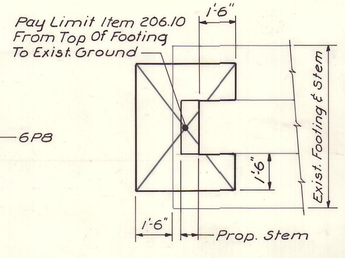
1. Two Inch Chamfer On All Exposed Edges.
2. Remove Existing Concrete To A Plane One Inch Below The Deepest Existing Reinforcing Steel Or To Sound Concrete Whichever Is Greater.
3. Drill And Grout Bars 7P1 To Clear Exposed Reinforcing Steel And Existing Bearing Shoes Anchor Bolts.
4. Set Bars 6P10 & 6P18 To Clear Proposed Bearing Shoe Anchor Bolts.
5. Reinforcing Bars Doweled Into The Existing Pier Cap Shall Be Grouted In Place With An Epoxy Grout. A Non-Shrink Cementitious Grout Shall Be Used On All Other Dowels.
6. The Surface Of The Excavated Area And The Exposed Reinforcing Steel Shall Be Sand Blasted Free Of Dust, Loose Particles, Rust And Other Foreign Materials.



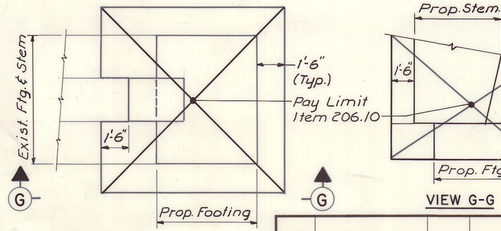
SECTION C-C
½" = 1'-0"



SECTION D-D
½" = 1'-0"

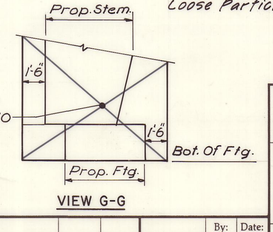


PLAN - MEDIAN END



PLAN - FASCIA END

PAY LIMITS (Item 206.10)
No Scale



VIEW G-G

No.	Revision	By:	Date:

	By:	Date:
Designed	I.S.	11-91
Drawn	R.D.F.	11-91
Checked	S.H.R.	11-91
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

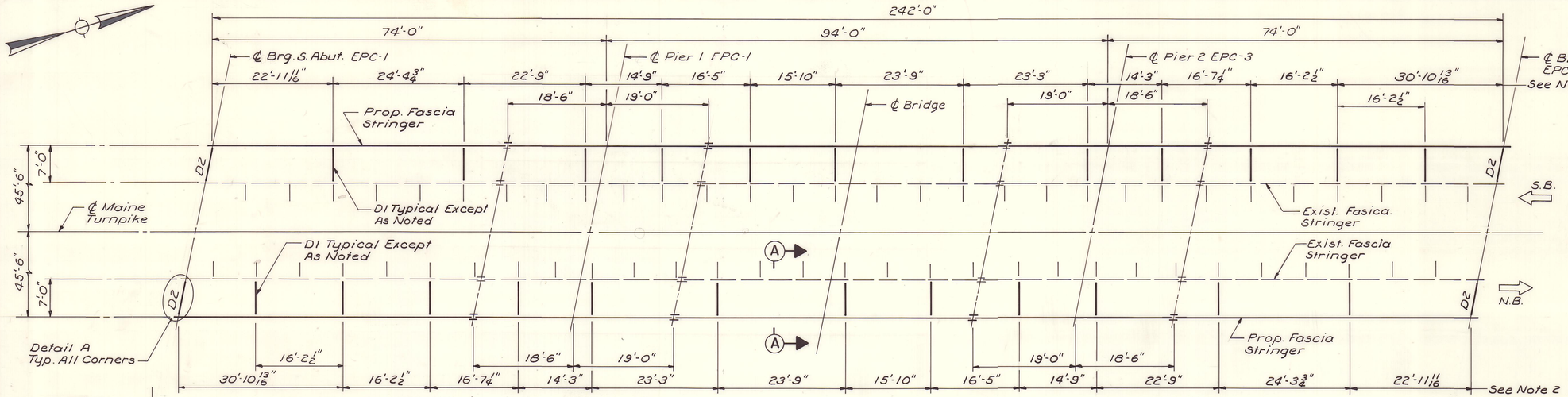
PIER DETAILS

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

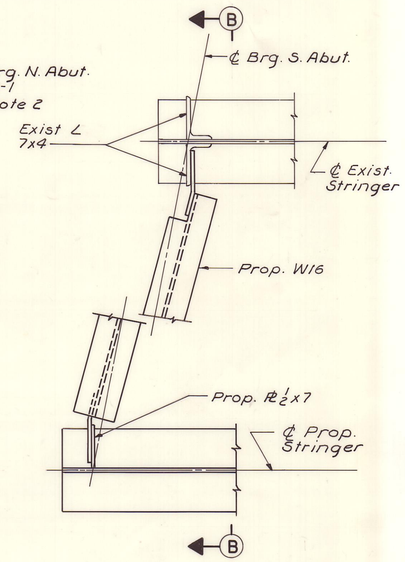
Contract 92.9

Sheet No. 18 of 32

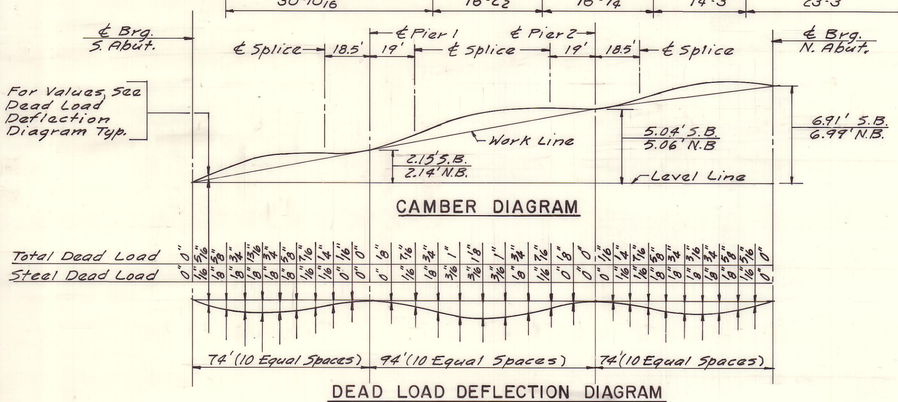
181000
MAKEPEACE



PLAN
3/32"=1'-0"

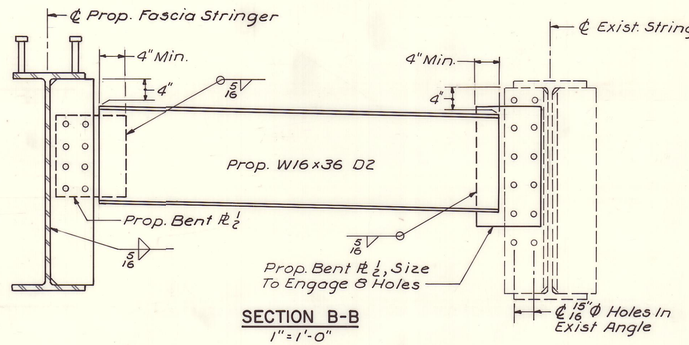


DETAIL A
1"=1'-0"

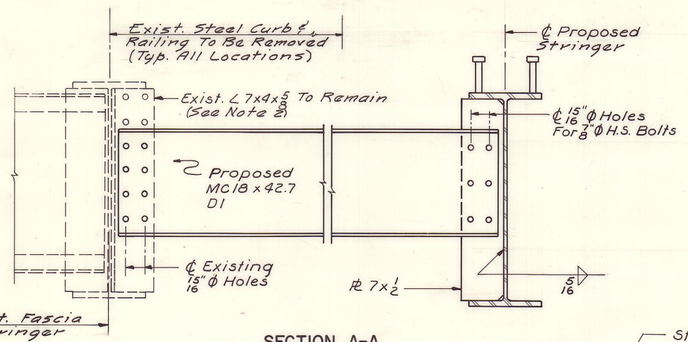


CAMBER DIAGRAM

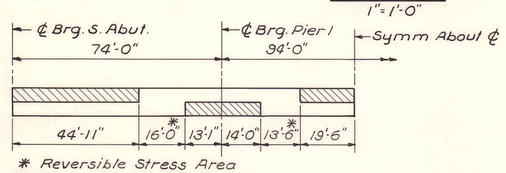
DEAD LOAD DEFLECTION DIAGRAM
(Proposed Fascia Stringer)
No Scale



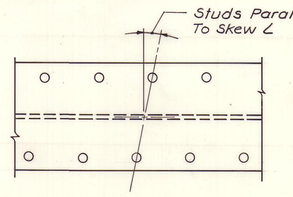
SECTION B-B
1"=1'-0"



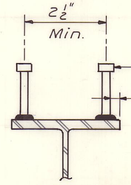
SECTION A-A
1"=1'-0"



STRESS DIAGRAM
No Scale

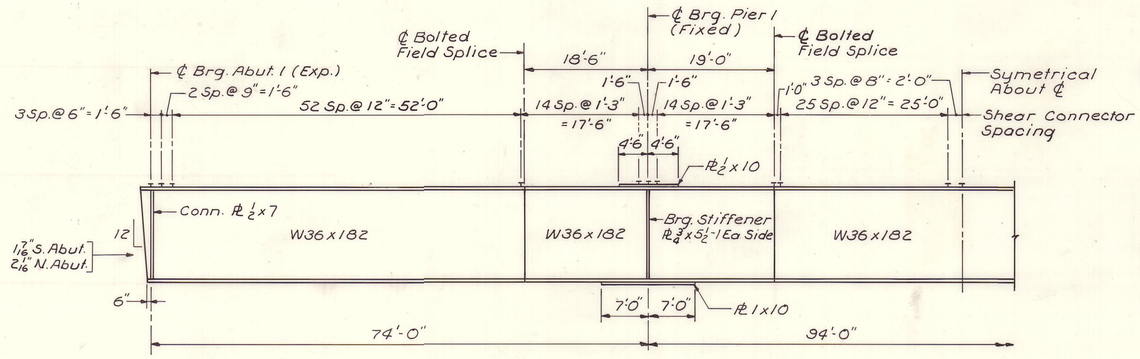


PLAN



SECTION

SHEAR STUD CONNECTOR
1 1/2"=1'-0"



STRINGER ELEVATION
(Proposed Fascia Stringers)
No Scale

Note
At Stringer Splices The Stud Spacing May Be Varied To Clear Splice Fasteners Providing The Same Total Number Of Studs Is Maintained In A 5'-0" Length Of Beam.

NOTES

1. Field Measure Location Of Existing Holes In ∠ 7x4. Locate Proposed D1 To Engage 8 Holes As Shown. The Fabricator Has The Option Of Providing 1/2" Plate As Shown In Section B-B This Sheet.
2. Diaphragm Spacing And Holes In ∠7x4 Is As Shown On The Original Construction Drawings And Is Not Guaranteed. Verify By Field Measurement.
3. See BD 111-89 For Bolted Splice Details
4. See BD 112-89 For Diophragm Details.

No.	Revision	By:	Date:

	By:	Date:
Designed	I.S.	12-91
Drawn	R.D.F.	12-91
Checked	R.J.R.	1-92
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.

FRAMING PLAN

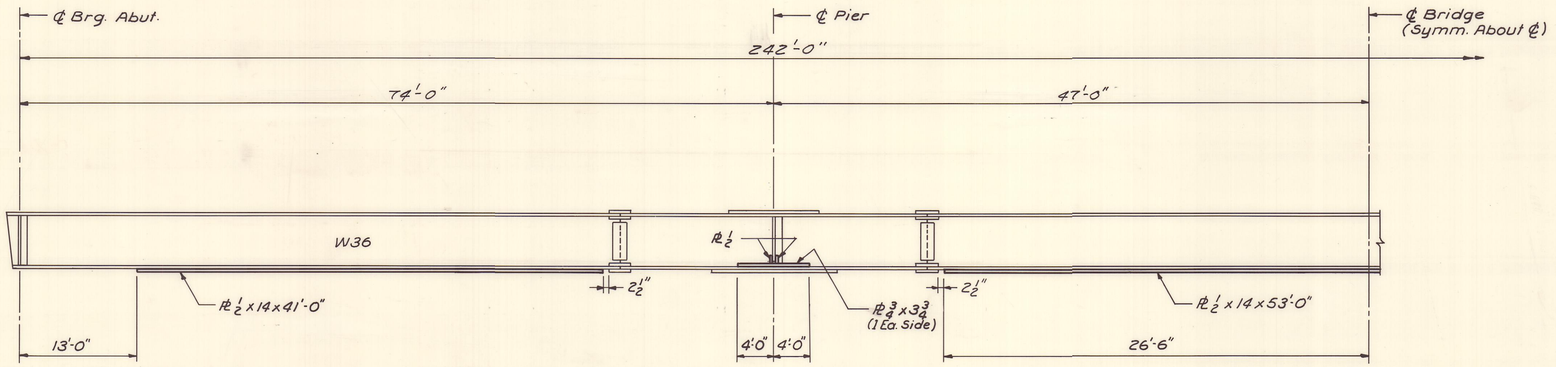
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

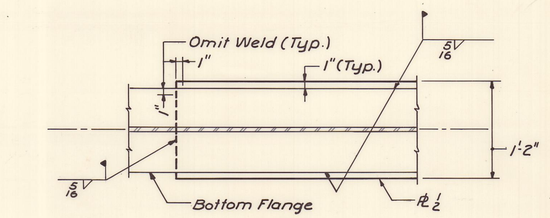
Sheet No. 19 of 32

161009
MAKEPEACE

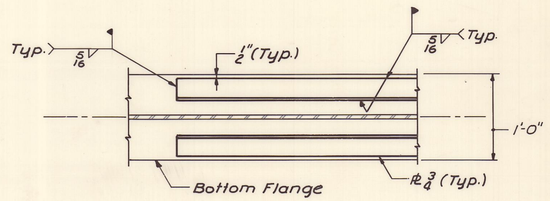
Note
Exist. Bulb Angle
Shear Connectors
Are Not Shown



STRINGER ELEVATION
EXISTING FASCIA STRINGER
(4 Locations)
No Scale

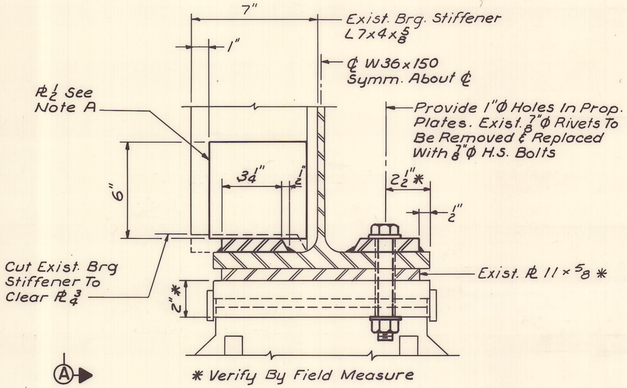


IN SPAN



AT PIER

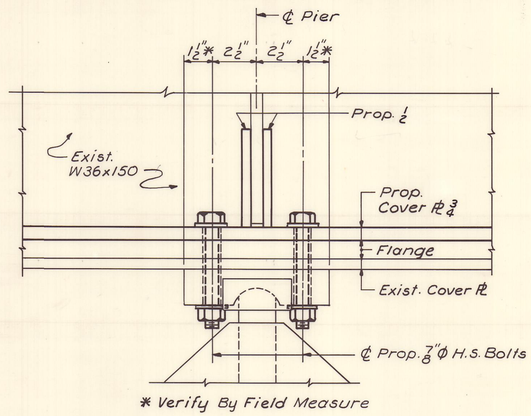
COVER PLATE DETAILS
No Scale



* Verify By Field Measure

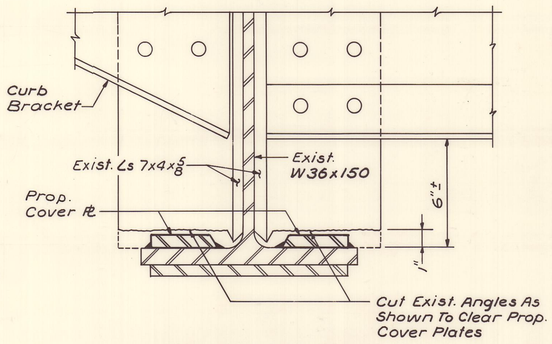
Note A
Provide ½" Plates As Shown On Each Side Of The Outstanding Leg Of All Bearing Stiffeners At The Piers. Grind To Fit L 7x4 Fillet Radius And Weld With ⅝" Fillet On Three Sides. Mill To Bear On ¾" PL At Bottom.

DETAIL AT PIER
3" = 1'-0"



* Verify By Field Measure

ELEVATION A-A
3" = 1'-0"



DETAIL AT DIAPHRAGM
AND CURB BRACKET
3" = 1'-0"

NOTES
1. All Proposed Plates To Conform To ASTM A709 Grade 36.
2. Proposed Cover Plates Shall Be Welded To Existing Beams After The Slab And Brackets Have Been Removed And Before The Forms Are In Place. The Contractors Attention Is Directed To The Need To Remove And Replace The Shielding.

No.	Revision	By:	Date:

	By:	Date:
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In charge of:	R.A.L.	

Maine Turnpike Authority
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MAINE CENTRAL R.R.

STRUCTURAL STEEL DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

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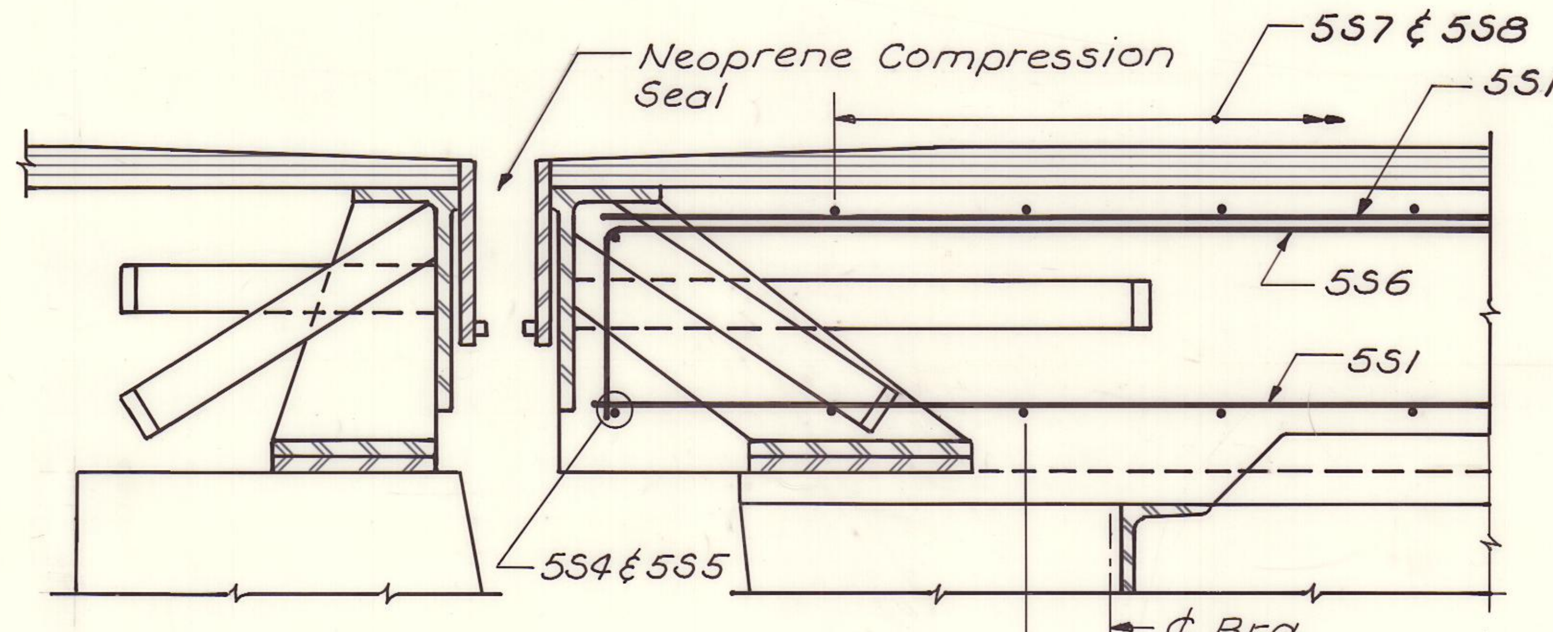
1451009
MAKEPEACE

¢ Brg. S. Abut.
¢ Pier 1
¢ Bridge Symm. About ¢
¢ Pier 2
¢ Brg. N. Abut.
242'-0"
74'-0"
47'-0"
31 Spaces @ 7'-6½" = 233'-9½"
Railing Post Spacing Typ. Each Side Except As Noted
¢ Maine Tpke.
End Post (Typ.)
Prop. Curb Line
3-5S11, 1T. & 2B.
¢ Downspout
Crown Line
4 Req'd. {3-5S4, 1T. & 2B. Between Stringers
Northbound
43-5S6, T. Lap With 5S1
2x111-5S1, Lap With 7S1 & 7S2 43T., 64B. And 4 Curbs
¢ Exist. Stringer
4 Reqd. {3-5S5, 1T. & 2B. Between Stringers
Prop. Curb Line 3-5S12, 1T. & 2B.
¢ Prop. Stringer
85-7S2 Alt. W/85-7S1 } 85T. 79B. 6 Curbs
85-7S1 Alt. W/85-7S2 } 85T. 79B. 6 Curbs
111-5S2, Lap With 7S1 & 7S2 43T., 64B. And 4 Curbs
244-4S1 @ 12"T.
243-5S8 @ 12"T. 244-5S7 @ 12"T. } Alt. @ 6"
Alt. @ 6" {244-5S10 @ 12"B. 243-5S9 @ 12"B.
243-5S7 @ 12"T. 244-5S8 @ 12"T. } Alt. @ 6"
Alt. @ 6" {244-5S9 @ 12"B. 243-5S10 @ 12"B.
4-5S11 2T. & 2B.
4-5S4, 2T. & 2B. Between Stringers (4 Reqd.)
4-5S5, 2T. & 2B. Between Stringers
4-5S12, 2T. & 2B.
Scupper S. Abut. Only See Section A-A For Type
10'-0" (Typ Except As Noted)
490-5S3 245 Ea. Side @ 12"
1" Ø Plastic Deck Drain For Details, See Sheet

PARTIAL DECK PLAN

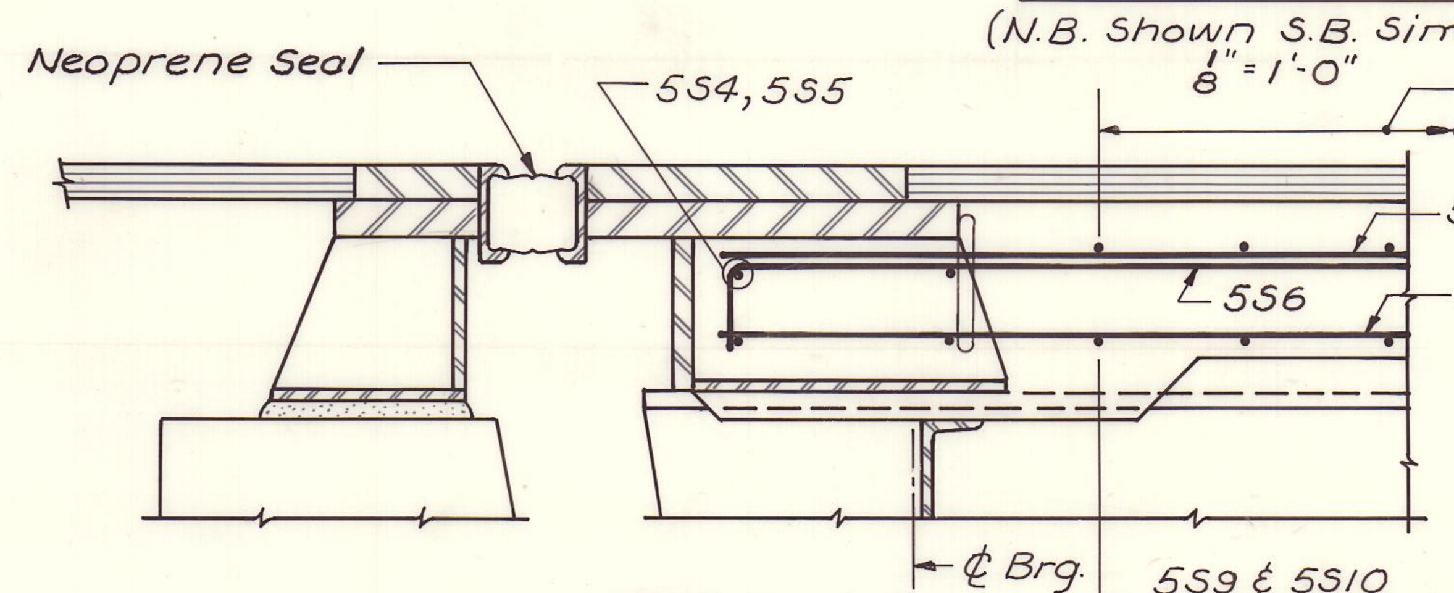
(N.B. Shown S.B. Similar)

$\frac{1}{8}$" = 1'-0"



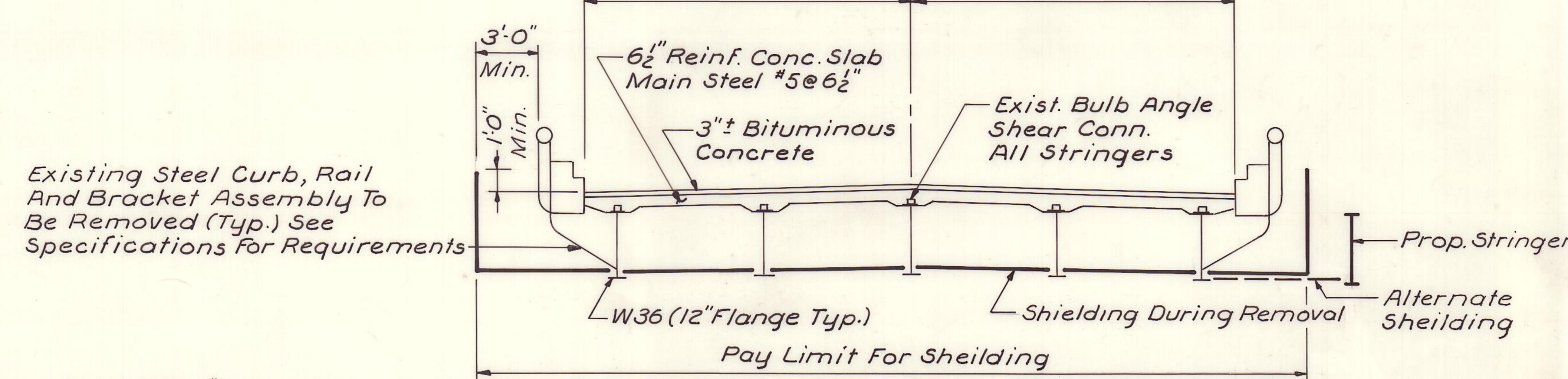
SECTION B-B

2" = 1'-0"



SECTION C-C

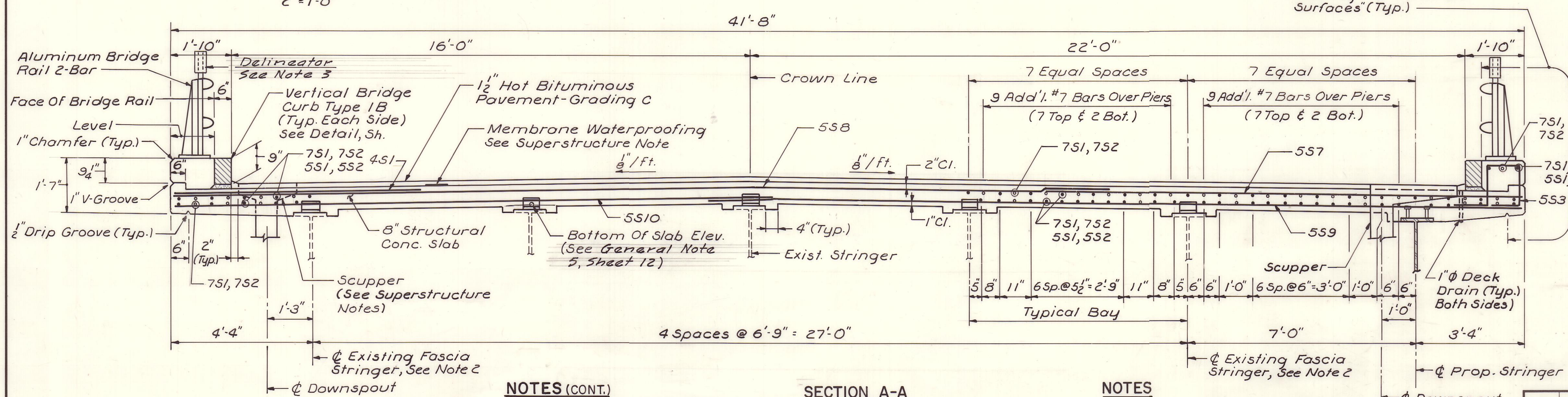
1½" = 1'-0"



15'-0"
15'-0"
6½" Reinf. Conc. Slab Main Steel #5@6½
3"± Bituminous Concrete
Exist. Bulb Angle Shear Conn. All Stringers
Existing Steel Curb, Rail And Bracket Assembly To Be Removed (Typ.) See Specifications For Requirements
Prop. Stringer
W36 (12" Flange Typ.)
Shielding During Removal
Alternate Sheilding
Pay Limit For Sheilding

EXISTING DECK REMOVAL

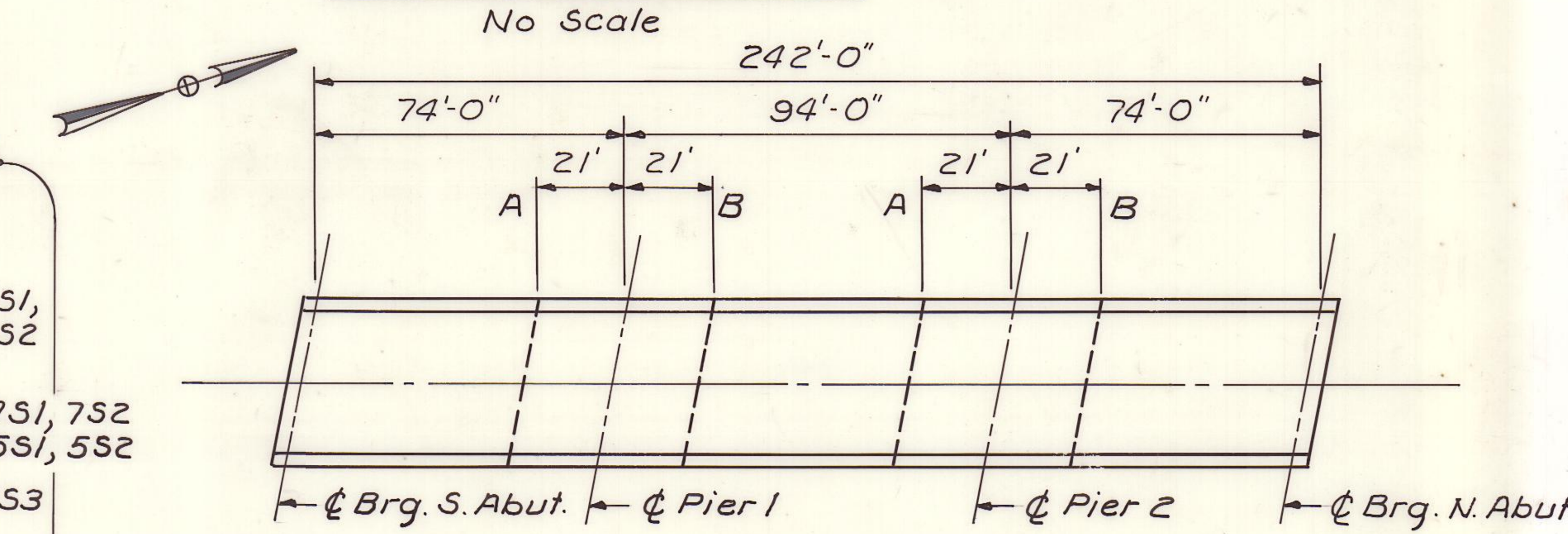
No Scale



Coat With "Protective Coating For Concrete Surfaces" (Typ.)
41'-8"
16'-0"
22'-0"
Aluminum Bridge Rail 2-Bar
Delineator See Note 3
Face Of Bridge Rail
Vertical Bridge Curb Type 1B (Typ. Each Side) See Detail, Sh.
1½" Hot Bituminous Pavement-Grading C
Crown Line
7 Equal Spaces
9 Add'l. #7 Bars Over Piers (7 Top & 2 Bot.)
Level
1" Chamfer (Typ.)
Membrane Waterproofing See Superstructure Note
7S1, 7S2 5S1, 5S2
4S1
5S8
5S7
1" V-Groove
½" Drip Groove (Typ.)
8" Structural Conc. Slab
5S10
Bottom Of Slab Elev. (See General Note 5, Sheet 12)
Exist. Stringer
5S9
Scupper
1" Ø Deck Drain (Typ.) Both Sides)
5S3
Scupper (See Superstructure Notes)
Typical Bay
4 Spaces @ 6'-9" = 27'-0"
¢ Existing Fascia Stringer, See Note 2
¢ Downspout
¢ Prop. Stringer

SECTION A-A

½" = 1'-0"



DECK PLACEMENT DETAILS

1" = 40'

PLACEMENT NOTES

A = Termination Points When Placement Starts At South Abut.

B = Termination Points When Placement Starts At North Abut.

NOTES (CONT.)

3. Delineators Shall Not Exceed A 60 Foot Spacing On The Bridge. Delineators Shall Be A White Reflective Sheeting Type II Placed On Both Sides Of The Bridge. (Highway Item)

NOTES

1. For Superstructure Notes, See Sheet 12.
2. For Modifications To Existing Fascia Stringers, See Sheet 20.

No.	Revision	By:	Date:		By:	Date:
				Designed	R.J.R.	11-91
				Drawn	R.D.F.	11-91
				Checked	R.A.L.	12-91
				In charge of:	R.A.L.	

Maine Turnpike Authority

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MAINE CENTRAL R.R.

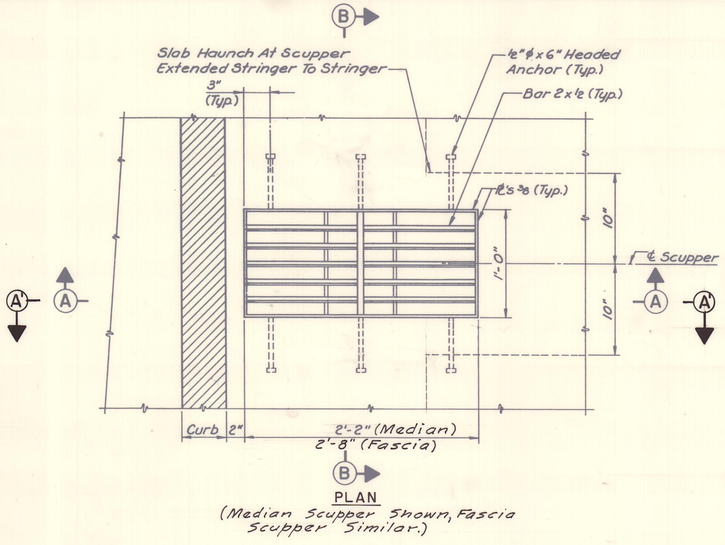
SUPERSTRUCTURE DETAILS

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

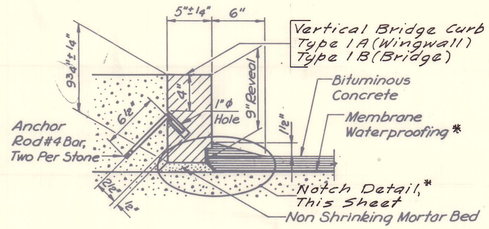
Contract 92.9

Sheet No. 21 of 32

MAKEPEACE

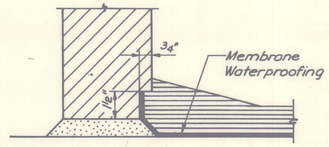


PLAN
(Median Scupper Shown, Fascia Scupper Similar.)

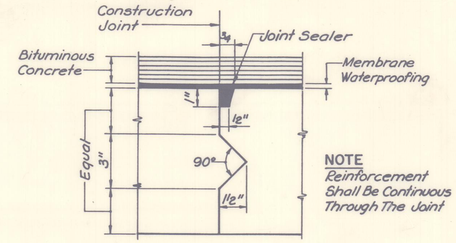


GRANITE CURB DETAIL
1 1/2" = 1'-0"

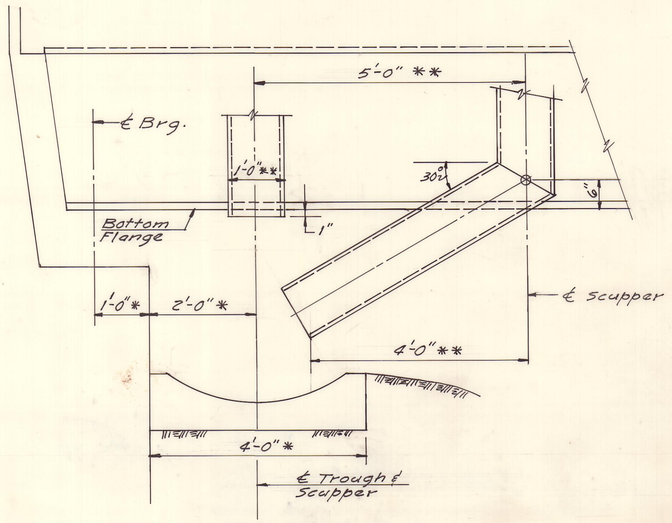
* Note
Membrane Waterproofing And Notch Not Required At Wingwall (Curb Type 1A)



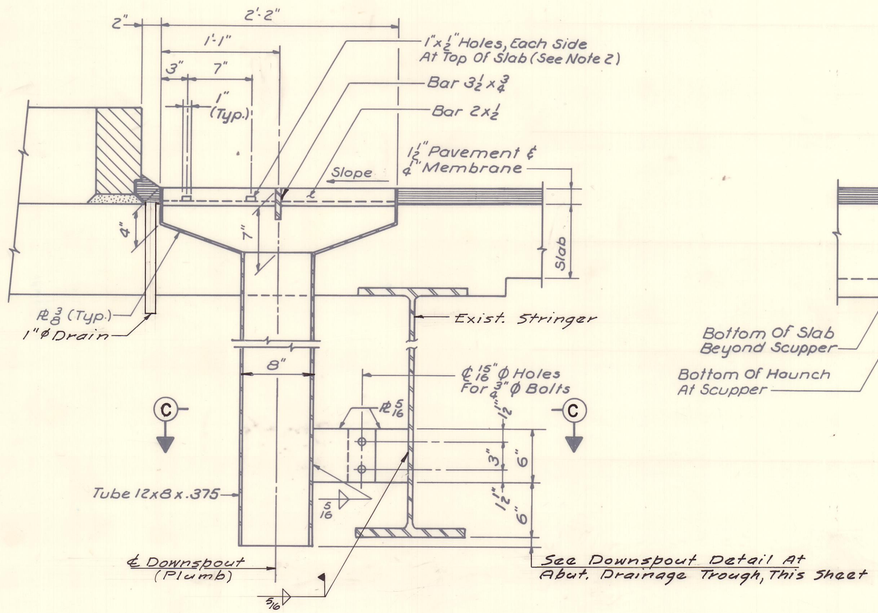
NOTCH DETAIL
(Curb Type 1B Only)
3" = 1'-0"



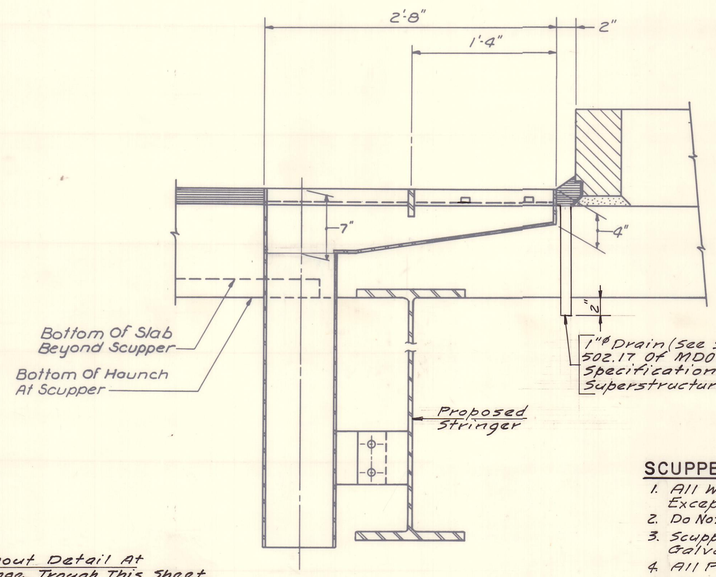
CONSTRUCTION JOINT DETAIL
3" = 1'-0"



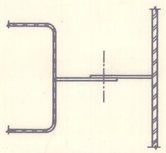
DOWNSPOUT DETAIL AT ABUTMENT DRAINAGE TROUGH
** Measure Parallel To Curb
* Measure Normal To Face Of Abut.
3/4" = 1'-0"



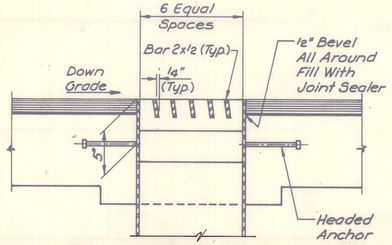
SECTION A-A
(Median Scupper)



SECTION A'-A'
(Fascia Scupper)



SECTION C-C



SECTION B-B

SCUPPER DETAILS
1 1/2" = 1'-0"

SCUPPER NOTES

1. All Welds To Be Continuous 1/4" Fillet Welds Except As Noted.
2. Do Not Cover Holes With Membrane Waterproofing.
3. Scuppers To Be Galvanized After Fabrication. Galvanizing Shall Conform To A.S.T.M. A153.
4. All Plates Shall Conform To A.S.T.M. A709 Grade 36.
5. Structural Tubes Shall Conform To A.S.T.M. A501.
6. Payment For Scuppers Incidental To Contract Items.
7. For Location Of Scuppers And 1" ø Drains, See Superstructure Details, Sheet 21.

No.	Revision	By:	Date:

	By:	Date:
Designed	S.H.R.	12-91
Drawn	R.D.F.	12-91
Checked	R.A.L.	12-91
In charge of:	R.A.L.	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.
MISCELLANEOUS DETAILS

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 22 of 32

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
SOUTH ABUTMENT - SOUTHBOUND FOOTING										
6F1	6	14	3'-0"	Str.						Ftg. - Horz. Dowels
6F2	6	17	4'-10"	Str.						Ftg. - Trans.
6F3	6	7	14'-6" to 15'-6"	Str.					2"	Ftg. - Long.
* 6F4	6	28	4'-5"	118	3'-9"	8"				Ftg. - Vert. Dowels
* 6F5	6	3	3'-0"	Str.						Ftg. - Vert. Dowels

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	E	INCR.	LOCATION AND REMARKS
SOUTH ABUTMENT - SOUTHBOUND STEM AND BACKWALL											
* 5A1	5	13	4'-7"	101	1'-1"	1'-9"					Wingwall - Curb Dowels
* 5A2	5	9	14'-11"	Str.							Wingwall - Curb
* 5A3	5	16	2'-11"	109	6"	1'-9"	5 1/2"	8"			Wingwall Curb - Haunch
* 5A4	5	13	5'-3"	101	1'-9"	1'-9"					Wingwall - Curb
* 5A5	5	3	4'-3" to 4'-10"	101	9" to 1'-4"	1'-9"				3 1/2"	Wingwall - Curb Dowels
* 5A6	5	3	4'-11" to 5'-6"	101	1'-5"to2'-0"	1'-9"				3 1/2"	Wingwall - Curb Dowels
* 5A7	5	1	6'-8"	109	8"	4'-0"		2'-0"	4 1/2"		Top of Backwall
* 5A8	5	1	2'-9"	Str.							Top of Backwall
* 5A9	5	2	5'-0"	Str.							Top of Backwall
* 5A10	5	1	6'-9"	101	9"	3'-0"					Top of Backwall
* 6A1	6	5	6'-10"	119	3'-10"	3'-0"	1 1/2"				Abut. Stem - Vert.
* 6A2	6	20	3'-3"	Str.							Abut. Stem - Dowels
* 6A3	6	4	9'-0"	111	6'-0"	3'-0"	7"				Abut. Stem - Horz.
* 6A4	6	4	4'-9"	Str.							Abut. Stem - Horz.
* 6A5	6	3	8'-6"	Str.							Abut. Stem - Vert.
* 6A6	6	4	11'-11"	109	8"	4'-0"		7'-3"	1'-4 1/2"		Abut. Stem - Horz.
* 6A7	6	4	7'-0"	Str.							Abut. Stem - Horz.
* 6A8	6	5	5'-6"	Str.							Abut. Stem - Vert.
* 6A9	6	4	4'-6"	Str.							Abut. Stem - Vert.
* 6A10	6	4	6'-0"	118	4'-0"	2'-0"					Abut. Stem - Horz.
* 6A11	6	8	13'-6" to 14'-8"	Str.						2"	Wingwall Stem - Horz.
* 6A12	6	8	15'-0"	Str.							Wingwall Stem - Horz.
* 6A13	6	1	3'-10"	Str.							Abut. Stem - Vert.
* 6A14	6	32	8'-6"	Str.							Wingwall Stem - Vert.
* 6A15	6	2	14'-8"	Str.							Wingwall Stem - Horz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
SOUTH ABUTMENT - NORTHBOUND FOOTING										
6F1	6	13	3'-0"	Str.						Ftg. - Horz. Dowels
6F2	6	17	4'-10"	Str.						Ftg. - Trans.
6F3	6	7	15'-6" to 16'-6"	Str.					2"	Ftg. - Long.
* 6F4	6	31	4'-5"	118	3'-9"	8"				Ftg. - Vert. Dowels
* 6F5	6	3	3'-0"	Str.						Ftg. - Vert. Dowels

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
SOUTH ABUTMENT-NORTHBOUND STEM AND BACKWALL										
* 5A1	5	13	4'-7"	101	1'-1"	1'-9"				Wingwall - Curb Dowels
* 5A2	5	9	14'-11"	Str.						Wingwall - Curb
* 5A3	5	16	2'-11"	109	6"	1'-9"	5 1/2"	8"		Wingwall - Curb Haunch
* 5A4	5	13	5'-3"	101	1'-9"	1'-9"				Wingwall - Curb
* 5A5	5	3	4'-3" to 4'-10"	101	9" to 1'-4"	1'-9"			3 1/2"	Wingwall-Curb Dowels
* 5A6	5	3	4'-11" to 5'-6"	101	1'-5"to2'-0"	1'-9"			3 1/2"	Wingwall-Curb Dowels
* 5A7	5	1	5'-9"	119	2'-9"	3'-0"	7"			Top of Backwall
* 5A8	5	1	2'-9"	Str.						Top of Backwall
* 5A9	5	2	5'-3"	Str.						Top of Backwall
* 5A10	5	1	5'-10"	109	10"	3'-0"	4 1/2"	2'-0"		Top of Backwall
* 6A1	6	5	6'-10"	119	3'-10"	3'-0"	1 1/2"			Abut. Stem - Vert.
* 6A2	6	20	3'-3"	Str.						Abut. Stem - Dowels
* 6A3	6	4	8'-3"	119	5'-3"	3'-0"	7"			Abut. Stem - Horz.
* 6A4	6	4	5'-0"	Str.						Abut. Stem - Horz.
* 6A5	6	3	8'-6"	Str.						Abut. Stem - Vert.
* 6A6	6	4	10'-3"	119	7'-7"	3'-0"	7"			Abut. Stem - Horz.
* 6A7	6	4	7'-0"	Str.						Abut. Stem - Horz.
* 6A8	6	4	5'-6"	Str.						Abut. Stem - Vert.
* 6A9	6	4	4'-6"	Str.						Abut. Stem - Vert.
* 6A10	6	4	6'-0"	118	4'-0"	2'-0"				Wingwall Stem - Horz.
* 6A11	6	8	13'-6" to 14'-8"	Str.					2"	Wingwall Stem - Horz.
* 6A12	6	8	14'-6"	Str.						Wingwall Stem - Horz.
* 6A13	6	1	3'-10"	Str.						Abut. Stem - Vert.
* 6A14	6	32	8'-6"	Str.						Wingwall Stem - Vert.
* 6A15	6	2	14'-8"	Str.						Wingwall Stem - Horz.

REINFORCING NOTES

1. * - Denotes Reinforcing Steel To Be Epoxy Coated.
2. For End Post Reinforcing Layout, See Standard Detail Sheet BD 201-89.

No.	Revision	By	Date

	By	Date
Designed	IS	1/92
Drawn	BDH	1/92
Checked	RAL	1/92
In Charge Of:	RAL	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.
REINFORCING SCHEDULE I

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 23 of 32

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
NORTH ABUTMENT - SOUTHBOUND FOOTING										
6F1	6	13	3'-0"	Str.						Ftg. - Horz. Dowels
6F2	6	17	4'-10"	Str.						Ftg. - Trans.
6F3	6	7	15'-6" to 16'-6"	Str.					2"	Ftg. - Long.
* 6F4	6	31	4'-5"	118	3'-9"	8"				Ftg. - Vert. Dowels
* 6F5	6	3	3'-0"	Str.						Ftg. - Vert. Dowels

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
NORTH ABUTMENT - SOUTHBOUND STEM AND BACKWALL										
* 5A1	5	13	4'-7"	101	1'-1"	1'-9"				Wingwall - Curb Dowels
* 5A2	5	9	14'-11"	Str.						Wingwall - Curb
* 5A3	5	16	2'-11"	109	6"	1'-9"	5 1/2"	8"		Wingwall - Curb Haunch
* 5A4	5	13	5'-3"	101	1'-9"	1'-9"				Wingwall - Curb
* 5A5	5	3	4'-3" to 4'-10"	101	9" to 1'-4"	1'-9"			3 1/2"	Wingwall-Curb Dowels
* 5A6	5	3	4'-11" to 5'-6"	101	1'-5"to2'-0"	1'-9"			3 1/2"	Wingwall-Curb Dowels
* 5A7	5	1	5'-9"	119	2'-9"	3'-0"	7"			Top of Backwall
* 5A8	5	1	2'-9"	Str.						Top of Backwall
* 5A9	5	2	5'-3"	Str.						Top of Backwall
* 5A10	5	1	5'-10"	109	10"	3'-0"	4 1/2"	2'-0"		Top of Backwall
* 6A1	6	5	6'-10"	119	3'-10"	3'-0"	1 1/2"			Abut. Stem - Vert.
* 6A2	6	20	3'-3"	Str.						Abut. Stem - Dowels
* 6A3	6	4	8'-3"	119	5'-3"	3'-0"	7"			Abut. Stem - Horz.
* 6A4	6	4	5'-0"	Str.						Abut. Stem - Horz.
* 6A5	6	3	8'-6"	Str.						Abut. Stem - Vert.
* 6A6	6	4	10'-3"	119	7'-7"	3'-0"	7"			Abut. Stem - Horz.
* 6A7	6	4	7'-0"	Str.						Abut. Stem - Horz.
* 6A8	6	4	5'-6"	Str.						Abut. Stem - Vert.
* 6A9	6	4	4'-6"	Str.						Abut. Stem - Vert.
* 6A10	6	4	6'-0"	118	4'-0"	2'-0"				Wingwall Stem - Horz.
* 6A11	6	8	13'-6" to 14'-8"	Str.					2"	Wingwall Stem - Horz.
* 6A12	6	8	14'-6"	Str.						Wingwall Stem - Horz.
* 6A13	6	1	3'-10"	Str.						Abut. Stem - Vert.
* 6A14	6	32	8'-6"	Str.						Wingwall Stem - Vert.
* 6A15	6	2	14'-8"	Str.						Wingwall Stem - Horz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
END POSTS (SEE NOTE 2)										
*EP400	4	48	2'-0"	Str.						Vert.
*EP401	4	32	4'-11"	102	11"	2'-0"	2'-0"			Vert.
*EP402	4	16	4'-6"	102	6"	2'-0"	2'-0"			Vert.
*EP405	4	48	2'-0"	Str.						Vert. Dowels
*EP500	5	32	7'-10"	102	7"	1'-9"	5'-6"			Horz.
*EP501	5	32	6'-8"	109	2'-7"	1'-0"	3'- 0 1/8"	3'-1"		Horz.
*EP502	5	32	5'-3"	102	11"	2'-2"	2'-2"			Vert. Dowels
*EP503	5	16	4'-10"	102	6"	2'-2"	2'-2"			Vert. Dowels

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
NORTH ABUTMENT - NORTHBOUND FOOTING										
6F1	6	14	3'-0"	Str.						Ftg. - Horz. Dowels
6F2	6	17	4'-10"	Str.						Ftg. - Trans.
6F3	6	7	14'-6" to 15'-6"	Str.					2"	Ftg. - Long.
* 6F4	6	28	4'-5"	118	3'-9"	8"				Ftg. - Vert. Dowels
* 6F5	6	3	3'-0"	Str.						Ftg. - Vert. Dowels

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	E	INCR.	LOCATION AND REMARKS
NORTH ABUTMENT - NORTHBOUND STEM AND BACKWALL											
* 5A1	5	13	4'-7"	101	1'-1"	1'-9"					Wingwall - Curb Dowels
* 5A2	5	9	14'-11"	Str.							Wingwall - Curb
* 5A3	5	16	2'-11"	109	6"	1'-9"	5 1/2"	8"			Wingwall Curb - Haunch
* 5A4	5	13	5'-3"	101	1'-9"	1'-9"					Wingwall - Curb
* 5A5	5	3	4'-3" to 4'-10"	101	9" to 1'-4"	1'-9"				3 1/2"	Wingwall - Curb Dowels
* 5A6	5	3	4'-11" to 5'-6"	101	1'-5"to2'-0"	1'-9"				3 1/2"	Wingwall - Curb Dowels
* 5A7	5	1	6'-8"	109	8"	4'-0"		2'-0"	4 1/2"		Top of Backwall
* 5A8	5	1	2'-9"	Str.							Top of Backwall
* 5A9	5	2	5'-0"	Str.							Top of Backwall
* 5A10	5	1	6'-9"	101	9"	3'-0"					Top of Backwall
* 6A1	6	5	6'-10"	119	3'-10"	3'-0"	1 1/2"				Abut. Stem - Vert.
* 6A2	6	20	3'-3"	Str.							Abut. Stem - Dowels
* 6A3	6	4	9'-0"	111	6'-0"	3'-0"	7"				Abut. Stem - Horz.
* 6A4	6	4	4'-9"	Str.							Abut. Stem - Horz.
* 6A5	6	3	8'-6"	Str.							Abut. Stem - Vert.
* 6A6	6	4	11'-11"	109	8"	4'-0"		7'-3"	1'-4 1/2"		Abut. Stem - Horz.
* 6A7	6	4	7'-0"	Str.							Abut. Stem - Horz.
* 6A8	6	5	5'-6"	Str.							Abut. Stem - Vert.
* 6A9	6	4	4'-6"	Str.							Abut. Stem - Vert.
* 6A10	6	4	6'-0"	118	4'-0"	2'-0"					Abut. Stem - Horz.
* 6A11	6	8	13'-6" to 14'-8"	Str.						2"	Wingwall Stem - Horz.
* 6A12	6	8	15'-0"	Str.							Wingwall Stem - Horz.
* 6A13	6	1	3'-10"	Str.							Abut. Stem - Vert.
* 6A14	6	32	8'-6"	Str.							Wingwall Stem - Vert.
* 6A15	6	2	14'-8"	Str.							Wingwall Stem - Horz.

No.	Revision	By	Date		By	Date
				Designed	IS	1/92
				Drawn	BDH	1/92
				Checked	RAL	1/92
				In Charge Of:	RAL	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.
REINFORCING SCHEDULE II

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 24 of 32

BOSVOO$DUA1:[BOGRAPH.S9009]CENTRR.FGB;1 DWG: REINF3

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 1 - SOUTHBOUND FOOTING										
6PF1	6	18	5'-9"	107	1'-0"		4'-9"			Ftg. Dowel
9PF1	9	21	10'-6"	Str.						Ftg. Bot.
9PF2	9	15	10'-0"	Str.						Ftg. Bot.
9PF3	9	15	4'-2"	Str.						Ftg. Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 1 - SOUTHBOUND STEM AND CAP										
6P1	6	30	2'-4" to 5'-3"	Str.					2 1/2"	Horz. Stem Dowels
6P2	6	4	6'-5"	104	4'-2"	2'-3"	1'-6"			Cap Bot.
6P3	6	10	3'-4"	Str.						Stem Dowels
6P4	6	2	15'-9"	Str.						Vert. Stem
6P5	6	4	16'-0"	Str.						Vert. Stem
6P6	6	4	13'-0"	Str.						Vert. Stem
6P7	6	2	11'-0"	Str.						Vert. Stem
6P8	6	30	4'-8"	101	2'-4"	1'-2"				Horz. Stem
6P9	6	38	2'-10"	Str.						Horz. Stem Dowels
6P10	6	14	9'-8"	101	2'-8"	3'-6"				Stirrup
6P11	6	24	14'-8"	Str.						Vert. Stem
6P12	6	30	8'-4" to 11'-3"	Str.					2 1/2"	Horz. Stem
6P13	6	22	3'-8"	Str.						Vert. Stem
6P14	6	4	16'-3"	116	11'-3"	2'-6"	1'-6"	2'-6"		Pier Cap Bot.
6P15	6	2	10'-0"	Str.						Pier Cap
6P16	6	4	6'-10"	Str.						Pier Cap
6P17	6	3	5'-8"	101	2'-8"	1'-6"				Pier Cap End
6P18	6	6	9'-3"	111	6'-9"	2'-6"	7"			Pier Cap Top
6P19										Not Issued
6P20	6	16	4'-0"	107		2'-3"	1'-9"			Pier Cap
6P21	6	4	6'-0"	Str.						Pier Cap
7P1	7	10	7'-0"	104	4'-6"	2'-6"	8"			Pier Cap Top Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 1 - NORTHBOUND FOOTING										
6PF1	6	18	5'-9"	107	1'-0"		4'-9"			Ftg. Dowel
9PF1	9	21	10'-6"	Str.						Ftg. Bot.
9PF2	9	15	10'-0"	Str.						Ftg. Bot.
9PF3	9	15	4'-2"	Str.						Ftg. Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 1 - NORTHBOUND STEM AND CAP										
6P1	6	30	2'-4" to 5'-3"	Str.					2 1/2"	Horz. Stem Dowels
6P2	6	4	6'-5"	104	4'-2"	2'-3"	1'-6"			Cap Bot.
6P3	6	10	3'-4"	Str.						Stem Dowels
6P4	6	2	15'-4"	Str.						Vert. Stem
6P5	6	4	15'-6"	Str.						Vert. Stem
6P6	6	4	13'-0"	Str.						Vert. Stem
6P7	6	2	11'-0"	Str.						Vert. Stem
6P8	6	30	4'-8"	101	2'-4"	1'-2"				Horz. Stem
6P9	6	38	2'-10"	Str.						Horz. Stem Dowels
6P10	6	14	9'-8"	101	2'-8"	3'-6"				Stirrup
6P11	6	24	14'-4"	Str.						Vert. Stem
6P12	6	30	8'-4" to 11'-3"	Str.					2 1/2"	Horz. Stem
6P13	6	22	3'-8"	Str.						Vert. Stem
6P14	6	4	16'-3"	116	11'-3"	2'-6"	1'-6"	2'-6"		Pier Cap Bot.
6P15	6	2	10'-0"	Str.						Pier Cap
6P16	6	4	6'-10"	Str.						Pier Cap
6P17	6	3	5'-8"	101	2'-8"	1'-6"				Pier Cap End
6P18	6	6	9'-3"	111	6'-9"	2'-6"	7"			Pier Cap Top
6P19										Not Issued
6P20	6	16	4'-0"	107		2'-3"	1'-9"			Pier Cap
6P21	6	4	6'-0"	Str.						Pier Cap
7P1	7	10	7'-0"	104	4'-6"	2'-6"	8"			Pier Cap Top Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 2 - SOUTHBOUND FOOTING										
6PF1	6	18	5'-9"	107	1'-0"		4'-9"			Ftg. Dowel
9PF1	9	21	10'-6"	Str.						Ftg. Bot.
9PF2	9	15	10'-0"	Str.						Ftg. Bot.
9PF3	9	15	4'-2"	Str.						Ftg. Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 2 - SOUTHBOUND STEM AND CAP										
6P1	6	32	2'-4" to 5'-3 1/2"	Str.					2 3/8"	Horz. Stem Dowels
6P2	6	4	6'-5"	104	4'-2"	2'-3"	1'-6"			Horz. Cap
6P3	6	10	3'-4"	Str.						Vert. Stem Dowel
6P4	6	2	15'-10"	Str.						Vert. Stem
6P5	6	4	16'-4"	Str.						Vert. Stem
6P6	6	4	13'-0"	Str.						Vert. Stem
6P7	6	2	11'-0"	Str.						Vert. Stem
6P8	6	32	4'-8"	101	2'-4"	1'-2"				Horz. Stem
6P9	6	40	2'-10"	Str.						Horz. Stem Dowel
6P10	6	14	9'-8"	101	2'-8"	3'-6"				Stirrup
6P11	6	24	15'-2"	Str.						Vert. Stem
6P12	6	32	8'-4" to 11'-4"	Str.					2 3/8"	Horz. Stem
6P13	6	22	3'-8"	Str.						Vert. Stem
6P14	6	4	16'-3"	116	11'-3"	2'-6"	1'-6"	2'-6"		Pier Cap B
6P15	6	2	10'-0"	Str.						Pier Cap
6P16	6	4	6'-10"	Str.						Pier Cap
6P17	6	3	5'-8"	101	2'-8"	1'-6"				Pier Cap Ends
6P18	6	6	9'-3"	111	6'-9"	2'-6"	7"			Pier Cap Top
6P19										Not Issued
6P20	6	16	4'-0"	107		2'-3"	1'-9"			Pier Cap
6P21	6	4	6'-0"	Str.						Pier Cap
7P1	7	10	7'-0"	104	4'-6"	2'-6"	8"			Pier Cap Top Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS				INCR.	LOCATION AND REMARKS
					A	B	C	D		
PIER 2 - NORTHBOUND FOOTING										
6PF1	6	18	5'-9"	107	1'-0"		4'-9"			Ftg. Dowel
9PF1	9	21	10'-6"	Str.						Ftg. Bot.
9PF2	9	15	10'-0"	Str.						Ftg. Bot.
9PF3	9	15	4'-2"	Str.						Ftg. Dowel

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.
REINFORCING SCHEDULE III

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By	Date		By	Date
				Designed	IS	1/92
				Drawn	BDH	1/92
				Checked	RAL	1/92
				In Charge Of:	RAL	

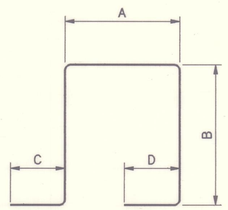
Contract 92.9

Sheet No. 25 of 32

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
PIER 2 - NORTHBOUND STEM AND CAP										
6P1	6	32	2'-4" to 5'-3 1/2"	Str.					2 3/8"	Horz. Stem Dowels
6P2	6	4	6'-5"	104	4'-2"	2'-3"	1'-6"			Horz. Cap
6P3	6	10	3'-4"	Str.						Vert. Stem Dowel
6P4	6	2	16'-1"	Str.						Vert. Stem
6P5	6	4	16'-8"	Str.						Vert. Stem
6P6	6	4	13'-0"	Str.						Vert. Stem
6P7	6	2	11'-0"	Str.						Vert. Stem
6P8	6	32	4'-8"	101	2'-4"	1'-2"				Horz. Stem
6P9	6	40	2'-10"	Str.						Horz. Stem Dowel
6P10	6	14	9'-8"	101	2'-8"	3'-6"				Stirrup
6P11	6	24	14'-10"	Str.						Vert. Stem
6P12	6	32	8'-4" to 11'-4"	Str.					2 3/8"	Horz. Stem
6P13	6	22	3'-8"	Str.						Vert. Stem
6P14	6	4	16'-3"	116	11'-3"	2'-6"	1'-6"	2'-6"		Pier Cap B
6P15	6	2	10'-0"	Str.						Pier Cap
6P16	6	4	6'-10"	Str.						Pier Cap
6P17	6	3	5'-8"	101	2'-8"	1'-6"				Pier Cap Ends
6P18	6	6	9'-3"	111	6'-9"	2'-6"	7"			Pier Cap Top
6P19										Not Issued
6P20	6	16	4'-0"	107		2'-3"	1'-9"			Pier Cap
6P21	6	4	6'-0"	Str.						Pier Cap
7P1	7	10	7'-0"	104	4'-6"	2'-6"	8"			Pier Cap Top Dowel

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
DECK SLAB - SOUTHBOUND										
* 4S1	4	244	7'-6"	Str.						Trans. - Top
* 5S1	5	444	28'-6"	Str.						Long. - T & B
* 5S2	5	222	27'-6"	Str.						Long. - T & B
* 5S3	5	490	5'-3"	101	1'-1"	1'-3"	10"	10"		Curb Dowels
* 5S4	5	28	6'-6"	Str.						Trans. - At Abut.
* 5S5	5	7	6'-9"	Str.						Trans. - At Abut.
* 5S6	5	86	4'-6"	118	4'-0"	6"				Long. - At Abut.
* 5S7	5	487	15'-6"	Str.						Trans. - Top
* 5S8	5	487	28'-8"	Str.						Trans. - Top
* 5S9	5	487	25'-6"	Str.						Trans. - Bot.
* 5S10	5	487	18'-4"	Str.						Trans. - Bot.
* 5S11	5	7	4'-1"	Str.						Trans. - T & B
* 5S12	5	7	3'-1"	Str.						Trans. - T & B
* 7S1	7	340	21'-0"	Str.						Long. - Over Piers
* 7S2	7	340	30'-0"	Str.						Long. - Over Piers

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCR.	LOCATION AND REMARKS
DECK SLAB - NORTHBOUND										
* 4S1	4	244	7'-6"	Str.						Trans. - Top
* 5S1	5	444	28'-6"	Str.						Long. - T & B
* 5S2	5	222	27'-6"	Str.						Long. - T & B
* 5S3	5	490	5'-3"	101	1'-1"	1'-3"	10"	10"		Curb Dowels
* 5S4	5	28	6'-6"	Str.						Trans. - At Abut.
* 5S5	5	7	6'-9"	Str.						Trans. - At Abut.
* 5S6	5	86	4'-6"	118	4'-0"	6"				Long. - At Abut.
* 5S7	5	487	15'-6"	Str.						Trans. - Top
* 5S8	5	487	28'-8"	Str.						Trans. - Top
* 5S9	5	487	25'-6"	Str.						Trans. - Bot.
* 5S10	5	487	18'-4"	Str.						Trans. - Bot.
* 5S11	5	7	4'-1"	Str.						Trans. - T & B
* 5S12	5	7	3'-1"	Str.						Trans. - T & B
* 7S1	7	340	21'-0"	Str.						Long. - Over Piers
* 7S2	7	340	30'-0"	Str.						Long. - Over Piers



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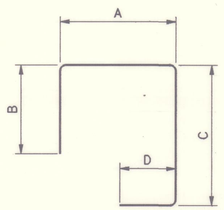

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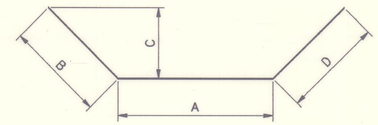

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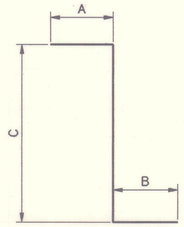

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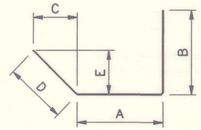

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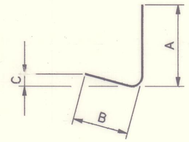

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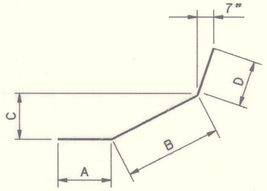

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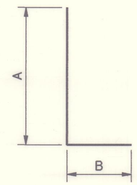

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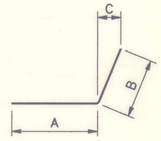


TYPE 119

No.	Revision	By	Date		By	Date
				Designed	IS	1/92
				Drawn	BDH	1/92
				Checked	RAL	1/92
				In Charge Of:	RAL	

Maine Turnpike Authority
Maine Turnpike

MAINE CENTRAL R.R.
REINFORCING SCHEDULE IV

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 26 of 32

ITEM 656.632 30 INCH SILT FENCE	LF
STA. 2377+67 97' RT. TO STA. 2378 90' LT.	200
STA. 2379 118' RT. TO STA. 2379+52 117' LT.	280
TOTAL	480

ITEM 202.202 REMOVING PAVEMENT SURFACE	SY
STA. 2376+53 TO STA. 2377+8 RT.	164
STA. 2376+63 TO 2377+21 LT.	164
STA. 2379+55 TO 2380+7 RT.	164
STA. 2379+65 TO 2380+17 LT.	164
ENTIRE SOUTHBOUND BRIDGE DECK	820
TOTAL	1476

ITEM 421.01 PRECAST CONCRETE DOWNSPOUT	LF
STA. 2377+18 95 RT. TO 49' LT.	144
TOTAL	144

ITEM 401.10 SAWING BITUMINOUS CONCRETE		LF
STA. 2375+57 TO STA. 2377+19	37' LT.	162
STA. 2375+39 TO STA. 2377+5	37' RT.	166
STA. 2379+67 TO STA. 2381+33	37' LT.	166
STA. 2379+53 TO STA. 2381+15	37' RT.	162
STA. 2375+57 (37' LT. TO 45' LT)		8
STA. 2375+39 (37' RT. TO 45' RT)		8
STA. 2381+33 (37' LT. TO 45' LT.)		8
STA. 2381+15 (37' RT. TO 45' RT.)		8
TOTAL		688

ITEM 606.371 GUARD RAIL REMOVE AND STACK, SINGLE RAIL	LF
STA. 2376+67 42' RT. TO BRIDGE END POST	27
STA. 2376+85 42' LT. TO BRIDGE END POST	27
BRIDGE END POST TO 2379+87 42' RT.	27
BRIDGE END POST TO 2380+05 42' LT.	27
TOTAL	108

ITEM 606.381 GUARD RAIL REMOVE AND RESET, SINGLE RAIL	LF
REMOVE STA. 2375+39 45' RT. TO STA. 2376+67 42' RT.	128
RESET STA. 2375+39 45' RT. TO STA. 2376+67 47' LT.	
REMOVE STA. 2375+57 45' RT. TO STA. 2376+85 42' LT.	128
RESET STA. 2375+57 45' RT. TO STA. 2376+85 47' LT.	
REMOVE STA. 2379+87 42' RT. TO STA. 2381+15 45 RT.	128
RESET STA. 2379+87 47' RT. TO STA. 2381+15 45' RT.	
REMOVE STA. 2380+05 42' LT TO STA. 2381+33 45' LT.	128
RESET STA. 2380+05 47 LT. TO STA. 2381+33 45' LT.	
TOTAL	512

ITEM 603.159 12 INCH CULVERT PIPE OPTION III	LF
STA. 2379+90 80' LT. TO 95' LT.	15
TOTAL	15

ITEM 613.319 TEMPORARY EROSION CONTROL BLANKET	SY
STA. 2375+38 RT. TO STA. 2377+52 RT.	901
STA. 2375+57 LT. TO STA. 2377+59 LT.	846
STA. 2379+05 RT. TO STA. 2381+15 RT.	709
STA. 2379+31 LT. TO STA 2381+33 LT.	833
TOTAL	3289

ITEM 606.174 GUARD RAIL ATTACHMENT - TYPE A	EA
STA. 2376+67 47' RT. TO BRIDGE END POST	1
STA. 2376+85 47' LT. TO BRIDGE END POST	1
STA. 2376+75 9' RT. TO BRIDGE END POST	1
BRIDGE END POST TO 2379+87 47' RT.	1
BRIDGE END POST TO 2380+05 47' LT.	1
BRIDGE END POST TO 2379+98 9' LT.	1
TOTAL	6

ITEM 606.372 GUARD RAIL REMOVE AND STACK, DOUBLE RAIL	LF
STA. 2376+75 9' RT. TO BRIDGE END POST	27
BRIDGE END POST TO 2379+98 9' RT.	27
TOTAL	54

ITEM 656.50 BALED HAY IN PLACE	EA
STA. 2377+67 97' RT. TO STA. 2378 90' LT.	80
STA. 2379 118' RT. TO STA. 2379+52 117' LT.	112
TOTAL	192

T.B.M. #(1) Assumed Elev. 100.00
Paint Mark On Corner Of South West Wing Wall - Northbound Bridge

LEGEND

- PAVEMENT MILLING 1½" BITUMINOUS CONCRETE OVERLAY
- BITUMINOUS CONCRETE PAVEMENT REMOVAL
- 3" BITUMINOUS CONCRETE PAVEMENT
- EXISTING SINGLE RAIL GUARDRAIL
- GUARDRAIL ATTACHMENT TYPE "A" (REMOVE AND STACK EXISTING GUARDRAIL
- TEMPORARY EROSION CONTROL BLANKET
- REMOVE AND RESET SINGLE RAIL GUARDRAIL
- EXISTING DOUBLE RAIL GUARDRAIL
- EXISTING DITCH
- SFB SILT FENCE AND HAY BALES

No.	Revision	By:	Date:

	By:	Date:
Designed	JFC	12/91
Drawn	LS	12/91
Checked	BJB	01/92
In charge of:	RAL	

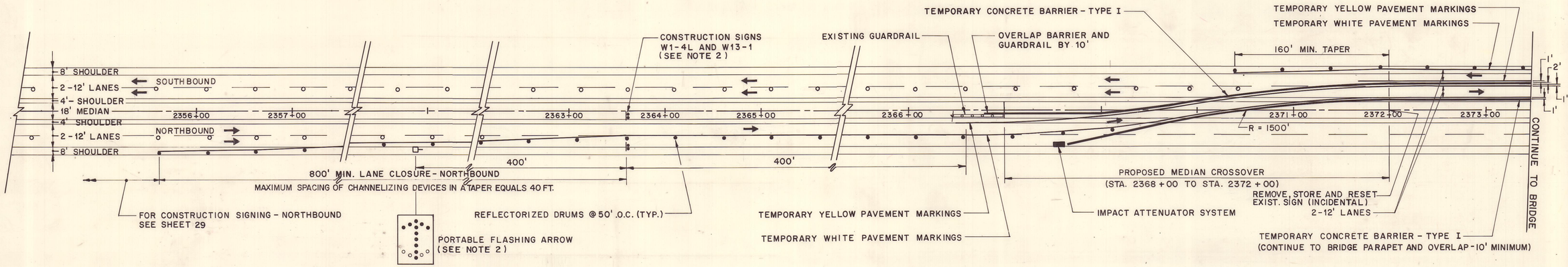
Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL R.R.
SITE PLAN

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 27 of 32



PHASE I DETOUR - SOUTH OF BRIDGE

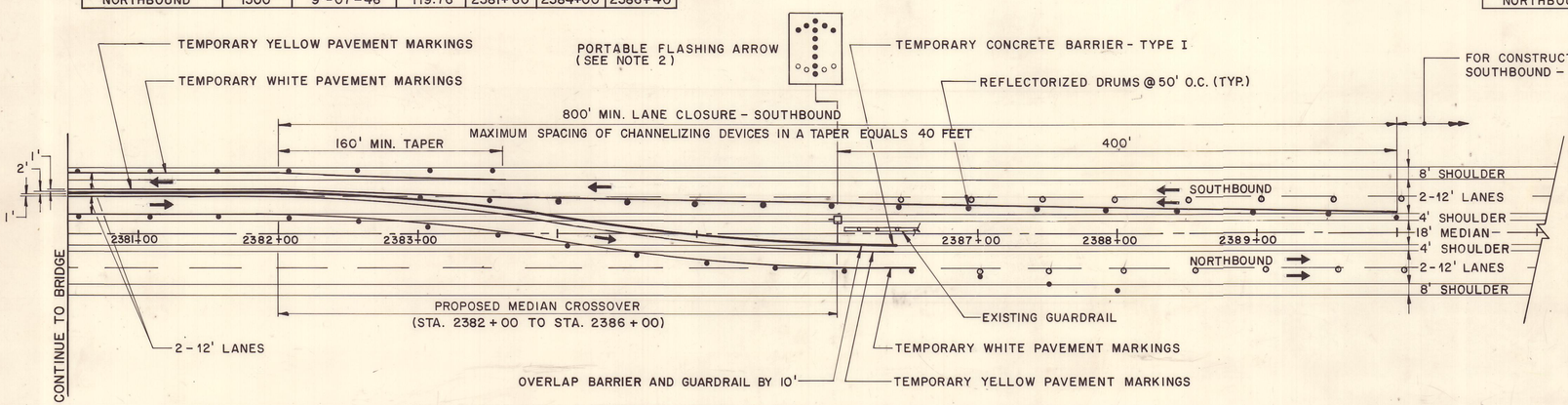
SCALE : 1"= 50'

CURVE DATA FOR DETOUR

ROADWAY	R	△	T	PC	PRC	PT
NORTHBOUND	1500'	9°-07'-46"	119.76	2381+60	2384+00	2386+40

CURVE DATA FOR DETOUR

ROADWAY	R	△	T	PC	PRC	PT
NORTHBOUND	1500'	9°-07'-46"	119.76	2367+60	2370+00	2372+40

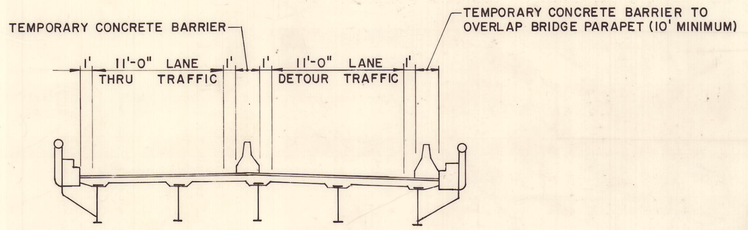


PHASE I DETOUR - NORTH OF BRIDGE

SCALE : 1"= 50'

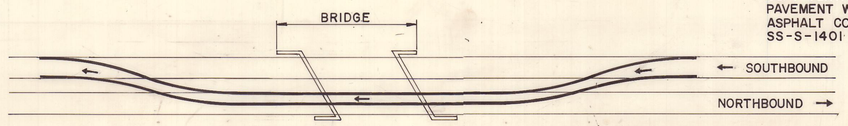
LEGEND

- TEMPORARY PAVEMENT MARKINGS
- TEMPORARY CONCRETE BARRIER
- REFLECTORIZED DRUMS @ 50' O.C.
- IMPACT ATTENUATOR SYSTEM
- PORTABLE FLASHING ARROW
- CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC
- REFLECTORIZED DRUMS @ 50'-0" O.C. FOR SINGLE LANE RESTRICTION SEE NOTE 2



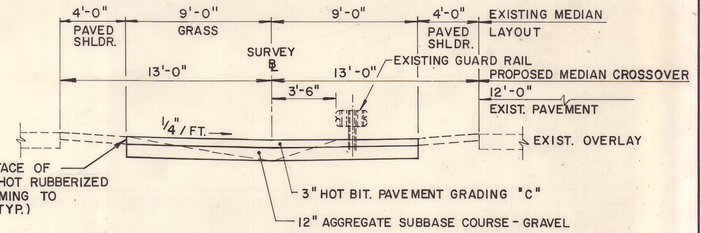
TYPICAL SECTION THRU BRIDGE

NOT TO SCALE



PHASE II DETOUR

NOT TO SCALE



TYPICAL SECTION - MEDIAN CROSSOVER

NOT TO SCALE

NOTES:

1. PHASE II WILL DETOUR SOUTHBOUND TRAFFIC ON TO THE COMPLETED NORTHBOUND BRIDGE DECK. THE NORTHBOUND AND SOUTHBOUND TRAFFIC WILL BE REDUCED TO ONE TRAVEL LANE IN EACH DIRECTION AS THEY SHARE THE NORTHBOUND BRIDGE DECK. THE PHASE II DETOUR LAYOUT SHALL BE REFLECTIVE OF THE PHASE I DETOUR LAYOUT. STATION LIMITS, TAPER LENGTHS, CURVE DATA AND THE STATION LOCATION OF TRAFFIC CONTROL DEVICES SHALL REFLECT THE PHASE I DETOUR.
2. THE CONTRACTOR SHALL NOTE THAT OTHER ADJACENT TURNPIKE BRIDGE PROJECTS MAY BE IN PROGRESS DURING CONSTRUCTION OF THE MAINE CENTRAL RAILROAD BRIDGE PROJECT. THE PLACEMENT OF SIGNS AND OTHER TRAFFIC CONTROL DEVICES WILL BE DEPENDENT ON THE ADJACENT BRIDGE PROJECTS. THE CONTRACTOR SHALL RESTRICT TRAFFIC TO ONE 12' LANE NORTHBOUND AND SOUTHBOUND WITH DRUMS @ 50' SPACING FROM STA. 2347+00 TO STA.2372+00 & STA.2382+00 TO STA. 2408+00. ALL PLACEMENT OF TRAFFIC CONTROL DEVICES AND COORDINATION WITH OTHER TURNPIKE BRIDGE PROJECTS SHALL BE APPROVED BY THE ENGINEER. ADDITIONAL DRUMS SHALL BE PAID FOR UNDER ITEM 652.33

No.	Revision	By:	Date:

	By:	Date:
Designed	JFC	12/91
Drawn	BDH	12/91
Checked	BJB	12/91
In charge of: RAL		

Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL R.R. TRAFFIC DETOUR

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

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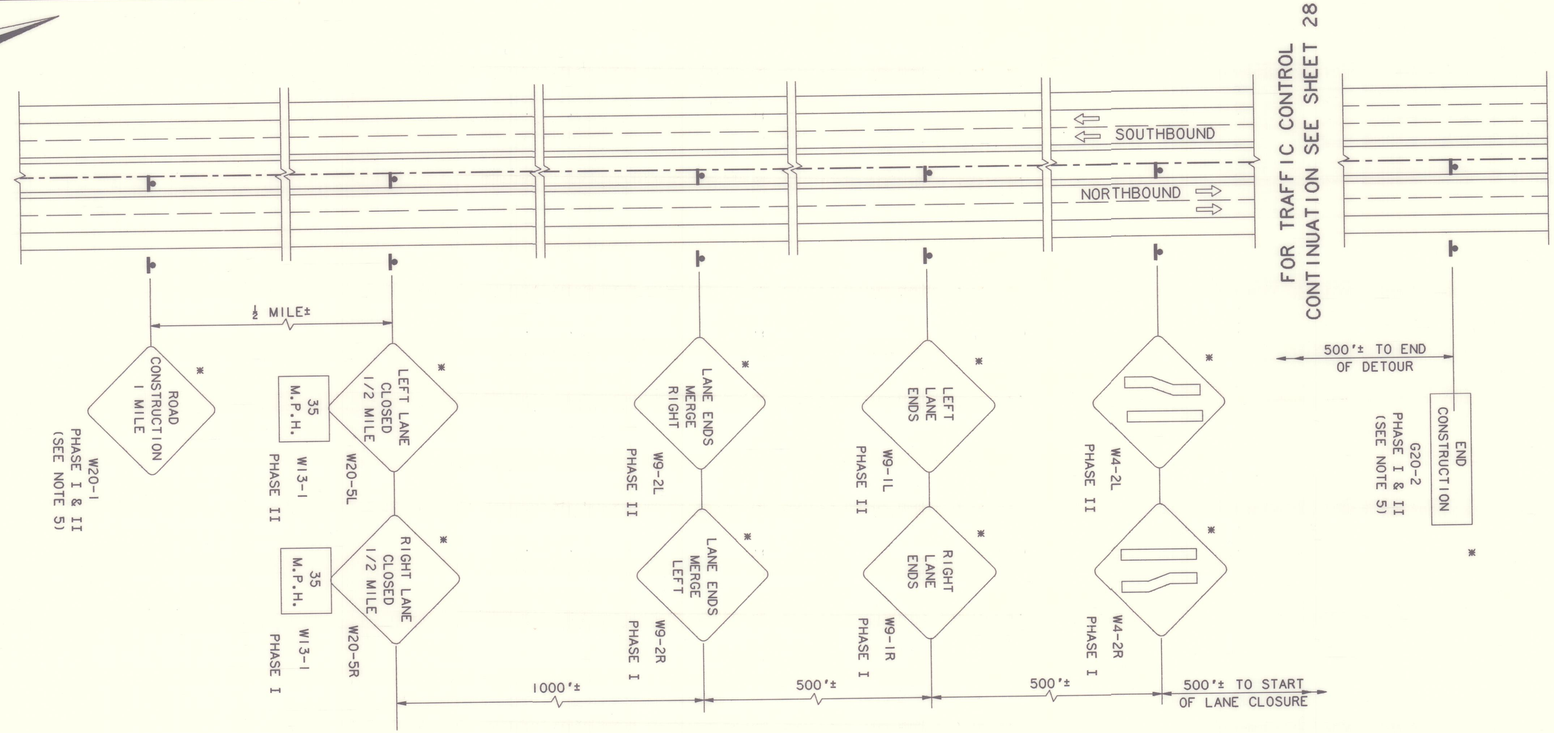
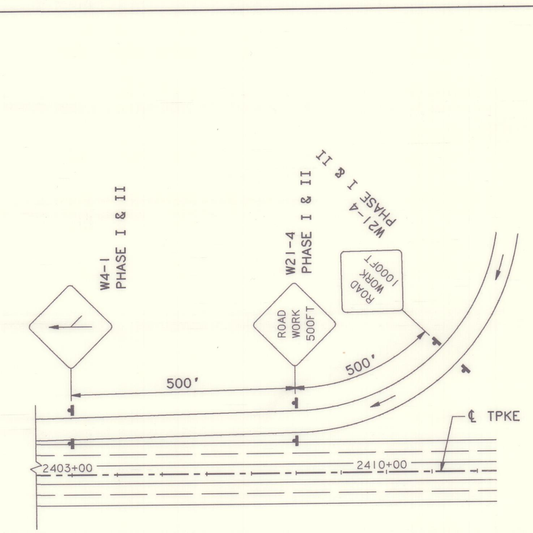
MAKEPEACE



PLAN - SOUTHERLY SIDE OF TRAFFIC DETOURS



INTERCHANGE 8
SOUTHBOUND RAMP-ON
NTS

PHASE I & II

ITEM 606.382 GUARD RAIL (DOUBLE FACE) REMOVE AND RESET	LF
STA. 2368+00 TO STA. 2372+00	400
STA. 2382+00 TO STA. 2386+00	400
TOTAL	800

ITEM 663.05 TEMPOARY CONCRETE BARRIER	LF
STA. 2367+90 TO 2386+50	1860
STA. 2368+65 TO 2377+25	860
	2720

ITEM 663.06 RESETTING TEMPORARY CONCRETE BARRIER	LF
STA. 2367+90 TO STA. 2386+50	1860
STA. 2379+50 TO STA. 2385+40	590
TOTAL	2450

ITEM 627.70 4 INCH YELLOW TEMPORARY PAVEMENT MARKINGS - TAPE	LF
PHASE I	
STA. 2367+50 TO STA. 2386+40 NB	1890
STA. 2371+70 TO STA. 2390+00 SB	1830
PHASE II	
STA. 2367+50 TO STA. 2386+40 SB	1890
STA. 2364+00 TO STA. 2382+30 NB	1830
TOTAL	7440

ITEM 627.71 4 INCH WHITE TEMPORARY PAVEMENT MARKINGS TAPE	LF
PHASE I	
STA. 2355+60 TO STA. 2386+60 NB	3100
STA. 2370+40 TO STA. 2383+60 SB	1320
PHASE II	
STA. 2367+30 TO STA. 2398+40 SB	3110
STA. 2370+40 TO STA. 2383+60 NB	1320
TOTAL	8850

ITEM 527.10 TEMPORARY IMPACT ATTENUATOR SYSTEM (LS)	LS
PHASE I	
STA. 2368+55 NB	1
PHASE II	
STA. 2385+45 SB (RELOCATED FROM PHASE I)	-
TOTAL	1

ITEM 627.671 REMOVING PAINTED PAVEMENT MARKINGS	LF
PHASE I	
STA. 2363+30 TO STA. 2370+00 NB SKIP	168
STA. 2367+50 TO STA. 2370+00 NB SOLID LEFT	250
STA. 2370+00 TO STA. 2384+00 SB SOLID LEFT	1400
STA. 2371+00 TO STA. 2386+40 SB SKIP	385
STA. 2370+40 TO STA. 2383+60 SB SOLID RIGHT	1320
STA. 2384+00 TO STA. 2386+40 NB SOLID LEFT	240
PHASE II	
STA. 2384+00 TO STA. 2390+70 SB SKIP	168
STA. 2383+90 TO STA. 2386+50 SB SOLID LEFT	260
STA. 2369+90 TO STA. 2383+90 NB SOLID LEFT	1400
STA. 2367+40 TO STA. 2382+80 NB SKIP	385
STA. 2370+40 TO STA. 2383+60 NB SOLID RT.	1320
STA. 2367+60 TO STA. 2370+00 SB SOLID LT.	240
TOTAL	7536

ITEM 652.30 FLASHING ARROW BOARD	EA
PHASE I	
STA. 2359+60 40' RT. AND STA. 2386+00 12' LT.	2
PHASE II	
STA. 2368+00 12' RT. AND STA. 2394+40 40' LT. (RELOCATE FROM PHASE I)	
TOTAL	2

ITEM 652.33 DRUM	EA
PHASE I	
STA. 2370+40 TO STA. 2377+23 SB	16
STA. 2379+70 TO STA. 2383+60 SB	10
STA. 2355+60 TO STA. 2369+20 NB	32
STA. 2383+00 TO STA. 2390+00 NB	19
STA. 2379+70 TO STA. 2388+00 NB	17
	94
PHASE II	
STA. 2370+40 TO STA. 2383+60 NB	30
STA. 2384+90 TO STA. 2398+40 SB	32
STA. 2364+00 TO STA. 2371+00 SB	19
STA. 2366+00 TO STA. 2377+10 SB	23
	104

TOTAL REQUIRED DRUMS = 104

GENERAL NOTES

1. SIGNING SHALL BE ERECTED ON BOTH SIDES OF THE ROADWAY UNLESS SHOWN OTHERWISE.
2. FLAGMEN SHALL BE USED AS DESIGNATED BY THE ENGINEER.
3. THE AUTHORITY SHALL FURNISH ALL TEMPORARY CONCRETE BARRIER. ALL OTHER TRAFFIC CONTROL DEVICES, INCLUDING REFLECTORIZED SIGNS, DRUMS, CONES AND PORTABLE FLASHING ARROWS SHALL BE FURNISHED BY THE CONTRACTOR, SEE SPECIFICATIONS.
4. THE LOCATION & SEQUENCE OF SIGNS SHOWN IS APPROXIMATE. ACTUAL LOCATIONS & SEQUENCE SHALL BE APPROVED IN THE FIELD BY THE ENGINEER.
5. ALL SIGNS SHALL HAVE OPAQUE BLACK LEGENDS WITH ORANGE REFLECTORIZED BACKGROUNDS.

* THE CONTRACTOR SHALL NOTE THAT OTHER ADJACENT TURNPIKE BRIDGE PROJECTS MAY BE IN PROGRESS DURING CONSTRUCTION OF THE MAINE CENTRAL RAILROAD BRIDGE PROJECT. THE PLACEMENT OF SIGNS AND OTHER TRAFFIC CONTROL DEVICES WILL BE DEPENDENT ON THE ADJACENT BRIDGE PROJECTS. THE CONTRACTOR SHALL RESTRICT TRAFFIC TO ONE 12' LANE NORTHBOUND AND SOUTHBOUND WITH DRUMS @ 50' SPACING FROM STA. 2347+00 TO STA. 2372+00 AND STA. 2382+00 TO STA. 2408+00. ALL PLACEMENT OF TRAFFIC CONTROL DEVICES AND COORDINATION WITH OTHER TURNPIKE BRIDGE PROJECTS SHALL BE APPROVED BY THE ENGINEER. ADDITIONAL DRUMS SHALL BE PAID FOR UNDER ITEM 652.33.

No.	Revision	By	Date

	By	Date
Designed	JFC	1/92
Drawn	BDH	1/92
Checked	BJB	1/92
In Charge Of:	RAL	

Maine Turnpike Authority
Maine Turnpike

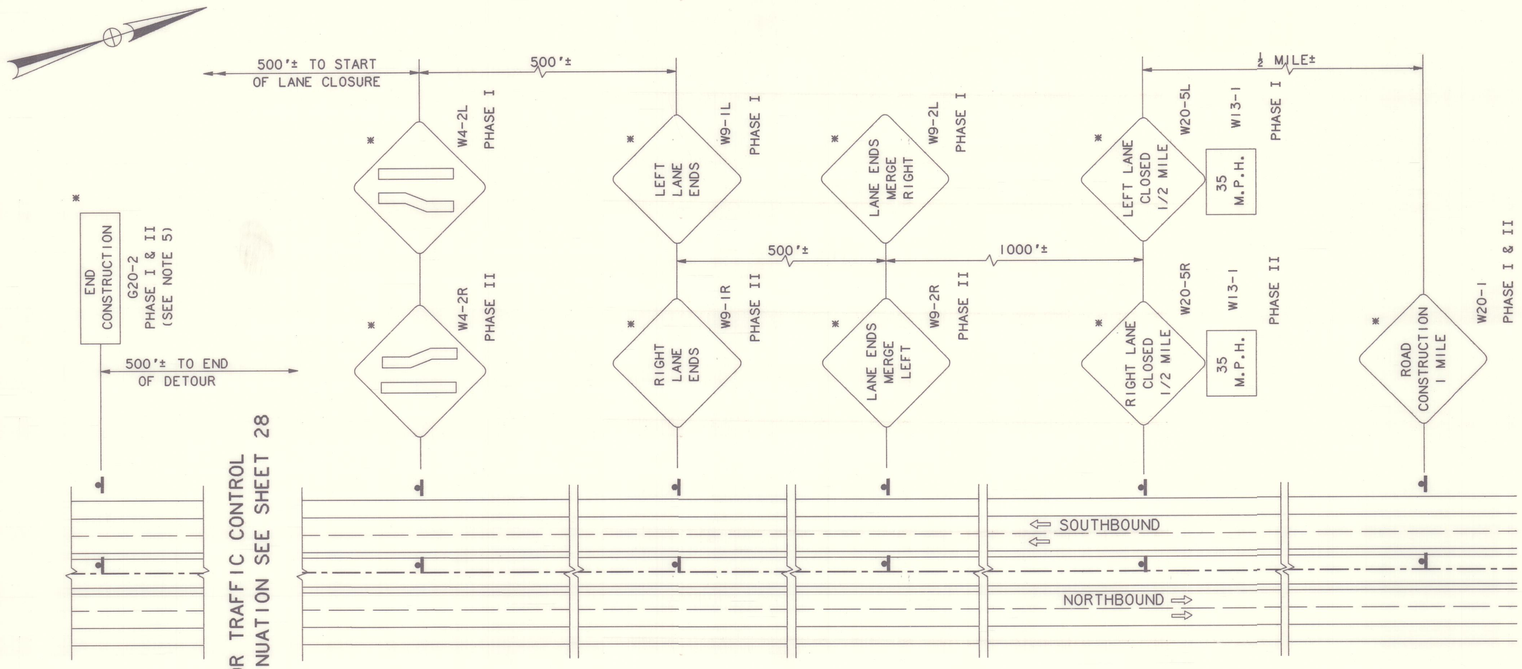
BRIDGE DECK REPLACEMENT
MAINE CENTRAL RAILROAD

TRAFFIC CONTROL I

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.9

Sheet No. 29 of 32



PLAN - NORTHERLY SIDE OF TRAFFIC DETOURS

* - SEE NOTE, SHEET 29 OF 32.

NOTE

1. FOR GENERAL SIGNING NOTES, SEE SHEET 29.

No.	Revision	By	Date

	By	Date
Designed	JFC	2/92
Drawn	BDH	2/92
Checked	BJB	2/92
In Charge Of:	RAL	

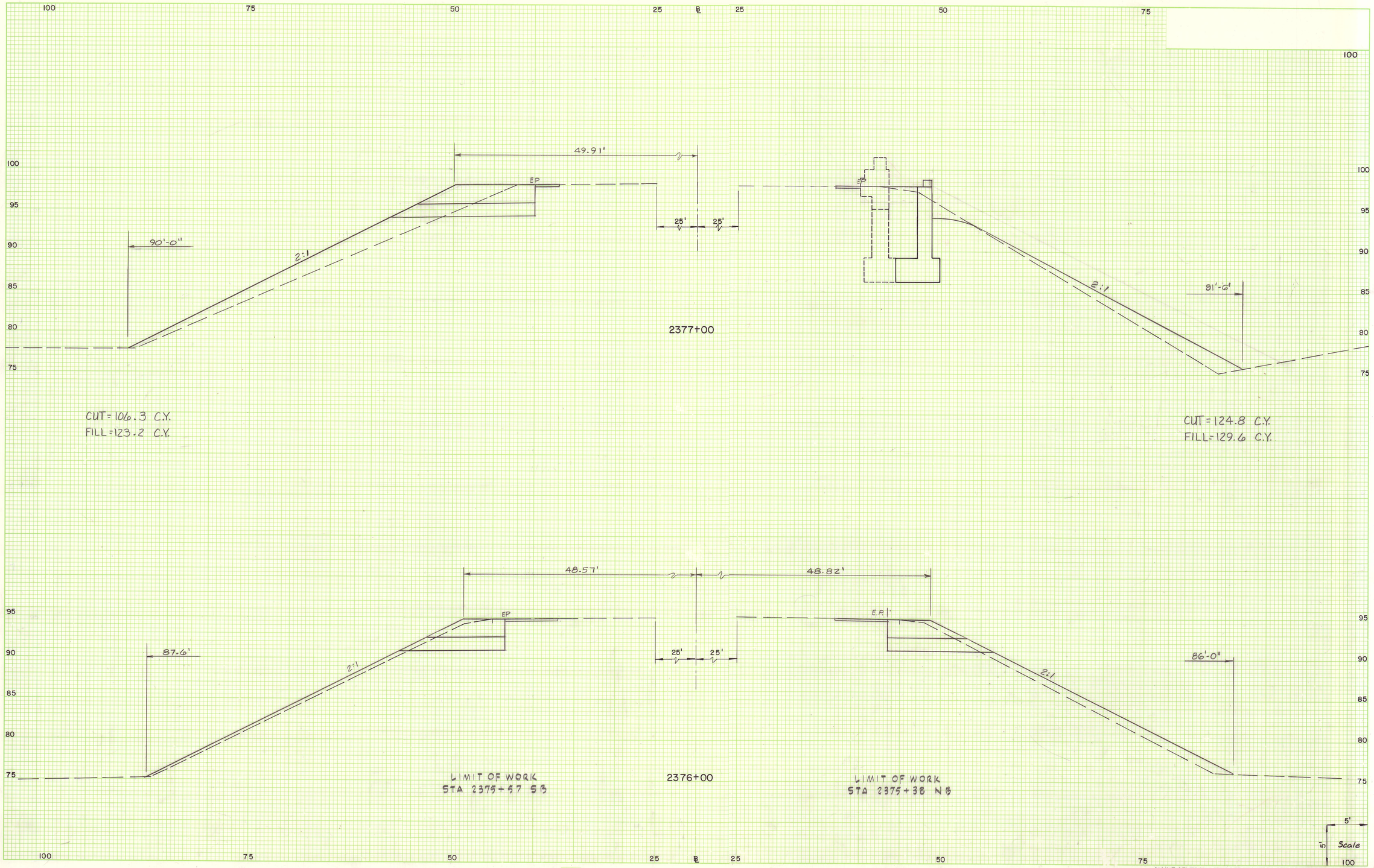
Maine Turnpike Authority
Maine Turnpike

BRIDGE DECK REPLACEMENT
MAINE CENTRAL RAILROAD
TRAFFIC CONTROL II

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

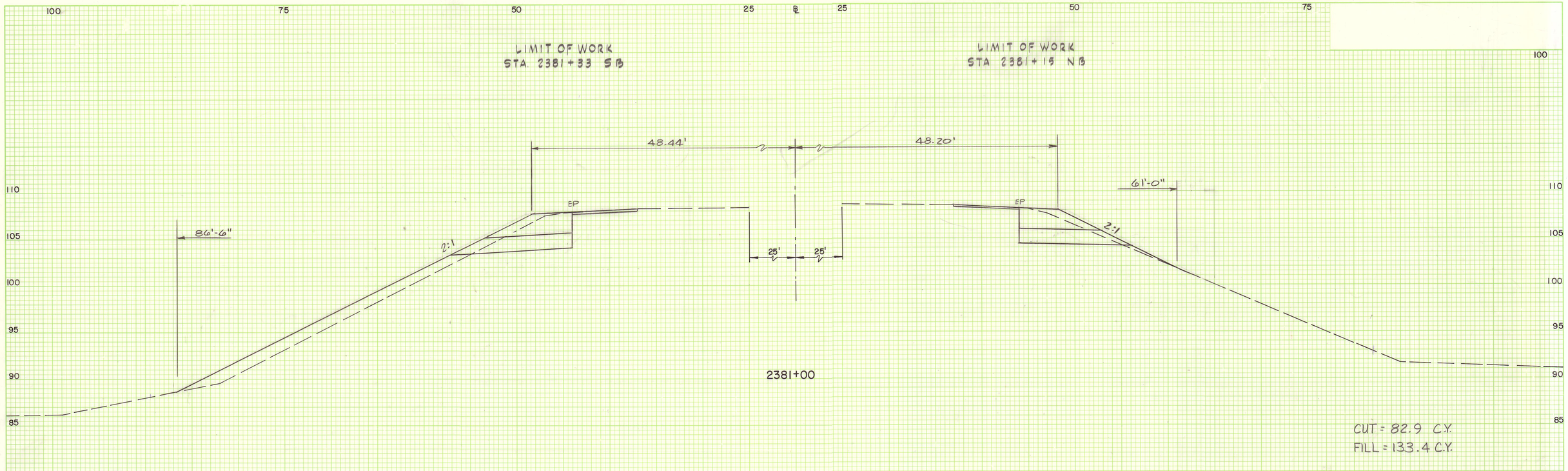
Contract 92.9

Sheet No. 30 of 32



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

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



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

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

MAINE CENTRAL RAILROAD STA. 2380+00 TO STA. 2381+00
SHEET NO. 32 OF 32 CONTRACT NO. 92.9