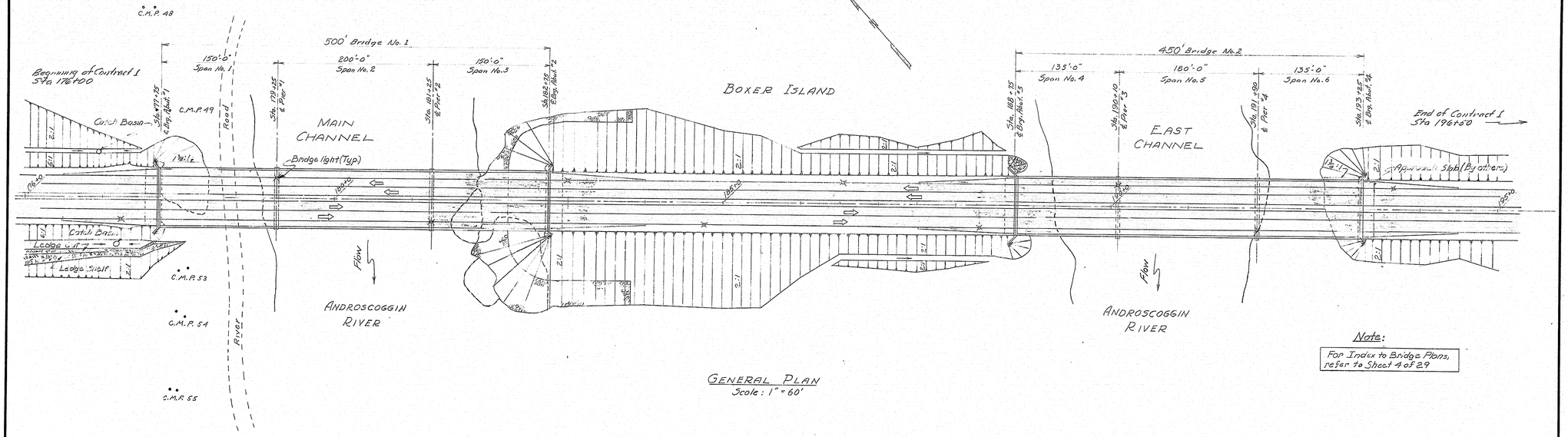
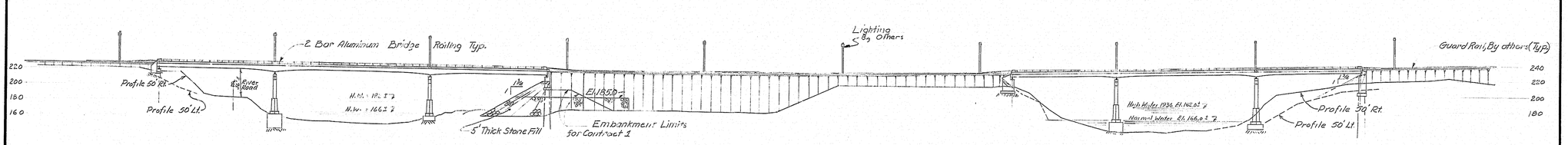
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	4	56



GENERAL PLAN
Scale: 1" = 60'



HYDRAULIC DATA

Drainage Area	2860 sq. mi.
Extreme High Water (1936)	El. 182 M.S.L.
Flow X-Section (@ El. 182)	14,500 sq. ft.
Approximate Velocity	8 fps
Discharge	118,000 cfs

GENERAL ELEVATION
Scales: Horiz. & Vert. 1"=60'

Note: Elevations and grades are based on 2¼" wearing surface and waterproofing.

SPECIFICATIONS

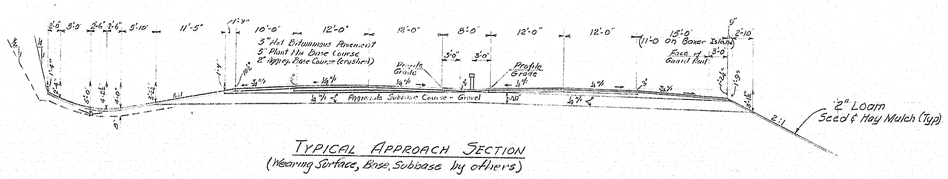
Design	AASHO Standard Specifications for Highway Bridges, 1969 & Interim Specifications 1970
Contract	State of Maine State Highway Commission Standard Specifications for Highways and Bridges, Revision of June 1968
	by
Loading	HS 20-44

MATERIALS

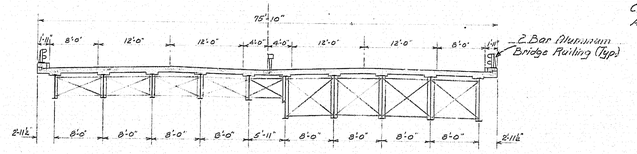
Structural Steel:
- Classification ..... ASTM A572 & A36 as noted
- Allowable Stress ..... A572 = 27,000 psi & A36 = 20,000 psi

Concrete:
- Classification
- Seals ..... Class "S"
- Abutment Pedestals ..... Class "B"
- Pier Base & Distribution Slab ..... Class "B"
- All Other ..... Class "A"
- Allowable Stress ..... Fc = 1,200 psi

Reinforcing Steel:
- Classification ..... ASTM A615 Grade 60
- Allowable Stress (#11 #10) ..... 24,000 psi



TYPICAL APPROACH SECTION
(Wearing Surface, Base, Subbase by others)



POSITIVE MOMENT SECTION — SECTION OVER PIERS

BRIDGE SECTIONS

Note:
For Index to Bridge Plans, refer to Sheet 4 of 29

DESIGN- CHANDLER
TRACE- POITIER
CHECK- H.L.D.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON-AUBURN
ANDROSCOGGIN COUNTY

— GENERAL PLAN —

SHEET 1 OF 29 AUGUSTA, MAINE JUNE 1970

131:61

Catch basin
Profile Grade
Ledge shelf
Ledge Shelf
Shelf
C.M.P 49
C.M.P 53
RIVER ROAD
℄ Auburn Bound Roadway
S 49°-15'-48.4 E
℄ Lewiston Bound Roadway
MAIN CHANNEL
ANDROSCOGGIN RIVER
Grouted Gutter (Typ)
Stone Fill To Elev. 185.0 (Typ)

PLAN
Scale: 1"=25'

℄ Profile
Approx. ground profile 50' Lt.
Approx. ground profile 50' Rt.
French Drain
Subgrade
-1%
Ledge Profile
Approx. Ledge Profile 25' Lt.
Shelf
River Road
Elev. 1936 Flood Stage 1820'
Elev. Normal Water 166.0'
Elev. 1850 Stone Fill
Gravel Borrow
Profile 50' Lt.
Profile 50' Rt.
5'

℄ Brgs Abut 1 Sta. 177+75
℄ Pier 1 Sta. 179+25
℄ Pier 2 Sta. 181+25
℄ Brgs. Abut 2 Sta. 182+75
Sta. 182+65
150' Span 1
200' Span 2
150' Span 3

PROFILE
Scale: Horzt.- 1"=25'
Vert.- 1"=10'

6'-0"
6"
Bituminous Slope Protection
1'-0" min. Hand Laid Riprap (Grouted) (Typ.)

SECTION A-A
Centered under Bridge Drains

6"
Concrete
1'-0" Hand Laid Riprap or Stone Fill. The area shown will be paid for as Hand Laid Riprap and shall be grouted

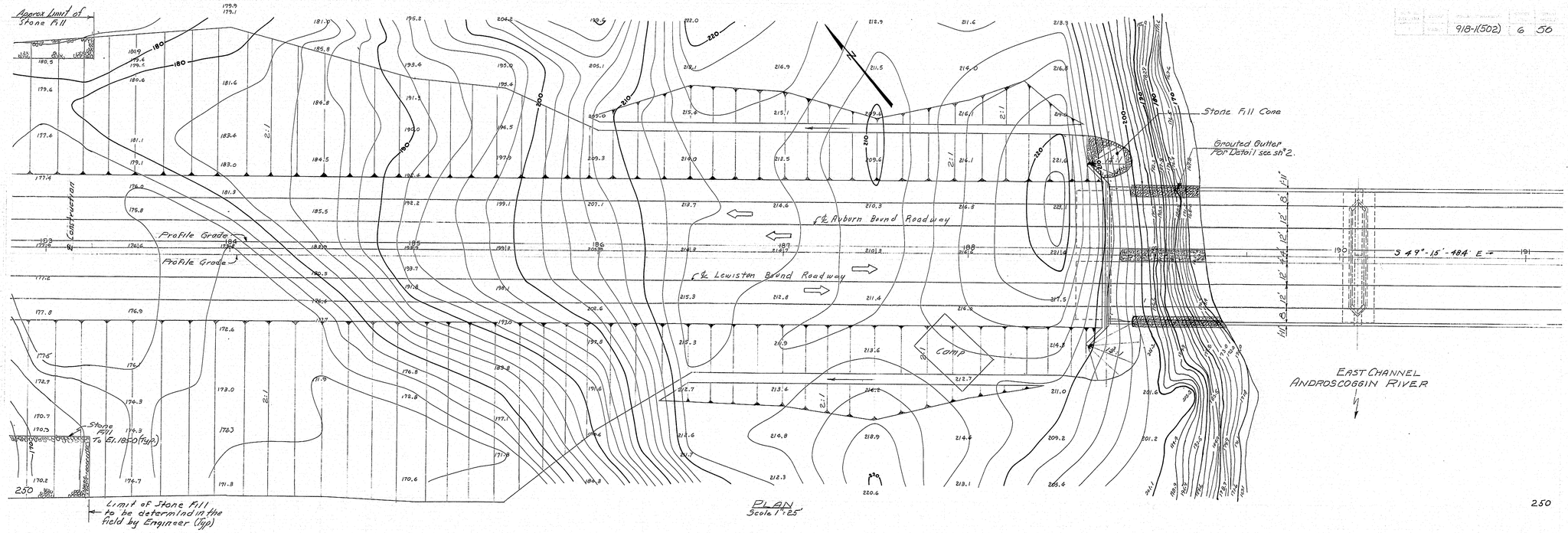
SECTION B-B
Centered under Bridge Drains

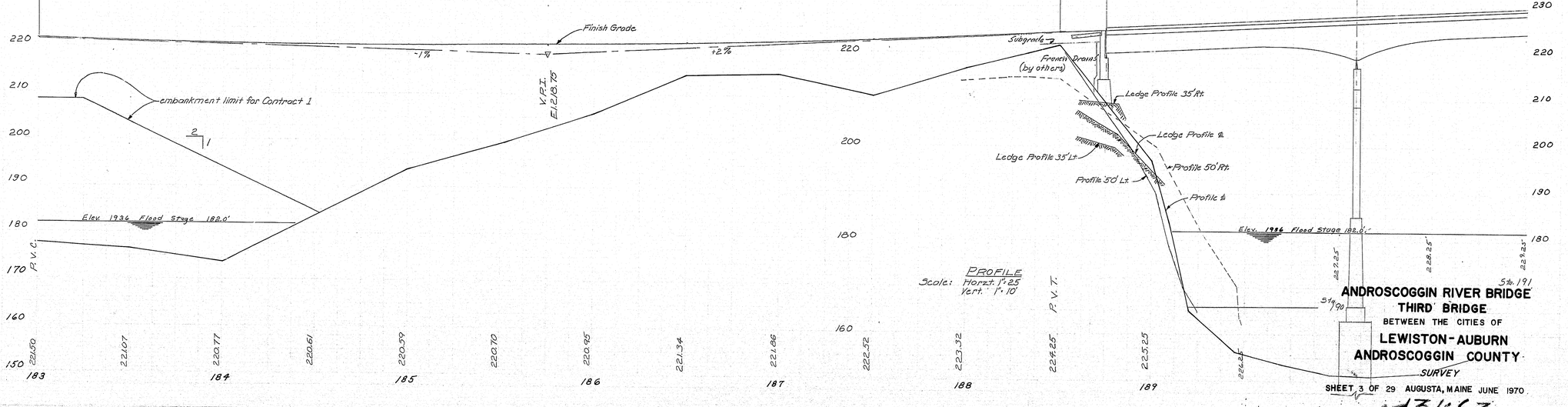
GROUTED GUTTER DETAIL

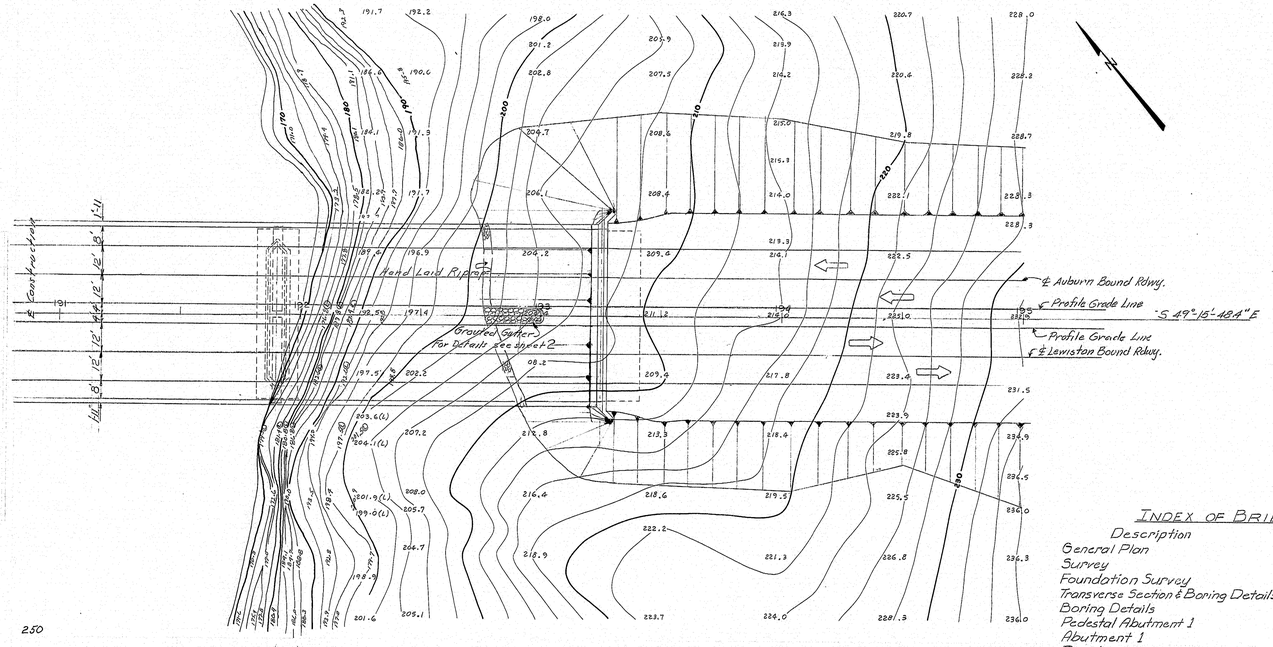
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
SURVEY

SHEET 2 OF 29 AUGUSTA, MAINE JUNE 1970

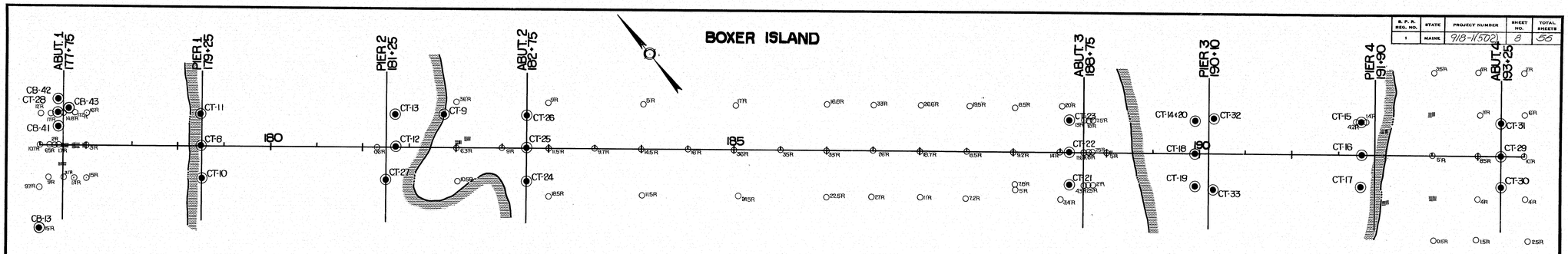
131-62


Approx Limit of Stone Fill
Stone Fill Cone
Grouted Gutter For Detail see sh°2.
℄ Auburn Bound Roadway
℄ Lewiston Bound Roadway
Profile Grade
Profile Grade
Stone Fill To El. 180.0 (Typ)
Limit of Stone Fill to be determined in the field by Engineer (Typ)
Camp
Shed
EAST CHANNEL ANDROSCOGGIN RIVER
S 49°-15'-48" E
PLAN
Scale 1"=25'


550' V.C.
Ex.=2.0625
135' Span 4
180' Span 5
℄ Brgs Abut 3 Sta. 188+75
℄ Pier 3 Sta. 190.10
Finish Grade
-1%
+2%
Subgrade
French Drain (by others)
Embankment limit for Contract 1
2
1
V.P.I. El. 213.75
P.V.C.
P.V.T.
Ledge Profile 35' Rt.
Ledge Profile ℄
Profile 50' Rt.
Ledge Profile 35' Lt.
Profile 50' Lt.
Profile ℄
Elev. 1936 Flood Stage 182.0'
PROFILE
Scale: Horzt. 1"=25
Vert. 1"=10
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
SURVEY
SHEET 3 OF 29 AUGUSTA, MAINE JUNE 1970
1131:63

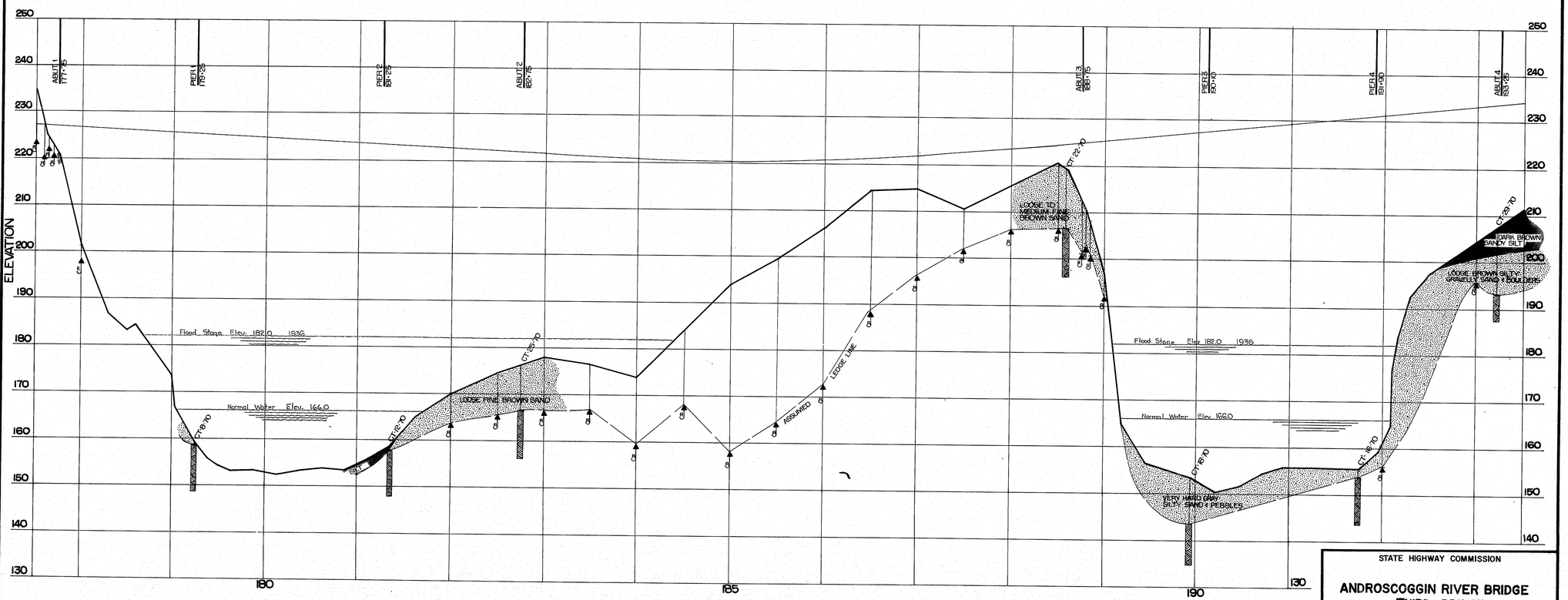

℄ Auburn Bound Rdwy.
℄ Profile Grade Line
S 49°-15'-48.4" E
℄ Profile Grade Line
℄ Lewiston Bound Rdwy.
Hand Laid Riprap
Grouted Gutter
For Detail See Sheet 2
℄ Pier 4
Sta. 191+90
℄ Brgs. Abut 4
Sta. 193+25
450'
180'
Span 5
135'
Span 6
+2%
Subgrade
Gravel Borrow
1½:1
H-beam piles
Profile 50' Rt.
Hand Laid Riprap
℄ Profile
Elev. 1936 Flood Stage 182.0'
Profile 50' Lt.
Elev. Normal Water 166.0'
Rdwy. Slope
Curb
Curb
Sidewalk
Sidewalk
Rdwy. Slope
Rdwy. Slope
Curb
Curb
Sidewalk
Sidewalk
Rdwy. Slope
Hand Laid Riprap
Grouted Gutter
For Detail See Sheet 2
℄ Construction
℄ Pier 1
℄ Pier 2
℄ Pier 3
℄ Pier 4
℄ Abut 1
℄ Abut 2
℄ Abut 3
℄ Abut 4
Pedestal Abut 1
Pedestal Abut 3
Pedestal Abut 4
Pedestal Abut 2
Pedestal Pier 1
Pedestal Pier 2
Pedestal Pier 3
Pedestal Pier 4
Pedestal Pier 5
Pedestal Pier 6
Pedestal Pier 7
Pedestal Pier 8
Pedestal Pier 9
Pedestal Pier 10
Pedestal Pier 11
Pedestal Pier 12
Pedestal Pier 13
Pedestal Pier

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-11(502)	8	55



PLAN

SCALE: 1"=50'



PROFILE

SCALE: 1"=50' HORIZ.
1"=10' VERT.

PLANS
DESIGN - DETAILED
DRAWN
REVISIONS
FIELD CHANGES
BY
DATE

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN
ANDROSCOGGIN COUNTY

FOUNDATION SURVEY

SHEET 5 OF 29 AUGUSTA, MAINE JUNE 1970

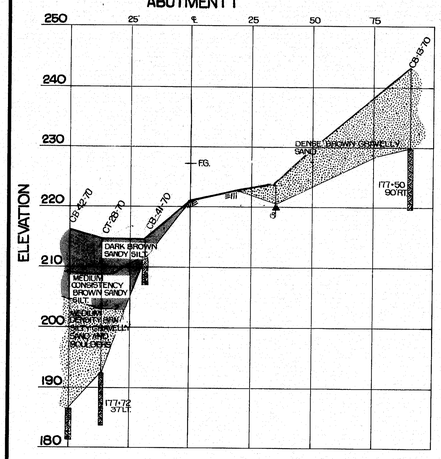
JANUARY 1968

293-1 2000

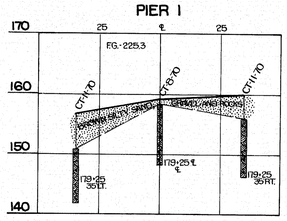
13+65

R. F. P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	9	55

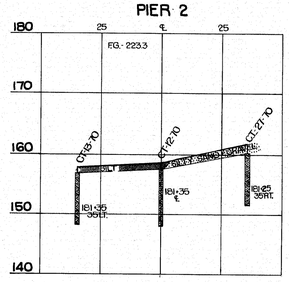
ABUTMENT 1



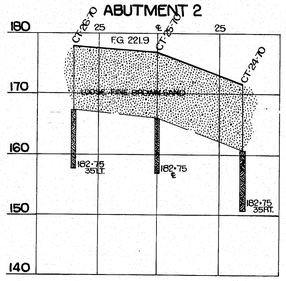
PIER 1



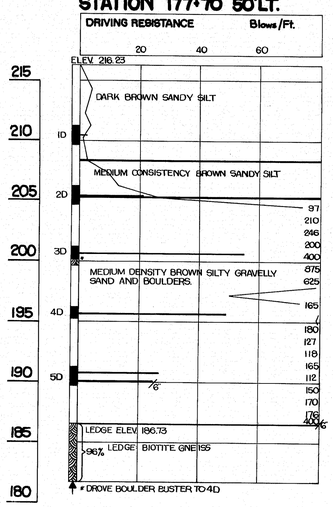
PIER 2



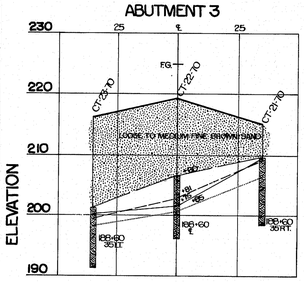
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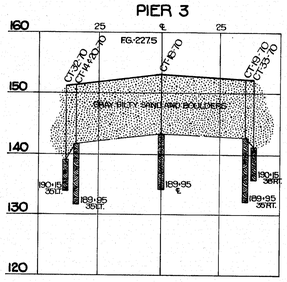
BORING CB-42(70) ABUT. 1 STATION 177+70 50'LT.



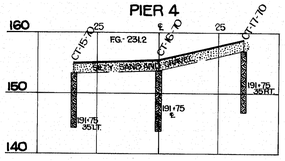
ABUTMENT 3



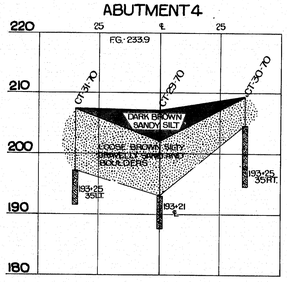
PIER 3



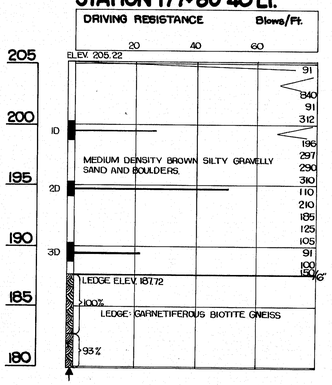
PIER 4



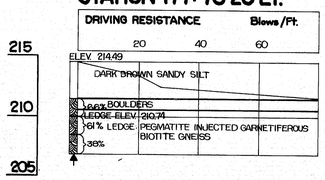
ABUTMENT 4



BORING CB-43(70) ABUT. 1 STATION 177+80 40'LT.



BORING CB-41(70) ABUT. 1 STATION 177+70 20'LT.



PLANS

DESIGN - DETAILED
CHECKED
REVISIONS
FIELD CHANGES

DATE	BY

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN

ANDROSCOGGIN COUNTY

TRANSVERSE SECTION & BORING DETAILS

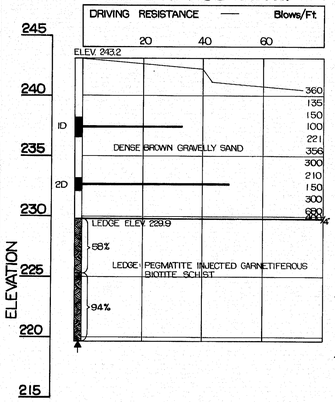
SHEET 6 OF 29 AUGUSTA, MAINE JUNE 1970

JANUARY 1968

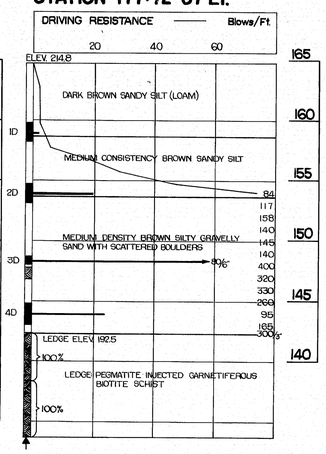
131:66

R. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	10	56

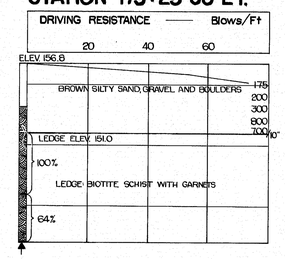
BORING CB-13 (70) ABUT. 1
STATION 177+50 90' RT.



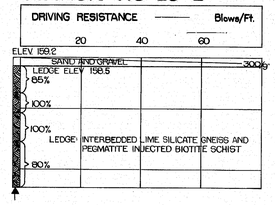
BORING CT-28 (70) ABUT 1
STATION 177+72 37' LT.



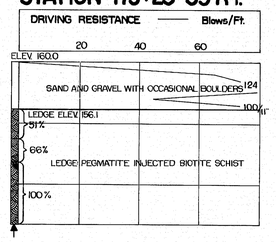
BORING CT-11 (70) PIER 1
STATION 179+25 35' LT.



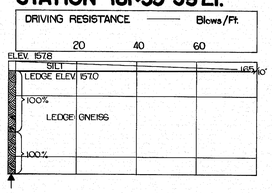
BORING CT-8 (70) PIER 1
STATION 179+25 ℄



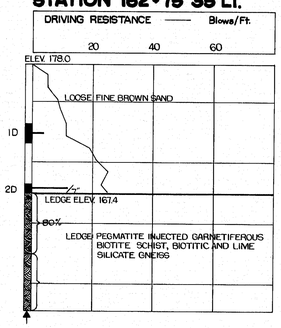
BORING CT-10 (70) PIER 1
STATION 179+25 35' RT.



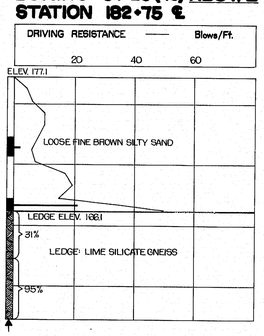
BORING CT-13 (70) PIER 2
STATION 181+35 35' LT.



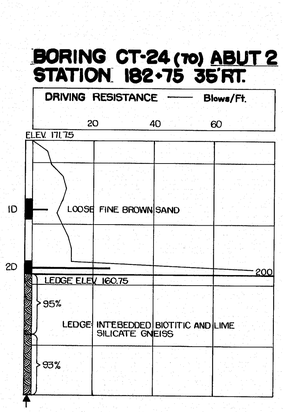
BORING CT-26 (70) ABUT. 2
STATION 182+75 35' LT.



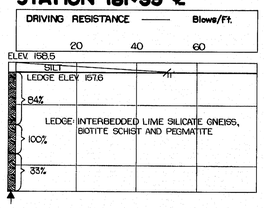
BORING CT-25 (70) ABUT. 2
STATION 182+75 ℄



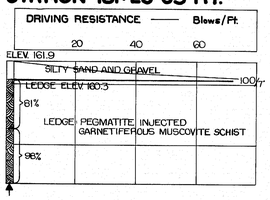
BORING CT-24 (70) ABUT 2
STATION 182+75 35' RT.



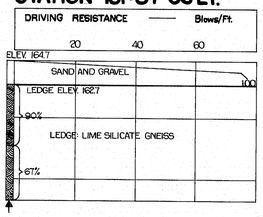
BORING CT-12 (70) PIER 2
STATION 181+35 ℄



BORING CT-27 (70) PIER 2
STATION 181+25 35' RT.



BORING CT-9 (70) PIER 2
STATION 181+87 36' LT.



BORING NOTES

ALL SAMPLES ARE MADE AHEAD OF CASING

NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 Ft. lbs. OF ENERGY PER BLOW

LOCATION OF SAMPLE

1D NUMBER AND TYPE OF DRY SAMPLE
S+H SAMPLER #1290's

NUMBER OF BLOWS REQUIRED TO DRIVE SPOON ONE FOOT WITH 350 Ft. lbs. OF ENERGY PER BLOW

BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)

LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

NOTE: ALL 2½" CASINGS

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN
ANDROSCOGGIN COUNTY

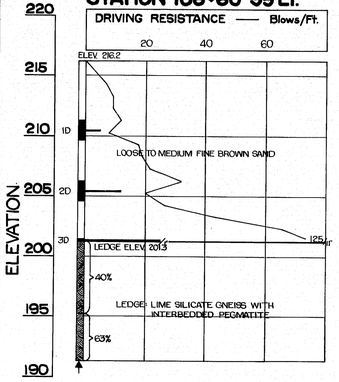
BORING DETAILS

SHEET 7 OF 29 AUGUSTA, MAINE JUNE 1970

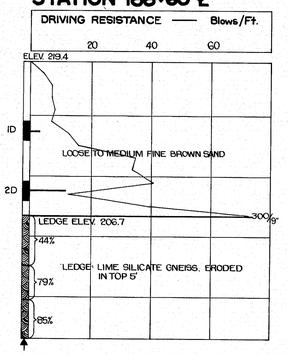
131:67

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	11	56

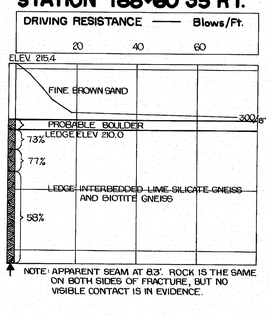
BORING CT-23(70) ABUT. 3 STATION 188+60 35'LT.



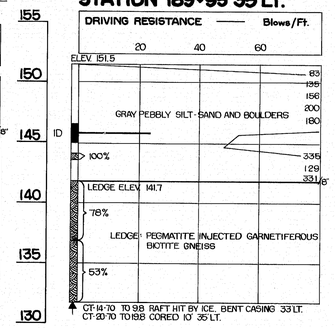
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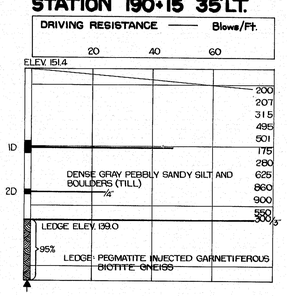
BORING CT-21(70) ABUT. 3 STATION 188+60 35'RT.



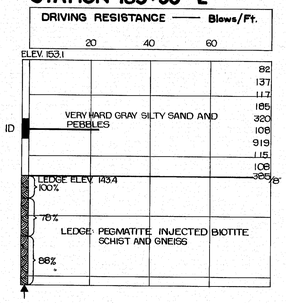
BORING CT-14+20(70) PIER 3 STATION 189+95 35'LT.



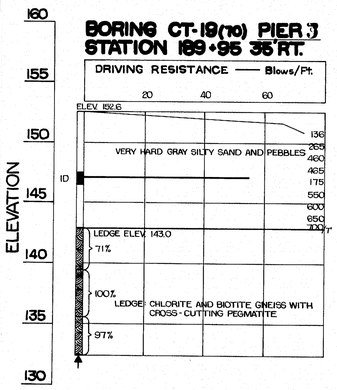
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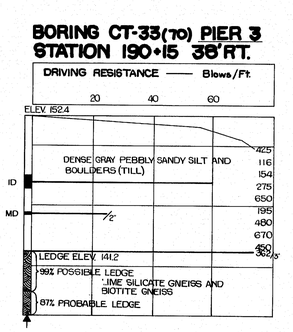
BORING CT-18(70) PIER 3 STATION 189+95 ℄



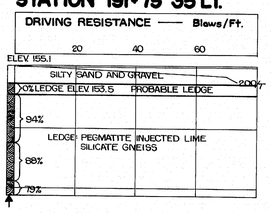
BORING CT-19(70) PIER 3 STATION 189+95 35'RT.



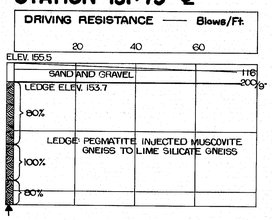
BORING CT-33(70) PIER 3 STATION 190+15 35'RT.



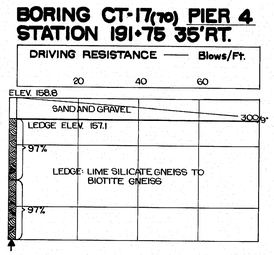
BORING CT-15(70) PIER 4 STATION 191+75 35'LT.



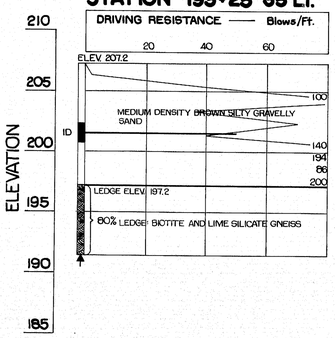
BORING CT-16(70) PIER 4 STATION 191+75 ℄



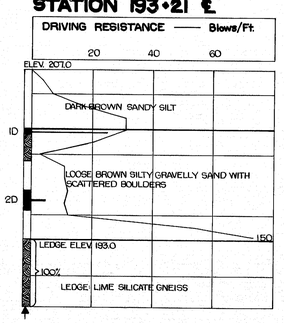
BORING CT-17(70) PIER 4 STATION 191+75 35'RT.



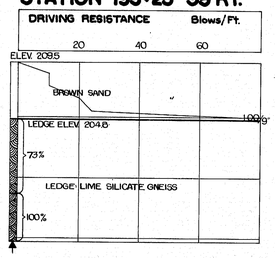
BORING CT-31(70) ABUT. 4 STATION 193+25 35'LT.



BORING CT-29(70) ABUT. 4 STATION 193+21 ℄



BORING CT-30(70) ABUT. 4 STATION 193+25 35'RT.



BORING NOTES

ALL SAMPLES ARE MADE AHEAD OF CASING

N — NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 Ft. lbs. OF ENERGY PER BLOW

▮ LOCATION OF SAMPLE

NUMBER AND TYPE OF DRY SAMPLE
ID SAH SAMPLER 2"Ø SPOON
MD UNSUCCESSFUL SAMPLE ATTEMPT AND

N — NUMBER OF BLOWS REQUIRED TO DRIVE SPOON ONE FOOT WITH 350 Ft. lbs. OF ENERGY PER BLOW

▲ BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)

▨ LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

NOTE: ALL 2½' CASING

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

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON-AUBURN ANDROSCOGGIN COUNTY

BORING DETAIL

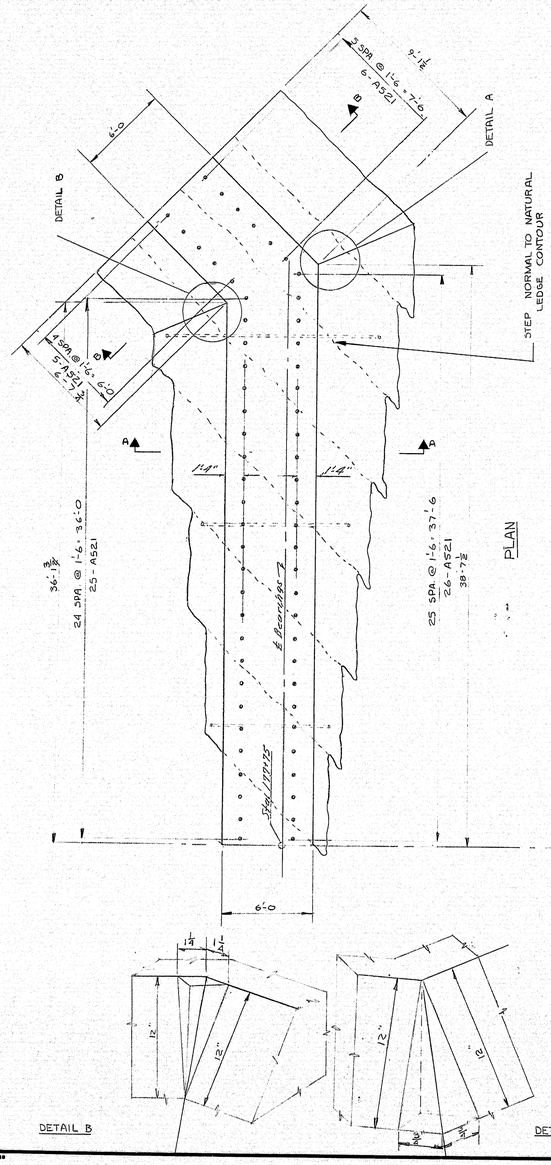
SHEET 8 OF 29 AUGUSTA, MAINE JUNE 1970

JANUARY 1968

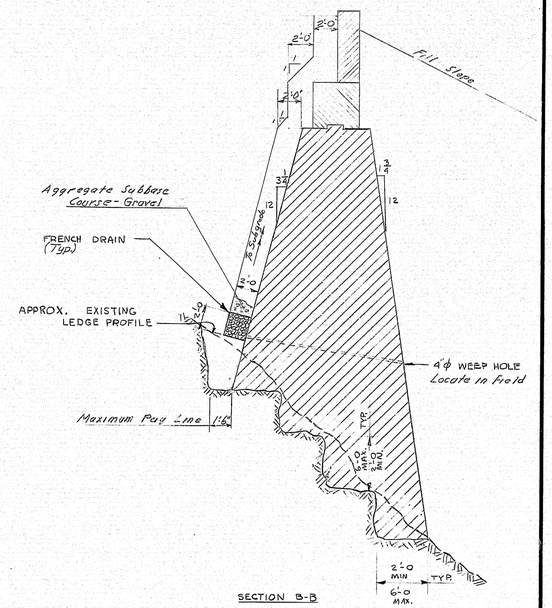
203-1 2980

131:68

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	12	56

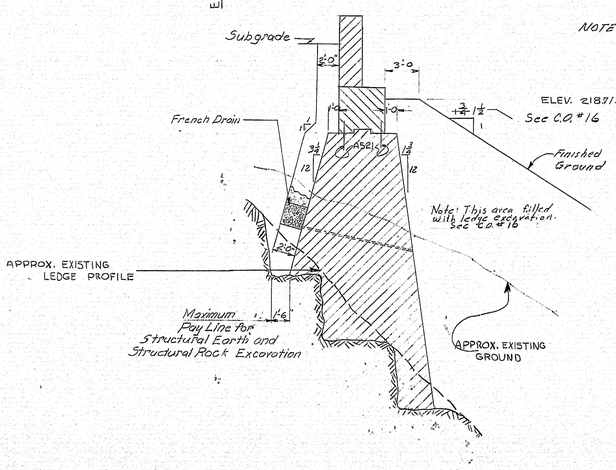






SECTION B-B

NOTE: Steps shall be approximately level and shall be subject to the approval of the Engineer.



SECTION A-A

PLANS	DESIGN - DETAILED	BY	DATE
	DESIGN - DETAILED	WCFBC	FEB.
	CHECKED	CAY	
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN

ANDROSCOGGIN COUNTY

PEDESTAL ABUT. 1

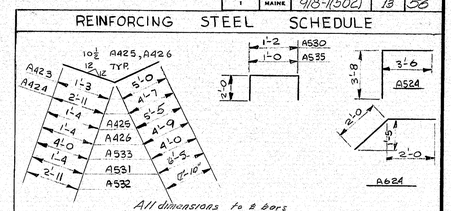
SHEET 9 OF 29 AUGUSTA, MAINE OCTOBER 1970

Revised as Built R.S. Bailey Jan 29, 1971

131.69

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	13	56

REINFORCING STEEL SCHEDULE



BENT BARS

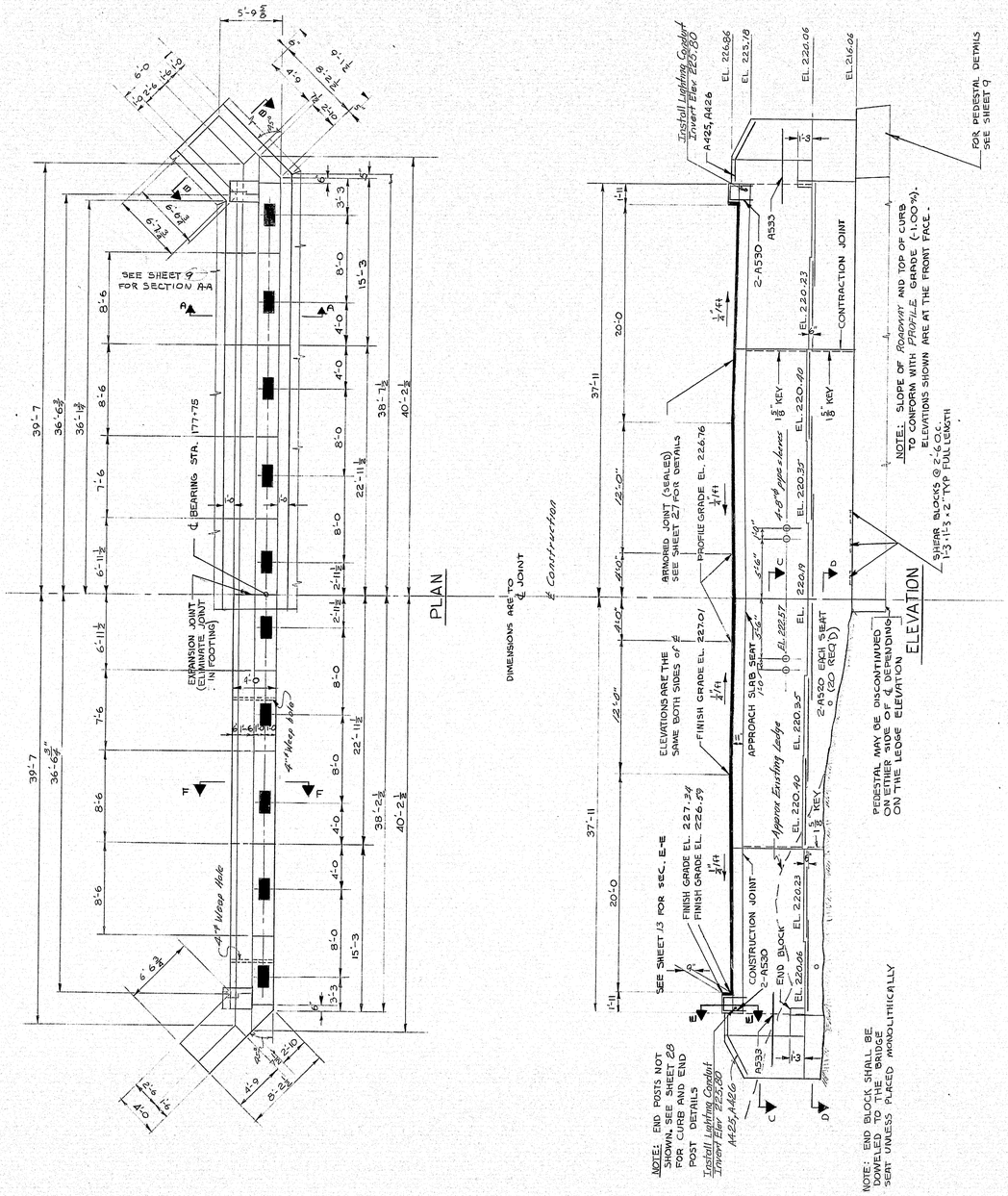
MARK	SIZE	NO	LENGTH	LOCATION
A423	#4	8	6'-3	HORIZONTAL - WING
A424	#4	8	7'-6	HORIZONTAL - WING
A425	#4	2	6'-9	TOP OF WING
A426	#4	2	6'-1	TOP OF WING
A524	#5	66	7'-2	VERTICAL - TOE OF BREASTWALL
A530	#5	4	5'-2	CURB STIRRUP
A531	#5	6	7'-9	HORIZONTAL - BOTTOM OF WING - BK. F
A532	#5	8	10'-9"	HORIZONTAL - BOTTOM OF WING - FRT-F
A535	#5	52	5'-0	BACKWALL TOP CLIP
A533	#5	12	8'-0	HORIZONTAL - EXTRA AT WING CORNER
A624	#6	50	4'-0	APPROACH SLAB ANCHOR

STRAIGHT BARS

A520	#5	20	8'-0	HORIZONTAL - BRIDGE SEATS
A421	#4	10	16'-11	HORIZONTAL - BACKWALL
A422	#4	10	14'-6	HORIZONTAL - BACKWALL
A521	#5	62	3'-0	DOWEL - VERTICAL - PEDESTAL
A522	#5	8	6'-9	DOWEL - VERTICAL - BREASTWALL
A523	#5	8	4'-3	DOWEL - VERTICAL - WINGWALL
A525	#5	16	5'-0	VERTICAL - WING
A526	#5	54	5'-7	DOWEL - VERTICAL - BREASTWALL
A527	#5	108	5'-5	VERTICAL - BACKWALL
A528	#5	12	13'-0	HORIZONTAL - BREASTWALL
A529	#5	54	3'-0	VERTICAL - BACKWALL
A534	#5	12	22'-6	HORIZONTAL - BREASTWALL
A429	#4	20	22'-6	HORIZONTAL - BACKWALL

REFER TO SHEET 13 FOR GENERAL ABUTMENT NOTES AND EXPANSION AND CONTRACTION JOINT DETAILS

No payment for Structural Rock Excavation - Abutments, or Structural Concrete Abutments and Retaining Walls will be made below horizontal planes located 1'0" below the bottom elevations as determined by the Engineer after rock is exposed.



STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
ABUT 1

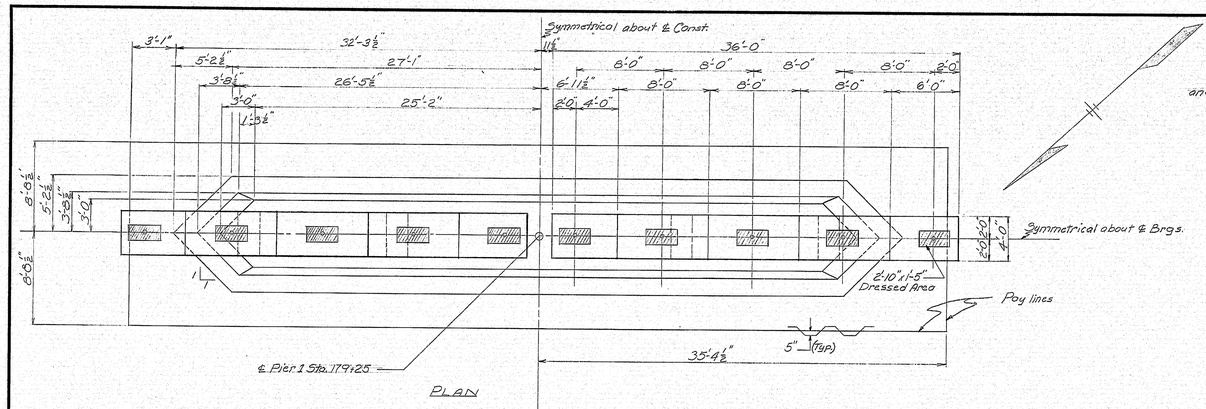
SHEET 10 OF 29 AUGUSTA, MAINE OCTOBER 1970

PLANS	DESIGN + DETAILED	BY	DATE
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

131:70

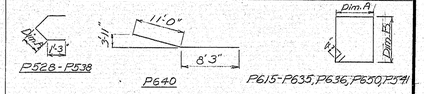
B. F. M. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981-1(502)	14	56



NOTES

For General Notes, Sections, Design Data and Seal Notes, refer to Pier 2 sheet 12

- REINFORCING STEEL SCHEDULE -



Dimensions are to center of bar

~ BENT BARS ~

Mark	Size	No.	Length Dim A	Length Dim B	Length Total	Location
P650	6	80	3'-7¾"	0'-6⅝"	8'-11"	Stirrups - Pier Cap (Top) Piers 1&2
P640	6	32			19'-3"	Bottom of Pier Cap Piers 1 & 2
P636	6	64	2'-6"	7'-7"	20'-10"	Stirrups - Pier Cap (middle) Piers 1 & 2
P635	6	16	2'-6"	7'-6"	20'-8"	Stirrups - Pier Cap (ends) Piers 1 & 2
P634		16		7'-4"	20'-4"	
P633		16		7'-2"	20'-0"	
P632		16		6'-11"	19'-6"	
P631		16		6'-9"	19'-2"	
P630		16		6'-7"	18'-10"	
P629		16		6'-4"	18'-4"	
P628		16		6'-2"	18'-0"	
P627		16		6'-0"	17'-8"	
P626		16		5'-10"	17'-4"	
P625		16		5'-7"	16'-10"	
P624		16		5'-5"	16'-6"	
P623		16		5'-3"	16'-2"	
P622		16		5'-0"	15'-8"	
P621		16		4'-10"	15'-4"	
P620		16		4'-8"	15'-0"	
P619		16		4'-6"	14'-8"	
P618		16		4'-3"	14'-2"	
P617		16		4'-1"	13'-10"	
P616		16		3'-11"	13'-6"	
P615	6	16	2'-6"	3'-8"	13'-0"	Stirrups - Pier Cap (ends) Piers 1 & 2
P541	5	232	3'-5"	4'-0"	15'-6"	Stirrups (Shafts) 120 Piers 1 & 2 - Pier 2
P538	5	4	3'-10"		10'-2"	Shaft Base Piers 1 & 2
P537		4	3'-11"		10'-4"	
P536		4	4'-0"		10'-6"	
P535		4	4'-1"		10'-8"	
P534		4	4'-2½"		10'-11"	
P533		4	4'-3½"		11'-1"	
P532		4	4'-4½"		11'-3"	
P531		4	4'-5½"		11'-5"	
P530		4	4'-6½"		11'-7"	
P529		4	4'-7½"		11'-9"	
P528	5	4	4'-8½"		11'-11"	Shaft Base Piers 1 & 2

~ STRAIGHT BARS ~

Mark	Size	No.	Length	Location
P1104	11	88	35'-8"	Pier Cap (Top) 44 - Pier 1, 44 - Pier 2
P914	9	176	5'-6"	Dowels - Dist. Slab → Seat Piers 1&2
P913	9	168	4'-6"	Dowels - Shaft base → Dist. Slab Piers 1&2
P912	9	168	15'-8"+6"-(CO #2)	Vert. Shaft base Pier 1 & 2
P911	9	160	4'-6"	Dowels - Shaft - Shaft base Piers 1&2
P910	9	80	22'-3"	Vert. Shaft. Pier 2
P909	9	80	24'-3"	Vert. Shaft Pier 1
P544	5	16	35'-8"	Pier Cap (middle) Piers 1 & 2
P543	5	8	31'-0"	Pier Cap (middle) Piers 1 & 2
P542	5	8	23'-4"	Pier Cap (middle) Piers 1 & 2
P527	5	44	14'-2"	Shaft Base Piers 1 & 2
P526	5	44	40'-0"	Shaft Base Piers 1 & 2

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
PIER 1

SHEET 11 OF 29 AUGUSTA, MAINE OCTOBER 1970

Revised as Built RS Bailey Jan. 25, 1974

DESIGN - DETAILED	BY	DATE
CHECKED	C.F.	10-27-70
REVISIONS	D. MP	1-25-74
FIELD CHANGES	C.F.M	10-27-70

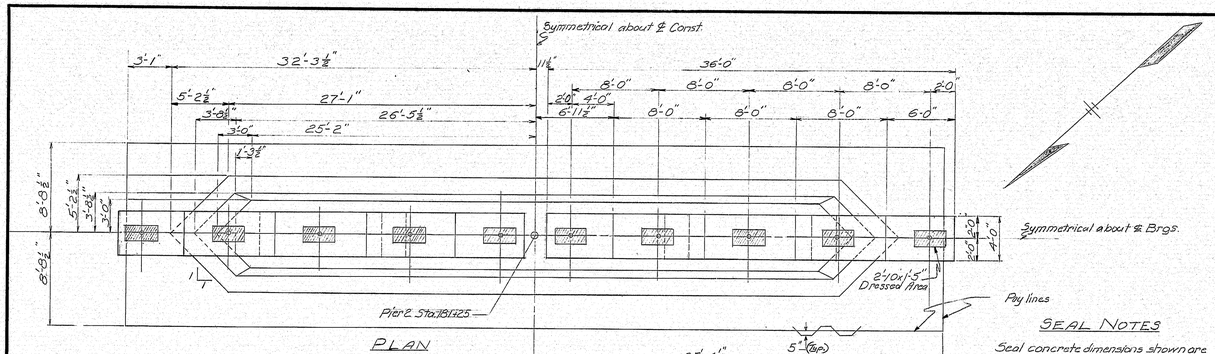
PLANS

JANUARY 1968

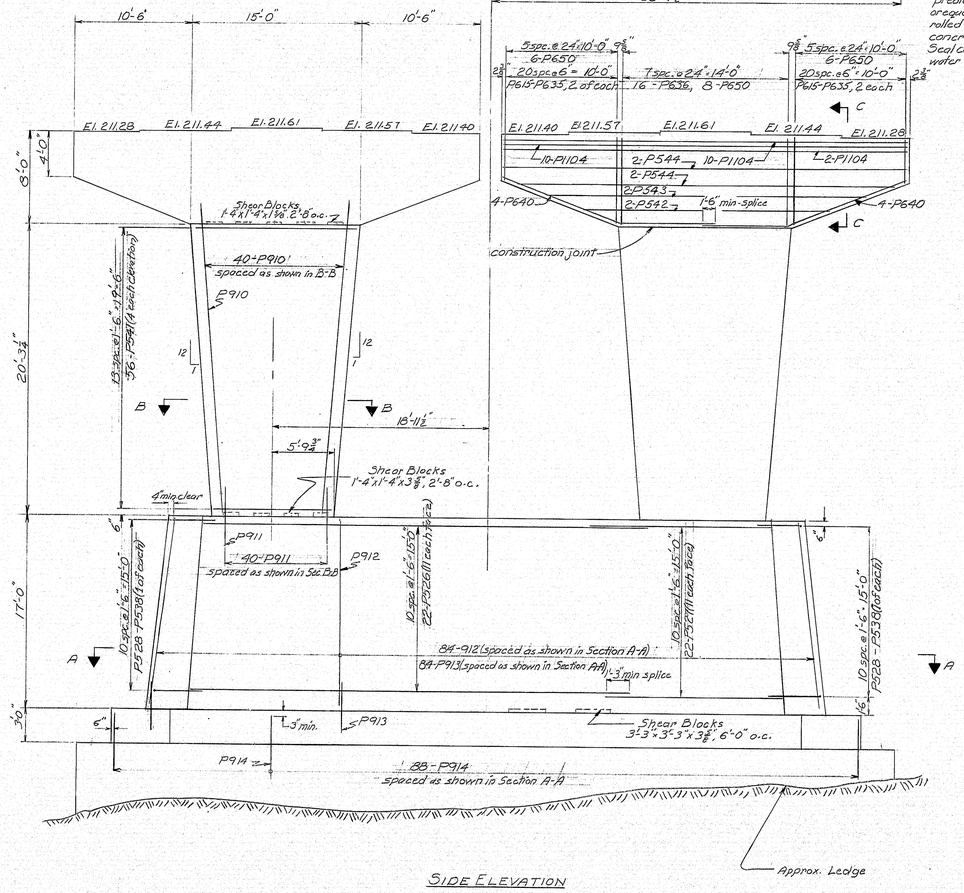
203-1 2080

13171

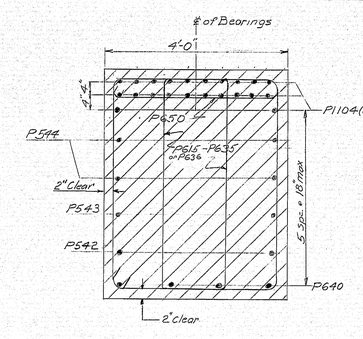
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9811(502)	15	56



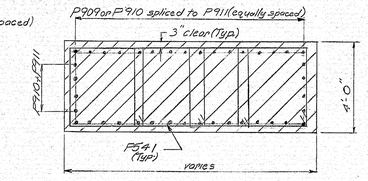
PLAN



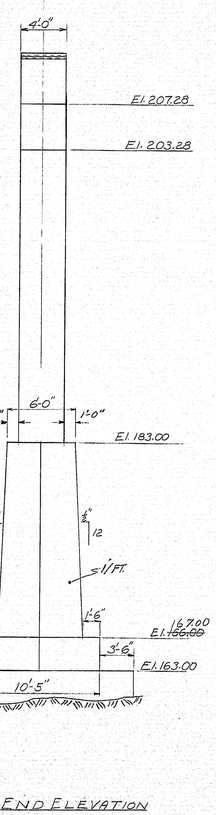
SIDE ELEVATION

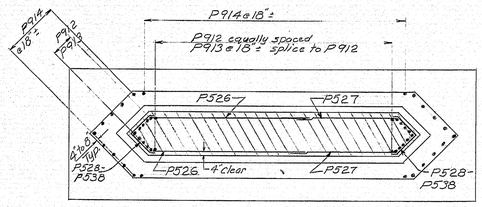


SECTION C-C



SECTION B-B





SECTION A-A

GENERAL NOTES

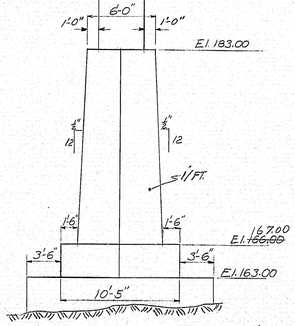
Reinforcing Steel splices and embedments shall be 24 bar diameters minimum.

Any tension splices approved during construction and not shown on the plans, will require at least 36 bar diameters.

The method of placing dowels in the Seal shall be approved by the Engineer.

DESIGN DATA

Critical AASHO Loading Groups ——— VIII & IX
Water Elevation (extreme high) ——— 182.0
Stream Velocity ——— 7 fps.
Stream Skew (with longitudinal axis) ——— 15°
Wind — velocity (on substructure) ——— 100 mph.
skew (superstr℄ substr) ——— 45°
pressure on superstr: 16 psf (longitud), 33 psf (lateral)
Ice — thickness = 12 inches
elev = 182.0
pressure = 400 psi
Seal — allowable pumped head ——— 12 ft.
*allowable water elev. (pumped) — 170.0
assumed bottom elev. ——— 158.0
assumed seal thickness ——— 5.0 ft±



END ELEVATION

*NOTE: If the average elevation of the bottom of seal is above El. 158.0, reduce the allowable water elevation by two (2) feet for each foot of elevation difference between bottom of seal and El. 158.0

References: For Steel Schedule, see sh. 11

PLANS	DESIGN - DETAILED	BY	C.B.	DATE	11-12-70
	CHECKED		C.D.M.		11-24-70
	REVISIONS				
	FIELD CHANGES				

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
PIER 2

SHEET 12 OF 29 AUGUSTA, MAINE OCTOBER 1970

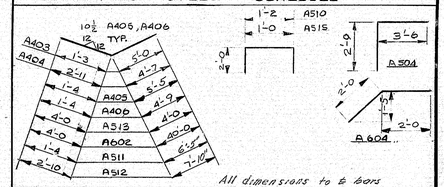
Revised as Built RS Bailey Jan. 23, 1974

JANUARY 1968

131:72

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981(502)	16	56

REINFORCING STEEL SCHEDULE



BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A403	#4	8	6'-5	HORIZONTAL – WING
A404	#4	8	7'-6	HORIZONTAL – WING
A405	#4	2	6'-9	TOP OF WING
A406	#4	2	6'-1	TOP OF WING
A504	#5	66	6'-3	VERTICAL – TOE OF BREASTWALL
A510	#5	4	5'-2	CURB STIRRUP
A511	#5	6	7'-9"	HORIZONTAL – BOTTOM OF WING – BK. F
A512	#5	8	10'-8"	HORIZONTAL – BOTTOM OF WING – FRT. F
A515	#5	52	5'-0	BACKWALL TOP CLIP
A513	#5	12	8'-0	HORIZONTAL – EXTRA AT WING CORNER
A602	#6	24	44'-0	LONGITUDINAL – FOOTING
A604	#6	50	4'-0	APPROACH SLAB ANCHOR

STRAIGHT BARS

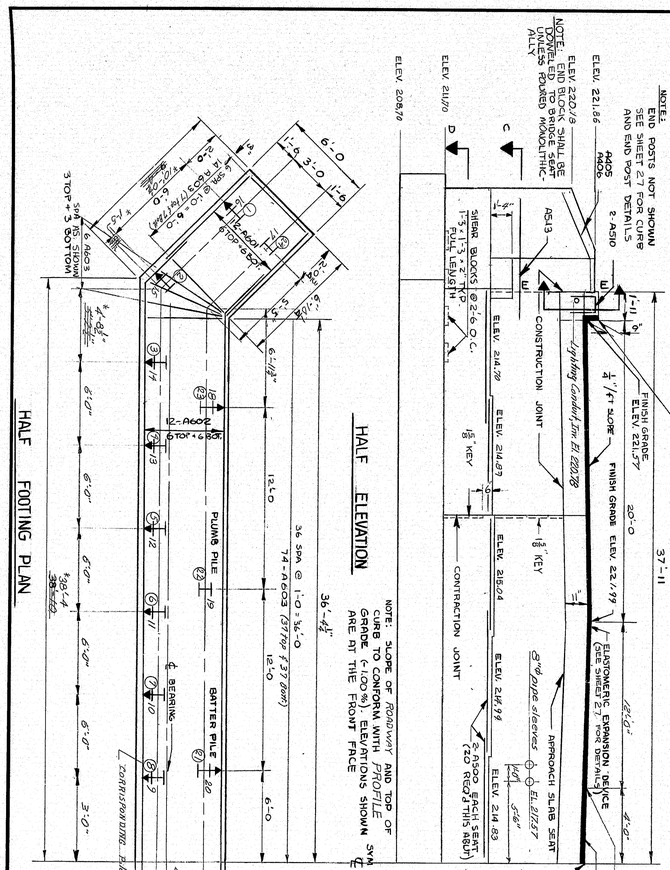
A500	#5	20	8'-0	HORIZONTAL – BRIDGE SEATS
A401	#4	10	16'-11	HORIZONTAL – BACKWALL
A402	#4	10	14'-6	HORIZONTAL – BACKWALL
A501	#5	124	3'-0	DOWEL – VERTICAL – FOOTING
A502	#5	8	5'-9	DOWEL – VERTICAL – FOOTING
A503	#5	8	4'-3	DOWEL – VERTICAL – WINGWALL
A505	#5	16	5'-0"	VERTICAL – WING
A506	#5	54	4'-7	DOWEL – VERTICAL – BREASTWALL
A507	#5	108	5'-5"	VERTICAL – BACKWALL
A508	#5	12	13'-0	HORIZONTAL – BREASTWALL
A509	#5	54	3'-0	VERTICAL – BACKWALL
A601	#6	24	6'-6	LONGITUDINAL – FOOTING
A603	#6	187	5'-6	TRANSVERSE – FOOTING
A409	#4	20	22'-6	HORIZONTAL – BACKWALL
A514	#5	12	22'-6	HORIZONTAL – BREASTWALL

GENERAL ABUTMENT NOTES:

1. All rein. steel splices or embedments are to be a minimum of 24 bar diameters.
2. Reinforcing steel is to have 3" *clear cover*
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. Break bond at vertical contraction joint with a coat of asphalt paint.
5. Backwall shall not be built above the approach slab seat until superstructure slab has been placed.
6. Apply "Protective Coating for Concrete Surfaces" to top of curb, *and entire end post.*
7. Install 4-8"ϕ pipe sleeves in each abutment where shown. Sleeves shall be blocked off on the back side in a manner approved by the Engineer. No separate payment will be made.

PILE NOTES:

1. Piles shall be 10 BP 42 with pointed reinforced tip
2. Pile lengths are based on ledge elevations indicated by soil investigation, *with no allowance for uncertainties.*
3. Piles shall be driven to ledge or practical refusal. max design load per pile = 55 tons
4. Estimated length of piles 12 @ 50'-0" and 12 @ 55' = 1260 lf total
5. Front row of piles shall be battered 2½/ft in the direction shown and alternate back row piles shall be battered 1½"/ft in direction shown.



DESIGN– EEC & JC	BRIDGE NO.
TRACE– EEC	SURVEY–
CHECK– EDH 10-21-70	PLOT–

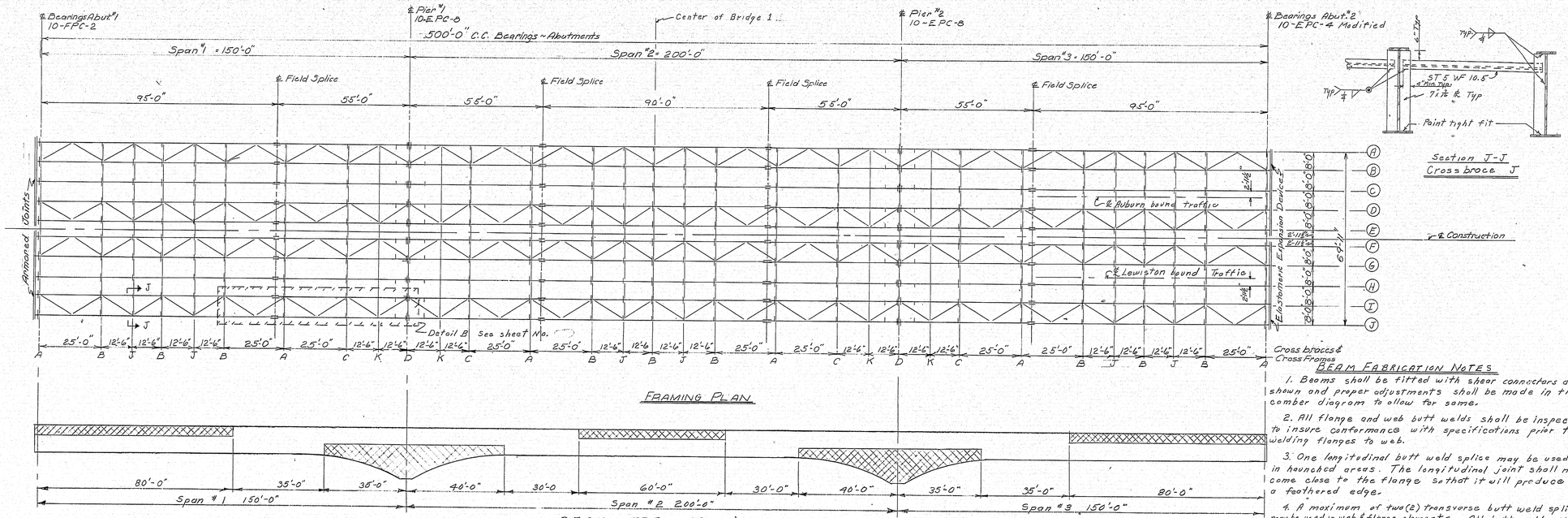
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
ABUT. 2

SHEET 13 OF 29 AUGUSTA, MAINE OCTOBER 1970

131:73

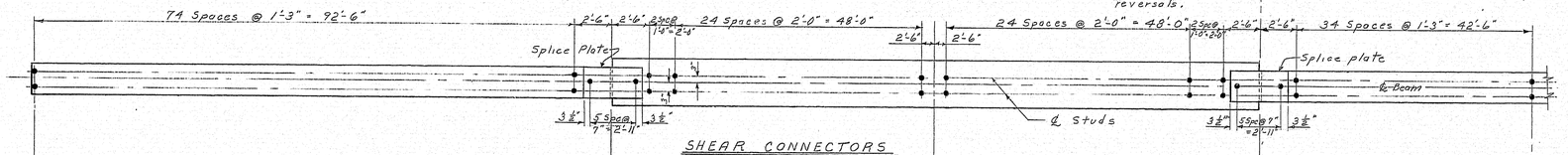
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981-1(502)	17	56



FRAMING PLAN

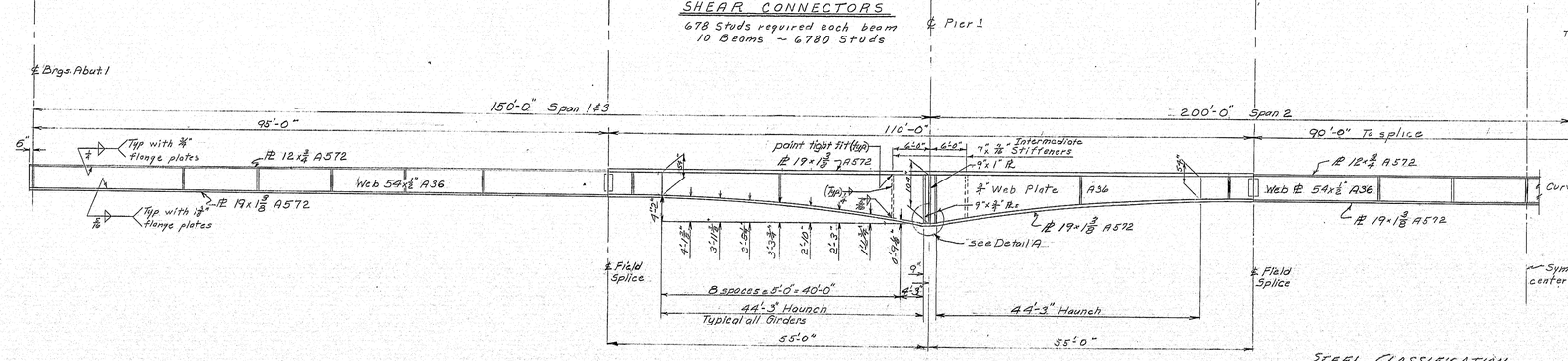
BEAM STRESS TYPE DIAGRAM

▨ = Area of the beam which will always be in compression. All other areas will be in tension or are areas which have stress reversals.



SHEAR CONNECTORS

678 Studs required each beam
10 Beams ~ 6780 Studs

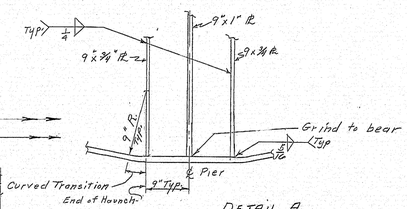


PART BEAM ELEVATION

STEEL CLASSIFICATION

All Flange plates A572 Grade 50
All other A36 unless otherwise shown

Section J-J
Cross brace J



DETAIL A
(Typical of all haunches)

BEAM FABRICATION NOTES

1. Beams shall be fitted with shear connectors as shown and proper adjustments shall be made in the camber diagram to allow for same.

2. All flange and web butt welds shall be inspected to insure conformance with specifications prior to welding flanges to web.

3. One longitudinal butt weld splice may be used in haunched areas. The longitudinal joint shall not come close to the flange so that it will produce a feathered edge.

4. A maximum of two(2) transverse butt weld splices may be used in web & flange elements. All butt welds shall be located not less than ten (10) feet from ℄ bearings and not less than ten (10) feet from center of span 2 and not less then ten (10) feet from a point 56 feet from abutment bearings. Flange butt welds shall be at least one(1) foot from web butt welds. All butt welds shall be located on shop details.

5. Bearing stiffeners shall be set plumb. Crossframe connection plates and Intermediate Transverse stiffeners may be set plumb or normal to flanges.

PLANS	BY	DATE
DESIGN - DETAILED	J.C.	10-69
CHECKED	R.J.L.	10-70
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

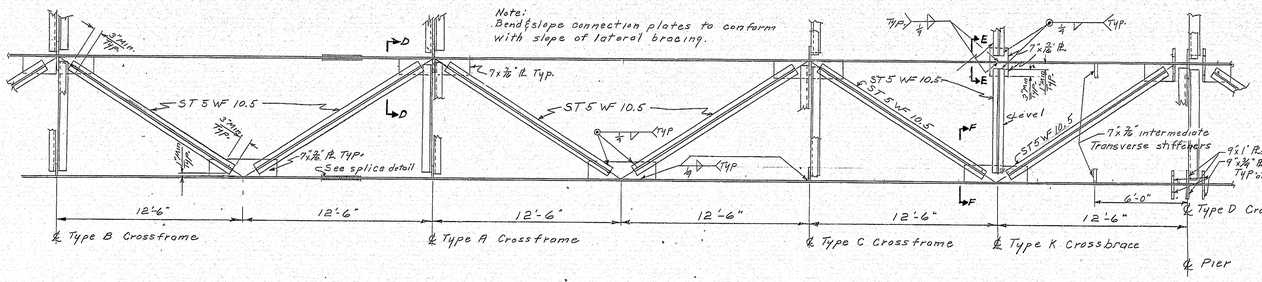
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
STRUCTURAL STEEL — BRIDGE 1

SHEET 14 OF 29 AUGUSTA, MAINE OCTOBER 1970

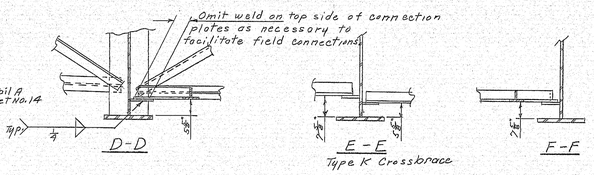
13 to 74

JANUARY 1968

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	18	50



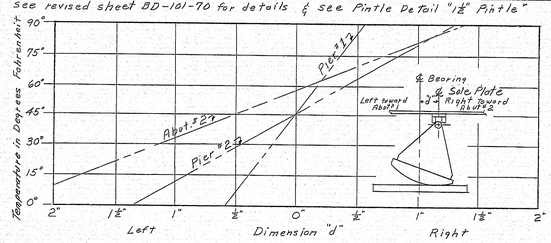
DETAIL B
(Beam flanges not shown)



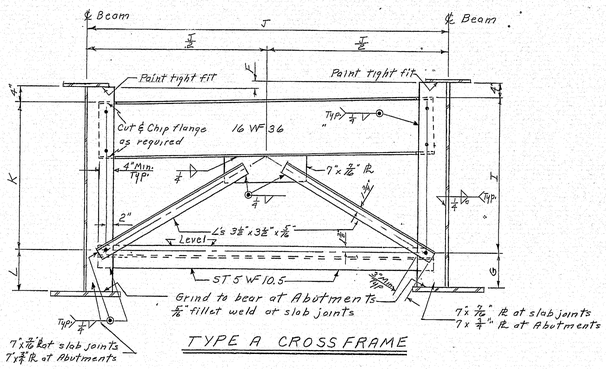
Location	Mark	A	B	C	D	E	F	G	H	J	K	L	M	N	Pintle
Piers 1 & 2	EPC-8	1'-11 3/4"	1'-6"	1'-6"	2'-8"	1'-3"	3"	6"	6"	6"	1'-3 3/4"	—	1 1/2"	6"	1 1/2"
Abut. 2	EPC4 Mod	1'-2 3/4	10"	8"	1'-10"	1'-1"	2"	6"	4"	3"	7 1/4"	—	1"	7"	1 1/2"

Dimensions for EPC-8 & EPC 4 Modified Bearing Pedestals

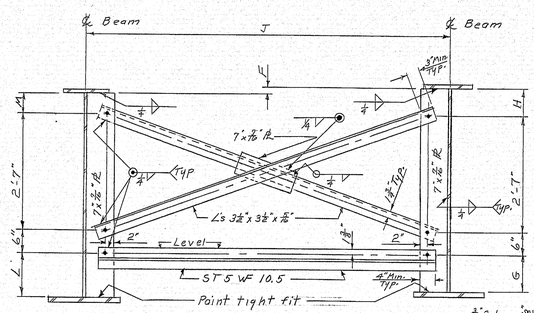
see revised sheet BD-101-70 for details & see Pintle Detail "1 1/2" Pintle"



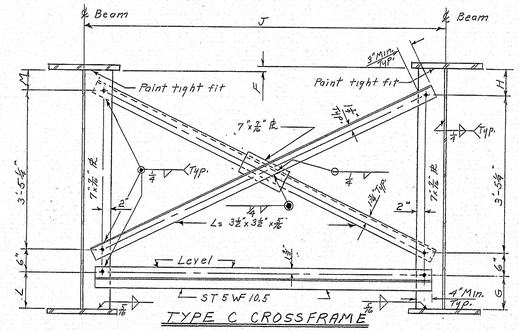
EXPANSION PEDESTAL SETTINGS
(After structural steel is erected & before concrete in slab is placed.)



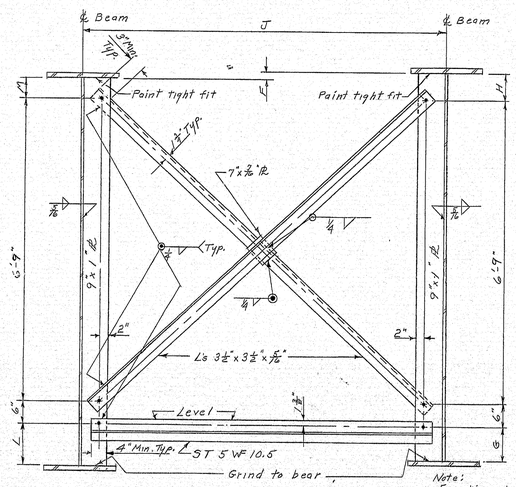
TYPE A CROSSFRAME



TYPE B CROSSFRAME



TYPE C CROSSFRAME

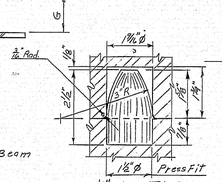


Note:
Erection bolts to be 7/8" ø

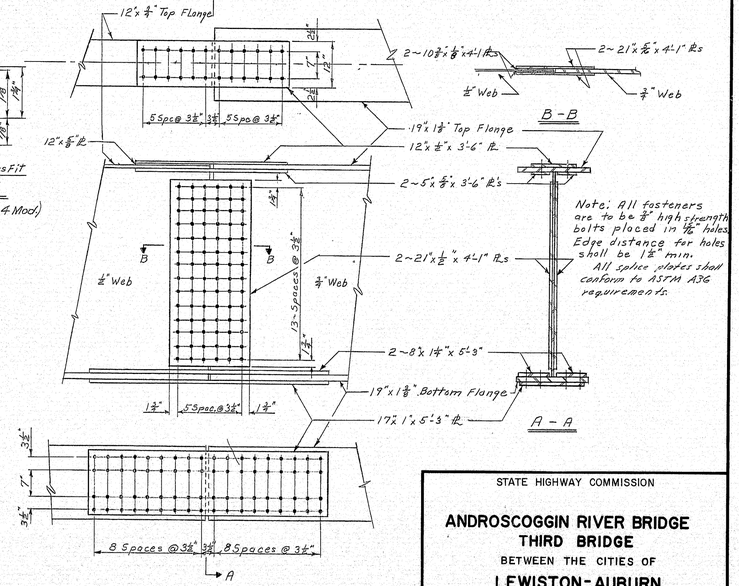
TYPE D CROSSFRAME

CROSSFRAME DIMENSIONS

Between Beams	F	G	H	I	J	K	L	M
A & B	2"	10"	7"	3'-4"	8'-0"	3'-2"	1'-0"	5"
B & C	2"	10"	7"	3'-4"	8'-0"	3'-2"	1'-0"	5"
C & D	-1/2"	1'-0"	5"	3'-2"	8'-0"	3'-2 1/2"	11 1/2"	5 1/2"
D & E	-2"	1'-0"	5"	3'-2"	8'-0"	3'-4"	10"	7"
E & F	0"	1'-0"	5"	3'-2"	5'-11"	3'-2"	1'-0"	5"
F & G	2"	10"	7"	3'-4"	8'-0"	3'-2"	1'-0"	5"
G & H	1/2"	11 1/2"	5 1/2"	3'-2 1/2"	8'-0"	3'-2"	1'-0"	5"
H & I	-2"	1'-0"	5"	3'-2"	8'-0"	3'-4"	10"	7"
I & J	-2"	1'-0"	5"	3'-2"	8'-0"	3'-4"	10"	7"



1 1/2" ø PINTLE
(for EPC-8 & EPC 4 Mod)



Note: All fasteners are to be 7/8" high strength bolts placed in 1 1/16" holes. Edge distance for holes shall be 1 1/2" min. All splice plates shall conform to ASTM A36 requirements.

SPLICE DETAIL
All splice plates shall be A 36 steel

PLANS	BY	DATE
DESIGN - DETAILED	J.C.	7/21/70
CHECKED	W.E.R.	
REVISIONS	P.J.L.	10-20
FIELD CHANGES		

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
STRUCTURAL STEEL DETAILS — BRIDGE 1

SHEET 15 OF 29 AUGUSTA, MAINE OCTOBER 1970

203-1

JANUARY 1968

131.75

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981-1(502)	19	55

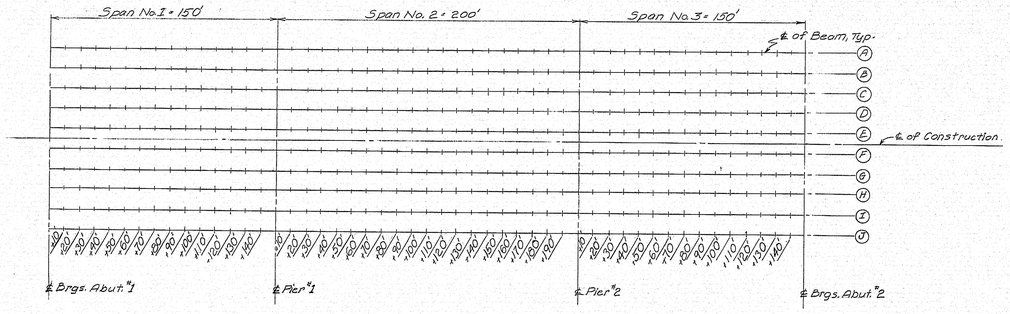
—BOTTOM OF SLAB ELEVATIONS—

	~SPAN No. 1~													~SPAN No. 2~																				~SPAN No. 3~								
Dead load Deflections	0.00	0.0905	0.1727	0.2402	0.2884	0.3146	0.3181	0.3001	0.2637	0.2140	0.1578	0.1029	0.0562	0.0228	0.0093	0.00	0.0095	0.0333	0.0722	0.1246	0.1856	0.2485	0.3064	0.3525	0.3821	0.3923	0.3821	0.3525	0.3064	0.2485	0.1856	0.1246	0.0722	0.0333	0.0095	0.00	0.0093	0.0228	0.0562	0.1029	0.1578	0.2140
Beam \ Point	℄ Abut"1"	+10'	+20'	+30'	+40'	+50'	+60'	+70'	+80'	+90'	+100'	+110'	+120'	+130'	+140'	℄ Pier"1"	+10'	+20'	+30'	+40'	+50'	+60'	+70'	+80'	+90'	+100'	+110'	+120'	+130'	+140'	+150'	+160'	+170'	+180'	+190'	℄ Pier"2"	+10'	+20'	+30'	+40'	+50'	+60'
A & J	225.71	225.70	225.68	225.65	225.60	225.52	225.43	225.31	225.17	225.02	224.87	224.71	224.57	224.43	224.31	224.21	224.12	224.04	223.98	223.93	223.89	223.86	223.82	223.76	223.69	223.60	223.49	223.36	223.22	223.06	222.89	222.73	222.58	222.46	222.32	222.21	222.11	222.03	221.97	221.91	221.87	221.82
B & I	225.88	225.87	225.85	225.82	225.76	225.69	225.59	225.48	225.34	225.19	225.03	224.88	224.73	224.60	224.48	224.38	224.29	224.21	224.15	224.10	224.06	224.02	223.98	223.93	223.86	223.77	223.65	223.53	223.38	223.22	223.06	222.90	222.75	222.61	222.49	222.38	222.28	222.20	222.13	222.08	222.03	221.99
C & H	226.05	226.04	226.02	225.98	225.93	225.86	225.76	225.64	225.51	225.36	225.20	225.05	224.90	224.77	224.65	224.54	224.45	224.38	224.32	224.27	224.23	224.19	224.15	224.10	224.02	223.93	223.82	223.70	223.55	223.39	223.23	223.07	222.92	222.77	222.65	222.54	222.45	222.37	222.30	222.25	222.20	222.16
D & G	226.00	225.99	225.97	225.94	225.89	225.81	225.72	225.60	225.46	225.31	225.16	225.00	224.86	224.72	224.60	224.50	224.41	224.33	224.27	224.22	224.18	224.15	224.11	224.05	223.98	223.89	223.78	223.65	223.51	223.35	223.18	223.02	222.87	222.73	222.61	222.50	222.40	222.32	222.26	222.20	222.16	222.11
E & F	225.83	225.82	225.81	225.77	225.72	225.65	225.55	225.43	225.30	225.15	224.99	224.84	224.69	224.56	224.44	224.33	224.24	224.17	224.11	224.06	224.02	223.98	223.94	223.89	223.81	223.72	223.61	223.49	223.34	223.18	223.02	222.86	222.71	222.57	222.44	222.33	222.24	222.16	222.09	222.04	222.99	221.95
Top of curb	227.33	227.25	227.16	227.07	226.98	226.89	226.79	226.68	226.58	226.47	226.36	226.25	226.14	226.03	225.93	225.83	225.74	225.64	225.56	225.47	225.38	225.30	225.21	225.12	225.02	224.93	224.82	224.72	224.61	224.50	224.38	224.27	224.16	224.04	223.94	223.83	223.73	223.64	223.54	223.45	223.36	223.27

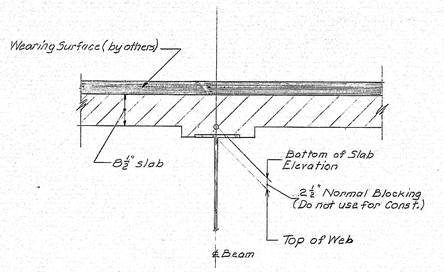
—BOTTOM OF SLAB ELEVATIONS—

	~SPAN No. 3 CONT.~								
Dead load Deflections	0.2637	0.3001	0.3181	0.3146	0.2884	0.2402	0.1727	0.0905	0.00
Beam \ Point	+70'	+80'	+90'	+100'	+110'	+120'	+130'	+140'	℄ Abut"2"
A & J	221.77	221.71	221.63	221.52	221.40	221.25	221.08	221.090	220.71
B & I	221.94	221.87	221.79	221.69	221.56	221.42	221.25	221.07	220.88
C & H	222.11	222.04	221.96	221.86	221.73	221.58	221.42	221.24	221.05
D & G	222.06	222.00	221.92	221.81	221.69	221.54	221.37	221.19	221.00
E & F	221.90	221.83	221.75	221.65	221.52	221.37	221.20	221.02	220.83
Top of curb	223.18	223.08	222.99	222.89	222.78	222.67	222.56	222.45	222.33

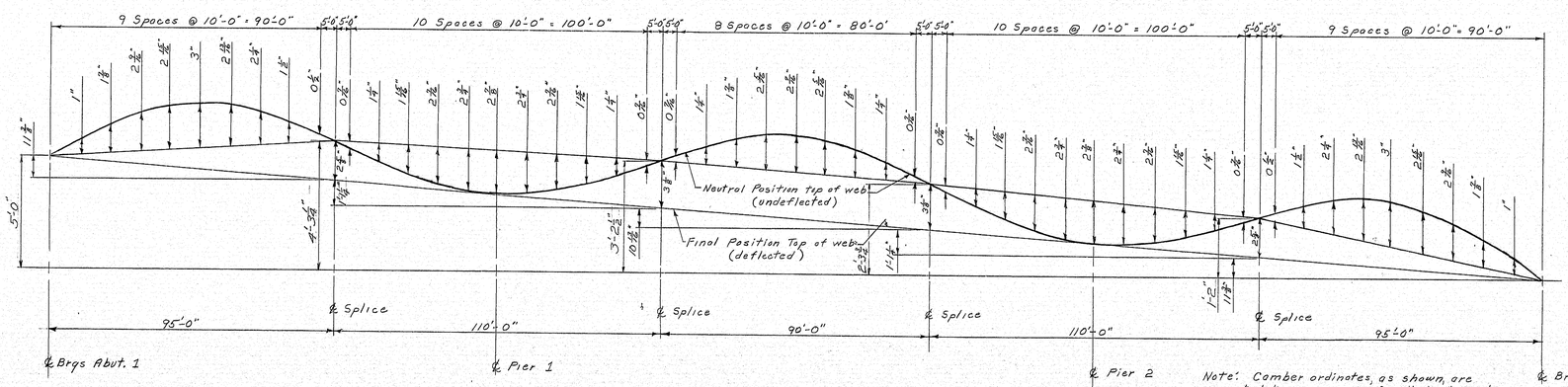
NOTE: Bottom of slab elevations have been adjusted to compensate for concrete dead load deflections (fluid and superimposed); use in conformance with sub-section 502.10(a) of the specifications.
Curb elevations have been adjusted to compensate for superimposed dead load deflections (curb, rail and 3" wearing surface)



BLOCKING POINT DIAGRAM



BLOCKING DETAIL



CAMBER DIAGRAM
Top of Web

Note: Camber ordinates, as shown, are computed to compensate for all dead load deflections.

PLANS	BY	DATE
DESIGN - DETAILED	J.C.	Jan 70
CHECKED	M.R. DA	Jan 70
REVISIONS	P.J.L.	Oct 70
FIELD CHANGES		

JANUARY 1969

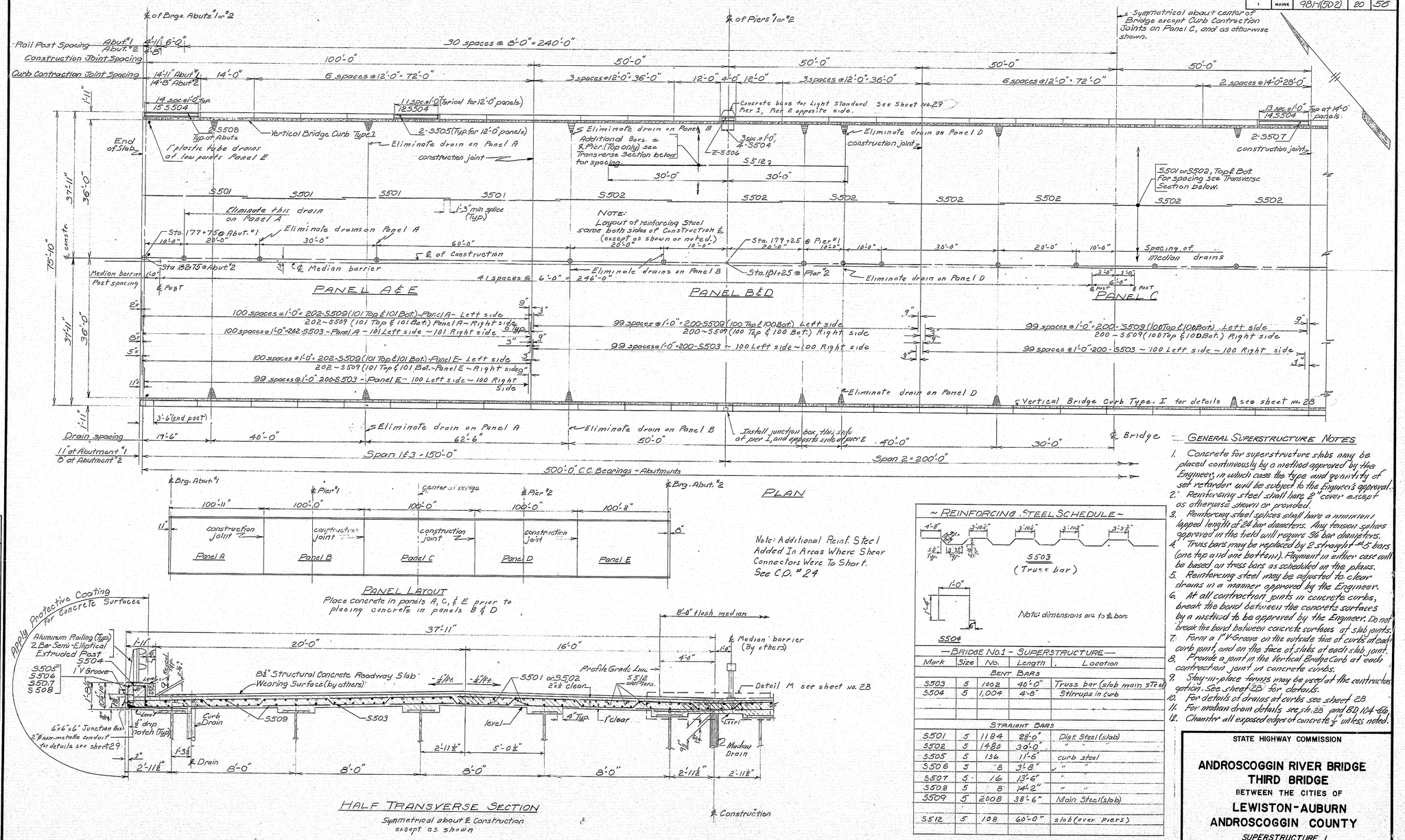
STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
CAMBER AND BLOCKING — BRIDGE 1

SHEET 16 OF 29 AUGUSTA, MAINE OCTOBER 1970

131:761

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981-1(502)	20	50



~ REINFORCING STEEL SCHEDULE ~

— BRIDGE NO. 1 - SUPERSTRUCTURE —

Mark	Size	No.	Length	Location
BENT BARS				
S503	5	100 2	40'-0"	Truss bar (slab main steel)
S504	5	1,004	4'-8"	Stirrups in curb
STRAIGHT BARS				
S501	5	1184	28'-0"	Dist. Steel (slab)
S502	5	1480	30'-0"	" "
S505	5	136	11'-6"	curb steel
S506	5	8	3'-8"	" "
S507	5	16	13'-6"	" "
S508	5	8	14'-2"	" "
S509	5	2008	38'-6"	Main Steel (slab)
S512	5	108	60'-0"	slab (over piers)

GENERAL SUPERSTRUCTURE NOTES

1. Concrete for superstructure slabs may be placed continuously by a method approved by the Engineer, in which case the type and quantity of set retarder will be subject to the Engineer's approval.
2. Reinforcing steel shall have 2" cover except as otherwise shown or provided.
3. Reinforcing steel splices shall have a minimum lapped length of 24 bar diameters. Any tension splices approved in the field will require 36 bar diameters.
4. Truss bars may be replaced by 2 straight #5 bars (one top and one bottom). Payment in either case will be based on truss bars as scheduled on the plans.
5. Reinforcing steel may be adjusted to clear drains in a manner approved by the Engineer.
6. At all contraction joints in concrete curbs, break the bond between the concrete surfaces by a method to be approved by the Engineer. Do not break the bond between concrete surfaces at slab joints.
7. Form a 1" V-Groove on the outside face of curbs at each curb joint, and on the face of slabs at each slab joint.
8. Provide a joint in the Vertical Bridge Curb at each contraction joint in concrete curbs.
9. Stay-in-place forms may be used at the contractors option. See sheet 28 for details.
10. For details of drains at curbs see sheet 28
11. For median drain details see sh. 28 and BD 104-66.
12. Chamfer all exposed edges of concrete 3/4" unless noted.

DESIGN - DETAILED	BY	DATE
CHECKED	J.C.	Dec. 70
REVISIONS	R.L.	10-70
FIELD CHANGES		

PLANS

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
SUPERSTRUCTURE I

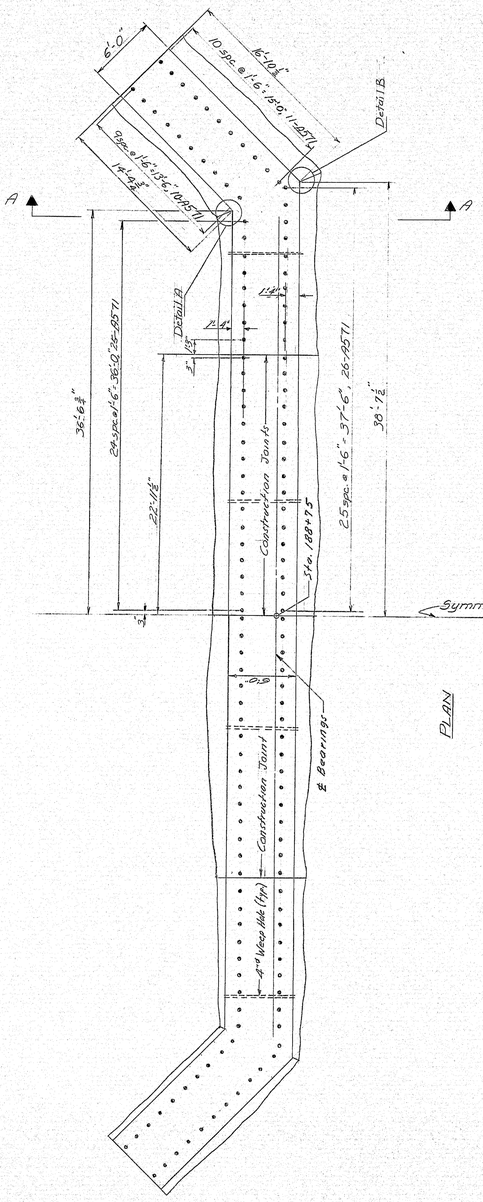
Revised As Built R.S. Bailey Jan 2012

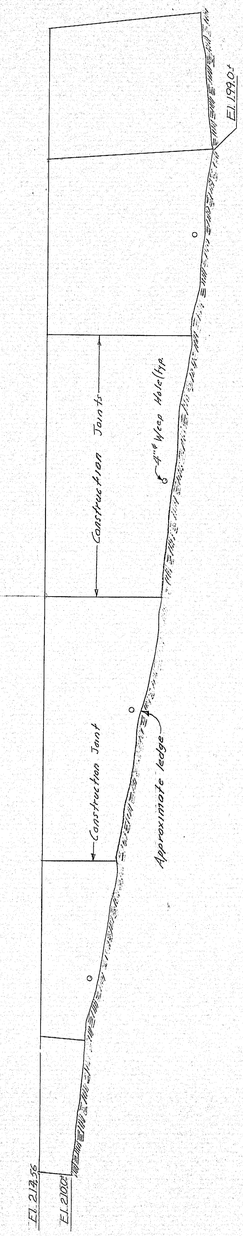
SHEET 17 OF 29 AUGUSTA, MAINE OCTOBER 1970

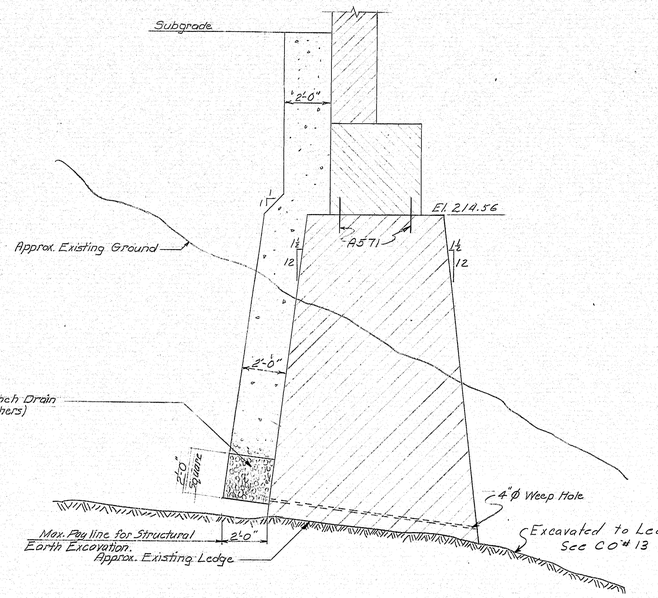
JANUARY 1968

131:77

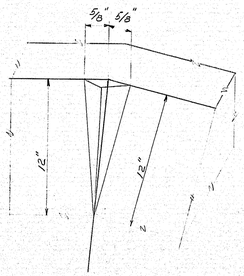
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	21	56



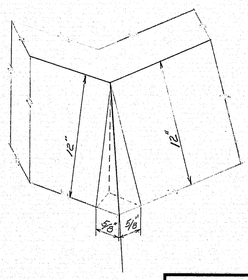




SECTION A-A



DETAIL A



DETAIL B

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED -	EC & JC	Sept 70
	REVISIONS -	DMP	12-20-70
	FIELD CHANGES	COM	

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY

PEDESTAL ABUTMENT NO. 3

SHEET 18 OF 29 AUGUSTA, MAINE OCTOBER 1970

Revised as Built PS Bailey Jan 29 1974

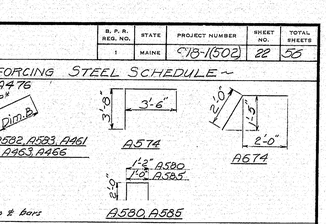
131:78

JANUARY 1968

203-1 2060

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	118-1(502)	22	55

~ REINFORCING STEEL SCHEDULE ~



A475, A476, A581, A582, A583, A461, A462, A463, A464, A465, A466 — A574 — A674

All dimensions to ℄ bars — A580, A585

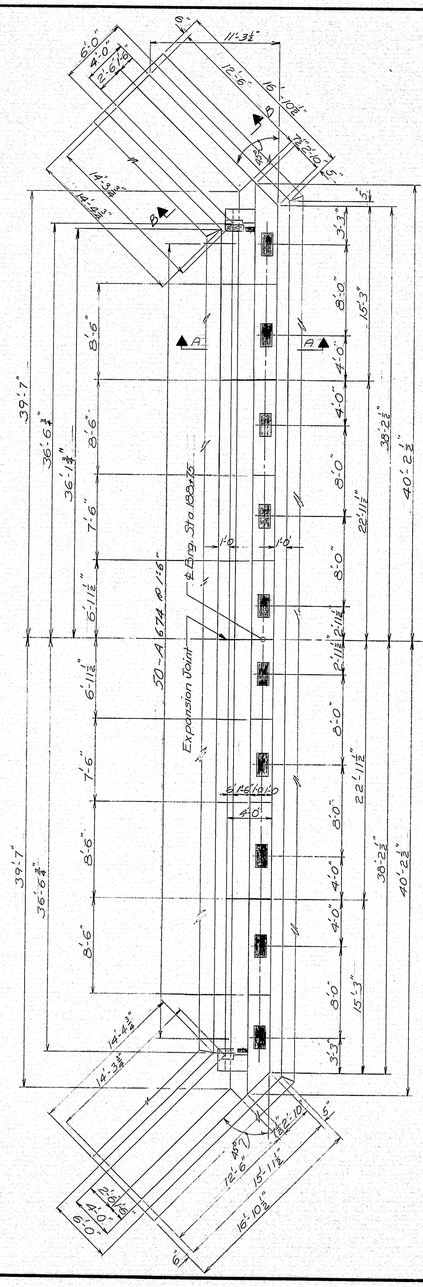
BENT BARS

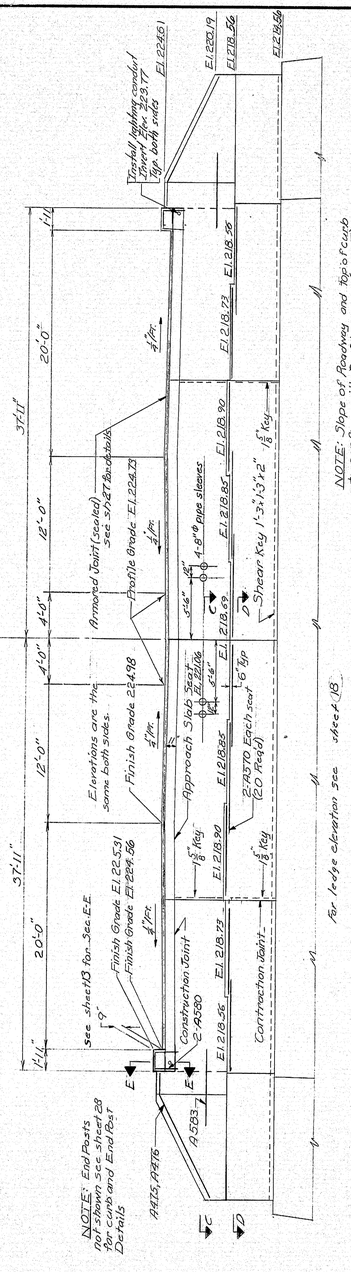
Mark	Size	No.	Length Dim.A	Length Dim.B	Length Total	Location
A674	#6	50			4'-0	Approach Slab Anchor
A585	#5	52			5'-0	Backwall Top Clip
A583	5	12	4'-0"	4'-0"	6'-0"	Extra Steel @ Wing Turn
A582	5	8	2'-11"	15'-10"	18'-9"	Horz.-Breastwall F.F.
A581	5	6	1'-3"	14'-0"	15'-9"	" " B.F.
A580	5	4			6'-2"	Curb Stirrup
A574	5	T6			7'-2"	Vert.-Toe of Breastwall
A476	#4	2	1'-4"	13'-0"	14'-4"	Top of Wing B.F.
A475	4	2	1'-4"	13'-8"	15'-0"	" " F.F.
A466	4	2	1'-3"	11'-7"	12'-10"	Horz.-Wing F.F.
A465	4	2	1'-3"	10'-9"	12'-0"	" " F.F.
A464	4	2	1'-3"	6'-6"	7'-9"	" " F.F.
A463	4	2	2'-11"	9'-4"	12'-3"	" " B.F.
A462	4	2	2'-11"	8'-6"	11'-5"	" " B.F.
A461	4	2	2'-11"	4'-3"	7'-2"	" " B.F.

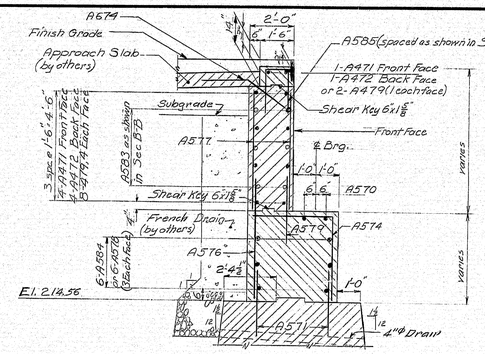
STRAIGHT BARS

A596	#5	6	8'-11"	Vert. Steel-End of Wing-F.F.
A594	5	12	7'-0"	Vert. Steel-Dowels - F.F.
A593	5	6	3'-2"	Vert. Steel-End of Wing B.F.
A592	5	16	4'-4"	Vert. Steel- Wing E.F.
A591	5	12	4'-3"	Vert. Steel - Dowels - B.F.
A584	5	12	22'-6"	Horz.-Breastwall
A579	5	54	3'-0"	Vert.-Backwall- Dowels
A578	5	12	13'-0"	Horz.-Breastwall
A577	5	108	4'-11"	Vert.-Backwall
A576	5	54	5'-7"	Dowels-Vert.-Breastwall
A571	5	144	3'-0"	Dowel-Vert.-Pedestal
A570	5	20	8'-0"	Horz.-Bridge Seats
A479	#4	20	22'-6"	Horz.-Backwall E.F.
A472	4	10	14'-6"	" " B.F.
A471	4	10	16'-11"	" " F.F.

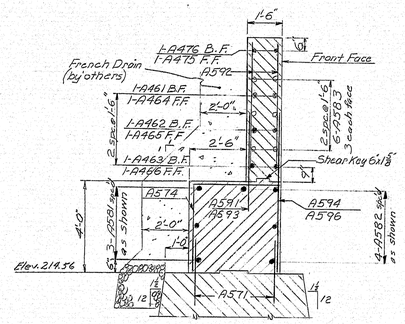
NOTE: For General Abutment Notes, and other Details not shown, see Sheet 13.



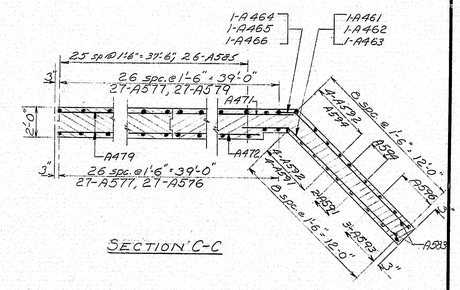




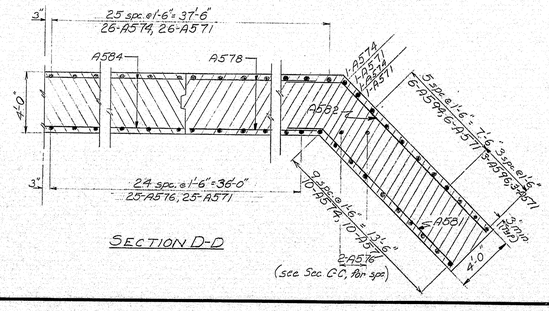
SECTION A-A
Typical Abutment Section



SECTION B-B
Typical Wing Section



SECTION C-C



SECTION D-D

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
ABUT. 3

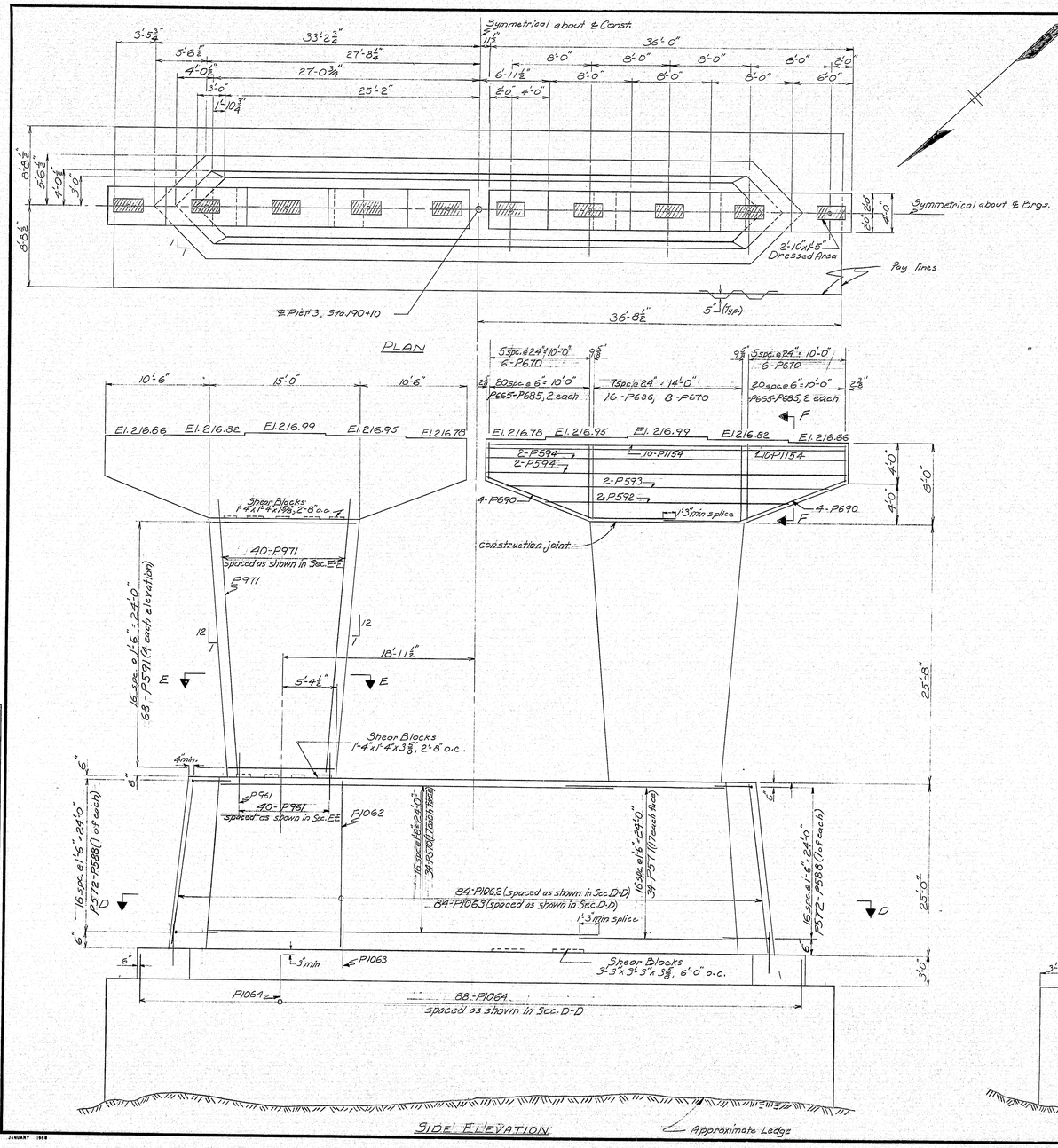
SHEET 19 OF 29 AUGUSTA, MAINE OCTOBER 1970

PLANS	BY	DATE
DESIGN - DETAILED	ECF/JC/DMP	Aug. '70
CHECKED	CDH	10-21-70
REVISIONS		
FIELD CHANGES		

JANUARY 1969

131:795'

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-X(502)	23	55



SEAL DATA

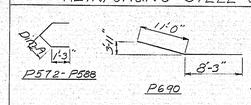
allowable pumped head ——— 27 Ft.
*allowable water elevation (pumped) ——— 170 Ft.
assumed bottom elevation ——— 143.0
assumed seal thickness ——— 12 Ft.

For General Notes, Design Data, Section and Seal Notes see sheet 21.

BENT BARS

Mark	Size	No.	Length Dim.A	Length Dim.B	Length Total	Location
P577	5	2	4'-9⅞"		12'-1"	Shaft Base - Pier 3 only
P576	5	2	4'-10⅛"		12'-3"	
P575	5	2	4'-11⅜"		12'-5"	
P574	5	2	5'-0⅜"		12'-7⅜"	
P573	5	2	5'-1⅞"		12'-9⅞"	
P572	5	2	5'-3"		13'-0"	Shaft Base - Pier 3 only

- REINFORCING STEEL SCHEDULE -



Dimensions are to center of bar

~ BENT BARS ~

Mark	Size	No.	Length Dim.A	Length Dim.B	Length Total	Location
P670	#6	80	3'-7½"	0'-6⅝"	8'-11"	Stirrups - Pier Cap (Top) Piers 3&4
P690	6	32			19'-3"	Bottom of Pier Cap Piers 3&4
P686	6	64	2'-6"		7'-7"	20'-10 Stirrups - Pier Cap (middle) Piers 3&4
P685	6	16			7'-5"	20'-8
P684		16			7'-2"	20'-4
P683		16			7'-2"	20'-0
P682		16			6'-11"	19'-6
P681		16			6'-9"	19'-2
P680		16			6'-7"	18'-10
P679		16			6'-4"	18'-4
P678		16			6'-2"	18'-0
P677		16			6'-0"	17'-8"
P676		16			5'-10"	17'-4"
P675		16			5'-7"	16'-10"
P674		16			5'-5"	16'-6"
P673		16			5'-3"	16'-2"
P672		16			5'-0"	15'-8"
P671		16			4'-10"	15'-4"
P670		16			4'-8"	15'-0"
P669		16			4'-6"	14'-8"
P668		16			4'-3"	14'-2"
P667		16			4'-1"	13'-10"
P666		16			3'-11"	13'-6"
P665	6	16	2'-6"	3'-8"	13'-0"	Stirrups - Pier Cap (ends) Piers 3&4
P591	5	296	3'-5⅛"		4'-1"	15'-9" Stirrups - Shaft, 136 Pier 3, 160 Pier 4
P588	5	4	3'-10"		10'-2"	Shaft Base Piers 3&4
P587		4	3'-11"		10'-4"	
P586		4	4'-0"		10'-6"	
P585		4	4'-1"		10'-8"	
P584		4	4'-2⅜"		10'-11"	
P583		4	4'-3⅜"		11'-1"	
P582		4	4'-4⅝"		11'-3"	
P581		4	4'-5⅞"		11'-5"	
P580		4	4'-6⅝"		11'-7"	
P579		4	4'-7⅝"		11'-9"	
P578	5	4	4'-8⅝"		11'-11"	Shaft Base Piers 3&4

~ STRAIGHT BARS ~

Mark	Size	No.	Length	Location
P1154	11	80	35'-8"	Pier Cap (Top) Pier 3&4
P1064	10	88	3'-6"	Dowels - Dist. Slab → Seal Pier 3
P1063	10	84	5'-6"	Dowels - Shaft Base → Dist. Slab Pier 3
P1062	10	84	16'-8"	Vert. Shaft Base Pier 3
P971	9	160	28'-0"	Vert. Shaft Pier 3
P970	9	160	31'-7"	Vert. Shaft Pier 4
P961	9	160	4'-6"	Dowels - Shaft → Shaft Base Piers 3&4
P864	8	88	5'-0"	Dowels - Dist. Slab → Seal Pier 4
P863	8	84	5'-0"	Dowels - Shaft Base → Dist. Slab Pier 4
P862	8	84	16'-8"	Vert. Shaft Pier 4
P594	5	16	35'-8"	Pier Cap (middle) Piers 3&4
P593	5	8	29'-2"	Pier Cap (middle) Piers 3&4
P592	5	8	22'-2"	Pier Cap (middle) Piers 3&4
P571	5	56	15'-2"	Shaft Base 34-Pier 3, 22 Pier 4
P570	5	56	40'-0"	Shaft Base 34-Pier 3, 22 Pier 4

* Note: If the average elevation of the bottom of seal is above El. 143.0, reduce the allowable water elevation by two (2) feet for each foot of elevation difference between bottom of seal and El. 143.0.

PLANS

BY	DATE
C.A.R. / D.M.P.	Sept. '70
C.D.H.	Oct. '70

DESIGN - DETAILED
CHECKED
REVISIONS
FIELD CHANGES

STATE HIGHWAY COMMISSION

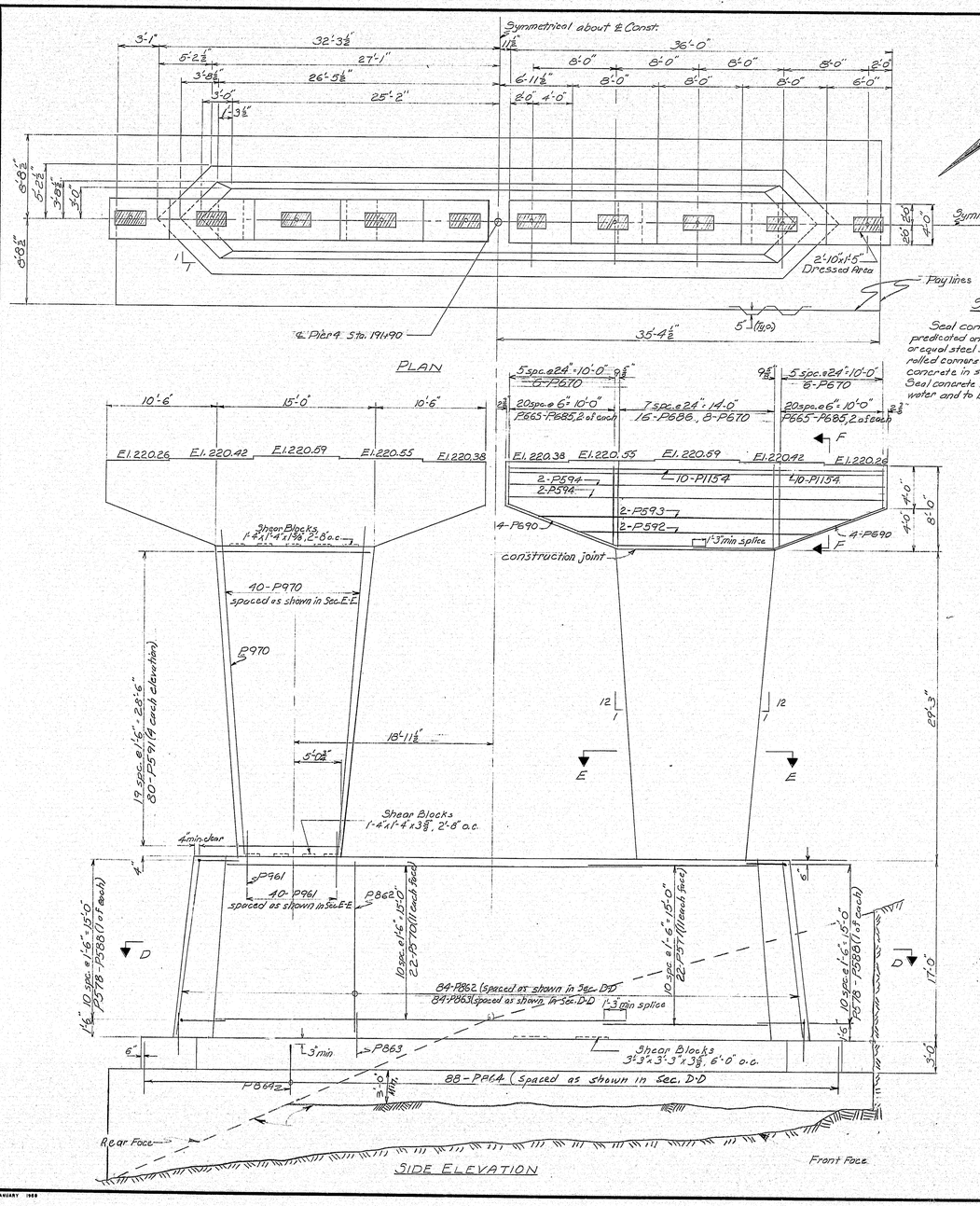
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
PIER 3

SHEET 20 OF 29 AUGUSTA, MAINE OCTOBER 1970

JANUARY 1968

131:80

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	21	55



GENERAL NOTES

Reinforcing steel splices and embedments shall be 24 bar diameters minimum.

Any tension splices approved during construction and not shown on the plans, will require at least 36 bar diameters.

The method of placing dowels in the Seal shall be approved by the Engineer.

SEAL NOTES

Seal concrete dimensions shown are predicated on use of MP-116, DP2, F-27 or equal steel sheetpiling with appropriate rolled corners. Payment dimensions for concrete in seal shall be to the "Pay lines." Seal concrete is intended to be placed under water and to be paid for under Item 502.24.

DESIGN DATA

Critical AASHO Loading Groups	VIII & IX
Water Elevation (extreme high)	182.0
Stream Velocity	7 f.p.s.
Stream Skew (with longitudinal axis)	15°
Wind velocity (on substructure)	100 m.p.h.
skew (superstr. & substr.)	45°
pressure on superstr.: 16 psf (longitud.), 33 psf (lateral)	
Ice thickness = 12 inches	
elev. = 182.0	
pressure = 400 psi	

Seal	Pier 4	Pier 3
allowable pumped head	7 Ft.	27 Ft.
* allowable water elev. (pumped)	167.0	170.0
assumed bottom elev.	160.0	143.0
assumed seal thickness	3.0 Ft.	12.0 Ft.

*NOTE: If the average elevation of the bottom of seal is above El. 160.0, reduce the allowable water elevation by two (2) feet for each foot of elevation difference between bottom of seal and El. 160.0

NOTE: Pay limits for structural rock excavation shall be determined by the Engineer in the field before the work is done.

References - For steel schedule, see sht. 20

PLANS	BY	DATE
DESIGN - DETAILED	C.R.	NOV. 70
CHECKED	C.B.H.	10-1970
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN

ANDROSCOGGIN COUNTY

PIER 4

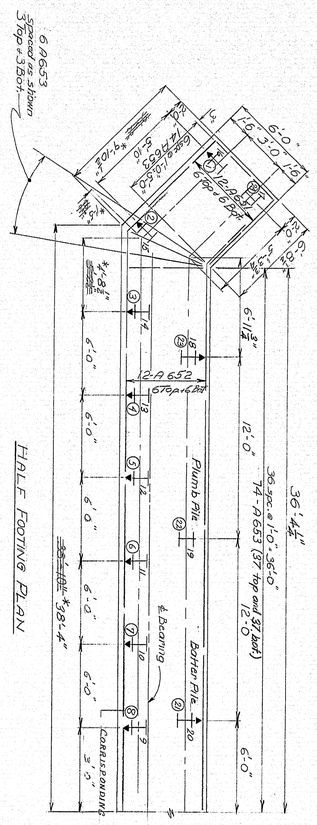
SHEET 21 OF 29 AUGUSTA, MAINE OCTOBER 1970

JANUARY 1968

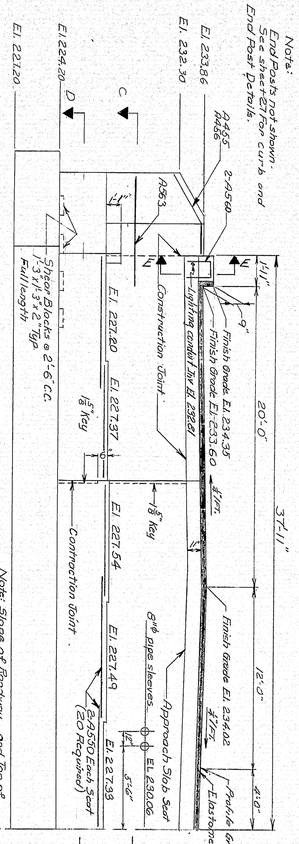
2834 2880

131:81

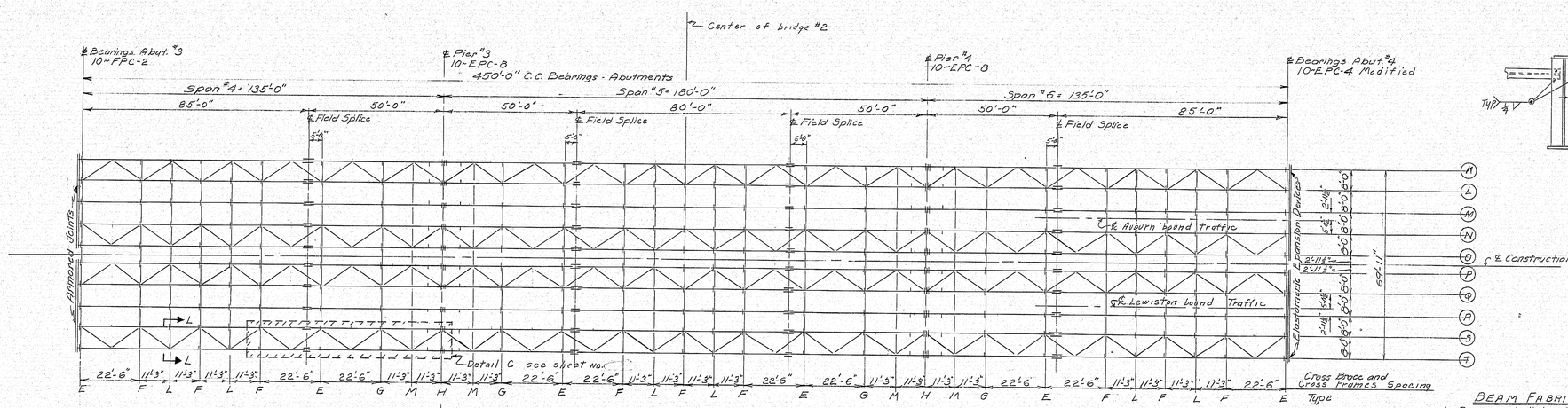
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	25	56



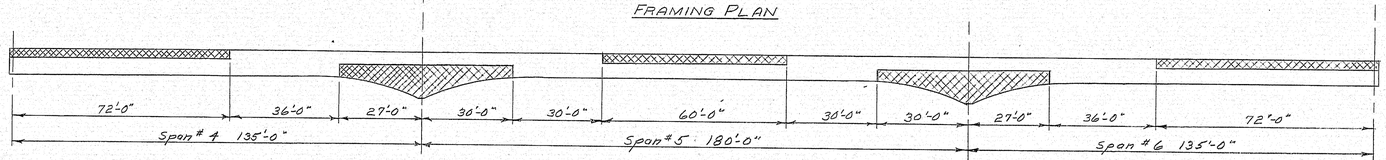
Note: Slope of Footing and Top of Curb to conform with Profile Grade (4.203%). Elevations shown are of the Front Face.


El. 224.20
El. 223.06
El. 223.30
El. 221.20
2455 A456
2-A456
A563
1'-1"
E
E
Construction Joint
Lighting conduit for El 230.81
Finish Grade El. 234.35
Finish Grade El. 233.60
9"
14'-1"
20'-0"
HALF ELEVATION
Sloped Blocks @ 2'-6" CC. 1'-3"x1'-3"x2" Typ. Full length
El. 221.20
El. 224.20
D
C
E
E
1'-1"
15'-3"
3'-0"
4'-0"
A
4'-0"
1'-6"
1'-6"
1'-6

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	26	56

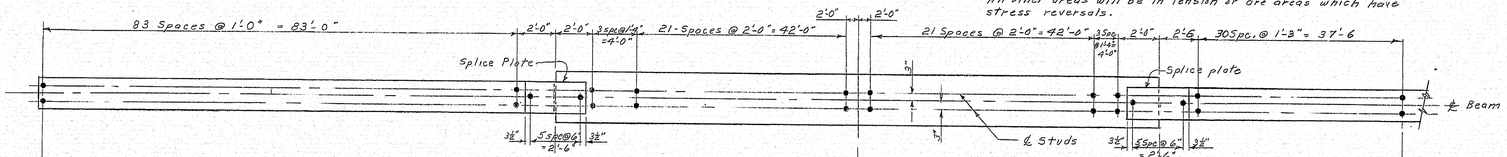


FRAMING PLAN



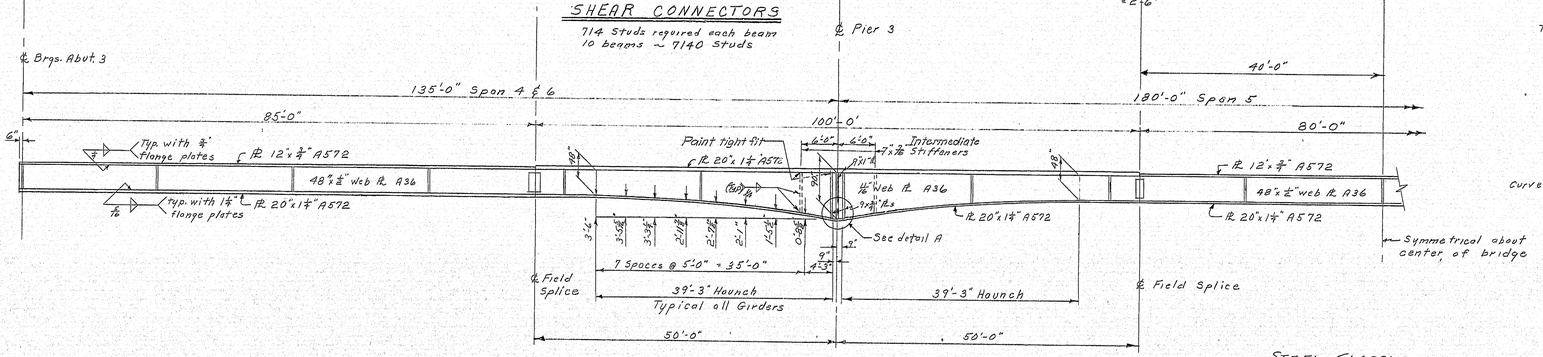
BEAM STRESS TYPE DIAGRAM

= Areas of the beam which will always be in compression. All other areas will be in tension or are areas which have stress reversals.



SHEAR CONNECTORS

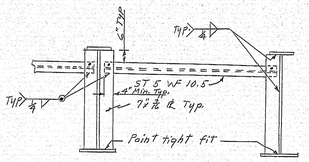
714 Studs required each beam
10 beams ~ 7140 Studs



PART BEAM ELEVATION

STEEL CLASSIFICATION

All Flange plates A572 Grade 50
All other A36 unless otherwise shown



Section L-L
Cross brace L

BEAM FABRICATION NOTES

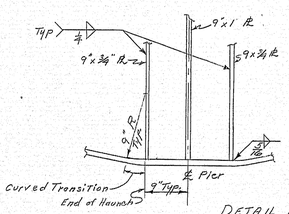
1. Beams shall be fitted with shear connectors as shown and proper adjustments shall be made in the camber diagram to allow for same.

2. All flange and web butt welds shall be inspected to insure conformance with specifications prior to welding flanges to web.

3. One longitudinal butt welded splice may be used in haunched areas of web. The longitudinal joint shall not come close to the flange so that it will produce a feathered edge.

4. A maximum of two (2) transverse butt welded splices may be used in web & flange elements. All butt welds shall be located not less than ten (10) feet from ℄ bearings and not less than ten (10) feet from the center of span 2 and not less than ten (10) feet from a point 44 feet from abutment bearings. Flange butt welds shall be at least one (1) foot from web butt welds. All butt welds shall be shown on shop details.

5. Bearing stiffeners shall be set plumb. Crossframe connection plates and intermediate transverse stiffeners may be set plumb or normal to flanges.



DETAIL A
(Typical at all haunches)

PLANS	DESIGN - DETAILED	BY	DATE
	TC	KLP-DPS	10-19-70
	CHECKED	KLD	10-19-70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION

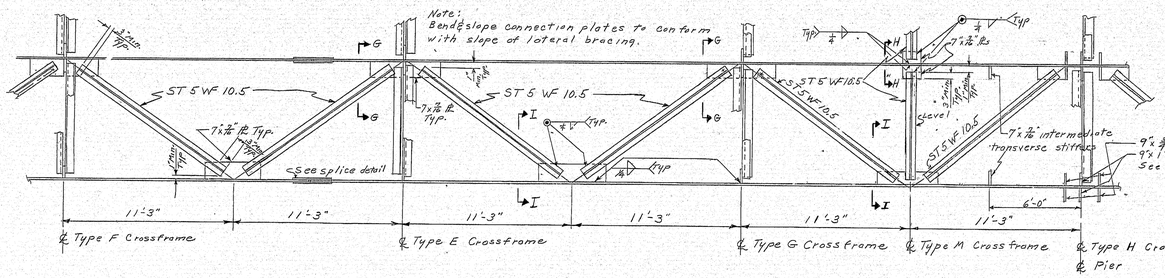
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY
STRUCTURAL STEEL — BRIDGE 2

SHEET 23 OF 29 AUGUSTA, MAINE OCTOBER 1970

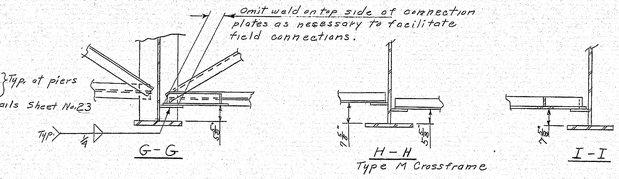
JANUARY 1968

131:83

R. P. N. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9181(502)	27	56



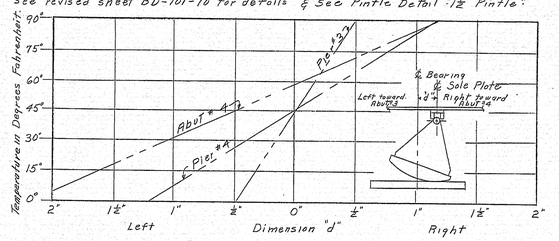
DETAIL C



Location	Mark	A	B	C	D	E	F	G	H	J	K	L	M	N	Pintle
Piers 3 & 4	EPC-8	1'-11¾"	1'-6"	1'-6"	2'-8"	1'-3"	3"	6"	6"	6"	1'-3¾"	—	1¼"	6"	1¼"
Abut. 4	EPC 4 Mod	1'-2¾"	10"	8"	1'-10"	1'-1"	2"	6"	4"	3"	7¾"	—	¾"	7"	1¼"

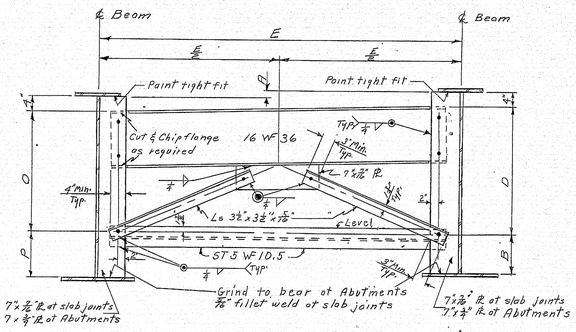
Dimensions for EPC-8 & EPC 4 Modified Bearing Pedestals

See revised sheet BD-101-70 for details & See Pintle Detail "1¼" Pintle"

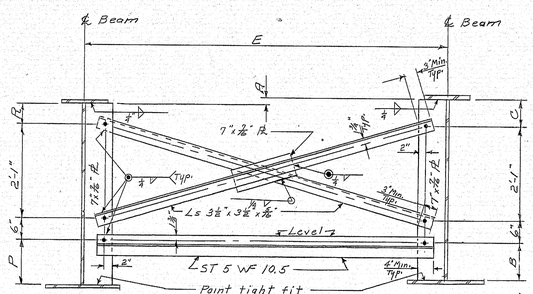


EXPANSION PEDESTAL SETTINGS

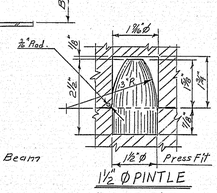
(After structural steel is erected & before concrete in slab is placed.)



TYPE E CROSSFRAME

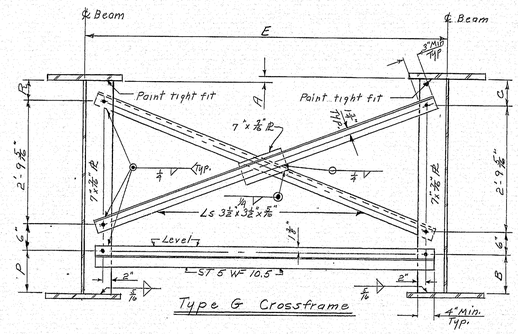


TYPE F CROSSFRAME

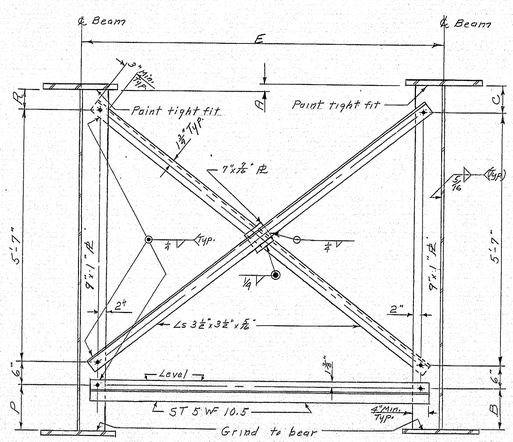


1½" ø PINTLE

for EPC-8 & EPC-4 Mod.



Type G Crossframe

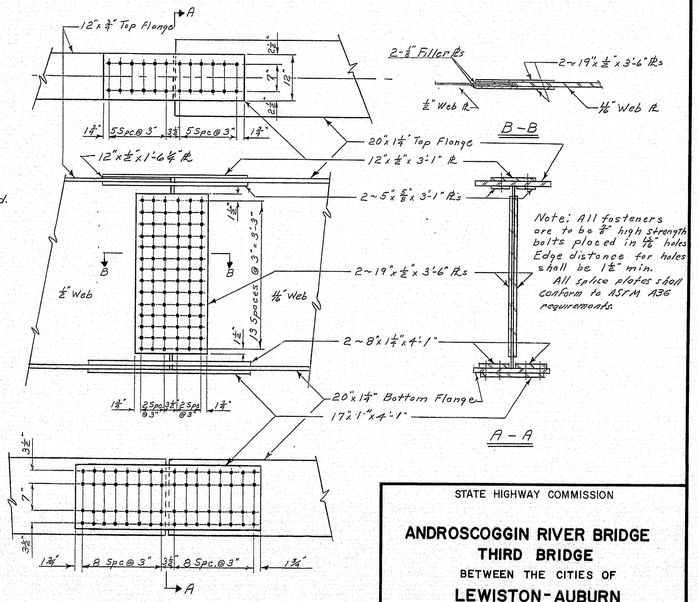


TYPE H CROSSFRAME

Note: Erection bolts to be ⅝"ø

CROSSFRAME DIMENSIONS

Between Beams	A	B	C	D	E	O	P	R
T & S	2"	10"	7"	2'-10"	8'-0"	2'-0"	1'-0"	5"
S & R	2"	10"	7"	2'-10"	8'-0"	2'-0"	1'-0"	5"
R & Q	-½"	1'-0"	5"	2'-8"	8'-0"	2'-0⅝"	11⅝"	5⅝"
Q & P	-2"	1'-0"	5"	2'-8"	8'-0"	2'-0"	10"	7"
P & O	0"	1'-0"	5"	2'-8"	5'-11"	2'-0"	1'-0"	5"
O & N	2"	10"	7"	2'-10"	8'-0"	2'-0"	1'-0"	5"
N & M	½"	11½"	5⅝"	2'-0⅝"	8'-0"	2'-0"	1'-0"	5"
M & L	-2"	1'-0"	5"	2'-8"	8'-0"	2'-0"	10"	7"
L & K	-2"	1'-0"	5"	2'-8"	8'-0"	2'-0"	10"	7"



SPLICE DETAIL

All splice plates shall be A36 steel

PLANS	BY	DATE
DESIGN - DETAILED	HJC	10-1970
CHECKED	HJC	
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
STRUCTURAL STEEL DETAILS - BRIDGE 2

SHEET 24 OF 29 AUGUSTA, MAINE OCTOBER 1970

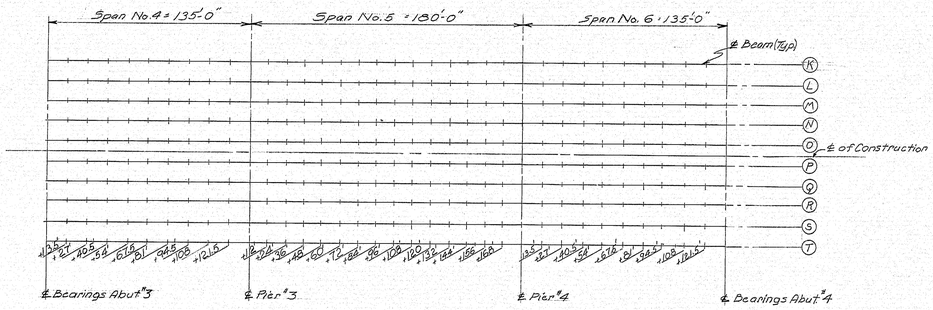
JANUARY 1969

131.84

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	981-1(502)	28	55

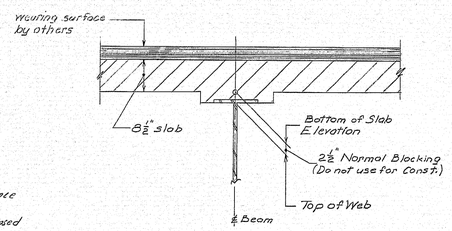
—BOTTOM OF SLAB ELEVATIONS—

	~SPAN NO.4~									~SPAN NO.5~										~SPAN NO. 6~									
Dead load Deflections	0.000	0.1157	0.2090	0.2650	0.2774	0.2480	0.1870	0.1129	0.0475	0.0084	0.0000	0.0157	0.0555	0.1185	0.1941	0.2681	0.3261	0.3577	0.3577	0.3261	0.2681	0.1941	0.1185	0.0555	0.0157	0.0000	0.0084	0.0475	0.1129	0.1870	0.2480	0.2774	0.2650	0.2090	0.1157	0.000
Beam Point	℄ Abut #3	+13.5'	+27'	+40.5'	+54'	+67.5'	+81'	+94.5'	+108'	+121.5'	℄ Pier #3	+12'	+24'	+36'	+48'	+60'	+72'	+84'	+96'	+108'	+120'	+132'	+144'	+156'	+168'	℄ Pier #4	+13.5'	+27'	+40.5'	+54'	+67.5'	+81'	+94.5'	+108'	+121.5'	℄ Abut #4	
K & T	223.71	224.09	224.66	224.78	225.02	225.31	225.52	225.71	225.92	226.15	226.41	226.66	226.94	227.25	227.56	227.88	228.19	228.45	228.89	228.90	229.08	229.24	229.41	229.58	229.78	230.01	230.20	230.40	230.58	231.28	231.61	231.91	232.16	232.38	232.55	232.71
L & S	223.88	224.26	224.62	224.95	225.18	225.47	225.68	225.88	226.09	226.31	226.58	226.83	227.11	227.41	227.73	228.09	228.34	228.61	228.85	229.06	229.24	229.41	229.57	229.75	229.95	230.18	230.45	230.76	231.10	231.44	231.77	232.07	232.33	232.54	232.72	232.88
M & R	224.04	224.43	224.79	225.12	225.40	225.64	225.85	226.05	226.25	226.48	226.74	227.00	227.29	227.58	227.90	228.21	228.51	228.78	229.02	229.23	229.41	229.58	229.74	229.92	230.12	230.34	230.62	230.93	231.27	231.61	231.94	232.24	232.50	232.71	232.89	233.04
N & Q	224.00	224.38	224.75	225.07	225.34	225.60	225.81	226.00	226.21	226.44	226.70	226.95	227.23	227.54	227.85	228.17	228.47	228.74	228.98	229.19	229.37	229.54	229.70	229.87	230.07	230.30	230.58	230.89	231.22	231.57	231.90	232.20	232.45	232.67	232.84	233.00
O & P	223.83	224.22	224.58	224.91	225.18	225.43	225.64	225.84	226.04	226.27	226.53	226.79	227.07	227.37	227.69	228.00	228.30	228.57	228.81	229.02	229.20	229.37	229.53	229.71	229.91	230.13	230.41	230.72	231.06	231.40	231.73	232.03	232.29	232.50	232.69	232.83
Top of curb	225.33	225.62	225.91	226.19	226.46	226.72	226.99	227.24	227.50	227.76	228.03	228.28	228.53	228.79	229.04	229.30	229.55	229.80	230.04	230.27	230.50	230.72	230.95	231.17	231.40	231.63	231.90	232.18	232.46	232.74	233.03	233.30	233.57	233.83	234.08	234.23

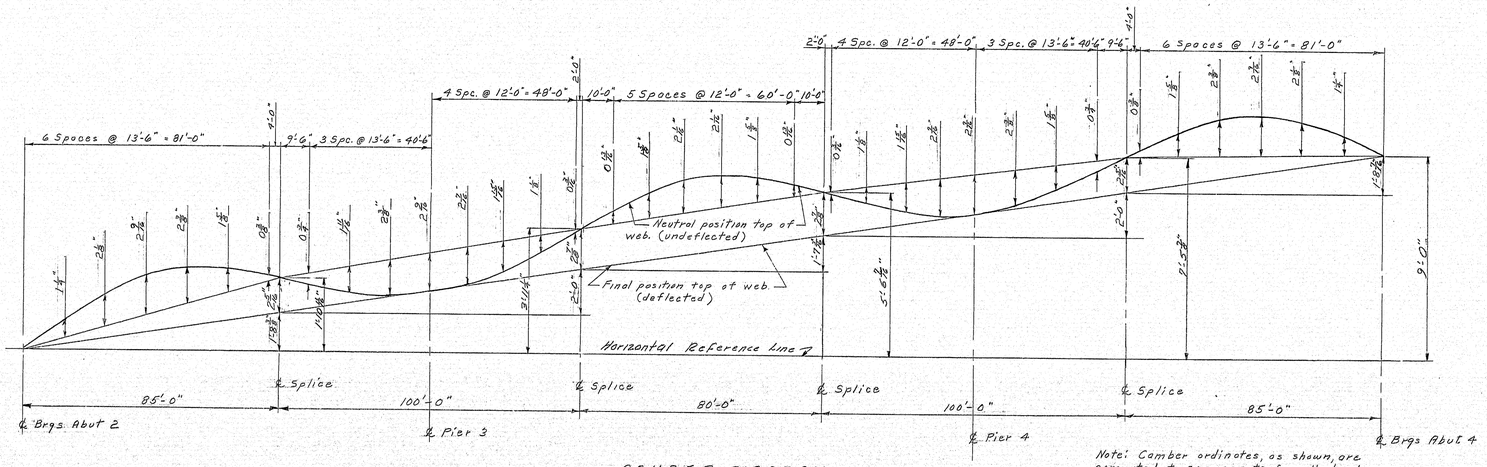


BLOCKING POINT DIAGRAM

Note: Bottom of slab elevations have been adjusted to compensate for concrete dead load deflections (fluid and superimposed); use in conformance with sub-section 502.18(a) of the specifications.
Curb elevations have been adjusted to compensate for superimposed dead load deflections (curb, rail and 3" wearing surface).



BLOCKING DETAIL



CAMBER DIAGRAM

Top of web

Note: Camber ordinates, as shown, are computed to compensate for all dead load deflections.

*Revised Bottom of Slab Elevations 3-31-71 J.C.

PLANS	BY	DATE
DESIGN - DETAILED	J.C.	12-4-70
CHECKED	R.J.L.	12-4-70
REVISIONS		
FIELD CHANGES		

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE THIRD BRIDGE

BETWEEN THE CITIES OF

LEWISTON - AUBURN

ANDROSCOGGIN COUNTY

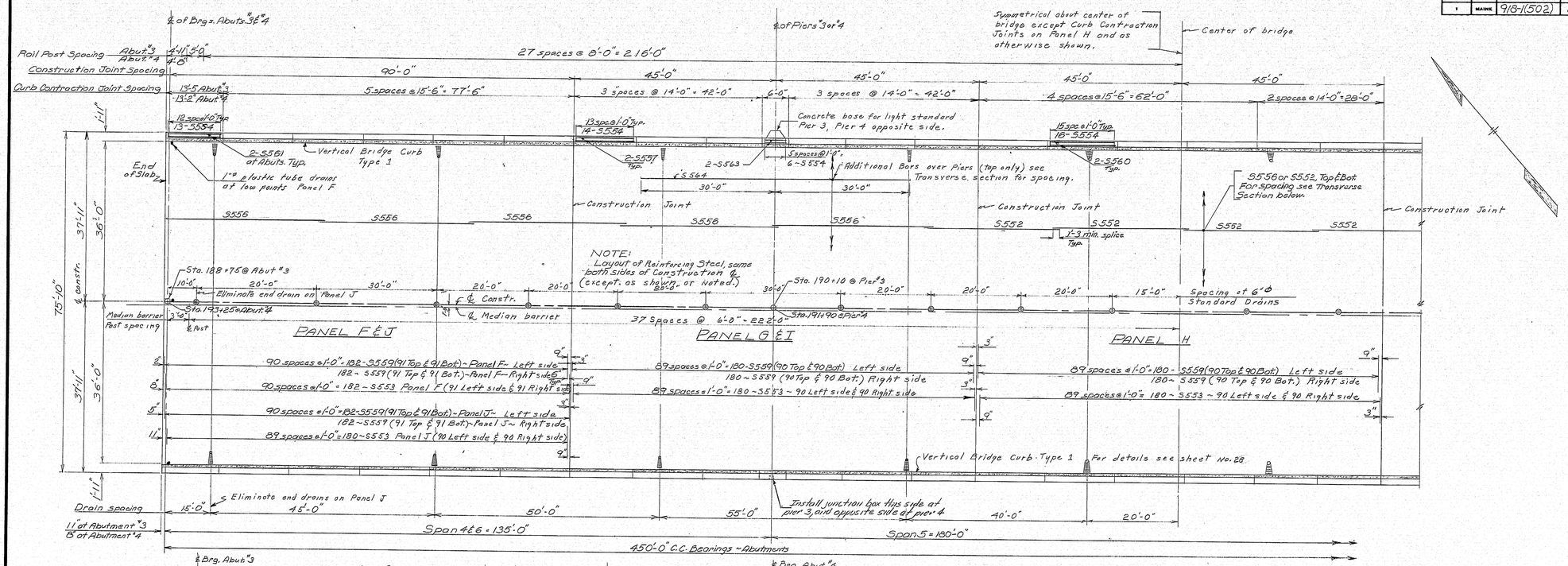
CAMBER AND BLOCKING — BRIDGE 2

SHEET 25 OF 29 AUGUSTA, MAINE OCTOBER 1970

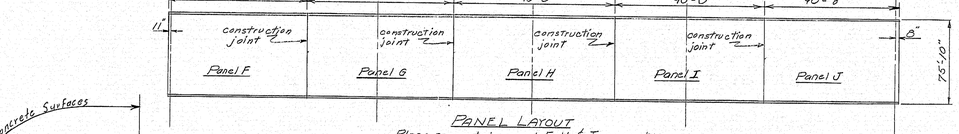
JANUARY 1968

131.85

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	29	56

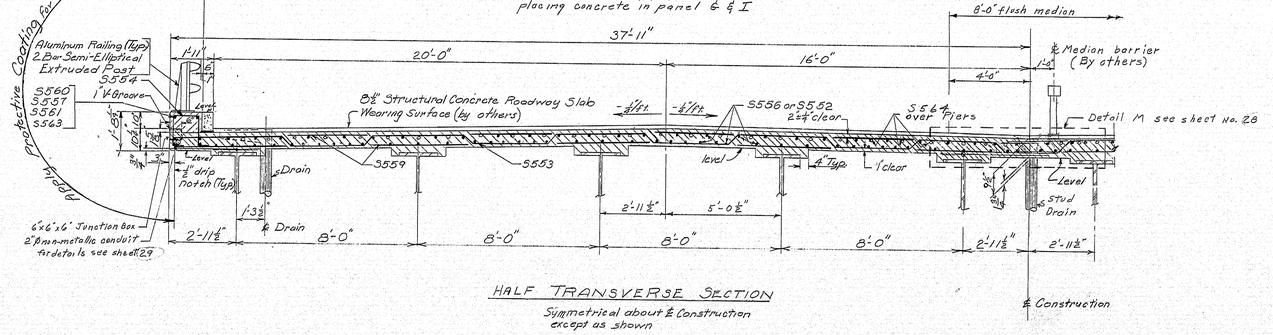


PLAN



PANEL LAYOUT

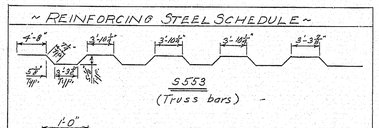
Place concrete in panel F, H, & J prior to placing concrete in panel G & I



HALF TRANSVERSE SECTION

Symmetrical about ℄ Construction except as shown

~ REINFORCING STEEL SCHEDULE ~



— BRIDGE NO. 2 - SUPERSTRUCTURE —

Mark	Size	No.	Length	Location
		BENT BARS		
S553	5	902	40'-0"	Truss bar (slab main steel)
S554	5	916	4'-8"	Stirrups in curb
		STRAIGHT BARS		
S552	5	592	30'-0"	Dist. Steel (slab)
S556	5	1980	35'-0"	" " "
S557	5	56	13'-6"	curb steel
S559	5	1808	38'-6"	Main Steel (slab)
S560	5	56	15'-0"	curb steel
S561	5	8	12'-8"	curb steel
S563	5	8	5'-8"	curb steel
S564	5	108	60'-0"	slab (over Piers)

Note: for general superstructure notes see sheet 17

Note: Additional Reinf. Steel Added In Areas Where Shear Connectors Were To Short. See CO. #30

PLANS	DESIGN - DETAILED	BY	DATE
	DESIGN - DETAILED	J.C.	06/70
	CHECKED	H.L.D.	10/70
	REVISIONS		
	FIELD CHANGES		

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY

SUPERSTRUCTURE 2

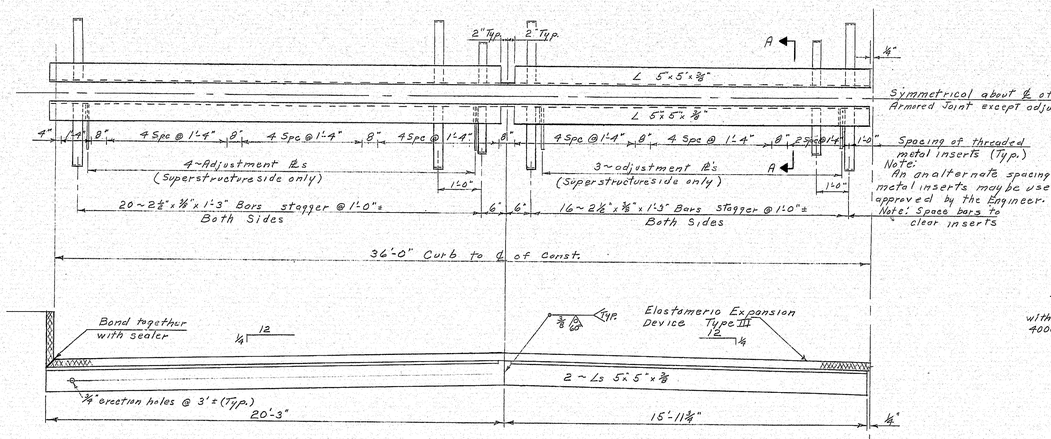
SHEET 26 OF 29 AUGUSTA, MAINE OCTOBER 1970

Revised As Built RS Bailey Jan 30, 1974

131:86

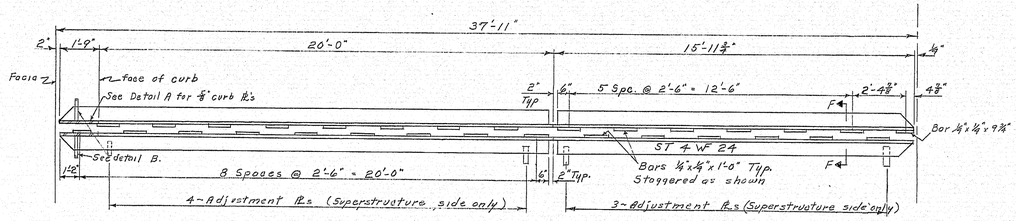
JANUARY 1968

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-(502)	30	56



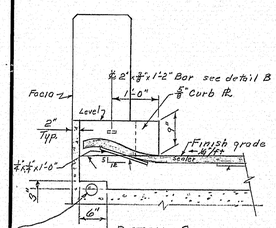
ARMORED JOINT DETAIL
Abutments No. 2 & 4

℄ Symmetrical about ℄ Construction except as noted

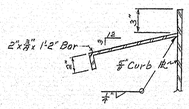


ARMORED JOINT DETAIL
Abutments No. 1 & 3
(Preformed elastic joint sealer not shown)
Notes: For Armored Joint Detail, except as shown on this sheet see Standard Detail Sheet BD 104-66

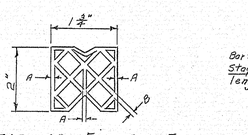
The preformed elastic joint sealer shall be one continuous piece from facia to facia.



DETAIL A

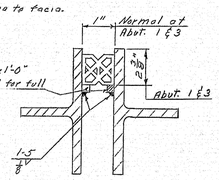


DETAIL B



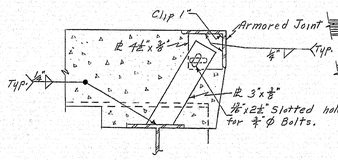
PREFORMED ELASTIC JOINT SEALER (Abutments 1 & 3)

NOTE: The configuration of the preformed elastic joint sealer may be changed from that shown in order to conform with shapes as produced by various manufactures, However, the cross sectional dimensions, including those of the internal elements & the shell (A & B) shall be approved by the Engineer before ordering the preformed elastic joint sealer.



SECTION F-F

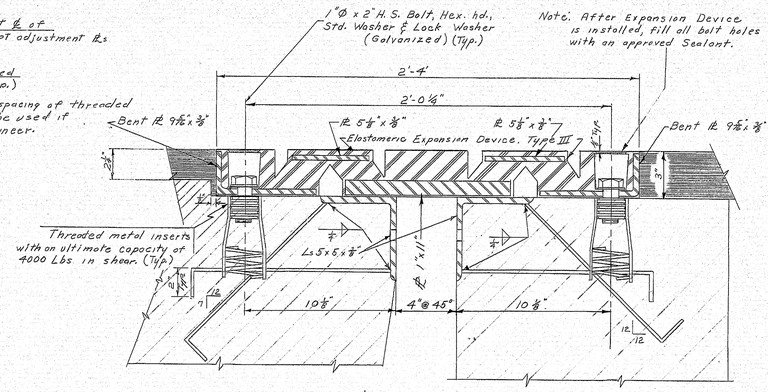
Note: Set joint at abut. 1 & 3 at ½" before loading span in order to compensate for rotation of stringer ends due to dead load deflection.
No adjustment is necessary at expansion end except for temperature.



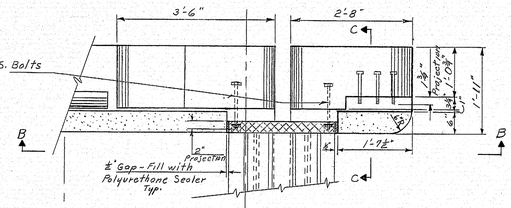
ADJUSTMENT ℓs
Abutments 2 & 4

Note: For adjustment ℓs Abutment 1 & 3 see standard detail sheet BD 104-66

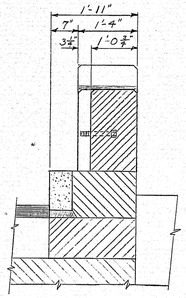
After Armored Joint is set in final position Adjustment ℓs shall be welded together with ¼" fillet weld.



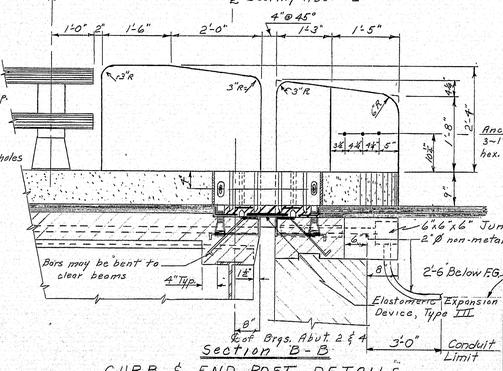
SECTION A-A



PLAN



Section C-C



Section B-B

Anchorage for Guardrail
3-1"ø x 6'-8" H.S. Bolts with hex. nuts & ℓ Washers "G" Galvanized

Payment for Anchorage shall be considered to be incidental to the contract items.

See Standard Details Guard Rail - August, 1969 (E)

CURB & END POST DETAILS
ABUTMENT No. 2 & 4

Notes
For reinforcing steel details see End Post Details Abutments No 1 & 3 and schedule on sheet 28.
Payment for all end post concrete will be included in the contract price for Item 502.26 Structural Concrete, Retaining and Solid Slabs on Steel Bridges.

DESIGN- HCR
TRACE-
CHECK- RJL

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

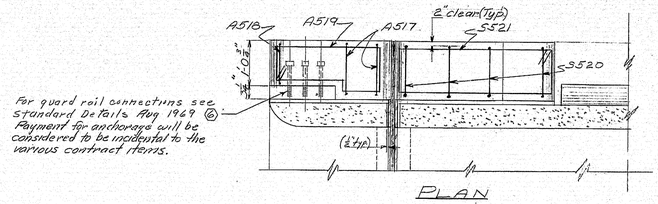
ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON-AUBURN
ANDROSCOGGIN COUNTY

ARMORED JOINT, CURB & END POST DETAILS

SHEET 27 OF 29 AUGUSTA, MAINE OCTOBER 1970

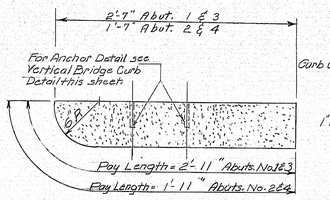
131:87

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	31	55

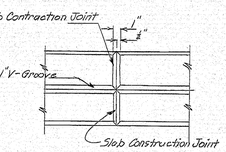


For guard rail connections see Standard Details Aug 1969 (6). Payment for anchorage will be considered to be incidental to the various contract items.

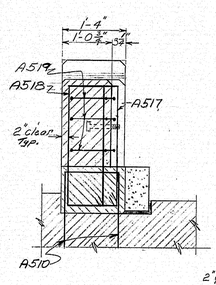
PLAN



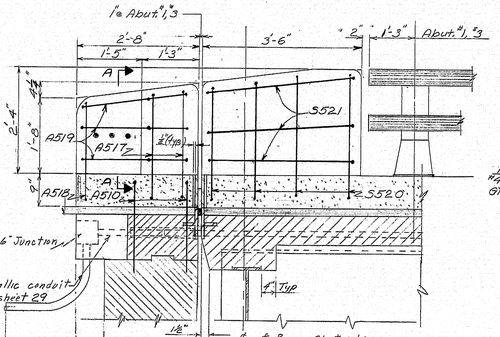
VERTICAL BRIDGE CURB - TYPE 1



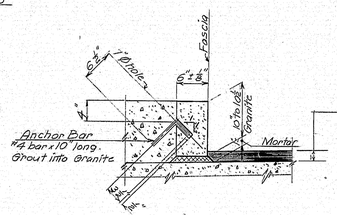
1"-V-GROOVE



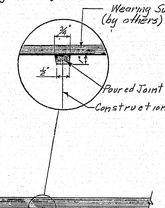
SECTION A-A



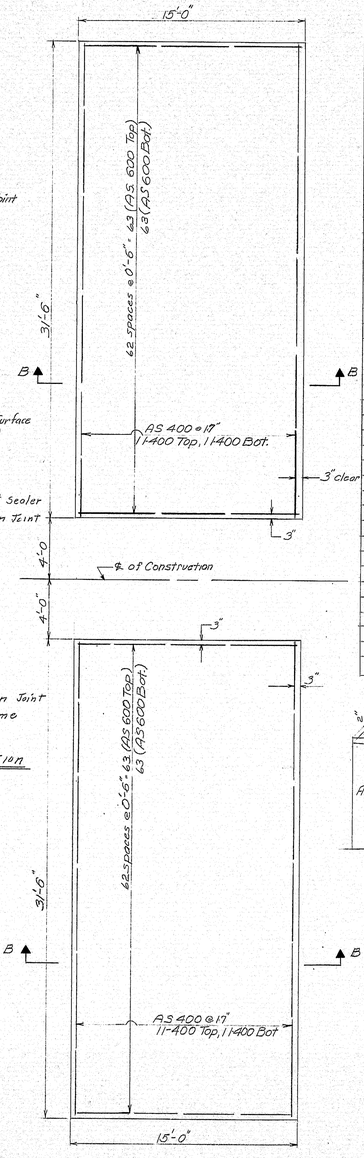
ELEVATION & END OF SLAB DETAIL



VERTICAL BRIDGE CURB DETAIL
TYPICAL

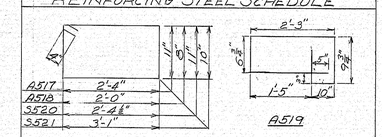


Transverse Slab Construction Joint



APPROACH SLABS
8" Structural Concrete Slabs (by others)

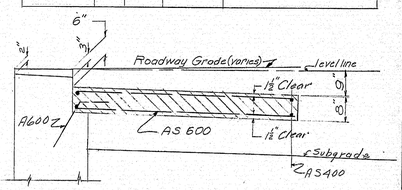
REINFORCING STEEL SCHEDULE



A517, A518, S520, S521 Note: Dimensions are to ℄ bars

APPROACH SLABS & END POSTS

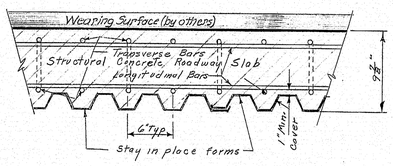
Mark	Size	No.	Length	Location
BRIDGE No. 1				
BENT BARS				
A517	5	8	7'-2"	End Post (Abutments)
A518	5	4	6'-0"	" "
A519	5	12	7'-0"	" " "
S520	5	16	7'-3"	End Post (Superstructure)
S521	5	12	8'-6"	" " "
STRAIGHT BARS				
AS400	4	88	31'-0"	Approach Slab (by others)
AS600	6	504	14'-6"	" " " "
BRIDGE No. 2				
BENT BARS				
A517	5	8	7'-2"	End Post (Abutments)
A518	5	4	6'-0"	" "
A519	5	12	6'-10"	" "
S520	5	16	7'-3"	End Post (Superstructure)
S521	5	12	8'-6"	" "
STRAIGHT BARS				
AS400	4	88	31'-0"	Approach Slab (by others)
AS600	6	504	14'-6"	" " " "



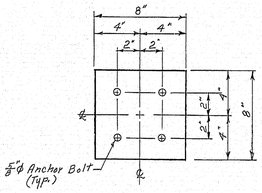
SECTION B-B

END POSTS DETAILS
ABUTMENTS No. 1 & 3

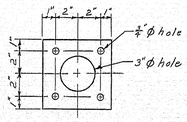
NOTE
For dimensions not shown, and End Post Details @ Abutments No. 2 & 4; see sh^t 27.
Payment for all end post concrete will be included in the contract price (lump sum) for Item 502.26 Structural Concrete, Rdwy and Sdwlk Slabs on Steel Bridges.



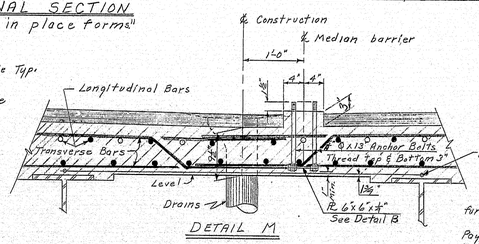
LONGITUDINAL SECTION
For use with "Stay in place forms"



PLAN
Median barrier post seat

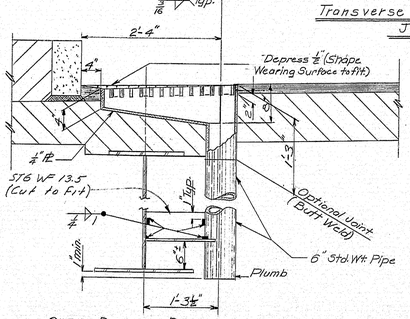


DETAIL B
6"x6"x 1/4" ℞



DETAIL M

Anchor Bolt Notes
Four anchor bolts required at each Median Barrier Post. Bolts to be furnished with nuts and anchor plate.
All exposed parts are to be galvanized.
Payments for acquiring and installing anchor bolts and template shall be incidental to Item 502.26 Structural Concrete, Roadway and Sidewalk Slabs on Steel Bridges.



CURB DRAIN DETAIL

Assemble drains using 1/4" fillet weld except as shown

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY

SUPERSTRUCTURE DETAILS & END POSTS

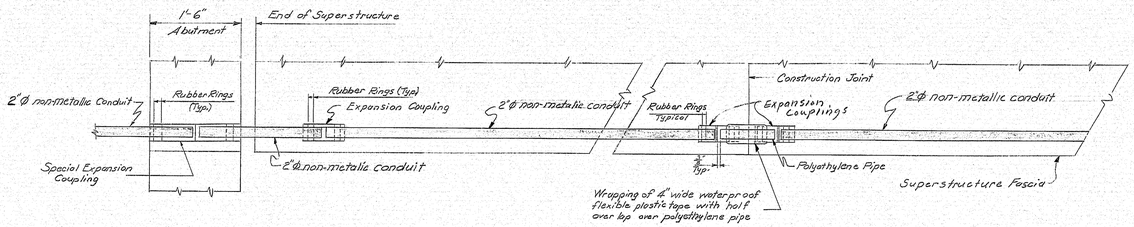
SHEET 28 OF 29 AUGUSTA, MAINE OCTOBER 1970

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	JC	
	REVISIONS	WER	8/70
	FIELD CHANGES	RJL	

JANUARY 1969

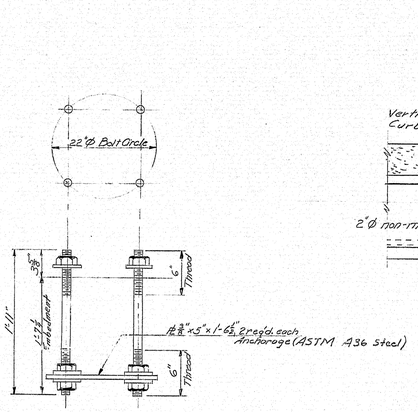
131-88

S. P. R. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9118-(502)	32	56

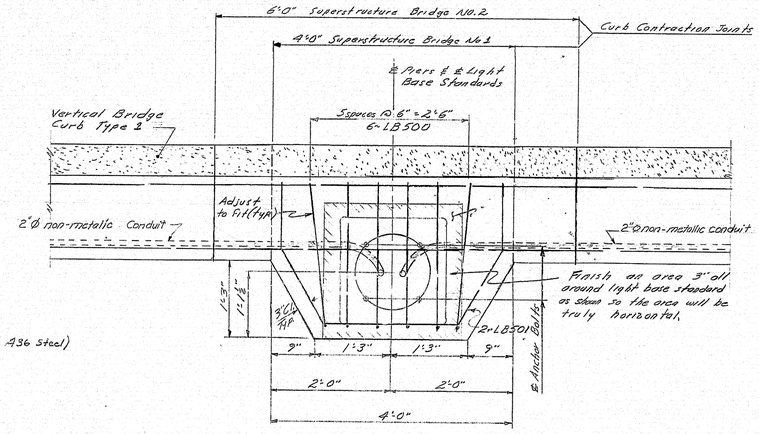


DETAIL AT ABUTMENTS AND ENDS OF SUPERSTRUCTURE
TYPICAL AT BOTH ENDS

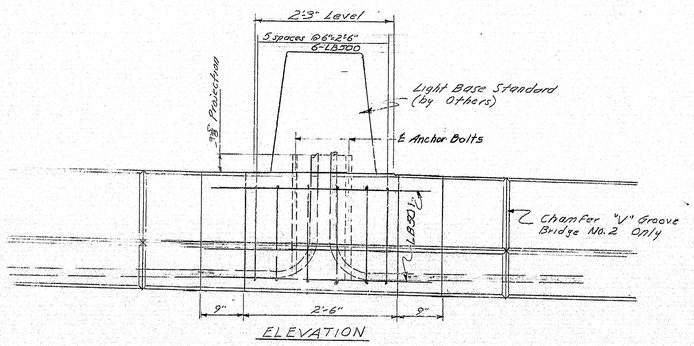
TYPICAL DETAIL AT SLAB CONSTRUCTION JOINTS



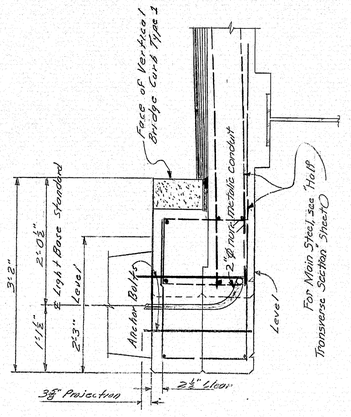
ANCHOR BOLT DETAIL
4-1"Ø Bolts Req'd. with 3-Hex nuts & 3 Std. washers for each bolt. All bolts with nuts & washers ~ to be Carbon Steel, ASTM A307. Hex nuts embedded in concrete shall Conform to ASTM A307



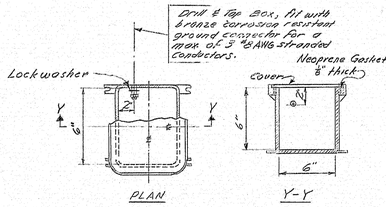
PLAN



ELEVATION

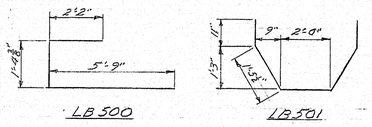


SECTION A-A AT SUPERSTRUCTURE LIGHT STANDARD LOCATIONS



TYPICAL JUNCTION BOX DETAIL
Galv. Cast Ferrous Alloy Boxes (For Roadway Lights)

~ REINFORCING STEEL SCHEDULE ~



— Bent Bars —

Mark	Size	No.	Length	Location
LB500	#5	24	9'-4"	12 Bridge #1 & 12 Bridge #2
LB501	#5	8	6'-9"	4 Bridge #1 & 4 Bridge #2

Notes:
① Install 2 junction boxes at each abutment; see sheets 27 and 28. Install 2 junction boxes on each superstructure; see sheets 17 and 26. All junction boxes shall be 6"x6"x6". 12 required.
② Nonmetallic conduit shall be a polyvinylchloride product.
③ The conduit systems shall be provided with adequate drainage subject to the approval of the Engineer.

STATE HIGHWAY COMMISSION

ANDROSCOGGIN RIVER BRIDGE
THIRD BRIDGE
BETWEEN THE CITIES OF
LEWISTON - AUBURN
ANDROSCOGGIN COUNTY
BRIDGE LIGHTING

SHEET 29 OF 29 AUGUSTA, MAINE OCTOBER 1970

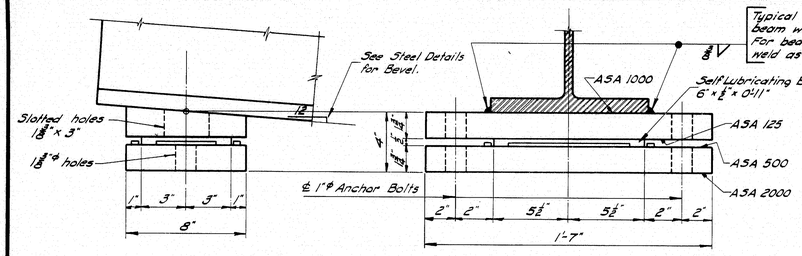
PLANS	BY	DATE
DESIGN - DETAILED	J.C.	Sept. 70
CHECKED	GDH	
REVISIONS		
FIELD CHANGES		

JANUARY 1968

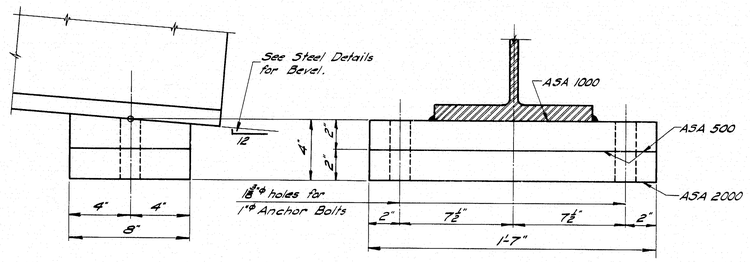
203-1 2080

131:89

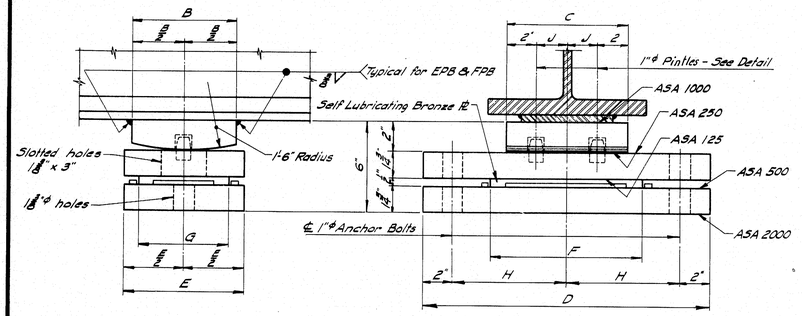
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	33	56



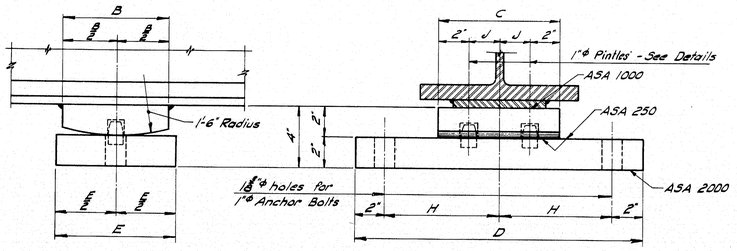
EXPANSION PEDESTAL - EPA



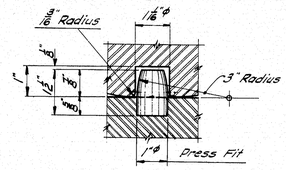
FIXED PEDESTAL - FPA



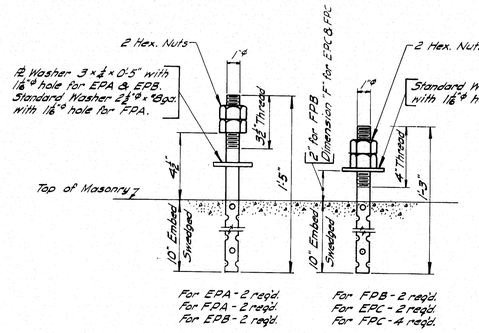
EXPANSION PEDESTAL - EPB



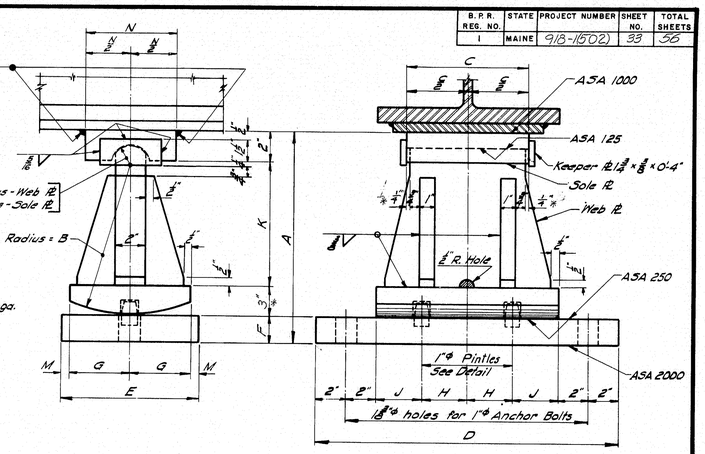
FIXED PEDESTAL - FPB



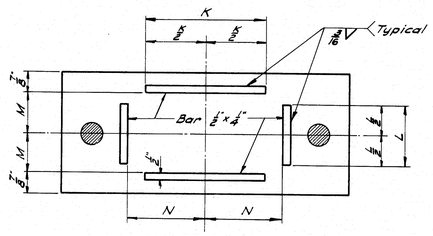
PINTLE DETAIL



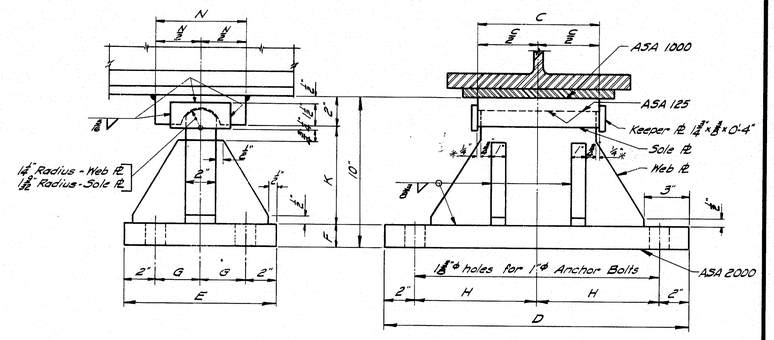
ANCHOR BOLT DETAIL



EXPANSION PEDESTAL - EPC



MASONRY PLATE



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"	3/8"	5/8"
FPA	130 ᴷ	–	–	–	–	–	–	–	–	–	–	–	–	–
EPB-1	120 ᴷ	–	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	3/8"	5/8"
EPB-2	165 ᴷ	–	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3/8"	6/8"
EPB-3	224 ᴷ	–	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3/8"	8/8"
FPB-1	120 ᴷ	–	6"	8"	1'-7"	8"	–	–	7 1/2"	2"	–	–	–	–
FPB-2	165 ᴷ	–	7"	10"	1'-8"	9"	–	–	8"	3"	–	–	–	–
FPB-3	224 ᴷ	–	8"	1'-2"	2'-0"	10"	–	–	10"	5"	–	–	–	–
EPC-1	70 ᴷ	9/16"	6"	8"	1'-8"	8"	1/2"	3 1/2"	3"	3"	4 1/2"	–	1/2"	6"
EPC-2	100 ᴷ	11/16"	8"	8"	1'-8"	8"	1/2"	3 1/2"	3"	3"	6 1/2"	–	1/2"	6"
EPC-3	130 ᴷ	1'-2"	10"	8"	1'-8"	9"	1/2"	4"	3"	3"	8 1/2"	–	1/2"	7"
EPC-4	160 ᴷ	1'-2"	10"	8"	1'-10"	9"	1/2"	4"	4"	3"	8 1/2"	–	1/2"	7"
EPC-5	190 ᴷ	1'-2 1/2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	–	1/2"	8"
EPC-6	220 ᴷ	1'-4 1/2"	10"	10"	2'-0"	1'-0"	2 1/2"	5"	5"	3"	10 1/2"	–	1"	8"
EPC-7	250 ᴷ	1'-4 1/2"	10"	1'-0"	2'-2"	1'-0"	2 1/2"	5"	5"	4"	10 1/2"	–	1"	8"
FPC-1	100 ᴷ	–	–	8"	1'-8"	9"	1/4"	2 1/2"	8"	–	6 1/2"	–	–	6"
FPC-2	160 ᴷ	–	–	8"	1'-8"	10"	1/2"	3"	8"	–	6 1/2"	–	–	7"
FPC-3	190 ᴷ	–	–	9"	2'-0"	10"	1/2"	3"	10"	–	6 1/2"	–	–	8"
FPC-4	220 ᴷ	–	–	10"	2'-0"	1'-0"	1/2"	4"	10"	–	6 1/2"	–	–	8"
FPC-5	250 ᴷ	–	–	1'-0"	2'-0"	1'-0"	2"	4"	10"	–	6"	–	–	8"

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

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

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A36
All other - A36.

* Revised rocker plate thickness and keeper plate clearance for Proj. 918-1(502) 10-23-70

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

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 101 -70)

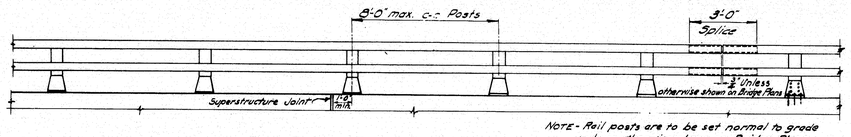
BEARING PEDESTALS

JANUARY 1970

131:90

BRUNING 44-131 11224

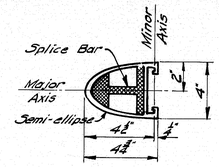
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	36	56



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

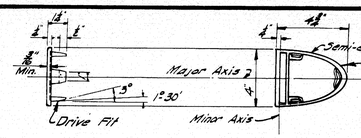
RAIL - ELEVATION

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



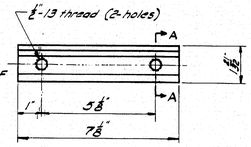
RAIL SECTION

See "Rail Detail"

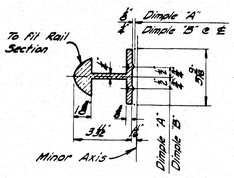


RAIL CAP

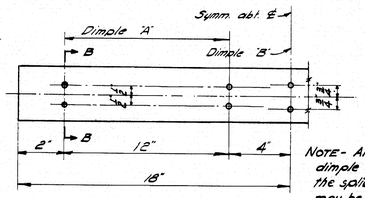
ASTM B26 or B108, Aluminum Assoc. Alloy 43-F or 356-F



CLAMP BAR



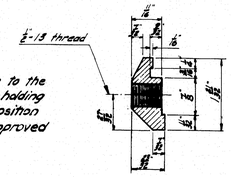
SECTION B-B



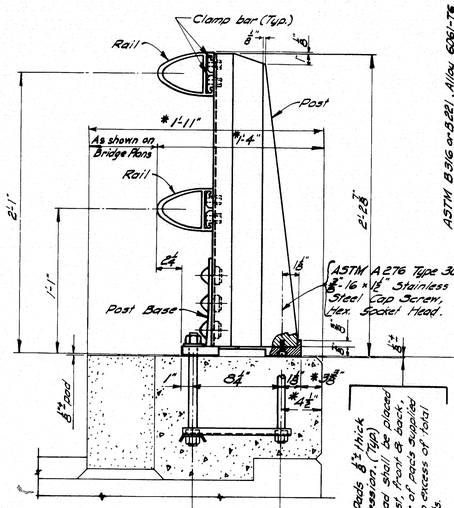
SPLICE BAR

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

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



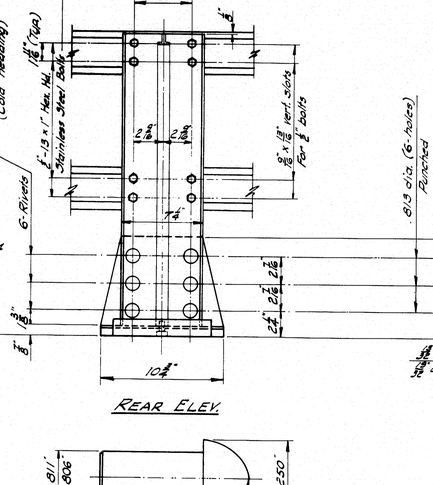
SECTION A-A



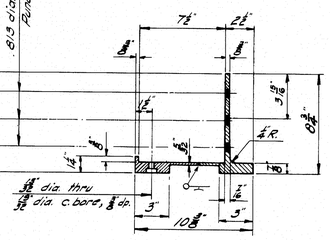
BRIDGE RAIL

Assembly

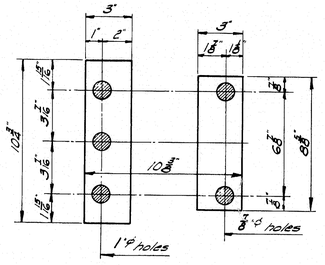
* Preferable minimum dimensions.



REAR ELEV.



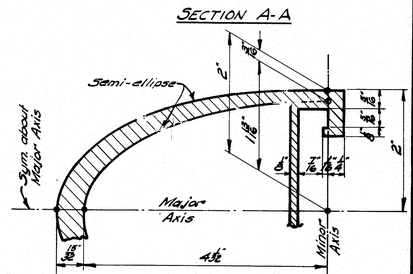
POST BASE SECTION



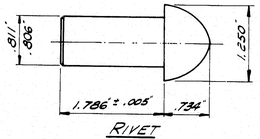
PREFORMED PADS

See Subsection 713.03 Standard Specifications Revision of June 1968 for pad.

Preformed Pads ⅜" thick under compression, (Typ.) After compression, (Typ.) At least one pad shall be placed under each post, front & back, and the number of pads supplied shall be 10% in excess of total number of posts.

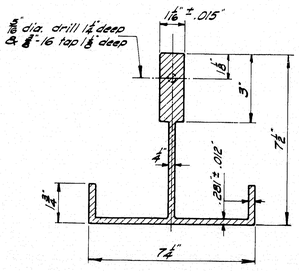


RAIL DETAIL

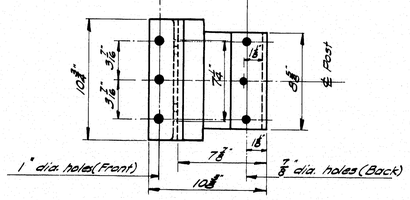


RIVET

Shop rivet rail post to base



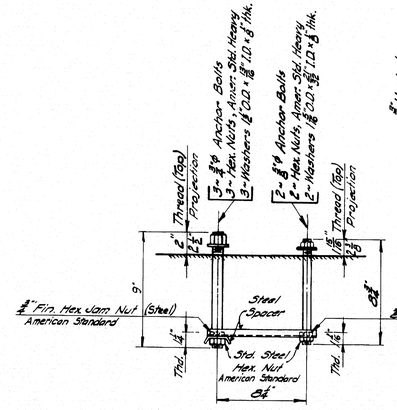
POST SECTION



POST BASE

(Bottom View)

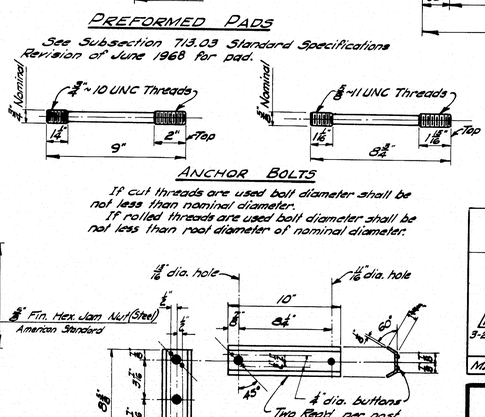
Post & Post Base = ASTM B221, Alloy 6061-T6.



RAIL POST ANCHORAGE

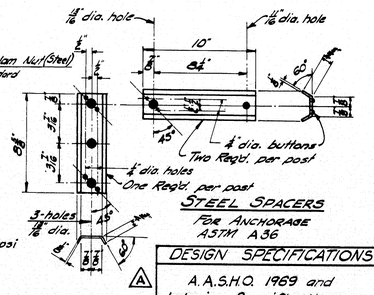
Assembly

NOTE: Anchor Bolts, exposed Hex. Nuts (Amer. Std. Heavy) and washers shall conform to Designation "Stainless Ⓐ ASTM A276 Type 430", Ultimate Tensile Strength 100,000 psi minimum, Elongation 15% minimum. Hex. Nuts embedded in concrete shall conform to Steel Designation ASTM A 307.



ANCHOR BOLTS

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



STEEL SPACERS

For ANCHORAGE ASTM A36

DESIGN SPECIFICATIONS

A.A.S.H.O. 1969 and Interim Specifications.

MARK	ALTERATIONS
Ⓐ 3-25-70	Changed ASTM B221, to include Alloy 6351-T5 for Rail, Splice & Clamp Bars.
	Changed ASTM Designations A276 & B209 A276 - Type 430 to 403 (Post Anchorage) B209 - T3 to T4 (Washers)
	Changed AASHO Design Specifications from 1965 to 1969.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

(BD 106 - 69)

ALUMINUM RAILING

2 - BAR (SEMI-ELLIPSE) EXTRUDED POST

JANUARY 1969

131:91

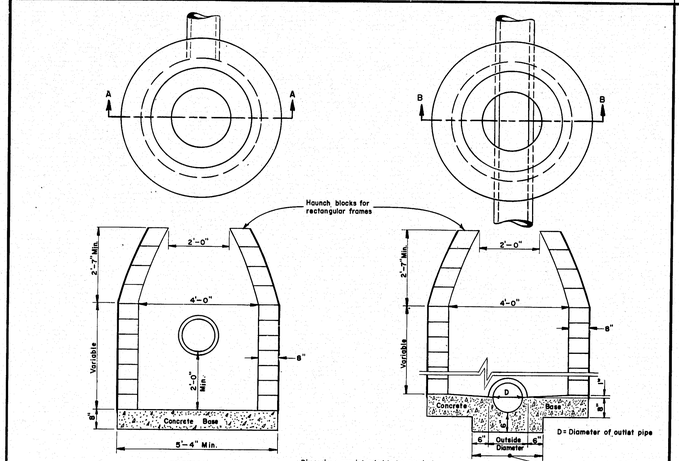
R. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	36	56

GENERAL NOTES — ALL CATCH BASINS AND MANHOLES

1. Any Catch Basin in excess of 8' in depth shall, if directed be provided with steps similar to those detailed for Manholes.
2. Frames, Grates & Covers shall be considered as part of the structure, and no separate payment shall be made.

GENERAL NOTES — PRECAST CATCH BASINS AND MANHOLES

1. Drain holes in precast sumps to be not over 3" in diameter, and shall be plugged with mortar when constructed.
2. All precast sections of less than 8" wall thickness shall have tongue and groove joints.
3. Cone and Ring sections wall thickness min. 4", max. 8"
4. Minimun wall thickness of sump may be 4" as specified in A.S.T.M. C-478, however, if concrete blocks are used around the inlet and outlet pipes, the wall thickness of sump shall be 8".
5. Wall around inlet and outlet pipes may be built of 8" concrete blocks or a precast ring with an opening 2" larger than the outside diameter of the pipe may be used.
6. Lift Holes shall be provided.

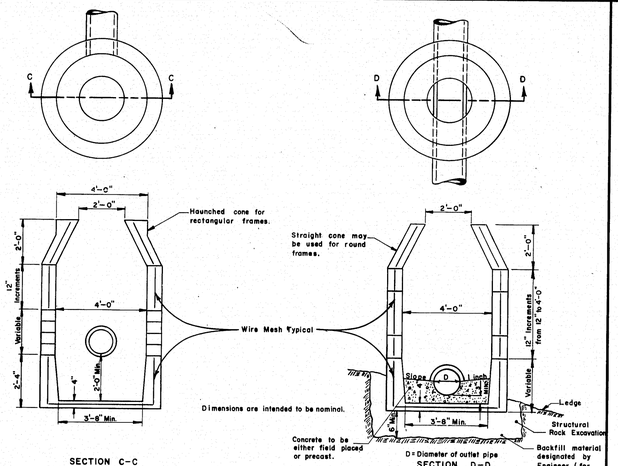


SECTION A-A
SHAPE "1"

Dimensions are intended to be nominal.

SECTION B-B
SHAPE "2"

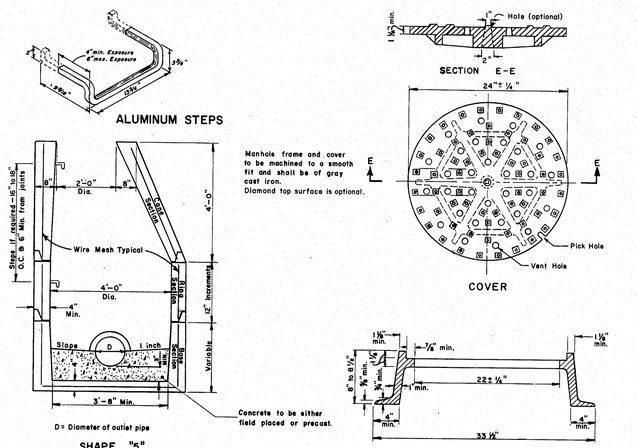
CATCH BASINS (Concrete Blocks or Bricks)

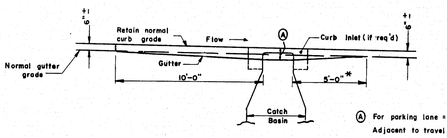


SECTION C-C
SHAPE "3"

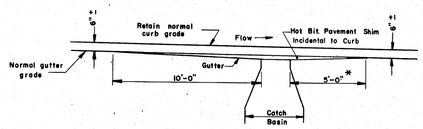
SECTION D-D
SHAPE "4"

CATCH BASINS (Precast Units)





AT CURB INLETS

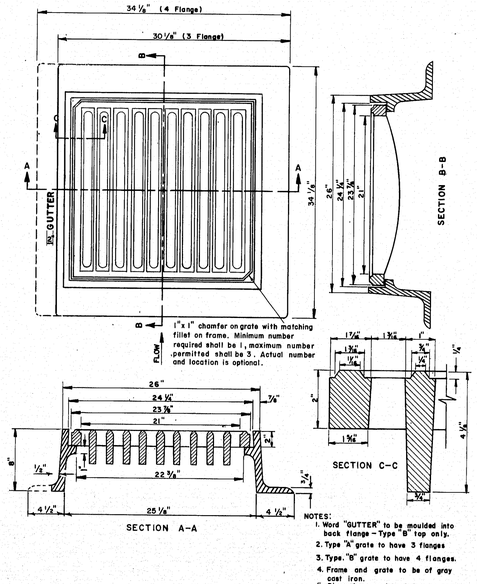


AT CURB WITHOUT INLET STONES

* If at bottom of sag, this dimension to be 10'-0"

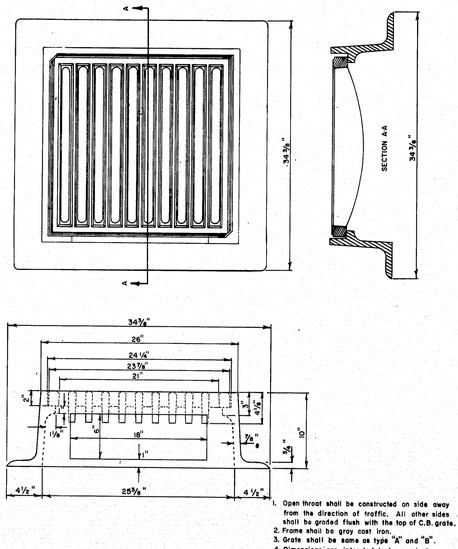
NOTE:
All grates shall be installed on a level grade. The grates shall be depressed 3" below the normal gutter grade unless this depression interferes with traffic. Dimensions are intended to be nominal.

GUTTER GRADE TRANSITION AT CATCH BASIN



NOTES:
1. Word "GUTTER" to be moulded into back flange - Type "B" top only.
2. Type "A" grate to have 3 flanges
3. Type "B" grate to have 4 flanges.
4. Frame and grate to be of gray cast iron.
5. Dimensions are intended to be nominal.

TYPE "A" & "B" CATCH BASIN TOPS



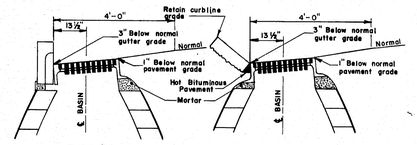
1. Open throat shall be constructed on side away from the direction of traffic. All other sides shall be grated flush with the top of C.B. grate.
2. Frame shall be gray cast iron.
3. Grate shall be same as type "A" and "B".
4. Dimensions are intended to be nominal.
5. When volume of water warrants, 6" opening may be increased.

TYPE "C" CATCH BASIN TOPS

STRUCTURE	TOP				SHAPE				
CATCH BASIN	A	B	C	D	1	2	3	4	5
Type A-1	X				X		X		
Type A-2	X					X		X	
Type B-1		X			X		X		
Type B-2		X				X		X	
Type C-1			X		X		X		
Type C-2			X			X		X	
MANHOLE				X		X		X	X

TABLE OF CATCH BASIN TYPES
(COMBINATION OF TOPS AND SHAPES)

For Type "E" & Type "F" C.B. See Sheet No. 3



Dimension are intended to be nominal.

CATCH BASIN TOP INSTALLATION

REVISIONS	
CATCH BASINS TOPS A-B-C	10-21-69

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

CATCH BASINS
AND
MANHOLES

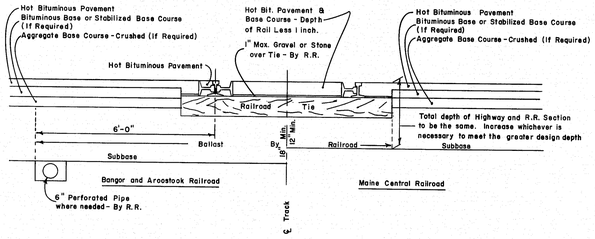
AUG. 1969 (1)

131:92

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1502)	37	56

NOTES:

1. Creosote ties through crossing.
2. Rail joints in crossing to be welded
3. Stone Ballast to extend along track beyond each side of the crossing approximataly 40'-0". By Railroad.
4. Work to be done by Railroad
   - A. Placement of Ballast.
   - B. Placement of Ties and Rails.
   - C. Placement of 1" max. Gravel over Ties.



4-A

TABLE A

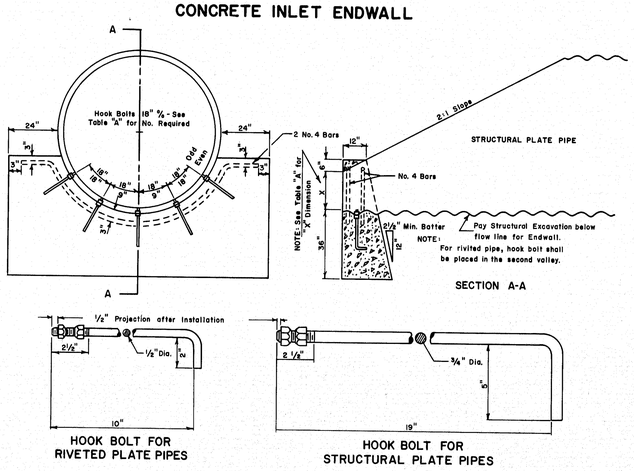
RIVETED PIPES		
SIZE	NO. HOOK BOLTS REQUIRED	"X" DIMENSION
60"	4	1.5
66"	4	1.5
72"	4	1.5
78"	5	1.5
84"	5	1.5
STRUCTURAL PLATE PIPE		
SIZE	NO. HOOK BOLTS REQUIRED	"X" DIMENSION
72"	4	1.5'
78"	5	1.625'
84"	5	1.75'
90"	5	1.875'
96"	6	2.0'
102"	6	2.125'
108"	6	2.25'
114"	7	2.375'
120"	7	2.5'
126"	7	2.625'
132"	8	2.75'
138"	8	2.875'
144"	9	3.0'
150"	9	3.125'
156"	9	3.25'
162"	10	3.375
168"	10	3.5
174"	10	3.625'
180"	11	3.75'

NOTES

1. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slope and no ditch transitions.
2. Excavation required to grade culvert inlets and outlets as shown will not be paid separately, but will be incidental to the culvert.
3. Hook bolts are required in metal pipes only and will be incidental to concrete item.
4. Concrete endwall shall be structural concrete class "A" and shall be paid for as item 502.32 structural concrete culvert endwalls.
5. All riprap as shown shall be hand laid.

4-B

CONCRETE INLET ENDWALL

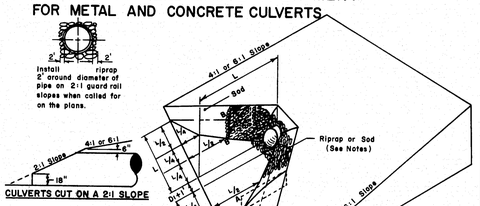


4-C

ROADWAY CULVERT END SLOPE TREATMENT FOR METAL AND CONCRETE CULVERTS

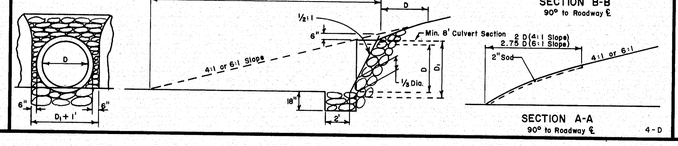
TABLE B

Culvert Diameter	L 4:1 Slope	L 6:1 Slope
18"	9'-0"	13'-0"
21"	10'-0"	15'-0"
24"	11'-0"	16'-6"
30"	13'-0"	20'-0"
36"	15'-6"	23'-0"
42"	17'-6"	26'-0"
48"	19'-6"	29'-6"
54"	22'-0"	32'-6"
60"	24'-0"	36'-0"
66"	26'-0"	39'-6"
72"	28'-6"	42'-6"
84"	32'-6"	49'-0"



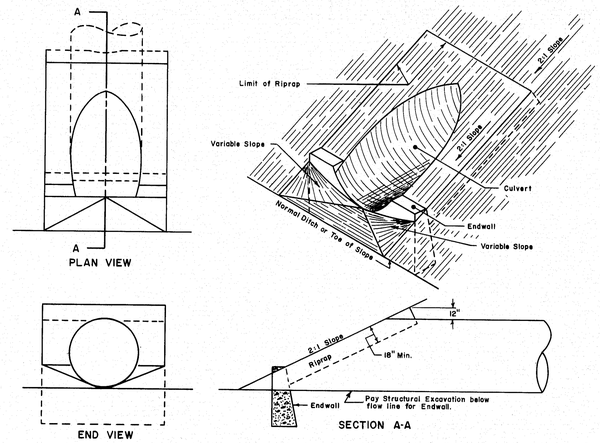
NOTES:

1. The dimensions shown are approximate and may be modified by the resident engineer.
2. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slope around the inlet and outlet; and no ditch transitions.
3. Riprap will be required on the portions of the culvert end treatment 1:1 and steeper. The remaining portion shall be sodded or loamed, seeded and hay mulched as directed by the engineer.
4. 24" diameter culverts and under may be sodded around ends of culvert.



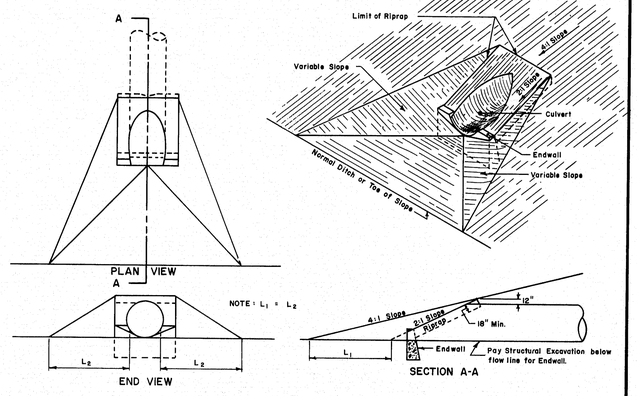
4-D

CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 2:1 SLOPES



4-E

CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 4:1 SLOPES



4-F

REVISIONS	
Plate 4-D	12-23-69

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

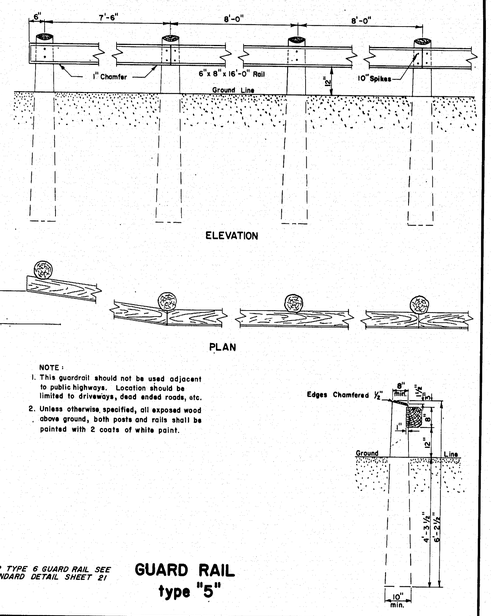
STANDARD DETAILS

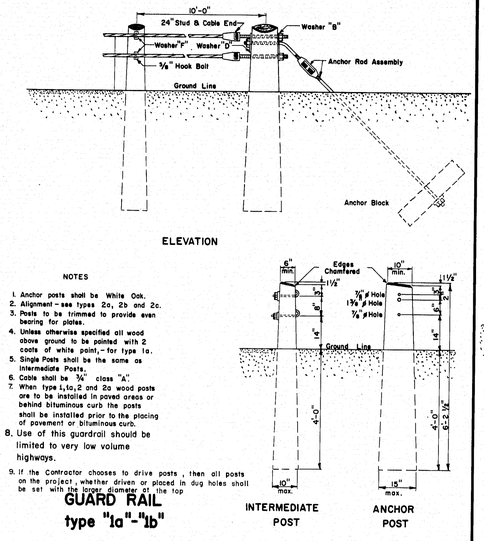
CULVERT INLETS & OUTLETS

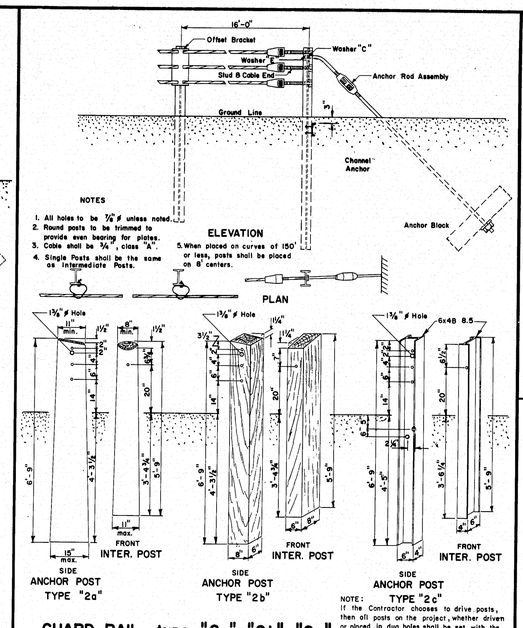
AUG. 1969

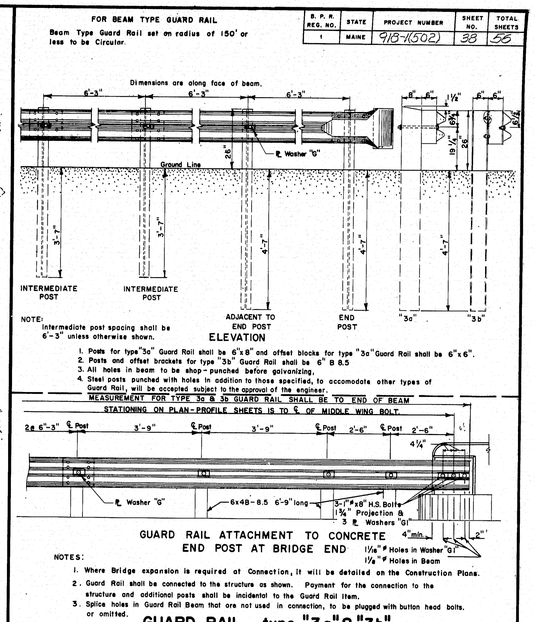
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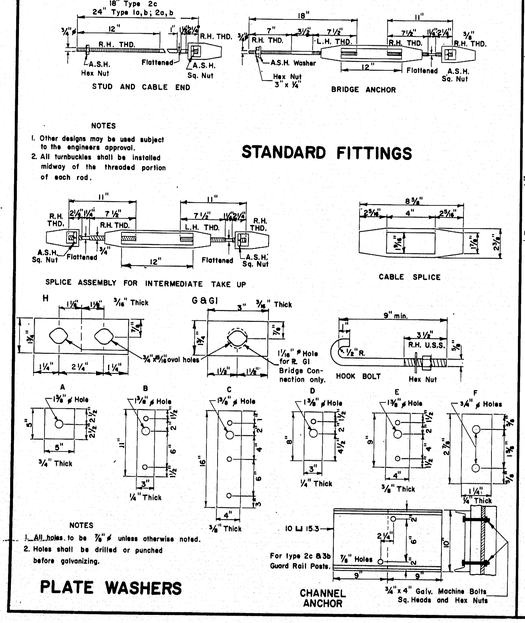
131:93

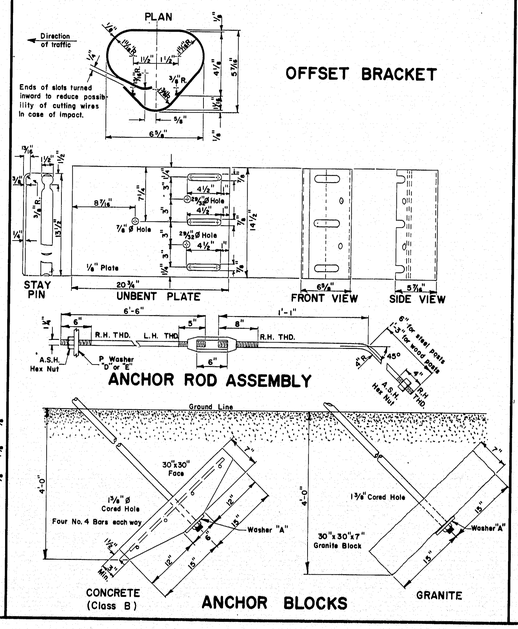


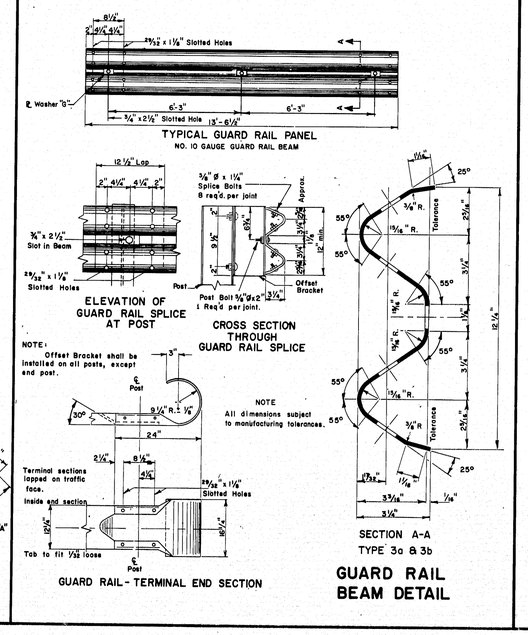


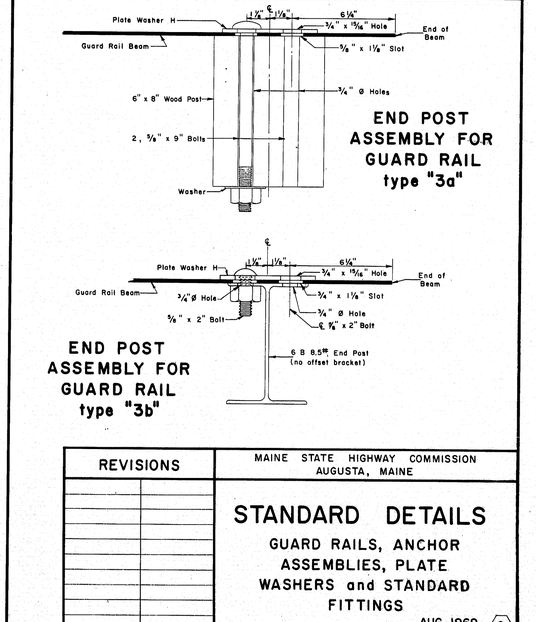






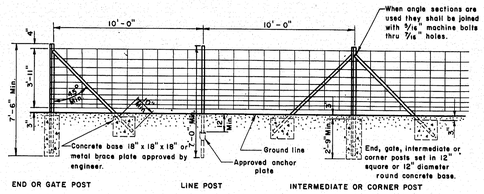






REVISIONS		MAINE STATE HIGHWAY COMMISSION AUGUSTA, MAINE
		STANDARD DETAILS GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS and STANDARD FITTINGS
		AUG. 1969 (6)

918-1(502) Sec. 131:94



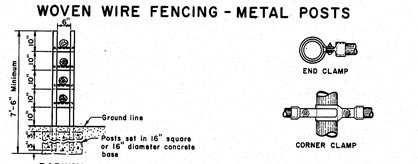
END, INTERMEDIATE AND CORNER POSTS - 2½" x 2½" x ¼" angle or nominal diameter 2" galvanized steel pipe minimum weight of 3.65 pounds per foot with approved top cap, length 7'-6"

GATE POSTS - 3½" x 3½" x ⅝" rolled angle section, or nominal diameter 2½" galvanized steel pipe with minimum weight of 5.79 pounds per foot. Pipe shall be filled with concrete and have an approved top cap, length 7'-6"

BRACES - 1¾" x 1¾" x ⅛" rolled angle section, or nominal diameter 1¼" galvanized steel pipe with minimum weight of 2.27 pounds per foot.

LINE POSTS - Standard studded "T" post with minimum weight of 1.33 pounds per foot or standard lug "U" post with minimum weight of 1.12 pounds per foot, length 7'-0"

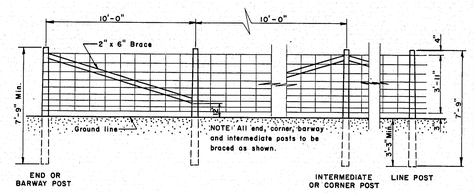
WOVEN WIRE FENCING - METAL POSTS



BARWAYS - Metal posts shall be installed for a 16'-0" opening. Barway posts and braces shall conform to requirements of "Gate Posts" and "Braces" under "Woven Wire Fencing - Metal Posts." Cross bar supports for barways shall be 1¾" x 1¾" x ¼" rolled angle section. When round gate posts are used, length of cross bar supports shall equal center to center of posts plus 2 inches and they shall be attached to the barway post with ⅝" x 4½" machine bolts. When angle section gate posts are used, the length of cross bar supports shall be equal to the out to out dimensions of the angle sections and shall be attached with ⅝" x 1" machine bolts. All bracing shall conform to the requirements of "Woven Wire Fencing - Metal Posts." Cross bars shall be as required for "Barways - Wood Posts."

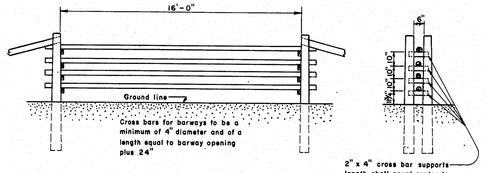
BARWAYS - METAL POSTS

B



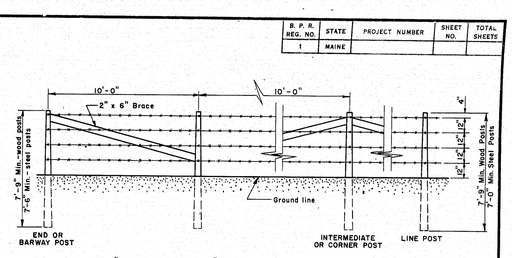
WOVEN WIRE FENCING - WOOD POSTS

Staples for wood posts to be 9 ga. 1½", placed according to the specifications.



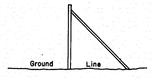
BARWAYS - WOOD POSTS

C

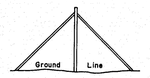


"Barbed Wire - Metal Posts" shall be constructed with the post and wire spacing shown above. Metal posts and braces shall conform to all the requirements noted and shown for "Woven Wire Fencing - Metal Posts," including concrete bases.

BARBED WIRE FENCING - WOOD POSTS AND BARBED WIRE FENCING - METAL POSTS

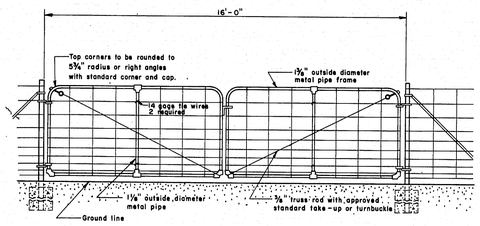


BRACING - TYPE I
Used at Gates, Barways and Terminals.



BRACING - TYPE II
Used at Corners, Intermediate Points, and changes in Vertical Alignment

D



Gate posts, braces and anchorages to be as specified under "woven wire fencing - metal posts."

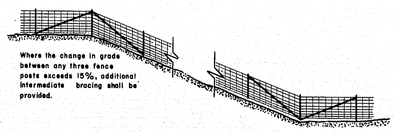
All gates shall be installed with the top hinge pin pointing down.

Wire for gates shall conform to A.S.T.M. A116, class 1, design no. 1047-12-11.

The required fittings for fence and gates shall be steel or malleable iron of approved standard type.

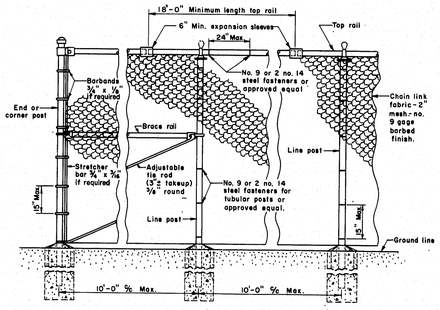
Gates shall be furnished with standard fork latch and one piece of ⅜" straight link, alloy steel chain, 24" long. One end shall be attached to gate frame and attached to the other end shall be a snap lock or other approved fastening device.

DRIVE GATEWAYS - 16 FEET



INTERMEDIATE BRACING

E

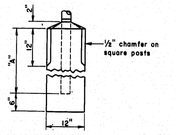


END OR CORNER POSTS: Nominal 2" diameter, galvanized steel pipe, minimum 3.65 pounds per linear foot or 2¼" x 2" "H" section, 4.10 lbs./l.f., or 3⅜" x 3⅜" "L" section with with integral fabric loops 5.14 lbs./l.f.

LINE POSTS: Nominal 1⅝" diameter, galvanized steel pipe, minimum weight 2.72 pounds per linear foot or 1⅞" x 1⅝" steel "H" section 2.70 lbs./l.f.

TOP & BRACE RAILS: Nominal 1¼" diameter, galvanized steel pipe, minimum weight 2.27 lbs/ l.f. or 1⅞" x 1¼" 60 shaped, rolled formed section.

STRETCHER BARS: Length to be 1" less than full height of frabic. One stretcher bar for each gate and end post, and two stretcher bars for corner and bracing.



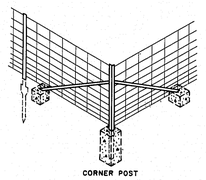
"A" = 2'-6" for 4' fence; 3'-0" for 6' fence and 5'-0" for all end and gate posts.

NOTE: Round bases may be substituted for the square bases shown by using fibre tubular forms.

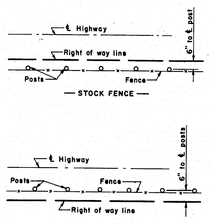
LINE, GATE AND END POST BASE

CHAIN LINK FENCE

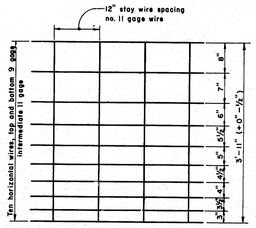
F



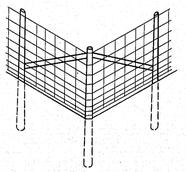
BRACING ASSEMBLY for METAL POST



FENCE LOCATION WITH RESPECT TO RIGHT OF WAY LINE



WOVEN WIRE FENCE



BRACING ASSEMBLY for WOOD POST

G

GENERAL NOTES: FENCING

1. When ledge is encountered, steel posts shall be set and grouted 12" deep unless the posts penetrate the ground to the depth indicated on the drawings.
2. When wood posts are used, braces shall be attached to posts with a minimum of 4, 40 penny nails per attachment.
3. When the word *"standard"* is used, it shall be interpreted as if it were followed by the expression *"to the fence industry."*
4. Woven Wire and Barbed Wire Fencing shall be attached to wood posts with 9 gauge 1½" galvanized staples.
5. Concrete for post foundations shall be class B.

SPACING OF FENCE POSTS ON CURVES:

Radius of curve at fence location	Normal post spacing
Over 500 feet	10 feet
Over 200 feet to 500 feet	8 feet
Over 100 feet to 200 feet	6 feet
100 feet or less	5 feet

H

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

REVISIONS	
PLATE F	8-10-70

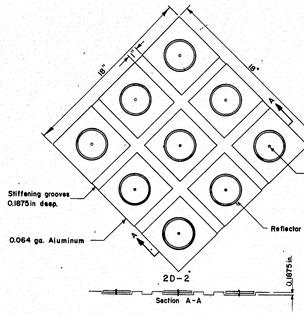
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

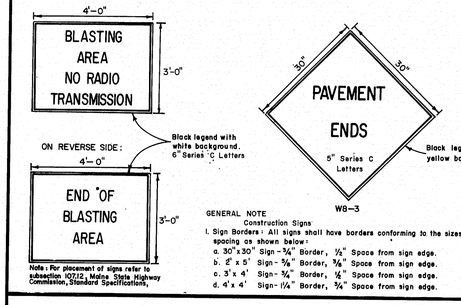
FENCING

AUG. 1969 (10)

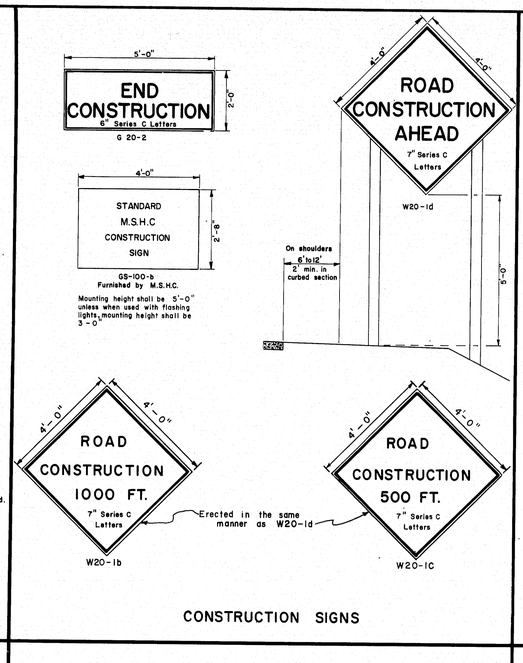
131:95



HAZARD MARKER



GENERAL NOTE
Construction Signs
1. Sign Borders: All signs shall have borders conforming to the sizes and spacing as shown below:
   a. 30" x 30" Sign - 3/4" Border, 1/2" Space from sign edge.
   b. 2' x 5' Sign - 5/8" Border, 3/8" Space from sign edge.
   c. 3' x 4' Sign - 3/4" Border, 1/2" Space from sign edge.
   d. 4' x 4' Sign - 1 1/4" Border, 3/4" Space from sign edge.

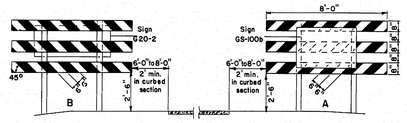


CONSTRUCTION SIGNS

GENERAL NOTES – BARRICADES
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Streets and Highways", published by the Department of Commerce, Bureau of Public Roads.
2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to a black painted background to form the black and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opaque film or paint applied to form the stripes.
3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 712.25, Maine State Highway Commission, Standard Specifications, June 1965.
4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Maine State Highway Commission, Standard Specifications.

NOTES – PORTABLE BARRICADES
1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. The detour sign shall be an oversized M5-7 sign with a demountable "DETOUR" message which shall be made of screened reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
4. When two W1-6 signs are required, R10-2 or R10-3 signs shall be omitted.
5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to face oncoming traffic.
6. Location of electric service and meter to be determined after the power source has been located.

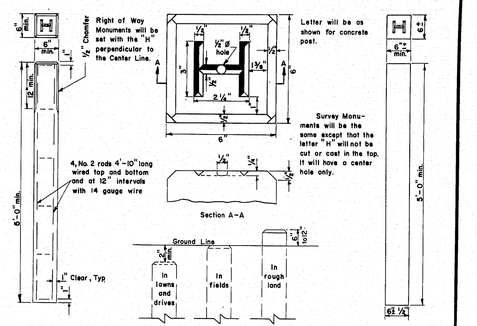
NOTES – WING BARRICADES
1. Lumber sizes for wing barricades shall be 1" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. Wing barricades will not be required unless specifically called for in the special provisions.
3. Location of signs and barricades will be determined by the Engineer.

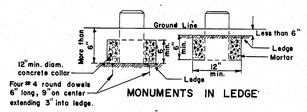


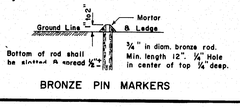
WING BARRICADES

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

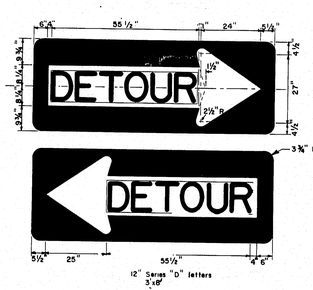
RIGHT OF WAY & SURVEY MONUMENTS





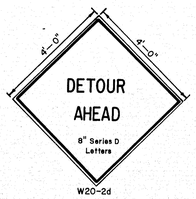


BRONZE PIN MARKERS

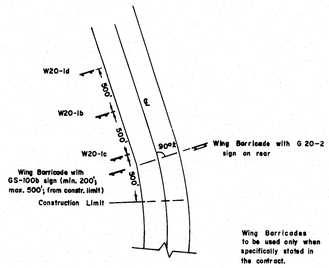


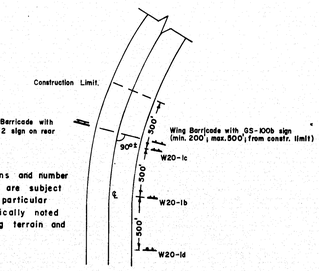
Detachable DETOUR message shall have 1" clearance from letters to edge on all sides.

DETOUR SIGN
M5-7(L)

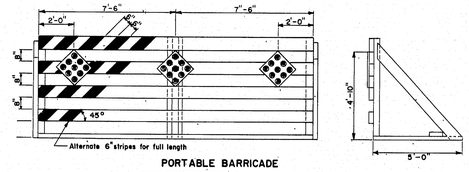


STANDARD SIGN LOCATIONS

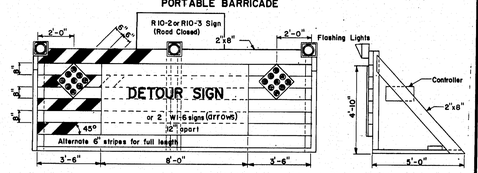




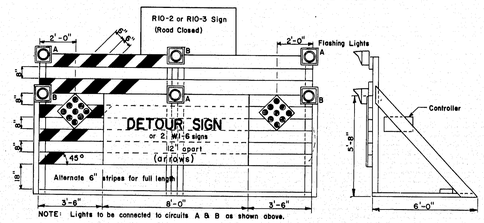
NOTE:
Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and land use.



PORTABLE BARRICADE

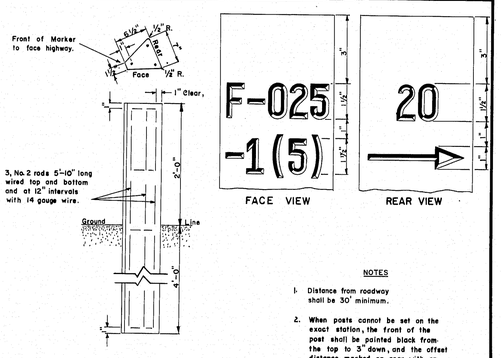


PORTABLE BARRICADE WITH FLASHING LIGHTS (NORMAL SIZE)



OVERSIZED PORTABLE BARRICADE WITH FLASHING LIGHTS

BARRICADES

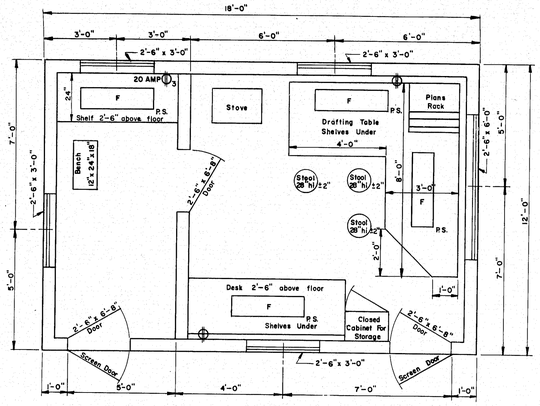


NOTES
1. Distance from roadway shall be 30' minimum.
2. When posts cannot be set on the exact station, the front of the post shall be painted black from the top to 3' down, and the offset distance marked on rear with an arrow pointing in direction of beginning or end of project.
3. All markings to be 1/4" deep and 3/16" wide.

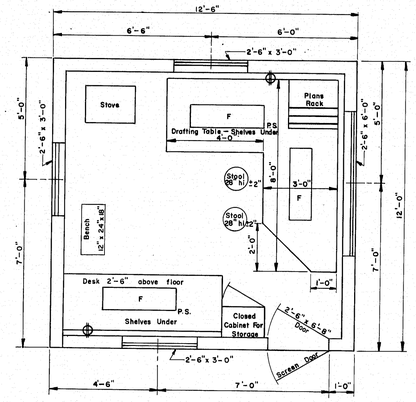
PROJECT MARKERS

REVISION	MAINE STATE HIGHWAY COMMISSION AUGUSTA, MAINE
	BARRICADES WARNING SIGNS MONUMENTS PROJECT MARKERS
	AUG. 1969 (11)

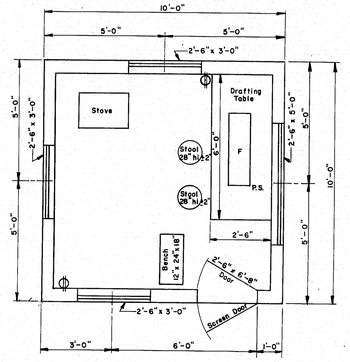
131:96



FLOOR PLAN
TYPE "A"



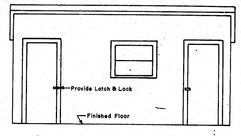
FLOOR PLAN
TYPE "B"



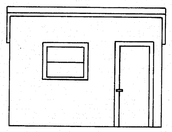
FLOOR PLAN
TYPE "C"

GENERAL NOTES

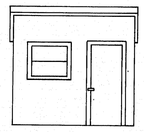
1. Drafting table shall be 3'-4" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
2. Shelves under desk shall be constructed to received 11½" x 14" x 25" transfiles.
3. Windows shall be double hung.
4. Stovepipe shall not be in direct contact with combustible material ; the pipe shall be surrounded with at least 6" of fireproof material.
5. Continuous 110 volt 60 cycle electric service shall be supplied.
6. The engineer may rearrange the items shown on the plan views during construction of the field office.
7. FURNISHINGS TO BE SUPPLIED :
   - 2 Straight back chairs for types A and B
   - 1 Bench for types A, B & C
   - 3 Stool for type A
   - 2 Stools for types B & C
8. SYMBOLS :
   - F — Florescent lights (2 light , rapid start 48" strips and 40 watt bulbs.)
   - P.S. — Pull switch
   - Duplex wall outlet — 15 amp unless otherwise noted.
   - 3 — Triplex Wall Outlet
9. For the Type "A" Field Office one clean 55 gal. drum shall be supplied , installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furished with water at all times.



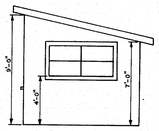
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"

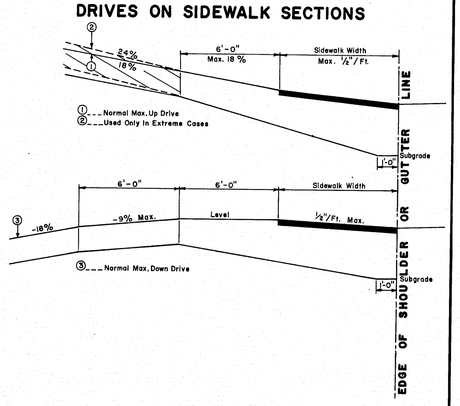


FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

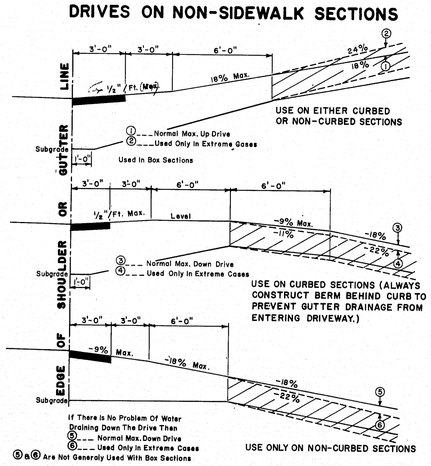
DRIVES ON SIDEWALK SECTIONS



GENERAL NOTES
1. The sidewalk width shall be paved in all cases.
2. All residential or commercial drives over 10% to be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used , do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

DRIVES ON NON-SIDEWALK SECTIONS



5 & 6 Are Not Generaly Used With Box Sections

GENERAL NOTES
1. The first 3' shown as pavement shall be paved only when abuting a paved area.
2. All residential or commercial drives over 10% to be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

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

REVISIONS	

MAINE STATE HIGHWAY COMMISSION
AUGUSTA , MAINE

STANDARD DETAILS

DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

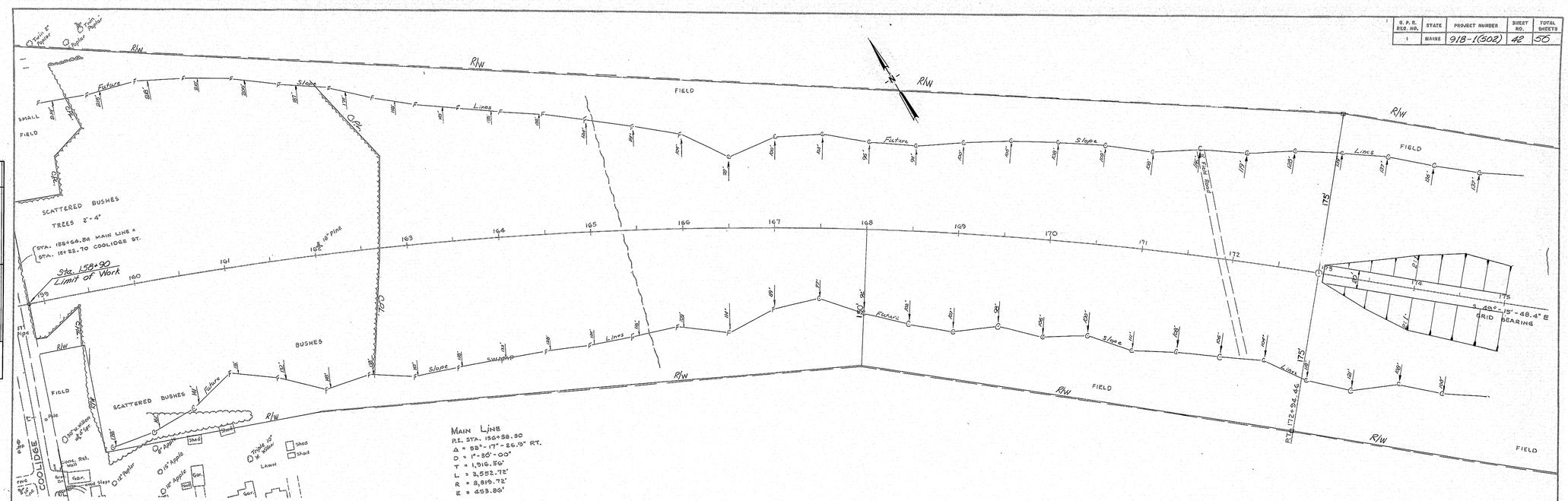
AUG. 1969 (12)

131: 97

U.S.P.R. RSD. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(602)	42	56

PLAN — SURVEYED, PLOTTED, GRADES CHECKED, M.H. NOTED, R.R. CROSSINGS (STATIONS CHKD), RT. OF WAY CHECKED, ALIGNMENT CHECKED — NOTE BOOK — NO. — BY — DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, M.H. NOTED, R.R. CROSSINGS (STATIONS CHKD) — NOTE BOOK — NO. — BY — DATE



CLEARING

Sta. 158+90 TO Sta. 162+81

GENERAL NOTES

1. The utilities involved on the project are the Central Maine Power Company and the Maine Central Railroad Company. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

2. The contractor shall clear all wooded areas from Coolidge Street in Auburn to the Maine Central Railroad tracts in Lewiston. Clearing payment lines shall be 15 feet beyond and parallel to, the future slope lines in fills and 5 feet beyond, and parallel to the future slope lines in cuts.

3. All earth slopes constructed to the final template lines shall be loamed with 2 inches of loam, seeded with seeding method No. 2, and hay mulched. All other earth slopes shall be seeded with Temporary Seeding as directed by the engineer.

4. The grade lines shown for the haul roads to be constructed from Sta. 173+00 to Sta. 176+00 and from Sta. 195+50 to Sta. 197+50 may be adjusted by the engineer as the quantity requirements may dictate.

5. Warning lights shall be installed on River Road.

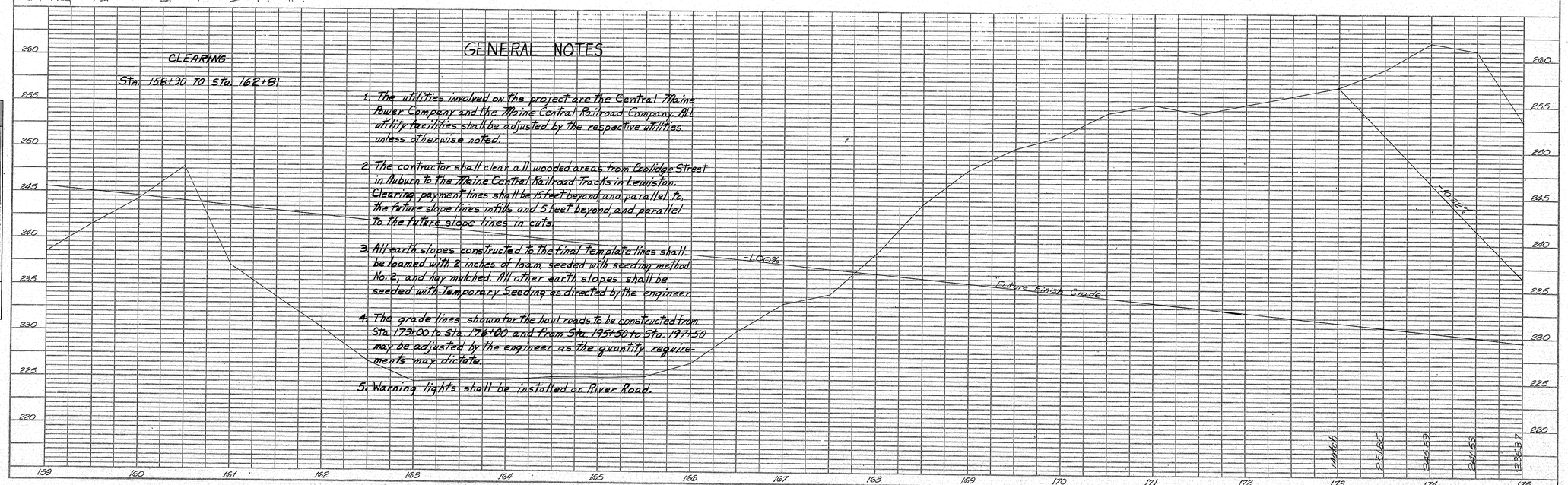


PLATE 1, PLAN-PROFILE
KILKPATRICK & ESSER CO.

131: 98

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	43	56

Sta. 176+50 Lt. Install ~~45"×54"~~ R.C.P. 18"×54' R.C.P. (C.O.#11)

Sta. 176+50 Lt. Construct Type C-1 Catch Basin in the Ditch

Sta. 176+52 Lt. to Sta. 178+48 Lt. Install ~~18"×200'~~ R.C.P. 24"×200' R.C.P. (C.O.#11)

Sta. 176+00 Basin
Project No. 918-1(502)
Contract No. 1

Sta. 176+50 Construct Type B-1 Catch Basin in the Median

Installed 23' Type 'B' V.D.
Installed 67' Type 'B' U.D. Outlet
(See C.O.#16)

Sta. 176+50 Rt. Install 12"×58' R.C.P.

Sta. 176+50 Rt. Construct Type C-1 Catch Basin in the Ditch

Sta. 177+50 Lt. Constructed (1) Type B-1 Catch Basin

Sta. 176+52 Lt. To Sta. 177+48 Lt. Installed 12"×96' Type 'C' C.I.D.
(See C.O.#14)

STA. 25+88.47 RIVER ROAD
∆ = 17°-19'-20" RT.

Sta. 178+48 (See C.O.#15)
Sta. ~~178+56~~ Lt. Construct Type B-2 Catch Basin to Collect the Ditch Water Along River Road.

Sta. 178+52 Lt. to Sta. 178+84 Lt. Install ~~18"×32'~~ R.C.P. 18"×32' R.C.P. (C.O.#11)

Sta. 178+84 Lt. to Sta. 178+96 Lt. Construct Hand Laid Riprap Gutter.

STA. 178+71.13 MAIN LINE =
STA. 67+69.69 RIVER ROAD
∠ 86°-32'-42.5"

Installed 60 L.F. of 6" Type 'B' U.D. From C.B. Along River Road (See C.O.#36)

Clearing
Sta. 175+35 To 177+05
Sta. 178+05 To 178+33
Sta. 178+70 To 179+20
Sta. 181+60 To 189+50

V.C. = 550'
E.V. = +2.06
H.S.D. = 820'

To be Removed by Others

NOTE:
USE OF LAND AND BUILDINGS WITHIN AREA INDICATED RESERVED TO OWNER UNTIL JAN. 26, 1939

Revised As Built RS Bailey Jan. 30, 1974

PLATE 1, PLAN-PROFILE
KOUTAL & ESSES CO.

PLAN — SURVEYED, PLOTTED, NOTE BOOK, NO., ALIGNMENT CHECKED, RT. OF WAY CHECKED, BY, DATE

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, GRADES CHECKED, NO., STRUCTURES (NOTATING CH-KO), BY, DATE

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	44	55

PLAN — SURVEYED: DATE; PLOTTED: BY; NOTE BOOK: ALIGNMENT CHECKED; NO.: RT. OF WAY CHECKED.

PROFILE — SURVEYED: DATE; PLOTTED: BY; NOTE BOOK: GRADES CHECKED; NO.: STRUCTURE NOTE(TYPE OF KIND)

River

R/W

MEDIUM - LARGE SOFTWOOD & HARDWOOD

2" - 6" SOFTWOOD & HARDWOOD

STA. 80+00.00 RAILROAD =
STA. 16+44.61 LIBBY AVE.
∠ 73°-05'-09"

C.P.L.

135'

Slope Lines

WOODS

STA. 202+09.30 MAIN LINE =
STA. 27+11.71 RAILROAD
∠ 68°-57'-50"

S. 49°-15'-48.4" E. GRID BEARING

Sta. 201+65 Limit of Work

Sta. 195+50 End Project No. 918-1(502) Contract No. 1

Iron Rods in Ledge

Dug w/in Fence

OLD SAND PIT
SCATTERED BIRCH & POPLAR (1"-2")

Fence

Slope

Lines

RAILROAD

Sign

Bench

Telephone Pole

Signal

I.P.

M.H.

Brook

Tarbox Brook

Access Road

Curve No. 2

Curve No. 3

Curve No. 3
P.I. Sta. 6+38.70
T = 109.27'
R = 209.90'
L = 201.49'
Δ = 55° Rt.

Curve No. 2
P.I. Sta. 3+88.28
T = 159.73'
R = 422.38'
L = 296.87'
Δ = 40° Lt.

TEMPORARY

MAINE

EASEMENT

Sta. 6+79.60 Access Road
Sta. 24+84.60 Railroad Traverse

Androscoggin

Clearing
Sta. 191+81 To Sta. 199+49
Sta. 191+41 To Sta. 201+25

Sta. 195+45 (38'Lt) To Sta. 195+25 (38'Rt)
Installed 80 L.F. of 6" Type 'B" U.D.

Sta. 195+25 (38'Rt) To Sta. 194+53 (72'Rt)
Install 80 L.F. of 6" Type 'B" U.D. Outlet

Install (1) Type 1a Single Post as Marker
(See C.O. #5)

+2.00%

+8.00%

+6.00%

Subgrade

Future

Finish

Grade

-0.80%

V.C. = 600'
Ex. = -2.10
S.S.D. = 547

Elev. 249.25

M.L. Access Rd.

K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

Revised As Built R.S. Bailey Jan 30, 1959

131:100

B. P. R. SEC. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	918-1(502)	45	55

PLAN — SURVEYED, PLOTTED, NOTE BOOK, NO., ALIGNMENT CHECKED, PT. OF INT. CHECKED, BY, DATE

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, NO., PROFILE CHECKED, BY M.E.S.R. CHECKED, STRUCTURE NO(S)AT(NOS.) ON K.G.

Main Line
P.I. = 215+64.23
Δ = 13°-48'-89" LT.
D = 2°-00'-00"
T = 345.92'
R = 690.46'
R R L = 2,864.79'

Curve No. 2
P.I. Sta. 3+98.28
T = 153.73'
R = 429.38'
L = 294.87'
Δ = 40° Lt.

Curve No. 1
P.I. Sta. 2+00.00
T = 35.27'
R = 200.00'
L = 69.82'
Δ = 20° Rt.

Profile Grade -0.80%

K·E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

131:101

PROJECT NUMBER	SHEET NO.	SHEETS IN SET
918-1(502)	46	55

257.01

173+00

250

172+50

250

172+00

250

171+50

250

STA. 171+50 to 173+00

1"=10'

131:102 Auburn

ORIGINAL SURVEY	SURVEYED	BY	DATE
FINAL SURVEY	DRAWN		
	TRACED		
	CHECKED		
	APPVD		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	DRAWN		
	TRACED		
	CHECKED		
REVISED	APPVD		
5837	APPVD		

CONTROL NO.	PROJECT	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		918-1(502)	47	58

℄

47'

2:1

179+50

241.53

V=0'/Ft.

V=0'/Ft.

2:1

49'

250

C=1572

R=204

37'

246.69

179+00

46'

250

C=999

24'

2:1

25185

V=0'/Ft.

V=0'/Ft.

173+50

2:1

29'

250

C=259

STA. 173+50 to 179+50

1"=10'

131:103 Auburn

FINAL SURVEY

SURVEYED BY

DRAWN BY

TRACED BY

CHECKED BY

DATE

ORIGINAL SURVEY

SURVEYED BY GALLAWAY-DREW-MILLER-CELLETTER

DATE 3/22/26

TRACED BY

DRAWN BY

CHECKED BY

NO. 3837

ROUTE	SECTION	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		918-1(502)	48	55

℄

122

2:1

176+00

226.05

2:1

118:1

105

240

C = 2372

R = 3820

Sta. 176+00 Lt. to Sta. 177+00 Lt.
Sod the 10' Rounded Ditch

Sta. 176+00 Rt. to Sta. 177+00 Rt.
Sod the 10' Rounded Ditch

67'

2:1

175+50

231.21

2:1

89'

1/4":1ft.

1/4":1ft.

240

C = 1598

R = 1574

41'

2:1

23637

175+00

2:1

53'

1/4":1ft.

1/4":1ft.

240

C = 1444

R = 494

STA. 175+00 to 176+00

1"=10'

131:104

Auburn

℄

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
WASH.	918-1(302)	49	55

177+50
224.50
98
2:1
104
240
C = 2267
F = 15
R = 2148

2:1
108
85
2:1
2:1
177+00
225.00
230
C = 2967
R = 3359

Sta. 176+52 Lt. to Sta. 178+48 Lt.
Install 18"x 200' R.C.P.
100
2:1
176+50
225.51
2:1
112
290
C = 3307
R = 4134
Sta. 176+50 Lt. Install
15"x 54' R.C.P.
Sta. 176+50 Rt. Install
12"x 58' R.C.P.
216B
216B
216B
Sta. 176+50 Lt. Construct Type C-1
Catch Basin in the Ditch
Sta. 176+50 Construct Type B-1
Catch Basin in the Median
Sta. 176+50 Rt. Construct Type C-1
Catch Basin in the Ditch
1"=10'
STA. 176+50 to 177+50
131.105 Auburn

DESIGNED	
DRAWN	
CHECKED	
QUANTITIES	
5834	

STATE OF WASHINGTON
DEPARTMENT OF HIGHWAYS
OLYMPIA, WASHINGTON

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	918-1(502)	50	56

Sta. 178+84 Lt. to Sta. 178+96 Lt.
Construct Hand Laid
Riprap Gutter

Sta. 178+32 Lt. to Sta. 178+84 Lt.
Install 18"x32' R.C.P.

1720

Sta. 178+50 Lt. Construct Type B-2
Catch Basin to Collect the Ditch
Water Along River Road.

178+50

170

Ledge

178+30 Quantity

180

Ledge

178+00

190

STA. 178+00 to 178+50

F = 15

1"=10'

131:106 Auburn

DESIGNED
DRAWN
CHECKED
QUANTITIES
CHECKED
SURVEY BOOK NO. 5834

GALANTIER AVE.
NEAR FARLEY'S MILL

℄

			SHEET NO.	TOTAL SHEETS
		918-1(502)	51	55

178+66 Profile of River Rd.
Along Approx. ℄ (Not for Quantity)

180

178+62 Quantity

180

Pavement

STA. 178+62 - 178+66

1"=10'

℄

131:107 Auburn

		918-1(502)	52	55

℄

Ledge

183+50

170

ICE

STA. 183+00 TO 183+85±

F = 12,426

Elev. 208.0

2:1

2:1

116

183+00

170

141

Sta. 183+00 to Sta. 183+25 Construct Embankment to Elevation 208.0 From Sta. 183+25 Ahead Ramp Embankment Down of a 2:1 Slope

DRAWN	GALANTI, CREW	4/2020
CHECKED	LANUM & BELLEVUE	4/2020
SHEET	5988	

182+50

170

STA 182+50 to 183+50

1"=10'

℄

131::108 BOXER ISLAND

		PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		918-1(502)	53	58

℄

231.75

193+00

200

192+50

190

Ledge

192+30 Quantity

180

STA. 192+30 to 193+00

1"=10'

131:10.9 LEWISTON

DESIGNED		
DRAWN		
CHECKED		
QUANTITIES		
CHECKED		

GALLANT & DREW
LATHAM & PELLETIER

3/70
3/70

3859

			9/8-1(502)	54	55

235.75

76 — 88

195+50

230

Sta. 195+50 - 196+50 Lt.
Sod The 10' Rounded Ditch

C = 588
F = 389
R = 611

234.75

6:1 — 73

86

Sta. 195+00 Rt. to Sta. 196+50 Rt.
Sod the 10' Rounded Ditch

195+00

220

C = 60
F = 1433

233.75

4:1 — 4:1

105 — 83

194+50

220

F = 2963

232.75

4:1

121 — 97

194+00

210

F = 4326

231.75

2:1 — 2:1

94 — 79

193+50

200

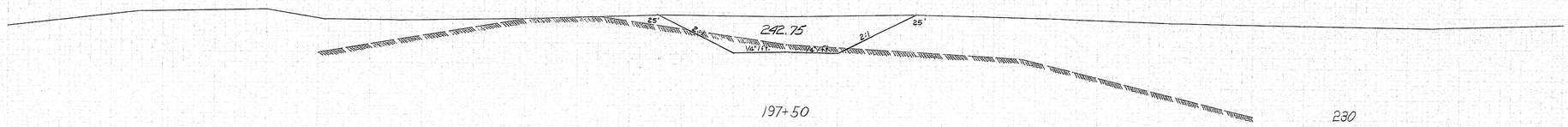
1:10'

STA. 193+50 to 195+50

131:110, LEWISTON

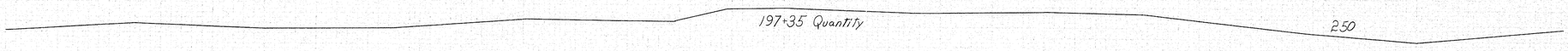
		3/8-1(502)	55	56

℄



197+50

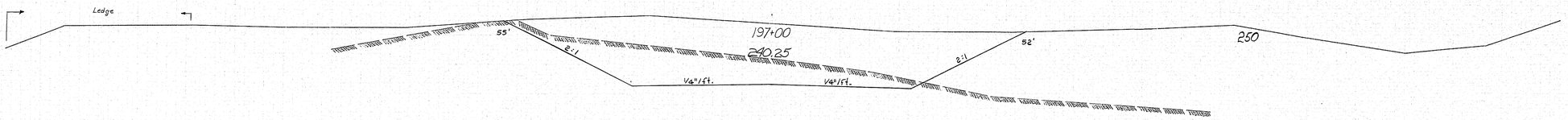
230



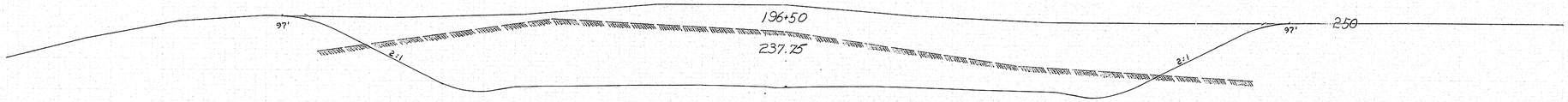
197+35 Quantity

250

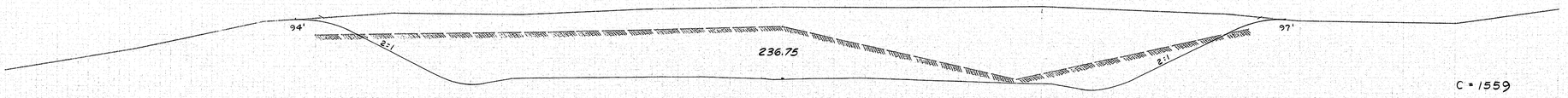
C = 789
R = 422



C = 1502
R = 1576



C = 1928
R = 2178



196+00

230

C = 1559
R = 1587

1"=10'

STA. 196+00 to 197+50

131:111 LEWISTON

℄

DATE	INITIALS	PROJECT DESCRIPTION	SHEET NO.	TOTAL SHEETS
		9/8-1(502)	56	58

℄

200+00

240

799+50

240

199+00

240

C = 35

247.75

13' 1/4"/Ft. 1/4"/Ft. 14'

240

198+50

230

C = 96

245.25

15' 1/4"/Ft. 1/4"/Ft. 16'

240

198+00

230

C = 244

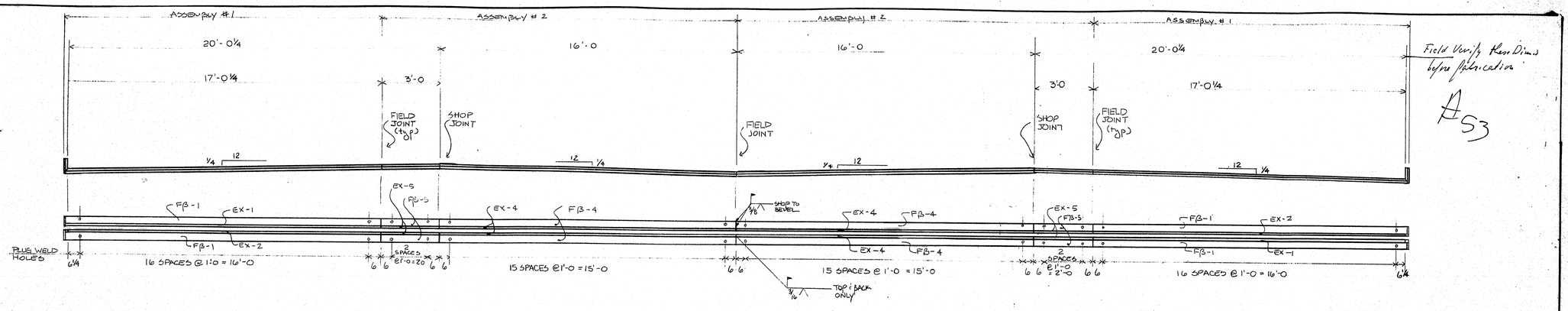
R = 48

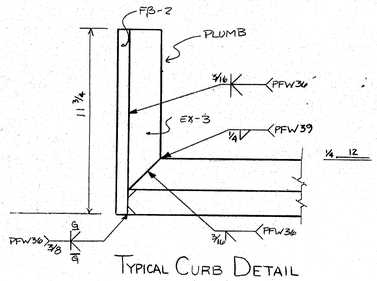
1"=10'

STA. 198+00 to 200+00

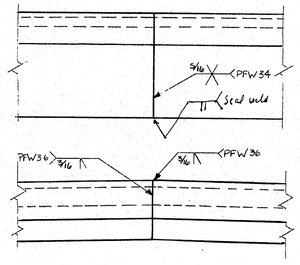
℄

131:112 LEWISTON



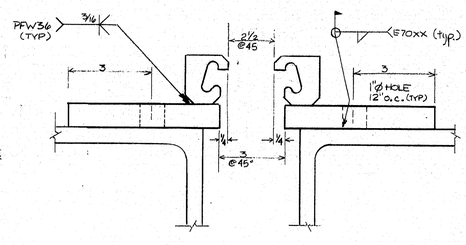


TYPICAL CURB DETAIL



SHOP
TYPICAL JOINT DETAIL

WELD 1¼ R PRIOR TO WELDING ON EXTRUSION



TYPICAL SECTION

BILL OF MATERIALS				
Qty.	Mark	Description	Length	Remarks
4	Assembly # 1			
4	EX-1	Watson Bowman A-3 Extrusion	17'-2 1/4	1¼
4	EX-2	"	17'-2 1/4	1¼
8	EX-3	"	17'-2 1/4	10¼
8	FB-1	PL 1 1/4 x 5	17'-2 1/4	
8	FB-2	PL 1/2 x 5	1'-0	0-11 3/4
4	Assembly # 2			
8	EX-4	Watson Bowman A-3 Extrusion	16'-0	
8	EX-5	"	3'-0	
8	FB-4	PL 1 1/4 x 5	16'-0	
8	FB-5	PL 1 1/4 x 5	3'-0	
2	Seals			
2	SE-1	Watson Bowman SE-500 Seal	73'-8	

NOTES:

1) Seals to be shipped loose for installation after joint completion.

105-298

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☐ Approved As Corrections
MAY - 7 1992
☒ Approved as noted ☐ Rejected
K. Jones
WELDING ENGR.

OFFICE COPY (AN)
RECEIVED APR 13 1992
CHECKED
REVIEWED BY 4/27/92

Material: A-36 DOM, unless otherwise noted.
Bolt Mat'l: N/A, unless otherwise noted.
Welding: To meet AWS D1.1- 90
Holes: 1"ø, unless otherwise noted.
Paint: AS NOTED
Type of Paint: MDOT SPEC. EXM-1
Cleaning: SANDBLAST SSPC-SP10 After Fabrication / Before Fabrication X

Shop Drwgs

VIETNAM VETRANS MEMORIAL BRIDGE
LEWISTON-AUBURN Pro# F-015-1(53)

DRN BY: FJO	P.F.W., INC	NO SCALE
CHK BY: RHP	NEWPORT, ME	3-10-92
EXPANSION DAM MODIFICATIONS		
REV 1 4/8/92		9768-1

PIN 002915.00

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	2	14

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	West Channel	East Channel	Ramp "A"	Ramp "D"	TOTAL	UNIT
202.127	Removing of Existing Bituminous Pavement	-	-	0.51	0.49	1	LS
202.128	Removing of Existing Concrete-Curbs & Sidewalks	0.3	0.31	0.20	0.19	1	LS
202.202	Removing Pavement Surface	4829	4429	128	128	9514	SY
403.10	Hot Bituminous Pavement, Grading D	324	297	88	83	792	T
502.26	Structural Concrete Rdwy & SW Slabs on Steel Bridges	0.36	0.36	0.14	0.14	1	LS
502.4712	Silica Fume Additive	208	215	215	208	846	LB
503.12	Reinforcing Steel, Fabricated and Delivered	769	769	413	413	2364	LB
503.13	Reinforcing, Steel Placing	769	769	413	413	2364	LB
506.17	Surface Preparation of Existing Structural Steel	0.25	0.25	0.25	0.25	1	LS
506.173	Field Painting Existing Structural Steel (EXM-1)	0.25	0.25	0.25	0.25	1	LS
508.13	Membrane Waterproofing	0.05	0.05	0.46	0.44	1	LS
514.06	Curing Box for Concrete Cylinders	0.25	0.25	0.25	0.25	1	EA
518.30	Rehab of Structural Concrete Slab-to Reinf. Steel	-	-	220	776	996	SF
518.31	Rehab of Structural Concrete Slab-to below Reinf. Steel	-	-	55	259	314	SF
520.2401	Bridge Joint Modifications	1	-	-	-	1	EA
526.301	Temporary Concrete Barrier-Type I	0.43	0.41	0.08	0.08	1	LS
606.25	Terminal Connector	2	2	2	2	8	EA
606.275	Terminal End-Double Rail-Galvanized Steel	1	1	-	-	2	EA
606.364	Guard Rail, Remove, Modify, and Reset	50	50	50	50	200	LF
606.56	Guard Rail Type 3-Double Rail	2175	1425	-	-	3600	LF
606.77	Breakaway Cable Terminal	1	1	-	-	2	EA
609.13	Vertical Bridge Curb, Type I	11.5	11.5	13.0	12.0	48.0	LF
639.18	Field Office Type "A"	0.25	0.25	0.25	0.25	1	EA
639.22	Testing Facilities Bituminous Mixes	0.25	0.25	0.25	0.25	1	LS
639.23	Testing Facilities Concrete	0.25	0.25	0.25	0.25	1	LS
652.31	Type I Barricade	63	62	50	50	225	EA
652.33	Drum	5	5	5	5	20	EA
652.34	Cone	20	20	20	20	80	EA
652.35	Construction Signs	250	250	250	250	1000	SF
652.361	Maintenance of Traffic Control Devices	0.25	0.25	0.25	0.25	1	LS
652.30	Flashing Arrow Board	1	1	-	-	2	EA
652.38	Flagger	125	125	125	125	500	MH
659.10	Mobilization	0.25	0.25	0.25	0.25	1	LS
506.18	Containment and Pollution Control	0.25	0.25	0.25	0.25	1	LS
506.19	Disposing of Hazardous Material	0.25	0.25	0.25	0.25	1	LS
403.121	Hot Bituminous Pavement, Grading E (Shimming)	10	10	-	-	20	T
409.15	Bituminous Tack Coat, Applied	81	73	-	-	154	G
520.2402	Bridge Joint Modifications	-	1	-	-	1	EA
627.61	4 Inch Solid White Pavement Marking Line	1000	900	200	200	2,300	L.F.
627.62	4 Inch Broken White Pavement Marking Line	950	850	150	150	2,100	L.F.
627.63	4 Inch Solid Yellow Pavement Marking Line	1000	900	200	200	2,300	L.F.
627.67	Removing Pavement Markings	215	195	45	45	500	S.F.
627.69	Temp 4" Plastic Pavement Marking Line, Yellow or White	2,580	2,340	540	540	6000	L.F.

ESTIMATE of LUMP SUM QUANTITIES

502.26	Structural Concrete Rdwy & SW Slabs on Steel Bridges.	3.2	3.3	1.3	1.3	9.1	CY

General Construction Notes:

1. Reinforcing Steel shall have a 2 inch cover unless otherwise noted.

2. Protective coating for concrete surfaces shall be applied to all exposed surfaces of new concrete. Payment shall be considered incidental to related contract items.

3. The new end post stirrups detailed for the project shall be drilled and grouted by a method approved by the Engineer and shall meet in place proof load requirements for unconfined pull out of: #5 bar=11,300 pounds service load, #7 bar=21,600 service load. Proof loading will be the responsibility of the Department and will be done at the discretion of the Engineer. Minimum set time for proof loading shall be specified by the Contractor. The minimum proof loading obtained will be 150% of service load. Payment for labor, materials and all incidentals required to complete this work shall be considered incidental to Item 503.13, Reinforcing Steel Placing.

4. Existing reinforcing steel to remain shall be cleaned as directed prior to placing new concrete.

5. The existing concrete shall be removed so as not to damage existing vertical and horizontal steel in the abutments or the existing bent bars in the curbs. Any damaged reinforcing steel shall be replaced at the Contractor's expense.

6. The Contractor's operations shall be conducted such that traffic will not travel on an unsurfaced concrete deck at any time. Existing bituminous pavement shall be removed and new bituminous pavement shall be placed to facilitate this requirement.

7. All utility facilities shall be adjusted by the respective utilities unless noted. Utilities:

8. The top of the concrete slab where concrete has been removed or rehabilitated shall be prepared to a suitable surface to receive the membrane waterproofing by a method approved by the Engineer. Payment for all labor, materials, and equipment will be incidental to related contract items.

9. Removal of existing bituminous pavement on Ramps A and D will be paid for under Item 202.127, Removing of Existing Bituminous Pavement. Removal of existing pavement surfaces on the Vietnam Veterans Memorial bridges and all approaches will be paid for under Item 202.202, Removing Pavement Surface.

10. Removal of existing concrete end posts shall be considered incidental to Item 202.128 Removing of Existing Concrete-Curbs and Sidewalks.

11. Removal and resetting of electrical junction boxes at the end posts shall be considered incidental to related contract items.

12. Removal of existing concrete median barrier pads and anchor bolts shall be considered incidental to related contract items.

13. Patching of membrane at existing median barrier posts, modified expansion joints, and new median barrier posts shall be considered incidental to Item 508.13, Membrane Waterproofing.

14. Excavation and filling required for installation of end posts shall be considered incidental to related contract items.

15. Removal and resetting of approach curbing required for installation of end posts shall be considered incidental to related contract items.

105-8

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

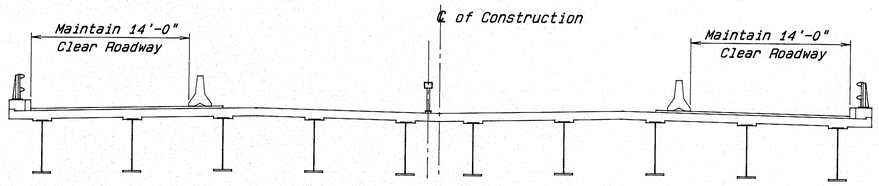
WEARING SURFACE REPLACEMENT
AT
VIETNAM VETERANS MEM. BRIDGE
RAMP A AND RAMP D
IN THE CITIES OF
LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

ESTIMATED QUANTITIES & GENERAL NOTES

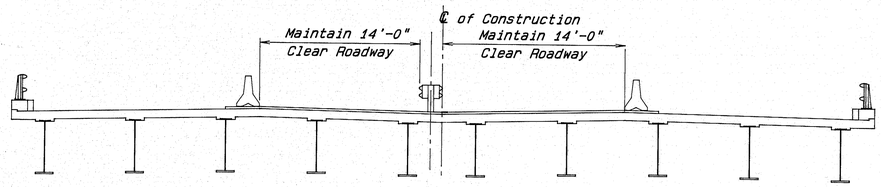
SHEET 2 OF 14 AUGUSTA, MAINE AUGUST 1991

PIN 002915.00

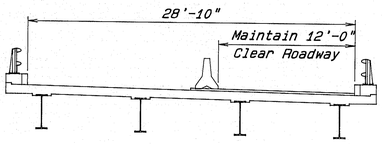
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	3	14



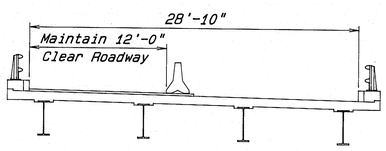
EAST & WEST CHANNELS-STAGE I



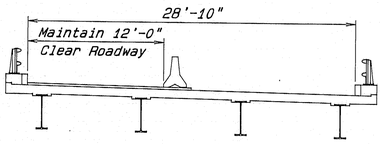
EAST & WEST CHANNELS-STAGE II



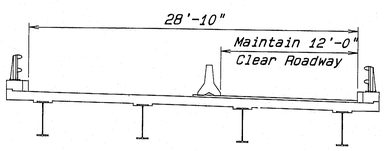
RAMP D-STAGE I



RAMP A-STAGE I



RAMP D-STAGE II



RAMP A-STAGE II

SEQUENCE OF CONSTRUCTION

STAGE I

EAST AND WEST BRIDGES
NORTH LANE OF WESTBOUND, SOUTH LANE OF EASTBOUND

Install traffic control devices to maintain 14'-0" minimum clear roadway.

Remove and replace median barrier.

Remove existing bituminous pavement surface.

Modify expansion joints.

Retrofit existing end posts and bridge rail transitions.

Place hot bituminous pavement overlay

RAMP A AND RAMP D
SOUTH SIDE OF RAMP A AND NORTH SIDE OF RAMP D

Install traffic control devices to maintain 12'-0" minimum clear roadway.

Remove existing bituminous pavement.

Rehabilitate superstructure slab.

Retrofit existing end posts and bridge rail transitions.

Place membrane waterproofing and hot bituminous pavement.

STAGE II

EAST AND WEST BRIDGES
SOUTH LANE OF WESTBOUND, NORTH LANE OF EASTBOUND

Reset traffic control devices to maintain 14'-0" minimum clear roadway.

Remove existing bituminous pavement surface.

Modify expansion joints.

Retrofit existing end posts and bridge rail transitions.

Place hot bituminous pavement overlay.

RAMP A AND RAMP D
NORTH SIDE OF RAMP A AND SOUTH SIDE OF RAMP D

Reset traffic control devices to maintain 12'-0" minimum clear roadway.

Remove existing bituminous pavement.

Rehabilitate superstructure slab.

Retrofit existing end posts and bridge rail transitions.

Place membrane waterproofing and hot bituminous pavement.

Paved W.S. Curb to Curb (No cold Jts.)

105-9

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

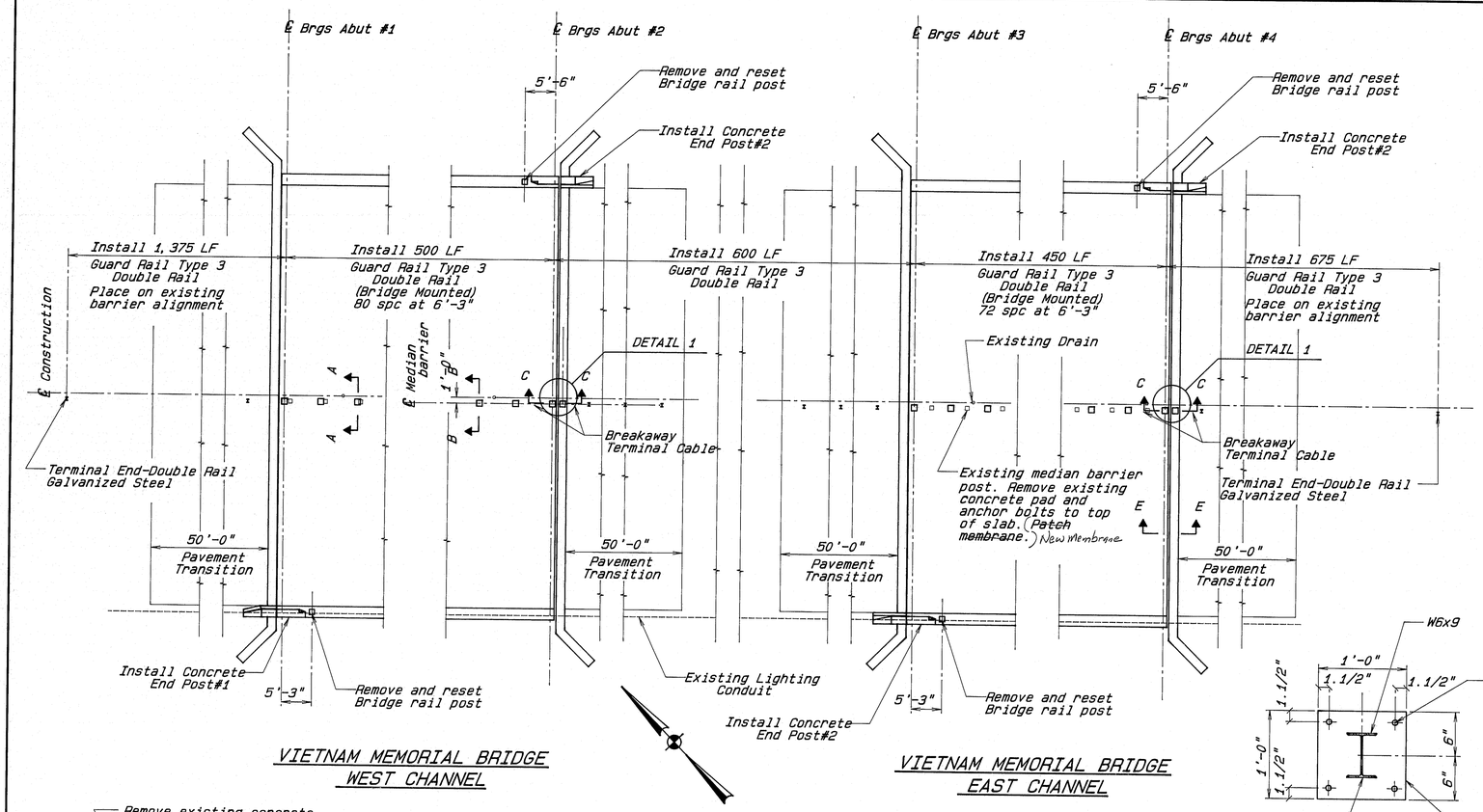
WEARING SURFACE REPLACEMENT
AT
VIETNAM VETERANS MEM. BRIDGE
RAMP A AND RAMP D
IN THE CITIES OF
LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

SEQUENCE OF CONSTRUCTION

SHEET 3 OF 14 AUGUSTA, MAINE AUGUST 1991

PIN 002915.00

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	4	14



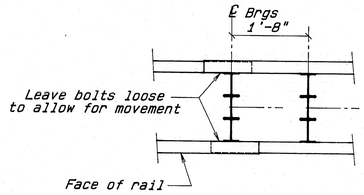
Notes:

1. Remove, modify and reset 25 linear feet of existing guard rail and posts and place modified guard rail and posts at modified end posts in accordance with Standard Details BD201. Install additional rail lengths required to match new end posts. Payment will be made under item 606.364 Guard Rail, Remove, Modify and Reset.

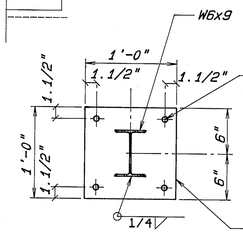
2. All curb and end post concrete shall contain a Silica Fume Additive.

3. Gland Seals shall have a minimum movement rating of 5". For Gland Seal details and dimensions not shown, refer to BD 302.

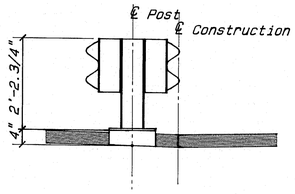
4. Payment for all labor, materials and equipment necessary for attaching the median barrier to the concrete slab and for removing and resetting existing bridge rail posts shall be considered incidental to related contract items.



DETAIL 1

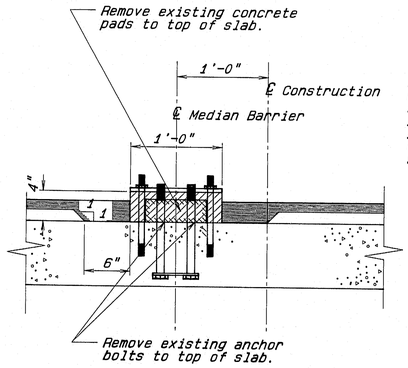


SECTION D-D



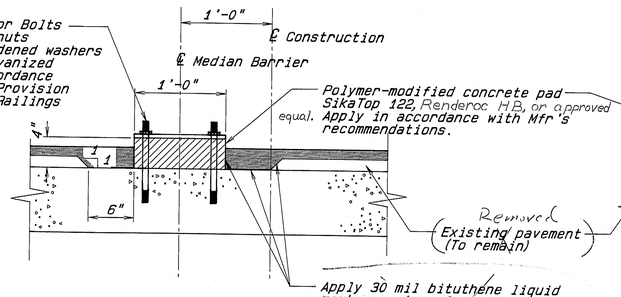
TYPICAL BARRIER DETAIL

105-10

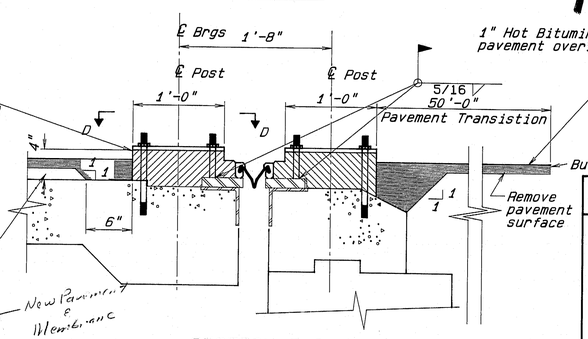


SECTION A-A

For details not shown refer to Section B-B



SECTION B-B



SECTION C-C

For details not shown refer to Section B-B

Refer to sheet 5 for Section E-E

LEGEND

- Existing Concrete (to remain)
- New Concrete
- Existing Concrete (to be removed)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE REPLACEMENT AT VIETNAM VETERANS MEM. BRIDGE RAMP A AND RAMP D

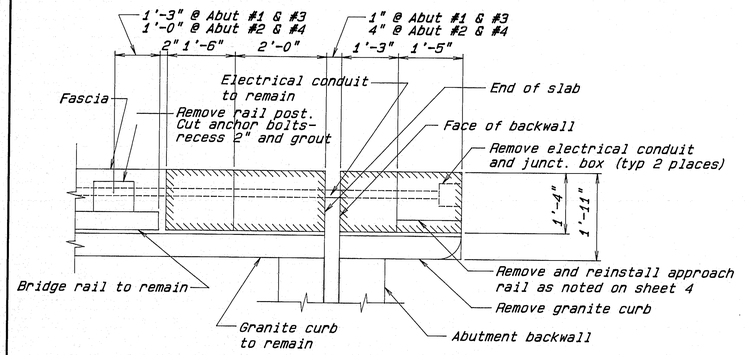
IN THE CITIES OF

LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

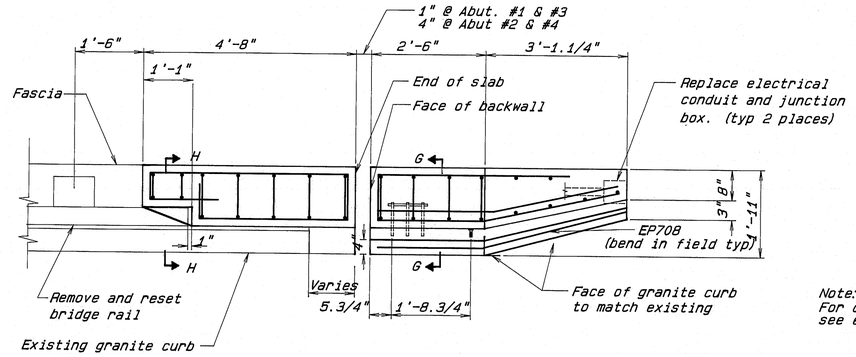
SUPERSTRUCTURE DETAILS

PIN 002915.00

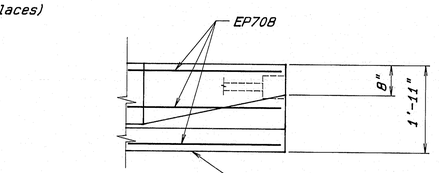
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	5	14



EXISTING END POST PLAN-TYPICAL

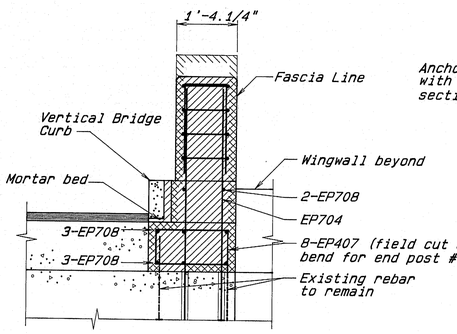


PLAN-END POST #1

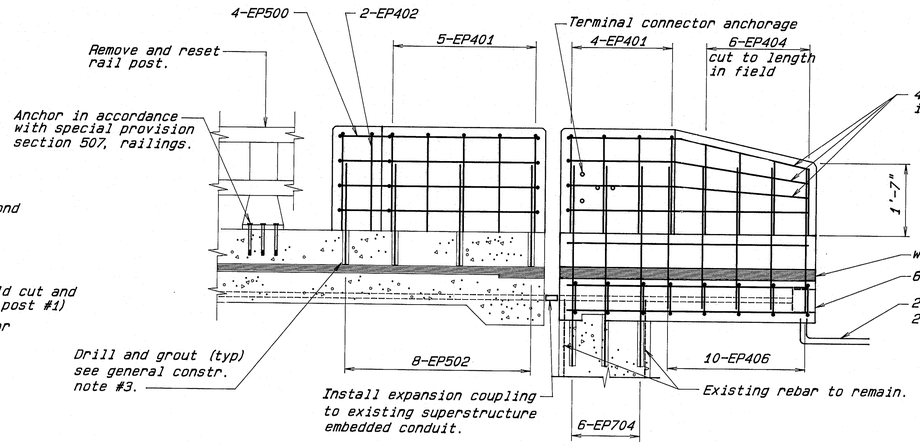


Note:
For details not shown see end post #1

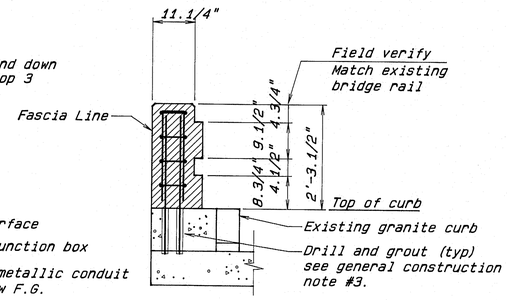
PARTIAL PLAN-END POST #2



SECTION G-G



PLAN-END POST #1

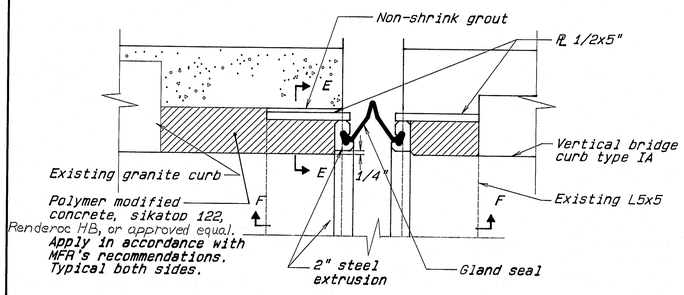


SECTION H-H

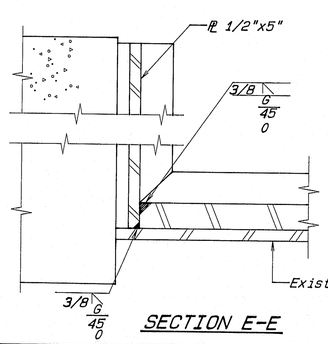
End Post Notes:

1) Refer to BD-201-89 for details not shown.

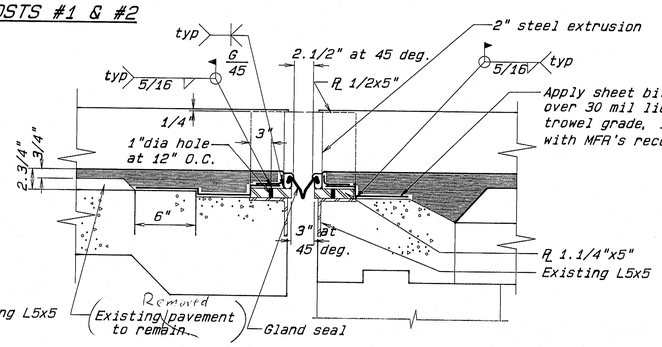
ELEVATION END POSTS #1 & #2



PARTIAL PLAN - GLAND SEAL AND CURB



SECTION E-E



SECTION F-F

105-11

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE REPLACEMENT
AT
VIETNAM VETERANS MEM. BRIDGE
RAMP A AND RAMP D
IN THE CITIES OF
LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

CONCRETE END POSTS

SHEET 5 OF 14 AUGUSTA, MAINE AUGUST 1991

PIN 002915.00

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	6	14

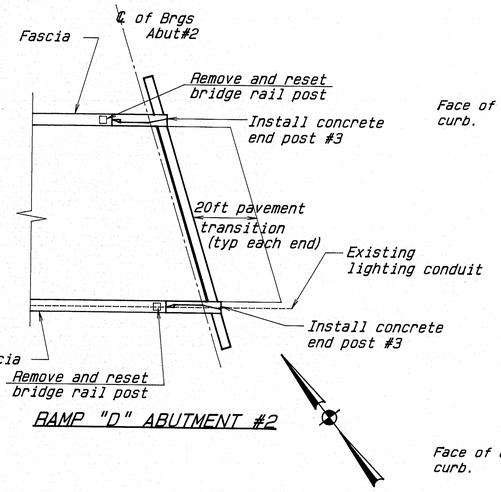
Notes:

1. Remove, modify and reset 25 linear feet of existing gurard rail and posts and place modified guard rail and posts at modified end posts in accordance with Standard Details BD201. Payment will be made under item 606.364 Guard Rail, Remove, Modify and Reset.

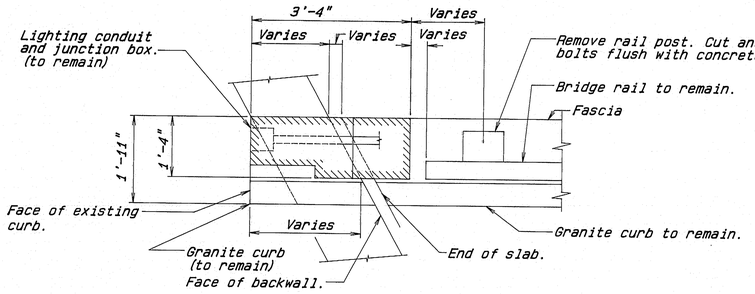
2. All curb and end post concrete shall contain a Silica Fume Additive.

3. Payment for all labor, materials and equipment necessary for removing and resetting existing bridge rail posts shall be considered incidental to related contract items.

4. For details not shown, refer to Standard Details BD 201.

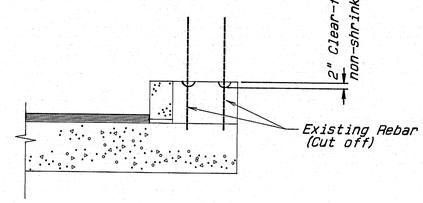


RAMP "D" ABUTMENT #2

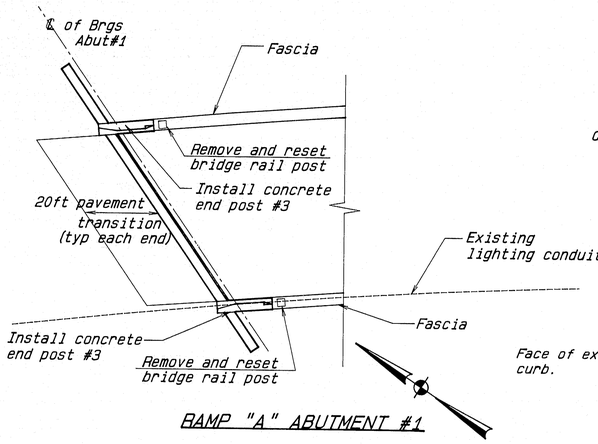


EXISTING END POST PLAN-TYPICAL

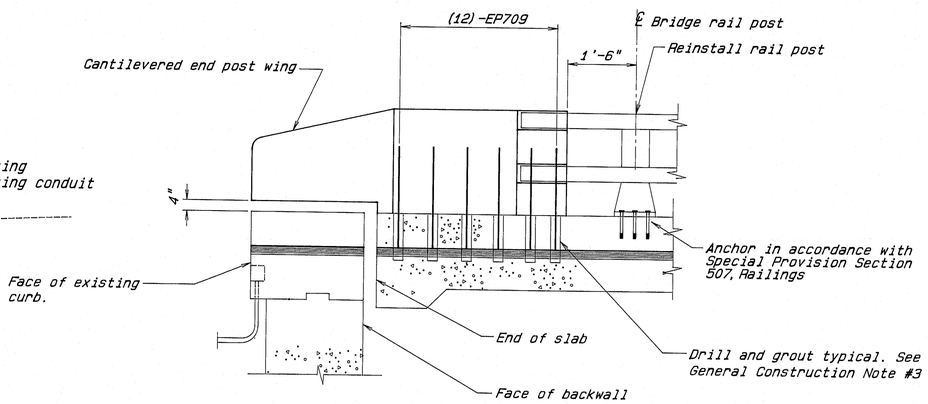
PLAN-END POST #3-TYPICAL



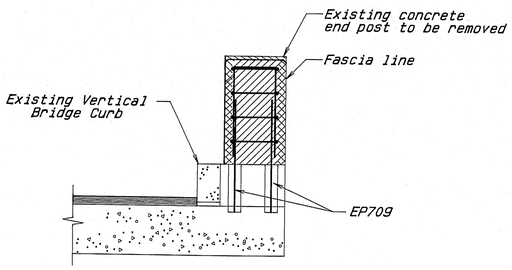
SECTION J-J



RAMP "A" ABUTMENT #1



ELEVATION-END POST #3-TYPICAL



SECTION H-H 105-12

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

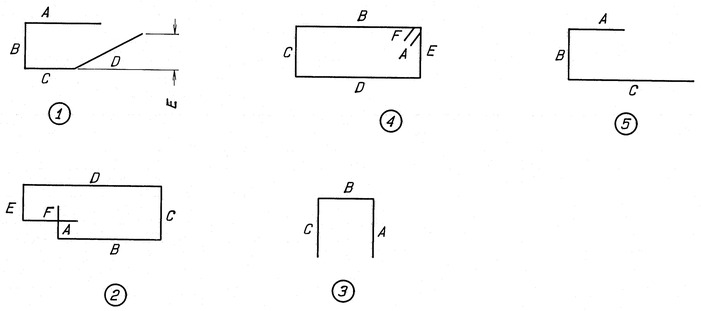
WEARING SURFACE REPLACEMENT
AT
VIETNAM VETERANS MEM. BRIDGE
RAMP A AND RAMP D
IN THE CITIES OF
LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

CONCRETE END POSTS

SHEET 6 OF 14 AUGUSTA, MAINE AUGUST 1991

REINFORCING STEEL SCHEDULE

BENT BARS



MARK	SIZE	TYPE	NO.	LENGTH	A	B	C	D	E	F	LOCATION
						WEST BRIDGE					
EP401	#4	3	18	4'-11"	2'-0"	0'-11"	2'-0"				END POST # 1 & #2
EP402	#4	3	4	4'-6"	2'-0"	0'-6"	2'-0"				END POST # 1 & #2
EP407	#4	4	16	5'-2"	0'-5"	1'-7"	0'-7"	1'-7"	0'-7"	0'-5"	END POST # 1 & #2
EP500	#5	2	8	11'-7"	0'-8"	3'-3"	1'-0"	4'-4"	0'-7"	1'-9"	END POST # 1 & #2
EP705	#7	1	8	10'-9"	4'-5"	1'-0"	2'-3"	3'-1"	0'-8"		END POST # 1 & #2
						EAST BRIDGE					
EP401	#4	3	18	4'-11"	2'-0"	0'-11"	2'-0"				END POST # 1 & #2
EP402	#4	3	4	4'-6"	2'-0"	0'-6"	2'-0"				END POST # 1 & #2
EP407	#4	4	16	5'-2"	0'-5"	1'-7"	0'-7"	1'-7"	0'-7"	0'-5"	END POST # 1 & #2
EP500	#5	2	8	11'-7"	0'-8"	3'-3"	1'-0"	4'-4"	0'-7"	1'-9"	END POST # 1 & #2
EP705	#7	1	8	10'-9"	4'-5"	1'-0"	2'-3"	3'-1"	0'-8"		END POST # 1 & #2
						RAMP A					
EP401	#4	3	8	4'-11"	2'-0"	0'-11"	2'-0"				END POST # 3
EP402	#4	3	4	4'-6"	2'-0"	0'-6"	2'-0"				END POST # 3
EP700	#7	5	8	7'-10"	1'-9"	0'-7"	5'-6"				END POST # 3
EP701	#7	1	8	6'-8"	0'-0"	1'-0"	2'-7"	3'-1"	0'-8"		END POST # 3
						RAMP D					
EP401	#4	3	8	4'-11"	2'-0"	0'-11"	2'-0"				END POST # 3
EP402	#4	3	4	4'-6"	2'-0"	0'-6"	2'-0"				END POST # 3
EP700	#7	5	8	7'-10"	1'-9"	0'-7"	5'-6"				END POST # 3
EP701	#7	1	8	6'-8"	0'-0"	1'-0"	2'-7"	3'-1"	0'-8"		END POST # 3
MARK	SIZE	TYPE	NO.	LENGTH	A	B	C	D	E	F	LOCATION

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
		WEST BRIDGE		
EP404	#4	12	2'-0"	END POST #1 & #2
EP406	#4	20	3'-0"	END POST #1 & #2
EP502	#5	16	2'-6"	END POST #1 & #2
EP704	#7	12	4'-3"	END POST #1 & #2
EP708	#7	16	5'-3"	END POST #1 & #2
		EAST BRIDGE		
EP404	#4	12	2'-0"	END POST #1 & #2
EP406	#4	20	3'-0"	END POST #1 & #2
EP502	#5	16	2'-6"	END POST #1 & #2
EP704	#7	12	4'-3"	END POST #1 & #2
EP708	#7	16	5'-3"	END POST #1 & #2
		RAMP A		
EP400	#4	12	2'-0"	END POST #3
EP709	#7	24	2'-6"	END POST #3
		RAMP D		
EP400	#4	12	2'-0"	END POST #3
EP709	#7	24	2'-6"	END POST #3

MARK	SIZE	NO.	LENGTH	LOCATION

PIN 002915.00

F.H.W.A. REF. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(53)	7	14

GENERAL NOTES:

1. First digits following the letter of the mark indicates size of reinforcing steel.

   Mark (A500) Bar size=#5
   Mark (P1001) Bar size=#10
   Mark (S603) Bar size=#6

2. Letter of marks A, EP, P, & S locates bars of abutments, end post, piers & superstructure respectfully.

3. All dimensions are out to out of reinforcing bar.

4. Bending details and hooks shall conform to the recommendations of ACI Standard 318-89

5. Reinforcing Bar: ASTM A615 Grade 60.

105-13

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

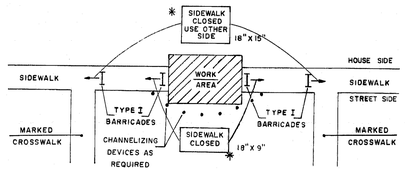
WEARING SURFACE REPLACEMENT
AT
VIETNAM VETERANS MEM. BRIDGE
RAMP A AND RAMP D
IN THE CITIES OF
LEWISTON AND AUBURN
ANDROSCOGGIN COUNTY

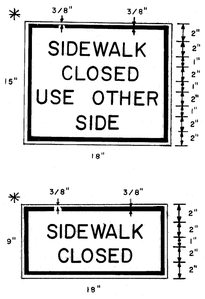
REINFORCING STEEL SCHEDULE

SHEET 7 OF 14 AUGUSTA, MAINE AUGUST 1991

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	F-015-1(53)	12	14

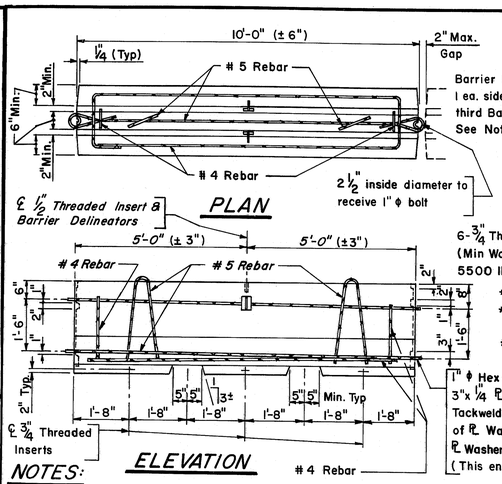
* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT AND BORDER-2" SERIES C UPPER CASE LETTERS

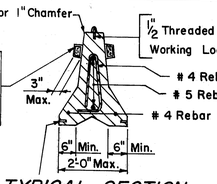


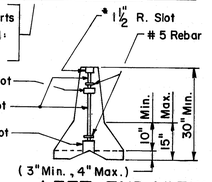


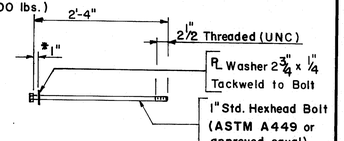
SIDEWALK CLOSURE WITHOUT ALTERNATE SIDEWALK

A









* The slots may be 2 1/4" radius full heigh with the 1" space on the Connecting Bolt increased to 4"

TEMPORARY CONCRETE BARRIER-TYPE I

NOTES:

1. Subject to approval by the Engineer end connections other than the one detailed may be used, provided they are of equivalent or greater strength. All end connections submitted for approval shall incorporate a connecting pin or other locking device that is positively secured against accidentally being dislodged under impact.
2. The reinforcing steel shown is the minimum required. Lifting arrangement and size and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate lifting points and hold-down arrangements.
3. Barrier Delineators shall be bi-directional with a minimum effective reflective area of 8.0 square inches as approved by the Engineer. The Reflector shall preferably be of Methyl Methacrylate, and the Housing of Acrylonitrile Butadiene Styrene. As an alternate reflectors may be mounted on the top of the barrier.

F

GENERAL NOTES

1. Distances shown for sign placement are nominal, exact locations shall be determined by the Engineer.
2. Grades on temporary roadways through the construction zone used by the public shall not exceed 10 percent.
3. Advisory speed consistant with prevailing conditions shall be as determined by the Engineer.
4. Use snaded signs when specified in the Special Provisions.
5. The length of tapers shall be determined from the following formulae:

   If S is equal to or less than 40 MPH
   L = (W x S x S) / 60

   If S is equal to or greater than 45 MPH
   L = WS

   Where:

   L = taper length in feet
   S = operating speed in MPH
   W = width of roadway to be closed in feet

   Taper lengths shall be rounded to the nearest five feet.

   It may be required to extend lane closure tapers to provide a smooth transition where geometric alignment reduces sight distance.

6. The maximum longitudinal spacing of channelizing devices shall conform to the following:
   (a) 50 feet through work areas
   (b) A distance in tapers equal to the numerical value of the operating speed, i.e., 45 MPH = 45 feet
   (c) In all areas not covered above maximum spacing shall be as follows:

Radius of curve	Spacing
50' to 300'	25'
301' to 700'	50'
701' to 1000'	75'
over 1000'	5 times the operating speed

   The maximum transverse spacing in tapers shall be determined from the the following formula:

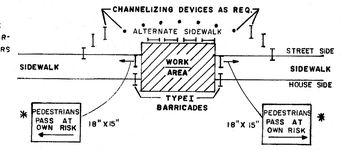
   D = (W x S) / L

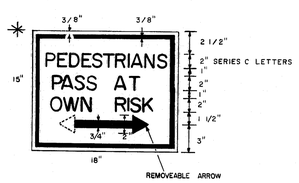
   Where:

   D = transverse spacing in feet
   W = width of roadway to be closed in feet
   L = taper length in feet
   S = operating speed in MPH

7. BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET. 105-14

* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT AND BORDER-2" SERIES C UPPER CASE LETTERS

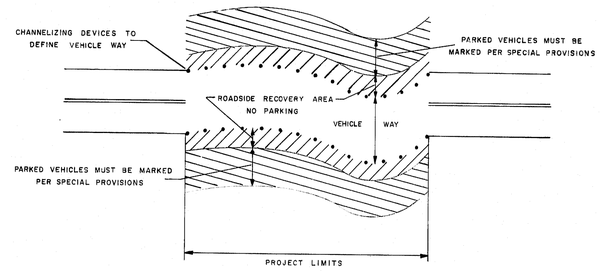




SIDEWALK CLOSURE WITH ALTERNATE SIDEWALK

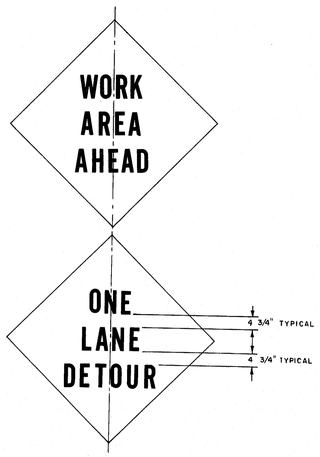
B

ALL DIMENSIONS AND OTHER REQUIREMENTS AS SPECIFIED IN THE SPECIAL PROVISIONS



ROADSIDE RECOVERY AREA

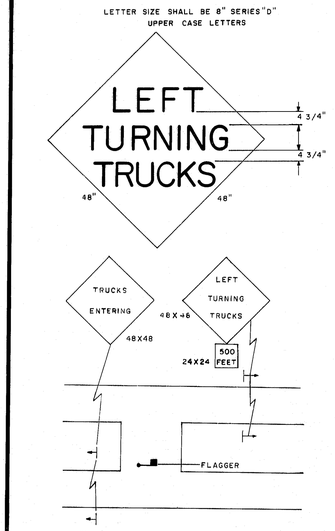
C



1. Letter size shall be 8" Series 'D'.
2. Border dimensions and legend design shall conform to "Standard Highway Signs".

CONSTRUCTON WARNING SIGN DETAIL

D



MEDIAN CROSSOVER

E

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

REVISIONS Description	APPROVED Me. DOT	FHWA
Original Plan	Feb. 1989	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

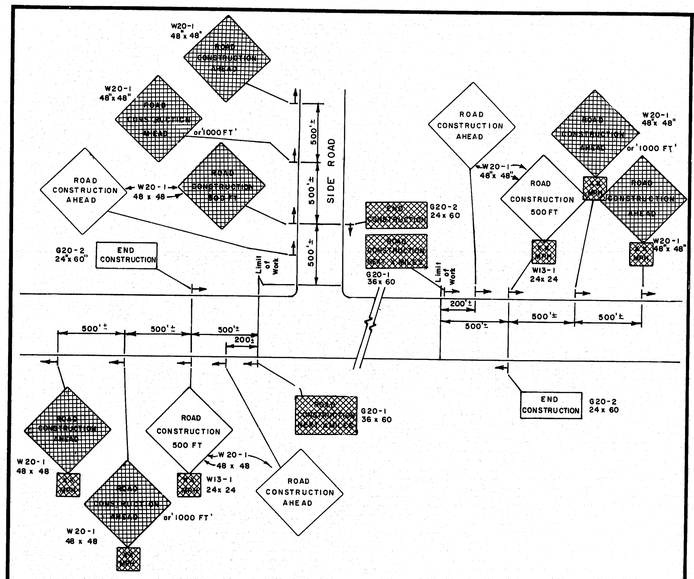
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

SHEET 12 OF 14 AUGUSTA, MAINE (HD - 10)

JANUARY 1961

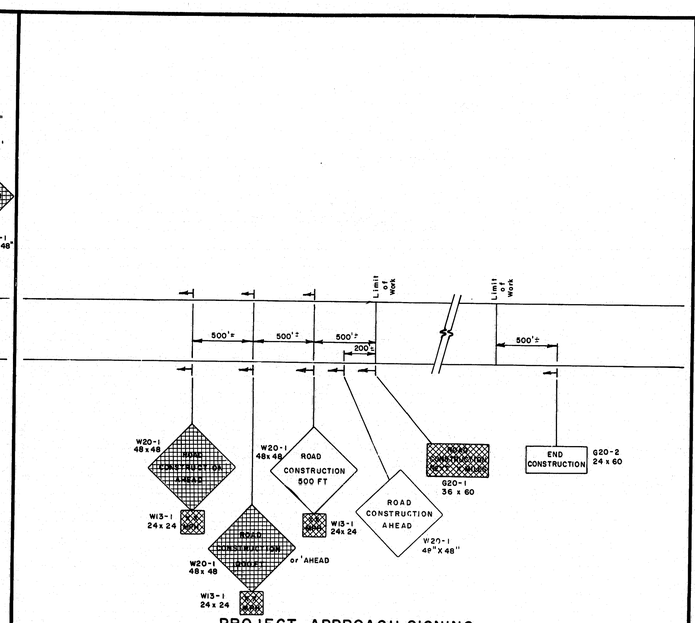
2054 2000

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(63)	13	14



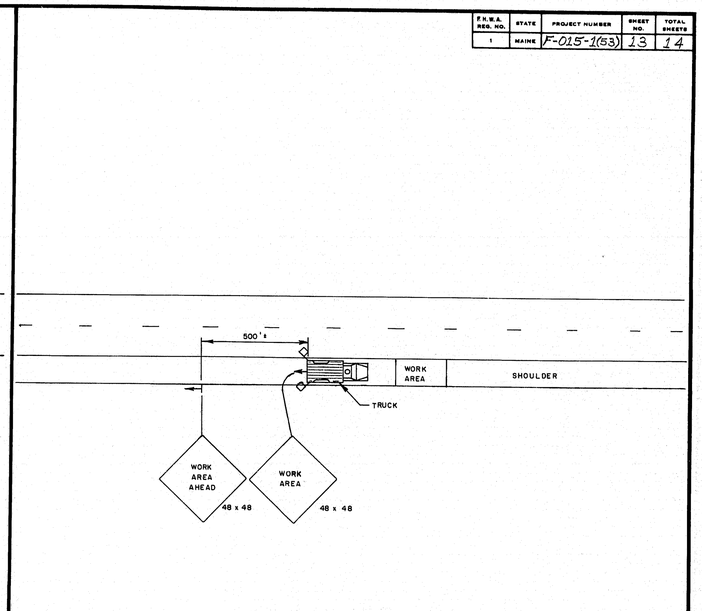
PROJECT APPROACH SIGNING
Two Way Traffic

A



PROJECT APPROACH SIGNING
Expressway

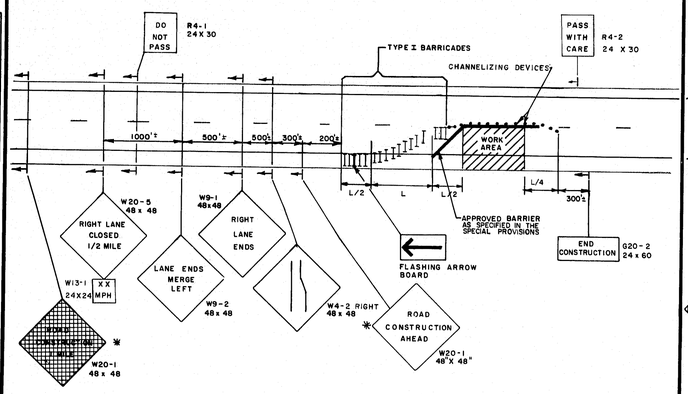
B



SHOULDER WORK - MOBILE

C

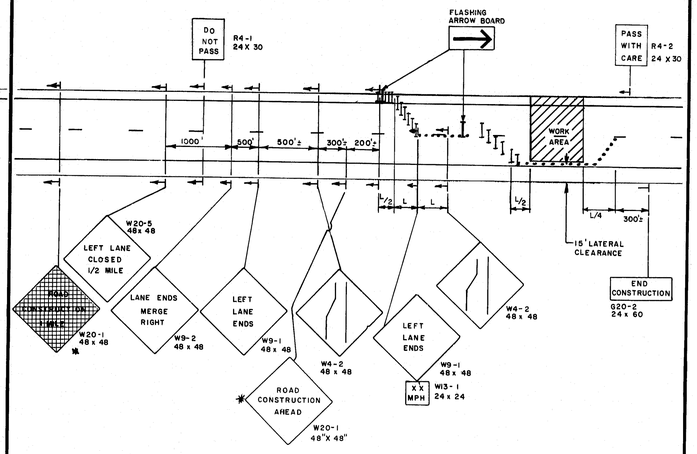
NOTE
* OMIT W20-1 IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.
ALTER PAVEMENT MARKINGS AS REQUIRED. MAINTAIN 15 FT LATERAL CLEARANCE.
USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.



EXPRESSWAY LANE CLOSURE

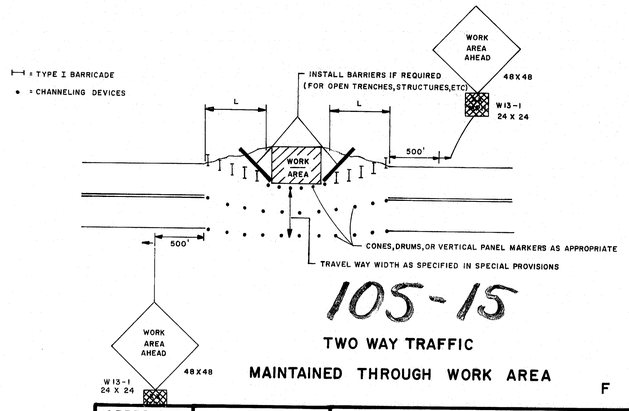
D

NOTE
W20-1 SHALL BE USED ONLY WHEN THE CLOSURE IS THE ACTUAL CONSTRUCTION PROJECT AND NOT A PART THEREOF.
ALTER PAVEMENT MARKINGS AS NECESSARY.
USE SIMILAR SIGNING FOR RIGHT LANE CLOSURE.



TWO LANE CLOSURE - UTILIZING RIGHT SHOULDER

E



105-15

TWO WAY TRAFFIC
MAINTAINED THROUGH WORK AREA

F

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

APPROVED F HWA	REVISIONS		
	1-28-80		
	3-4-80	PLATE "F"	
	4/3/80 PF	D,E	
	5-15-90	A, B, D, E, F	

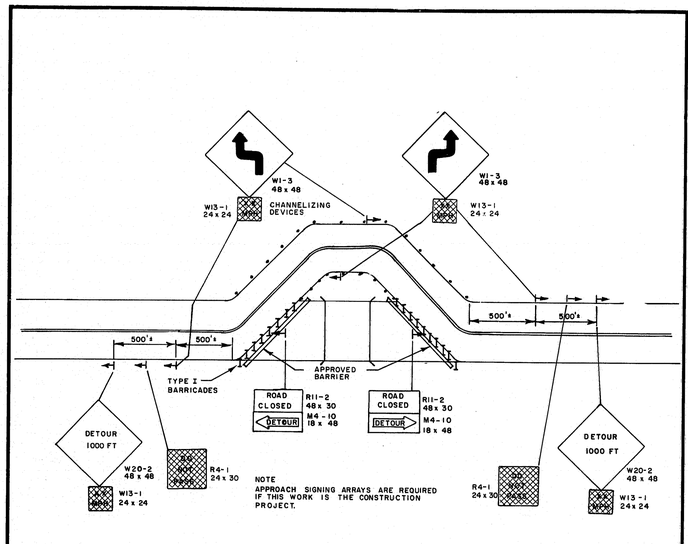
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

SHEET 13 OF 14 AUGUSTA, MAINE (HD - 11)

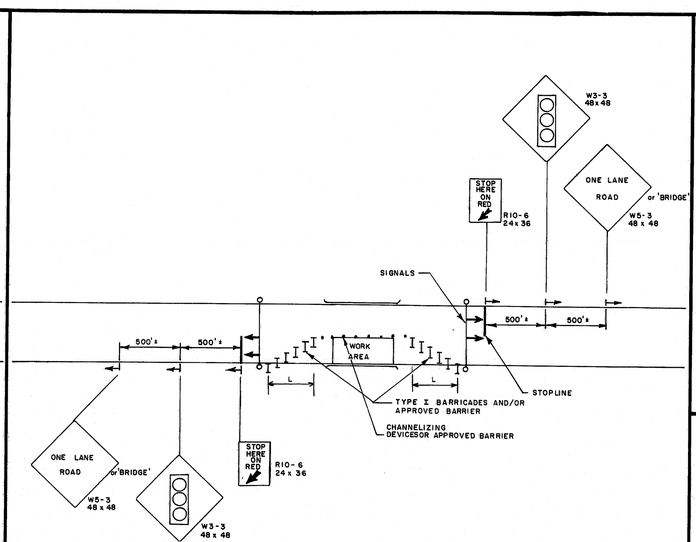
JANUARY 1988

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-015-1(63)	14	14



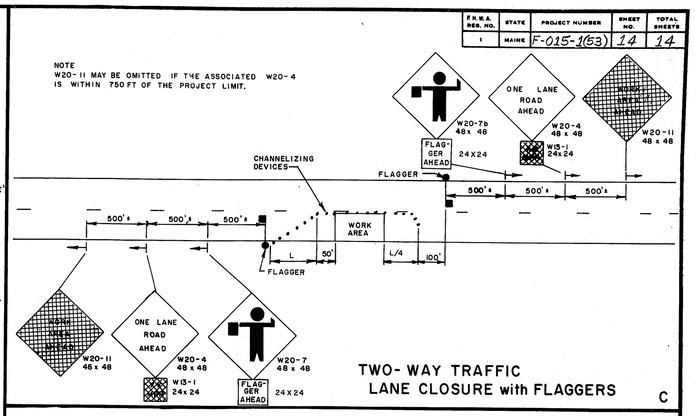
TWO WAY TWO LANE DETOUR

A



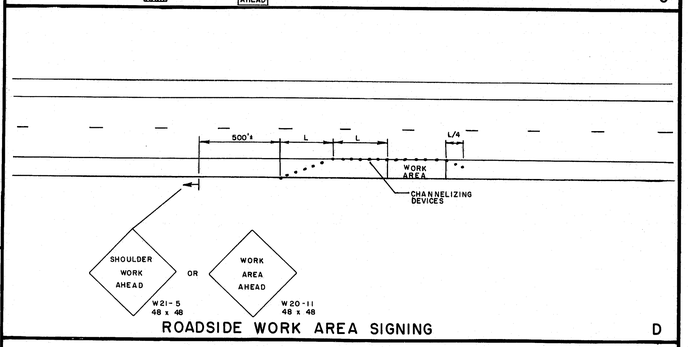
TWO WAY TRAFFIC
LANE CLOSURE
WITH TEMPORARY TRAFFIC SIGNALS

B



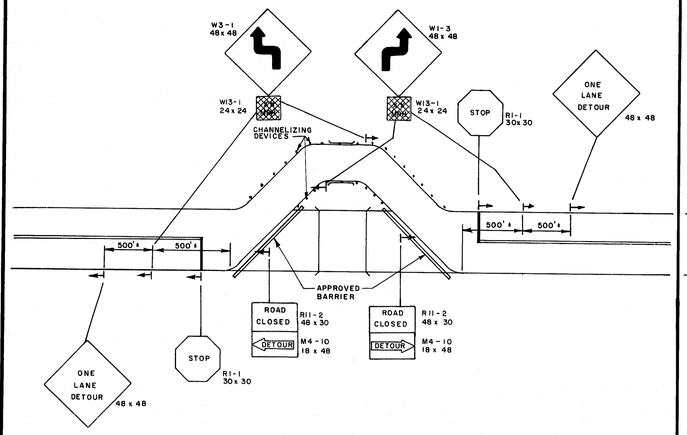
TWO- WAY TRAFFIC
LANE CLOSURE with FLAGGERS

C



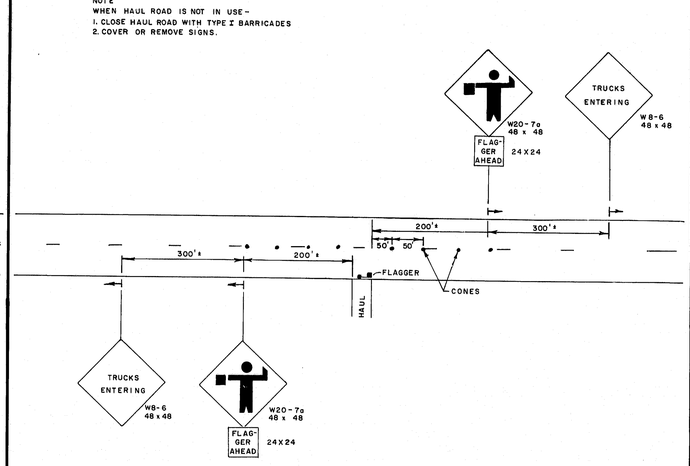
ROADSIDE WORK AREA SIGNING

D



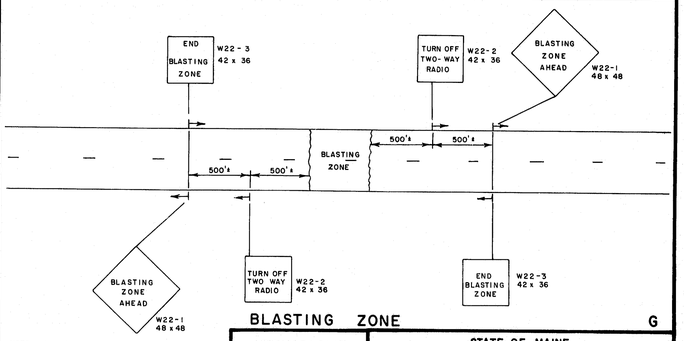
ONE WAY DETOUR

E



HAUL ROADS

F



BLASTING ZONE

G

NOTE
SIMILAR SIGN SEQUENCE SHALL BE ERECTED ON ALL SIDE ROADS WITHIN 1000FT OF THE BLASTING ZONE.

105-16

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

REVISIONS	
4/3/80 PF	B,C,D

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

SHEET 14 OF 14 AUGUSTA, MAINE (HD - 12)

JANUARY 1968