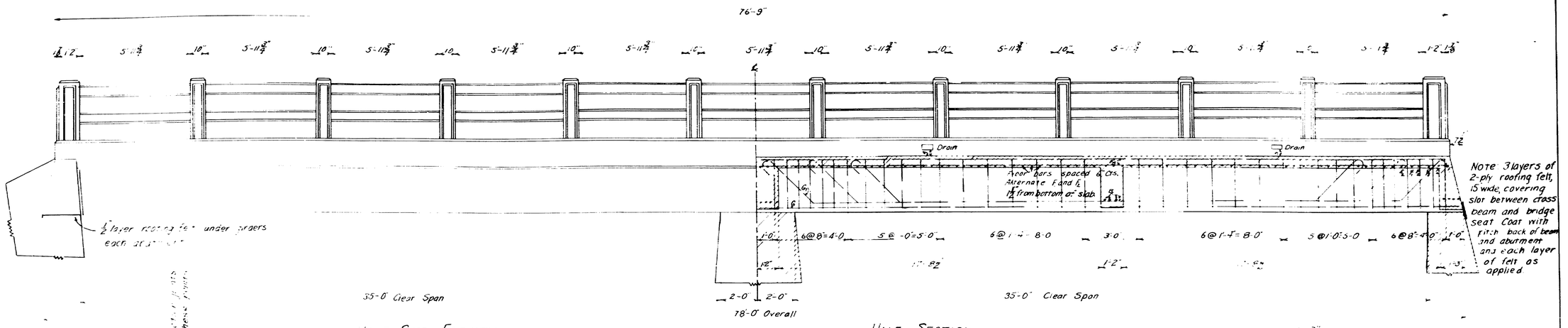
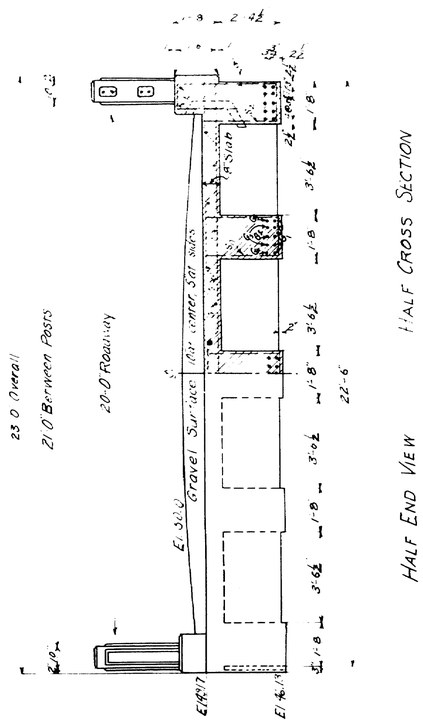


HALF SIDE ELEVATION

HALF SECTION

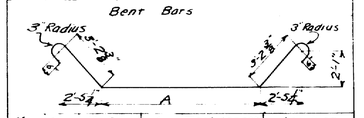


HALF END VIEW

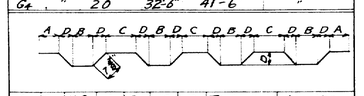
HALF CROSS SECTION

STEEL SCHEDULE – SUPERSTRUCTURE

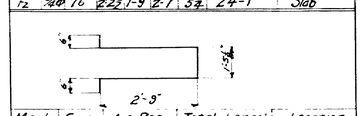
Bent Bars



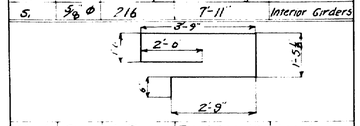
Mark	Size	No. Req.	A	Total Length	Location
G_2	1¼" ϕ	10	22'-9"	31'-9"	Girders
G_3	"	20	27'-7½"	36'-7½"	"
G_4	"	20	32'-6"	41'-6"	"



Mark	Size	No. Req.	A	B	C	D	Total Length	Location
F_2	¾" ϕ	76	2'-2½"	1'-9"	2'-7"	5¼"	24'-1"	Slab



Mark	Size	No. Req.	Total Length	Location
S_1	⅝" ϕ	216	7'-11"	Interior Girders

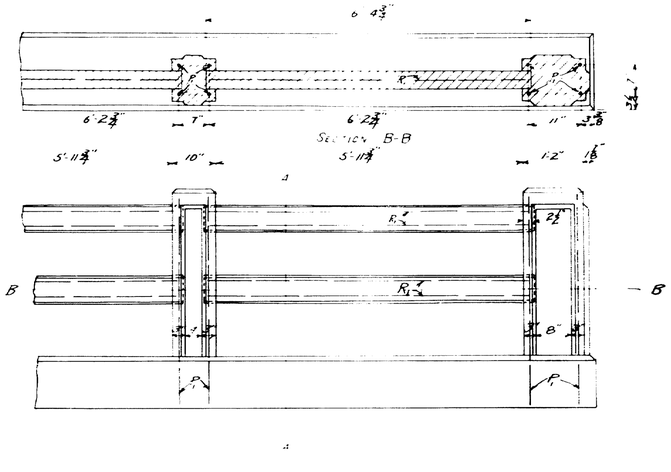


Mark	Size	No. Req.	Total Length	Location
S_2	⅝" ϕ	144	11'-11"	Exterior Girders

Straight Bars

Mark	Size	No. Req.	Total Length	Location
G_1	1¼" ϕ	50	38'-8"	Girders
B_1	¾" ϕ	24	22'-2"	Cross Beams
F_1	⅝" ϕ	78	22'-8	Slab-Transverse
F_3	½" ϕ	32	38'-0"	" -Longitudinal
P_1	⅝" ϕ	96	4'-1"	Posts
R_1	⅝" ϕ	88	6'-3"	Rails

Note: All steel dimensions given along center line of bar.



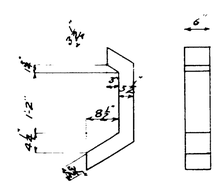
SECTION A-A

DETAIL OF RAIL AND POST CONSTRUCTION

Curb to be cast with slab. Place vertical rods for posts in curb. Precast rail bars in 6'-4¾" sections. Wrap the end 6" of bars with roofing felt, fold in the ends, and build post forms. When the post forms are removed, cut the roofing felt left exposed.

Paneling on posts ⅞" thick.

Chamfer all exposed edges of concrete (½" moulding except where shown as 1").



METAL FORM FOR DRAIN
8 required.

MAINE HIGHWAY COMMISSION

BRIDGE OVER

FIFTEEN MILE STREAM

in the town of

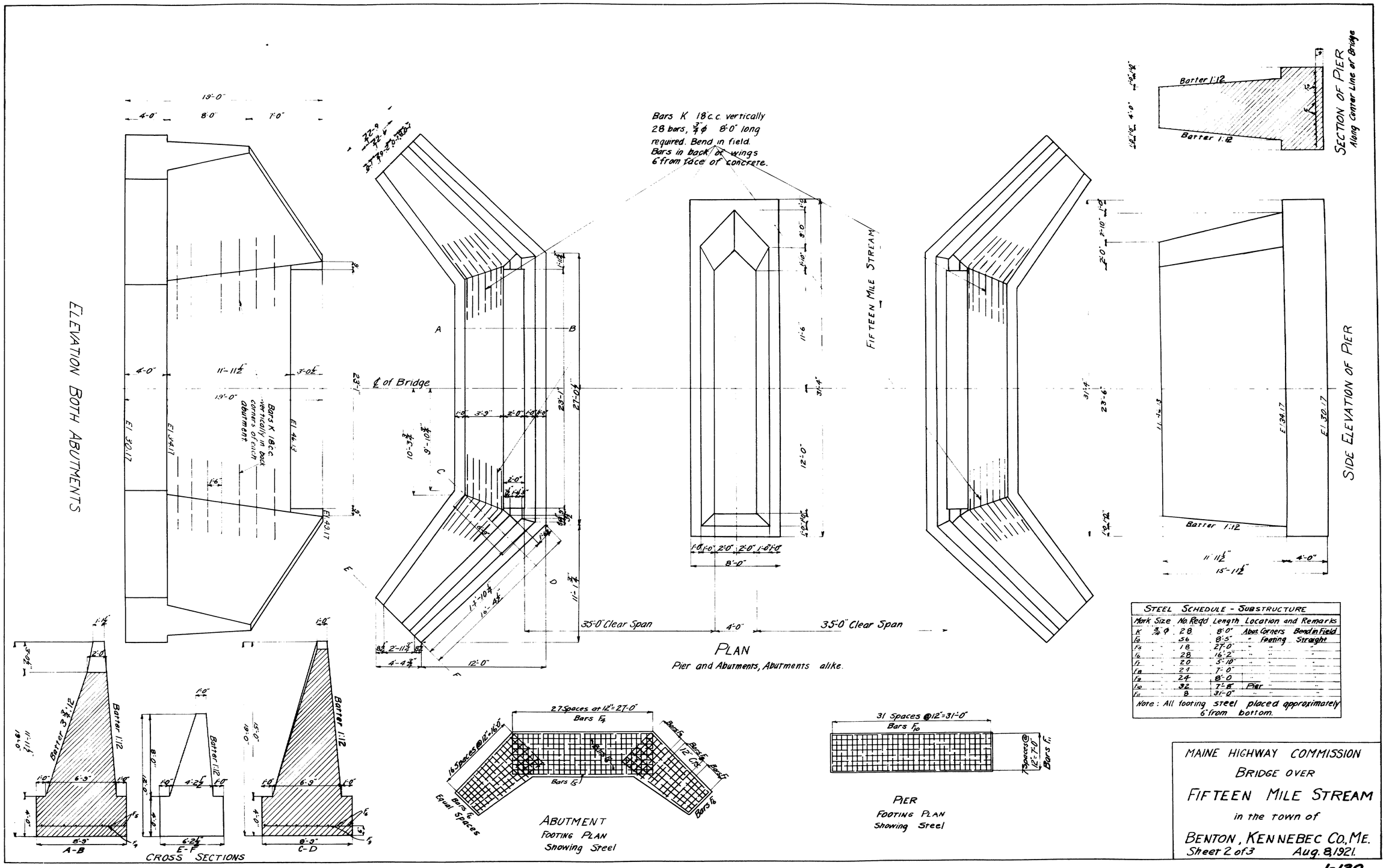
BENTON, KENNEBEC CO., ME.

Sheet 1 of 3 Aug. 8, 1921.

1-138

Drawn by C. [illegible]
Checked by [illegible]

0 1 2 3 4 5 INCHES



STEEL SCHEDULE - SUBSTRUCTURE				
Mark	Size	No. Reqd	Length	Location and Remarks
K	3/4 φ	28	8'-0"	Abut. Corners Bend in Field
F4	"	56	8'-5"	" Footing Straight
F5	"	18	27'-0"	" " "
F6	"	28	16'-2"	" " "
F7	"	20	5'-10"	" " "
F8	"	24	7'-0"	" " "
F9	"	24	8'-0	" " "
F10	"	32	7'-8"	Pier " "
F11	"	8	31'-0"	" " "

Note: All footing steel placed approximately 6" from bottom.

MAINE HIGHWAY COMMISSION

BRIDGE OVER

FIFTEEN MILE STREAM

in the town of

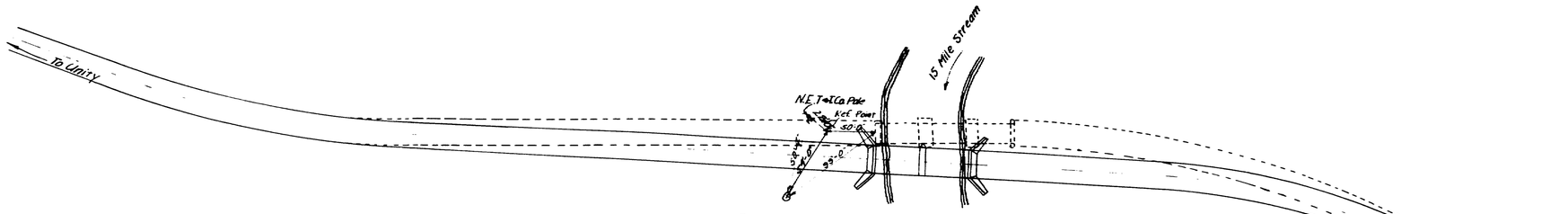
BENTON, KENNEBEC CO., ME.

Sheet 2 of 3 Aug. 8, 1921.

1-139

Dk. vn by L.P.
Checked by G.F.H.B.

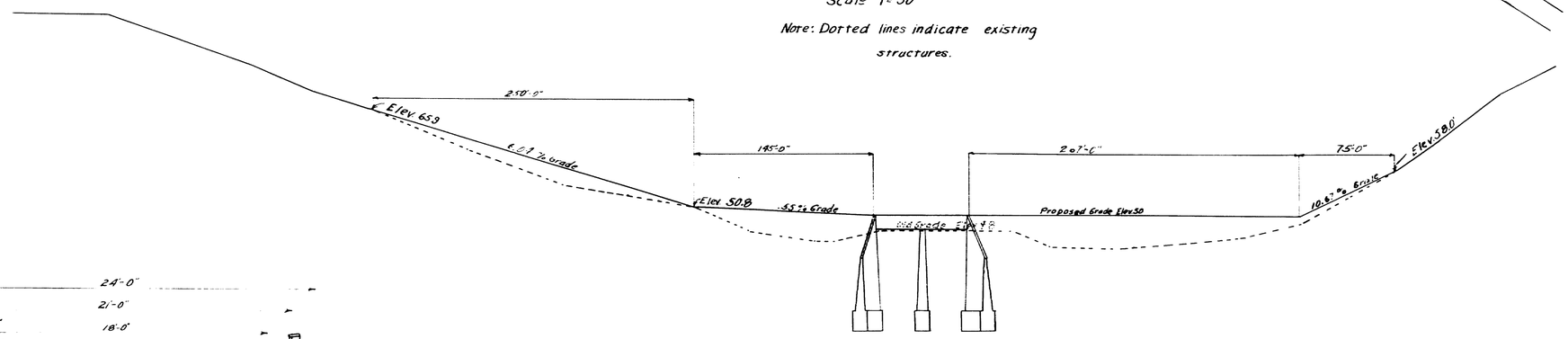
0 1 2 3 4 5 INCHES



PLAN OF GENERAL LAYOUT

Scale 1" = 50'

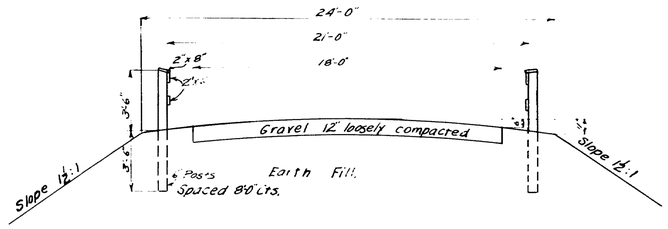
Note: Dotted lines indicate existing structures.



PROFILE

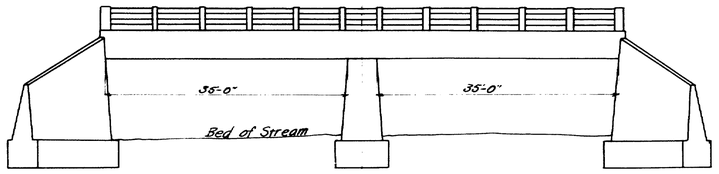
Showing existing and proposed grades

Scales Ver. 1" = 10' Hor 1" = 50'



SECTION OF APPROACH

The contractor shall conduct his work so that traffic may pass over the present bridge during construction of the new one



SIDE ELEVATION

Scale 1" = 10'

MAINE HIGHWAY COMMISSION
Bridge over
FIFTEEN MILE STREAM
in the town of
BENTON, KENNEBEC CO., ME.
Sheet 3 of 3 Aug. 8, 1921.

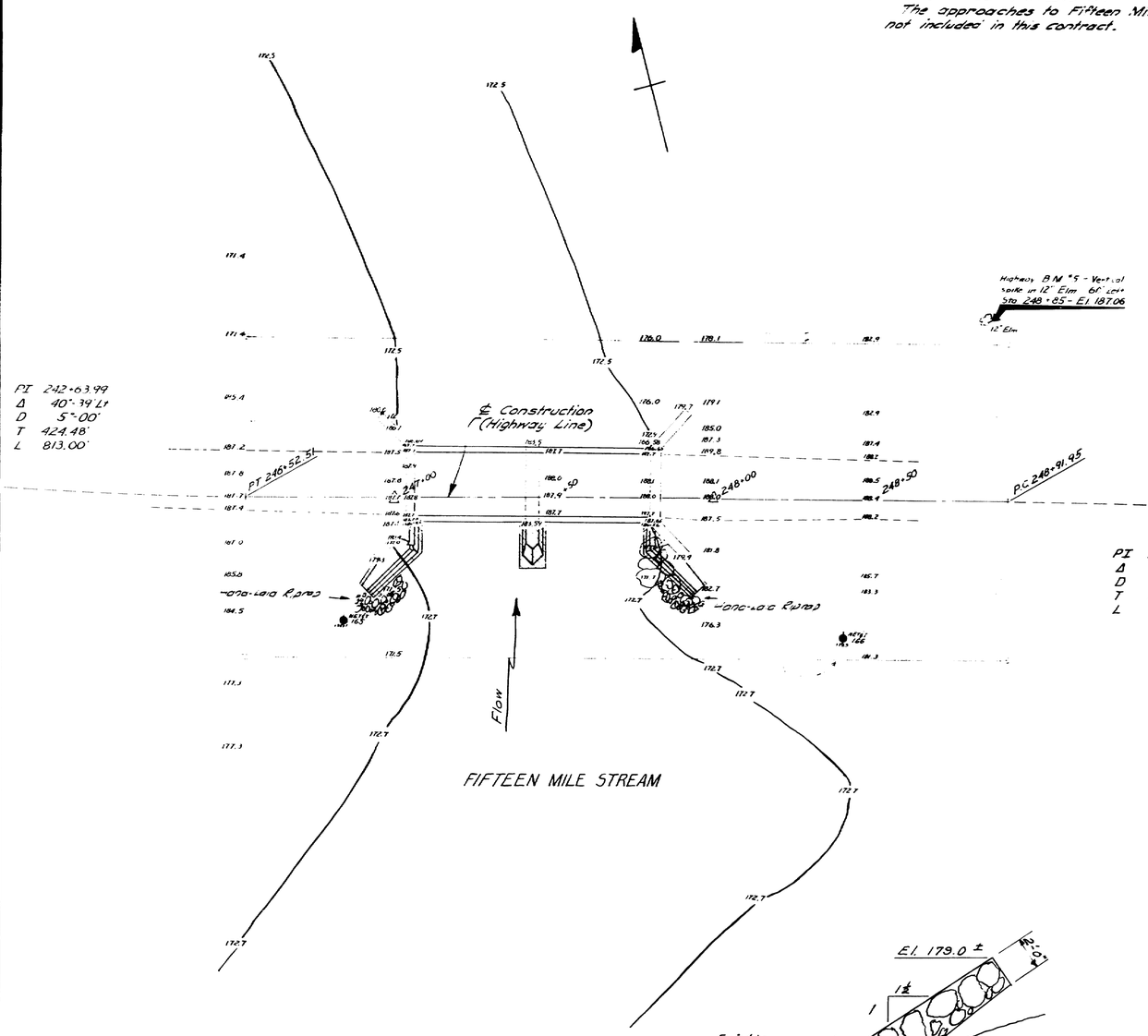
1-140

0 1 2 3 4 5 INCHES

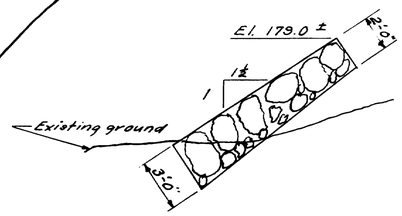
B P R REG. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

NOTE: If in the opinion of the Engineer the existing cover over superstructure slab is suitable for use as gravel base it shall be removed only to elevation top of gravel base, otherwise the cover material shall be entirely removed and replaced with gravel base. Payment for removal of above material shall be made under Item 203-9 Earth Excavation.

The approaches to Fifteen Mile Stream Bridge are not included in this contract.

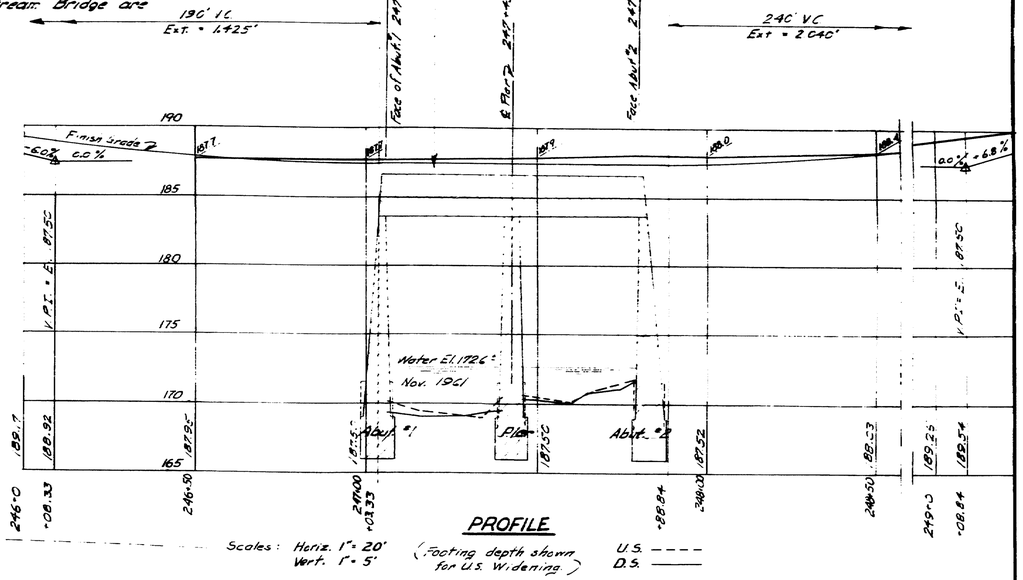


PLAN
Scale: 1" = 20'



TYPICAL SECTION
HAND LAID RIPRAP

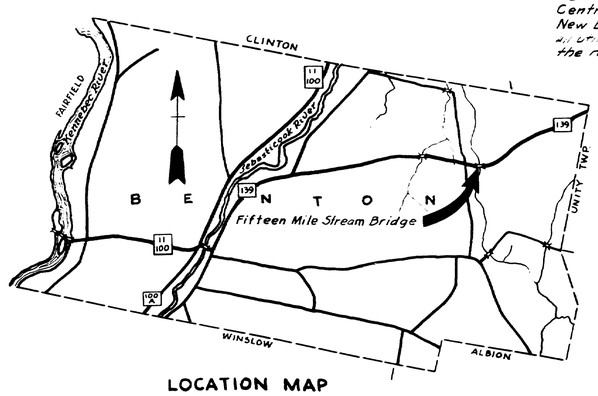
PI 251+72.00
Δ 11°-10' Rt.
D 2°-00'
T 280.05'
L 558.33'



PROFILE
Scales: Horiz. 1" = 20' Vert. 1" = 5' (Footing depth shown for U.S. Widening.) U.S. ---- D.S. ——

NOTES:
EXISTING SUPERSTRUCTURE: Reinforced concrete T-beam. Upstream badly spalled. Downstream fair.
EXISTING SUBSTRUCTURE: Mass concrete abutments and pier. Upstream tops of wings and top pier surface spalled. Remainder in fair condition.
STREAM: Present opening takes care of flow.
APPROACHES: Being reconstructed.

UTILITIES:
Central Maine Power Co.
New England Tel. & Tel. Co.
All utility plant to be adjusted as necessary by the respective utilities, unless noted.



LOCATION MAP
1 inch = 1 mile

DESIGN–
TRACE–
CHECK– W.H.Y.
BRIDGE NO. 5069
SURVEY– BLAKE
PLOT– J.H.W.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FIFTEEN MILE STREAM BRIDGE

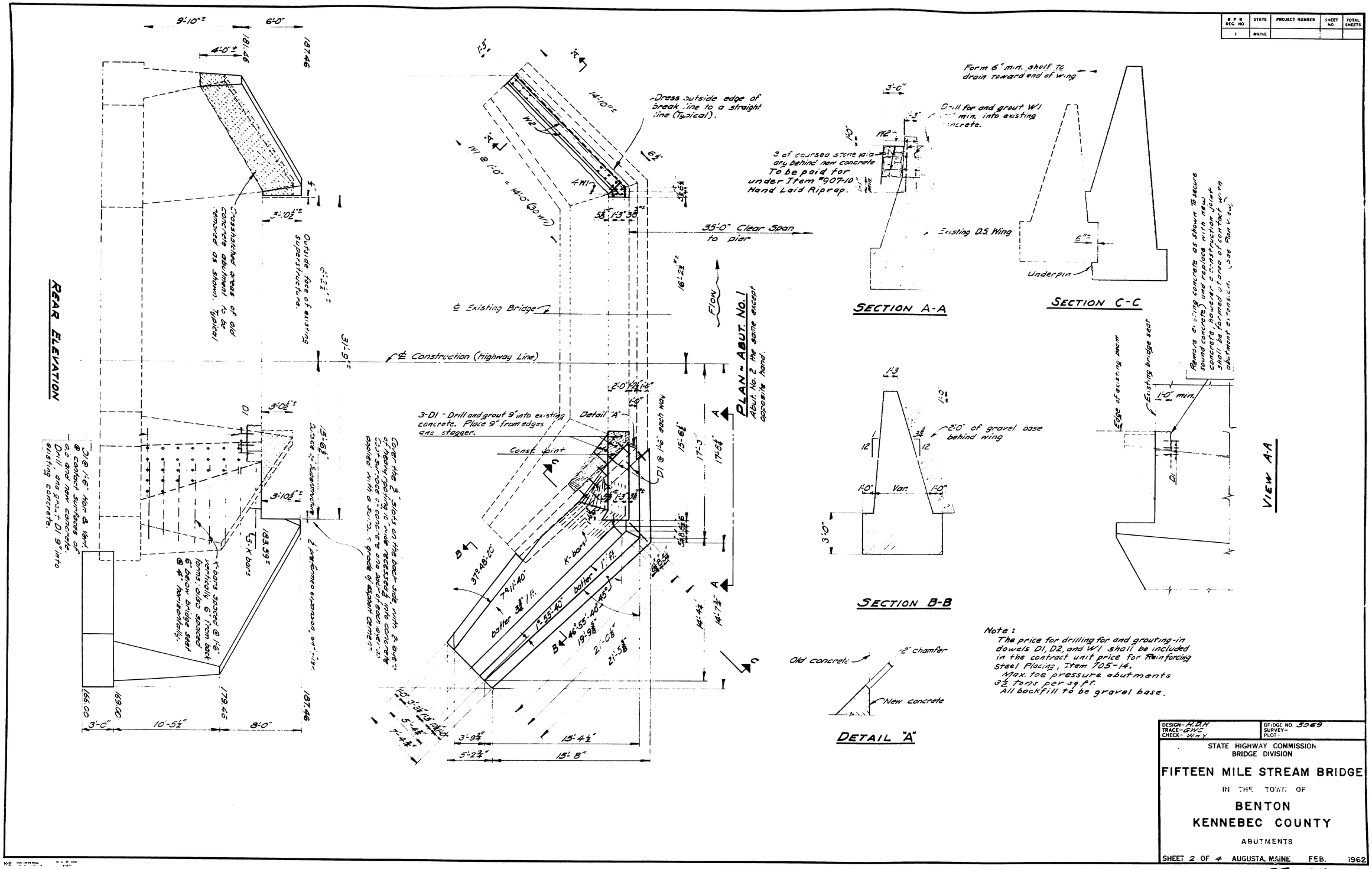
IN THE TOWN OF
BENTON
KENNEBEC COUNTY
– SURVEY –

SHEET 1 OF 4 AUGUSTA, MAINE NOV. 1961

87-25

0 1 2 3 4 5 INCHES

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



Note:
The price for drilling for and grouting-in dowels D1, D2, and W1 shall be included in the contract unit price for Reinforcing Steel Placing, Item 705-14.
Max. toe pressure abutments 3½ tons per sq. ft.
All backfill to be gravel base.

DESIGN- H.D.H
TRACE- GWC
CHECK- WHY
BRIDGE NO. 5069
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FIFTEEN MILE STREAM BRIDGE

IN THE TOWN OF

BENTON
KENNEBEC COUNTY

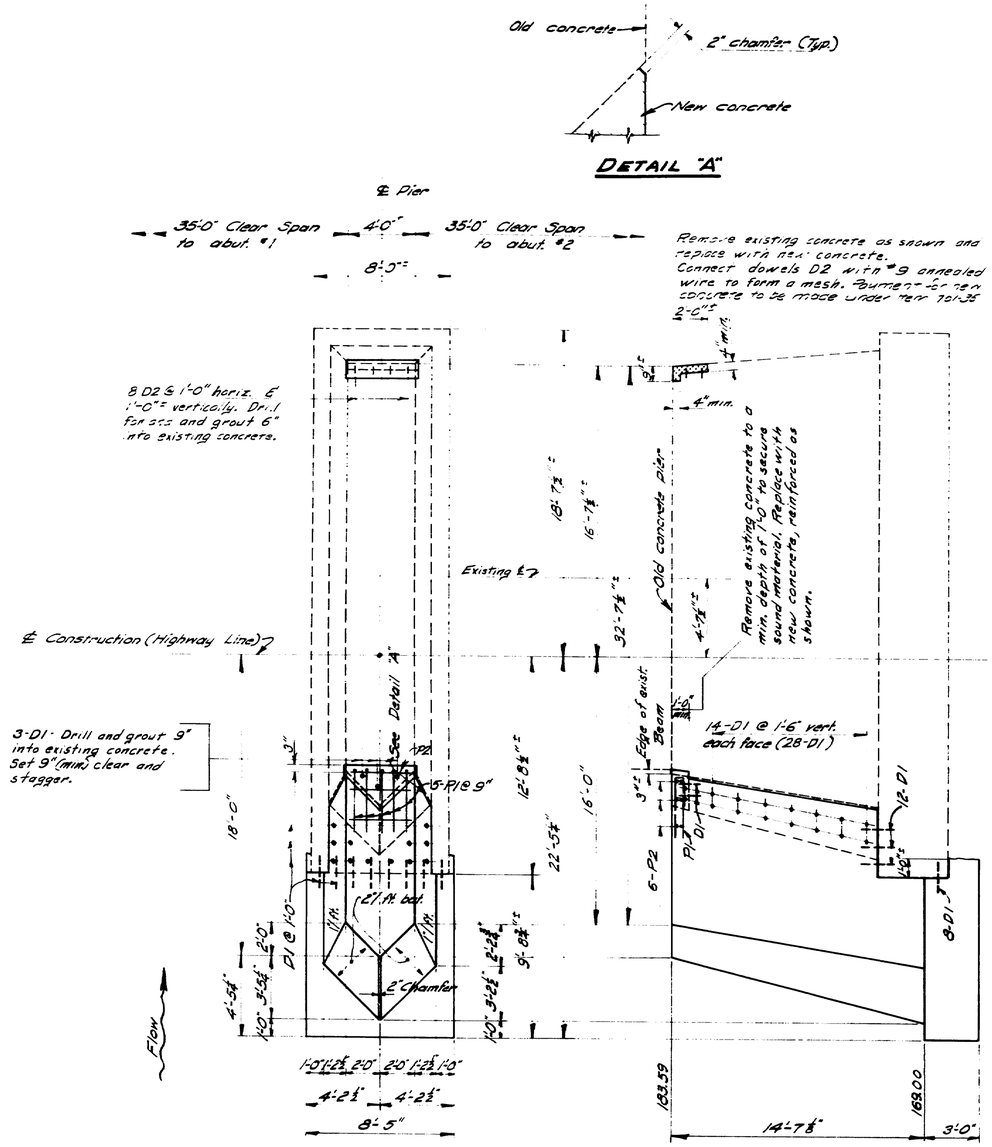
ABUTMENTS

SHEET 2 OF 4 AUGUSTA, MAINE FEB. 1962

97-26

0 1 2 3 4 5 INCHES

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



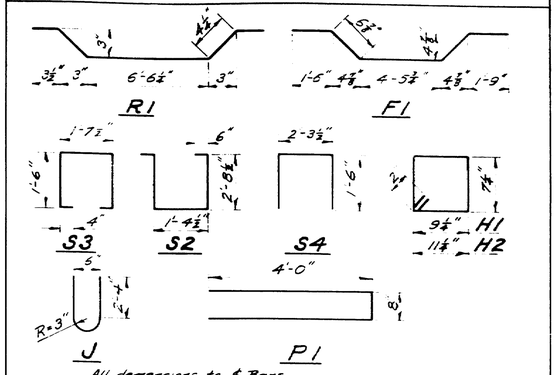
DETAIL "A"

PLAN - PIER

ELEVATION - PIER

REINFORCING STEEL

BENT BARS



All demensions to ℄ Bars.

MARK	SIZE	NO. REQ.	TOTAL LENGTH	LOCATION
P1	#5	5	8'-8"	Pier
F1	#5	76	8'-10"	Slab
S2	#4	140	7'-9½"	Ext. & Int. Beams
S3	#4	52	5'-4"	U.S. Curb
S4	#4	52	5'-3½"	D.S. Curb
J	#6	40	5'-5"	Posts
H1	#3	32	3'-1"	Interior Posts
H2	#3	8	3'-5"	End Posts
R1	#5	36	7'-10"	Rail Bar

STRAIGHT BARS

P2	#5	6	3'-8"	Pier
D1	#6	110	1'-6"	Pier & Abutments
D2	#4	8	0'-9"	Pier
K	#6	12	8'-0"	Abutment Extentions
W1	#5	68	4'-11"	D.S. Wing Caps
W2	#4	12	14'-9"	Do
G1	#10	4	38'-8"	T-Beams
G2	#11	16	38'-8"	T-Beams
G3	#10	16	29'-0"	T-Beams
G4	#10	4	17'-0"	T-Beams
F2	#5	156	8'-6"	Slab
F3	#4	76	19'-9"	Slab
B1	#6	24	8'-3"	Diaphragms
R2	#5	36	7'-7"	Rail Bars
C1	#4	12	12'-8"	Curbs
C2	#4	12	14'-8"	Curbs
C3	#4	12	10'-0½"	Curbs

All bars to be intermediate grade steel.

DESIGN - H.D.H.
TRACE - G.W.C.
CHECK - N.H.Y.

BRIDGE NO. 5069
SURVEY -
PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FIFTEEN MILE STREAM BRIDGE

IN THE TOWN OF

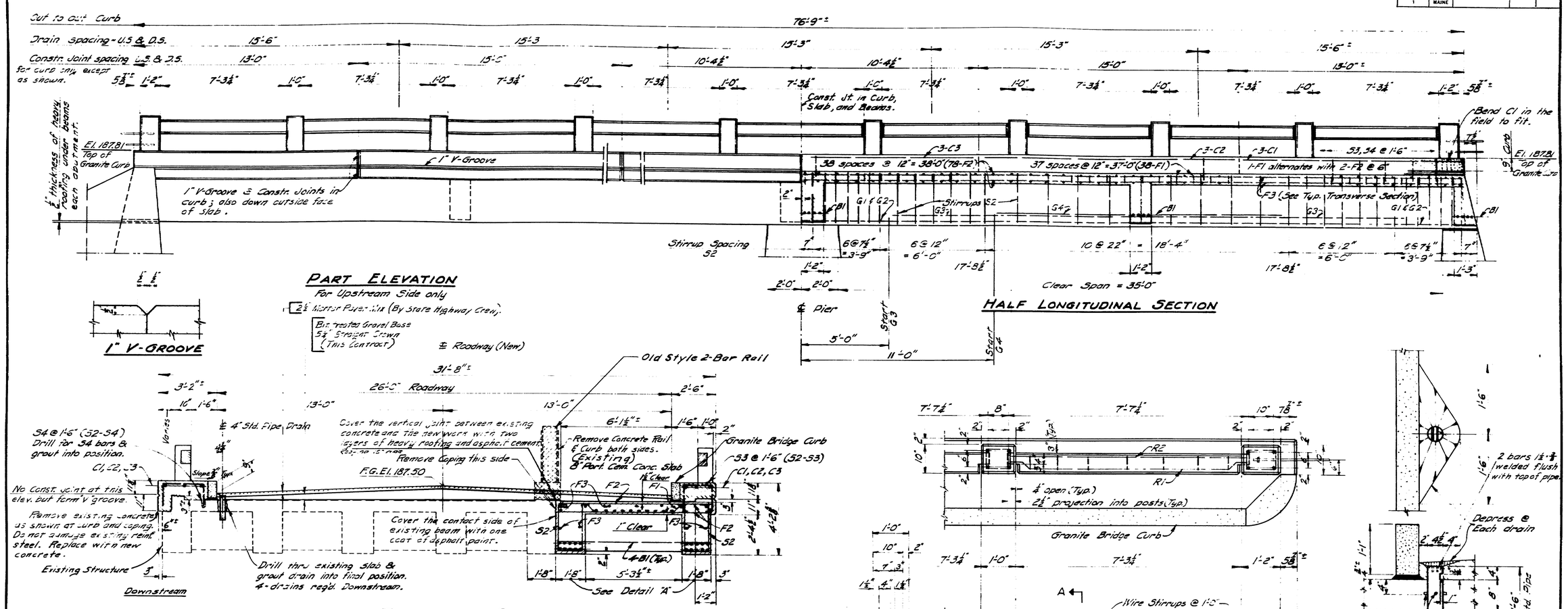
BENTON
KENNEBEC COUNTY

PIER AND REINFORCING STEEL

SHEET 3 OF 4 AUGUSTA, MAINE FEB. 1962

0 1 2 3 4 5 INCHES

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



PART ELEVATION

For Upstream Side only

2½" Mortar Paver Mix (By State Highway Crew).

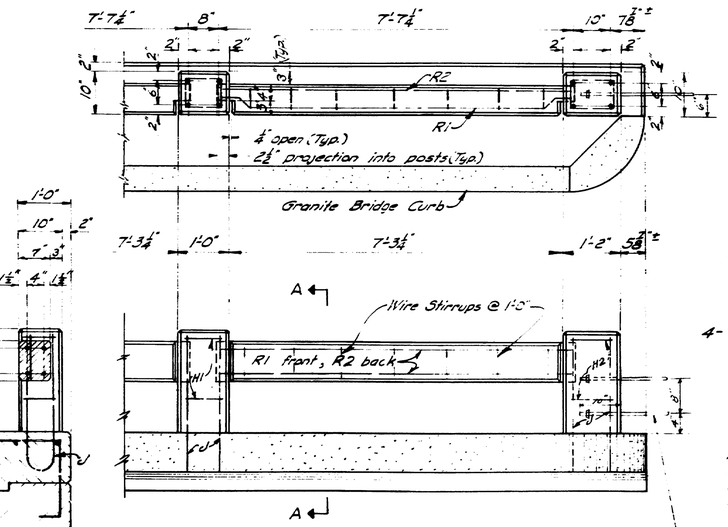
Bit. treated Gravel Base 5¼" Straight Crown (This Contract)

℄ Roadway (New)

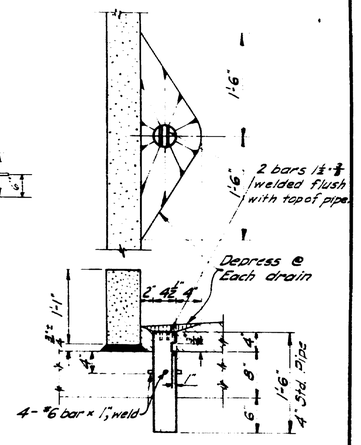
HALF LONGITUDINAL SECTION

TRANSVERSE SECTION

Payment for drilling for and grouting of reinforcing steel S4 to be included in the contract unit price for Item 705-14, Reinforcing Steel, Placing.



SECTION A-A



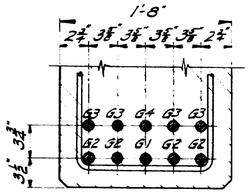
DRAIN DETAILS

8 - Required

4"ϕ Std. Steel Pipe Drains x 1'-6" to be cut as shown, to drain top of slab.

Payment for drains (including drilling and grouting in drains) to be paid for on a per each basis under Item 702-106

Anchors, Type B Guard Rail.

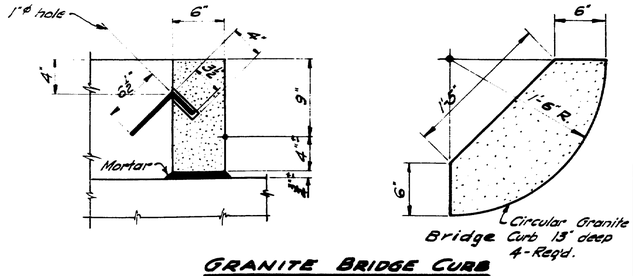


DETAIL "A"

Typical

CONCRETE CLASSIFICATION

Superstructure ———— Class A
Substructure ———— Class B
Rail ———— Class Y



GRANITE BRIDGE CURB

Curb Anchors, #4 bar x 0'-10", grouted into granite curb @ 2'-0" max., and 1'-0" max. from ends. Two anchors per stone minimum.

Loading: H20-S16-44
fs = 20,000 psi
fc = 1,200 psi
n = 10

Design Specifications:
A.A.S.H.O. Standard Specifications for Highway Bridges, 1961

Contract Specifications:
State of Maine State Highway Commission Standard Specifications Highways and Bridges, Revision of Jan. 1956, and 1960 Supplement.

RAIL DETAILS

Reinforcing steel for posts to be in position before concrete is placed for curb.

Rail bars to be precast. Tongue ends to project into post forms 2½", and to be wrapped with 2-layers of roofing felt. Remove exposed roofing felt when post forms are removed.

Wire Stirrups to be constructed in the field from a single strand of #9 annealed wire making a complete turn around each reinforcing bar.

Chamfer all exposed edges of concrete ½" unless noted.

DESIGN - H.D.H.
TRACE - G.W.C.
CHECK - W.R.Y.

BRIDGE NO. 5069
SURVEY -
PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

FIFTEEN MILE STREAM BRIDGE

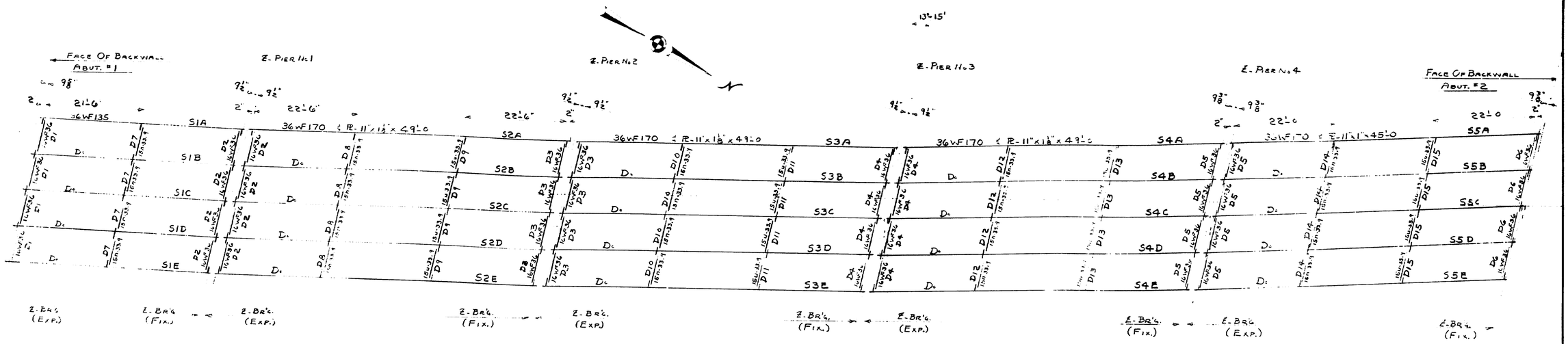
IN THE TOWN OF

BENTON
KENNEBEC COUNTY

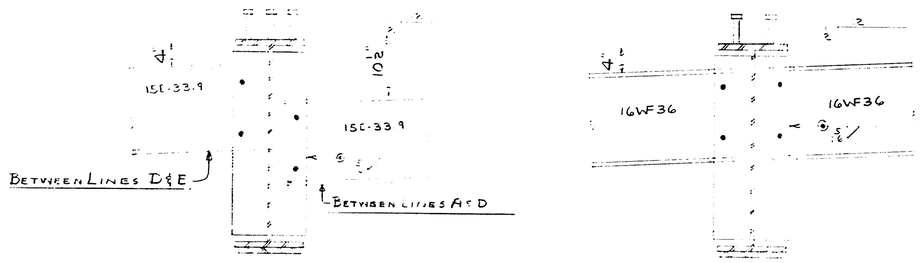
SUPERSTRUCTURE

SHEET 4 OF 4 AUGUSTA, MAINE FEB. 1962

0 1 2 3 4 5 INCHES



FRAMING PLAN



DIAPHRAGM CONNECTIONS

SHOP CONNECTIONS: WELD
FIELD CONNECTIONS: WELD
HOLES: AS NOTED
PAINT: STATE OF MAINE SPEC'S.

APP'D 7-10-62

FRAMING PLAN

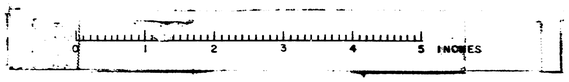
PRINT ISSUE		
1 SHOP	7-19-62	
3 CUST	7-19-62	
2 F/A	6-26-62	
DRAWN	6-15-62	D.C.
REVISION		
REVISION		
REVISION		

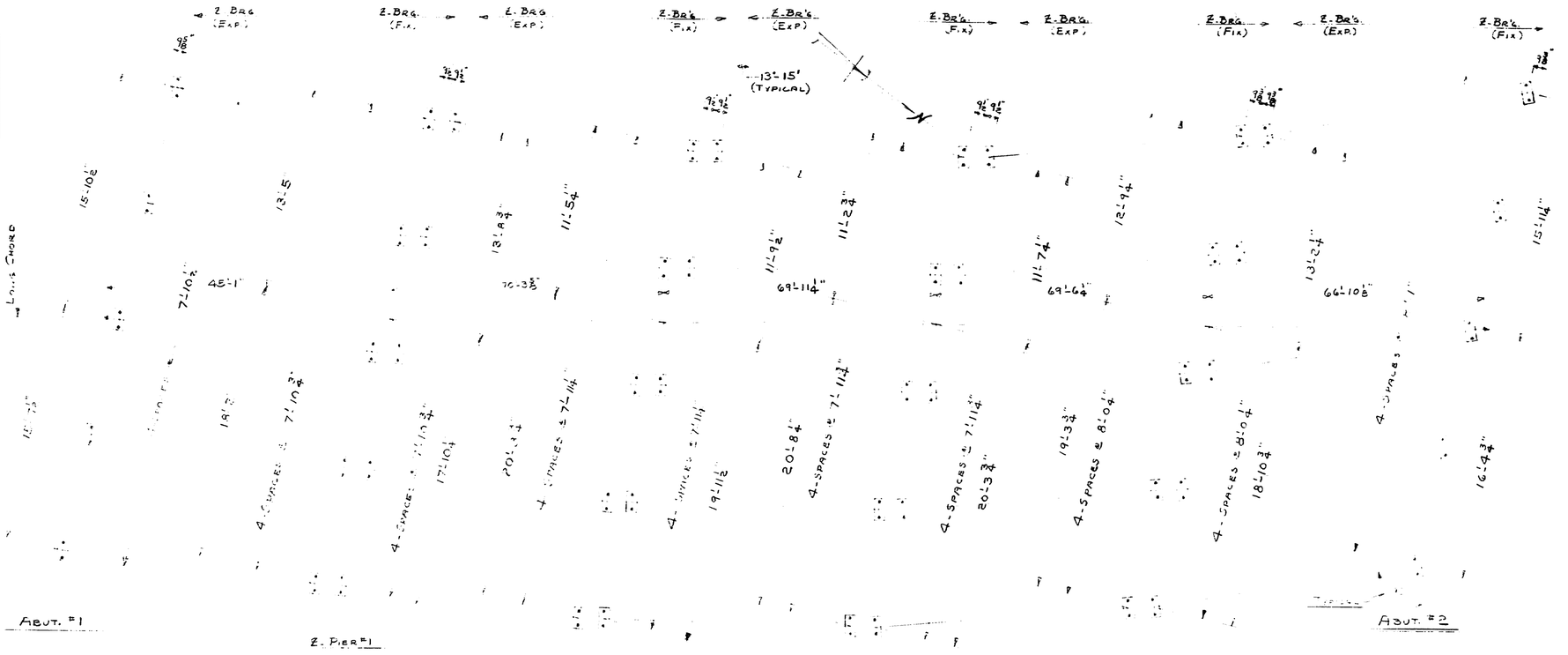
Bancroft & Martin Rolling Mills Company
Brewer, Maine

COLD BROOK ROAD BRIDGE
HAMPDEN-HERMON, MAINE

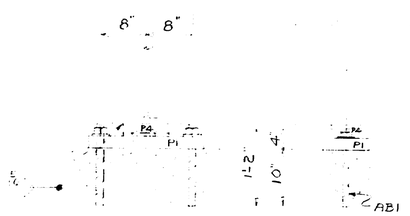
CUSTOMER REED & REED
DESIGNER STATE HIGHWAY COMMISSION

ORDER VERBAL DWG. B61-451-E1

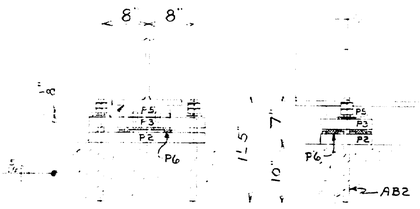




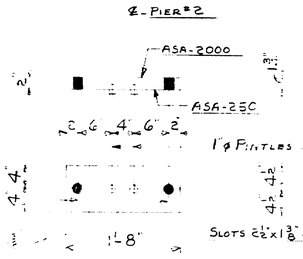
BEARING PLATE LOCATION PLAN



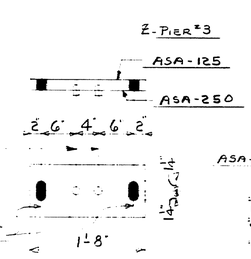
FIXED BEARINGS



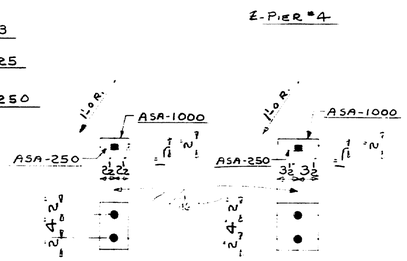
EXPANSION BEARINGS



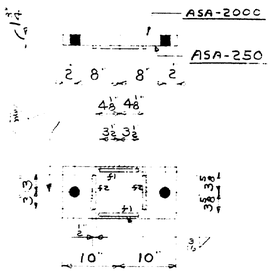
25-P1



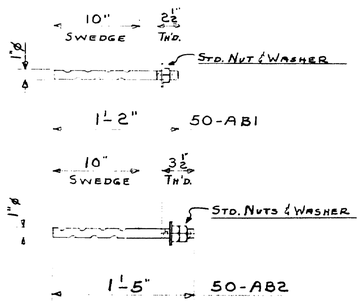
25-P3

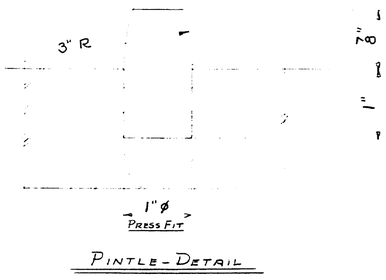


25-P4 25-P5



25-P2





PINTLE-DETAIL

SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
			BILL OF MATERIAL			DWG. B61-451-51
P1	25		PL-8x2	1 8		
P2	25		PL 9x1¾	1 8		
P3	25		Do	1 8		
P4	25		PL 5x2	0 8		
P5	25		PL-7x2	0 8		
	100		1"ø ROD	0 1⅜		PINTLES
AB1	50		1"ø ROD	1 2		
AB2	50		Do	1 5		
	150		1" NUTS			
	100		1" ø WASHERS			
	50	#1	BAR ½x4	0 7		
	50	#2	Do	0 6		
P6	25		PL-7x½	0 8		SELF LUBR. BRONZE
	ORDERED BY C.F.W. ON REQ. #670					
STRUCT. STEEL IS ITEM 702-103						

SCALE WT

SHOP CONNECTIONS: WELD
FIELD CONNECTIONS: WELD
HOLES: AS NOTED
PAINT: STATE OF MAINE SPEC'S.

ADD A: NOTED 6-14-62

BEARING PLATES & ANCHOR BOLTS

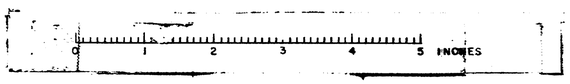
PRINT ISSUE		
3 CUST.	6-22-62	
3 CUST	6-22-62	
5 PART	6-22-62	
2 FIA	6-12-62	
DRAWN	6-11-62	D.C.
REVISION		
REVISION		
REVISION		

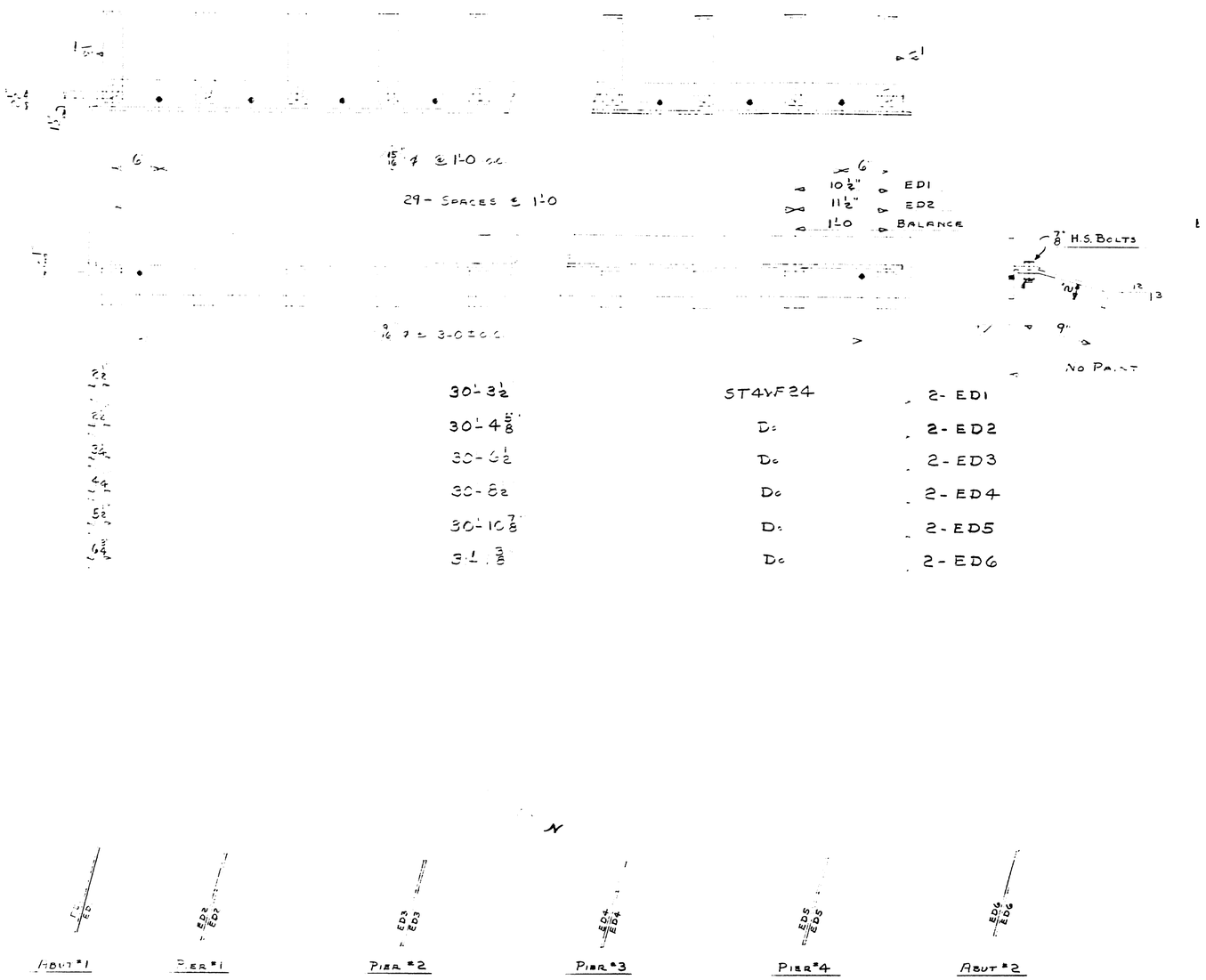
Bancroft & Martin Rolling Mills Company
Brewer, Maine

COLD BROOK ROAD BRIDGE
HAMPDEN-HERMON, MAINE

CUSTOMER REED & REED
DESIGNER STATE HIGHWAY COMM.

ORDER VERBAL | DWG. B61-451-51





LOCATION PLAN OF EXPANSION DAMS

SHIP	BILL OF MATERIAL							DWG. B61-451-S2
MARK	NO.	MARK	SHAPE	LENGTH		WT.	DEDUCT.	REMARKS
ED1	2		ST4WF24	30	3½		7#	
ED2	2		Do	30	4⅝		7#	
ED3	2		Do	30	6½		7#	
ED4	2		Do	30	8½		7#	
ED5	2		Do	30	10⅞		7#	
ED6	2		Do	31	1⅜		7#	
PC	104		PL-3 x ¾	1	0		39#	
	372	f1	BAR 2½ x ⅜	1	2			
	372	SHOP	⅞ H.S. BOLTS	0	2		@ 36# PER 100	

STRUCT. STEEL IS ITEM 702-103

SHOP CONNECTIONS: ⅞ H.S. BOLTS
FIELD CONNECTIONS:
HOLES: AS NOTED
PAINT: STATE OF MAINE SPEC'S

APP'D AS NOTED 6-14-62

EXPANSION DAMS & PILE CAPS

PRINT ISSUE		
3	CUST	7-6-62
3	CUST	6-22-62
5	SHOP	6-22-62
2	F/A	6-12-62
DRAWN	6-12-62	D.C.
REVISION		
REVISION		
REVISION		

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ORDER VERBAL DWG. B61-451-S2

0 1 2 3 4 5 INCHES