B. P. R. NO.	ST.	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	1	25

STATE OF MAINE

STATE HIGHWAY COMMISSION

INTERSTATE NO. 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK R.R.

IN THE TOWN OF

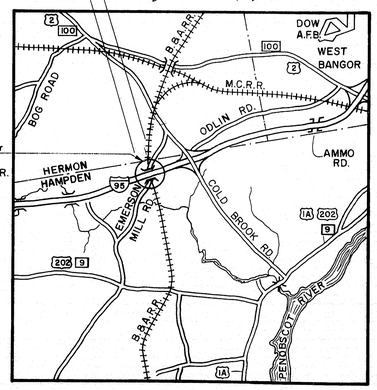
HAMPDEN
PENOBSCOT COUNTY

FEDERAL AID PROJECT NO. I-IG-95-7(15) 172

LENGTH OF PROJECT 0.043 MILES

Project I-IG-95-7(15)
Sta. 3625+41.64 End of Project I-95-7(14) & Beginning of Project I-IG-95-7(15)
Sta. 3627+66.87 End of Project I-IG-95-7(15) & Beginning of Project I-95-7(16)
Stationing Shown along Northbound Lane.

INTERSTATE 95 over EMERSON MILL ROAD & BANGOR & AROOSTOOK R.R. PROJECT NO. I-IG-95-7(15)



LOCATION MAP
Scale 1" = 1 Mile

TRAFFIC

A.D.T.	1960	7,390
A.D.T.	1980	10,310
D.H.V.		1,235
T		11%
D		60%
V		60 m.p.h.

APPROVED:
BANGOR & AROOSTOOK RR CO.

CHIEF ENGINEER — Oct. 2, 1961 DATE

APPROVED:
MAINE STATE HIGHWAY COMMISSION

CHAIRMAN

CHIEF ENGINEER — Sept. 20, 1961 DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
REGION 1

APPROVED:

DISTRICT ENGINEER — DATE

06-3

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(19)	2	25

SPECIFICATIONS

DESIGN: A.A.S.H.O. Standard Specifications for Highway Bridges, 1957, and tentative revisions to 1961.

CONTRACT: State of Maine, State Highway Commission, Standard Specifications Highways and Bridges, Revision of January 1956, and Supplemental Specifications.

LIVE LOADING

H20-S16-44 as Modified for Interstate Highways.

ALLOWABLE STRESSES

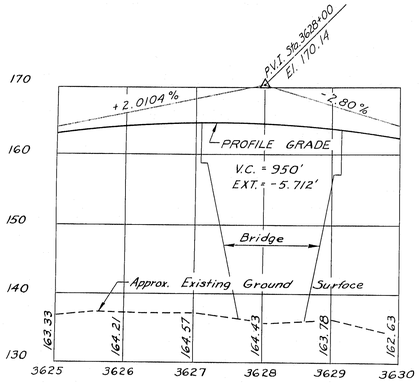
Structural Steel - fs = 18,000 p.s.i.
Reinforcing Steel - fs = 20,000 p.s.i.
Concrete - fc = 1200 p.s.i.

CONCRETE CLASSIFICATION

All concrete - Class "A"

ELEVATIONS

Elevations are based on Bench Mark U.S.G.S. D-132, located at corner of Cold Brook Road and Odlin Road, El. 143.94.



PROFILE ℄ INTERSTATE - SOUTHBOUND

Scales: Horiz. 1" = 100'
Vert. 1" = 10'

ESTIMATE OF QUANTITIES

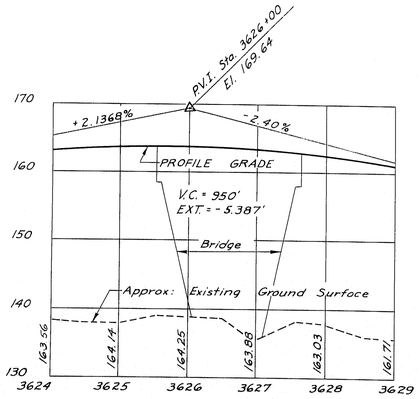
ITEM NO.	ITEM	UNIT	QUANTITY
204-14	Structural Earth Excavation - Piers	C.Y.	1200
205-8	Common Borrow	C.Y.	6950
205-9	Granular Borrow	C.Y.	2400
302-7	Gravel Base Course - In Place Measure	C.Y.	1400
701-33	Portland Cement Concrete, Abutments and Retaining Walls	C.Y.	300
701-35	Portland Cement Concrete, Piers	C.Y.	570
701-40	Portland Cement Concrete, Roadway and Sidewalk Slabs on Steel Bridges	C.Y.	600
701-47	Portland Cement	Bbls.	2200
702-103	Structural Steel, Fabricated and Delivered	Lbs.	436,200
702-104	Structural Steel, Erection	Lbs.	436,200
702-105	Structural Steel, Field Painting	Lbs.	436,200
703-9	Bronze or Copper-Alloy Bearing and Expansion Plates, Delivered	Lbs.	260
703-10	Bronze or Copper-Alloy Bearing and Expansion Plates, Placing	Lbs.	260
705-13	Reinforcing Steel, Delivered	Lbs.	231,500
705-14	Reinforcing Steel, Placing	Lbs.	231,500
705-17	Shear Connectors *	L.S.	1
708-16	Steel H-Beam Piles, 42 lbs./ft.	L.F.	2273
806-7	Aluminum Rail	L.F.	809
808-6	Slope Paving	S.Y.	1230
901-21	Granite Bridge Curb	L.F.	865
908-9	Loam Borrow	C.Y.	700
910-13	Seeding - Method No. 2	Units	75
912-7	Hay Mulch	Tons	6
913-7	Asphalt Mulch Binder	Gals.	500
404-28	Bituminous Concrete Surface Course, Type "A"	Tons	200
807-9	Membrane Waterproofing	S.Y.	1875

Not a part of this Contract

* Payment of royalties on Stud Shear Connectors, if any, shall be included in the Lump Sum price.

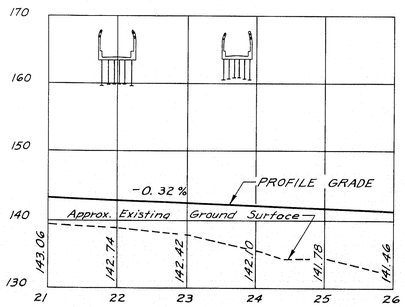
INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX, QUANTITIES, PROFILES
3	FOUNDATION SURVEY
4,5	BORING DETAILS
6	GENERAL PLAN & ELEVATION
7	ROADWAY WORK AND SLOPE PAVING
8	ABUTMENT #1 - SOUTHBOUND
9	ABUTMENT #2 - SOUTHBOUND
10	ABUTMENT #1 - NORTHBOUND
11	ABUTMENT #2 - NORTHBOUND
12	PIERS - SOUTHBOUND
13	PIERS - NORTHBOUND
14	STRUCTURAL STEEL FRAMING PLANS
15	STRUCTURAL STEEL DETAILS
16	ARMORED JOINT, DIAPHRAGM, & DRAIN DETAILS
17	BEARINGS AND RAIL DETAILS
18	BLOCKING DETAILS
19	SUPERSTRUCTURE - SPANS 1 & 2 - SB
20	SUPERSTRUCTURE - SPANS 3 & 4 - SB
21	SUPERSTRUCTURE - SPAN 1 - NB
22	SUPERSTRUCTURE - SPAN 2 - NB
23	SUPERSTRUCTURE - SPANS 3 & 4 - NB
24	REINFORCING STEEL SCHEDULE NO. 1
25	REINFORCING STEEL SCHEDULE NO. 2



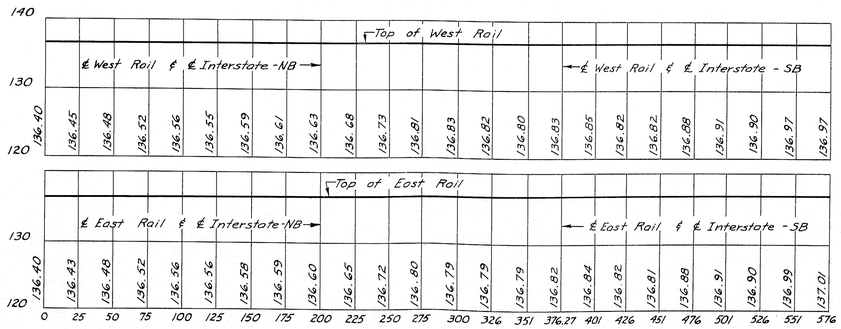
PROFILE ℄ INTERSTATE - NORTHBOUND

Scales: Horiz. 1" = 100'
Vert. 1" = 10'



PROFILE ℄ EMERSON MILL ROAD

Scales: Horiz. 1" = 100'
Vert. 1" = 10'



TOP OF RAIL ELEVATIONS - B & A R.R.

Scales: Horiz. 1" = 50'
Vert. 1" = 10'

Note:
Stations of West Rail are 1.77' less than stations of East Rail.

DESIGN - C.D.H.
TRACE - J.W.M.
CHECK - D.E.G.

BRIDGE NO.
SURVEY -
PLOT -

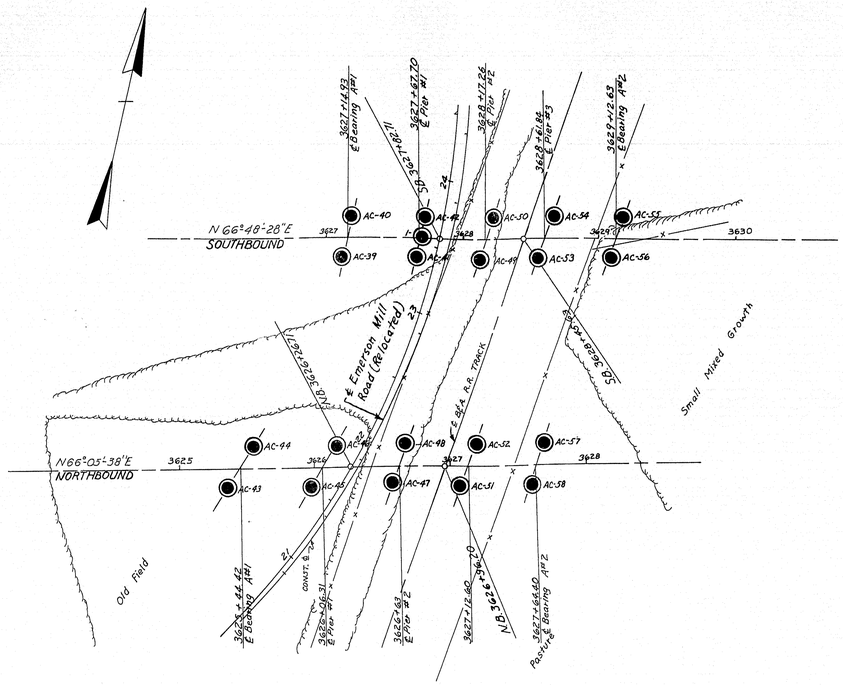
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
EMERSON MILL ROAD &
BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
INDEX, QUANTITIES, PROFILES
SHEET 2 OF 25 AUGUSTA, MAINE SEPT. 1961

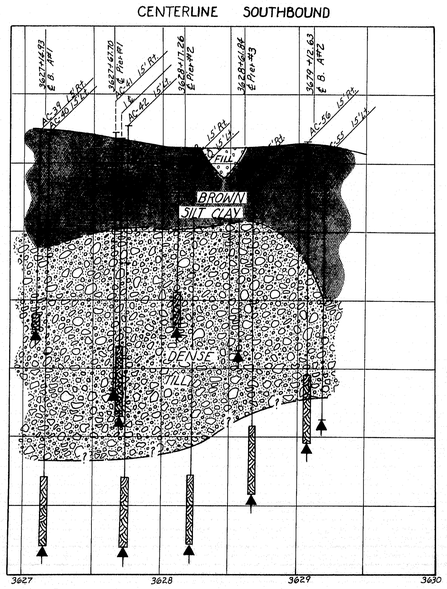
36-34

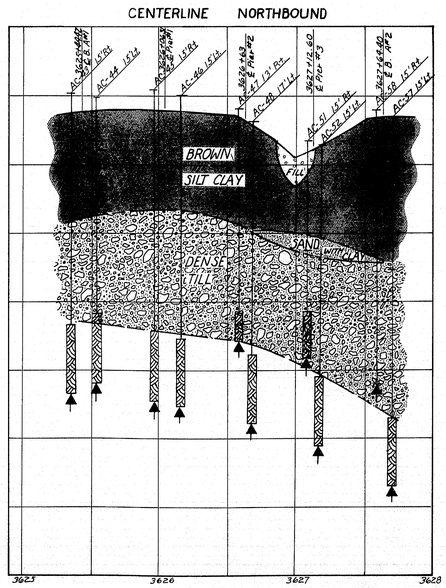
K+E 186 IMPERIAL TRACING CLOTH 5 X 5. D. L. M. INC. 47021

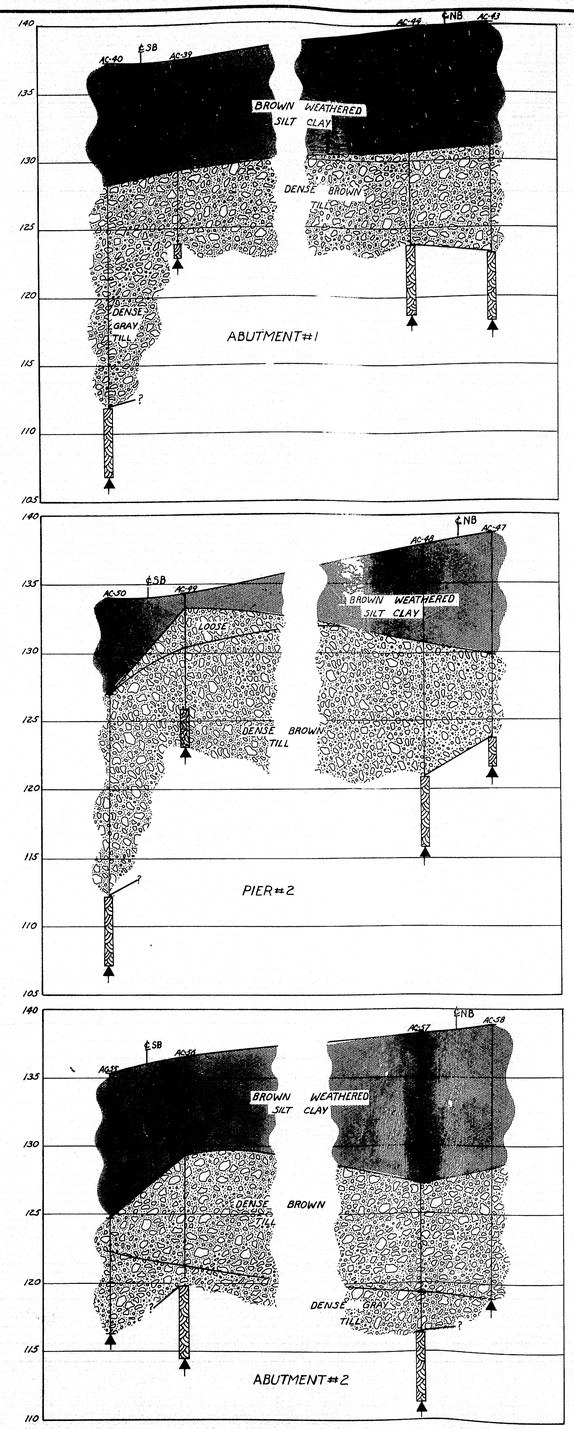
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	3	25









DESIGN– TRACE– CHECK– } Soils Division

BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

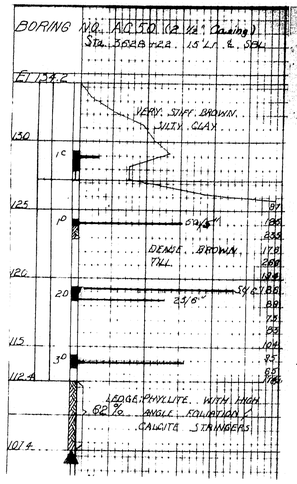
FOUNDATION SURVEY

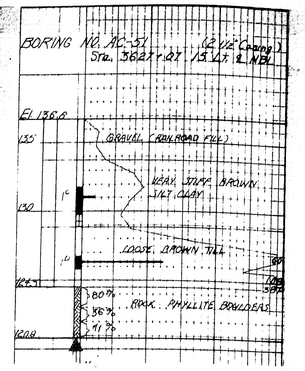
SHEET 3 OF 25 AUGUSTA, MAINE SEPT., 1961

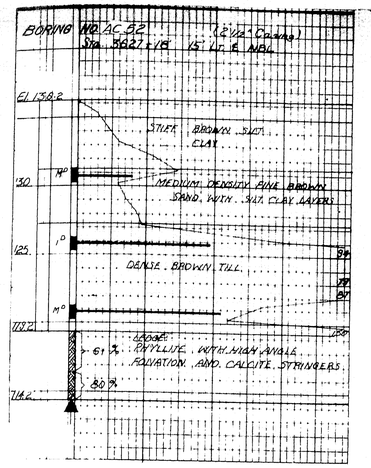
C. D. CO., NO. 370 24687

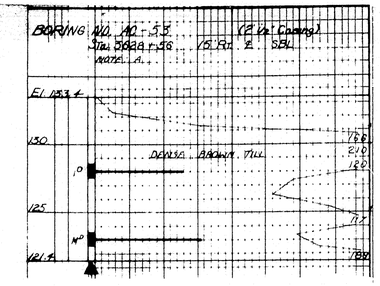
86-35

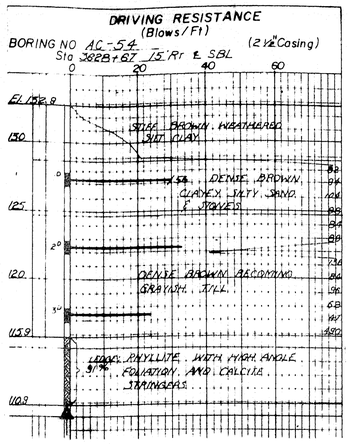
0 1 2 3 4 5 INCHES

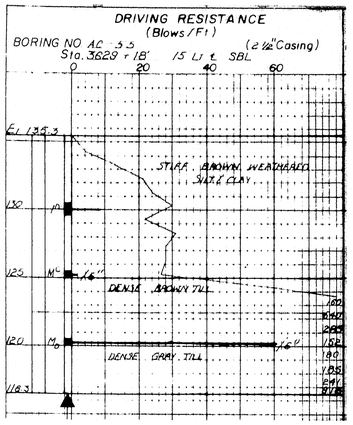


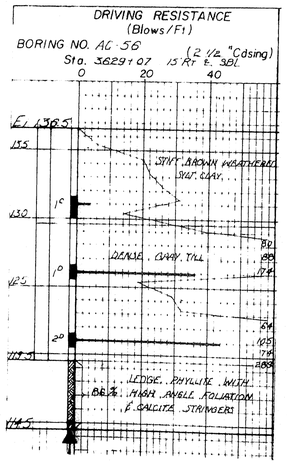


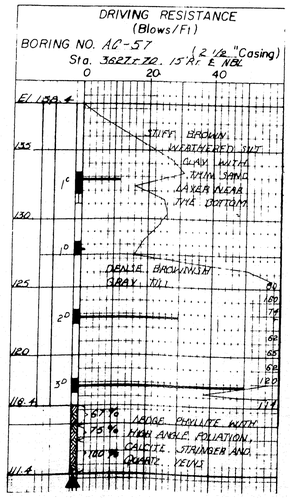


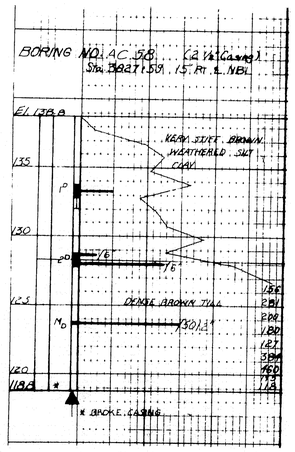












BORING NOTES

All samples and vanes are made ahead of casing

Ground water table

Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow

Location of sample or sample attempt

Number and type of dry sample

- 8&H Sampler #1290's
- 2" O.D. 16 ga. seamless tubing
- 3½" O.D. 16 ga. seamless tubing

Wash sample and number

Unsuccessful sample attempt and type of sampler

Number of blows required to drive spoon or tubing one foot with 140 ft. lbs. of energy per blow

Sampling spoon or seamless tubing driven by static weight of drill rods and hammer

Piston sampler

Field vane test

Bottom of boring (may not be bottom of entire test)

Refusal of drill rods or casing (may not be ledge)

Locations cored by diamond bit and percent per vert. of rock

NOTE: TILL REFERS TO A MIXTURE OF SILT SAND & GRAVEL (OR STONES).

DESIGN TRACE · DETAIL · CHECK } Soils Division | BRIDGE NO. SURVEY

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

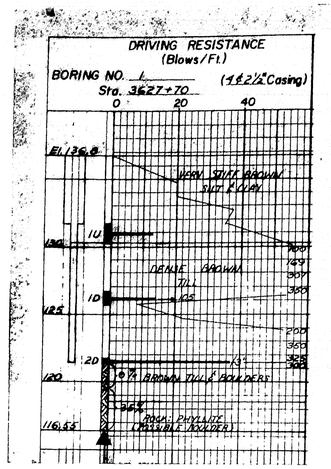
INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
BORING DETAILS

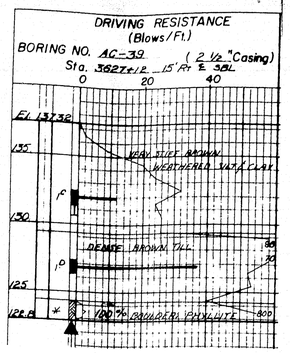
SHEET 4 OF 25 AUGUSTA, MAINE SEPT., 1961

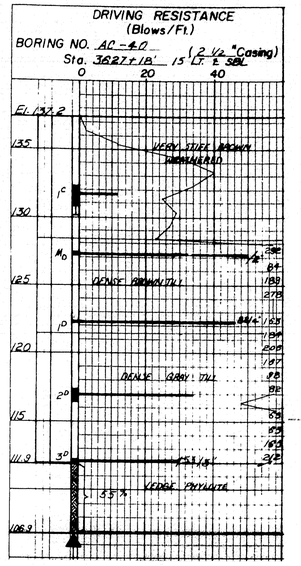
86-36

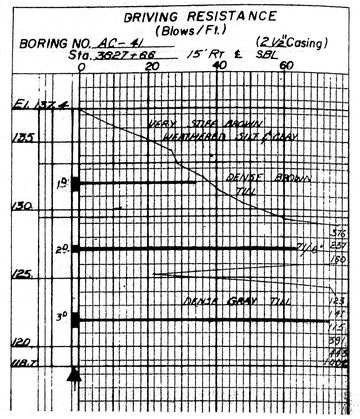
0 1 2 3 4 5 INCHES

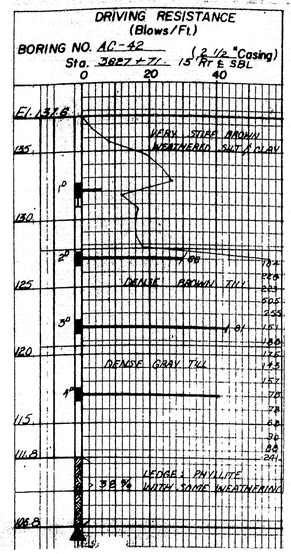
B P R REG. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-16-95-7(15)	5	25

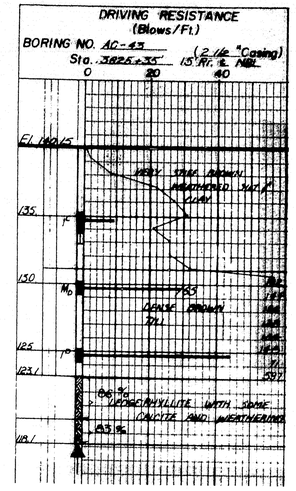


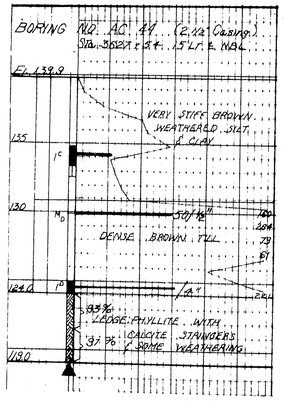


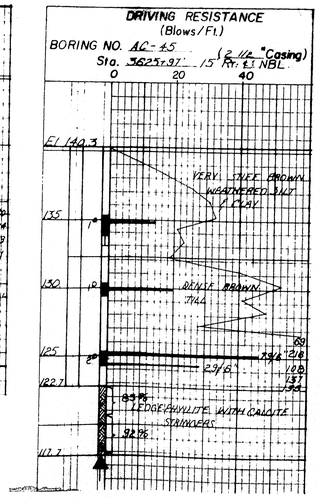


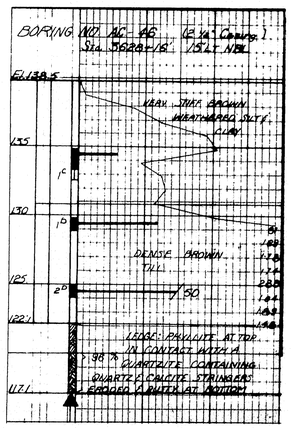


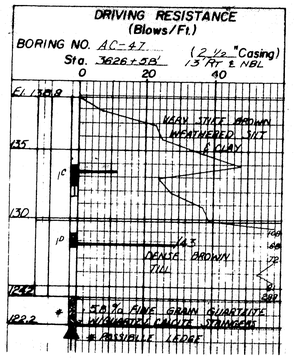


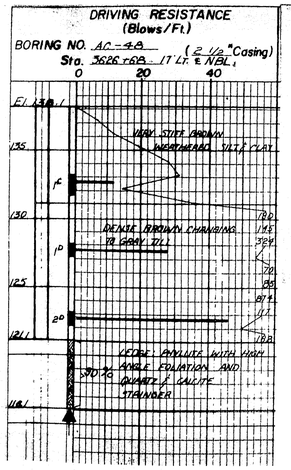


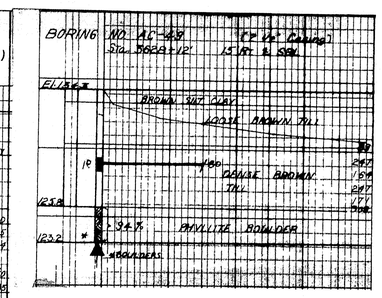












DESIGN — TRACE - DETAIL CHECK	Soils Division	BRIDGE NO SURVEY - PLOT

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

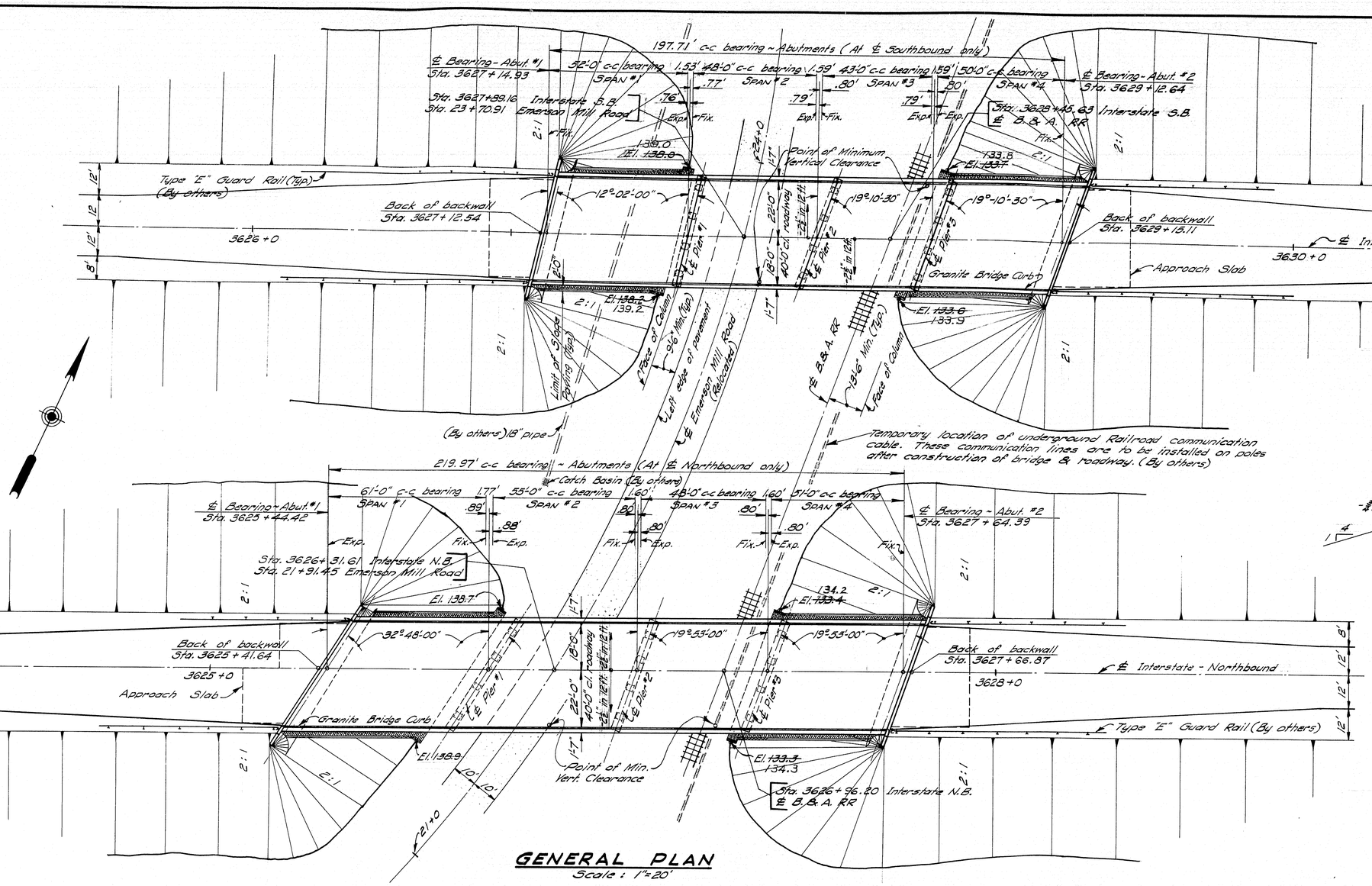
INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
BORING DETAILS

SHEET 5 OF 25 AUGUSTA, MAINE SEPT., 1961

86-37

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	6	25



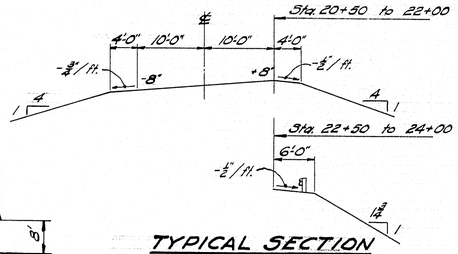
GENERAL PLAN

Scale : 1" = 20'

CURVE DATA

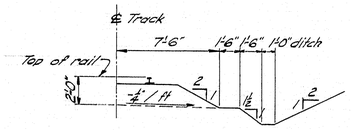
℄ Emerson Mill Road (Relocated)

P.I.	Sta. 22 + 08.17
Δ	99°-21'-22" Left
D	10°-00' (Arc)
T	675.08'
L	993.56'
R	572.958'
E	312.49'



TYPICAL SECTION

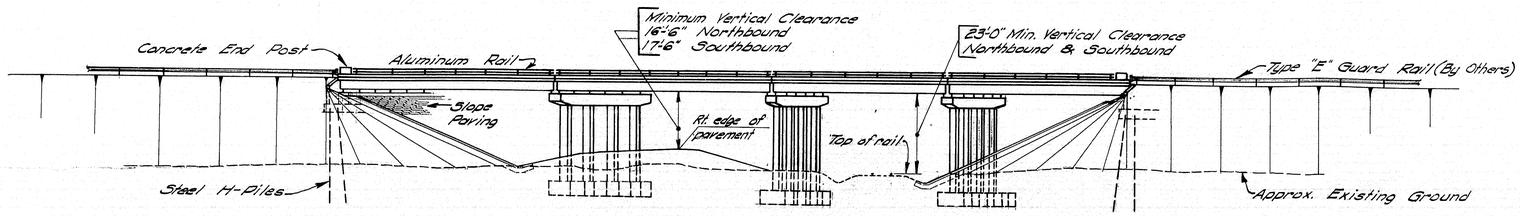
Emerson Mill Road (Relocated)
(By others)



TYPICAL HALF SECTION

Existing Railroad

NOTE: Plan shows ultimate construction. Approach Pavement not part of this contract.



ELEVATION

DESIGN- C.D.H. TRACE- G.W.C. CHECK- R.E.P.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN
PENOBSCOT COUNTY

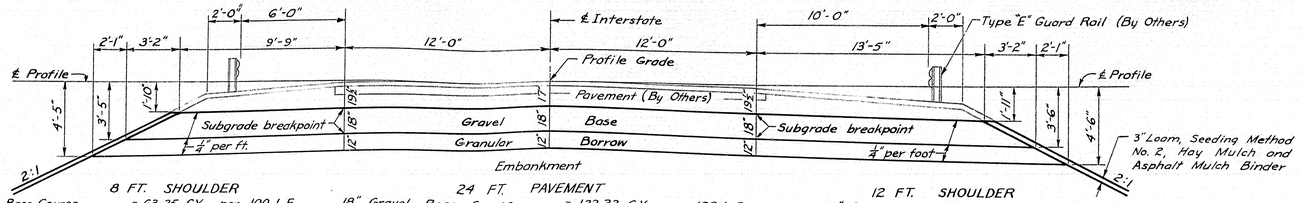
GENERAL PLAN & ELEVATION

SHEET 6 OF 25 AUGUSTA, MAINE SEPT., 1961

K+E 359 IMPERIAL TRACING CLOTH 5.H. D. L. M. INC. 67971

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(18)	7	25



8 FT. SHOULDER
18" Gravel Base Course = 63.25 C.Y. per 100 L.F.
12" Granular Borrow Subbase = 50.57 C.Y. per 100 L.F.

24 FT. PAVEMENT
18" Gravel Base Course = 133.33 C.Y. per 100 L.F.
12" Granular Borrow Subbase = 88.89 C.Y. per 100 L.F.

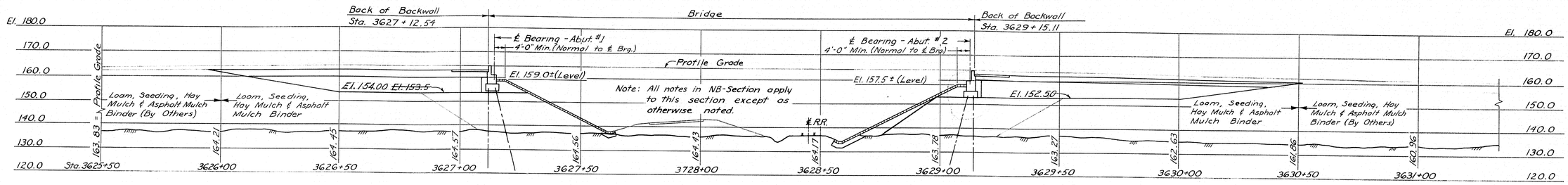
12 FT. SHOULDER
18" Gravel Base Course = 83.69 C.Y. per 100 L.F.
12" Granular Borrow Subbase = 63.83 C.Y. per 100 L.F.

NORTH BOUND (12' SHOULDER RT. - 8' SHOULDER LT.)
SOUTH BOUND (8' SHOULDER RT. - 12' SHOULDER LT.)

TYPICAL INTERSTATE ROADWAY SECTION

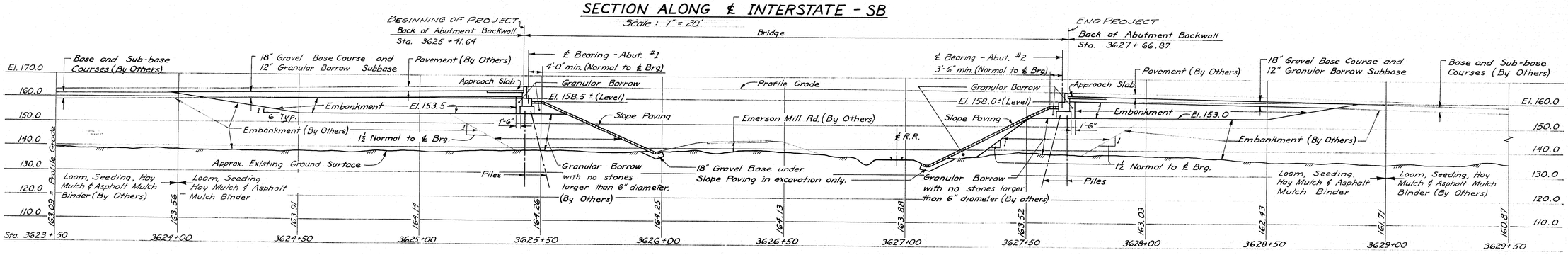
NOTE

Guard Rails & Shoulders shall be Flared 5½", starting 50' from the Bridge, to bring the inside face of the Guard Rail in line with the inside face of the bridge Concrete End Post.



SECTION ALONG ℄ INTERSTATE - SB

Scale : 1" = 20'

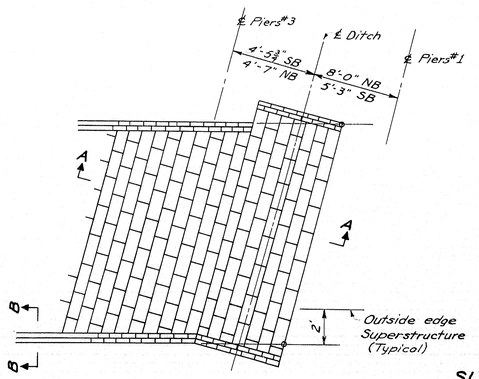


SECTION ALONG ℄ INTERSTATE - NB

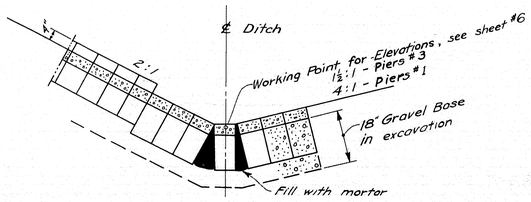
Scale : 1" = 20'

Before piles are driven, granular borrow shall be placed and compacted to bottom of footing elevation.

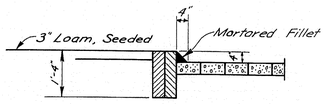
The controlled density method shall be used for placing embankment and granular borrow under this Contract.



PLAN



SECTION A-A



SECTION B-B

SLOPE PAVING

Solid Concrete Blocks 8"x16"x4"
Mortared Joints

The 18" Gravel Base under Slope Paving may be reduced or omitted, if in the opinion of the Engineer the existing material is suitable. Payment for excavation for Gravel Base under Slope Paving to be made under Item 204-14, Structural Earth Excavation - Piers.

DESIGN- C.D.H. TRACE- J.W.M. CHECK- H.C.P.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD &
BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

ROADWAY WORK AND SLOPE PAVING

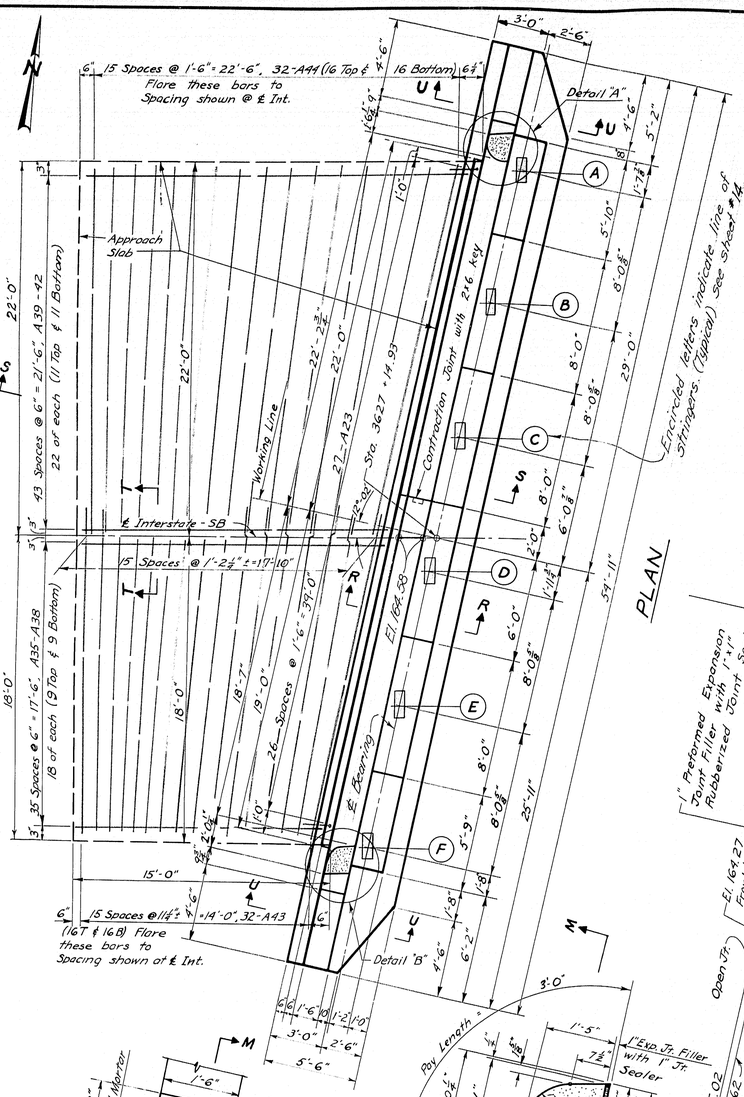
SHEET 7 OF 25 AUGUSTA, MAINE SEPT., 1961

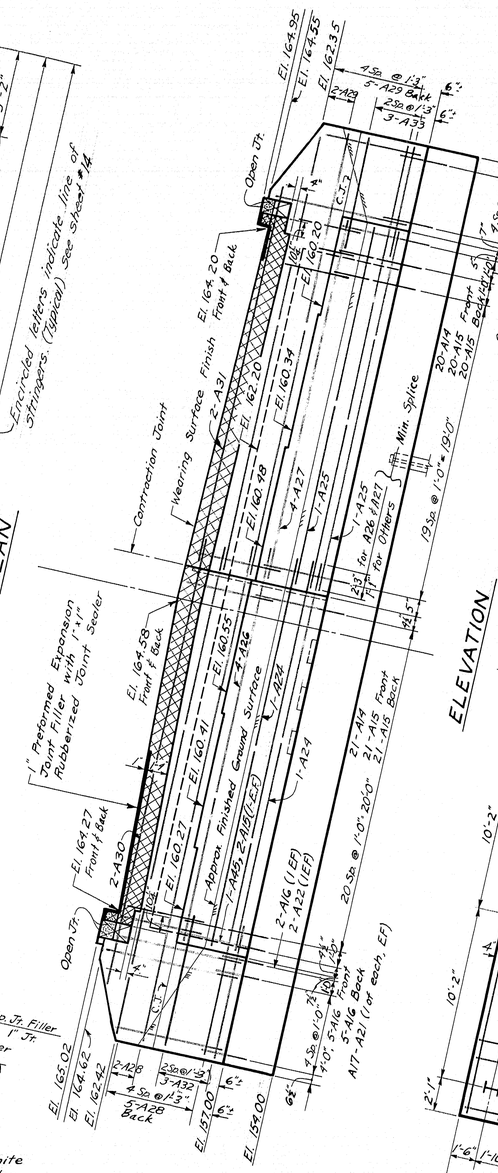
86-39

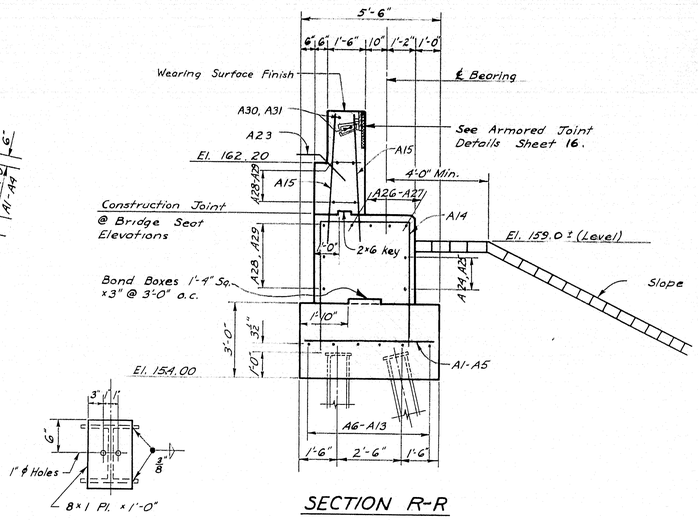
K+E 186 IMPERIAL TRACING CLOTH 10 X 14. D. L. M. INC. 63931

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	8	25







PILE NOTES

1. All piles to be 10BP42# Steel "H" piles.
2. Maximum Pile Load = 37 tons.
3. Piles marked thus ⊢⊣ to be battered 3 inches per foot in the direction of the arrow.
4. Piles are to be driven to refusal or practical refusal in order to develop end bearing.
5. All piles are to have a pile cap.
6. Estimated length of piles:
   Southbound Abut. #1 = 35'
   Abut. #2 = 7@30' & 8@35'
   Northbound Abut. #1 = 30'
   Abut. #2 = 40'

GENERAL ABUTMENT NOTES

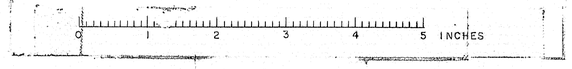
1. Place reinforcing steel in bridge seats to clear anchor bolts.
2. Dress shaded bearing areas 1" larger all around than size of masonry plates.
3. Cover horizontal construction joints and vertical contraction joints on the back with two layers of heavy roofing 10" wide. Cover the surface of the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The area to be covered shall be recessed ¼ inch.
4. Break bond with a suitable grade of asphalt paint at the vertical contraction joints.
5. Preformed Expansion Joint filler shall be the non-bituminous type.
6. Chamfer all exposed edges of concrete ¾".
7. Concrete in the approach slabs to be paid for under Item 701-40, Portland Cement Concrete, Roadway and Sidewalk Slabs on Steel Bridges.
8. For Roadway Work and Slope Paving at abutments refer to sheet 7.
9. E.F. = Each Face.
10. Payment for drilling backwalls & grouting bars for Granite Bridge Curb shall be considered as incidental to Item 705-14, "Reinforcing Steel, Placing".
11. Minimum cover 2" for reinforcing steel, unless noted.

DESIGN– C.D.H.
TRACE– J.W.M.
CHECK– R.E.C.
BRIDGE NO.
SURVEY–
PLOT–

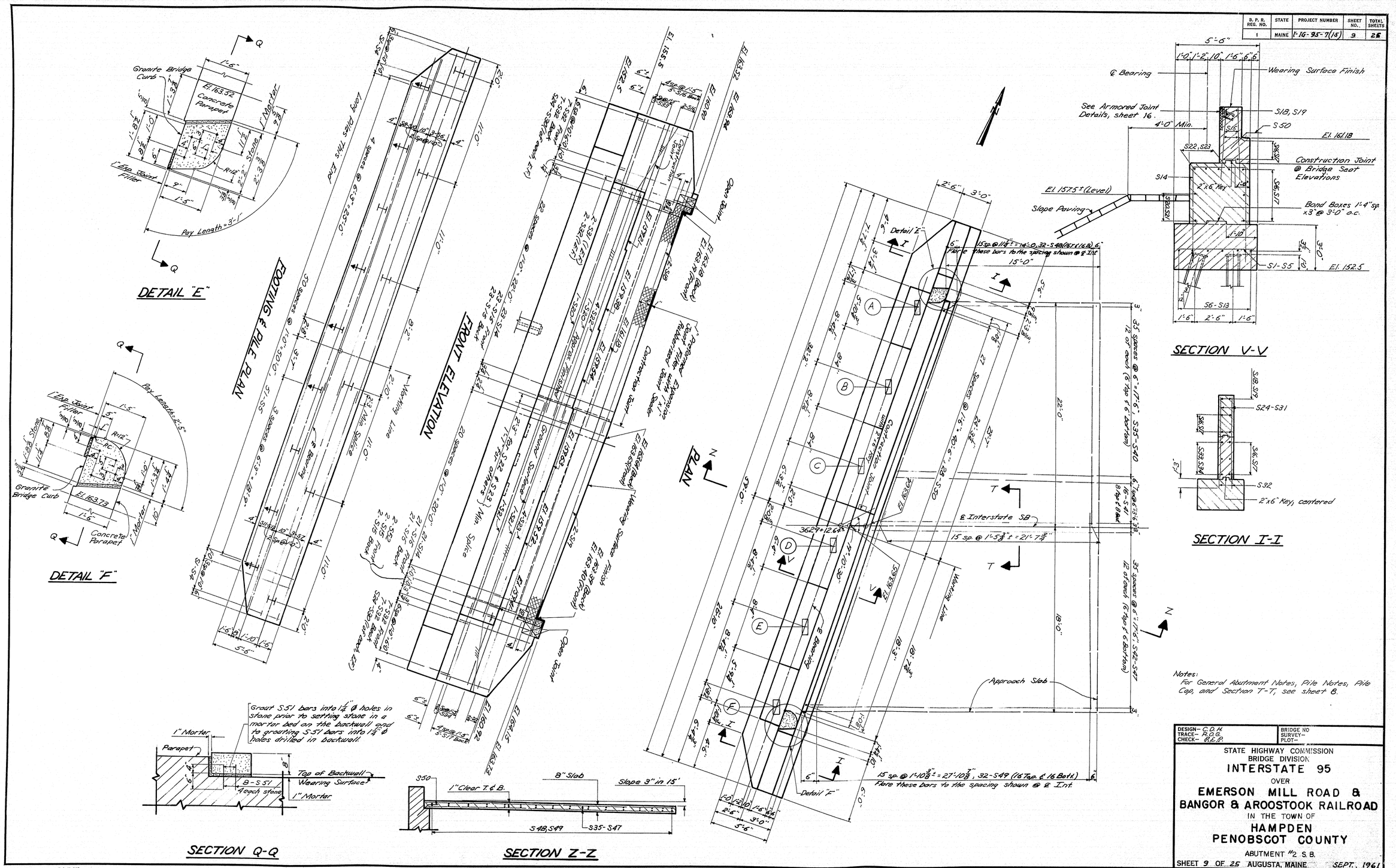
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
ABUT. # 1 – SB
SHEET 8 OF 25 AUGUSTA, MAINE SEPT., 1961

86-46



S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-16-95-7(15)	9	25



DESIGN– C.D.H.
TRACE– R.O.G.
CHECK– R.E.B.

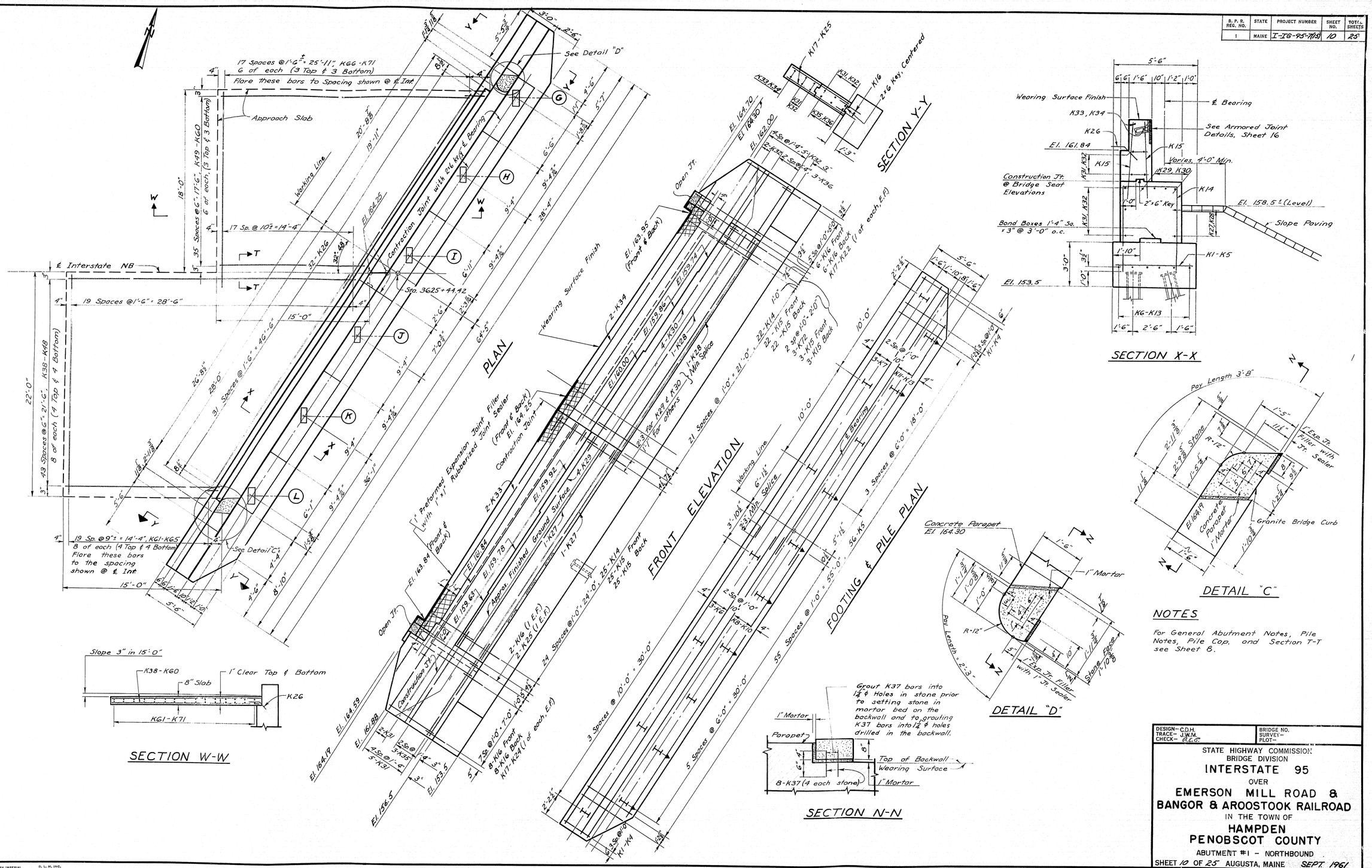
BRIDGE NO
SURVEY–
PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
ABUTMENT #2 S.B.

SHEET 9 OF 25 AUGUSTA, MAINE SEPT., 1961

86-41

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(10)	10	25



DESIGN– C.D.H.
TRACE– J.W.M.
CHECK– R.E.G.
BRIDGE NO.
SURVEY–
PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN
PENOBSCOT COUNTY

ABUTMENT #1 – NORTHBOUND

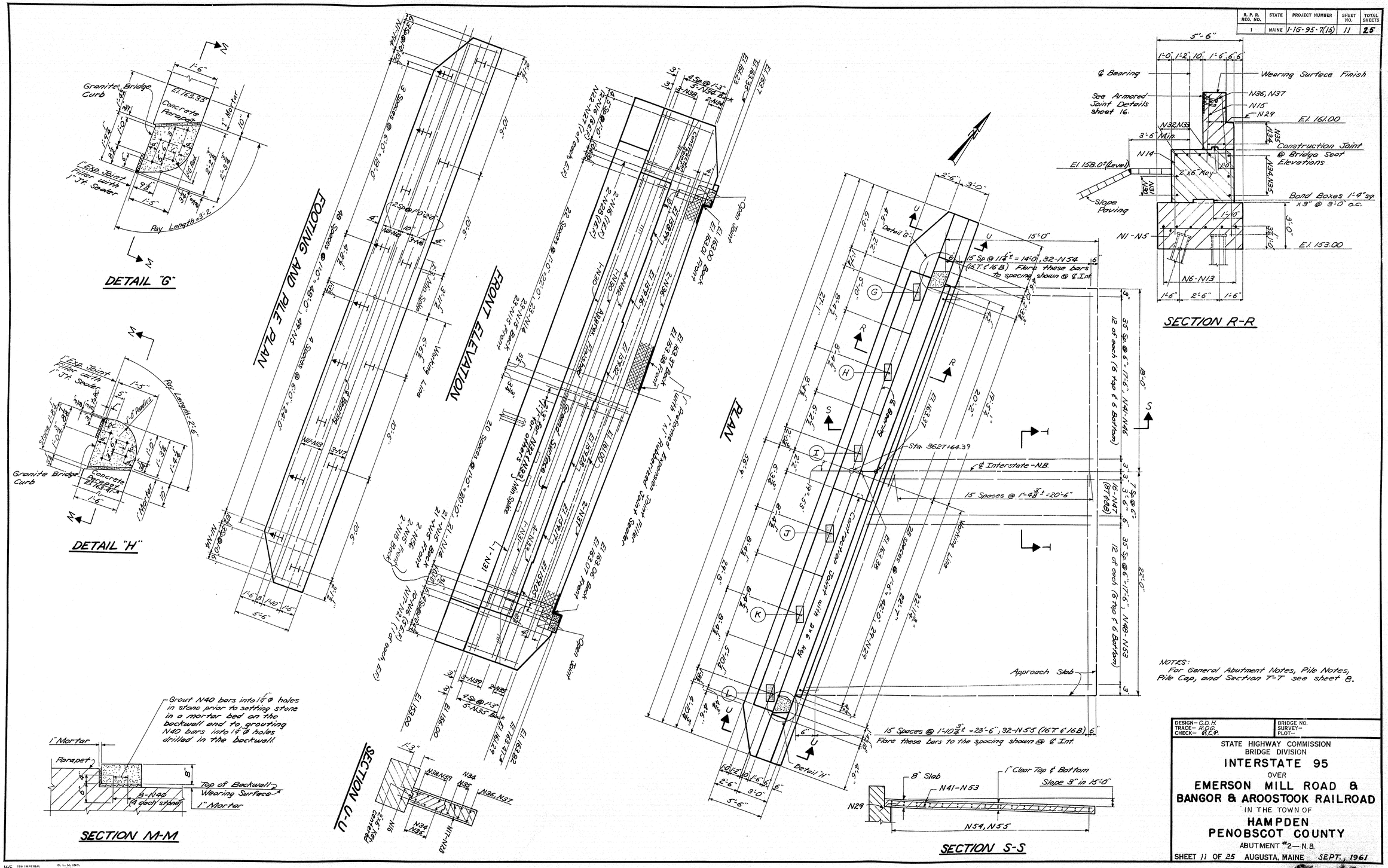
SHEET 10 OF 25 AUGUSTA, MAINE SEPT. 1961

86-42

K+E 166 IMPERIAL TRACING CLOTH 1 in. D. L. M. INC. 67973

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	11	25



NOTES:
For General Abutment Notes, Pile Notes, Pile Cap, and Section T-T see sheet 8.

DESIGN- C.D.H.
TRACE- R.O.G.
CHECK- W.L.P.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

ABUTMENT #2— N.B.

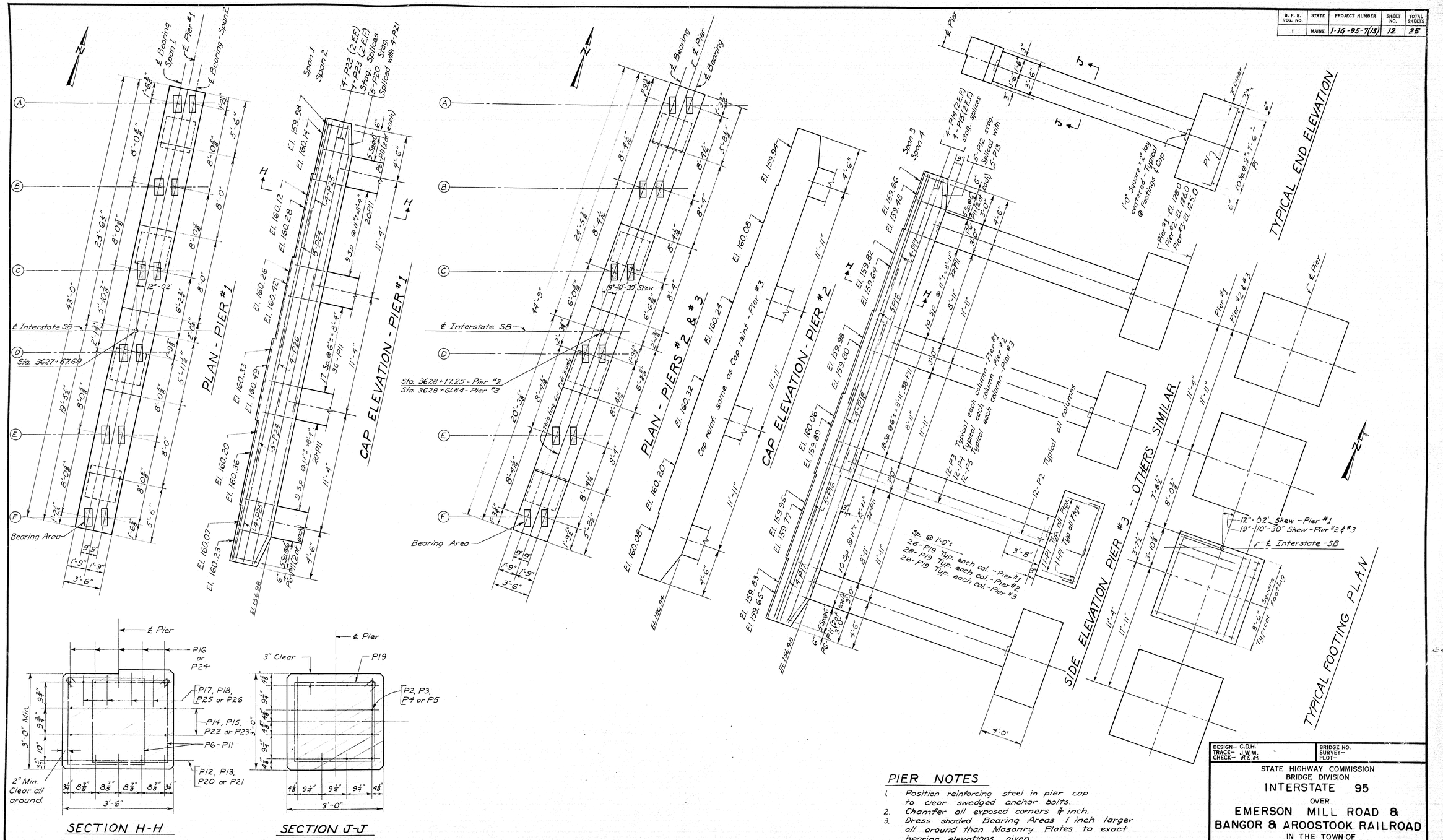
SHEET 11 OF 25 AUGUSTA, MAINE SEPT., 1961

26-43

K+E 359 IMPERIAL TRACING CLOTH 7.5 H. L. M. INC. 67921

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-16-95-7(15)	12	25



PIER NOTES

1. Position reinforcing steel in pier cap to clear swedged anchor bolts.
2. Chamfer all exposed corners ¾ inch.
3. Dress shaded Bearing Areas 1 inch larger all around than Masonry Plates to exact bearing elevations given.
4. E.F. = Each Face
5. Maximum footing pressure = 5.2 tons/sq.ft.

DESIGN– C.D.H. TRACE– J.W.M. CHECK– R.E.P.	BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN
PENOBSCOT COUNTY

PIERS – SOUTHBOUND

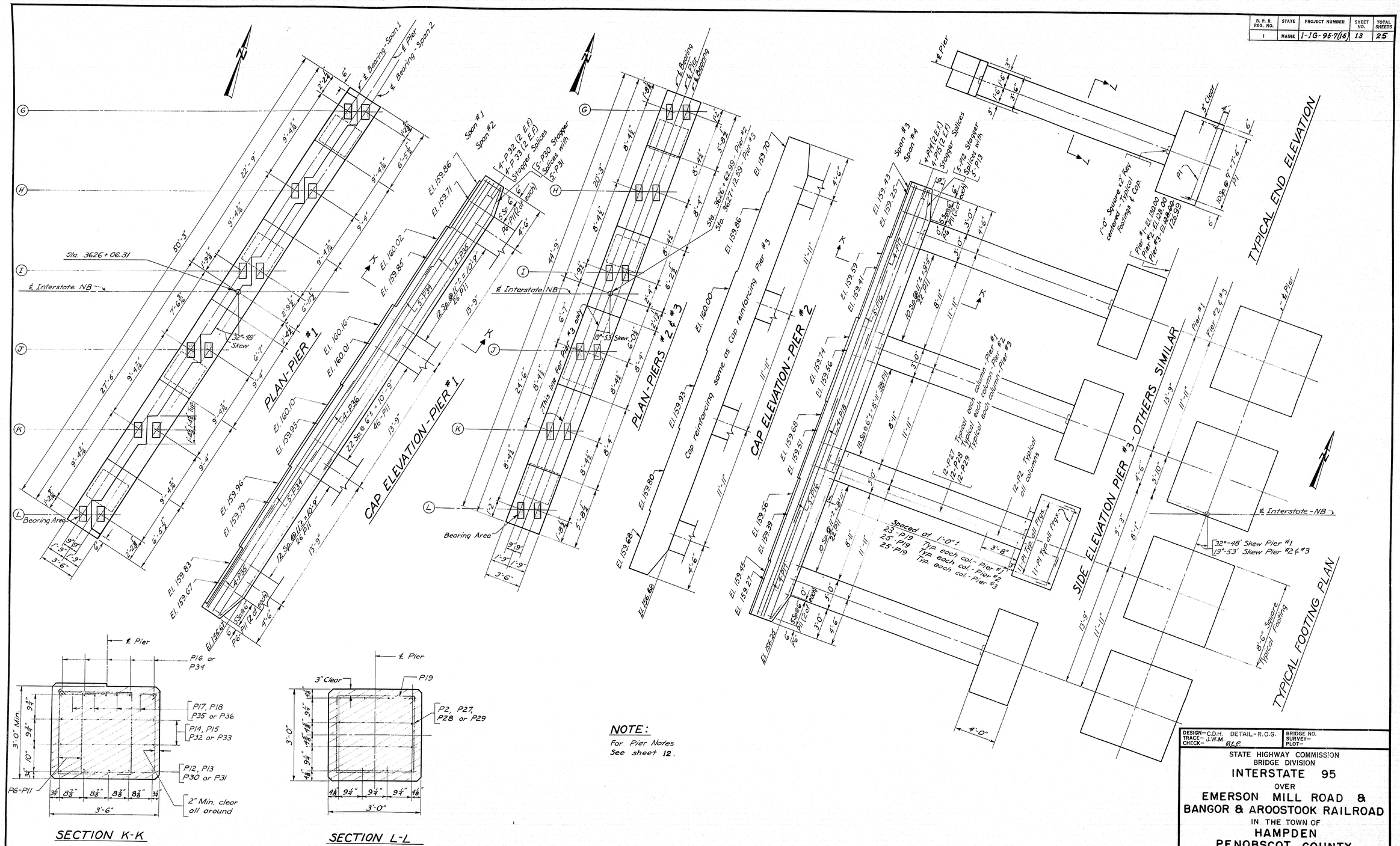
SHEET 12 OF 25 AUGUSTA, MAINE SEPT., 1961

86-44

K+E 1X5 IMPERIAL 10 X 10 TO 1 IN. D. L. M. INC. 27973

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(16)	13	25



NOTE:

For Pier Notes See sheet 12.

DESIGN-C.D.H. DETAIL-R.O.G.
TRACE-J.W.M.
CHECK-
PLOT-

BRIDGE NO.
SURVEY-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN

PENOBSCOT COUNTY

PIERS - NORTHBOUND

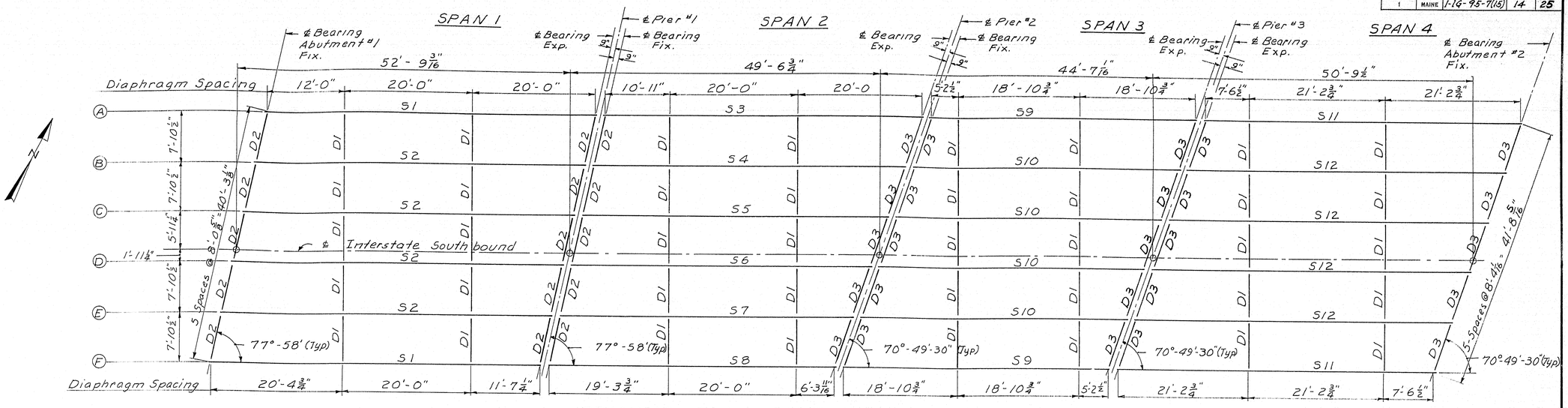
SHEET 13 OF 25 AUGUSTA, MAINE SEPT., 1961

86-45

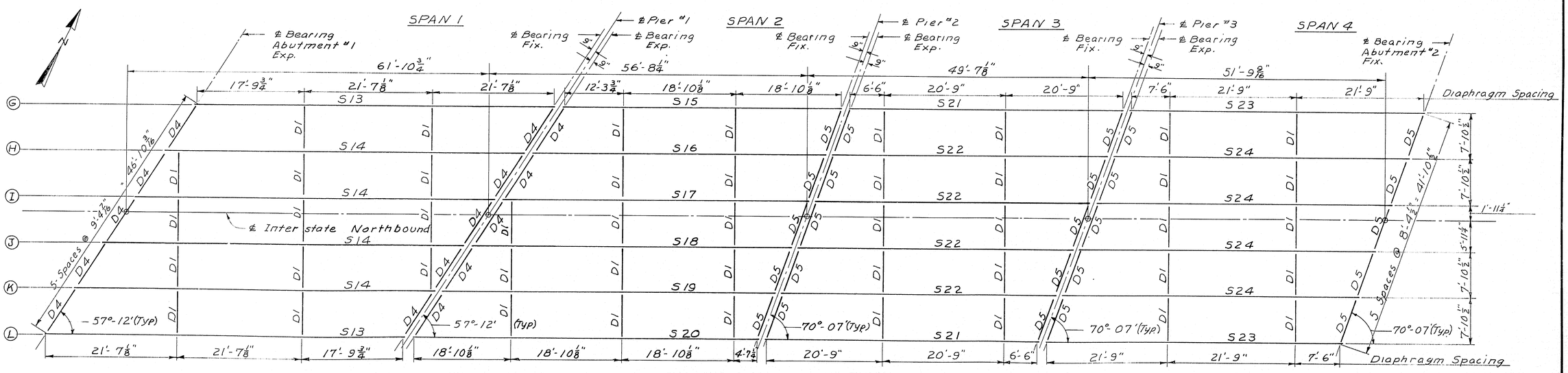
K+E 10 X 10 IMPERIAL (IN 5 X 5 SQUARES) D. L. M. INC. 89921

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	14	25



FRAMING PLAN SOUTHBOUND



FRAMING PLAN NORTHBOUND

DESIGN– C.D.H. DETAIL– C.A.M.
TRACE– G.E.A.
CHECK– R.E.P.

BRIDGE NO.
SURVEY–
PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN
PENOBSCOT COUNTY

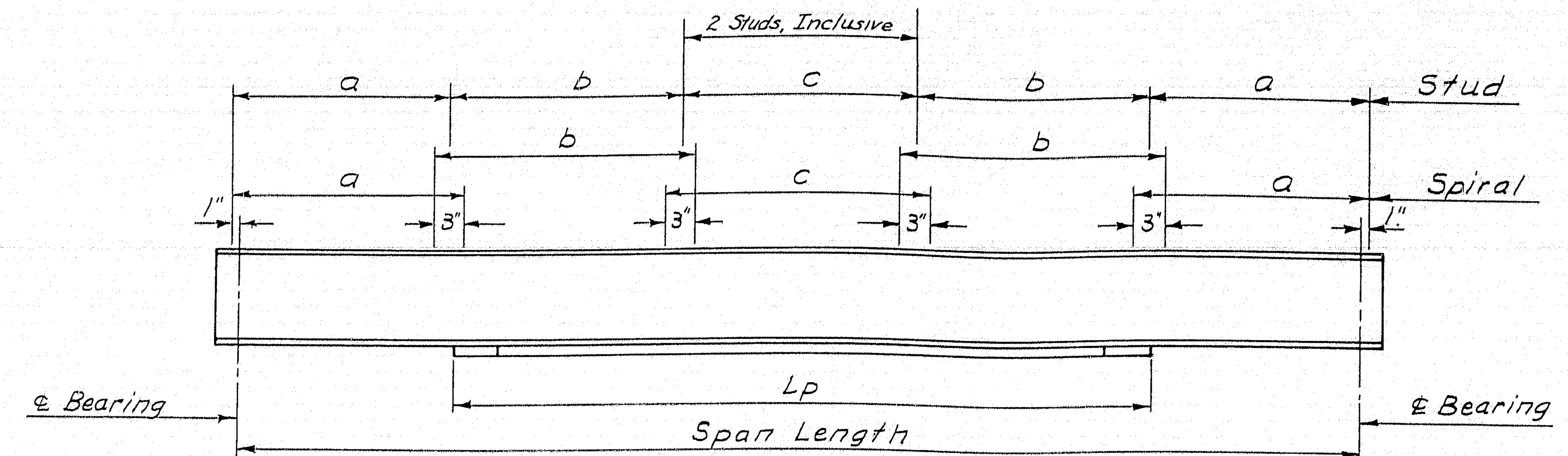
STRUCTURAL STEEL FRAMING PLANS

SHEET 14 OF 25 AUGUSTA, MAINE SEPT., 1961

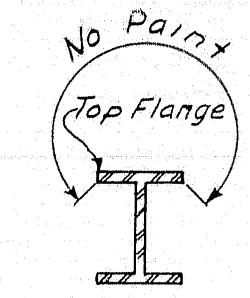
K+E 166 IMPERIAL TRACING CLOTH 5.A. D. L. N. INC. 67671

0 1 2 3 4 5 INCHES

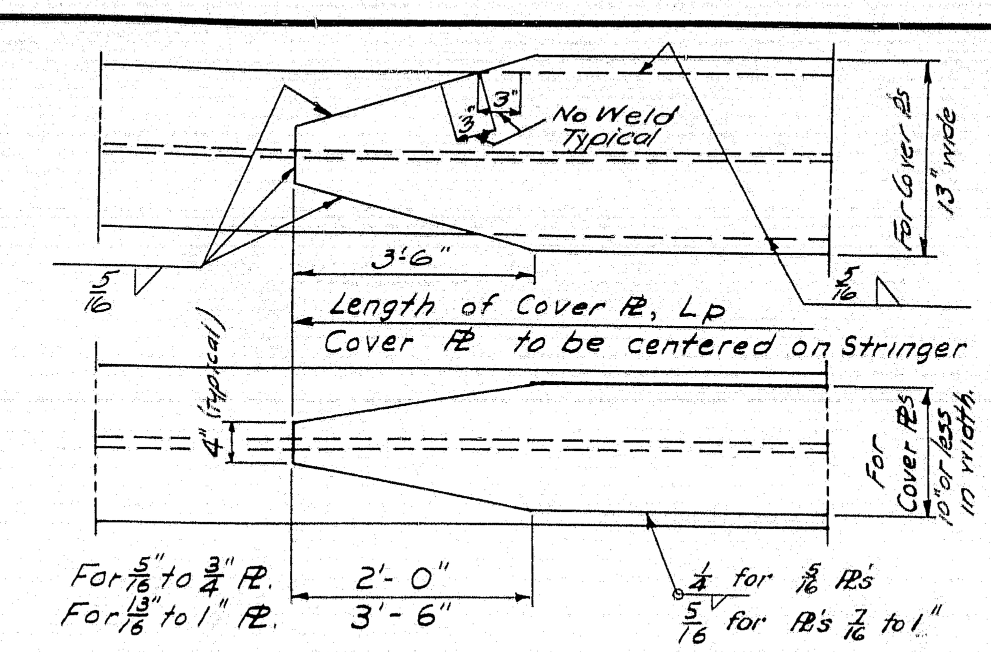
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	15	25



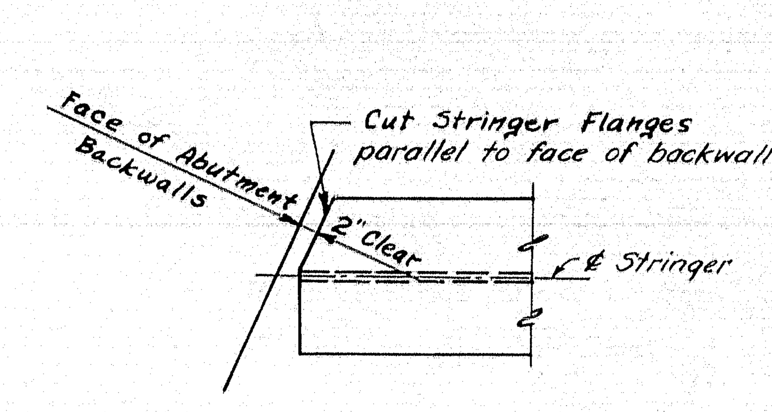
TYPICAL SPIRAL & STUD LAYOUT



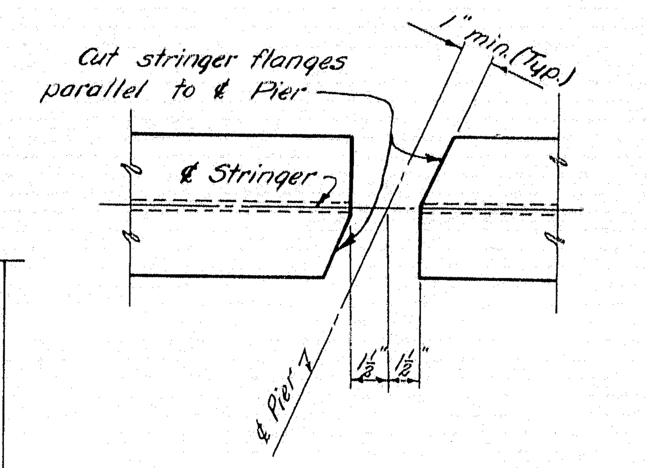
TYPICAL SECTION



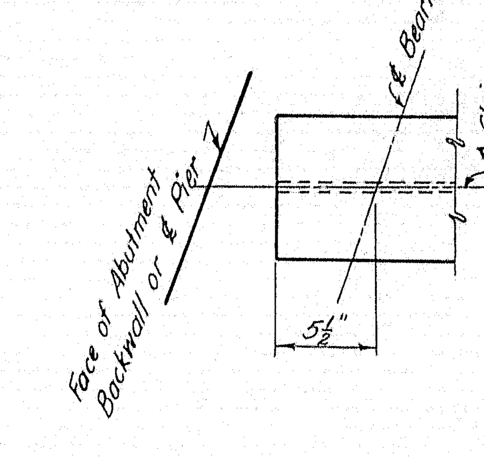
COVER PLATE DETAIL



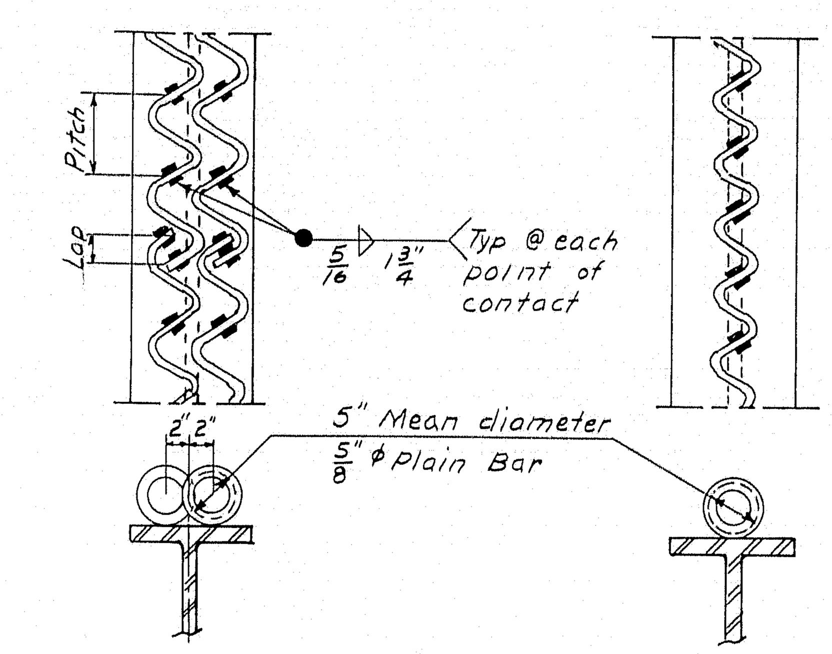
FLANGE CUT DETAIL
OF EXTERIOR STRINGERS AT ABUTMENTS



FLANGE CUT DETAIL
OF EXTERIOR STRINGERS
AT PIERS



DETAIL OF END
OF INTERIOR
STRINGERS

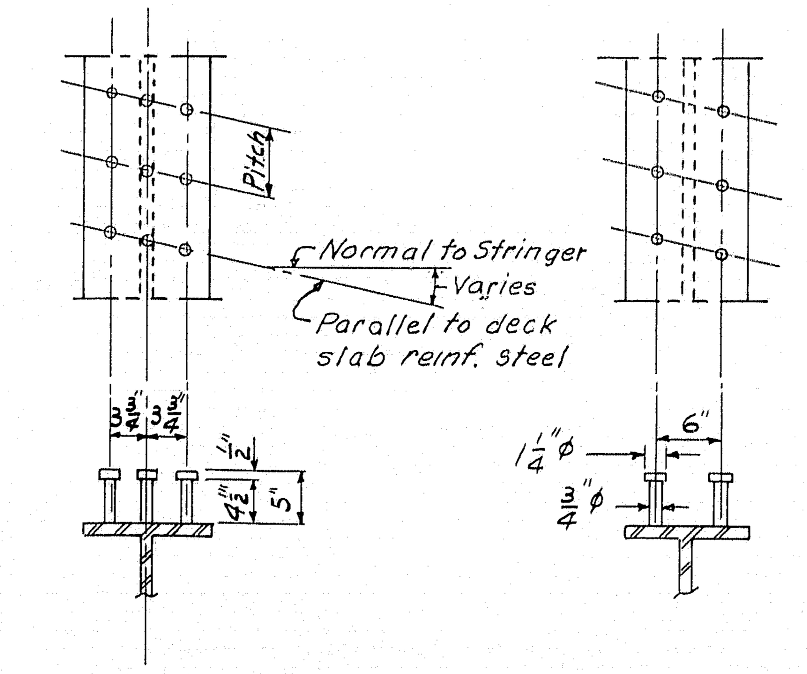


SPIRAL DETAILS

SHEAR CONNECTOR SCHEDULE - SOUTHBOUND

Stringer No.	Section	Cover Plate	Lp	Span Length	Dead Load Deflection	Spirals a: No Per Row	Spirals a: Spaces	Spirals a: Pitch In.	Spirals a: Length	Spirals b: No Per Row	Spirals b: Spaces	Spirals b: Pitch In.	Spirals b: Length	Spirals c: No Per Row	Spirals c: Spaces	Spirals c: Pitch In.	Spirals c: Length	Studs a: No Per Row	Studs a: Spaces	Studs a: Pitch In.	Studs a: Length	Studs b: No. Per Row	Studs b: Spaces	Studs b: Pitch In.	Studs b: Length	Studs c: No Per Row	Studs c: Spaces	Studs c: Pitch In.	Studs c: Length	Studs Per Stringer	Number of Stringers
S1	33WF118	10"×9/16"	32'-0"	52'-0"	11/16"	2	22	5½	10'-1"	2	18	7	10'-6"	1	24	6"	12'-0"	3	26	4¾	10'-3½"	3	22	6¼	11'-5½"	2	16	6½	8'-8"	322	2
S2		10"×3/4"	35'-0"	52'-0"	11/16"	2	29	4¼	10'-3¼"	2	19	7	11'-1"	1	24	5¼±	10'-5½"	3	32	3¾	10'-0"	3	28	6	14'-0"	2	8	6¼	4'-2"	378	4
S3		10"×9/16	34'-0"	50'-11"	11/16"	2	23	5¼	10'-0¾	2	18	7	10'-6"	1	21	6¼±	10'-11½"	3	26	4¾	10'-3½"	3	22	6¼	11'-5½"	2	14	6½	7'-7"	318	1
S4		10"×9/16	33'-0"	49'-10 5/16"	5/8"	2	30	4	10'-0"	2	18	7	10'-6"	1	21	5¾±	10'-0 5/16"	3	32	3¾	10'-0"	3	18	6	9'-0"	2	24	6±	12'-0 5/16	350	1
S5		10"×1/2"	31'-0"	48'-9 5/8"	5/8"	2	29	4¼	10'-3¼"	2	17	6¾	9'-6¾"	1	26	4¾±	10'-3 5/8"	3	32	3¾	10'-0"	3	20	6	10'-0"	2	18	6±	8'-11 5/8	350	1
S6		10"×7/16"	29'-0"	47'-8 7/8"	9/16"	2	28	4¼	9'-11"	2	19	6¾	10'-8¼"	1	16	5¾±	7'-8 3/8"	3	31	3¾	9'-8¼"	3	20	6	10'-0"	2	17	6±	8'-6 3/8"	342	1
S7		10"×7/16"	25'-0"	46'-8 3/16"	1/2"	2	29	4¼	10'-3¼"	2	17	7	9'-11"	1	18	5±	7'-5 11/16"	3	31	3¾	9'-8¼"	3	16	6	8'-0"	2	20	6¾±	11'-3 11/16	324	1
S8		7½"×5/16"	18'-0"	45'-7 7/16"	7/16"	2	24	5½	11'-0"	2	14	7¾	9'-0½"	1	16	5±	6'-8 7/16"	3	25	4¾	9'-10¾"	3	18	6¾	10'-1½"	2	12	5¾±	5'-8 15/16	284	1
S9		—	—	43'-0"	3/8"	2	17	5¾	8'-1¾"	2	13	7½	8'-1½"	1	28	5±	11'-7½"	3	20	5	8'-4"	3	15	6¾	8'-5¼"	2	20	5¾±	9'-7½"	252	2
S10		7½"×5/8"	18'-0"	43'-0"	3/8	2	21	4½	7'-10½"	2	15	7	8'-9"	1	25	5¼±	10'-11"	3	24	4	8'-0"	3	18	6	9'-0"	2	20	5½	9'-2"	294	4
S11		10"×7/16"	27'-0"	50'-0"	5/8"	2	22	5½	10'-1"	2	16	7½	10'-0"	1	22	6	11'-0"	3	26	4¾	10'-3½"	3	20	6½	10'-10"	2	14	6¾±	7'-11"	306	2
S12	33WF118	10"×9/16"	31'-0	50'-0"	5/8"	2	28	4¼	9'-11"	2	19	7	11'-1"	1	20	5½	9'-2"	3	30	3¾	9'-4½"	3	21	6	10'-6"	2	20	6¼	10'-5"	348	4

Total number Studs - Southbound = 7,808



NOTE: Studs are to be granular or solid flux filled studs. They are to be automatically end welded to the stringers in the shop or in the field.

STUD DETAILS

SHEAR CONNECTOR SCHEDULE - NORTHBOUND

Stringer No.	Section	Cover Plate	Lp	Span Length	Dead Load Deflection	Spirals a: No Per Row	Spirals a: Spaces	Spirals a: Pitch In.	Spirals a: Length	Spirals b: No Per Row	Spirals b: Spaces	Spirals b: Pitch In.	Spirals b: Length	Spirals c: No Per Row	Spirals c: Spaces	Spirals c: Pitch In.	Spirals c: Length	Studs a: No Per Row	Studs a: Spaces	Studs a: Pitch In.	Studs a: Length	Studs b: No Per Row	Studs b: Spaces	Studs b: Pitch In.	Studs b: Length	Studs c: No. Per Row	Studs c: Spaces	Studs c: Pitch In.	Studs c: Length	Studs Per Stringer	Number of Stringers
S13	33WF130	10"×1"	46'-0"	61'-0"	1 1/8"	2	28	5¼	12'-3"	2	20	7½	12'-6"	1	29	5¼±	12'-8"	3	30	4¾	11'-10½"	3	23	6½	12'-5½"	2	24	6¼	12'-6"	368	2
S14	33WF130	13"×1"	49'-0"	61'-0"	1 1/8"	2	36	4	12'-0	2	21	7¼	12'-8¼"	1	28	5½±	12'-9½"	3	37	4	12'-4"	3	24	6¼	12'-6"	2	24	5¾	11'-6"	416	4
S15	33WF118	10"×7/16"	27'-0"	50'-0"	5/8"	2	22	5½	10'-1"	2	16	7½	10'-0"	1	22	6	11'-0"	3	26	4¾	10'-3½"	3	20	6½	10'-10"	2	14	6¾±	7-11"	306	1
S16	33WF118	10"×3/4"	37'-0"	52'-2¾"	3/4	2	30	4¼	10'-7½"	2	19	7	11'-1"	1	24	5±	9'-11¾"	3	32	3¾	10'-0"	3	20	6	10'-0"	2	26	5¾±	12'-4¾"	366	1
S17	33WF118	10"×15/16"	42'-0"	54'-5 3/8"	7/8	2	29	4½	10'-10½	2	19	7	11'-1"	1	28	5±	11'-8 3/8"	3	36	4	12'-0"	3	22	6½	11'-11"	2	12	6¾±	6'-9 3/8	374	1
S18	33WF130	10"×1"	42'-0"	56'-8 1/8"	15/16	2	32	4¼	11'-4"	2	19	7¼	11'-5¾"	1	28	5¼±	12'-2 5/8"	3	36	4	12'-0"	3	22	6½	11'-11"	2	18	6±	9'-0 1/8	386	1
S19	33WF130	13"×7/8	48'-0"	58'-10 7/8"	1"	2	32	4½	12'-0"	2	20	7¼	12'-1"	1	30	4¾±	11'-10 7/8"	3	36	4	12'-0"	3	26	6¼	13'-6½	2	16	6±	7'-11 7/8"	406	1
S20	33WF130	10"×1"	46'-0"	61'-1 5/8"	1 1/8"	2	28	5¼	12'-3"	2	20	7½	12'-6"	1	28	5½±	12'-9 3/8"	3	30	4¾	11'-10½"	3	23	6½	12'-5½	2	24	6¼±	12'-7 5/8"	368	1
S21	33WF118	7½"×5/16	24'-0"	48'-0"	9/16"	2	22	5½	10'-1"	2	16	7¾	10'-4"	1	16	6¼	8'-4"	3	26	4½	9'-9"	3	18	6½	9'-9"	2	20	5½	9'-2"	306	2
S22	33WF118	10"×7/16"	29'-0"	48'-0"	9/16"	2	28	4¼	9'-11"	2	18	7	10'-6"	1	20	5	8'-4"	3	32	3¾	10'-0"	3	18	6	9'-0"	2	18	6¾±	10'-2"	338	4
S23	33WF118	10"×1/2"	32'-0"	51'-0"	11/16"	2	23	5¼	10'-0¾"	2	18	7	10'-6"	1	23	5¾±	11'-0½"	3	26	4¾	10'-3½"	3	22	6¼	11'-5½"	2	14	6½±	7'-8"	318	2
S24	33WF118	10"×5/8"	35'-0	51'-0"	11/16"	2	31	4	10'-4"	2	18	7	10'-6"	1	24	5¼	10'-6"	3	34	3½	9'-11"	3	20	6¼	10'-5"	2	21	6	10'-6"	368	4

Total number Studs - Northbound = 8,678

NOTES:

1. Specifications:
   A. Design & Detail - A.A.S.H.O Standard Specifications, 1957
   B. Fabrication & Erection - M.S.H.C. Standard Specifications Highways and Bridges, Revision of Jan. 1956 and Supplemental Specifications, Feb., 1960
2. Loading H20-S16-44 as modified for Interstate Highways.
3. Material: Structural steel shall conform to the latest revision of the Specification ASTM Designation A7.
4. The type of Shear Connectors, Spiral or Stud to be used shall be the option of the Contractor.
5. All stringers shall be cambered the minimum amount likely to remain permanent.
6. Interior stringers shall extend 5½" beyond ℄ Bearings. See note for length of exterior stringers at Piers in "Typ. Part Side View of Superstructure" Sheet 23 and at abutments in "Section A-A" Sheet 19.
7. Anchor Bolts are to be set & grouted before diaphragms are erected.

DESIGN - C.D.H. TRACE - G.E.A. CHECK - R.E.P.	DETAIL - C.A.M.	BRIDGE NO. SURVEY - PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN
PENOBSCOT COUNTY

STRUCTURAL STEEL DETAILS

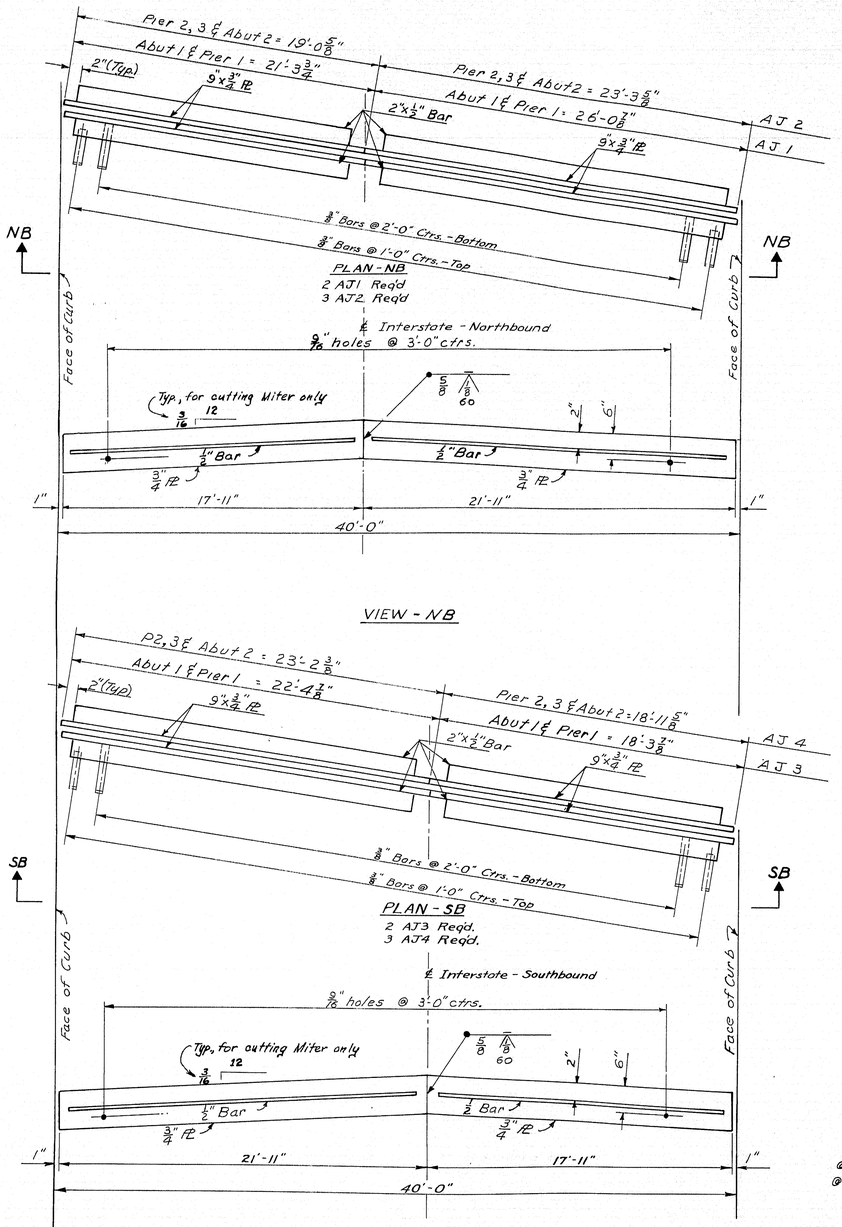
SHEET 15 OF 25 AUGUSTA, MAINE SEPT. 1961

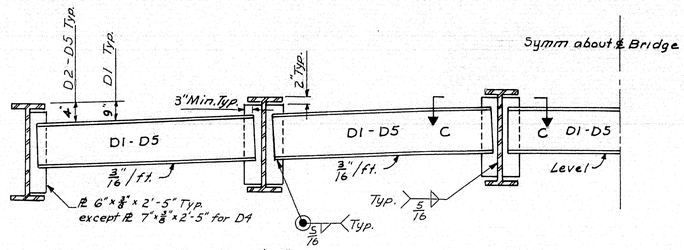
66-47

K&E 166 IMPERIAL TRACING CLOTH T.H. B.L.M. INC. 67071

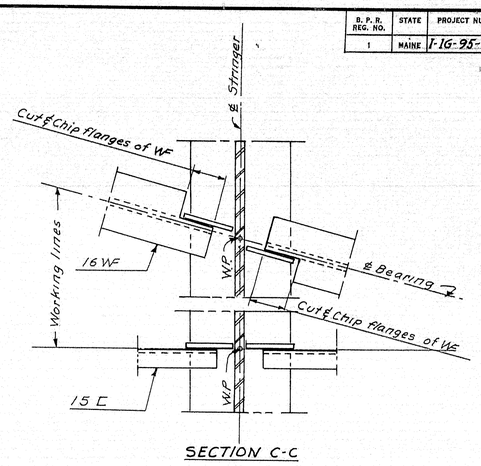
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	16	25



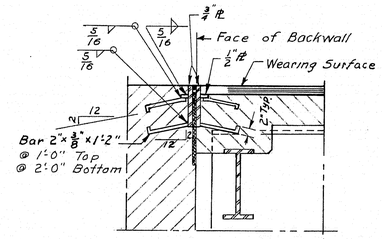


86 - D1	15 C 33.9	x	7'-4"
15 - D2	16 WF 36	x	7'-6 1/2"
25 - D3	16 WF 36	x	7'-10"
15 - D4	16 WF 36	x	8'-8 1/2"
25 - D5	16 WF 36	x	7'-10 1/2"

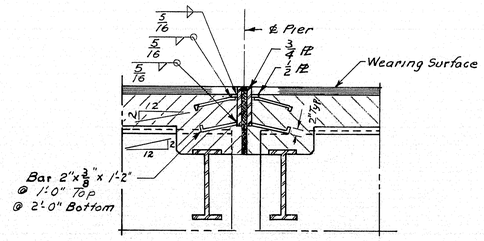


DIAPHRAGM DETAILS

Section looking Northerly



SECTION AT ABUTS. NB & SB



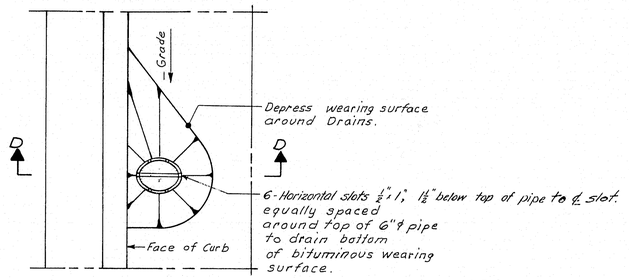
SECTION AT PIERS. NB & SB

Armored joints, including the preformed expansion joint filler, shall be completely assembled and erected before being finally concreted into position.

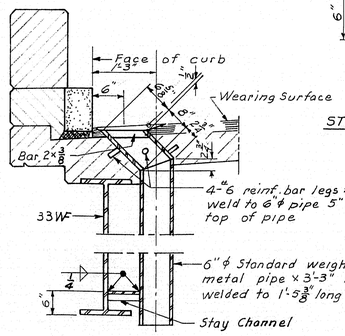
NOTE

Finished grades for setting Armored Jts. are shown on Superstructure Sheets

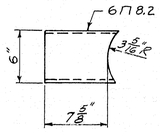
ARMORED JOINT DETAILS



PLAN



SECTION D-D



STAY CHANNEL DETAIL

NOTES:

1. Drains shall conform to the Supplemental Specification Section 702 - Pipe Drains.
2. For locations of Drains see sheets 19, 20, 21, 23.

DRAIN DETAILS

24 Req'd

DESIGN - CD.H DETAIL - G.E.A TRACE - G.E.A. CHECK - R.E.S.	BRIDGE NO. SURVEY - PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN

PENOBSCOT COUNTY

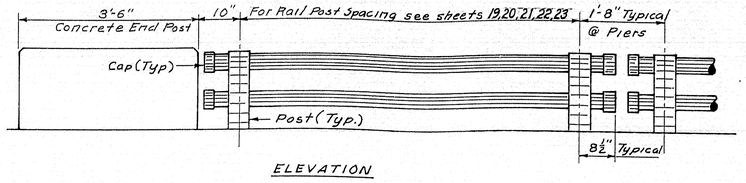
ARMORED JOINT, DIAPHRAGM & DRAIN DETAILS

SHEET 16 OF 25 AUGUSTA, MAINE SEPT. 1961

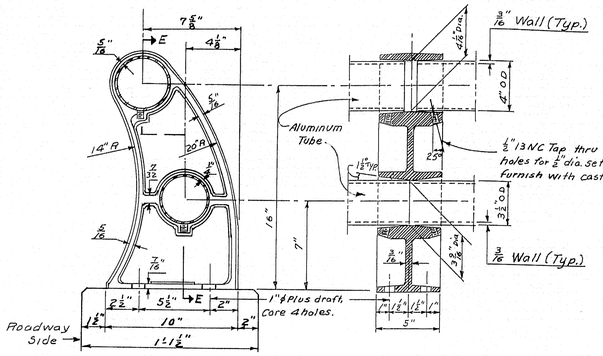
K+E 359 IMPERIAL TRACING CLOTH 5.5 D. L. M. INC. 87021

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	17	25

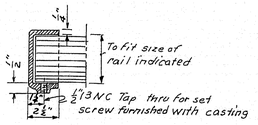


ELEVATION

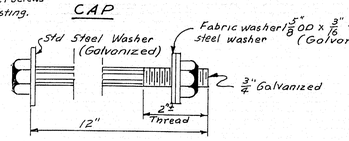


POST

SECTION E-E



CAP

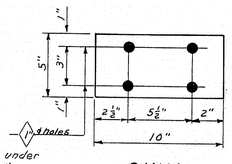


ANCHOR BOLTS

Structural Steel Galvanized

Set bolts with 2" projecting out of concrete

Req'd - 4 each rail post.



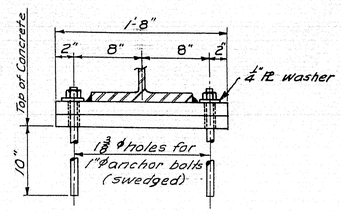
SHIM

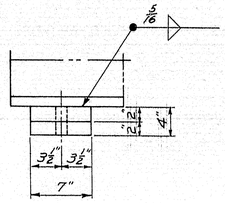
Aluminum Alloy Shims 5" x 1/8" x 0'-10" to be used, and cut as necessary. Furnish in the amount of 50% of number of rail posts.

NOTE

To the extent possible, Aluminum pipe to be continuous for two panels with joints in top & bottom rails staggered. For rails two panels long, set screws at center post to be tight, set screws at ends to bear. For rails one panel long, set screw at one end to be tight, at other end to bear.

ALUMINUM RAIL DETAILS

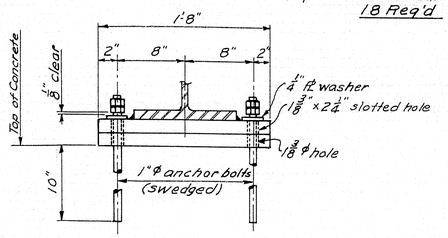


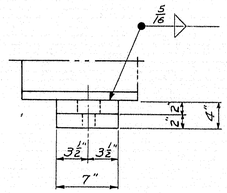


FIXED BEARINGS

For span lengths less than 50'-0" except use this bearing for Stringer S3

18 Req'd

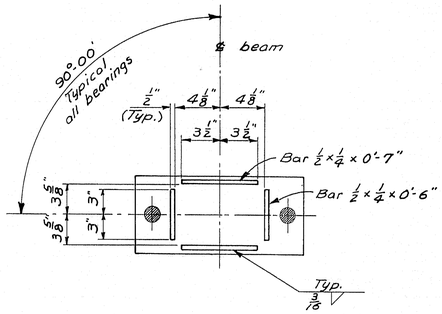




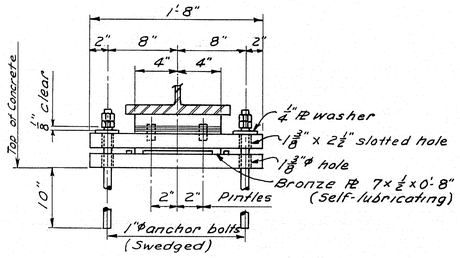
EXPANSION BEARINGS

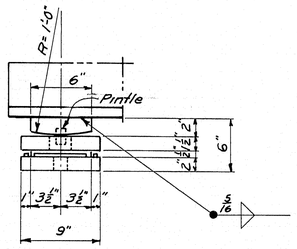
For span lengths less than 50'-0" except use this bearing for Stringer S3

18 Req'd



MASONRY PLATE

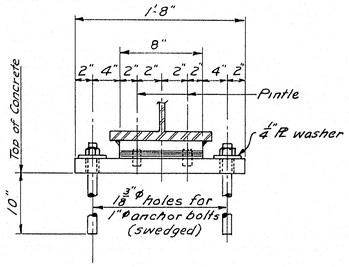


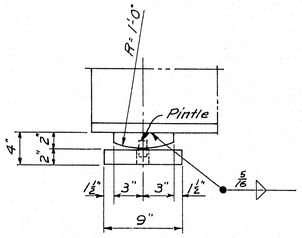


EXPANSION BEARINGS

For span lengths 50'-0" and over except Stringer S3

30 Req'd.

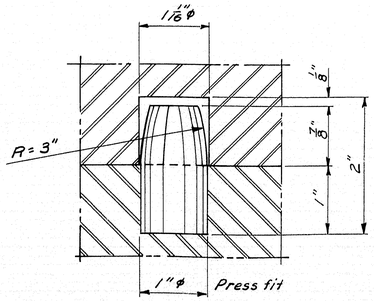




FIXED BEARINGS

For span lengths 50'-0" and over except Stringer S3

30 Req'd.



PINTLE DETAIL

DESIGN– C.D.H. DETAIL– C.D.H. TRACE– G.E.A. CHECK– G.E.B.	BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN

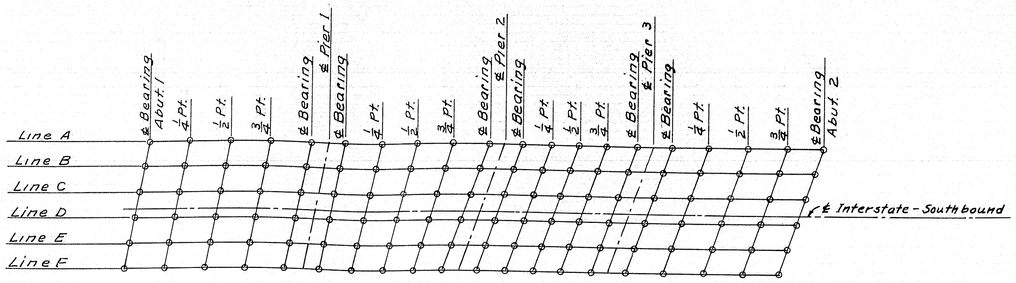
PENOBSCOT COUNTY

BEARINGS AND RAIL DETAILS

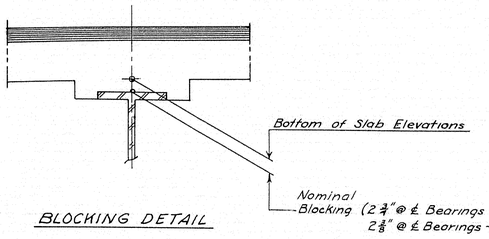
SHEET 17 OF 25 AUGUSTA, MAINE SEPT., 1961

K+E 166 IMPERIAL TRACING CLOTH T.-N. D. L. N. INC. 63971

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	18	25



BLOCKING PLAN SB



BLOCKING DETAIL

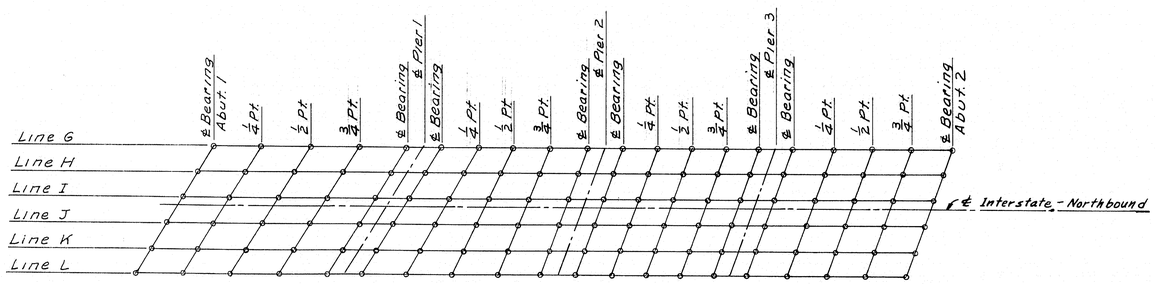
NOTE:

In order that the roadway slab may conform to the profile and cross sections shown on these plans the accompanying table of Elevations is given. Elevations for the bottom of the slab which are computed to compensate for dead load deflections must be set before slab forms are started.

BOTTOM OF SLAB ELEVATIONS - SOUTHBOUND

	SPAN 1					SPAN 2				
	℄ Brg. Abut 1	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 1	℄ Brg. Pier 1	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 2
LINE A	163.48	163.52	163.52	163.49	163.42	163.41	163.42	163.38	163.32	163.21
LINE B	163.61	163.65	163.66	163.63	163.56	163.55	163.56	163.53	163.46	163.36
LINE C	163.75	163.79	163.80	163.76	163.70	163.69	163.69	163.67	163.60	163.51
LINE D	163.82	163.86	163.87	163.83	163.77	163.77	163.77	163.74	163.68	163.60
LINE E	163.68	163.73	163.73	163.70	163.64	163.63	163.64	163.61	163.55	163.47
LINE F	163.54	163.59	163.60	163.57	163.50	163.50	163.50	163.47	163.42	163.35

	SPAN 3					SPAN 4				
	℄ Brg. Pier 2	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 3	℄ Brg. Pier 3	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Abut 2
LINE A	163.20	163.17	163.11	163.03	162.93	162.92	162.86	162.77	162.64	162.48
LINE B	163.36	163.32	163.27	163.19	163.09	163.08	163.02	162.93	162.81	162.66
LINE C	163.51	163.47	163.42	163.34	163.25	163.24	163.18	163.09	162.97	162.81
LINE D	163.59	163.56	163.50	163.43	163.33	163.32	163.27	163.18	163.06	162.91
LINE E	163.47	163.44	163.38	163.31	163.22	163.21	163.15	163.07	162.95	162.80
LINE F	163.34	163.31	163.26	163.19	163.10	163.09	163.04	162.96	162.84	162.69



BLOCKING PLAN NB

BOTTOM OF SLAB ELEVATIONS - NORTHBOUND

	SPAN 1					SPAN 2				
	℄ Brg. Abut 1	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 1	℄ Brg. Pier 1	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 2
LINE G	163.23	163.31	163.32	163.28	163.19	163.18	163.19	163.17	163.11	163.01
LINE H	163.36	163.44	163.46	163.43	163.34	163.33	163.35	163.32	163.27	163.16
LINE I	163.49	163.58	163.60	163.57	163.48	163.48	163.51	163.50	163.43	163.31
LINE J	163.41	163.50	163.53	163.50	163.42	163.42	163.45	163.43	163.36	163.26
LINE K	163.27	163.36	163.39	163.37	163.29	163.29	163.32	163.31	163.25	163.13
LINE L	163.12	163.22	163.26	163.23	163.16	163.15	163.20	163.19	163.13	163.00

	SPAN 3					SPAN 4				
	℄ Brg. Pier 2	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Pier 3	℄ Brg. Pier 3	1/4 Pt.	1/2 Pt.	3/4 Pt.	℄ Brg. Abut 2
LINE G	163.01	162.98	162.93	162.84	162.73	162.72	162.67	162.58	162.45	162.30
LINE H	163.16	163.13	163.08	163.00	162.88	162.87	162.83	162.74	162.61	162.46
LINE I	163.31	163.28	163.23	163.15	163.04	163.03	162.98	162.90	162.77	162.62
LINE J	163.25	163.23	163.18	163.10	162.99	162.98	162.93	162.85	162.73	162.58
LINE K	163.12	163.11	163.06	162.98	162.87	162.86	162.82	162.74	162.61	162.47
LINE L	163.00	162.98	162.94	162.86	162.75	162.74	162.70	162.62	162.50	162.36

DESIGN- C.D.H. DETAIL- G.E.A. TRACE- G.E.A. CHECK- R.E.G.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN

PENOBSCOT COUNTY

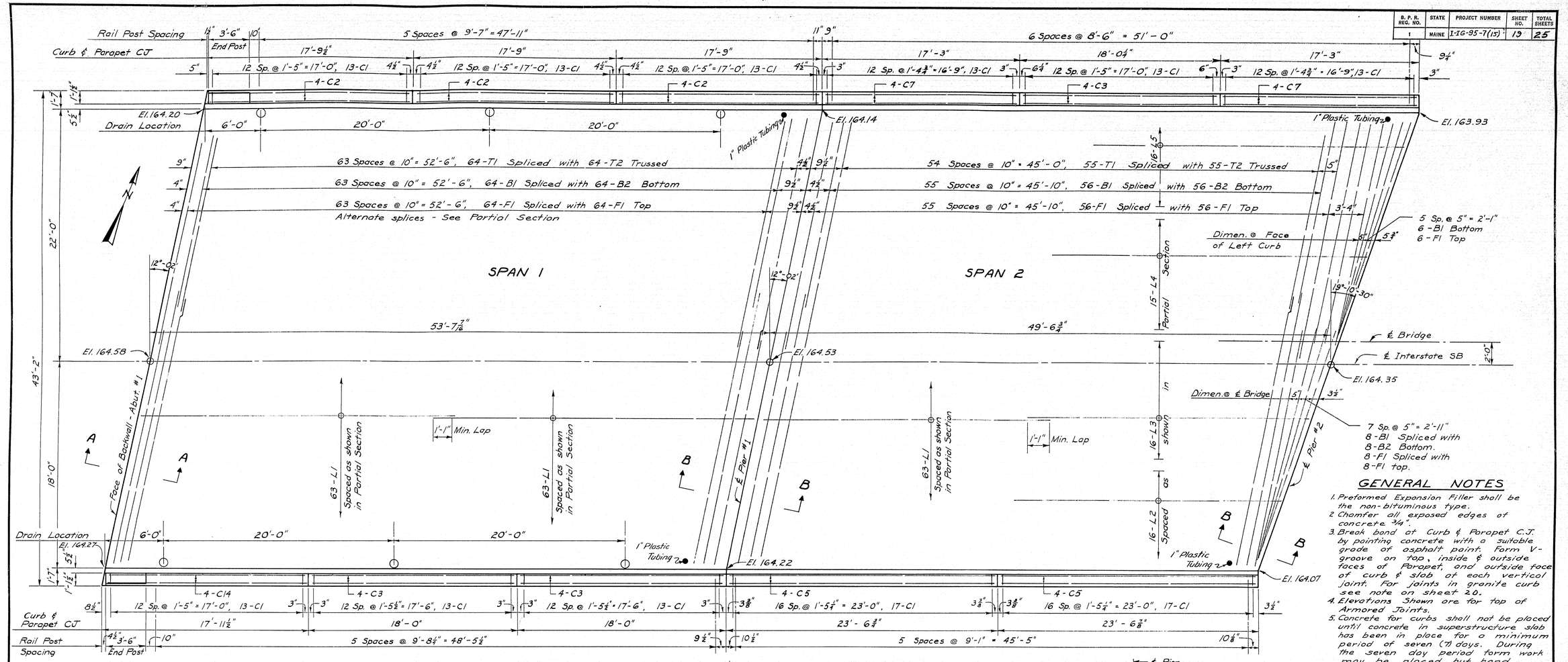
BLOCKING DETAILS

SHEET 18 OF 25 AUGUSTA, MAINE SEPT., 1961

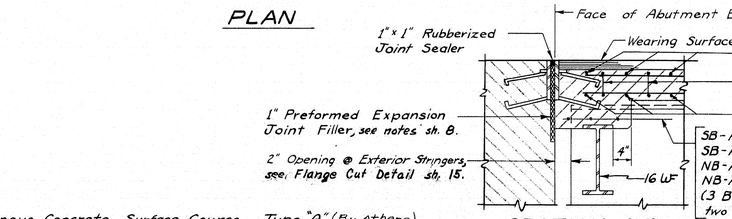
K+E 166 IMPERIAL TRACING CLOTH T.M. D. L. M. INC. 63071

0 1 2 3 4 5 INCHES

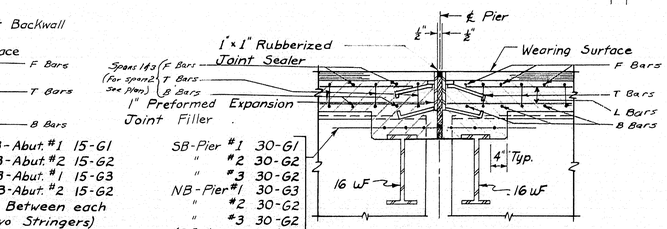
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	19	25



PLAN

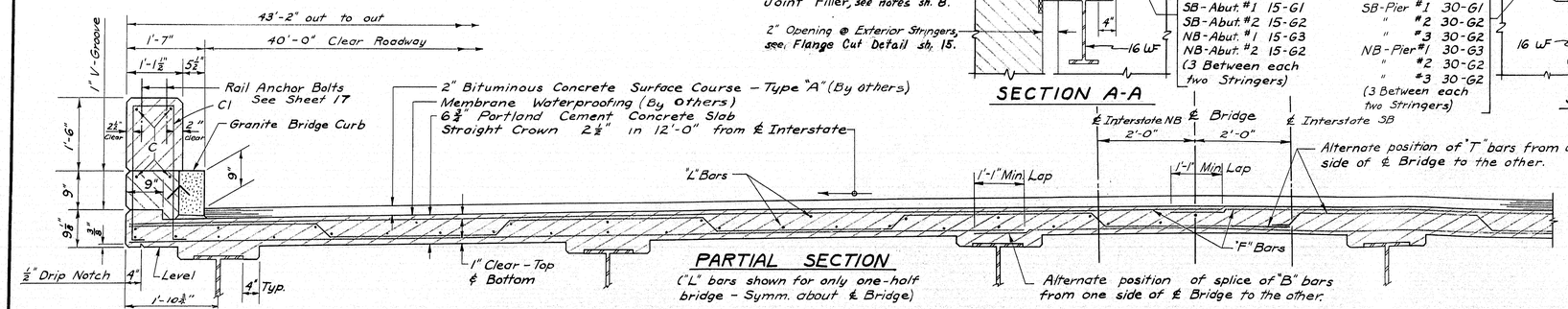


SECTION A-A



SECTION B-B

Arrangement of F, T & B Bars shown in Sections AA-&BB is for Southbound, Northbound arrangement similar where applicable.

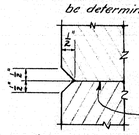


PARTIAL SECTION

("L" bars shown for only one-half bridge - Symm. about ℄ Bridge)

GENERAL NOTES

1. Preformed Expansion Filler shall be the non-bituminous type.
2. Chamfer all exposed edges of concrete 3/4".
3. Break bond at Curb & Parapet C.J. by painting concrete with a suitable grade of asphalt paint. Form V-groove on top, inside & outside faces of Parapet, and outside face of curb & slab of each vertical joint. For joints in granite curb see note on sheet 20.
4. Elevations Shown are for top of Armored Joints.
5. Concrete for curbs shall not be placed until concrete in superstructure slab has been in place for a minimum period of seven (7) days. During the seven day period form work may be placed but hand equipment only shall be allowed on the slab.
6. At the low points in slabs, exact location to be determined by the Engineer, place 1" ø plastic tubing through slab for drainage. Do not cover with waterproofing. Payment to be considered as incidental to contract items.



1" V-GROOVE

NOTE:

For Details see Sheets 20, 23.

DESIGN- C.D.H. TRACE- J.W.M. CHECK- R.E.P.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

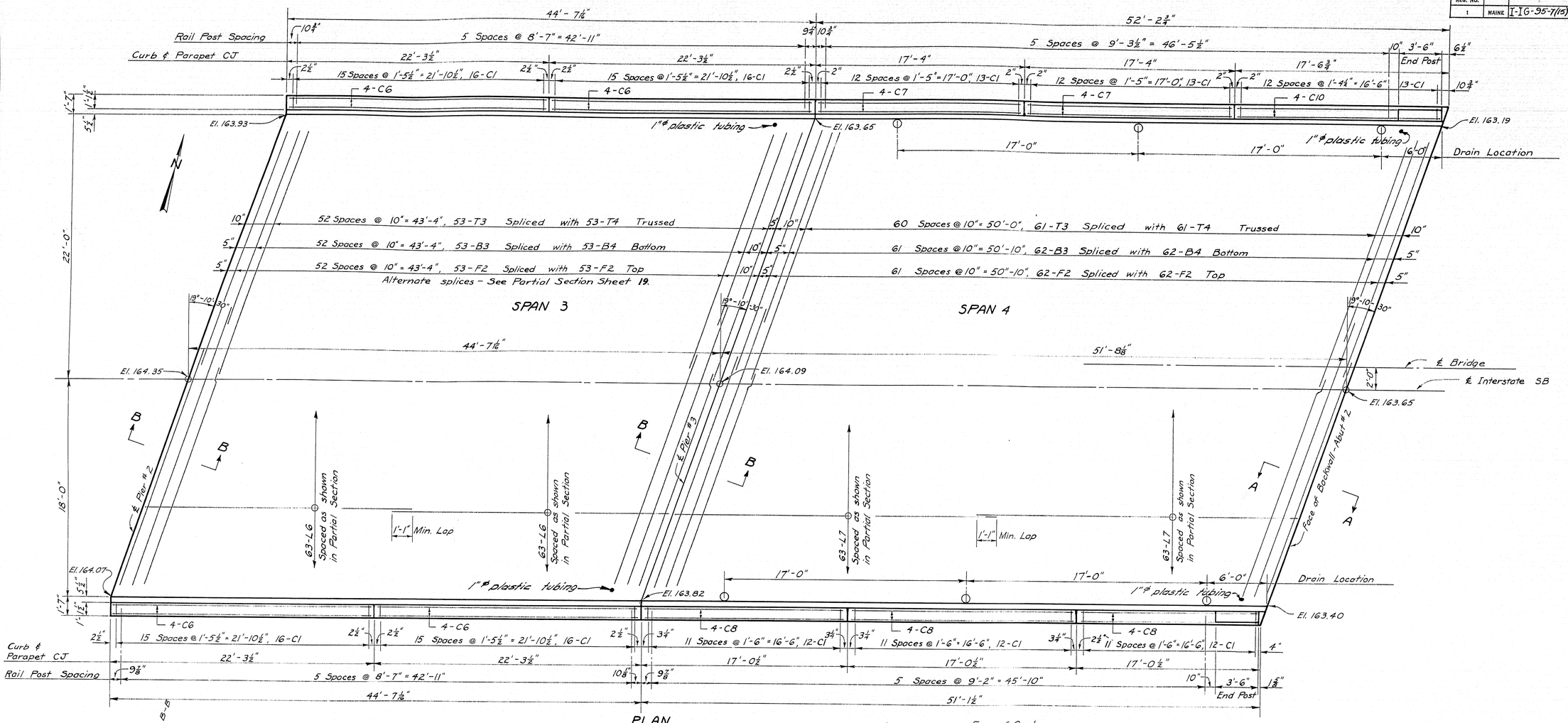
INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

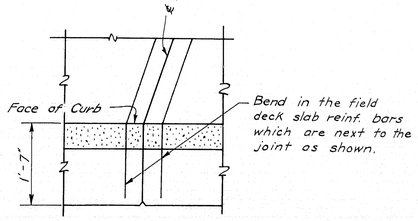
SUPERSTRUCTURE - SPANS 1 & 2 - SB

SHEET 19 OF 25 AUGUSTA, MAINE SEPT. 1961

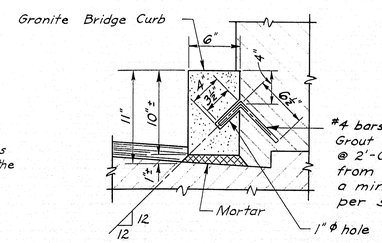
K+E 188 IMPERIAL TRACING MATR. C.N. D. L. M., INC. 67071

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	20	25





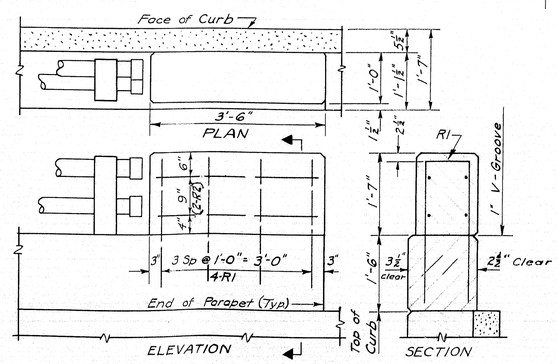
TYP. DETAIL @ ℄ PIERS



TYPICAL SECTION
GRANITE BRIDGE CURB

NOTES

1. Stones at joints of abutment backwalls shall be cut to the skew angles.
2. Joints in Granite Curb shall be located at the ℄ Piers. Other joints need not be located at the Curb & Parapet C.J.s.



TYP. END POST DETAILS

NOTE:
For Sections, General Notes and Details see Sheets 19, 23.

DESIGN— C.D.H.
TRACE— J.W.M.
CHECK— R.E.P.
BRIDGE NO.
SURVEY—
PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

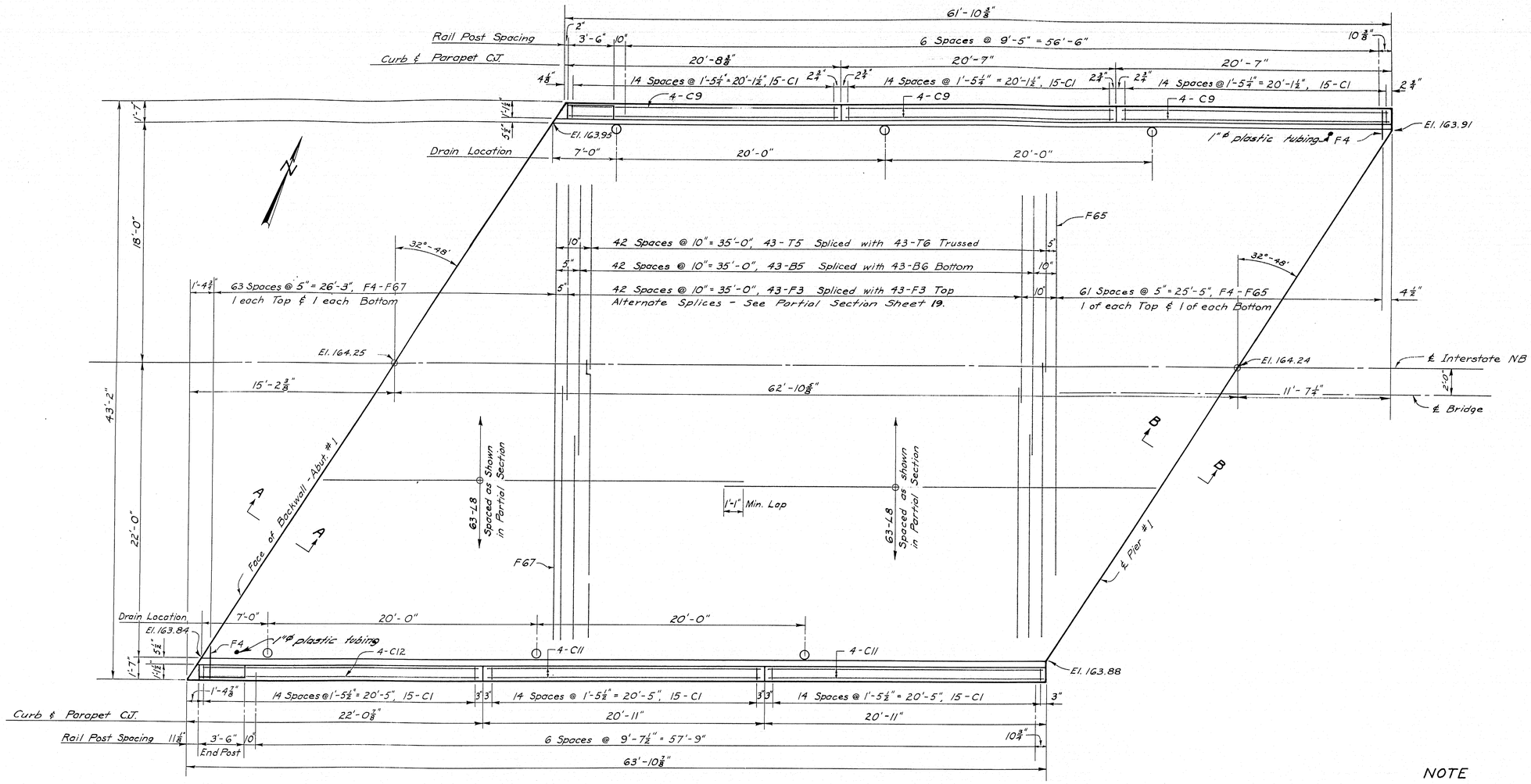
SUPERSTRUCTURE - SPANS 3 & 4 SB

SHEET 20 OF 25 AUGUSTA, MAINE SEPT. 1961

K+E 188 IMPERIAL TRACING CLOTH D. L. M. INC. 47021

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(18)	21	25



For End Post Details & Reinforcing See Sheet 20.

PLAN

NOTE

For Sections, General Notes and Details see Sheets 19, 20, 23.

DESIGN- C.D.H. TRACE- J.W.M. CHECK- R.E.P.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95

OVER

EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD

IN THE TOWN OF

HAMPDEN

PENOBSCOT COUNTY

SUPERSTRUCTURE SPAN 1-NB

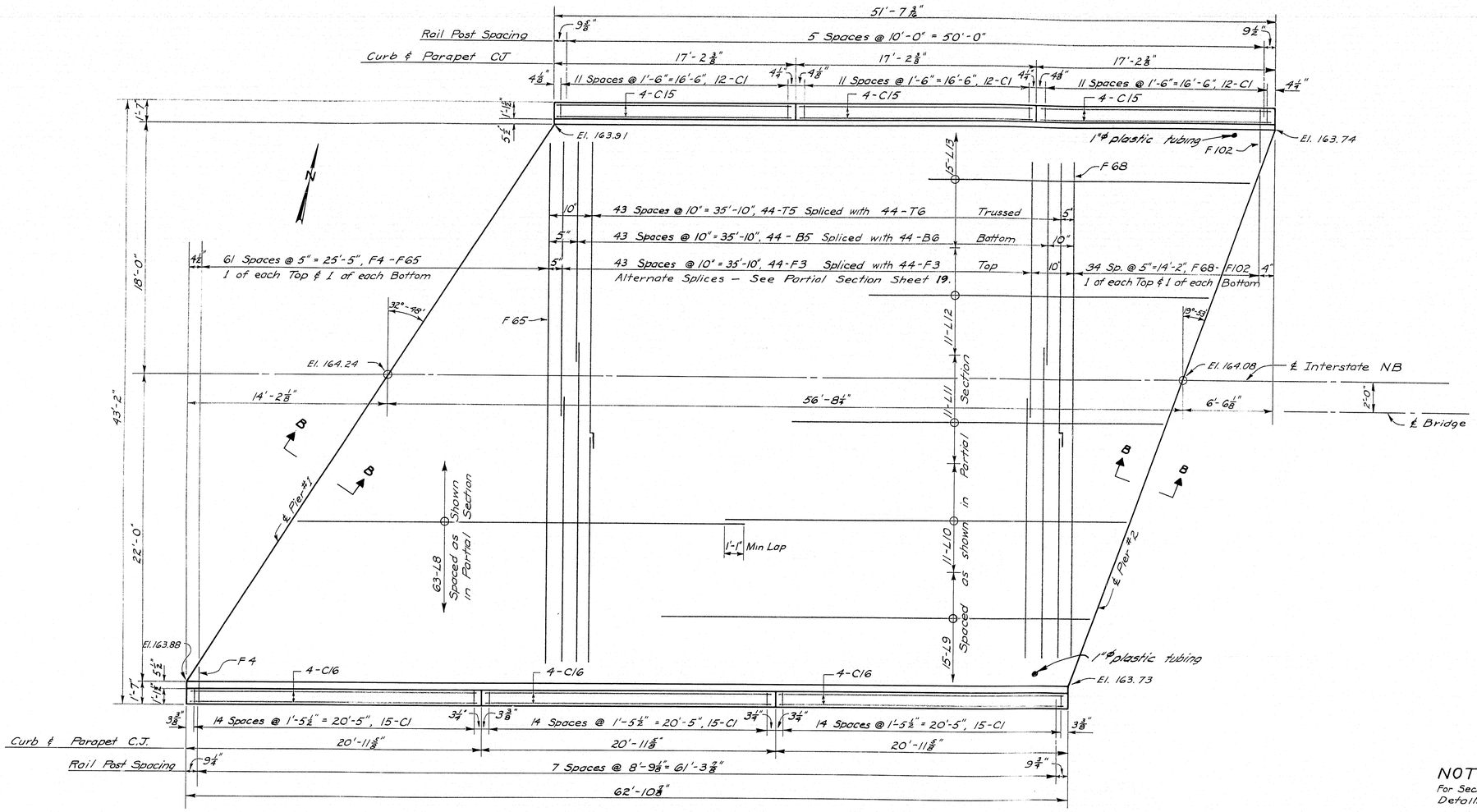
SHEET 21 OF 25 AUGUSTA, MAINE SEPT. 1961

36-58

K+E 100 IMPERIAL 10X10 TO THE INCH 359711 U. S. A. INC.

0 1 2 3 4 5 INCHES

S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	22	25



PLAN

NOTE:
For Sections, General Notes and Details see Sheets 19, 20, 23.

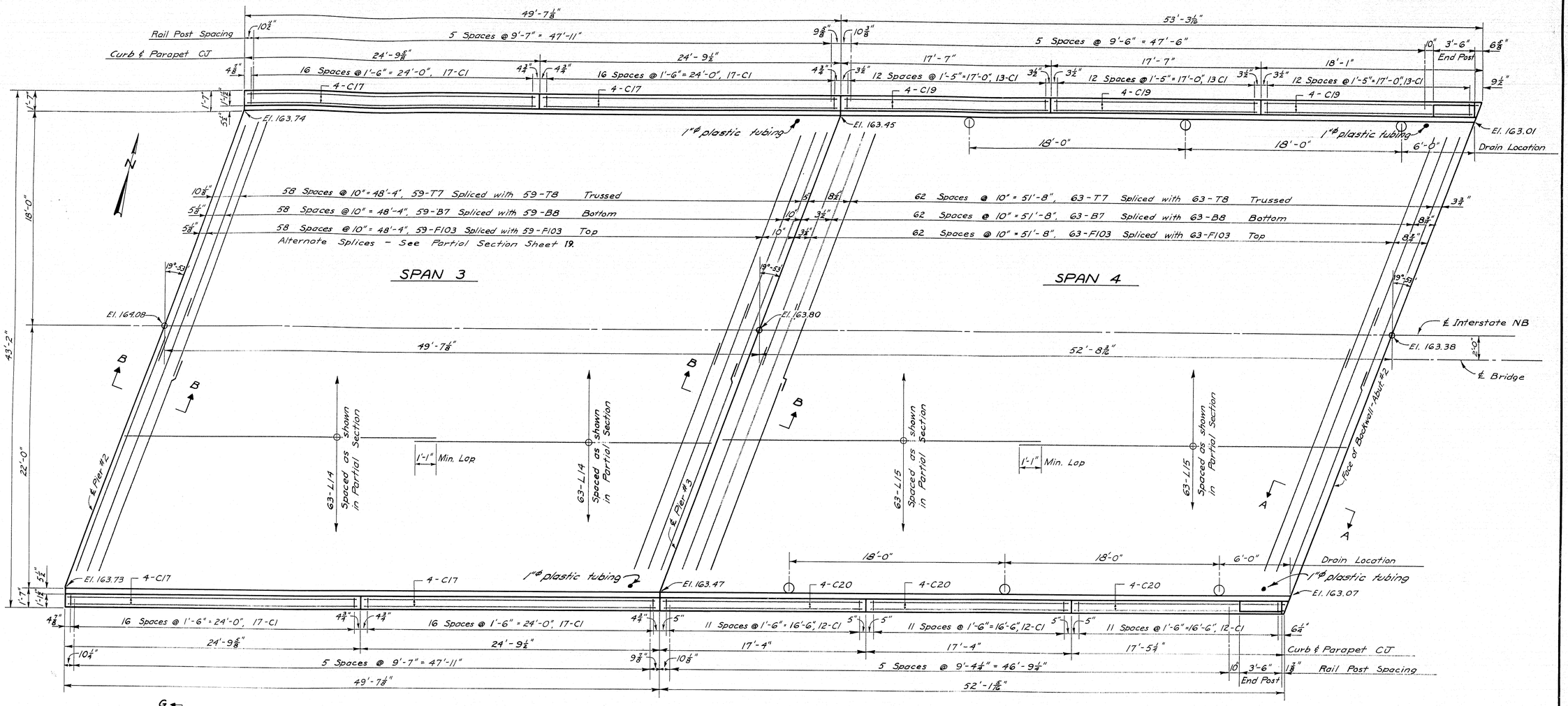
DESIGN– C.D.H.
TRACE– J.W.M.
CHECK– R.E.P.
BRIDGE NO.
SURVEY–
PLOT–

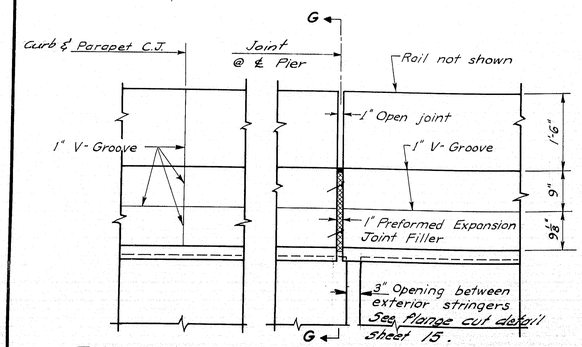
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
EMERSON MILL ROAD &
BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
SUPERSTRUCTURE – SPAN 2 NB
SHEET 22 OF 25 AUGUSTA, MAINE SEPT. 1961

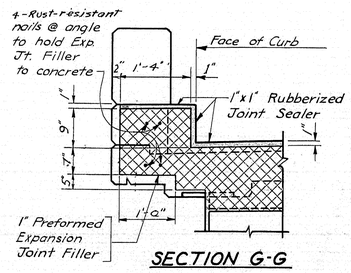
K+E 186 IMPERIAL TRACING SURF. T.R. D. L. M. INC. 27971

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	23	25







NOTE:
For Sections, General Notes and Details see Sheets 19, 20.

DESIGN- C.D.H.
TRACE- J.W.M.
CHECK- R.E.P.
BRIDGE NO.
SURVEY-
PLOT-

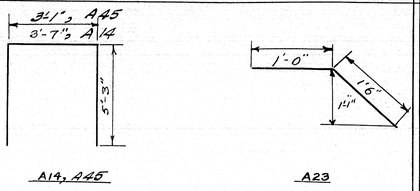
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95
OVER
EMERSON MILL ROAD &
BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
SUPERSTRUCTURE - SPANS 3 & 4 NB
SHEET 23 OF 25 AUGUSTA, MAINE SEPT. 1961

K+E 185 IMPERIAL TRACING CLOTH T.M. B. L. M. INC. 67071

REINFORCING STEEL SCHEDULE

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	24	25

ABUTMENT NO. 1 – S.B.



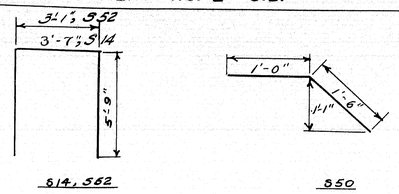
BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A14	#5	41	14'-1"	Bridge Seat
A23	#5	27	2'-6"	Approach Slab Dowel
A45	#5	3	13'-7"	Bridge Seat

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A1	#6	2	2'-9"	Footing
A2		2	3'-4"	
A3		2	3'-10"	
A4		2	4'-5"	
A5		47	5'-0"	
A6		3	32'-5"	
A7		3	24'-7"	
A8		1	32'-2"	
A9		1	30'-2"	
A10		1	28'-4"	
A11		1	23'-9"	
A12		1	21'-11"	
A13	#6	1	20'-1"	Footing
A15	#5	88	5'-1"	Backwall
A16		22	2'-6"	Wing
A17		4	5'-5"	
A18		4	5'-11"	
A19		4	6'-5"	
A20		4	6'-11"	
A21		4	7'-5"	
A22		2	7'-1"	Wing
A24		2	22'-9"	Bridge Seat
A25	#5	2	21'-7"	
A26	#6	4	23'-10"	
A27	#6	4	21'-7"	Bridge Seat
A28	#5	7	28'-11"	Backwall
A29		7	26'-9"	
A30		2	26'-2"	
A31		2	24'-0"	Backwall
A32		3	7'-1"	Wing
A33	#5	3	6'-1"	Wing
A34	#6	8	0'-10"	Granite Block Dowel
A35	#6	18	14'-9"	Approach Slab
A36		18	15'-9"	
A37		18	16'-8"	
A38		18	17'-8"	
A39		22	18'-7"	
A40		22	19'-9"	
A41		22	20'-11"	
A42	#6	22	22'-1"	
A43	#4	32	19'-6"	
A44	#4	32	21'-10"	Approach Slab

ABUTMENT NO. 2 – S.B.



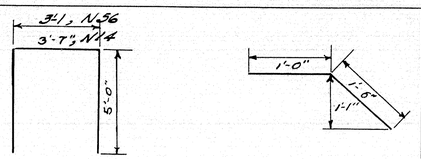
BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
S14	#5	44	15'-1"	Bridge Seat
S50	#5	28	2'-6"	Approach Slab Dowel
S52	#5	2	14'-7"	Bridge Seat

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
S1	#6	2	2'-9"	Footing
S2		2	3'-4"	
S3		2	3'-10"	
S4		2	4'-5"	
S5		51	5'-0"	
S6		3	36'-3"	
S7		3	24'-5"	
S8		1	32'-4"	
S9		1	34'-2"	
S10		1	36'-0"	
S11		1	20'-6"	
S12		1	22'-4"	
S13	#6	1	24'-2"	Footing
S15	#5	92	5'-1"	Backwall
S16		7	31'-3"	
S17		7	28'-6"	
S18		2	27'-8"	
S19		2	24'-9"	Backwall
S20		2	23'-8"	Bridge Seat
S21	#5	2	22'-2"	
S22	#6	4	24'-8"	
S23	#6	4	22'-2"	Bridge Seat
S24	#5	4	5'-5"	Wing
S25		4	5'-10"	
S26		4	6'-4"	
S27		4	6'-10"	
S28		4	7'-3"	
S29		4	7'-9"	
S30		4	7'-10"	
S31		2	7'-6"	
S32		30	2'-6"	
S33		3	8'-8"	
S34	#5	3	7'-6"	Wing
S35	#6	12	14'-9"	Approach slab
S36		12	15'-10"	
S37		12	16'-11"	
S38		12	17'-11"	
S39		12	19'-0"	
S40		12	20'-1"	
S41		16	21'-2"	
S42		12	22'-5"	
S43		12	23'-6"	
S44		12	24'-7"	
S45		12	25'-7"	
S46		12	26'-8"	
S47	#6	12	27'-9"	
S48	#4	32	21'-9"	
S49	#4	32	20'-0"	Approach slab.
S51	#6	8	0'-10"	Granite Block Dowels

ABUTMENT NO. 2 – N.B.



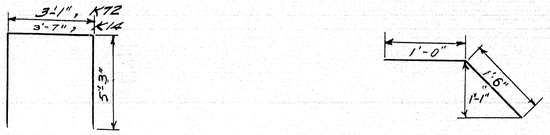
BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
N14	#5	44	13'-7"	Bridge Seat
N29	#5	29	2'-6"	Approach Slab Dowels
N56	#5	2	13'-1"	Bridge Seat

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
N1	#6	2	2'-9"	Footing
N2		2	3'-4"	
N3		2	3'-10"	
N4		2	4'-5"	
N5		49	5'-0"	
N6		3	23'-8"	
N7		3	34'-10"	
N8		1	20'-0"	
N9		1	21'-4"	
N10		1	23'-0"	
N11		1	30'-4"	
N12		1	32'-6"	
N13	#6	1	34'-4"	Footing
N15	#5	92	5'-1"	Backwall
N16		24	2'-6"	Wings
N17		2	5'-2"	
N18		2	5'-8"	
N19		2	6'-2"	
N20		2	6'-8"	
N21		2	7'-2"	
N22		2	5'-1"	
N23		2	5'-7"	
N24		2	6'-1"	
N25		2	6'-7"	
N26		2	7'-1"	
N27		2	7'-2"	
N28		2	6'-9"	Wings
N30		2	23'-6"	Bridge Seat
N31	#5	2	22'-5"	
N32	#6	4	24'-8"	
N33	#6	4	22'-5"	Bridge Seat
N34	#5	7	30'-2"	Backwall
N35		7	27'-4"	
N36		2	27'-5"	
N37		2	24'-7"	Backwall
N38		3	7'-7"	Wing
N39	#5	3	6'-0"	Wing
N40	#6	8	0'-10"	Granite Block Dowels
N41	#6	12	14'-11"	Approach Slab
N42		12	16'-0"	
N43		12	17'-1"	
N44		12	18'-2"	
N45		12	19'-3"	
N46		12	20'-4"	
N47		16	21'-5"	
N48		12	23'-0"	
N49		12	24'-1"	
N50		12	25'-2"	
N51		12	26'-3"	
N52		12	27'-4"	
N53	#6	12	28'-5"	
N54	#4	32	19'-0"	
N55	#4	32	21'-10"	Approach Slab

ABUTMENT NO. 1 – N.B.



All dimensions to ℄ Bars.

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
K14	#5	47	14'-1"	Bridge Seat
K26	#5	32	2'-6"	Approach Slab Dowel
K72	#5	3	13'-7"	Bridge Seat

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
K1	#6	2	2'-9"	Footing
K2		2	3'-4"	
K3		2	3'-10"	
K4		2	4'-5"	
K5		56	5'-0"	
K6		3	34'-7"	
K7		3	31'-7"	
K8		1	34'-2"	
K9		1	32'-4"	
K10		1	30'-6"	
K11		1	31'-2"	
K12		1	29'-4"	
K13	#6	1	27'-6"	Footing
K15	#5	100	5'-2"	Backwall
K16		30	2'-6"	Wings
K17		4	5'-5"	
K18		4	5'-10"	
K19		4	6'-3"	
K20		4	6'-8"	
K21		4	7'-1"	
K22		4	7'-6"	
K23		2	7'-6"	
K24		2	7'-2"	
K25		2	7'-2"	Wings
K27		2	24'-7"	Bridge Seat
K28	#5	2	26'-2"	
K29	#6	4	24'-7"	
K30	#6	4	27'-4"	Bridge Seat
K31	#5	7	33'-4"	Backwall
K32		7	31'-10"	
K33		2	29'-10"	
K34		2	28'-4"	Backwall
K35		3	9'-8"	Wings
K36	#5	3	6'-6"	Wings
K37	#6	8	0'-10"	Granite Block Dowels
K38	#6	8	14'-10"	Approach Slab
K39		8	16'-2"	
K40		8	17'-5"	
K41		8	18'-8"	
K42		8	20'-0"	
K43		8	21'-3"	
K44		8	22'-6"	
K45		8	23'-10"	
K46		8	25'-2"	
K47		8	26'-5"	
K48		8	27'-9"	
K49		6	14'-10"	
K50		6	15'-10"	
K51		6	16'-9"	
K52		6	17'-9"	
K53		6	18'-9"	
K54		6	19'-8"	
K55		6	20'-8"	
K56		6	21'-7"	
K57	#6	6	22'-7"	Approach Slab

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
K58	#6	6	23'-6"	Approach Slab
K59	#6	6	24'-6"	
K60	#6	6	25'-6"	
K61	#4	8	21'-8"	
K62		8	21'-10"	
K63		8	22'-3"	
K64		8	23'-0"	
K65		8	24'-2"	
K66		6	18'-11"	
K67		6	19'-7"	
K68		6	20'-3"	
K69		6	20'-11"	
K70		6	21'-7"	
K71	#4	6	22'-4"	Approach Slab

All Bars to be Intermediate Grade.
f_s = 20,000 p.s.i.

DESIGN + DETAIL – C.D.H., R.O.G.
TRACE – B.S.H.
CHECK – O.E.P.
BRIDGE NO.
SURVEY –
PLOT –

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY
REINFORCING STEEL SCHEDULE NO. 1

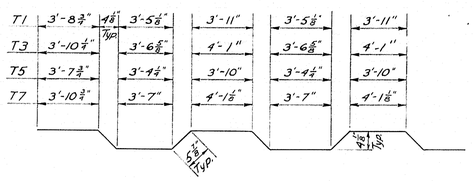
SHEET 24 OF 25 AUGUSTA, MAINE SEPT., 1961

K+E 166 IMPERIAL TRACING CLOTH T.M. D. L. M. INC. 47071

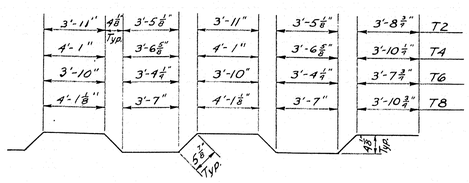
REINFORCING STEEL SCHEDULE

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-IG-95-7(15)	25	25

SUPERSTRUCTURE

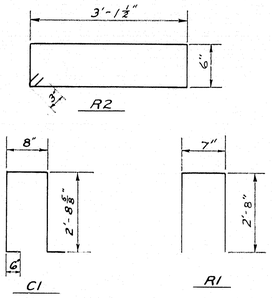


T1, T3, T5, T7

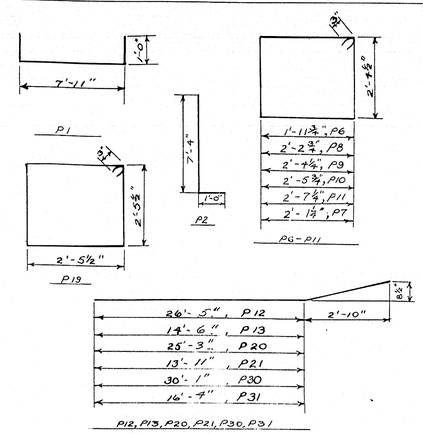


T2, T4, T6, T8

All dimensions to ℄ Bars



PIERS



BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
C1	#4	604	7'-1"	Curbs, NB & SB
R1	#4	32	5'-11"	Rail End Posts, NB & SB
R2	#4	16	7'-9"	Rail End Posts, NB & SB
T1	#5	119	24'-4"	SB Spans 1 & 2
T2		119	22'-0"	SB Spans 1 & 2
T3		114	25'-2"	SB Spans 3 & 4
T4		114	22'-8"	SB Spans 3 & 4
T5		87	23'-10"	NB Spans 1 & 2
T6		87	21'-7"	NB Spans 1 & 2
T7		122	25'-4"	NB Spans 3 & 4
T8		122	22'-10"	NB Spans 3 & 4

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
C2	#4	12	17'-4"	SB Span 1 - Curb
C3		12	17'-8"	SB Spans 1 & 2 - Curb
C5		8	23'-2"	SB Span 2 - Curb
C6		16	21'-11"	SB Span 3 - Curb
C7		16	17'-0"	SB Spans 3 & 2 - Curb
C8		12	16'-7"	SB Span 4 - Curb
C9		12	20'-2"	NB Span 1 - Curb
C10		4	16'-8"	SB Span 4 - Curb
C11		8	20'-7"	NB Span 1 - Curb
C12		4	20'-10"	NB Span 1 - Curb
C14		4	17'-3"	SB Span 1 - Curb
C15		12	16'-10"	NB Span 2 - Curb
C16		12	20'-7"	NB Span 2 - Curb
C17		16	24'-5"	NB Span 3 - Curb
C19		12	17'-2"	NB Span 4 - Curb
C20		12	17'-0"	NB Span 4 - Curb
L1	#5	189	27'-2"	SB Spans 1 & 2
L2		16	21'-9"	SB Span 2
L3		16	23'-3"	SB Span 2
L4		15	24'-8"	SB Span 2
L5		16	25'-11"	SB Span 2
L6		126	22'-7"	SB Span 3
L7		126	26'-2"	SB Span 4
L8		189	31'-9"	NB Spans 1 & 2
L9		15	31'-9"	NB Span 2
L10		11	29'-6"	NB Span 2
L11		11	27'-3"	NB Span 2
L12		11	25'-0"	NB Span 2
L13		15	22'-9"	NB Span 2
L14		126	25'-1"	NB Span 3
L15		126	26'-8"	NB Span 4
G1	#5	45	7'-7"	SB Abut. #1 & Pier #1
G2	#5	150	7'-11"	NB & SB Abut. #2, Piers #2 & #3
G3	#5	45	8'-11"	NB Abut. #1 & Pier #1

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
F1	#5	262	22'-6"	SB Spans 1 & 2
F2		230	23'-3"	SB Spans 3 & 4
F3		174	22'-0"	NB Spans 1 & 2
F4		6	1'-7"	
F5			2'-2"	
F6			2'-10"	
F7			3'-6"	
F8			4'-2"	
F9			4'-9"	
F10			5'-5"	
F11			6'-1"	
F12			6'-9"	
F13			7'-4"	
F14			8'-0"	
F15			8'-8"	
F16			9'-4"	
F17			9'-11"	
F18			10'-7"	
F19			11'-3"	
F20			11'-11"	
F21			12'-6"	
F22			13'-2"	
F23			13'-10"	
F24			14'-6"	
F25			15'-1"	
F26			15'-9"	
F27			16'-5"	
F28			17'-1"	
F29			17'-8"	
F30			18'-4"	
F31			19'-0"	
F32			19'-8"	
F33			20'-3"	
F34			20'-11"	
F35			21'-7"	
F36			22'-3"	
F37			22'-10"	
F38			23'-6"	
F39			24'-2"	
F40			24'-10"	
F41			25'-5"	
F42			26'-1"	
F43			26'-9"	
F44			27'-5"	
F45			28'-0"	
F46			28'-8"	
F47			29'-4"	
F48			30'-0"	
F49			30'-7"	
F50			31'-3"	
F51			31'-11"	
F52			32'-7"	
F53			33'-2"	
F54			33'-10"	
F55			34'-6"	
F56			35'-2"	
F57			35'-9"	
F58			36'-5"	
F59			37'-1"	

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
F60	#5	6	37'-9"	NB Spans 1 & 2
F61			38'-4"	
F62			39'-0"	
F63			39'-8"	
F64			40'-4"	
F65			40'-11"	
F66		2	41'-7"	NB Span 1
F67		2	42'-3"	NB Span 1
F68		2	40'-11"	NB Span 2
F69			39'-9"	
F70			38'-7"	
F71			37'-5"	
F72			36'-4"	
F73			35'-2"	
F74			34'-0"	
F75			32'-10"	
F76			31'-8"	
F77			30'-7"	
F78			29'-5"	
F79			28'-3"	
F80			27'-1"	
F81			25'-11"	
F82			24'-10"	
F83			23'-8"	
F84			22'-6"	
F85			21'-4"	
F86			20'-2"	
F87			19'-1"	
F88			17'-11"	
F89			16'-9"	
F90			15'-7"	
F91			14'-5"	
F92			13'-4"	
F93			12'-2"	
F94			11'-0"	
F95			9'-10"	
F96			8'-8"	
F97			7'-7"	
F98			6'-5"	
F99			5'-3"	
F100			4'-1"	
F101			2'-11"	
F102			1'-10"	
F103		244	23'-4"	NB Spans 3 & 4
B1	#5	134	18'-5"	SB Spans 1 & 2
B2		128	26'-6"	SB Spans 1 & 2
B3		115	19'-1"	SB Spans 3 & 4
B4		115	27'-5"	SB Spans 3 & 4
B5		87	18'-1"	NB Spans 1 & 2
B6		87	25'-11"	NB Spans 1 & 2
B7		122	19'-2"	NB Spans 3 & 4
B8		122	27'-7"	NB Spans 3 & 4

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
P1	#7	528	9'-11"	Pier Ftgs.
P2	#10	288	8'-4"	Pier Columns
P19	#4	620	10'-4"	Pier Columns
P6	#5	24	9'-3"	Pier Caps
P7	#5	24	9'-6"	Pier Caps
P8	#5	24	9'-9"	Pier Caps
P9	#5	24	10'-0"	Pier Caps
P10	#5	24	10'-3"	Pier Caps
P11	#5	526	10'-6"	Pier Caps
P12	#10	20	29'-4"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P13	#10	20	17'-5"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P20	#10	5	28'-2"	Cap Pier #1 (S.B.)
P21	#10	5	16'-10"	Cap Pier #1 (S.B.)
P30	#10	5	33'-0"	Cap Pier #1 (N.B.)
P31	#10	5	19'-3"	Cap Pier #1 (N.B.)

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
P3	#10	48	27'-8"	Pier #1 Col. (S.B.)
P5	#10	48	30'-2"	Pier #3 Col. (S.B.)
P14	#6	16	28'-10"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P15	#6	16	16'-11"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P16	#10	40	24'-1"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P17	#8	32	11'-9"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P18	#7	16	26'-5"	Pier Caps N.B. 2 & 3 & S.B. 2 & 3
P4	#10	48	29'-8"	Pier #2 Col. (S.B.)
P22	#6	4	27'-8"	Cap Pier #1 (S.B.)
P23	#6	4	16'-4"	Cap Pier #1 (S.B.)
P24	#10	10	23'-2"	Cap Pier #1 (S.B.)
P25	#8	8	11'-6"	Cap Pier #1 (S.B.)
P26	#7	4	25'-3"	Cap Pier #1 (S.B.)
P27	#10	48	25'-4"	Pier #1 Col. (N.B.)
P28	#10	48	27'-4"	Pier #2 Col. (N.B.)
P29	#10	48	26'-11"	Pier #3 Col. (N.B.)
P32	#6	4	32'-6"	Cap Pier #1 (N.B.)
P33	#6	4	18'-9"	Cap Pier #1 (N.B.)
P34	#10	10	26'-10"	Cap Pier #1 (N.B.)
P35	#8	8	12'-8"	Cap Pier #1 (N.B.)
P36	#8	4	30'-5"	Cap Pier #1 (N.B.)

All Bars to be Intermediate Grade.
fs = 20,000 p.s.i.

DETAIL- R.O.G., J.W.M.
TRACE- J.W.M., G.S.H.
CHECK- R.E.B.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
EMERSON MILL ROAD & BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
HAMPDEN
PENOBSCOT COUNTY

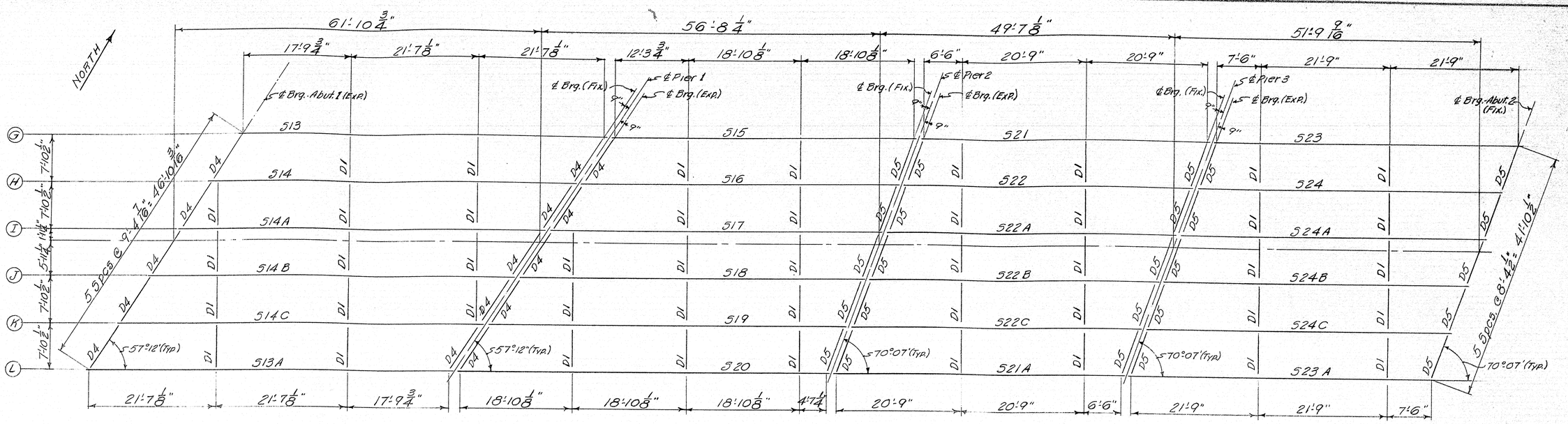
REINFORCING STEEL SCHEDULE NO. 2

SHEET 25 OF 25 AUGUSTA, MAINE SEPT., 1961

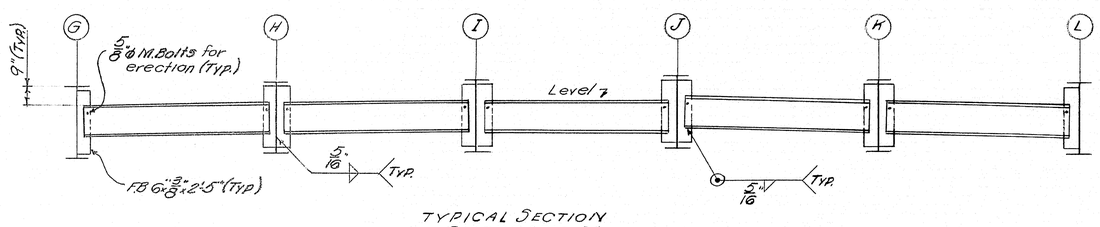
86-57

K+E 155 IMPERIAL TRACING CLOTH 1.H. D. L. McING. 27871

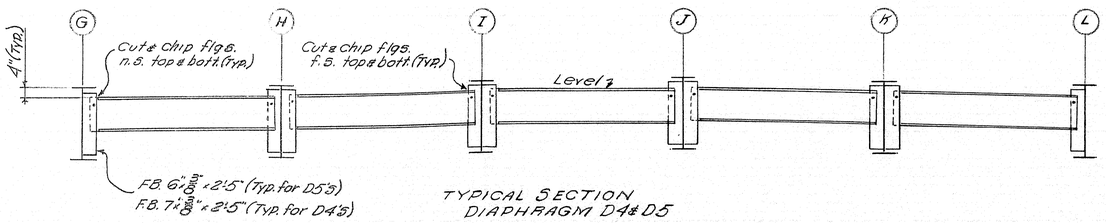
0 1 2 3 4 5 INCHES



FRAMING PLAN



TYPICAL SECTION
DIAPHRAGM D1



TYPICAL SECTION
DIAPHRAGM D4 & D5

Hampden - Emerson Mill Rd & B.&A.R.R.
Original Shop Detail Tracings
No. Bd.
B 62-43A-E1
So. Bd.
B 62-43-E1
10/2/63
O.K.

N	3-20-62	P.L.F.	
ON			
ON			
ON			

APP. 5-1-62

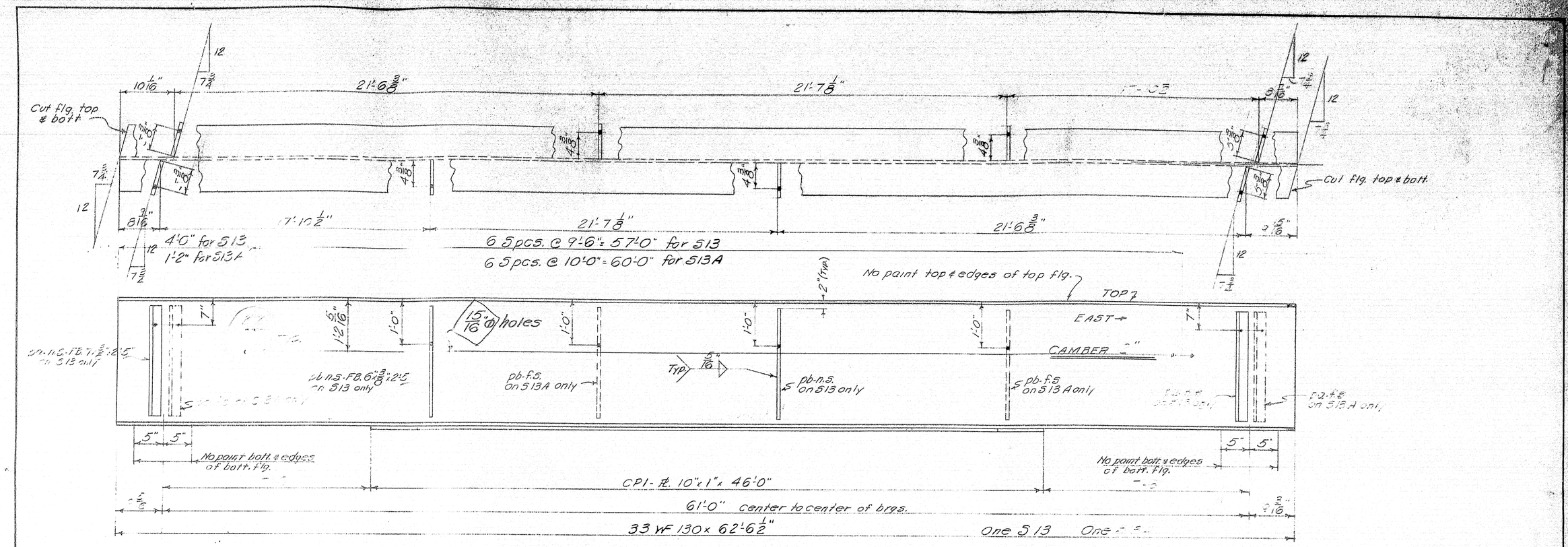
FRAMING PLAN

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. B62-43A-E1

[redacted]



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43-S13 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER EMERSON MILL RD. & B.&A.R.R.
HAMPDEN, MAINE

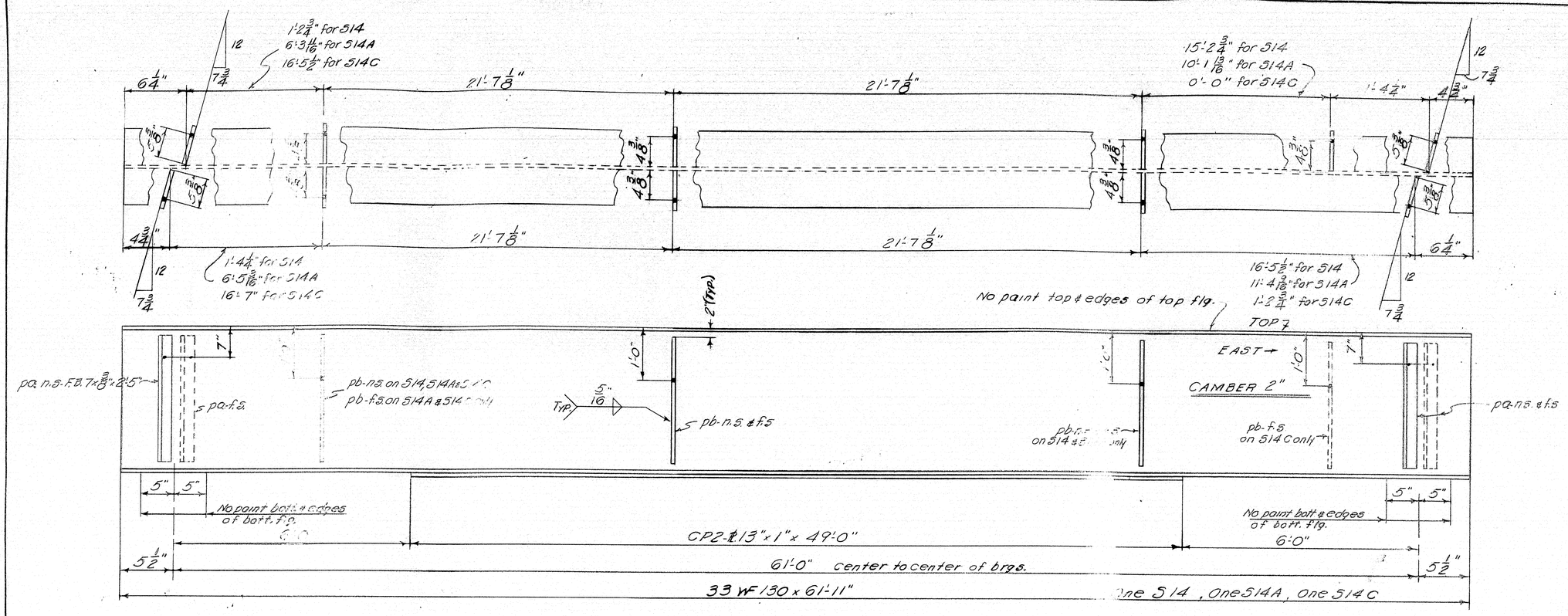
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43A-S1

APP. 5-1-62

86-59

0 1 2 3 4 5 INCHES



NOTES:
Shop Conn.: Welded
Field Conn.: welded
Holes: 13/16" ⌀
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg 362-45[illegible] for Stud Shear Connector layout, cover plate detail & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

APP. 5-1-62

STRINGER DETAIL

Bancroft & Martin-Rolling Mills & company
South Portland 7, Maine

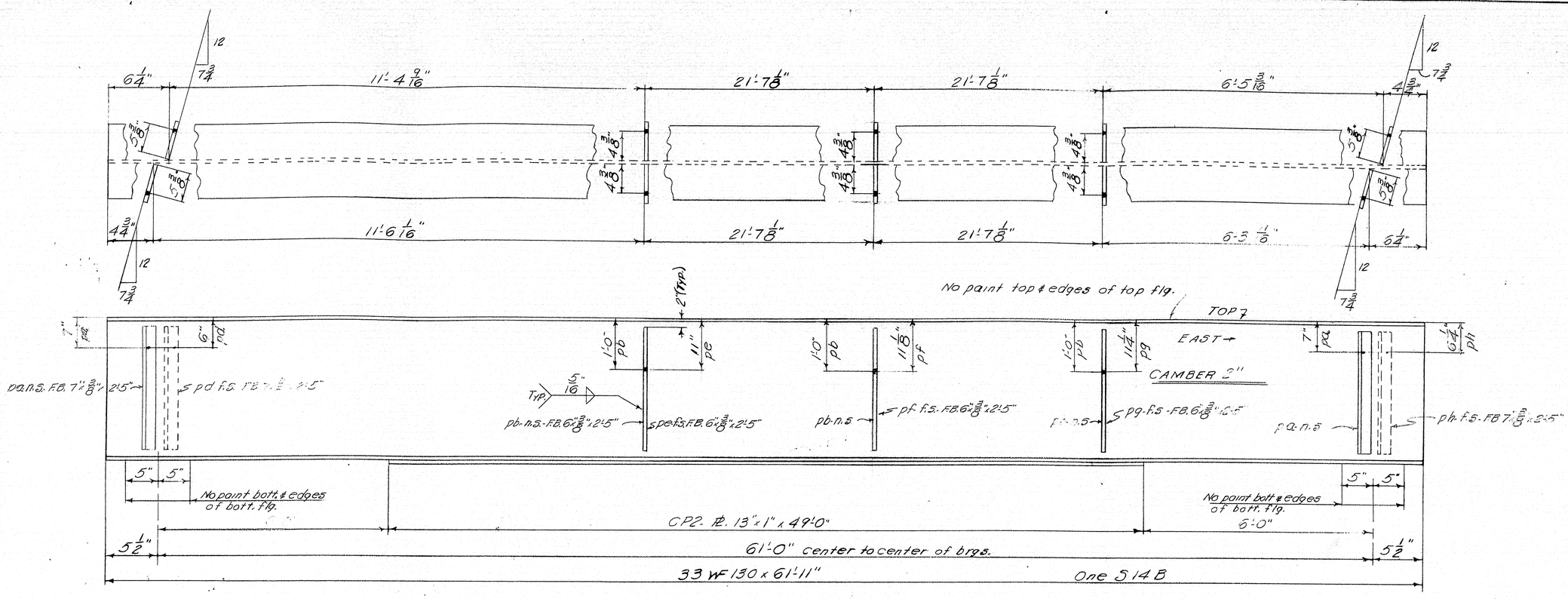
INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. [illegible]
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.

ORDER NO. _____ DWG. NO. 362-4[illegible]A-92

86-60

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A513 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills & Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

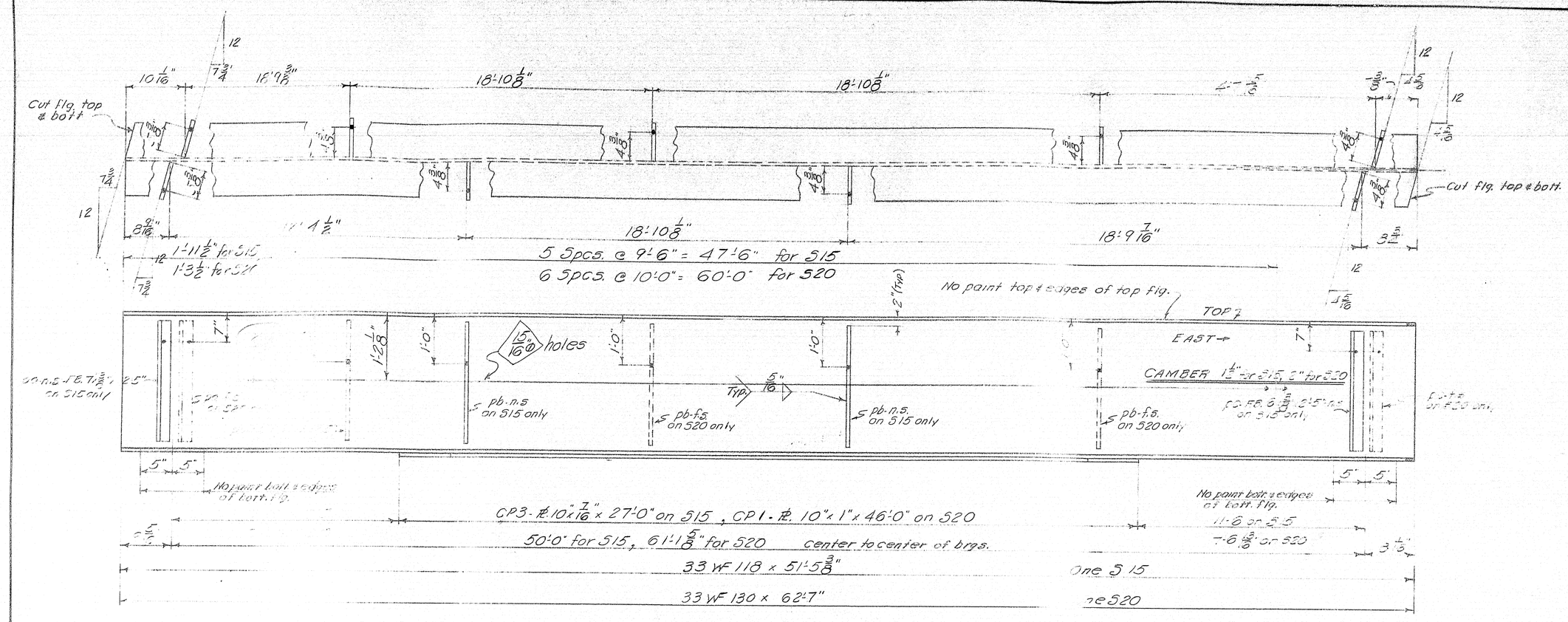
DRAWN	3-13-62	P.L.F.
REVISION	5-3-62	P.L.F.
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. ____ DWG. NO B62-43A513

APP. 5-1-62

06-61

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 15/16" Φ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43-513 for Stud Shear Connector layout, Cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

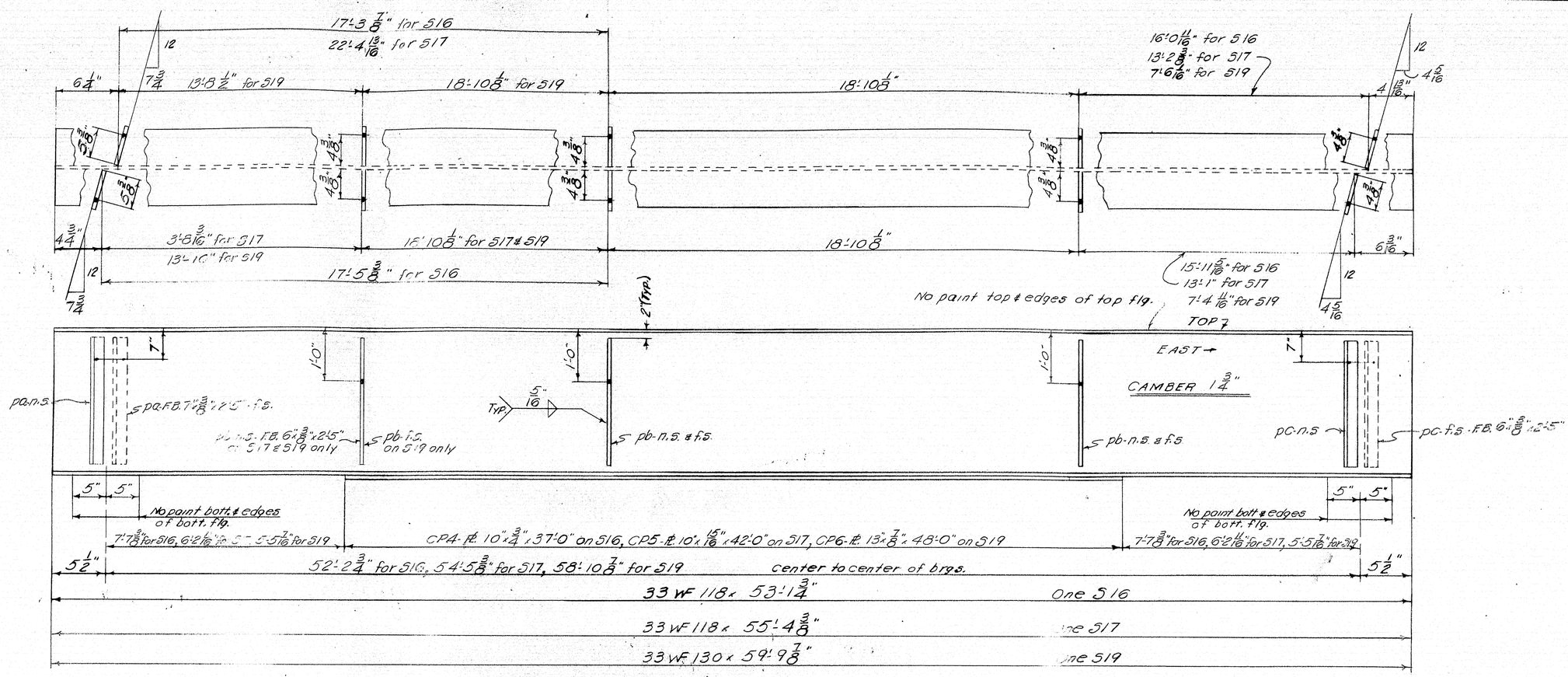
INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B.&A.R.R.
HAMPDEN, MAINE

DRAWN	3-13-62	P.L.F.
REVISION	5-3-62	P.L.F.
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. B6243A54

86-62

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A-5B for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.

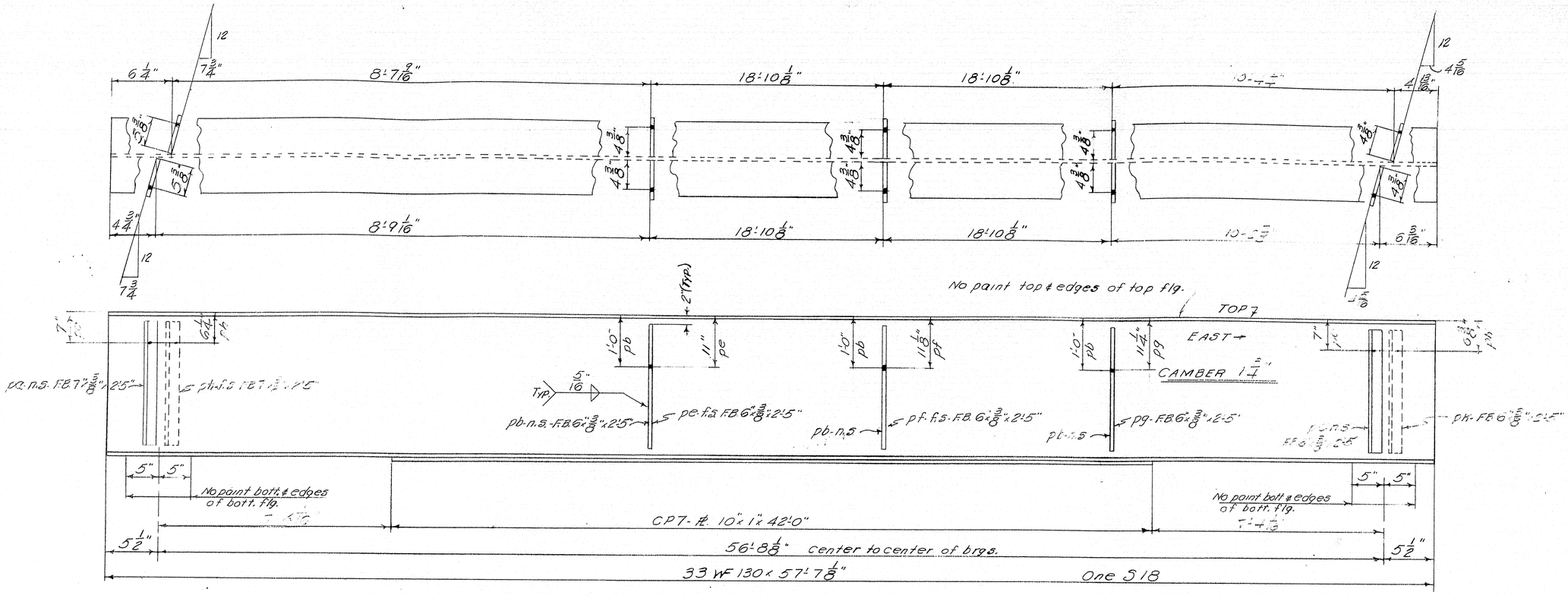
ORDER NO. _____ DWG. NO. B62-43A-55

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

APP. 5-1-62

06-63

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" Φ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A-S13 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin-Rolling Mills & company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

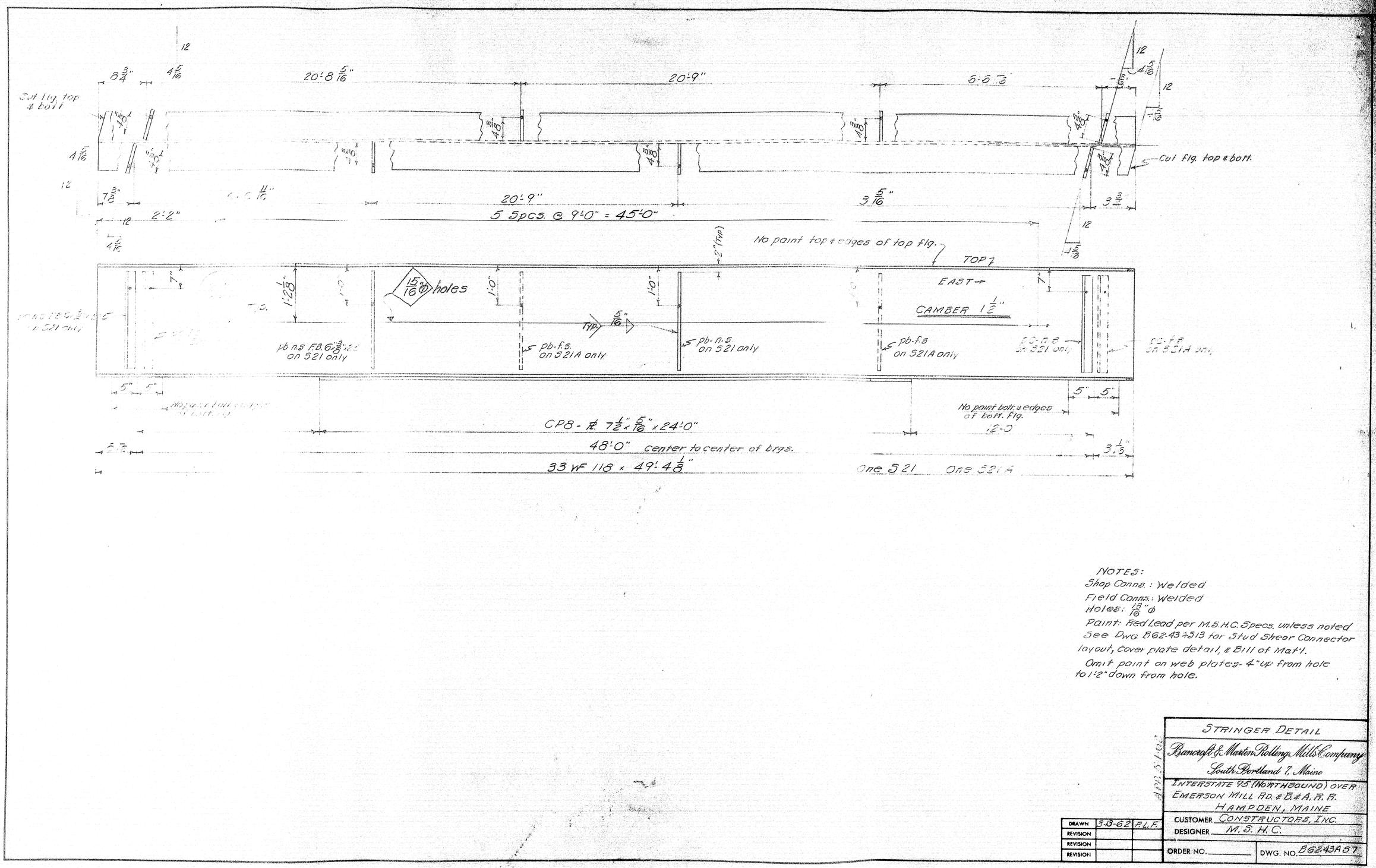
DRAWN	3-13-62	P.L.F.
REVISION	5-3-62	P.L.F.
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO.
DWG NO. B62-43A-S6

APR 5-1-62

86-64

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ⌀
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43 4313 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

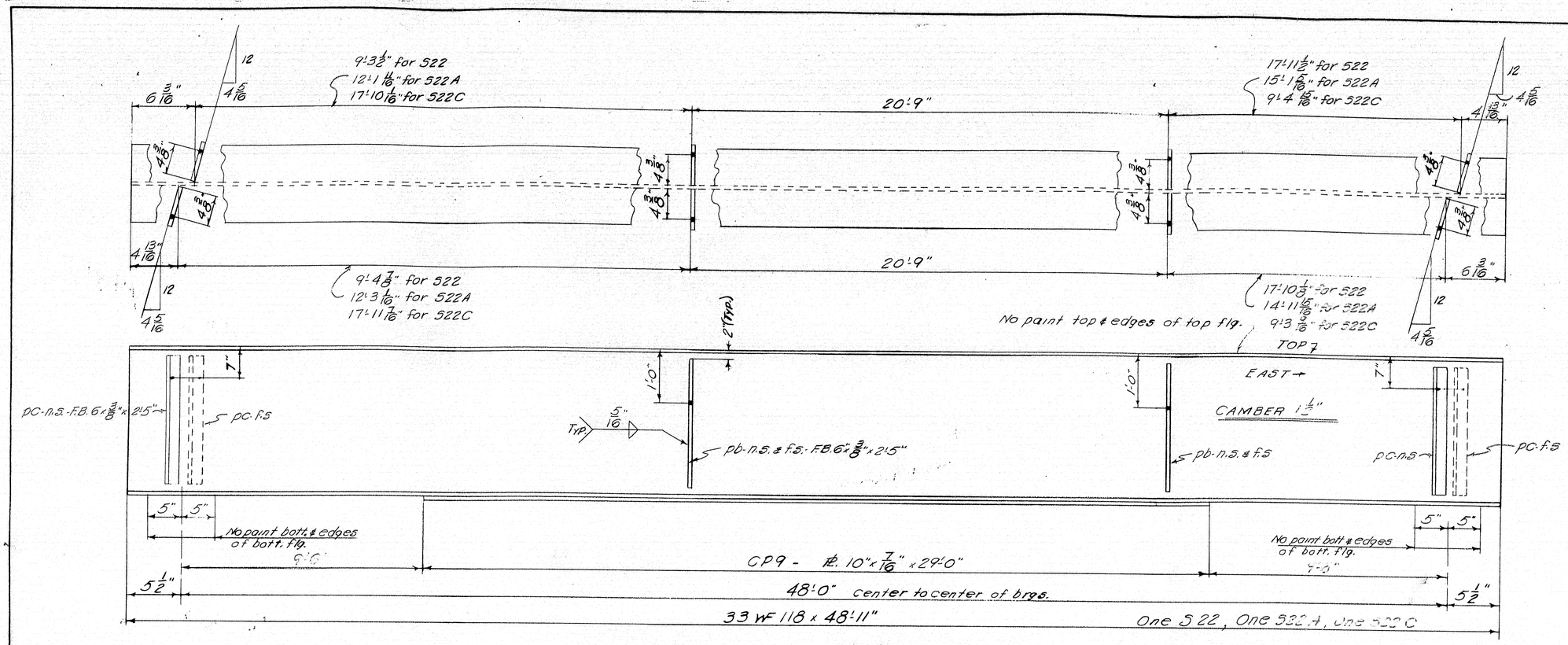
Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B.&A.R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43A 57

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A-5B for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin-Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

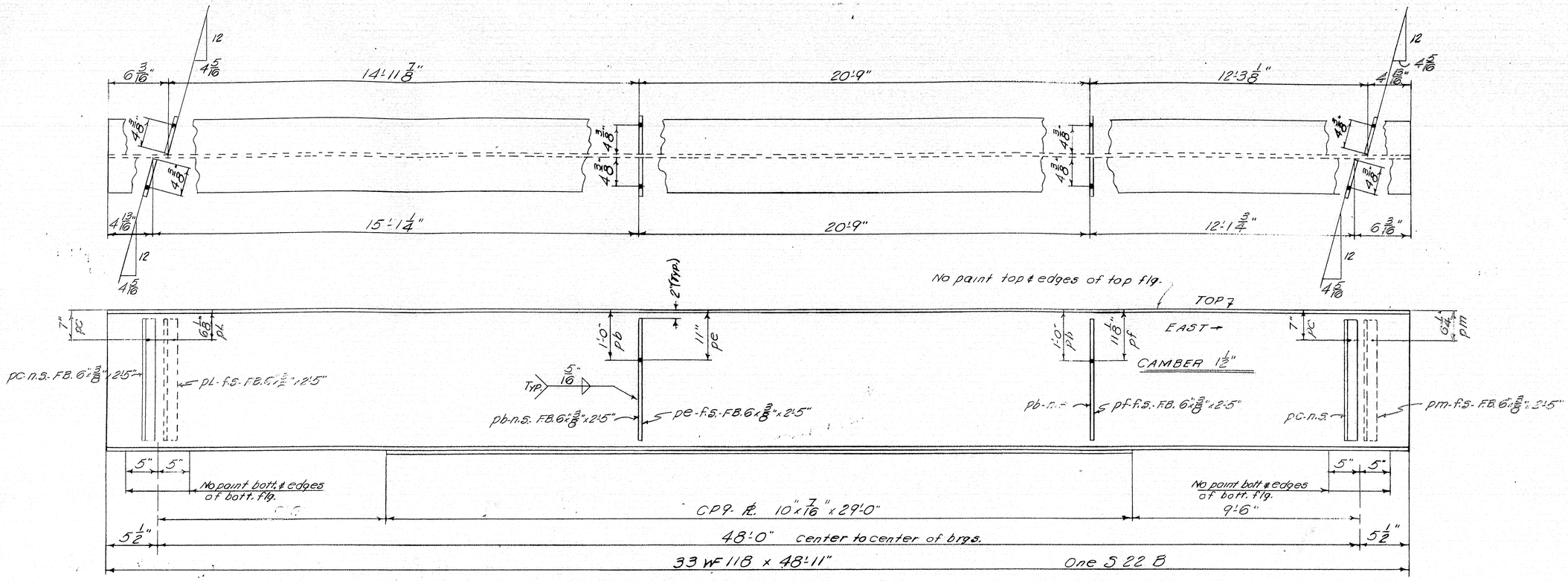
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG NO B62-43A-5B

APR 5-1-62

86-65

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A51B for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

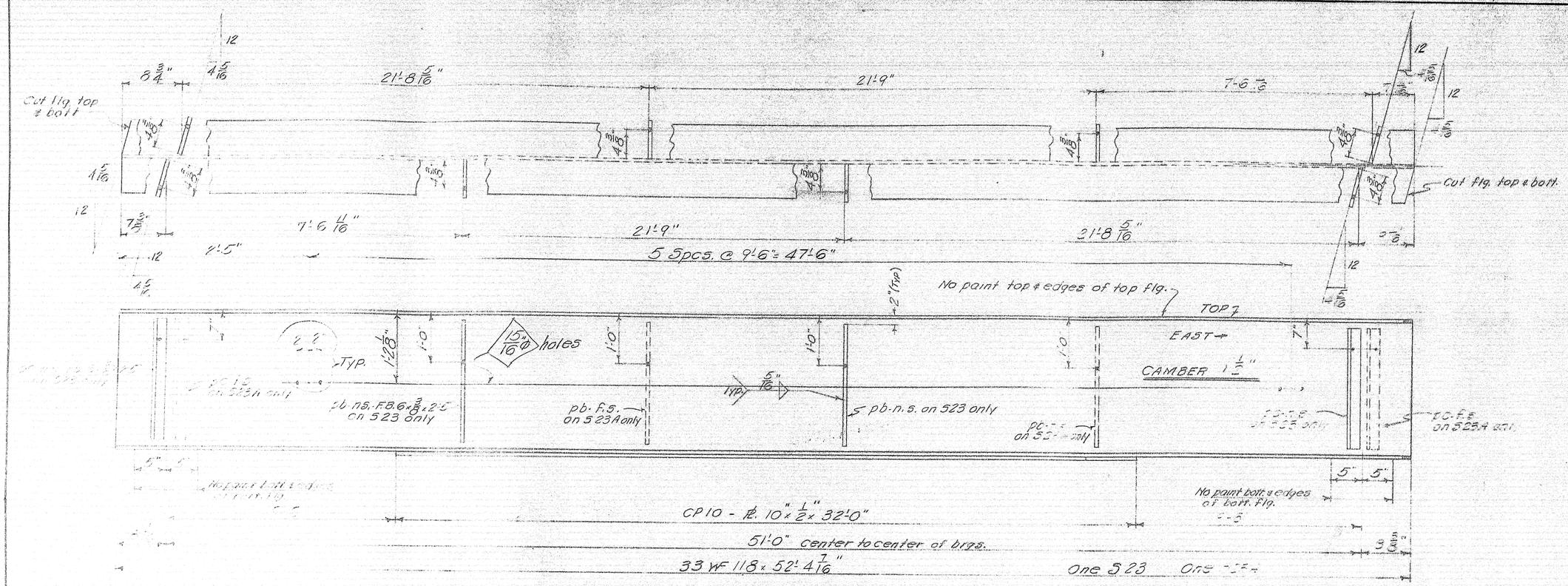
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43A59

APR 5-1-62

86-66

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 15/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43-513 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

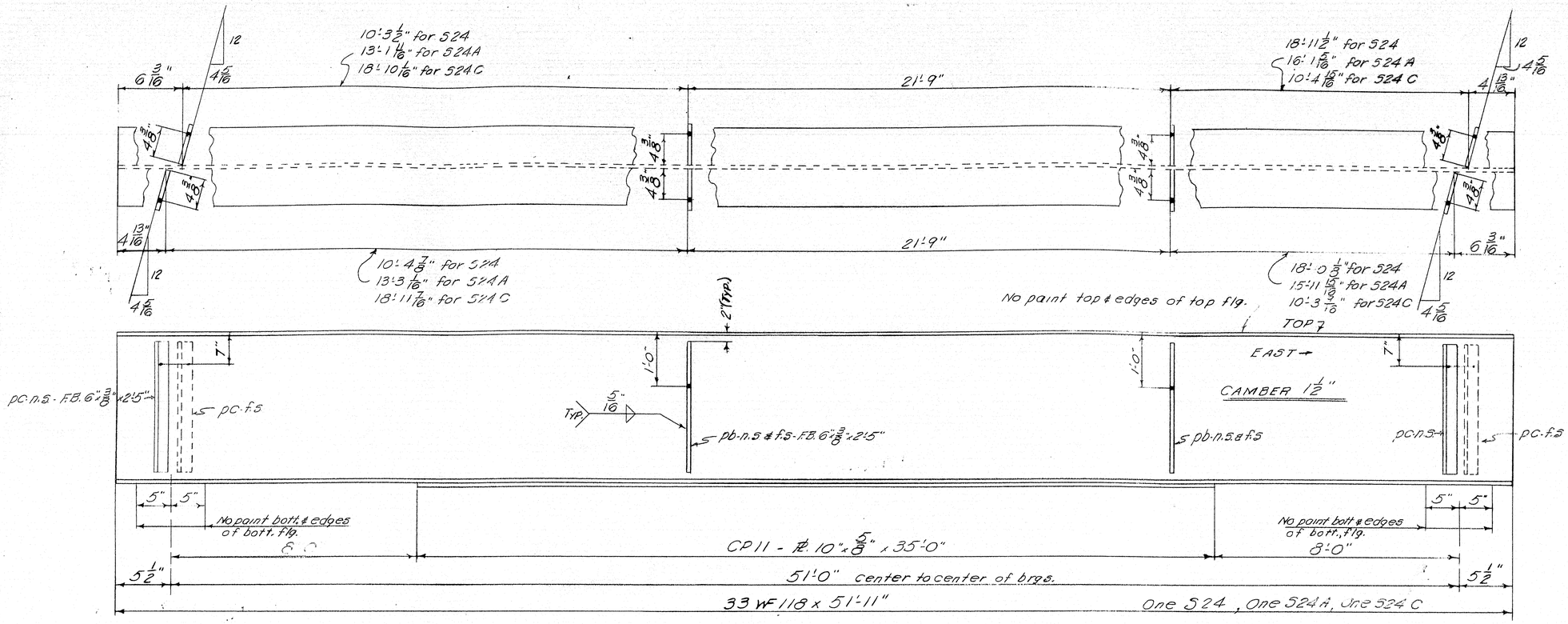
APR. 5, 1962

DRAWN	3-13-62	R.L.F.
REVISION		
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. ____ DWG. NO. B62-43A-510

86-67

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns: Welded
Holes: 13/16" Φ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A-S13 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin Rolling Mills & Company
South Portland 7, Maine

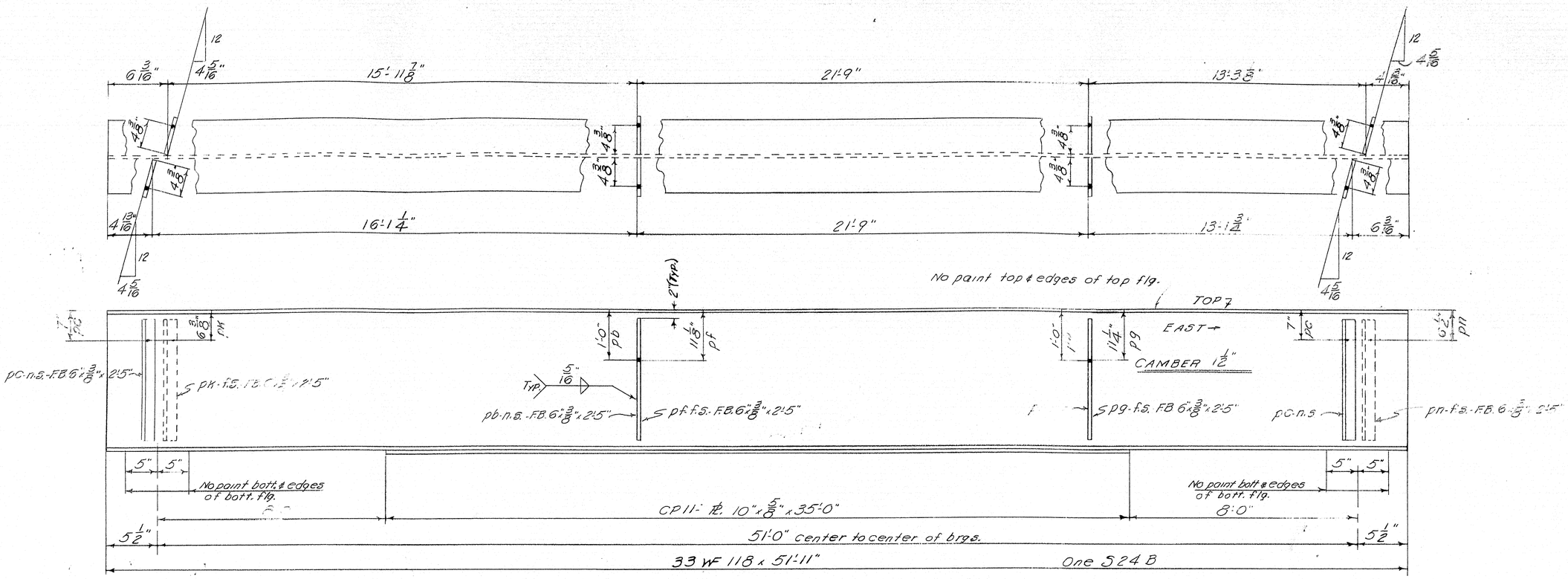
INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.
ORDER NO. _____ DWG. NO B62-43A-S11

APR 25-1-62

06-68

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43A513 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

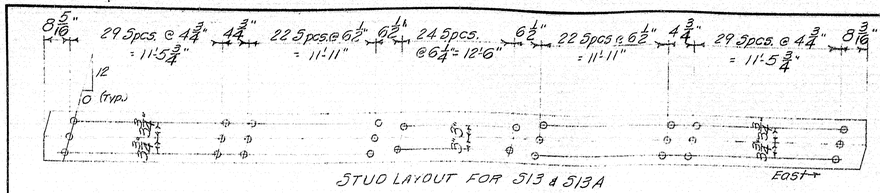
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.
ORDER NO.
DWG NO. B62-43A512

DRAWN	3-13-62	P.L.F.
REVISION		
REVISION		
REVISION		

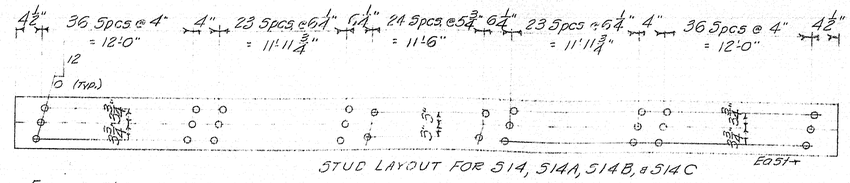
APR. 5-1-62

86-69

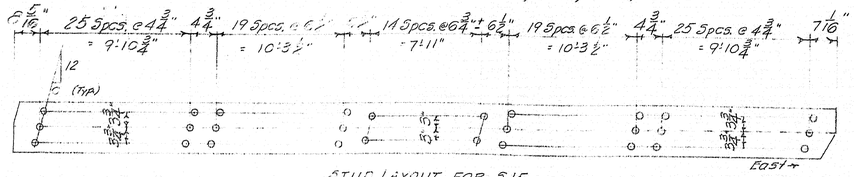
0 1 2 3 4 5 INCHES



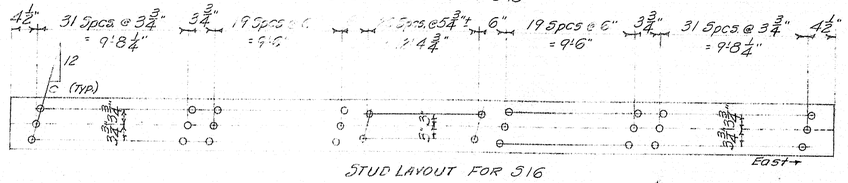
STUD LAYOUT FOR 513 & 513A



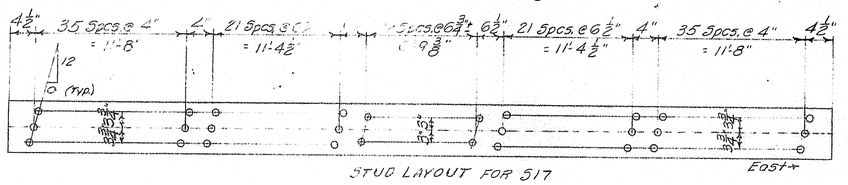
STUD LAYOUT FOR 514, 514A, 514B, & 514C



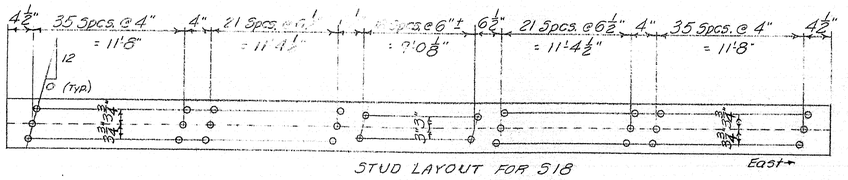
STUD LAYOUT FOR 515



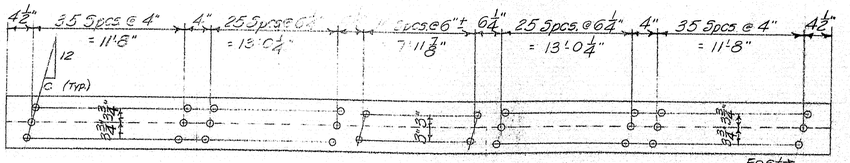
STUD LAYOUT FOR 516



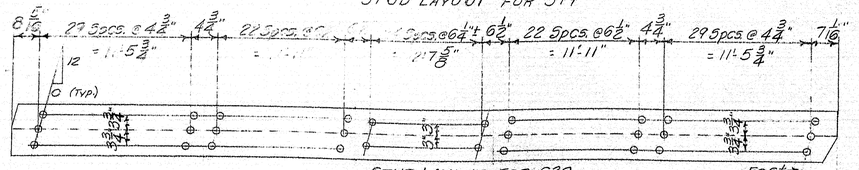
STUD LAYOUT FOR 517



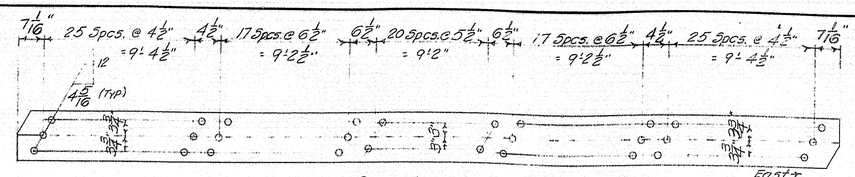
STUD LAYOUT FOR 518



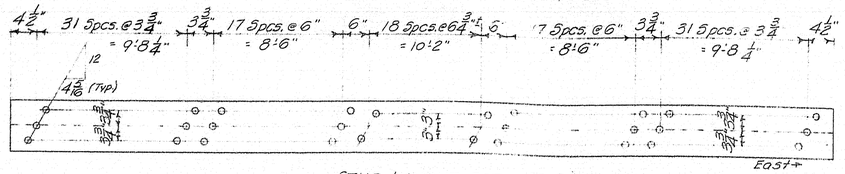
STUD LAYOUT FOR 519



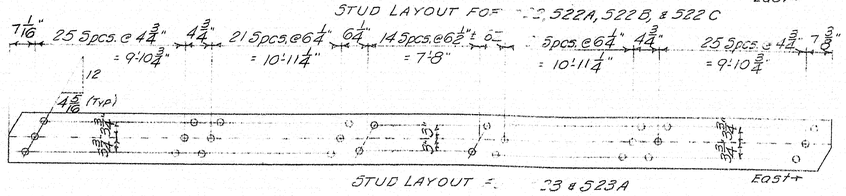
STUD LAYOUT FOR 520



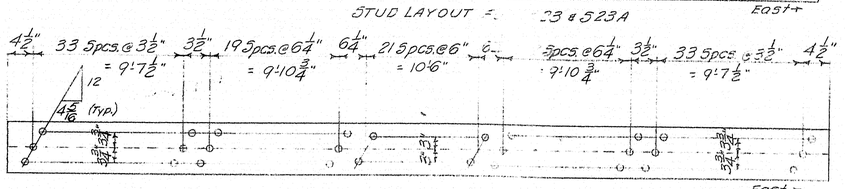
STUD LAYOUT FOR 521 & 521A



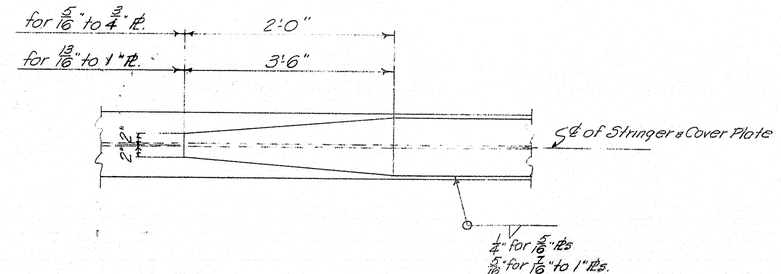
STUD LAYOUT FOR 522, 522A, 522B, & 522C



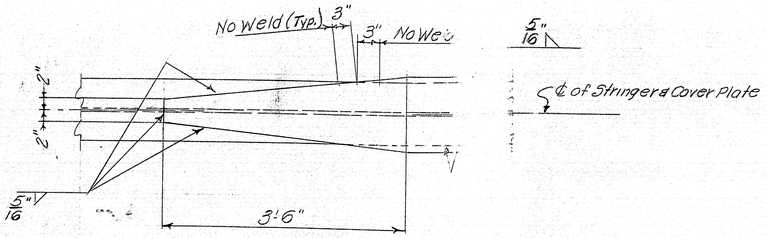
STUD LAYOUT FOR 523 & 523A



STUD LAYOUT FOR 524, 524A, 524B, & 524C



COVER PLATE DETAIL (For plates 10" or less in width)



COVER PLATE DETAIL (For plates wide)

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	WT. ADD.	REMARKS
									BILL OF MATERIAL — DWG. NO. B62-43A513
									CAMBER
513	1		33 WF 130	62	6 3/8		9		2"
513A	1		do	62	6 3/8		9		2"
514	1		do	61	11				2"
514A	1		do	61	11				2"
514B	1		do	61	11				2"
514C	1		do	61					2"
518	1		do	57	7 3/8				1 3/4"
519	1		do	59	5 3/8				1 3/4"
520	1		do	62	7		5		2"
515	1		33 WF 118	51	5 3/8		7		1 1/2"
516	1		do	53	1 3/8				1 1/2"
517	1		do	55	4 3/8				1 1/2"
521	1		do	49	4 3/8		5		1 1/2"
521A	1		do	49	4 3/8		5		1 1/2"
522	1		do	48	11				1 1/2"
522A	1		do	48	11				1 1/2"
522B	1		do	48	11				1 1/2"
522C	1		do	48	11				1 1/2"
523	1		do	52	4 7/16		5		1 1/2"
523A	1		do	52	4 7/16		5		1 1/2"
524	1		do	51	11				1 1/2"
524A	1		do	51	11				1 1/2"
524B	1		do	51	11				1 1/2"
524C	1		do	51	11				1 1/2"
	4	CP2	Pl. 13 × 1	49	0	3663	458	150	
	1	CP6	Pl. 13 × 3/4	48	0	1858	14	33	
	3	CP1	Pl. 10 × 1"	46	0	4682	214	92	
	1	CP7	do	42	0	1428	71	25	
	1	CP5	Pl. 10 × 13/16	42	0	1340	67	23	
	1	CP4	Pl. 10 × 3/4	37	0	944	31	16	
	4	CP11	Pl. 10 × 5/8	35	0	2882	102	60	
	2	CP10	Pl. 10 × 3/8	32	0	1088	41	19	
	4	CP9	Pl. 10 × 7/16	29	0	1758	71	35	
	1	CP3	Pl. 10 × 7/16	27	0	402	18	9	
	2	CP8	FB 7 1/2 × 3/16	24	0	333	13	10	
	27	pa	FB 7 × 3/8	2	5	583		13	
	1	pa	do	3	3	38		1	
	2	pa	do	3	3	38		1	
	82	pb	FB 6 × 3/8	2	5	1518		34	
	25	pc	do	3	3	838		19	
	3	pd	do	3	3	38		1	
	2	pe	do	3	3	38		1	
	3	pf	do	3	3	38		1	
	2	pg	do	3	3	38		1	
	1	ph	do	3	3	19			
	1	pi	do	3	3	19			
	1	pj	do	3	3	19			
	1	pk	do	3	3	19			
	1	Shop	1/4" weld	27	4	3			
	1	Shop	5/16" weld	334	24	422			
	8678	Shop	Misc. Struc.	3	5				Misc. Structural Steel Price

This Bill of Mat'l. covers Dwgs. B62-43A-513

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded
HOLES: 13/16" Φ
PAINT: Red lead per M.S.H.C. Specs
STUDS: 3/4" Φ × 5"

STUD LAYOUT & COVER PLATE DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B&A. R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43A-513

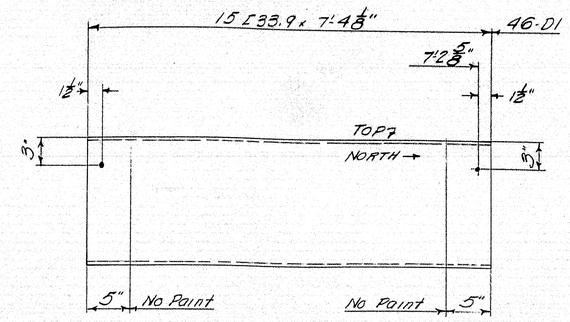
DRAWN	3-22-62	R.L.F.
REVISION		
REVISION		
REVISION		

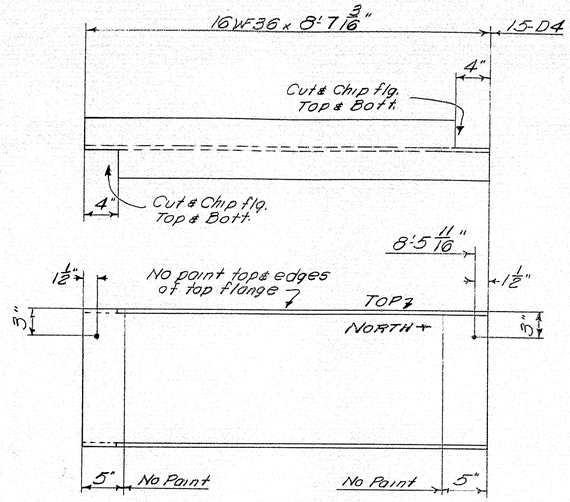
APR 5-1-62

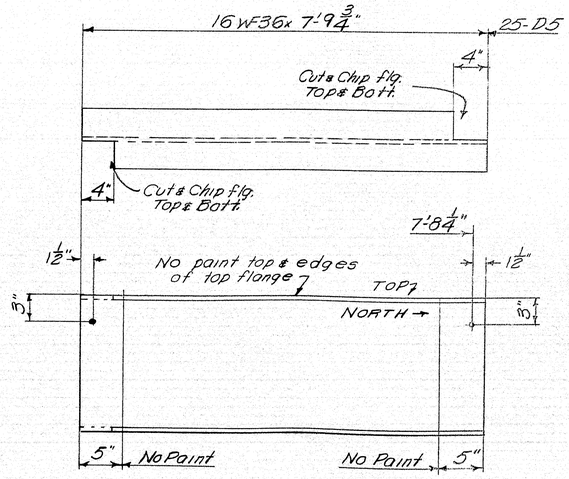
86-70

PRINTED BY BIGELOW-HORE CO., BOSTON, MASS.

0 1 2 3 4 5 INCHES







SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	REMARKS
D1	46		15 [33.9	7	4 1/8			
D4	15		16 WF 36	8	7 3/16		99	
D5	25		do	7	9 3/4		164	
Field	172		5/8 ⌀ H.Bolt	0	1 3/4			Erection Bolts

BILL OF MATERIAL — DWG. NO. 862-43A-514

SHOP CONNECTIONS:
FIELD CONNECTIONS: Welded
HOLES: 13/16" ⌀
PAINT: Red lead & Oil except as noted

DRAWN	3-26-62	P.L.F.
REVISION	5-3-62	P.L.F.
REVISION		
REVISION		

DIAPHRAGMS

Bancroft & Martin Rollings Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R.R.
HAMPDEN, MAINE

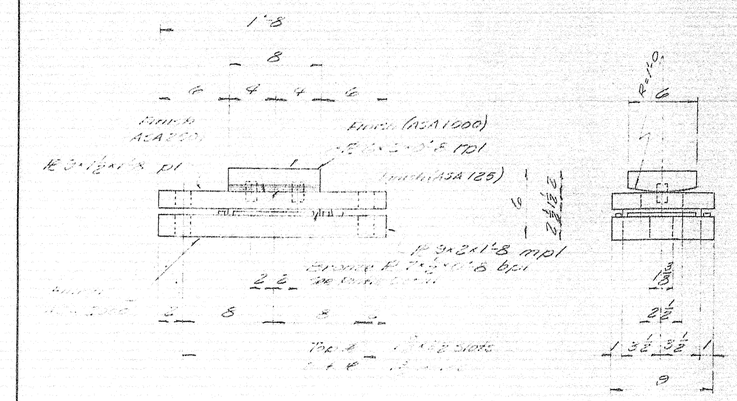
CUSTOMER CONSTRUCTORS INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. 862-43A-514

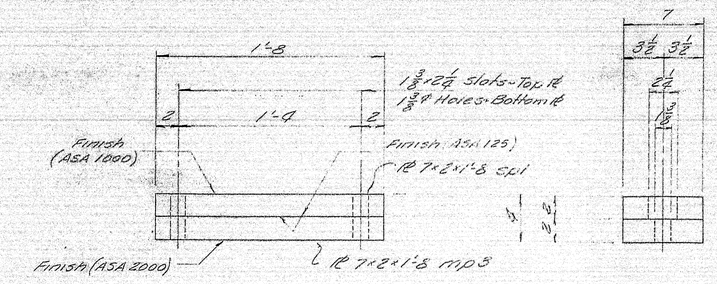
APP. 5-1-62

86-71

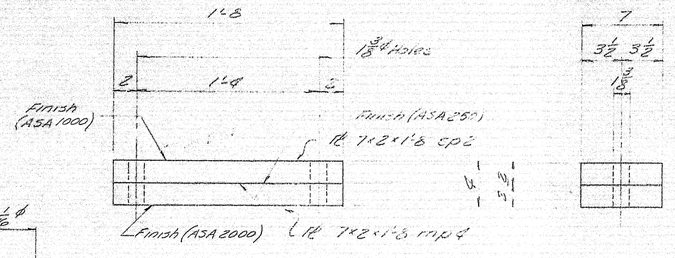
PRINTED BY SHULKINS-MOSES CO., BOSTON, MASS.



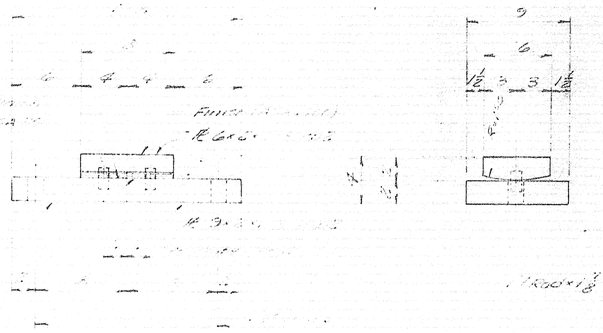
EXPANSION BEARING
EB1 18 Req'd



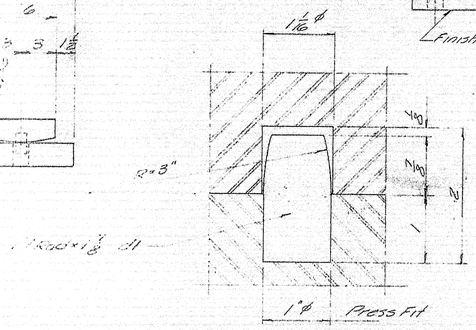
EXPANSION BEARING
EB2 6 Req'd



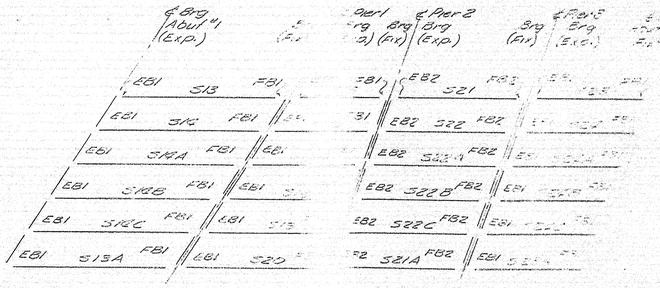
FIXED BEARING
FB2 6 Req'd



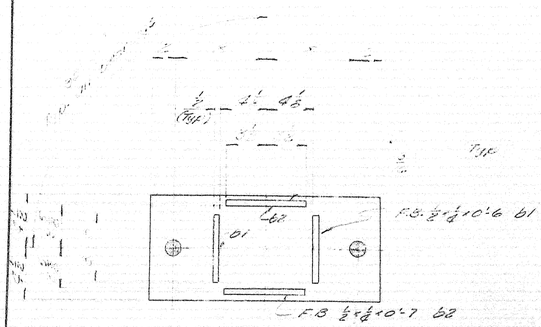
FIXED BEARING
FB1 18 Req'd



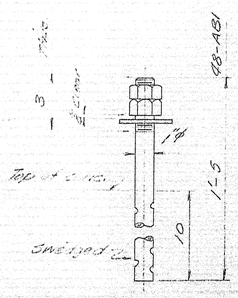
PINTLE DETAIL



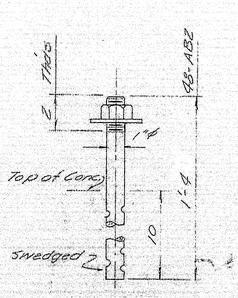
BEARING PLAN



DETAIL M101



EXPANSION



FIXED

ANCHOR BOLTS

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
			BILL OF MATERIAL				DWG. NO. B&L-43A-512
SHIP	18		EB1			—	
	18	mp1	PL 6x2	0	8		
	18	pl	PL 9x1 1/2	1	8		
	18	mp1	PL 9x2	1	8		
	36	b1	PL 1/2 x 1/2	0	6		
	36	b2	do	0	7		
	36	d1	1"ϕ Rod	0	1 1/3		
SHIP	18		FB1			—	
	18	mp2	PL 6x2	0	8		
	18	mp2	PL 9x2	1	8		
	36	d1	1"ϕ Rod	0	1 1/3		
SHIP	6		EB2			—	
	6	sp1	PL 7x2	1	6		
	6	mp3	PL 7x2	1	5		
SHIP	6		FB2				
	6	sp2	PL 7x2	1	5		
	6	mp4	do	1	3		
AB1	48		1"ϕ Rod	1	3		
AB2	48		do	1	4		
	144	shop	1" Nut				Hex. Nut
	36	shop	PL 3 1/2 x 1/4	0	3 1/2		1" Washer - 1/16 ϕ Hole in Center
			Item 703-103				
	3	bp1	PL 7x1/2	0	8		Bearing Plate Anchoring Bolts
			Item 703-9				

SCALE WEIGH

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded, Bolted
HOLES: As Noted
PAINT: As Noted

PAINT NOTE:
Coat all finish surfaces ASA 250 & ASA 125 with white lead & tallow.
Do not paint lubrite bronze or areas in contact with lubrite bronze.
Paint all other surfaces with red lead and oil per M.S.H.C. Specs.

DRAWN	3-26-62	W.E.L.
REVISION		
REVISION		
REVISION		

BEARING DETAIL

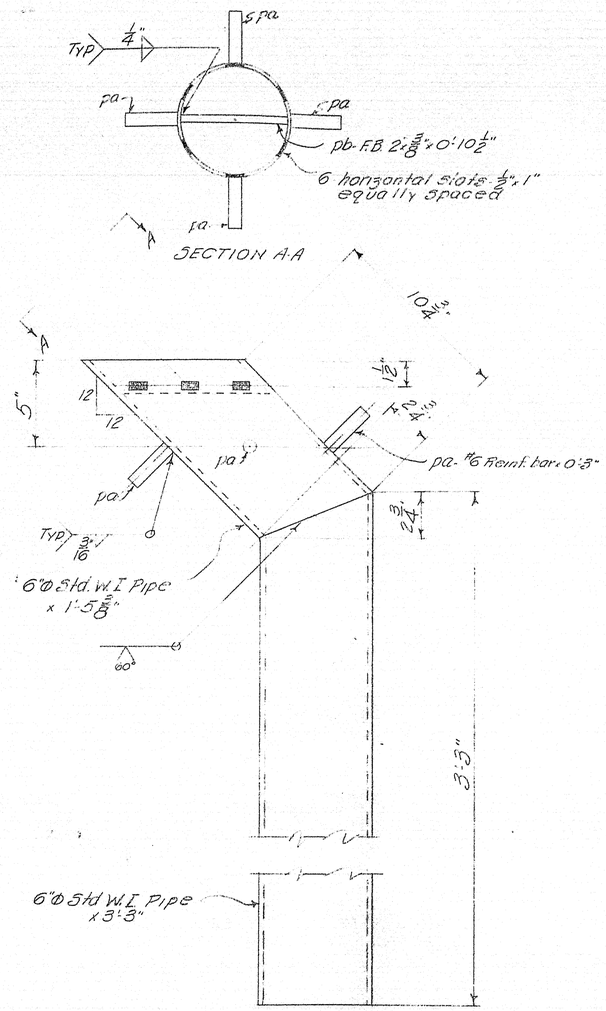
Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 NORTHBOUND OVER EMERSON MILL RD. & B&A.R.R.
HAMPDEN, MAINE.

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. B&L-43A-512

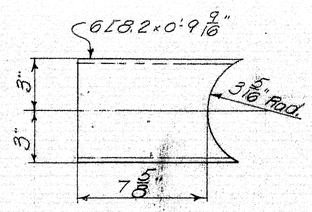
86-72

0 1 2 3 4 5 INCHES



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	REMARKS
DRAIN	12		Shop Assembly			—		
STAY CHANNEL	12		6 [8.2	0	9 9/16		12	
	12		6"Ø Std. Pipe	3	3		26	Wrought Iron
	12		do	1	5 3/8		21	Wrought Iron
	12	pb	F.B. 2 x 3/8	0	10 1/2		3	
	48	pa	#6 Reinf. bar	0	3			

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded
HOLES: As Noted
PAINT: Red Lead & Oil per M.S.H.C. Specs.



STAY CHANNEL - 12 Req'd

DRAWN	3-19-62	P.L.F.
REVISION		
REVISION		
REVISION		

DRAIN DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (NORTH BOUND) OVER
EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

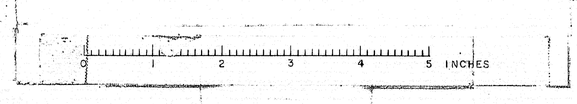
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

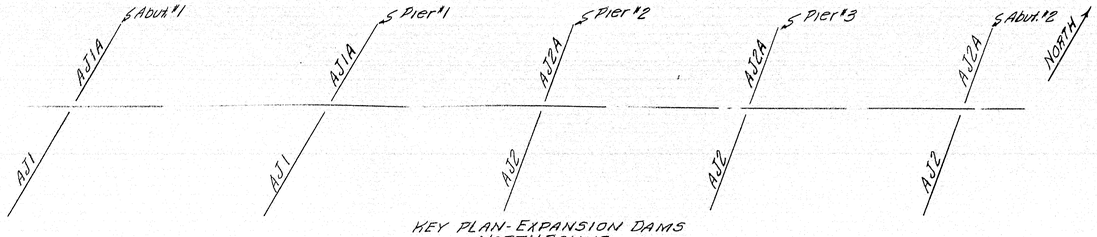
ORDER NO. _____ DWG. NO. B62-43A-516

APR 5-1-62

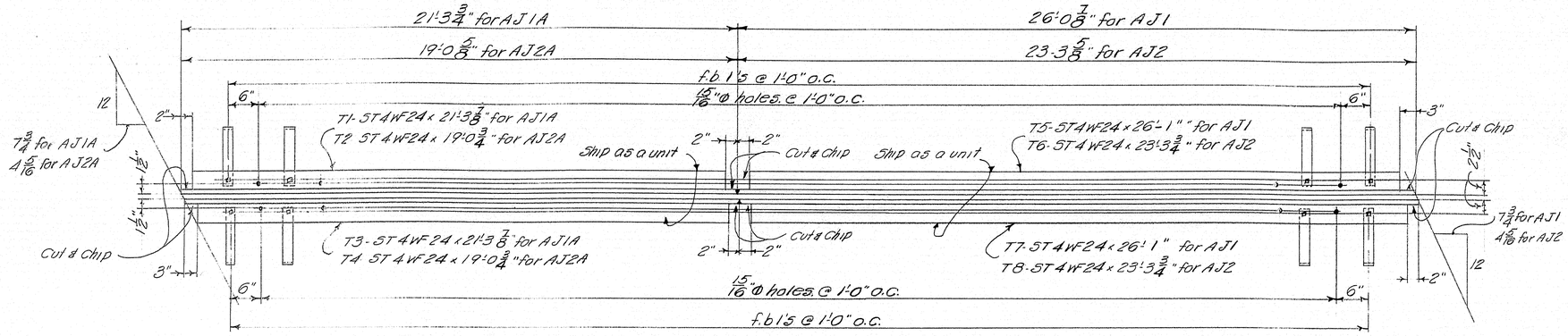
chkd.

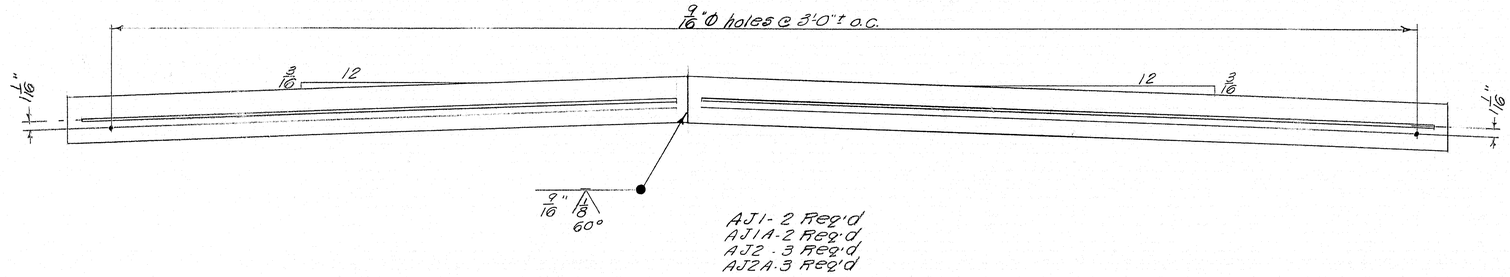
86-73

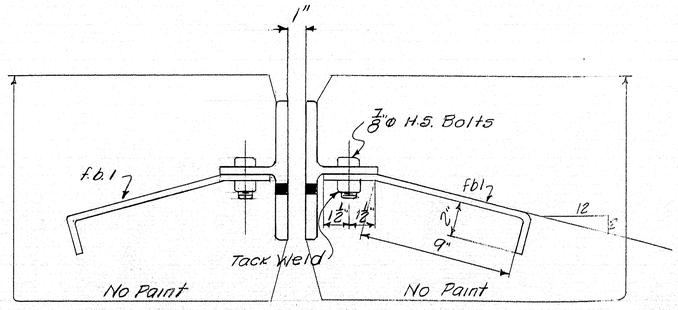




KEY PLAN-EXPANSION DAMS
NORTHBOUND







TYPICAL SECTION

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	WT. APP.	REMARKS
AJ1	2		Shop Assembly			—			
AJ1A	2		do			—			
AJ2	3		do			—			
AJ2A	3		do			—			
	2	T1	ST4WF24	21	3 7/8		91		
	2	T3	do	21	3 7/8		10		
	3	T2	do	19	0 3/4		12		
	3	T4	do	19	0 3/4		13		
	2	T5	do	26	1		91		
	2	T7	do	26	1		10		
	3	T6	do	23	3 3/4		15		
	3	T8	do	23	3 3/4		14		
	440	F.B.1	F.B. 2 1/2 x 3/8	1	2				+2.25%
	440	Shop	7/8" ⌀ H.S. Bolt	0	2 1/2	16.8			
	880	Shop	7/8" Hardened Washer			—			

BILL OF MATERIAL — DWG. NO. 862 43A-517

SHOP CONNECTIONS: Bolted
FIELD CONNECTIONS: Welded
HOLES: 15/16" ⌀ except as noted
PAINT: Red Lead & Oil except as noted

EXPANSION DAM
Bancroft & Martin Rollings Mills Company
South Portland 7, Maine
INTERSTATE 95 (NORTHBOUND) OVER
EMERSON MILL RD. & B. & A. R.R.
HAMPDEN, MAINE

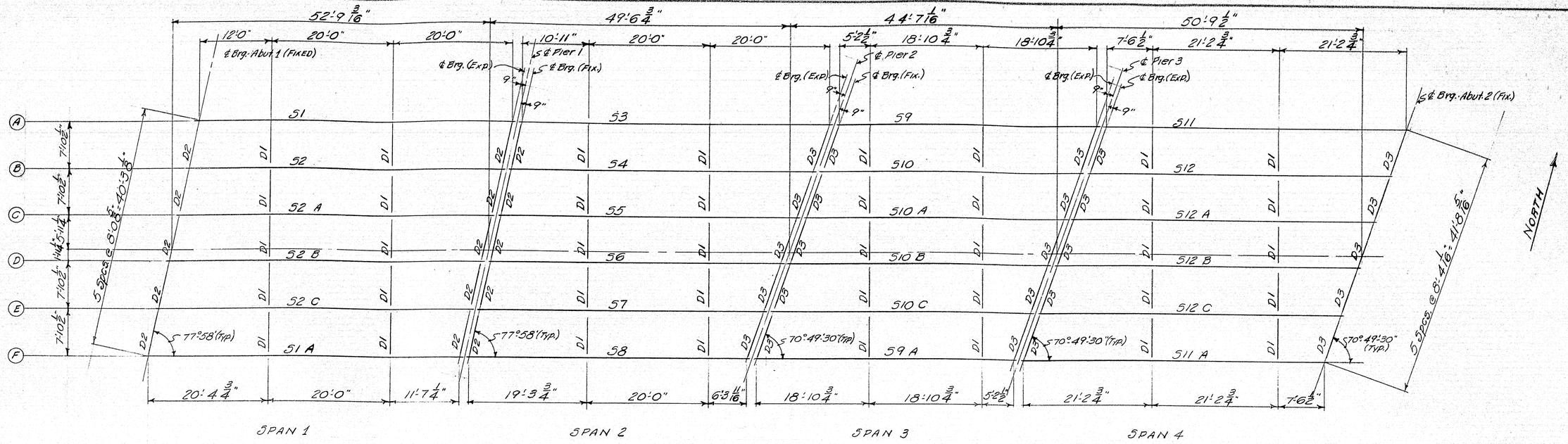
APR 51-62

DRAWN	3-29-62	P.L.F.
REVISION		
REVISION		
REVISION		

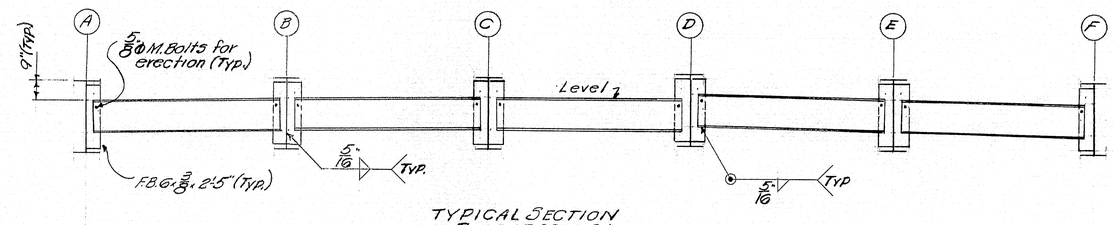
CUSTOMER: CONSTRUCTORS, INC.
DESIGNER: M.S.H.C.
ORDER NO.
DWG. NO. 862 43A-517

06-74

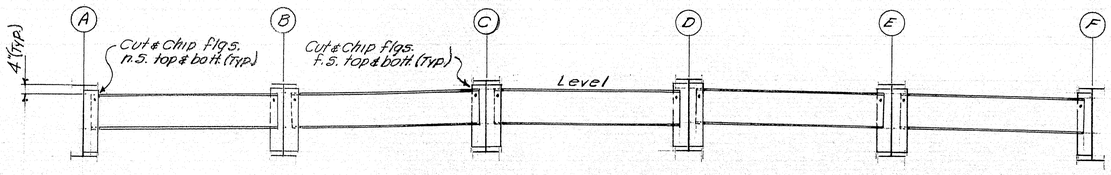
PRINTED BY BRADDOCK-GROSS CO., BOSTON, MASS.



FRAMING PLAN



TYPICAL SECTION
DIAPHRAGM D1



TYPICAL SECTION
DIAPHRAGM D2 & D3

DRAWN	3-5-62	P.L.F.
REVISION		
REVISION		
REVISION		

FRAMING PLAN

Bancroft & Martin Rollings Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R.R.
HAMPDEN, MAINE

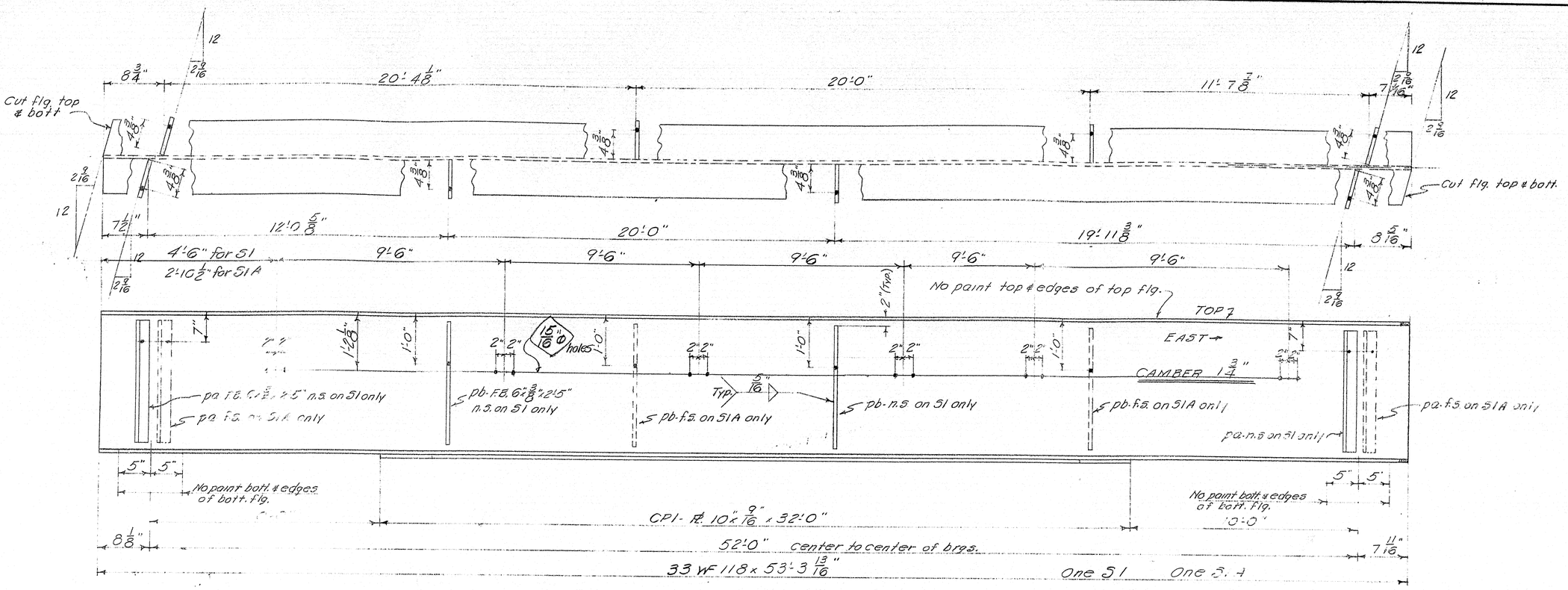
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.

ORDER NO. _____ DWG. NO. 862 43-E1

APP. 4-11-62

ch. tch

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 13/16" ⌀
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43S3 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web [illegible] up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.

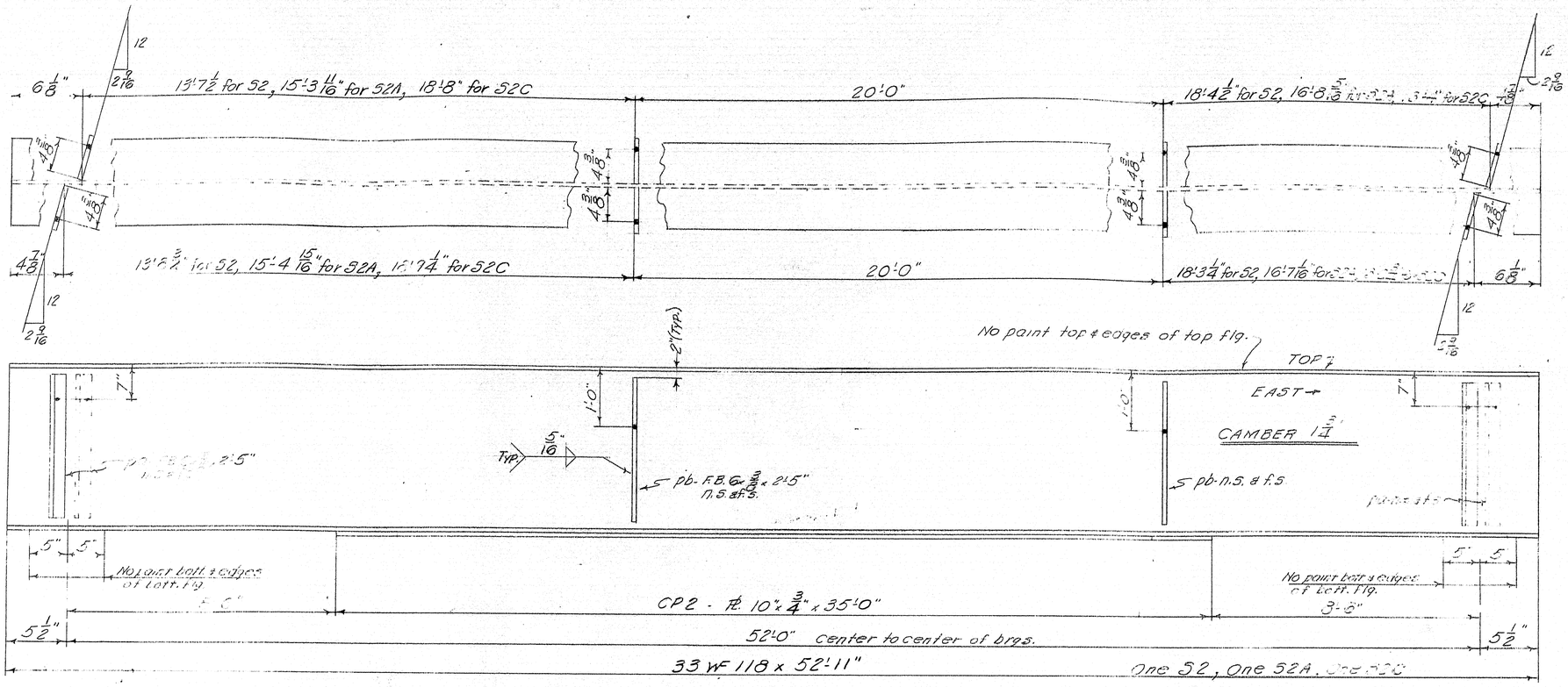
ORDER NO. _____ DWG. NO. B62-43-S1

DRAWN	3-7-62	P.L.F.
REVISION		
REVISION		
REVISION		

APP'D 11-62

86-76

0 1 2 3 4 5 INCHES

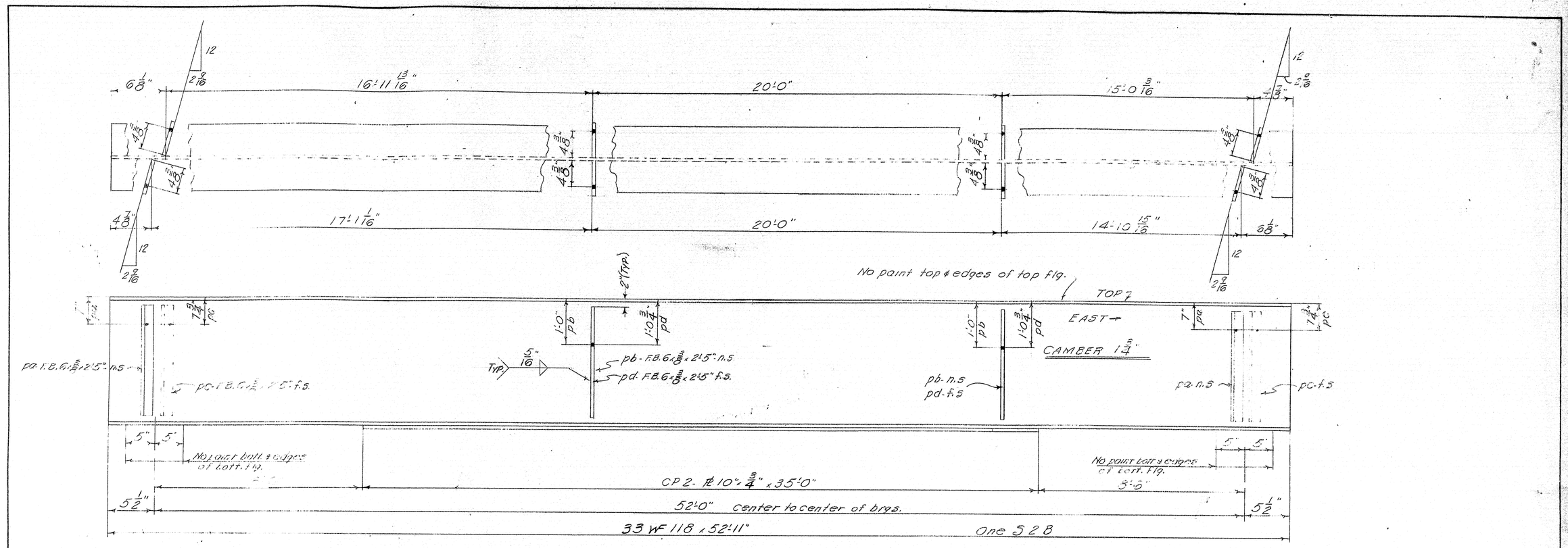


NOTES:
Shop Bolts - Welded
Field Bolts - Welded
Holes - 13/16" Φ
Paint - Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43.S.3 for Stud & Rear Connector layout, Conn. plate det'l & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL			
Bancroft & Martin Rolling Mills Company, South Portland 7, Maine			
INTERSTATE 95 (SOUTHBOUND) OVER EMERSON MILL RD. & P. & A.R.R. HAMPDEN, MAINE			
DRAWN	3-7-62	F.L.F.	CUSTOMER CONSTRUCTORS, INC.
REVISION			DESIGNER M.S.H.C.
REVISION			ORDER NO. ____ DWG. NO. B62-43.S2
REVISION			

APR. 4-11-62

0 1 2 3 4 5 INCHES



Notes:
Shop Conn. Weld 1
Field Conn. Weld 1
Holes - 13/16" Φ
Paint heat end per MS H.C. specs unless noted
See Dwg B62-43.52 for Stud Shear Connector layout, cover plate detail & Fill in Matl.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & E. & A. R. R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H. C.

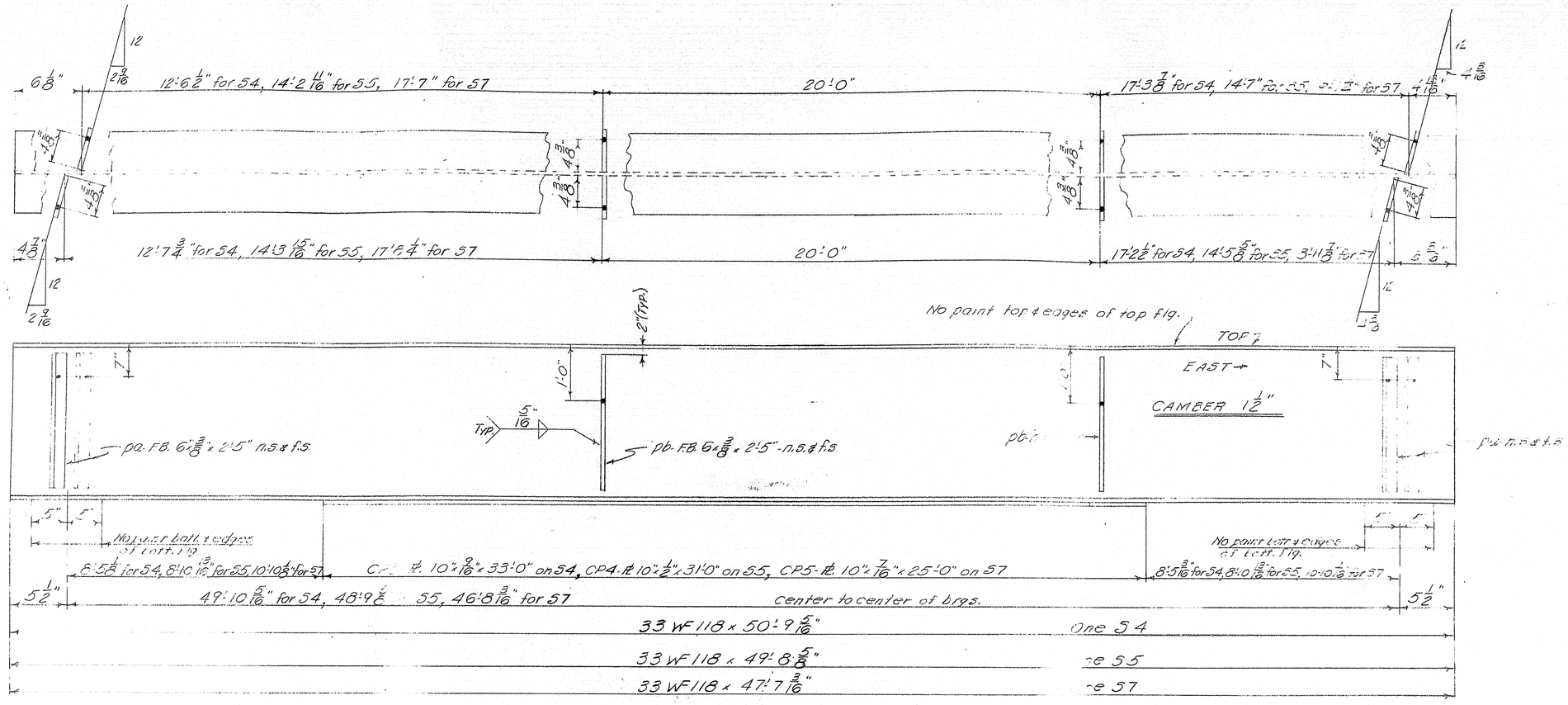
ORDER NO. _____ DWG. NO. B62-43.53

DRAWN	3-7-62	R.L.F.
REVISION		
REVISION		
REVISION		

APR 4 1962

86-77

0 1 2 3 4 5 INCHES



NOTE:
[illegible]
[illegible]
[illegible]
Paint [illegible] as noted.
See Dwg. B08-43-3 for [illegible] for layout, [illegible] & Fill in Mat'l.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	3-7-62	F.L.F.
REVISION		
REVISION		
REVISION		

APPROVED

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

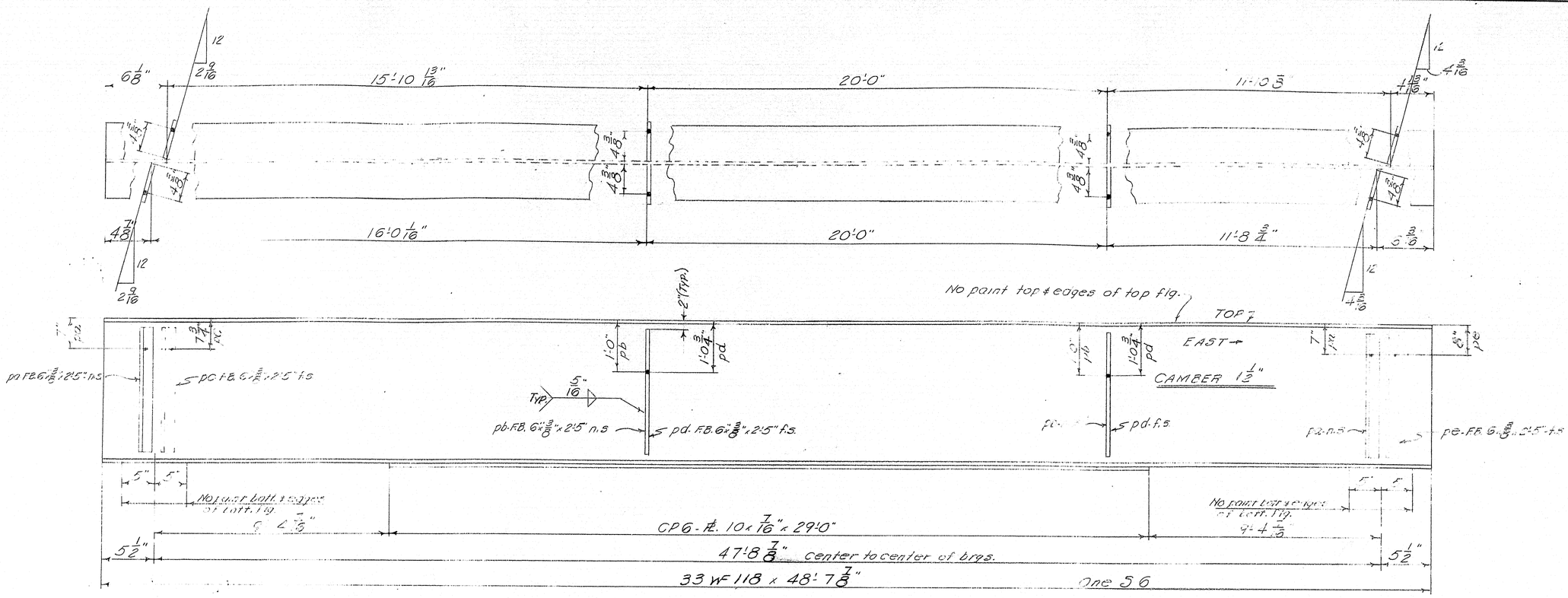
INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & P. & A. R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.L.

ORDER NO. _____ DWG. NO. B08-43-54

86-78

0 1 2 3 4 5 INCHES



Omit paint on web plates 4" up from hole to 1'-2" down from hole.

DRAWN	5-7-62	F.L.F.
REVISION		
REVISION		
REVISION		

APR 4 1962

STRUCTURE DETAIL

Bancroft & Martin-Rolling Mills Company
South Portland 7, Maine

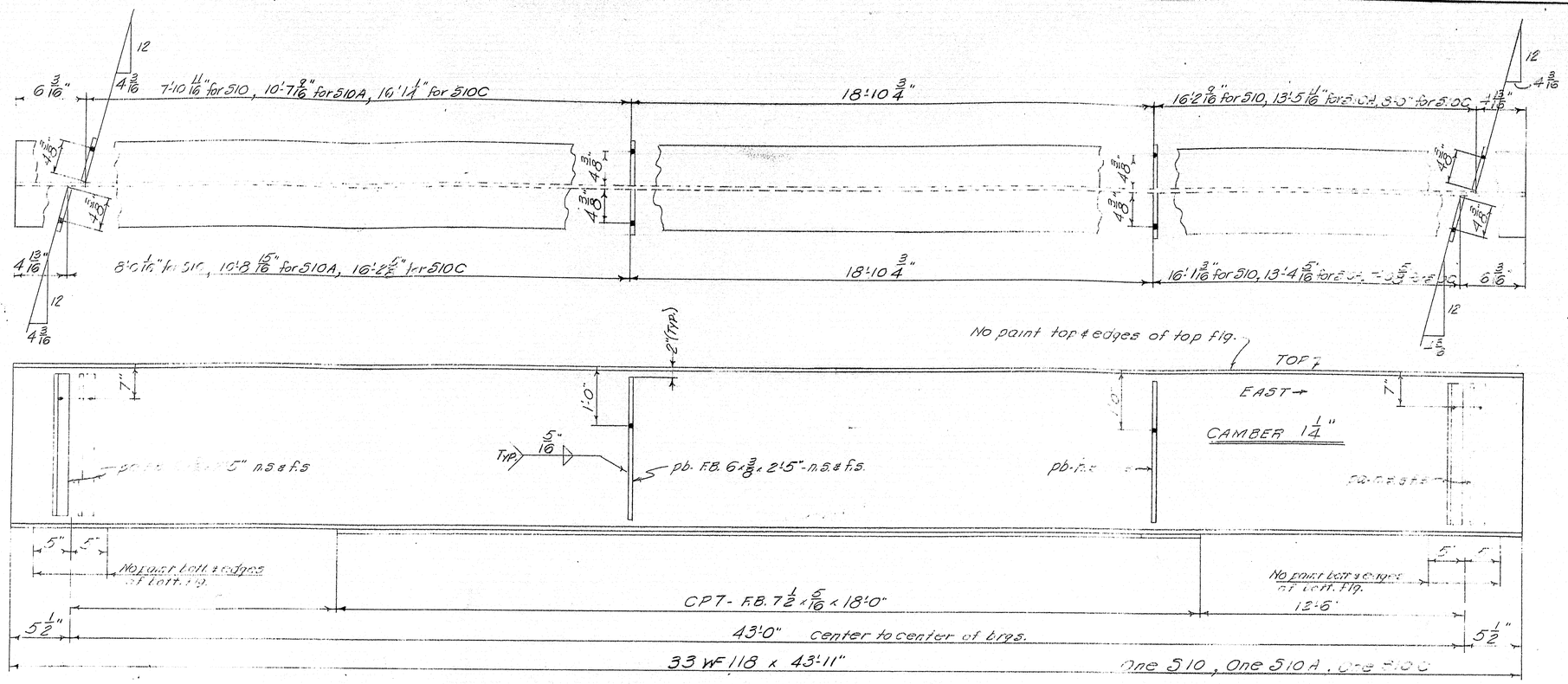
INTERSTATE 95 SOUTHBOUND OVER
EMERSON MILL RD. & P.R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. & H.C.

ORDER NO. _____ DWG. NO. F6243.55

86-79

0 1 2 3 4 5 INCHES



NOTES:
Shop coat - [illegible]
Field coat - [illegible]
Holes 15/16" Ø
Paint bottom flg. of M.H. [illegible] painted
See Dwg. F02-4B613 or [illegible] for layout. [illegible]
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

APR 4 11 62

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & E. & W. R.R.
HAMPDEN, MAINE

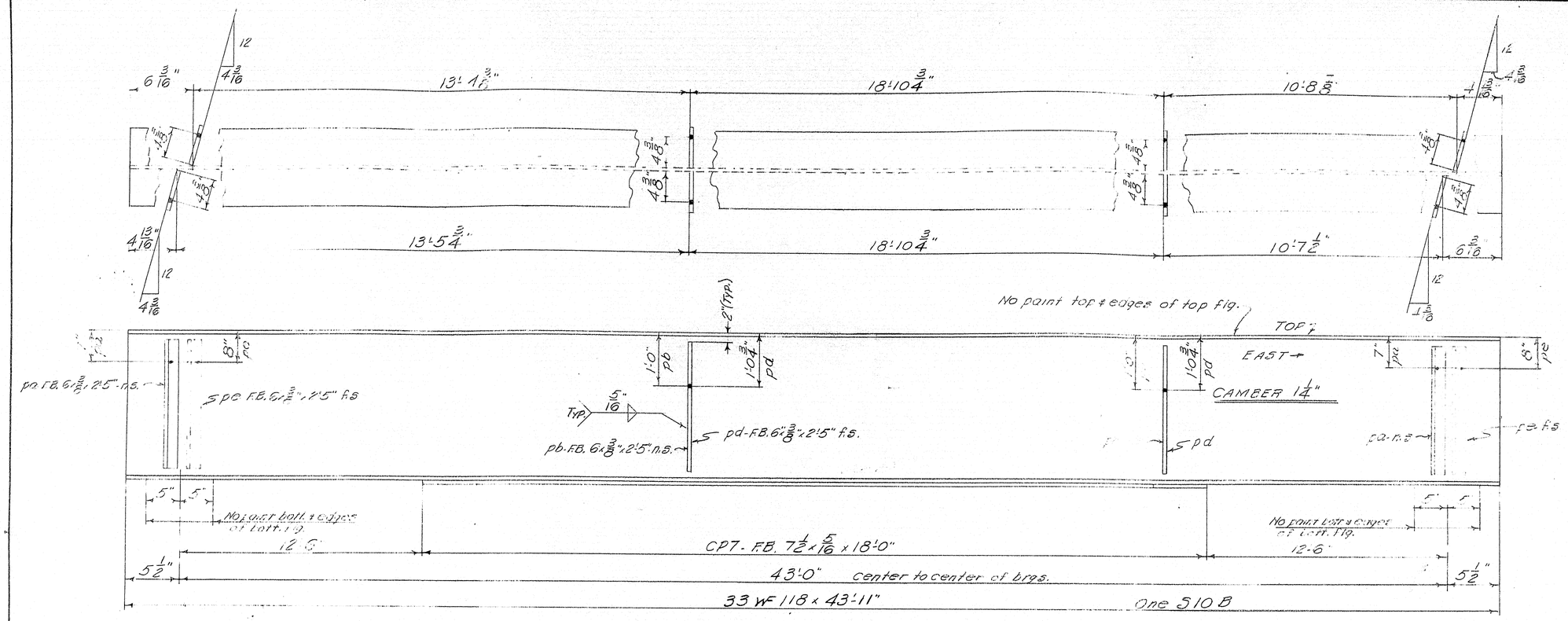
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. & H.C.

ORDER NO. _____ DWG. NO. B6243.56

DRAWN	3-7-62	F.L.F.
REVISION		
REVISION		
REVISION		

86-80

0 1 2 3 4 5 INCHES



NOTE:
Shop [illegible]
Field [illegible]
Holes [illegible]
Paint [illegible] as noted
See Dwg. F62-45.2 for [illegible] near [illegible]
[illegible] paint [illegible] in [illegible].
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin-Rollins-Wells & Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B & M R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. S. H.

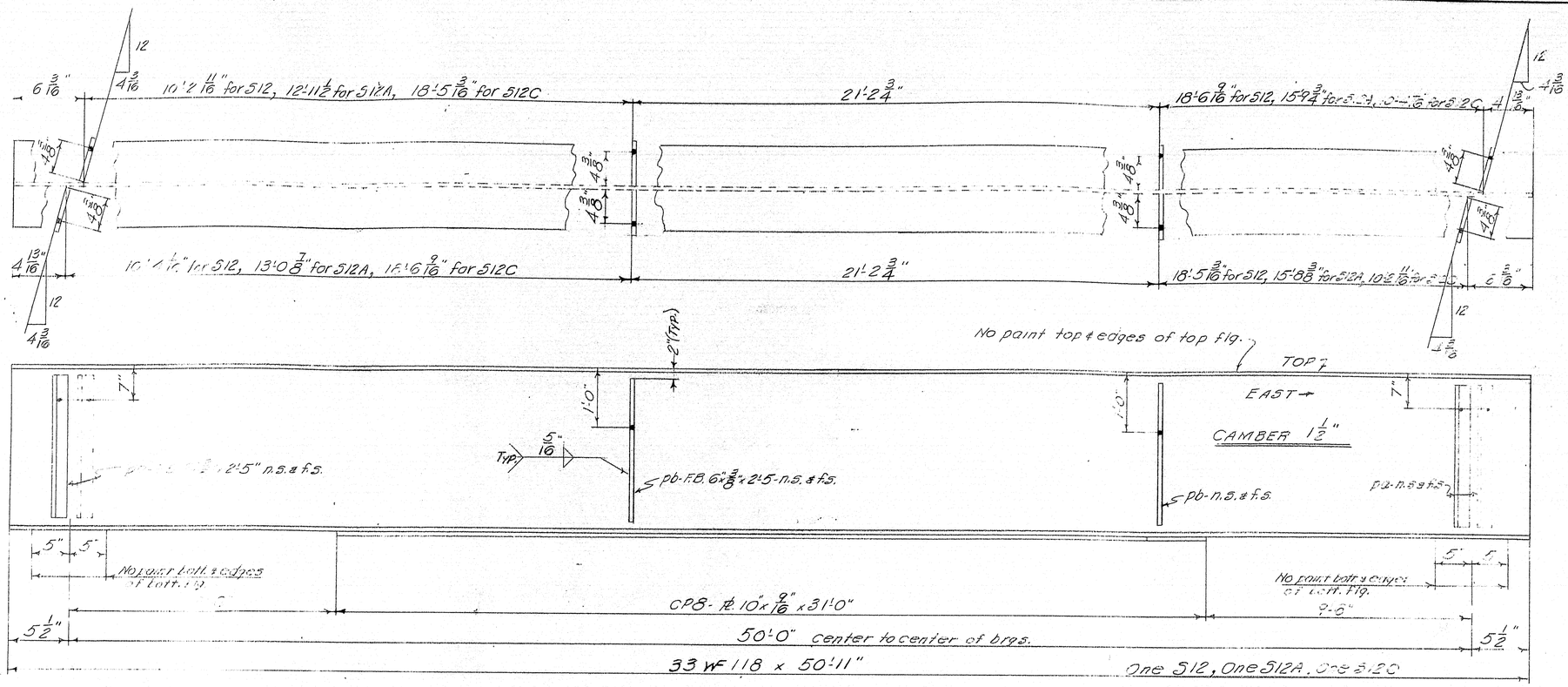
ORDER NO. _____ DWG. NO. F62-43.57

DRAWN	3-7-62	F.L.F.
REVISION		
REVISION		
REVISION		

APR 4 1962

86-81

0 1 2 3 4 5 INCHES



NOTES:
Shop [illegible] 1
Field [illegible] 1
[illegible] 10" Ø
Paint bottom flg. [illegible] noted
See Dwg. FCS-43-53 [illegible] for layout. [illegible] 1 and 2 Fill [illegible] Matl.
Omit paint on web plates 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin-Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL ROAD & M.C.R.R.
HAMPDEN, MAINE

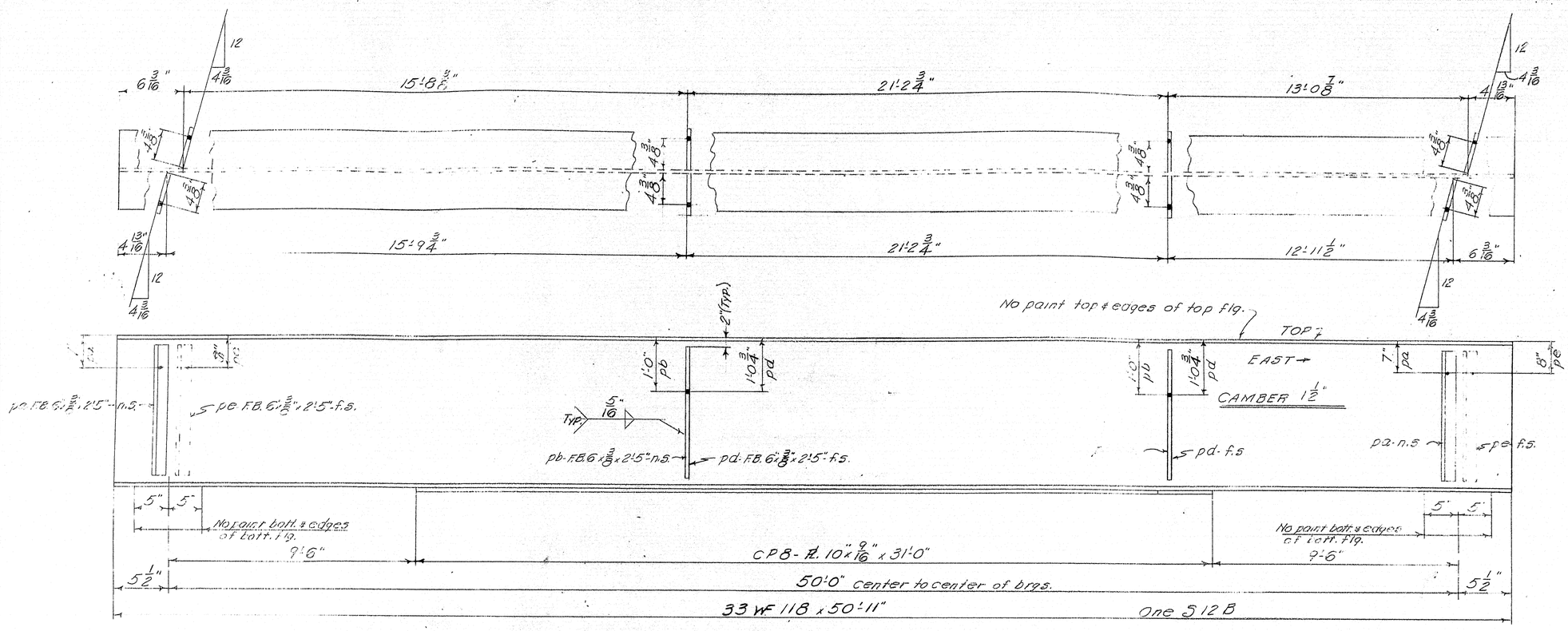
DRAWN	3-7-62	F.L.F.	
REVISION			
REVISION			
REVISION			

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M. & H. C.
ORDER NO. _____ DWG. NO. FCS 43-58

APR 4 1962

86-82

0 1 2 3 4 5 INCHES



NOTES:
Shop [illegible]
Field [illegible]
Holes 13/16" Φ
Paint Red Lead per M&H [illegible] unless noted
See Dwg B62-43.C3 for [illegible] near connector layout. Cover plate detail & fill at Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

DRAWN	3-7-62	P.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin-Rollings Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & E. & H. R. R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

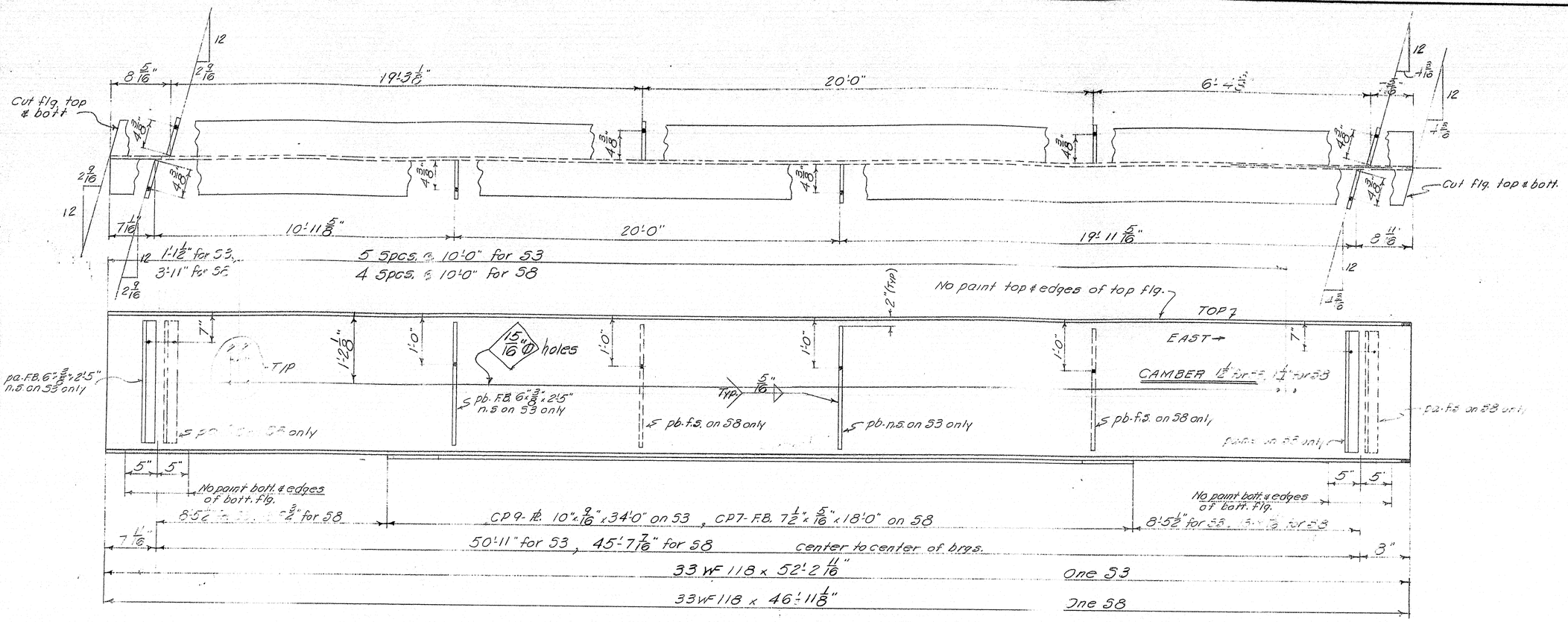
ORDER NO. _____ DWG. NO. B62-43.59

APR 4 1962

chkd

86-03

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 15/16" Φ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43-5.3 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

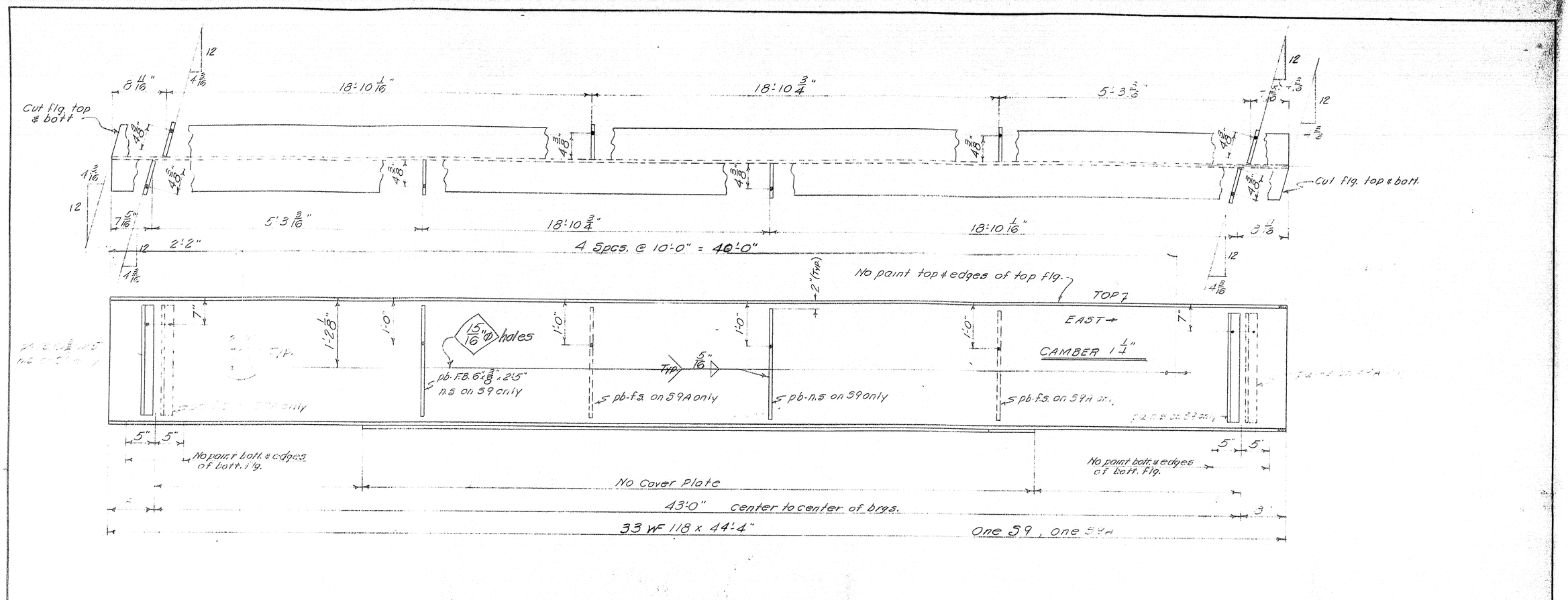
DRAWN	3-7-62	R.L.F.
REVISION		
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. B62-43-510

APR 4 11-62

86-84

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns.: Welded
Holes: 15/16" Φ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-435 3 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

DRAWN	3-7-62	R.L.F.
REVISION		
REVISION		
REVISION		

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

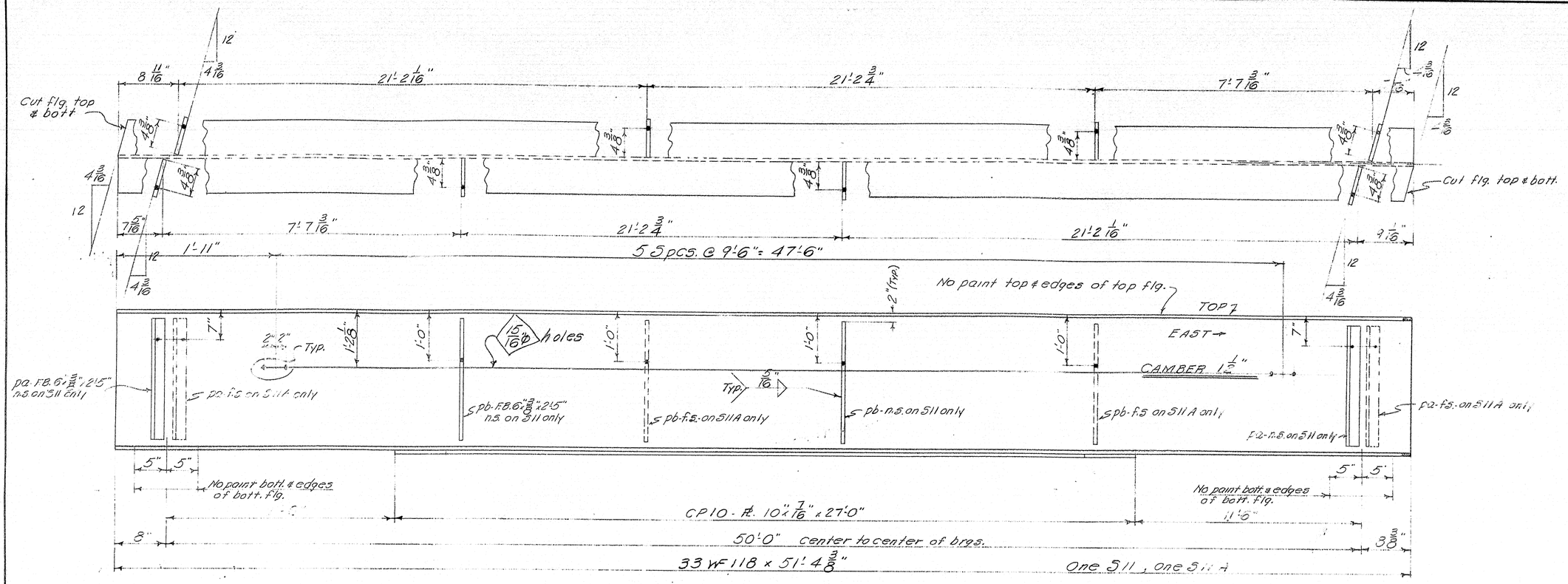
INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43-511

86-85

0 1 2 3 4 5 INCHES



NOTES:
Shop Conns.: Welded
Field Conns: Welded
Holes: 13/16" ϕ
Paint: Red Lead per M.S.H.C. Specs. unless noted
See Dwg. B62-43.5.3 for Stud Shear Connector layout, cover plate detail, & Bill of Mat'l.
Omit paint on web plates - 4" up from hole to 1'-2" down from hole.

STRINGER DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R. R.
HAMPDEN, MAINE

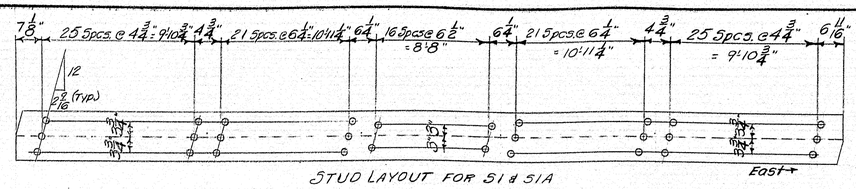
DRAWN	3-7-62	P.L.F.
REVISION		
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. B62-43.5.12

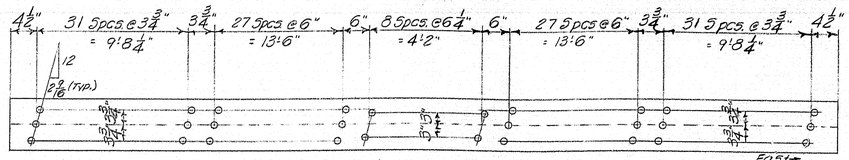
Apr. 4 11 62

86-86

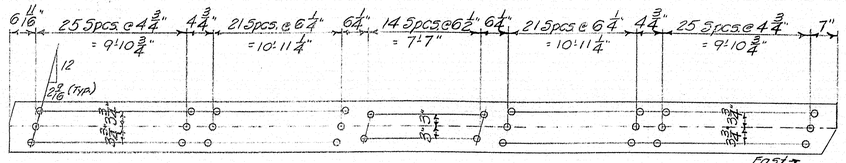
0 1 2 3 4 5 INCHES



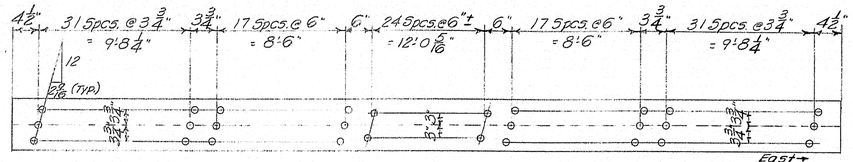
STUD LAYOUT FOR 51 & 51A



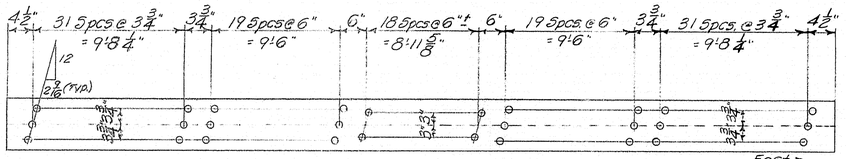
STUD LAYOUT FOR 52, 52A, 52B & 52C



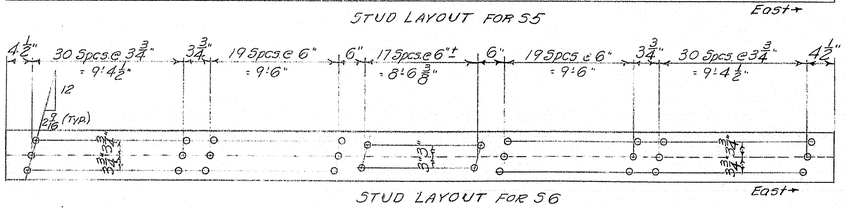
STUD LAYOUT FOR 53



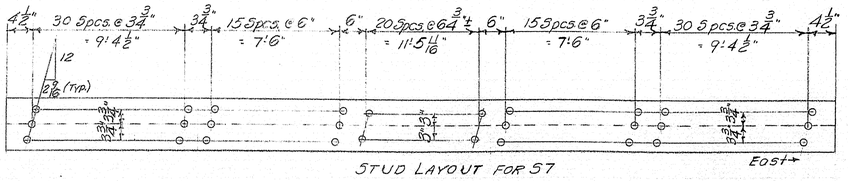
STUD LAYOUT FOR 54



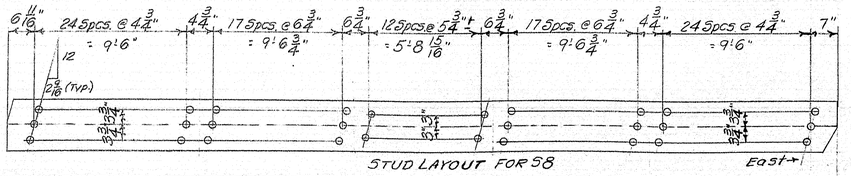
STUD LAYOUT FOR 55



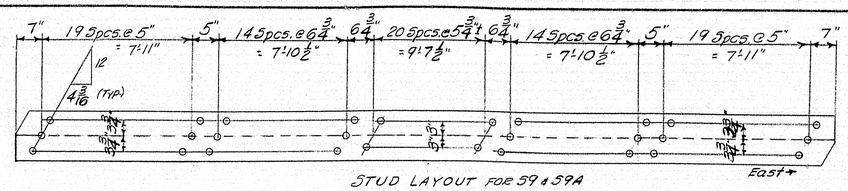
STUD LAYOUT FOR 56



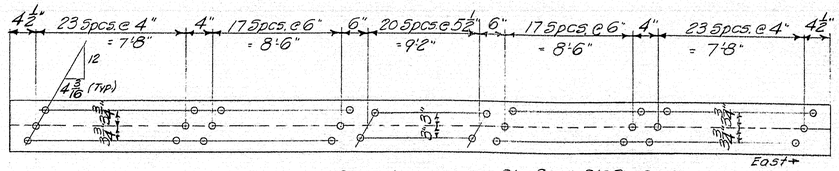
STUD LAYOUT FOR 57



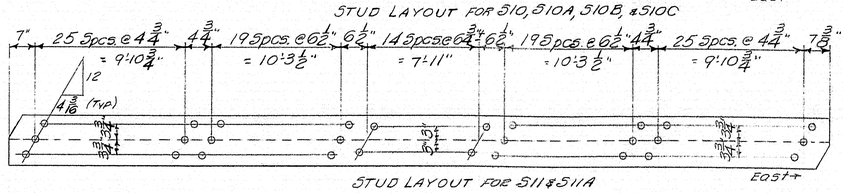
STUD LAYOUT FOR 58



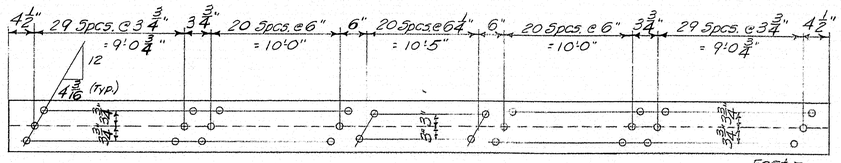
STUD LAYOUT FOR 59 & 59A



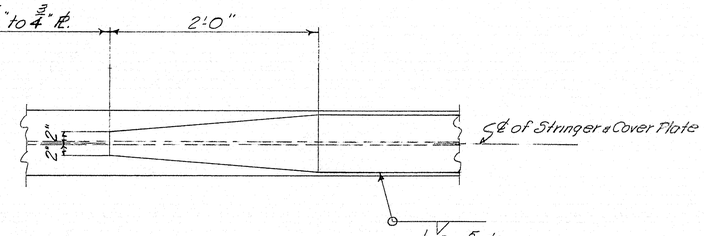
STUD LAYOUT FOR 510, 510A, 510B, & 510C



STUD LAYOUT FOR 511 & 511A



STUD LAYOUT FOR 512, 512A, 512B & 512C



COVER PLATE DETAIL (For plates 10" or less in width)

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	WT. ADD.	REMARKS
									CAMBER
51	1		33WF118	53	3 13/16		3		1 3/4"
51A	1		do	53	3 13/16		3		1 3/4"
52	1		do	52	11				1 3/4"
52A	1		do	52	11				1 3/4"
52B	1		do	52	11				1 3/4"
52C	1		do	52	11				1 3/4"
53	1		do	52	2 11/16		4		1 1/2"
54	1		do	50	9 7/16				1 1/2"
55	1		do	49	8 3/8				1 1/2"
56	1		do	48	7 3/8				1 1/2"
57	1		do	47	7 3/16				1 1/2"
58	1		do	46	11 3/8		4		1 1/2"
59	1		do	44	4		5		1 1/2"
59A	1		do	44	4		5		1 1/2"
510	1		do	43	11				1 1/4"
510A	1		do	43	11				1 1/4"
510B	1		do	43	11				1 1/4"
510C	1		do	43	11				1 1/4"
511	1		do	51	4 3/8		5		1 1/2"
511A	1		do	51	4 3/8		5		1 1/2"
512	1		do	50	11				1 1/2"
512A	1		do	50	11				1 1/2"
512B	1		do	50	11				1 1/2"
512C	1		do	50	11				1 1/2"
	4	CP2	Pl. 10 x 3/4	35	0	3570	122	62	
	2	CP1	Pl. 10 x 7/16	32	0	1222	46	24	
	1	CP3	do	33	0	630	23	13	
	4	CP8	do	31	0	2368	92	47	
	1	CP9	do	34	0	649	23	13	
	1	CP4	Pl. 10 x 1/2	31	0	527	20	11	
	1	CP5	Pl. 10 x 7/16	25	0	373	18	7	
	1	CP6	do	29	0	432	18	9	
	2	CP10	do	27	0	805	36	16	
	5	CP7	F.B. 7 1/2 x 5/16	18	0	717	37	18	
	72	pa	F.B. 6 x 3/8	2	5	1331		30	
	72	pb	do	2	5	1331		30	
	3	pc	do	2	5	55		1	
	8	pd	do	2	5	148		3	
	5	pe	do	2	5	92		2	
	1	Shop	5/16" weld	1570	0	261			
	1	Shop	1/4" weld	185	0	20			
			3 WEAR CONNECTORS (LUMP SUM PRICE)						
	7808	Shop	3/4 Studs	0	5				

This Bill of Matl. covers Dwgs. B62-43-51 to 513 inc.

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded
HOLES: 15/16" Ø
PAINT: Red lead per M.S.H.C. Spec.
STUDS: 3/4" Ø x 5"

STUD LAYOUT & COVER PLATE DETAILS

Bancroft & Martin Rollings Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43-513

APP. 4-11-62

DRAWN	3-8-62	P.L.F.
REVISION		
REVISION		
REVISION		

86-86 A

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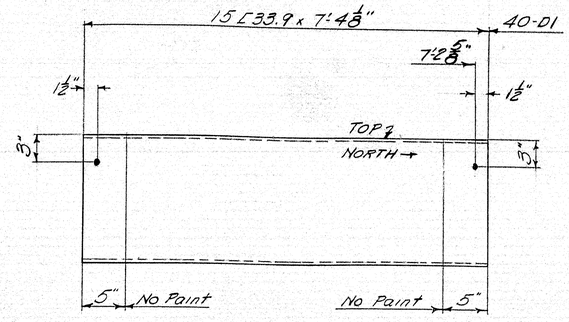
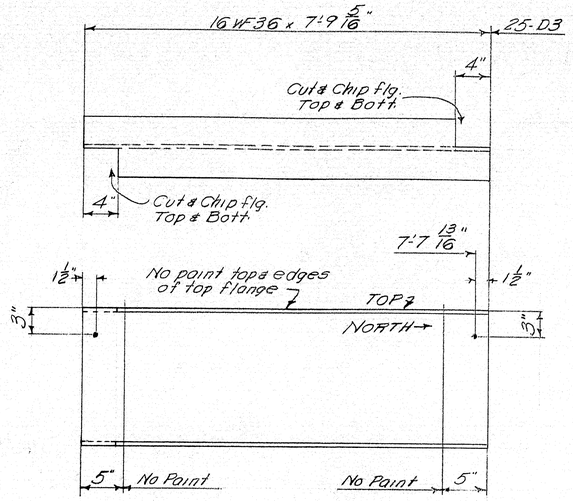
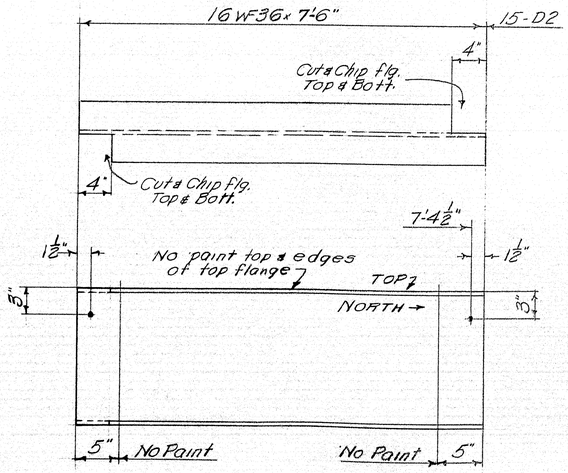
0 1 2 3 4 5 INCHES







SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	REMARKS
D1	40		15 [33.9	7	4 1/8			
D3	25		16 WF 36	7	9 5/16		158	
D2	15		do	7	6		95	
Field	160		5/8 ⌀ M. Bolt	0	1 3/4			Erection Bolts

BILL OF MATERIAL — DWG. NO. B-62-43-514

SHOP CONNECTIONS: —
FIELD CONNECTIONS: welded
HOLES: 13/16" ⌀
PAINT: Red Lead & Oil except as noted

DIAPHRAGMS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R.R.
HAMPDEN, MAINE

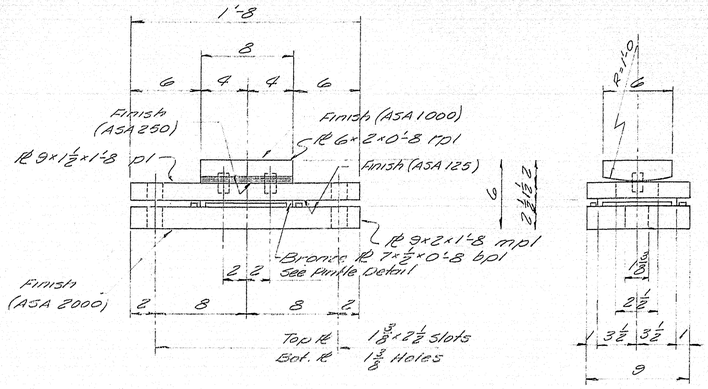
CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43-514

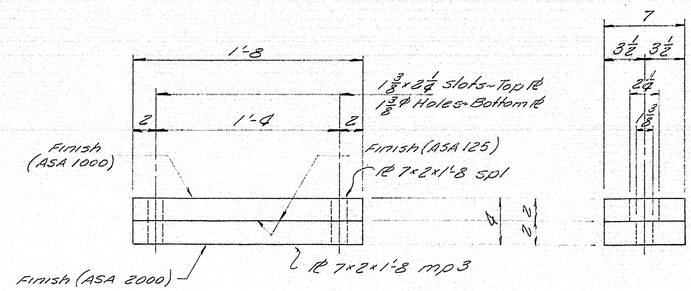
DRAWN	3-15-62	P.L.F.
REVISION		
REVISION		
REVISION		

APP. 4-11-62

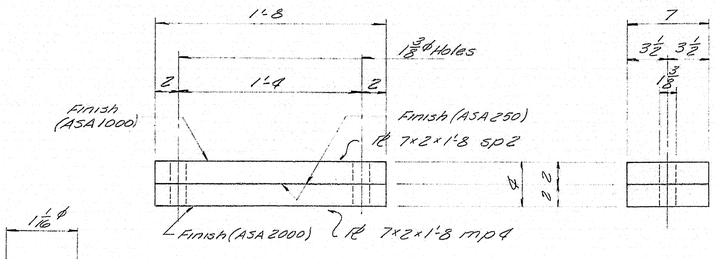
86-86 B



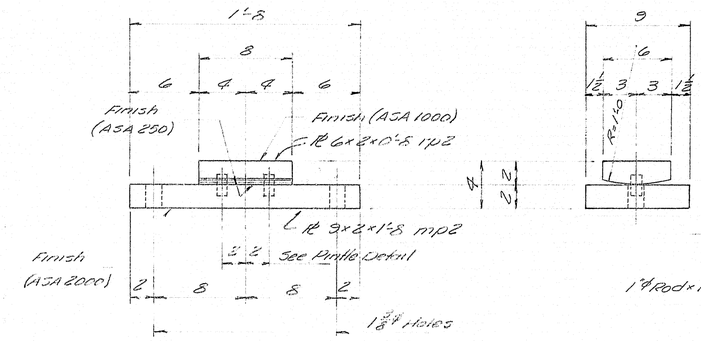
EXPANSION BEARING
EB1 12 Req'd



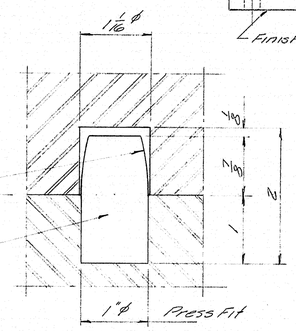
EXPANSION BEARING
EB2 12 Req'd



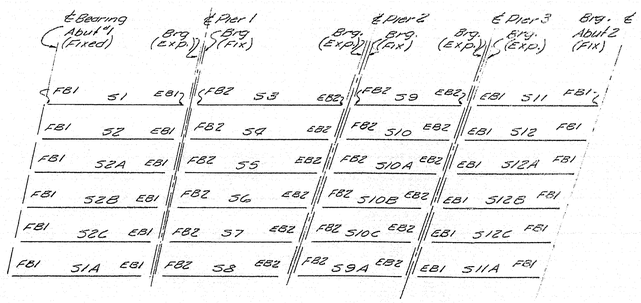
FIXED BEARING
FB2 12 Req'd



FIXED BEARING
FB1 12 Req'd



PINTLE DETAIL

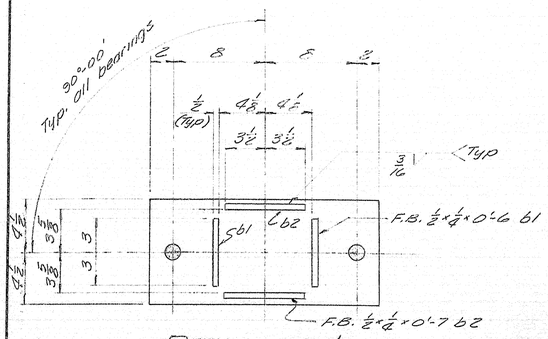


BEARING PLAN

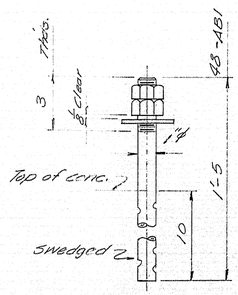
SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
SHIP	12		EB1			—	
	12	rpl	PL 6x2	0	8		
	12	pl	PL 9x1½	1	8		
	12	mpl	PL 9x2	1	8		
	24	b1	F.B. ½x¼	0	6		
	24	b2	do	0	7		
	24	d1	1⅛ϕ Rod	0	1⅞		
SHIP	12		FB1			—	
	12	rp2	PL 6x2	0	8		
	12	mp2	PL 9x2	1	8		
	24	d1	1⅛ϕ Rod	0	1⅞		
SHIP	12		EB2			—	
	12	spl	PL 7x2	1	8		
	12	mp3	PL 7x2	1	8		
SHIP	12		FB2			—	
	12	sp2	PL 7x2	1	8		
	12	mp4	PL 7x2	1	8		
AB1	48		1⅛ϕ Rod	1	5		
AB2	48		do	1	4		
	144	Shop	1" Nut				Hex. nut
	96	Shop	F.B. 3½x¼	0	3½		PL washer - 1⅛ϕ Hole on ctr.
			Item 702-103				
	12	bpl	PL 7x½	0	8		Bronze Self-lubricating
			Item 703-9				

SCALE WEIGH

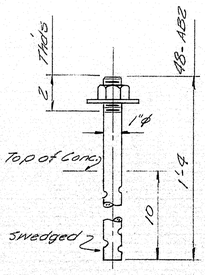
SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded, Bolted
HOLES: As Noted.
PAINT: As Noted



DETAIL mpl



EXPANSION



FIXED

ANCHOR BOLTS

PAINT NOTE:
Coat all finish surfaces ASA 250 & ASA 125 with white lead & tallow.
Do not paint lubrite bronze or areas in contact with lubrite bronze.
Paint all other surfaces with red lead and oil per M.S.H.C. Specs.

DRAWN	3-26-62	H.E.L.
REVISION		
REVISION		
REVISION		

BEARING DETAIL

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

APR. 4-11-62

INTERSTATE 95 SOUTHBOUND OVER EMERSON MILL RD. & B.&A.R.R.
HAMPDEN, MAINE.

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.

ORDER NO. _____ DWG. NO. B62-43-515

86-86C

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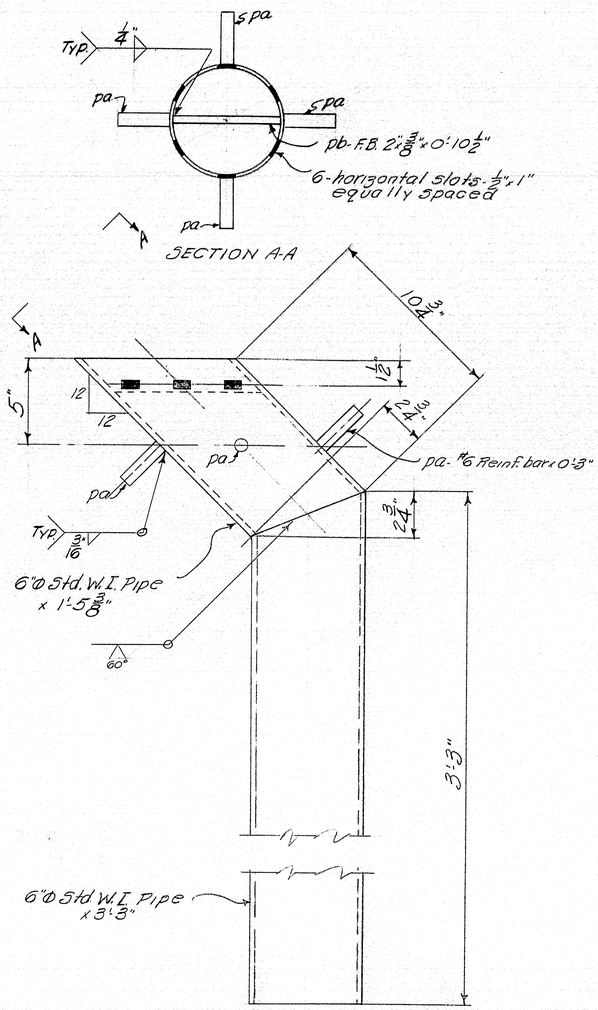
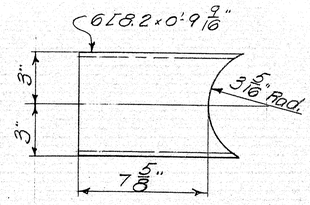


DRAIN - 12 Req'd



STAY CHANNEL - 12 Req'd

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	REMARKS
DRAIN	12		Shop Assembly					
STAY CHANNEL	12		6 L 8.2	0	9 9/16		12	
	12		6"Ø Std. Pipe	3	3		26	Wrought Iron
	12		do	1	5 3/8		91	Wrought Iron
	12	pb	F.B. 2x 3/8	0	10 1/2		3	
	48	pa	#6 Reinf. Bar	0	3			

BILL OF MATERIAL — DWG. NO. 862-43 316

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded
HOLES: As Noted
PAINT: Red Lead & Oil per M.S.H.C. Specs.

DRAIN DETAILS

Bancroft & Martin Rollings Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTH BOUND) OVER EMERSON MILL RD. & B.&A. R.R.
HAMPDEN, MAINE

APP. 4-11-62

DRAWN	3-19-62	P.L.F.
REVISION		
REVISION		
REVISION		

CUSTOMER: CONSTRUCTORS, INC.
DESIGNER: M.S.H.C.
ORDER NO.
DWG. NO. 862-43 316

86-86D

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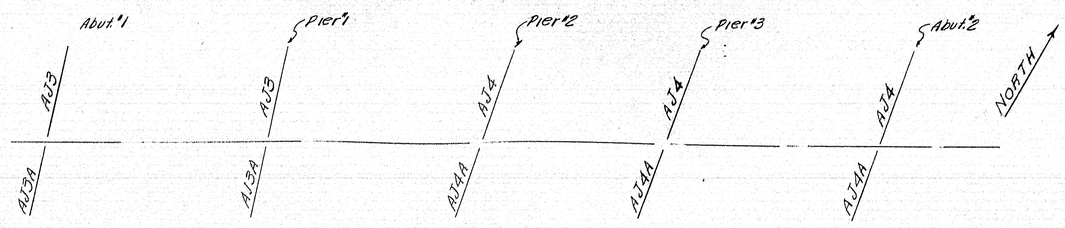
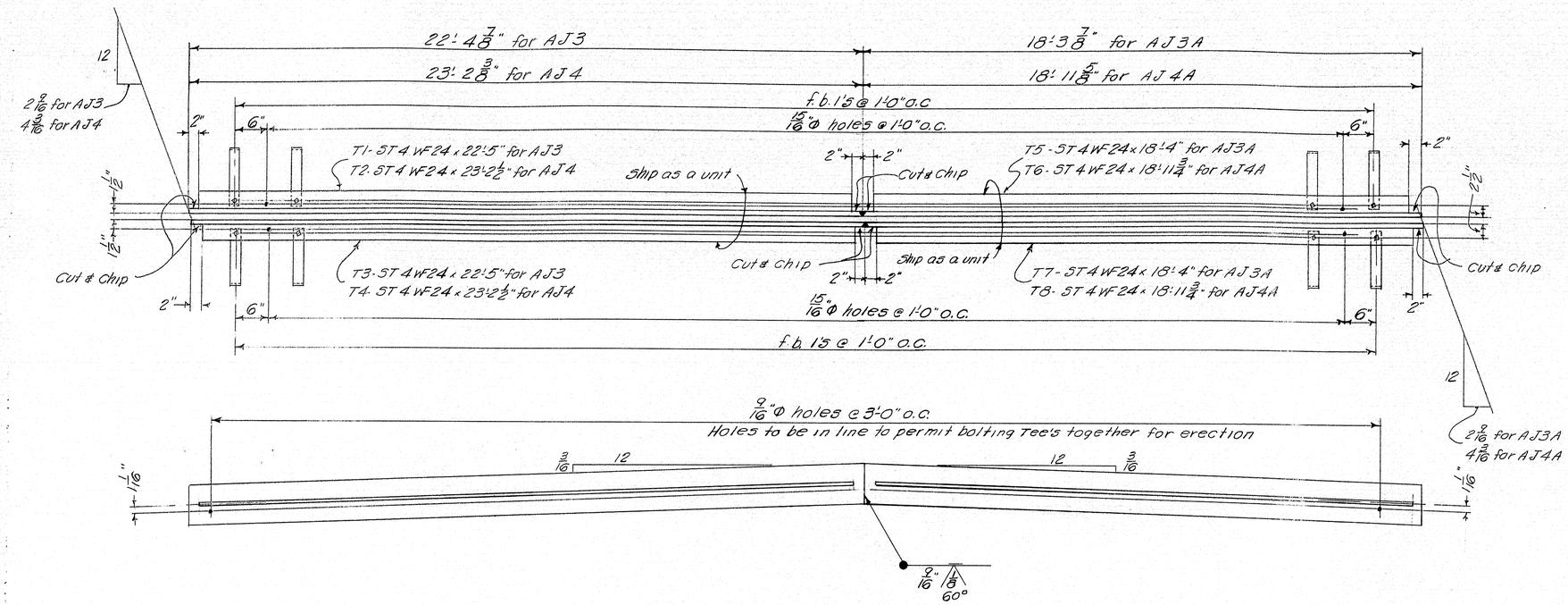
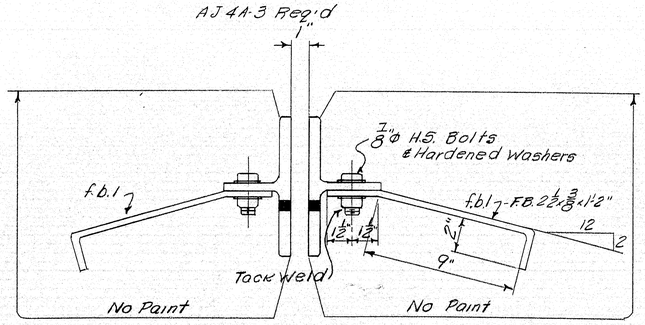


KEY PLAN - EXPANSION DAMS
SOUTHBOUND



AJ3 - 2 Req'd
AJ3A - 2 Req'd
AJ 4 - 3 Req'd
AJ 4A - 3 Req'd



TYPICAL SECTION

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	WT. ADD.	REMARKS
			BILL OF MATERIAL						DWG. NO. 862-43-517
AJ3	2		Shop Assembly			—			
AJ3A	2		do			—			
AJ4	3		do			—			
AJ4A	3		do			—			
	2	T1	ST4WF24	22	5		19		
	2	T3	do	22	5		19		
	3	T2	do	23	2 1/2		14		
	3	T4	do	23	2 1/2		14		
	2	T5	do	18	4		8		
	2	T7	do	18	4		8		
	3	T6	do	18	11 3/4		14		
	3	T8	do	18	11 3/4		14		
	412	fb.1	FB 2 1/2 x 3/8	1	2				+2.25%
	412	Shop	7/8" Φ H.S. Bolt	0	2 1/2	148			
	824	Shop	7/8" Hardened Washer			—			

SHOP CONNECTIONS: Bolted
FIELD CONNECTIONS: Welded
HOLES: 15/16" Φ except as noted
PAINT: Red Lead & Oil except as noted

EXPANSION DAM

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

INTERSTATE 95 (SOUTHBOUND) OVER
EMERSON MILL RD. & B. & A. R.R.
HAMPDEN, MAINE

APR. 4-11-62

DRAWN	3-29-62	P.L.F.
REVISION	4-13-62	P.L.F.
REVISION		
REVISION		

CUSTOMER CONSTRUCTORS, INC.
DESIGNER M.S.H.C.
ORDER NO. _____ DWG. NO. 862-43-517

86-86 E

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