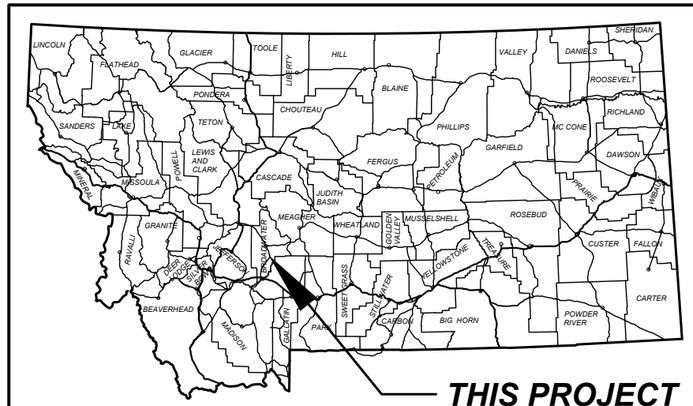
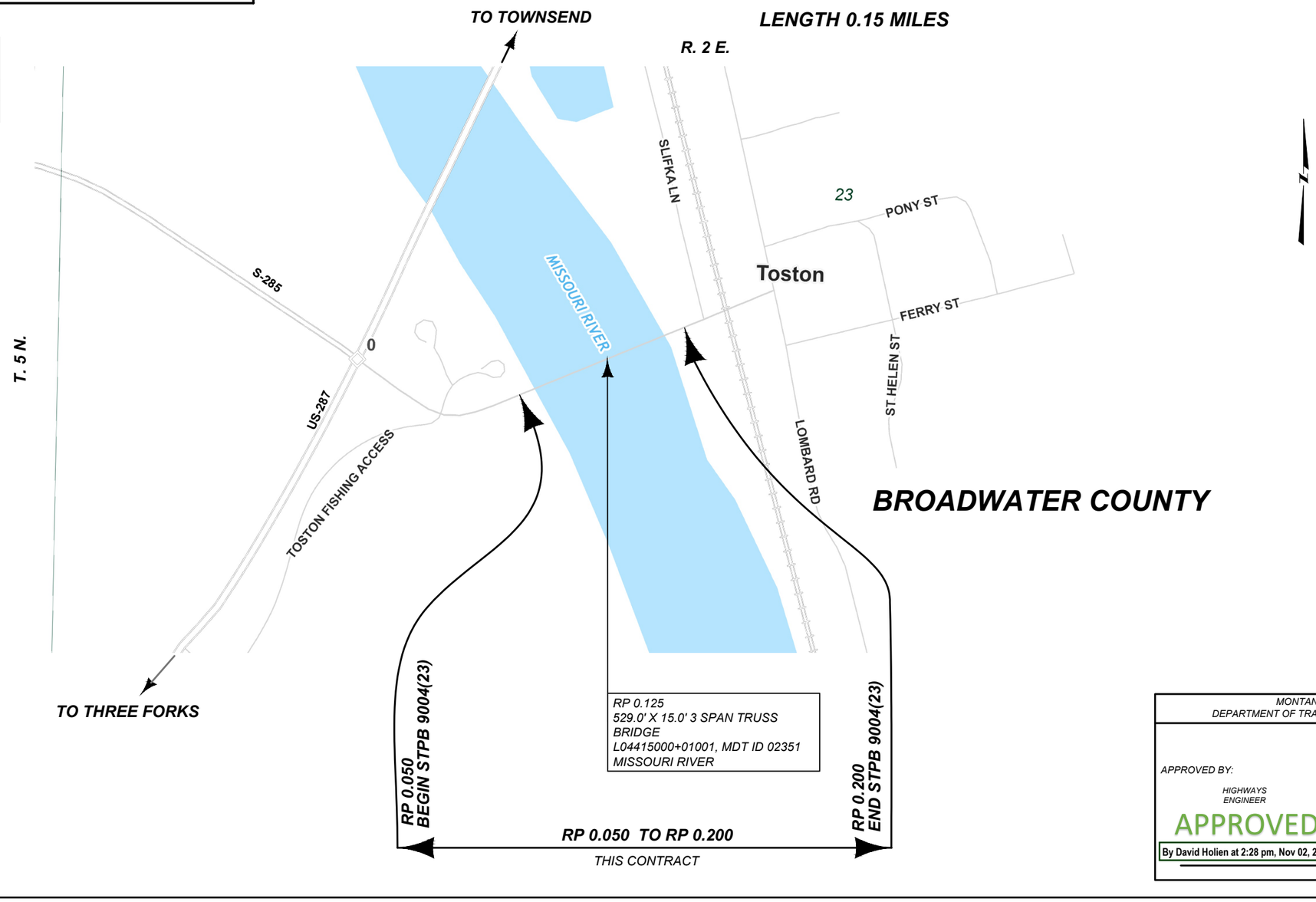
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MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT STPB 9004(23)
BRIDGE REMOVAL
BRIDGE REMOVAL - W OF TOSTON
BROADWATER COUNTY



ASSOCIATED PROJECT AGREEMENT NUMBERS	
R/W	STPB 9004(25)
P.E.	STPB 4(22)



MONTANA
DEPARTMENT OF TRANSPORTATION

APPROVED BY:

HIGHWAYS ENGINEER

APPROVED

By David Holien at 2:28 pm, Nov 02, 2026

MONTANA
DAVID HOLIEN
20186PE
LICENSED PROFESSIONAL ENGINEER

DATE

SHEET NO.
1

TITLE SHEET

PROJECT NAME	BRIDGE REMOVAL - W OF TOSTON
COUNTY	BROADWATER
PROJECT ID	STPB 9004(23)
UPN	10557000

DESIGNED BY	A. HURLEY	02/2025
REVIEWED BY	K. MUELLER	02/2025
CHECKED BY	J. CERECK	04/2026

10557000RDTTL001.DWG

MONTANA
Department of Transportation

ROAD PLANS

9/24/2026 2:41 PM

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ROAD PLANS	SHEET NO.
TITLE SHEET	1
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SPECIFICATIONS	S2
PLAN	S3
BRIDGE PLANS	
AS-BUILT DRAWINGS	1 - 6

NOTES

WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS. A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR THIS PROJECT. IMPACTS TO WETLAND AREAS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK. NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING.

SHEET NO.
2

TABLE OF CONTENTS AND NOTES

MONTANA
Department of Transportation

ROAD PLANS

DESIGNED BY		PROJECT NAME
A. HURLEY	02/2025	BRIDGE REMOVAL - W OF TOSTON
REVIEWED BY		COUNTY
K. MUELLER	02/2025	BROADWATER
CHECKED BY		PROJECT ID
J. CERECK	04/2026	STPB 9004(23)
		UPN
		10557000

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ADVERTISED COPY

SUMMARY

CONCRETE BARRIER RAIL

REFERENCE POST	each	each	REMARKS
	REMOVE CONCRETE BARRIER RAIL	CONCRETE BARRIER RAIL	
RP 0.050	2	2	WEST SIDE BRIDGE APPROACH
RP 0.200	2	2	EAST SIDE BRIDGE APPROACH
TOTAL	4	4	

REMOVE STRUCTURE

REFERENCE POST	lump sum	REMARKS
	REMOVE STRUCTURE	
RP 0.125	1.0	529.0' x 15.0' TRUSS BRIDGE (NBI: L04415000+01001 - MDT STRUCTURE ID 02351)
TOTAL	1	

BLASTING CONSULTANT

REFERENCE POST		lump sum	REMARKS
FROM	TO	BLASTING CONSULTANT	
RP 0.050	RP 0.200	1	
TOTAL		1	

FENCING

REFERENCE POST		linear feet		each		REMARKS
		FARM FENCE		FARM FENCE PANEL		
		TYPE F3W-32 IN WW	TEMP. FENCE	SINGLE	DOUBLE	
FROM	TO			FW	FW	
0.050 RT.	0.095 RT.	240	358	2	1	
TOTAL		240	358	2	1	

SHEET NO.
3

SUMMARIES

PROJECT NAME
BRIDGE REMOVAL - W OF TOSTON

COUNTY
BROADWATER

PROJECT ID
STPB 9004(23)

UPN
10557000

DESIGNED BY	02/2025
A. HURLEY	
REVIEWED BY	02/2025
K. MUELLER	
CHECKED BY	04/2026
J. CERECK	

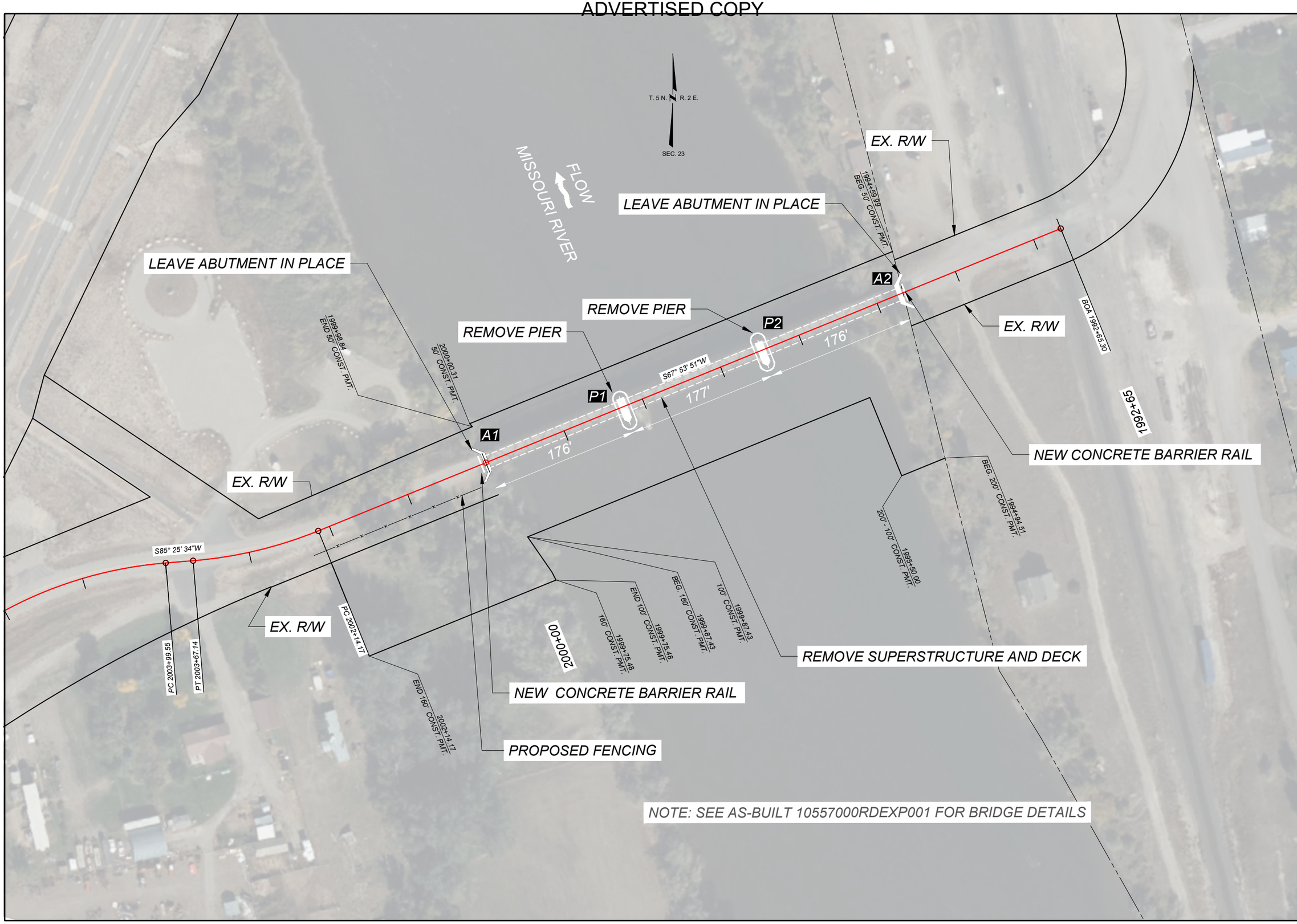
MONTANA
Department of Transportation

ROAD PLANS

9/24/2026 9:37 AM

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ADVERTISED COPY



SHEET NO.
4

PLAN

PROJECT NAME
BRIDGE REMOVAL - W OF TOSTON

COUNTY
BROADWATER

PROJECT ID
STPB 9004(23)

UPN
10557000

DESIGNED BY	02/2025
A. HURLEY	
REVIEWED BY	02/2025
K. MUELLER	
CHECKED BY	04/2026
J. CERECK	

10557000RDPLN001.DWG

MONTANA
Department of Transportation

ROAD PLANS

9/24/2026 2:42 PM

NOTES AND ABBREVIATIONS:

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08

SEE LOCATION AND SPECIFICATION SHEETS FOR PORTIONS OF PROJECT NOT INCLUDED WITHIN SIGNING PLAN SHEETS.

SIGN POSTS SYMBOLS SHOWN ARE FOR REFERENCE ONLY TO SHOW EXISTING SIGNS THAT REQUIRE NO ACTION.

SIGNING AND PAVEMENT MARKING LOCATIONS ARE APPROXIMATE. PROJECT MANAGER TO FIELD ADJUST AS NECESSARY.

ADOPT A HIGHWAY: IF SIGNS N7-1/N7-1P EXIST, CONTRACTOR WILL CONFIRM THAT THE GROUP NAME ON THE SIGN(S) EXISTING AT THE TIME OF CONSTRUCTION CORRESPONDS TO THE GROUP NAME ON THE SIGN(S) SHOWN IN PLANS. IF NAME IS DIFFERENT, PROJECT MANAGER WILL CONTACT TRAFFIC & SAFETY BUREAU SIGNING SECTION WITH THE CORRECT NAME AND A NEW SIGN DESIGN WILL BE PROVIDED.

RSFO = REPLACE SIGN FACE ONLY

FY = FLUORESCENT YELLOW SHEETING REQUIRED

FYG = FLUORESCENT YELLOW-GREEN SHEETING REQUIRED

1 AIR = 1 OR 2 ANGLE IRONS REQUIRED
2 AIR = 2 1/2" x 2 1/2" x 3/8" x 6'-4" (37 lbs.EACH)
IF Y POST DOES NOT REACH TOP 6" OF PANEL, 2 ANGLE IRONS REQUIRED.

MBB = MOUNT BACK TO BACK

CAM = CHEVRON ANGLE MOUNT (SEE DET. DWG 619-24)

CBR = CONCRETE BARRIER RAIL

✕ = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

▲ = SINGLE SQUARE TUBE REQUIRED. MOUNTED IN HEAVY DUTY STUB.

★ = TELESCOPED SQUARE TUBES (2-1/4" & 2-1/2") WITH SLIP BASE BREAKAWAY REQUIRED. MOUNTED IN HEAVY DUTY STUB.

■ = FRANGIBLE SIGN POST. BREAKAWAY DEVICE REQUIRED.

BGR = BEHIND GUARDRAIL

BBR = BACKBRACING REQUIRED:
- FOR WOOD POLE SEE DET. DWG 619-22
- FOR STEEL POST 2" X 2" X 1/4" REQUIRED. SEE DET. DWG 619-16
- FOR STRUCTURAL STEEL POST 2 3/4" X 2 3/8" EXTRUDED "T" SECTION BACKBRACE REQUIRED. SEE DET. DWG 619-19
- FOR CANTILEVER POST, SEE DET. DWG 619-18
- FOR GUIDE SIGN PANELS, USE EXTRUDED "T" SECTION BACKBRACE. SEE DET. DWG 619-04

USE HARDWARE MEETING REQUIREMENTS OF SECTION 704

SUMMARY
SIGNING & DELINEATION QUANTITIES

MATERIAL	TOTAL	UNIT
SIGNS-ALUM REFL SHEET XI	**32.6**	SQFT
REMOVE SIGN	**2**	EACH
POLES-TREATED WOOD 4 IN	**4**	EACH
BARRICADE TYPE B-III	**40**	LNFT

SHEET NO. S1

SIGNING NOTES & SUMMARY FRAMES

PROJECT NAME: BRIDGE REMOVAL - W OF TOSTON
COUNTY: BROADWATER
PROJECT ID: STPB 9004(23)
UPN: 10557000

DESIGNED BY: J. PECK 09/2026
REVIEWED BY: S. LUCIO 09/2026
CHECKED BY:

MONTANA Department of Transportation

SIGNING PLANS

9/22/2026 4:55 PM

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SIGN LOCATION			PANEL SPECIFICATIONS					SIGN ASSEMBLY SPECIFICATIONS											SIGN ASSEMBLY QUANTITIES												ADDITIONAL INFORMATION	
								FEET		FEET									PANEL (SQ. FT.)		WOOD POLE (LNR. FT.)		STEEL POST (LBS.)				REMOVE		RESET		LNFT		
STATION / R.P.	LFT / MDN / RGT / OH	ACTION	SIGN NO. (MUTCD / MT)	PANEL SIZE (INCHES) W	X H	FY OR FYG	BACKBRACING REQ'D / 1 OR 2 ANGLE IRONS REQ'D	MOUNT BACK TO BACK / CHEVRON ANGLE MOUNT	CLEARANCE / OFFSET (SHOULDER TO EDGE OF SIGN)	TYPE OF SUPPORT	SUPPORT SPACING	MOUNTING HEIGHT	FOUNDATION DEPTH	SUPPORT LENGTH (ESTIMATED) X	Y	Z	CANTILEVER	BREAKAWAY TYPE	BEHIND GUARDRAIL	SHEET ALUMINUM	SHEET ALUMINUM INCREMENT	4" TOP DIA.	5" TOP DIA.	ROUND TUBULAR	SQUARE TUBULAR	"U" POST	# OF BREAKAWAYS	SIGN	GUIDE	SIGN	GUIDE	BARRICADE TYBE B-III	SIGN IMAGE	REMARKS
1993+27.18	R	REMOVE SIGN																									1						EX. WEIGHT LIMIT SIGN
1993+27.18	R	NEW	W8-26	30 X 30					10.0	4" Treated Wood Pole		5.0	3.0	13.1						6.3		1											
1993+27.18	L	NEW	W8-26	30 X 30					10.0	4" Treated Wood Pole		5.0	3.0	13.1						6.3		1											
1994+64.06	R	NEW	R11-2b	48 X 30						MOUNT ON B-III										10.0												BRIDGE OUT	MOUNTED ABOVE TYPE III BARRICADE
			B-III	96 X 10																											10		WB LANE
1994+64.06	L	NEW	B-III	96 X 10																											10		EB LANE
2000+82.31	L	REMOVE SIGN																									1						EX. WEIGHT LIMIT SIGN
2001+06.26	L	NEW	R11-2b	48 X 30						MOUNT ON B-III										10.0												BRIDGE OUT	MOUNTED ABOVE TYPE III BARRICADE
			B-III	96 X 10																											10		EB LANE
2001+06.26	R	NEW	B-III	96 X 10																											10		WB LANE
2002+84.74	R	NEW	W8-26	30 X 30					10.0	4" Treated Wood Pole		5.0	3.0	13.1						6.3		1											
2002+84.74	L	NEW	W8-26	30 X 30					10.0	4" Treated Wood Pole		5.0	3.0	13.1						6.3		1											
PROJECT TOTALS																			32.6		28.0					2.0				40.0		

SHEET NO.
S2

SIGN LOCATIONS AND SPECIFICATIONS

PROJECT NAME BRIDGE REMOVAL - W OF TOSTON
COUNTY BROADWATER
PROJECT ID STPB 9004(23)
UPN 10557000

DESIGNED BY J. PECK 09/2026
REVIEWED BY S. LUCIO 09/2026
CHECKED BY

MONTANA Department of Transportation

SIGNING PLANS

9/22/2026 4:55 PM

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T. 5 N. R. 2 E.
SEC. 23

MISSOURI RIVER

2001+06.26
NEW
R11-2B
TYPE B-III
BARRICADE

BRIDGE OUT

2002+84.74
NEW
W8-26

NEW CONCRETE BARRIER RAIL

S67° 53' 51"W

PI = 2002+91.26
Δ = 17° 31' 43" (RT)
R = 500'
T = 77.09'
L = 152.97'
E = 5.91'

S85° 25' 34"W

PC 2003+99.55

PT 2003+67.14

PC 2002+14.17

2002+84.74
NEW
W8-26

2000+82.31
REMOVE
EX. WEIGHT
LIMIT SIGN

2000+00

PI = 2007+40.23
Δ = 70° 10' 15" (LT)
R = 485'
T = 340.68'
L = 593.98'
E = 107.69'

1993+27.18
NEW
W8-26

1993+27.18
REMOVE
EX. WEIGHT
LIMIT SIGN

NEW CONCRETE BARRIER RAIL

BOA 1992+65.30

1993+27.18
NEW
W8-26

1994+64.06
NEW
R11-2B
TYPE B-III
BARRICADE

BRIDGE OUT

1992+65

SHEET NO.
S3

PLAN SHEET

PROJECT NAME
BRIDGE REMOVAL - W OF TOSTON

COUNTY
BROADWATER

PROJECT ID
STPB 9004(23)

UPN
10557000

DESIGNED BY
J. PECK
09/2026

REVIEWED BY
S. LUCIO
09/2026

CHECKED BY

MONTANA
Department of Transportation

SIGNING PLANS

9/23/2026 3:34 PM

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	MONT.	30	1919	4	7

Datum; Base of rail, Main line of Nor. Pac. Ry. opposite North end of Toston depot. Elev. 3925.00

℄ Shoe at West end of Old Bridge, Sta. 4+92
Top of Floor, Elev. 3922.02

Fill — Exp. — Abutment 'A' — Fixed — Exp. — Fixed — Fixed — Exp. — Abutment 'B'

Rip-Rap

Extreme High Water (A.D. 1894)-Elev. 3913.3
Average High Water, Elev. 3910.7
Water level, Dec. 19th 1918 Elev. 3905.6

Gravel — Gravel — Gravel

Pedestal Bolts

PROFILE ON ℄ OF BRIDGE LOOKING DOWN STREAM.

529'-0" c.to c. End Abutments.

176'-0" — 177'-0" — 176'-0"

10 Panels @ 17'-6" = 175'-0" c-c. — 10 Panels @ 17'-6" = 175'-0" c-c. — 10 Panels @ 17'-6" = 175'-0" C-C.

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℄ Bridge — Abutment 'A' — Abutment 'B'

PLAN OF BRIDGE

HALF PLAN ABUTMENT 'A'

HALF PLAN ABUTMENT 'B'

Floor, Elev. 3922. at abutments

End of wings of Abutment 'B'

Batter, 1" to 12"

Elev. 3895.00

SECTION ON ℄

Current

N.

Upper ⅓ of variable length

Bars in Abutment 'A'

Bars in Abutment 'B'

DETAILS OF REINFORCING BARS
To be placed in rear of wing walls, about 2" in from rear face of walls

Floor line Elev. 3923.33 at piers.

SIDE ELEVATION OF PIER.

END ELEVATION.

SECTION ON ℄

PLAN.

PLAN OF BASE AND PILING.

Top of Floor at Abutments, Elev. 3922.0

End of Wing Walls of Abutment 'B'

End of Wing Walls of Abutment 'B'

SIDE ELEVATION.

HALF FRONT ELEVATION.

HALF REAR ELEVATION.

ABUTMENT "A" ~ NOT DRAWN TO SCALE. ~

Details apply generally to abutment 'B' except as shown.

NOTE:- See Drwg. No 134 for Stresses and Typical Details of Spans. See Drwgs. Nos 167, 168 & 169 for Shop Details of Spans

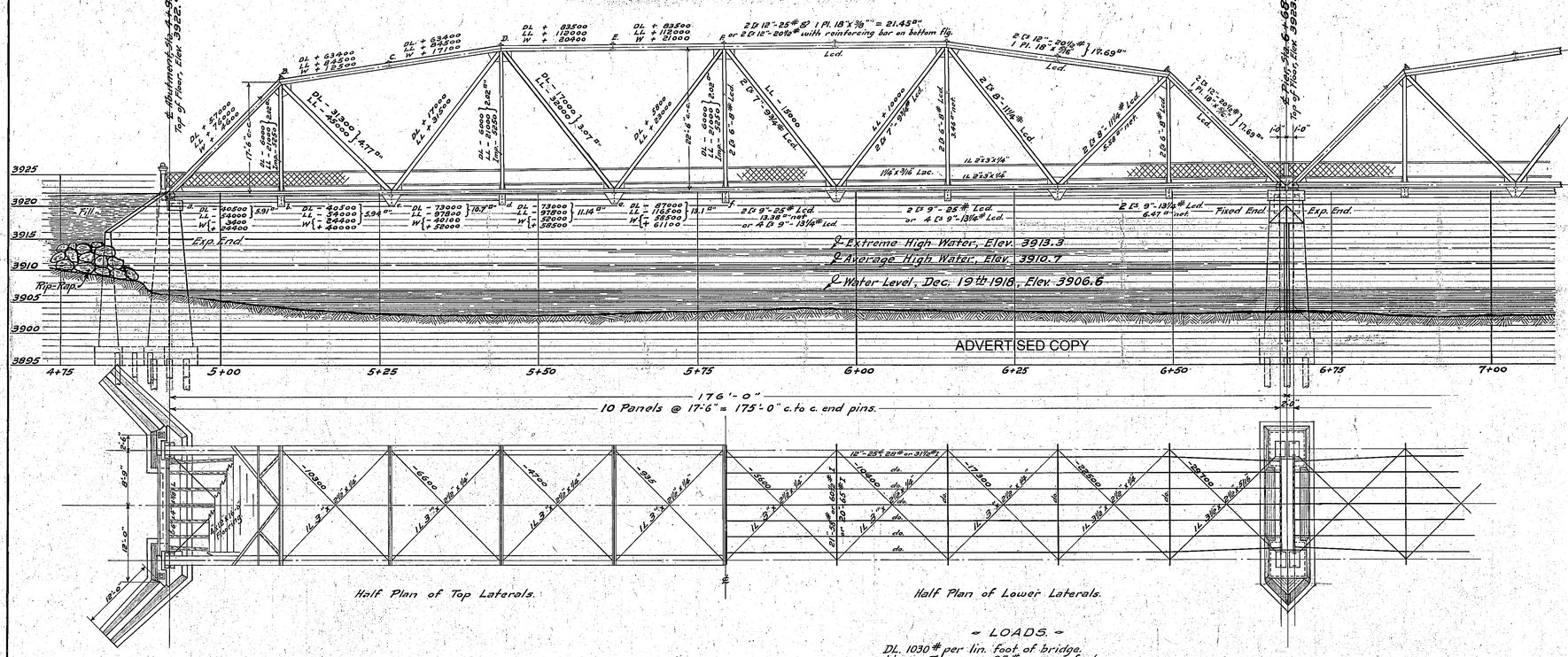
THREE 175'X16' SPANS
~ over ~
# MISSOURI RIVER
AT TOSTON,
BROADWATER CO., MONT.
STATE HIGHWAY COMMISSION.
HELENA, MONTANA.

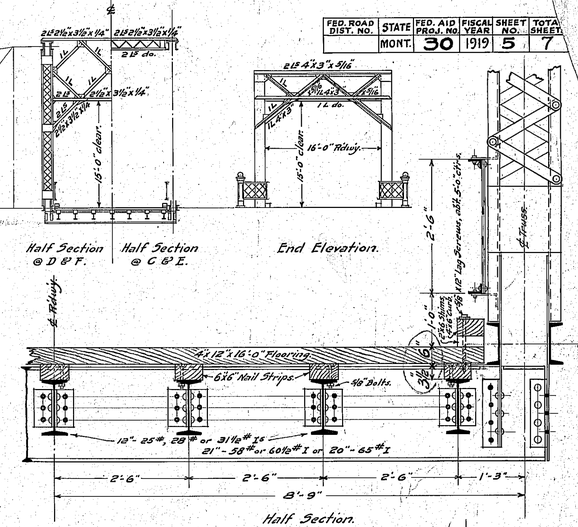
Revised; April 10th, 1919.
Scales: 1/20" & 1/4" = 1'-0"
Chas. A. Kyle, Bridge Engr.
Traced by ERB:
Revised " M.S.H.
" June 25, 1919
Approved Paul V. Pratt, Chief Engr.

FILE No. 131.~ DRAWING No. 133.

Proj. No. 143-0105-0325

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEET.
	MONT.	30	1919	5	7



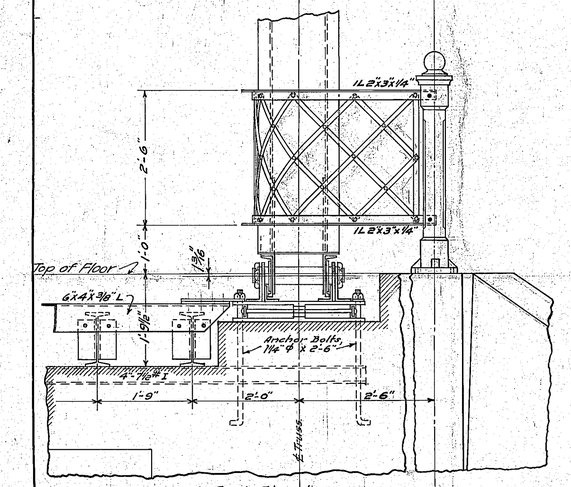


~ LOADS. ~

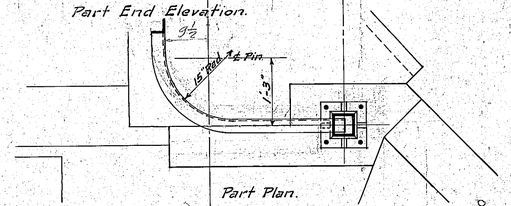
DL. 1030 # per lin. foot of bridge.
LL. on Trusses, 85 # per sq. foot.
LL. on Floor System, 1-20 Ton Traction Engine, 9/9 on rear axle.
Impact on Floor System, 25 % of LL.
Wind, { 150 # per lin. ft. at Top Chord, 1/2 transferred below by sway-bracing.
300 # " " " " Lower " , 1/2 assumed moving.
Floor Beam Reaction = 32250 #
Stringer assumed to carry 1/2 of Conc. Wheel Load, or 3.33 Tons + Impact.

~ SPECIFICATIONS. ~

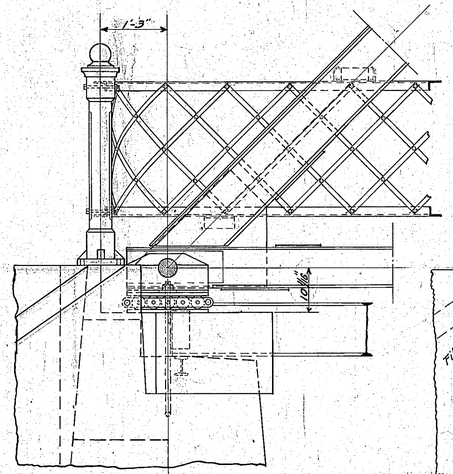
Except as noted, use Mont. State Highway Commission Std. Specifications.
Paint, { One Shop Coat, Brown Graphite Paint.
1st Field " , Black " "
2nd " " , Brown " "



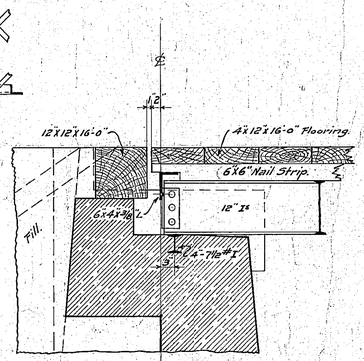
Part End Elevation.



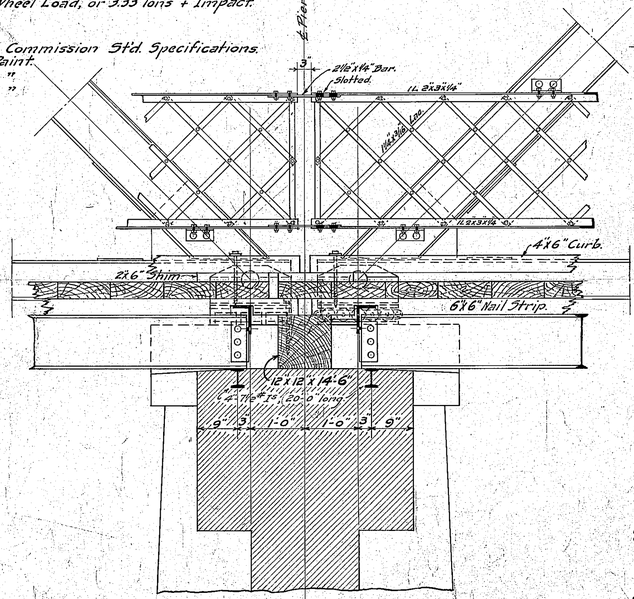
Part Plan.



Elevation at Abutment.



Section on ℄ Roadway. ~ Abutment. ~



Section on ℄ Roadway. ~ Pier. ~

Detail of Shoe, Expansion End

~ NOTE. ~
See Drwg. № 133 for general plan and details of Piers and Abutments.
See Drwgs. № 167, 168 & 169 for Shop Details of Spans.

THREE 175'X16' SPANS
~ over ~
# MISSOURI RIVER
AT TOSTON,
BROADWATER CO., MONT.
STATE HIGHWAY COMMISSION.
HELENA, MONTANA.

Revised; April 10th 1919.
Scales: 1/10", 3/4" & 3" = 1'-0" ~ Chas. A. Kyle, Bridge Engr.
Traced by M.S.H.
Revised: June 25, 1919. Approved ... Chief Engr.

FILE No. 131. ~ DRAWING No. 134.

ADVERTISED COPY

~LOADS.~

DL 1030 # per lin. foot of bridge
L.L. on Trusses 85 # per sq. foot.
L.L. on Floor System; 1-20 Ton Traction Engine, 2/3 on rear axle.
Impact on Floor System, 25 % of L.L.
Wind (150 # per lin. ft. at Top Chord, 1/2 transferred below by sway-bracing.
 (300 " " " " Lower " 1/2 assumed moving.
Floor Beam Reaction = 32250 #
Stringer assumed to carry 1/2 of Conc. Wheel Load, or 3.33 Tons + Impact.

~SPECIFICATIONS~

Except as noted use Mont. State Highway Commission Standard Specifications, 1919 Edition.
Paint { 1st. Field " One Shop Coat, Brown Graphite Paint. / 2nd. " " Black " " " }.

Rivets 3/4" Open Holes 13/16" except in flanges of 6", 7", & BE which are 7/8" Rivets, 1" O.H.
Rail bolted with 7/8" Bolts.

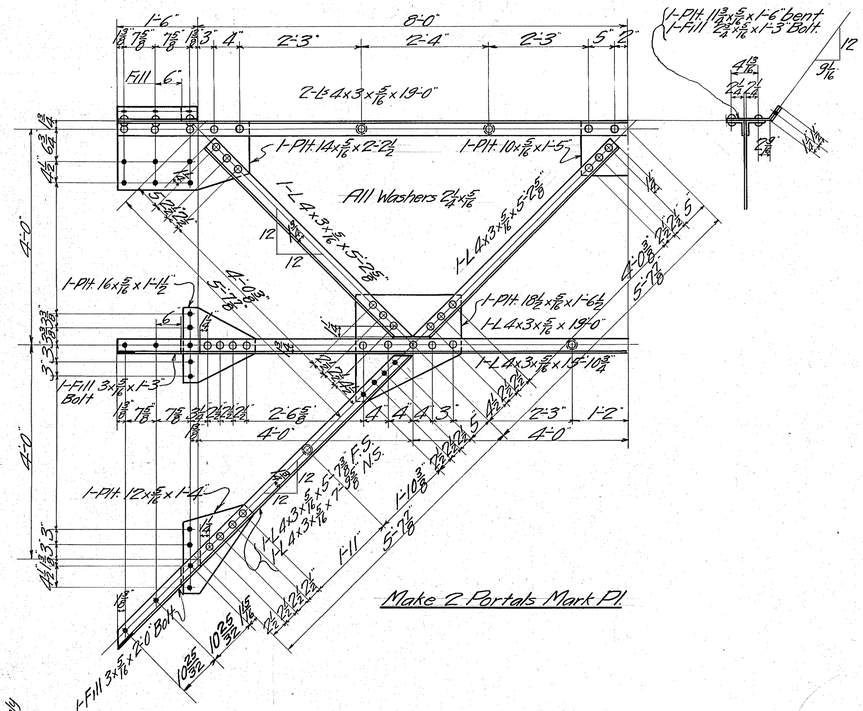
SHOP DETAILS. 175'X16' SPAN. STATE HIGHWAY COMMISSION HELENA, MONTANA.

July 30th 1919

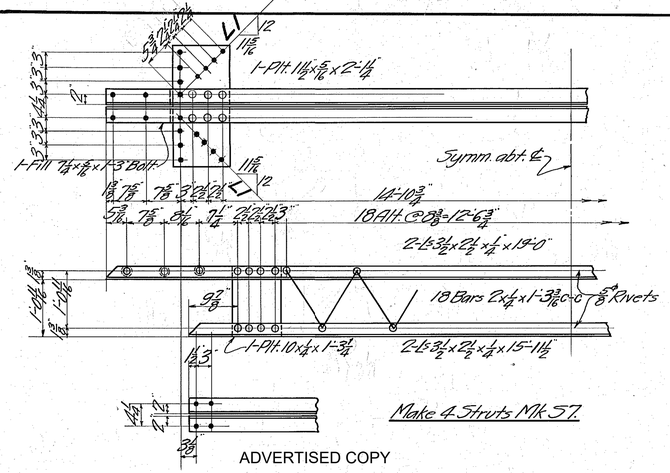
Scale: 3/4" = 1'-0"
Traced by L.A.H.
Checked by M.S.H.
Chas. A. Kyle, Designing Engr.
Approved Chief Engr.

SHEET 1 OF 3

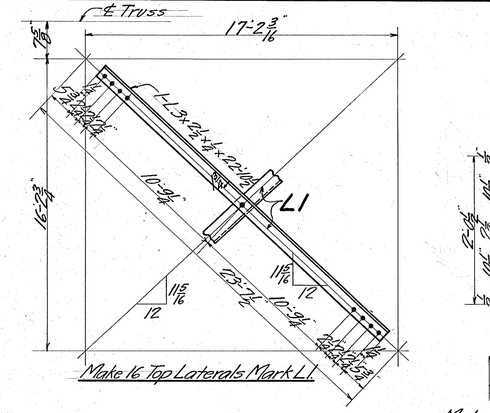
FILE No. 131 ~ DRAWING No. 167

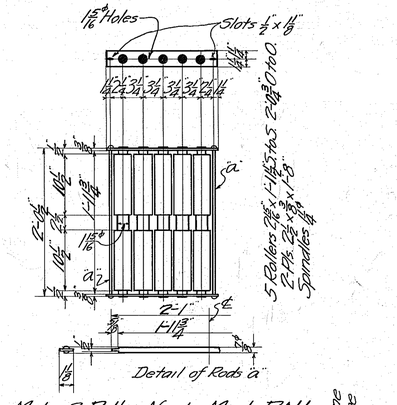


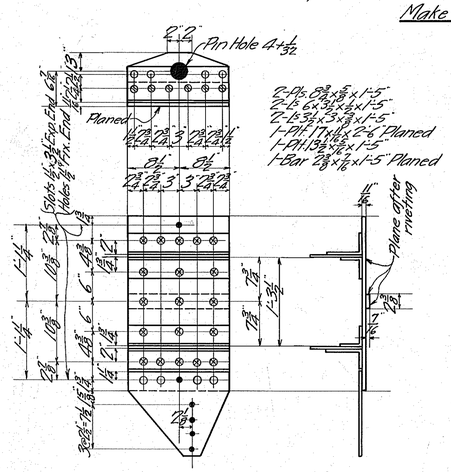
Make 2 Portals Mark P1.

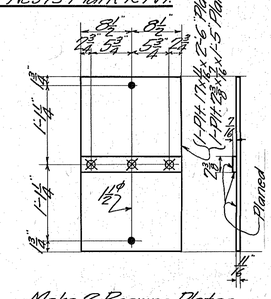


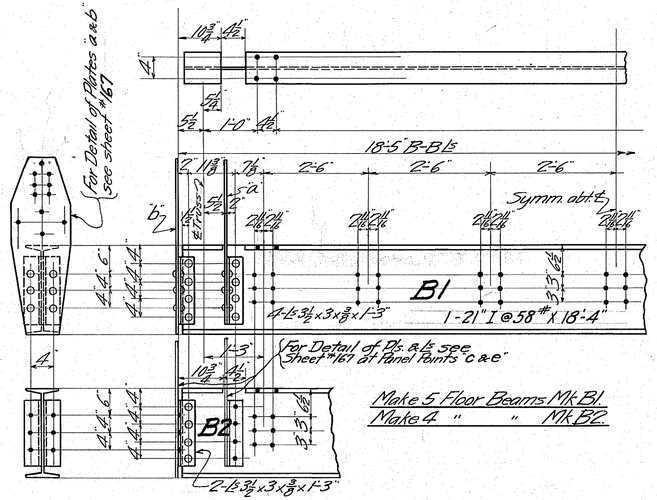
ADVERTISED COPY

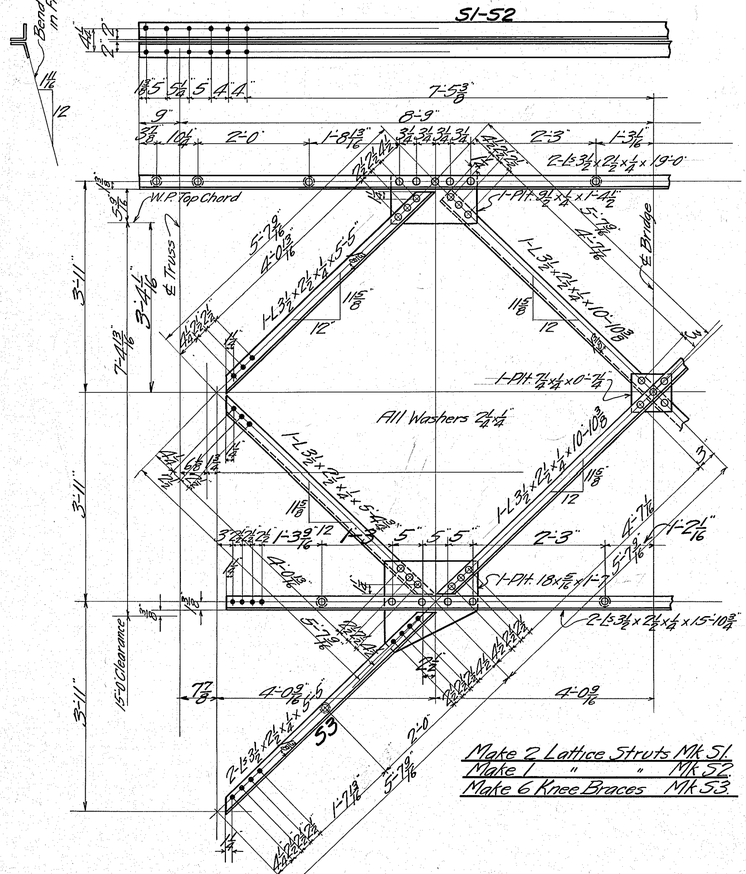


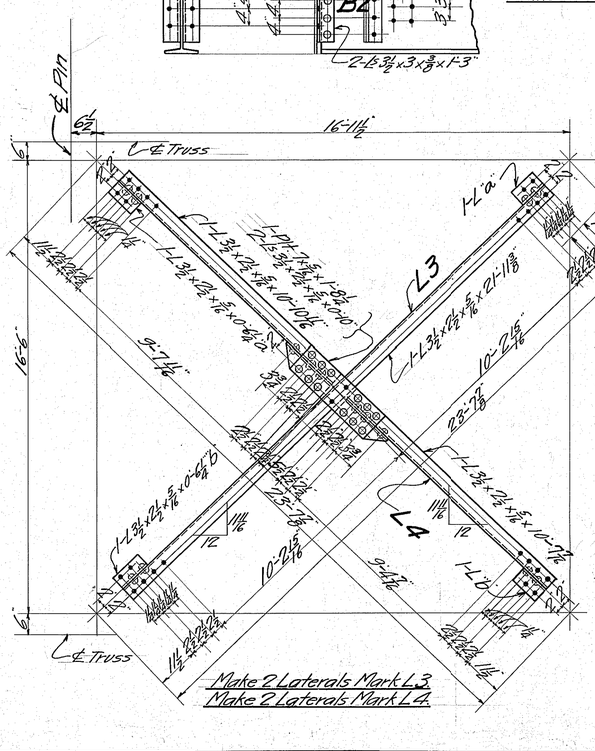


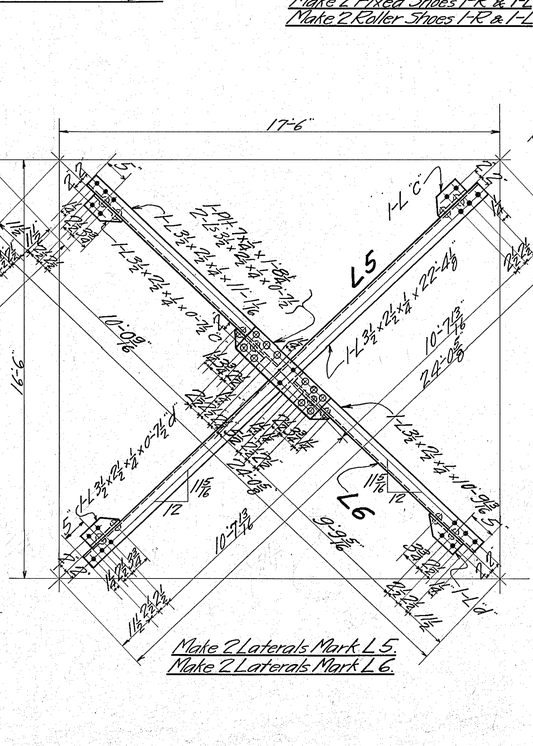


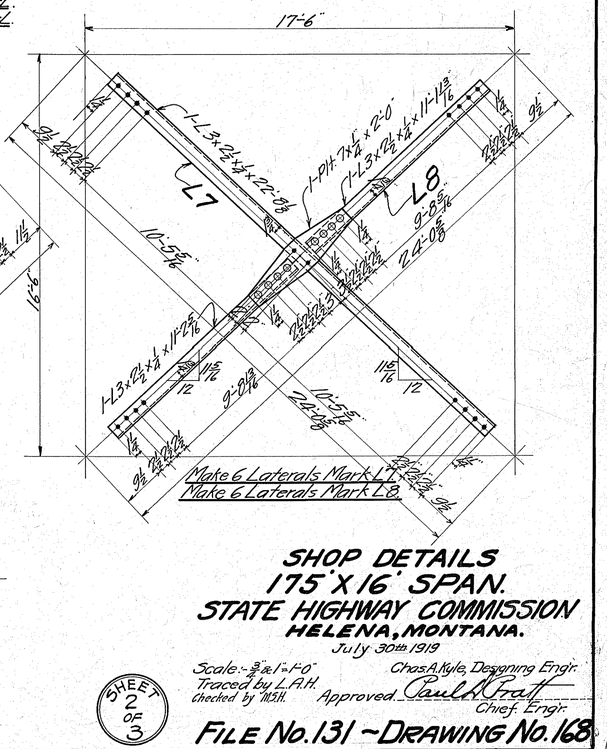












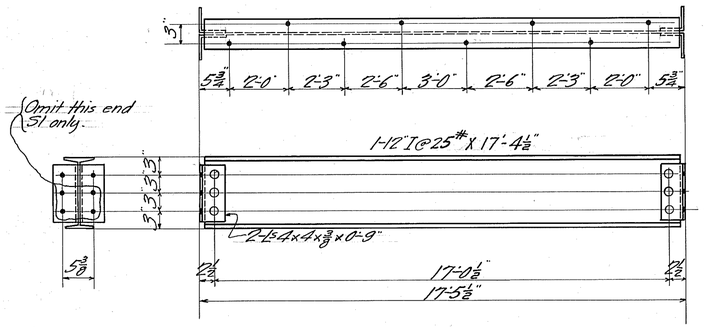
SHOP DETAILS
175' X 16' SPAN.
STATE HIGHWAY COMMISSION
HELENA, MONTANA.

July 30th 1919

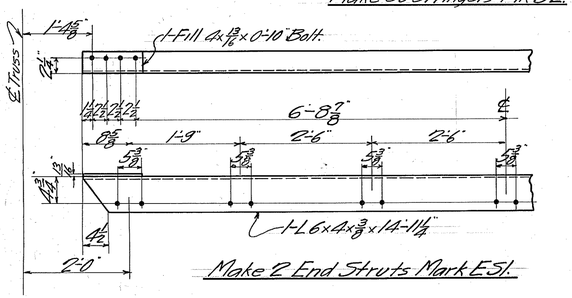
Scale:- 3" = 1'-0" Chas. A. Kyle, Designing Engr.
Traced by L.A.H. Approved Paul L. Pratt
Checked by T.M.H. Chief Engr.

SHEET 2 OF 3

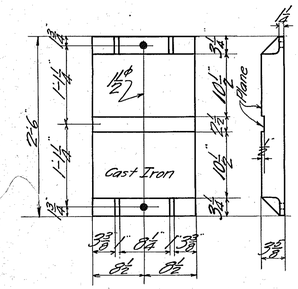
FILE NO. 131 ~ DRAWING NO. 168



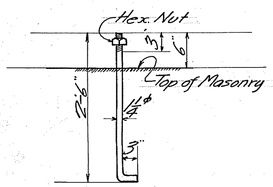
Make 14 Stringers Mk S1.
Make 56 Stringers Mk S2.



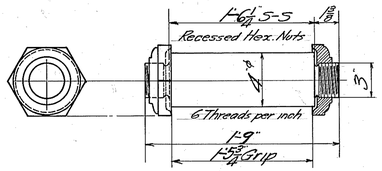
Make 2 End Struts Mark E51.



Make 2 Bed Plates Mk BP1



Make 8 Anchor Bolts.



Make 4 Pins

FIELD RIVETS-ACTUAL NO. REQD.

No.	Dia.	Grip	Length	Location
136	¾	11/16	2⅛	End Post Web to Bott. Chord
144	"	11/16	2½	Top Chord Web to End Post.
112	"	11/16	2¼	Top Chord Web to Gusset at "D"
68	"	¾	2⅛	Top Chord Web to Gusset at "F"
72	"	⅝	2	Bott. Chord to Gusset at "c"
96	"	1"	2⅜	" " " " " "e"
96	"	⅛	2¼	" " Splice at "c"
96	"	⅛	2⅜	" " " "e"
32	"	⅝	2	" " to Gusset at "b"
48	"	1"	2⅛	" " to Gusset at "d" & f
280	"	9/16	2	Posts to Gussets
576	"	⅝	2"	Diagonals to Gussets
36	"	1½	2⅛	Top Chord Splice
36	"	13/16	2⅝	Top Chord Splice
24	"	1½	3	Lattice Strut to Top Chord at Splice
24	"	15/16	2⅜	" " " " " " "
24	"	9/16	2	" " " " " "
32	"	1½	3	Struts S7 to Top Chord
16	"	13/16	2⅝	" " " "
48	"	13/16	2⅝	" " " "
32	"	11/16	2	" " " "
128	"	9/16	2	Top Laterals to Top Chord
8	"	½	1⅞	" " at Intersection
12	"	15/16	2⅜	Portal to End Post
24	"	1½	3	" " " "
44	"	1⅛	2½	" " " "
8	"	5/16	2	" " " "
36	"	½	1⅞	Lattice Struts to Posts
48	"	¾	2⅛	" " " "
48	"	⅝	2	Bott. Laterals to Bott. Chord
136	"	9/16	2	" " " "
4	"	⅝	2	" " at Intersection
16	"	½	1⅞	" " at "
72	"	⅞	2½	Floor Beams to Bott. Lat. Plates
32	"	13/16	2⅝	" " " Bott. Chord
48	"	¾	2⅛	" " " " "
378	"	13/16	2⅝	Stringers to Floor Beams
28	"	¾	2⅛	Stringers to End Strut
16	"	15/16	3½	End Strut to Shoe
12	"	⅞	2⅛	Bott. Lat. Pls. to Bott. Chord at Splice
12	"	13/16	2⅛	" " " " " " "
24	"	13/16	2⅛	Knee Braces to Lattice Struts
16	"	13/16	2⅝	" " to Portal
48	"	9/16	2	Rail Posts to Bott. Chd.

SUMMARY-INCLUDING EXCESS.

Dia.	All ¾"										
Lgth.	⅛	2	2⅛	2⅛	2⅜	2½	2⅝	2⅝	3	3½	Totals.
ACTUAL NO.	60	1388	632	108	212	44	494	192	80	16	3226
Excess	6	140	63	11	21	4	51	28	18	4	343
TOTAL NO.	66	1528	695	119	233	48	545	220	95	20	3569
WEIGHT	26	626	289	52	107	23	267	110	51	12	1573#

BOLTS-ACTUAL NO. REQD.

No.	Dia.	Length	Location
44	⅝	1½	End of Rail & Splice at Post.
40	⅝	4½	Rail to Diags.
40	⅝	1¼	Rail to Railing Post
560	⅝	7"	Nailing Strips to Stringers.
40	⅝	1½	Rail to Posts at Splice

SUMMARY-BOLTS INCLUDING EXCESS

Dia.	All ⅝"					
Lgth.	1½	1½	4½	7		Totals
No.	92	65	45	560		742
Wt.#	37	16	27	470		545

MISCELLANEOUS-NO. INCLUDES EXCESS

No.	Dia.	Length	Name & Location	Wt.
80	⅝	1'-0"	Lag Screws Curb	78
8	¾	6'-8⅞"	Gas Pipe Fills Rail to Diagonals	12
660			Pressed Washers for ⅝" Bolts	51
			Curb & Nailing Strips	
			Total	141

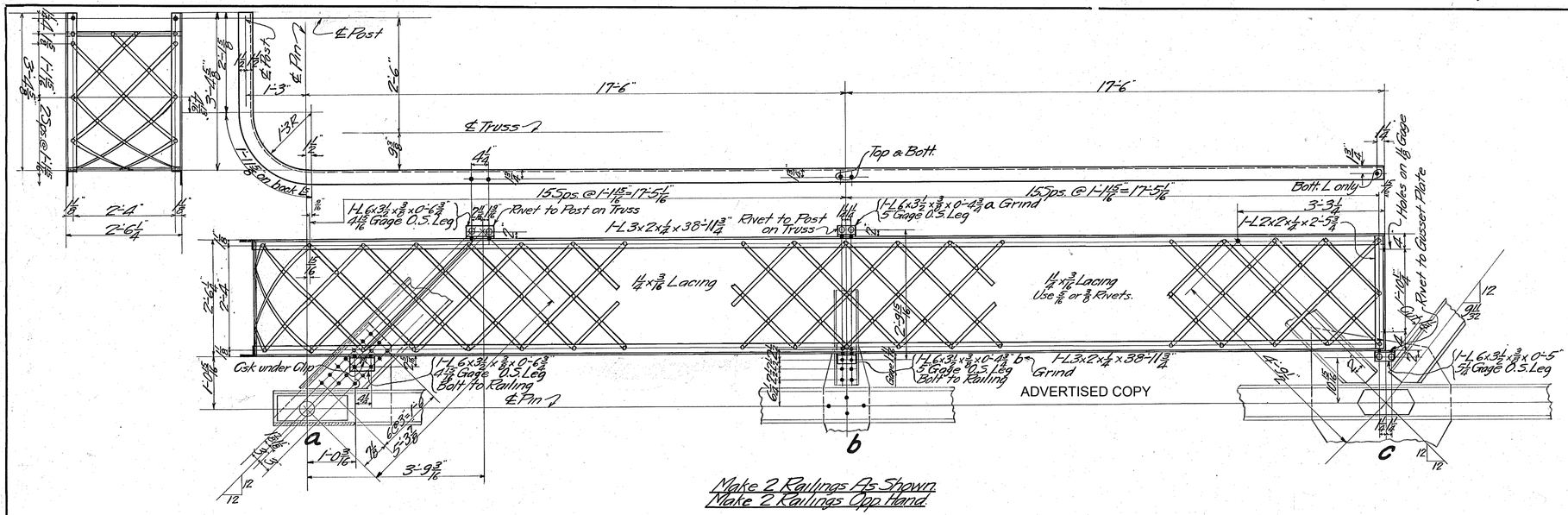
ADVERTISED COPY

SHOP DETAILS
175'X16' SPAN.
STATE HIGHWAY COMMISSION
HELENA, MONTANA.
July 30th 1919

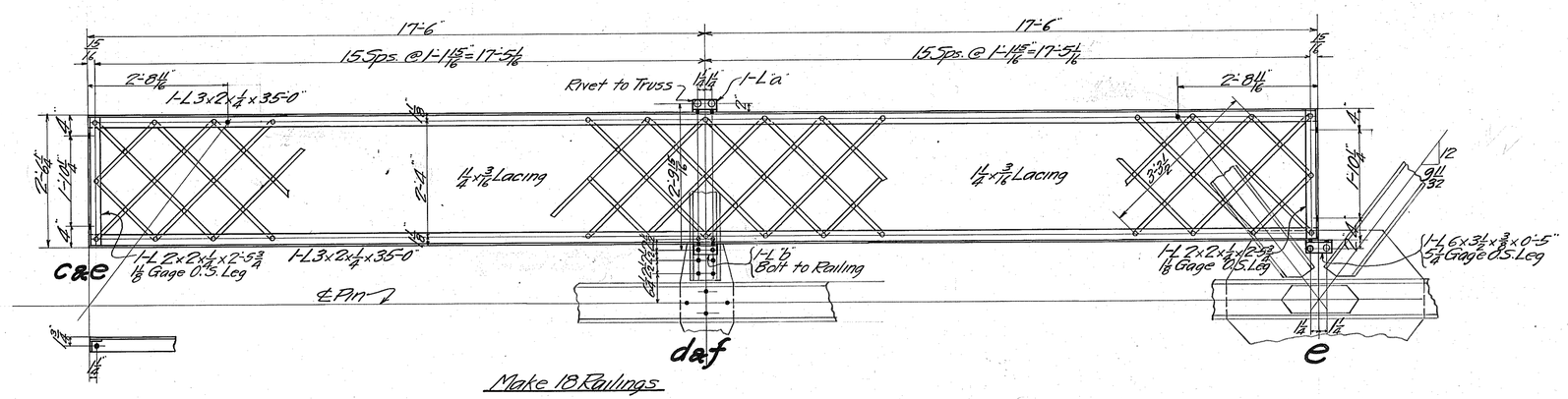
Scale: 3" & 1"=1'-0"
Traced by L.A.H.
Checked by M.S.H.
Chas. A. Kyle, Designing Engr.
Approved Paul J. Pratt. Chief Engr.

SHEET 3 OF 3

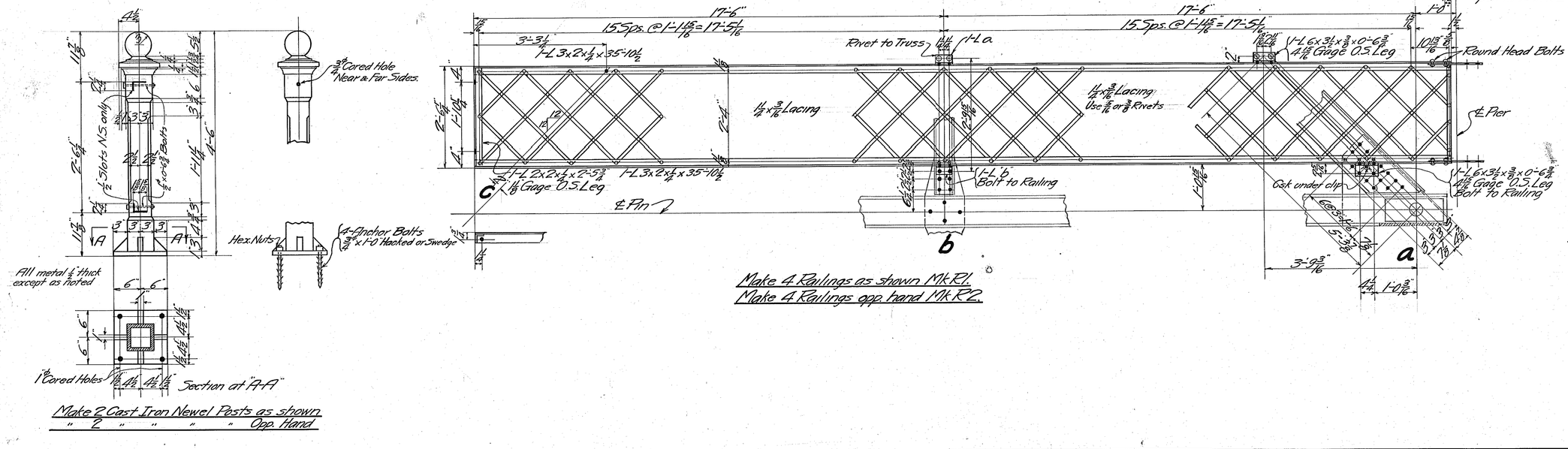
FILE No. 131 – DRAWING No. 169



Make 2 Railings As Shown
Make 2 Railings Opp. Hand



Make 18 Railings



Make 4 Railings as shown Mk R1.
Make 4 Railings opp. hand Mk R2.

Make 2 Cast Iron Newel Posts as shown
" 2 " " " " Opp. Hand

QUANTITIES & WEIGHTS GIVEN ARE FOR THREE SPANS

BOLTS-NO. INCLUDES EXCESS

No.	Dia.	Length	Location
240	5/8	1 7/8	Railing to Clips
53	5/8	1 1/4	Railing Posts to Railing Posts
53	5/8	4 1/2	Railing to Truss Diagonals
1680	5/8	7"	Nailing Strips to Stringers
35	7/8	1 1/4	Exp. Rail Splices over Piers

MISCELLANEOUS-NO. INCLUDES EXCESS

No.	Dia.	Length	Name & Location	Wt.
235	5/8	1'-0"	Lag Screws Curb	230
53	3/4	0'-3 1/2"	Gas Pipe Fills Rail to Diagonals	16
1950			Pressed Washers for 5/8" Bolts Curb & Nailing Strips	150
			Total	396

ADDITIONAL RIVETS REQD.

No.	Dia.	Grip	Length	Location
28	3/4	1 1/8	2 1/2	Rail Clips to End Posts
66	3/4	1 5/16	2 3/8	Rail Clips to Vertical Posts.
16	3/4	1 1/16	2 1/2	Csk. Under Rail Clips on End Post

Note

Details on Standard 175' Bridge, Drawing #167, must be revised as shown and noted on this sheet to take this Special Hand Rail. Omit bolt and miscellaneous list shown on Drawing #169 and use the list shown on this sheet, for 3 Spans.

All Holes for Railing Connections to be 11/16"

SPECIAL RAILING FOR "TOSTON BRIDGE"
SHOP DETAILS
175' X 16' SPAN.
STATE HIGHWAY COMMISSION
HELENA, MONTANA.
July 30th 1919

Scale:- 3/4" & 1"=1'-0"
Traced by L.A.H.
Checked by M.S.H.
Chas. A. Kyle, Designing Engr.
Approved Charles H. Swift, Chief Engr.

FILE No. 131 ~ DRAWING No. 170