

BILL OF REINFORCING STEEL

NO	SIZE	MARK	LENGTH	REMARK
22	1 1/8"	H ₁	32'-0"	Straight
12	3/4"	H ₂	21'-0"	"
4	1/2"	H ₃	19'-0"	"
4	1/2"	H ₄	20'-6"	"
4	1/2"	H ₅	22'-0"	"
4	1/2"	H ₆	9'-0"	Bent
4	1/2"	H ₇	8'-0"	"
8	1/2"	V ₁	3'-0"	Straight
8	1/2"	V ₂	4'-3"	"
8	1/2"	V ₃	5'-9"	"
8	1/2"	V ₄	6'-3"	"
54	1/2"	V ₅	4'-8"	"
8	3/4"	V ₆	11'-3"	"
24	3/4"	V ₇	4'-0"	"
16	3/4"	V ₈	13'-0"	"

ESTIMATED QUANTITIES

	Superstructure	Abutments	Total
Timber Piles, lin. ft.		600	600
Concrete, 1:2:4, cu. yds.		52.4	52.4
Concrete, 1:3:5, cu. yds.		24.0	24.0
Reinforcing Steel, lbs.		3830	3830
Fabric. Str. Steel, lbs.	34370		34370
Cross Lumber, F.B.M.	9480		9480
Gas Pipe Rail, lin. ft.	267		267

GENERAL NOTES

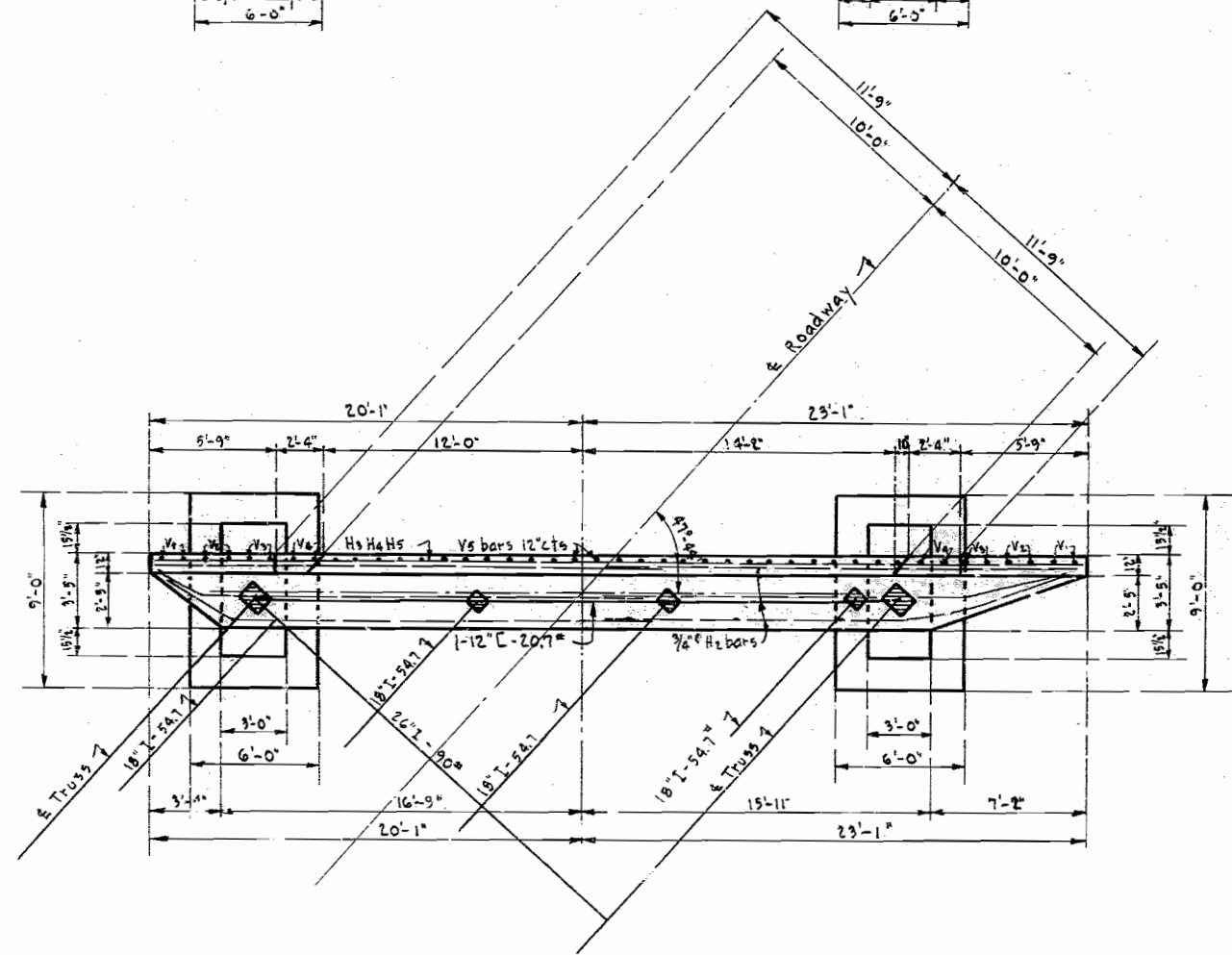
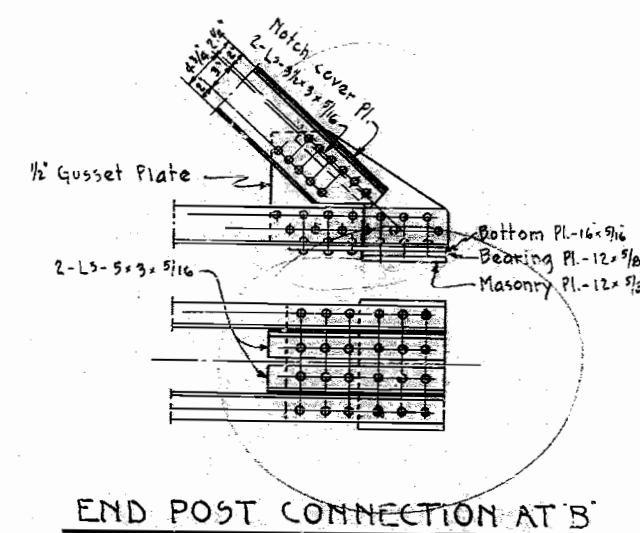
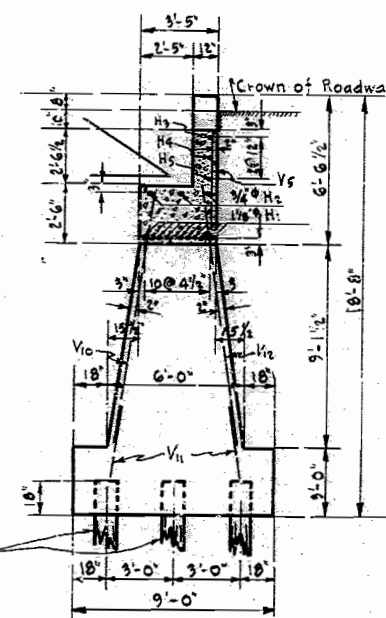
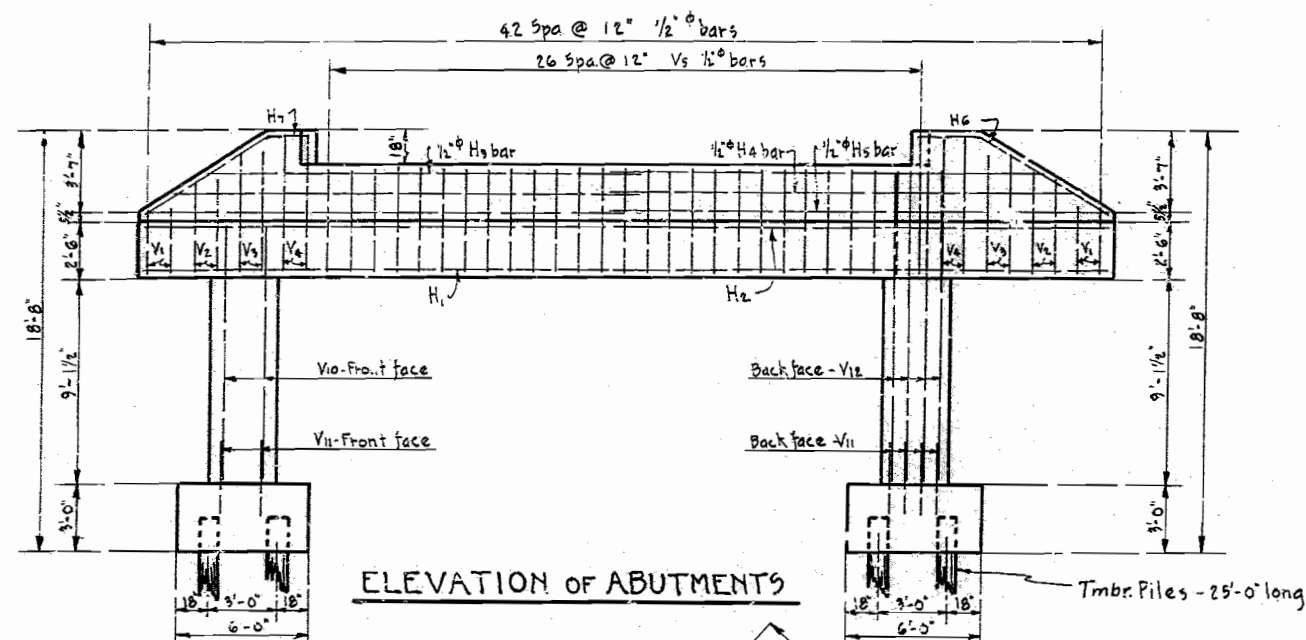
Live Load: as per specifications of 1922.
Rivets: 3/4" dia. Open holes 1/2" dia.
Detail shop drawings shall be submitted to the State Highway Dept. in quadruplicate and shall be approved before steel work is fabricated.
All metal shall be painted one shop coat of red lead and two field coats of an approved brand as per specifications. Field coats to be of different colors.
All lumber to be dense yellow pine creosoted. Floor planks to be dressed to a uniform width and thickness 5 1/2" I.E.
Piles to be driven to sustain a load of 20 tons per pile.
Concrete in footings 1:3:5 mix; all other concrete 1:2:4
Expansion joint to consist of a heavy coat of tar, or three layers of tar paper applied on smoothly troweled surfaces.
Bevel exposed edges of concrete 3/4" where no other bevel is shown.

MISSOURI STATE HIGHWAY DEPARTMENT
BRIDGE OVER DRAINAGE DITCH NO. 12
STATE ROAD FROM KENNETT TO POPLAR BLUFF
ABOUT 6.5 MILES FROM CAMPBELL
PROJECT NO. 221A STA. 189+50

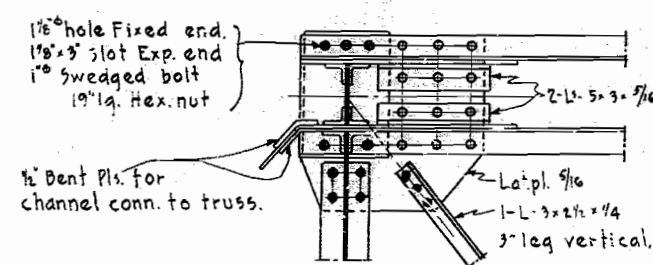
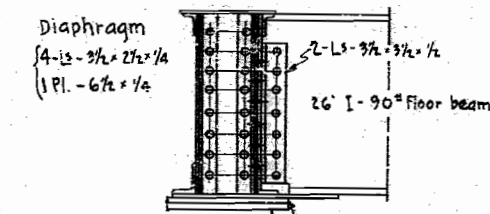
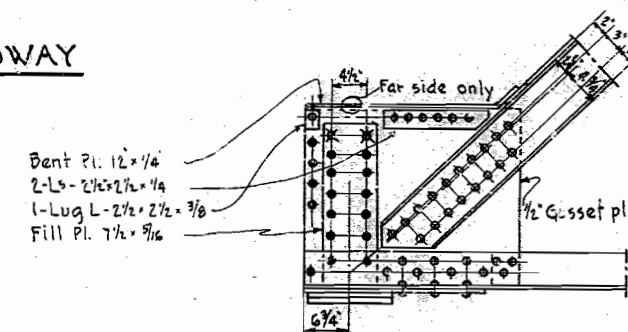
DUNKLIN COUNTY

SUBMITTED BY *Chas. E. Mann* BRIDGE ENGINEER
APPROVED BY *W. H. McPherson* STATE HIGHWAY ENGINEER

51
5260
G423

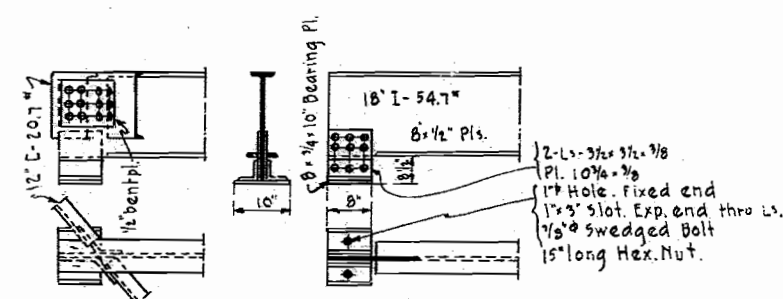


SECTION ON & ROADWAY



12" x 9/16" = 15" Bearing Pl. Finished thickness
12" x 9/16" = 15" Masonry Pl. Plane contact surfaces at expansion end.

END POST CONNECTION AT 'A'



PLAN OF ABUTMENTS

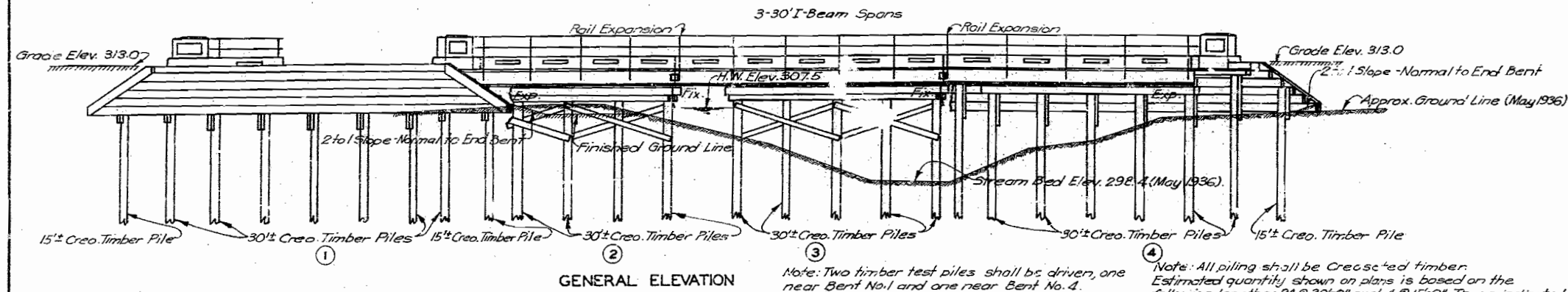
CHANNEL CONNECTION & BEARING PLATES AT END STRINGERS

MISSOURI STATE HIGHWAY DEPARTMENT
BRIDGE OVER DRAINAGE DITCH NO. 12
 STATE ROAD FROM KENNETT TO POPLAR BLUFF
 ABOUT 6.5 MILES FROM CAMPBELL
 PROJECT NO. 221 A STA. 189+50
 DUNKLIN COUNTY
 SUBMITTED BY *John D. Mann* BRIDGE ENGINEER
 APPROVED BY *W. H. Spencer* STATE HIGHWAY ENGINEER

51
 9260
 G423

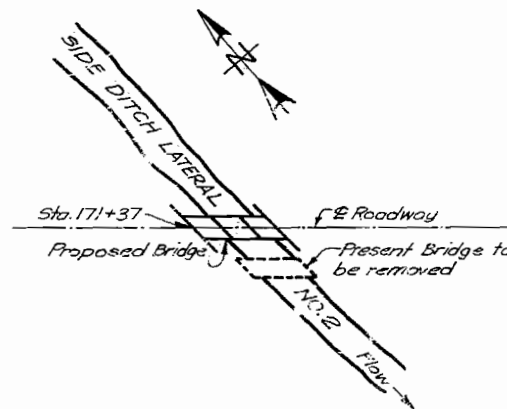
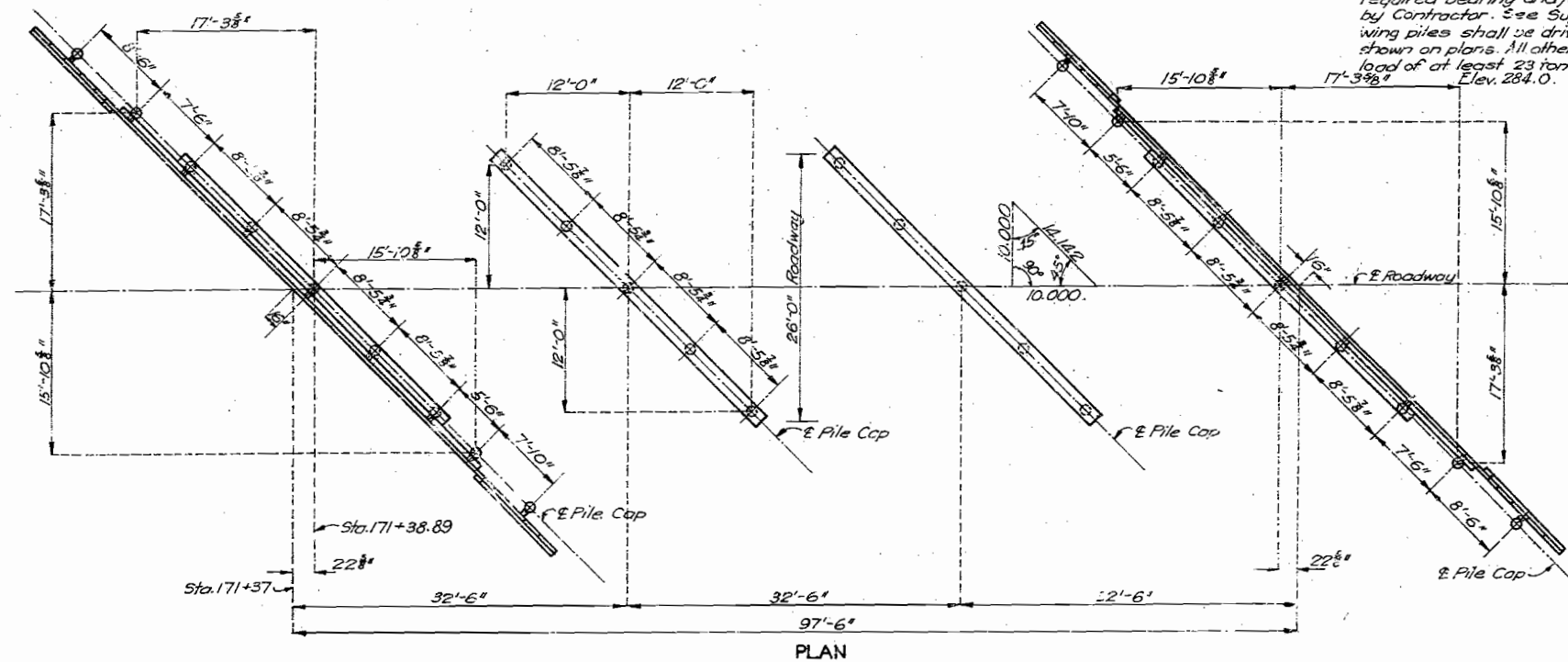
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	ER 5-C(1)	1933	19	



GENERAL NOTES:-

Design Specifications A.R.S.H.O.-1935.
 Loading H-15 A.A.S.H.O.
 Structural Steel Stress 18,000#/sq.
 Reinforcing Steel Stress 18,000#/sq.
 Concrete Class "B" 3000#/sq.
 Creosoted Timber 1600#/sq.
 Excavation for structure shall be in accordance with Specification 1 of Standard Specifications issued November 12, 1935 and will be allowed for all bents within the horizontal limits shown and noted on these design plans, Sheet No. 3.
 All concrete to be Class "B".
 All concrete shall be proportioned by the weight proportioning method. Exposed edges to be beveled $\frac{3}{4}$ " where no other usual is noted.
 Bar supports and spacers will be required for reinforcing steel in superstructure. See Standard C-110R1.
 Where rubber compound is specified on plans for use in partition and expansion joints, the pre-molded joint shall be securely stitched to one face of concrete with copper wire.
 All timber shall be creosoted and shall be either "Dense Longleaf or Shortleaf Structural Square Edge and Sound Southern Yellow Pine" or "Close-grained Select Structural Douglas Fir of the West Coast Region." All timber shall be rough full-sawn except as noted in timber bill for pile caps. Slight variations in sawing shall be in accordance with grading rules. All timber shall be cut to billed lengths and shapes and shall be bored as shown before treating. All backing plank are billed long (26') and are to be re-cut and fitted in the field. Payment will be based on the theoretical quantities of material in the finished structure.
 Field holes for drift pins shall be field bored $\frac{1}{4}$ ". Unless otherwise noted, all other field holes in timber shall be field bored $\frac{3}{4}$ ".
 Where bolts with countersunk heads are indicated on plans, cut washers shall be used under heads. O.G. washers shall be used under heads of other bolts and under nuts of all bolts on timber.
 Cost of substructure hardware will be included in price bid for timber in place.
 Protection caps shall be placed on heads of all piles of pile bents in accordance with Specification 22-8 of Supplemental Specifications issued Oct. 5, 1932.
 I-Beams with fastenings, spacers, handrail, handrail posts with fastenings, clip angles, and cap plates on end bents with fastenings will be paid for as structural steel.
 Beam flanges shall be squared up at all points of bearing.
 Detail shop drawings for all structural steel shall be submitted to the State Highway Department in duplicate and shall be approved before material is ordered or work started.
 Qualification of welding operators and electrodes for welding shown on plans will not be required.
 Paint: Shop, none; Field, contact surfaces of bolted field connections one coat red lead and surfaces inaccessible after erection three coats of red lead. No other paint to be applied by Contractor. Red lead required shall be furnished by the Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for structural steel.
 Rivets $\frac{3}{4}$ ", holes $\frac{1}{2}$ ", except in handrail where rivets shall be $\frac{5}{8}$ ", holes $\frac{1}{2}$ ". Field connections for handrail channels shall be $\frac{5}{8}$ " button head bolts and for connection of rail to rail posts shall be $\frac{5}{8}$ " machine bolts, holes $\frac{1}{2}$ ". All other field connections shall be riveted except as noted. Holes for turned bolts shall be sub-punched and reamed to a driving fit. $\frac{3}{4}$ " washers shall be used under nuts of all machine and turned bolts.



ESTIMATED QUANTITIES			
Item	Substr.	Superstr.	Total
Class 1 Excavation for Structures Cu.Yds.	70		80
Class 2 Excavation for Structures Cu.Yds.			
Class "B" Concrete Cu.Yds.		75.9	75.9
Fabricated Structural Steel Lbs.		60620	60620
Reinforcing Steel Lbs.		18600	18600
Creosoted Timber Piles in Place Lin.Ft.	780		780
Timber Test Piles Lin.Ft.	80		80
Creosoted Timber F.B.M.	6180		6180

Note: All excavation for bridge will be paid for as Class 1 Excavation for Structures.
 Excavation of all existing materials under bridge shall be made to not less than 3'-0" below bottom of steel and laterally to ditch or right of way line. Payment for this excavation outside limits of excavation for structure will be made at unit contract price for Roadway Excavation.

B.M. Elev. 306.37-Nail in Root of 8" Persimmon 25' Lt. Sta. 172+22 (USGS Datum).

BRIDGE OVER SIDE DITCH LATERAL NO. 2

STATE ROAD FROM QULIN TO CAMPBELL
 ABOUT 8.5 MILES SE OF QULIN
 PROJECT NO. ER 5-C(1) (RT. 53) STA. 171+37

DUNKLIN COUNTY

SUBMITTED BY *N.R. Lack* DATE 7/3/39
 APPROVED BY *C.W. Brown* DATE 7/3/39

Drawn Jan. 1937 by J.B.J.
 Traced Feb. 1937 by C.R.F. Assembled June 1939 by R.A.C. & J.T.F.
 Checked Mar. 1937 by H.H.M. Checked June 1939 by H.D.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 3.

STD. C-110R1
 G-423R

11-2-38

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	ER 3-6(1) (1953)	19		

The drawing shows a plan view of a cast iron cone structure. The main body is a large triangle with a base of 10.000' and a height of 12.000'. The top edge is a straight line with a length of 14.142'. The side edges are 13.000' and 10.000'. The top edge is reinforced with 2-#5 bars. The side edges are reinforced with 2-#5 bars. The base is reinforced with 2-#5 bars. The structure is divided into three sections by two vertical lines. The left section is 3'-10" wide, the middle section is 3'-6" wide, and the right section is 3'-6" wide. The total width is 10'-2". The height of the sections is 10'-0". The structure is reinforced with 2-#5 bars. The top edge is reinforced with 2-#5 bars. The side edges are reinforced with 2-#5 bars. The base is reinforced with 2-#5 bars. The structure is divided into three sections by two vertical lines. The left section is 3'-10" wide, the middle section is 3'-6" wide, and the right section is 3'-6" wide. The total width is 10'-2". The height of the sections is 10'-0". The structure is reinforced with 2-#5 bars. The top edge is reinforced with 2-#5 bars. The side edges are reinforced with 2-#5 bars. The base is reinforced with 2-#5 bars.

Technical drawing of a cast iron cone structure, showing reinforcement details and dimensions. The drawing includes a plan view of the cone and a cross-section view of the reinforcement in the flare.

Reinforcement Details:

- Top cone for #5 bolts: 2-#5 Bolt 6 1/2" long, threaded 3" long @ 3" o/c, chrs. (Sq. Hd.) 5/16"
- CAST IRON CONE
- Reinforcement in flare: 3-#5 Top & Bottom

Dimensions and Notes:

- Top cone for #5 bolts: 2-#5 Bolt 6 1/2" long, threaded 3" long @ 3" o/c, chrs. (Sq. Hd.) 5/16"
- CAST IRON CONE
- Note: Cost of timber to be included in price.
- An approved alternative for Cast Iron Cone shown.

[illegible]

DEVELOPED ELEVATION

SECTION

TYPICAL PART ELEVATION SHOWING CURB DETAILS

Note: Outlets to be between rail pos

Note: Outlets to be between rail pos

12-1
2. Rod

DETAILS OF END POSTS

Drawn: Oct. 1938 by N.W.R.
Traced Oct. 1938 by G.W. Assembled June 1939 by R.A.C. - J.T.F.
Checked Dec. 1938 by J.M. Checked June 1939 by H.D.

Note: This drawing is not to scale.

[illegible]

Technical drawing of a bridge girder showing side and end views with dimensions and material specifications.

Side View Dimensions and Labels:

- Top flange: 3" continuous fillet weld along both sides and edge of 0.5 leg.
- Block for leg of H.
- 3" Leg
- 10" C x 15.3"
- 2' 0"
- Single Lacing Bars 2 1/2" x 1/2"
- 18" x 4" x 1/8"
- 13" x 2 1/2" x 1/4"
- 18" x 4" x 1/8"
- 13" x 2 1/2" x 1/4"
- 18" x 4" x 1/8"

End View Dimensions and Labels:

- 12" C x 25"
- 2" Bent R.
- Turned Bolts through Beam
- 13" x 2 1/2" x 1/4"
- 13" x 3" x 1/8"
- 1/2" R.

Note: Slab curb rail and post details same.

HALF SECTION THRU SPANS REQUIRING 16" & 18" STRINGERS

[illegible]

BRIDGE OVER SIDE DITCH LATERAL NO.2

STATE ROAD FROM QULIN TO CAMPBELL
ABOUT 8.5 MILES S.E. OF QULIN
PROJECT NO. ER 5-C(1)(RT.53) STA.171+37

faces around abutments and bottom surface of slab warped between curb and outside beam to obtain required thickness at beam. Payment will be allowed for additional concrete required for thickening slabs. This additional concrete is included in "Estimated Quantities."

DEFLECTION DIAGRAM

STATE ROAD FROM QULIN TO CAMPBELL
ABOUT 8.5 MILES S.E. OF QULIN
PROJECT NO. ER 5-C(1)(RT.53) STA. 171+37

DUNKLIN COUNTY

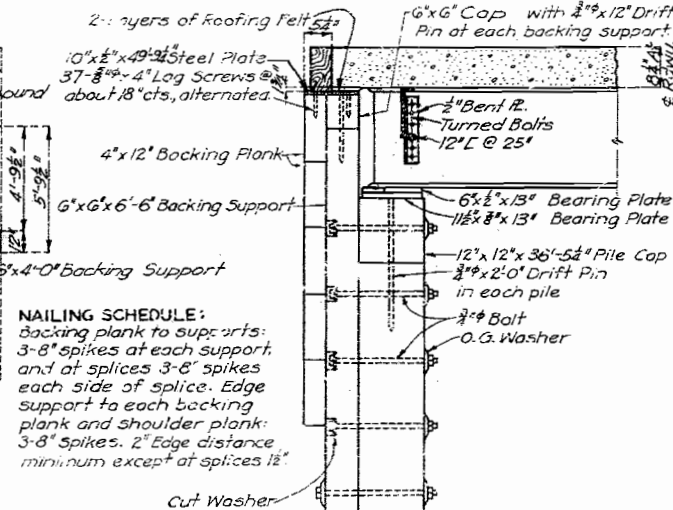
NTS

Sheet No. 2 of 3.

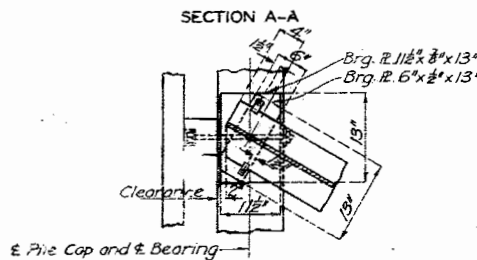
G-423R

12-2-36

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
11	MO.	ER 3-011 (R&S)	79		



NAILING SCHEDULE:
Backing plank to supports:
3-8" spikes at each support,
and at splices 3-8" spikes
each side of splice. Edge
support to each backing
plank and shoulder plank:
3-8" Spikes. 2" Edge distance
minimum except at splices 12"

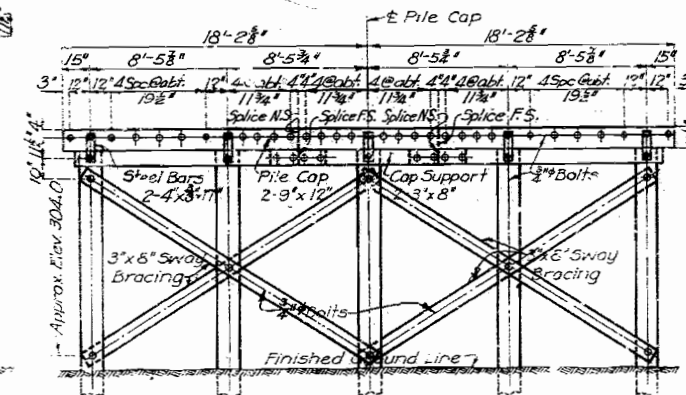


Note: Any irregularity in alignment of piling in end berths to be corrected by facing one surface of the G x G backing support so as to place the surface of the backing in a true plane and eliminate any strain on the backing plank. Splice in backing plank to be made at center of G x G backing support and to be alternated as shown.

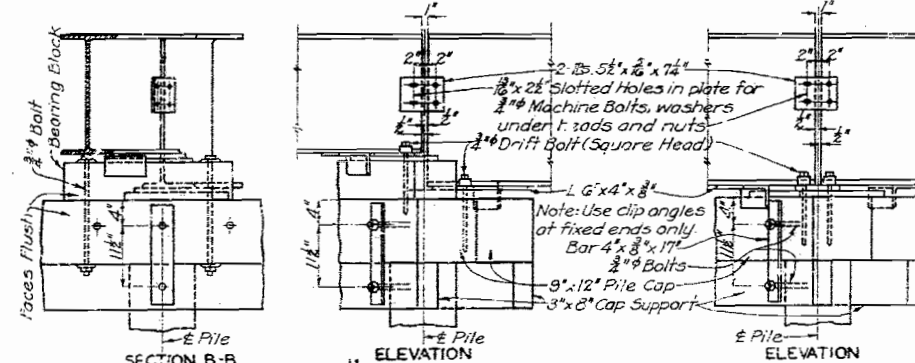
10 1/2" 23'-7 1/2" 25'-4" 1 1/2" Holes, csk. near side 2" 10" 6" 1 1/2" 10 1/2" 18" 14.5pc @ 18" Alternated 16" 16.5pc @ 18" o.c. 64"

CAP PLATE AT END BENT

CAP PLATE AT END BENT



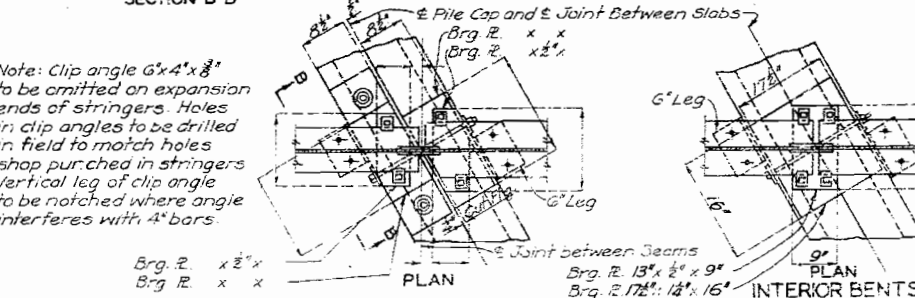
DETAIL OF INTERIOR BENTS NO.2&3



SECTION B-E

ELEVATION

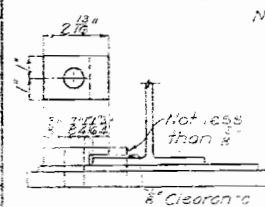
ELEVATION



INTERIOR BENTS FOR UNEQUAL DEPTH STRINGERS

FOR EQUAL DEPTH STRINGERS

Note: All bearing plates shall be straightened to plane surfaces.
Pile caps 12"x18" may be substituted for 2-8"x12" pile caps shown.



DETAILS OF FLANGE CLAMP

SUBSTRUCTURE TIMBER BILL

Piece	No.	Size	Length	Remarks
Backing Plank	①	2	4x12	13'-8 1/2" Cut to length
"	②	4	4x12	16'-5 1/2" " "
"	③	14	4x12	17'-5 1/2" " "
"	④	4	4x12	14'-5 1/2" " "
"	⑤	2	4x12	13'-0 1/2" " "
"	⑥	2	4x12	19'-1 1/2" " "
"	⑦	2	4x12	16'-5 1/2" " "
"	⑧	2	4x12	9'-6" " "
"	⑨	2	4x12	8'-10" " "
"	⑩	2	4x12	14'-10 1/2" " "
"	⑪	2	4x12	12'-2 1/2" " "
"	⑫	2	4x12	21'-3 1/2" " "
"	⑬	2	4x12	18'-7 1/2" " "
Edge Support	4	4x12	12'-7 1/2"	Cut to length & shape
Shoulder Plank	2	4x9 1/2	17'	" " " "
"	2	4x9 1/2	21'	" " " "
Backing Support	4	6x6	4'-0"	" " " "
"	10	6x6	6'-6"	" " " "
"	4	6x6	5'-6"	" " " "
Backing Support Cap	2	6x6	26'-2 3/4"	Cut to length & shape
"	2	6x6	24'-3 3/4"	" " " "
Pile Cap	2	12x12	23'-2 1/2"	" " " " *
"	2	12x12	14'-8 1/2"	" " " " *
Cap Support Splice	4	3x8	3'-4"	" " " " "
Cap Support	4	3x8	13'-2 1/2"	" " " " "
"	4	3x8	21'-6 1/2"	" " " " "
Sway Bracing	8	3x8	18'-6"	" " " " "
Pile Cap	4	9x12	13'-1 1/2"	" " " " *
"	4	9x12	22'-5 1/2"	" " " " *
Bearing Blocks	3x			34.5 8 1/2"x

Shaping and Boring Sketches

The sketches illustrate the following components and their dimensions:

- SHOULDER PLANK:** 4x12, 17'-5 1/2" long. Shows a 2x4 hole and a 2x4 hole.
- CAP SUPPORT SPLICE:** 3x8, 17'-0" long. Shows a 3x8 hole and a 3x8 hole.
- BACKING SUPPORTS:** 6x6, 5'-6" long. Shows a 6x6 hole and a 6x6 hole.
- EDGE SUPPORT:** 4x12, 12'-7 1/2" long. Shows a 4x12 hole and a 4x12 hole.
- CAP SUPPORT:** 3x8, 21'-0" long. Shows a 3x8 hole and a 3x8 hole.
- BACKING SUPPORT CAP:** 6x6, 24'-2 3/4" long. Shows a 6x6 hole and a 6x6 hole.
- 12x12 PILE CAP:** 12x12, 23'-2 1/2" long. Shows a 12x12 hole and a 12x12 hole.

Note: See Detail of Interior Bent for location of holes to be bored in pile caps before treating.

Note: Pile caps to be classified as "Beams and Stringers".
All other timber to be classified as "Joists and Plank".
* 52.5 to exactly 112" depth.
Pile caps 12"x18" may be substituted for 2-9"x12"
caps shown.

Excavation will be allowed for interior bents within the maximum horizontal limits of 44'-0" in width and 36'-6" in length. All 1/2" x 1/2" bars required for attaching pile cap to pile cap supports are to be considered substructure hardware and will be included in price bid for timber in place.

A Tecco Single Curve Spike Timber Grid as manufactured by the Timber Engineering Company or an approved equivalent spike grid shall be placed between piles and sway bracing on intermediate bents. See Special Provisions.

BENT No.	CUT-OFF ELEV.	BENT No.	CUT-OFF ELEV.
1 (Bearing Piles)	309.24		
1 (Wing Piles)	310.12		
1 (Flare Piles)	311.62		
2 & 3	309.21		
4 (Bearing Piles)	309.26		
4 (Wing Piles)	310.12		
4 (Flare Piles)	311.62		

Note: This drawing is not to scale. Follow dimensions.

نمبر ۳۰۳

BRIDGE OVER SIDE DITCH LATERAL NO.2

STATE ROAD FROM QULIN TO CAMPBELL

ABOUT 8.5 MILES S.E. OF QULIN

PROJECT NO. ER 5-C(1)(PT.53) STA. 171+37

DUNKLIN

COUNTY

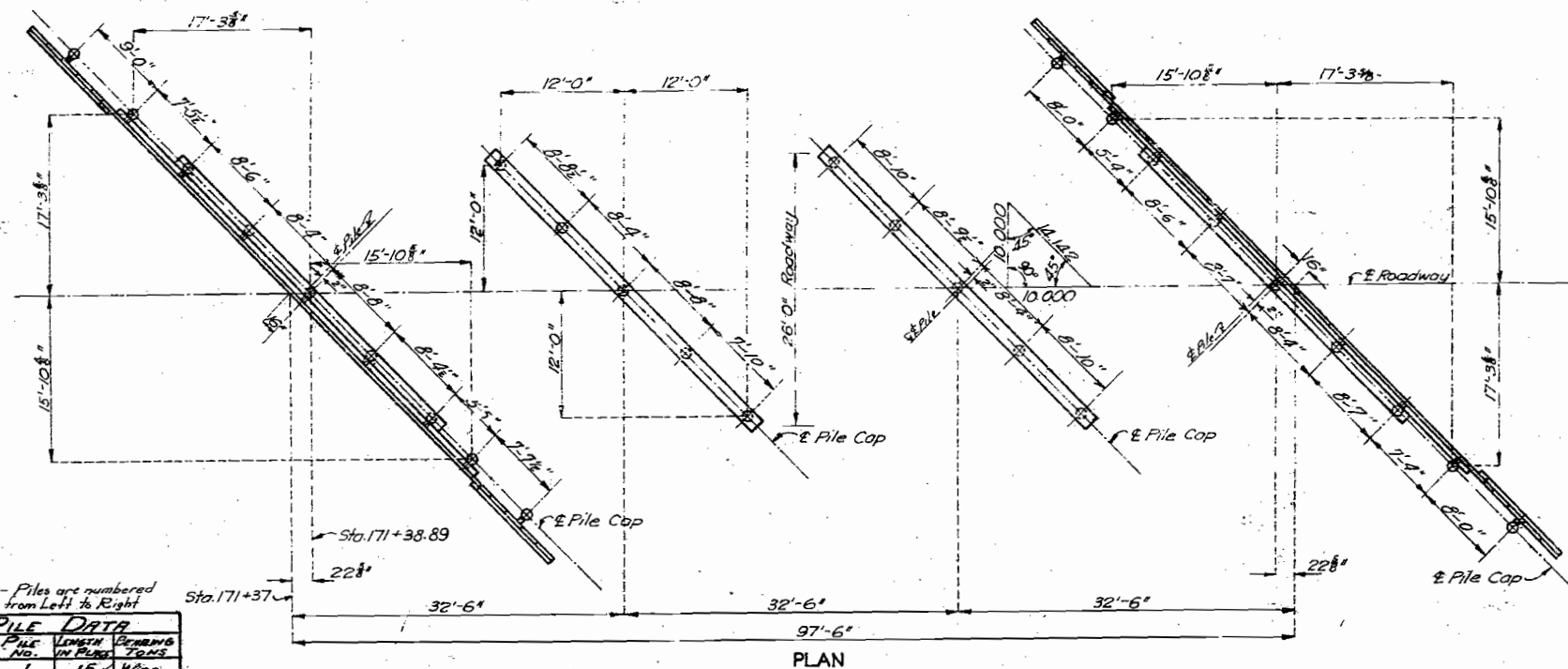
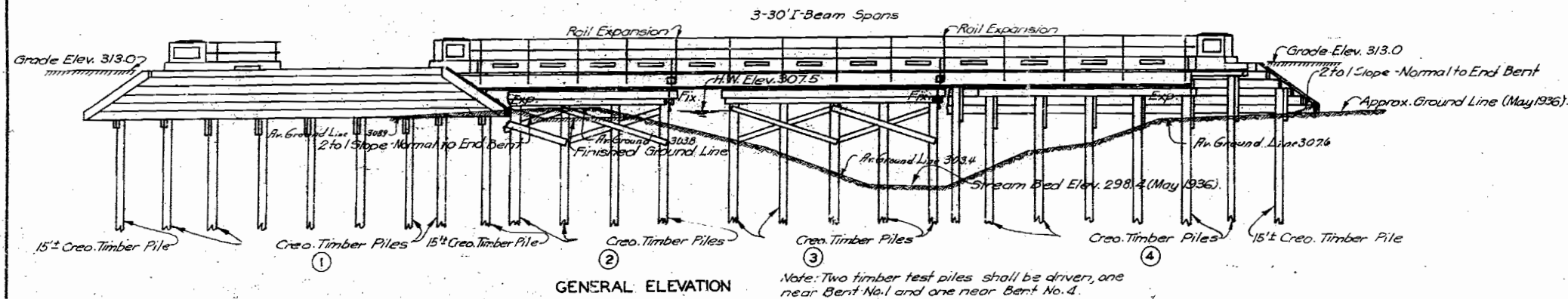
G-423R

Drawn Nov 1938 by J.W.G. Spike grid shall be placed
 Traced Nov 1938 by G.W. bracing on intermediate b.
 Checked Jan 1939 by J.W.G. Assembled June 1939 by R.A.C. & J.T.F.
 Checked June 1939 by H.D.

MISSOURI STATE HIGHWAY DEPARTMENT

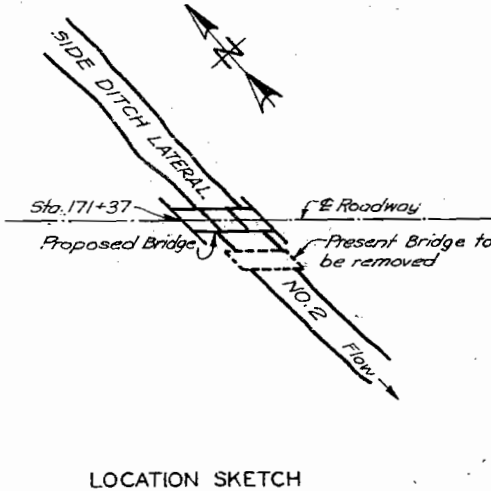
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	ER-5-C(1)	1933	15	25

FINAL PLANS



NOTE: Piles are numbered from Left to Right

Bent No.	Pile No.	Length in Piles	Remarks
1	1	15'	Wing
1	2	28'	234
1	3	26'	271
1	4	26'	290
1	5	25'	239
1	6	26'	284
1	7	25'	284
1	8	28'	266
1	9	15'	Wing
2	1	26'	382
2	2	26'	269
2	3	26'	269
2	4	26'	236
2	5	26'	274
3	1	26'	290
3	2	26'	244
3	3	26'	234
3	4	26'	290
3	5	25'	277
4	1	15'	Wing
4	2	27'	339
4	3	26'	244
4	4	26'	234
4	5	26'	239
4	6	25'	277
4	7	26'	260
4	8	28'	277
4	9	15'	Wing
TOTAL			687



QUANTITIES			
Item	Substr.	Superstr.	Total
Class 1 Excavation for Structures Cu.Yds.	730		730
Class 2 Excavation for Structures Cu.Yds.			
Class B Concrete Cu.Yds.		75.9	75.9
Fabricated Structural Steel Lbs.		60370	60370
Reinforcing Steel Lbs.		18600	18600
Creosoted Timber Piles in Place Lin.Ft.	687		687
Timber Test Piles Lin.Ft.	80		80
Creosoted Timber F.B.M.	6180		6180

Note: All excavation for bridge will be paid for as Class 1 Excavation for Structures.
Excavation of all existing materials under bridge shall be made to not less than 3'-0" below bottom of steel and laterally to ditch or Right of Way line. Payment for this excavation outside limits of excavation for structure will be made at unit contract price for Roadway Excavation.

GENERAL NOTES:-
Design Specifications R.R.S.H.O.-1935.
Loading H-15 A.A.S.H.O.
Structural Steel Stress 18,000#/sq.
Reinforcing Steel Stress 18,000#/sq.
Concrete Class B 900#/sq.
Creosoted Timber 1600#/sq.
Excavation for structure shall be in accordance with Specification 1 of Standard Specifications issued November 12, 1935 and will be allowed for all bents within the horizontal limits shown and noted on these design plans, Sheet No. 3.
All concrete to be Class B.
All concrete shall be proportioned by the weight proportioning method. Exposed edges to be beveled 3" where no other bevel is noted.
Bar supports and spacers will be required for reinforcing steel in superstructure. See Standard C-110R1.
Where rubber compound is specified on plans for use in partition and expansion joints, the premoulded joint shall be securely shrouded to one face of concrete with copper wire.
All timber shall be creosoted and shall be either "Dense Langleaf or Shortleaf Structural Square Edge and Sound Southern Yellow Pine" or Close-grained Select Structural Douglas Fir of the West Coast Region. All timber shall be rough full-sawn except as noted in timber bill for pile caps. Slight variations in sawing shall be in accordance with grading rules. All timber shall be cut to billed lengths and shapes and shall be bored as shown before treating. All backing plank are billed long (6') and are to be re-cut and fitted in the field. Payment will be based on the theoretical quantities of material in the finished structure.
Field holes for drift pins shall be field bored 1 1/2". Unless otherwise noted, all other field holes in timber shall be field bored 3/4".
Where bolts with countersunk heads are indicated on plans, cut washers shall be used under heads. 0.6 washers shall be used under heads of other bolts and under nuts of all bolts on timber.
Cost of substructure hardware will be included in price bid for timber in place.
Protection caps shall be placed on heads of all piles of pile bents in accordance with Specification 22-8 of Supplemental Specifications issued Oct. 5, 1938.
I-Beams with fastenings, spacers, handrail, handrail posts with fastenings, clip angles, and cap plates on end bents with fastenings will be paid for as structural steel.
Beam flanges shall be squared up at all points of bearing.
Detail shop drawings for all structural steel shall be submitted to the State Highway Department in duplicate and shall be approved before material is ordered or work started.
Qualification of welding operators and electrodes for welding shown on plans will not be required.
Paint: Shop, none; Field, contact surfaces of bolted field connections one coat red lead and surfaces inaccessible after erection three coats of red lead. No other paint to be applied by Contractor. Red lead required shall be furnished by the Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for structural steel.
Rivets 3/4", holes 1 1/8", except in handrail where rivets shall be 5/8", holes 1 1/8". Field connections for handrail channels shall be 3/8" button head bolts and for connection of rail to rail posts shall be 3/8" machine bolts, holes 1 1/8". All other field connections shall be riveted except as noted. Holes for turned bolts shall be subpunched and reamed to a driving fit. 3/4" Washers shall be used under nuts of all machine and turned bolts.

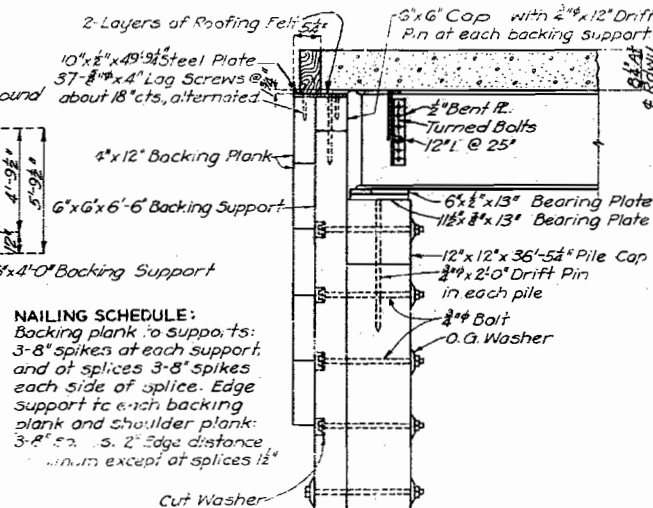
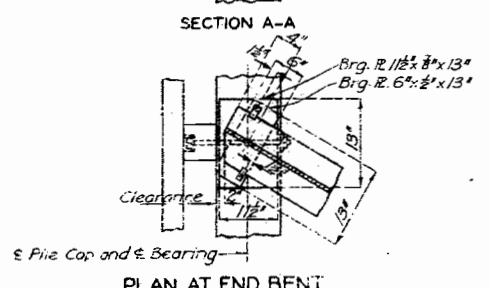
BRIDGE OVER SIDE DITCH LATERAL NO. 2
STATE ROAD FROM QULIN TO CAMPBELL
ABOUT 8.5 MILES SE OF QULIN
PROJECT NO. ER-5-C(1)(RT. 53) STA. 171+37
DUNKLIN COUNTY

7/3/39
7/3/39

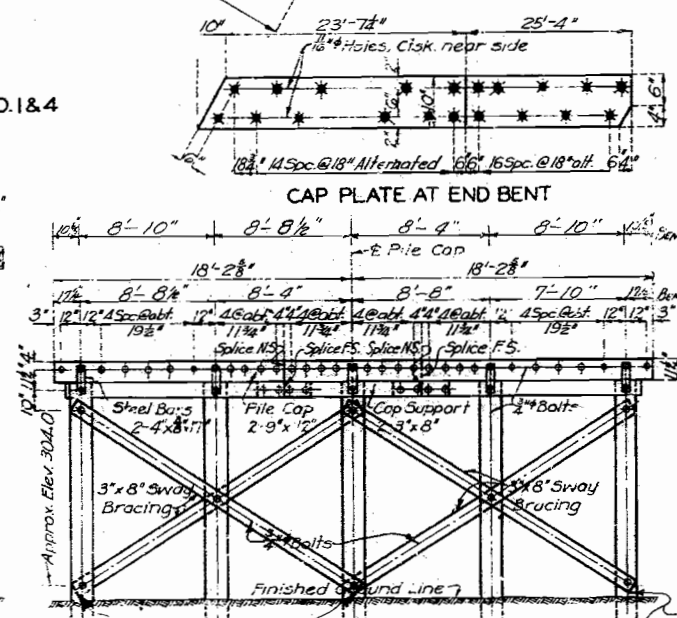
STD.C-110R1
G-423R

464

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	BR 5-611 (253)	19		

[illegible]

PLAN OF END BENTS NO.1&4

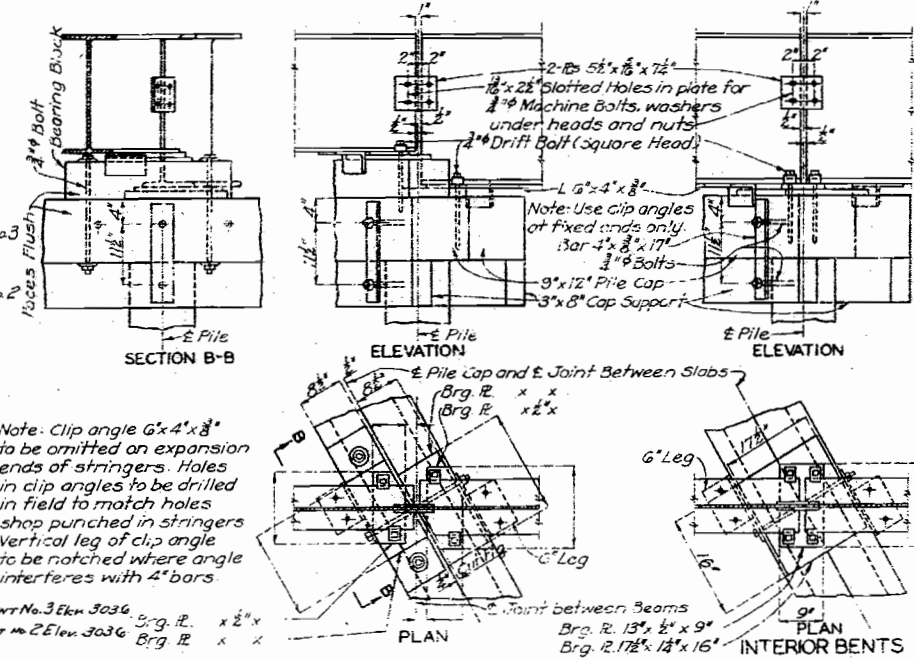


BOTTOM SWAY BRACING

DETAIL OF INTERIOR BENTS NO. 2 & 3

PILE CUT-OFF ELEVATIONS			
BENT No.	CUT-OFF ELEV	BENT No.	CUT-OFF ELEV
1 (Bearing Piles)	309.24		
1 (Wing Piles)	310.12		
1 (Flare Piles)	311.62		
2 & 3	309.21		
4 (Bearing Piles)	309.24		
4 (Wing Piles)	310.12		
4 (Flare Piles)	311.62		

Note: This drawing is not to scale. Follow dimensions.



FOR EQUAL DEPTH STRINGERS

Note: Cast iron clamps on bearing plates to have $\frac{1}{8}$ " clearance at flange of beam to allow for expansion. All clamps to have $\frac{3}{8}$ " cored holes. Use two clamps only on each I-Beam at end bents.

DETAILS OF FLANGE CLAMP

DUNKLIN COUNTY

G-423R