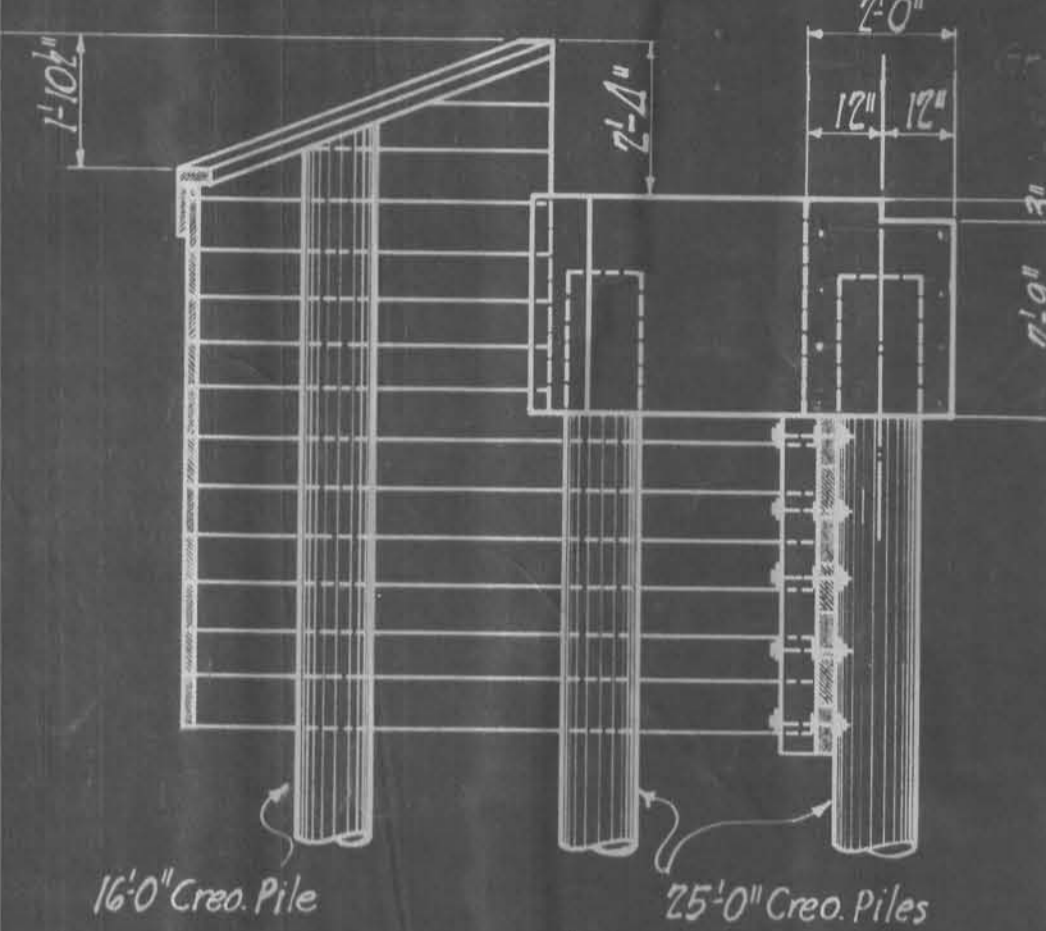


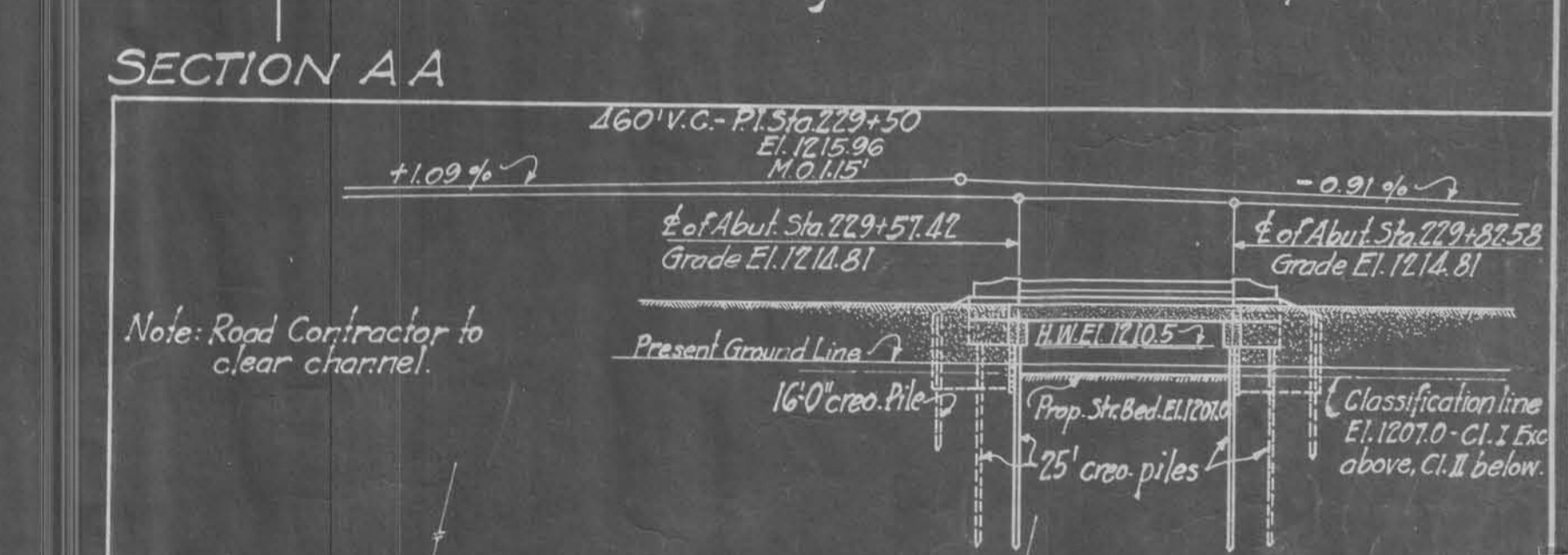
Note: Detail shown above is for North Abutment. So abut. to be the same except opposite hand.

ELEVATION
Showing Superstructure in place.

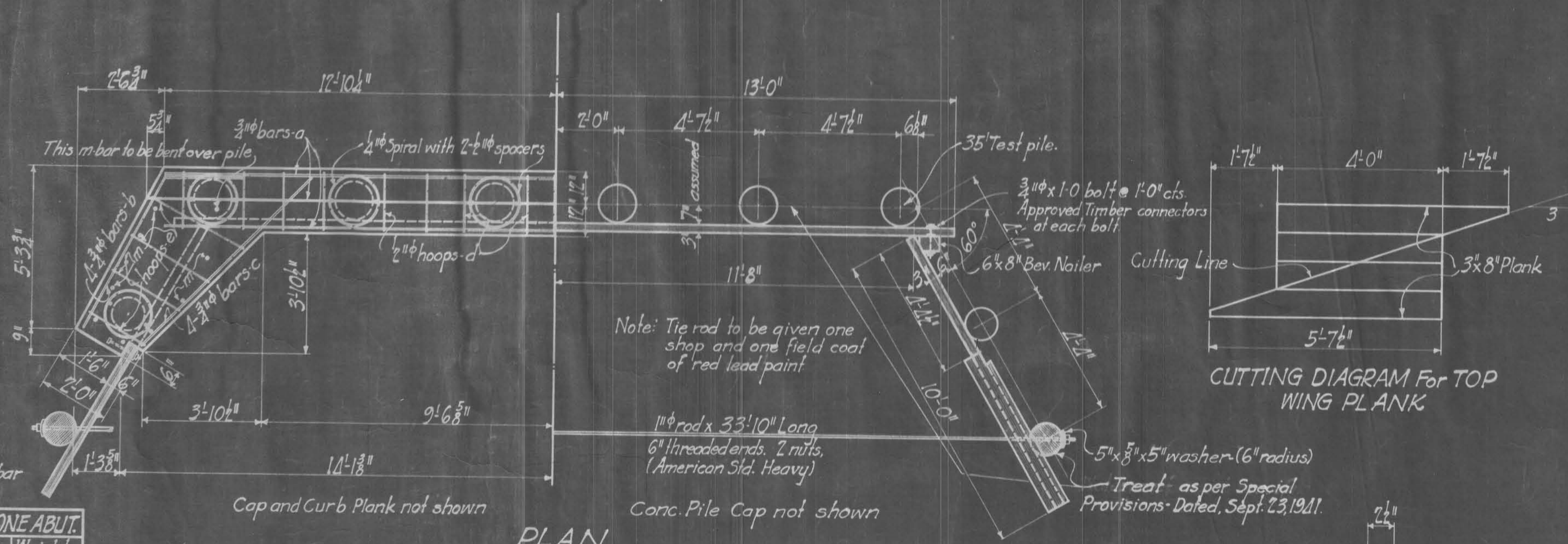


END ELEVATION

General Notes:
 All lumber and piling to be creosoted. Each wing and backing plank to be nailed to contact piling with two 50 d galvanized nails. Nails to be included in price bid for creosoted lumber.
 All bolts to have a mall iron washer or C.I. Ogee washer in contact with wood where shown. Approved Timber connectors to be used where shown on drawings.
 All hardware to be galvanized.
 Tie rods, plate washers and nuts for rods are classed structural steel.
 Approved Timber Connectors: Bulldog Plates-16 ga. 4" x 10" Teco Toothed Ring-16 ga. 3 3/8" x 11" Teco Spiked Grid 4" cast.
 Specifications: H-15, AASHTO (1941) for design.
 Iowa Highway Commission's Standard Series of 1937 for materials and construction.
 Waterproofing as per Special Provisions dated Sept. 23, 1941.
 Piles in bearing to be driven to a minimum of 15 Tons.

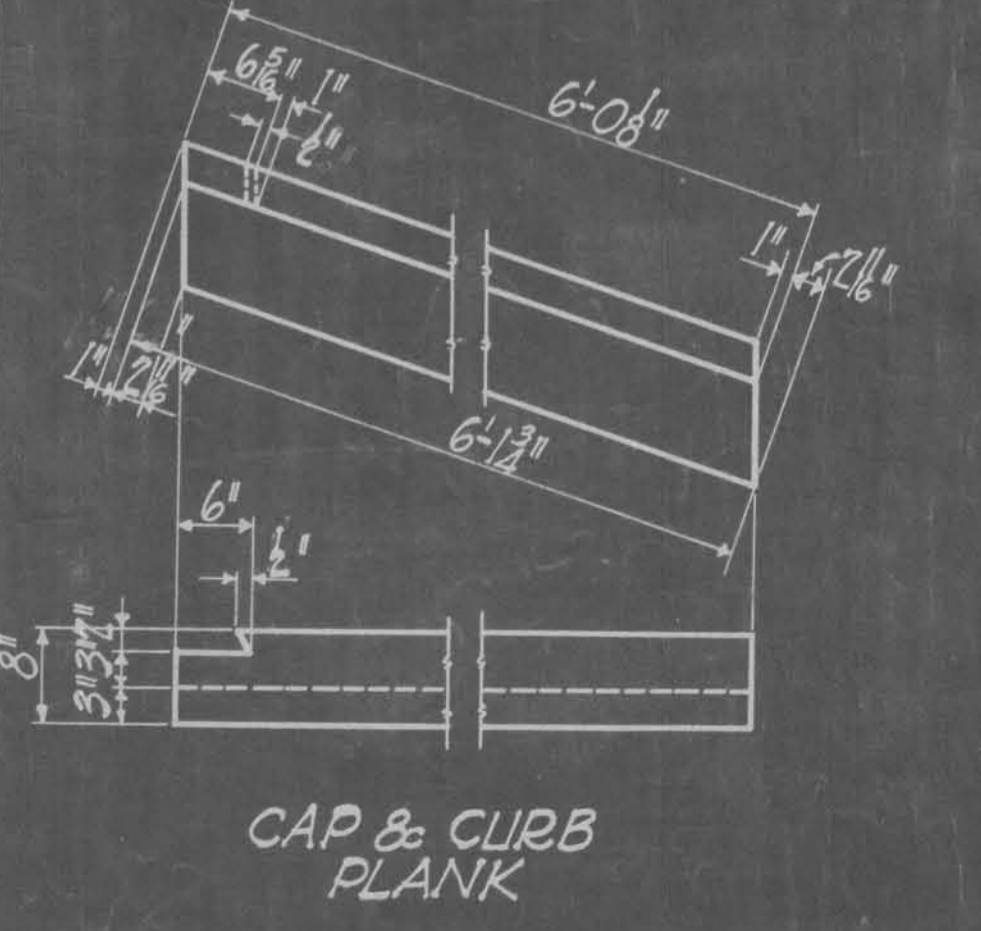


Note: Road Contractor to clear channel.

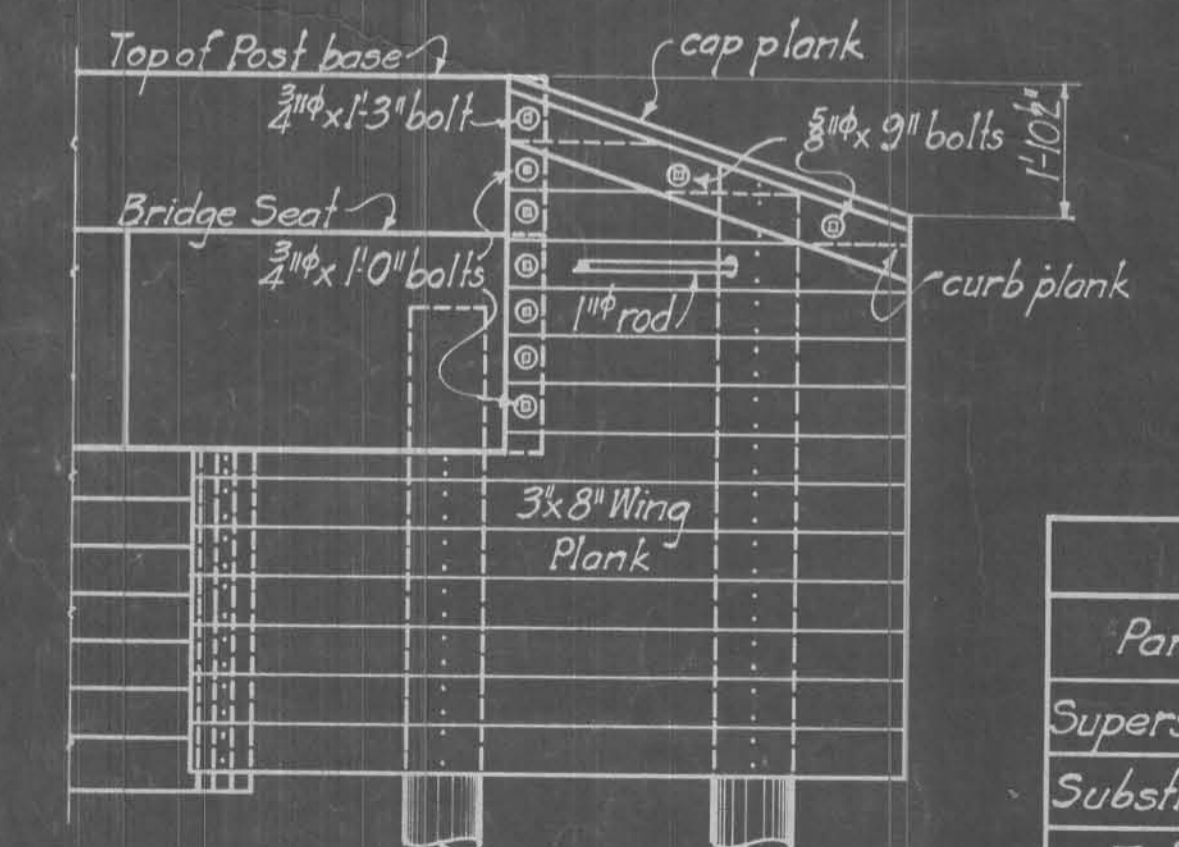


CUTTING DIAGRAM FOR TOP WING PLANK

PLAN



CAP & CURB PLANK



WING ELEVATION



CROSS SECTION OF BEVELED NAILER

Note: m bars are included in bar list for superstructure.

BILL OF REINFORCING-ONE ABUT.

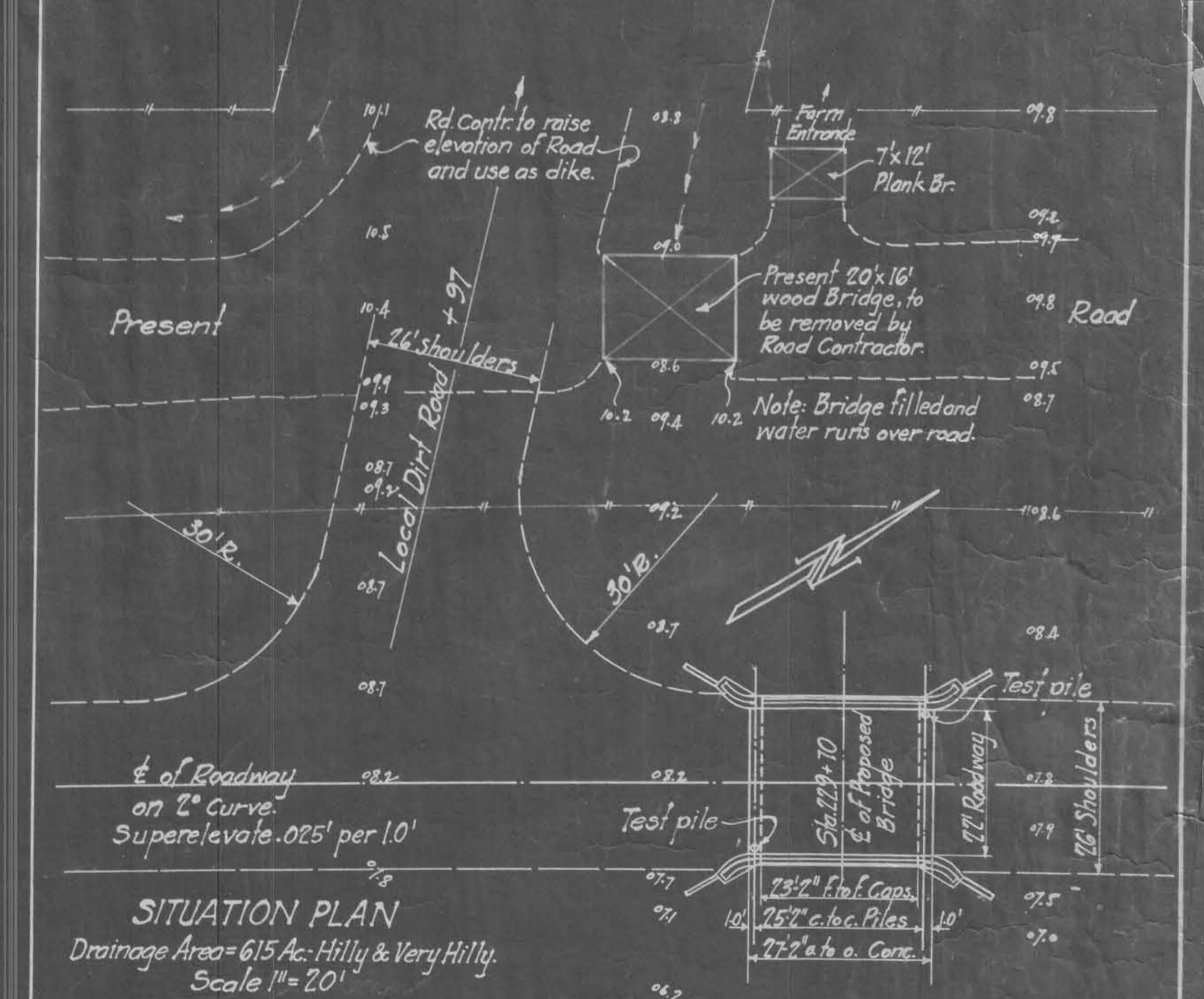
Bar	Shape	No.	Size	Length	Weight
a	—	9	2" φ	15'-6"	345
b	—	8	2" φ	8'-0"	96
c	—	8	2" φ	7'-6"	90
d	□	17	1/2" φ	8'-9"	99
e	□	8	1/2" φ	various	59
Spiral	—	8	1/2" φ	31'-3"	42
Spacer	—	16	1/2" φ	2'-0"	21
Total Reinforcing Steel					752 Lb.

BILL OF CREOSOTED LUMBER-ONE ABUT.

Part	No.	Size	Length	F.L.M.	
Backing Plank	7	3x8	11'-0"	154	
	7	3x8	15'-0"	210	
Wing Plank	14	3x8	10'-0"	280	
	10	3x8	5'-7 1/2"	113	
	2	3x8	4'-0"	16	
Cap Plank	2	3x8	6'-0 1/2"	24	
Curb Plank	2	3x8	6'-1 3/4"	25	
Beveled Nailers	2	6x8	4'-8"	37	
Total Creosoted Lumber					859 B.F.

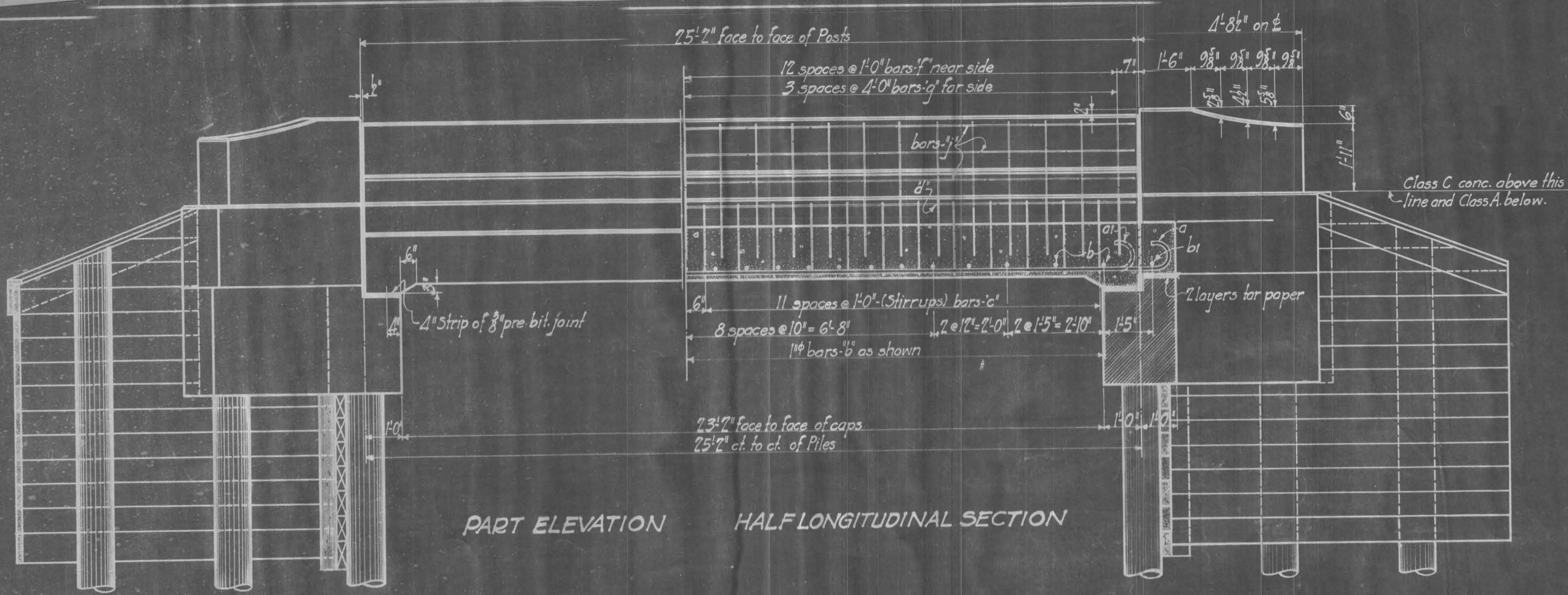
ESTIMATED QUANTITIES

Part	Concrete		Reinforcing Steel	Structural Steel	Creosoted Lumber	Hardware	Creos. Piling	Excavation	C.I.	C.I.
	Class A	Class C								
Superstructure	47.4	5.0	765.1	28	—	—	—	—	—	—
Substructure	16.5	—	752	202	859	134	4 1/2 x 16	2 x 35	10	15
Total	63.9	—	1517.1	482	859	134	4 1/2 x 16	2 x 35	10	15

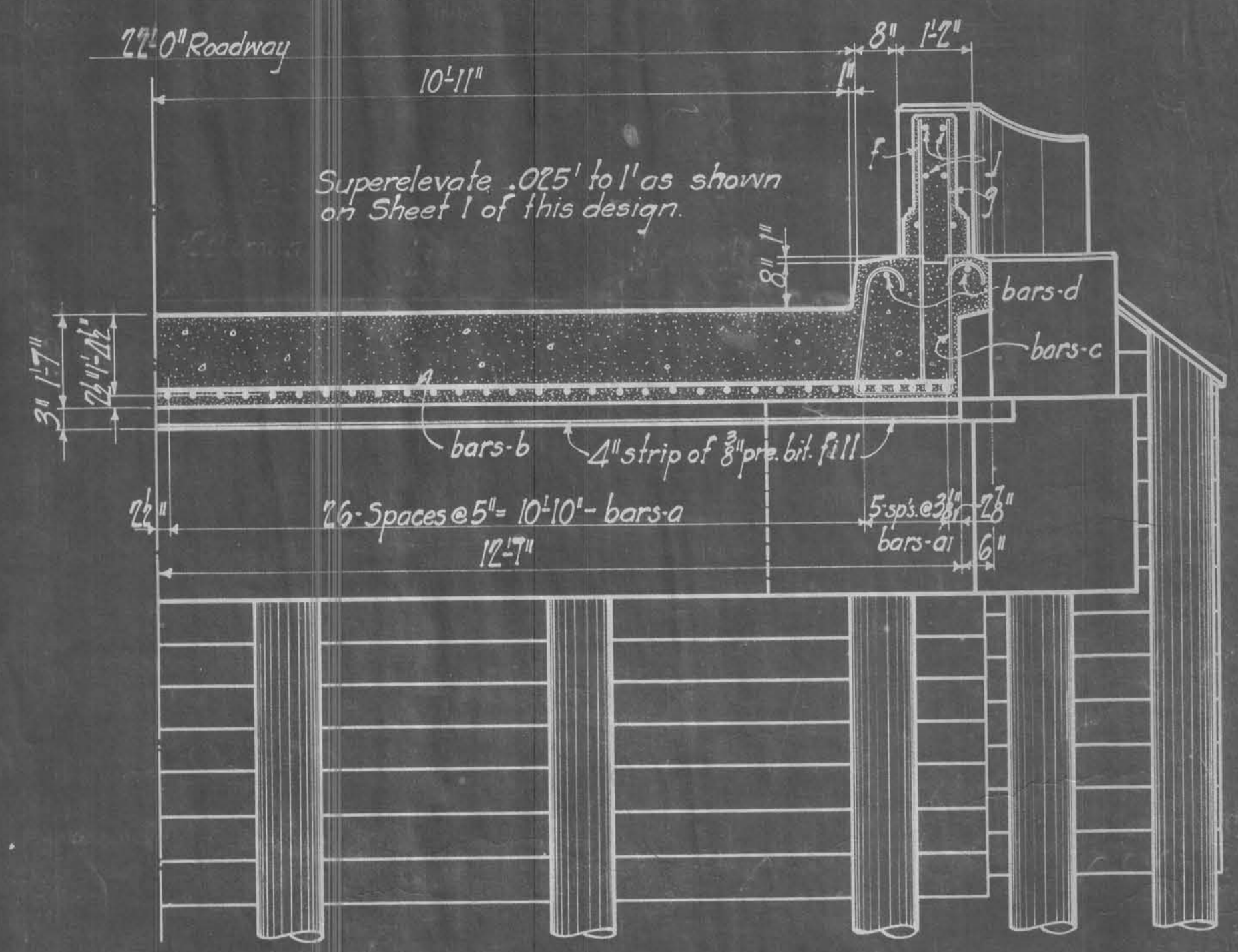


SITUATION PLAN
 Drainage Area = 615 Ac. - Hilly & Very Hilly.
 Scale 1" = 20'

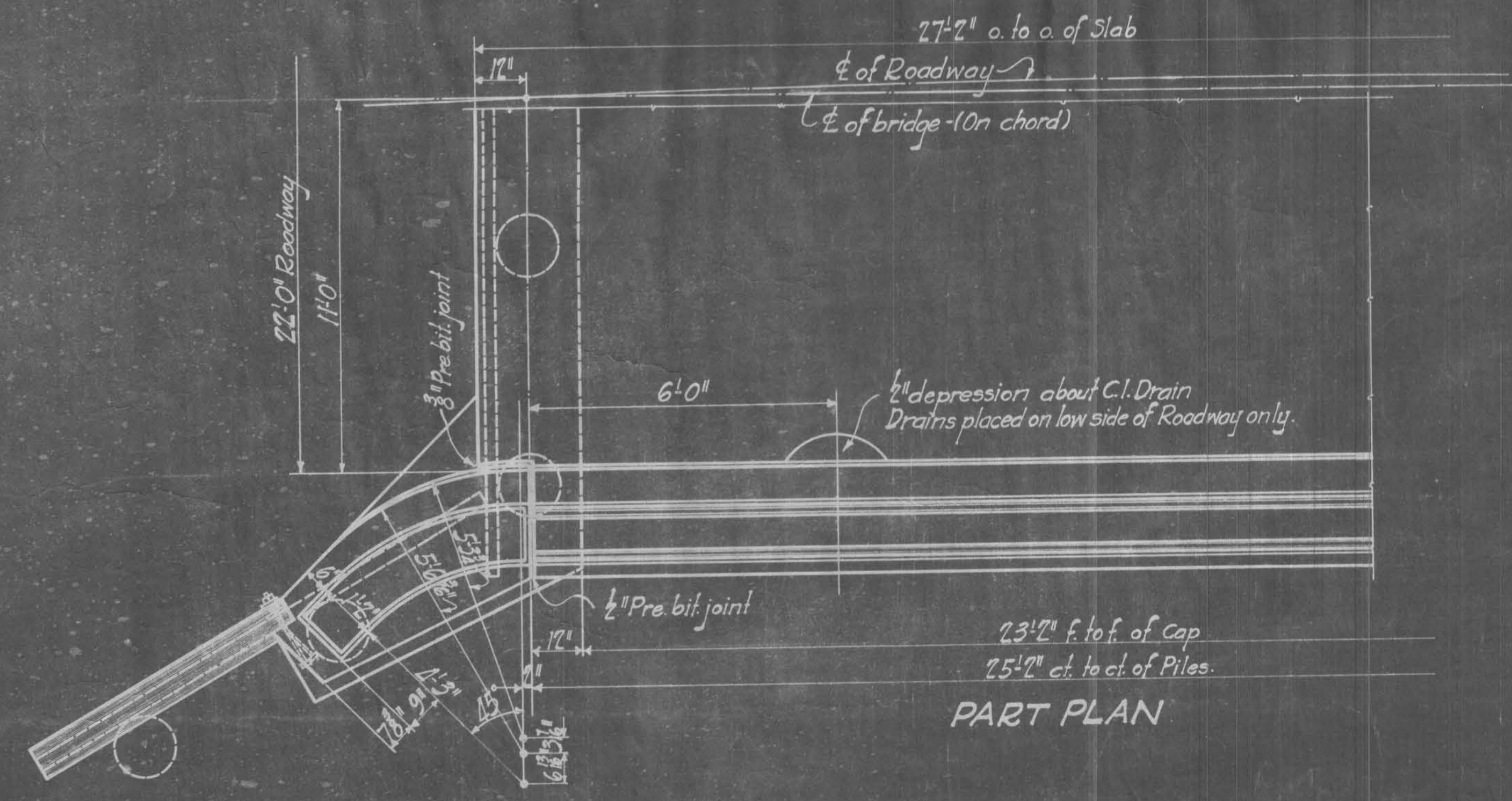
Design For
24'-0" x 22'-0" R.C. SLAB BRIDGE
 with Concrete Handrails
 Station 229+70 Project No. F.A.S. 524A
CRAWFORD COUNTY
 Iowa State Highway Commission
 Stockholm Twp Crawford Co. September 1941 Sheet 1 of 2 Scale 3/8" = 1'-0"



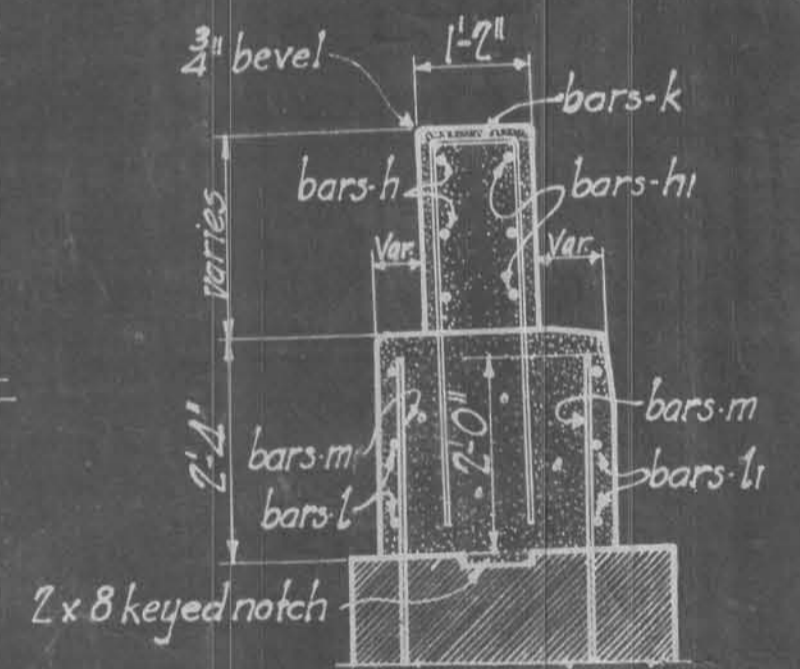
PART ELEVATION HALF LONGITUDINAL SECTION



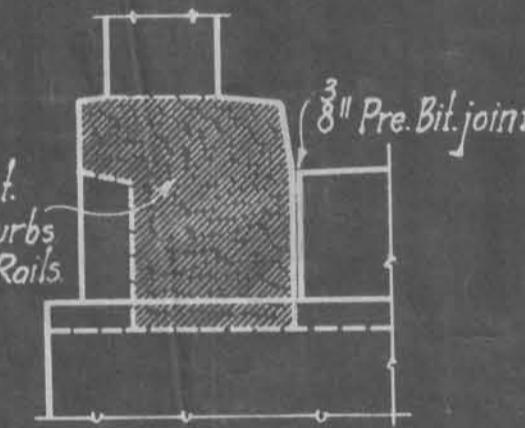
HALF CROSS SECTION



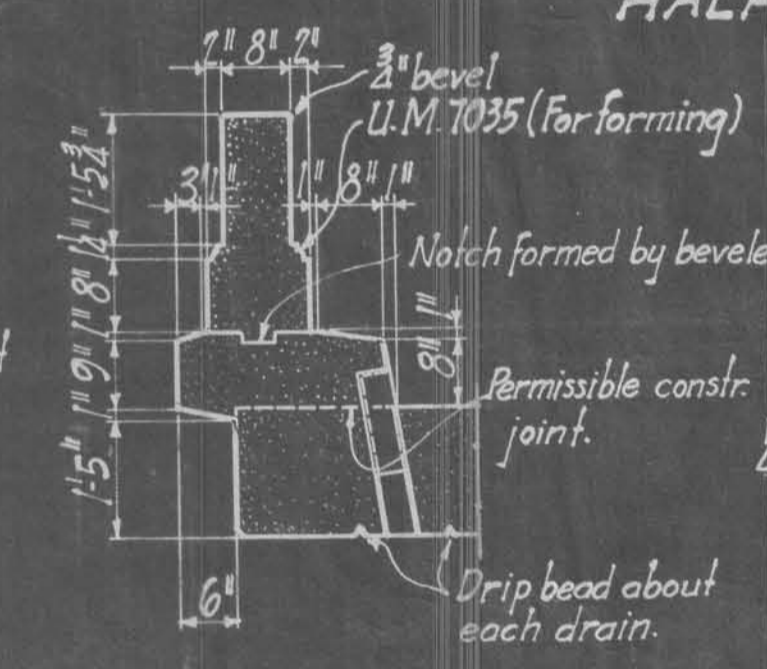
PART PLAN



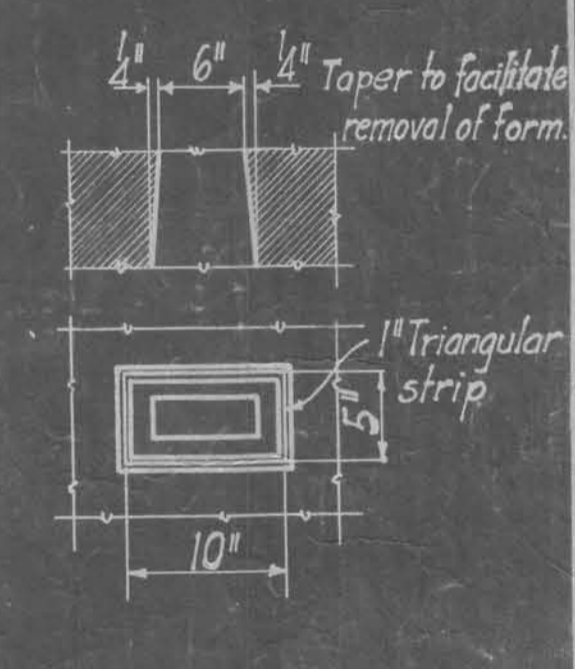
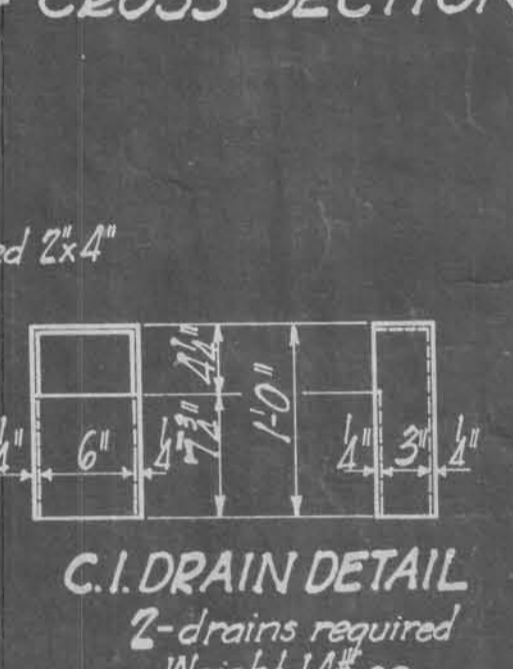
SECTION THRU END POST



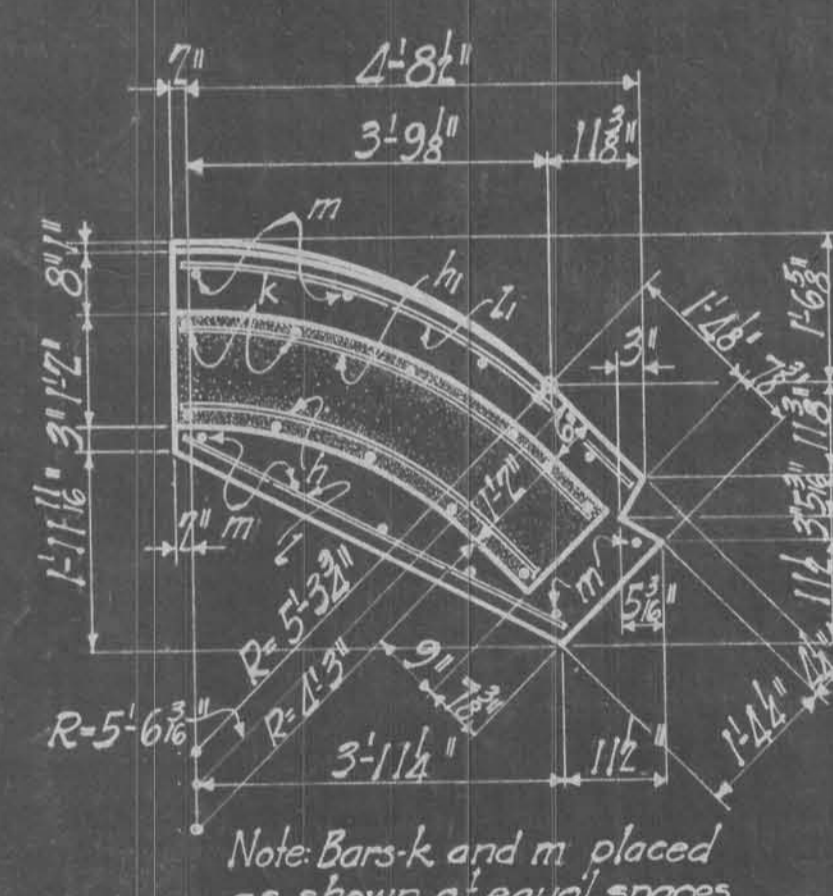
JOINT DETAIL



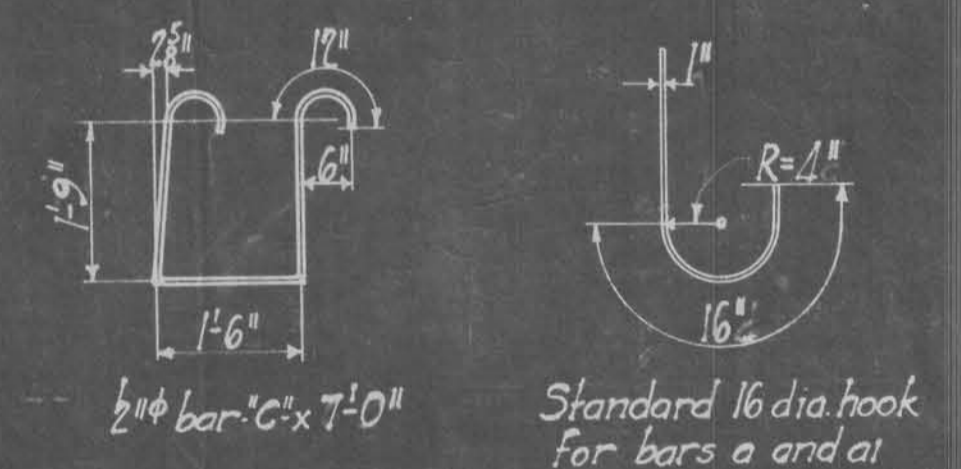
RAIL & CURB DETAILS



DRIP BEAD DETAIL

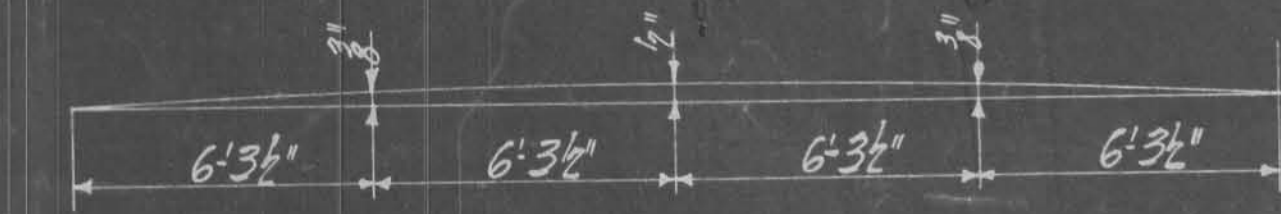


DETAIL OF END POST



ESTIMATED QUANTITIES
 Class 'A' Conc. 47.4 Cu. Yds.
 Class 'C' Conc. 5.0 Cu. Yds.
 Reinforcing Steel 7654 Lbs.
 Structural Steel (C.I. Drains) 28 Lbs.
 Note: Above Estimate includes quantities in End Posts and Post Bases.

BILL OF REINFORCING STEEL						
Bar	Location	Shape	No	Size	Length	Weight
a	Slab Longitudinal	—	52	1" ϕ	28'-9"	3922
a1	Slab Longitudinal	—	12	1" ϕ	26'-9"	857
b	Slab Transverse	—	25	1" ϕ	24'-10"	1658
b1	Slab Transverse	—	2	1" ϕ	21'-6"	115
c	Curb Transverse	—	48	1/2" ϕ	7'-0"	274
f	Handrail Vertical	—	50	1/2" ϕ	4'-0"	134
g	Handrail Vertical	—	14	1/2" ϕ	4'-0"	37
j	Handrail Longitudinal	—	17	1/2" ϕ	24'-9"	198
h	Rail Post Longitudinal	—	12	1/2" ϕ	4'-0"	32
h1	Rail Post Longitudinal	—	12	1/2" ϕ	4'-0"	37
k	Rail Post Vertical	—	20	1/2" ϕ	9'-0"	170
l	Post base Horizontal	—	12	1/2" ϕ	4'-4"	35
l1	Post base Horizontal	—	12	1/2" ϕ	5'-3"	47
m	Post base Vertical	—	40	1/2" ϕ	4'-0"	107
d	Curb Longitudinal	—	4	1/2" ϕ	24'-9"	66
Total Reinforcing Steel - Lbs.						7654



CAMBER DIAGRAM

Entire superstructure to be constructed to above camber. Contractor to make allowance for deformation of shoring.
 Permanent Camber = 0
 D.L. Elastic Deflection = 1/8"
 D.L. Plastic Deflection = 3"

Location
 Section 28
 Stockholm Twp.
 Crawford Co.

General Notes:
 This bridge is designed for H-15 Loading, as per AASHO Specs. plus 19 Lbs per sqft of roadway for future wearing surface. Slab as shown includes 1/2" of wearing surface.
 All reinforcing steel to be securely wired in correct position before concrete is placed. Metal bar chairs at 3' centers in both directions to be used in supporting slab bars.
 Standard Specification, Series of 1937, of the Iowa Highway Commission to be used for materials and construction.

Design for
 24'-0" x 22'-0" R.C. SLAB BRIDGE
 with Concrete Handrails
 Station 229+70 Project No. FAS.524.A
 CRAWFORD COUNTY
 Iowa State Highway Commission

September 1941 Scale 1/2" = 1'-0"
 130245 Sheet 2 of 2
 File No. 12562 Design No. 2341 Crawford Co.