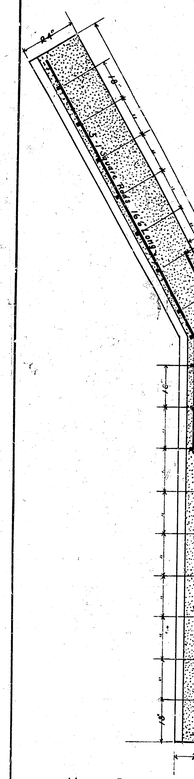
BILL OF STEEL.

Abutments.		Suspension members.	
20	1" ø	16'6"	10	1" ø	19'0"
10	1" ø	39'0"	20	1" ø	18'6"
74	1" ø	19'0"	20	1" ø	14'5"
20	1" ø	17'0"	20	⅝" ø	1'10"
Floor Beams.		Arch Ring	
20	1" ø	24'0"	104	⅝" ø	4'3"
10	1" ø	26'0"	8	¾" ø	5'6"
60	⅝" ø	7'0"	24	1" ø	8'0"
10	⅝" ø	1'0"	16	1" ø	7'0"
Floor Slab.			12	1" ø	26'0"
26	⅝" ø	25'0"	24	1" ø	29'0"
68	⅝" ø	23'0"	12	1" ø	30'0"
42	⅝" ø	25'6"	Hand Rail		
Lower Chord			16	⅝" ø	5'6"
12	1" ø	17'0"	8	¾" ø	4'0"
11	1" ø	18'0"			
8	1" ø	20'0"			
8	1" ø	26'0"			
8	1" ø	28'0"			
8	1" ø	35'0"			
8	1" ø	33'0"			
4	1" ø	34'0"			
20	1" ø	1'10"			

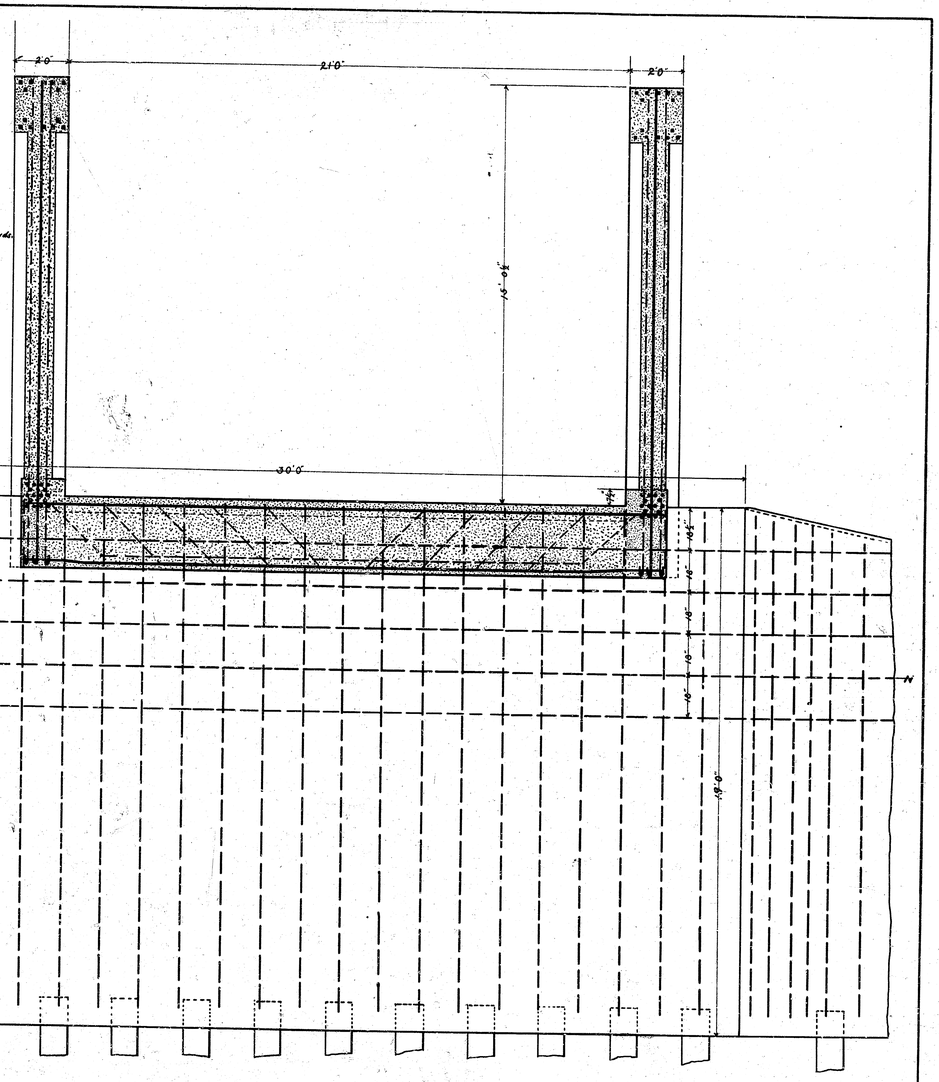
TOTAL STEEL
About 30,000#

QUANTITIES OF CONCRETE.

Abutments.	
2 - 18'x30'x1.75' }	3507 ft³ = 130 cu.yds.
4 - 18'x12'x1.75' }	
Floor Beams	
5 - 2'x16'x24'	280 ft³
Floor Slab	
21'x40'x6.5"	455 "
Lower Chords.	
2-40'x18'x14"	148 "
Suspension Members	
2 - 18.5'x 1'x1' }	
4 - 11.5'x 1'x1' }	100 "
4 - 9.3'x 1'x1' }	
Arch Ring	
2 - 36'-2'x 2.1' }	
4 - 26'x12'x 2' }	504 "
4 - 43'x5'x 2' }	
Hand Rail	
2 - 30'x5'x.6'	24"
Total except Abutments	311 " + 56 "
GRAND TOTAL CONCRETE. About 186 cu.yds.	



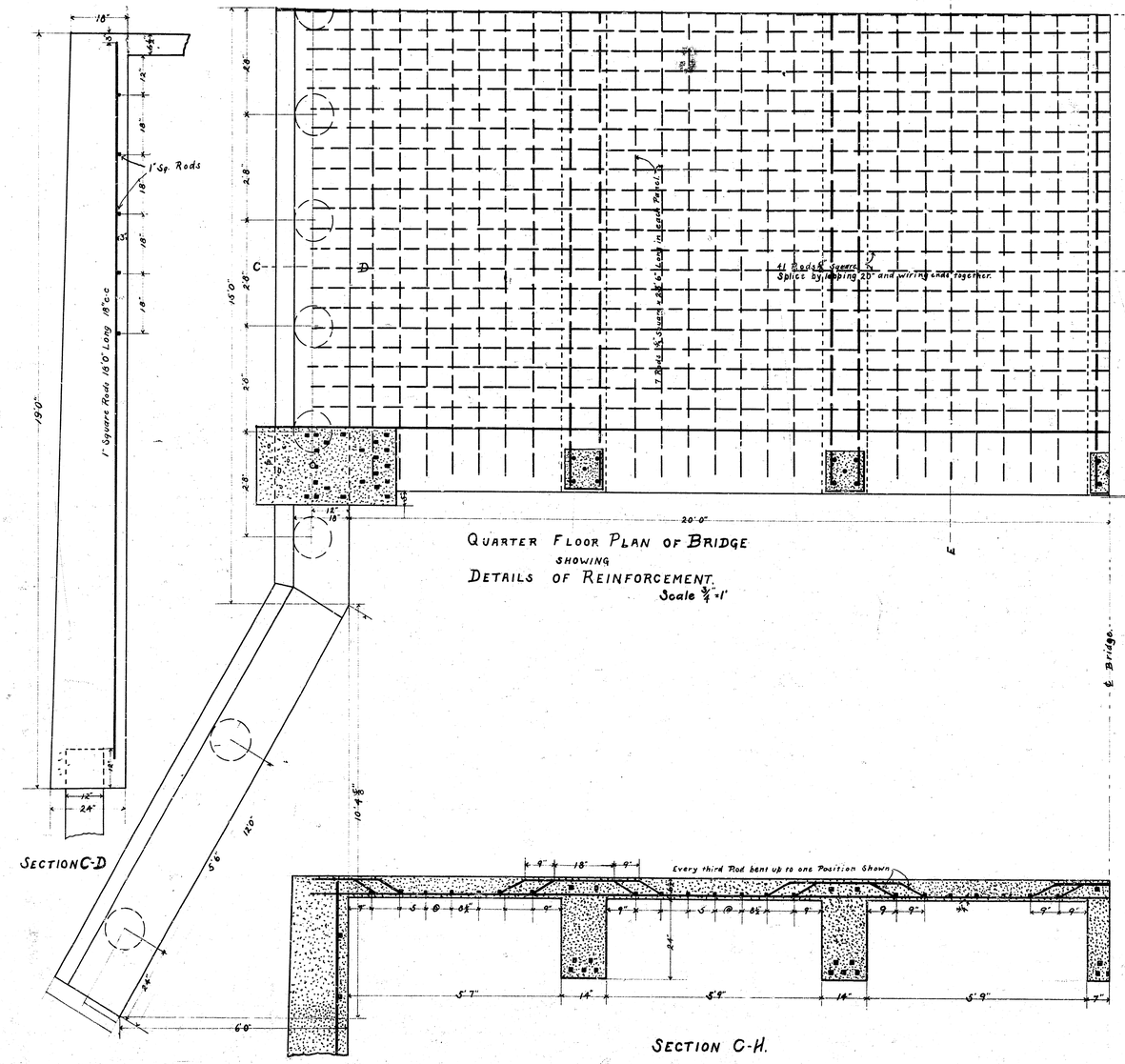
HALF SECTION M-N
Scale ¼"=1'



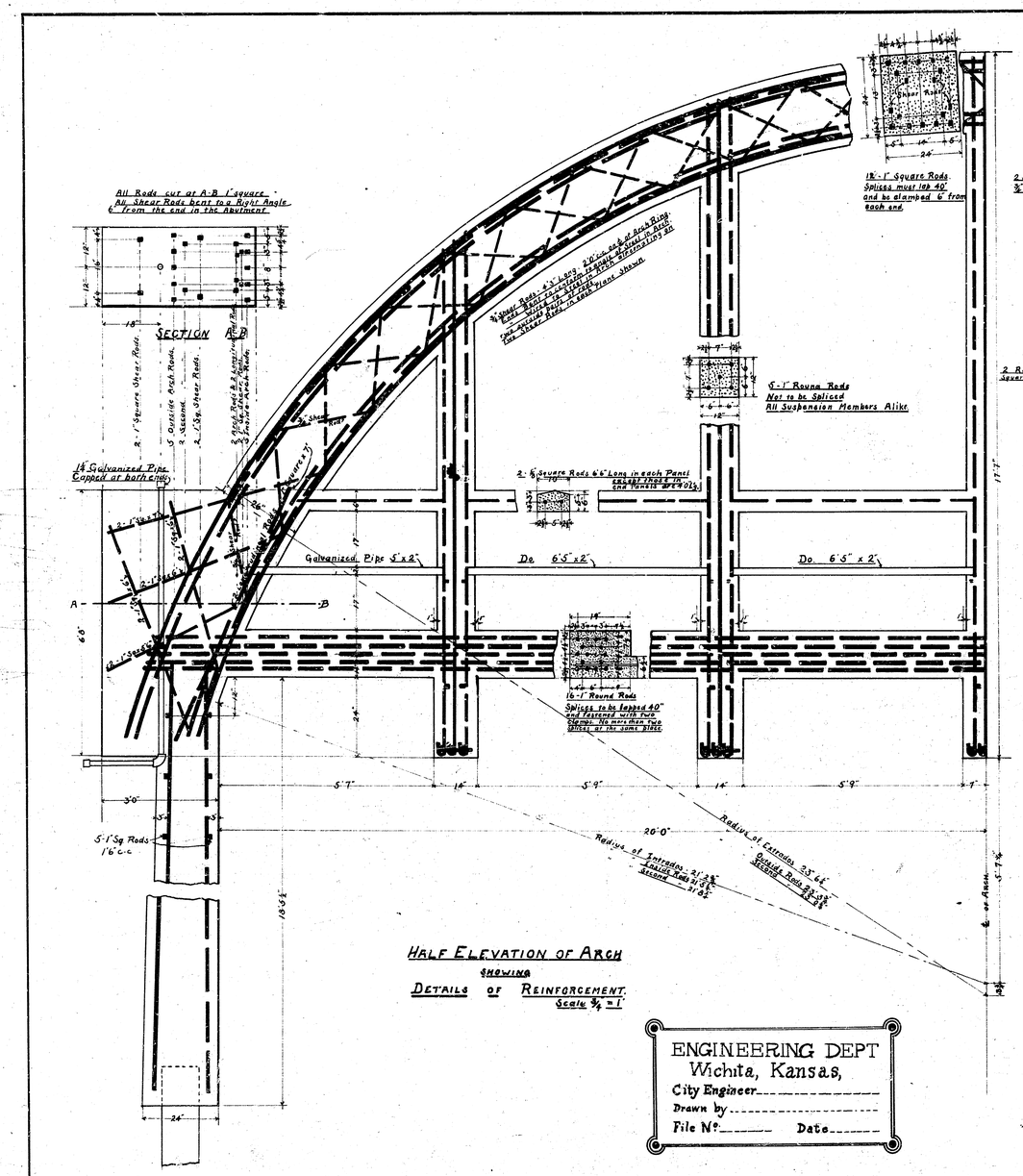
ELEVATION OF ARCH AND ABUTMENT
SHOWING
REINFORCEMENT OF ABUTMENT.
Scale ¼"=1'

ENGINEERING DEPT
Wichita, Kansas.
City Engineer_____
Drawn by_____
File N°_____ Date_____

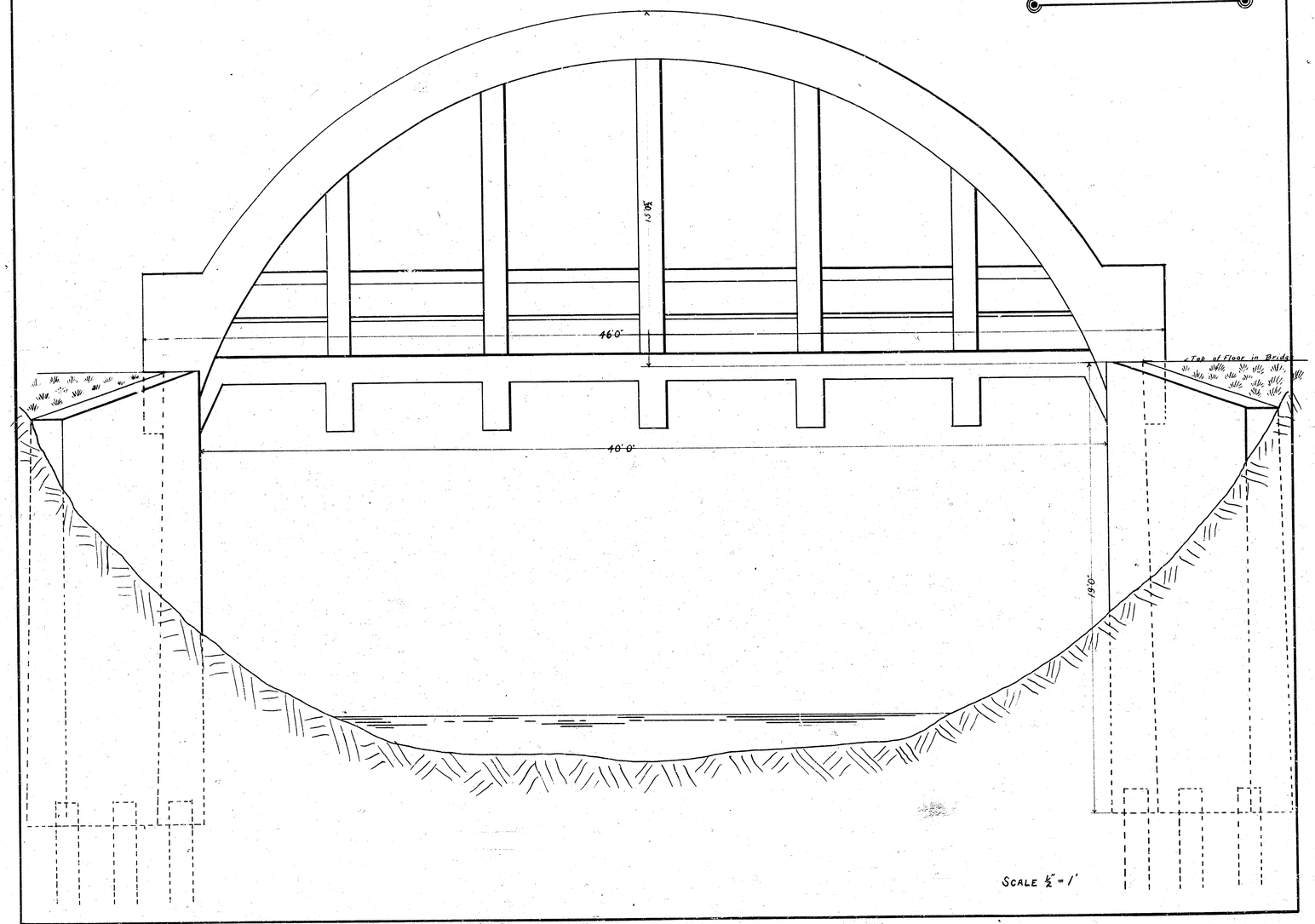
Harry St. Bridge
@
Drainage Canal



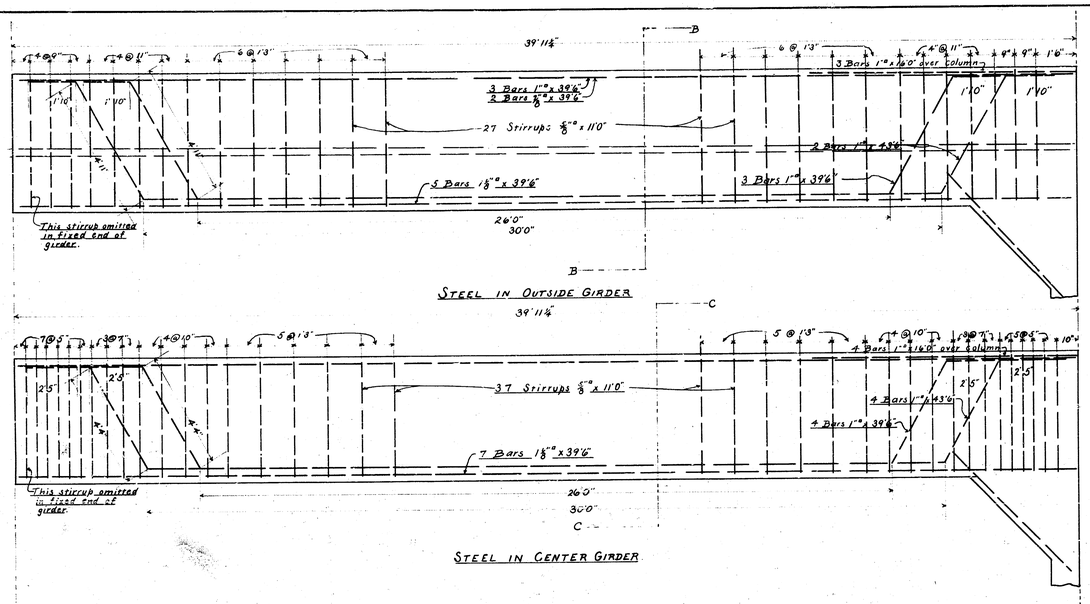
ENGINEERING DEPT.
Wichita, Kansas.
City Engineer_____
Drawn by_____
File No._____ Date_____


All Rods cut at A-B 1' square
All Shear Rods bent to a Right Angle 6" from the end to the Abutment
SECTION A-B
14 Galvanized Pipe Capped at both ends
Galvanized Pipe 5"x2"
Do 6'5"x2"
Do 6'5"x2"
Do 6'5"x2"
12-1" Square Rods Splices must lap 40" and be clamped 6" from each end
6-1" Round Rods Not to be Spliced All Suspension Members Alike
2-⅝ Square Rods 6'6" Long in each Panel
16-1" Round Rods
Splices to be lapped 40" and fastened with two Clamps. No more than two Splices at the same place
5-1" Sq Rods 16" c-c
Radius of Intrados 21'3"
Radius of Extrados 23'6"
HALF ELEVATION OF ARCH
SHOWING
DETAILS OF REINFORCEMENT.
Scale ¾"=1'
ENGINEERING DEPT
Wichita, Kansas,
City Engineer
Drawn by
File No. Date
DETAIL OF LOWER PANEL POINT.
Scale 1"=1'
2 Stirrups ⅝" Square
4 Pairs Diagonal Shear Rods at each end of Floor Beam
Rod ⅝ Square x 12"
Shear Rods and Stirrups Shaded Solid
DETAIL OF MIDDLE UPPER PANEL POINT.
Scale 1"=1'
2 Rods ⅝" Square x 28"
All Shear Rods Cut to Form
Shear Rods Shaded Solid
ELEVATION
PLAN
DETAIL OF END PANEL POINT.
Scale 1½"=1'
Rods in Plan shown Cut on Section O-P

ENGINEERING DEPT
Wichita, Kansas.
City Engineer_____
Drawn by_____
File N°_____ Date_____

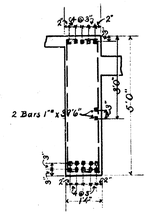


SCALE ½" = 1'

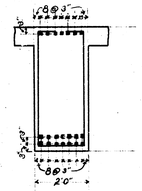


STEEL IN OUTSIDE GIRDER

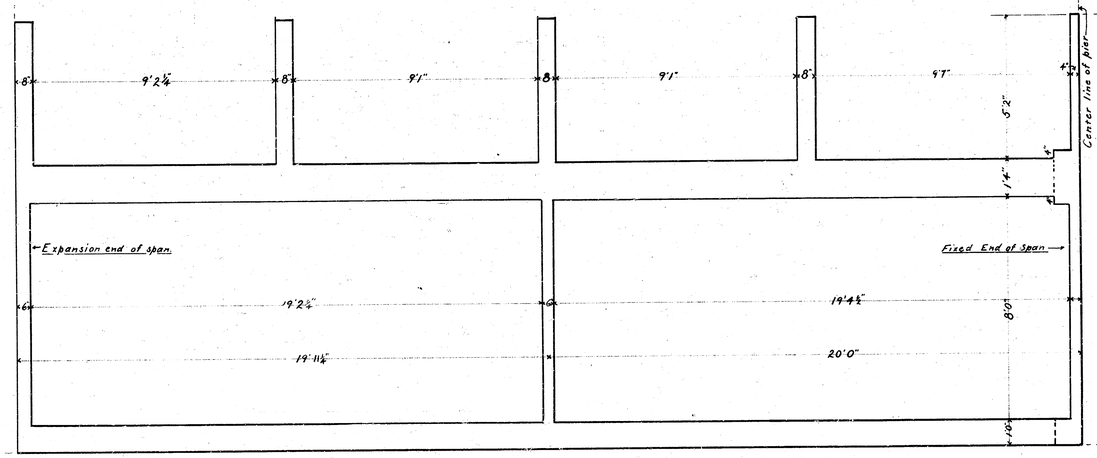
STEEL IN CENTER GIRDER



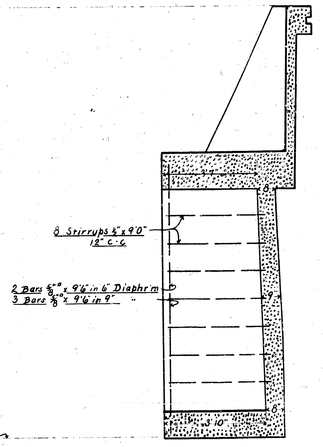
SECTION B-B



SECTION C-C

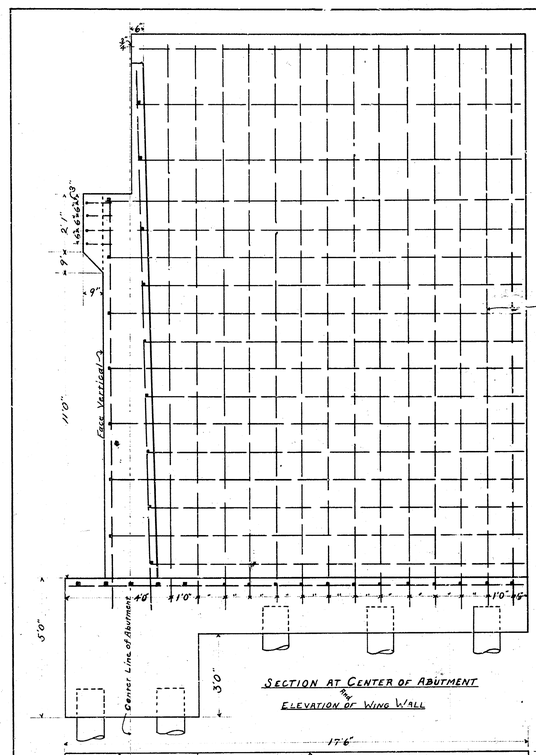


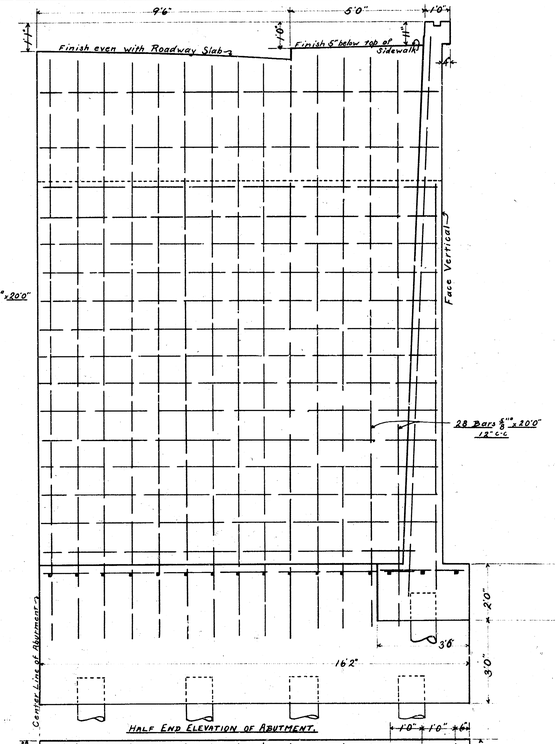
HALF PLAN OF DIAPHRAGMS AND SIDEWALK CANTILEVER BEAMS IN ONE SPAN

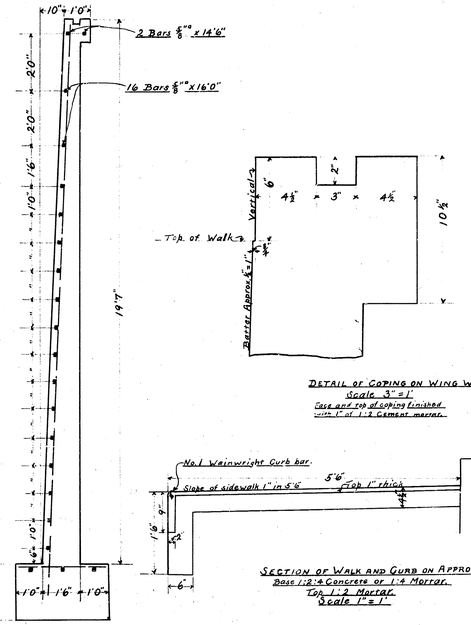


STEEL IN DIAPHRAGM

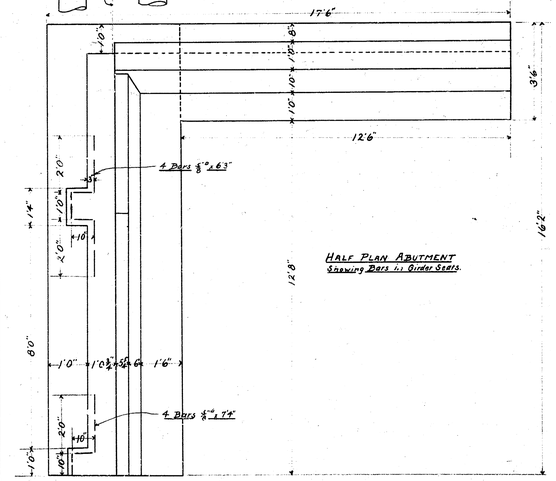
Scale all details on this plate ½" to 1'

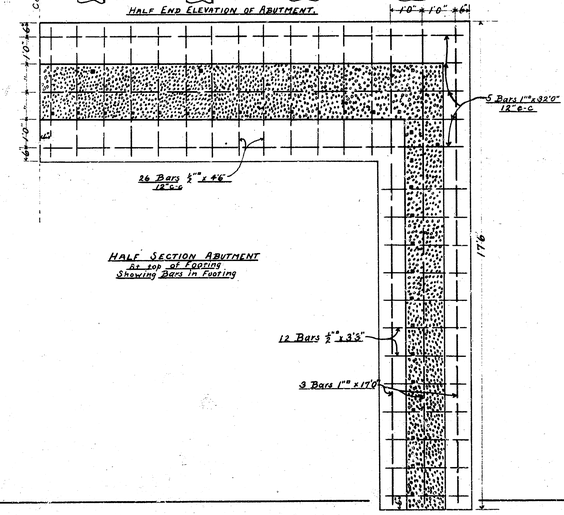


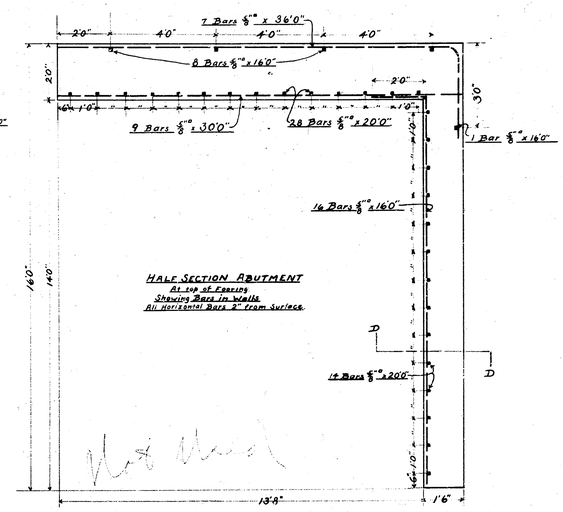


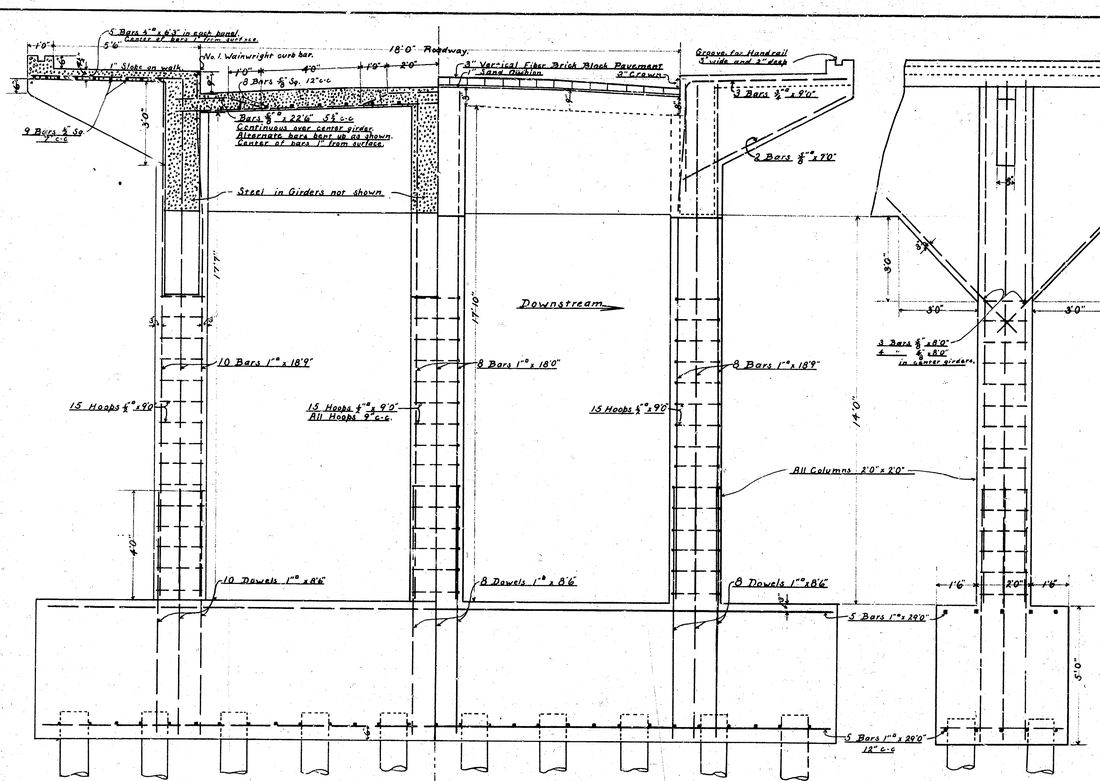


Scale ¼" = 1' except as noted.








5 Bars 4"x 6'3" in cast bowl. Center of bars 1" from surface.
No. 1 Wainwright curb bar.
Slope on wall
18'0" Roadway.
3" Vertical Fiber Brick Block Pavement 2" Cranolith
Groove for Handrail Guide and 2" Keys
8 Bars ⅝" Sq. 12" c-c
9 Bars ⅝" Sq. c-c
Bars ⅝" x 22'6" 6'6" c-c Continuous over center girder. Alternate bars kept up as shown. Center of bars 1" from surface.
3 Bars ⅝" x 9'0"
2 Bars ⅝" x 7'0"
Steel in Girders not shown.
Downstream
10 Bars 1" x 18'9"
8 Bars 1" x 18'0"
8 Bars 1" x 18'9"
15 Hoops ⅝" x 9'0"
15 Hoops ⅝" x 9'0" All Hoops 9" c-c.
15 Hoops ⅝" x 9'0"
All Columns 2'0" x 2'0"
10 Dowels 1" x 8'6"
8 Dowels 1" x 8'6"
8 Dowels 1" x 8'6"
5 Bars 1" x 29'0"
5 Bars 1" x 29'0" 12" c-c
3 Bars ⅝" x 8'0" 4 " ⅝" x 8'0" in center girders.
4'2" in center Column
4 Bars 1" x 11'0" in 3 Girders
3 " 1" x 11'0" in 4 Girders
Cast Iron Channels For Expansion Joints on Top of Seats on Center Columns 4 Required.
Cast Iron Plates To be placed on Center Girders 4 Required
Cast Iron Channels To be placed on Seats on Outside Columns 8 Required
Square Headed Bolts 1" x 12" Threaded 168 Required
Cast Iron Plates To be placed on Outside Girders 8 Required
Tap all Castings for 1" Bolts.
Scale of cast Iron Details 1"=1'
Half Section A-B
Scale ½"=1'
Center Line
Half Section Through Expansion Joint.
Scale ½"=1'
End Elevation Piers 1 to 4
Scale ½"=1'
End Elevation of Piers 2 & 3
Showing Steel Details at Expansion Joint.
Scale ½"=1'
4 L 3" x 3" x ½" - 5'5" long 8 Required
Angles tapped for ¾" Bolts
Slot in top of walk 1" wider than Angle
Flush with top of walk
Machine Bolts ¾" x 6" 24 Required
Details of Angles over Expansion Joints in Sidewalk. Scale 1"=1'
Half Plan of Pier Footing. Showing Location of Bars in Columns and in Top of Pier. Scale ½"=1'
Half Plan of Pier Footing Showing Location of Dowels for Columns and Bars in Bottom of Pier. Scale ½"=1'
3'-9" Z Bar 6" long 28 Required
1" Joint.
Rivet Spacing in Z bar
Flush with face of curb
Steel Plate 6" x ⅝" x 12'6½" 4 Required
¾" Rivets - Countersunk Heads
Details of Steel Plates over Expansion Joints in Roadway Scale 1"=1'