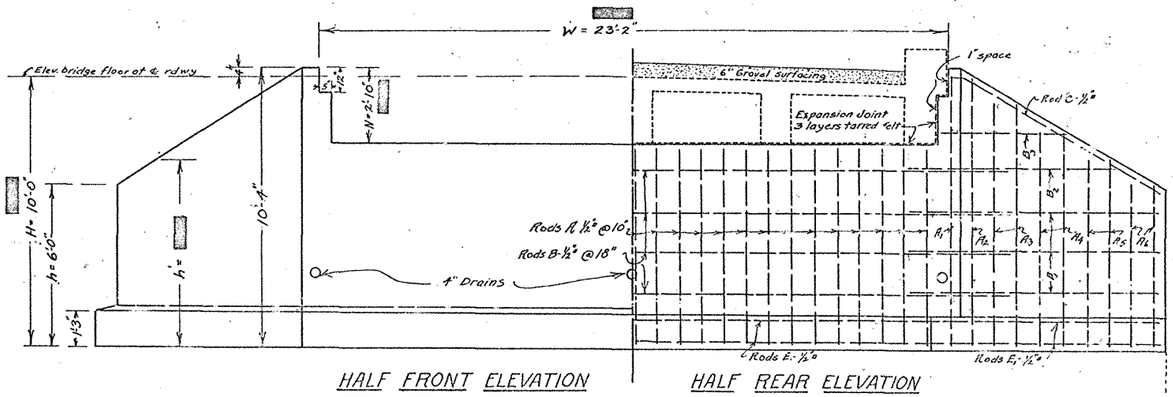
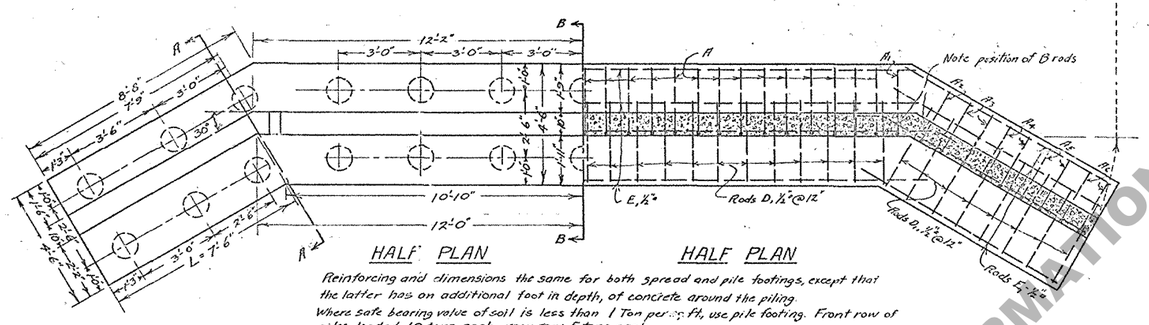
FEDERAL DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	LA.				



HALF FRONT ELEVATION

HALF REAR ELEVATION

WING-WALL ROTATED TO PLANE OF ABUTMENT-WALL.

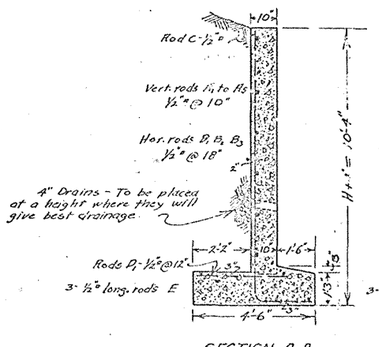


HALF PLAN

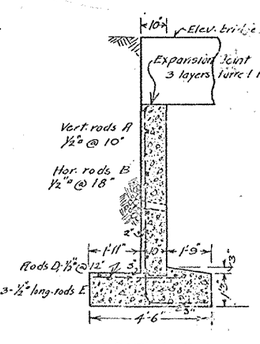
HALF PLAN

Reinforcing and dimensions the same for both spread and pile footings, except that the latter has an additional foot in depth, of concrete around the piling.

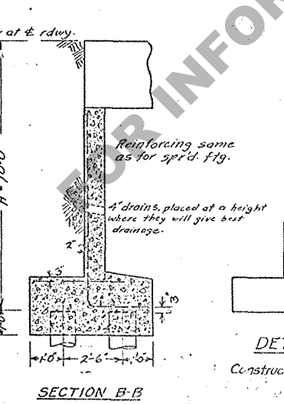
Where safe bearing value of soil is less than 1 Ton per sq. ft, use pile footing. Front row of piles loaded 10 tons each, rear row 5 tons each.



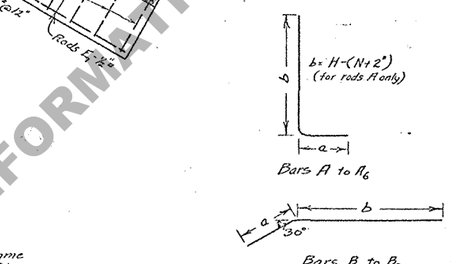
SECTION A-A
WING-WALL
Spread Footing



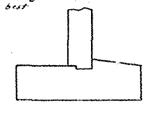
SECTION B-B
ABUTMENT WALL
Spread Footing



SECTION B-B
PILE FOOTING



BENDING DIAGRAM



DETAIL
Construction Joint

TABLE I

ABUTMENT STEEL SCHEDULE

H= 10'-0" 30' Girder, 20' Rdwy W= 23'-2" N= 2'-10"

Location	Mk	Size	Spcg	No.	Lgth	Wgt	Bending
Rear-vert.	A	½"φ	10"	27	9'-3"	212	a=2'-3
" "	A1	"	10	2	12'-2"	20	do.
" hor.	B	"	18	4	28'-0"	95	a=1'-0" (both ends)
Ftg. trans.	D	"	12	23	3'-0"	59	strgt.
" Long.	E	"	—	3	26'-0"	61	do.
TOTAL	3.8 Cu.yds. Conc.				447 Lbs. Steel		
For pile ftg. add	3.8 Cu.yds. Conc.				14 piles		

STEEL IN TWO WINGS

H= 10'-0" h= 6'-0" L= 7'-6"

Location	Mk	Size	Spcg	No.	Lgth	Wgt	Bending
Rear-vert.	A2	½"φ	10"	2	11'-9"	20	a=2'-0"
" "	A3	"	"	4	10'-9"	37	do.
" "	A4	"	"	4	9'-9"	33	do.
" "	A5	"	"	4	8'-9"	30	do.
" "	A6	"	"	4	7'-9"	26	do.
" hor.	B1	"	18	6	9'-6"	49	a=1'-0"
" "	B2	"	"	2	8'-0"	14	do.
" "	B3	"	"	2	4'-6"	9	strgt.
Wing	C	"	—	2	8'-3"	15	do.
Ftg. trans.	D1	"	12	16	3'-6"	48	do.
" Long.	E1	"	—	6	9'-0"	46	do.
TOTAL	6.7 Cu.yds. Conc.				325 Lbs. Steel		
For pile ftg. add	2.7 cu.yds. Conc.				12 piles		

TOTAL ONE ABUT.	Footing	Cu. Yds. Conc.	Lbs. Steel	Piling
	Sprd	16.5	772	—
	Pile	23.0	772	2.6 @ 30' = 780 ft

TABLE II.

ABUTMENT STEEL SCHEDULE

H= L= Girder, Rdwy. W= N=

Location	Mk	Size	Spcg	No.	Lgth	Wgt	Bending
TOTAL	Cu.yds. Conc.				Lbs. Steel		
For pile ftg. add	Cu.yds. Conc.				piles.		

STEEL IN TWO WINGS

H= h= L=

Location	Mk	Size	Spcg	No.	Lgth	Wgt	Bending
TOTAL	Cu.yds. Conc.				Lbs. Steel		
For pile ftg. add	cu.yds. Conc.				piles		

TOTAL ONE ABUT.	Footing	Cu.yds. Conc.	Lbs. Steel	Piling
	Sprd			
	Pile			

TABLE III

QUANTITIES FOR VARIOUS HEIGHTS & WING LENGTHS

30' Girder 20' Rdwy N= 2'-10" W= 23'-2"

H	h	L	Conc.	Steel	No. piles	Piling Pile Ftg.
10'-0"	4'-0"	11'-0"	18.7	871	30	238
10'-0"	5'-0"	9'-3"	17.6	822	26	244
10'-0"	6'-0"	7'-6"	16.5	772	26	23.0
10'-0"	7'-0"	5'-9"	15.1	717	22	21.3
9'-0"	4'-0"	9'-3"				
9'-0"	5'-0"	7'-6"				
9'-0"	6'-0"	5'-9"				
8'-0"	4'-0"	7'-6"				
8'-0"	5'-0"	5'-9"				
7'-0"	4'-0"	5'-9"				

TABLE IV.

QUANTITIES TO BE ADDED TO TABLE III FOR VARIOUS GIRDER SPANS & ROADWAY WIDTHS. ALSO VALUES OF W & N.

	20' Roadway				Roadway				Roadway			
SPAN	N	W	Conc.	Steel	N	W	Conc.	Steel	N	W	Conc.	Steel
16'	2'-6"	23'-2"	0.55	46.8								
18'	2'-2"	"	0.44	42								
20'	2'-4"	"	0.33	12								
22'	2'-5"	"	0.28	10								
24'	2'-6"	"	0.22	8								
26'	2'-7"	"	0.17	6								
28'	2'-8"	"	0.11	4								
30'	2'-10"	"	—	—								

GENERAL NOTES & DESIGN DATA

General Spec. - La. State Highway Dept.

All concrete to be class "A" (1:2:4)

All reinforcing bars to consist of deformed bars, having an effective area equal to that of the bars noted on plan.

All exposed corners to be given a ¾" chamfer, except where noted otherwise.

Design as shown on plan is for 30' girder, with 22' roadway. For other girder spans and roadway widths, see table IV. For heights below 10 ft, and varying wing lengths, see table III.

Construction joint between ftg. and wall to be keyed as shown on plan.

All dimensions relating to reinforcing bars refer to centers of bars.

NOTATION

H = height, taken as distance from bridge floor at ℄ to bottom of spread ftg.s and to top of piling for pile ftg.

h = height of wing-wall at end, as shown on plan.

L = length of wing-wall, as shown on plan.

N = depth of notch for girder.

W = width " "

Values of N and W for different girder spans and roadway widths are given in table IV.

Lateral earth pressure taken as that of a fluid weighing 25 lbs. per cu.ft. and having a depth equal to that of the earth fill.

f_c = 650#. f_s = 16000# Wgt. earth = 100#/cu.ft.

Expansion joint between girder and abutment to be constructed only on one abut. Other end of girder to be anchored to abut.

Station	Spn.	Rdwy	Plan	"H"	"h"	Quantities - 2 Abuts. Conc.	Steel	Piling	Remarks

Void 1-14-46

10' CONCRETE ABUTMENT

FOR CONC. GIRDER BRIDGES, 16' to 30' SPANS
16', 18' & 20' ROADWAYS

Louisiana State Highway Department
State Board of Engineers

NEW ORLEANS, LA. Scale ⅞"=1 ft. JUNE 1921

APPROVED:-
STATE HIGHWAY ENGINEER

Designed by:	A.R.J.	6/28/21
Drawn by:	A.R.J.	6/28/21
Traced by:	A.R.J.	7/1/21
Checked by:		
Revisions:		

(B-2434) C-S-8

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