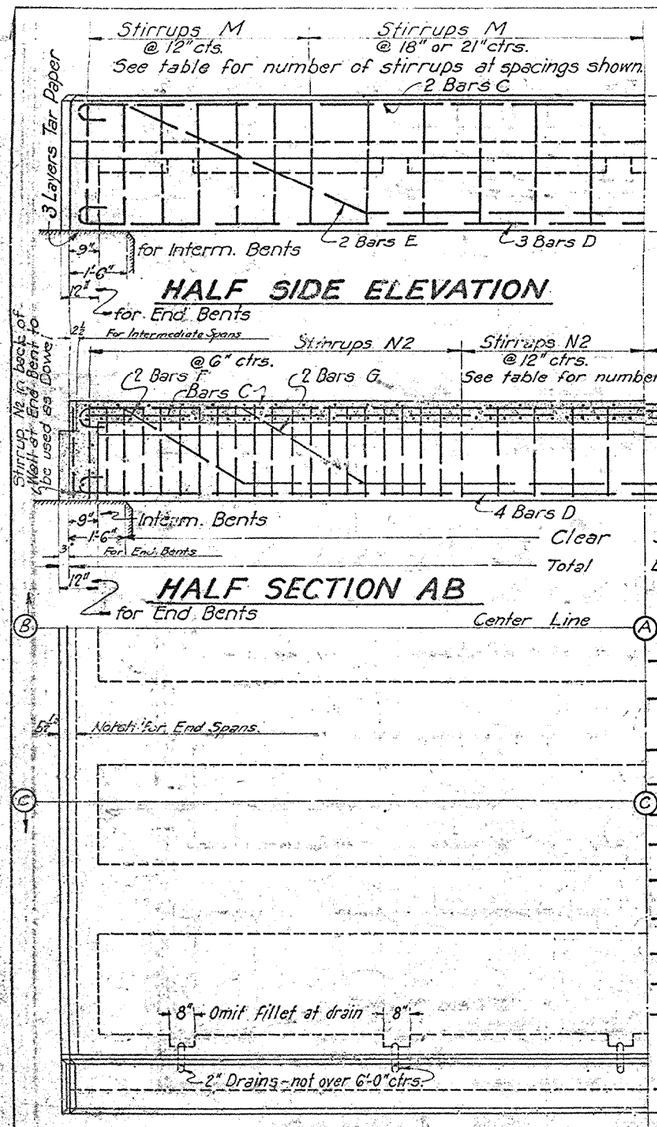

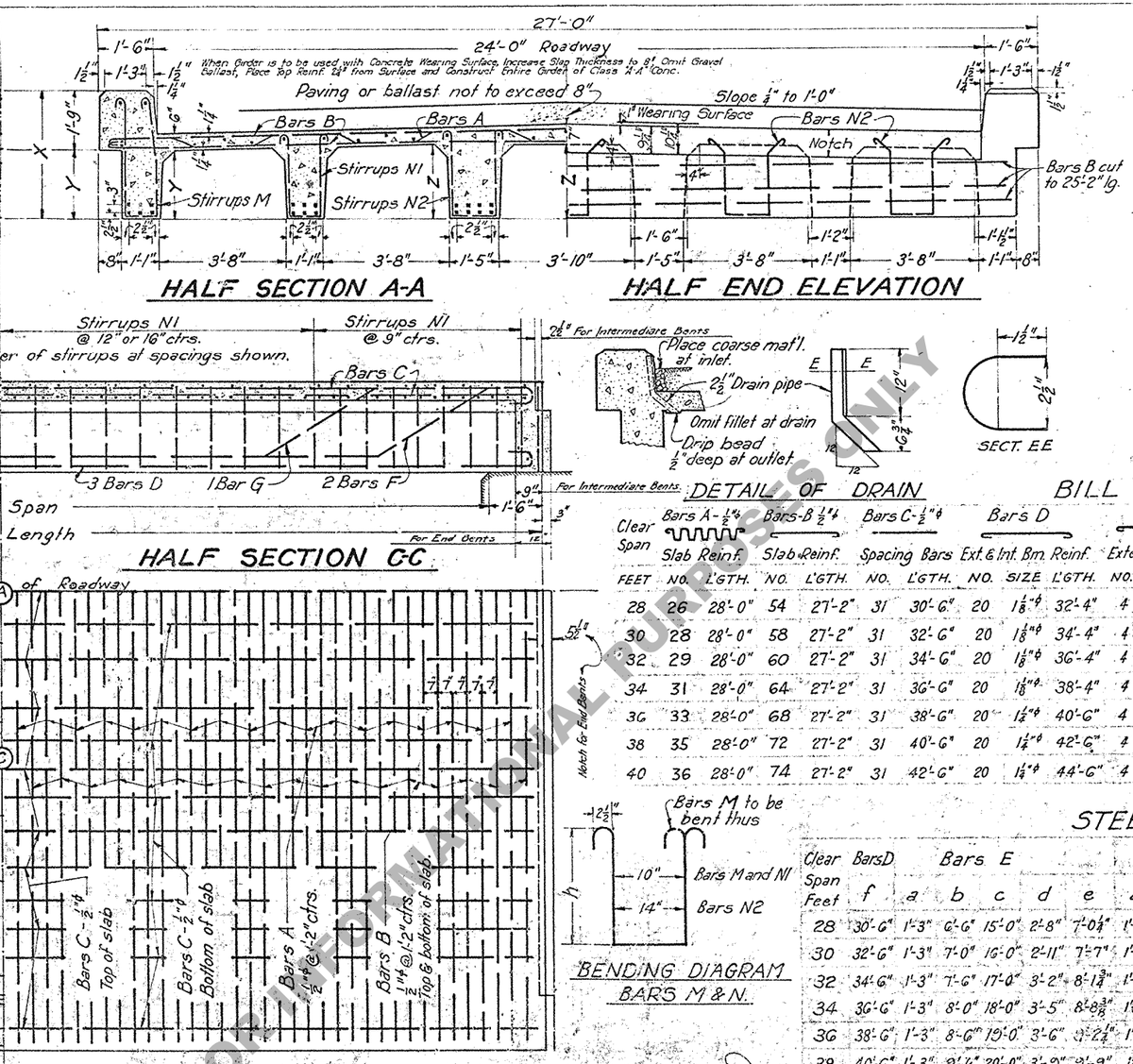

DIMENSIONS & QUANTITIES

Clear Span Feet	Total Length Ft. In.	Dimensions X	Y	Z	Stirrup Spacing Exterior Bm. Stirrups M	Interior Bm. Stirrups N1	Interior Bm. Stirrups N2	Quantities - not including railing. Concrete Cu. yds.	Steel Lbs.
28	31'-0"	3'-5"	1'-8"	1'-10"	6 Spcs. @ 12" 12 " " 18" 6 " " 12"	8 Spcs. @ 9" 18 " " 12" 8 " " 9"	20 Spcs. @ 6" 10 " " 12" 20 " " 6" Add 3 for End Sp	37.7	8540
30	33'-0"	3'-8"	1'-11"	2'-1"	6 " " 12" 13 " " 18" 6 " " 12"	8 " " 9" 20 " " 12" 8 " " 9"	20 " " 6" 12 " " 12" 20 " " 6" Add 3 for End Sp	42.5	9580
32	35'-0"	3'-11"	2'-2"	2'-4"	6 " " 9" 14 " " 18" 6 " " 12"	8 " " 9" 22 " " 12" 8 " " 9"	20 " " 6" 14 " " 12" 20 " " 6" Add 3 for End Sp	47.6	10240
34	37'-0"	4'-2"	2'-5"	2'-7"	10 " " 12" 9 " " 21" 10 " " 12"	10 " " 9" 15 " " 16" 10 " " 9"	20 " " 6" 16 " " 12" 20 " " 6" Add 3 for End Sp	53.0	10850
36	39'-0"	4'-3"	2'-6"	2'-8"	10 " " 12" 10 " " 21" 10 " " 12"	10 " " 9" 17 " " 16" 10 " " 9"	20 " " 6" 18 " " 12" 20 " " 6" Add 3 for End Sp	56.6	13040
38	41'-0"	4'-6"	2'-9"	2'-11"	11 " " 12" 10 " " 21" 11 " " 12"	10 " " 9" 18 " " 16" 10 " " 9"	21 " " 6" 19 " " 12" 21 " " 6" Add 11 for End Sp	62.5	13810
40	43'-0"	4'-9"	3'-0"	3'-2"	11 " " 12" 11 " " 21" 11 " " 12"	10 " " 9" 20 " " 16" 10 " " 9"	22 " " 6" 20 " " 12" 22 " " 6" Add 12 for End Sp	68.6	14600

Note: When Girder is to be used with Concrete Wearing Surface, add 0.0704 Cu. Yds Conc. per lin. ft of Bridge to Quantities shown in Table.

BILL OF STEEL

Clear Span Feet	Bars A - 1/2" φ Slab Reinf. No.	L'GTH.	Bars B - 1/2" φ Slab Reinf. No.	L'GTH.	Bars C - 1/2" φ Spacing No.	L'GTH.	Bars D Ext. & Int. Bm. Reinf. No.	SIZE	L'GTH.	Bars E Exterior Bm. Reinf. No.	SIZE	L'GTH.	Bars F Interior Bm. Reinf. No.	SIZE	L'GTH.	Bars G Interior Bm. Reinf. No.	SIZE	L'GTH.	Bars M - 1/2" φ Stirrups-Ext. Bm. No.	L'GTH.	Bars N - 1/2" φ Stirrups-Int. Bm. No.	L'GTH.
28	26	28'-0"	54	27'-2"	31	30'-6"	20	1 1/8" φ	32'-4"	4	1 1/8" φ	33'-4"	8	1 1/8" φ	33'-2"	6	1 1/8" φ	33'-2"	50	7'-10"	70 112	5'-8" 6'-2"
30	28	28'-0"	58	27'-2"	31	32'-6"	20	1 1/8" φ	34'-4"	4	1 1/8" φ	35'-6"	8	1 1/8" φ	35'-4"	6	1 1/8" φ	35'-4"	52	8'-4"	74 116	6'-2" 6'-8"
32	29	28'-0"	60	27'-2"	31	34'-6"	20	1 1/8" φ	36'-4"	4	1 1/8" φ	37'-8"	8	1 1/8" φ	37'-6"	6	1 1/8" φ	37'-6"	54	8'-10"	78 120	6'-8" 7'-2"
34	31	28'-0"	64	27'-2"	31	36'-6"	20	1 1/8" φ	38'-4"	4	1 1/8" φ	39'-10"	8	1 1/8" φ	39'-8"	6	1 1/8" φ	39'-8"	60	9'-4"	72 124	7'-2" 7'-8"
36	33	28'-0"	68	27'-2"	31	38'-6"	20	1 1/4" φ	40'-6"	4	1 1/4" φ	42'-0"	8	1 1/4" φ	41'-10"	6	1 1/4" φ	41'-10"	62	9'-6"	76 128	7'-8" 7'-10"
38	35	28'-0"	72	27'-2"	31	40'-6"	20	1 1/4" φ	42'-6"	4	1 1/4" φ	44'-0"	8	1 1/4" φ	44'-0"	6	1 1/4" φ	44'-0"	66	10'-0"	78 134	7'-10" 8'-4"
40	36	28'-0"	74	27'-2"	31	42'-6"	20	1 1/4" φ	44'-6"	4	1 1/4" φ	46'-3"	8	1 1/4" φ	46'-3"	6	1 1/4" φ	46'-3"	68	10'-6"	82 140	8'-4" 8'-10"

STEEL BENDING TABLE

Check

Clear Span Feet	Bars D f	Bars E a	b	c	d	e	Bars F a	b	c	d	e	Bars G a	b	c	d	e	Bars M h	Bars N1 h	Bars N2 h
28	30'-6"	1'-3"	6'-6"	15'-0"	2'-8"	7'-0 1/4"	1'-3"	3'-3"	21'-6"	1'-7"	3'-7 3/8"	4'-6"	3'-3"	15'-0"	1'-7"	3'-7 3/8"	3'-1"	2'-0"	2'-1"
30	32'-6"	1'-3"	7'-0"	16'-0"	2'-11"	7'-7"	1'-3"	3'-6"	23'-0"	1'-10"	3'-11 3/8"	4'-9"	3'-6"	16'-0"	1'-10"	3'-11 3/8"	3'-4"	2'-3"	2'-4"
32	34'-6"	1'-3"	7'-6"	17'-0"	3'-2"	8'-1 1/4"	1'-3"	3'-9"	24'-6"	2'-1"	4'-3 1/2"	5'-0"	3'-9"	17'-0"	2'-1"	4'-3 1/2"	3'-7"	2'-6"	2'-7"
34	36'-6"	1'-3"	8'-0"	18'-0"	3'-5"	8'-8 3/8"	1'-3"	4'-0"	26'-0"	2'-4"	4'-7 5/8"	5'-3"	4'-0"	18'-0"	2'-4"	4'-7 5/8"	3'-10"	2'-9"	2'-10"
36	38'-6"	1'-3"	8'-6"	19'-0"	3'-6"	9'-2 1/4"	1'-3"	4'-3"	27'-6"	2'-5"	4'-10 5/8"	5'-6"	4'-3"	19'-0"	2'-5"	4'-10 5/8"	3'-11"	2'-10"	2'-11"
38	40'-6"	1'-3"	9'-0"	20'-0"	3'-9"	9'-9"	1'-3"	4'-6"	29'-0"	2'-8"	5'-2 3/4"	5'-9"	4'-6"	20'-0"	2'-8"	5'-2 3/4"	4'-2"	3'-1"	3'-2"
40	42'-6"	1'-3"	9'-6"	21'-0"	4'-0"	10'-3 3/4"	1'-3"	4'-9"	30'-6"	2'-11"	5'-6 3/8"	6'-0"	4'-9"	21'-0"	2'-11"	5'-6 3/8"	4'-5"	3'-4"	3'-5"

GENERAL NOTES & DESIGN DATA.

Specifications	La. Highway Comm.
Concentrated load	Typical 15 ton truck.
Impact allowance	30 per cent.
Paving or ballast	Not to exceed 80 lbs. per sq. ft.
Steel in tension	16000 " " sq. in.
Concrete in compression	650 " " " "
Reinforced concrete in shear	110 " " " "

The table is based on the net area of bars as follows.

3/8" φ = 0.1406 sq. in.	1/2" φ = 0.25 sq. in.
1 1/8" φ = 1.2656 " "	1 1/4" φ = 1.5625 " "
1/2" φ = .1963	

Concrete to be a 1:2:4 mixture.
Maximum size of aggregate - 1 1/2".
All reinforcing steel shall be deformed bars (Square twisted bars not to be considered as deformed.)
All dimensions relating to reinforcement are to centers of bars.
Where splicing of reinforcement is necessary, bars are to be lapped 40 diameters.
All exposed corners (except as indicated) to be chamfered thus:
Railings designed to suit local conditions to be placed on curbs where necessary, and provision made therefor when pouring curb. For type of railing see detail.
Curbs, slab and beam-stems must be poured at the same time, allowing no time for initial set to take place between them.

	Concrete	Steel
One End Post	0.18 cu. yd.	10.0 Lbs.
One Intermediate Post	0.13 "	10.0 "
Railing per lin. ft. of Rail (2 sides)	0.045 "	13.5 "

Revised Sept. 1929
Revised Jan. 1930

CONCRETE DECK GIRDER SPANS
SPANS 28' TO 40'
24' ROADWAY
LOUISIANA HIGHWAY COMMISSION
BATON ROUGE, LA.
APRIL - 1925
TRACED FROM BUREAU PUBLIC ROADS DWG. # G-2G8

(B-2-108) C-6-22

FOR INFORMATIONAL PURPOSES ONLY