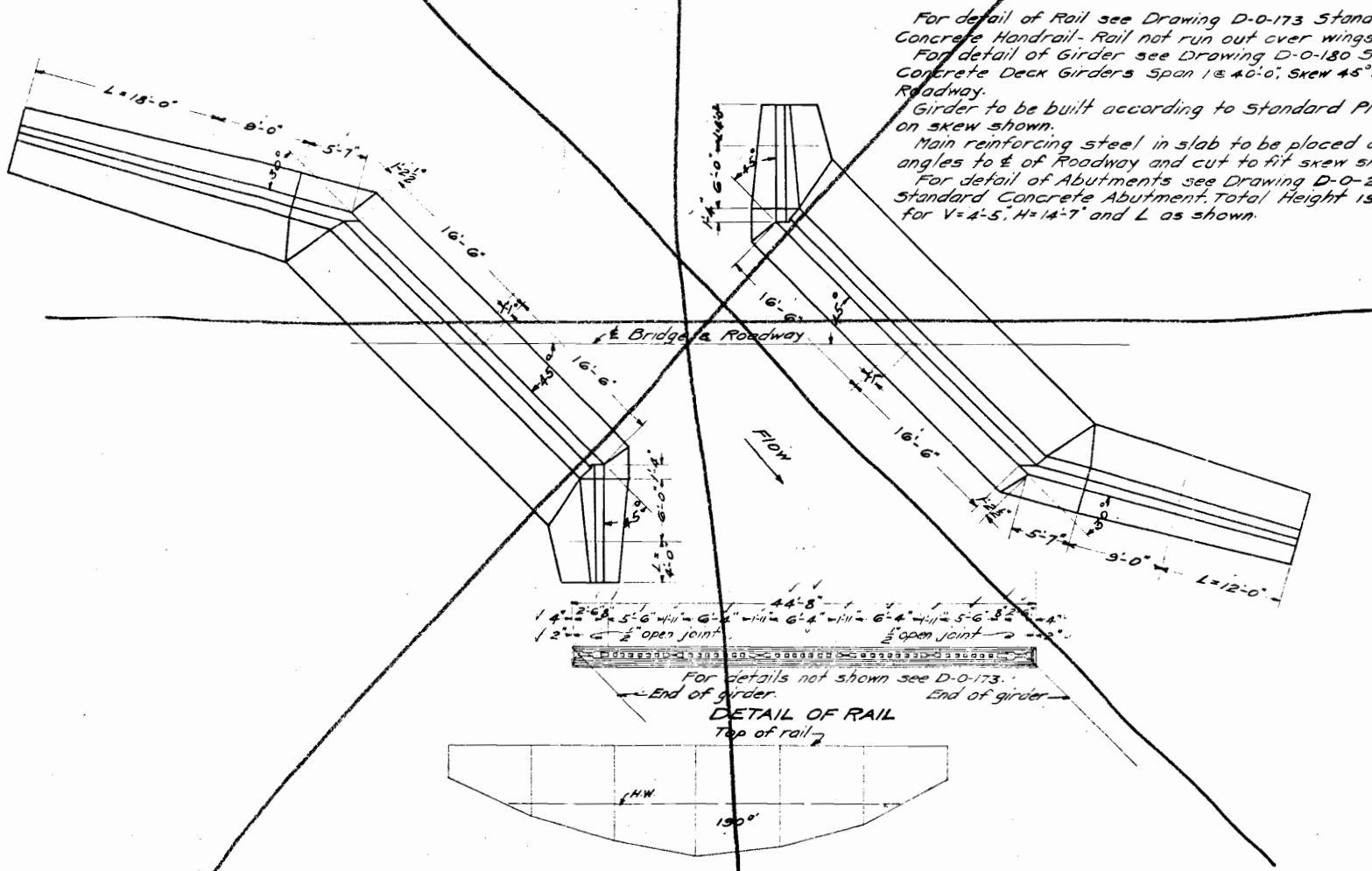


Note: Channel change to be made by roadway contractor.

Note: For details of rail see Drawing D-0-173. For details of girders see Drawing D-0-180, spans 2 @ 30'-0", roadway 20'-0". For details of abutments see Drawing D-0-81, x=3'-10", H=14'-2", L=11'-0" & 17'-0".



For detail of Rail see Drawing D-0-173 Standard Concrete Handrail - Rail not run out over wings.
 For detail of Girder see Drawing D-0-180 Standard Concrete Deck Girders Span 1 @ 40'-0", Skew 45° R, 20'-0" Roadway.
 Girder to be built according to Standard Plan but on skew shown.
 Main reinforcing steel in slab to be placed at right angles to E of Roadway and cut to fit skew shown.
 For detail of Abutments see Drawing D-0-231, Standard Concrete Abutment, Total Height 19'-0" for V=4'-5", H=14'-7" and L as shown.

For details not shown see D-0-173. End of girder.

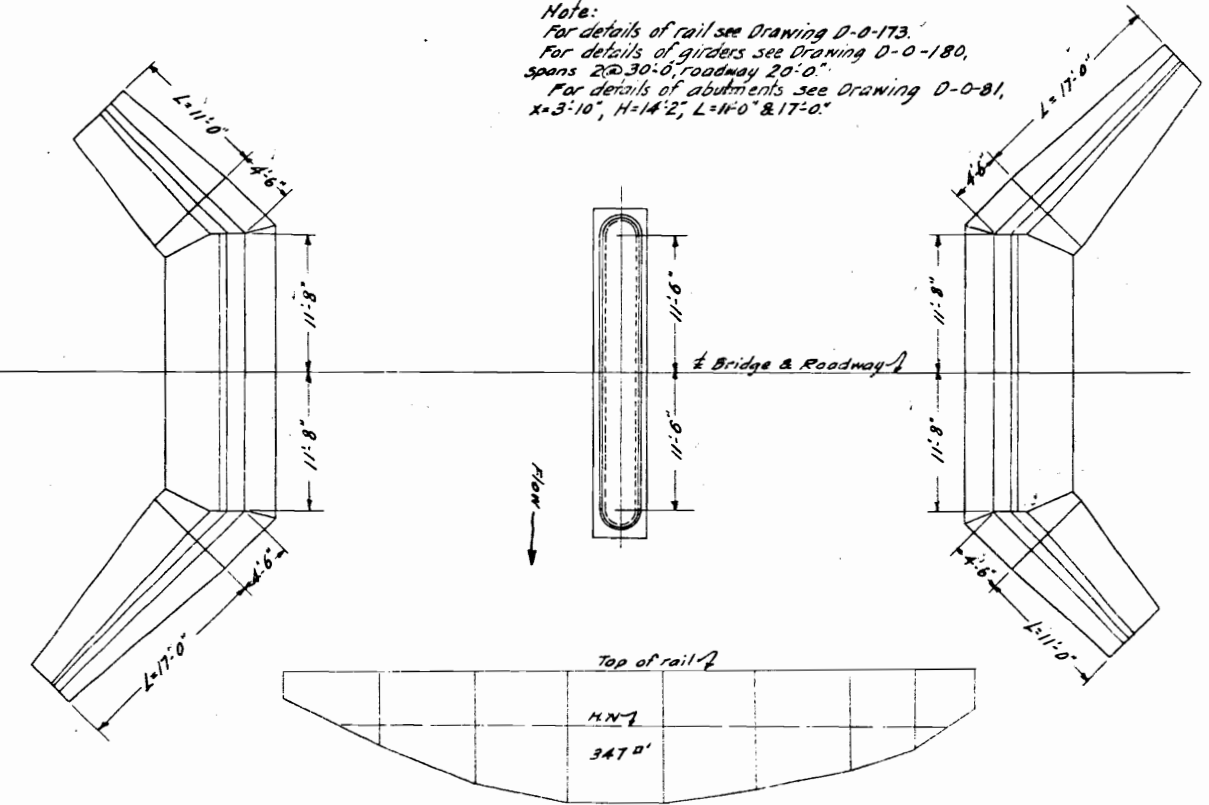
DETAIL OF RAIL
Top of rail

CROSS SECTION UNDER L & N R.R. BRIDGE, 300' LEFT
SCALE: 1"=10'

ESTIMATED QUANTITIES

ITEM	EXCAVATION		CONCRETE		STEEL
	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	REINF. LBS.
SUPERSTRUCTURE	237	190	636	62.12	12651
ABUTMENT NO. 1	189	180		100.30	7332
ABUTMENT NO. 2				95.99	6690
TOTAL	426	370	636	257.51	26373

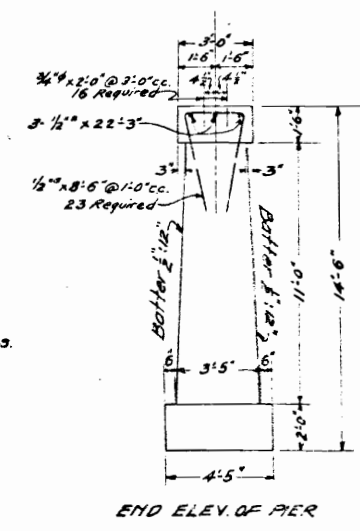
General Notes.
 Specifications: Standard Road & Bridge Specifications of the Tennessee Department of Highways.
 Concrete shall be 1:2 1/2:5 mixture; coarse aggregate 1/2" to 2 1/2" - piers only.
 Reinforcing steel shall be deformed bars of structural steel grade made by the O.H. process.
 Forms: See Specifications.
 Finish: See Specifications.
 Channel change to be made by roadway contractor.



CROSS SECTION UNDER L & N BRIDGE, 300 FT. LEFT
Scale 1"=10'

ESTIMATED QUANTITIES

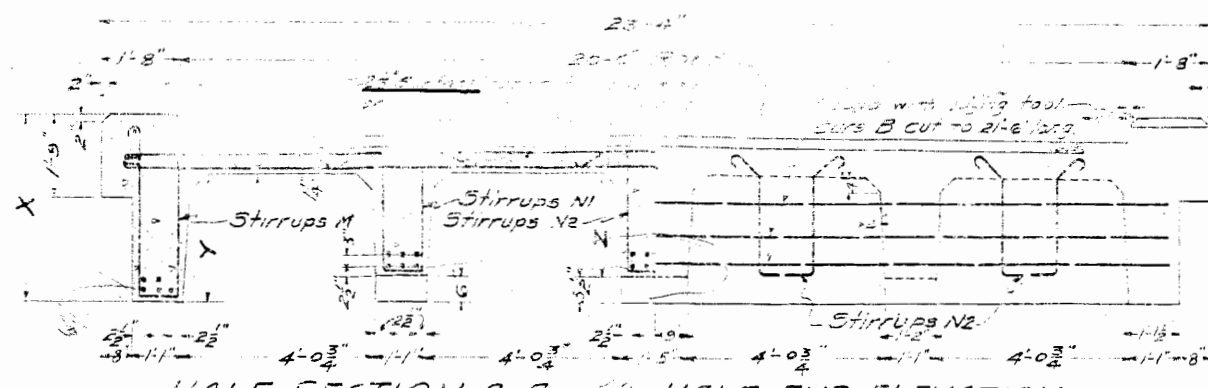
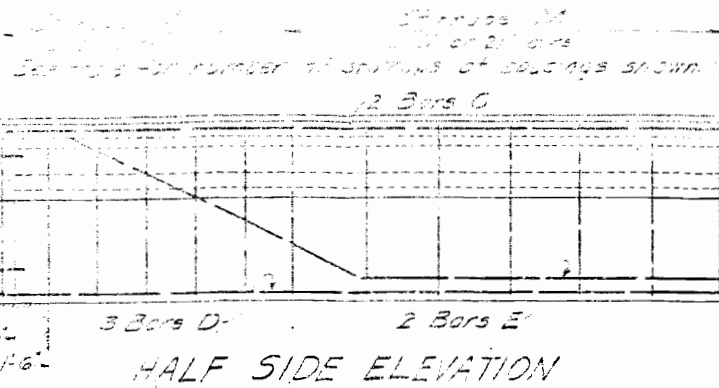
ITEM	EXCAVATION		CONCRETE		STEEL
	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	REINF. LBS.
SUPERSTRUCTURE	10.49	7.75	12.3	12.5	16351
ABUTMENT NO. 1	150	170		62.32	4089
PIER	7	4.8		43.49	271
ABUTMENT NO. 2	77	170		62.32	4089
TOTALS	234	388	10.49	282.9	4349



END ELEV. OF PIER

STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS
 AND PUBLIC WORKS
 NASHVILLE
LAYOUT OF BRIDGES
 AT
 STA. 750+02 AND 789+40
 ON
 STATE HIGHWAY NO. 1.
 HAYWOOD CO.
 1923
 CORRECT: *L. H. ...*
 APPLIED: *L. H. ...*
 ASST. STATE HIGHWAY ENGINEER

DESIGNED BY *L. H. ...* DATE 8-10-23
 DRAWN BY *L. H. ...* DATE 9-15-23
 TRACED BY *L. H. ...* DATE 2-15-23
 CHECKED BY *L. H. ...* DATE 4-17-23



CONCRETE IN 4 BLOCKS FOR END SPANS

Clear Span	Clear Span Feet	Quantity
28	28	0.27
30	30	0.31
32	32	0.35
34	34	0.35
36	36	0.38
38	38	0.42
40	40	0.46

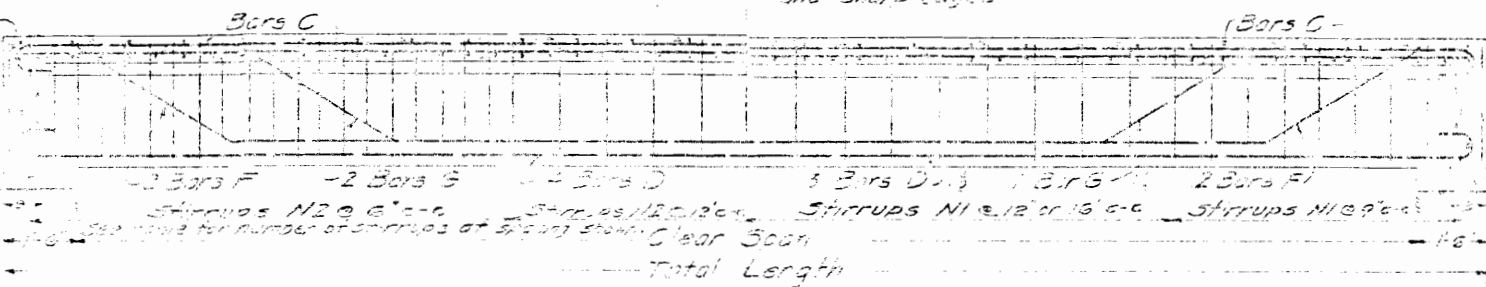
DIMENSIONS & QUANTITIES

Clear Span	Total Length	Dimensions			Stirrups Spacing			Quantity
		X	Y	Z	Stirrups M	Stirrups N1	Stirrups N2	
28	31'-0"	3'-7"	2'-4 1/2"	2'-0"	12"	12"	12"	3457 7461
30	33'-0"	3'-0"	2'-7 1/2"	2'-5"	12"	12"	12"	3867 8003
32	35'-0"	4'-1"	2'-10 1/2"	2'-6"	12"	12"	12"	4300 8521
34	37'-0"	4'-1"	2'-10 1/2"	2'-6"	12"	12"	12"	4591 9105
36	39'-0"	4'-4"	3'-1 1/2"	2'-9"	12"	12"	12"	4925 10796
38	41'-0"	4'-7"	3'-4 1/2"	3'-0"	12"	12"	12"	5483 11647
40	43'-0"	4'-10"	3'-7 1/2"	3'-3"	12"	12"	12"	5913 12658

NOTE: Line and grade of top of curb shall be checked immediately after the pouring of the curb has been completed and any irregularities adjusted at once.

Before the concrete receives its permanent set the top of the curb shall be struck to a true plane and all excess material removed. The curb adjacent to curbs shall be carefully troweled so as to secure true lines and sharp edges.

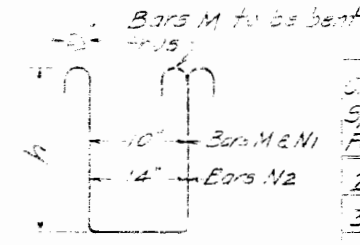
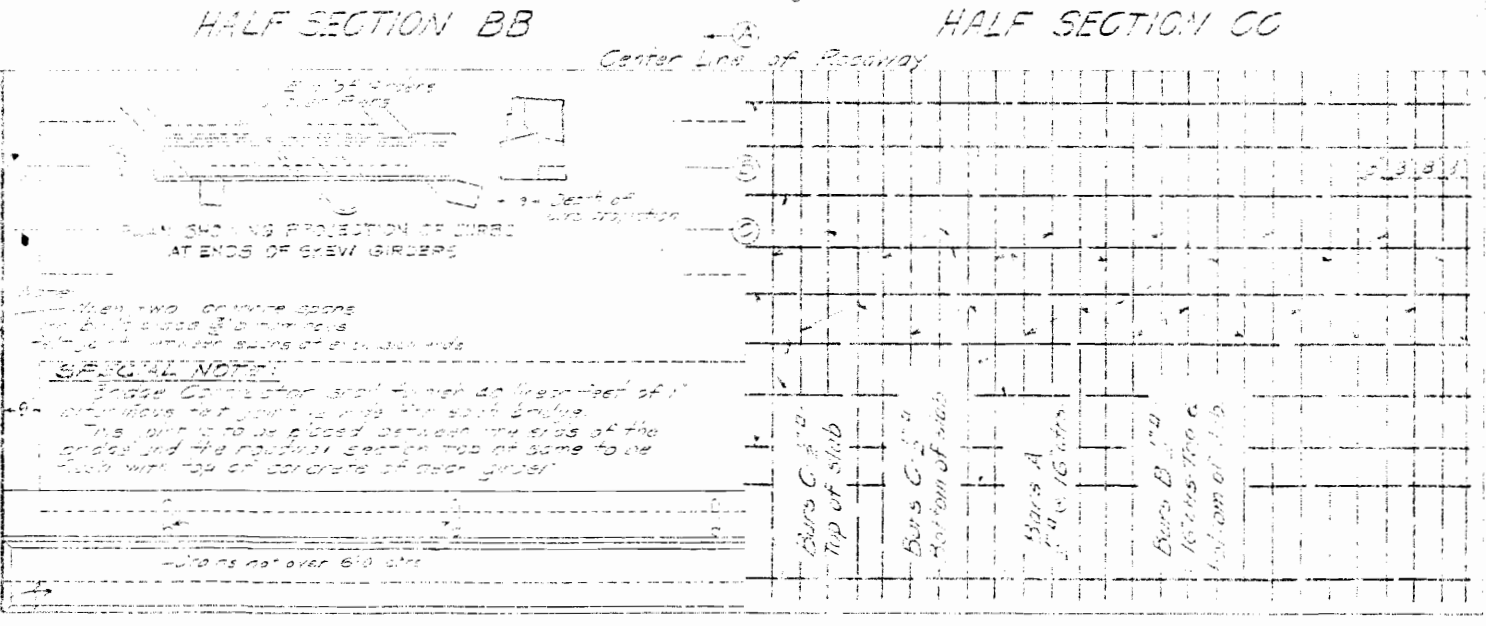
NOTE: The top of the driveway slab shall always be struck to template and when the wearing surface is of concrete such surface shall be covered at all times with material with the supporting slab and to the thickness indicated in addition to being struck to form the surface shall be finished with a wooden float and before completion shall be straight edged to a true straight edge so placed over the portion of the surface so as to bridge a depression shall not show the depression in excess of 1/8".



DETAIL OF ROADWAY DRAIN

BILL OF STEEL

Clear Span	Bars A-3		Bars B-3		Bars C-3		Bars D		Bars E		Bars F		Bars G		Bars M-3		Bars N-3	
	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.
28	23	24'-1"	52	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	50	5'-8"	
30	24	24'-4"	56	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	52	5'-8"	
32	26	24'-1"	53	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	54	5'-8"	
34	27	24'-1"	62	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	60	5'-8"	
36	29	24'-4"	64	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	62	5'-8"	
38	30	24'-4"	68	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	63	5'-8"	
40	32	24'-1"	70	23'-8"	26	32'-3"	16	18"	32'-4"	4	5"	33'-5"	6	10"	33'-3"	68	5'-8"	



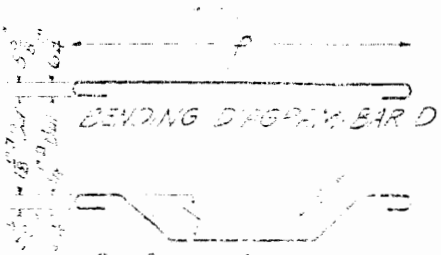
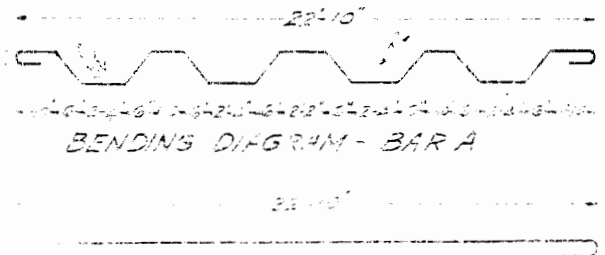
STEEL BENDING TABLE

Clear Span	Bars E					Bars F					Bars G					Bars M		Bars N	
	f	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e	n	h	
28	30'-6"	1'-3"	6'-6"	15'-0"	2'-10"	7'-1 1/8"	1'-3"	3'-3"	2'-6"	1'-3"	3'-8 1/2"	4'-6"	3'-3"	13'-0"	1'-9"	3'-3 1/2"	3'-3"	2'-2"	2'-5"
30	32'-3"	1'-3"	7'-0"	16'-0"	3'-1"	7'-7 1/2"	1'-3"	3'-6"	2'-6"	1'-3"	4'-0"	4'-0"	3'-6"	14'-0"	2'-0"	4'-0 1/2"	3'-6"	2'-5"	2'-6"
32	34'-6"	1'-3"	7'-6"	17'-0"	3'-4"	8'-2 1/2"	1'-3"	3'-9"	2'-6"	1'-3"	4'-4 1/2"	5'-0"	3'-9"	17'-0"	2'-2"	4'-4 1/2"	3'-9"	2'-8"	2'-9"
34	36'-6"	1'-3"	8'-0"	18'-0"	3'-4"	8'-8"	1'-3"	4'-3"	2'-6"	1'-3"	4'-7 1/2"	5'-3"	4'-0"	18'-0"	2'-3"	4'-7 1/2"	3'-9"	2'-8"	2'-9"
36	38'-6"	1'-3"	8'-6"	19'-0"	3'-7"	9'-2 1/2"	1'-3"	4'-3"	2'-6"	1'-3"	5'-0"	5'-6"	4'-3"	19'-0"	2'-5"	4'-10 1/2"	4'-0"	2'-11"	3'-0"
38	40'-6"	1'-3"	9'-0"	20'-0"	3'-0"	9'-10 1/2"	1'-3"	4'-6"	2'-6"	1'-3"	5'-3 1/2"	5'-9"	4'-6"	20'-0"	2'-9"	5'-3 1/2"	4'-3"	3'-2"	3'-3"
40	42'-0"	1'-3"	9'-6"	24'-0"	4'-1"	10'-2 1/2"	1'-3"	4'-9"	2'-6"	1'-3"	5'-9"	5'-9"	4'-9"	21'-0"	3'-0"	5'-9 1/2"	4'-6"	3'-5"	3'-6"

GENERAL NOTES & DESIGN DATA

Specifications: Tennessee Highway Department
 Concentrated load - Typ. 15 ton truck
 Impact allowance - 30 per cent
 Paving or ballast - Not to exceed 80 lbs per sq ft
 Steel in tension - 43000 sq in.
 Concrete in compression - 2500
 Reinforced concrete in shear - 110
 Tensile strength of steel bars in 1/4" dia. - 60,000
 1/2" = 0.25 sq in. 3/4" = 0.36 sq in. 1" = 0.78 sq in.

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 run to corners and as deformed)
 All dimensions relating to reinforcement are to centers of bars
 Where spacing of reinforcement is necessary, bars are to be spaced as indicated
 No bars to be bent at 90 degrees
 Square twisted bars shall be used in all cases



STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS
 NASHVILLE
 STANDARD
 CONCRETE DICK GIRDER BRIDGE