

LOAD AND RESISTANCE FACTOR RATING (LRFD) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING	MINIMUM RATING FACTORS (RF)	TONS = W X RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE					COMMENT NUMBER			
						MOMENT					SHEAR					MOMENT								
						LIVELOAD FACTORS	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	LIVELOAD FACTORS	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	1	1.109	--	1.75	0.272	1.47	B	EL	44.25	0.493	1.26	B	EL	4.425	0.80	0.272	1.11	B	EL	44.25		
	HL-93(Opr)	N/A	--	1.633	--	1.35	0.272	1.9	B	EL	44.25	0.493	1.63	B	EL	4.425	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.507	54.255	1.75	0.272	1.99	B	EL	44.25	0.493	1.65	B	EL	4.425	0.80	0.272	1.51	B	EL	44.25		
	HS-20(Opr)	36.000	--	2.14	77.039	1.35	0.272	2.59	B	EL	44.25	0.493	2.14	B	EL	4.425	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.519	47.501	1.4	0.272	5.82	B	EL	44.25	0.493	5.05	B	EL	4.425	0.80	0.272	3.52	B	EL	44.25	
		SNGARBS2	20.000	--	2.572	51.43	1.4	0.272	4.25	B	EL	44.25	0.493	3.55	B	EL	4.425	0.80	0.272	2.57	B	EL	44.25	
		SNAGRIS2	22.000	--	2.415	53.122	1.4	0.272	4	B	EL	44.25	0.493	3.27	B	EL	4.425	0.80	0.272	2.41	B	EL	44.25	
		SNCOTTS3	27.250	--	1.749	47.674	1.4	0.272	2.89	B	EL	44.25	0.493	2.52	B	EL	4.425	0.80	0.272	1.75	B	EL	44.25	
		SNAGGRS4	34.925	--	1.443	50.381	1.4	0.272	2.39	B	EL	44.25	0.493	2.06	B	EL	4.425	0.80	0.272	1.44	B	EL	44.25	
		SNS5A	35.550	--	1.412	50.195	1.4	0.272	2.34	B	EL	44.25	0.493	2.07	B	EL	4.425	0.80	0.272	1.41	B	EL	44.25	
		SNS6A	39.950	--	1.287	51.435	1.4	0.272	2.13	B	EL	44.25	0.493	1.88	B	EL	4.425	0.80	0.272	1.29	B	EL	44.25	
	SNS7B	42.000	--	1.226	51.483	1.4	0.272	2.03	B	EL	44.25	0.493	1.83	B	EL	4.425	0.80	0.272	1.23	B	EL	44.25		
	TTST	TNAGRIT3	33.000	--	1.568	51.733	1.4	0.272	2.59	B	EL	44.25	0.493	2.24	B	EL	4.425	0.80	0.272	1.57	B	EL	44.25	
		TNT4A	33.075	--	1.572	52.007	1.4	0.272	2.6	B	EL	44.25	0.493	2.2	B	EL	4.425	0.80	0.272	1.57	B	EL	44.25	
		TNT6A	41.600	--	1.278	53.17	1.4	0.272	2.11	B	EL	44.25	0.493	1.92	B	EL	4.425	0.80	0.272	1.28	B	EL	44.25	
		TNT7A	42.000	--	1.281	53.782	1.4	0.272	2.12	B	EL	44.25	0.493	1.89	B	EL	4.425	0.80	0.272	1.28	B	EL	44.25	
		TNT7B	42.000	--	1.315	55.229	1.4	0.272	2.18	B	EL	44.25	0.493	1.79	B	EL	4.425	0.80	0.272	1.31	B	EL	44.25	
		TNAGRIT4	43.000	--	1.258	54.101	1.4	0.272	2.08	B	EL	44.25	0.493	1.74	B	EL	4.425	0.80	0.272	1.26	B	EL	44.25	
TNAGT5A		45.000	--	1.19	53.537	1.4	0.272	1.97	B	EL	44.25	0.493	1.71	B	EL	4.425	0.80	0.272	1.19	B	EL	44.25		
TNAGT5B	45.000	3	1.178	53.027	1.4	0.272	1.95	B	EL	44.25	0.493	1.66	B	EL	4.425	0.80	0.272	1.18	B	EL	44.25			

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ_{DC}	γ_{DW}
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

NOTES:

MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

CONTROLLING LOAD RATING

1 DESIGN LOAD RATING (HL-93)

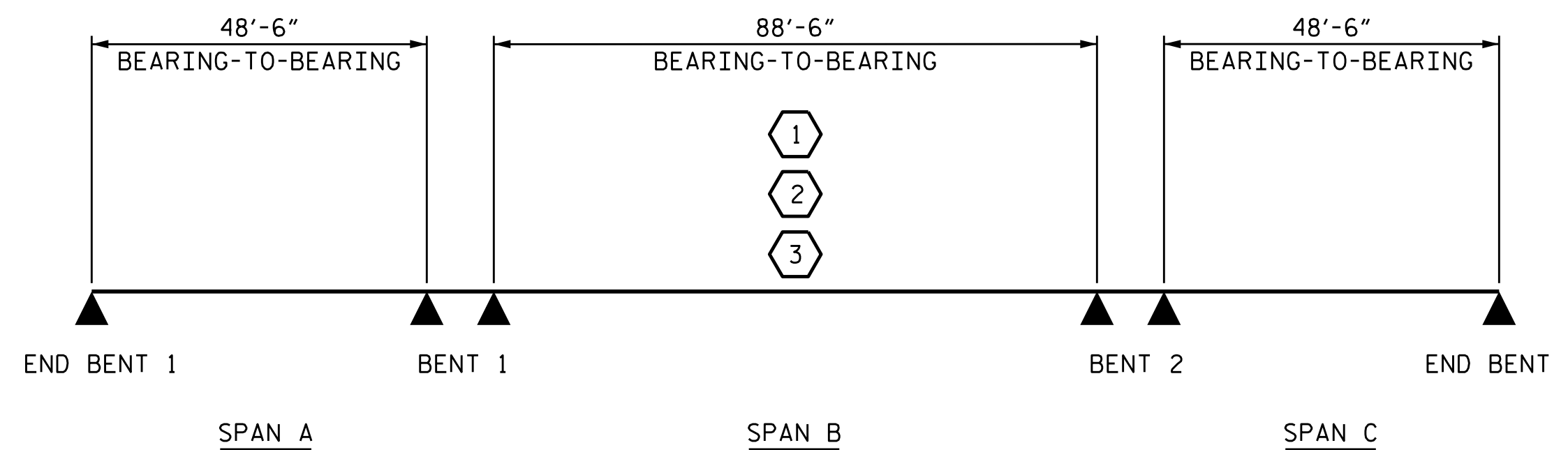
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING ***

*** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER



PROJECT NO. B-5398
BURKE COUNTY
STATION: 16+45.00 -L-

LRFR SUMMARY

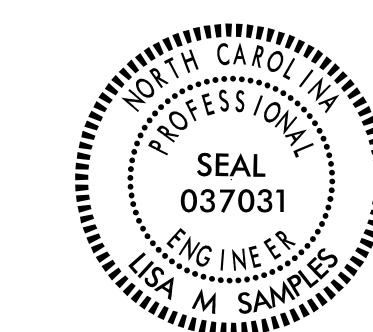
ASSEMBLED BY : J.M. KEPICH DATE : 02/16
CHECKED BY : L.M. SAMPLES DATE : 04/16

DRAWN BY : TMG II/II
CHECKED BY : AAC II/II

DESIGN ENGINEER OF RECORD : L.M. SAMPLES DATE : 05/16

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Lisa M. Samples
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7/4/2016



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
LRFR SUMMARY FOR
PRESTRESSED
CONCRETE GIRDERS
(NON-INTERSTATE TRAFFIC)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-04
1			3			TOTAL SHEETS
2			4			24