

LOAD AND RESISTANCE FACTOR RATING (LRFR) 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	1.035	--	1.75	0.272	1.26	B	EL	49.25	0.489	1.34	B	EL	4.925	0.80	0.272	1.04	B	EL	49.25		
	HL-93(0pr)	N/A	--	1.633	--	1.35	0.272	1.63	B	EL	49.25	0.489	1.73	B	EL	4.925	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.44	51.84	1.75	0.272	1.75	B	EL	49.25	0.489	1.81	B	EL	4.925	0.80	0.272	1.44	B	EL	49.25		
	HS-20(0pr)	36.000	--	2.271	81.756	1.35	0.272	2.27	B	EL	49.25	0.489	2.35	B	EL	4.925	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.413	46.079	1.4	0.272	5.19	B	EL	49.25	0.489	5.59	B	EL	4.925	0.80	0.272	3.41	B	EL	49.25	
		SNGARBS2	20.000	--	2.473	49.452	1.4	0.272	3.76	B	EL	49.25	0.489	3.91	B	EL	4.925	0.80	0.272	2.47	B	EL	49.25	
		SNAGRIS2	22.000	--	2.313	50.885	1.4	0.272	3.52	B	EL	49.25	0.489	3.6	B	EL	4.925	0.80	0.272	2.31	B	EL	49.25	
		SNCOTTS3	27.250	--	1.696	46.228	1.4	0.272	2.58	B	EL	49.25	0.489	2.78	B	EL	4.925	0.80	0.272	1.70	B	EL	49.25	
		SNAGGRS4	34.925	--	1.39	48.556	1.4	0.272	2.11	B	EL	49.25	0.489	2.26	B	EL	4.925	0.80	0.272	1.39	B	EL	49.25	
		SNS5A	35.550	--	1.361	48.398	1.4	0.272	2.07	B	EL	49.25	0.489	2.27	B	EL	4.925	0.80	0.272	1.36	B	EL	49.25	
		SNS6A	39.950	--	1.238	49.456	1.4	0.272	1.88	B	EL	49.25	0.489	2.05	B	EL	4.925	0.80	0.272	1.24	B	EL	49.25	
	SNS7B	42.000	--	1.178	49.496	1.4	0.272	1.79	B	EL	49.25	0.489	2	B	EL	4.925	0.80	0.272	1.18	B	EL	49.25		
	TTST	TNAGRIT3	33.000	--	1.506	49.709	1.4	0.272	2.29	B	EL	49.25	0.489	2.46	B	EL	4.925	0.80	0.272	1.51	B	EL	49.25	
		TNT4A	33.075	--	1.51	49.942	1.4	0.272	2.3	B	EL	49.25	0.489	2.41	B	EL	4.925	0.80	0.272	1.51	B	EL	49.25	
		TNT6A	41.600	--	1.224	50.926	1.4	0.272	1.86	B	EL	49.25	0.489	2.09	B	EL	4.925	0.80	0.272	1.22	B	EL	49.25	
		TNT7A	42.000	--	1.225	51.442	1.4	0.272	1.86	B	EL	49.25	0.489	2.05	B	EL	4.925	0.80	0.272	1.22	B	EL	49.25	
		TNT7B	42.000	--	1.254	52.657	1.4	0.272	1.91	B	EL	49.25	0.489	1.96	B	EL	4.925	0.80	0.272	1.25	B	EL	49.25	
		TNAGRIT4	43.000	--	1.203	51.711	1.4	0.272	1.83	B	EL	49.25	0.489	1.91	B	EL	4.925	0.80	0.272	1.20	B	EL	49.25	
TNAGT5A		45.000	--	1.139	51.236	1.4	0.272	1.73	B	EL	49.25	0.489	1.87	B	EL	4.925	0.80	0.272	1.14	B	EL	49.25		
TNAGT5B	45.000	3	1.129	50.805	1.4	0.272	1.72	B	EL	49.25	0.489	1.82	B	EL	4.925	0.80	0.272	1.13	B	EL	49.25			

LOAD FACTORS:

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

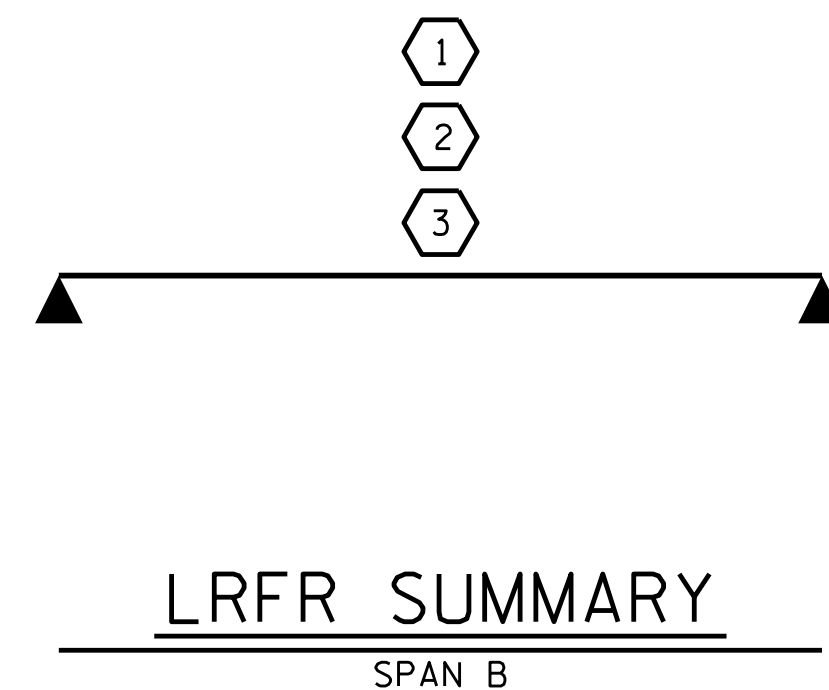
NOTES:

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.

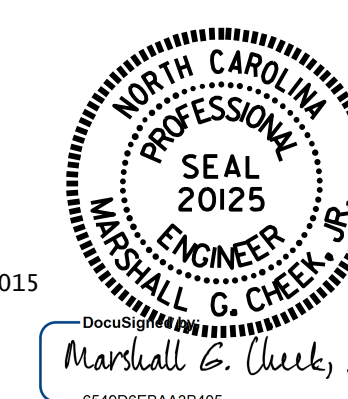
COMMENTS:

- 1.
- 2.
- 3.
- 4.

#	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-5341
ROCKINGHAM COUNTY
STATION: 16+43.00 -L-



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD LRFR SUMMARY FOR 100' BOX BEAM UNIT 90° SKEW (NON-INTERSTATE TRAFFIC)					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO. S-4					TOTAL SHEETS 23

ASSEMBLED BY : B.N. GRADY DATE : 7/15
CHECKED BY : M.G. CHEEK DATE : 8/15
DRAWN BY : TMG II/II
CHECKED BY : AAC II/II

10/22/2015