

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 (VLL)	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 (VLL)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	1	1.13	--	1.75	0.807	1.20	A	5	62.709	0.845	1.19	B	5	127.131	0.80	0.807	1.13	A	5	62.709		
	HL-93(Opr)	N/A	--	1.54	--	1.35	0.807	1.55	A	5	62.709	0.845	1.54	B	5	127.131	N/A	--	--	--	--	--		
	HS-20(Inv)	36.00	2	1.67	59.95	1.75	0.807	1.77	A	5	62.709	0.845	1.74	B	5	127.131	0.80	0.807	1.67	A	5	62.709		
	HS-20(Opr)	36.00	--	2.26	81.25	1.35	0.807	2.30	A	5	62.709	0.845	2.26	B	5	127.131	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.50	--	4.06	54.78	1.40	0.807	5.40	A	5	62.709	0.845	5.49	B	5	127.131	0.80	0.807	4.06	A	5	62.709	
		SNGARBS2	20.00	--	2.89	57.84	1.40	0.807	3.85	A	5	62.709	0.845	3.80	B	5	127.131	0.80	0.807	2.89	A	5	62.709	
		SNAGRIS2	22.00	--	2.69	59.11	1.40	0.807	3.57	A	5	62.709	0.845	3.49	B	5	127.131	0.80	0.807	2.69	A	5	62.709	
		SNCOTTS3	27.25	--	2.02	54.92	1.40	0.807	2.68	A	5	62.709	0.845	2.73	B	5	127.131	0.80	0.807	2.02	A	5	62.709	
		SNAGGRS4	34.93	--	1.63	57.04	1.40	0.807	2.17	A	5	62.709	0.845	2.20	B	5	127.131	0.80	0.807	1.63	A	5	62.709	
		SNS5A	35.55	--	1.60	56.89	1.40	0.807	2.13	A	5	62.709	0.845	2.19	B	5	127.131	0.80	0.807	1.60	A	5	62.709	
		SNS6A	39.95	--	1.45	57.84	1.40	0.807	1.93	A	5	62.709	0.845	1.97	B	5	127.131	0.80	0.807	1.45	A	5	62.709	
	SNS7B	42.00	--	1.38	57.88	1.40	0.807	1.83	A	5	62.709	0.845	1.90	B	5	127.131	0.80	0.807	1.38	A	5	62.709		
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.00	--	1.76	58.07	1.40	0.807	2.34	A	5	62.709	0.845	2.37	B	5	127.131	0.80	0.807	1.76	A	5	62.709	
		TNT4A	33.08	--	1.76	58.28	1.40	0.807	2.34	A	5	62.709	0.845	2.34	B	5	127.131	0.80	0.807	1.76	A	5	62.709	
		TNT6A	41.60	--	1.42	59.15	1.40	0.807	1.89	A	5	62.709	0.845	1.97	B	5	127.131	0.80	0.807	1.42	A	5	62.709	
		TNT7A	42.00	--	1.42	59.60	1.40	0.807	1.89	A	5	62.709	0.845	1.94	B	5	127.131	0.80	0.807	1.42	A	5	62.709	
		TNT7B	42.00	--	1.44	60.66	1.40	0.807	1.92	A	5	62.709	0.845	1.88	B	5	127.131	0.80	0.807	1.44	A	5	62.709	
		TNAGRIT4	43.00	--	1.39	59.84	1.40	0.807	1.85	A	5	62.709	0.845	1.83	B	5	127.131	0.80	0.807	1.39	A	5	62.709	
TNAGT5A		45.00	--	1.32	59.42	1.40	0.807	1.76	A	5	62.709	0.845	1.78	B	5	127.131	0.80	0.807	1.32	A	5	62.709		
TNAGT5B	45.00	3	1.31	59.04	1.40	0.807	1.75	A	5	62.709	0.845	1.75	B	5	127.131	0.80	0.807	1.31	A	5	62.709			
EV LOAD RATING	EV2	28.75	--	2.03	58.34	1.30	0.807	2.91	A	5	62.709	0.845	2.86	B	5	127.131	0.80	0.807	2.03	A	5	62.709		
	EV3	43.00	--	1.34	57.69	1.30	0.807	1.92	A	5	62.709	0.845	1.92	B	5	127.131	0.80	0.807	1.34	A	5	62.709		

LOAD FACTORS:

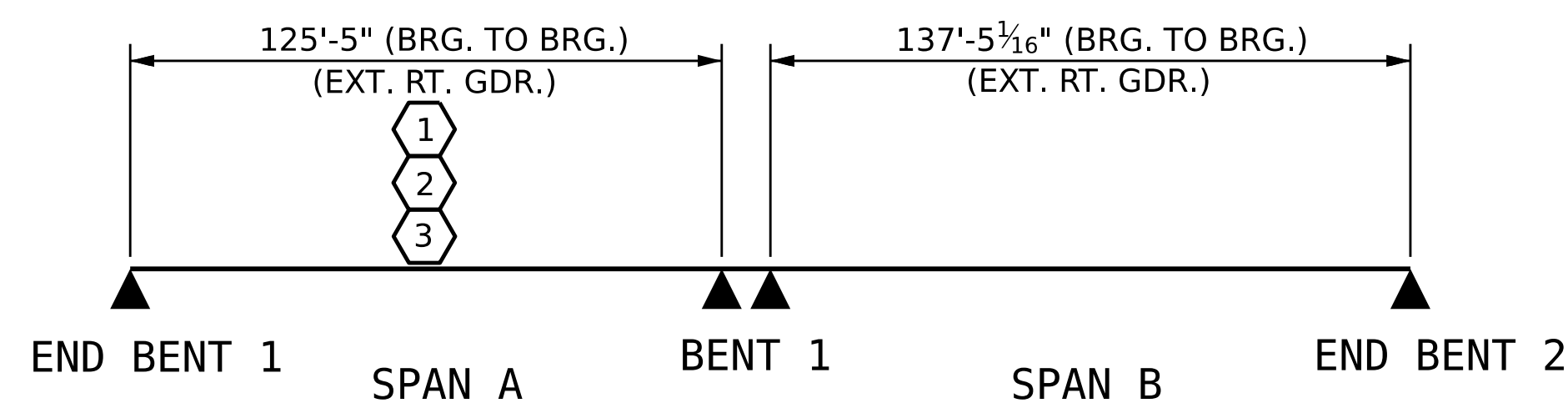
DESIGN LOAD RATING FACTORS	LIMIT STATE	γ_{DC}	γ_{DW}
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

NOTES:

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

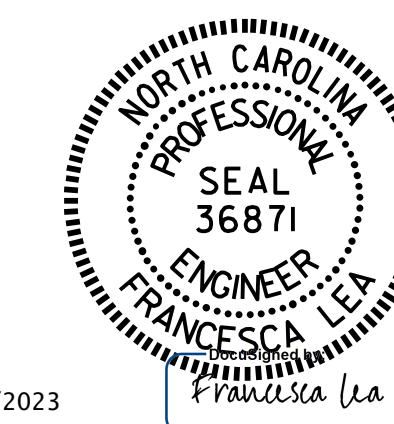
ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

#	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	
1	- INTERIOR GIRDER
1	- EXTERIOR LEFT GIRDER
5	- EXTERIOR RIGHT GIRDER



LRFR SUMMARY

PROJECT NO. B-5721
ROCKINGHAM COUNTY
 STATION: 21+64.00 -L-



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

ASSEMBLED BY: ZMALIK	DATE: 12/2022
CHECKED BY: F. LEA	DATE: 12/2022
DRAWN BY: MAA 1/08	REV. 11/12/08RR MAA/GM
CHECKED BY: GM/DI 2/08	REV. 10/1/11 MAA/GM

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-06
1			3			TOTAL SHEETS
2			4			31