

LOAD FACTORS:

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

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

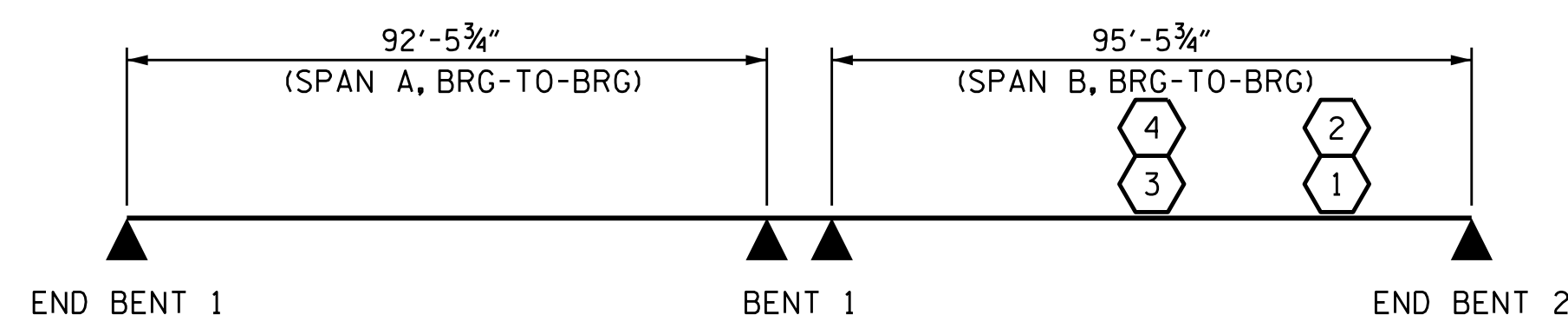
LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING (#)	MINIMUM RATING FACTORS (RF)	TONS = W X RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE					COMMENT NUMBER			
						LIVELOAD FACTORS (VLL)	MOMENT					SHEAR					LIVELOAD FACTORS (VLL)	MOMENT						
							DISTRIBUTION FACTORS (DF)	RATING 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)		DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inventory)	N/A	①	1.217	--	1.75	0.857	1.41	B	1	47.74	0.917	1.22	B	1	66.83	0.80	0.857	1.31	B	1	47.74		
	HL-93(Operating)	N/A	--	1.577	--	1.35	0.857	1.83	B	1	47.74	0.917	1.58	B	1	66.83	N/A	--	--	--	--	--		
	HS-20(Inventory)	36.00	②	1.523	54.834	1.75	0.857	1.95	B	1	47.74	0.917	1.52	B	1	66.83	0.80	0.857	1.81	B	1	47.74		
	HS-20(Operating)	36.00	--	1.974	71.081	1.35	0.857	2.53	B	1	47.74	0.917	1.97	B	1	66.83	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.50	--	4.269	57.633	1.40	0.857	5.75	B	1	47.74	0.917	4.54	B	1	66.83	0.80	0.857	4.27	B	1	47.74	
		SNGARBS2	20.00	--	3.100	62.003	1.40	0.857	4.18	B	1	47.74	0.917	3.23	B	1	66.83	0.80	0.857	3.10	B	1	47.74	
		SNAGRIS2	22.00	--	2.903	63.868	1.40	0.857	3.91	B	1	47.74	0.917	2.99	B	1	66.83	0.80	0.857	2.90	B	1	47.74	
		SNCOTTS3	27.25	--	2.122	57.825	1.40	0.857	2.86	B	1	47.74	0.917	2.27	B	1	66.83	0.80	0.857	2.12	B	1	47.74	
		SNAGGRS4	34.93	--	1.742	60.841	1.40	0.857	2.35	B	1	47.74	0.917	1.88	B	1	66.83	0.80	0.857	1.74	B	1	47.74	
		SNS5A	35.55	--	1.706	60.636	1.40	0.857	2.30	B	1	47.74	0.917	1.90	B	1	66.83	0.80	0.857	1.71	B	1	47.74	
		SNS6A	39.95	--	1.552	62.009	1.40	0.857	2.09	B	1	47.74	0.917	1.73	B	1	66.83	0.80	0.857	1.55	B	1	47.74	
		SNS7B	42.00	--	1.478	62.062	1.40	0.857	1.99	B	1	47.74	0.917	1.70	B	1	66.83	0.80	0.857	1.48	B	1	47.74	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.00	--	1.889	62.338	1.40	0.857	2.54	B	1	47.74	0.917	2.07	B	1	66.83	0.80	0.857	1.89	B	1	47.74	
		TNT4A	33.08	--	1.894	62.641	1.40	0.857	2.55	B	1	47.74	0.917	2.01	B	1	66.83	0.80	0.857	1.89	B	1	47.74	
		TNT6A	41.60	--	1.537	63.921	1.40	0.857	2.07	B	1	47.74	0.917	1.81	B	1	66.83	0.80	0.857	1.54	B	1	47.74	
		TNT7A	42.00	--	1.538	64.593	1.40	0.857	2.07	B	1	47.74	0.917	1.77	B	1	66.83	0.80	0.857	1.54	B	1	47.74	
		TNT7B	42.00	--	1.576	66.177	1.40	0.857	2.12	B	1	47.74	0.917	1.66	B	1	66.83	0.80	0.857	1.58	B	1	47.74	
		TNAGRIT4	43.00	--	1.510	64.943	1.40	0.857	2.03	B	1	47.74	0.917	1.61	B	1	66.83	0.80	0.857	1.51	B	1	47.74	
		TNAGT5A	45.00	--	1.429	64.324	1.40	0.857	1.93	B	1	47.74	0.917	1.60	B	1	66.83	0.80	0.857	1.43	B	1	47.74	
		TNAGT5B	45.00	③	1.417	63.764	1.40	0.857	1.91	B	1	47.74	0.917	1.53	B	1	66.83	0.80	0.857	1.42	B	1	47.74	
EV LOAD RATING	EV2	28.75	--	2.182	62.730	1.30	0.857	3.17	B	1	47.74	0.917	2.44	B	1	66.83	0.80	0.857	2.18	B	1	47.74		
	EV3	43.00	④	1.437	61.787	1.30	0.857	2.08	B	1	47.74	0.917	1.64	B	1	66.83	0.80	0.857	1.44	B	1	47.74		

NOTES:

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

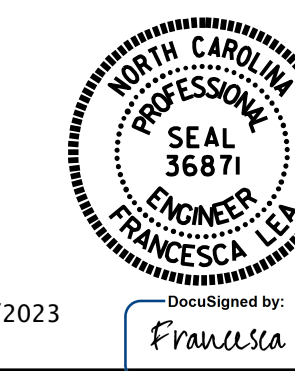
ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

#	CONTROLLING LOAD RATING
①	DESIGN LOAD RATING (HL-93)
②	DESIGN LOAD RATING (HS-20)
③	LEGAL LOAD RATING **
④	EMERGENCY VEHICLE RATING ***
** SEE CHART FOR VEHICLE TYPE	
GIRDER LOCATION	
I	- INTERIOR GIRDER
1	- EXTERIOR LEFT GIRDER



LRFR SUMMARY

PROJECT NO. BR-0095  
ROCKINGHAM COUNTY  
 STATION: 16+91.66 -L-



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:
1			3		
2			4		
TOTAL SHEETS					29

ASSEMBLED BY : N.S. HART	DATE : 08/2023
CHECKED BY : F. LEA	DATE : 08/2023
DRAWN BY : MAA 1/08	REV. 11/12/08RR MAA/GM
CHECKED BY : GM/DI 2/08	REV. 10/1/11 MAA/GM