

LOAD FACTORS:

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

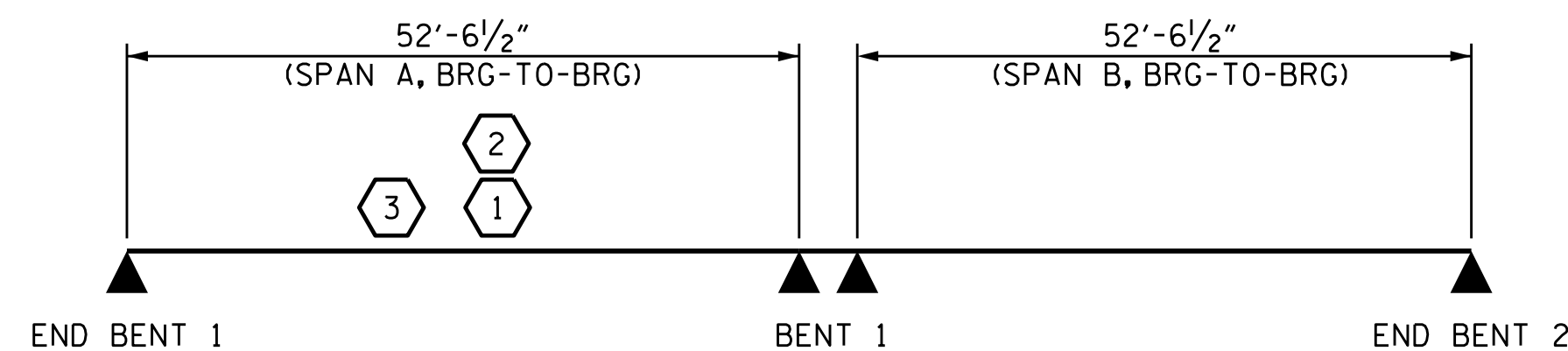
LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

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			
						MOMENT					SHEAR					MOMENT								
						LIVE-LOAD FACTORS (γ_{LL})	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)	LIVE-LOAD FACTORS (γ_{LL})	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.268	0.000	1.75	0.782	1.437	A	I	31.52	0.939	1.913	A	I	11.33	0.80	0.782	1.268	A	I	26.27		
	HL-93 (OPERATING)	N/A		1.268	0.000	1.35	0.782	1.862	A	I	31.52	0.939	2.479	A	I	11.33	N/A	0.782	1.268	A	I	26.27		
	HS-20 (INVENTORY)	36.000	②	1.585	57.066	1.75	0.782	1.782	A	I	31.52	0.939	2.256	A	I	11.33	0.80	0.782	1.585	A	I	26.27		
	HS-20 (OPERATING)	36.000		1.585	57.066	1.35	0.782	2.31	A	I	31.52	0.939	2.924	A	I	11.33	N/A	0.782	1.585	A	I	26.27		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.301	44.568	1.40	0.782	4.716	A	I	31.52	0.939	6.129	A	I	21.02	0.80	0.782	3.301	A	I	26.27	
		SNGARBS2	20.000		2.574	51.489	1.40	0.782	3.577	A	I	31.52	0.939	4.566	A	I	11.33	0.80	0.782	2.574	A	I	26.27	
		SNAGRIS2	22.000		2.489	54.762	1.40	0.782	3.414	A	I	31.52	0.939	4.3	A	I	11.33	0.80	0.782	2.489	A	I	26.27	
		SNCOTTS3	27.250		1.646	44.853	1.40	0.782	2.376	A	I	31.52	0.939	3.088	A	I	21.02	0.80	0.782	1.646	A	I	26.27	
		SNAGGRS4	34.925		1.419	49.551	1.40	0.782	2.028	A	I	31.52	0.939	2.692	A	I	11.33	0.80	0.782	1.419	A	I	26.27	
		SNS5A	35.550		1.384	49.216	1.40	0.782	2.01	A	I	31.52	0.939	2.787	A	I	11.33	0.80	0.782	1.384	A	I	26.27	
		SNS6A	39.950		1.289	51.498	1.40	0.782	1.86	A	I	31.52	0.939	2.591	A	I	11.33	0.80	0.782	1.289	A	I	26.27	
		SNS7B	42.000		1.228	51.588	1.40	0.782	1.773	A	I	31.52	0.939	2.613	A	I	11.33	0.80	0.782	1.228	A	I	26.27	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.578	52.061	1.40	0.782	2.323	A	I	31.52	0.939	3.044	A	I	11.33	0.80	0.782	1.578	A	I	26.27	
		TNT4A	33.075		1.59	52.584	1.40	0.782	2.256	A	I	31.52	0.939	2.916	A	I	11.33	0.80	0.782	1.59	A	I	26.27	
		TNT6A	41.600		1.319	54.858	1.40	0.782	1.899	A	I	31.52	0.939	2.873	A	I	11.33	0.80	0.782	1.319	A	I	26.27	
		TNT7A	42.000		1.336	56.093	1.40	0.782	1.91	A	I	31.52	0.939	2.654	A	I	11.33	0.80	0.782	1.336	A	I	26.27	
		TNT7B	42.000		1.393	58.526	1.40	0.782	1.94	A	I	31.52	0.939	2.502	A	I	11.33	0.80	0.782	1.393	A	I	26.27	
		TNAGRIT4	43.000		1.32	56.748	1.40	0.782	1.85	A	I	31.52	0.939	2.406	A	I	11.33	0.80	0.782	1.32	A	I	26.27	
		TNAGT5A	45.000		1.235	55.596	1.40	0.782	1.783	A	I	31.52	0.939	2.467	A	I	11.33	0.80	0.782	1.235	A	I	26.27	
TNAGT5B	45.000	③	1.213	54.573	1.40	0.782	1.728	A	I	31.52	0.939	2.28	A	I	11.33	0.80	0.782	1.213	A	I	26.27			

NOTES:

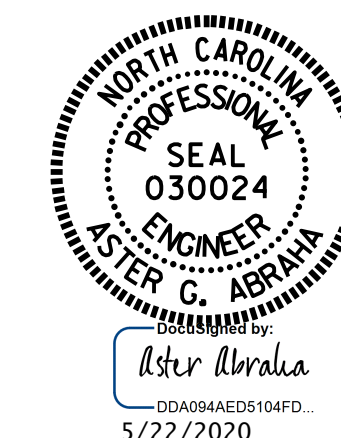
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.
ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

#	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	



LRFR SUMMARY

PROJECT NO. B-5662
HALIFAX COUNTY
STATION: 15+61.00 -L-



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

ASSEMBLED BY : A. Y. GODFREY DATE : 04/2020
CHECKED BY : A. ABRAHA DATE : 04/2020
DRAWN BY : MAA 1/08
CHECKED BY : GM/DI 2/08

REV. 11/2/08RR MAA/GM
REV. 10/1/11 MAA/GM
REV. 12/17 MAA/THC

22-MAY-2020 18:43
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qabr.ohg

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			30
2			4			

STD. NO. LRFR1