

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

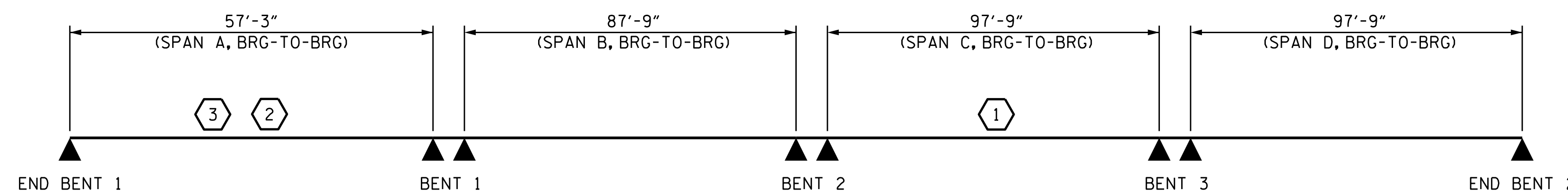
LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE					COMMENT NUMBER			
						MOMENT					SHEAR					MOMENT								
						LIVE-LOAD FACTORS ( $\gamma_{LL}$ )	DISTRIBUTION FACTORS (DF)	RATING FACTOR	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 ( $\gamma_{LL}$ )	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.119	0.000	1.75	0.745	1.452	C	I	48.88	0.918	2.375	C	I	48.88	0.80	0.745	1.119	C	I	48.88		
	HL-93 (OPERATING)	N/A		1.119	0.000	1.35	0.745	1.883	C	I	48.88	0.918	3.078	C	I	48.88	N/A	0.745	1.119	C	I	48.88		
	HS-20 (INVENTORY)	36.000	②	1.444	51.987	1.75	0.846	1.444	A	I	28.63	0.918	1.851	A	I	34.35	0.80	0.846	1.567	A	I	28.63		
	HS-20 (OPERATING)	36.000		1.553	55.915	1.35	0.745	2.615	C	I	48.88	0.918	3.701	C	I	48.88	N/A	0.745	1.553	C	I	48.88		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.347	45.182	1.40	0.846	3.855	A	I	28.63	0.918	4.860	A	I	34.35	0.8	0.846	3.347	A	I	28.63	
		SNGARBS2	20.000		2.574	51.475	1.40	0.846	2.964	A	I	28.63	0.918	3.646	A	I	34.35	0.8	0.846	2.574	A	I	28.63	
		SNAGRIS2	22.000		2.472	54.391	1.40	0.846	2.848	A	I	28.63	0.918	3.463	A	I	34.35	0.8	0.846	2.472	A	I	28.63	
		SNCOTTS3	27.250		1.668	45.445	1.40	0.846	1.921	A	I	28.63	0.918	2.445	A	I	34.35	0.8	0.846	1.668	A	I	28.63	
		SNAGGRS4	34.925		1.424	49.730	1.40	0.846	1.640	A	I	28.63	0.918	2.165	A	I	34.35	0.8	0.846	1.424	A	I	28.63	
		SNS5A	35.550		1.390	49.427	1.40	0.846	1.601	A	I	28.63	0.918	2.272	A	I	34.35	0.8	0.846	1.390	A	I	28.63	
		SNS6A	39.950		1.289	51.483	1.40	0.846	1.484	A	I	28.63	0.918	2.138	A	I	34.35	0.8	0.846	1.289	A	I	28.63	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	SNS7B	42.000		1.228	51.563	1.40	0.846	1.414	A	I	28.63	0.918	2.192	A	I	34.35	0.8	0.846	1.228	A	I	28.63	
		TNAGRIT3	33.000		1.575	51.987	1.40	0.846	1.814	A	I	28.63	0.918	2.491	A	I	34.35	0.8	0.846	1.575	A	I	28.63	
		TNT4A	33.075		1.586	52.455	1.40	0.846	1.827	A	I	28.63	0.918	2.360	A	I	34.35	0.8	0.846	1.586	A	I	28.63	
		TNT6A	41.600		1.310	54.476	1.40	0.846	1.508	A	I	28.63	0.918	2.524	A	I	34.35	0.8	0.846	1.310	A	I	28.63	
		TNT7A	42.000		1.321	55.482	1.40	0.745	2.144	C	I	48.88	0.918	3.465	C	I	48.88	0.8	0.745	1.321	C	I	48.88	
		TNT7B	42.000		1.352	56.804	1.40	0.745	2.195	C	I	48.88	0.918	3.145	C	I	48.88	0.8	0.745	1.352	C	I	48.88	
		TNAGRIT4	43.000		1.297	55.774	1.40	0.745	2.105	C	I	48.88	0.918	3.033	C	I	48.88	0.8	0.745	1.297	C	I	48.88	
TNAGT5A	45.000		1.225	55.127	1.40	0.846	1.411	A	I	28.63	0.918	2.078	A	I	34.35	0.8	0.846	1.225	A	I	28.63			
TNAGT5B	45.000	③	1.205	54.224	1.40	0.846	1.388	A	I	28.63	0.918	1.876	A	I	34.35	0.8	0.846	1.205	A	I	28.63			

NOTES:

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

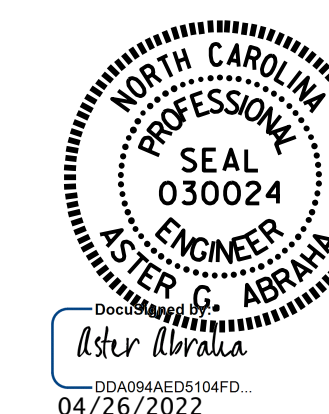
ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

①	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-5694  
BLADEN COUNTY  
 STATION: 21+85.10 -L-

LRFR SUMMARY



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

ASSEMBLED BY : A. Y. GODFREY DATE : 06/20/2020  
 CHECKED BY : G. AYES DATE : 01/20/2022  
 DRAWN BY : MAA 1/08 REV. 11/2/08RR MAA/GM  
 CHECKED BY : GM/DI 2/08 REV. 10/1/11 MAA/GM  
 REV. 12/17 MAA/THC

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO. S-5 TOTAL SHEETS 37
	NO.	BY:	DATE:	NO.	BY:	DATE:	
	1			3			
	2			4			