

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 (LRFD) SUMAMRY 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 (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)	LIVELOAD FACTORS (γ_{LL})	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL93(Inv)	N/A	1	1.052	--	1.75	0.776	1.27	A	I	19.02	0.901	1.05	A	I	36.21	0.8	0.740	1.11	B	I	29.17		
	HL93(Opr)	N/A	--	1.364	--	1.35	0.776	1.65	A	I	19.02	0.901	1.36	A	I	36.21	N/A	--	--	--	--	--		
	HS20(Inv)	36.00	2	1.235	44.461	1.75	0.776	1.56	A	I	19.02	0.901	1.24	A	I	36.21	0.8	0.740	1.40	B	I	29.17		
	HS20(Opr)	36.00	--	1.601	57.635	1.35	0.776	2.03	A	I	19.02	0.901	1.60	A	I	36.21	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.50	--	2.860	38.607	1.4	0.776	4.01	A	I	19.02	0.901	3.29	A	I	36.21	0.8	0.776	2.86	A	I	23.77	
		SNGARBS2	20.00	--	2.260	45.204	1.4	0.776	3.09	A	I	19.02	0.901	2.45	A	I	36.21	0.8	0.776	2.26	A	I	21.39	
		SNAGRIS2	22.00	--	2.186	48.096	1.4	0.776	2.97	A	I	19.02	0.901	2.32	A	I	36.21	0.8	0.776	2.19	A	I	21.39	
		SNCOTTS3	27.25	--	1.427	38.884	1.4	0.776	2.03	A	I	19.02	0.901	1.65	A	I	36.21	0.8	0.776	1.43	A	I	23.77	
		SNAGGRS4	34.93	--	1.245	43.497	1.4	0.776	1.75	A	I	19.02	0.901	1.45	A	I	36.21	0.8	0.776	1.25	A	I	23.77	
		SNS5A	35.55	--	1.214	43.164	1.4	0.776	1.74	A	I	19.02	0.901	1.52	A	I	36.21	0.8	0.776	1.21	A	I	23.77	
		SNS6A	39.95	--	1.138	45.443	1.4	0.776	1.61	A	I	19.02	0.901	1.42	A	I	36.21	0.8	0.776	1.14	A	I	23.77	
		SNS7B	42.00	--	1.084	45.534	1.4	0.776	1.54	A	I	19.02	0.901	1.45	A	I	36.21	0.8	0.776	1.08	A	I	23.77	
	T1ST	TNAGRIT3	33.00	--	1.394	46.010	1.4	0.776	2.03	A	I	19.02	0.901	1.66	A	I	36.21	0.8	0.776	1.39	A	I	23.77	
		TNT4A	33.08	--	1.407	46.538	1.4	0.776	1.96	A	I	19.02	0.901	1.58	A	I	36.21	0.8	0.776	1.41	A	I	23.77	
		TNT6A	41.60	--	1.171	48.708	1.4	0.776	1.66	A	I	19.02	0.901	1.57	A	I	36.21	0.8	0.740	1.17	B	I	29.17	
		TNT7A	42.00	--	1.182	49.658	1.4	0.776	1.68	A	I	19.02	0.901	1.45	A	I	36.21	0.8	0.740	1.18	B	I	29.17	
		TNT7B	42.00	--	1.235	51.864	1.4	0.776	1.70	A	I	19.02	0.901	1.38	A	I	36.21	0.8	0.740	1.23	B	I	29.17	
		TNAGRIT4	43.00	--	1.167	50.160	1.4	0.776	1.62	A	I	19.02	0.901	1.32	A	I	36.21	0.8	0.740	1.17	B	I	29.17	
		TNAGT5A	45.00	--	1.095	49.276	1.4	0.776	1.56	A	I	19.02	0.901	1.37	A	I	36.21	0.8	0.740	1.10	B	I	29.17	
		TNAGT5B	45.00	3	1.078	48.488	1.4	0.776	1.51	A	I	19.02	0.901	1.25	A	I	36.21	0.8	0.740	1.08	B	I	29.17	
EV LOAD RATING	EV2	28.75	--	1.611	46.308	1.3	0.776	2.36	A	I	19.02	0.901	1.87	A	I	36.21	0.8	0.776	1.61	A	I	21.39		
	EV3	43.00	4	1.048	45.066	1.3	0.776	1.59	A	I	19.02	0.901	1.27	A	I	36.21	0.8	0.776	1.05	A	I	23.77		

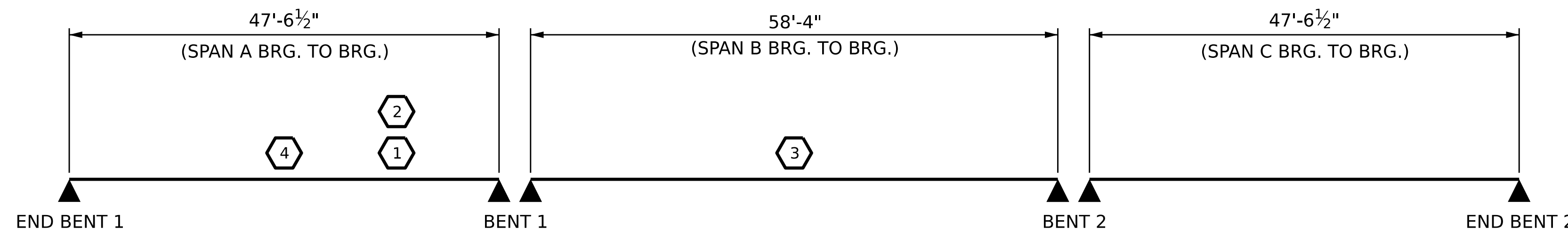
NOTES:

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.

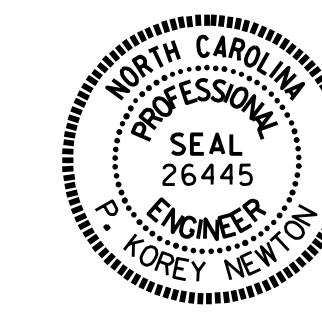
COMMENTS:

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



LRFR SUMMARY

PROJECT NO. **BR-0046**
SAMPSON COUNTY
 STATION: **24+30.00 -L-**



DocuSigned by:
 P. Corey Newton
 10/09/2023

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

DESIGN ENGINEER OF RECORD:
 P. D. BRYANT DATE: 8/2/23

ASSEMBLED BY: P. K. NEWTON DATE: 8/2/23
 CHECKED BY: P. D. BRYANT DATE: 8/2/23

DRAWN BY: MAA 1/08 REV. 11/12/08RR 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.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-5
1			3			TOTAL SHEETS 31
2			4			