

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	1.009	-	1.75	0.701	1.277	B	EL	62.38	1.148	1.009	B	I	74.85	0.8	0.618	1.075	B	I	62.38		
	HL93(Opr)	N/A	--	1.308	--	1.35	0.701	1.655	B	EL	62.38	1.148	1.308	B	I	74.85	N/A	--	--	--	--	--		
	HS20(Inv)	36.00	2	1.219	43.882	1.75	0.647	1.737	A	I	37.46	1.131	1.219	A	I	29.97	0.8	0.618	1.587	B	I	62.38		
	HS20(Opr)	36.00	--	1.58	56.885	1.35	0.647	2.252	A	I	37.46	1.131	1.58	A	I	29.97	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.50	--	3.417	46.125	1.4	0.647	4.929	A	I	37.46	1.131	3.417	A	I	29.97	0.8	0.618	3.866	B	I	62.38	
		SNGARBS2	20.00	--	2.494	49.871	1.4	0.647	3.661	A	I	37.46	1.131	2.494	A	I	29.97	0.8	0.618	2.756	B	I	62.38	
		SNAGRIS2	22.00	--	2.34	51.481	1.4	0.647	3.455	A	I	33.72	1.131	2.34	A	I	29.97	0.8	0.618	2.561	B	I	62.38	
		SNCOTTS3	27.25	--	1.712	46.654	1.4	0.647	2.453	A	I	37.46	1.131	1.712	A	I	29.97	0.8	0.618	1.92	B	I	62.38	
		SNAGGRS4	34.93	--	1.466	51.208	1.4	0.647	2.045	A	I	37.46	1.131	1.466	A	I	29.97	0.8	0.618	1.556	B	I	62.38	
		SNS5A	35.55	--	1.51	53.677	1.4	0.647	2.0	A	I	37.46	1.131	1.51	A	I	29.97	0.8	0.618	1.525	B	I	62.38	
		SNS6A	39.95	--	1.38	55.123	1.4	0.647	1.833	A	I	37.46	1.131	1.397	A	I	29.97	0.8	0.618	1.38	B	I	62.38	
	TTST	SNS7B	42.00	--	1.313	55.158	1.4	0.647	1.746	A	I	37.46	1.131	1.4	A	I	29.97	0.8	0.618	1.313	B	I	62.38	
		TNAGRIT3	33.00	--	1.647	54.345	1.4	0.647	2.235	A	I	37.46	1.131	1.647	A	I	29.97	0.8	0.618	1.677	B	I	62.38	
		TNT4A	33.08	--	1.584	52.395	1.4	0.647	2.244	A	I	37.46	1.131	1.584	A	I	29.97	0.8	0.618	1.679	B	I	62.38	
		TNT6A	41.60	--	1.355	56.373	1.4	0.647	1.833	A	I	37.46	1.148	1.521	B	I	74.85	0.8	0.618	1.355	B	I	62.38	
		TNT7A	42.00	--	1.353	56.808	1.4	0.647	1.841	A	I	37.46	1.148	1.493	B	I	74.85	0.8	0.618	1.353	B	I	62.38	
		TNT7B	42.00	--	1.347	56.581	1.4	0.647	1.901	A	I	33.72	1.131	1.347	A	I	29.97	0.8	0.618	1.377	B	I	62.38	
		TNAGRIT4	43.00	--	1.297	55.788	1.4	0.647	1.812	A	I	37.46	1.131	1.297	A	I	29.97	0.8	0.618	1.326	B	I	62.38	
EV LOAD RATING	EV2	28.75	--	1.892	54.382	1.3	0.647	2.786	A	I	37.46	1.131	1.892	A	I	29.97	0.8	0.618	1.934	B	I	62.38		
	EV3	43.00	--	1.279	54.977	1.3	0.647	1.825	A	I	37.46	1.131	1.281	A	I	29.97	0.8	0.618	1.279	B	I	62.38		

NOTES:

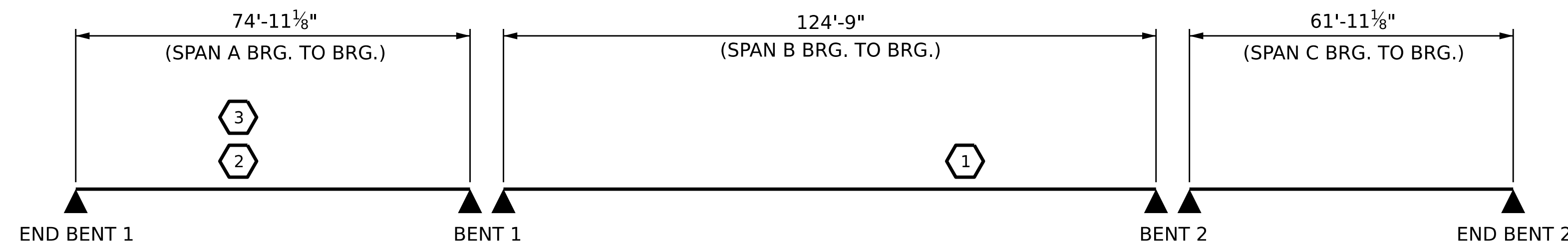
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

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 **
** SEE CHART FOR VEHICLE TYPE	
GIRDER LOCATION	
I	- INTERIOR GIRDER
EL	- EXTERIOR LEFT GIRDER
ER	- EXTERIOR RIGHT GIRDER

PROJECT NO. **B-5981**
DUPLIN COUNTY
 STATION: **23+56.64 -L-**



LRFR SUMMARY

DESIGN ENGINEER OF RECORD : W. C. SMITH DATE : 3/8/23	
ASSEMBLED BY : P. K. NEWTON	DATE : 2/8/23
CHECKED BY : M. K. BEARD	DATE : 2/8/23
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



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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.
	NO.	BY:	DATE:	NO.	BY:	DATE:	S1-7
	1			3			TOTAL SHEETS 43
	2			4			