

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	MOMENT					SHEAR					LIVELOAD FACTORS	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(Inv)	N/A	1	1.02	--	1.75	0.674	1.78	C	I	17.822	0.748	1.91	A	I	10.691	0.80	0.643	1.02	B	EL	30.402		
	HL-93(0pr)	N/A	--	2.30	--	1.35	0.674	2.30	C	I	17.822	0.748	2.47	A	I	10.691	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.30	46.963	1.75	0.674	2.29	C	I	21.386	0.748	2.16	A	I	24.945	0.80	0.643	1.30	B	EL	30.402		
	HS-20(0pr)	36.000	--	2.80	100.877	1.35	0.674	2.97	C	I	21.386	0.748	2.80	A	I	24.945	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.83	38.207	1.4	0.674	5.10	C	I	17.822	0.748	5.14	A	I	24.945	0.80	0.643	2.83	B	EL	30.402	
		SNGARBS2	20.000	--	2.16	43.144	1.4	0.674	4.24	C	I	21.386	0.748	4.05	A	I	24.945	0.80	0.643	2.16	B	EL	30.402	
		SNAGRIS2	22.000	--	2.06	45.403	1.4	0.674	4.18	C	I	21.386	0.748	3.93	A	I	24.945	0.80	0.643	2.06	B	EL	30.402	
		SNCOTTS3	27.250	--	1.41	38.415	1.4	0.674	2.55	C	I	17.822	0.748	2.60	A	I	24.945	0.80	0.643	1.41	B	EL	30.402	
		SNAGGRS4	34.925	--	1.20	41.785	1.4	0.674	2.34	C	I	17.822	0.748	2.45	A	I	24.945	0.80	0.643	1.20	B	EL	30.402	
		SNS5A	35.550	--	1.17	41.547	1.4	0.674	2.27	C	I	17.822	0.748	2.66	A	I	24.945	0.80	0.643	1.17	B	EL	30.402	
		SNS6A	39.950	--	1.08	43.150	1.4	0.674	2.18	C	I	17.822	0.748	2.56	A	I	24.945	0.80	0.643	1.08	B	EL	30.402	
	SNS7B	42.000	--	1.03	43.213	1.4	0.674	2.08	C	I	17.822	0.748	2.65	A	I	24.945	0.80	0.643	1.03	B	EL	30.402		
	TTST	TNAGRIT3	33.000	--	1.32	43.542	1.4	0.674	2.69	C	I	17.822	0.748	2.95	A	I	24.945	0.80	0.643	1.32	B	EL	30.402	
		TNT4A	33.075	--	1.33	43.905	1.4	0.674	2.72	C	I	17.822	0.748	2.71	A	I	24.945	0.80	0.643	1.33	B	EL	30.402	
		TNT6A	41.600	--	1.09	45.468	1.4	0.674	2.34	C	I	17.822	0.748	2.63	A	I	24.945	0.80	0.643	1.09	B	EL	30.402	
		TNT7A	42.000	--	1.10	46.307	1.4	0.674	2.41	C	I	17.822	0.748	2.57	A	I	24.945	0.80	0.643	1.10	B	EL	30.402	
		TNT7B	42.000	--	1.15	48.339	1.4	0.674	2.40	C	I	17.822	0.748	2.47	A	I	24.945	0.80	0.643	1.15	B	EL	30.402	
		TNAGRIT4	43.000	--	1.09	46.750	1.4	0.674	2.37	C	I	21.386	0.748	2.40	A	I	24.945	0.80	0.643	1.09	B	EL	30.402	
TNAGT5A		45.000	--	1.02	45.970	1.4	0.674	2.21	C	I	17.822	0.748	2.58	A	I	24.945	0.80	0.643	1.02	B	EL	30.402		
TNAGT5B	45.000	3	1.01	45.274	1.4	0.674	2.14	C	I	17.822	0.748	2.25	A	I	24.945	0.80	0.643	1.01	B	EL	30.402			

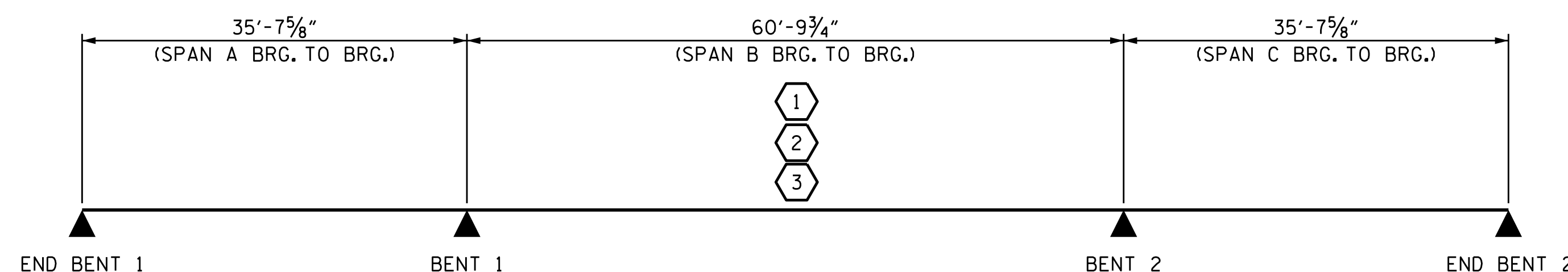
NOTES:

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:

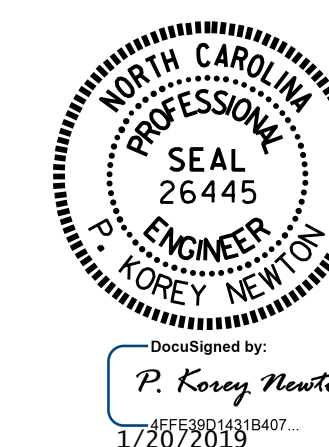
- 1.
- 2.
- 3.
- 4.

#	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. R-5021  
BRUNSWICK COUNTY  
STATION: 369+42.00 -L-



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

DESIGN ENGINEER OF RECORD: P. K. NEWTON	DATE: 7/31/17
ASSEMBLED BY: P. K. NEWTON	DATE: 7/25/17
CHECKED BY: A. K. PATEL	DATE: 7/28/17
DRAWN BY: MAA	1/08
CHECKED BY: GM/DI	2/08
REV. 11/2/08RR	MAA/GM
REV. 10/1/11	MAA/GM

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	38
1			3			
2			4			