

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) 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								
						LIVELOAD FACTORS	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	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	1.77	C	I	17.833	0.748	1.91	A	I	10.698	0.80	0.643	1.02	B	EL	30.422		
	HL-93(0pr)	N/A	--	2.30	--	1.35	0.674	2.3	C	I	17.833	0.748	2.47	A	I	10.698	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.30	46.801	1.75	0.674	2.29	C	I	14.266	0.748	2.16	A	I	24.962	0.80	0.643	1.30	B	EL	30.422		
	HS-20(0pr)	36.000	--	2.80	100.834	1.35	0.674	2.97	C	I	14.266	0.748	2.80	A	I	24.962	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.82	38.081	1.4	0.674	5.1	C	I	17.833	0.748	5.14	A	I	24.962	0.80	0.643	2.82	B	EL	30.422	
		SNGARBS2	20.000	--	2.15	42.998	1.4	0.674	4.24	C	I	14.266	0.748	4.05	A	I	24.962	0.80	0.643	2.15	B	EL	30.422	
		SNAGRIS2	22.000	--	2.06	45.247	1.4	0.674	4.18	C	I	14.266	0.748	3.93	A	I	24.962	0.80	0.643	2.06	B	EL	30.422	
		SNCOTTS3	27.250	--	1.41	38.288	1.4	0.674	2.55	C	I	17.833	0.748	2.60	A	I	24.962	0.80	0.643	1.41	B	EL	30.422	
		SNAGGRS4	34.925	--	1.19	41.644	1.4	0.674	2.34	C	I	17.833	0.748	2.45	A	I	24.962	0.80	0.643	1.19	B	EL	30.422	
		SNS5A	35.550	--	1.17	41.408	1.4	0.674	2.27	C	I	17.833	0.748	2.66	A	I	24.962	0.80	0.643	1.16	B	EL	30.422	
		SNS6A	39.950	--	1.08	43.004	1.4	0.674	2.18	C	I	17.833	0.748	2.56	A	I	24.962	0.80	0.643	1.08	B	EL	30.422	
	SNS7B	42.000	--	1.03	43.067	1.4	0.674	2.08	C	I	17.833	0.748	2.65	A	I	24.962	0.80	0.643	1.03	B	EL	30.422		
	TTST	TNAGRIT3	33.000	--	1.32	43.395	1.4	0.674	2.69	C	I	17.833	0.748	2.95	A	I	24.962	0.80	0.643	1.31	B	EL	30.422	
		TNT4A	33.075	--	1.32	43.756	1.4	0.674	2.72	C	I	17.833	0.748	2.71	A	I	24.962	0.80	0.643	1.32	B	EL	30.422	
		TNT6A	41.600	--	1.09	45.312	1.4	0.674	2.33	C	I	17.833	0.748	2.63	A	I	24.962	0.80	0.643	1.09	B	EL	30.422	
		TNT7A	42.000	--	1.10	46.148	1.4	0.674	2.41	C	I	17.833	0.748	2.57	A	I	24.962	0.80	0.643	1.10	B	EL	30.422	
		TNT7B	42.000	--	1.15	48.171	1.4	0.674	2.4	C	I	17.833	0.748	2.47	A	I	24.962	0.80	0.643	1.15	B	EL	30.422	
		TNAGRIT4	43.000	--	1.08	46.589	1.4	0.674	2.36	C	I	14.266	0.748	2.40	A	I	24.962	0.80	0.643	1.08	B	EL	30.422	
TNAGT5A		45.000	--	1.02	45.812	1.4	0.674	2.21	C	I	17.833	0.748	2.58	A	I	24.962	0.80	0.643	1.02	B	EL	30.422		
TNAGT5B	45.000	3	1.00	45.119	1.4	0.674	2.14	C	I	17.833	0.748	2.25	A	I	24.962	0.80	0.643	1.00	B	EL	30.422			

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)

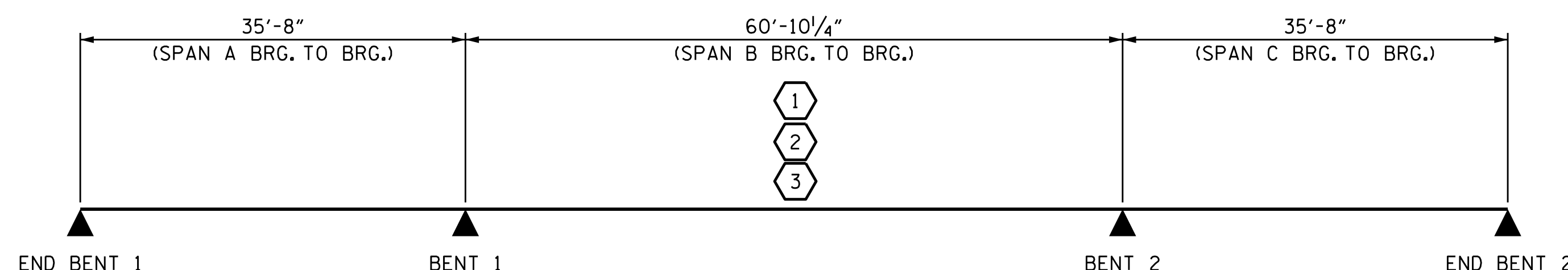
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER



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)
(EBL)

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 REV. 11/2/08RR MAA/GM
CHECKED BY: GM/DI 2/08 REV. 10/1/11 MAA/GM

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-5	
1			3			TOTAL SHEETS 38	
2			4				