

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ_{DC}	γ_{DW}
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

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			
						LIVE-LOAD FACTORS (%LL)	MOMENT					SHEAR					LIVE-LOAD FACTORS (%LL)	MOMENT						
							DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)		DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.01	--	1.75	1.01	1.28	A	ER	52.5	1.05	1.01	A	ER	31.4	0.80	1.01	1.18	A	ER	52.5		
	HL-93 (OPERATING)	N/A		1.66	--	1.35	1.01	1.66	A	ER	52.5	1.05	2.05	A	ER	31.4	N/A	--	--	--	--	--		
	HS-20 (INVENTORY)	36.000	②	1.68	60.48	1.75	1.01	1.82	A	ER	52.5	1.05	1.98	A	ER	31.4	0.80	1.01	1.68	A	ER	52.5		
	HS-20 (OPERATING)	36.000		2.35	84.60	1.35	1.01	2.35	A	ER	52.5	1.05	2.99	A	I	31.4	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		4.02	54.27	1.40	1.01	5.44	A	ER	52.5	1.05	7.27	A	I	31.4	0.80	1.01	4.02	A	ER	52.5	
		SNGARBS2	20.000		2.89	57.80	1.40	1.01	3.91	A	ER	52.5	1.05	5.07	A	I	31.4	0.80	1.01	2.89	A	ER	52.5	
		SNAGRIS2	22.000		2.69	59.18	1.40	1.01	3.65	A	ER	52.5	1.05	4.68	A	I	31.4	0.80	1.01	2.69	A	ER	52.5	
		SNCOTTS3	27.250		1.99	54.23	1.40	1.01	2.70	A	ER	52.5	1.05	3.51	A	I	31.4	0.80	1.01	1.99	A	ER	52.5	
		SNAGGRS4	34.925		1.63	56.93	1.40	1.01	2.20	A	ER	52.5	1.05	2.85	A	I	31.4	0.80	1.01	1.63	A	ER	52.5	
		SNS5A	35.550		1.59	56.52	1.40	1.01	2.16	A	ER	52.5	1.05	2.88	A	I	31.4	0.80	1.01	1.59	A	ER	52.5	
		SNS6A	39.950		1.45	57.93	1.40	1.01	1.96	A	ER	52.5	1.05	2.60	A	I	31.4	0.80	1.01	1.45	A	ER	52.5	
		SNS7B	42.000		1.38	57.96	1.40	1.01	1.86	A	ER	52.5	1.05	2.53	A	I	31.4	0.80	1.01	1.38	A	ER	52.5	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.76	58.08	1.40	1.01	2.38	A	ER	52.5	1.05	3.14	A	I	31.4	0.80	1.01	1.76	A	ER	52.5	
		TNT4A	33.075		1.76	58.21	1.40	1.01	2.39	A	ER	52.5	1.05	3.07	A	I	31.4	0.80	1.01	1.76	A	ER	52.5	
		TNT6A	41.600		1.43	59.49	1.40	1.01	1.93	A	ER	52.5	1.05	2.69	A	I	31.4	0.80	1.01	1.43	A	ER	52.5	
		TNT7A	42.000		1.43	60.06	1.40	1.01	1.93	A	ER	52.5	1.05	2.64	A	I	31.4	0.80	1.01	1.43	A	ER	52.5	
		TNT7B	42.000		1.46	61.32	1.40	1.01	1.97	A	ER	52.5	1.05	2.48	A	I	31.4	0.80	1.01	1.46	A	ER	52.5	
		TNAGRIT4	43.000		1.40	60.20	1.40	1.01	1.89	A	ER	52.5	1.05	2.35	A	ER	31.4	0.80	1.01	1.40	A	ER	52.5	
		TNAGT5A	45.000		1.33	59.85	1.40	1.01	1.80	A	ER	52.5	1.05	2.27	A	ER	31.4	0.80	1.01	1.33	A	ER	52.5	
TNACT5B	45.000	③	1.32	59.40	1.40	1.01	1.78	A	ER	52.5	1.05	2.02	A	ER	31.4	0.80	1.01	1.32	A	ER	52.5			

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:

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CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

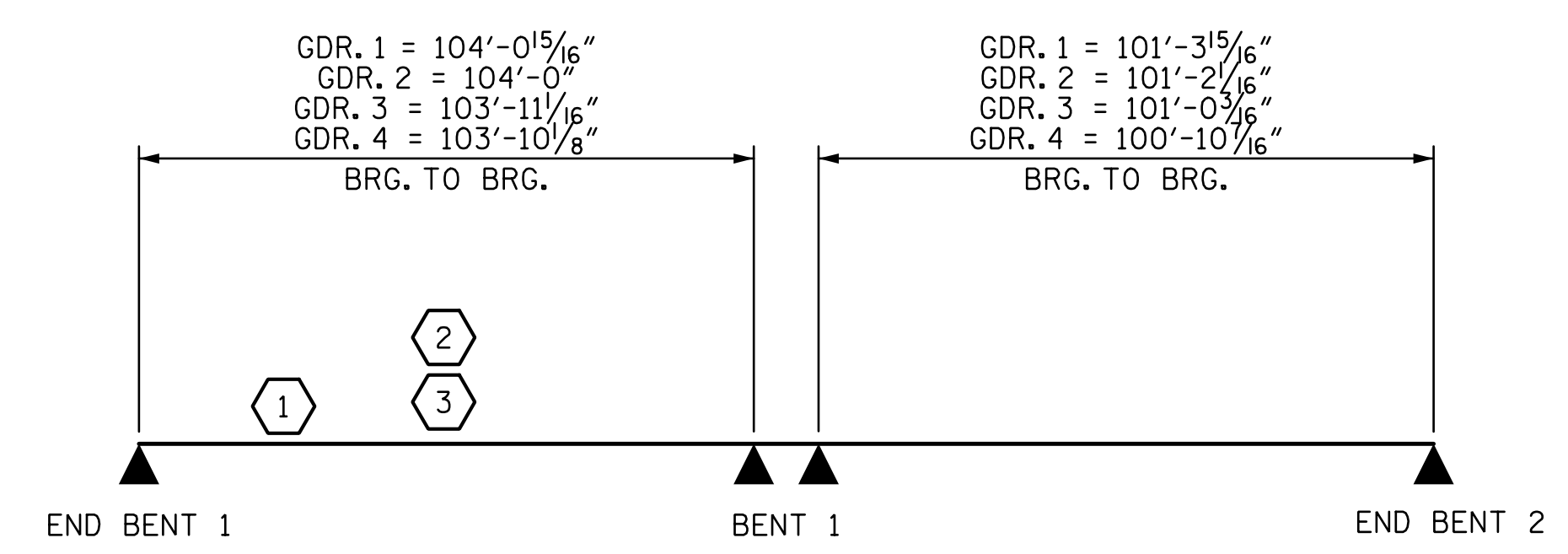
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



PROJECT NO. U-4751
NEW HANOVER COUNTY
 STATION: 35+12.05 -Y8RPDB-

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

6/30/2017

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
LRFR SUMMARY FOR
PRESTRESSED
CONCRETE GIRDERS
(NON-INTERSTATE TRAFFIC)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-5
1			3			TOTAL SHEETS
2			4			36

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DRAWN BY : MBC DATE : 3-17
 CHECKED BY : TRL DATE : 3-17
 DESIGN ENGINEER OF RECORD: T. LAWS DATE : 5-17