

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	1.03	--	1.75	0.77	1.23	A	I	42.4	1.14	1.03	A	I	25.2	0.80	0.77	1.13	A	I	42.4		
	HL-93 (OPERATING)	N/A		1.60	--	1.35	0.77	1.60	A	I	42.4	1.14	1.79	A	I	25.2	N/A	--	--	--	--	--		
	HS-20 (INVENTORY)	36.000	②	1.53	55.08	1.75	0.77	1.67	A	I	42.4	1.14	1.61	A	I	25.2	0.80	0.77	1.53	A	I	42.4		
	HS-20 (OPERATING)	36.000		2.16	77.76	1.35	0.77	2.16	A	I	42.4	1.14	2.96	A	I	25.2	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.58	48.33	1.40	0.77	4.86	A	I	42.4	1.15	7.71	B	I	67.9	0.80	0.77	3.58	A	I	42.4	
		SNGARBS2	20.000		2.62	52.40	1.40	0.77	3.55	A	I	42.4	1.15	5.40	B	I	67.9	0.80	0.77	2.62	A	I	42.4	
		SNAGRIS2	22.000		2.45	53.90	1.40	0.77	3.33	A	I	42.4	1.15	4.99	B	I	67.9	0.80	0.77	2.45	A	I	42.4	
		SNCOTTS3	27.250		1.78	48.51	1.40	0.77	2.41	A	I	42.4	1.15	3.74	B	I	67.9	0.80	0.77	1.78	A	I	42.4	
		SNAGGRS4	34.925		1.47	51.34	1.40	0.77	1.99	A	I	42.4	1.14	2.59	A	I	25.2	0.80	0.77	1.47	A	I	42.4	
		SNS5A	35.550		1.44	51.19	1.40	0.77	1.95	A	I	42.4	1.14	2.69	A	I	25.2	0.80	0.77	1.44	A	I	42.4	
		SNS6A	39.950		1.31	52.33	1.40	0.77	1.78	A	I	42.4	1.14	2.17	A	I	25.2	0.80	0.77	1.31	A	I	42.4	
		SNS7B	42.000		1.25	52.50	1.40	0.77	1.69	A	I	42.4	1.14	2.10	A	I	25.2	0.80	0.77	1.25	A	I	42.4	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.60	52.80	1.40	0.77	2.17	A	I	42.4	1.14	3.33	A	I	25.2	0.80	0.77	1.60	A	I	42.4	
		TNT4A	33.075		1.60	52.92	1.40	0.77	2.17	A	I	42.4	1.14	3.09	A	I	25.2	0.80	0.77	1.60	A	I	42.4	
		TNT6A	41.600		1.30	54.08	1.40	0.77	1.77	A	I	42.4	1.14	2.46	A	I	25.2	0.80	0.77	1.30	A	I	42.4	
		TNT7A	42.000		1.30	54.60	1.40	0.77	1.77	A	I	42.4	1.14	2.30	A	I	25.2	0.80	0.77	1.30	A	I	42.4	
		TNT7B	42.000		1.34	56.28	1.40	0.77	1.82	A	I	42.4	1.14	1.98	A	I	25.2	0.80	0.77	1.34	A	I	42.4	
		TNAGRIT4	43.000		1.28	55.04	1.40	0.77	1.74	A	I	42.4	1.14	1.84	A	I	25.2	0.80	0.77	1.28	A	I	42.4	
		TNACT5A	45.000		1.21	54.45	1.40	0.77	1.64	A	I	42.4	1.14	1.83	A	I	25.2	0.80	0.77	1.21	A	I	42.4	
TNACT5B	45.000	③	1.20	54.00	1.40	0.77	1.63	A	I	42.4	1.14	1.64	A	I	25.2	0.80	0.77	1.20	A	I	42.4			

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)

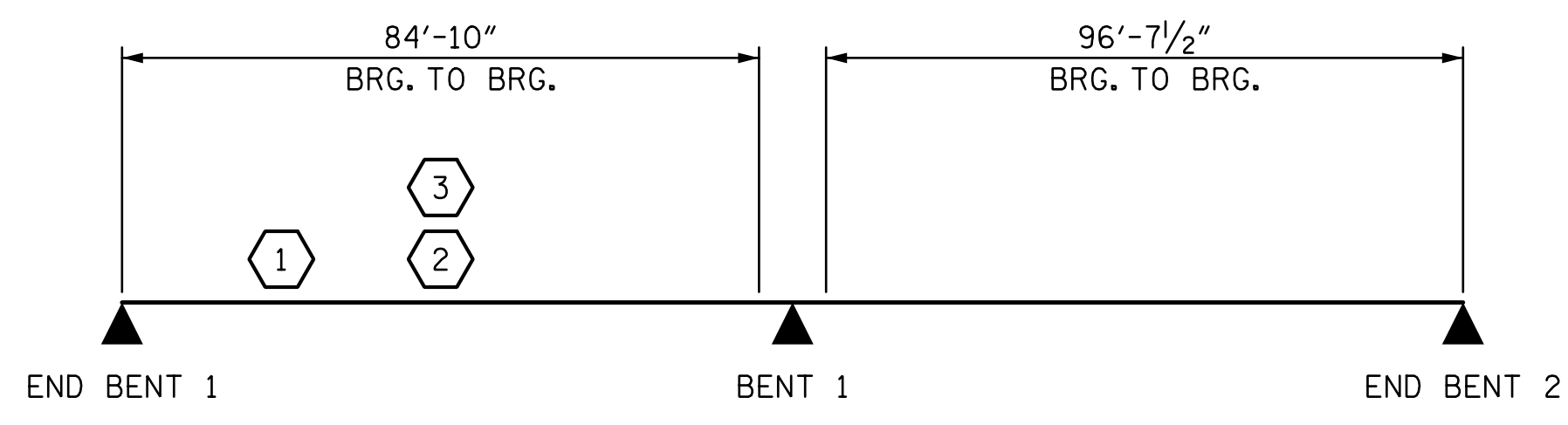
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
E - EXTERIOR GIRDER



LRFR SUMMARY

PROJECT NO. U-4751
NEW HANOVER COUNTY
 STATION: 38+94.20 -L-

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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:
1			3		
2			4		

DRAWN BY: VMW DATE: 4-17

CHECKED BY: ACA DATE: 5-17

DESIGN ENGINEER OF RECORD: V. WU DATE: 5-17

STV ENGINEERS, INC.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-5991

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