

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 (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
						MOMENT					SHEAR					MOMENT										
						LIVE-LOAD 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)	LIVE-LOAD FACTORS (γ_{LL})	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (FT)				
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.03	--	1.75	0.89	1.21	B	ER	38.9	1.04	1.23	A/C	I	15.8	0.80	0.81	1.03	B	I	38.9				
	HL-93 (OPERATING)	N/A	--	1.57	--	1.35	0.89	1.57	B	ER	38.9	1.04	1.67	A/C	I	7.6	N/A	--	--	--	--	--				
	HS-20 (INVENTORY)	36.000	②	1.37	49.3	1.75	0.89	1.61	B	ER	38.9	1.04	1.65	A/C	I	7.6	0.80	0.81	1.37	B	I	38.9				
	HS-20 (OPERATING)	36.000	--	2.08	74.9	1.35	0.89	2.08	B	ER	38.9	1.04	2.16	A/C	I	7.6	N/A	--	--	--	--	--				
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500	--	3.14	42.4	1.40	0.89	4.59	B	ER	38.9	1.04	5.14	A/C	I	7.6	0.80	0.81	3.14	B	I	38.9			
		SNGARBS2	20.000	--	2.32	46.4	1.40	0.89	3.40	B	ER	38.9	1.04	3.61	A/C	I	7.6	0.80	0.81	2.32	B	I	38.9			
		SNAGRIS2	22.000	--	2.19	48.2	1.40	0.89	3.21	B	ER	38.9	1.04	3.34	A/C	I	7.6	0.80	0.81	2.19	B	I	38.9			
		SNCOTTS3	27.250	--	1.56	42.5	1.40	0.89	2.29	B	ER	38.9	1.04	2.52	A/C	I	7.6	0.80	0.81	1.56	B	I	38.9			
		SNAGGRS4	34.925	--	1.30	45.4	1.40	0.89	1.90	B	ER	38.9	1.04	2.06	A/C	I	7.6	0.80	0.81	1.30	B	I	38.9			
		SNS5A	35.550	--	1.27	45.1	1.40	0.89	1.86	B	ER	38.9	1.04	2.08	A/C	I	7.6	0.80	0.81	1.27	B	I	38.9			
		SNS6A	39.950	--	1.16	46.3	1.40	0.89	1.70	B	ER	38.9	1.04	1.89	A/C	I	7.6	0.80	0.81	1.16	B	I	38.9			
		SNS7B	42.000	--	1.11	46.6	1.40	0.89	1.62	B	ER	38.9	1.04	1.84	A/C	I	7.6	0.80	0.81	1.11	B	I	38.9			
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000	--	1.42	46.9	1.40	0.89	2.07	B	ER	38.9	1.04	2.27	A/C	I	7.6	0.80	0.81	1.42	B	I	38.9			
		TNT4A	33.075	--	1.42	47.0	1.40	0.89	2.08	B	ER	38.9	1.04	2.21	A/C	I	7.6	0.80	0.81	1.42	B	I	38.9			
		TNT6A	41.600	--	1.16	48.3	1.40	0.89	1.70	B	ER	38.9	1.04	1.95	A/C	I	7.6	0.80	0.81	1.16	B	I	38.9			
		TNT7A	42.000	--	1.16	48.7	1.40	0.89	1.70	B	ER	38.9	1.04	1.92	A/C	I	7.6	0.80	0.81	1.16	B	I	38.9			
		TNT7B	42.000	--	1.20	50.4	1.40	0.89	1.76	B	ER	38.9	1.04	1.80	A/C	I	7.6	0.80	0.81	1.20	B	I	38.9			
		TNAGRIT4	43.000	--	1.14	49.0	1.40	0.89	1.68	B	ER	38.9	1.04	1.75	A/C	I	7.6	0.80	0.81	1.14	B	I	38.9			
TNAGT5A	45.000	--	1.08	48.6	1.40	0.89	1.58	B	ER	38.9	1.04	1.73	A/C	I	7.6	0.80	0.81	1.08	B	I	38.9					
TNAGT5B	45.000	③	1.07	48.2	1.40	0.89	1.57	B	ER	38.9	1.04	1.66	A/C	I	7.6	0.80	0.81	1.07	B	I	38.9					

NOTES:

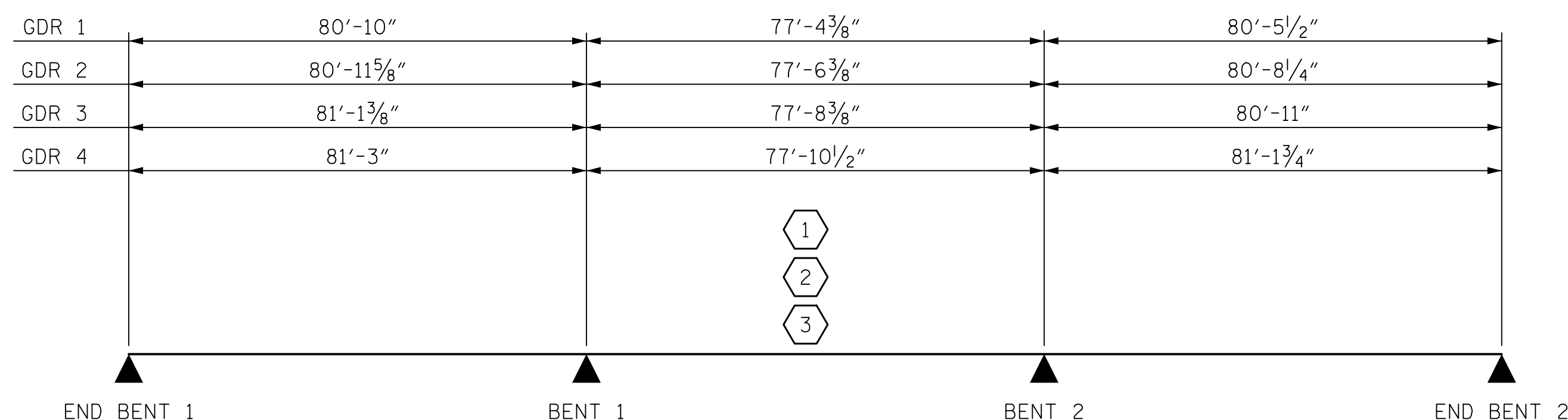
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

COMMENTS:

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

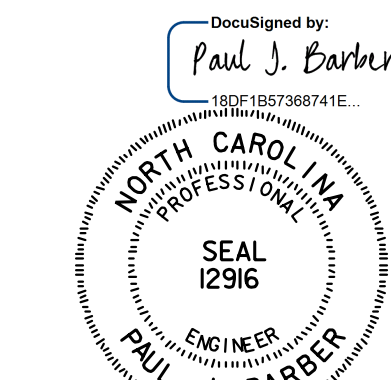
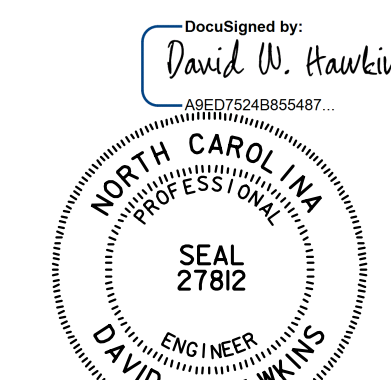
①	CONTROLLING LOAD RATING
①	DESIGN LOAD RATING (HL-93)
②	DESIGN LOAD RATING (HS-20)
③	LEGAL LOAD RATING **
** SEE CHART FOR VEHICLE TYPE	
GIRDER LOCATION	
I - INTERIOR GIRDER EL - EXTERIOR LEFT GIRDER ER - EXTERIOR RIGHT GIRDER	



LRFR SUMMARY

NOTE: SPAN LENGTHS PROVIDED ARE BEARING TO BEARING LENGTHS

PROJECT NO. B-4811
RUTHERFORD COUNTY
STATION: POC 15+25.00 -L-



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

ASSEMBLED BY: M. WRIGHT	DATE: 1/15
CHECKED BY: D. HAWKINS	DATE: 4/15
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

HNTB		HNTB NORTH CAROLINA, P.C.	
NC License No. C-1554		343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609	
DRAWN BY: M. WRIGHT	DATE: 1/15	DWG. NO. 5	
CHECKED BY: D. HAWKINS	DATE: 4/15		

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	
TOTAL SHEETS				42