

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

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			
						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	1.04	--	1.75	0.887	1.37	B	ER	37.7	0.974	1.41	C	I	16.917	0.80	0.974	1.04	B	I	31.417		
	HL-93(0pr)	N/A	--	1.77	--	1.35	0.887	1.77	B	ER	37.7	0.974	1.83	C	I	16.917	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.33	47.960	1.75	0.918	1.73	C	I	21.146	0.974	1.61	C	I	16.917	0.80	0.827	1.33	B	I	31.417		
	HS-20(0pr)	36.000	--	2.09	75.257	1.35	0.918	2.24	C	I	21.146	0.974	2.09	C	I	16.917	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.91	39.333	1.4	0.918	4.14	C	I	21.146	0.974	3.85	C	I	16.917	0.80	0.827	2.91	B	I	31.417	
		SNGARBS2	20.000	--	2.21	44.214	1.4	0.918	3.36	C	I	16.917	0.974	3.02	C	I	16.917	0.80	0.827	2.21	B	I	31.417	
		SNAGRIS2	22.000	--	2.11	46.432	1.4	0.918	3.26	C	I	16.917	0.974	2.93	C	I	16.917	0.80	0.827	2.11	B	I	31.417	
		SNCOTTS3	27.250	--	1.45	39.539	1.4	0.918	2.07	C	I	21.146	0.974	1.95	C	I	16.917	0.80	0.827	1.45	B	I	31.417	
		SNAGGRS4	34.925	--	1.23	42.874	1.4	0.918	1.84	C	I	21.146	0.974	1.83	C	I	16.917	0.80	0.827	1.23	B	I	31.417	
		SNS5A	35.550	--	1.20	42.640	1.4	0.918	1.79	C	I	21.146	0.974	1.98	C	I	16.917	0.80	0.827	1.20	B	I	31.417	
		SNS6A	39.950	--	1.11	44.220	1.4	0.918	1.69	C	I	21.146	0.974	1.92	C	I	16.917	0.80	0.827	1.11	B	I	31.417	
	SNS7B	42.000	--	1.05	44.282	1.4	0.918	1.61	C	I	21.146	0.974	2.02	C	I	16.917	0.80	0.827	1.05	B	I	31.417		
	TTST	TNAGRIT3	33.000	--	1.35	44.606	1.4	0.918	2.08	C	I	21.146	0.974	2.19	C	I	16.917	0.80	0.827	1.35	B	I	31.417	
		TNT4A	33.075	--	1.36	44.963	1.4	0.918	2.10	C	I	21.146	0.974	2.02	C	I	16.917	0.80	0.827	1.36	B	I	31.417	
		TNT6A	41.600	--	1.12	46.497	1.4	0.918	1.77	C	I	21.146	0.974	2.15	C	I	16.917	0.80	0.827	1.12	B	I	31.417	
		TNT7A	42.000	--	1.13	47.318	1.4	0.918	1.81	C	I	21.146	0.974	1.98	C	I	16.917	0.80	0.827	1.13	B	I	31.417	
		TNT7B	42.000	--	1.17	49.303	1.4	0.918	1.88	C	I	21.146	0.974	1.84	C	I	16.917	0.80	0.827	1.17	B	I	31.417	
TNAGRIT4		43.000	--	1.11	47.752	1.4	0.918	1.79	C	I	21.146	0.974	1.78	C	I	16.917	0.80	0.827	1.11	B	I	31.417		
TNAGT5A	45.000	--	1.04	46.989	1.4	0.918	1.66	C	I	21.146	0.974	1.93	C	I	2.115	0.80	0.827	1.04	B	I	31.417			
TNAGT5B	45.000	3	1.03	46.306	1.4	0.918	1.62	C	I	21.146	0.974	1.67	C	I	16.917	0.80	0.827	1.03	B	I	31.417			

NOTES:

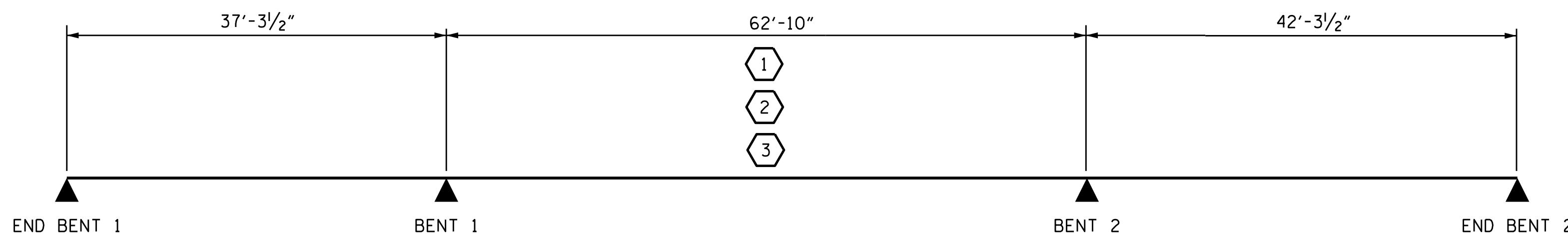
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

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

(DIMENSIONS ARE BRG. TO BRG.)

PROJECT NO. R-2603
WILKES COUNTY
 STATION: 117+35.00 -L-

ASSEMBLED BY : B. A. DUKE	DATE : 4-16-15
CHECKED BY : B. N. GRADY	DATE : 4-22-15
DRAWN BY : MAA 1/08	REV. 11/2/08RR MAA/GM
CHECKED BY : GM/DI 2/08	REV. 10/1/11 MAA/GM



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO.
STANDARD LRFR SUMMARY FOR PRESTRESSED CONCRETE GIRDERS (NON-INTERSTATE TRAFFIC)						S-9
REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	47
1			3			
2			4			