

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 (%L)	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 (%L)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	①	1.155	--	1.75	0.273	1.72	A	EL	39.25	0.502	1.51	A	EL	7.85	0.80	0.273	1.15	A	EL	39.25		
	HL-93(OPr)	N/A	--	1.958	--	1.35	0.273	2.23	A	EL	39.25	0.502	1.96	A	EL	7.85	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	②	1.533	55.181	1.75	0.273	2.28	A	EL	39.25	0.502	1.91	A	EL	7.85	0.80	0.273	1.53	A	EL	39.25		
	HS-20(OPr)	36.000	--	2.473	89.021	1.35	0.273	2.96	A	EL	39.25	0.502	2.47	A	EL	7.85	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13,500	--	3,509	47.376	1.40	0.273	6.53	A	EL	39.25	0.502	5.73	A	EL	7.85	0.80	0.273	3.51	A	EL	39.25	
		SNGARBS2	20,000	--	2,594	51.880	1.40	0.273	4.82	A	EL	39.25	0.502	4.06	A	EL	7.85	0.80	0.273	2.59	A	EL	39.25	
		SNAGRIS2	22,000	--	2,448	53.850	1.40	0.273	4.55	A	EL	39.25	0.502	3.76	A	EL	7.85	0.80	0.273	2.45	A	EL	39.25	
		SNCOTTS3	27,250	--	1,746	47.571	1.40	0.273	3.25	A	EL	39.25	0.502	2.86	A	EL	7.85	0.80	0.273	1.75	A	EL	39.25	
		SNAGGRS4	34,925	--	1,451	50.667	1.40	0.273	2.70	A	EL	39.25	0.502	2.36	A	EL	7.85	0.80	0.273	1.45	A	EL	39.25	
		SNS5A	35,550	--	1,419	50.453	1.40	0.273	2.64	A	EL	39.25	0.502	2.38	A	EL	7.85	0.80	0.273	1.42	A	EL	39.25	
		SNS6A	39,950	--	1,299	51.885	1.40	0.273	2.42	A	EL	39.25	0.502	2.17	A	EL	7.85	0.80	0.273	1.30	A	EL	39.25	
	TRUCK TRAILER SEMI-TRAILER (TTST)	SNS7B	42,000	--	1,237	51.941	1.40	0.273	2.30	A	EL	39.25	0.502	2.13	A	EL	7.85	0.80	0.273	1.24	A	EL	39.25	
		TNAGRIT3	33,000	--	1,583	52.231	1.40	0.273	2.94	A	EL	39.25	0.502	2.59	A	EL	7.85	0.80	0.273	1.58	A	EL	39.25	
		TNT4A	33,075	--	1,589	52.550	1.40	0.273	2.96	A	EL	39.25	0.502	2.53	A	EL	7.85	0.80	0.273	1.59	A	EL	39.25	
		TNT6A	41,600	--	1,296	53.907	1.40	0.273	2.41	A	EL	39.25	0.502	2.25	A	EL	7.85	0.80	0.273	1.30	A	EL	39.25	
		TNT7A	42,000	--	1,301	54.625	1.40	0.273	2.42	A	EL	39.25	0.502	2.21	A	EL	7.85	0.80	0.273	1.30	A	EL	39.25	
		TNT7B	42,000	--	1,341	56.333	1.40	0.273	2.49	A	EL	39.25	0.502	2.08	A	EL	7.85	0.80	0.273	1.34	A	EL	39.25	
		TNAGRIT4	43,000	--	1,279	55.001	1.40	0.273	2.38	A	EL	39.25	0.502	2.02	A	EL	7.85	0.80	0.273	1.28	A	EL	39.25	
TNAGT5A	45,000	--	1,207	54.337	1.40	0.273	2.25	A	EL	39.25	0.502	2.00	A	EL	7.85	0.80	0.273	1.21	A	EL	39.25			
TNAGT5B	45,000	③	1.194	53.739	1.40	0.273	2.22	A	EL	39.25	0.502	1.92	A	EL	7.85	0.80	0.273	1.19	A	EL	39.25			

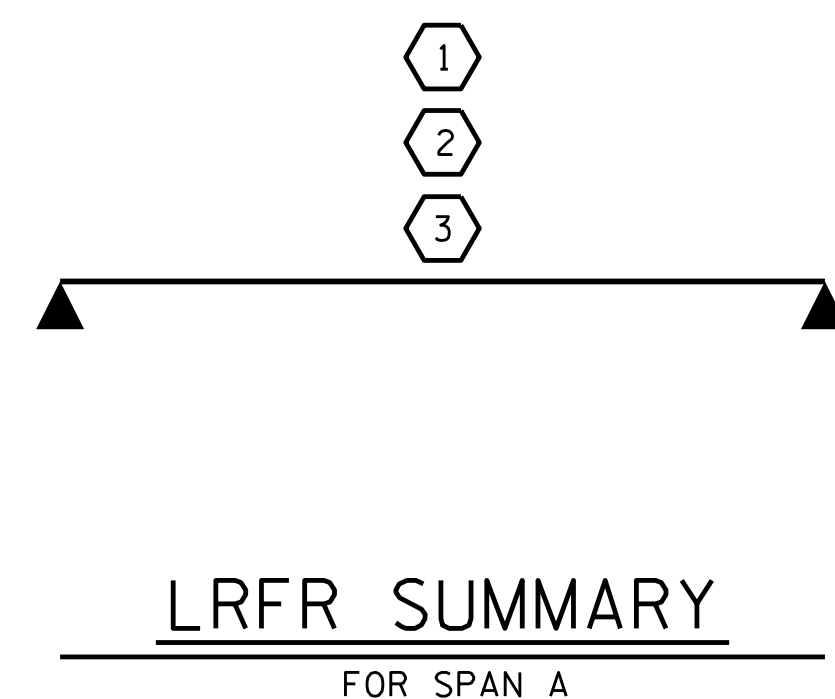
LOAD FACTORS:

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

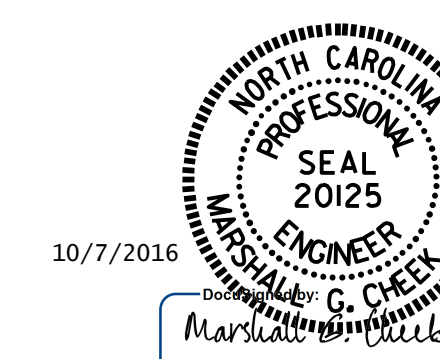
NOTES:

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.

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	



PROJECT NO. B-4814
SAMPSON COUNTY
STATION: 17+71.00 -L-



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
LRFR SUMMARY FOR
80' BOX BEAM UNIT
90°-00'-00" SKEW
(NON-INTERSTATE TRAFFIC)

ASSEMBLED BY : R. CAREATHERS/MP DATE : 6/3/15
CHECKED BY : M. PISO DATE : 6/17/15
DRAWN BY : TMG II/II
CHECKED BY : AAC II/II

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO. S2-4 TOTAL SHEETS 46
	NO.	BY:	DATE:	NO.	BY:	DATE:	
	1			3			
	2			4			