

LOAD AND RESISTANCE FACTOR RATING (LRFD) 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	1.312	--	1.75	0.272	1.49	A	EL	46.75	0.492	1.42	A	EL	46.75	0.80	0.272	1.31	A	EL	46.75		
	HL-93(0pr)	N/A	--	1.845	--	1.35	0.272	1.94	A	EL	46.75	0.492	1.85	A	EL	46.75	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.804	64.941	1.75	0.272	2.05	A	EL	46.75	0.492	1.9	A	EL	46.75	0.80	0.272	1.80	A	EL	46.75		
	HS-20(0pr)	36.000	--	2.466	88.777	1.35	0.272	2.66	A	EL	46.75	0.492	2.47	A	EL	46.75	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	4.246	57.316	1.4	0.272	6.04	A	EL	46.75	0.492	5.85	A	EL	46.75	0.80	0.272	4.25	A	EL	46.75	
		SNGARBS2	20.000	--	3.088	61.767	1.4	0.272	4.4	A	EL	46.75	0.492	4.1	A	EL	46.75	0.80	0.272	3.09	A	EL	46.75	
		SNAGRIS2	22.000	--	2.894	63.671	1.4	0.272	4.12	A	EL	46.75	0.492	3.78	A	EL	46.75	0.80	0.272	2.89	A	EL	46.75	
		SNCOTTS3	27.250	--	2.111	57.512	1.4	0.272	3	A	EL	46.75	0.492	2.91	A	EL	46.75	0.80	0.272	2.11	A	EL	46.75	
		SNAGGRS4	34.925	--	1.735	60.582	1.4	0.272	2.47	A	EL	46.75	0.492	2.38	A	EL	46.75	0.80	0.272	1.73	A	EL	46.75	
		SNS5A	35.550	--	1.698	60.373	1.4	0.272	2.42	A	EL	46.75	0.492	2.38	A	EL	46.75	0.80	0.272	1.70	A	EL	46.75	
		SNS6A	39.950	--	1.546	61.772	1.4	0.272	2.2	A	EL	46.75	0.492	2.16	A	EL	46.75	0.80	0.272	1.55	A	EL	46.75	
	SNS7B	42.000	--	1.472	61.826	1.4	0.272	2.1	A	EL	46.75	0.492	2.1	A	EL	46.75	0.80	0.272	1.47	A	EL	46.75		
	TTST	TNAGRIT3	33.000	--	1.882	62.108	1.4	0.272	2.68	A	EL	46.75	0.492	2.58	A	EL	46.75	0.80	0.272	1.88	A	EL	46.75	
		TNT4A	33.075	--	1.887	62.417	1.4	0.272	2.69	A	EL	46.75	0.492	2.53	A	EL	46.75	0.80	0.272	1.89	A	EL	46.75	
		TNT6A	41.600	--	1.532	63.725	1.4	0.272	2.18	A	EL	46.75	0.492	2.2	A	EL	46.75	0.80	0.272	1.53	A	EL	46.75	
		TNT7A	42.000	--	1.534	64.411	1.4	0.272	2.18	A	EL	46.75	0.492	2.16	A	EL	46.75	0.80	0.272	1.53	A	EL	46.75	
		TNT7B	42.000	--	1.572	66.032	1.4	0.272	2.24	A	EL	46.75	0.492	2.07	A	EL	46.75	0.80	0.272	1.57	A	EL	46.75	
		TNAGRIT4	43.000	--	1.506	64.77	1.4	0.272	2.14	A	EL	46.75	0.492	2.01	A	EL	46.75	0.80	0.272	1.51	A	EL	46.75	
TNAGT5A		45.000	--	1.425	64.137	1.4	0.272	2.03	A	EL	46.75	0.492	1.97	A	EL	46.75	0.80	0.272	1.43	A	EL	46.75		
TNAGT5B	45.000	3	1.413	63.564	1.4	0.272	2.01	A	EL	46.75	0.492	1.91	A	EL	46.75	0.80	0.272	1.41	A	EL	46.75			

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.

CONTROLLING LOAD RATING

1 DESIGN LOAD RATING (HL-93)

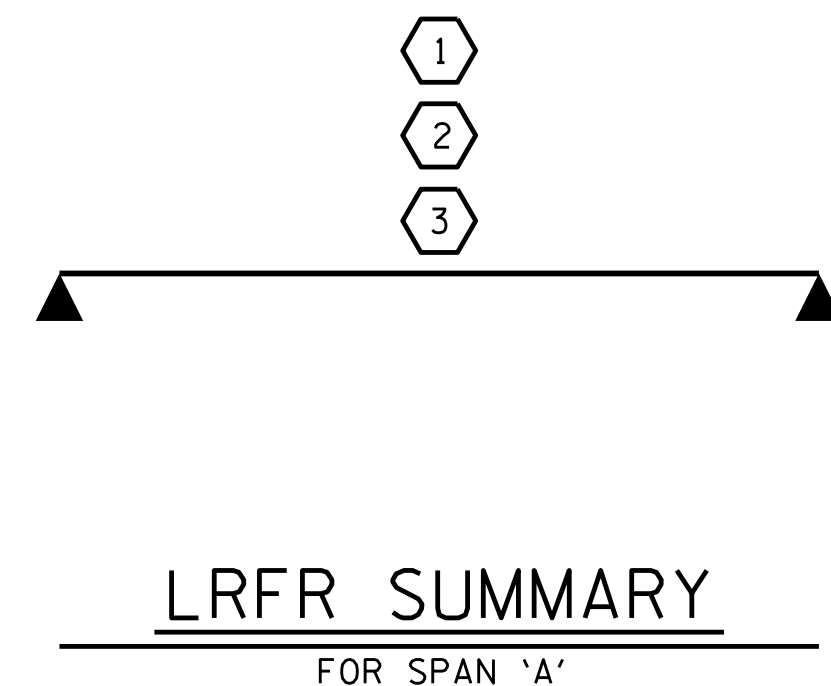
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING **

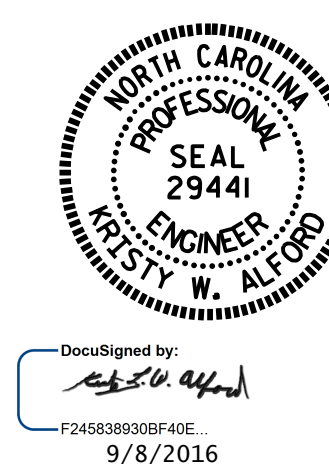
** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



PROJECT NO. B-4945
VANCE COUNTY
 STATION: 16+89.00 -L-



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-3
STANDARD LRFR SUMMARY FOR 95' BOX BEAM UNIT 90° SKEW (NON-INTERSTATE TRAFFIC)						TOTAL SHEETS 15
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

ASSEMBLED BY : M.M. AHMED	DATE : 3-21-16
CHECKED BY : J.P. ADAMS	DATE : 8/2016
DRAWN BY : TMG	II/II
CHECKED BY : AAC	II/II