

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	STRENGTH I	1.25	1.50
	SERVICE II	1.00	1.00

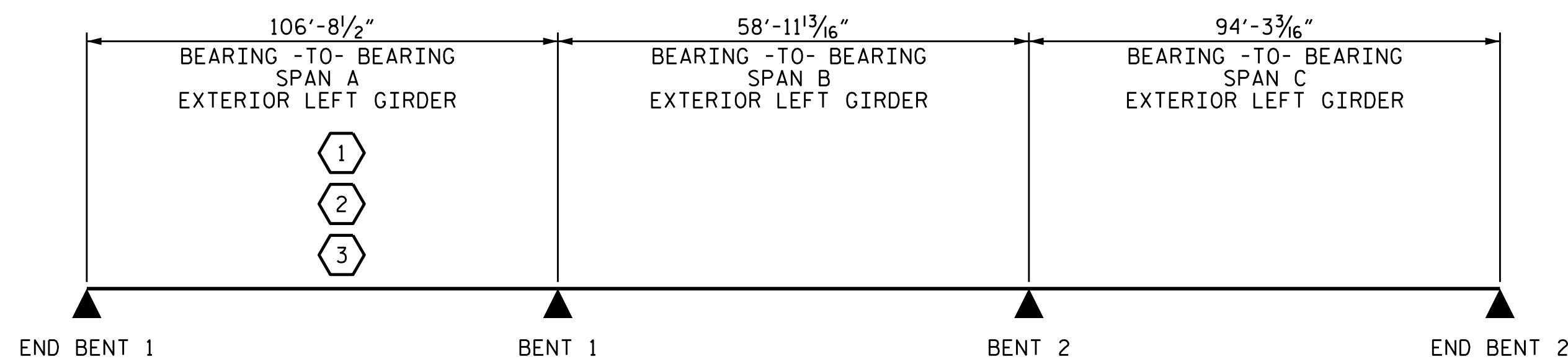
LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR STEEL GIRDERS

LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE II LIMIT STATE					COMMENT NUMBER		
						LIVE-LOAD FACTORS ( $\gamma_{LL}$ )	MOMENT					SHEAR					LIVE-LOAD FACTORS ( $\gamma_{LL}$ )	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 (INVENTORY)	N/A	①	1.35	--	1.75	--	1.35	A	EL	51.78	--	--	--	--	--	1.30	--	--	--	--	--	--
	HL-93 (OPERATING)	N/A		1.76	--	1.35	--	1.76	A	EL	51.78	--	--	--	--	--	1.00	--	--	--	--	--	--
	HS-20 (INVENTORY)	36.00	②	1.87	67.3	1.75	--	1.87	A	EL	51.78	--	--	--	--	--	1.30	--	--	--	--	--	--
	HS-20 (OPERATING)	36.00		2.43	87.5	1.35	--	2.43	A	EL	51.78	--	--	--	--	--	1.00	--	--	--	--	--	--
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		5.55	74.9	1.40	--	5.55	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNGARBS2	20.000		4.01	80.2	1.40	--	4.01	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNAGRIS2	22.000		3.74	82.3	1.40	--	3.74	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNCOTTS3	27.250		2.77	75.5	1.40	--	2.77	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNAGGRS4	34.925		2.27	79.3	1.40	--	2.27	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNS5A	35.550		2.23	79.3	1.40	--	2.23	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNS6A	39.950		2.02	80.7	1.40	--	2.02	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		SNS7B	42.000		1.93	81.1	1.40	--	1.93	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
	TRUCK TRACTOR SEMI-TRAILER (TTS1)	TNAGRIT3	33.000		6.71	221.4	1.40	--	6.71	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		TNT4A	33.075		2.55	84.3	1.40	--	2.55	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		TNT6A	41.600		2.04	84.9	1.40	--	2.04	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		TNT7A	42.000		1.93	81.1	1.40	--	1.93	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		TNT7B	42.000	③	1.91	80.2	1.40	--	1.91	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
		TNAGRIT4	43.000		2.08	89.4	1.40	--	2.08	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--
TNAGT5A	45.000		2.07	93.2	1.40	--	2.07	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--		
TNAGT5B	45.000		2.11	95.0	1.40	--	2.11	A	EL	51.78	--	--	--	--	1.30	--	--	--	--	--	--		
FATIGUE	HL-93 (INVENTORY)	$\gamma_{LL}=0.75$		2.43																			

NOTES:

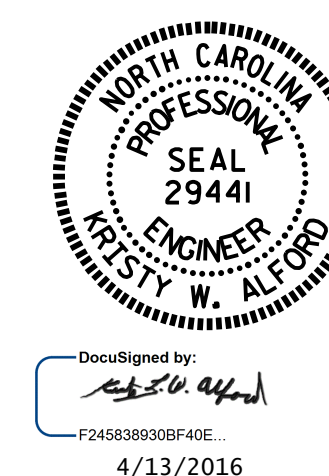
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE II LIMIT STATES.  
ALLOWABLE STRESS FOR SERVICE II LIMIT STATE ARE AS REQUIRED FOR DESIGN.

#	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	



LRFR SUMMARY

PROJECT NO. B-5121/B-5317  
WAKE COUNTY  
STATION: 20+19.94 -FLYOVER-



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

ASSEMBLED BY : R. L. CHESSON	DATE : 12/2015
CHECKED BY : K.W. ALFORD	DATE : 2/2016
DRAWN BY : MAA	1/08
CHECKED BY : GM/DI	2/08
REV. 11/12/08RR	MAA/GM
REV. 10/1/11	MAA/GM

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-49
1			3			TOTAL SHEETS 110
2			4			