

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 BOX BEAM UNITS

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	1.23	--	1.75	0.247	1.5	B	EL	51.562	0.615	1.33	B	EL	10.312	0.80	0.247	1.23	B	EL	51.562		
	HL-93(0pr)	N/A	--	1.72	--	1.35	0.247	1.94	B	EL	51.562	0.615	1.72	B	EL	10.312	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.72	62.092	1.75	0.247	2.11	B	EL	51.562	0.615	1.78	B	EL	10.312	0.80	0.247	1.72	B	EL	51.562		
	HS-20(0pr)	36.000	--	2.31	83.078	1.35	0.247	2.73	B	EL	51.562	0.615	2.31	B	EL	10.312	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	4.11	55.518	1.4	0.247	6.28	B	EL	51.562	0.615	5.49	B	EL	10.312	0.80	0.247	4.11	B	EL	51.562	
		SNGARBS2	20.000	--	2.97	59.376	1.4	0.247	4.54	B	EL	51.562	0.615	3.84	B	EL	10.312	0.80	0.247	2.97	B	EL	51.562	
		SNAGRIS2	22.000	--	2.77	61.009	1.4	0.247	4.24	B	EL	51.562	0.615	3.54	B	EL	10.312	0.80	0.247	2.77	B	EL	51.562	
		SNCOTTS3	27.250	--	2.04	55.689	1.4	0.247	3.12	B	EL	51.562	0.615	2.73	B	EL	10.312	0.80	0.247	2.04	B	EL	51.562	
		SNAGGRS4	34.925	--	1.67	58.355	1.4	0.247	2.55	B	EL	51.562	0.615	2.23	B	EL	10.312	0.80	0.247	1.67	B	EL	51.562	
		SNS5A	35.550	--	1.64	58.174	1.4	0.247	2.5	B	EL	51.562	0.615	2.23	B	EL	10.312	0.80	0.247	1.64	B	EL	51.562	
		SNS6A	39.950	--	1.49	59.381	1.4	0.247	2.27	B	EL	51.562	0.615	2.02	B	EL	10.312	0.80	0.247	1.49	B	EL	51.562	
	TTST	SNS7B	42.000	--	1.41	59.427	1.4	0.247	2.16	B	EL	51.562	0.615	1.96	B	EL	10.312	0.80	0.247	1.41	B	EL	51.562	
		TNAGRIT3	33.000	--	1.81	59.670	1.4	0.247	2.76	B	EL	51.562	0.615	2.42	B	EL	10.312	0.80	0.247	1.81	B	EL	51.562	
		TNT4A	33.075	--	1.81	59.935	1.4	0.247	2.77	B	EL	51.562	0.615	2.37	B	EL	10.312	0.80	0.247	1.81	B	EL	51.562	
		TNT6A	41.600	--	1.47	61.055	1.4	0.247	2.24	B	EL	51.562	0.615	2.05	B	EL	10.312	0.80	0.247	1.47	B	EL	51.562	
		TNT7A	42.000	--	1.47	61.641	1.4	0.247	2.24	B	EL	51.562	0.615	2.02	B	EL	10.312	0.80	0.247	1.47	B	EL	51.562	
		TNT7B	42.000	--	1.5	63.019	1.4	0.247	2.29	B	EL	51.562	0.615	1.93	B	EL	10.312	0.80	0.247	1.50	B	EL	51.562	
		TNAGRIT4	43.000	--	1.44	61.946	1.4	0.247	2.2	B	EL	51.562	0.615	1.88	B	EL	10.312	0.80	0.247	1.44	B	EL	51.562	
TNAGT5A	45.000	--	1.36	61.407	1.4	0.247	2.09	B	EL	51.562	0.615	1.84	B	EL	10.312	0.80	0.247	1.36	B	EL	51.562			
TNAGT5B	45.000	3	1.35	60.917	1.4	0.247	2.07	B	EL	51.562	0.615	1.79	B	EL	10.312	0.80	0.247	1.35	B	EL	51.562			

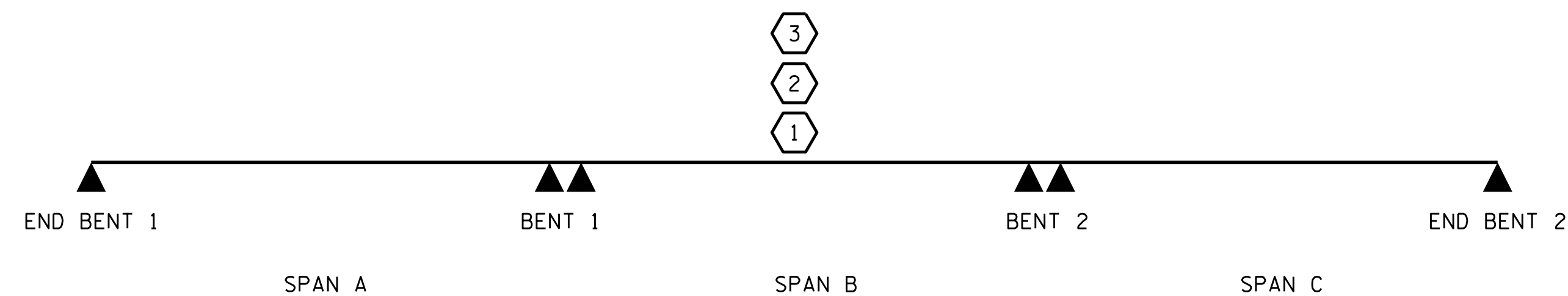
NOTES:

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.

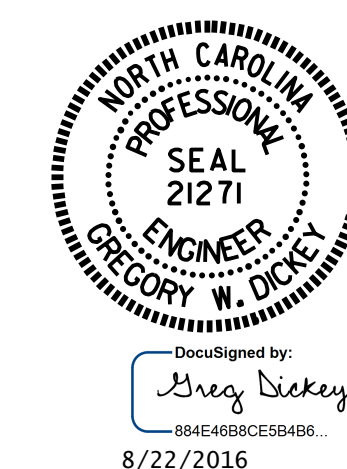
COMMENTS:

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#	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-5360
RANDOLPH COUNTY
 STATION: 23+68.00 -L-



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

ASSEMBLED BY : A. K. PATEL DATE : 1/19/16
 CHECKED BY : W. F. PARKER DATE : 3/16
 DESIGN ENGINEER OF RECORD : K. P. SEDA I DATE : 6/16
 DRAWN BY : MAA 1/08 REV. 11/12/08RR MAA/GM
 CHECKED BY : GM/DI 2/08 REV. 10/11/11 MAA/GM

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			38