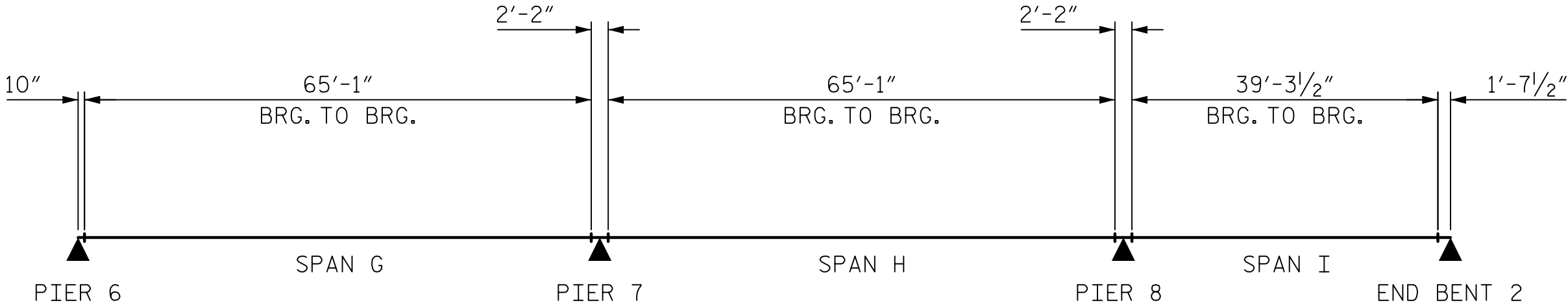
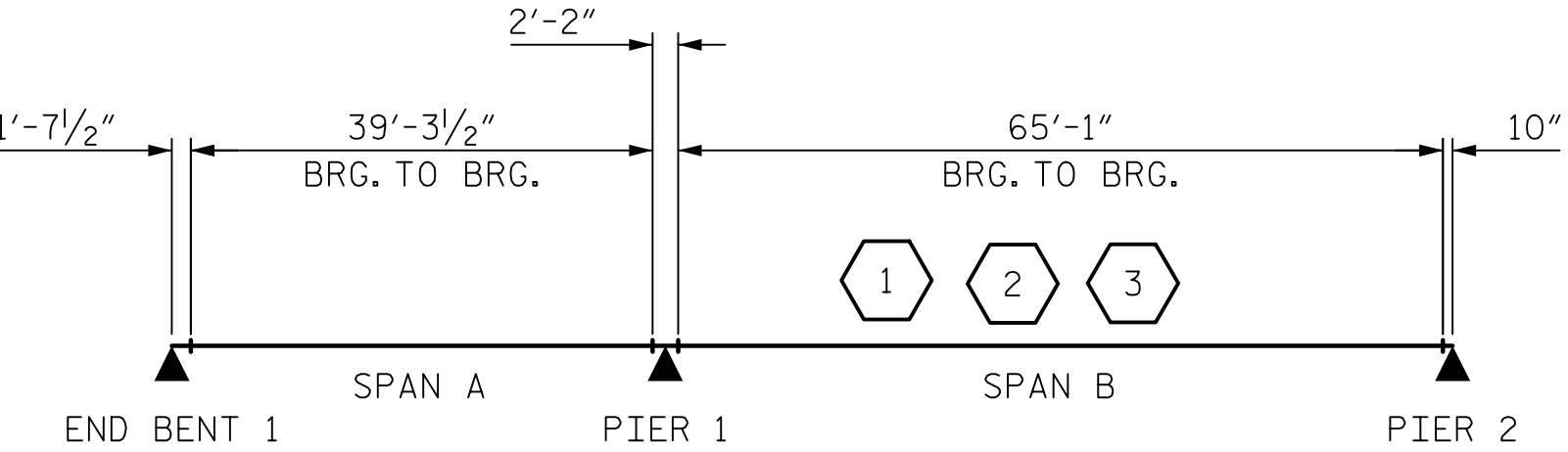


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LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS																								
LEVEL	VEHICLE	WEIGHT (W) (TONS)	⬢	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE						COMMENT NUMBER		
						LIVE-LOAD FACTORS (γ _{LL})	MOMENT					SHEAR					LIVE-LOAD FACTORS (γ _{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	1.07	--	1.75	1.08	1.50	B	EL	32.54	1.08	1.46	B	EL	3.56	0.80	1.08	1.07	B	EL	32.54		
	HL-93 (OPERATING)	N/A		1.91	--	1.35	1.08	1.95	B	EL	32.54	1.08	1.91	B	EL	3.56	N/A	--	--	--	--	--		
	HS-20 (INVENTORY)	36.000	2	1.38	49.680	1.75	1.08	1.93	B	EL	32.54	1.08	1.83	B	EL	3.56	0.80	1.08	1.38	B	EL	32.54		
	HS-20 (OPERATING)	36.000		2.40	86.400	1.35	1.08	2.51	B	EL	32.54	1.08	2.40	B	EL	3.56	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH		2.92	39.420	1.40	1.08	4.90	A	EL	19.65	1.08	5.57	B	EL	3.56	0.80	1.08	2.92	A	EL	19.65		
		SNGARBS2		4.13	82.600	1.40	1.08	6.93	A	EL	19.65	1.08	8.68	B	EL	3.56	0.80	1.08	4.13	A	EL	19.65		
		SNAGRIS2		2.18	47.960	1.40	1.08	3.83	B	EL	32.54	1.08	3.67	B	EL	3.56	0.80	1.08	2.18	B	EL	32.54		
		SNCOTTS3		1.46	39.785	1.40	1.08	2.45	A	EL	19.65	1.08	2.74	B	EL	3.56	0.80	1.08	1.46	A	EL	19.65		
		SNAGGRS4		1.27	44.355	1.40	1.08	2.20	A	EL	19.65	1.08	2.27	B	EL	3.56	0.80	1.08	1.27	B	EL	32.54		
		SNS5A		1.25	44.438	1.40	1.08	2.14	A	EL	19.65	1.08	2.30	B	EL	3.56	0.80	1.08	1.25	B	EL	32.54		
		SNS6A		1.15	45.943	1.40	1.08	2.01	B	EL	32.54	1.08	2.10	B	EL	3.56	0.80	1.08	1.15	B	EL	32.54		
		SNS7B		1.09	45.780	1.40	1.08	1.92	B	EL	32.54	1.08	2.05	B	EL	3.56	0.80	1.08	1.09	B	EL	32.54		
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3			1.40	46.200	1.40	1.08	2.46	B	EL	32.54	1.08	2.51	B	EL	3.56	0.80	1.08	1.40	B	EL	32.54	
		TNT4A			1.41	46.636	1.40	1.08	2.47	B	EL	32.54	1.08	2.44	B	EL	3.56	0.80	1.08	1.41	B	EL	32.54	
		TNT6A			1.16	48.256	1.40	1.08	2.03	B	EL	32.54	1.08	2.22	B	EL	3.56	0.80	1.08	1.16	B	EL	32.54	
		TNT7A			1.16	48.720	1.40	1.08	2.04	B	EL	32.54	1.08	2.16	B	EL	3.56	0.80	1.08	1.16	B	EL	32.54	
		TNT7B			1.21	50.820	1.40	1.08	2.13	B	EL	32.54	1.08	2.01	B	EL	3.56	0.80	1.08	1.21	B	EL	32.54	
		TNAGRIT4			1.15	49.450	1.40	1.08	2.01	B	EL	32.54	1.08	1.94	B	EL	3.56	0.80	1.08	1.15	B	EL	32.54	
		TNAGT5A			1.08	48.600	1.40	1.08	1.90	B	EL	32.54	1.08	1.94	B	EL	3.56	0.80	1.08	1.08	B	EL	32.54	
		TNAGT5B		3	1.06	47.700	1.40	1.08	1.87	B	EL	32.54	1.08	1.84	B	EL	3.56	0.80	1.08	1.06	B	EL	32.54	



LRFR SUMMARY

DRAWN BY : T. STUMP	DATE : 10/2017
CHECKED BY : J. SLOAN	DATE : 10/2017
DESIGNED BY : K. DONALD	DATE : 9/2017
DESIGN CHECKED BY : J. SLOAN	DATE : 10/2017

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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.

LOAD AND FACTOR RESISTANCE RATINGS ARE CALCULATED FOR PROPOSED PRESTRESSED CONCRETE GIRDERS.

COMMENTS:

-
-
-
-

CONTROLLING LOAD RATING

1 DESIGN LOAD RATING (HL-93)

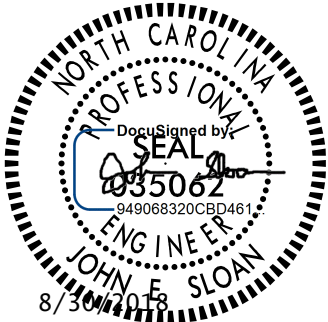
2 DESIGN LOAD RATING (HS-20)

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-4974
STANLY/MONTGOMERY COUNTY
STATION: 339+86.39 -L-



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

LRFR SUMMARY FOR
PRESTRESSED
CONCRETE GIRDERS
(NON-INTERSTATE TRAFFIC)

REVISIONS						SHEET NO. S-7
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 148
2			4			