

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	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			
						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	1.20	--	1.75	0.885	1.31	B	EL	41.400	0.977	1.38	C	I	9.200	0.80	0.885	1.20	C	EL	48.900	1	
	HL-93 (OPERATING)	N/A		1.70	--	1.35	0.885	1.70	B	EL	41.400	0.977	1.82	C	I	9.200	N/A	--	--	--	--	--	1,2	
	HS-20 (INVENTORY)	36.000	②	1.67	60.12	1.75	0.885	1.77	B	EL	41.400	0.977	1.88	C	I	9.200	0.80	0.885	1.67	C	EL	48.900	1	
	HS-20 (OPERATING)	36.000		2.30	82.80	1.35	0.885	2.30	B	EL	41.400	0.977	2.48	C	I	9.200	N/A	--	--	--	--	--	1,2	
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.91	52.79	1.40	0.885	5.14	B	EL	41.400	0.977	6.33	C	I	9.200	0.80	0.812	3.91	B		41.400	1
		SNGARBS2	20.000		2.86	57.20	1.40	0.885	3.77	B	EL	41.400	0.977	4.41	C	I	9.200	0.80	0.812	2.86	B		41.400	1
		SNAGRIS2	22.000		2.69	59.18	1.40	0.885	3.54	B	EL	41.400	0.977	4.06	C	I	9.200	0.80	0.885	2.69	B	EL	41.400	1
		SNCOTTS3	27.250		1.94	52.87	1.40	0.885	2.55	B	EL	41.400	0.977	3.05	C	I	9.200	0.80	0.812	1.94	B		41.400	1
		SNAGGRS4	34.925		1.61	56.23	1.40	0.885	2.11	B	EL	41.400	0.977	2.38	C	I	9.200	0.80	0.885	1.61	B	EL	41.400	1
		SNS5A	35.550		1.57	55.81	1.40	0.885	2.07	B	EL	41.400	0.977	2.39	C	I	9.200	0.80	0.812	1.57	B		41.400	1
		SNS6A	39.950		1.43	57.13	1.40	0.885	1.89	B	EL	41.400	0.977	2.15	C	I	9.200	0.80	0.812	1.43	B		41.400	1
		SNS7B	42.000		1.37	57.54	1.40	0.885	1.80	B	EL	41.400	0.977	2.06	C	I	9.200	0.80	0.885	1.37	B	EL	41.400	1
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.75	57.75	1.40	0.885	2.30	B	EL	41.400	0.977	2.56	C	I	9.200	0.80	0.885	1.75	B	EL	41.400	1
		TNT4A	33.075		1.75	57.88	1.40	0.885	2.30	B	EL	41.400	0.977	2.69	C	I	9.200	0.80	0.812	1.75	B		41.400	1
		TNT6A	41.600		1.42	59.07	1.40	0.885	1.88	B	EL	41.400	0.977	2.20	C	I	9.200	0.80	0.885	1.42	C	EL	48.900	1
		TNT7A	42.000		1.42	59.64	1.40	0.885	1.88	B	EL	41.400	0.977	2.16	C	I	9.200	0.80	0.885	1.42	C	EL	48.900	1
		TNT7B	42.000		1.46	61.32	1.40	0.885	1.93	B	EL	41.400	0.977	2.06	C	I	9.200	0.80	0.885	1.46	C	EL	48.900	1
		TNAGRIT4	43.000		1.40	60.20	1.40	0.885	1.85	B	EL	41.400	0.977	2.02	C	I	9.200	0.80	0.885	1.40	C	EL	48.900	1
		TNAGT5A	45.000		1.32	59.40	1.40	0.885	1.75	B	EL	41.400	0.977	1.93	C	I	9.200	0.80	0.885	1.32	C	EL	48.900	1
TNAGT5B	45.000	③	1.31	58.95	1.40	0.885	1.73	B	EL	41.400	0.977	1.92	C	I	9.200	0.80	0.885	1.31	B	EL	41.400	1		

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:

- ALL DISTANCES ARE MEASURED FROM CENTERLINE OF BEARING AT THE LEFT END OF THE SPAN.
- SERVICE III LIMIT STATE NOT APPLICABLE AT THE OPERATIONAL LEVEL.

# CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

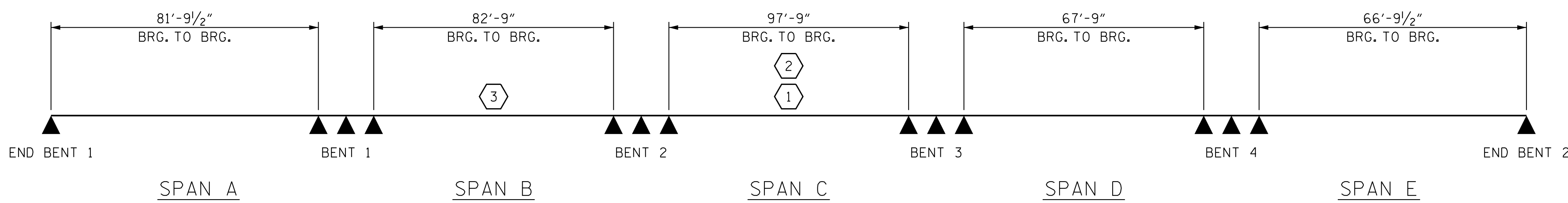
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

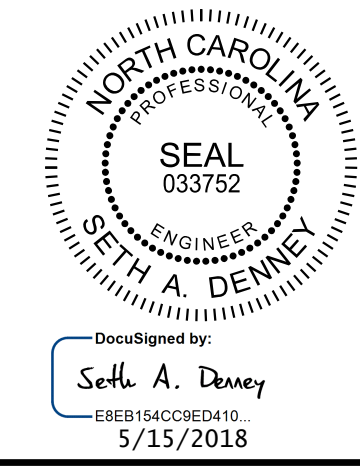
GIRDER LOCATION

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



PROJECT NO. R-3822  
HALIFAX COUNTY  
STATION: 99+17.60 -L1-

LRFR SUMMARY



**Kimley»Horn**  
421 Fayetteville Street, Suite 600  
Raleigh, NC 27601-1772  
Phone (919) 677-2000 NC LICENSE # F-0102

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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			58

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