

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.

COMMENTS:

1. NCDOT PROCURED ‘STANDARD’ CORED SLAB UNITS FOR TEMPORARY USE DUE TO HURRICANE RELIEF. THIS PROJECT WILL REUSE SEVERAL OF THOSE BEAMS. ANY BEAMS LABELED FOR REUSE SHALL BE VERIFIED WITH SHOP DRAWINGS PROVIDED BY THE ORIGINAL FABRICATOR OR NCDOT. RS&H TAKES NO RESPONSIBILITY FOR REUSED BEAMS LABELED FOR REUSE BY NCDOT.

CONTROLLING LOAD RATING

1

DESIGN LOAD RATING (HL-93)

2

DESIGN LOAD RATING (HS-20)

3

LEGAL LOAD RATING **

4

EMERGENCY VEHICLE LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

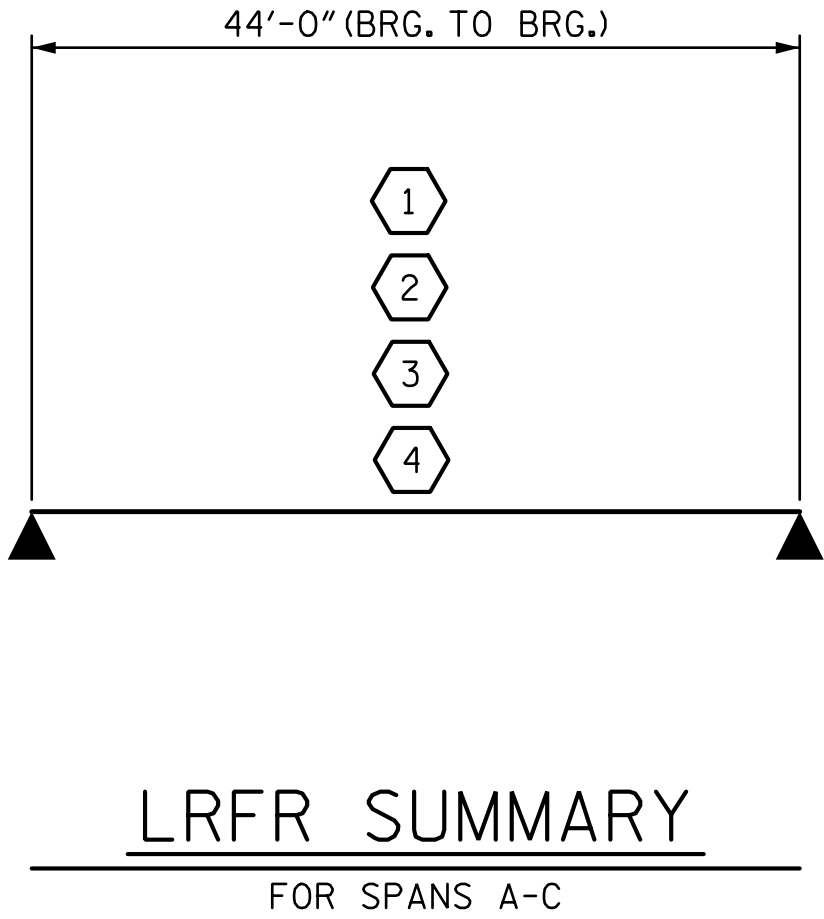
I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER

PROJECT NO. DF18314.2045332

HENDERSON COUNTY

STATION: 13+70.81 -L-

LOAD AND RESISTANCE FACTOR RATING (LRFD) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS																								
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	1.121	--	1.75	0.274	1.45	45'	EL	22.00	0.543	1.40	45'	EL	2.20	0.80	0.274	1.12	45'	EL	22.00		
	HL-93(0pr)	N/A	--	1.813	--	1.35	0.274	1.87	45'	EL	22.00	0.543	1.81	45'	EL	2.20	N/A	0.274	--	45'	EL	22.00		
	HS-20(Inv)	36.000	2	1.377	49.561	1.75	0.274	1.77	45'	EL	22.00	0.543	1.65	45'	EL	2.20	0.80	0.274	1.38	45'	EL	22.00		
	HS-20(0pr)	36.000	--	2.142	77.130	1.35	0.274	2.30	45'	EL	22.00	0.543	2.14	45'	EL	2.20	N/A	0.274	--	45'	EL	22.00		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.690	36.319	1.4	0.274	4.33	45'	EL	22.00	0.543	4.56	45'	EL	2.20	0.80	0.274	2.69	45'	EL	22.00	
		SNGARBS2	20.000	--	2.172	43.443	1.4	0.274	3.50	45'	EL	22.00	0.543	3.35	45'	EL	2.20	0.80	0.274	2.17	45'	EL	22.00	
		SNAGRIS2	22.000	--	2.136	46.991	1.4	0.274	3.39	45'	EL	26.40	0.543	3.15	45'	EL	2.20	0.80	0.274	2.14	45'	EL	26.40	
		SNCOTTS3	27.250	--	1.343	36.603	1.4	0.274	2.16	45'	EL	22.00	0.543	2.29	45'	EL	2.20	0.80	0.274	1.34	45'	EL	22.00	
		SNAGGRS4	34.925	--	1.185	41.398	1.4	0.274	1.91	45'	EL	22.00	0.543	1.97	45'	EL	2.20	0.80	0.274	1.18	45'	EL	22.00	
		SNS5A	35.550	--	1.155	41.048	1.4	0.274	1.86	45'	EL	22.00	0.543	2.04	45'	EL	2.20	0.80	0.274	1.15	45'	EL	22.00	
		SNS6A	39.950	--	1.088	43.452	1.4	0.274	1.75	45'	EL	22.00	0.543	1.90	45'	EL	2.20	0.80	0.274	1.08	45'	EL	22.00	
		SNS7B	42.000	--	1.037	43.549	1.4	0.274	1.67	45'	EL	22.00	0.543	1.91	45'	EL	2.20	0.80	0.274	1.04	45'	EL	22.00	
	TTST	TNAGRIT3	33.000	--	1.335	44.054	1.4	0.274	2.15	45'	EL	22.00	0.543	2.23	45'	EL	2.20	0.80	0.274	1.33	45'	EL	22.00	
		TNT4A	33.075	--	1.349	44.617	1.4	0.274	2.17	45'	EL	22.00	0.543	2.14	45'	EL	2.20	0.80	0.274	1.35	45'	EL	22.00	
		TNT6A	41.600	--	1.132	47.097	1.4	0.274	1.82	45'	EL	22.00	0.543	2.08	45'	EL	2.20	0.80	0.274	1.13	45'	EL	22.00	
		TNT7A	42.000	--	1.154	48.468	1.4	0.274	1.86	45'	EL	22.00	0.543	1.92	45'	EL	2.20	0.80	0.274	1.15	45'	EL	22.00	
		TNT7B	42.000	--	1.201	50.459	1.4	0.274	1.94	45'	EL	22.00	0.543	1.83	45'	EL	2.20	0.80	0.274	1.20	45'	EL	22.00	
		TNAGRIT4	43.000	--	1.144	49.203	1.4	0.274	1.84	45'	EL	22.00	0.543	1.76	45'	EL	2.20	0.80	0.274	1.14	45'	EL	22.00	
		TNAGT5A	45.000	--	1.065	47.914	1.4	0.274	1.72	45'	EL	22.00	0.543	1.80	45'	EL	2.20	0.80	0.274	1.06	45'	EL	22.00	
		TNAGT5B	45.000	3	1.040	46.783	1.4	0.274	1.67	45'	EL	22.00	0.543	1.67	45'	EL	2.20	0.80	0.274	1.04	45'	EL	22.00	
EMERGENCY VEHICLE (EV)	EV2	28.750	--	1.558	44.784	1.3	0.274	2.69	45'	EL	22.00	0.543	2.54	45'	EL	2.20	0.80	0.274	1.56	45'	EL	22.00		
	EV3	43.000	4	1.001	43.053	1.3	0.274	1.74	45'	EL	22.00	0.543	1.72	45'	EL	2.20	0.80	0.274	1.00	45'	EL	22.00		



DRAWN BY :	M. KHIN	DATE :	01/2025
CHECKED BY :	M. ACOSTA	DATE :	01/2025
DESIGN ENGINEER OF RECORD:	M. ACOSTA	DATE :	03/2026

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

STANDARD

LRFR SUMMARY FOR

45' CORED SLAB UNIT

90° SKEW

(NON-INTERSTATE TRAFFIC)

4/13/2026

RS&H

RS&H Architects-Engineers-Planners, Inc.

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REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO.

S-5

TOTAL SHEETS

32

STD. NO. 21LRFR1_90S_45L