

LOAD FACTORS:

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

LOAD AND RESISTANCE FACTOR RATING (LRFR) 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
						LIVE-LOAD FACTORS (%LL)	MOMENT					SHEAR					LIVE-LOAD FACTORS (%LL)	MOMENT						
							DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)		DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (++)		
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.15	--	1.75	0.78	1.56	A	EL	45.9	0.90	1.15	A	I	8.6	0.80	0.78	1.30	A	EL	45.9		
	HL-93 (OPERATING)	N/A		1.52	--	1.35	0.78	2.02	A	EL	45.9	0.90	1.52	A	I	8.6	N/A	--	--	--	--	--		
	HS-20 (INVENTORY)	36.000	②	1.54	55.44	1.75	0.78	2.14	A	EL	45.9	0.90	1.54	A	I	8.6	0.80	0.78	1.78	A	EL	45.9		
	HS-20 (OPERATING)	36.000		2.04	73.44	1.35	0.78	2.77	A	EL	45.9	0.90	2.04	A	I	8.6	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		4.19	56.57	1.40	0.78	6.27	A	EL	45.9	0.90	5.00	A	I	8.6	0.80	0.78	4.19	A	EL	45.9	
		SNGARBS2	20.000		3.05	61.00	1.40	0.78	4.57	A	EL	45.9	0.90	3.47	A	I	8.6	0.80	0.78	3.05	A	EL	45.9	
		SNAGRIS2	22.000		2.86	62.92	1.40	0.78	4.29	A	EL	45.9	0.90	3.20	A	I	8.6	0.80	0.78	2.86	A	EL	45.9	
		SNCOTTS3	27.250		2.08	56.68	1.40	0.78	3.12	A	EL	45.9	0.90	2.43	A	I	8.6	0.80	0.78	2.08	A	EL	45.9	
		SNAGGRS4	34.925		1.71	59.72	1.40	0.78	2.57	A	EL	45.9	0.90	1.96	A	I	8.6	0.80	0.78	1.71	A	EL	45.9	
		SNS5A	35.550		1.68	59.72	1.40	0.78	2.51	A	EL	45.9	0.90	1.97	A	I	8.6	0.80	0.78	1.68	A	EL	45.9	
		SNS6A	39.950		1.53	61.12	1.40	0.78	2.29	A	EL	45.9	0.90	1.78	A	I	8.6	0.80	0.78	1.53	A	EL	45.9	
		SNS7B	42.000		1.45	60.90	1.40	0.78	2.18	A	EL	45.9	0.90	1.73	A	I	8.6	0.80	0.78	1.45	A	EL	45.9	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.86	61.38	1.40	0.78	2.79	A	EL	45.9	0.90	2.15	A	I	8.6	0.80	0.78	1.86	A	EL	45.9	
		TNT4A	33.075		1.86	61.52	1.40	0.78	2.79	A	EL	45.9	0.90	2.10	A	I	8.6	0.80	0.78	1.86	A	EL	45.9	
		TNT6A	41.600		1.51	62.82	1.40	0.78	2.27	A	EL	45.9	0.90	1.83	A	I	8.6	0.80	0.78	1.51	A	EL	45.9	
		TNT7A	42.000		1.52	63.84	1.40	0.78	2.27	A	EL	45.9	0.90	1.79	A	I	8.6	0.80	0.78	1.52	A	EL	45.9	
		TNT7B	42.000		1.56	65.52	1.40	0.78	2.33	A	EL	45.9	0.90	1.70	A	I	8.6	0.80	0.78	1.56	A	EL	45.9	
		TNAGRIT4	43.000		1.49	64.07	1.40	0.78	2.23	A	EL	45.9	0.90	1.64	A	I	8.6	0.80	0.78	1.49	A	EL	45.9	
		TNACT5A	45.000		1.41	63.45	1.40	0.78	2.11	A	EL	45.9	0.90	1.62	A	I	8.6	0.80	0.78	1.41	A	EL	45.9	
TNACT5B	45.000	③	1.40	63.00	1.40	0.78	2.09	A	EL	45.9	0.90	1.56	A	I	8.6	0.80	0.78	1.40	A	EL	45.9			

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.

③ CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

② DESIGN LOAD RATING (HS-20)

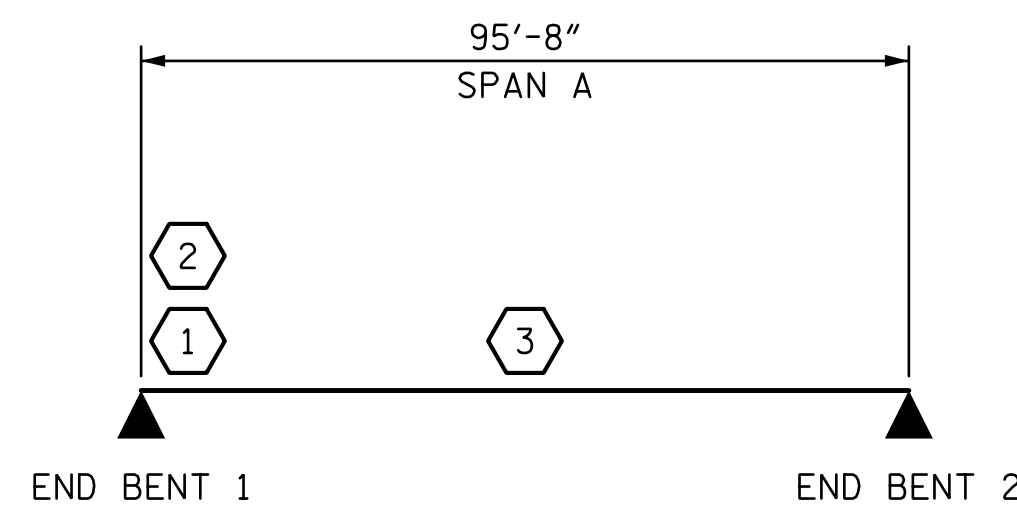
③ LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

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GIRDER LOCATION

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

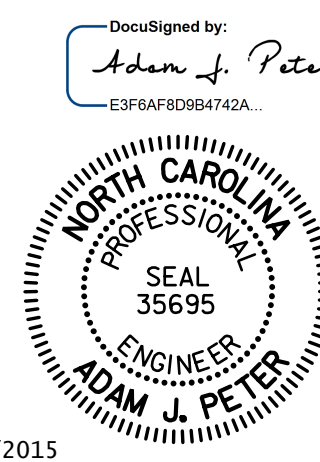


LRFR SUMMARY

PROJECT NO. R-2514D

JONES & CRAVEN COUNTY

STATION: 428+53.58 -L-  
 = 13+04.09 -Y5-



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

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

DRAWN BY: VMW DATE: 6-14  
 CHECKED BY: AJP DATE: 6-14  
 DESIGN ENGINEER OF RECORD: A. PETER DATE: 6-14

REVISED PER NCDOT COMMENTS

STV / Ralph Whitehead Associates, Inc.  
 900 West Trade Street, Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1	STV	4-15	3		
2			4		

TOTAL SHEETS  
24