

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			
						MOMENT					SHEAR					MOMENT								
						LIVELOAD FACTORS, $\gamma_{LL}$	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)	LIVELOAD FACTORS, $\gamma_{LL}$	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	①	1.07	--	1.75	0.914	1.39	A	EL	42.963	0.990	1.07	A	I	60.148	0.80	0.914	1.10	B	EL	45.359		
	HL-93(0pr)	N/A	--	1.38	--	1.35	0.914	1.80	A	EL	42.963	0.990	1.38	A	I	60.148	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	②	1.32	47.520	1.75	0.914	1.88	A	EL	42.963	0.990	1.32	A	I	60.148	0.80	0.914	1.50	B	EL	45.359		
	HS-20(0pr)	36.000	--	1.71	61.560	1.35	0.914	2.43	A	EL	42.963	0.990	1.71	A	I	60.148	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SINGLE VEHICLE SV	SNSH	13.500	--	3.51	47.385	1.40	0.914	5.45	A	EL	42.963	0.990	3.89	A	I	60.148	0.80	0.914	3.51	B	EL	45.359	
		SNGARBS2	20.000	--	2.56	51.200	1.40	0.914	4.00	A	EL	42.963	0.990	2.78	A	I	60.148	0.80	0.914	2.56	B	EL	45.359	
		SNAGRIS2	22.000	--	2.40	52.800	1.40	0.914	3.76	A	EL	42.963	0.990	2.58	A	I	60.148	0.80	0.914	2.40	B	EL	45.359	
		SNCOTTS3	27.250	--	1.75	47.688	1.40	0.914	2.71	A	EL	42.963	0.990	1.94	A	I	60.148	0.80	0.914	1.75	B	EL	45.359	
		SNAGGRS4	34.925	--	1.44	50.292	1.40	0.914	2.24	A	EL	42.963	0.990	1.62	A	I	60.148	0.80	0.914	1.44	B	EL	45.359	
		SNS5A	35.550	--	1.41	50.126	1.40	0.914	2.19	A	EL	42.963	0.990	1.65	A	I	60.148	0.80	0.914	1.41	B	EL	45.359	
		SNS6A	39.950	--	1.28	51.136	1.40	0.914	2.00	A	EL	42.963	0.990	1.51	A	I	60.148	0.80	0.914	1.28	B	EL	45.359	
	SNS7B	42.000	--	1.22	51.240	1.40	0.914	1.91	A	EL	42.963	0.990	1.48	A	I	60.148	0.80	0.914	1.22	B	EL	45.359		
	TRUCK TRACTOR SEMI-TRAILOR TTST	TNAGRIT3	33.000	--	1.56	51.480	1.40	0.914	2.44	A	EL	42.963	0.990	1.79	A	I	60.148	0.80	0.914	1.56	B	EL	45.359	
		TNT4A	33.075	--	1.57	51.928	1.40	0.914	2.44	A	EL	42.963	0.990	1.74	A	I	60.148	0.80	0.914	1.57	B	EL	45.359	
		TNT6A	41.600	--	1.27	52.832	1.40	0.914	1.99	A	EL	42.963	0.990	1.59	A	I	60.148	0.80	0.914	1.27	B	EL	45.359	
		TNT7A	42.000	--	1.27	53.340	1.40	0.914	1.99	A	EL	42.963	0.990	1.56	A	I	60.148	0.80	0.914	1.27	B	EL	45.359	
		TNT7B	42.000	--	1.31	55.020	1.40	0.914	2.05	A	EL	42.963	0.990	1.45	A	I	60.148	0.80	0.914	1.31	B	EL	45.359	
		TNAGRIT4	43.000	--	1.25	53.750	1.40	0.914	1.96	A	EL	42.963	0.990	1.40	A	I	60.148	0.80	0.914	1.25	B	EL	45.359	
TNAGT5A		45.000	--	1.18	53.100	1.40	0.914	1.85	A	EL	42.963	0.990	1.40	A	I	60.148	0.80	0.914	1.18	B	EL	45.359		
TNAGT5B	45.000	③	1.17	52.650	1.40	0.914	1.83	A	EL	42.963	0.990	1.33	A	I	60.148	0.80	0.914	1.17	B	EL	45.359			

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.
- 2.
- 3.
- 4.

⊕ CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

② DESIGN LOAD RATING (HS-20)

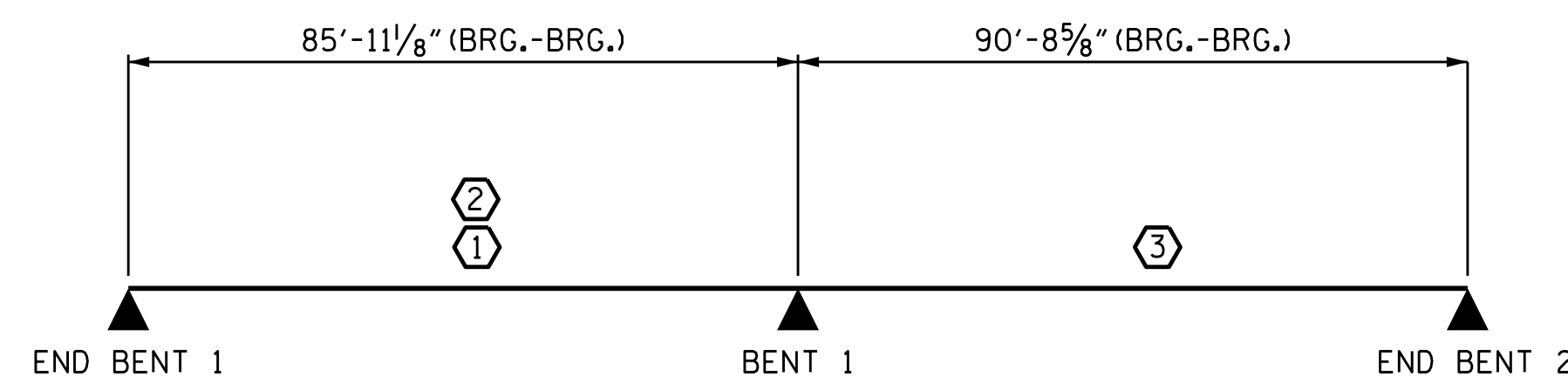
③ LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

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GIRDER LOCATION

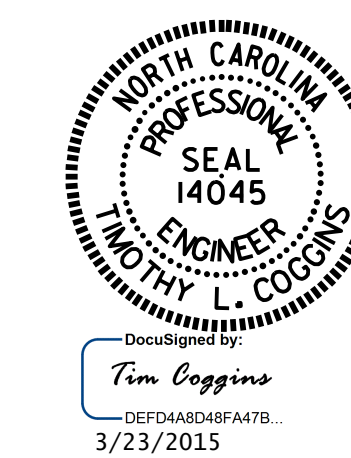
I - INTERIOR GIRDER  
EL - EXTERIOR LEFT GIRDER  
ER - EXTERIOR RIGHT GIRDER



LRFR SUMMARY

PROJECT NO. R-2514D  
JONES & CRAVEN COUNTY  
 STATION: 28+29.35 -Y10-

ASSEMBLED BY :	M.D.PISO	DATE :	09-24-14
CHECKED BY :	K.P.SEDAI	DATE :	05-21-13
DESIGN ENGINEER OF RECORD :	G.KOUICHEKI	DATE :	02/2015
DRAWN BY :	MAA 1/08	REV. 11/12/08RR	MAA/GM
CHECKED BY :	GM/DI 2/08	REV. 10/1/11	MAA/GM



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

REVISIONS						SHEET NO. S16-004
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 30
2			4			