

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	1.202	--	1.75	0.256	2.04	30'	EL	14.423	0.655	1.2	30'	EL	1.442	0.80	0.256	1.75	30'	EL	14.423		
	HL-93(0pr)	N/A	--	1.558	--	1.35	0.256	2.64	30'	EL	14.423	0.655	1.56	30'	EL	1.442	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.365	49.124	1.75	0.256	2.82	30'	EL	11.538	0.655	1.36	30'	EL	1.442	0.80	0.256	2.45	30'	EL	11.538		
	HS-20(0pr)	36.000	--	1.769	63.679	1.35	0.256	3.65	30'	EL	11.538	0.655	1.77	30'	EL	1.442	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.333	45.002	1.4	0.256	5.76	30'	EL	14.423	0.655	3.33	30'	EL	1.442	0.80	0.256	3.95	30'	EL	14.423	
		SNGARBS2	20.000	--	2.581	51.624	1.4	0.256	5.04	30'	EL	11.538	0.655	2.58	30'	EL	1.442	0.80	0.256	3.50	30'	EL	11.538	
		SNAGRIS2	22.000	--	2.487	54.723	1.4	0.256	5.13	30'	EL	11.538	0.655	2.49	30'	EL	1.442	0.80	0.256	3.56	30'	EL	11.538	
		SNCOTTS3	27.250	--	1.684	45.891	1.4	0.256	2.89	30'	EL	14.423	0.655	1.68	30'	EL	1.442	0.80	0.256	1.99	30'	EL	14.423	
		SNAGGRS4	34.925	--	1.551	54.185	1.4	0.256	2.79	30'	EL	14.423	0.655	1.55	30'	EL	1.442	0.80	0.256	1.91	30'	EL	14.423	
		SNS5A	35.550	--	1.645	58.469	1.4	0.256	2.7	30'	EL	14.423	0.655	1.64	30'	EL	1.442	0.80	0.256	1.85	30'	EL	14.423	
		SNS6A	39.950	--	1.547	61.791	1.4	0.256	2.55	30'	EL	14.423	0.655	1.55	30'	EL	1.442	0.80	0.256	1.75	30'	EL	14.423	
	SNS7B	42.000	--	1.578	66.285	1.4	0.256	2.48	30'	EL	14.423	0.655	1.58	30'	EL	1.442	0.80	0.256	1.70	30'	EL	14.423		
	TTST	TNAGRIT3	33.000	--	1.838	60.67	1.4	0.256	3.31	30'	EL	14.423	0.655	1.84	30'	EL	1.442	0.80	0.256	2.27	30'	EL	14.423	
		TNT4A	33.075	--	1.71	56.559	1.4	0.256	3.13	30'	EL	14.423	0.655	1.71	30'	EL	1.442	0.80	0.256	2.15	30'	EL	14.423	
		TNT6A	41.600	--	1.652	68.714	1.4	0.256	2.85	30'	EL	14.423	0.655	1.65	30'	EL	1.442	0.80	0.256	1.96	30'	EL	14.423	
		TNT7A	42.000	--	1.573	66.067	1.4	0.256	2.94	30'	EL	14.423	0.655	1.57	30'	EL	1.442	0.80	0.256	2.02	30'	EL	14.423	
		TNT7B	42.000	--	1.536	64.525	1.4	0.256	2.77	30'	EL	14.423	0.655	1.54	30'	EL	1.442	0.80	0.256	1.90	30'	EL	14.423	
		TNAGRIT4	43.000	--	1.486	63.9	1.4	0.256	2.87	30'	EL	14.423	0.655	1.49	30'	EL	1.442	0.80	0.256	1.97	30'	EL	14.423	
TNAGT5A		45.000	--	1.594	71.736	1.4	0.256	2.79	30'	EL	14.423	0.655	1.59	30'	EL	1.442	0.80	0.256	1.92	30'	EL	14.423		
TNAGT5B	45.000	3	1.399	62.946	1.4	0.256	2.68	30'	EL	11.538	0.655	1.4	30'	EL	1.442	0.80	0.256	1.85	30'	EL	11.538			

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.
- 2.
- 3.
- 4.

CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

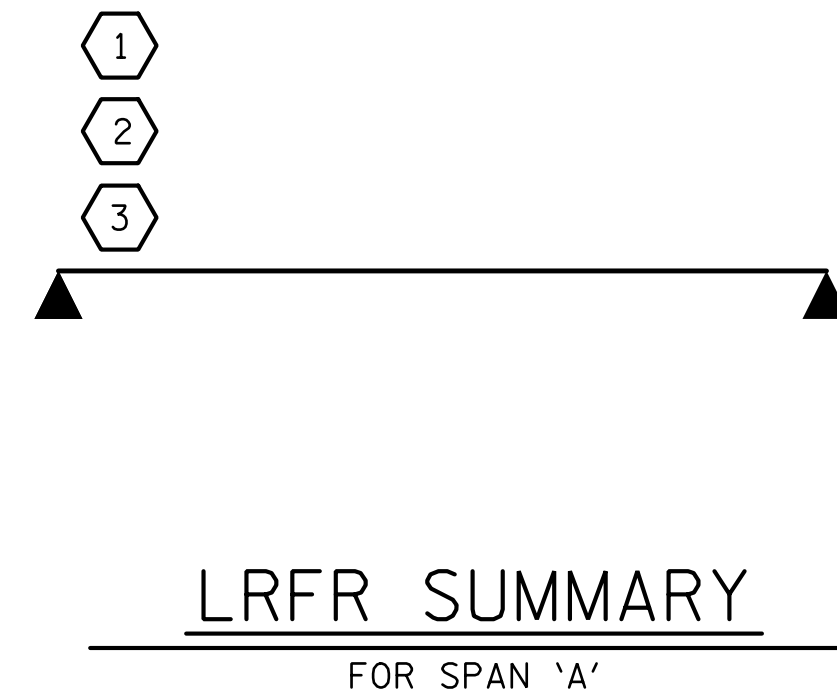
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

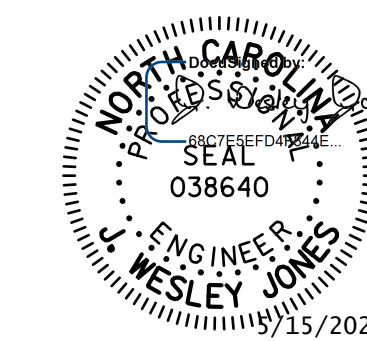
** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



PROJECT NO. BR-0115
IREDELL COUNTY
 STATION: 15+74.00 -L-



STV 100 YEARS
 STV ENGINEERS, INC.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD LRFR SUMMARY FOR 30' CORED SLAB UNIT 60° SKEW (NON-INTERSTATE TRAFFIC)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-3
					TOTAL SHEETS 23

DRAWN BY : <u>WAW</u>	DATE : <u>10-19</u>
CHECKED BY : <u>JWJ</u>	DATE : <u>12-19</u>
DESIGN ENGINEER OF RECORD : <u>JWJ</u>	DATE : <u>3-20</u>
DRAWN BY : <u>CVC</u> 6/10	
CHECKED BY : <u>DNS</u> 6/10	