

LOAD AND RESISTANCE FACTOR RATING (LRFD) SUMMARY FOR PRESTRESSED CONCRETE CORED SLAB UNITS

| 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 | 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 | DISTRIBUTION FACTORS (DF) | RATING FACTOR | SPAN | | GIRDER LOCATION | DISTANCE FROM LEFT END OF SPAN (ft) | |
| DESIGN LOAD RATING | HL-93(Inv) | N/A | 1 | 1.013 | -- | 1.75 | 0.248 | 1.16 | 65' | EL | 31.923 | 0.652 | 1.01 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.12 | 65' | EL | 31.923 | | |
| | HL-93(0pr) | N/A | -- | 1.313 | -- | 1.35 | 0.248 | 1.5 | 65' | EL | 31.923 | 0.652 | 1.31 | 65' | EL | 6.385 | N/A | -- | -- | -- | -- | -- | | |
| | HS-20(Inv) | 36.000 | 2 | 1.246 | 44.865 | 1.75 | 0.248 | 1.48 | 65' | EL | 31.923 | 0.652 | 1.25 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.44 | 65' | EL | 31.923 | | |
| | HS-20(0pr) | 36.000 | -- | 1.616 | 58.159 | 1.35 | 0.248 | 1.92 | 65' | EL | 31.923 | 0.652 | 1.62 | 65' | EL | 6.385 | N/A | -- | -- | -- | -- | -- | | |
| LEGAL LOAD RATING | SV | SNSH | 13.500 | -- | 3.163 | 42.696 | 1.4 | 0.248 | 4.07 | 65' | EL | 31.923 | 0.652 | 3.64 | 65' | EL | 6.385 | 0.80 | 0.248 | 3.16 | 65' | EL | 31.923 | |
| | | SNGARBS2 | 20.000 | -- | 2.395 | 47.893 | 1.4 | 0.248 | 3.08 | 65' | EL | 31.923 | 0.652 | 2.61 | 65' | EL | 6.385 | 0.80 | 0.248 | 2.39 | 65' | EL | 31.923 | |
| | | SNAGRIS2 | 22.000 | -- | 2.284 | 50.247 | 1.4 | 0.248 | 2.94 | 65' | EL | 31.923 | 0.652 | 2.43 | 65' | EL | 6.385 | 0.80 | 0.248 | 2.28 | 65' | EL | 31.923 | |
| | | SNCOTTS3 | 27.250 | -- | 1.575 | 42.917 | 1.4 | 0.248 | 2.03 | 65' | EL | 31.923 | 0.652 | 1.82 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.57 | 65' | EL | 31.923 | |
| | | SNAGRS4 | 34.925 | -- | 1.331 | 46.469 | 1.4 | 0.248 | 1.71 | 65' | EL | 31.923 | 0.652 | 1.53 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.33 | 65' | EL | 31.923 | |
| | | SNS5A | 35.550 | -- | 1.3 | 46.22 | 1.4 | 0.248 | 1.67 | 65' | EL | 31.923 | 0.652 | 1.55 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.30 | 65' | EL | 31.923 | |
| | | SNS6A | 39.950 | -- | 1.199 | 47.899 | 1.4 | 0.248 | 1.54 | 65' | EL | 31.923 | 0.652 | 1.42 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.20 | 65' | EL | 31.923 | |
| | SNS7B | 42.000 | -- | 1.142 | 47.965 | 1.4 | 0.248 | 1.47 | 65' | EL | 31.923 | 0.652 | 1.4 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.14 | 65' | EL | 31.923 | | |
| | TTST | TNAGRIT3 | 33.000 | -- | 1.464 | 48.309 | 1.4 | 0.248 | 1.89 | 65' | EL | 31.923 | 0.652 | 1.69 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.46 | 65' | EL | 31.923 | |
| | | TNT4A | 33.075 | -- | 1.472 | 48.688 | 1.4 | 0.248 | 1.9 | 65' | EL | 31.923 | 0.652 | 1.64 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.47 | 65' | EL | 31.923 | |
| | | TNT6A | 41.600 | -- | 1.209 | 50.315 | 1.4 | 0.248 | 1.56 | 65' | EL | 31.923 | 0.652 | 1.51 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.21 | 65' | EL | 31.923 | |
| | | TNT7A | 42.000 | -- | 1.219 | 51.186 | 1.4 | 0.248 | 1.57 | 65' | EL | 31.923 | 0.652 | 1.46 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.22 | 65' | EL | 31.923 | |
| | | TNT7B | 42.000 | -- | 1.269 | 53.286 | 1.4 | 0.248 | 1.63 | 65' | EL | 31.923 | 0.652 | 1.37 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.27 | 65' | EL | 31.923 | |
| | | TNAGRIT4 | 43.000 | -- | 1.201 | 51.645 | 1.4 | 0.248 | 1.55 | 65' | EL | 31.923 | 0.652 | 1.32 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.20 | 65' | EL | 31.923 | |
| TNAGT5A | | 45.000 | -- | 1.13 | 50.836 | 1.4 | 0.248 | 1.45 | 65' | EL | 31.923 | 0.652 | 1.32 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.13 | 65' | EL | 31.923 | | |
| TNAGT5B | 45.000 | 3 | 1.114 | 50.113 | 1.4 | 0.248 | 1.43 | 65' | EL | 31.923 | 0.652 | 1.25 | 65' | EL | 6.385 | 0.80 | 0.248 | 1.11 | 65' | EL | 31.923 | | | |

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)

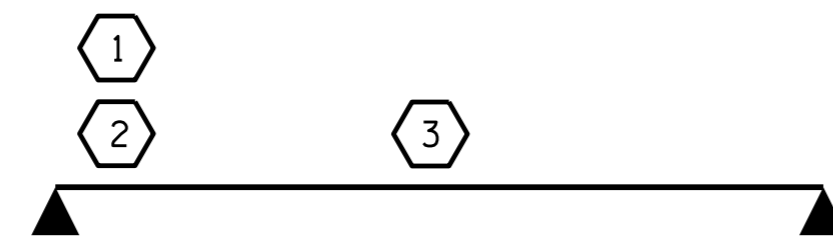
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



LRFR SUMMARY
FOR SPAN B

PROJECT NO. B-4461
CHATHAM COUNTY
STATION: 19+12.00 -L-

SHEET 2 OF 2



DocuSigned by:
Ting Fang
4/11/2016

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
LRFR SUMMARY FOR
65' CORED SLAB UNIT
60° SKEW
(NON-INTERSTATE TRAFFIC)
SPAN B

ASSEMBLED BY : P. K. NEWTON DATE : 3/16
CHECKED BY : T. H. FANG DATE : 3/16
DRAWN BY : CVC 6/10
CHECKED BY : DNS 6/10

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

| REVISIONS | | | | | | SHEET NO. S-5 TOTAL SHEETS 22 |
|-----------|-----|-------|-----|-----|-------|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | |
| 2 | | | 4 | | | |