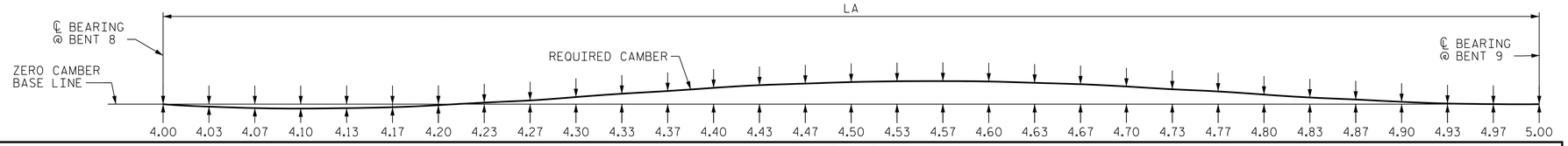
DocuSign Envelope ID: 228B5C22-79CA-4B09-870D-1104FCE02AF4




## NOTES

SLOPE FOR THE ZERO CAMBER BASE LINE VARIES.

VALUES GIVEN ARE AT THIRTIETH POINTS BETWEEN CENTERLINE OF BEARINGS.

DEFLECTIONS AND ORDINATES ARE IN FEET (DECIMAL FORM).

REQUIRED CAMBER VALUES ARE IN INCHES (FRACTION FORM).

DOWNWARD DEFLECTION IS INDICATED WITH A "-" SIGN.

| GIRDER | LA |
|---|---|
| 1 | 183.888′ |
| 2 | 184.495′ |
| 3 | 185.101′ |
| 4 | 185.708′ |

SPAN "I"

GIRDER 1

| 30TH POINTS | 4.00 | 4.03 | 4.07 | 4.10 | 4.13 | 4.17 | 4.20 | 4.23 | 4.27 | 4.30 | 4.33 | 4.37 | 4.40 | 4.43 | 4.47 | 4.50 | 4.53 | 4.57 | 4.60 | 4.63 | 4.67 | 4.70 | 4.73 | 4.77 | 4.80 | 4.83 | 4.87 | 4.90 | 4.93 | 4.97 | 5.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEFLECTION DUE TO WEIGHT OF GIRDER | 0.000 | 0.002 | 0.006 | 0.005 | 0.005 | 0.004 | 0.002 | 0.000 | -0.002 | -0.005 | -0.007 | -0.010 | -0.012 | -0.015 | -0.016 | -0.018 | -0.019 | -0.019 | -0.019 | -0.018 | -0.017 | -0.015 | -0.013 | -0.011 | -0.008 | -0.006 | -0.004 | -0.002 | -0.001 | 0.000 | 0.000 |
| DEFLECTION DUE TO WEIGHT OF SLAB ✳ | 0.000 | 0.007 | 0.011 | 0.012 | 0.010 | 0.005 | -0.002 | -0.012 | -0.022 | -0.034 | -0.046 | -0.059 | -0.070 | -0.080 | -0.087 | -0.092 | -0.095 | -0.095 | -0.093 | -0.088 | -0.081 | -0.072 | -0.062 | -0.051 | -0.039 | -0.028 | -0.018 | -0.010 | -0.004 | 0.000 | 0.000 |
| DEFLECTION DUE TO WT. OF BARRIER RAIL | 0.000 | 0.000 | 0.001 | 0.000 | 0.000 | -0.001 | -0.002 | -0.003 | -0.004 | -0.005 | -0.006 | -0.007 | -0.008 | -0.009 | -0.010 | -0.010 | -0.011 | -0.011 | -0.011 | -0.010 | -0.010 | -0.009 | -0.008 | -0.007 | -0.005 | -0.004 | -0.003 | -0.002 | -0.001 | 0.000 | 0.000 |
| TOTAL DEAD LOAD DEFLECTION | 0.000 | 0.010 | 0.016 | 0.018 | 0.015 | 0.009 | -0.001 | -0.014 | -0.028 | -0.044 | -0.060 | -0.076 | -0.091 | -0.104 | -0.114 | -0.121 | -0.124 | -0.125 | -0.122 | -0.116 | -0.107 | -0.096 | -0.083 | -0.068 | -0.053 | -0.039 | -0.025 | -0.014 | -0.006 | -0.001 | 0.000 |
| VERTICAL CURVE ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SUPERELEVATION ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING ✳✳ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| REQUIRED CAMBER | 0″ | -1/8″ | -3/16″ | -3/16″ | -3/16″ | -1/8″ | 0″ | 3/16″ | 5/16″ | 1/2″ | 11/16″ | 15/16″ | 1 1/16″ | 1 1/4″ | 1 3/8″ | 1 7/16″ | 1 1/2″ | 1 1/2″ | 1 7/16″ | 1 3/8″ | 1 5/16″ | 1 1/8″ | 1″ | 13/16″ | 5/8″ | 7/16″ | 5/16″ | 3/16″ | 1/16″ | 0″ | 0″ |

SPAN "I"

GIRDER 2

| 30TH POINTS | 4.00 | 4.03 | 4.07 | 4.10 | 4.13 | 4.17 | 4.20 | 4.23 | 4.27 | 4.30 | 4.33 | 4.37 | 4.40 | 4.43 | 4.47 | 4.50 | 4.53 | 4.57 | 4.60 | 4.63 | 4.67 | 4.70 | 4.73 | 4.77 | 4.80 | 4.83 | 4.87 | 4.90 | 4.93 | 4.97 | 5.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEFLECTION DUE TO WEIGHT OF GIRDER | 0.000 | 0.003 | 0.006 | 0.006 | 0.006 | 0.005 | 0.004 | 0.002 | -0.001 | -0.003 | -0.006 | -0.008 | -0.011 | -0.013 | -0.015 | -0.017 | -0.017 | -0.018 | -0.018 | -0.017 | -0.016 | -0.014 | -0.012 | -0.010 | -0.008 | -0.006 | -0.004 | -0.002 | -0.001 | 0.000 | 0.000 |
| DEFLECTION DUE TO WEIGHT OF SLAB ✳ | 0.000 | 0.008 | 0.013 | 0.015 | 0.013 | 0.008 | 0.001 | -0.009 | -0.020 | -0.032 | -0.045 | -0.057 | -0.069 | -0.079 | -0.087 | -0.092 | -0.095 | -0.095 | -0.093 | -0.088 | -0.081 | -0.072 | -0.062 | -0.051 | -0.039 | -0.028 | -0.018 | -0.009 | -0.003 | 0.000 | 0.000 |
| DEFLECTION DUE TO WT. OF BARRIER RAIL | 0.000 | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 | 0.000 | -0.001 | -0.002 | -0.003 | -0.004 | -0.005 | -0.005 | -0.006 | -0.006 | -0.007 | -0.007 | -0.007 | -0.007 | -0.006 | -0.005 | -0.005 | -0.004 | -0.003 | -0.002 | -0.001 | -0.001 | 0.000 | 0.000 | 0.000 |
| TOTAL DEAD LOAD DEFLECTION | 0.000 | 0.012 | 0.020 | 0.023 | 0.021 | 0.015 | 0.005 | -0.007 | -0.021 | -0.037 | -0.053 | -0.070 | -0.085 | -0.098 | -0.108 | -0.115 | -0.119 | -0.120 | -0.118 | -0.112 | -0.103 | -0.092 | -0.079 | -0.065 | -0.050 | -0.036 | -0.023 | -0.012 | -0.004 | 0.000 | 0.000 |
| VERTICAL CURVE ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SUPERELEVATION ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING ✳✳ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| REQUIRED CAMBER | 0″ | -1/8″ | -1/4″ | -1/4″ | -1/4″ | -3/16″ | -1/16″ | 1/16″ | 1/4″ | 7/16″ | 5/8″ | 13/16″ | 1″ | 1 3/16″ | 1 5/16″ | 1 3/8″ | 1 7/16″ | 1 7/16″ | 1 7/16″ | 1 5/16″ | 1 1/4″ | 1 1/8″ | 15/16″ | 3/4″ | 5/8″ | 7/16″ | 1/4″ | 1/8″ | 1/16″ | 0″ | 0″ |

SPAN "I"

GIRDER 3

| 30TH POINTS | 4.00 | 4.03 | 4.07 | 4.10 | 4.13 | 4.17 | 4.20 | 4.23 | 4.27 | 4.30 | 4.33 | 4.37 | 4.40 | 4.43 | 4.47 | 4.50 | 4.53 | 4.57 | 4.60 | 4.63 | 4.67 | 4.70 | 4.73 | 4.77 | 4.80 | 4.83 | 4.87 | 4.90 | 4.93 | 4.97 | 5.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEFLECTION DUE TO WEIGHT OF GIRDER | 0.000 | 0.003 | 0.006 | 0.007 | 0.007 | 0.007 | 0.005 | 0.003 | 0.001 | -0.001 | -0.004 | -0.007 | -0.009 | -0.011 | -0.013 | -0.015 | -0.016 | -0.016 | -0.016 | -0.016 | -0.015 | -0.013 | -0.011 | -0.009 | -0.007 | -0.005 | -0.003 | -0.001 | 0.000 | 0.000 | 0.000 |
| DEFLECTION DUE TO WEIGHT OF SLAB ✳ | 0.000 | 0.009 | 0.015 | 0.017 | 0.016 | 0.012 | 0.005 | -0.005 | -0.016 | -0.028 | -0.041 | -0.054 | -0.066 | -0.076 | -0.084 | -0.090 | -0.093 | -0.093 | -0.091 | -0.086 | -0.080 | -0.071 | -0.061 | -0.049 | -0.038 | -0.027 | -0.017 | -0.008 | -0.003 | 0.000 | 0.000 |
| DEFLECTION DUE TO WT. OF BARRIER RAIL | 0.000 | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.000 | -0.001 | -0.002 | -0.003 | -0.004 | -0.005 | -0.006 | -0.006 | -0.006 | -0.007 | -0.006 | -0.006 | -0.006 | -0.005 | -0.004 | -0.004 | -0.003 | -0.002 | -0.001 | -0.001 | 0.000 | 0.000 | 0.000 |
| TOTAL DEAD LOAD DEFLECTION | 0.000 | 0.013 | 0.022 | 0.026 | 0.026 | 0.020 | 0.011 | -0.001 | -0.015 | -0.031 | -0.047 | -0.064 | -0.079 | -0.093 | -0.103 | -0.111 | -0.115 | -0.116 | -0.114 | -0.108 | -0.100 | -0.089 | -0.076 | -0.062 | -0.048 | -0.034 | -0.021 | -0.010 | -0.003 | 0.001 | 0.000 |
| VERTICAL CURVE ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SUPERELEVATION ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING ✳✳ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| REQUIRED CAMBER | 0″ | -3/16″ | -1/4″ | -5/16″ | -5/16″ | -1/4″ | -1/8″ | 0″ | 3/16″ | 3/8″ | 9/16″ | 3/4″ | 15/16″ | 1 1/8″ | 1 1/4″ | 1 5/16″ | 1 3/8″ | 1 3/8″ | 1 3/8″ | 1 5/16″ | 1 3/16″ | 1 1/16″ | 15/16″ | 3/4″ | 9/16″ | 3/8″ | 1/4″ | 1/8″ | 1/16″ | 0″ | 0″ |

SPAN "I"

GIRDER 4

| 30TH POINTS | 4.00 | 4.03 | 4.07 | 4.10 | 4.13 | 4.17 | 4.20 | 4.23 | 4.27 | 4.30 | 4.33 | 4.37 | 4.40 | 4.43 | 4.47 | 4.50 | 4.53 | 4.57 | 4.60 | 4.63 | 4.67 | 4.70 | 4.73 | 4.77 | 4.80 | 4.83 | 4.87 | 4.90 | 4.93 | 4.97 | 5.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEFLECTION DUE TO WEIGHT OF GIRDER | 0.000 | 0.003 | 0.006 | 0.008 | 0.008 | 0.008 | 0.007 | 0.005 | 0.003 | 0.001 | -0.002 | -0.004 | -0.007 | -0.009 | -0.011 | -0.013 | -0.014 | -0.014 | -0.014 | -0.014 | -0.013 | -0.012 | -0.010 | -0.008 | -0.006 | -0.004 | -0.002 | -0.001 | 0.000 | 0.000 | 0.000 |
| DEFLECTION DUE TO WEIGHT OF SLAB ✳ | 0.000 | 0.010 | 0.017 | 0.020 | 0.020 | 0.017 | 0.010 | 0.001 | -0.010 | -0.022 | -0.035 | -0.048 | -0.060 | -0.071 | -0.079 | -0.085 | -0.089 | -0.089 | -0.087 | -0.083 | -0.076 | -0.067 | -0.057 | -0.046 | -0.035 | -0.024 | -0.014 | -0.007 | -0.002 | 0.001 | 0.000 |
| DEFLECTION DUE TO WT. OF BARRIER RAIL | 0.000 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | -0.001 | -0.002 | -0.003 | -0.005 | -0.006 | -0.007 | -0.008 | -0.008 | -0.009 | -0.009 | -0.010 | -0.009 | -0.009 | -0.009 | -0.008 | -0.007 | -0.006 | -0.005 | -0.004 | -0.003 | -0.002 | -0.001 | 0.000 | 0.000 |
| TOTAL DEAD LOAD DEFLECTION | 0.000 | 0.014 | 0.025 | 0.030 | 0.030 | 0.025 | 0.017 | 0.005 | -0.009 | -0.025 | -0.041 | -0.058 | -0.074 | -0.088 | -0.099 | -0.107 | -0.112 | -0.113 | -0.111 | -0.106 | -0.097 | -0.087 | -0.074 | -0.060 | -0.045 | -0.032 | -0.019 | -0.009 | -0.002 | 0.001 | 0.000 |
| VERTICAL CURVE ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SUPERELEVATION ORDINATE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING ✳✳ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| REQUIRED CAMBER | 0″ | -3/16″ | -5/16″ | -3/8″ | -3/8″ | -5/16″ | -3/16″ | -1/16″ | 1/8″ | 5/16″ | 1/2″ | 11/16″ | 7/8″ | 1 1/16″ | 1 3/16″ | 1 5/16″ | 1 5/16″ | 1 3/8″ | 1 5/16″ | 1 1/4″ | 1 3/16″ | 1 1/16″ | 7/8″ | 11/16″ | 9/16″ | 3/8″ | 1/4″ | 1/8″ | 0″ | 0″ | 0″ |

✳ = INCLUDES SLAB, BUILDUPS, AND STAY-IN-PLACE FORMS.
✳✳ = HEAT CURVING IS ALLOWED. CAMBER DISSIPATION DUE TO HEAT CURVING IS ZERO FOR ALL GIRDERS.

PROJECT NO. U-2579AB

FORSYTH COUNTY

STATION: 60+66.06 -Y15FLYAC-

SHEET 9 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

# SUPERSTRUCTURE DEAD LOAD DEFLECTION AND CAMBER ORDINATES SPAN "I"

NORTH CAROLINA PROFESSIONAL SEAL 29589 ENGINEER DOMENIC A. COLETTI

10/15/2021

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St., Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| REVISIONS | | | | | | | | | | SHEET NO. S04-071 |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | | | | | TOTAL SHEETS 144 |
| 1 | -- | -- | 3 | -- | -- | | | | | |
| 2 | -- | -- | 4 | -- | -- | | | | | |

| | | | |
|---|---|---|---|
| DES BY: T. ANDREWS | DATE: 09/19 | DWG BY: B. PETERSON | DATE: 10/19 |
| DES CHK: D. OLDS | DATE: 10/19 | CHK BY: G. SCHMITZ | DATE: 10/19 |

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl
USER: PPETERSO DATE: 10/14/2021 TIME: 4:02:47 PM
FILE: ...\SUPERS