

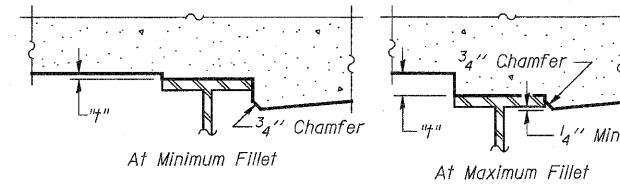
**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

**Note:**

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

NOTE: Expected fillet height "t" varies from 1" (at Abuts.) to 1 3/4" (at midspan Beams 1,2,4,5,6) or 1" (at midspan Beam 3).

**BEAM 1**

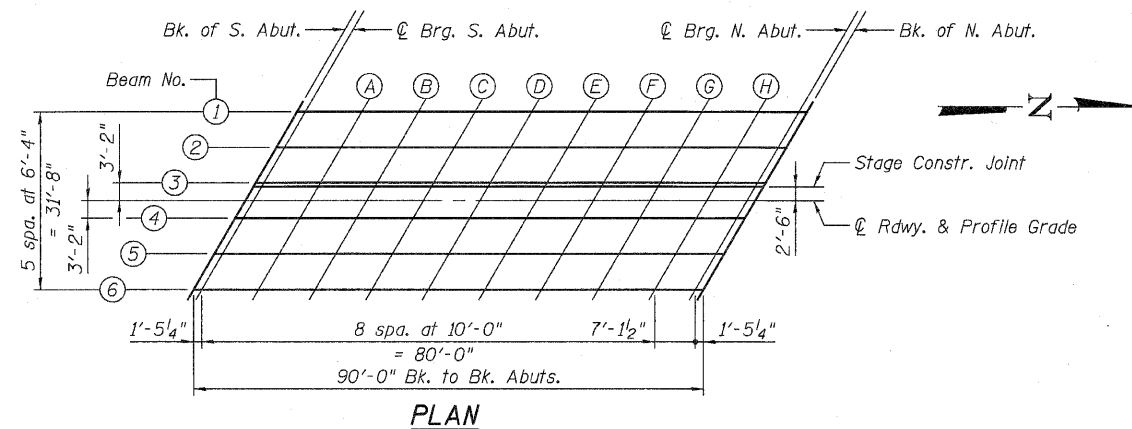
| Location        | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| Bk. S. Abut.    | 222+58.14 | -15.83 | 579.80                       | 579.80   |
| Q Brg. S. Abut. | 222+59.58 | -15.83 | 579.79                       | 579.79   |
| A               | 222+69.58 | -15.83 | 579.75                       | 579.83   |
| B               | 222+79.58 | -15.83 | 579.74                       | 579.88   |
| C               | 222+89.58 | -15.83 | 579.74                       | 579.93   |
| D               | 222+99.58 | -15.83 | 579.77                       | 579.99   |
| E               | 223+09.58 | -15.83 | 579.82                       | 580.03   |
| F               | 223+19.58 | -15.83 | 579.90                       | 580.08   |
| G               | 223+29.58 | -15.83 | 579.99                       | 580.12   |
| H               | 223+39.58 | -15.83 | 580.12                       | 580.17   |
| Q Brg. N. Abut. | 223+46.70 | -15.83 | 580.21                       | 580.21   |
| Bk. N. Abut.    | 223+48.14 | -15.83 | 580.24                       | 580.24   |

**BEAM 2**

| Location        | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| Bk. S. Abut.    | 222+54.48 | -9.50  | 579.94                       | 579.94   |
| Q Brg. S. Abut. | 222+55.93 | -9.50  | 579.93                       | 579.93   |
| A               | 222+65.93 | -9.50  | 579.89                       | 579.96   |
| B               | 222+75.93 | -9.50  | 579.86                       | 580.00   |
| C               | 222+85.93 | -9.50  | 579.86                       | 580.05   |
| D               | 222+95.93 | -9.50  | 579.88                       | 580.09   |
| E               | 223+05.93 | -9.50  | 579.92                       | 580.13   |
| F               | 223+15.93 | -9.50  | 579.99                       | 580.17   |
| G               | 223+25.93 | -9.50  | 580.08                       | 580.20   |
| H               | 223+35.93 | -9.50  | 580.19                       | 580.24   |
| Q Brg. N. Abut. | 223+43.04 | -9.50  | 580.28                       | 580.28   |
| Bk. N. Abut.    | 223+44.48 | -9.50  | 580.30                       | 580.30   |

**BEAM 3**

| Location        | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| Bk. S. Abut.    | 222+50.83 | -3.17  | 580.07                       | 580.07   |
| Q Brg. S. Abut. | 222+52.27 | -3.17  | 580.06                       | 580.06   |
| A               | 222+62.27 | -3.17  | 580.00                       | 580.06   |
| B               | 222+72.27 | -3.17  | 579.97                       | 580.07   |
| C               | 222+82.27 | -3.17  | 579.95                       | 580.09   |
| D               | 222+92.27 | -3.17  | 579.97                       | 580.12   |
| E               | 223+02.27 | -3.17  | 580.00                       | 580.15   |
| F               | 223+12.27 | -3.17  | 580.06                       | 580.19   |
| G               | 223+22.27 | -3.17  | 580.14                       | 580.23   |
| H               | 223+32.27 | -3.17  | 580.24                       | 580.28   |
| Q Brg. N. Abut. | 223+39.38 | -3.17  | 580.33                       | 580.33   |
| Bk. N. Abut.    | 223+40.83 | -3.17  | 580.35                       | 580.35   |



**PLAN**

**JD Johnson, Depp & Quisenberry**  
CONSULTING ENGINEERS  
Springfield, Illinois

DESIGNED: JDQ      DRAWN: P. Ray  
CHECKED: DCD      CHECKED: DCD

E-S 11-1-09

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 031-0044**

|   |             |         |                    |              |           |
|---|-------------|---------|--------------------|--------------|-----------|
| SHEET 4<br>OF 20                              | F.A.P. RTE. | SECTION | COUNTY             | TOTAL SHEETS | SHEET NO. |
|   | 10          | 3B-1    | GREENE             | 59           | 29        |
| STA. 222+94.00                                |             |         | CONTRACT NO. 76C15 |              |           |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |             |         |                    |              |           |