

**BEAM ELEVATION**  
(6 Required)

**TOP OF BEAM ELEVATIONS\***

|               | Beam 1 | Beam 2 | Beam 3 | Beam 4 | Beam 5 | Beam 6 |
|---------------|--------|--------|--------|--------|--------|--------|
| ℄ of W. Abut. | 640.80 | 640.94 | 641.04 | 641.04 | 640.94 | 640.80 |
| ℄ of E. Abut. | 640.83 | 640.96 | 641.07 | 641.07 | 640.96 | 640.83 |

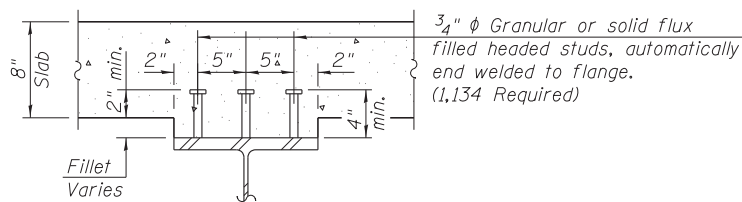
\*For fabrication only.

| INTERIOR BEAM MOMENT TABLE |                    |         |
|----------------------------|--------------------|---------|
| 0.5 Span                   |                    |         |
| $I_s$                      | (in <sup>4</sup> ) | 7,020   |
| $I_c(n)$                   | (in <sup>4</sup> ) | 17,132  |
| $I_c(3n)$                  | (in <sup>4</sup> ) | 12,426  |
| $S_s$                      | (in <sup>3</sup> ) | 505     |
| $S_c(n)$                   | (in <sup>3</sup> ) | 706     |
| $S_c(3n)$                  | (in <sup>3</sup> ) | 637     |
| DC1                        | (k/')              | 0.881   |
| DC2                        | (k/')              | 0.150   |
| M <sub>DC1</sub>           | (k)                | 508.2   |
| M <sub>DC2</sub>           | (k)                | 86.5    |
| DW                         | (k/')              | 0.300   |
| M <sub>DW</sub>            | (k)                | 173.1   |
| $M_L + IM$                 | (k)                | 975.5   |
| $M_u$ (Strength I)         | (k)                | 2,710.1 |
| $\phi_r M_n$               | (k)                | 3,291.9 |
| $f_s$ DC1                  | (ksi)              | 12.08   |
| $f_s$ DC2                  | (ksi)              | 1.63    |
| $f_s$ DW                   | (ksi)              | 3.26    |
| $f_s$ ( $L + IM$ )         | (ksi)              | 16.58   |
| $f_s$ (Service II)         | (ksi)              | 38.52   |
| $0.95R_n F_y f$            | (ksi)              | 47.5    |
| $f_s$ (Total)(Strength I)  | (ksi)              | -       |
| $\phi_r F_n$               | (ksi)              | -       |
| $V_r$                      | (k)                | 23.9    |

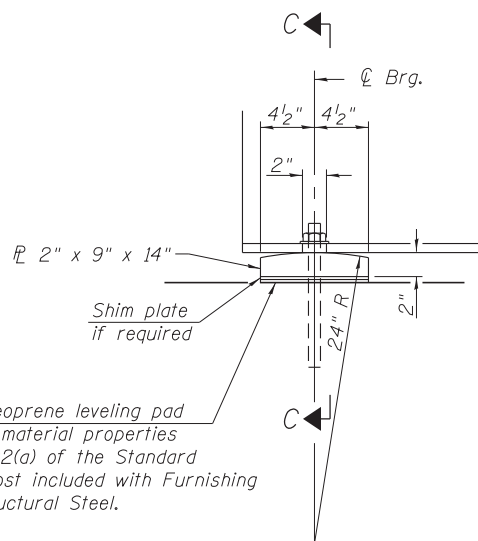
| INTERIOR GIRDER REACTION TABLE |     |       |
|--------------------------------|-----|-------|
| Abutments                      |     |       |
| R <sub>DC1</sub>               | (k) | 30.0  |
| R <sub>DC2</sub>               | (k) | 5.1   |
| R <sub>DW</sub>                | (k) | 10.2  |
| R <sub>L + IM</sub>            | (k) | 75.7  |
| R <sub>Total</sub>             | (k) | 121.0 |

**BILL OF MATERIAL**

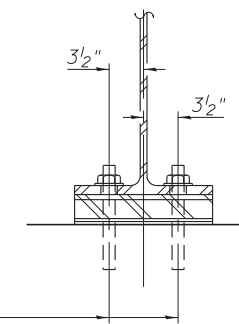
| Item             | Unit | Total |
|------------------|------|-------|
| Anchor Bolts, 1" | Each | 24    |



**SECTION D-D**



**ELEVATION AT ABUTMENT**



**SECTION C-C**

**FIXED BEARING**  
(12 Required)

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

$I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads (in.<sup>4</sup> and in.<sup>3</sup>).

$I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

DC1: Un-factored non-composite dead load (kips/ft.).

M<sub>DC1</sub>: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M<sub>DC2</sub>: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_L + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

$M_u$  (Strength I): Factored design moment (kip-ft.).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>L + IM</sub>

$\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

$f_s$  DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).  
M<sub>DC1</sub> / S<sub>nc</sub>

$f_s$  DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).  
M<sub>DC2</sub> / S<sub>c(3n)</sub> or M<sub>DC2</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).  
M<sub>DW</sub> / S<sub>c(3n)</sub> or M<sub>DW</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  ( $L + IM$ ): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).  
M<sub>L + IM</sub> / S<sub>c(n)</sub> or M<sub>L + IM</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  (Service II): Sum of stresses as computed below (ksi).  
f<sub>sDC1</sub> + f<sub>sDC2</sub> + f<sub>sDW</sub> + 1.3 f<sub>sL + IM</sub>

0.95R<sub>n</sub>F<sub>y</sub>f: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).  
1.25 (f<sub>sDC1</sub> + f<sub>sDC2</sub>) + 1.5 f<sub>sDW</sub> + 1.75 f<sub>sL + IM</sub>

$\phi_r F_n$ : Non-compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

$V_r$ : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

**Notes:**

- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- Anchor bolts shall be ASTM F1554 all-thread or an Engineer-approved alternate material of the grade and diameter specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- For hole  $\phi$ , see sheet 11 of 22.