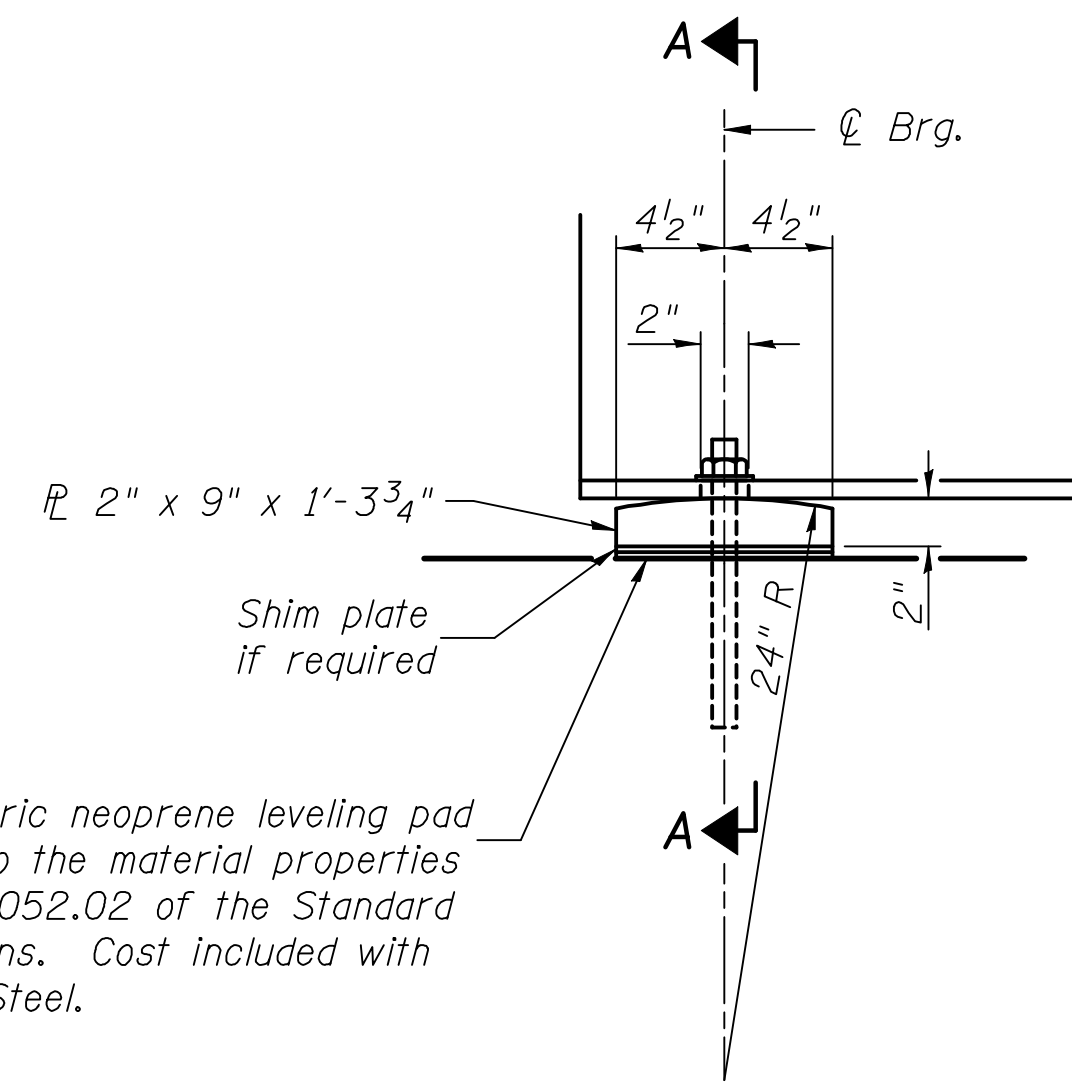
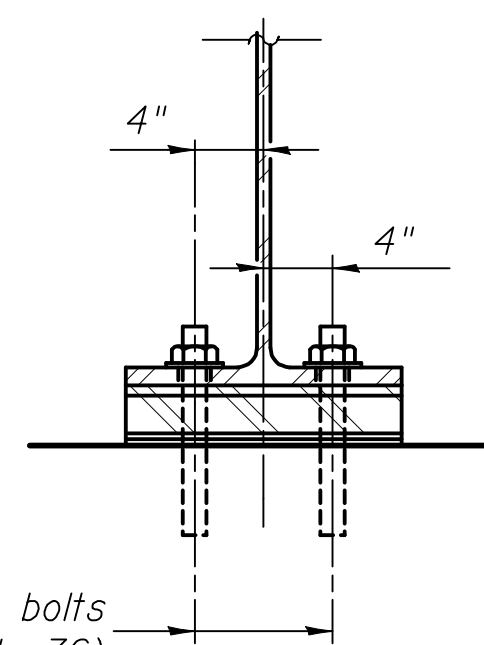


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT ABUTMENT



1" x 12" anchor bolts (ASTM F1554, Grade 36) with 2 1/4" x 2 1/4" x 5/16" R washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" holes in bearing plate. The Contractor has the option of cast-in-place or drilled installation.

SECTION A-A

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

| Beam No. | W. Abut. | E. Abut. |
|----------|----------|----------|
| 1 | 504.79 | 505.24 |
| 2 | 504.94 | 505.39 |
| 3 | 505.05 | 505.51 |
| 4 | 505.05 | 505.51 |
| 5 | 504.94 | 505.39 |
| 6 | 504.79 | 505.24 |

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). 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.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All bearing plates and pintles shall conform to the requirements of AASHTO M 270, Grade 50.

FIXED BEARING

| INTERIOR GIRDER MOMENT TABLE | | |
|------------------------------|--------------------|--------|
| 0.5 Span | | |
| I_s | (in ⁴) | 11,500 |
| $I_c(n)$ | (in ⁴) | 27,248 |
| $I_c(3n)$ | (in ⁴) | 19,878 |
| S_s | (in ³) | 683 |
| $S_c(n)$ | (in ³) | 940 |
| $S_c(3n)$ | (in ³) | 850 |
| DC1 | (k/') | 0.99 |
| M _{DC1} | (k) | 743 |
| DC2 | (k/') | 0.15 |
| M _{DC2} | (k) | 113 |
| DW | (k/') | 0.33 |
| M _{DW} | (k) | 250 |
| M _{LE + IM} | (k) | 1,218 |
| M _u (Strength I) | (k) | 3,577 |
| $\phi_f M_n$ | (k) | 4,440 |
| f_s DC1 | (ksi) | 13.1 |
| f_s DC2 | (ksi) | 1.6 |
| f_s DW | (ksi) | 3.5 |
| f_s 1.3(L+IM) | (ksi) | 20.2 |
| f_s (Service II) | (ksi) | 38.4 |
| f_s (Total)(Strength I) | (ksi) | --- |
| V _f | (k) | 25.8 |

| INTERIOR GIRDER REACTION TABLE | | |
|--------------------------------|-----|----------|
| HL93 Loading | | |
| | | Abutment |
| R _{DC1} | (k) | 38.4 |
| R _{DC2} | (k) | 5.8 |
| R _{DW} | (k) | 12.9 |
| R _{LE + IM} | (k) | 83.6 |
| R _{Total} | (k) | 140.7 |

| | |
|----------|--------|
| DESIGNED | B.G.H. |
| CHECKED | L.D.G. |
| DRAWN | K.H.L. |
| CHECKED | B.G.H. |

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 (in⁴ and in³).

$I_c(n), S_c(n)$: 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 (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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 (in⁴ and in³).

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

M_{DC1}: 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_{DC2}: 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_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LE + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).

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

BILL OF MATERIAL

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

STEEL DETAILS

| | | | | | |
|--------------|---|---------|--------------------|--------------|-----------|
| SHEET NO. 14 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 793 | 40BR-1 | MADISON | 72 | 46 |
| 20 SHEETS | S.N. 060-0341 | | CONTRACT NO. 76A36 | | |
| | FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT | | | | |