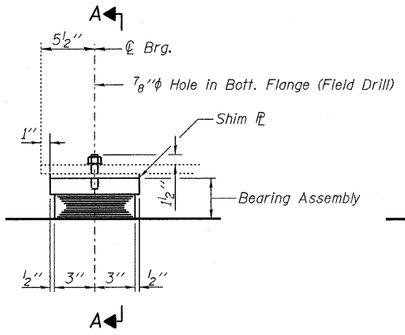
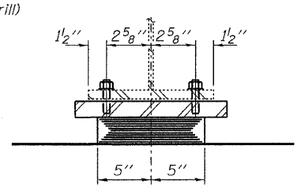
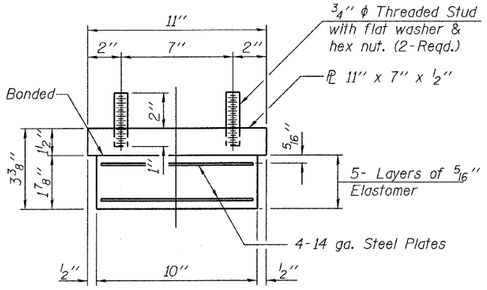



ELEVATION AT PIER



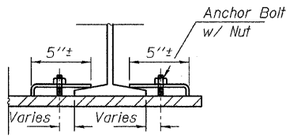

SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

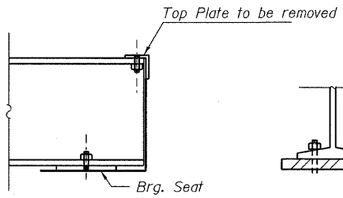


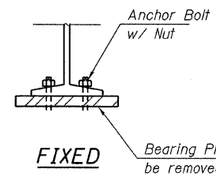

BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.




EXPANSION




FIXED

EXISTING BEARING DETAIL

Removal of Plates and Bolts shall be included in the item Jacking Existing Superstructure

| INTERIOR GIRDER MOMENT TABLE | | |
|---|---|---|
| | | 0.5 Sp. 1 & 2 |
| Is | (in⁴) | 1,326.8 |
| Ic (n) | (in⁴) | 4,198.0 |
| Ic (3n) | (in⁴) | 2,978.7 |
| Ss | (in³) | 126.4 |
| Sc (n) | (in³) | 206.6 |
| Sc (3n) | (in³) | 182.6 |
| | | |
| wℓ | (K/ft.) | 0.438 |
| Mℓ | (K/ft.) | 93.6 |
| sℓ | (K/ft.) | 0.019 |
| Msℓ | (K/ft.) | 4.1 |
| M℄ | (K/ft.) | 139.9 |
| M (Imp) | (K/ft.) | 42.0 |
| ⅗[M℄+M(Imp)] | (K/ft.) | 300.2 |
| Ma | (K/ft.) | 521.1 |
| Mu | (K/ft.) | 873.1 |
| fsℓ non-comp | (k.s.i.) | 8.9 |
| fsℓ (comp) | (k.s.i.) | 0.3 |
| fs⅗(℄+Imp) | (k.s.i.) | 17.6 |
| fs (Overload) | (k.s.i.) | 26.8 |
| | | |
| VR | (K) | 21.4 |

| INTERIOR GIRDER REACTION TABLE | | |
|---|---|---|
| | | Abt/Pier |
| R(ℓ+sℓ) | (K) | 9.6 |
| R℄ | (K) | 16.5 |
| Imp. | (K) | 5.0 |
| R (Total) | (K) | 31.1 |

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.

All steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.

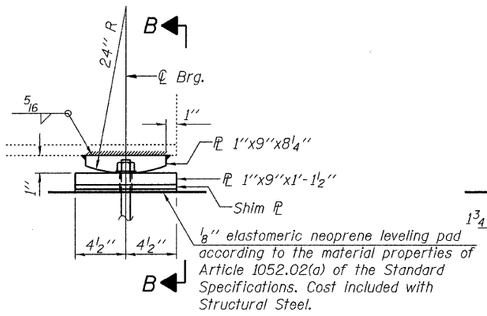
VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[Mℓ + Msℓ +⅗(M℄ + $M_{Imp}$ )].

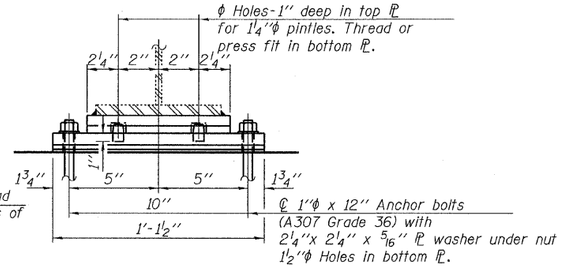
The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to Mℓ + Msℓ +⅗(M℄ + $M_{Imp}$ ).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[Mℓ + Msℓ +⅗(M℄ + $M_{Imp}$ )].

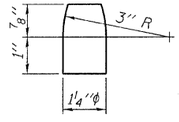



ELEVATION AT ABUT.




SECTION B-B

FIXED BEARING




PINTLE

JACKING EXISTING SUPERSTRUCTURE

Existing Beam Weight = 62 lbs/ft

Relative elevation between adjacent beams during jacking shall not be more than ⅛" when diaphragms are secure.

BILL OF MATERIAL

| Item | Unit | Total |
|---|---|---|
| Elastomeric Bearing Assembly Type I | Each | 16 |
| Anchor Bolts, 1" | Each | 32 |
| Furnishing and Erecting Structural Steel | Pound | 1,060 |
| Jacking Existing Superstructure | L. Sum | 1 |

| | |
|---|---|
| DESIGNED - A.S.L. | |
| CHECKED - S.W.M. | |
| DRAWN - D.A.B. | |
| CHECKED - S.W.M. | |

I-2E-1 10-1-08

BEARING DETAILS
STRUCTURE NO. 005-3006


HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400


PROJECT NUMBER: 08.0204.130 DATE: 11/10/09

| C.H. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 3A | 05-00065-00-BR | BROWN | 24 | 19 |
| | | CONTRACT NO. 93509 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT ARA 1583(103) | | |