

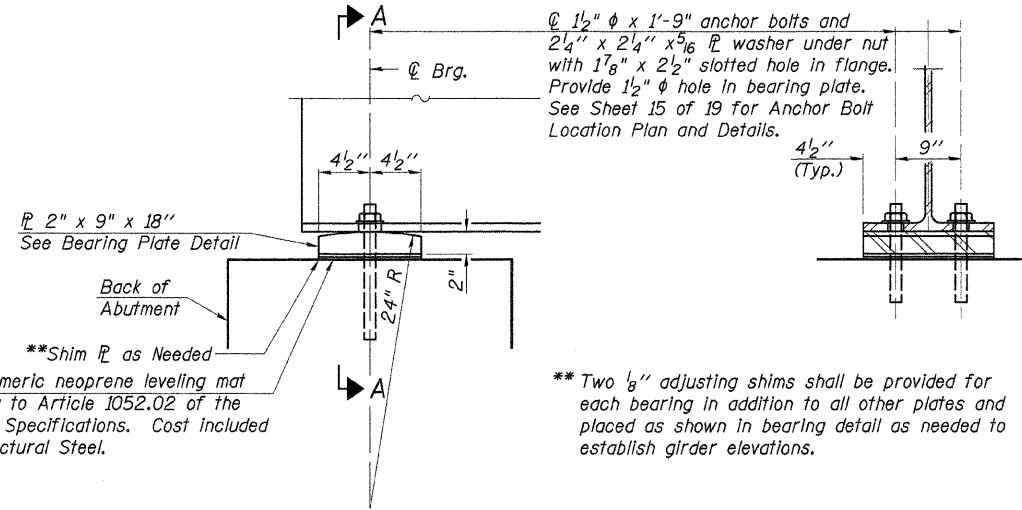
Notes:
Use 3/4" ϕ H.S. Bolts with 5/16" ϕ Holes in connection plates and gusset plates.
Two Hardened washers required over holes in connection plates and gusset plates.

TYPICAL INTERIOR CROSS FRAME

(32-Required)

* Fillet weld angles along 3 sides on one face of gusset plate.

Note: All cross frames shall be installed as steel is erected and secured with erection pins and bolts.



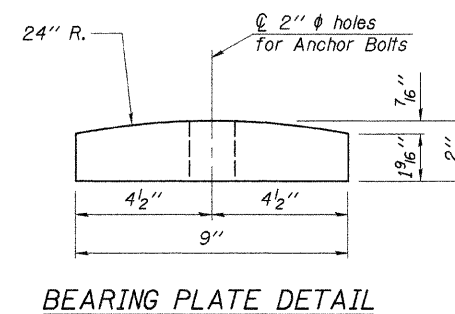
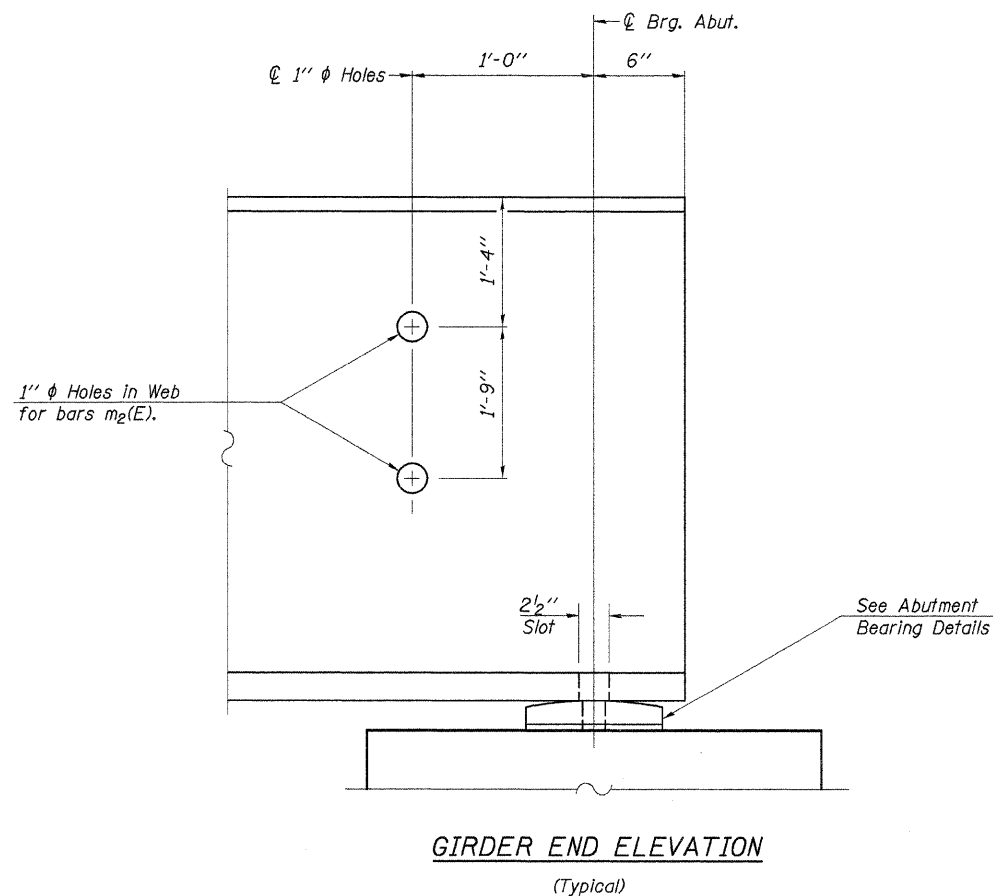
ELEVATION AT ABUTMENT

SECTION A-A

ABUTMENT BEARING DETAILS

(10 Required)

Note: Contractor has option of cast in place or drilled installation for anchor bolts.



INTERIOR GIRDER MOMENT TABLE

0.5 Span		
I_s	(in ⁴)	41,046
$I_c (n)$	(in ⁴)	104,171
$I_c (3n)$	(in ⁴)	74,156
S_s	(in ³)	1,612
$S_c (n)$	(in ³)	2,163
$S_c (3n)$	(in ³)	1,983
D	(k/ft.)	1.060
$M\ell$	(k)	2,087
$s\ell$	(k/ft.)	0.520
$M_s\ell$	(k)	1,024
$M\ell$	(k)	1,349
$M (Imp)$	(k)	270
$S_3[M\ell + M(Imp)]$	(k)	2,698
M_a	(k)	7,552
M_u	(k)	***
$f_s\ell_{non-comp}$	(k.s.i.)	15.5
$f_s\ell_{comp}$	(k.s.i.)	6.2
$f_s\ell_{3(L+Imp)}$	(k.s.i.)	15.0
$f_s (Overload)$	(k.s.i.)	36.7
$f_s (Total)$	(k.s.i.)	47.7
VR	(k)	55.3

***Non-Compact Braced Section

INTERIOR GIRDER REACTION TABLE

Abutments		
$R\ell$	(k)	99.1
$R\ell$	(k)	46.0
$Imp.$	(k)	9.3
$R (Total)$	(k)	154.4

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ 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 the composite portion of the span.
 M_a (Applied Moment) = $1.3IM\ell + Ms\ell + S_3(M\ell + M_{Imp})$.
The plastic moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1
 f_s (Overload) is the sum of the stresses due to $M\ell + Ms\ell + S_3(M\ell + M_{Imp})$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3IM\ell + Ms\ell + S_3(M\ell + M_{Imp})$.

DESIGNED	J.A.M.
CHECKED	A.R.K.
DRAWN	S.A.P.
CHECKED	A.R.K. & J.A.M.

STRUCTURAL STEEL DETAILS

SECTION 93-00112-00-BR
JO DAVIESS COUNTY
COUNTY HIGHWAY 3
STATION 18+74.60