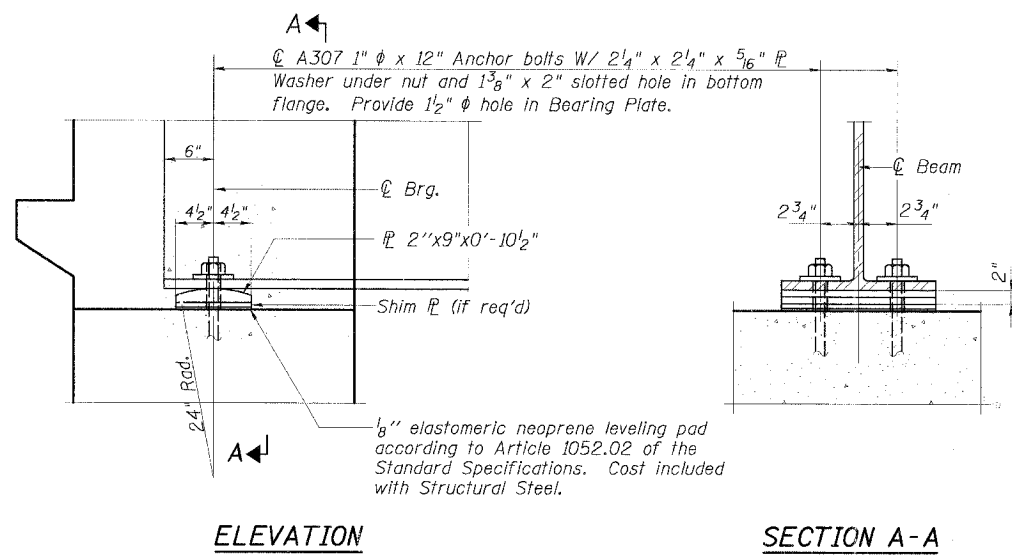
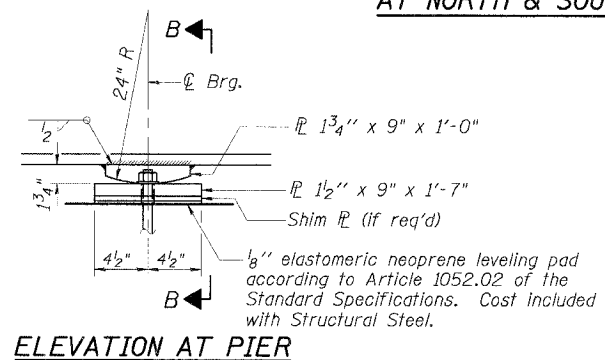


DETAIL OF SPLICE

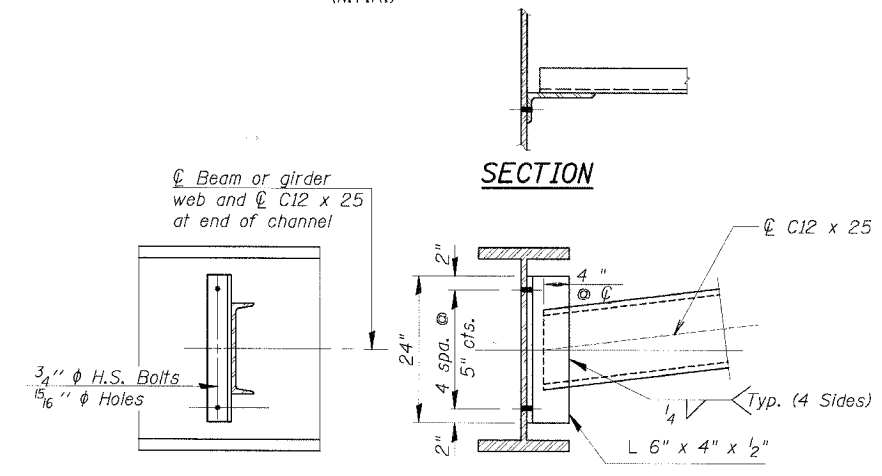
Note:
All beams and splice material shall be AASHTO M270 Gr. 50 and shall meet Notch Toughness Requirements (N.T.R.)



FIXED BEARING AT NORTH & SOUTH ABUTMENT

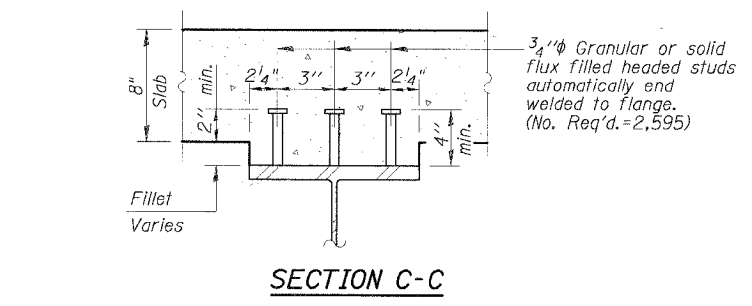


FIXED BEARING AT PIERS 1 & 2

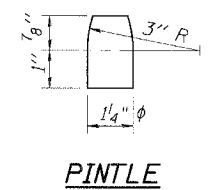


DIAPHRAGM D
(24 Required)

Note:
Two hardened washers shall be required over all oversize holes for diaphragms.



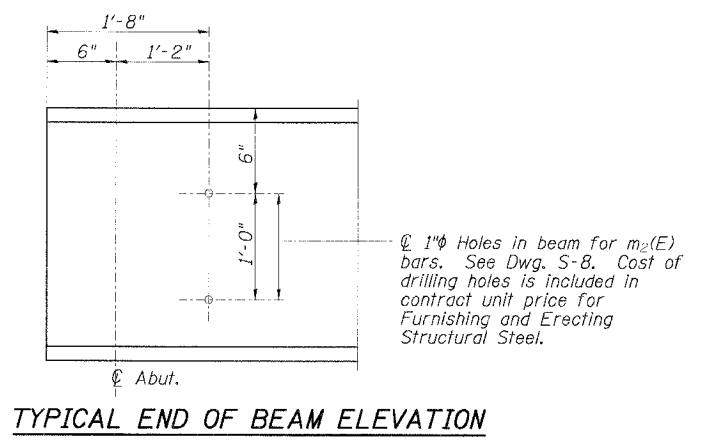
SECTION C-C



PINTLE

SHIM PLATES AT ABUTMENTS

E. Abutment Beam 2	13/16" x 9" x 10 1/2"
W. Abutment Beam 4	13/16" x 9" x 10 1/2"



TYPICAL END OF BEAM ELEVATION

INTERIOR GIRDER MOMENT TABLE

	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I _s (in ⁴)	4470	4470	4470
I _c (n) (in ⁴)	13105		13105
I _c (3n) (in ⁴)	9879		9879
S _s (in ³)	300	300	300
S _c (n) (in ³)	459		459
S _c (3n) (in ³)	417		417
Z (in ³)			
φ (k/ft.)	0.910	1.42	0.910
M _φ (k)	69	458	226
s _φ (k/ft.)	0.510		0.510
M _{sφ} (k)	52		159
M _L (k)	291	218	490
M (Imp) (k)	87	61	126
M ₃ [M _L +M[Imp]] (k)	630	463	1027
M _a (k)	977	1197	1836
* M _u (k)	1932	1249	1963
f _{sφ} non-comp (k.s.i.)	2.8	18.3	9.0
f _{sφ} (comp) (k.s.i.)	1.5		4.6
f _{s5} (L+Imp) (k.s.i.)	16.5	18.6	26.9
f _s (Overload) (k.s.i.)	20.8	36.9	40.5
* f _s (Total) (k.s.i.)	27.0	47.9	52.7
VR (k)	61		65

INTERIOR GIRDER REACTION TABLE

	Abut.	Pier
R _φ (k)	19.2	89.9
R _L (k)	42.8	52.7
Imp. (k)	12.8	14.7
R (Total) (k)	74.8	157.3

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f (Total and Overload) 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 (Total and Overload) 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 (Total and Overload) due to long-term composite (superimposed) dead loads (in₄ and in₃).

Z: Plastic Section Modulus of the steel section in non-composite areas (in₃).

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

M_φ: Un-factored moment due to non-composite dead load (kip-ft.).

s_φ: Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sφ}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L: Un-factored live load moment (kip-ft.).

M_{Imp}: Un-factored moment due to impact (kip-ft.).

M_a: Factored design moment (kip-ft.).

M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

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

M_φ + M_aφ + 5/3 (M_L + M_{Imp})

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

1.3 [M_φ + M_{sφ} + 5/3 (M_L + M_{Imp})]

VR: Maximum L + Impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

STEEL DETAILS

TIMBER EDGE DRIVE OVER SALT CREEK
DuPAGE COUNTY
F.A. ROUTE 7, SEC. 03-00019-00-BR
STATION 103+31.33
STRUCTURE NO. 022-6000

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018

REVISIONS		DATE	BY	CHKD	APP'D

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

DATE: 8/24/2007

DRAWING NUMBER: **S-10**