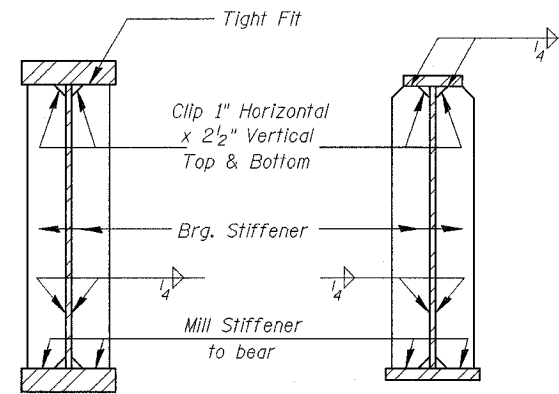


CONTRACT NO. 94827

TOP OF WEB ELEVATIONS

	Girder 1A	Girder 2A	Girder 3A	Girder 4A
⊘ Brg. W. Abut.	541.674	541.541	540.643	540.506
⊘ Splice 1	541.598	541.467	540.570	540.434
⊘ Pier 1	541.590	541.459	540.564	540.428
⊘ Splice 2	541.582	541.450	540.557	540.421
⊘ Pier 2	541.591	541.459	540.569	540.433
⊘ Splice 3	541.593	541.462	540.573	540.437
⊘ Brg. E. Abut.	541.666	541.535	540.649	540.513

For Fabrication Only

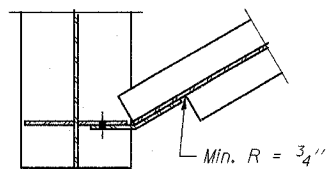


SECTION AT PIER

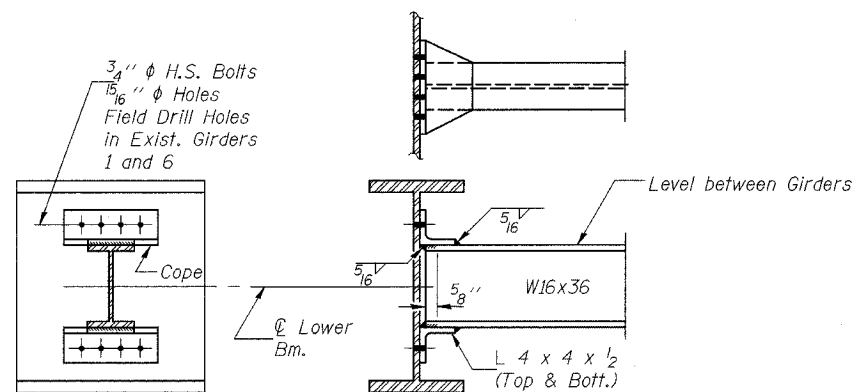
SECTION AT ABUTMENT

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 & 0.6 Sp. 3	Piers 1 & 2	0.5 Sp. 2
I_s	(in ⁴)	20,438	28,079	20,438
I_c (n)	(in ⁴)	55,138		55,138
I_c (3n)	(in ⁴)	39,415		39,415
S_s	(in ³)	998	1107	998
S_c (n)	(in ³)	1373		1373
S_c (3n)	(in ³)	1260		1260
Z	(in ³)		1238	
ϕ	(k/ft.)	1.073	1.62	1.084
$M\phi$	(k)	494	1242	333
$s\phi$	(k/ft.)	0.520		0.520
$M_s\phi$	(k)	276		247
$M\phi$	(k)	804	557	795
M (Imp)	(k)	194	131	180
$5_3[M\phi + M(Imp)]$	(k)	1663	1147	1625
M_a	(k)	3163	3106	2867
M_u	(k)	5230	3715	5230
$f_s\phi$ non-comp (k.s.i.)		5.9	13.5	4.0
$f_s\phi$ (comp) (k.s.i.)		2.6		2.4
$f_s 5_3(\phi + Imp)$ (k.s.i.)		14.5	12.4	14.2
f_s (Overload) (k.s.i.)		23.0	25.9	20.6
VR	(k)	53.4		54.6

INTERIOR GIRDER REACTION TABLE			
	Abuts.	Piers 1 & 2	
$R\phi$	(k)	86.8	156.6
$R\phi$	(k)	49.6	72.3
Imp.	(k)	12.0	17.0
R (Total)	(k)	148.4	245.9

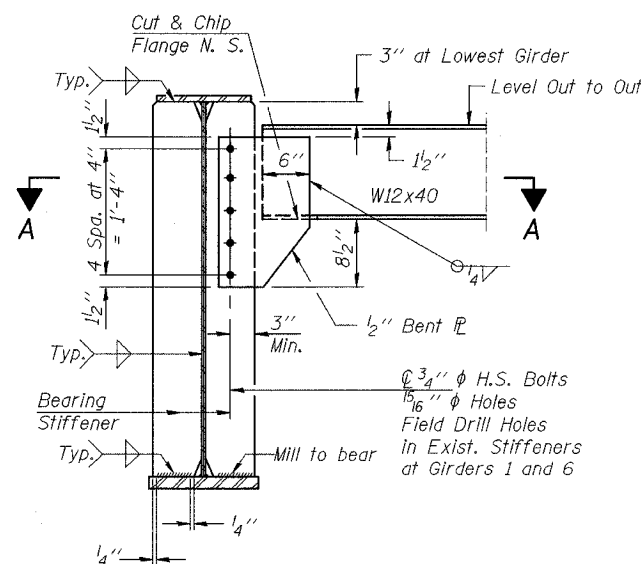


SECTION A-A

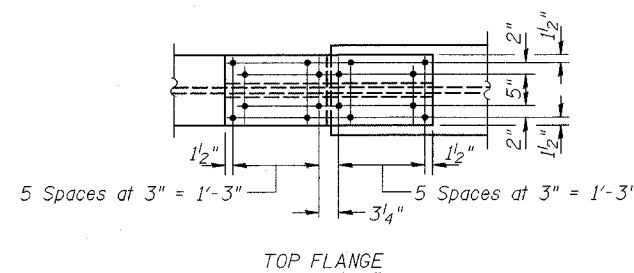


DIAPHRAGM D & D₁
Required 24 D & 24 D₁

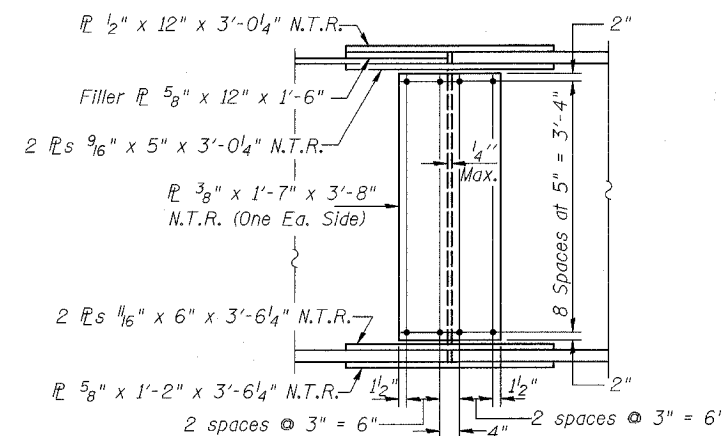
Note:
Two hardened washers shall be required over all oversize holes for diaphragms.



DIAPHRAGM D₂ & D₃
Required 4 D₂ & 4 D₃

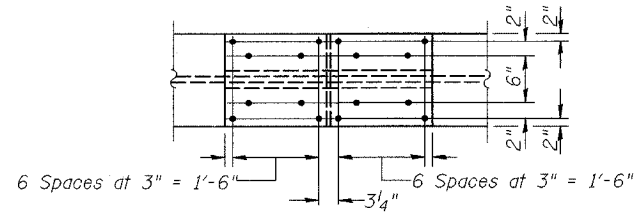


TOP FLANGE



BOTTOM FLANGE

SPLICES
(12 Required)



I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (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. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_a (Applied Moment) = $1.3[M\phi + Ms\phi + 5_3(M\phi + M(Imp))]$.
 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 $M\phi + Ms\phi + 5_3(M\phi + M(Imp))$.
 $R\phi$ includes the weight of the Concrete diaphragm and the dead load reaction from the approach pavement.

SHEET TITLE		
STRUCTURAL STEEL		
PROJECT	PROJECT NO.	02017
IL RTE. 32/33 OVER LITTLE WABASH RIVER	SCALE	
F.A.P. RTE. 774 SECTION 107BY	DATE	
EFFINGHAM COUNTY	DRAWN BY	TFG
STATION 1011+50.17	CHECKED BY	GJB/MCB
STRUCTURE NO. 025-0078	DRAWING NO.	
COOMBE-BLOXDORF P.C.		13
Engineers/Land Surveyors		
Springfield, Illinois		
Design Firm License No. 184-002708		OF 29 SHTS