

INTERIOR GIRDER MOMENT TABLE					
		0.4 Sp. 1 0.6 Sp. 4	Pier 1 Pier 3	0.5 Sp. 2 0.5 Sp. 3	Pier 2
I_s	(in ⁴)	6699	6699	6699	9282
$I_c(n)$	(in ⁴)	17,593	-	17,593	-
$I_c(3n)$	(in ⁴)	12,717	-	12,717	-
S_s	(in ³)	405	405	405	554
$S_c(n)$	(in ³)	591	-	591	-
$S_c(3n)$	(in ³)	530	-	530	-
Z	(in ³)	-	-	-	-
ϕ	(k/')	0.737	1.020	0.737	1.020
$M\phi$	('k)	77.0	335.6	172.8	482.4
$s\phi$	(k/')	0.283	-	0.283	-
$M_s\phi$	('k)	38.2	-	88.8	-
M_L	('k)	230.2	176.5	369.5	231.7
M_{IM}	('k)	66.8	47.7	92.4	57.9
$^{5/8}[M_L + I]$	('k)	494.9	373.7	769.8	482.7
M_a	('k)	793.1	922.1	1340.8	1254.6
* M_u	('k)	1722	-	1657	-
$f_s \phi$ non-comp	(ksi)	2.28	9.94	5.12	10.45
$f_s \phi$ (comp)	(ksi)	0.86	-	2.00	-
$f_s \ ^{5/8}[M_L + M_I]$	(ksi)	10.05	11.07	15.63	10.46
f_s (Overload)	(ksi)	13.19	21.01	22.75	20.91
** f_s (Total)	(ksi)	-	27.31	-	27.18
VR	(k)	40.7	-	34.7	-

INTERIOR GIRDER REACTION TABLE				
		N. & S. Abut.	Pier 1 & 3	Pier 2
$R\phi$	(k)	43.2***	65.1	77.4
R_L	(k)	31.7	38.8	39.1
R_I	(k)	9.2	10.5	9.8
R_{Total}	(k)	84.1	114.4	126.3

* Compact section
 ** Braced non-compact and partially braced section
 *** Reaction includes bridge approach slab

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.4 and in.3).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.4 and in.3).
 $I_c(3n), S_c(3n)$: 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 and Overload) due to long-term composite (superimposed) dead loads (in.4 and in.3).
 Z : Plastic Section Modulus of the steel section in non-composite areas (in.3).
 ϕ : Un-factored non-composite dead load (kips/ft.).
 $M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).
 $s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
 $M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
 M_L : Un-factored live load moment (kip-ft.).
 M_I : Un-factored moment due to impact (kip-ft.).
 M_a : Factored design moment (kip-ft.).
 $1.3 [M\phi + M_s\phi + \frac{5}{8}(M_L + M_I)]$
 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).
 $M\phi + M_s\phi + \frac{5}{8}(M_L + M_I)$
 f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M\phi + M_s\phi + \frac{5}{8}(M_L + M_I)]$
 VR: Maximum $L +$ impact shear range within the composite portion of the span for stud shear connector design (kips).



USER NAME =	DESIGNED - WJV	REVISED -
	CHECKED - CJB	REVISED -
PLOT SCALE =	DRAWN - WJV	REVISED -
PLOT DATE = 12-22-2011	CHECKED - CJB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION
 STRUCTURE NO. 026-0055

SHEET NO. 16 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2720	(26-5,26-5-1,26-1-1)R	Fayette	92	83
			CONTRACT NO. 74469	
ILLINOIS FED. AID PROJECT				