INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in^4)	15303	24634	15303
$I_c(n)$	(in^4)	36588	53151	36588
$I_c(3n)$	(in^4)	27095	39248	27095
$I_c(cr)$	(in^4)		29432	
S_s	(in^3)	618	1019	618
$S_c(n)$	(in^3)	869	1318	869
$S_c(3n)$	(in^3)	787	1208	787
$S_c(cr)$	(in^3)		1095	
DC1	(k/')	0.74	0.80	0.74
M_{DC1}	('k)	489	1069	453
DC2	(k/')	0.15	0.15	0.15
M_{DC2}	('k)	100	209	93
DW	(k/')	0.284	0.284	0.284
M_{DW}	('k)	189	396	176
M_{L+IM}	('k)	1048	1270	1029
M_u (Strength I)	('k)	2854	4414	2747
* $\phi_f M_n$	('k)	4330	4964	4358
f_s DC1	(ksi)	9.49	12.59	8.79
f_s DC2	(ksi)	1.53	2.29	1.42
f_s DW	(ksi)	2.88	4.34	2.68
f_s (L+IM)	(ksi)	14.47	13.91	14.21
f_s (Service II)	(ksi)	32.71	37.31	31.36
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50
V_f	(k)	26.9	26.1	24.6

* Compact Section

INTERIOR GIRDER REACTION TABLE				
		W. Abut.	Pier	E. Abut.
R_{DC1}	(k)	27.8	98.0	26.9
R_{DC2}	(k)	5.5	19.2	5.3
R_{DW}	(k)	10.4	36.3	10.1
R_{L+IM}	(k)	74.8	137.0	72.1
R_{Total}	(k)	118.5	290.5	114.3

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

Pier

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, 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-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) ((kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.) and appendix A criteria for negative moment.

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(3n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_{s(L+IM)}$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_{sL+IM}$

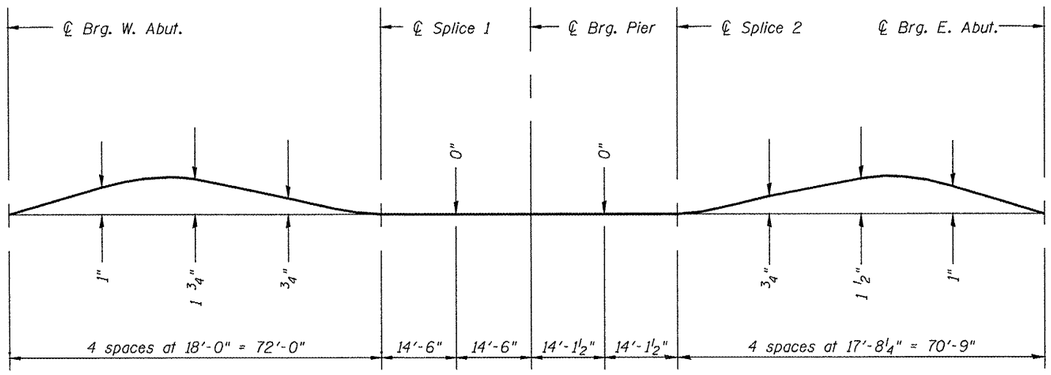
$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
℄ Brg. W. Abut.	686.30	686.40	686.49	686.48	686.38	686.26
℄ Splice 1	685.75	685.85	685.94	685.93	685.83	685.71
℄ Brg. Pier	685.54	685.64	685.73	685.72	685.62	685.50
℄ Splice 2	685.34	685.44	685.53	685.52	685.42	685.30
℄ Brg. E. Abut.	684.90	685.00	685.09	685.08	684.98	684.86

\# For Fabrication Only



CAMBER DIAGRAM

TERRA ENGINEERING LTD.
225 W. OHIO ST., FOURTH FL.
CHICAGO, IL 60654
W(312)467-8123 F(312)467-8220
WWW.TERRAENGINEERING.COM

FILE NAME	USER NAME = TERRA	DESIGNED - OY	REVISED -
D468418.016_Steel details.dgn		CHECKED - DA	REVISED -
	PLOT SCALE = 0i4.0000 '' / IN.	DRAWN - CM	REVISED -
	PLOT DATE = 11/29/2011	CHECKED - JB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DETAILS
STRUCTURE NO. 055-0067
SHEET NO. S16 OF S23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
407	55-3HB-1	McDONOUGH	103	41
		CONTRACT NO. 68A41		
	ILLINOIS FED. AID PROJECT			