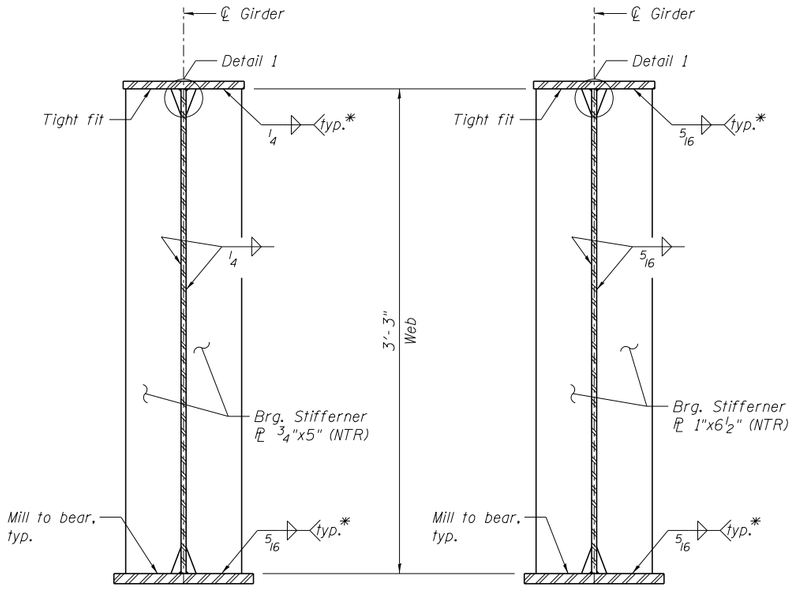
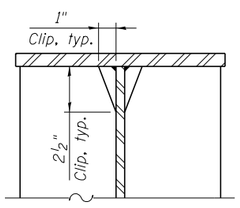


BEARING STIFFENER AT ABUTMENTS

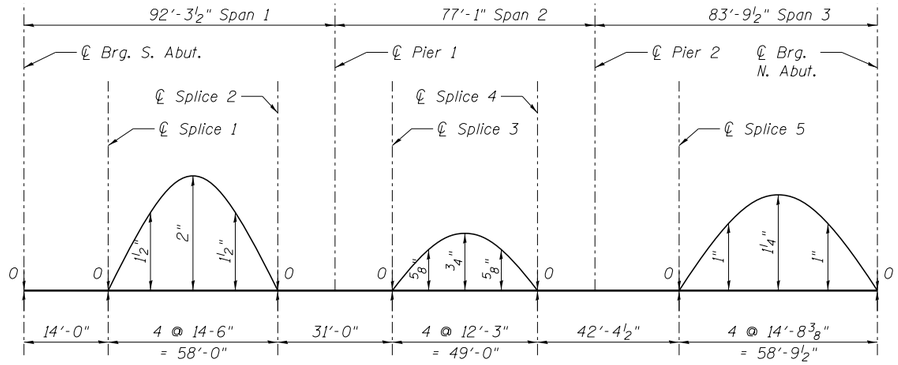
BEARING STIFFENER AT PIERS

* Terminate weld 1/4" from outside edges of stiffener ℄



DETAIL 1

(Typical top & bottom flanges)



CAMBER DIAGRAM

INTERIOR GIRDER MOMENT TABLE						
		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
I_s	(in^4)	12752	17620	13971	15895	13971
$I_c(n)$	(in^4)	34942	41098	39950	40526	39950
$I_c(3n)$	(in^4)	25886	30758	29034	29917	29034
$I_c(cr)$	(in^4)	-----	22613	-----	21304	-----
S_s	(in^3)	705	887	828	861	828
$S_c(n)$	(in^3)	977	1154	1141	1148	1141
$S_c(3n)$	(in^3)	903	1070	1057	1063	1057
$S_c(cr)$	(in^3)	-----	971	-----	957	-----
DC1	(k/')	1.066	1.112	1.083	1.098	1.083
M_{DC1}	('k)	736	-896	16	-686	639
DC2	(k/')	0.129	0.129	0.129	0.129	0.129
M_{DC2}	('k)	90	-105	3	-80	77
DW	(k/')	0.389	0.389	0.389	0.389	0.389
M_{DW}	('k)	271	-317	9	-243	231
M_{L+IM}	('k)	1329	-1272	890	-1111	1206
M_u (Strength I)	('k)	3765	-3953	1595	-3266	3352
$\phi_r M_n$	('k)	4731	4529	5522	4492	5522
f_s DC1	(ksi)	12.5	-12.1	0.2	-9.6	9.3
f_s DC2	(ksi)	1.2	-1.3	0.0	-1.0	0.9
f_s DW	(ksi)	3.6	-3.9	0.1	-3.0	2.6
f_s (L+IM)	(ksi)	16.3	-15.7	9.4	-13.9	12.7
f_s (Service II)	(ksi)	38.5	-37.8	12.5	-31.7	29.2
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-----	-----	-----	-----	-----
$\phi_r F_n$	(ksi)	-----	-----	-----	-----	-----
V_r	(k)	57.3	63.0	52.9	66.1	55.3

TOP OF WEB ELEVATIONS

(For fabrication only)

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7
℄ Brg. S. Abut.	621.81	621.97	622.13	622.28	622.40	622.29	622.13
Splice 1	621.99	622.16	622.32	622.47	622.59	622.48	622.32
Splice 2	622.07	622.24	622.41	622.57	622.70	622.59	622.44
℄ Brg. Pier 1	621.95	622.13	622.30	622.46	622.59	622.49	622.34
Splice 3	621.89	622.06	622.24	622.40	622.53	622.43	622.28
Splice 4	621.66	621.84	622.02	622.18	622.32	622.23	622.09
℄ Brg. Pier 2	621.56	621.74	621.92	622.09	622.23	622.13	622.00
Splice 5	621.42	621.60	621.78	621.95	622.09	622.00	621.86
℄ Brg. N. Abut.	620.81	620.99	621.17	621.34	621.48	621.39	621.26

INTERIOR GIRDER REACTION TABLE					
		S. Abut.	Pier 1	Pier 2	N. Abut.
** R_{DC1}	(k)	82.7	104.7	93.1	80.3
R_{DC2}	(k)	4.8	12.4	11.0	4.4
R_{DW}	(k)	14.5	37.4	33.2	13.4
R_{L+IM}	(k)	95.6	155.0	143.2	93.6
R_{Total}	(k)	197.6	309.5	280.5	191.7

** Reaction also includes approach slab and concrete diaphragm.

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 $in.^3$).

$I_c(n)$, $S_c(n)$: 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 (superimposed) 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.).
$1.25\,(M_{DC1} + M_{DC2}) + 1.5\,M_{DW} + 1.75\,M_{L+IM}$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

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 load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ 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).
$1.25\,(f_{sDC1} + f_{sDC2}) + 1.5\,f_{sDW} + 1.75\,f_s(L+IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r: Maximum factored shear range in span computed according to Article 6.10.10.

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10093

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		CHECKED - KWS	REVISED -		
	PLOT SCALE =	DRAWN - KMS	REVISED -		
	PLOT DATE = 6/23/2014	CHECKED - KWS	REVISED -		SHEET NO. SA28 OF SA43 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	(0707-608&611)HB-B	COOK	177	93
		CONTRACT NO. 60W77		
		ILLINOIS FED. AID PROJECT		