INTERIOR GIRDER REACTION TABLE				
		Abut.	Pier 1 or 3	Pier 2
R_{DC1}	(k)	28.1	113.4	128.4
R_{DC2}	(k)	4.5	17.4	19.2
R_{DW}	(k)	11.0	42.6	47.0
R_{L+IM}	(k)	83.8	162.1	172.0
R_{Total}	(k)	127.4	335.5	366.6

INTERIOR GIRDER MOMENT TABLE					
		0.4 Sp. 1 or 0.6 Sp. 4	Pier 1 or Pier 3	0.5 Sp. 2 or 0.5 Sp. 3	Pier 2
I_s	(in^4)	15,530	25,663	17,515	31,998
$I_c(n)$	(in^4)	39,295	56,017	42,673	65,927
$I_c(3n)$	(in^4)	29,439	41,951	31,950	49,487
$I_c(cr)$	(in^4)	-	31,266	-	37,836
S_s	(in^3)	653	1,052	733	1,292
$S_c(n)$	(in^3)	927	1,363	1,014	1,627
$S_c(3n)$	(in^3)	847	1,256	929	1,503
$S_c(cr)$	(in^3)	-	1,137	-	1,375
DC1	(k/')	0.95	1.02	0.96	1.06
M_{DC1}	('k)	403	1,152	521	1,485
DC2	(k/')	0.15	0.15	0.15	0.15
M_{DC2}	('k)	66	175	86	221
DW	(k/')	0.37	0.37	0.37	0.37
M_{DW}	('k)	161	429	211	540
M_{L+IM}	('k)	1,153	1,494	1,261	1,709
M_u (Strength I)	('k)	2,846	4,917	3,282	5,933
$\phi_f M_n$	('k)	4,712	5,074	5,121	6,176
f_s DC1	(ksi)	7.4	13.1	8.5	13.8
f_s DC2	(ksi)	0.9	1.8	1.1	1.9
f_s DW	(ksi)	2.3	4.5	2.7	4.7
f_s (L+IM)	(ksi)	14.9	15.8	14.9	14.9
f_s (Service II)	(ksi)	30.0	40.0	31.8	39.8
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	53.1	-	52.8
$\phi_f F_n$	(ksi)	-	-	-	-
V_f	(k)	29.4	29.6	30.3	29.6

Location	S. Abut.	Pier 1	Splice 1	Splice 2	Pier 2	Splice 3	Splice 4	Pier 3	N. Abut.
Girder 1	386.74	386.62	386.59	386.53	386.51	386.49	386.46	386.46	386.47
Girder 2	386.90	386.77	386.75	386.68	386.66	386.64	386.61	386.61	386.62
Girder 3	387.02	386.89	386.87	386.80	386.78	386.76	386.73	386.73	386.74
Girder 4	387.08	386.96	386.93	386.86	386.84	386.83	386.79	386.79	386.80
Girder 5	386.96	386.84	386.81	386.75	386.73	386.71	386.68	386.68	386.69
Girder 6	386.83	386.70	386.68	386.61	386.59	386.57	386.54	386.54	386.55

TOP OF WEB ELEVATIONS

(For Fabrication Only)

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 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 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 plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

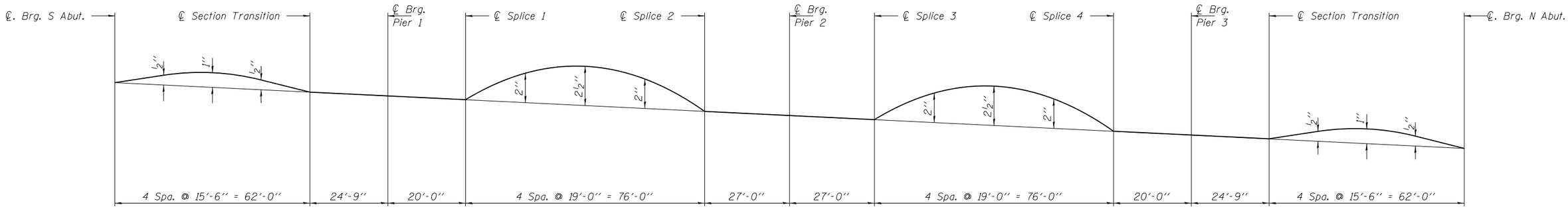
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: 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).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_{L+IM}$

$\phi_r F_n$: 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.



CAMBER DIAGRAM

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LS / PE / SE CORPORATION

FILE NAME = c:\pw_work\pwidot\leftwichd\d0535240\D0340077-78215.dgn

PLOT SCALE =

PLOT DATE = 6/4/2014

DESIGNED - S.M.S.
CHECKED - C.C.S.
CHECKED - M.D.C.

REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 039-0077
SHEET NO. 18 OF 32 SHEETS

FAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	13B-1	JACKSON	112	52
IL 13/127 OVER BEAUCOUP CR.		CONTRACT NO. 78215		
ILLINOIS	FED. AID PROJECT			