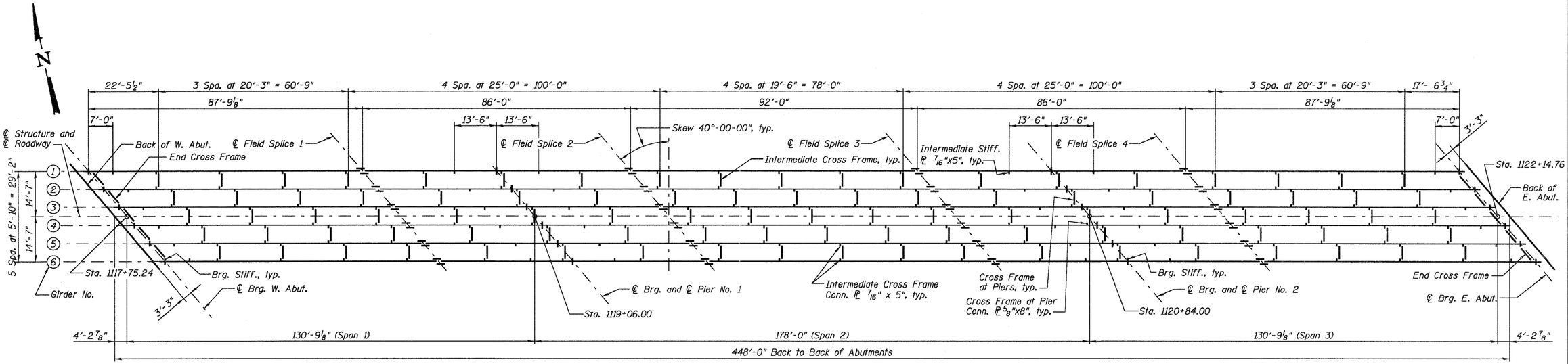

FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in^4)	23941	59937	24957
$I_c(n)$	(in^4)	56037	67269	58529
$I_c(3n)$	(in^4)	41584	67269	43041
S_s	(in^3)	805	1868	839
$S_c(n)$	(in^3)	1115	2255	1180
$S_c(3n)$	(in^3)	1013	2255	1063
DC1	(k/')	0.78	0.93	0.79
M_{DC1}	('k)	685	2428	833
DC2	(k/')	0.15	0.15	0.15
M_{DC2}	('k)	137	428	166
DW	(k/')	0.27	0.27	0.27
M_{DW}	('k)	244	763	296
M_{LL+IM}	('k)	1588	2267	1660
M_u(Strength I)	('k)	4137	8682	4598
$\phi_f M_n$, $\phi_f M_{nc}$	('k)	5540	9191	5748
f_s DC1	(ksi)	10.2	15.6	11.9
f_s DC2	(ksi)	1.6	2.3	1.9
f_s DW	(ksi)	2.9	4.1	3.3
f_s 1.3(LL+IM)	(ksi)	22.2	15.7	21.9
f_s (Service II)	(ksi)	36.9	37.7	39.0
V_f	(k)	33.4	30.4	30.4

INTERIOR GIRDER REACTION TABLE HL93 Loading (Unfactored)			
		Abut.	Pier
R_{DC1}	(k)	35.5	151.2
R_{DC2}	(k)	6.5	26.4
R_{DW}	(k)	11.6	47.1
R_{LL+IM}	(k)	96.1	174.2
R_{Total}	(k)	149.7	398.9

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) due to short-term composite live loads in positive moment region. Composite moment of inertia and section modulus of the steel and deck reinforcing based on cracked composite section in negative moment region. ($in.^4$ 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) due to long-term composite (superimposed) dead loads in positive moment region. Composite moment of inertia and section modulus of the steel and deck reinforcing based on cracked composite section in negative moment region. ($in.^4$ 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_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{LL+IM}$

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

FOR INFORMATION ONLY

Notes:

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Diaphragms and connecting plates and angles shall conform to the requirements of AASHTO M270 Grade 50W.

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29-SEP-2011
10:39

JACOBS	USER NAME =	DESIGNED - B. ERSCHEN	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN AND DESIGN DATA STRUCTURE NO. 039-0074
		CHECKED - M. CRONIN	REVISED -		
	PLOT DATE = 29-SEP-2011	DRAWN - F. CAMBA	REVISED -		SHEET NO. 17 OF 35 SHEETS
FILE NAME=039-0074978049-Framing Plan.dgn		CHECKED - J. SMITH	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
686	114F-1	JACKSON	13	24
		CONTRACT NO. 78283		
		ILLINOIS FED. AID PROJECT		