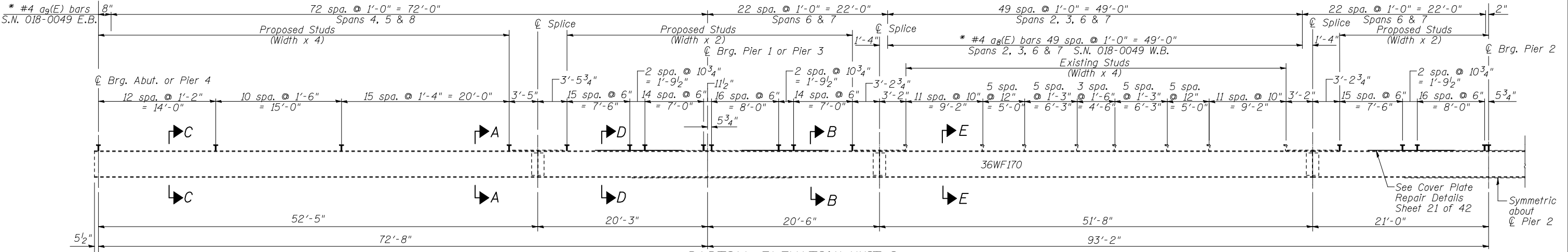


*Fillet reinforcement is required at existing shear stud locations and where depth of fillet exceeds 6". Engineer to determine final location and quantity of fillet reinforcement after deck forms are in place. Cost of reinforcement shall be paid for at the unit cost of Reinforcement Bars, Epoxy Coated.

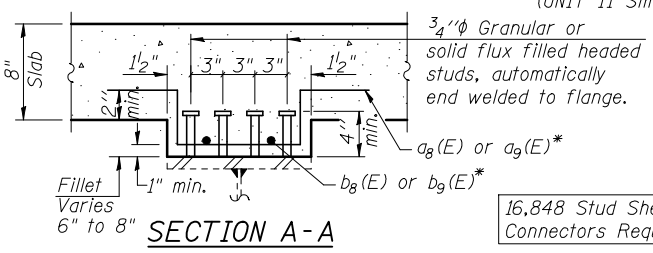
FRAMING PLAN UNIT I
(UNIT II Similar)



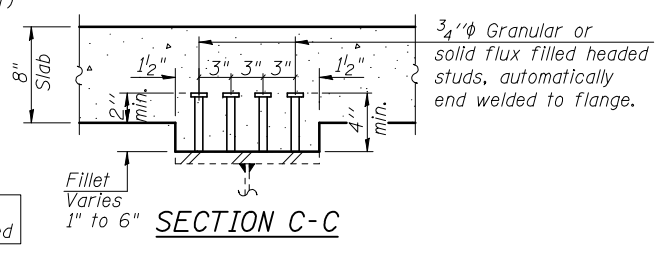
PARTIAL ELEVATION UNIT I
(UNIT II Similar)

INTERIOR GIRDER MOMENT TABLE				
	0.4 Sp. 1, 0.4 Sp. 5, or 0.6 Sp.8	Pier 1, 3, 5 or 7	0.5 Sp. 2, Sp. 3, or Sp.7	Pier 2 or 6
I_s	(in ⁴) 10312	14942	10312	15902
$I_c(n)$	(in ⁴) 27371	35376	27371	36979
$I_c(3n)$	(in ⁴) 19590	25390	19590	26566
$I_c(cr)$	(in ⁴)	18607		19616
S_s	(in ³) 571	802	571	848
$S_c(n)$	(in ³) 852	1120	852	1174
$S_c(3n)$	(in ³) 759	1003	759	1052
$S_c(cr)$	(in ³)	887		933
ϕ	(k/')	0.911	0.911	0.975
$M \phi$	(k)	328	686	731
$s \phi$	(k/')	0.300	0.300	0.300
$M_s \phi$	(k)	105	213	228
M_L	(k)	484	483	529
M_{IV}	(k)	122	116	121
$M_3 [M_L + I]$	(k)	1011	1000	1031
M_a	(k)	1876	2470	1896
M_u	(k)	2329		2332
$f_s \phi$ non-comp	(ksi)	6.9	10.3	6.8
$f_s \phi$ (comp)	(ksi)	1.7	2.9	1.7
$f_s \phi_3 [M_L + M_I]$	(ksi)	14.3	13.6	14.6
f_s (Overload)	(ksi)	22.9	26.8	23.1
** f_s (Total)	(ksi)		34.8	35.6
VR	(k)	50.1	53	39.9
			52	

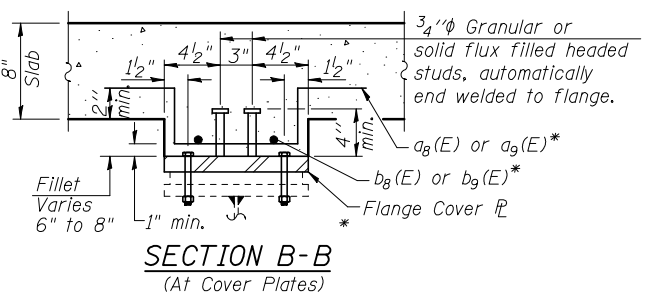
**Partially braced at piers



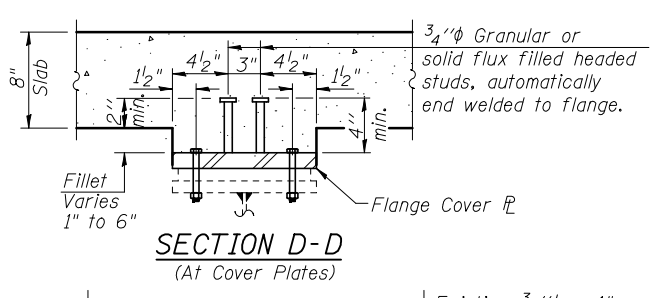
SECTION A-A



SECTION C-C

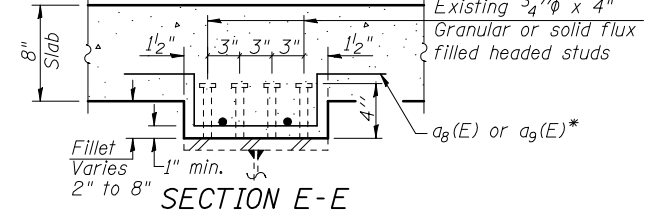


SECTION B-B
(At Cover Plates)



SECTION D-D
(At Cover Plates)

REACTION TABLE	INTERIOR GIRDERS		
	Abut. Pier 4	Pier 1, 3, 5 or 7	Pier 2 or 6
$R \phi$	(k) 33.6	114.7	118.0
R_L	(k) 35.6	51.3	52.5
R_I	(k) 9.0	8.8	8.4
R_{Total}	(k) 78.2	174.8	178.9



SECTION E-E

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).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and deck reinforcement based upon a cracked section. Used for computing $f_s DL$ (comp) at piers due to composite (superimposed) dead and live loads (in.⁴ and 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.).

$1.3 [M \phi + M_s \phi + \frac{2}{3} (M_L + M_I)]$

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).

$M \phi + M_s \phi + \frac{2}{3} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).

$1.3 [M \phi + M_s \phi + \frac{2}{3} (M_L + M_I)]$

VR: Maximum $L +$ impact shear range within the composite portion of the span for stud shear connector design (kips).

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 018-0049(W.B.) & 0050(E.B.)

SHEET NO. 20 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(18-47-VBK (18-47B, 18-47HB)BR	CUMBERLAND	147	112
			CONTRACT NO. 74466	
ILLINOIS FED. AID PROJECT				