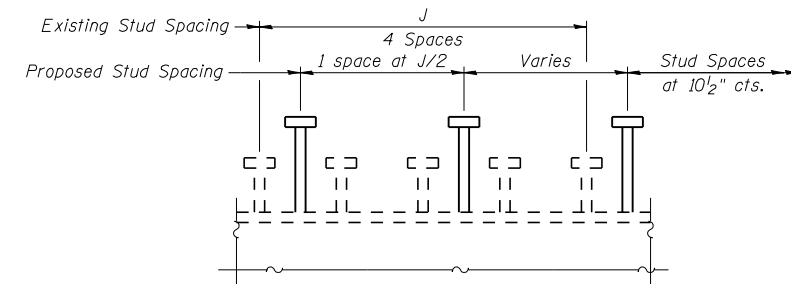


GIRDER ELEVATION

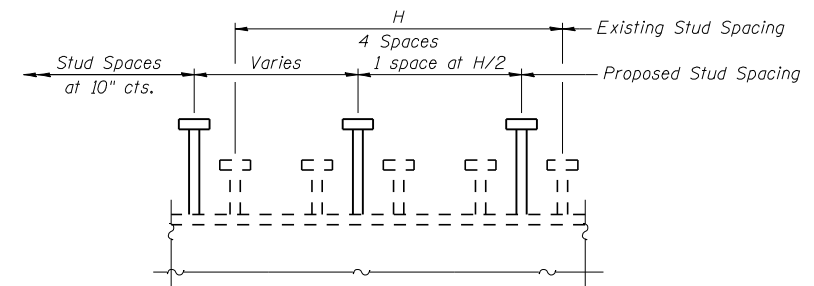
Indicates Limits of Girder to be Cleaned and Painted. See Special Provision for Cleaning and Painting Existing Steel Structures.

EXISTING GIRDER DIMENSIONS

Location	A	B	C	D	E	F	G	H	I	J	K
Gdr. 1	111'-1 ⁵ / ₈ "	100'-11 ¹ / ₄ "	153'-3 ⁵ / ₈ "	186'-11 ¹ / ₄ "	495'-2 ¹ / ₂ "	11 ⁵ / ₈ "	105'-0"	3'-0"	91'-0"	2'-8"	2'-7 ⁵ / ₈ "
Gdr. 2	109'-8 ³ / ₄ "	99'-2 ¹ / ₂ "	151'-10 ³ / ₄ "	185'-2 ¹ / ₂ "	490'-8"	10 ³ / ₄ "	105'-0"	1'-8"	91'-0"	2'-0"	2'-1 ¹ / ₄ "
Gdr. 3-12	108'-4"	97'-6"	150'-6"	183'-6"	486'-2"	10"	103'-4"	2'-0"	89'-3"	2'-0"	2'-1 ¹ / ₂ "
Gdr. 13	107'-6 ¹ / ₈ "	96'-6"	149'-8 ¹ / ₈ "	182'-6"	483'-6 ¹ / ₄ "	1'-0 ¹ / ₈ "	101'-8"	2'-8"	87'-6"	2'-4"	2'-2"
Gdr. 14	106'-8 ³ / ₈ "	95'-6 ¹ / ₈ "	148'-10 ³ / ₈ "	181'-6 ¹ / ₈ "	480'-10 ⁷ / ₈ "	10 ³ / ₈ "	101'-8"	2'-0"	85'-9"	2'-8"	2'-2 ³ / ₁₆ "



DETAIL J
(Left of midspan shown, right of midspan similar)



DETAIL H
(Span 1 shown, Span 3 similar)

INTERIOR GIRDER MOMENT TABLE				
	0.4 Span 1 or 0.6 Span 3	Pier	0.5 Span 2	
I_s	(in ⁴)	56,656	99,727	51,708
$I_c(n)$	(in ⁴)	148,132	105,054	131,113
$I_c(3n)$	(in ⁴)	101,997	105,054	91,897
S_s	(in ³)	2167	2849	1842
$S_c(n)$	(in ³)	3001	2908	2566
$S_c(3n)$	(in ³)	2707	2908	2312
ϕ	(k/')	1,123	1,242	1,100
$M\phi$	(k)	1677	3471	1234
$s\phi$	(k/')	0,528	0,528	0,528
$M_s\phi$	(k)	809	1567	659
M_t	(k)	1327	1707	1279
M_{iw}	(k)	238	307	230
$^{5/8} [M_t + M_i]$	(k)	2609	3357	2515
M_a	(k)	6624	10,844	5731
$f_s \phi$ non-comp	(ksi)	9.3	14.6	8.1
$f_s \phi$ (comp)	(ksi)	3.6	6.5	3.4
$f_s \phi [M_t + M_i]$	(ksi)	10.4	13.8	11.8
f_s (Overload)	(ksi)	23.3	34.9	23.3
f_s (Total)	(ksi)	30.3	45.4	30.3
VR	(k)	57.6	58.8	51.4

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 (in⁴ and in³).

$I_c(n), S_c(n)$: 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 (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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 (in⁴ and in³).

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_t : Un-factored live load moment (kip-ft.).

M_i : Un-factored moment due to impact (kip-ft.).

M_a : Factored design moment (kip-ft.).

$1.3 [M\phi + M_s\phi + \frac{5}{8} (M_t + M_i)]$

f_s (Overload): Sum of stresses as computed from the moments below (ksi).

$M\phi + M_s\phi + \frac{5}{8} (M_t + M_i)$

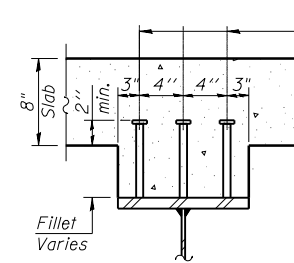
f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).

$1.3 [M\phi + M_s\phi + \frac{5}{8} (M_t + M_i)]$

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

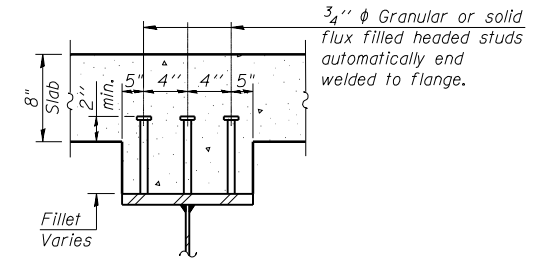
INTERIOR GIRDER REACTION TABLE			
	Abut.	Pier	
$R\phi$	(k)	92.1	312.7
R_t	(k)	45.2	98.0
R_i	(k)	8.2	17.6
R_{Total}	(k)	145.5	428.3

** Braced non-compact and partially braced section



SECTION A-A

Girder No.	No. of Studs Req'd
1	1,356
2	1,356
3-12	1,338
13	1,320
14	1,314
Total	18,726



SECTION B-B