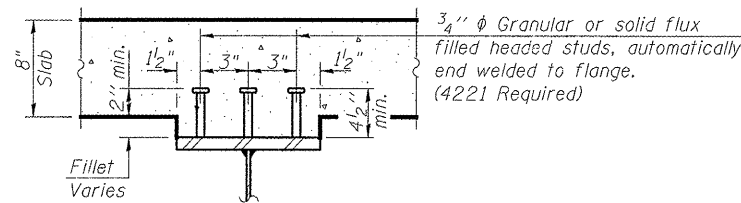


Beam Number	N. Abut.	Pier 1	Splice #1	Pier 2	Pier 3	Splice #2	Pier 4	S. Abut.
1	540.80	540.86	540.91	540.91	540.90	540.90	540.81	540.73
2	540.89	540.94	541.01	541.01	541.00	540.99	540.91	540.84
3	540.95	541.02	541.08	541.08	541.08	541.08	541.00	540.93
4	541.02	541.09	541.16	541.16	541.16	541.16	541.09	541.02
5	540.93	541.00	541.08	541.08	541.08	541.08	541.02	540.95
6	540.84	540.91	540.99	541.00	541.01	541.01	540.94	540.89
7	540.73	540.81	540.90	540.90	540.91	540.91	540.86	540.80

TOP OF BEAM ELEVATIONS
(For fabrication only)



INTERIOR GIRDER MOMENT TABLE						
	0.4 Sp. 1 or 0.6 Sp. 5	Piers 1 & 4	0.5 Sp. 2 or Sp. 4	Piers 2 & 3	0.5 Sp. 3	
I_s	(in ⁴)	1830	1830	1830	1830	1830
$I_c(n)$	(in ⁴)	5793	-	5793	-	5793
$I_c(3n)$	(in ⁴)	4302	-	4302	-	4302
S_s	(in ³)	154	154	154	154	154
$S_c(n)$	(in ³)	248	-	248	-	248
$S_c(3n)$	(in ³)	223	-	223	-	223
DC1	(k/')	0.615	0.615	0.615	0.615	0.615
M _{DC1}	(k)	54	98	52	100	51
DC2	(k/')	0.130	0.130	0.130	0.130	0.130
M _{DC2}	(k)	13	18	15	19	14
DW	(k/')	0.250	0.250	0.250	0.250	0.250
M _{DW}	(k)	26	34	28	36	27
M _{l + IM}	(k)	263	156	278	162	281
M _u (Strength I)	(k)	583	469	612	486	613
$\phi_r M_n$, $\phi_r M_{nc}$	(k)	1280	539	1281	539	1282
f_s DC1	(ksi)	4.21	7.64	4.05	7.79	3.97
f_s DC2	(ksi)	0.70	1.40	0.81	1.48	0.75
f_s DW	(ksi)	1.40	2.65	1.51	2.81	1.45
f_s 1.3(l + IM)	(ksi)	16.54	15.80	17.49	16.41	17.68
f_s (Service II)	(ksi)	22.85	27.49	23.86	28.49	23.85
V _r	(k)	13.9	-	14.9	-	14.9

* Compact sections

INTERIOR GIRDER REACTION TABLE				
	Abutments	Piers 1 & 4	Piers 2 & 3	
R _{DC1}	(k)	8.6	26.8	26.8
R _{DC2}	(k)	1.9	5.7	5.9
R _{DW}	(k)	3.6	11.0	11.3
R _{l + IM}	(k)	47.3	68.9	70.5
R _{Total}	(k)	61.4	112.4	114.5

- 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 (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-Strength I, and Service II) 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-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations (in³).
- 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 (kip-ft.).
- $\phi_r M_{nc}$: Compact non-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_{l + IM}
- V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

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		CHECKED - CJC	REVISED -
		DRAWN - UJ	REVISED -
		CHECKED - RVB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 036-0071

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	(14-1-B1) BR	HENDERSON	70	29
				CONTRACT NO. 68298
ILLINOIS FED. AID PROJECT				

SHEET NO. 16 OF 27 SHEETS