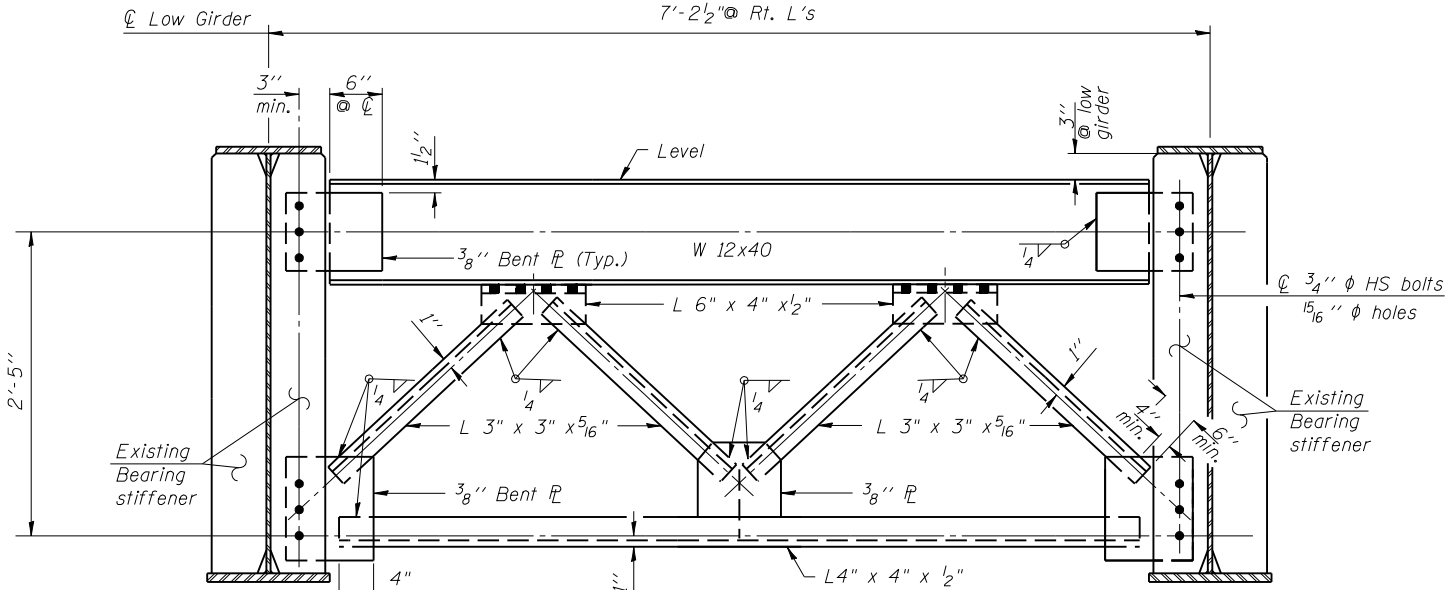


TOP OF EXISTING WEB ELEVATIONS

(For Information Only)



TYPICAL END CROSS FRAME

Note: Two hardened washers required for each set of oversized holes.
(40 Required)

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).
Q: Un-factored non-composite dead load (kips/ft.).
M_D: Un-factored moment due to non-composite dead load (kip-ft.).
s_D: Un-factored long-term composite (superimposed) dead load (kips/ft.).
M_{sD}: 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_D* + *M_{sD}* + $\frac{5}{3}$ (*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_D + *M_{sD}* + $\frac{5}{3}$ (*M_L* + *M_I*)
f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 1.3 [*M_D* + *M_{sD}* + $\frac{5}{3}$ (*M_L* + *M_I*)]
VR: Maximum *t* + impact shear range within the composite portion of the span for stud shear connector design (kips).

S.B. LANES

UNIT 1

N.B. LANES

Location	Girder A	Girder B	Girder C	Girder D	Girder E	Girder F
Q Brg. W. Abut	596.79	596.91	596.99	597.02	596.87	596.69
Q Splice 1	596.91	597.04	597.15	597.19	597.05	596.90
Q Brg. Pier 1	596.85	597.19	597.10	597.15	597.02	596.87
Q Splice 2	596.96	597.11	597.22	597.28	597.16	597.01
Q Splice 3	596.87	597.04	597.17	597.24	597.17	597.03
Q Brg. Pier 2	596.70	596.88	597.02	597.10	597.01	596.89
Q Splice 4	596.70	596.89	597.04	597.13	597.04	596.92
Q Brg. Pier 3	596.42	596.62	596.79	596.89	596.83	596.73

Location	Girder L	Girder K	Girder J	Girder I	Girder H	Girder G
Q Brg. E. Abut	596.38	596.48	596.54	596.54	596.37	596.17
Q Splice 4	596.67	596.78	596.86	596.88	596.73	596.54
Q Brg. Pier 4	596.67	596.79	596.88	596.91	596.76	596.58
Q Splice 3	596.84	596.97	597.07	597.11	596.96	596.79
Q Splice 2	596.95	597.10	597.21	597.27	597.13	596.99
Q Brg. Pier 3	596.85	597.00	597.12	597.18	597.06	596.92
Q Splice 1	596.92	597.07	597.20	597.26	597.16	597.02
Q Brg. Pier 2	596.81	596.99	597.14	597.22	597.13	597.02

S.B. LANES

UNIT 2

N.B. LANES

Location	Girder A	Girder B	Girder C	Girder D	Girder E	Girder F
Q Brg. Pier 3	596.42	596.62	596.79	596.89	596.83	596.73
Q Splice 5	595.89	596.11	596.30	596.42	596.37	596.29
Q Brg. Pier 4	595.56	595.79	595.98	596.11	596.07	596.00
Q Splice 6	595.44	595.68	595.87	596.01	595.98	595.92
Q Brg. E. Abut.	594.72	594.97	595.19	595.35	595.33	595.29

Location	Girder L	Girder K	Girder J	Girder I	Girder H	Girder G
Q Brg. Pier 2	596.81	596.99	597.14	597.22	597.13	597.02
Q Splice 5	596.46	596.67	596.83	596.93	597.46	596.76
Q Brg. Pier 1	596.20	596.41	596.58	596.69	596.62	596.53
Q Splice 6	596.15	596.36	596.54	596.66	596.59	596.51
Q Brg. W. Abut.	595.61	595.84	596.03	596.17	596.13	596.07

Note: Elevations have been taken from the existing plans and reduced by 0.38' to match the new bench mark datum.

UNIT 1

UNIT 2

	INTERIOR GIRDER MOMENT TABLE		
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2 (SB) Pier 3 or 4 (NB)	0.5 Sp. 2
<i>I_s</i> (in ⁴)	20,679	55,655	21,462
<i>I_c(n)</i> (in ⁴)	58,764	62,195	62,022
<i>I_c(3n)</i> (in ⁴)	41,561	-	43,490
<i>S_s</i> (in ³)	1,029	2,100	1,101
<i>S_c(n)</i> (in ³)	1,447	2,183	1,545
<i>S_c(3n)</i> (in ³)	1,323	-	1,414
<i>Q</i> (k/ft.)	1.026	1.225	1.033
<i>M_D</i> (k)	643	1,890	687
<i>s_D</i> (k/ft.)	0.534	0.534	0.534
<i>M_{sD}</i> (k)	357	904	404
<i>M_L</i> (k)	864	1,063	870
<i>M_I</i> (k)	182	223	182
<i>⁵/₃ [M_L + M_I]</i> (k)	1,743	2,143	1,753
<i>M_a</i> (k)	3,566	6,418	3,697
* <i>M_u</i> (k)	5,318	6,459	5,821
<i>f_s Q non-comp</i> (ksi)	7.50	10.80	7.49
<i>f_s Q (comp)</i> (ksi)	3.24	4.97	3.43
<i>f_s ⁵/₃ [M_L + M_I]</i> (ksi)	14.45	11.78	13.62
<i>f_s (Overload)</i> (ksi)	25.19	27.55	24.54
** <i>f_s (Total)</i> (ksi)	32.75	35.82	31.90
<i>VR</i> (k)	59.10	59.40	59.03

	INTERIOR GIRDER MOMENT TABLE	
	0.4 Sp. 1 or 0.6 Sp. 2	Pier 1 (NB) Pier 4 (SB)
<i>I_s</i> (in ⁴)	20,679	55,655
<i>I_c(n)</i> (in ⁴)	58,764	62,195
<i>I_c(3n)</i> (in ⁴)	41,561	-
<i>S_s</i> (in ³)	1,029	2,100
<i>S_c(n)</i> (in ³)	1,447	2,183
<i>S_c(3n)</i> (in ³)	1,323	-
<i>Q</i> (k/ft.)	1.026	1.225
<i>M_D</i> (k)	725	1,852
<i>s_D</i> (k/ft.)	0.534	0.534
<i>M_{sD}</i> (k)	405	870
<i>M_L</i> (k)	877	940
<i>M_I</i> (k)	184	198
<i>⁵/₃ [M_L + M_I]</i> (k)	1,768	1,896
<i>M_a</i> (k)	3,767	6,003
* <i>M_u</i> (k)	5,069	6,454
<i>f_s Q non-comp</i> (ksi)	8.45	10.58
<i>f_s Q (comp)</i> (ksi)	3.67	4.78
<i>f_s ⁵/₃ [M_L + M_I]</i> (ksi)	14.66	10.43
<i>f_s (Overload)</i> (ksi)	26.78	25.79
** <i>f_s (Total)</i> (ksi)	34.81	33.53
<i>VR</i> (k)	57.85	55.16

	INTERIOR GIRDER REACTION TABLE		
	W. Abut. SB E. Abut. NB	Pier 1 or 2 (SB) Pier 3 or 4 (NB)	Pier 3 (SB) Pier 2 (NB)
<i>R_D</i> (k)	57.57	225.45	57.62
<i>R_L</i> (k)	41.84	78.34	41.82
<i>R_I</i> (k)	9.21	16.45	9.21
<i>R_{Total}</i> (k)	108.62	320.24	108.65

	INTERIOR GIRDER REACTION TABLE		
	E. Abut. SB W. Abut. NB	Pier 1 (NB) Pier 4 (SB)	Pier 2 (SB) Pier 3 (NB)
<i>R_D</i> (k)	60.78	226.4	60.78
<i>R_L</i> (k)	42.21	75.22	42.21
<i>R_I</i> (k)	8.86	15.80	8.79
<i>R_{Total}</i> (k)	111.85	318.00	111.78

* Compact section
** Braced non-compact and partially braced section

* Compact section
** Braced non-compact and partially braced section