



FRAMING PLAN
(NB Bridge)

	0.4 Span 1 0.6 Span 2	Pier
I	(in ⁴) 545894	-
I'	(in ⁴) 977244	977244
S_b	(in ³) 14915	-
S_b'	(in ³) 19236	19236
S_t	(in ³) 15421	-
S_t'	(in ³) 46104	46104
$DC1$	(k/ft) 1.45	1.45
M_{DC1}	(k) 2717	-
$DC2$	(k/ft) 0.26	0.26
M_{DC2}	(k) 286	503
DW	(k/ft) 0.26	0.26
M_{DW}	(k) 282	494
$M_L + IM$	(k) 1797	1703

	0.4 Span 1 0.6 Span 2	Pier
I	(in ⁴) 545894	-
I'	(in ⁴) 1002942	1002942
S_b	(in ³) 14915	-
S_b'	(in ³) 19419	19419
S_t	(in ³) 15421	-
S_t'	(in ³) 49277	49277
$DC1$	(k/ft) 1.51	1.51
M_{DC1}	(k) 2834	-
$DC2$	(k/ft) 0.26	0.26
M_{DC2}	(k) 286	503
DW	(k/ft) 0.26	0.26
M_{DW}	(k) 282	494
$M_L + IM$	(k) 1870	1772

	Abutment	Pier
R_{DC1}	(k) 90.6	181.2
* R_{DC2}	(k) 12.2	40.6
* R_{DW}	(k) 12.0	39.8
* $R_L + IM$	(k) 89.0	179.8
R_{Total}	(k) 203.8	441.4

	Abutment	Pier
R_{DC1}	(k) 94.5	189.0
* R_{DC2}	(k) 12.2	40.6
* R_{DW}	(k) 12.0	39.8
* $R_L + IM$	(k) 75.1	153.1
R_{Total}	(k) 193.8	422.5

I : Non-composite moment of inertia of beam section (in⁴).
 I' : Composite moment of inertia of beam section (in⁴).
 S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_t : Non-composite section modulus for the top fiber of the prestressed beam (in³).
 S_t' : Composite section modulus for the top fiber of the prestressed beam (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.).
 * At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.