

Contract #70517

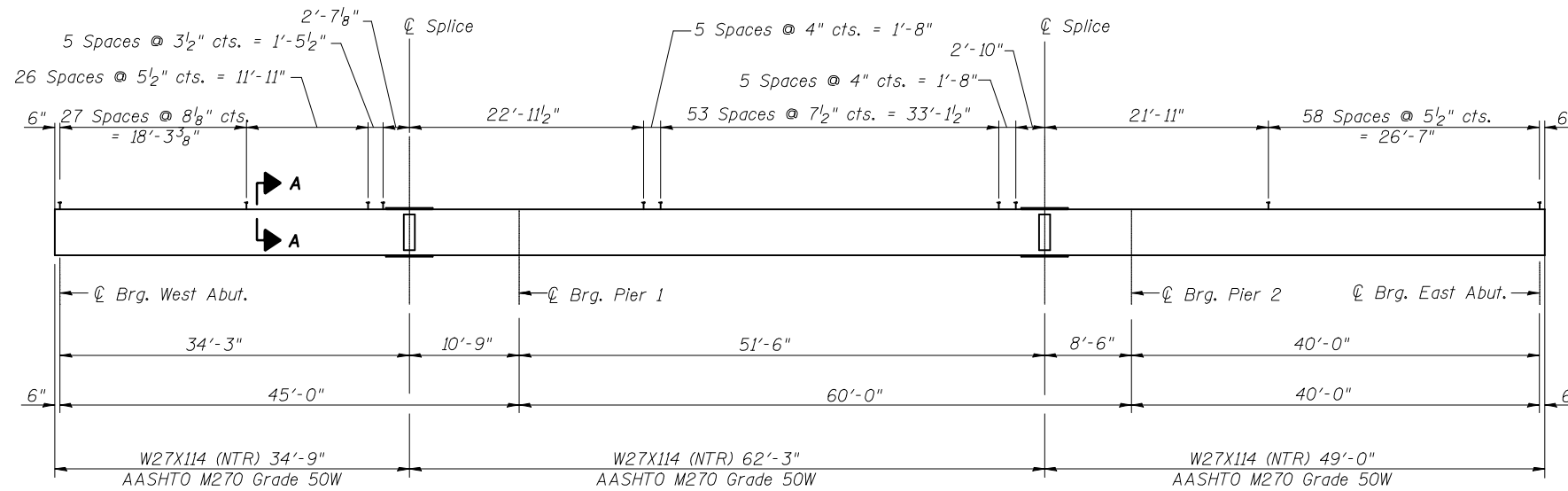
INTERIOR GIRDER MOMENT TABLE						
		0.4 spa. #1	Pier 1	0.5 spa. #2	Pier 2	0.6 spa. #3
I_s	(in ⁴)	4080	4080	4080	4080	4080
$I_c(n)$	(in ⁴)	11833		11833		11833
$I_c(3n)$	(in ⁴)	8817		8817		8817
S_s	(in ³)	299	299	299	299	299
$S_c(n)$	(in ³)	454		454		454
$S_c(3n)$	(in ³)	412		412		412
ρ	(k/')	0.888	1.308	0.888	1.308	0.888
$M\rho$	(k)	114	359	157	327	80
$s\rho$	(k/')	0.420		0.420		0.420
$M_s\rho$	(k)	76		118		55
M_L	(k)	311	180	395	174	253
M_{Imp}	(k)	91	51	106	50	76
$^{53} [M_L + Imp]$	(k)	670	385	835	374	549
M_a	(k)	1118	967	1443	911	889
M_u	(k)	1806		1771		1833
$f_s \rho$ non-comp	(ksi)	4.6	14.5	6.4	13.2	3.3
$f_s \rho$ (comp)	(ksi)	2.3		3.5		1.7
$f_s ^{53} [M_L + M_{Imp}]$	(ksi)	17.7	15.5	22.1	15.1	14.6
f_s (Overload)	(ksi)	24.6	30.0	32.0	28.3	19.6
** f_s (Total)	(ksi)		39.0		36.8	
VR	(k)	52.5		47.5		51.1

INTERIOR GIRDER REACTION TABLE					
	W. abut.	Pier 1	E. abut.	Pier 2	
$R\rho$	(k)	22.9	80.5	76.2	19.3
R_L	(k)	37.1	44.6	44.5	35.6
Imp.	(k)	10.9	9.7	9.9	10.7
R_{Total}	(k)	70.9	134.8	130.6	65.6

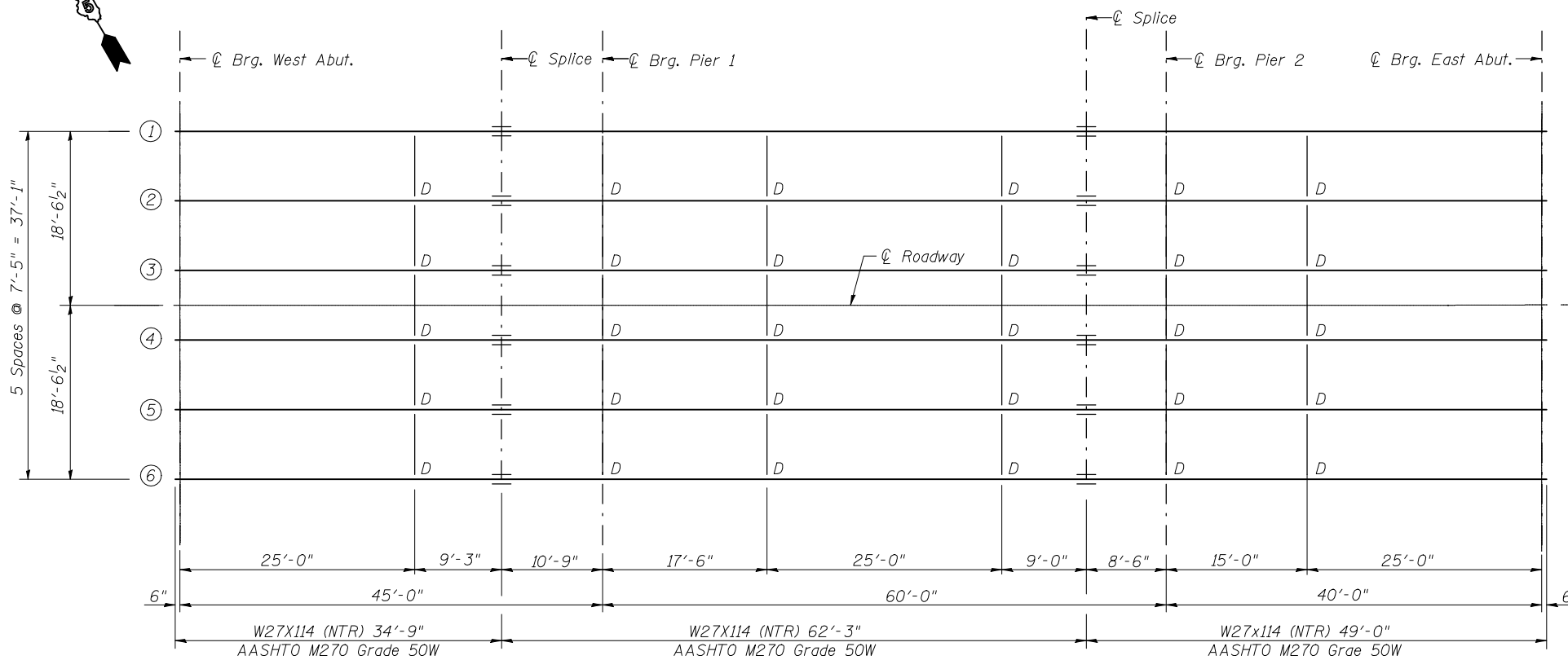
* Compact section Braced
** non-compact and partially braced section

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).
 ρ : Un-factored non-composite dead load (kips/ft.).
 $M\rho$: Un-factored moment due to non-composite dead load (kip-ft.).
 $s\rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
 $M_s\rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
 M_L : Un-factored live load moment (kip-ft.).
 M_{Imp} : Un-factored moment due to impact (kip-ft.).
 M_a : Factored design moment (kip-ft.).
 $1.3 [M\rho + M_s\rho + \frac{5}{8} (M_L + M_{Imp})]$
 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).
 $M\rho + M_s\rho + \frac{5}{8} (M_L + M_{Imp})$
 f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M\rho + M_s\rho + \frac{5}{8} (M_L + M_{Imp})]$
VR: Maximum $L + impact$ horizontal shear range within the composite portion of the span for stud shear connector design (kips).

**FRAMING PLAN AND
BEAM DETAILS
US. ROUTE 150
OVER KICKAPOO CREEK
FAU ROUTE 6406 SECTION 11BR-2
MCLEAN COUNTY
STATION 407+23.50
STRUCTURE NO. 057-0246**



ELEVATION



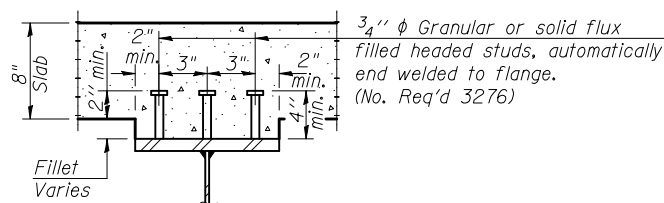
FRAMING PLAN

Note:
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor bolts.

	W. Abut.	℄ Splice 1	℄ Pier 1	℄ Splice 2	℄ Pier 2	E. Abut.
Beam 1 and 6	766.81	766.96	767.01	767.25	767.29	767.47
Beam 2 and 5	766.96	767.11	767.16	767.40	767.44	767.62
Beam 3 and 4	767.07	767.22	767.27	767.51	767.55	767.73

TOP OF BEAM ELEVATIONS

(For Fabrication use Only)



SECTION A-A