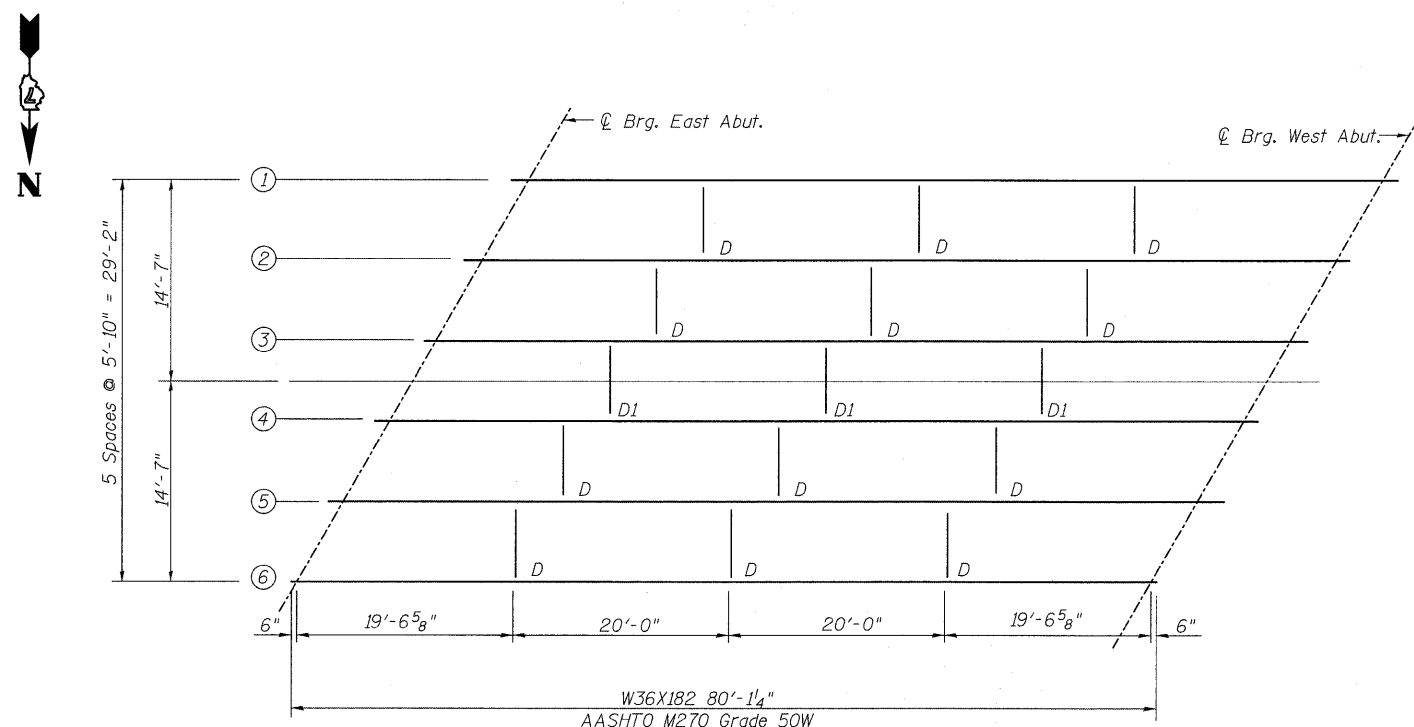
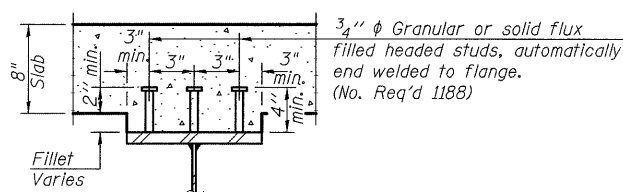


ELEVATION



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.



SECTION A-A

	E. Abut.	W. Abut.
Beam 1	393.51	393.11
Beam 2	393.63	393.23
Beam 3	393.73	393.33
Beam 4	393.75	393.35
Beam 5	393.68	393.28
Beam 6	393.59	393.19

TOP OF BEAM ELEVATIONS
(For Fabrication use Only)

0.5 Sp. 1		
I_s	(in ⁴)	11300
$I_c(n)$	(in ⁴)	26430
$I_c(3n)$	(in ⁴)	19115
S_s	(in ³)	623
$S_c(n)$	(in ³)	871
$S_c(3n)$	(in ³)	780
DC1	(k/')	0.833
M _{DC1}	(k)	668
DC2	(k/')	0.150
M _{DC2}	(k)	120
DW	(k/')	0.267
M _{DW}	(k)	214
M _{LL + IM}	(k)	1084
M _u (Strength I)	(k)	3203
* $\phi_r M_n$	(k)	4289
f_s DC1	(ksi)	12.9
f_s DC2	(ksi)	1.9
f_s DW	(ksi)	3.3
f_s 1.3(LL + IM)	(ksi)	19.5
f_s (Service II)	(ksi)	37.6
V _r	(k)	26.4

* Compact sections

	E. Abut. & W. Abut.
R _{DC1}	(k) 33.3
R _{DC2}	(k) 6.0
R _{DW}	(k) 10.6
R _{LL + IM}	(k) 81.2
R _{Total}	(k) 131.1

- 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).
- 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_{LL + 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_{LL + IM}
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (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_{LL + IM}
- V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

**FRAMING PLAN AND
BEAM DETAILS
IL 15 OVER UNION
DRAINAGE DITCH
WAYNE COUNTY
STATION 301+65.00
STRUCTURE NO. 096-0071**

SHEET NO. 11	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 SHEETS	823	(22BY-1) B-1	WAYNE	142	71
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74238					