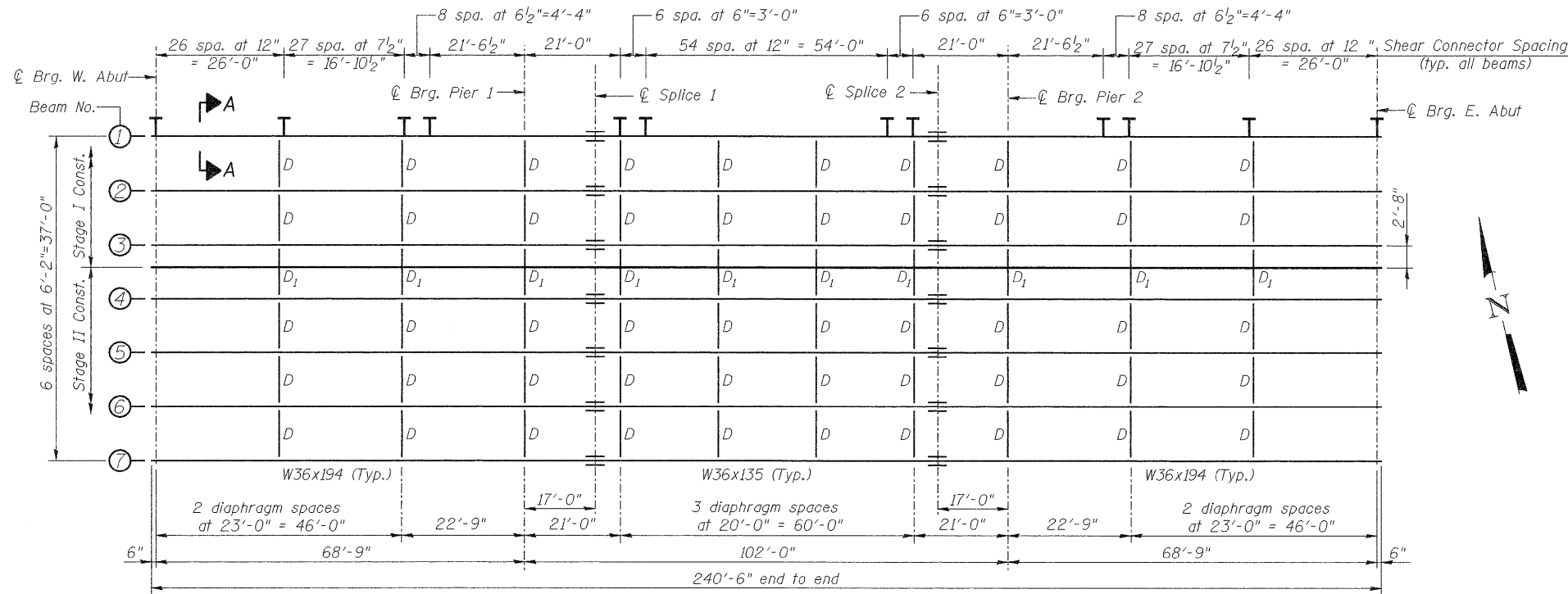
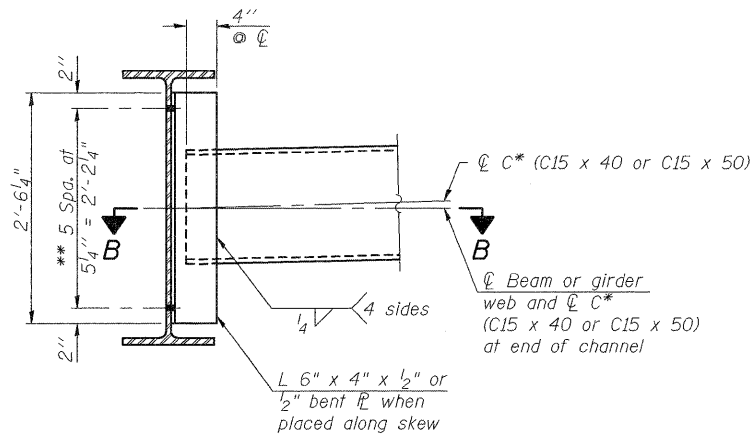


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**PLAN**

All beams shall be (N.T.R.) M270 Grade 50W

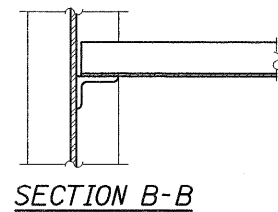


**INTERIOR DIAPHRAGM D**  
(50 Required)

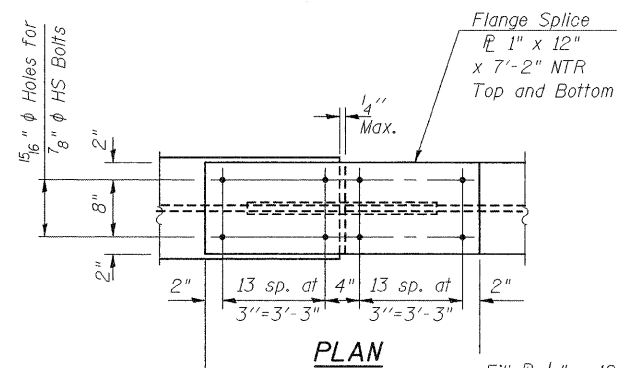
Note:  
Two hardened washers required for each set of oversized holes.

\* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the department.

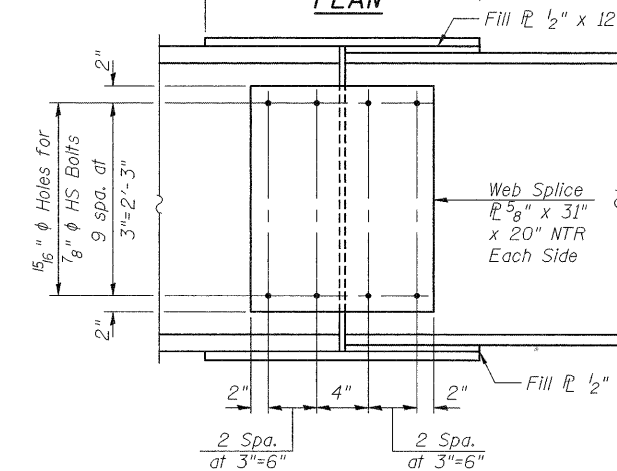
\*\* 3/4"  $\phi$  HS bolts, 15/16"  $\phi$  holes



**SECTION B-B**



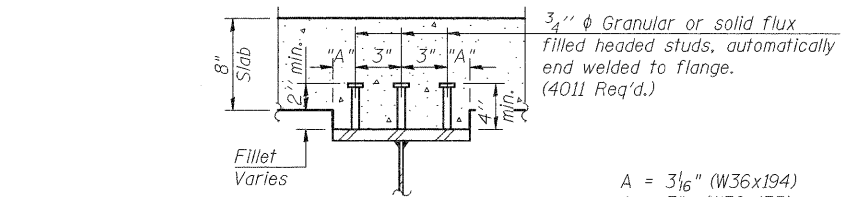
**PLAN**



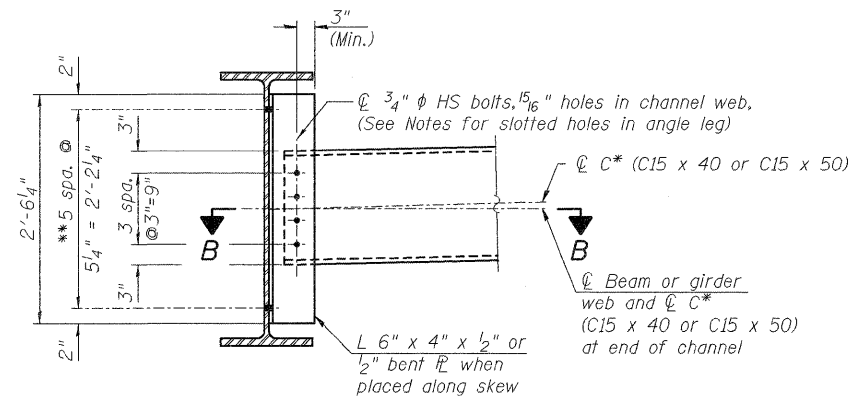
**SPLICE**

**TYPICAL SPLICE**  
(14 Required)

Splice 1 Shown (Splice 2 similar, but opposite hand)



**SECTION A-A**



**INTERIOR DIAPHRAGM D1**  
(10 Required)

**TOP OF BEAM ELEVATIONS**  
(For fabrication only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7
⊕ Brg. W. Abut.	443.23	443.36	443.46	443.55	443.46	443.36	443.23
⊕ Brg. Pier 1	443.47	443.60	443.69	443.79	443.69	443.60	443.47
⊕ Splice 1	443.53	443.65	443.75	443.85	443.75	443.65	443.53
⊕ Splice 2	443.53	443.65	443.75	443.85	443.75	443.65	443.53
⊕ Brg. Pier 2	443.47	443.60	443.69	443.79	443.69	443.60	443.47
⊕ Brg. E. Abut.	443.23	443.36	443.46	443.55	443.46	443.36	443.23

**NOTES**

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
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 rods.  
Provide 15/16" x 1 1/2" long slotted vertical holes in outstanding leg of diaphragm connection angles of Diaphragm D1 at Beams 3 and 4. Slotted holes shall have 5/16" structural plate washers placed over them. Bolts in slots shall be finger tight until the second stage pour is complete and fully tightened after completion of the deck pour for Stage II Construction. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load, allowing maximum displacement without laterally stressing main members.

**STRUCTURAL STEEL DETAILS**

**ILLINOIS ROUTE 3 OVER**

**PIASA CREEK**

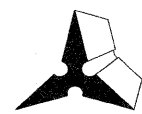
**F.A.U. ROUTE 8956 SEC 59BR-1**

**MADISON COUNTY**

**STATION 638+11.00**

**STRUCTURE NO. 060-0343**

DESIGNED	DB
CHECKED	RS
DRAWN	ER
CHECKED	WWH



**Juneau Associates, Inc. P.C.**  
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100 North Research Drive  
Edwardsville, Illinois 62025  
Phone: (618) 659-0001(618) 659-0000  
Fax: (618) 659-0941

SHEET NO. 14	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	8956	59BR-1	MADISON	43	
28 SHEETS	STRUCTURE NO. 060-0343		CONTRACT NO. 76B18		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		