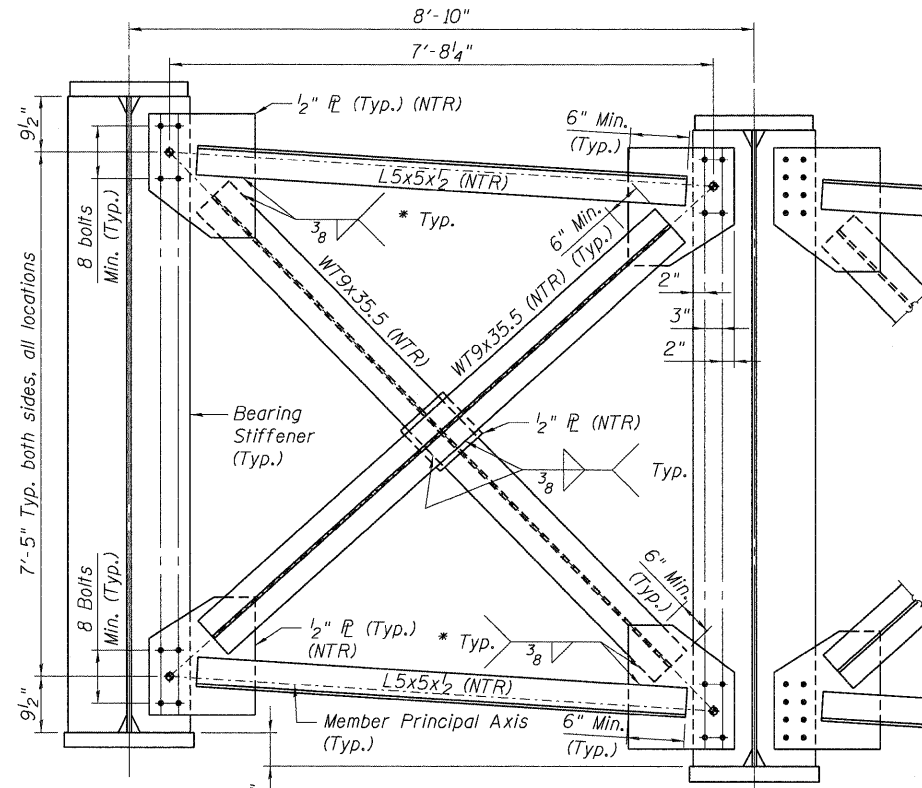
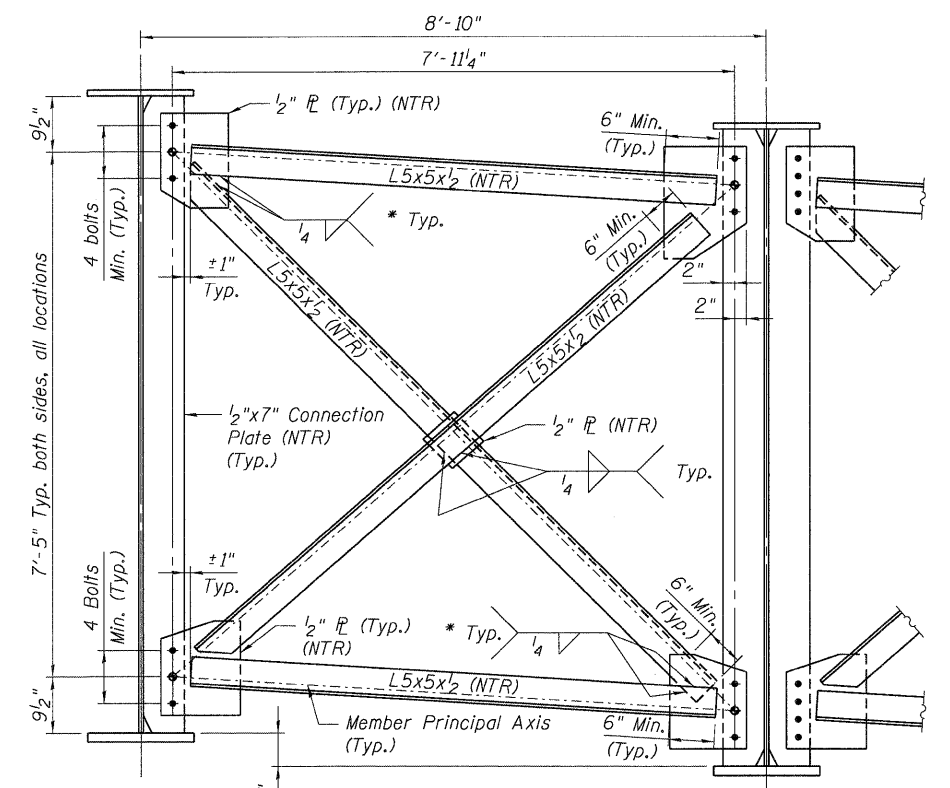


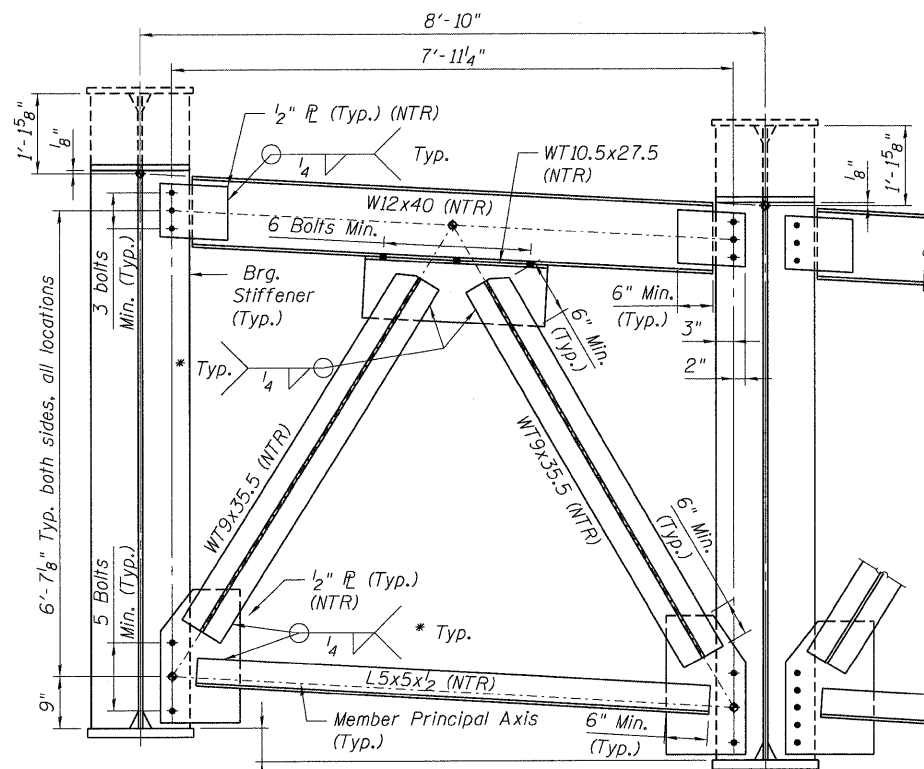
D1 - CROSS FRAME AT PIER 23
(4 thus)



D2 - CROSS FRAME AT PIERS 24 THRU 27
(16 thus)



D3 - TYPICAL INTERIOR CROSS FRAME
(216 thus)



D4 - CROSS FRAME AT EAST ABUTMENT
(4 thus)

◆ Centroid of bolt group and workpoint of member principal axes

NOTES:

- All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ " ϕ , holes $\frac{15}{16}$ " ϕ , unless noted otherwise.
- The calculated deflections of the primary girders/beams under steel self-weight shall be used to detail the diaphragm, cross frame and lateral bracing connections, and to erect the structural steel such that the girders/beams will be plumb within a tolerance of $\pm \frac{1}{8}$ in. per vertical ft. throughout when supporting their own weight.
- The contractor shall either:
 - Ream diaphragm and/or cross frame connection holes during shop assembly, or
 - Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(1) of the Standard Specifications.
- For Bearing Stiffener ϕ sizes, see Shts. S-55 thru S-63.

06-03-2016 10:47:42
 BONDHURD \SFS-004\AMVAULT\0-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820318\0820318-CONN-05-001-SHT-00.DGN
 0820318-CONN-05-001-SHT-001-BD.DGN

FILE NAME =	USER NAME = #USER#	DESIGNED - JLR	REVISED -
#FILE#		DRAWN - MDB	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - TCU	REVISED -
	PLOT DATE = #DATE#	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 I-70 CONNECTION OVER
 NS, TRRA, MCT AND INDUSTRIAL DR.

STEEL DETAILS
1 OF 6

F.A.P. RTE. 998	SECTION 82-2-1HVB	COUNTY ST. CLAIR	TOTAL SHEETS 285	SHEET NO. 177
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. S-67 OF S-111 STA. 134+22.00 TO STA.