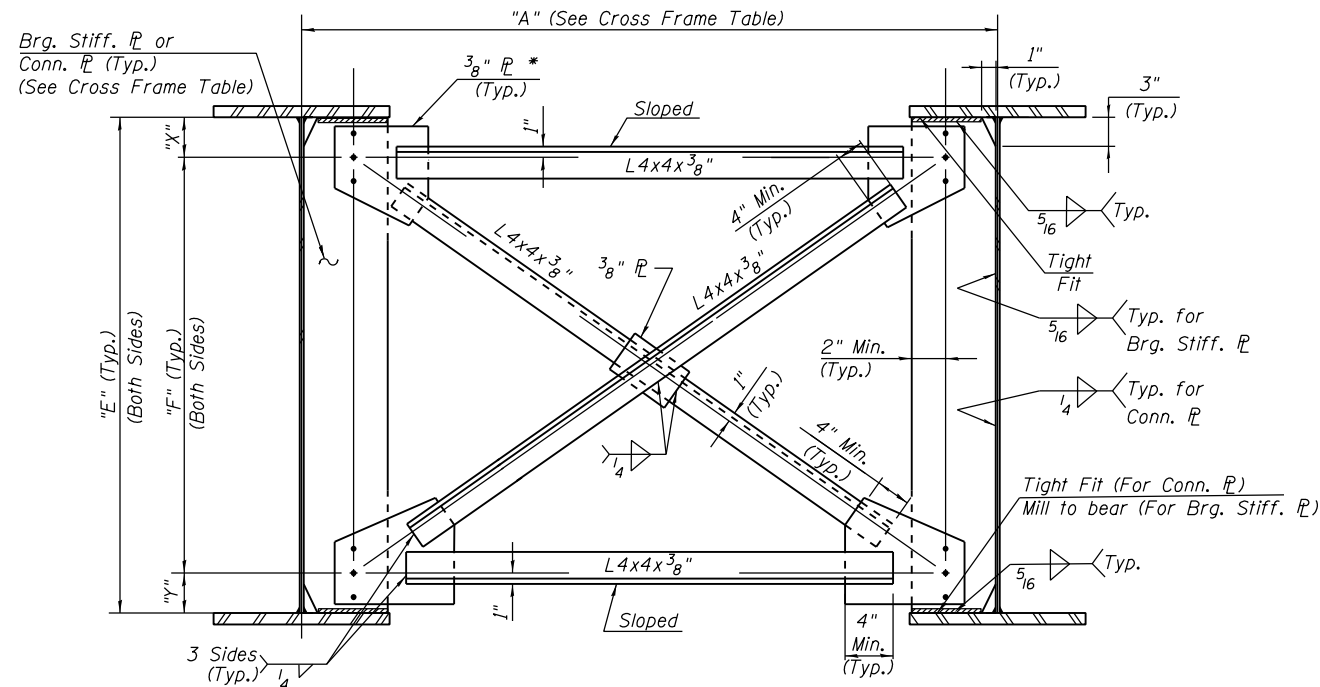


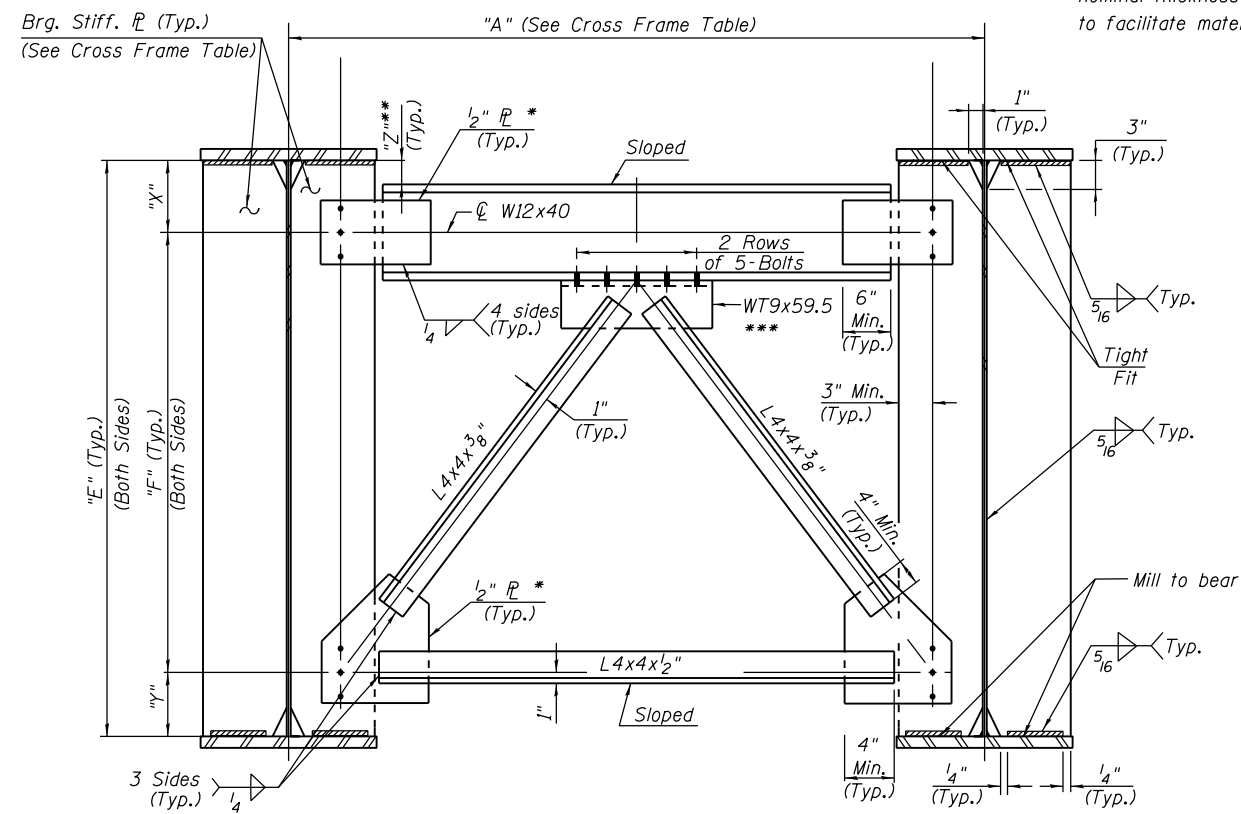
CROSS FRAME TABLE

Name	Type	Quantity	"A"	"E"	"F"	"X"	"Y"	"Z"	Connection \bar{R} or Brg. \bar{R}
CF101	2	10	7'- 0"	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF102	1	5	7'- 0"	5'- 10"	4'- 10"	6"	6"	---	1" x 10 ¹ / ₂ "
CF103	1	80	7'- 0"	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF201	2	3	9'- 0"	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF202	2	1	6'- 0"	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF204	2	1	7'- 11 ¹ / ₈ "	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF205	2	1	7'- 0 ³ / ₁₆ "	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF206	2	5	9'- 0 ³ / ₁₆ "	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF207	2	1	9'- 10 ⁹ / ₁₆ "	5'- 10"	3'- 11 ³ / ₄ "	1'- 4 ¹ / ₄ "	6"	10 ¹ / ₄ "	1" x 8 ¹ / ₂ "
CF208	1	55	9'- 0"	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF209	1	1	6'- 7 ¹ / ₂ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF210	1	1	7'- 2 ⁵ / ₈ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF211	1	1	7'- 9 ³ / ₄ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF212	1	1	8'- 4 ⁷ / ₈ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF213	1	9	7'- 0"	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF215	1	1	3'- 5 ¹ / ₄ "	5'- 10"	4'- 10"	6"	6"	---	1" x 11 ¹ / ₂ "
CF216	1	1	3'- 11 ¹⁵ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF217	1	1	4'- 6 ⁹ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF218	1	1	5'- 1 ¹ / ₄ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF219	1	1	5'- 7 ⁷ / ₈ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF220	1	1	6'- 2 ⁹ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF221	1	1	6'- 9 ³ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF222	1	1	7'- 3 ⁷ / ₈ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF223	1	1	4'- 4 ³ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF224	1	1	6'- 0 ¹ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF225	1	1	7'- 9 ³ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF226	1	1	9'- 5 ¹ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF227	1	1	3'- 6 ³ / ₄ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF228	1	1	4'- 11 ⁵ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF229	1	1	6'- 3 ⁷ / ₈ "	5'- 10"	4'- 10"	6"	6"	---	1" x 11 ¹ / ₂ "
CF230	1	1	7'- 11"	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF231	1	1	9'- 6 ³ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF232	1	1	3'- 8 ¹ / ₂ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF233	1	1	5'- 3 ¹ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF234	1	1	6'- 10 ¹³ / ₁₆ "	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF235	1	1	8'- 6"	5'- 10"	4'- 10"	6"	6"	---	0 ⁵ / ₈ " x 8 ¹ / ₂ "
CF236	1	4	9'- 0"	5'- 10"	4'- 10"	6"	6"	---	1" x 11 ¹ / ₂ "
CF237	1	1	7'- 0"	5'- 10"	4'- 10"	6"	6"	---	1" x 11 ¹ / ₂ "



INTERIOR CROSS FRAME - Type 1
(179 Required)

- * Bend \bar{R} if required.
- ** Contractor to coordinate with Modular Joint Manufacturer.
- *** Alternate WT shapes utilizing \bar{S}_8 nominal thickness are permitted to facilitate material acquisition.



END CROSS FRAME - Type 2
(22 Required)

Notes:

1. See Sheets S-73 & S-77 for location of girder cross frames.
2. AASHTO M270 Grade 50 steel shall be used for all cross frames, connection plates, and bearing stiffeners, unless otherwise noted.
3. Intermediate transverse stiffeners shall use the same size clips & fillet welds as connection plates. Likewise, jacking stiffeners shall use the same size clips & fillet welds as the bearing stiffeners.
4. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.
5. Two hardened washers required for each set of oversized holes.
6. Bolt spacing shall be 3" min. & edge distances shall be 2" min.
7. 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.
8. For Cross Frames CF203 & CF214, see sheet S-77 for details.

0161705-60W28-S100-XFrame1.dgn



USER NAME = floresg	DESIGNED - DD	REVISED
CHECKED - ATB	REVISED	
PLOT SCALE = N.T.S.	DRAWN - DD	REVISED
PLOT DATE = 5/7/2014	CHECKED - ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS FRAME DETAILS I
STRUCTURE NO. 016-1705

SHEET NO. S-100 OF S-165 SHEETS

F.A.I. RTE. 90/94/290	SECTION 2013-01OR	COUNTY COOK	TOTAL SHEETS 747	SHEET NO. 416
CONTRACT NO. 60W28			ILLINOIS FED. AID PROJECT	