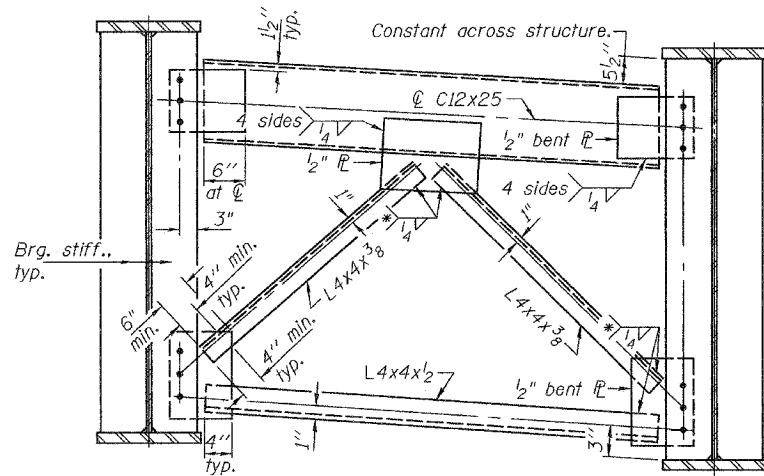


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	33
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 16  
29 SHEETS

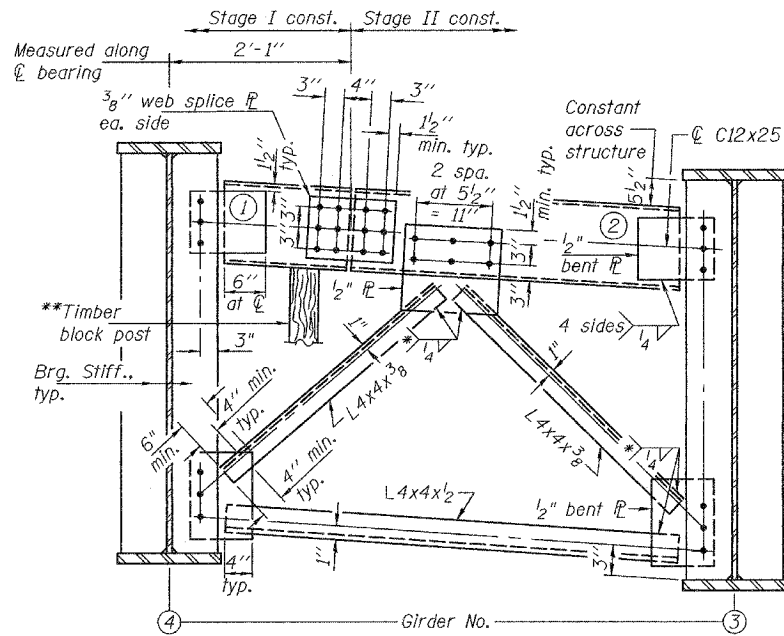
Contract No. 94967



**CROSS FRAME CF**  
(8 Required)

\* Weld on near side of 1/2" plate.

Notes: Use 3/4" φ H.S. bolts with 15/16" φ holes (both plies) in CF and CF1 cross frames.  
Place cross frame with channel flanges and outstanding angle legs outward from abutment backwall in CF and CF1 cross frames.



**CROSS FRAME CF1**  
(2 Required)

\*\* Cost of timber block post is included with Structural Steel.

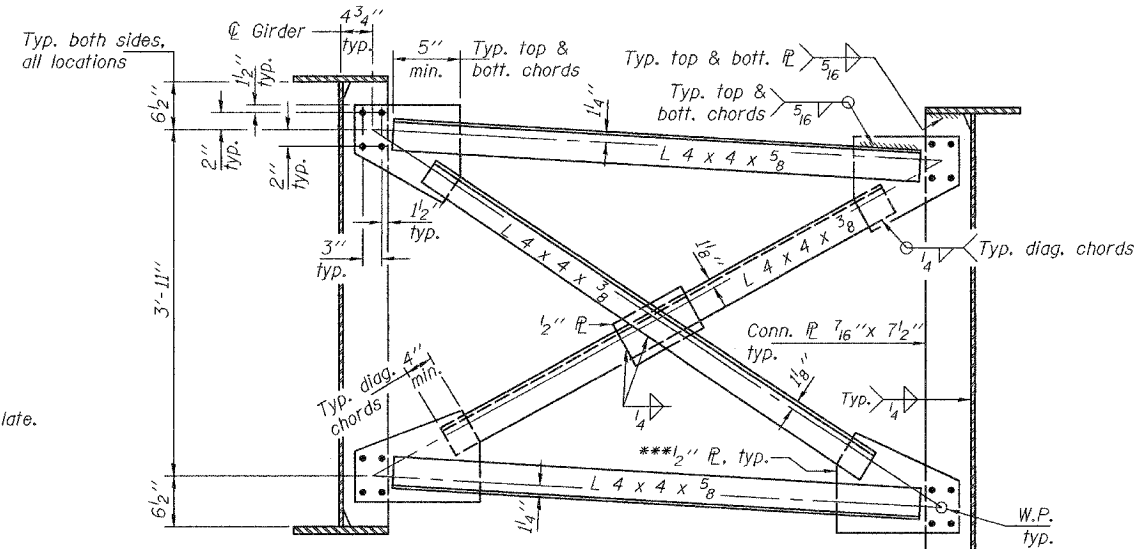
**CROSS FRAME CF1**  
**STAGE CONSTRUCTION SEQUENCE**

- Order cross frame in three sections.
- Attach section ① of cross frame to girder 4.
- Place timber block post between section ① of cross frame and top of abutment cap to support section ① during Stage I Construction.
- Attach section ② of cross frame to both girder 3 and section ① during Stage II Steel Erection.
- Remove the timber block post and install the lower portion (1/2" plates and angles) of the cross frame.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

EXAMINED	Thomas Demagali ENGINEER OF BRIDGES AND STRUCTURES
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

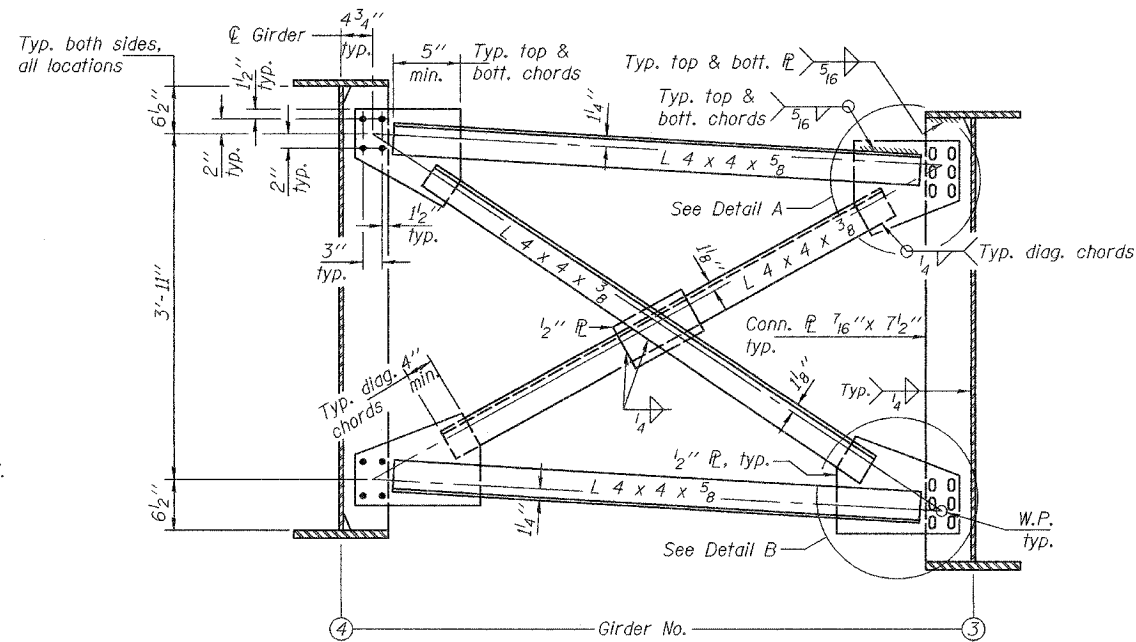
Oct. 2, 2007



**CROSS FRAME CF2**  
(95 Required)

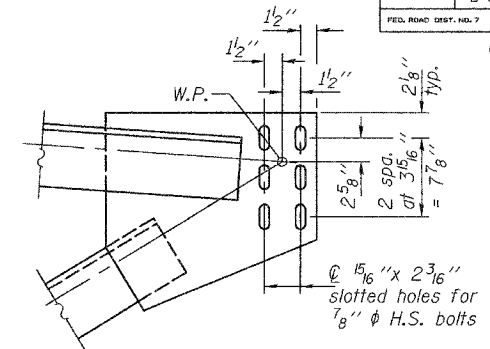
\*\*\* Use bent plates for the cross frames at piers.

Notes: Use 7/8" φ H.S. bolts with 1 1/16" φ holes (both plies) in CF2, CF3, and CF4 cross frames unless otherwise noted.  
H.S. bolts in slotted holes shall be finger tightened until the completion of the Stage II deck pour and then fully tightened.

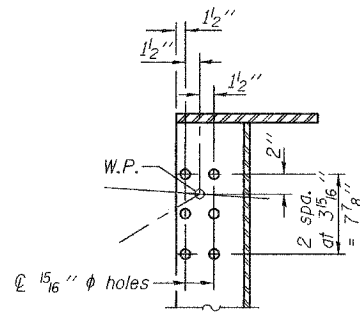


**CROSS FRAMES CF3 & CF4**  
(7-CF3 Required; 8-CF4 Required)

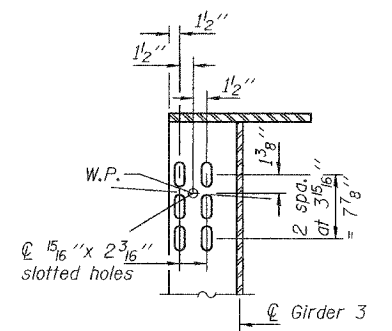
General Notes: Two hardened washers required for each set of oversized holes.  
All plates and rolled shapes composing the cross frames, including the connecting plates welded to the girders, shall be AASHTO M 270, Grade 50 and conform to the supplemental requirements for Notch Toughness, Zone 2.



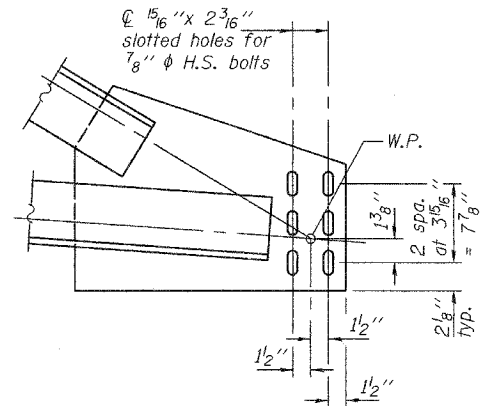
**DETAIL A**  
(Showing cross frame conn. P)



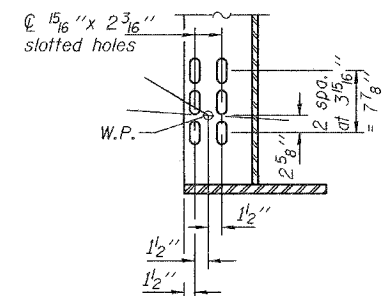
**DETAIL A**  
(Showing girder conn. P for CF3)



**DETAIL A**  
(Showing girder conn. P for CF4)



**DETAIL B**  
(Showing cross frame conn. P)



**DETAIL B**  
(Showing girder conn. P for CF4)

**STRUCTURAL STEEL DETAILS**  
**F.A.P. RT. 327 - SEC. (51-23)B-3**  
**LAWRENCE COUNTY**  
**STATION 553+95.50**  
**STRUCTURE NO. 051-0063**