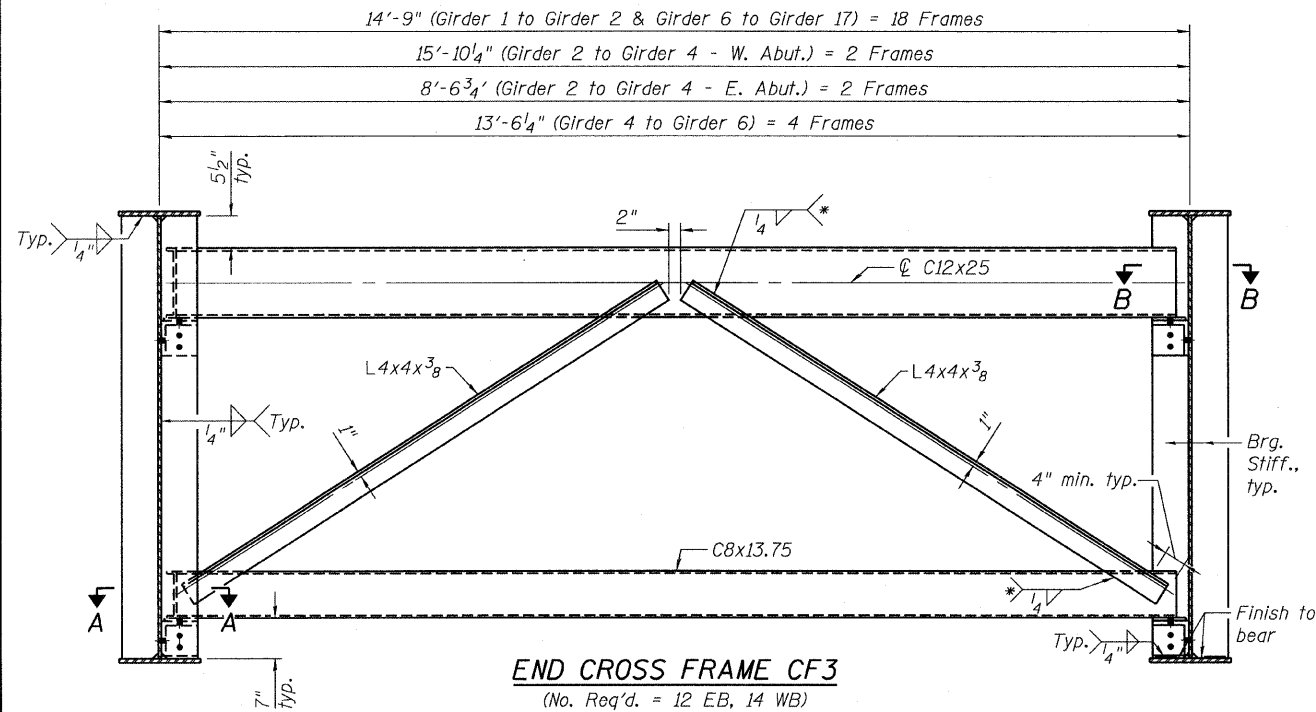


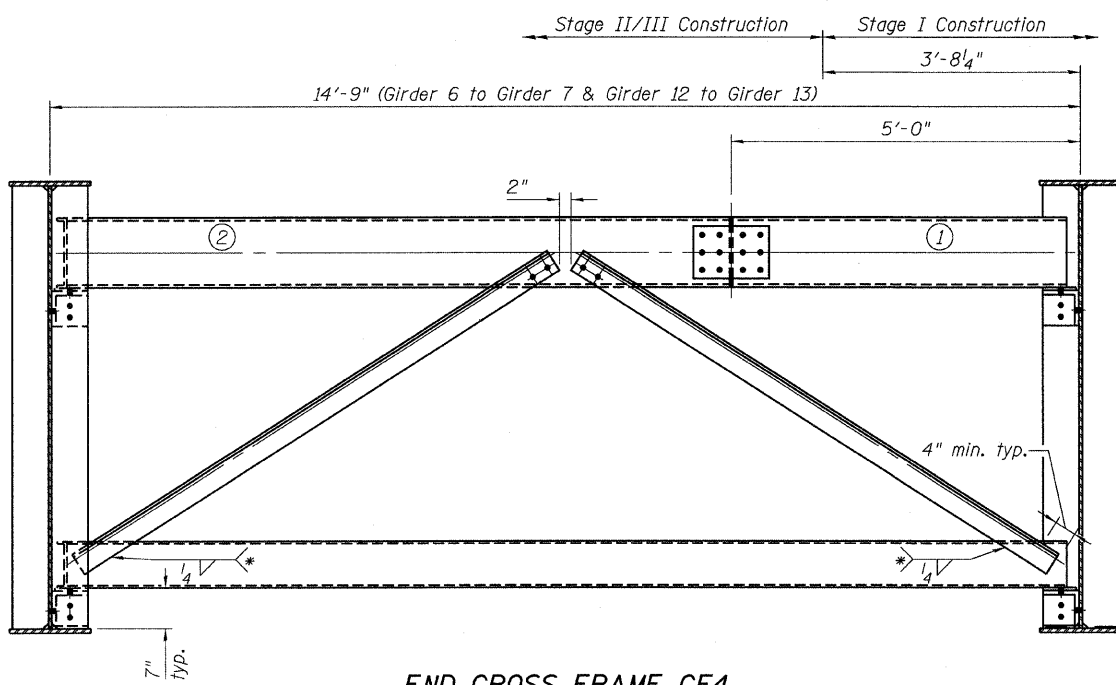
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**END CROSS FRAME CF3**

(No. Req'd. = 12 EB, 14 WB)

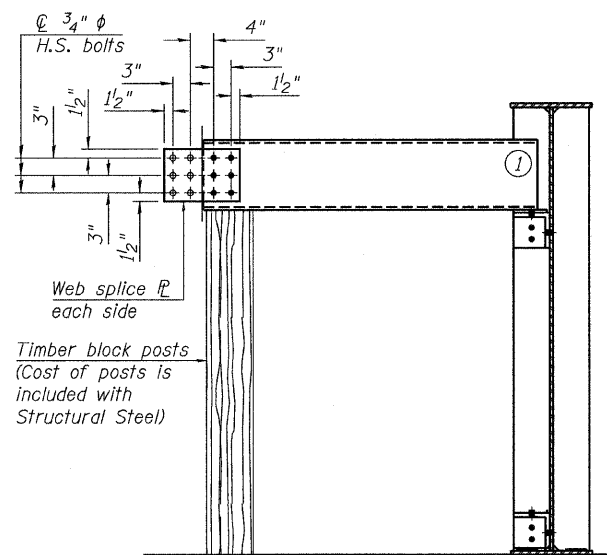
Note: Dimensions measured along skew.  
\* 3 sides, to back face of channel only, Typ.



**END CROSS FRAME CF4**

(No. Req'd. = 2 EB, 2 WB)

Note: See CF3 for details not shown above.  
Dimensions measured along skew.  
\* 3 sides, to back face of channel only, Typ.

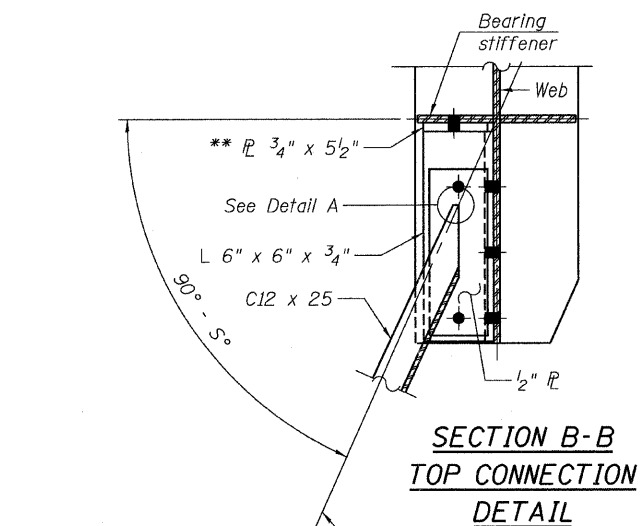


**CF4 STAGE I CONDITION**

(Web splice may be attached after stage I)

**STAGE CONSTRUCTION SEQUENCE FOR CF4**

- 1) Order top C12 in two sections.
- 2) Attach section ① of C12 to Girder.
- 3) Place Timber Block Posts under section ① of C12.
- 4) Attach section ② of C12 to both Girder and section ① of C12 during Stage II/III Construction with splice plates.
- 5) Remove Timber Block Posts.



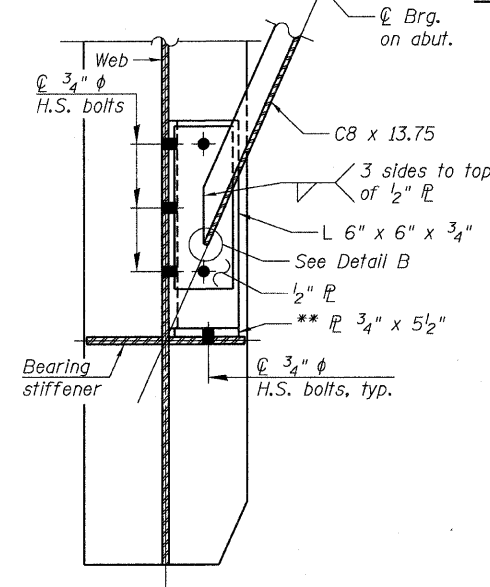
**SECTION B-B  
TOP CONNECTION  
DETAIL**

Clip 1" at corner of flange (typ. top and bottom)

**DETAIL A**

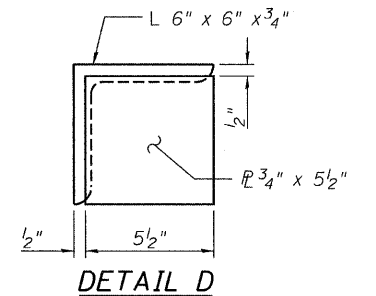
Cut web at 90° (typ. top and bottom connection)

**DETAIL B**

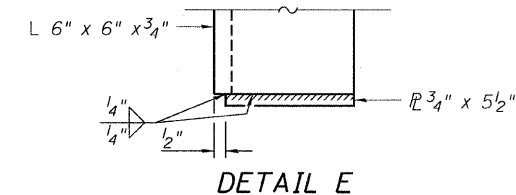


**SECTION A-A  
BOTTOM CONNECTION  
DETAIL**

\*\* Weld 3/4" x 5 1/2" plate to seat as shown in Detail D and Detail E.



**DETAIL D**



**DETAIL E**

**Notes:**

Use 3/4" φ H.S. bolts with 5/16" φ holes for all cross frame connections.  
Two hardened washers required for each set of oversized holes.  
Place diaphragm with projected legs outward from abutment backwall.  
See sheet 31 of 59 for dimension S.

DESIGNED	MJJ
CHECKED	BWP
DRAWN	MJJ
CHECKED	BWP/KPC

**STRUCTURAL STEEL DETAILS  
STRUCTURE NO. 082-0162 & 082-0163**

<b>THOUVENOT, WADE &amp; MOERCHEN, INC.</b>	CORPORATE OFFICE 4940 Old Collinsville Road Swansea, Illinois 62226 Tel: 618.624.4488 Fax: 618.624.6688	SHEET NO. 34	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		59 SHEETS	64	82-2VB-2	ST. CLAIR	153	89
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES		FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
						CONTRACT NO. 76867	

Plotted by: mschwab\john 6/17/2009 8:12:09 AM