

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.

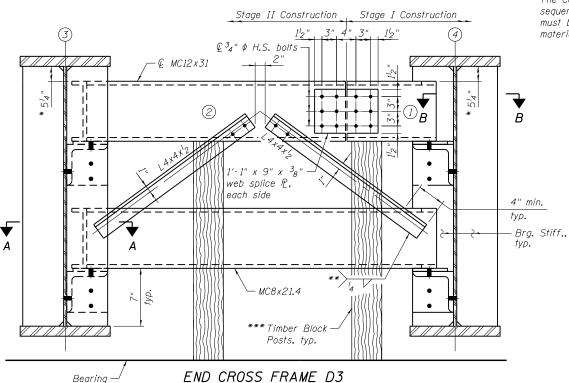
Each hole for all cross-frame connection bolts shall be  $1_{16}'' \phi$ unless noted otherwise.

Two hardened washers are required for each set of  $1_{16}''$   $\phi$ 

For Sections A-A & B-B, see Sheet S-23.

The Contractor may submit an alternate stage construction sequence for End Cross Frame D3. Any alternate sequence must be approved by the Engineer prior to ordering any

- \* Measured at € Web
- \*\* 3 sides, to back face of channel only, typ.
- \*\*\* Cost included with Furnishing and Erecting Structural Steel.



## END CROSS FRAME D3 SUGGESTED STAGE CONSTRUCTION SEQUENCE

(2 Required)

- 1. Order MC12 in two sections.
- 2. Attach section (1) of MC12 to Girder 4.

seat

- 3. Place Timber Block Posts between section 1 of MCI2 and abutment bearing seat before Stage I deck pour.
- 4. Attach section (2) of MC12 to both Girder 3 and section (1) of MC12 with splice plates.
- 5. Place Timber Block Posts between section 2 of MC12 and abutment bearing seat, halfway between splice and Girder 3, before Stage II deck pour.
- 6. Remove Timber Block Posts and install lower portion of cross-frame after Stage II deck pour.

BOWMAN, BARRETT & ASSOCIATES INC. 🗖 CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com

DESIGNED - BAK REVISED CHECKED - TL REVISED DRAWN MTR REVISED PLOT DATE = 03/29/2013 CHECKED - BAK REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION STRUCTURAL STEEL DETAILS II STRUCTURE NO. 016-2470 SHEET NO. S-22 OF S-53 SHEETS

SECTION COUNTY COOK 631 397 94 2012-059-BR CONTRACT NO. 60J12