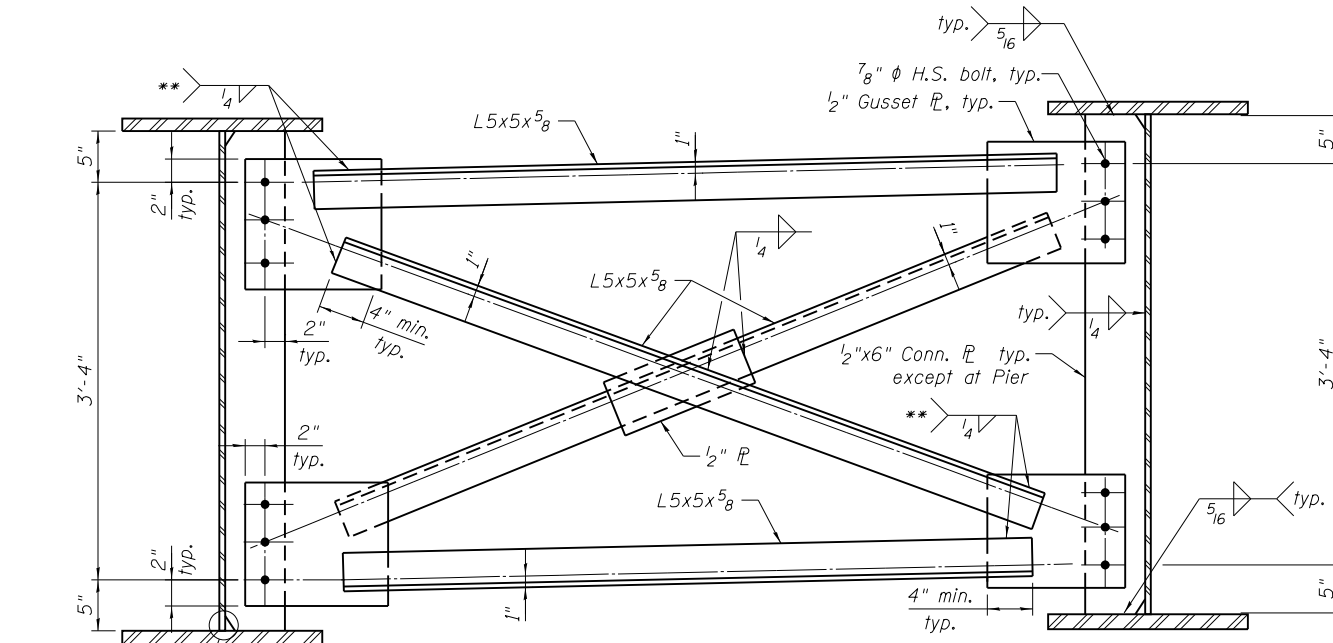
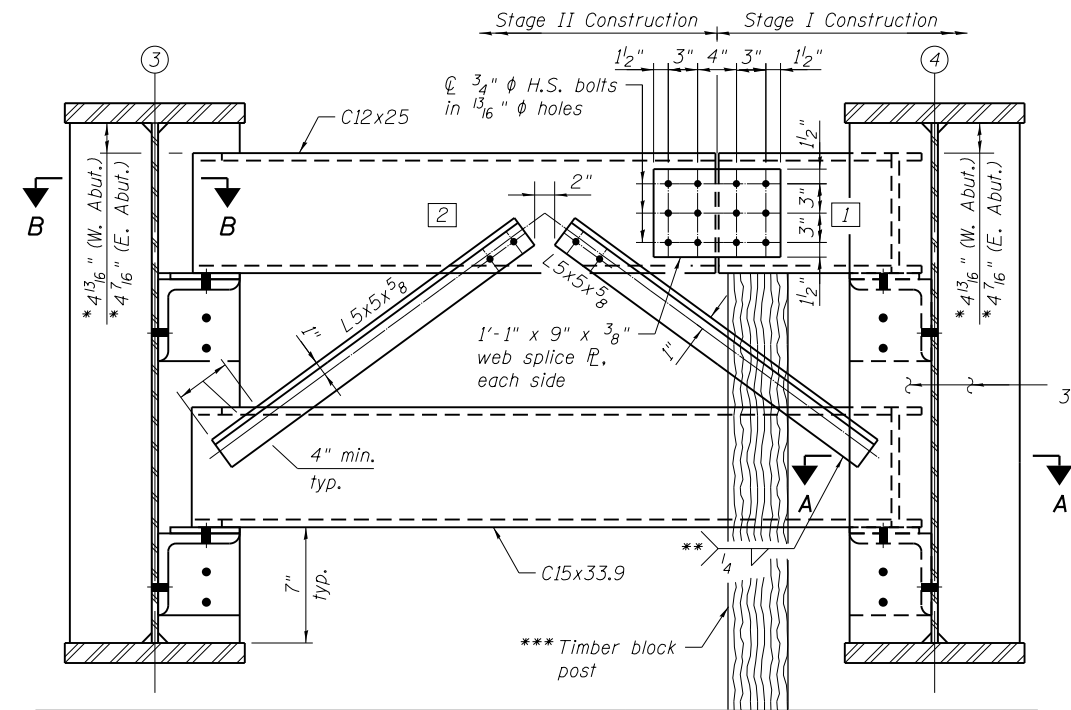


END CROSS FRAME D1
(8 Required)



INTERIOR CROSS FRAME D
(72 Required)

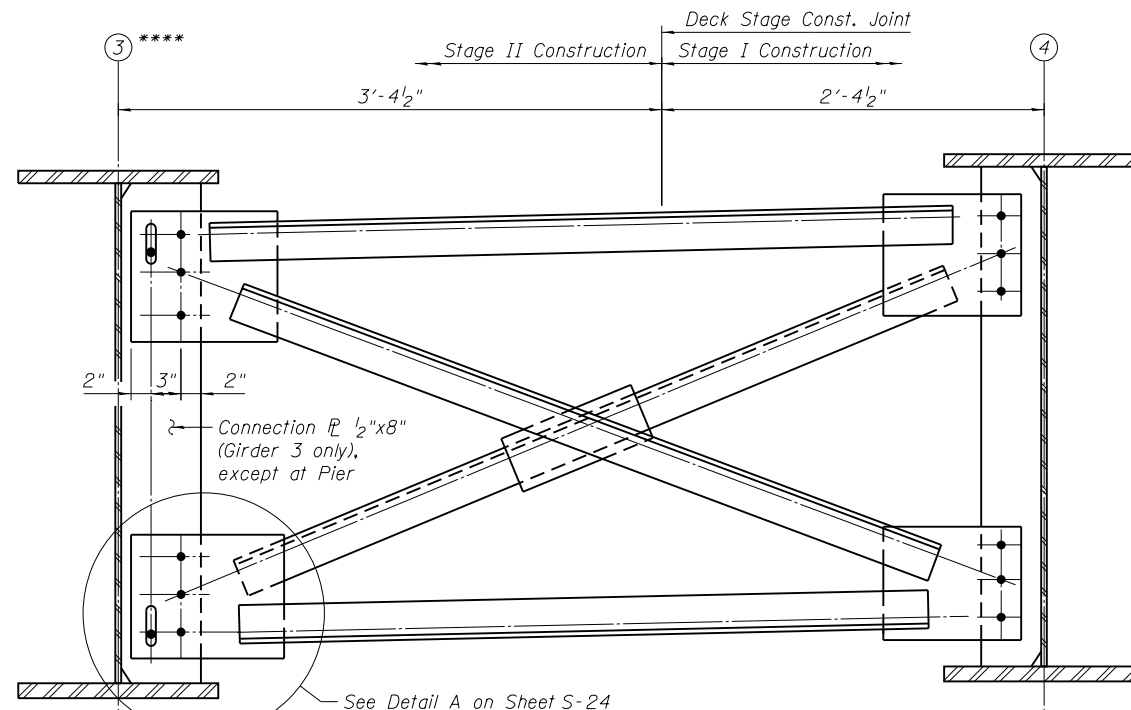
Clip 1" Horizontal
x 2 1/2" Vertical
Top & Bott., typ.



STAGE LINE END CROSS FRAME D3
(2 Required)

END CROSS FRAME D3
SUGGESTED STAGE CONSTRUCTION SEQUENCE

- Order C12 in two sections.
- Attach section 1 of C12 to Girder 4.
- Place timber block posts between section 1 of C12 and abutment bearing seat before Stage I deck pour.
- Attach section 2 of C12 to both Girder 3 and section 1 of C12 with splice plates.
- Complete end cross frame D3 installation as shown prior to Stage II Deck Pour.



STAGE LINE INTERIOR CROSS FRAME D2
(18 Required)

(See Interior Cross Frame D for details and dimensions not shown)

Notes:

- All members of cross frames shall be AASHTO M 270 Grade 50 and shall conform to the Impact Testing Requirement, Zone 2.
- See Sheet S-21 for cross frame locations.
- 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 15/16" φ unless noted otherwise.
- Two hardened washers are required for each set of holes.
- For Sections A-A & B-B, see Sheet S-24.
- 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 material.
- The Contractor shall either:
a. assembly, or
b. 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(l) of the Standard Specifications.

- * Measured at C Web
- ** 3 sides, on one face of gusset P or channel only, typ.
- *** Cost included with Furnishing and Erecting Structural Steel.
- **** Girder 3 shown in location corresponding to after the Stage II deck pour.

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4/30/2013

S:\1072_05_CADD\Structure\1\SN 0162471\CADD Sheets\0162471-6012-023-5502.dgn

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

USER NAME =	DESIGNED - IYL	REVISD -
PLOT SCALE =	CHECKED - BAK	REVISD -
PLOT DATE = 03/29/2013	DRAWN - MTR	REVISD -
	CHECKED - IYL	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS II
STRUCTURE NO. 016-2471

SHEET NO. S-23 OF S-63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2012-059-BR	COOK	631	516
CONTRACT NO. 60J12				

ILLINOIS FED. AID PROJECT