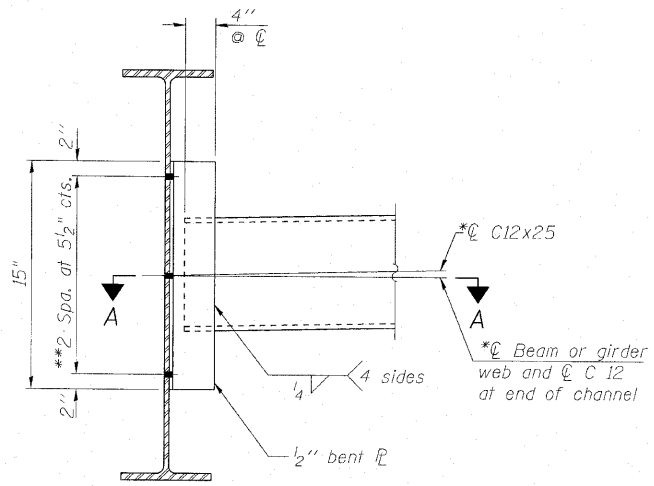


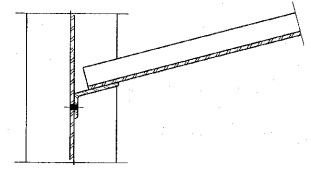
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



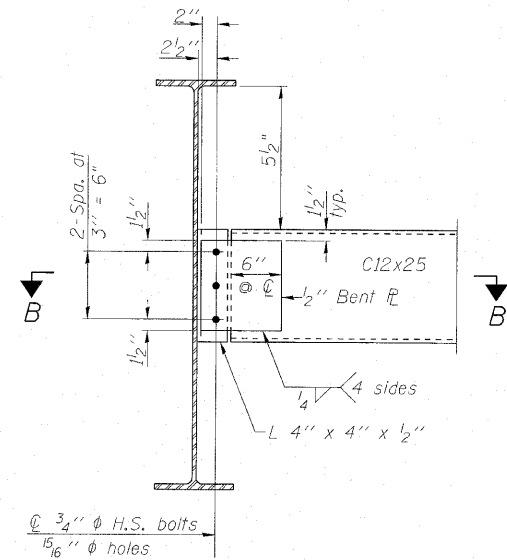
INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.
*C12x30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4" ϕ HS bolts, 15/16" ϕ holes

The interior diaphragms below the stage construction line (between beam numbers 6 and 7) require standard long slotted holes (1 3/8" x 1 7/8") in one connection angle. The bolts in the long slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load. All holes shall have appropriate hardened or plate washers.

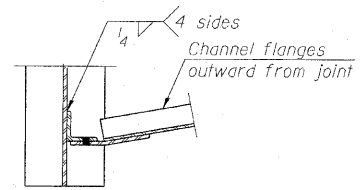


SECTION A-A

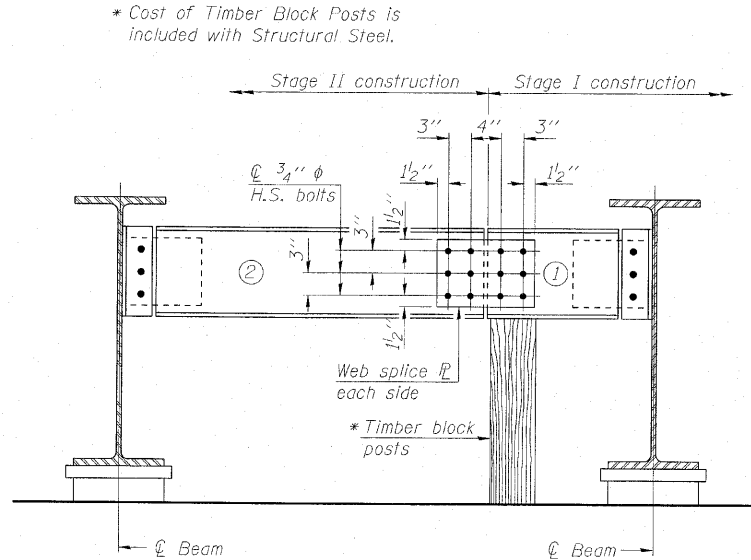


END DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.



SECTION B-B



END DIAPHRAGM

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to beam
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.

Note:
All structural steel for diaphragms, connecting plates/angles shall be AASHTO M270 Grade 50W. 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.

DESIGNED	MAH
CHECKED	JMH
DRAWN	DR
CHECKED	JMH

**STEEL DETAILS
STRUCTURE NO. 016-0581**

COLLINS ENGINEERS 123 N. WACKER DR., SUITE 300 CHICAGO, IL 60606 (312) 704-9300 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993	SHEET NO. S18 OF S27 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		339	116-Y-2-BR-1	COOK	74	38
					CONTRACT NO. 60J00	
ILLINOIS FED. AID PROJECT						