

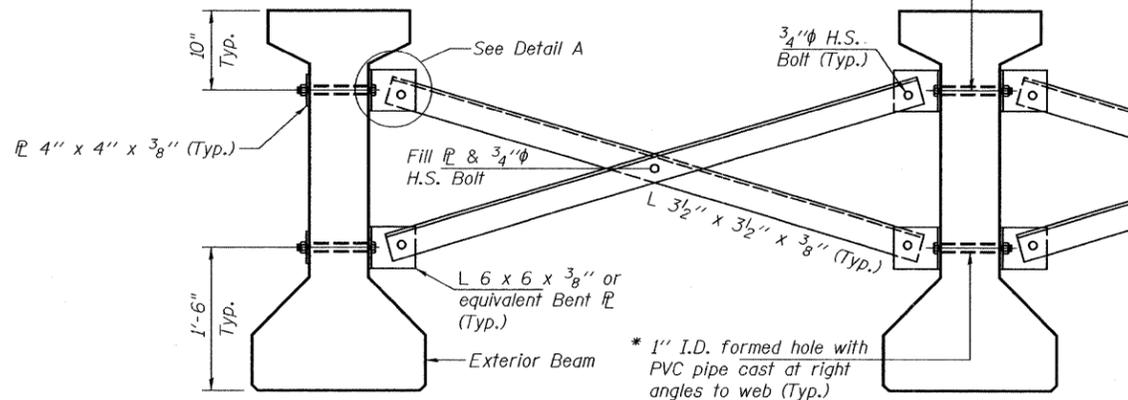
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	KANE	545	362
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

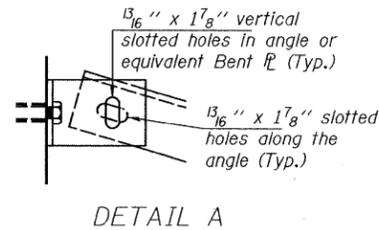
Contract # 63074

* Fabricator shall locate to miss strands within permissible tolerances.

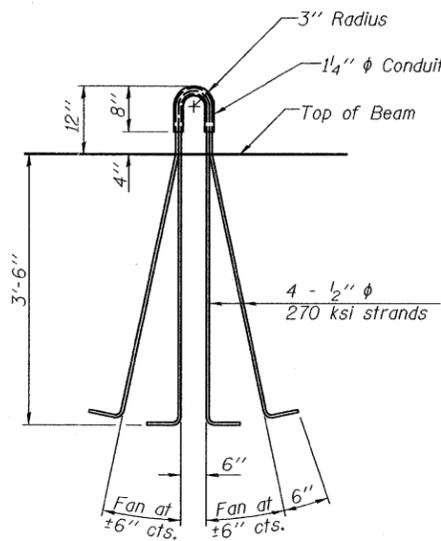
$\frac{3}{4}$ " ϕ A307 Bolts with lock nuts. (Typ.)
Bolts through the concrete web shall be tightened to snug tight only.



NOTES:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be $\frac{15}{16}$ " ϕ unless otherwise noted.
 $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
Cost of permanent bracing shall be included in the cost for Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"



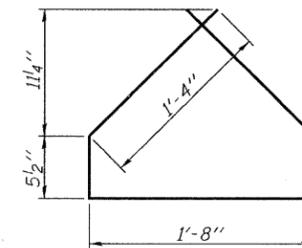
**PERMANENT BRACING DETAILS FOR
48" PPC I-BEAMS**



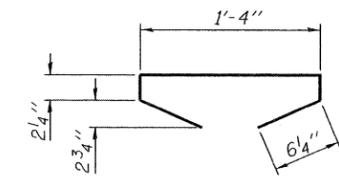
LIFTING LOOP DETAIL

NOTES

1. Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
2. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
3. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
4. A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling.
5. The top and bottom plates shall be AASHTO M270 Grade 50.
6. The bottom plates and studs shall be galvanized according to AASHTO M111.
7. Threaded rods shall be ASTM F 1554 Grade 55.



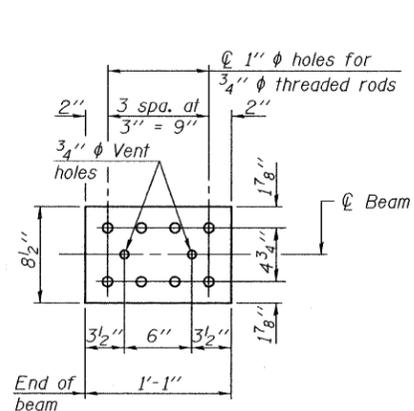
BAR G4



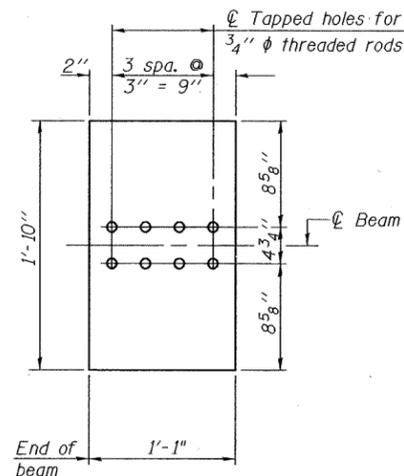
BAR G5

BILL OF MATERIAL

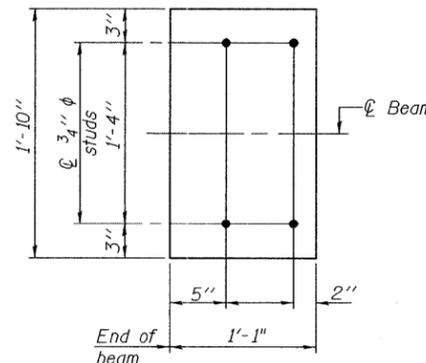
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	479



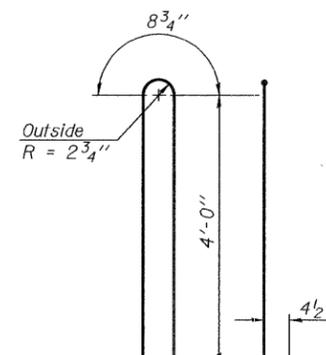
TOP PLATE



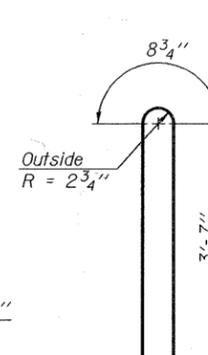
**BOTTOM PLATE
(Showing threaded rods)**



**BOTTOM PLATE
(Showing studs)**



BAR G1



BAR G2

DESIGNED	AJK
CHECKED	AAY
DRAWN	AYR
CHECKED	HMA/DMC

benesch

alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3944

**48" PPC I-BEAM DETAILS
IL 25/STEARNS ROAD OVER THE
EAST BRANCH OF BREWSTER CREEK
F.A.P. 2503 - SEC. 06-00214-15-BR**

**KANE COUNTY
STATION 138+59.20
STRUCTURE NO. 045-2035**