

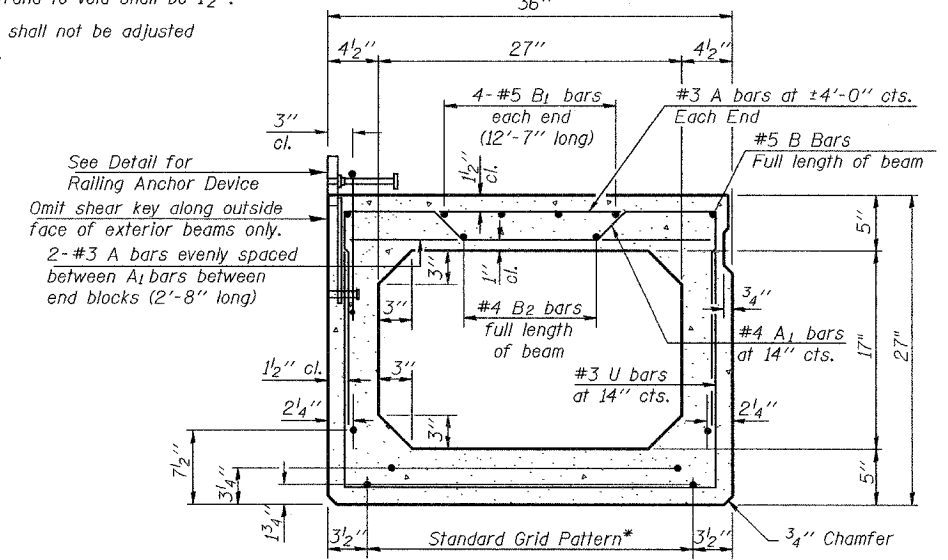
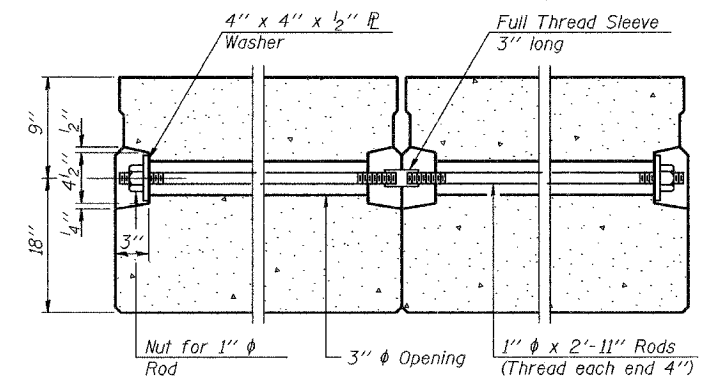
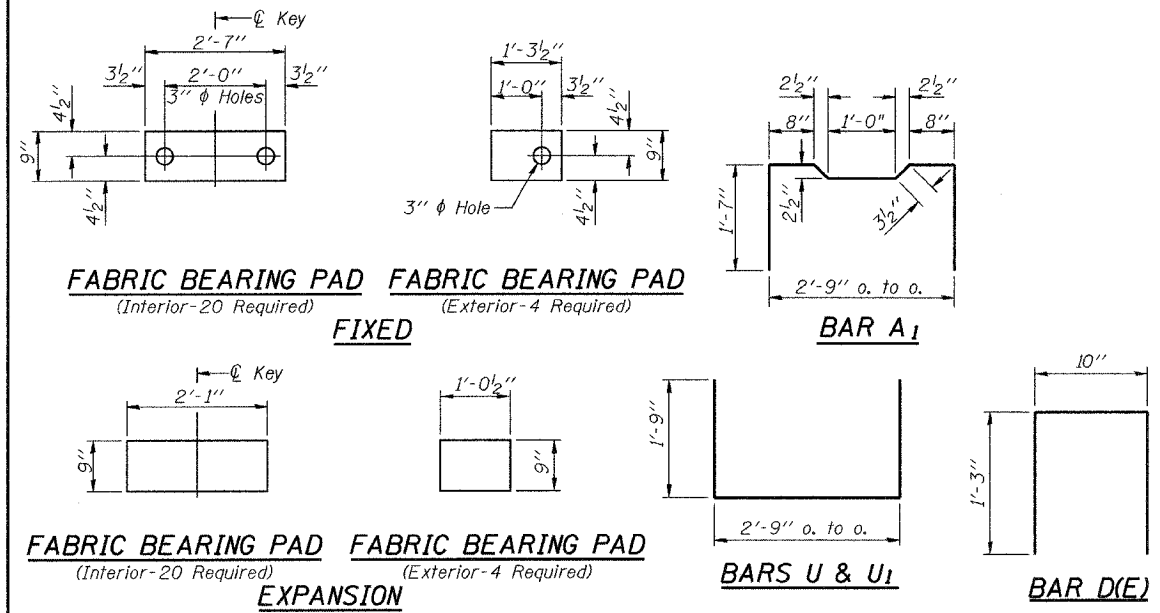
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 11 SHEETS
FAP 332	101B-1	WABASH	34	24	
FED. ROAD DIST. NO. 7			ILLINOIS	FED. AID PROJECT	

Contract # 74003

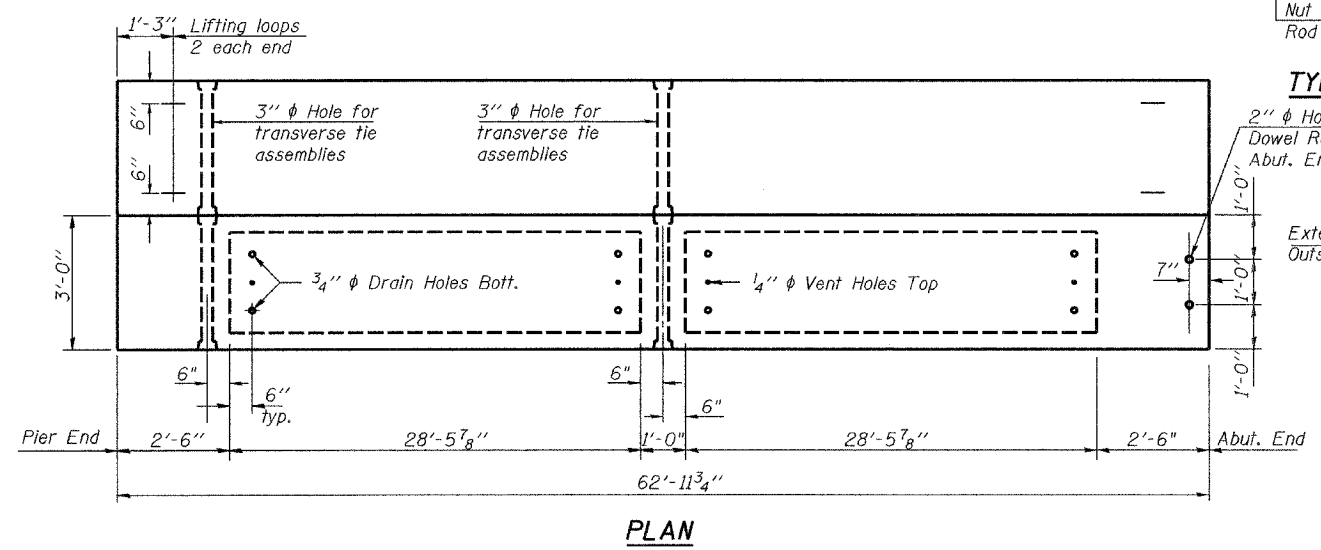
**\*TRANSVERSE STRAND PLACEMENT GUIDELINES**

- 1) Place strands symmetrically about centerline of beam.
- 2) The minimum distance from center to center of strands in all directions shall be 2".
- 3) The minimum clearance from strand to dowel hole shall be 1/2".
- 4) The minimum clearance from strand to void shall be 1 1/2".

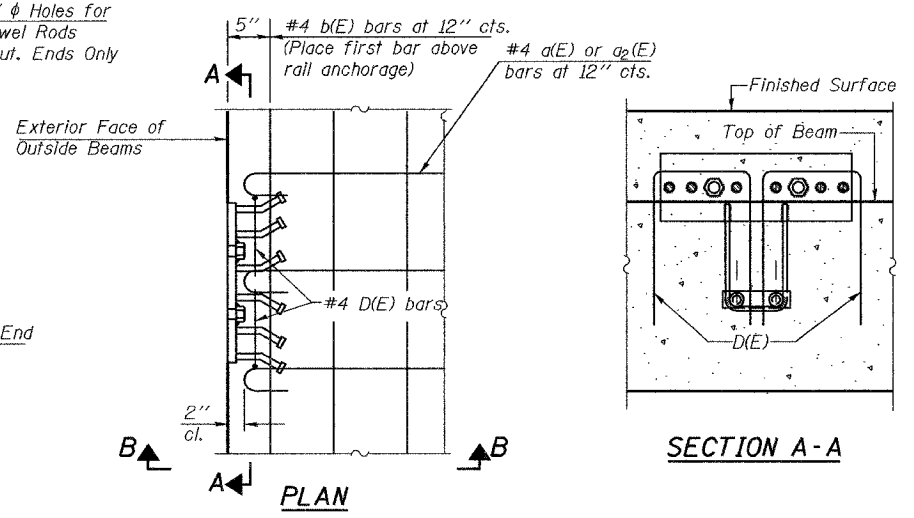
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



15-1/2"  $\phi$  Strands Each Strand Stressed to 30,900 Lbs.  
 7-Strands 1 3/4" up, 6-Strands 3/4" up & 2-strands 7/8" up



**TYPICAL TRANSVERSE TIE ASSEMBLY**



**BILL OF MATERIAL**

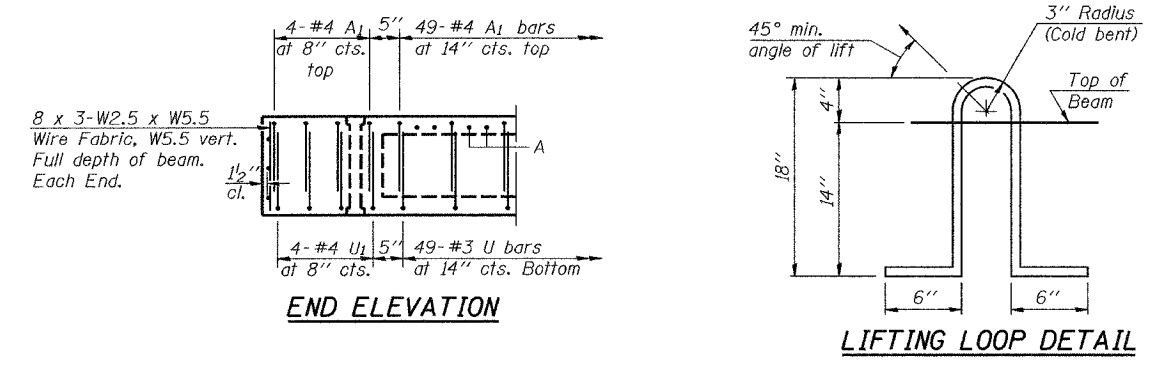
Item	Unit	Total
Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	4157

Weight of Beam=35,600 lbs.

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2"  $\phi$ -270 ksi strands, as shown. The 1"  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Articles 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i. The Rail Anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured using the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted. Cost included with Precast Prestressed Concrete Deck Beams. See sheet 4 of 11 for cross section. See sheet 2 of 11 for rail post spacing and sheet 8 of 11 for rail details. Non pre-stressing steel shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified).

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SHEET TITLE BEAM DETAILS	
PROJECT FAP 332 OVER BONPAS CREEK FAP ROUTE 332 (IL 1) SECTION 101B-1 WABASH COUNTY STATION 149+30 SN 093-0005	PROJECT NO. 06026 SCALE DATE 03/15/07 DRAWN BY TFG CHECKED BY GB/CME/MCB DRAWING NO.
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois Design Firm License No. 184-002703	
7 OF 11 SHTS	



DATE = 03/15/07  
 FILE NAME = 4093-0005-beam-7-beam-det.dwg  
 PLOT SCALE = 0.01000 1" = 1"  
 USER NAME = TFC