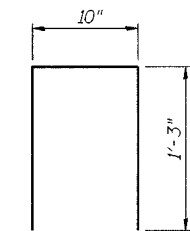


**FABRIC BEARING PAD**  
(Interior, btwn. 36" & 48" bms.)  
(4 Required)

**FIXED**

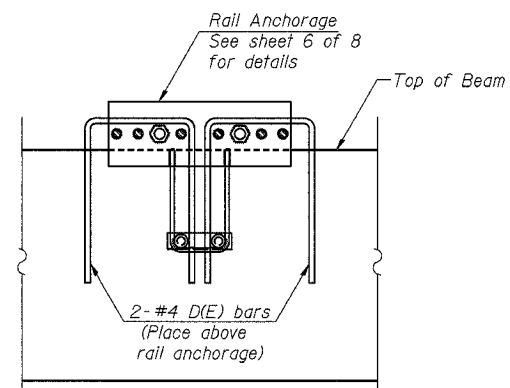
**FABRIC BEARING PAD**  
(Exterior)  
(4 Required)

**FIXED**



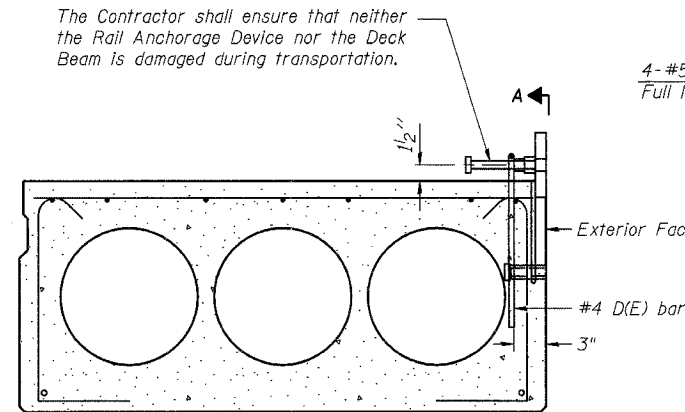
**#4 D(E) BAR**

Reinforcement bars designated (E) shall be epoxy coated.



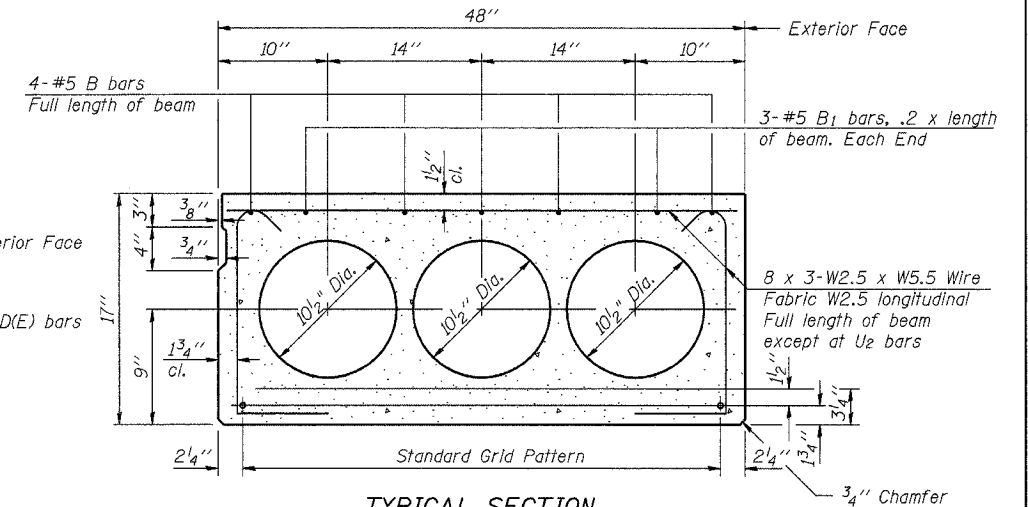
**SECTION A-A**

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 utilizing the bottom rail anchorage inserts and/or additional inserts cast into beam. Drilling into the beam will not be permitted.



**SECTION THRU EXTERIOR BEAMS**

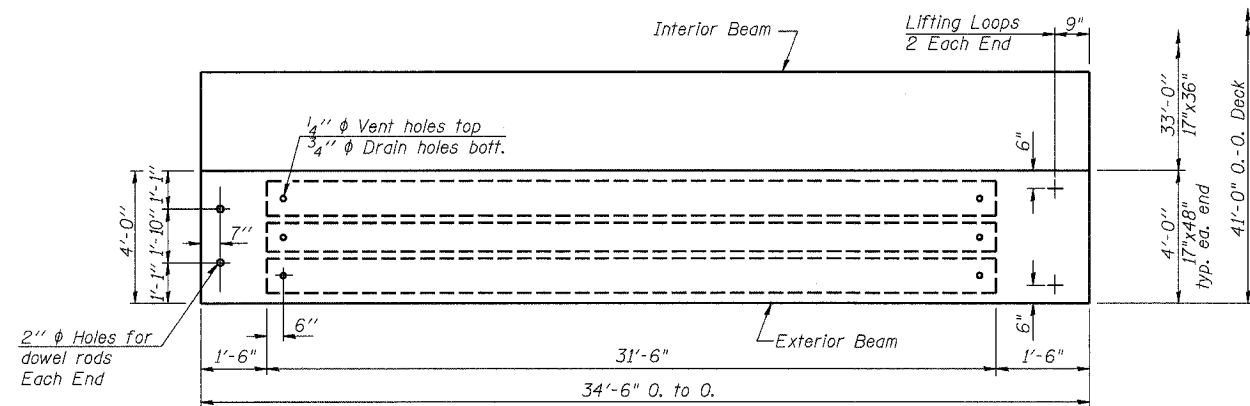
See Typical Section for strand pattern, dimensions and bar locations.



**TYPICAL SECTION**

(2 Required)  
1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
8-Strands 1 3/4" up, 4-Strands 3/4" up

Note:  
Place strands symmetrically about  $\phi$  of beam.



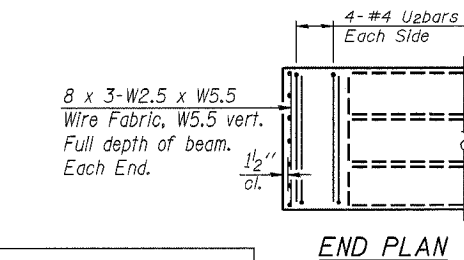
**PLAN**

**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.  
Non prestressing steel shall conform to AASHTO M31 or M322 Grade 60.  
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 beam end (8 required total).  
Keyway surfaces shall be cleaned to remove form oil or other bonding 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, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.  
Required Release Strength,  $f'_{ci}$ , shall be 4,000 p.s.i.  
Bridge rail inserts shall be cast in the precast beams. See sheet 3 of 8 for location of rail inserts. Cost is included with Precast Prestressed Concrete Deck Beams (17" Depth).

**BILL OF MATERIAL**

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	276

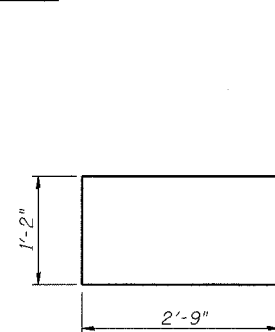


**END PLAN**

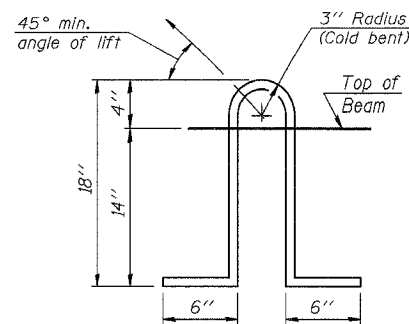
DESIGNED	T.S.H.
CHECKED	R.V.B.
DRAWN	T.S.H.
CHECKED	M.D.C.

PD-4-SA

10-22-04



**BAR U2**



**LIFTING LOOP DETAIL**

**SUPERSTRUCTURE**  
ILLINOIS ROUTE 133 OVER  
JONATHAN CREEK  
F.A.P. ROUTE 749 - SEC. 119(BR-2 & BR-3)  
MOULTRIE COUNTY  
STATION 258+73.50  
STRUCTURE NO. 070-0035

CUMMINS ENGINEERING CORPORATION

JOB #:	2114.4
FILE #:	21144BEAMS
DATE:	10/12/05