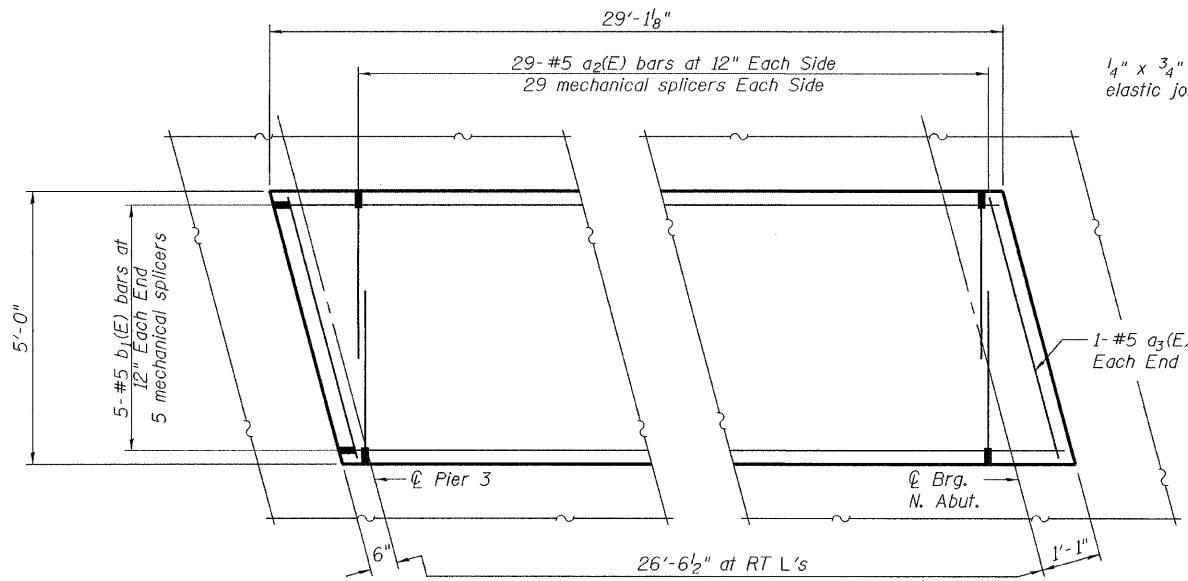
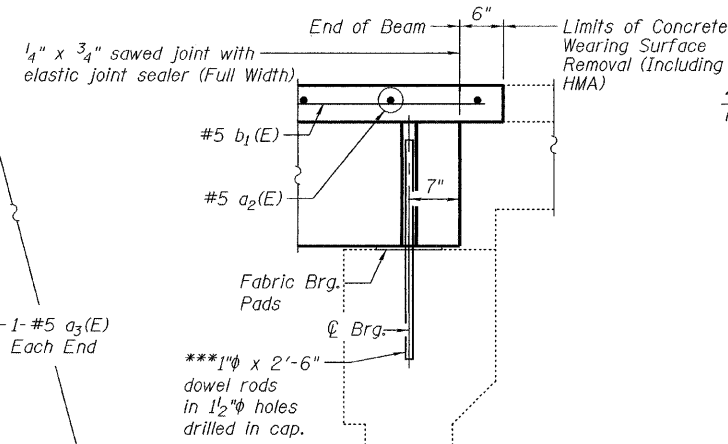


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

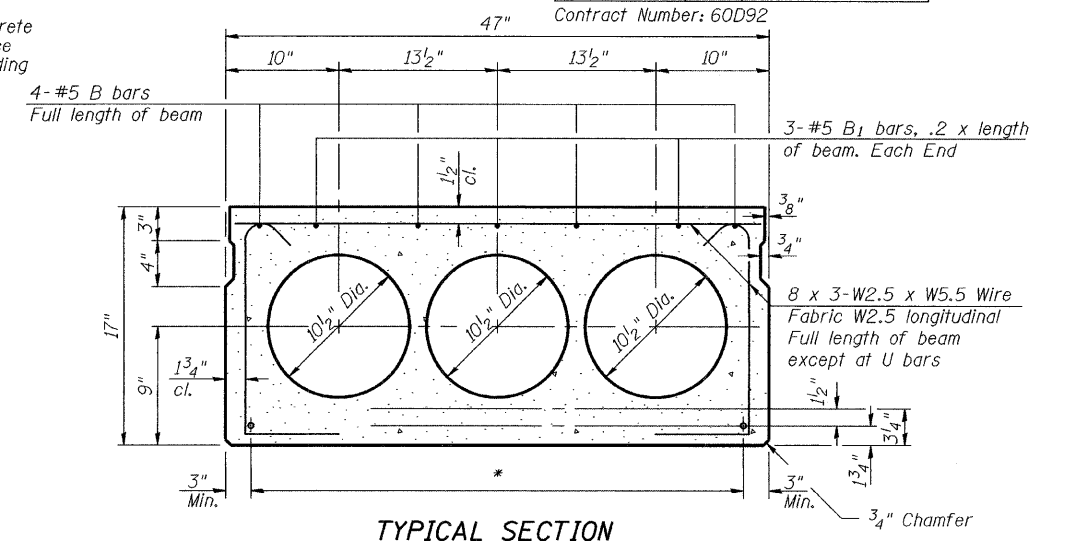
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		McHenry	13	6
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT
		Contract Number: 60D92		



PARTIAL OVERLAY PLAN SPAN 4



TYPICAL SECTION AT ABUTMENT



TYPICAL SECTION  
11 - 1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
9- Strands 1 3/4" up, 2- Strands 3/4" up

\* TRANSVERSE 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".

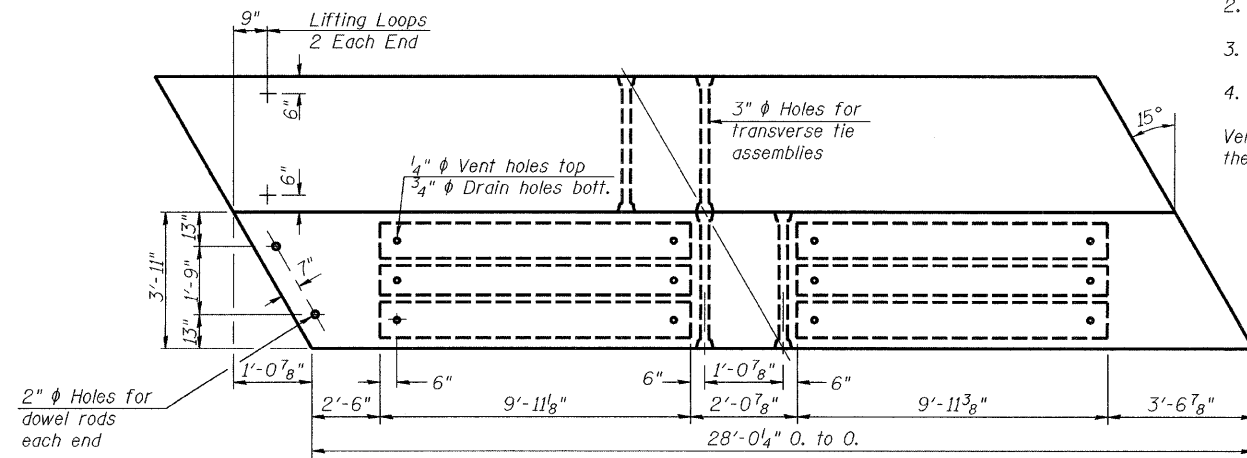
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

\*\*1" Joint shall be filled with non-shrink grout. Dimension may vary to accommodate tolerance in beam lengths.

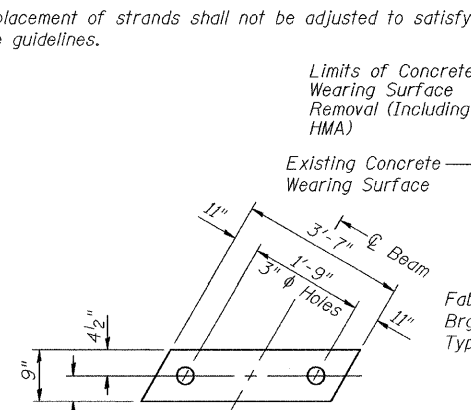
\*\*\*Existing dowel rods are to be burned off, ground flush, and sealed with epoxy prior to placement of new beams.

Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys.

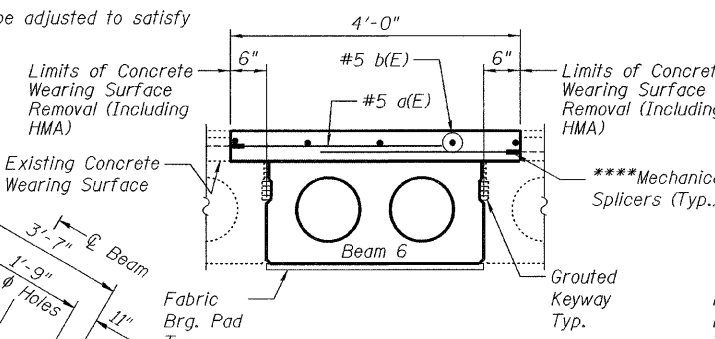
\*\*\*\*Attach existing reinforcement with mechanical splicers. Existing reinforcement to extend 6" min into the removal area to allow attachment of the mechanical splicers.



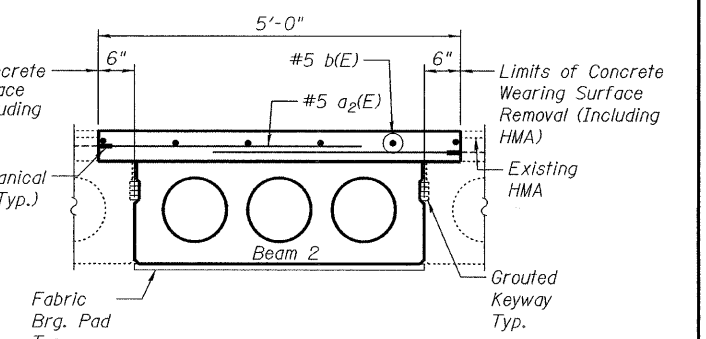
PLAN



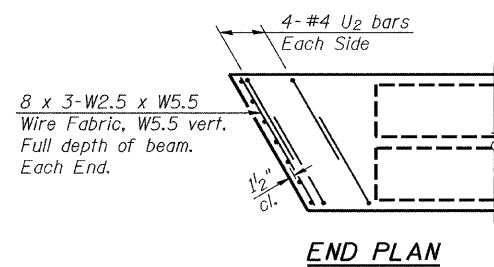
FABRIC BEARING PAD



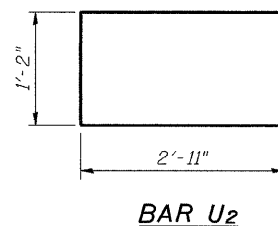
PARTIAL SPAN 3  
CROSS SECTION



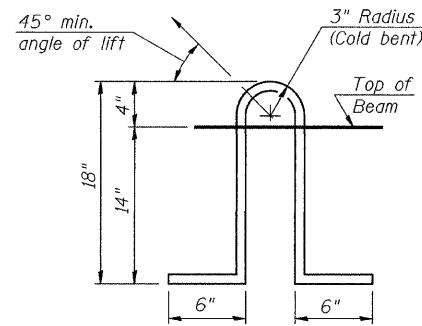
PARTIAL SPAN 4  
CROSS SECTION



END PLAN



BAR U2



LIFTING LOOP DETAIL

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.
- Non prestressing steel shall conform to ASTM A 706 (IL MOD), 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 shown on Sheet 2 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 Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'ci, shall be 4,000 p.s.i.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	58	#5	2'-10"	
a3(E)	2	#5	4'-11"	
b(E)	10	#5	14'-11"	
Concrete Wearing Surface Removal			Sq. Yd.	3.7
Concrete Wearing Surface			Cu. Yd.	16.2
PPC Deck Beams (17")			Sq. Ft.	110
Reinforcement Bars, Epoxy Coated			Pound	340

SPAN 4 BEAM DETAILS  
IL 23 OVER COON CREEK  
McHENRY COUNTY  
SN 056-0012

DESIGNED	A.J.B.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	A.J.B. A.T.H.

EXAMINED	March 14, 2008
PASSED	Carl Perry ENGINEER OF STRUCTURAL SERVICES
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

PD-4-R 11-1-06