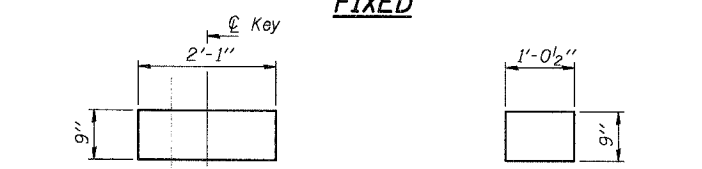
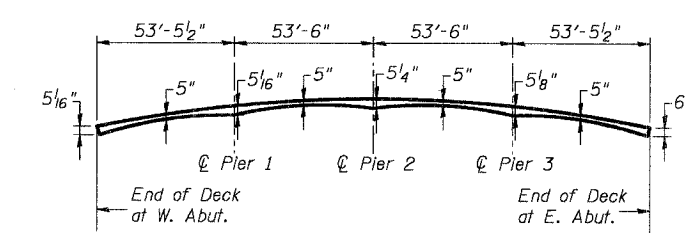


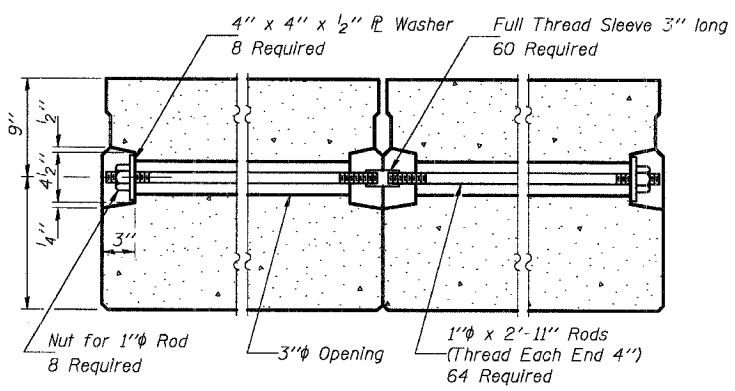
**FABRIC BEARING PAD**  
 (Interior - 60 Required) **FABRIC BEARING PAD**  
 (Exterior - 8 Required)



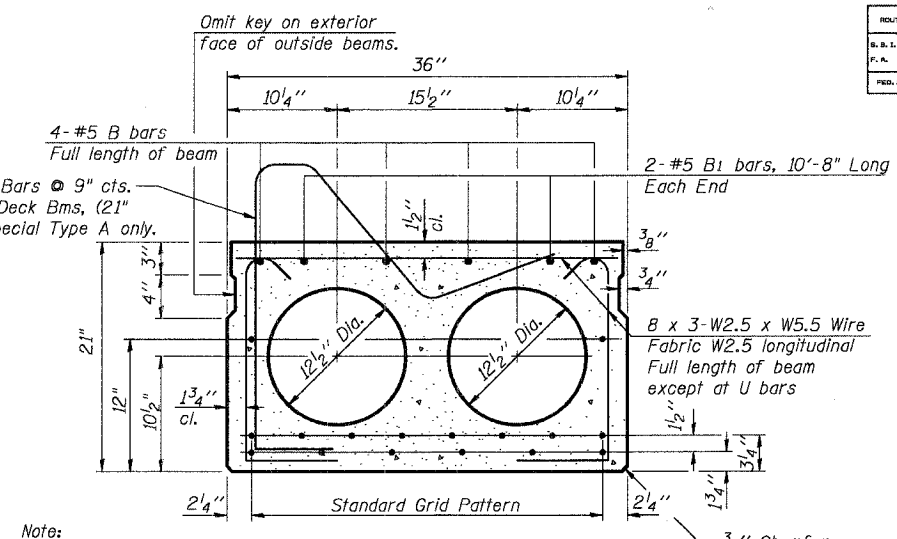
**FABRIC BEARING PAD**  
 (Interior - 60 Required) **FABRIC BEARING PAD**  
 (Exterior - 8 Required)



**OVERLAY THICKNESS DETAIL**  
 Theoretical Thickness at PGL (Note 12)

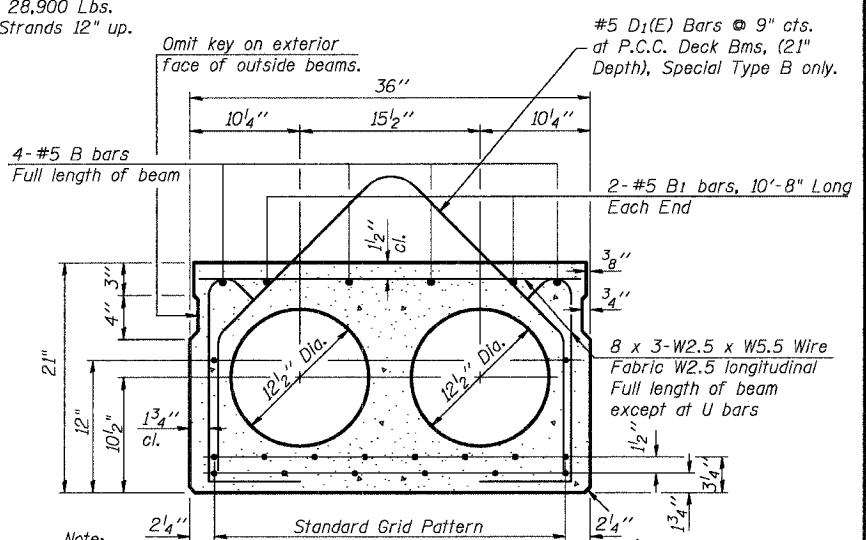


**TYPICAL TRANSVERSE TIE ASSEMBLY**



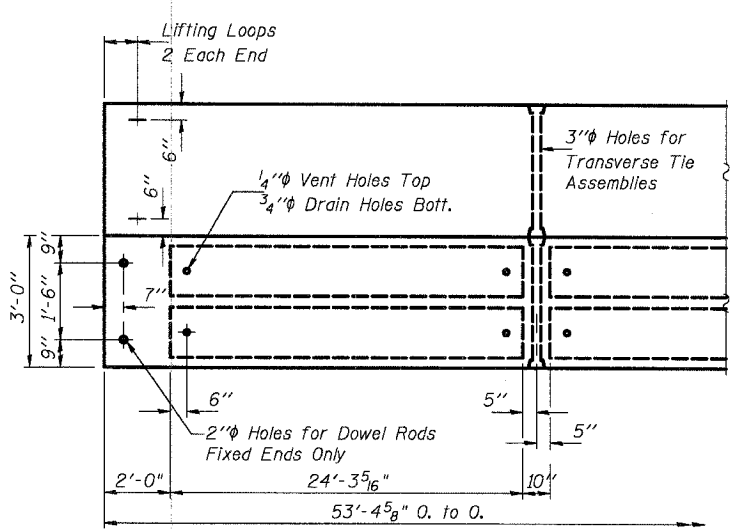
**TYPICAL SECTION**

Note: Place strands symmetrically about centerline of beam.  
 16-1/2" φ Strands, Each Strand Stressed to 28,900 Lbs.  
 6-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 12" up.

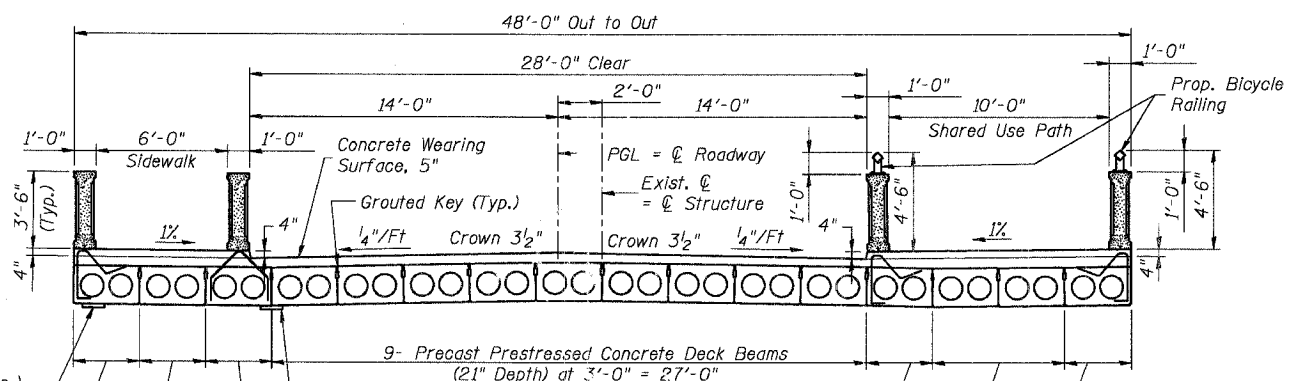


**TYPICAL SECTION**

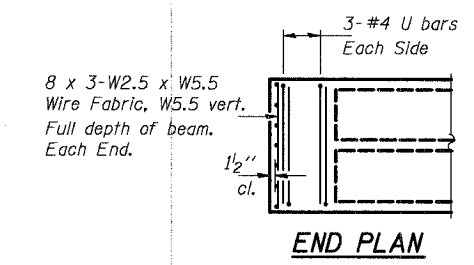
Note: Place strands symmetrically about centerline of beam.  
 16-1/2" φ Strands, Each Strand Stressed to 28,900 Lbs.  
 6-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 12" up.



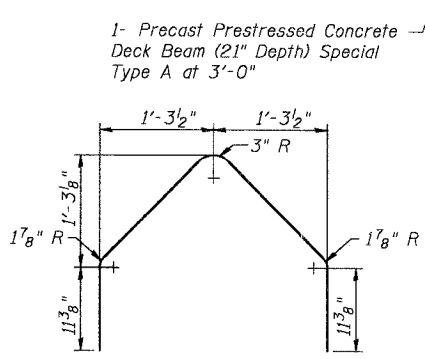
**PLAN**



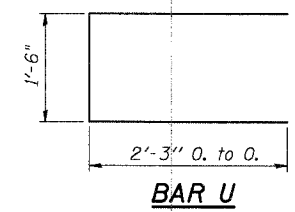
**CROSS SECTION**



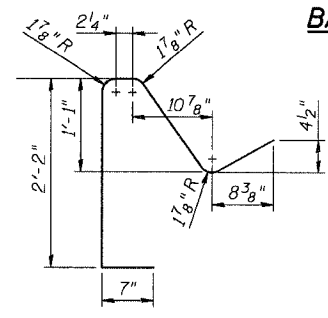
**END PLAN**



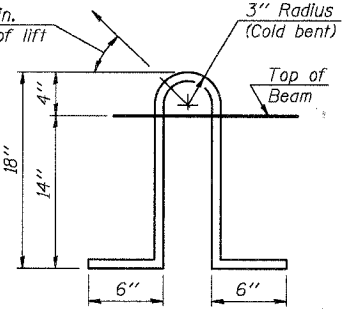
**BAR D1(E)**



**BAR U**



**BAR D(E)**



**LIFTING LOOP DETAIL**

**NOTES**

1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
2. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
3. Lifting loops shall be two (2) - 1/2" φ-270 ksi strands, as shown.
4. The 1" φ 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.
5. Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.
6. 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.
7. 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.
8. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
9. Required Release Strength, f'cl, shall be 4000 p.s.i.
10. Reinforcement Bar bending dimensions are out to out.
11. D (E) and D1(E) Bars shall not be paid for separately, but shall be included in the cost for Precast Prestressed Concrete Deck Beams (21" Depth), Special Type A and Type B respectively.
12. Thickness is based on calculated camber and deflection of PPC Deck Beams. Actual camber of individual units may vary up to +/- 1/2". Adjust thickness to match PGL and cross slope.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
B	192	#5	53'-0"	—
B1	288	#5	10'-8"	—
D(E)	636	#5	5'-2"	⤴
D1(E)	212	#5	5'-7"	⤴
U	768	#4	7'-0"	—
Precast Prestressed Concrete Deck Beams, (21" Depth)		Sq. Ft.		7,687
Precast Prestressed Concrete Deck Beams, (21" Depth), Special Type A		Sq. Ft.		1,922
Precast Prestressed Concrete Deck Beams, (21" Depth), Special Type B		Sq. Ft.		641

PD-3-S 3-1-94

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	NRF

SMITH ENGINEERING CONSULTANTS, INC.  
 215 UNIVERSITY AVENUE  
 CHICAGO, ILL. 60607  
 (312) 467-1000

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 PPC Deck Beam Details  
 Main Street Over Fox River  
 "Public Waters"  
 Village of Carpentersville  
 Section 02-00059-00-BR  
 SN. 045-6150  
 Kane County  
 DATE 02-25-2005