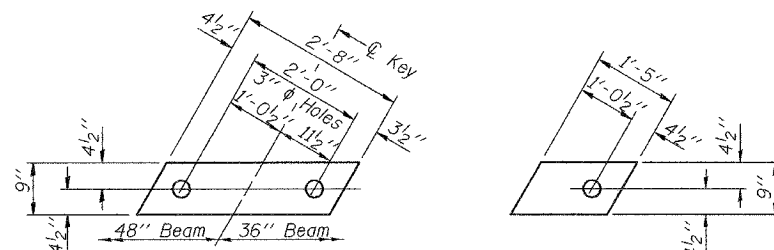


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.U. 1320 (IL58)	581 EXT -BR	COOK	4b	2A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
11 SHEETS

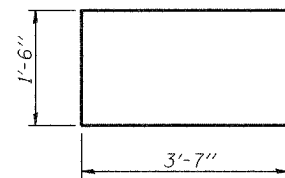
Contract #60B82



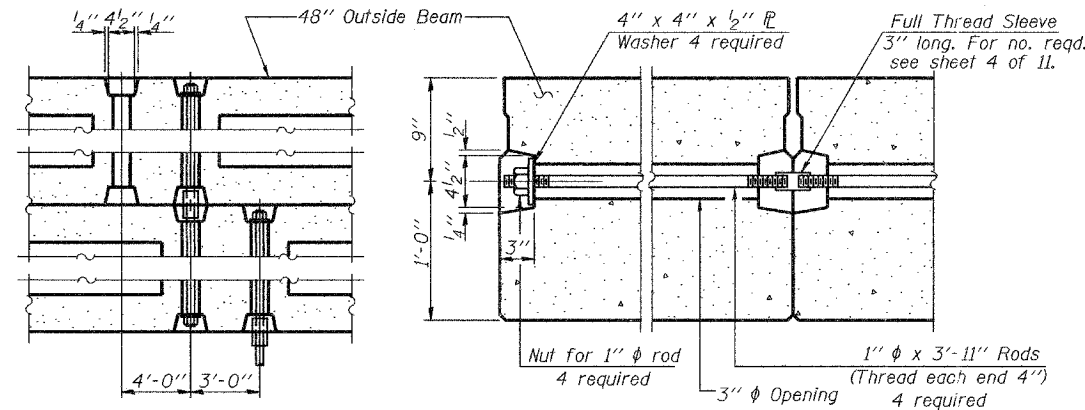
FABRIC BEARING PAD
(Outer most Interior-Between Exterior 48"
Beam and next Interior 36" Beam)
(8 Required)

FABRIC BEARING PAD
(Exterior)
(8 Required)

FIXED

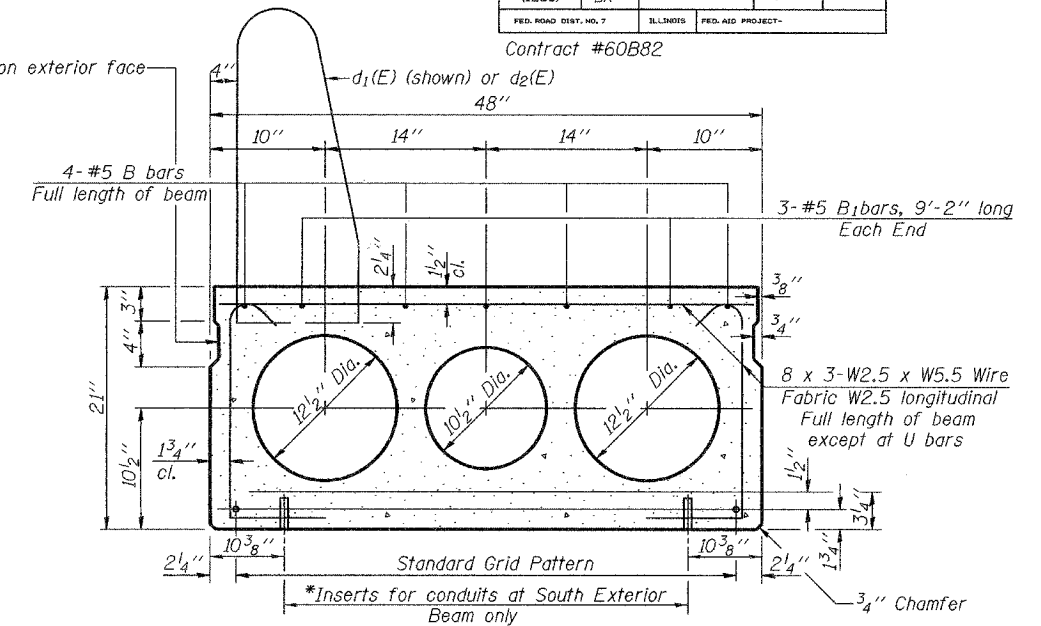


BAR U1



TYPICAL TRANSVERSE TIE ASSEMBLY
(Exterior Tie for 48" Beam)

Notes: For details of bars $d_1(E)$ and $d_2(E)$, see sheet 7 of 11.
For layout and spacing of bars $d_1(E)$ and $d_2(E)$, see sheet 6 of 11.
These bars are to be cast into the deck beams. Cost included
with Precast Prestressed Concrete Deck Beams (21" Depth).

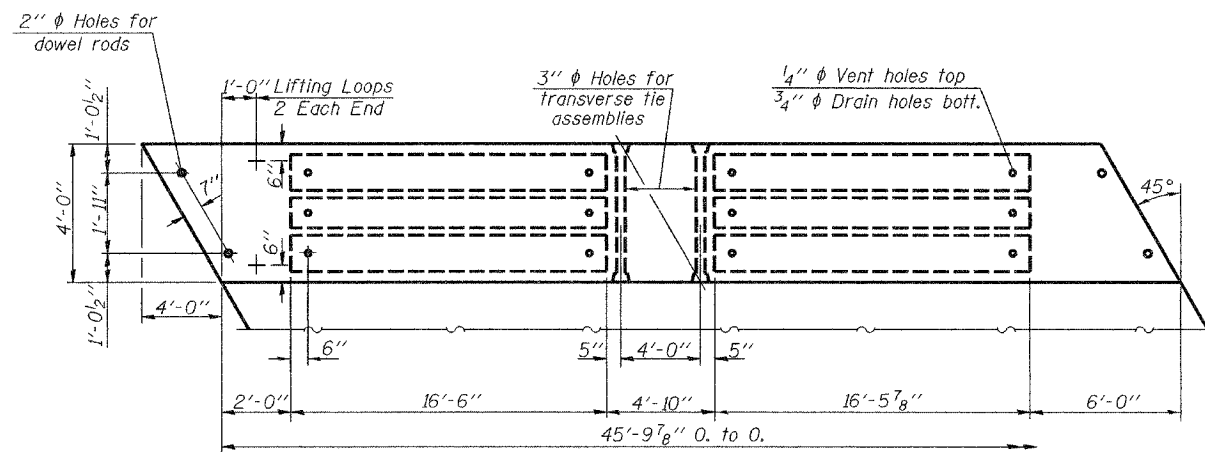


TYPICAL SECTION

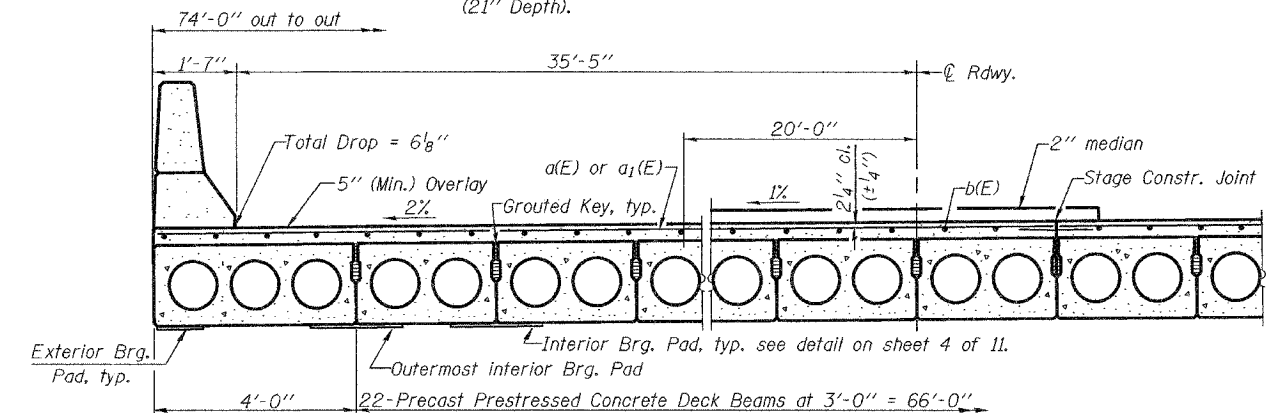
$1/2$ " ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands $1 3/4$ " up, 7-Strands $3/4$ " up

Note:
Place strands symmetrically
about ϕ of beam.

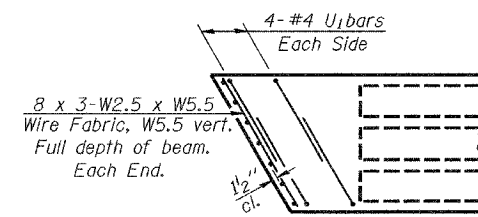
*Maximum 10' spacing. Proof Load of each Insert = 150 lbs.
Cost Included with Precast Prestressed Concrete Deck Beams
(21" Depth).



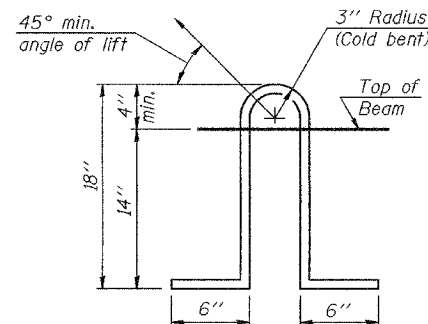
PLAN



PARTIAL CROSS SECTION



END PLAN



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 $2-1/2$ " ϕ -270 ksi strands, as shown.
The 1" 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. See Special Provisions.
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. Cut in field to fit.
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 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	731
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BEAM DETAILS (48")

IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

EXAMINED	August 10 2007
PASSED	Thomas J. Namagala
	Rafael E. Anderson