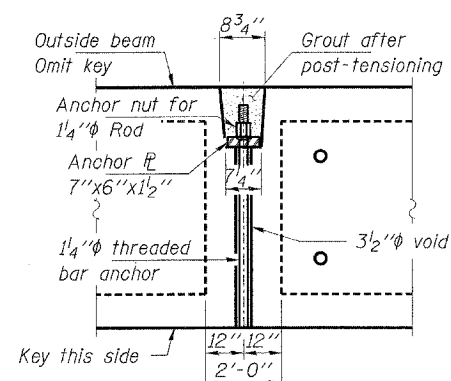
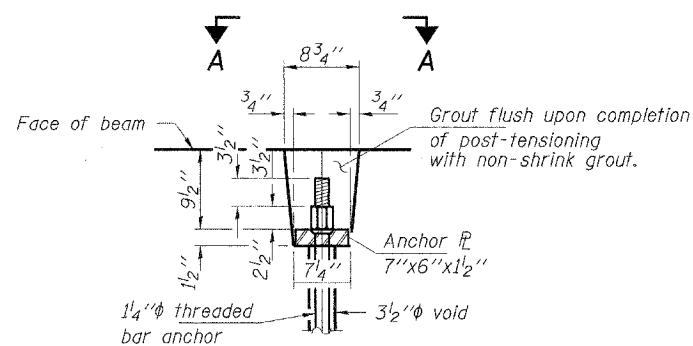


ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.S. 1870	03-00136 -00-BR	JACKSON	20	1
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

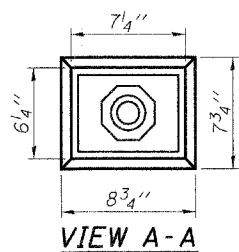
CONTRACT NO. 99203



**PLAN AT POST-TENSIONED
TRANSVERSE TIE ROD**
(Shown for 27"x36" Beam)



PLAN THREADED BAR ANCHOR



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 7-wire stress relieved 2-1/2"φ-270 ksi strands, as shown. Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" 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.

Required Release Strength, f'cl, shall be 4,000 psi for 21x36 beams & 4,100 psi for 27x36 beams.

Threaded bar post-tensioning tie rods to be 1 1/4"φ diameter, ultimate stress 150 ksi (Ultimate Strength 187.5 k). Conforming to ASTM A722 Steel hot rolled and proof stressed. The bar deformations shall conform to the requirements of ASTM A615.

Anchor plates, couplers and nuts shall exceed the requirements of ACI 318 and AASHTO Standard Specifications for Highway Bridges, 2002, Section 9, Article 9.27 Post Tensioning Anchorages and Couplers.

All threaded bars shall be stressed to not more than 40 kips (temporary) and not more than 120 kips at lockoff (transfer).

voids around threaded bar to be grouted after post-tensioning is complete. See Special Provisions for grout and grouting pressures.

HLR
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12-47-0016-1
Date: 10-28-04
DESIGNED: S.W.M. CHECKED: T.P.L. DRAWN: D.B.

SUPERSTRUCTURE DETAILS
F.A.S. 1870 / C.H. 7
SECTION 03-00136-00-BR
JACKSON COUNTY
STR. NO. 039-3249 / STATION 10+04