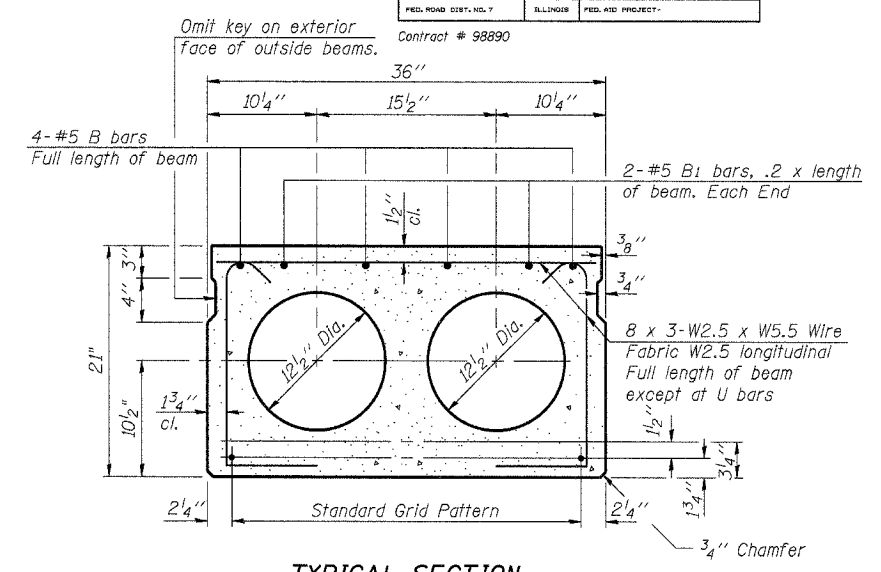


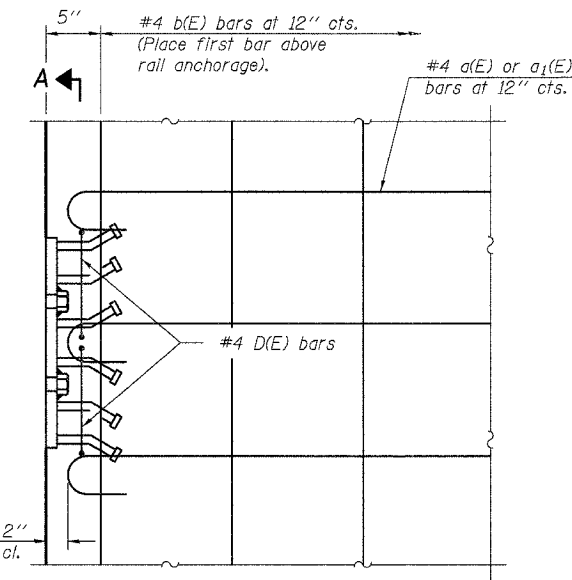
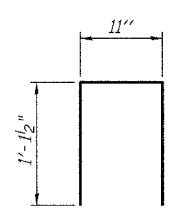
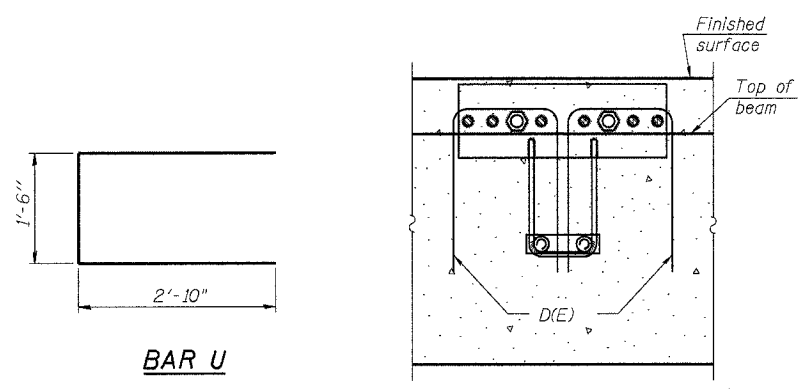
TYPICAL TRANSVERSE TIE ASSEMBLY



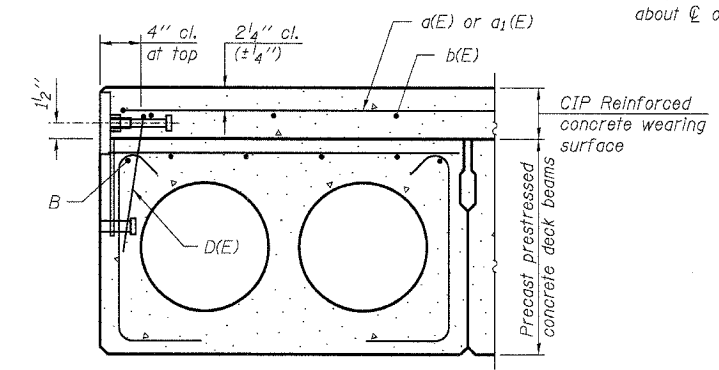
TYPICAL SECTION

1/2" Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 9" up

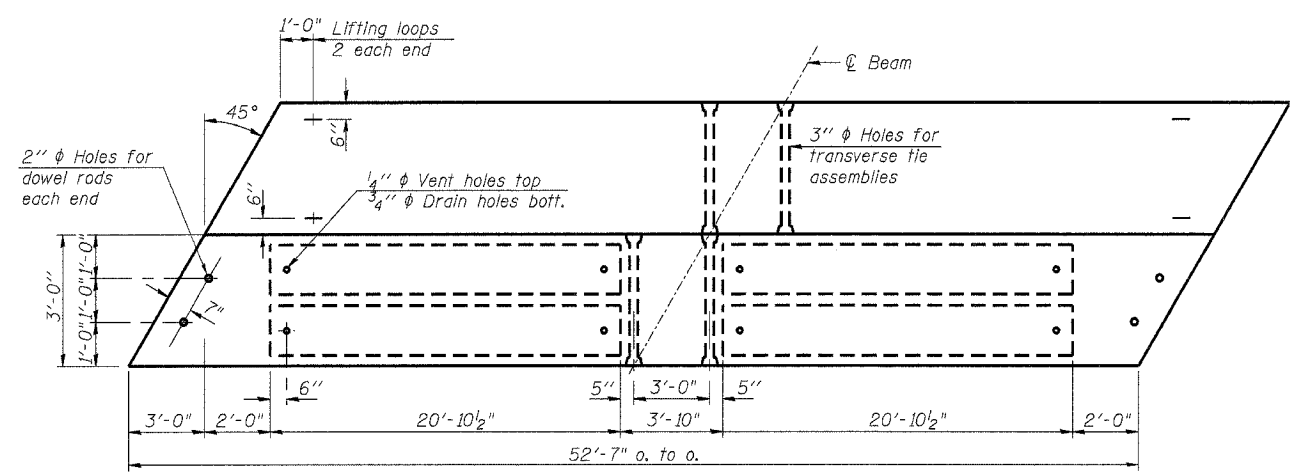
Note:
Place strands symmetrically about center of beam.



PLAN AT RAIL ANCHORAGE



SECTION THRU EXTERIOR BEAMS



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'-2" x 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 (1L MOD), 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. 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'cl, shall be 4000 p.s.i. 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 the beam. Drilling into the beam will not be permitted. Cost of rail anchorages shall be included with Precast Prestressed Concrete Deck Beams (21" Depth). See Sheet 7 of 12 for location of rail anchorages.

BAR LIST (ONE BEAM)

Bar	No.	Size	Length	Shape
B	4	#5	52'-4"	—
B1	4	#5	10'-7"	—
D	16	#4	3'-2"	—
U	12	#4	7'-2"	—

*At exterior beams only

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1735
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ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS - 2
U.S. ROUTE 45 OVER
CAVE CREEK
F.A.S. ROUTE 960 - SECTION 38 B-1
JOHNSON COUNTY
STA. 213+64.78
STRUCTURE NO. 044-0010

Lin Engineering, Ltd.
Consulting Engineers
Chatham, Illinois

REVISIONS	
NAME	DATE

Designed By: DLS
Checked By: MTH
Date: 03/2007

Drawn By: AJP
File: 044-0010.DGN

8/16/2007 2:52:26 PM ...044-0010.dgn