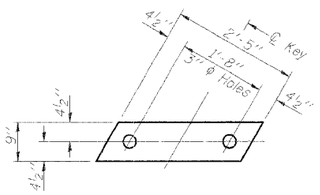
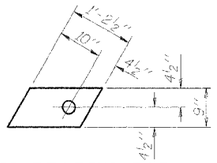
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 2	*	Fulton	14	10
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT: BR-S-452(115)	

*04-00130-00-BR

CONTRACT #89373

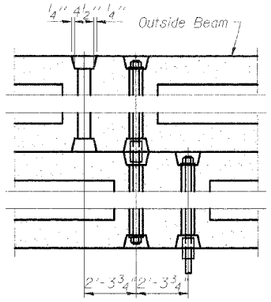


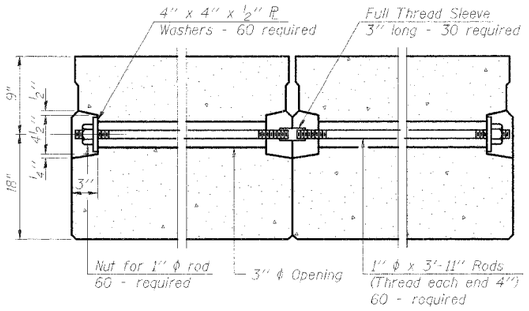
FABRIC BEARING PAD
(Interior)



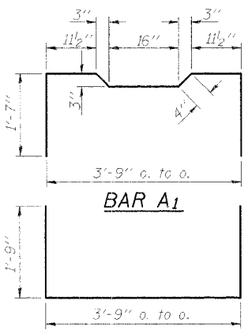
FABRIC BEARING PAD
(Exterior)

FIXED

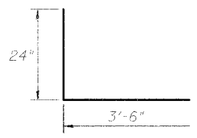




TYPICAL TRANSVERSE TIE ASSEMBLY

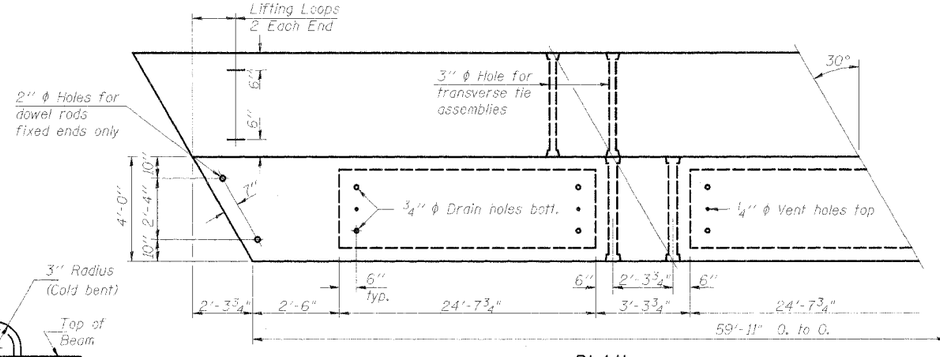


BAR A_1



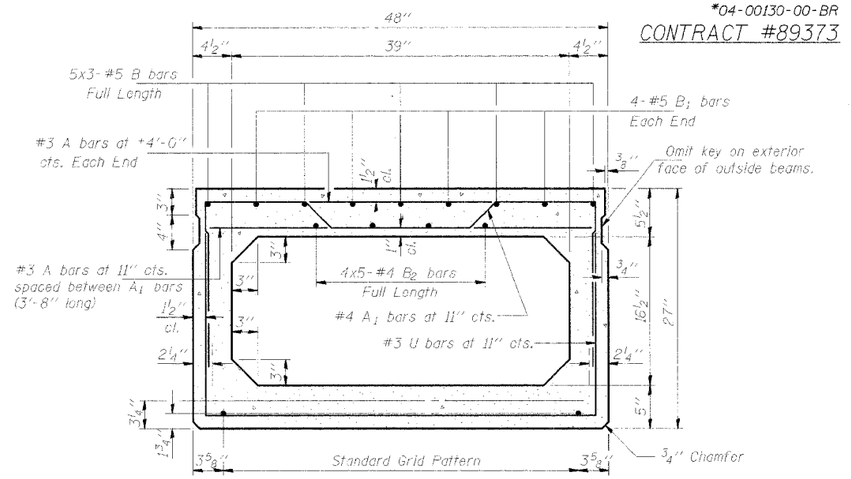
BAR D

BARS U & U_1



PLAN

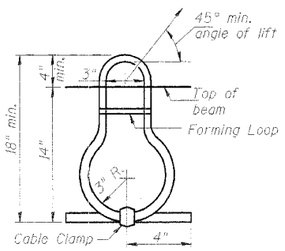
END PLAN



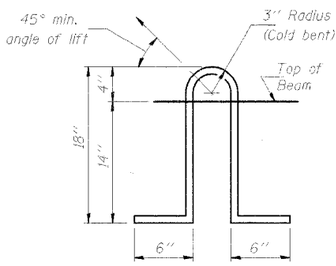
TYPICAL SECTION

16-½"ϕ Strands Each Strand Stressed to 30,900 Lbs.
14 Strands @ 1¾" up, 2 Strands @ 3¾" up

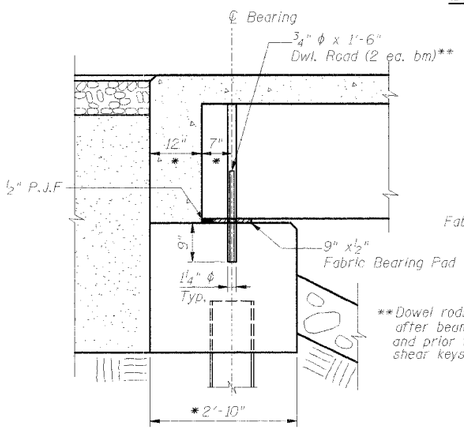
Note: Place strands symmetrically about ℄ of beam.



LIFTING LOOP ALTERNATE



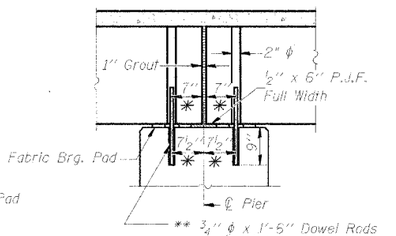
LIFTING LOOP DETAIL



SECTION AT ABUTMENT

* Perpendicular to ℄ of abutment.

** Dowel rods to be grouted after beams are in place and prior to grouting the shear keys

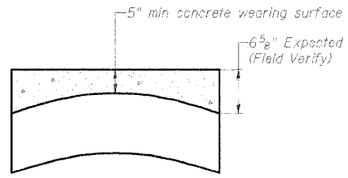


** ¾" ϕ x 1'-5" Dowel Rods in 1¼" ϕ holes drilled in cap (2 each beam)

SEC. THRU PIER

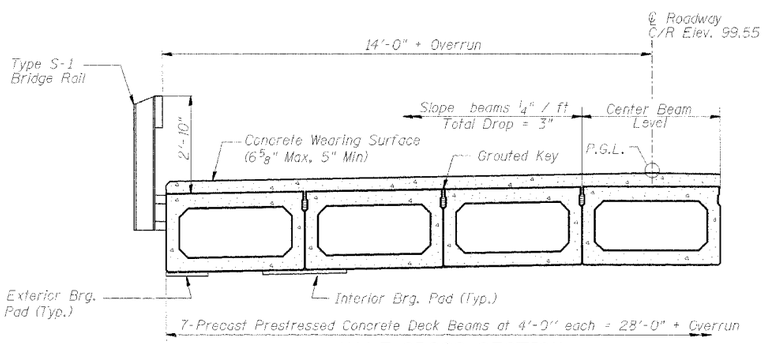
* Perpendicular to ℄ of Pier

1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. 1" Dimension may vary plus or minus to accomodate tolerance in beam lengths.



CAMBER DIAGRAM

Along North Edge of Center Beam



HALF CROSS SECTION

NOTES

Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be ¾" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 46,000 lbs. or 3-½"ϕ-270 ksi strands, as shown.

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.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" 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.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be 4000 p.s.i.

An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted.

BILL OF MATERIAL

ONE BEAM

Bar	No.	Size	Length	Shape
A	63	#3	3'-8"	——
A_1	58	#4	7'-1"	⌐¬
B	15	#5	21'-7"	——
B_1	8	#5	11'-1"	——
B_2	20	#4	13'-7"	——
U_1	8	#3	7'-3"	⌊⌋
U	60	#4	7'-3"	⌊⌋
Precast Prestressed Conc. Deck Bms.		Sq. Ft.	8388*	

* Total Quantity of Beams

DSGN	K.J. Hoffmann					
DR	K.J. Hoffmann					
CHK	K.E. Brandau					
APVD	K.E. Brandau	NO.	DATE	REVISION	BY	APVD

FRAUENHOFFER
Frauenhoffer and Associates, P.C. Consulting Engineers
3002 Crossing Court Champaign, Il. 61822 217-351-6268

SUPERSTRUCTURE DETAILS - SPANS 1-5

COUNTY HIGHWAY 2
SECTION 04-00130-00-BR
FULTON COUNTY

SHEET	10
DWG NO.	4056-sup.dgn
DATE	OCT 2005
PROJ NO.	4056