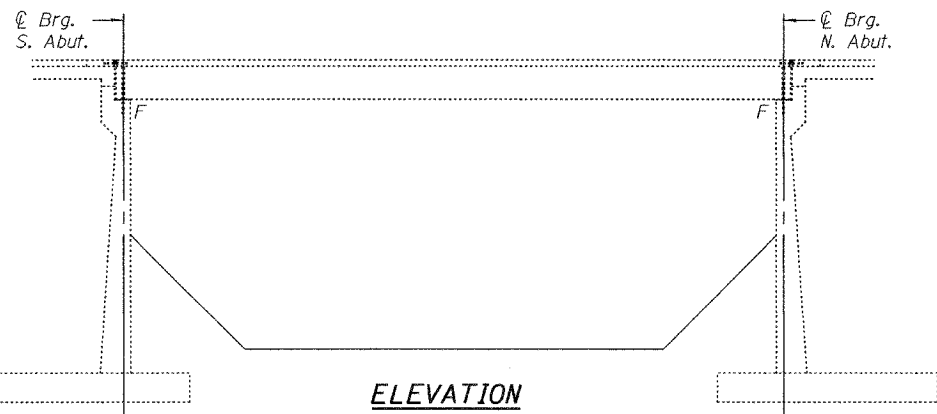


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

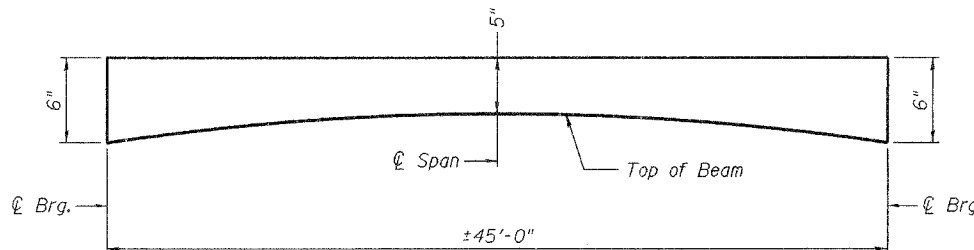
ROUTE NO.	SECTION	COUNTY	LENS	SHEET
		Cook	11	6
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT-				

SHEET NO. 1
3 SHEETS

Contract Number: 60D24



ELEVATION



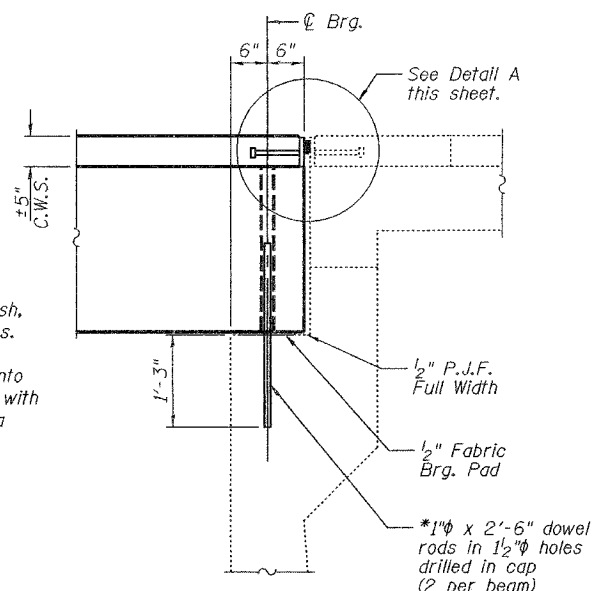
CONCRETE WEARING SURFACE PROFILE

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax strands)
 $f'_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax strands)

*Existing dowel rods are to be burned off, ground flush, and sealed with epoxy prior to placement of new beams. Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys.



TYPICAL ABUTMENT SECTION

GENERAL NOTES

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures.

If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new or existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

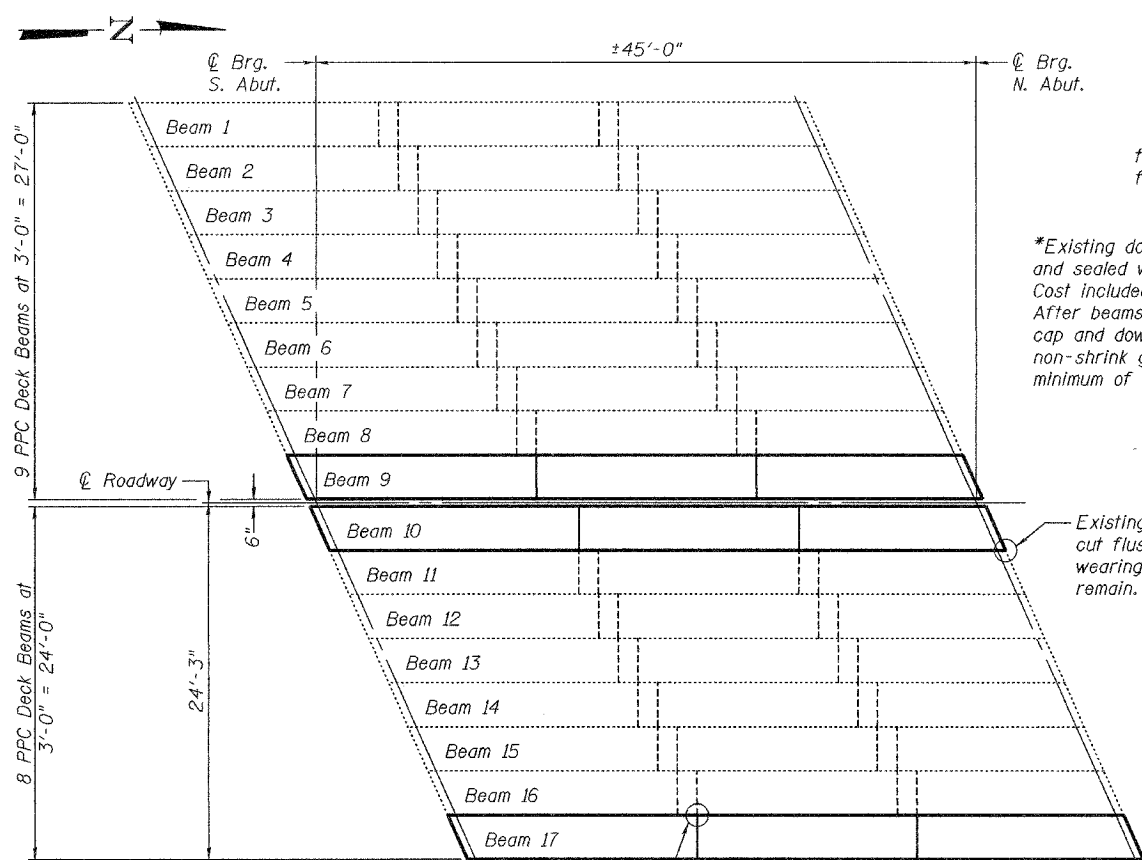
Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

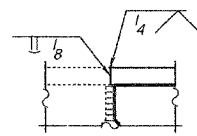
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Temporary concrete barrier shall only be anchored into the overlay and not into the PPC Deck Beams.

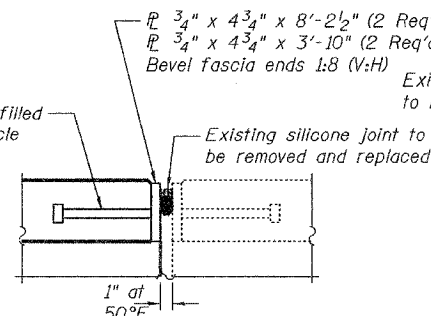


PLAN

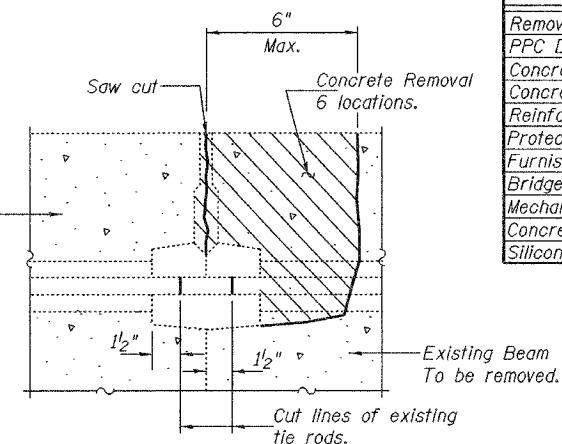
ELEVATION NEW JOINT \mathcal{R}
TO EXISTING JOINT \mathcal{R}



$\frac{3}{4}$ " ϕ x 8" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Spec's automatically end welded at 12" ctrs. (8 req'd for 8'-2 1/2" \mathcal{R} 4 req'd for 3'-10" \mathcal{R})



DETAIL A
TYPICAL JOINT SECTION



BEAM REMOVAL DETAIL
AT TRANSVERSE TIES

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	414.8
PPC Deck Beams (27" Depth)	Sq. Ft.	414.8
Concrete Wearing Surface 5"	Sq. Yd.	56.3
Concrete Superstructure	Cu. Yd.	5.0
Reinforcement Bars Epoxy Coated	Pound	2,080
Protective Coat	Sq. Yd.	81.6
Furnishing and Erecting Structural Steel	Pound	320
Bridge Deck Grooving	Sq. Yd.	38.4
Mechanical Splice	Each	135
Concrete Removal	Cu. Yd.	6.1
Silicone Joint Sealer	Foot	24

PLAN AND ELEVATION
F.A.U. RT. 3597
COOK COUNTY
SN 016-0771

DESIGNED	September 17, 2007
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	

September 17, 2007
 EXAMINED
 PASSED



Expires: November 30, 2008