

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 1 5 SHEETS
SBI 39		PIATT	18	10	
FED. ROAD DIST. NO. 7		STATE	FED. AID PROJECT		

Contract Number: 70699

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

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.

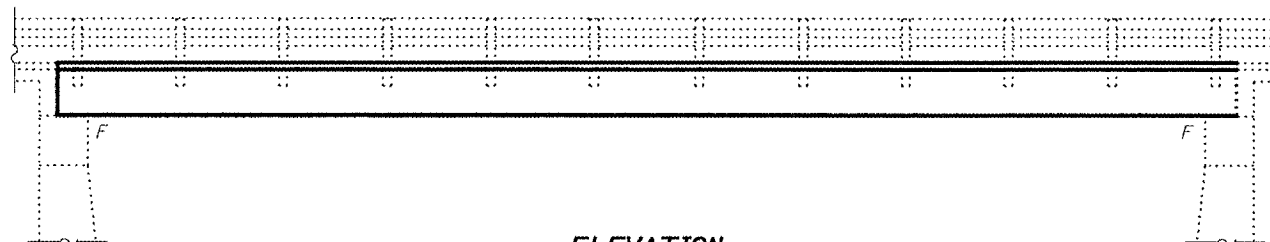
Temporary concrete barrier shall only be anchored into the overlay and not into the PPC deck beams.

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.

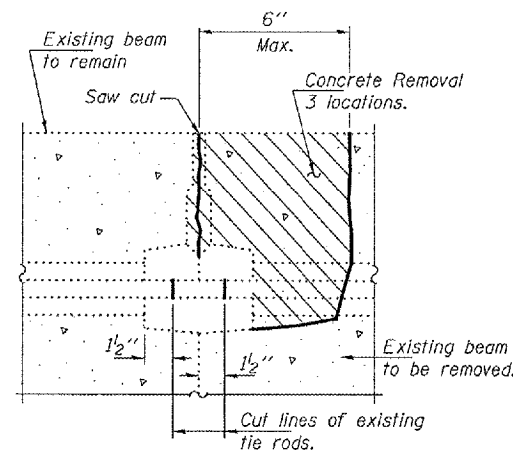
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated. 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.

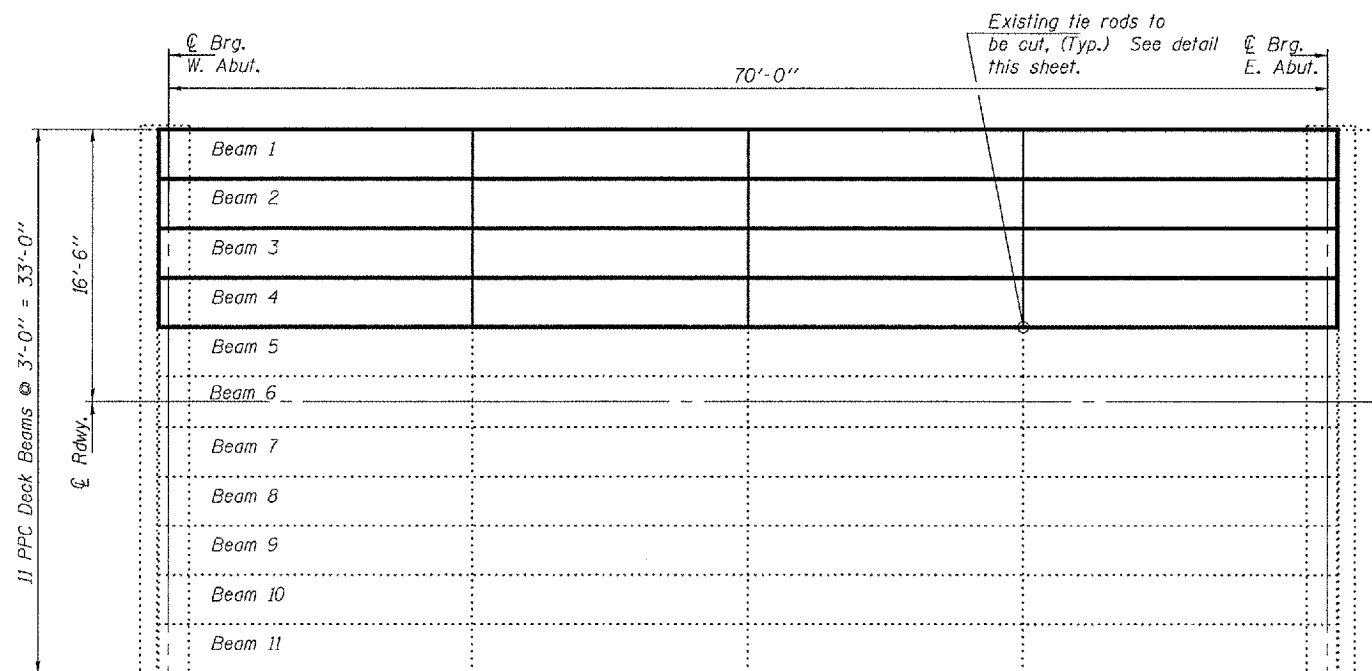
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Wearing Surface.



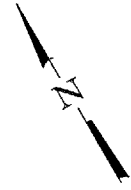
ELEVATION



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



PLAN



DESIGN STRESSES

FIELD UNITS

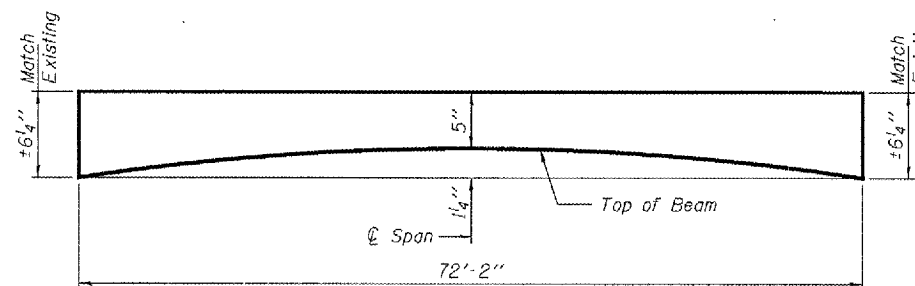
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($1/2"$ low lax strands)
 $f'_{si} = 201,960$ psi ($1/2"$ low lax strands)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	854
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	854
Concrete Wearing Surface	Sq. Yd.	100.7
Reinforcement Bars Epoxy Coated	Pound	1190
Protective Coat	Sq. Yd.	101
Mechanical Splice	Each	72
Concrete Removal	Cu. Yd.	0.7
Removing & Re-erecting Existing Railing	Fool	73



ANTICIPATED INITIAL CAMBER DIAGRAM

**PLAN AND ELEVATION
SBI 39 OVER
SOUTH BRANCH SALT CREEK
PIATT COUNTY
SN 074-0008**

DESIGNED	<i>[Signature]</i>
CHECKED	<i>Vicki W. Veil</i>
DRAWN	<i>Steffen</i>
CHECKED	<i>AJB VHV</i>

FEBRUARY 25, 2008
EXAMINED *[Signature]*
PASSED *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES



Expires: November 30, 2008