

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	PAGE	SHEET NO. 1
		Knox	13	10	4 SHEETS
FED. ROAD DIST. NO. 7	TULINGUE	FED. AID PROJECT			

Contract Number: 68780

**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.

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.

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

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

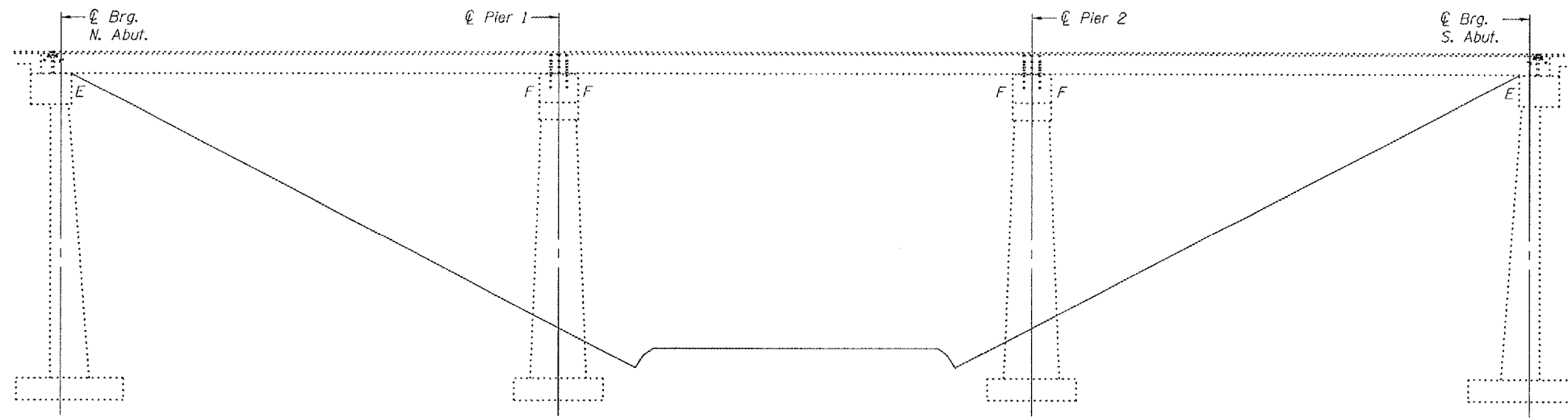
Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause 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.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with PPC Deck Beams.

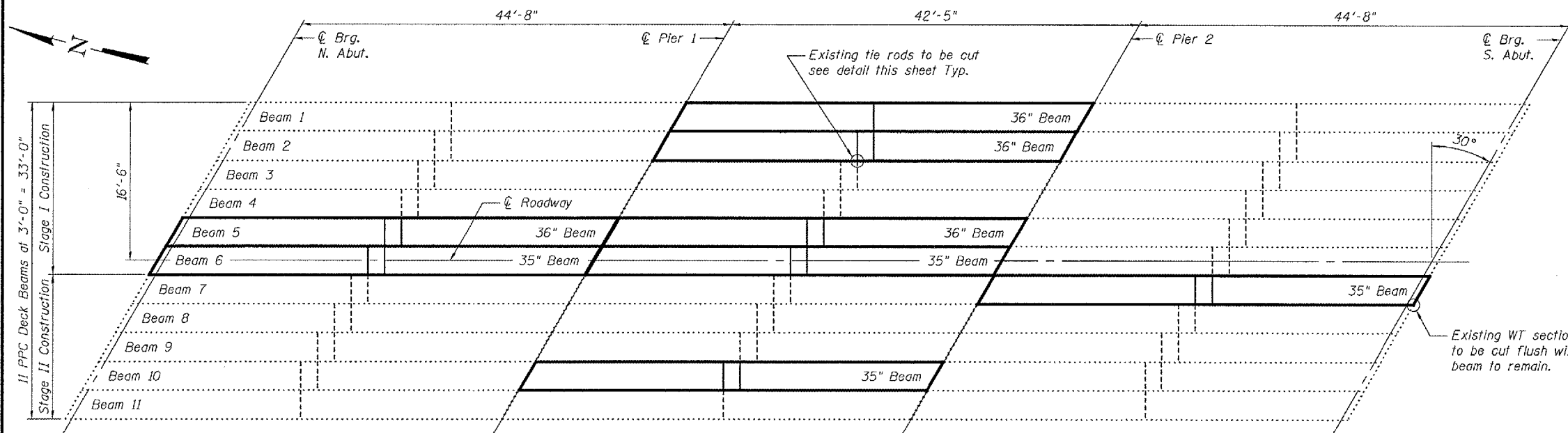
Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

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.



**ELEVATION**



**PLAN**

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500 \text{ psi}$   
 $f_y = 60,000 \text{ psi (Reinforcement)}$

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

DESIGNED	Alan T. Holloway
CHECKED	[Signature]
DRAWN	[Signature]
CHECKED	AT/AJB

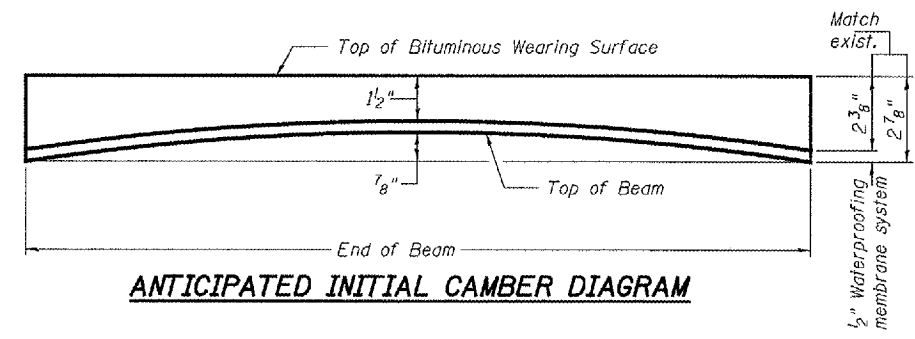
February 26, 2008

EXAMINED [Signature]  
ENGINEER OF STRUCTURAL SERVICES

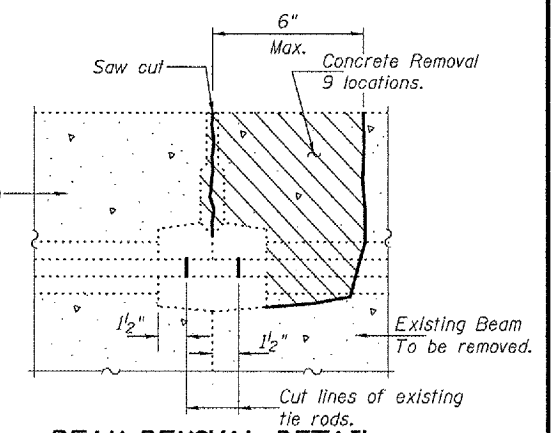
PASSED [Signature]  
Ralph E. Anderson  
ENGINEER OF BRIDGES AND STRUCTURES



Expires: November 30, 2008



**ANTICIPATED INITIAL CAMBER DIAGRAM**



**BEAM REMOVAL DETAIL AT TRANSVERSE TIES**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	1042
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1028
Concrete Superstructure	Cu. Yd.	1.7
Removing and Re-erecting Existing Railing	Foot	42
Waterproofing Membrane System	Sq. Yd.	135
PC Mortar Fairing Course	Foot	523
Hot-Mix Asphalt Surface Removal	Sq. Yd.	23.7
HMA Surface Course Mix "D" N50	Tons	14.7
Asbestos Bearing Pad Removal	Each	3
Protective Coat	Sq. Yd.	12.4

**PLAN AND ELEVATION**  
**S.B.I. ROUTE 8**  
**KNOX COUNTY**  
**SN 048-0013**