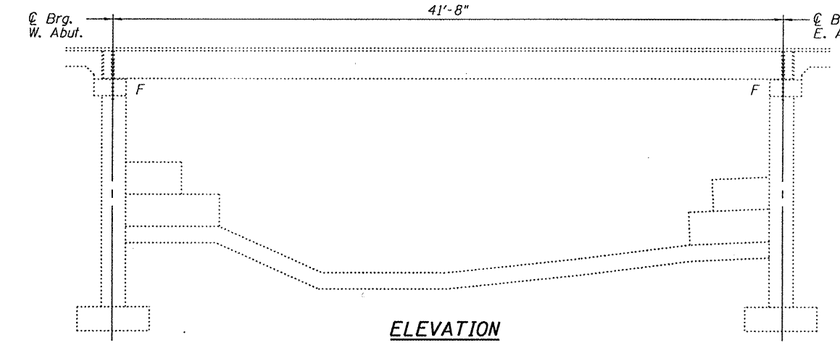
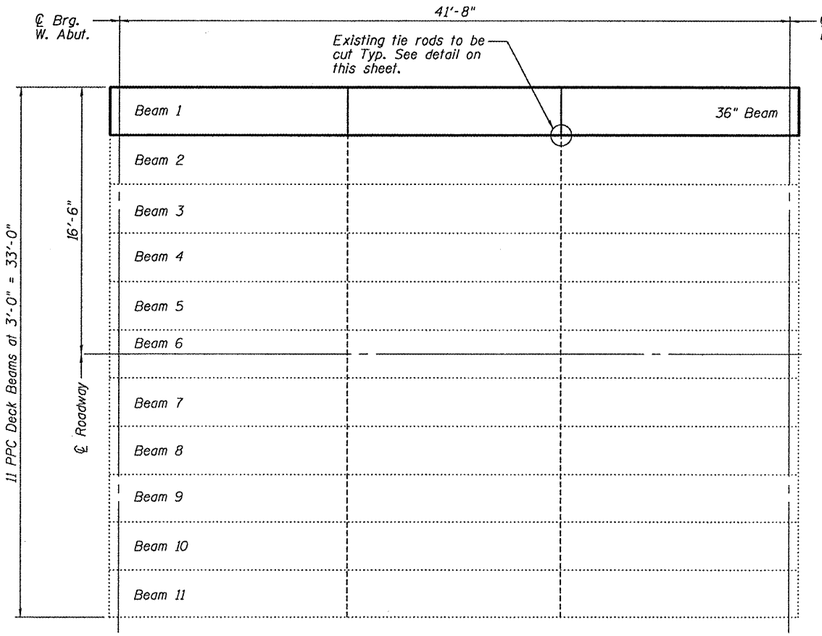
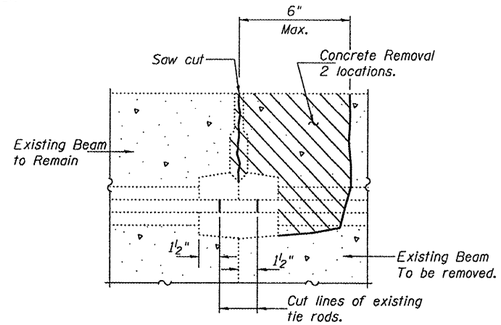


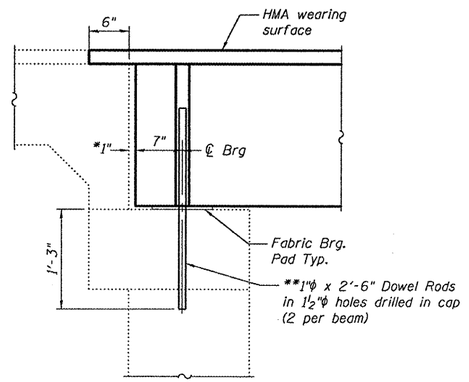
ELEVATION



PLAN



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



TYPICAL SECTION AT ABUTMENTS

*1" Joint shall be filled with non-shrink grout. Dimension may vary to accommodate tolerance in beam lengths.

**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.

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 contractors responsibility to account for the condition of the beams when developing construction procedures.

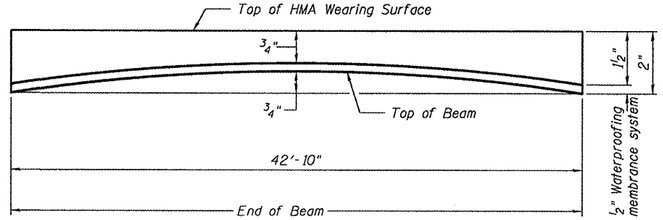
Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

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

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.

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.

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



ANTICIPATED INITIAL CAMBER DIAGRAM

DESIGN STRESSES PRECAST UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½" ϕ low lax strands)
f'si = 201,960 psi (½" ϕ low lax strands)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	129
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	129
Removing and Re-Erecting Existing Railing	Foot	43
Waterproofing Membrane System	Sq. Yd.	17.1
PC Mortar Fairing Course	Foot	43
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	2.4
Polymerized HMA Surface Course Mix "D" N70	Tons	1.4

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

Expires 11/30/2012

Expires: November 30, 2012

DESIGNED -	Drew Christopher	EXAMINED	
CHECKED -		PASSED	
DRAWN -	ISL	DATE -	MARCH 14, 2011
CHECKED -	V&U		

ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
SN 036-0003
SHEET NO. 1 OF 4 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45	(6BR)1	Henderson	9	8A
		CONTRACT NO. 68A17		
		ILLINOIS FED. AID PROJECT		

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