

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	"SHEET"	SHEET NO. 1
FAP 310		McDONOUGH	14	10	5 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract Number: 68779

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 the shear keys.

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 Wearing Surface 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.

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.

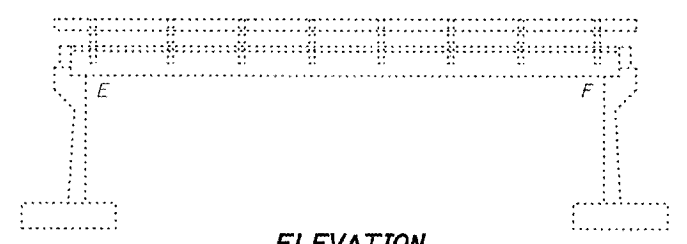
Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

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.

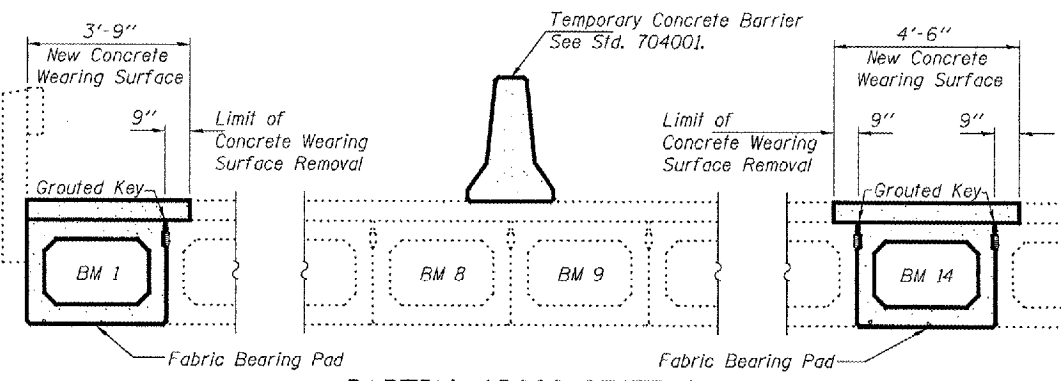
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Precast Prestressed Concrete Deck Beams (27" Depth).

ELEVATION



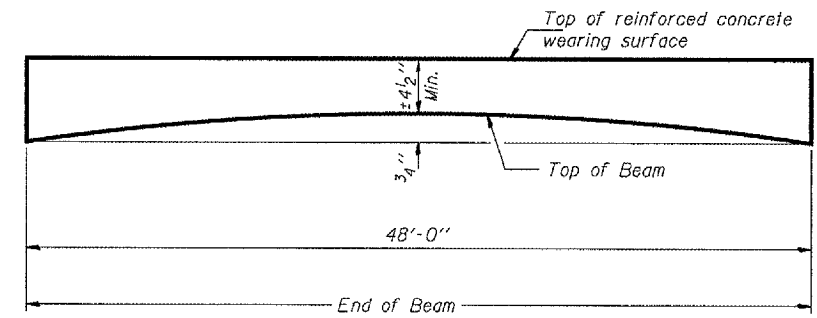
Remove, store, and reinstall existing Type S1 railing.

PARTIAL CROSS SECTION

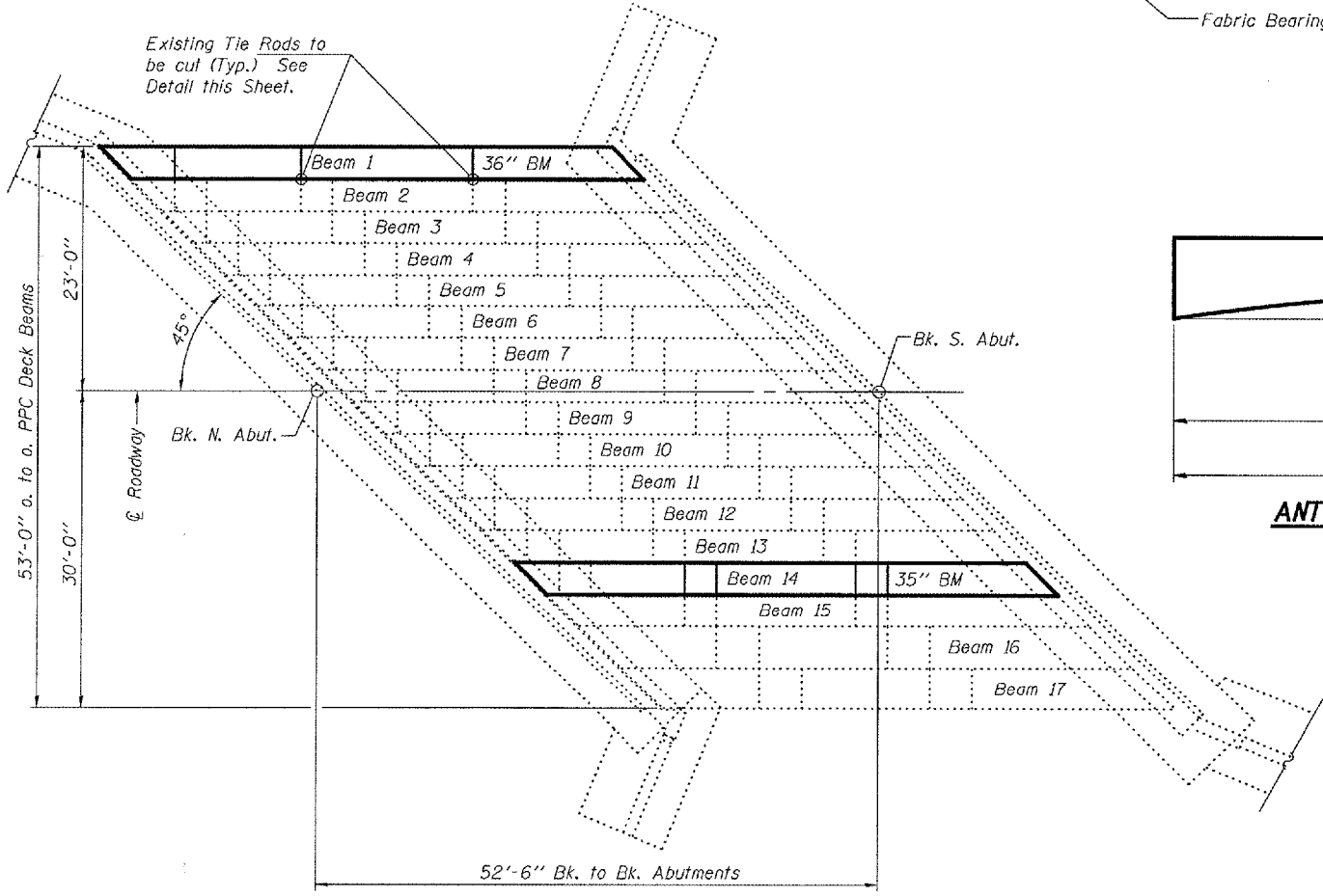


(Looking South)
See sheet 4 of 5 for reinforced concrete wearing surface details.

ANTICIPATED INITIAL CAMBER DIAGRAM



PLAN



DESIGN STRESSES

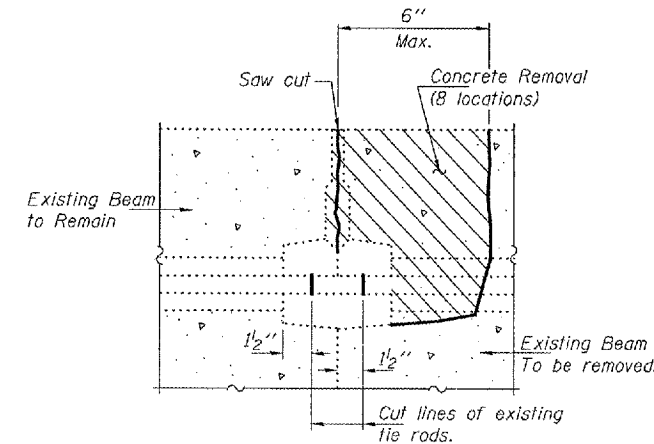
PRECAST UNITS

$f'_c = 5,000$ 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)

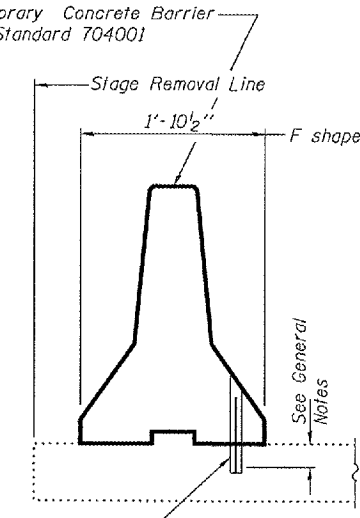
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	268
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	284
Concrete Wearing Surface Removal	Sq. Yd.	12
Concrete Wearing Surface	Sq. Yd.	44
Reinforcement Bars, Epoxy Coated	Pounds	520
Mechanical Splicer	Each	78
Removing & Re-erecting Existing Railing	Foot	52.5

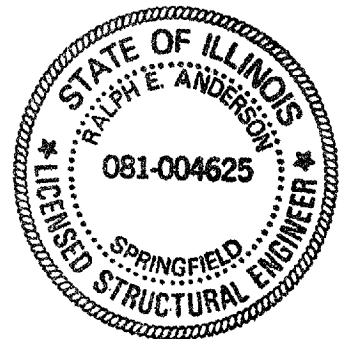
BEAM REMOVAL DETAIL AT TRANSVERSE TIES



TEMPORARY CONCRETE BARRIER



Drill $1\frac{1}{4}$ " ϕ Holes in existing overlay for 1 " ϕ x 10 " dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.



DESIGNED: Victor A. DeG...
 CHECKED: Adriani, Holloway
 DRAWN: Steffen
 CHECKED: ATH UHV

EXAMINED: Carl...
 PASSED: Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

FEBRUARY 26, 2008

Expires: November 30, 2008

PLAN AND ELEVATION
FAP RT. 310 OVER
FARMERS CREEK
McDONOUGH COUNTY
SN 055-0003