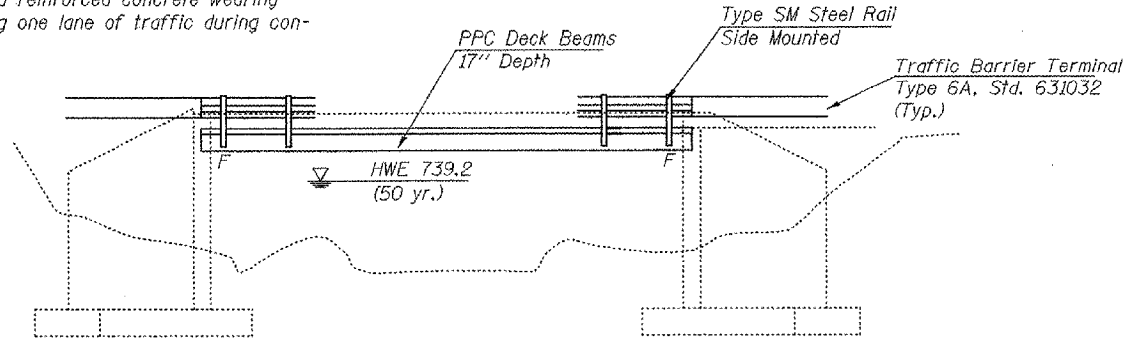


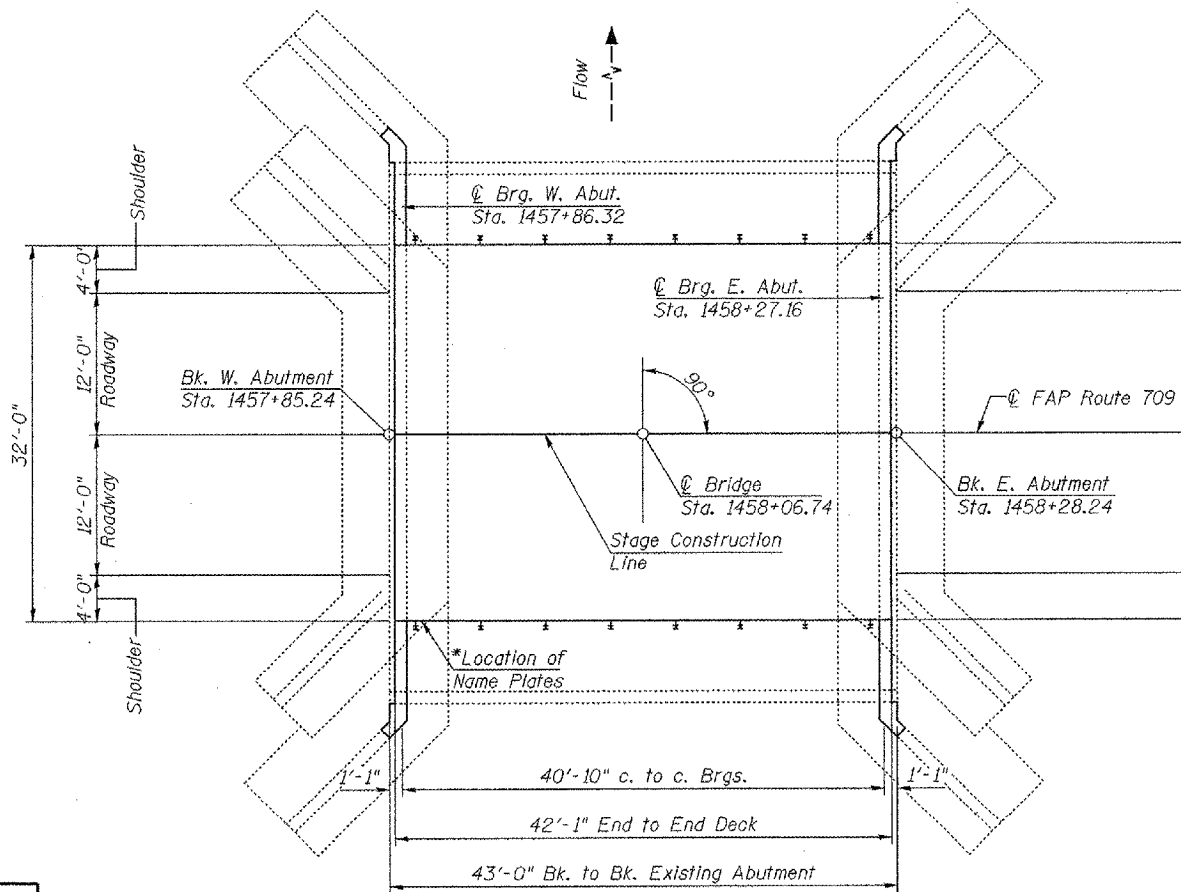
Benchmark: Chiseled "□" on S.W. corner of southwest abut. Elev. 743.83

Existing Structure: SN 010-0058 Built 1932 Sta. 1458+09.00 as SBI Route 119. Rebuilt 1971 Sta. 1458+06.74 as FA Route 119, Section 104BR. Structure is single span precast prestressed concrete deck beam superstructure 43'-0" Bk. to Bk. abutments and 46'-0" out to out on closed abutments. Bridge superstructure shall be removed and replaced with new beams and reinforced concrete wearing surface. Stage construction will be utilized allowing one lane of traffic during construction.

No salvage



ELEVATION



PLAN

STATION 1458+06.74
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE 709 SEC. 104BR-1
LOADING HS20
STRUCTURE NO. 010-0058

NAME PLATE
See Std. 515001

*The existing name plate shall be cleaned and relocated next to the new name plate. Both name plates shall be attached to the backside of the 8" rail element in the location shown. Cost included with Name Plates.

LOADING HS20-44

No allowance for future wearing surface

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f'_c = 3,500$ psi (Concrete Structures)
 $f_y = 60,000$ 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 Relaxation Strands)
 $f'_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ Low Relaxation Strands)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing Superstructures	Each	1
Concrete Removal	Cu. Yd.	1.1
Concrete Structures	Cu. Yd.	3.4
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1344
Reinforcement Bars, Epoxy Coated	Pound	2020
Steel Railing, Type SM	Foot	85
Name Plates	Each	1
Bar Splicers	Each	42
Concrete Wearing Surface, 5"	Sq. Yd.	150
Protective Coat	Sq. Yd.	150
Bridge Deck Grooving	Sq. Yd.	150

GENERAL NOTES

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.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. (Top surface, to which waterproofing will be applied, shall be kept free of sealer). The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

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 for removal and replacement of the superstructure.

No drilling will be permitted into the existing precast deck beams to be used for Stage I traffic lane or the proposed deck beams.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, 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 beams. To distribute load to multiple beams and protect the concrete, 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. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

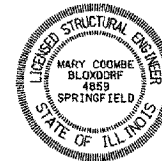
Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

Concrete Removal and Structural Repair of Concrete shall occur during its respective stage construction and prior to placement of the new deck beams.

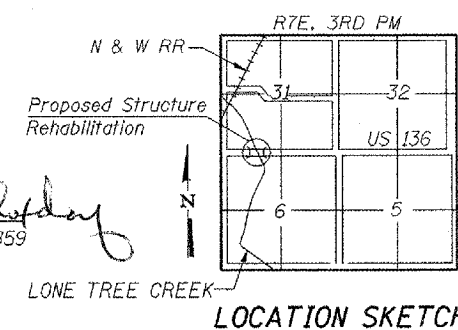
Reinforcement bars designated (E) shall be epoxy coated. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

INDEX OF SHEETS

- 1) General Plan & Elevation
- 2) Staged Construction
- 3) Temporary Concrete Barrier For Staged Construction
- 4) Superstructure
- 5) Beam Details
- 6) Type SM Steel Bridge Rail Side Mounted With Concrete Wearing Surface
- 7) Abutment Details
- 8) Bar Splicer Assembly Details



Mary Coombe Bloxdorf
ILLINOIS STRUCTURAL NO. 4859
EXPIRES: 11/30/08
DATE: 12-5-06



ILLINOIS DEPARTMENT OF TRANSPORTATION	
SHEET TITLE GENERAL PLAN & ELEVATION	
PROJECT US ROUTE 136 OVER LONE TREE CREEK FAP ROUTE 709 SECTION 104BR-1 CHAMPAIGN COUNTY STATION 1458+06.74 STRUCTURE NUMBER 010-0058	PROJECT NO. 03061-8 DATE 12/04/06 DRAWN BY TFG CHECKED BY BD/REG/MCB DRAWING NO. 1
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois Design Firm License No. 184-002703	
OF 8 SHTS	