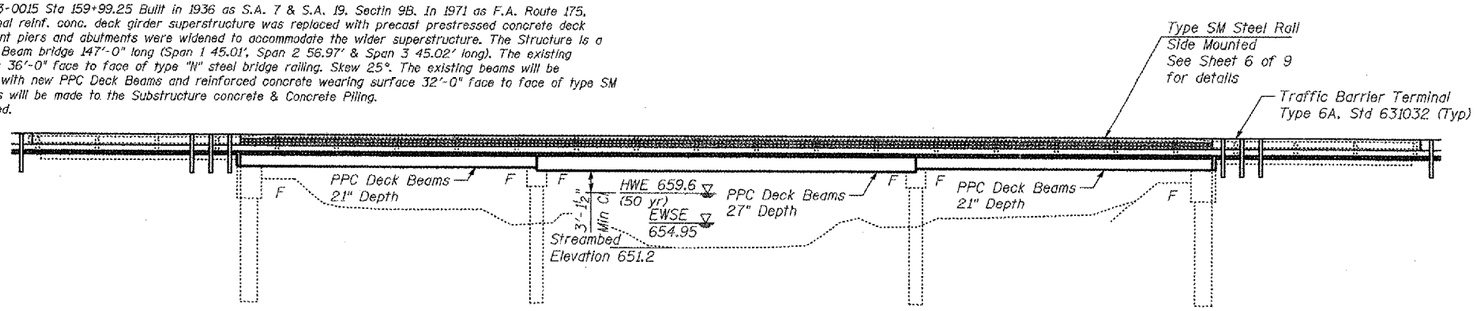
Bench Mark: Chiseled square located on the southwest wingwall of SN 023-0015, Sta 159+34.68, 19.1' RT, Elevation 665.20

Existing Structure: 023-0015 Sta 159+99.25 Built in 1936 as S.A. 7 & S.A. 19, Sectin 9B. In 1971 as F.A. Route 175, Section 9BR the original reinf. conc. deck girder superstructure was replaced with precast prestressed concrete deck beams and the pile bent piers and abutments were widened to accommodate the wider superstructure. The Structure is a three span PPC Deck Beam bridge 147'-0" long (Span 1 45.01', Span 2 56.97' & Span 3 45.02' long). The existing horizontal clearance is 36'-0" face to face of type "M" steel bridge railing. Skew 25°. The existing beams will be removed and replaced with new PPC Deck Beams and reinforced concrete wearing surface 32'-0" face to face of type SM Bridge Railing. Repairs will be made to the Substructure concrete & Concrete Piling.
Traffic will be detoured.
No Salvage

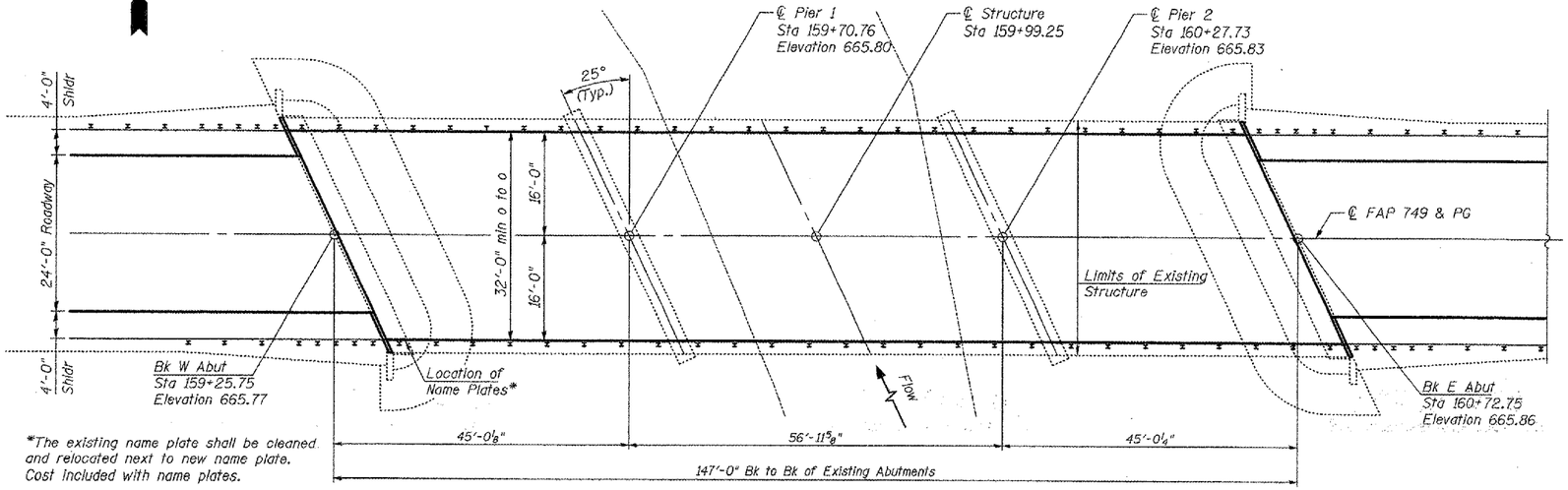
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 749	9BR	EDGAR	31	8
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT--		

SHEET NO. 1
9 SHEETS

Contract #70389



ELEVATION



*The existing name plate shall be cleaned and relocated next to new name plate. Cost included with name plates.

PLAN

GENERAL NOTES

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.

Plan dimensions and details relative to existing plans are subject to routine variations. The contractor shall 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 work, however, the contractor will be paid for the quantity actually furnshed 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. 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.

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the existing or new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures.

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 prior to placement of the new deck beams.

APPROVED
For Structural Adequacy Only
Ralph E Anderson
Engineer of Bridges & Structures

STATION 159+99.25
REBUILT 20__ BY
STATE OF ILLINOIS
FAP RTE 749 SEC. 9BR
LOADING HS20
STRUCTURE NO. 023-0015

NAME PLATE
See Std. 515001

LOADING HS20-44
No Allowance for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS -EXISTING
f'c = 1,400 psi (Substructure)
fs = 20,000 psi (Reinforcement)

FIELD UNITS -PROPOSED
f'c = 3,500 psi (Substructure)
f'c = 5000 psi (Concrete Wearing Surface)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ Low Relax Strands)
fsi = 201,960 psi (½"ϕ Low Relax Strands)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	2840		2840
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1817		1817
Reinforcement Bars, Epoxy Coated	Pound	6600		6600
Steel Railing, Type SM	Foot	294		294
Name Plates	Each	1		1
Concrete Wearing Surface, 5"	Sq. Yd.	520		520
Protective Coat	Sq. Yd.	520		520
Bridge Deck Grooving	Sq. Yd.	520		520
Structural Repair of Concrete (Depth Less Than 5")	Sq. Ft.		12	12
Concrete Removal	Cu. Yd.		0.7	0.7
Concrete Structures	Cu. Yd.		0.8	0.8
Asbestos Bearing Pad Removal	Each		48	48

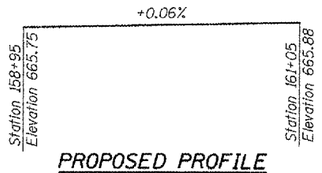
INDEX OF SHEETS

WATERWAY INFORMATION

Drainage Area = 19.4 sq mi Low Grade Elev. 665.51 @ Sta. 162+25.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1548	412	412	658.8	0.6	0.6	659.4	659.4
Design	50	2453	501	501	659.6	1.0	1.0	660.6	660.6
Base	100	2851	546	546	660.0	1.2	1.2	661.2	661.2
Max. Calc.	500	3812	628	628	660.7	1.6	1.6	662.3	662.3

10 yr velocity thru Existing Bridge = 3.8 fps
10 yr velocity thru Proposed Bridge = 3.8 fps

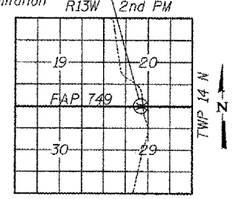


PROPOSED PROFILE

LICENSED STRUCTURAL ENGINEER
MARY COOMBE BLOXDORF
4859
SPRINGFIELD
STATE OF ILLINOIS

ILLINOIS STRUCTURAL NO. 4859
EXPIRES: 11/30/08
DATE: 8/31/07

Proposed Structure
Rehabilitation



LOCATION SKETCH

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE
GENERAL PLAN & ELEVATION

PROJECT
IL 133 OVER HICKORY GROVE CREEK
FAP 749 SECTION 9BR
EDGAR COUNTY
STATION 159+99.25
STRUCTURE NUMBER 023-0015

PROJECT NO. 03061-11
SCALE
DATE 8/31/07
DRAWN BY TFG/CFC
CHECKED BY KPS/BD/MCB
DRAWING NO. 1

COOMBE-BLOXDORF P.C.
Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

OF 9 SHTS

PLOT DATE = 08/31/2007
FILE NAME = c:\projects\023-0015-sht1-spans.dgn
PLOT SCALE = 108.0000 '/ IN.
USER NAME = TFG