

Benchmark: Chiseled "□" on N.E. corner of northeast abut. 15' Rt. Sta. 149+93, Elev. 394.00

Existing Structure: SN 093-0005 Built 1934 Sta. 149+30.00 as SBI Route 138. Rebuilt 1971 Sta. 149+30.00 as SBI Route 138, Section 101BR. Structure is two span precast prestressed concrete deck beam superstructure 128'-3 3/4" Bk. to Bk. abutments and 33'-0" out to out deck on closed concrete abutments supported by untreated timber piles and solid concrete pier on spread footing embedded 6" into rock. 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

**LOADING HS20-44**

No allowance for future wearing surface

**DESIGN SPECIFICATIONS**

2002 AASHTO

**DESIGN STRESSES**

**FIELD UNITS-EXISTING**

$f_c = 1,000$  psi  
 $f_y = 20,000$  psi (reinforcement)

**FIELD UNITS-PROPOSED**

$f'_c = 5,000$  psi (concrete wearing surface)  
 $f_y = 60,000$  psi (reinforcement)

**PRECAST PRESTRESSED UNITS**

$f_c = 5,000$  psi  
 $f_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi (1/2"  $\phi$  Low Relaxation Strands)  
 $f_{si} = 201,960$  psi (1/2"  $\phi$  Low Relaxation Strands)

**PRECAST UNITS**

$f'_c = 4,500$  psi  
 $f = 60,000$  psi

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	101B-1	WABASH	34	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 74003

**GENERAL NOTES**

Plan dimensions and details relative to the 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. 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.

Layout of Slope Protection System may be varied to suit ground conditions in field as directed by the Engineer.

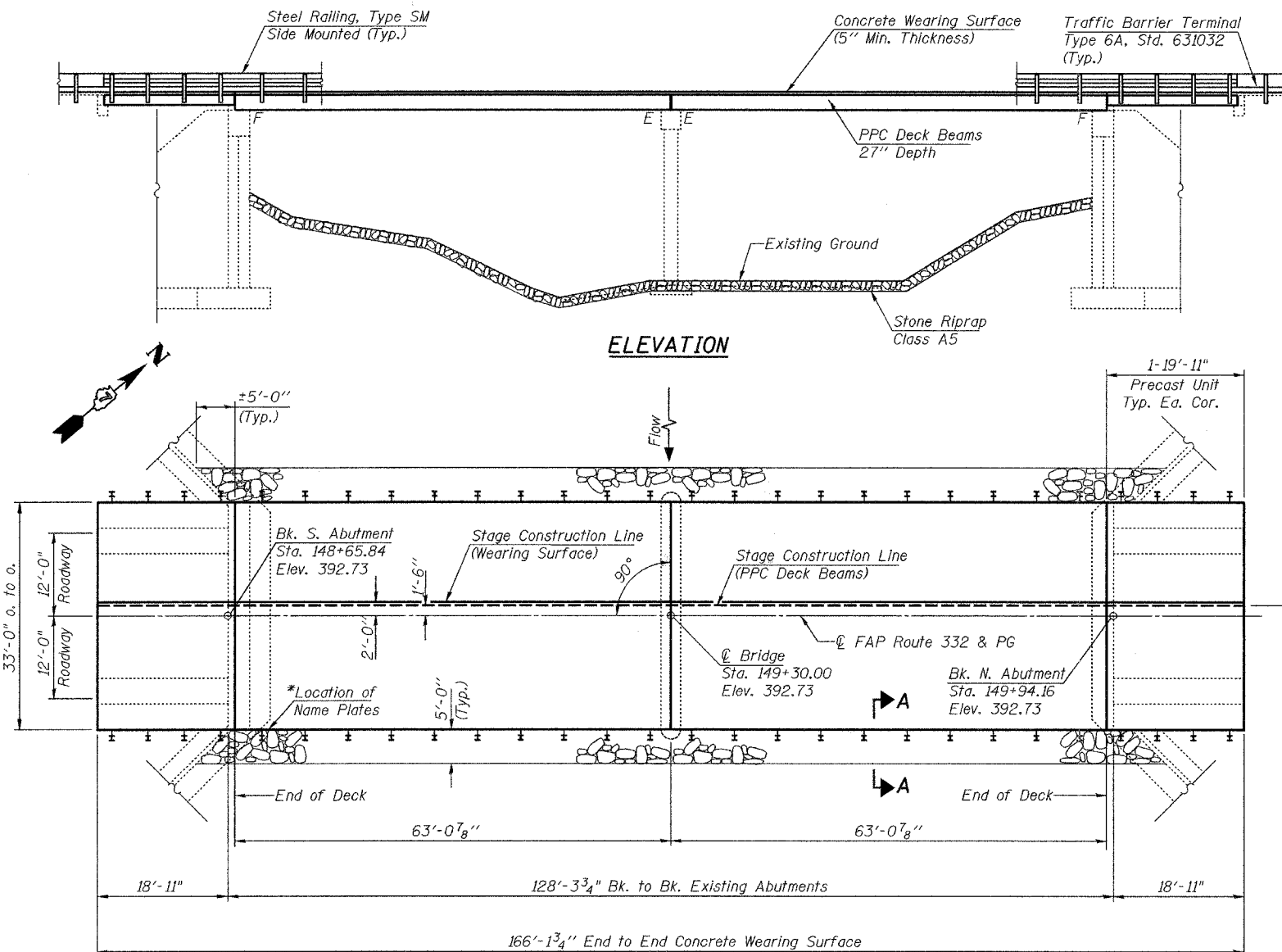
Reinforcement bars designated (E) shall be epoxy coated.

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

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	4157		4157
Reinforcement Bars, Epoxy Coated	Pound	7590		7590
Steel Railing, Type SM	Foot	332		332
Name Plates	Each	1		1
Bar Splicers	Each	168		168
Concrete Wearing Surface, 5"	Sq. Yd.	613		613
Protective Coat	Sq. Yd.	613		613
Bridge Deck Grooving	Sq. Yd.	611		611
Preformed Joint Strip Seal	Foot	33		33
Precast Concrete Bridge Slab	Sq. Ft.	299		299
** Removal of Existing Precast Concrete Unit	Sq. Ft.	299		299
Stone Riprap Class A5	Sq. Yd.			603
Filter Fabric	Sq. Yd.			603
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.		7	7
Epoxy Crack Injection	Foot		45	45

\*\* Removal of existing Precast Concrete Unit shall be performed according to the requirements of Article 501 of The Standard Specifications.

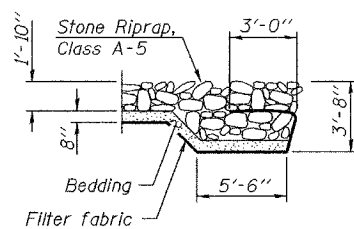


STATION 149+30.00  
REBUILT 20... BY  
STATE OF ILLINOIS  
F.A.P. RTE. 332 SEC. 101B-1  
LOADING HS20  
STRUCTURE NO. 093-0005

**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.



**SECTION A-A**

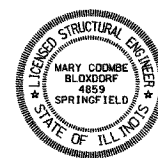
**PLAN**

**INDEX OF SHEETS**

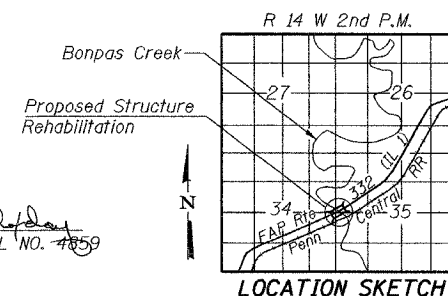
- 1) General Plan & Elevation
- 2) Staged Construction
- 3) Temporary Concrete Barrier For Stage Construction
- 4) Superstructure
- 5) Preformed Joint Strip Seal
- 6) Approach Beam Details
- 7) Beam Details
- 8) Steel Railing, Type SM With Concrete Wearing Surface
- 9) Abutment & Pier Details
- 10) Abutment Repair Details
- 11) Bar Splicer Assembly Details

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



*Mary Coombe Bloxdorf*  
ILLINOIS STRUCTURAL NO. 4859  
EXPIRES: 11/30/08  
DATE: 3/15/07



ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE: GENERAL PLAN & ELEVATION

PROJECT: FAP 332 OVER BONPAS CREEK  
FAP ROUTE 332 (IL 1) SECTION 101B-1  
WABASH COUNTY  
STATION 149+30  
SN 093-0005

PROJECT NO. 06026  
SCALE  
DATE: 03/15/07  
DRAWN BY: TFG  
CHECKED BY: GS/CME/MCB  
DRAWING NO.

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

1 OF 11 SHTS

PLOT DATE = 03/15/2007  
FILE NAME = \\ibp\lga093-0005-wnt-l-CP-E.dgn  
PLOT SCALE = 108.0000 1" = 10'  
USER NAME = TFG