Bench Mark: Chiseled square on top southeast wingwall.
Station 197+31.18, 23.6' left, Elevation 473.13

Existing Bridge: The existing bridge is a three span PPC deck beam bridge built in 1965 as F.A. F-14(59), Section 23-BR-2. The substructure consists of pile cap abutments and solid wall piers, supported on concrete piles and timber piles, respectively. The back to back abutment length is 136'-7" and the out to out bridge width is 46'-0". The existing superstructure is to be removed and replaced. Traffic to be maintained with staged construction.

No salvage

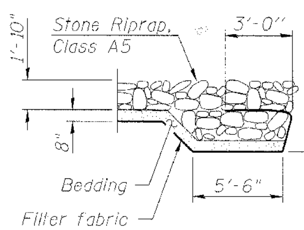
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

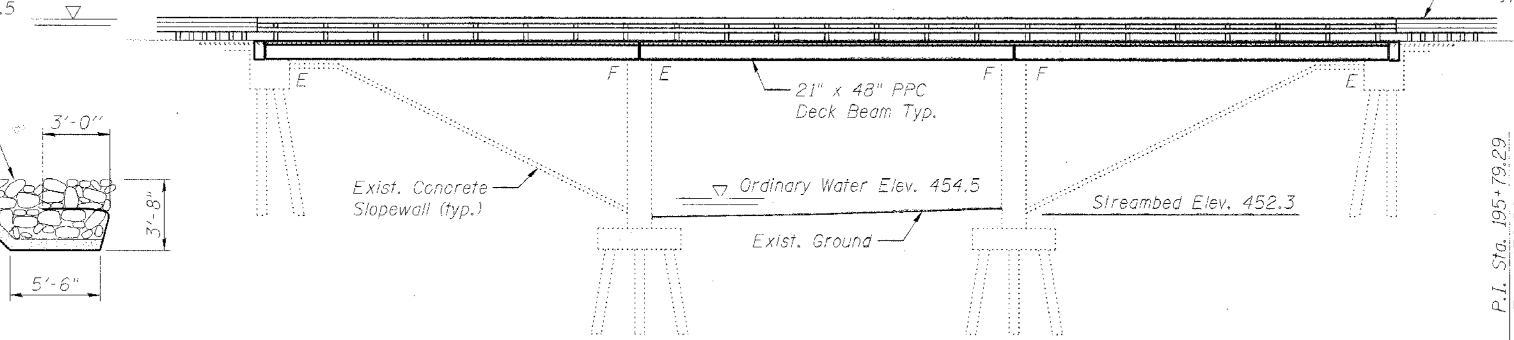
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 322	(23-BR-2)BR	FAYETTE	19	9
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

SHEET NO. 1
11 SHEETS

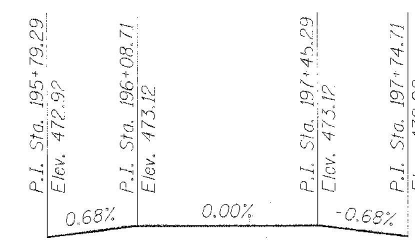
Contract # 94968



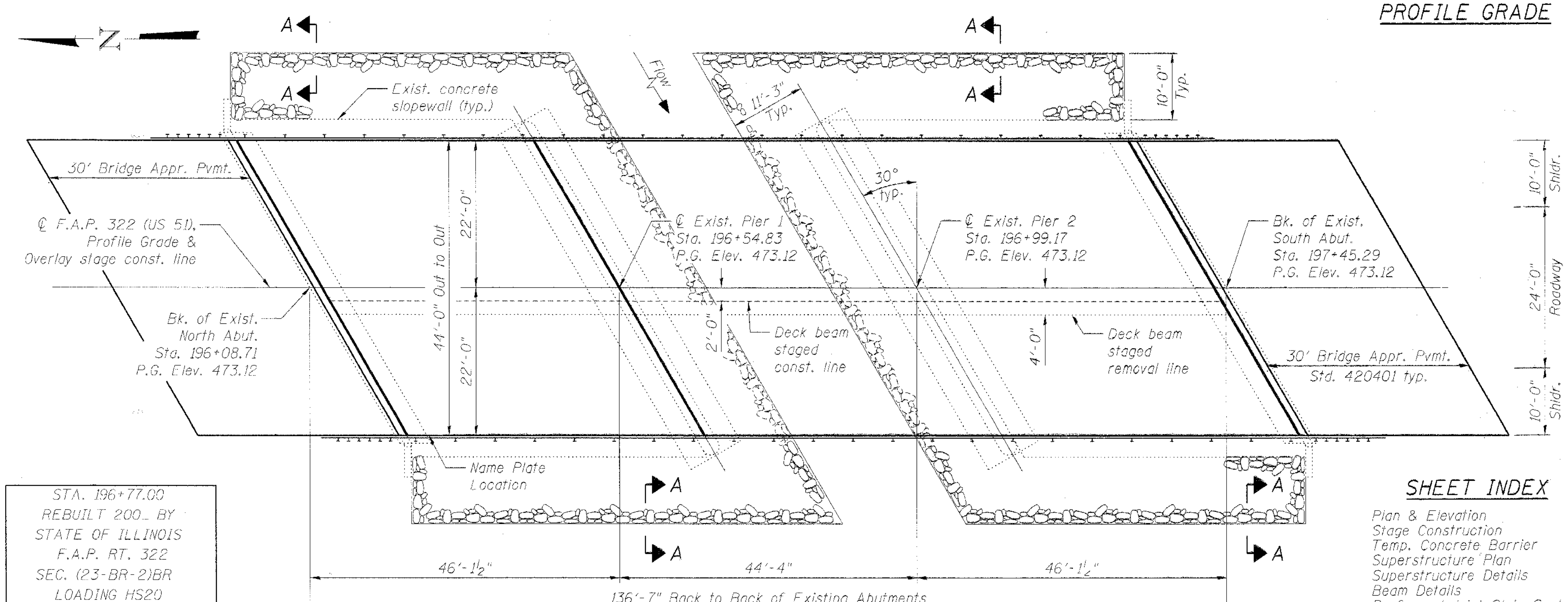
SECTION A-A



ELEVATION



PROFILE GRADE



PLAN

STA. 196+77.00
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 322
SEC. (23-BR-2)BR
LOADING HS20
STR. NO. 026-0037

NAME PLATE
See Std. 515001

GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

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.

Existing name plate shall be cleaned and relocated adjacent to the new name plate. Cost included with Name Plates.

Concrete sealer shall be applied to the exterior vertical face of each fascia beam. Cost included with Precast Prestressed Concrete Deck Beams (21" Depth).

All construction joints shall be bonded.

~~No work shall be allowed in the stream.~~

Repair of the substructure shall be completed prior to placement of the new 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. If cranes or other heavy equipment will be placed on the new beams prior to placement of the concrete wearing surface, it shall be done after the dowel rods are grouted and cured for 24 hours minimum and prior to grouting the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	L. Sum	1		1
Concrete Removal	Cu. Yd.		6.6	6.6
Concrete Structures	Cu. Yd.		10.3	10.3
Bridge Deck Grooving	Sq. Yd.	620		620
Protective Coat	Sq. Yd.	650		650
Concrete Wearing Surface, 5"	Sq. Yd.	650		650
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	5827		5827
Reinforcement Bars, Epoxy Coated	Pound	8430	1350	9780
Steel Railing, Type SM	Foot	270		270
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	153		153
Stone Riprap Class A5	Sq. Yd.			384
Filter Fabric	Sq. Yd.			384
Structural Repair of Concrete (Depths Equal to or Less than 5 Inches)	Sq. Ft.		29	29
Bar Splicers	Each	136	116	252
Asbestos Bearing Pad Removal	Each	78		78

SHEET INDEX

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS

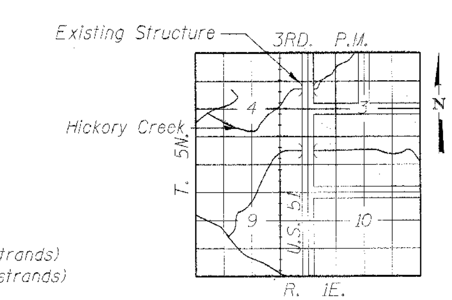
f'c = 5000 psi
f'ci = 4000 psi
f's = 270,000 psi (1/2" ϕ low relax strands)
f'si = 202,000 psi (1/2" ϕ low relax strands)

WATERWAY INFORMATION

High water and ordinary water elevations taken from existing bridge plans dated August 18, 1964.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = .075
Site Coefficient (S) = 1.0



LOCATION SKETCH

DESIGNED MBH	
CHECKED NRF	
DRAWN MBH	
CHECKED NRF	

200
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

Reginald H Benton
8/23/2007 EXP 11/30/08

PLAN AND ELEVATION
US 51 / HICKORY CREEK
F.A.P. ROUTE 322
SEC. (23-BR-2)BR
FAYETTE COUNTY
STA. 196+77.00
SN 026-0037