

BM: Brass Disk W190 on top of parapet on NW corner bridge
Str #037-0131, Sta 666+04.05, Elev. 635.18

EXISTING STRUCTURE:

The original structure, SN 037-0053, built in 1921 as SBI Rt. 7, Sec 6-B, 6B-I-1, was replaced in 1980 with PPC Deck Beams and new substructure, SN 037-0131 built as FA Rt 8, Sec 6BR, Sta 666+69.05. The existing three span bridge is 134'-4 1/2" back to back abutments and the existing deck is 42'-0" out to out. The substructure consists of open type abutments and two solid stem pile bent piers.

The existing superstructure is to be replaced with PPC Deck Beams and 5" (Min) Concrete Wearing Surface.

Traffic shall be maintained by utilizing stage construction.

No salvage

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1247	*	HENRY	80	31
* (6BR)D				

CONTRACT NO. 64D10

SHEET NO. 1
OF 16 SHEETS

GENERAL NOTES

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

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.

No in-stream work will be allowed on this project.

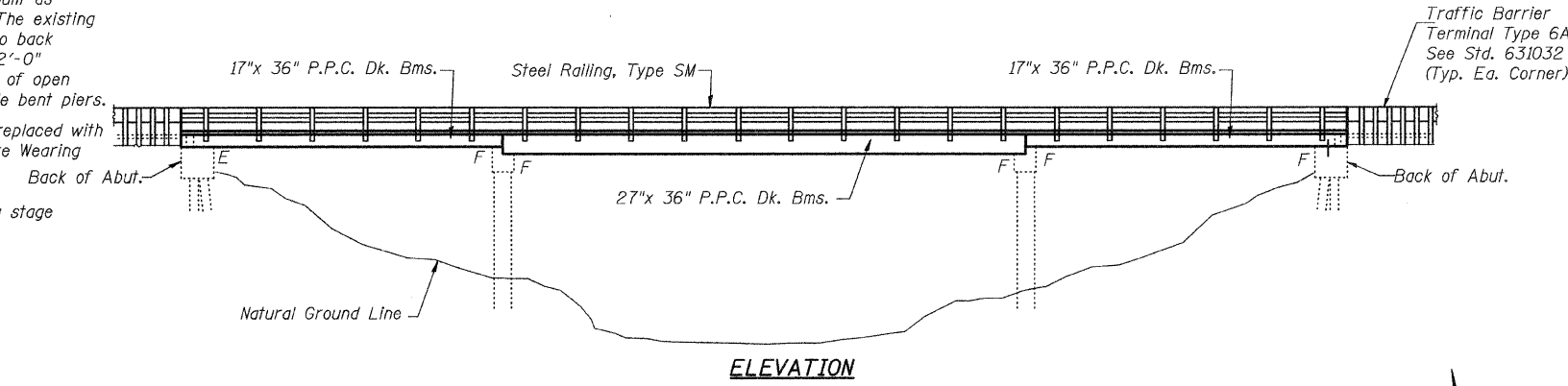
The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for new profile grade and beam camber.

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.

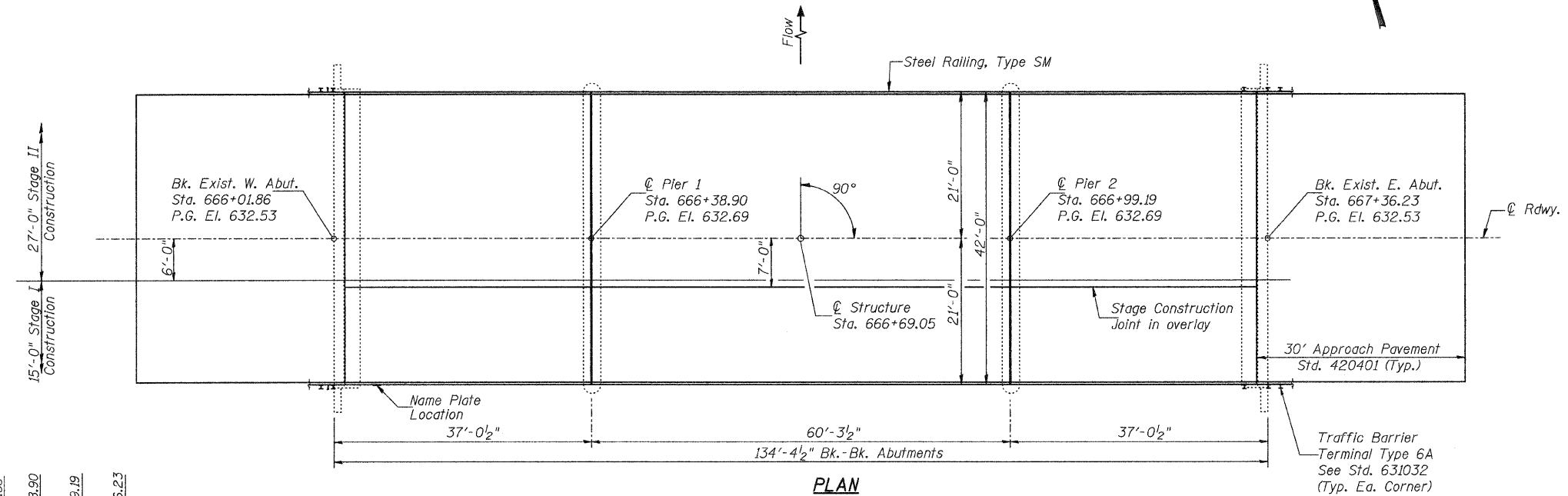
Repair of the substructure shall be completed prior to placement of the new deck beams.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of heavy equipment on the new or existing 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.

Reinforcement bars designated (E) shall be epoxy coated.
Protective Coat shall be applied to the top and edges of the concrete wearing surface.



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures	Each	1	-	1
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2,975	-	2,975
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	2,529	-	2,529
Protective Coat	Sq. Yd.	625	-	625
Reinforcement Bars, Epoxy Coated	Pound	7,750	1,290	9,040
Steel Railing, Type SM	Foot	269	-	269
Concrete Wearing Surface, 5"	Sq. Yd.	613	-	613
Bridge Deck Grooving	Sq. Yd.	583	-	583
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	-	557	557
Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	-	2	2
Name Plates	Each	1	-	1
Bar Splicers	Each	132	12	144
Asbestos Bearing Pad Removal	Each	14	-	14
Concrete Structures	Cu. Yd.	-	5.2	5.2
Concrete Removal	Cu. Yd.	-	4.0	4.0
Preformed Joint Strip Seal	Foot	42	-	42

PROFILE GRADE

V.P.T. Sta. 666+01.86	Elev. 632.53
V.P.T. Sta. 666+38.90	Elev. 632.69
V.P.T. Sta. 666+99.19	Elev. 632.69
V.P.T. Sta. 667+36.23	Elev. 632.53

PROFILE GRADE

STATION 666+69.05
REBUILT 200 BY
STATE OF ILLINOIS
F.A.S. 1247 SEC. (6BR)D
LOADING HS20
STRUCTURE NO. 037-0131

NAME PLATE
See Std. 515001

Attach new name plate to back side of 8" rail element. Clean and re-locate existing name plate adjacent to new name plate. Cost included in the cost of "Name Plates".

DESIGNED	BAN
CHECKED	JEH
DRAWN	TC/TD
CHECKED	BAN

LOADING HS20-44
Allow 50#/Sq. Ft. future wearing surface
DESIGN SPECIFICATIONS
2002 AASHTO

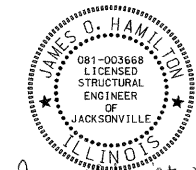
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 p.s.i.
f'c = 5,000 p.s.i. (Concrete Wearing Surface)
fy = 60,000 p.s.i. (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 5,000 p.s.i.
f'ci = 4,000 p.s.i.
f's = 270,000 p.s.i. (1/2" φ low relaxation strands)
f'si = 201,960 p.s.i. (1/2" φ low relaxation strands)

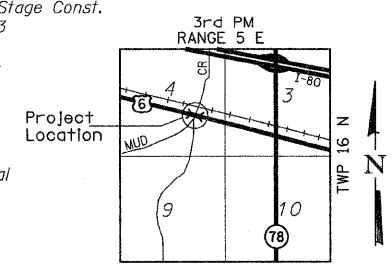
INDEX OF SHEETS

- General Plan
- Stage Construction Details
- Temporary Concrete Barrier For Stage Const.
- Deck Beam Details - Spans 1 & 3
- Deck Beam Details - Span 2
- Overlay Details & Typical Sections
- Preformed Joint Strip Seal
- Steel Railing, Type SM
- Superstructure Details
- W. Abut Repairs & Conc. Removal
- E. Abut Repairs & Conc. Removal
- Pier 1 Repairs
- Pier 2 Repairs
- Abutment Details
- Pier Details
- Bar Splicer Assembly Details

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



James D. Hamilton
9/15/07
Expires 11/30/08



LOCATION SKETCH

GENERAL PLAN
F.A.S. 1247 (U.S. ROUTE 6)
OVER MUD CREEK
SECTION (6BR)D
HENRY COUNTY
STATION 666+69.05
STR. NO. 037-0131

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: _____ Date: _____