

Benchmark: Chiseled "□" on top of S.W. Abutment Cap, El. 98.05
 Existing Structure: S.N. 102-0018 was originally built as S.B.I. Route 117 Section 113
 In 1928 at Sta. 15+45. The original structure was a single span R.C. Deck Girder
 with R.C. Closed Abutments. In 1979, the superstructure was removed and replaced
 with P.P.C. Deck Beams under F.A.P. 702 Section (113B)I at Sta. 15+45.
 Proposed Improvement: Existing P.P.C. Deck Beams are to be removed and replaced and the
 substructure repaired. Traffic to be maintained utilizing stage construction.
 No Salvage

Note: These plans have been developed in accordance with the
 September 14, 2006 memo to all Deputy Directors of Highways
 from Milton R. Sees by Ralph E. Anderson. Per the memo, the
 existing structure was inspected and analyzed for the proposed
 Stage I Traffic and determined to be adequate. However, the
 remaining life of the structure was not established. Therefore,
 verification of the structural adequacy of the existing structure
 is required prior to the start of construction.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 702	(113B)I	WOODFORD	38	10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
Contract No. 68635				

SHEET NO. 1
OF 14 SHEETS

GENERAL NOTES

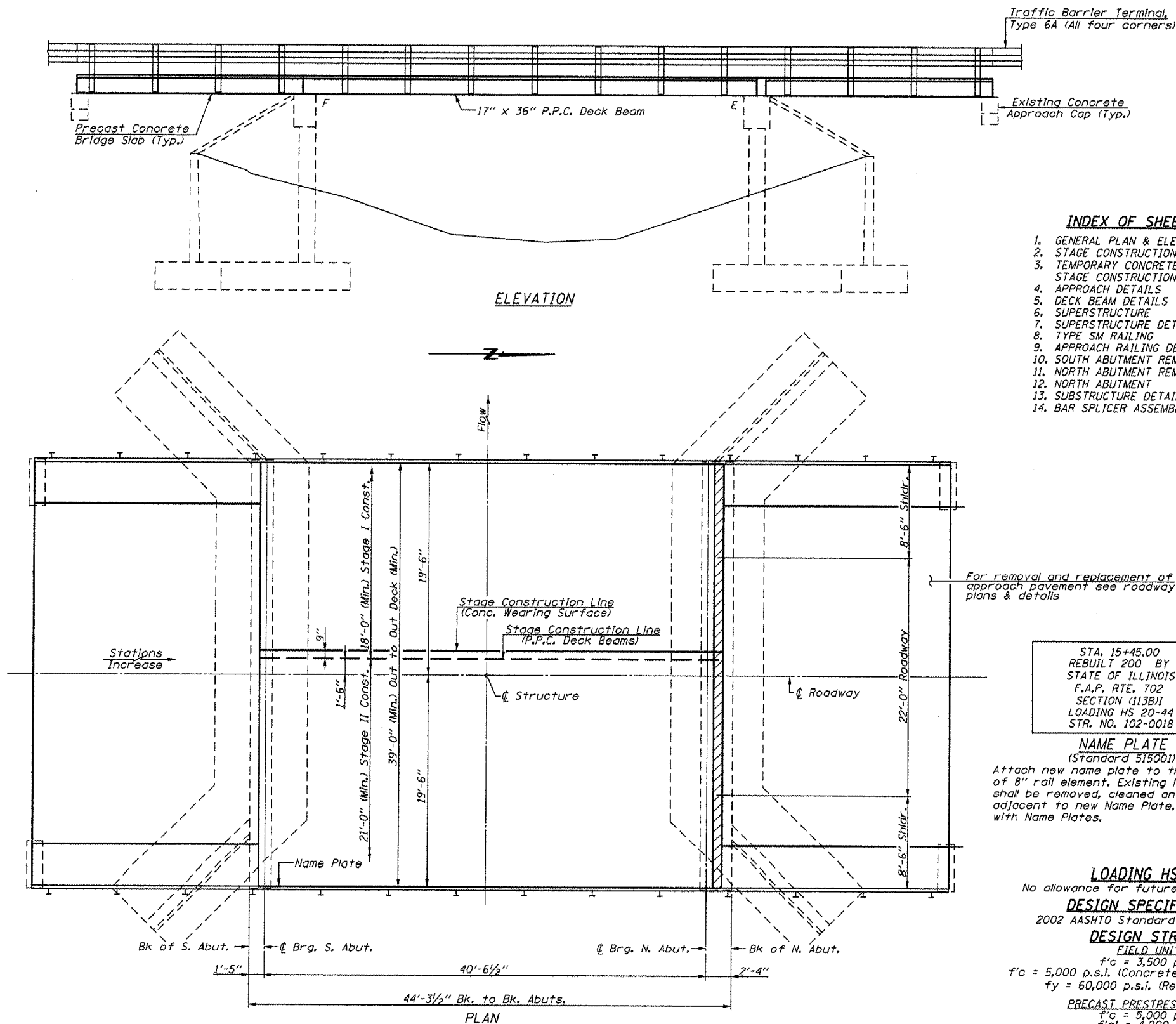
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility 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 or a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
 All construction joints shall be bonded.
 The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to 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 minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
 The Contractor is advised that the existing P.P.C. Deck Beams are in a deteriorated condition with reduced load bearing capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removing and replacement of the superstructure.
 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 insure 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.
 No in-stream work will be allowed on this project.
 All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Preformed Joint Strip Seal.
 Repairs of abutments shall be completed prior to placement of the new deck beams.

INDEX OF SHEETS

1. GENERAL PLAN & ELEVATION
2. STAGE CONSTRUCTION DETAILS
3. TEMPORARY CONCRETE BARRIER STAGE CONSTRUCTION
4. APPROACH DETAILS
5. DECK BEAM DETAILS
6. SUPERSTRUCTURE
7. SUPERSTRUCTURE DETAILS
8. TYPE SM RAILING
9. APPROACH RAILING DETAILS
10. SOUTH ABUTMENT REMOVAL & REPAIR
11. NORTH ABUTMENT REMOVAL & REPAIR
12. NORTH ABUTMENT
13. SUBSTRUCTURE DETAILS
14. BAR SPLICER ASSEMBLY DETAILS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	181		181
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		2.0	2.0
Concrete Structures	Cu. Yd.		2.6	2.6
Bridge Deck Grooving	Sq. Yd.	172		172
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1627		1627
Reinforcement Bars, Epoxy Coated	Pound	2240	400	2640
Bar Splicers	Each	42	6	48
Steel Railing, Type SM	Foot	165		165
Name Plates	Each	1		1
Epoxy Crack Injection	Foot		30	30
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq. Ft.		15	15
Concrete Wearing Surface, 5"	Sq. Yd.	181		181
Preformed Joint Strip Seal	Foot	41		41
Asbestos Bearing Pad Removal	Each	26		26



For removal and replacement of approach pavement see roadway plans & details

STA. 15+45.00
 REBUILT 200 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 702
 SECTION (113B)I
 LOADING HS 20-44
 STR. NO. 102-0018

NAME PLATE
(Standard 515001)

Attach new name plate to the backside of 8" rail element. Existing Name Plate shall be removed, cleaned and relocated adjacent to new Name Plate. Cost included with Name Plates.

LOADING HS20-44

No allowance for future wearing surface.

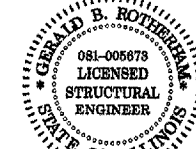
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications.

DESIGN STRESSES

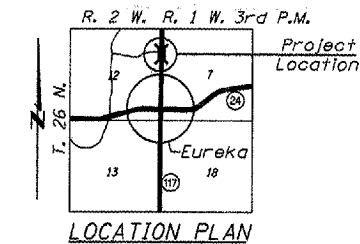
- FIELD UNITS**
 $f'_c = 3,500$ p.s.i.
 $f'_c = 5,000$ p.s.i. (Concrete Wearing Surface)
 $f_y = 60,000$ p.s.i. (Reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ p.s.i.
 $f'_{cl} = 4,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($1/2$ " ϕ low lax strands)
 $f'_{sl} = 201,960$ p.s.i. ($1/2$ " ϕ low lax strands)
PRECAST CONCRETE UNITS
 $f'_c = 4,500$ p.s.i.
 $f'_y = 60,000$ p.s.i. (Reinforcement)

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



Gerald B. Rothbard 12/16/06
 Expiration 11/30/08

GENERAL PLAN AND ELEVATION
 IL ROUTE 117 OVER
 WALNUT CREEK
 F.A.P. RTE. 702 - SECTION (113B)I
 WOODFORD COUNTY
 STA. 15+45.00
 S.N. 102-0018



Designed: G.B.R.
 Checked: M.A.H.
 Drawn: F.L.L.
 Checked: G.B.R.