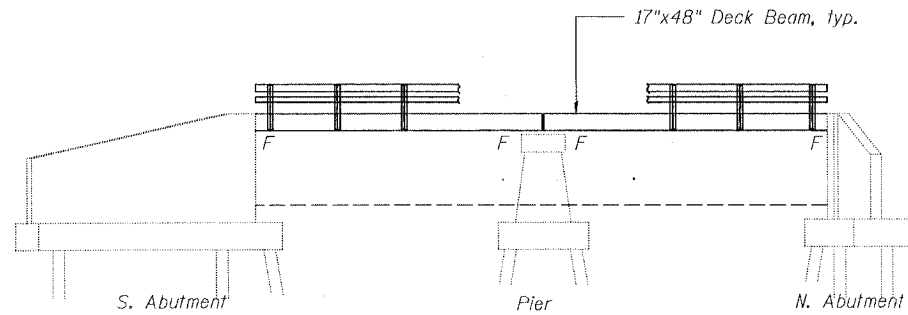


Contract #64A06

Existing Structure:
 Built as S.B.I. Route 23 Sec. 29 Sta. 911+60 in 1926, the original reinforced concrete superstructure was replaced with 17" PPC Deck Beams and the closed abutment substructure was widened in 1971. The superstructure is to be removed and replaced utilizing stage construction. No salvage.



ELEVATION

INDEX OF SHEETS

1. General Plan
2. Stage Construction
3. Type SM Steel Bridge Rail Side Mounted
4. Concrete Wearing Surface
- 5-7. Superstructure Details
8. Pier and Abutment Repairs
9. Temporary Concrete Barrier For Stage Construction
10. Bar Splicer Assembly Details

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

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 for the work.

All Construction joints shall be bonded.

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

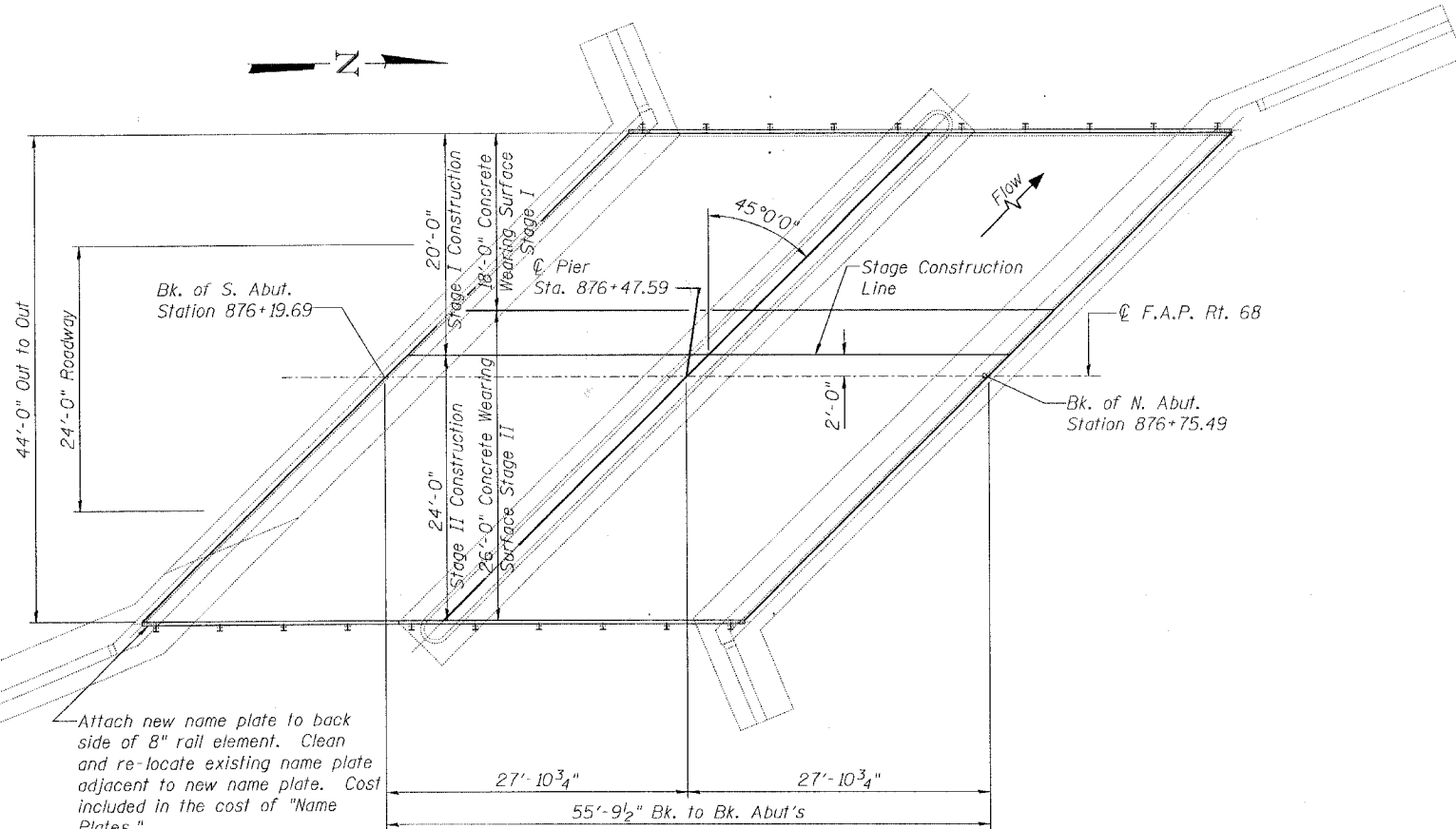
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete 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 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 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 abutments and pier caps shall be completed prior to placement of the new deck beams.

If the Contractor's procedure for existing beam removal or replacement of the 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 new beams prior to placement of the concrete wearing surface, it shall be done after the dowels 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.



PLAN

STATION 876+47.59
 BUILT BY
 STATE OF ILLINOIS
 F.A.P. RTE. 68
 SEC. 29 BR-1
 LOADING HS20
 STR. NO. 019-0007

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."

LOADING HS20-44
 Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
 2002 AASHTO

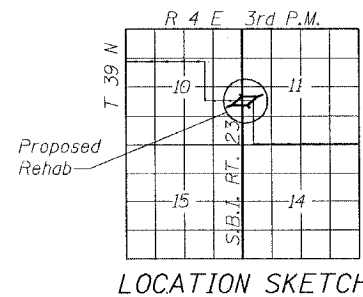
DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax strands)
 $f_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax strands)

NOTE:
 See Roadway plans for profile grade information.



LOCATION SKETCH



Clark Dietz
 Structural Engineer
 Clark Dietz, Inc

DATE: 8/18/2005
 License Expires 11-30-2006

GENERAL PLAN

F.A.P. ROUTE 68 (IL 23)
 SECTION 29 BR-1
 DEKALB COUNTY
 STATION 876+47.59
 STRUCTURE NO. 019-0007



CHAMPAIGN, ILLINOIS
 CHICAGO, ILLINOIS
 EVANSVILLE, INDIANA
 INDIANAPOLIS, INDIANA
 KENOSHA, WISCONSIN
 SPRING GREEN, WISCONSIN

REVISIONS		DRAWING NUMBER
NAME	DATE	
		S-1