

| ROUTE NO.           | SECTION    | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|------------------|--------------|-----------|
| F.A.P. 317          | (45-RB)I-1 | PEORIA           | 82           | 58        |
| FED. ROAD DIST. NO. | ILLINOIS   | FED. AID PROJECT |              |           |

SHEET NO. 2  
OF 14 SHEETS

CONTRACT NO. 68456

**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.  
 $f'_{ci} = 4,000$  p.s.i.  
 $f'_s = 270,000$  p.s.i. ( $1/2$ " low lax strands)  
 $f'_{si} = 201,960$  p.s.i. ( $1/2$ " low lax strands)

**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 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.  
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 3" 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 transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing 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.

All structural steel shall be shop painted with inorganic zinc rich primer per A.A.S.H.T.O. M300, Type 1. Cost Included with Preformed Joint Strip Seal.

The cost for all grading and shaping for riprap installation shall be included in the cost for Stone Dumped Riprap, Class A5.

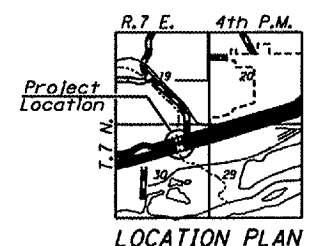
**TOTAL BILL OF MATERIAL**

| ITEM   | UNIT    | SUPER | SUB  | TOTAL |
|--|---------|-------|------|-------|
| Protective Coat  | Sq. Yd. | 578   |      | 578   |
| Removal of Existing Superstructure                             | Each    | 1     |      | 1     |
| Concrete Removal   | Cu. Yd. |       | 5.5  | 5.5   |
| Concrete Structures  | Cu. Yd. |       | 6.0  | 6.0   |
| Bridge Deck Grooving   | Sq. Yd. | 542   |      | 542   |
| Precast Prestressed Concrete Deck Beams (21")                  | Sq. Ft. | 5117  |      | 5117  |
| Reinforcement Bars, Epoxy Coated                               | Pound   | 7300  | 1010 | 8310  |
| Bar Splicers   | Each    | 126   | 12   | 138   |
| Steel Railing, Type SM   | Foot    | 244   |      | 244   |
| Name Plates  | Each    | 1     |      | 1     |
| Concrete Wearing Surface 5"                                    | Sq. Yd. | 569   |      | 569   |
| Preformed Joint Strip Seal                                     | Foot    | 90    |      | 90    |
| Asbestos Bearing Pad Removal                                   | Each    | 90    |      | 90    |
| Structural Repair of Concrete (Depth Equal to or Less Than 5") | Sq. Ft. |       | 14   | 14    |
| Stone Dumped Riprap, Class A5                                  | Ton     |       |      | 355   |

STA. 496+86.55  
REBUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. RTE. 317  
SECTION (45-RB)I-1  
LOADING HS 20-44  
STR. NO. 072-0136

**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.



**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 24 OVER**  
**LITTLE LOMARSH CREEK**  
**F.A.P. RTE. 317 - SECTION (45-RB)I-1**  
**PEORIA COUNTY**  
**STA. 496+86.55**  
**S.N. 072-0136**