# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

## 

CONTRACT NO. 66604

Backfill with uncompacted Porous Granular Embankment with a gradation of CA-5 or CA-7 by Bridge Contractor after superstructure is in place. Limits shall be 12" from

Excavation for placing Porous Granular Embankment is paid for as Structure Excavation— Geotechnical fabric for french drains\*

the end of each wingwall.

A 6" \$\phi\$ perforated drain pipe shall be situated at the bottom of an approx. 2' x 2' area of Porous Granular Embankment. The 2' x 2' area shall be wrapped completely in geotechnical fabric for french drains. Extend pipe parallel with the cap until intersecting with the sideslope.\* Pipes shall drain onto concrete headwalls (Article 601.05 of the Std. Specification and Highway Standard 601101).

# Strip Seal Expansion Joint Standard 420401 Strip Seal Expansion Joint See Dwg. 7 of 15 Concrete Wearing Surface, 5" and varies 21" PPC Deck Beams Existing Concrete Slope Wall to Remain be Existing Concrete Piles

# SECTION THRU ABUTMENTS (© Rt. Angles)

\* Cost of drain pipe and fabric included in the cost of Porous Granular Embankment, Concrete Headwalls paid for separately, see Roadway Plans.

### GENERAL NOTES

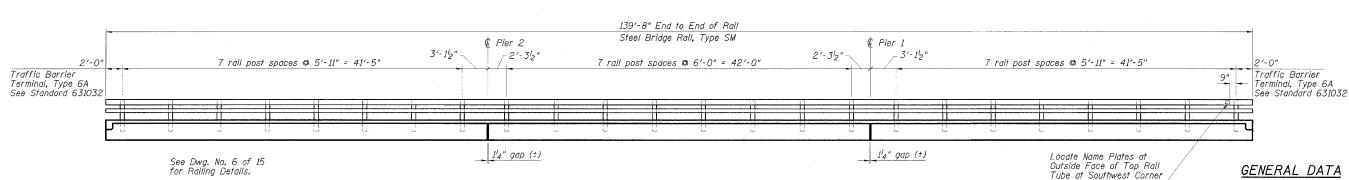
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- 2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions 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.
- 3. All construction joints shall be bonded.
- 4. Bridge Seat Seater shall be applied to abutment bearing seats where formed concrete repairs are performed.
- All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300 Type 1 unless noted otherwise.
- 6. Side retainers shall be AASHTO M270 Grade 36 minimum.
- 7. No work will be allowed in the stream.
- 8. 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.
- 9. 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. 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. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams. The side retainers shown in the drawing no. 11 of 15 shall be installed once the beams are in their final locations. These side retainers may also be used to provide the temporary lateral restraint required during construction. This work shall be considered included in the cost of Precast Prestressed Concrete Deck Beams.

- 10. Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- 11. 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.
- 12. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
- Repair of the substructure shall be completed prior to placement of the new deck beams.

of Bridge

### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		7.6	7.6
Structure Excavation	Cu. Yd.		142	142
Concrete Structures	Cu. Yd.		11.2	11.2
Bridge Deck Grooving	Sq. Yd.	466		466
Concrete Wearing Surface, 5"	Sq. Yd.	497		497
Bridge Seat Sealer	Sg. Ft.		56	56
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq. Ft.		1152.2	1152.2
Precast Prestressed Concrete Deck Beams (21" Depth)	Sg. Ft.	4462		4462
Reinforcement Bars, Epoxy Coated	Pound	6400	1160	7560
Steel Bridge Rail, Type SM	Foot	280		280
Name Plates	Each	1		1
Porous Granular Embankment	Cu. Yd.		142	142
Epoxy Crack Sealing	Foot		212	212
Strip Seal Expansion Joint Assembly	Foot	78		78
Asbestos Bearing Pad Removal	Each		60	60
Bar Splicers	Each		64	64
Protective Coat	Sq. Yd.	497		497
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ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 5/05
DRAWN BY: CJG 5/05

CHECKED BY: ELH 10/05 APPROVED BY: RDP 10/05 RAIL ELEVATION

(Showing Inside Face of South Railing; North Railing Similar)

GENERAL DATA

IL 9 OVER BIG FOUR DITCH

FAP ROUTE 697-SECTION 17BR

FORD COUNTY

STATION 923+87.00

STRUCTURE NO. 027-0068