## INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structure Data
- Top of Deck Elevations 3
- 4 Top of Deck Elevations
- 5 Top of South Approach Slab Elevations
- Top of North Approach Slab Elevations 6
- Superstructure (Plan And Cross Section)
- 8 Superstructure Details
- 9 Integral Abutment Diaphragm Details
- 10 Bridge Approach Slab Details
- 11 Bridge Approach Slab Details
- 12 Framing Plan and Details
- 13 Framing Details
- 14 Moment Tables
- 15 Bearing Details
- 16 South Abutment Details
- 17 North Abutment Details
- 18 Pier 1 Details
- 19 Pier 2 Details

9.0

Stone Riprap

Class A.

- 20 Steel HP Pile Details
- 21 Bar Splicer Assembly And Mechanical Splicer Details

Const. joint

W27 beams (Composite full length)

Bedding

Filter Fabric

Note

22 Subsurface Data Profile

## GENERAL NOTES:

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts  $7_{B}$ "  $\phi$ , holes  $15_{16}$ "  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 60,490 lb (AASHTO M270 Grade 50) Calculated weight of Structural Steel = 6,410 lb (AASHTO M270 Grade 36)

No field welding is permitted except as specified in the contract documents.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of  $l_{B}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

All structural steel shall be galvanized according to the Special Provision "Hot Dip Galvanizing of Structural Steel." Cost included with Furnishing and Erecting Structural Steel.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with a 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.

If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the 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 Structures No. 2.

The finishing machine rails shall be placed on the top of the top flange of the exterior beams within the deck pour. Beam blocks shall be placed between beams at all tie locations in each bay for the full width of the deck pour.

Slipforming of parapets is not allowed.

Granular Backfill

Approach Pavement

Geotechnical Fabric for

French Drains

<u>\*</u>Drainage Aggregate

4" Ø Perforated

pipe underdrain

for Structures

Bk of Abut

10"

888 -

2'-0"

SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

\* Included in the cost of Pipe Underdrains for Structures.

Specifications and Highway Standard 601101).

All drainage system components shall extend to 2'-O'' from the end of each wingwall except an outlet pipe shall extend

until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard

۳ II

11

1 | |

′- 3" ; 1′- 3"

-0'

(See Special Provisions)

Geocomposite

wall drain



Filter Fabric

## SECTION A-A



SECTION B-B

STATION 1440+89.83 BUILT 20 BY STATE OF ILLINOIS F.A.P. RTE 22 SEC 48[(B-1)BR;CR] LOADING HL-93 STR. NO. 048-0095

NAME PLATE See Std. 51500.

| CHASTAIN<br>& ASSOCIATES LLC<br>CONSULTING ENGINEERS | USER NAME = jacobsmr       | DESIGNED - ACB | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | GENERAL STRUCTURE DATA   | F.A.P.                    | SECTION        | COUNTY | TOTAL SH  | HEET |
|--|----------------------------|----------------|-----------|---|--------------------------|---------------------------|----------------|--------|-----------|------|
|  | PLOT TIME = 3:37:16 PM     | CHECKED - JMB  | REVISED - |   |                          | 22                        | 48[(B-1)BR;CR] | KNOX   | 94        | 30   |
|  | PLOT SCALE = 2.0000 '/ in. | DRAWN - RLK    | REVISED - |   | STRUCTURE NU. 048-0095   | CONTR/                    |                |        | T NO. 687 | 758  |
| 184-001397   | PLOT DATE = 5/9/2019       | CHECKED - JMB  | REVISED - |   | SHEET NO. 2 OF 24 SHEETS | ILLINOIS FED. AID PROJECT |                |        | T         |      |

Item

Franular Backfill for Structures

Removal of Existing Structures No. 2

offerdam (Type 2) (Location - 1)

Cofferdam (Type 2) (Location - 2)

Concrete Superstructure (Approach Slab)

Furnishing and Erecting Structural Steel

Reinforcement Bars, Epoxy Coated

Furnishing Steel Piles HP12x53

Furnishing Steel Piles HP12x63

Stone Riprap, Class A4

Structure Excavation

Concrete Structures

Bridge Deck Grooving

Stud Shear Connectors

Seal Coat Concrete

Protective Coat

Concrete Superstructure

Cofferdam Excavation

Filter Fabric

## TOTAL BILL OF MATERIAL

| Unit    | Super  | Sub    | Total  |
|---------|--------|--------|--------|
| Cu, Yd, |        | 70     | 70     |
| Sq. Yd. |        | 1703   | 1703   |
| Sq. Yd. |        | 1703   | 1703   |
| Each    | 1      |        | 1      |
| Cu. Yd. |        | 69     | 69     |
| Cu, Yd, |        | 369    | 369    |
| Each    |        | 1      | 1      |
| Each    |        | 1      | 1      |
| Cu. Yd. |        | 156.1  | 156.1  |
| Cu. Yd. | 146.8  |        | 146.8  |
| Sq. Yd. | 565    |        | 565    |
| Cu. Yd. |        | 92.4   | 92.4   |
| Sq. Yd. | 723    |        | 723    |
| Cu. Yd. | 99.0   |        | 99.0   |
| L. Sum  | 1      |        | 1      |
| Each    | 3402   |        | 3402   |
| Pound   | 62,210 | 14,420 | 76,630 |
| Foot    |        | 310    | 310    |
| Foot    |        | 320    | 320    |
| Foot    |        | 630    | 630    |
| Each    |        | 2      | 2      |
| Each    |        | 2      | 2      |
| Each    | 1      |        | 1      |
| Each    |        | 24     | 24     |
| Each    |        | 24     | 24     |
| Sq. Yd. |        | 66     | 66     |
| Each    |        | 24     | 24     |
| Foot    |        | 133    | 133    |

