**GENERAL NOTES** 

Fasteners shall be high strength bolts. Bolts  $^{7}8$ "  $\phi$ , open holes  $^{15}16$ "  $\phi$ , unless otherwise noted. Calculated weight of Structural Steel: AASHTO M 270 Grade 50 = 303440 lbs

Field welding of construction accessories will not be permitted to beams. Anchor bolts shall be set before bolting diaphragms over supports.

The structural steel bearing plates of the Elastomeric Bearing Assembly hall conform to the requirements of AASHTO M 270 Grade 50.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates. Reinforcement bars shall conform to the requirements of AASHTO M 31 r M 322 Grade 60.

The embankment configuration shown shall be the minimum embankment hat must be constructed prior to construction of the abutments.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $^{l}_{\mathcal{B}}$  inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two  $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The Contractor shall drive one test pile in a permanent location at each substructure as directed by the Engineer before ordering the remainder of piles.

The concrete for bridge floors finished according to Article 503.16 of the Standard Specifications, shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete Concrete Sealer shall be applied to the seat area of the Abutments.

All Construction joints shall be bonded.

The Inorganic zinc rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No 7.5G 4/8. See Special Provisions for "Cleaning and Painting New Metal Structures".

No deck drains will be permitted in the span over tracks or within 10' of crossarms of a railroad pole line.

An unconfined compressive strength of 1.5 tons is required during placement of embankment material.

The piles at the abuments shall be driven through 18" \$\phi\$ pre-cored holes extending o Elev. 601.5 at the W. Abut. and 601.0 at the E. Abut. or to the present ground elevation or whichever occurs first. The piling at the piers shall be driven thru 18"  $\phi$ pre-cored holes extending to Elev 590.04 at pier 1 and 590.34 at pier 2 or to the bottom of existing RCCP storm sewer elevation adjacent to the footing or whichever is lower. The annular spacing around the pile shall be backfilled with dry loose sand. The cost of complying

with these requirements shall be included with driving steel piles. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans at Pier #2, a design submittal including plan details and calculations will be

required for review and acceptance by the Engineer. Drains shall be located clear of all diaphragms.

A cantilevered sheet piling design does not appear feasible at Pier #3, and additional members other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. The Steel H-piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

INDEX OF SHEETS

| 1. | General Plan and Elevation         |
|----|------------------------------------|
| 2. | General Notes and Bill of Material |
| 3. | Footing Layout                     |
| 4. | Top of Slab Elevations             |
|    |                                    |

alignment of pier unless noted

distance along sheeting.

Top of Slab Elevations

Superstructure Superstructure Details

Superstructure Details Neoprene Expansion Joint Details Drainage Scupper, DS-11

Structural Steel Framing Plan Structural Steel Details

Elastomeric Bearing Details, Type II Anchor Bolt Assembly Details

West Abutment

West Abutment Details East Abutment

East Abutment Details Piers 1-3

Bar Splicer Assembly Details

For Location & Elevation

See Structure Over

U.P. R.R. sheet

3'-0" at Rt. <' Borings Borings Slope as required Elastomeric Bearing at ends of piers 6'' Bituminous Coated Aggregate Slope Wall Slope Wall 4"

4'-0'

(V:41) (V:H)

2" P**.**Ĭ.F. all

6" x 6" - W4.0 x W4.0

around pier

Welded Wire Fabric

Station Elevation Station | Elevation 605.3 605. 2+80.82 605.24 605.24 3+81.80 3+81.74 605.13 605,12 4+81.65 4+81.69 605.24

West Rail

EXISTING TOP OF RAIL ELEVATIONS UP R.R.

Bk.

Abut

East Rail

The elevations of the existing top-of-rail profile shall be verified before beginning construction. All discrepencies shall be brought to the attention of the Chief Engineer Bridges and Structures.

Bridge Approach Pavement Bituminous Coated See Standard 420401 Aggregate Slopewall 6" SECTION A-A 2" Neoprene Expansion Joint Backfill with uncompacted Porous Granular Geocomposite

\*Geotechnical Fabric

for French Drains

-\*Drainage Aggregate

Pipe Drain

Wall Drain Porous Granular Embankment (Special) Excavation is paid for as Structure Excavation.

> \*Included in the cost of Pipe Underdrains for Structures 4".

All drainage system components shall extend to 2'-0" 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

SECTION THRU ABUTMENT AND SLOPEWALL 58 lbs. / 100 Sq. Ft. (Typ.)

(Dimensions at Rt. <'s to Bk. of Abutment)

STATE OF ILLINOIS F.A.I. 72 SEC. (84-9-4)A,HBK,BY,BY1 LOADING HS20-44 STR. NO. 084-0514

NAME PLATE See Std. 515001

TOTAL BILL OF MATERIAL

| ITEM   | UNIT    | SUPER | SUB   | TOTAL  |
|--|---------|-------|-------|--------|
| Porous Granular Embankment, Special                      | Cu. Yd. | -     | 146   | 146    |
| Structure Excavation                                     | Cu. Yd. | -     | 591   | 591    |
| Neoprene Expansion Joint 2"                              | Foot    | 83    | -     | 83     |
| Concrete Structures                                      | Cu. Yd. | -     | 450.3 | 450.3  |
| Concrete Superstructure                                  | Cu. Yd. | 296.8 | -     | 296.8  |
| Bridge Deck Grooving                                     | Sq. Yd. | 820   | -     | 820    |
| Protective Coat  | Sq. Yd. | 1171  | -     | 1171   |
| Elastomeric Bearing Assembly, Type II                    | Each    | 10    | -     | 10     |
| Furnishing and Erecting Structural Steel<br>Bridge No. 3 | L. Sum  | 1     | -     | 1      |
| Stud Shear Connectors                                    | Each    | 3825  | -     | 3825   |
| Reinforcement Bars, Epoxy Coated                         | Pound   | 70910 | 66210 | 137120 |
| Slope Wall 4''   | Sq. Yd. | -     | 48    | 48     |
| Bituminous Coated Aggregate Slopewall 6"                 | Sq. Yd. | -     | 604   | 604    |
| Furnishing Steel Piles HP10x57                           | Foot    | -     | 1780  | 1780   |
| Driving Piles  | Foot    | -     | 1780  | 1780   |
| Test Pile Steel HP10x57                                  | Each    | -     | 5     | 5      |
| Temporary Sheet Piling                                   | Sq. Ft. | -     | 956   | 956    |
| Name Plates  | Each    | 1     | -     | 1      |
| Concrete Sealer  | Sq. Ft. | -     | 234   | 234    |
| Drainage Scuppers, DS-11                                 | Each    | 1     | -     | 1      |
| Temporary Soil Retention System                          | Sq. Ft. | -     | 268   | 268    |
| Bar Splicers   | Each    | -     | 79    | 79     |
| Pipe Underdrains for Structures 4"                       | Foot    | -     | 123   | 123    |
| Geocomposite Wall Drain                                  | Sq. Yd. | -     | 61    | 61     |
|  | •       |       |       |        |

Corporate License Number 184-001-084

GENERAL NOTES & BILL OF MATERIAL I-72/MACARTHUR BLVD. RAMP B OVER UPRR SECTION (84-9-4)A.HBK.BY.BY-1 SANGAMON COUNTY STATION 33+95.61 STRUCTURE NUMBER 084-0514



96S2002E

11/16/05

+ 1.18% VPT Sta. 35+90.00 Elev. 632.97 280.00′ V.C.

2'-0" or 5'-0" See sheet 01 of 22. — Edge of Deck

PROFILE GRADE

(Along Ramp B)

mbankment (Special) by Bridge Contractor.

Specifications and Highway Standard 601101)