GENERAL NOTES

- 1. The contractor shall obtain construction permits or permit addenda from the Illinois Department of Natural Resources (IDNR), Office of Water Resources and the Indiana Department of Natural Resources, Division of Water for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, etc. Any permit application by the Contractor shall refer to the DNR permit number which was issued for the permanent construction.
- 2. Contractor shall consider effects of scour when designing cofferdams. Historical flood records can be obtained from the US Army Corp of Engineers.
- 3. Seal coat thickness design is based on the Cofferdam Design Water Elevation specified unless noted otherwise. Cofferdam design details and proposed changes in seal coat thickness shall be submitted for approval with the cofferdam design to the Engineer.
- 4. The embankment configuration shown shall be the minimum embankment that must be placed and compacted prior to construction of the abutments.
- 5. Layout of slope protection system may be varied to suit around conditions in the field as directed by the Engineer.
- 6. All Steel H-Piles shall be according to AASHTO M 270 Grade 50.
- 7. In lieu of the hammer selection criteria and use of the FHWA Modified Gates formula specified in Section 512 of the Standard Specifications, the Contractor shall conduct a wave equation analysis to establish the driving criteria at all pile foundations which specify a Nominal Required Bearing above 600 kips. The analysis and calculations shall be submitted to the Engineer for approval.
- 8. The Contractor shall drive test piles to 110 percent of the Nominal Required Bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of the piles.
- 9. In addition to all other requirements of Section 512 of the Standard Specifications, splices for steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is complete joint penetration welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder aualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection. See sheet S87 for standard pile splice details.
- 10. Reinforcement bars shall conform to the requirements of ASTM A706 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated.
- 11. All construction joints shall be bonded.
- 12. In Unit 2, bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ " (0.01 ft). Adjustment shall be made either be grinding the surface or by shimming the bearing.
- 13. Concrete Sealer shall be applied to the seat area of the West and East abutments, and piers 4, 9, and 13.
- 14. If the Contractor elects to use cantilever forming brackets on the exterior girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

15. When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met: 1. At least 72 hours shall have elapsed from the end of the previous pour. 2. The concrete strength shall have attained a minimum modulus of rupture of 650 psi, or a minimum compressive strength of 3500 psi.

The Contractor is alerted that camber and dead load deflection values shown within the drawings were developed based on the deck pouring sequence shown on sheet S26. Any deviation from this pouring sequence will result in changes to camber and all dimensions and elevations that reflect dead load deflections.

- 16. Fasteners shall be high strength bolts (AASHTO M 164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 in painted areas). Bolts ${}^{7}_{8}$ " ϕ , open holes ${}^{15}_{16}$ " ϕ , unless otherwise noted.
- 17. Calculated weight of Structural Steel: M 270 Grade 50W = 1,084,050 lbs (girder webs, stiffeners, cross-frames, splice, drip and connection plates) M 270 Grade HPS 70W = 1,030,390 lbs (girder flanges, splice plates)

M 270 Grade 50 = 182,900 lbs (finger plate expansion joints, painted bearings at piers 6 & 7)

- 18. 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 tension flanges, webs, all splice plate material except fill plates.
- 19. The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE) by AISC. See Special Provision for "Erection of Complex Steel Structures."
- 20. Structural steel within 10 feet of the centerline of bearing at Piers 4 through 9 shall be cleaned and painted in accordance with the special provision for "Surface Preparation and Painting Requirements for Weathering Steel." The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 21. The structural steel bearing plates of the Elastomeric or HLMR Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- 22. No field welding is permitted except as specified in contract documents.
- 23. Expansion joint plates and attached bars shall be AASHTO M 270 Grade 50.
- 24. Expansion joint plates and attached bars shall be shop painted with either the inorganic zinc rich primer or the organic primer plus intermediate epoxy coat system. See Special Provision for Cleaning and Painting New Metal Structures.
- 25. Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
- 26. The structural steel coating of the existing bridge to be removed contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 27. See Special Provision "Temporary Access" for restrictions and payment for accessing construction site.
- 28. Contractor shall note presence of water lines near the Illinois abutment. Contractor shall locate and protect water lines during construction. The cast of this effort is included with "Driving Steel Piles." The contractor shall notify the City of Mt. Carmel 2 days prior to driving piling for the abutment wall and pier 1.

384.18

384.10

341.18

330.68

332.68

380.48

379.69

378.72

387.35

387.42

387.12

386.11

380.10

401.26

Pier 2

Pier 3

Pier 4

Pier 5

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Pier 8

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Pier 12

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Pier 18

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