GENERAL NOTES

1. Fasteners shall be AASHTO MI64 Type 1, mechanically galvanized bolts. Bolts 7_8 " ϕ , holes 15_{16} " ϕ , unless otherwise noted.

2. Calculated weight of Structural Steel 1.538.410 lbs.

- 3. No field welding is permitted except as specified in the contract documents.
- 4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- 5. Reinforcement bars designated (E) shall be epoxy coated.
- 6. If the Contractor elects to use cantilever forming brackets on the exterior beams or 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.
- 7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of l_{B} " (0.01'). Adjustment shall be made either by grinding the surface or by shimming the bearinas.
- 8. Concrete sealer shall be applied to the backwalls, seats, and front face of the abutments.
- 9. The Organic Zinc Rich Primer/Epoxy/Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat shall match color SW7680 "Lanyard" with RGB Value R-191, G-153, B-116. See Special Provision for "Cleaning and Painting New Metal Structures"
- 10. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 11. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- 12. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water. This shall include the placement of material for run-arounds, causeways, temporary bridge, etc. Any permit application by the Contractor shall refer to the IDNR 3708 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
- 13. Seal coat thickness design is based on the Cofferdam Design Water Elevation (CDWE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.
- 14. Reinforcement bar lap splices shall be Class C. Top bars so placed that more than 12 inches of concrete is cast below the reinforcement shall be lapped for 1.4 x basic lap. Reinforcement bar splices shall be in accordance with the following table unless shown otherwise on the drawing. Rasic Lan 1.4 Basic Lap Rar Siza

| ui 3120 | DUSIC LUP | 1.4 DUSIC LU |
|---------|-----------|--------------|
| #4 | 2'-7" | 2'-11" |
| #5 | 3'-3" | 3'-8" |
| #6 | 3′-10″ | 4'-5" |
| #7 | 5'-2" | 5′-10″ |
| #8 | 6′-9″ | 7'-8" |
| #9 | 8'-7" | 9′-8″ |
| #10 | 10′-10″ | 12'-4" |
| #11 | 13′-4″ | 15 '- 1" |
| | | |

15. Conduit shall not be installed until after the deck has been completed.

INDEX OF SHEETS

- General Plan and Elevation S1 *S2* General Notes, Index of Sheets and Total Bill of Material 53 Foundation Layout *S4* Deck Elevation Plan S5 Top of Slab Elevations (1 of 4) S6 Top of Slab Elevations (2 of 4) S7 Top of Slab Elevations (3 of 4) S8 Top of Slab Elevations (4 of 4) S9 Top of Approach Slab Elevations S10 Deck Reinforcement Plan S11 Deck Cross Section S12 Deck Details and Bill of Material S13 2-Tube Railing Details (1 of 2) 2-Tube Railing Details (2 of 2) S14 S15 Bridge Approach Slab Plan S16 Bridge Approach Slab Details S17 Modular Expansion Joint Details (1 of 2) S18 Modular Expansion Joint Details (2 of 2) S19 Drainage Plan S20 Drainage Details Scupper Details S21 S22 Framing Plan (1 of 2) S23 Framing Plan (2 of 2) Steel Plate Girder Elevation (1 of 4) S24 S25 Steel Plate Girder Elevation (2 of 4) S26 Steel Plate Girder Elevation (3 of 4) S27 Steel Plate Girder Elevation (4 of 4) S28 Curved Girder Layout S29 Steel Plate Girder Cross Frame Details S30 Steel Plate Girder Miscellaneous Details S.31 Steel Plate Girder Splice Details S32 Steel Plate Girder Camber Diagram S33 Steel Plate Girder Moment Tables S.34 Steel Plate Girder Reaction Tables Low Profile Fixed Bearing S35 S36 HLMR Guided Expansion Bearing S37 West Abutment Details (1 of 2) S38 West Abutment Details (2 of 2) East Abutment Details (1 of 2) S39 S40 East Abutment Details (2 of 2) S41 Pier 1 Details S42 Piers 2-5 Details \$43 Piers 6-7 Details S44 Pier Details S45 Footing Details S46 Piers 1-4 Bill of Materials S47 Piers 5-7 Bill of Materials S48 Pile Details S49 Bar Splicer Assembly and Mechanical Splicer Details S50 Soil Boring Logs - Pier 2 S51 Soil Boring Logs - Pier 3 S52 Soil Boring Logs - Pier 4 S53 Soil Boring Logs - Pier 5 S54 Soil Boring Logs - Pier 6 S55 Soil Boring Logs - Pier 7 S56
- Porous Granular Embankment, S Stone Riprap, Class A4 Portland Cement Concrete Side Structure Excavation Cofferdam Excavation Cofferdam (Type 2) (Location -Cofferdam (Type 2) (Location -Cofferdam (Type 2) (Location -Cofferdam (Type 2) (Location -Cofferdam (Type 2) (Location -Concrete Structures Concrete Superstructure Bridge Deck Grooving Seal Coat Concrete Concrete Encasement Protective Coat Stud Shear Connectors Reinforcement Bars, Epoxy Coa Bar Splicers Furnishing Steel Piles HP12x53 Furnishing Steel Piles HP14x73 Driving Piles Test Pile Steel HP12x53 Test Pile Steel HP14x73 Pile Shoes Name Plates Anchor Bolts, Anchor Bolts, 1/2 Concrete Sealer Geocomposite Wall Drain Pipe Underdrains for Structure High-Load Multi-Rotational Bear High-Load Multi-Rotational Bear Furnishing and Erecting Structu Modular Expansion Joint 9" Steel Railing (Special) Drainage Scuppers, DS-33 Drainage System Anti-Graffiti Coating Anti-Graffiti Protection System Form Liner Textured Surface



Soil Boring Logs - East Abutment

| SECTION THRU PILE SUPPORTED |
|-----------------------------|
| STUB ABUTMENT |
| (Horiz. dim. at Rt. L's) |

1'-0" min:



Note:

| | benesch engineers - scientists - planne | |
|-----------|--|-----------|
| ETLE MANE | - | UCCD NAME |

| FILE NAME = | USER NAME = okeaschall | DESIGNED - MFH | REVISED - ADDENDUM 1/6/2012 | | GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIALS | | SECTION | COUNTY | TOTAL | SHEET 5 | |
|-------------------------|------------------------|----------------|-----------------------------|-------------|--|---|---------|---------------------------|---------|----------|-----------------------|
| | | CHECKED - AJK | REVISED - | | CITY OF ST. CHARLES | STRUCTURE NO. 045-6024 RED GATE ROAD OVER THE FOX RIVER | | 04-00092-00-BR | KANE | 440 | 224 |
| 0456024_002_GNo tes.dgn | PLOT SCALE = | DRAWN - MFH | REVISED - | | on of on on Anelo | SINUCIUNE NU. 043-0024 NED GAIE NUAD UVEN THE FUX NIVEN | | | CONTRAC | CT NO. 6 | نم 3650 ^{لر} |
| Pl | PLOT DATE = 1/5/2012 | CHECKED - AJK | REVISED - | ST. CHARLES | | SHEET NO. S2 OF S56 SHEETS | | ILLINOIS FED. AID PROJECT | | | |

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL | 1 |
|--|--------------------|---------|--------------|---------|--------|
| Special | Cu. Yd. | | 187 | 187 | |
| Special | Sq. Yd. | | 792 | 792 | |
| walk 5 Inch | | - | | | 1 |
| WUIK 5 INCH | Sq. Ft. Cu. Yd. | | 227 | 227 | |
| | Cu. Yd. | - | | ~ 220 | K. |
| 1) | | | <u>1,730</u> | 1,730 | \sim |
| - 1) | Each | - | 1 | 1 | |
| - 2) | Each | - | 1 | 1 | |
| - 3) | Each | - | 1 | 1 | |
| - 4) | Each | - | 1 | 1 | |
| - 5) | Each | - | 1 | 1 | |
| | Cu. Yd. | - | 2,301.9 | 2,301.9 | |
| | Cu. Yd. | 1,257.7 | - | 1,257.7 | |
| | Sq. Yd. | 4,052 | - | 4,052 | |
| | Cu. Yd. | - | 734 | 734 | |
| | Cu. Yd. | 10.6 | - | 10.6 | |
| | Sq. Yd. | 4,898 | - | 4,898 | |
| | Each | 14,277 | ~ | 14,277 | |
| ated | Pound | 382,300 | 255,900 | 638,200 | |
| | Each | - | 72 | 72 | |
| 3 | Foot | - | 2,588 | 2,588 | 1 |
| | Foot | - | 8,866 | 8,866 | |
| | Foot | - | 11,454 | 11,454 | 1 |
| | Each | - | 4 | 4 | |
| | Each | - | 5 | 5 | 1 |
| ······································ | Each | - | 218 | 218 | 1 |
| | Each | 1 | - | 1 | 1 |
| | Each | - | 140 | 140 | 1 |
| | Each | - | 40 | 40 | 1 |
| | Sq. Ft. | - | 1.053 | 1,053 | |
| | Sq. Yd. | - | 86 | 86 | 1 |
| es. 4" | Foot | - | 182 | 182 | |
| rings, Guided Expansion, 200K | Each | 10 | - | 10 | |
| rings, Guided Expansion, 450K | Each | 25 | - | 25 | 1 |
| ural Steel Bridge No. 2 | L. Sum | 1 | - | 1 | |
| | Foot | 73 | - | 73 | 1 |
| | Foot | 3.087 | - | 3,087 | 1 |
| | Each | 13 | | 13 | 1 |
| | L. Sum | 1 | - | 15 | |
| | Sq. Ft. | - | 18,703 | 18,703 | |
| · · · · · · · · · · · · · · · · · · · | Sq. Ft. | - | 839 | 839 | |
| (Special) | | - | 839 | 839 | 1 |
| Speciali | Sq. Ft. | | 033 | 039 | |



All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).