

CAST IN-PLACE CONCRETE

- All substructure concrete shall have a compressive strength of 3,500 psi @ 28 days.
- All exposed concrete edges shall have a 3/4" x 45 degree chamfer. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

REINFORCING STEEL

- Reinforcement bars, including epoxy coated reinforcement bars, shall conform to the requirements of ASTM A706 Grade 60. See special provisions.
- Cover from the face of concrete to face of reinforcement bars shall be 3". For surfaces cast against earth and 2" for all other surfaces unless shown otherwise.
- Reinforcing bar bending dimensions are out to out.
- Reinforcement bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures," ACI 315 latest edition.
- Reinforcement bars designated "(E)" shall be epoxy coated.

GENERAL NOTES

- 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 work, however, the contractor will be paid for the quantity actually furnished or removed at the unit price.
- Do not scale dimensions for construction.
- No construction joints except those shown on the plans will be allowed unless ordered by the Engineer.
- Temporary sheeting, bracing or cofferdams shall be constructed as required for the excavation to protect the adjacent areas from settling or falling into the excavated areas. This work shall be incidental to structure excavation, unless it is specifically required by the plans.
- Concrete Sealer shall be applied to the seat area of the east and west abutments and pier cap as well as the inside face of both abutment backwalls.
- It shall be the contractor's responsibility to verify the location of all utilities prior to starting construction, contact J.U.L.I.E. at 800-892-0123.
- Upon completion of the bridge, the contractor shall measure the resulting horizontal and vertical clearances and submit them to the Engineer for review, and include in the as-built plans.
- The existing bridge plans are available by contacting Metra and will be made available to the contractor upon written request.
- In lieu of the hammer selection criteria and use of the WSDOT formula specified in the special provisions, 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.
- Protection of existing LaGrange Road from falling material or other objects during erection of the new structure, shall be included in the cost of "Erecting Structural Steel."

DESIGNED - JCE
CHECKED - MGB
DRAWN - JCE
CHECKED - MGB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL

- Structural steel is to be paid for at the Contract Lump Sum Price for "Erecting Structural Steel".
Calculated Wt of A709 Grade50 steel is-----1,302,100 lbs.
Calculated Wt of A709 Grade 50W Corrosion Resistant (C.R.) steel is-----248,900 lbs.
Total weight is-----1,551,000 lbs.
- No field welding is permitted except as specified in the contract documents.
- All shop and field connections shall be bolted with high-strength bolts except where otherwise shown or noted on the drawings to be bolted with machine bolts or welded. All high-strength bolts, nuts and washers shall conform to ASTM A325. Bolts shall be 7/8" diameter unless otherwise noted. Holes shall be 1/16" larger than bolt size unless otherwise noted.
- 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 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 Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".

DESIGN CRITERIA

SPECIFICATIONS:

Steel design in accordance with AREMA Specifications for steel structures, dated 2010. Concrete design in accordance with AREMA Specifications for Concrete Structures and Foundations, dated 2010. Workmanship and materials in accordance with the Standard Specifications for Road and Bridge Construction of the State of Illinois, Department of Transportation, Adopted Jan. 1, 2007. Except that wherever applicable, steel fabrication shall be in accordance with the AREMA Specifications. Welding shall be in accordance with the above AREMA Specifications.

LIVE LOAD

Cooper E80 with diesel impact with alternate live load.

MAXIMUM LIVE LOAD PLUS IMPACT DEFLECTION

L/640 for Railroad Super Structure.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	-	625	625
Concrete Removal	Cu. Yd.	-	114.0	114.0
Structure Excavation	Cu. Yd.	-	2,531	2,531
Concrete Structures	Cu. Yd.	-	1643.3	1643.3
** Erecting Structural Steel	L Sum	1	-	1
Reinforcement Bars, Epoxy Coated	Pound	-	115,200	115,200
Pipe Handrail	Foot	441	-	441
Furnishing Steel Piles HP14X117	Foot	-	17,196	17,196
Driving Piles	Foot	-	17,196	17,196
Test Pile Steel HP14X117	Each	-	3	3
Name Plates	Each	-	1	1
Anchor Bolts, 1 1/4"	Each	-	32	32
Anchor Bolts, 1 1/2"	Each	-	16	16
Concrete Sealer	Sq. Ft.	-	7,266	7,266
Geocomposite Wall Drain	Sq. Yd.	-	474	474
Pipe Drains 4"	Foot	-	30	30
Sign Panel - Type 2	Sq. Ft.	31	-	31
Pile Extraction	Each	-	27	27
Temporary Soil Retention System (To Remain in Place)	Sq. Ft.	-	272	272
Metal Grating	L Sum	1	-	1
Braced Excavation	Cu. Yd.	-	84	84
Name Plates (Special)	Each	-	1	1
Ballast	Ton	186	-	186
Pipe Underdrains For Structures 4"	Foot	-	187	187
Temporary Soil Retention System	Sq. Ft.	-	2,822	2,822
** Erecting High Load Multi-Rotational Bearings, Fixed - 1500K	Each	4	-	4
** Erecting High Load Multi-Rotational Bearings, Guided Expansion - 1500K	Each	4	-	4
** Erecting High Load Multi-Rotational Bearings, Non-Guided Expansion - 500K	Each	8	-	8
Deck Waterproofing	Sq. Ft.	6,994	-	6,994
Anchor Bolts, 2 1/2"	Each	-	16	16

** Furnishing of structural steel and bearings paid for under a separate contract

ABBREVIATIONS:

- PGL Profile Grade Line
- BF Back Face
- IF Inside Face
- OF Outside Face
- EF Each Face
- FF Front Face
- WA West Abutment
- EA East Abutment
- PJF Preformed Joint Filler
- PJS Preformed Joint Sealer
- EB East Bound
- WB West Bound
- NB North Bound
- SB South Bound
- WW Wingwall
- NE North East
- NW North West
- SE South East
- SW South West
- E Expansion Bearings
- F Fixed Bearings
- BOM Bill of Material

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**GENERAL NOTES &
BILL OF MATERIAL
STRUCTURE NO. 016-6201**

SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	330	73 R-B	COOK	136	54
25 SHEETS	CONTRACT NO. 60K64				
DATE: 12/17/10		ILLINOIS FED. AID PROJECT			

