

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL

1. All structural steel conform to ASTM A709, Grade 50 unless otherwise noted on the plans or in the special provisions. Structural steel is to be paid for at the Contract Lump Sum Price for "Furnishing 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.
2. The webs and tension flanges of the through-plate girders are designated as "Fracture Critical Members" and shall conform to the fracture control plan for fracture critical members of the AREMA specifications for Zone 2. These components are noted on the plans as (FCM). For all FCM members NTR shall be Applied.
3. The main load carrying member components subject to tensile stress, other than fracture critical members, shall conform to the supplemental requirements for notch toughness, Zone 2. These components are the wide flange beams and other components of main girder and are noted on the plans as (NTR).
4. Steel noted on the plans (C.R.) shall be high-strength low-alloy structural steel conforming to ASTM A709, Grade 50W, except as otherwise specified on the plans or special provisions.
5. No field welding is permitted except as specified in the contract documents.
6. 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. Holes for shop fasteners shall be subpunched or subdrilled and reamed through a template in accordance with AREMA specifications and as specified in the special provisions.
7. 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".
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 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.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Furnishing Structural Steel	L Sum	1		1
Storage of Structural Steel	Cal Da	60		60
Storage of High Load Multi-Rotation Bearings	Cal Da	60		60
Furnishing High Load Multi-Rotation Bearings, Fixed - 1500K	Each	4		4
Furnishing High Load Multi-Rotation Bearings, Guided Expansion - 1500K	Each	4		4
Furnishing High Load Multi-Rotation Bearings, Non-Guided Expansion - 500K	Each	8		8

N.I.C. = NOT IN CONTRACT
Some items are shown for information only and are not a part of this Fabrication Contract.

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 E-80 with Diesel Impact with Alternate Live Load

MAXIMUM LIVE LOAD PLUS IMPACT DEFLECTION

L/640 for Railroad Super Structure.

DESIGNED - JCE
CHECKED - GEK
DRAWN - JCE
CHECKED - GEK

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

 **McDonough Associates Inc.**
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	330	2010-074-F	COOK	15	4
13 SHEETS	CONTRACT NO. 60L60				
DATE: 08/12/10		ILLINOIS FED. AID PROJECT			