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## 051200 - Structural Steel Framing

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## SECTION 05 1200 - STRUCTURAL STEEL FRAMING

### 1.1 SUMMARY

- A. Section Includes:
  - 1. Structural steel.
  - 2. Prefabricated building columns.
  - 3. Grout.

### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittal:
  - 1. Product Data for Credit MR 4.1 and Credit MR 4.2: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating costs for each product having recycled content.
  - 2. Product Data for Credit MR 5.1 and Credit MR 5.2: For regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
  - 3. Product Data for Credit EQ 4.2: For field-applied paints and coatings used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24) and OTC (Ozone Transport Commission) restrictions. These requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop.
    - a. Flat Paints, Coatings, and Primers: VOC content of not more than 100 g/L.
    - b. Nonflat Paints, Coatings, and Primers: VOC content of not more than 150 g/L.
    - c. Anti-Corrosive and Anti-Rust Paints Applied to Ferrous Metals: VOC contents of not more than 250 g/L.

### 1.3 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and

spacers. Protect steel members and packaged materials from corrosion and deterioration.

1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
  2. Store in a manner that will prevent damage from falling objects and soiling from mud, concrete and debris.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.
  2. Clean and relubricate bolts and nuts that become dry or rusty before use.
  3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

#### 1.5 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' recommendations to ensure that shop primers and topcoats are compatible with one another. If steel arrives in the field without primer One coat of primer shall be applied before rust appears
- B. Thoroughly clean steel of rust, scale, dirt, weld flux, weld spatter or other foreign matter before paint is applied.
- C. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

#### 1.6 STRUCTURAL-STEEL MATERIALS

- A. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than the following:
1. W-Shapes: 60 percent.
  2. Channels, Angles: 60 percent.
  3. Plate and Bar: 25 percent.
  4. Cold-Formed Hollow Structural Sections: 25 percent.
  5. Steel Pipe: 25 percent.
  6. All Other Steel Materials: 25 percent.
- B. Regional Materials of Steel Products: Provide products that have been fabricated within 500 miles of Project site.

1.7 PRIMER

- A. Primer: Comply with Chapter 5, Division 09, Section 099100.

1.8 REPAIRS AND PROTECTION

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780.
- B. Touchup Painting: Cleaning and touchup painting are specified in Chapter 5, Division 09, Section 099100.

END OF SECTION 05 1200