

**Jefferson County School District, R-1  
Support Services**

**TECHNICAL GUIDELINES**

**DIVISION 05 – METALS  
November 1, 2006**

**DIVISION 05 – METALS**

**05 00 00 Metals – November 1, 2006**

- Work in this Division is open to any product or material meeting the requirements of this Technical Guideline.
- In the absence of other information, standards of the following organizations apply to work in this Division:
  1. American Institute of Steel Construction (AISC)
  2. American Welding Society (AWS)
  3. Steel Joist Institute (SJI)
- Restrictions
  1. “Pot metal” (cast zinc) is prohibited in any form in any component of any product, item, or fabrication installed in Jefferson County School District R-1 facilities.
  2. Steel Lintels and Shelf Angles for Masonry: Hot dipped galvanized

END SECTION 05 00 00

**05 05 00 Common Work Results for Metals – November 1, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Metal Fastenings for concrete and masonry
  1. Mechanical Interlock type: Permitted
  2. Friction/Expansion type: Preferred
  3. Bonded type: Permitted
  4. Through-wall bolted type: Preferred for loading conditions that exceed 100 lb. per fastener.

END SECTION 05 05 00

**05 10 00 Structural Metal Framing – November 1, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Shop Drawing: Required
  2. Certificates: Documentation that each welder has passed the current applicable AWS qualification test.
  3. Closeout: Submittals listed above, updated to record status.

END SECTION 05 10 00

**05 20 00 Metal Joists – November 1, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- In the absence of other information, standards of the following organizations apply:
  1. Steel Joist Institute (SJI)
- Submittals
  - Product Data: Required
  - Shop Drawing: Required
  - Closeout: Submittals listed above, updated to record status.
- Fabrication
  1. Manufacturer must be a SJI member in good standing for a period of not less than 24 consecutive months prior to bid.
  2. Galvanized or shop-prime with rust-inhibitive paint.
  3. Where suspended ceiling is scheduled, extend joist bottom chord to within six inches of wall or column
  4. All components, fasteners, hardware by a single manufacturer.
  5. Field modifications are prohibited.

END SECTION 05 20 00

**05 30 00 Metal Decking – November 1, 2006**

- In the absence of other information, standards of the following organizations apply:
  1. Steel Deck Institute (SDI)
- Submittals
  1. Shop Drawing: Preferred
  2. Closeout: Submittals listed above, updated to record status.
- Roof Decking:
  1. Work is open to any product or material meeting the requirements of this Technical Guideline.
- Floor Decking:
  1. Work is open to any product or material meeting the requirements of this Technical Guideline.
- Acoustic Decking
  1. Work is restricted to specific manufacturers that have been previously approved by Jefferson County School District, R-1:
    - a. Epic Metals Corp.
- Fabrication
  1. Factory galvanized or coated with aluminum zinc alloy
    - a. Painted primer coat is prohibited.

- Field Quality Control
  1. Cutting of openings larger than 8 inches in any dimension is prohibited in metal deck unless indicated on shop drawings or authorized in writing by the structural engineer.
    - a. Non-compliance with this restriction requires complete removal and reconstruction from bearing to bearing.
  2. Under no circumstances is metal decking to be used for the attachment of anchorages or supports for suspended equipment, sub-framing, ceiling, or other miscellaneous mounting, bracing, or substructure.

END SECTION 05 30 00

**05 40 00 Cold-Formed Metal Framing - November 1, 2006**

- Work in this section is open to any product or material.
- Load-Bearing Metal Studs
  1. Specifications must include the following minimum information:
    - a. Gauge
    - b. Thickness
    - c. Yield strength
    - d. Flange width

END SECTION 05 40 00

**05 50 00 Metal Fabrications – November 1, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data: Preferred
  2. Shop Drawing: Required; indicate splices
  3. Welder Certificates: Photocopy of having passed current applicable AWS qualification test.
  4. Closeout: Submittals listed above, updated to record status.
- Applications
  1. OSHA-compliant fixed steps or ladders are required at roof access hatch and vertical offsets between roof levels that exceed 36 inches.
    - a. Treads and risers per code; ladder: minimum tread = 2 inches
    - b. "Ships Ladders" are not recommended unless serving as supplemental access.
    - c. Provide handrail each side
    - d. Roof Ladders: Configure top step to bridge parapet cap flashing (to protect it).
  2. Protective screens are required in Gymnasias to protect surface mounted items (i.e. lights, clocks, detectors, thermostats, sprinkler heads, etc.)

- Metal Castings
  1. MH Frames and covers: Non-rocking design with machined bearing surfaces to prevent movement or noise under traffic.
- Fabrication
  1. Factory rust-resistant prime coat.
  2. Corners/Joints/Seams: Mitered, hairline
  3. Connections: Welded construction preferred;
    - a. Exposed welds: Grind smooth, fill, and sand.
    - b. Conceal screws/bolts to the greatest extent possible
  4. Remove burrs and rough edges.
  5. Treads/Risers: 1/8-inch tolerance to designated dimensions

END SECTION 05 50 00

**05 70 00 Decorative Metal – November 1, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Openings in perforated metal or screening within 7 feet of grade or floor level must be small enough to deter climbing yet large enough to prevent pinched extremities.
- Hem or tool exposed edges to prevent injury.

END SECTION 05 70 00