05 00 00 Metals

A. Structural steel shall conform to AISC “Specifications for Design, Fabrication, and Erection of Structural Steel Buildings.”

B. All light gauge steel framing shall conform to “Specifications for Design of Cold Formed Steel Structural Members.”
05 10 00  Structural Metal Framing

A. Structural Steel

1. All structural steel shall meet appropriate ASTM specifications.
2. Fabrication and erection shall conform to the requirements of the American Institute of Steel Construction, “Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings.”
3. Provide for all loose lintels and other miscellaneous and related items.
4. Specify welding to be done only by qualified welders and in conformance with all requirements of the American Welding Society.
5. Specify shop painting of all steel except that to be encased in concrete or where welds are to be made. Field touch-up shall be done after erection.
6. Provide for shop drawings.
7. Indicate design stresses on structural drawings.

B. Open Web Joists

1. Follow Steel Joist Institute standards.
2. Specify adequate bridging.
3. Specify shop paint and touch-up after erection.
4. Provide for shop drawings.

C. Metal Decks

1. Require conformance with Metal Roof Deck Institute Standards and requirements of American Iron and Steel Institute’s “Specifications for the Design of Light Gage Cold-Formed Steel Structural Members.”
2. Specify methods of erection, connections and fasteners.
3. Provide for shop drawings.
05 50 00  Metal Fabrications

A. General

1. Provide for shop drawings.
2. Provide for necessary shop and field painting.
3. Where dissimilar metals are used next to each other, provide separation or coating to prevent electrolytic action from damaging either material.

B. Recommendations for steel stairs

1. Steel stairs shall be fully designed and detailed.
2. Where treads are to be steel, they shall have a non-slip surface.
3. Where pan type treads to receive terrazzo or other fill materials (such as concrete) are used, provide slip-resistant nosings or abrasive surface.

C. Ladders

1. Stairs are preferred for access between levels wherever possible.

D. Handrails and guardrails

1. Provide guardrails and handrails in compliance with BOCA.
2. Design handrails to project beyond top and bottom steps or ramps as required by Illinois Handicapped Code.
3. Design handrails with smooth contours and return ends to wall or support.
4. Design for rigid and durable anchorage.
5. For public ramps, stairs and balconies finish materials for handrails and guardrails shall be other than painted steel unless approved by the Owner’s Representative.

E. Screens

1. Except in residential type buildings, insect screens are not required.
2. Provide bird screens mounted on the exterior face of louvers to avoid bird nesting.
3. Screens shall be copper or aluminum.
4. Doors and Windows for window screens – refer to Division 8

F. Security Screens or grillage

1. Consult with the Owner’s Representative for security and aesthetic requirement for each project.