

05 00 00 – Metals

1. General

- A. Steel-framed structures shall be designed in accordance with the current N.C. State Building Code - Volume 1 and in accordance with American Institute of Steel Construction specifications. Steel joists shall be designed in accordance with the Steel Joist Institute standards. Welding requirements shall be in accordance with the American Welding Society standards for certified welders. High rise steel-framed buildings shall be subject to requirements of Section 403 of the current N.C. State Building Code relating to special provisions for High-Rise Buildings.
- B. The Contractors for fabrication and erection should have at least five years experience on like size projects.
- C. During construction, structural steel and ornamental steel shall be stored in a manner to prevent damage from mud coating, debris or moisture.
- D. All exterior exposed ferrous material, including ornamental frames, steel gratings, stairs, handrails, plaques and structural elements shall be hot-dipped galvanized after fabrication and protected from corrosion by a method acceptable to the Owner.
- E. Steel shall have at least one shop applied primer coat 2 mil in thickness. Steel shall be cleaned of rust, scale, weld flux or other debris before final field coats are applied.
- F. Using screws to attach metal roof decks to structures is recommended but attachment of metal decks by welding is allowed with the condition that the welding be inspected and approved by the Consultant prior to installation of the final roof covering. Composite deck assemblies also shall be inspected by the Consultant.
- G. Anchorage of structural elements or ornamental assemblies shall be clearly detailed. Bolt sizes shall be indicated.
- H. Nosings for use in stair edgings shall be of abrasive, cross-hatch type with appropriate anchors for secure mounting and shall meet applicable ADA standards for stair nosings.
- I. Grout for mounting handrails in concrete shall be a nonmetallic, non-shrink type and shall be mounded slightly when used in exterior locations to assure drainage.
- J. Where downspouts are utilized in the building design, cast iron boots shall be provided to connect downspouts to underground drainage lines. Top of boots shall be no more than twelve inches above grade.
- K. Tolerances, connections, attachment to metals, coping and clearances shall be detailed on the construction document.

- L. Pre-engineered building structures shall be considered for use only in special circumstances and only with the approval of the Office of Project Management.
- M. See Appendix **A057000** for additional information on Decorative Metals.