

**051000 METALS**

*Cornell’s Design and Construction Standards provide mandatory design constraints and acceptable or required products for all construction at Cornell University. These standards are provided to aid the design professional in the development of contract documents and are not intended to be used verbatim as a contract specification nor replace the work and best judgement of the design professional. Any deviation from the Design and Construction standards shall only be permitted with approval of the University Engineer.*

**PART 1: GENERAL**

**1.01 COMPOSITE STEEL FRAMING DESIGN**

- A. For composite steel framing, the structural engineer shall include a minimum 20 psf construction live load under non-composite behavior as a design requirement.
- B. The maximum non-composite deflection of a bay summing metal deck, beam and girder displacement under construction dead load shall be stated on plan drawings. The limit on deflection as a result of total construction dead shall be L/360 measured on the diagonal between columns within the largest bay.
- C. The engineer of record shall designate the basis of design beam reactions on all structural steel members within the floor framing plan drawings including shear forces at a minimum and moment, axial, and torsional forces if applicable. It shall be noted if the listed forces are factored.

**1.02 WEATHERING STEEL**

- A. Weathering steel shall not be used on structures exposed to constant moisture or ponding water.

**1.03 EXTERIOR EXPOSED STEEL**

- A. When stainless steel is specified as material for use in exterior applications with a chloride exposed service condition, Grade 316L stainless is required. Shop fabricate to the greatest extent possible to minimize field welding, and provide a protective coating for shipping. After installation, stainless elements must be cleaned and wiped down in accordance with manufacturer’s instructions.

REVIEWED BY: RBM	REVISED BY: RBM	METALS	051000
DATE: 11/5/18	DATE: 11/5/18		Page 1 of 2

PART 2: PRODUCTS

2.01 COLD GALVANIZING COMPOUND

- A. Cold galvanizing compound shall be organic zinc-rich coating containing minimum 92% metallic zinc by weight in the dried film, recognized under the Component Program of Underwriter’s Laboratories, Inc. as an equivalent to hot-dip galvanizing. The product shall conform to ASTM A780, and be compatible with the galvanizing (confirm with galvanizer).

REVIEWED BY: RBM	REVISED BY: RBM	METALS	051000
DATE: 11/5/18	DATE: 11/5/18		Page 2 of 2