

**\*\*\*\*\* SAMPLE SPECIFICATION \*\*\*\*\***

PROJECT NAME

05120

Project Location

**STRUCTURAL STEEL**

**PREFABRICATED BUILDING COLUMNS**

- A. General: Prefabricated building columns consisting of load-bearing structural-steel members encased in manufacturer's standard insulating material for fire protection and enclosed in an outer, non-load-bearing steel shell. The load-bearing pipe and tube column will be filled with concrete.
  - 1) Concrete Fill: Manufacturer's standard-mix structural concrete, with a minimum 28-day compressive strength of 5000 psi (34.5 MPa), machine mixed and mechanically vibrated during placement to produce concrete fill free of voids.
- B. Fire-Resistance Rating: Provide prefabricated building column listed and labeled by UL or another testing and inspecting agency acceptable to authorities having jurisdiction for ratings indicated, based on testing according to ASTM E 119.
  - 1) UL Fire-Resistance Rating Design Number:  
X106 (2-Hour), X104 (3-Hour), or X101 (4-Hour) as specified/indicated.
- C. Column Configuration: Provide columns of sizes and shapes indicated. Fabricate connections to comply with details shown or as required to suit type of structure indicated.
- D. Available Manufacturers: Subject to compliance with requirements, manufacturers offering prefabricated building columns that may be incorporated into the work include, but are not limited to, the following:
  - 1) FIRE-TROL Division; Dean Lally LLC, Queensbury, NY Phone: 800-323-5514

**SHOP PRIMING**

- A. Shop prime steel FIRE-TROL Shell and exposed column surfaces, except the following:
  - a. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
  - b. Surfaces to be field welded.
  - c. Surfaces to be high-strength bolted with slip-critical connections.
  - d. Surfaces to receive sprayed-on fireproofing.
  - e. Galvanized surfaces.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust, loose mill scale, and spatter, slag, or flux deposits. Prepare surfaces according to SSPC specifications as follows:
  - a. SSPC-SP 3 "Power Tool Cleaning."
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's instructions and at rate recommended by SSPC to provide a dry film thickness of not less than 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
- D. Primer: Fabricator's standard lead- and chromate-free, non-asphalt, rust-inhibiting primer.  
-OR-  
Primer approved for use with Architect's specified finished paint.

**ERECTION**

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC specifications referenced in this Section.
- B. Base and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen surfaces prior to setting base and bearing plates. Clean bottom surface of base and bearing plates.
- C. Maintain erection tolerance of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges."
- D. Reasonable care should be taken during erection and handling to prevent damage or disfigurement of the column's architectural shell.