

This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by the following method in Microsoft Word:

Display the FILE tab on the ribbon, click OPTIONS, then DISPLAY. Select or deselect HIDDEN TEXT.

SECTION 05 51 00 - METAL STAIRS

PART 1 GENERAL

1.1 SUBMITTALS

- A. Action Submittals:
 - 1. Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.
- B. Informational Submittals:
 - 1. Certificate of Compliance: Certification that installed products meet specified design requirements.

1.2 SYSTEM DESCRIPTION

- A. Design Requirements:
 - 1. Design stair assembly to support a uniform live load of [100] [] PSF and a concentrated load of [300] [] pounds, with maximum deflection of [L/180.] [L/240.] [].]
 - 2. Design guard rails and handrails to resist following without damage or permanent set:
 - a. [50] [] pounds per linear foot applied in any direction at top, transferred via attachments and supports to building structure.
 - b. Concentrated [200] [] pound load applied in any direction at any point along top, transferred via attachments and supports to building structure.
 - c. Maximum deflection under loading: [L/120.] [].]
 - 3. System design to be performed by qualified professional engineer licensed in State in which Project is located.

1.3 QUALITY ASSURANCE

- A. Fabricator Qualifications:
 - 1. Minimum [10] [] years' experience in design and fabrication of custom steel stairs and railings.
 - 2. AISC Certified Fabricator.
- B. Installer Qualifications: Firm specializing in work of this Section, with minimum [2] [] years' experience.
- C. Fabricate stair assembly to NAAMM AMP 510, [Commercial] [Service] [Industrial] Class.
- D. Fabricate guard rails and handrails in accordance with ASTM E985.
- E. Provide "No Exit" signs for gates in accordance with [NFPA 101.] [ICC IBC.] [ICC IFC.] [].]

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Contract Documents are based on products by Pacific Stair Corporation. www.pacificstair.com
- B. Substitutions: [Refer to Division 01.] [Not permitted.]

2.2 MATERIALS

- A. Steel:
 - 1. Sections, Plates, Shapes, and Bars: ASTM A36/A36M.
 - 2. Structural steel sheet: Hot-rolled, ASTM A1011, or cold-rolled, ASTM A1008/A1008M, Class 1.
 - 3. Pipe: ASTM A53/A53M, Type S, minimum Standard Weight, Schedule 40.
 - 4. Tube: Cold-rolled, ASTM A500, or hot-rolled, ASTM A501, Grade B, seamless where exposed
 - 5. Sheet: ASTM A1008/A1008M.
- B. Gratings: NAAMM MBG 531, welded steel type, [plain] [serrated] [] top surface.
- C. Concrete: ASTM C94; minimum 3000 PSI compressive strength at 28 days.
- D. Glass: ASTM C1048, Quality q3 Glazing Select, Kind FT fully tempered, nominally 3/8 inch thick.
- E. Stair Nosings: [Cast aluminum with abrasive surface and continuous 1 inch wide photoluminescent strip, [2] [] inches wide, Model [] by Safe-T-Nose LLC. (www.safetnose.com)] [Specified in Section [05 55 19 - Photoluminescent Stair Nosings].]

2.3 FABRICATION

- A. Fabricate stairs in accordance with approved Shop Drawings.
- B. Welding to conform to AWS D1.1/D1.1M for steel shapes, plate, and tube and AWS D1.3/D1.3M for steel sheet.
- C. Treads and Landings: [S100 - Concrete Filled Steel Pan.] [S200 - Checkered Steel Plate.] [S300 - Checkered Steel Plate with Quiet Tread.] [S400 - Precast Concrete Tread.] [S-500 Smooth Steel Plate.] [S600 - Steel Bar Grating.]
- D. Risers: Fabricate stairs with [open] [closed] risers.
- E. Guard Rails and Handrails: [R100 Two-Line Rail.] [R200 Pipe Rail.] [R300 Tube Rail.] [R400 Picket Rail.] [R500 Wire Mesh Rail.] [R600 Cable Rail.] [R700 Rod Rail.] [R800 Glass Rail.]
- F. Metal Egress Gates:
 - 1. Comply with IBC and NFPA 101.
 - 2. Provide barrier in stairwells to prevent accidental travel beyond designated exit level.
 - 3. 90 to 180 degree opening, self-closing and self-stopping, reversible swing direction.
 - 4. Width adjustable from 40 to 60 inches.
 - 5. Height: 32 inches.
 - 6. "No Exit" signs: Non-flexible photoluminescent sign.

2.4 FINISHES

- A. Ferrous Metal:
 - 1. Shop prime painted except steel to be encased in concrete and surfaces to be welded.
 - 2. Surface preparation: SSPC SP2 - Hand Tool Cleaning or SP3 - Power Tool Cleaning.
 - 3. Primer color: [Gray.] [Red.]

**** OR ****

- B. Ferrous Metal: Galvanized; ASTM A123/A123M, to [1.3] [2.0] [] ounces per square foot.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install stairs in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Welding to conform to AWS D1.1/D1.1M for steel shapes, plate, and tube and AWS D1.3/D1.3M for steel sheet.
- C. Installation Tolerances:
 - 1. Maximum variation from plumb: $[\frac{1}{4}]$ inch per story, noncumulative.
 - 2. Maximum offset from true alignment: $[\frac{1}{4}]$ inch.

END OF SECTION