

## SECTION 05 51 33

### METAL LADDERS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

A. This Section describes the requirements for providing the following types of ladders:

1. Steel ladders at elevator pits.

B. Related Sections:

1. Metal fabrications are specified in Section 05 50 00.
2. Painting is specified in Section 09 91 00.

##### 1.02 SUBMITTALS

A. Shop Drawings: Include plans, elevations, sections and details of components and connections.

B. LEED Submittals:

1. Credit IEQ 4.2: Product data for paints and coatings used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D.
  - a. Furnish the LEED Online Credit Template listing all the paints and coatings used in the building, stating they comply with the VOC and chemical component limits of GS-11 requirements.

##### 1.03 QUALITY ASSURANCE

A. Ladders shall comply with OSHA/ANSI A14.3 standards.

##### 1.04 ENVIRONMENTAL QUALITY ASSURANCE

A. Credit IEQ 4.2: Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the following criteria:

1. Architectural paints, coatings and primers applied to interior walls and ceilings: Do not exceed VOC content limits established in Green Seal Standard GS-11, Paints, 1<sup>st</sup> Edition, May 20, 1993.
  - a. Flats: 50 g/L
  - b. Non-Flats: 150 g/L
2. Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates: Do not exceed the VOC content limit of 250 g/L established in Green Seal Standard GC-03, Anti-Corrosive Paints, 2<sup>nd</sup> Edition, January 7, 1997.

B. Applicable LEED Credits:

1. Credit IEQ 4.2 – Low-Emitting Materials - Paints and Coatings.

## PART 2 - PRODUCTS

### 2.01 STEEL LADDERS

- A. Comply with the requirements of ANSI A14.3.
- B. Side Rails: 1/2-inch x 2-1/2-inch continuous structural steel flat bar with eased edges, spaced 18-inches apart.
- C. Rungs: 3/4-inch solid structural steel bar, spaced 12-inches on center.
- D. Fit rungs in centerline of side rails, plug weld and grind smooth on outer rail faces.
- E. Support at top and bottom and at intermediate points spaced not more than 5'-0" on center.
- F. Use welded or bolted steel brackets, designed for adequate support and anchorage, and to hold the ladder clear of the wall surface with a minimum of 7-inch clearance to centerline of rungs.
- G. Extend rails 42-inches above top rung, and return rails to wall or structure unless other secure handholds are provided.
- H. If adjacent structure does not extend above the top rung, goose-neck the extended rails back to the structure.
- I. Provide non-slip surface on the top of each rung.
- J. Finish: Shop primed.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners for securing to in-place construction.
- B. Install ladders accurately in location, alignment and elevation, and plumb.

END OF SECTION