

**SECTION 05511
FIXED METAL LADDER
MODEL 561HD**

GENERAL

1.1 SECTION INCLUDES

- A. Heavy duty vertical fixed aluminum wall ladders for exterior roof access.
- B. Handrails over roof

1.2 RELATED SECTIONS

- A. Section 05500 - Metal Fabrications.
- B. Section 06100 - Rough Carpentry: Blocking in metal wall studs and partitions for anchorage of access ladders.

1.3 REFERENCES

- A. AA – The Aluminum Association Inc.
- B. ANSI A14.3 - American National Standard for Ladders -- Fixed -- Safety Requirements; 2002.
- C. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2001.
- D. ASTM B 209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric); 2001.
- E. ASTM B 210 - Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes; 2002.
- F. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2000.
- G. ASTM B 221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2000.
- H. ASTM B 308 - Standard Specification for Aluminum - Alloy T6061-T6 Standard Structural; 2002
- I. ASTM B 308M - Standard Specification for Aluminum - Alloy T6061-T6 Standard Structural; 2002
- J. OSHA 29 CFR Standard 1910.27 - Fixed ladders; Occupational Safety and Health Standards; current edition

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Detailed drawings showing complete dimensions, all materials, mounting attachments, and fabrication details.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in the engineering and manufacturing of metal ladders, with not less than fifty years of experience.
- B. Professional engineering competence in design and structural analysis to fabricate ladders in compliance with industry standards and local codes.

1.6 WARRANTY

- A. See Section 01780 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's standard limited five-year warranty against defects in materials and workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: ALACO Ladder Co., which is located at: 5167 G St.; Chino, CA 91710-5143; Toll Free Tel: 888-310-7040; Tel: 909-591-7561; Email: request info: (sales@alacoladder.com); Web: www.alacoladder.com
- B. Substitutions: Not Permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS

- A. Extruded Aluminum Profiles: ASTM B 221/B 221M, ASTM B 210, ASTM B 308/B 308M, Alloy 6061-T6; standard mill finish.
- B. Aluminum Sheet and Plate: ASTM B 209/B 209M, Alloy 6061-T6; standard mill finish.
- C. Fasteners: Aluminum solid aircraft rivets rated at 300 lbs (1335 N) shear strength.
- D. Cast fittings and connectors: Cast Aluminum alloy 356

2.3 FABRICATION

- A. Model 561HD heavy duty aluminum ladder as manufactured by Alaco Ladder Company
- B. Ladders - General: Comply with ANSI A14.3 and OSHA regulations.
- C. Fixed Wall Ladder: 28 inches (711 mm) wide.
- D. Total Ladder Capacity: 2 X 250 lbs (2 X 114 kg).
- E. Mounting brackets: Furnish ladder with brackets for wall mounting. Maintain 7 inch (178 mm) minimum clearance from rung centerline to wall or obstruction, not to exceed 72 inch (1830 mm) spacing.
- F. Rung Capacity: 1500 lbs (680 kg) each.
 - 1. Extruded solid aluminum deeply serrated square rungs 1-1/4 inches (32 mm), welded to tubular side rails. Rated for 1500 lbs (680 kg) each.
 - 2. Serrated aluminum rungs mounted on 12 inches (305 mm) centers to tubular aluminum side rails.
 - 3. Weld each rung to tubular side rails solidly with a continuous weld all around.
 - 4. First rung shall start no more than 14 inches (356 mm) from the finished floor.
- G. Aluminum handrail schedule 40 pipe 1-1/4 inches (32mm).

- H. Aluminum security doors are offered. These doors are fabricated from 3/16 inches (4.8mm) aluminum sheets with hasps.
- I. Rest platforms are offered. These platforms consist of grip strut floors, high toe boards, round serrated tube guard railings and cast aluminum railing fittings. (Required for ladders over 150')
- J. Fall protection system is required for ladders 24'-0" and higher.

2.4 FINISHES

- A. Mill finish standard on aluminum ladders
- B. Factory applied powder coating and chem-film treatment for field applied primers are available upon request.
- C. Custom coatings and surface treatments are also offered

EXECUTION

2.5 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

2.6 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings, and in compliance with ANSI A14.3 and OSHA 1910.27.

2.7 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION