

**SECTION 05 51 00
METAL STAIRS**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Manual disappearing stairways.

1.2 RELATED SECTIONS

- A. Section 06 10 00 – Rough Carpentry: Roof framing and opening support.
Section 08 31 00 – Access Doors and Panels.

REFERENCES

- B. ANSI A14.3: Ladders – Fixed – Safety Requirements.
- C. ANSI A14.9: Safety Requirements for Ceiling Mounted Disappearing Climbing Systems.
- D. OSHA 1910.27: Fixed Ladders.

SUBMITTALS

- E. Submit under provisions of Section 01 33 23.
- F. Manufacturer's data sheets including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- G. Shop Drawings for Stairs:
 - 1. Plan and section of stair installation.
 - 2. Indicate rough opening dimensions for ceiling and/or roof openings.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store stairway until installation inside under cover. If stored outside, under a tarp or suitable cover.

1.4 WARRANTY

- A. Limited Warranty: One year against defective material and workmanship, covering parts only, no labor or freight. Defective parts, if deemed so by the manufacturer, will be replaced at no charge, freight excluded, upon inspection at manufacturer's plant which warrants same.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Precision Ladders, LLC or equal.

BRAND NAME OR EQUAL PRODUCTS

In accordance with VAAR 811.104-71 (b), based on the inclusion of VAAR 811.104-71, Brand Name or Equal, bidders proposing to furnish an “equal product other than referenced in the solicitation, shall insert the following description for each equal product (See also VAAR 852.211-73 (c)(1) and (c)(2)).

Bidding on:

Manufacturer’s Name: _____

Brand: _____

No.: _____

2.2 MANUAL DISAPPEARING STAIRWAY

- A. Manual Disappearing Stairway and Components: Stairway, rail, safety railing, frame and door.
 - 1. Fire-Rated Model: Super Simplex 1 HR Assembly Disappearing Stairway as manufactured by Precision ladders, LLC.
 - 2. Capacity: Unit shall support a 500 lb. total load without failure.
 - 3. Performance Standard: Unit shall comply with ANSI A14.9, Residential Type, for rough openings between 22-1/2 inches (571 mm) to 25 inches (635 mm).
 - 4. Ceiling Height: 9’-0”+.
- B. Accessories:
 - 1. Steel pole to aid opening and closing stairways.
- C. Components:
 - 1. Ceiling Opening: 30 inches by 54 inches.
 - a. Clear Tread Width for Standard Width: 19-1/2 inches (495 mm).
 - 2. Railing: Aluminum bar handrail riveted to stringers, upper section only.
 - 3. Frame: 1/8 inch (3 mm) steel formed channel. 6 inches (152 mm) deep.
 - 4. Fire Rated Steel Door: 20 gauge (0.912 mm) steel door with 2 hour fire-rated Wamock Hersey label meeting ASTM E-119 and UBC 43-7 requirements, passing 250 degree F (121 degree C) temperature rise in the first 30 minutes. Steel piano hinge. Door is flush with bottom of frame. Hole in paddle-latch accommodates pole for opening and closing door.
 - 5. Hardware:
 - a. Steel blade type hinge connecting stringer sections. Zinc plated and chromate sealed.

- b. Steel operating arms, both sides. Zinc plated and chromate sealed.
 - c. Double acting steel springs and V-hooks, both sides.
 - d. Rivets rated at 1100 lb (499 kg) shear strength each.
 - e. Steel section alignment dips at stringer section joints.
 - f. Molded rubber guards at corners of door panel.
- 6. Finishes: Mill finish on aluminum stairway components. Prime coat on frame.
 - 7. Stairway Stringer 6005-T5 extruded aluminum channel 5 inches by 1 inch by 1/8 inch (127 mm by 25 mm by 3 mm). Tri-fold design. Steel blade type hinges. Adjustable feet with plastic Mar-guard. Pitch 63 degrees.
 - 8. Stairway Tread: 600-T5 extruded aluminum channel 5 3/16 inches by 1 1/4 inches by 1/8 inch (132 mm by 32 mm by 3 mm). Width is 5 3/16 inches (132 mm). Deeply serrated top surface. Riser Height 9-1/2 inches (495 mm).
 - 9. Steel safety railing around Stair and Lift floor openings.
- D. Completely fabricate ladder ready for installation before shipment to the site.
 - E. Completely fabricate handrail components ready for field assembly to ladder before shipment to site.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until rough opening and structural support have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Examine materials upon arrival at site. Notify the carrier and manufacturer of any damage.

3.2 INSTALLATION

- A. Fully coordinate with COR for all clearance dimensions, weight requirements, and access way layout. Install in accordance with manufacturer's instructions.

3.3 PROTECTION

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

END OF SECTION