1. **GENERAL**
   1. **SECTION INCLUDES**
      1. Fixed aluminum wall ladders with cage for ladders over 20 feet.
      2. Security door panel at exterior ladders.
   2. **REFERENCES**
      1. ANSI A14.3 - Ladders, Fixed, Safety Requirements.
      2. CAL-OSHA - Construction Safety Orders, Chapter 8.
      3. Chapter 10, California Building Code.
   3. **SUBMITTALS**
      1. Shop Drawings: Indicate profiles, sizes, rivet connection attachments, reinforcing, anchorage, size and type of fasteners and accessories.
      2. Product data describing assembly.
   4. **FIELD MEASUREMENTS**
      1. Verify that field measurements are as indicated on shop drawings.
2. **PRODUCTS**
   1. **MANUFACTURER**
      1. Products of the following manufacturers form the basis for design and quality intended.
         1. Alaco Ladder Co. Chino, CA: Aluminum Series 560 with H-300 Security Door
         2. Precision Ladders, LLC, Morristown, TN.
         3. Royalite Manufacturing Inc., San Carlos, CA.
         4. ACL Industries, Inc., Manchester, NH.
      2. Or equal as approved in accordance with Division 1, General Requirements for substitutions.
   2. **MATERIALS**
      1. Aluminum: 6061 T6 alloy, mill finish.
      2. Rungs: 20-1/4 inch x 1-1/8 inch diameter cast aluminum, serrated, secured with cast aluminum connectors and solid rivets, 12 inches oc, mounted 7 inches from wall.
      3. Cage Ladders over 20 feet: 1/4 x 2 inch hoops at 4 feet oc, 7-3/16 x 1-1/2 inch vertical bars, solid riveted.
      4. Parapet Railing for Exterior ladders: 42 inches above top rung, extending 24 inches horizontally and return to roof. Space between railings: 24 inches.
      5. Security Doors and Side Panels: 0.63 sheet aluminum door and panels. Full height piano hinges at door with hasp for padlock supplied by contractor. Padlock to be Master Lock long hasp Keyed #3210.
      6. Fasteners:
         1. General: Provide Type 304 or 316 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, where built into exterior walls. Select fasteners for type, grade, and class required.
         2. Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.
         3. Anchor Bolts: ASTM F 1554, Grade 36.
         4. Machine Screws: ASME B 18.6.3.
         5. Plain Washers: Round, carbon steel, ASME B18.22.1.
         6. Lock Washers: Helical, spring type, carbon steel, ASME B18.21.1.
   3. **FABRICATION - GENERAL**
      1. Fit and shop assemble in largest practical sections for delivery to site.
      2. Fabricate components with joints tightly fitted and secured.
      3. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
      4. Accurately form components required for anchorage of members and to each other and to building structure.
3. **EXECUTION**
   1. **EXAMINATION**
      1. Verify that field conditions are acceptable and are ready to receive work.
      2. Beginning of installation means erector accepts existing conditions.
   2. **PREPARATION**
      1. Supply items required to be cast into concrete or embedded in masonry with setting templates to appropriate section.
   3. **INSTALLATION**
      1. Install items plumb and level, accurately fitted, free from distortion or defects.
      2. Provide anchors required for connecting stairs to structure.
      3. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
      4. Field bolt to match shop bolting.
      5. Mechanically fasten joints butted tight, flush and hairline.
      6. Obtain Architect’s approval prior to site cutting or making adjustments not scheduled.
      7. Installation of security doors is to be after ladder install is signed off by the Project Inspector per the plans and specifications.
      8. Installation shall meet all requirements of ANSI A14.3, CAL-OSHA, and Chapter 10, California Building Code for lateral bracing.
   4. **ERECTION TOLERANCES**
      1. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
      2. Maximum Offset From True Alignment: 1/4 inch.

**END OF SECTION**