SECTION 14 42 00

WHEELCHAIR LIFTS

*Copyright 2008 - 2020 ARCAT, Inc. - All rights reserved*

\*\* NOTE TO SPECIFIER \*\* Ascension®, a division of AGM Container Controls, Inc.; Wheelchair Lifts.  
This section is based on the products of Ascension®, a division of AGM Container Controls, Inc., which is located at:  
3526 E. Ft. Lowell Rd.  
Tucson, AZ 85716  
Toll Free Tel: 800-459-0400  
Tel: 520-881-3993  
Fax: 520-881-4983  
Email:request info (WebSales@ascension-lift.com)  
Web:https://ascension-lift.com  
[Click Here] for additional information.  
Ascension has been manufacturing world-class wheelchair lifts for over two decades. Our commitment is to provide premium products and outstanding support to our clients.  
Key facets of Ascension lifts are innovative design, distinctive aesthetics, precision manufacturing, and proven reliability for ensuring the safety and dignity of individuals with disabilities.  
All Ascension lifts are engineered and manufactured exclusively in Tucson, AZ, USA.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Vertical permanently-installed wheelchair lifts. (Virtuoso 5460F) (Protege 5442F)
    2. Vertical portable wheelchair lifts. (Virtuoso 5460P) (Protege 5442P)
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 14 42 16 - Vertical Wheelchair Lifts.
    2. Section 26 05 00 - Common Work Results for Electrical.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).
    2. ASME A17.5 - Elevator and Escalator Electrical Equipment.
    3. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
    4. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
    5. NFPA 70 (NEC) - National Electrical Code.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. 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.
     3. Shop Drawings: Drawings shall show dimensional and wiring requirements.
     4. Verification Samples: For each finish product specified, two samples, 2 x 3 inches (50 x 75 mm) representing actual product, color, and patterns.
  2. QUALITY ASSURANCE
     1. Manufacturer shall have not less than twenty years of experience in the design and manufacture of vertical wheelchair lifts.
     2. Installer Qualifications: Minimum 2 year experience installing similar products.
  3. PRE-INSTALLATION MEETINGS
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  4. DELIVERY, STORAGE, AND HANDLING
     1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
     2. Handle materials to avoid damage.
  5. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  6. SEQUENCING
     1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
  7. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Extended warranty plans are available.

* + 1. Manufacturer shall provide a warranty for a period of ten years on the drive train, four years on all other components, and 90 days on labor, starting from the date of installation.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Ascension®, a division of AGM Container Controls, Inc., which is located at: 3526 E. Ft. Lowell Rd.; Tucson, AZ 85716; Toll Free Tel: 800-459-0400; Tel: 520-881-3993; Fax: 520-881-4983; Email:request info (WebSales@ascension-lift.com); Web:https://ascension-lift.com

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* The Ascension Virtuoso 5460F permanently-installed vertical wheelchair lift Model Series can be used in any type of construction work. The lift is an excellent choice for stages, elevation changes, and overcoming other architectural barriers in a variety of public and commercial building types. The Ascension Virtuoso is a premium lift for customers who want more than just the status quo. It features a low profile, generous window area, quiet electro-hydraulic drive train, rigid safety skirting, 60 inches (1524 mm ) maximum rise, and floor-level installation with no pit. Delete this model if not required.

* 1. VERTICAL PERMANENTLY-INSTALLED WHEELCHAIR LIFTS (Virtuoso 5460F)
     1. Lift Product: Virtuoso 5460F as manufactured by Ascension. Unenclosed, self-contained vertical wheelchair lift for use by individuals with disabilities. Raises and lowers platform and occupant providing accessibility to stages, platforms, or similar elevated surfaces.
        1. Low Profile: No machine tower, to maintain viewing lines.
        2. Platform: Supported by an electro-hydraulic lifting mechanism.
        3. Independent Use: By individuals with disabilities.
        4. ADA Compliant: Includes applicable operating and safety devices.
        5. Platform Floor: Low-profile facilitating entry to the lift. Eliminates need for an installation pit or an access ramp at lower landing end.
     2. Physical Characteristics:
        1. Lifting capacity: 750 lbs (340 kg).
        2. Weight of Lift: 1025 lbs (465 kg) maximum.
        3. Vertical Speed: 7 ft per min (2.1 mpm).
        4. Vertical Travel: 12 to 60 inches (305 to 1524 mm), infinitely adjustable.
     3. Gate Configuration:

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required for the lower and upper gate.

* + - 1. Lower Gate:
         1. Manual Operation: Left handed. Self-closing.
         2. Manual Operation: Right handed. Self-closing.
         3. Automatic Operation: Left handed.
         4. Automatic Operation: Right handed.
      2. Upper Gate:
         1. Manual Operation: Left handed. Self-closing.
         2. Manual Operation: Right handed. Self-closing.
         3. Automatic Operation: Left handed.
         4. Automatic Operation: Right handed.
    1. Dimensions:
       1. No part of lift to be over 44 inches (1117 mm) high when platform is on the ground; except when equipped with optional stage guard.
       2. Required Clear Space (WxL): 51.25 x 64.25 inches (1302 x 1632 mm).
       3. Lift Dimensions (WxLxH): 47.25 x 62.75 x 44 inches (1200 x 1594 x 1118 mm).
       4. Platform Clear Space: 36 x 54 inches (914 x 1371 mm).
          1. Sidewalls and Platform Gates: 43 inches (1092 mm) high.
    2. Materials:
       1. Platform, Base Frame, and Lifting Device: ASTM A 36 or similar low-carbon steel.
       2. Windows: 1/4 inch (6 mm) thick high impact strength clear thermoplastic.
       3. Safety Skirt: Constructed from rigid plastic.
    3. Finish:
       1. Exposed Metal Surfaces: Finished by powder coating.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required. Contact Ascension for custom color selection.

* + - * 1. Color: Black.
        2. Color: \_\_\_\_\_\_.
    1. Drive Configuration: Direct-acting hydraulic.
       1. Synchronized Hydraulic Cylinders: Evenly support both sides of lift platform.
       2. Hydraulic Power Unit: Mounted on vibration-isolating supports minimizing vibration transmission and reducing frame-borne noise.
    2. Electrical Requirements:

\*\* NOTE TO SPECIFIER \*\* International electrical configurations available.

* + - 1. Amperage Draw per Lift: 13 Amps maximum.
      2. Service Line: 120 VAC, 60 hertz. Amperage capacity: Exceeding 13 Amps.
      3. Motor: 1/2 hp, 115 V AC single phase.
      4. Electrical System: Certified to ASME A17.5 by independent testing laboratory.
    1. Lift Safety Devices:
       1. Lift Construction: Meet applicable requirements of ASME A18.1, ASME A17.5, ADAAG, ANSI 117.1, and NFPA 70 (NEC).
       2. Included Safety Features: For passenger and general public protection.
          1. Safety Skirt: Completely encloses and protects area under platform.

Switches: Stop platform movement in case of excess skirt deflection.

* + - * 1. Operating Switches: Constant pressure.
        2. Emergency Stop Button: Lighted, sounds audible alarm.
        3. Electro-Mechanical Interlock: Prevents accidental opening of lower platform gate, and if provided, the upper landing gate.
        4. Gate Switches: Prevent operation if either platform gate is open.
        5. Hand Pump: Allows platform to manually be raised or lowered.
        6. Sidewalls and Platform Gates: 43 inches (1092 mm) high.

Visibility: Unobstructed view. Transparent sidewalls and platform gates.

* + - * 1. Lift platform stop height sensor.
        2. Platform Floor: Low profile and slip resistant surface.
        3. No installation pit or external access ramp at the lower landing.
    1. Compression Capability: May be compressed to 33 inches (838 mm) wide facilitating relocation through a 36 inches (914 mm) wide doorway.
       1. Compression Tool Kit: Recommended to facilitate compression of the lift. From Ascension.
    2. Add-Ons:
       1. Upper Landing Gate: Stationary gate mounted at the upper landing that guards against falling onto the lift from the upper landing. For applications that require guard rails be installed at the upper landing.
          1. Operation and Handing: as specified in the "Gate Configuration" Paragraph in this Article.
       2. Automatic Standby Power (Battery Backup): Minimum 5 lift cycles at full load during power outage events.
       3. Two-Way Communication: Hands-free autodialing phone on platform.
       4. Universal Keys: Limits lift use to authorized persons.

\*\* NOTE TO SPECIFIER \*\* The Ascension Virtuoso 5460P Model Series vertical portable wheelchair lift provides access to stages and platforms for individuals with disabilities. The lift is completely self-contained and compact, requiring no additional components. The portability feature adds flexibility to multi-use facilities. The Ascension Virtuoso is a premium portable lift for customers who want more than just the status quo. It features a low profile, generous window area, quiet electro-hydraulic drive train, rigid safety skirting, and 60" maximum rise. Delete this model if not required.

* 1. VERTICAL PORTABLE WHEELCHAIR LIFTS (Virtuoso 5460P)
     1. Lift Product: Virtuoso 5460P as manufactured by Ascension. Portable lifting device, unenclosed and self-contained, requiring no additional components or facility modifications. Raises and lowers platform and occupant providing accessibility to stages, platforms, or similar elevated surfaces.
        1. Low Profile: No machine tower to maintain viewing lines.
        2. Platform: Supported on an electro-hydraulic lifting mechanism with built-in casters for portability.
        3. Casters: Permit easy movement of unoccupied lift over hard, level surfaces.
           1. With Casters Removed: Lift to rest firmly on any hard, level surface, providing a stable base for operation of lift.
        4. Independent Use: By individuals with disabilities
        5. ADA Compliant: Includes applicable operating and safety devices.
        6. Platform Profile: Low profile facilitating entry to the lift. Eliminates need for a pit or access ramp at lower landing.
     2. Physical Characteristics:
        1. Lifting Capacity: 750 pounds (340 kg).
        2. Weight of Lift: 1025 pounds (465 kg) maximum.
        3. Vertical Speed: 7 fpm (2.1 mpm).
        4. Vertical Travel: 12 to 60 inches (305 to 1524 mm), infinitely adjustable.
     3. Gate Configuration:

\*\* NOTE TO SPECIFIER \*\* Additional gate swings for the lower and upper platform gates are possible. Automatic operation for the lower platform gate is also possible. Contact the manufacturer for more detailed information.

* + - 1. Lower Platform Gate:
         1. Manual Operation: Left handed. Self-closing.
      2. Upper Platform Gate:
         1. Manual Operation: Right handed. Self-closing.
    1. Dimensions:
       1. No part of the lift to be over 44 inches (1117 mm) high when platform is on the ground except when equipped with optional stage guard.
       2. Space Requirements; Operational, Storage, and Transport (HxLxW): 44 x 66 x 48 inches (1117 x 1677 x 1219 mm). Height is for platform in the down position.
       3. Platform Clear Space: 36 x 54 inches (914 x 1372 mm).
          1. Sidewalls and Platform Gates: 43 inches (1092 mm) high
    2. Materials:
       1. Platform, Base Frame, and Lifting Device: ASTM A 36 or similar low-carbon steel.
       2. Windows: 1/4 inch (6 mm) thick high impact strength clear thermoplastic.
       3. Safety Skirt: Constructed from rigid plastic.
    3. Finish:
       1. Exposed Metal Surfaces: Finished by powder coating.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required. Contact Ascension for custom color selection.

* + - * 1. Color: Black.
        2. Color: \_\_\_\_\_\_.
    1. Drive Configuration: Direct-acting hydraulic.
       1. Synchronized Hydraulic Cylinders: Evenly support both sides of lift platform.
       2. Hydraulic Power Unit: Mounted on vibration-isolating supports minimizing vibration transmission and reducing frame-borne noise.
    2. Electrical Requirements:

\*\* NOTE TO SPECIFIER \*\* Option: international electrical configurations available)

* + - 1. Amperage Draw per Lift: 13 Amps maximum.
      2. Service: 120 VAC, 60 hertz, single phase, 15 amp service. Three prong grounded electrical cord. Length: 20 feet (6.1 m).
      3. A Ground Fault Circuit Interrupter (GFCI).
      4. Motor: 1/2 hp, 115 V AC single phase.
      5. Electrical System: Certified to ASME A17.5 by independent testing laboratory.
    1. Lift Safety Devices:
       1. Lift Construction: Meet applicable requirements of ASME A18.1, ASME A17.5, ADAAG, ANSI 117.1, and NFPA 70 (NEC).
       2. Included Safety Features: For passenger and general public protection.
          1. Safety Skirt: Completely encloses and protects area under platform.

Switches: Stop platform movement in case of excess skirt deflection.

* + - * 1. Operating Switches: Constant pressure.
        2. Emergency Stop Button: Lighted, sounds audible alarm.
        3. Electro-Mechanical Interlock: Prevents accidental opening of lower platform gate, and if provided, the upper landing gate.
        4. Gate Switches: Prevent operation if either platform gate is open.
        5. Hand Pump: Allows platform to manually be raised or lowered.
        6. Sidewalls and Platform Gates: 43 inches (1092 mm) high.

Visibility: Unobstructed view. Transparent sidewalls and platform gates.

* + - * 1. Lift platform stop height sensor.
        2. Platform Floor: Low profile and slip resistant surface.
        3. No installation pit or external access ramp at the lower landing.
    1. Portability:
       1. Casters: 3-1/2 inches (89 mm) diameter hard rubber. Attachable to platform without tools; stored in base frame when not in use.
          1. Once attached, lift rolls easily over hard, smooth, level surfaces.
       2. Lift may be moved via fork lift or fork truck.
    2. Operating Characteristics:
       1. Three Constant Pressure "UP/DOWN" Switches
       2. Platform Stop Height: Adjustable without use of tools.
       3. Opening Upper Landing Platform Gate: Deploys a dock plate that rests on the upper landing surface.
          1. Dock Plate: Provides smooth transition between platform and upper landing. Closing upper landing platform gate retracts the dock plate.
    3. Compression Capability: May be compressed to 33 inches (838 mm) wide facilitating relocation through a 36 inches (914 mm) wide doorway.
       1. Compression Tool Kit: Recommended to facilitate compression of the lift. From Ascension.

1. EXECUTION
   1. EXAMINATION
      1. Verify suitability of substrate preparation in accordance with approved manufacturer's drawings.
      2. Verify correct space requirements in accordance with approved manufacturer's drawings. Verify electrical service is of correct type and at correct location.
      3. Do not begin installation until substrates have been properly prepared. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install lift in accordance with approved submittals, manufacturer's instructions, and ASME A18.1 requirements.
      2. Lift base shall independently support the weight of the entire unit, and shall be anchored to the pad at all four corners underneath the lift car. No part of the lift base frame shall require anchoring to an adjacent wall for structural support.
   4. FIELD QUALITY CONTROL
      1. Perform acceptance tests as required by code and the authority having jurisdiction. Place rated load on platform and operate for several cycles to verify correct installation and operation. No mechanical failures shall occur and no wear that would affect the reliability of the lift shall be detected.
   5. PROTECTION
      1. Protect installed products until completion of project.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION