



Telecab

RESIDENTIAL ELEVATOR

Planning Guide

Applicable Codes:

ASME A17.1/CSA-B44

Safety Code for Elevators and Escalators

Section 5.3 – Private Residential Elevators

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Purpose of This Guide

This guide assists architects, contractors, and lift professionals to incorporate the Telecab Residential Elevator into a residential building design. The design and manufacture of the Telecab Residential Elevator meets the requirements of the ASME A17.1/CSA B44 – Safety Code for Elevators – specifically Section 5.3, Private Residence Elevators.

We recommend that you contact your local authority having jurisdiction to ensure that you adhere to all local rules and regulations pertaining to residential elevators.

IMPORTANT: This Planning Guide provides nominal dimensions and specifications useful for the initial planning of a residential elevator project. Dimensions and specifications are subject to change without notice due to continually evolving code and product applications.

Before beginning actual construction, please consult Savaria Corporation or the authorized Savaria dealer in your area to ensure you receive your site-specific installation drawings with the dimensions and specifications for your project.

Visit our website for the most recent Telecab drawings and dimensions.

How to Use This Guide

- 1** Determine your client's intended use of the lift.
- 2** Determine the local code requirements.
- 3** Determine the site installation parameters.
- 4** Determine the cab type and hoistway size requirements.
- 5** Plan for electrical requirements.

History

December 11, 2009 – Initial release

April 6, 2010 – Updated logo and typeface

October 14, 2010 – Updated all cab type information and drawings

March 31, 2011 – Corrected travel speed in specifications table on page 4

Specifications

Telecab Specifications

Specification	Specification Data
Load capacity	500 lbs. (227 kg)
Maximum travel	23 ft (7.0 m) maximum
Travel speed	20 ft/min (0.1 m/s)
Tower	Modular 8 ft (2.4 m) guide rail assembly with roller guide shoes
Control system	115 VAC relay logic operation 115 VAC up direction and 12 VDC down direction
Levels serviced	2 levels (3 optional)
Platform	Non-skid platform
Power supply (circuit supplied by others)	110 VAC, 20 A, 60 Hz, single phase
Lighting supply (circuit supplied by others)	120 volt, 60 Hz, single phase
Motor/pump	110 VAC, 1.5 HP screw type
Electrical	Automatic battery recharging system (115 VAC) Low voltage controls
Drive system	2:1 roller chain hydraulic
Temperature operating range	-10 °C to +40 °C (14 °F to 104 °F)
Cab access	Front access only (standard) Left or right access (optional); with optional 2-door access
Cab dimensions	Standard: W30" x L46" x H78" (762 mm x 1168 mm x 1981 mm) Optional: W32" x L53" x H78" (813 mm x 1346 mm x 1981 mm) Optional: W30" x L47" x H78" (762 mm x 1194 mm x 1981 mm) Optional: W32" x L54" x H78" (813 mm x 1372 mm x 1981 mm)
Door size	H78" x W30" steel with Plexiglas insert
Minimum overhead clearance	90" (2286 mm) at top landing
Hall calls	Continuous pressure directional push buttons Keyed call/send
Color and finish	Beige or white electrostatic powder coat Clear or bronze acrylic windows
Safety features	Adjustable top floor presence detector built into the cab Electromechanical door lock and open door sensor Underpan safety sensor Emergency stop and alarm Emergency battery lowering Manual emergency lowering Fully-enclosed drive tower Pressure relief valve to prevent platform overload Slack chain safety device Two halogen lights in cab Telephone in cab
Optional equipment	Battery operation in up and down directions Two door concept (left/right access) Custom cab size (without ABS vacuum formed plastic finish) Custom color Horizontal plastic panel on hinged side Wired remote control in cab Hydraulic door closer Automatic door operator (without ABS vacuum formed plastic finish)

Site Construction Details

The Telecab needs a wall that supports a minimum of 700 lb (3114 N) of pull-out force at any bracket. The floor must be capable of supporting a load of 3200 lb (14.2 kN). See Figure 1.

A support wall with a combination of either two columns of three 2x4's, two columns of two 2x4's and two 2x6's, or a concrete or brick wall is required. Figure 2 shows the support wall configuration

Figure 1: Wall/floor loading

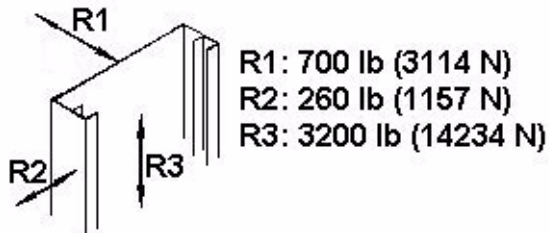
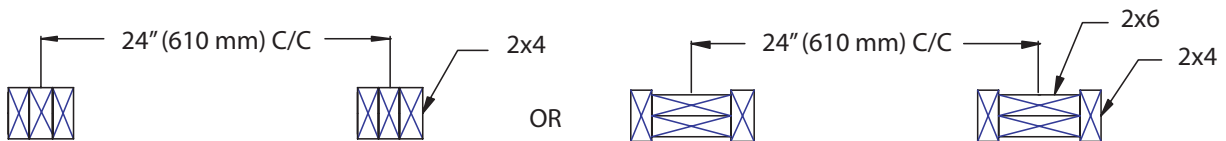
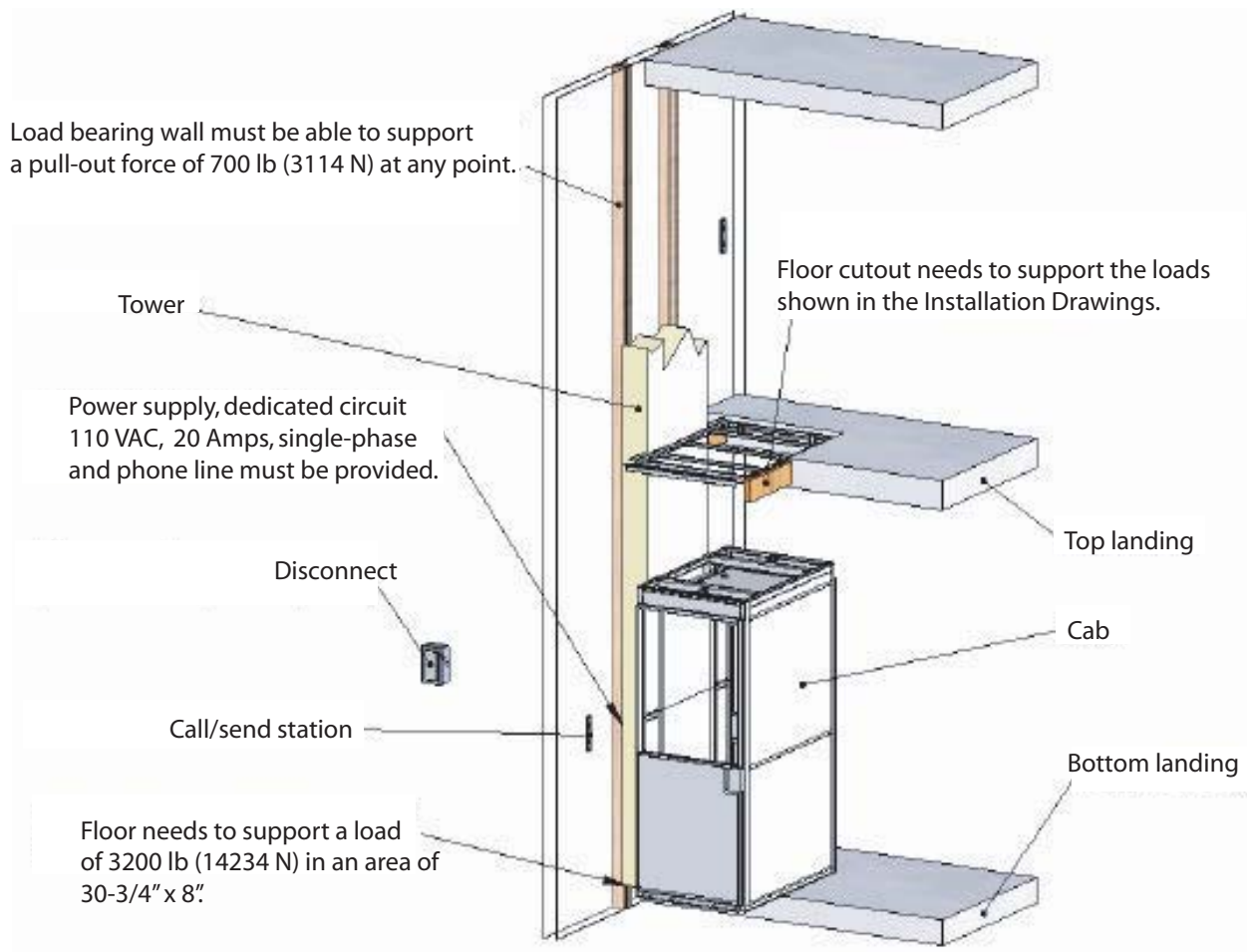


Figure 2: Support wall configuration



Load bearing wall must be able to support a pull-out force of 700 lb (3114 N) at any point.

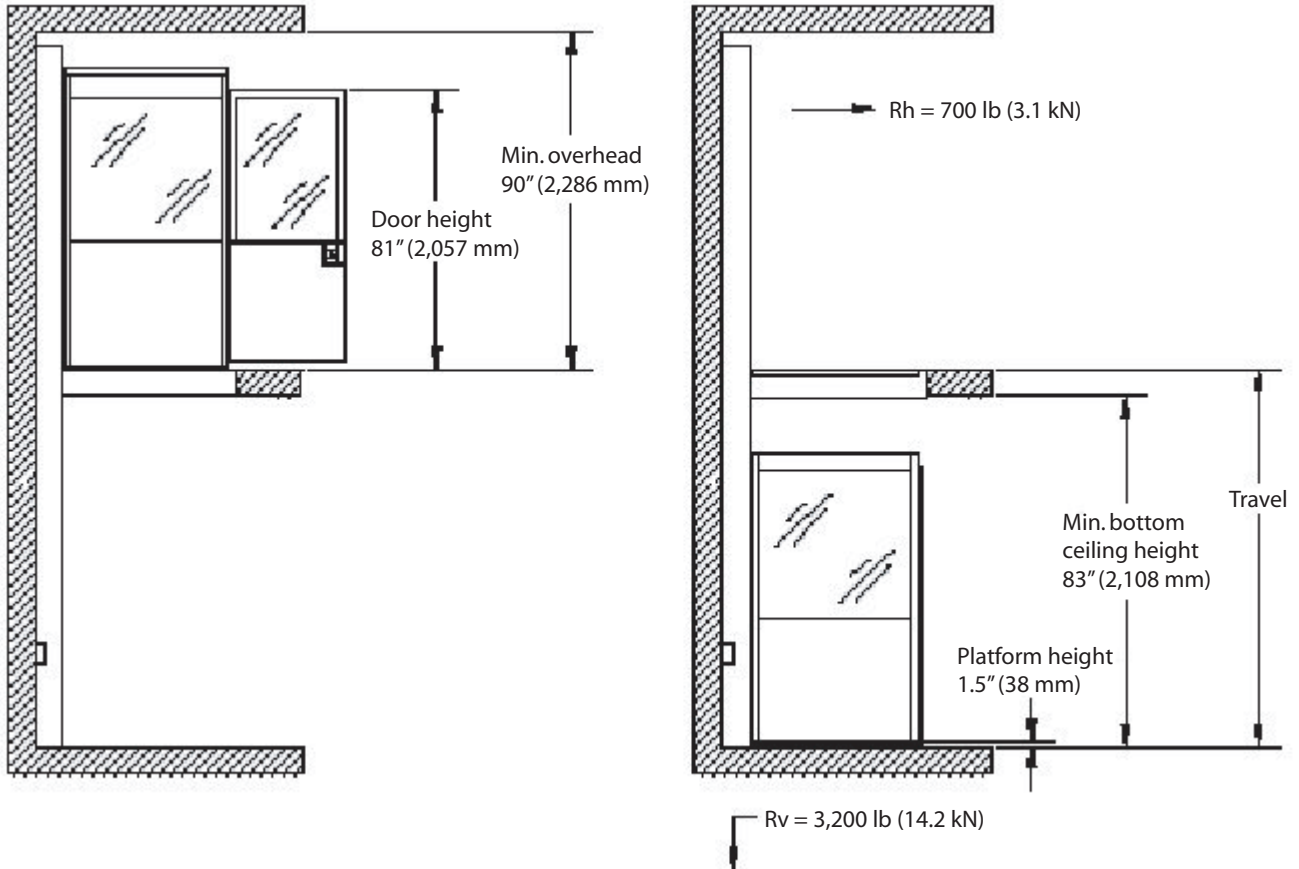


Elevation View

The following illustration shows the general elevation view and dimensions of the Telecab. Note that the minimum overhead is 90" for a 78" inside height cab dimension.

Refer to your site-specific Installation Drawings for details relevant to your job site.

Figure 3: Elevation view and dimensions

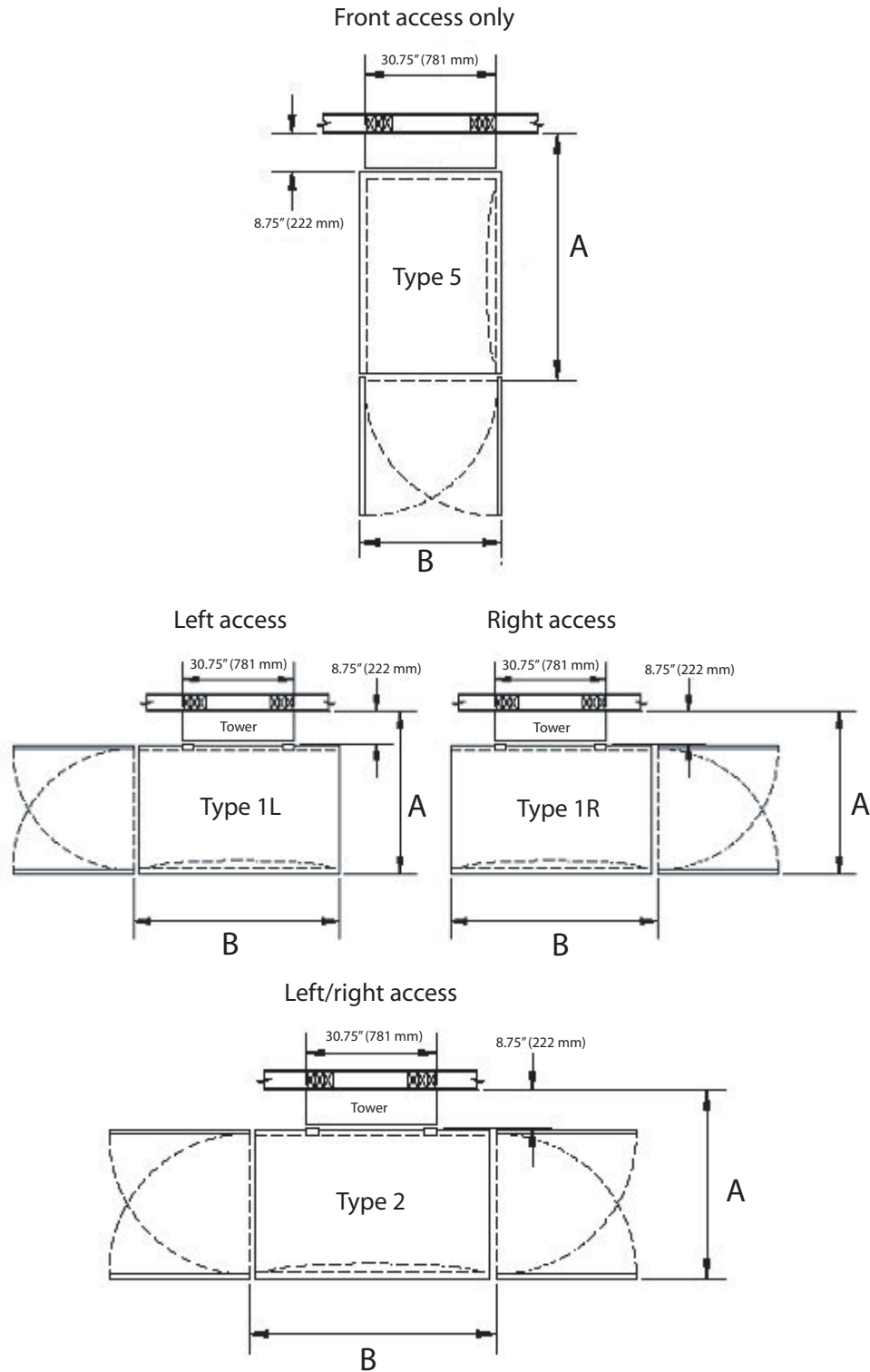


Cab Types

Cab types and sizes are listed below. Always refer to your site-specific Installation Drawings for details.

- Type 5 – 30" x 46", front access only (standard)
- Type 5 – 32" x 53", front access only (optional)
- Type 1L– 30" x 47" or 32" x 54", left access (optional)
- Type 1R– 30" x 47" or 32" x 54", right access (optional)
- Type 2– 30" x 47" or 32" x 54", left or right access (optional)

Figure 4: Cab types

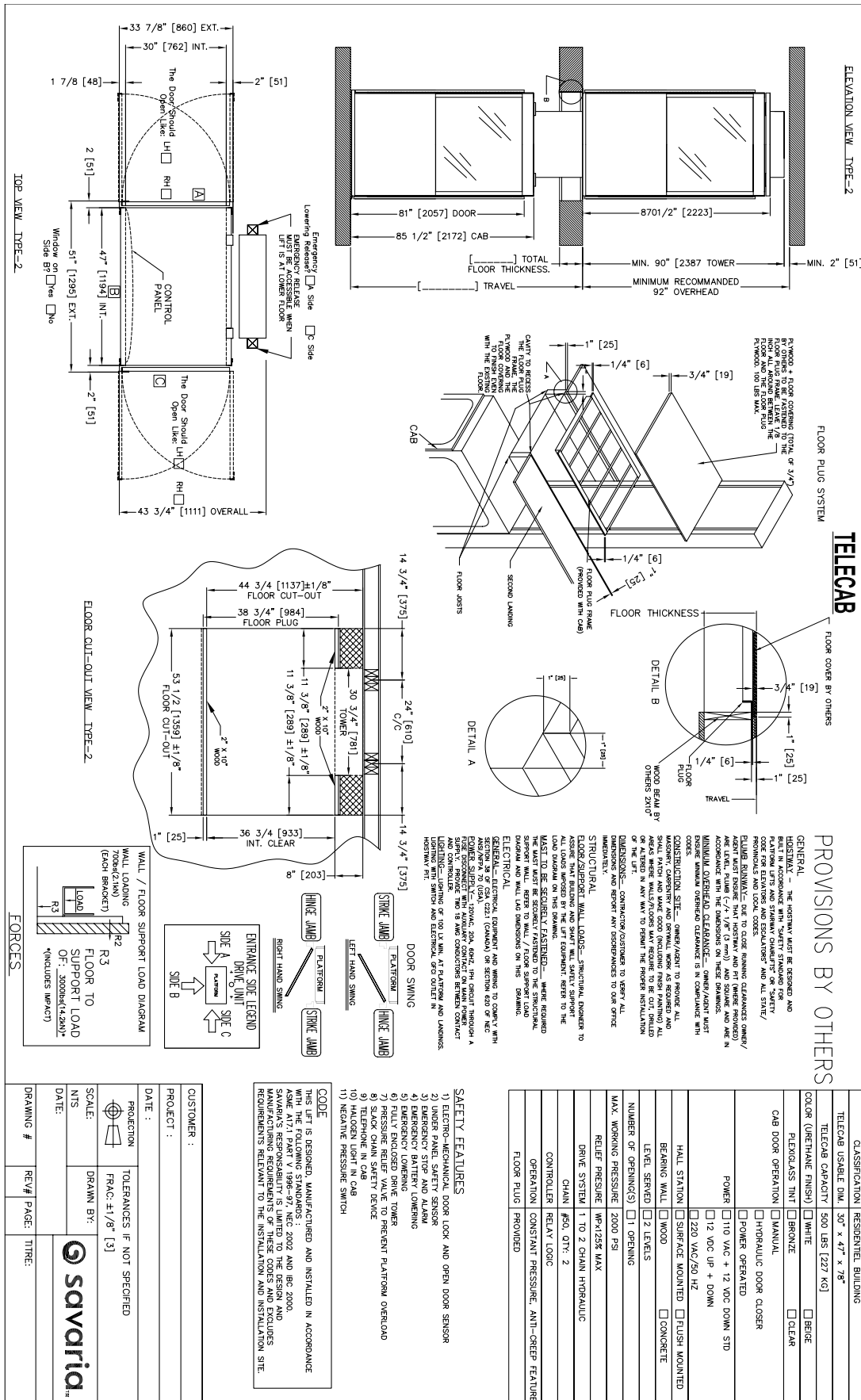


Drawings

The next several pages provide installation drawings for the Telecab.

- Type 5– 30" x 46", front access only
- Type 5 – 32" x 53", front access only
- Type 1L – 30" x 47", left access
- Type 1L – 32" x 54", left access
- Type 1R – 30" x 47", right access
- Type 1R – 32" x 54", right access
- Type 2 – 30" x 47", left/right access
- Type 2 – 32" x 54", left/right access

Figure 11: Type 2 – 30" x 47", left/right access



Architect Specifications

SECTION 14202 ELEVATORS AND LIFTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Residential elevators.

1.2 RELATED SECTIONS

- A. Division 16 Sections for electrical service for elevators to and including disconnect and fused switches at machine room.
- B. Division 16 Sections for standby power source, transfer switch, and connection from auxiliary contacts in transfer switch to controller.
- C. Division 16 Section "Voice and Data Communication Cabling" for telephone service to elevators.

1.3 REFERENCES

- A. American National Standards Institute (ANSI) B-29.2 - Chain Standards for Inverted Tooth (Silent) Chains and Sprockets.
- B. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.
- C. American Society of Mechanical Engineers (ASME) A18.1 - Safety Standard for Platform and Stairway Chair Lifts.
- D. U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)".

1.4 REQUIREMENTS OF REGULATORY AGENCIES:

- A. Fabrication and installation work in compliance with applicable jurisdictional authorities.
- B. File shop drawings and submissions with local authorities as the information is made available. Company pre-inspection and jurisdictional authority inspections and permits are to be made on timely basis as required.

1.5 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: Provide a complete layout of lift equipment detailing dimensions and clearances as required.
- D. Selection Samples: For each finish product specified requiring selection of color or finish, two complete sets of color charts representing manufacturer's full range of available colors and patterns.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
- B. Installer Qualifications:
 1. Execute work of this section only by a company that has adequate product liability insurance.
 2. Skilled tradesmen shall be employees of the installing contractor approved by the manufacturer, with demonstrated ability to perform the work on a timely basis.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. Coverage - this warranty applies to the repair or replacement, at Manufacturer's option, of parts that fail due to defective material or workmanship. Manufacturer may, at its option, provide factory reconditioned parts. This warranty is provided to the Authorized Dealer on behalf of the final purchaser of the product and is not transferable. The Manufacturer's warranty does not cover labor charges for the removal, repair or replacement of warranty parts but such costs may be covered for a period of time by Authorized Dealer's warranty, which is provided to purchaser separately.
 1. The manufacturer shall offer a 36-month warranty on parts from date of substantial completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Savaria Corporation, which is located at: 107 Alfred Kuehne Blvd.; Brampton, ON, Canada L6T 4K3; Toll Free Tel: 800-661-5112; Tel: 905-791-5555; Email: [request info \(info@savaria.com\)](mailto:request_info@savaria.com); Web: www.savaria.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 RESIDENTIAL ELEVATOR

- A. Residential Elevator: Savaria Telecab.
- B. Equipment: Provide equipment, incidental material and labor required for complete, operable hydraulic elevator installation. The elevators shall be erected, installed, adjusted, tested and placed in operation by the elevator system manufacturer or manufacturer's authorized installer.
- C. Performance: The elevator shall be designed and tested in accordance with ASME A17.1 part V. The testing shall consist of loading the platform to rated capacity for several cycles to insure proper operation. Mechanical failures and defects shall be corrected.
- D. Accessibility Requirements: Comply with Section 4.10 in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)."
- E. The following preparatory work to receive the elevator specified shall be the work provided by others:
 - 1. Dedicated 110 VAC 20 amp single phase power to operate lift to be provided.
 - 2. No pit shall be provided.
 - 3. Provide a load-bearing wall to support a load of 700 lbs at any point.
 - 4. Provide a floor cut out. Refer to shop drawings.
 - 5. The floor needs to support 3000 lb (1362 kg).
 - 6. A phone line shall be provided.
- F. Characteristics:
 - 1. Rated load: 500 lb (227 kg).
 - 2. Rated Speed: 25 fpm. (0.07 m/s).
 - 3. Car Dimensions: 30 inches W by 46 inches L by 78 inches H (762 mm by 1168 mm by 1981 mm).
 - 4. Levels Serviced: 2.
 - 5. Car Access: Enter/exit same side.
 - 6. Maximum Travel: Up to 23 feet. Refer to drawings.
 - 7. Operations: Constant pressure.
 - 8. Power Supply: 110 VAC, 20 amps, 1 Phase.
 - 9. Drive System: 2 to 1 roller chain hydraulic.
 - 10. Paint: Powder coat finish.
 - 11. Color: Almond beige or white. Refer to Room Finish Schedule.
 - 12. Emergency Power: Battery operation in down direction.
 - 13. Controller: Electronic-free relay logic.
 - 14. Motor/Pump: 110VAC, 1.5HP/screw type.
 - 15. Car Operating Panel: Constant pressure buttons or rocker switches, emergency stop/alarm button, on/off key switch and emergency light, and a alarm button mounted on a removable steel panel.
 - 16. Hall Call Stations: Provide a surface-mounted Klockner Moeller box for upper and lower levels.
 - 17. Emergency Operation: The car shall be equipped with a battery-operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. The battery shall be the rechargeable type with an automatic recharging system. A manual lowering device shall be located in a lockable box at positioned at a designated landing.
 - 18. Manual lowering: Outside the hoistway at bottom landing.
- G. Car Enclosure:
 - 1. Walls: Durable metal wall panels.
 - 2. Ceilings: Durable metal (standard) with two (2) recessed down lights.
 - 3. Overhead lights in the car compartment shall turn ON automatically when the elevator door is opened and to stay on while the elevator is in use. The elevator lights will shut off by a timer when the elevator is not in use.
 - 4. Floor: Metal with non-skid surface.
 - 5. Handrail: Handrail located on control panel side.
- H. Systems and Components:
 - 1. The pumping unit and control shall be enclosed in the hoistway. The controller and pump unit shall be pre-wired and tested prior to shipment. Pump unit shall incorporate the following features:
 - a. Smooth stops at each landing shall be an inherent feature.
 - b. Adjustable pressure relief valve.
 - c. Manually operable down valve to lower lift in the event of an emergency. This valve shall be activated from outside of the hoistway through a keyed box.
 - d. Gate valve to isolate cylinder from pump unit.
 - e. Electrical solenoid for down direction control.
 - f. Emergency lowering by battery power, from the car control.
 - 2. The cylinder shall be constructed of steel pipe of sufficient thickness and suitable safety margin. The top of the cylinder shall be equipped with a cylinder head with an internal guide ring and self-adjusting packing.
 - 3. The plunger shall be constructed of a steel shaft of proper diameter machined true and smooth. The plunger shall be provided with a stop electrically welded to the bottom to prevent the plunger from leaving the cylinder.
 - 4. Roller Chains: Two (2) No.50 roller chains with 5/8 inch (16 mm) pitch. Minimum breaking strength 6100 lb (2772 kg) each.

5. Leveling Device: The lift shall be provided with an anti-creep device which will maintain the carriage level within 1/2 inch (13 mm) of the top landing.
 - a. All limit switches and leveling device switches shall be located in a position to be inaccessible to unauthorized persons. The switches shall be located behind the mast wall and be accessible through removable panels. Micro-switches shall not be used.
6. Guide Yoke: The 2:1 guide yoke/sprocket arrangements shall be supplied with two (2) sprockets, roller guide shoes, bearings and guards.
7. Terminal Stopping Device: Normal terminal stopping devices shall be provided at top and bottom of runway to stop the car positively and automatically. Limit switches shall be used. Micro-switches are not acceptable.
8. Guide Rail and Brackets: Steel 'C' guide rails and brackets shall be used to guide the platform and sling. Guide rails shall form part of the structural integrity of the unit and be integral to the mast enclosure, ensuring stability and minimum platform deflection when loaded.
9. Wiring and electrical connections shall comply with applicable codes. Insulated wiring shall have flame-retardant and moisture-proof outer covering and shall be run in conduit or electrical wireway if located outside the unit enclosure. Quick disconnect harnesses shall be used when possible.
10. The door locks shall be fire-rated electric door strike interlocked with operator.
11. The door shall be 78 inches H by 30 inches W (1981 mm by 762 mm) and shall be made of steel with Plexiglass insert.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until hoistway and machine room has been properly prepared.
- B. Site dimensions shall be taken to verify that tolerances and clearances have been maintained and meet local regulations.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 ELEVATOR INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install the components of the elevator system that are required and that are required by jurisdictional authorities to license the elevator.
- C. Trained employees of the elevator contractor shall perform installation work.
- D. Adjust elevator for proper operation and clean unit thoroughly.
- E. Instruct users in operating procedures and owner's maintenance person in trouble-shooting and maintenance procedures.

3.4 PROTECTION

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

END OF SECTION

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