SECTION 14 20 00 - Elevators

ELEVATORS AND LIFTS

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\*\* NOTE TO SPECIFIER \*\* Savaria; residential and commercial elevators and lifts.  
.  
This section is based on the products of Savaria, which is located at:  
2 Walker Dr.  
Brampton, ON, Canada L6T 5E1  
Toll Free Tel: 800-661-5112  
Tel: 905-791-5555  
Fax: 905-791-2222  
Email:[request info (info@savaria.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Savaria&coid=31585&rep=&fax=905-791-2222&message=RE:%20Spec%20Question%20(14202sci):%20%20&mf=)  
Web:<https://www.savaria.com>  
  
[[Click Here](http://www.arcat.com/arcatcos/cos31/arc31585.html)] for additional information.  
  
As a leading designer and manufacturer of residential elevators, luxury home elevators, commercial elevators, and lifts for over 30 years, Savaria Lifts has thousands of satisfied customers to thank for their business. Our global operation continuously seeks to advance manufacturing processes in our own modern facilities, allowing us to offer exceptional value and shorter lead times, while never compromising product quality, safety, or reliability. As an active member of many trade associations, we are committed to the ongoing support of its customers and dealers alike. Authorized dealers are carefully selected for their knowledge and experience, kept up-to-date with the latest technical and training sessions, and supported with our expert customer service.  
  
Savaria Vuelift Elevator: Vuelift integrates into beautiful households both seamlessly and tastefully. Utilizing an integrated full glass hoistway and completely self-contained design, a Vuelift provides a power and precision unrivaled in the marketplace. Vuelift elevators come in two styles to match the architecture of your home: the trademark original round elevator with sweeping curved cylindrical glass, or the sleek octagonal glass elevator with unique folded corner design.

1. GENERAL
   1. SECTION INCLUDES
      1. Residential elevators.
   2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant for elevator products; add others as required.

* + 1. Division 16 Sections for electrical service for elevators to and including disconnect and fused switches at machine room.
    2. Division 16 Sections for standby power source, transfer switch, and connection from auxiliary contacts in transfer switch to controller.
    3. Division 16 Section "Voice and Data Communication Cabling" for telephone service to elevators.
    4. Section 03 30 00 - Cast-in-Place Concrete.
    5. Section 06 10 00 - Rough Carpentry.
    6. Section 08 14 23.16 - Plastic-Laminate-Faced Wood Doors.
    7. Section 08 71 53 - Security Door Hardware.
    8. Section 09 21 16.23 - Gypsum Board Shaft Wall Assemblies.
    9. Section 09 65 13 - Resilient Base and Accessories.
    10. Section 09 90 00 - Painting and Coating.
    11. Section 28 36 33 - Water Detection Sensors.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not required.

* + 1. American National Standards Institute (ANSI) B-29.2 - Chain Standards for Inverted Tooth (Silent) Chains and Sprockets.
    2. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.
    3. American Society of Mechanical Engineers (ASME) A18.1 - Safety Standard for Platform and Stairway Chair Lifts.
    4. CSA B44.1 - Elevator and Escalator Electrical Equipment.
    5. CSA B355 - Lifts for Persons with Physical Disabilities.
    6. CSA B613 - Private Residence Lifts for Persons with Physical Disabilities.
    7. CSA - National Electric Code.
    8. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
    9. NFPA 70 - National Electric Code.
    10. U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)".
  1. REQUIREMENTS OF REGULATORY AGENCIES
     1. Fabricate and install work in compliance with applicable jurisdictional authorities.
     2. 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.
  2. 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: Provide a complete layout of lift equipment detailing dimensions and clearances as required.
     4. Verification Samples: For each finish product specified.
  3. QUALITY ASSURANCE
     1. Installer Qualifications: Minimum 2 years experience installing similar products, and acceptable to the manufacturer.
        1. Skilled tradesmen to be employees of installing contractor approved by the manufacturer, with demonstrated ability to perform the work on a timely basis.
        2. Must have adequate product liability insurance.
  4. DELIVERY, STORAGE, AND HANDLING
     1. Store products in manufacturer's unopened packaging until ready for installation.
     2. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.
  5. PROJECT CONDITIONS
     1. 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 recommended limits.
  6. WARRANTY
     1. Manufacturer warranty applies to repair or replacement, of parts failing due to defective material or workmanship. Manufacturer may, provide factory reconditioned parts. Warranty is provided to Authorized Dealer on behalf of final purchaser and is not transferable. Warranty does not cover labor charges for removal, repair, or replacement. Labor costs may be covered for a period of time by Authorized Dealer's warranty, provided to purchaser separately.
        1. Manufacturer 36-month limited warranty on parts from date of shipment.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Savaria, which is located at: 2 Walker Dr.; Brampton, ON, Canada L6T 5E1; Toll Free Tel: 800-661-5112; Tel: 905-791-5555; Fax: 905-791-2222; Email:[request info (info@savaria.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Savaria&coid=31585&rep=&fax=905-791-2222&message=RE:%20Spec%20Question%20(14202sci):%20%20&mf=); Web:<https://www.savaria.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.
  1. RESIDENTIAL ELEVATOR

\*\* NOTE TO SPECIFIER \*\* Delete model not required. The mini has the smallest footprint and the Plus models have the largest.

* + 1. Residential Elevator: Savaria Vuelift.
       1. Vuelift Mini – Acrylic cab and landing panels
       2. Vuelift Mini – Low iron glass cab and landing panels
       3. Vuelift Round (medium size) – Acrylic cab and landing panels
       4. Vuelift Octagonal (medium size) – Acrylic cab and landing panels
       5. Vuelift Octagonal (medium size) – Low iron glass cab and landing panels
       6. Vuelift Round Plus - Low iron glass cab and landing panels
       7. Vuelift Octagonal Plus – Low iron glass cab and landing panels.
    2. Equipment, incidental material, and labor required for complete, operable hydraulic elevator installation. Erected, installed, adjusted, tested, and placed in operation by the elevator system manufacturer or manufacturer's authorized installer.
    3. Performance: Designed and tested per ASME A17.1 part V. Testing to consist of loading platform to rated capacity for several cycles insuring proper operation. Correct mechanical failures and defects.
    4. Preparatory work to receive elevator specified shall be the work provided by others:
       1. Permanent 230 VAC, 30-amp single phase power to operate lift provided from a lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. 115 VAC, 15-amp single phase power to operate lighting circuit. Refer to Drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
       2. Finished floors including floor cutouts at landings
       3. Working telephone jack near the electrical disconnects
       4. Substantial, level pit floor slab as indicated on lift contractor's shop drawings
    5. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load option not required.

For “Vuelift Mini” in glass or acrylic select 500 lbs.

For the “Vuelift (medium size)” round or octagonal in acrylic select 840lbs.

For the “Vuelift Plus” models or the “Vuelift Octagonal (medium size)” in glass select 950 lbs.

* + - 1. Rated Load and rated speed:
         1. 500 lbs (227 kg) / 30 fpm (.15m/s).
         2. 840 lbs (341 kg) / 32 fpm (0.16 m/s).
         3. 950 lbs (431 kg) / 40 fpm (0.20 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car floor area option not required.

* + - 1. Car Floor Area:
         1. 8.25 sq.ft (.76 sq.m) - Vuelift Mini (acrylic or glass) only.
         2. 13.09 sq.ft. (1.22 sq.m) - Round medium only.
         3. 12.83 sq.ft. (1.19 sq.m) - Octagonal medium (acrylic or glass) only.
         4. 15 sq ft. (1.4 sq.m) - Round Plus only
         5. 14 sq ft (1.31 sq.m) – Octagonal Plus only

\*\* NOTE TO SPECIFIER \*\* Delete car height option not required.

Select 78” for “Vuelift Mini”.

Select 84” for “Vuelift (medium size)” & “Vuelift Plus” models with standard cab height.

If applicable select 76.5” for custom short car. Available on “Vuelift (medium size)” acrylic models only.

* + - 1. Car Height:
         1. 78 inches (1981mm); fits in overhead of 96 inches (2438 mm) - Vuelift Mini.
         2. 84 inches (2134 mm); fits in overhead of 108 inches (2692 mm) for both acrylic and glass - Vuelift Regular.
         3. 80 inches (2032 mm); optional car fits in overhead of 104 inches (2641 mm) for both acrylic and glass - Vuelift Regular.
         4. 76.5 inches (1943 mm); short car for both acrylic and glass except for large+ round glass (RGL). Fits in overhead of 96 inches (2438 mm) - Vuelift Regular.
      2. Operation: Automatic.
      3. Power supply: 234 Volt, Single Phase, 30 Amps.

\*\* NOTE TO SPECIFIER \*\* Please enter travel height

* + - 1. Travel: \_\_\_\_\_\_ feet. Maximum of 50 feet (15.24m).

\*\* NOTE TO SPECIFIER \*\* Insert levels serviced from 2 to 6.

* + - 1. Levels Serviced: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required. 90 degree not available for the “Vuelift Mini” model.

* + - 1. Cab Configuration:
         1. Enter/exit same side.
         2. Straight through cab
         3. 90 degree – not available for Vuelift Mini
      2. Lighting supply: 115 Volt, 1 Phase, 15 Amps.
      3. Galvanized aircraft cable:

\*\* NOTE TO SPECIFIER \*\* Delete cable option not required. 1/4” is used for “Vuelift Mini” model and 3/8” is used for “Vuelift (medium size)” & “Vuelift Plus” models.

* + - * 1. Suspension 2 x Ø6 x 133.
        2. Suspension 2 x 3/8-inch diameter.
      1. Drive: Pre-programmed variable frequency for smooth start and stops
      2. Car Operating Panel: Automatic push buttons. Emergency stop/alarm button.
      3. Phone: Integrated phone with keypad and speaker.
      4. Hall Call Stations: Keyless with illuminated call button and matching cover plate for each landing.
      5. 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 positioned at the uppermost landing.

\*\* NOTE TO SPECIFIER \*\* Delete pit depth options not required. 4” mini pit or step in needed for buffer spring application where required by AHJ (Authority Having Jurisdiction) or for units over habitable space (i.e. penthouse application).

* + - 1. Pit Depth:
         1. Pit required:

\*\* NOTE TO SPECIFIER \*\* Delete pit depth options not required.

3 inch (76.2mm) recessed pit for a level finish at bottom landing (no buffer springs - Vuelift Mini only)

4 inch (101.6 mm) recessed pit for a level finish at bottom landing (with buffer springs if required – all models)

* + - * 1. No pit:

\*\* NOTE TO SPECIFIER \*\* Delete step in options not required

3 inch (76.2mm) step in (no buffer springs – all models)

4 inch (102 mm) step in – (with buffer springs if required – all models)

* + 1. Cab Enclosure:

\*\* NOTE TO SPECIFIER \*\* Delete walls options not required. – Match your model selection

* + - 1. Walls: Textured powder coated steel frame with acrylic panels
      2. Walls: Textured powder coated steel frame with low iron laminated silica glass panels.
      3. Ceiling: Textured powder coated steel; standard.
      4. Overhead Lights in Car Compartment: Turn ON when door is opened and stay on when in use. Lights shut off by a timer when elevator is not in use.
      5. Elevator lighting: Recessed energy saving led cab lights
      6. Cab Floor: Unfinished 3/4 inch (19 mm) plywood sub-flooring with carpet.
      7. Car gate:

\*\* NOTE TO SPECIFIER \*\* Delete car gate selection not required.

Automatic bi-fold available for “Vuelift (medium size)” & “Vuelift Plus” models

Manual sliding for “Vuelift Mini” model

* + - * 1. Automatic bi-fold gate.
        2. Manual sliding curved cab door (Vuelift Mini only)
    1. Hoistway:

\*\* NOTE TO SPECIFIER \*\*Delete finish option not required. – Match your model selection

* + - 1. Finish:
         1. Textured powder coated steel frame with acrylic panels.
         2. Textured powder coated steel frame with low iron laminated silica glass panels.
      2. Landing doors: Clear vision manual swing-out doors.
    1. Systems and Components:
       1. Machine Room: Required, controller outside hoistway.
       2. Controller: Pre-wired. Tested prior to shipment.
          1. Smooth stops at each landing.
          2. Automatic battery back-up ensuring lift travels to lower landing in event of power failure.
       3. Drivetrain: Winding drum.

\*\* NOTE TO SPECIFIER \*\* Delete motor options not required. Match motor selection with capacity of model chosen.

* + - 1. Motor:
         1. 2.2 HP with integrated brake; 500 lbs (226 kg)
         2. 5.0 HP with integrated brake; 840 lbs (341 kg).
         3. 5.0 HP with integrated brake; 950 lbs (431 kg).
      2. Transmission: Ultra-low vibration 3-stage right angle helical bevel drive.
      3. Limit and Leveling Device Switches: Located in position to be inaccessible to unauthorized persons. Located in hoistway.
      4. Wiring and Electrical Connections: Comply with applicable codes. Insulated wiring with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire way if located outside unit enclosure. Use quick disconnect harnesses when possible.
      5. Door Locks: Xtronics E10983-1901 approved electrical mechanical elevator interlock certified in compliance with A17.1 sections 2.12.4.3.
    1. Emergency Devices:
       1. Terminal Limits. Stops elevator if it overruns limits at top or bottom landing.
       2. Final limits: Redundant safety feature if elevator overruns terminal limits at top or bottom. The final limit stops elevator and renders automatic controls inoperable. Elevator must then be serviced to determine and correct the fault.
       3. Pit Switch: Disables elevator for servicing purposes.
       4. Interlocks: Hoistway doors remain locked when car is not at floor and prevent elevator from running until doors are closed and locked.
       5. Type A Instantaneous Safeties: Per ASME A17.1 Sect 2.17.8.1 and 2.17.5.1 for instantaneous breaking in case of free fall or over speed. Quantity of 4.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until hoistway and machine room has been properly prepared.
      2. Site dimensions shall be taken to verify that tolerances and clearances have been maintained and meet local regulations.
      3. 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.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. ELEVATOR INSTALLATION
     1. Install in accordance with manufacturer's instructions.
     2. Install the components of the elevator system that are required and that are required by jurisdictional authorities to license the elevator.
     3. Trained employees of the elevator contractor shall perform installation work.
     4. Adjust elevator for proper operation and clean unit thoroughly.
     5. Instruct users in operating procedures and owner's maintenance person in trouble-shooting and maintenance procedures.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. LIFT INSTALLATION
     1. Install all the components of the lift system that are specified in this section to be provided, and that are required by jurisdictional authorities to license the lift.
     2. Trained employees of the lift contractor shall perform all installation work of this section.
     3. Adjust lift for proper operation and clean unit thoroughly.
     4. Instruct users in operation procedures and Owner's maintenance person in trouble-shooting and maintenance procedures.
  2. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION