1. GÉNÉRALITY

1.1 Scopes

Furnish all labour, materials and equipment required to install an handicap **hydraulic and cables (2:1)** or **screw drive** platform lift commercial model **SMARTLIFT** for indoor application with a self supporting tower. The Smart lift is manufactured by Global Tardif Elevator Manufacturing Group inc. (here after called the Manufacturer) as shown on the drawings and specifications.

The Manufacturer will supply shop drawings, materials and equipment to the installer company. Elevator construction works shall not start before drawings have been approved by owner or general contractor.

The Manufacturer is located at 120 de Naples, St-Augustin de Desmaures, Québec, Canada (T. 418 878 4116 or le 1.800.661.6316 ; Fax 418.878.1595).

The hoistway for model **SMARTLIFT-S** shall be built by a general contractor

The enclosure around the **SMARTLIFT-EN** shall be provide by the manufacturer.

1.2 Preparatory work by others

To complete the elevator installation, others works have to be done by others :

1. All masonry works, gyproc and paint.
2. If hoistway is built by a general contractor (ref: SmartLift-S), it have to be built as per elevator shop drawings, (structural reinforcing, ventilation etc…) and follow all applicable codes and standards.
3. The pit depth is **3'' (76 mm) minimum** from first floor. The pit shall be clean and built as per code regulations. Provide pit waterproofing or sump pump if required. Provide adequate support for guide rail fastenings.
4. Provide level concrete pit floor to support loads impact of **3750 lbs (1705kg)** as per chapter 1 of construction code.
5. Provide a lockable room to store elevator parts and equipment before and during installation.

6. Appropriate overhead from upper landing floor up to the hoistway ceiling as per elevation drawing from Global/Tardif.

7. During installation, hoistway landings access, to be fully open at least 8 feet high.

8. Cab floor finishing and installation by others (Maximum load: 2 lbs/square foot).

9. Rough openings for landing floor call stations and signage, as per drawings.

10. Electric power for setting and test on first installation day by electrical contractor.

11. As per National U.S. electric code **or** Canadian electric code, a fuse disconnect switch for each elevator connected on a 30 amps circuit equipped with a normally open type contact.

12. Following section 38 of electric Canadian codes, install an auxiliary contact in the principal disconnect switch.

13. The disconnect switch is install 20 feet (6 meters) away minimum from the controller and is visible from there. If not, a second disconnect switch shall be install near the controller.

14. Light, light switch and electric outlet in hoistway are required before starting elevator installation.

IMPORTANT

1. The elevator drawings are made in accordance of **CAN-CSA-B355-00 codes**.

2. These drawings are not done for the building construction. It is to illustrate the relation between the elevator and the structure.

3. This drawing is only for installation. The landing doors details and cab details will be on separates pages.

4. Global/Tardif is not responsible for the exact details and dimensions of the hoistway structure and the machine room.

5. The owner/buyer/builder will provide suitable lintels over and under landing entrances.

6. The doorframes are not built to support the weight of the walls. The general contractor is responsible for any damages caused by masonry and finishing works around the landing doors.

7. The total distance between the lower and the upper floor as per elevation drawing have to be maintain within ¼'' (6mm).

8. Provide adequate support for guide rail fastenings or for towers supports as per shop drawings.

9. Provide finish grouting and masonry around doorframes only after the end of their installation.

1.3 Warranty

The Manufacturer's acceptance is conditional on the understanding that their warranty covers defective material. The guarantee period shall not extend longer than **one (1) year** from the date of completion or acceptance thereof by beneficial user whichever is earlier of each elevator. The guarantee excludes ordinary wear and tear of improper use, vandalism, abuse, misuse, or neglect or any other causes beyond the control of the Manufacturer and this express warranty is in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.

Labour is guaranteed for one year by the installer.

1.4 Maintenance

Elevator installation company will provide a quality maintenance contract including verifications, adjustment and lubrication of the equipment regularly every 3 months after the elevator delivery day (we recommend a monthly maintenance for unit subject to extensive operation). The maintenance shall be done by skilled mechanicals during day work time. Urgent calls will be carried out during normal day time. Maintenance contract will not cover service calls caused by negligence, abusive use or accident due by others than elevator installer. Only originals elevator parts can be used for reparations.

1.5 Corrostop-2000' paint finish

The elevator manufacturer will paint all exposed parts without finish with GT-CorroStop-2000 process..

1.6 Permit/ Inspections

The elevator installer will attend to all inspections and verifications required by authorities. The owner will be responsible for the cost of any license issue by government inspectors.

1.7 Codes

All works have to be done in accordance with Canadian Electrical Code, Provincial Elevator code and CAN/C.S.A.-B355-00 standard as well as any local code applicable. The manufacturer is not responsible for any changes in regulations or codes.

2. PRODUCTS

2.1 Description

Furnish and install	One (1) GT SmartLift (with self supporting tower) manufactured by Global Tardif inc.
Capacity:	750 lbs (340 kg)
Speed :	*(Please, Mark with a "X" ex.: __X__)* ____ Hydraulic model: 15 feet/min (0.08 m/sec) ____ Acme screw model: 4 feet/min. (0,02m/sec)
Operation (button):	Constant pressure
Control type:	Simple relay controller model GT-SML
Travel:	_____ ft _____ in. *(Please Complete)* Hydraulic: Maximum 23 feet (7000 mm) Acme screw: Maximum 10 feet (3048 mm)
Pit :	Minimum: 3 '' (76 mm)
Overhead:	_____ in. *(Please Complete)* Standard: 96'' (2540mm) Min.: 92'' (2337 mm)
Nbr. of landings :	_____ Stops (Please Complete)
Opening and Door type for each Stops	(Please enter the **stop number** for each opening types and the type of door (**D**oor or **G**ate) Ex.:**1D** for a regular GT-Swing **DOOR** at the **1**st Stop **2D** for a regular GT-Swing **DOOR** at the **2**nd Stop **3G** for a GT-Swing **GATE** at the **3**rd Stop

Opening	Stop / Door or Gate (ex. 1D – 2G)
Front Only	
Front & Rear	
Front & Side	
Side Only	

Upper gate dimensions: Lower door dimensions:	34¼'' (870mm) width x 42¼'' (1070mm) height 34¼'' (870mm) width x 80'' (2032mm) height
Doors operation:	Manual opening (motorized opening in option)
Hoistway net dimensions:	Width : _____ ft _____ in. *(Please Complete)* Depth : _____ ft _____ in. *(Please Complete)* (Look for standard dimensions at www.gtaccessibility.com)
Net cab dimensions :	Width : _____ ft _____ in. *(Please Complete)* Depth : _____ ft _____ in. *(Please Complete)* (Look for standard dimensions at www.gtaccessibility.com) Maximum surface: 21,52 sq. feet
Cab height :	42 ¼'' (1070mm)
Landing call stations :	Constant pressure raised Moeller button type
Power supply:	120 volts VAC converted 24 VDC 15 amps, 1 PH, 60 Hertz.

2.2 Self-supporting tower

1. The system shall include a 41'' (1041mm) width x 12'' (305mm) deep x require height which depend of the total travel, corrosive proof self-supporting tower.

2. Two (2) steel legs, fixed at floor pit, and at the back tower brackets fixed at each landing and at top tower will insure the stability and the strength of the system.

3. The tower shall include ''L'' shape modular rail sections where the guide shoes should slide easily.
4. The controller, the emergency bell, the battery, the motor, the pump, the oil tank, the cylinder and the cables shall be install inside the tower without any interference for easy maintenance.

2.3 Enclosure supply by manufacturer (réf : SmartLift-EN)

1. The enclosure around the platform lift shall be composed of extruded aluminium posts with Plexiglas inserts.
2. That enclosure shall go above superior landing for 42 ¼'' minimum.

2.4 Pump unit & controller (hydraulic system only)

1. The pump, the motor and the controller shall be install inside the tower, pre-wired and tested in manufacture before delivery.

2. The system shall included an adjustable safety valve, a manual emergency lowering valve, a shutting valve to isolate the cylinder from the pump unit and an electro-valve for down control operation.

3. The drive system shall include a battery allowing the elevator to go up or down in case of emergency.

4. Provide a negative pressure switch that will be activated when negative pressure is sensed in the hydraulic system. The check valve will close and stop the hydraulic jack from descending immediately on sensing negative pressure.

5. The power of the motor shall be 3/4 HP minimum.

2.5 Cylinder and plunger (hydraulic system only)

1. The cylinder shall be manufactured from steel pipe of a 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.

2. Provide a plunger, manufactured from a steel shaft of a proper diameter machined true and smooth. The plunger shall be provided with a stop electrically welded to the bottom to prevent it to leave the cylinder.

2.6 Cables (hydraulic system only)

Provide a minimum of two (2) aviation type 1/4'' (6mm) diameter 7x19 galvanized steel cables. They shall be fixed at cylinder base and at the car sling passing by a 10 ¾'' (273mm) diameter pulley attached at the top of the cylinder.

2.7 Stopper thrust block

The cylinder bumper will stop the elevator in up direction.

2.8 Final limit switch

Two final limit switches (normal and terminal) shall be electro-mechanically sensed at the bottom (2) and top (2) of the rails to stop the car automatically.

2.9 Acme screw drive system

Acme screw shall manufacture of steel and shall be drive by a ½ HP motor at a speed of 4 feet/min. (0,02m/sec). (Maximum travel 10 feet (3048mm).

2.10 Guide shoes

Provide guide shoes with renewable TIVAR inserts type UHMW.

2.11 Controller

Provide a simple relay type controller, model GT-SML mounted inside the tower, that could be easily accessible by the interior of the cab.

2.12 Levelling device

1. The elevator shall be provided within 2 way-levelling device, which will maintain the car within ½'' (13mm) of the landing.

2. Levelling device switches shall be located in a position to be inaccessible to unauthorized persons.

2.13 Cab

1. Walls 42 ¼'' (1070mm) of height : MCP melamine panels 3/4'' (19 mm) choice of two (2) standard colours fixed with roundhead decorative screws on an anodized aluminium frame.

2. Floor construction: 1/8'' (3,2mm) steel silk finish plate.

3. Floor finish: rubber flooring (diamond plate mat black) supply by the manufacturer .

4. Handrail: a single #4 stainless steel with both ends returned to the wall shall be located on the detachable panel in front of the control station.

5. Install an emergency buzzer on the top of the cab.

2.14 Telephone cabinet or hand-free phone

Install a stainless steel outside finish telephone cabinet in the cab.

Note: Telephone to be provide by owner.

Or option

Provide a hand-free phone mounted in the car operating panel.

The travelling cable between the cab and the controller shall include necessary wires for telephone connection. Allow a minimum of 10 % extra wires.

The owner should pro vide connection from a telephonic central or assistance headquarter to the machine room near the controller.

2.15 Car operating panel

Car operating panel shall be #4 stainless steel finish flush mounted with constant pressure push button, emergency alarm, emergency light and a key operation switch. The key shall be removable when it's in OFF position only.

2.16 Hall stations

Each hall station shall include automatic illuminated MOELLER constant pressure single push buttons.

2.17 Swing landing doors, gate and frames

1. Provide primed steel door frames at each landing with integrated hall stations.

2. When applicable (as specified in section 2.1), provide a GT Swing Gate (34 ¼'(870 mm)x 42 ¼''(1073 mm)) hold by two (2) strong concealed spring hinges. Spring hinges allow the gate to close automatically. and a hidden door closer. Automatic gate operator are available in option.

3. When applicable (as specified in section 2.1), provide a GT Swing Door manufactured with a 3'' (77 mm) width x 23'' (589 mm) high wire mesh sight glass, hold by two (2) hidden hinges that will automatically close with a surface mounted door closer. GT Swing Door built to fit 5 ¾'' masonry walls. Automatic door operator (open/close) are available in option.

4. The elevator installer will take on full responsibility of the doors and door frames installation.

5. The door assembly shall be codes appliances UL/ULC labelled.

6. Door and gate shall be equipped with a Prud'Homme positive lock system type LR-80.

7. The doors shall be built in steel with primer coating at each landing.

8. The gate shall be built in extruded aluminium and Plexiglass .

2.18 Sills

Ready to paint (by others) landing checker plate sills on fire rated doors.

3. INSTALLATION

3.1 Coordination

Execute all works in accordance with others sub-contractors.

3.2 Finish

1. Remove all rust on elevator structure and coat with CorroStop-2000 paint finish process.

2. Also coat with steel enamel paint all other equipments like cylinder, rails supports, car sling etc…

3. It is forbidden to use points welding assembly proceed because it could cause visible imperfections or damages on stainless steel finish.

4. Cover finish materials with plastic protection covering.

3.3 Touch up

1. If any damages appears on materials at the end of installation, please make any touch up if necessary.

2. Remove all plastic protection covering and clean all surfaces to leave the job impeccable.

3.4 Field test

1. Make all the test following CAN/C.S.A. B355-00
2. Provide all equipments and instrumentations to do such tests.
3. Provide all certifications and test certifications for legal authorities.
4. Please advise one (1) week in advance for the date and time of field tests.
5. Keep one copy of job specifications on field for the chief elevator installer.

3.5 Welding

Any field bridge welding should be identify with the name of the welder.

3.6 Blowtorch use

It is important to not using cutting blowtorch for any reasons. If any burned piece of work is detected, the job will be reject.

THE END