

# V1504

**VERTICAL PLATFORM LIFT** 

## **PLANNING GUIDE**

Applicable Codes:
ASME A17.1
ASME A18.1
CAN/CSA B355
CAN/CSA B613

Part No. 000690 01-m09-2020

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#### **Purpose of This Guide**

This guide assists architects, contractors, and lift professionals to incorporate the V1504 Vertical Platform Lift into a residential or public building design. The design and manufacture of the V1504 Vertical Platform Lift meets the requirements of the following codes and standards:

- ASME A18.1-2003 Section 2 (Public)
- ASME A18.1-2005 Section 2 (Public)
- ASME A18.1-2008 Section 2 (Public)
- ASME A18.1-2011 Section 2 (Public)
- ASME A18.1-2014 Section 2 (Public)
- ASME A18.1-2017 Section 2 (Public)
- ASME A18.1-2003 Section 5 (Private)
- ASME A18.1-2005 Section 5 (Private)
- ASME A18.1-2008 Section 5 (Private)
- ASME A18.1-2011 Section 5 (Private)
- ASME A18.1-2014 Section 5 (Private)
- ASME A18.1-2017 Section 5 (Private)
- ASME A17.1-1996 Section 20 (Public)
- ASME A17.1-1996 Section 21 (Private)
- CAN/CSA B355 S1-02 (Public)
- CAN/CSA-B355-09 (Public)
- CAN/CSA B613-2000 (Private)

We recommend that you contact your local authority having jurisdiction to ensure that you adhere to all local rules and regulations pertaining to vertical platform lifts.

**IMPORTANT:** This Planning Guide provides nominal dimensions and specifications useful for the initial planning of a vertical platform lift 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 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 V1504 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

April 6, 2010 - Initial release

May 16, 2011 - Updated "Travel speed" in Specifications table to 20 ft/min (0.1 m/s)
June 17, 2011 - Added 24V battery backup to Options to Specifications table on page 5

July 8, 2013 - Added Noise Level to Specifications table on page 4

July 29, 2013 - Added optional 80" cab wall height to Specifications table on page 4 October 7, 2013 - Added seat capacity to Specifications table on page 4

November 12, 2013 - Revised drawings on pages 12 through 26 to include 42"-wide platforms

December 5, 2013 - Revised enclosure drawings on pages 20 through 24

February 12, 2014 - Added seat dimensions on page 27

March 18, 2014 - Revised motor/drive information in Specifications table on page 5 April 7, 2014 - Revised drawings on pages 20-24 April 29, 2014

May 29, 2014 - Added NOTE to page 27 specifying max seat capacity; Changed motor/drive specification on page 4 from 1 HP to 3 HP

June 9, 2014 - Added Remote Controller/Pump Box dimensions on page 28

June 25, 2014 - Added door and gate drawings - pages 25 to 36

July 28, 2014 - Added DuraSwing operator drawings - pages 37 to 40

September 11, 2014 - Removed section "Additional Branch Circuit" from page 43

November 5, 2014 - Revised Applicable Codes on page 3

January 20, 2015 - Added new 2014 code in section above

February 17, 2015 - Revised drawings on pages 13 to 19

September 24, 2015 - Added Daily Cycle to specifications table on page 4

March 1, 2016 - Revised Motor/drive specification in table on page 4

June 3, 2016 - Added spec for Additional Branch Circuit on page 43

July 14, 2016 - Added new Prodoor drawing on page 33

August 8, 2016 - Revised voltage in Standard Features on Specifications table on page 4

February 9, 2017 - Added spec for distance between landings to specs table on page 4

February 16, 2017 - Added spec for temperature to specs table on page 4

April 4, 2017 - Added information for Branch Circuit for Hoistway Pit Lighting and Receptacles to Provisions

By Other, Electrical Requirements on page 44

May 29, 2017 - Added NOTE re: centerline to Figure 15 on page 17 and Figure 17 on page 19

August 22, 2017 - Added note re: bracket screws to Site Construction Details on page 6

March 27, 2018 - Revised speed spec on page 4 to say Nominal Speed

September 27, 2018 - Added ASME 18.1-2017 to code list on page 3

February 19, 2019 - Revised Site Construction Details and added a NOTE on page 7

February 28, 2020 - Revised 24V battery backup spec on page 6

February 29, 2020 - Added Savaria Link option to specs table on page 6 and provisions by others on page 46

May 6, 2020 - Added Load Calculations on pages 12 and 13

September 1, 2020 - Revised options in specs table on page 6

## **Specifications**

## **V1504 Specifications**

| Specification                          | Specification Data   |
|--|--|
| Load capacity                          | 750 lb (340 kg)  |
| Seat capacity                          | 330 lb (150 kg)  |
| Maximum travel                         | 23 ft (7 m)  |
| Nominal speed                          | 20 ft/min (0.1 m/s)  |
| Temperature                            | Indoor: +5 °F to +122 °F (-15 °C to +50 °C)<br>Outdoor: -20 °F to +122 °F (-29 °C to +50 °C)   |
| Noise level (for typical installation) | 72.9 dBA (up direction); 50.0 dBA (down direction) Measured at a height of 1m, distance of 1m, in front of the motor with all panels on  |
| Daily cycle                            | Normal: 30 Heavy: 75 Excessive: 100 Maximum starts in 1 hour on standard installation: 12 NOTE: Please consult your Sales Representative if there a chance you may exceed these amounts.   |
| Levels serviced                        | 2 (standard), 3, 4   |
| Cab sizes                              | 36" x 48" (914 mm x 1219 mm)<br>36" x 54" (914 mm x 1371 mm)<br>36" x 60" (914 mm x 1524 mm)<br>42" x 48" (1067 mm x 1219 mm)<br>42" x 54" (1067 mm x 1371 mm)<br>42" x 60" (1067 mm x 1524 mm)  |
| Cab walls (height)                     | Standard 42-1/8" (1070 mm) Optional 80" (2031 mm)  |
| Cab access                             | Enter/exit same side (platform Type 1L and 1R) Front/rear access (platform Type 2) 90 degree access (platform Type 3 and 4)  |
| Power supply                           | 120 VAC, 20 A, 60 Hz, single phase   |
| Motor/drive                            | 2:1 chain hydraulic, 3 Hp, gear-type motor (24 VDC)  |
| Control system                         | Electronic-free relay logic controller   |
| Distance between 2 landings            | 7" (178 mm) minimum  |
| Tower                                  | Modular 8 ft (2.4 m) base guide rail assembly Roller guide support   |
| Pit depth requirement                  | 3" (76.2 mm)   |
| Finish                                 | Beige electrostatic powder coat paint on all steel surfaces and vacuumed formed plastics   |
| Standard features                      | 24 VDC operation Call/send stations at landings Continuous-pressure type buttons Operating control buttons on platform Automatic battery recharging system (115 VAC) Remote manual lowering device Low-voltage controls Limit switches Handrail Non-skid platform surface No machine room required Emergency stop button |

### **V1504 Specifications**

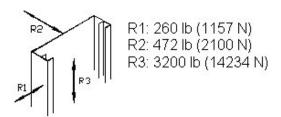
| Specification   | Specification Data                                    |  |
|-----------------|---|--|
| Safety features | Platform gate   |  |
|                 | Safety underpan                                       |  |
|                 | Door locks  |  |
|                 | Safety brake  |  |
|                 | Emergency stop buttons                                |  |
|                 | Manual lowering and battery lowering system           |  |
| Options         | Platform gate with metal insert and electric strike   |  |
|                 | Top landing gate                                      |  |
|                 | Upper/lower landing door 80" (2032 mm)                |  |
|                 | Fire-rated, flush-mounted landing entrances           |  |
|                 | Folding seat on platform                              |  |
|                 | Telephone on platform                                 |  |
|                 | Custom color  |  |
|                 | Fixed access ramp                                     |  |
|                 | Public building package                               |  |
|                 | Outdoor package                                       |  |
|                 | Automatic safety ramp on platform (for outdoor model) |  |
|                 | 24V battery backup (minimum 5 trips, up and down)     |  |
|                 | Remote controller/pump box                            |  |
|                 | Savaria Link remote monitoring                        |  |
|                 | Wooden door   |  |
|                 | Doors or gate with glass or acrylic inserts           |  |

#### Site Construction Details

The V1504 needs a wall that supports a minimum of 472 lb (2100 N) of pull out force at each bolt of the bracket (two bolts per bracket). Note that the brackets come with the proper hardware to secure them in place (1/2" x 3" lag screws for wood/drywall or 1/2" x 4-1/4" anchor wedge screws for concrete walls). The floor must be capable of supporting a load of 3200 lb (14.2 kN). See Figure 1. A wall with a combination of two columns of three 2x4's, or a concrete or brick wall is required.

Figure 2 details a sample wooden support wall configuration

Figure 1: Wall/Floor Loading



**NOTE**: For **R2**, 472 lb is at each bolt of the bracket (two bolts per bracket). Note that 472 lb is the Dead Load plus the Live Load at Allowable Stress Design levels. The Structural Engineer of Record must calculate the site-specific Seismic Load and Wind Load.

Figure 2: Sample Wooden Support Wall Configuration

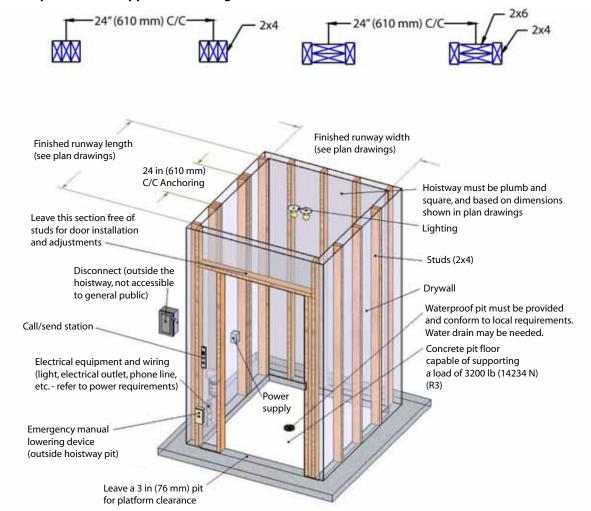
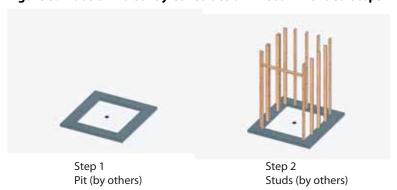


Figure 3 illustrates the recommended steps for constructing a wooden hoistway.

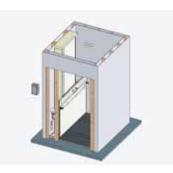
Figure 3: Wooden Hoistway Construction - Recommended Steps



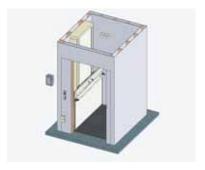




Step 4 Drywall (by others)



Step 5 Door positioning (by Savaria Concord installer)



Step 6 Door drywall (by others)



Completed hoistway

Figure 4 illustrates a sample concrete/steel structure configuration.

Figure 4: Sample Concrete/Steel Structure Configuration

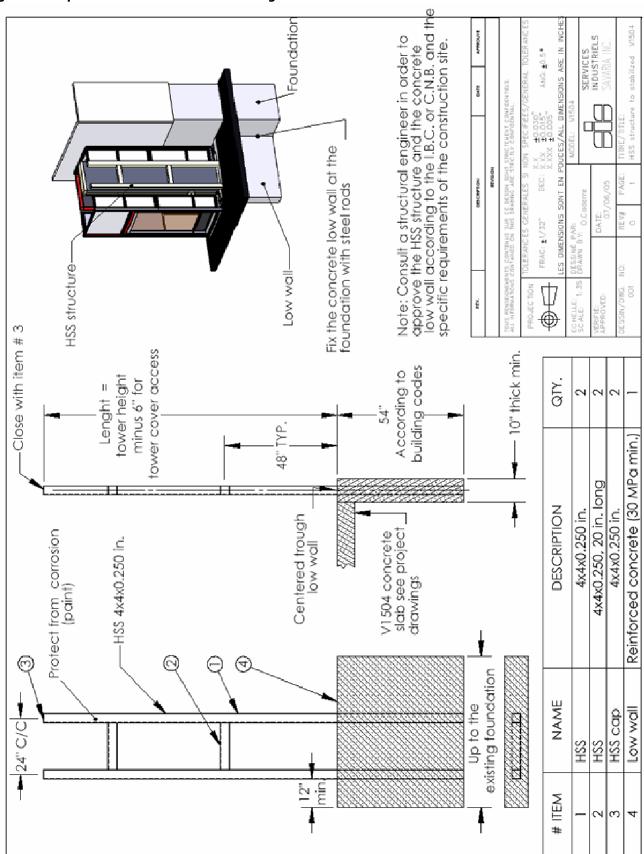


Figure 5 illustrates a sample outdoor enclosure application.

**Figure 5: Sample Outdoor Enclosure Application** 



Figure 6 illustrates the site construction details for a typical outdoor application.

**Figure 6: Sample Unenclosed Outdoor Application** 

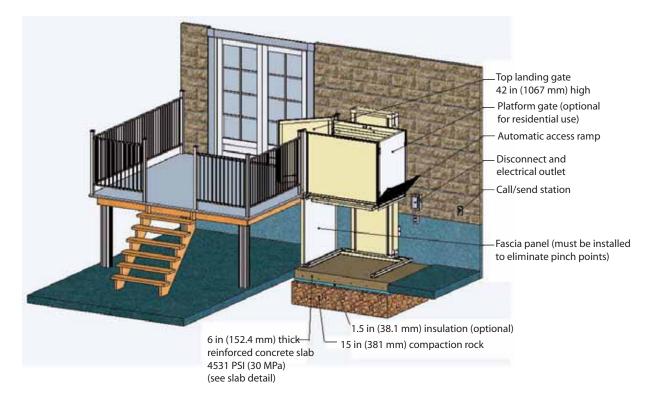
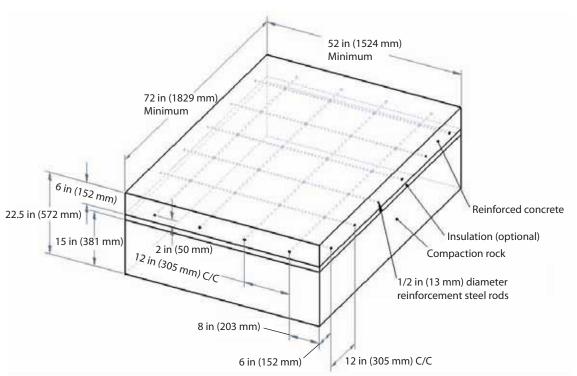


Figure 7 illustrates the concrete slab detail for a typical outdoor application.

Figure 7: Concrete Slab Detail



## **Load Calculations (V-1504)**

|                        |                                   |             |                                | (                            | SAVARIA V150   | 4   |   |                                      |
|------------------------|-----------------------------------|-------------|--------------------------------|------------------------------|----------------|---|---|--------------------------------------|
|                        |                                   |             | Vertical Pla                   | atform Lift A                | nchoring Loads | (worst case scenario)   |   |                                      |
| 42                     | x60" Platfoi                      | rm, Hydraul | ic Drive, Ho                   |                              |                | For Bracket Spacing of 36"  | No Safet                                      | y Factor                             |
| Lift Model<br>(inches) | MAX<br>Tower<br>Weight<br>T (lbs) | -           | MAX Car<br>Weight<br>CAR (lbs) | MAX<br>Capacity<br>CAP (lbs) |                | MAX Wall Support Loads per mounting points (double the values = per bracket) R2 (lbs) | Pit Load<br>*if no support<br>legs<br>P (lbs) | Estimated<br>Impact Load<br>R3 (lbs) |
| 48                     | 500                               |             | 500                            | 750                          | 92             | 472   | 1750  | 3200                                 |
| 60                     | 550                               |             | 500                            | 750                          | 102            | 472   | 1800  | 3200                                 |
| 72                     | 625                               |             | 500                            | 750                          | 124            | 472   | 1875  | 3200                                 |
| 96                     | 725                               |             | 500                            | 750                          | 138            | 472   | 1975  | 3200                                 |
| 108                    | 800                               |             | 500                            | 750                          | 160            | 472   | 2050  | 3200                                 |
| 120                    | 875                               |             | 500                            | 750                          | 172            | 472   | 2125  | 3200                                 |
| 144                    | 1000                              |             | 500                            | 750                          | 196            | 472   | 2250  | 3200                                 |
| 168                    | 1025                              |             | 500                            | 750                          | 218            | 472   | 2275  | 3200                                 |
| 192                    | 1250                              |             | 500                            | 750                          | 242            | 472   | 2500  | 3200                                 |
| 216                    | 1350                              |             | 500                            | 750                          | 266            | 472   | 2600  | 3200                                 |
| 240                    | 1475                              |             | 500                            | 750                          | 290            | 472   | 2725  | 3200                                 |
| 264                    | 1575                              |             | 500                            | 750                          | 312            | 472   | 2825  | 3200                                 |
| 276                    | 1625                              |             | 500                            | 750                          | 326            | 472   | 2875  | 3200                                 |

#### N.B.

Calculations do not include forces due to wind, seismic loading, any environmental loading and forces due to acceleration. Calculations are assuming that the load is supported only by the 2 brackets surrounding the lift (worst case scenario).

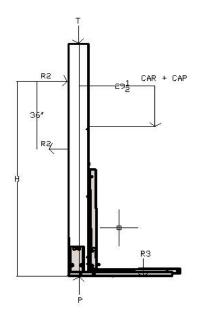
A minimum Safety Factor of 4 is recommended; check local code requirements or the building special requirements.

The average standard cab weight is 350 lbs; the values vary accordingly.

If the building doesn't allow bracket mounting spacing of 36", R2 needs to be increased accordingly.

The Impact Load is not "necessary" if the lift is installed properly and maintained according to the manufacturer's recommendation If the unit is ordered with base legs, the Pit Load related to cab weight and capacity will be spread on the footprint.

|                     |                                   |                                       | Vertical Di                    | atform Lift A                | noboring Loads          | (worst case scenario)   |   |           |
|---------------------|-----------------------------------|---------------------------------------|--------------------------------|------------------------------|-------------------------|---|---|-----------|
| 42                  | 60" Platfor                       | m, Hydrauli                           |                                |                              |                         | For Bracket Spacing of 36"  | No Safe                                       | ty Factor |
| Lift Model (inches) | MAX<br>Tower<br>Weight<br>T (lbs) | MAX<br>Enclosure<br>Weight<br>T (lbs) | MAX Car<br>Weight<br>CAR (lbs) | MAX<br>Capacity<br>CAP (lbs) | Support<br>Height every | MAX Wall Support Loads per mounting points (double the values = per bracket) R2 (lbs) | Pit Load<br>*if no support<br>legs<br>P (lbs) | Estimated |
| 48                  | 500                               | 625                                   | 500                            | 750                          | 92                      | 472   | 2375  | 3200      |
| 60                  | 550                               | 675                                   | 500                            | 750                          | 102                     | 472   | 2475  | 3200      |
| 72                  | 625                               | 725                                   | 500                            | 750                          | 124                     | 472   | 2600  | 3200      |
| 96                  | 725                               | 825                                   | 500                            | 750                          | 138                     | 472   | 2800  | 3200      |
| 108                 | 800                               | 875                                   | 500                            | 750                          | 160                     | 472   | 2925  | 3200      |
| 120                 | 875                               | 925                                   | 500                            | 750                          | 172                     | 472   | 3050  | 3200      |
| 144                 | 1000                              | 1025                                  | 500                            | 750                          | 196                     | 472   | 3275  | 3200      |
| 168                 | 1025                              | 1125                                  | 500                            | 750                          | 218                     | 472   | 3400  | 3200      |
| 192                 | 1250                              | 1225                                  | 500                            | 750                          | 242                     | 472   | 3725  | 3200      |
| 216                 | 1350                              | 1325                                  | 500                            | 750                          | 266                     | 472   | 3925  | 3200      |
| 240                 | 1475                              | 1425                                  | 500                            | 750                          | 290                     | 472   | 4150  | 3200      |
| 264                 | 1575                              | 1525                                  | 500                            | 750                          | 312                     | 472   | 4350  | 3200      |
| 276                 | 1625                              | 1625                                  | 500                            | 750                          | 326                     | 472   | 4500  | 3200      |



## **Load Calculations (V-1504 Prestige)**

|            |              |             |              | SAV         | ARIA V1504 Pre | estige                      |                |             |
|------------|--------------|-------------|--------------|-------------|----------------|-----------------------------|----------------|-------------|
|            |              |             | \/#:I DI     | -46 1 :64 A |                | (                           |                |             |
| - 40       | 0011 51 15   |             |              |             |                | (worst case scenario)       |                |             |
| 42         | x60" Platfor | m, Hydrauli | c Drive, End | closure App |                | For Bracket Spacing of 36"  | No Safe        | y Factor    |
|            | MAX          |             |              |             | Support        | MAX Wall                    | Pit Load       |             |
| Lift Model | Tower        | Prestige    | MAX Car      | MAX         | Height every   | Support Loads per           | *if no support | Estimated   |
| (inches)   | Weight       | Weight      | Weight       | Capacity    | 36" after base | mounting points (double the | legs           | Impact Load |
| (IIICHES)  | T (lbs)      | T (lbs)     | CAR (lbs)    | CAP (lbs)   | Last position  | values = per bracket)       | P (lbs)        | R3 (lbs)    |
|            | 1 (105)      |             |              |             | H in inches    | R2 (lbs)                    | r (ibs)        |             |
| 48         | 500          | 1875        | 500          | 750         | 92             | 472                         | 3625           | 3200        |
| 60         | 550          | 2025        | 500          | 750         | 102            | 472                         | 3825           | 3200        |
| 72         | 625          | 2175        | 500          | 750         | 124            | 472                         | 4050           | 3200        |
| 96         | 725          | 2475        | 500          | 750         | 138            | 472                         | 4450           | 3200        |
| 108        | 800          | 2625        | 500          | 750         | 160            | 472                         | 4675           | 3200        |
| 120        | 875          | 2775        | 500          | 750         | 172            | 472                         | 4900           | 3200        |
| 144        | 1000         | 3075        | 500          | 750         | 196            | 472                         | 5325           | 3200        |
| 168        | 1025         | 3375        | 500          | 750         | 218            | 472                         | 5650           | 3200        |
| 192        | 1250         | 3675        | 500          | 750         | 242            | 472                         | 6175           | 3200        |
| 216        | 1350         | 3975        | 500          | 750         | 266            | 472                         | 6575           | 3200        |
| 240        | 1475         | 4275        | 500          | 750         | 290            | 472                         | 7000           | 3200        |
| 264        | 1575         | 4575        | 500          | 750         | 312            | 472                         | 7400           | 3200        |
| 276        | 1625         | 4875        | 500          | 750         | 326            | 472                         | 7750           | 3200        |

#### N.B.

Calculations do not include forces due to wind, seismic loading, any environmental loading and forces due to acceleration.

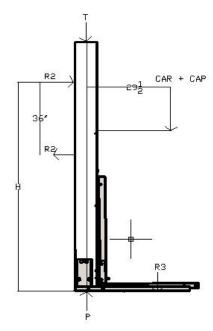
Calculations are assuming that the load is supported only by the 2 brackets surrounding the lift (worst case scenario).

A minimum Safety Factor of 4 is recommended; check local code requirements or building special requirements.

The average standard cab weight is 350 lbs; the values vary accordingly.

If the building doesn't allow bracket mounting spacing of 36", R2 needs to be increased accordingly.

The Impact Load is not "necessary" if the lift is installed properly and maintained according to the manufacturer's recommendations If the unit is ordered with base legs, the Pit Load related to cab weight and capacity will be spread on the footprint.

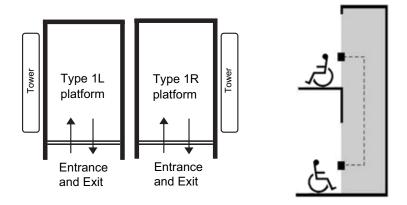


## **Cab Types**

## Type 1 Cabs

For type 1 cabs, entry and exit are available from only one end of the platform.

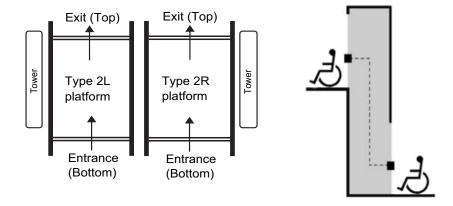
Figure 8: Type 1 Left and Right



Type 2 Cabs

For type 2 cabs, entry and exit are available from both ends of the platform.

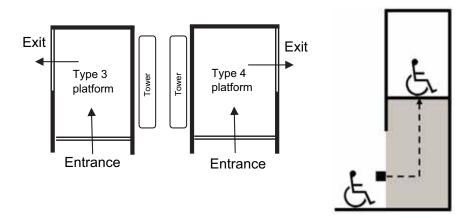
Figure 9: Type 2



## Type 3 and 4 Cabs

For type 3 and 4 cabs, entry and exit are available from one end and one side of the platform.

Figure 10: Type 3 and 4

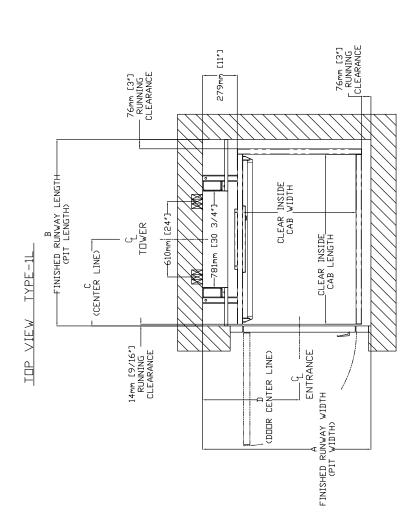


### **Drawings**

- Elevation and plan view, hoistway application (Type 1L)
- Elevation and plan view, hoistway application (Type 1R)
- Elevation and plan view, hoistway application (Type 2)
- Elevation and plan view, hoistway application (Type 3)
- Elevation and plan view, hoistway application (Type 3, 45" opening)
- Elevation and plan view, hoistway application (Type 4)
- Elevation and plan view, hoistway application (Type 4, 45" opening)
- Elevation and plan view, enclosure application (Type 1L)
- Elevation and plan view, enclosure application (Type 1R)
- Elevation and plan view, enclosure application (Type 2)
- Elevation and plan view, enclosure application (Type 3, 45" opening)
- Elevation and plan view, enclosure application (Type 4, 45" opening)
- · Auto door, left-hand
- Auto door, right-hand
- · Manual door, left-hand
- · Manual door, right-hand
- · Prodoor auto, left-hand
- · Prodoor auto, right-hand
- Prodoor manual, left-hand
- · Prodoor manual, right-hand
- Prodoor installation (drywall)
- Auto half gate, left-hand
- · Auto half gate, right-hand
- · Manual half gate, left-hand
- · Manual half gate, right-hand
- · DuraSwing on half gate, right-hand
- DuraSwing on half gate, right-hand, 45" opening
- DuraSwing on half gate, left-hand
- DuraSwing on half gate, left-hand, 45" opening
- · Seat dimensions
- Remote controller/pump box dimensions

**Note:** Refer to the Architects & Builders portion of our main website (www.savaria.com) for other door/gate sizes.

Figure 11: Elevation and plan view, hoistway application (Type 1L)



DOOR CENTER LINE (IN CASE OF 36" DOOR) FINISHED RUNWAY LENGTH TOWER CENTER LINE HDISTWAY DIMENSION œ A FINISHED RUNWAY WIDTH 2 TABLE CLEAR INSIDE CAB CLEAR INSIDE CAB

|                       | TOP OF MAST | — THEIGHT TZAM——  | 76mm (3*)<br>PIT DEPTH |                       |
|-----------------------|-------------|---|------------------------|-----------------------|
| ELEVATION VIEW TYPE-1 | -           | AND TOTAL TRAVEL (SEE TABLE 1)  AND TOTAL TRAVEL (SEE TABLE 1)  AND HINIMUM OVERHEAD  AND WALL  VING VALL  (1987) |                        | TABLE 1- MAST HEIGHT* |

| Mast Height<br>with 4.188" CAP  | Inches                                    | 108.188    | 120.188    | 130.188    | 154.188    | 168.188     | 178.188     | 202.188     | 238.188     | 262.188     | 286.188     | 308.188     | 332.188     | 342.188     |
|---------------------------------|---|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mast<br>with 4.1                | mm  | 2748       | 3053       | 3307       | 3916       | 4272        | 4526        | 5136        | 6050        | 0999        | 7269        | 7828        | 8438        | 8692        |
|                                 | 254 (10")                                 | 1          |            | -          | 1          |             | +           | 1           |             |             |             |             |             | -           |
| _                               | 559 (22")                                 |            | 1          | 1          |            |             |             |             |             |             |             | 1           |             |             |
| Extension Height<br>mm (Inches) | 1168 (46")                                |            |            |            | 1          |             |             |             | 1           |             |             |             | 1           | -           |
| Exten                           | 1778 (70") 1168 (46") 559 (22") 254 (10") |            |            |            |            | -           | 1           |             |             | 1           |             |             |             |             |
|                                 | 2388 (94")                                | -          | -          | -          | 1          | -           | -           | 2           | 2           | 2           | 3           | 3           | 3           | 3           |
| Max.Travel<br>mm (Inches)       |   | 1219 (48") | 1524 (60") | 1829 (72") | 2438 (96") | 2743 (108") | 3048 (120") | 3658 (144") | 4267 (168") | 4877 (192") | 5486 (216") | 6096 (240") | 6706 (264") | 7010 (276") |

Figure 12: Elevation and plan view, hoistway application (Type 1R)

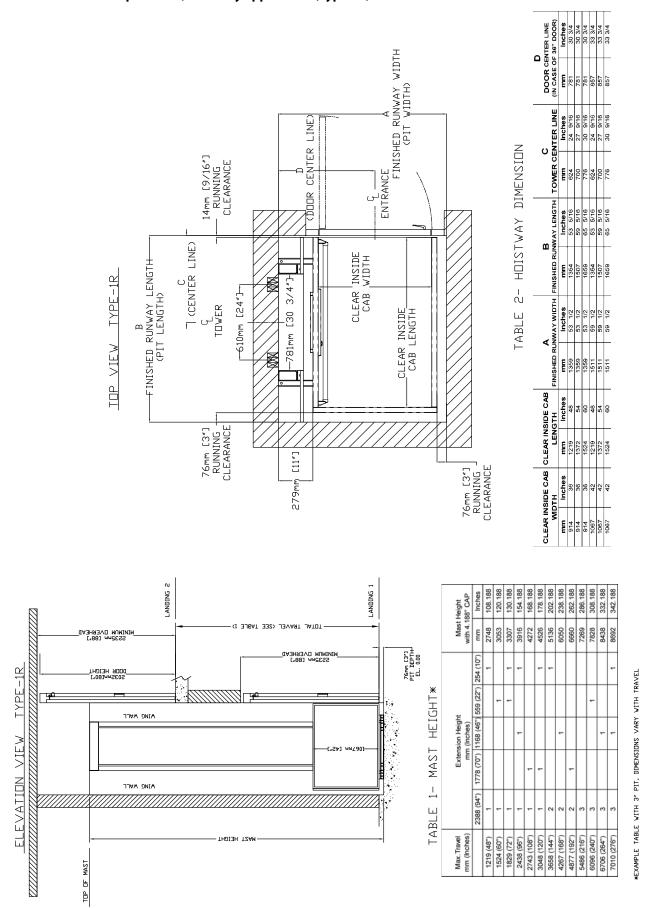
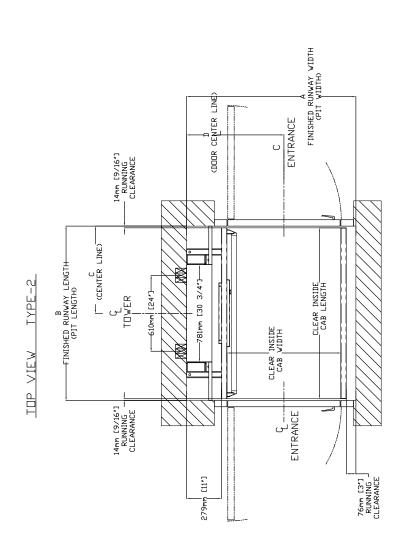
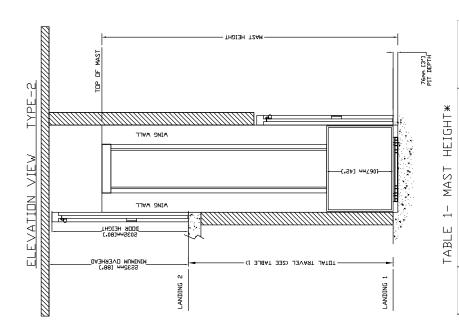


Figure 13: Elevation and plan view, hoistway application (Type 2)



| CLEAR INSIDE CAB         LENGTH         FINSHED RIMMAY WIDTH           MUDTH         LENGTH         FINSHED RIMMAY WIDTH           mm         linches         rrm         linches           914         36         1279         48         1359         53 1/2           914         36         1372         54         1359         53 1/2           1067         42         1279         48         1511         59 1/2           1067         42         1372         54         1511         59 1/2           1067         42         1372         54         1511         59 1/2           1067         42         1574         60         1511         59 1/2           1067         42         1524         60         1511         59 1/2           1067         42         1524         60         1511         59 1/2 |
|---|
|   |
|   |



| Max. Travel |            | Exter                                     | Extension Height |           |           | Mast     | Mast Height     |
|-------------|------------|---|------------------|-----------|-----------|----------|-----------------|
| mm (Inches) |            | mm  | mm (Inches)      |           |           | with 4.1 | with 4.188" CAP |
|             | 2388 (94") | 1778 (70") 1168 (46") 559 (22") 254 (10") | 1168 (46")       | 559 (22") | 254 (10") | mm       | Inches          |
| 1219 (48")  | 1          |   |                  |           | 1         | 2748     | 108.188         |
| 1524 (60")  | 1          |   |                  | 1         |           | 3053     | 120.188         |
| 1829 (72")  | 1          |   |                  | 1         | 1         | 3307     | 130.188         |
| 2438 (96")  | 1          |   | 1                |           | 1         | 3916     | 154.188         |
| 2743 (108") | 1          | -   |                  |           |           | 4272     | 168.188         |
| 3048 (120") | 1          | 1   |                  |           | 1         | 4526     | 178.188         |
| 3658 (144") | 2          |   |                  |           | 1         | 5136     | 202.188         |
| 4267 (168") | 2          |   | -                |           |           | 6050     | 238.188         |
| 4877 (192") | 2          | 1   |                  |           |           | 0999     | 262.188         |
| 5486 (216") | 3          |   |                  |           |           | 7269     | 286.188         |
| 6096 (240") | 8          |   |                  | 1         |           | 7828     | 308.188         |
| 6706 (264") | 3          |   | -                |           |           | 8438     | 332.188         |
| 7010 (276") | 8          |   | -                |           | -         | 8692     | 342.188         |

\*EXAMPLE TABLE WITH 3" PIT, DIMENSIONS VARY WITH TRAVEL

Figure 14: Elevation and plan view, hoistway application (Type 3)

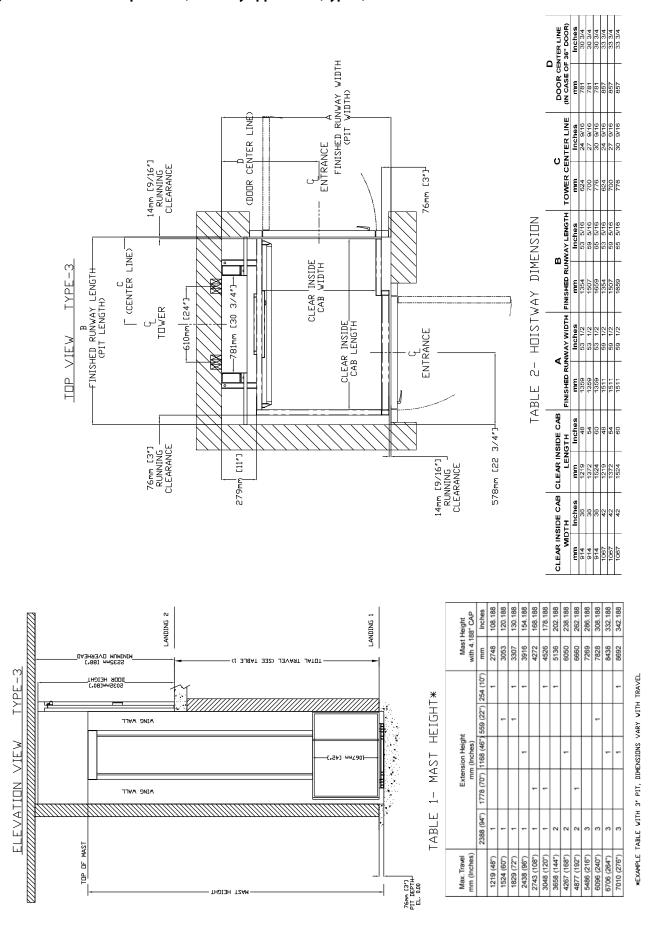


Figure 15: Elevation and plan view, hoistway application (Type 3, 45" opening)

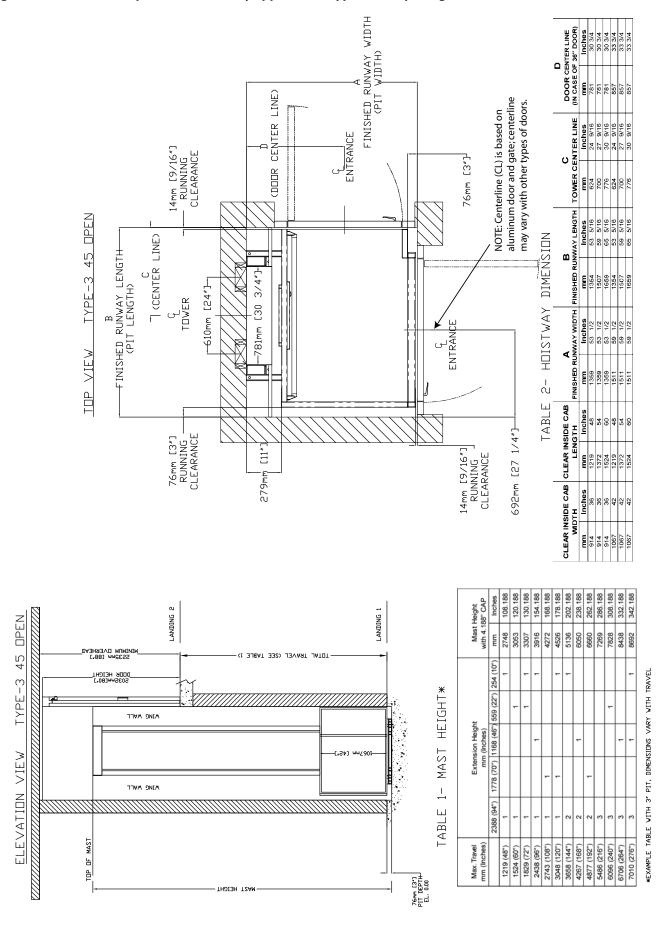
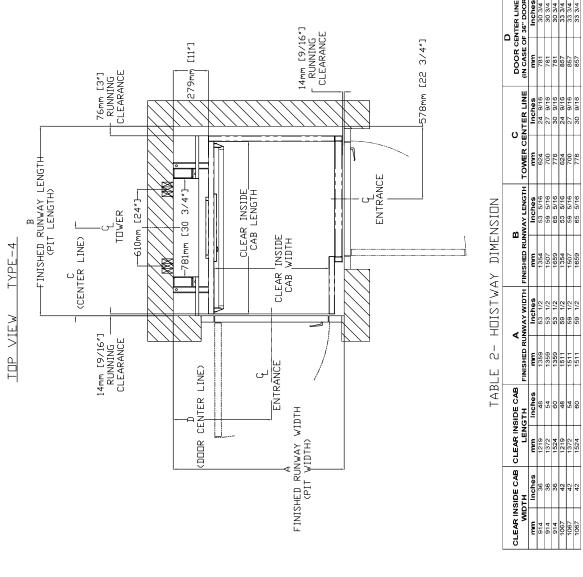
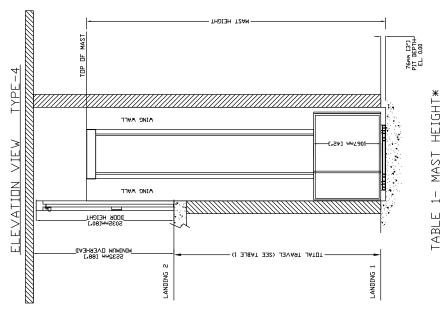


Figure 16: Elevation and plan view, hoistway application (Type 4)

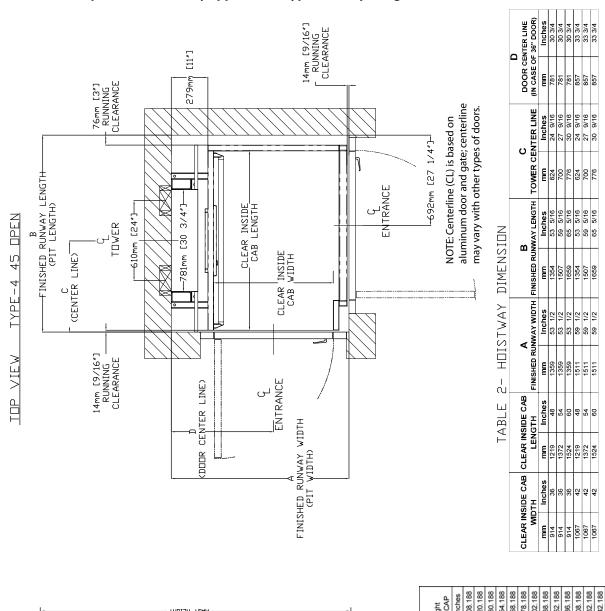




| Max.Travel<br>mm (Inches) |            | Exter                                     | Extension Height<br>mm (Inches) | _         |           | Mast<br>with 4.1 | Mast Height<br>with 4.188" CAP |
|---------------------------|------------|---|---------------------------------|-----------|-----------|------------------|--------------------------------|
|                           | 2388 (94") | 1778 (70") 1168 (46") 559 (22") 254 (10") | 1168 (46")                      | 559 (22") | 254 (10") | mm               | Inches                         |
| 1219 (48")                | -          |   |                                 |           | 1         | 2748             | 108.188                        |
| 1524 (60")                | 1          |   |                                 | 1         |           | 3053             | 120.188                        |
| 1829 (72")                | 1          |   |                                 | 1         | 1         | 3307             | 130.188                        |
| 2438 (96")                | 1          |   | 1                               |           | 1         | 3916             | 154.188                        |
| 2743 (108")               | 1          | 1   |                                 |           |           | 4272             | 168.188                        |
| 3048 (120")               | 1          | 1   |                                 |           | 1         | 4526             | 178.188                        |
| 3658 (144")               | 2          |   |                                 |           | 1         | 5136             | 202.188                        |
| 4267 (168")               | 2          |   | 1                               |           |           | 6050             | 238.188                        |
| 4877 (192")               | 2          | 1   |                                 |           |           | 0999             | 262.188                        |
| 5486 (216")               | 3          |   |                                 |           |           | 7269             | 286.188                        |
| 6096 (240")               | 3          |   |                                 | 1         |           | 7828             | 308.188                        |
| 6706 (264")               | 3          |   | 1                               |           |           | 8438             | 332.188                        |
| 7010 (276")               | 3          |   | -                               |           | -         | 8692             | 342.188                        |

\*EXAMPLE TABLE WITH 3" PIT, DIMENSIONS VARY WITH TRAVEL

Figure 17: Elevation and plan view, hoistway application (Type 4, 45" opening)

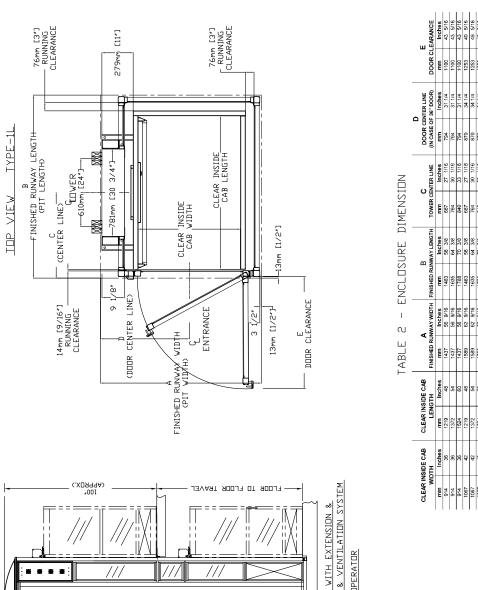


| 7             | -           |                            | THDIЗH T2AM-           | <del> </del> |                                     |
|---------------|-------------|----------------------------|------------------------|--------------|-------------------------------------|
| 5 OPEN        | TOP OF MAST |                            |                        |              | 76mm [3*]<br>PIT DEPTH-<br>EL. 0.00 |
| E-4 45        |             |                            |                        |              | HEIGHT*                             |
| TYPI          |             | MING WALL                  |                        |              |                                     |
| VIEW          |             | MING WALL                  |                        |              | - MAST                              |
| ATION         |             | DDDK HEICH<br>\$03\$ww[80. |                        |              | TABLE 1                             |
| ELEV <i>t</i> | 8₊3<br>     |                            | TANDER (1 SEE TABLE 1) | LANDING 1    | Ĺ                                   |

| Mast Height      | with 4.188" CAP | Inches                                       | 108.188    | 120.188    | 130.188    | 154.188    | 168.188     | 178.188     | 202.188     | 238.188     | 262.188     | 286.188     | 308.188     | 332.188     | 342.188     |
|------------------|-----------------|--|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mast             | with 4.18       | mm   | 2748       | 3053       | 3307       | 3916       | 4272        | 4526        | 5136        | 6050        | 6660        | 7269        | 7828        | 8438        | 8692        |
|                  |                 | 254 (10")                                    | 1          |            | 1          | 1          |             | 1           | 1           |             |             |             |             |             | 1           |
|                  |                 | 559 (22")                                    |            | 1          | 1          |            |             |             |             |             |             |             | 1           |             |             |
| Extension Height | mm (Inches)     | 1168 (46")                                   |            |            |            | 1          |             |             |             | 1           |             |             |             | 1           | 1           |
| Exten            | mm              | 1778 (70")  1168 (46")  559 (22")  254 (10") |            |            |            |            | 1           | 1           |             |             | 1           |             |             |             |             |
|                  |                 | 2388 (94")                                   | 1          | 1          | 1          | 1          | 1           | 1           | 2           | 2           | 2           | 3           | 3           | 3           | 3           |
| Max.Travel       | mm (Inches)     |  | 1219 (48") | 1524 (60") | 1829 (72") | 2438 (96") | 2743 (108") | 3048 (120") | 3658 (144") | 4267 (168") | 4877 (192") | 5486 (216") | 6096 (240") | 6706 (264") | 7010 (276") |

\*EXAMPLE TABLE WITH 3" PIT, DIMENSIONS VARY WITH TRAVEL

Figure 18: Elevation and plan view, enclosure application (Type 1L)

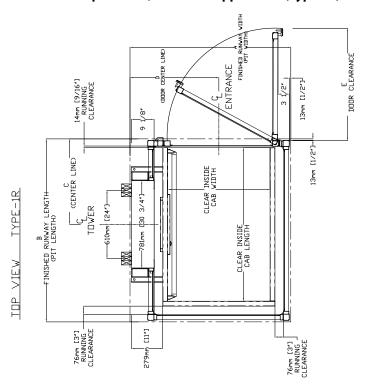


|                       |             | •                              | TYPICAL ENCLOSURE WITH EXTENSION S PLEXIGLASS DOME & VENTILATION S |
|-----------------------|-------------|--------------------------------|--|
|                       | TOP OF MAST | TH013H T2AM 13.1               | TYPICAL ENCLOSURE CLEAR PLEXIGLASS DOME                            |
| ELEVATION VIEW TYPE-1 |             | TYPICAL ENCLOSURE              |  |
|                       |             | AND TOTAL TRAVEL (SEE TABLE 1) |  |

| Max.Travel  |            | Exten  | Extension Height | _         |           | Mast Heig<br>with | Mast Height Approx<br>with Gate |
|-------------|------------|--|------------------|-----------|-----------|-------------------|---------------------------------|
| mm (Inches) |            | mm   | mm (Inches)      |           |           | with 4.1          | with 4.188" CAP                 |
|             | 2388 (94") | 1778 (70")  1168 (46")  559 (22")  254 (10") | 1168 (46")       | 559 (22") | 254 (10") | mm                | Inches                          |
| 1219 (48")  | 1          |  |                  |           | 1         | 2748              | 108.188                         |
| 1524 (60")  | 1          |  |                  | 1         |           | 3053              | 120.188                         |
| 1829 (72")  | 1          |  | 1                |           |           | 3662              | 144.188                         |
| 2438 (96")  | 1          | -  |                  |           |           | 4272              | 168.188                         |
| 2743 (108") | 1          | 1  |                  |           |           | 4272              | 168.188                         |
| 3048 (120") | 2          |  |                  |           |           | 4882              | 192.188                         |
| 3658 (144") | 2          |  |                  | 1         |           | 5440              | 214.188                         |
| 4267 (168") | 2          |  | 1                |           |           | 6050              | 238.188                         |
| 4877 (192") | 2          | 1  |                  |           |           | 0999              | 262.188                         |
| 5486 (216") | 3          |  |                  |           |           | 7269              | 286.188                         |
| 6096 (240") | 3          |  |                  | 1         |           | 7828              | 308.188                         |
| 6706 (264") | 3          |  | -                |           |           | 8438              | 332.188                         |
| 7010 (276") | 3          |  | 1                |           | ,         | 8692              | 342.188                         |

TABLE 1- MAST HEIGHT\*

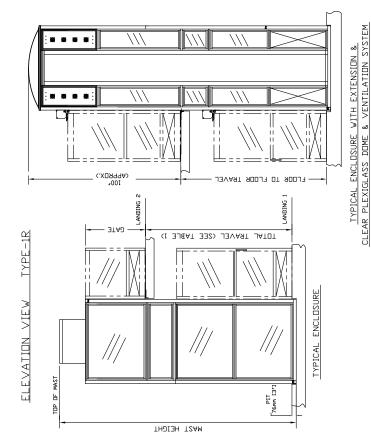
Figure 19: Elevation and plan view, enclosure application (Type 1R)



|             | E<br>HOOR CLEARANCE                          | Inches | 43 5/16 | 43 5/16 | 43 5/16 | 49 5/16 | 49 5/16 | 49 5/16 |
|-------------|--|--------|---------|---------|---------|---------|---------|---------|
|             | DOOR CI                                      | um     | 1100    | 1100    | 1100    | 1253    | 1253    | 1253    |
|             | D<br>DOOR CENTER LINE<br>N CASE OF 36" DOOR) | Inches | 31 1/4  | 31 1/4  | 31 1/4  | 34 1/4  | 34 1/4  | 34 1/4  |
|             | DOOR CEN                                     | mm     | 784     | 784     | 794     | 870     | 870     | 870     |
|             | ITER LINE                                    | Inches | 27 1/16 | 30 1/16 | 33 1/16 | 27 1/16 | 30 1/16 | 33 1/16 |
|             | C<br>TOWER CENTER LINE                       | mm     | 687     | 764     | 940     | 289     | 764     | 340     |
| 20102       | VAY LENGTH                                   | Inches | 58 3/8  | 64 3/8  | 3/6 0/  | 58 3/8  | 64 3/8  | 70 3/8  |
| . DIMENSILI | B<br>FINISHED RUNWAY LENGTH                  | Œ      | 1483    | 1635    | 1788    | 1483    | 1635    | 1788    |
| ENCLUSURE   | A<br>FINISHED RUNWAY WIDTH                   | Inches | 56 9/16 | 56 9/16 | 56 9/16 | 62 9/16 | 62 9/16 | 62 9/16 |
| - ENCL      | A<br>FINISHED RUM                            | шш     | 1437    | 1437    | 1437    | 1589    | 1589    | 1589    |
|             | SIDE CAB                                     | Inches | 48      | ß       | 90      | 48      | ĸ       | 90      |
| IABLE 2     | CLEAR INSIDE CAB<br>LENGTH                   | mm     | 1219    | 1372    | 1524    | 1219    | 1372    | 1524    |
|             | CLEAR INSIDE CAB                             | Inches | 98      | 98      | 38      | 42      | 42      | 42      |
|             | CLEAR INSIDE<br>WIDTH                        | mm     | 914     | 914     | 914     | 1067    | 1067    | 1067    |

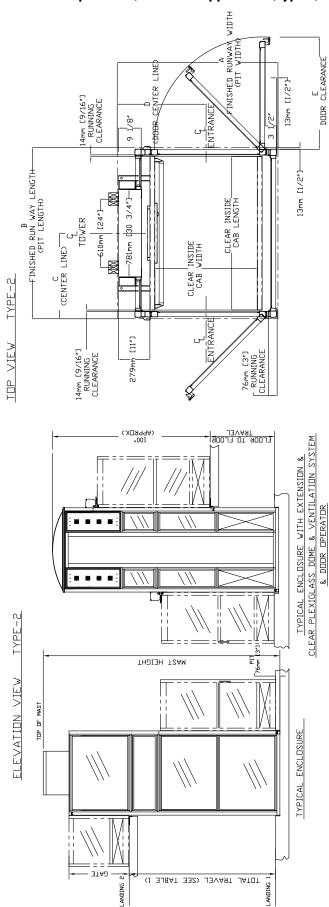
& DOOR OPERATOR

TABLE 1- MAST HEIGHT\*



| Max. Travel |   | Exten  | Extension Height |           |           | Mast Heig<br>with | Mast Height Approx<br>with Gate |
|-------------|---|--|------------------|-----------|-----------|-------------------|---------------------------------|
| mm (Inches) |   | шш   | mm (Inches)      |           |           | with 4.1          | with 4.188" CAP                 |
|             | 2388 (94")  | 1778 (70")  1168 (46")  559 (22")  254 (10") | 1168 (46")       | 559 (22") | 254 (10") | mm                | Inches                          |
| 1219 (48")  | 1   |  |                  |           | 1         | 2748              | 108.188                         |
| 1524 (60")  | 1   |  |                  | 1         |           | 3053              | 120.188                         |
| 1829 (72")  | 1   |  | - 1              |           |           | 3662              | 144.188                         |
| 2438 (96")  | 1   | -  |                  |           |           | 4272              | 168.188                         |
| 2743 (108") | 1   | 1  |                  |           |           | 4272              | 168.188                         |
| 3048 (120") | 2   |  |                  |           |           | 4882              | 192.188                         |
| 3658 (144") | 2   |  |                  | -         |           | 5440              | 214.188                         |
| 4267 (168") | 2   |  | 1                |           |           | 6050              | 238.188                         |
| 4877 (192") | 2   | 1  |                  |           |           | 0999              | 262.188                         |
| 5486 (216") | 3   |  |                  |           |           | 7269              | 286.188                         |
| 6096 (240") | 3   |  |                  | 1         |           | 7828              | 308.188                         |
| 6706 (264") | 3   |  | -                |           |           | 8438              | 332.188                         |
| 7010 (276") | 3   |  | 1                |           | 1         | 8692              | 342.188                         |
| *EXAN       | *EXAMPLE TABLE WITH 3" PIT, DIMENSIONS VARY WITH TRAVEL | VITH 3" PIT,                                 | DIMENSION        | IS VARY N | /ITH TRAV | EL                |                                 |

Figure 20: Elevation and plan view, enclosure application (Type 2)



ENCLOSURE DIMENSION CLEAR INSIDE CAB N TABLE CLEAR INSIDE CAB WIDTH

| 2388 (94") 1778 (70") 1168 (46") 559 (22") 254 (10")    |
|---|
|   |
|   |
|   |
| -   |
| 1   |
|   |
|   |
|   |
| 1   |
|   |
|   |
|   |
|   |
| *EXAMPLE TABLE WITH 3" PIT, DIMENSIONS VARY WITH TRAVEL |

TABLE 1- MAST HEIGHT\*

Figure 21: Elevation and plan view, enclosure application (Type 3, 45" opening)

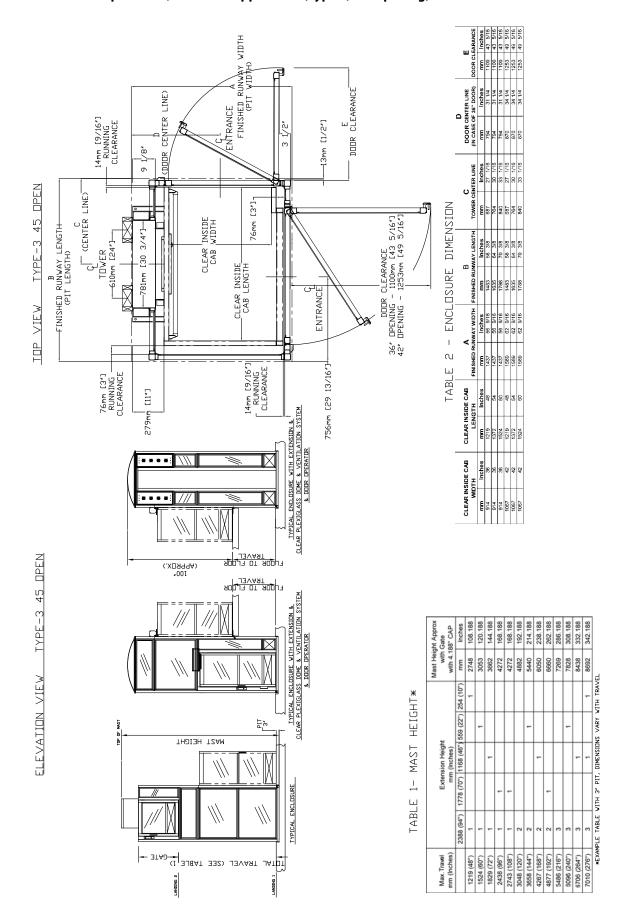


Figure 22: Elevation and plan view, enclosure application (Type 4, 45" opening)

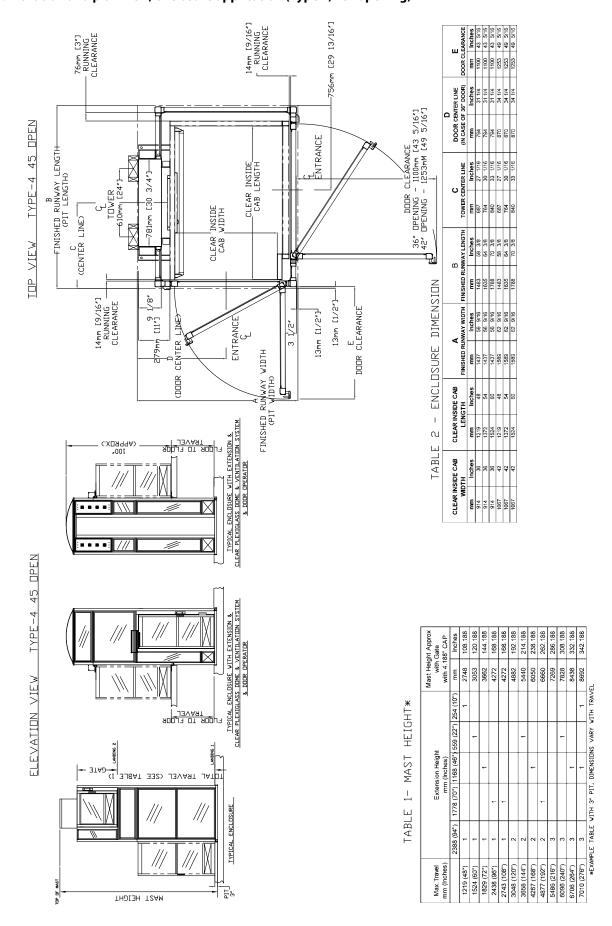


Figure 23: Auto door, left-hand

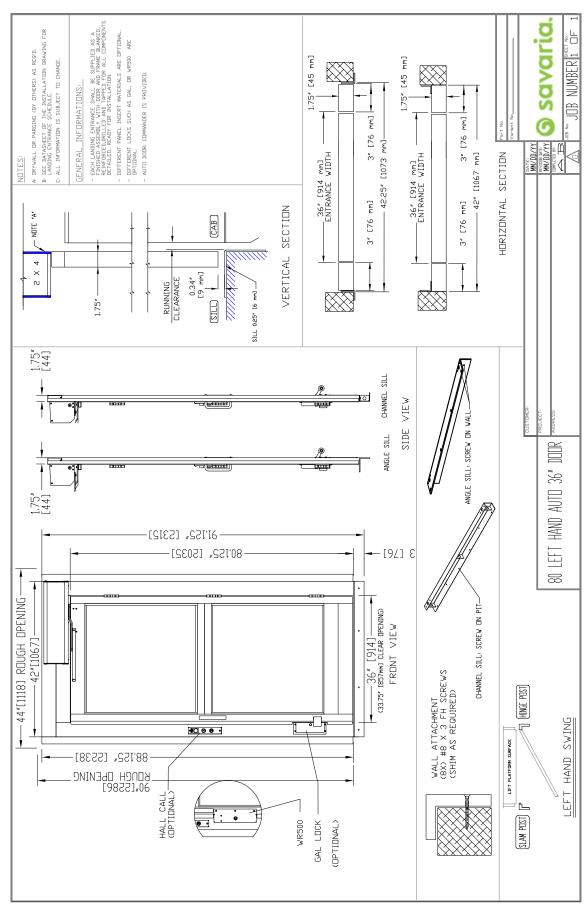


Figure 24: Auto door, right-hand

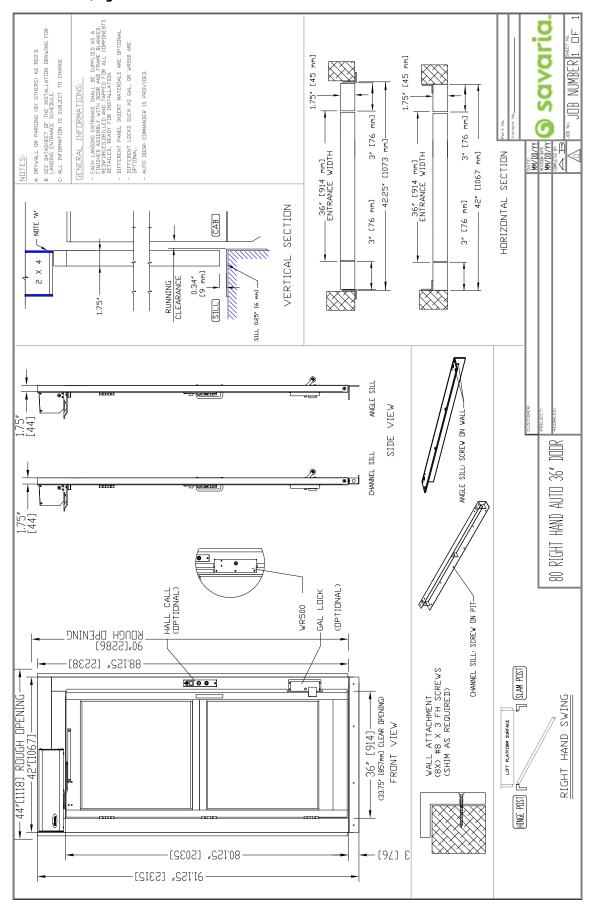


Figure 25: Manual door, left-hand

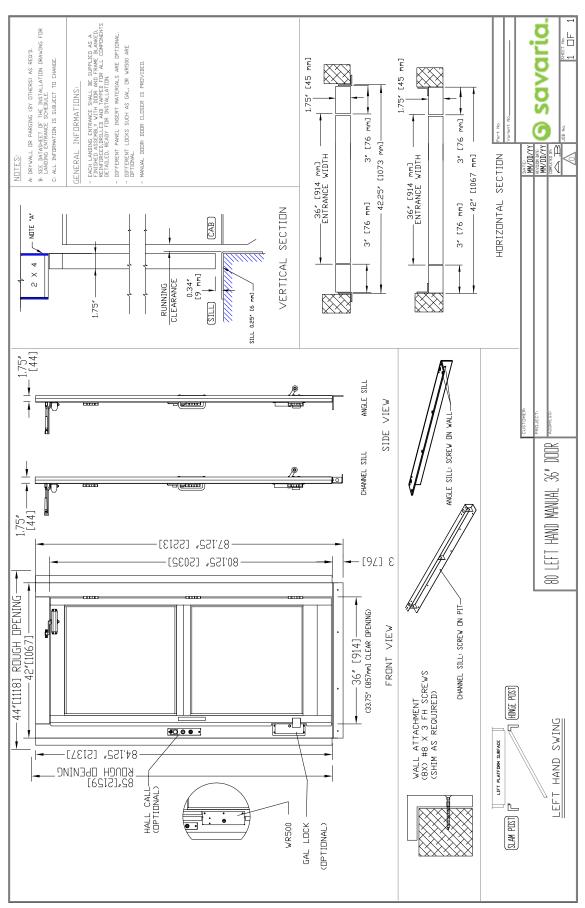


Figure 26: Manual door, right-hand

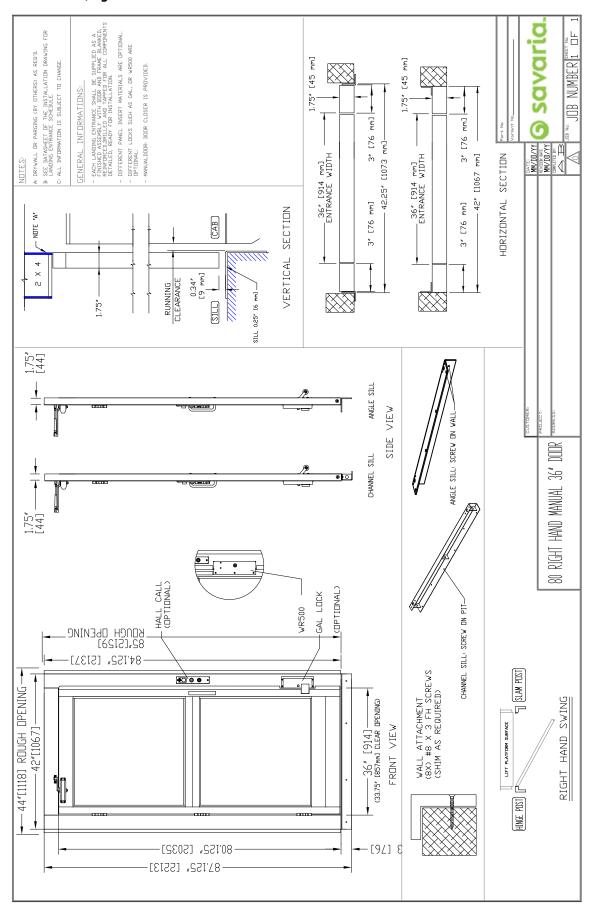


Figure 27: Prodoor auto, left-hand

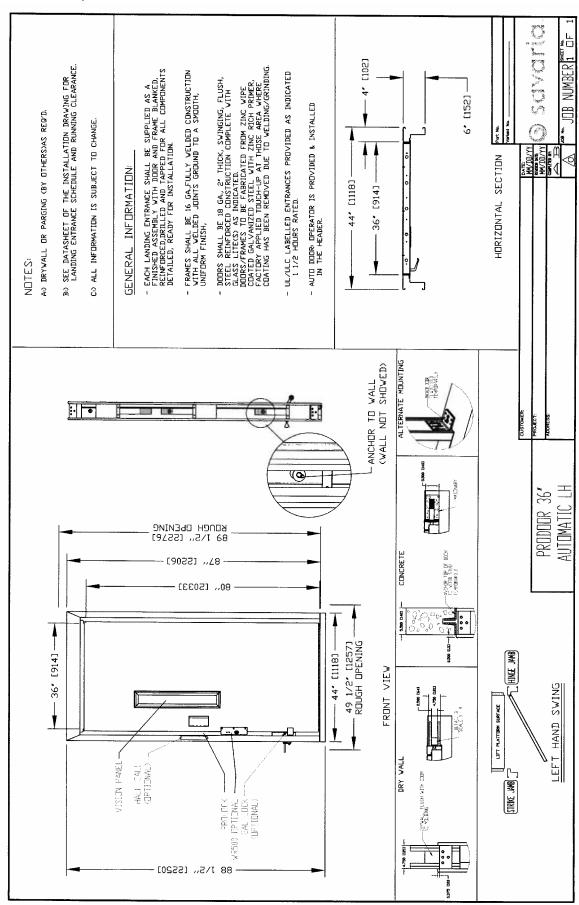


Figure 28: Prodoor auto, right-hand

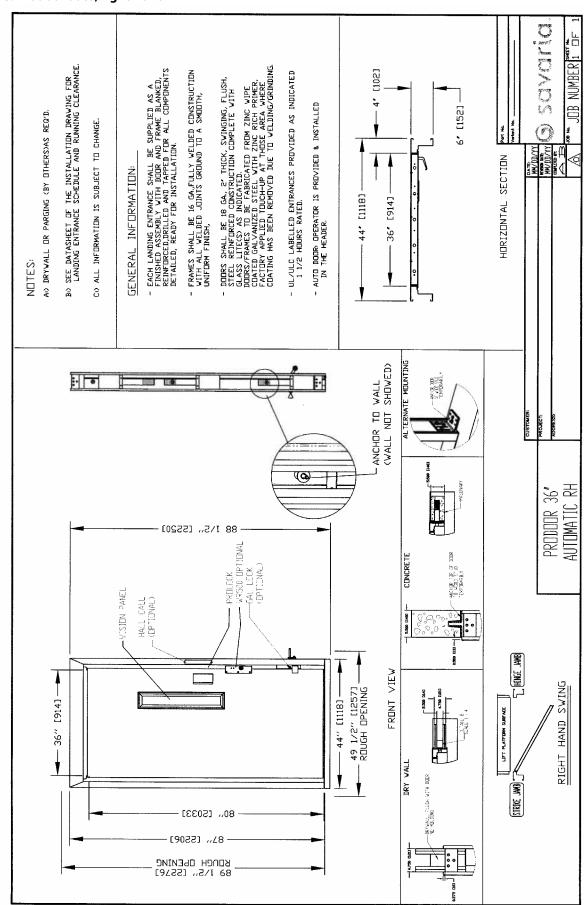


Figure 29: Prodoor manual, left-hand

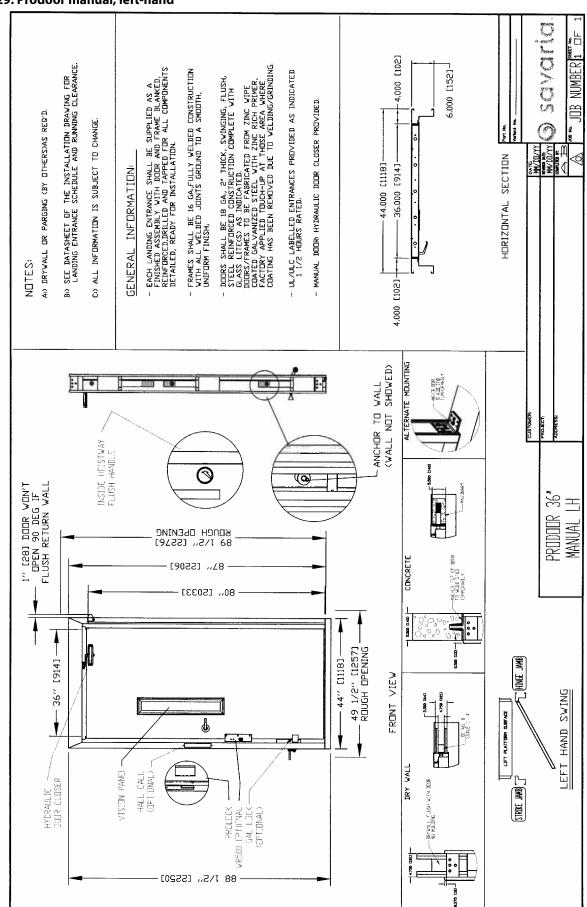


Figure 30: Prodoor manual, right-hand

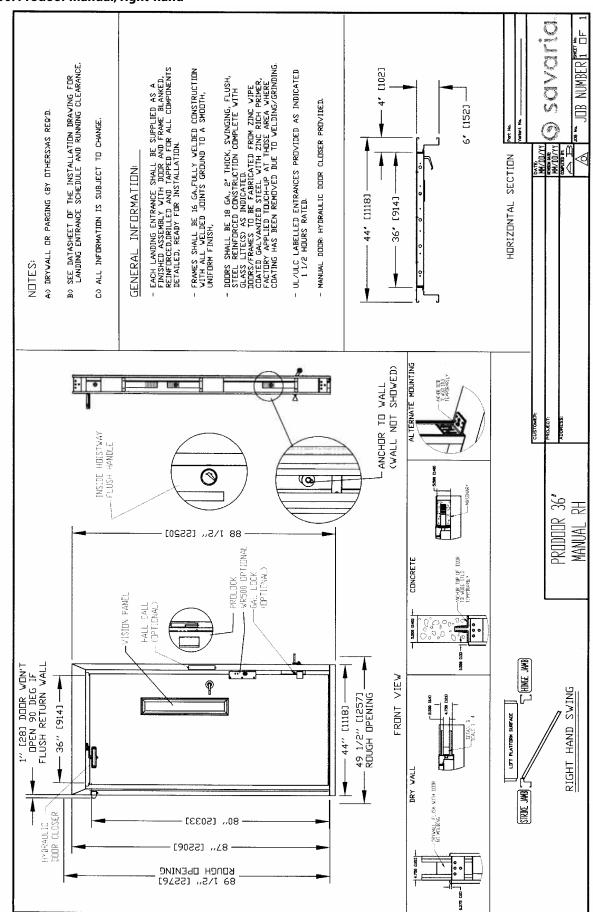


Figure 31: Prodoor installation (drywall)

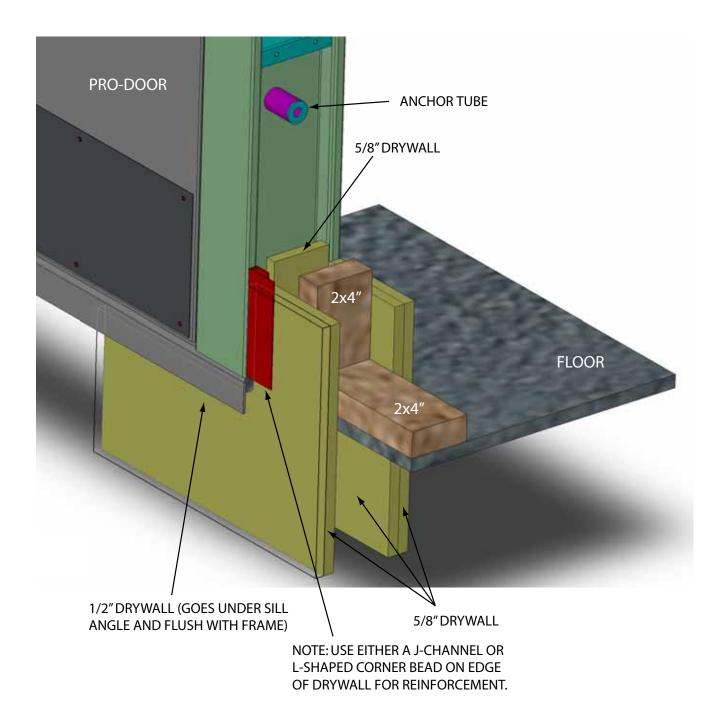


Figure 32: Auto half gate, left-hand

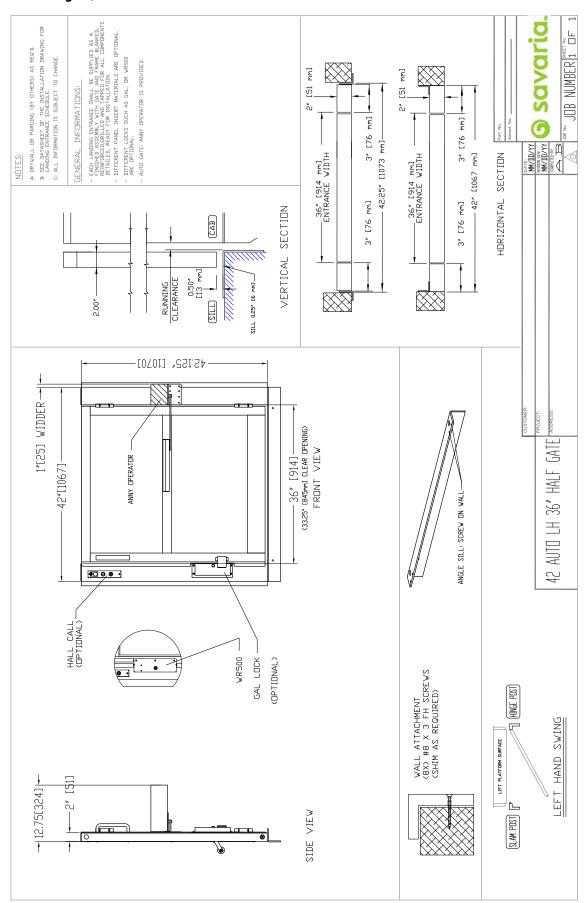


Figure 33: Auto half gate, right-hand

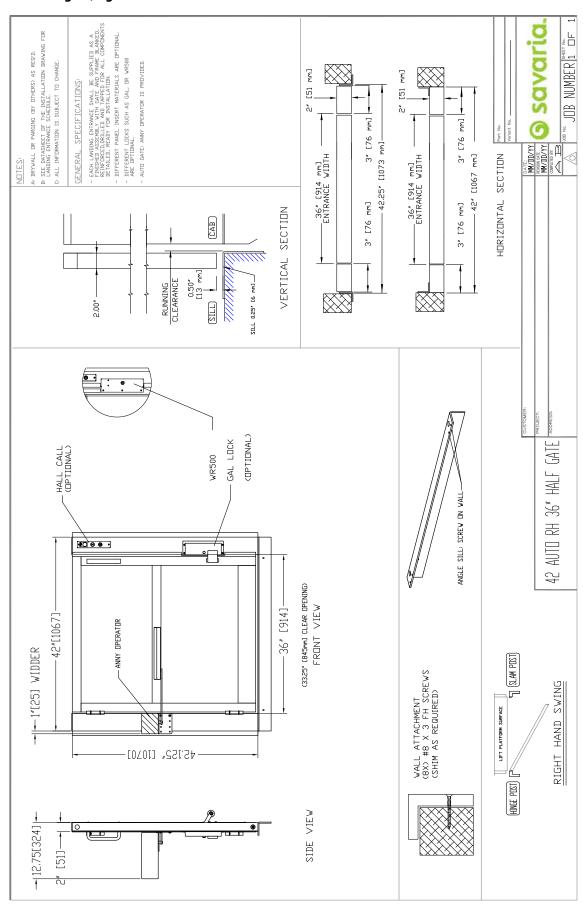


Figure 34: Manual half gate, left-hand

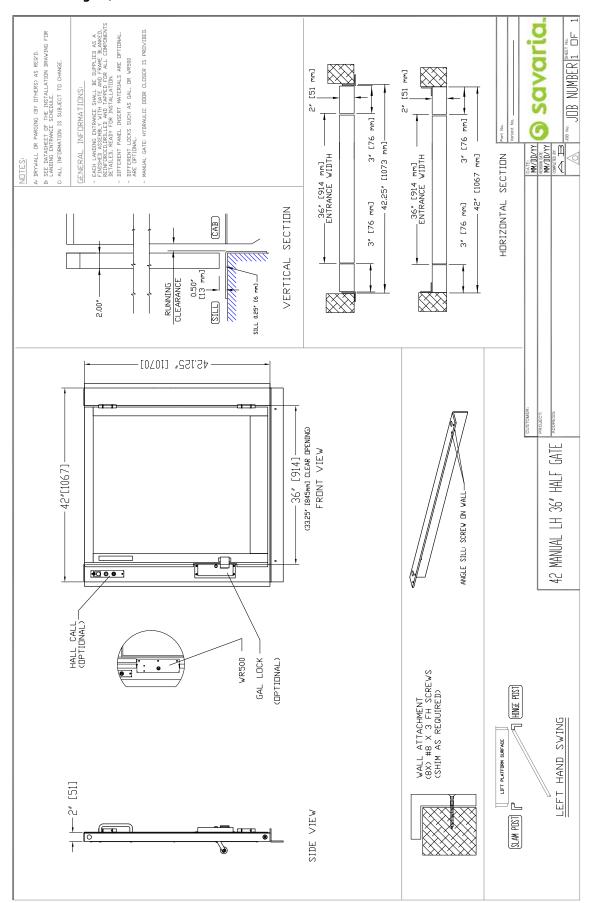


Figure 35: Manual half gate, right-hand

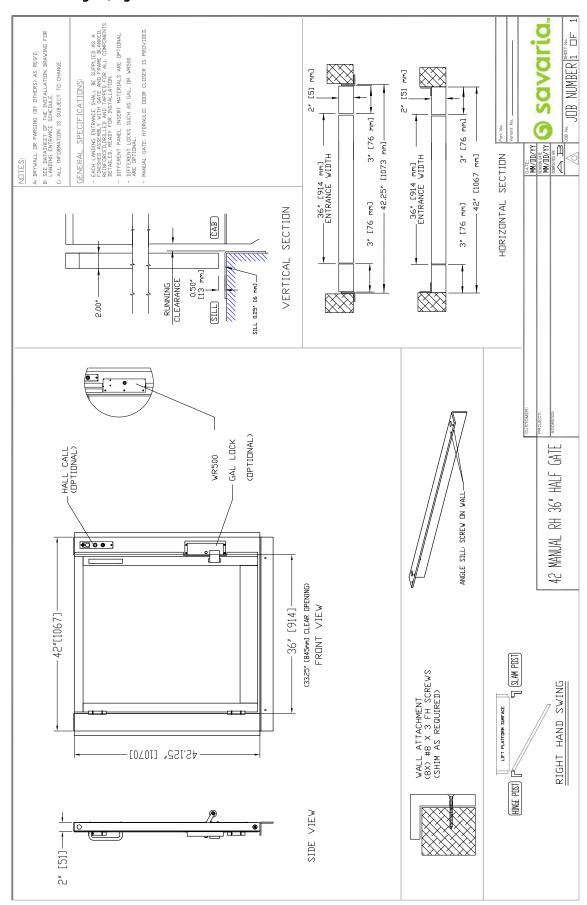


Figure 36: DuraSwing on half gate, right-hand

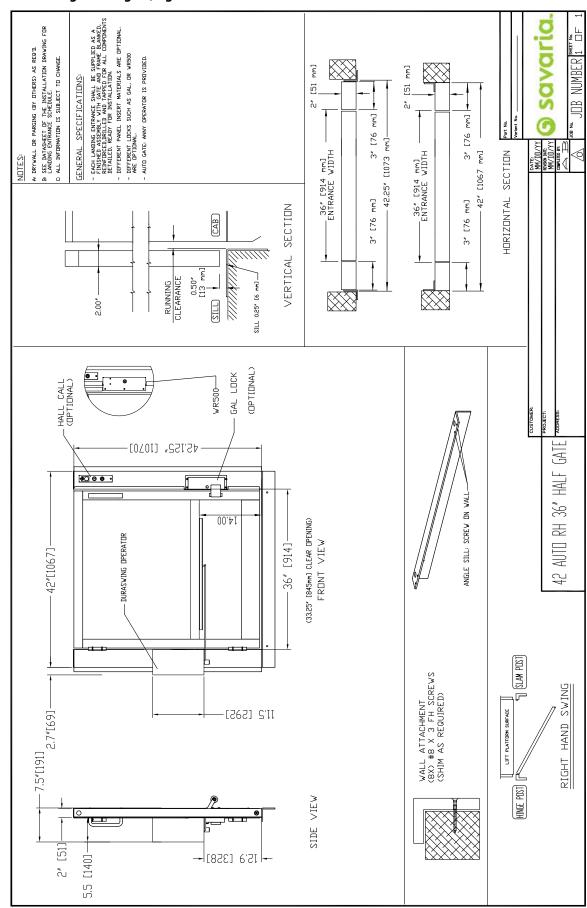


Figure 37: DuraSwing on half gate, right-hand, 45" opening

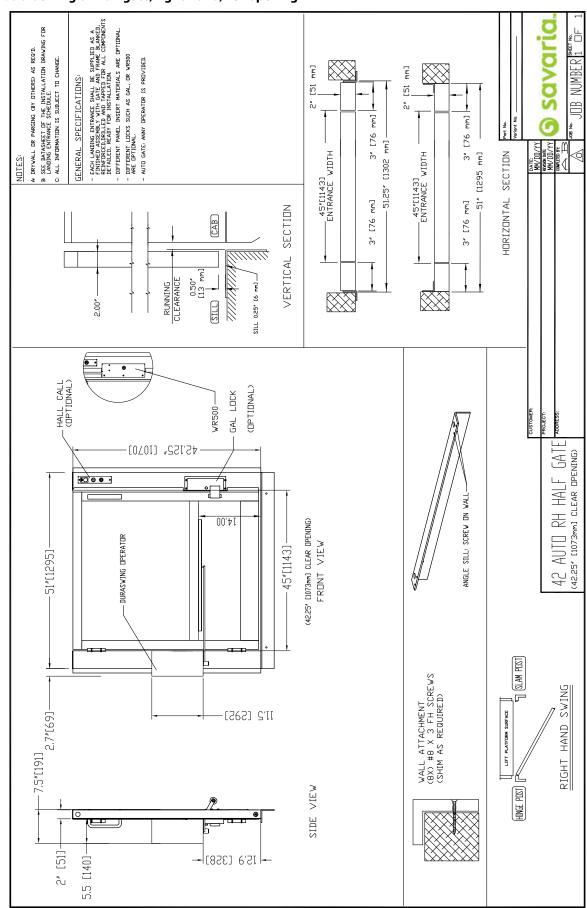


Figure 38: DuraSwing on half gate, left-hand

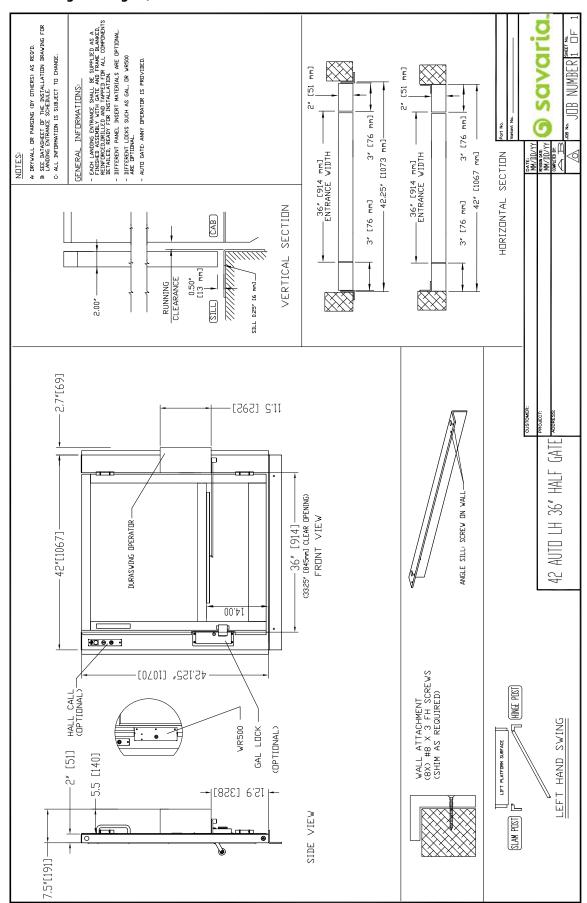


Figure 39: DuraSwing on half gate, left-hand, 45" opening

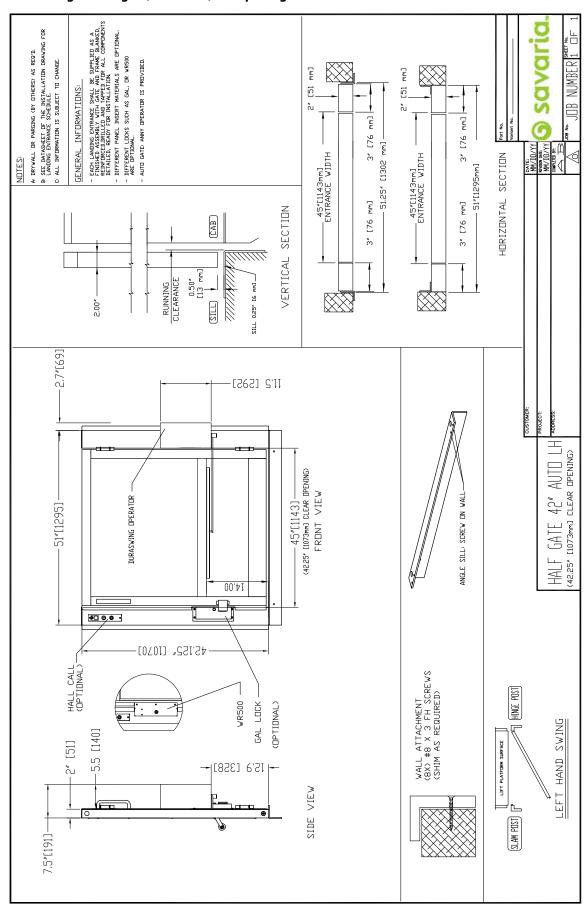
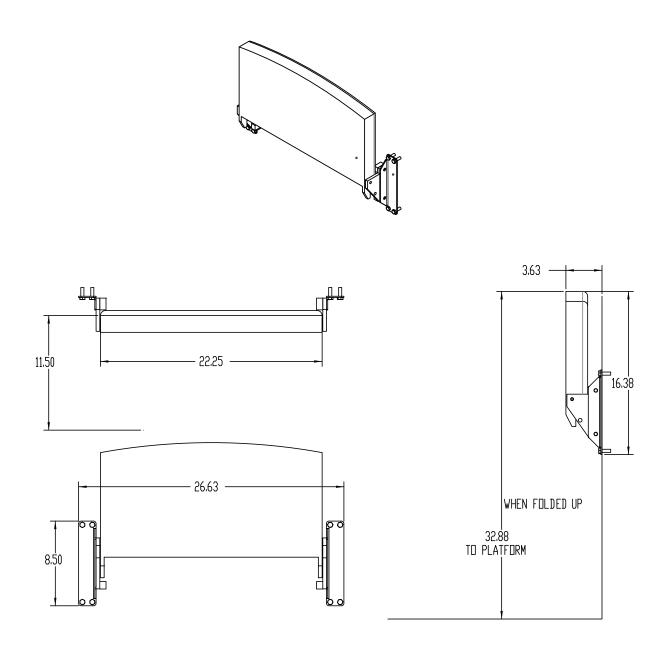
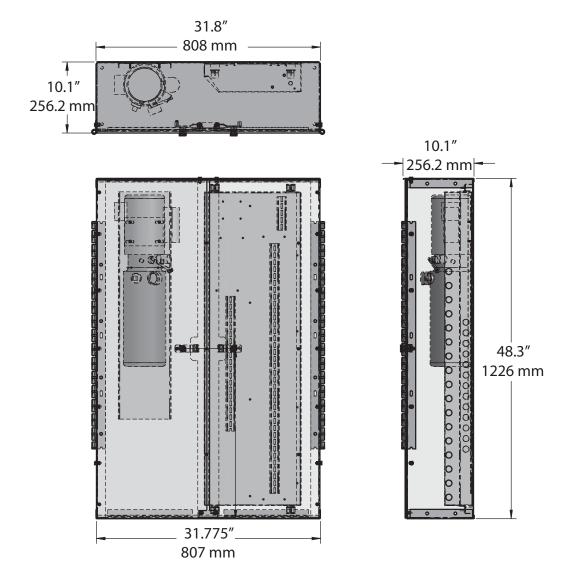


Figure 40: Seat dimensions



NOTE: Maximum seat capacity is 330 lbs (150 kg)

Figure 41: Remote controller/pump box dimensions



# **PROVISIONS BY OTHERS**

# **GENERAL REQUIREMENTS**

# **Hoistway**

The hoistway must be designed and built in accordance with the "safety standard for platform lifts and stairway chairlifts" or the "safety code for elevators and escalators" and all state and local codes.

# **Plumb Runway**

Due to close running clearances, the owner/agent must ensure that the hoistway and the pit (where provided) are level, plumb and square and are in accordance with the dimensions on the installation drawings.

#### **Minimum Overhead Clearance**

The owner/agent must ensure the minimum overhead clearance is in compliance with codes.

#### **Construction Site**

The owner/agent is required to provide all masonry, carpentry and drywall work as required and shall patch and make good (including finish painting) all areas where walls/floors may need to be cut, drilled or altered in any way to permit the proper installation of the lift.

# **Dimensions**

The contractor/customer is required to verify all dimensions and report any discrepancies to our office immediately.

# STRUCTURAL REQUIREMENTS

# Floor/Support Wall Loads

The structural engineer is to ensure that the building and shaft will safely support all loads imposed by the lift equipment. Refer to the installation drawings for the loads imposed by the equipment.

# **Mast to be Securely Fastened**

Where required, the mast must be securely fastened to the structural support wall. Refer to the installation drawings for the loads imposed by the equipment.

# Where Doors are Required

Suitable lintels must be provided by the owner/agent. Door frames are not designed to support overhead wall loads.

# **ELECTRICAL REQUIREMENTS**

#### General

Electrical equipment and wiring must comply with Section 38 of CSA C22.1 (Canada) or Section 620 of NEC ANSI NFPA 70 (USA).

#### **Power Supply**

A 120 VAC, 20A, 60 Hz, single-phase circuit through a fused disconnect with an auxiliary contact on the main power supply is required.

#### Lighting

Lighting of 100 lux minimum is required at platforms and landings. Lighting with a switch and electrical GFCI outlet is required in the hoistway pit.

#### **Additional Branch Circuit**

Branch circuit with disconnect for door operators, if equipped (120VAC, 15A, 60HZ, 1PH). Branch circuit with disconnect for ventilation system, if equipped (120VAC, 15A, 60HZ, 1PH).

# Branch Circuit for Hoistway Pit Lighting and Receptacles (Canada Only)

- a) A separate branch circuit shall supply the hoistway pit lighting and receptacles.
- b) Required lighting shall not be connected to the load side terminals of a ground fault circuit interrupter receptacle(s).
- c) A lighting switch shall be provided and shall be located so as to be readily accessible from the pit access door.
- d) At least one 125V, single-phase, duplex receptacle connected to a 15A branch circuit shall be provided in the hoistway pit.

# **ENTRANCE REQUIREMENTS**

# **Upper Landing Gates**

Where required, smooth solid barriers are to be supplied and installed on both sides of the entrance at the upper level and must be a minimum of 42" (1067 mm) high. The entrance assembly must be in place prior to this provision.

# **Fascia Panel Below Upper Level Entrance**

Where required, fascia panel must be fastened to a solid wall and be perpendicular to the floor and walls. Hoistway fascia is not self-supporting for long, continuous runs void of entrances. Adequate support for the fascia must be provided.

#### **Entrance Assemblies**

Entrance assemblies must be adjusted to align with the platform and interlock equipment. Others must allow an adequate opening.

#### **Return Walls**

Return walls at the entrances must be built-in by others after the entrance assemblies are in place. The entrance assembly must be securely fastened to the walls by the contractor.

# **SAVARIA LINK OPTION**

If you have the Savaria Link <u>Ethernet</u> remote monitoring option, ensure that you have an Ethernet connection with Internet capability in the vicinity of the unit's controller.

If you have the Savaria Link <u>Wireless</u> remote monitoring option, ensure that you have a wireless signal with Internet capability in the vicinity of the unit's controller.

# V1504 Vertical Platform Lift PLANNING GUIDE

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Savaria Concord Lifts, Inc. www.savaria.com

Sales 2 Walker Drive Brampton, Ontario L6T 5E1 Canada

Tel: (905) 791-5555 Fax: (905) 791-2222 Toll Free: 1-800-661-5112

