



## INSTALLATION SUGGESTIONS FOR CASCADIAN VAULT RESTROOM

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### 1.0 MEASUREMENTS

#### A. Vault

*Check drawing for actual dimensions and weight.*

Weight:	17,400 lb.
Width:	6' 6"
Length:	14' 7½"
Height:	4' 4"

#### B. Building

*Check drawing for actual dimensions and weight.*

	ONE PIECE	TWO PIECES	
		Top	Bottom
Weight:	28,600 lb.	15,700 lb.	12,900 lb.
Width:	8' 6"	8' 6"	6' 6"
Length:	15' 2¾"	14' 10½"	14' 7½"
Height:	11' 6"	7' 1"	4' 5"

### 2.0 INSTALLATION

#### A. Placement

The floor of the building and the top of the vaults should be the high spot of the site chosen. Finished floor elevation should be 4- 6" above natural grade measured at the front entrance of the floor. Both the floor and the top of the vault should be above the surrounding ground level with the pathway sloped up to meet the entryway. Ideally, the back of the building should be slightly higher to allow water to freely drain out of the toilet rooms.

#### B. Excavation, Backfill and Compaction

The hole dug to accommodate the vaults must be large enough to be workable and to allow the floor to the building to fit on the vaults when placed, but small enough to avoid excessive backfill after placement (use your own judgement). Compact the natural ground at the bottom of the vault excavation with a minimum of three passes with a whacker-type mechanical compactor or equivalent approved by the customer.

Install aggregate bedding material for building support. Compact aggregate course with two passes with a whacker-type mechanical tamper or equivalent approved by the customer. Install leveling course of sand so there will be no high spots in the middle of the vault bottom. Set vault in place. Ideally, the containment area end of the vault should be slightly higher; ¼"

per foot of run to allow the building to sit higher. Ensure vault is level, side to side. Backfill around the structure. Use excavated material for backfill, rocks larger than 6" in maximum dimension shall not be placed within 6" of the exterior vault walls. Fill, adjacent to the building entry will have excavated material placed in 8" loose lifts and compacted with a minimum of two (2) passes with a whacker-type mechanical compactor or equivalent approved by customer. After the vault is placed in the hole and backfilled, place the supplied butyl tape around the entire top surface of the vault. Make sure that the area is free of debris.

#### C. Setting and Assembling the Building

Set bottom building section onto vault lining up the back corners of the building section with the back corners of the vault (the vault section with ABS liner). Place rebar (included) into the holes provided on the top of the walls of the bottom section, then squeeze epoxy (included) into each hole. Lift top section of building, squeeze epoxy into the holes provided in the bottom of this section, line up the holes with the rebar on the bottom section of building and set.

#### D. Hardware Installation

##### *Doors*

1. Place door frame into door opening. Ensure that door frame is centered within opening. Make sure frame is plumb.
2. Use  $\frac{3}{8}$ " x 6" masonry bit in a roto hammer to drill through holes in the frame (three per side).
3. Take door anchor bolt, hammer into the holes. Take flat blade screwdriver and turn to expand anchors. Place black cover over each screw head.
4. Attach hinges to doorframe.
5. Attach door to hinges. Depending on what hand the door frame is, you might need to remove hinge plate from door and rotate it 180° and return to door. Ensure that door swings freely within the frame. If door binds, use shims underneath hinges to correct the problem.
6. Attach deadbolt and privacy latch handle per enclosed instructions.
7. Attach door sweep using a  $\frac{1}{8}$ " steel bit. Adjust door sweep so that it lightly brushes the ground.
8. Caulk around door frame with provided caulk.
9. Open door fully to privacy wall, where privacy latch hits privacy wall. Attach doorstop with a  $\frac{3}{16}$ " bit and roto hammer.

### *Signs*

1. Attach signs using a ¼" bit and roto hammer to pre-drill holes, tap attachment bolts through the sign into the drilled holes.

### *I.D. Tag*

1. Attach I.D. tag to the inside top door frame using provided rivets.

### E. Other Important Points

- Southern exposure for the vent stack is ideal, as this allows for heating of the vent stack. Heating of the vent stack aids in the venting of the building. Whenever possible, the placement of the building should be chosen with this in mind.
- Aggregate bedding material provides a solid base for the vault.
- Sand is preferable for use in leveling the bottom of the hole excavated for the vault, as it is easier to level.
- Use of softeners when lifting the building is critical to prevent spalling to the roof of the building, if nylon leads are not available.
- When lining up the vault and the floor of the building, lining up the rear corners of the vault (the containment portion) and floor (by the clean-out and vent stack) is the easiest and best way to set the building.
- **Important:** Check the seal of the containment portion of the vault by getting into the vault through the clean-out cover in the back of the building after building placement. There should be no light leaking through, with the exception of the riser and vent stack holes.
- Use the caulk provided to seal around the riser and vent stack where it joins the floor and roof panels. When sealing the vent stack, be sure to put a bead of caulk in the floor vent hole, insert vent stack, then caulk around vent stack.
- Prior to use, it is recommended you place water in a sufficient amount as to cover the entire bottom of the vault containment area to assist in keeping waste material fluid, making it easier to pump out when needed.

## 3.0 RECOMMENDED LIFTING EQUIPMENT

Contact CXT®.