

**SUGGESTIONS FOR INSTALLATION
OF THE CASCADIAN MODEL**

1.0 MEASUREMENTS

A. Vault

Vault Height: 4'4"
Vault Width: 6'6"
Vault Length: 14'7 ½"
Vault Weight: 17,400 lbs.

B. Building

Floor Dimensions: 0'5" height, 6'6" in width, 14'7 ½" in length
Total Building Height: 11'6"
Total Top Height: 7' 1" Total Bottom Height: 4' 5"
Total Building Weight: 30,250 lbs.
Total Top Weight: 16,700 lbs. Total Bottom Weight: 13,550 lbs.

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 inches 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.

B. Excavation, Backfill and Compaction (continued)

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; $\frac{1}{4}$ " per foot of run to allow the building to sit higher. Insure vault is level, side to side. Backfill around the structure. Use excavated material for backfill, rocks larger than 6-inches in maximum dimension shall not be placed within 6-inches of the exterior vault walls. Fill, adjacent to the building entry will have excavated material placed in 8-inch loose lifts and compacted with a minimum of two passes with a whacker-type mechanical compactor or equivalent approved by customer. After the vault is placed in the hole and backfilled, place the butyl tape supplied 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 black liner). Place the coil rod into the top piece of the building and thread into place. A locking tool to grip the coil rod may be required. Place supplied epoxy into the holes of the bottom half of the building. Set top building piece onto bottom building piece.

D. Hardware Installation

Doors

1. Place doorframe into door opening. Insure that doorframe is centered within opening. Make sure frame is plumb.
2. Use $\frac{3}{8}$ " x 6" masonry bit in a rotohammer to drill through holes in the frame (3 per side).
3. Take door anchor bolt, hammer into the holes. Take flat blade screw driver 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 doorframe is, you might need to remove hinge plate from door and rotate it 180 and replace on door. Insure that door swings freely within the frame. If door binds, use shims underneath hinges to correct the problem.

D. Hardware Installation (continued)

6. Attach deadbolt and privacy latch handle per enclosed instructions.
7. Attach door sweep using a 1/8" steel bit. Adjust door sweep so that it lightly brushes the ground.
8. Caulk around doorframe with caulk provided.
9. Open door fully to privacy wall, where privacy latch hits privacy wall. Attach doorstop with a 3/16" bit and rotohammer.

Signs

1. Attach signs using a 1/4" bit and rotohammer 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 doorframe using rivets provided.

E. Other Important Points

1. 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.
2. Aggregate bedding material provides a solid base for the vault.
3. Sand is preferable for use in leveling the bottom of the hole excavated for the vault, as it is easier to level.
4. Use of softeners when lifting the building is critical to prevent spalling to the roof of the building, if nylon leads are not available.
5. 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.
6. 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.
7. 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.

3.0 RECOMMENDED LIFTING EQUIPMENT

CXT can provide a drawing of the recommended lifting/rigging arrangement. Four lifting plates and four $\frac{3}{4}$ " coil bolts 6-inch long for the building can be provided for a refundable deposit of \$1,000.00.

1. Crane of appropriate capacity to lift and place vault and building onto designated site.
2. Four equal lengths of cable or nylon leads for a minimum of 25'0 feet.
3. Four lifting plates (CXT can provide).
4. Four softeners (wood or plastic) to protect roof edge where leads make contact if cable is used.
5. Four $\frac{3}{4}$ " coil bolts 6-inches long (CXT can provide)