

# INSTALLATION MANUAL

# IS4000

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# INSTALLATION MANUAL

## ENERGY WALL™ IS 4000

### 7" CONTINUOUS EXTERIOR INSULATION PANEL SYSTEM FOR USE IN NEW CONSTRUCTION

#### I. Instructions for Wall Installations:

- STEP 1:** Complete any structural requirements as per the construction drawings or blueprints for the project.
- STEP 2:** a) Prepare the surface of the exterior wall for installation of a certified vapour barrier (e.g. 6 Mil or 10 Mil Certified Polyethylene Vapour Barrier).



- b) Install the vapour barrier on the wall as per the building designer's guidelines and in accordance with local building codes.



**STEP 3:**

a) Determine your starting point on the wall by using a horizontal level line to place a 2x4 starter board on edge

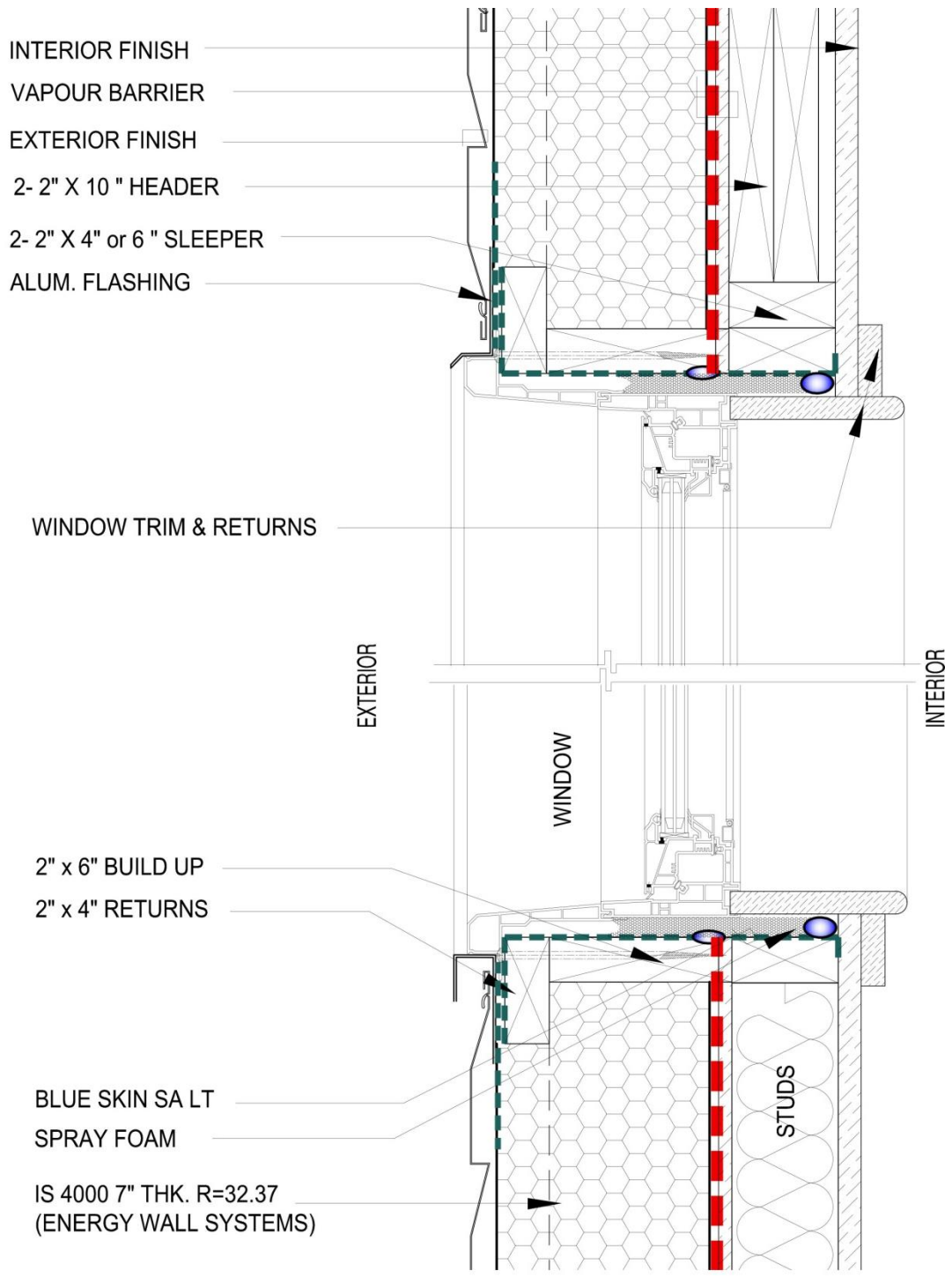


b) Pre-drill  $\frac{1}{4}$ " pilot holes in the 2x4 so the screws can tighten the board to the wall.



c) Fasten the 2x4 starter board to the structure using 5", #10 screws, placed 16" on centre





IS 4000

**STEP 4:**

a) Install the window and door build up on the wall using 2x6 board on edge placed over the vapour barrier.



b) Pre-drill ¼” pilot holes in the 2x6 board, so the screws can tighten the board to the wall, and fasten the build-up with 7” #12 TRUFAST SCREW (25802005); flash to the inside of the window or door rough opening.

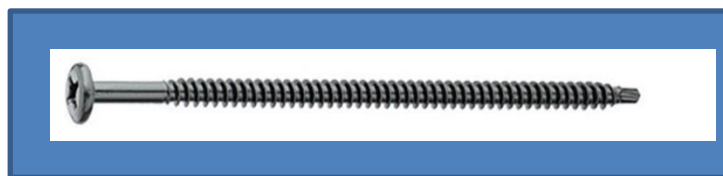


c) The first pilot hole should be drilled 4” from the starting (i.e. corner) edge of the board, with the remainder 16” on centre or less.



4”

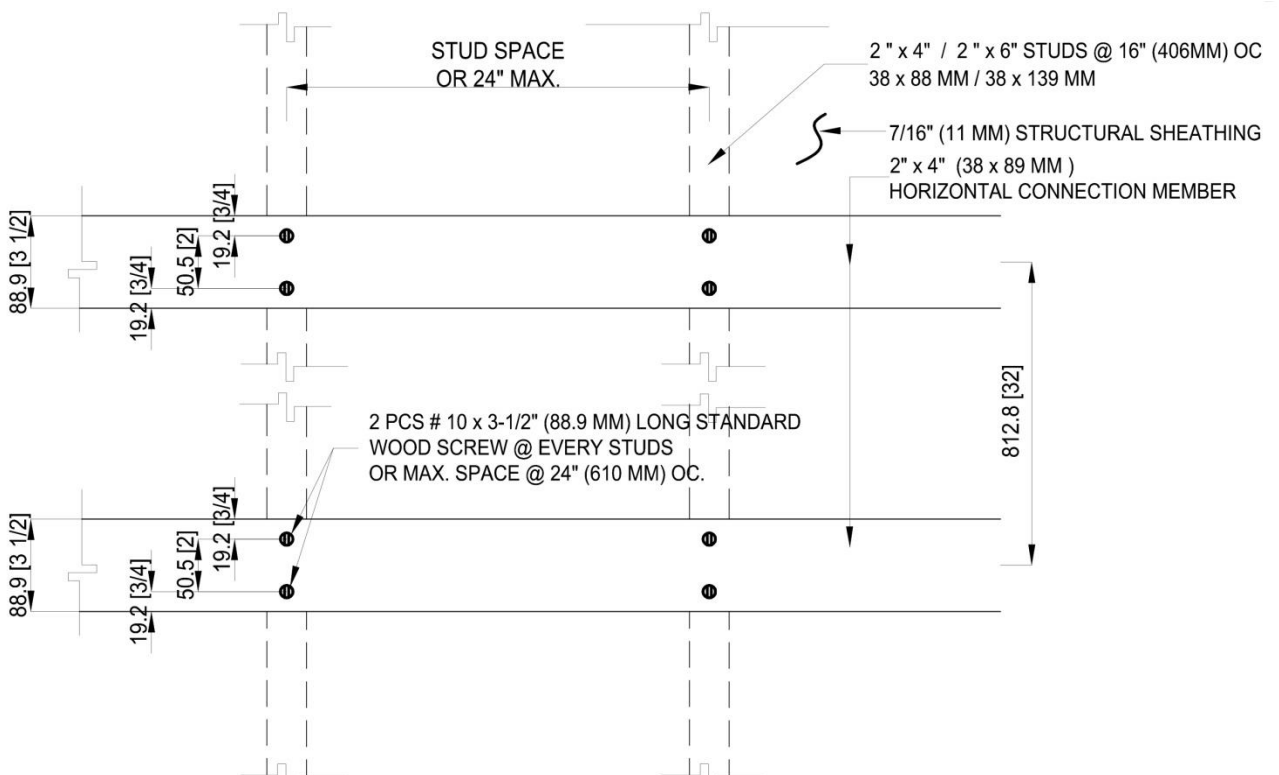
16” OC

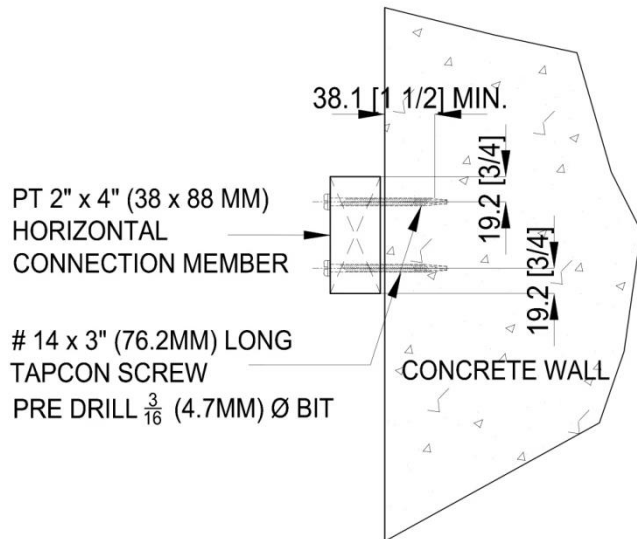


d) Place a heavy bead acoustic sealer around the build up to tie the vapour barrier to window frame before installing exterior insulation.



**STEP 5:** a) Install the horizontal strapping using 2x4 board on flat and fasten the horizontal strapping to the structural studs using two #10 3 1/2" TRUFAST SCREW .





b) Place the first strap to line up with the groove in the first insulation panel and the remainder 32" on centre.



**STEP 6:** a) Moving from left to right on the wall, place a corner insulation panel on the wall first.



b) Fasten the corner panel to the 2x4 horizontal strapping using two, 6 ¾" insulation nails as illustrated in picture.



c) Do not trim the corner panel, but always adjust the flat panel to the corner.





**STEP 7:** a) Once the corner panel is fastened to the wall, align and connect a flat insulation panel to the corner panel.



b) If necessary, adjust the flat panel to size by cutting a new ship lap with a hot wire cutter.





c) Fasten the flat panel to the 2x4 horizontal strapping using two, 6 ¾" insulation nails per panel.



*(NOTE: Paying attention to detail during the placing of the insulation panels is extremely important to avoid unnecessary spaces between the panels and to ensure that the grooves of the panels line up to allow proper placement of the exterior strapping).*

**STEP 8:** Repeat Step 7. for the next panel(s) until you reach the safe work limit of your scaffold.



**STEP 9:** a) Install the exterior vertical strapping on the panels using 2x3 board fastened with two, 7" #12 TRUFAST SCREW (25802005), to the horizontal strapping and placed 32" on centre.



#### PRODUCT FEATURES

- Choice of either # 3 Phillips truss or ¼ Hex washer head styles.
- Double flute drill point speeds penetration through steel deck.
- Exclusive tapered entry threads wedge fastener tightly into the deck for superior back-out resistance
- Black e coating offers excellent corrosion resistance.
- FM and Miami-Dade approved.



b) Install ¾" plywood over the inside and outside corners and fasten with two 7" #12 TRUFAST SCREW (25802005), to the 2x4 horizontal strapping, placed 32" on centre.



**STEP 10:** Reposition your scaffold and repeat Steps 8. and 9. as required, finishing the wall with a corner panel and the exterior vertical strapping.



*(NOTE: Installation of the exterior vertical strapping may be postponed until all the panels are installed on the wall. This approach would involve additional repositioning of the scaffold. Therefore, it is considered to be a less efficient installation approach. The decision to postpone the installation of the exterior vertical strapping is at the installer's discretion).*

**STEP 11:** Repeat Steps 3-5 and 7-10 for the next wall. Step 6 may be omitted because the corner panel should already be in place.

## **II. Instructions for Window and Door Installation:**

**STEP 1:** Trim the insulation around the window or door opening using a 6" blade knife and the template to guide the cutting of the insulation in order to accommodate the 2x4 board on flat to create a nailing surface for installing the window or door and the exterior finishing.



**STEP 2:** Align the 2x4 board on flat on the groove of the insulation and fasten to the 2x6 build-up board using 3 ½", #10 screws, or similar fastener.



**STEP 3:** Place 16" peel and stick water protection membrane around the window and door opening covering the surface of the door or window opening and the 2x4 board on flat in order to accommodate the fastening of the door or window nailing flange.



**STEP 4:** After placing the door or window on the wall opening and fastening as per window or door manufacturer specifications, place an additional 4" peel and stick water membrane over the door or window nailing flange and the other membrane to properly seal the wall envelope from water penetration and create a better air barrier around the wall opening.``



1. Inspect the new window for any damage and make sure you have all of its parts. Also check the size of the window size and make sure the window is made to specs. Measure the size of the opening width at the top middle and bottom and the size of the height at left, center and right to ensure that the window will fit within the smallest measurements. Measure the opening diagonally to make sure the window can be installed square and plumb within the opening. If there is an issue with any of the above, don't install the window and contact your window distributor.

2. Place the window into the opening on top of the shims and put a level on the sill make sure the sill is level and not crowned.



3. Once the sill is level, loosely install all of the installation fasteners. Check the frame for square by measuring diagonally from corner to corner. On a double hung, adjust the alignment screws until the jamb are plumb from top to bottom.

4. Recheck the frame for square and plumb and make sure it is lock properly. Also make sure all weather stripping is making contact properly.



5. Spray foam the gap between the frame & window jamb for air tightness. On exterior face place an additional 4" peel and stick water membrane over the window nailing flange and the other membrane to properly seal the wall envelope from water penetration and create a better air barrier around the wall opening. Start placing and installing the exterior finishing as per the detailed project specifications. Finally finish off the inside of the window.



**STEP 5:** Start placing and installing the exterior finishing as per the detailed project specifications.



*(NOTE: For enhanced thermal and acoustic resistance, we recommend that fibre insulation be used to fill the interior wall cavity after the mechanical and electrical installation is completed and before placement of the interior wall board).*