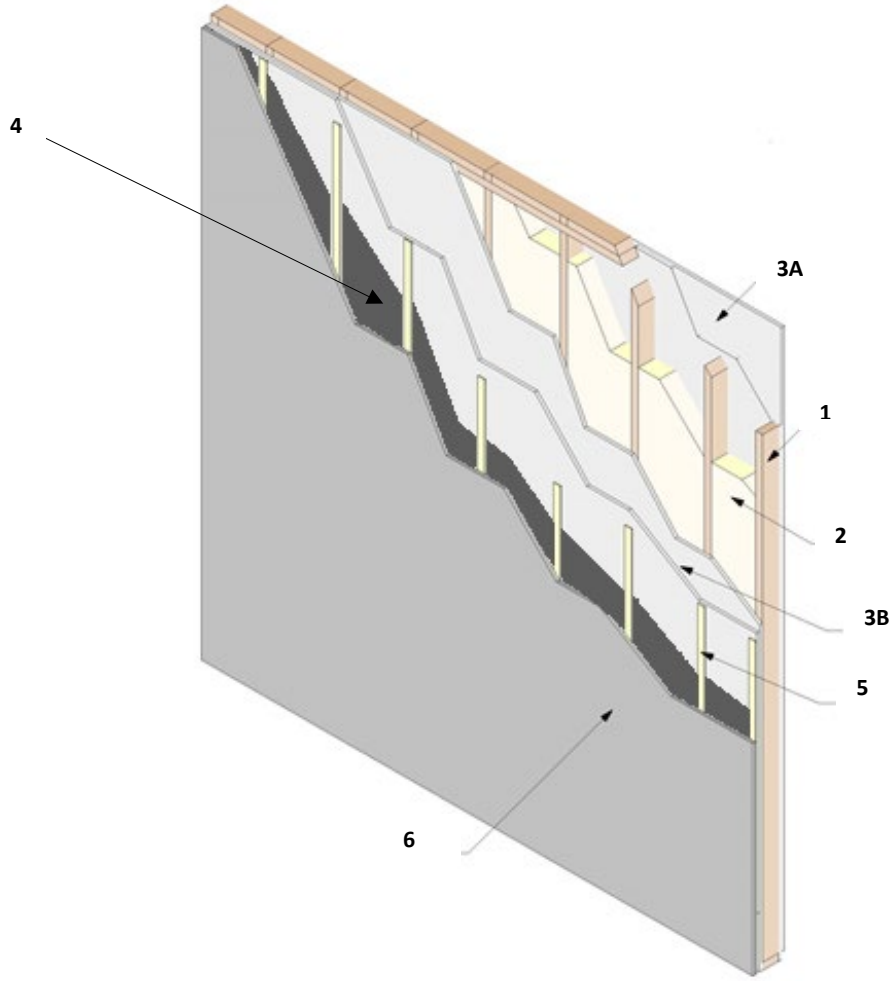
**James Hardie Building Products**
**Design No. JH/FCS 120-02**
**James Hardie Fiber Cement Siding**
**Non-Symmetrical, Load-Bearing Wall Assembly – Full Design Load**
**ASTM E119, CAN/ULC S101**
**Fire Resistance Rating – 2 Hour (Rating applies to both sides)**




1. **WOOD STUDS:** Nominal 2 in. × 4 in. solid sawn wood studs located 16 in. on center (oc), with top and bottom plates using 3 in. framing nails.

2. **INSULATION (Required):** Stud cavities filled with R12 un-faced fiberglass insulation.

3. **GYPSUM WALLBOARD:** Two layers of 5/8 in. Type X gypsum board or 5/8 in. Densglass Gold board, oriented horizontally, and fastened to the steel studs using 1-5/8 in. DW screws every 8 in. oc for the first layer and 2-1/4 in. DW screws every 8 in. oc for the second layer. All joints and screws covered with joint compound.

**GYPSUM WALLBOARD, SIDE B:** Two layers of 5/8 in. Type X gypsum board or 5/8 in. Densglass Gold board, oriented horizontally, and fastened to the steel studs using 1-5/8 in. DW screws every 8 in. oc for the first layer and 2-1/4 in. DW screws every 8 in. oc for the second layer. All joints and screws covered with joint compound.

4. **WOOD SHEATHING (Optional): ADDITIONAL LAYER(S) (Optional):** Any one or two of the following components can be used in any order outward of the gypsum sheathing (Item 3B):

   **COMPONENT 1 – EXTERIOR INSULATION:** The exterior insulation may be installed up to the max. thickness and density recognized in the certification document.
   - ICC-ES AC377 certified open cell, spray-applied polyurethane insulation
   - ASTM C578 certified extruded polystyrene (XPS) insulation
   - ASTM C1289 certified polyiso insulation
   - Mineral wool batt insulation

   **COMPONENT 2 – WOOD STRUCTURAL PANEL SHEATHING:**
   - Code prescribed wood structural panel sheathing

   One layer of the wood structural panel sheathing may also be installed on the interior of Item 3B.

5. **FURRING (Optional):**
   - Min. 1-1/2 in. wide × 3/8 in. thick furring (Wood: Min. 0.42SG; Metal: Corrosion Resistant min. 20 GA 33 ksi metal hat channel, z-girt or u-bar), or
   - Min. 4.574 in. wide × 3/4 in. thick James Hardie Horizontal Steel Furring installed per manufacturer's installation instructions (min. 18 GA 33 ksi metal)

6. **CERTIFIED MANUFACTURER:** James Hardie Building Products Inc.

   **CERTIFIED PRODUCT:** HardiePlank® smooth and textured Lap Siding (HZ5 and HZ10), CemPlank® Lap Siding, Prevail® Lap Siding, HardieShingle® smooth and textured (HZ5 and HZ10), Artisan® Shingle, HardiePanel® Vertical Siding smooth and textured (HZ5 and HZ10), CemPanel® Vertical Siding, Prevail™ Panel Siding, Artisan® Lap Siding, Artisan® V-Groove Siding, Artisan® Bevel Channel, Artisan® Square Channel, Artisan® Shiplap Lap Siding, Reveal®, Hardie® Architectural Panels (textured/nontextured, HZ5/HZ10), Pressed Reveal®, and Hardie® Plank VL smooth and textured sidings.

   **FIBER-CEMENT EXTERIOR SIDING:** HardiePlank® smooth and textured Lap Siding (HZ5 and HZ10), CemPlank® Lap Siding, Prevail® Lap Siding, HardieShingle® smooth and textured (HZ5 and HZ10), Artisan® Shingle, HardiePanel® Vertical Siding smooth and textured (HZ5 and HZ10), CemPanel® Vertical Siding, Prevail™ Panel Siding, Artisan® Lap Siding, Artisan® V-Groove Siding, Artisan® Bevel Channel, Artisan® Square Channel, Artisan® Shiplap Lap Siding, Reveal®, Hardie® Architectural Panels (textured/nontextured, HZ5/HZ10), Pressed Reveal®, or Hardie® Plank VL smooth and textured sidings, installed in accordance with manufacturer's installation instructions.

*Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.*

*Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.*