# Construction Details

## Introduction

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

## Clad Polygon - 2x6 Frame Wood Siding

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

## Wood Polygon - 2x6 Frame with Wood Siding

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

## Clad Polygon - 2x4 Frame with Stucco

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

## Wood Polygon - 2x4 Frame with Stucco

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

## Clad Polygon - Concrete Block with Stucco

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

## Wood Polygon - Concrete Block with Stucco

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
</tr>
</tbody>
</table>

## Clad Polygon - Wood Siding Combination Wall Sheathing, WRB and Air Barrier

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

## Clad Polygon - Foam Plastic Insulated Sheathing (FPIS) over WRB

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
</tr>
</tbody>
</table>

## Wood Polygon - Foam Plastic Insulated (FPIS) under WRB

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

## Clad Ultimate Inswing French Door - Frame with Steel Siding

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
</tr>
</tbody>
</table>

## Wood Ultimate Inswing French Door - 2x6 Frame with Steel Siding

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
</tr>
</tbody>
</table>

## Structural Support Options

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
</tr>
</tbody>
</table>
Introduction

Marvin Windows and Doors is an industry leader in providing high quality and energy efficient windows and doors. To obtain these results, Marvin windows and doors need to be properly installed and maintained. Failure to review and utilize these construction methods can result in poor product performance, premature failure and unnecessary call backs. It is the responsibility of the architect, builder, installer, and subcontractors to comply with code requirements for their area and to utilize the best method for attachments and fastener selections.

This chapter covers the water seal requirements of the window and door installation and provides visual detail in drawing format of our installation instructions.

The water seal method can be thought of as primary and secondary methods and systems;
- **Primary water seal**: window exterior seal to the exterior coating or finish of the building
- **Secondary water seal**: window seal to the wall weather resistive barrier so that any leakage within the wall is managed and controlled.
- **Window panning system**: drains the RO area to the wall resistive barrier
- **RO air area seal**: prevents RO pressurization and air movement through the RO
- **Wall thermal barrier**: provides continuity of the wall system by installation placed around the window in the RO gap. Marvin has two systems for this; (1) batten installation system and (2) spray foam
- **Vapor seal**: is the least important of the seal systems. The vapor barrier provides continuity across the RO with the wall vapor barrier.

Units must be shimmed in the opening, true, level, and square. Shim a minimum of 3/8” above sill plate to provide unit clearance over panning.

Contact your Marvin representative if you have questions or need further technical assistance at 1-800-346-3363.

**NOTE:** Details shown not typical and subject to change without notice. Always refer to your local code for proper construction and rough opening preparation.

**Important!** Details are shown with small spaces between items for clarity, visualization, and illustrative purposes. Actual assembly details may vary. Contact Marvin Architectural for project specific aids.

Step by step instructions with color illustrations on Marvin’s recommended rough opening preparation can be found at [http://www.marvin.com/roprep/](http://www.marvin.com/roprep/)
Clad Polygon - 2x6 Frame Wood Siding

Scale: 3" = 1"0"

- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
- Use Plastic Shims to Level Head Jamb and Sill
Wood Polygon - 2x6 Frame with Wood Siding

Scale: 3" = 1'0"

- Use Plastic Shims to Level
- Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.
- Backer Rod if Minimal Expansion Foam is Used
- Loose Fill Fiberglass Insulation or Minimal Expansion Foam
- Continuous Sealant
- Drainage Plane
- Backer Rod
- Self-Adhesive Flashing or Metal Panning
- Wall System WRB
- Non-Continuous Plastic Sloped Shims
- Sill Plate
- Continuous Sealant Under Sloped Shim X 2
- Continuous Sloped Shim
- Rain Skirt (Optional)
- Self-Adhesive Flashing
- Wall System WRB
- Drainage Plane
- Backer Rod
- Rigid Head Flash
- Continuous Sealant
- Rough Opening

Sealant
Backer Rod
Loose Fill Fiberglass Insulation or Minimal Expansion Foam
Backer Rod if Minimal Expansion Foam is Used
Continuous Sealant
Drainage Plane
Backer Rod
Self-Adhesive Flashing
Wall System WRB
Non-Continuous Plastic Sloped Shims
Use Plastic Shims to Level
Clad Polygon - 2x4 Frame with Stucco

Scale: 3" = 1'0"

NOTE: Engineered water management stucco product. See stucco manufacture for specific details required by water management system.
Wood Polygon - 2x4 Frame with Stucco

Scale: 3" = 1'0"

- Drainage Plane Gap
- Self-Adhesive Flashing
- Backer Rod
- Rigid Head Flash
- Continuous Sealant

Wall System WRB

- Use Plastic Shims to Level
- Continuous Sealant Under Sloped Shim X 2
- Continuous Sloped Shim

- Non-Continuous Plastic Sloped Shims

- Backer Rod if Minimal Expansion Foam is Used
- Loose Fill Fiberglass Insulation or Minimal Expansion Foam
- Backer Rod

- Head Jamb & Sill

- Minimal Expansion Foam
- Loose Fill Fiberglass Insulation
- Backer Rod

- Self-Adhesive Flashing or Metal Panning

- Wall System WRB

- Sill Plate

- Backer Rod if Minimal Expansion Foam is Used
- Loose Fill Fiberglass Insulation or Minimal Expansion Foam

- Drainage Plane Gap
- Furring Strips

- Jamb

- Rough Opening
- Frame Size

Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.
Clad Polygon - 2x4 Steel Stud with Brick Veneer

Scale: 3" = 1'0"

- Non-Continuous Plastic Sloped Shims
- Use Plastic Shims to Level
- Frame Size
- Backer Rod
- Drainage Plane
- Sill Plate
- Continuous Sealant Under Sloped Shim X 2
- Continuous Sloped Shim
- Wall System WRB
- Self-Adhesive Flashing or Metal Panning
- Backer Rod

Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.

- Loose Fill Fiberglass Insulation or Minimal Expansion Foam
- Backer Rod if Minimal Expansion Foam is Used
- Backer Rod

Rough Opening

Frame Size

Sealant

Rigid Head Flash

Continuous Sealant

Drainage Plane

Self-Adhesive Flashing

Continuous Sealant

Wall System WRB

Head Jamb and Sill

Jamb

Continuous Sealant

Backer Rod

Loose Fill Fiberglass Insulation or Minimal Expansion Foam

Backer Rod if Minimal Expansion Foam is Used

Backer Rod
Wood Polygon - 2x4 Steel Stud with Brick Veneer

Scale: 3" = 1'0"

- **Wall System WRB**
- **Drainage Plane**
- **Self-Adhesive Flashing**
- **Backer Rod**
- **Rigid Head Flash**
- **Continuous Sealant**

**Rain Skirt (Optional)**
- Use Plastic Shims to Level

**Continuous Sealant Under Sloped Shim X 2**

**Non-Continuous Plastic Sloped Shims**
- Use Plastic Shims to Level

**Head Jamb & Sill**

- **Drainage Plane**
- **Self-Adhesive Flashing**
- **Continuous Sealant**

**Rough Opening**
- **Frame Size**
- **Sealant**
- **Backer Rod if Minimal Expansion Foam is Used**
- **Loose Fill Fiberglass Insulation or Minimal Expansion Foam**
- **Minimal Expansion Foam**

**Continuous Sealant**

**Wall System WRB**

**Sealant**
- **Backer Rod**
- **Loose Fill Fiberglass Insulation or Minimal Expansion Foam**
- **Minimal Expansion Foam**

**Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.**
Clad Polygon - Concrete Block with Brick Veneer

Scale: 3" = 1'0"

- Use Plastic Shims to Level
- Continuous Sealant
- Backer Rod if Minimal Expansion Foam is Used
- Loose Fill Fiberglass Insulation or Minimal Expansion Foam
- Self-Adhesive Flashing or Metal Panning
- Continuous Sealant Under Sloped Shim X 2
- Non-Continuous Plastic Sloped Shims
- Continuous Sealant Back Dam W/ Backer Rod if Over ½" (13)

Head Jamb and Sill

- Backer Rod
- Drainage Plane
- Rain Skirt (Optional)
- Self-Adhesive Flashing or Metal Panning
- Wall System WRB

Sealant
- Backer Rod
- Loose Fill Fiberglass Insulation or Minimal Expansion Foam

Backer Rod if Minimal Expansion Foam is Used

Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.
Wood Polygon - Concrete Block with Brick Veneer

Scale: 3" = 1'0"

Use Plastic Shims to Level

Continuous Sealant Under Sloped Shim X 2
Continuous Sloped Shim

Non-Continuous Plastic Sloped Shims

Backer Rod if Minimal Expansion Foam is Used

Sealant
 Loose Fill Fiberglass Insulation or Minimal Expansion Foam

Backer Rod

Loose Fill Fiberglass Insulation
Minimal Expansion Foam

Sealant

Backer Rod

Continuous Sealant

Drainage Plane

Rain Skirt (Optional)

Self-Adhesive Flashing or Metal Panning

Self-Adhesive Flashing

Wall System WRB

Continuous Sealant

Jamb

Rough Opening

Frame Size

Accommodate for sill panning systems. Adjust rough opening height to allow for ½" (13) clearance at the head jamb.
Clad Polygon - Wood Siding Combination Wall Sheathing, WRB and Air Barrier

Scale: 3" = 1'0"

1/2" (13)

Rough Opening

Frame Size

Rough Opening

Head Jamb and Sill

Non-Continuous Plastic Sloped Shims Use Plastic Shims to Level

Continuous Sealant Back Dam W/ Backer Rod if Over ½" (6)

Self-Adhesive Flashing or Metal Panning

Continuous Sealant Under Sloped Shim X 2

Continuous Sloped Shim

Drainage Plane

Rain Skirt (Optional)

Self-Adhesive Flashing

Combination Wall Sheathing, Water-Resistive Barrier and Air Barrier

Self-Adhesive Proprietary Seam Tape

Optional: depending on proprietary sheathing recommendations

Note: In some wall systems, the proprietary seam tape can be used as an alternative to self-adhesive flashing.

Sealant

Backer Rod

Loose Fill Fiberglass Insulation or Minimal Expansion Foam

Backer Rod if Minimal Expansion Foam is Used

Self-Adhesive Proprietary Seam Tape

Combination Wall Sheathing, Water-Resistive Barrier and Air Barrier

Self-Adhesive Flashing

Drainage Plane

Continuous Sealant

Self-Adhesive Proprietary Seam Tape

Note: In some wall systems, the proprietary seam tape can be used as an alternative to self-adhesive flashing.
Clad Polygon - Foam Plastic Insulated Sheathing (FPIS) over WRB

Scale: 3" = 10"

**Rough Opening**
- Frame Size
- Adjust rough opening height to allow for ½" (13) clearance at the head jamb.

**Jamb**
- 1" Extended Foam
- Continuous Sealant

**Head Jamb and Sill**
- 1/2" (13)
- Use Plastic Shims to Level
- Continuous Sealant Under Sloped Shim X 2
- Continuous Sweep Sealant

**Non-Continuous Plastic Sloped Shims**
- Use Plastic Shims to Level
- Constant Sealant

**Wall System**
- WRB Tape
- Drainage Plane
- Self-Adhesive Flashing
- Continuous Sealant
- Backer Rod
- Rigid Head Flash

**Sill Plate**
- Self-Adhesive Flashing or Metal Panning Rain Skirt (Optional)
- 1" Extended Foam

**Continuous Sealant Under Sloped Shim X 2**

**Backer Rod if Minimal Expansion Foam is Used**

**Loose Fill Fiberglass Insulation or Minimal Expansion Foam**

**Sealant Backer Rod**

**WRB Tape**
- Wall System
- 1" Extended Foam
- Drainage Plane
- Self-Adhesive Flashing
- Continuous Sealant
- Backer Rod
- Rigid Head Flash
Wood Polygon - Foam Plastic Insulated (FPIS) under WRB

Scale: 3" = 1'0"

Note: The wall system WRB could be the outer surface of the foam if the edges and seams are sealed and taped.
Clad Ultimate Inswing French Door - Frame with Steel Siding

Scale: 3" = 1'0"

- Wall System WRB
- Drainage Plane
- Self-Adhesive Flashing
- Continous Sealant
- Backer Rod
- Rigid Head Flash

- Backer Rod
- Minimal Expansion Foam
- Loose Fill Fiberglass Insulation

- Loose Fill Fiberglass Insulation
- Minimal Expansion Foam
- Backer Rod
Wood Ultimate Inswing French Door - 2x6 Frame with Steel Siding

Scale: 3" = 1'0"

Wall System
WRB

Drainage Plane

Self-Adhesive Flashing

Backer Rod

Continuous Sealant

Self-Adhesive Flashing

Backer Rod

Sealant

Loose Fill Fiberglass Insulation

Minimal Expansion Foam

Backer Rod

Sealant

Rigid Head Flash

Wall System
WRB

Continuous Sealant

Drainage Plane

Backer Rod

Sealant

Loose Fill Fiberglass Insulation

Minimal Expansion Foam

Backer Rod

Sealant

Rigid Head Flash
NOTE: For structural support options, please contact your Marvin representative