

Modern Outswing Door

Site Preparation Instructions

ABSTRACT: The Modern Outswing Door system requires proper site preparation to ensure optimal performance and operation after installation. This instruction will provide the necessary information to properly prepare the wall opening for ease of installation and operational integrity.

Site preparation begins with preparing the opening for the specified sill system. The selected sill and substrate must offer the door system support, which spans the width and depth of the unit. The exterior of the sill must be completely supported. Several sill options are available for consideration. Regardless of sill type, the foundation must support the sill height variance requirement of 1/16" (2) maximum across the entire sill length.

In conjunction with the sill, the framing of the rough opening must be installed plumb, square, and true within 3/16"(5).

IMPORTANT

Unfactored superimposed load (Live, Wind, or Snow) deflection over the entire length of the unsupported span cannot be greater than 1/8" (3) after natural sag of the beam and permanent loads are in place.

NOTE: Numbers listed in parentheses () are metric equivalents in millimeters rounded to the nearest whole number.

IMPORTANT

The construction details shown within are not typical but are an example of various construction assemblies implementing the Modern Outswing Door and/or screen.

WARNING!

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

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Water Management System-Panning

We require a sill pan for all Modern swinging doors in accordance with ASTM E2112. A sill pan is installed across the bottom of the opening and integrated into the weather-resistive barrier (WRB). The illustrations below show the basic requirements. Modification may be needed depending on your Rough Opening and alternative field preparation. The table below is based on ASTM E2112.

Types of Pan Flashing Material		
Rigid Sheet	1 piece or multiple pieces	Type I
Rigid Sheet	Multiple pieces	Type II
Flexible Membrane	1 Piece or multiple pieces	Type III
Combination System	Multiple pieces	Type IV
Liquid Membrane	Continuous coating	Type V

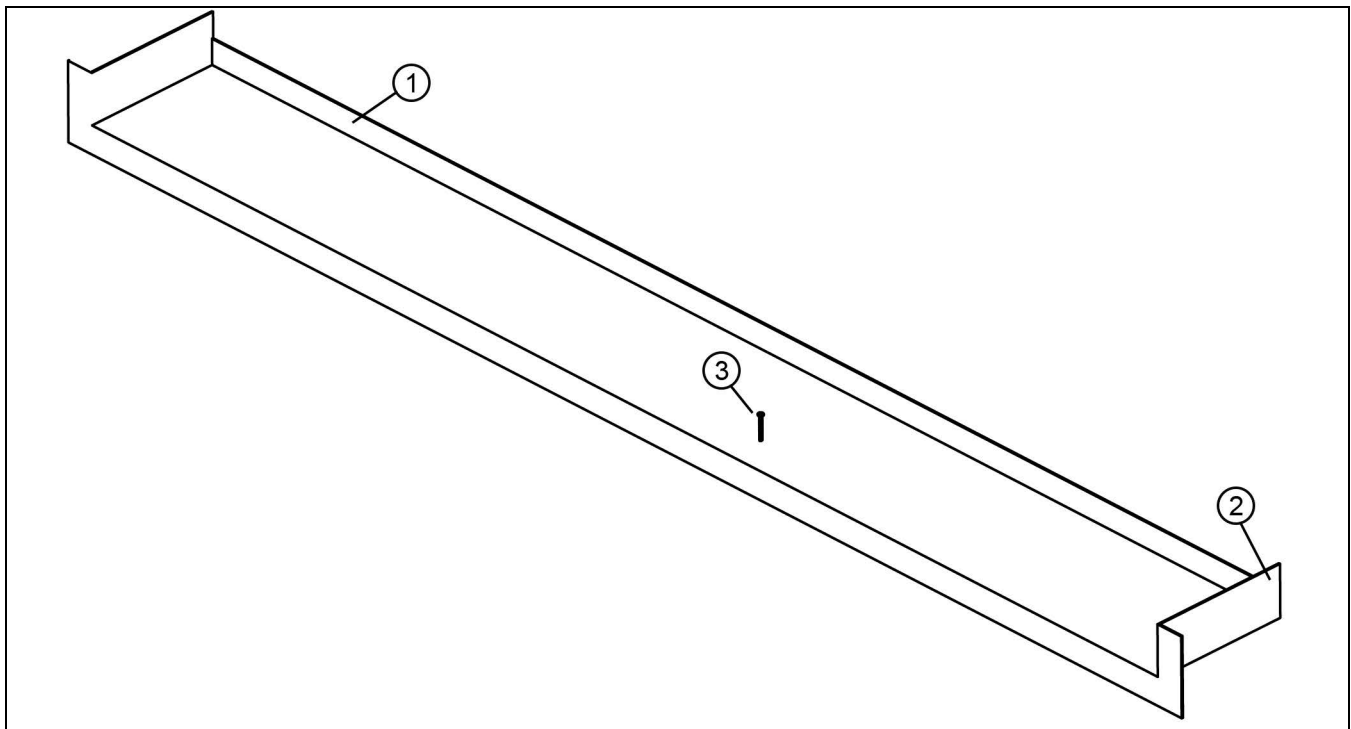


Figure 1 Panning-varies based on multiple factors.

1	Sill interior dam must be at least 1/2" in height
2	Side end dams must be at least 6" in height
3	Seal any fastener holes through panning.

Sill Systems

Sill Support

The performance and low profile sills implement a Sill Support system that is installed prior to the door frame. The location of the sill support varies depending on your construction type.

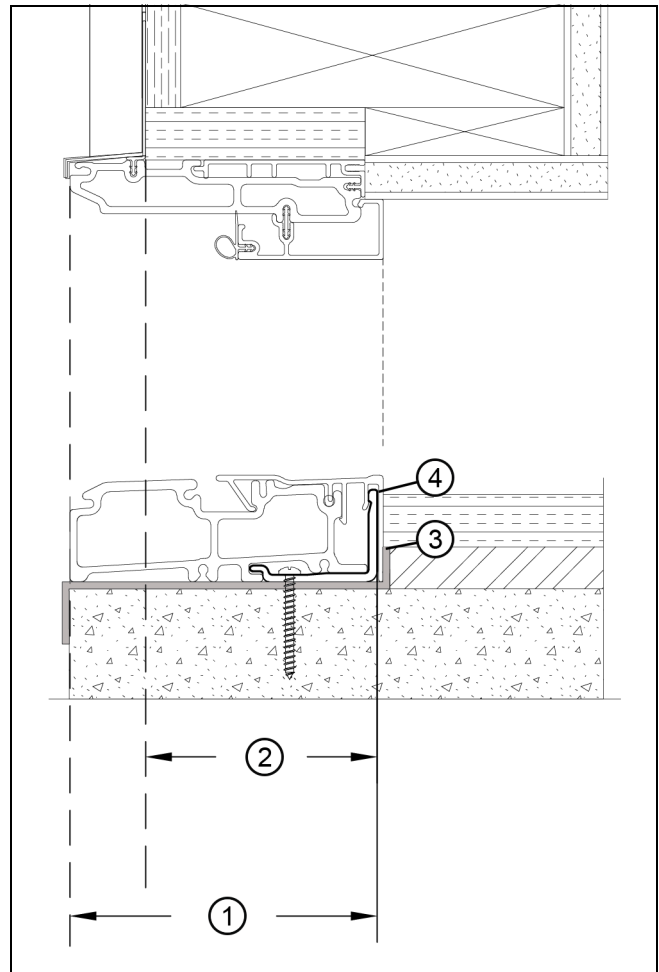


Figure 2

1	Frame exterior plane to sill support interior: 4 13/32" (112)
2	Nailing fin plane to sill support interior: 3 5/16" (84)
3	Panning
4	Sill Support

Performance Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The Performance sill is designed to meet a minimum of DP40 water testing but does NOT meet ADA height specifications.



Figure 3 Performance sill

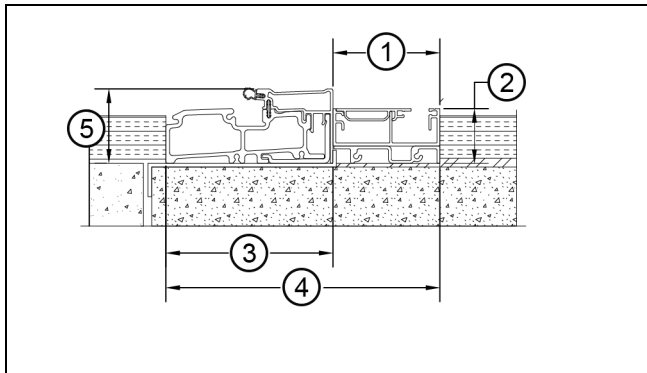


Figure 4 Performance sill with screen

1	Screen depth: 2 7/8 (73)
2	Screen sill height with riser: 1 15/32" (37)
3	Frame depth: 4 1/2" (114)
4	Frame depth with screen: 7 3/8" (187)
5	Sill height: 2" (51)

Low Profile Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The low profile sill is designed to meet a minimum of DP25 water testing and CAN meet ADA height specifications when properly installed.



Figure 5 Low profile sill

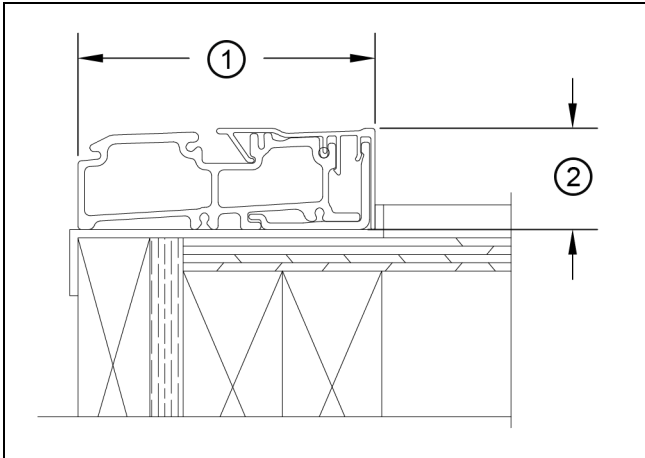


Figure 6 Low profile sill without screen

1	Sill depth: 4 1/2" (114)
2	Sill height: 1 1/2" (38)

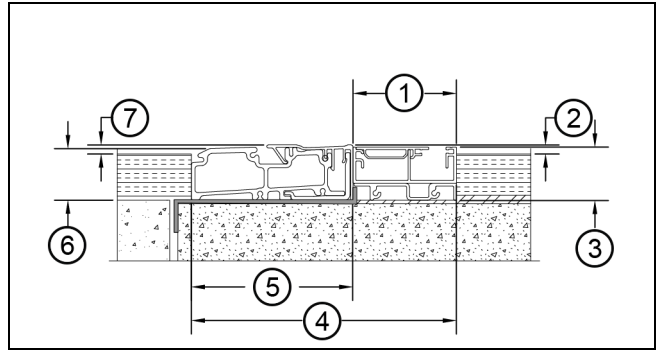


Figure 7 Low profile sill with screen

1	Screen depth: 2 7/8" (73)
2	Finished flooring (must be within 1/4" from top of sill for ADA)
3	Screen sill height with sill riser: 1 15/32" (37)
4	Frame depth with screen: 7 3/8" (187)
5	Frame depth without screen: 4 1/2" (114)
6	Sill Height: 1 7/16"
7	Finished flooring exterior (must be within 1/4" from top of sill for ADA)

Weep Tube Options

A weep tube adapter is available for the Performance and Low Profile sills. A minimum of 4" drop is required. Without the weep tube, the standard offering is a weep door. Illustrations below show an Inswing Door. Details for Outswing are similar.

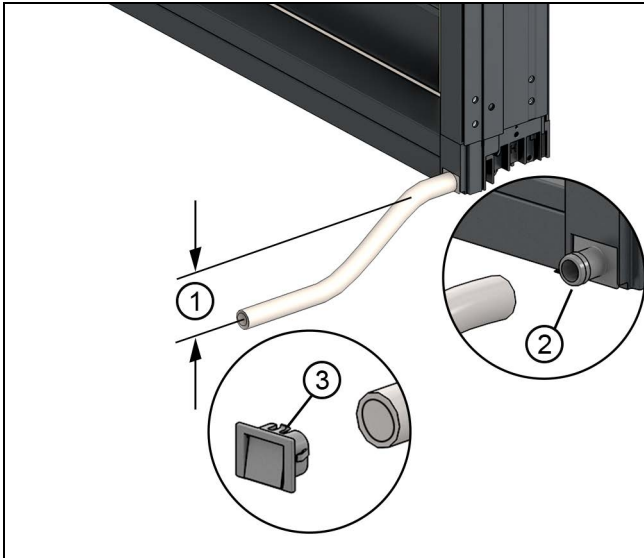


Figure 8 Weep tube must terminate at least 4" below sill. Inswing shown for illustrative purposes.

1	4" (102)
2	Weep tube adapter
3	Weep door (fits on end of weep tube)

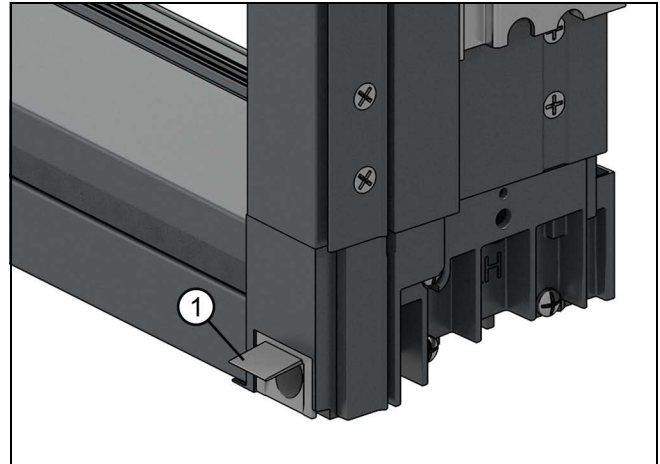


Figure 10 Weep door: do not block or seal to allow drainage.

1	Weep door
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Figure 9 Weep tube terminating into drainage pipe

Saddle Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The saddle sill does meet ADA height specifications but is **not** rated.



Figure 11

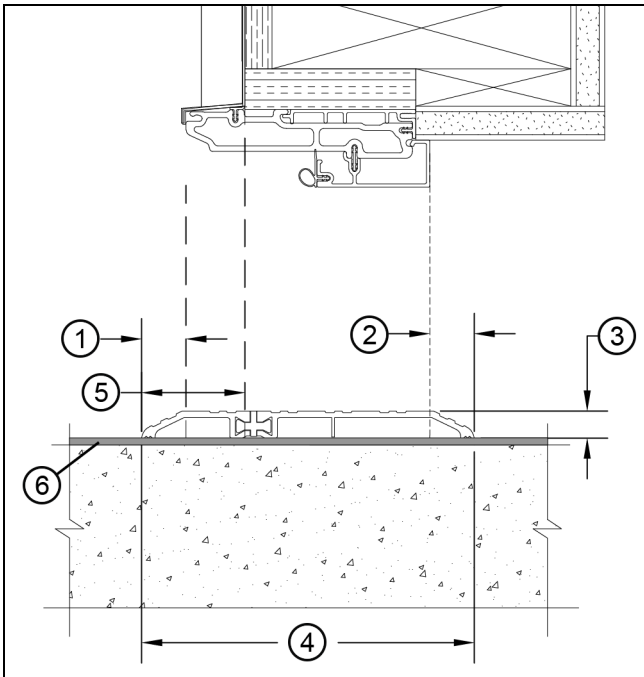


Figure 12

1	Frame exterior plane to exterior edge of sill: 13/16" (21)
2	Frame interior plane to interior edge of sill: 13/16"(21)
3	Sill height: 1/2" (13)
4	Sill depth: 6 1/8" (156)
5	Nailing fin plane to exterior edge of sill: 1 29/32" (48)
6	Panning

Construction Details

Framing the opening at the header and side jambs for a Modern Outswing door will vary based on the type of sill used and when a screen is used on the exterior. The examples shown below are not typical, and wall construction will vary. Use these details as a frame of reference only.

2x6 Framing- HJ Details

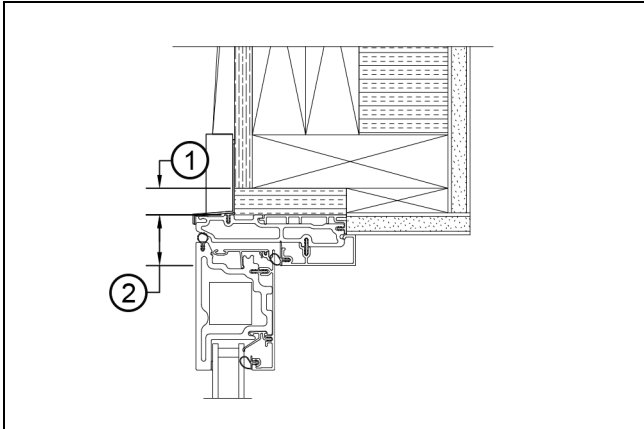


Figure 13 2x6 wood frame head jamb details

1	3/4" (19)
2	1 7/16" (35)

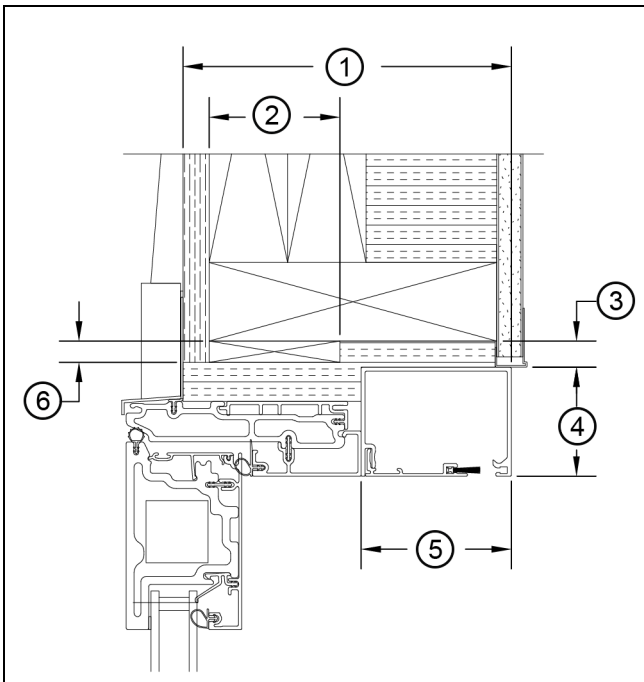


Figure 14 2x6 wood frame head jamb details with interior screen

1	6 9/32" (159) Note use of drywall return
2	2 1/2" (64)
3	1/2" (13)
4	2 3/32" (53)
5	2 7/8" (73)
6	13/32" (10)

IMPORTANT

The jamb depth of the details with interior screen shown in [Figure 14](#) are slightly less than a typical 2x6 construction method.

2x6 Jamb Details

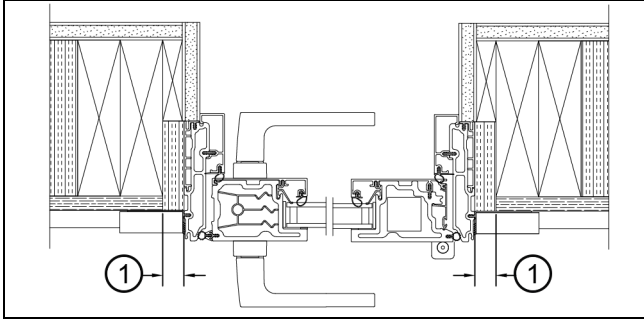


Figure 15 2x6 wood frame jamb details X configuration

1	3/4" (19)
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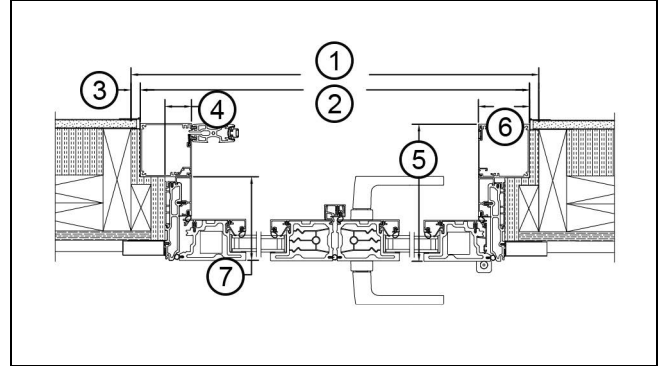


Figure 17 2x6 wood frame jamb details with interior screen OX configuration

1	Screen Opening Width
2	Screen Frame Width
3	1/2" (13)
4	1 7/16" (36)
5	7 3/8" (187)
6	2 3/4" (70)
7	4 1/2" (114)

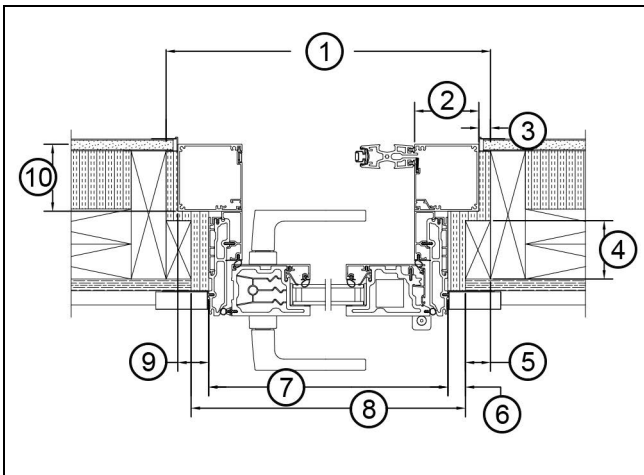


Figure 16 2x6 wood frame jamb details with interior screen X Configuration

1	Screen Opening Width
2	2 3/4" (70)
3	1/2" (13)
4	2 1/2" (64)
5	1 1/16" (27)
6	3/4" (19)
7	Frame Size
8	Rough Opening
9	1 5/16" (34)
10	2 7/8" (73)