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BASICS TO PREPARATION AND INSTALLATION FOR SCENIC DOORS

MANUFACTURER'S RECOMMENDATIONS TO UNDERSTANDING WALL FRAMING FOR SCENIC DOORS

PRESENTER'S ERICK FILBY AND ERIC KLEIN

TERRITORY MANANAGER AND INSTALLATION SPECIALIST

OBJECTIVES FOR TODAY'S COURSE

- Terminology regarding framing for Pocket and Stacked Scenic Doors
- understanding door placement and good framing practices
- How to utilize manufacturer's calc's worksheet by understanding terms
- Choosing sill Flush, Performance, and High Performance
- Slot, open Slot, or Flush based on performance and exposure
- Level, Plumb, Square, and True
- **Expectations of a functional fit**
- Best practices

TOOLS FOR THE DOOR INSTALLATION TRADE



- Mulling
- Bracketing
- Through Jamb
- Shimming
- Squaring
- Level, Plumb, Square, and True





LEVEL



DOOR INSTALLATION

- You chose a great Door But!!! Remember the following:
 - The Door is only as good as the Install
 - What are WE going to do about the Install (research) all involved here
 - What do you want to work? WALL or DOOR (both, with the attention to DETAIL)

IN REFERENCE TO AND RECOMMENDED

ASTM E2112-07

Manufacturer

Designation: E 2112 – 07 Standard Practice for Installation of Exterior Windows, Doors and Skylights This standard is issued under the fixed designation E 2112; the number immediately following the designation indicates the year of original adoption or in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript equilon (c) indicates an editorial change since the last revision or reapproval. INTRODUCTION

This document is intended to provide technical guidance to organizations that are developing training programs for installers of fenestration units in low-rise residential and light commercial structures. The majority of fenestration units selected for installation in these types of structures are certified as meeting specified performance characteristics in standardized laboratory testing. Experience indicates, however, that the performance of fenestration installations is frequently significantly inferior to the performance of the manufactured units in laboratory testing. Installation of fenestration

inferior to the performance of the manufactured units in laboratory testing. Installation of fenestration units can significantly influence in-service performance. The requirements promulgated in this-practice have, by consensus, (of individuals with specialized knowledge concerning installation of fenestration units) been identified as necessary to ensure that as-installed performance is roughly equivalent to performance in laboratory testing. The task group responsible for development of this practice recognizes that building owners sometimes, accept as adequate, in-service performance of fenestration installations that are significantly inferior those of the write in laboratory testing. units in laboratory testing. This practice is not intended for use in such circumstances, where owner expectations are modest. The intent of this practice is to provide guidance to those concerned with ensuring that as-installed performance is comparable to the capabilities of the units installed for a solid majority of installations.

A particularly noticeable behavior that indicates deficiencies in installation is rainwater leakage. Rainwater leakage has been the leading reason for dissatisfaction of building owners with performance of fenestration installations. For this reason, this practice places greater emphasis on preventing or limiting rainwater leakage than on any other single performance characteristic.

This practice emphasizes that the water-shedding surfaces of fenestration units must be adequately integrated with adjacent water-shedding surfaces of the building envelope. It does not, however, attempt to promulgate requirements for water-shedding surfaces of building envelopes that invertee attempt to promulgate requirements for water-shedding surfaces of building envelopes other than those interfacing with fenestration units. The standard assumes that the basic design of the building's water-shedding system is adequate, that is, that either (1) there is a high probability that the outermost building surface will dependably prevent all water entry, or (2) the building envelope incorporates an effective concealed barrier that will dependably prevent further intrusion of incidental water that breaches the outermost surface. The practice further assumes that fenestration units can be dependably sealed to, and integrated with, at least one of these surfaces. If the basic design of the building's water-shedding system is inadequate, or does not allow for reliable integration of fenestration units into it, competent installation of the units is unlikely to nullify these deficiencies.

1. Scope

1 1

5 >

1.1 This practice covers the installation of fenestration products in new and existing construction. For the purpose of

¹ This practice is under the jurisdiction of ASTM Committee E06 on Perfor-mance of Buildings and is the direct responsibility of Subcommittee E06.51 on mance of buildings and is the direct responsibility of succommute E00.57 on Performance of Windows, Doors, Skylights and Curtain Walls. Current edition approved Feb. 1, 2007. Published March 2007. Originally approved in 2601. Last previous edition approved in 2001 as E 2112 – 01. 1. 63

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this practice, fenestration products shall be limited to windows. sliding patio-type doors, swinging patio type doors, and skylights, as used primarily in residential and light commercial buildings.

1.2 This practice assumes that the installer possesses basic woodworking skills and an understanding of wall and roof

construction, sheet metal work, and joint sealant practices. 1.3 This practice attempts to instruct and familiarize the installer with the concepts of both Barrier Systems and Membrane/Drainage Systems, in order to ensure the continuity

Marvin Doors

General Installation Instructions



The key to proper operation is squaring the frame in relation to the sill.

A GOOD Installation has a FLAT sll that is also LEVEL

The BEST INSTALLATION requires a FLAT and LEVEL sli and a SQUARE and PLUMB opening

IMPORTANT

Correcting an out of square opening requires shimming beneath the sill and/or at the corrers. These instructions assume an opening is constructed for the BEST installation with a flat and level sill and a square opening

MARVIN 🥯

TYPE OF CONSTRUCTION

- New Construction
- Wood framing
- Steel Framing

What are you setting the door on????

- Concrete
- Wood Structure subfloor

LARGE SCENIC DOOR OPENINGS HOW DO I FIND EFFECTIVE DOOR INTERFACE???

POCKET DOOR CONFIGURATIONS

- Structure
- Load bearing wall
- Inset transitions
- Wall depth
- Performance

STACKED DOOR CONFIURATIONS

- Structure
- Framing detail
- Wall depth
- Performance

TERMS USED BY MANUFACTURER

- Rough opening
- Total rough opening
- System height and width
- Frame size
- Slot recess
- Slot depth
- Slot width
- Frame depth

- Top plate
- Header
- King stud
- Jack stud
- Bottom plate
- Exterior rough opening
- Blackout wall

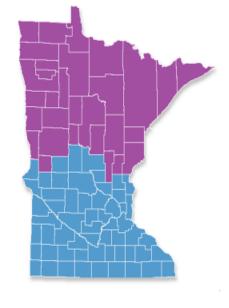
ENERGY AND EFFICIENCIES

Minnesota

MN has a statewide building code. The MN Legislature mandated that the DLI can only adopt Code every 6 years.

- IBC 12
- IRC 12
- IECC 12
 - IECC Zones 6 and 7

ENERGY STAR - Zone N



52

Energy performance data for select combinations of options is available in table format on each product page. To access those tables, select the individual product of interest and scroll down to the Professional Resources section.

This tool is a guide only and does not reflect variations resulting from features and options not included in the tool. For more information about the energy efficiency of specific products and options, please contact your local Marvin sales representative.

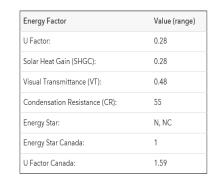
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The National Fenestration Rating Council (NFRC) has developed and operates a uniform national rating system for the energy performance of fenestration products, including windows and doors. NFRC does not recommend product and does not warrant the suitability of product for any specific use. For additional information regarding this rating system, see <u>www.nfrc.org/WindowRatings</u>.

See Energy Efficient Windows and Doors for further information on this topic.

Product Select				
Collections and Product Lines: Signature Ultimate \checkmark				
Door or Window: Doors 🗸				
Product: Signature Ultimate Multi-Slide Door				
Available Options				
Surface:	Clad			
Wood Species:	Pine or EQ 🗸			
Impact Zone:	No 🗸			
Panels:				
Divider:	None 🗸			
Spacer:	Stainless Steel 🗸			
Glass:	Insulated Glass 🗸			
Coating:	Low E2 🗸			
Gas Fill:	Argon 🗸			
Blinds / Screens:	No Blinds 🗸			

Reset Option Filters

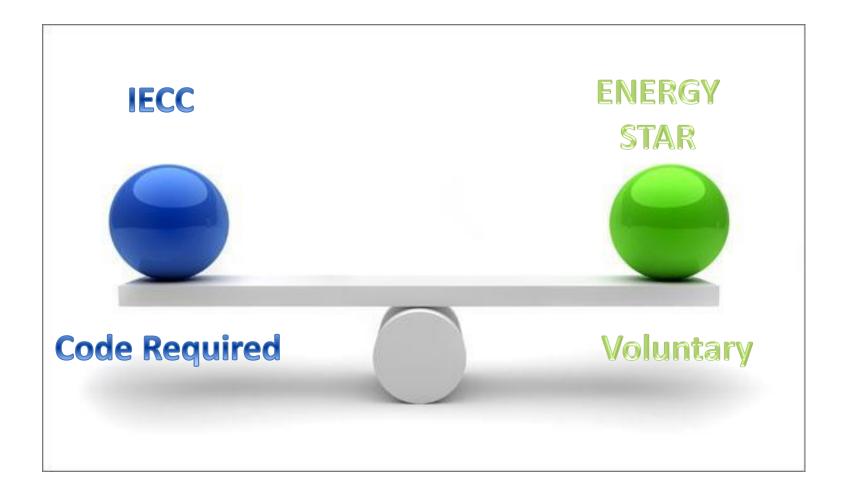


CPD Number(s): Show CPD #s

MAR-N-436-02561-00009

http://www.dli.mn.gov/

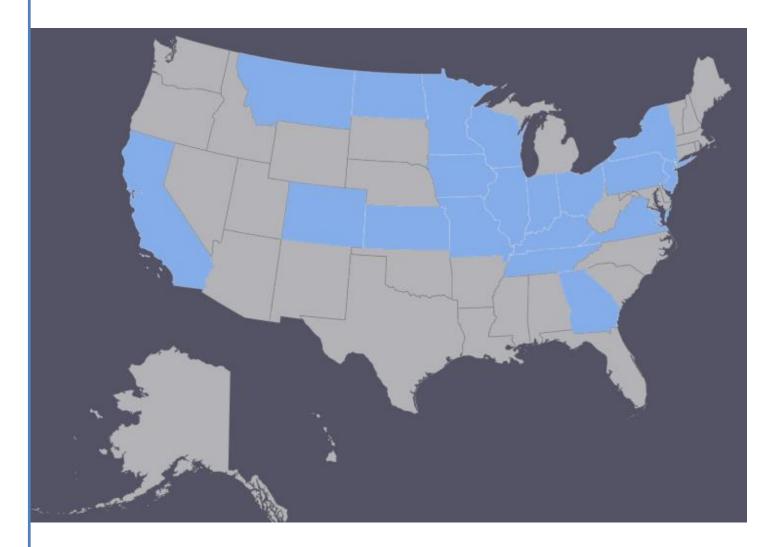
Energy Performance Code vs. ENERGY STAR



States Represented – Codes Matter!

•United States

- California
- •Colorado
- •Georgia
- •Illinois
- •Indiana
- •lowa
- •Kansas
- •Kentucky
- •Minnesota
- •Missouri
- •Montana
- •New Jersey
- •New York
- •North Dakota
- •Ohio
- •Pennsylvania
- •Tennessee
- •Virginia
- •Wisconsin



Uni-Directional Door Inputs		Instructions
Configuration:	OXXX	OXXX or XXXO
Sill Type:	High Performance Sill	Flush, Performance, or HP Sill
RO Width:	200.000	
RO Height:		No entry allowed if HP sill is selected
Total RO Height (HP Sill):	100.000	No entry allowed if Flush/Perf sill is selected
Jamb Depth:	With Nail Fin	2.5
Available Floor thickness:	1.00	No entry allowed if Flush/Perf sill is selected
Screen Inputs		
Screen Type:	None	None, Uni-Directional, or Bi-Parting
C		

Green cells require input

Results					
Description	Decimal Inch	Fraction Inch			
Door Dimensions					
Rough Opening Width	200.000	200			
Rough Opening Height	98.500	98 1/2			
Total Rough Opening Height (HP Sill)	100.000	100			
Frame Width	198.500	198 1/2			
Frame Height	97.500	97 1/2			
System Height (HP Sill)	99.187	99 3/16			
Jamb Depth	12.600	12 19/32			
Panel Width	51.537	51 17/32			
Panel Height	95.644	95 41/64			
Daylight Opening Width	45.411	45 13/32			
Daylight Opening Height	89.102	89 7/64			
Net Clear Opening Width	143.328	143 21/64			
Net Clear Opening Height	95.250	95 1/4			
Story Pole Length	96.525	96 17/32			
Available Floor thickness (HP Sill)	1.000	1			
Subfloor Slot Recess (HP Sill)	1.500	1 1/2			
Slot Depth (HP Sill)	14.314	14 5/16			
Slot Width (HP Sill)	200.500	200 1/2			
Screen Dimension	5				
Screen Rough Opening Width					
Screen Rough Opening Height					
Screen Frame Width					
Screen Frame Height					
Screen Frame Inside Width					
Screen Frame Inside Height					
Jamb Depth with Screen					
Slot Depth with Screen (HP Sill)					
Screen Net Clear Opening Width					

FIELD CALC SHEET STACKED

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Green cells require input	Results	
Screen Type:	None	None, Uni-Directional, or Bi-Parting
Scree	n Inputs	
Available Floor thickness:	1.00	No entry allowed if Flush/Perf sill is selected
Total RO Height (HP Sill):	100.000	No entry allowed if Flush/Perf sill is selected
RO Height:		No entry allowed if HP sill is selected
Total RO Width:	200.000	
Sill Type:	High Performance Sill	Flush, Performance, or HP Sill
Configuration:	PXXX	PXXX or XXXP

Door Dimensions

Screen Dimensions

Description

Total Rough Opening Width

Total Rough Opening Height (HP Sill)

Rough Opening Height

System Height (HP Sill)

Interior Frame Width

Exterior Frame Width

Exterior Pocket Width

Interior Pocket Width

Pocket Depth

Jamb Depth

Panel Width

Panel Height

Pocket Panel Width

Pocket Panel Height

Story Pole Length

Slot Depth (HP Sill)

Slot Width (HP Sill)

Screen Frame Width Screen Frame Height Screen Frame Inside Width Screen Frame Inside Height Jamb Depth with Screen

Daylight Opening Width

Daylight Opening Height

Net Clear Opening Width

Net Clear Opening Height

Available Floor thickness (HP Sill)

Subfloor Slot Recess (HP Sill)

Screen Rough Opening Width Screen Rough Opening Height

Interior Rough Opening Width

Exterior Rough Opening Width

Frame Width

Frame Height

Decimal Inch

200.000

100.000

198.500

97.500

99.187

146.764

145.264

145.264

53.486

53.236

10.965

10.660

49.880

95.644

49.870

95.644

43.754

89.102

142.274

95.250

96.525

1.000

1.500

11.295

200.500

98.500

Fraction Inch

200

100

98 1/2

198 1/2

97 1/2

99 3/16

146 49/64

145 17/64

146 33/64

145 17/64

53 31/64

53 15/64

10 31/32

10 21/32

95 41/64

95 41/64

497/8

497/8

43 3/4

89 7/64

95 1/4

1 1/2

142 9/32

96 17/32

11 19/64

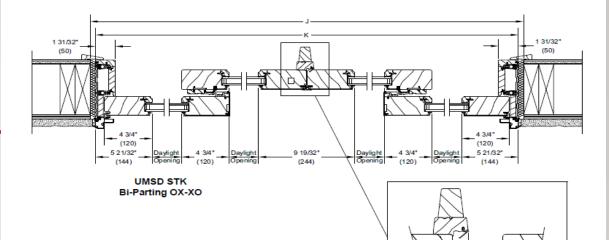
200 1/2

FIELD CALC SHEET POCKET

Section Details: Bi-Parting and Uni-Directional Stacked

Scale: Not to Scale

DETAILS STACKED



Description of Measurements Used:

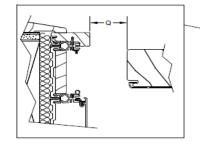
RO Width: 1" (25) wider than OM of frame.

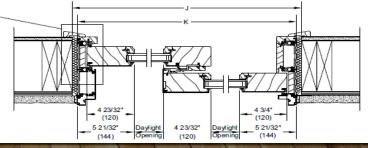
Frame OSM Width: OM of jamb to OM of jamb.

Bi-Parting Net Clear Opening Width: The shortest measurement from the surface of the panel edge to the surface of the astragal.

Uni-Directional-Net Clear Opening Width: The shortest measurement from the surface of the wood interior liner to the surface of the panel edge.

UMSD STK Uni-Directional XO

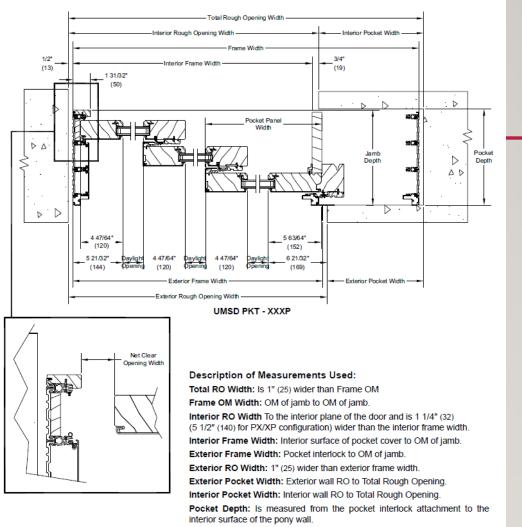




Section Details: Uni-Directional Pocket

Scale: Not to Scale

DETAILS POCKET

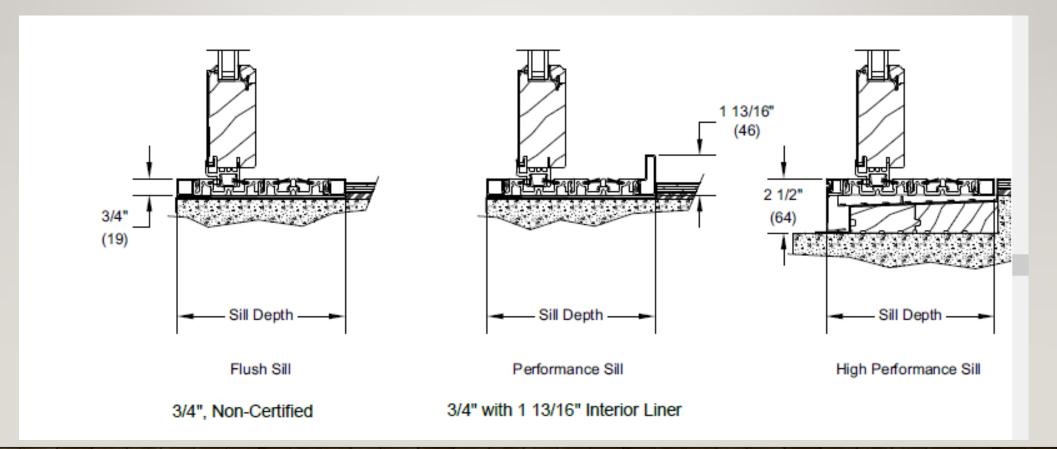


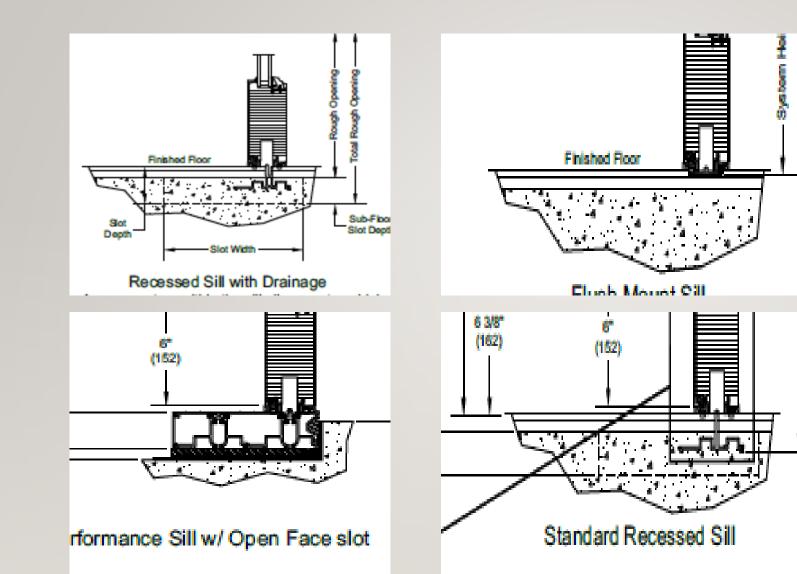
Net Clear Opening Width: The shortest measurement from the surface of the wood interior liner to the surface of the panel edge.

MULTI-SLIDE DOOR SILL CHOICES

FLUSH

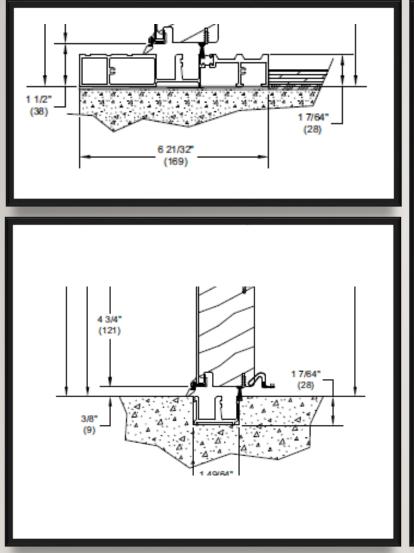
PERFORMANCE HIGH PERFORMANCE

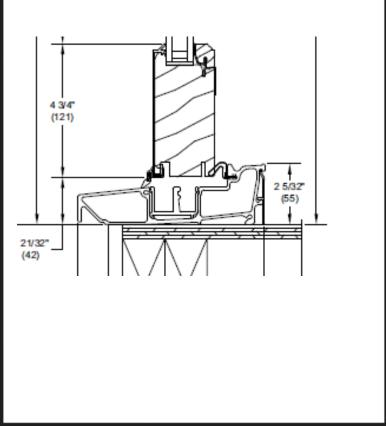




LIFT AND SLIDE DOOR CHOICES

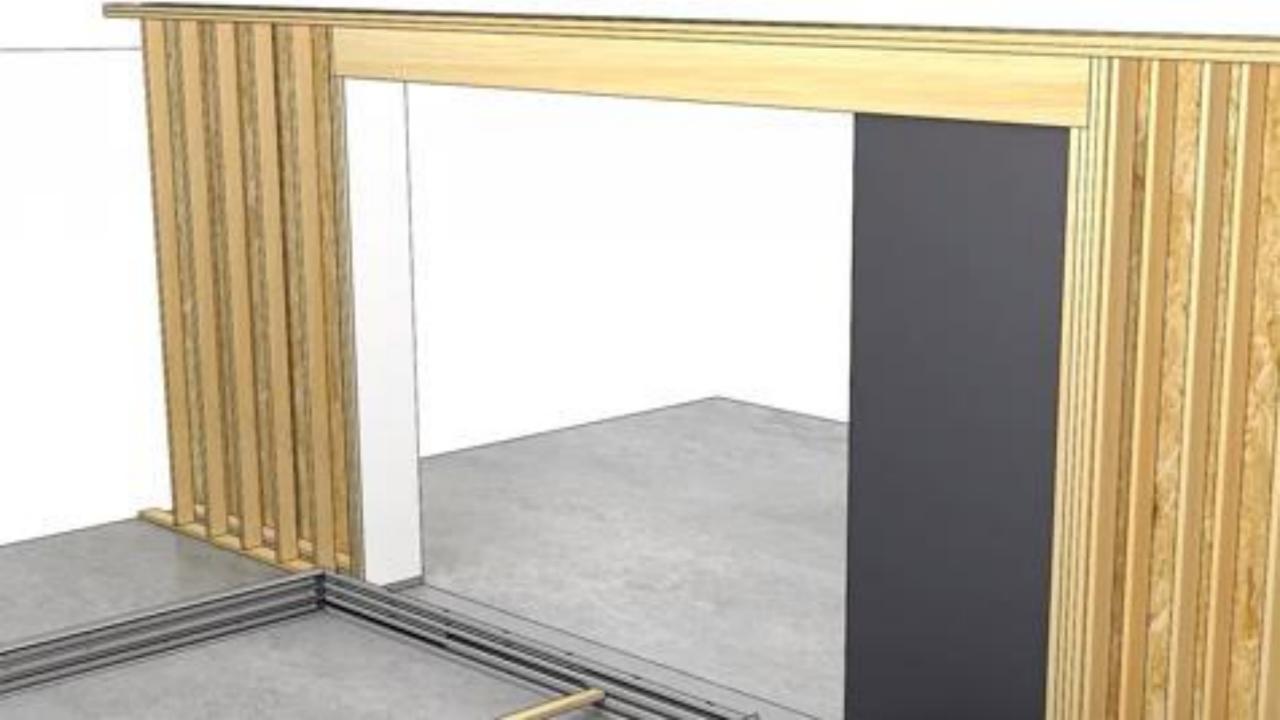
FLUSH RECESSED RECESSED W/DRAINAGE PERFORMANCE



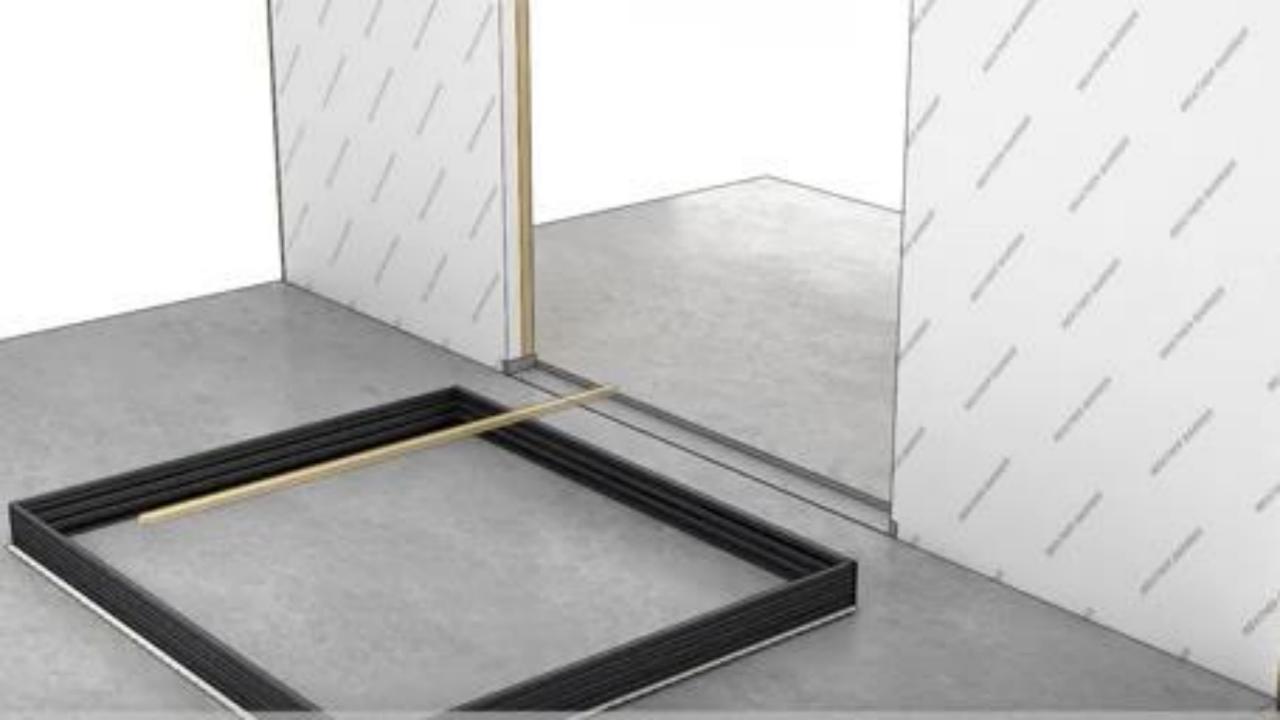


BI-FOLD DOOR SILL CHOICES

FLUSH RECESSED PERFORMANCE

















QUESTIONS

Items mentioned & used in today's presentation

- Utility Knife
- Level
- Hammer Tacker
- Laser Level
- Speed Square
- Tape Measure
- Flashing Tape
- Type III Sill Pan Flash

- Sealant
- Sheathing Tape
- Beveled piece of Cedar Siding
- Composite and Stackable Shims
- Corner Gaskets
- High Pressure Skirt
- Tyvek House Wrap
- High Pressure Skirt

QUESTIONS

•Thank you for your time and attention to this Presentation. It has been a pleasure to work with you today.

Eric Klein Marvin Windows and Doors Installation and Field Service Instructor Warroad, MN 56763



Built around you:

erickl@marvin.com