

Ultimate Lift and Slide Site Preparation Guide



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Preface

The Marvin Ultimate Lift and Slide door system requires proper site preparation to ensure optimal performance and operation after installation. The site preparation is critical due to the minimal adjustment available from the door system after installation. The Ultimate Lift and Slide Site Preparation Guide will provide the necessary information to properly prepare the wall opening for ease of installation and operational integrity.

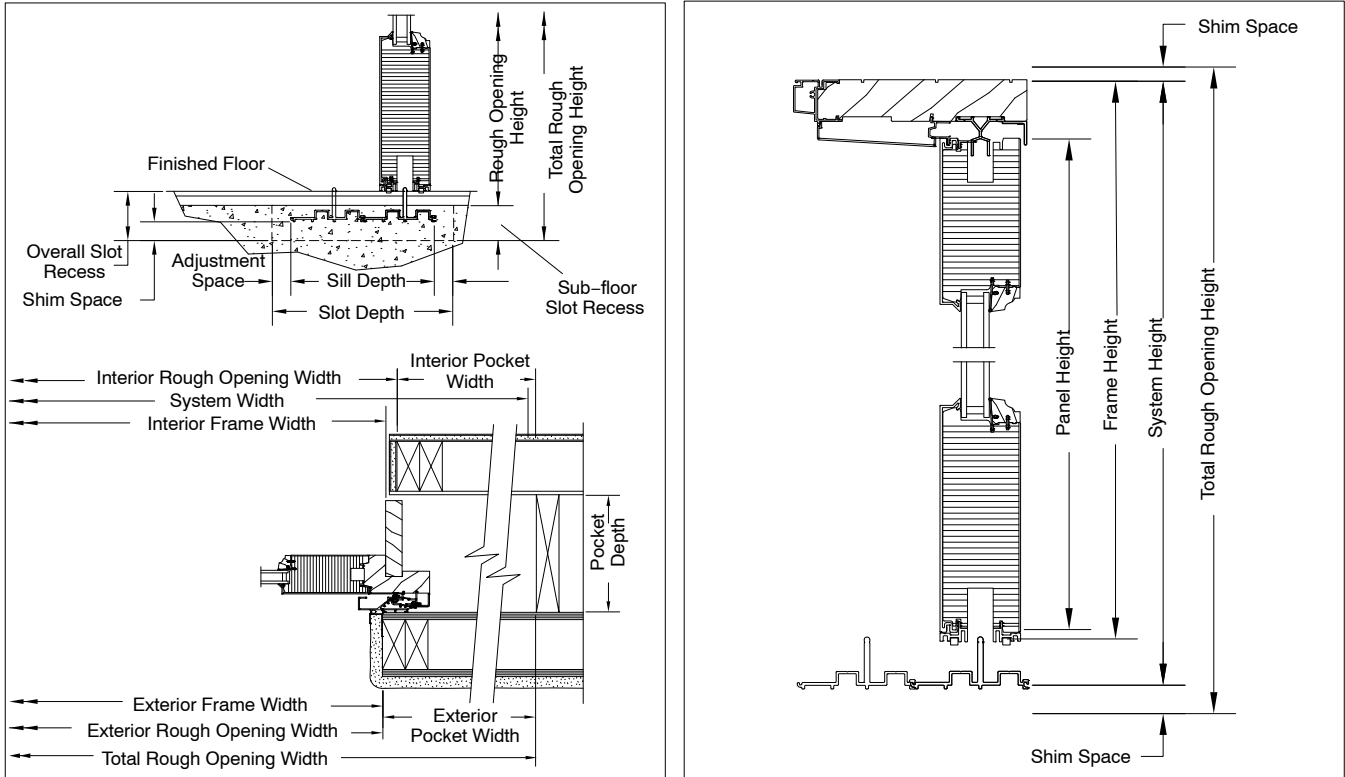
Site preparation begins with prepping the opening for the specified sill system, which is the foundation of the Lift and Slide Door system. The selected sill and substrate must offer the door system support which spans the width of the unit. Several sill options are available for consideration. A flush mount sill is inlaid directly into the finished floor. Recessed sills require the construction of a slot in the foundation. The recessed sill is installed within the slot that is later filled with self leveling concrete free of chlorinated additives. Note that a slot incorporated within a wood frame foundation requires a moisture proof barrier. Regardless of sill type, the foundation must support the sill height variance requirement of 1/32" (1) 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 1/8" (3). The header must be flat and designed to uphold the deflection requirement of not more than 1/8" (3) over the entire length of the unsupported span when fully loaded. Side jambs and pocket framing must be constructed of a continuous flat solid surface that is plumb. Moisture sensitive flooring, such as wood, should not be located any closer than a minimum 24" (610) to the interior side of the sill system. In cold climates frost may accumulate on the interior side of the door system at the sill and interlocks. In-floor heating or other thermal strategies should be considered to reduce potential of frost on these surfaces.

Marvin Windows and Doors understands the importance and related complexities of the site preparation and require an authorized Marvin Ultimate Lift and Slide door installer to set expectations regarding construction of the opening.

General

The options of the Marvin Lift and Slide door system create inherent complexities for installation and introduce new terminology. The following illustrations are provided for clarification:



Recessed Sill with Drainage - Stacked



Flush Mount Sill



Recessed Sill - Pocket

Recessed/Flush Mount Sill System Foundation Preparation

The Marvin Lift and Slide door may be installed with a recessed or flush mount sill system that is exposed 3/16" (5) above the finished floor after installation. Moisture sensitive flooring, such as wood, should not be located any closer than a minimum 24" (610) to the interior side of the sill system. The sill system requires a maximum of 1/32" (1) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening

Flush Mount Sill System

The concrete and/or wood sub-floor near and under the flush mount sill system must be as level as possible to accommodate the requirements of the finished floor. The finished floor must be within 1/32" (1) level across the entire length of the sill system since the flush mount sill system is inlaid into the finished floor,

Recessed Sill and Recessed Sill with Drainage systems

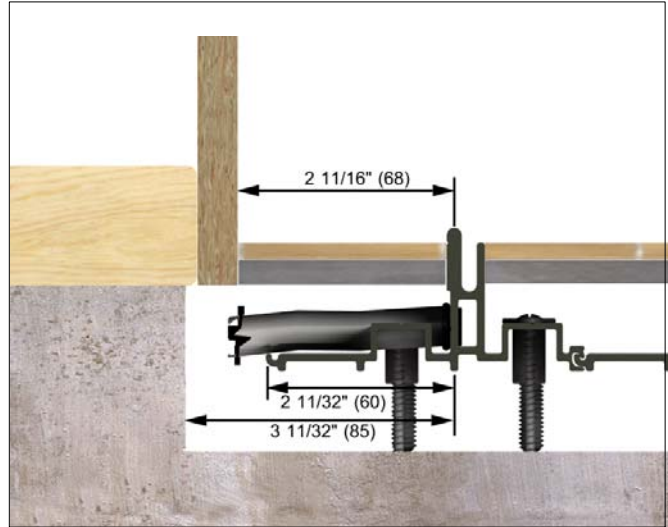
The Marvin recessed sill system may be installed with or without drainage as shown in previous illustrations. Both recessed sill systems require a slot within the foundation that is filled with self leveling concrete free of chlorinated additives after the sill is installed and level. Special water-proofing consideration is required for wood frame foundations.

Slot Depth and Width

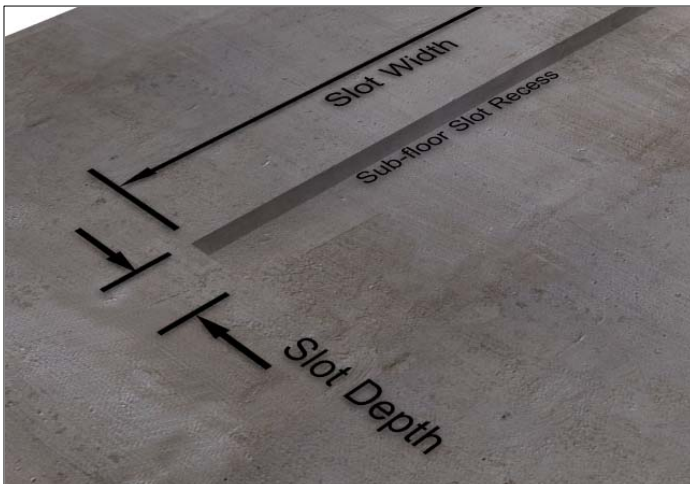
The slot required for the recessed sill system should be within 1/4" (6) level across the door opening. The recessed sill system, in particular, requires special pre-installation planning that is unique to the Lift and Slide door. The key element is that the finished floor height and finished floor thickness must be accounted for prior to preparing the slot. When the recessed sill with drainage option is specified, slot prep must allow the sill drainage tubes to weep to the exterior of the structure. The dimensions of the slot are determined by the configuration of the Lift and Slide door system to be installed, as well as the finished floor thickness.



Flush Mount Sill



Recessed with Drainage – Pocket



NOTE: A moisture barrier must be used in wood frame foundations prior to sill installation.

Number of Tracks	Pocket Slot Depth	Stacked Slot Depth
1	6" (152)	5" (127)
2	9 13/16" (249)	8 13/16" (224)
3	13 5/8" (346)	12 5/8" (321)
4	17 1/2" (445)	16 1/2" (419)

Refer to field calculations.

Slot width = System width + 2" (51)

Slot depth = Sill depth + 2" (51)

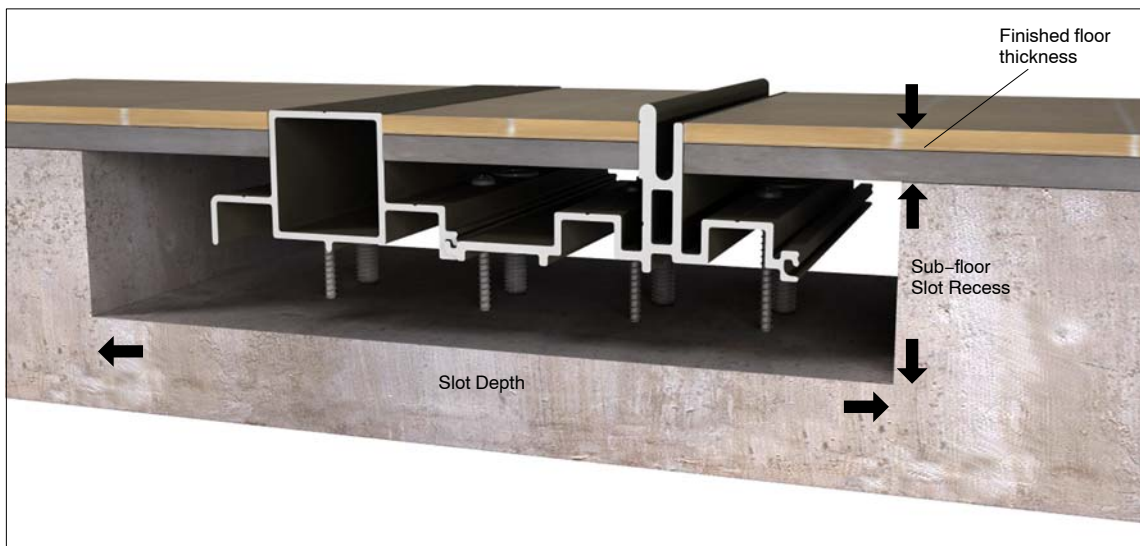
Sub-floor slot recess =
2 5/8" (67) – finished floor thickness

Slot Depth

Recessed sills require an overall slot recess of 2 5/8" (67) measured from the top of the finished floor. See below illustrations. The sub-floor slot recess is determined by subtracting the finished flooring thickness from 2 5/8" (67). This dimension allows for one inch of shim space below the bottom of the sill.



2 Tracks Wide, Recessed Sill with Drainage – Pocket



2 Track Wide, Recessed Sill with Drainage – Stacked

Finished Flooring Thickness	Sub-Floor Slot Recess
1/2" (13)	2 1/8" (54)
3/4" (19)	1 7/8" (48)
1" (25)	1 5/8" (41)

NOTE: Standard flooring thickness for determining the sub-floor slot recess.

Framing Considerations

Framing the opening at the header, side jambs and pocket interlocks for a Marvin Lift and Slide system vary with both the number of sliding panels that stack at the jambs and the height and width of the panels. Frame must be plumb, square, and true within 1/8" (3)

Header

Deflection over the entire length of the unsupported span cannot be greater than 1/8" (3) after the header beam has been fully loaded. The head jamb supplied with your Lift and Slide functions as a panel guide. The distance between the slot in the top of the door panel and head track must be maintained in order for the Lift and Slide door system to function properly*.

The entire header opening requires a flat solid surface for installation of the head jamb mounting screws to the framing. The entire length of the mounting surface must be as wide as the head jamb.

**NOTE: Hard to move panels can be the result of the structures' header sagging and restricting door operation. Excessive header sag may restrict door operation altogether.*



Side Jamb

The side jamb rough framing must be within 1/8" (3) plumb and true with a continuous flat solid surface the width of the supplied jamb in order to provide a secure mounting surface for installation hardware**.

***NOTE: Hardware fastening locations vary with system size and configuration.*

IMPORTANT: The side jamb framing rough opening height is determined from the sub-floor and must take into account the finished flooring thickness.

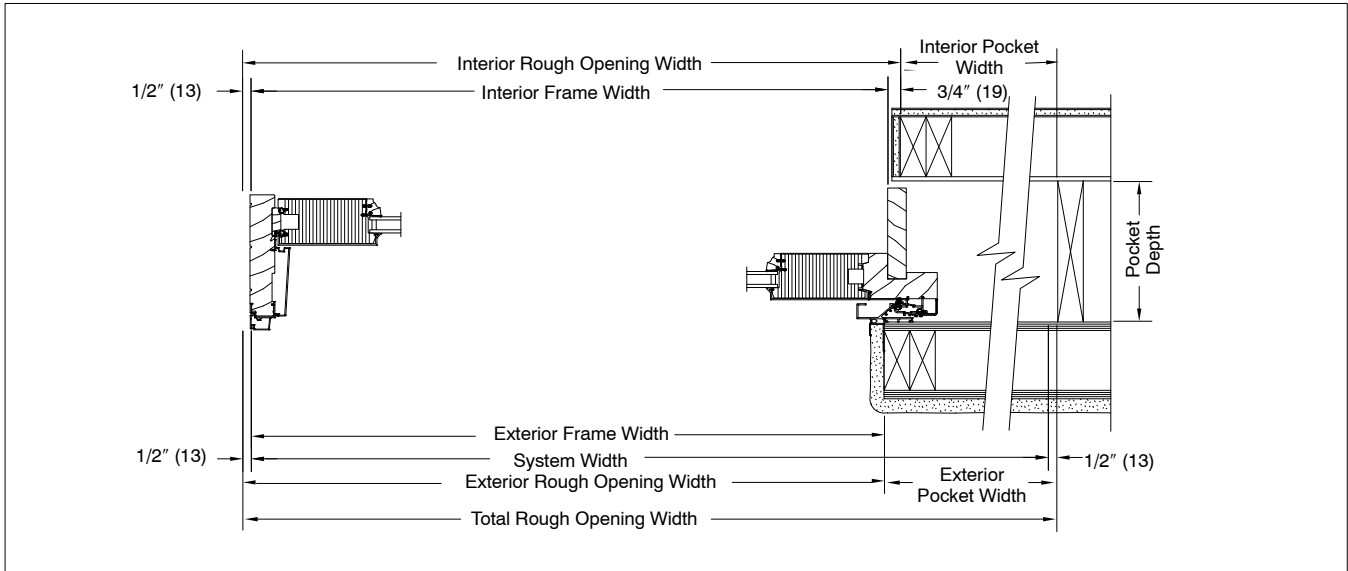


Pockets

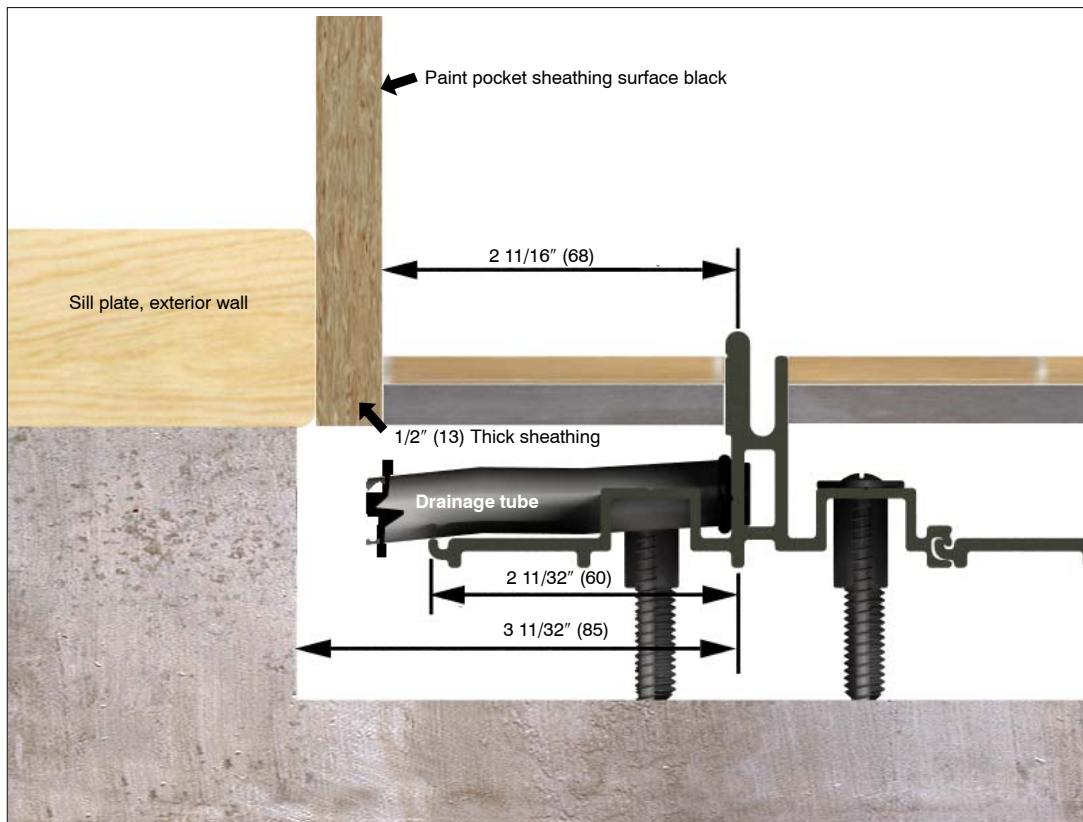
Construct the exterior wall to comply with local building codes. The pocket interlocks are supplied with the unit and are designed to provide a door to exterior wall interface. The interlocks require the wall to be within 1/4" (6) plumb and true for mounting the interlocks. The recessed sill must be placed 2 11/16" (68) in from the exterior side of the pocket to the center of the highest point of the track. See illustration below.

Pocket Construction

To accommodate the Flush Mount Handle System the interior Rough Opening Width is offset from the Exterior Rough Opening Width by 3/4" (19). See below illustration.



IMPORTANT: Frame in the interior pocket pony wall(s) after the door system has been installed. This will provide adequate space for installation of the head, bottom sill and pocket interlocks. It will also make installation and removal of the panels easier during the installation process.



Pre-Installation Check List

General Information

Due to changes in building design, detailed drawings may require several revisions that will affect the Lift and Slide system dimensions during the order and design phase, such as the floor covering specifications. The following checklist should be used as a guide to assist in preparing the specified opening after the final drawings have been signed and approved by all the appropriate parties. To avoid costly Lift and Slide door installation delays due to incorrect site prep we highly recommend a final inspection to ensure the site preparation is correct prior to the installation crew arriving at the job site to install a Marvin Lift and Slide door.

Contractor: _____

Superintendent: _____

Project Name: _____

Project Address: _____

Place a checkmark and initial each item when completed

Inspected	Inspection Item	Initial
	Copy of final signed off drawings. <ul style="list-style-type: none"> Do not proceed until drawings and worksheets have been approved and signed off. 	
	The opening is the correct size and within 1/8" (3) plumb, square and true. Does the opening accommodate the specified finished flooring depth? Openings that do not meet specifications may require rework prior to commencing installation.	
	Ensure that the opening header is flat and true. If the roof has not been loaded consult with the structural engineer to ensure that the roof loading factor has been taken into account. The maximum deflection over entire length of opening is not to exceed 1/8" (3) maximum after the roof is loaded.	
	Ensure that the sub-floor is within 1/4" (6) flat and level across the width of the door opening.	
	Check finished floor thickness to ensure that the sub-floor slot recess plus the depth of the specified floor covering equals 2 5/8" (67). Is the slot depth level across its entire length? <ul style="list-style-type: none"> The height of the finished floor needs to be determined and noted near the opening. If the sill will be embedded into concrete, the slot for the sill needs to be set in the concrete according to the drawing. For recessed sill systems over a wood framed structure, a moisture proof method to accommodate the self leveling concrete free of chlorinated additives surrounding the sill after installation needs to be determined. 	
	Check that the depth, width and recess of the slot comply with the field calculations. <ul style="list-style-type: none"> Slot depth and width to be 2" (51) "wider and longer" than the depth and width of the specified sill. Pocket allows space for placing the center of the track 2 11/16" (68) in from the interior of the outside wall. 	
	For Marvin Lift and Slide Door sill systems specified with a weep system, identify sill drain locations so the drain tubing can be run before filling the slot with self leveling concrete free of chlorinated additives.	
	For Pocket Systems ensure that the finished pocket width and depth is correct. The outside wall of the pocket needs to be framed and sheathed according to the local building codes. Wait to build the interior pocket walls until after the installation of the door. This will allow a clear access to the pocket for installation of the sill system and head jamb.	
	With the panels in the open position a portion of the interior pocket wall surfaces will be visible, so it is recommended to paint the interior pocket surfaces black. Do this before the door panels are permanently installed.	
	The location of the system jamb and hardware mounting holes, which are pre-drilled, is dependent on system length. A flat solid surface is required to ensure that the door system can be properly anchored to the structure.	