# NC-82 Stand Alone Installation

Generic frame extrusions shown, actual extrusions may differ.



WINCO's NC-82 Terrace Door is designed to be anchored directly thru the frame into the wall substrate without additional trim. If NC-82 Side Lites are ordered in addition to the operable door, the glazing retainer at the side lites must be temporarily removed to install concealed anchors at the NC-82 Side Lite. Installation of Out-Swing Doors is virtually identical to the In-Swing configuration shown in this manual.

The NC-82 Terrace Door is available in multiple Sill (Threshold) configurations. Namely the standard configuration and a reduced height configuration compliant with HUD Accessibility Standards (commonly referred to as "ADA" compliant threshold). The doors are factory glazed and ship pre-hung. Installation is similar to a casement window. If an ADA compliant Kickplate is also used, the installation will be no different from what is shown here.

1) To ensure that the door operates as intended and achieves full weather resistance, it is critical that the door is installed Square, Plumb, Level, and free of Twist. All structural frame must be fastened to the wall substrate. Shims are required at all anchor locations with the exception of the low profile threshold. The standard sill configuration requires structural anchors at the sill as well as the anchors required at the jambs and head. See Fig. 1

2) The ADA compliant sill configuration does not receive any structural anchors at the sill. The low profile threshold is factory attached to the frame jambs and should be secured to the floor to limit bowing / flexing to ensure a weather tight seal is maintained between the threshold and the floor. Set the low profile threshold directly into a continuous bed of sealant. Use shims at the sill only if the floor is too uneven for a square & level installation. See Fig. 2

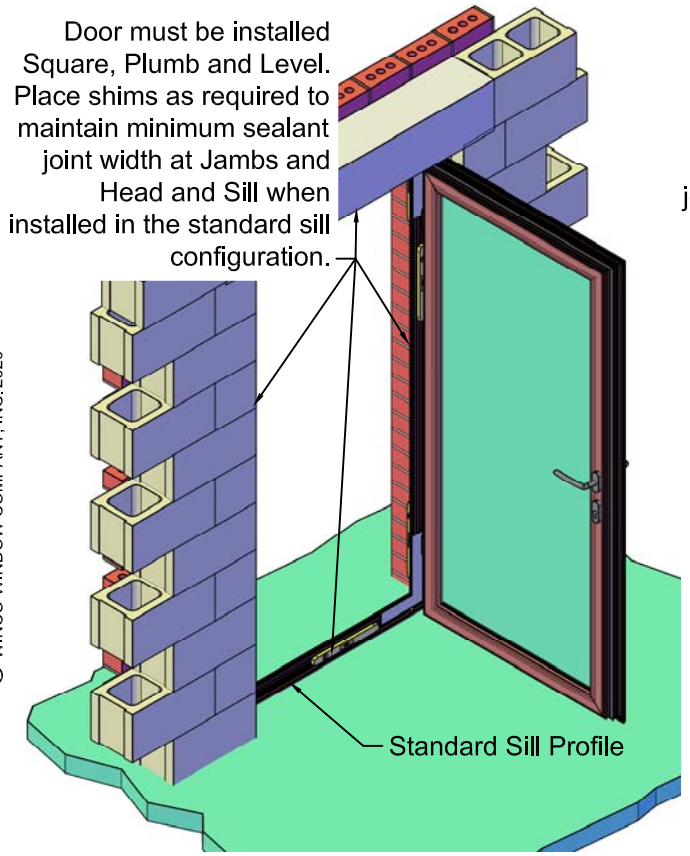


Fig. 1 Standard Sill - viewed from Building Interior

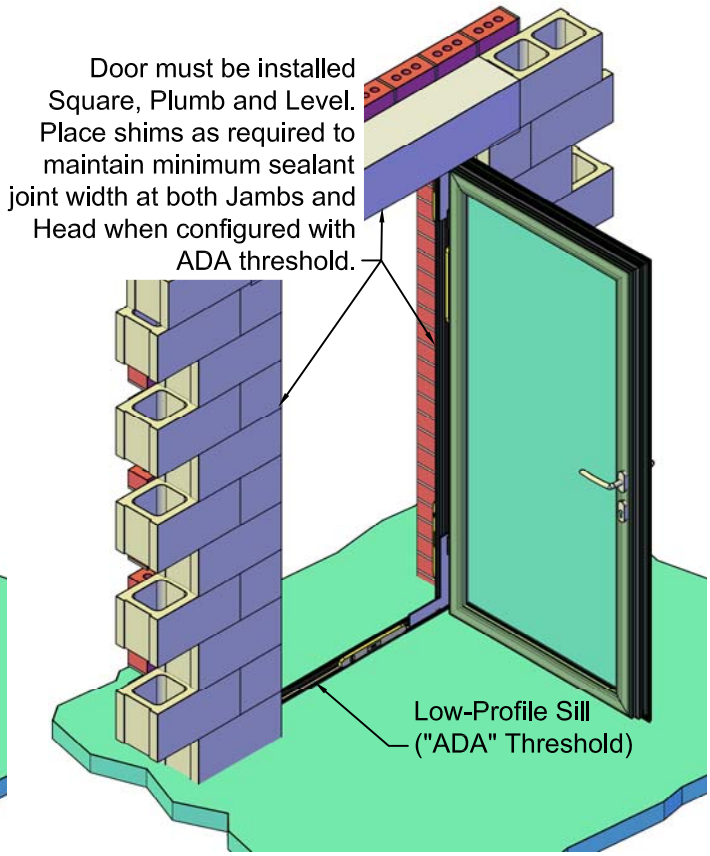


Fig. 2 ADA compliant Sill viewed from Building Interior

Generic frame extrusions shown, actual extrusions may differ.

To anchor the NC-82 Terrace Door Frame, clearance holes for the fasteners must be drilled into the perimeter frame. Since the spacing is project specific, this is done at time of installation in the field. At the installer's choice, there are Two (2) options of fastener placement.

Option 1:
Drill a fastener clearance hole at the required spacing interval through both walls of the perimeter frame. Place the fastener into this hole and anchor the frame. The fastener head will be exposed to view when the door is opened. While this fastener position works, it leaves a large portion of the fastener unsupported against bending forces and will therefore result in reduced anchor capacity per fastener.
At sidelite applications, additional field notching / trimming of the glazing retainer foot is required to clear the fastener head. See Fig. 3a & Fig. 3b

Option 2:
Drill a fastener clearance hole at the required spacing interval through both walls of the perimeter frame. Determine the clearance diameter required for the fastener head and tooling. Drill a clearance hole with this larger diameter through the first wall of the frame. This will allow sinking the fastener into a more secluded position. The bending moment on the fastener will be drastically reduced and the full anchor capacity can be utilized. Sidelite installations will no longer require notching / trimming of the glazing bead foot to clear the fastener head. See Fig. 4a & Fig. 4b



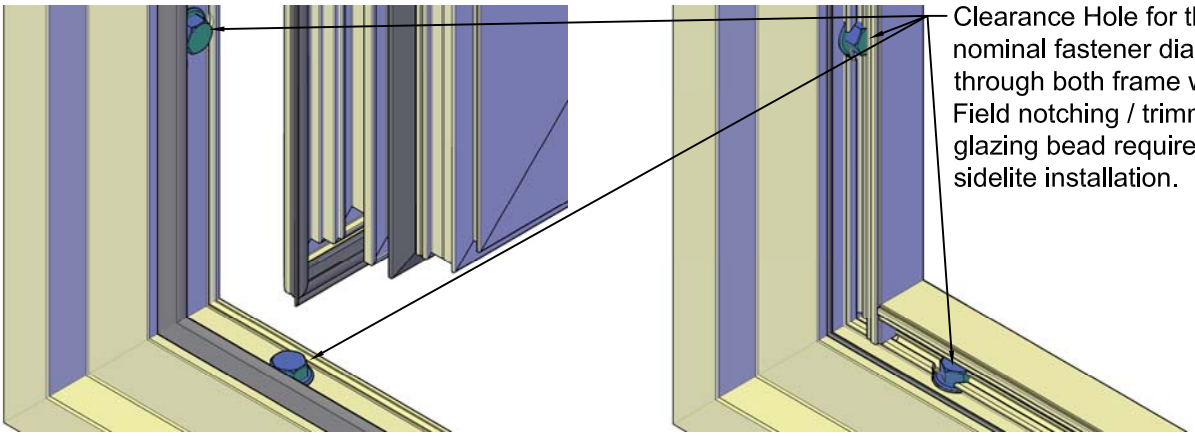


Fig. 3a Terrace Door Frame

Fig. 3b Sidelite (Glass not shown for clarity)

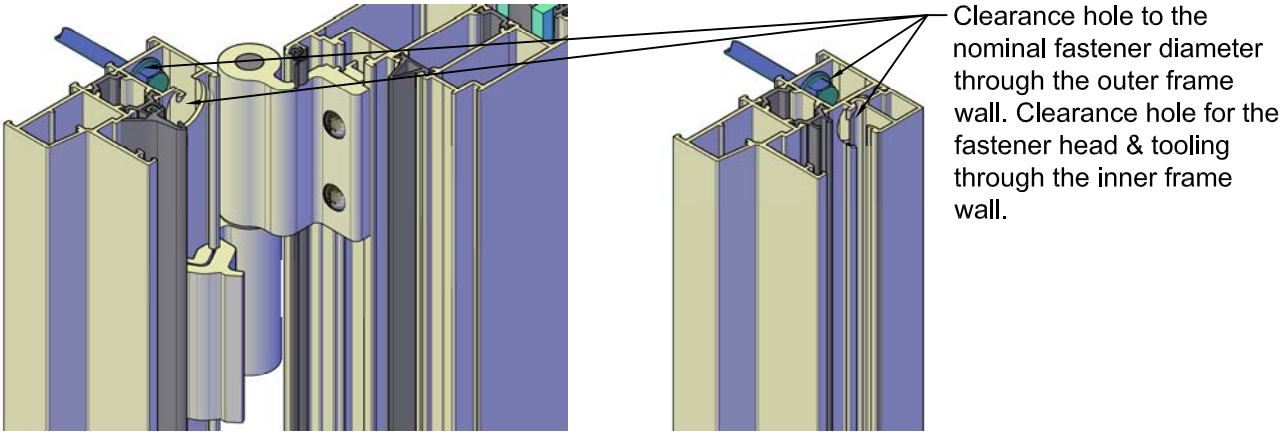


Fig. 4a Terrace Door Frame

Fig. 4b Sidelite (Glass not shown for clarity)

Generic frame extrusions shown, actual extrusions may differ.



Contrary to a typical Entrance Door Installation, the door leaf should not be separated from the perimeter frame for installation. The remove the door leaf, the hinges would require removal from the door frame and re-installation, voiding the factory setups for fit & performance. All installation work except the final sealant application is performed with the door leaf fully opened and supported temporarily with a stack of shims or other suitable supporting device.

3) Check the Rough Opening for Plum & Square and adjust you door position accordingly. Place the door into the Rough Opening. Open the door and support the door leaf to achieve a plumb installation position front to back. Also ensure that the minimum sealant joint size as recommended by the sealant manufacturer is met or exceeded. Use shims to ensure the Hinge Jamb is true to vertical. Shims must support the frame at all anchor locations to prevent bowing, twisting or flexing of the frame.
See Fig. 5

4) Drill clearance holes for the anchors as required. The thermal barrier (Polyamide Struts) may not be penetrated by the anchor clearance hole or the anchor itself. Take care not to damage any hardware ( *Hinges, Lock Keepers, etc.*) during this operation.
Depending on the wall substrate, the anchors may also require a pre-drilled hole in the substrate. Drill these holes now as required. See Fig. 6
(If sleeve anchors are used, the sequence will need to be adjusted to allow access to the wall substrate with the larger drill bit.)

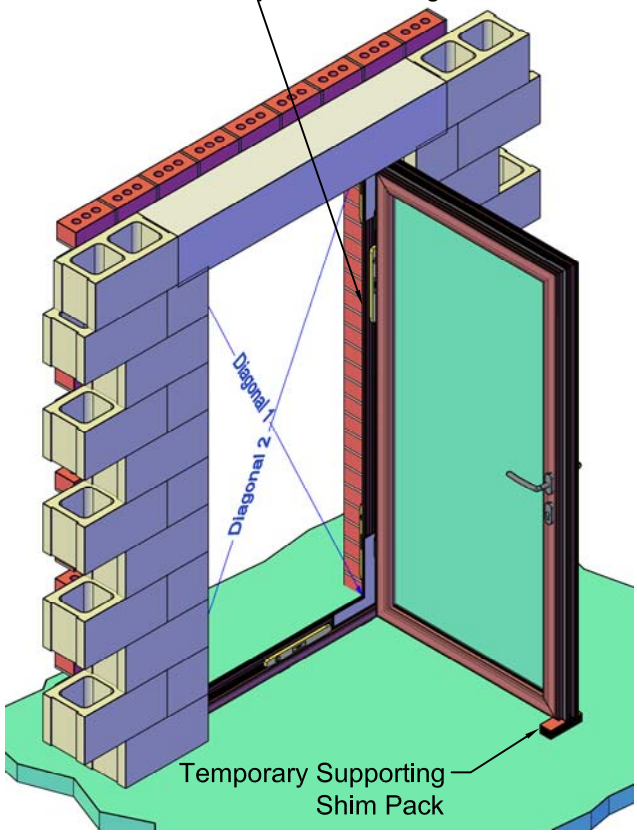


Fig. 5 Standard Sill - viewed from Building Interior

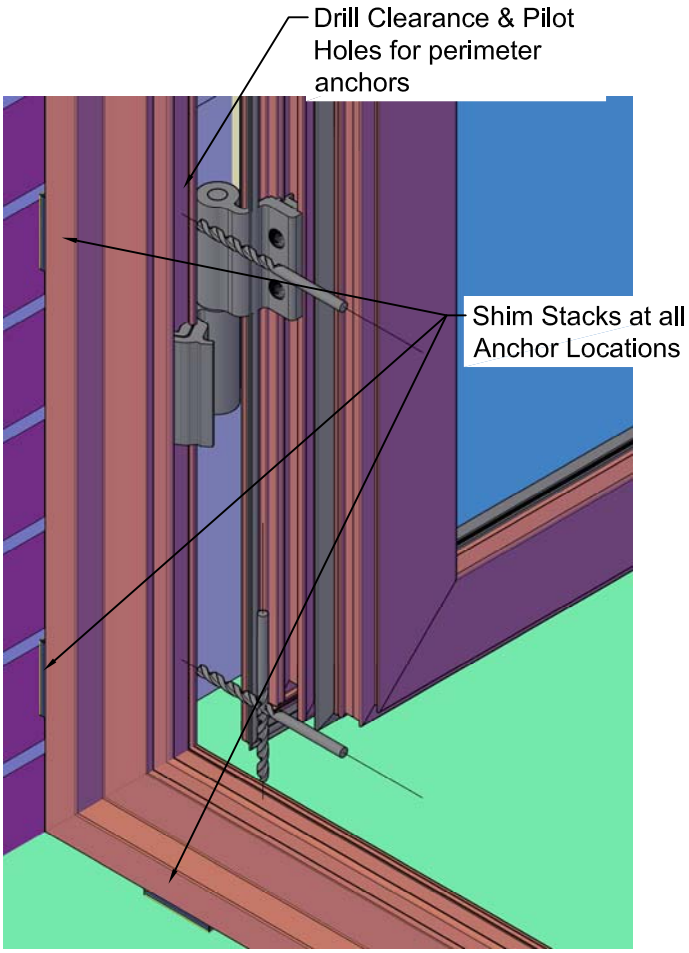


Fig. 6 Viewed from Building Exterior

Generic frame extrusions shown, actual extrusions may differ.

Clean all shavings, dust, and debris from the door interior. All anchors will require sealant to prevent moisture from penetrating into the building interior. After inserting the fastener into the hole, but prior to torqueing it down, place a dollop of sealant under the anchor head.

To ensure the frame on the hinge side remains plumb and twist free, proceed in the following sequence:
5) Anchor the door frame at the upper and lower hinge locations. See Fig. 7

6) Check the frame to be square at the head and and adjust with shims as required. See Fig. 8

7) Check the frame to be square at the sill and adjust with shims as required. See Fig. 9

8) Check the lock jamb to be plumb and the entire frame to be free of twist. Once the final position of the lock jamb is established, place shims at all fastener locations and enlarge the fastener clearance holes if required. See Fig. 10

9) After the lock jamb is attached in 2 locations, remove the supporting shim stack and verify the door leaf will remain in any position. Should the door leaf drift open or shut, the hinge jamb will require adjusting. Complete the fastener pattern, finishing at the sill. (Installations where the Low-Profile Threshold is used, skip structural fasteners at the sill.)



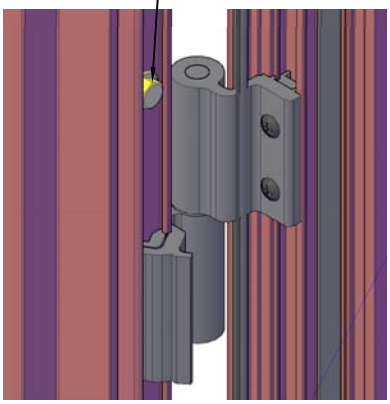


Fig. 7

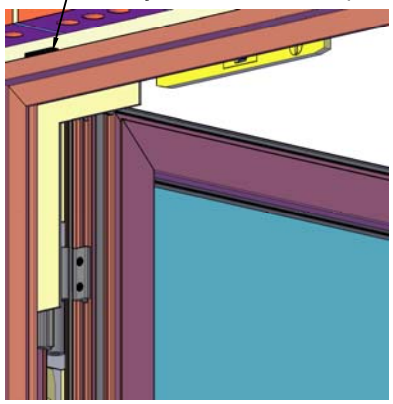


Fig. 8

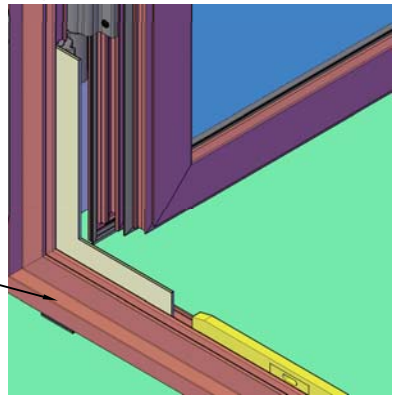


Fig. 9

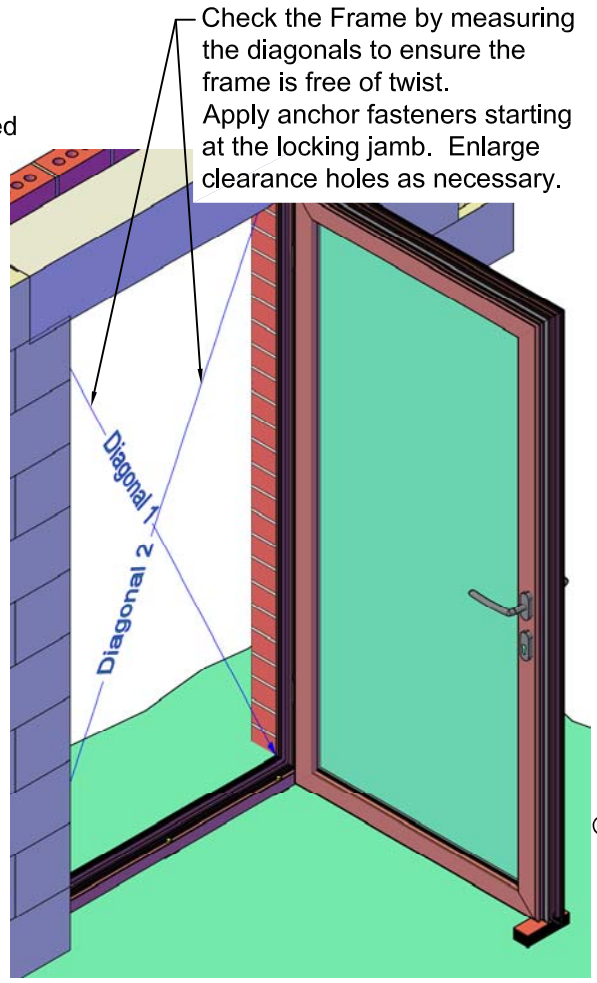


Fig. 10

10) After all anchor are torqued as required for full anchor capacity, seal all fastener penetrations with silicone sealant.

11) On the building exterior, place foam backer rod between the condition and the window to act as bond breaker and to limit the amount of sealant pumped into the joint. See Fig. 11

12) Lay a continuous bead of sealant along the entire exterior perimeter joint. Tool sealant as required. - Refer to sealant manufacturer's instructions. See Fig. 12 & Fig. 14

13) Sealing the interior perimeter joint is cosmetic in nature and not required for Air/Water/Structural performance of the window. Painter's caulk is only required on the interior side if the shim stacks will not be concealed by drywall or sill stool, or other casework. See Fig. 13 & Fig. 15

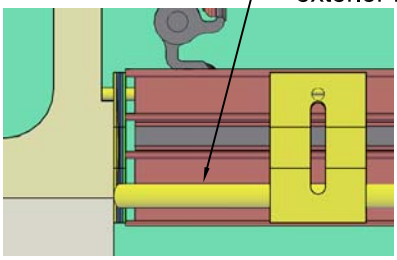


Fig. 11

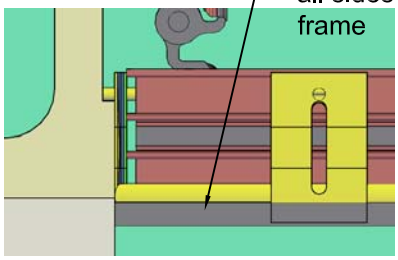


Fig. 12

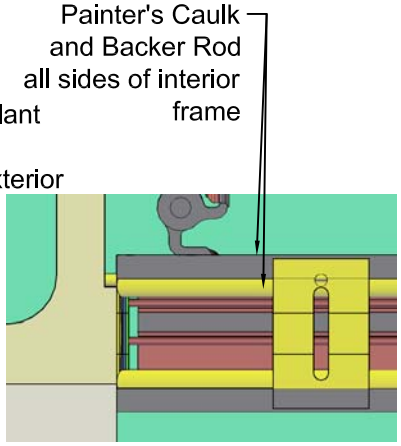


Fig. 13

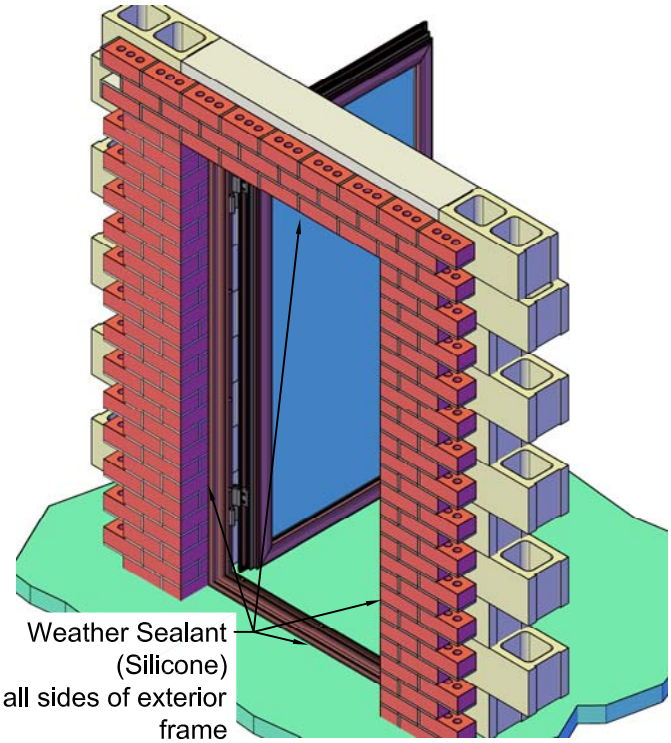


Fig. 14 Viewed from Building Exterior

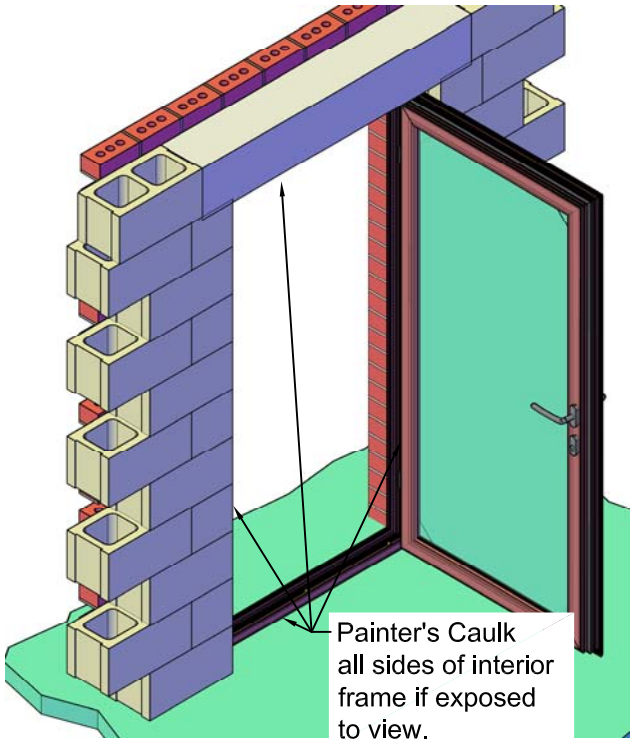


Fig. 15 Viewed from Building Interior

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