WINCO Window Company

Installation Instruction Manual

This is a Generic version with the most common trim configurations included. If the project is furnished with a Shop Drawing Packet prepared by WINCO, a project specific installation manual may also be issued in PDF format along with the 1st Shop Drawing Submittal. A project specific manual supersedes this generic manual.

Sub Frame / Receptor Installation
Sub-Sill Preparation

Generic frame and trim extrusions shown, actual extrusions used may differ.

1) If a sill extension is used, prep the sub sill first for the weep and insert the sill extender before proceeding to attach the end dams.

Determine the final length of the sub sill and cut to size. (Actual Rough Opening Width minus 1/4")
Drill a ø1/4" weep hole approximately 6" from each end PLUS one (1) hole each side of any intersecting mullion. On TB-102, the weep holes will cut into the horizontal shelf supporting the window. This is expected. Do not down size the drill size, since surface tension of the water can counteract the free flow of water if the hole diameter is less than ø1/4". Make sure the saw cuts are burr free and all chips & debris are removed from sub sill before proceeding to next step.

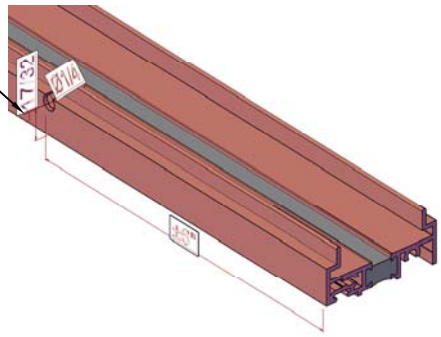

Fig. 1

2) Sill Extender installation

(If the project does not require extruded sill extender(s), skip figures 2 and 3)

Lay a bead of Silicone Sealant along the entire length of the sub sill before inserting the sill extender. This prevents wicking of water through the capillary joint between the extrusions. The sealant used must be compatible with the silicone used for the primary weather seal.

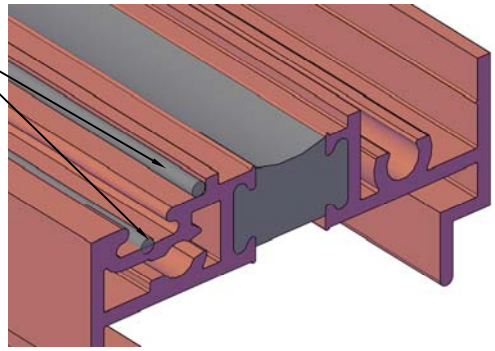

Fig. 2

(Sub Sill is upside down for this step)

Insert Sill Extender into the keyed groove and slide into position.
Once final position is achieved, tool all visible sealant to ensure a water tight seal.

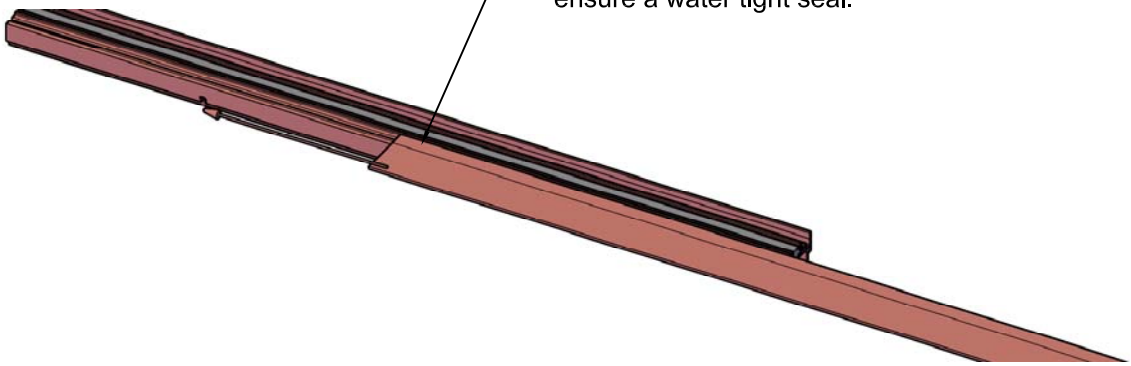

Fig. 3

(Sub Sill is upside down for this step)

Generic frame and trim extrusions shown, actual extrusions used may differ.

3) The factory supplied end dams are the same depth as the sub sill and 3" tall. The hole pattern lines up with the screw bosses in the sub sill. Since the holes may be offset, the correct orientation of the end dam needs to be established prior to applying sealant.

Lay a number of silicone beads to "butter" the bottom 3/4" of the end dam where it will come into contact with the sub sill.
Only the side of the end dam facing the sub sill will be treated in this fashion.

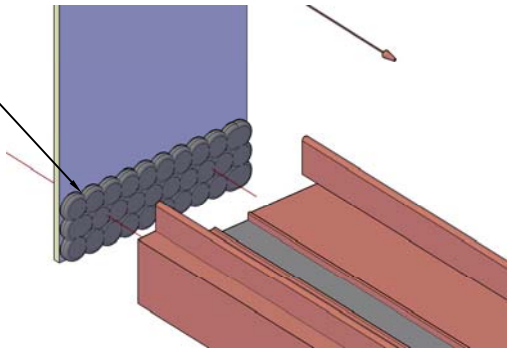

Fig. 4

4) Bring the end dam into position and insert the factory supplied screw (Bill of Lading item X-113) into the holes. With a No. 2 Phillips screw driver, tighten the screws to a snug fit.
Tool any exposed sealant to ensure a watertight fit.
See Fig. 5 without Sill Extender and Fig. 6 if a Sill Extender is used.

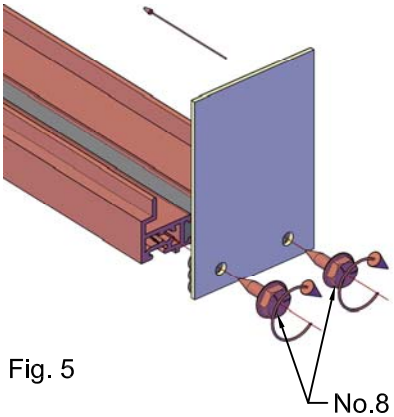

Fig. 5

No.8 x 3/8" SMS
w/ Phillips Drive
WINCO Part No. X-113

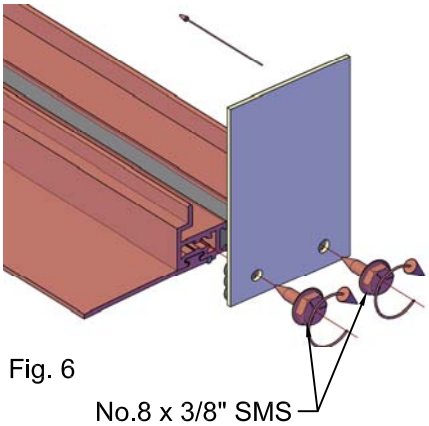

Fig. 6

No.8 x 3/8" SMS
w/ Phillips Drive
WINCO Part No. X-113

Generic frame and trim extrusions shown, actual extrusions used may differ.

5) Set the sub sill & end dam assembly into position and insert shims below to achieve a level installation plane. The shim stack height should be no less than 1/4" to afford sufficient space for the primary silicone weather seal. Consult the sealant manufacturer's documentation to ensure their minimum recommended sealant gap is achieved. Establish the anchor locations and anchor size. The thermal barrier of the sub sill may not penetrated by the anchor or the anchor's clearance hole. Anchor design, (type, diameter, minimum embedment, minimum edge distance, maximum O.C. spacing, etc. are project specific and also specific to each window opening type. Unless specifically contracted to do so, WINCO will not provide an anchor schedule or make anchor recommendations. WINCO does not provide perimeter anchors / fasteners.
All anchor locations must be fully supported by a shim stack made from non-compressible shims to prevent bowing and twisting of the sub sill when the anchors are tightened. See Fig. 7 & 8

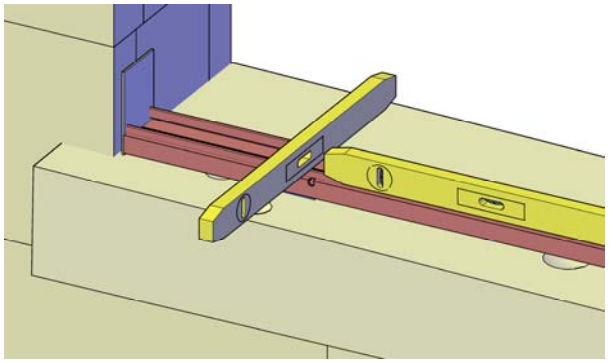

Fig. 7 - Viewed from Building Exterior

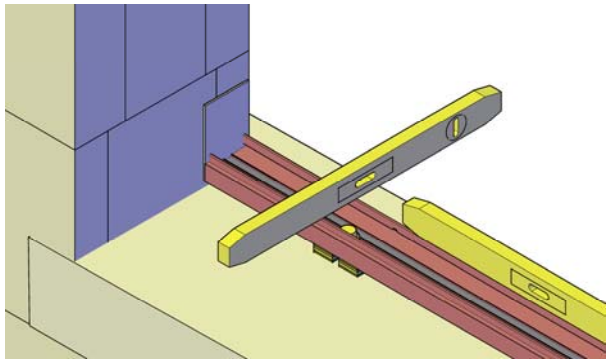

Fig. 8 - Viewed from Building Interior

6) Apply a bead of silicone around the perimeter of the end dam to establish a seal against the wall substrate. Also apply a generous bead of silicone along the intersection of sub sill and end dam. Tool as necessary to ensure a water tight seal. The illustrations in this manual show CMU substrate. While the actual wall substrate at your project may differ, the procedure remains the same. See Fig. 9 & 10

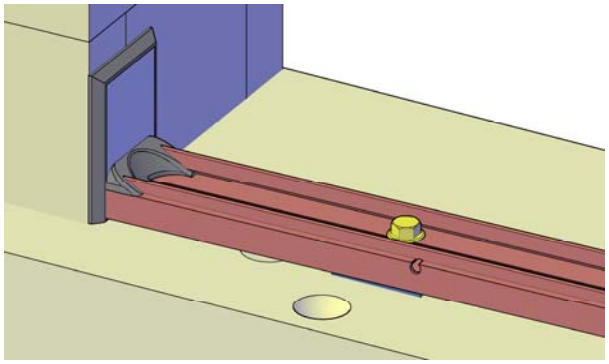

Fig. 9 - Viewed from Building Exterior

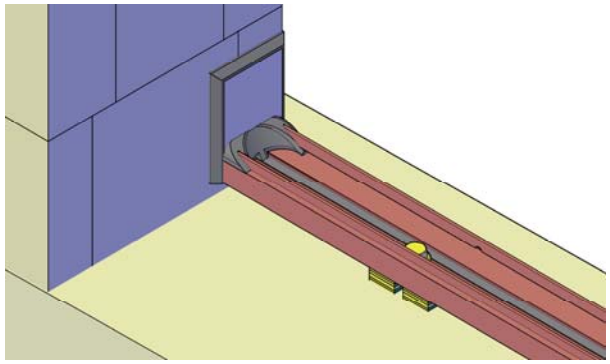

Fig. 10 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

7) Determine the final length of the head receptor and cut to size. (Actual Rough Opening Width minus 2 times the shim stack / sealant joint allowance)

8) Determine the final length of the jamb receptor and cut to size. A standard receptor installation terminates the jamb receptors at the head cut square.
Alternatively, at the installer's option, the jamb can be cut longer at the head and coped to fit into the head receptor. If the standard installation configuration of the closure is used, the interior side of the receptor will also require coping. Doing so will add field labor and not boost the weather performance of the receptor system. See Fig. 11a for standard and Fig. 11b for alternate jamb cope at head. When a sub sill is also used, the jamb receptor must be coped to clear the sub sill. (Fig. 12) This cope should be the full depth of the jamb receptor's web at about 1" tall. Since the sill end of the jamb receptor runs past the sill end dam, there is a great deal of tolerance for the actual height of the cope. See Fig. 12a and Fig. 12b

9) The jamb closure must be coped at the sill to clear the sub sill and shim stack. For a 1/4" sealant allowance the cope needs to be 1" tall. See Fig. 13

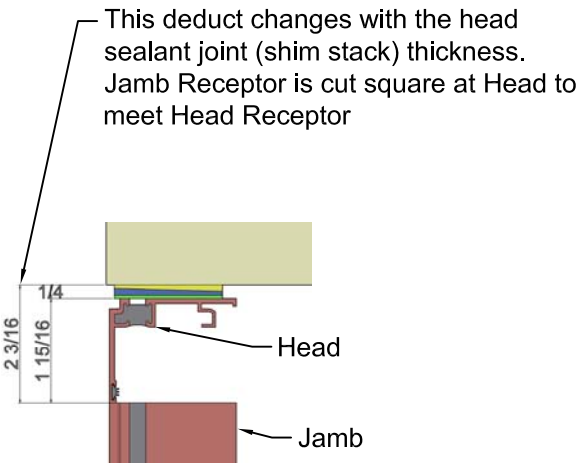

Fig. 11a - Jamb Receptor at Head

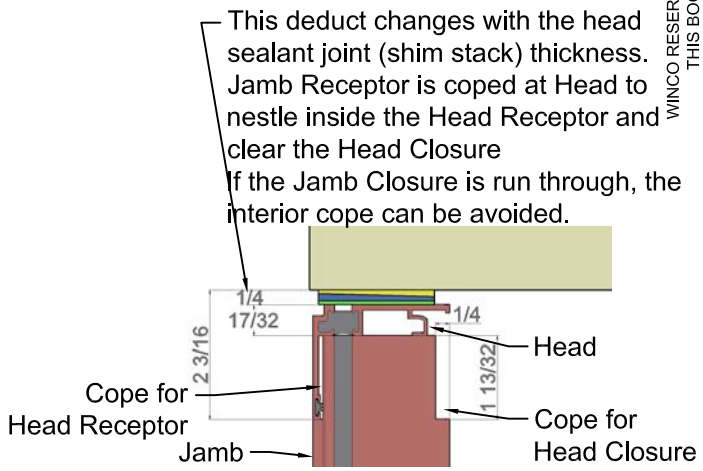

Fig. 11b - Jamb Receptor at Head Alternate Method

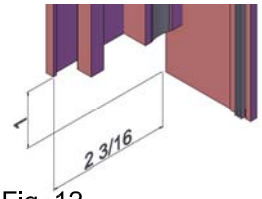

Fig. 12

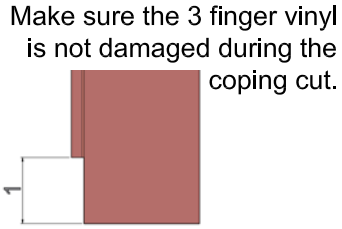

Fig. 12a - Jamb Receptor at Sill Viewed from Building Exterior

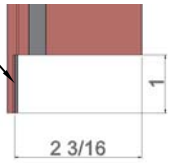

Fig. 12b - Jamb Receptor at Sill Viewed from Receptor Back

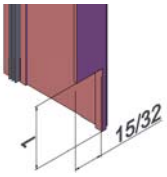

Fig. 13 - Jamb Receptor Closure at Sill

The 3 finger vinyl (WINCO Part No. H30-2) functions as a bond breaker and backer rod for the final seal between the exterior window surface and the receptor frame.
If the final sealant between window and receptor is not made using silicone sealant, excessive water intrusion into the system must be expected. Should the 3 finger vinyl be damaged, its function as a bond breaker may be compromised and sealant failure in the form of tearing of the silicone due to thermal movement must be expected.

Generic frame and trim extrusions shown, actual extrusions used may differ.

10) Place the head & jamb receptors into position and insert shims below to achieve a plumb & level installation plane. The shim stack height should be no less than 1/4" to afford sufficient space for the primary silicone weather seal. Consult the sealant manufacturer's documentation to ensure their minimum recommended sealant gap is achieved. Establish the anchor locations and anchor size. The thermal barrier of the sub sill may not penetrated by the anchor or the anchor's clearance hole. Anchor design, (type, diameter, minimum embedment, minimum edge distance, maximum O.C. spacing, etc. are project specific as well as specific to each window opening type. Unless specifically contracted to do so, WINCO will not provide an anchor schedule or make anchor recommendations. WINCO does not provide perimeter anchors / fasteners.
All anchor locations must be fully supported by a shim stack made from non-compressible shims to prevent bowing and twisting of the sub sill when the anchors are tightened. See Fig. 14 & 15

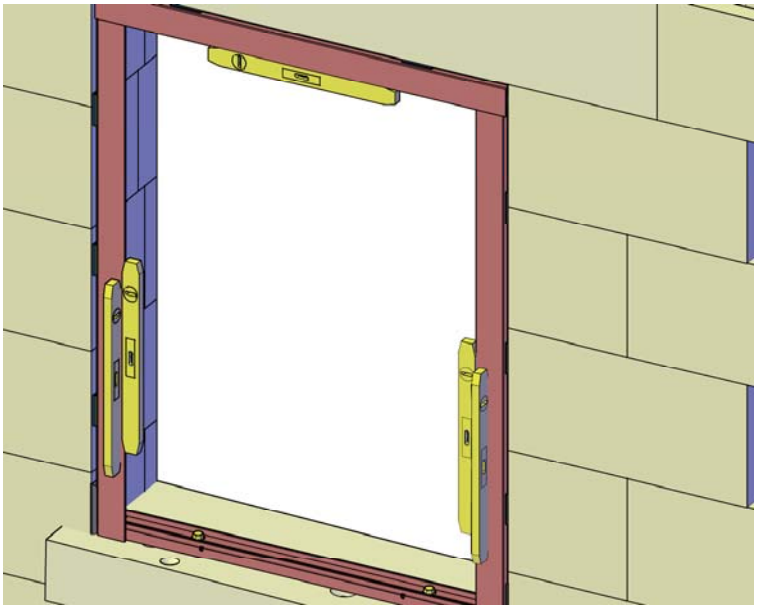

Fig. 14 - Viewed from Building Exterior

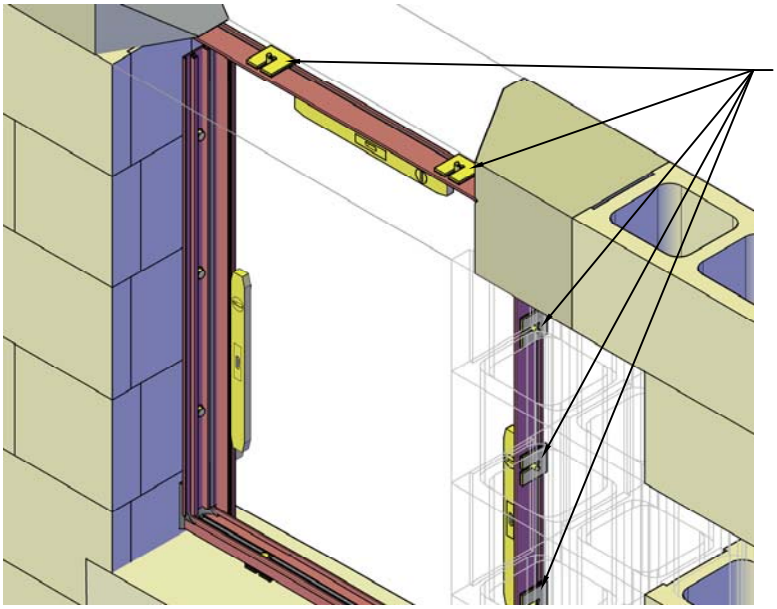

Fig. 15 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

11) Seal all sill anchor heads with silicone sealant. Inspect and make sure that no debris is left in the sub sill which might clog the weep holes. Lay a small continuous bead of silicone sealant on each of the horizontal surfaces of the sub sill which will support the window unit(s). See Fig. 16 & 17
Lay a continuous bead of silicone along the interior edge of the receptor alongside of the 3 finger vinyl. This seal will limit water intrusion between window and receptor frame. The 3 finger vinyl acts as backer rod and bond breaker. It is not designed as a substitute for sealant. See Fig. 17

12) Seal the top edge to the jamb receptor with a short bead of silicone sealant. See Fig 18a & 18b

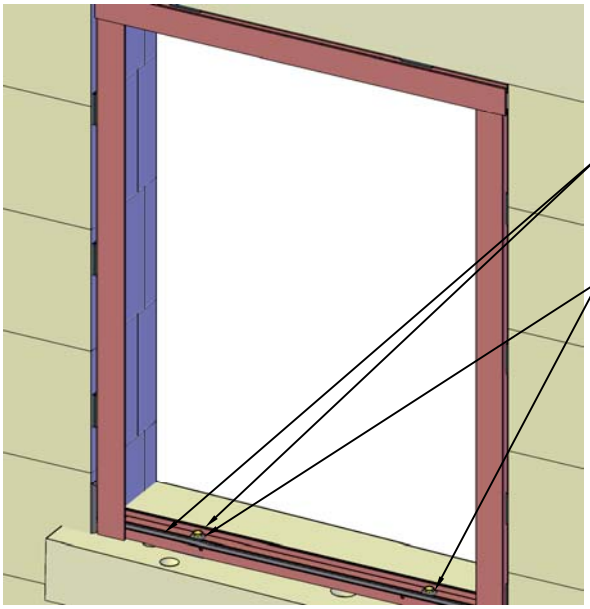

Fig. 16 - Viewed from Building Exterior

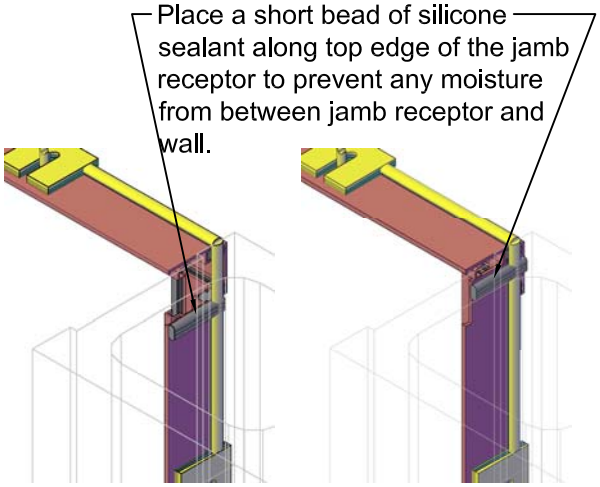

Fig. 18a Fig. 18b

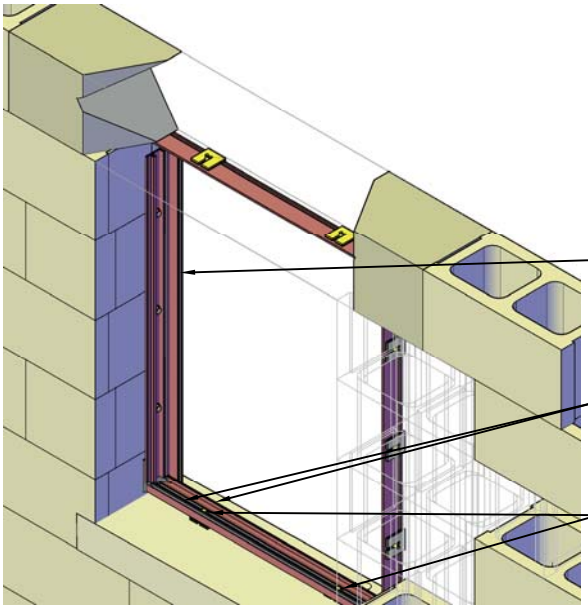

Fig. 17 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

13) Set window unit into position. Insert Foam Backer Rod on all four sides to act as a bond breaker for the exterior primary water seal. See Fig. 19 & 20

14) Apply Two (2) 6 Inch tall bead of sealant approximately 2 inches apart and a horizontal bead connecting the two at each sill end of the jambs. This serves to prevent ingress of any water into the occupied space should the sill weep slower than a potential water intrusion. The vertical beads seal the closure against window and wall substrate, the horizontal bead will seal the closure against the sub sill. See Fig. 20

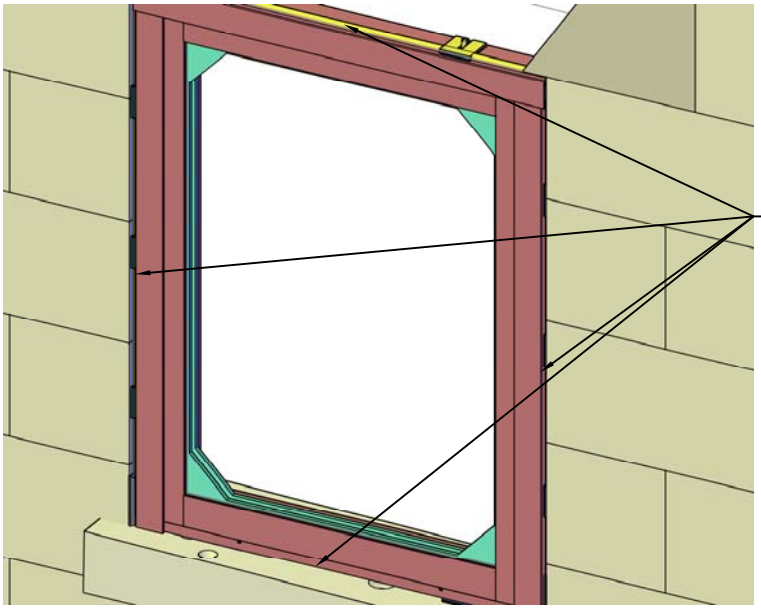

Fig. 19 - Viewed from Building Exterior

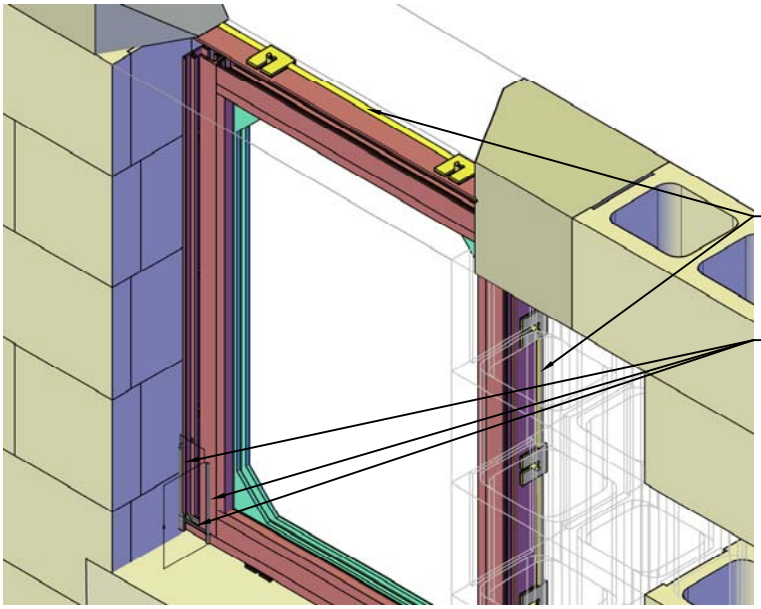

Fig. 20 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

15) Apply primary sealant to exterior sides & tool sealant. See Fig. 21 & 22

16) Snap head & jamb receptors into position to securely attach window to receptor. Tool any sealant squeeze-out at the sill.

Note that the shim stack will remain visible to the interior on all four sides. This is typically concealed with drywall and a sill stool. The gap between receptor / sub sill and the wall is protected by the primary sealant. WINCO does not require additional sealant on the interior edge. If the shim stacks are exposed to view after windows are installed, Painter's caulk can be applied for cosmetic purposes.

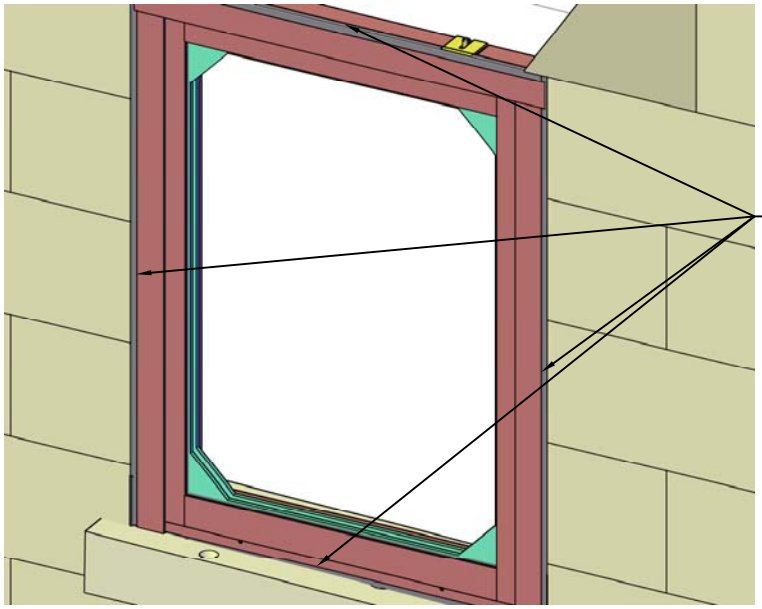

Fig. 21 - Viewed from Building Exterior

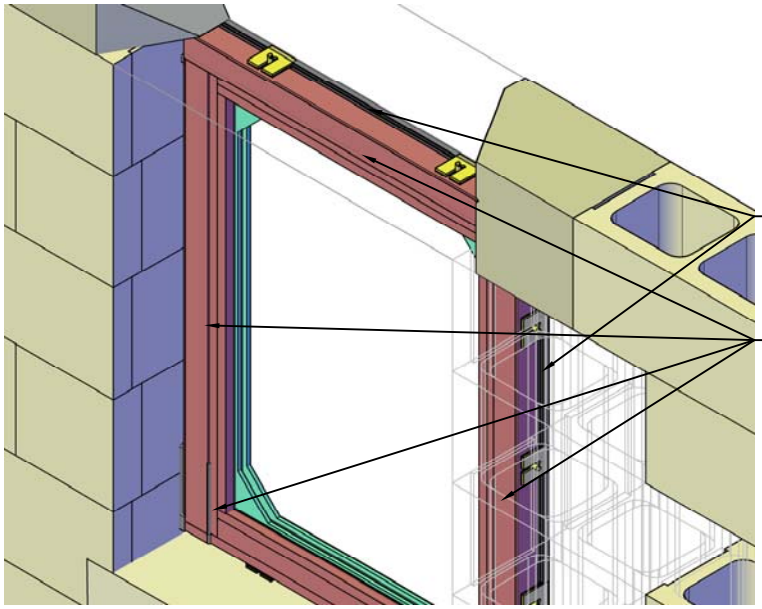

Fig. 22 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

17) If a sill extender is used, insert a foam backer rod between the sill extender and the wall condition. See Fig. 23

18) Apply a bead of silicone sealant and tool as required. See Fig. 24

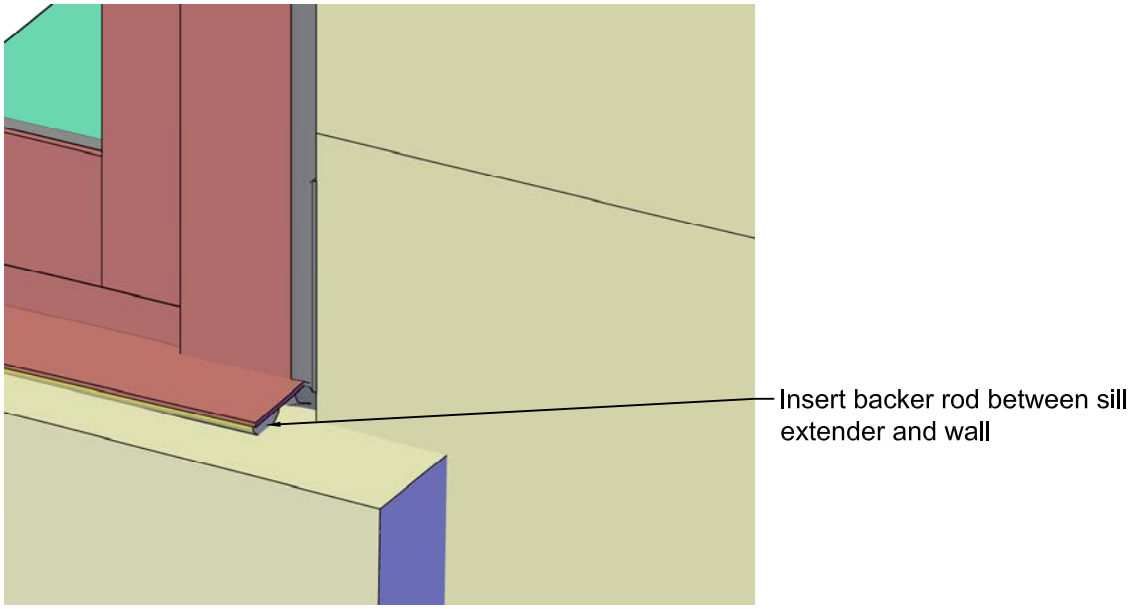

Fig. 23

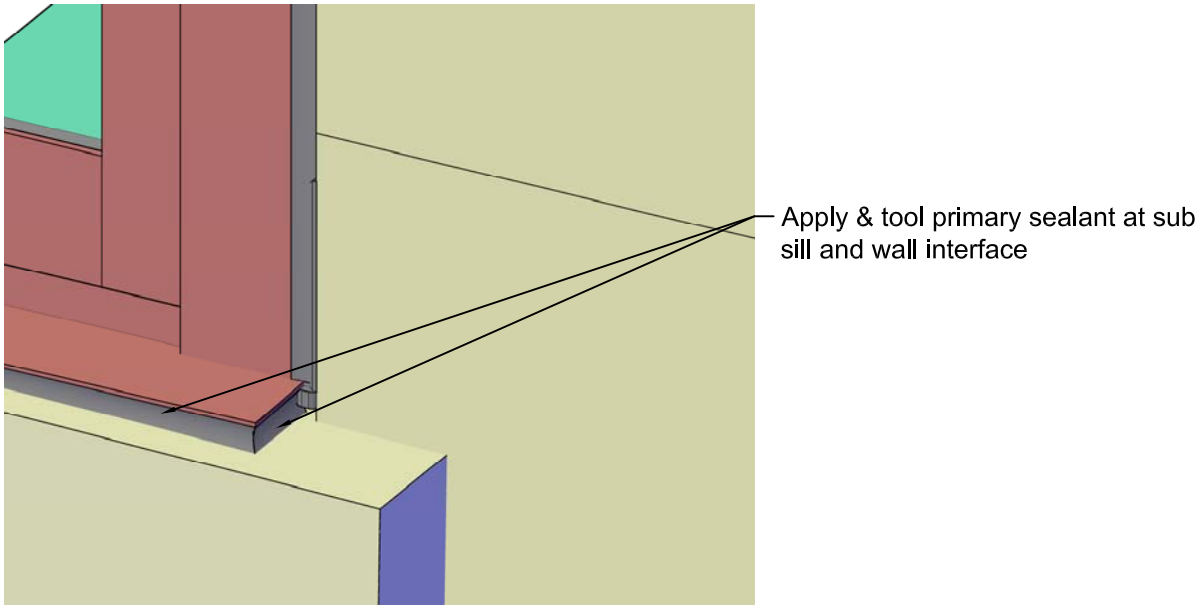

Fig. 24

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