

Gemini clips to be installed at mullion ends

**EXTERIOR ELEVATION**

MAX. FRAME SIZE (IN.)	IMPACT
72" x 72" OPERATOR	NO
72" x 72" FIXED	NO

**FRAME ANCHOR REQUIREMENTS TABLE**

FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
#10 PFH screws into frame and wood substrate	1-1/4"	See pg. 3
#8 PFH Zinc treated screws into clip and wood substrate at an angle	1-1/2"	—
#8 PFH Zinc treated screws into clip and frame	FULL	See pg. 2

**Installation Method**

Installation Clips	Screws thru the Frame
<p><b>Operating Unit</b> Sides = 14-13/32" from corners &amp; on center Head &amp; Sill = 18" from corners &amp; on center</p> <p><b>Fixed Unit</b> Sides = 14-13/32" from corners &amp; on center Head &amp; Sill = 12" from corners &amp; on center</p>	<p><b>Operating Unit</b> Sides = #10 PFH screws spaced 12" from corners and on center. Head &amp; Sill = #10 PFH screws spaced 12" from corners and on center.</p> <p><b>Fixed Unit</b> Sides = #10 PFH screws spaced 9" from corners and on center. Head &amp; Sill = #10 PFH screws spaced 10-19/64" from corners and on center.</p>

**GENERAL NOTES**

- These units have been tested, analyzed, Hallmark certified, and FBC approved.
- Bucking, openings, and bucking fasteners must be properly designed and installed to transfer wind loads to the structure. The unit was tested with 1/2" rough opening gap.
- These units were tested with ponderosa pine bucks. Florida Building Code requires preservative treated southern pine bucks.
- All hardware and fasteners shall be in accordance with these drawings and may not vary unless specifically mentioned on the drawings.
- These units have been tested in accordance with and meet the requirements of the Florida Building Code.
- Impact shutters are required only with non-impact units.
- All anchors shall be installed as specified on these drawings. Specified embedment base material shall be beyond wall finish or stucco.
- Testing of one wood species covers all other species with an equal or higher modulus of elasticity and modulus of rupture.
- Testing of primed covers testing of clad provided the cladding is not structural (extruded) or wraps around the gasket.
- Testing of windows and door with a given width and thickness of solid stiles and rails covers products with wider and thicker solid stiles and rails provided that construction details are consistent.
- Any fixed geometric shape that fits within the tested/approved size for a particular product type is qualified by the rectangular shape(s) provided the frame, sash, panels, components, and construction remain the same.
- All fixed shaped units must fit inscribed into the allowable rectangular units and be governed by allowable design pressure or the respective rectangular unit.
- Shims need to be located a maximum of 4" from each corner and a maximum of 4" from each anchor location.
- Testing of a combination assembly qualifies the individual units of that assembly with width & height less than or equal to the individual test unit size. Anchorage of the individual units shall be at all perimeter locations in accordance with these drawings.

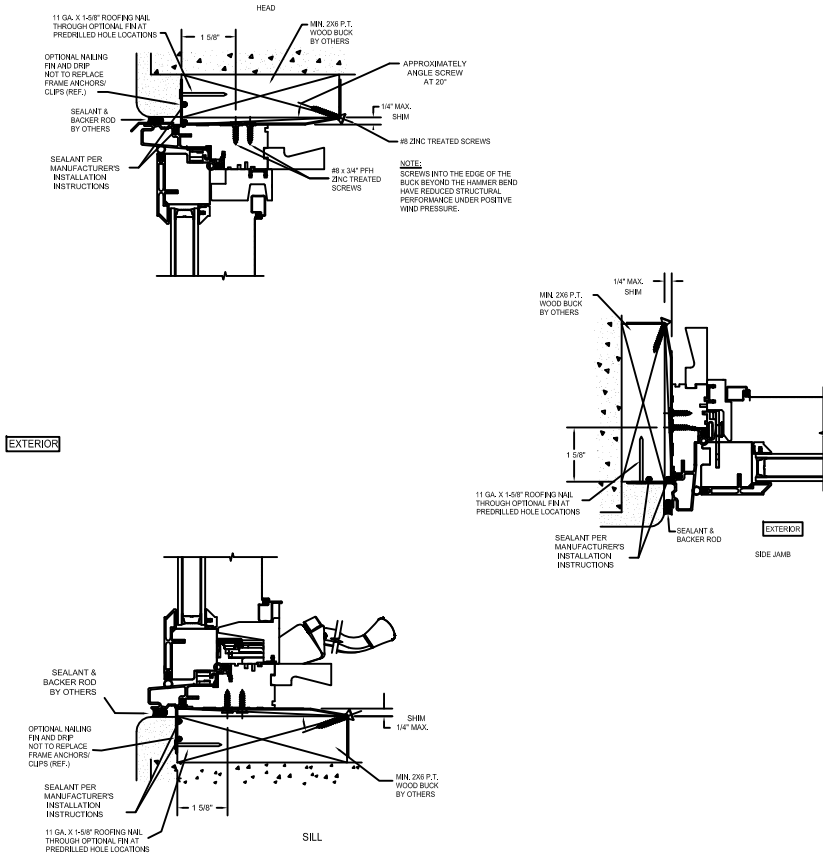
**KOLBE** 1323 South 11th Ave.  
Wausau, WI 54401  
715-842-5666  
■ WINDOWS & DOORS ■

**Ultra Series**  
Operating/Fixed Casement

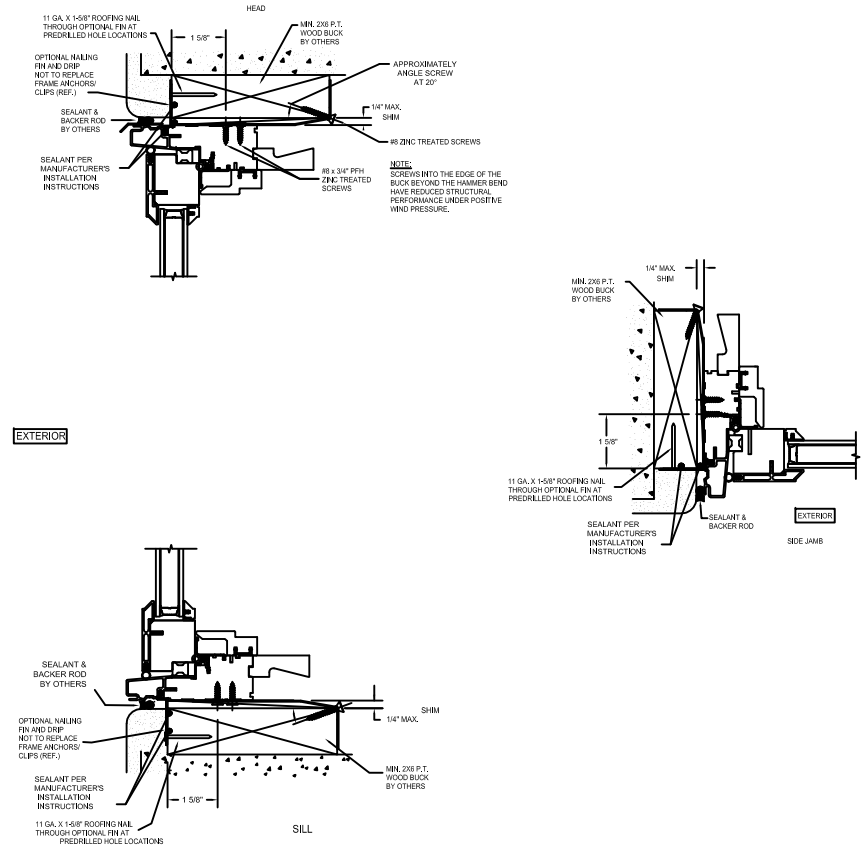
FL# 22001	R&D No. 18154
Revision	Drawn By: SES
A	Date: 01/11/23
B	Sheet: 1 of 3
C	Drawing No. 18154

# Installation Clip Installation - Combination Units

## Casement



## Casement Picture



### GENERAL NOTES

- These units have been tested, analyzed, Hallmark certified, and FBC approved.
- Bucking, openings, and bucking fasteners must be properly designed and installed to transfer wind loads to the structure. The unit was tested with 1/2" rough opening gap.
- These units were tested with ponderosa pine bucks. Florida Building Code requires preservative treated southern pine bucks.
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- These units have been tested in accordance with and meet the requirements of the Florida Building Code.
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- Shims need to be located a maximum of 4" from each corner and a maximum of 4" from each anchor location.
- Testing of a combination assembly qualifies the individual units of that assembly with width & height less than or equal to the individual test unit size. Anchorage of the individual units shall be at all perimeter locations in accordance with these drawings.

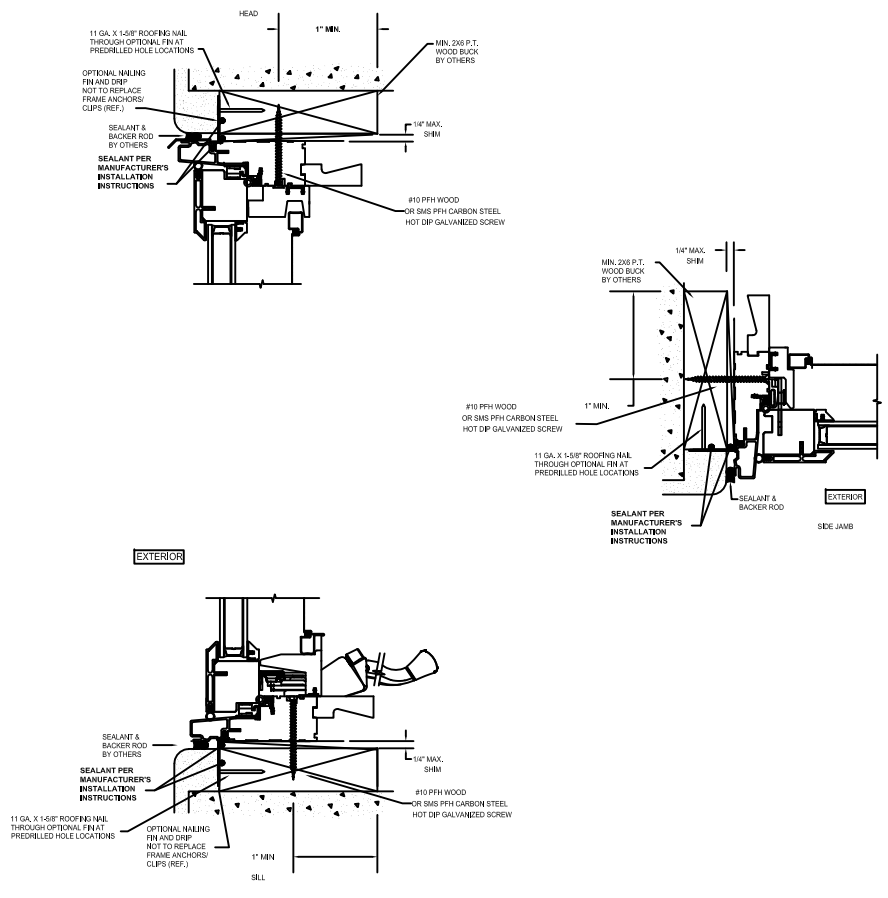
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### Ultra Series Operating/Fixed Casement

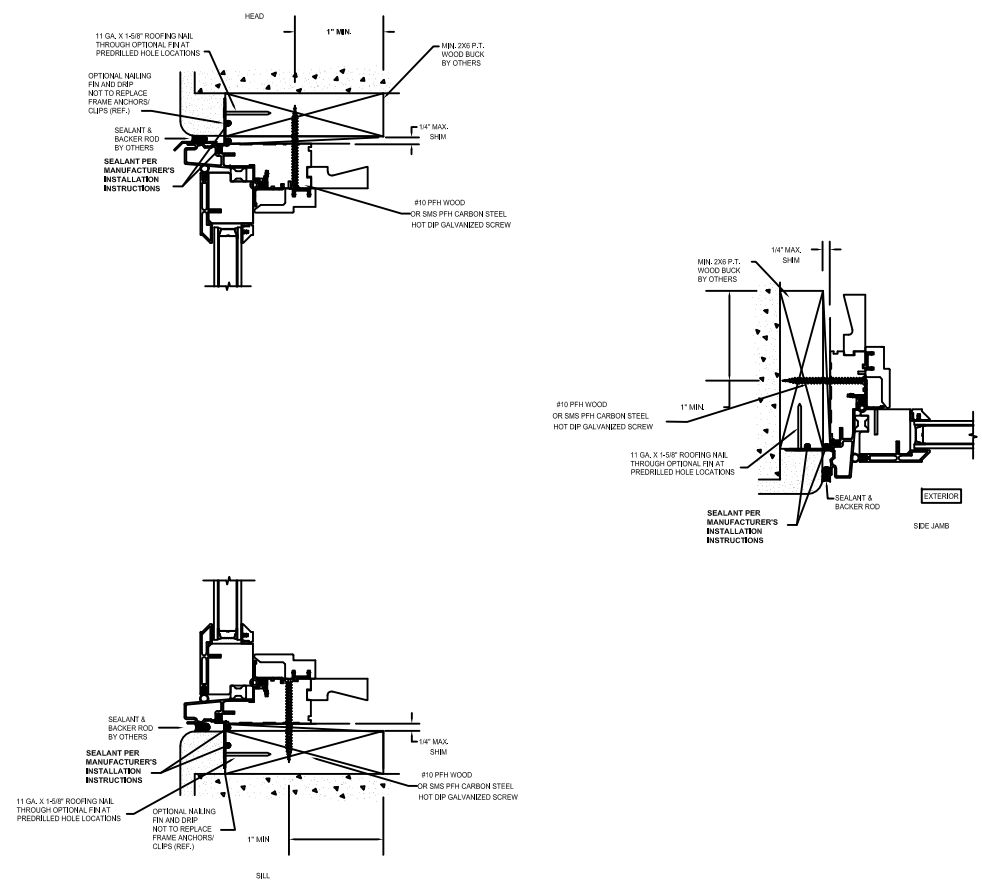
FL# 22001	R&D No. 18154
Revision	Drawn By: SES
A	Date: 01/11/23
B	Sheet: 2 of 3
C	Drawing No. 18154A

**Screw Installation - Combination Units**

**Casement**



**Casement Picture**



**GENERAL NOTES**

1. These units have been tested, analyzed, Hallmark certified, and FBC approved.
2. Bucking, openings, and bucking fasteners must be properly designed and installed to transfer wind loads to the structure. The unit was tested with 1/2" rough opening gap.
3. These units were tested with ponderosa pine bucks. Florida Building Code requires preservative treated southern pine bucks.
4. All hardware and fasteners shall be in accordance with these drawings and may not vary unless specifically mentioned on the drawings.
5. These units have been tested in accordance with and meet the requirements of the Florida Building Code.
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7. All anchors shall be installed as specified on these drawings. Specified embedment base material shall be beyond wall finish or stucco.
8. Testing of one wood species covers all other species with an equal or higher modulus of elasticity and modulus of rupture.
9. Testing of primed covers testing of clad provided the cladding is not structural (extruded) or wraps around the gasket.
10. Testing of windows and door with a given width and thickness of solid stiles and rails covers products with wider and thicker solid stiles and rails provided that construction details are consistent.
11. Any fixed geometric shape that fits within the tested/approved size for a particular product type is qualified by the rectangular shape(s) provided the frame, sash, panels, components, and construction remain the same.
12. All fixed shaped units must fit inscribed into the allowable rectangular units and be governed by allowable design pressure or the respective rectangular unit.
13. Shims need to be located a maximum of 4" from each corner and a maximum of 4" from each anchor location.
14. Testing of a combination assembly qualifies the individual units of that assembly with width & height less than or equal to the individual test unit size. Anchorage of the individual units shall be at all perimeter locations in accordance with these drawings.

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**Ultra Series  
Operating/Fixed Casement**

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Revision	Drawn By: SES
A	Date: 01/11/23
B	Sheet: 3 of 3
C	Drawing No. 18154B