



FeelSafe & FeelSafe IG
Monument Double Hung/Single Hung
Operating Window Muller to Picture Window
with 1/4" x 5" Aluminum Vertical Plate Mull
103.06" x 76.63"
Screw Thru Frame & L-Clip Installation / Impact

Element Materials Technology TEST REPORT #: **ESP015004P-1482**

**FeelSafe Monument Clad Double Hung/Single Hung Operating Muller to Picture Window with 1/4"x5"
Aluminum Vertical Plate Mull Reinforcement Thru Frame & L-Clip Install/WDMA Instruction / Impact**

SHEET: 1 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

TEST REPORT SUMMARY:

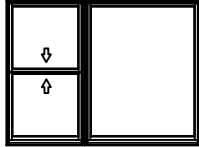
- OVERALL BASIC UNIT FRAME SIZE:
103.06" (2618mm) x 76.63" (1946mm)
DOUBLE HUNG OPERATING UNIT MAXIMUM SIZE:
41.31" (1049mm) X 76.63" (1946mm)
DOUBLE HUNG PICTURE UNIT MAXIMUM SIZE:
61.31" (1557mm) X 76.63" (1946mm)
- OVERALL DESIGN PRESSURE: **+65 / - 85 psf**
- RATING: **+65/-85, Missile D, Wind Zone 4**

DATE: 07/29/14

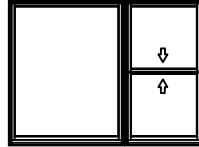
DWG. No.: HURD0003

QUALIFIES:

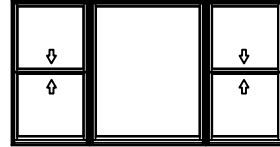
OPERATOR / PICTURE



PICTURE / OPERATOR

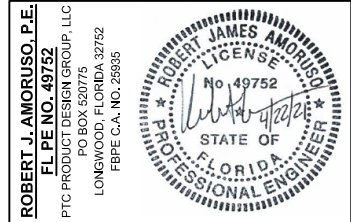


OPERATOR / PICTURE / OPERATOR



NOTES:

- Single unit installation do not require l-clips at sill.
- Double hung operating window shown, also qualifies single hung window units.



THRU FRAME & L-CLIP ANCHOR REQUIREMENTS TABLE

THROUGH FRAME UTILIZING SCREWS & L-CLIPS

Opening type (Substrate)	JAMB TO OPENING FASTENER TYPE, FASTENER SPACING	Minimum embed	Minimum edge distance
2X_ Wood frame or buck	4. Double Hung Operating Unit: • Head: Install #10 x 2-1/2" PFH SS screws 6" from the outside corner and (1) at mid-span. • Jamb: Install #10 x 2-1/2" PFH SS screws 6" down from the corner then 15"-17" on center and 6" to the sill corner. Picture Unit: • Head: Install #10 x 2-1/2" PFH SS screws 6" from the outside corner then 11.5"-13.5" on center. • Jamb: Install #10 x 2-1/2" PFH SS screws 6" from the head corner then at 12"-14" on center and 6" to the sill corner. Sill: • Install 1-1/2" x 5" 20 gauge galvanized hurricane L-clips spaced 6" from the outside corner and one mid-span of the double hung and 6" from the outside corner of the picture and the 15"-17" on center thereafter. Each clip is installed with (3) #6 x 1/2" Tek screws into the window unit sill & (2) #8 x 1-1/4" PPH screws & into the wood buck framing material. Mull Locations: • Head: Install #10 x 2-1/2" PFH SS screws thru the unit head jamb of the double hung and the picture into the wood buck framing material, spaced 3", 4.5" & 6" on each side of the vertical mull seam, for a total of (6) screws. • Sill: Install 1/2" x 5" 20 gauge galvanized hurricane L-clips. Each clip is installed with (3) #6 x 1/2" Tek screws into the window unit sill & (2) #8 x 1-1/4" PPH screws into the wood buck framing material spaced 3 & 6" from each side of the vertical mull.	1-1/4"	3/4"
		Maximum shim space	Shim Placement
		1/4" each side	Every 6-10"

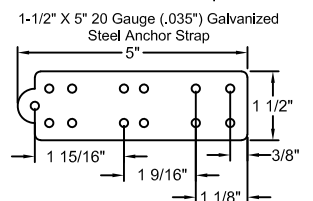
Anchors must be into a min. 2x_ wood member. If space between wall frame & window frame is greater than that required for a 2x_ wood member and a space exists, the space must be filled with a wood member of equal depth to the window frame member or buck and of length = min. 20". the frame anchor must then be run through the frame & wood shim and into the opening.

INSTALLATION NOTES:

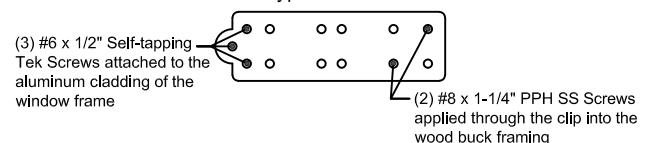
1. Anchors must be into a min. 2x_ wood member. If space between wall frame & window frame is greater than that required for a 2x_ wood member and a space exists, the space must be filled with a wood member of equal depth to the window frame member or buck and of length = min. 20". The frame anchor must then be run through the frame & wood shim and into the opening.
2. Use 2" x _ wood frame or buck.
 - Sill must be a minimum of 7" when installing with the 1/4" vertical aluminum plate mull.
 - Sill may be 2 piece construction.
 - Single unit installation do not require L-clips at sill.
 - Single unit installation require separate framing or the use of 2" tube mull.
3. 1/4" maximum shim space at head, sill & jambs.
 - Place wood shim every 6-10" and where screw anchors are located.
4. 1-1/4" minimum fastener embedment into framing material, silicone seal over screw heads. See ANCHOR REQUIREMENTS TABLE above and SCREW TYPES & LOCATIONS FOR HURRICANE L-CLIPS at right.
5. Cap bead between the window frame and the buck, full perimeter.
6. MAXIMUM WINDOW SIZES: B.U.S. (Basic Unit Size) =
DOUBLE HUNG/SINGLE HUNG OPERATING UNIT MAXIMUM SIZE: **41.31" (1049mm) X 76.63" (1946mm)**
PICTURE UNIT MAXIMUM SIZE: **61.31" (1557mm) X 76.63" (1946mm)**
7. See Sheet 3 for GLAZING SPECIFICATION.

- Check rough opening for proper size, plumb, level and square.
- Make all necessary adjustments to ensure rough opening is plumb, level & square.
- Sill must be flat, level and capable of supporting the weight of the unit.
- Opening should allow a maximum of 1/4" shim space at head, sill and jambs.
- Wood buck, framing, fasteners, sealant and all wall system materials are provided by others.

Hurricane L-Clip



Screw types for Sill Location



Screw Thru Frame & L-Clip Installation / Impact

DWG. No.: HURD0003

Installation requirements may vary in particular locations and in other types of construction. Proper installation is essential, and Hurd Windows & Doors, recommends consultation with an AAMA Certified Installer, or other qualified, registered building professional before installation of any Hurd product. Proper installation of Hurd products is the responsibility of the installer. Hurd is not responsible for proper installation. Hurd is not responsible for the design of, conditions in, or performance of building construction beyond the perimeters of the Hurd units. Hurd is not responsible for proper integration of the Hurd units with the weather-repellent systems of the building.



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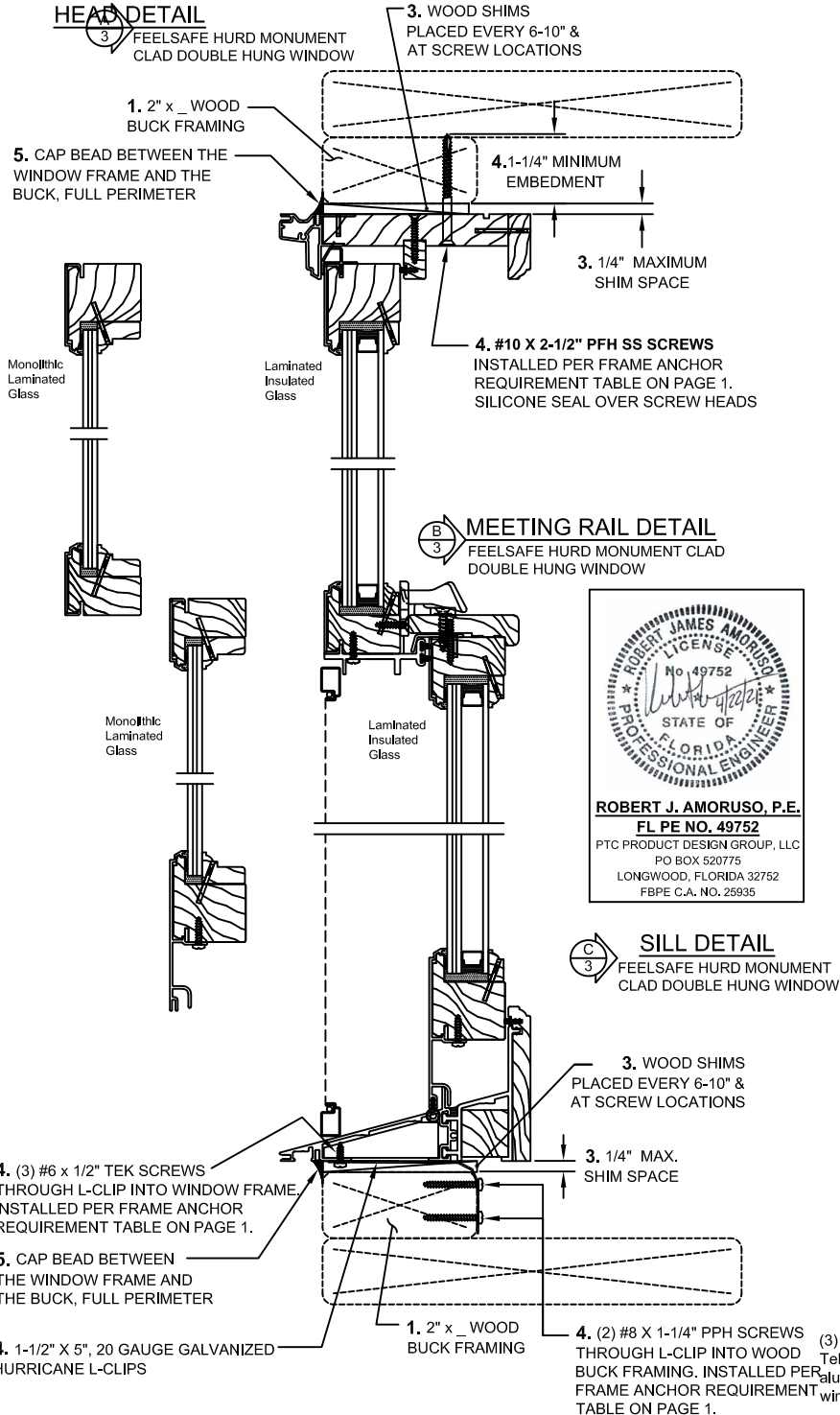
SHEET: 3 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

TEST REPORT SUMMARY:	
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- RATING: +65/-85, Missile D, Wind Zone 4	
DATE: 07/29/14	DWG. No.: HURD0003



NOTES:

- Double hung shown, also qualifies single hung units.
- Single unit installation do not require l-clips at sill.

GLAZING SPECIFICATION

Laminated Insulated Glass - DH/SH

15/16" O.A. Thickness IGU Old Castle KeepSafe: consisting of 3mm tempered interior lite x .438" aluminum box spacer bar x 8.6mm lami consisting of 3mm annealed glass x .090" Saflex PVB Interlayer x 3mm annealed glass

Laminated Insulated Glass - Picture Window

1.023" O.A. Thickness IGU Old Castle KeepSafe: consisting of 6mm annealed interior lite x .438" aluminum box spacer bar x 8.6mm lami consisting of 3mm annealed glass x .075" Saflex CP or Oldcastle StormGlass interlayer x 3mm annealed glass.

Monolithic Laminated Glass - DH/SH

11/32" O.A. Thickness Single Laminated Old Castle KeepSafe: consisting of 3mm annealed glass x .090" Saflex PVB interlayer x 3mm annealed glass.

Monolithic Laminated Glass - Picture Window

9/16" O.A. Thickness Single Laminated Old Castle KeepSafe: consisting of 6mm heat strengthened glass x .100" Saflex HP Interlayer x 6mm heat strengthened glass.

MD NOA Component Approvals. Current 2020 FBC approvals shown. Later approvals may be applicable.

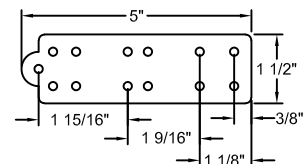
- Saflex PVB Interlayer: NOA No. 20-0622.01
- Saflex HP Interlayer: NOA No. 20-0622.02
- Saflex CP Interlayer: NOA No. 20-0622.03
- Oldcastle Stormglass Interlayer: NOA No. 20-0622.07

Notes:

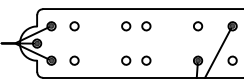
1. A minimum of two (2) neoprene setting blocks with 70 to 90 shore a durometer hardness are required at bottom (sill) of glazing lites more than 3 feet in width.
2. As-tested single-ply laminated and IGU laminated systems shown.
3. Glazing Stop Attachment:
 - 3.1. Mechanically attached to adjacent panel member.
 - 3.2. Continuous bead of Tremco S-900 glazing compound 1/8" x 1/4" applied to the glass/exposed sash cladding with a 9/16" glass bite and backfilled.
 - 3.3. Interior glazing stops secured with 1" galvanized T-nails spaced 2" from each corner and 8" - 10" on center thereafter. 3m bump-on glass shims placed between glass and sash cladding.

Hurricane L-Clip

1 1/2" X 5", 20 GAUGE (.035") GALVANIZED STEEL ANCHOR STRAP



Screw types and locations for Hurricane L-Clips
At the Sill



(2) #8 x 1-1/4" PPH SS Screws applied through the clip into the wood buck framing



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DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

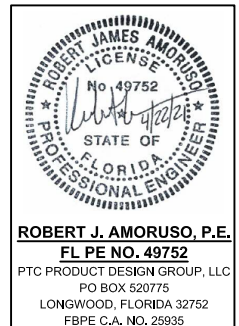
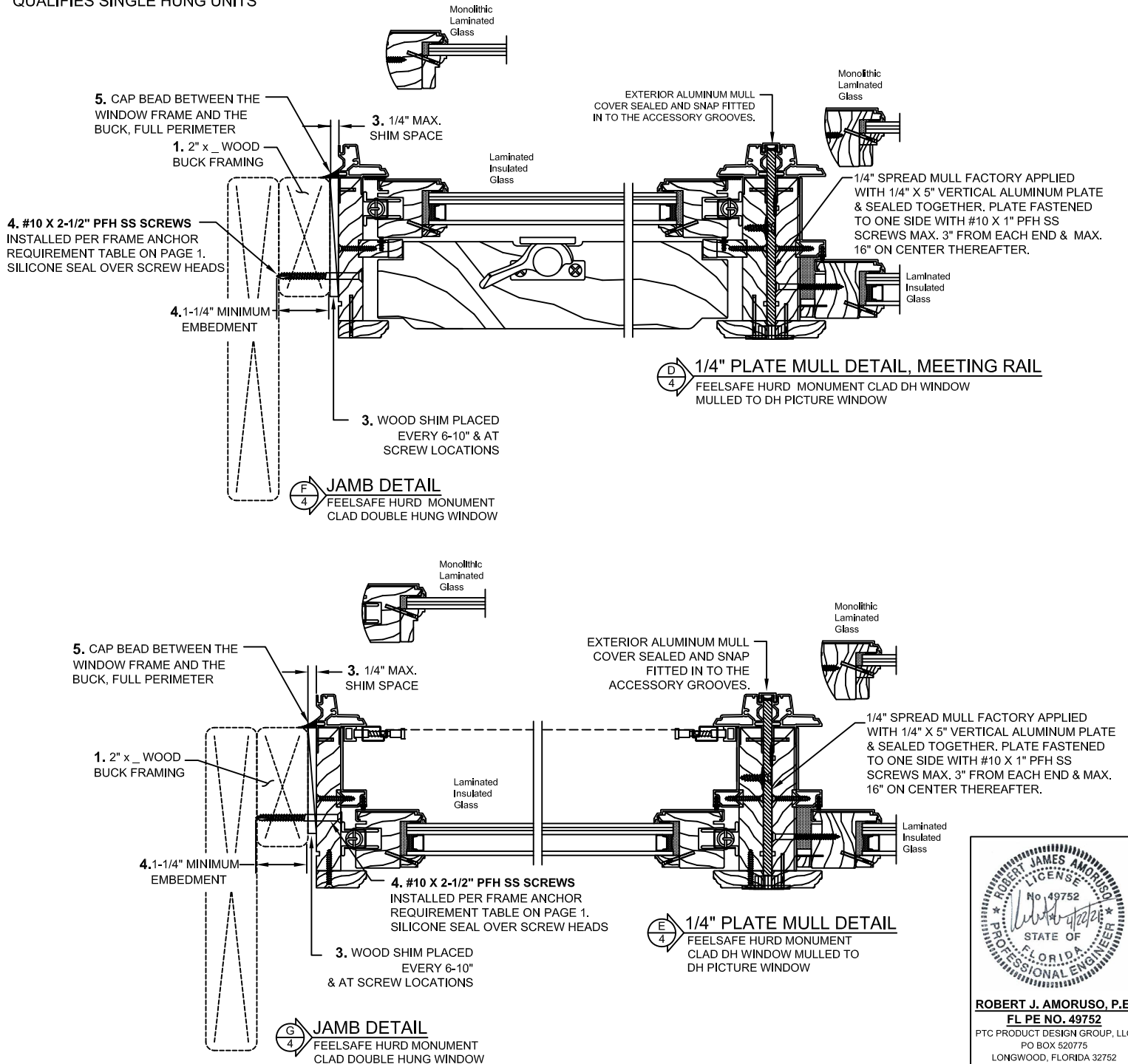
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NOTE:
DOUBLE HUNG SHOWN, ALSO
QUALIFIES SINGLE HUNG UNITS



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DRAWN BY: H.W.D.

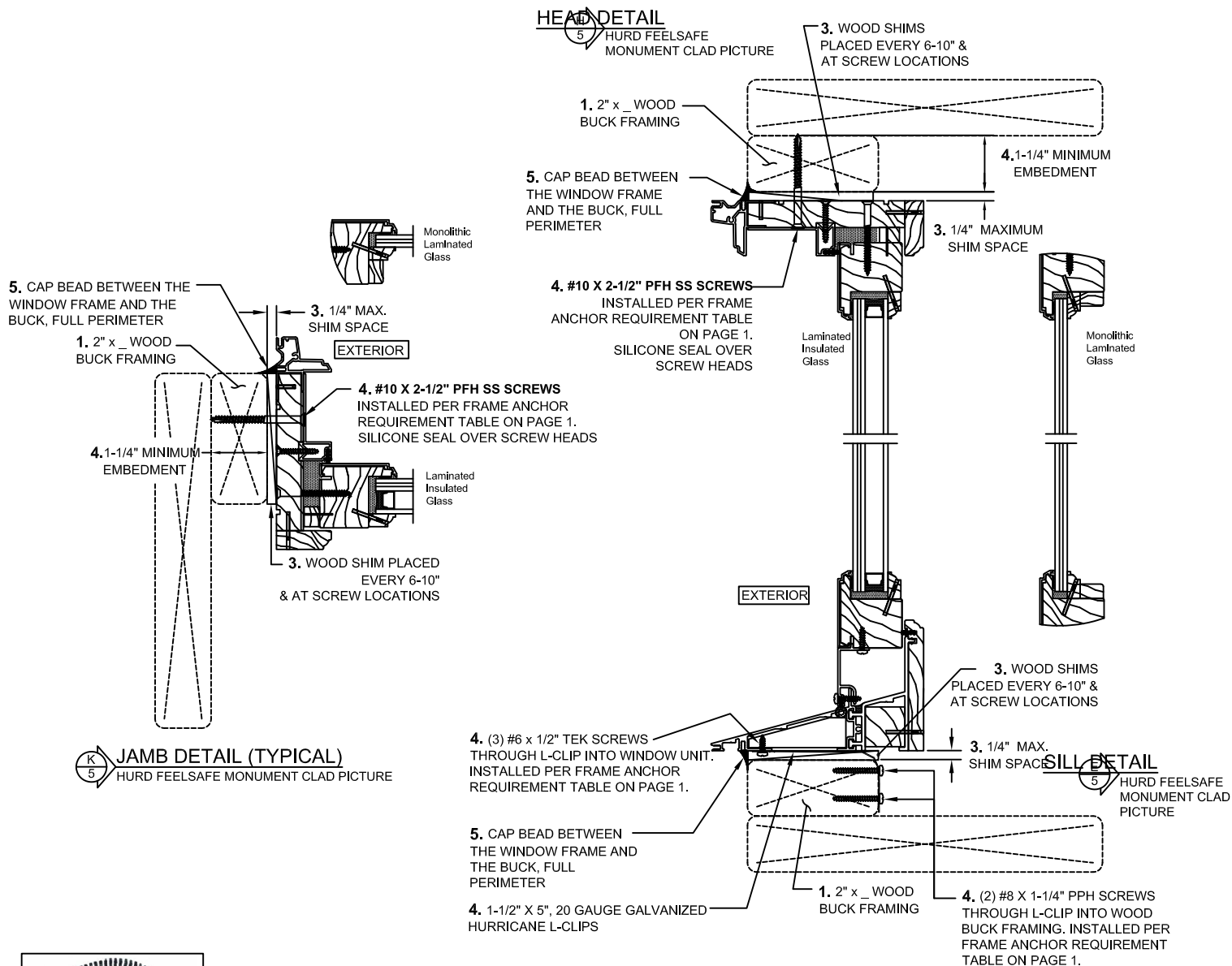
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