



CCL Listing# 436-H-615.74-76

Element Materials Technology TEST REPORT #: ESP015004P-1482

FeelSafe Monument Clad Double Hung/Single Hung 2-Wide Operating Window
w/ 1/4" x 5" Aluminum Vertical Plate Mull Reinforcement, Screw Thru Frame & L-Clip Install/WDMA

SHEET: 1 OF 4

UPDATED: 9/12/2018

DRAWN BY: BK

TEST REPORT SUMMARY:

- OVERALL BASIC UNIT FRAME SIZE:

96.25" (2445mm) x 100" (2540mm)

DOUBLE HUNG/SINGLE HUNG OPERATING UNIT MAX.
SIZE: 48.00" (1219mm) X 100" (2540mm)

- OVERALL DESIGN PRESSURE: +60 / - 60 psf

- RATING: +60/-60, Missile D, Wind Zone 4

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 Units: • Head & Jamb: Install #10 x 2-1/2" PFH SS screws 6" from the outside corner and 14-15" On Center thereafter. Sill: • Install 1-1/2" x 5" 20 gauge galvanized hurricane L-clips spaced 6" from the outside corner and one mid-span. Each Unit. 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 into the wood buck framing material, spaced 3" & 6" on each side of the vertical mull seam, for a total of (4) screws. • Sill: Install 1-1/2" 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, for a total of (4) L-clips.	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.

3. 1/4" maximum shim space at head, sill & jamb.

- 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.

5. Cap bead between the window frame and the buck, full perimeter.

6. Maximum window basic unit frame size =

- Overall basic unit frame size: **96.25" (2445mm) x 100" (2540mm)**

- Double hung/single hung *operating single unit* maximum size: **48.00" (1219mm) X 100" (2540mm)**

- Check rough opening for proper size, plumb, level and square.

- Make all necessary adjustments to ensure rough opening is plumb, level & square.

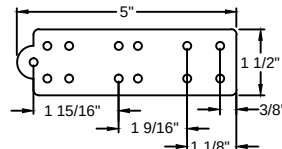
- Sill must be flat, level and capable of supporting the weight of the unit.

- Opening should allow a maximum of 1/4" shim space at head, sill and jamb.

- Wood buck, framing, fasteners, sealant and all wall system materials are provided by others.

Hurricane L-Clip

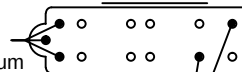
1 1/2" X 5", 20 GAUGE (.035") GALVANIZED
STEEL ANCHOR STRAP



Screw types and locations for
Hurricane L-Clips

At the Sill

(3) #6 x 1/2" Self-tapping Tek
Screws attached to the aluminum
cladding of the window frame



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



Monument Double Hung/Single Hung Operating 2-Wide Window

w/ 1/4" x 5" Aluminum Vertical Plate Mull

96.25"W x 100"H Mull Assembly

Screw Thru Frame & L-Clip Installation / Impact

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SHEET: 2 OF 4

UPDATED: 9/12/2018

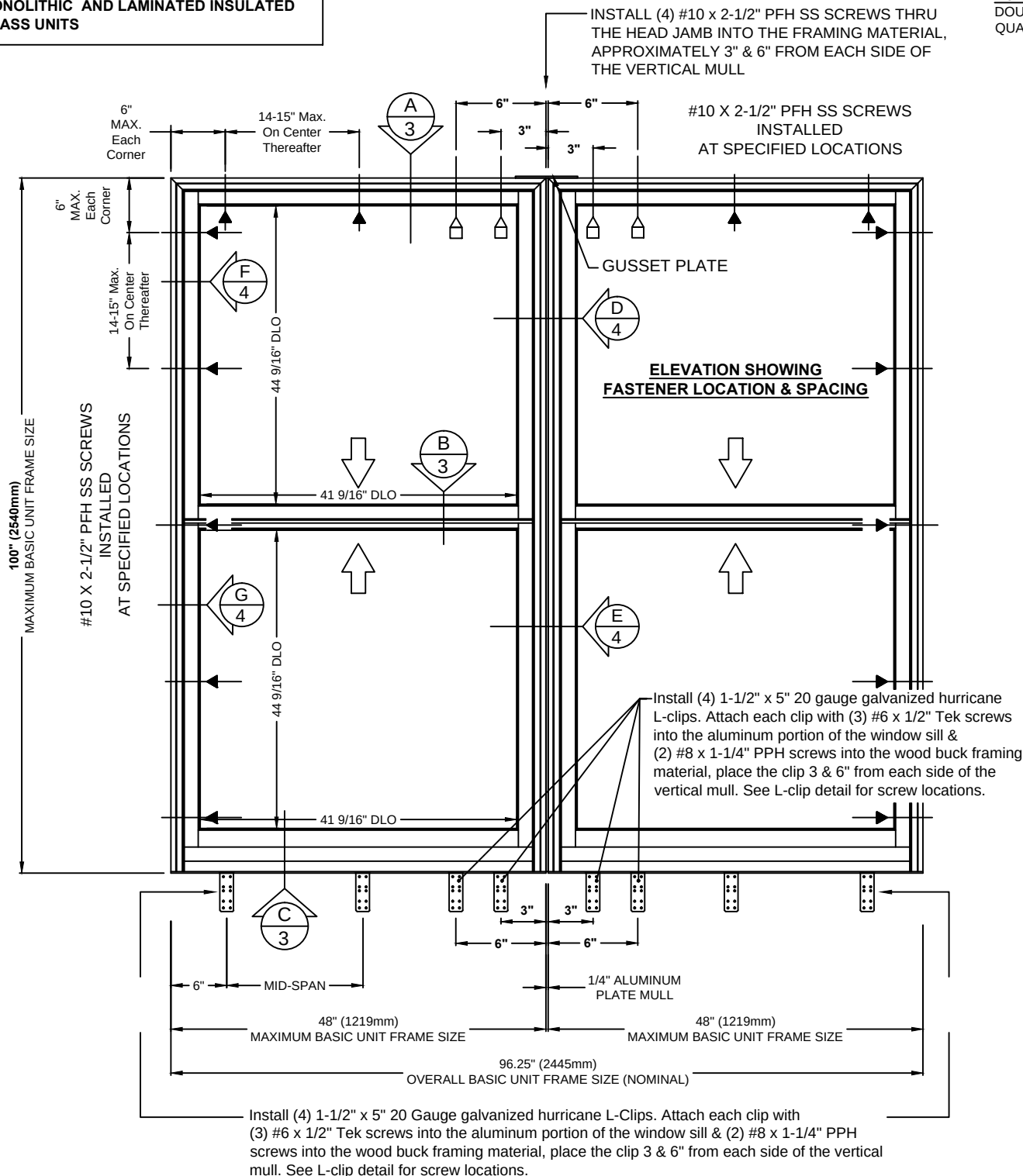
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- RATING: +60/-60, Missile D, Wind Zone 4

**PLEASE NOTE: INSTALLATION SHOWN IS FOR
MONOLITHIC AND LAMINATED INSULATED
GLASS UNITS**

NOTE:
DOUBLE HUNG SHOWN, ALSO
QUALIFIES SINGLE HUNG UNITS



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96.25"W x 100"H Mull Assembly

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SHEET: 3 OF 4

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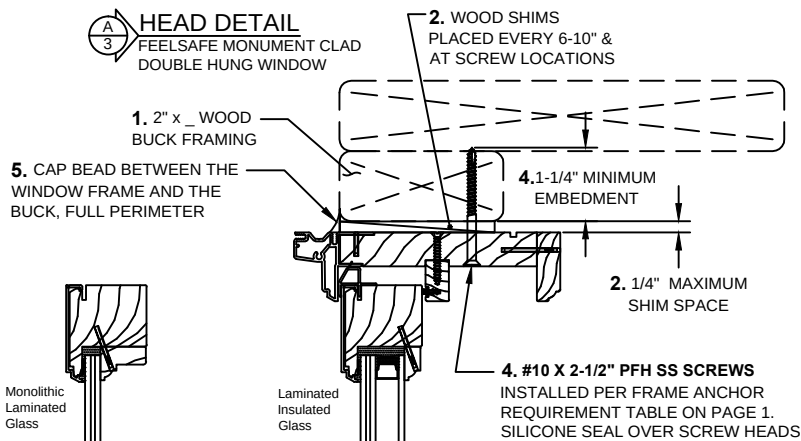
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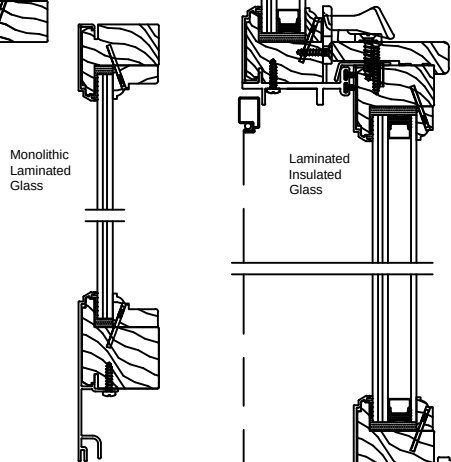
HEAD DETAIL

FEELSAFE MONUMENT CLAD
DOUBLE HUNG WINDOW



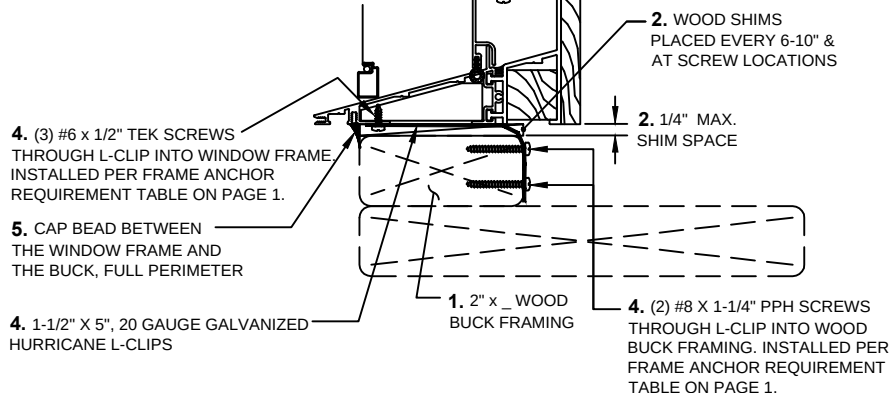
MEETING RAIL DETAIL

FEELSAFE MONUMENT CLAD
HUNG WINDOW



SILL DETAIL

FEELSAFE MONUMENT CLAD
DOUBLE HUNG WINDOW



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 CARDINAL: CONSISTING OF 4mm TEMPERED INTERIOR LITE X .438" STAINLESS STEEL BOX SPACER X 8.6mm LAMI CONSISTING OF 3mm ANNEALED GLASS X .090" SAFLEX PVB INTERLAYER X 3mm ANNEALED GLASS

MONOLITHIC LAMINATED GLASS - DH/SH

11/32" O.A. THICKNESS SINGLE LAMINATED CARDINAL: CONSISTING OF 3mm ANNEALED GLASS X .090" SAFLEX PVB INTERLAYER X 3mm ANNEALED GLASS.

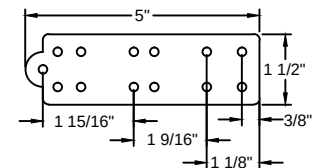
SAFLEX PVB INTERLAYER: NOA No. 18-0301.05

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 SYSTEM 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 BACKFILL.
 - 3.3. INTERIOR GLAZING STOPS SECURED WITH 1" GALVANIZED T-NAILS SPACED 2" FROM EACH CORNER AND 8" - 10" ON CENTER THEREAFTER. 3mm BUMP-ON GLASS SHIMS PLACED BETWEEN GLASS AND SASH CLADDING.

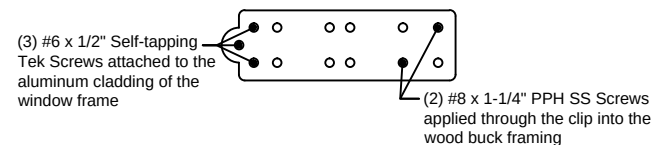
Hurricane L-Clip

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