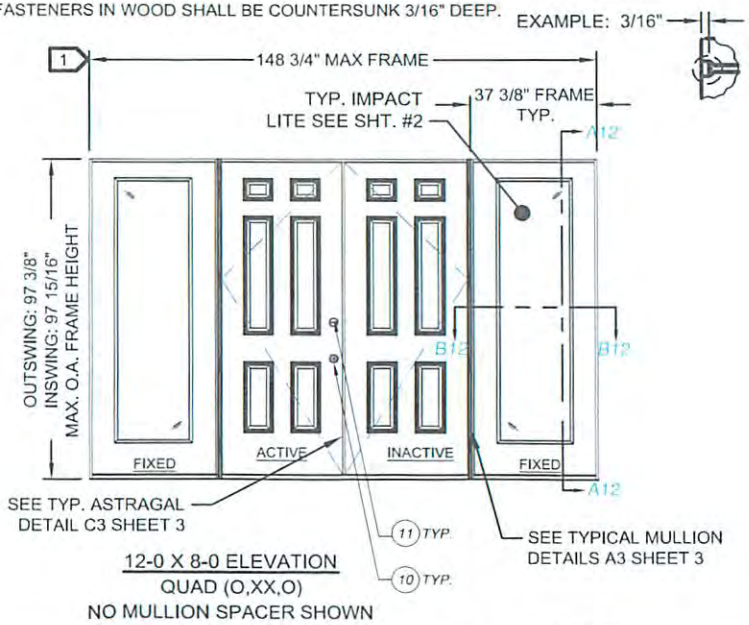
JELD-WEN DOOR INSTALLATION DETAILS
SMOOTH PRO/DESIGN PRO FIBERGLASS IMPACT OPAQUE WITH FULL LITE 3'-0" SIDELITES UP TO 12'-0" X 8'-0" OUTSWING/INSWING

TABLE 1

		DESIGN PRESSURE RATING:	
SIZE		8-0 TALL OPAQUE SYSTEMS (ALL WITH COMBINATION BACK-TO BACK MULLIONS UP TO 4 UNITS)	
MAX. PANEL WIDTH = 35 3/4"		SINGLE OR DOUBLE DOOR WITH OR WITHOUT SIDELITES 5	
		(O) (X) (XX)	(O,X) (X,O) (X,O,X) (O,O,X) (X,O,O) (XX,O) (O,XX) (O,XX,O)
OUTSWING	POSITIVE	+ 50*	+ 45*
	NEGATIVE	- 50*	- 45*
INSWING	POSITIVE	+ 50*	+ 45*
	NEGATIVE	- 50*	- 45*

GENERAL NOTES

1. THIS PRODUCT IS DESIGNED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE (I.B.C.) & INTERNATIONAL RESIDENTIAL CODE (I.R.C.) AND 2006 TEXAS REVISONS BASED ON THE SIGNED AND SEALED DATE, AND HAS BEEN EVALUATED IN ACCORDANCE TO ASTM E330-02, E283-04, E1886-05, E1996-06 AND AAMA 1304-02.
2. 1X AND 2X WOOD BUCKS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE. SEE DETAILS ON SHEET 8 FOR 1X OPTIONAL MASONRY/CONCRETE INSTALL AND SHEET 11 FOR 2X BUCK INSTALL. BUCK MATERIAL MUST HAVE A SPECIFIC GRAVITY OF 0.42 OR GREATER.
3. PRODUCT ANCHOR TYPES AND SPACING ARE SHOWN ON SHEETS 9 &10. DIMENSIONS SHOWN FOR ANCHOR SPACING ARE ALWAYS FROM EDGE OF UNIT FRAME. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
4. CONCRETE OR MASONRY MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE. CONCRETE MATERIAL SHALL HAVE A MINIMUM Fc OF 3000psi OR MASONRY/CMU SHALL CONFORM TO ASTM C90.
5. TEXAS APPROVED SHUTTERS ARE NOT NEEDED WHEN IMPACT PROTECTION IS REQUIRED.
6. THIS DOCUMENT SUPERCEDES OTHER ANCHOR INSTALLATION INSTRUCTIONS FOR NON-IMPACT RATED DOORS. FOR OTHER IMPORTANT INSTALLATION INSTRUCTIONS, REFER TO JELD-WEN DOCUMENT #JII106 (INSTALLATION INSTRUCTIONS FOR PRE-HUNG ENTRY DOORS) FOUND ON THE JELD-WEN WEBSITE: *JELD-WEN.COM/LEARN/RESOURCES/INSTALLATION & FINISHING/.*
7. SIDELITES ARE AN OPTION AND CAN BE USED IN SINGLE OR DOUBLE CONFIGURATION.
8. ALL FASTENERS IN WOOD SHALL BE COUNTERSUNK 3/16" DEEP.

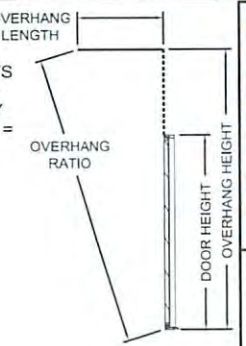


12-0 X 8-0 ELEVATION
QUAD (O,XX,O)
NO MULLION SPACER SHOWN

COMPONENT LIST

ITEM	DESCRIPTION	MATERIAL	QTY.
1	NON-COMPRESSION SHIM (0.25" MAX. THK.)	WOOD	AS REQ.
2	2x WOOD SUB BUCK (S.G. MUST BE 0.42 OR GREATER)	WOOD	AS REQ.
3	1x WOOD SUB BUCK (S.G. MUST BE 0.42 OR GREATER)	WOOD	AS REQ.
4	#10 WOOD INSTALLATION SCREW W/ 1 1/2" MIN. EMBEDMENT	STEEL	AS REQ.
5	CONC./CMU ANCHOR (SEE ANCHOR TABLE SHEETS 5 & 7)	STEEL	AS REQ.
6	#9 X 2 1/2" PHILLIPS FLATHEAD WOOD SCREW	STEEL	2
7	MINIMUM #8 X 2" PHILLIPS FLATHEAD WOOD SCREW	STEEL	AS REQ.
8	#9 X 3/4" PHILLIPS FLATHEAD WOOD SCREW	STEEL	22
9	1" O.A. IG IMPACT UNIT GLAZED BY ODL	ALUMINUM	1 OR 2
10	KWIKSET LOCK SERIES 400	STEEL	1
11	KWIKSET DEADBOLT SERIES 780	STEEL	1
12	PRESSURE TREATED SILL SPACER USED FOR FIXED PANEL	WOOD	1 OR 2
13	BOTTOM SHOOT BOLT STRIKE PLATE (INSWING ONLY)	STEEL	1
14	ASTRAGAL SHOOT BOLT BACK UP PLATE (OUTSIDE HEAD JAMB)	STEEL	1

* NOTE: PRODUCT HAS NOT BEEN RATED FOR WATER INFILTRATION. IF AUTHORITY HAVING JURISDICTION REQUIRES THAT PRODUCT MEETS THIS REQUIREMENT, PRODUCT SHALL BE USED WHEN INSTALLED AT LOCATION PROTECTED BY OVERHANG SUCH THAT OVERHANG (OH) RATIO = OH LENGTH ÷ OH HEIGHT IS ≧ 1.0



SHEET INDEX	
SHEET #	DESCRIPTION
1	GENERAL NOTES, B.O.M. & ELEVATIONS
2	ELEVATIONS AND GLAZING DETAIL
3	MULLING DETAILS
4	OUTSWING VERT. AND HORIZ. SECTIONS IN WOOD
5	OUTSWING VERT. AND HORIZ. SECTIONS MASONRY/CONCRETE
6	INSWING VERTICAL AND HORIZONTAL SECTIONS IN WOOD
7	INSWING VERT. AND HORIZ. SECTIONS IN MASONRY/CONCRETE
8	OPTIONAL MASONRY/CONCRETE ANCHORING DETAILS
9	OUTSWING AND INSWING ANCHORING DETAILS
10	OUTSWING AND INSWING ANCHORING DETAILS
11	OPTIONAL 2X BUCK DETAILS IN MASONRY/CONCRETE
12	FIXED PANEL TO FRAME ATTACHMENT DETAILS

NOTES:
1. MAXIMUM UNIT WIDTHS MAY INCREASE WITH THE ADDITION OF 1X OR 2X MULLIONS.

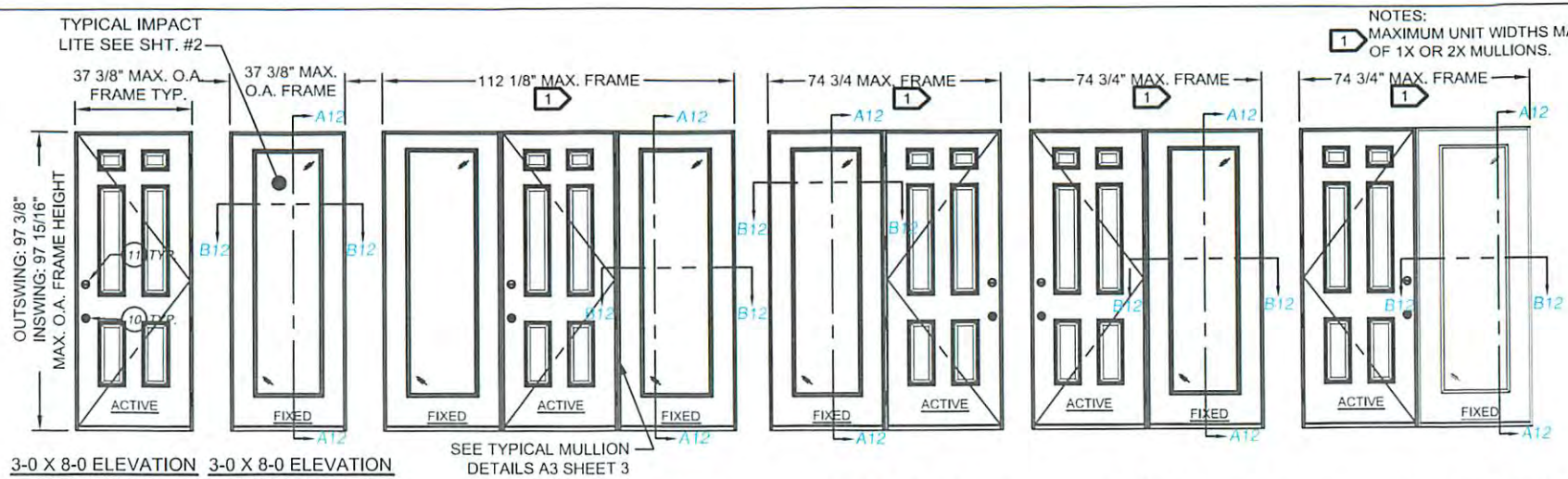
ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: GENERAL NOTES, ELEVATIONS, DP RATINGS AND B.O.M.

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 1 OF 12



3-0 X 8-0 ELEVATION
SINGLE (X)

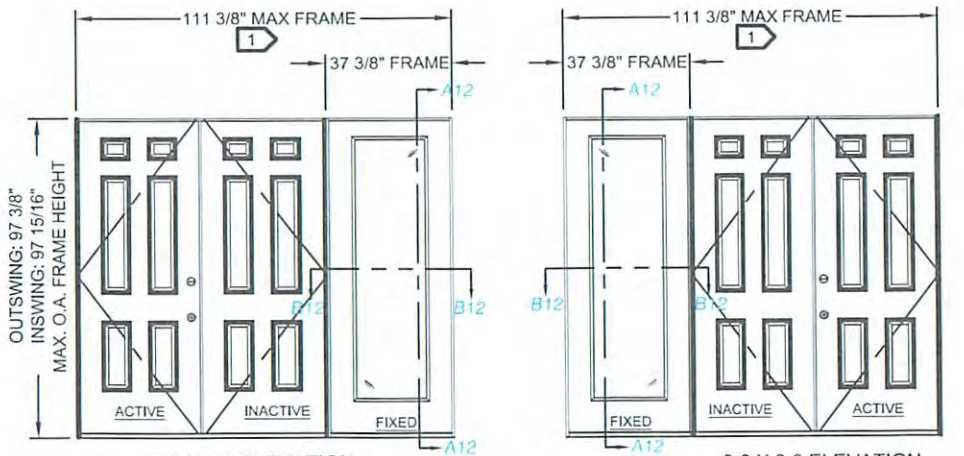
3-0 X 8-0 ELEVATION
FIXED SINGLE (O)

9-0 X 6-8 ELEVATION
TRIPLE (O,X,O)
NO MULLION SPACER SHOWN

6-0 X 6-8 ELEVATION
DOUBLE (O,X)
NO MULLION SPACER SHOWN

6-0 X 6-8 ELEVATION
DOUBLE (X,O)
NO MULLION SPACER SHOWN

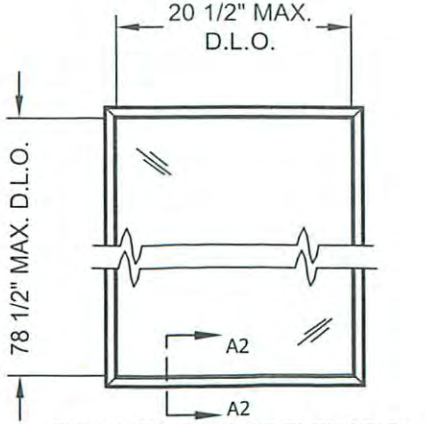
6-0 X 6-8 ELEVATION
DOUBLE (X,O)
NO MULLION SPACER SHOWN



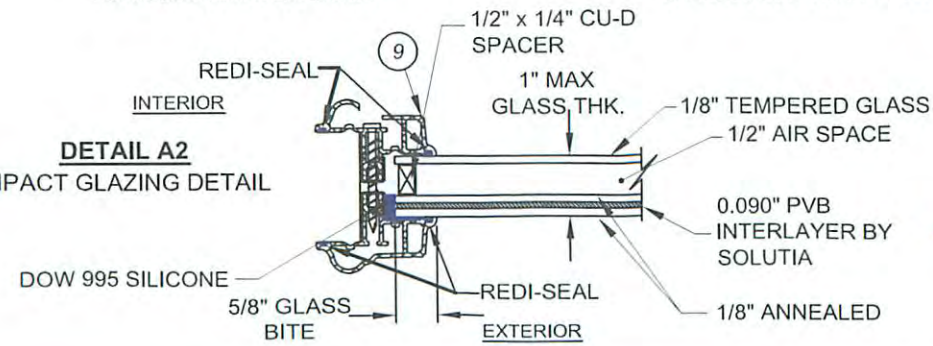
9-0 X 8-0 ELEVATION
TRIPLE (XX,O)
NO MULLION SPACER SHOWN

9-0 X 8-0 ELEVATION
TRIPLE (O,XX)
NO MULLION SPACER SHOWN

6-0 X 6-8 ELEVATION
DOUBLE (XX)



FULL LITE IMPACT ELEVATION
3-0 X 6-8 SHOWN



DETAIL A2
IMPACT GLAZING DETAIL

STATE OF TEXAS
ALEXIS SPYROU
102957
LICENSED
PROFESSIONAL ENGINEER

ALEXIS SPYROU
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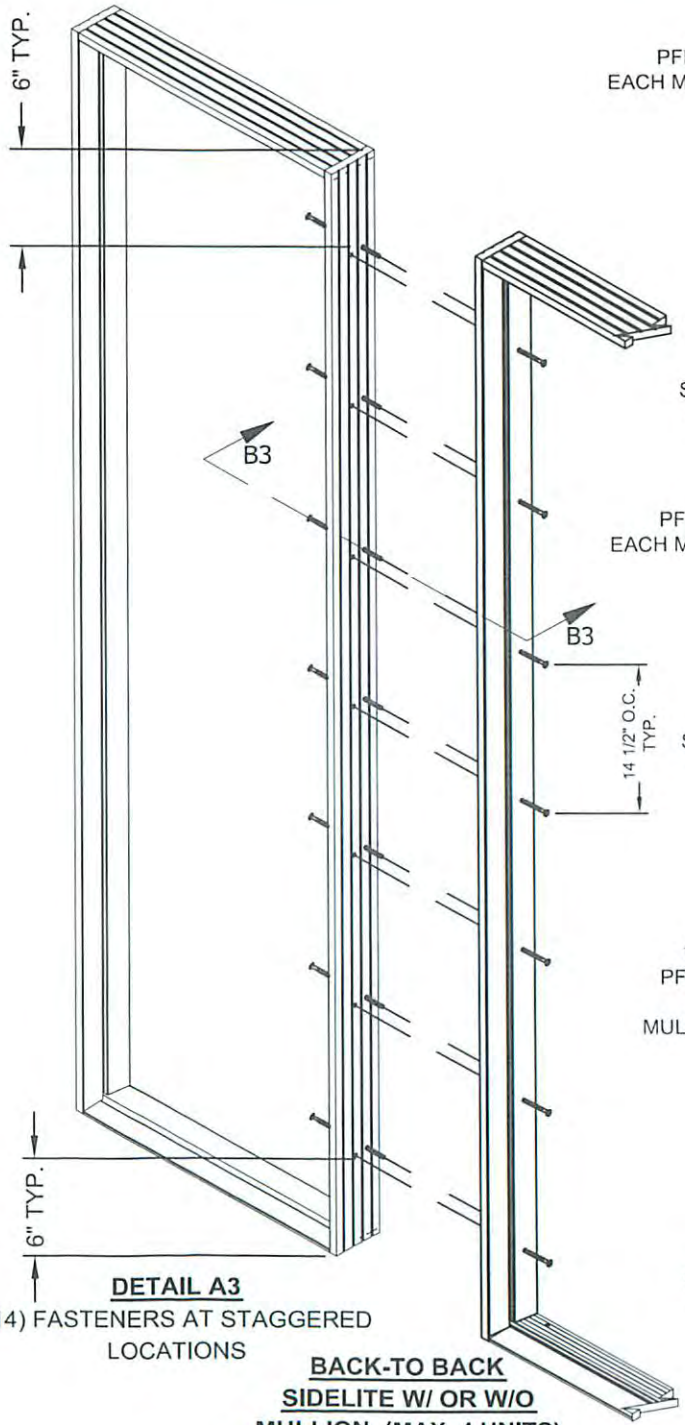
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ
12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: ELEVATIONS AND GLAZING DETAIL

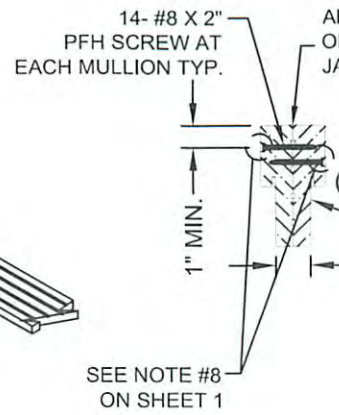
DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 2 OF 12

NOTES:
1. MAXIMUM UNIT WIDTHS MAY INCREASE WITH THE ADDITION OF 1X OR 2X MULLIONS.

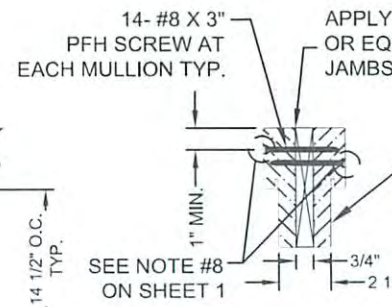


DETAIL A3
(14) FASTENERS AT STAGGERED LOCATIONS

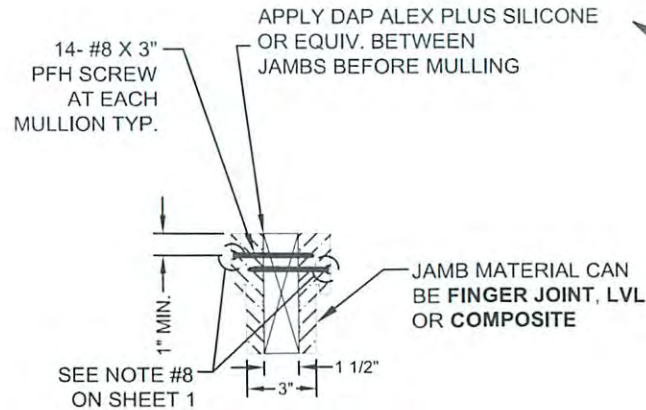
BACK-TO BACK SIDELITE W/ OR W/O MULLION (MAX. 4 UNITS)
EXAMPLE: (O,XX,O), (O,X,O), (O,X)



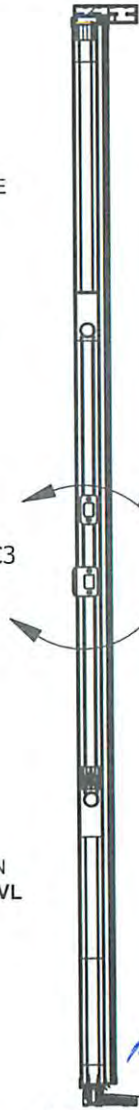
SECTION DETAIL D3
BACK-TO-BACK JAMB
(NO MULLION REINFORCEMENT)



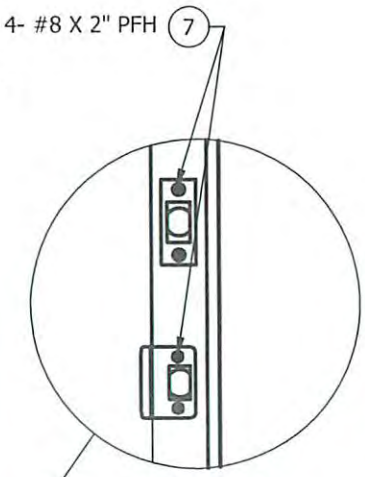
SECTION DETAIL B3
1X MULLION REINFOREMENT



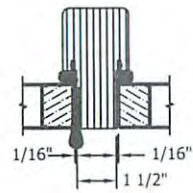
SECTION DETAIL B3
2X MULLION REINFORCEMENT



DETAIL C3
ASTRAGAL



DETAIL C3
ASTRAGAL STRIKE ATTACHMENT



DETAIL D3
INTEGRAL MULLION

STATE OF TEXAS
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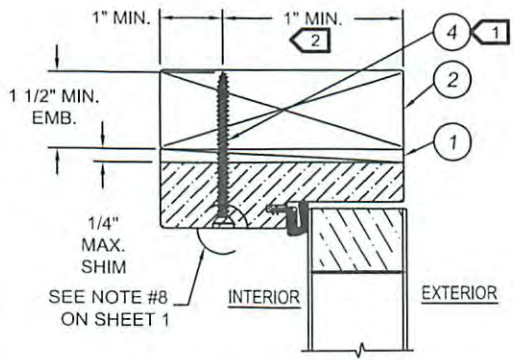
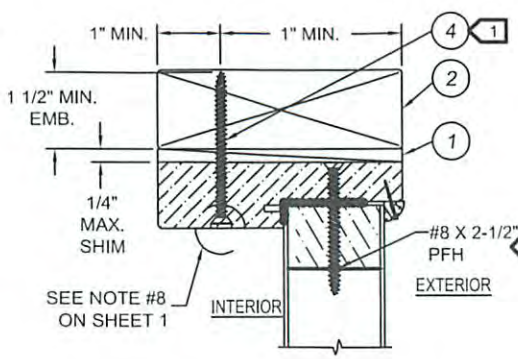
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH 3-0 SIDELITES
PART OR ASSEMBLY: MULLING DETAILS

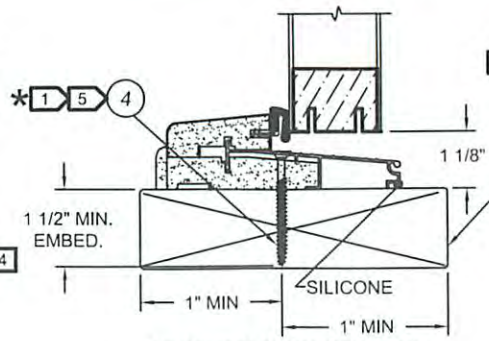
DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 3 OF 12



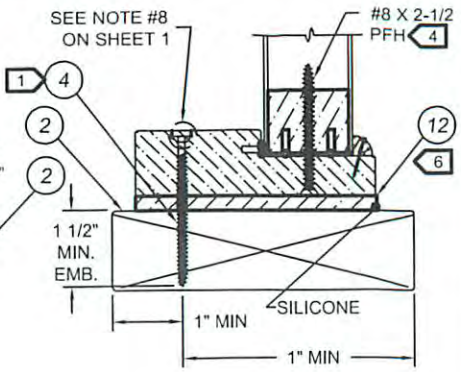
OUTSWING OPERATING UNIT
VERTICAL CROSS SECTION
HEAD JAMB



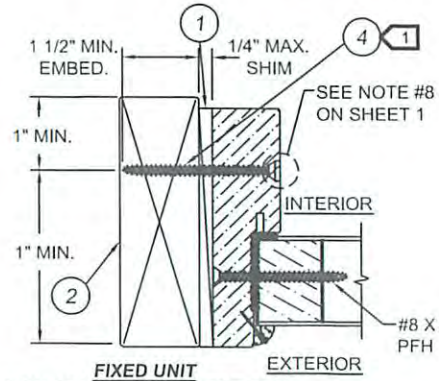
OUTSWING FIXED UNIT
VERTICAL CROSS SECTION
AT HEAD JAMB



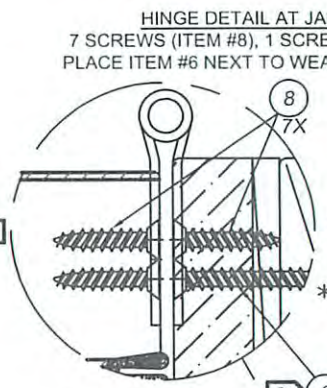
OUTSWING OPERATING UNIT
VERTICAL CROSS SECTION
AFCO J-2297 SILL
*NOTE: ON SINGLE (X or O) UNITS NO ANCHOR REQUIRED AT THE SILL

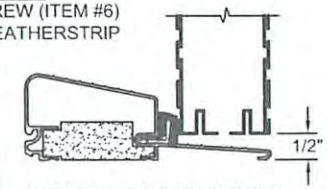


OUTSWING FIXED UNIT
VERTICAL CROSS SECTION
AT BOXED SILL

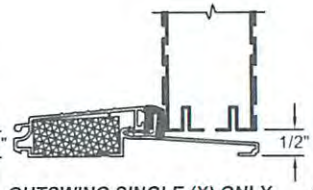


FIXED UNIT
HORIZONTAL CROSS SECTION
OUTSWING SHOWN

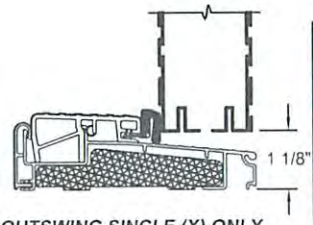




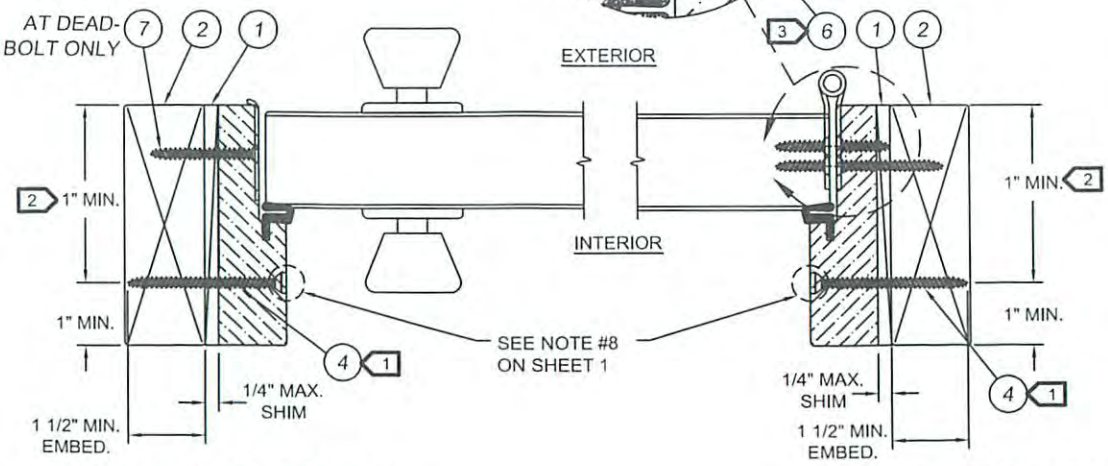
OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL AFCO H-497 SILL
*NOTE: NO ANCHOR REQUIRED AT THE SILL



OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL AFCO A-117 SILL
*NOTE: NO ANCHOR REQUIRED AT THE SILL



OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL ENDURA ZOBL45F SILL
*NOTE: NO ANCHOR REQUIRED AT THE SILL



OUTSWING LATCH JAMB AT FRAME
HORIZONTAL CROSS SECTION

OUTSWING HINGE JAMB AT FRAME
HORIZONTAL CROSS SECTION

NOTES:

1. FOR PLACEMENT OF ANCHORS IN 2X BUCK OR 1X BUCK IN CONCRETE/MASONRY OPENINGS, SEE SHEET 8.
2. OPTIONALLY, ANCHOR CAN BE PLACED IN NARROW SECTION OF HEAD OR JAMB AS LONG AS MINIMUM EMBEDMENT AND EDGE DISTANCE ARE ACHIEVED.
3. ITEM #6, (#9 X 2 1/2") TO BE INSTALLED IN EACH HINGE AT JOB SITE, CLOSEST TO WEATHERSTRIP.
4. SEE SHEET 12 FOR FASTENER AMOUNTS AND LOCATIONS.
5. AT SILL, PLACE ANCHOR IN SILL BASE MATERIAL FOR MAXIMUM SUPPORT. SINGLE (X) DO NOT REQUIRE ANCHORS IN SILL.
6. ITEM #12, PRESSURE TREATED SPACER TO MATCH ACTIVE INSWING OR OUTSWING SILL HEIGHT WHEN MULLED.

JELD-WEN WINDOWS & DOORS
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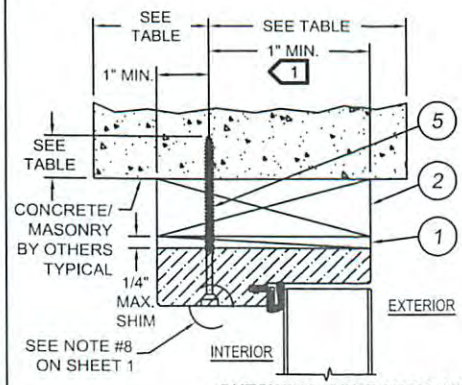
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: OUTSWING VERTICAL AND HORIZONTAL SECTIONS IN WOOD

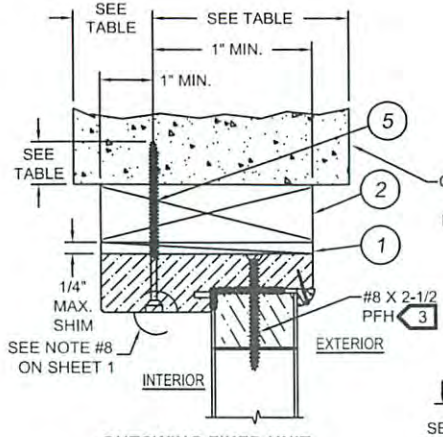
ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 4 OF 12

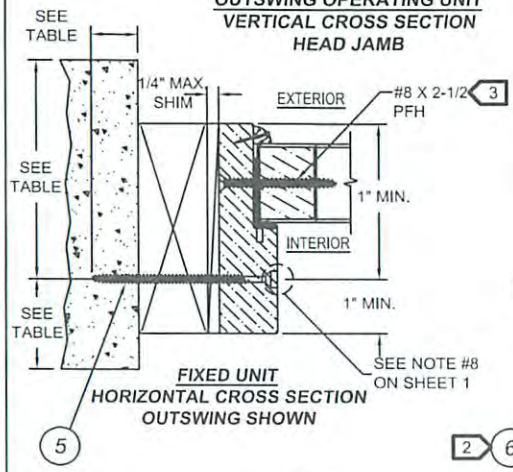
ANCHOR TABLE				
ANCHOR TYPE	ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DISTANCE
A	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	2-1/2"
B	1/4" ELCO ULTRACON	CONCRETE/ CMU	1-3/8"-CONC. 1-1/4"-CMU	1"
C	#10 WOOD SCREW	2X WOOD BUCK OR FRAMING	1-1/2"	1"
D	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	1"



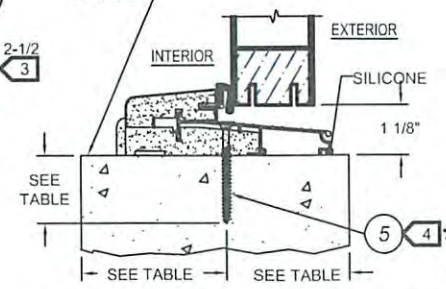
OUTSWING OPERATING UNIT
VERTICAL CROSS SECTION
HEAD JAMB



OUTSWING FIXED UNIT
VERTICAL CROSS SECTION
HEAD JAMB

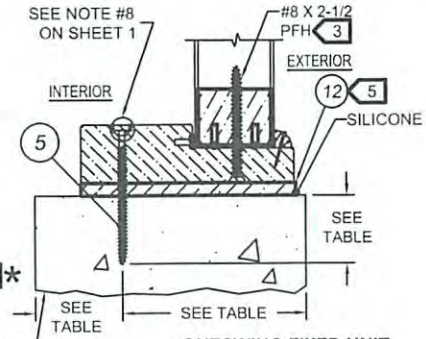


FIXED UNIT
HORIZONTAL CROSS SECTION
OUTSWING SHOWN



OUTSWING OPERATING UNIT
VERTICAL CROSS SECTION
AFCO J-2297 SILL

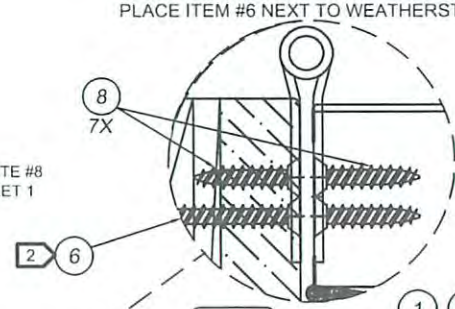
*NOTE: ON SINGLE (X or O) UNITS
NO ANCHOR REQUIRED
AT THE SILL

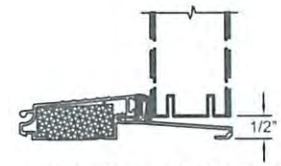


OUTSWING FIXED UNIT
VERTICAL CROSS SECTION
AT BOXED SILL

*NOTE: ON SINGLE (X or O) UNITS
NO ANCHOR REQUIRED
AT THE SILL

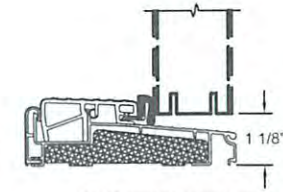
HINGE DETAIL AT JAMB:
7 SCREWS (ITEM #8), 1 SCREW (ITEM #6)
PLACE ITEM #6 NEXT TO WEATHERSTRIP





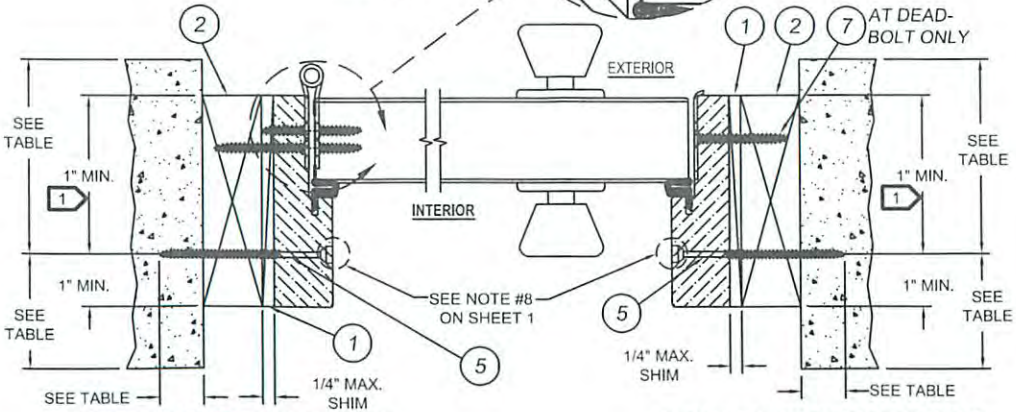
OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL AFCO A-117 SILL

*NOTE: NO ANCHOR REQUIRED
AT THE SILL



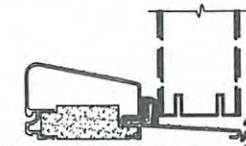
OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL ENDURA ZOBL45F SILL

*NOTE: NO ANCHOR REQUIRED
AT THE SILL



OUTSWING HINGE JAMB AT FRAME
HORIZONTAL CROSS SECTION

OUTSWING LATCH JAMB AT FRAME
HORIZONTAL CROSS SECTION

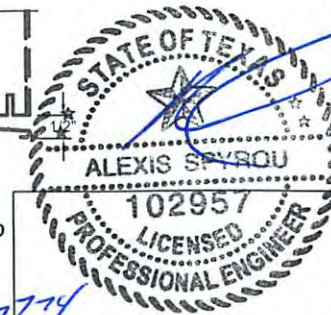


OUTSWING SINGLE (X) ONLY
VERTICAL CROSS SECTION
OPTIONAL AFCO H-497 SILL

*NOTE: NO ANCHOR REQUIRED
AT THE SILL

NOTES:

1. OPTIONALLY, ANCHOR CAN BE PLACED IN NARROW SECTION OF HEAD OR JAMB AS LONG AS MINIMUM EMBEDMENT AND EDGE DISTANCE ARE ACHIEVED.
2. ITEM #6, (#9 X 2 1/2") TO BE INSTALLED IN EACH HINGE AT JOB SITE, CLOSEST TO WEATHERSTRIP.
3. SEE SHEET 12 FOR FASTENER AMOUNTS AND LOCATIONS.
4. AT SILL, PLACE ANCHOR IN SILL BASE MATERIAL FOR MAXIMUM SUPPORT. SINGLE (X) DO NOT REQUIRE ANCHORS IN SILL.
5. ITEM #12, PRESSURE TREATED SPACER TO MATCH ACTIVE INSWING OR OUTSWING SILL HEIGHT WHEN MULLED.



1/7/14

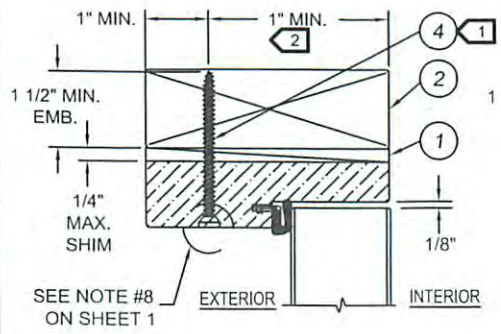
ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

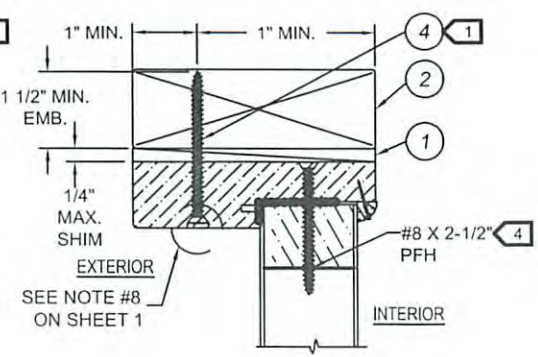
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: OUTSWING VERTICAL AND HORIZONTAL SECTIONS IN MASONRY/CONCRETE

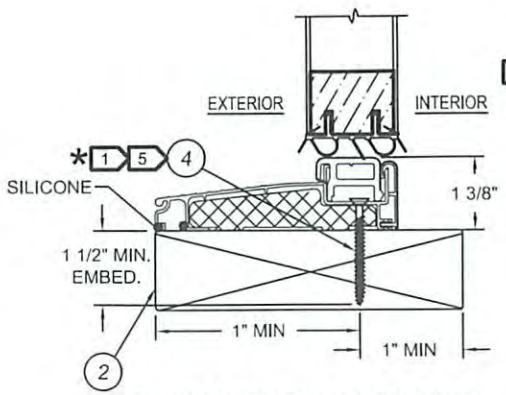
DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 5 OF 12



INSWING OPERATING UNIT
VERTICAL CROSS SECTION
HEAD JAMB

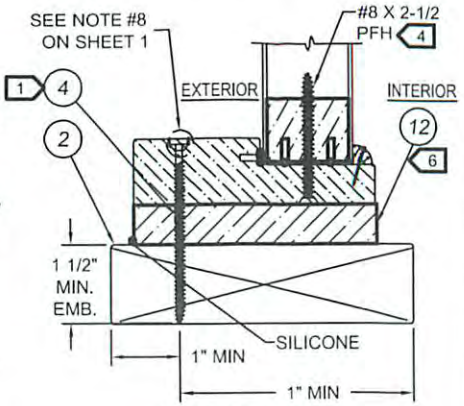


INSWING FIXED UNIT
VERTICAL CROSS SECTION
HEAD JAMB

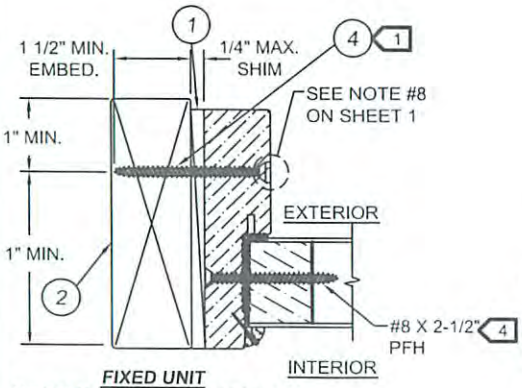


INSWING OPERATING OR FIXED UNIT
VERTICAL CROSS SECTION
ENDURA ZAIL4565F

*NOTE: ON SINGLE (X or O) UNITS
NO ANCHOR REQUIRED
AT THE SILL*

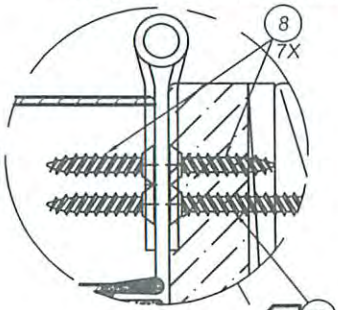


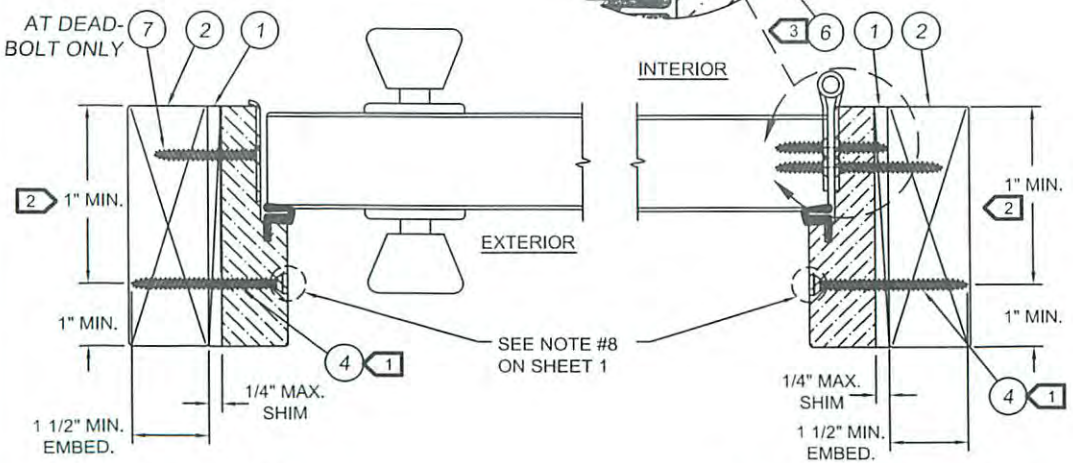
INSWING FIXED UNIT
VERTICAL CROSS SECTION
AT BOXED SILL



FIXED UNIT
HORIZONTAL CROSS SECTION
INSWING SHOWN

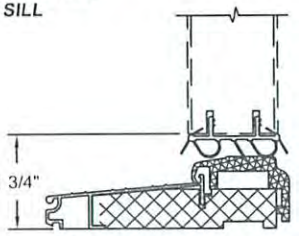
HINGE DETAIL AT JAMB:
7 SCREWS (ITEM #8), 1 SCREW (ITEM #6)
PLACE ITEM #6 NEXT TO WEATHERSTRIP





INSWING LATCH JAMB AT FRAME
HORIZONTAL CROSS SECTION

INSWING HINGE JAMB AT FRAME
HORIZONTAL CROSS SECTION



OUTSWING SINGLE (X) ONLY
(NOT RATED FOR ASTRAGAL USE)
VERTICAL CROSS SECTION
AFCO A-276/P-2000 SILL

*NOTE: ON SINGLE (X) UNITS
NO ANCHOR REQUIRED
AT THE SILL*

NOTES:

1. FOR PLACEMENT OF ANCHORS IN 2X BUCK OR 1X BUCK IN CONCRETE/MASONRY OPENINGS, SEE SHEET 8.
2. OPTIONALLY, ANCHOR CAN BE PLACED IN NARROW SECTION OF HEAD OR JAMB AS LONG AS MINIMUM EMBEDMENT AND EDGE DISTANCES ARE ACHIEVED.
3. ITEM #6, (#9 X 2 1/2") TO BE INSTALLED IN EACH HINGE AT JOBSITE, CLOSEST TO WEATHERSTRIP.
4. SEE SHEET 12 FOR FASTENER AMOUNTS AND LOCATIONS.
5. AT SILL, PLACE ANCHOR IN SILL BASE MATERIAL FOR MAXIMUM SUPPORT. SINGLE (X) DO NOT REQUIRE ANCHORS IN SILL.
6. ITEM #12, PRESSURE TREATED SPACER TO MATCH ACTIVE INSWING OR OUTSWING SILL HEIGHT WHEN MULLED.

ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

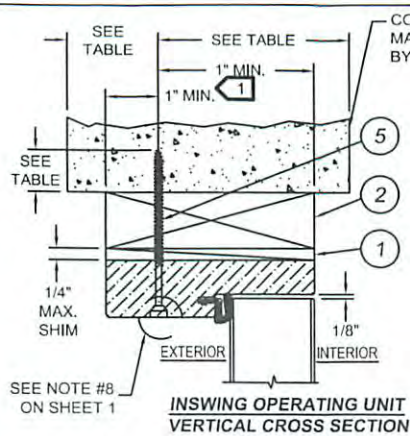
JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

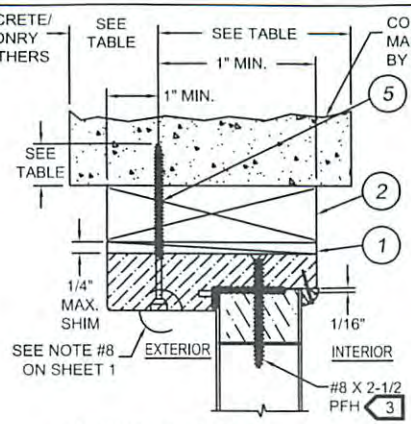
PART OR ASSEMBLY: INSWING VERTICAL AND HORIZONTAL SECTIOINS IN WOOD

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 6 OF 12

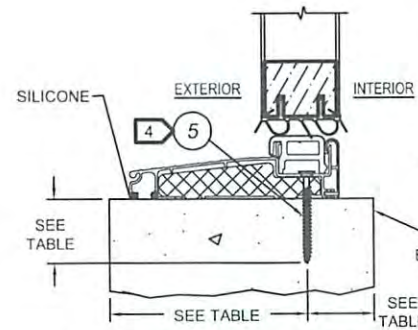
ANCHOR TABLE				
ANCHOR TYPE	ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DISTANCE
A	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	2-1/2"
B	1/4" ELCO ULTRACON	CONCRETE/ CMU	1-3/8"-CONC. 1-1/4"-CMU	1"
C	#10 WOOD SCREW	2X WOOD BUCK OR FRAMING	1-1/2"	1"
D	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	1"



INSWING OPERATING UNIT
VERTICAL CROSS SECTION
HEAD JAMB

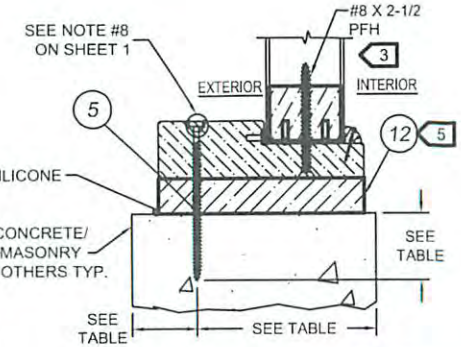


INSWING FIXED UNIT
VERTICAL CROSS SECTION
HEAD JAMB

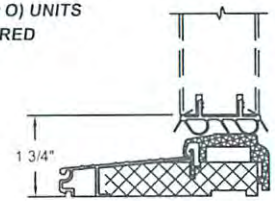


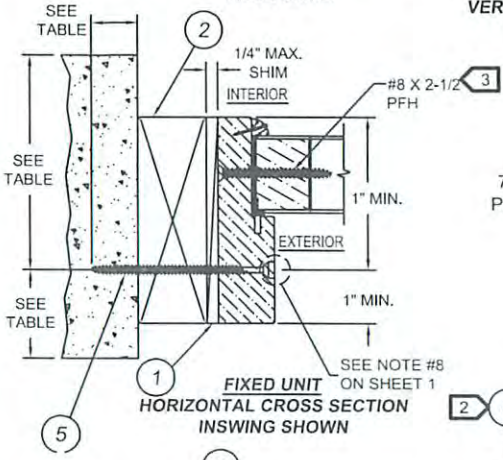
INSWING OPERATING OR FIXED UNIT
VERTICAL CROSS SECTION
ENDURA ZAIL4565

**NOTE: ON SINGLE (X or O) UNITS NO ANCHOR REQUIRED AT THE SILL*



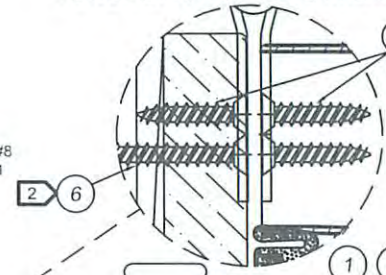
INSWING FIXED UNIT
VERTICAL CROSS SECTION
AT BOXED SILL

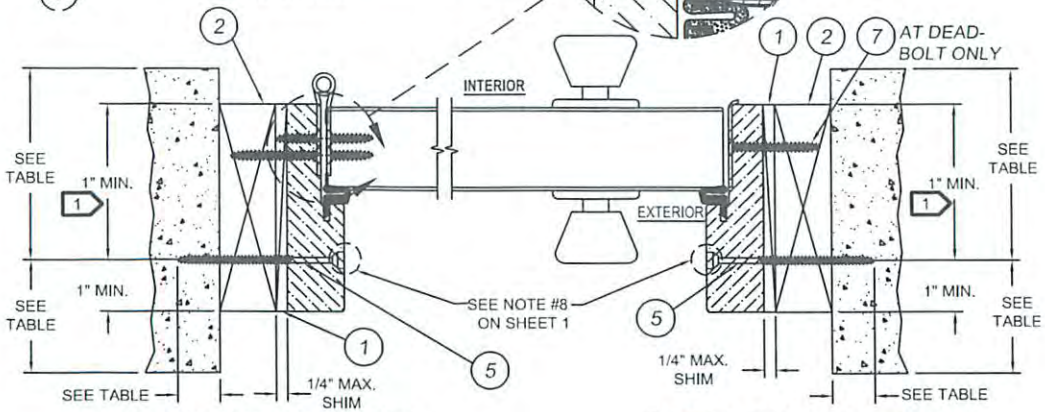




FIXED UNIT
HORIZONTAL CROSS SECTION
INSWING SHOWN

HINGE DETAIL AT JAMB:
7 SCREWS (ITEM #8), 1 SCREW (ITEM #6)
PLACE ITEM #6 NEXT TO WEATHERSTRIP





INSWING HINGE JAMB AT FRAME
HORIZONTAL CROSS SECTION

INSWING LATCH JAMB AT FRAME
HORIZONTAL CROSS SECTION

INSWING SINGLE (X) ONLY
(NOT RATED FOR ASTRAGAL USE)
VERTICAL CROSS SECTION
AFCO A-276/P-2000 SILL

**NOTE: ON SINGLE (X) UNITS NO ANCHOR REQUIRED AT THE SILL*

NOTES:

1. OPTIONALLY, ANCHOR CAN BE PLACED IN NARROW SECTION OF HEAD OR JAMB AS LONG AS MINIMUM EMBEDMENT AND EDGE DISTANCE ARE ACHIEVED.
2. ITEM #6, (#9 X 2 1/2") TO BE INSTALLED IN EACH HINGE AT JOB SITE, CLOSEST TO WEATHERSTRIP.
3. SEE SHEET 12 FOR FASTENER AMOUNTS AND LOCATIONS.
4. AT SILL, PLACE ANCHOR IN SILL BASE MATERIAL FOR MAXIMUM SUPPORT. SINGLE (X) DO NOT REQUIRE ANCHORS IN SILL.
5. ITEM #12, PRESSURE TREATED SPACER TO MATCH ACTIVE INSWING OR OUTSWING SILL HEIGHT WHEN MULLED.

ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

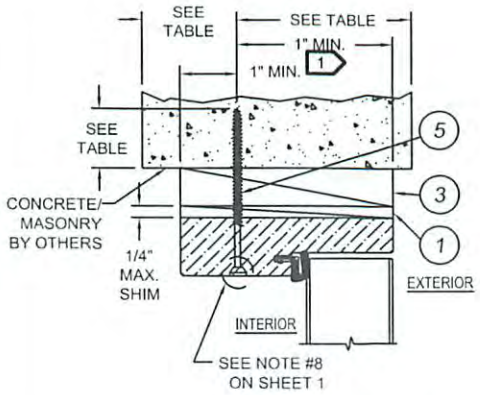
JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

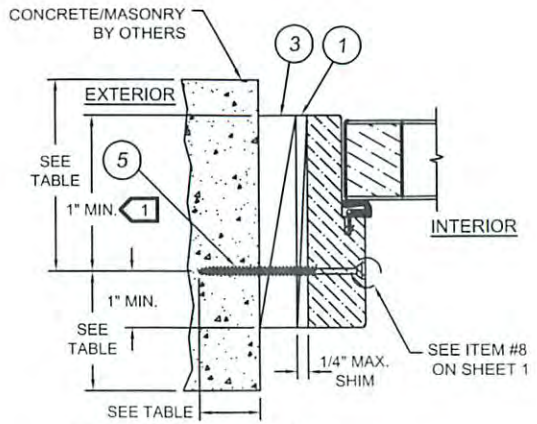
PART OR ASSEMBLY: INSWING VERTICAL AND HORIZONTAL SECTIONS IN MASONRY/CONCRETE

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 7 OF 12

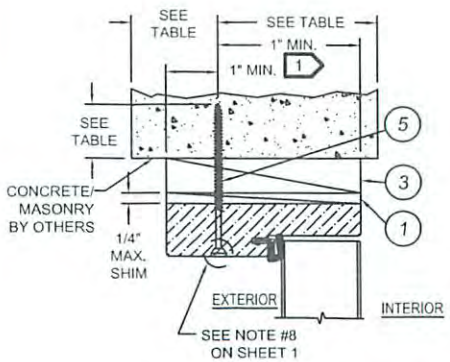
ANCHOR TABLE				
ANCHOR TYPE	ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DISTANCE
A	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	2-1/2"
B	1/4" ELCO ULTRACON	CONCRETE/ CMU	1-3/8"-CONC. 1-1/4"-CMU	1"
C	#10 WOOD SCREW	2X WOOD BUCK OR FRAMING	1-1/2"	1"
D	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	1"



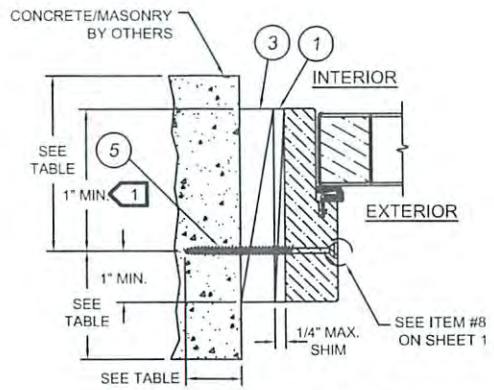
OUTSWING OPERATING UNIT
VERTICAL CROSS SECTION
OPTIONAL 1X BUCK



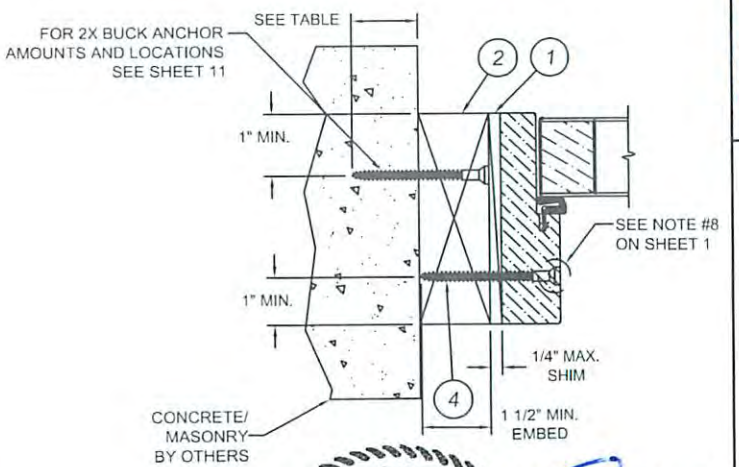
OUTSWING OPERATING UNIT
HORIZONTAL CROSS SECTION
OPTIONAL 1X BUCK



INSWING OPERATING UNIT
VERTICAL CROSS SECTION
OPTIONAL 1X BUCK



INSWING OPERATING UNIT
HORIZONTAL CROSS SECTION
OPTIONAL 1X BUCK



OPTIONAL MASONRY/CONCRETE INSTALL USING 2X BUCK
CROSS SECTION OF HEAD JAMB OR SIDE JAMB

NOTES:
1. OPTIONALLY, ANCHOR CAN BE PLACED IN NARROW SECTION OF HEAD OR JAMB AS LONG AS MINIMUM EMBEDMENT AND EDGE DISTANCE ARE ACHIEVED.

ALEXIS SPYROU
TEXAS P.E. NO. 102957
4398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

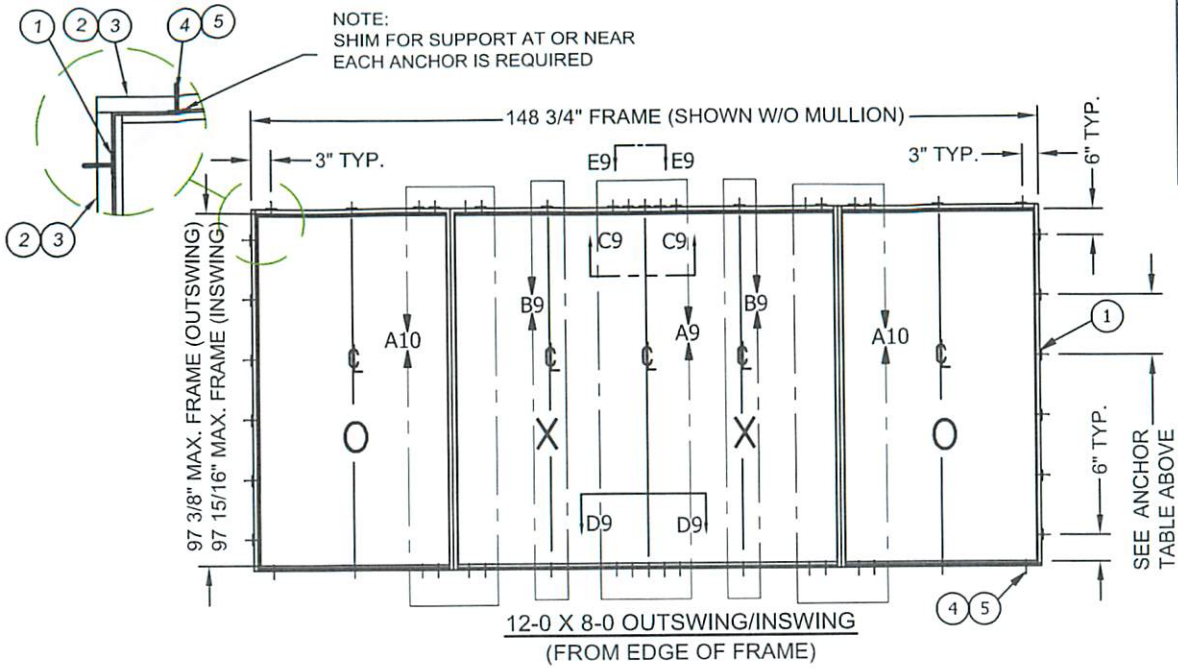
JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: OPTIONAL ANCHORING DETAILS

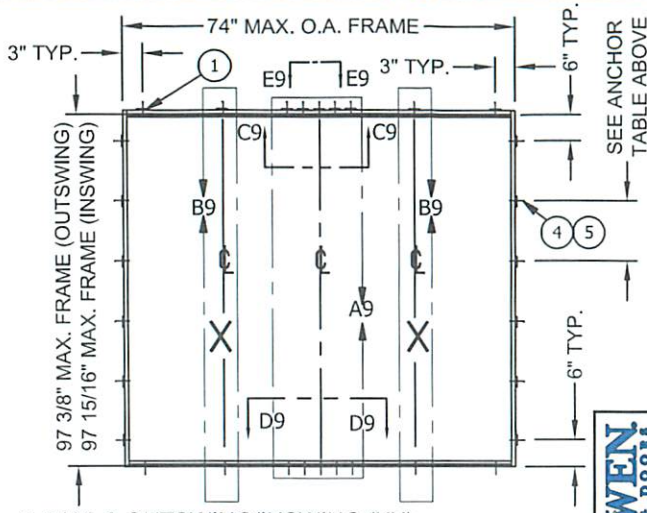
DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 8 OF 12

NOTE:
SHIM FOR SUPPORT AT OR NEAR
EACH ANCHOR IS REQUIRED

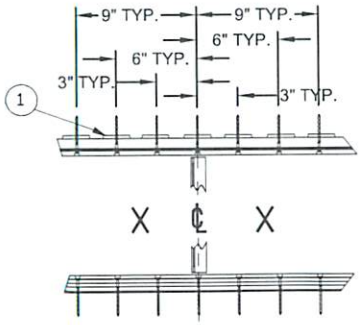


12-0 X 8-0 OUTSWING/INSWING
(FROM EDGE OF FRAME)

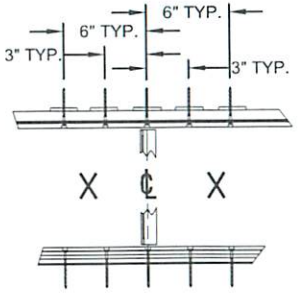
ANCHOR SCHEDULE					
ANCHOR TYPE	ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DISTANCE	MAX. O.C. SPACING AT JAMBS
A	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	2-1/2"	17-1/4"
B	1/4" ELCO ULTRACON	CONCRETE/ CMU	1-3/8"-CONC. 1-1/4"-CMU	1"	17-1/4"
C	#10 WOOD SCREW	2X WOOD BUCK OR FRAMING	1-1/2"	1"	17-1/4"
D	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	1"	14-3/8"



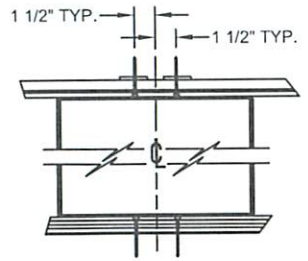
6-0 X 8-0 OUTSWING/INSWING (XX)
(FROM EDGE OF FRAME)



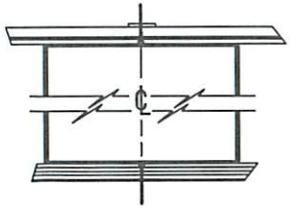
DETAIL A9.1
(12) ANCHOR LOCATIONS
AT ASTRAGAL
TYPE D ANCHORS ONLY



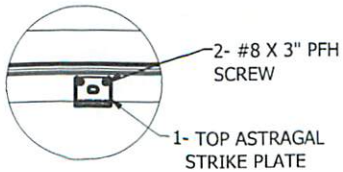
DETAIL A9.2
(10) ANCHOR LOCATIONS
AT ASTRAGAL
TYPE A, B & C ANCHORS ONLY



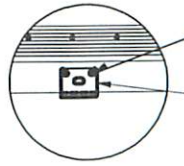
DETAIL B9.1
(4) ANCHOR LOCATIONS
AT ACTIVE PANEL CENTERLINE
TYPE D ANCHORS ONLY



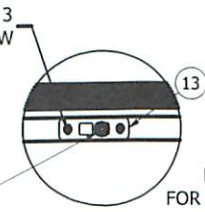
DETAIL B9.2
(2) ANCHOR LOCATIONS
AT ACTIVE PANEL CENTERLINE
TYPE A,B & C ANCHORS ONLY



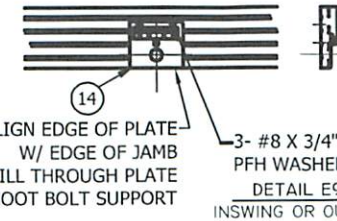
DETAIL C9-C9
OUTSWING OR INSWING



DETAIL D9-D9
OUTSWING ONLY



DETAIL D9-D9
INSWING ONLY



DETAIL E9-E9
INSWING OR OUTSWING
W/ ASTRAGAL

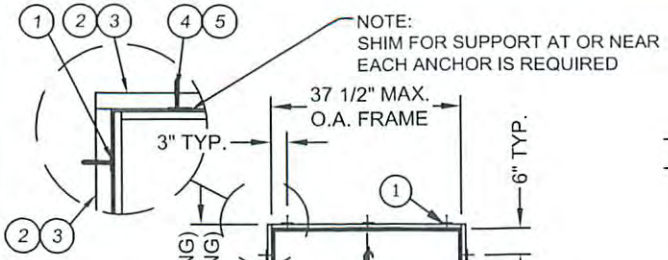
STATE OF TEXAS
ALEXIS SPYROU
102957
LICENSED
PROFESSIONAL ENGINEER
ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
Phone: (541) 882-3451
Fax: (541) 850-2609

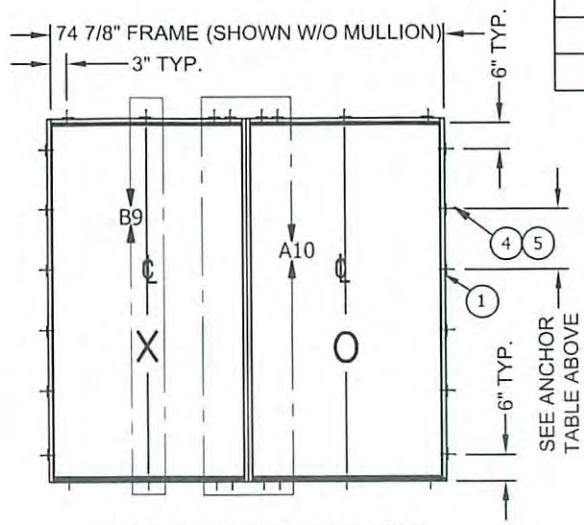
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES
PART OR ASSEMBLY: OXXO INSWING AND OUTSWING ANCHORING DETAILS

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 9 OF 12

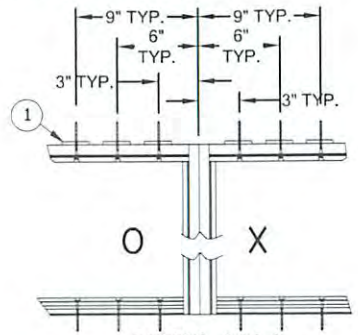
ANCHOR SCHEDULE					
ANCHOR TYPE	ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DISTANCE	MAX. O.C. SPACING AT JAMBS
A	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	2-1/2"	17-1/4"
B	1/4" ELCO ULTRACON	CONCRETE/ CMU	1-3/8"-CONC. 1-1/4"-CMU	1"	17-1/4"
C	#10 WOOD SCREW	2X WOOD BUCK OR FRAMING	1-1/2"	1"	17-1/4"
D	3/16" ITW TAPCON	CONCRETE/ CMU	1-1/4"	1"	14-3/8"



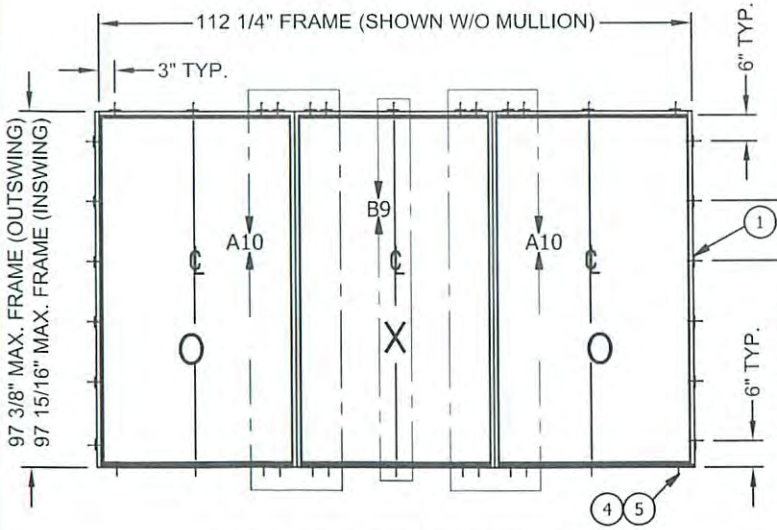
3-0 X 8-0 OUTSWING/INSWING
(FROM EDGE OF FRAME)



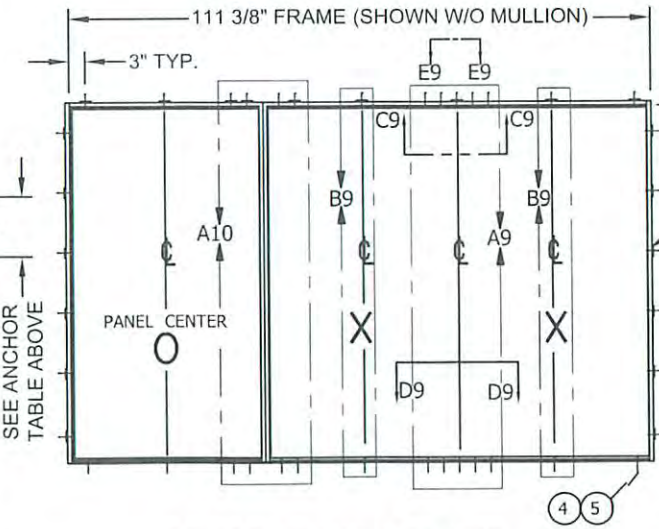
6-0 X 8-0 OUTSWING/INSWING
(FROM EDGE OF FRAME)



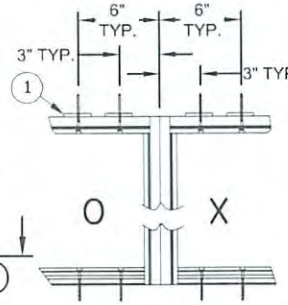
DETAIL A10.1
(12) ANCHORS AT MULL
(BACK-TO-BACK)
TYPE D ANCHORS ONLY



9-0 X 8-0 OUTSWING/INSWING
(FROM EDGE OF FRAME)



9-0 X 8-0 OUTSWING/INSWING
(FROM EDGE OF FRAME)



DETAIL A10.2
(8) ANCHORS AT MULL
(BACK-TO-BACK)
TYPE A,B & C
ANCHORS ONLY

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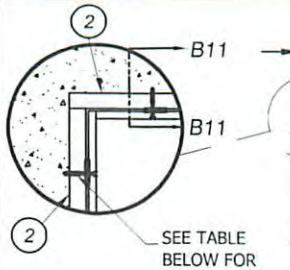
PRODUCT: SMOOTH PRO DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

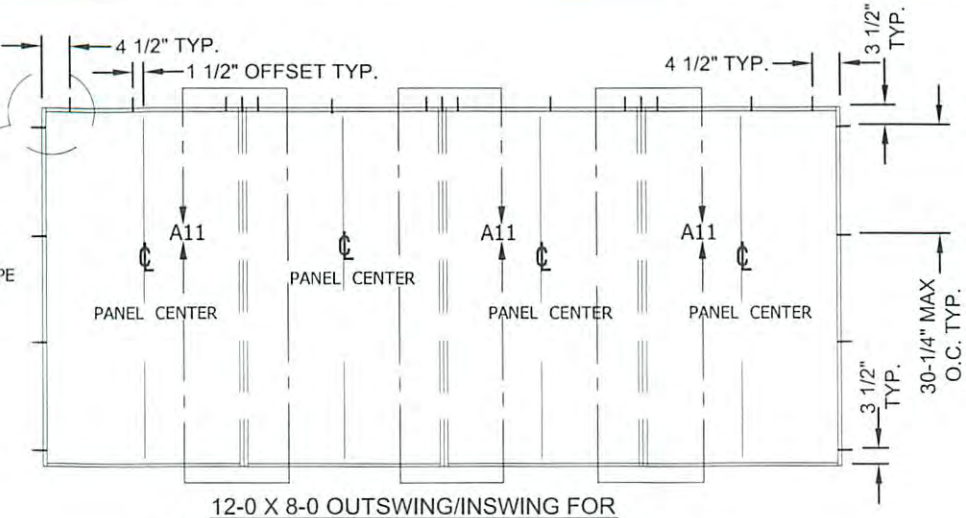
PART OR ASSEMBLY: OXO INSWING AND OUTSWING ANCHORING DETAILS

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 10 OF 12

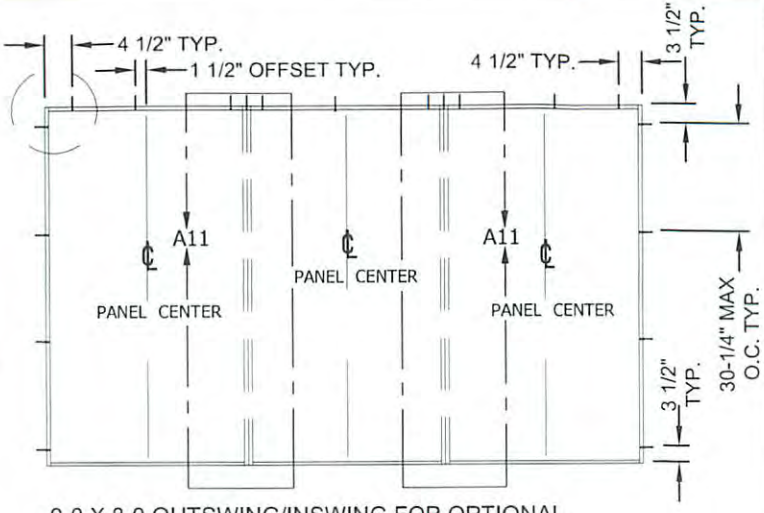
STATE OF TEXAS
ALEXIS SIYROU
102957
LICENSED
PROFESSIONAL ENGINEER

ALEXIS SIYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734

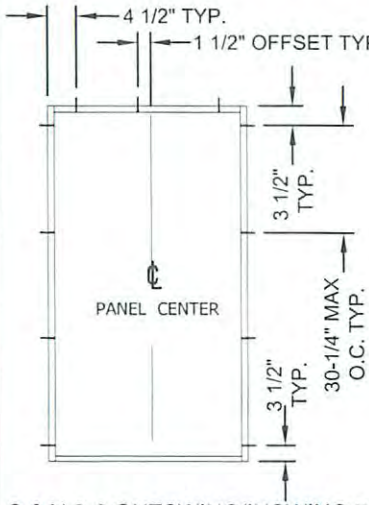




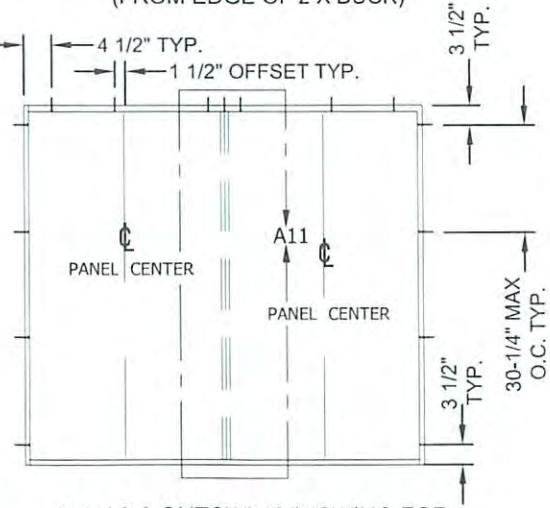
12-0 X 8-0 OUTSWING/INSWING FOR OPTIONAL 2X BUCK IN CONCRETE/MASONRY
(23) ANCHOR LOCATIONS
(FROM EDGE OF 2 X BUCK)



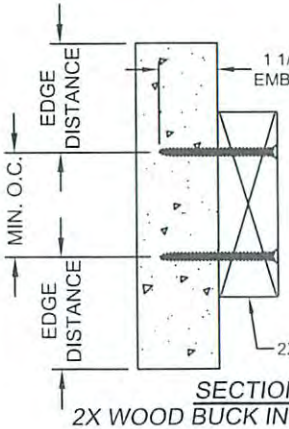
9-0 X 8-0 OUTSWING/INSWING FOR OPTIONAL 2X BUCK IN CONCRETE/MASONRY
(19) ANCHOR LOCATIONS
(FROM EDGE OF 2 X BUCK)



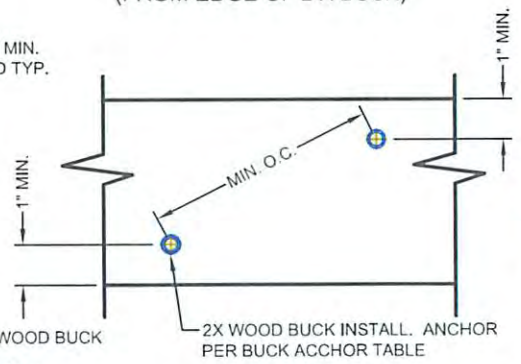
3-0 X 8-0 OUTSWING/INSWING FOR OPTIONAL 2X BUCK IN CONCRETE/MASONRY
(11) ANCHOR LOCATIONS
(FROM EDGE OF 2 X BUCK)



6-0 X 8-0 OUTSWING/INSWING FOR OPTIONAL 2X BUCK IN CONCRETE/MASONRY
(15) ANCHOR LOCATIONS
(FROM EDGE OF 2 X BUCK)



SECTION B11
2X WOOD BUCK INSTALLATION

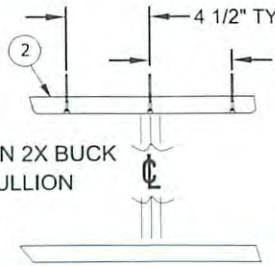


2X WOOD BUCK INSTALLATION
SIDE VIEW

2X BUCK ANCHOR TABLE:

ANCHOR TYPE	MIN. EMBED.	MIN. EDGE DISTANCE	MIN. O.C. SPACING
1/4" ITW TAPCON	1-1/4"	2-1/2"	4"
1/4" ELCO ULTRACON	1-3/8"-CONC. 1-1/4"-CMU	1"	4"

NOTES:
1. MASONRY ANCHOR LOCATIONS MAY BE ADJUSTED TO MAINTAIN MIN. EDGE DISTANCE TO MORTAR JOINTS. SHOULD ADJUSTMENT RESULT IN MAX. O.C. SPACING TO BE EXCEEDED, ADDITIONAL MASONRY ANCHORS SHALL BE USED TO COMPLY WITH MAX. O.C. REQUIREMENT.
2. 2X WOOD BUCK IS NOT FOR INSTALLATION AT SILL. THRESHOLD SHALL BE FASTENED IN ACCORDANCE WITH ANCHOR LOCATIONS SHOWN ON SHEETS 9 AND 10.



DETAIL A11
(3) ANCHOR LOCATIONS IN 2X BUCK AT BACK-TO-BACK MULLION OR ASTRAGAL

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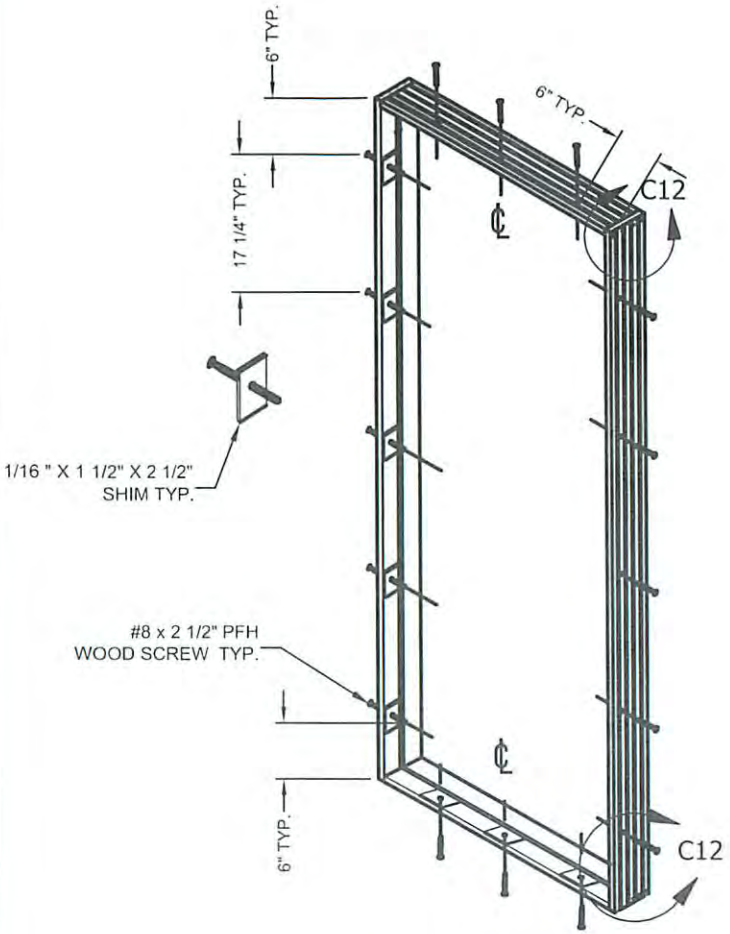
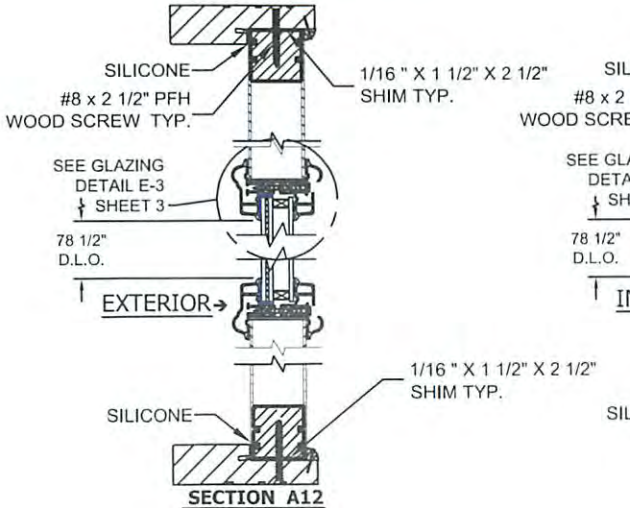
PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES
PART OR ASSEMBLY: OPTIONAL 2X BUCK ANCHORING DETAILS

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 11 OF 12

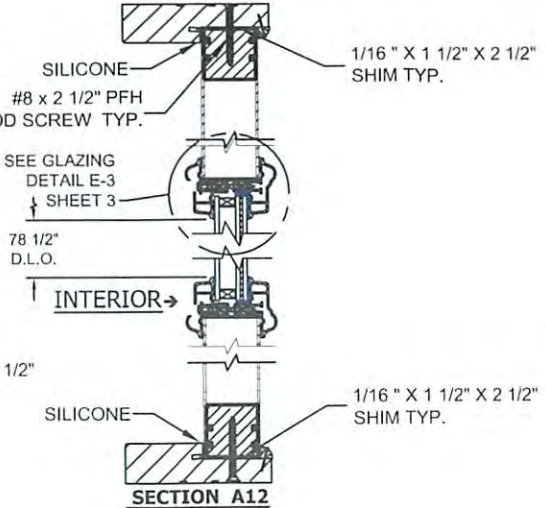
STATE OF TEXAS
ALEXIS SPYROU
102957
LICENSED
PROFESSIONAL ENGINEER
ALEXIS SPYROU
TEXAS P.E. NO. 102957
398 DANIA BEACH BLVD. STE. 338
DANIA BEACH, FL 33004
TBPE FIRM NO. 13734



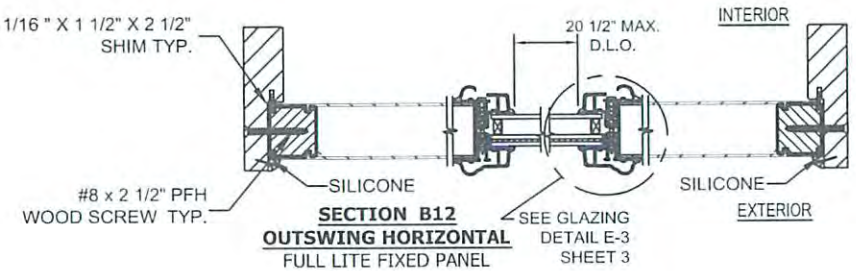
INSWING/OUTSWING
PANEL ATTACHMENT
16 THROUGH FRAME/SHIM INTO PANEL



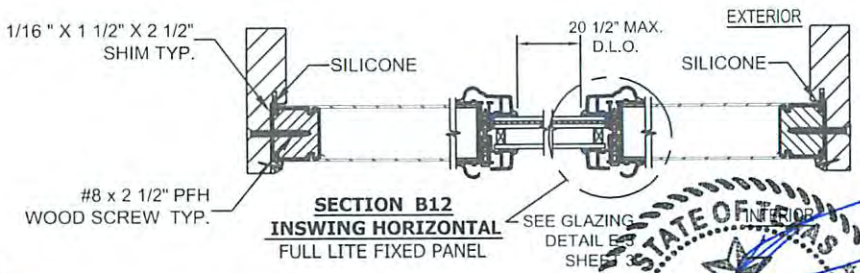
SECTION A12
INSWING
FULL LITE FIXED PANEL



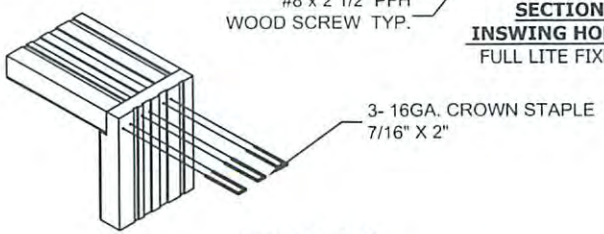
SECTION A12
OUTSWING
FULL LITE FIXED PANEL



SECTION B12
OUTSWING HORIZONTAL
FULL LITE FIXED PANEL



SECTION B12
INSWING HORIZONTAL
FULL LITE FIXED PANEL



DETAIL C12
(3) FRAME FASTENERS AT
EACH CORNER

JELD-WEN WINDOWS & DOORS
3737 Lakeport Blvd.
Klamath Falls, OR 97601
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PRODUCT: SMOOTH PRO/DESIGN PRO IMPACT HVHZ 12-0 X 8-0 OPAQUE WITH FULL LITE 3-0 SIDELITES

PART OR ASSEMBLY: FIXED PANEL TO FRAME ATTACHMENT DETAILS

DATE: 12/03/2013
SCALE: NONE
DWG. BY: G.LUBBECKE
CHK. BY: S.SAFFELL
DRAWING No.: A010523
SHEET 12 OF 12

STATE OF TEXAS
ALEXIS SPYROU
102957
LICENSED
PROFESSIONAL ENGINEER

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DANIA BEACH, FL 33004
TBPE FIRM NO. 13734