

UNILUX GmbH

SERIES "K" ALUMINUM CLAD

WOOD HOPPER WINDOW

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN EVALUATED TO COMPLY WITH THE CURRENT PROVISIONS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONES (HVHZ) AND IS BASED ON TESTING CONDUCTED TO TAS-202, 201 & 203 TEST PROTOCOLS.
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE, MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 1 BY BUCK OVER MASONRY AND/OR CONCRETE IS OPTIONAL. WHERE 1 BY BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPERATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSABILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF THE INSTALLATION METHODS DEVIATE FROM THESE APPROVED DETAILS THIS WOULD REQUIRE FURTHER INVESTIGATION BY A LICENSED OR REGISTERED DESIGN PROFESSIONAL.
5. ALL SETTING BLOCKS AND GASKET MATERIALS SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE. SETTING BLOCKS SHALL BE NEOPRENE WITH A 70 TO 90 SHORE A DUROMETER. GASKET MATERIALS SHALL BE EDPM WIHT A MINIMUM 60 SHORE A DUROMETER.
6. IN NON-HVHZ OR HVHZ AREAS WHERE WINDBORNE DEBRIS PROTECTION REQUIREMENTS EXIST, USE OF AN IMPACT PROTECTIVE SYSTEM COMPLYING WITH THE FBC REQUIREMENTS FOR WINDBORNE DEBRIS REGIONS IS NOT REQUIRED FOR THE PRODUCT(S) HEREIN.
7. MATERIALS:

7.1 FRAME: WOOD WITH SPECIFIC GRAVITY = 0.50

7.2 CLADDING: ALUMINUM 6063-T5

7.3 MISC. COMPONENTS: ALUMINUM 6063-T5
8. GLAZING:

8.1 GLASS MEETS THE REQUIREMENTS OF ASTM E1300-04e01.

8.2 SEE GLAZING DETAIL ON SHEET 7 OF 9.

8.3 GLASS SHALL MEET SAFETY GLAZING REQUIREMENTS PER CURRENT EDITION OF THE FLORIDA BUILDING CODE.

8.4 LAMINATED GLASS INTERLAYER: KURARAY AMERICA SENTRYGLAS PER CURRENT MIAMI-DADE NOTICE OF ACCEPTANCE (NOA).
9. DESIGNATIONS "X" STAND FOR THE FOLLOWING:

X: OPERABLE

10. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH A LOAD BEARING SHIM, SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
11. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS. ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER BELOW SEE ANCHOR TABLE ON SHEETS 3 OF 9 FOR ANCHOR QUANITIES, MIN. EMBEDMENT AND EDGE DISTANCES FOR APPROVED SUBSTRTAES SHOWN.
12. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55 (HVHZ) OR 0.42 (NON-HVHZ).

B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WEIGHT (DENSITY > 117PCF)

D. METAL STUD: STEEL 18 GA., FY= 33 KSI.

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7	--	B.OM. CROSS SECTIONS & GLAZING
8	--	COMPONENTS
9	--	HARDWARE DETAIL

DESIGN PRESSURE RATING (PSF)		
LARGE MISSILE IMPACT RATING		
MAX. OVERALL TESTED FRAME SIZE (IN)	MAX. DESIGN PRESSURE (PSF)	UNIT TYPE
84" x 42"	± 70	HOPPER
GLAZING REQUIREMENTS - SEE SHEET 7 FOR DETAILS		
APPROXIMATELY 1-1/4" THICK OVERALL 0.250" TEMPERED GLASS / .470" AIRSPACE; ALUMINUM SPACER / 0.1875" HEAT STRENGTHENED GLASS / 0.105" SG BY KURARAY AMERICA / 0.1875" HEAT STRENGTHENED GLASS (EXTERIOR TO INTERIOR)		

UNILUX GMBH

NIKOLAUS-MEETH-STR. 1, DE 54528 SALTAL, GERMANY

TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW
GENERAL AND INSTALLATION NOTES

DRAWN BY: JRM

SCALE: N.T.S.

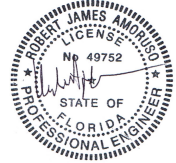
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DATE: 08/25/14

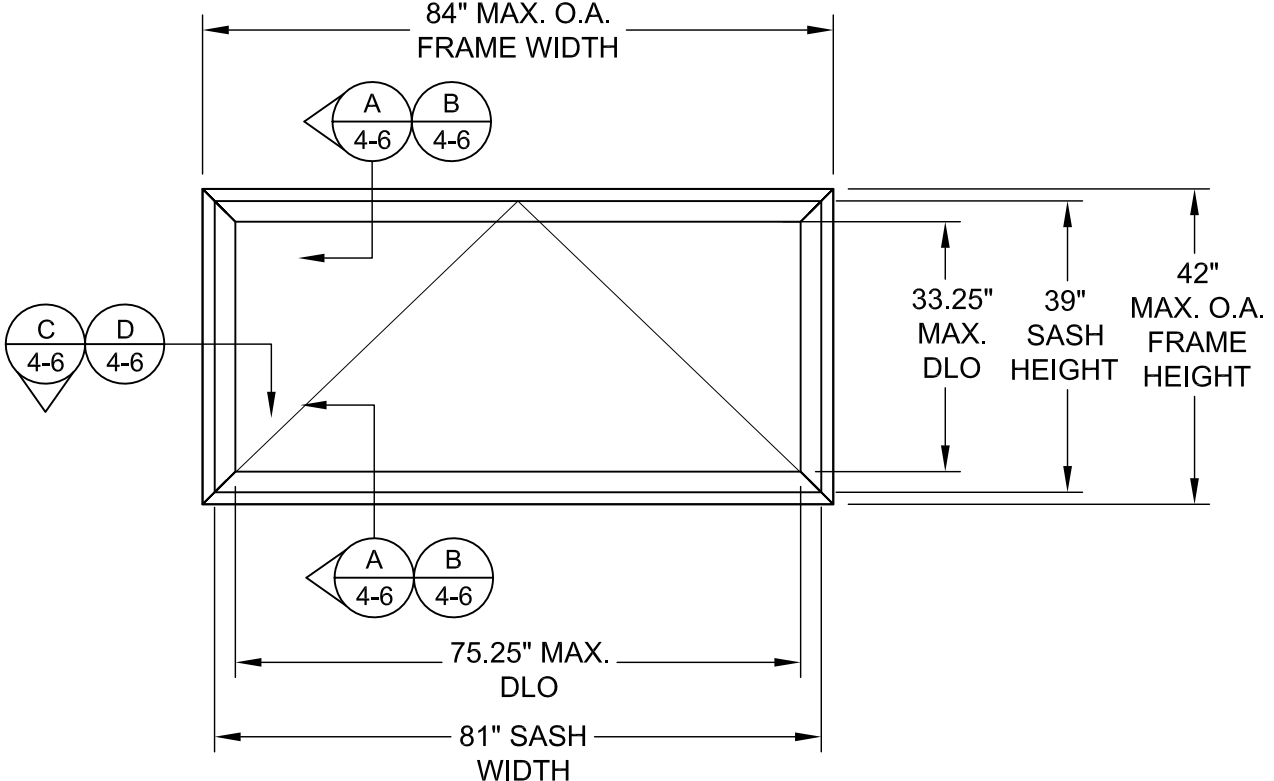
DRAWING NO: NL_0038

SHEET: 1 OF 9

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FL. P.E. NO. 49752

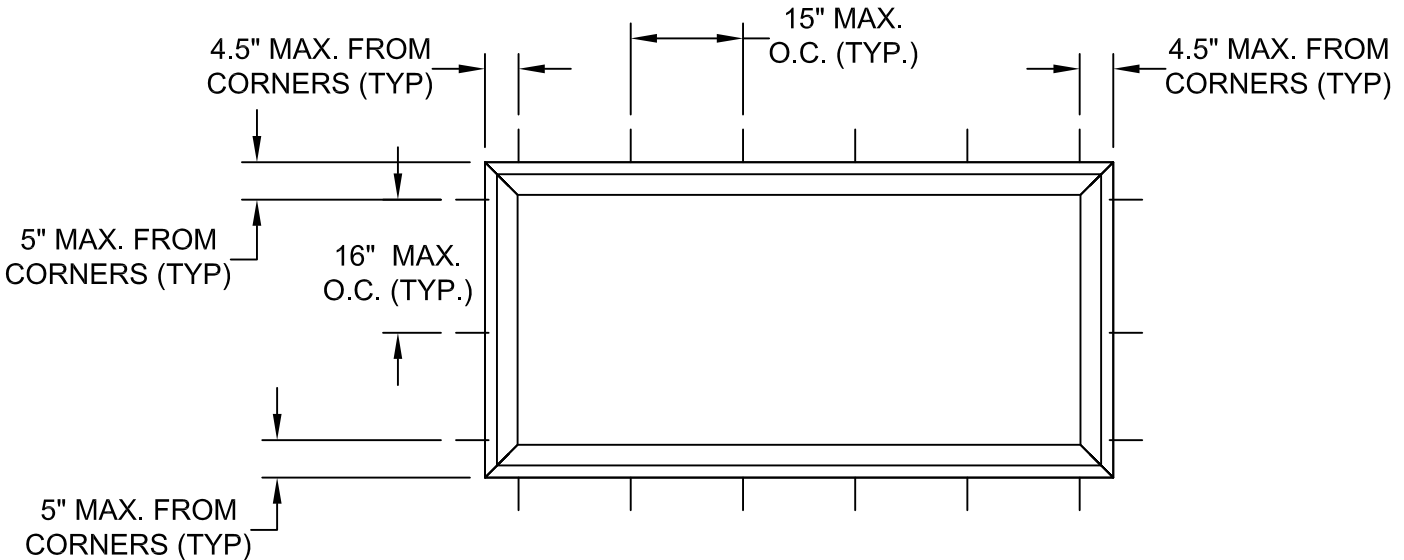


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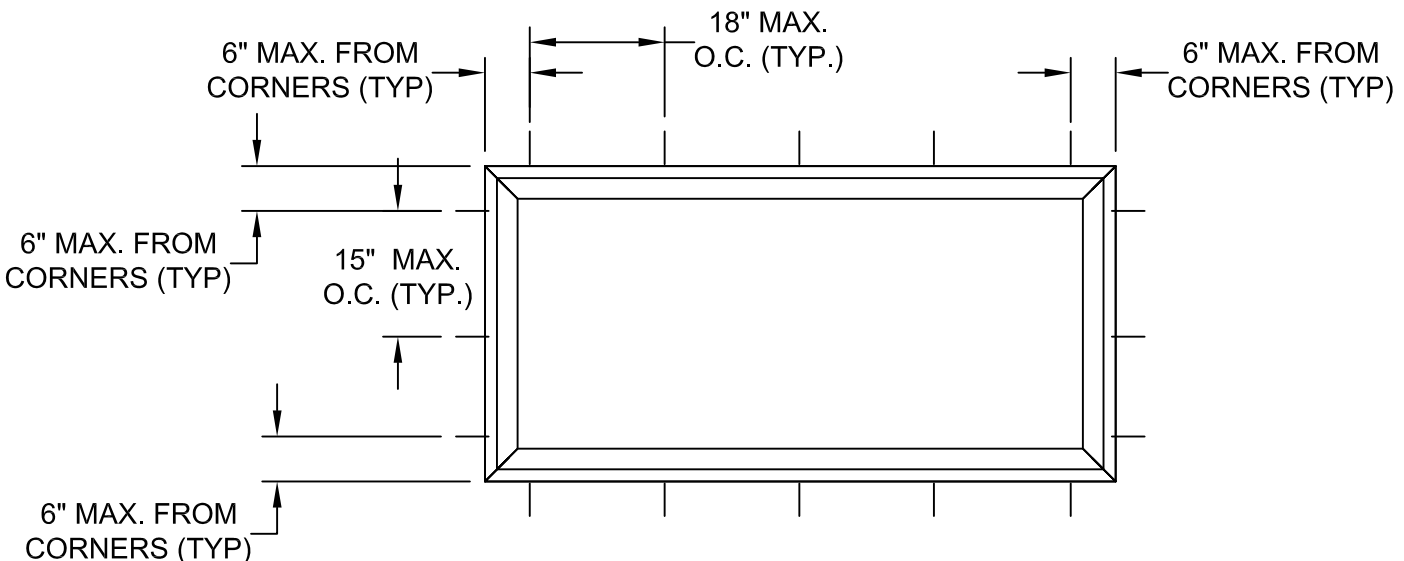


SERIES "K" ALUMINUM CLAD
WOOD HOPPER WINDOW
WINDOW ELEVATION
INTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
+/- 70 PSF	LARGE MISSILE



CLIP INSTALLATION
ANCHOR ELEVATION
INTERIOR VIEW



FRAME INSTALLATION
ANCHOR ELEVATION
INTERIOR VIEW

UNILUX GMBH		NIKOLAUS-MEETH-STR. 1, DE 54528 SAlMTAL, GERMANY	
TITLE:		SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW ELEVATION AND ANCHOR LAYOUT	
DRAWN BY:		JRM	DATE: 08/25/14
SCALE:		N.T.S.	DRAWING NO: NL_0038
REV:		A	SHEET: 2 OF 9
BY:		RJA	DATE: 9/30/17
DESCRIPTION		UPDATE TO 6TH ED. (2017) FBC	

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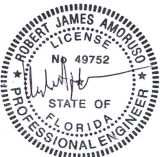
THROUGH FRAME & CLIP ANCHOR REQUIREMENTS TABLE									
ANCHORING METHOD	ANCHOR REQUIREMENTS					ANCHORING SPACING (IN)			
	ANCHOR TYPE	MIN. EMB (IN)	MIN. SPACING (IN)	MIN. EDGE DISTANCE (IN)	SUBSTRATE	JAMB END DISTANCE (IN)	HEAD/SILL END DISTANCE (IN)	JAMB ON CENTER SPACING (IN)	HEAD/SILL ON CENTER SPACING (IN)
FRAME TO CONCRETE SUBSTRATE	1/4" ITW ADVANCED THREADFORM TAPCON	1-1/2	4	1-1/2	2500 PSI CONCRETE MIN.	6	6	15	18
FRAME TO MASONRY SUBSTRATE	1/4" ITW ADVANCED THREADFORM TAPCON	1	4	2	ASTM C90 MEDIUM WEIGHT (DENSITY > 117 PCF) MASONRY (CMU) MIN.	6	6	15	18
FRAME TO WOOD SUBSTRATE	NO. 14 WOOD SCREW	1-1/2	1	1	SG = 0.55 (HVHZ) MIN.	6	6	15	18
					SG = 0.42 (NON-HVHZ) MIN.				
FRAME TO STEEL STUD SUBSTRATE	NO. 14 SHEET METAL SELF-DRILLING SCREW	3 THREADS PAST INTERIOR OF STEEL STUD	3/4	3/8	18 GA. Fty = 33 KSI MIN.	6	6	15	18
CLIP TO CONCRETE SUBSTRATE	1/4" ITW ADVANCED THREADFORM TAPCON	1-1/2	4	1-1/2	2500 PSI CONCRETE MIN.	5	4.5	16	15
CLIP TO MASONRY SUBSTRATE	1/4" ITW ADVANCED THREADFORM TAPCON	1	4	2	ASTM C90 MEDIUM WEIGHT (DENSITY > 117 PCF) MASONRY (CMU) MIN.	5	4.5	16	15
CLIP TO WOOD SUBSTRATE	NO. 14 WOOD SCREW	1-1/2	1	1	SG = 0.55 (HVHZ) MIN.	5	4.5	16	15
					SG = 0.42 (NON-HVHZ) MIN.				
CLIP TO STEEL STUDSUBSTRATE	NO. 14 SHEET METAL SELF-DRILLING SCREW	3 THREADS PAST INTERIOR OF STEEL STUD	3/4	3/8	18 GA. Fty = 33 KSI MIN.	5	4.5	16	15

NOTES:
(1) CONCRETE / MASONRY SUBSTRATE ANCHORS TO BE ITW ADVANCED THREADFORM TECHNOLOGY CONCRETE SCREWS.
(2) WOOD SUBSTRATE ANCHORS TO BE ANSI B18.6.1 WOOD SCREWS OR ASME B18.6.4 TAPPING SCREWS WITH MIN. GRADE 2 STRENGTH.
(3) WOOD SUBSTRATE HOLE PRE BORE: #14 WOOD SCREW PILOT HOLE - 0.149"
(4) METAL SUBSTRATE ANCHORS ASME B18.6.4 TAPPING SCREWS WITH MIN. GRADE 2 STRENGTH.

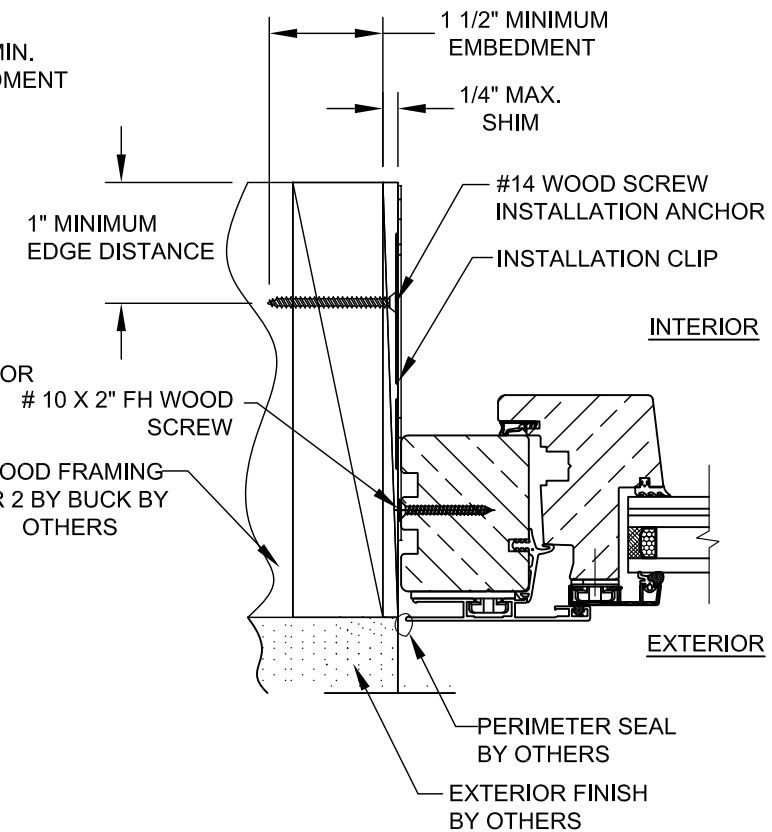
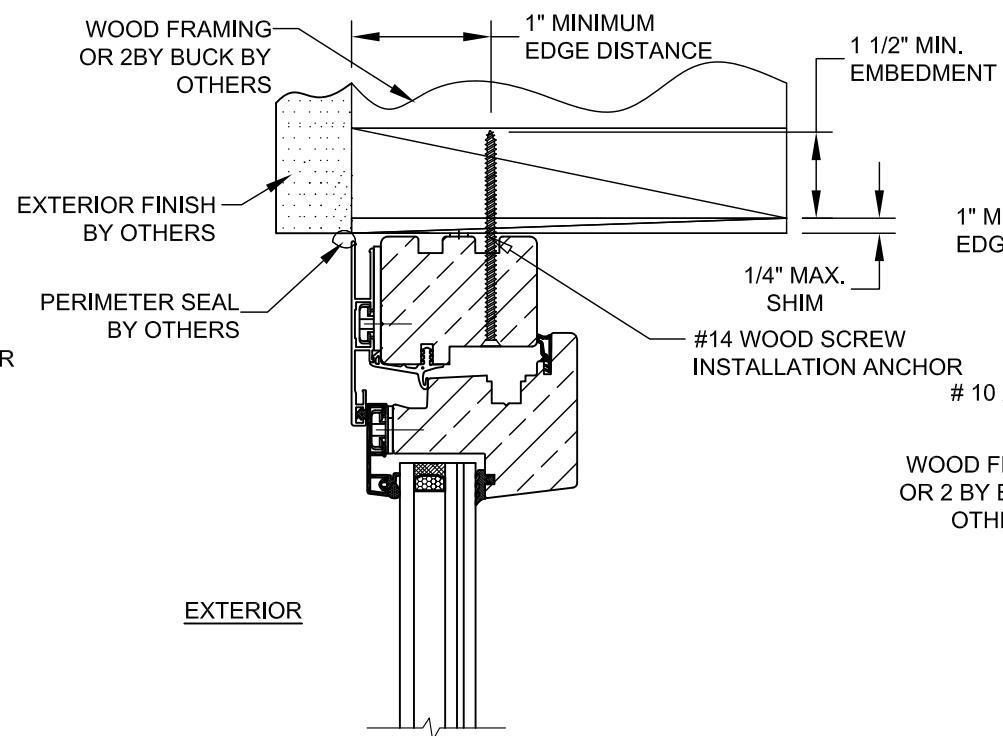
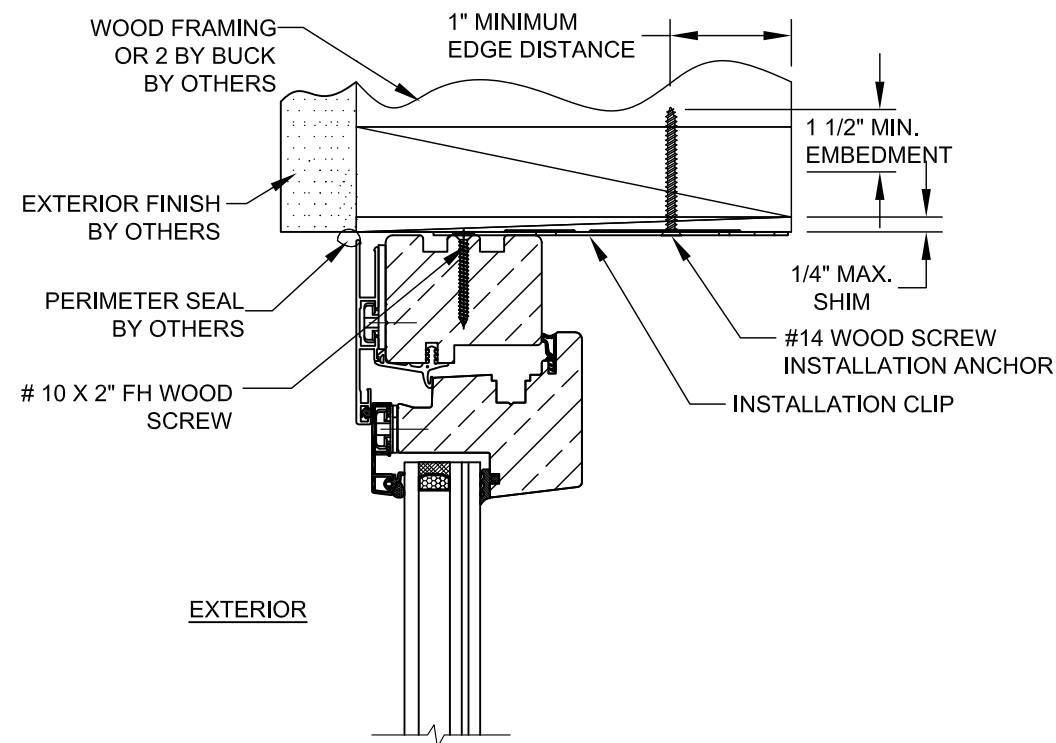
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			9/30/17	DATE
		UPDATE TO 6TH ED. (2017) FBC		DESCRIPTION
		A	REV	

UNILUX GMBH			
NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY			
TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW ANCHOR REQUIREMENT TABLE			
	DRAWN BY: JRM		DATE: 08/25/14
	SCALE: N.T.S.		DRAWING NO: NL_0038
	REV:		SHEET: 3 OF 9
	A		

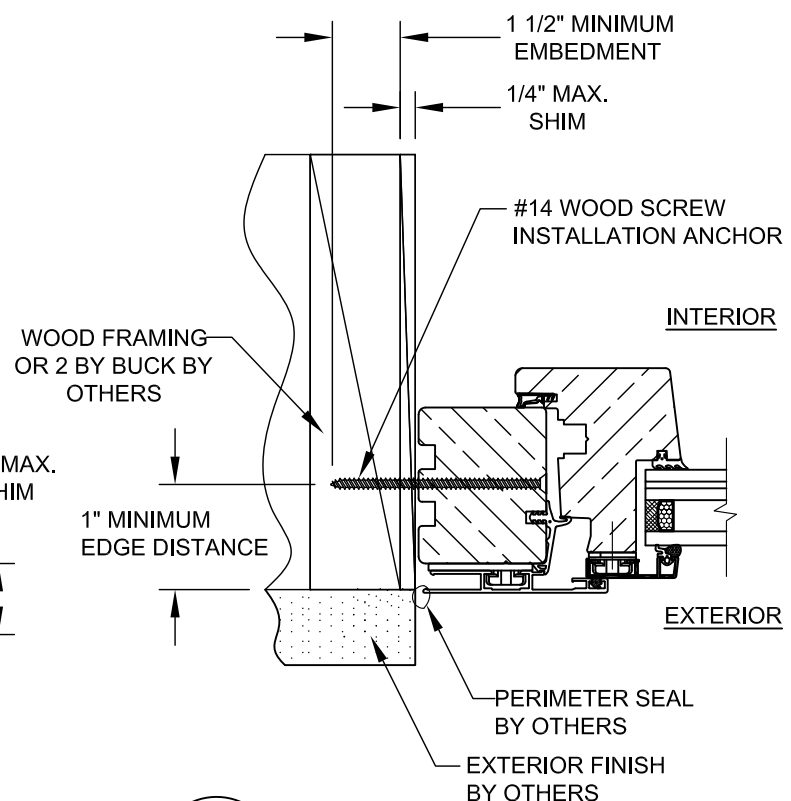
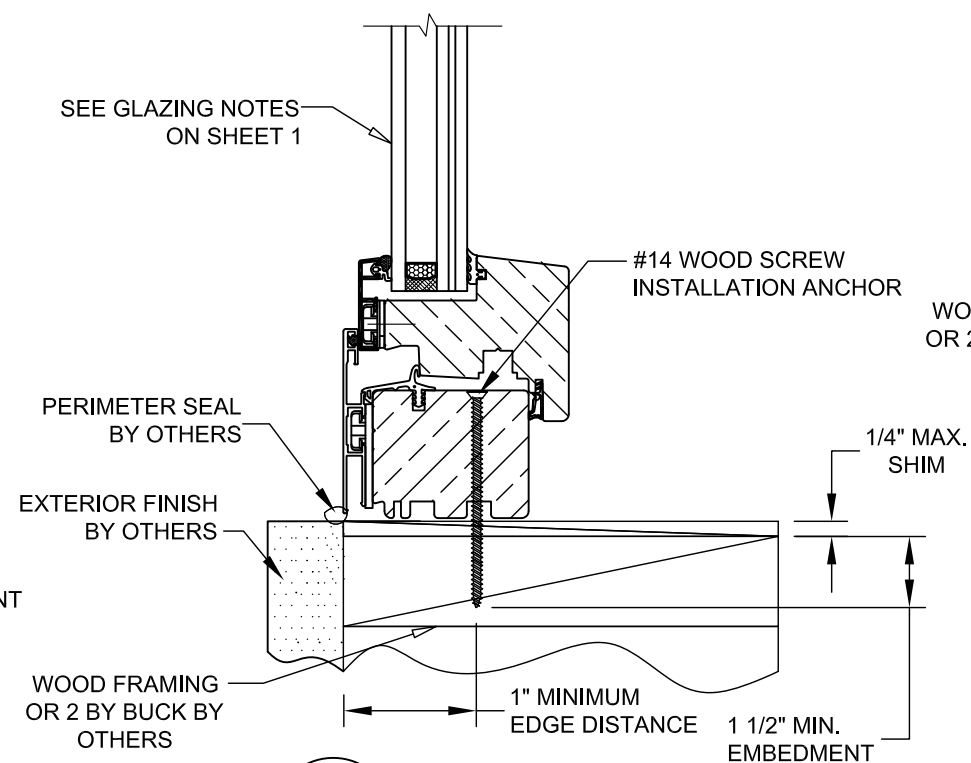
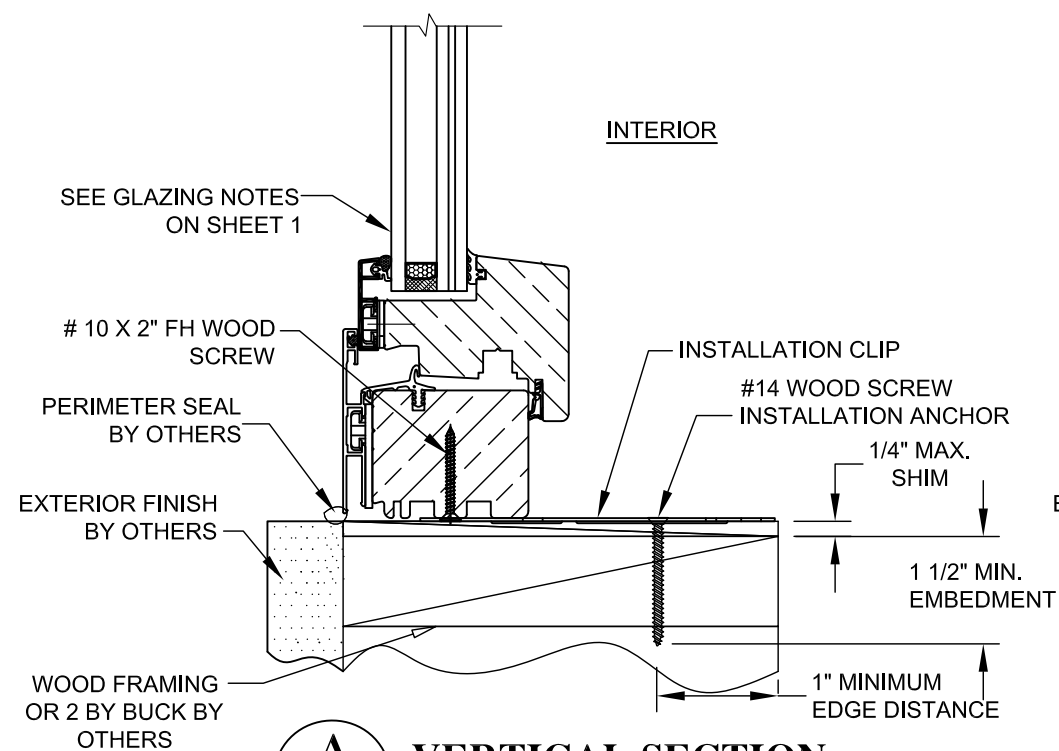
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HORIZONTAL SECTION **INSTALLATION CLIP** **WOOD FRAME SUBSTRATE**



D **4** **HORIZONTAL SECTION** **WOOD FRAME SUBSTRATE**

UNILUX GMBH
UNIKO ALIS MEETH STB 1 DE 54528 SAI MTAI CERMANY

TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW
VERTICAL & HORIZ. INSTALLATION DETAILS

DRAWN BY: _____ DATE: _____

DRAWN BY: _____ DATE: _____

SCALE:	JRM	U6/Z3/14
DRAWING NO:		

SCALE:	JRM	U6/Z3/14
DRAWING NO:		

N.I.S.	NL_0038
REV: A	SHEET: 1 OF 3

N.I.S.	NL_0038
REV: A	SHEET: 1 OF 3

UPDATE TO 6TH	
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UPDATE TO 6TH	
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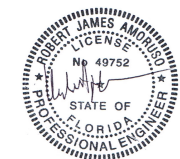
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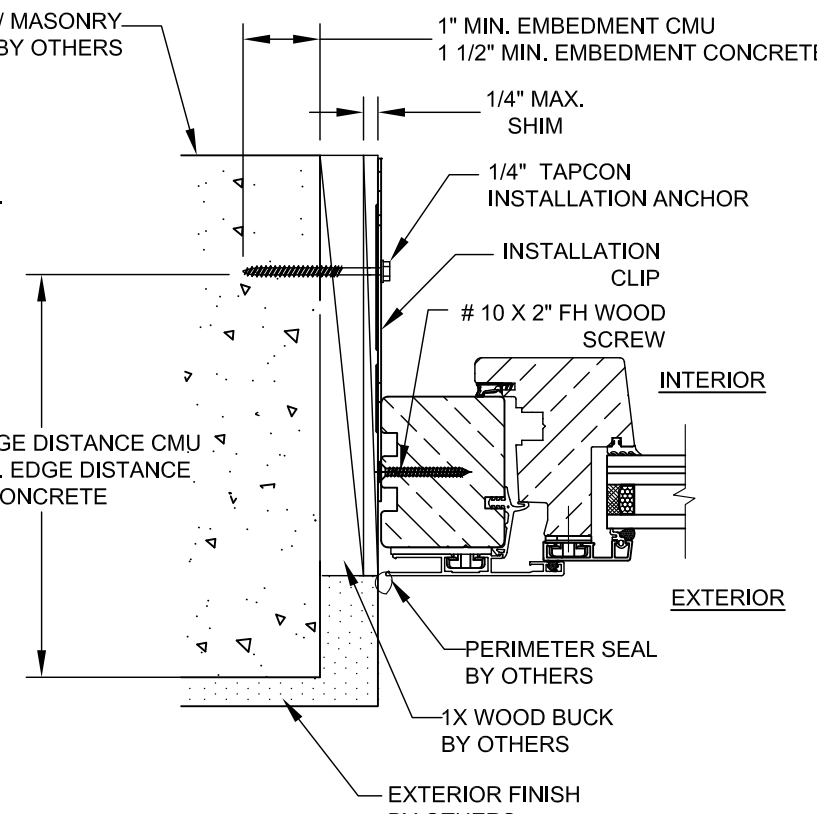
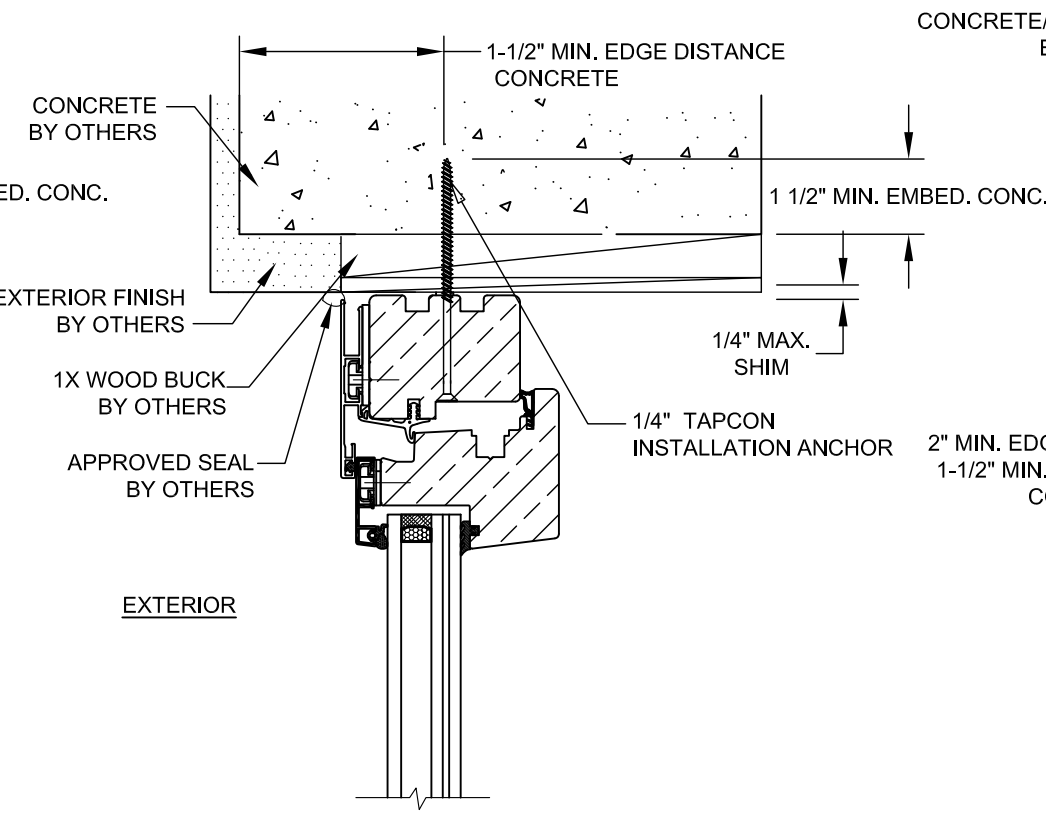
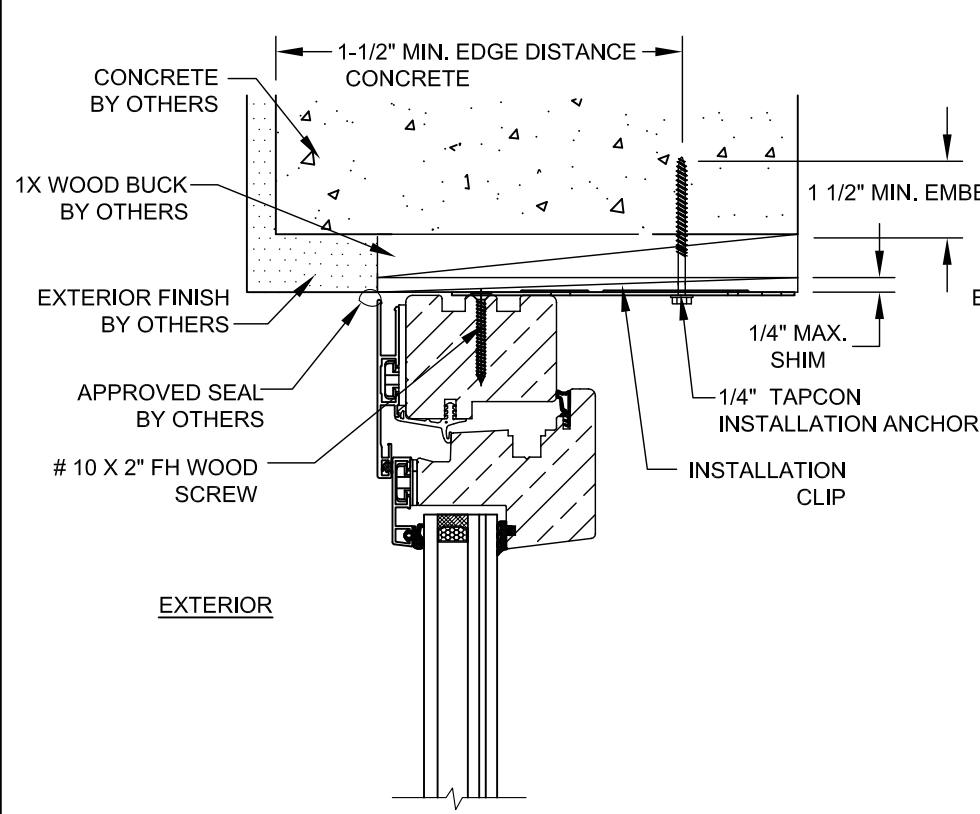
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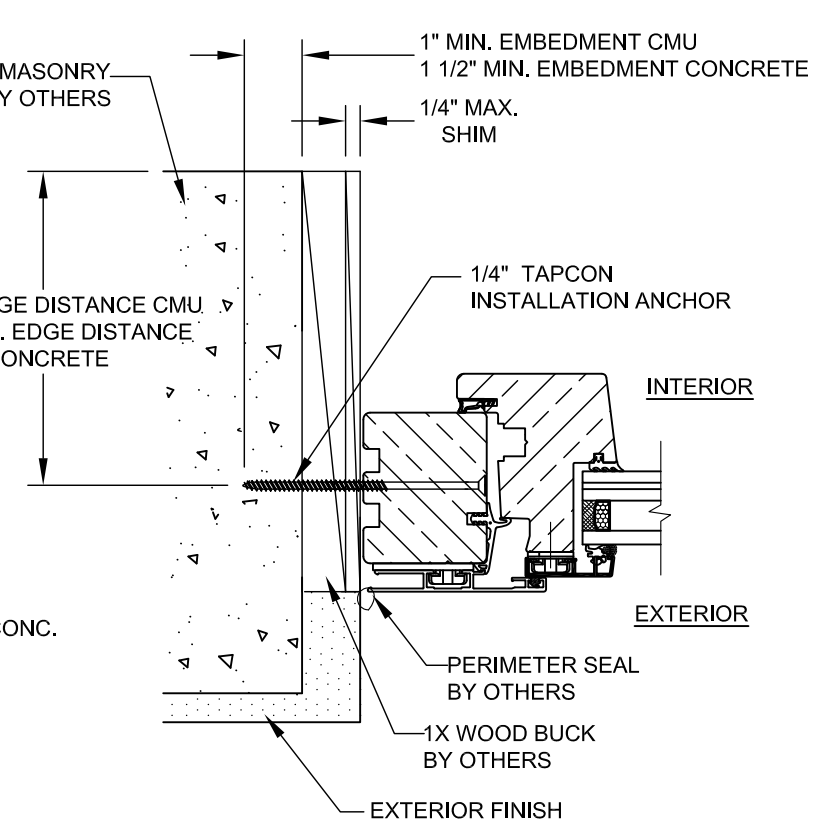
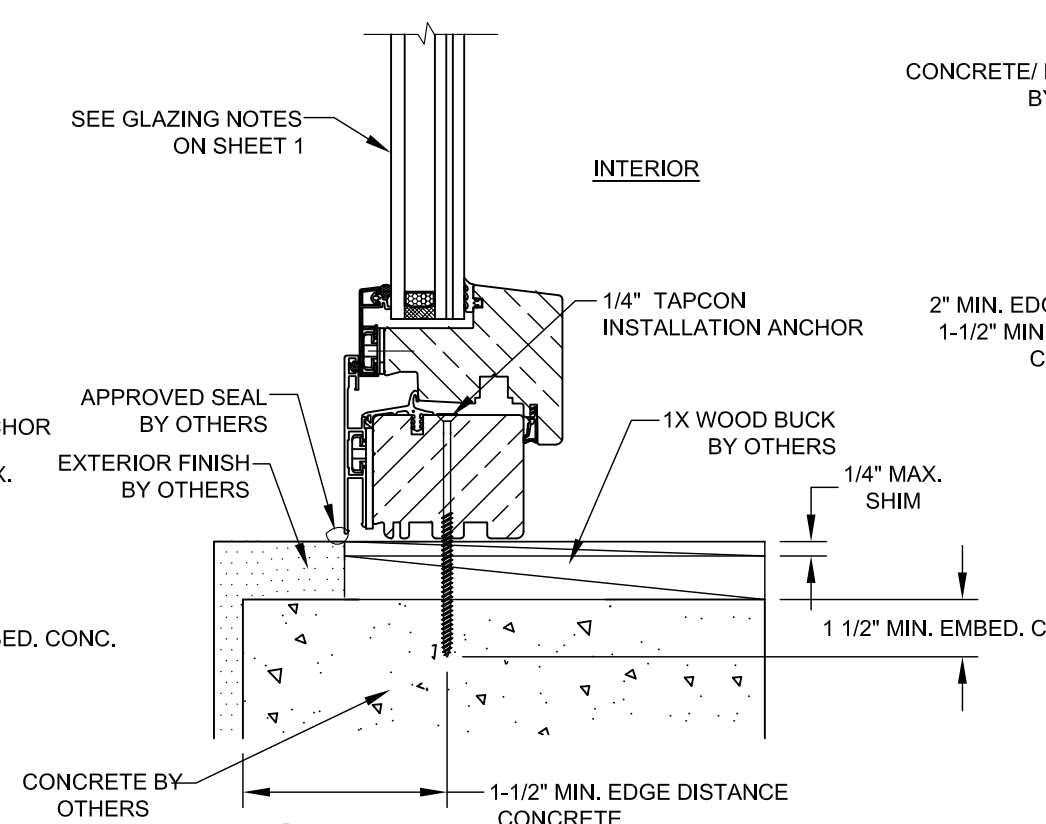
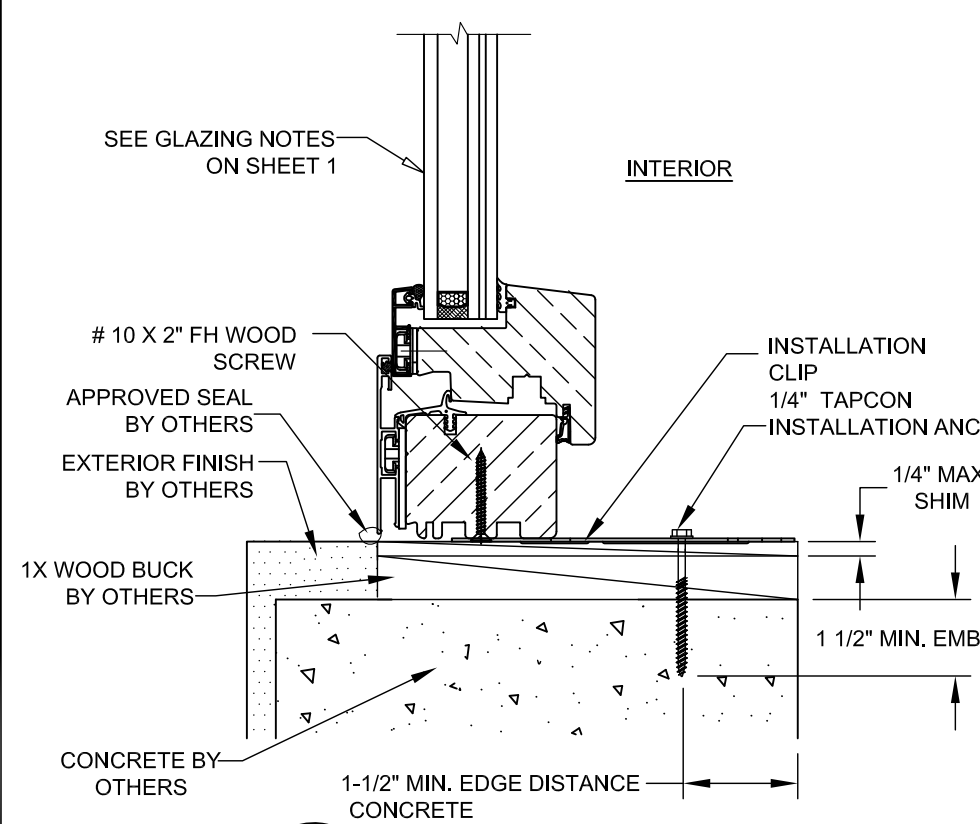


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C
5 **HORIZONTAL SECTION**
INSTALLATION CLIP
CONCRETE / MASONRY
SUBSTRATE



A
5 **VERTICAL SECTION**
INSTALLATION CLIP
CONCRETE SUBSTRATE

B
5 **VERTICAL SECTION**
INSTALLATION CLIP
CONCRETE SUBSTRATE

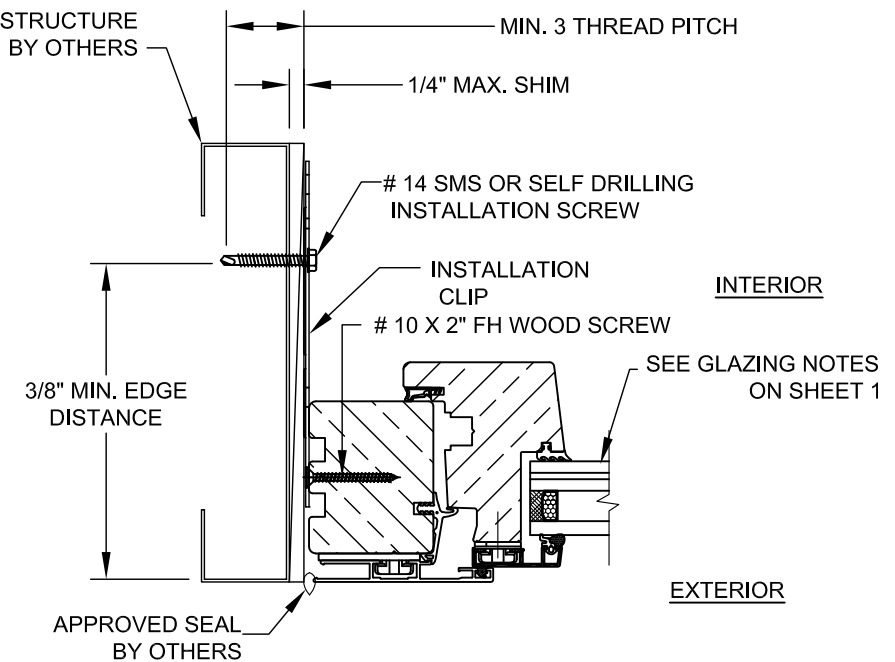
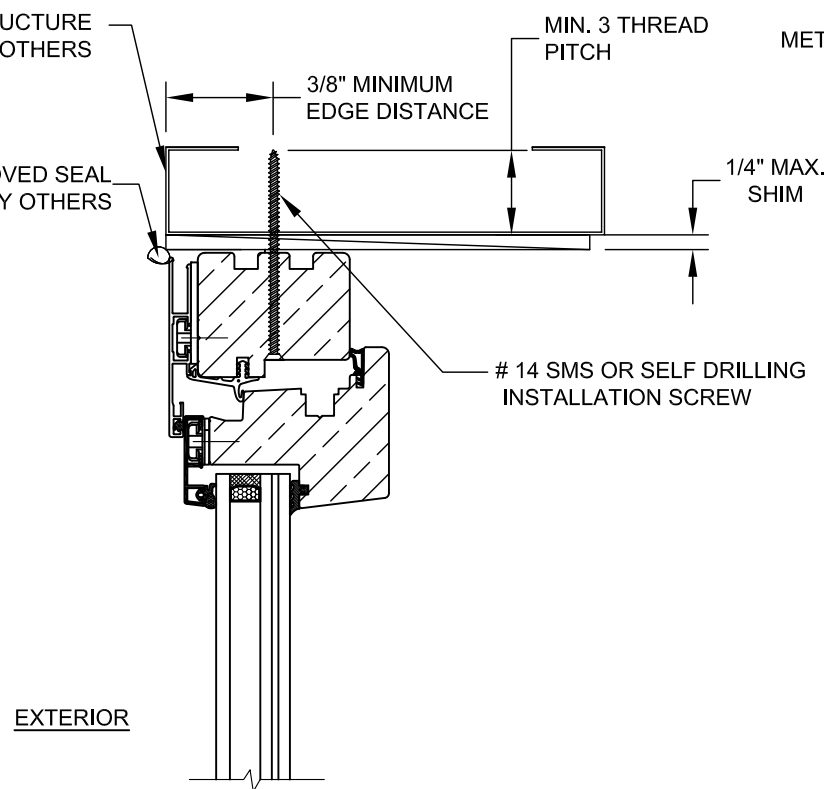
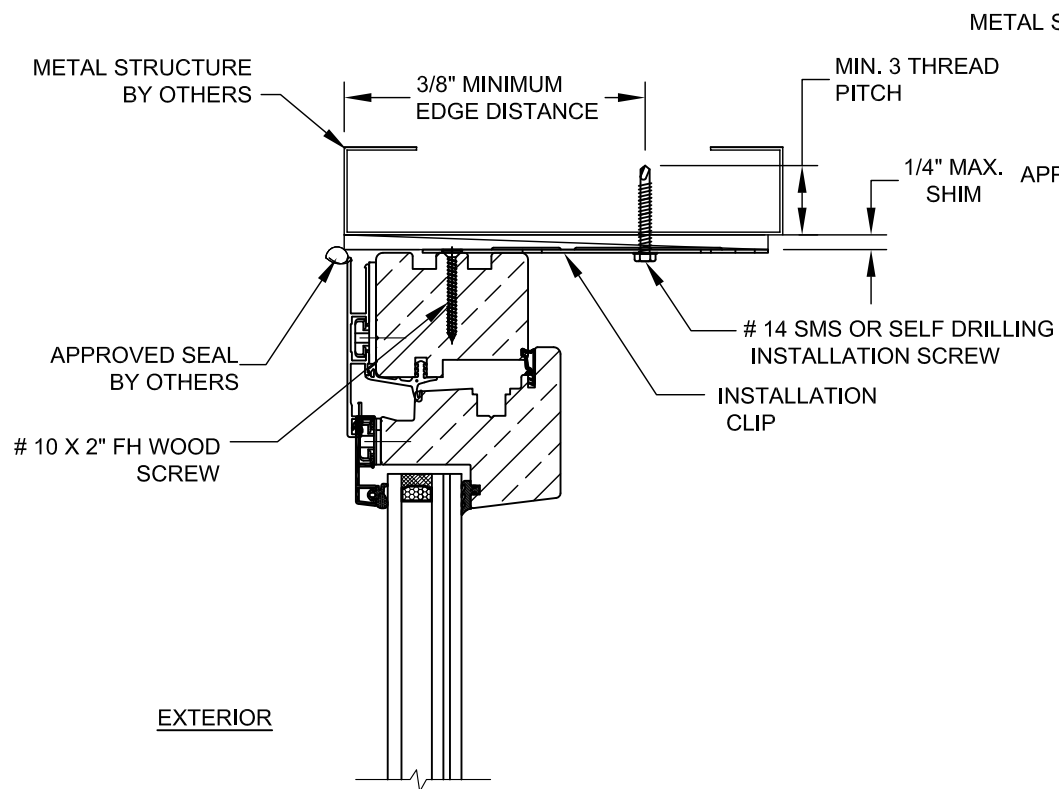
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5 **HORIZONTAL SECTION**
INSTALLATION CLIP
CONCRETE / MASONRY
SUBSTRATE

UNILUX GMBH		NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY	
TITLE:		SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW VERTICAL & HORIZ. INSTALLATION DETAILS	
DRAWN BY:		JRM	
DATE:		08/25/14	
SCALE:		N.T.S.	
REV:		A	
SHEET:		5 OF 9	
DESCRIPTION		UPDATE TO 6TH ED. (2017) FBC	
REV		A	
DATE		9/30/17	
BY		RJA	

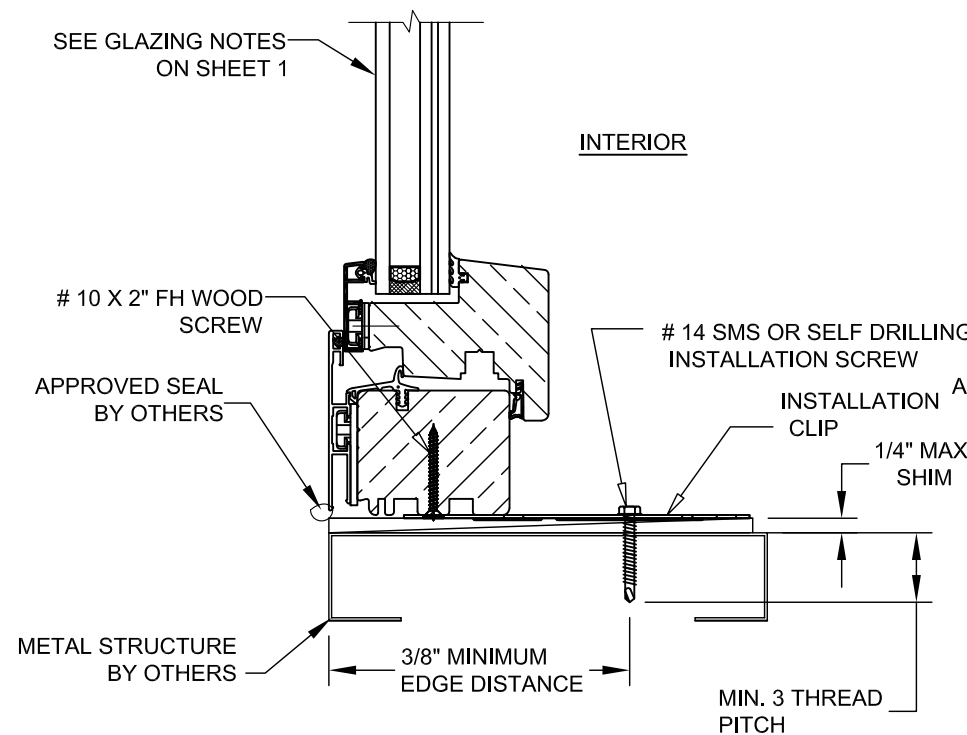
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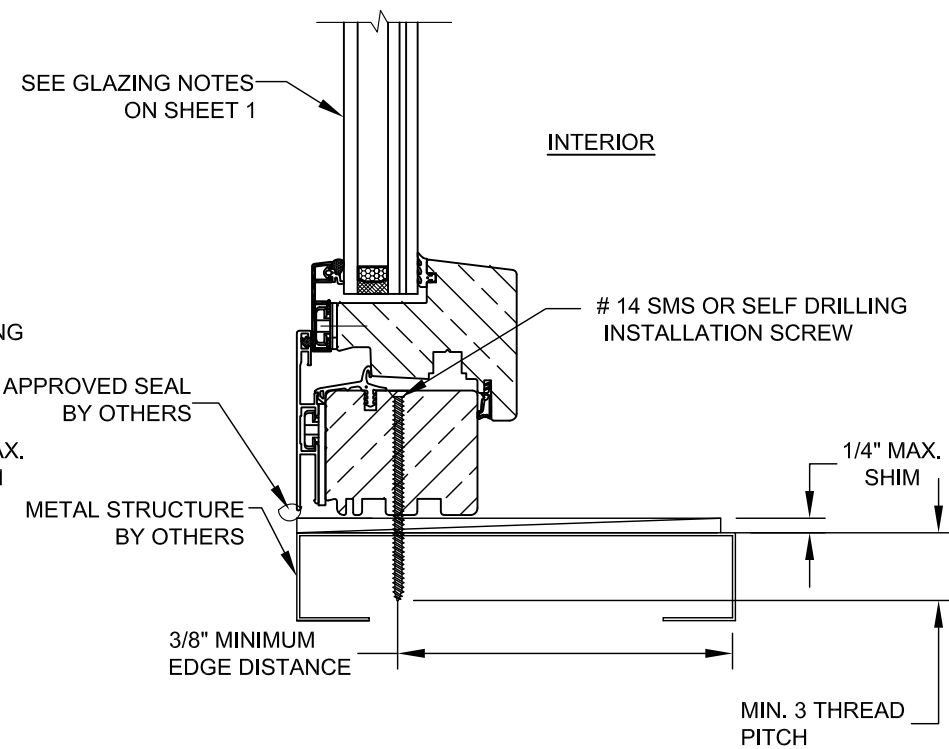
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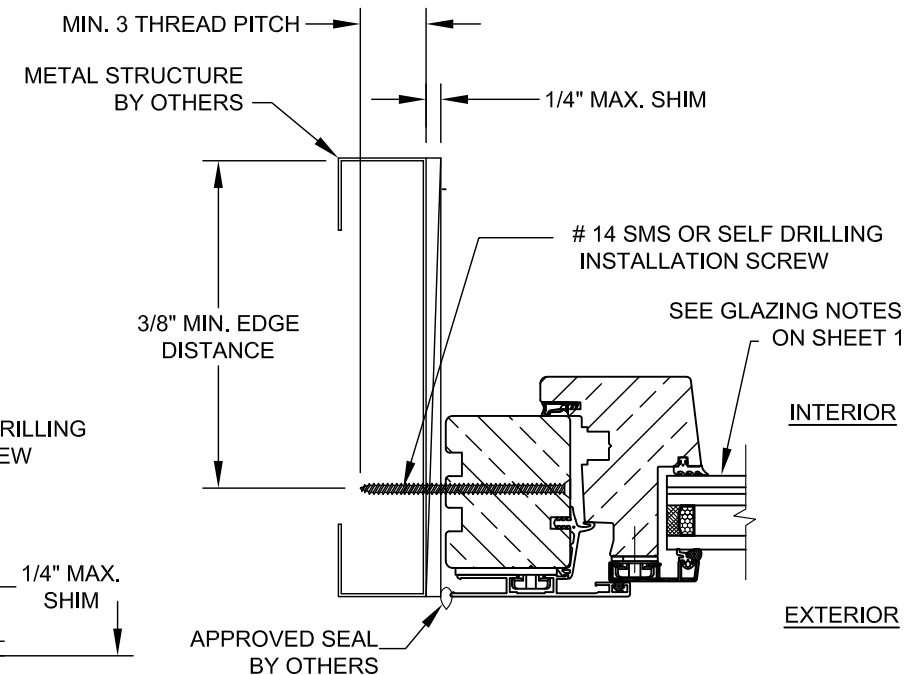
C
6 **HORIZONTAL SECTION**
INSTALLATION CLIP
METAL SUBSTRATE



A
6 **VERTICAL SECTION**
INSTALLATION CLIP
METAL SUBSTRATE



B
6 **VERTICAL SECTION**
INSTALLATION CLIP
METAL SUBSTRATE



D
6 **HORIZONTAL SECTION**
INSTALLATION CLIP
METAL SUBSTRATE

UNILUX GMBH
NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY

TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW
VERTICAL & HORIZ. INSTALLATION DETAILS

DRAWN BY: JRM

SCALE: N.T.S.

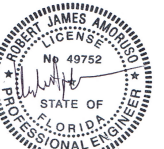
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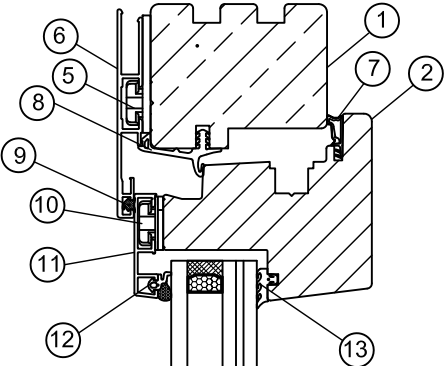
SHEET: 6 OF 9

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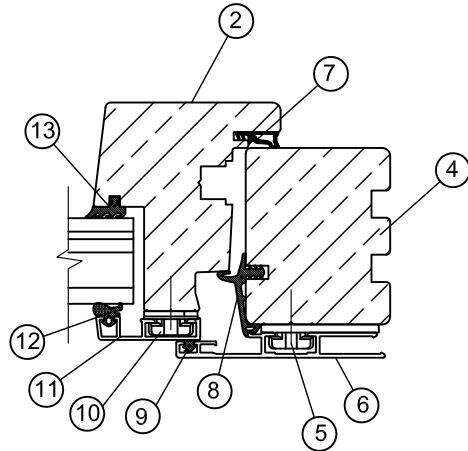
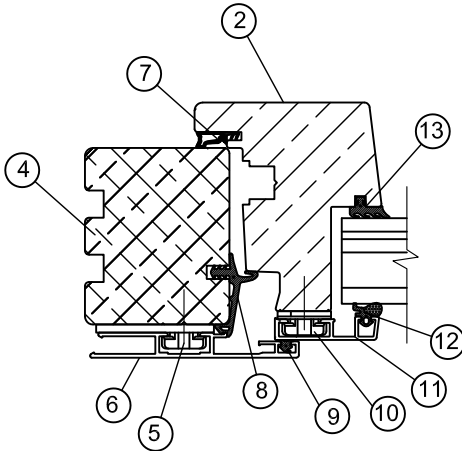


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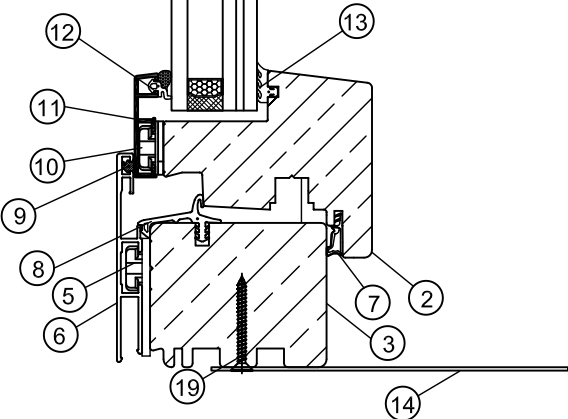
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SEE GLAZING
DETAIL ON THIS
SHEET

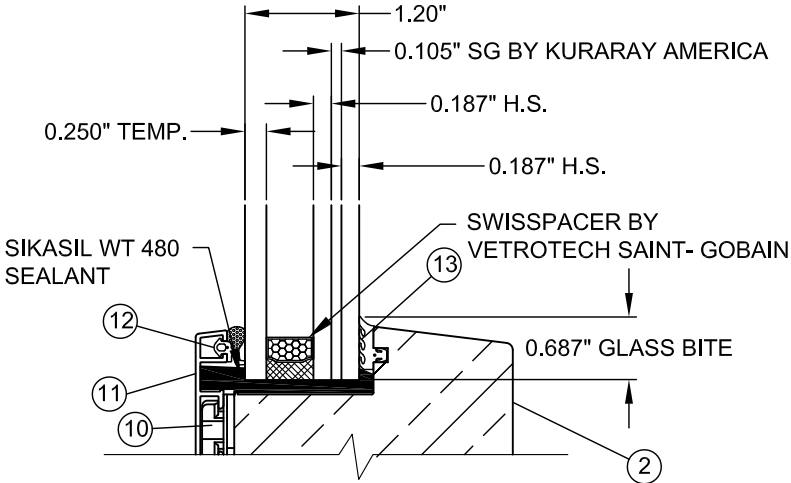


**HORIZONTAL CROSS SECTION
FOR PARTS IDENTIFICATION**



**VERTICAL CROSS SECTION
FOR PARTS IDENTIFICATION**

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	F41-0007-1	FRAME TOP, WOOD G .50	UNILUX
2	F51-0001-39	SASH, TOP,, BOTT. & SIDE WOOD G .50	UNILUX
3	F41-0019-1	FRAME, BOTTOM WOOD G. .50	UNILUX
4	F41-0006-1	FRAME, SIDE JAMB WOOD G. .50	UNILUX
5	E41-0116	FRAME CLADDING FASTENER, PLASTIC GF 30	UNILUX
6	E51-0002	FRAME CLADDING, 6060-T5 ALUMINUM	UNILUX
7	E51-1006	SASH GASKET, EPDM 60 DUR	UNILUX
8	E51-1012	FRAME GASKET, RUBBER EPDM 70 DUR	UNILUX
9	E41-1003	FRAME GASKET EPDM DUR 80	UNILUX
10	E41-0114	SASH CLADDING FASTENER, PLASTIC GF 30	UNILUX
11	E55-0001	SASH CLADDING, 6060-T5 ALUMINUM	UNILUX
12	E41-1029	EXT. GLAZING GASKET EPDM DUR 80	UNILUX
13	E41-1002	INT. GLAZING GASKET EPDM DUR 80	UNILUX
14	PURCHASE	0.0551" THICK GALVANIZED INSTALLATION CLIP	SIMPSON
15	PURCHASE	GLAZING SEALANT, SIKASIL WT-480	SIKA
16	PURCHASE	1/4" SELF TAPPING INSTALLATION	UNILUX
17	PURCHASE	#14 P. PHD WOOD INSTALLATION SCREW	UNILUX
18	PURCHASE	1/4" I.T.W. A.T.T. MASONRY ANCHOR	UNILUX
19	PURCHASE	#8 X 1-1/4" WOOD SCREW	UNILUX

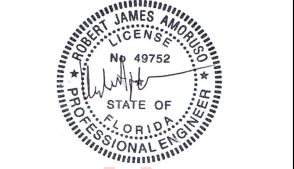


GLAZING DETAIL

			RJA	BY
			9/30/17	DATE
		UPDATE TO 6TH ED. (2017) FBC		DESCRIPTION
		A	REV	

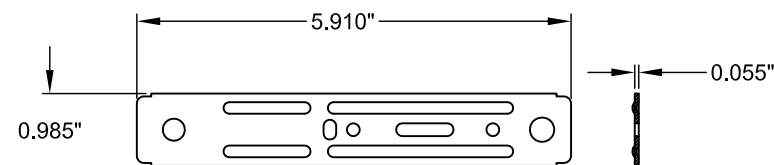
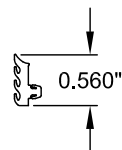
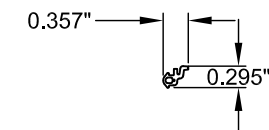
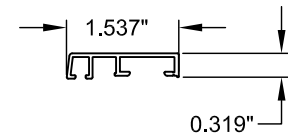
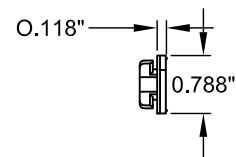
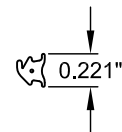
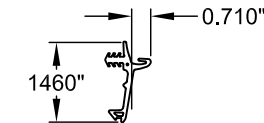
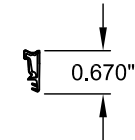
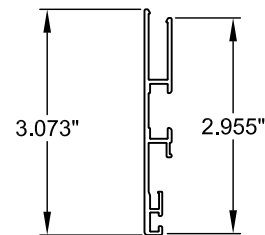
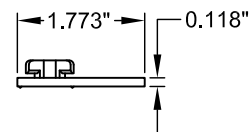
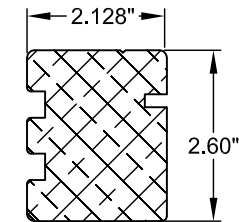
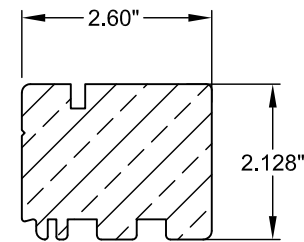
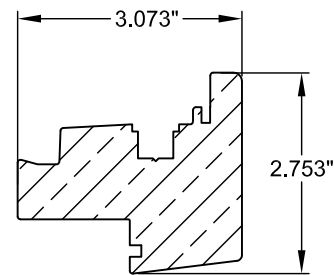
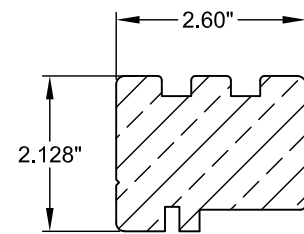
UNILUX GMBH	DATE:	08/25/14		
NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY	DRAWN BY:	JRM		
TITLE:	SCALE:	N.T.S.		
SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW	DRAWING NO.:	NL_0038		
B.O.M. CROSS SECTIONS & GLAZING	REV:	A		
			SHEET:	7 OF 9

ROBERT J. AMORUSO
FL. P.E. NO. 49752



Digitally signed by
Robert J Amoruso
Date: 2017.10.01
15:31:13 -04'00'

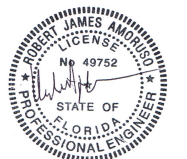
12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net



A	UPDATE TO 6TH ED. (2017) FBC	9/30/17	RJA		
REV	DESCRIPTION	DATE	BY		

UNILUX GMBH	
NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY	
TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW COMPONENTS	
DRAWN BY: JRM	DATE: 08/25/14
SCALE: N.T.S.	DRAWING NO: NL_0038
REV: A	SHEET: 8 OF 9

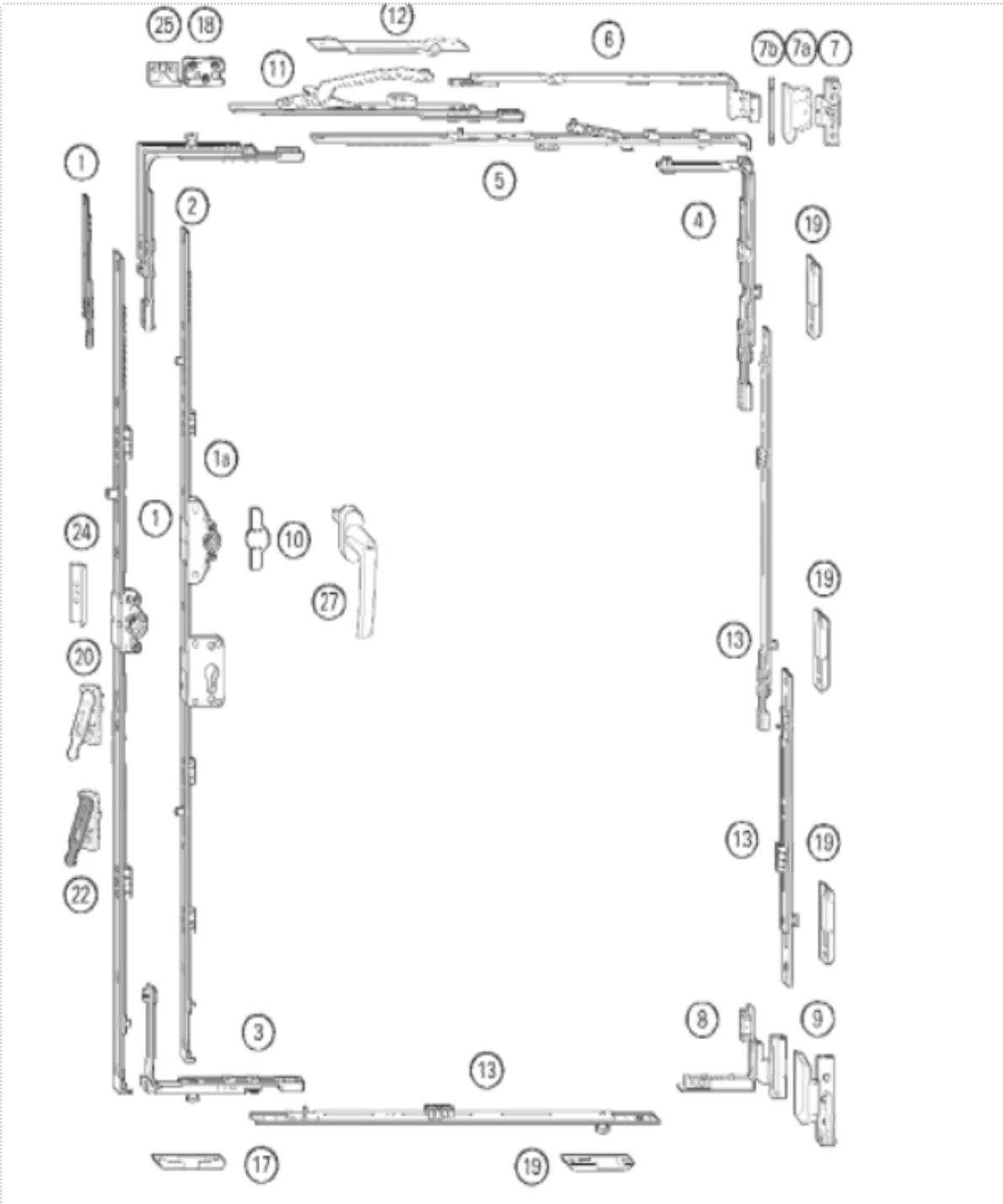
ROBERT J. AMORUSO
FL. P.E. NO. 49752



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Robert J Amoruso
Date: 2017.10.01
15:31:25 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	259853/308267	TILT/TURN LOCK GEAR	ROTO
2	260272	CORNER DRIVE HEAD FRONT	ROTO
3	260288	CORNER DRIVE BOTTOM FRONT	ROTO
4	260294	STAY CORNER DRIVE	ROTO
5	287528	SASH STAY GUIDE	ROTO
6	262377	STAY ARM	ROTO
7A	355618	MOULDING COVER AT HINGE	ROTO
7B	227354	HINGE PIN	ROTO
8	262388	REBATE CORNER HINGE	ROTO
9	355620	CORNER PIVOT RESET	ROTO
10	264601	DRILL PROTECTION	ROTO
11	315999	SCISSOR STAY, SASH PART	UNILUX
12	330595	SCISSOR STAY, FRAME PART	UNILUX
13	337711/296853	MULTIPART CENETER LOCK	UNILUX
14	296076/308267	TURN-ONLY LOCK GEAR	UNILUX
15	257138	SASH STAY GUIDE	UNILUX
16	337710	CENTER LOCK, HORIZONTAL	UNILUX
17	355608	STRIKER FOR TILT FUNCTION	UNILUX
18	355611	STRIKER HEAD	UNILUX
19	355610	SAFETY STRIKER	UNILUX
20	260538	SASH LIFTER, SASH PART	UNILUX
21	257600	SASH LIFTER, FRAME PART	UNILUX
22	284220	SPECIAL SASH LIFTER	UNILUX
23	330081	MAGNETIC CATCH, FRAME	UNILUX
24	329981	MAGNETIC CATCH	UNILUX
25	260527	SLOT-VENT	UNILUX
26	350403	REST BLOCK	UNILUX
27	GFORA	HANDLE	UNILUX

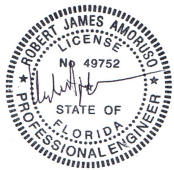


K HARDWARE

			RJA	BY
		9/30/17	DATE	
		UPDATE TO 6TH ED. (2017) FBC	DESCRIPTION	
		A	REV	

UNILUX GMBH				
NIKOLAUS-MEETH-STR. 1, DE 54528 SALMTAL, GERMANY				
TITLE: SERIES "K" ALUM. CLAD WOOD HOPPER WINDOW HARDWARE DETAILS				
	DRAWN BY: JRM		DATE: 08/25/14	
	SCALE: N.T.S.		DRAWING NO: NL_0038	
	REV: A		SHEET: 9 OF 9	

ROBERT J. AMORUSO
FL. P.E. NO. 49752



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Robert J Amoruso
Date: 2017.10.01
15:31:41 -04'00'

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