

UNILUX GmbH

SERIES "HAHS-4" ALUMINUM CLAD

WOOD LIFT-SLIDE DOOR OXXO

INSTALLATION ANCHORAGE DETAILS

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 PER TEST REPORT# NCTL-210-4055-02.
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. 1X BUCK OVER MASONRY AND/OR CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY 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 WITH 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
 - 7.4 SILL: ALUMINUM 6060-T66
8. GLAZING:
- 8.1 GLASS MEETS THE REQUIREMENTS OF ASTM E1300-04e01.
 - 8.2 SEE GLAZING DETAIL ON SHEET 11 OF 12.
 - 8.3 GLASS SHALL MEET SAFETY GLAZING REQUIREMENTS PER CURRENT EDITION OF THE FLORIDA BUILDING CODE.
 - 8.4 APPROVED INTERLAYER FROM KURARAY AMERICA SENTRYGLAS PER CURRENT MIAMI DADE NOTICE OF ACCEPTANCE (N.O.A.)

9. DESIGNATIONS "X" AND "O" STAND FOR THE FOLLOWING:
- X: OPERABLE
 - O: STATIONARY

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12	HARDWARE DETAILS

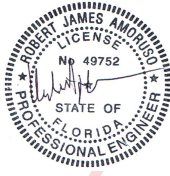
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REV	DESCRIPTION	DATE	APPROVED

ANCHOR NOTES:

1. 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".
2. FOR ANCHORING INTO THROUGH FRAME OR INSTALLATION CLIP INTO MASONRY/CONCRETE USE 1/4" ADVANCED THREADFORM TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE THE FOLLOWING:
- 2.1 CONCRETE: 1-1/2" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1-1/2" MINIMUM EDGE DISTANCE.
- 2.2 CMU/MASONRY: 1" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2" MINIMUM EDGE DISTANCE.
3. FOR ANCHORING THROUGH FRAME OR INSTALLATION CLIP INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREWS (ANSI B18.6.1) WITH MINIMUM GRADE 2 STRENGTH, AND WITH SUFFICIENT LENGTH TO ACHIEVE 1-1/2" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1" MINIMUM EDGE DISTANCE.
4. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
- A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.42 (NON-HVHZ) AND 0.55 (HVHZ).
 - B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
 - C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WT. DENSITY > 117 PCF WITH COMPRESSIVE STRENGTH OF 1900 PSI MIN.

UNILUX GmbH NIKOLAUS-MEETH, STR. 1 SALMTAL, D-54528 GERMANY		
UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ GENERAL NOTES		
DRAWN: JRM	DWG NO. NL-0088	REV —
SCALE NTS	DATE 03/06/2017	SHEET 1 OF 12

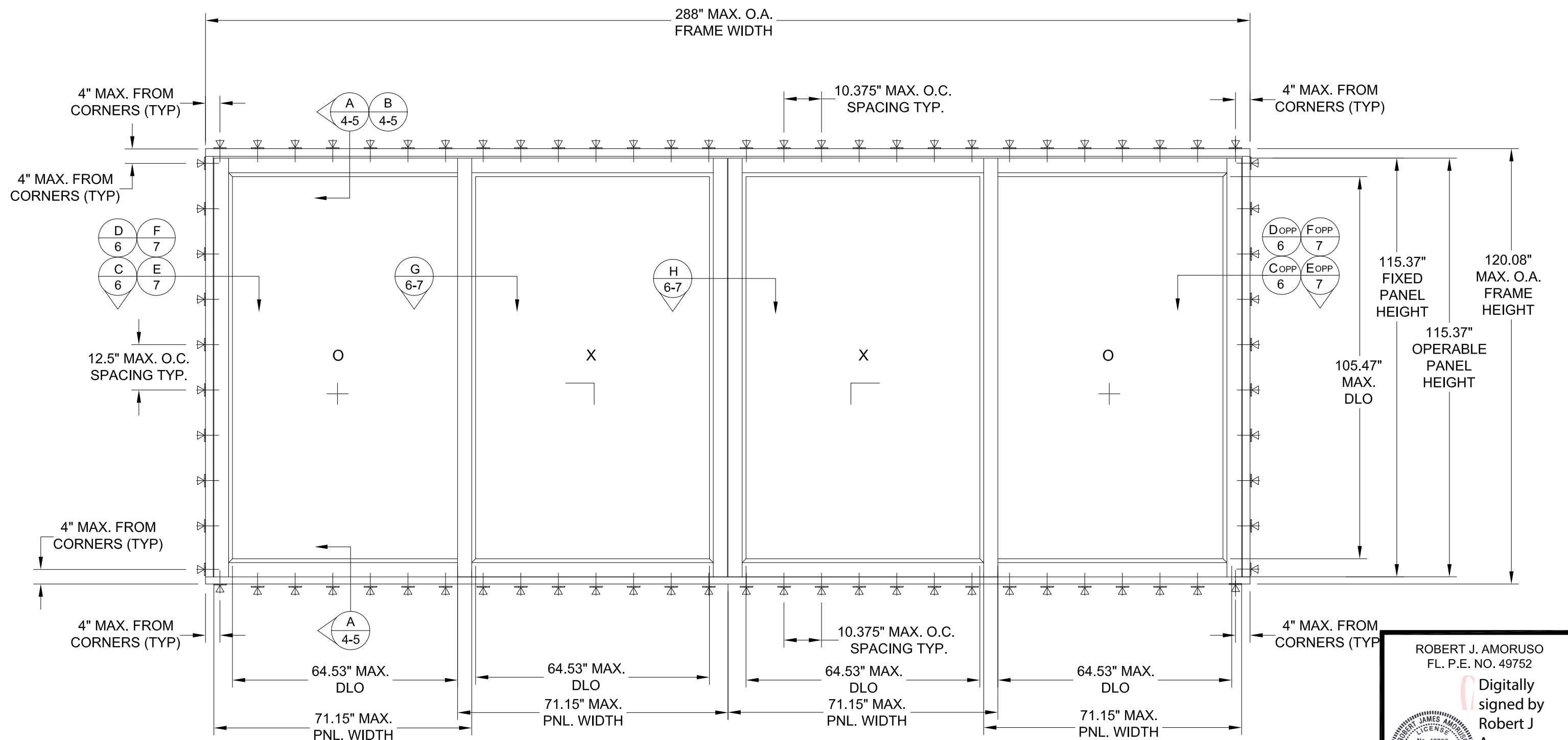
ROBERT J. AMORUSO
FL. P.E. NO. 49752



Digitally signed by Robert J Amoruso
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12472 LAKE UNDERHILL RD
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ORLANDO, FL 32828
robert.amoruso@comcast.net

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- NOTES
1. MAXIMUM PANEL D.L.O.: 64.53" X 105.47"
 2. THROUGH FRAME ANCHORS SPACING SAME AS INSTALLATION CLIP AT HEAD AND JAMBS.
 3. SILL ANCHORAGE USE INSTALLATION CLIP ONLY.

DESIGN PRESSURE RATING	IMPACT RATING
+ 60.0PSF / -60.0PSF	LARGE AND SMALL MISSILE IMPACT

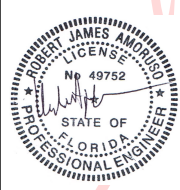
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ


 INSTALLATION STRAP
 ANCHOR LOCATION
 INTERIOR VIEW
 CONCRETE/MASONRY SUBSTRATE

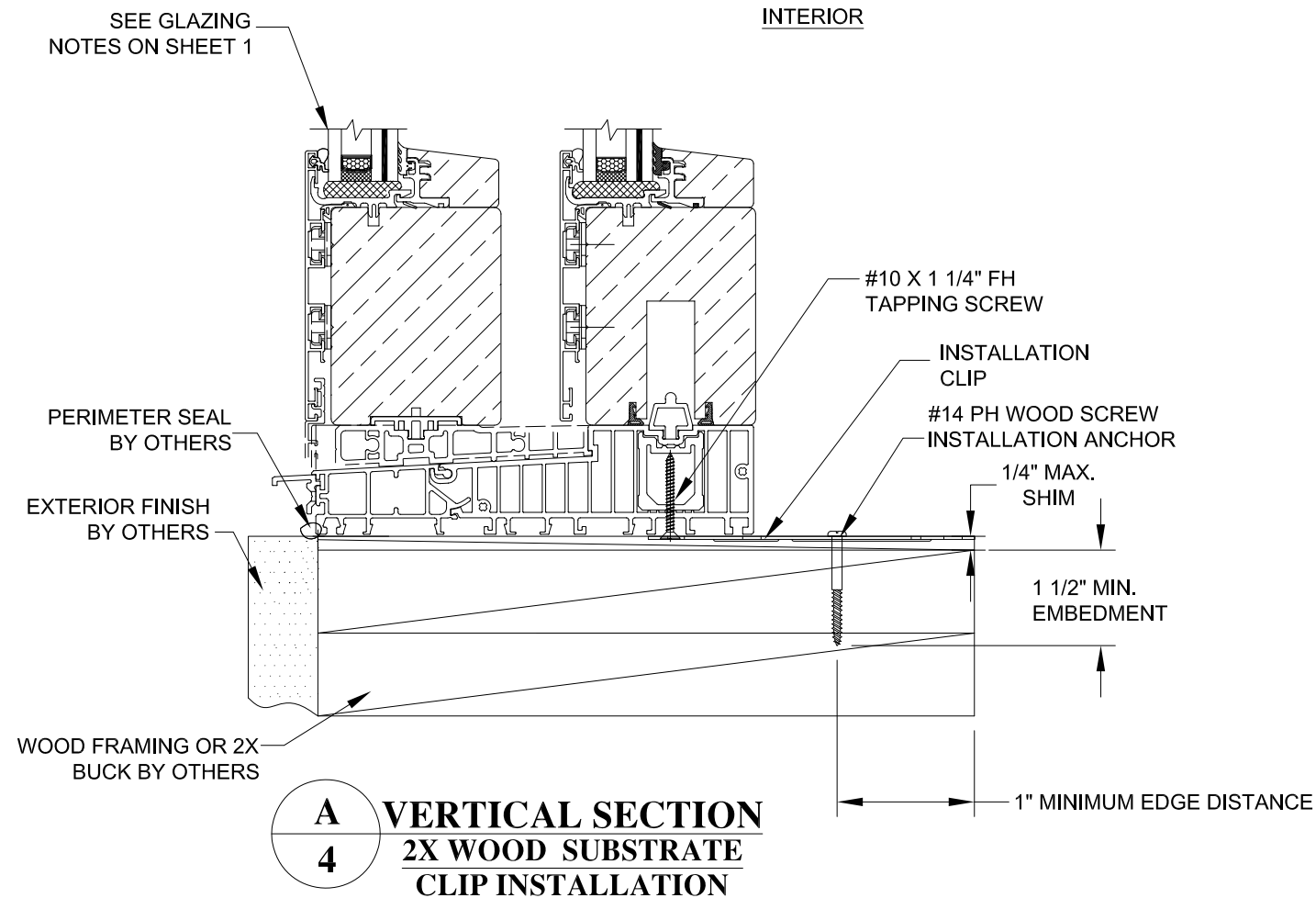
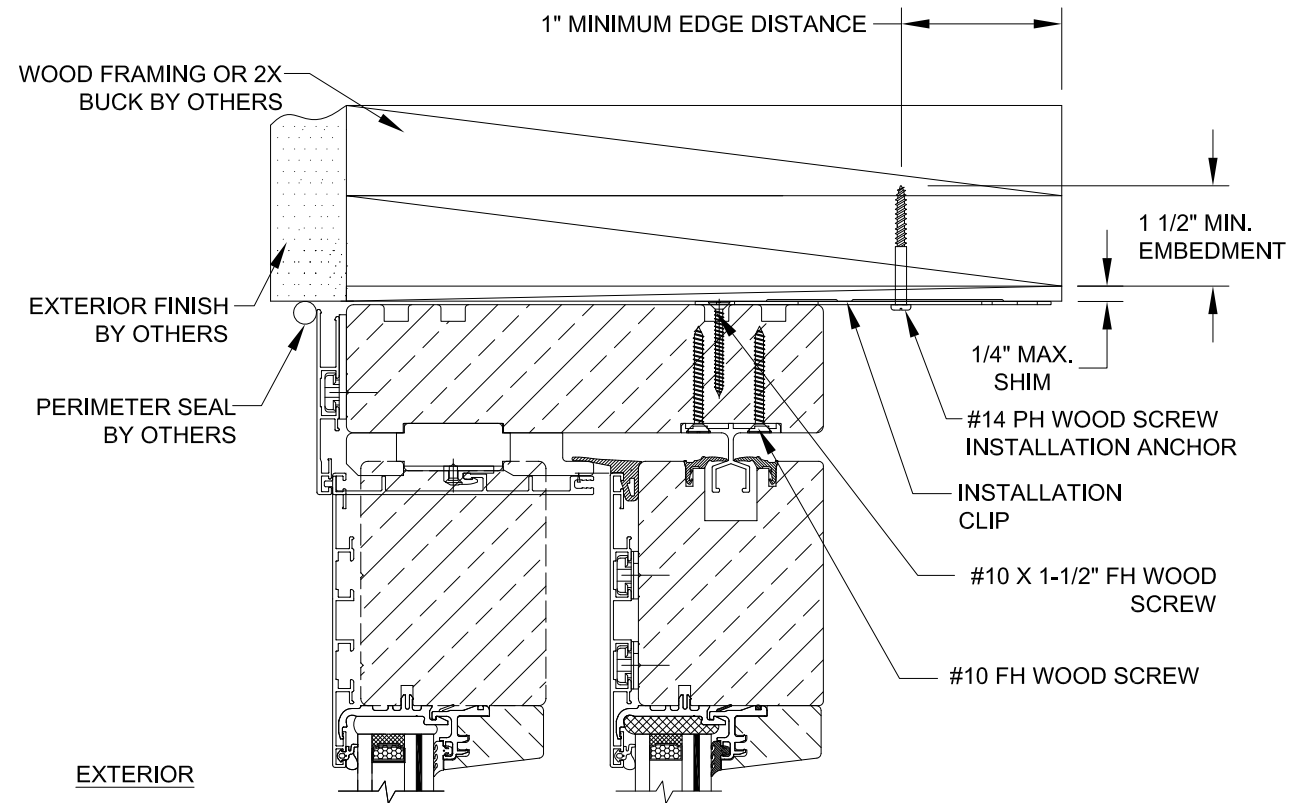
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 SALMTAL, D-54528 GERMANY

UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE
 DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ
 ELEVATION AND ANCHOR LAYOUT-CONC./MASONRY

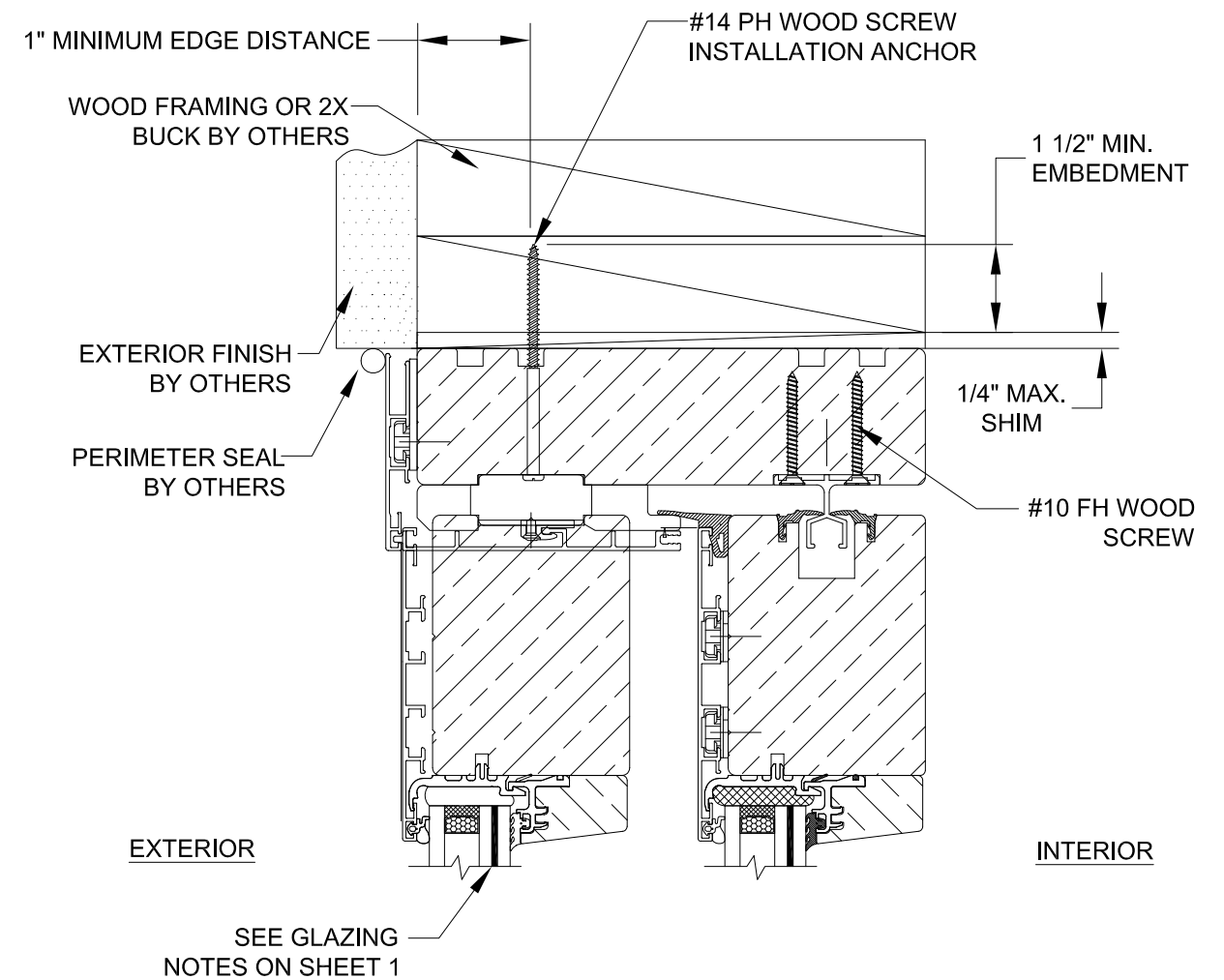
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A
4 **VERTICAL SECTION**
2X WOOD SUBSTRATE
CLIP INSTALLATION

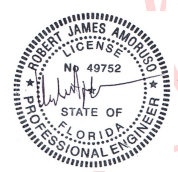


B
4 **VERTICAL SECTION**
2X WOOD SUBSTRATE
FRAME INSTALLATION

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UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ VERTICAL INSTALLATION DETAILS-2X WOOD FRAME		
DRAWN: JRM	DWG NO. NL-0088	REV -
SCALE NTS	DATE 03/06/2017	SHEET 4 OF 12

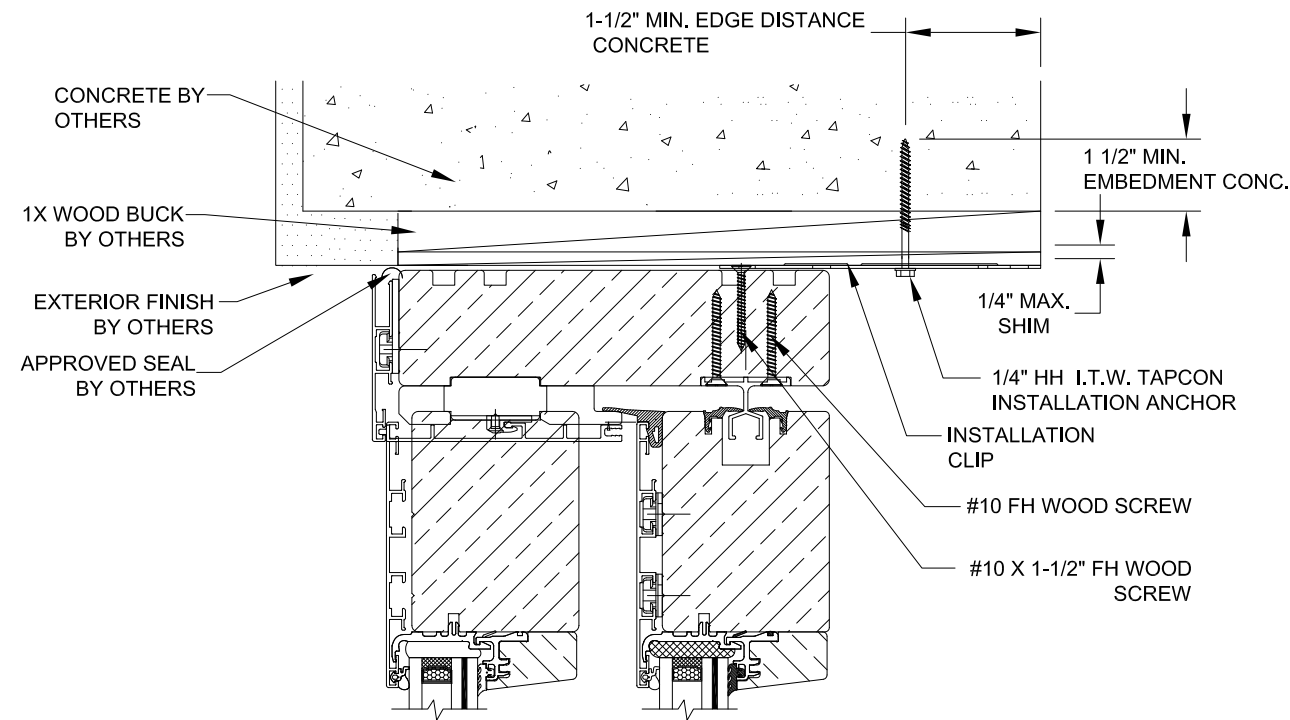
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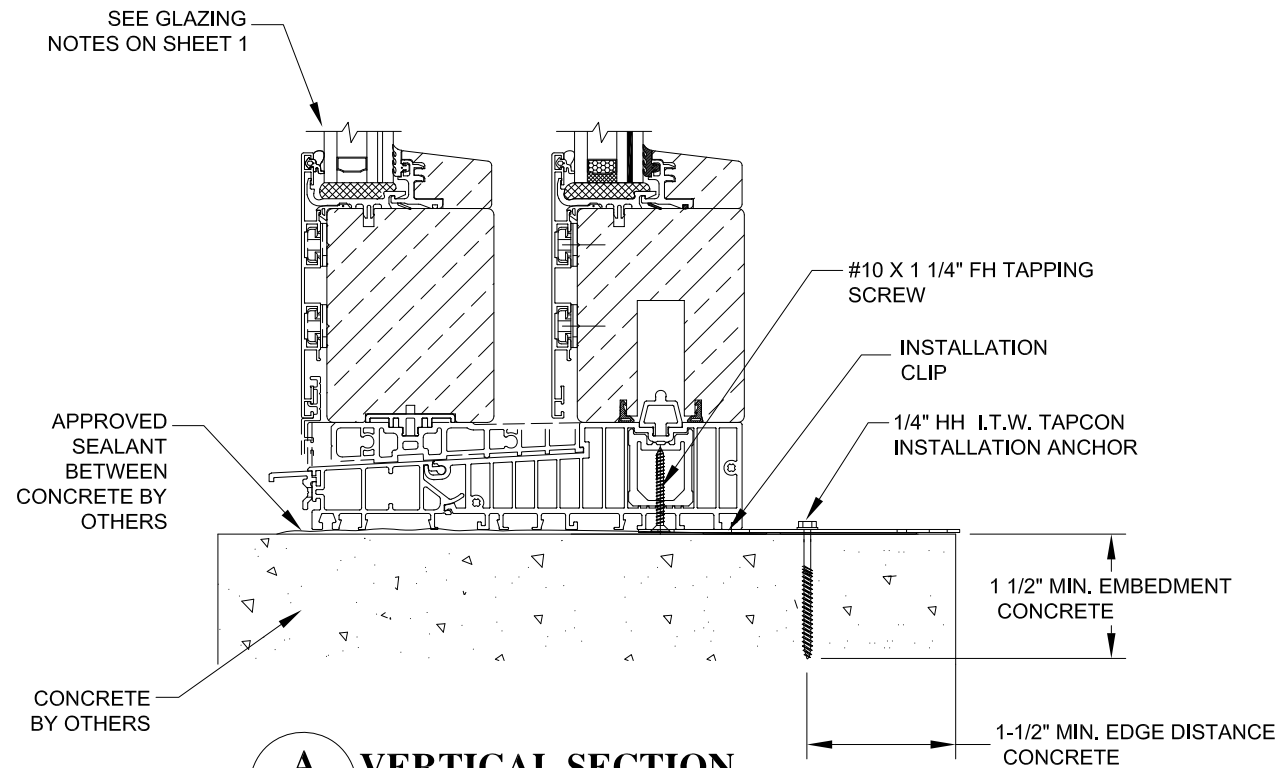
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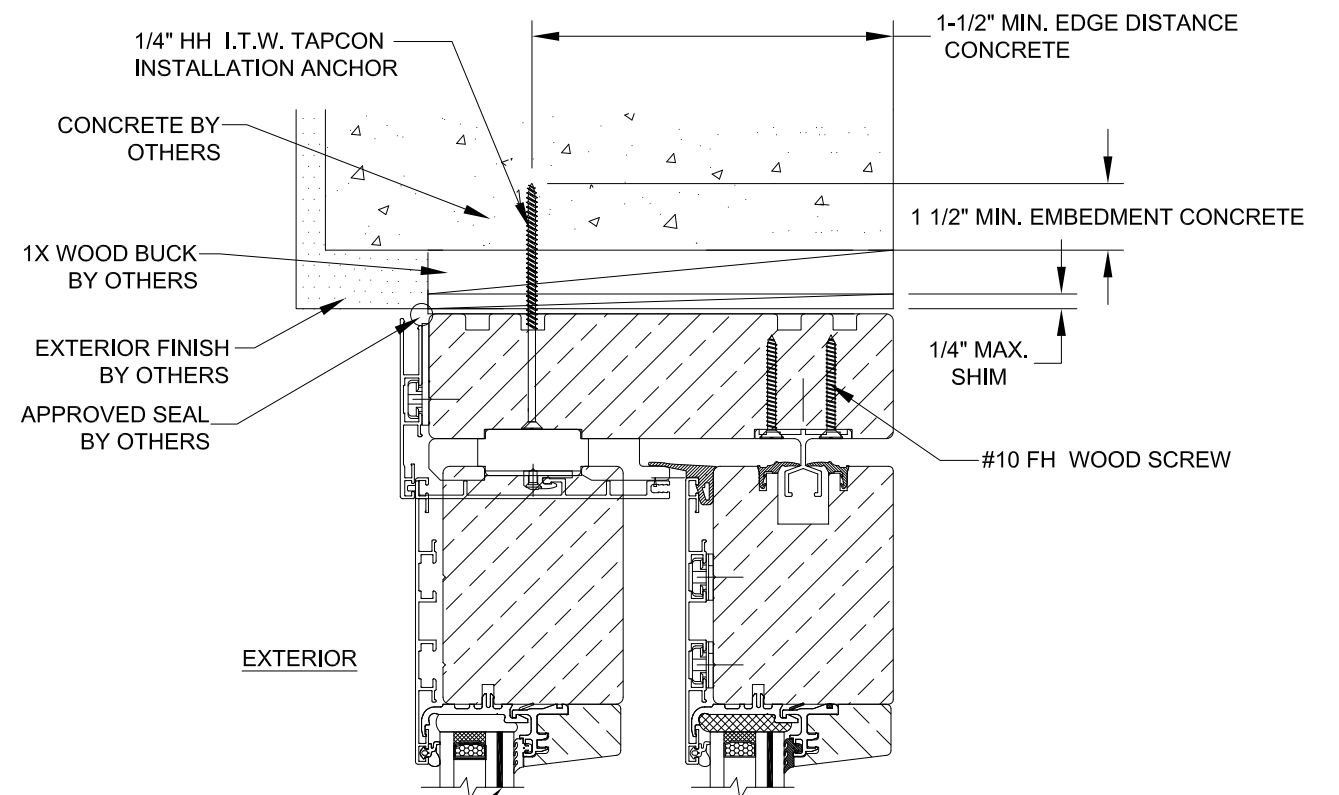


EXTERIOR

INTERIOR



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



EXTERIOR

SEE GLAZING
NOTES ON SHEET 1

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

UNILUX GmbH NIKOLAUS-MEETH, STR. 1 SALMTAL, D-54528 GERMANY		
UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ VERTICAL INSTALLATION-MASONRY/CONC.		
DRAWN: JRM	DWG NO. NL-0088	REV —
SCALE NTS	DATE 03/06/2017	SHEET 5 OF 12

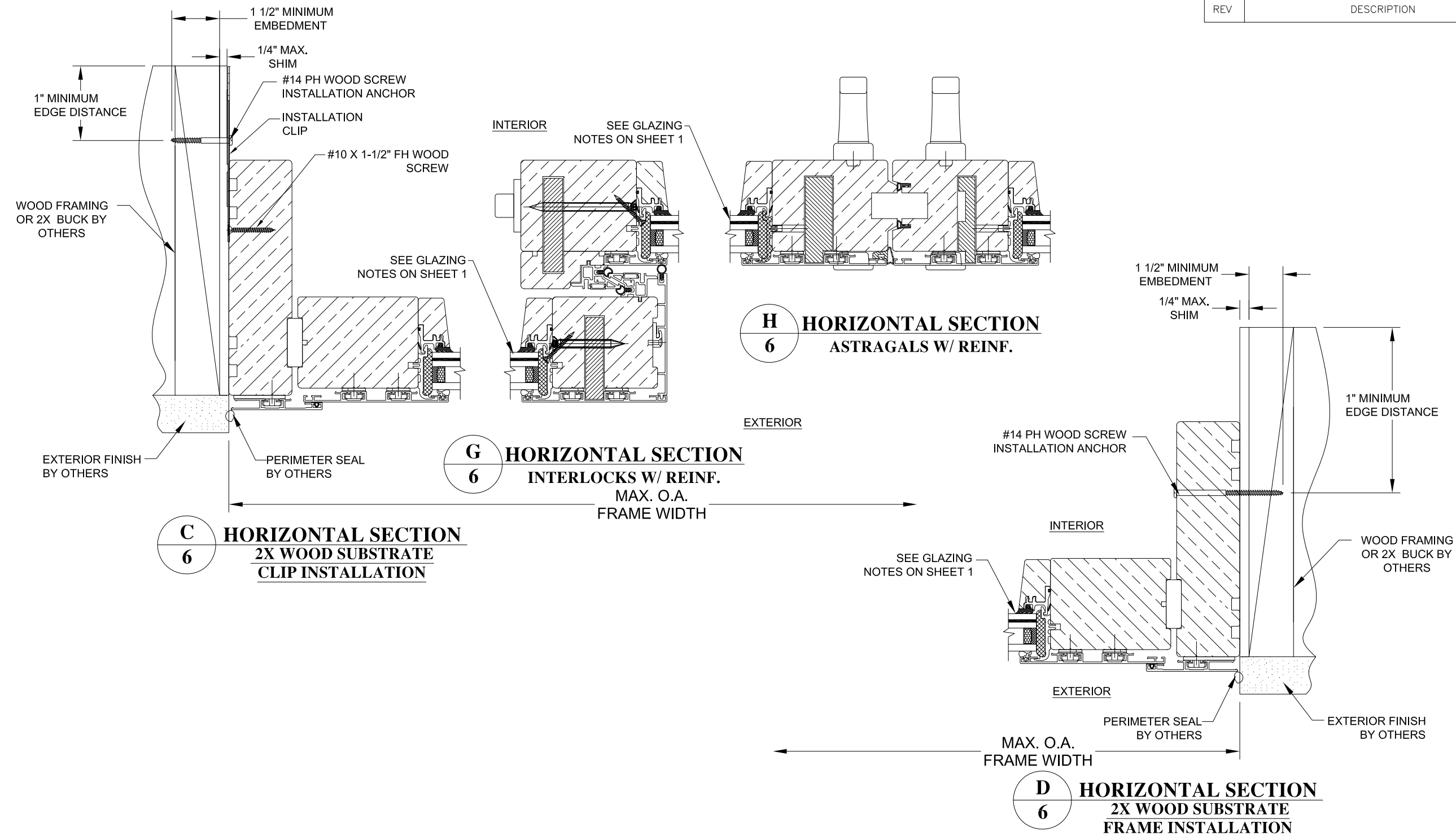
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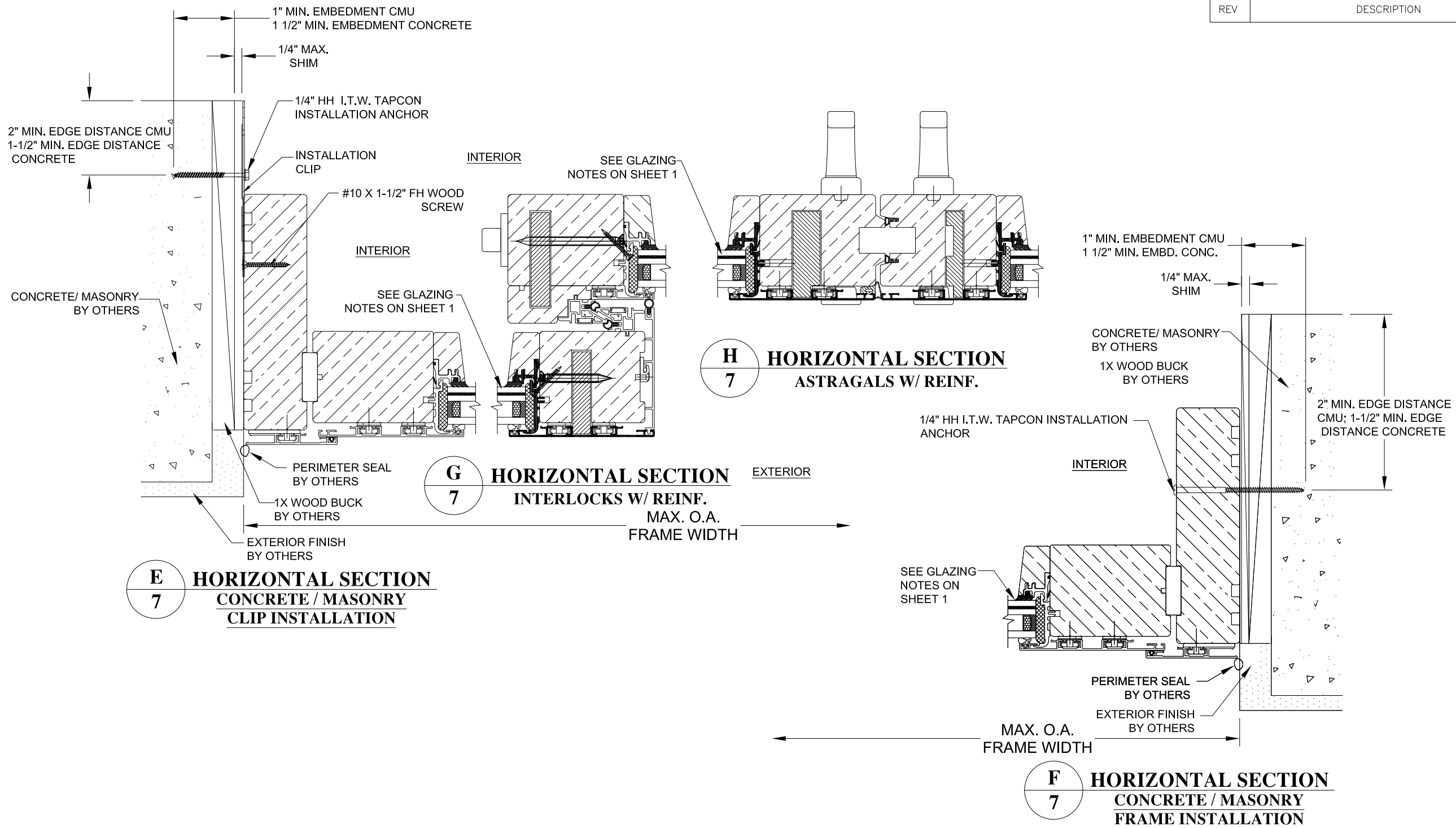
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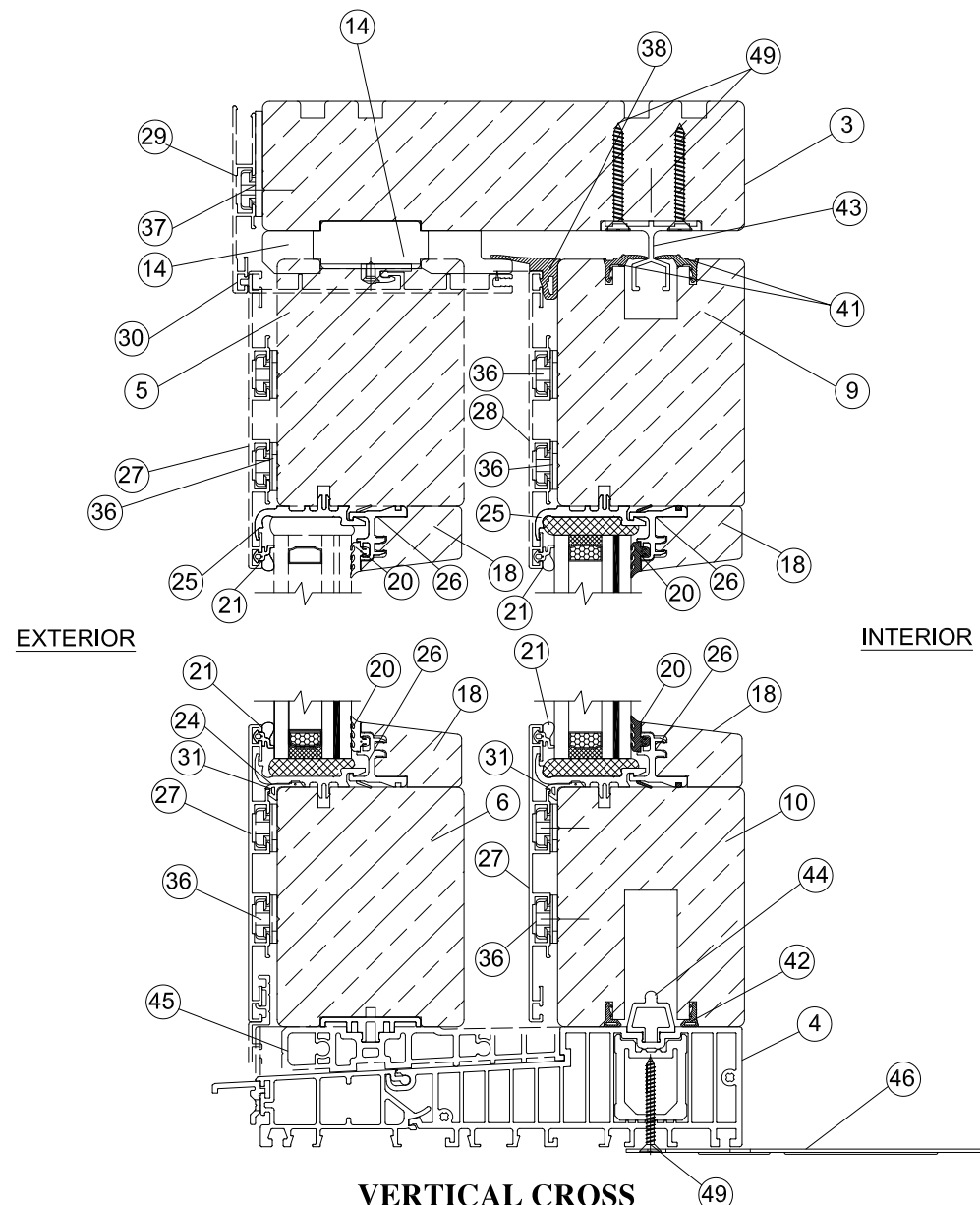
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UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ HORIZONTAL INSTALLATION-MASONRY/CONC.		
DRAWN: JRM	DWG NO. NL-0088	REV -
SCALE NTS	DATE 03/06/2017	SHEET 7 OF 12

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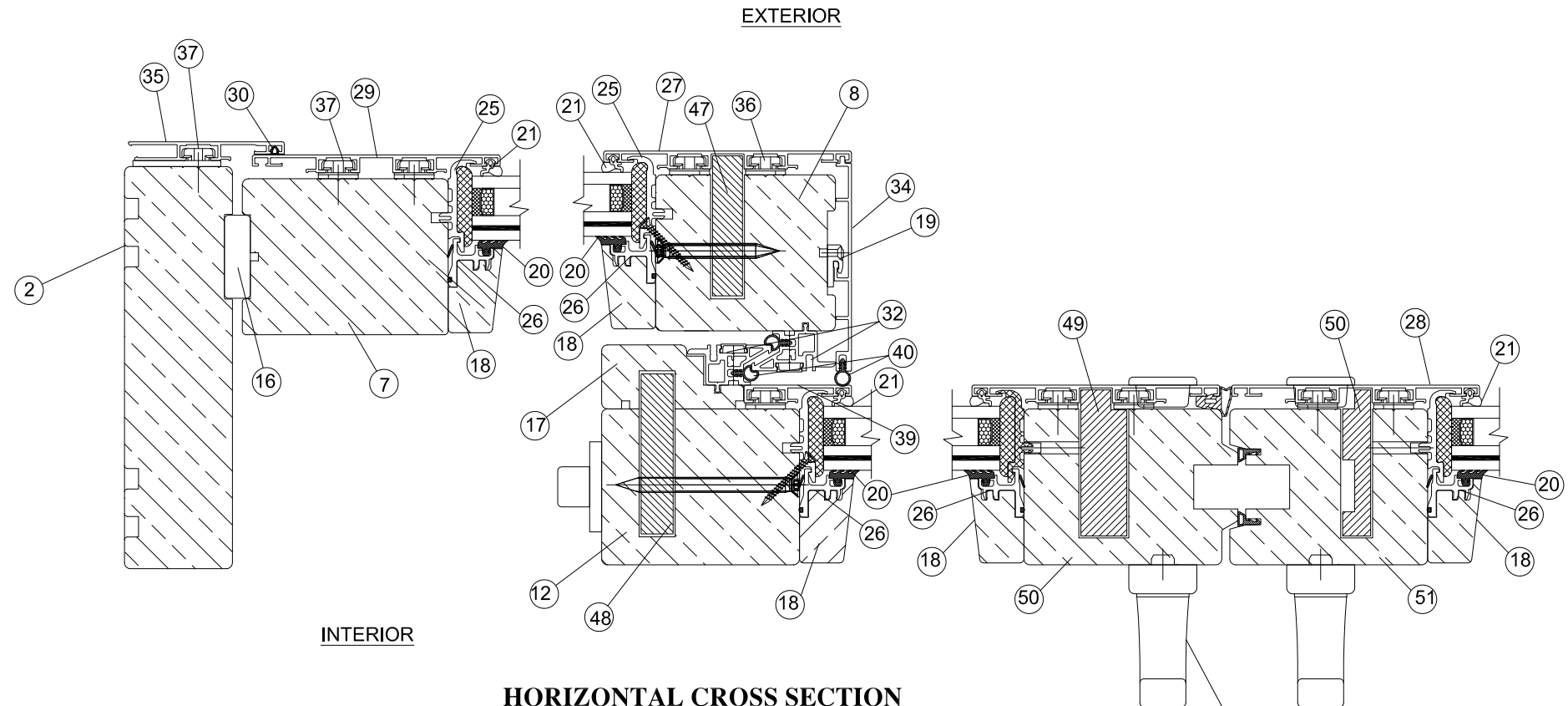
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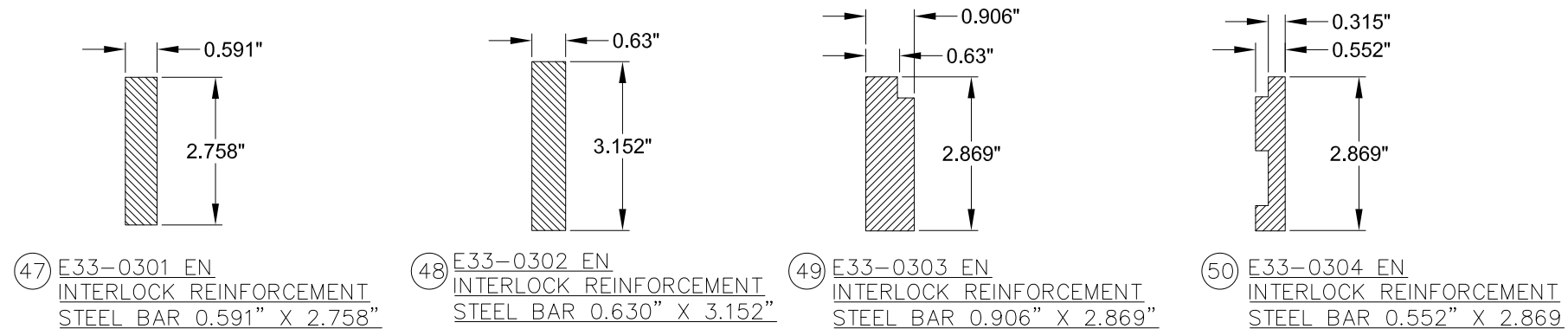


**VERTICAL CROSS
SECTION FOR PARTS
IDENTIFICATION**



**HORIZONTAL CROSS SECTION
FOR PARTS IDENTIFICATION**

HS 300 HARDWARE
BY SIEGANIA SEE
SHT. 11



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UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE
DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ
CROSS SECTIONS & COMPONENTS

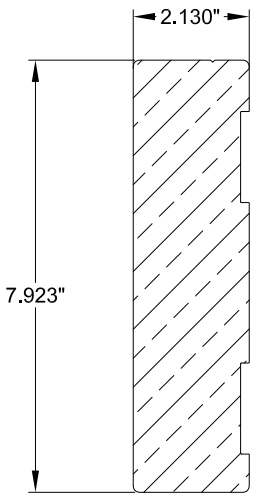
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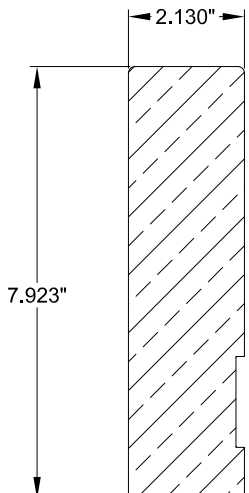
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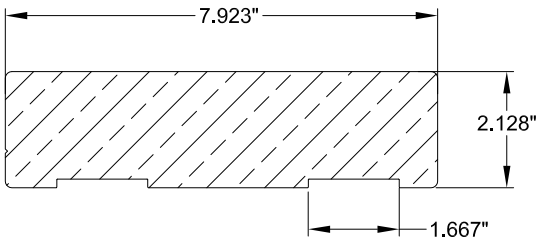
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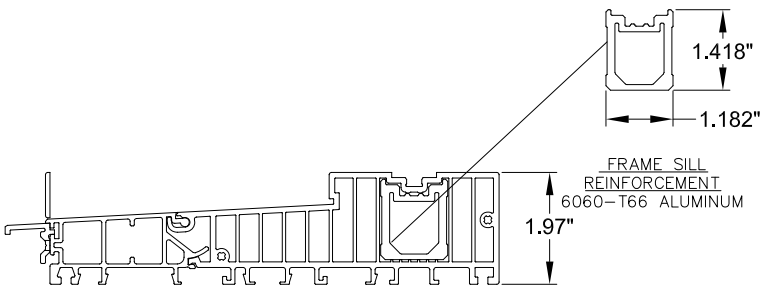
1 F33-0001 FRAME LOCK JAMB
WOOD G.50



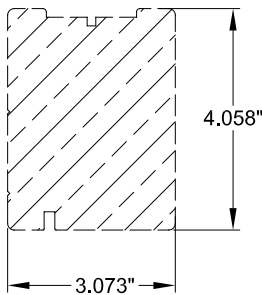
2 F33-0002 FRAME FIXED JAMB
WOOD G.50



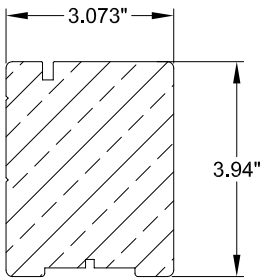
3 F33-0003 FRAME HEAD
WOOD G.50



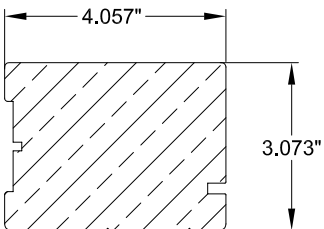
4 FRAME SILL SEGMENT
6060-T66 ALUMINUM
E33-4001



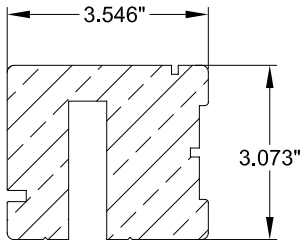
5 F33-0304 FIXED SASH
TOP WOOD G.50



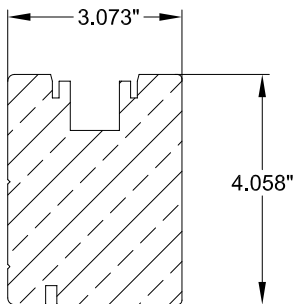
6 F33-0005 FXD. SASH BOTTOM
WOOD G.50



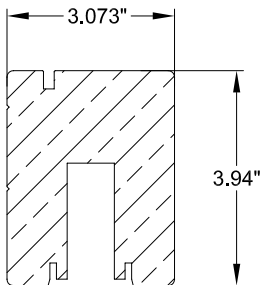
7 F33-0306 FIXED SASH
TO FRAME STILE
WOOD G.50



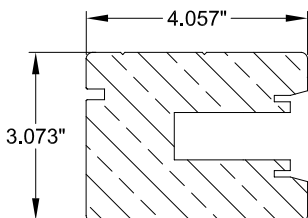
8 F33-0307-1 FIXED
SASH MIDDLE STILE
WOOD G.50



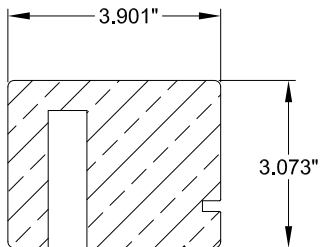
9 F33-0308 OPERABLE
SASH TOP RAIL
WOOD G.50



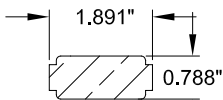
10 F33-0009 OPERABLE
SASH BOTTOM RAIL
WOOD G.50



11 F33-0310 OPERABLE
SASH LOCK STILE
WOOD G.50



12 F33-0311 OPERABLE
SASH MIDDLE STILE
WOOD G.50

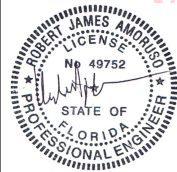


13 F33-0030 NR-1
FILLER BEAD
TOP WOOD G.50

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DRAWN: JRM	DWG NO. NL-0088	REV —
SCALE NTS	DATE 03/06/2017	SHEET 9 OF 12

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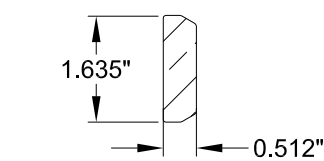
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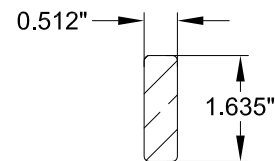
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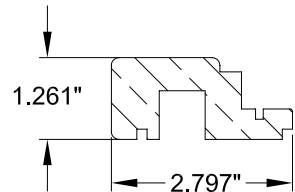
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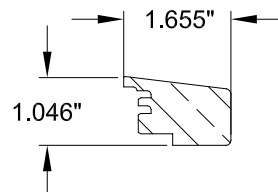
15 F33-0033 NR-4
FILLER BEAD LOCK SIDE
TRACK 1 WOOD G.50



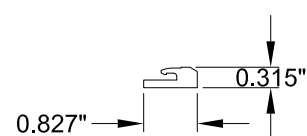
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FILLER BEAD SIDE
TRACK 2 WOOD G.50



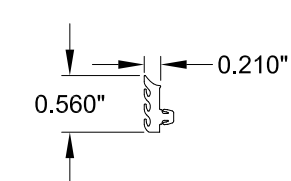
17 F33-0337
FILLER BEAD MIDDLE
TRACK 1 WOOD G.50



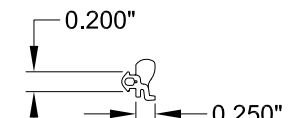
18 F33-0111 32MM
GLAZING BEAD
WOOD G.50



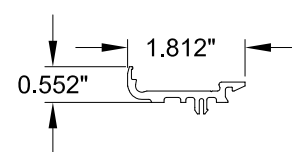
19 E41-0151 HOLDER FOR
ENLARGEMENT PROFILE



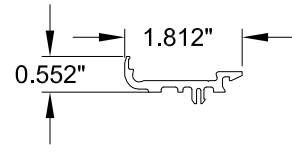
20 E41-1002 INTERIOR GLAZING
GASKET EPDM 80 DUR.



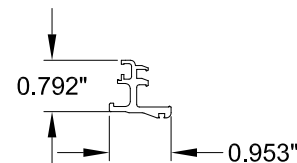
21 E41-1029 EXTERIOR GLAZING
GASKET EPDM 80 DUR.



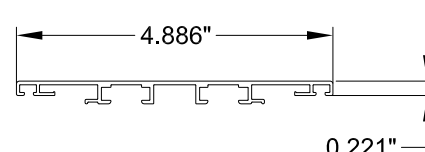
24 E51-0185 BASE FASTENER
FOR GLASS FIXED SIDE/TOP



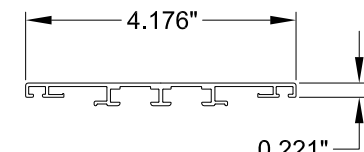
25 E51-0189 BASE FASTENER
FOR GLASS BOTTOM



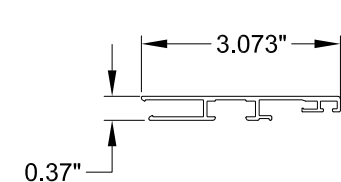
26 E51-0187 BASE FASTENER
FOR BASE



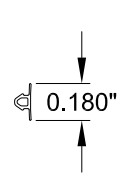
27 E51-0010 CLAD FOR
POST 124MM



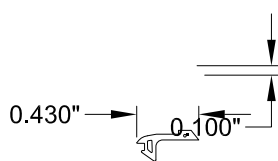
28 E51-0004 CLAD FOR
POST 164MM



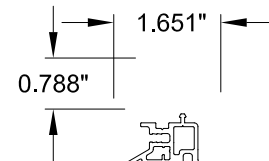
29 E51-0002 CLAD FOR
FRAME PROFILE 78MM



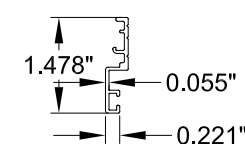
30 E41-1003 EXTERIOR CLADDING
GASKET EPDM 70 DUR.



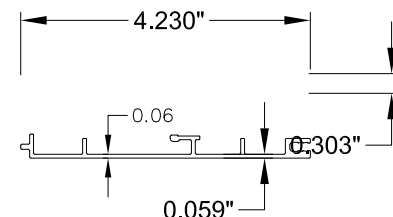
31 E41-1028 SASH GLAZING
GASKET EPDM 70 DUR.



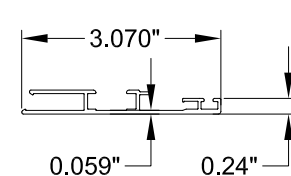
32 E33-0006 INTERLOCK
ALUMINUM 6060-T66



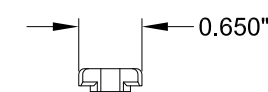
33 E33-0004-1 BOTTOM
PROFILE FIXED
ALUMINUM 6060-T66



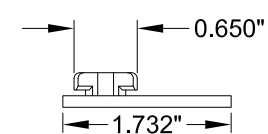
34 E33-0001 SIDE CLAD 104
ALUMINUM 6060-T66



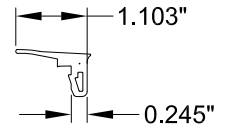
35 E51-0002 SIDE CLAD 110
ALUMINUM 6060-T66



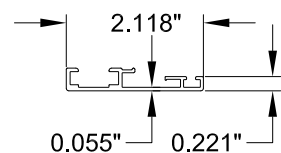
36 E41-0114 CLADDING
FASTENER PLASTIC



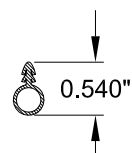
37 E41-0116 CLADDING
FASTENER PLASTIC



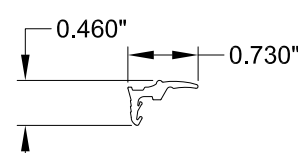
38 E33-1001 SASH
GASKET EPDM 70 DUR.



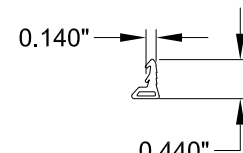
39 E51-0074
MEETING STILE CLAD
ALUMINUM 6060-T66



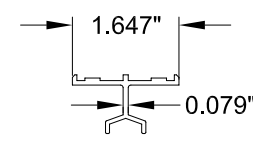
40 E33-1003 TUBE
GASKET EPDM 70 DUR.



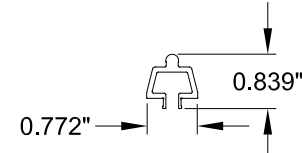
41 E33-1004 TOP GUIDE RAIL
GASKET EPDM 70 DUR.



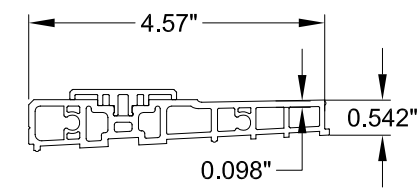
42 E33-1005 SASH
GASKET EPDM 70 DUR.



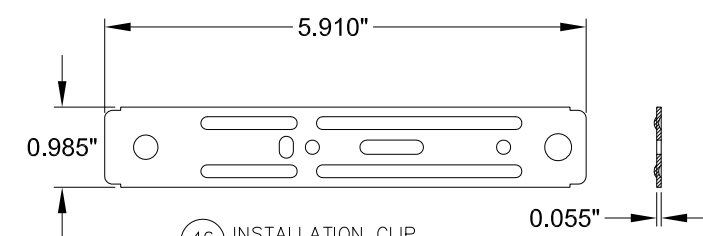
43 E33-0007 GUIDE RAIL
ALUMINUM 6060-T66



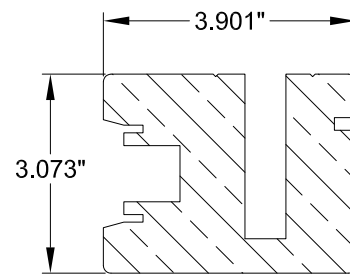
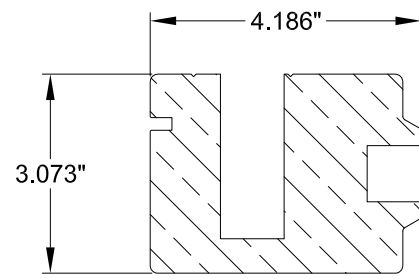
44 E33-0009 SLIDE RAIL
ALUMINUM 6060-T66



45 E33-4002
ATTACHMENT BAR
ALUMINUM 6060-T66



46 INSTALLATION CLIP
GALVANIZED STEEL
0.0551\" THICK



UNILUX GmbH NIKOLAUS-MEETH, STR. 1 SALMTAL, D-54528 GERMANY		
UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ COMPONENTS		
DRAWN: JRM	DWG NO. NL-0088	REV —
SCALE NTS	DATE 03/06/2017	SHEET 10 OF 12

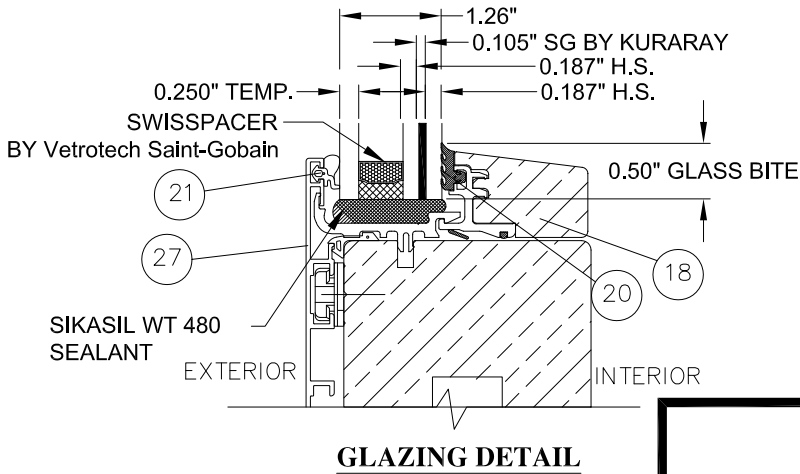
ROBERT J. AMORUSO
FL. P.E. NO. 49752

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Robert J
Amoruso
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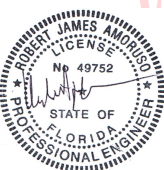
QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	F33-0001	FRAME LOCK SIDE, WOOD G 0.50	UNILUX
2	F33-0002	FRAME FIXED SIDE, WOOD G 0.55	UNILUX
3	F33-0003	FRAME HEAD, WOOD G 0.55	UNILUX
4	E33-4001	FRAME SILL SEGMENT-ALUMINUM 6060-T66	UNILUX
5	F33-0304	FIXED SASH TOP RAIL, WOOD G 0.55	UNILUX
6	F33-0005	FIXED SASH BOTTOM RAIL, WOOD G 0.55	UNILUX
7	F33-0306	FIXED SASH TO FRAME STILE, WOOD G 0.55	UNILUX
8	F33-0307	FIXED SASH MIDDLE STILE, WOOD G 0.55	UNILUX
9	F33-0308	OPERABLE SASH TOP RAIL, WOOD G 0.55	UNILUX
10	F33-0009	OPERABLE SASH BOTTOM RAIL, WOOD G 0.55	UNILUX
11	F33-0310	OPERABLE SASH LOCK STILE, WOOD G 0.55	UNILUX
12	F33-0311	OPERABLE SASH MIDDLE STILE, WOOD G 0.55	UNILUX
13	F33-0030	NR-1 FILLER BEAD, TOP TRACK 2	UNILUX
14	F33-0032	NR-3 FILLER BEAD, SIDE LOCK SIDE TRACK 2	UNILUX
15	F33-0033	NR-4 FILLER BEAD, SIDE LOCK SIDE TRACK 1	UNILUX
16	F33-0036	NR-7 FILLER BEAD, SIDE SIDE, TRACK 2	UNILUX
17	F33-0337	NR-8 FILLER BEAD, MIDDLE TRACK 1	UNILUX
18	F33-0011	GLAZING BEAD, WOOD G .55, 32MM	UNILUX
19	E41-0151	HOLDER FOR ENLARGEMENT PROFILE, 25MM	UNILUX
20	E41-1002	INTERIOR GLAZING GASKET, EPDM DUR. 80	DURAPROOF
21	E41-1029	EXTERIOR GLAZING GASKET, EPDM DUR. 80	DURAPROOF
22	E51-0221	ADDITIONAL FRAME CORNER KEY	UNILUX
23	E51-0206	CORNER KEY, 19MM X 5MM, VARIABLE	UNILUX
24	E51-0185	BASE FASTENER FOR GLASS, FIXED SIDE/TOP	UNILUX
25	E51-0189	BASE FASTENER FOR GLASS FIXED BOTTOM	UNILUX
26	E51-0187	GLASS FASTENER FOR BASE, FIXED	UNILUX
27	E51-0010	CLAD FOR POST 124MM	UNILUX
28	E51-0004	CLAD FOR POST 164MM	UNILUX
29	E51-0002	CLAD FOR FRAME PROFILE	UNILUX
30	E41-1003	EXTERIOR CLADDING GASKET, EPDM 70 DUR.	UNILUX
31	E41-1028	SASH GLAZING GASKET, EPDM 70 DUR.	UNILUX
32	E33-0006	INTERLOCK ADAPTER, ALUM. 6060-T66	ALURON
33	E33-0004-1	BOTTOM PROFILE, FXD. ALUM. 6060-T66	ALURON
34	E33-0001	SIDE CLAD 104 ALUMINUM 6060-T66	ALURON

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
35	E51-0002	SIDE CLAD 110 ALUMINUM 6060-T66	ALURON
36	E41-0114	CLADDING FASTENER, PLASTIC	UNILUX
37	E41-0116	CLADDING FASTENER, PLASTIC	UNILUX
38	E33-1001	GASKET SASH-EPDM 70 DUR.	DURAPROOF
39	E51-0074	MEETING STILE CLAD, ALUMINUM 6060-T66	ALURON
40	E33-1003	TUBE GASKET-EPDM 70 DUR.	DURAPROOF
41	E33-1004	TOP GUIDE RAIL GASKET-EPDM 70 DUR.	DURAPROOF
42	E33-1005	SASH GASKET-EPDM 70 DUR.	DURAPROOF
43	E33-0007	GUIDE RAIL, ALUMINUM 6060-T66	ALURON
44	E33-0009	SLIDE RAIL, ALUMINUM 6060-T66	ALURON
45	E33-4002	SILL ATTACHMENT BAR, ALUMINUM 6060-T66	ALURON
46	PURCHASE	GALVANIZED STL. ANCHOR STRAP 0.055" THICK	SIMPSON EU
47	PURCHASE	REINFORCEMENT STL. 0.591" X 2.758" BAR	UNILUX
48	PURCHASE	REINFORCEMENT STL. 0.630" X 3.152" BAR	UNILUX
49	PURCHASE	4MM X 40MM SCREW	UNILUX
50	F33-0312	MALE ASTRAGAL STILE, WOOD G 0.55	UNILUX
51	F33-0320	FEMALE ASTRAGAL STILE, WOOD G 0.55	UNILUX
52	PURCHASE	1 /4" I.T.W. HH ADVANCED THREADFORM TAPCON	I.T.W. BUILDEX
53	PURCHASE	#14 PH WOOD SCREW INSTALLATION ANCHOR	UNILUX



UNILUX GmbH NIKOLAUS-MEETH, STR. 1 SALMTAL, D-54528 GERMANY		
UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ BILL OF MATERIALS AND GLAZING DETAIL		
DRAWN: JRM	DWG NO. NL-0088	REV —
SCALE NTS	DATE 03/06/2017	SHEET 11 OF 12

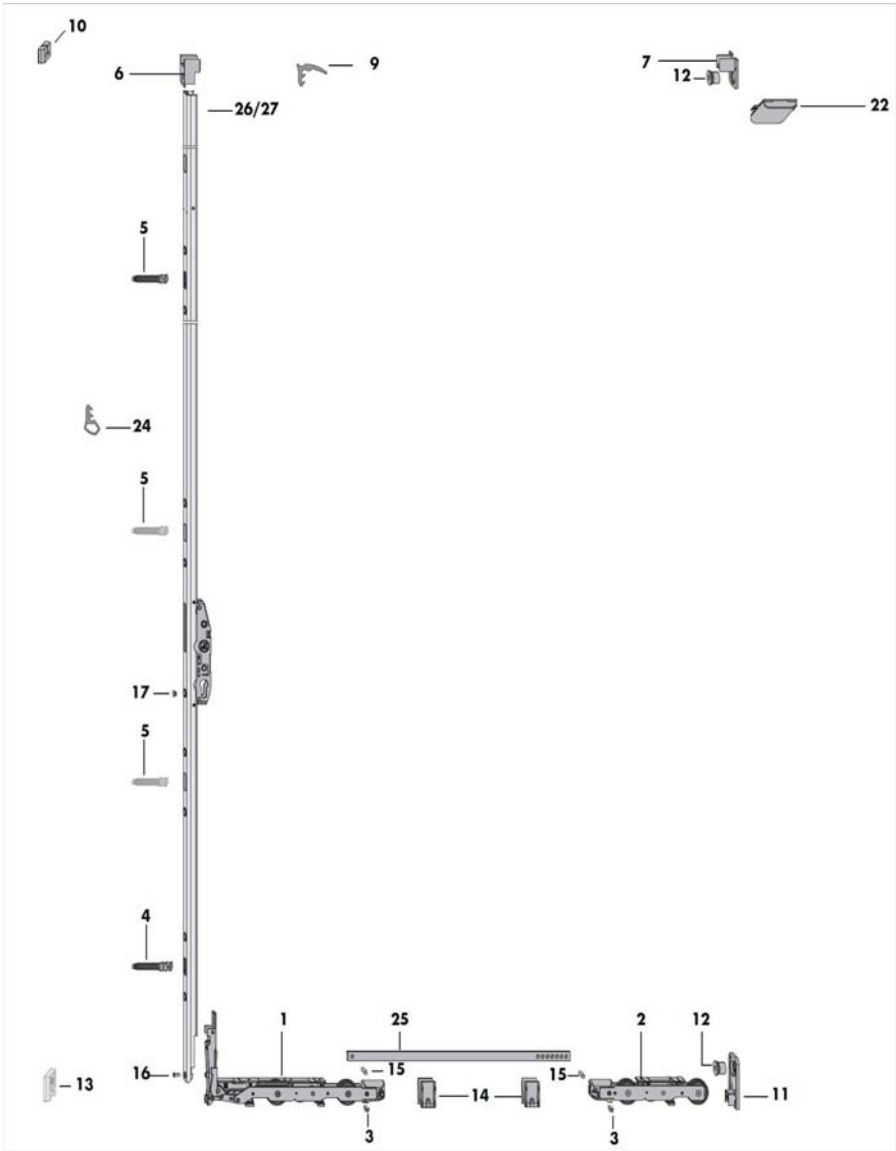
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QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	PMKB030010001	BOGIE WHEELS V, VSU HS 300 TS	SIEGENIA
2	-----	BOGIE WHEELS H, HS 300 TS	SIEGENIA
3	-----	BRUSH LENGTH 100MM	SIEGENIA
4	PMZB03400E601	LOCKING BOLT E, BOTTOM TS	SIEGENIA
5	-----	LOCKING BOLT E, TOP TS	SIEGENIA
6	-----	FRONT TOP GUIDE	SIEGENIA
7	-----	REAR TOP GUIDE	SIEGENIA
9	-----	TOP SEAL HH013401, LENGTH 10.2MM	SIEGENIA
10	-----	TOP FILLING PIECE FOR GUIDE RAIL	SIEGENIA
11	PMZB03100E601	BOTTOM COVER PLATE REAR HIGH	SIEGENIA
12	-----	STOP	SIEGENIA
13	PMZB03400E601	BOTTOM HIGH FILLING PIECE FOR SEALING RAIL	SIEGENIA
14	-----	BOTTOM GUIDE	SIEGENIA
15	-----	DOWEL PIN 6 X 12	SIEGENIA
16	-----	M5 X 13 COUNTERSUNK SCREW	SIEGENIA
17	-----	CLOSING CAP, GREY OR BROWN	SIEGENIA
22	PMZB04000E601	SEALING BRIDGE A0017	SIEGENIA
24	PDPB00300E601	SEAL HHO 13402, LENGTH 17.5MM	SIEGENIA
25	-----	CONNECTING ROD	SIEGENIA
26	-----	GEAR PORTAL HS 300 PZ	SIEGENIA
27	-----	COMFORT GEAR	SIEGENIA



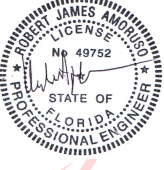
LIFT AND SLIDE
HS 300 HARDWARE
SIEGENIA

UNILUX GmbH NIKOLAUS-MEETH, STR. 1 SALMTAL, D-54528 GERMANY		
UNILUX HAHS-4 ALUM CLAD WOOD LIFT-SLIDE DOOR (OXXO), 288" X 120" L.M. IMPACT HVHZ HAHS HARDWARE DETAILS		
DRAWN: JRM	DWG NO. NL-0088	REV -
SCALE NTS	DATE 03/06/2017	SHEET 12 OF 12

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

ROBERT J. AMORUSO
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