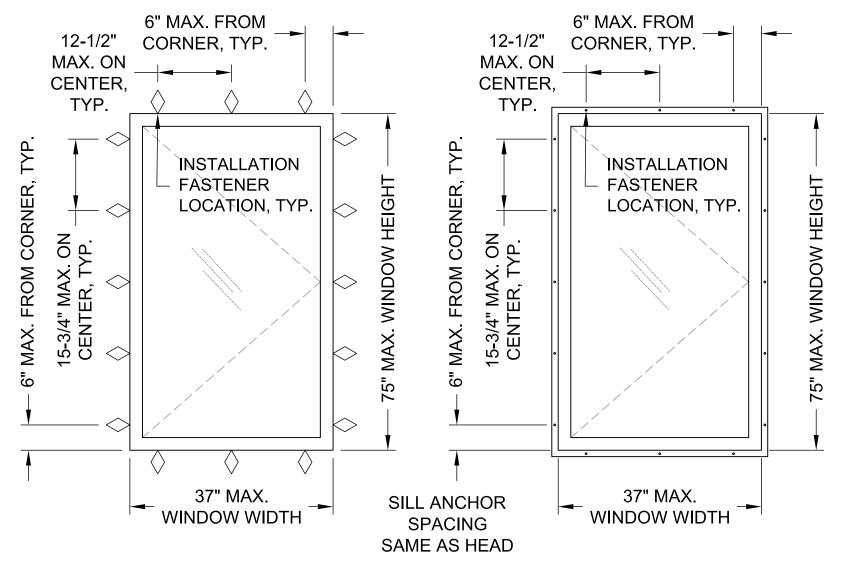
GENERAL NOTES

- 1. THE PRODUCT SHOWN HEREIN CONSTRUCTED FROM DECEUNINCK EXTRUDED RIGID PVC FRAMES HAS BEEN TESTED TO AAMA/WDMA/CSA 101/I.S.2/A440 AND ASTM E1886/E1996, AND MEETS THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE AND INTERNATIONAL RESIDENTIAL CODE.
- 2. THIS PRODUCT IS LARGE MISSILE IMPACT RESISTANT AND DOES NOT REQUIRE THE USE OF IMPACT PROTECTIVE DEVICES (SHUTTERS) IN WINDBORNE DEBRIS REGIONS.
- 3. THE DESIGN PRESSURES INDICATED IN THIS DRAWING ARE AS LIMITED BY ASTM E-1300 GLASS TABLES, AND TESTED WATER, STRUCTURAL, AND CYCLIC PRESSURES.
- 4. THIS DOCUMENT ADDRESSES PRODUCT ANCHORAGE TO ACHIEVE THE INDICATED DESIGN PRESSURES AT THE INDICATED SIZES, IN THE CONFIGURATION SHOWN IN THE ELEVATIONS. INSTALL PRODUCTS WITH MAXIMUM SHIM GAP, MINIMUM EDGE DISTANCE AND EMBEDMENT, AND WITH FASTENER TYPE AS SHOWN IN THE DETAILS AND AS INDICATED IN TABLE 1. FOR FULL PRODUCT CONSTRUCTION DETAILS SEE NCTL TEST REPORTS 210-4066-01, 210-4066-01A, 210-4066-02, AND 210-4066-02A 5. APPROVED GLAZING IS INSULATING GLASS 1/8 ANNEALED OR TEMPERED EXTERIOR + 17/32" GED STAINLESS STEEL INTERCEPT SPACER + 5/16" LAMINATED LITE INTERIOR CONSISTING OF 1/8" ANNEALED + 0.090" TROSIFOL PVB INTERLAYER BY KURARAY + 1/8" ANNEALED. GLAZED WITH SIKAFLEX 552 BACKBEDDING W/ 1/2" GLASS BITE.
- 6. THE 4/3 ALLOWABLE STRESS INCREASE FACTOR (SHORT-TERM INCREASE FACTOR) HAS NOT BEEN USED IN THE ANCHOR ANALYSIS FOR THIS SYSTEM. THE 1.6 Cd FACTOR WAS USED IN THE ANALYSIS OF ANCHORAGE INTO WOOD SUBSTRATE.
- 7. THE OPENING SUBSTRATE MATERIALS (FRAMING, MASONRY, BUCKS) AND ATTACHMENT OF BUCKS TO THE SUBSTRATE ARE BY OTHERS AND SHALL BE VERIFIED BY THE ARCHITECT OR ENGINEER OF RECORD OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ). BUCKING, OPENINGS, & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED BY OTHERS TO TRANSFER SUPERIMPOSED LOADS TO THE STRUCTURE. WITH MASONRY OPENINGS, WOOD BUCKS ARE OPTIONAL. 8. DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE COATED OR OTHERWISE PROTECTED TO PREVENT GALVANIC REACTIONS. WOOD BUCKS, IF USED, SHALL BE PRESSURE TREATED, WITH EITHER A TREATMENT OR COATING COMPATIBLE WITH THIS PRODUCT.
- 9. ALL ANCHORS USED SHALL BE OF A MATERIAL OR HAVE A COATING COMPATIBLE WITH THE PRESSURE TREATED WOOD BUCKS AND ALL OTHER WINDOW MATERIALS.
- 10. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, OR AS APPROVED, SIGNED, AND SEALED BY A TEXAS REGISTERED PROFESSIONAL ENGINEER ON A SITE-SPECIFIC BASIS.
 11. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER
- 11. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER INFILTRATION RESISTANCE OF THE INSTALLED PRODUCT SHALL BE THE RESPONSIBILITY OF OTHERS AND ARE NOT ADDRESSED BY THIS DOCUMENT.
- 12. FOR ADDITIONAL REQUIREMENTS SEE GENERAL ANCHOR NOTES, SHEET 3.

WINFORCE OUTSWING CASEMENT WINDOW, LARGE MISSILE IMPACT



EQUAL LEG / FLANGE ELEVATION SEE DETAILS SHEET 2

FIN ELEVATION SEE DETAILS SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
+50/-50 PSF	LARGE OR SMALL MISSILE

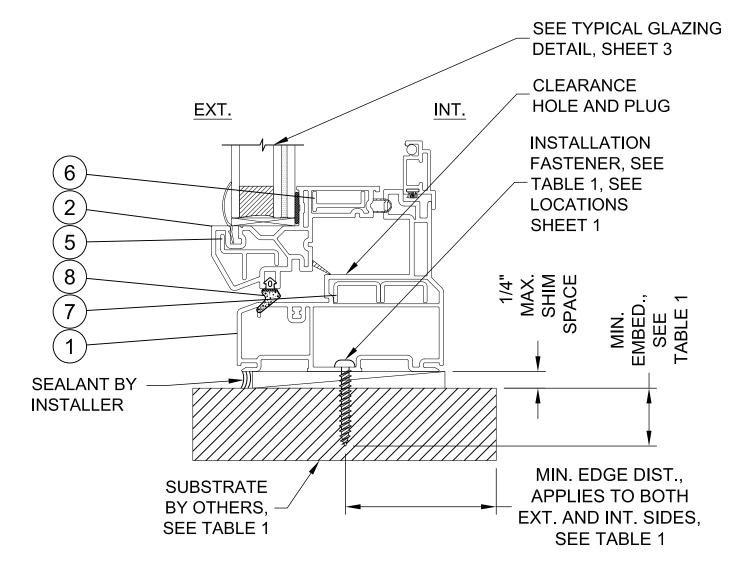
NORTHEAST BUILDING PRODUCTS

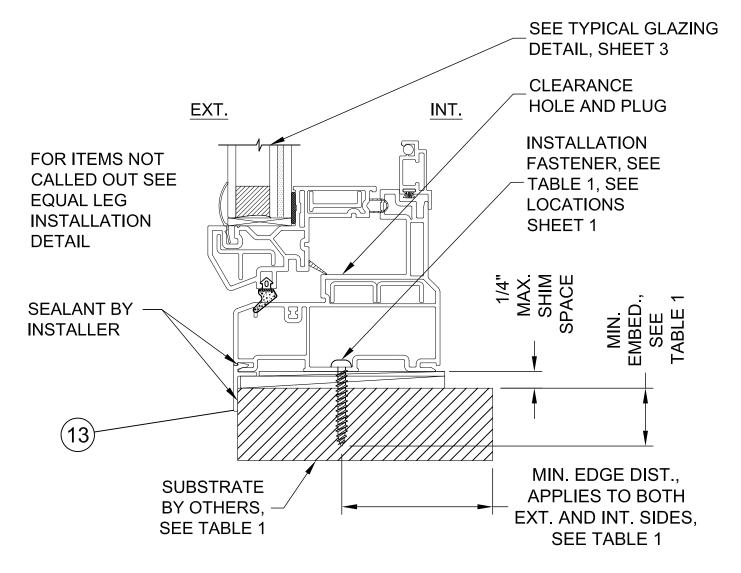
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SHEET DESCRIPTION:	DATE DRAWN:	
NOTES, ELEVATIONS	4/13/2017	,
REV. A: UPDATE TO 2018 IBC/IRC	SCALE: NTS	-
DRAWING: TDI-WINFORCE-CA-LM	SHEET: 1 OF 4	



WINFORCE OUTSWING CASEMENT WINDOW, LARGE MISSILE IMPACT





TYPICAL EQUAL LEG INSTALLATION HEAD / SILL / JAMB

TYPICAL FLANGE INSTALLATION HEAD / SILL / JAMB

TABLE 1: EQUAL LEG / FLANGE FRAME INSTALLATION ANCHOR REQUIREMENTS TABLE NOTE: ALL ANCHORS ARE PAN HEAD OR HEX WASHER HEAD			ABLE
SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBED.	MIN. EDGE DIST.
CONCRETE (2.0 KSI MIN)	3/16" ITW TAPCON	1"	1 1/8"
HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
CONCRETE (2.85 KSI MIN.)	3/16" ELCO ULTRACON	1"	1"
2X MIN. SOUTHERN PINE WOOD (G=0.55)	#10 GRADE 5 WOOD SCREW	1-3/8"	1"
16 GAUGE (0.060") MIN. STEEL STUD, 33KSI YIELD MIN., OR 1/8" ALUM. 6063-T5 MIN.	#10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL	1/2"

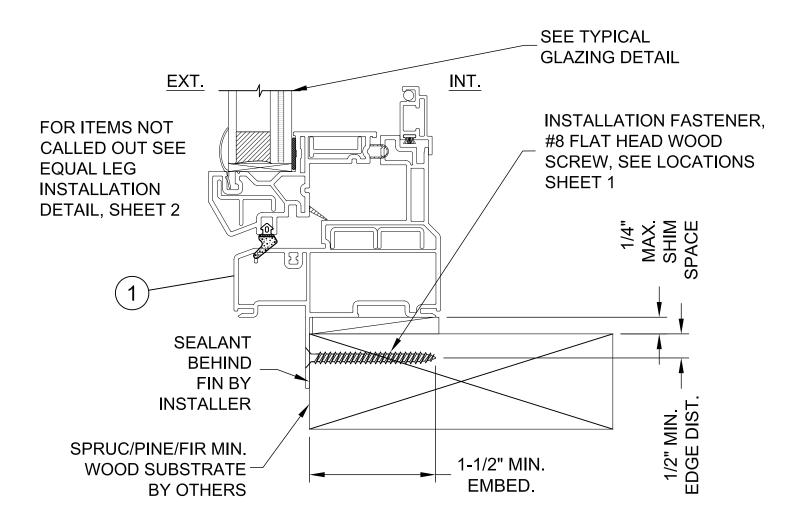
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EQ. LEG / FLANGE INSTALLATION	4/13/2017	١.
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DRAWING: TDI-WINFORCE-CA-LM	SHEET: 2 OF 4	



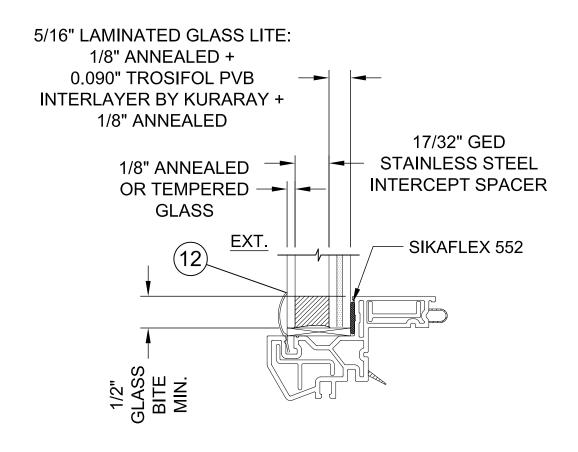
WINFORCE OUTSWING CASEMENT WINDOW, LARGE MISSILE IMPACT



TYPICAL FIN INSTALLATION HEAD / SILL / JAMB

GENERAL ANCHOR NOTES:

- 1. INSTALL ONE ANCHOR AS INDICATED IN DETAILS ON SHEETS 2 AND 3 AT EACH LOCATION SHOWN IN THE ELEVATIONS ON SHEET 1.
- 2. INSTALL SHIMS AT EACH ANCHOR LOCATION WHERE A GAP OF 1/16" OR GREATER EXISTS BETWEEN PRODUCT FRAME AND SUBSTRATE.
- 3. SHIMS SHALL BE LOAD-BEARING (PLASTIC OR METALLIC) AND CAPABLE OF TRANSFERRING LOADS TO SUBSTRATE.
- 4. SPECIFIED ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL FINISH OR STUCCO, BY OTHERS. FOR ATTACHMENT TO METAL SUBSTRATES ENSURE FULL THREAD ENGAGEMENT THROUGH METAL WALL WITH MIN. 3 THREADS BEYOND.
- 5. FOR MASONRY WITH WOOD BUCKS LESS THAN 1-1/2" THICK, EMBEDMENT SHALL BE BEYOND WOOD BUCKS AND INTO MASONRY. WOOD BUCKS ARE OPTIONAL WITH MASONRY INSTALLATIONS WHERE MASONRY EDGE DISTANCE CONDITIONS ARE MET WITH NO BUCKS. WOOD BUCKS 1-1/2" THICK OR GREATER SHALL HAVE EMBEDMENT INTO THE WOOD BUCKS.
- 6. ENSURE 3" MIN. ON-CENTER SPACING BETWEEN ANY TWO INSTALLATION ANCHORS.



TYPICAL GLAZING DETAIL

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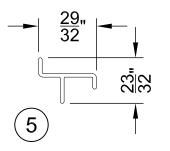
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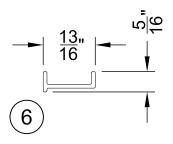
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SHEET DESCRIPTION: FIN INSTALLATION	DATE DRAWN: 4/13/2017	,
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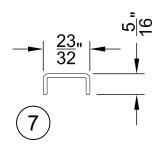


BILL OF MATERIALS

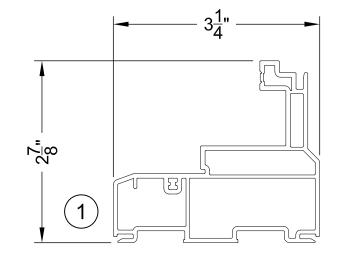
TEM NO. DESCRIPTION PART NO. SOURCE MATERIAL	PVC PVC PVC 3-T5 ALUM. 5-T5 ALUM.
2 SASH RAILS/STILES 10005432 DECEUNINCK PVC 3 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 4 GLAZING BEAD - 3/4" IG 10005602 DECEUNINCK PVC 5 SASH REINFORCEMENT 10500006 ASTRO SHAPES 6063-T5 ALUM. 6 SASH REINFORCEMENT 10300091 ASTRO SHAPES 6065-T5 ALUM. 7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	PVC PVC PVC 3-T5 ALUM. 5-T5 ALUM. 3-T5 ALUM.
3 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 4 GLAZING BEAD - 3/4" IG 10005602 DECEUNINCK PVC 5 SASH REINFORCEMENT 10500006 ASTRO SHAPES 6063-T5 ALUM. 6 SASH REINFORCEMENT 10300091 ASTRO SHAPES 6005-T5 ALUM. 7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	PVC PVC 3-T5 ALUM. 5-T5 ALUM. 3-T5 ALUM.
4 GLAZING BEAD - 3/4" IG 10005602 DECEUNINCK PVC 5 SASH REINFORCEMENT 10500006 ASTRO SHAPES 6063-T5 ALUM. 6 SASH REINFORCEMENT 10300091 ASTRO SHAPES 6005-T5 ALUM. 7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	PVC 3-T5 ALUM. 5-T5 ALUM. 3-T5 ALUM.
5 SASH REINFORCEMENT 10500006 ASTRO SHAPES 6063-T5 ALUM. 6 SASH REINFORCEMENT 10300091 ASTRO SHAPES 6005-T5 ALUM. 7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	3-T5 ALUM. 5-T5 ALUM. 3-T5 ALUM.
6 SASH REINFORCEMENT 10300091 ASTRO SHAPES 6005-T5 ALUM. 7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	5-T5 ALUM. 3-T5 ALUM.
7 FRAME REINFORCEMENT 10202004 ASTRO SHAPES 6063-T5 ALUM. 8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	3-T5 ALUM.
8 SASH SEAL QWS-580 AMESBURY FOAM/POLYETH 9 SNUBBER - Frame 10300095 DECEUNINCK 6005-T5 ALUM. 10 SNUBBER - Sash 10300094 DECEUNINCK 6005-T5 ALUM. 11 SNUBBER SCREWS #6 x 1/2" S.S. PFH MERCHANTS ST. STEEL 12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	
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12 GLAZING BEAD - 1" IG 10003196 DECEUNINCK PVC 13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	5-T5 ALUM.
13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	Γ. STEEL
13 ADD-ON FLANGE 10008341 DECEUNINCK PVC 14 MAXIM DUAL ARM OPERATOR ROTO STEEL	
14 MAXIM DUAL ARM OPERATOR ROTO STEEL	PVC
	PVC
	STEEL
#8 X 3/4 PFH (Operator)	
GASKET	
STUD BRACKET	
#8 X 1 PFH (Stud Bracket)	
TRACK & SLIDER ASSEMBLY	
#8 X 3/4 PFH	
HANDLE KNOB S/A	
WASHABILITY HINGES	
#7 X 5/8 PFH UNDERCUT (S.S.)	
#8 X 1 PFH (Hinge Sash Arm)	
SPLINE CAP	
15 LOCK ASSEMBLY ROTO STEEL	STEEL
SUPPORT PLATE	
#10-24 X 9/16 PPH SELF-THREAD	
TIE BAR GUIDE	
#8 X 1.25 PPH (Tie Bar Guide)	
KEEPER	
#8 X 1/2 PFH (Keeper)	
TIE BAR ASSEMBLY	

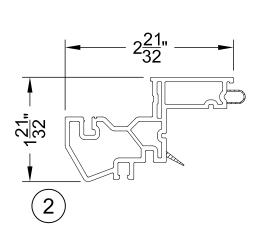


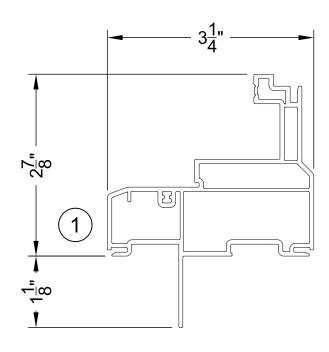


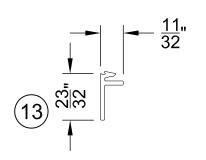


WINFORCE OUTSWING CASEMENT WINDOW, LARGE MISSILE IMPACT









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SHEET DESCRIPTION:	DATE DRAWN:
BILL OF MATERIALS, PART DWGS	4/13/2017
REV. A: UPDATE TO 2018 IBC/IRC	SCALE: NTS
DRAWING: TDI-WINFORCE-CA-LM	SHEET: 4 OF 4

