

GENERAL NOTES

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE AND 2018 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. THE 52"X86" SIZE MAY ONLY BE USED IN WIND ZONE 3 AND BELOW IMPACT LOCATIONS.
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 CONFIGURATIONS 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 210-4067-02/02A/03/03A, AND 210-4083-02/03/04/04A/05/05A/05B/05C/06/06A/06B/06C
5. APPROVED GLAZING IS AS SHOWN IN GLAZING DETAIL ON SHEET 2 AND AS SPECIFIED IN ALLOWABLE CONFIGURATIONS TABLE ON THIS SHEET.
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 IN ACCORDANCE WITH THE FBC 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 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 4.

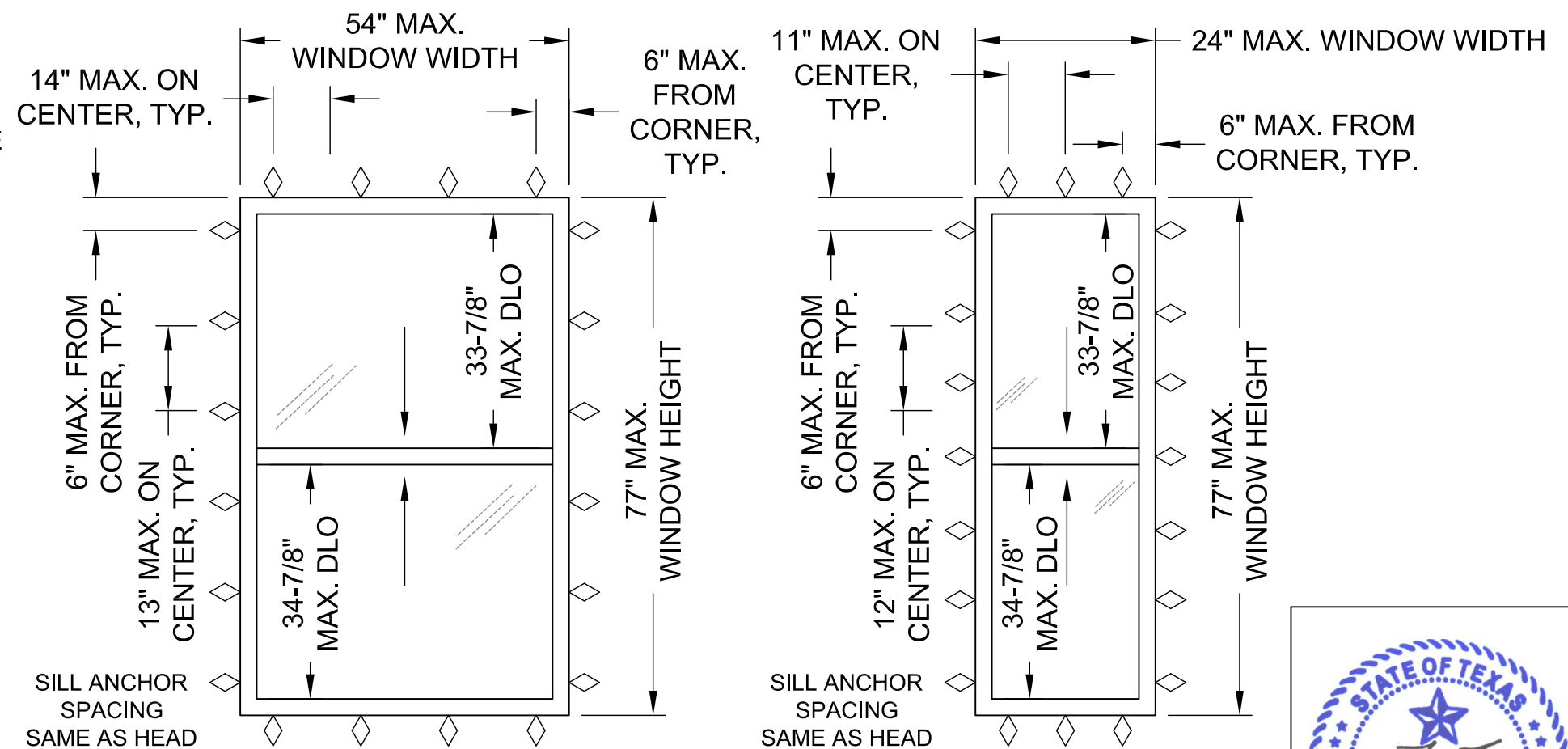
**WINFORCE DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT**

APPROVED CONFIGURATIONS

CONFIGURATION	HVHZ APPROVED	DESIGN PRESSURE RATING	IMPACT RATING
54"x77" EQUAL LITE	YES	+50/-50 PSF	WIND ZONE 4 MISSILE LEVEL D
24"x77" EQUAL LITE	YES	+50/-50 PSF	
45"x86" EQUAL LITE	YES	+50/-50 PSF	
52"x86" EQUAL LITE W/ FULL SCREEN	NO	+40/-50 PSF	WIND ZONE 3 MISSILE LEVEL D
52"x86" EQUAL LITE W/ HALF SCREEN	NO	+50/-50 PSF	
42"x82" ORIEL	NO	+50/-50 PSF	WIND ZONE 4 MISSILE LEVEL D

LOCK NOTE: 1 LOCK ASSEMBLY (ITEMS 23-25) ALLOWED FOR 24"X77" MAX. SIZE ONLY. ALL OTHER CONFIGURATIONS REQUIRE 2 LOCK ASSEMBLIES

INSECT SCREEN NOTE: ALL SIZES EXCEPT 52"X86" MAY USE FULL SCREEN OR HALF SCREEN AT FULL DESIGN PRESSURE



54"x77" EQUAL LITE ELEVATION

24"x77" EQ. LITE ELEV.

SHEET	DESCRIPTION
1	NOTES, ELEV., CONFIG. TABLE
2	ELEV., GLAZING
3	VERTICAL SECT.
4	HORIZ. SECTIONS
5	BOM, PART DWGS

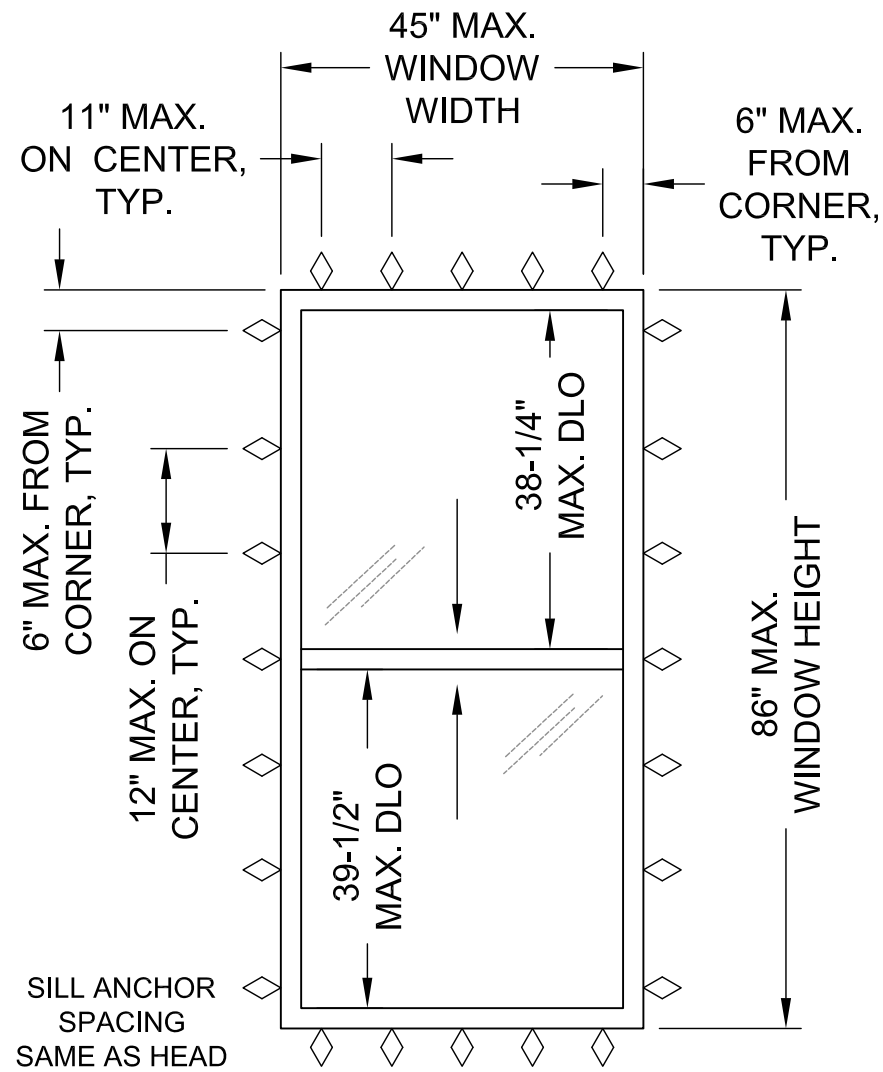
NORTHEAST BUILDING PRODUCTS
 4280 Aramingo Ave., Philadelphia, PA 19124
 Ph. (215) 535-7110 www.camelotwindows.com

SHEET DESCRIPTION: NOTES, ELEVATION	DATE DRAWN: 4/13/2017
SCALE: NTS	REV: B
DRAWING: TDI-WINFORCE-DH-LM	SHEET: 1 OF 5

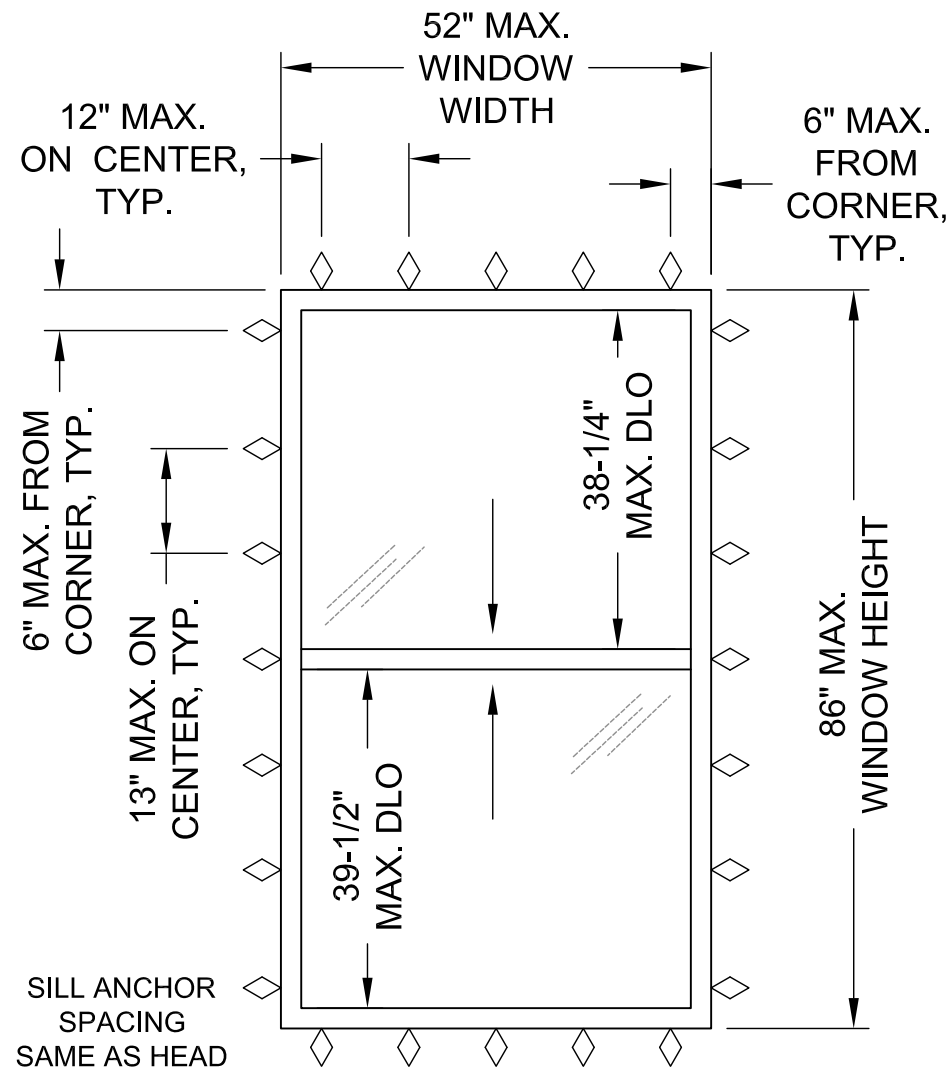


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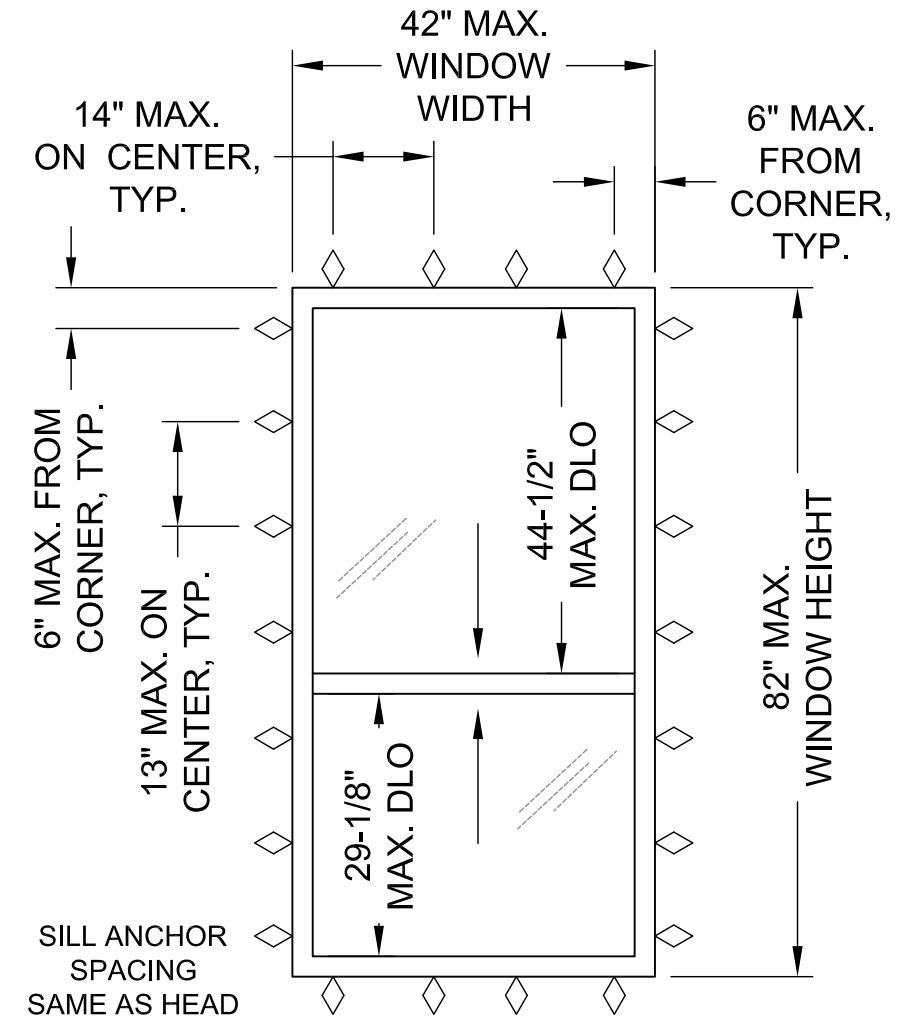
WINFORCE DOUBLE HUNG WINDOW, LARGE MISSILE IMPACT



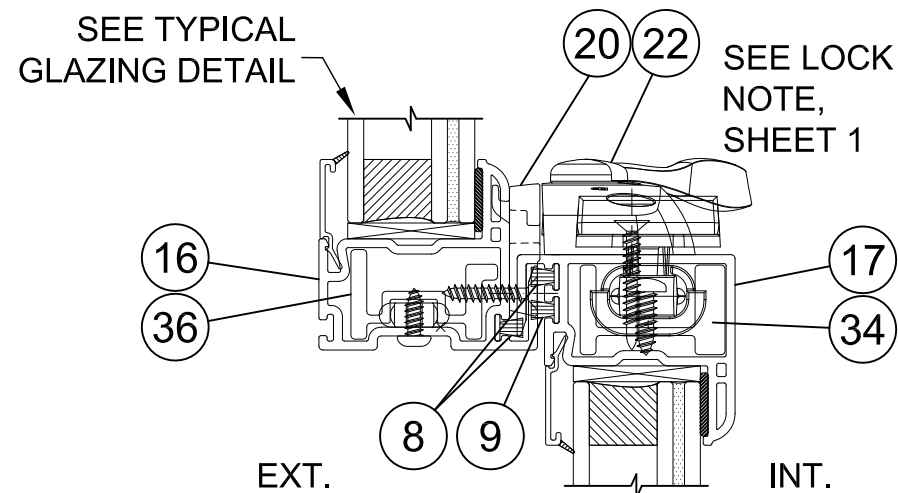
45"x86" EQUAL LITE ELEVATION



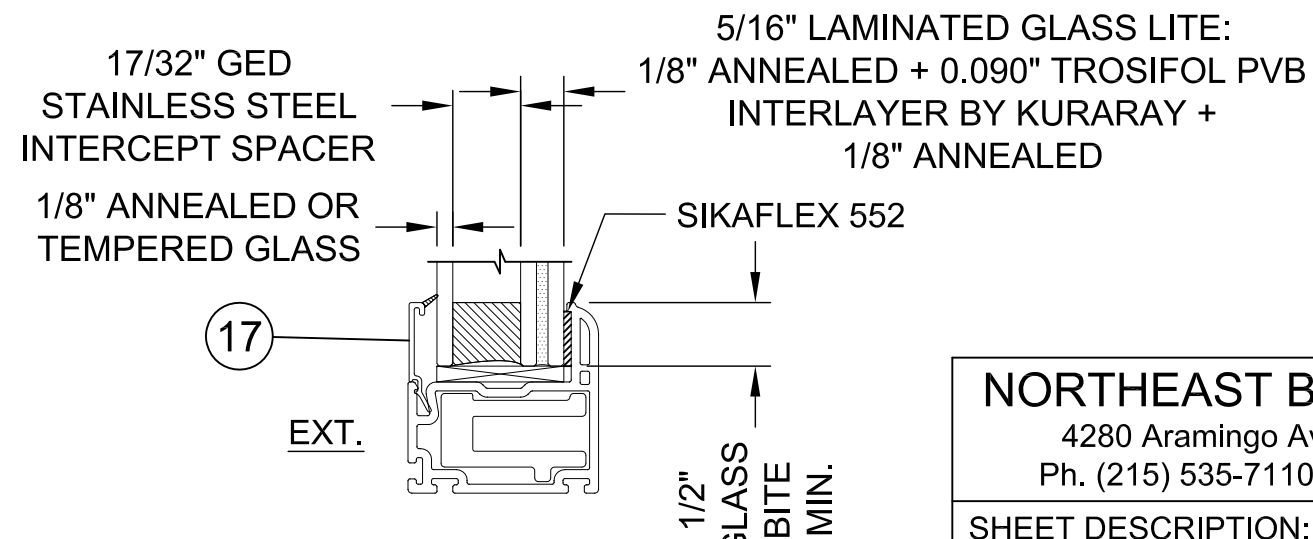
52"x86" EQUAL LITE ELEVATION



42"x82" ORIOLE ELEVATION



MEETING RAILS DETAIL



TYPICAL GLAZING DETAIL

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SHEET DESCRIPTION: ELEVATIONS, GLAZING DETAIL
DATE DRAWN: 4/13/2017

SCALE: NTS
REV: B

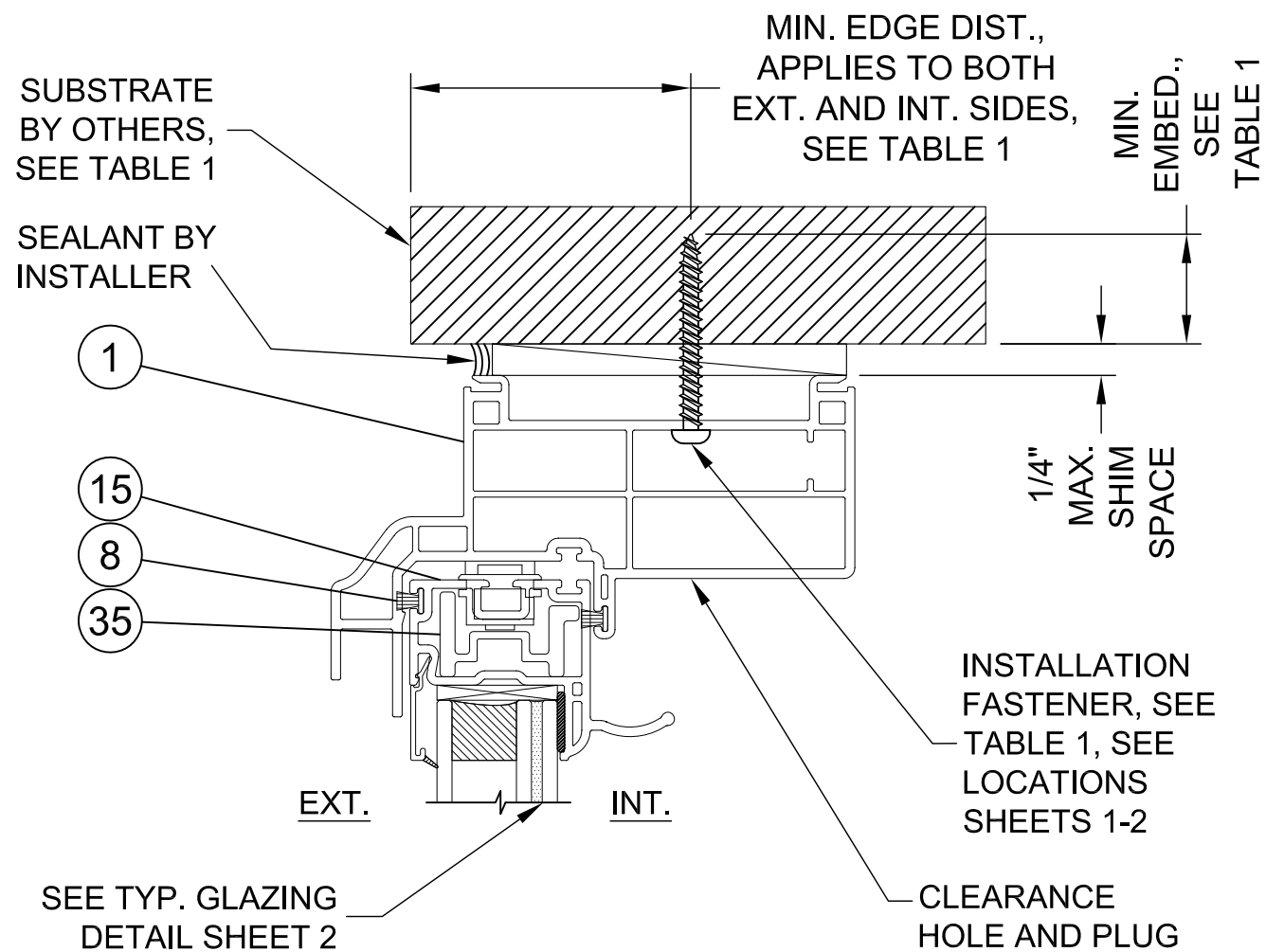
DRAWING: TDI-WINFORCE-DH-LM
SHEET: 2 OF 5



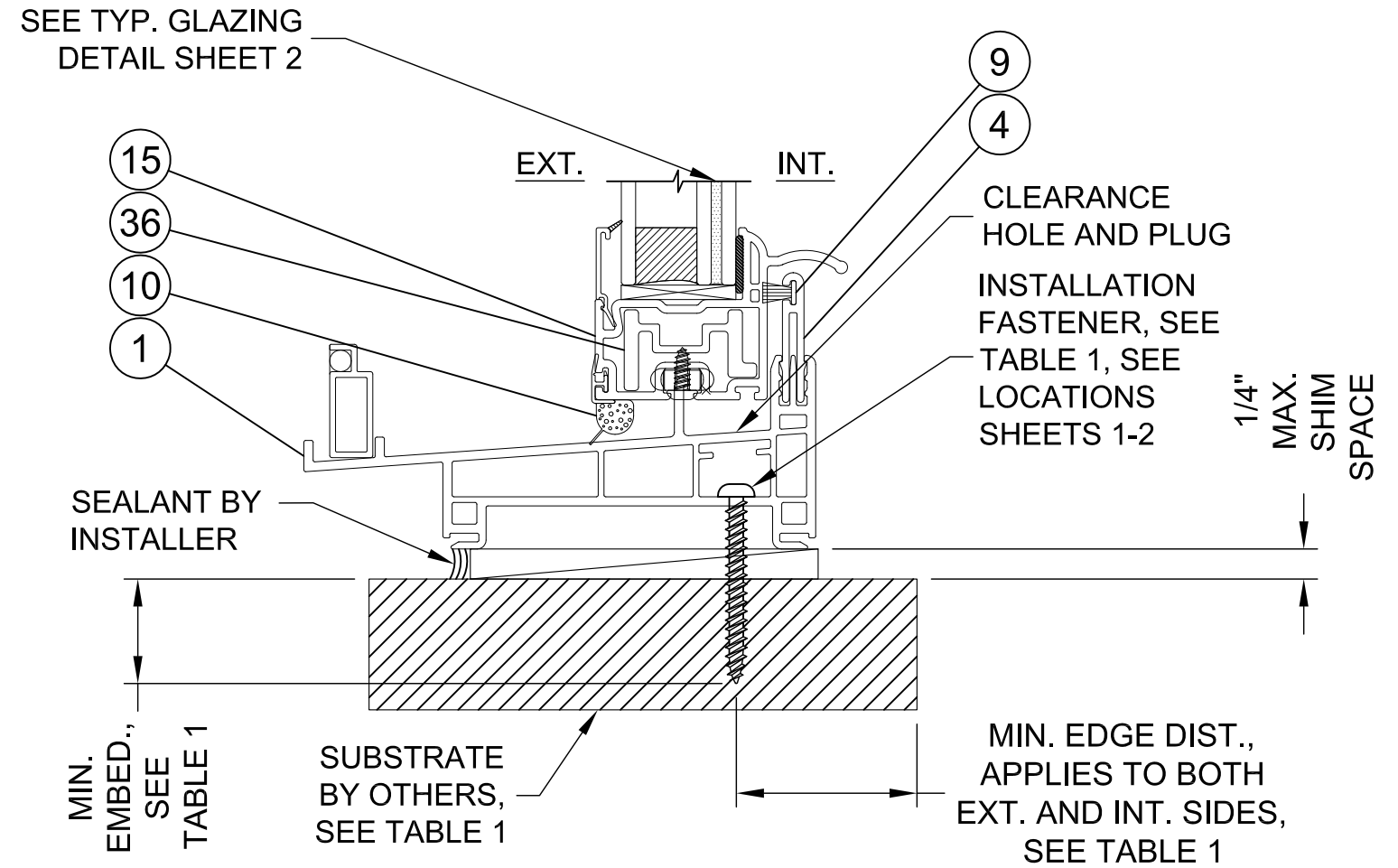
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WINFORCE DOUBLE HUNG WINDOW, LARGE MISSILE IMPACT

SEE GENERAL ANCHOR NOTES, SHEET 4.



TYPICAL HEAD VERTICAL SECTION



TYPICAL SILL VERTICAL SECTION

TABLE 1: EQUAL LEG / FLANGE FRAME INSTALLATION ANCHOR REQUIREMENTS TABLE
NOTE: ALL ANCHORS ARE PAN HEAD OR HEX WASHER HEAD

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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SHEET DESCRIPTION:
HEAD/SILL INSTALLATION

DATE DRAWN:
4/13/2017

SCALE: NTS

REV: B

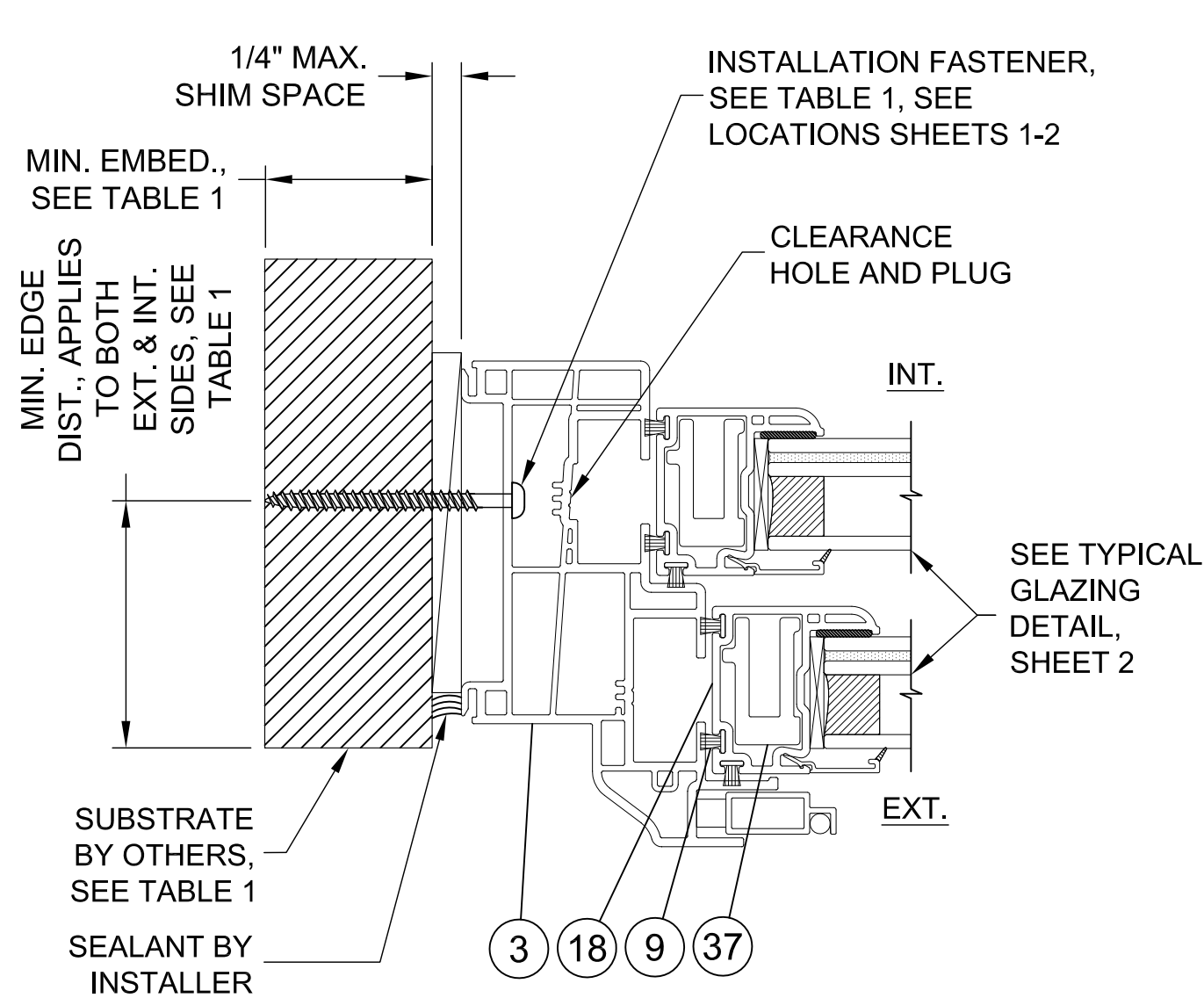
DRAWING: TDI-WINFORCE-DH-LM

SHEET: 3 OF 5

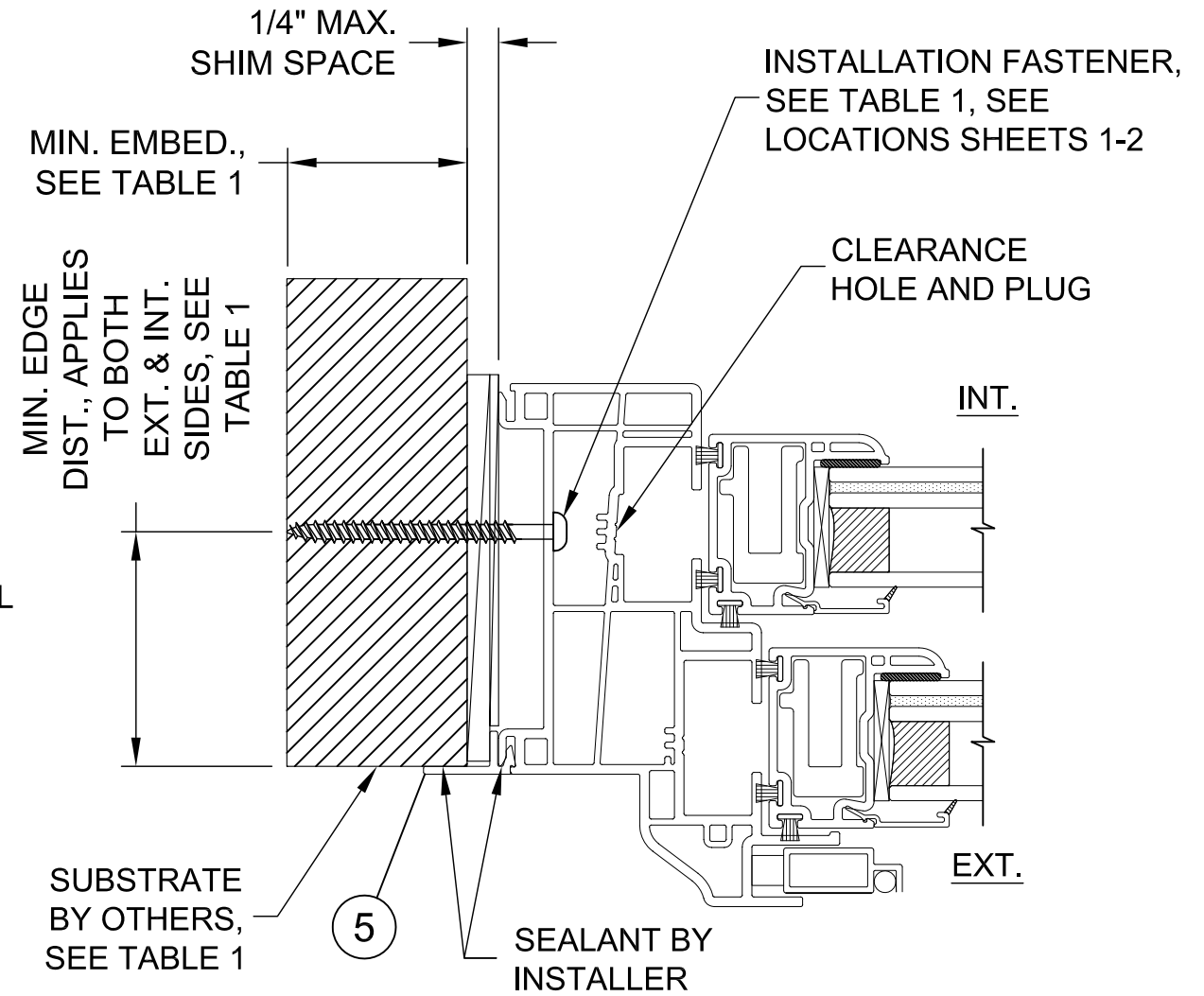


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TYPICAL JAMB HORIZONTAL SECTION



TYPICAL OPTIONAL ADD-ON FLANGE SECTION, JAMB SHOWN, MAY ALSO BE USED HEAD/SILL

GENERAL ANCHOR NOTES:

1. INSTALL ONE ANCHOR AS INDICATED IN DETAILS ON SHEETS 3 AND 4 AT EACH LOCATION SHOWN IN THE ELEVATIONS ON SHEETS 1 AND 2.
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.

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SHEET DESCRIPTION: JAMB INSTALLATION / ALT. FLANGE	DATE DRAWN: 4/13/2017
SCALE: NTS	REV: B
DRAWING: TDI-WINFORCE-DH-LM	SHEET: 4 OF 5

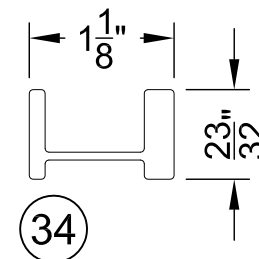
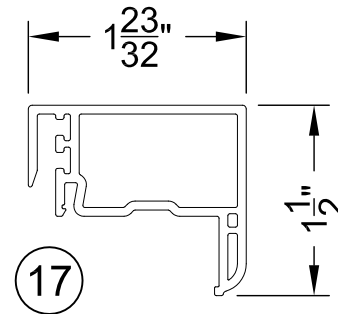
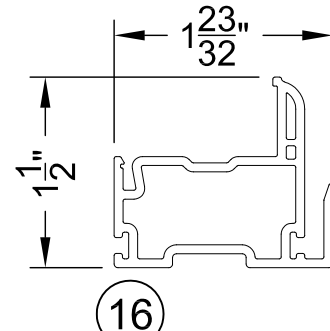
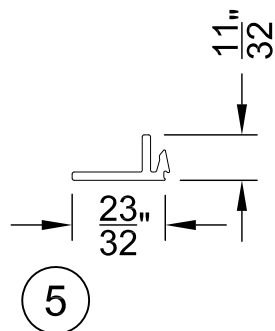
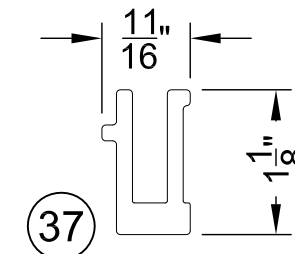
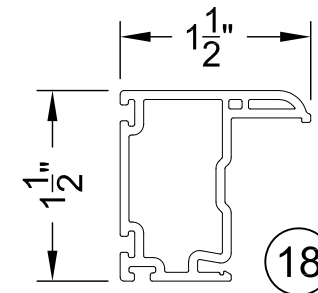
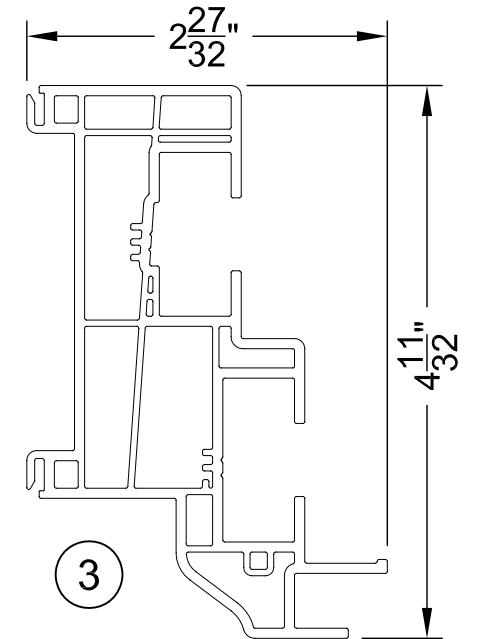
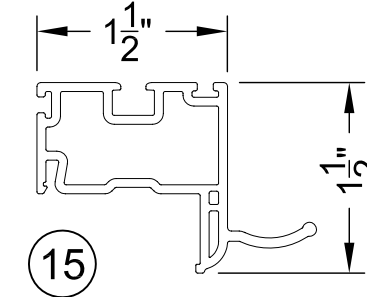
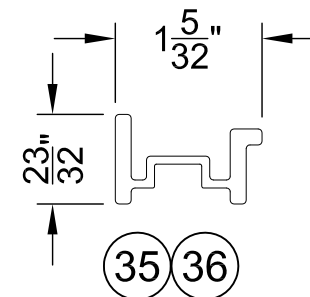
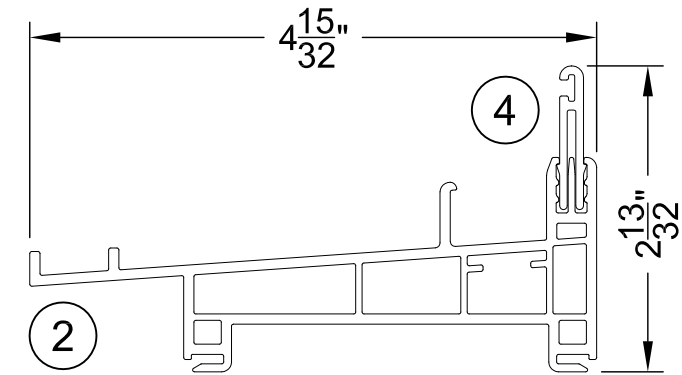
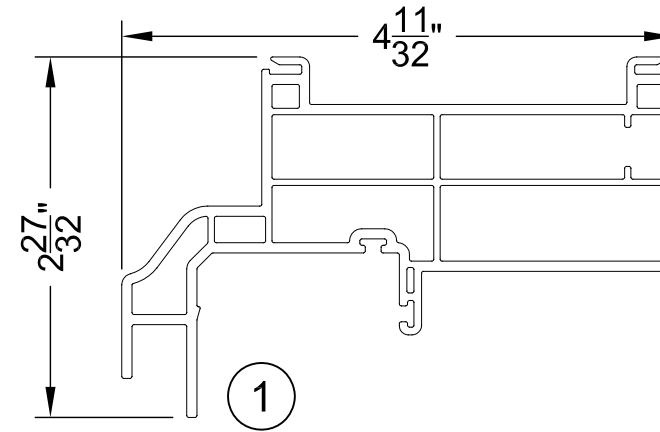


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BILL OF MATERIALS

WINFORCE DOUBLE HUNG WINDOW, LARGE MISSILE IMPACT

ITEM NO.	DESCRIPTION	PART NO.	SOURCE	MATERIAL
1	HEAD	10005160	DECEUNINCK	PVC
2	SILL	10005161	DECEUNINCK	PVC
3	JAMB	10005162	DECEUNINCK	PVC
4	SILL EXTENSION	10005131	DECEUNINCK	PVC
5	ADD-ON FLANGE	10008341	DECEUNINCK	PVC
6	SASH STOP	10008483	DECEUNINCK	PVC
7				
8	WEATHER STRIPPING	.187 BK X .220 HT	ULTRA FAB	FIN PILE
9	WEATHER STRIPPING	.187 BK X .290 HT	ULTRA FAB	FIN PILE
10	WEATHER SEAL - SILL	FOAM FILLED BULB	AMESBURY	FOAM/POLYETH.
11	BALANCE CLIP	ROLLER TILT - RT562	CALDWELL	
12	FRAME SCREWS - SILL TO JAMB	#8 X 1/2" PPH - SS	MERCHANTS	ST. STEEL
13	BALANCE SCREWS	#8 X 7/8" PFH - SS	MERCHANTS	ST. STEEL
14				
15	TOP/BOT. LIFT RAIL	10005541	DECEUNINCK	PVC
16	KEEPER RAIL	10005543	DECEUNINCK	PVC
17	LOCK RAIL	10005542	DECEUNINCK	PVC
18	TOP/BOT. STILE	10005540	DECEUNINCK	PVC
19	BULB SEAL	10008206	DECEUNINCK	PVC
20	GLAZING BEAD - 1" IG (IMPACT)	10005464 / 10005144	DECEUNINCK	PVC
21	PIVOT BAR	16Y513 STAINLESS STEEL	CALDWELL	ST. STEEL
22	PIVOT BAR SCREW	#6 x 5/8" PPH TEK - SS	MERCHANTS	ST. STEEL
23	LOCK	D2100AL-XX	ASHLAND	TIN-ZINC
24	LOCK SCREW	#8 X 1" PAINTED PFH	MERCHANTS	STEEL
25	KEEPER	13999-999-XX	ASHLAND	TIN-ZINC
26	KEEPER SCREW	#6 X 3/4" PAINTED PFH	MERCHANTS	STEEL
27	VENT STOP	1760	VISION	VINYL
28	TILT LATCH - UPPER SASH	7397 FC-R / 7397 FC-L	VISION	VINYL
29	TILT LATCH - LOWER SASH	20F0041 (LH) / 20F0042 (RH)	CALDWELL	VINYL
30	TILT LATCH SCREW - LOWER SASH	#8 X 3/8" PPH TEK	MERCHANTS	STEEL
31	TILT LATCH THUMB BUTTON	20F000501/502	CALDWELL	VINYL
32	W'STRIP 1" STRIP @ KEEPER INT'LCK	.270 BK. x .270 HT. ADHESIVE	ULTRA FAB	FIN PILE
34	LOCK RAIL REINFORCEMENT	10300266	ASTRO SHAPES	6005-T5 ALUM.
35	TOP LIFT RAIL REINFORCEMENT	10300159	ASTRO SHAPES	6005-T5 ALUM.
36	KEEPER / BOTTOM LIFT RAIL REINF.	10300159	ASTRO SHAPES	6005-T5 ALUM.
37	STILE REINFORCEMENT	10300166	ASTRO SHAPES	6005-T5 ALUM.



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SHEET DESCRIPTION:
BILL OF MATERIALS, PART DWGS

DATE DRAWN:
4/13/2017

SCALE: NTS

REV: B

DRAWING: TDI-WINFORCE-DH-LM

SHEET: 5 OF 5



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