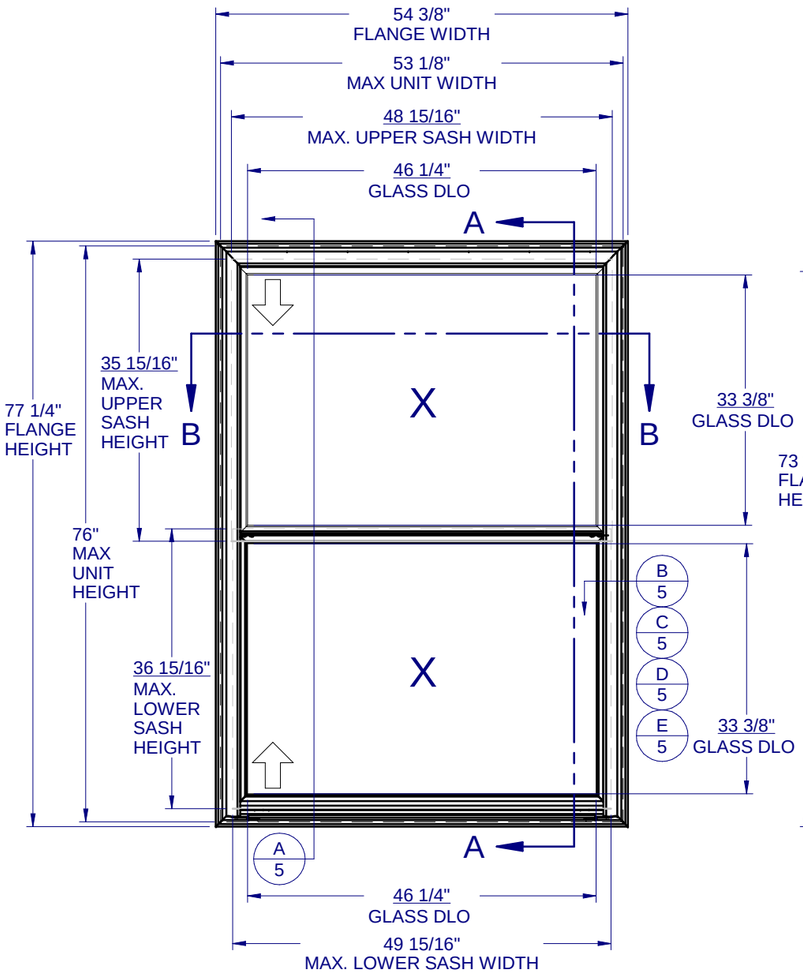
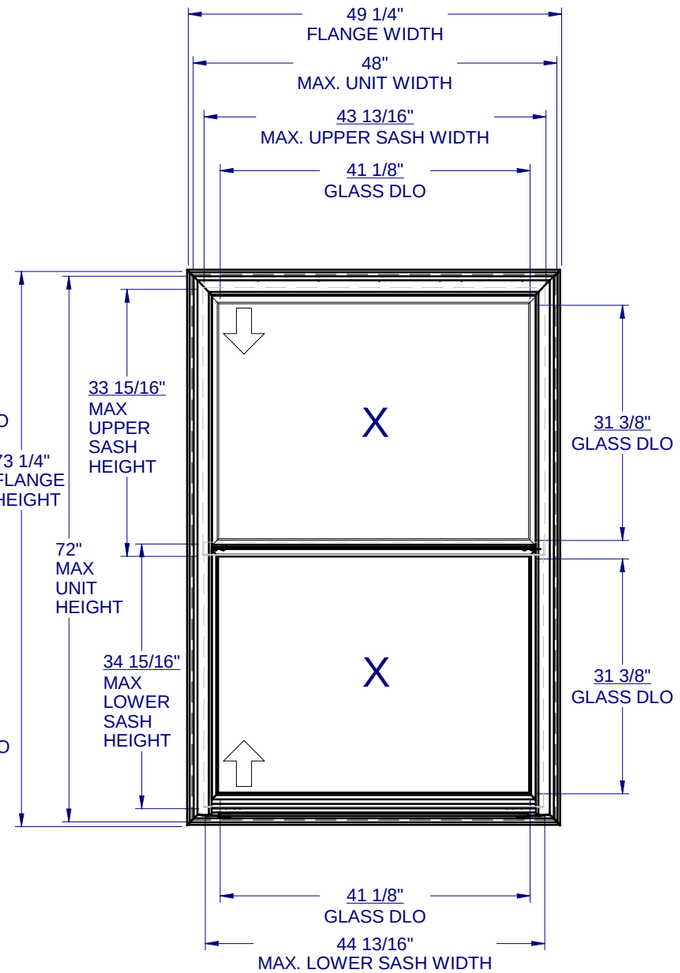
# MODEL 6500 SYSTEMS 1 AND 2
# DOUBLE HUNG - LARGE MISSILE IMPACT




SYSTEM 2
(CAR 138-545/138-1335)
MAXIMUM ALLOWABLE DESIGN PRESSURE: +45/-45 PSF




SYSTEM 1
(CAR 138-560/138-1355)
MAXIMUM ALLOWABLE DESIGN PRESSURE: +50/-50 PSF

TABLE OF CONTENTS



GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND 2018 INTERNATIONAL RESIDENTIAL CODE (IRC), WITH TEXAS REVISIONS, WITH TEXAS REVISIONS..
2. GLAZING OPTIONS: (SEE SHEET 2)
3. CONFIGURATIONS: "X/X".
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 5 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. PRODUCT APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
6. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.
7. SERIES / MODEL DESIGNATION DH-6500.
8. THE DESIGNATION X AND O STAND FOR THE FOLLOWING:
   X = OPERABLE SASH
9. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.
10. EXTERNAL WEEP SLOT = 1/2 x 2-1/2" LOCATED 5" FROM BOTH ENDS.

Lucas Turner
2022.05.03
14:44:07
-05'00'

Custom CWS WINDOW SYSTEMS
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**6500 PVC DOUBLE HUNG IMPACT**

| NO.: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| B | REVISED TO TDI REQUEST | MS | 04/15/22 |
| A | REVISED TO TDI REQUEST | JML | 3/22/17 |

REVISIONS

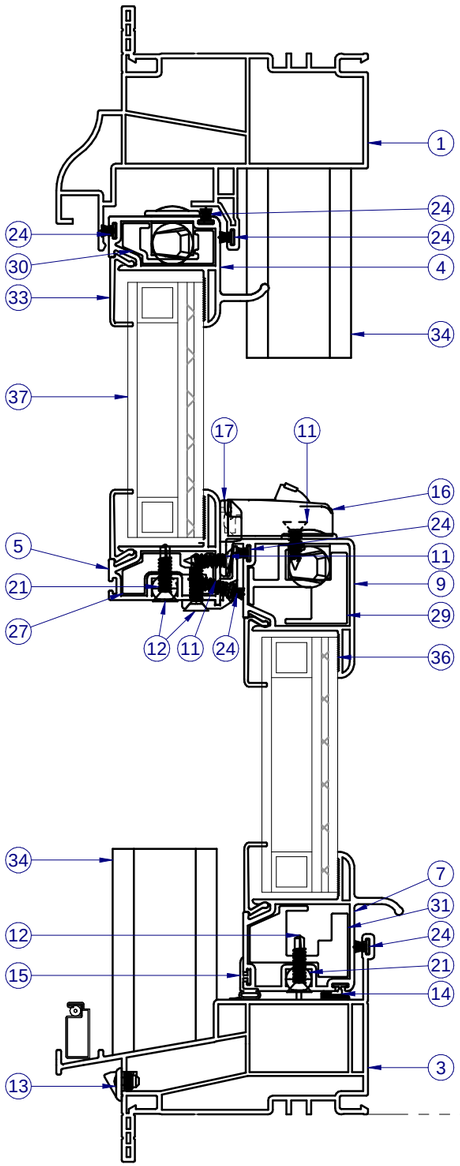
STATE OF TEXAS
LUCAS A. TURNER
115094
LICENSED
PROFESSIONAL ENGINEER

5/3/2022

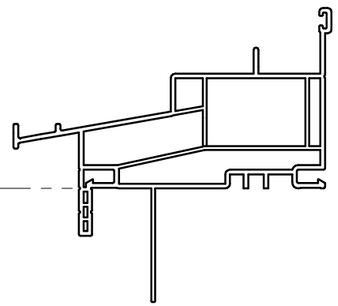
LUCAS A. TURNER, P.E.
TX PE # 115094
2428 OLD NATCHEZ TRC TRL
CAMDEN, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
GENERAL NOTES AND ELEVATIONS

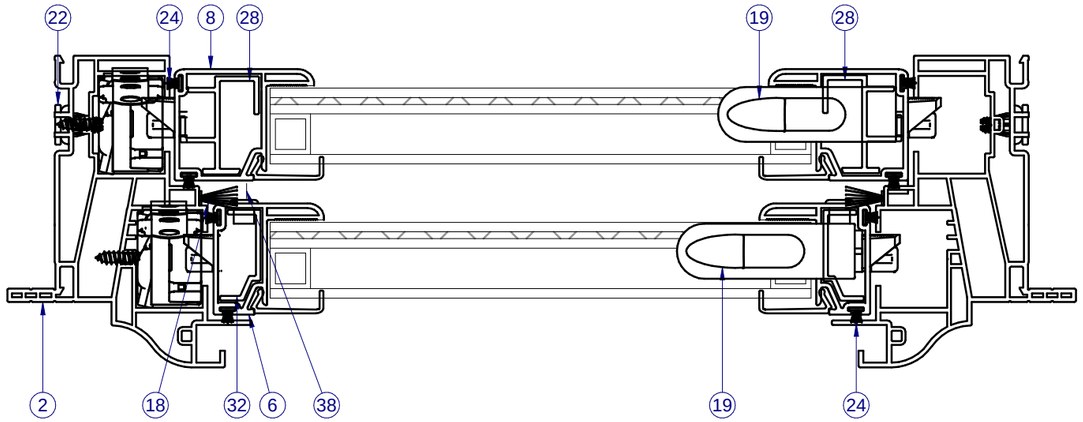
| DRAWN BY: | DATE: |
|---|---|
| EMK | 11/12/15 |
| DWG #: | REV.: |
| TDI-1069 | B |
| SCALE: | SHEET |
| 1:20 | 1 OF 5 |



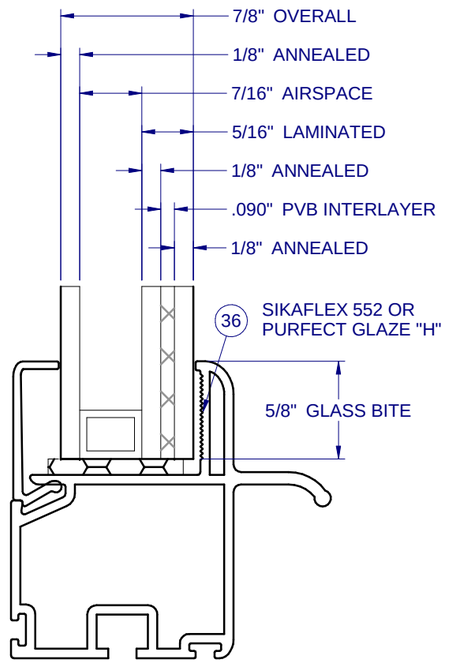

SECTION VIEW A-A



ALTERNATE FIN FRAME




SECTION VIEW B-B




SYSTEMS 1 & 2

Custom CWS WINDOW SYSTEMS
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

# 6500 PVC DOUBLE HUNG IMPACT

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2428 OLD NATCHEZ TRC TRL
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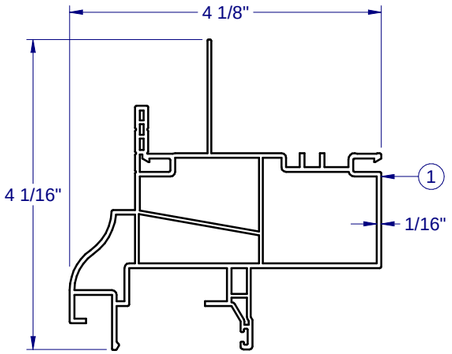
SHEET DESCRIPTION:
SECTION VIEWS AND GLAZING DETAIL

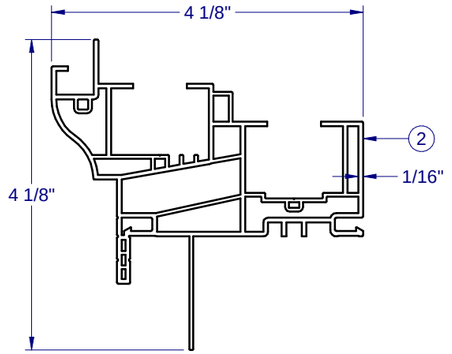
| DRAWN BY: | DATE: |
|---|---|
| EMK | 11/12/15 |
| DWG #: | REV.: |
| TDI-1069 | B |
| SCALE: | SHEET |
| 1:2 | 2 OF 5 |

## PARTS LIST

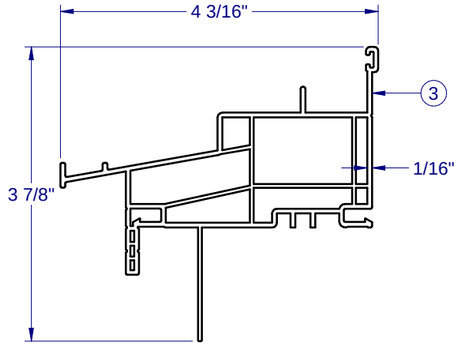
| ITEM | PART # | DESCRIPTION | MATERIAL | VENDOR |
|---|---|---|---|---|
| 1 | H-6121 | HEAD, OUTERFRAME | PVC | ATN |
| 2 | H-6122 | JAMBS, OUTERFRAME | PVC | ATN |
| 3 | H-6123 | SILL, OUTERFRAME | PVC | ATN |
| 4 | H-6130 | TOP RAIL, UPPER SASH | PVC | ATN |
| 5 | H-6131 | BOTTOM RAIL, UPPER SASH | PVC | ATN |
| 6 | H-6132 | SASH SIDE RAIL, UPPER SASH | PVC | ATN |
| 7 | H-6133 | BOTTOM RAIL, LOWER SASH | PVC | ATN |
| 8 | H-6134 | SASH SIDE RAIL, LOWER SASH | PVC | ATN |
| 9 | H-6135 | TOP RAIL, LOWER SASH | PVC | ATN |
| 10 | P-3028 | SETTING BLOCK | RUBBER | FRANK LOWE |
| 11 | P-3515 | #8 x 5/8 PHIL FLAT WHITE SMS | STEEL | FASTENAL |
| 12 | P-4146 | #8 X 3/4 PHIL FLAT TEK. | STEEL | FASTENAL |
| 13 | P-5420 | WEEP COVER | NYLON | M&M |
| 14 | P-5085 | WSTP, .355 X 333BULB VINYL | | AMESBURY |
| 15 | P-5086 | WSTP, .300 X 187BULB VINYL | | AMESBURY |
| 16 | P-3783 | LOCKS | | INTERLOCK |
| 17 | P-3784 | KEEPERS | | INTERLOCK |
| 18 | P-5424 | WSTP., .500 X 1.5" ADHESIVE BACK STRIP | | ULTRAFAB |
| 19 | P-5392 | SASH TILT LATCH | NYLON | CALDWELL |
| 21 | P-5396 | PIVOT BAR | SS | CALDWELL |
| 22 | P-5412 | JAMB JACK | STEEL | MERCHANTS |
| 24 | P-3305 | WSTP., .270 X 187 | | ULTRAFAB |
| 25 | S-2001 | INTERLOCK RAIL | ALUM | ASCEND |
| 27 | S-2003 | REINF, BOT RAIL, UPPER SASH | ALUM | ASCEND |
| 28 | S-2004 | REINF, SIDE RAIL, LOWER SASH | ALUM | ASCEND |
| 29 | S-2005 | REINF, TOP RAIL, LOWER SASH, & SIDE RAIL LOWER SAS | ALUM | ASCEND |
| 30 | S-2006 | REINF, SASH TOP AND SIDE RAIL, UPPER SASH | ALUM | ASCEND |
| 31 | S-2010 | REINF, BOTTOM RAIL, LOWER SASH | ALUM | ASCEND |
| 32 | S-2027 | REINF, SIDE RAIL, UPPER SASH | ALUM | ASCEND |
| 33 | S-6141 | GLAZING BEAD | PVC | ATN |
| 34 | S-6142 | SASH STOP | | |
| 35 | | BALANCERS - CONSTANT FORCE RT | | CALDWELL |
| 36 | | HOTMELT | SILICONE | TRUSEAL |
| 37 | GLASS | SEE SHEET 2 | | |
| 38 | P-5425 | WSTP, .200 X 5/8" X 5/8" DUST PLUG | | ULTRAFAB |
| 39 | P-3218 | SCREEN FRAME | ALUM | FLA SCREEN |
| 40 | P-4754 | SCREEN CORNER KEY | NYLON | FLA SCREEN |
| 41 | P-3228 | SCREEN SPLINE | | DAPA |
| 42 | P-3029 | SCREEN LIFTS | | SUMMIT |
| 43 | P-3033 | SCREEN SPRINGS | | FLA SCREEN |



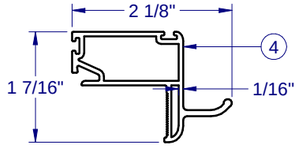

PVC FRAME HEAD
H-6121



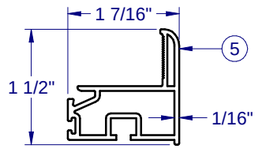

PVC FRAME JAMB
H-6122



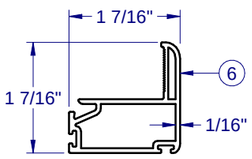

PVC FRAME SILL
H-6123



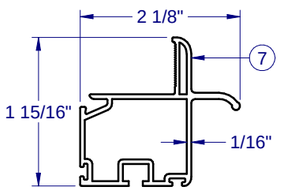

PVC TOP RAIL UPPER
H-6130



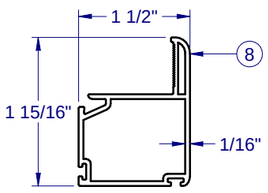

PVC BOT RAIL UPPER
H-6131



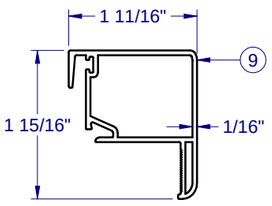

PVC SSR UPPER
H-6132



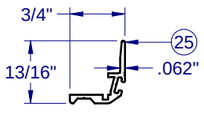

PVC BTM RAIL LOWER
H-6133



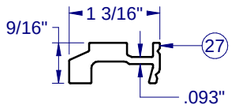

PVC SSR LOWER
H-6134



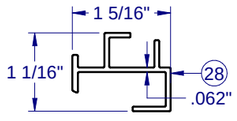

PVC TOP RAIL LOWER
H-6135



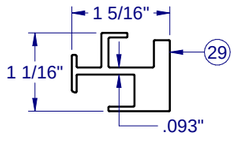

INTERLOCK
S-2001



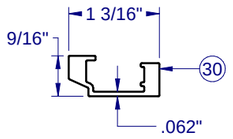

REINFORCEMENT
S-2003



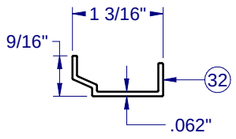

REINFORCEMENT
S-2004



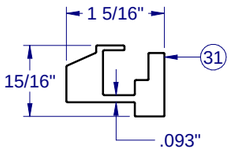

REINFORCEMENT
S-2005




REINFORCEMENT
S-2006




REINFORCEMENT
S-2027

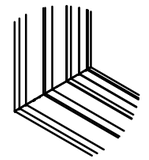



REINFORCEMENT
S-2010

LINE ITEMS NOT USED:
20, 23, 26

NOTE: ALL EXTRUSIONS ARE ALUM. 6063-T6 UNLESS OTHERWISE NOTED.

**FRAME CORNER CONSTRUCTION**



CORNER WELD
(ALL SIDES)
1:8


Custom Window Systems
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC


# 6500 PVC DOUBLE HUNG IMPACT

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|---|---|---|---|
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REVISIONS


5/3/2022


LUCAS A. TURNER, P.E.
TX PE # 115094
2428 OLD NATCHEZ TRC TRL
CAMDEN, TN 38320
PH. 941-380-1574


SHEET DESCRIPTION:
BOM AND EXTRUSIONS

| DRAWN BY: | DATE: |
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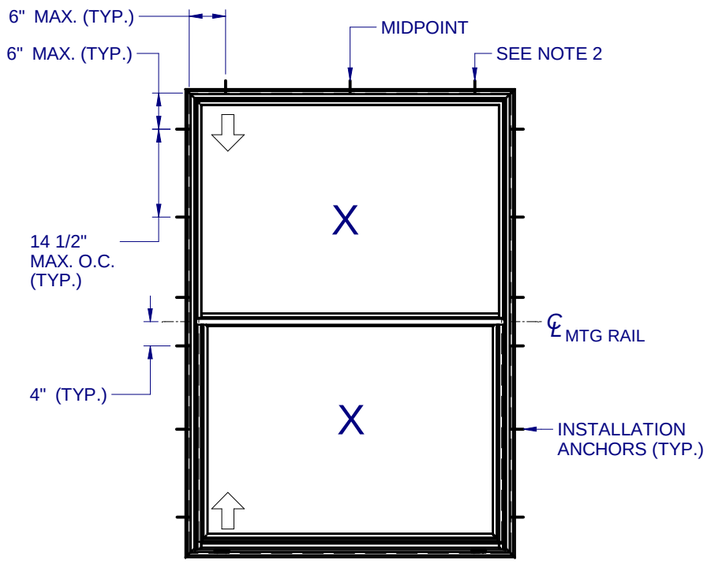
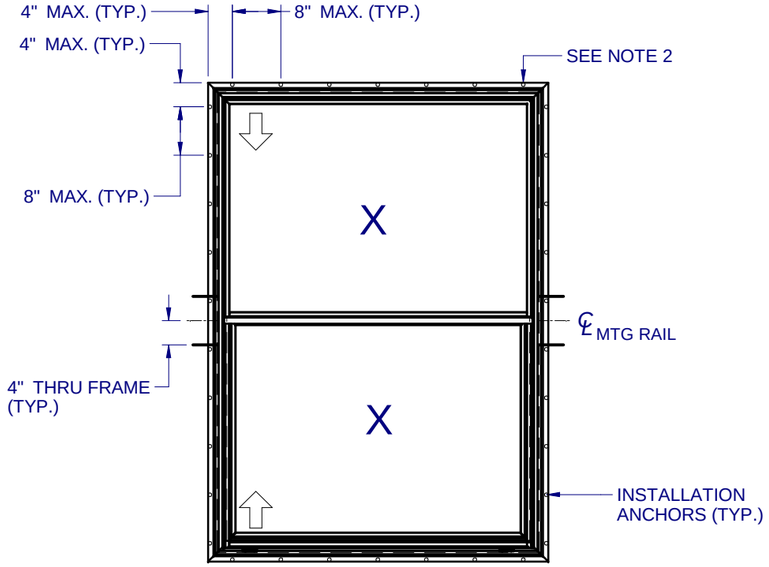
| 1:2 | 3 OF 5 |




ANCHOR LAYOUT - (FLANGE)
[NO SILL ANCHORS REQUIRED]




ANCHOR LAYOUT - (FIN)
[NOTE THRU FRAME ANCHORS]

NOTES:

1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION.

2. SHIM AS REQ AT EACH INSTALLATION ANCHOR USING LOAD BEARING SHIMS. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT. LOAD BEARING SHIMS SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER. WOOD SHIMS ARE NOT ALLOWED.

3. ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 5.

4. ALL INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.

5. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 5.

6. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE.
   INSTALLATIONS INTO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND THE SUBSTRATE.
   INSTALLATIONS INTO HOLLOW CMU REQURE THE USE OF 1X WOOD BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.

7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 3-9/16" FOR MASONRY, 1" FOR WOOD AND METAL.

8. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE1, SHEET 5. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.

9. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS:
   FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)

Custom Window Systems
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OCALA, FLORIDA 34474
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SHEET DESCRIPTION:
ANCHOR SCHEDULE AND NOTES

| DRAWN BY: | DATE: |
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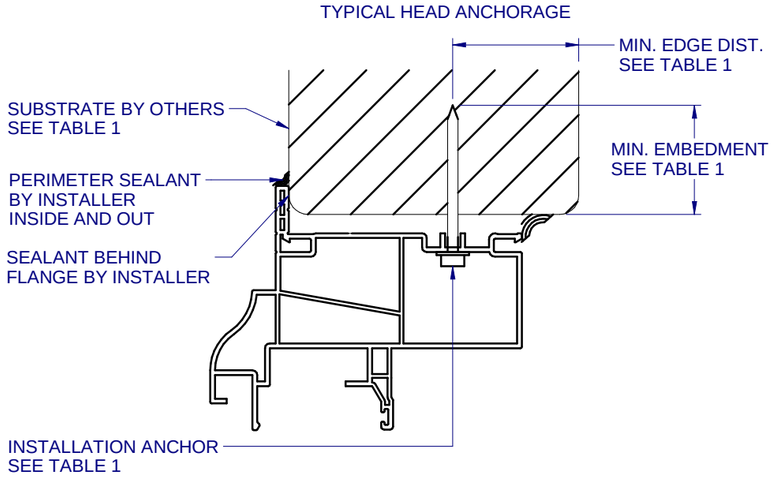
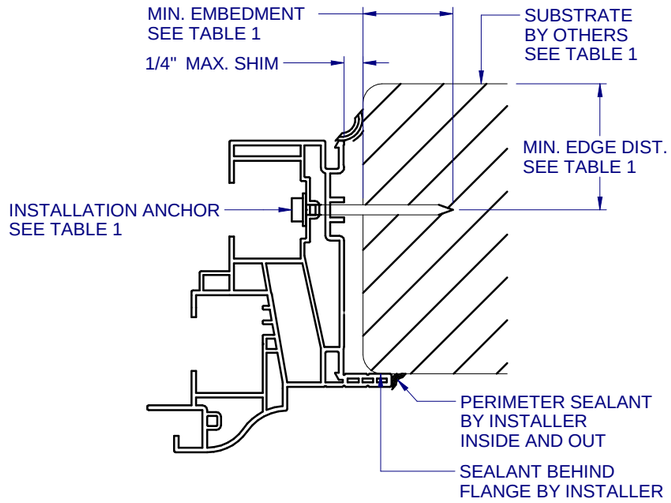
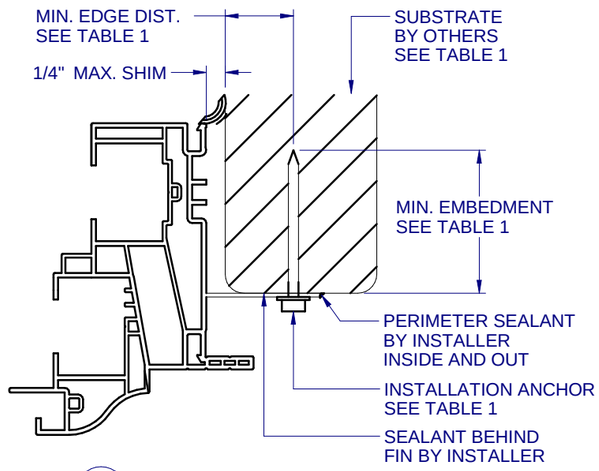
| 1:25 | 4 OF 5 |



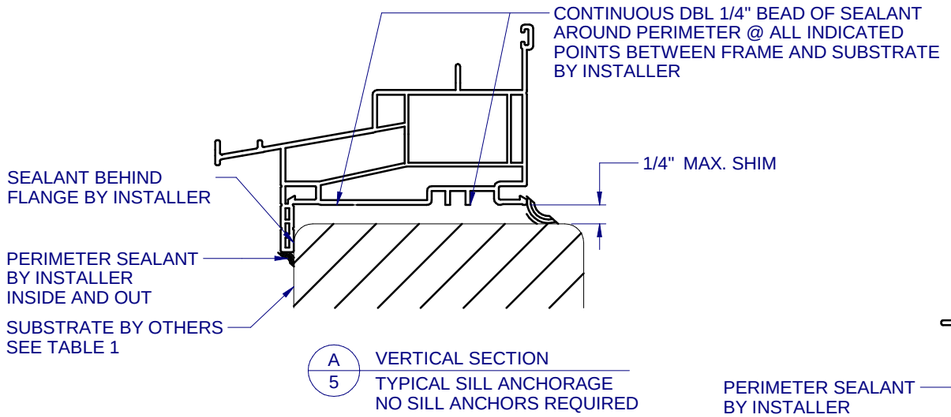




B/5 HORIZONTAL SECTION
TYPICAL JAMB ANCHORAGE

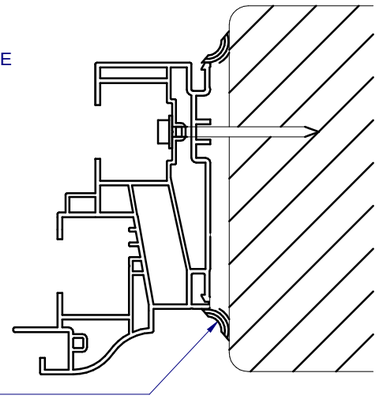



C/5 HORIZONTAL SECTION
TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

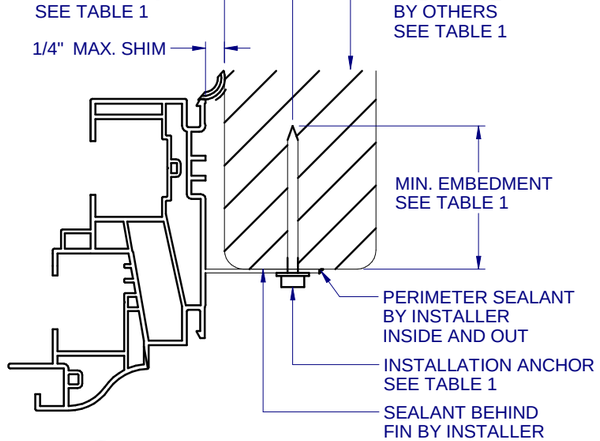
NOTE: ADDITIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. B/5) REQ'D AT MTG RAIL . SEE SHEET 4 ANCHOR LAYOUT.




A/5 VERTICAL SECTION
TYPICAL SILL ANCHORAGE
NO SILL ANCHORS REQUIRED




D/5 HORIZONTAL SECTION
BOX FRAME INSTALLATION
SIMILAR FOR HEAD AND SILL FOR BOX INSTALLATION




E/5 HORIZONTAL SECTION
TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

**TABLE 1: APPROVED INSTALLATION FASTENERS**

| FRAME TYPE | SUBSTRATE TYPE | ANCHOR TYPE | MIN. EMBEDMENT | MIN. EDGE DIST. |
|---|---|---|---|---|
| FLANGE | CONCRETE (2.0 KSI MIN.) | 3/16" ITW TAPCON | 1-1/2" | 1-1/8" |
| FLANGE | HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.) | 3/16" ITW TAPCON | 1" | 2" |
| FLANGE | CONCRETE (2.85 KSI MIN.) | 3/16" ELCO ULTRACON | 1" | 1" |
| FLANGE | GROUT-FILLED CMU (ASTM C-90) | 3/16" ELCO ULTRACON | 1-3/4" | 2-1/2" |
| FLANGE | 2X MIN. SOUTHERN PINE (G=0.55) | 3/16" ITW TAPCON OR ELCO ULTRACON | 1-3/8" | 7/8" |
| FLANGE | 2X MIN. SOUTHERN PINE (G=0.55) | #10 PHILLIPS PH SCREW | 2" | 7/8" |
| FLANGE | 16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN) | #10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW | FULL THREAD THRU 0.060" | 7/16" |
| FLANGE | 1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.) | #10 GRADE 5 SELF-TAPPING / DRILLING SCREW | FULL THREAD THRU 0.125" | 7/16" |
| FIN | 2X MIN. SOUTHERN PINE (G=0.55) | #10 PHILLIPS PH SCREW | 2" | 1/2" |

FLANGE REMOVAL NOTE: PARTIALLY OR FULLY REMOVING THE FLANGE, UP TO AND INCLUDING A BOX-FRAME APPLICATION IS ACCEPTABLE PROVIDED:

- MIN. 1/4" FILLET OF CONSTRUCTION-GRADE ADHESIVE CAULK IS APPLIED INSIDE AND OUT, FULL PERIMETER, BY INSTALLER.
- PRODUCT ANCHORAGE IS IN ACCORDANCE WITH REQUIREMENTS AS SHOWN FOR FLANGE WINDOWS.

Custom CWS WINDOW SYSTEMS
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

# 6500 PVC DOUBLE HUNG IMPACT

| NO.: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| B | REVISED TO TDI REQUEST | MS | 04/15/22 |
| A | REVISED TO TDI REQUEST | JML | 3/22/17 |

REVISIONS

STATE OF TEXAS
LUCAS A TURNER
115094
LICENSED
PROFESSIONAL ENGINEER

5/3/2022

LUCAS A. TURNER, P.E.
TX PE # 115094
2428 OLD NATCHEZ TRC TRL
CAMDEN, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
INSTALLATION DETAILS

| DRAWN BY: | DATE: |
|---|---|
| EMK | 11/12/15 |
| DWG #: | REV.: |
| TDI-1069 | B |
| SCALE: | SHEET |
| 1:2 | 5 OF 5 |