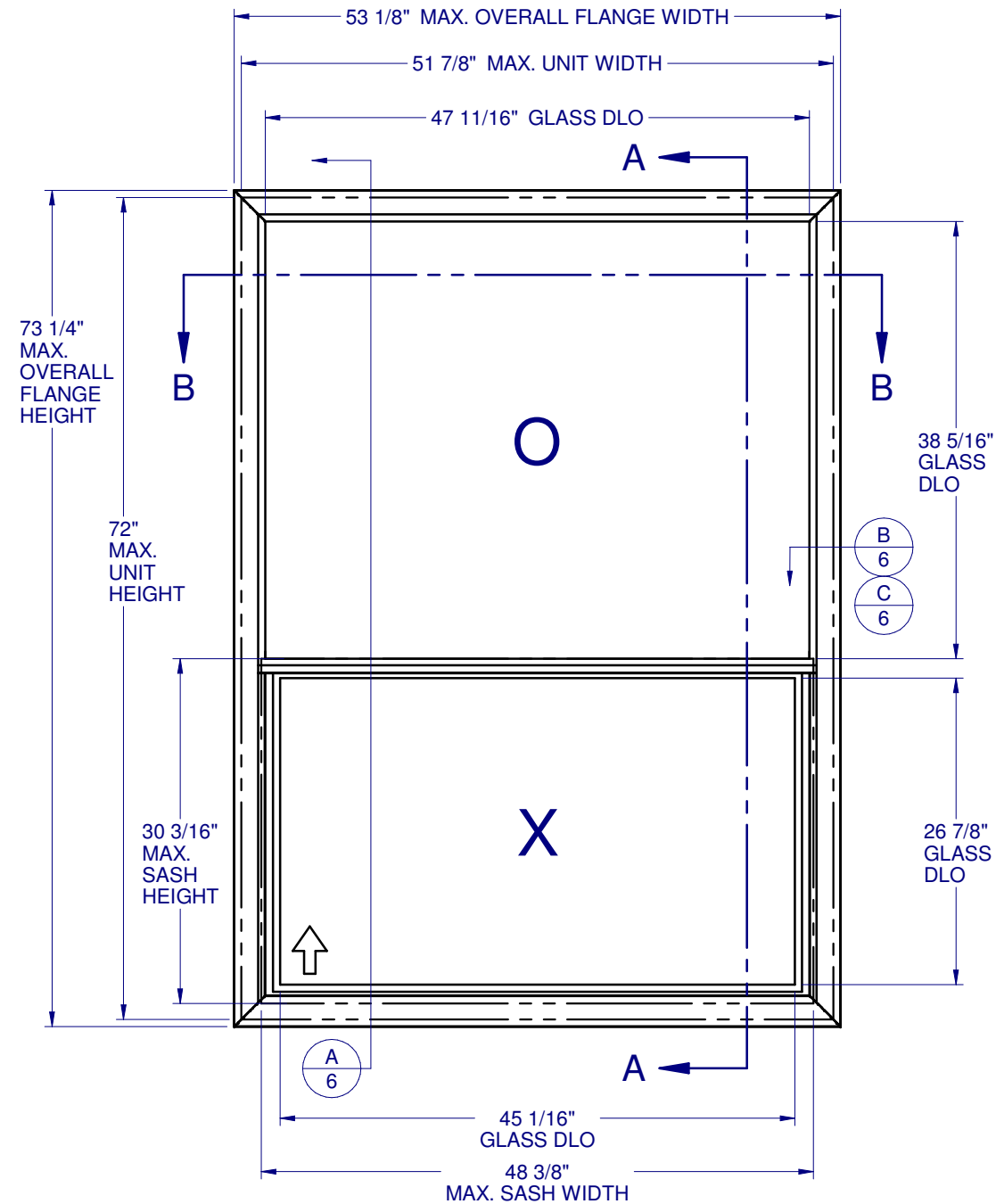


SINGLE HUNG ORIEL - LARGE MISSILE IMPACT



GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND IS RATED FOR WIND ZONE 4 MISSILE LEVEL D IMPACT USE AS DEFINED IN ASTM E 1996 PER THE FBC.
2. GLAZING OPTIONS: (SEE SHEET 2)
3. CONFIGURATIONS: "O/X".
4. DESIGN PRESSURE RATING:
-NEGATIVE DESIGN LOADS BASED ON, TESTED PRESSURE AND GLASS TABLES ASTM E-1300-04.
-POSITIVE DESIGN LOADS BASED ON, TESTED PRESSURE, WATER INFILTRATION TEST PRESSURE AND GLASS TABLES ASTM E-1300-04.
5. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 6 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
6. PRODUCT APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
7. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.
8. SERIES / MODEL DESIGNATION SH-8100.
9. THE DESIGNATION X AND O STAND FOR THE FOLLOWING:
X = OPERABLE SASH, O = FIXED SASH
10. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.
11. EXTERNAL WEEP SLOT = 1/4" x 1-1/4" LOCATED 4" FROM BOTH ENDS.



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OCALA, FLORIDA 34474
WWW.CWS.CC

8100 PVC SINGLE HUNG IMPACT

| NO. | DESCRIPTION: | BY: | DATE: |
|-----|----------------------|-----|----------|
| A | UPDATED PER 2014 FBC | EMK | 04/02/15 |



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SHEET DESCRIPTION:
GENERAL NOTES AND ELEVATIONS

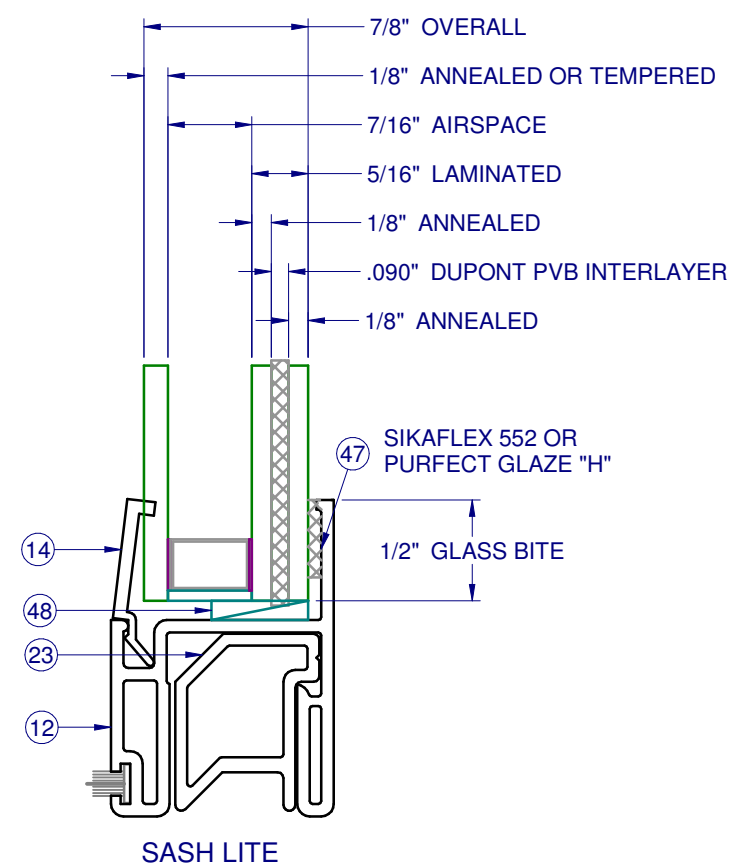
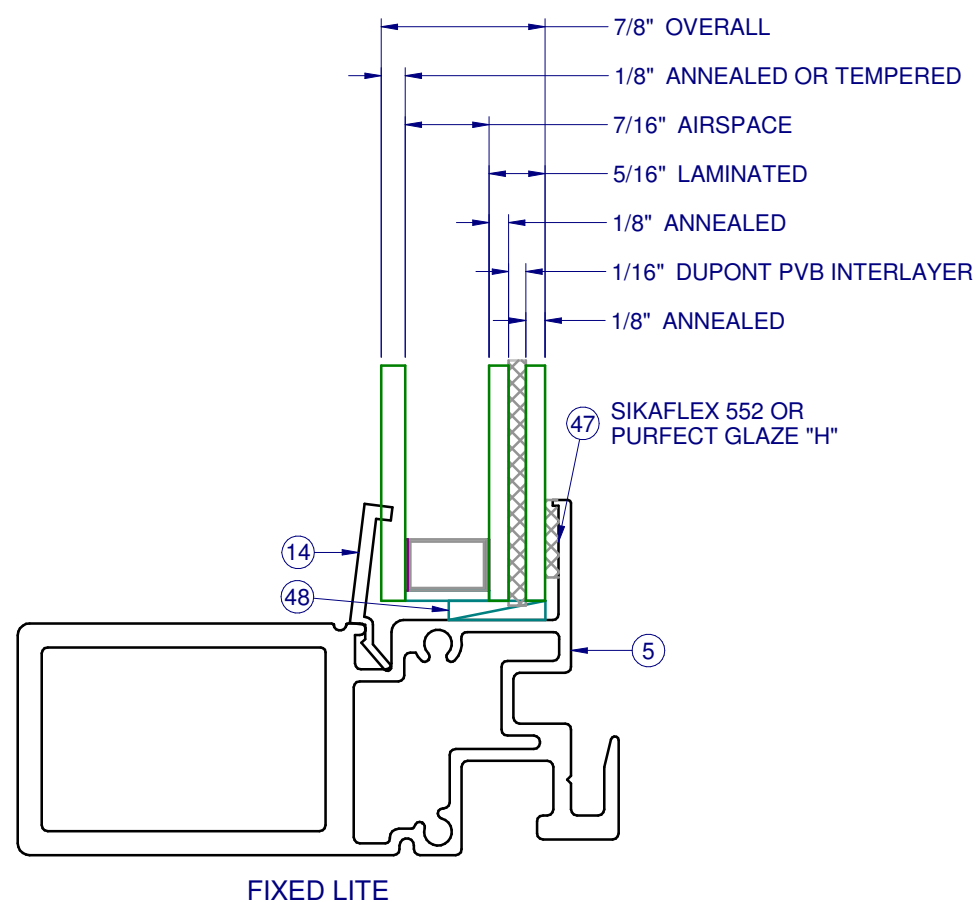
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| DRAWN BY: ADE | DATE: 01/16/14 |
| DWG #: CWS-882 | REV.: A |
| SCALE: 1:15 | SHEET 1 OF 6 |

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| ANCHOR SCHEDULE & NOTES..... | 5 |
| INSTALLATION DETAILS..... | 6 |

| MAX. UNIT SIZE | DESIGN PRESSURE RATING | IMPACT RATING |
|----------------|------------------------|----------------------|
| 51-7/8" x 72" | +/- 70 PSF | LARGE MISSILE IMPACT |

**8100 PVC
SINGLE HUNG
IMPACT**



| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|-----|----------------------|-----------|
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| | | | | | | | | | | | DESCRIPTION: | REVISIONS |

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No 58201
STATE OF FLORIDA
PROFESSIONAL ENGINEER

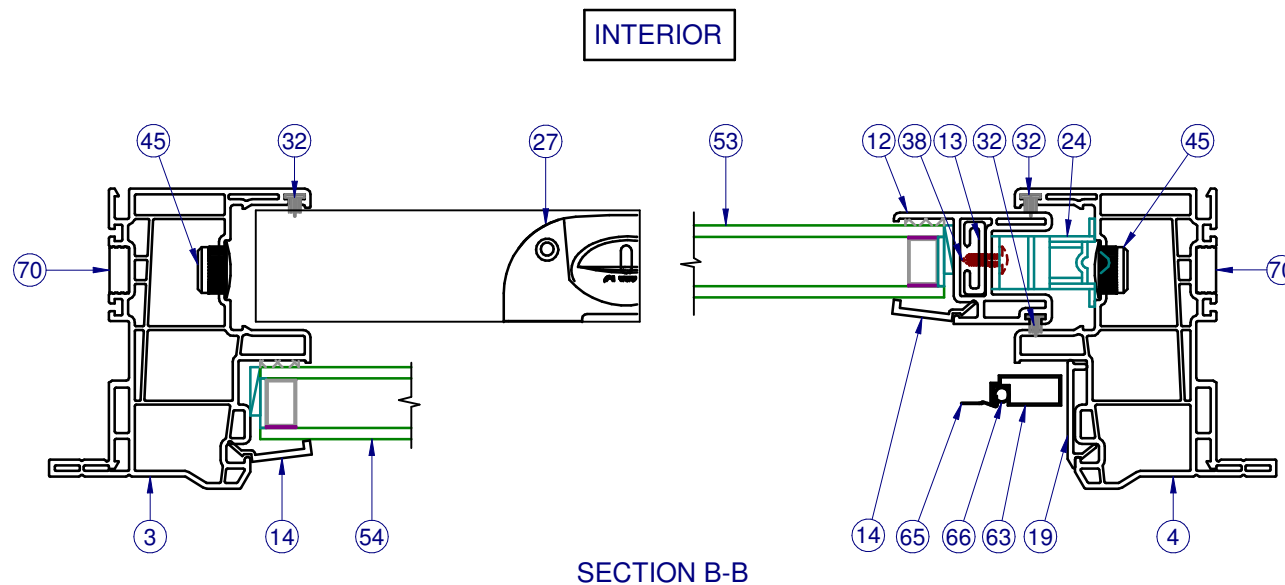
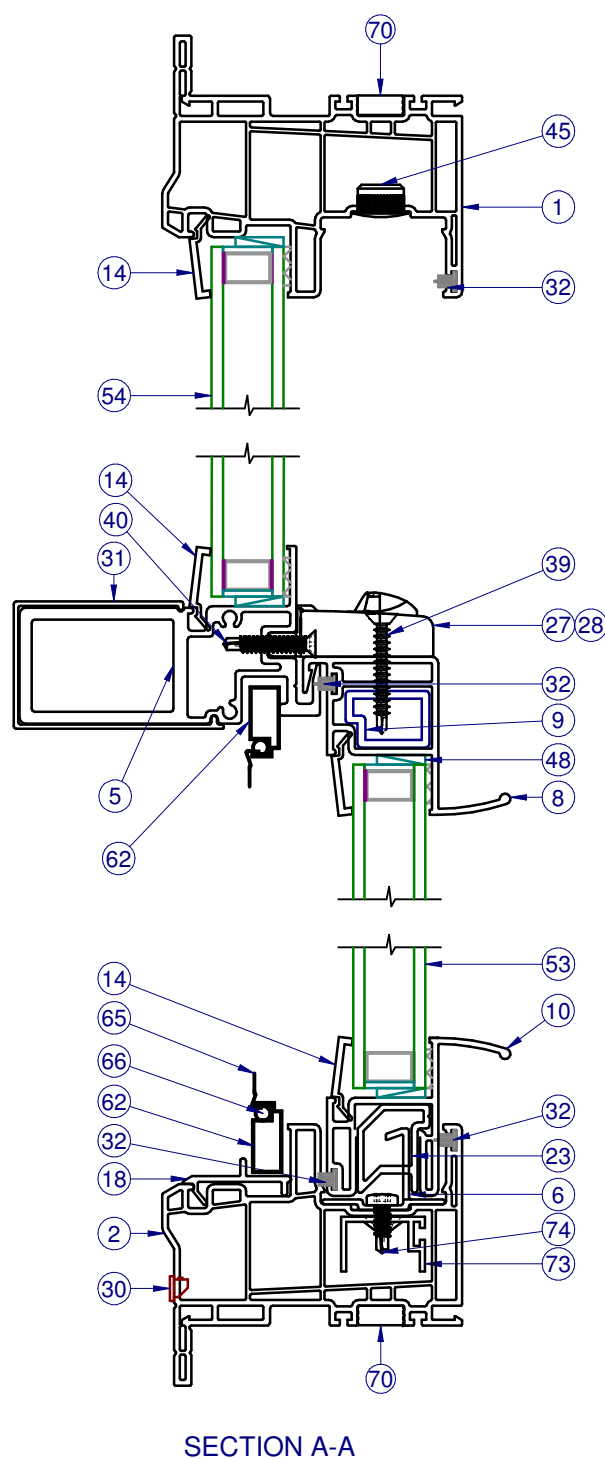
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GLAZING DETAILS

| | |
|--------------------------|--------------------------|
| DRAWN BY: ADE | DATE: 01/16/14 |
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| SCALE: 1:1 | SHEET 2 OF 6 |

**8100 PVC
SINGLE HUNG
IMPACT**

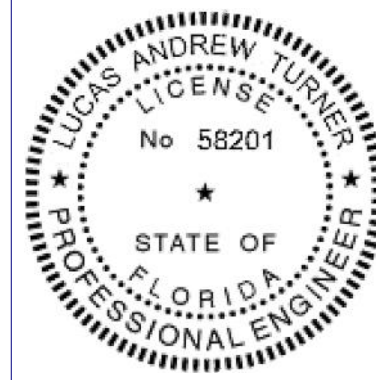


SECTION B-B

NOTE: LEFT SIDE SHOWS FIXED SECTION VIEW,
RIGHT SIDE SHOWS SASH SECTION VIEW.

NOTE: ITEMS NOT SHOWN FOR CLARITY:
20, 25-26, 36-37, 44, 51-52, 55-56, 64, 67-68

| REVISIONS | |
|-----------|----------------------|
| NO.: | DESCRIPTION: |
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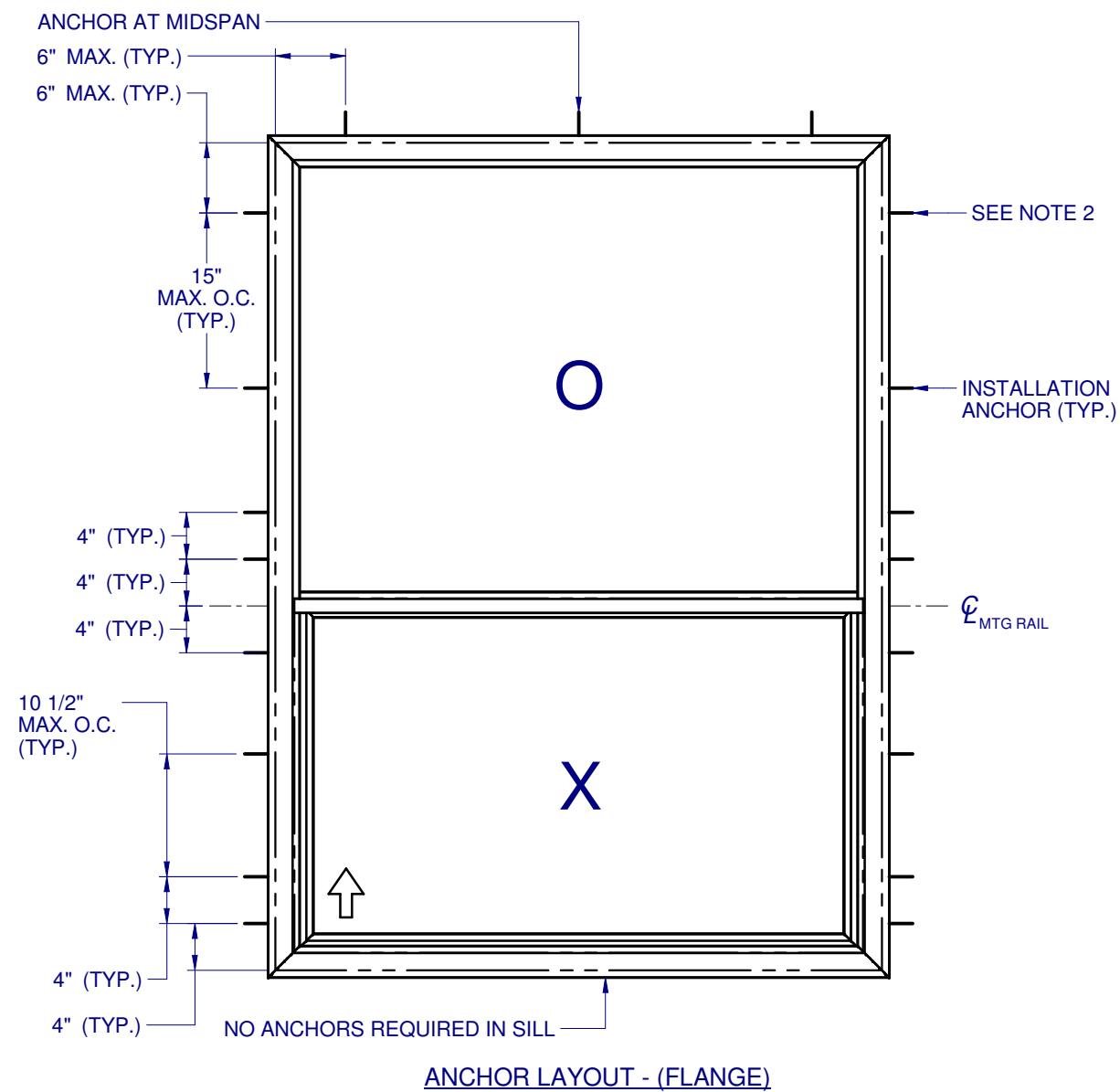
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SHEET DESCRIPTION:
SECTION VIEWS

| | |
|--------------------------|--------------------------|
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| DWG #: CWS-882 | REV.: A |
| SCALE: 1:2 | SHEET 3 OF 6 |

**8100 PVC
SINGLE HUNG
IMPACT**

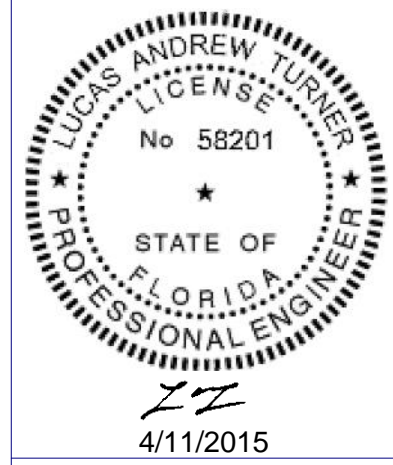


ANCHOR LAYOUT - (FLANGE)

NOTES:

1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION. NO ANCHORS REQUIRED IN SILL.
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 6.
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 6.
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 TO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND THE SUBSTRATE. INSTALLATIONS TO HOLLOW CMU REQUIRE THE USE OF 1X BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.
7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 3" 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 TABLE 1, SHEET 6. 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)

| | | | | | | |
|--|--|--|--|-----|--------------|-------|
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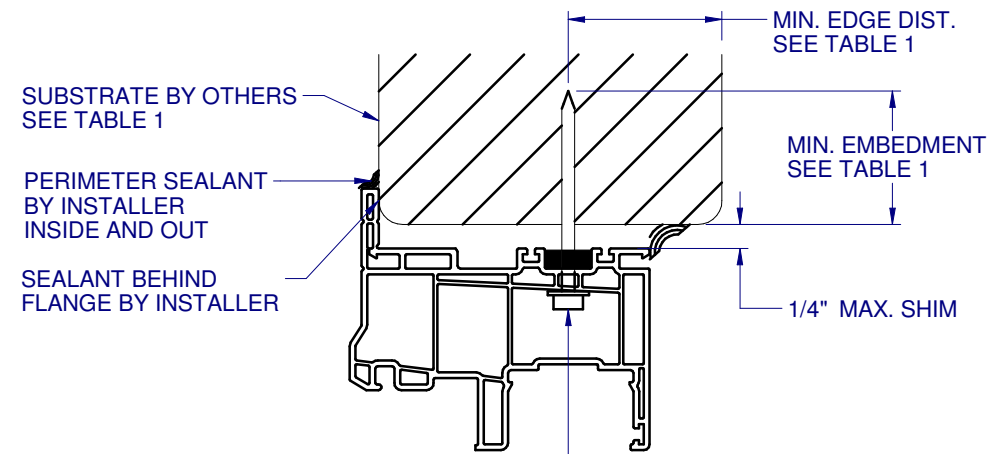
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ANCHOR SCHEDULE AND NOTES

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|--------------------------|--------------------------|
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| DWG #: CWS-882 | REV.: A |
| SCALE: 1:15 | SHEET 5 OF 6 |

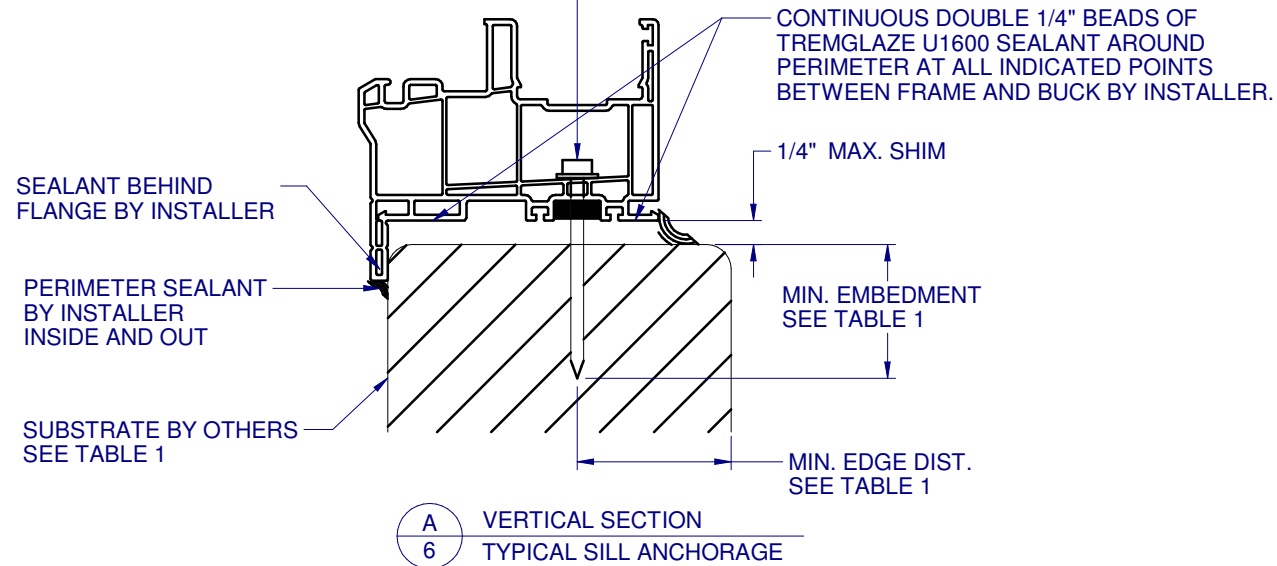
**8100 PVC
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| | | | | | EMK | 04/02/15 | DATE: |
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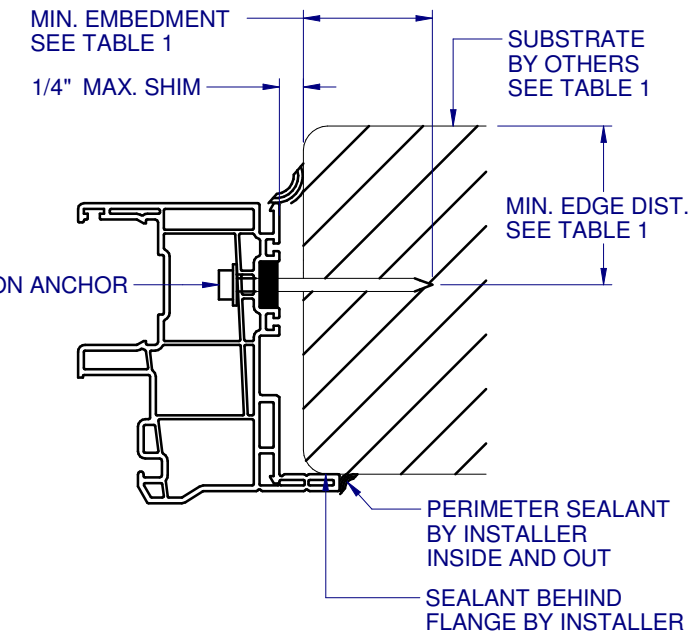
TYPICAL HEAD ANCHORAGE



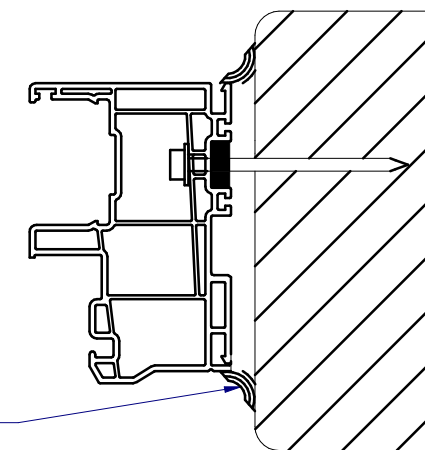
INSTALLATION ANCHOR
SEE TABLE 1



A VERTICAL SECTION
6 TYPICAL SILL ANCHORAGE



B HORIZONTAL SECTION
6 TYPICAL JAMB ANCHORAGE



C HORIZONTAL SECTION
6 BOX FRAME INSTALLATION
HEAD AND SILL SIMILAR FOR BOX INSTALLATION

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.

TABLE 1: APPROVED INSTALLATION FASTENERS

| SUBSTRATE TYPE | ANCHOR TYPE | MIN. EMBEDMENT | MIN. EDGE DIST. |
|--|---|----------------------------|-----------------|
| CONCRETE (2.0 KSI MIN.) | 3/16" ITW TAPCON | 1-1/2" | 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" |
| GROUT-FILLED CMU (ASTM C-90) | 3/16" ELCO ULTRACON | 1-1/4" | 2-1/2" |
| 2X MIN. SOUTHERN PINE (G=0.55) | 3/16" ITW TAPCON OR ELCO ULTRACON | 1-3/8" | 7/8" |
| 2X MIN. SOUTHERN PINE (G=0.55) | #10 WOOD SCREW | 1-3/8" | 7/8" |
| 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" |
| 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" |



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SHEET DESCRIPTION:

INSTALLATION DETAILS

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| SCALE: 1:2 | SHEET 6 OF 6 |