

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS BOTH SMALL & LARGE MISSILE IMPACT RATED.
5. WHEN GLAZED FOR SMALL MISSILE IMPACT, THIS PRODUCT MAY NOT BE INSTALLED AT ELEVATIONS BELOW 30 FT. ABOVE GRADE OR AT ANY CODE DESIGNATED LARGE MISSILE IMPACT LOCATION WITHOUT AN APPROVED SHUTTER.
6. WHEN LARGE MISSILE IMPACT GLAZED, IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
7. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
10. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
11. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.

CORNER CONSTRUCTION:

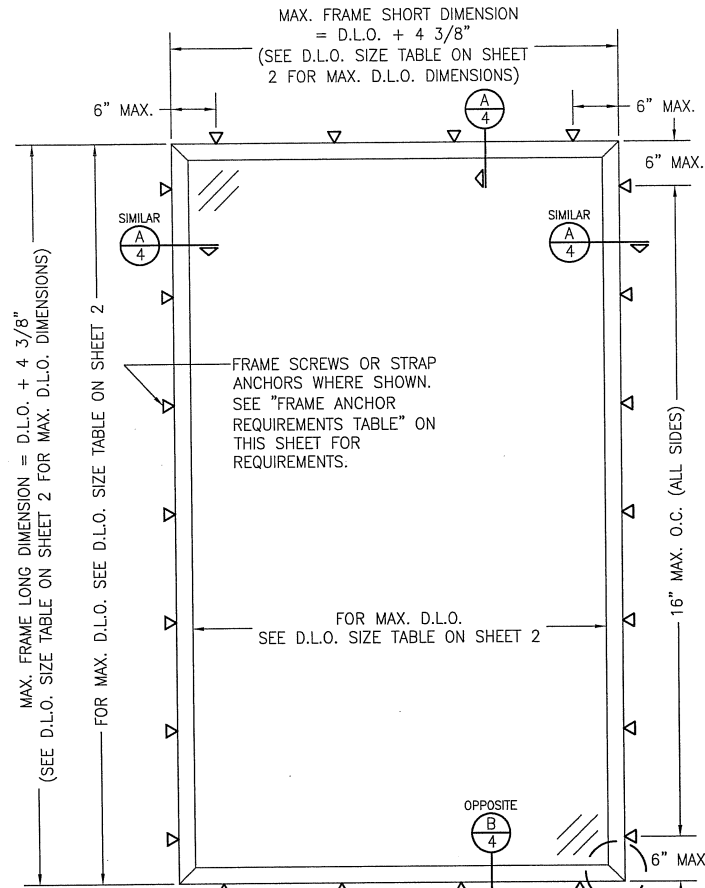
FRAME MEMBERS ARE MITERED & JOINED VIA A FRAME SPLICE JOINT KEY (ITEM #16) AND A FRAME CORNER KEY (ITEM #12). CORNERS ARE SEALED WITH SILICONE SEALANT.

INSTALLATION EVALUATION IS BASED ON APPLICABLE ANCHOR STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THE EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THE REFERENCED PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE INSTALLATION EVALUATION ENGINEER OF RECORD THAT THE INSTALLATIONS SPECIFIED HERE-IN ARE CURRENT WITH THE THEN CURRENT TESTING, CODE AND APPLICABLE STANDARDS.

FRAME ANCHOR REQUIREMENTS TABLE

FRAME, STRAP ANCHOR & MULLION CLIP SCREWS			
OPENING TYPE (SUBSTRATE)	FRAME/STRAP/MULLION CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
(2) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 16 GA. 50 KSI METAL STUD	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 0.100" THK 6063-T5 ALUM.	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU/2500 PSI CONCRETE	1/4" CONCRETE SCREW	1 1/4"	2"

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).
- (2) WHEN STRAP ANCHOR INSTALLED, THE 2X_ BUCK SHALL BE OF A MINIMUM DEPTH, REQUIRED TO MEET ANCHOR EDGE DISTANCE REQUIREMENTS BUT NO LESS THAN 5"

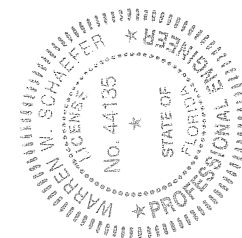


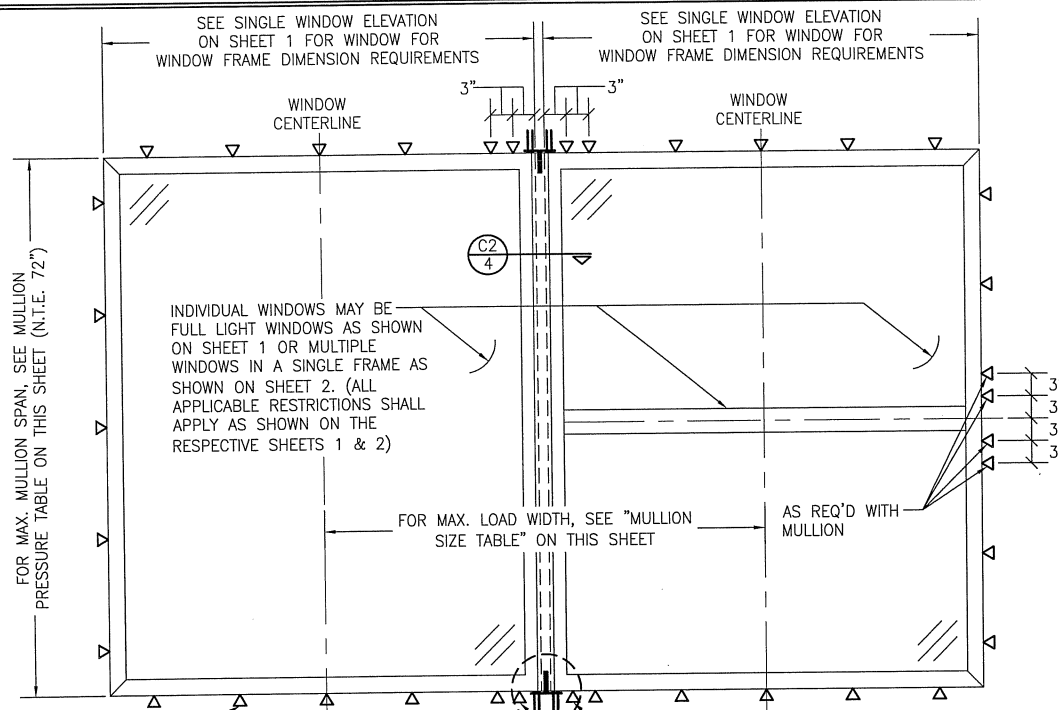
EXTERIOR ELEVATION:
SINGLE FIXED WINDOW
SCALE: 3/4" = 1'-0"

ALLOWABLE DESIGN PRESSURE
(SINGLE WINDOWS)
+/-80 PSF

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER LISTED ON THESE DRAWINGS.

DRAWING BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-18		DATE: 01/08/14	
DATE	BY	W.S.	
12/15/14			
REVISION	DESCRIPTION		
A1	UPDATE TO PRESENT STANDARDS		
DRAWING TITLE AA4325 LARGE & SMALL IMPACT FIXED WINDOW			
MANUFACTURER KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555		CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION JAN 06 2015		WARREN W. SCHAEFER, P.E. NO. 44135	
DRAWING NO. 1850		REV. A	
SHEET NO. 1 OF 6			





SEE SINGLE WINDOW ELEVATION FOR FRAME ANCHOR REQUIREMENTS & POSITIONS AROUND WINDOWS

SEE MULLION END CLIP DETAIL ON THIS SHEET (TYP. EACH END)

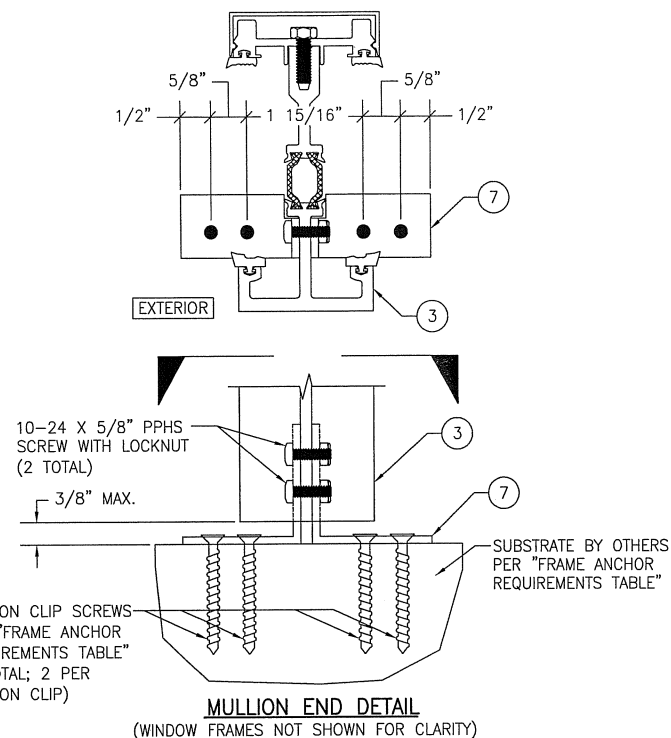
ADDITIONAL FRAME SCREWS OR STRAP ANCHORS WHERE SHOWN AT MULLION ENDS. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

EXTERIOR ELEVATION: MULTIPLE FIXED WINDOWS IN SEPARATE FRAMES

SCALE: 3/4" = 1'-0"

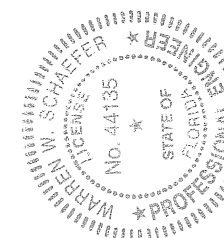
MULTIPLE UNIT NOTES (WINDOWS IN SEPARATE FRAMES):

1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. MULLION MAY BE HORIZONTAL OR VERTICAL PROVIDING UNIT SIZES ARE RESTRICTED AS SHOWN IN THIS ELEVATION.
3. IF VERTICALLY STACKED, THE MANUFACTURER &/OR INSTALLER SHALL INSURE THAT THE DEAD LOAD WEIGHT OF THE ABOVE WINDOWS CAN NOT CAUSE UNDO FAILURE TO THE BELOW WINDOWS.
4. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
5. INDIVIDUAL WINDOW SIZES SHALL BE RESTRICTED AS SPECIFIED IN THE SINGLE WINDOW ELEVATION.
6. WINDOWS EITHER SIDE OF THE MULLION SHOWN MAY BE INDIVIDUAL WINDOWS OR MULTIPLE WINDOWS IN ONE FRAME.

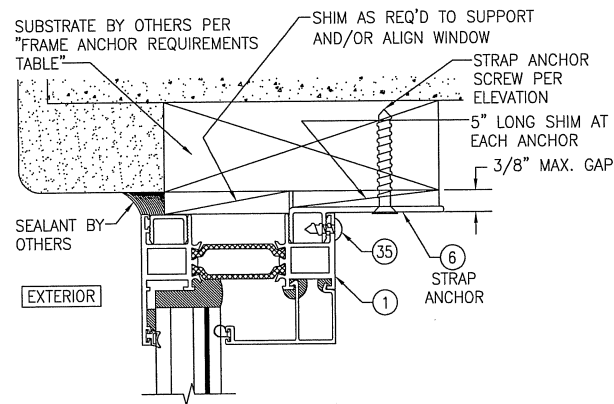
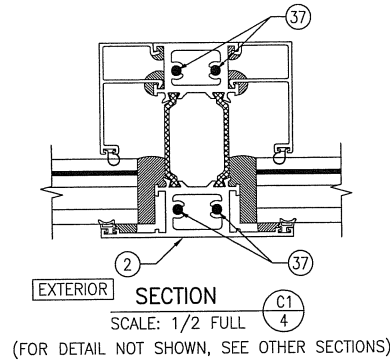
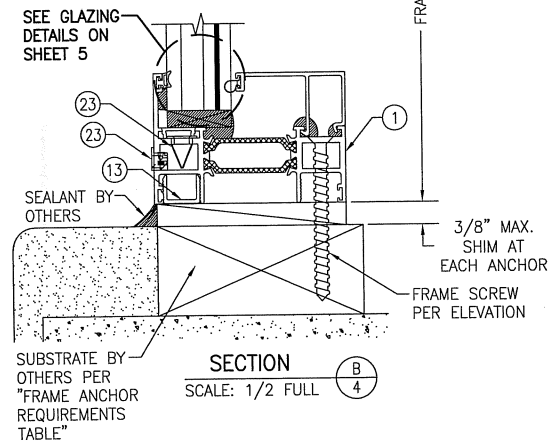
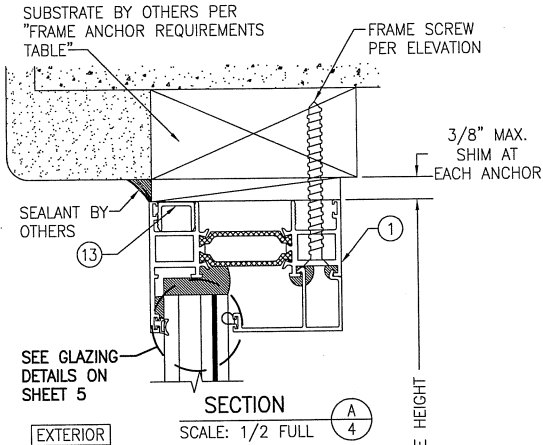


MULLION PRESSURE TABLE (WINDOWS IN SEPARATE FRAMES)

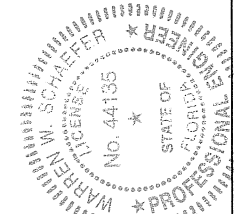
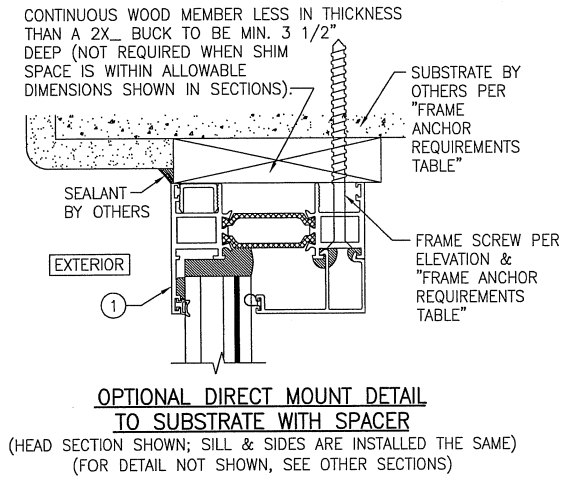
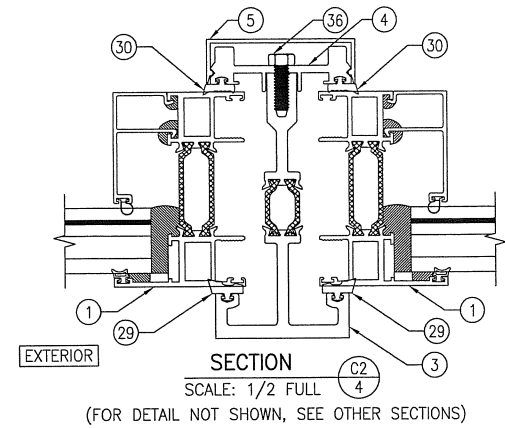
MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)
72	60	80.0
60	60 OR GREATER	80.0



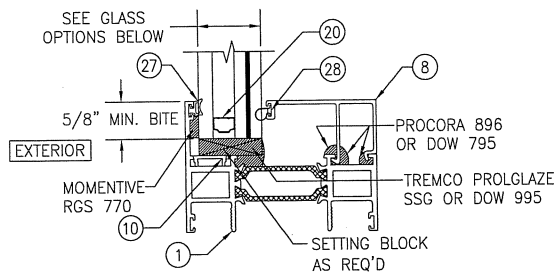
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PLOT: 1-16		DATE: 01/08/14	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: AA4325 LARGE & SMALL IMPACT FIXED WINDOW			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: KAWNEER COMPANY, INC.	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555	
CERTIFICATION: JAN 06 2015	WARREN W. SCHAEFER, P.E. P.E. NO. 44135		
DRAWING NO. 1850	REV. A	SHEET NO. 3 OF 6	



OPTIONAL STRAP ANCHOR DETAIL
(HEAD SECTION SHOWN; SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



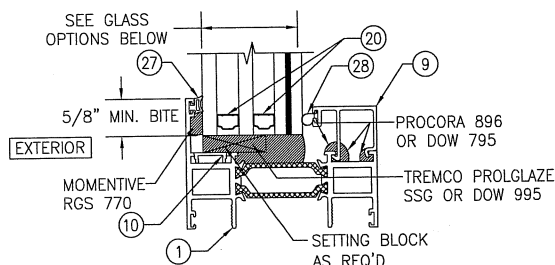
DRAWN BY: W.R.M.	CHECKED BY: W.S.
PLOT: 1=2	DATE: 01/08/14
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE	AA4325 LARGE & SMALL IMPACT FIXED WINDOW
CONSULTANTS	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424
MANUFACTURER	KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555
CERTIFICATION	JAN 06 2015
DRAWING NO.	1850
SHEET NO.	4 OF 6
REV.	A



TYPICAL I.G. L.M.I. WET GLAZING DETAIL

GLASS OPTIONS:

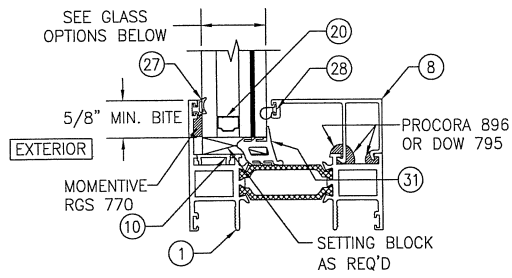
OPTION 9: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.090" DUPONT
BUTACITE PVB/3/16" HT. ST. INTERIOR)
OPTION 11: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.090" EASTMAN
CHEMICAL CO. SAFLEX/3/16" HT. ST. INTERIOR)



TYPICAL DOUBLE I.G. L.M.I. WET GLAZING DETAIL

GLASS OPTIONS:

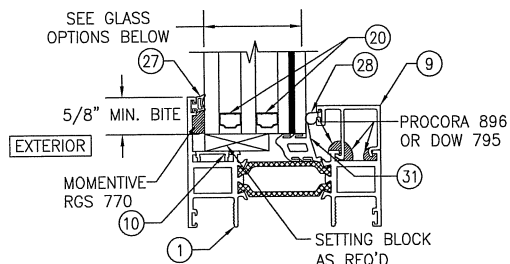
OPTION 10: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4"
TEMP. EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE;
3/16" HT. ST./0.090" DUPONT BUTACITE PVB/3/16" HT. ST.
INTERIOR)
OPTION 12: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4"
TEMP. EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE;
3/16" HT. ST./0.090" EASTMAN CHEMICAL CO. SAFLEX/3/16" HT. ST.
INTERIOR)
OPTION 3: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE; 3/16"
HT. ST./0.090" DUPONT SG/3/16" HT. ST. INTERIOR)



TYPICAL I.G. L.M.I. DRY GLAZING DETAIL

GLASS OPTIONS:

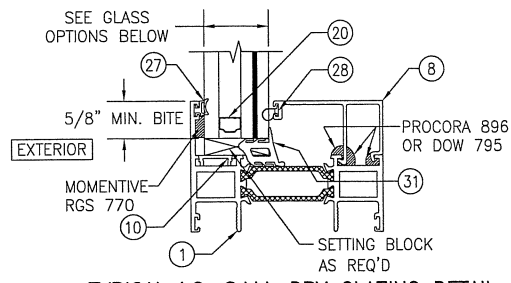
OPTION 1: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.090" DUPONT
SG/3/16" HT. ST. INTERIOR)
OPTION 2: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.077" EASTMAN
CHEMICAL CO. SAFLEX CP/3/16" HT. ST. INTERIOR)



TYPICAL DOUBLE I.G. L.M.I. DRY GLAZING DETAIL

GLASS OPTIONS:

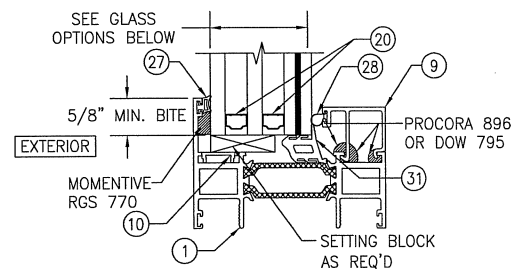
OPTION 3: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4"
TEMP. EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE;
3/16" HT. ST./0.090" DUPONT SG/3/16" HT. ST. INTERIOR)
OPTION 4: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4"
TEMP. EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE;
3/16" HT. ST./0.077" EASTMAN CHEMICAL CO. SAFLEX CP/3/16"
HT. ST. INTERIOR)



TYPICAL I.G. S.M.I. DRY GLAZING DETAIL

GLASS OPTIONS:

OPTION 5: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.060" DUPONT
BUTACITE PVB/3/16" HT. ST. INTERIOR)
OPTION 6: 1 1/16" THICK I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 3/16" HT. ST./0.060" EASTMAN
CHEMICAL CO. SAFLEX/3/16" HT. ST. INTERIOR)



TYPICAL DOUBLE I.G. S.M.I. DRY GLAZING DETAIL

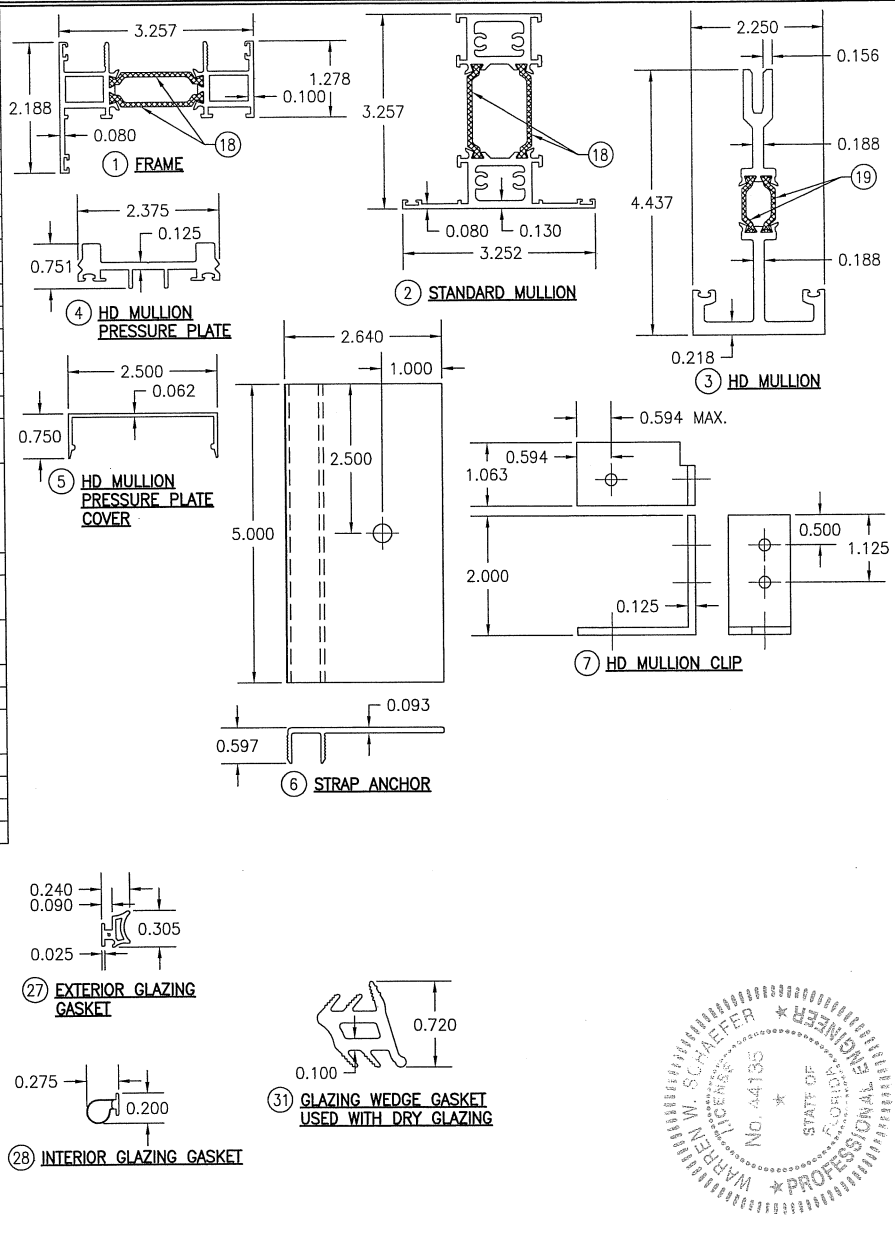
GLASS OPTIONS:

OPTION 7: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE; 3/16" HT.
ST./0.060" DUPONT BUTACITE PVB/3/16" HT. ST. INTERIOR)
OPTION 8: 1 3/4" THICK DOUBLE I.G. LAMINATED GLASS (1/4" TEMP.
EXTERIOR; 3/8" AIR SPACE; 1/4" HT. ST./3/8" AIR SPACE; 3/16" HT.
ST./0.060" EASTMAN CHEMICAL CO. SAFLEX/3/16" HT. ST. INTERIOR)



DRAWING BY:	W.R.M.	CHECKED BY:	W.S.S.
PLOT:	1-2	DATE:	01/08/14
DATE:			
BY:			
REVISION DESCRIPTION:			
NO.			
DRAWING TITLE:	AA4325 LARGE & SMALL IMPACT FIXED WINDOW		
MANUFACTURER:	KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555		
CONSULTANTS:	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		
CERTIFICATION:	JAN 06 2015		
DRAWING NO.	1850	REV.	A
SHEET NO.	5	OF	6

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	FRAME	6063-T6 ALUMINUM
2	STANDARD MULLION	6063-T6 ALUMINUM
3	HD MULLION	6063-T6 ALUMINUM
4	HD MULLION PRESSURE PLATE	6063-T6 ALUMINUM
5	HD MULLION PRESSURE PLATE COVER	6063-T6 ALUMINUM
6	STRAP ANCHOR	6063-T6 ALUMINUM
7	HD MULLION MULLION CLIP (RIGHT & LEFT)	6063-T6 ALUMINUM
8	GLAZING BEAD (USED WITH I.G. GLASS)	6063-T6 ALUMINUM
9	GLAZING BEAD (USED WITH DOUBLE I.G. GLASS)	6063-T6 ALUMINUM
10	GLAZING CHAIR (AT SILL ONLY)	6063-T6 ALUMINUM
12	FRAME CORNER KEY	6063-T5 ALUMINUM
13	FRAME FILLER/CAULK STOP	PVC
18	FRAME & STANDARD MULLION POLYAMIDE	TECATHERM-66-GF
19	HD MULLION POLYAMIDE	TECATHERM-66-GF
20	I.G. SPACER	3005 OR 3105 ALUMINUM
HARDWARE		
23	WEEP VALVE	LAUREN MANUFACTURING 30-4458
24	WEEP COVER	1 EACH END (2 TOTAL) WITHIN 4" OF CORNERS PRODUCT DESIGN 1127-H-808 NYLON 66 1 AT MID-SPAN WITH WINDOWS UNDERS 21" WIDE; 1 EACH END (2 TOTAL) WITHIN 6 3/4" OF CORNERS WITH WINDOWS 21" WIDE AND LARGER
SEALS & SEALANTS		
27	EXTERIOR GLAZING GASKET	LAUREN MANUFACTURING 20-4246 DENSE SILICONE DUROMETER 75
28	INTERIOR GLAZING GASKET	AMESBURY XC-1185 FOAM-TITE BULB DUROMETER FOAM 67 DUROMETER SKIN 87
29	PUSH-IN GASKET	TREMCO TR-396N NEOPRENE SPONGE
30	PUSH-IN GASKET	TREMCO TR-1019E EPDM
31	GLAZING WEDGE GASKET USED WITH DRY GLAZING	TRELLEBORG 9603-02-00 SILICONE DUROMETER 70 +/-5
FASTENERS		
35	10-16 X 1 1/2" PPH TEK SCREW	1 PER STRAP ANCHOR
36	1/4-20 X 3/4" HH MS	WITHIN 3" OF ENDS & 9" MAX. O.C.
37	NO. 10 X 1 1/2" PPH 410 S.S. SCREW	4 PER STANDARD MULLION



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PLOT: 1-2	DATE: 01/08/14
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DRAWING TITLE: AA4325 LARGE & SMALL IMPACT FIXED WINDOW	
MANUFACTURER: KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555	
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SHEET NO. 6	OF 6