

1. THIS PRODUCT HAS BEEN TESTED 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 FRAME ANCHORS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
5. THIS PRODUCT IS NON-IMPACT RATED & MUST BE SHUTTERED WITH A FLORIDA CODE APPROVED SHUTTER WHERE REQUIRED BY CODE.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION FROM THE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERRENCING 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.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. UNLESS OTHERWISE SPECIFIED HERE-IN, PRODUCT ASSEMBLY AND ALL ASSEMBLY REQUIREMENTS/OPTIONS SHALL BE AS TESTED, ARE THE RESPONSIBILITY OF EACH THE MANUFACTURER AND THEIR APPLICABLE QUALITY ASSURANCE & ARE NOT THE RESPONSIBILITY OF THESE DOCUMENTS OR THE CERTIFICATION OF THESE DOCUMENTS.
10. WATER PROOFING OF THE INSTALLED PRODUCT IS NOT PART OF THIS CERTIFICATION. THAT RESPONSIBILITY SHALL BE THAT OF THE MANUFACTURER &/OR INSTALLER.
11. 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 THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
12. 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.
13. UNIFORM PARTS WITHIN THESE WINDOWS SHALL BE MINIMUM 6063-T6 ALUMINUM.

LOCK REQUIREMENTS TABLE			
MAXIMUM ALLOWABLE DESIGN PRESSURE (+/-PSF)	MAXIMUM ALLOWABLE SASH HEIGHT (IN.)	EQUIVALENT MAXIMUM FRAME HEIGHT (IN.)	MINIMUM NUMBER OF LOCK POINTS EACH SIDE OF WINDOW
60 PSF	58 13/16	60	3
	48 13/16	50	2
	38 13/16	40	1
65 PSF	54 1/4	55 7/16	3
	45	46 3/16	2
	35 13/16	37	1
70 PSF	50 3/8	51 9/16	3
	41 13/16	43	2
	33 1/4	34 7/16	1
75 PSF	47	48 3/16	3
	39	40 3/16	2
	31	32 3/16	1
80 PSF	44 1/16	45 1/4	3
	36 9/16	37 3/4	2
	29 1/16	30 1/4	1

SNUBBER REQUIREMENTS			TABLE
MAXIMUM ALLOWABLE DESIGN PRESSURE (+/-PSF)	MAXIMUM ALLOWABLE SASH WIDTH (IN.)	EQUIVALENT MAXIMUM FRAME WIDTH (IN.)	MINIMUM NUMBER OF SNUBBERS AT HEAD
60 PSF	58 13/16	60	4
	44 1 1/16	45 1 1/4	3
	29 3/8	30 9/16	2
65 PSF	54 1/4	55 7/16	4
	40 11/16	41 7/8	3
	27 1/8	28 5/16	2
70 PSF	50 3/8	51 9/16	4
	37 3/4	38 15/16	3
	25 3/16	26 3/8	2
75 PSF	47	48 3/16	4
	35 1/4	36 7/16	3
	23 1/2	24 11/16	2
80 PSF	44 1/16	45 1/4	4
	33 1/16	34 1/4	3
	22	23 3/16	2

FRAME ANCHOR REQUIREMENTS TABLE			
OPENING TYPE (SUBSTRATE)	FRAME/FIN TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 12 PH OR HH SMS OR WOOD SCREW	1 1/4"	7/8"
MIN. 18 GA. 33 KSI METAL STUD	NO. 12 GR. 5 PH OR HH SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 12 GR. 5 PH OR HH SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 12 GR. 5 PH OR HH SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" HH 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.).

GLASS D.L.O. SIZE TABLE		
GLASS OPTIONS	MAXIMUM ALLOWABLE GLASS D.L.O. AREA	
	(SQ.FT.)	(SQ.IN.)
1A & 1B	12.1	1745
2A & 2B	* 19.5	* 2804
3	* 19.5	* 2804
*19.5 SQ.FT. IS THE LARGEST WINDOW SIZE OF 60" X 60"		
NOTE: D.L.O. AREA SPECIFIED IS AS RESTRICTED BY THAT TESTED.		
FOR GLASS OPTIONS, SEE GLAZING DETAILS ON SHEET 6.		

1. SASH HEIGHT & WIDTH IS 1 3/16" LESS THAN THE FRAME HEIGHT & WIDTH.
2. WINDOW ALLOWABLE DESIGN PRESSURE SHALL BE THE LESSER OF THAT STATED IN THE "LOCK REQUIREMENTS TABLE" & "SNUBBER REQUIREMENTS TABLE".

LOCKS: MULTI-POINT LOCKS AND KEEPERS EACH SIDE OF THE WINDOW. SEE "LOCK REQUIREMENTS TABLE" FOR LOCK POINT QUANTITY REQUIREMENTS.

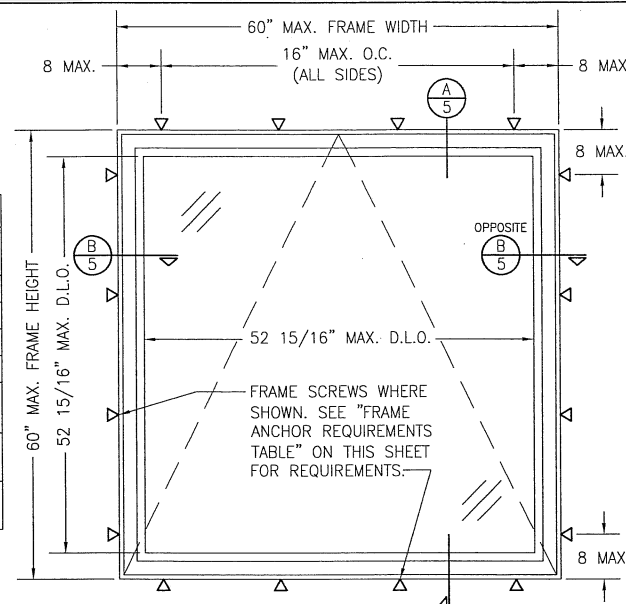
SNUBBERS: PELLA NUMBER F1059 SNUBBERS TO BE LOCATED AT HEAD. SEE "SNUBBER REQUIREMENTS TABLE" FOR SNUBBER QUANTITY REQUIREMENTS.

OPERATOR: ROTO OPERATOR TO BE LOCATED AT CENTER OF SILL.

HINGE: BAR SCISSOR HINGE TO BE LOCATED AT THE TOP OF EACH JAMB.

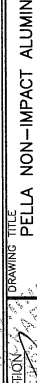
NOTE: ALL HARDWARE SHALL BE THOSE MODELS AND BRANDS USED IN THE TESTING APPLICABLE TO THIS APPROVAL EXCEPT THAT VARIATIONS IN BAR LENGTHS MAY APPLY TO THE OPERATOR, HINGES & LOCKS AS REQUIRED TO MEET EACH WINDOW SIZE.

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED IN THIS EVALUATION IS THAT IN EFFECT 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 THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.



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

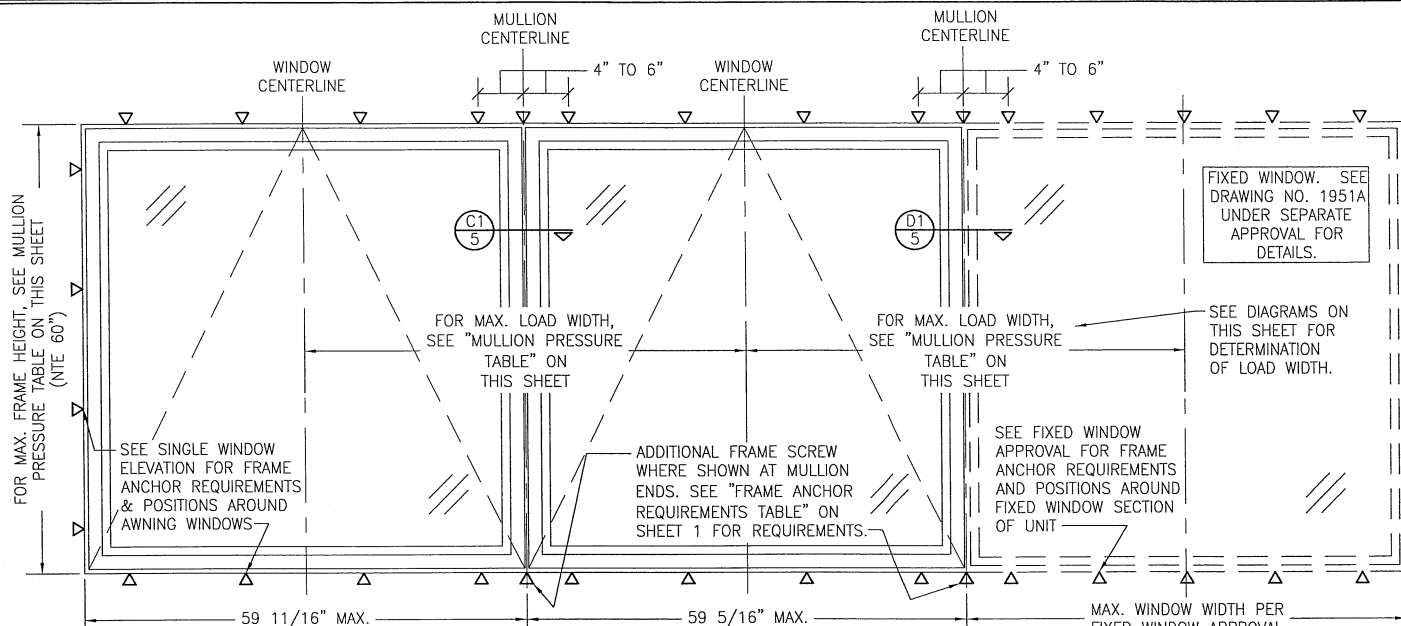
FOR ALLOWABLE DESIGN PRESSURE ON SINGLE WINDOWS, SEE LOCK & SNUBBER REQUIREMENTS TABLES ON THIS SHEET. NOTE THAT THE LESSER PRESSURE IN BOTH SHALL CONTROL AS THE ALLOWABLE PRESSURE FOR THE WINDOW.

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=16		DATE: 07/08/19	
NO.		DATE	
REVISION		DESCRIPTION	
BY			
DRAWING TITLE		PELLA NON-IMPACT ALUMINUM AWNING WINDOWS	
CONSULTANTS		PELLA CORPORATION	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		8291 FORSHEE DRIVE; UNIT 4 JACKSONVILLE, FL 32219 904-632-7400	
MANUFACTURER			
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418			
CERTIFICATION			
DRAWING NO. 1949A		REV.	
SHEET OF 6			

MULLION ALLOWABLE DESIGN PRESSURE (INTEGRAL MULLIONS)		
MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)
60	60	60.0
	56	64.3
	52	69.2
	48	75.0
	45	80.0
56	60	64.3
	56	68.9
	52	74.2
	48	80.0
52	60	69.2
	56	74.2
	52	80.0
48	60	75.0
	56	80.0

MULLION PRESSURE TABLE NOTES:

1. SEE ELEVATION FOR DIMENSIONING OF LOAD WIDTH.
2. ALLOWABLE UNIT PRESSURE SHALL BE THE LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT SPECIFIED FOR THE INDIVIDUAL WINDOWS.

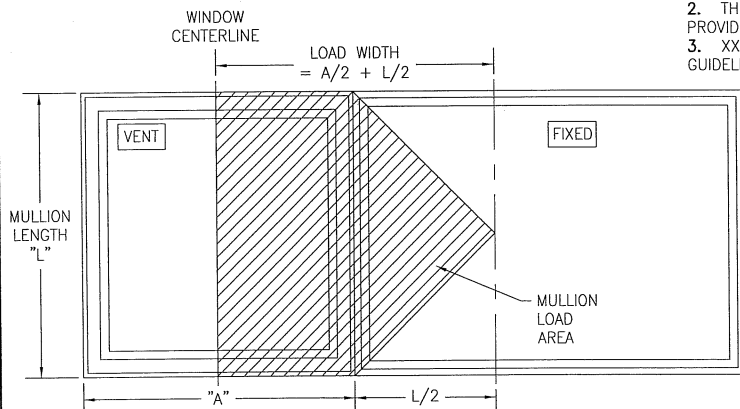


**EXTERIOR ELEVATION:
MULTIPLE AWNING/FIXED WINDOW UNIT WITH INTEGRAL MULLIONS**

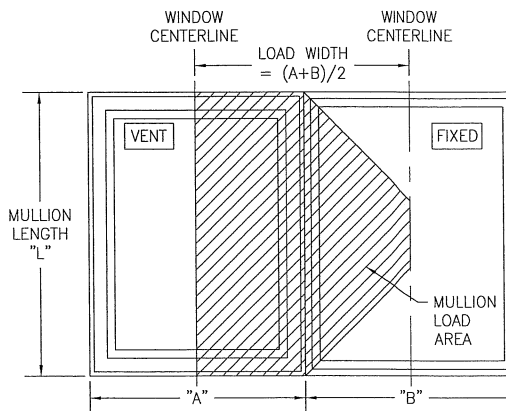
SCALE: 3/4" = 1'-0"

MULTIPLE UNIT NOTES:

1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED HORIZONTALLY INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. XXO UNIT IS SHOWN. ALL QUANTITIES OF OPERABLE TO OPERABLE AND OPERABLE TO FIXED APPLY UNDER THE GUIDELINES OF NOTE 2 ABOVE.



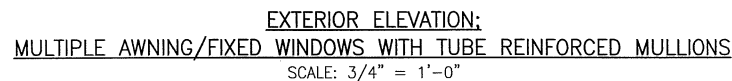
LOAD WIDTH OF A VENT-FIXED COMBINATION WHEN THE FIXED WINDOW WIDTH IS GREATER THAN OR EQUAL TO THE MULLION SPAN
ALSO APPLIES TO VERTICALLY STACKED WINDOWS.



LOAD WIDTH OF A VENT-FIXED COMBINATION WHEN THE FIXED WINDOW WIDTH IS LESS THAN THE MULLION SPAN

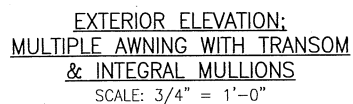
NOTE: LOAD WIDTH FOR VENT-VENT COMBINATIONS IS ALSO A+B/2 EXCEPT LOAD AREA IS RECTANGULAR BOTH SIDES OF MULLION

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-15		DATE: 07/08/19	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: PELLA NON-IMPACT ALUMINUM AWNING WINDOWS CONSULTANTS: PELLA CORPORATION 8291 FORSHEE DRIVE; UNIT 4 JACKSONVILLE, FL 32219 904-632-7400 MANUFACTURER: Pella ENGINEER: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
STATE OF FLORIDA PROFESSIONAL ENGINEER W. W. SCHAEFER, P.E. NO. 141,335			
DRAWING NO.: 1949A		REV. 2	
SHEET NO. 2		OF 6	



1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED HORIZONTALLY INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. XXO UNIT IS SHOWN! ALL QUANTITIES OF OPERABLE TO OPERABLE AND OPERABLE TO FIXED APPLY UNDER THE GUIDELINES OF NOTE 2 ABOVE.

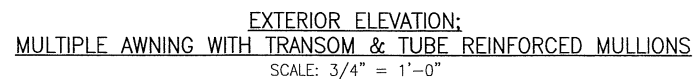
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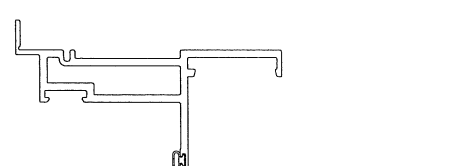
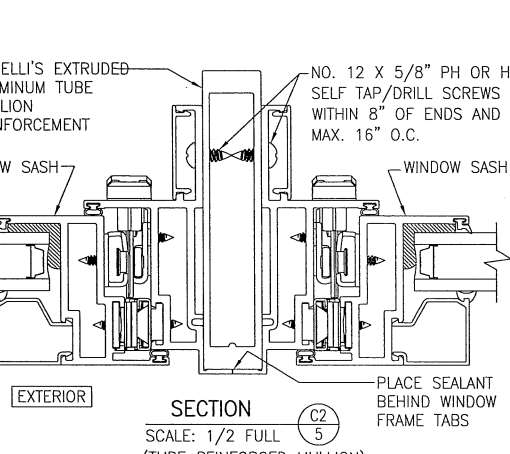
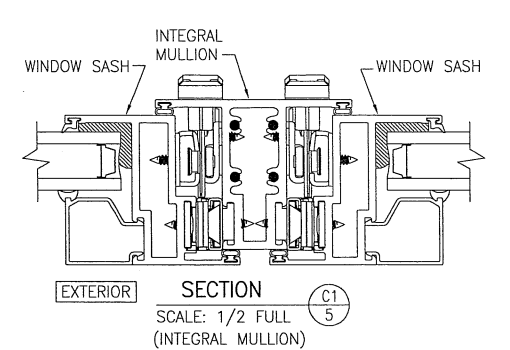
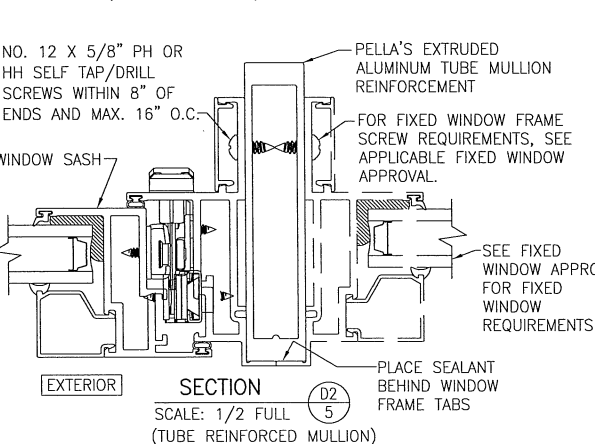
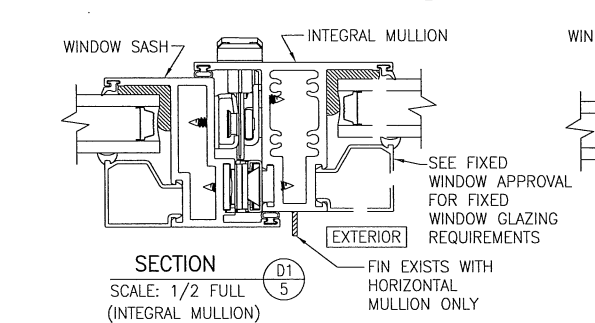
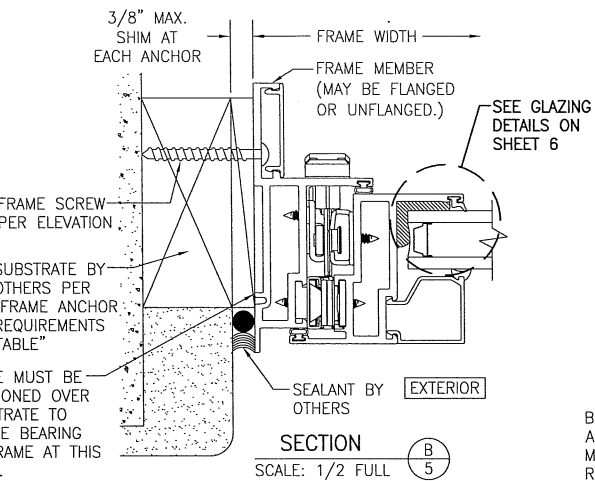
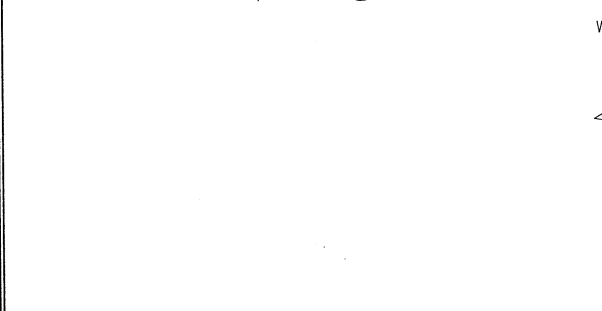
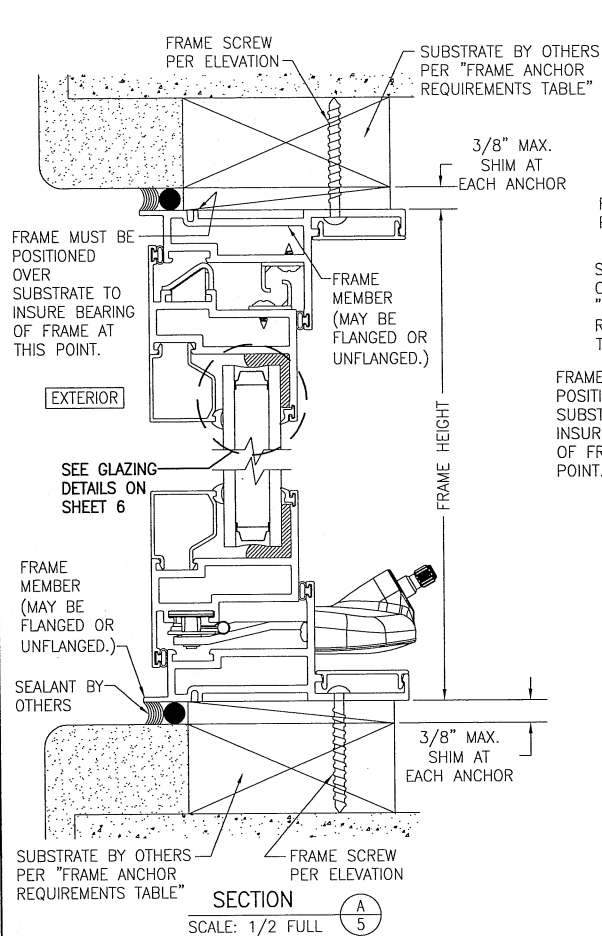
MULLION PRESSURE TABLE NOTES:

1. SEE ELEVATION FOR DIMENSIONING OF LOAD WIDTH.
2. ALLOWABLE UNIT PRESSURE SHALL BE THE LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT SPECIFIED FOR THE INDIVIDUAL WINDOWS.

1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED VERTICALLY INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. X/X/O UNITS ARE SHOWN. ALL QUANTITIES OF OPERABLE TO OPERABLE AND OPERABLE TO FIXED APPLY UNDER THE GUIDELINES OF NOTE 2 ABOVE.



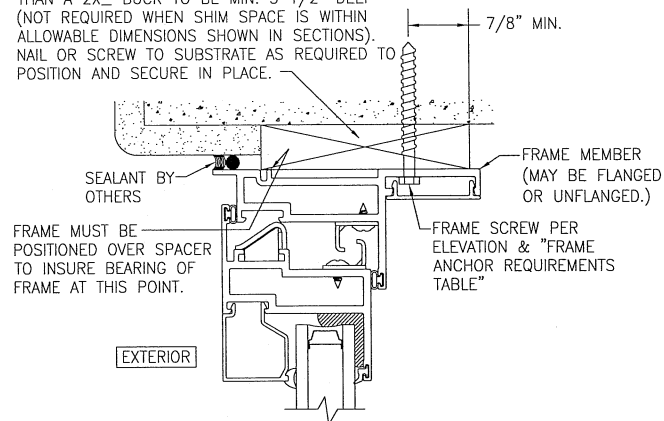
DRAWING NO.	1949A	SHEET NO.	6
CERTIFICATION	JUL 08 2013 PROFESSIONAL ENGINEER WARREN P. SCHAEFER, P.E. P.E. NO. 84735		
DRAWING TITLE	PELLA NON-IMPACT ALUMINUM AWNING WINDOWS		
CONSULTANTS	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		
MANUFACTURER	 PELLA CORPORATION 8291 FORSHEE DRIVE; UNIT 4 JACKSONVILLE, FL 32219 904-632-7400		
NO.	REVISION DESCRIPTION	BY	DATE
PLOT:	1=16		
DRAWN BY:	W.W.S.		
CHECKED BY:	W.W.S.		
DATE:	07/08/19		



- OPTIONAL FLANGED FRAME**
- INSTALLATION SECTIONS/DETAILS HERE-IN ARE SHOWN WITH A FLANGE-LESS FRAME MEMBER. A FLANGED FRAME ALSO APPLIES EXCEPT SEALANT IS TYPICALLY PLACED BEHIND THE FLANGE BETWEEN IT AND THE SUBSTRATE OR FINISH.
 - FLANGE-LESS FRAME MEMBER IS THE FLANGED MEMBER WITHOUT THE FLANGE.

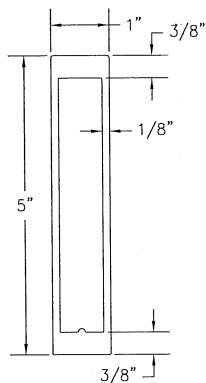
DRAWN BY:	W.W.S.	CHECKED BY:	W.W.S.
PLOT:	1-16	DATE:	07/08/19
DATE:		BY:	
REVISION:		DESCRIPTION:	
NO.			
DRAWING TITLE: PELLA NON-IMPACT ALUMINUM AWNING WINDOWS			
CONSULTANTS: PELLA CORPORATION			
8291 FORKSHEE DRIVE, UNIT 4			
JACKSONVILLE, FL 32219			
904-632-7400			
MANUFACTURER: Pella			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)			
7480 150TH COURT NORTH			
PALM BEACH GARDENS, FL 33418			
PHONE: 561-744-3424			
CERTIFICATIONS: W. W. SCHAEFER, P.E. JUL 08 2019			
DRAWING NO.:	1949A	REV.:	
SHEET NO.:	5	OF	6

CONTINUOUS WOOD MEMBER LESS IN THICKNESS THAN A 2X. BUCK TO BE MIN. 3 1/2" DEEP (NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS). NAIL OR SCREW TO SUBSTRATE AS REQUIRED TO POSITION AND SECURE IN PLACE.

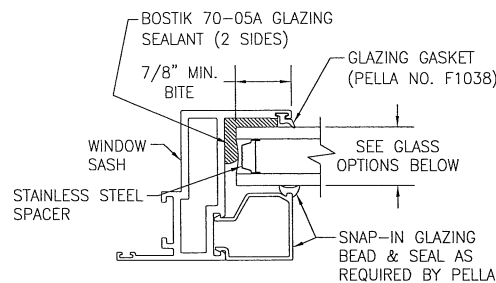


OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

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



TUBE MULLION REINFORCEMENT (6063-T6 ALUMINUM)



TYPICAL GLAZING DETAIL (DOUBLE PANE I.G. CONDITION)

DOUBLE PANE I.G. GLASS OPTIONS:

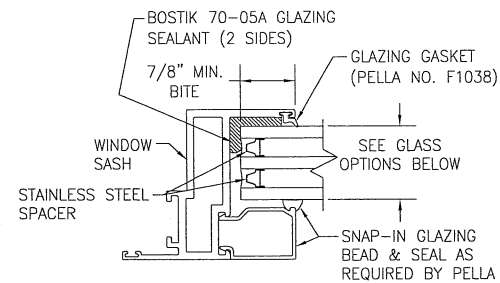
OPTION 1A 1" THICK I.G. GLASS (5 mm ANNEALED/14.5 mm SPACER/5 mm ANNEALED)

OPTION 1B 1" THICK I.G. GLASS (6 mm ANNEALED/13 mm SPACER/6 mm ANNEALED)

OPTION 2A 1" THICK I.G. GLASS (5 mm H.S. OR TEMPERED/14.5 mm SPACER/5 mm H.S. OR TEMPERED)

OPTION 2B 1" THICK I.G. GLASS (6 mm H.S. OR TEMPERED/13 mm SPACER/6 mm H.S. OR TEMPERED)

GLASS EDGE SHIM REQUIREMENTS:
MIN. 1/8" THICK X 2" LONG FLEXIBLE PVC SHIMS
APPROXIMATELY 3" OFF CORNERS AND 16" MAX.
O.C. AT ALL SIDES. WIDTH OF SHIM SHALL BE AS
REQUIRED TO MEET THE OVERALL GLASS THICKNESS.



TYPICAL GLAZING DETAIL (TRIPLE PANE I.G. CONDITION)

TRIPLE PANE I.G. GLASS OPTIONS:

OPTION 3: 1 1/4" THICK I.G. GLASS (5 mm ANNEALED, H.S. OR TEMPERED/8 mm SPACER/5 mm ANNEALED, H.S. OR TEMPERED/8 mm SPACER/5 mm ANNEALED, H.S. OR TEMPERED)

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-16		DATE: 07/08/19	
NO.	REVISION	DESCRIPTION	BY
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DRAWING TITLE: PELLA NON-IMPACT ALUMINUM AWNING WINDOWS

PELLA CORPORATION
8291 FORSHEE DRIVE, UNIT 4
JACKSONVILLE, FL 32219
904-632-7400



CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 8809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3624

CERTIFICATION
STATE OF FLORIDA
No. 44135
JUL 08 2019
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1949A
SHEET NO. 6 OF 6