

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 LARGE MISSILE IMPACT RATED.
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
6. 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.
7. 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.
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. 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.
10. 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 & SASH: MITER CUT, BUTTED AND FULLY WELDED

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS 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 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.

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SCREWS			

MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

INSTALLATION CLIP SCREWS

MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

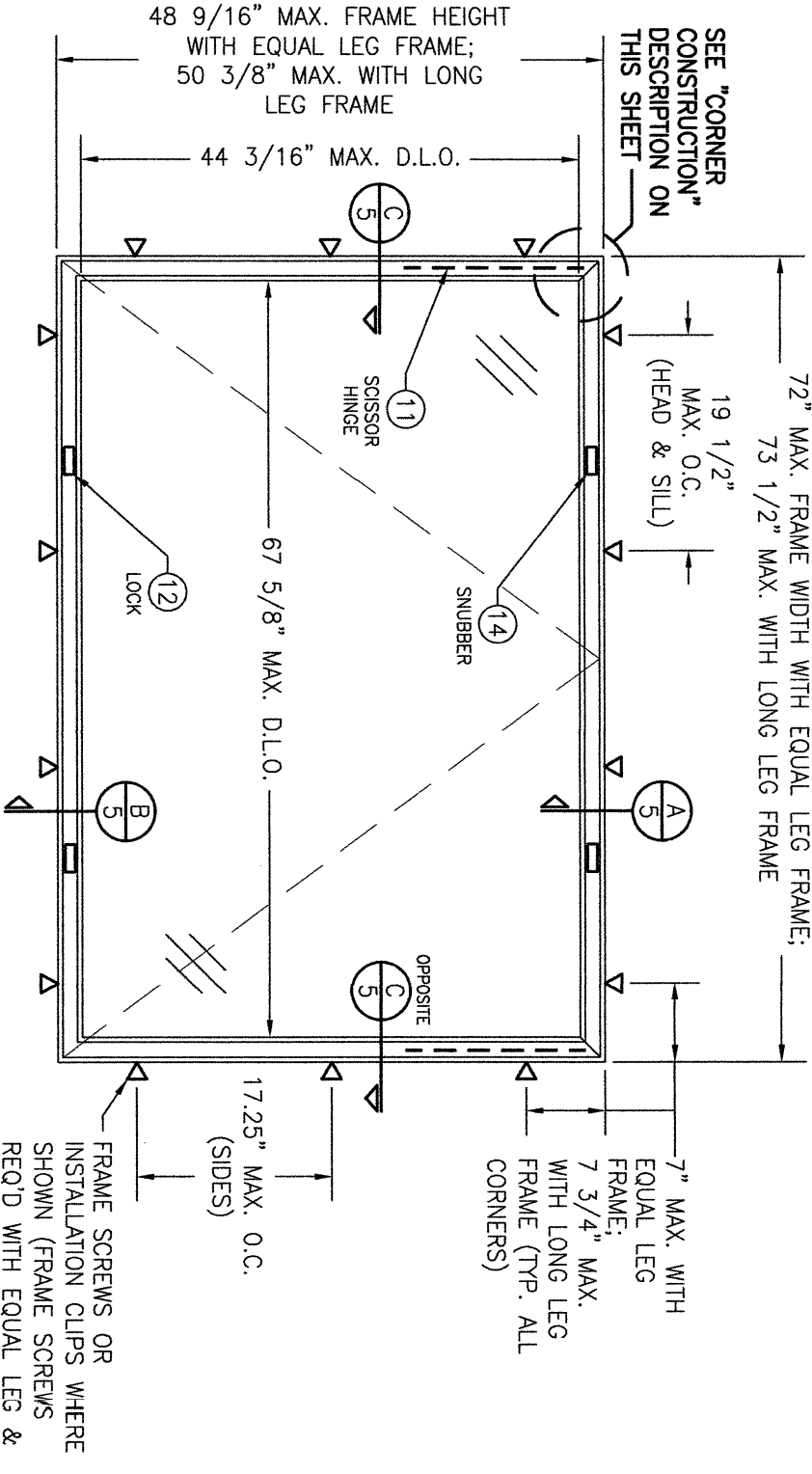
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).

LOCK REQUIREMENTS

2 TOTAL AT THE BOTTOM OF EACH WINDOW, EACH AT 1/4 POINTS

SNUBBER REQUIREMENTS

2 TOTAL AT THE TOP OF EACH WINDOW, EACH AT 1/4 POINTS



EXTERIOR ELEVATION:

SINGLE PROJECT-OUT WINDOW

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

ALLOWABLE DESIGN PRESSURE

(ALL WINDOWS)

+/-60 PSF



Digitally signed
by Warren W

Schaefer

Date:

2023.06.20

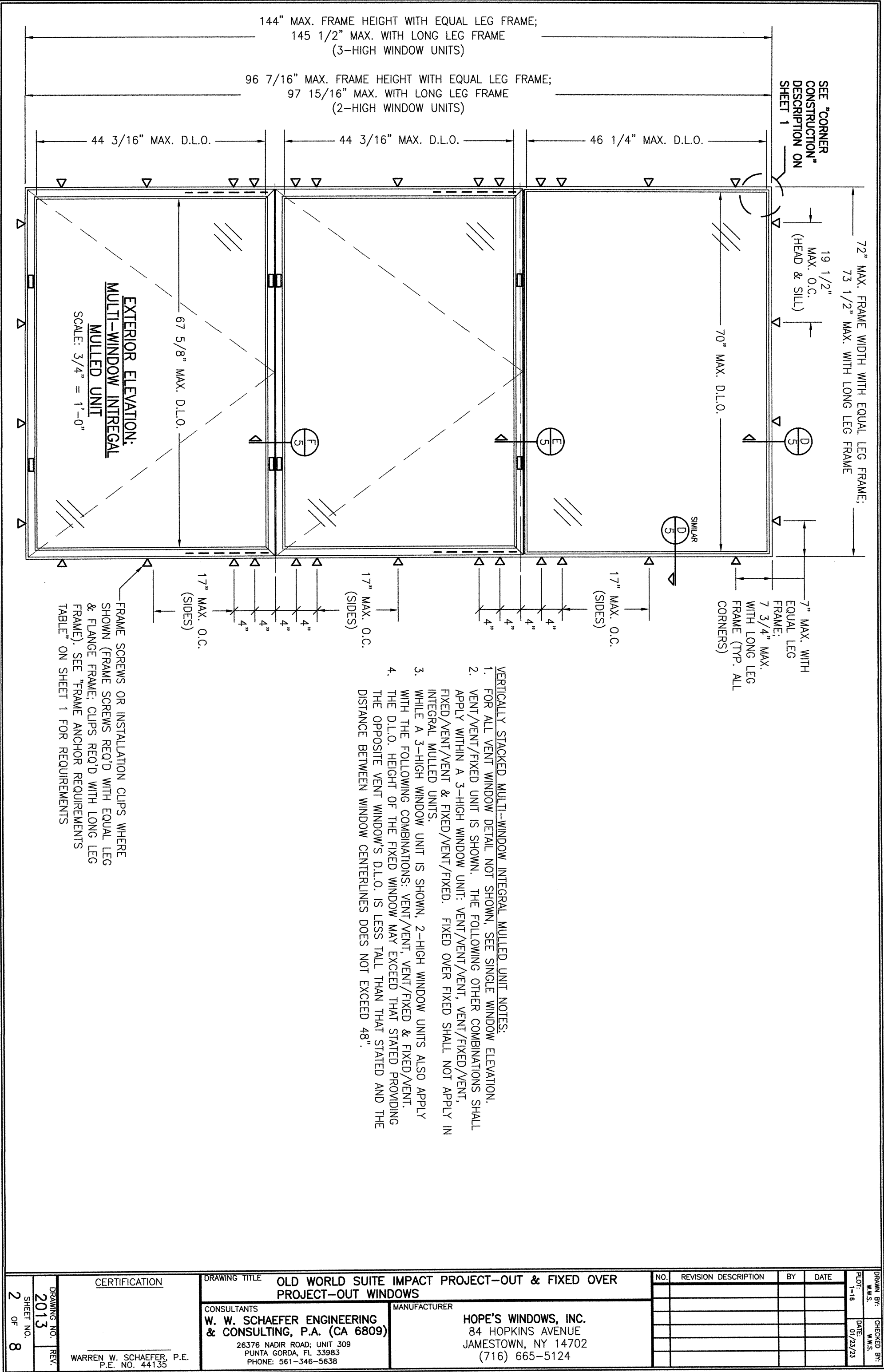
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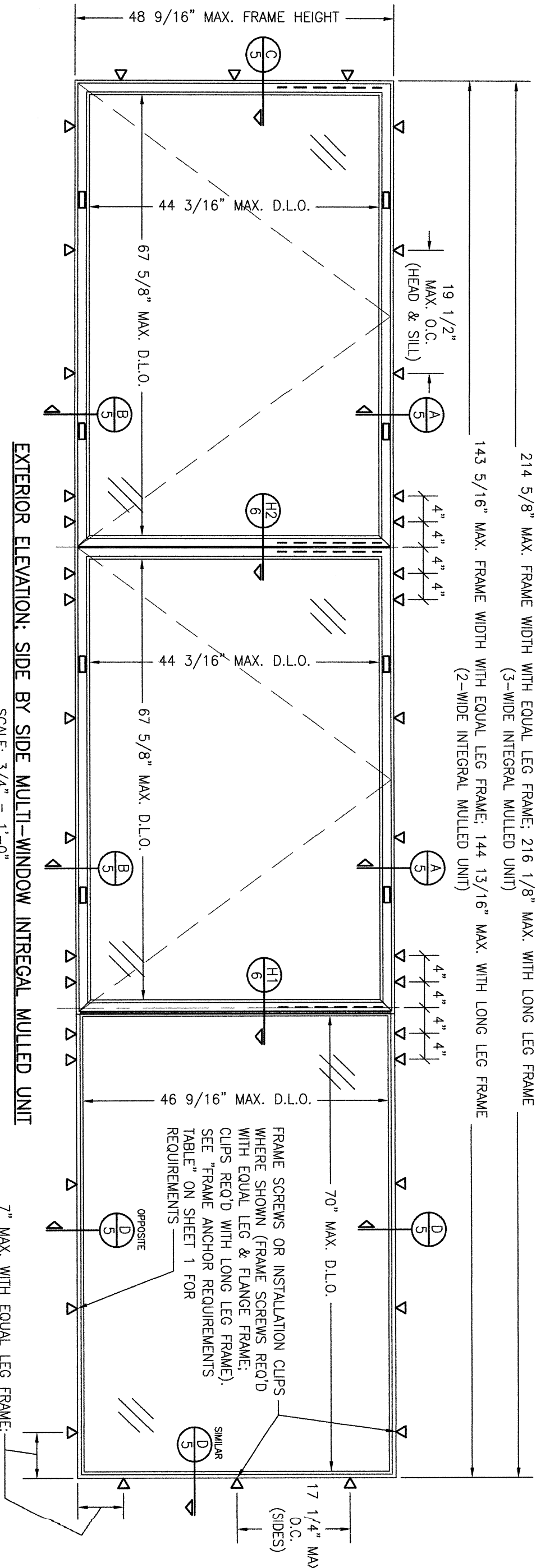
THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

NO.	REVISION	DESCRIPTION	BY	DATE	PLOT: 1=16	DATE: 01/23/23
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DRAWING TITLE	
OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER PROJECT-OUT WINDOWS	
CONSULTANTS	MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

CERTIFICATION	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO.	REV.
2013	
SHEET NO.	
1	8





EXTERIOR ELEVATION: SIDE BY SIDE MULTI-WINDOW INTEGRAL MULLID UNIT

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

- SIDE BY SIDE MULTI-WINDOW INTEGRAL MULLID UNIT NOTES:
1. FOR ALL VENT WINDOW DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
 2. VENT/VENT/FIXED UNIT IS SHOWN. THE FOLLOWING OTHER COMBINATIONS SHALL APPLY WITHIN A 3-WIDE WINDOW UNIT: VENT/VENT/VENT, VENT/FIXED/VENT, FIXED/VENT/VENT & FIXED/VENT/FIXED. FIXED NEXT TO FIXED SHALL NOT APPLY IN INTEGRAL MULLID UNITS.
 3. WHILE A 3 WIDE WINDOW UNIT IS SHOWN, 2-WIDE WINDOW UNITS ALSO APPLY WITH THE FOLLOWING COMBINATIONS: VENT/VENT, VENT/FIXED & FIXED/VENT.
 4. AS WITH THE ELEVATION ON SHEET 3, MULTIPLE WINDOW UNITS (SINGLE OR INTEGRAL MULLID) MAY BE MULLID TOGETHER SIDE BY SIDE WITH A STEEL BAR MULLION. SEE ELEVATION ON SHEET 3 AND SECTION G1/6, G2/6 OR G3/6 FOR BAR MULLION DETAIL & REQUIREMENTS NOTING THAT THE MULLION WILL RUN VERTICALLY IN LIEU OF HORIZONTALLY. SEE DRAWING NO. 2005 UNDER SEPARATE APPROVAL FOR FIXED WINDOW DETAIL & REQUIREMENTS WHEN AN INDIVIDUAL FIXED WINDOW IS TO BE MULLID TO A SINGLE PROJECT-OUT OR INTEGRAL MULLID UNIT.
 5. THERE IS NO FRAME WIDTH RESTRICTION ON AN INDIVIDUAL FIXED WINDOW TO BE BAR MULLID TO A PROJECT-OUT OR INTEGRAL MULLID UNIT PROVIDING ALL REQUIREMENTS OF THE FIXED WINDOW APPROVAL & ALL MULLION REQUIREMENTS HERE-IN ARE MET.

NOTE: THE UNIT SIZE SPECIFIED IN THIS SIDE BY SIDE UNIT ELEVATION IS BASED OFF OF WINDOW CONDITIONS TESTED. ACTUAL SIZE OF A SIDE BY SIDE INTEGRAL MULLID UNIT MAY BE LIMITED TO A SMALLER SIZE AS POTENTIALLY RESTRICTED BY SHIPPING, SHOP ASSEMBLY AND/OR INSTALLATION LIMITATIONS.

DRAWN BY:		CHECKED BY:		
W.M.S.		W.M.S.		
PLT:	DATE:			
1=16	01/23/23			
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE
OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER PROJECT-OUT WINDOWS

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD; UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-346-5638

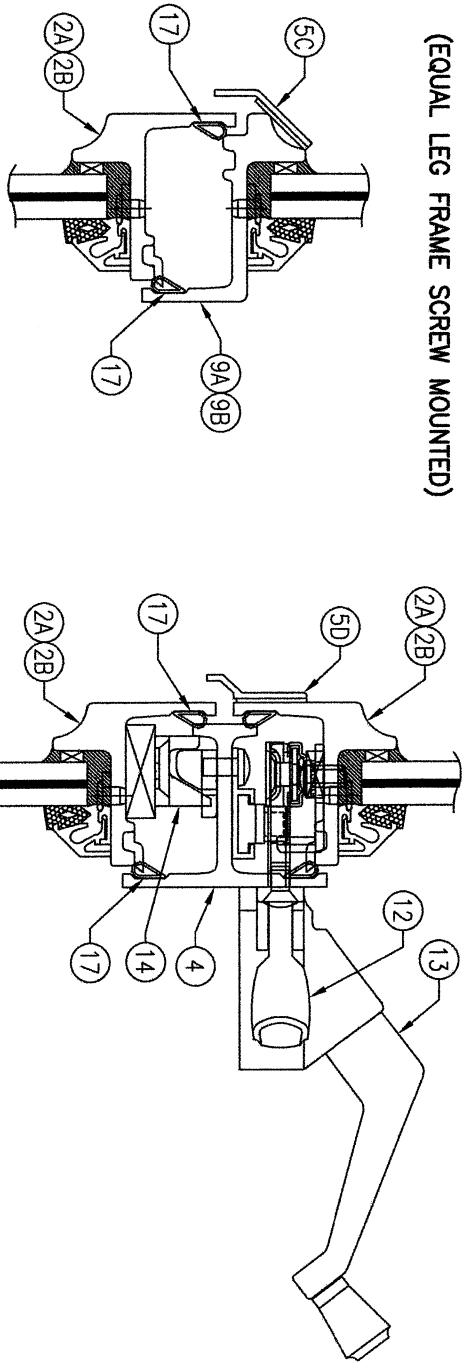
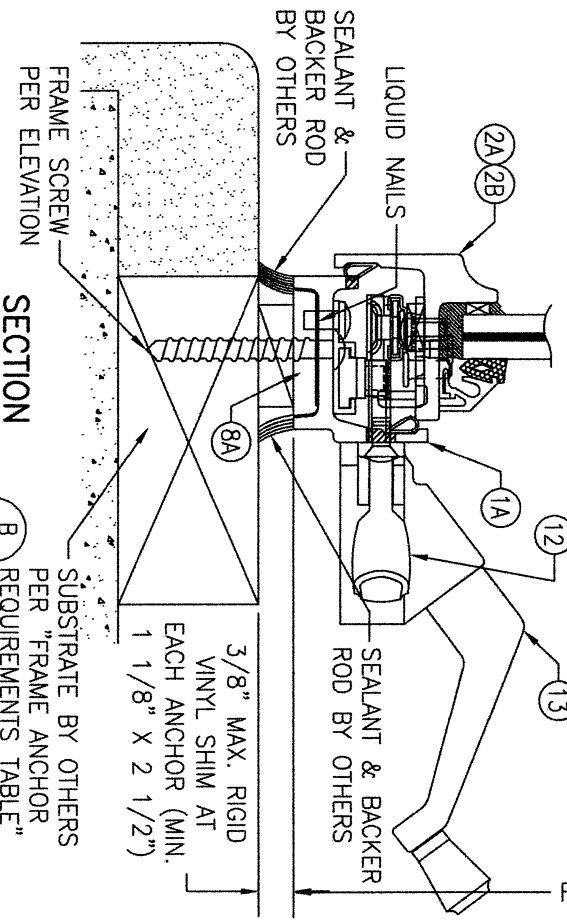
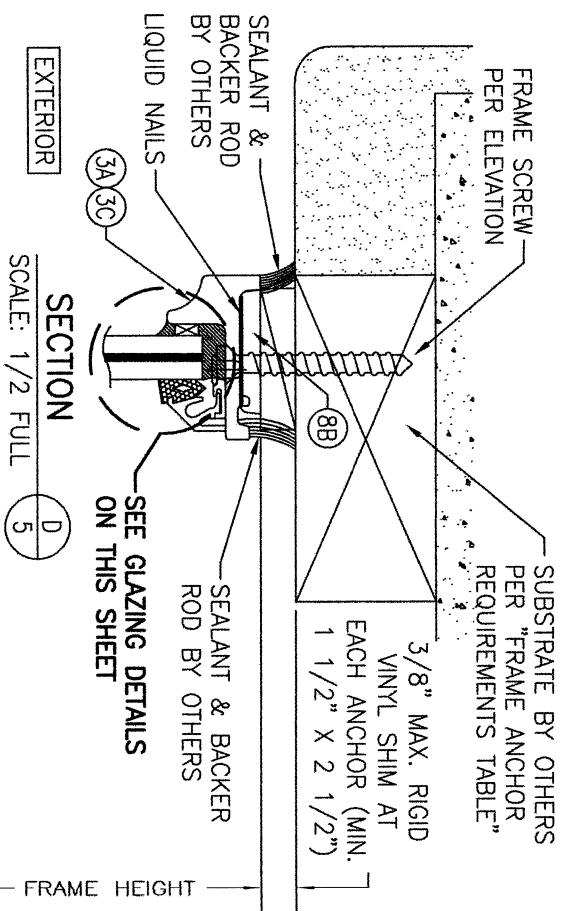
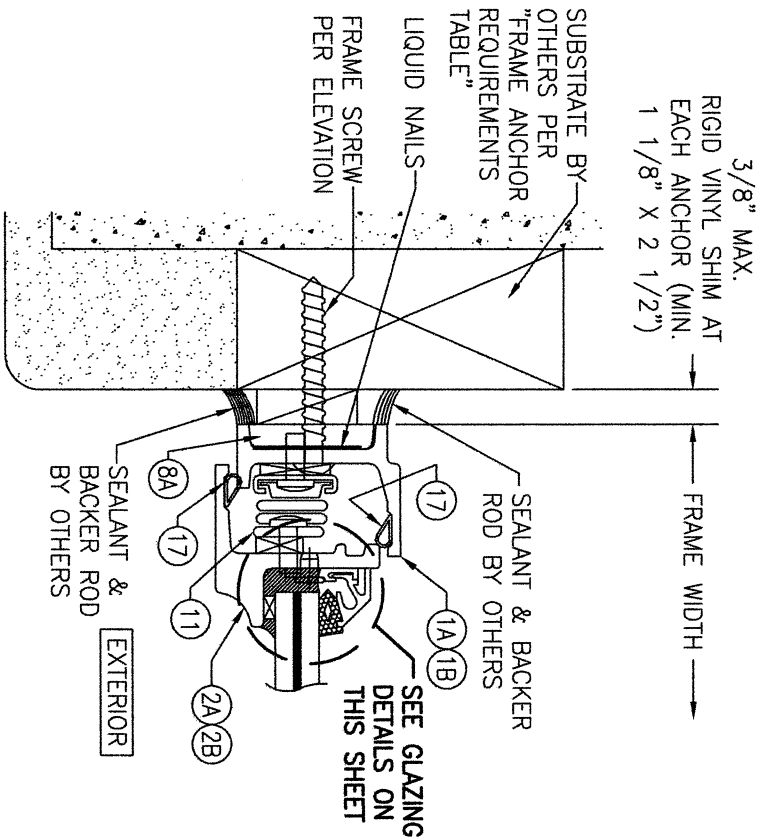
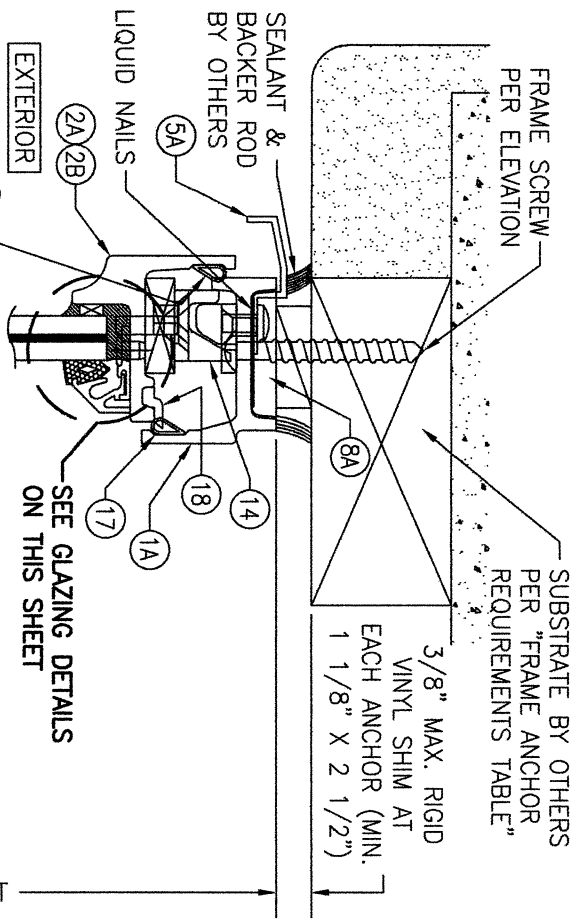
MANUFACTURER
HOPE'S WINDOWS, INC.
84 HOPKINS AVENUE
JAMESTOWN, NY 14702
(716) 665-5124

CERTIFICATION

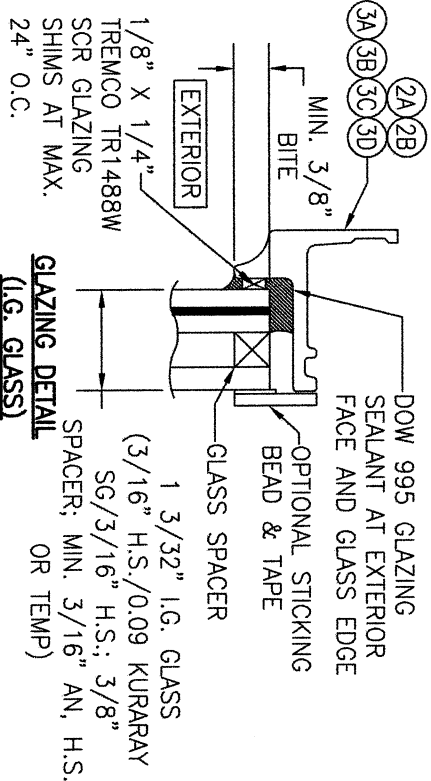
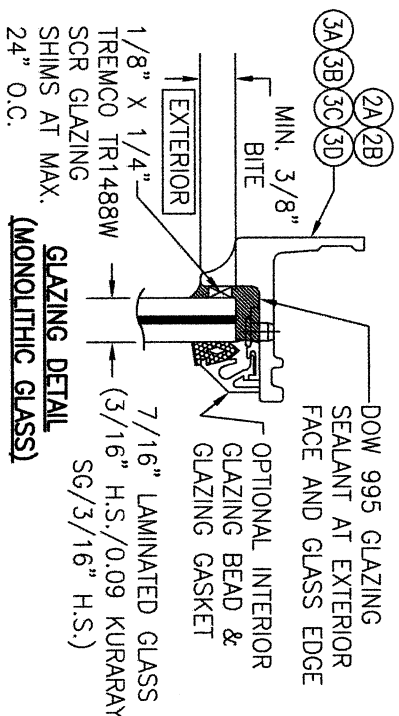
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO.:
2013

SHEET NO.
4 OF 8



SECTIONS A/5, B/5, C/5 & D/5:
EQUAL LEG FRAME SCREW MOUNTED CONDITION IS SHOWN. FOR LONG LEG FRAME FLANGE MOUNTED AND LONG LEG FRAME CLIP MOUNTED CONDITIONS, SEE ALTERNATE INSTALLATION DETAILS ON SHEETS 6 & 7.

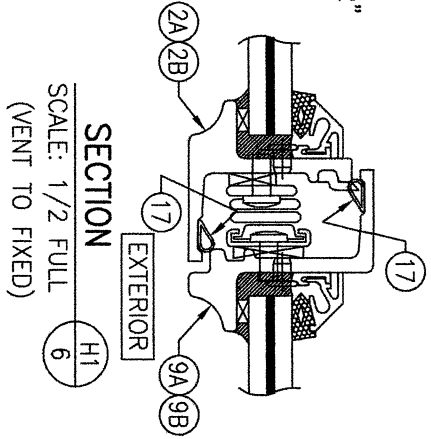
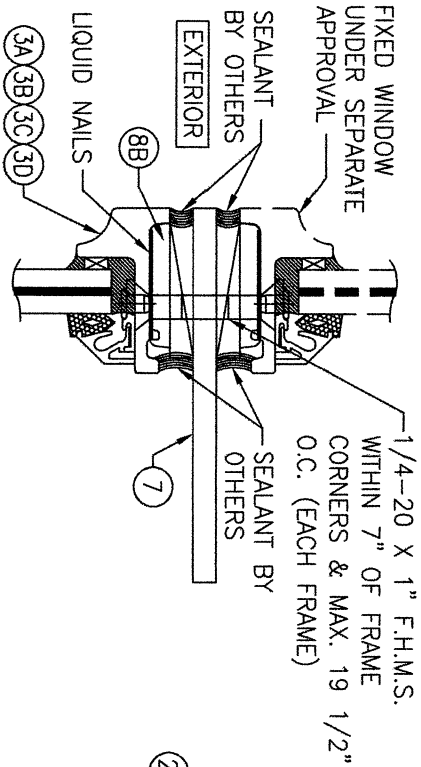


GLAZING NOTE: AT BASE OF GLASS, 4" LONG SILICONE SETTING BLOCKS SHALL BE PLACED AT MAX. 24" O.C. (QTY. OF 2 MIN.). WIDTH & THICKNESS OF BLOCKS SHALL BE AS REQUIRED TO MATCH THE GLASS SECTION THICKNESS AND DEPTH OF SPACE AT GLASS EDGE.

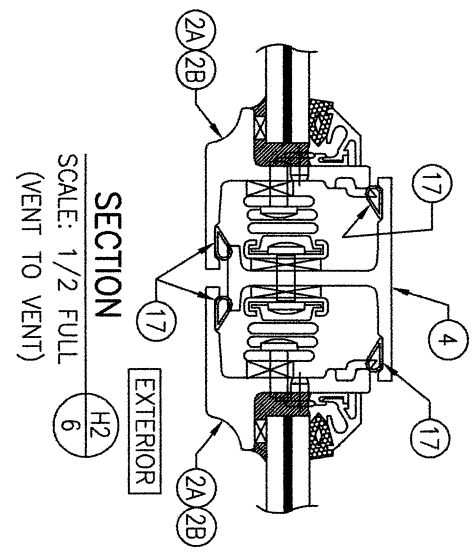
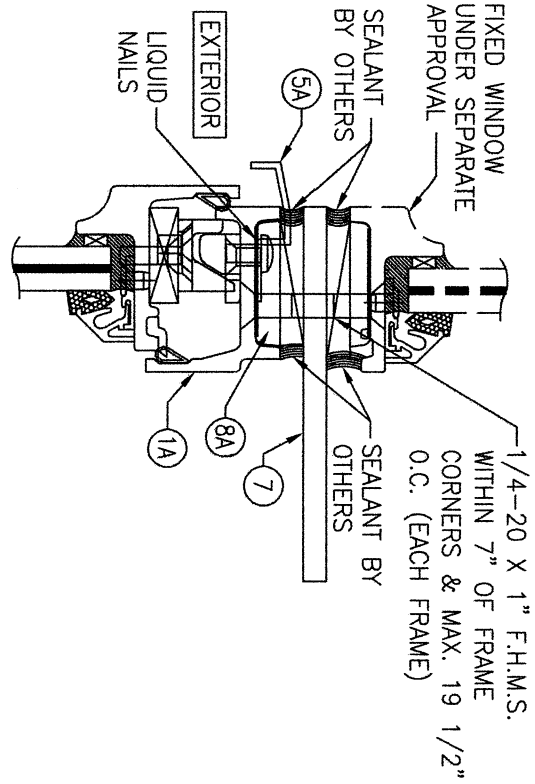
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER PROJECT-OUT WINDOWS	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	MANUFACTURER HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

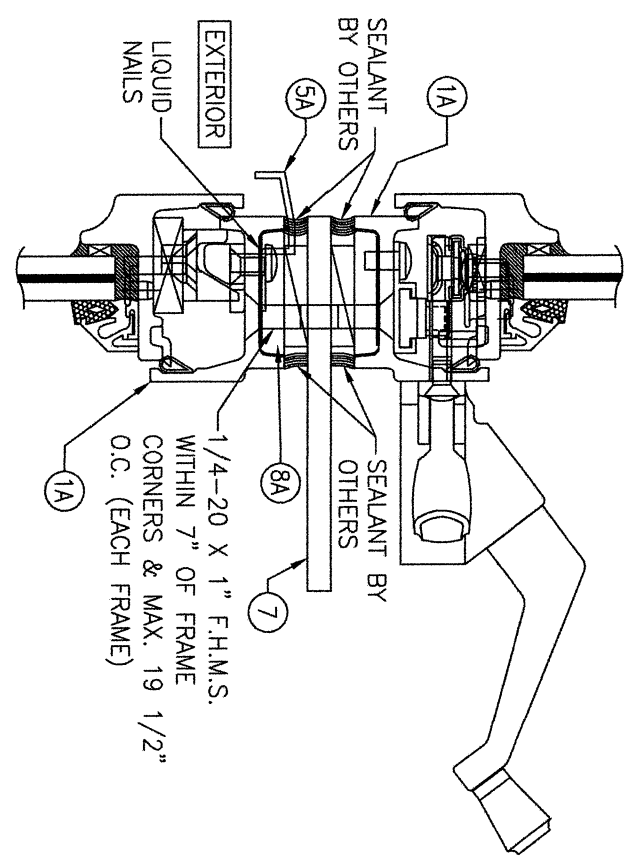
CERTIFICATION WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 2013	REV.
SHEET NO. 5	OF 8



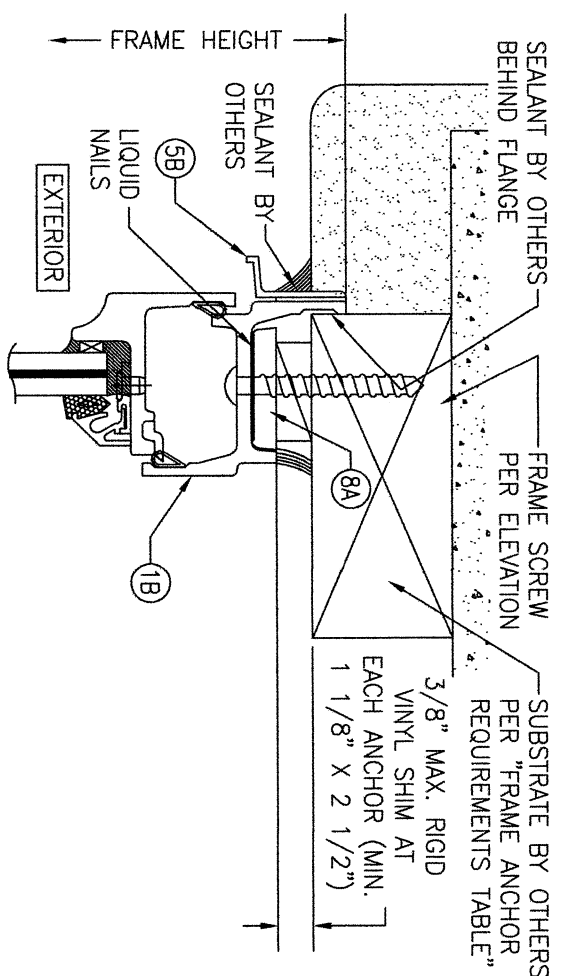
SECTION G1
SCALE: 1/2 FULL
(FIXED MULLED TO FIXED)



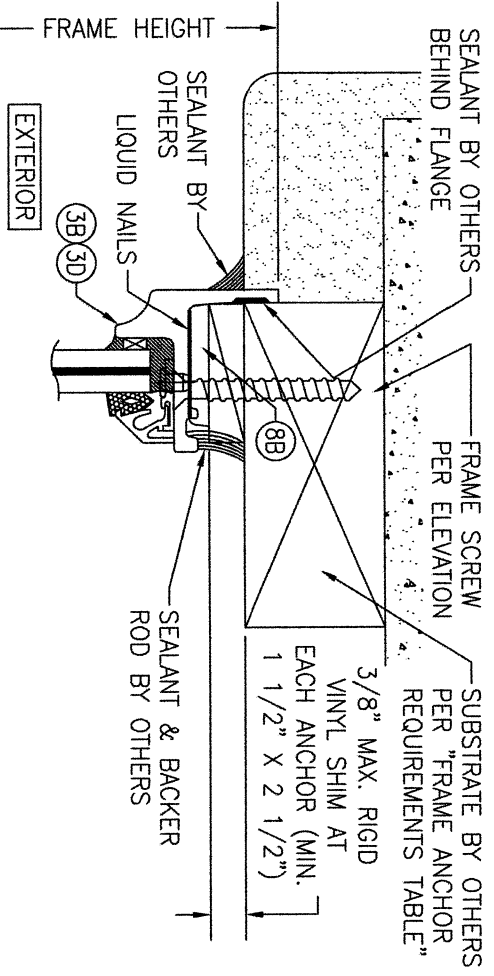
SECTION G2
SCALE: 1/2 FULL
(FIXED MULLED TO VENT)



SECTION G3
SCALE: 1/2 FULL
(VENT MULLED TO VENT)



ALTERNATE FLANGE MOUNT DETAIL AT VENT WINDOW
(HEAD SECTION IS SHOWN, SIDES & SILL ARE INSTALLED THE SAME)

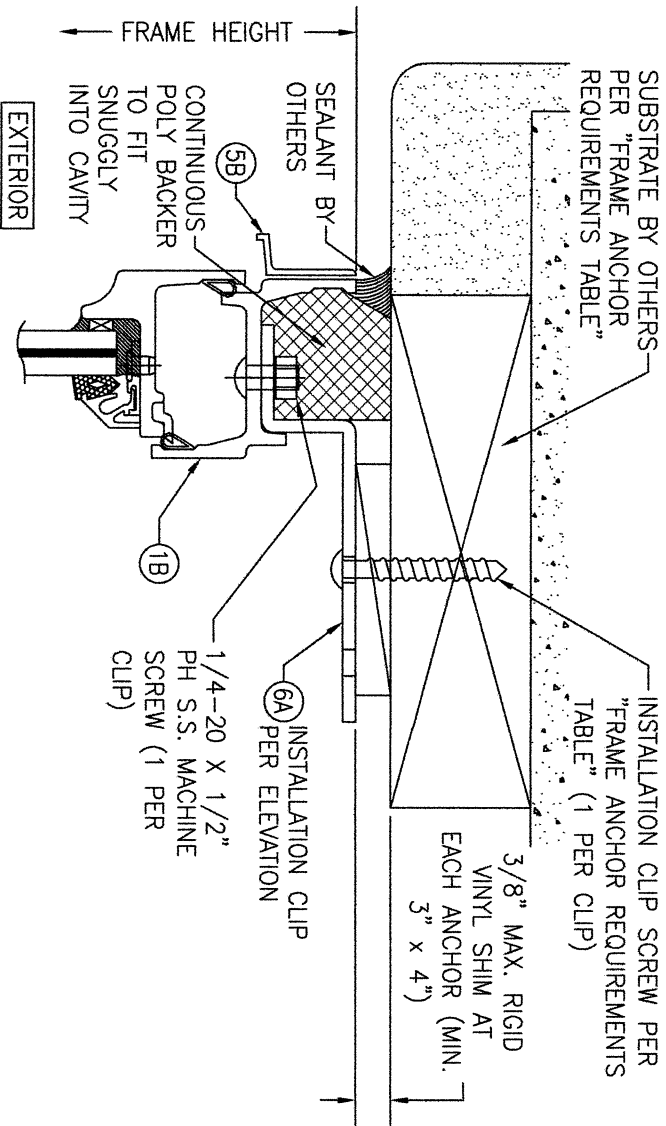


ALTERNATE FLANGE MOUNT DETAIL AT FIXED WINDOW
(HEAD SECTION IS SHOWN, SIDES & SILL ARE INSTALLED THE SAME)

NO.	REVISION	DESCRIPTION	BY	DATE
1	2			

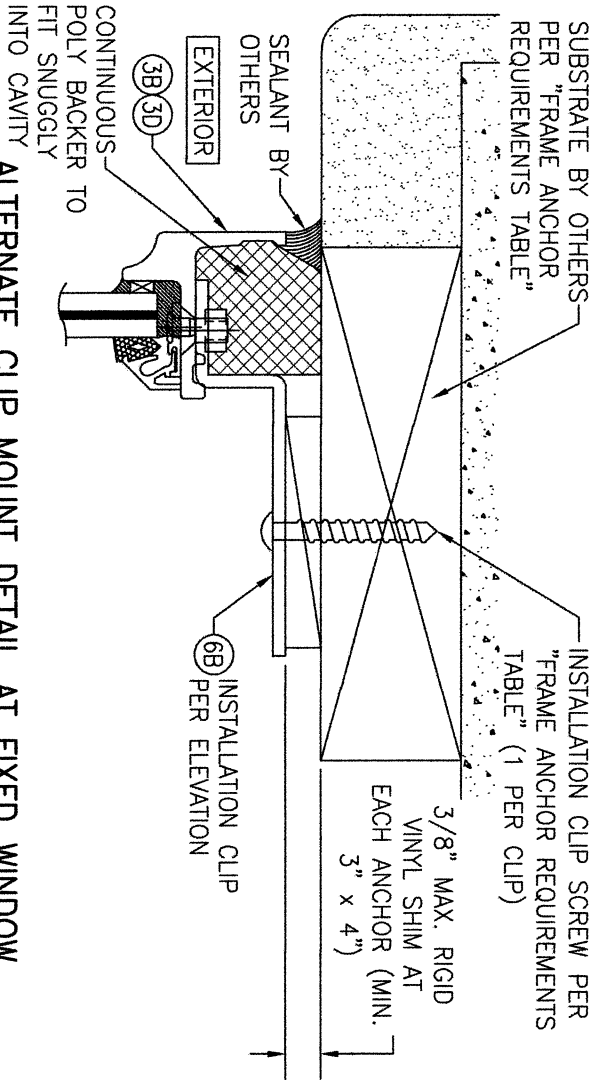
DRAWING TITLE		CONSULTANTS	MANUFACTURER
OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER PROJECT-OUT WINDOWS		W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

CERTIFICATION		DRAWING NO.	REV.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135		2013	
SHEET NO.		6	OF 8



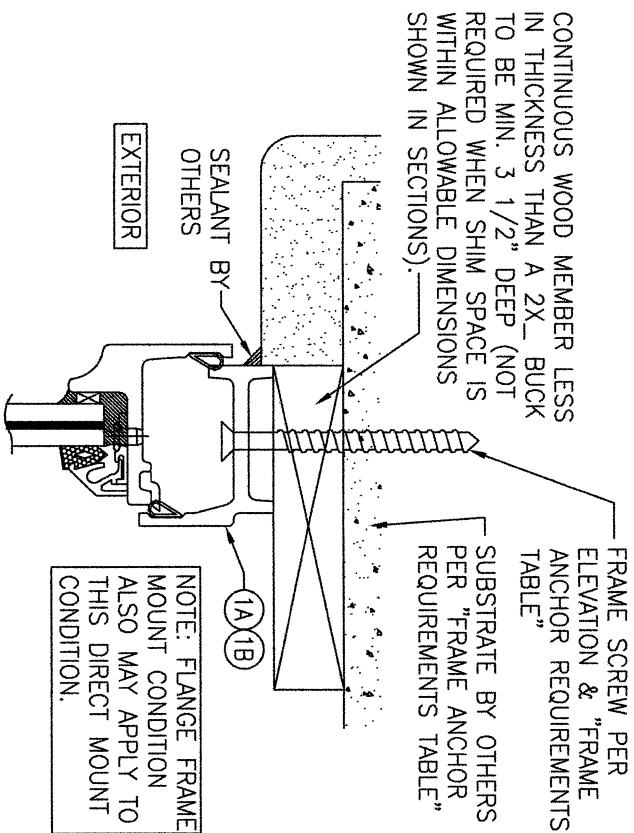
ALTERNATE CLIP MOUNT DETAIL AT VENT WINDOW

(HEAD SECTION IS SHOWN, SIDES & SILL ARE INSTALLED THE SAME)



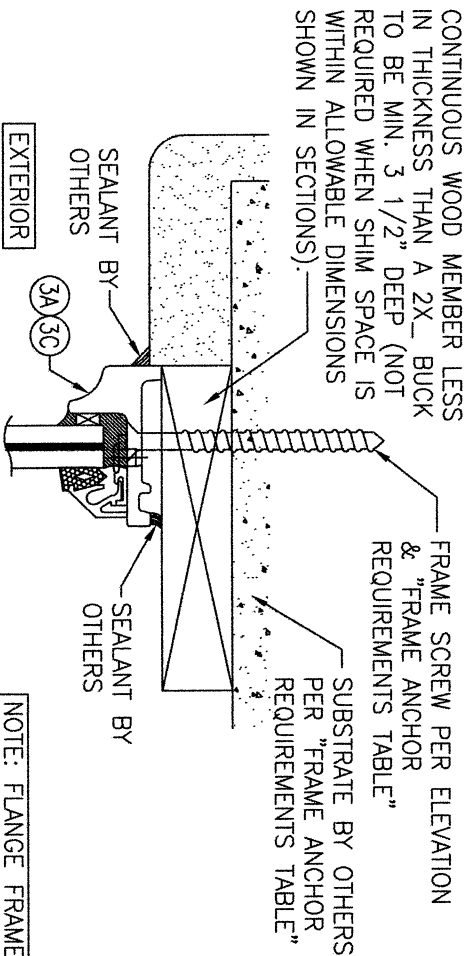
ALTERNATE CLIP MOUNT DETAIL AT FIXED WINDOW

(HEAD SECTION IS SHOWN, SIDES & SILL ARE INSTALLED THE SAME)



OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER (VENT WINDOW)

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



OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER (FIXED WINDOW)

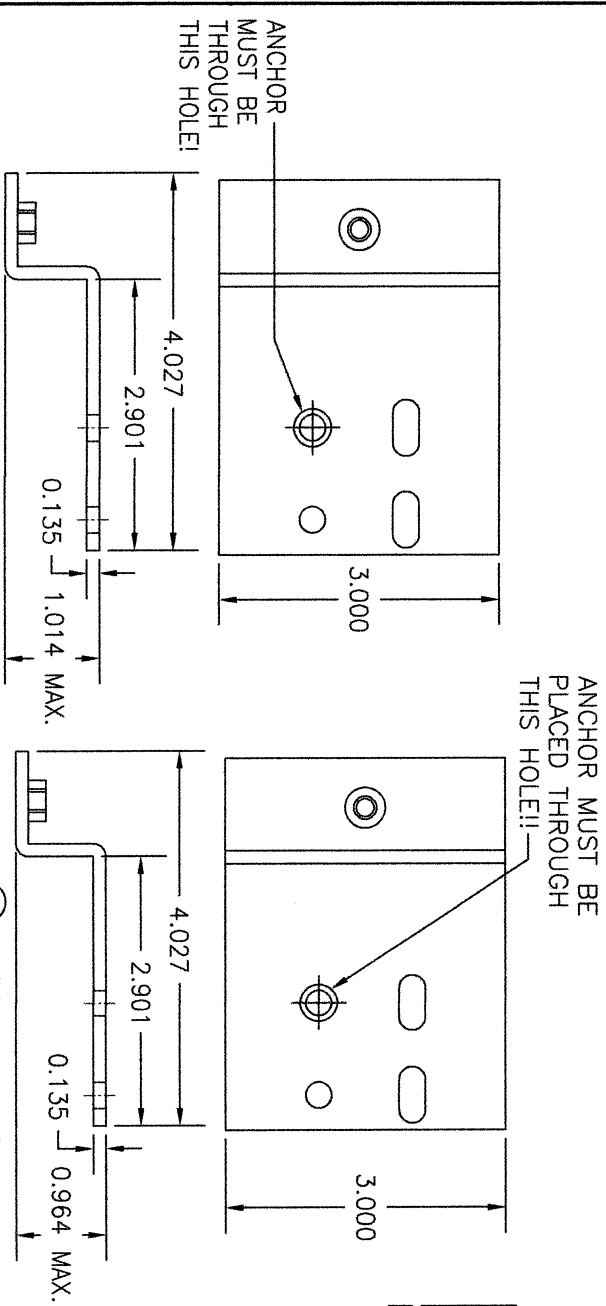
(HEAD SECTION SHOWN; SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

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OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER PROJECT-OUT WINDOWS	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

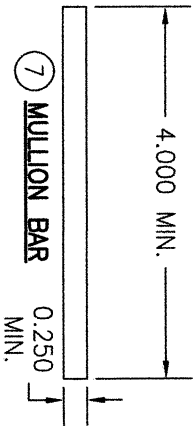
CERTIFICATION	DRAWING NO.	REV.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	2013	
	SHEET NO.	7 OF 8

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1A	EQUAL LEG FRAME (VENT WINDOW)	A36 STEEL
1B	LONG LEG FRAME (VENT WINDOW)	A36 STEEL
2A	STILE & RAIL	A36 STEEL
2B	ALTERNATE STILE & RAIL	A36 STEEL
3A	EQUAL LEG FRAME (FIXED WINDOW)	A36 STEEL
3B	LONG LEG FRAME (FIXED WINDOW)	A36 STEEL
3C	ALTERNATE EQUAL LEG FRAME (FIXED WINDOW)	A36 STEEL
3D	ALTERNATE LONG LEG FRAME (FIXED WINDOW)	A36 STEEL
4	T-ASTRIGAL	A36 STEEL
5A	WEATHER BAR (USED WITH EQUAL LEG FRAME)	6063-T5 ALUMINUM
5B	WEATHER BAR (USED WITH LONG LEG FRAME)	6063-T5 ALUMINUM
5C	WEATHER BAR (USED WITH VENT/FIXED MEETING RAIL)	6063-T5 ALUMINUM
5D	WEATHER BAR (USED WITH VENT/VENT MEETING RAIL)	6063-T5 ALUMINUM
6A	VENT WINDOW INSTALLATION CLIP	10 GAGE GALVANIZED STEEL
6B	FIXED WINDOW INSTALLATION CLIP	10 GAGE GALVANIZED STEEL
7	MULLION BAR	A36 STEEL
8A	VENT WINDOW FIXING HOLE FILLER SHIM	RIGID VINYL
8B	FIXED WINDOW FIXING HOLE FILLER SHIM	RIGID VINYL
9A	CHECK RAIL	A36 STEEL
9B	ALTERNATE CHECK RAIL	A36 STEEL
HARDWARE		
11	SCISSOR HINGE (VARIABLE LENGTHS)	HOPES NO. 328SG & SIMILAR SHORTER BARS
12	MULTI-POINT LOCK CAM SYSTEM	HOPES NO. 101A
13	SINGLE ARM ROTO OPERATOR (OPTIONAL)	HOPES NO. 142-11
14	SNUBBER	HOPES NO. 1549-3
SEALS & SEALANTS		
17	TBP-H638 D-BULB WEATHERSTRIP	TBP SILICONE
18	CLOSED CELL FOAM EPDM WEATHERSTRIP #59150	HOPES NO. 335379



6A INSTALLATION CLIP
(VENT WINDOW)

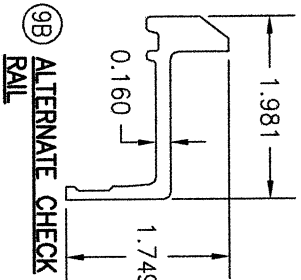
6B INSTALLATION CLIP
(FIXED WINDOW)



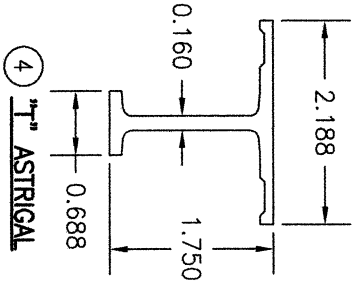
7 MULLION BAR

8A VENT WINDOW FIXING
HOLE FILLER SHIM
(USED WITH FRAME
PART NO. 1A & 1B)

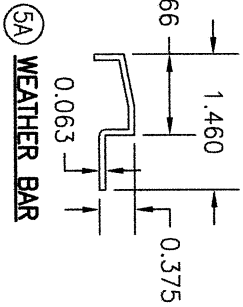
8B FIXING HOLE
FILLER SHIM
(USED WITH FRAME
PART NO. 3A, 3B,
3C & 3D)



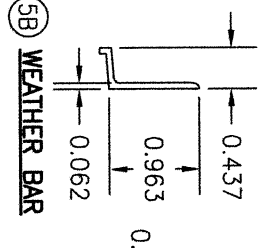
9A CHECK RAIL



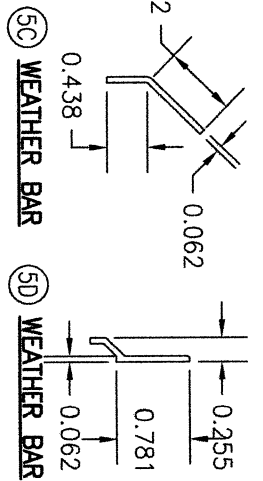
3A EQUAL LEG FRAME



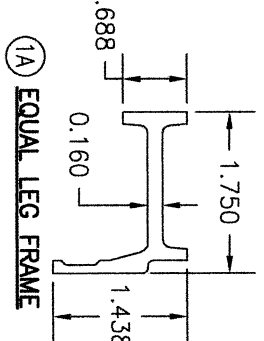
3B LONG LEG FRAME



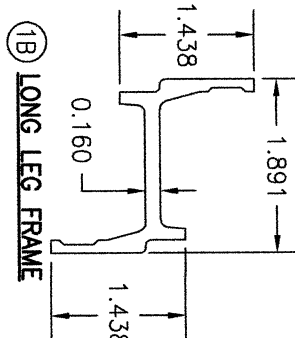
3C ALTERNATE EQUAL
LEG FRAME



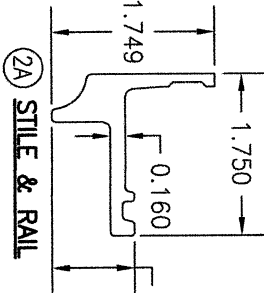
3D ALTERNATE LONG
LEG FRAME



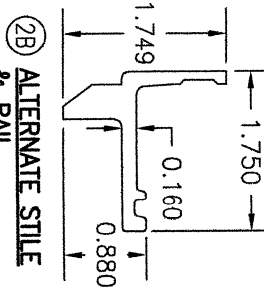
1A EQUAL LEG FRAME



1B LONG LEG FRAME



2A STILE & RAIL



2B ALTERNATE STILE
& RAIL

CERTIFICATION

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING TITLE OLD WORLD SUITE IMPACT PROJECT-OUT & FIXED OVER
PROJECT-OUT WINDOWS

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD; UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-346-5638

MANUFACTURER

HOPE'S WINDOWS, INC.
84 HOPKINS AVENUE
JAMESTOWN, NY 14702
(716) 665-5124

NO.	REVISION	DESCRIPTION	BY	DATE
1	2			

DRAWN BY: W.M.S. CHECKED BY: W.M.S.

DATE: 01/25/23

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