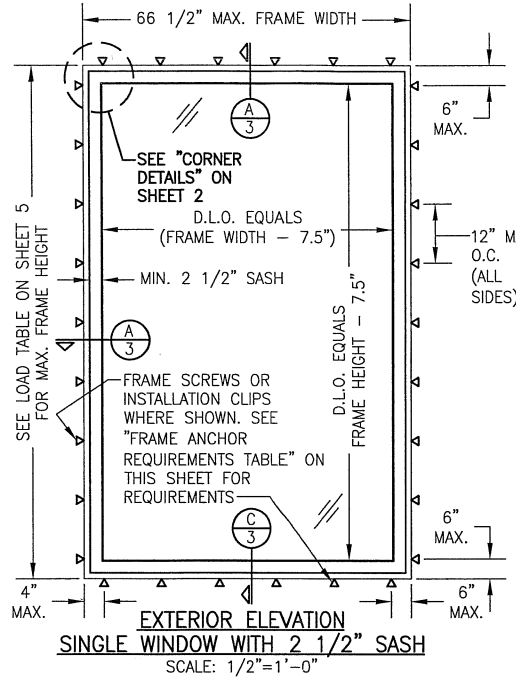


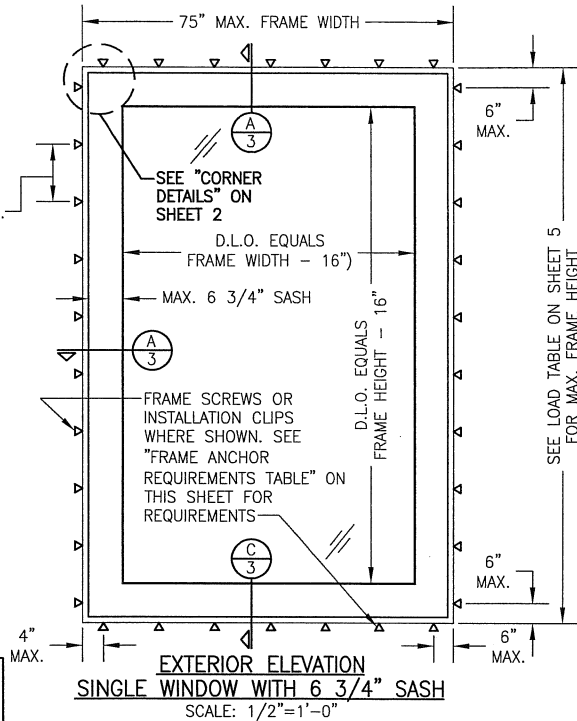
GENERAL NOTES:

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.
11. ALL WOOD MEMBERS OF THIS PRODUCT THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC REQUIREMENTS.

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.



LONG DIMENSION OF WINDOWS MAY BE HORIZONTAL OR VERTICAL (HEIGHT & WIDTH MAY BE INTERCHANGED).

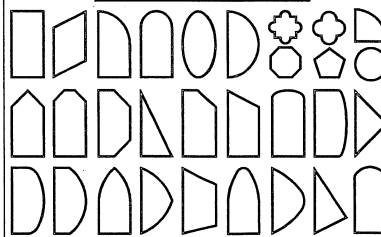


FRAME ANCHOR REQUIREMENTS TABLE

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. 10 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 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. 8 SMS SCREW	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"

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

APPROVED SHAPES



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION PER CORNER DETAILS.
2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

ALLOWABLE DESIGN LOADS

SEE DESIGN LOAD TABLES ON SHEET 5

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	DATE	BY	DATE	CHECKED BY
A1	UPDATE TO 2004 CODE COMPLIANT	WWS	08/14/07	WWS	08/14/07	WWS
A2	ADDED ALTERNATE SUBSTRATES	WWS	11/13/12	WWS	11/13/12	WWS
B1	UPDATE TO CURRENT STANDARDS	WWS	07/08/15	WWS	07/08/15	WWS
C1	UPDATE TO CURRENT STANDARDS	WWS		WWS		WWS

JOB INFORMATION:

MAHOGANY WOOD WINDOWS

PALM CITY MILLWORK, INC.

3313 S.W. 42ND AVE.

PALM CITY, FL 34990

800-273-5598

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 08 2015

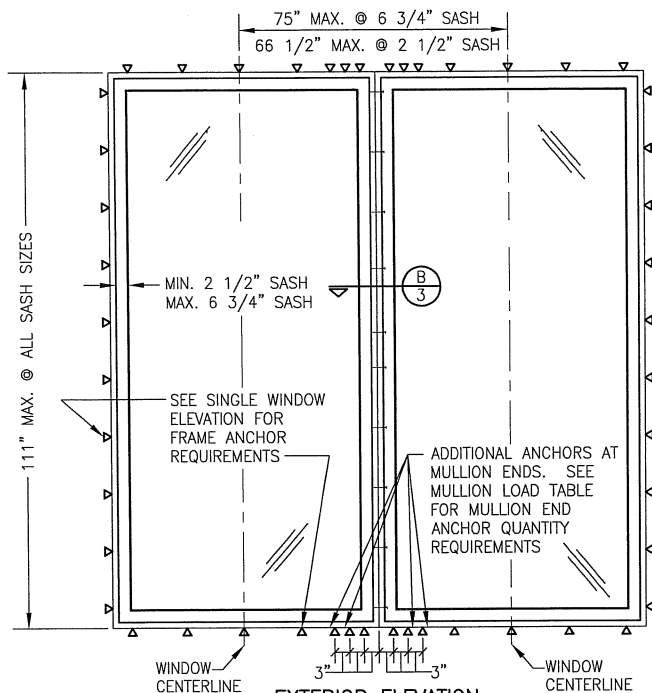
WARREN W. SCHAEFER, P.E.

NO. 44135

DRAWING NO. 1039

REV. C

SHEET NO. 1 OF 5



EXTERIOR ELEVATION MULTIPLE WINDOW UNIT

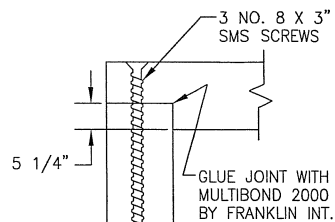
SEE OTHER ELEVATIONS FOR WINDOW DETAILS
SCALE: 1/2"=1'-0"

MULTIPLE UNIT NOTES:

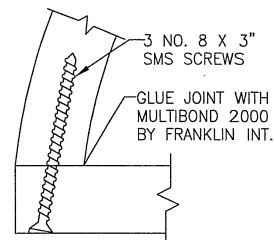
1. ALL WINDOWS ARE RESTRICTED BY THE DIMENSIONS SHOWN.
2. THE MAXIMUM ALLOWABLE PRESSURE FOR A COMBINED UNIT IS RESTRICTED BY THE LESSER OF THE INDIVIDUAL WINDOW ALLOWABLE PRESSURE OR THE ALLOWABLE MULLION PRESSURE. SEE LOAD TABLES ON SHEET 5.
3. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
4. WINDOWS MAY BE STACKED HORIZONTALLY OR VERTICALLY. 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.

ALLOWABLE DESIGN LOADS

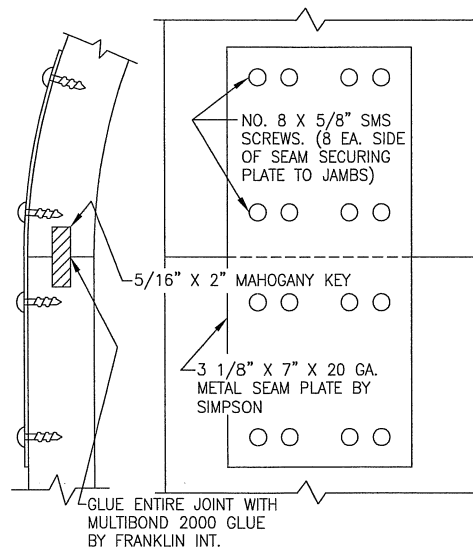
SEE DESIGN LOAD TABLES
ON SHEET 5



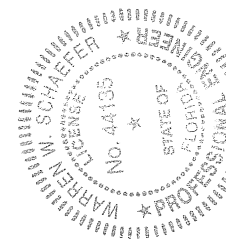
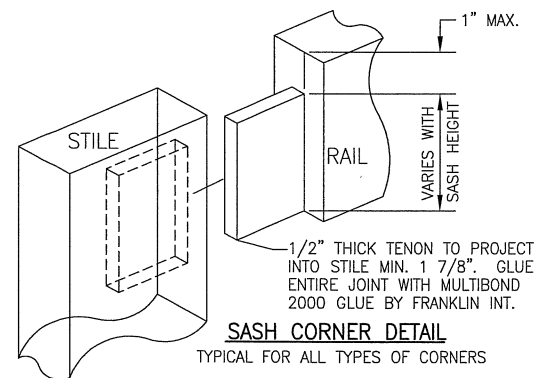
SQUARE JAMB CORNER



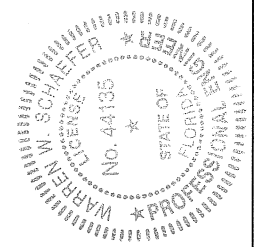
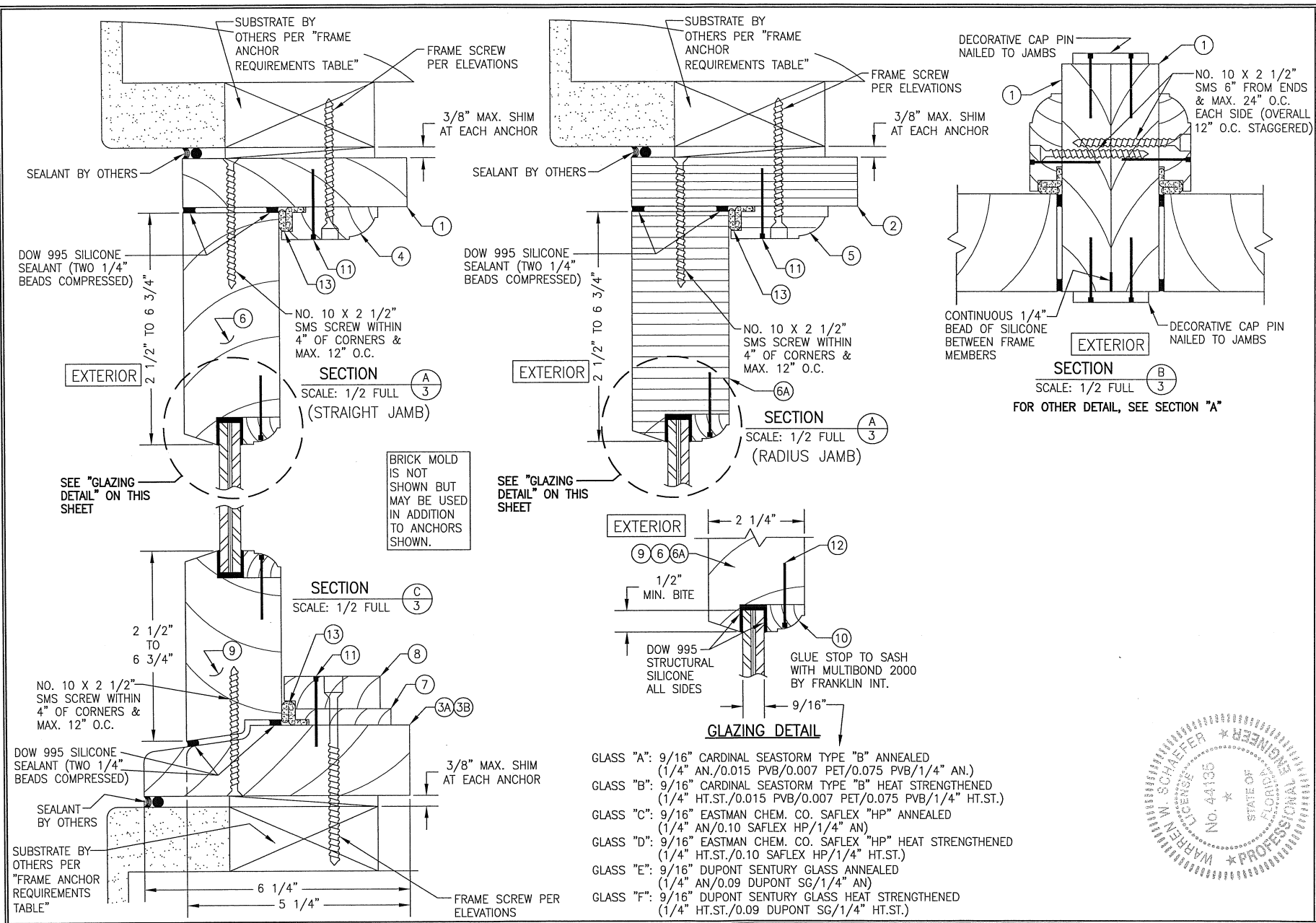
RADIUS JAMB CORNER



RADIUS JAMB BUTTED TO STRAIGHT JAMB



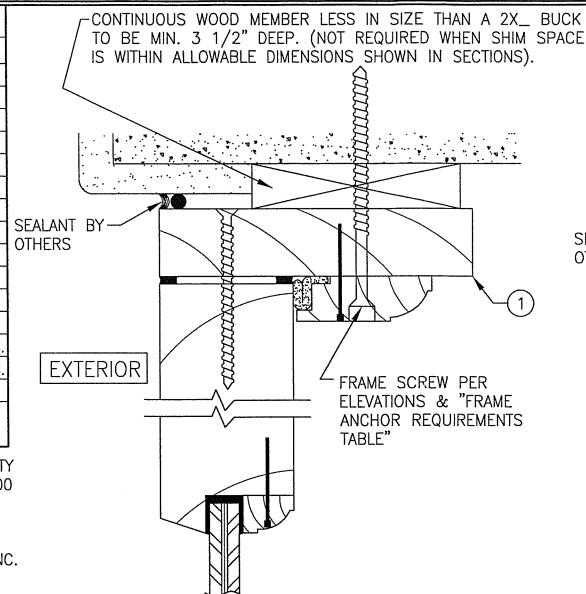
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 02/15/02
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE DIRECT SASH SET MAHOGANY WOOD WINDOWS	
JOB INFORMATION: PALM CITY MILLWORK, INC. 3313 S.W. 42ND AVE. PALM CITY, FL 34990 800-273-5598	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION JAN 08 2015	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1039	REV. C
SHEET NO. 2	OF 5



DRAWN BY: W.W.S. PLOT: 1=2 DATE: 02/15/02 CHECKED BY: W.W.S. DATE: 02/15/02	NO. 1 REVISION DESCRIPTION
DIRECT SASH SET MAHOGANY WOOD WINDOWS MANUFACTURER PALM CITY MILLWORK, INC. 3313 S.W. 42ND AVE. PALM CITY, FL 34990 800-273-5596	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 08 2015 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. 1039 SHEET NO. 3 OF 5

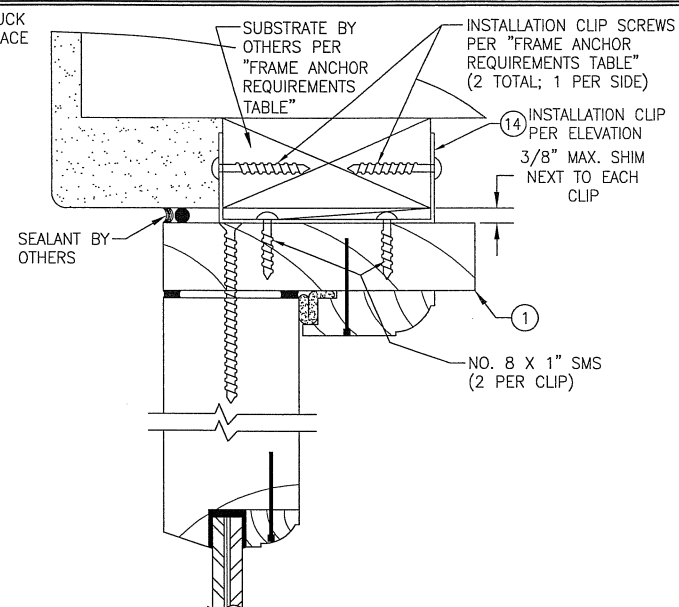
MATERIAL LIST		
NO.	DESCRIPTION	NOTES
1	1.125" X 5.25" JAMB	MAHOGANY WOOD
2	1.125" X 5.25" RADIAL JAMB	LAMINATED MAHOGANY
3A	2.25" X 5.1/4" SILL	MAHOGANY WOOD
3B	2.25" X 6.25" ALTERNATE SILL	MAHOGANY WOOD
4	0.75" X 2.25" SASH STOP	MAHOGANY WOOD
5	0.75" X 2.25" RADIAL SASH STOP	LAMINATED MAHOGANY
6	2.25" X 2.5" TO 6.75" SASH	MAHOGANY WOOD
6A	2.25" X 2.5" TO 6.75" RADIAL SASH	LAMINATED MAHOGANY
7	0.375" X 2.25" SILL STOP	MAHOGANY WOOD
8	0.75" X 2.25" SILL STOP	MAHOGANY WOOD
9	2.25" X 2.5" TO 6.75" SILL SASH	MAHOGANY WOOD
10	0.625" X 0.75" GLAZING STOP	MAHOGANY WOOD
11	1 1/2" LONG SASH STOP PIN NAIL	3" FROM CORNERS & MAX. 6" O.C.
12	1" LONG GLAZING STOP PIN NAIL	2" FROM CORNERS & MAX. 5" O.C.
13	WEATHER SEAL	Q-LON 928
14	1 1/4" X 6 1/2" X 0.043" INSTALLATION CLIP	MIN. 33 KSI GALV. STEEL

NOTE: WOOD USED IN TESTING WAS MAHOGANY WITH A SPECIFIC GRAVITY OF $G = 0.62$ AND A MODULUS OF ELASTICITY OF $E = 1,600,000$ PSI. OTHER WOOD SPECIES APPLICABLE FOR USE WITH THIS PRODUCT ARE THOSE WITH A SPECIFIC GRAVITY OF 0.62 AND MODULUS OF ELASTICITY OF 1,600,000 PSI OR GREATER. ALL WOOD IS MINIMUM GRADE 2 MILLED BY PALM CITY MILLWORK, INC. TO SELECT.



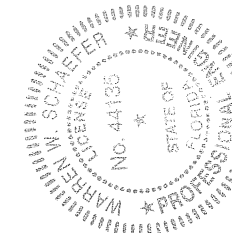
**OPTIONAL DIRECT MOUNT DETAIL
TO SUBSTRATE WITH SPACER**

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



OPTIONAL INSTALLATION CLIP DETAIL

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



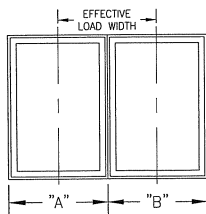
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 02/15/02	
NO.	REVISION	DESCRIPTION	DATE
1			
DRAWING TITLE: DIRECT SASH SET MAHOGANY WOOD WINDOWS			
CONSULTANTS:		MANUFACTURER:	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		PALM CITY MILLWORK, INC. 3313 S.W. 42ND AVE. PALM CITY, FL 34990 800-273-5598	
CERTIFICATION:		P.E. NO. 44135	
JAN 08 2015			
DRAWING NO. 1039		REV. C	
SHEET NO. 4		OF 5	

**ALLOWABLE DESIGN PRESSURE TABLE
FOR MULLED DIRECT SASH SET UNITS**

MAXIMUM EFFECTIVE LOAD WIDTH (IN.)	MAXIMUM MULLION LENGTH (IN.)	ALLOWABLE PRESSURE (PSF.)		MAXIMUM EFFECTIVE LOAD WIDTH (IN.)	MAXIMUM MULLION LENGTH (IN.)	ALLOWABLE PRESSURE (PSF.)	
		4 ANCHORS	6 ANCHORS			4 ANCHORS	6 ANCHORS
30	111	78.4	80.0	66	75	80.0	80.0
36	96	80.0	80.0		78	76.1	80.0
	102	74.7	80.0		84	67.1	80.0
	108	69.7	80.0		90	60.0	75.4
	111	67.5	80.0		96	54.3	67.0
42	88	80.0	80.0		102	49.6	58.1
	90	77.9	80.0		108	45.6	50.9
	96	71.7	80.0		111	43.9	47.8
	102	66.4	80.0		75	80.0	80.0
	108	61.8	74.1	72	78	74.7	80.0
48	111	59.8	70.0		84	65.4	80.0
	82	80.0	80.0		90	58.1	72.9
	84	78.4	80.0		96	52.3	63.7
	90	71.3	80.0		102	47.5	55.0
	96	65.4	80.0		108	43.6	48.0
	102	60.3	74.6		111	41.8	45.0
54	108	56.0	66.0	75	75	80.0	80.0
	111	54.1	62.2		78	74.4	80.0
	79	80.0	80.0		84	64.8	80.0
	84	73.4	80.0		90	57.4	72.0
	90	66.4	80.0		96	51.5	62.2
	96	60.6	76.1		102	46.7	53.7
60	102	55.8	67.6		108	42.7	46.8
	108	51.6	59.7		111	41.0	43.9
	111	49.8	56.3				
	77	80.0	80.0				
	78	78.4	80.0				
	84	69.7	80.0				
	90	62.7	78.8				
	96	57.0	71.3				
	102	52.3	62.2				
	108	48.3	54.7				
	111	46.5	51.6				

NOTES:

1. ALLOWABLE PRESSURE ON MULTIPLE UNITS IS CONTROLLED BY THE LESSER PRESSURE OF EITHER THIS TABLE OR THE WINDOW TABLE.
2. ALL PRESSURES IN THIS TABLE ARE FOR BOTH POSITIVE & NEGATIVE DIRECTIONS.
3. SEE MULTIPLE WINDOW ELEVATION BELOW FOR DETERMINATION OF "EFFECTIVE LOAD WIDTH".
4. MULLION MAY BE HORIZONTAL OR VERTICAL.



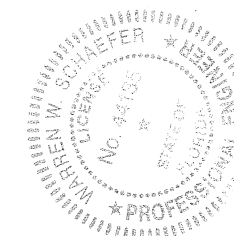
$$\text{LOAD WIDTH} = \frac{A + B}{2}$$

**ALLOWABLE WINDOW SIZE & DESIGN PRESSURE TABLE
(SINGLE WINDOWS)**

MAXIMUM D.L.O.		MAXIMUM FRAME SIZE				ALLOWABLE PRESSURE	
		2 1/2" SASH		6 3/4" SASH		GLASS "A", "C" & "E" 9/16" LAMINATED ANNEALED (PSF)	GLASS "B", "D" & "F" 9/16" LAMINATED HEAT STRENGTHENED (PSF)
HEIGHT (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WIDTH (IN.)		
65	59		66.5		75.0	80.0	80.0
71	53	78.5	60.5	87.0	69.0	80.0	80.0
	59		66.5		75.0	79.1	80.0
83	47	90.5	54.5	99.0	63.0	80.0	80.0
	53		60.5		69.0	74.6	80.0
	59		66.5		75.0	69.3	80.0
95	41	102.5	48.5	111.0	57.0	80.0	80.0
	47		54.5		63.0	73.2	80.0
	53		60.5		69.0	66.1	80.0
	59		66.5		75.0	60.8	80.0
107	35	114.5	42.5	123.0	51.0	80.0	80.0
	41		48.5		57.0	75.9	80.0
	47		54.5		63.0	65.0	80.0
119	35	126.5	42.5	135.0	51.0	80.0	80.0
	41		48.5		57.0	71.4	80.0
	47		54.5		63.0	59.8	80.0
131	35	138.5	42.5	147.0	51.0	80.0	80.0
	41		48.5		57.0	68.5	80.0
143	35	150.5	42.5	159.0	51.0	80.0	80.0

NOTES:

1. ACTUAL FRAME SIZES = (D.L.O. + 7.5") AT 2.5" SASH UNITS & (D.L.O. + 16") AT 6.75" SASH UNITS.
2. ALL PRESSURES IN TABLE ARE FOR POSITIVE & NEGATIVE DIRECTIONS.
3. HEIGHT & WIDTH MAY BE INTERCHANGED SUCH THAT LONG DIMENSION IS HORIZONTAL OR VERTICAL.



DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 02/15/02	
DATE	BY	REVISION	DESCRIPTION
DIRECT SASH SET MAHOGANY WOOD WINDOWS MANUFACTURER PALM CITY MILLWORK, INC. 3313 S.W. 42ND AVE. PALM CITY, FL 34990 800-273-5598 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 08 2015 WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1039 SHEET NO. 5 OF 5	