Engineering Evaluation Report #5510TRI-08132026

Prepared by:
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Manufacturer:
PGT Industries, LLC
3400 Precision Drive
N. Venice, FL 34275

Product Description:
HR5510 Series Impact-Resistant, Vinyl, Horizontal Roller Window with Diamond Glass, (LM), FL-1844

Compliance:
The above-mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61 G20-3.005 method 1(d). The product listed herein complies with the requirements of the current Florida Building Code.

This product has been evaluated and is in compliance with the current Florida Building Code, including the “High Velocity Hurricane Zone” (HVHZ).

Supporting Technical Documentation:
1. Approval Document: Drawing number HR5510-LM-HVHZ-TRTN, signed and sealed by A. Lynn Miller, P.E.

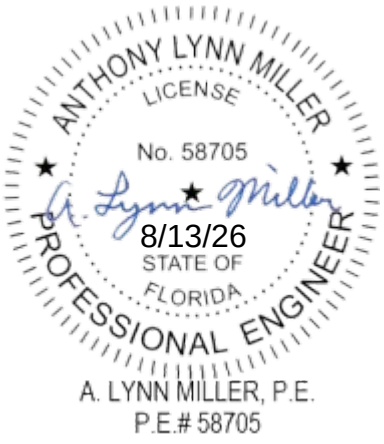
2. Test Reports:
FTL-8036-8038, 8040-8042, 8044-8046, 8050, 8052, 8053 & 8133, Fenestration Testing Laboratories, Medley, FL
ASTM E1886-05/1996-12; Signed and sealed by Idalmis Ortega, P.E.

FTL-8035, 8039, 8043, 8049 & 8051, Fenestration Testing Laboratories, Medley, FL
AAMA/WDMA/CSA 101/IS2/A440-11

QAI NOK 0112-0116; signed and sealed by Idalmis Ortega P.E.; QAI Laboratories, Nokomis, FL
TAS 201-94 Large Missile Impact Test
TAS 202-94 Uniform Static Air Pressure Test
TAS 203-94 Cyclic Pressure Loading Test

3. Miami-Dade RER Product Control Section NOA’s; PVB and/or SG Interlayer by Kuraray America, Inc.

Limitations and Conditions of use:
• Units must be glazed per ASTM E1300-24, refer to approval document for glazing details.
• This product is rated to be used in the HVHZ.
• This product is impact resistant and does not require impact protection in wind borne debris regions.
• Frame and sash material to be extruded Vinyl.
• Units must be installed in accordance with approval documents.



SERIES 4000 WITH TRITON GLASS
IMPACT RESISTANT HORIZONTAL ROLLER

ELEVATION FOR TYP. EQUAL LEG FRAME
SHOWN AS OX CONFIGURATION

ELEVATION FOR TYP. FIN OR J-CHANNEL
FRAME SHOWN AS OX CONFIGURATION
ARCHIVED THROUGH THE MAS P.M.

ELEVATION FOR TYP. FLANGE FRAME
SHOWN AS XOX CONFIGURATION

GENERAL NOTES	1
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ASSEMBLY	9

VISIBLE LIGHT FORMULAS
(EQUAL LITE: XO & OXO)

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Glass Type	Description (Listed from Exterior to Interior)
1	[illegible]
2	[illegible]
3	[illegible]
4	[illegible]
5	[illegible]
6	[illegible]
7	[illegible]

[illegible]

Group	Section	Substrate	Min. Edge Distance	Min. Embedment
A	[illegible]	[illegible]	[illegible]	[illegible]
B	[illegible]	[illegible]	[illegible]	[illegible]
C	[illegible]	[illegible]	[illegible]	[illegible]
D	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Group	Section	Substrate	Min. Edge Distance	Min. Embedment
E	[illegible]	[illegible]	[illegible]	[illegible]
F	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Notes to All Design Pressure and Anchor Quantity Tables

Config	Min. Width	Max. Height	Check Type	Figure Detail	Frame Type Allowed	Primary Anchors		Anchor Quantity	
						Type A	Detail A	Type A	Detail A
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Frame Types	Check Options (see Table 1)	Installation Conditions	Endnotes (select Detail Notes)
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

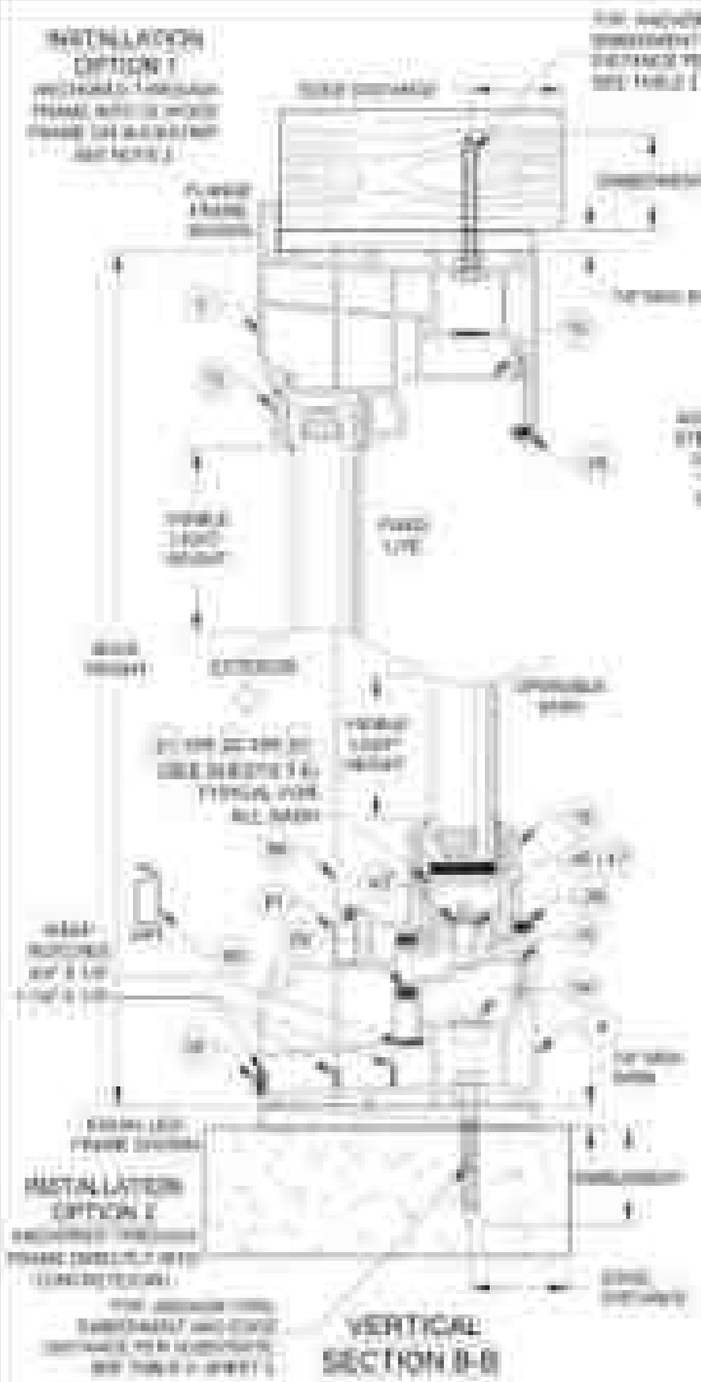
OPTIONAL WOOD DEVICE

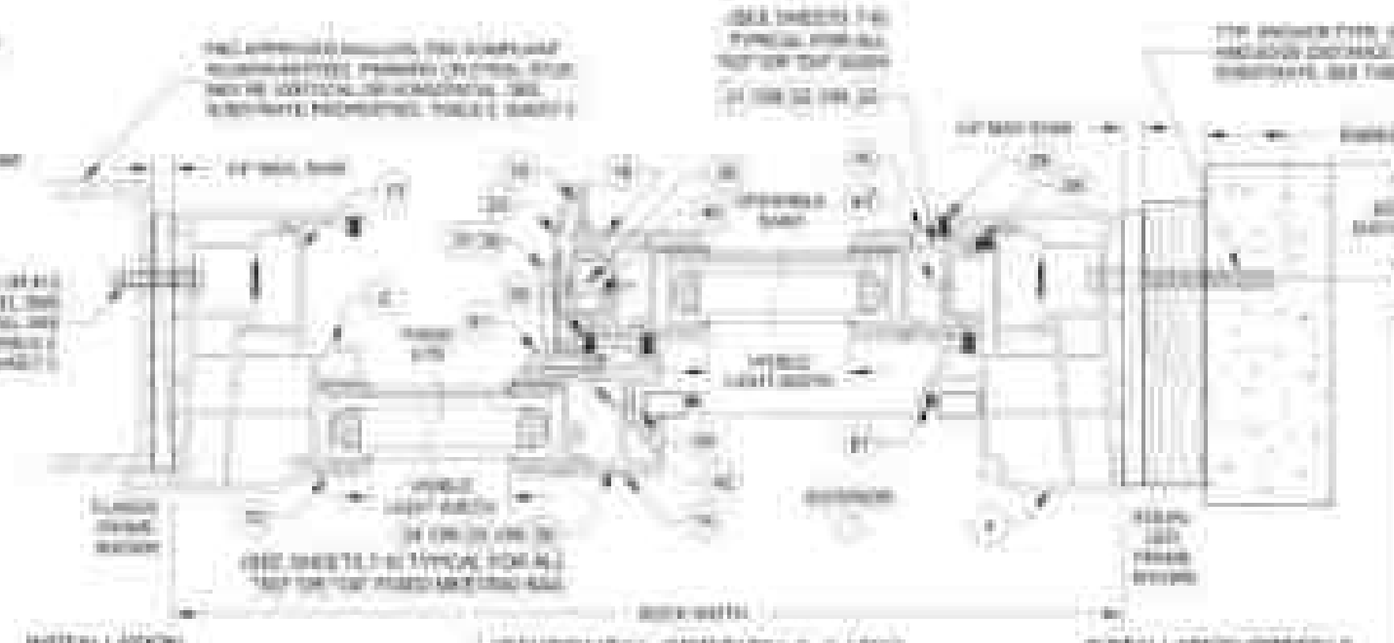
[illegible]

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[illegible]

INSTALLATION DETAILS FOR FLANGE AND EQUAL LEG FRAMES





INSTALLATION NOTES:

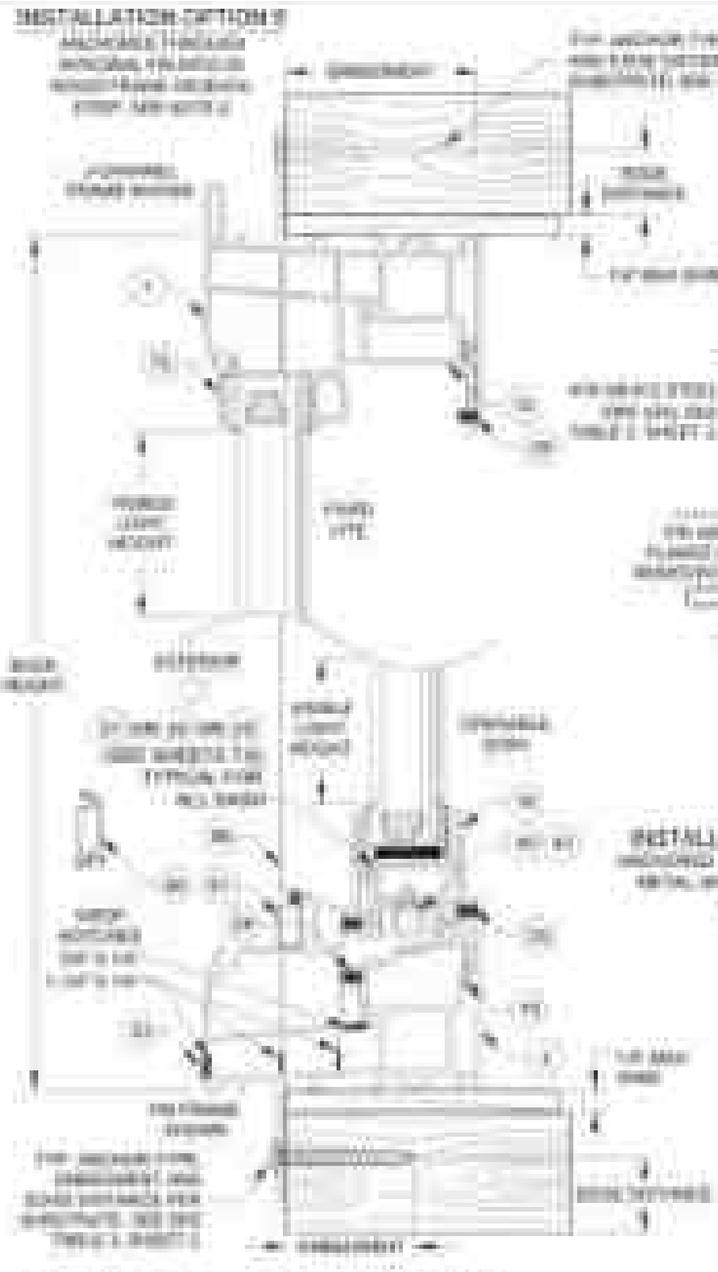
1. SEE SHEET ANCHORS NOTES ON TABLE 1, FOR MAXIMUM EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE. WOOD BUCKS SHALL BE SECURELY ATTACHED TO THE MASONRY OPENING WITH ANCHORS SPACED AT 16" O.C. MAXIMUM. BUCKS ARE OPTIONAL IF THE FRAME IS INSTALLED DIRECTLY TO SOLID CONCRETE.

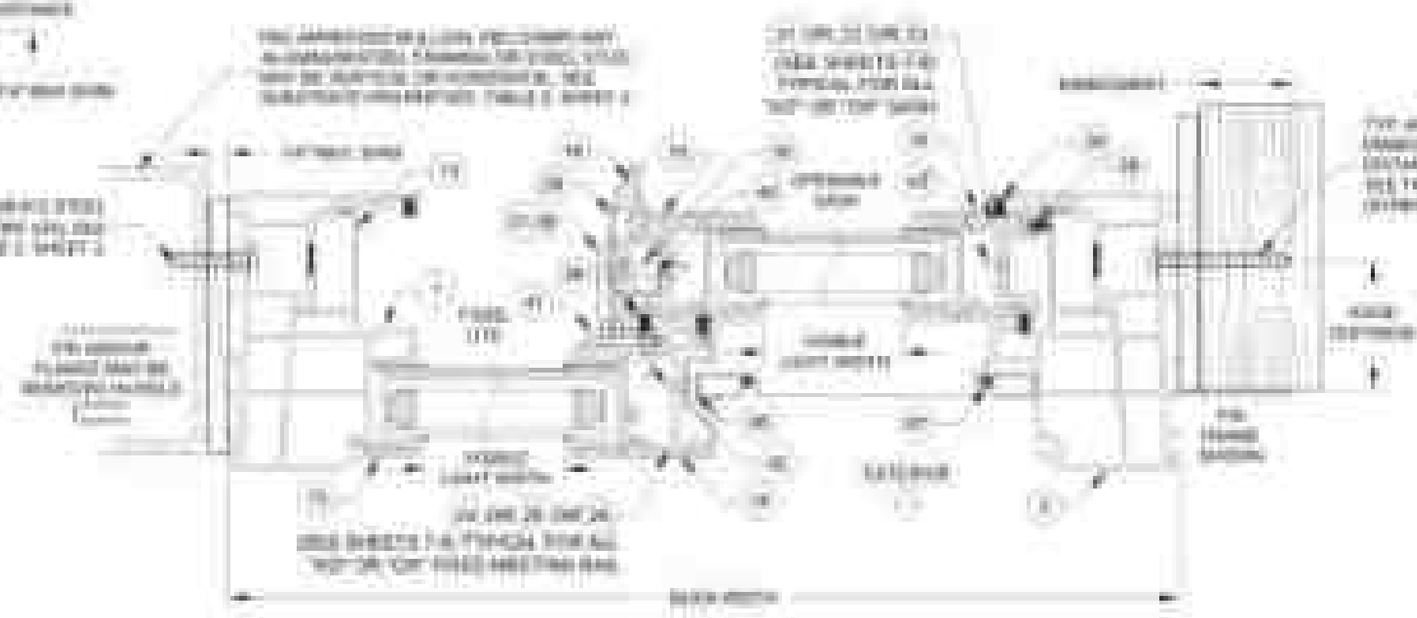
3. FOR APPLICABLE LOCAL DESIGN PRESSURE RATINGS FOR OTHER RANGES OF SIMULATED APPROVAL APPLIES TO WHOLE SYSTEM.

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INSTALLATION DETAILS FOR FIN AND J-CHANNEL FRAMES



VERTICAL SECTION D-D



HORIZONTAL SECTION C-C (DX)

INSTALLATION OPTION 7

INSTALLATION OPTION 8

INSTALLATION OPTION 9

INSTALLATION NOTES

1) USE ONLY INSTALLATION OPTIONS SHOWN ON THIS DETAIL FOR THE SPECIFIC PRODUCT AND SIZE BEING INSTALLED.

2) REFER TO THE APPROVED ENGINEERING DRAWINGS FOR ADDITIONAL INSTALLATION INFORMATION.

3) IF APPLICABLE, LOCAL CODES MAY REQUIRE OTHER INSTALLATION METHODS.

MARK	DESCRIPTION
07	CLIENT REQUIRED OPTIMIZATION TO ALLOW FOR MAXIMUM GLASS AREA AND ADDITION OF SMOOTH STUCCO FINISH

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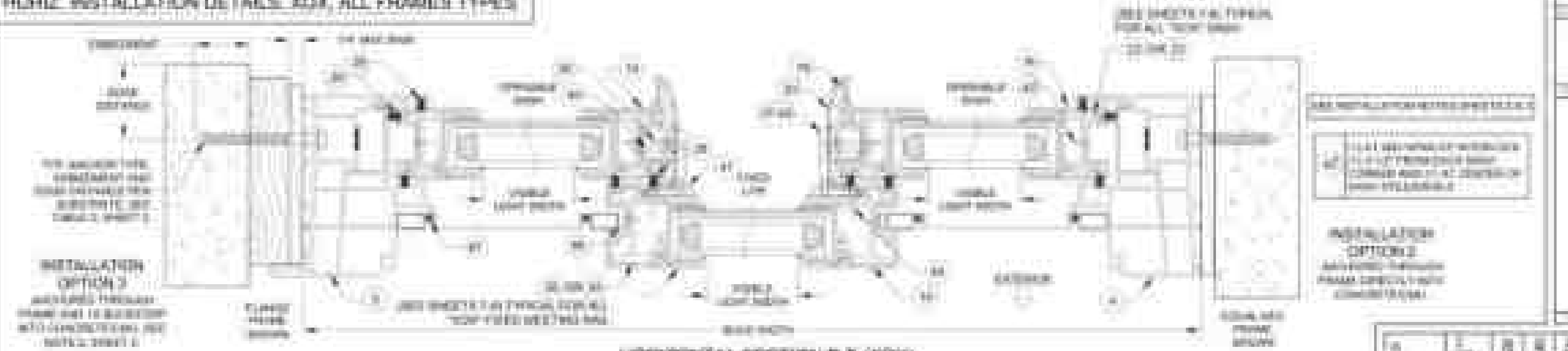
PGT INDUSTRIES
1070 TECHNOLOGY DRIVE
NORTH VENICE, FL 34275
941.486.8555

INSTALLATION DETAILS

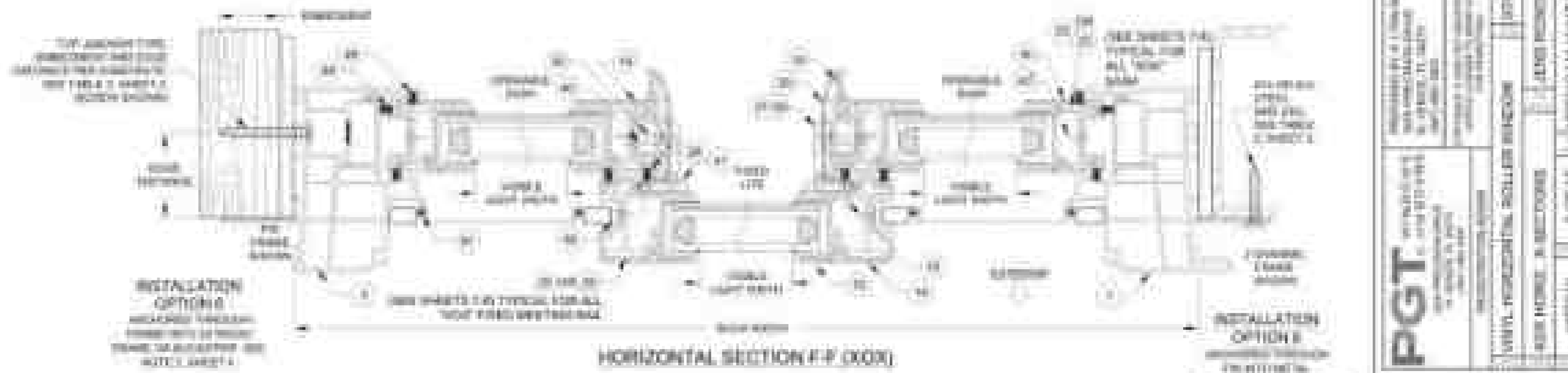
DRAWN BY: [illegible]
DATE: 11-20-14
SCALE: NTS
REVISED: 11-20-14
SHEET NO. 11 OF 11

STATE OF FLORIDA
PROFESSIONAL ENGINEER
[illegible]

HORIZ. INSTALLATION DETAILS: XOX, ALL FRAMES TYPES



HORIZONTAL SECTION E-E (XOX)



HORIZONTAL SECTION F-F (XOX)



3-ANCHOR CLUSTER DETAIL

3-ANCHOR CLUSTER DETAIL

4-ANCHOR CLUSTER DETAIL

5-ANCHOR CLUSTER DETAIL

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GLASS TYPE 1



GLASS TYPE 2



GLASS TYPE 3



GLASS TYPE 4



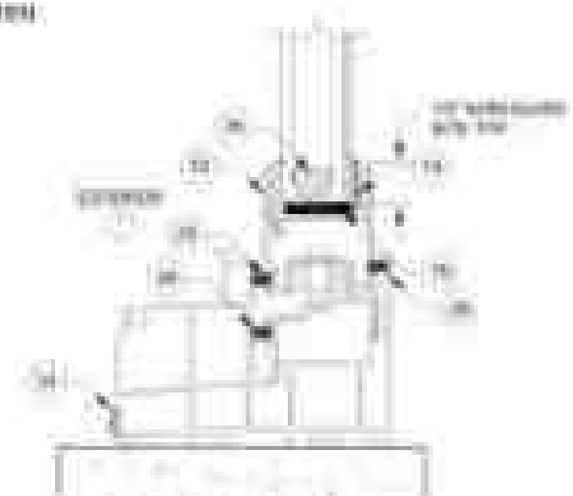
GLASS TYPE 5



GLASS TYPE 6



GLASS TYPE 7



TYP. GLAZING DETAIL

Glass Type	Description (Outboard to Inboard)
1	[illegible]
2	[illegible]
3	[illegible]
4	[illegible]
5	[illegible]
6	[illegible]
7	[illegible]

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SECTION DETAIL FOR WINDOWS WITH LEVEL-1 REINFORCEMENT

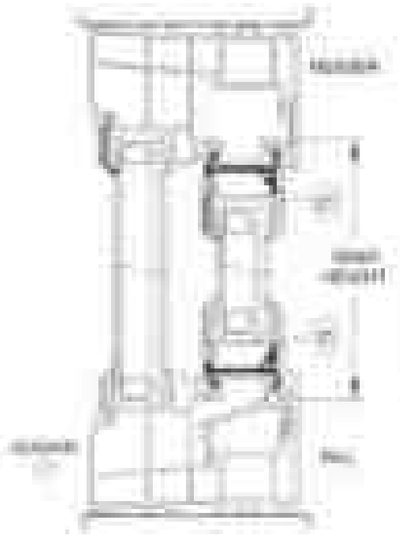


TABLE 1:

Head Type (1 & 2)	Design Pressure (lbs/ft²) for PG or CW Windows
[illegible]	[illegible]
[illegible]	[illegible]

SEE TABLE 1 FOR SPECIFICATIONS

SECTION DETAIL FOR WINDOWS WITH LEVEL-2 REINFORCEMENT



TABLE 1:

Head Type (1 & 2)	Design Pressure (lbs/ft²) for PG or CW Windows
[illegible]	[illegible]
[illegible]	[illegible]

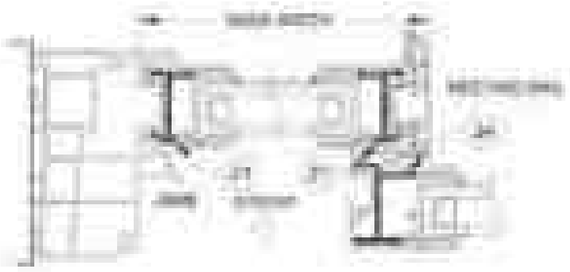
SEE TABLE 1 FOR SPECIFICATIONS

NOTES

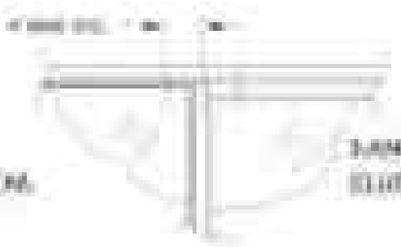
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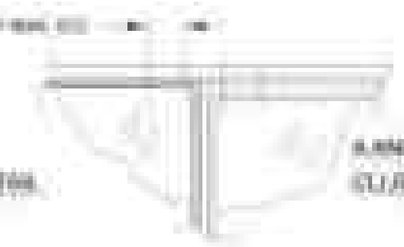
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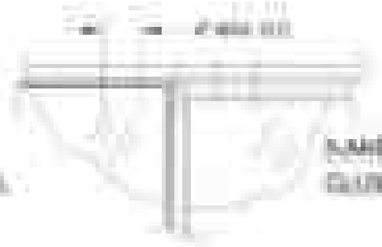
3-ANCHOR CLUSTER DETAIL



3-ANCHOR CLUSTER DETAIL



4-ANCHOR CLUSTER DETAIL



5-ANCHOR CLUSTER DETAIL

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[illegible]

[illegible]

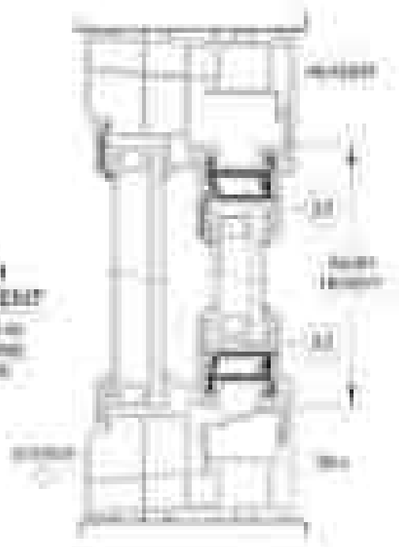
[illegible]

[illegible]

[illegible]

[illegible]

SECTION DETAIL FOR WINDOWS WITH LEVEL R3 REINFORCEMENT



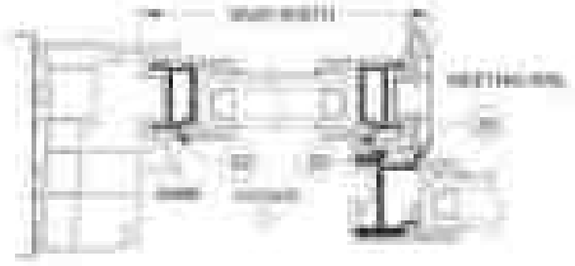


TABLE A

Outer Beam (A)	[illegible] Pressure (kg/m²) for 8 mm Gap Windows
[illegible]	[illegible]
[illegible]	[illegible]

TABLE B

[illegible]	Beam [illegible]	Gap Width [illegible]	[illegible] Pressure (kg/m²) for ATM Windows					
[illegible]			[illegible]		[illegible]		[illegible]	

TABLE 11

Glass Type & Thickness	Design Pressures (lbs/ft²) for #2 or #2 Weatherstrip			
Maximum Lite Width	Maximum Lite Height			
	36"	48"	60"	72"
Glass Type #1 (1/8" Annealed)	48"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	60"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	72"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0

TABLE 11

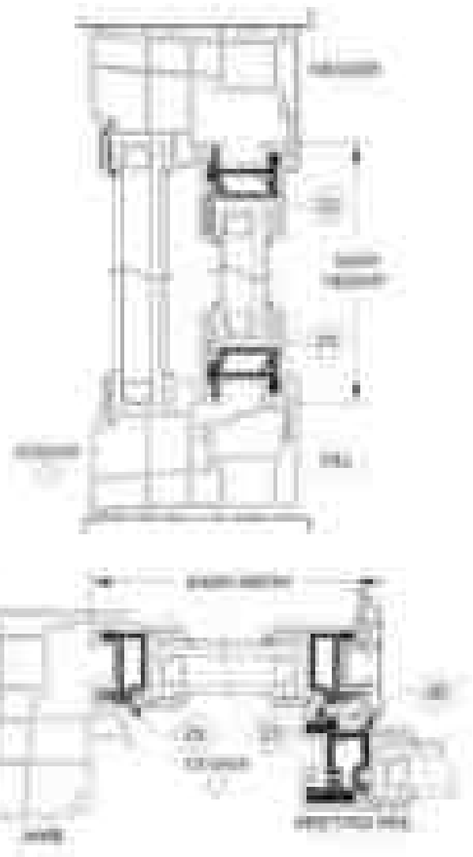
Glass Type & Thickness	Design Pressures (lbs/ft²) for #2 or #2 Weatherstrip
Maximum Lite Width	Maximum Lite Height
[illegible]	[illegible]

TABLE 12

Glass Type & Thickness	Design Pressures (lbs/ft²) for #2 or #2 Weatherstrip					
Maximum Lite Width	Maximum Lite Height					
	36"	48"	60"	72"	84"	96"
Glass Type #1 (1/8" Annealed)	48"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	60"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	72"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	84"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	96"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	108"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0

NOTE: TABLE VALUES DO NOT INCLUDE WITH LOAD OR RESISTANCE FACTORS

THESE VALUES ARE NOT INCLUSIVE OF LOAD OR RESISTANCE FACTORS



SECTION DETAIL
FOR WINDOWS WITH
LEVEL R4 REINFORCEMENT

ALL DIMENSIONS SHOWN IN PARENTHESES ARE IN MILLIMETERS. TYPICAL FOR ALL COMPONENTS.

NOTES:

1) USE THESE TABLES FOR ALL WINDOWS LISTED ABOVE WITH THE FRAME OR MULLION TYPES ILLUSTRATED ON THIS SHEET.

2) FRAME DIMENSIONS ARE SHOWN WITH MAXIMUM WIDTH AND HEIGHT. SEE SHEET 3 FOR MAXIMUM SIZE OF ALL FIXED TYPE WINDOWS.

3) FOR GLASS NOT SHOWN, REFER TO THE GLASS SPECIFICATIONS FOR THE GLASS THICKNESS AND DIMENSIONS AS PER TABLE.

4) FOR GLASS NOT SHOWN, REFER TO THE GLASS SPECIFICATIONS FOR THE GLASS THICKNESS AND DIMENSIONS AS PER TABLE.

TABLE 13

Glass Type & Thickness	Design Pressures (lbs/ft²) for #2 or #2 Weatherstrip					
Maximum Lite Width	Maximum Lite Height					
	36"	48"	60"	72"	84"	96"
Glass Type #1 (1/8" Annealed)	48"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	60"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	72"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	84"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	96"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	108"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0

NOTE: TABLE VALUES DO NOT INCLUDE WITH LOAD OR RESISTANCE FACTORS

THESE VALUES ARE NOT INCLUSIVE OF LOAD OR RESISTANCE FACTORS

TABLE 14

Glass Type & Thickness	Design Pressures (lbs/ft²) for #2 or #2 Weatherstrip					
Maximum Lite Width	Maximum Lite Height					
	36"	48"	60"	72"	84"	96"
Glass Type #1 (1/8" Annealed)	48"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	60"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	72"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	84"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	96"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0
	108"	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0	+50.0 / -50.0

NOTE: TABLE VALUES DO NOT INCLUDE WITH LOAD OR RESISTANCE FACTORS

THESE VALUES ARE NOT INCLUSIVE OF LOAD OR RESISTANCE FACTORS

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TABLE 15

Glass Types 1 & 7	Sash Width (IN)	Anchor Quantities for XO or OX Windows							
		12" Height	36" Height	48" Height	84" Height	12" Height	36" Height	48" Height	84" Height
Rough Opening (IN)		Head @ 6IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN
		Anchor Group A				Anchor Group E			
Rough Opening Width (IN)	23 1/2"	12 1/8"							
	24"	12 3/8"							
	30"	14 3/8"							
	36"	16 3/8"							
	42"	20 3/8"							
	48"	23 3/8"							
	54"	26 3/8"							
	60"	29 3/8"							
		Anchor Group B				Anchor Group D			
Rough Opening Width (IN)	23 1/2"	12 1/8"							
	24"	12 3/8"							
	30"	14 3/8"							
	36"	16 3/8"							
	42"	20 3/8"							
	48"	23 3/8"							
	54"	26 3/8"							
	60"	29 3/8"							

SEE TABLE 5 FOR DESIGN PRESSURE

TABLE 17

Glass Types 1, 4, 6 & 7	Sash Width (IN)	Anchor Quantities for XO or OX Windows							
		12" Height	36" Height	48" Height	84" Height	12" Height	36" Height	48" Height	84" Height
Rough Opening (IN)		Head @ 6IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN	Head @ 6 IN
		Anchor Group A				Anchor Group C			
Rough Opening Width (IN)	23 1/2"	12 1/8"	Not Allowed						
	24"	12 3/8"							
	30"	14 3/8"							
	36"	16 3/8"							
	42"	20 3/8"							
	48"	23 3/8"							
	54"	26 3/8"							
	60"	29 3/8"							
		Anchor Group B				Anchor Group D			
Rough Opening Width (IN)	23 1/2"	12 1/8"							
	24"	12 3/8"							
	30"	14 3/8"							
	36"	16 3/8"							
	42"	20 3/8"							
	48"	23 3/8"							
	54"	26 3/8"							
	60"	29 3/8"							

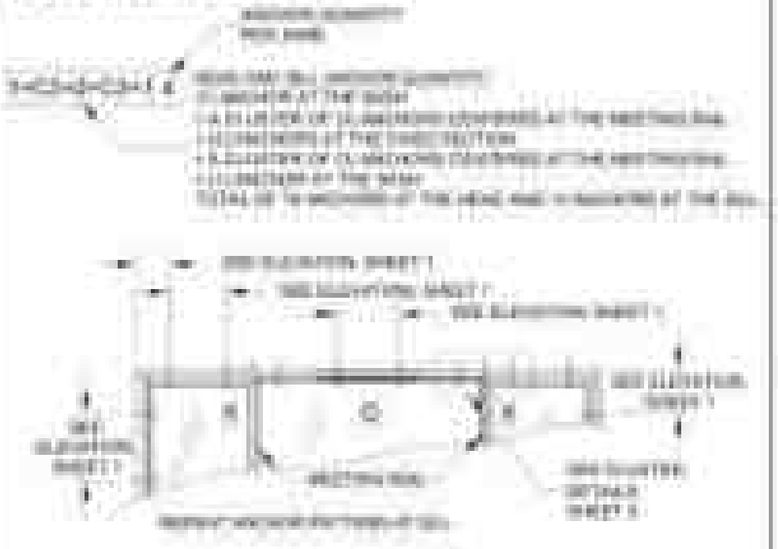
SEE TABLE 5 FOR DESIGN PRESSURE

Max Anchor O.C. Spacing for "Integrale Fin" Installation	Anchor Group A	12"
	Anchor Group B	6"

GUIDE TO USING ANCHOR QUANTITY TABLES FOR OX WINDOWS (XO SIMILAR)



FOR XOX WINDOWS



Max Anchor O.C. Spacing for "Integrale Fin" Installation	Anchor Group A	12"
	Anchor Group B	6"

NOTES:

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PGT INDUSTRIES
1070 PGT DRIVE
NORTH VENICE, FL 34275
(941) 486-0600

Anchor Quantities for XO or OX Windows

Check Rough Opening (R.O.)	Equal Quadrant (in)	15" Height	39" Height	63" Height	84" Height	123" Height	15" Height	39" Height	63" Height	84" Height	123" Height
Check Rough Opening (R.O.)		Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill
		Anchor Group A					Anchor Group B				
Width	24" – 35"	2 + 2	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1
	36"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	1 + 2 + 1	2 + 2 + 1
	48"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	60"	2 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	72"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	84"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	96"	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2
		Anchor Group A					Anchor Group B				
Width	24" – 35"	2 + 2	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1
	36"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	1 + 2 + 1	2 + 2 + 1
	48"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	60"	2 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	72"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	84"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	96"	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2

Anchor Quantities for XO or OX Windows

Check Rough Opening (R.O.)	Equal Quadrant (in)	15" Height	39" Height	63" Height	84" Height	123" Height	15" Height	39" Height	63" Height	84" Height	123" Height
Check Rough Opening (R.O.)		Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill	Head & Sill
		Anchor Group A					Anchor Group B				
Width	24" – 35"	2 + 2	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1
	36"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	48"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	60"	2 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	72"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	84"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	96"	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2
		Anchor Group A					Anchor Group B				
Width	24" – 35"	2 + 2	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1
	36"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	48"	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	60"	2 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	1 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	72"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	84"	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1	2 + 2 + 1
	96"	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2	2 + 2 + 2

Max. Anchor O.C. Spacing for "Integral Fin" Installation
Anchor Group C
6"

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Anchor Quantities for XO or OX Windows

Glass Type & Rough Opening (R.O.)	Rough Opening (R.O.)	36" Height		39" Height		45" Height		54" Height		57" Height		63" Height		69" Height		75" Height		81" Height	
Rough Opening (R.O.) Width		Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
		Anchor Group A										Anchor Group C							
36 1/8"	12 1/4"	N/A (Already)										1	4	1	4	1	4	1	4
39"	13 1/2"											1	4	1	4	1	4	1	4
45"	15 3/4"											1	4	1	4	1	4	1	4
54"	20 3/4"											1	4	1	4	1	4	1	4
57"	21 3/4"											1	4	1	4	1	4	1	4
63"	25 3/4"											2	4	2	4	2	4	2	4
69"	28 3/4"											2	4	2	4	2	4	2	4
		Anchor Group B										Anchor Group D							
36 1/8"	12 1/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
39"	13 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
45"	17 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
54"	20 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
57"	21 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
63"	25 3/4"	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4
69"	28 3/4"	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4

Max. Anchor O.C. Spacing for "Integral-Fin" Installation	Anchor Group A	4"

NOTES:
1. FRAME DIMENSIONAL AND JAMB WIDTH AND JAMB HEIGHT ARE SHOWN IN ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
2. FOR SIZES NOT SHOWN, INSTALL AT TO THE NEXT LARGER SIZE FOR WEIGHT CALCULATIONS SHOWN ON THIS TABLE.
3. SEE SHEET 10 FOR A TO SEE TYPICAL ANCHOR LAYOUT.

Anchor Quantities for XO or OX Windows

Glass Type & Rough Opening (R.O.)	Rough Opening (R.O.)	36" Height		39" Height		45" Height		54" Height		57" Height		63" Height		69" Height		75" Height		81" Height	
Rough Opening (R.O.) Width		Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
		Anchor Group A										Anchor Group C							
36 1/8"	12 1/4"	N/A (Already)										1	4	1	4	1	4	1	4
39"	13 3/4"											1	4	1	4	1	4	1	4
45"	17 3/4"											1	4	1	4	1	4	1	4
54"	20 3/4"											1	4	1	4	1	4	1	4
57"	21 3/4"											1	4	1	4	1	4	1	4
63"	25 3/4"											2	4	2	4	2	4	2	4
69"	28 3/4"											2	4	2	4	2	4	2	4
		Anchor Group B										Anchor Group D							
36 1/8"	12 1/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
39"	13 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
45"	17 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
54"	20 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
57"	21 3/4"	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
63"	25 3/4"	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4
69"	28 3/4"	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4

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REGISTERED PROFESSIONAL ENGINEER

Anchor Quantities for P2A Mullions

Mullion Type / P2A #	Load Duration	Mullion Length	24" Height	24" Height	48" Height	48" Height	72" Height	72" Height	96" Height	96" Height	120" Height	120" Height	144" Height	144" Height	168" Height	168" Height	192" Height	192" Height
Anchor Group A																		
24 3/8"																		
30"																		
36 3/8"																		
42 3/8"																		
48"																		
54"																		
60"																		
66"																		
72"																		
78"																		
84"																		
90"																		
Anchor Group B																		
24 3/8"																		
30"																		
36 3/8"																		
42 3/8"																		
48"																		
54"																		
60"																		
66"																		
72"																		
78"																		
84"																		
90"																		

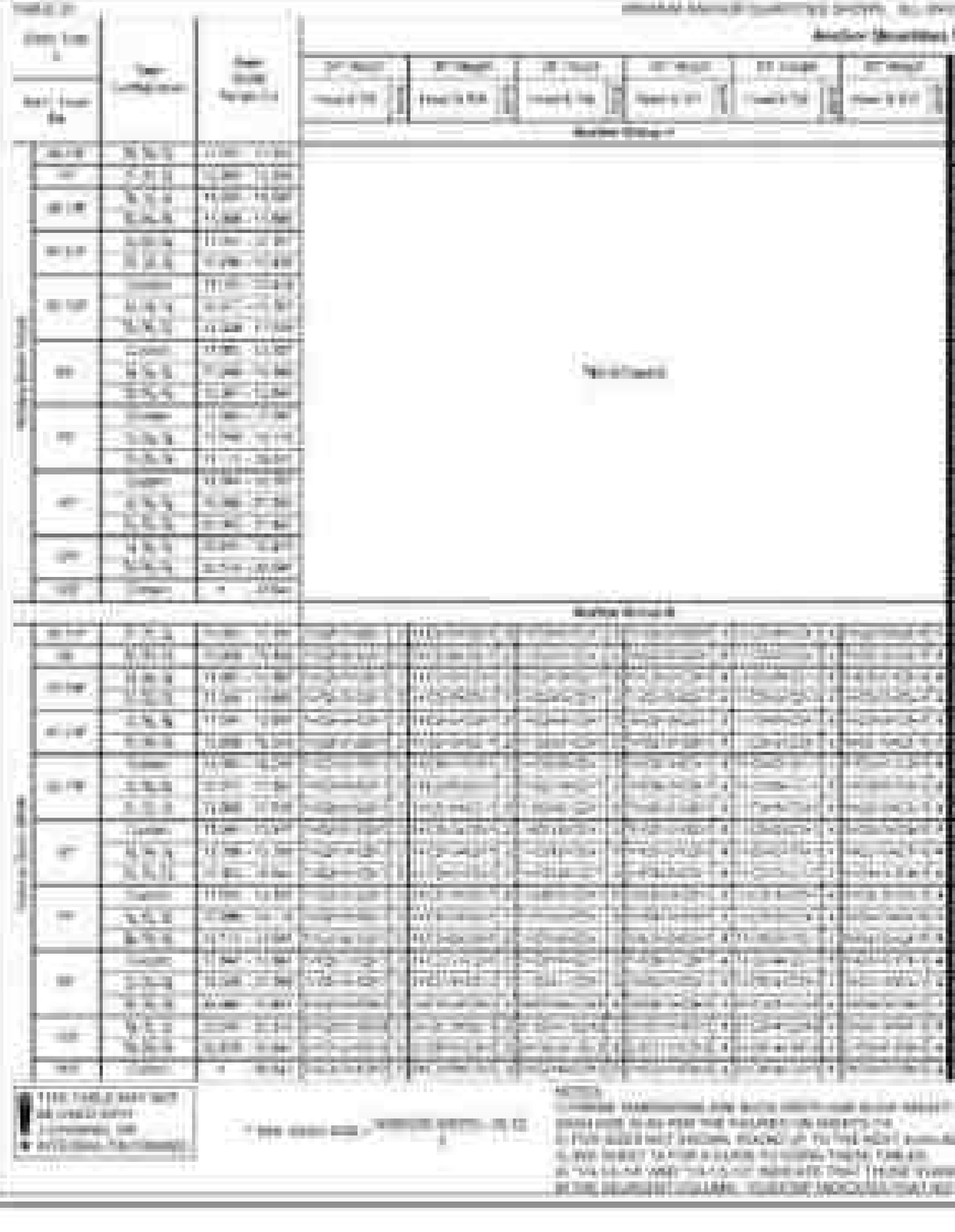
Max. Anchor O.C. Spacing for "Integral-Fin" Installation	Anchor Group A	Anchor Group B

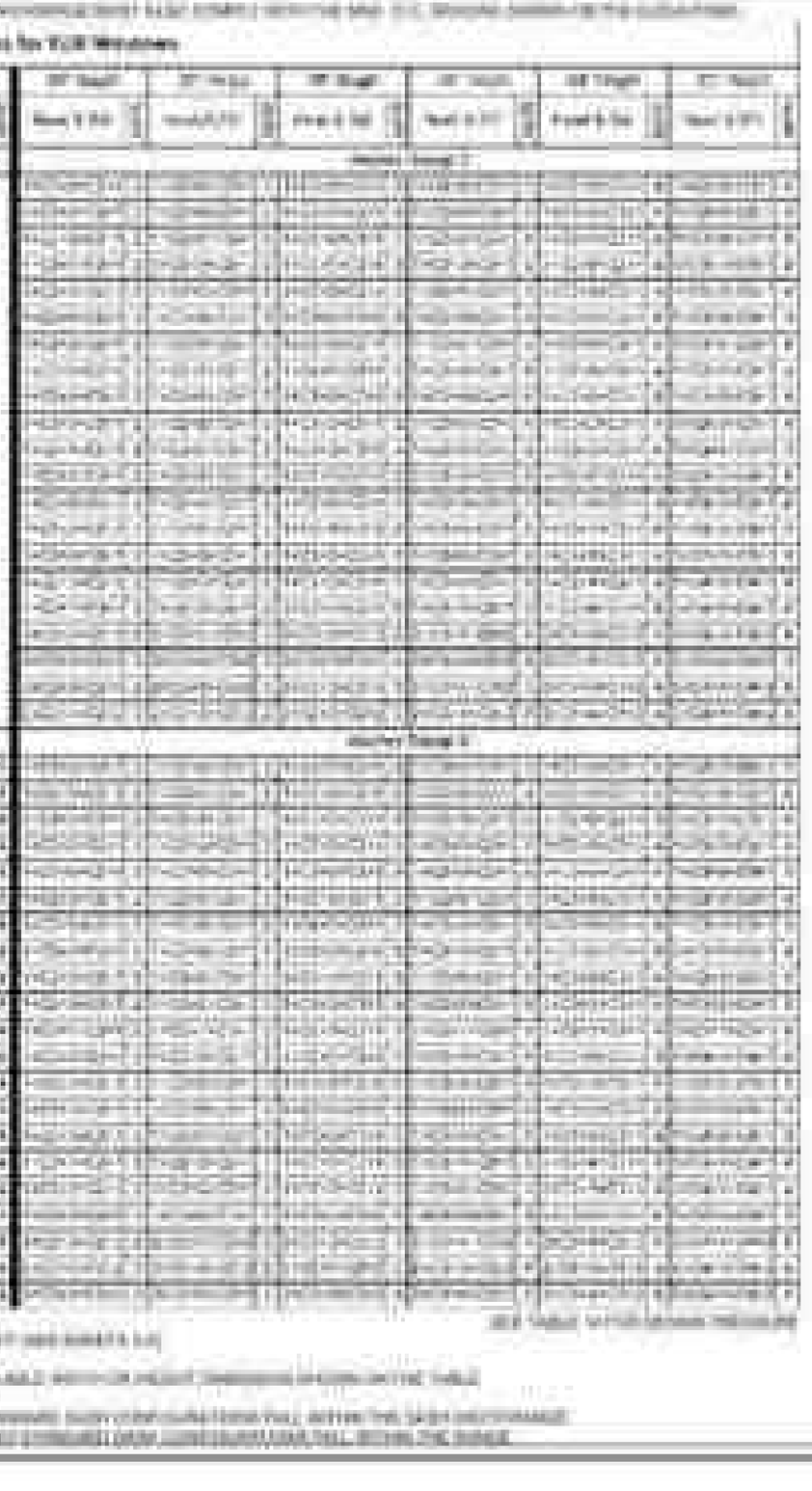
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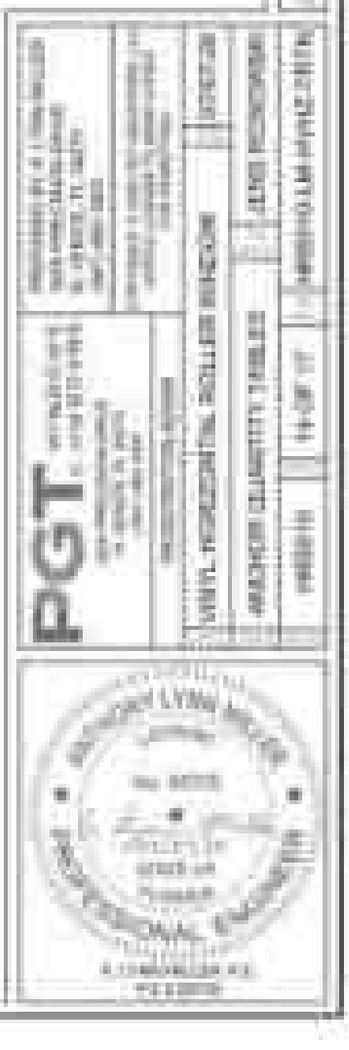
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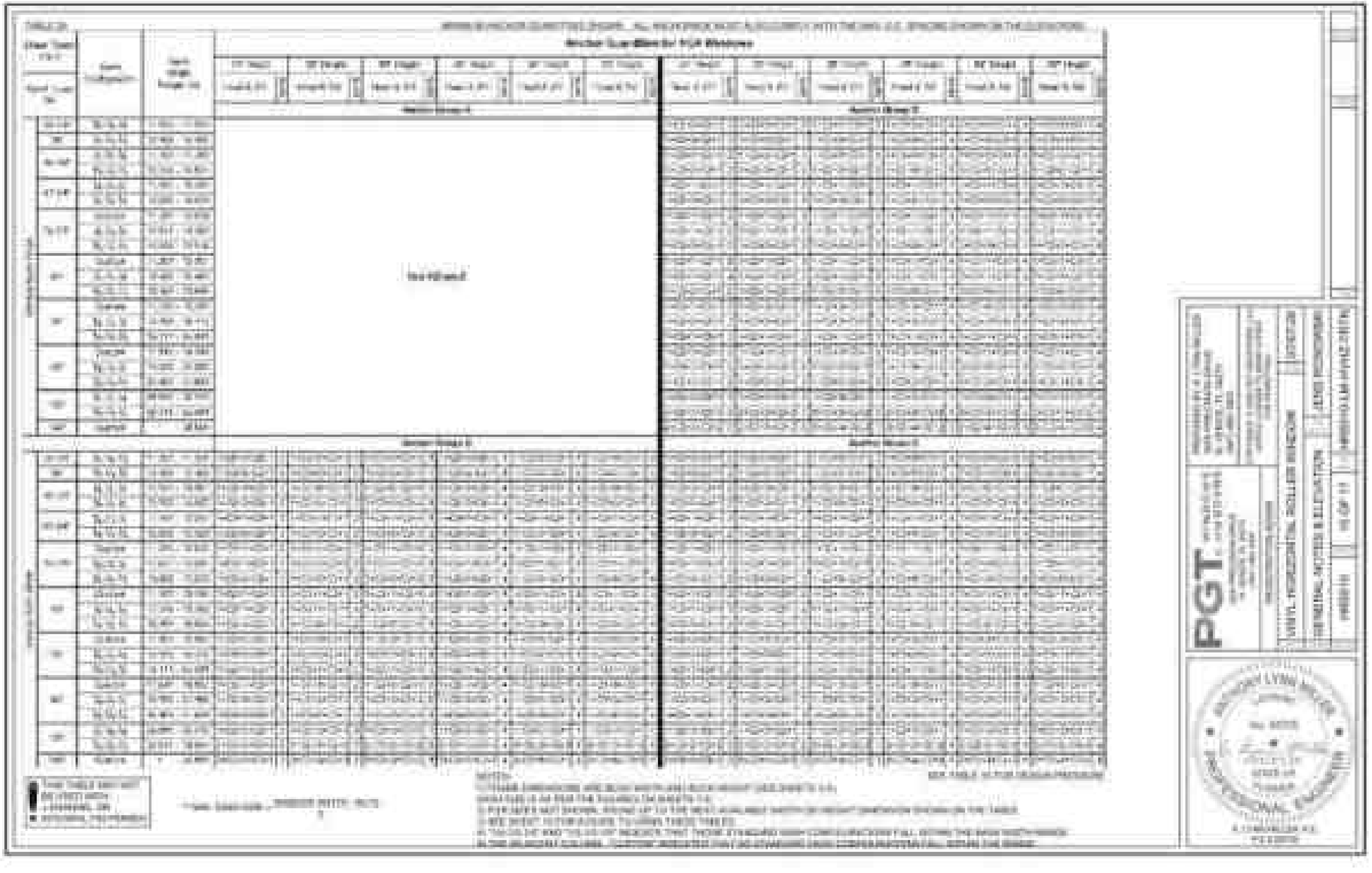
PRELIMINARY

Anchor Quantities for V.I.P. Windows



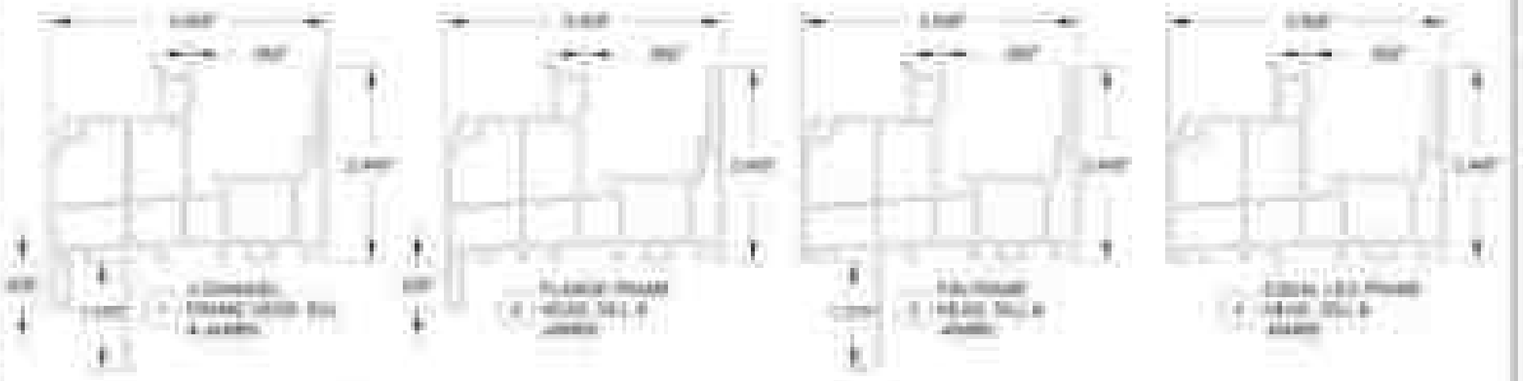


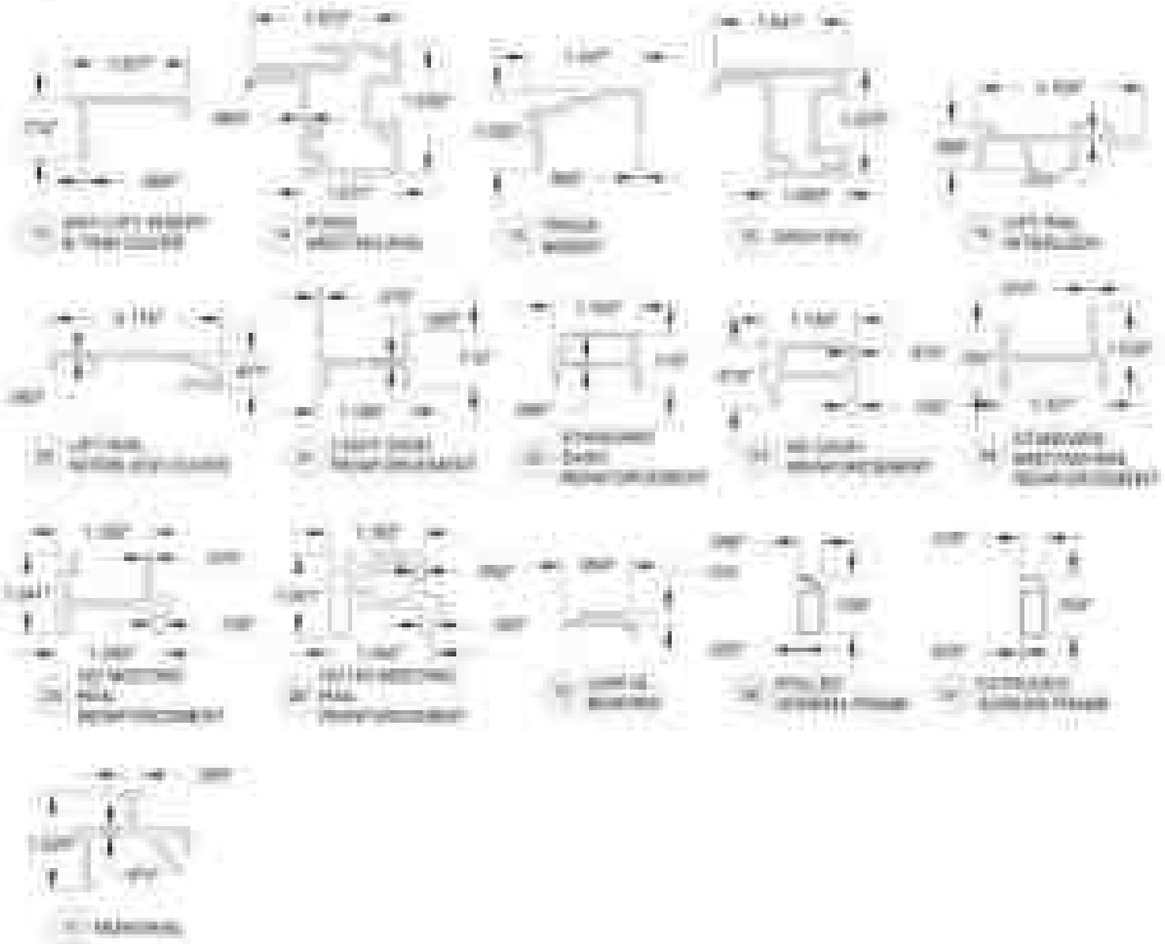




Bill of Material

#	Part #	Description	Material
1	[illegible]	Frame Head, Sill and Jamb - Unfinished	[illegible]
2	[illegible]	Frame Head, Sill and Jamb - Flange	[illegible]
3	[illegible]	Frame Head, Sill and Jamb - Sill	[illegible]
4	[illegible]	Frame Head, Sill and Jamb - Track Leg	[illegible]
5	[illegible]	Astragal Insert - Non-Glass	[illegible]
6	[illegible]	Astragal Weeping Rail	[illegible]
7	[illegible]	Track Gasket	[illegible]
8	[illegible]	Sash Rail (Glass, Top & Bottom)	[illegible]
9	[illegible]	Stop Gasket	[illegible]
10	[illegible]	Fixed Rail Interlock	[illegible]
11	[illegible]	Fixed Rail Interlock Gasket	[illegible]
12	[illegible]	Lower Track Reinforcement	[illegible]
13	[illegible]	Operator Sash Reinforcement	[illegible]
14	[illegible]	Fixed Sash Reinforcement	[illegible]
15	[illegible]	Operator Meeting Rail Reinforcement	[illegible]
16	[illegible]	Fixed Meeting Rail Reinforcement	[illegible]
17	[illegible]	Fixed Astragal Meeting Rail Reinforcement	[illegible]
18	[illegible]	#10 x 1-1/2" Pan Phil SMS (Operator Screw)	[illegible]
19	[illegible]	Weatherstrip - 180° x .075" Fin Flex	
20	[illegible]	Weatherstrip - 180° x .220" Fuzz Flex	
21		#8 x 1" Pan Phil SMS (Astragal Meeting Screw)	[illegible]
22	[illegible]	#8 x 2-1/2" Pan Phil SMS (Fixed Meeting Rail Screw)	[illegible]
23	[illegible]	Meeting Rail Screw Support Plate	[illegible]
24	[illegible]	Wear Strip Cover	[illegible]
25	[illegible]	Sash Lock Handle Hole Plug	[illegible]
26	[illegible]	Auto Lock	[illegible]
27	[illegible]	Deadbolt Lock	Cast Zinc
28	[illegible]	Auto Lock Cover Assembly	Cast Zinc
29		#8 x 1.25" Pan Phil SMS (Auto and Deadbolt Lock Screw)	[illegible]
30	[illegible]	Auto and Deadbolt Lock Keeper	Cast Zinc
31	[illegible]	#8 x 3/4" Pan Phil SMS (Keeper Screw)	[illegible]
32	[illegible]	#8 x 1.25" Pan Phil SMS (Auto Lock Reinforcement Screw)	[illegible]
33		Deadbolt Top Cover Key	Nylon
34		Deadbolt Bottom Cover Key	Nylon
35		Lockbolt Top Cover Key	Nylon
36		Lockbolt Bottom Cover Key	Nylon
37	[illegible]	Wheel	Nylon
38	[illegible]	Lens, Up Arrow	[illegible]
39		Electrostatic Gel .7100 at Over Fin at Over Mill	Silicone
40	[illegible]	Spacer Block (.738" x 2" x .187") 80 +/- 5 Shore	EPDM
41	[illegible]	Pan Armrest Screws	Alum
42	[illegible]	Extruded Screen Frame	Alum
43		Extruded Screen Spacer Bar	Alum
44	[illegible]	Screen Corner Key with Pull Ring	[illegible]
45	[illegible]	Screen Corner Key No Pull Ring	[illegible]
46	[illegible]	Tension Spring	SS
47	[illegible]	Screen Cloth	Fiberglass
48	[illegible]	1.187" Screen Spline (Attached Here Related)	Vinyl







SASH ASSEMBLY DETAILS

SCREEN ASSEMBLY DETAILS

FRAME ASSEMBLY DETAILS

EGRESS LOCK DETAILS

Egress Lock Bill of Material			
#	Part #	Description	Material

PGT