Engineering Evaluation Report # DH5560-08202026

Prepared by:
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Florida Registration: #29296

Manufacturer:
PGT Custom Windows & Doors
3400 Precision Dr.
N. Venice, FL 34275

Product Description:
DH5560 Series Impact-Resistant Vinyl Double Hung Window, (LM), FL-7058

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).

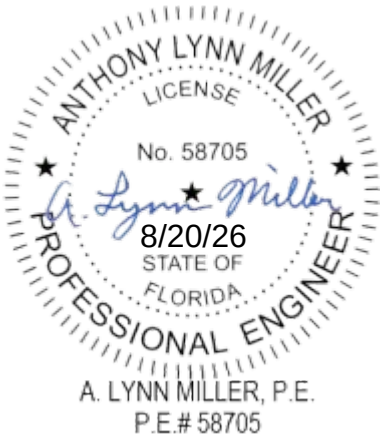
Supporting Technical Documentation:
1. Approval Document: Drawing number DH5560-LM-HVHZ, signed and sealed by A. Lynn Miller, P.E.
2. Test Report No.: FTL-8006 & 8007, signed and sealed by Idalmis Ortega, P.E.
Fenestration Testing Laboratories, Medley, FL 33166

TAS 201-94 Large Missile Impact Test
TAS 202-94 Uniform Static Air Pressure Test
TAS 203-94 Cyclic Pressure Loading Test

3. Calculations, signed and sealed by A. Lynn Miller, P.E., dated 07/30/15 & 3/13/20.

4. Miami-Dade RER Product Control Section NOA’s; PVB 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 document.



SERIES CH 6000

IMPACT RESISTANT DOUBLE HUNG WINDOW

1) THIS PRODUCT AND DESIGN SHOWN IS TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2) WHERE TYPES ARE NOT REQUIRED IN WHOLE HOUSE IN WIND-BORNE DEBRIS REGIONAL EQUIVALENT OR GLAZED PORTIONS ABOVE 30' IN THE HVHZ, THIS OPTIONAL LITE CAN BE USED.

3) ALL WOOD MULLION LESS THAN 1-1/2" (38mm) ARE TO BE CONSIDERED TO BE STEEL REINFORCED. WOOD MULLION LESS THAN 1-1/2" (38mm) OR OPERATOR, OR WHICH EXCEED WEIGHT LIMITS, SHALL BE DETERMINED AND SECURED TO APPROPRIATE SUPPORTING LOADS TO THE STRUCTURE. SPECIFIC PLATE DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER, WORK OR ON BEHALF OF RECORD (SEAL).

4) MINIMUM CLEARANCE: TO WOOD MATERIAL SHALL BE OBTAINED WHEN OPERATING THE OPERATOR. USE UNDERSIDE OF SUPPLIED WOOD LENGTH TO ALLOW FOR CLEARANCE OF SHALL BE SUBJECT TO WORK AND/OR REMOVAL OF ANY ALLOWED SHALL BE SUBJECT TO WORK AND/OR REMOVAL THE SCOPE OF THESE INSTRUCTIONS.

5) SEAL THE SCREW AND DESIGNATED AT EACH MULLION LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE (USE SHIM) OVERALL OF SHIM SHALL BE USED AT EACH SCREW AND MULLION LOCATION. FOR APPLYING THE PRIMED METAL SHIMS AT MAX. OF 1/2".

6) GLAZING SPECIFICS:
A. GROUP OF GLAZING GLASS SHALL BE OPTIONAL GLASS TEST PROCEDURE. PLEASE REFER TO THE GLASS PER NOTES.
B. FOR THE GLAZING GLASS SHALL BE AS PER TEST PROCEDURE. AT PROTECTIVE GLASS TEST PROCEDURE. PLEASE REFER TO THE GLASS PER NOTES.
C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

7) THE MANUFACTURE METHOD WHICH HAVE BEEN DESIGNED TO MEET THE WIND LOAD CURVE PRESSURE TO THE REQUIRED DESIGN PRESSURE, THE DESIGN PRESSURE HAS NOT BEEN USED AT THE DESIGN OF THIS PRODUCT. THE DESIGN LOAD FOR THIS PRODUCT IS NOT TO BE USED FOR THE INSTALLATION OF WINDOWS WITH WOOD GRADING THAT COME INTO CONTACT WITH EXTERIOR ENVIRONMENT SUCH AS SOIL. MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CONCRETE RESISTANCE.

8) WHERE FLASHING IS REQUIRED, THE FLASHING IS TO BE INSTALLED IN FIELD TO COMPLY WITH FLORIDA BUILDING CODE.

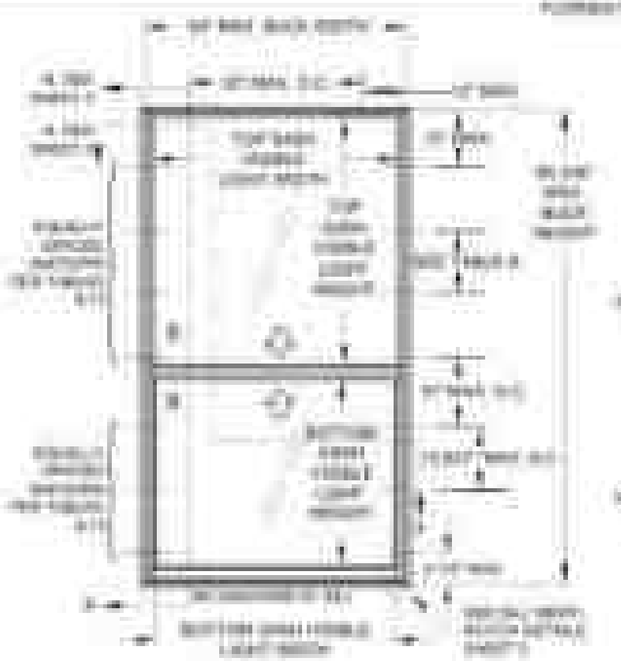
9) FRAME FLANGES OR INTERNAL FINS MAY BE TRIMMED IN FIELD TO COMPLY WITH FLORIDA BUILDING CODE.

SEE SHEET 2 FOR ADDITIONAL NOTES

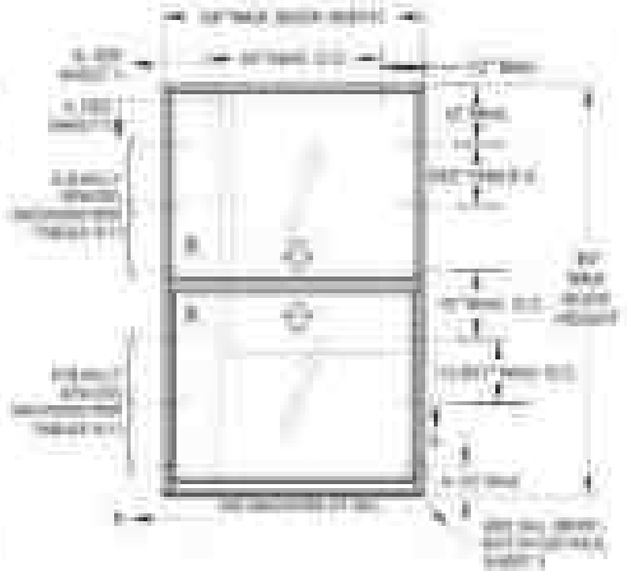
WHERE THE PRODUCT IS TO BE INSTALLED WITHIN 5 FEET OF A BODY OF WATER (SWIMMING POOL, SPA, ETC.) WITH GLASS WITHIN 5' OF THE PWC, IT SHALL BE TEMPERED OR EQUIVALENT AS PER THE FBC RESIDENTIAL.

GENERAL NOTES & ELEVATIONS	1
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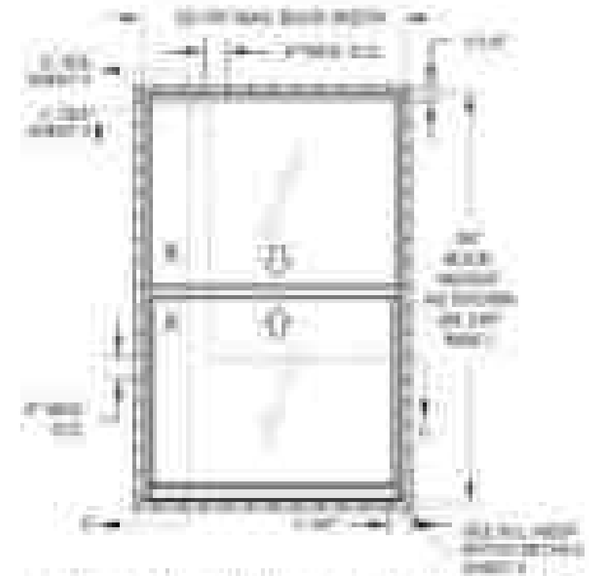
VISIBLE LIGHT FORMULAS
WIDTH:
HEIGHT:



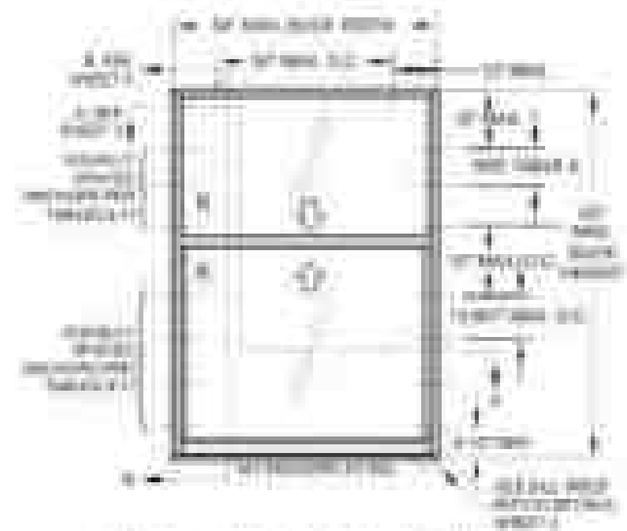
ELEVATION FOR TYP. FLANGE FRAME
SHOWN WITH DBL/PROVIEW CONFIGURATION



ELEVATION FOR TYP. EQUAL LEG FRAME
SHOWN WITH EQUAL LITE CONFIGURATION



ELEVATION FOR TYP. P/N DR / CHANNEL FRAME
SHOWN WITH EQUAL LITE CONFIGURATION
(MEETING RAIL THROUGH THE MULLION)



ELEVATION FOR TYP. FLANGE FRAME
SHOWN WITH STANDARD COTTAGE CONFIGURATION

DESIGN PRESSURE RATING
WATER TEST PROCEDURE
IMPACT TEST PROCEDURE
LAMINATED GLASS IMPACT RESISTANT WHOLE LITE ALL 3

PGT

SERIES CH 6000
IMPACT RESISTANT DOUBLE HUNG WINDOW

USER INSTRUCTIONS



TYP. GLAZING DETAIL



PGT

INSTALLATION DETAILS FOR FLANGE & EQUAL-LEG/BOX FRAMES

INSTALLATION OPTION 1

INSTALLATION OPTION 2

INSTALLATION OPTION 3

HORIZONTAL SECTION A-A

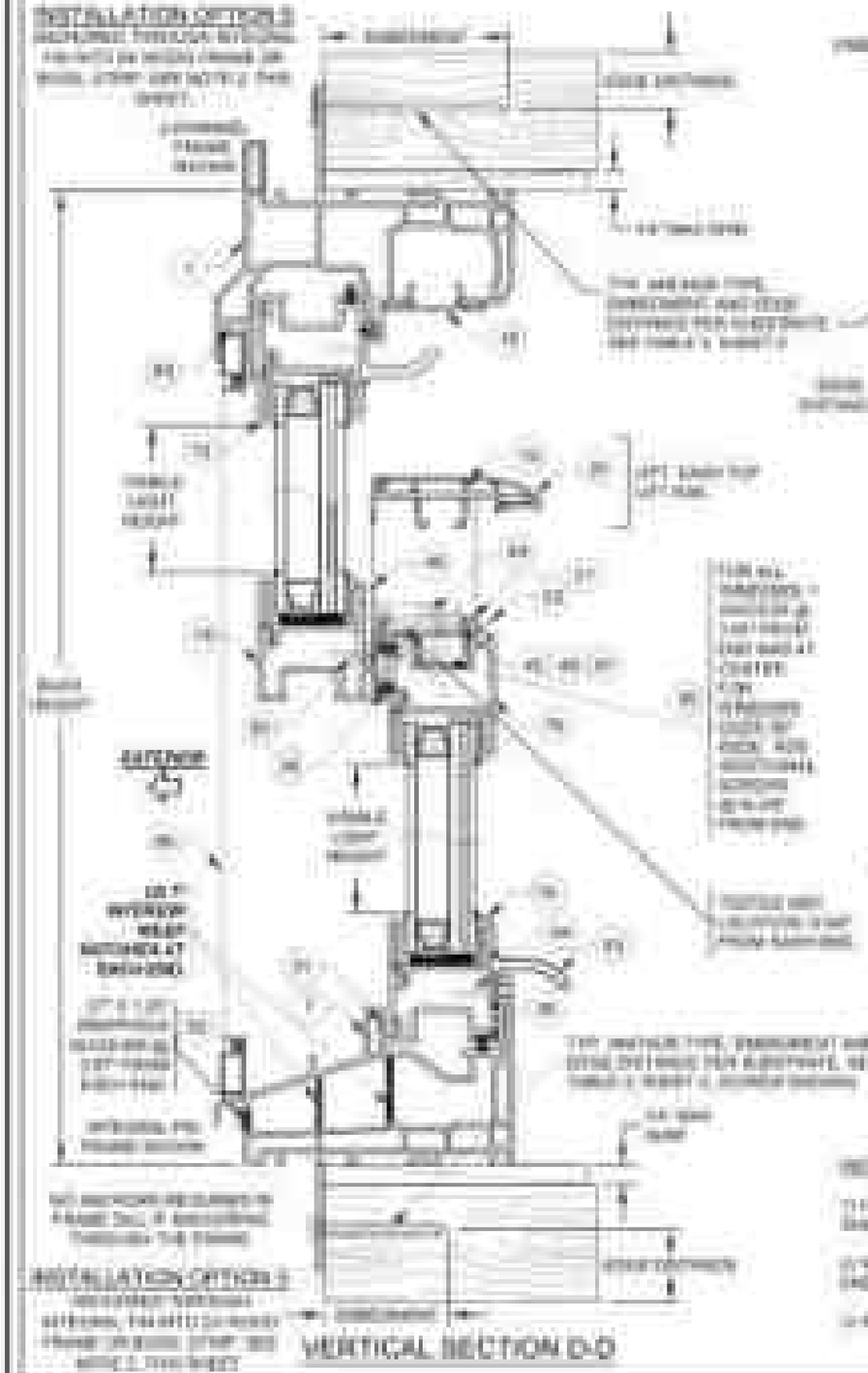
INSTALLATION OPTION 4

INSTALLATION OPTION 4

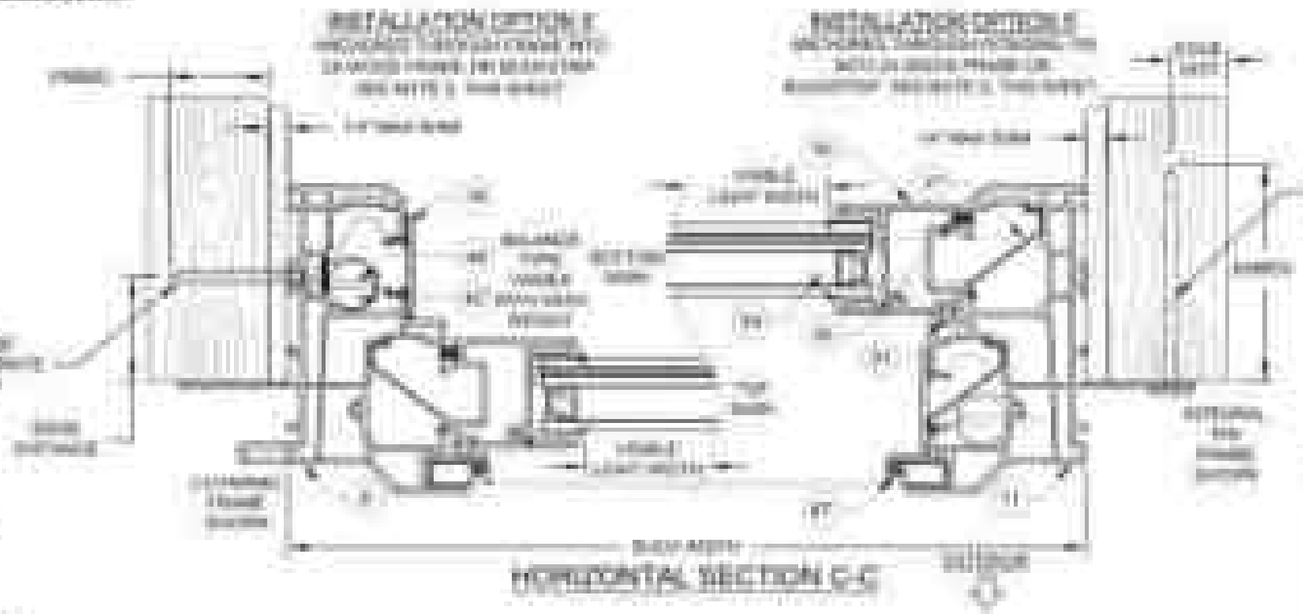
VERTICAL SECTION B-B

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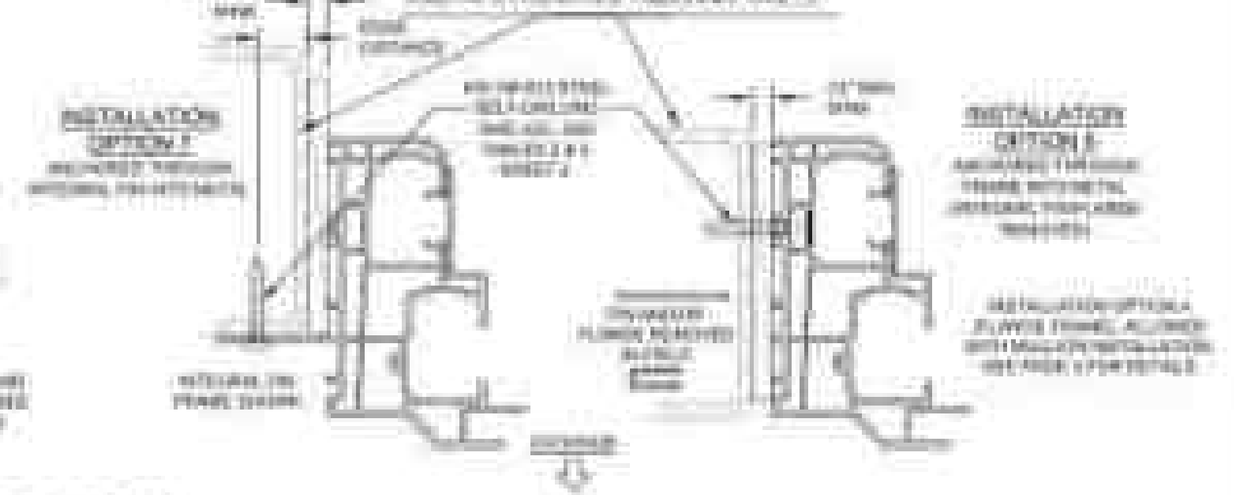
INSTALLATION DETAILS FOR INTEGRAL FIN & J-CHANNEL FRAMES

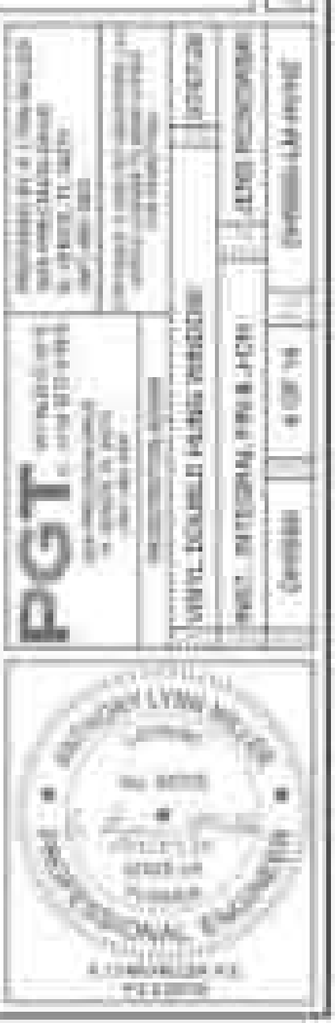


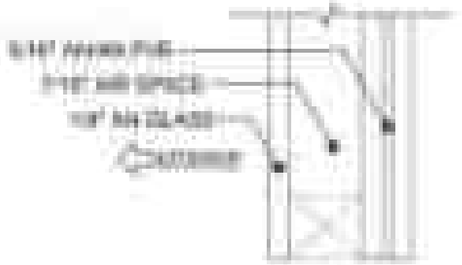
VERTICAL SECTION D-D



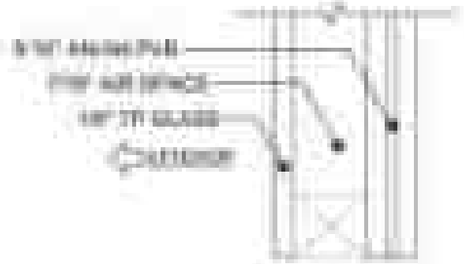
HORIZONTAL SECTION C-C



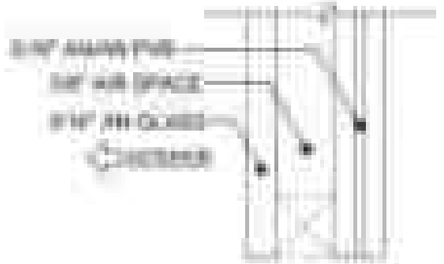




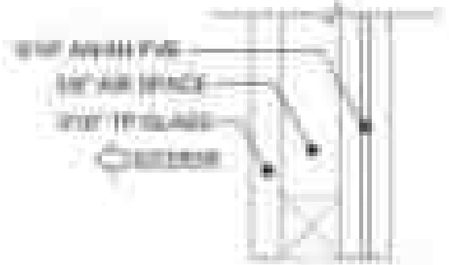
GLASS TYPE 5



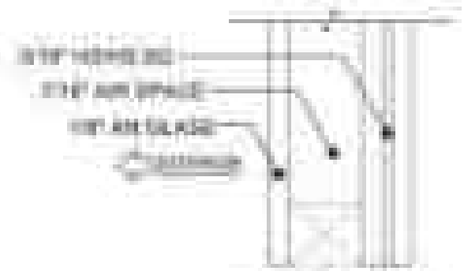
GLASS TYPE 6



GLASS TYPE 7



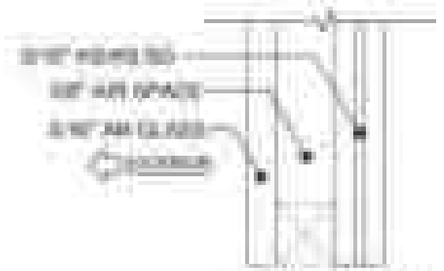
GLASS TYPE 8



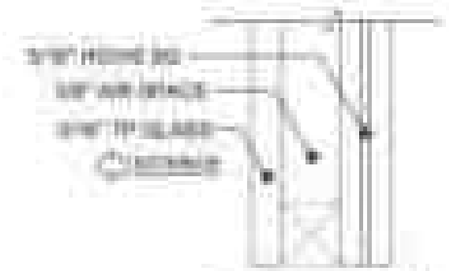
GLASS TYPE 9



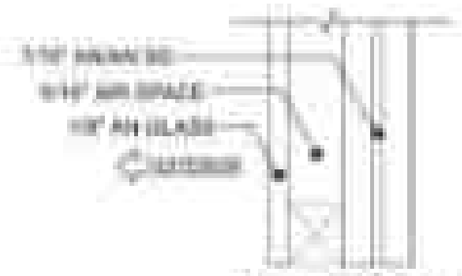
GLASS TYPE 10



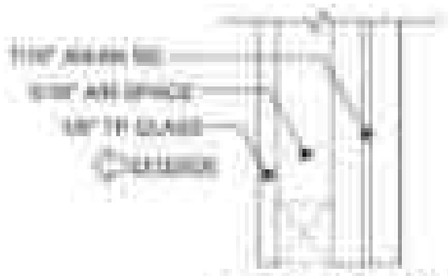
GLASS TYPE 11



GLASS TYPE 12



GLASS TYPE 13



GLASS TYPE 14



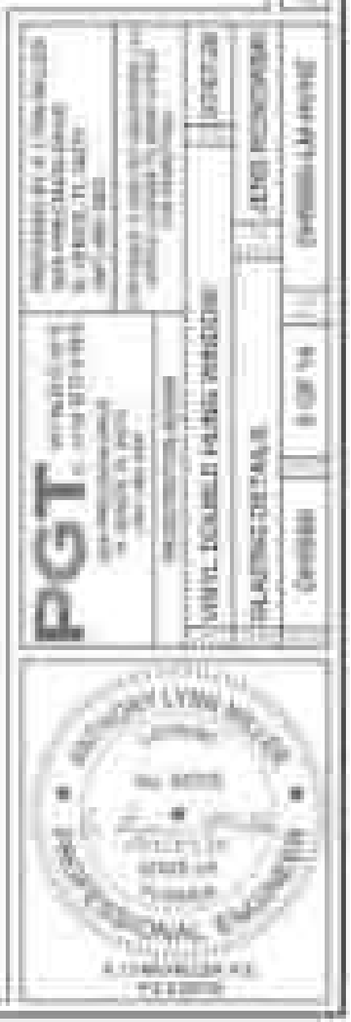
GLASS TYPE 15

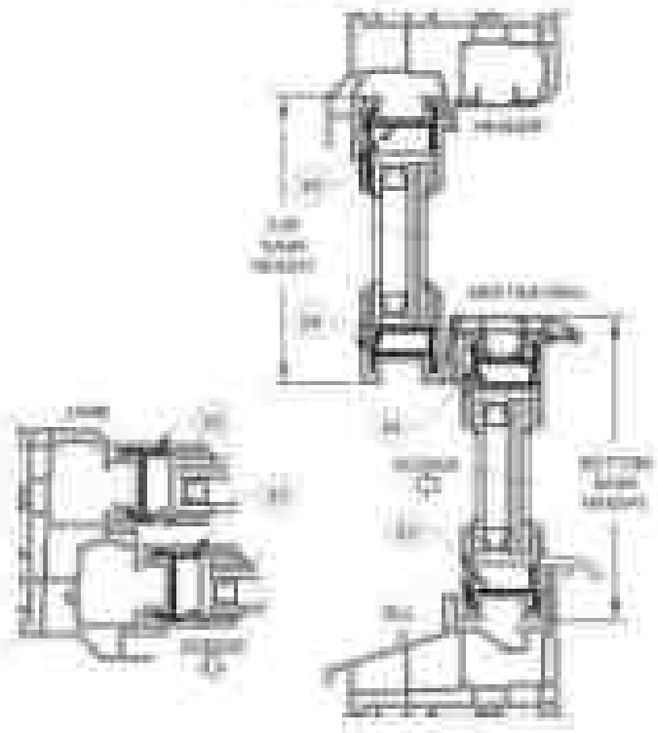


GLASS TYPE 16

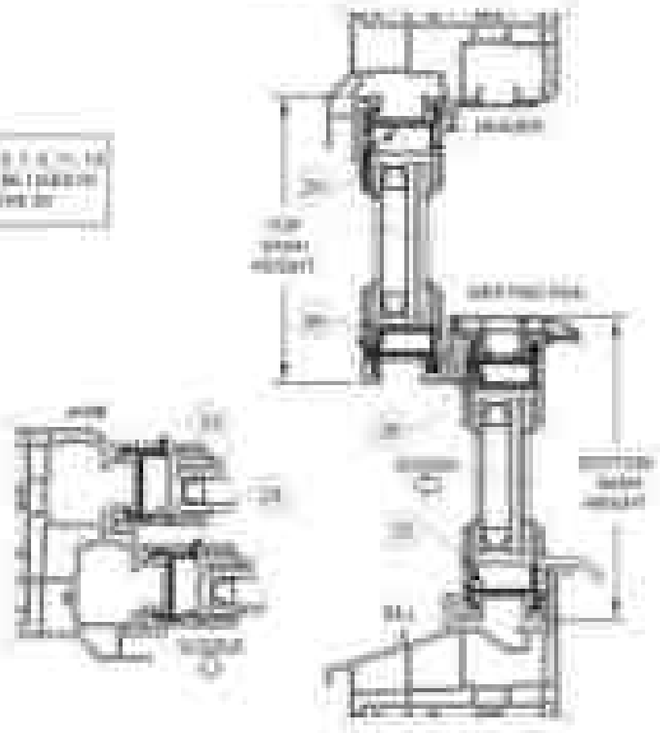








SECTION DETAIL FOR WINDOWS WITH
LIVING ROOM SIDE INCREMENT & GLASS TYPES 3-6



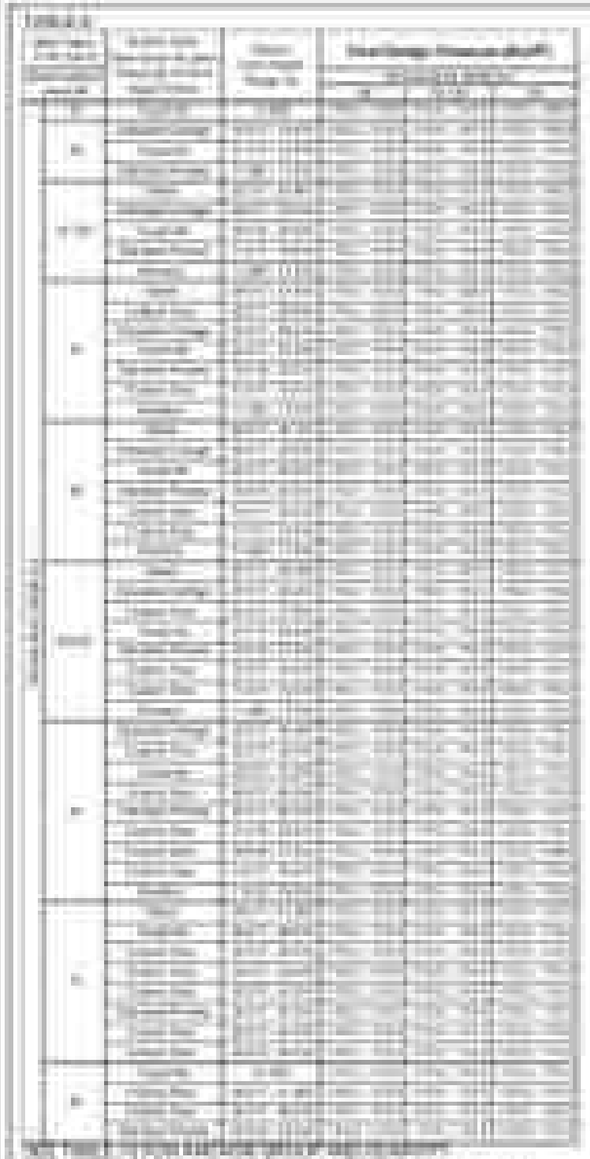
SECTION DETAIL FOR WINDOWS WITH
LIVING ROOM SIDE INCREMENT & GLASS TYPES 8-9

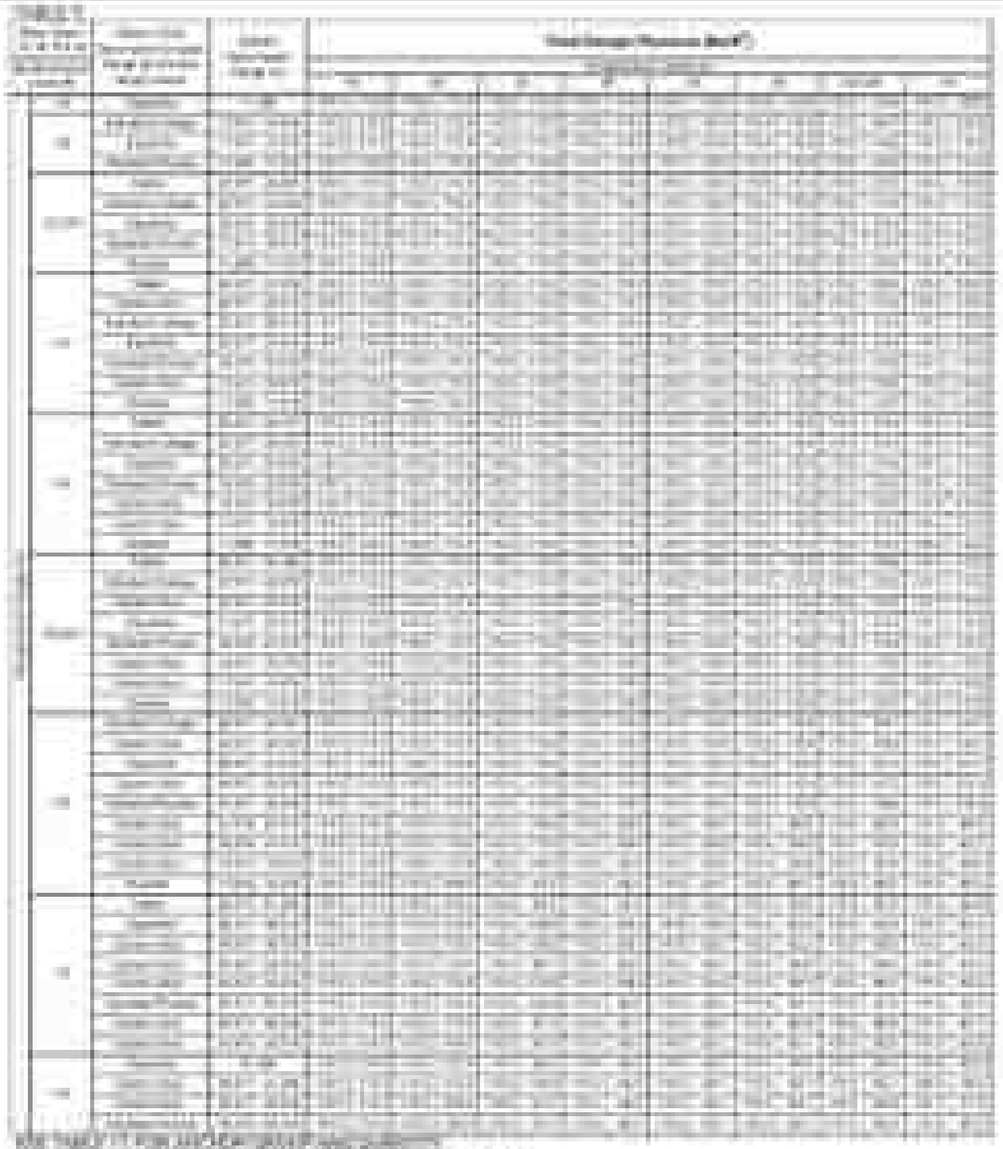
NOTES:

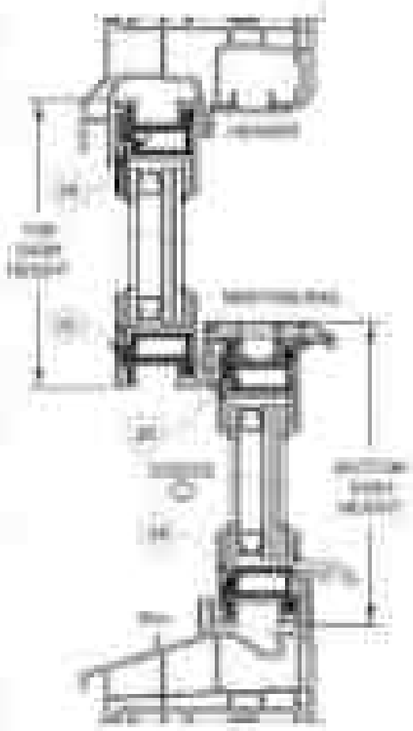
1. USE THIS TABLE FOR ALL WINDOWS INSTALLED THROUGHOUT THE PROJECT OR HOUSE, UNLESS OTHERWISE NOTED ON THE PLANS.
2. FRAME DIMENSIONS ARE BASED ON NAFS DESIGN PRESSURE RATINGS AS SHOWN IN THE TABLES.
3. FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT EVEN SIZE WIDTH OR HEIGHT DIMENSION SHOWN IN THE TABLE.
4. ROUGH OPENINGS SHOWN IN TABLES ARE FOR WOOD BUCKS. ADD 1/2" TO ALL FRAME TYPES A-J FOR MASONRY BUCKS.

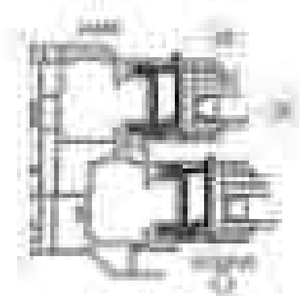
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REGISTERED
PROFESSIONAL
ENGINEER
STATE OF
FLORIDA







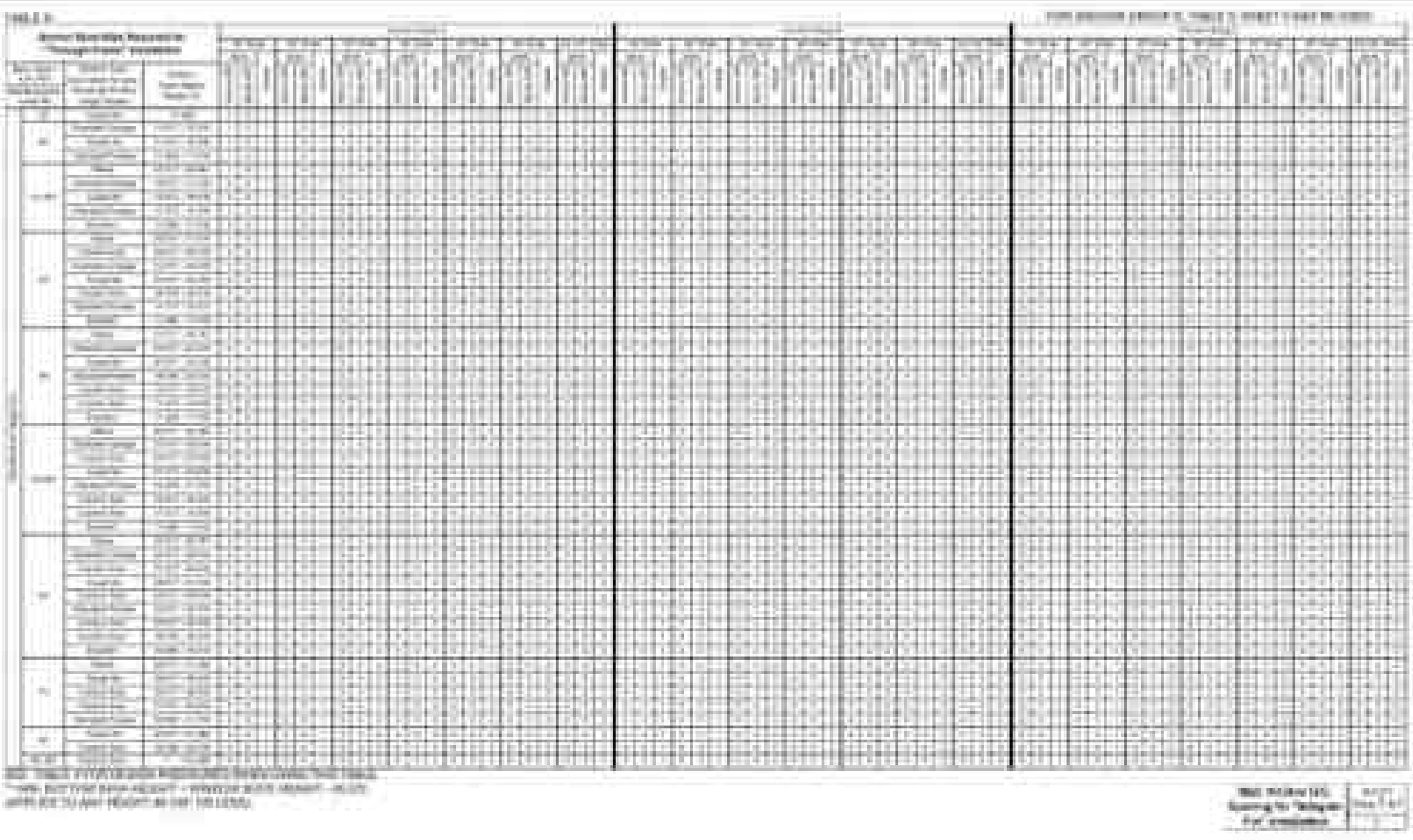


SECTION DETAIL FOR
WINDOWS WITH
LEVEL 50 REINFORCEMENT
& GLASS TYPES 6-10









PGT

NOTES:



[illegible]

[illegible table]

NOTES:

[illegible]

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VINYL DOUBLE HUNG WINDOW

ANCHOR QUANTITIES TABLE

8 OF 14

TABLE 1C

Wind Speed (V) Converted to Ultimate Design Wind Pressures

Wind Speed (V)	Wind Pressure	Exposure	Enclosure Type	Mean Roof Height (feet)	Component and Cladding Zone	Positive Wind Pressure	Negative Wind Pressure
130	20.8	B	Enclosed	15	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				20	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				25	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				30	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				35	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				40	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				45	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				50	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				55	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
				60	1	20.8	-23.0
					2	20.8	-25.3
					3	20.8	-25.3
					4	20.8	-25.3
					5	20.8	-25.3
		C	Enclosed	15	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				20	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				25	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				30	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				35	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				40	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				45	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				50	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				55	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
				60	1	20.8	-25.3
					2	20.8	-28.1
					3	20.8	-28.1
					4	20.8	-28.1
					5	20.8	-28.1
		D	Enclosed	15	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				20	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				25	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				30	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				35	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				40	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				45	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				50	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				55	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4
				60	1	20.8	-27.6
					2	20.8	-30.4
					3	20.8	-30.4
					4	20.8	-30.4
					5	20.8	-30.4

NOTE: TABLE 1C FOR WOOD FRAMING ONLY. SEE TABLE 1B FOR SECTION 2603 HEIGHT + RANGE BLOCK HEIGHT. GLASS APPLIED TO ANY HEIGHT OF CYLINDER.

NOTES:

1) FRAME DIMENSIONS ARE SIZE "BEFORE" RAIL.

2) FOR SIZES NOT SHOWN, REFER UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

3) REFER TO TABLE 2 SHEET 1 FOR IMPACT PRODUCT DESCRIPTIONS.

PGT

PGT INDUSTRIES
1070 TECHNOLOGY DRIVE
NORTH VENICE, FL 34275
(941) 486-8555

TABLE 1C
WIND SPEED (V) CONVERTED TO ULTIMATE DESIGN WIND PRESSURES

DRAWN BY: [illegible]
DATE: [illegible]
SCALE: [illegible]
REVISIONS: [illegible]

PROFESSIONAL ENGINEER
STATE OF FLORIDA

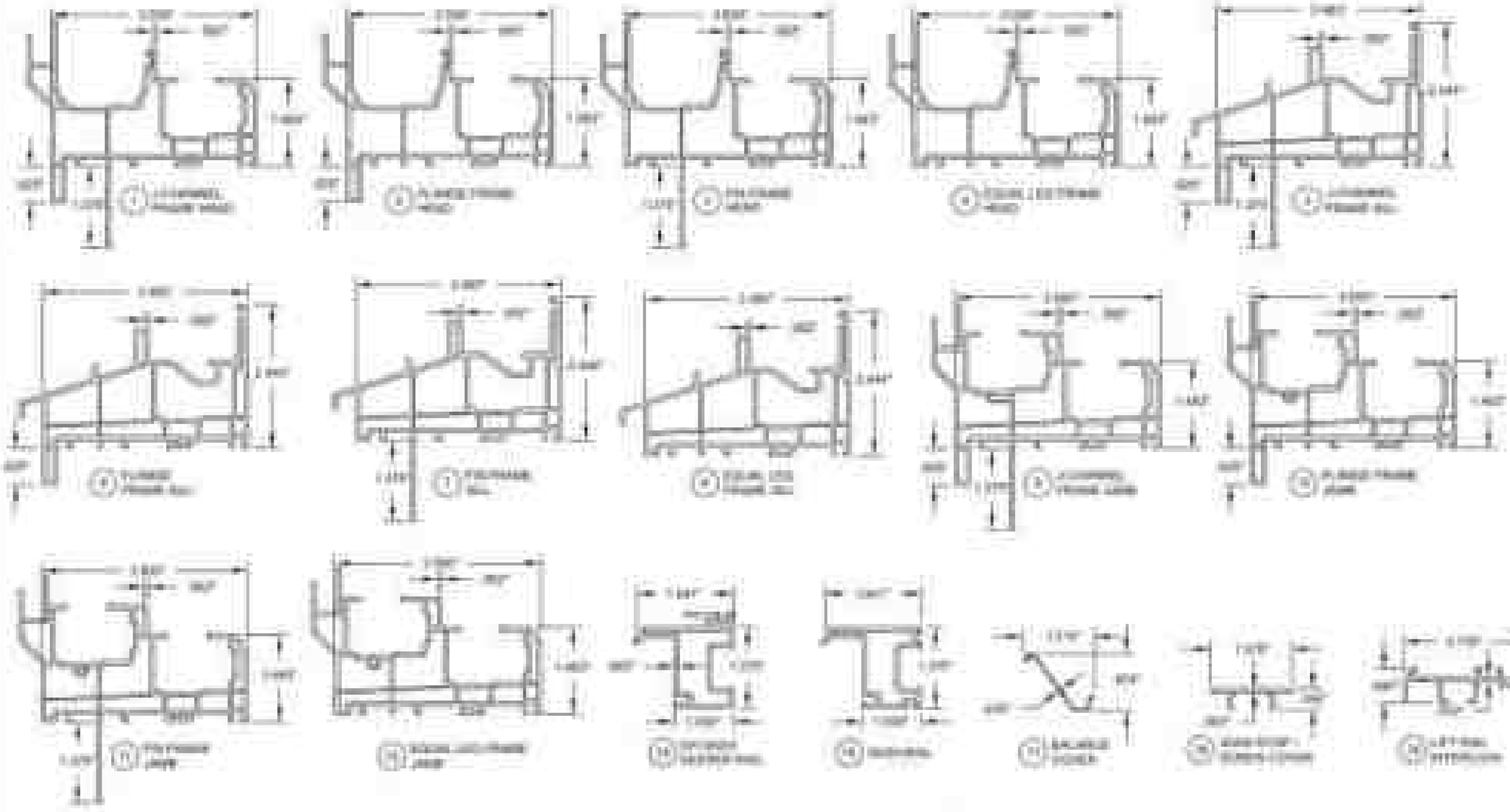
PGT

NOTES:

1) USE THESE TABLES FOR WINDOWS INSTALLED THROUGH THE FRAME.

2) FRAME DIMENSIONS ARE IN U.S. MEASUREMENT (U.M.) PER THE TABLES.

3) SIZES NOT SHOWN ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.



PGT

INDUSTRIES

ARCHITECTURAL

STEEL DOUBLE HUNG WINDOW

SERIES

DRAWING NO.

SHEET NO.

REVISIONS

DATE

BY

PROFESSIONAL ENGINEER

STATE OF FLORIDA

ITEM	PART #	DESCRIPTION	MATERIAL
1	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]
32	[illegible]	[illegible]	[illegible]
33	[illegible]	[illegible]	[illegible]
34	[illegible]	[illegible]	[illegible]

NOTE(S):

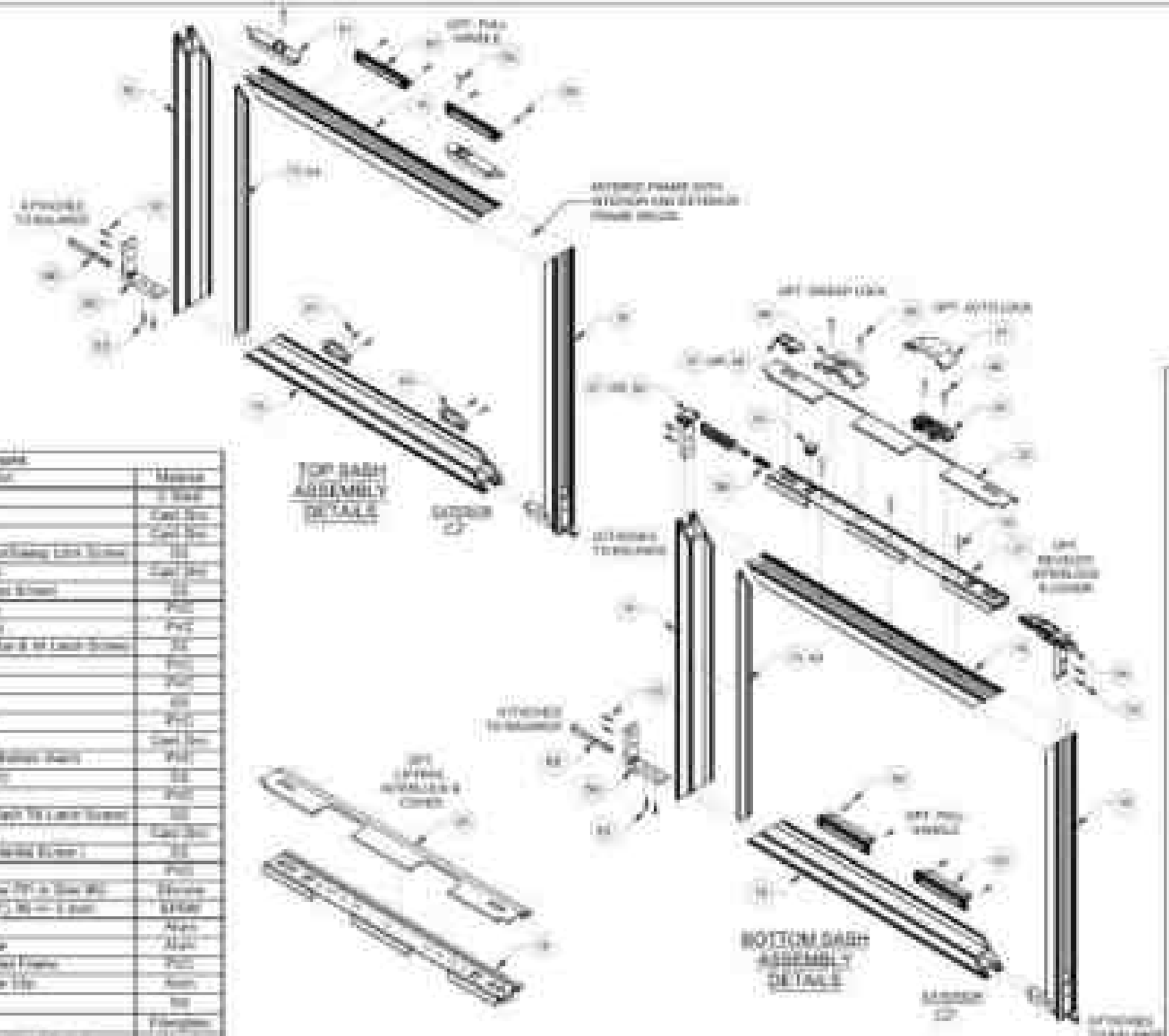
SCREEN ASSEMBLY DETAILS

FRAME ASSEMBLY DETAILS

ATTACHMENT TO [illegible]

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[illegible]


TOP RAIL ASSEMBLY DETAILS
BOTTOM RAIL ASSEMBLY DETAILS
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