Engineering Evaluation Report # DH5560-DG-02122025

Prepared by:
A. Lynn Miller, P.E.
1070 Technology Dr.
N. Venice, FL 34275
(941) 480-1600
Certificate of Authorization: #29296

Manufacturer:
PGT Industries, LLC
3400 Precision Drive
North Venice, FL 34275

Product Description:
DH5560 Series Impact-Resistant Vinyl Double Hung Window with Diamond Glass, (LMI), FL-29704

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 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).

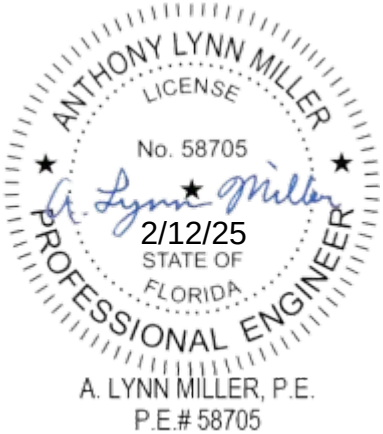
Supporting Technical Documentation:
1. Approval Document: Drawing number DH5560-DG-LM, signed and sealed by A. Lynn Miller, P.E.
2. Test Report No.: FTL-8006, FTL-8007, signed and sealed by Idalmis Ortega, P.E.
Fenestration Testing Laboratories, Medley, FL
Test Report No.: QAI NOK-0112, NOK-0113, NOK-0114, NOK-0115, signed and sealed by Idalmis Ortega, P.E.
QAI Laboratories, Nokomis, FL

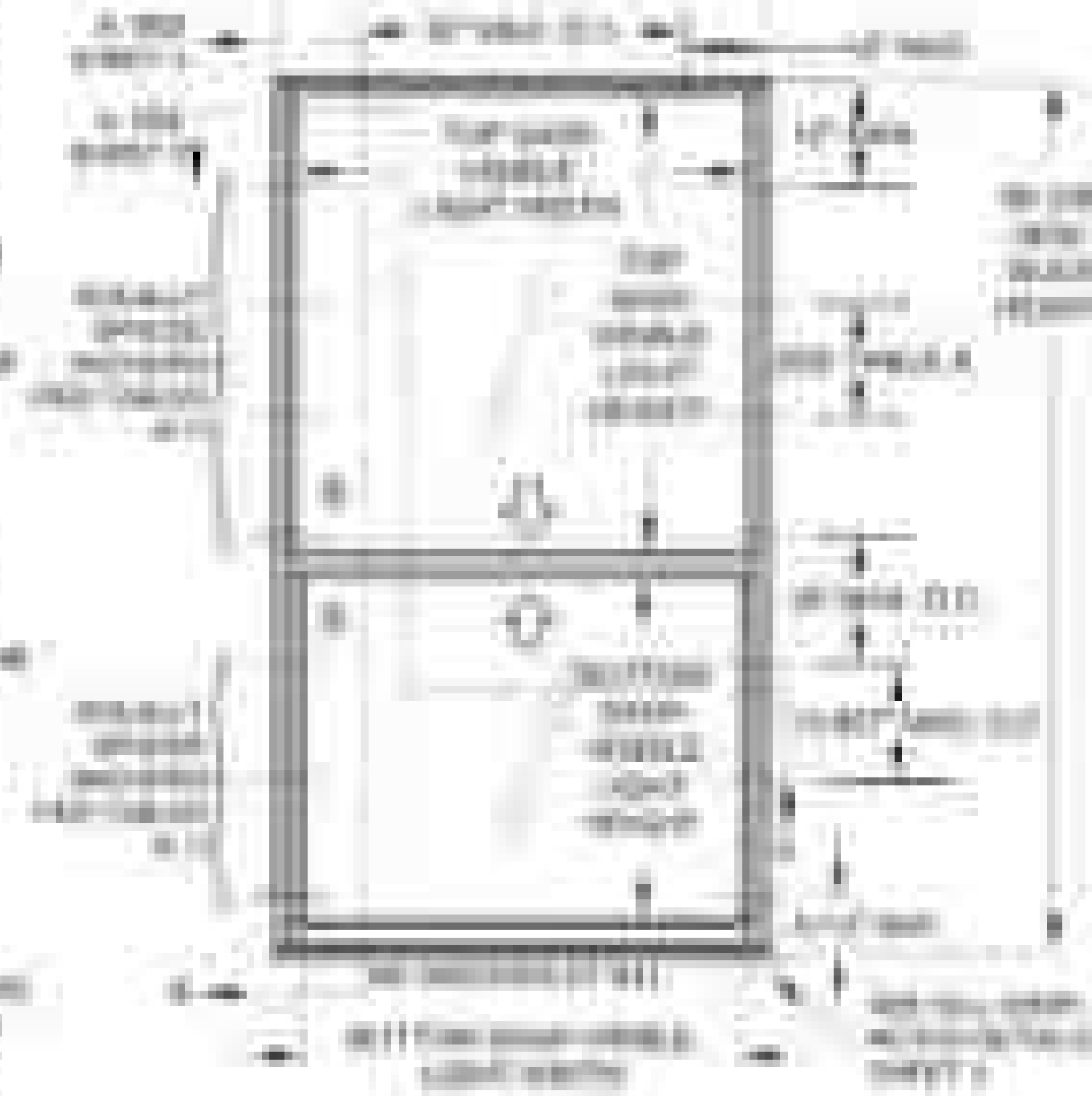
TAS 201-94 Large Missile Impact Test
TAS 202-94 Uniform Static Air Pressure Test
TAS 203-94 Cyclic Pressure Loading Test

3. Calculations, signed and sealed by A. Lynn Miller, P.E.

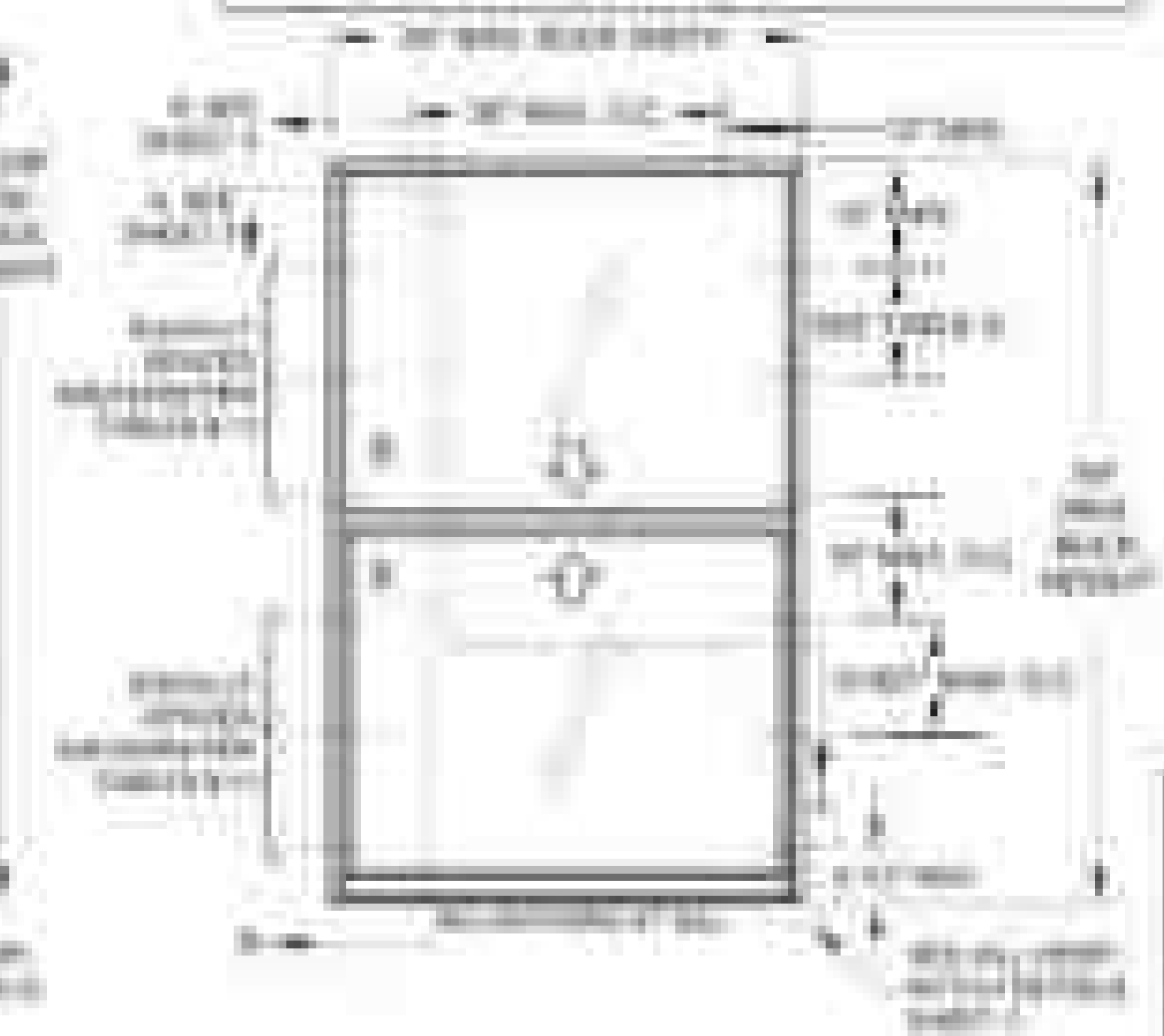
4. Miami-Dade RER Product Control Section NOA’s; PVB and/or SG Interlayer by Kuraray America, Inc.

Limitations and Conditions of use:
• Units must be glazed per ASTM E1300-09, 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.



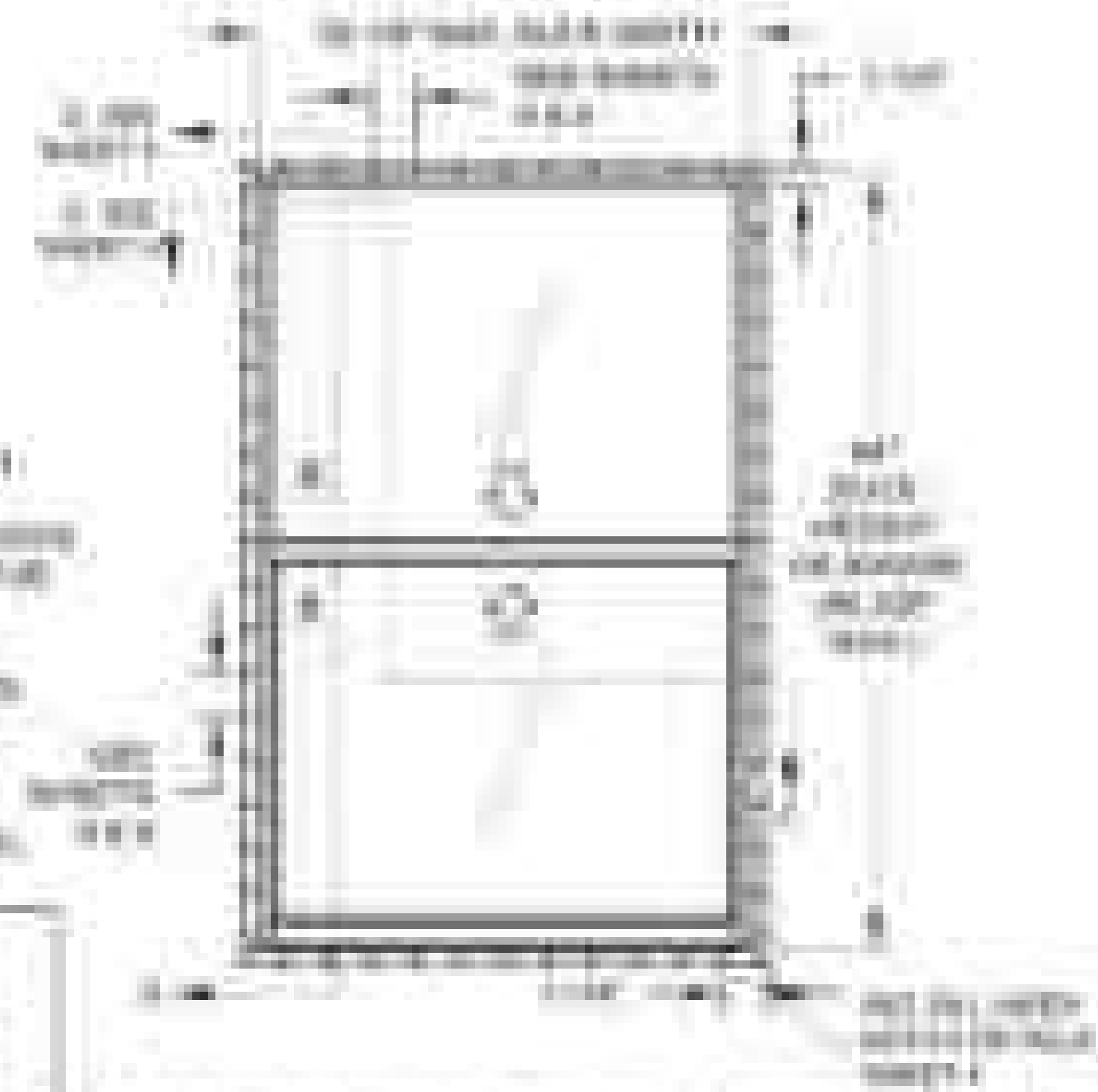


ELEVATION FOR TYP. FLANGE FRAME

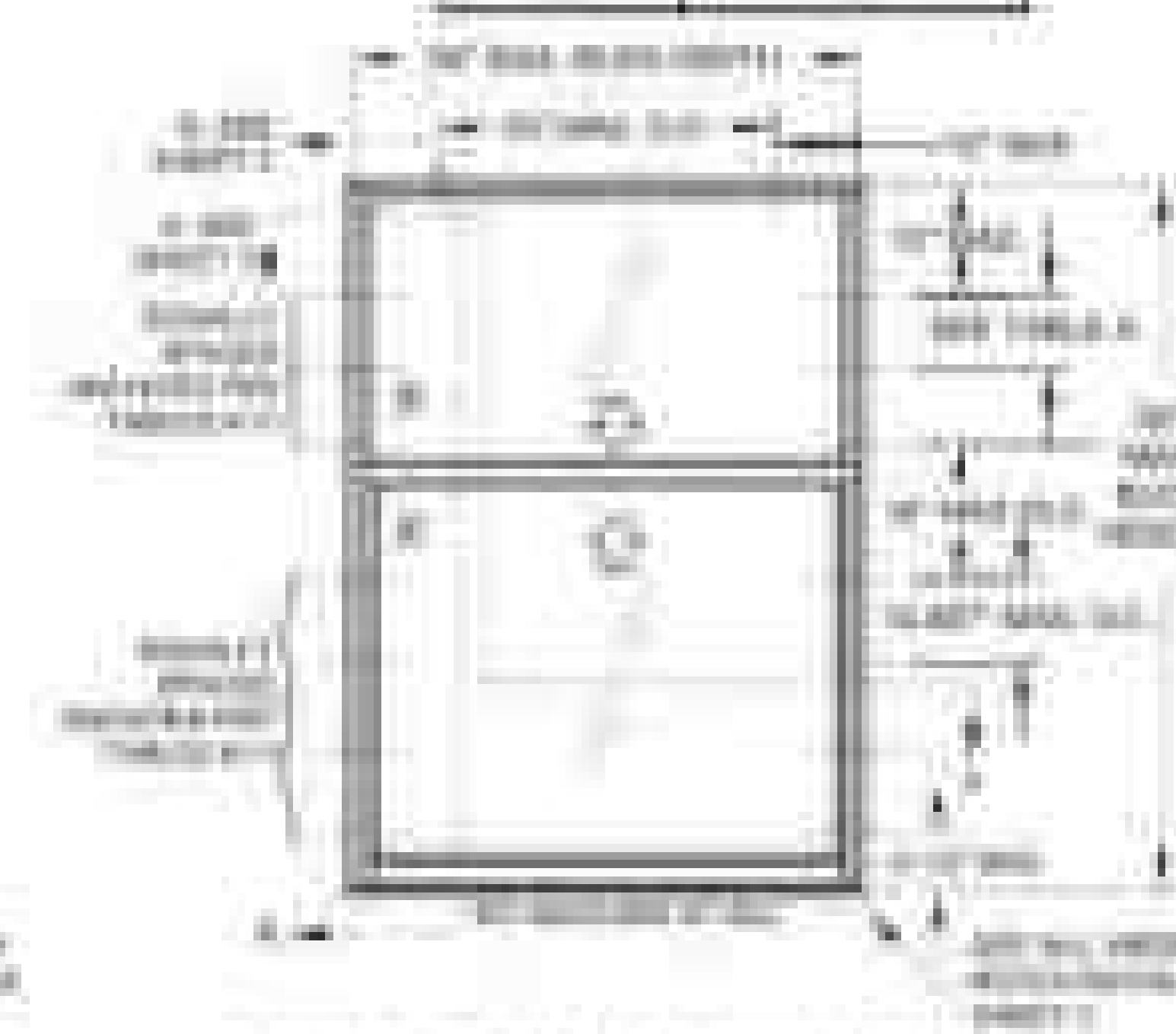


ELEVATION FOR TYP. EQUAL LEG FRAME
SHOWN WITH EQUAL LITE CONFIGURATION

USER INSTRUCTIONS:



ELEVATION FOR TYP. FIN OR J-CHANNEL FRAME
SHOWN WITH EQUAL LITE CONFIGURATION
ANCHORED THROUGH THE NAIL FIN

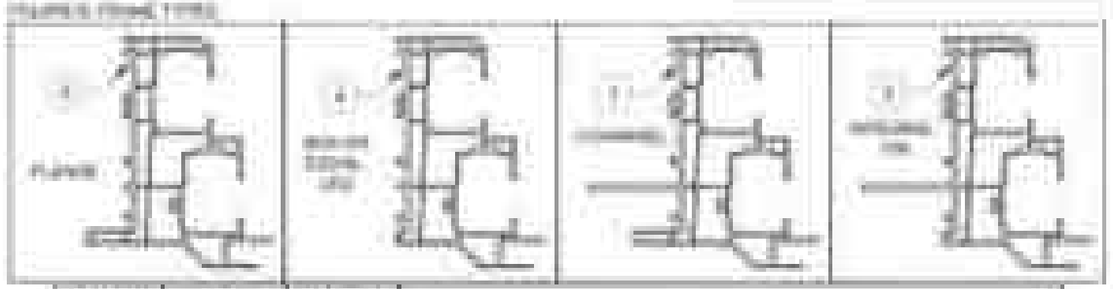


ELEVATION FOR TYP. FLANGE FRAME
SHOWN WITH STANDARD COTTAGE CONFIGURATION

Wedge Type	Description (Lateral Force Resistance as indicated)	Wedge Removed (Option A)	Wedge Removed (Option B)
1		0	0
2		2	0
3		3	4
4		1	3
5		5.5	6.7
6		5.5	6.7
7		1	1

Group	Section	Installation	Min. Edge Distance	Min. Embedment
A	#10 Wafer (Use 1 Per 4 in. or #12 Per 6 in.)			
	5/16" Lead Screw			
B	#10 Wafer (Use 1 Per 4 in. or #12 Per 6 in.)			
	5/16" Lead Screw			
C	1/4" Wafer Screw			
	1/4" Lead Screw			
D	1/4" Wafer Screw			
	1/4" Lead Screw			

Group	Section	Installation	Min. Edge Distance	Min. Embedment
A	#12 Wafer (Use 1 Per 4 in. or #14 Per 6 in.)			
	3/8" Lead Screw			

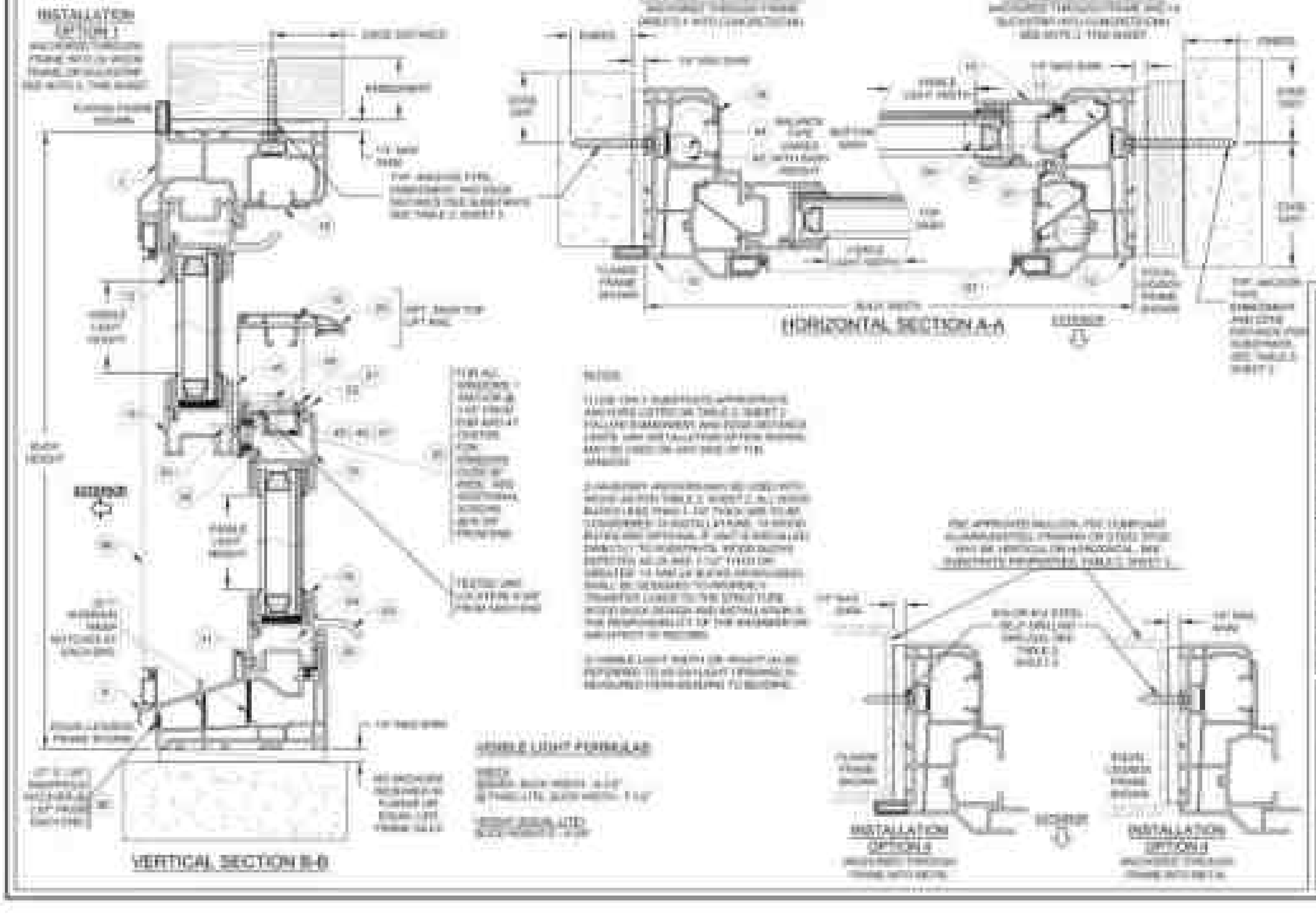


Frame Types (see Fig B)	Glass Options (see Table 1)	Frame Configs (see Fig A)	Installation Options Not may be used	
Flange (IFC)	1 - 3	Applicable (Install Screws & Clamps)	Through the frame or the window	
Box, Equivalent (IBC)	4 - 7	Applicable (Install Screws & Clamps)	Through the frame or the window	
Lift Gasket (IFC)	1 - 3	Applicable (Install Screws & Clamps)	Through the weight fin	
			Through the frame or the window	
Integral Fin (IFC)	1 - 3	Applicable (Install Screws & Clamps)	Through the weight fin	
			Through the frame or the window	

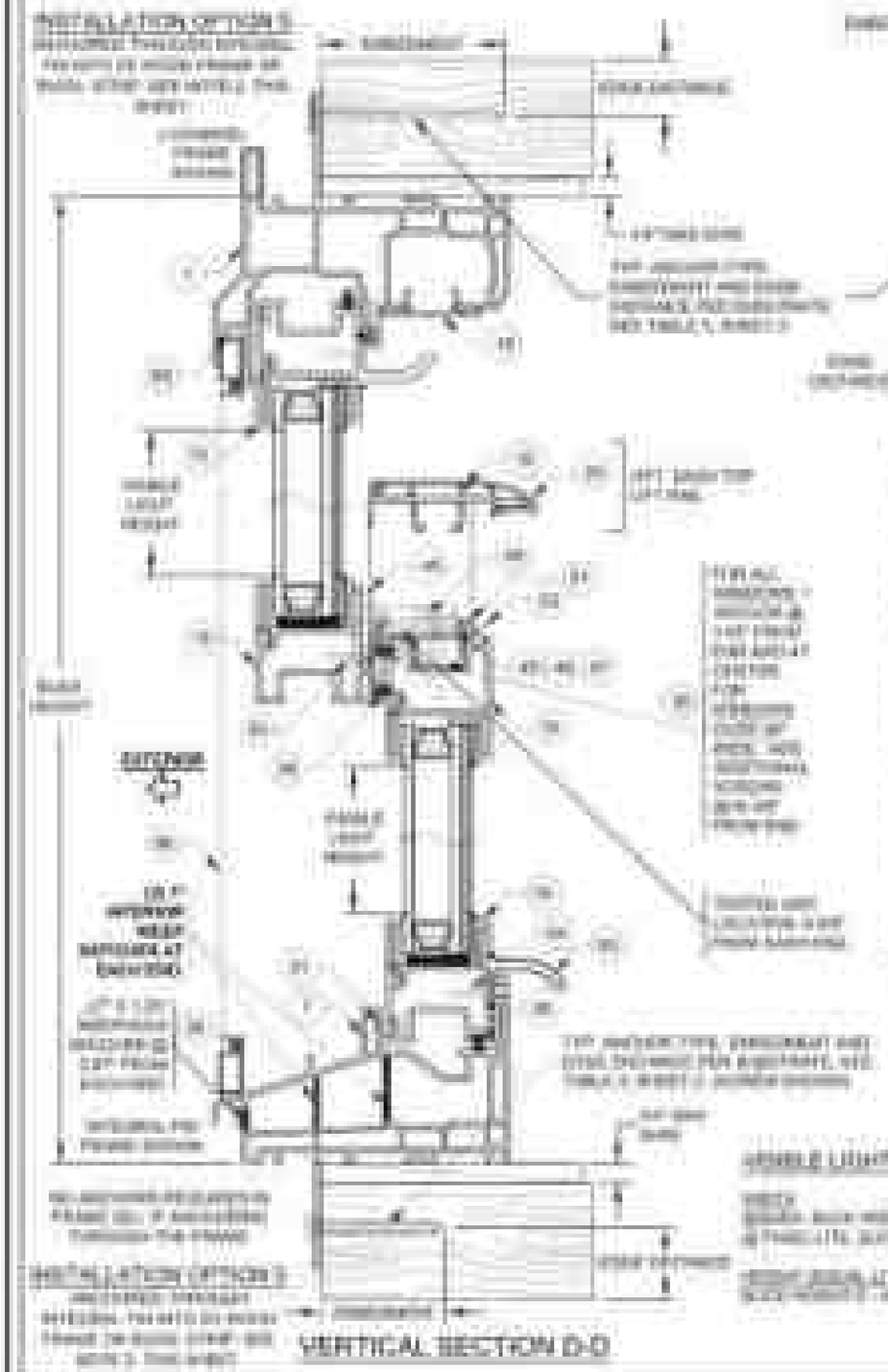




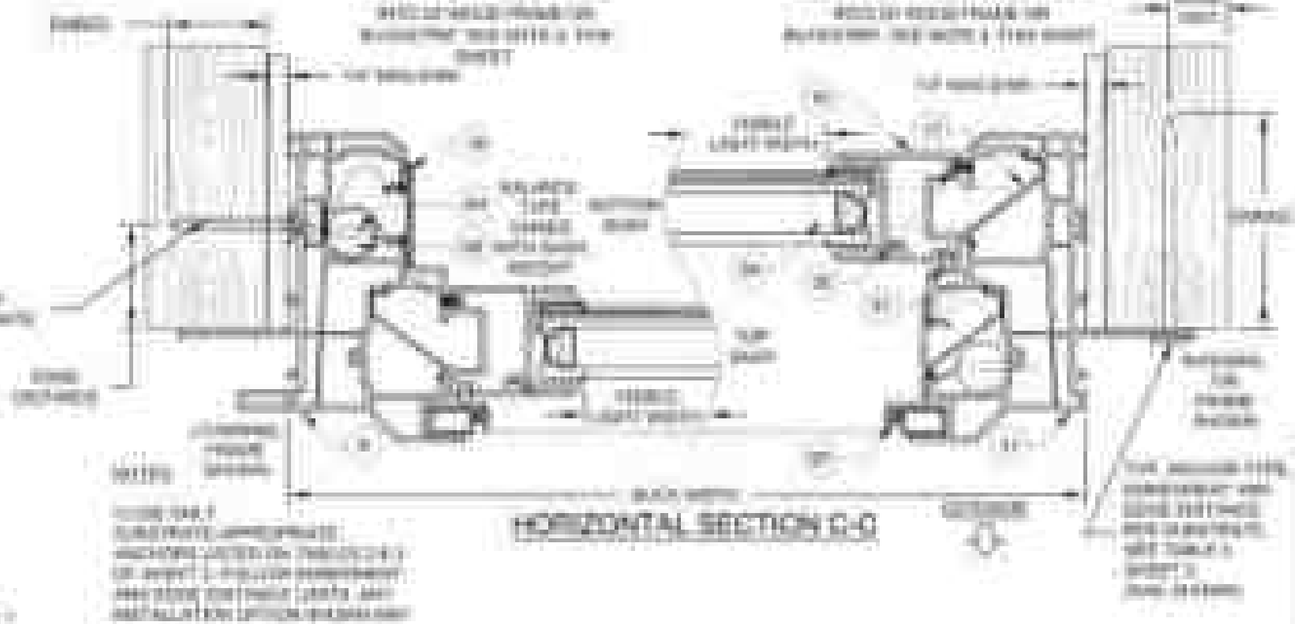
INSTALLATION DETAILS FOR FLANGE & EQUAL-LEG/BOX FRAMES



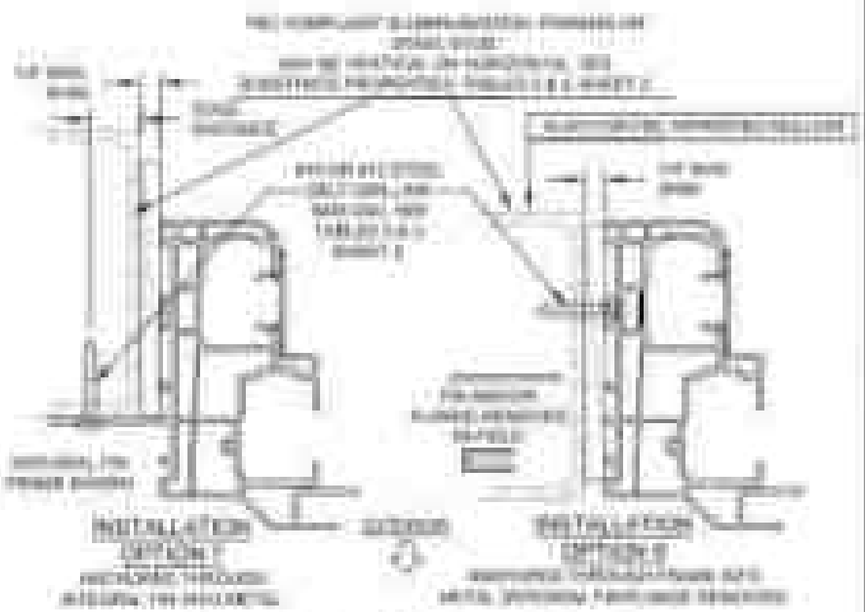
INSTALLATION DETAILS FOR INTEGRAL FIN & J-CHANNEL FRAMES

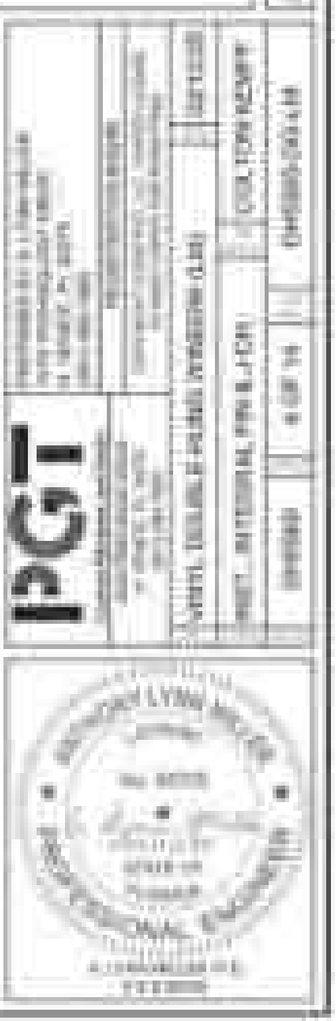


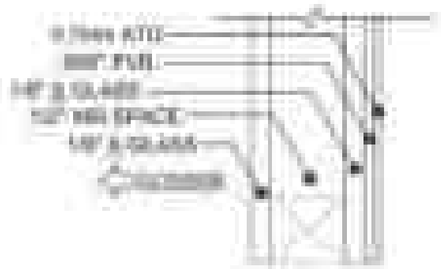
VERTICAL SECTION D-D



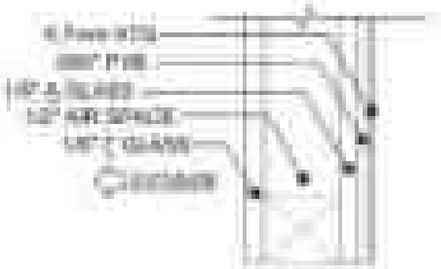
HORIZONTAL SECTION C-C



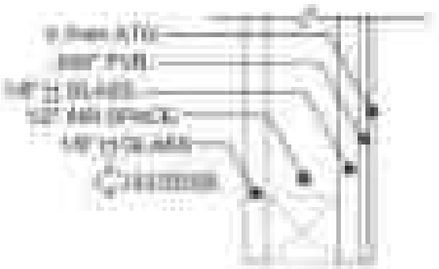




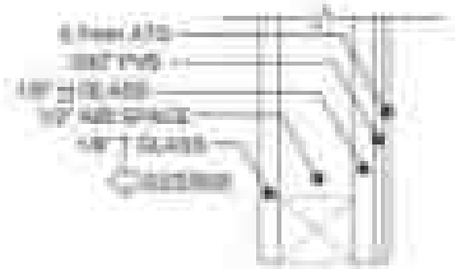
GLASS TYPE 1



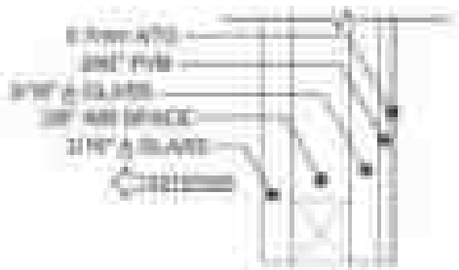
GLASS TYPE 2



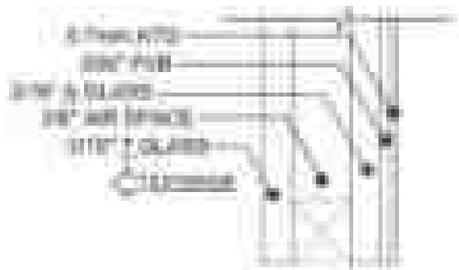
GLASS TYPE 3



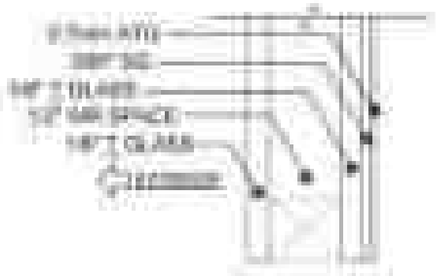
GLASS TYPE 4



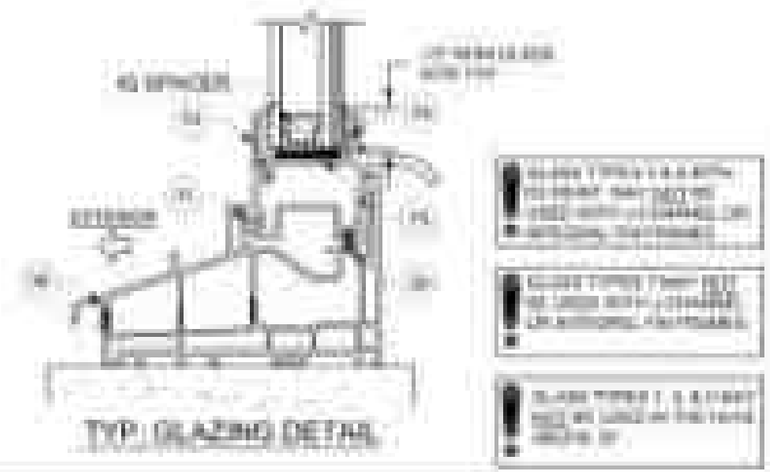
GLASS TYPE 5



GLASS TYPE 6

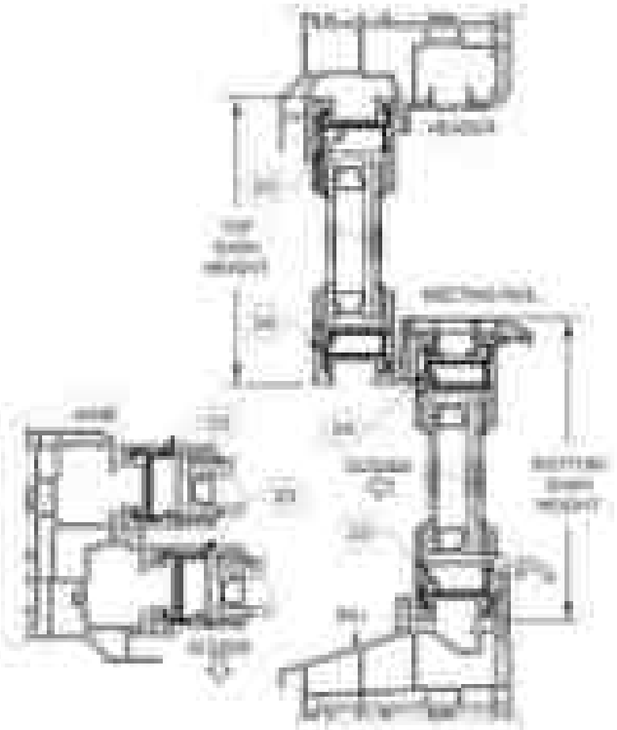


GLASS TYPE 7

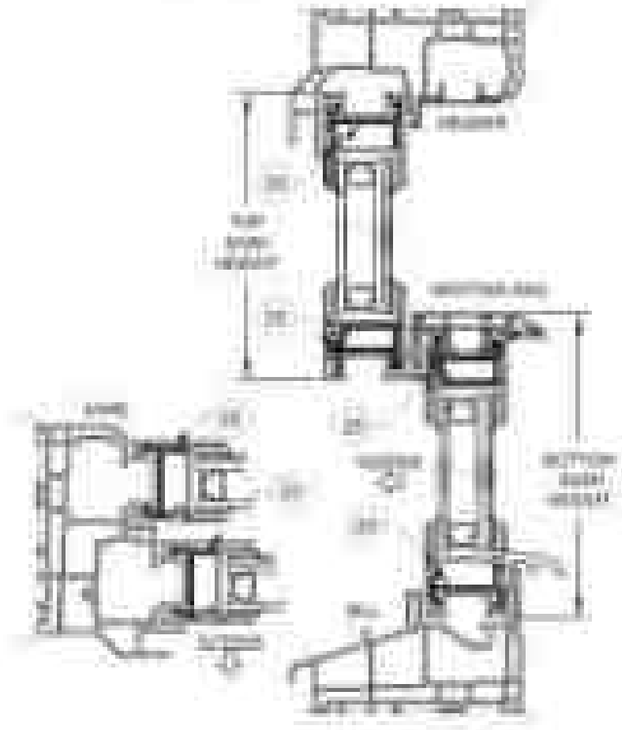


TYP. GLAZING DETAIL

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SECTION DETAIL FOR WINDOWS WITH
LEVEL 02 REINFORCEMENT & GLASS TYPES 1 & 2



SECTION DETAIL FOR WINDOWS WITH
LEVEL 02 REINFORCEMENT & GLASS TYPES 3-6

NOTES:

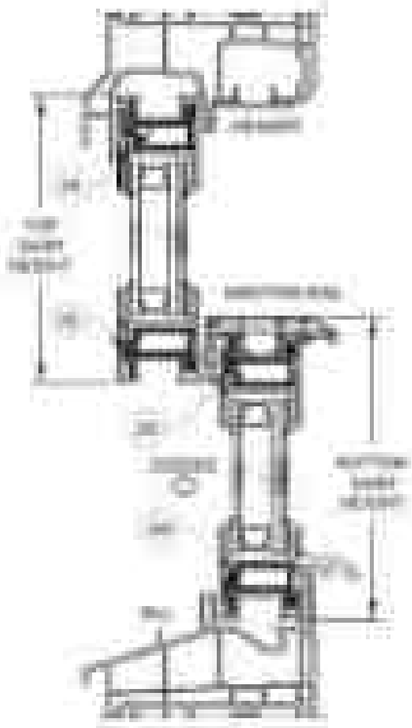
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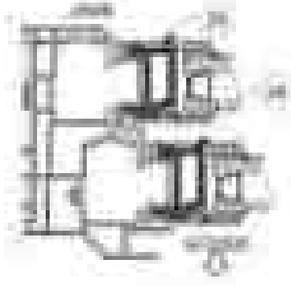
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3. [illegible]

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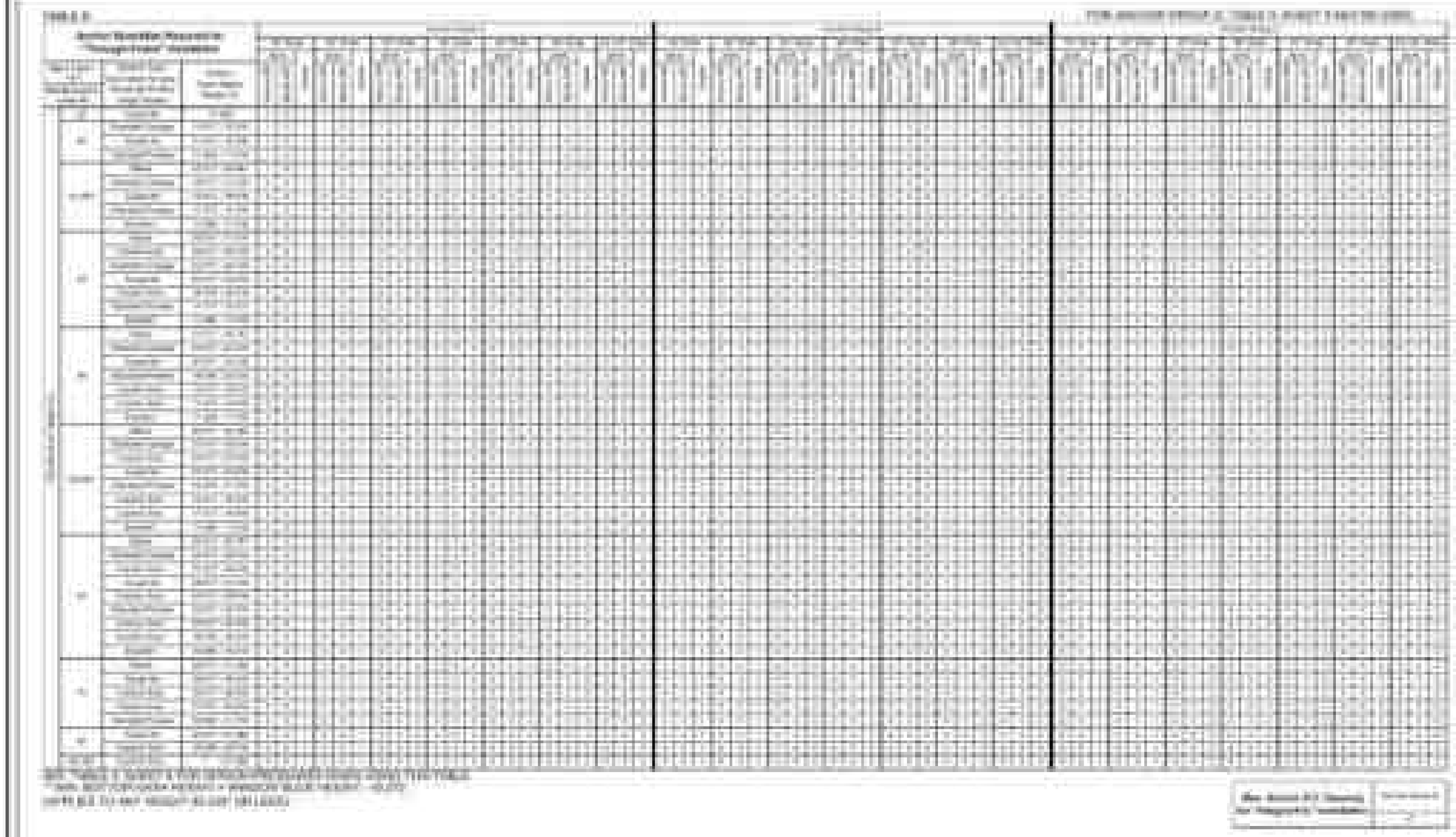
SECTION DETAIL FOR
WINDOWS WITH
LEVEL TO FRONT DOOR SILL
& BASE TYPE S.L.T.

NOTES:

1) USE THESE TABLES FOR WINDOWS WITH SILLS THROUGH THE FRAME.

2) FRAME DIMENSIONS ARE BACK, EDGE HEIGHT TO SILL FROM THE FIGURE.

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



NOTES

TABLE 2.1

Buckling Classification Assigned for Through-Flame Assemblies

Fire Endurance Rating, h	Assembly Description	Buckling Classification
4	Concrete Slab	Type 1
	Concrete Slab with Suspended Ceiling	Type 1
	Concrete Slab with Membrane Ceiling	Type 1
	Concrete Slab with Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists	Type 1
	Concrete Slab with Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Membrane Ceiling	Type 1
3	Concrete Slab	Type 1
	Concrete Slab with Suspended Ceiling	Type 1
	Concrete Slab with Membrane Ceiling	Type 1
	Concrete Slab with Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists	Type 1
	Concrete Slab with Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Membrane Ceiling	Type 1
2	Concrete Slab	Type 1
	Concrete Slab with Suspended Ceiling	Type 1
	Concrete Slab with Membrane Ceiling	Type 1
	Concrete Slab with Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists	Type 1
	Concrete Slab with Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Membrane Ceiling	Type 1
1	Concrete Slab	Type 1
	Concrete Slab with Suspended Ceiling	Type 1
	Concrete Slab with Membrane Ceiling	Type 1
	Concrete Slab with Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists	Type 1
	Concrete Slab with Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Membrane Ceiling	Type 1
½	Concrete Slab	Type 1
	Concrete Slab with Suspended Ceiling	Type 1
	Concrete Slab with Membrane Ceiling	Type 1
	Concrete Slab with Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists	Type 1
	Concrete Slab with Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Membrane Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Suspended Ceiling	Type 1
	Concrete Slab with Steel Joists and Exposed Steel Beams and Exposed Steel Joists and Membrane Ceiling	Type 1

No. Joints Fill, Void or Cavity Material(s)	Classification*
	X

NOTES:

1. Use the above hourly equivalent required ..... Table for Ratings Including Protection Membrane.
2. Use the above Min. Equivalent in (Zone) ..... Table for Ratings not to Exceed the Rating Period.
3. Where Intermediate Joints Exist, Test Must Prove that:
4. Use Does not Provide Access Up to This Must Not Have Less Than the Required Classification Indicated for Table.
5. Refer to Table 2.1 A, B and C for Wall Group Designations.

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TABLE [illegible]

[illegible table]

[illegible]

NOTES:

1) [illegible]

2) [illegible]

3) [illegible]

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[illegible]

VINYL DOUBLE HUNG WINDOW (LM)

ANCHOR QUANTITIES TABLE

COLTON KEMPF

[illegible]

NOTES:

1) [illegible]

2) [illegible]

3) [illegible]

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VINYL DOUBLE HUNG WINDOW (LM)

ANCHOR QUANTITIES TABLE

COLTON KEMPF

11 OF 14

DHS00-DG-LM

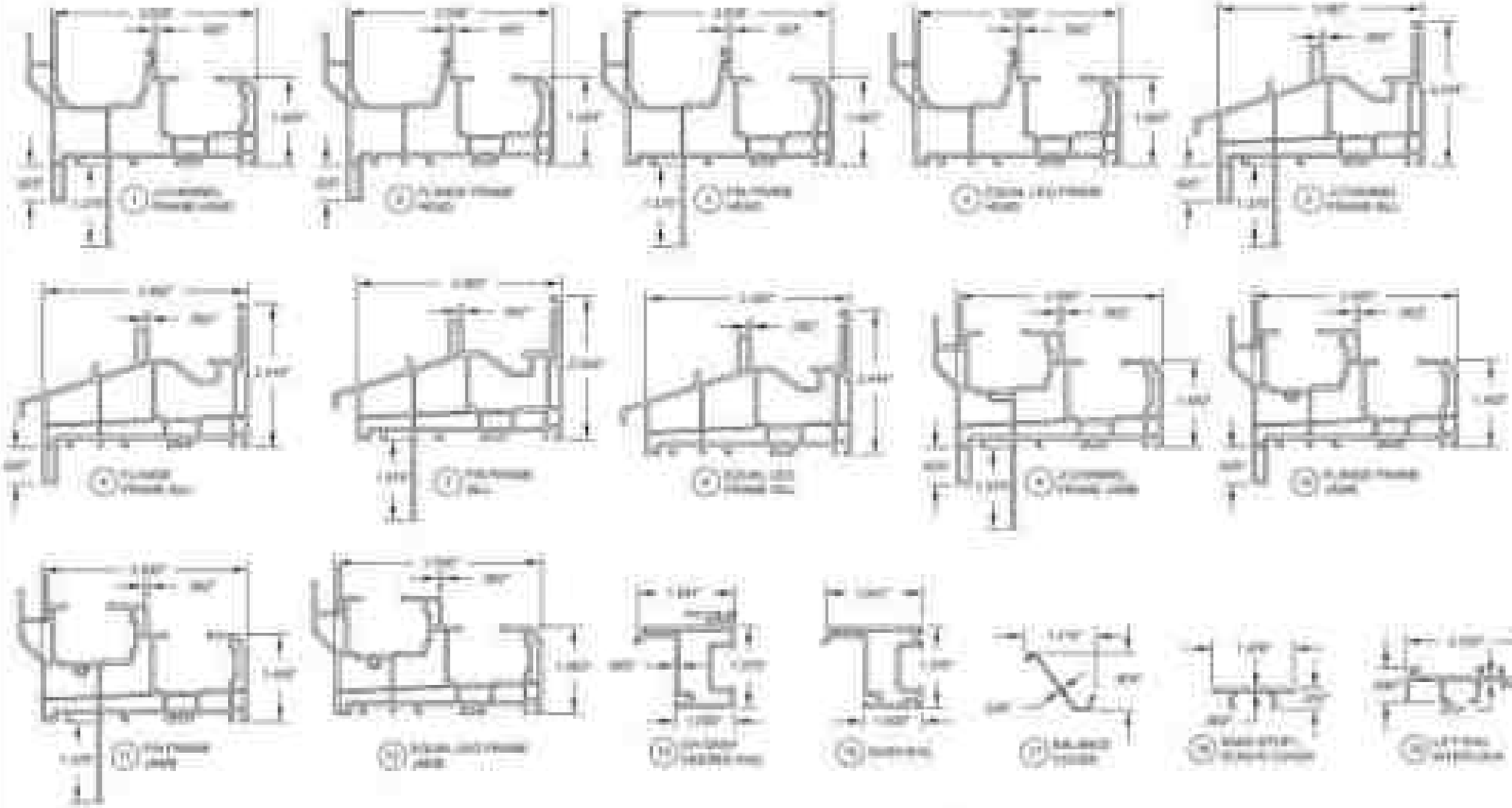
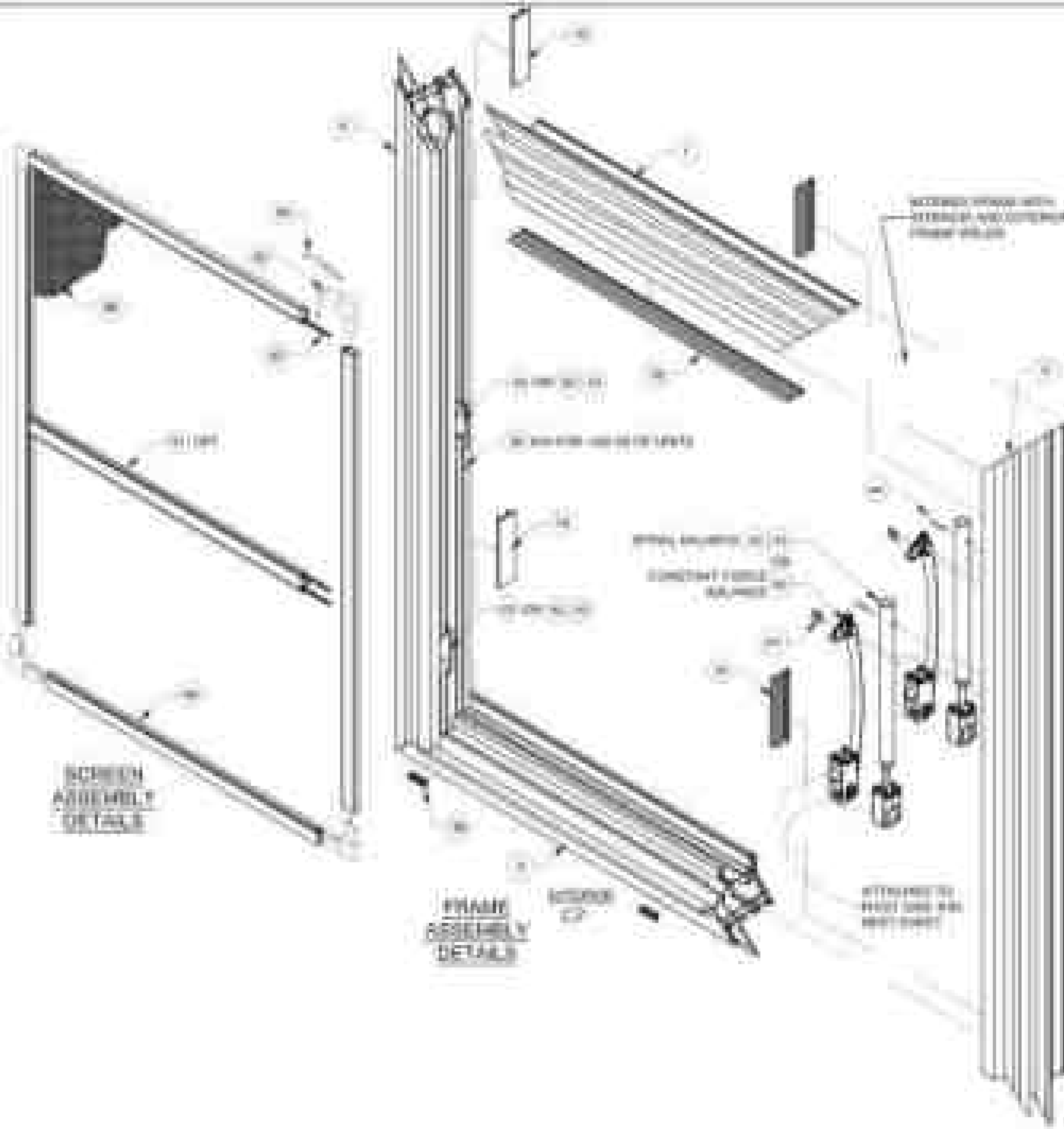


TABLE 1

Bill of Material			
#	Part #	Description	Material
1	[illegible]	Frame Head - Channel	PVC
2	[illegible]	Frame Head - Flange	PVC
3	[illegible]	Frame Head - Fin	PVC
4	[illegible]	Frame Head - Equal Leg/Box	PVC
5	[illegible]	Frame Sill - Channel	PVC
6	[illegible]	Frame Sill - Flange	PVC
7	[illegible]	Frame Sill - Fin	PVC
8	[illegible]	Frame Sill - Equal Leg/Box	PVC
9	[illegible]	Frame Jamb - Channel	PVC
10	[illegible]	Frame Jamb - Flange	PVC
11	[illegible]	Frame Jamb - Fin	PVC
12	[illegible]	Frame Jamb - Equal Leg/Box	PVC
[illegible]	[illegible]	[illegible]	PVC
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[illegible]	[illegible]	[illegible]	PVC
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[illegible]	[illegible]	[illegible]	PVC
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NOTES:
[illegible]



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VINYL DOUBLE HUNG WINDOW (LM)

ASSEMBLY & PARTS LIST

ANTHONY LYNN MILLER
PROFESSIONAL ENGINEER
STATE OF FLORIDA

TOP SASH ASSEMBLY DETAILS

BOTTOM SASH ASSEMBLY DETAILS

#	Type #	Description	Remarks
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
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