Engineering Evaluation Report # CA5540-20250213

Prepared by:
A. Lynn Miller, P.E.
3400 Precision Dr.
N. Venice, FL 34275
(941) 480-1600
Certificate of Authorization: #29286

Manufacturer:
PGT Industries, LLC
3400 Precision Dr.
N. Venice, FL 34275

Product Description:
Series CA5540 Impact Resistant Vinyl Awning Window with Diamond Glass, (LMI), FL-29702

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).

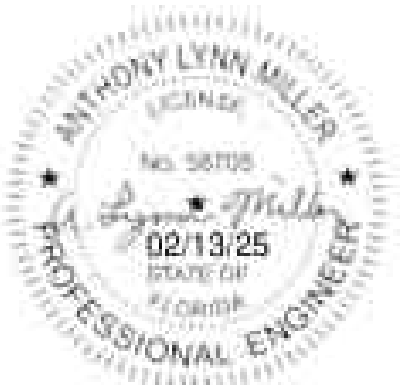
Supporting Technical Documentation:
1. Approval Document: Drawing number CA5540-DG-LM, signed and sealed by A. Lynn Miller, P.E.
2. Test Report No.: FTL-8139, FTL 19-9037 & 20-2107.1-4, signed and sealed by Idalmis Ortega, P.E.
Fenestration Testing Laboratories, Medley, FL 33166
3. Test Report No.: NOK-0112, NOK-0113, NOK-0115 & NOK-0116, signed and sealed by Idalmis Ortega, P.E.
OAI Laboratories, Nokomis, FL 34275

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 04/15/15, 3/25/20 & 02/04/25.

4. Miami-Dade RER Product Control Section NOA's; PVB and SG Interlayers 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, CA5540-DG-LM.



A. LYNN MILLER, P.E.
P.E.# 38705

SINGLE CASING IMPACT RESISTANT VINYL FLOODCOAT WINDOW WITH CRANKING GLASS

1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE MOST RECENT HIGH VELOCITY HURRICANE ZONE CODE.

2) MOUNTING AND SHIM REQUIRED WHERE USED IN WOOD BUCK MUST BE CORROSION RESISTANT, FOR INSTANCE STAINLESS STEEL OR OF THE KIND THE OUTBOARD SIDE CAN RESIST TENSILE FORCE.

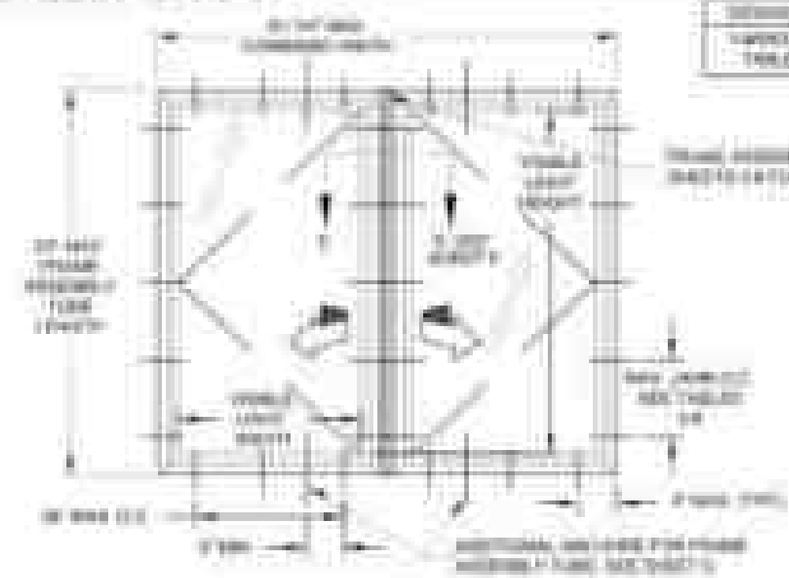
3) ALL WORK INCLUDED IN THIS PANEL OF THESE ARE TO BE CONSIDERED AS MINIMUM GUIDELINES. IN SOME CASES MORE IMPROVING OF UNIT BY INSTALLER DIRECTLY TO CONDITIONS, WHERE REQUIRED. [illegible] AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER, DESIGN ARCHITECT OF RECORD. [illegible]

4) ANY FIELD MODIFICATIONS, SHALL BE BEYOND THE SCOPE OF THESE INSTRUCTIONS. [illegible] ANCHORS OF SUPPLIED UNITS TO STRONG SUBSTRATE. INSTALLATION MATERIALS [illegible] INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

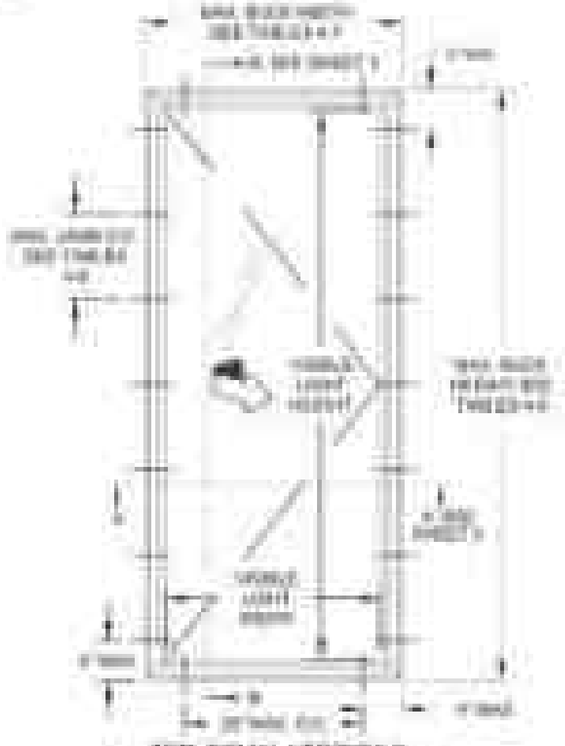
5) [illegible] THE SUBSTRATE. USE WASHERS AS NEED OR PROVIDE EXPANDED LOWER WOOD [illegible] BACKER OR STRONG BACK MUST BE SUPPLIED BY [illegible] TO PROVIDE LOAD IMPOSED OR THROUGH THE WINDOW.

6) THE JAMB STRENGTHENING SYSTEM HAVE BEEN DESIGNED AND SECURED TO WITHSTAND THE [illegible] CONSTRUCTIONS TO THE REQUIRED DESIGN PRESSURE. THE FIXING METHOD INTENDED [illegible] AND NOT OBTAIN DIRECTLY THE DESIGN OF THIS PRODUCT. [illegible] FOR [illegible] FROM THE INSTALLATION OF GROWING BOTH WOOD, ANCHORS MUST COMPLY WITH OTHER [illegible] ANCHORS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF THE FLORIDA RESIDENTIAL CODE FOR [illegible] CONCRETE SUBSTRATES.

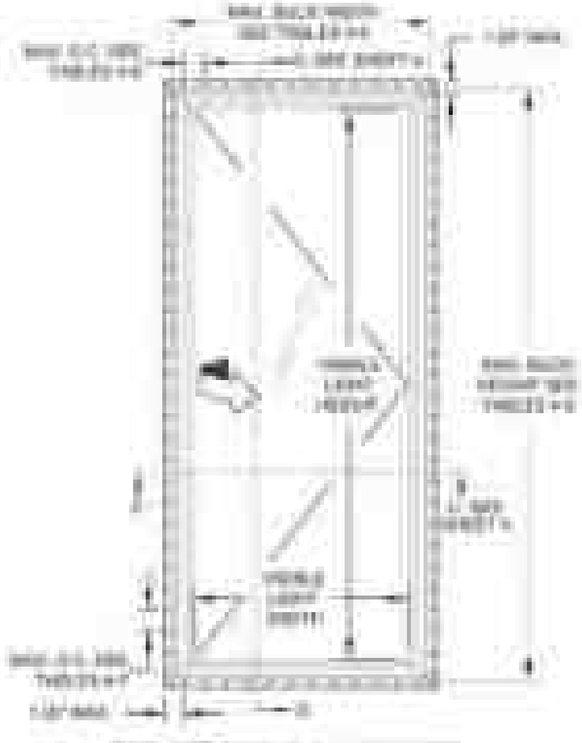
7) FRAME FLANGES OR MOUNTING FINS MAY BE TRIMMED AS REQUIRED TO CONFORM [illegible] FLANGE.



TYP. R.O.EQUAL LEG/NON R. FLANGE FRAME ANCHORAGE



TYP. EQUAL LEG/NON R. FLANGE FRAME ANCHORAGE



TYP. INTEGRAL FIN & J-CHANNEL FRAME ANCHORAGE

GENERAL NOTES & ELEVATIONS	1
FRAME GLASS & MISSILE DETAILS	2
INSTALLATION FLANGE & FINAL SEAL	3
INSTALLATION DETAILS PER & J-CHANNEL	4
FRAME ASSEMBLY TUBE	5-6
PLASTIC DETAILS	7
SASH ASSEMBLY	8-9
SCREEN ASSEMBLY	10-11

VISIBLE LIGHT TRANSMISSION
MINIMUM GLASS HEIGHT: 6'-0"
MINIMUM GLASS WIDTH: 3'-0"

DESIGN PRESSURES (for sizes TABLES 2-1 THROUGH 2-3)	IMPACT RATING (USE A SINGLE GROUP ASPHALT ROOFING)

PGT

PGT INDUSTRIES, INC.
1070 TECHNOLOGY DRIVE
NORTH VENICE, FL 34275
(941) 480-1600

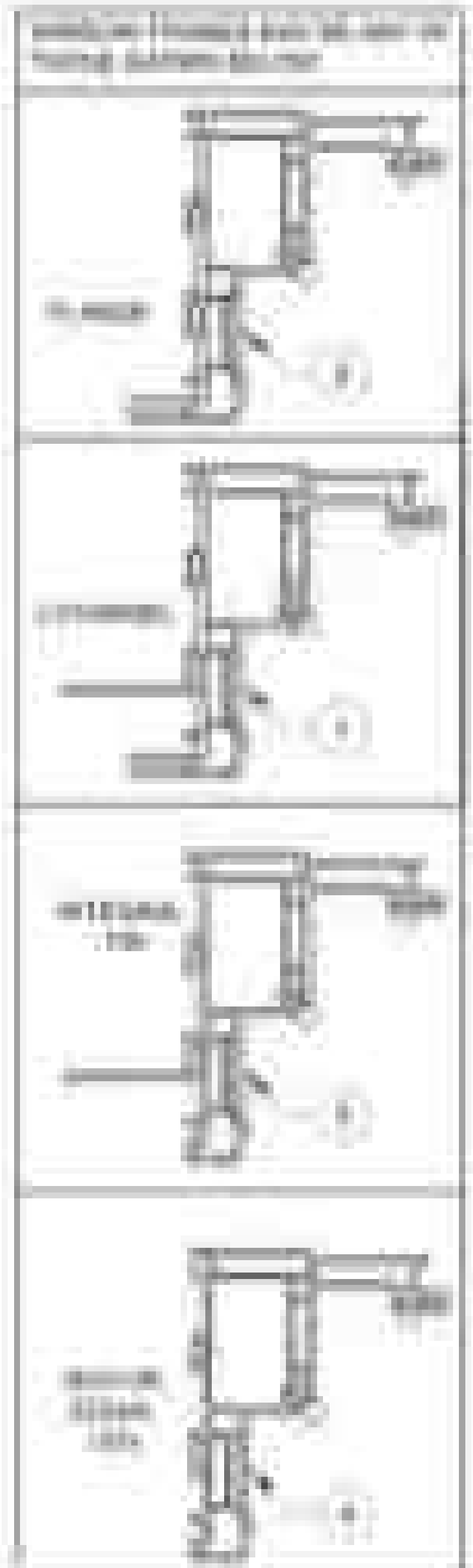
VINYL CASEMENT WINDOW

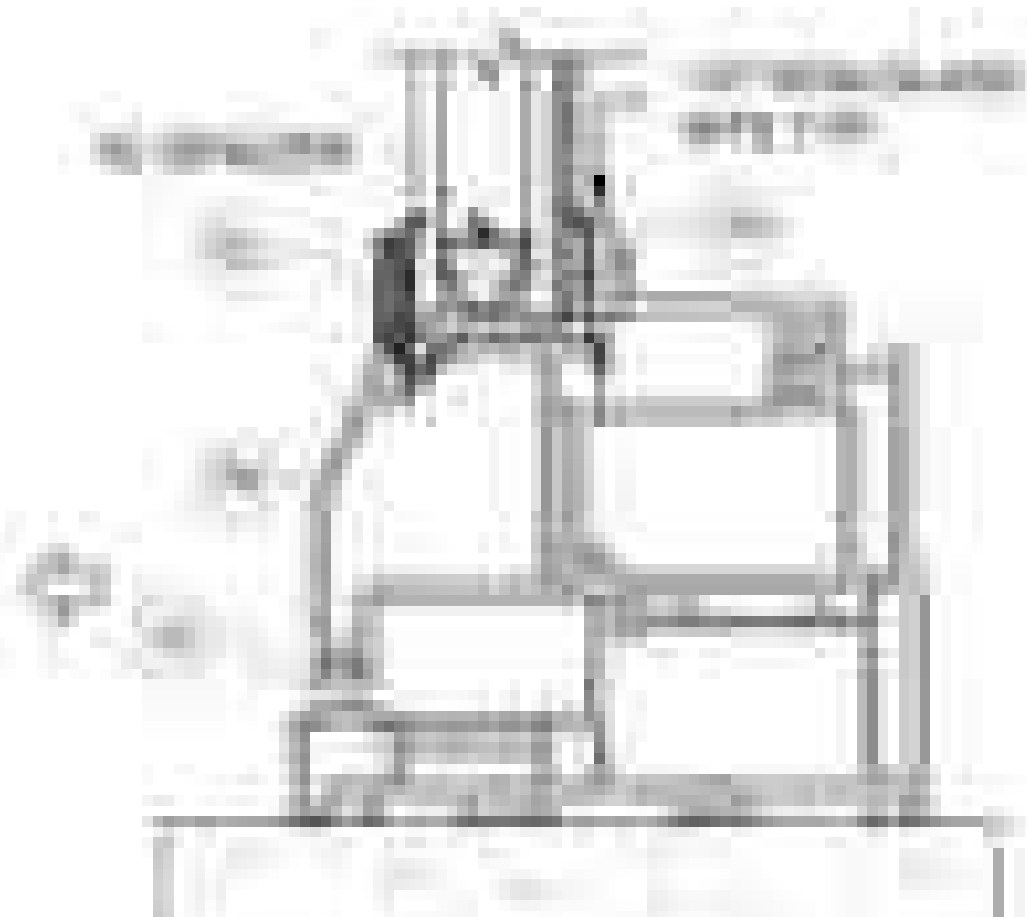
DRAWN BY:	
CHECKED BY:	
DATE:	
SCALE:	
DRAWING NO.	
SHEET NO.	

REVISIONS

NO.	DESCRIPTION	DATE
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2		
3		
4		

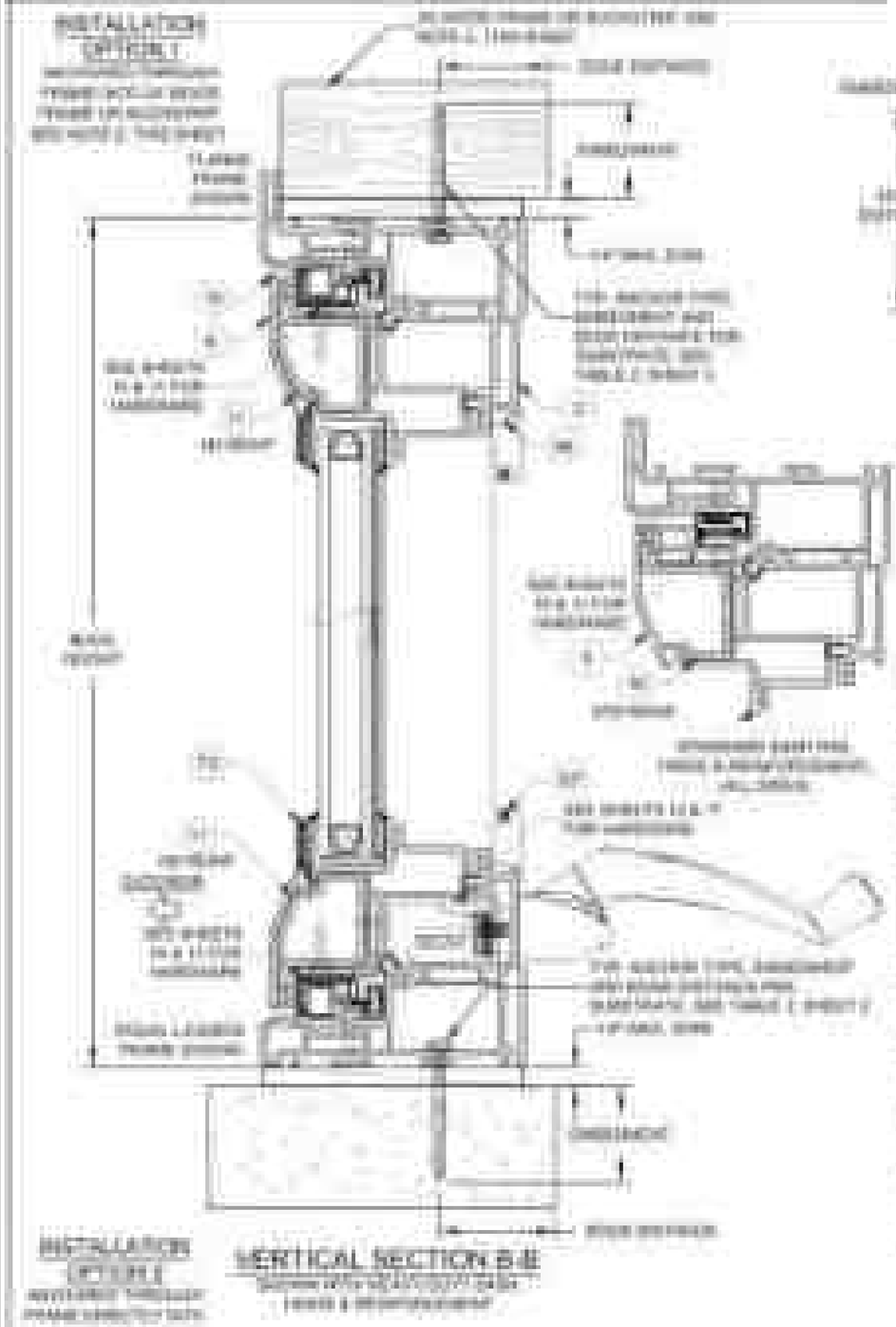
STATE OF FLORIDA
PROFESSIONAL ENGINEER

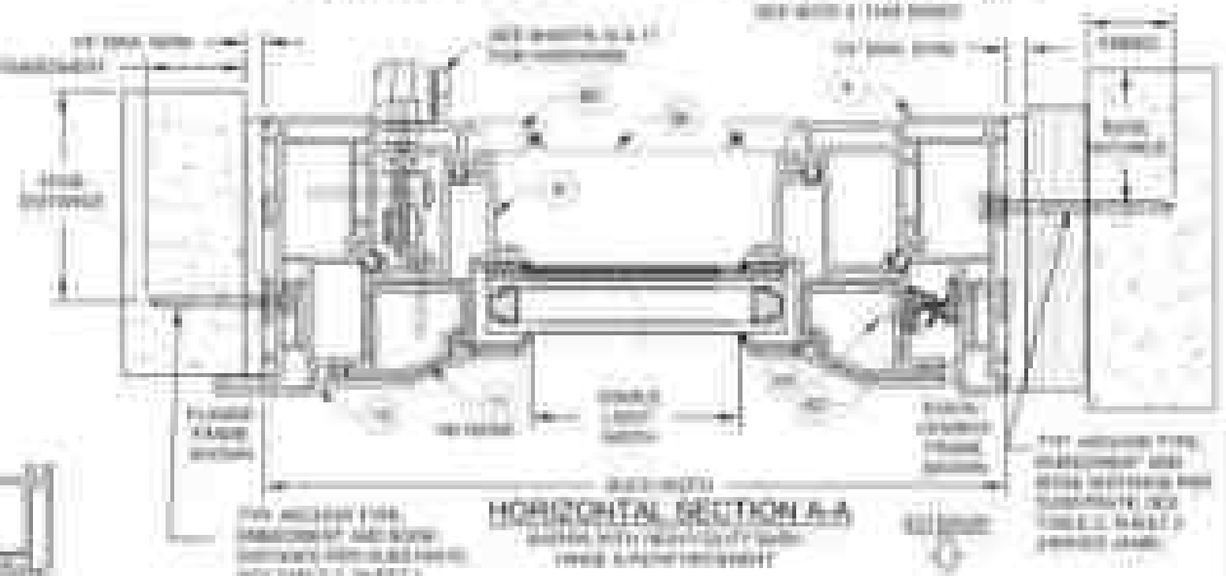


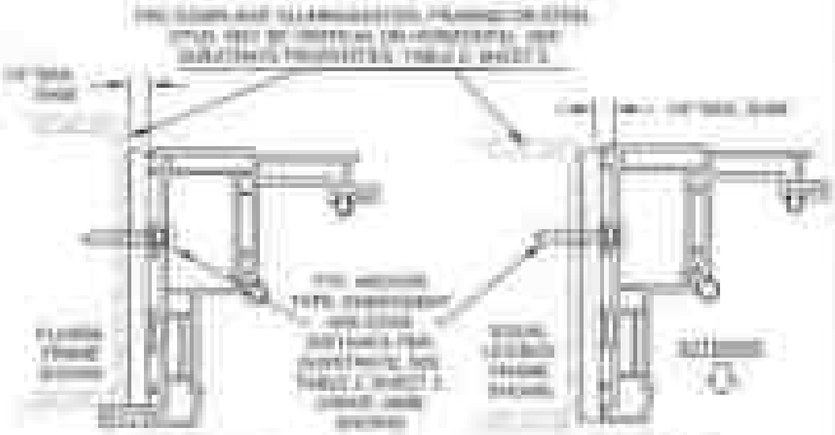


TYP. GLAZING DETAIL

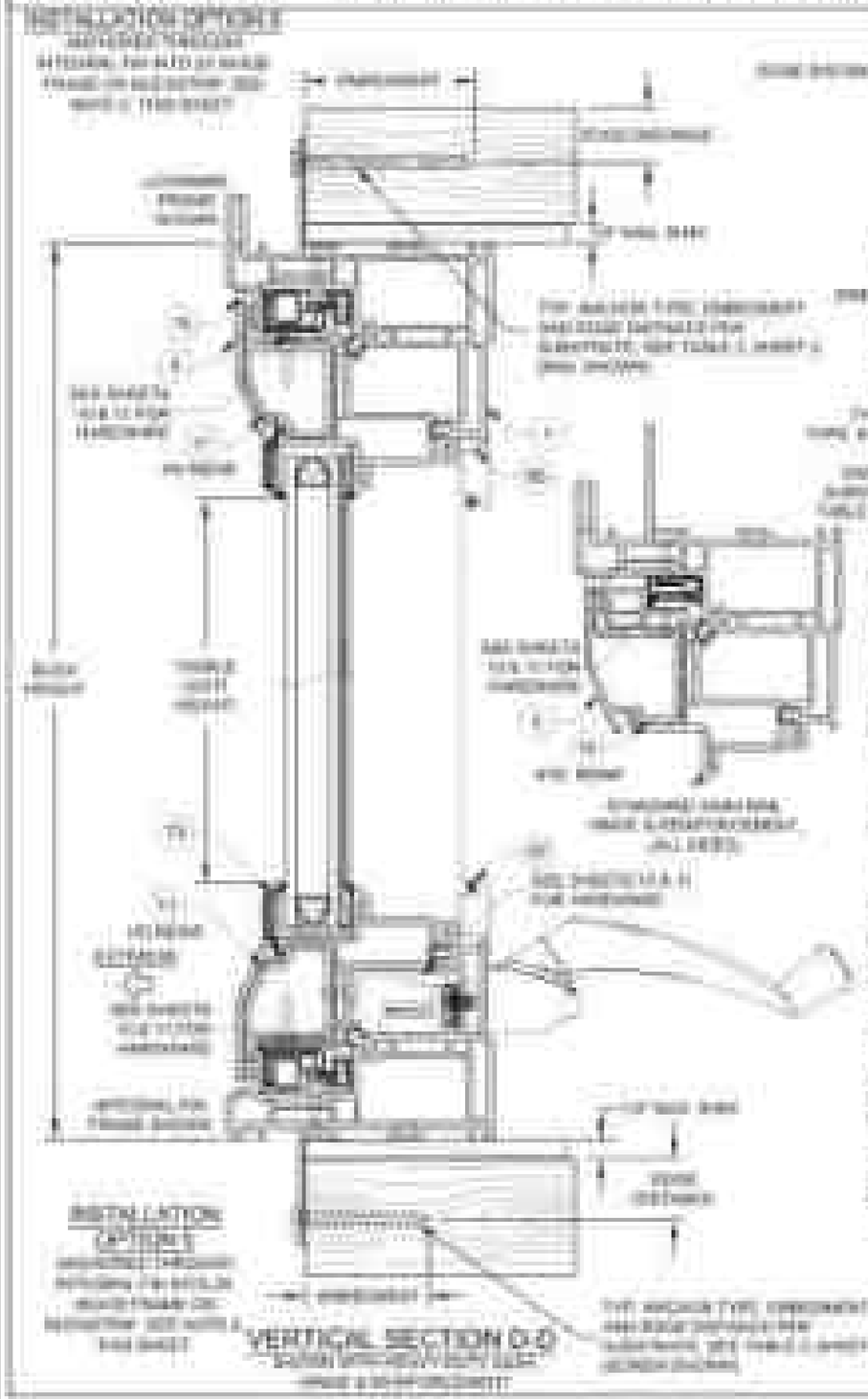
INSTALLATION DETAILS FOR FLANGE & EQUAL-LEG BOX FRAMES

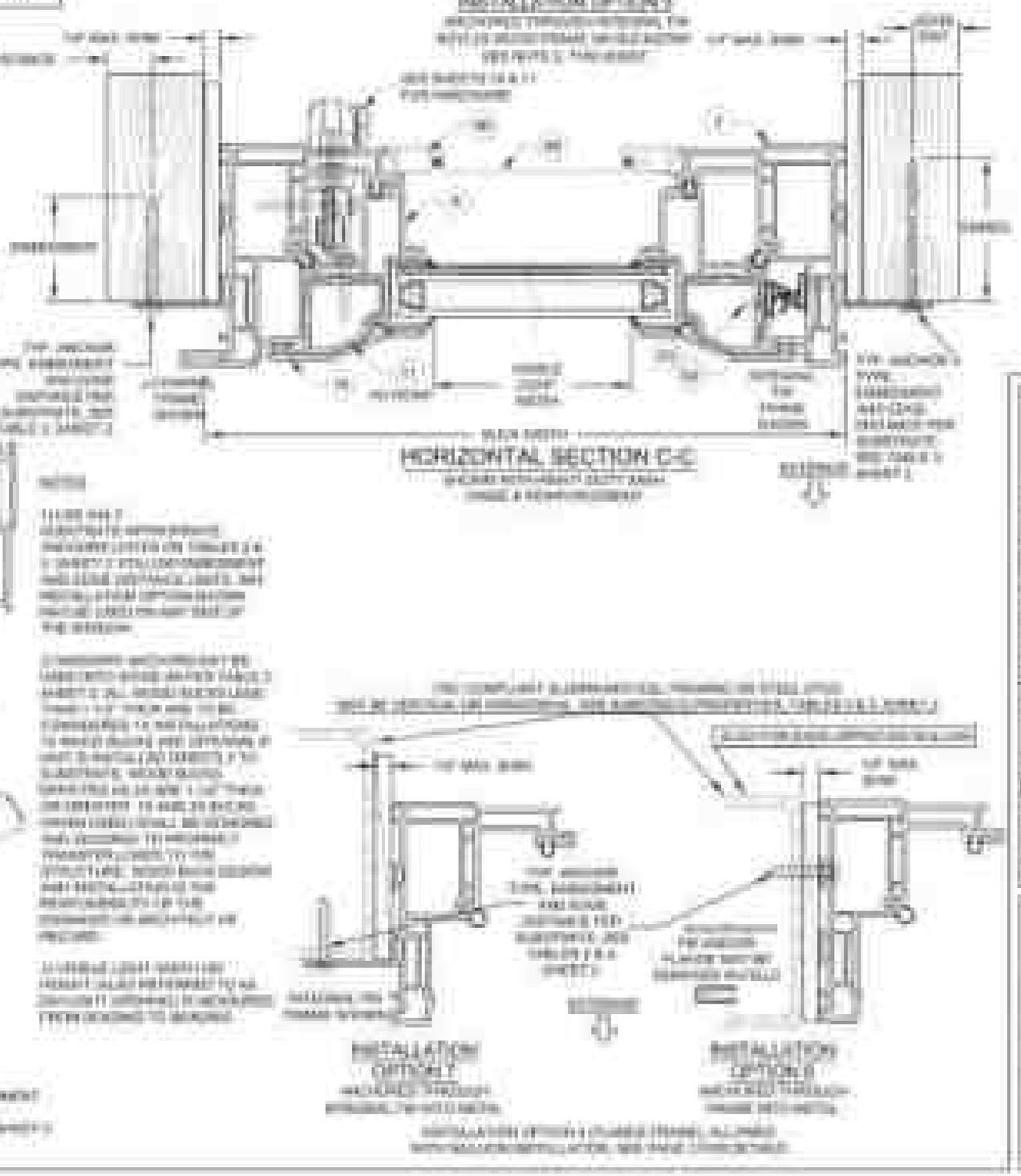






INSTALLATION DETAILS FOR INTEGRAL FIN & J-CHANNEL FRAMES





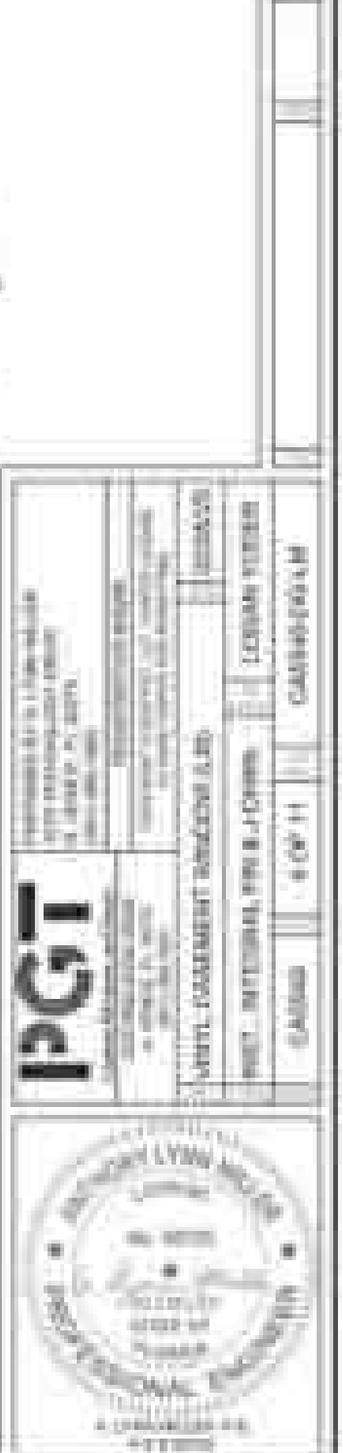


ILLUSTRATION OF CASEMENT-TO-CASEMENT (X-X)

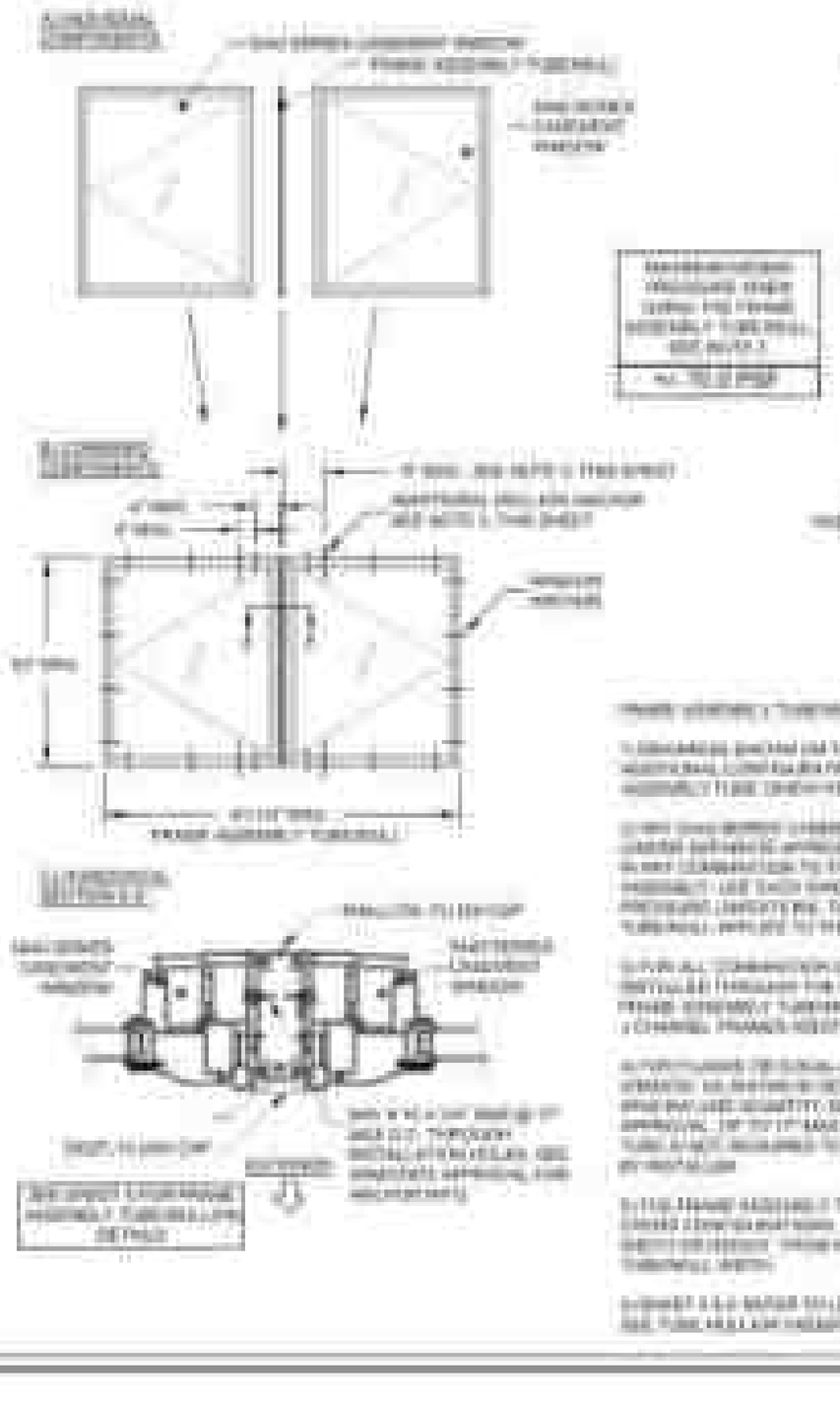


ILLUSTRATION OF AWNING-TO-CASEMENT-TO-FIXED CASEMENT (X/X/O)

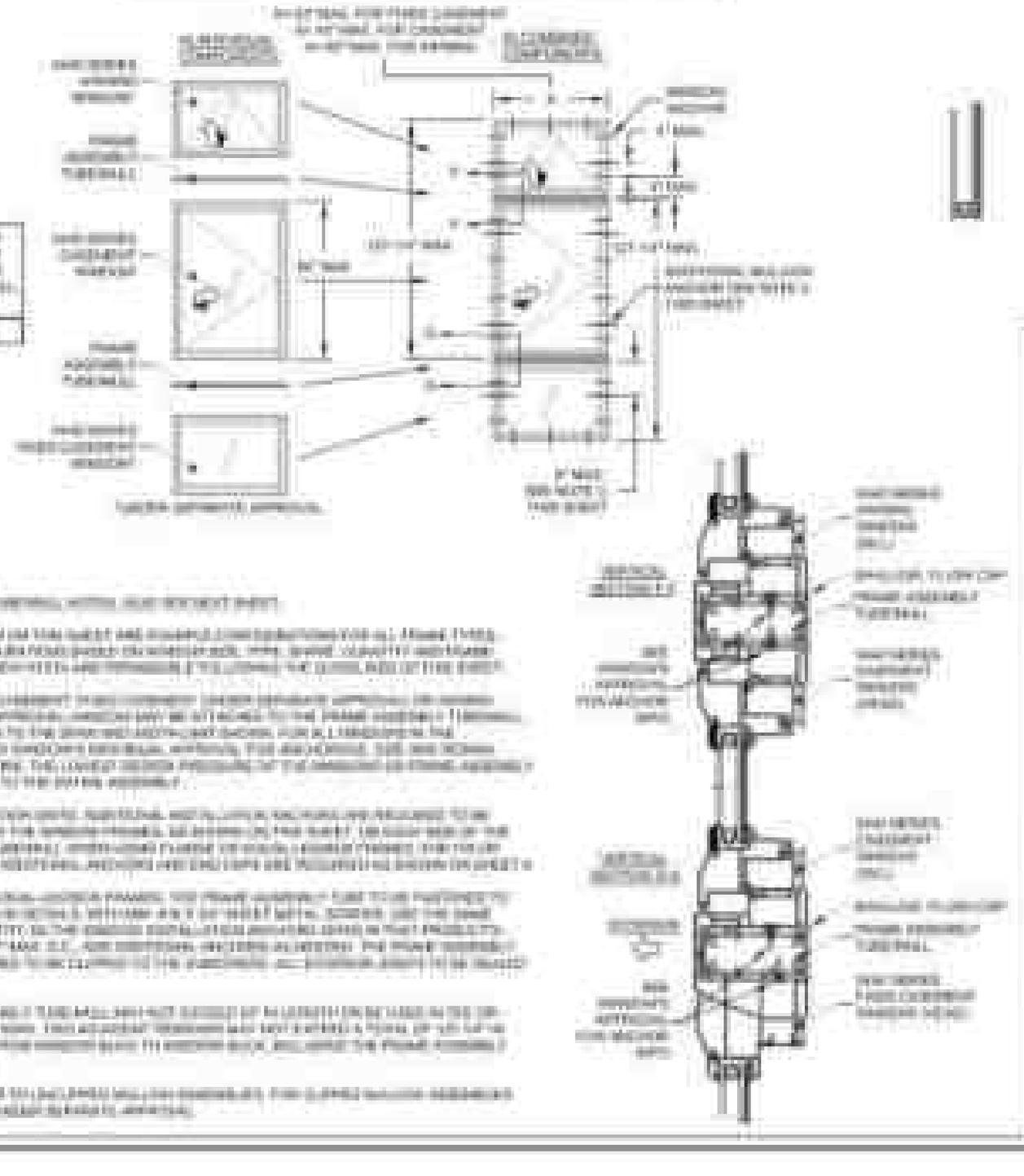
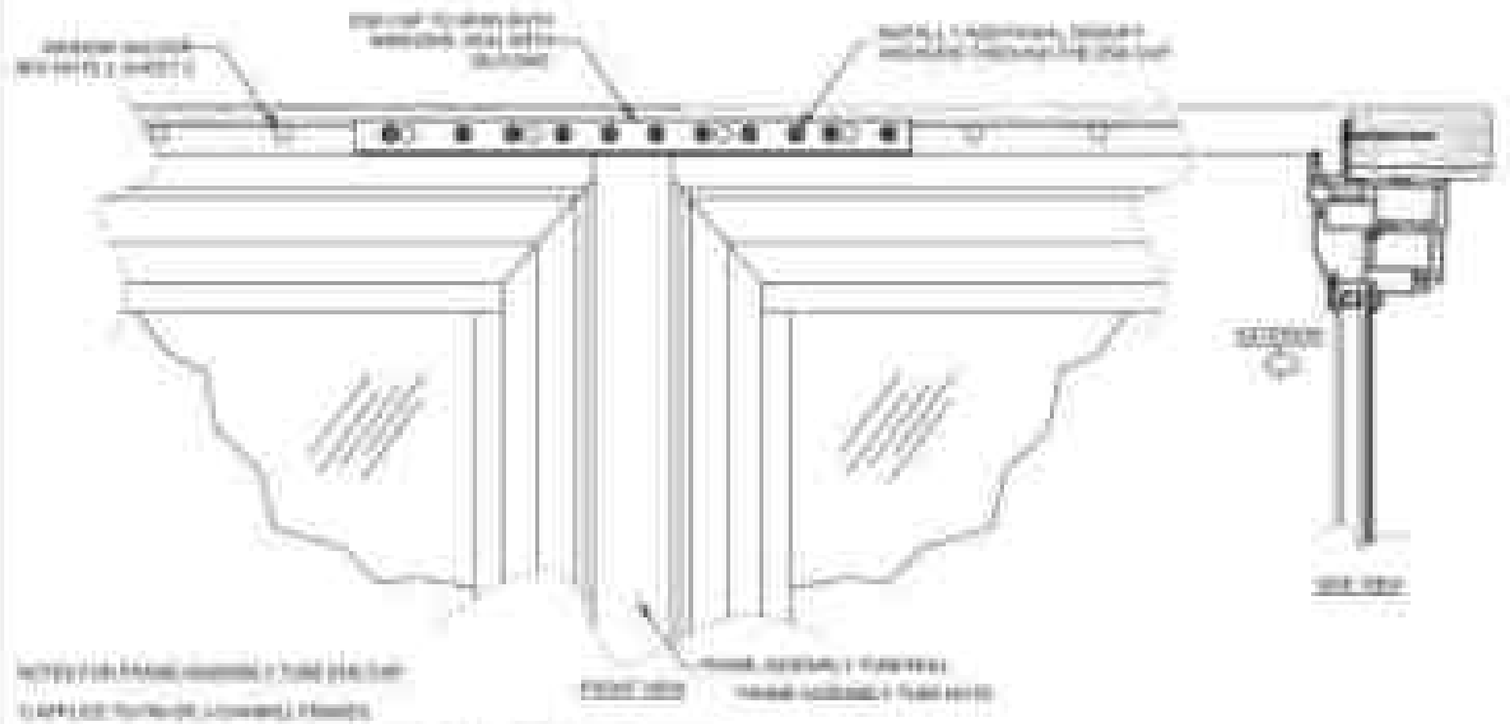
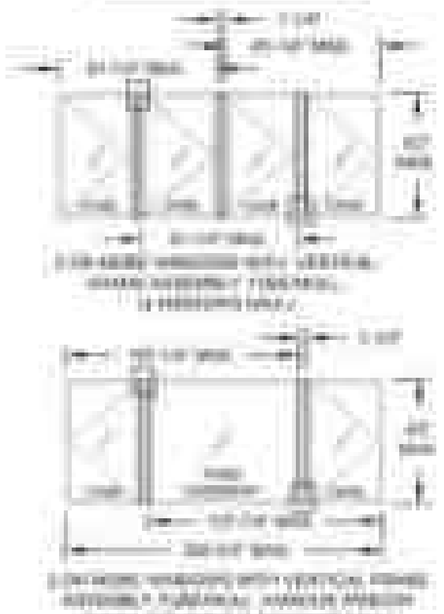
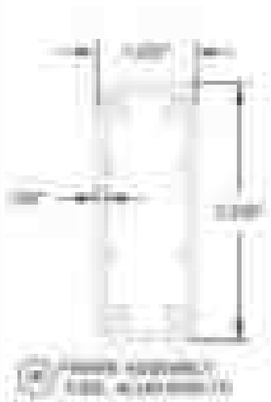




ILLUSTRATION OF END CAP USE WITH FIN AND J-CHANNEL FRAMES

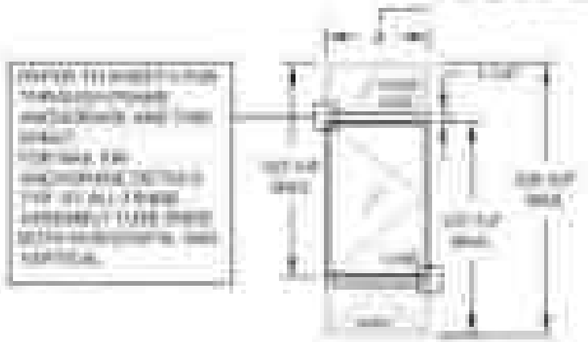


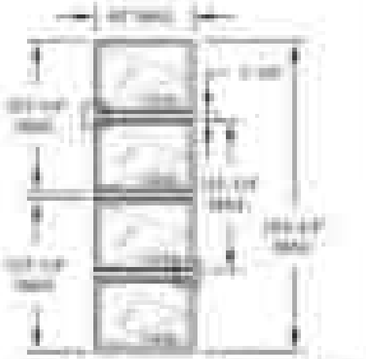












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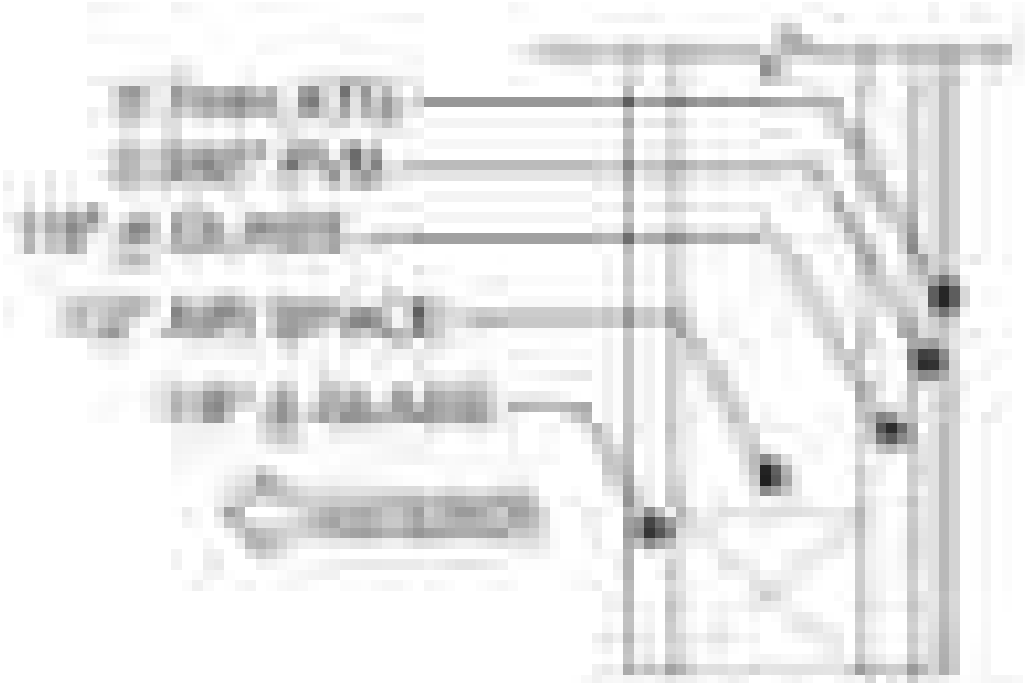
TABLE 4

Window Design Pressure (+/- psf)

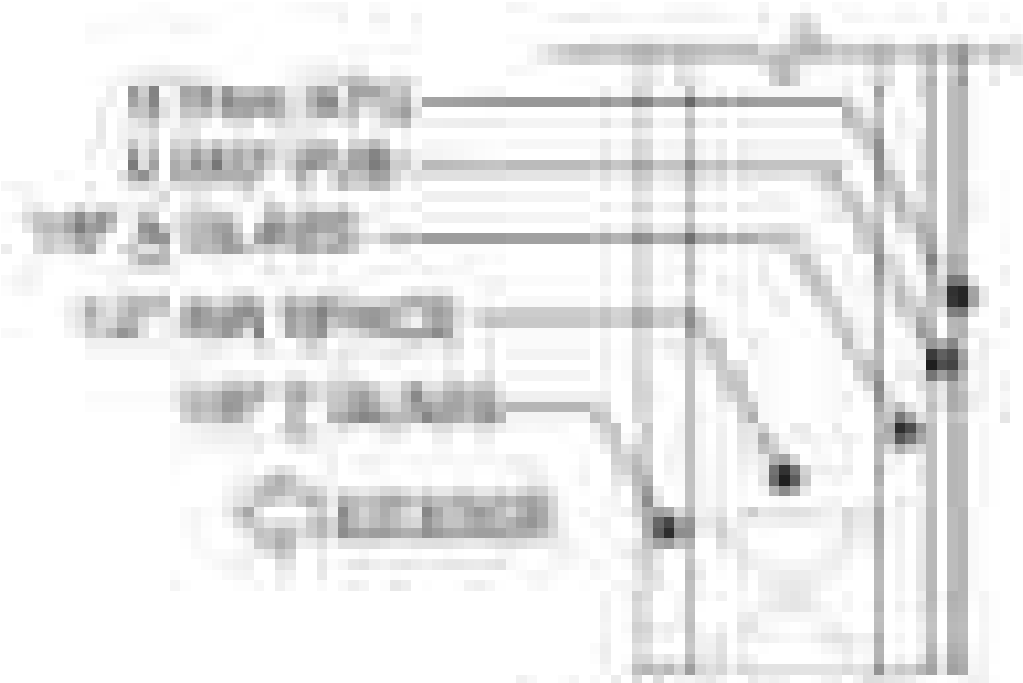
1 & 2

Window Dimension	[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]

NOTES:
[illegible]



GLASS TYPE 1
(7/8" NOM. GLASS STACK)



GLASS TYPE 2
(7/8" NOM. GLASS STACK)

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TABLE R-1

Window Design Pressures (+/- psf)

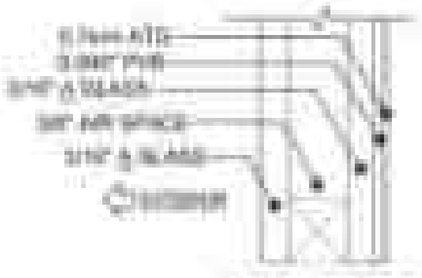
Window Designation	Room Dimensions																
	A	AA	B	BA/BB	C/CA	CB/CC	D/DA/DB	DC/DD	E/EA/EB	EC/ED	EE/EF	FA/FB	FC/FD	FE/FF	G/GA/GB	GC/GD	H
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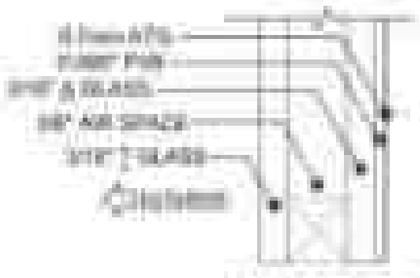
TABLE R-1

Window Design Pressures (+/- psf)

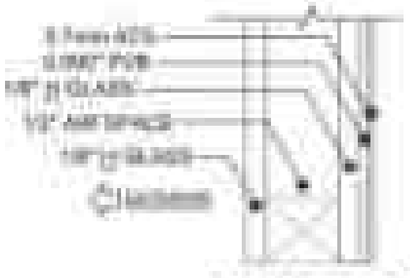
Window Designation	Room Dimensions																
	A	AA	B	BA/BB	C/CA	CB/CC	D/DA/DB	DC/DD	E/EA/EB	EC/ED	EE/EF	FA/FB	FC/FD	FE/FF	G/GA/GB	GC/GD	H
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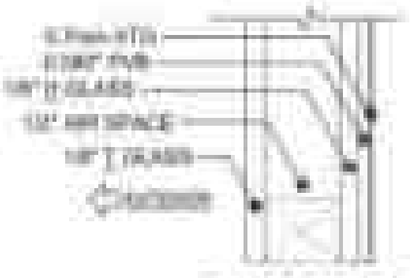
GLASS TYPE 3
(7/8" NOM. GLASS STACK)



GLASS TYPE 4
(7/8" NOM. GLASS STACK)



GLASS TYPE 5
(7/8" NOM. GLASS STACK)



GLASS TYPE 6
(7/8" NOM. GLASS STACK)

TABLE 7

Window Design Pressure, (+/- psf)

Glazing Table Reference	Use this table for Glass Type	7

Window Dimensions	Width (in)										
	24	28	32	36	40	44.000	48.000	52.000	56.000	60.000	64
Height (in)	48										
	60										
	72										
	84										
	96										

NOTES

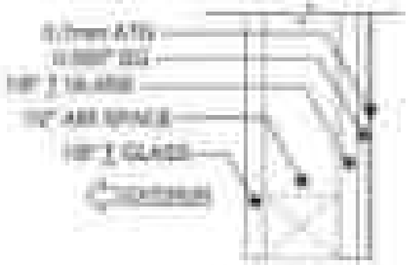
(1) FOR HEIGHTS AND WIDTHS NOT SHOWN, ROUND UP TO THE NEXT HIGHER HEIGHT OR WIDTH OR INTERPOLATE BETWEEN VALUES.

GLASS TYPE 7 MUST NOT BE USED WITH A LAMINATED OR SPECIALTY INTERLAYER.

MAX. SPACING OF ANCHORS IN ANCHORING SYSTEM THE FRAME PER SHEETS 3 & 4

APPLIED TO W, C OR T ANCHORS (SEE TABLE 2)

24 1/2"



GLASS TYPE 7
(7/8" NOM. GLASS STACK)

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PROFESSIONAL ENGINEER

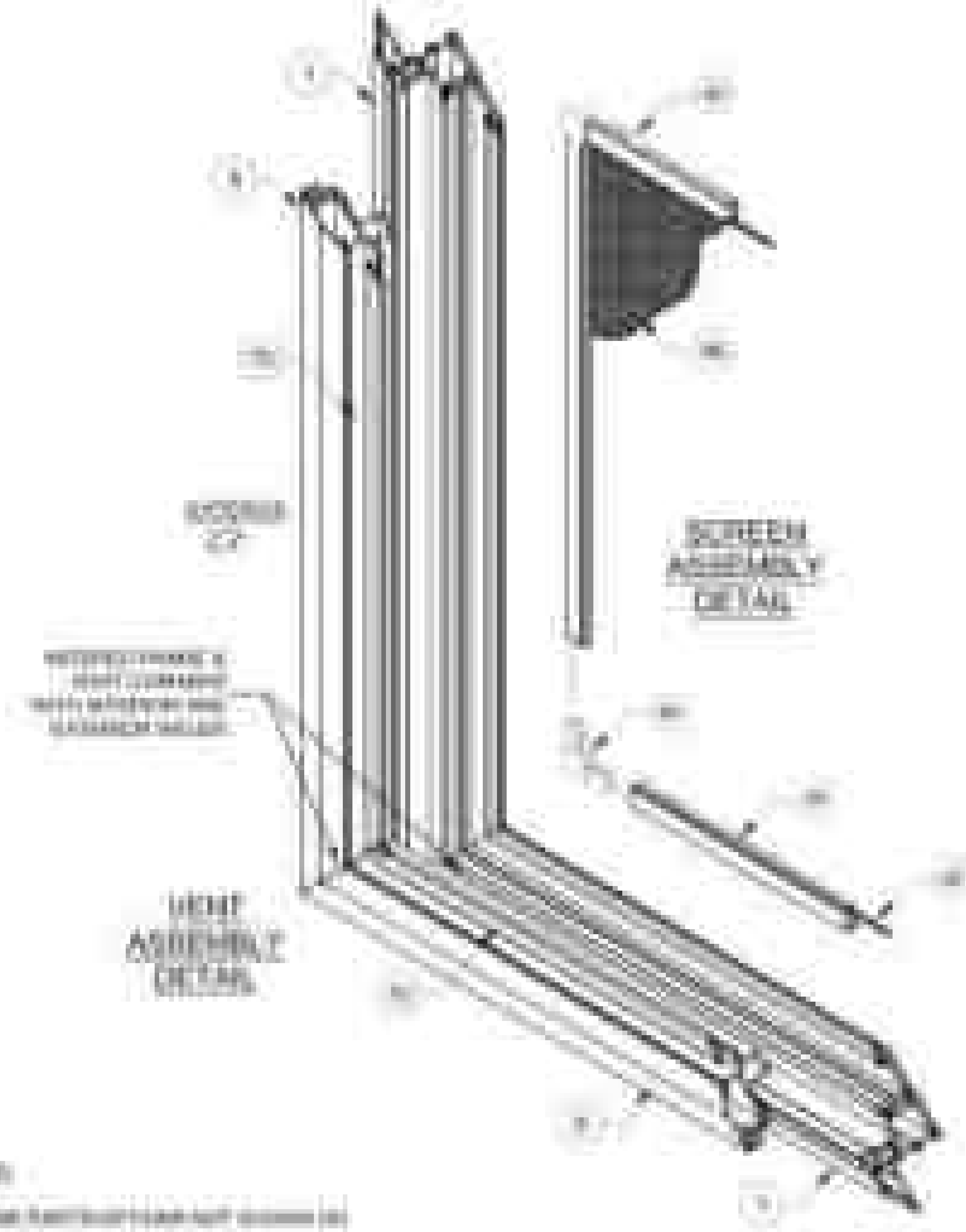
VERTICAL HARDWARE

VERTICAL HARDWARE

HORIZONTAL HARDWARE SECTION

IGT

#	Part #	Description	Material
[illegible]	[illegible]	[illegible]	[illegible]



NOTES:

[illegible]



PGT

[illegible]