

PLY GEM WINDOWS

SERIES 1500 INTEGRAL MULLED WINDOW

(NON-IMPACT)

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION OF THE MAXIMUM SIZE LISTED.
3. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
4. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
5. FOR INSTALLATION THROUGH 1X BUCK TO CONCRETE/MASONRY, OR DIRECTLY INTO CONCRETE/MASONRY, USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/4 INCH MINIMUM EMBEDMENT. (SEE NOTES ON SHEET 3 UNDER ANCHOR SCHEDULE TABLE FOR ANCHOR OPTIONS)
6. FOR INSTALLATION INTO STEEL STUD USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND STEEL FRAME SUBSTRATE. (SEE NOTES ON SHEET 3 UNDER ANCHOR SCHEDULE TABLE FOR ANCHOR OPTIONS)
7. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
8. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
9. FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
10. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
11. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

A. CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

B. GROUT-FILLED CMU- UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.

C. HOLLOW BLOCK CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.

D. STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM 18 GA. WALL THICKNESS.

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), EXCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:

AAMA/WDMA/CSA 101/I.S.2/A440-17
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS.
5. APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
6. WINDOW FRAME MATERIAL: PVC
7. GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SHEET 2 FOR GLAZING DETAILS.

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1	INSTALLATION & GENERAL NOTES
2	ELEVATIONS & GLAZING DETAILS
3	ANCHOR SCHEDULE
4	VERTICAL SECTIONS
5	HORIZONTAL SECTIONS

OVERALL SIZE		CONFIGURATION	MAX. DESIGN PRESSURE	MISSILE IMPACT RATING
WIDTH	HEIGHT			
71-1/2"	73-1/2"	OX OR XO OR XX	+35/- 35 PSF	NON-IMPACT
			+50/- 50 PSF	
80-1/2"	71-15/16"	XX	+50/- 50 PSF	
			+25/- 35 PSF	
84-1/4"	77-1/8"	XX	+40/- 40 PSF	
			+45/- 45 PSF	
71-1/2"	96-1/2"	OX OR XO OR XX	+25/- 25 PSF	
			+35/- 35 PSF	
71-1/2"	83-1/2"	OX OR XO OR XX	+35/- 35 PSF	
			+40/- 40 PSF	
			+45/- 45 PSF	
107-1/2"	73-1/2"	XOX	+30/- 30 PSF	
107-5/8"	73-7/16"	XXX OR XXO OR OXX OR OOX OR XOO OR OXO OR XOX	+35/- 35 PSF	
			+50/- 50 PSF	
107-7/16"	73-7/16"	XXX OR XXO OR OXX OR OOX OR XOO OR OXO OR XOX	+25/- 40 PSF	
107-7/16"	77-3/16"	XXX OR XXO OR OXX OR OOX OR XOO OR OXO OR XOX	+25/- 35 PSF	
109-1/16"	74-1/16"	XXX OR XXO OR OXX OR OOX OR XOO OR OXO OR XOX	+25/- 35 PSF	
121-1/16"	77-1/16"	XXX	+40/- 40 PSF	
		XXO OR OXX OR OOX OR XOO OR OXO OR XOX	+45/- 45 PSF	

NOTE: SEE SHEET 2 FOR ALL QUALIFIED CONFIGURATIONS

PlyGem

RESIDENTIAL SOLUTIONS

A division of Cornerstone Building Brands

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TITLE: SERIES 1500 INTEGRAL MULLED WINDOW INSTALLATION AND GENERAL NOTES	DATE	BY	REVISION DESCRIPTION		LMH	LMH	LMH	LMH
	12.18.12	JLA	7TH EDITION (2020) FBC		C	D	E	F
	DWN BY:	CHK BY:	SCALE:		NTS			

Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Dte: 2024.04.30 16:01:58 -04'00'

HERMES F. NORERO

LICENSE

No. 73778

STATE OF FLORIDA

PROFESSIONAL ENGINEER

HERMES F. NORERO
FLORIDA P.E. NO. 73778
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BUILDING DROPS, INC.

398 E. DANIA BEACH BLVD., #338
DANIA BEACH, FL 33004
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FL #:

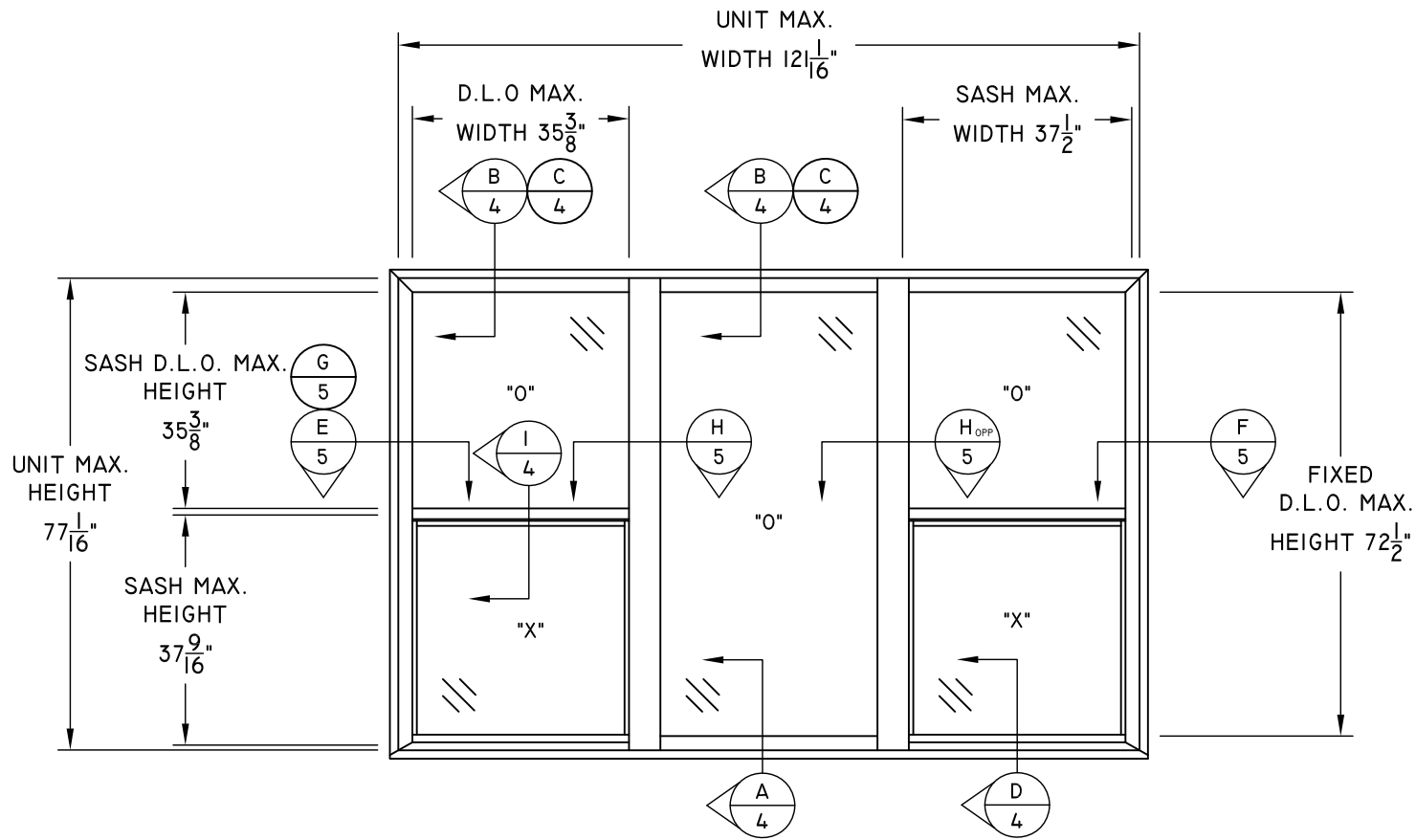
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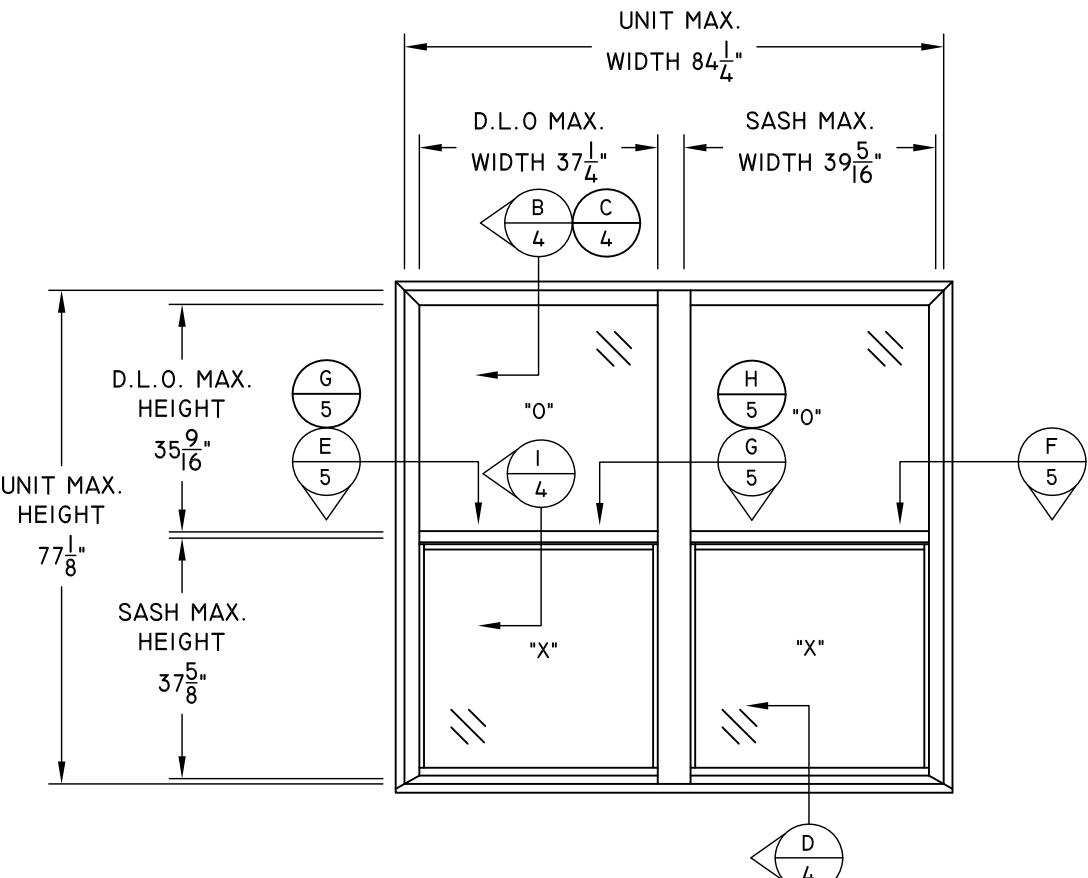
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SHEET:

1 OF 5



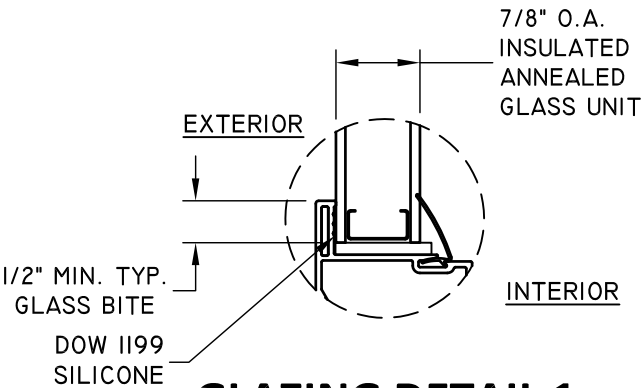
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TRIPLE UNIT



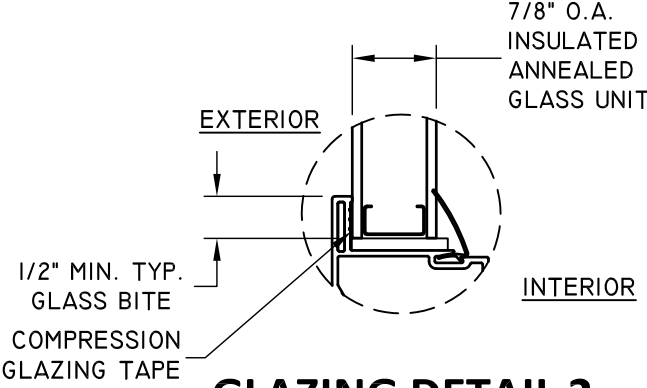
TYPICAL ELEVATION
TWIN UNIT

NOTE:
SEE SHEET 3 FOR ANCHOR SCHEDULE.

SERIES I500 INTEGRAL MULLED WINDOW	
UNIT TYPE	QUALIFIED CONFIGURATIONS
TWIN UNITS	XX
	XO
	OX
TRIPLE UNITS	XXX
	XXO
	OXX
	OOX
	XOO
	OXO
	XOX



GLAZING DETAIL 1
FOR USE IN ANY LITE
(FIXED OR SASH)



GLAZING DETAIL 2
FOR USE IN SINGLE HUNG
FIXED LITES ONLY



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TITLE: SERIES I500 INTEGRAL MULLED WINDOW ELEVATIONS & GLAZING DETAILS	DATE	DWN BY:	CHK BY:	SCALE:
	12.18.12	JLA	HFN	NTS
	NO.	REVISION DESCRIPTION	BY	DATE
	C	7TH EDITION (2020) FBC	LMH	11.30.20
	D	EC 20-007 NEW TEST SIZES	LMH	03.29.21
	E	ADDED TINNEMAN NUT PG 3.	LMH	11.18.21
	F	UPDATED TO CURRENT FBC.	LMH	04.15.24



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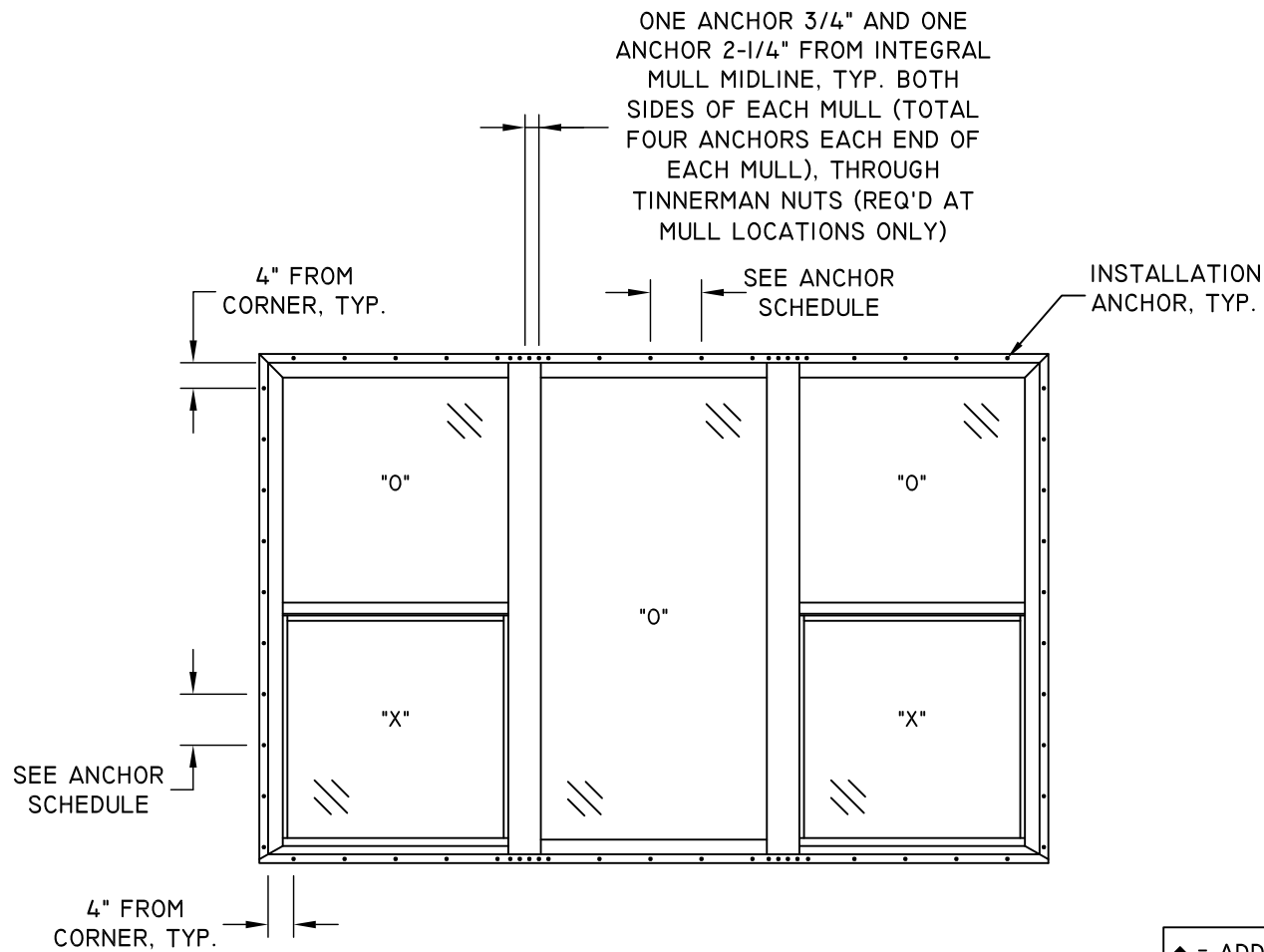


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PGWI9I

SHEET:
2 OF 5



TYPICAL ELEVATION
FIN INSTALLATION
121-1/16" x 77-1/16" UNIT

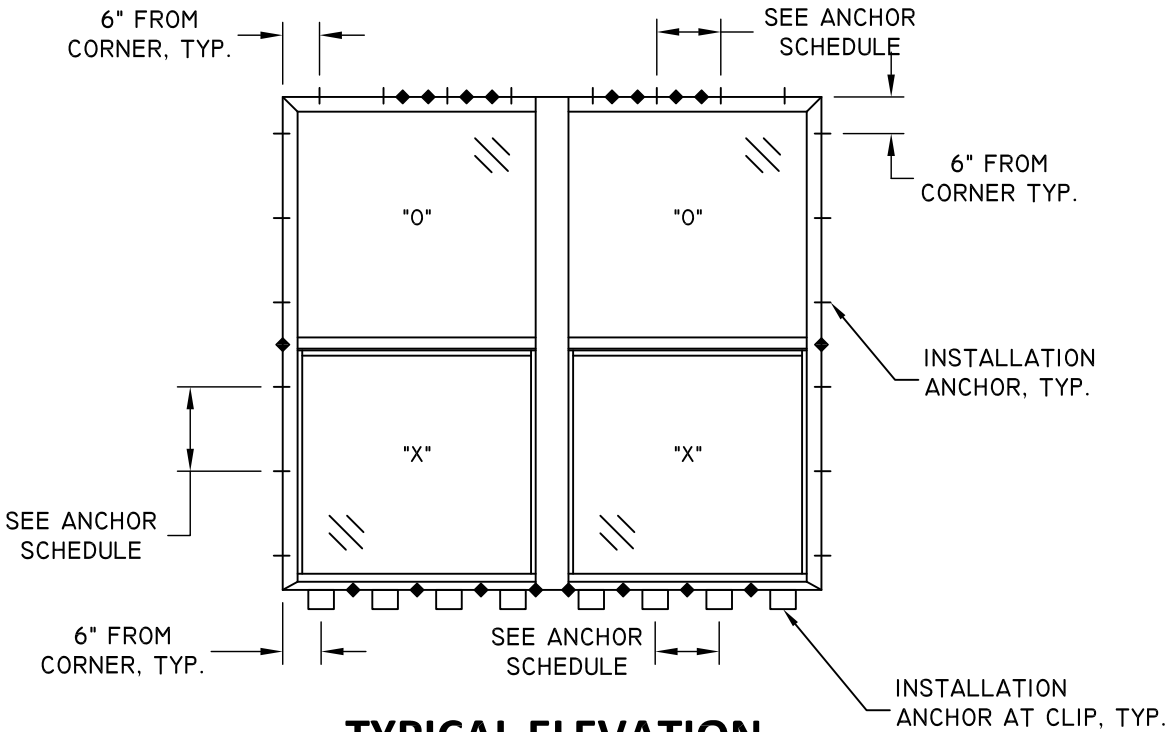
◆ = ADDITIONAL ANCHOR
LOCATION FOR TYPE II
INSTALLATION

1. ANCHOR SPACING LISTED ABOVE IS BASED ON MAXIMUM UNIT SIZE AND PRESSURE LISTED. SPACING IS QUALIFIED FOR SMALLER UNITS OR UNITS REQUIRING LOWER PRESSURES.
2. FOR FRAME INSTALLATION, ANCHOR CLIPS ARE REQUIRED AT THE SILL SPACED AS SHOWN IN CHART.
3. ANCHOR SPACING LISTED IS APPLICABLE FOR ALL ANCHOR TYPES OR SUBSTRATES LISTED HEREIN.
4. ANCHOR METHODS MAY BE INTERMIXED AS LONG AS ANCHOR SPACING, TYPE, ETC. ADHERES TO REQUIREMENTS LAID OUT IN THIS DOCUMENT (I.E. FRAME INSTALL AT HEAD & JAMBS, FIN INSTALL AT SILL)

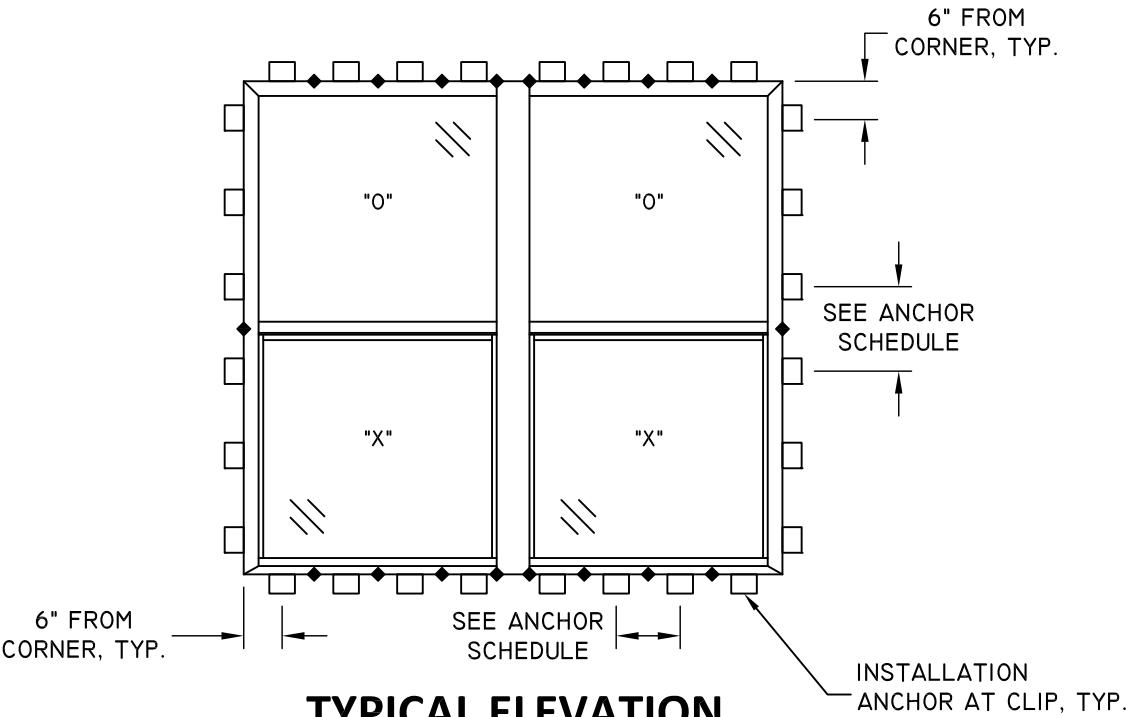
SERIES 1500 INTEGRAL MULLED WINDOW (NON-IMPACT) - ANCHOR SCHEDULE								
ANCHOR TYPE	INSTALLATION TYPE & ANCHOR SPACING							
	FIN ⁽⁴⁾			FRAME		CLIP		
	HEAD	JAMB	SILL	HEAD	JAMB	HEAD	JAMB	SILL
TYPE I	8.5"	8.5"	8.5"	10"	14"	10"	14"	10"
TYPE II	8.5"	8.5"	8.5"	6"	8.5"	6"	8.5"	6"

NOTES:

1. SEE NOTES 5 & 6 ON SHEET I FOR ANCHOR INSTALLATION REQUIREMENTS.
2. TYPE I ANCHORS ARE 3/16" OR 1/4" DEWALT ULTRACON+, OR 1/4" TEK SCREW ANCHORS.
3. TYPE II ANCHORS ARE 3/16" OR 1/4" ITW TAPCON, OR #12 TEK SCREW ANCHORS.
4. THROUGH FIN INSTALLATION FOR #12 OR 1/4" TEK SCREW INTO STEEL SUBSTRATE ONLY.



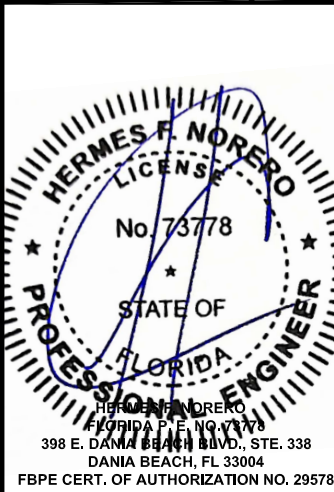
TYPICAL ELEVATION
FRAME INSTALLATION
84-1/4" x 77-1/8" UNIT



TYPICAL ELEVATION
CLIP INSTALLATION
84-1/4" x 77-1/8" UNIT

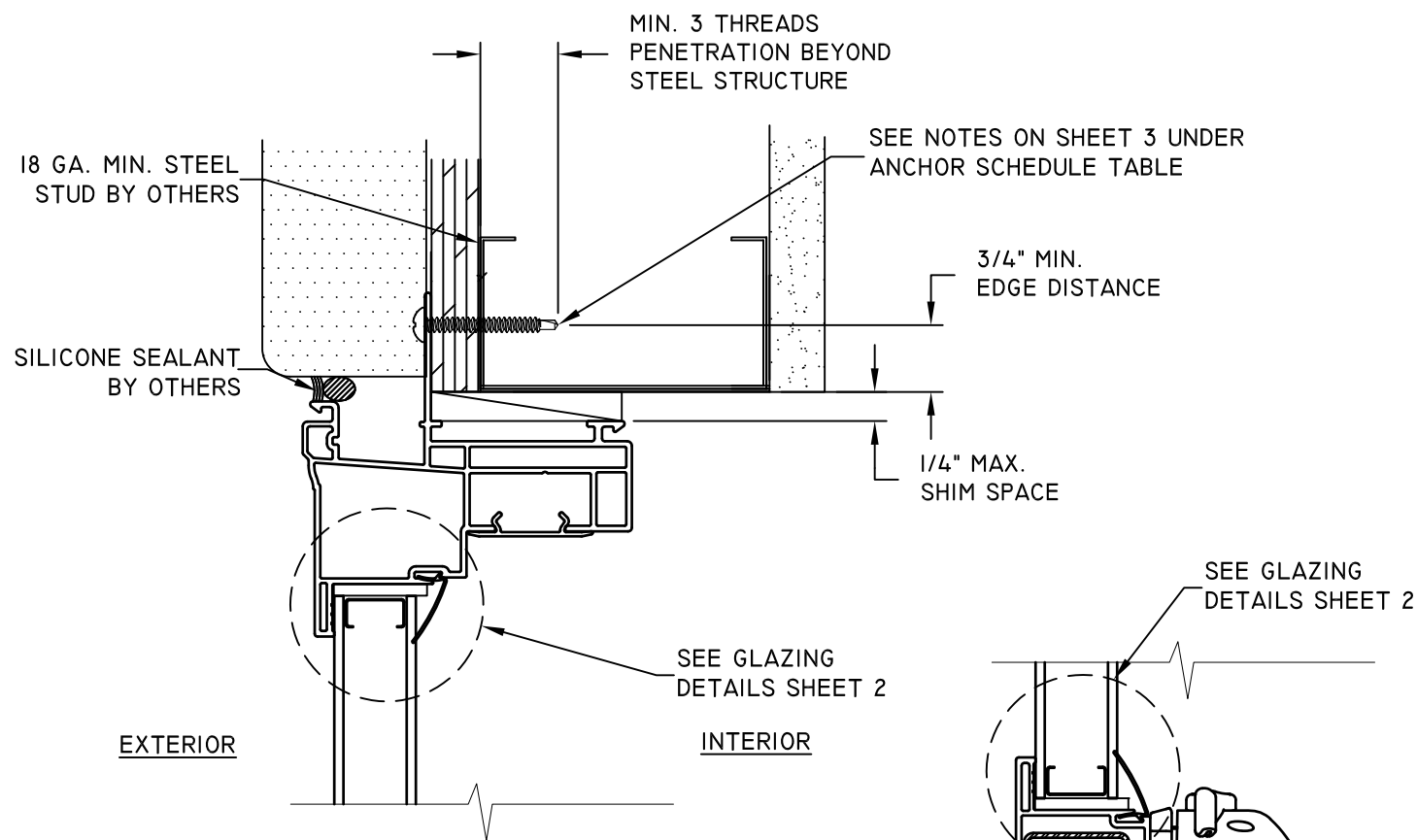
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				D	03.29.21	LMH	EC 20-007 NEW TEST SIZES	D
				E	11.18.21	LMH	ADDED TINNEMAN NUT PG 3.	E
				F	04.15.24	LMH	UPDATED TO CURRENT FBC.	F

DATE: 12.18.12	DWN BY: JLA	CHK BY: HFN	SCALE: NTS
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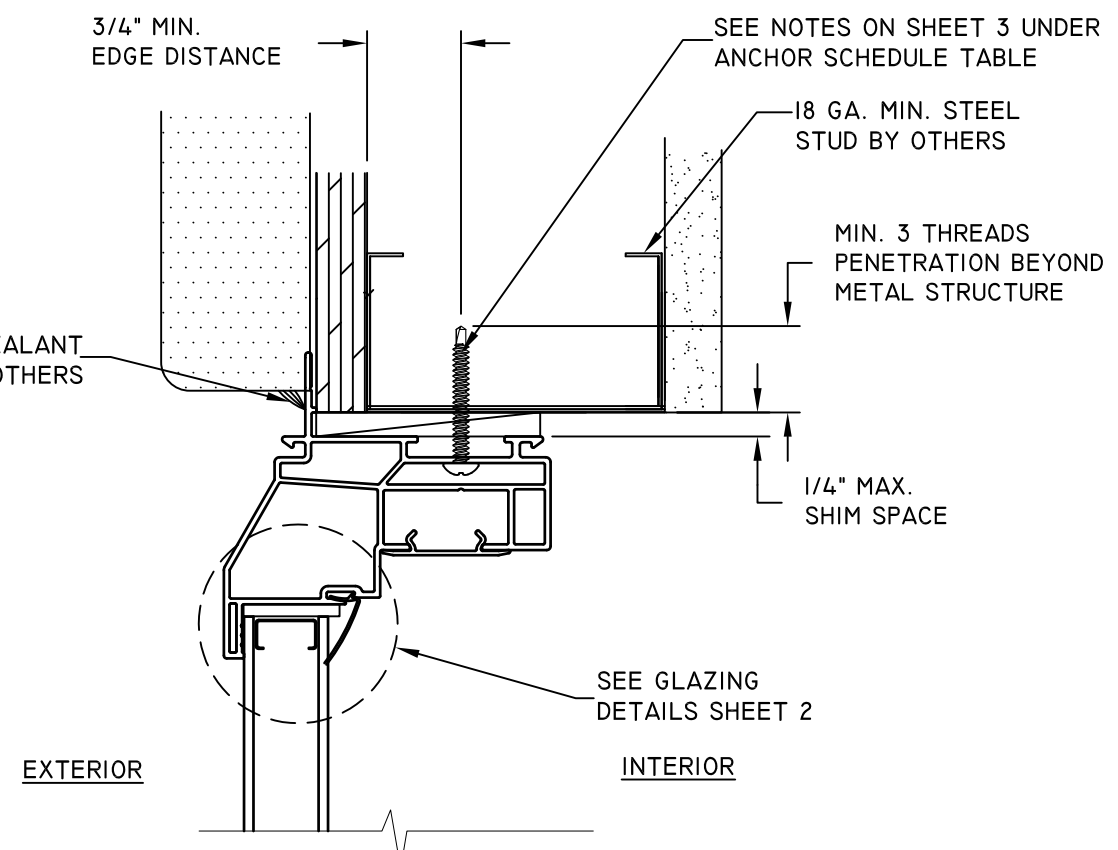


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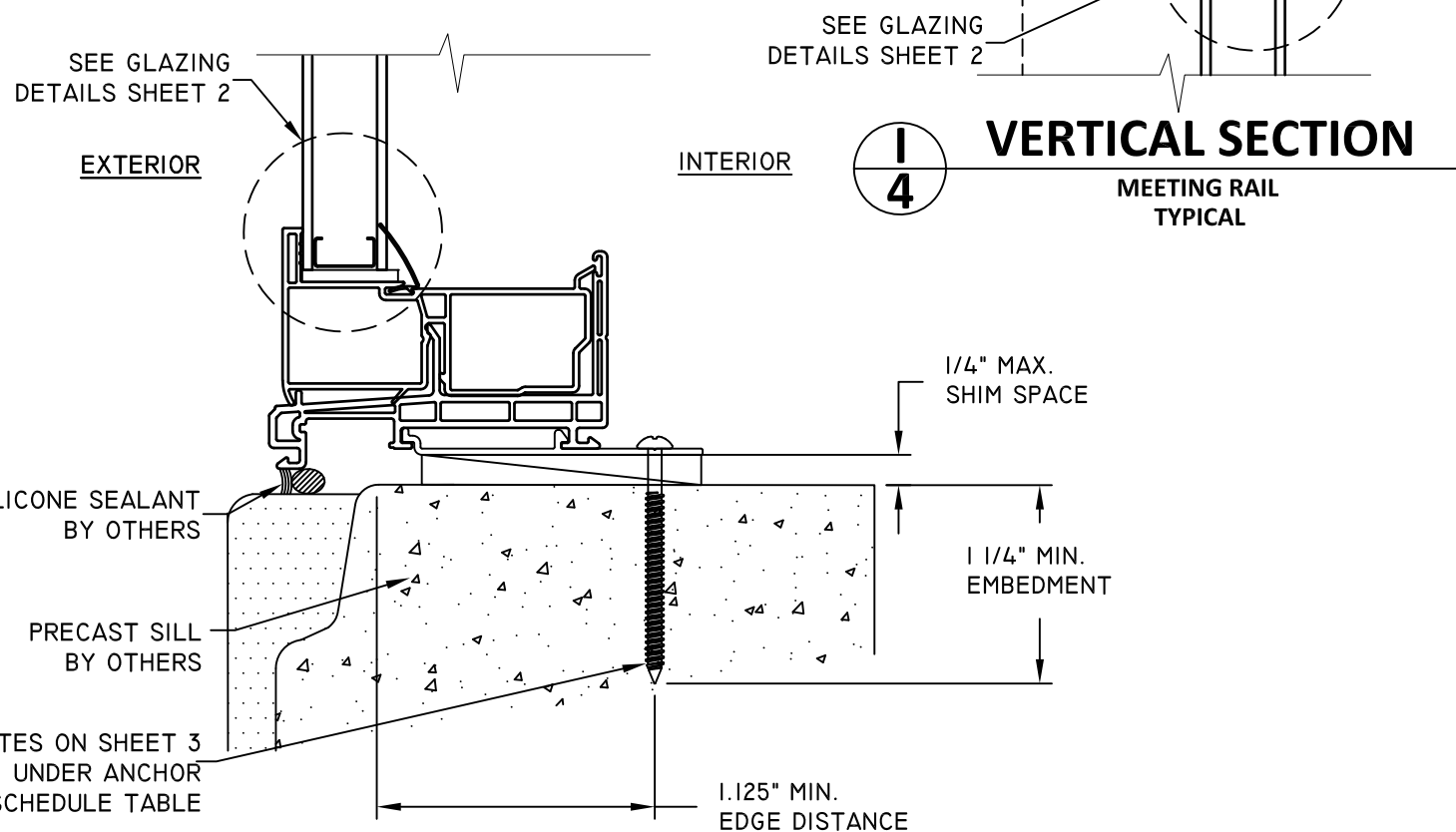
FL#:	16100
DWG #:	PGWI9I
SHEET:	3 OF 5



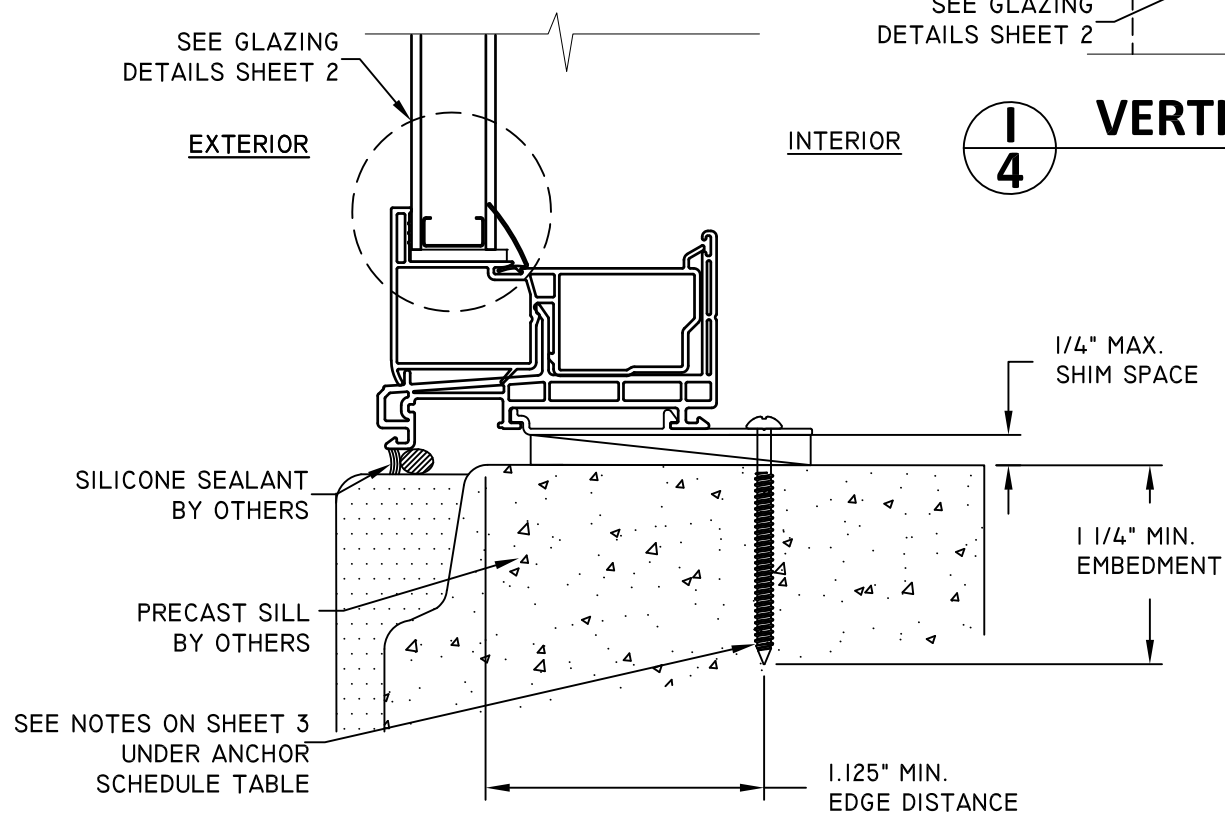
B
4 **VERTICAL SECTION**
HEAD - STEEL STUD
BRICKMOULD FRAME - FIN INSTALLATION



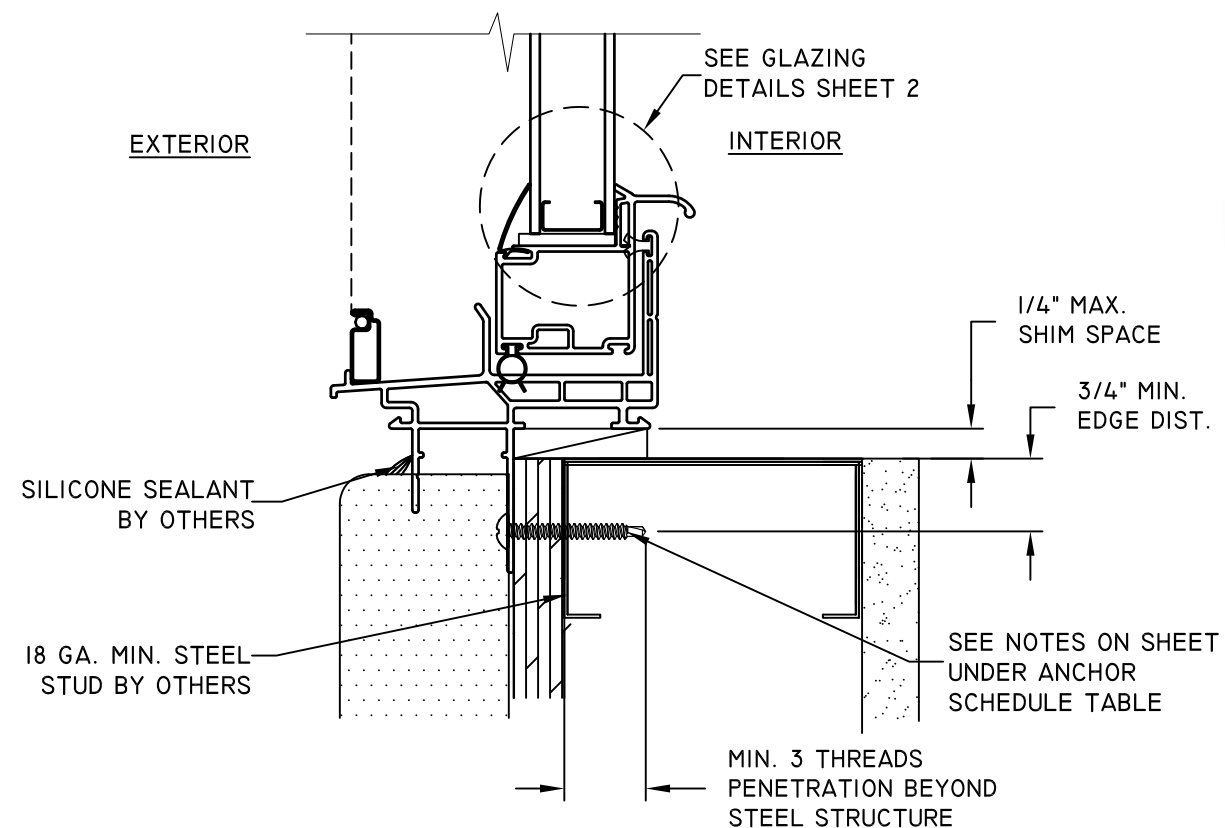
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4 **VERTICAL SECTION**
HEAD - STEEL STUD
BEVELED FRAME - FRAME INSTALLATION



I
4 **VERTICAL SECTION**
MEETING RAIL
TYPICAL

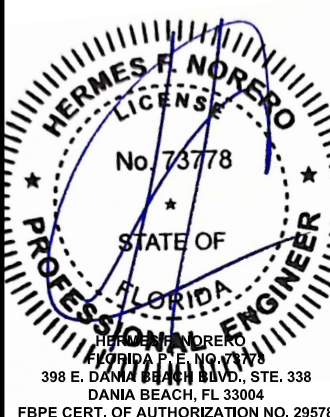


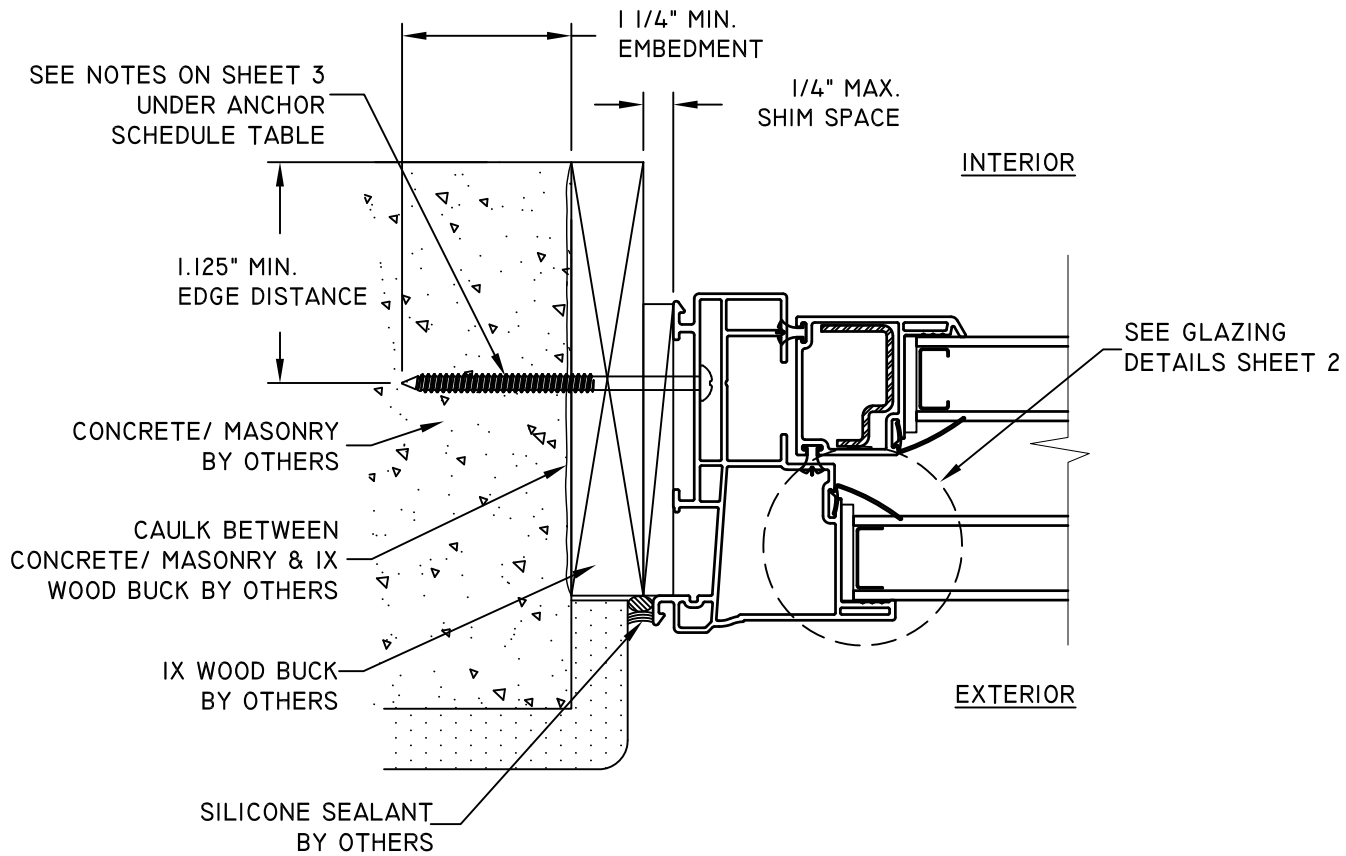
A
4 **VERTICAL SECTION**
SILL - MASONRY/CONCRETE
BRICKMOULD FRAME - CLIP INSTALLATION



D
4 **VERTICAL SECTION**
SILL - STEEL STUD
BEVELED FRAME - FIN INSTALLATION

TITLE: SERIES 1500 INTEGRAL MULLED WINDOW VERTICAL SECTIONS	DATE	BY	REVISION DESCRIPTION	NO.
	12.18.12	JLA	7TH EDITION (2020) FBC	C
	DWN BY:	CHK BY:	EC 20-007 NEW TEST SIZES	D
	12.18.12	HFN	ADDED TINNEMAN NUT PG 3.	E
	DATE	DATE	UPDATED TO CURRENT FBC.	F
	12.18.12	12.18.12	04.15.24	

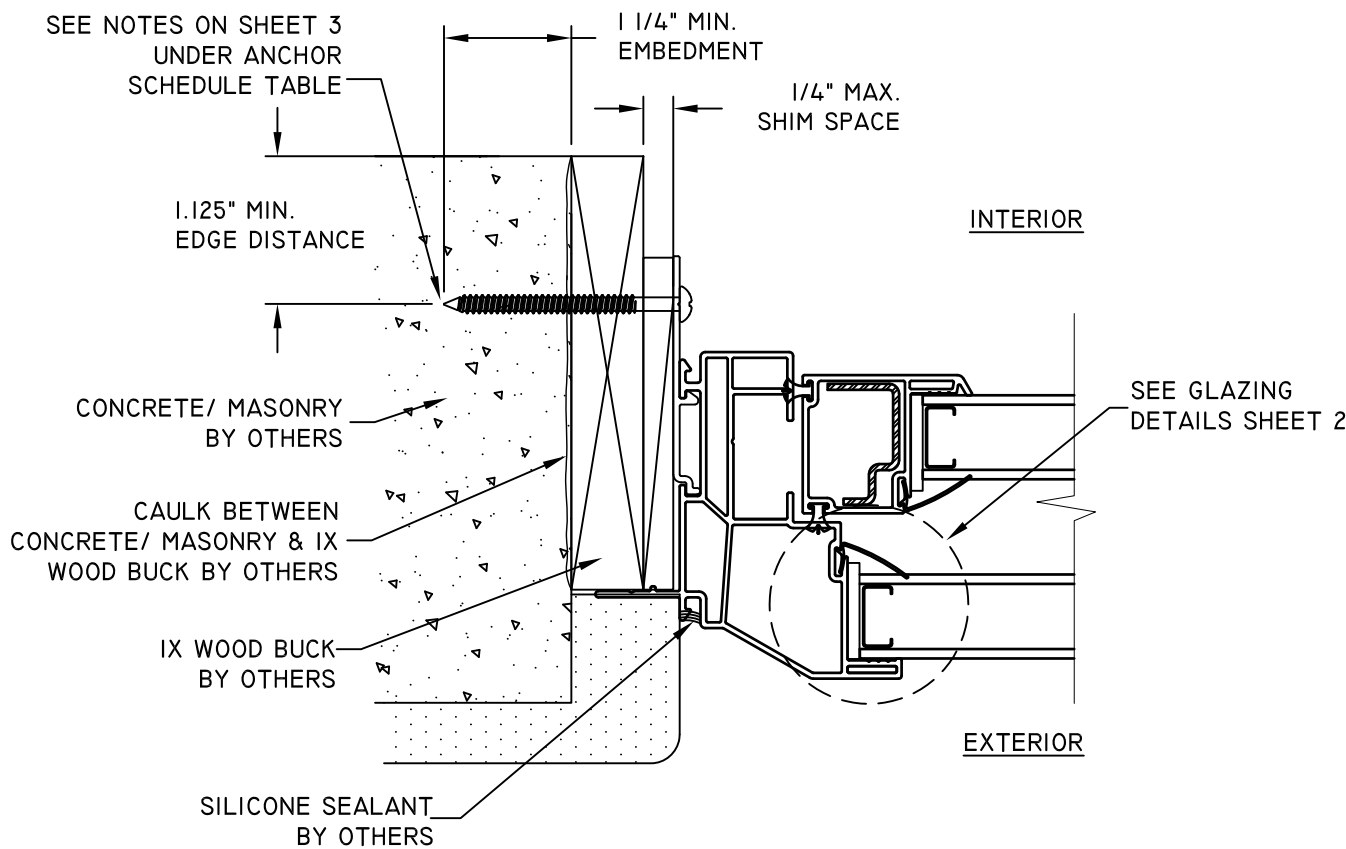




E
5

HORIZONTAL SECTION

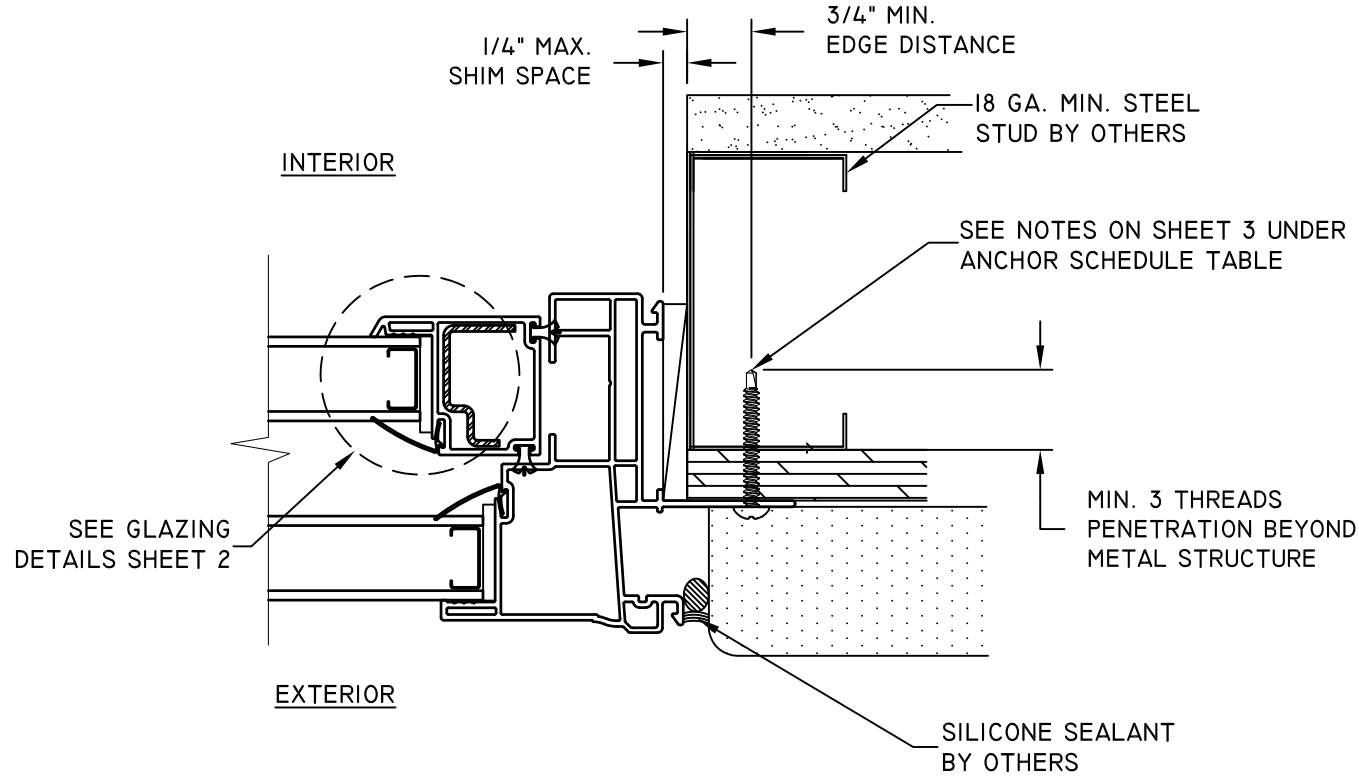
JAMB - MASONRY/CONCRETE
BRICKMOULD FRAME - FRAME INSTALLATION



G
5

HORIZONTAL SECTION

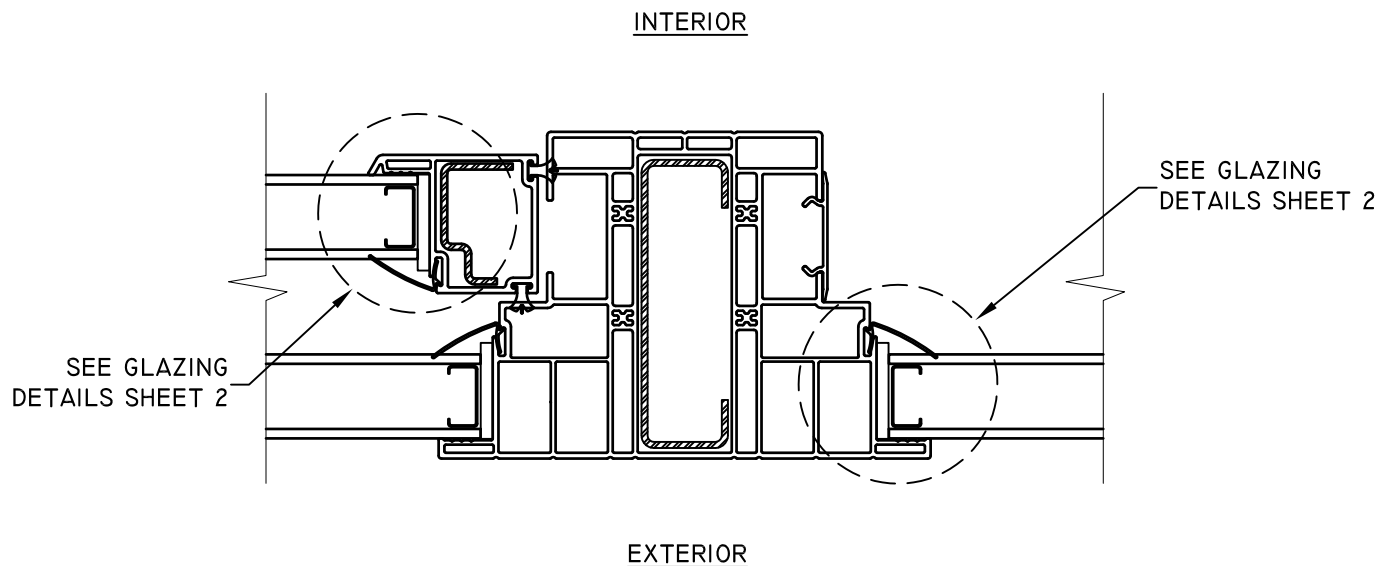
JAMB - MASONRY/CONCRETE
BEVELED FRAME - CLIP INSTALLATION



F
5

HORIZONTAL SECTION

JAMB - STEEL STUD
BRICKMOULD FRAME - FIN INSTALLATION



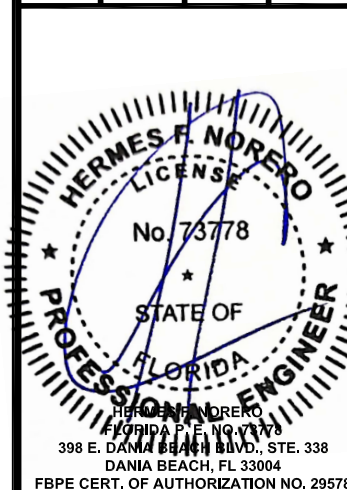
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5

HORIZONTAL SECTION

INTEGRAL MULLION
TYPICAL

TITLE: SERIES 1500 INTEGRAL MULLED WINDOW HORIZONTAL SECTIONS	NO.	REVISION DESCRIPTION	BY	DATE
	C	7TH EDITION (2020) FBC	LMH	11.30.20
	D	EC 20-007 NEW TEST SIZES	LMH	03.29.21
	E	ADDED TINNEMAN NUT PG 3.	LMH	11.18.21
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DATE: 12.18.12	DWN BY: JLA	CHK BY: HFN	SCALE: NTS
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SHEET:	5 OF 5