

YKK AP AMERICA RESIDENTIAL

PRECEDENCE FACTORY MULLION

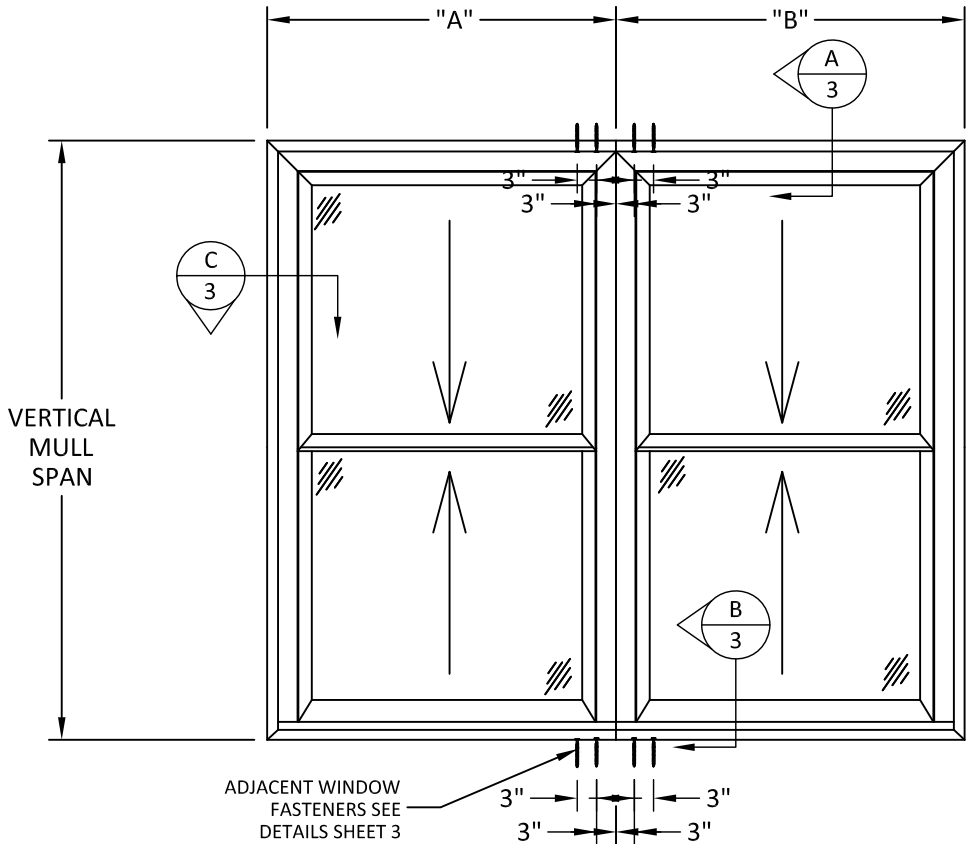
(WZ3) (IMPACT)

INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF $\pm 1/2$ INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- FOR UNCLIPPED MULLIONS: USE FOUR (4) #12 WOOD SCREWS, PER MULLION END, OF SUFFICIENT LENGTH TO ACHIEVE MINIMUM EMBEDMENT OF $1\frac{1}{2}$ " INTO WOOD FRAMING. (SEE INSTALLATION DETAILS ON SHEET 2).
- FOR UNCLIPPED MULLIONS: USE FOUR (4) $\frac{1}{4}$ " ITW TAPCONS, PER MULLION END, OF SUFFICIENT LENGTH TO ACHIEVE MINIMUM EMBEDMENT OF $1\frac{1}{4}$ " INTO CONCRETE OR MASONRY. (SEE INSTALLATION DETAILS ON SHEET 2).
- FOR UNCLIPPED MULLIONS: USE FOUR (4) #12-14 SAE GR. 5 SELF-DRILLING OR SELF-TAPPING SCREWS, PER MULLION END, OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM 3 THREADS PENETRATION BEYOND METAL SUBSTRATE. (SEE INSTALLATION DETAILS ON SHEET 2).
- MINIMUM EDGE DISTANCES ARE BASED ON $\frac{3}{4}$ " FOR #12 WOOD SCREWS, $2\frac{1}{2}$ " FOR $\frac{1}{4}$ " TAPCONS, & $\frac{5}{8}$ " FOR #12-14 GR. 5 SELF-TAPPING OR SELF-DRILLING SCREWS.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK, VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 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.
- INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
 - CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - CMU - SHALL CONFORM TO MIN. REQUIREMENTS OF ASTM C90
 - STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM 18 GA. (0.0478") WALL THICKNESS.
 - ALUMINUM - ALLOY SHALL BE 6063-T5 OR EQUIVALENT. MINIMUM (0.090") WALL THICKNESS.

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC), SECTION 1709.8, EXCLUDING HVHZ.
- APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED ON THESE PRODUCTS IN WIND BORNE DEBRIS REGIONS ZONE 3 OR LESS SUCH THAT ADJOINING WINDOWS ARE IMPACT RATED.
- APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGION ZONE 4.
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING AND METAL STUD 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.
- 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.
- THIS MULLION IS ONLY VALID WHEN USED IN CONJUNCTION WITH APPLICABLE YKK AP AMERICA RESIDENTIAL PRODUCTS. QUALIFIED CONFIGURATIONS INCLUDE FIXED-FIXED, FIXED-OPERABLE, & OPERABLE-OPERABLE CONFIGURATIONS OF DOUBLE HUNG AND FIXED WINDOW PRODUCTS.
- ALL WINDOWS USED WITH THIS MULLION SHALL BE QUALIFIED UNDER SEPARATE APPROVAL. THE LESSER DESIGN PRESSURE RATING OF THE WINDOW OR THE MULLION OF INSTALLATION SHALL GOVERN THE OVERALL DESIGN PRESSURE OF THE ASSEMBLY.
- MULLION MATERIAL: 6063-T5 ALUMINUM.
- IN ACCORDANCE WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC), DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM UNIT FRAMING SHALL BE PROTECTED.



VERTICAL MULLION

SEE GEN. NOTE 6 FOR QUALIFIED CONFIGURATIONS

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2	UNCLIPPED MULLION ELEVATION & ASSEMBLY
3	VERTICAL & HORIZONTAL SECTIONS
4	ONE-WAY UNCLIPPED MULLION DESIGN PRESSURE TABLES



YKK AP AMERICA RESIDENTIAL
1229 HWY 441 BYPASS
DUBLIN, GEORGIA 31021
PH: (478)277-1955 FAX: (678)838-6001

TITLE:
PRECEDENCE FACTORY MULLIONS
(WZ3) (IMPACT)

INSTALLATION & GENERAL NOTES

PREPARED BY:

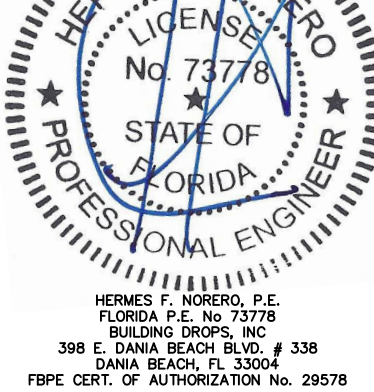
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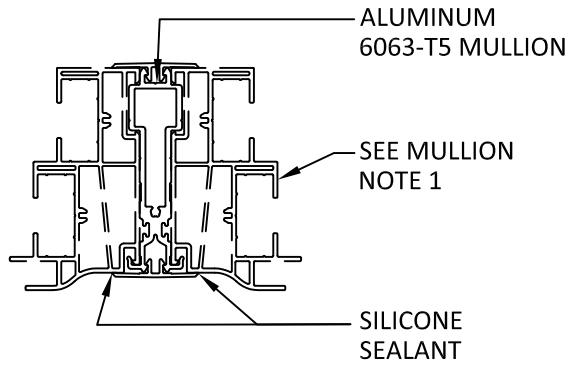
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A- 6TH ED. FBC CODE CHANGE	HR	09.27.17

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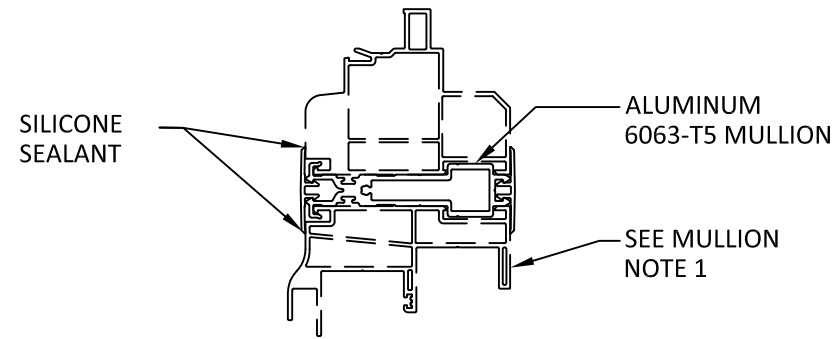
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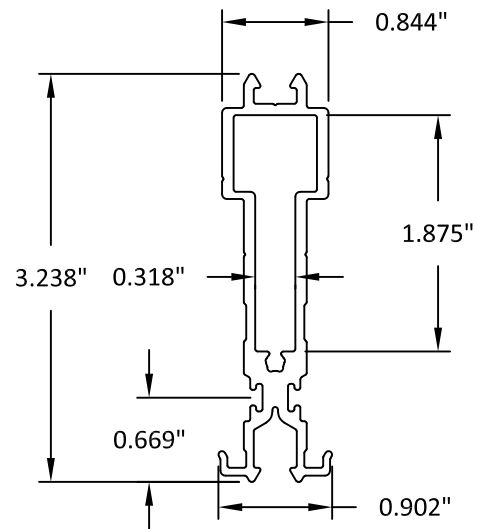
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CHK. BY:	HFN
SCALE:	NTS
DWG. #:	YKK194
SHEET:	1



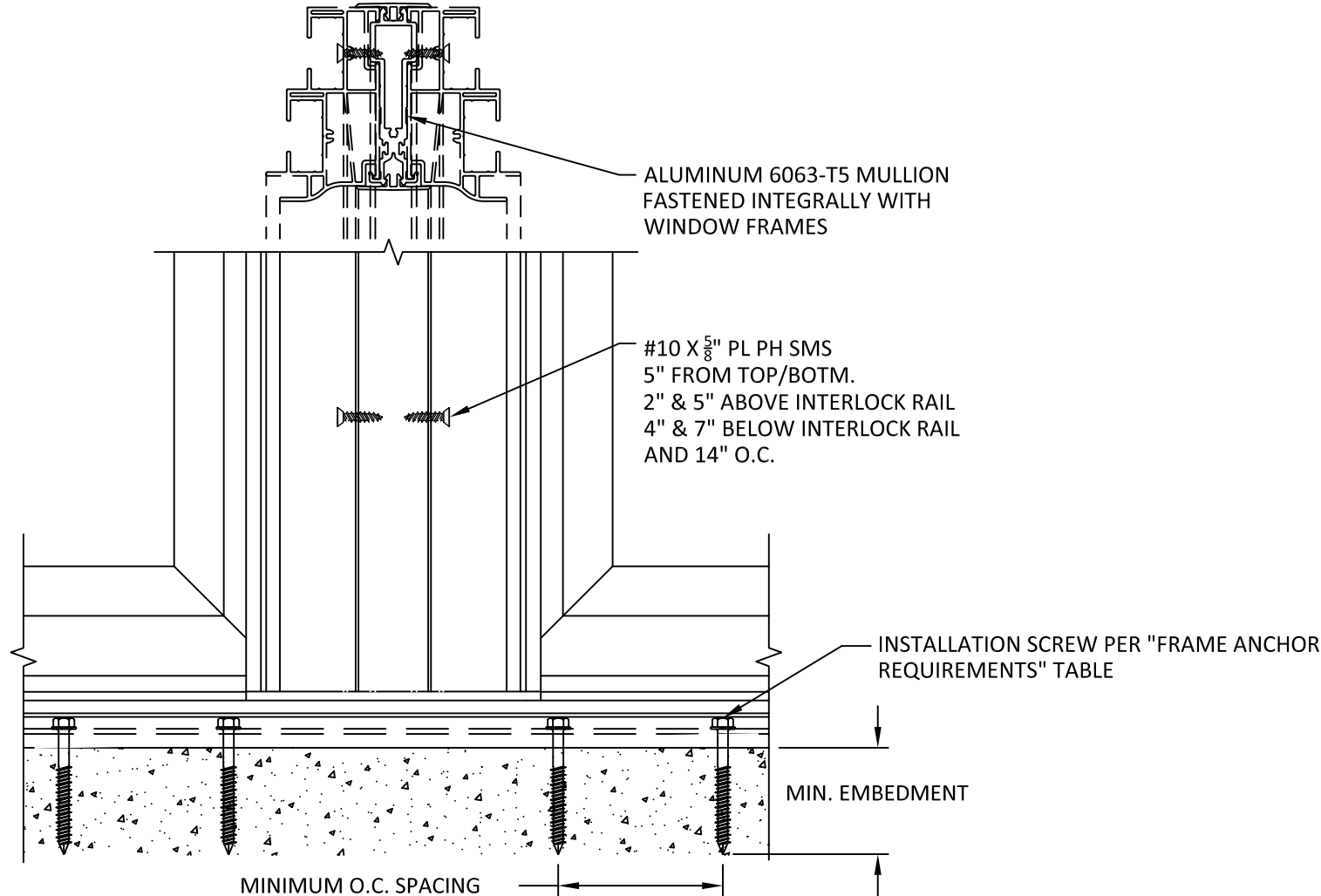
A
2 **HORIZONTAL SECTION**
UNCLIPPED MULLION



B
2 **VERTICAL SECTION**
UNCLIPPED MULLION



MULLION DETAIL



C
2 **FRONT VIEW**
SILL CONDITION
UNCLIPPED MULLION
(HEAD & JAMB SAME INSTALLATION)

NOTE: MULLIONS MAY BE INSTALLED SUCH THAT
TUBE IS ORIENTED TO INTERIOR OR EXTERIOR.



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(WZ3) (IMPACT)

UNCLIPPED MULLION ELEVATION &
ASSEMBLY

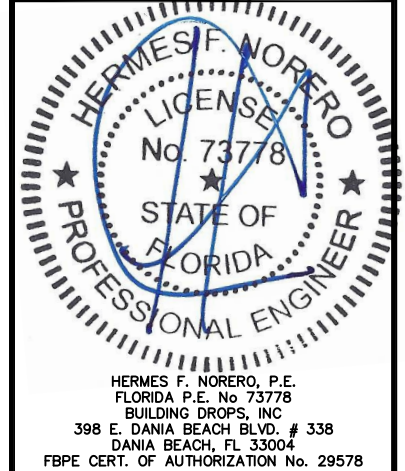
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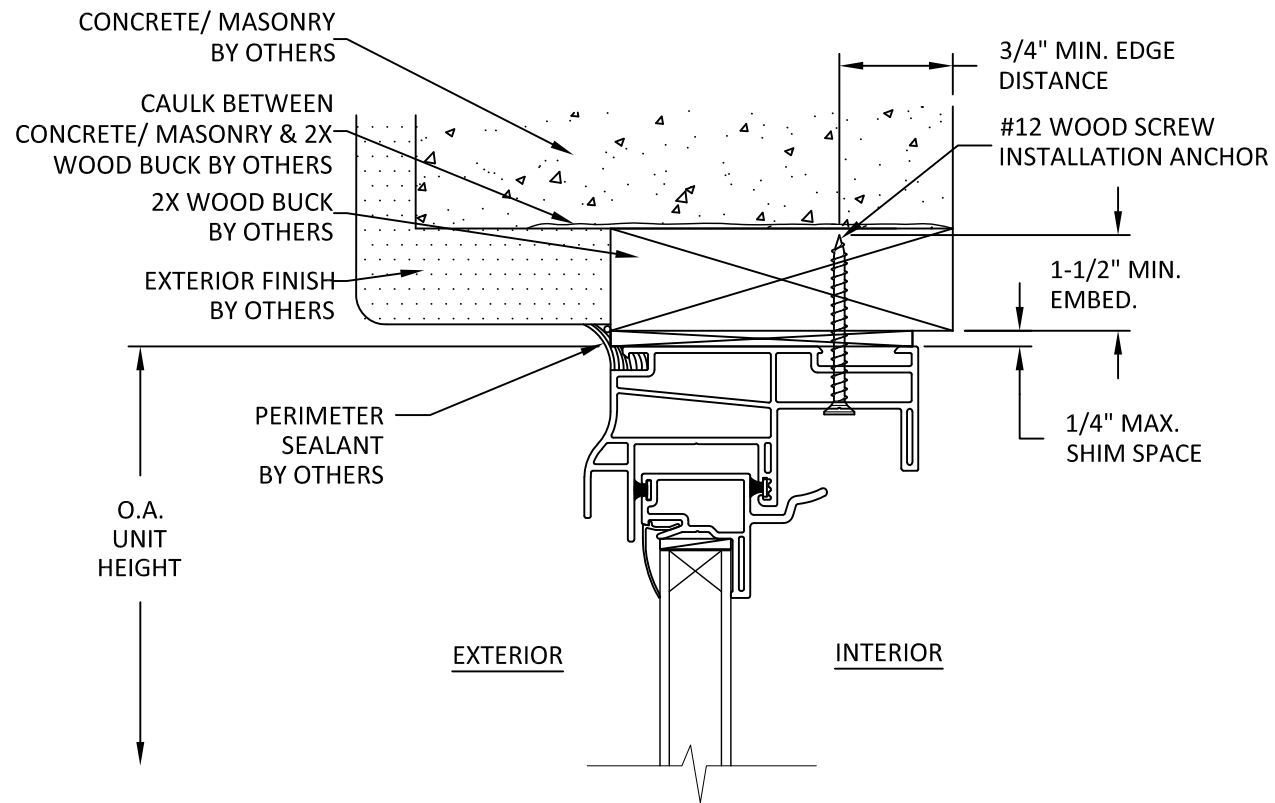
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SHEET:
2

OF 4

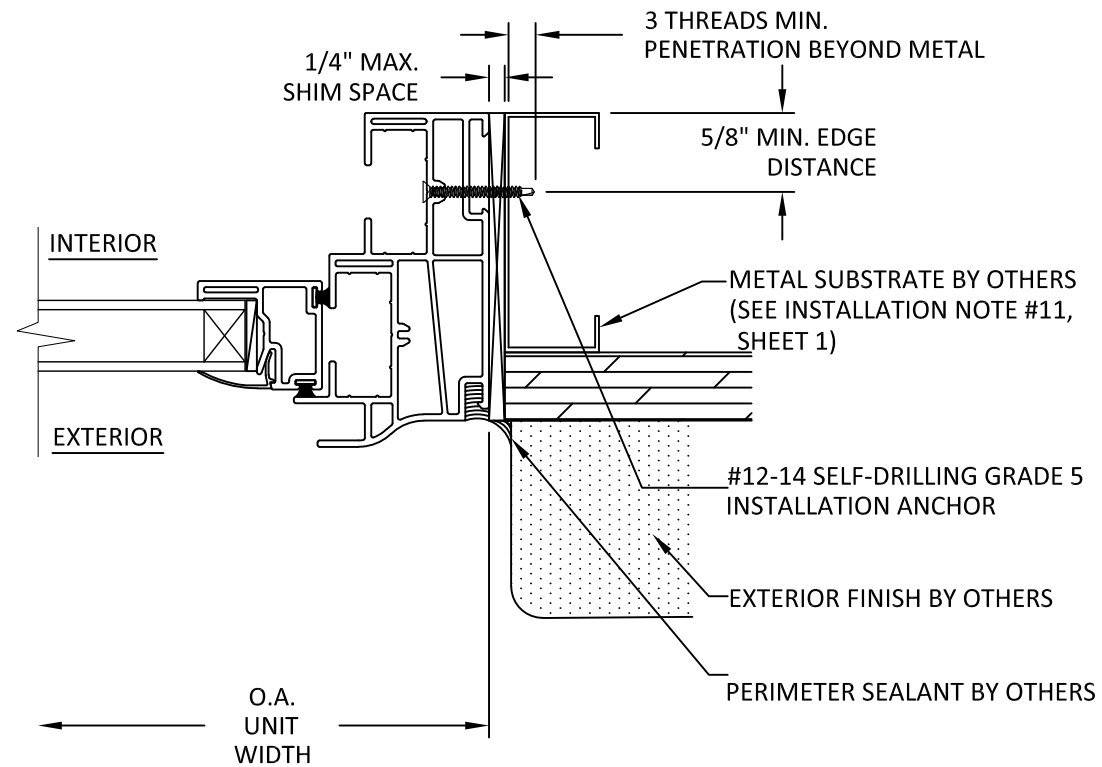
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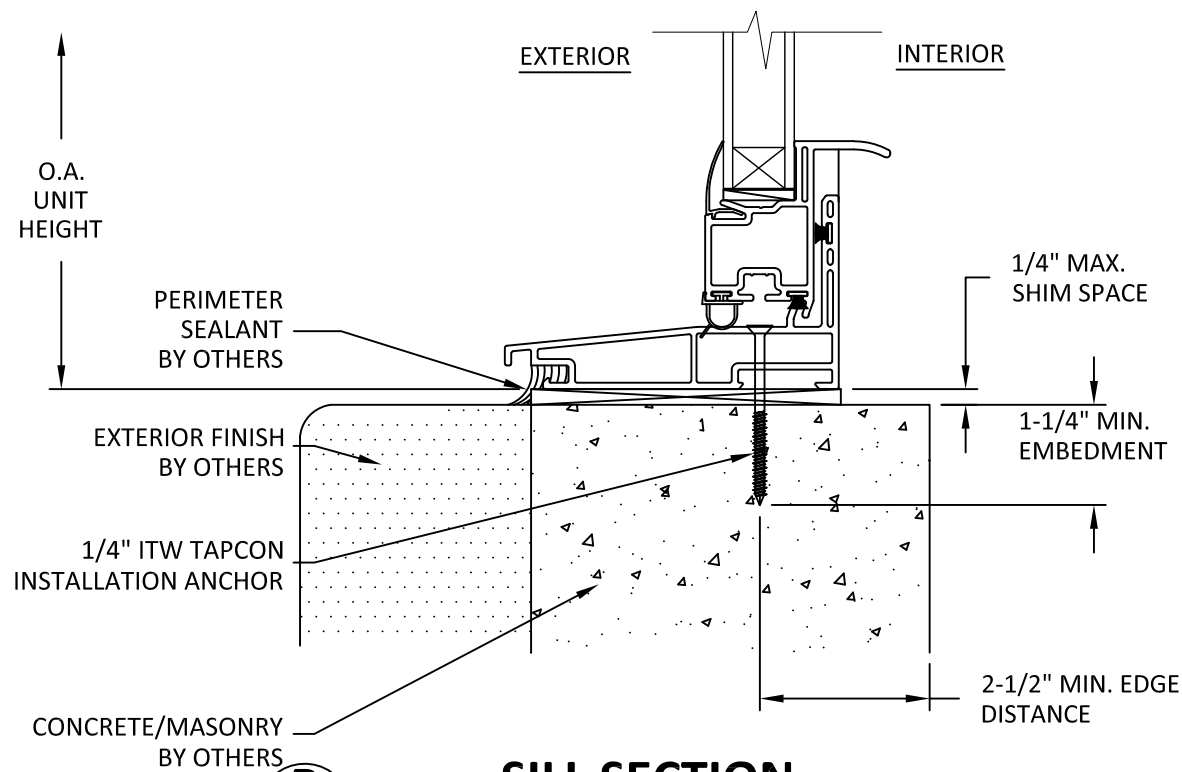
A
3

HEAD SECTION
THROUGH FRAME INSTALLATION
(HEAD & SILL ARE INSTALLED THE SAME)



C
3

JAMB SECTION
THROUGH FRAME INSTALLATION
(HEAD & SILL ARE INSTALLED THE SAME)



B
3

SILL SECTION
THROUGH FRAME INSTALLATION
(HEAD & SILL ARE INSTALLED THE SAME)



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TITLE: **PRECEDENCE FACTORY MULLIONS (WZ3) (IMPACT)**

VERTICAL & HORIZONTAL SECTIONS

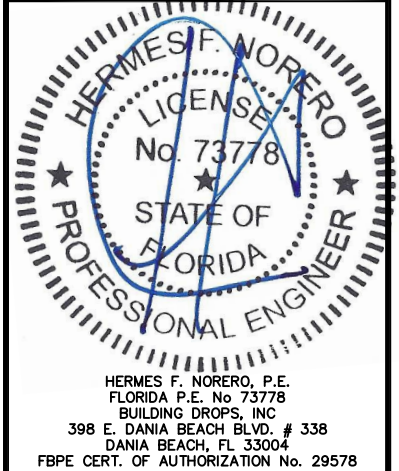
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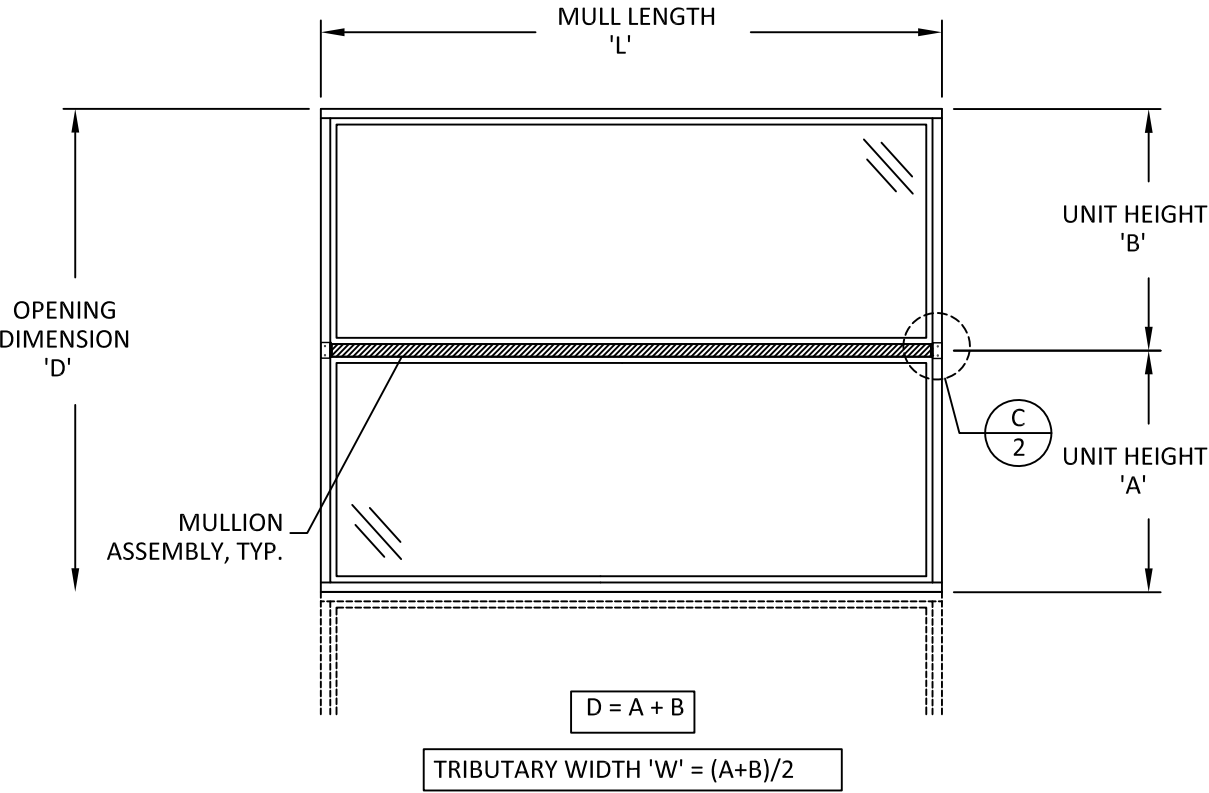
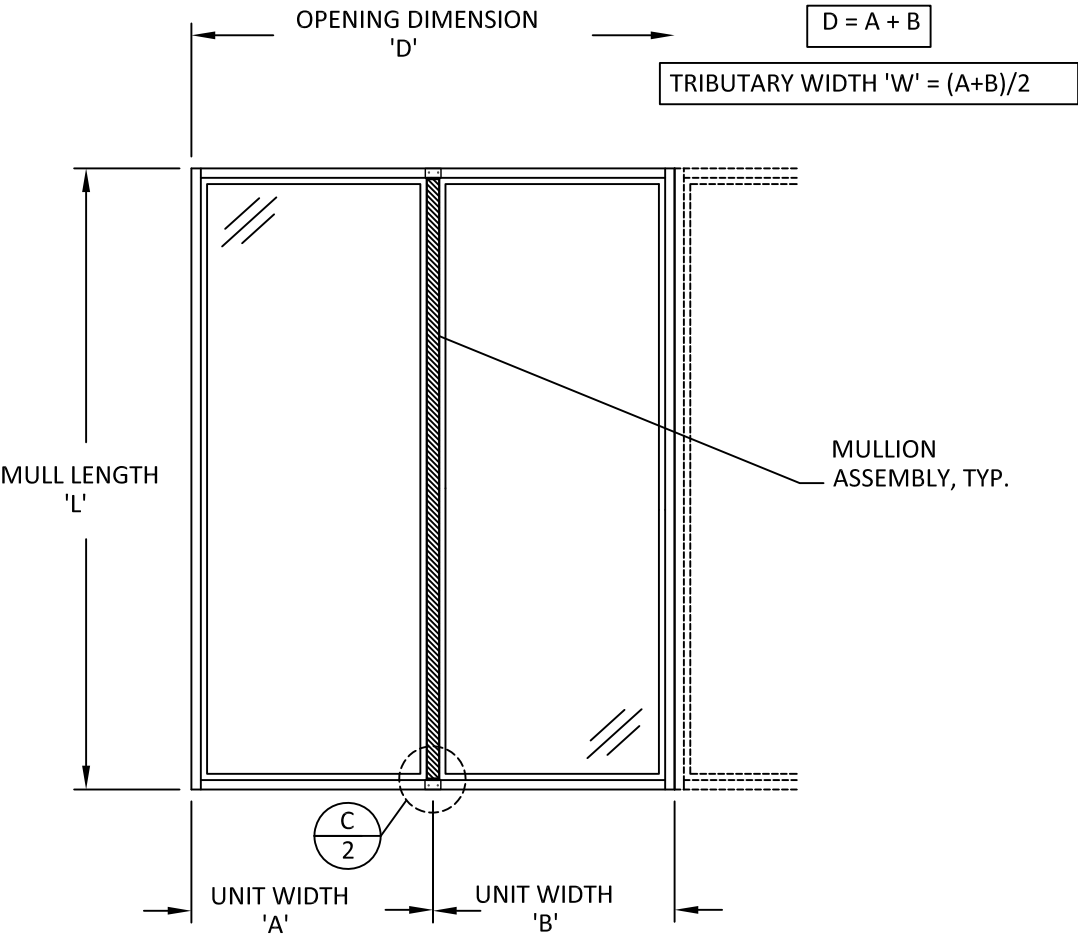
PRECEDENCE FACTORY MULLION - THROUGH FRAME INSTALLATION
ONE-WAY CONFIGURATIONS (NO INTERMEDIATE MEMBERS)

Maximum Design Pressure Capacity Chart (psf)			Maximum Design Pressure Capacity Chart (psf)			Maximum Design Pressure Capacity Chart (psf)		
Tributary Width 'W' (in)	Mull Length 'L' (in)	DESIGN PRESSURE (psf)	Tributary Width 'W' (in)	Mull Length 'L' (in)	DESIGN PRESSURE (psf)	Tributary Width 'W' (in)	Mull Length 'L' (in)	DESIGN PRESSURE (psf)
24	24	50	24	48	50	24	72	42
30		50	30		50	30		35
36		50	36		50	36		31
42		50	42		50	42		28
48		50	48		50	48		26
54		50	54		50	54		24
60		50	60		50	60		23
66		50	66		50	66		22
72		50	72		50	72		22
78		50	78		50	78		22
24	30	50	24	54	50	24	78	38
30		50	30		50	30		32
36		50	36		46	36		27
42		50	42		43	42		24
48		50	48		42	48		22
54		50	54		41	54		20
60		50	60		41	60		19
66		50	66		41	66		18
72		50	72		41	72		17
78		50	78		41	78		17
24	36	50	24	60	50	24	84	34
30		50	30		45	30		27
36		50	36		40	36		23
42		50	42		37	42		20
48		50	48		35	48		18
54		50	54		34	54		17
60		50	60		33	60		16
66		50	66		33	66		15
72		50	72		33	72		-
78		50	78		33	78		-
24	42	50	24	66	46			
30		50	30		39			
36		50	36		35			
42		50	42		32			
48		50	48		30			
54		50	54		28			
60		50	60		28			
66		50	66		27			
72		50	72		27			
78		50	78		27			

NOTES FOR UNCLIPPED MULLION INSTALLATIONS:

1. 'ONE-WAY' MULLIONS REFER TO EITHER VERTICAL SINGLE SPAN OR HORIZONTAL STACKED ASSEMBLIES SIMILAR TO THOSE DIAGRAMMED ON THIS SHEET.
2. THE DESIGN PRESSURES IN THIS CHART ARE FOR THE MULLIONS LISTED ABOVE WHEN USED WITH THE APPLICABLE UNCLIPPED MULLION. INDIVIDUAL WINDOWS JOINED THROUGH USE OF THE MULLION DESCRIBED HEREIN ARE UNDER SEPARATE APPROVAL.
3. DESIGN PRESSURES APPLY TO INSTALLATIONS IN WHICH MULLIONS ARE UNCLIPPED AS SHOWN ON SHEET 2 AND ADJACENT WINDOWS ARE INSTALLED AS SHOWN IN TYPICAL INSTALLATION DETAILS ON SHEET 3 (SEE SHEET 1 FOR REQUIRED QUANTITIES).
4. INSTALLATION ANCHORS THROUGH MULLION AND THROUGH ADJACENT WINDOWS SHALL BE USED SIMULTANEOUSLY. SHOULD SEPARATE WINDOW APPROVAL REQUIRE MORE FASTENERS THAN SHOWN HEREIN AT EA. END OF MULL, SEPARATE WINDOW APPROVAL SHALL GOVERN QUANTITY.
5. DESIGN PRESSURES HAVE BEEN DETERMINED IN ACCORDANCE WITH FBC SECTION 1709.8.
6. READ WINDOW WIDTH AND MULL SPAN IN INCHES. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE POUNDS PER SQUARE FOOT (PSF).
7. TRIBUTARY WIDTH IS DETERMINED BY THE FOLLOWING (REFER TO ELEVATION, SHEET 1):

7.1. TRIBUTARY WIDTH = (A+B)/2
8. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING. LESSER DESIGN PRESSURE OF INDIVIDUAL WINDOW OR MULLION OF INSTALLATION SHALL GOVERN.



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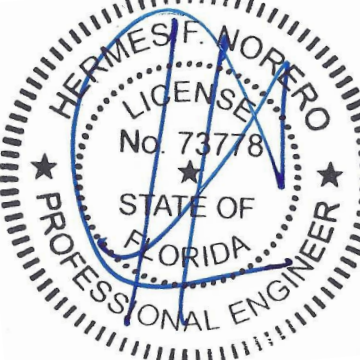
ONE-WAY UNCLIPPED MULLION DESIGN
PRESSURE TABLES

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