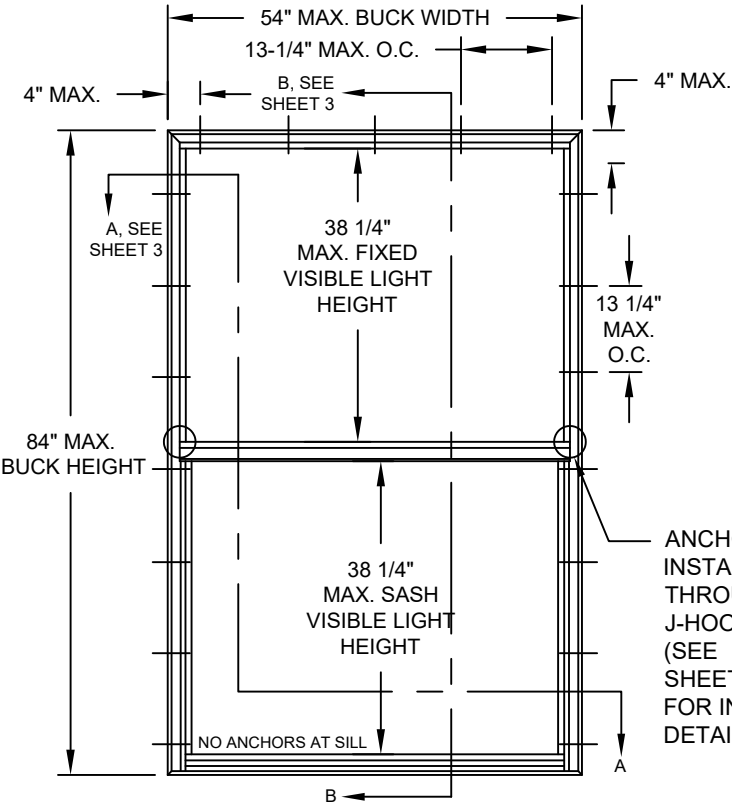
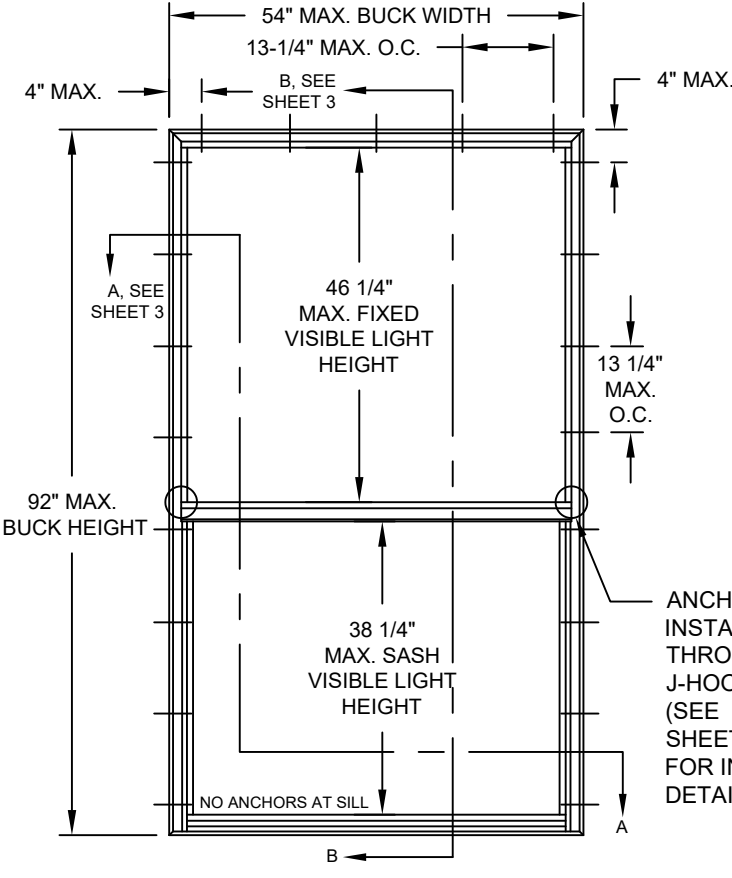
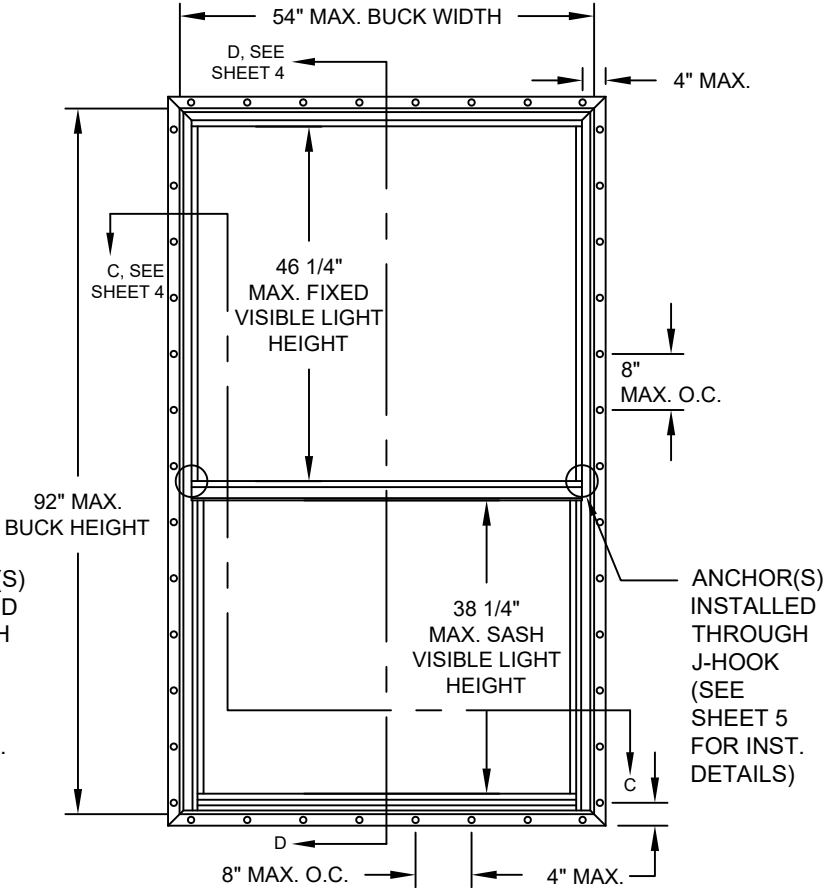




**ELEVATION FOR TYP.
FINLESS & FLANGE FRAME
EQUAL-LITE CONFIGURATION**



**ELEVATION FOR TYP.
FINLESS & FLANGE FRAME
ORIEL CONFIGURATION**



**ELEVATION FOR TYP.
FIN FRAME
ORIEL CONFIGURATION**

**SERIES 1620MD VINYL SINGLE HUNG WINDOW
IMPACT RESISTANT**

- 1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- 2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST TEMPERED.
- 3) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER.
- 4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE EMBEDMENT. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.
- 5) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. FOR INTEGRAL FIN FRAMES INSTALL SHIMS AT MAX. 18" O.C.
- 6) DESIGN PRESSURES:
A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL/CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL/ CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.
- 7) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.
- 8) REFER TO CURRENT FLORIDA BUILDING CODE FOR EGRESS REQUIREMENTS.
- 9) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE A FINLESS FRAME.

WHERE THE PRODUCT WILL BE INSTALLED WITHIN 3,000 FEET OF A SALTWATER COASTLINE, IT MUST COMPLY WITH SECTION 1711 OF THE FBC, BUILDING OR R332 OF THE FBC, RESIDENTIAL.

MIN. SASH HEIGHT = WINDOW BUCK HEIGHT - 50-5/16" (APPLIES TO ANY HEIGHT 92" OR LESS).

DESIGN PRESSURE RATING
+50/-65 PSF
WATER TEST PRESSURE
15% OF (+) DP
IMPACT RATING
LARGE AND SMALL MISSILE IMPACT RESISTANT MISSILE LEVEL D

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MI [®] WINDOWS and DOORS	650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300	VINYL SINGLE HUNG WINDOW (LM)	ELEVATION & GENERAL NOTES	1 OF 6 Dwg No.
1620MD SH	Sheet	1620MDSH-LM-HVHZ	Series	Title

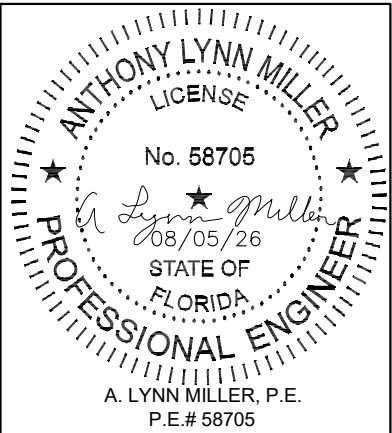
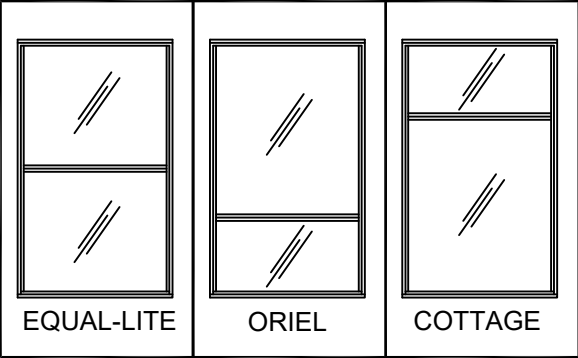
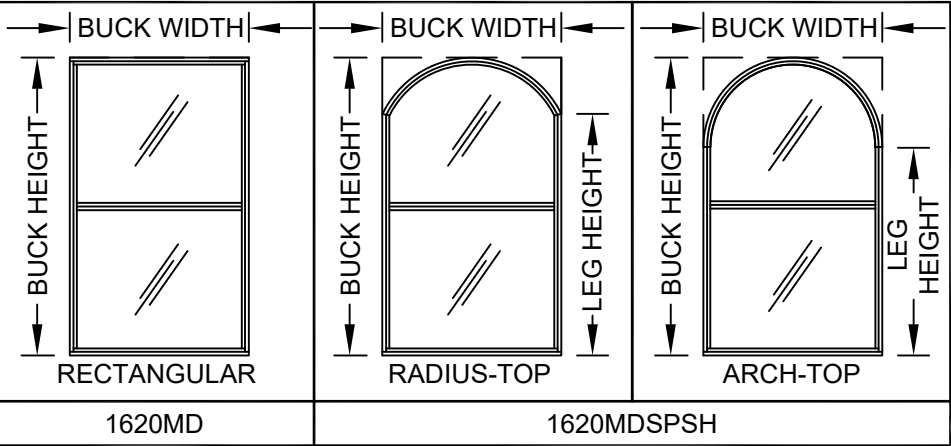


FIGURE A: FRAME CONFIGURATIONS

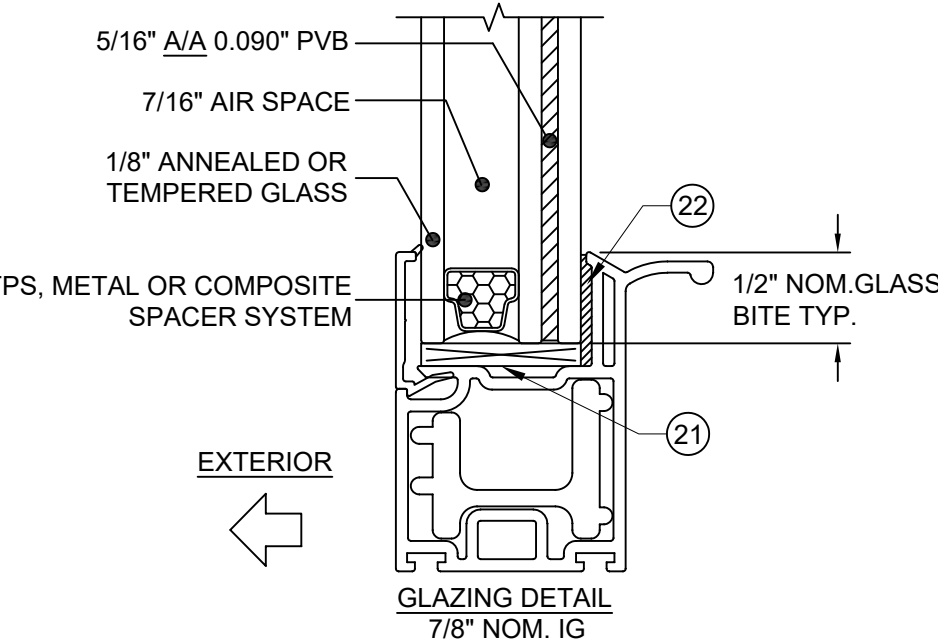


ALL CONFIGURATIONS SHOWN IN FIGURE A ARE APPROVED PROVIDED THAT THE MAX. OVERALL FRAME AND VISIBLE LIGHT DIMENSIONS FROM SHEET 1 ARE NOT EXCEEDED.

FIGURE B: FRAME SHAPES



WINDOW SHAPES AS ABOVE OR SIMILAR ARE APPROVED. SHAPES MAY BE USED BY INSCRIBING THE SHAPE IN A BLOCK AND OBTAINING DESIGN PRESSURES AND ANCHORAGE FOR THAT BLOCK SIZE FROM THE SIZES SHOWN ON SHEET 1.



NOTE: FOR INSTALLATIONS ABOVE 30 FEET IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST BE TEMPERED.

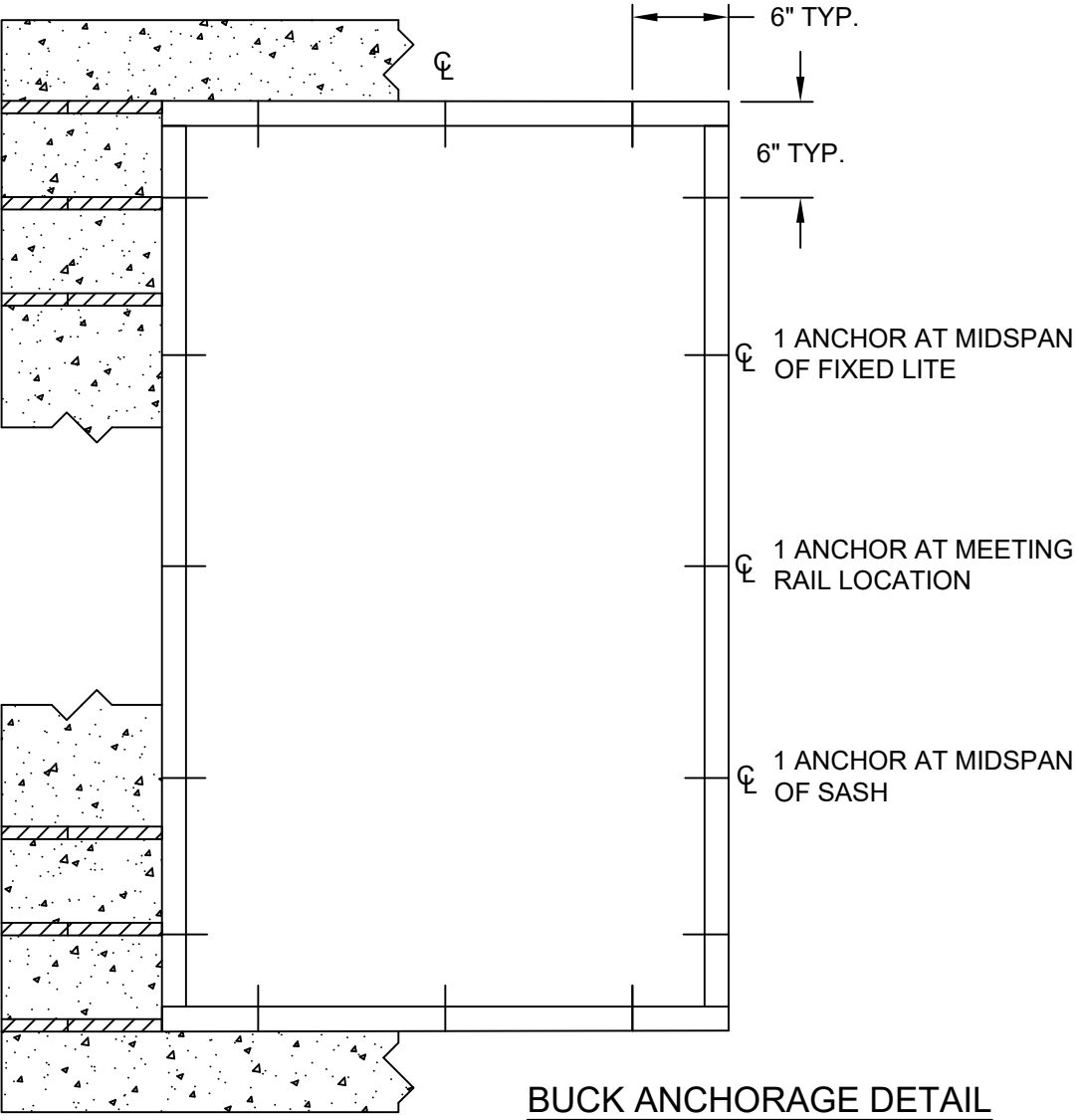


TABLE 1: BUCK ANCHORS

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
3/16" Steel Ultracon+	UngROUTED CMU, (ASTM C-90)	2-1/2"	1-1/4"
	Concrete (min. 3.0 ksi)	2-1/2"	1-3/8"
1/4" Steel Ultracon+	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Concrete (min. 3.0 ksi)	1"	1-3/8"
1/4" 410 SS Crete-Flex	UngROUTED CMU, (ASTM C-90)	1-3/4"	1-1/4"
	Concrete (min. 3.35 ksi)	1-3/4"	1-3/8"
1/4" 304 SS Aggre-Gator	UngROUTED CMU, (ASTM C-90)	2"	1-1/4"
	Concrete (min. 2.22 ksi)	1-1/2"	1-3/8"

- 1) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
2) ALL SCREWHEAD TYPES ARE APPLICABLE.

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(717) 365-3300

VINYL SINGLE HUNG WINDOW (LM)

08/05/26

COLTON KEMPf

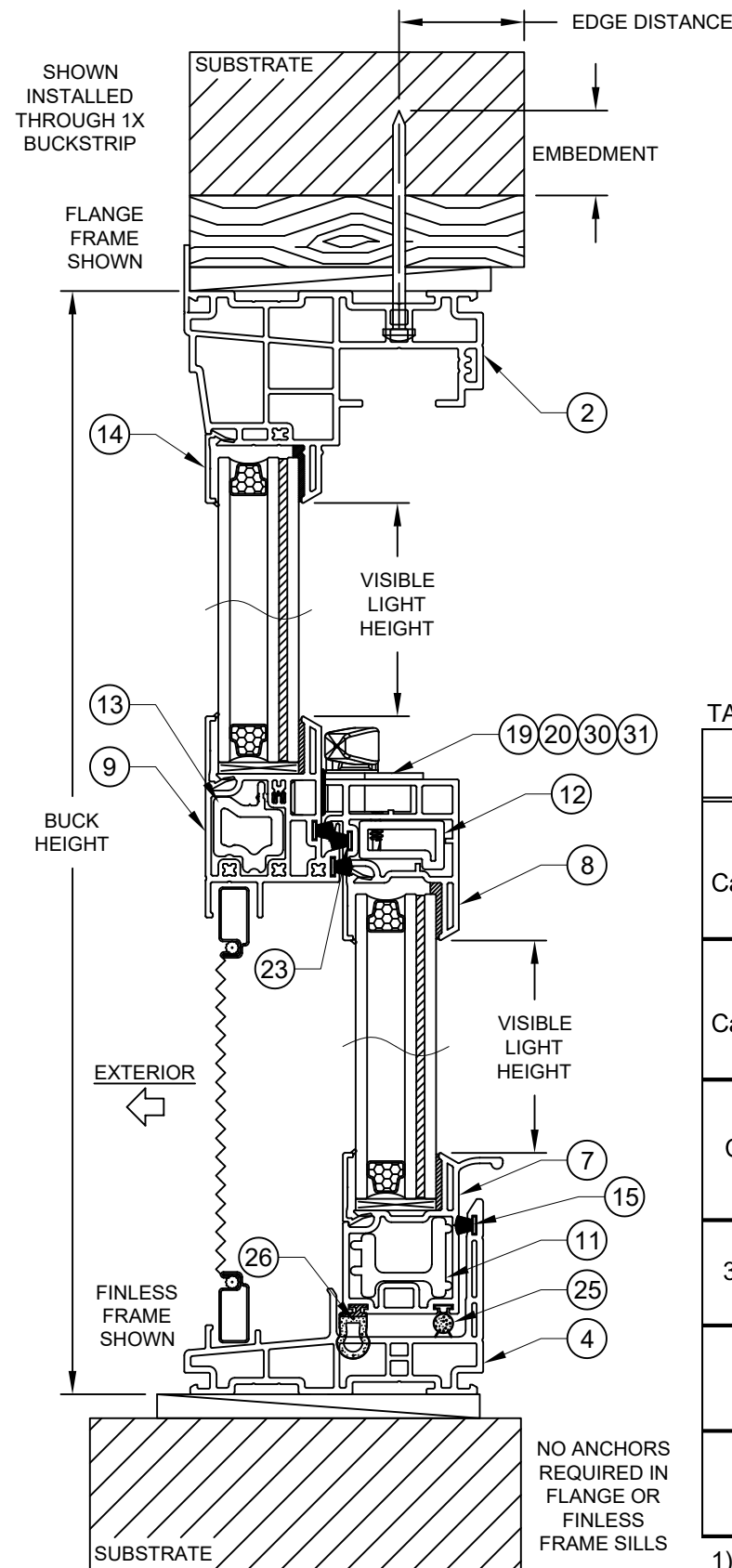
1620MDSH-LM-HVHZ

GLAZING AND BUCK DETAILS

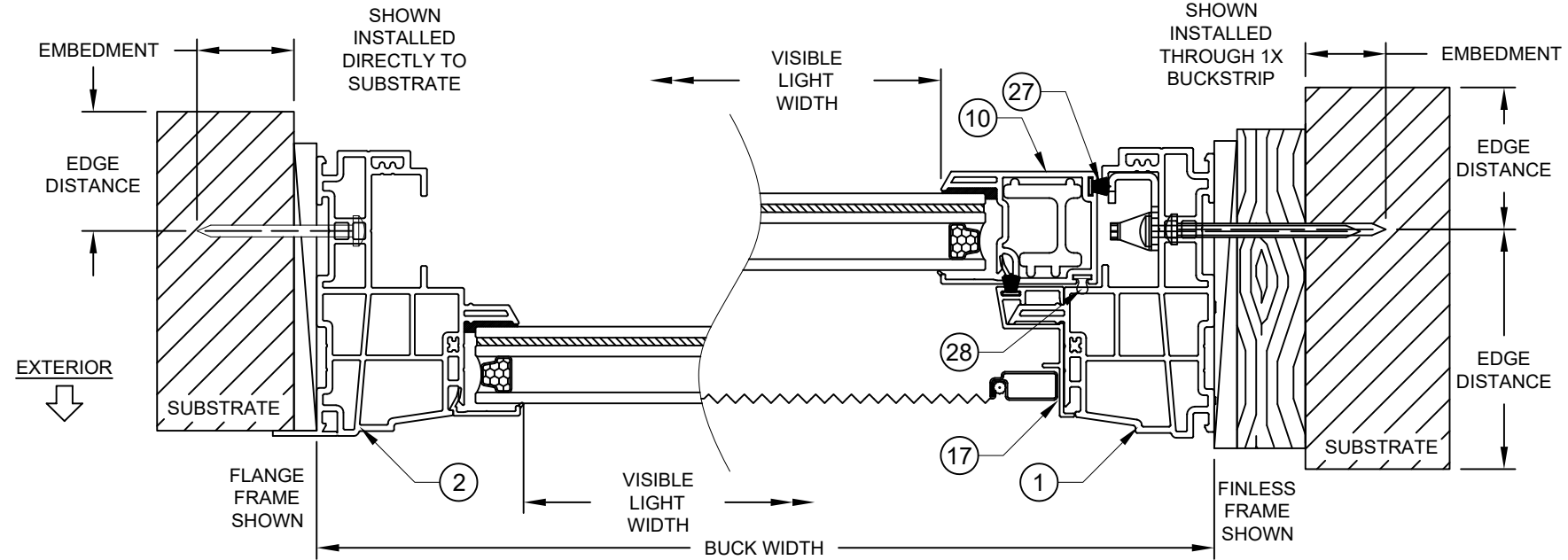
2 OF 6

1620MD SH

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VERTICAL SECTION B-B

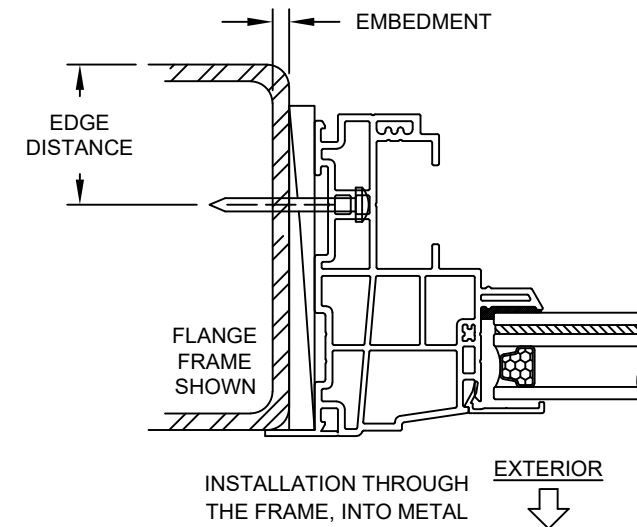


HORIZONTAL SECTION A-A

TABLE 2: WINDOW ANCHORS FOR FLANGE OR FINLESS FRAMES

Anchor	Substrate	Min. Edge Distance	Min. Embedment
#8 SMS Carbon Steel or 410 SS	Southern Pine (SG=0.55)	7/16"	1-3/8"
	Steel, A36	1/4"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	1/4"	0.0346" (20 Ga.)
#10 SMS Carbon Steel or 410 SS	Aluminum, 6063-T5	1/4"	0.0451" (18 Ga.)
	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Steel, A36	5/16"	0.0346" (20 Ga.)
#12 SMS Carbon Steel or 18-8, 316, 410 SS	Steel Stud, A653 Gr. 33	5/16"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	5/16"	0.0451" (18 Ga.)
	Southern Pine (SG=0.55)	9/16"	1-3/8"
3/16" Steel Ultracon+	Steel, A36	3/8"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	3/8"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	3/8"	0.0451" (18 Ga.)
1/4" 304 SS Aggre-Gator	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Concrete (min. 3.00 ksi)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
1/4" 410 SS Creteflex	Steel, A36	3/8"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	3/8"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	3/8"	0.0451" (18 Ga.)
1/4" 304 SS Aggre-Gator	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Concrete (min. 2.22 ksi)	1-1/2"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	2"	1-1/4"
1/4" 410 SS Creteflex	Southern Pine (SG=0.55)	1"	1-3/8"
	Concrete (min. 3.35 ksi)	1"	1-3/4"
	UngROUTED CMU, (ASTM C-90)	2-1/2"	1-1/4"

- 1) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
- 2) MIN. OF 3 THREADS BEYOND METAL SUBSTRATE.
- 3) 18-8 FASTENERS SHALL BE MANUFACTURED FROM TYPE 304 OR 305 STAINLESS STEEL PER ASTM A240.
- 4) ALL SCREWHEAD TYPES ARE APPLICABLE.



HORIZONTAL SECTION A-A (2)

INSTALLATION NOTES:

- 1) REFER TO SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
- 2) REFER TO TABLE 2 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS.
- 3) MAXIMUM SHIM THICKNESS TO BE 1/4"

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MI WINDOWS and DOORS 650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300		VINYL SINGLE HUNG WINDOW (LM) FINLESS/FLANGE INSTALL. DETAILS 1620MD SH		08/05/26 Date	COLTON KEMPf By	3 OF 6 Sheet

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LICENSE

No. 58705

08/05/26

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PROFESSIONAL ENGINEER

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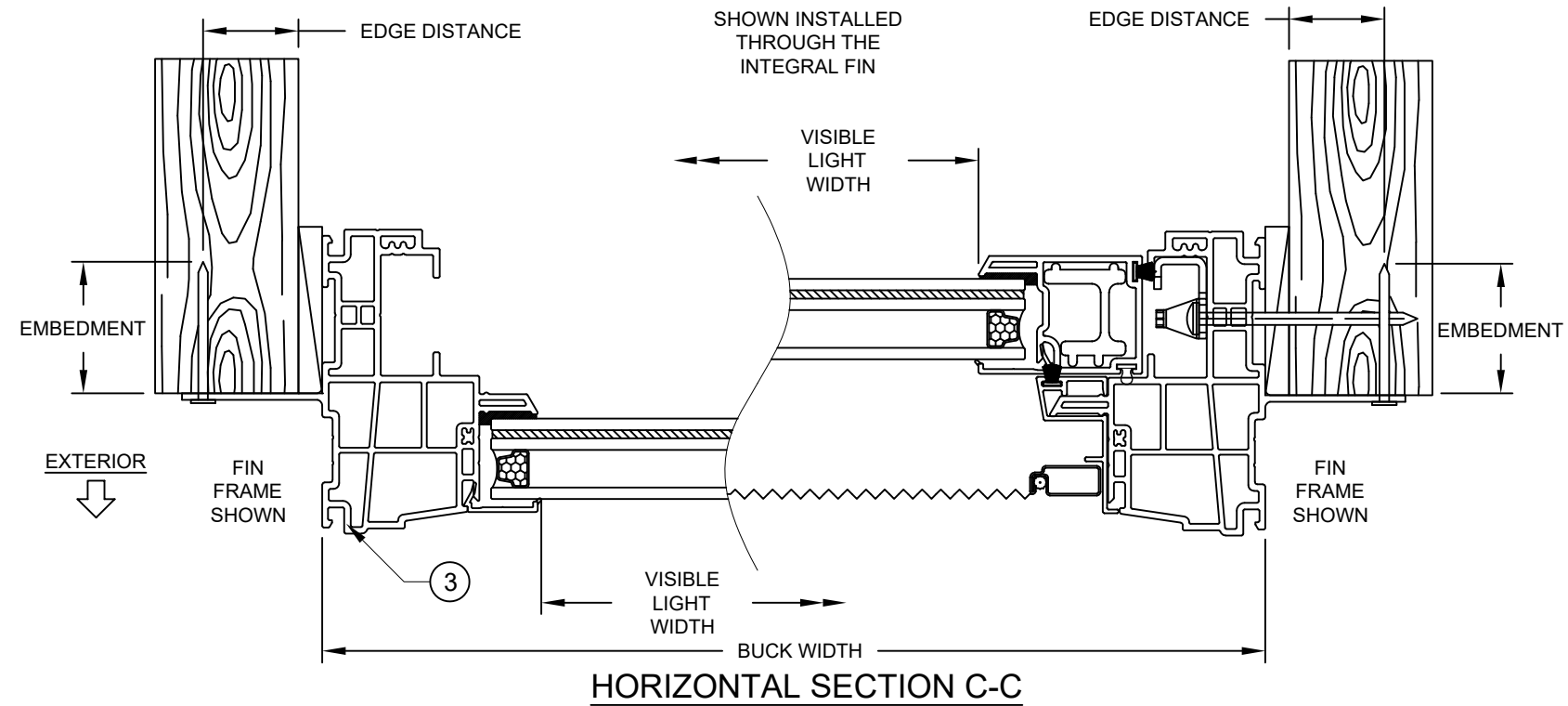
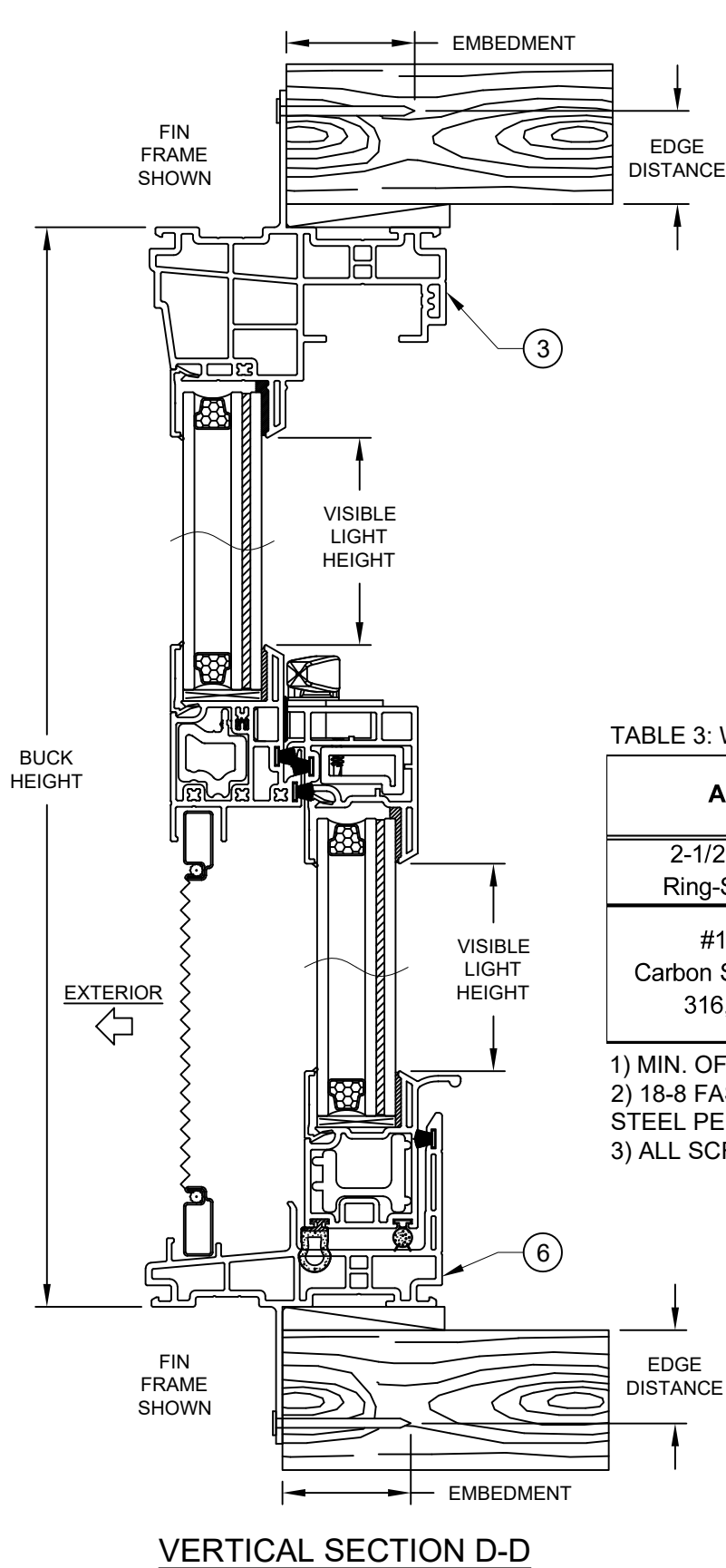
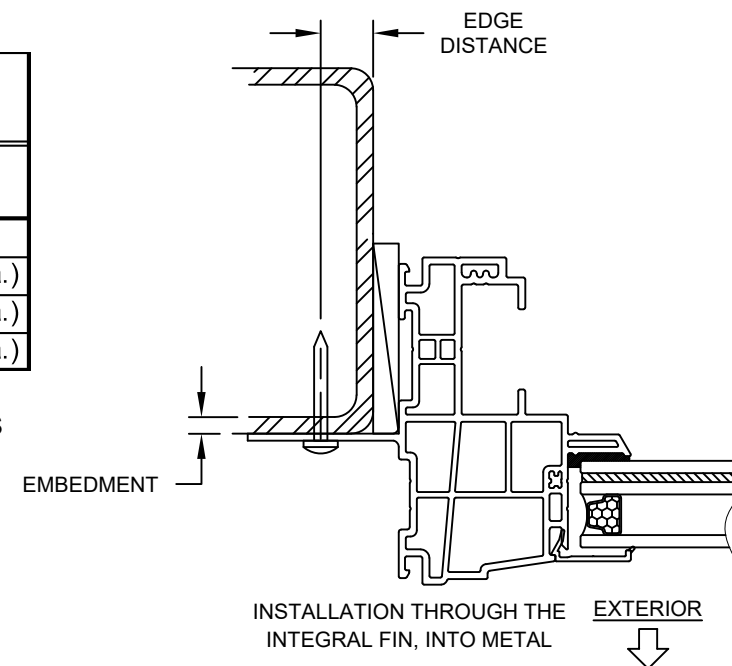


TABLE 3: WINDOW ANCHORS FOR FIN FRAMES

Anchor	Substrate	Min. Edge Distance	Min. Embedment
2-1/2" x 0.131" Ring-Shank Nail	Southern Pine (SG=0.55)	3/8"	2-7/16"
#10 SMS Carbon Steel or 18-8, 316, 410 SS	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Steel, A36	5/16"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	5/16"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	7/16"	0.0566" (16 Ga.)

- 1) MIN. OF 3 THREADS BEYOND METAL SUBSTRATE.
- 2) 18-8 FASTENERS SHALL BE MANUFACTURED FROM TYPE 304 OR 305 STAINLESS STEEL PER ASTM A240.
- 3) ALL SCREWHEAD TYPES ARE APPLICABLE.

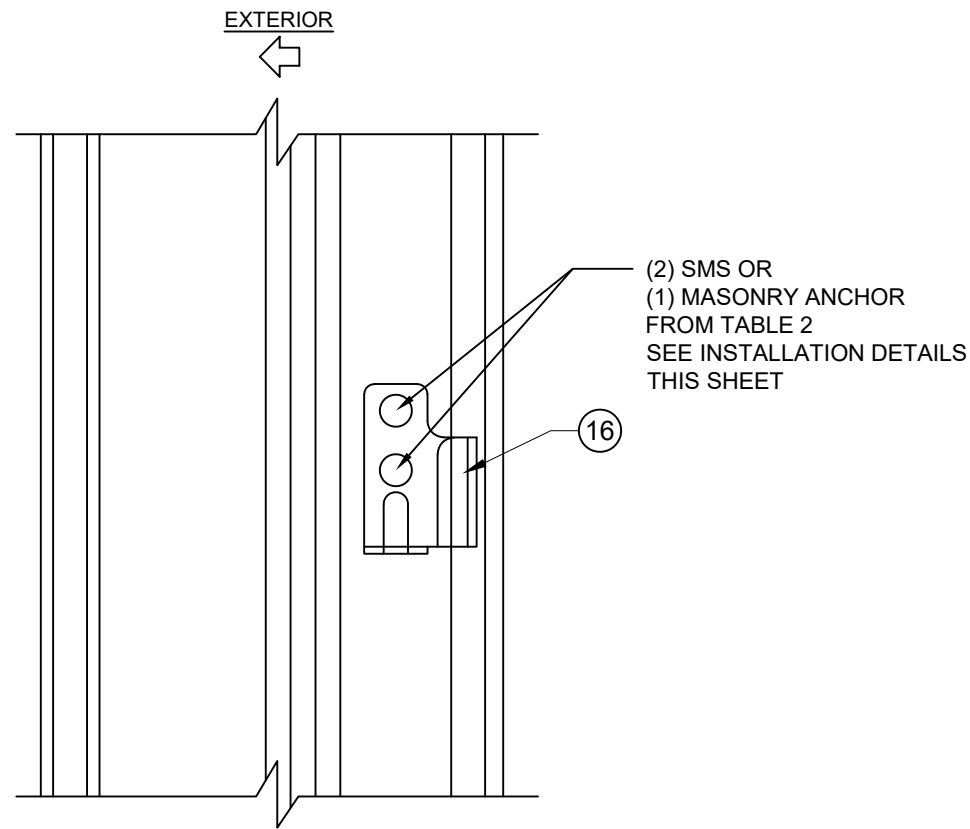


INSTALLATION NOTES:

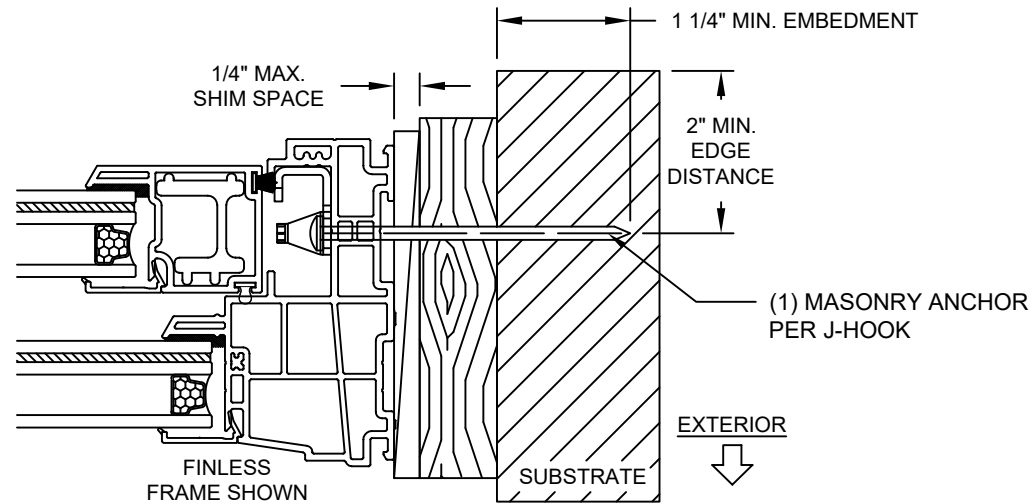
- 1) REFER TO SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
- 2) REFER TO TABLE 3 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS.
- 3) MAXIMUM SHIM THICKNESS TO BE 1/4".

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		NAIL FIN INSTALL DETAILS			4 OF 6	

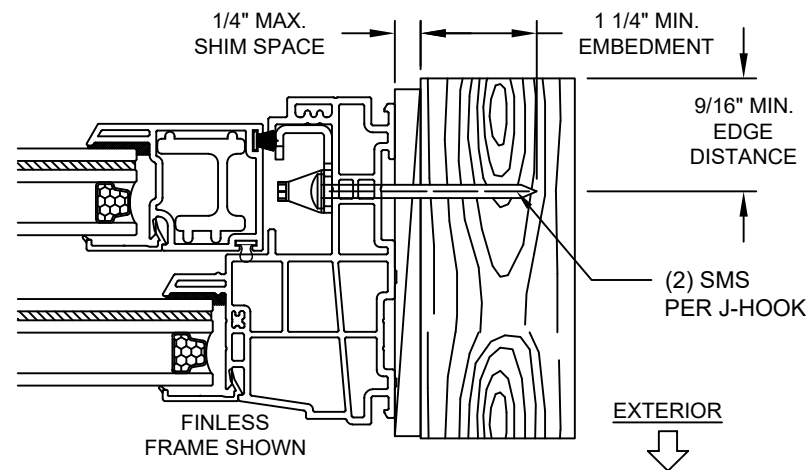
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P.E.# 58705



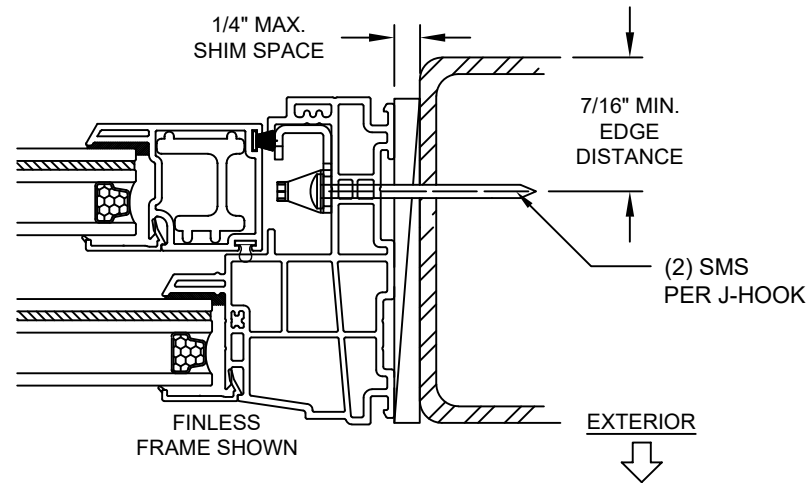
J-HOOK TO JAMB CONNECTION DETAIL



J-HOOK INSTALLATION DETAIL
CONCRETE/MASONRY WITH 1X BUCK INSTALLATION
FOR CONCRETE/MASONRY INSTALLATION WITHOUT 1X BUCK REFER TO
JAMB INSTALLATION DETAILS ON SHEET 3



J-HOOK INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION



J-HOOK INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

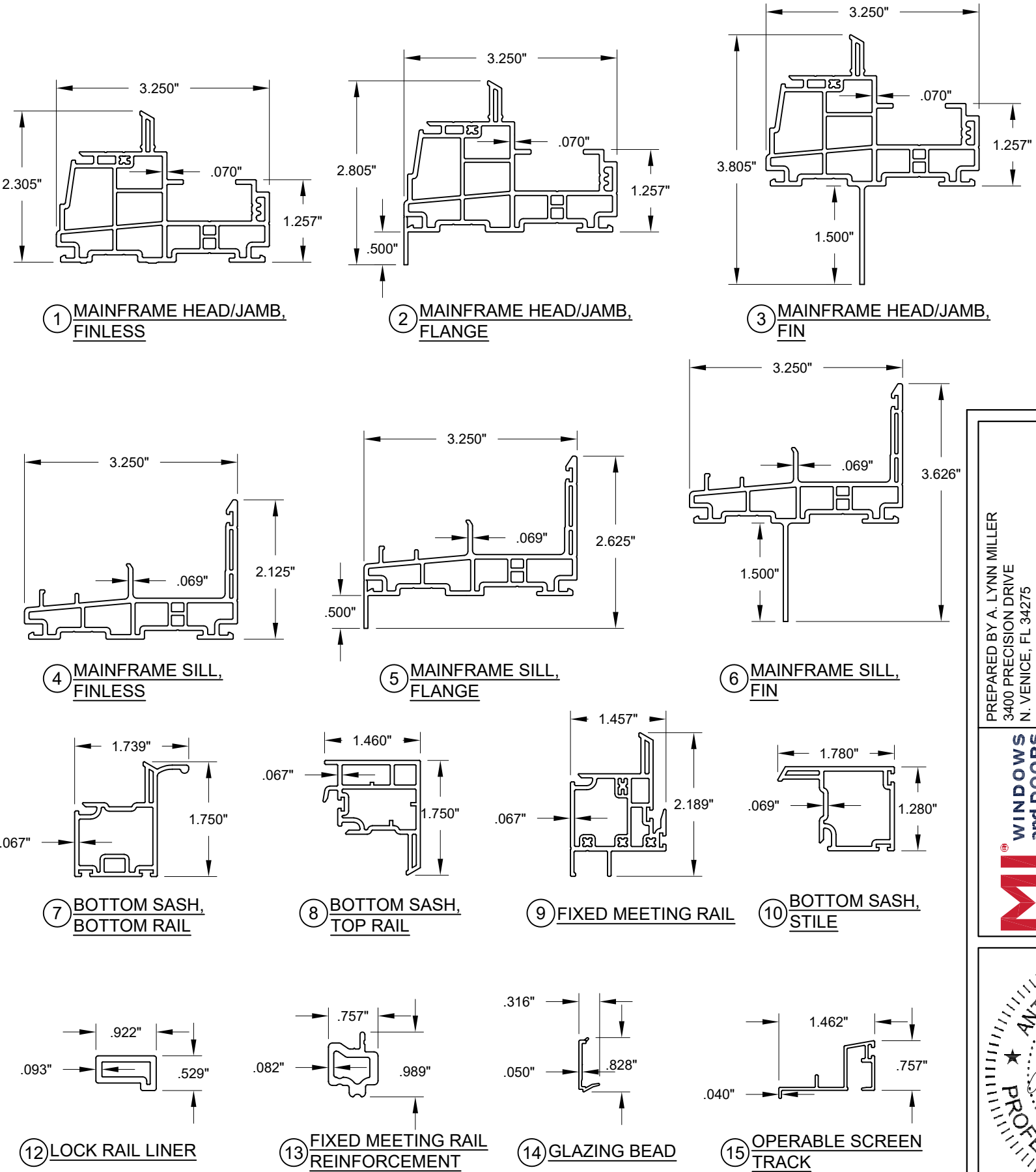
NOTE: ANCHOR LENGTH TO BE SO THAT A MINIMUM OF
3 THREADS EXTEND PAST THE METAL SUBSTRATE

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P.E.# 58705

TABLE 4:

#	Part #	Description	Material
1	V010080	Mainframe Head/Jamb, Finless	PVC
2	V010100	Mainframe Head/Jamb, Flange	PVC
3	V010070	Mainframe Head/Jamb, Fin	PVC
4	V010130	Mainframe Sill, Finless	PVC
5	V010150	Mainframe Sill, Flange	PVC
6	V010120	Mainframe Sill, Fin	PVC
7	V067207	Bottom Sash, Bottom Rail	PVC
8	V067500	Bottom Sash, Top Rail	PVC
9	V101600	Fixed Meeting Rail	PVC
10	V067000	Bottom Sash, Stile	PVC
11	M2266000	Bottom Sash, Lift Rail Reinforcement	6063-T5
12	M2115000	Lock Rail Liner	6063-T5
13	M2343000	Fixed Meeting Rail Aluminum Reinforcement	6063-T5
14	V108300	Glazing Bead	PVC
15		Frame Sill .187"x.240" Weatherstrip	
	HD006130	Left J-Hook	Aluminum
	HD006140	Right J-Hook	Aluminum
	M234100	Operable Screen Track	Aluminum
	FS000270	Fixed Meeting Rail Reinforcement Attachment Screws #8 x 2 1/2" Vinyl HLD Truss	410 S.S.
	K000200	Adjustable Keeper	Zinc
	FS00350	Keeper Screw, #6, 8-18 x 7/8" PFH	Zinc
	MS100050	Setting Block	EPDM
		Pecora 896 or RGS 7700 Backbedding	Silicone
		Sash Top Rail .187"x.240" Weatherstrip	
	FS005750	Sash Lift Rail Reinforcement Screw #8-18 x 1" PFH	
	MS20002	Bottom Sash Bottom Rail Interior Bulb Seal .187"x.35"	
	MS30000	Bottom Sash Bottom Rail Exterior Offset Bulb Seal .187"x.5"	
		Bottom Sash Stile Interior Weatherstrip .187"x.240"	
	6Q300	Bottom Sash Stile Exterior Bulb Seal .190"x.375"	
	FS005750	Sash Stile Reinforcement Screw #8 x 1" PFH	
	LL00074	Left Cam Lock	Zinc
	LR00074	Right Cam Lock	Zinc
	FS00350	Cam Lock Screw, #8 x 7/8" PFH	Zinc
	TL00003	Tilt-Latch Assembly	
	FS00350	Tilt-Latch Screw, #8 x 7/8"	Zinc
	HD100046	Pivot Bar, Locking Head	Zinc
	FS000460	Pivot Bar Screw, #6A x 3/4" PPH Truss Head	SS



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ANTHONY LYNN MILLER LICENSE No. 58705 08/05/26 STATE OF FLORIDA PROFESSIONAL ENGINEER A. LYNN MILLER, P.E. P.E.# 58705	BILL OF MATERIALS/EXTRUSIONS	08/05/26 Date	COLTON KEMPf By	1620MDSH-LM-HVHZ DWG No.