

SERIES 4500  
TWIN DOUBLE HUNG WINDOW – BALANCE – "IMPACT"  
BY OWW LLC

DESIGN PRESSURE = +47, -50

GENERAL NOTES

1. This product has been evaluated and is in compliance with 7th Edition (2020) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base materials shall be beyond wall dressing or stucco. All anchors used shall be of a material or have a coating compatible with pressure treated wood if used, and all other window materials.
3. When used in the "HVHZ" this product complies with Section 1626 of the FBC and does not require an impact resistant covering.
4. The opening substrate materials (framing, masonry, bucks) are by others and must be properly designed and installed to transfer superimposed loads to the structure. For 2X stud framing construction, anchoring of these units shall be the same as that shown for 2X buck masonry construction. Wood bucks over masonry, if used, shall be pressure treated, with either a treatment or coating compatible with this product and anchors.
5. All window frame wood to be Sapele (Specific Gravity = 0.55).
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. This product has been laboratory tested to meet the water infiltration requirements for "HVHZ." Sealing and flashing strategies for overall water infiltration resistance of the field-installed product shall be the responsibility of others and are not addressed by this document.

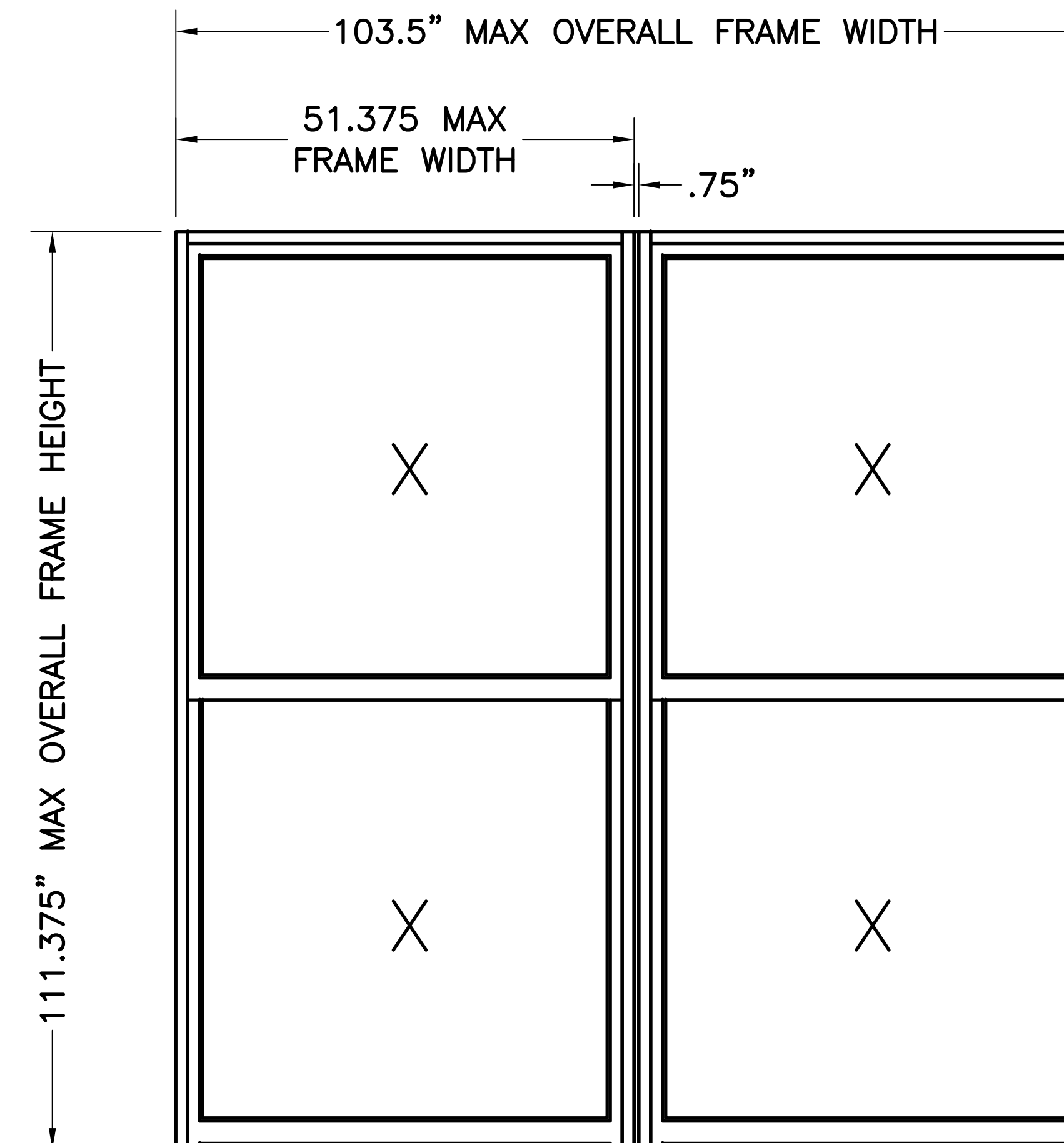
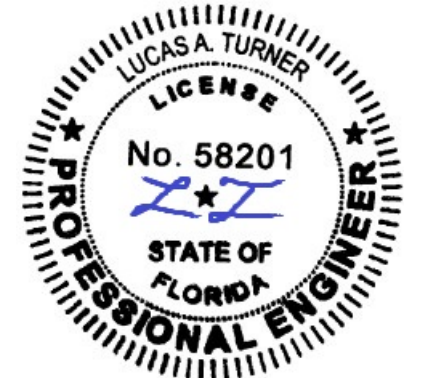


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8	Bill of materials, components & glazing details

TABLE 1. QUALIFIED ANCHOR INFORMATION

ID	SUBSTRATE	ANCHOR	MIN. EMBEDMENT	MIN. EDGE DISTANCE
A	SOLID UNCRACKED CONCRETE (2850 PSI MIN.)	1/4" ELCO COATED CARBON STEEL	1 3/8"	1"
B	GROUT-FILLED CMU (ASTM C-90) (JAMBS ONLY)	1/4" ELCO COATED CARBON STEEL	1 3/4"	2 1/2"
C	SOLID UNCRACKED CONCRETE (2000 PSI MIN.)	1/4" ITW COATED CARBON STEEL TAPCON	1 1/2"	1 1/2"
D	HOLLOW CMU (117 PCF MIN.) (JAMBS ONLY)	1/4" ITW COATED CARBON STEEL TAPCON	1"	2"
E	CONCRETE (3000 PSI MIN)	1/4" HILTI COATED CARBON STEEL OR STAINLESS STEEL KWIK-CON II	1"	2 1/2"
F	HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	1/4" HILTI COATED CARBON STEEL OR STAINLESS STEEL KWIK-CON II	1"	2 1/2"
G	2x MIN. SOUTHERN PINE WOOD (G=0.55 MIN)	#12 GRADE 5 WOOD SCREW	1 1/2"	1"
H	16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN.) OR 1/8" MIN. ALUMINUM (6063-T5)	#14 ITW TEKS SELF-DRILLING SCREW	FULL + 3 THREADS	1/2"

OVERALL FRAME DIMENSION	OVERALL D.L.O DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
103.5" X 111.375"	43.0" X 50.5"	G1, G2	+ 47.0	- 50.0



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LUCAS A. TURNER, P.E. FL PE 58201  
TURNER ENGINEERING & CONSULTING, INC.  
FBPE COA #29779 PH. 941-380-1574  
2428 OLD NATCHEZ TRACE TRAIL  
CAMDEN, TN 38320

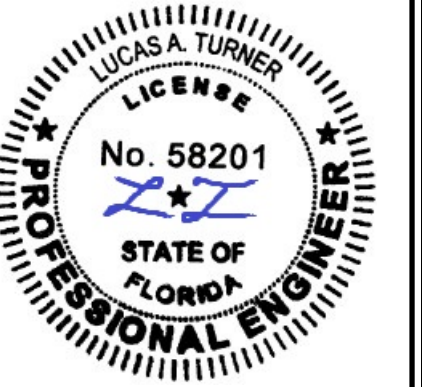
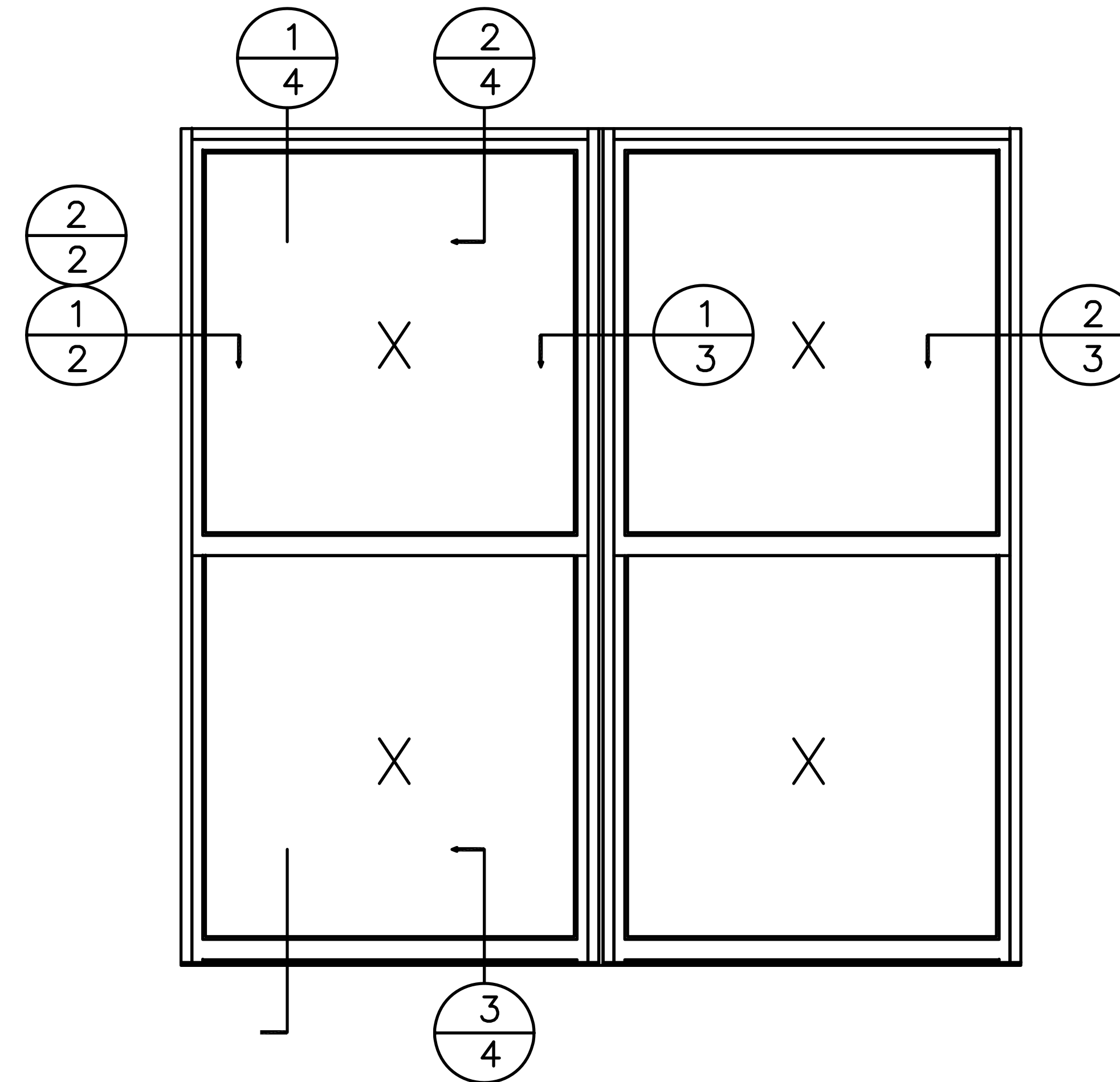
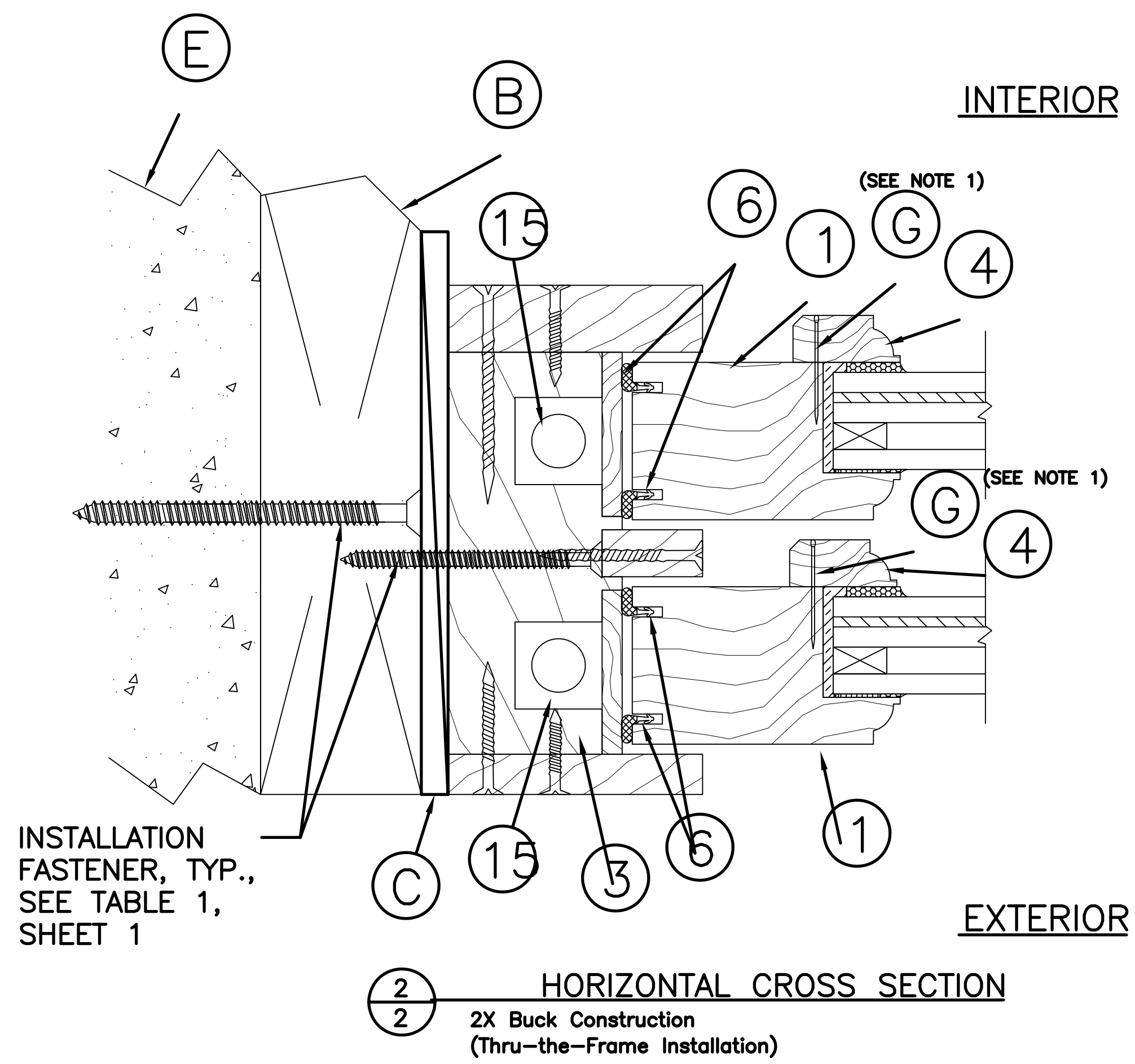
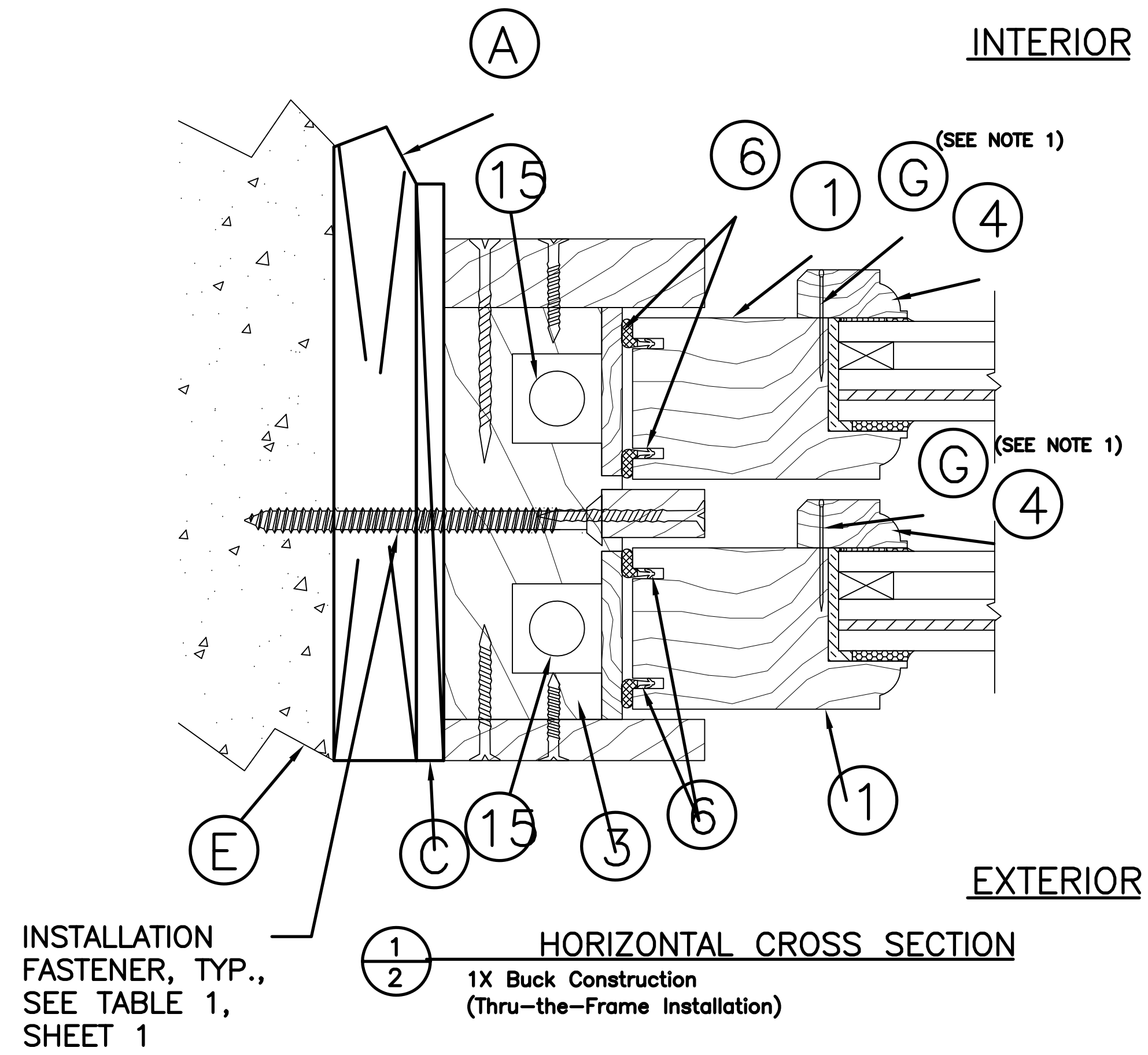
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BALANCE WINDOW  
TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

Product: SERIES 4500 TWIN DOUBLE HUNG BALANCE WINDOW  
Date: 05-07-14  
Scale: None  
Drawn: JDS

Dwg. DH-TwinBal  
FL34941.5

Sheet No.  
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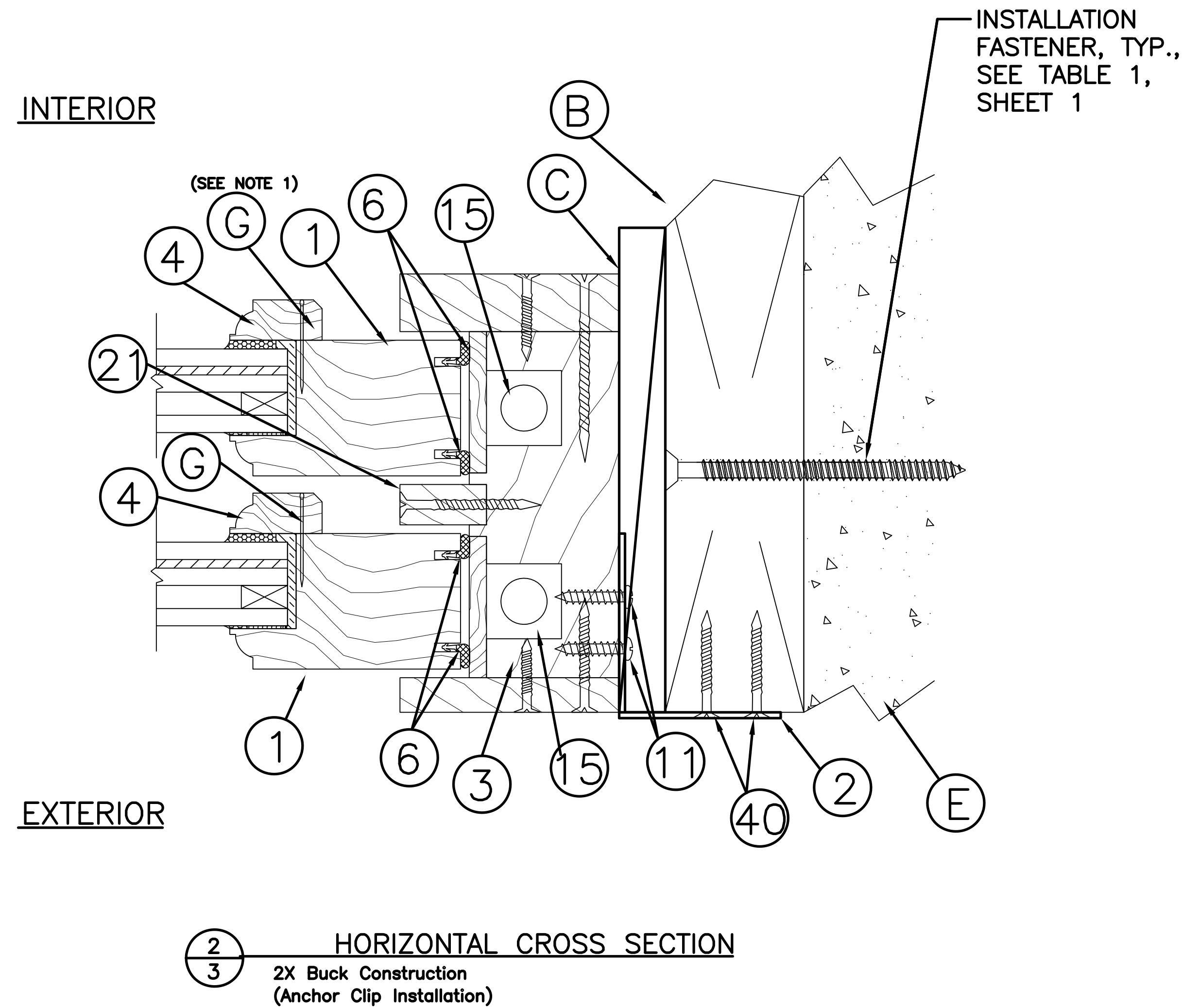
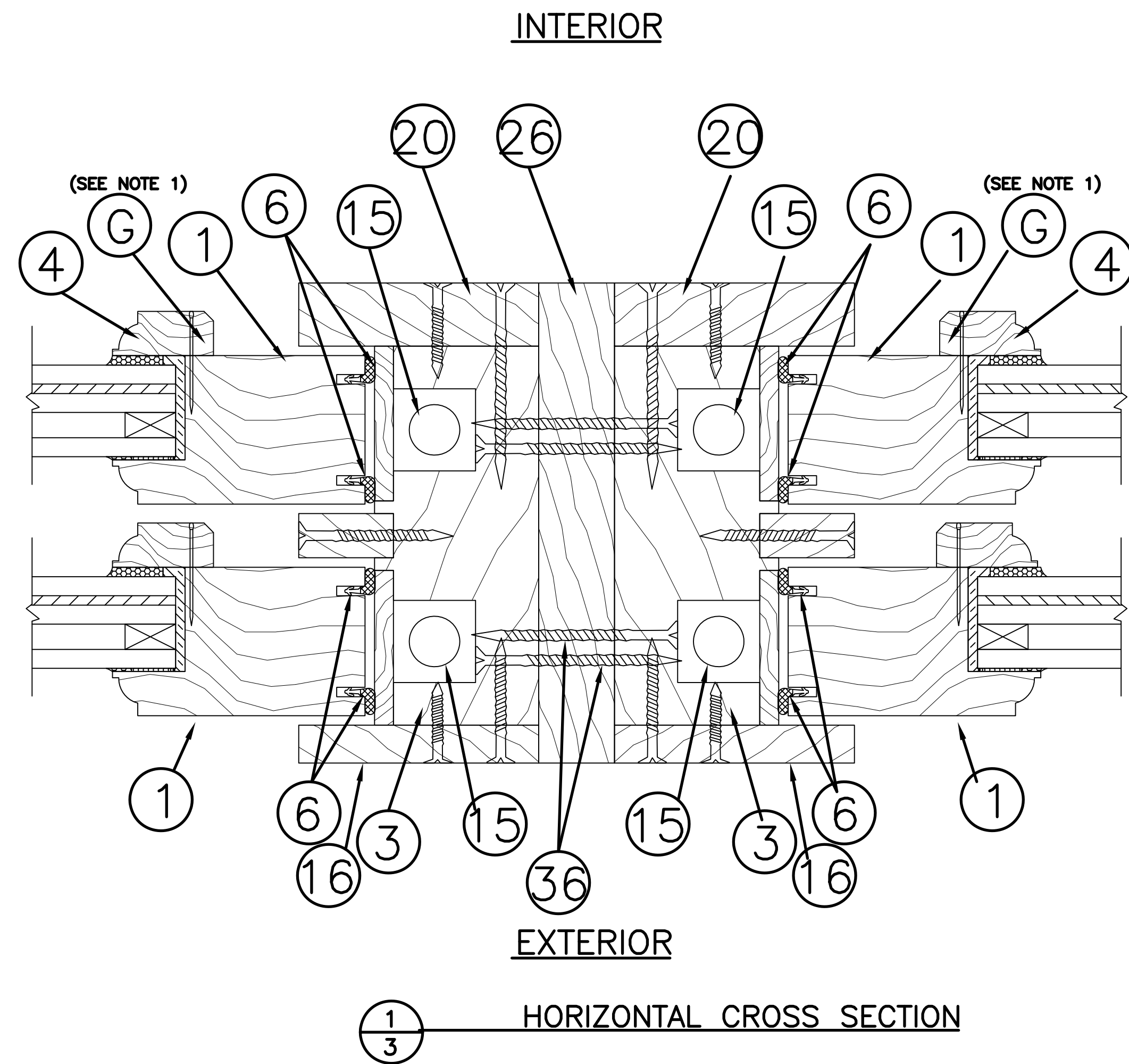
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HORIZONTAL CROSS SECTIONS

Date: 05-07-14  
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**NOTE:**  
 1. Item #G located 1" from each end then 10" on center.



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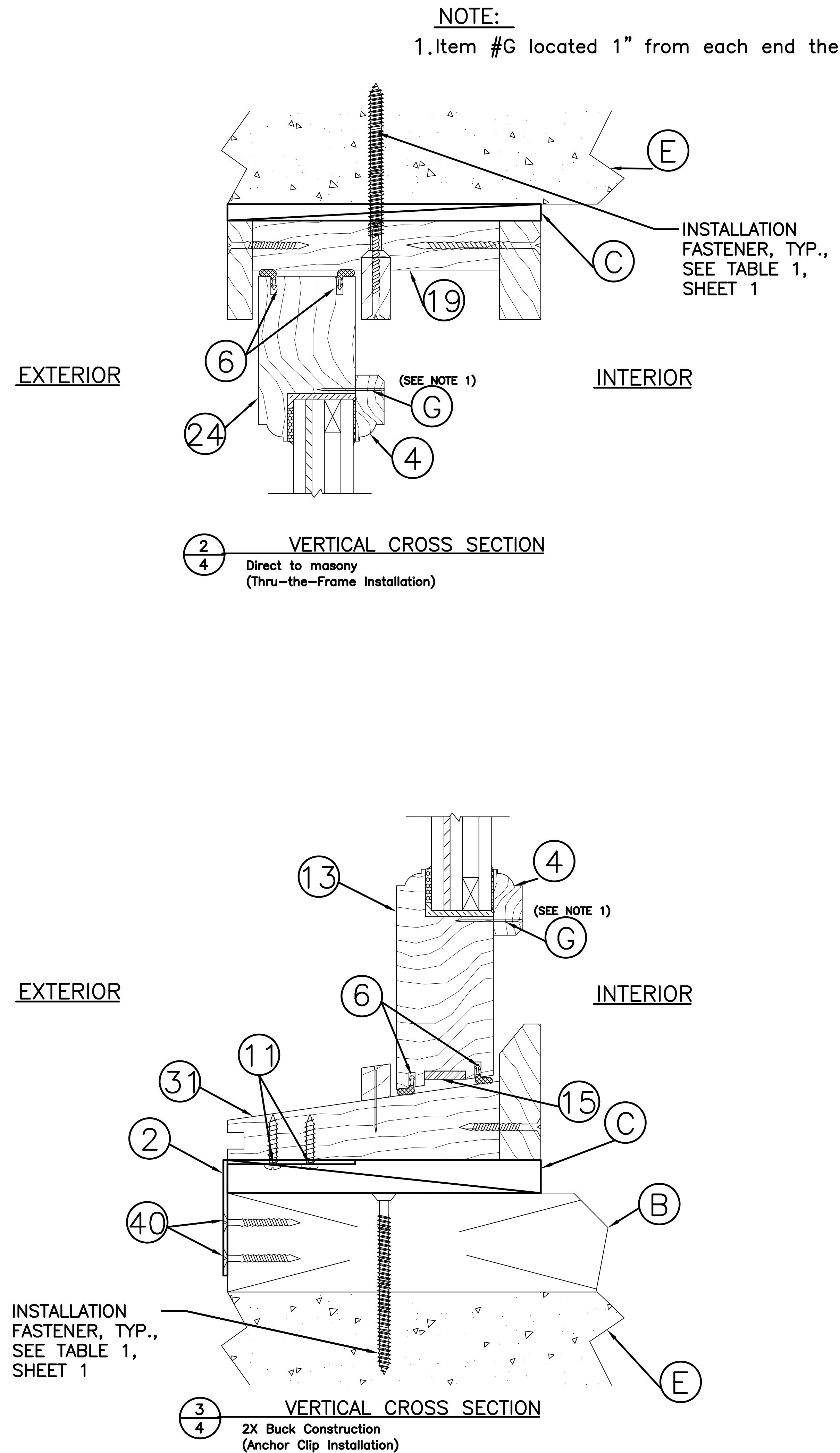
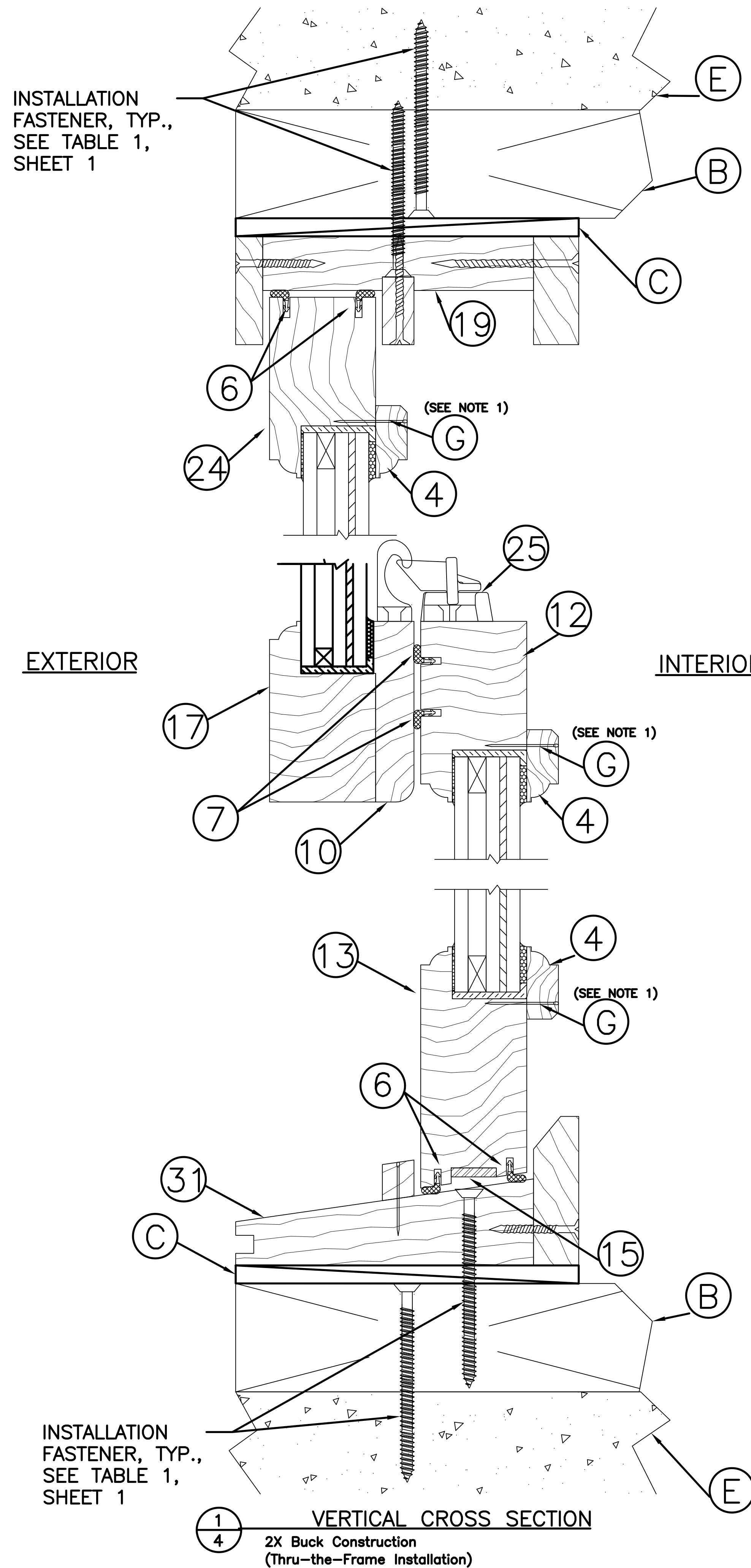
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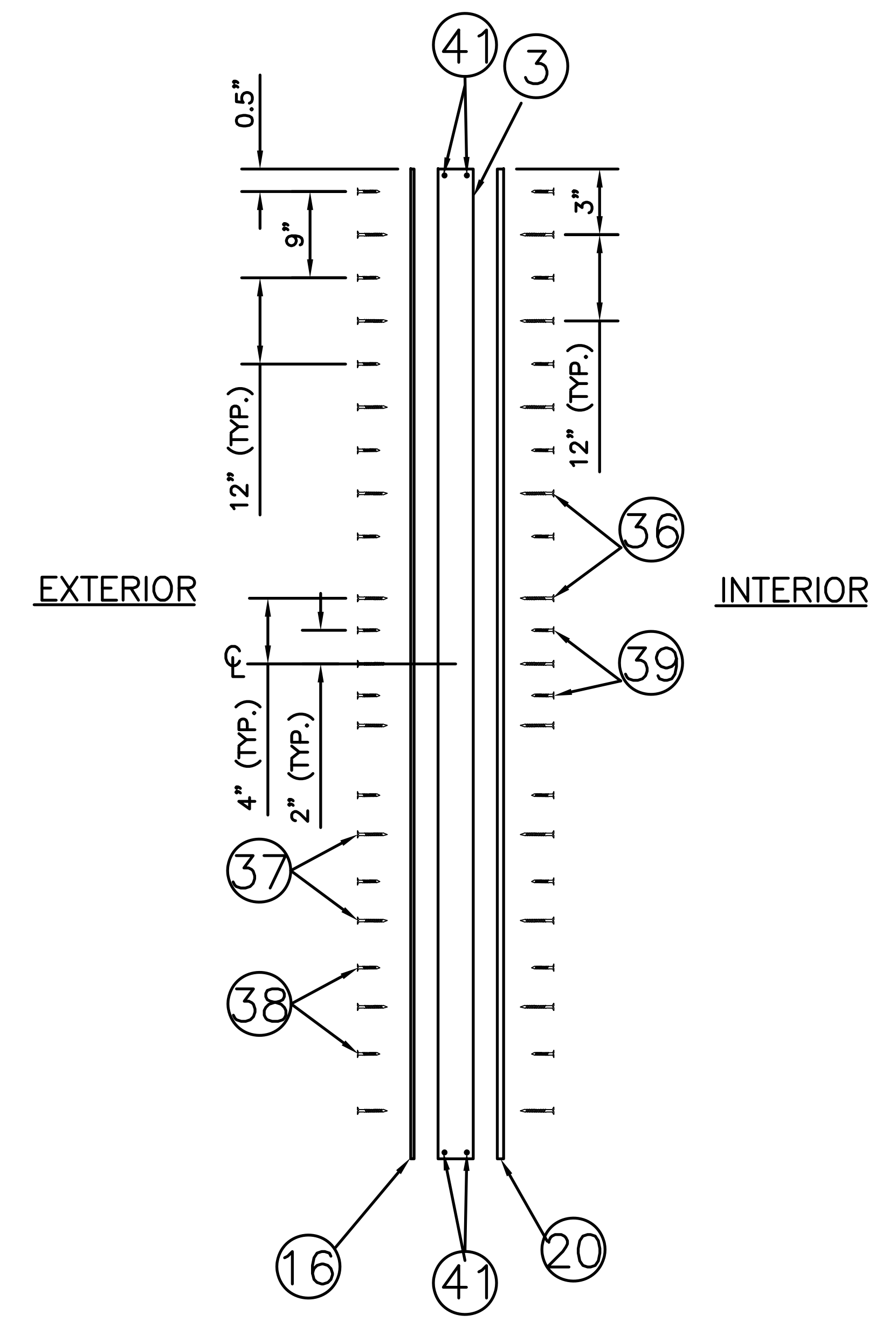
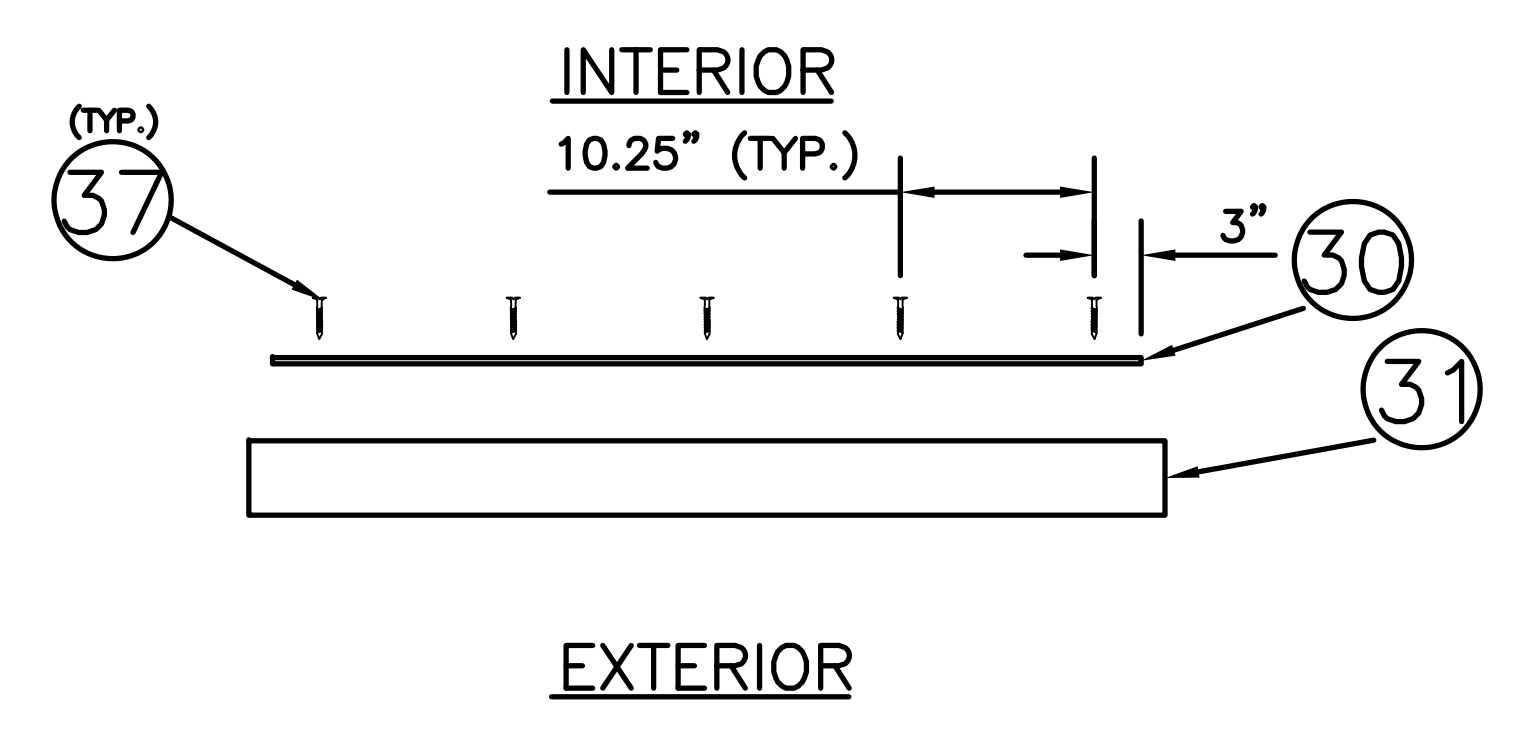
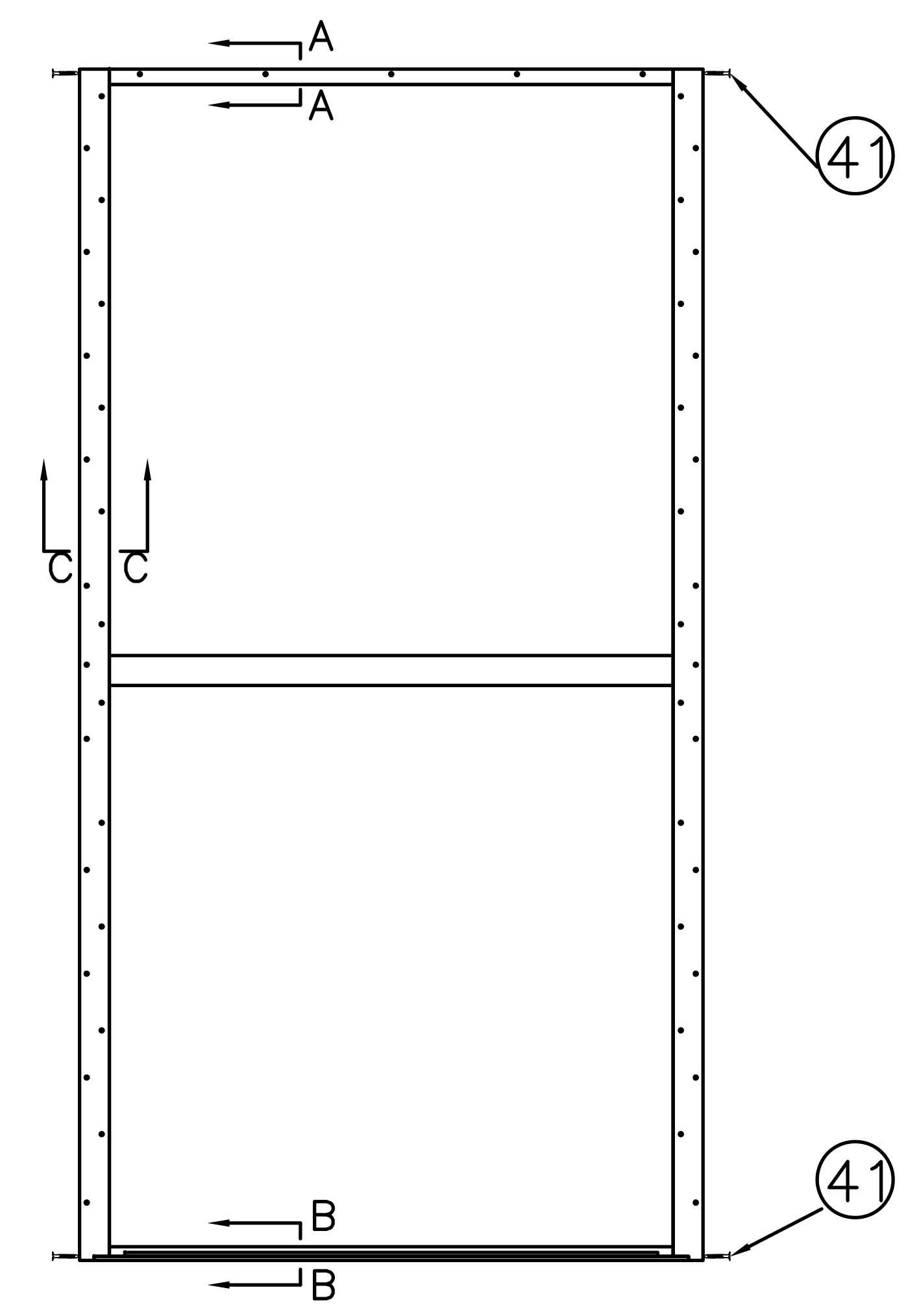
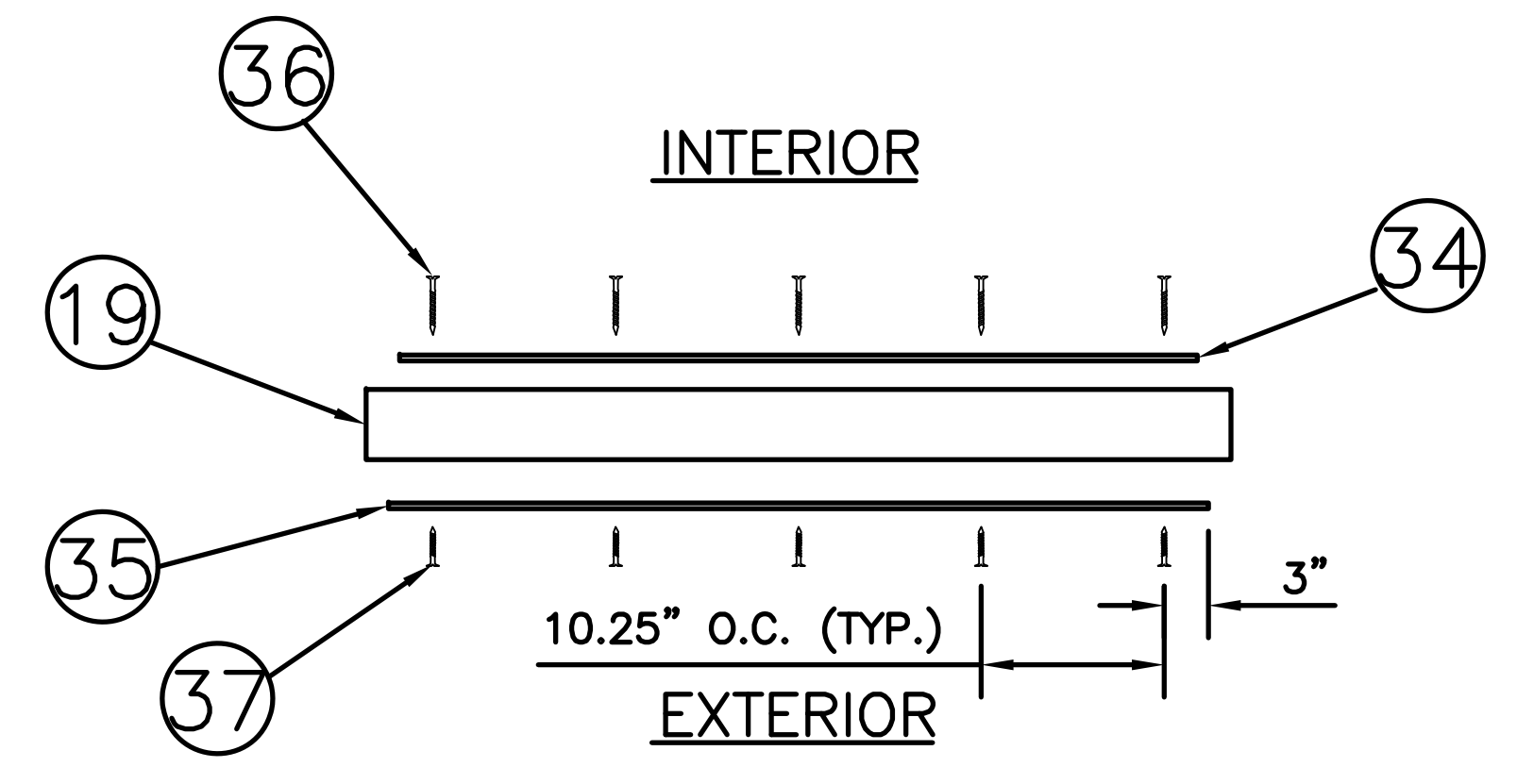
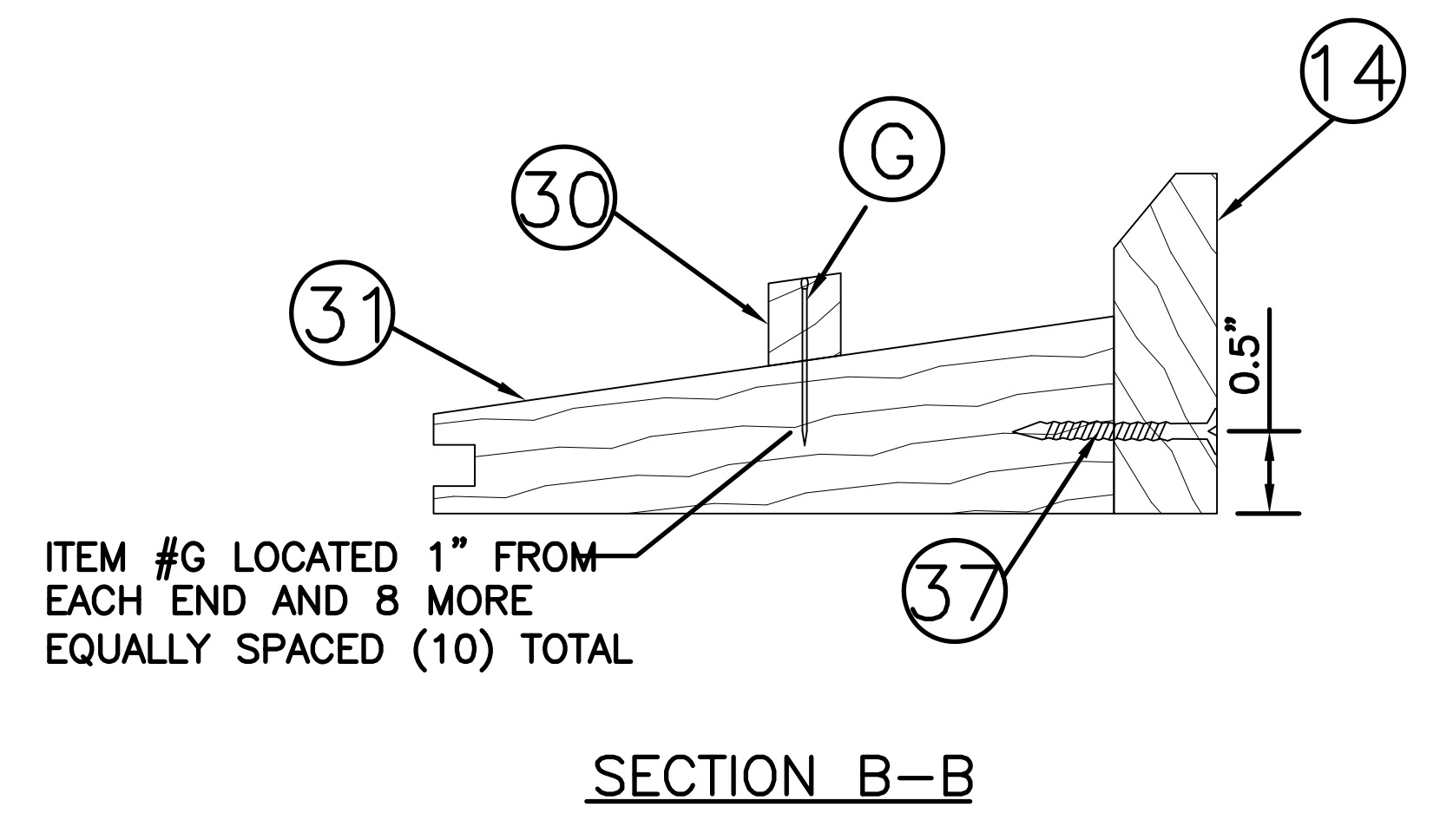
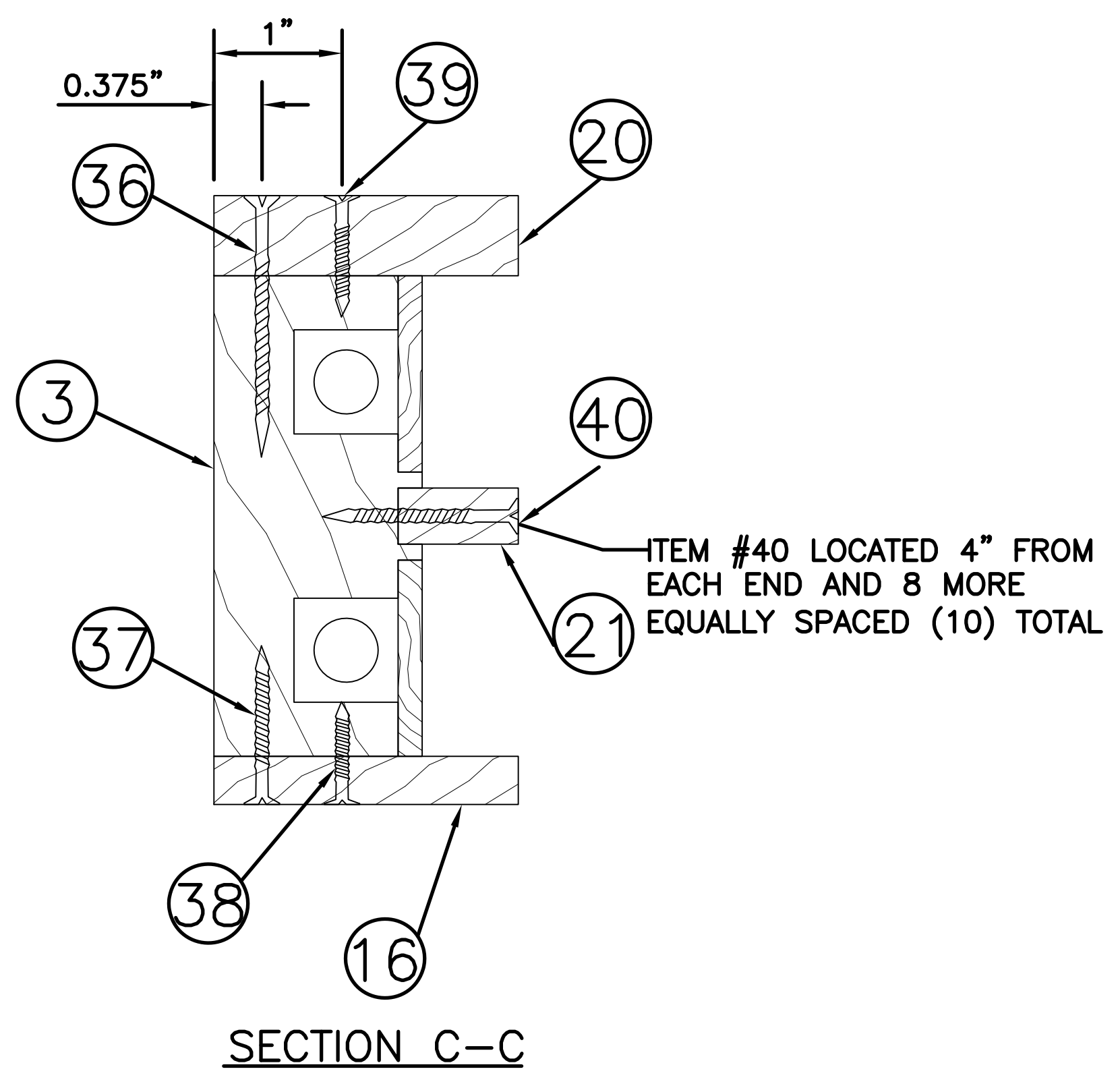
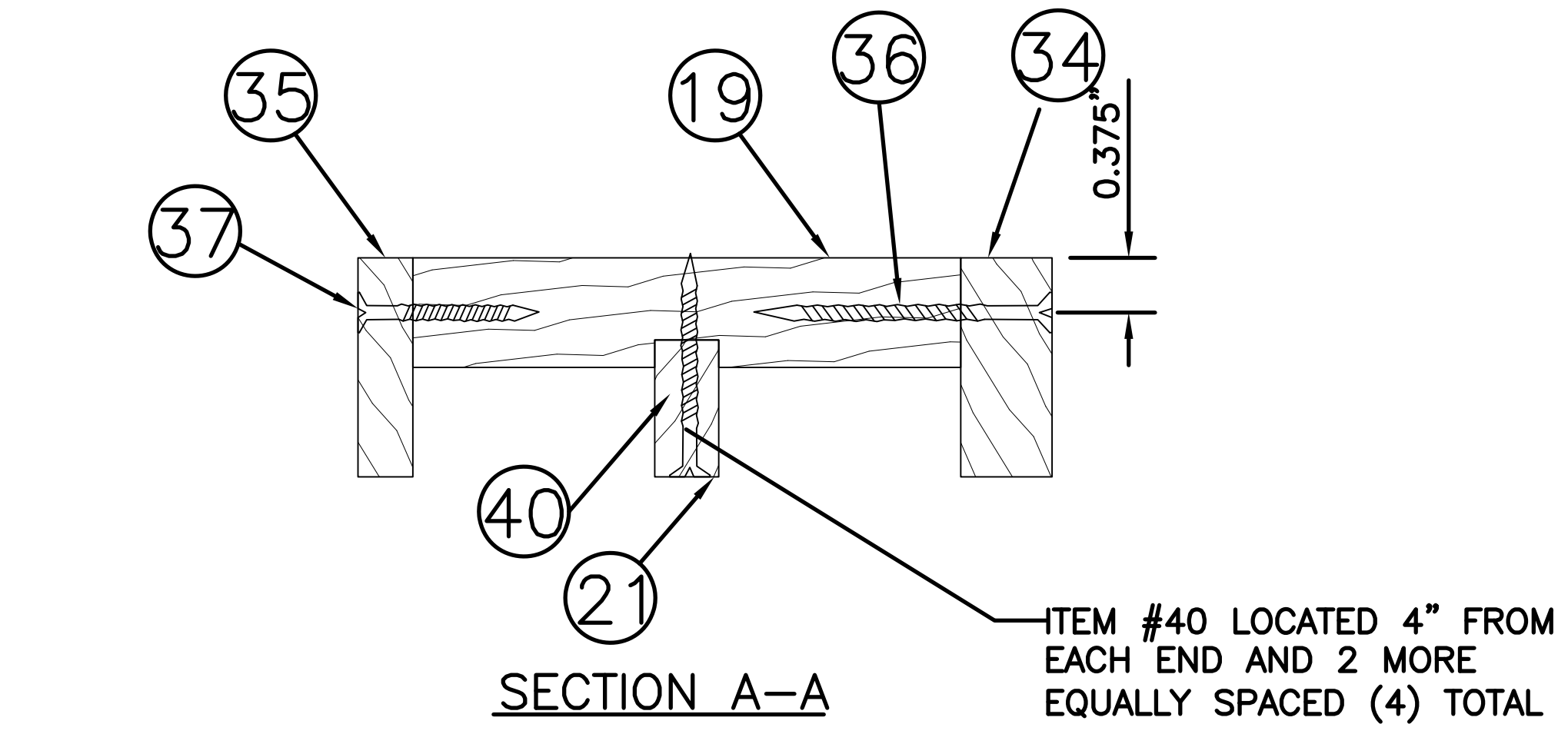
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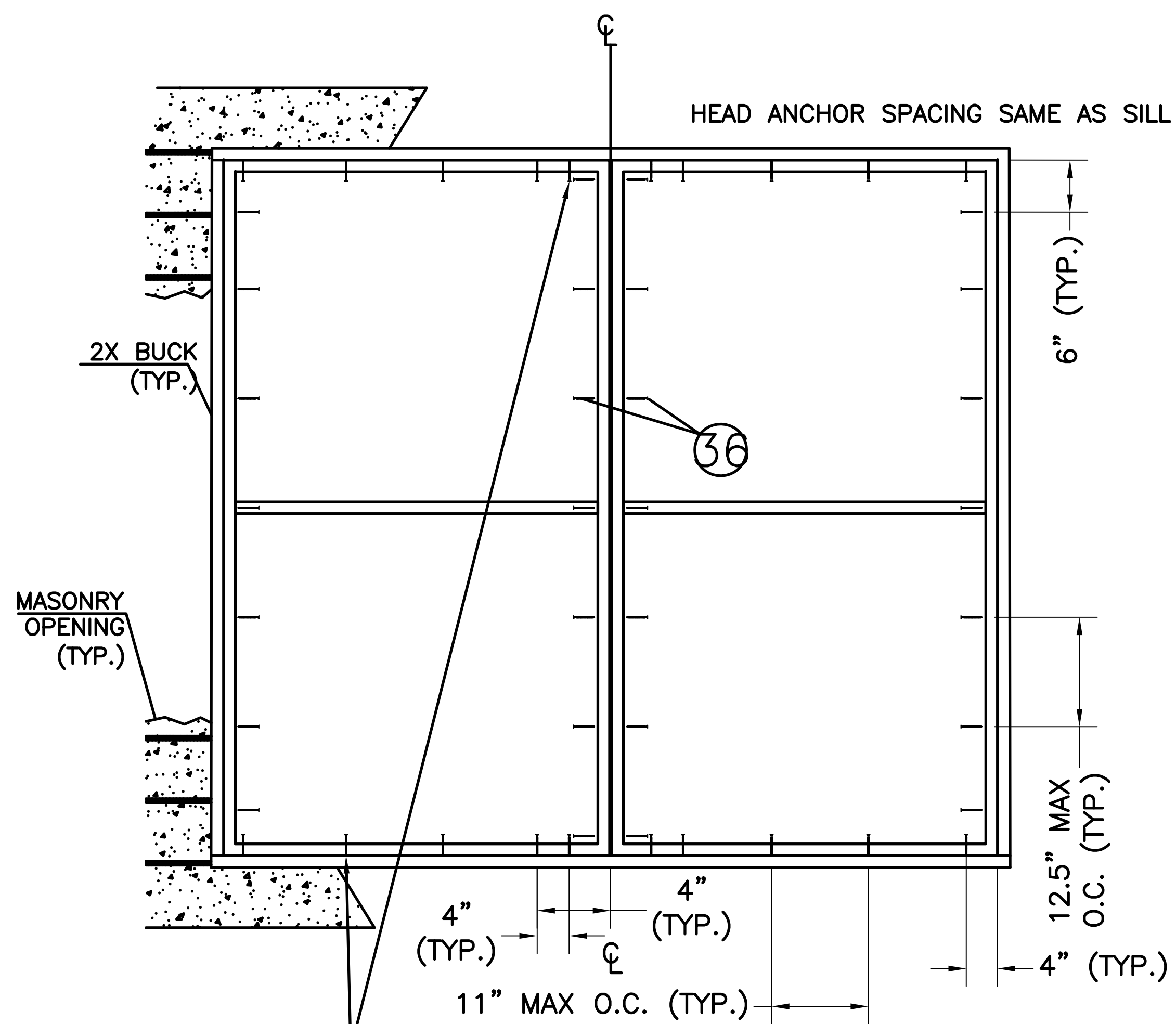
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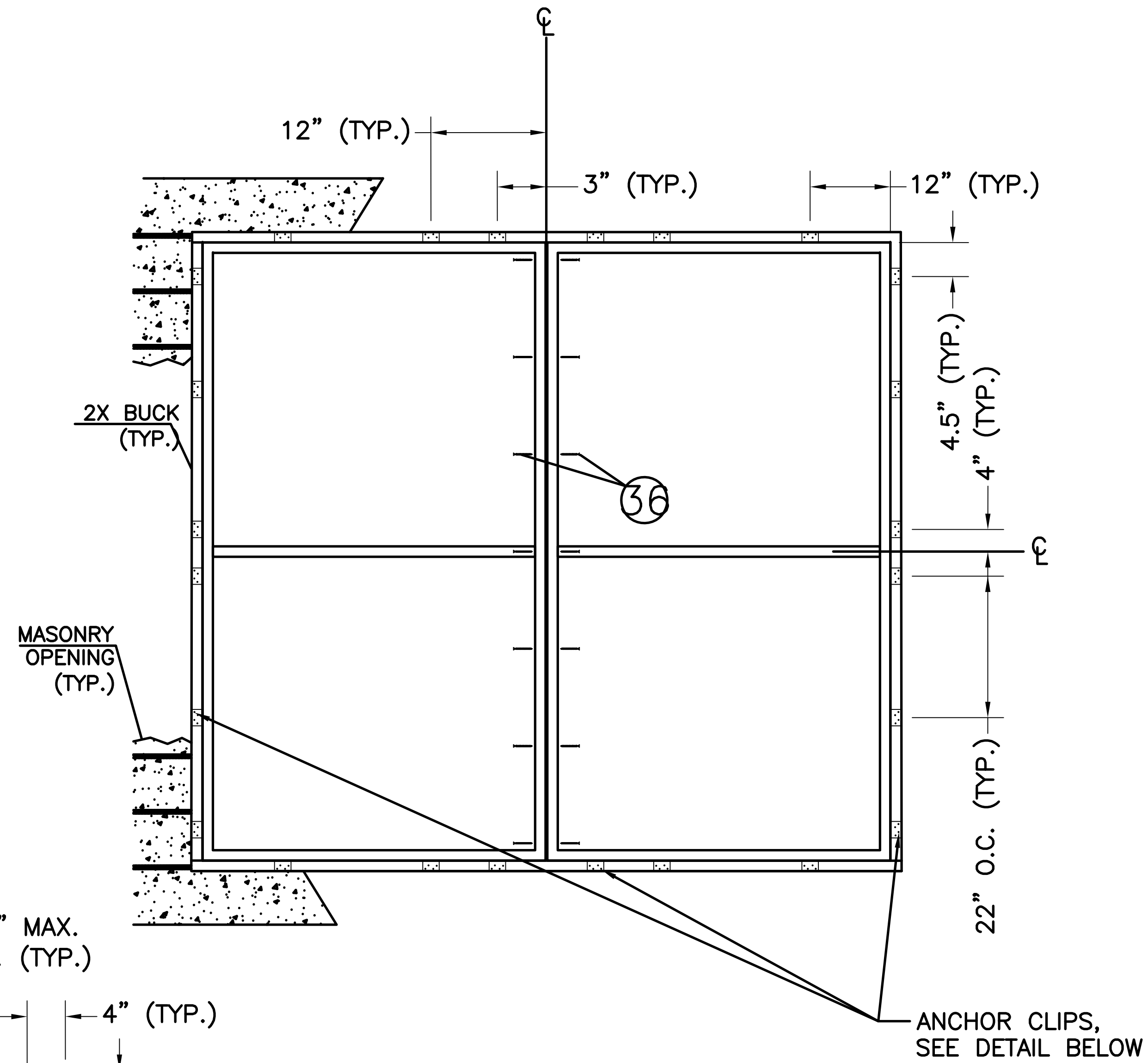




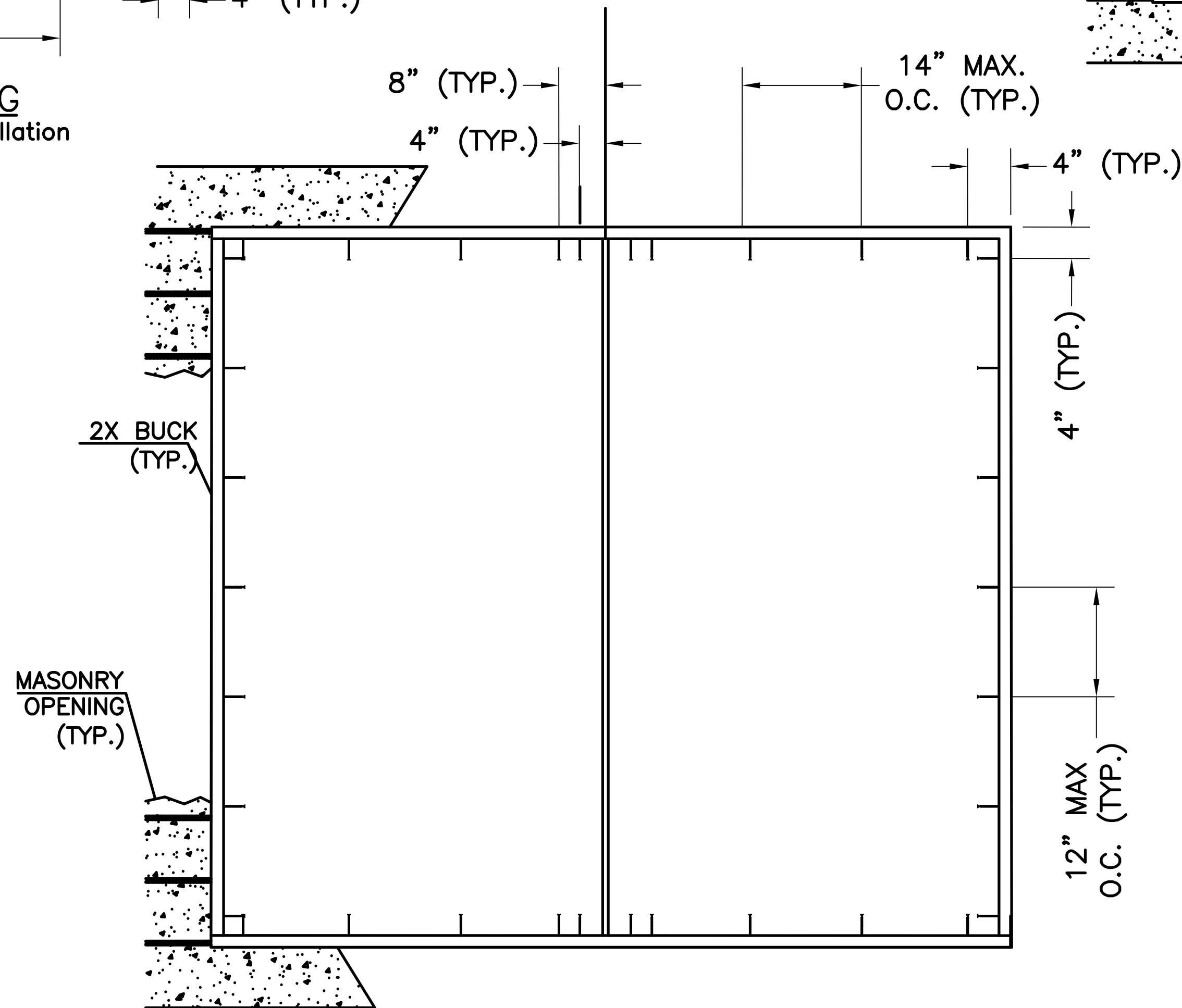
INSTALLATION FASTENER, TYP., SEE TABLE 1, SHEET 1

**FRAME ANCHORING**  
Through-the-Frame Installation

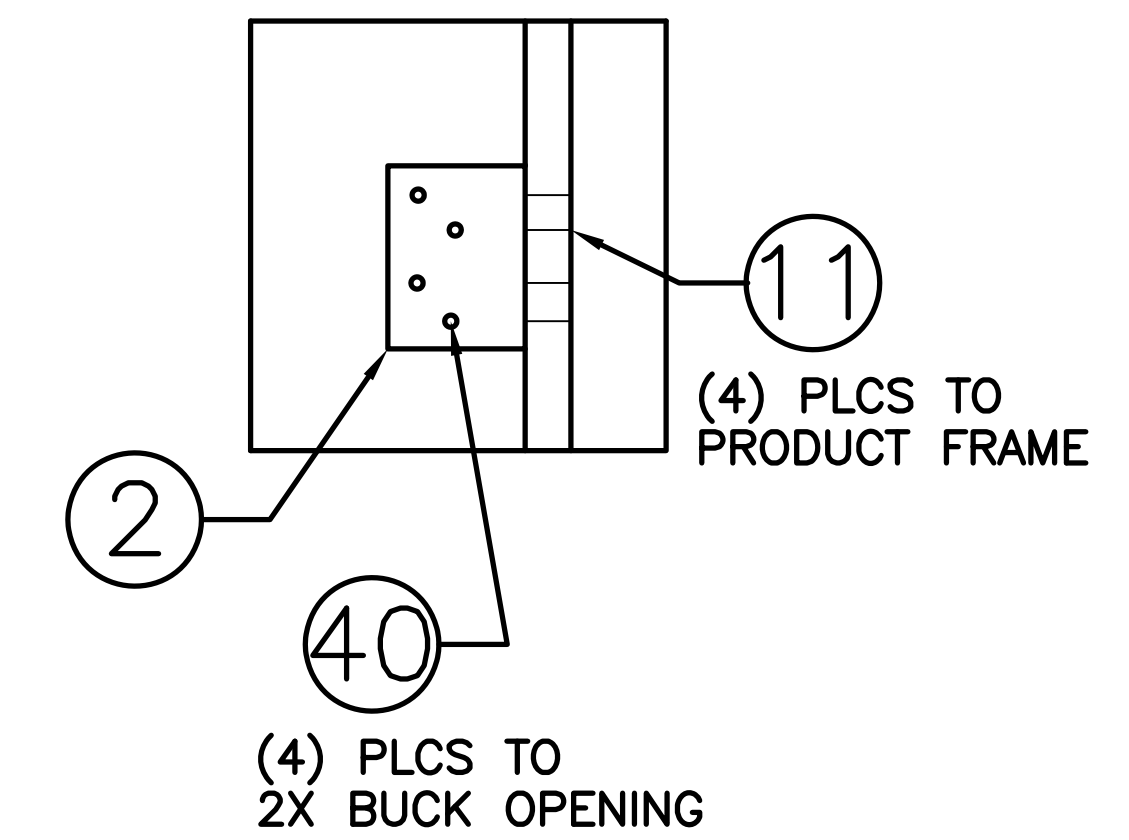
NOTE: STAGGER ANCHORS AS NEEDED TO ENSURE 4" MIN. SEPARATION BETWEEN ANY TWO BUCK AND/OR THROUGH-FRAME ANCHORS, WHILE NOT EXCEEDING MAX. ANCHOR SPACINGS NOTED IN DETAILS (MAY NEED ADDITIONAL FASTENERS).



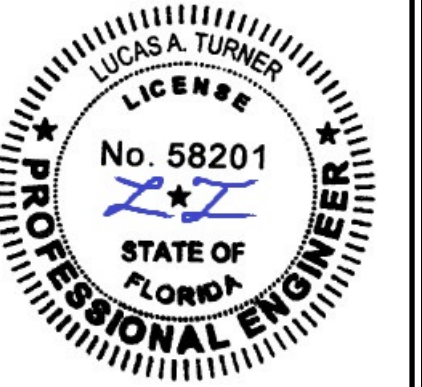
**FRAME ANCHORING**  
Anchor Clip Installation



**BUCK ANCHORING**  
Masonry construction



**ANCHOR CLIP DETAIL**



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BUCK & FRAME ANCHORING

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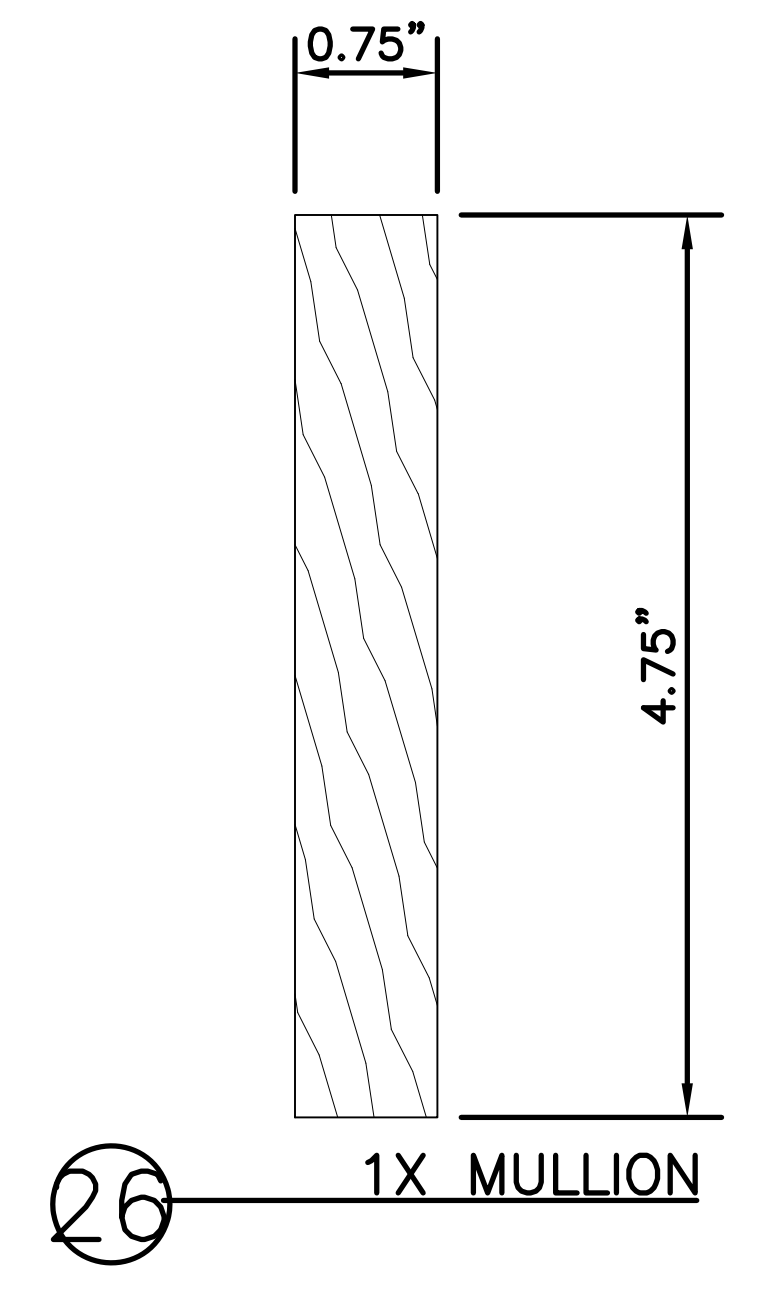
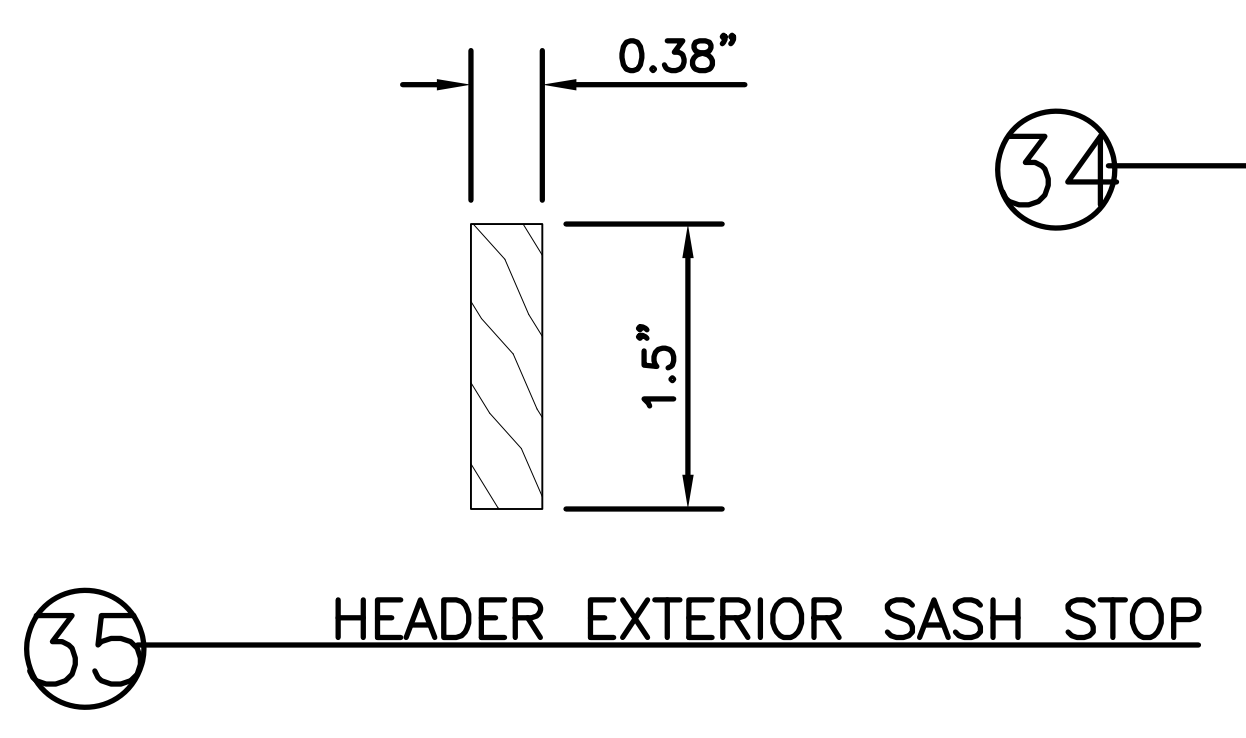
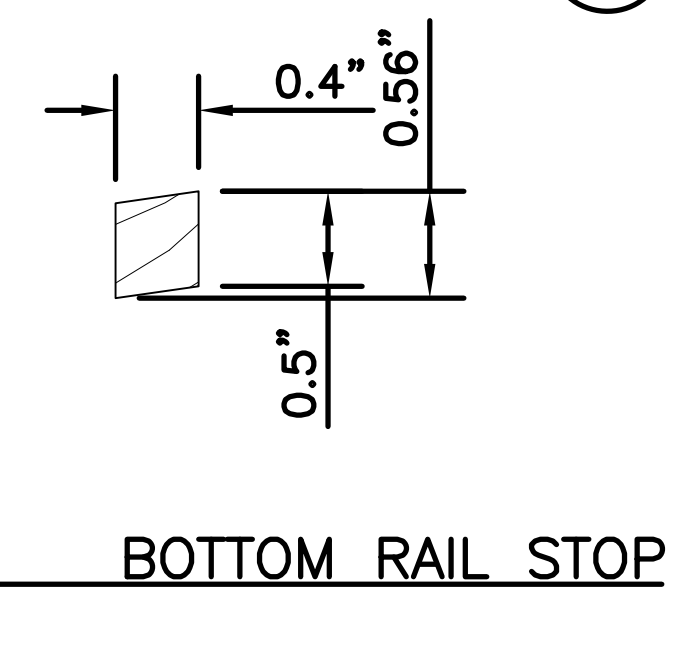
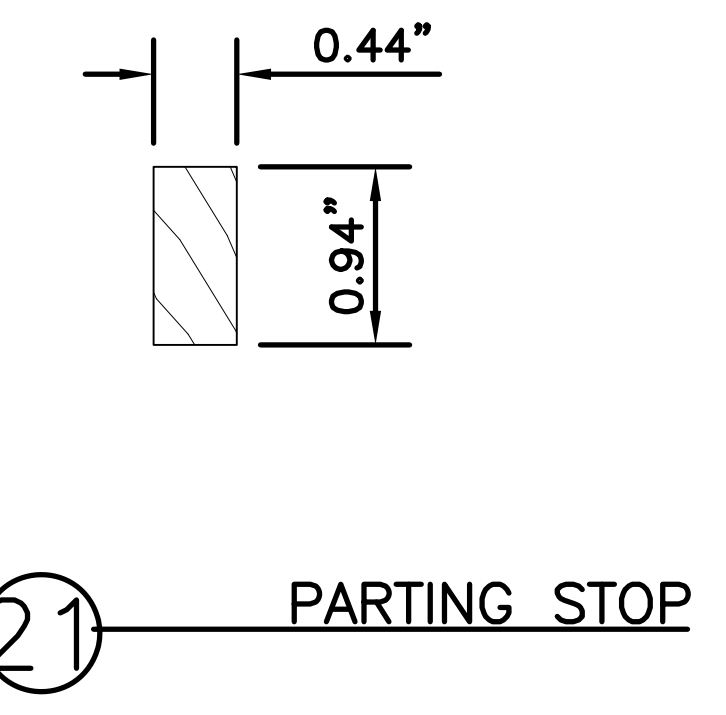
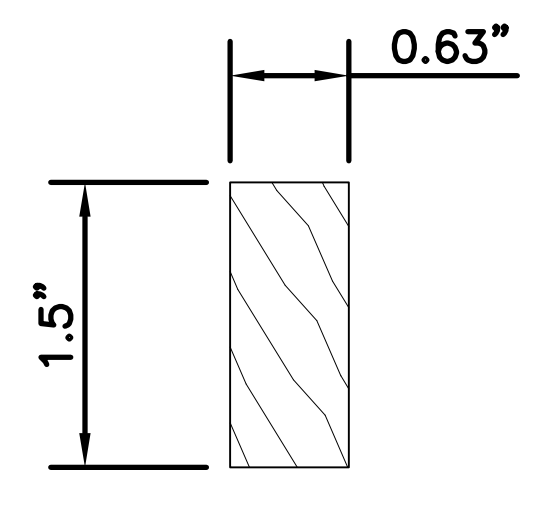
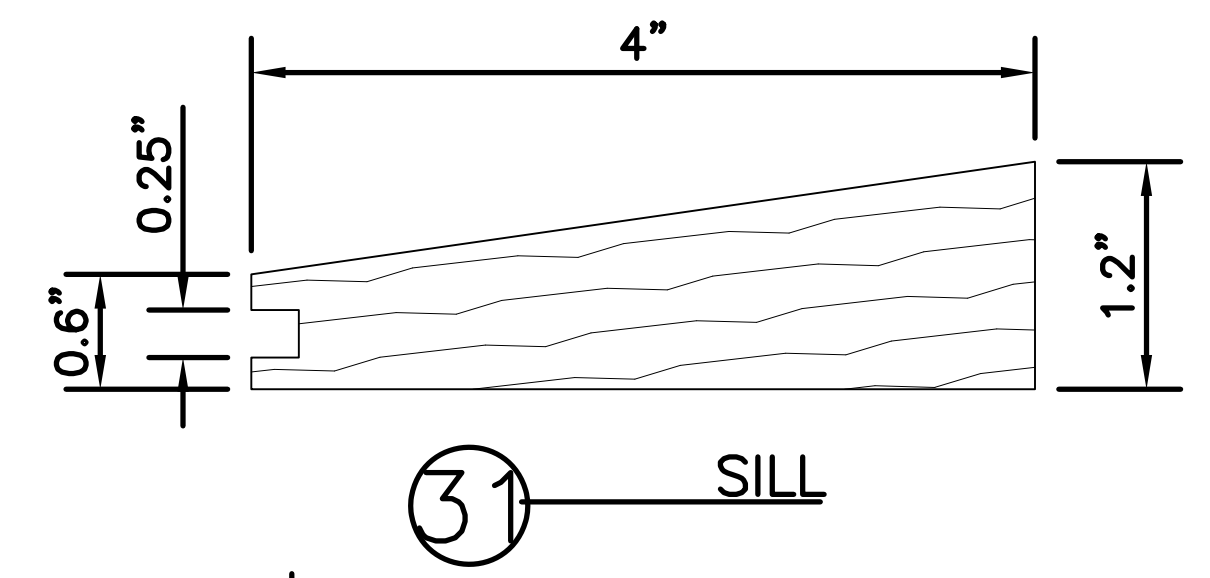
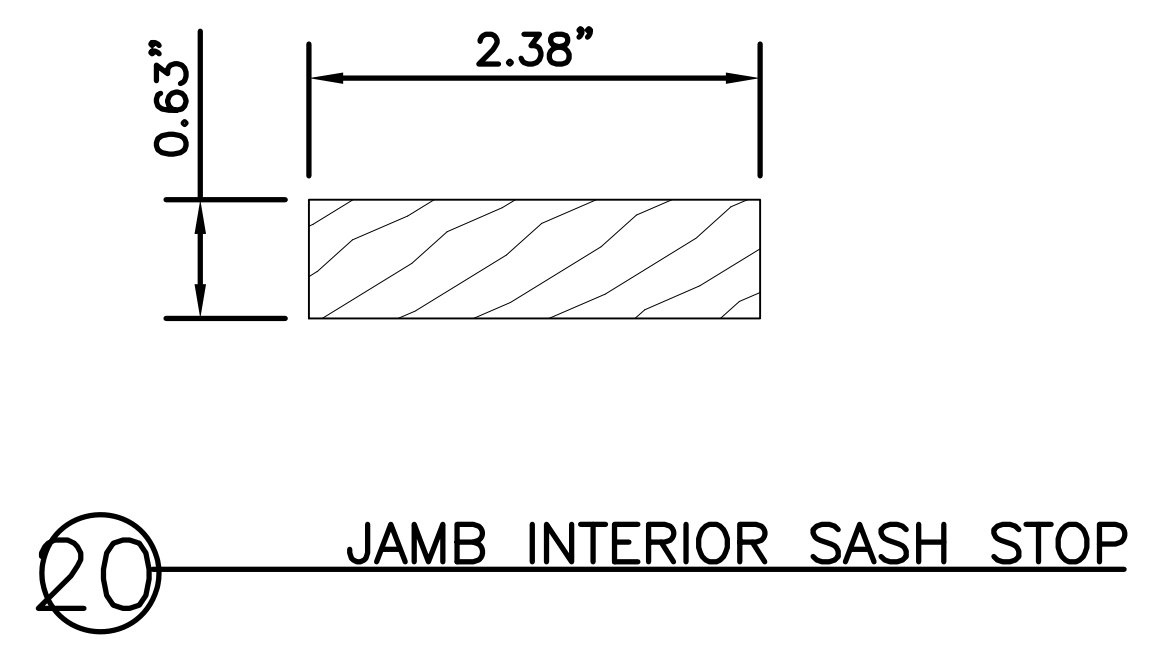
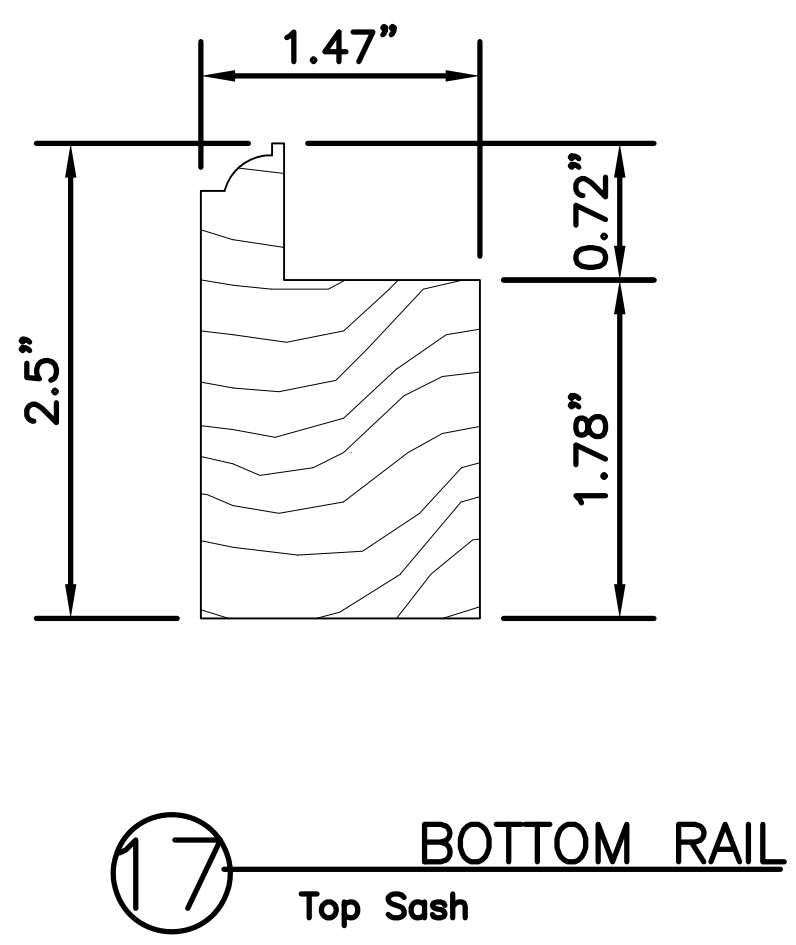
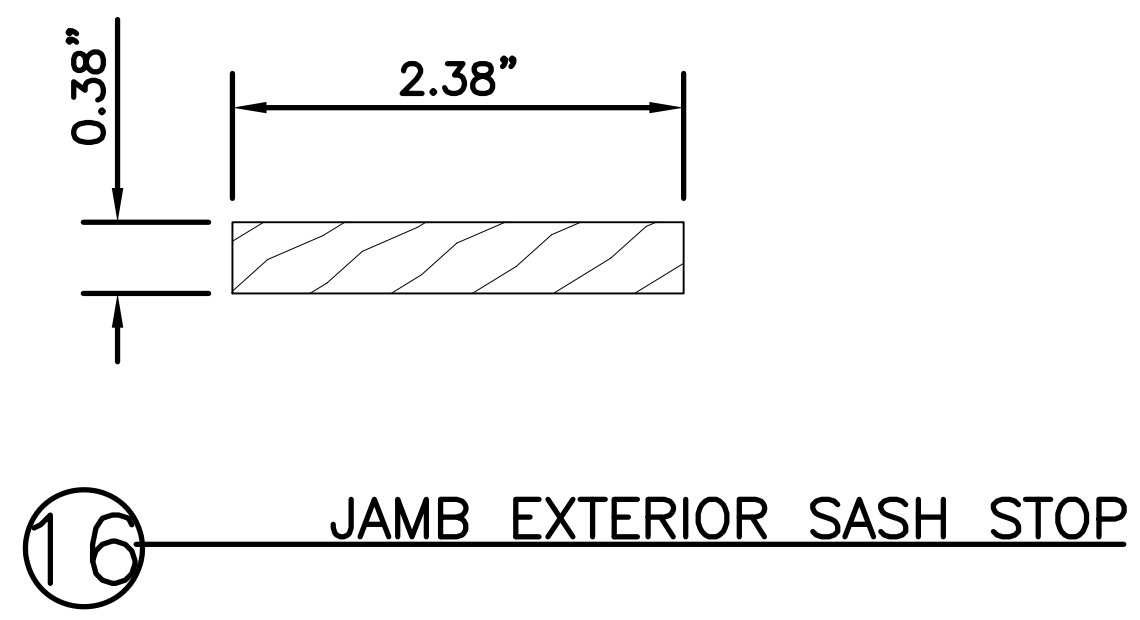
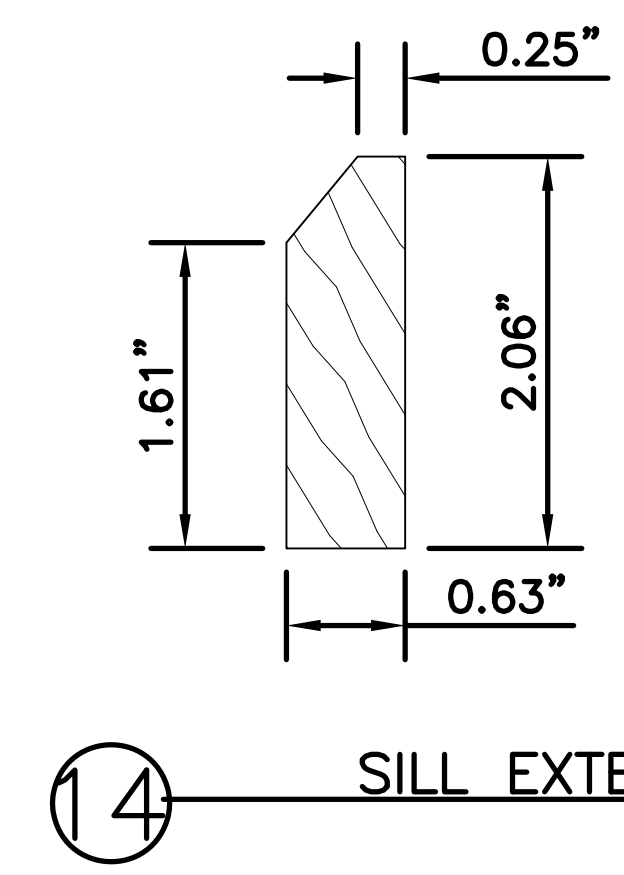
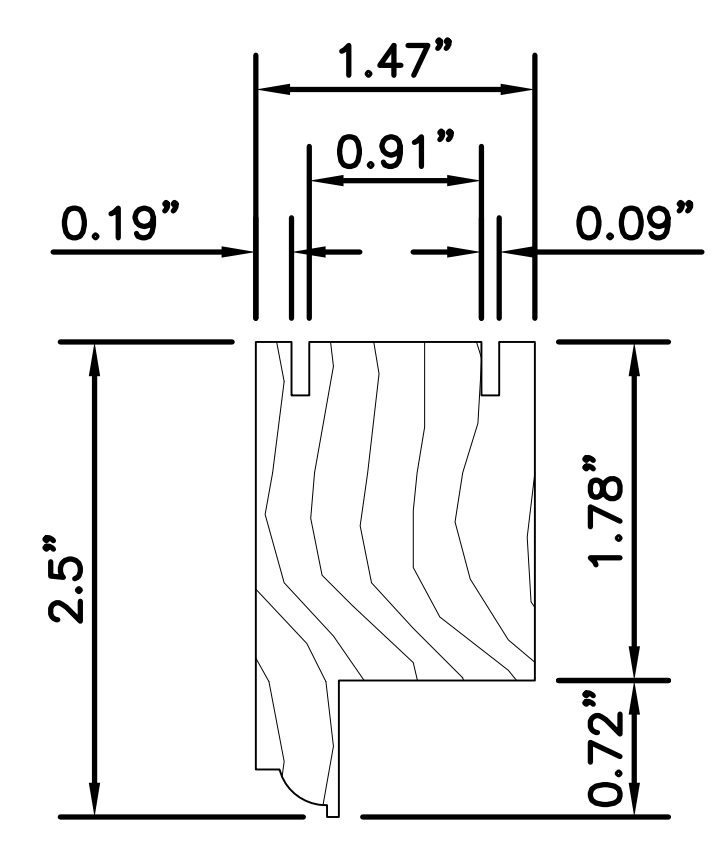
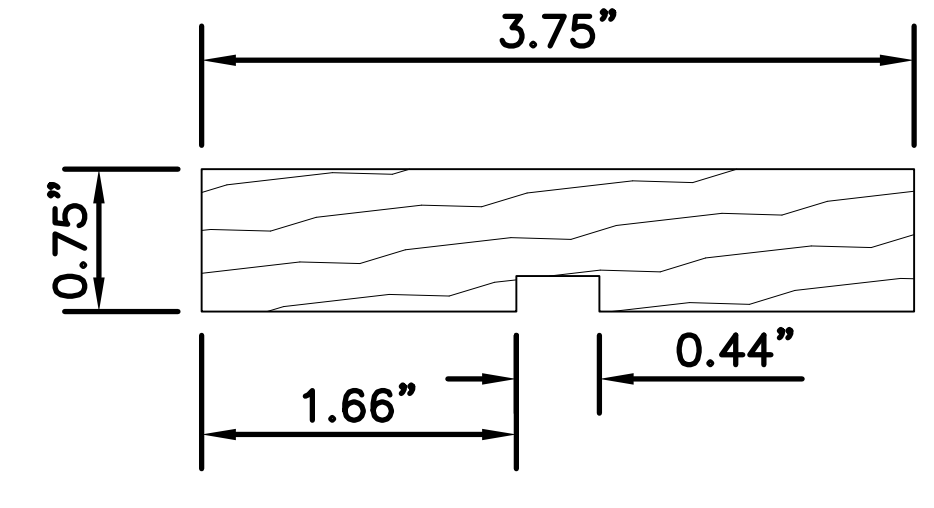
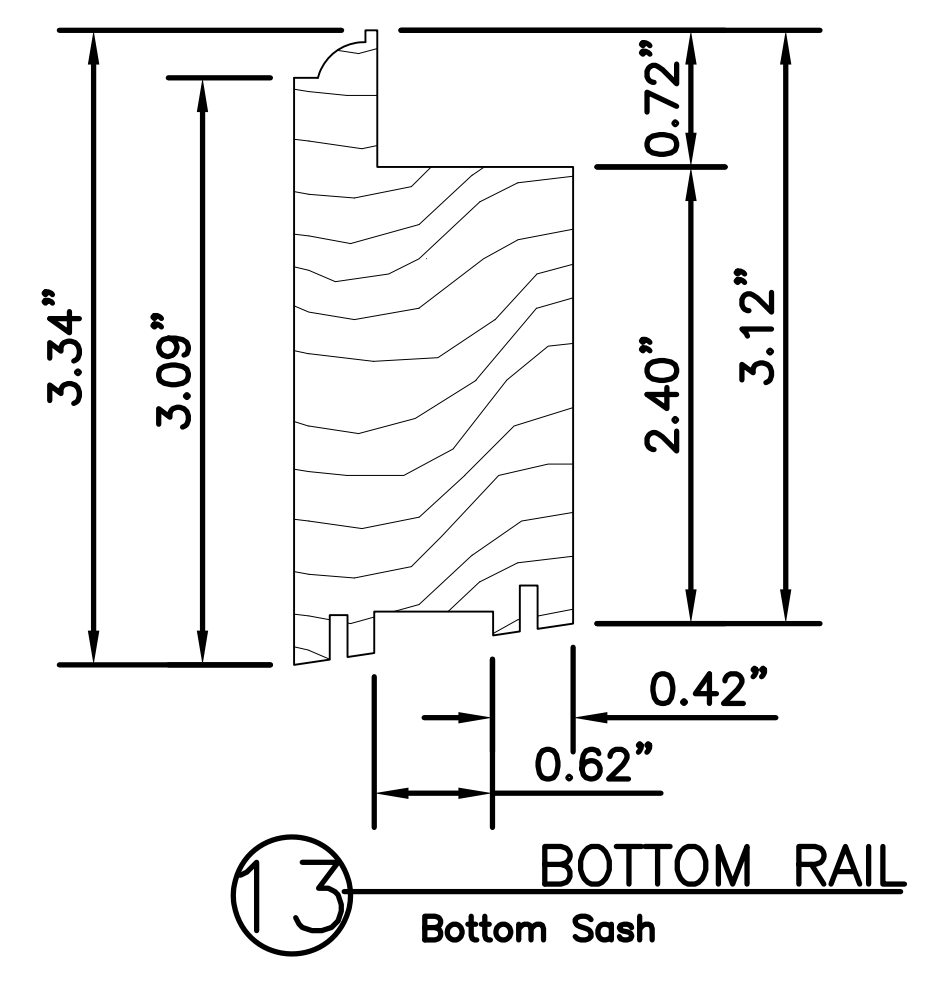
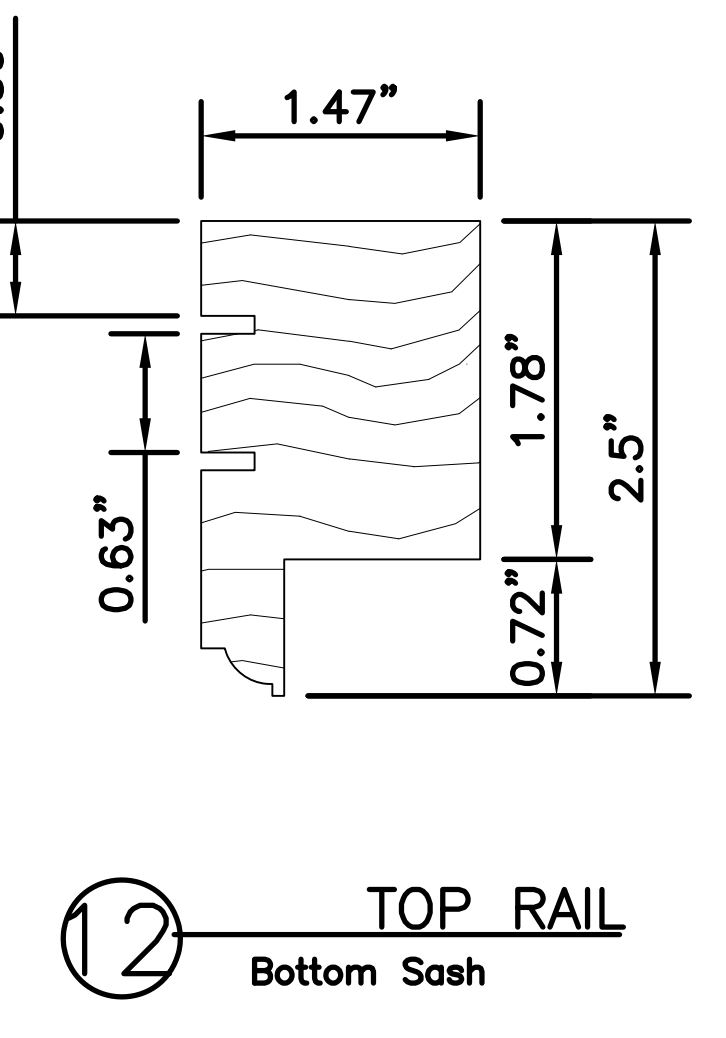
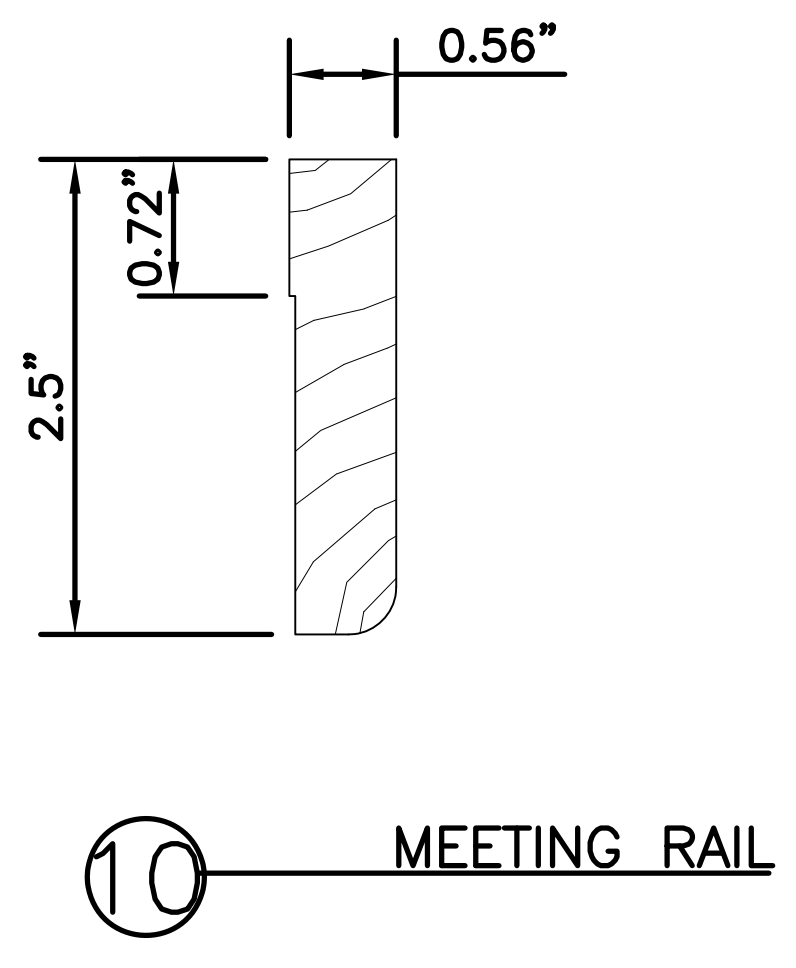
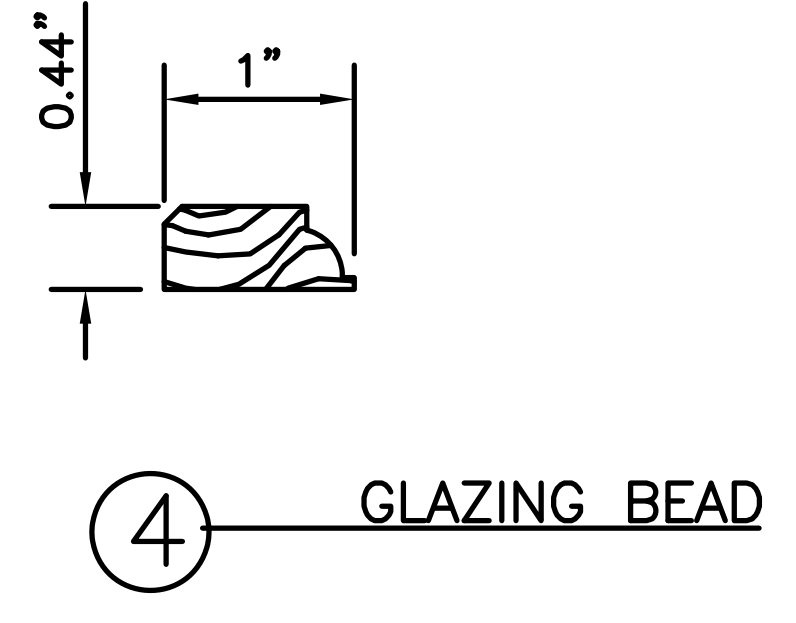
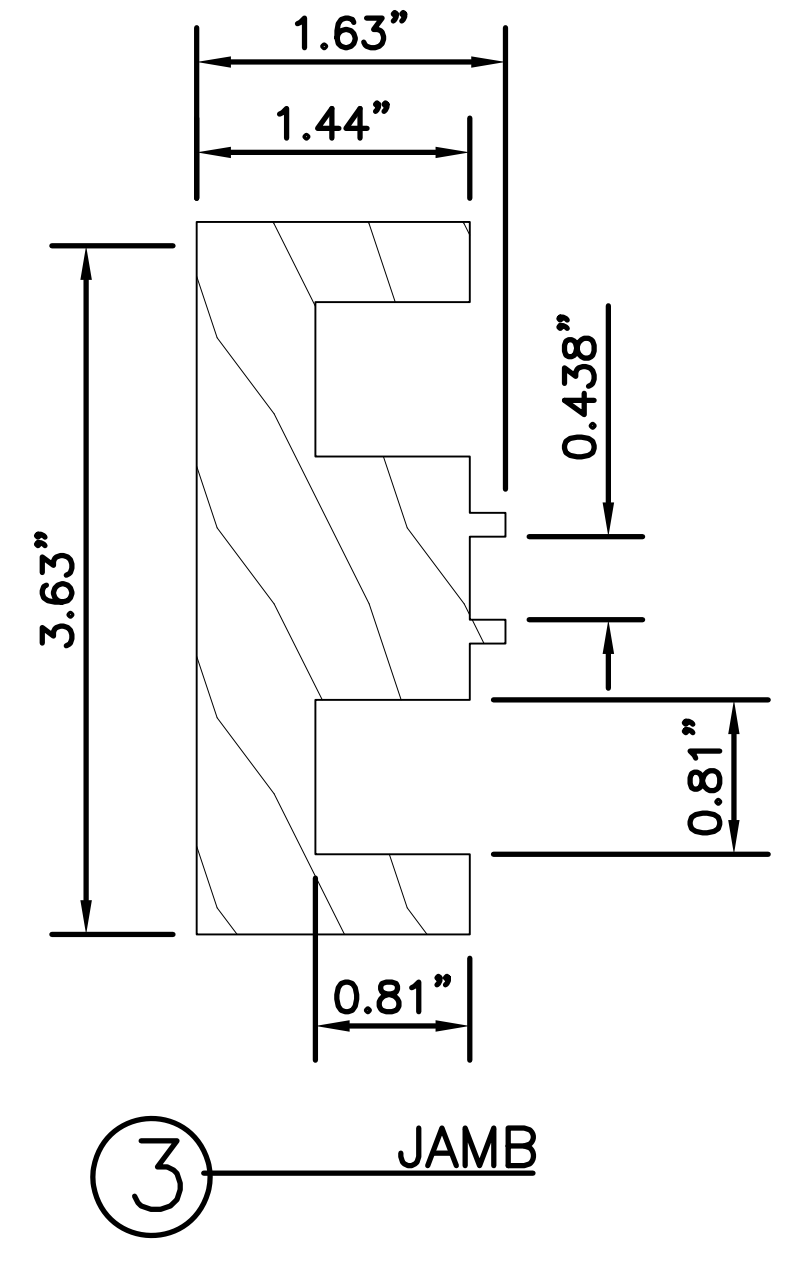
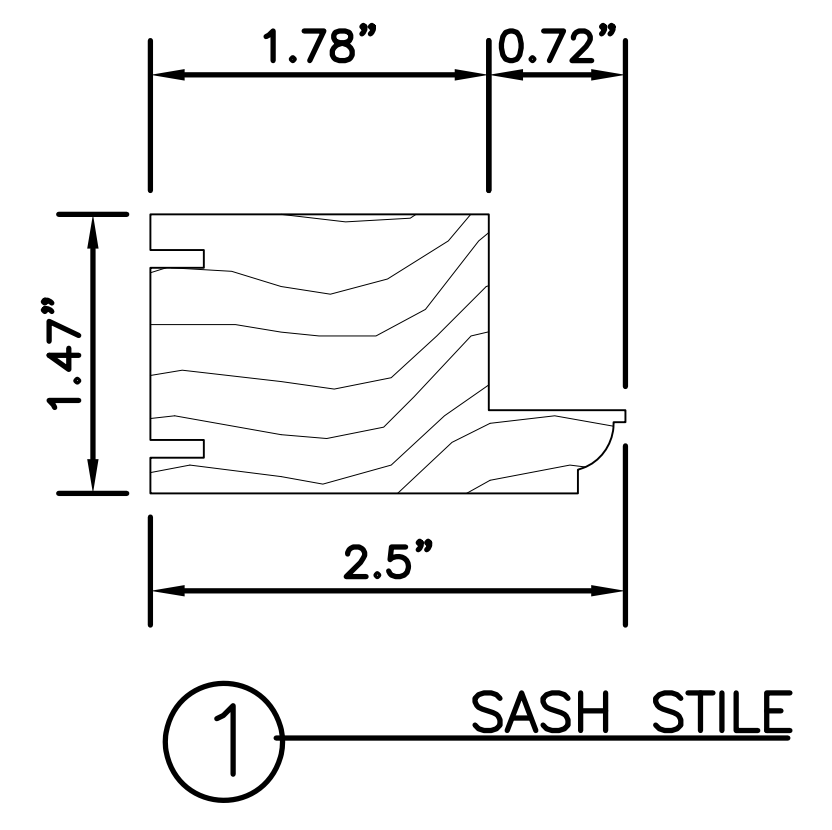
Product: 4500  
SERIES: TWIN DOUBLE HUNG BALANCE WINDOW

COMPONENTS

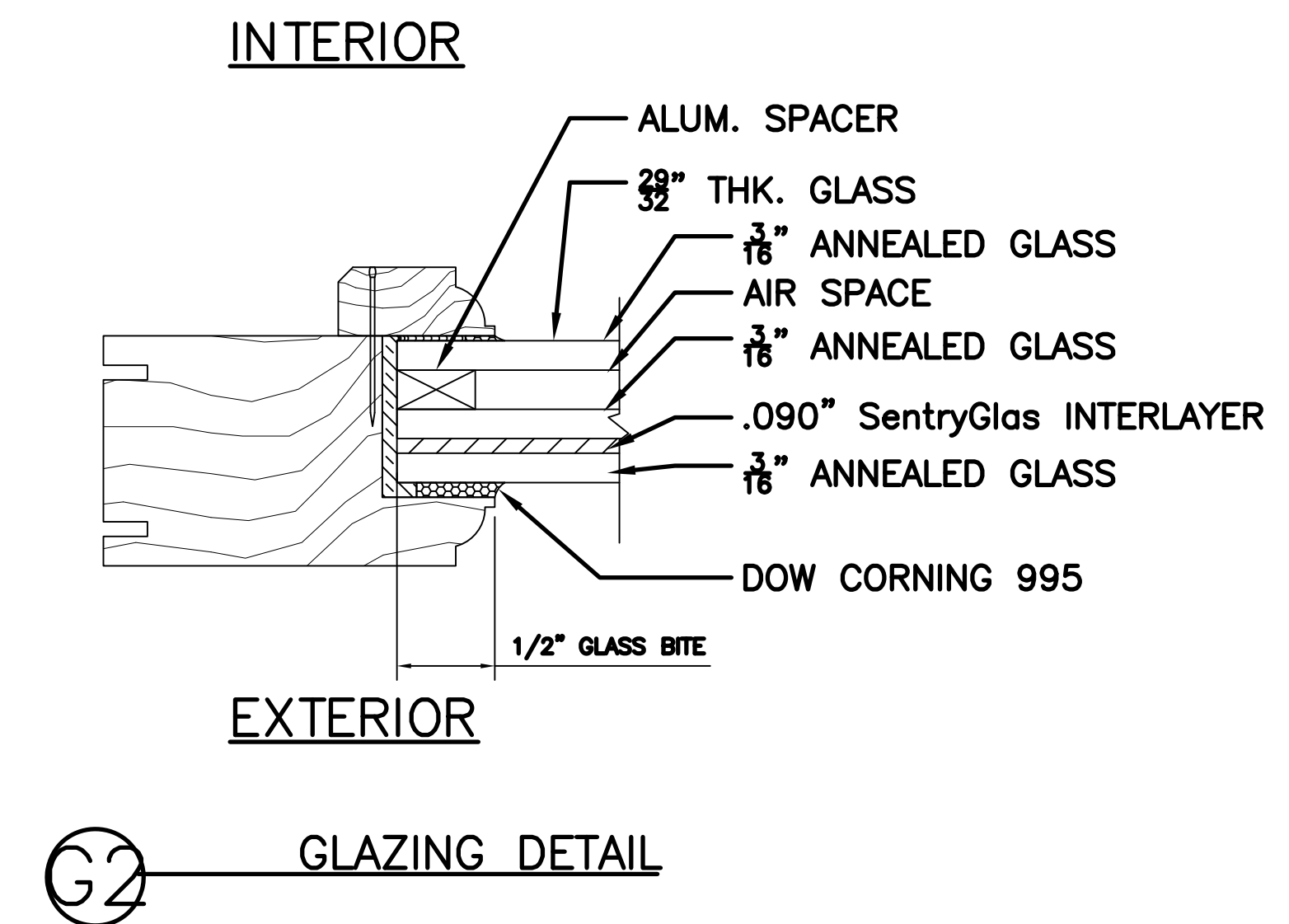
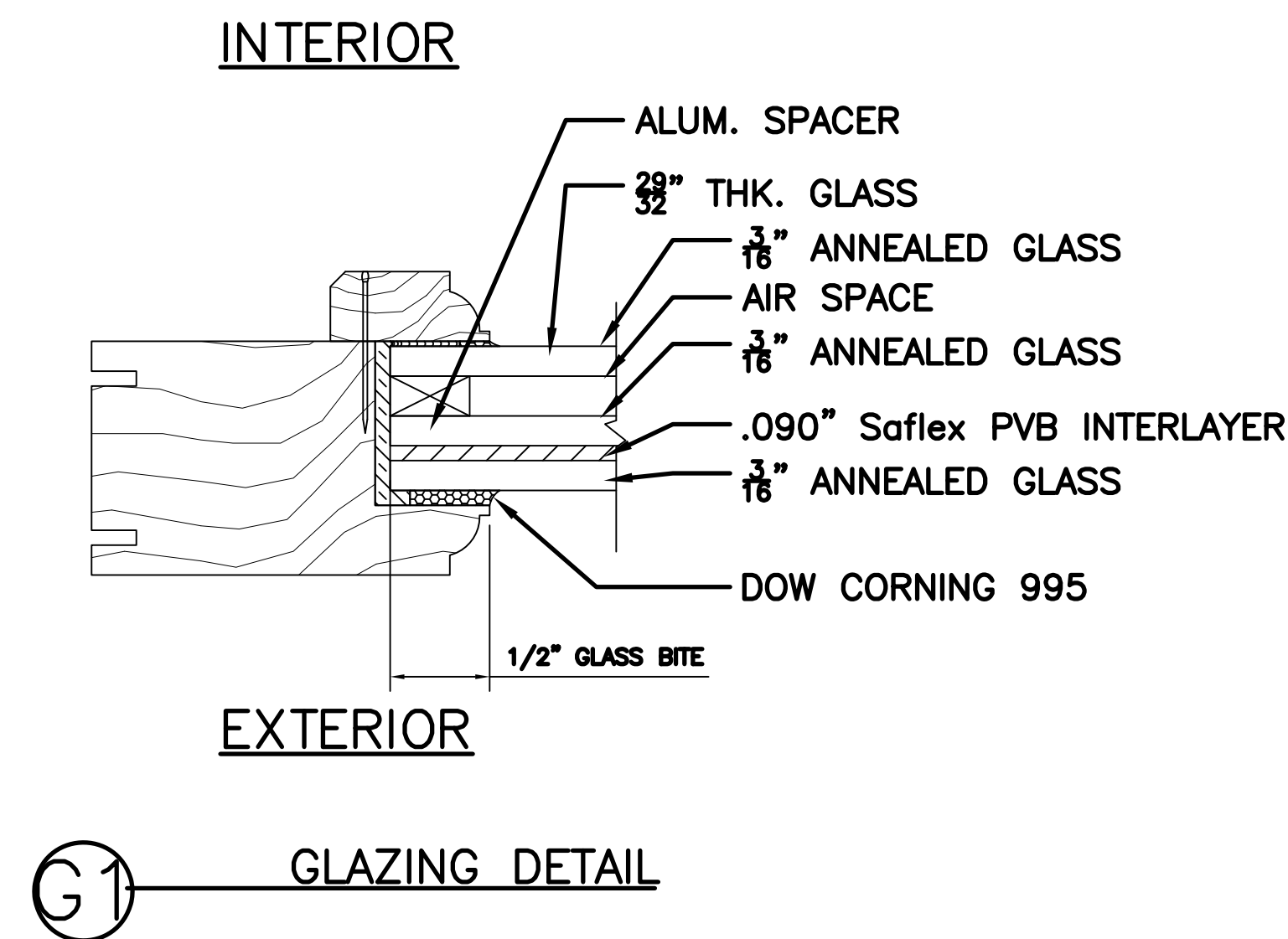
Date: 05-07-14  
Scale: None  
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Sheet No.  
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BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG>=0.42)	WOOD
B	2X BUCK (SG>=0.42)	WOOD
C	1/4" MAX.SHIM SPACE	-
E	MASONARY - 3.000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	23GA X 1" BRAD	STEEL
1	SASH STILE	WOOD
2	ANCHOR BRACKET (Simpson Strong-Tie A23Z)	STEEL
3	JAMB	WOOD
4	GLAZING BEAD	WOOD
6	WEATHERSTRIP QEZD100 BY SCHLEGEL	FOAM
10	MEETING RAIL	WOOD
11	#8 X 3/4" LATH SCREWS	WOOD
12	BOTTOM SASH TOP RAIL	WOOD
13	BOTTOM SASH BOTTOM RAIL	WOOD
14	SILL EXTENDER	WOOD
15	ULTRA-LIFT SPIRAL TUBE BALANCE BY CALDWELL	-
16	EXTERIOR SASH STOP	WOOD
17	TOP SASH BOTTOM RAIL	WOOD
19	FRAME HEADER	WOOD
20	INTERIOR SASH STOP	WOOD
21	PARTING STOP	WOOD
24	TOP SASH TOP RAIL	WOOD
25	GATE HOUSE SASH LOCK, MOD #837773	-
26	1X MULLION (SAPELE SG >=0.55)	WOOD
30	BOTTOM RAIL STOP	WOOD
31	SILL	WOOD
34	HEADER INTERIOR SASH STOP	WOOD
35	HEADER EXTERIOR SASH STOP	WOOD
36	#8 X 2" PFH WOOD SCREW	STEEL
37	#8 X 1-1/4" PFH WOOD SCREW	STEEL
38	#8 X 3/4" PFH WOOD SCREW	STEEL
39	#8 X 1" PFH WOOD SCREW	STEEL
40	#8 X 1-1/2" PFH WOOD SCREW	STEEL
41	#8 X 2-1/2" PFH WOOD SCREW	STEEL



NOTE: GLAZING LARGER THAN 36" WIDE REQUIRES TWO (2) SETTING BLOCKS CONFORMING TO FBC SECTION 2411.3.3.1.



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BILL OF MATERIALS, COMPONENTS  
& GLAZING DETAILS

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