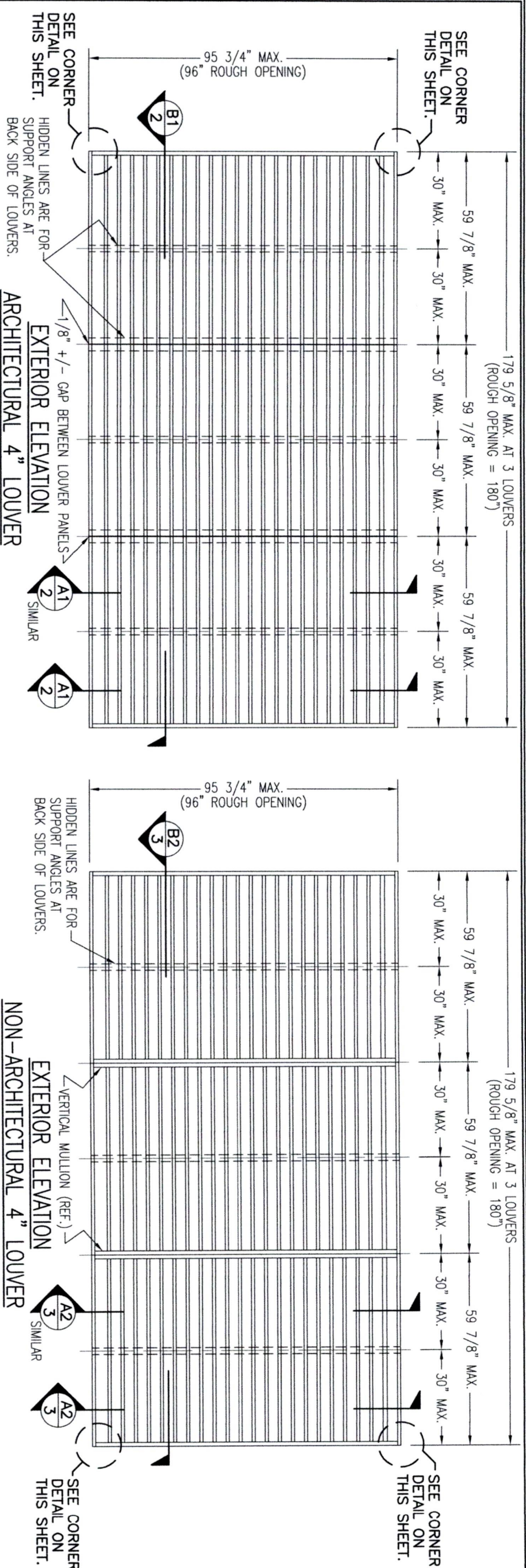


[illegible]

DRAWING TITLE	
MODEL LE22 4" LOUVER SYSTEM	
CONSULTANTS	MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	AMERICAN WARMING & VENTILATING; A DIVISION OF MESTEK, INC. 7301 INTERNATIONAL DRIVE HOLLAND, OHIO 43528 419-865-5000

DRAWING NO.		<u>CERTIFICATION</u> _____ WARREN W. SCHAEFER, P.E. P.E. NO. 44135
1261	REV.	
SHEET NO.		
1 OF 7		

Digitally signed
by Warren W
Schaefer
Date:
2023.02.09
07:15:39 -05'00'



NOTE: THIS LOUVER SYSTEM MAY CONSIST OF AN UNLIMITED NUMBER OF SECTIONS. PROVIDING EACH SECTION DOES NOT EXCEED 59 7/8" X 95 3/4" IN SIZE.

NOTE: THIS LOUVER SYSTEM MAY CONSIST OF AN UNLIMITED NUMBER OF SECTIONS PROVIDING EACH SECTION DOES NOT EXCEED 59 7/8" X 95 3/4" IN SIZE.

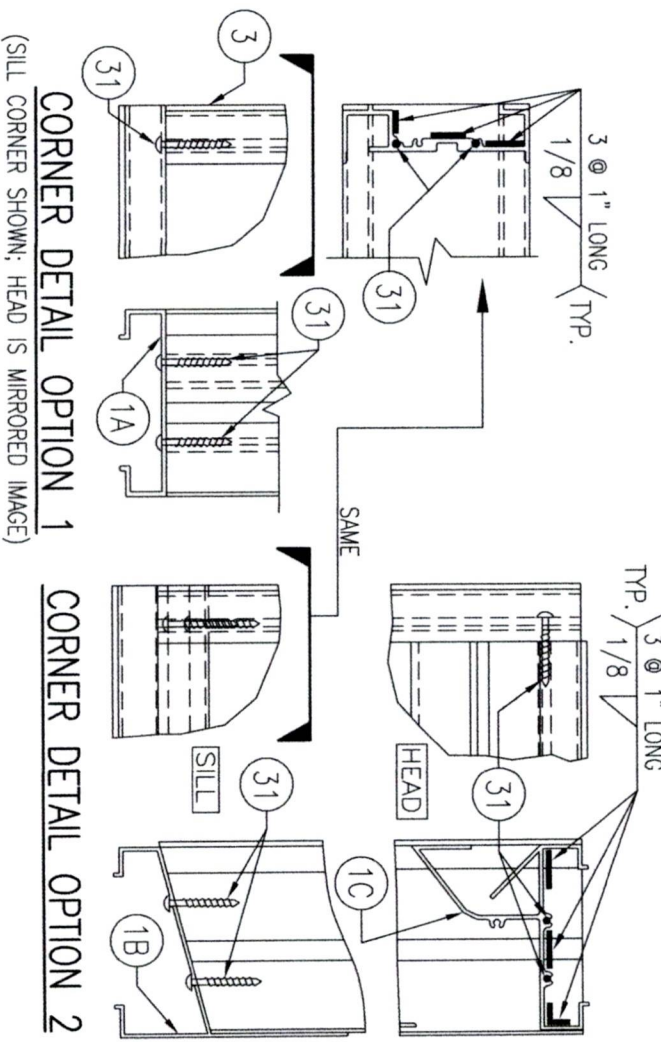
EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.

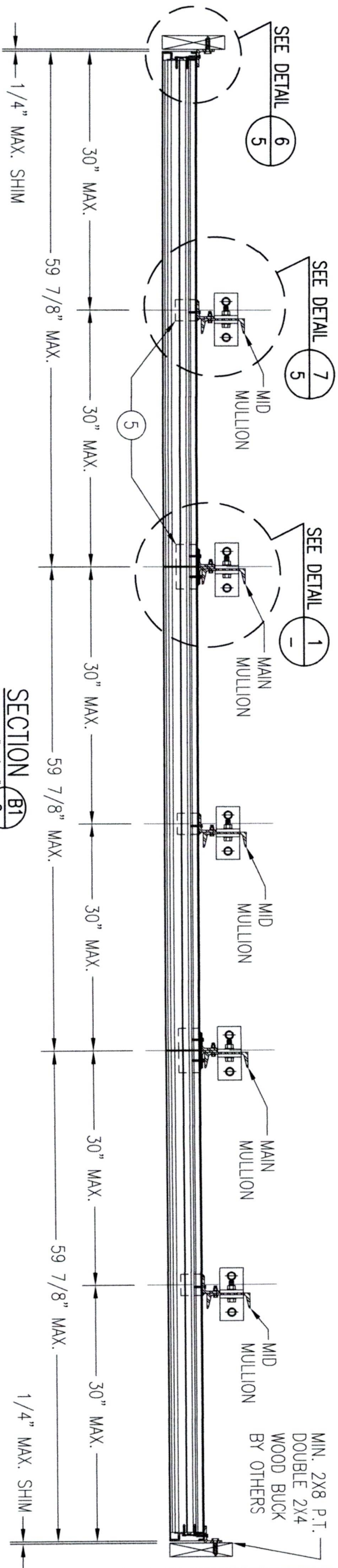
MAX. ALLOWABLE DESIGN WIND PRESSURE	
POSITIVE	NEGATIVE
150 PSF	150 PSF

NOTE: SEE LOAD TABLE ON SHEET 7 FOR VARIATIONS OF PRESSURES WITH RESPECT TO PANEL WIDTH & CLIP SPACING.

GENERAL NOTES:

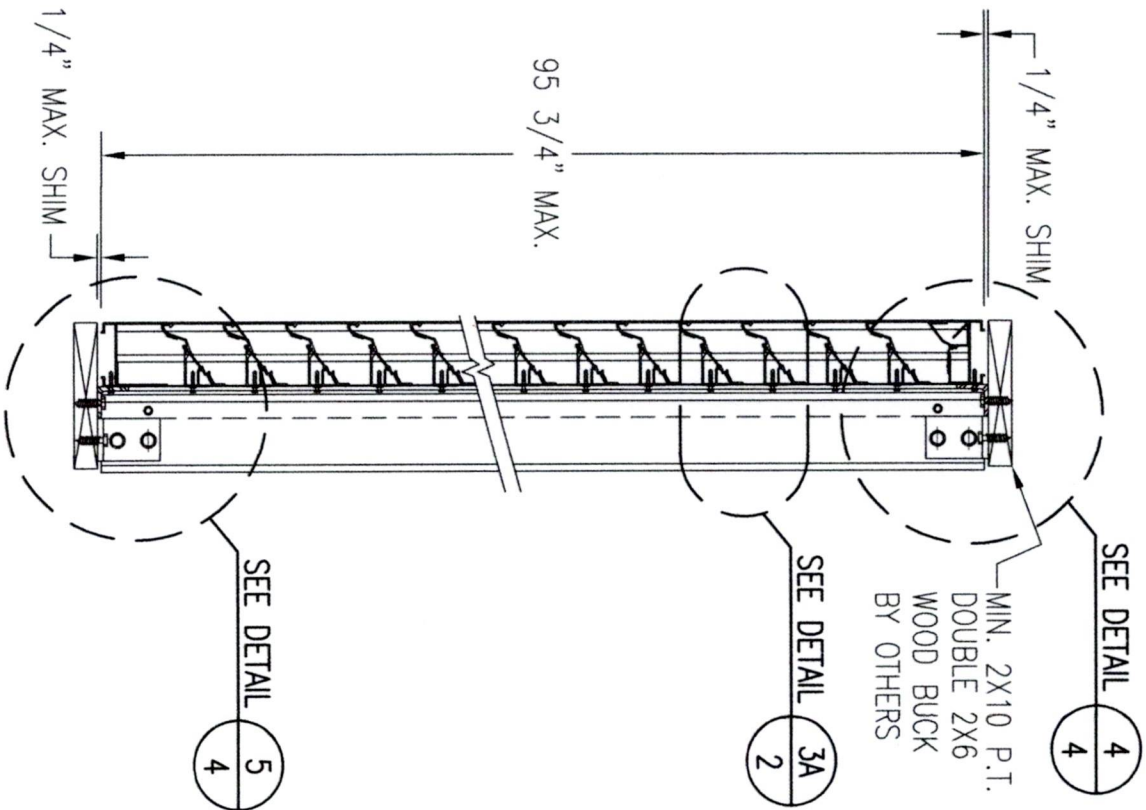
1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC), INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS BOTH SMALL & LARGE MISSILE IMPACT RATED.
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/OA ENTRY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
10. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.
11. MAXIMUM ALLOWABLE INDIVIDUAL PANEL SIZE = 59 7/8" X 95 3/4".
12. MAXIMUM ASSEMBLY SIZE = UNLIMITED WIDTH: UP TO 95 3/4" HEIGHT.
13. ASSEMBLIES/SECTIONS MAY BE STACKED VERTICALLY PROVIDING A STRUCTURAL SUPPORT IS DESIGNED & INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOWER ASSEMBLY.
14. MAXIMUM UNSUPPORTED BLADE LENGTH SHALL NOT EXCEED 30".
15. ALL FASTENERS SHALL BE PLATED STEEL OR 304 STAINLESS STEEL.
16. SPECIFIED SUBSTRATE REQUIREMENTS:





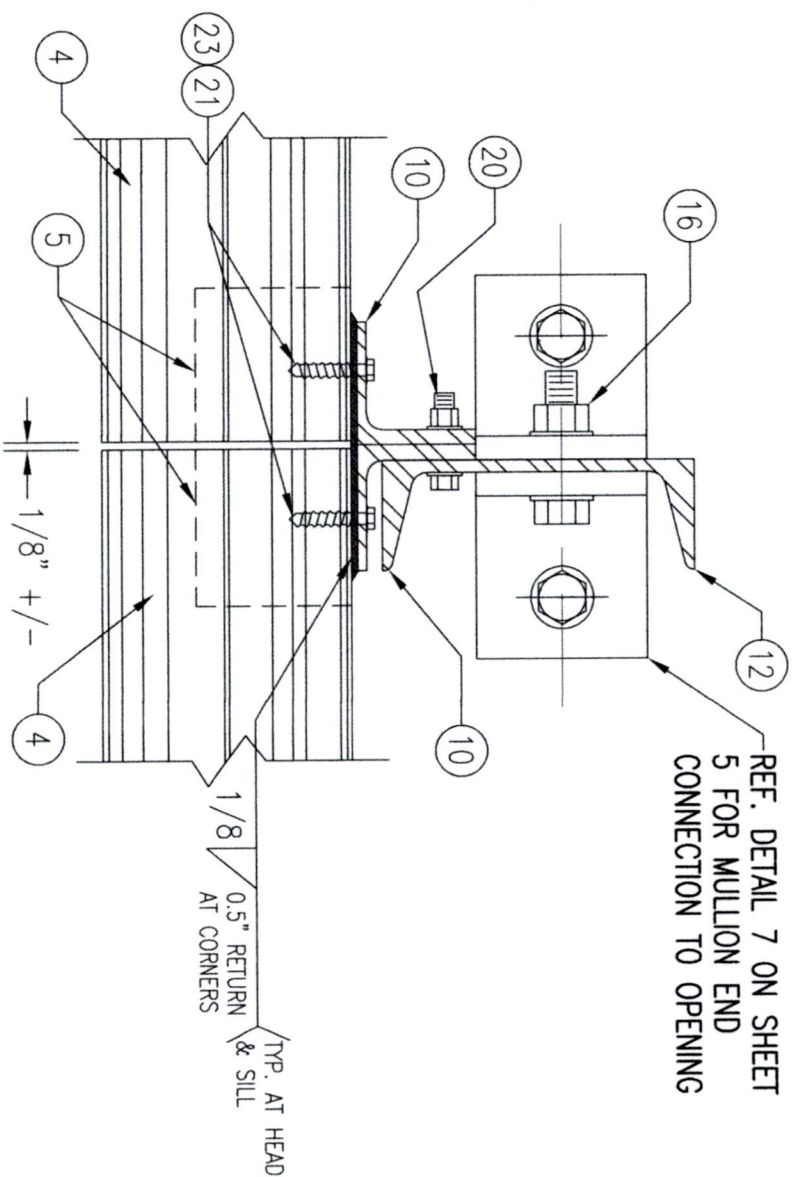
SECTION B1
SCALE: 1"=1'-0"

ARCHITECTURAL LOUVER



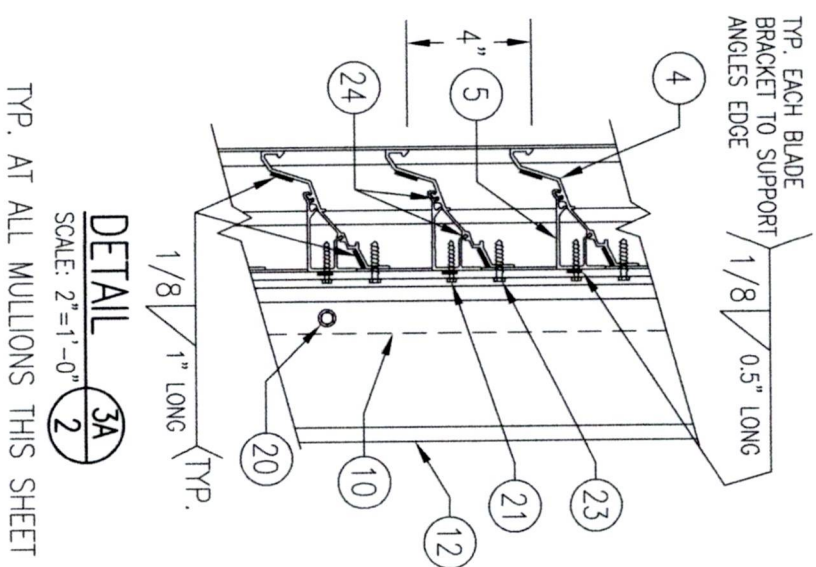
SECTION A1
SCALE: 1"=1'-0"

ARCHITECTURAL LOUVER



DETAIL 1
SCALE: 1/3 FULL

ARCHITECTURAL LOUVER



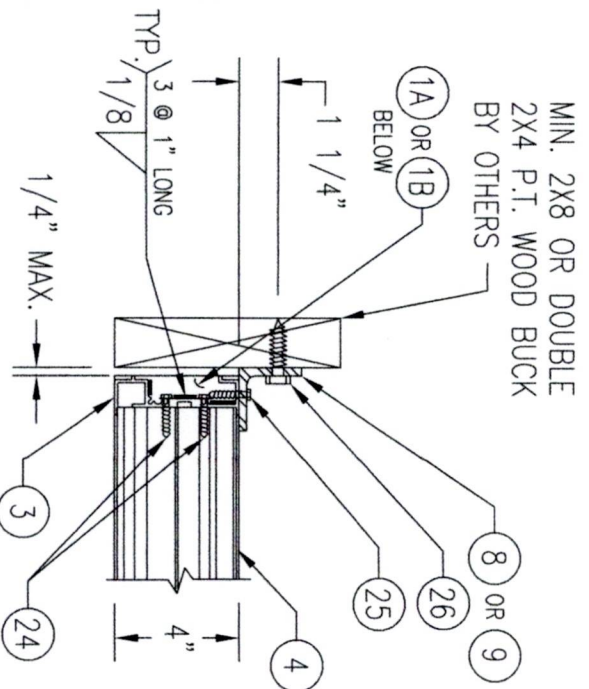
DETAIL 3A
SCALE: 2"=1'-0"

TYP. AT ALL MULLIONS THIS SHEET

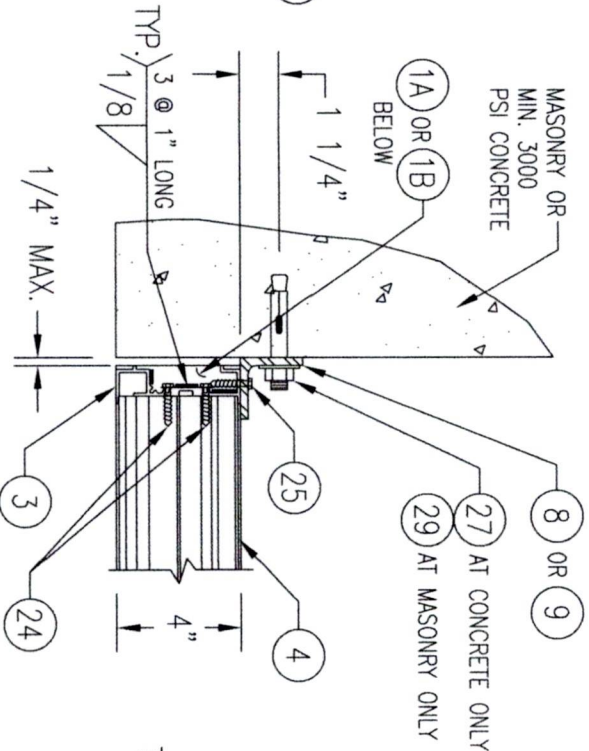
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE	CONSULTANTS	MANUFACTURER
MODEL LE22 4" LOUVER SYSTEM	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	AMERICAN WARMING & VENTILATING; A DIVISION OF MESTEK, INC.
	26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	7301 INTERNATIONAL DRIVE HOLLAND, OHIO 43528 419-865-5000

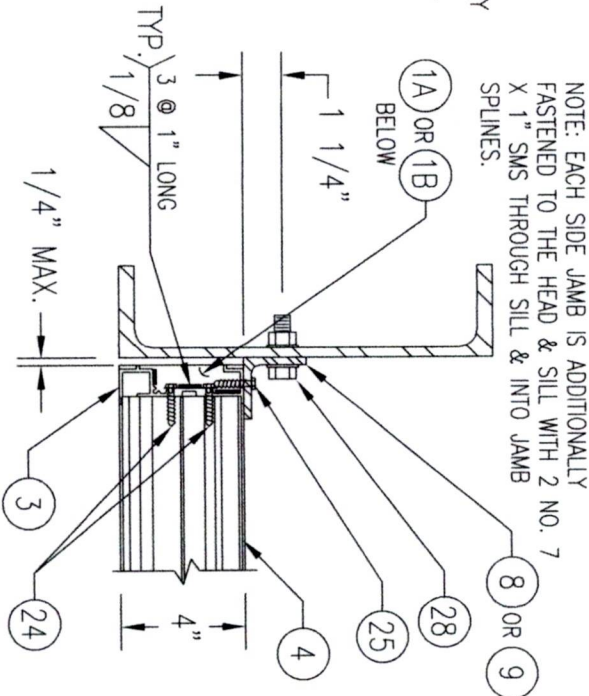
CERTIFICATION	DRAWING NO.	SHEET NO.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	1261	2 OF 7



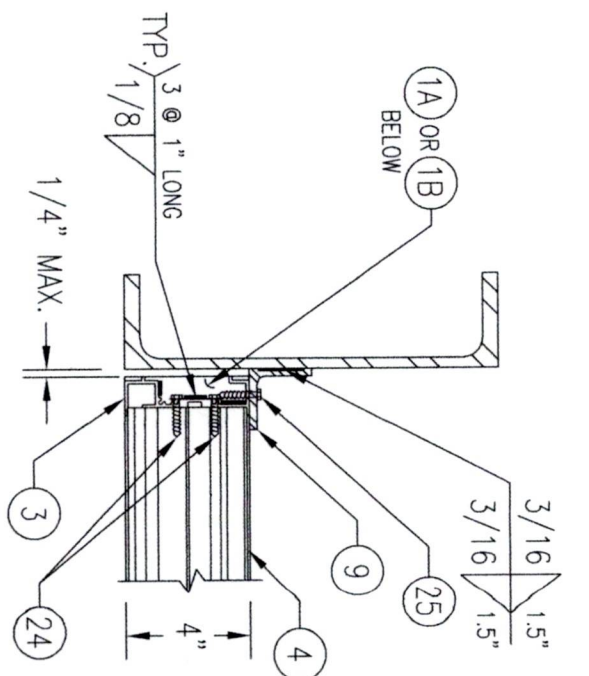
WOOD FRAMED OPENING



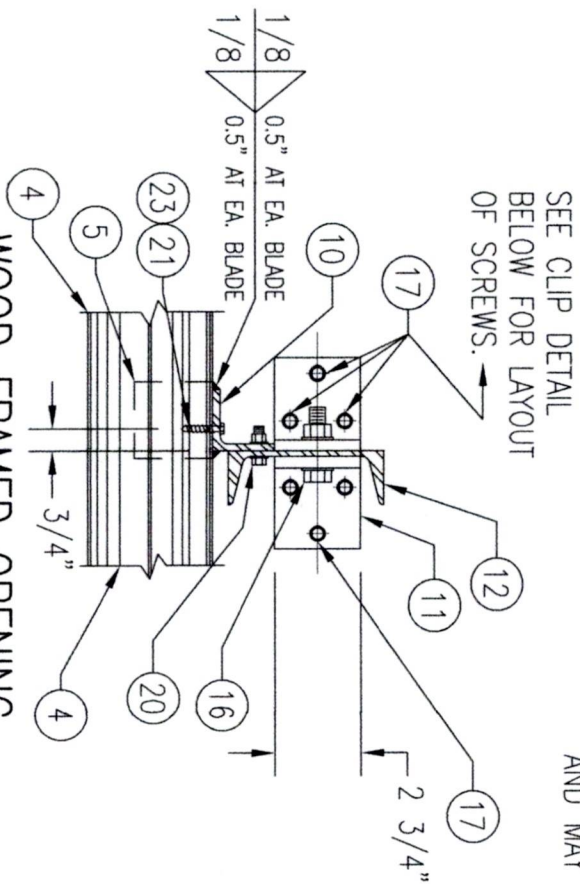
CONCRETE/MASONRY OPENING



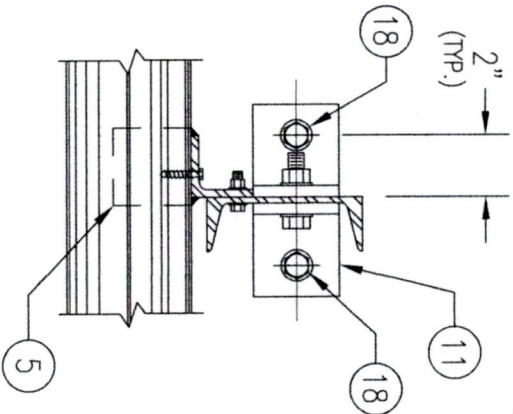
STEEL FRAME OPENING (BOLTED)



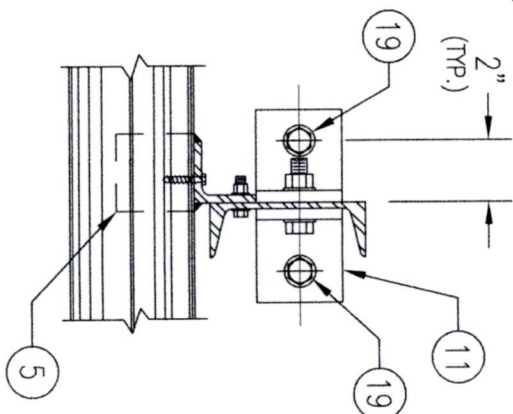
STEEL FRAME OPENING (WELDED)



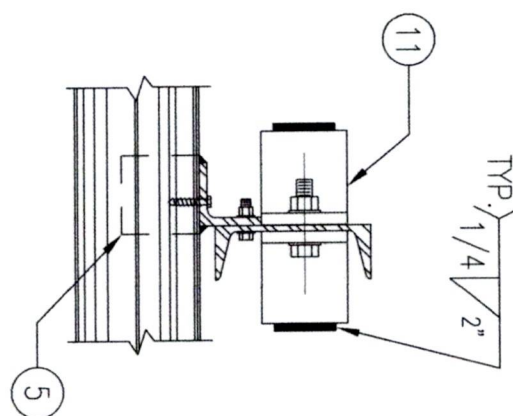
WOOD FRAMED OPENING



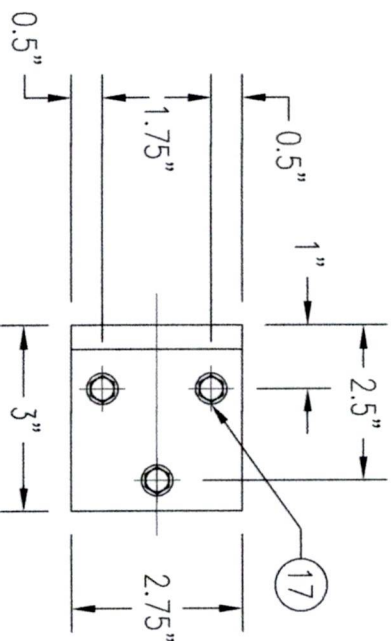
CONCRETE SILL & HEAD



STEEL FRAME OPENING (BOLTED)



STEEL FRAME OPENING (WELDED)



MULLION CLIP DETAIL @ WOOD INSTALLATION

MASONRY MAY ONLY BE USED AT SIDES OF LOUVER PANELS & MAY NOT BE USED AT THE HEAD OR SILL.

DETAIL 7
SCALE: 2"=1'-0"

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN (MASONRY ACCEPTABLE AT SIDES ONLY AND MAY NOT BE USED AT HEAD OR SILL)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

MODEL LE22 4" LOUVER SYSTEM

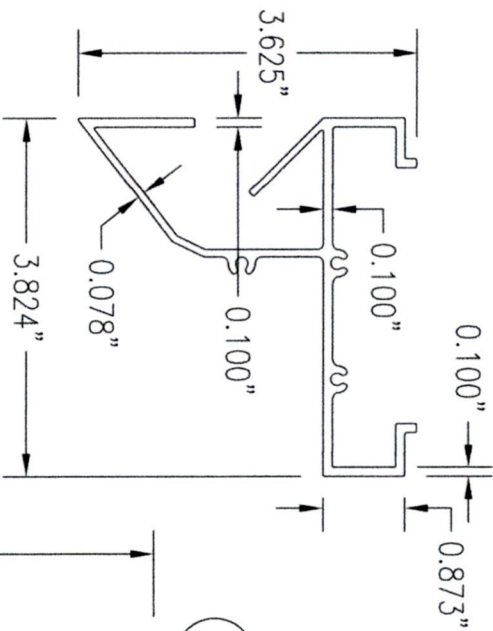
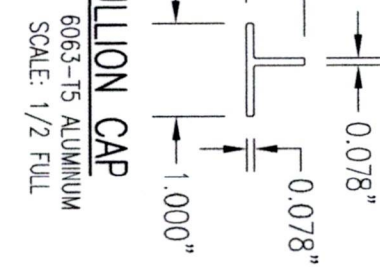
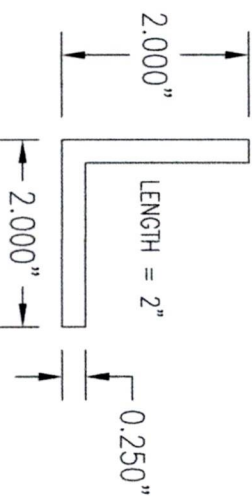
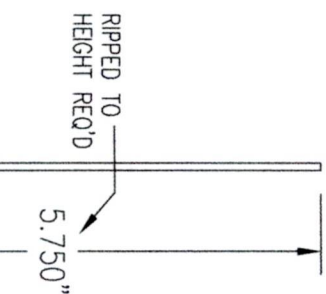
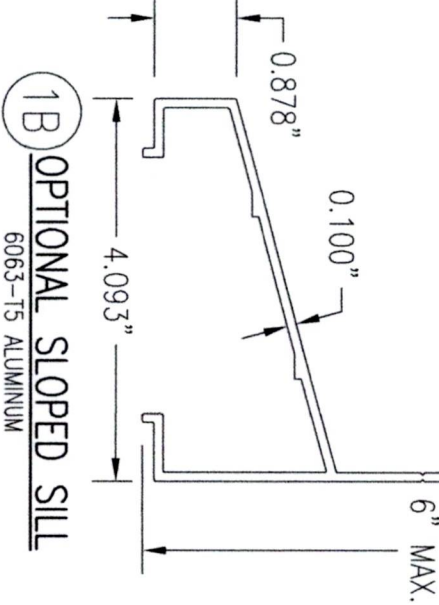
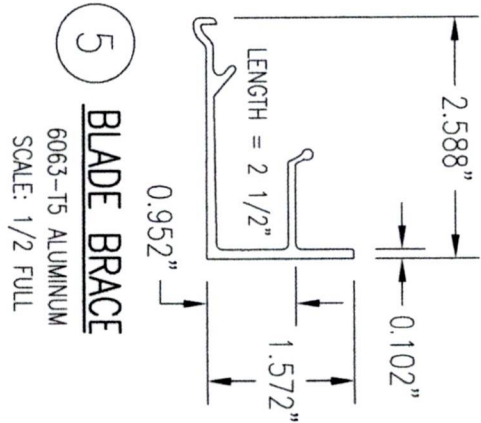
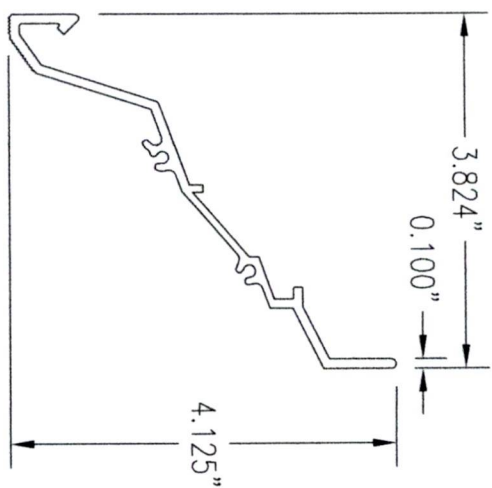
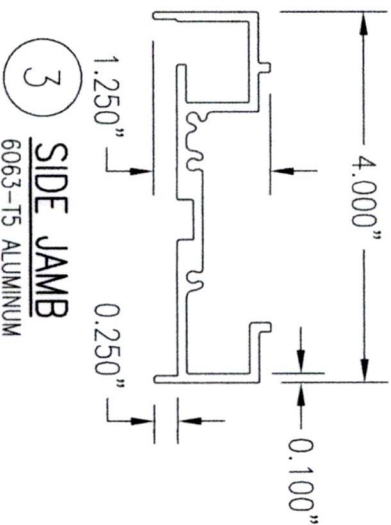
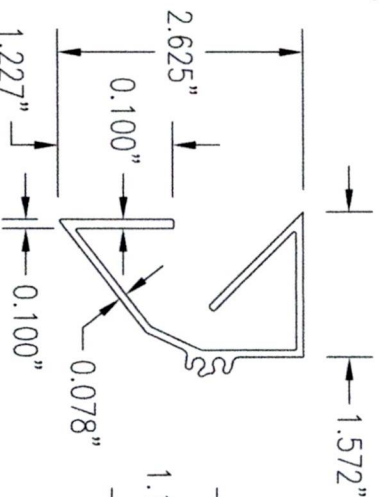
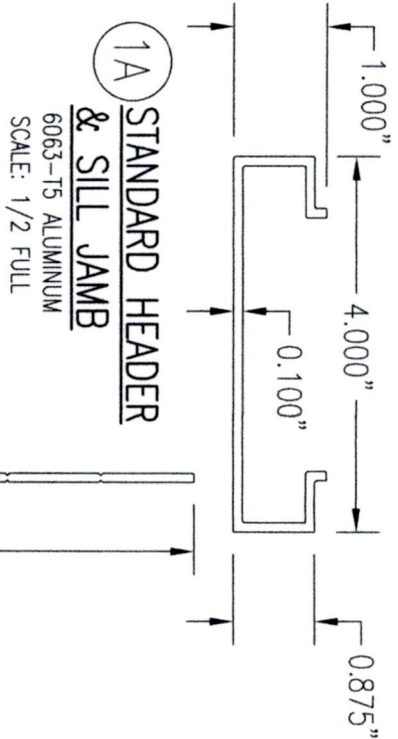
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD, UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

MANUFACTURER
AMERICAN WARMING & VENTILATING;
A DIVISION OF MESTEK, INC.
7301 INTERNATIONAL DRIVE
HOLLAND, OHIO 43528
419-865-5000

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

NO.	REVISION	DESCRIPTION	BY	DATE
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DRAWING NO. 1261
SHEET NO. 5 OF 7



1A STANDARD HEADER
& SILL JAMB
6063-T5 ALUMINUM
SCALE: 1/2 FULL

2 PARTIAL BLADE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

3 SIDE JAMB
6063-T5 ALUMINUM
SCALE: 1/2 FULL

4 LOUVER BLADE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

5 BLADE BRACE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

1B OPTIONAL SLOPED SILL
6063-T5 ALUMINUM
SCALE: 1/2 FULL

8 CONNECTION ANGLE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

9 CONNECTION ANGLE
A36 STEEL
SCALE: 1/2 FULL

10 MULLION ANGLE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

6 MULLION CAP
6063-T5 ALUMINUM
SCALE: 1/2 FULL

1C OPTIONAL 1-PIECE
HEADER
6063-T5 ALUMINUM
SCALE: 1/2 FULL

12 C5X6.7 MULLION
A36 STEEL
SCALE: 1/2 FULL

13 PARTIAL BLADE
REINFORCEMENT PLATE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

14 PARTIAL BLADE
REINFORCEMENT ANGLE
6063-T5 ALUMINUM
SCALE: 1/2 FULL

11A 11B

MULLION END CONNECTION ANGLE
A36 STEEL
SCALE: 1/2 FULL

DRAWN BY:	CHECKED BY:	DATE	BY	REVISION	DESCRIPTION
W.W.S.	W.W.S.	02/08/23			
PLT: 1-2					

DRAWING TITLE	CONSULTANTS	MANUFACTURER
MODEL LE22 4" LOUVER SYSTEM	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	AMERICAN WARMING & VENTILATING; A DIVISION OF MESTEK, INC. 7301 INTERNATIONAL DRIVE HOLLAND, OHIO 43528 419-865-5000

CERTIFICATION	DRAWING NO.	SHEET NO.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	1261	6 OF 7

ALLOWABLE WIND PRESSURE VS. JAMB CLIP SPACING AND PANEL WIDTH

PANEL WIDTH (INCHES)	CLIP SPACING (INCHES)	ALLOWABLE PRESSURE WITH MID SPAN MULLION (PSF)	ALLOWABLE PRESSURE WITHOUT MID SPAN MULLION (PSF)
16	8	150	150
	12	150	150
	16	150	140
	20	150	105
20	24	150	70
	8	150	150
	12	150	140
	16	150	112
24	20	150	84
	24	150	56
	8	150	140
	12	150	117
28	16	150	93
	20	150	70
	24	125	47
	8	150	82
30	12	150	68
	16	150	54
	20	140	41
	24	93	27
36	8	150	62
	12	150	52
	16	150	41
	20	125	31
42	24	83	-
	8	150	-
	12	150	-
	16	142	-
48	20	107	-
	24	71	-
	8	150	-
	12	150	-
54	16	125	-
	20	93	-
	24	62	-
	8	150	-
60	12	138	-
	16	111	-
	20	83	-
	24	55	-
	8	150	-
	12	125	-
	16	100	-
	20	75	-
	24	50	-

MATERIAL LIST

NO.	DESCRIPTION	NOTES/SPECIFICATIONS
PARTS/EXTRUSIONS		
1A	STANDARD HEADER & SILL JAMB	6063-T5 ALUMINUM
1B	OPTIONAL SLOPED SILL	6063-T5 ALUMINUM
1C	OPTIONAL 1-PIECE HEADER	6063-T5 ALUMINUM
2	PARTIAL BLADE & HEAD	6063-T5 ALUMINUM
3	SIDE JAMB	6063-T5 ALUMINUM
4	LOUVER BLADE	6063-T5 ALUMINUM
5	BLADE SUPPORT BRACKET (2 1/2" LONG)	6063-T5 ALUMINUM
6	MULLION CAP	6063-T5 ALUMINUM; FULL LENGTH OF MULLION JAMBS
7	SILL ANGLE	6063-T5 ALUMINUM; FULL WIDTH OF PANEL
8	12X2X1/4 JAMB CONNECTION ANGLE 2" LONG	6063-T5 ALUMINUM; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON SHT. 2
9	12X2X1/4 OPTIONAL JAMB CONNECTION ANGLE 2" LONG	A36 STEEL; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON SHT. 2
10	12X2X1/4 CONTINUOUS MULLION CONNECTION ANGLE	6063-T5 ALUMINUM; FULL LENGTH OF CHANNEL MULLION
11	14X3X3/8 MULLION END CONNECTION ANGLE 2 3/4" LONG	A36 STEEL; 2 PER MULLION END
12	C5X6.7 MULLION	A36 STEEL; FULL HEIGHT OF PANELS
13	PARTIAL BLADE REINFORCEMENT PLATE (2 1/2" LONG)	6063-T5 ALUMINUM
14	PARTIAL BLADE REINFORCEMENT ANGLE (2 1/2" LONG)	6063-T5 ALUMINUM
15	OPEN	
FASTENERS		
16	1/2" X 2" A307 HEX HEAD PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 2 PER MULLION END
17	NO. 14 S.S. SMS SCREWS	3 PER MULLION END CLIP WITH MIN. 1 1/2" WOOD EMBED
18	5/8" X 2 1/4" SLEEVE ANCHOR WITH FLAT WASHER	USA KINGPIN ANCHOR; 1 PER CHANNEL END CONNECTION ANGLE INTO CONCRETE ONLY
19	1/2" X 2" A307 HEX HEAD PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 1 PER CHANNEL END CONNECTION ANGLE INTO STEEL FRAME
20	5/16-18 UNC X 1 1/2" HEX HEAD STEEL OR S/STL BOLT	WITH FLAT WASHER, LOCK WASHER & NUT; WITHIN 4" OF MULLION ENDS & MAX. 8" O.C.
21	NO. 8 X 3/4" SMS SCREW	1 AT EACH LOUVER BLADE SUPPORT BRACKET AT ARCHITECTURAL MAIN MULLIONS & ALL MID-SPAN MULLIONS
22	NO. 14 X 1 1/4" HILTI TEK SCREW	WITHIN 3/4" OF MULLION ENDS & MAX. 4" O.C. INTO FRAME
23	NO. 14 X 1" SMS SCREW	1 AT EACH LOUVER BLADE AT ALL ARCHITECTURAL MAIN MULLIONS & ALL MID-SPAN MULLIONS
24	NO. 7 X 1" SMS SCREW	2 PER EACH LOUVER BLADE END THROUGH JAMB & INTO BLADE SPLINES
25	NO. 14 X 1 1/4" HILTI TEK SCREW	2 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE
26	1/2" X 2" LAG SCREW WITH FLAT WASHER	1 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE INTO WOOD FRAME
27	5/8" X 2 1/4" SLEEVE ANCHOR WITH FLAT WASHER	USA KINGPIN ANCHOR; 1 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE INTO CONCRETE ONLY
28	1/2" X 2" HEX HEAD A307 PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 1 PER EA. JAMB CONNECTION ANGLE INTO STEEL FRAME
29	3/8" X 1 7/8" SLEEVE ANCHOR WITH FLAT WASHER	RED HEAD DYNABOLT WITH MIN 1 1/2" BLOCK/CONCRETE EMBED (1 PER FRAME SUPPORT CLIP)
30	NO. 8 X 1/2" SMS SCREW	WITHIN 2" OF MULLION ENDS & MAX. 12" O.C. (MULLION CAP TO MULLION)
31	NO. 7 X 1" SMS SCREWS	2 PER FRAME CORNER THROUGH SILL/HEAD FRAME & INTO JAMB SPLINES

PRESSURE TABLE NOTES:

1. WHEN THE PANEL WIDTH IS 30" OR LESS, NO MID SPAN MULLION IS REQUIRED PROVIDING COMPLIANCE WITH THE TABLE.
2. ALL PRESSURES IN THIS TABLE ARE FOR BOTH POSITIVE & NEGATIVE WIND PRESSURE.

[illegible]

DRAWING NO. 1261 SHEET NO. 7 OF 7	<u>CERTIFICATION</u> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING TITLE MODEL LE22 4" LOUVER SYSTEM
	CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	MANUFACTURER AMERICAN WARMING & VENTILATING; A DIVISION OF MESTEK, INC. 7301 INTERNATIONAL DRIVE HOLLAND, OHIO 43528 419-865-5000