

ATTIC BREEZE

CARDINAL VENTILATION CV-XLP/XLP PRO MODEL SERIES

SOLAR ATTIC FANS

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING AND RESIDENTIAL CODES INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURES STATED HEREIN.
2. PERFORMANCE TESTING BASED UPON SIGNED AND SEALED TEST REPORTS BY IDALMIS ORTEGA, FLORIDA LICENSE NO. 76905 AS FOLLOWS:
 - 2.1. FTL, MEDLEY, FL, 33166. TEST REPORT NO. 12018, DATED 03/11/20,
 - 2.1.1. TEST FOR STRUCTURAL PERFORMANCE TO ASTM E330-14 AT A TEST LOAD OF -200.0 PSF.
 - 2.1.2. SAFETY FACTOR OF 2 APPLIED TO STRUCTURAL TEST LOAD RESULTS YIELDS DESIGN PRESSURE OF -100 PSF.
 - 2.1.3. THE TESTING METHODOLOGY AND TEST RESULTS OF TEST REPORT NO. 12018 USING ASTM E330 WAS REVIEWED AGAINST THE REQUIREMENTS OF TAS 202 AND FOUND TO BE CONSISTENT WITH THAT HVHZ TESTING PROTOCOL'S REQUIREMENTS.
 - 2.2. FTL, MEDLEY, FL, 33166. TEST REPORT NO. 12036, DATED 03/21/20
 - 2.2.1. TEST FOR WIND-DRIVEN RAIN RESISTANCE PER TAS 100(A)-95.7, SECTION 10.3 WAS PERFORMED.
 - 2.2.2. STRUCTURAL TESTING FOR INCREASED WINDSPEED RESISTANCE FOR VENTS PER TAS 100(A)-95.7, SECTION 10.4 WAS PERFORMED.
 - 2.2.3. AN INSTALLATION HEIGHT NOT TO EXCEED 75 FEET IS APPLICABLE BASED ON TAS 100(A)-95.7, TABLE 3.
 - 2.2.4. TESTING CONDUCTED USING ASPHALT SHINGLES.
3. FOR ROOF MOUNTING: ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 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.
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.
5. HOOD & FLASHING MATERIAL: 0.080" 3003-0 ALUMINUM.
6. PRIOR TO A HURRICANE OR ANTICIPATED HIGH WIND EVENT, THE SOLAR PANEL SHALL BE PLACED IN THE RETRACTED POSITION WHERE APPLICABLE.
7. SOLAR ATTIC FAN MAY BE INSTALLED ON ROOFS WITH SLOPES FROM 9 DEGREES (2" RISE OVER 12" RUN) TO 45 DEGREES (RISE EQUALS RUN).
8. THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE ROOF VENT TO THE ROOF SHEATHING ONLY. PREPARATION OF THE ROOF SHEATHING AND ROOF COVERING(S) TO RECEIVE THE ROOF VENT SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH CHAPTER 15 OF THE FLORIDA BUILDING CODE AND CHAPTER 9 OF THE FLORIDA RESIDENTIAL CODE.
9. THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE ONLY. IMPACT RESISTANCE WAS NOT TESTED. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS PRODUCT APPROVAL DOCUMENT.

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED (QUANTITY OF 8 ANCHORS) ARE THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION AS FOLLOWS:
 - 2.1. 2X WOOD FRAMING
 - 2.1.1. A MINIMUM OF EIGHT (8) ANCHORS SHALL BE USED.
 - 2.2. OSB AND PLYWOOD ROOF SHEATHING, THE GREATER OF
 - 2.2.1. A MINIMUM OF EIGHT (8) ANCHORS SHALL BE USED, OR
 - 2.2.2. AS REQUIRED BY THE INSTALLATION ANCHOR SCHEDULE ON SHEET 4.
3. ANCHOR TYPE AND SIZE;
 - 3.1. FOR INSTALLATION INTO WOOD FRAMING, USE #10 WOOD SCREWS OR #10 SELF-TAPPING/SELF-DRILLING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/2 INCH MINIMUM EMBEDMENT INTO 2X WOOD STRUCTURAL SUBSTRATE. MINIMUM EDGE DISTANCE IS 3/8 INCHES AND MINIMUM END DISTANCE IS 3/4 INCHES.
 - 3.2. FOR INSTALLATION INTO ROOF SHEATHING, USE #10 SELF-TAPPING/SELF-DRILLING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE FULL THREAD EMBEDMENT INTO STRUCTURAL SUBSTRATE. SELF-TAPPING/SELF-DRILLING SCREWS (a.k.a., SHEET METAL SCREWS) ARE THREADED THE FULL LENGTH AND REQUIRED TO ENSURE FULL THREAD ENGAGEMENT INTO SHEATHING.
 - 3.3. ANCHOR SPECIFICATIONS
 - 3.3.1. WOOD SCREWS WILL BE NO. 10 PAN HEAD WOOD SCREW, MEETING ANSI B18.6.1, CARBON OR STAINLESS STEEL, CORROSION RESISTANT BY COATING OR MATERIAL.
 - 3.3.2. TAPPING SCREWS SHALL BE NO. 10 TYPE AB PAN HEAD TAPPING SCREW, MEETING ASME/ANSI B18.6.4, CARBON OR STAINLESS STEEL, CORROSION RESISTANT BY COATING OR MATERIAL.
 - 3.3.3. HEX HEAD SCREWS CAN BE USED IN LIEU OF PAN HEAD SCREWS.
 - 3.3.4. NEOPRENE WASHERS SHALL BE USED AND PLACED UNDER THE HEAD OF THE SCREW.
4. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE ROOFING FINISHES, INCLUDING BUT NOT LIMITED TO ROOF SHEATHING, SHINGLES, UNDERLAYMENTS, ETC.
5. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - 5.1. 2 BY WOOD FRAMING (FOR 2X WOOD FRAMING INSTALLATION OPTION)
 - 5.1.1. MINIMUM SPECIFIC GRAVITY OF 0.42 OUTSIDE HVHZ.
 - 5.1.2. MINIMUM SPECIFIC GRAVITY OF 0.55 INSIDE HVHZ.
 - 5.2. PLYWOOD - SPECIES GROUP 1, 2, 3, 4 OR 5 (APA VOLUNTARY PRODUCT STANDARD PS 1).
 - 5.2.1. PLYWOOD SPECIES GROUP OR OTHER CLASSIFICATIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FLORIDA BUILDING CODE WILL BE MET.
 - 5.2.2. MINIMUM PLYWOOD THICKNESS BASED ON CONSTRUCTION CLASSIFICATION PER THE FLORIDA BUILDING CODE SHALL BE ADHERED TOO.
 - 5.3. OSB - SHEATHING GRADE (APA VOLUNTARY PRODUCT STANDARD PS 2).
 - 5.3.1. OSB CLASSIFICATIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FLORIDA BUILDING CODE WILL BE MET.
 - 5.3.2. MINIMUM OSB THICKNESS BASED ON CONSTRUCTION CLASSIFICATION PER THE FLORIDA BUILDING CODE SHALL BE ADHERED TOO.
6. 6. ADDITIONAL INSTALLATION INSTRUCTIONS
 - 6.1. PRODUCT SHALL NOT BE INSTALLED ON ROOF SHEATHING LESS THAN THE REQUIRED THICKNESS AS REQUIRED BY THE FLORIDA BUILDING CODE.
 - 6.2. PRODUCT CAN BE INSTALLED ON ROOFS UTILIZING ASPHALT SHINGLES.
 - 6.3. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS (CARDINAL VENTILATION INSTALLATION GUIDE FOR CV-XLP AND CV-XLP PRO) FOR ADDITIONAL DETAILS.

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SHEET	DESCRIPTION
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4	ROOF SHEATHING INSTALLATION ANCHOR SCHEDULE AND INSTALLATION NOTES

PERFORMANCE RATING - HVHZ	
DESIGN PRESSURE (PSF)	IMPACT RATING
-100	NONE
SEE GENERAL NOTE 2 FOR TAS 100(A) TESTING RESULTS.	

PROJECT #420-0107					

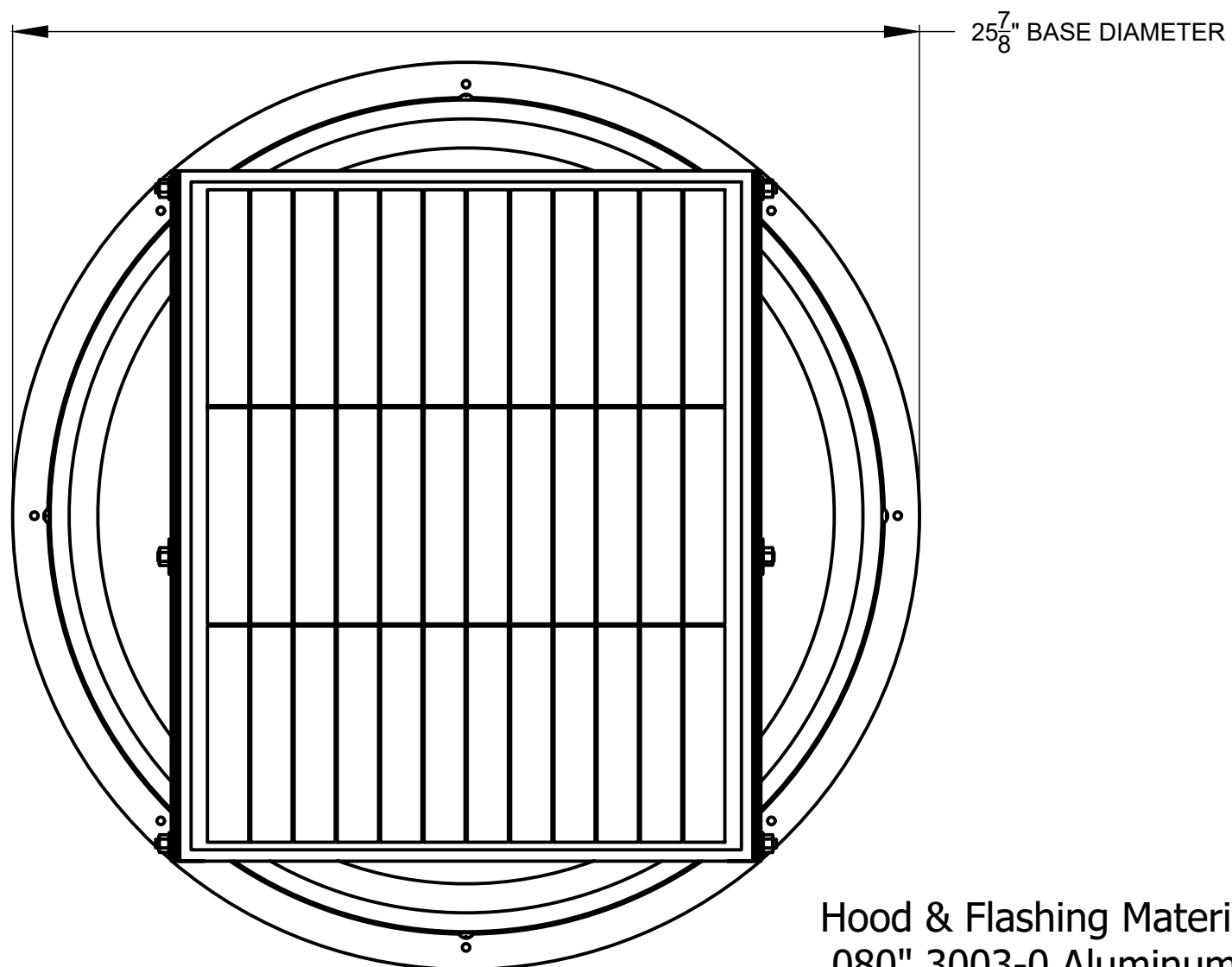
Attic Breeze
P.O. Box 1318, 1370 FM 116
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TITLE: CARDINAL VENTILATION CV-XLP/XLP PRO MODEL SERIES SOLAR ATTIC FANS
GENERAL NOTES & INSTALLATION NOTES

PREPARED BY: RJA
SCALE: N.T.S.
REV: ---

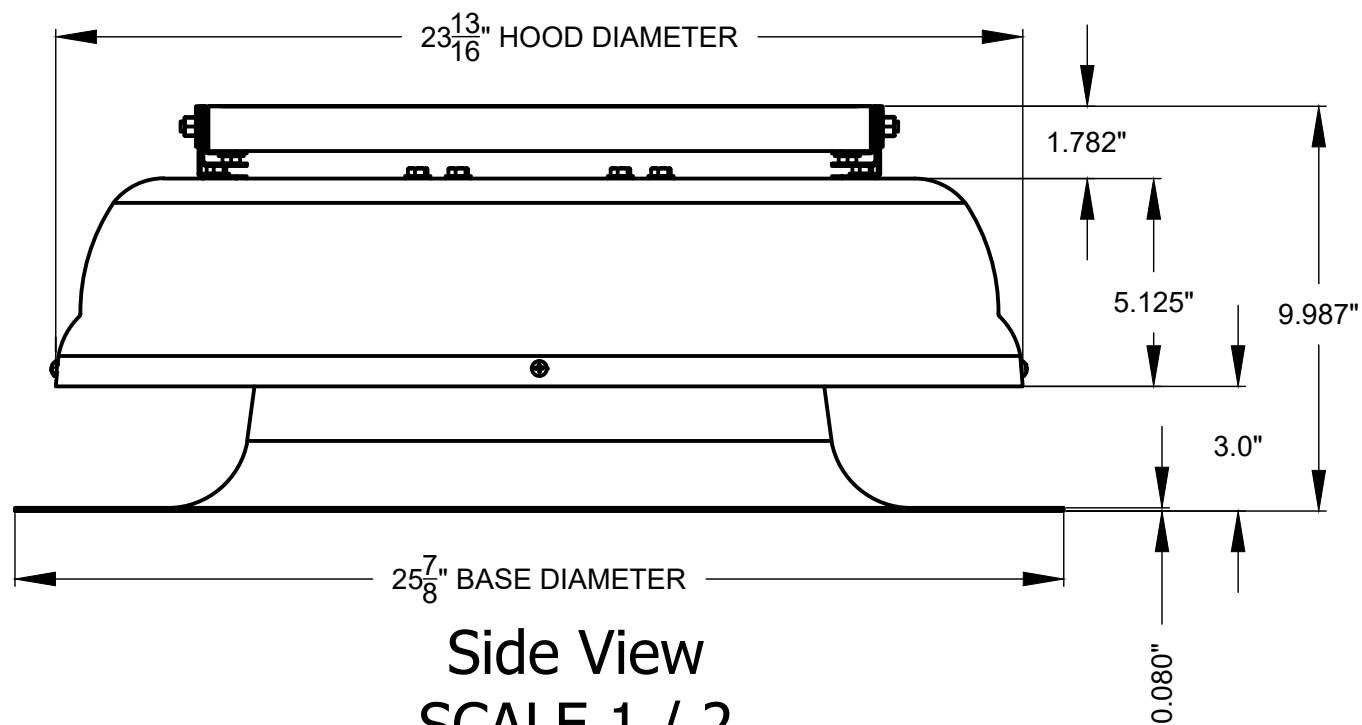
DRAWN BY: RJA DATE: 4/6/2020
DRAWING NO: ATBR0001
SHEET: 1 of 4

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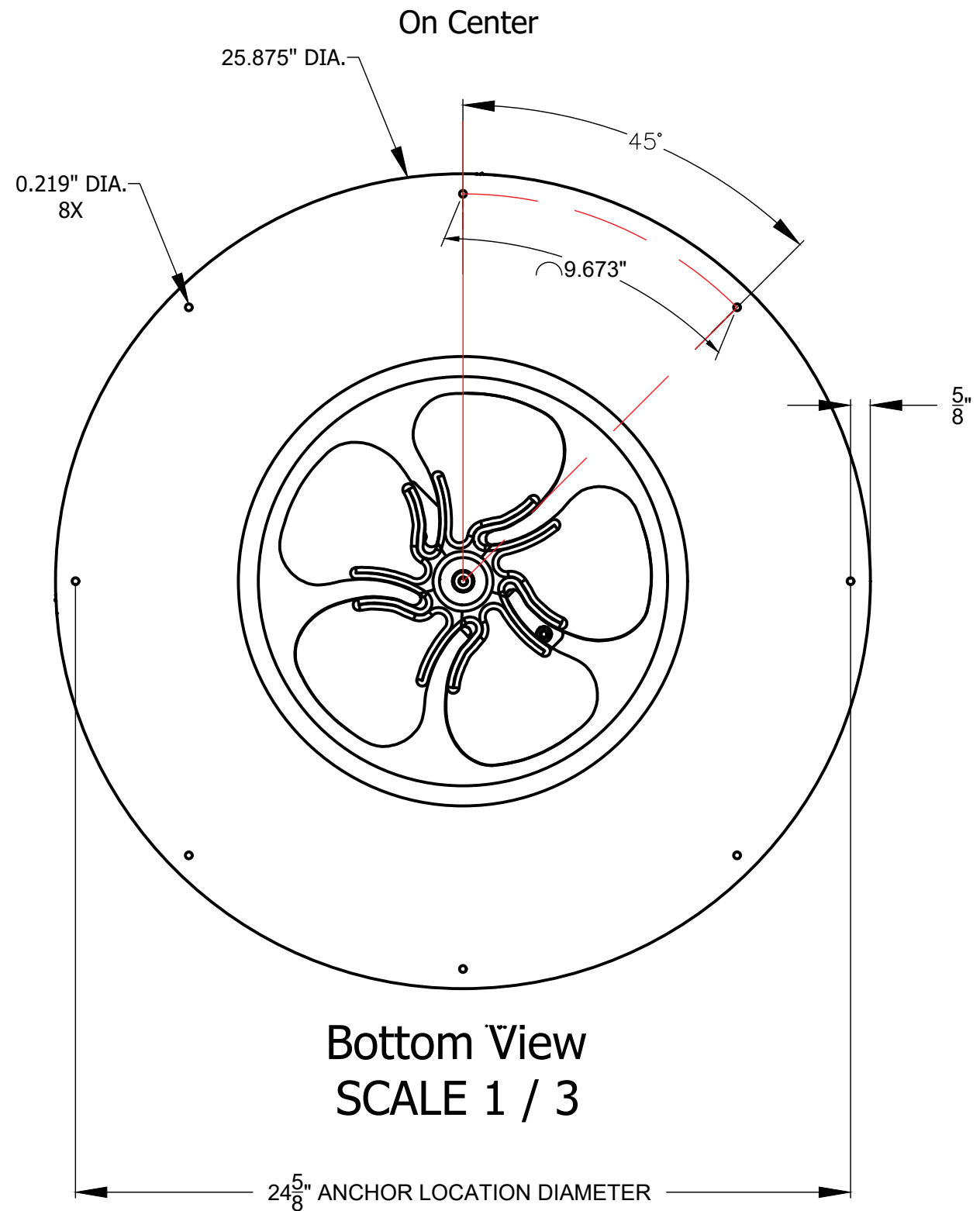


Top View
SCALE 1/3

Hood & Flashing Material
.080" 3003-0 Aluminum



Side View
SCALE 1 / 2



Bottom View
SCALE 1 / 3

SEE SHEET 4 FOR ADDITIONAL ANCHOR INSTALLATION REQUIREMENTS. ANCHOR QUANTITY IS MINIMUM EIGHT(8) AS SHOWN ABOVE. ADDITIONAL ANCHORS MAY BE REQUIRED BASED ON SITE DESIGN PRESSURE AND SUBSTRATE MATERIALS.

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ELEVATION W/ANCHORAGE LOCATIONS & SECTIONS

DRAWN BY:	RJA	DATE:	4/6/2020	
SCALE:	N.T.S.	DRAWING NO.:	ATBR0001	
PREPARED BY:	---	REV.:	---	
			SHEET:	2 of 4

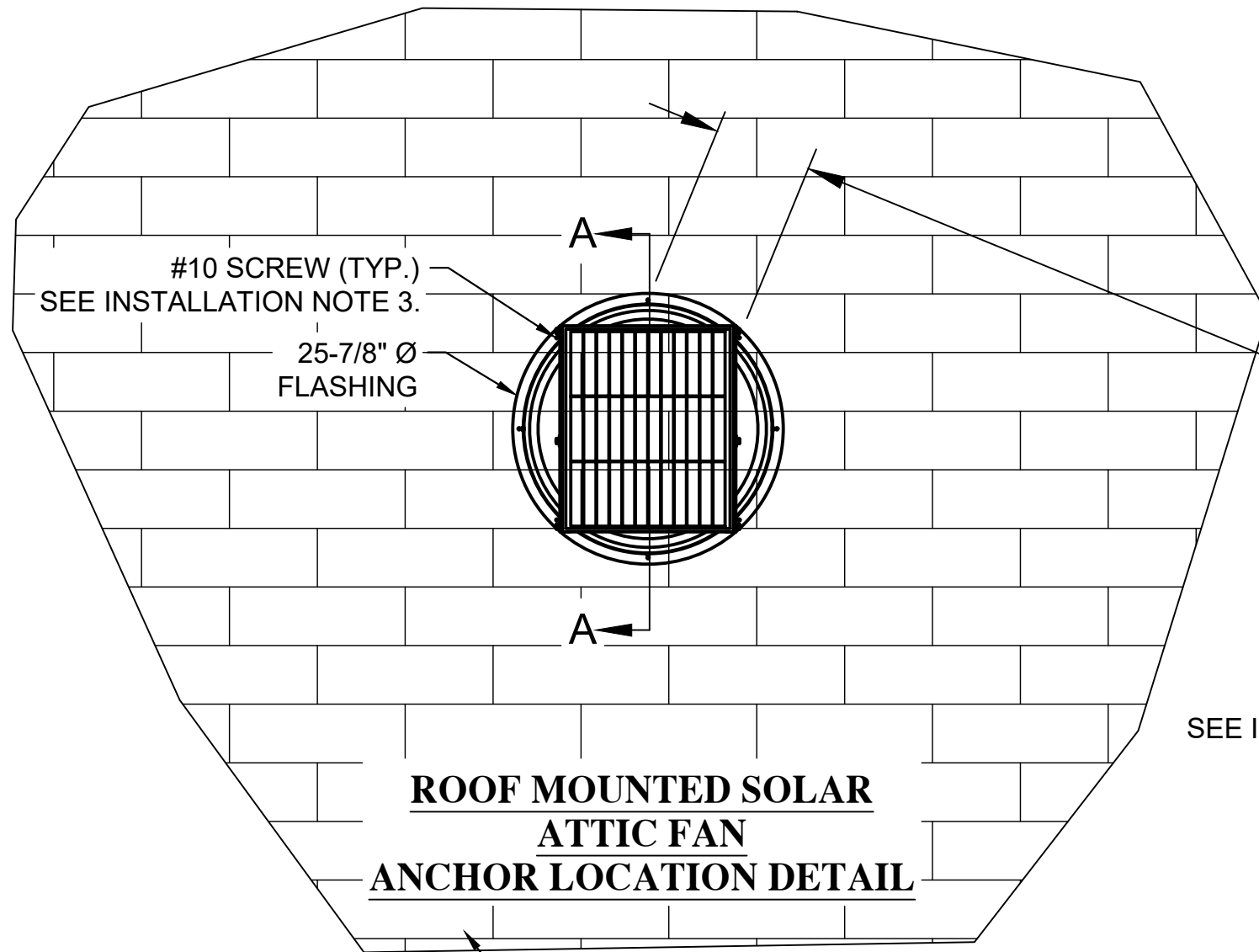


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FBPE Certificate of Authorization
No. 25935

REV	DESCRIPTION	DATE	BY

PLYWOOD OR OSB ROOF SHEATHING INSTALLATION



#10 SCREW (TYP.)
SEE INSTALLATION NOTE 3.

25-7/8" Ø
FLASHING

9.637" O.C. TYP.
FOR QTY. = 8 ANCHORS MIN.
(SEE ANCHOR QTY. TABLE)

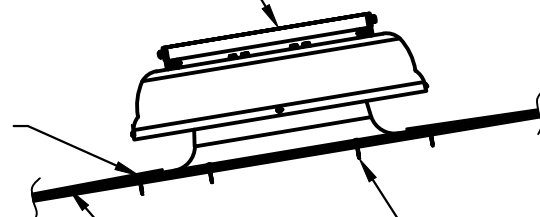
**ROOF MOUNTED SOLAR
ATTIC FAN
ANCHOR LOCATION DETAIL**

NOTES:

1. SEE SHEET 5 FOR INSTALLATION ANCHOR SCHEDULE AND REQUIRED ANCHOR QUANTITIES.
2. SEE INSTALLATION NOTE 5 ON SHEET 1 FOR MATERIAL REQUIREMENTS AND SHEATHING THICKNESS.
- 2.1. FOR THICKNESSES OTHER THAN THAT SHOWN ON SHEET 5, USE THE NEXT THINNER THICKNESS.

SOLAR PANEL

#10 SCREW (TYP.)
SEE INSTALLATION NOTE 3.



#10 SCREW (TYP.)
SEE INSTALLATION NOTE 3.

PLYWOOD OR OSB SHEATHING. SEE
INSTALLATION NOTE 5, SHEET 1 AND
ANCHOR SCHEDULE, SHEET 5.

SECTION A-A

PROJECT #420-0107

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TITLE: CARDINAL VENTILATION CV-XLP/XLP PRO MODEL SERIES SOLAR ATTIC FANS
2X WOOD, PLYWOOD OR OSB ROOF SHEATHING INSTALLATION

DATE:	4/6/2020
DRAWN BY:	RJA
SCALE:	N.T.S.
DRAWING NO.:	ATBR0001
REV:	---
SHEET:	3 of 4

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PLYWOOD OR OSB ROOF SHEATHING INSTALLATION ANCHOR SCHEDULE

SUBSTRATE		QUANTITY OF INSTALLATION ANCHORS AT VARIOUS DESIGN PRESSURES (psf)											
Type	Thickness	45	50	55	60	65	70	75	80	85	90	95	100
2X FRAMING		8	8	8	8	8	8	8	8	8	8	8	8
OSB	3/8"	8	8	9	9	10	11	12	12	13	14	14	15
	7/16"	8	8	8	8	8	8	8	9	10	10	11	11
	15/32"	8	8	8	8	8	8	8	8	8	9	9	10
	1/2"	8	8	8	8	8	8	8	8	8	8	9	9
	5/8"	8	8	8	8	8	8	8	8	8	8	8	8
Plywood 1	3/8"	8	8	8	8	8	8	8	8	8	8	8	8
	7/16"	8	8	8	8	8	8	8	8	8	8	8	8
	15/32"	8	8	8	8	8	8	8	8	8	8	8	8
	1/2"	8	8	8	8	8	8	8	8	8	8	8	8
	5/8"	8	8	8	8	8	8	8	8	8	8	8	8
Plywood 2	3/8"	8	8	8	8	9	9	10	10	11	12	12	13
	7/16"	8	8	8	8	8	8	8	9	10	10	11	11
	15/32"	8	8	8	8	8	8	8	8	9	9	10	10
	1/2"	8	8	8	8	8	8	8	8	8	9	9	10
	5/8"	8	8	8	8	8	8	8	8	8	8	8	8
Plywood 3, 4, 5	3/8"	8	9	9	10	11	12	13	14	14	15	16	17
	7/16"	8	8	8	9	9	10	11	11	12	13	13	14
	15/32"	8	8	8	8	9	10	10	11	11	12	13	13
	1/2"	8	8	8	8	8	9	9	10	11	11	12	12
	5/8"	8	8	8	8	8	8	8	8	9	9	10	10

ROOF SHEATHING INSTALLATION ANCHOR SCHEDULE AND INSTALLATION NOTES:

1. SEE SHEET 1, INSTALLATION NOTES FOR ANCHOR SIZE, TYPE AND EMBEDMENT REQUIREMENTS.
2. TABLE ABOVE SHOWS QUANTITY OF ANCHORS REQUIRED FOR THE FOLLOWING:
 - 2.1. VARIOUS DESIGN PRESSURES (DP) IN POUNDS PER SQUARE FOOT (PSF),
 - 2.2. PLYWOOD (SPECIES GROUPS 1 THROUGH 5 - SEE INSTALLATION NOTE 5.2 ON SHEET 1).
 - 2.3. OSB (SHEATHING GRADE - SEE INSTALLATION NOTE 5.3 ON SHEET 1)
3. USE THIS TABLE AS FOLLOWS:
 - 3.1. DETERMINE THICKNESS AND TYPE OF ROOF SHEATHING.
 - 3.2. DETERMINE REQUIRED NEGATIVE (UPLIFT) DESIGN PRESSURE FOR PROJECT'S PHYSICAL LOCATION.
 - 3.3. ENTER TABLE TO DETERMINE QUANTITY OF ANCHORS (SELF-TAPPING SCREWS REQUIRED FOR SHEATHING ONLY WHERE ANCHORS WILL NOT ENGAGE IN 2X FRAMING).
4. QUANTITY OF ANCHORS SHALL NEVER BE LESS THAN EIGHT (8).
 - 4.1. ATTIC FAN WAS TESTED WITH EIGHT (8) ANCHORS AT 9-11/16" O.C. PERIMETER SPACING. THEREFORE, MINIMUM REQUIRED ANCHOR QUANTITY IS EIGHT (8).
 - 4.2. ANCHOR QUANTITY MAY BE GREATER THEN EIGHT (8) BASED ON DESIGN PRESSURE REQUIREMENTS OF INSTALLATION AND/OR SUBSTRATE MATERIALS PER TABLE ON THIS SHEET.
5. SPACING SHOWN ON SHEET 2 BASED ON THE FOLLOWING.
 - 5.1. QUANTITY OF ANCHORS EIGHT (8).
 - 5.2. ANCHORS LOCATED IN CIRCULAR MANNER IN A PERIMETER CIRCLE OF 24-5/8" DIAMETER.
 - 5.3. EIGHT (8 ANCHORS) SPACED EVENLY ON 24-5/8" DIAMETER ARE SPACED 9-11/16" ON CENTER (O.C.).
 - 5.4. SPACING MAY BE LESS BUT CANNOT EXCEED 9-11/16" O.C.
 - 5.5. SPACING WILL BE LESS WHEN ANCHOR QUANTITY EXCEEDS EIGHT (8) ANCHORS.

PROJECT #420-0107					
				DATE	BY

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TITLE: CARDINAL VENTILATION CV-XLP/CLP PRO MODEL SERIES SOLAR ATTIC FANS
ROOF SHEATHING INSTALLATION ANCHOR SCHEDULE AND INSTALLATION NOTES

DRAWN BY: RJA	DATE: 4/6/2020	DRAWING NO: ATBR0001	SHEET: 4 of 4
SCALE: N.T.S.	REV: ---		

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