

20' DOME JOIST DECK – DIAMOND DOOR

Notice: We offer this deck plan to represent the minimum requirement for your dome. Factors beyond the control of Pacific Domes - your soil composition, wind exposure, expected snow load, and seismic safety requirements – may warrant additional material including larger footings and beams, reduced spans between posts and between beams, and bracing of the support system. Consult an engineer for further details.

1. Lay out the pier blocks according to Sheet 1 of drawing SD-20-16. Dig each pier block into the ground an inch or two and make each one level with itself.
2. Cut and lay out the beams according to Sheet 1. Leave the ends of the beams long (extending past the perimeter of the floor). Cut them later.
3. Level the beams with various lengths of 4 x 4 atop the piers.
4. Cut five “C”, ten “D”, and the “E”, and “S” boards from the nine 2x6x10’ boards. Cut the “F”, and “R” boards from the two 2x6x12’ boards. Cut the “G”, “P”, and “Q” boards from the three 2x6x16’ boards. Cut the “H”, “I”, “J”, “K”, “L”, “M”, “N”, and “O” boards from the eight 2x6x20’ boards.

Note: All board length dimensions refer to the long side of the board,

5. Frame according to Sheet 2 of drawing SD-20-16. The long side of the “F” board meets the inside of the perimeter where two “D” boards meet. Set the other joists on 16” centers from board “F”.
6. Cover with plywood according to Sheet 3 of drawing SD-20-16.
7. Rasp, sand and finish with exterior grade varnish.

20' Dome Joist Deck - Diamond Door Board Cut and Material List

Board Cut List

Letter	Qty.	Size (Nominal)	Size (Actual)	Length ¹	Ends ²
A	2	4x6 [100x150]	3 1/2" x 5 1/2" [89mm x 140mm]	240" [7315mm]	0°
B	2	4x6 [100x150]	3 1/2" x 5 1/2" [89mm x 140mm]	144" [4267mm]	0°
C	5	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	48 5/8" [1235mm]	12° - 12°
D	10	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	49 11/16" [1262mm]	12° - 12°
E	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	66 3/4" [1695mm]	66° - 66°
F	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	137 5/16" [3487mm]	66° - 66°
G	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	166 1/2" [4229mm]	42° - 42°
H	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	195 3/4" [4971mm]	42° - 42°
I	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	211 1/16" [5361mm]	18° - 18°
J	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	221 1/2" [5626mm]	18° - 18°
K	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	231 7/8" [5890mm]	18° - 18°
L	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	230 1/4" [5848mm]	6° - 6°
M	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	226 5/8" [5757mm]	6° - 6°
N	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	223 1/16" [5665mm]	6° - 6°
O	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	208 5/8" [5299mm]	30° - 30°
P	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	190 7/16" [4837mm]	30° - 30°
Q	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	170 3/16" [4323mm]	54° - 54°
R	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	126 3/16" [3204mm]	54° - 54°
S	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	46 5/8" [1185mm]	78° - 78°
-	16	4x4 [100x100]	3 1/2" x 3 1/2" [89mm x 89mm]	As required	0°
-	12	3/4"	4' x 8'	As required	As required

Material List

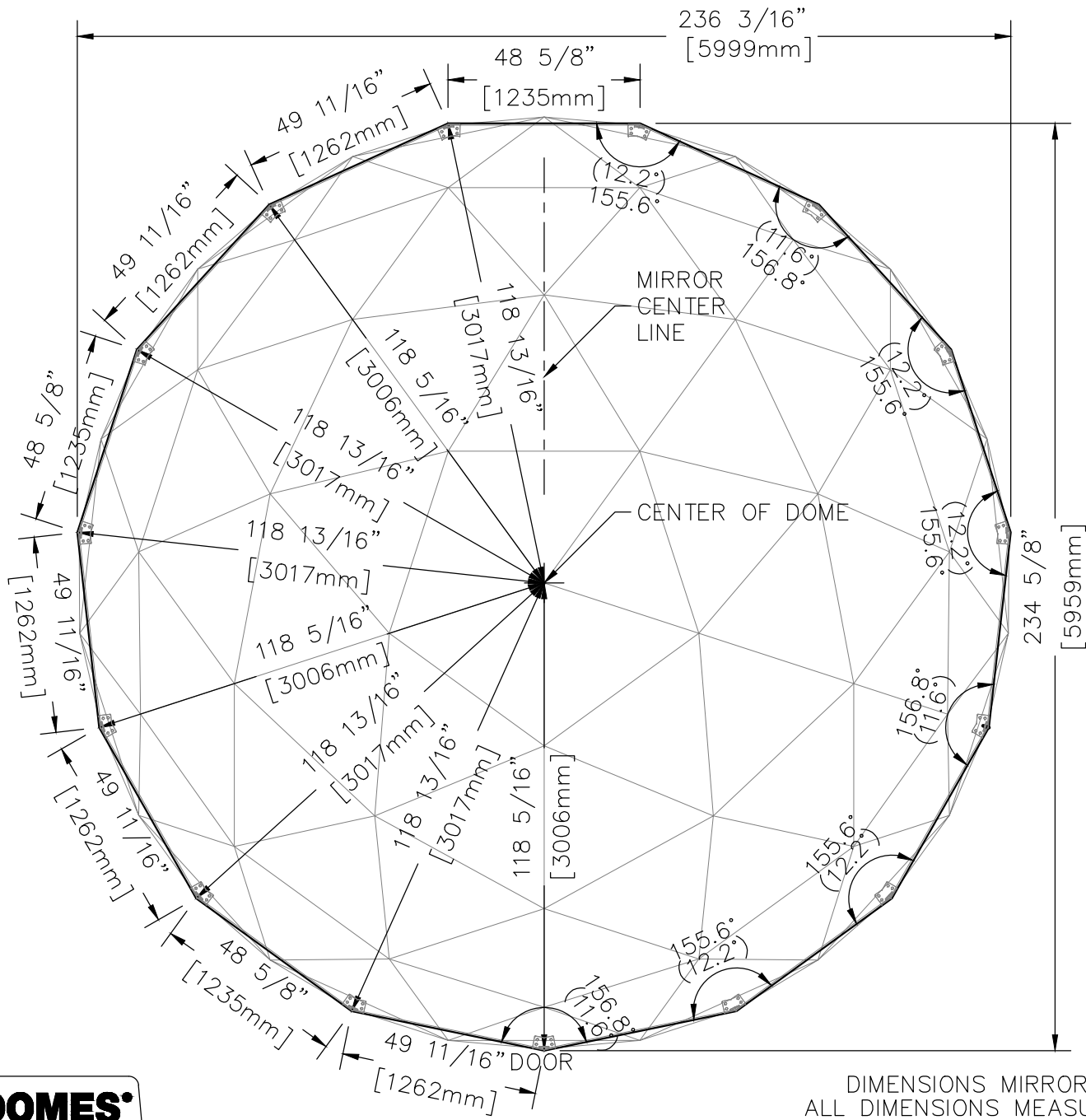
Qty.	Item	Material Allocation
2	4" x 6" x 20' ³	A
2	4" x 6" x 12'	B
8	2" x 6" x 20' ³	H,I,J,K,L,M,N,O
3	2" x 6" x 16'	G,P,Q
2	2" x 6" x 12'	F,R
9	2" x 6" x 10'	C,D,E,S
16	Pier blocks	Piers
As required	4" x 4"	Posts
8	lbs. of 16d galvanized box nails ⁴	Fasteners
12	Sheets of 3/4" plywood	Cladding
8	lbs. of 8d galvanized box nails ⁴	Fasteners
3	Gallons exterior varnish	Finish

¹ All lengths in inches and millimeters, and for the long side of the board.

² Angles shown represent the angles of the material cut off. For angles less than 45°, use this for setting the angle of the saw.

³ Splice as required.

⁴ Substitute screws for nails to afford portability of floor.



DIMENSIONS MIRROR ALONG CENTER LINE.
 ALL DIMENSIONS MEASURE TO OUTSIDE EDGE
 ALL DIMENSIONS ARE MEASURED IN INCHES.
 MITER ANGLES IN PARENTHESIS.



PACIFIC DOMES

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20' DOME PERIMETER - DIAMOND DOOR
 DESCRIPTION:
PERIMETER BOARDS

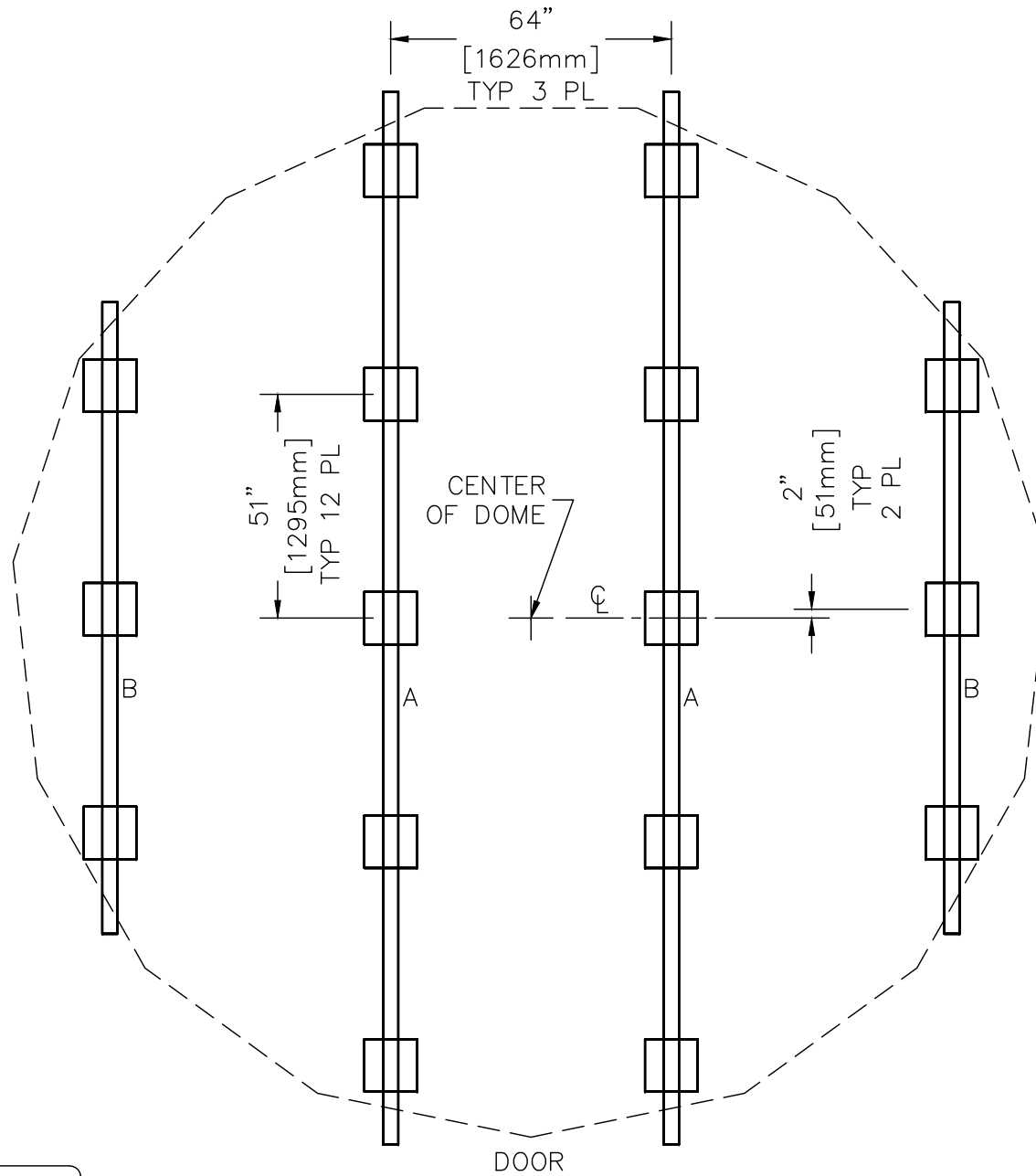
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20' DOME JOIST DECK - DIAMOND DOOR

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PIERS & BEAMS, JOISTS, PLYWOOD

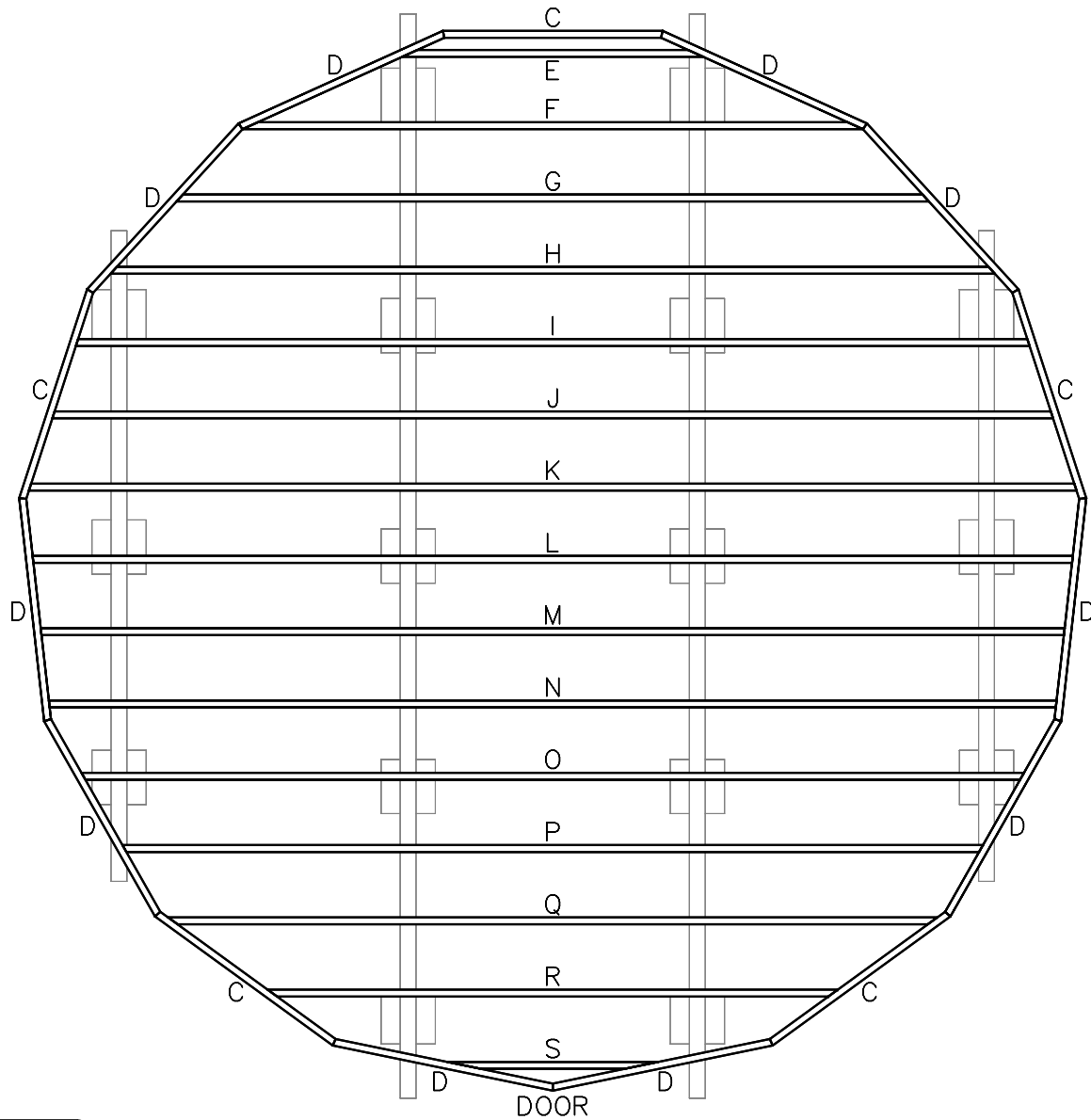
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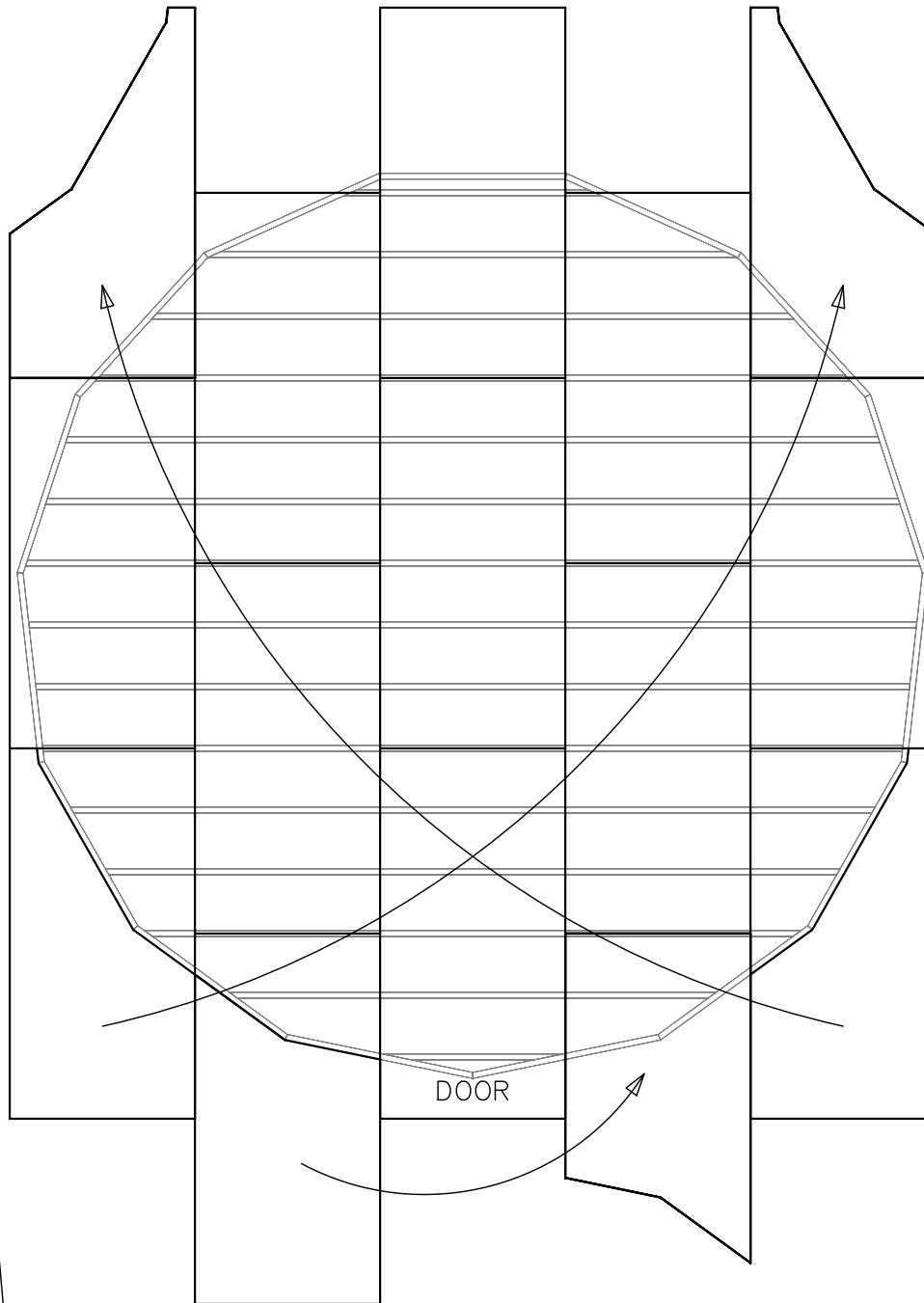
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