



PACIFIC DOMES™

15ft. Grade School Dome

Owners Setup Manual

Please read the entire instruction manual before assembling your dome.



PACIFIC DOMES, Inc.

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Climbing Dome Frame Instructions

You will need :

- a couple of friends
- a couple of ladders
- a couple of 9/16" wrenches*
- Hex Key wrench or hex key adapter for drill or screwdriver*

*Ratchet wrenches and a screwdriver with a for a hex key bit adapter will make the job easier, but normal wrenches will work fine as long as you have a hex key wrench for the top of the bolt. A drill with a 9/16" socket tip will speed things up.

In this kit you will receive: 30 'A' struts
45 'B' struts
70 'C' struts
10 'D' struts
10 'E' struts

Marking the struts:

The climbing dome frame has 165 struts in 5 different lengths. Each strut is marked with a letter 'A' through 'E' at one or both ends. To help make it clearer as you are erecting the frame, mark each strut with the provided stickers. Put the sticker in the middle of each strut facing the inside of the dome. Double check each strut as you put up the frame.

Assembly:

Start at the bottom, bolting the struts together as you go. Complete each row before you move up to the next. Do not tighten the bolts until the entire frame is together because you will be unbolting and adding more struts. We find this much easier than trying to bolt all the struts on at once. Place the upper struts to the outside of the bolt. To avoid bending the strut ends, let the upper struts hang down until you are ready to add to them.

**Use the written instructions below if they are helpful to you.
Some people find it easier to set up by just following the frame diagram.**

- Begin by bolting the perimeter, the bottom of Row 1 together. Layout ten Cs and 5 Bs, C C B C C B . . . in a circle. Layout ten Cs, ten Ds, and ten Es at the appropriate bottom hubs around the circle There will be four strut ends at each bottom hub connections. There will be fifteen bottom bolts. Make sure struts match the Bs, Cs, Ds and Es on your frame diagram. Place the Row 1 C, D, and E side struts on the bolt before the perimeter CCB struts.
- Add the bottom of Row 2 to the Row 1 vertical side struts. There will be fifteen bolts at this level. There will be four strut ends at each bolt. Bolt together loosely, the C C B pattern atop the C D E Row 1 side struts. Remember to add them to the outside of the bolt. If you add two Bs, then skip one strut all the way around, and then go back and add the Cs, it may be easier to raise your side wall.
- Add the sides of Row 2 to the bottom of Row 2. Remove the bolt from a hub at the top of Row 1. Place two Cs or an A and a B, depending upon what Row 1 side struts you have, on the bolt and return the bolt to the top of Row 1. Let the added struts hang down outside Row 1 until you add the bottom of Row 3
- Repeat the procedure for the remaining rows to the top.
- Add the bottom of Row 3 to the Row 2 vertical side struts. . .
- Bolt your last bolt by bringing five A struts together at the top.
- Tighten all bolts when you are done.
- Now you are ready to anchor your dome. Proceed to Frame Anchoring instructions & diagram below.

Child Safety Hardware Instructions

- Assemble the dome frame as indicated in the assembly portion of the owner's manual.

For 5 strut hubs use only:

7/8" Button Headed Socket Cap Screw (BHSCS)

For 6 strut hubs use only:

1" Button Headed Socket Cap Screw (BHSCS)

- Locate "T" nuts on inside face of hubs and screw the BHSCS in from the outside of dome.



It is very important that the guidelines above be followed to avoid injury from exposed bolt threads!

- BHSCS should be tightened until threads are flush with face of "T" nuts
- We also suggest that you use Loctite Red Threadlock to prevent accidental loosening of the bolts over time!

Included in Hardware Pack:

Safety Hardware

(30) 7/8" BHSCS

(45) 1" BHSCS

(65) "T" Nuts

(2) 7/32" Hex Wrenches

Alternative Frame Build Method

In addition to barrel nut and button head socket cap screws, we have shipped extra nuts and bolts with longer shanks. We found that assembling domes with safety hardware can be difficult; as a result, we encourage you to use the longer bolts initially to get the frame together then exchange the hardware hub by hub.

- Assemble the dome frame as indicated in the assembly portion of the owner's manual using the 3/8"-16X1 1/4" fully threaded tap bolts and 3/8"-16 serrated flange nuts.
- Once the dome is assembled, replace the temporary hardware for the Child Safety Hardware. Replace hardware one hub at a time by tightly clamping the flanges of the hub together using vise grips or clamps. (Make sure the clamps are holding the hub stack together securely as it can present a hazard if they suddenly release from the clamps).
- Temporary hardware will be replaced with 7/8" Button Headed Socket Cap Screw (BHSCS) or 1" Button Headed Socket Cap Screw (BHSCS) depending on if the individual hub is comprised of 5 or 6 struts.

Included in Hardware Pack:

Temporary Hardware

(65) 3/8"-16 Serrated Flange Nuts

(65) 3/8"-16 x 1 1/4" Fully Threaded Tap Bolts

(130) 3/8"x1 1/4" Fender Washers (powder coated domes only)

Completed Hub with Safety Hardware



Hub View from Inside of Dome



Hub View from Outside of Dome

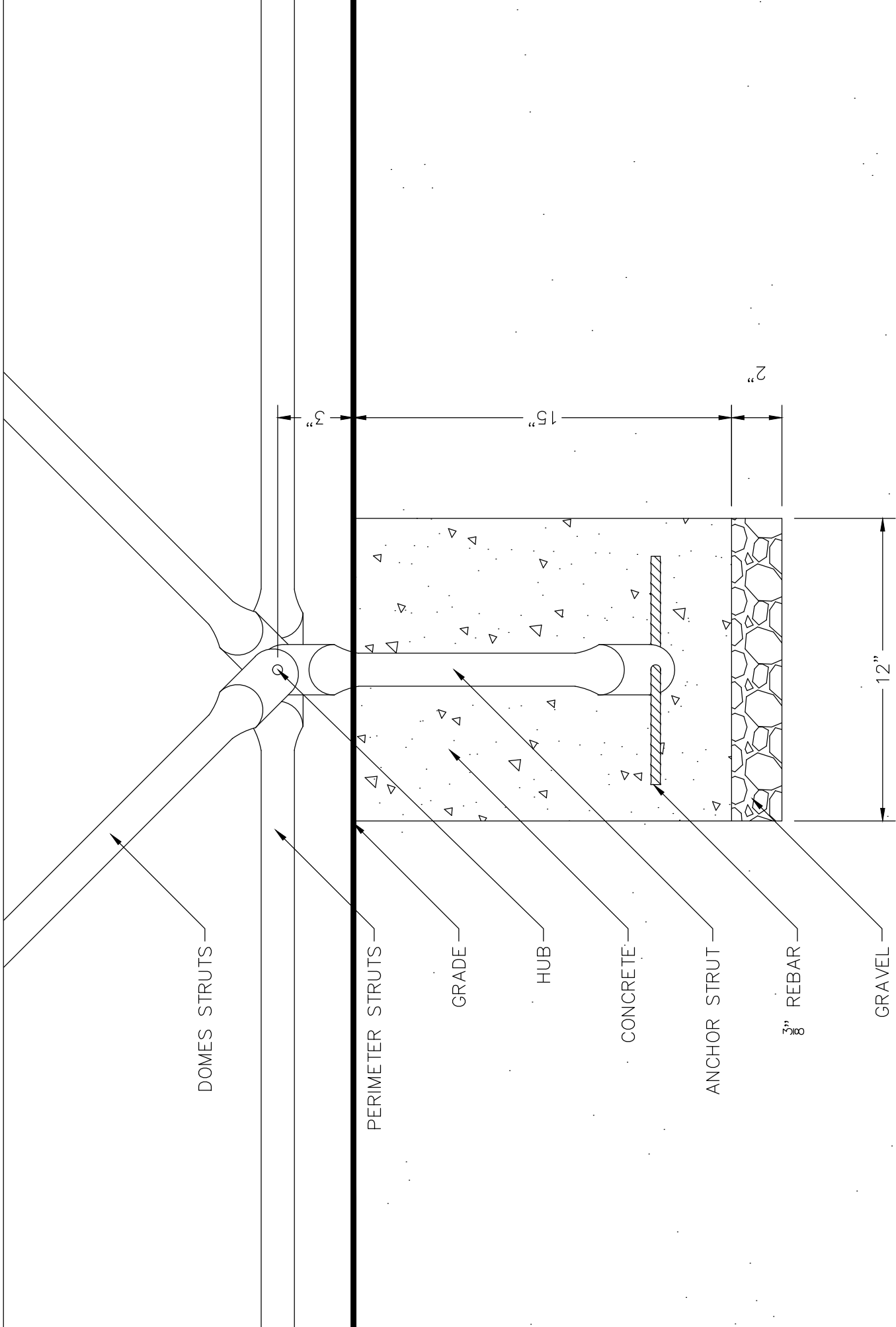
Frame Anchoring – Before Frame is Built with Perimeter Plan Option 1

1. Stake center of Dome
2. Mark hole locations as indicated on perimeter plan
3. Dig a 12" Diameter hole about 17" deep at the marked hub locations
4. Fill bottom 2" with gravel, tamp down
5. Insert anchor strut with rebar into each hole
6. Assemble bottom row of dome frame and anchor struts above each hole
7. Measure the distance to each hub from the center of the dome
8. Level the bottom row of struts with strut hole 2" above ground
9. Double check your measurements
10. Brace all components before back filling
11. Back fill the holes with concrete
12. Recheck all strut positions for accuracy
13. Let concrete cure for 24-48 hours
14. Build the remainder of the dome on top of base row struts

Frame Anchoring – After Frame is Built with Braces & Markers Option 2

1. Build dome frame in desired location
2. Mark bottom hub locations for concrete holes
3. Move dome
4. Dig 12" diameter holes 17" deep at the marked locations
5. Move the dome back to the original position with hubs centered over the holes
6. Install anchor struts and rebar
7. Level dome
8. Back fill holes with concrete
9. Let concrete cure for 24-48 hours

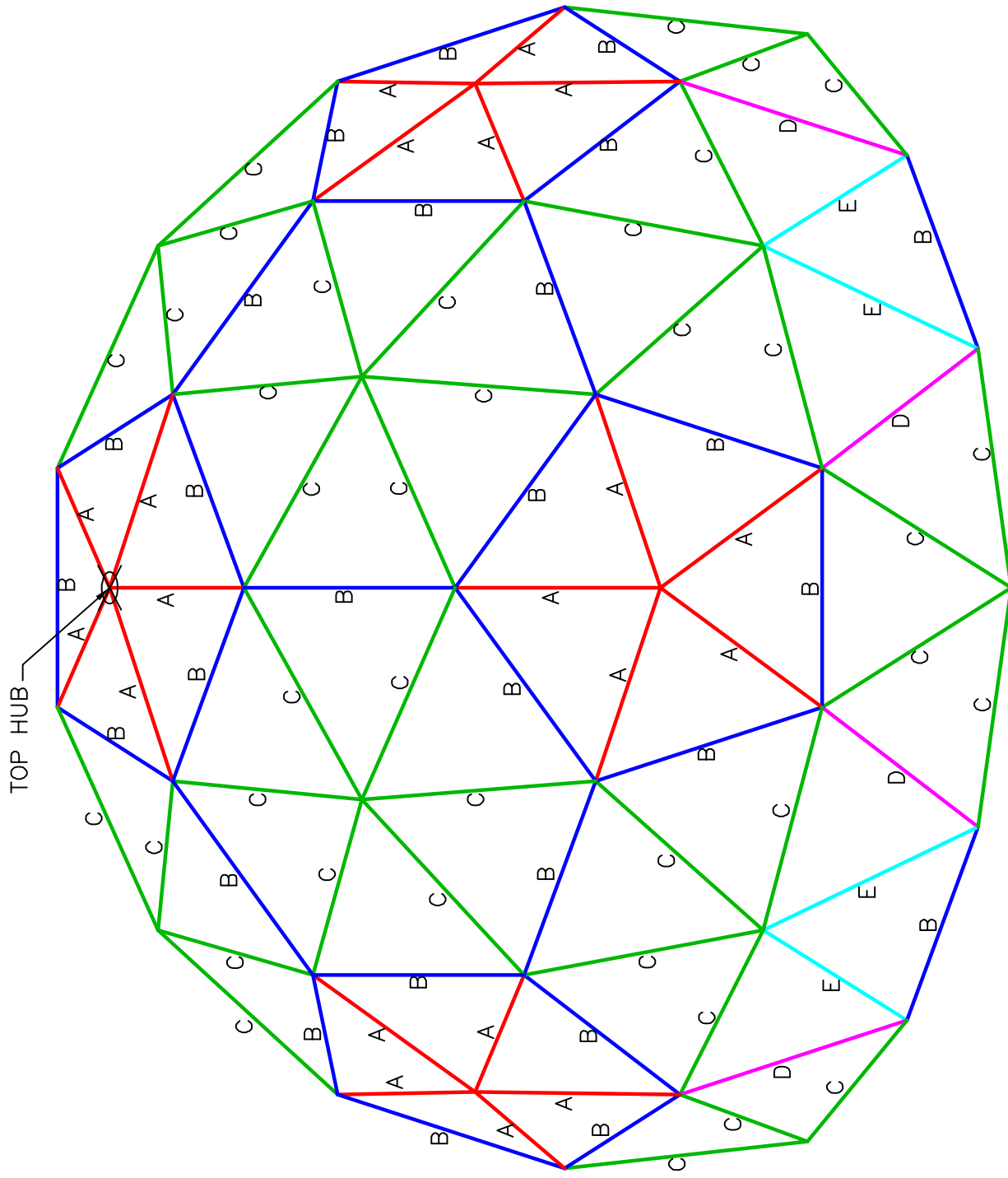
☆ Refer to Following Diagram ☆



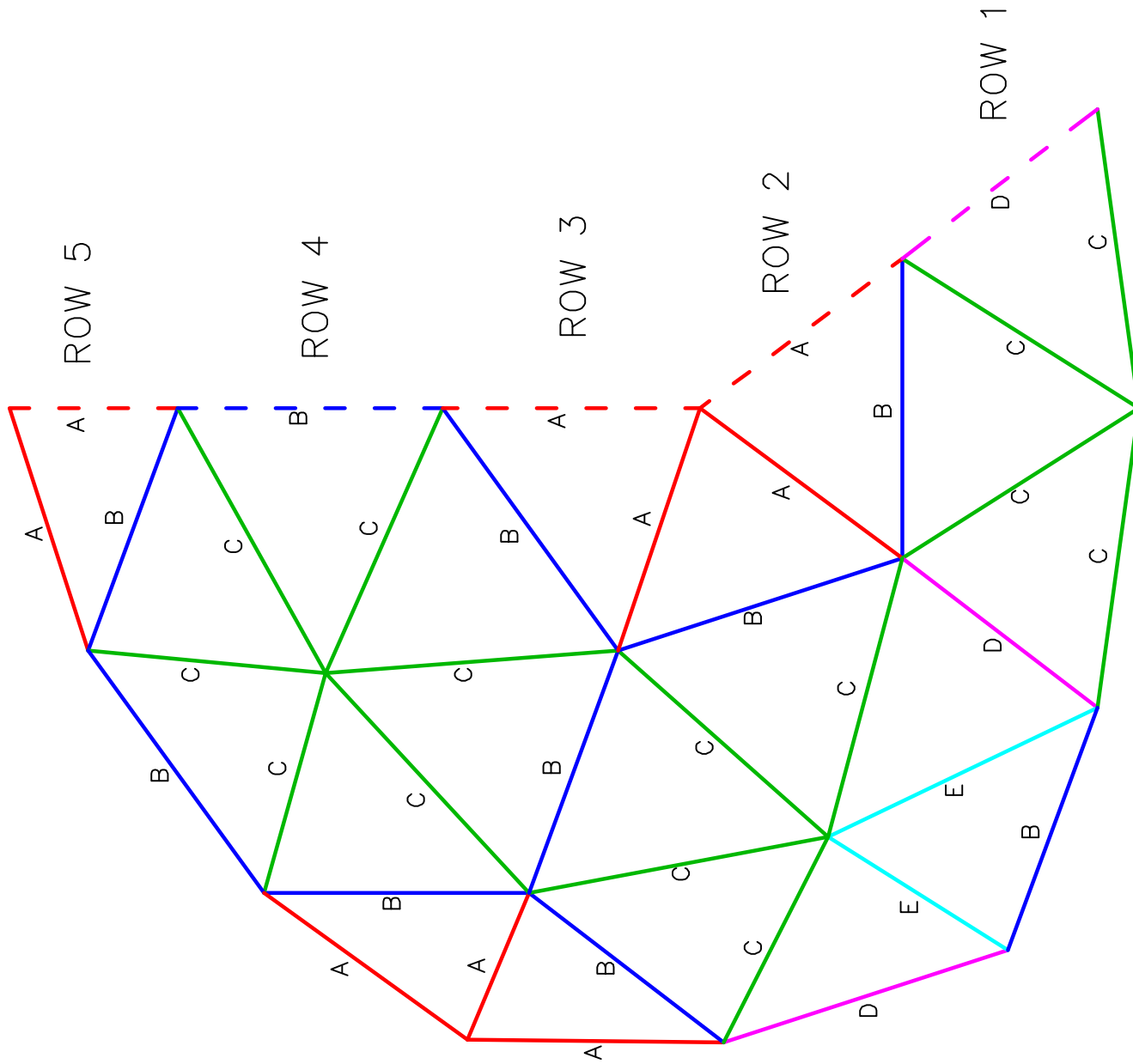


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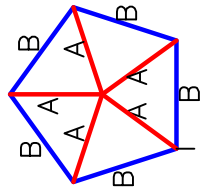
DRAWING TITLE:	PLAYGROUND DOME FOOTING	DRAWING NUMBER:	SI-88	DATE:	09/05/2018
DESCRIPTION:	CONCRETE WITH VERTICAL STRUT & REBAR	REVISION:	-	DRAWN BY:	NOT
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15' DOME FRAME DIAGRAM

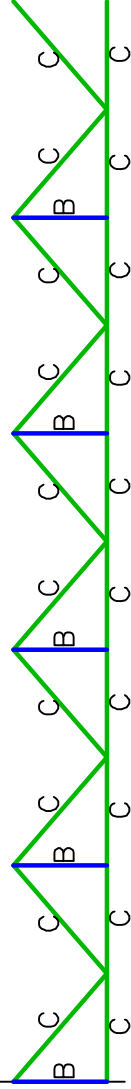


15' DOME FRAME DIAGRAM
 THIS PATTERN REPEATS ITSELF FIVE TIMES.
 NOTICE THAT THE OUTSIDE EDGES OVERLAP.

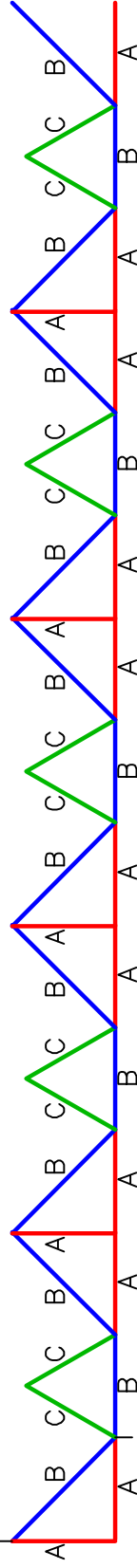


15 FOOT DOME FRAME – ROW BY ROW

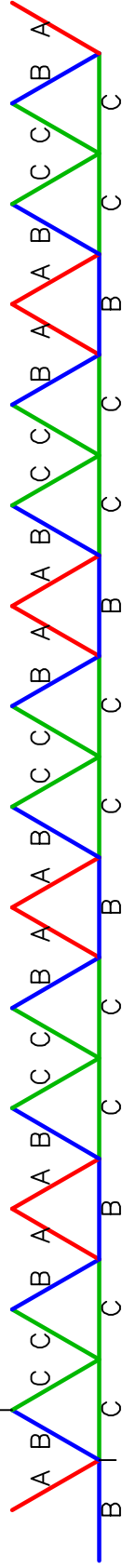
TOP:



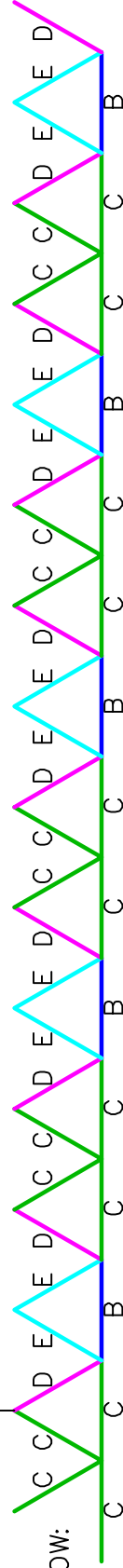
FOURTH ROW:



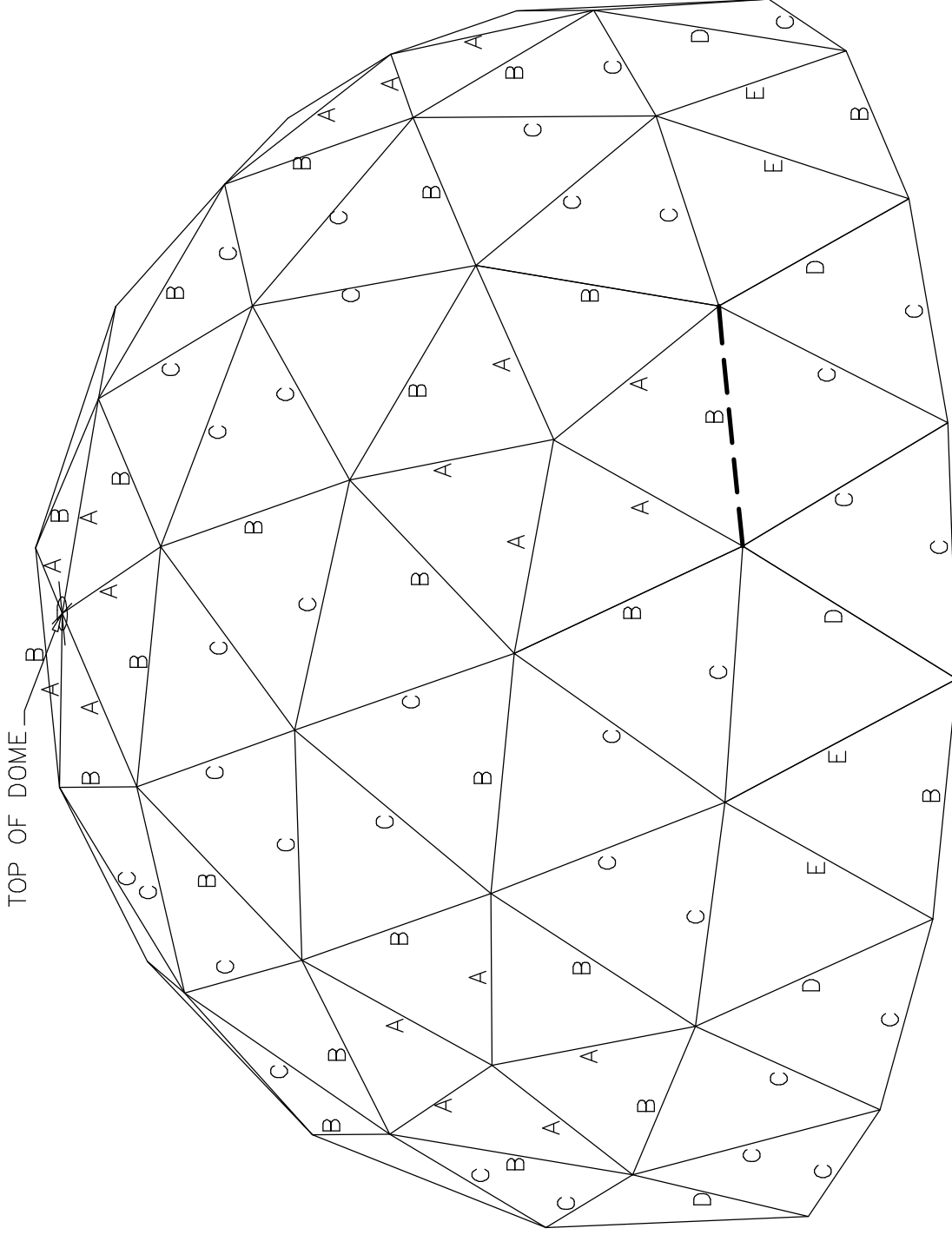
THIRD ROW:



SECOND ROW:



FIRST ROW:



15' GRADE SCHOOL DOME FRAME

3-FREQUENCY – FLAT BOTTOM

FOR DIAMOND DOOR, REMOVE THE DASHED "B" STRUT AFTER FRAME IS ERECT.

