



INSTALLATION GUIDELINE

TRANSITIONAL SHELTER FOR EARTHQUAKE
VICTIMS, NEPAL

CONTENT

1. COMPONENTS LIST

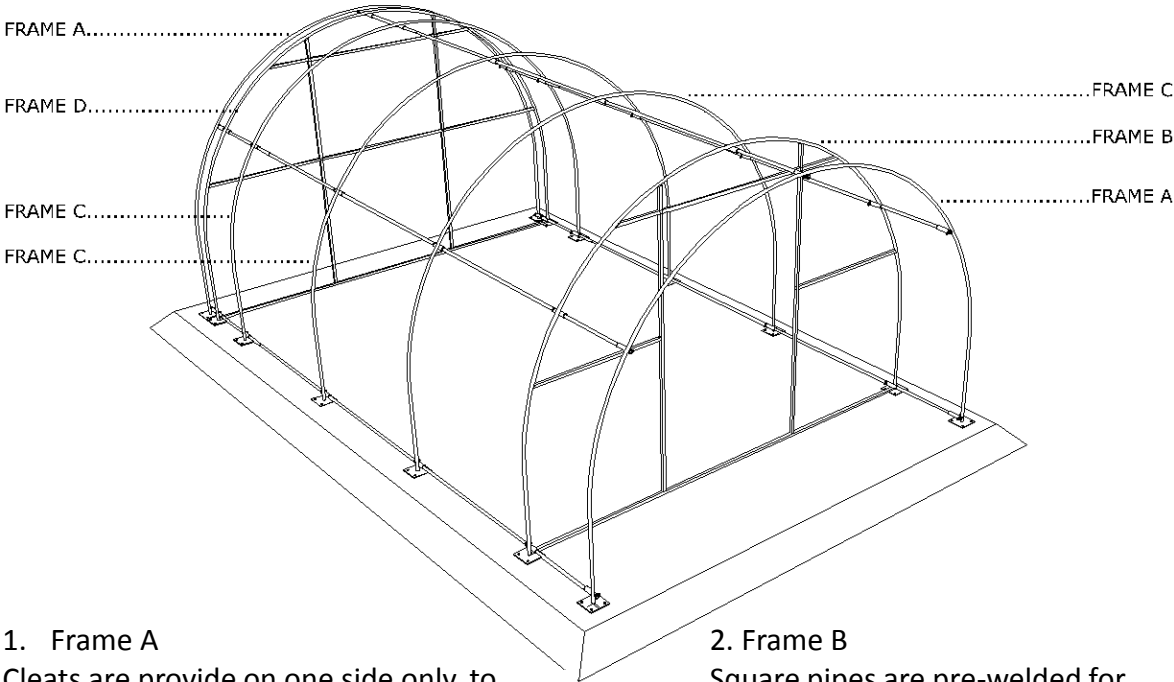
2. SITE PREPARATION

3. TYPICAL PLAN

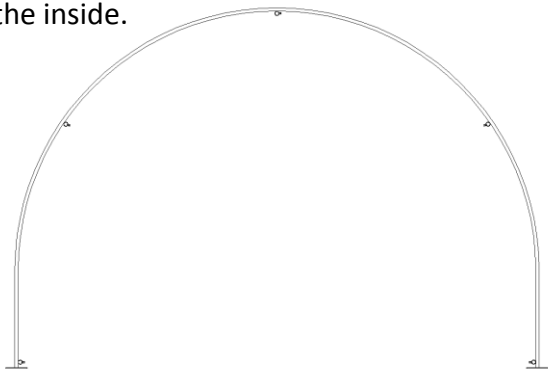
4. INSTALLATION GUIDELINE

COMPONENTS LISTS

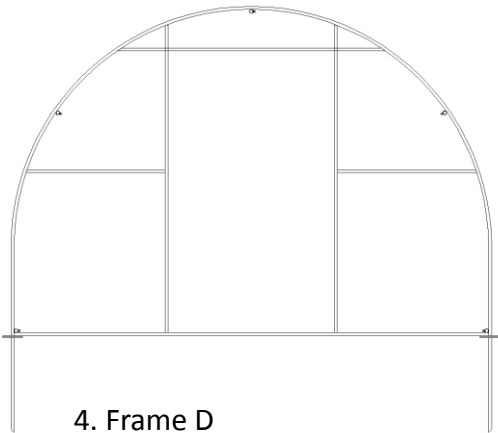
- 1. Square Pipe (16 gauze, 0.75" size/ Total used: 19 nos.)
- 2. Square Pipe (16 gauze, 1" size/ Total used: 1 no.)



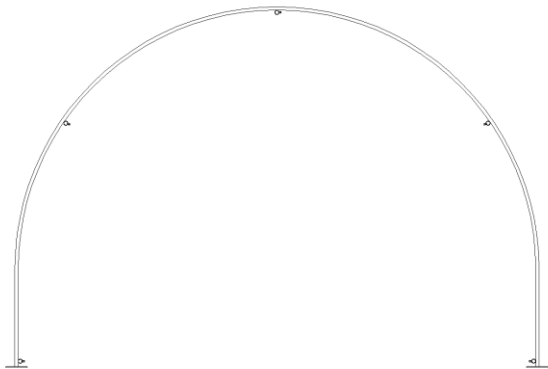
1. Frame A
Cleats are provide on one side only, to the inside.



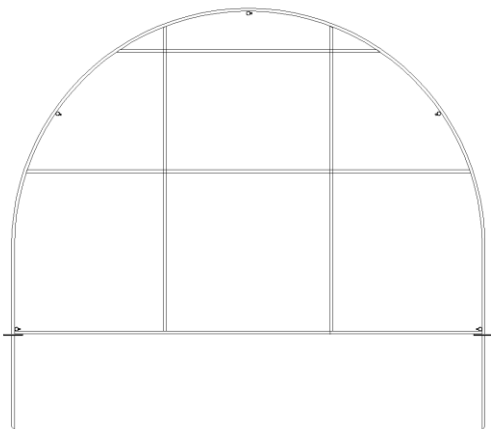
2. Frame B
Square pipes are pre-welded for door frame.



3. Frame C
Cleats are provided on both sides.



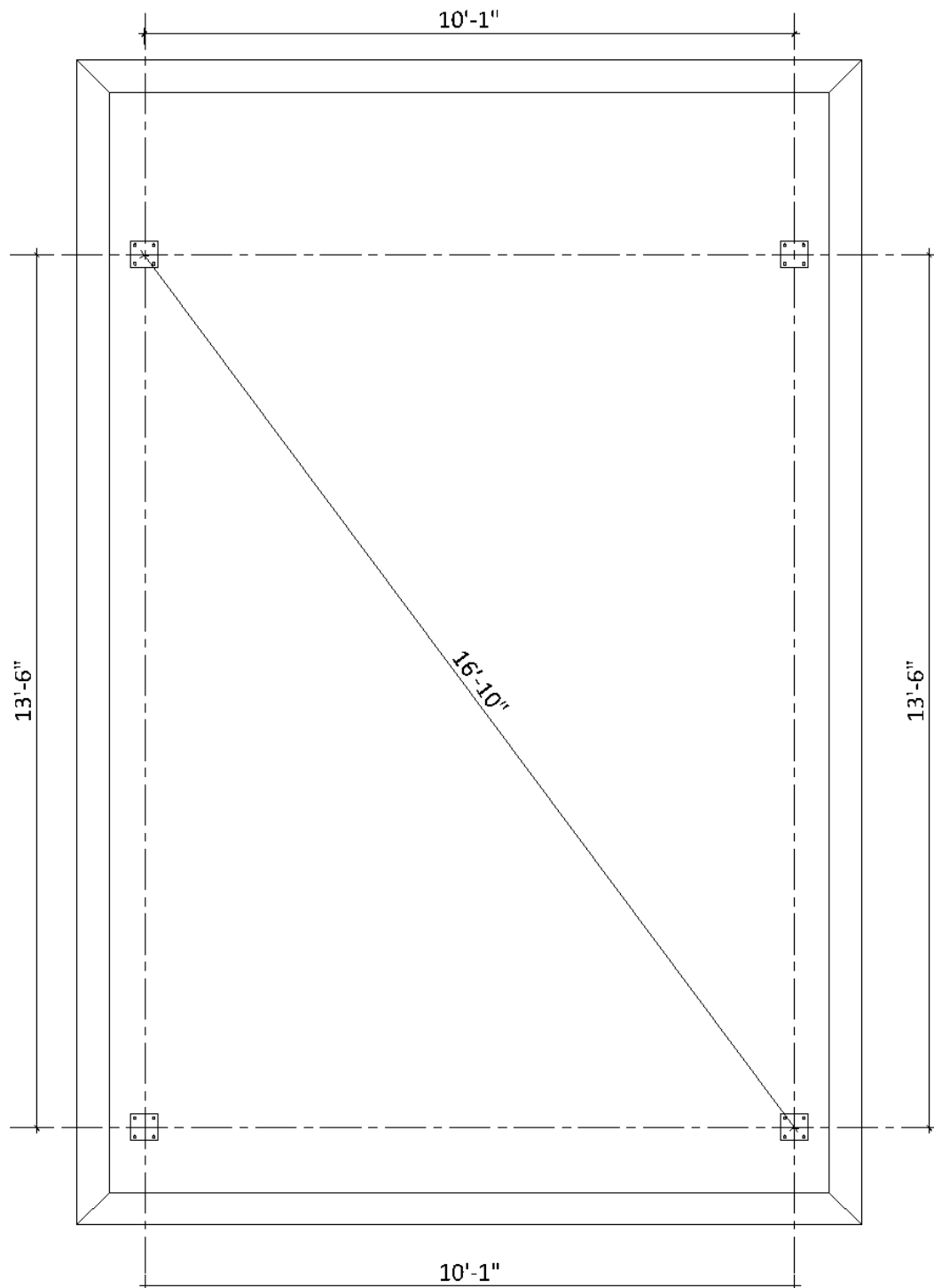
4. Frame D
Square pipes are pre-welded for window frame.



COMPONENTS LISTS

3. 2MM MDF ply (Available size 4ft. X 8ft./ Total used: 10 nos.)
 - 4ft. X 8ft. 7nos.
 - 2ft. X 8ft. 4nos.
 - 2ft. X 4ft. 1no.
 - 4ft. X 6ft. 1nos.
4. Black insulation foam (Available width 4ft. in a roll/ Total used: 28m)
 - 4ft. X 19.5ft. 4nos.
5. White flex (Available width 10ft. in a roll/ Total used: 600 sq.ft.)
 - 10ft. X 16ft. 2nos.
6. Iron base plate 5mm thick (Available size 4ft. X 8ft./ Total used: 1 piece)
 - 5" X 5" 16nos.
7. Iron strip (Total used: 5 kg)
 - 0.75" X 1" 150nos.
8. Latch (Total used: 3 nos.)
9. Knot and Bolt (Total used: 30 pieces)
10. Hinge (Total used: 5 nos.)
11. Handle (Total used: 2 nos.)
12. Rivet (Total used: 200 pieces)
13. Red Oxide paint (Total used: 1 ltr.)

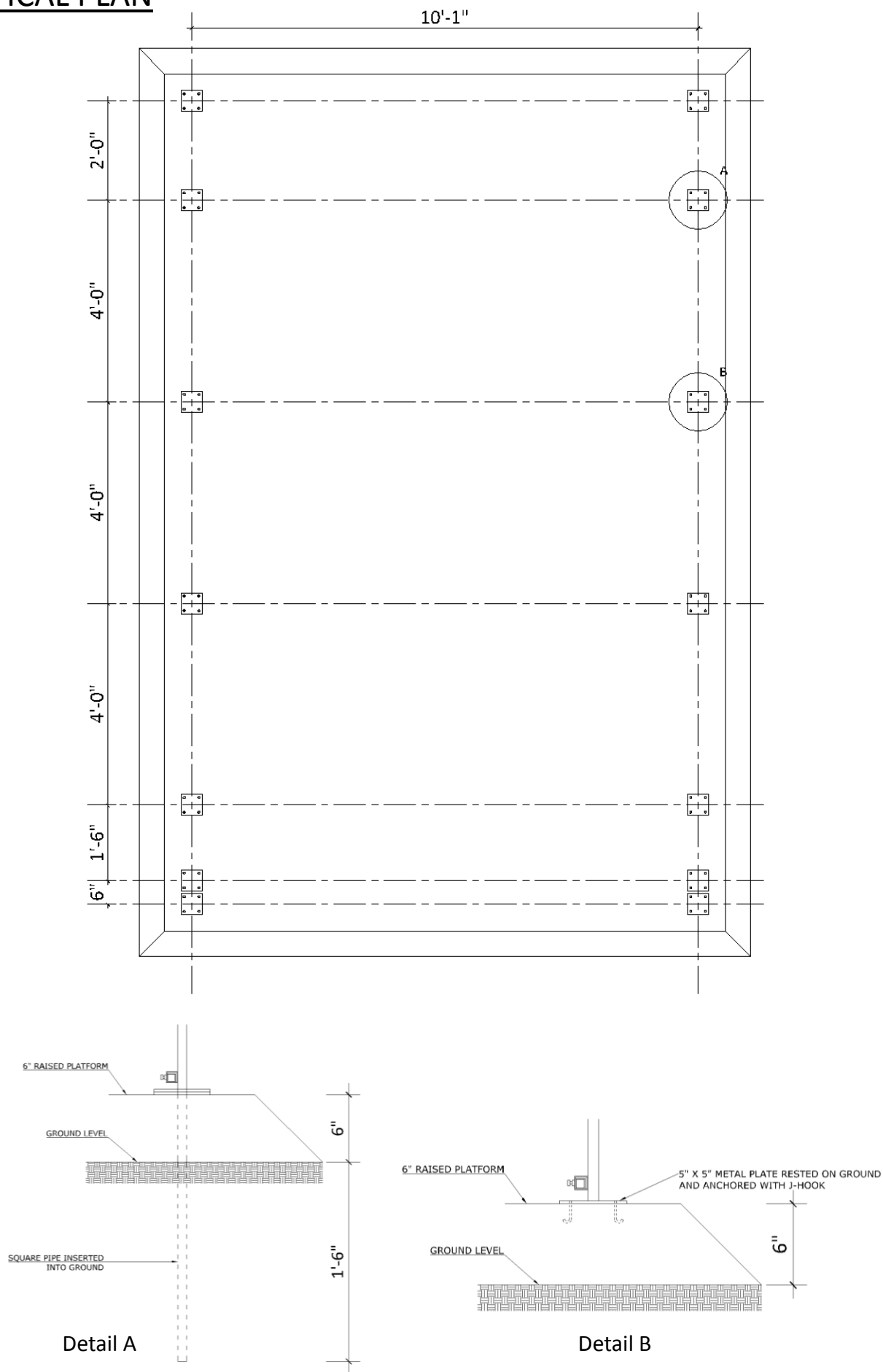
SITE PREPARATION



STEPS

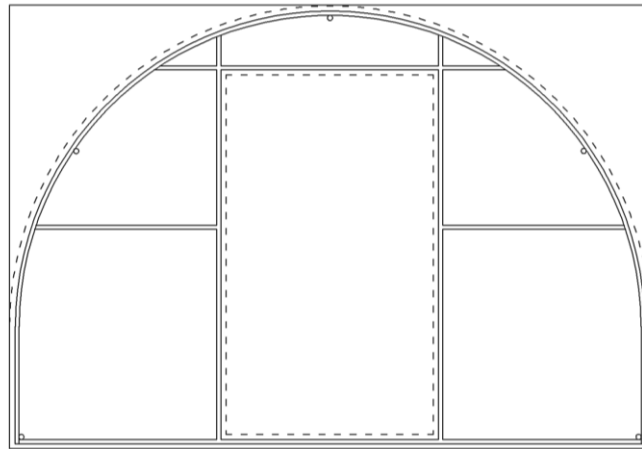
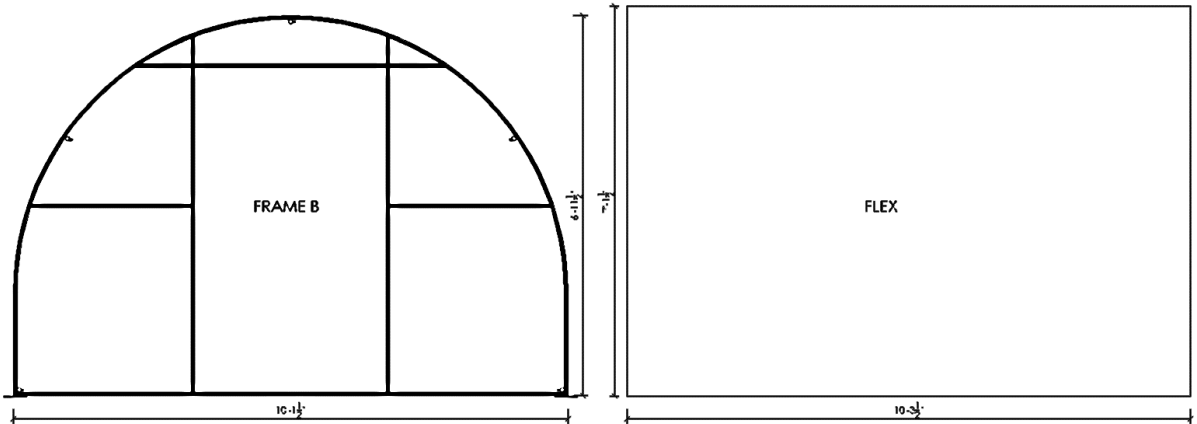
1. Clear away any debris, vegetation from the worksite.
2. Fill and raise the ground 6" from the existing level.
3. Place pegs and thread to mark measurement as per drawing.
4. Mark points as shown in figure to insert square pipe 1'-6" from the ground. Other points are anchored with J-hook only.

TYPICAL PLAN



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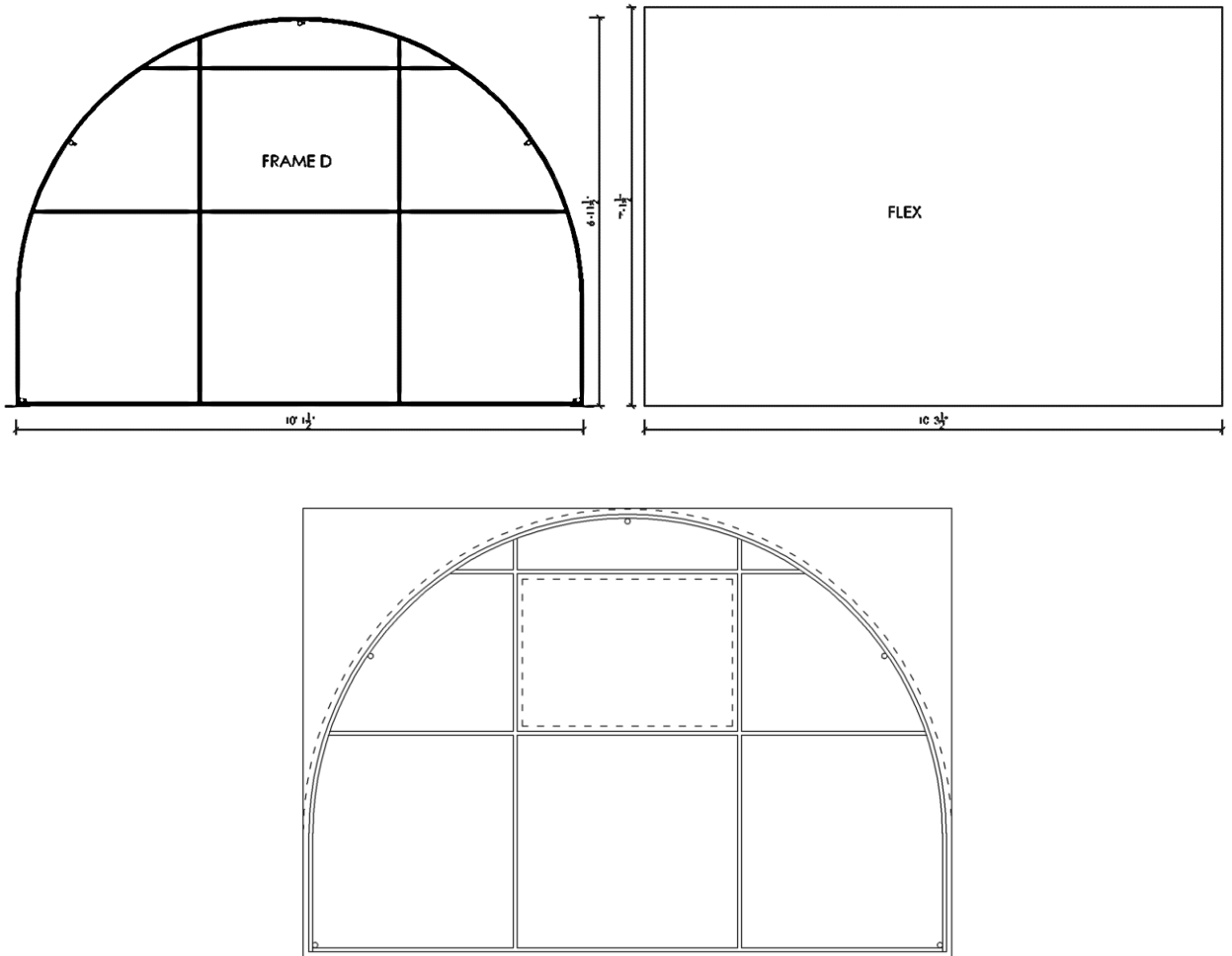
1. Preparation of Frame B



- Roll out the flex to the size of the Frame B considering the margin of 1in. along all its sides.
- Cut the circular holes in flex for horizontal tie cleats corresponding to their position in the frame.
- Apply flex glue over the frame.
- Place the flex over the glued frame.
- Cut the flex along the dotted mark as shown leaving 1in. offset all around the frame and window section. The offset portion shall be wrapped and stick to the frame.

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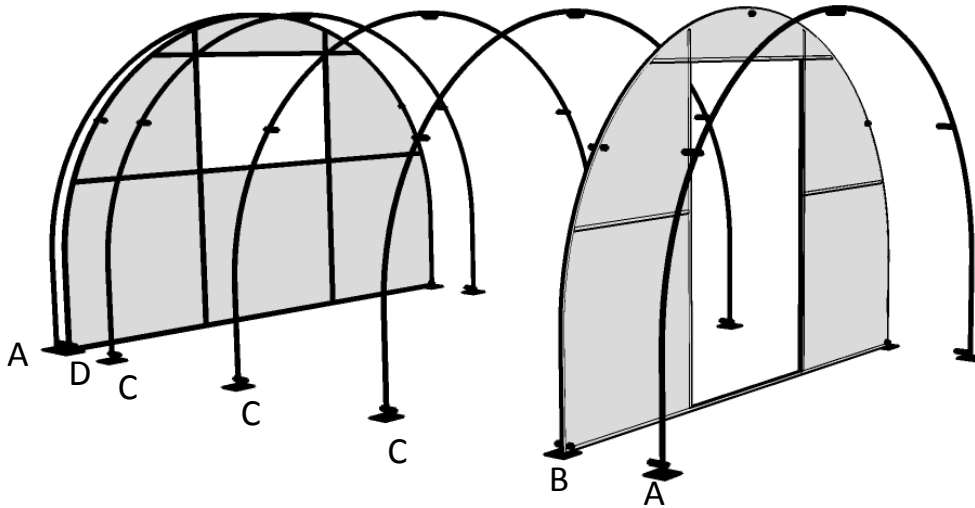
2. Preparation of Frame D



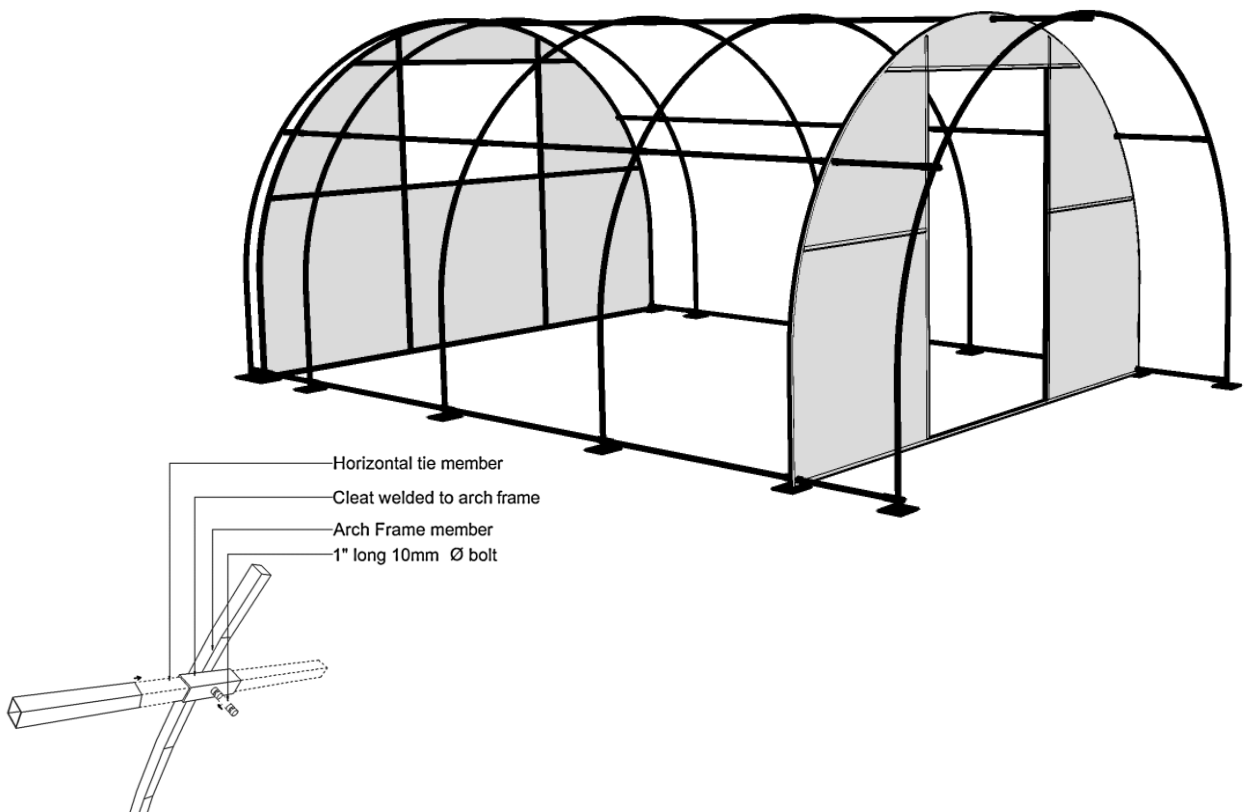
- Roll out the flex to the size of the Frame B considering the margin of 1in. along all its sides.
- Cut the circular holes in flex for horizontal tie cleats corresponding to their position in the frame.
- Apply flex glue over the frame.
- Place the flex over the glued frame.
- Cut the flex along the dotted mark as shown leaving 1in. offset all around the frame and window section. The offset portion shall be wrapped and stick to the frame.

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3. Place the frames accordingly to their positions (refer Plan drawing for dimension)



4. Tie all the frames together using horizontal tie pipes



- The horizontal tie pipes shall be inserted through every cleats provided.
- And shall be loosely tightened at first with bolts respectively.

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5. Place 2mm MDF ply over the frame

Step 1:

Take 4' x 8' ply and place over the frame. Rivet the ply to the plates provided on the frame.



Step 2:

Take other 4' x 8' ply and place and fix over the frame as shown below.



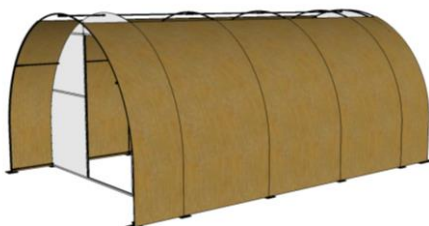
Step 3:

Repeat step 1 and 2 on the other side as well as shown below.



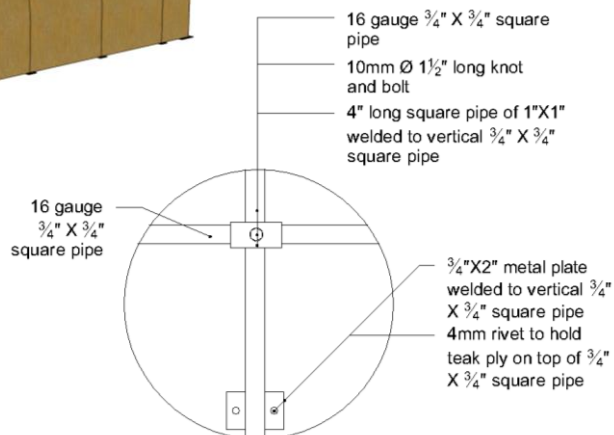
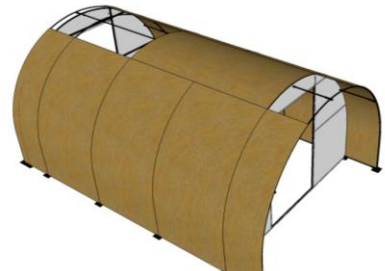
Step 4:

Place and fix the remaining ply board (2'x8') to the ends of the structure.



Step 5:

Place and fix top ply (4'x8') at first and then other remaining as below.



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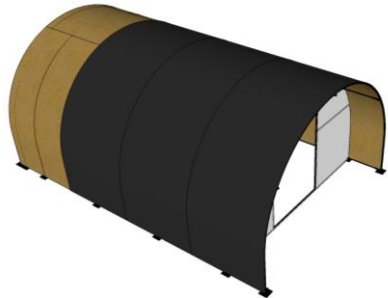
6. Place black insulation foam i.e. closed-cell foam over the ply

- Apply a uniform layer of adhesive (dendrite) over the ply.
- Roll out the foam and place over the glued ply as below

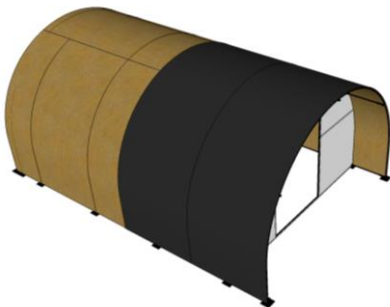
Step 1:



Step 3:



Step 2:



Step 4:



7. Place the flex cover over the foam.

- Apply a uniform layer of flex glue over the foam and wherever required.
- Roll out the flex and place over the glued area as below.

Step 1:

Place 2ft. wide flex over the inside area of the projection at door section.



Step 3:

The overlap of 2in. to be maintained at the joint.

6in. wrapping width to be maintained at the bottom.



Step 2:

Place 6in. wide flex over the inside area of the projection at window section.



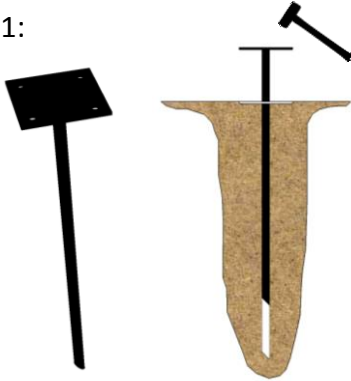
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8. Ground preparation and foundation layout

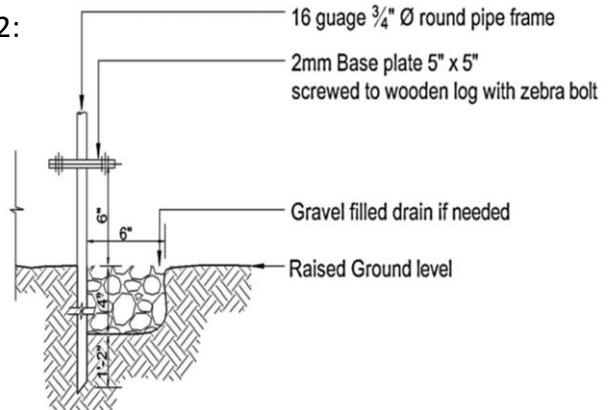
- Rise the ground 6in. High
- Mark the position of the foundations(refer the foundation plan)

9. Knock the foundation pole 2ft deep on the foundation mark onto the raised ground and screw the structure to the foundations laid.

Step 1:



Step 2:



10. Finally, place the door frame (wrapped with flex as done for frames) using hinges provided and window flex roll to their positions.

