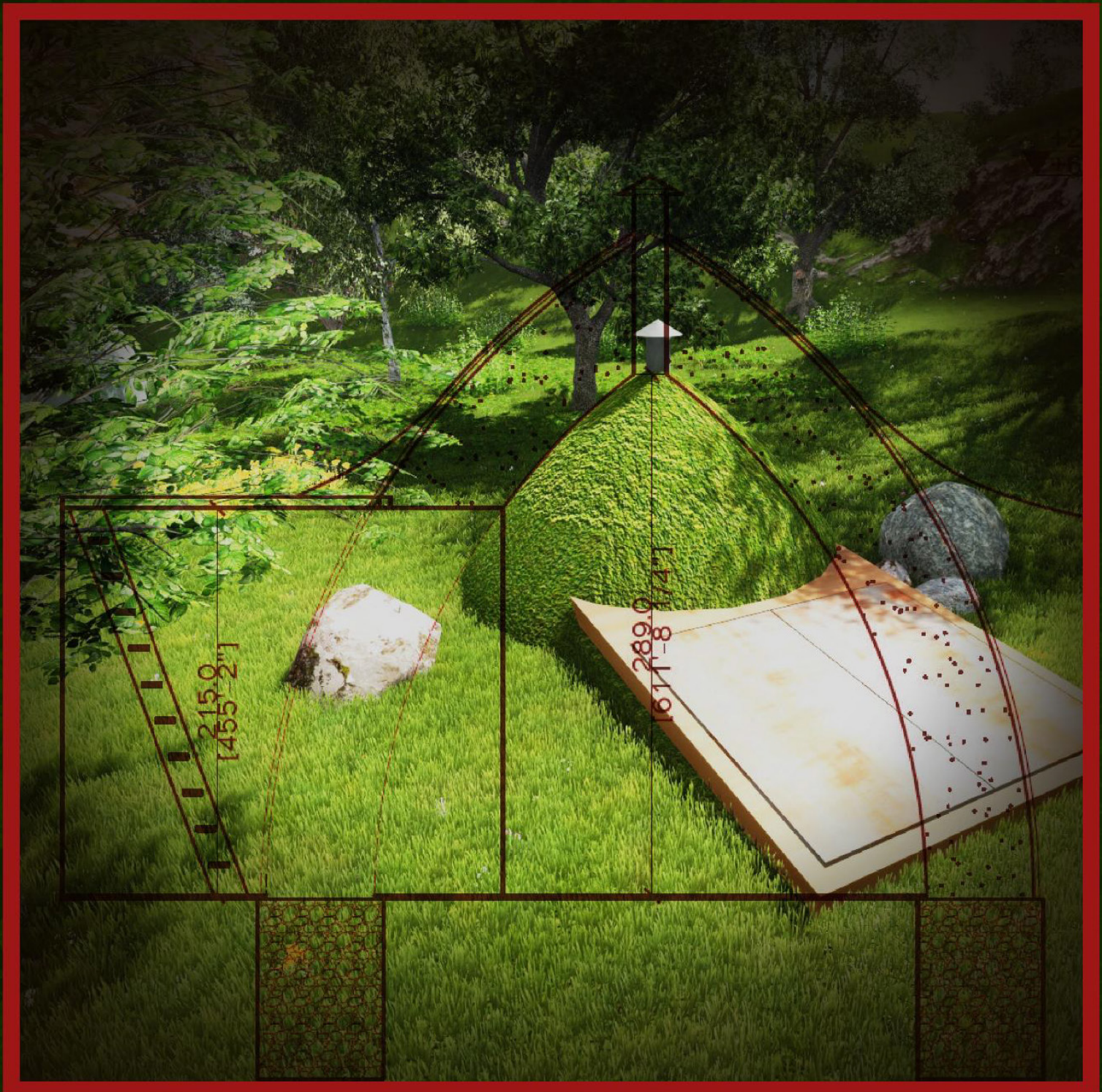


# ULTIMATE 90 SQ FT ROOT CELLAR

● FOR ONLY \$90 ●







# **Ultimate 90 sq ft Root Cellar**

Copyright © 2020 by DIRECT RESPONSE SRL

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, write to the publisher, addressed "Attention: Permissions Coordinator," at the address below.

Direct Response SRL

support@diysanctuary.net

Ordering Information:

Please visit <https://www.diysanctuary.net/>

*Disclaimer: The content of this book is for informational purposes only. Although the author and publisher have made every effort to ensure that the information in this book is correct, the author and publisher do not assume and hereby disclaim any liability to any party for any loss, damage, or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident, or any other cause. The publisher and the author make no guarantees concerning the level of success you may experience by following the advice contained in this book.*

## Table of Contents

<b>Building Supplies List</b> .....	<b>7</b>
Required Building Materials .....	7
Required Tools .....	8
 <b>ANNEX</b> .....	 <b>9</b>



# Building Supplies List

The square footage of root cellar will be 87 square feet, 6.56 ft tall, and 6.56 ft deep below the ground level.

You'll find below a supply list along with some links and current prices so that you can get what you need.

Adapt this list according to any modifications in size or amenities that you make.

## REQUIRED BUILDING MATERIALS

- 300 standard polypropylene bags (15" x 27") - price: \$0.30 per empty bag (\$300 for 1000 pieces), or \$3.50 per piece for filled bags ([www.nmdirtbags.com](http://www.nmdirtbags.com))
  - Material for filling the bags if you buy them empty (each bag could be filled with 50 kg of composite - earth, sand or gravel ([www.nmdirtbags.com](http://www.nmdirtbags.com))
    - Pressure-treated lumber (2x4) - pieces of 2" x 4" x 16 ft - overall current price: \$7.5-\$8 ([www.lowes.com](http://www.lowes.com))
    - Basement stairs – current costs starting from \$250 for a DIY basic steps project
    - Plastering to cover the walls – 650 ft
    - Barbed wire - approximately 850 ft – current price: \$50 ([www.homedepot.com](http://www.homedepot.com))
    - Chicken wire to layer the outer walls – current cost - \$20 ([www.amazon.com](http://www.amazon.com))
    - Concrete for a 20" layer on the outer walls
    - One root cellar door – 86" x 70"
    - Door frame anchors – current price: \$0.04 – \$0.08 each ([www.alibaba.com](http://www.alibaba.com)) (Or you may use pieces of wood with threaded rod screwed into them)

- Silicone sealant – price: \$4 ([www.homedepot.com](http://www.homedepot.com))
- Ball of string – 190' length roll – current price: \$5 ([www.amazon.com](http://www.amazon.com))

Most of these materials, with the exception of the bags, are fairly easy to find used (check sites such as [freecycle.com](http://freecycle.com) and [craigslist.org](http://craigslist.org)) so you could significantly reduce your cost to build your fortress if you go that route.

In theory, if you find and repurpose the building materials for free and dig your own composite material to fill the bags, you could build this fortress, exactly as designed, for about \$90.

## REQUIRED TOOLS

- Tape line
- Water Level
- Tamper
- Metal plate
- Plastering tools



# ANNEX

Print and use the following plans and figures in order to build your earth bag root cellar. The following plans relate to:

**Plan 1 – Front view**

**Plan 2 – Side view**

**Plan 3 – Cross section plan**

**Plan 4 – Ground floor plan**

Also, print and use the pictures with brief Step-by-step instructions in order to see the basic techniques that you need to follow when building your root cellar.

Keep in mind to apply these techniques depicted in Step-by-step instructions to the exact measures of the root cellar that you are actually building.

## Plan 1 - FRONT VIEW

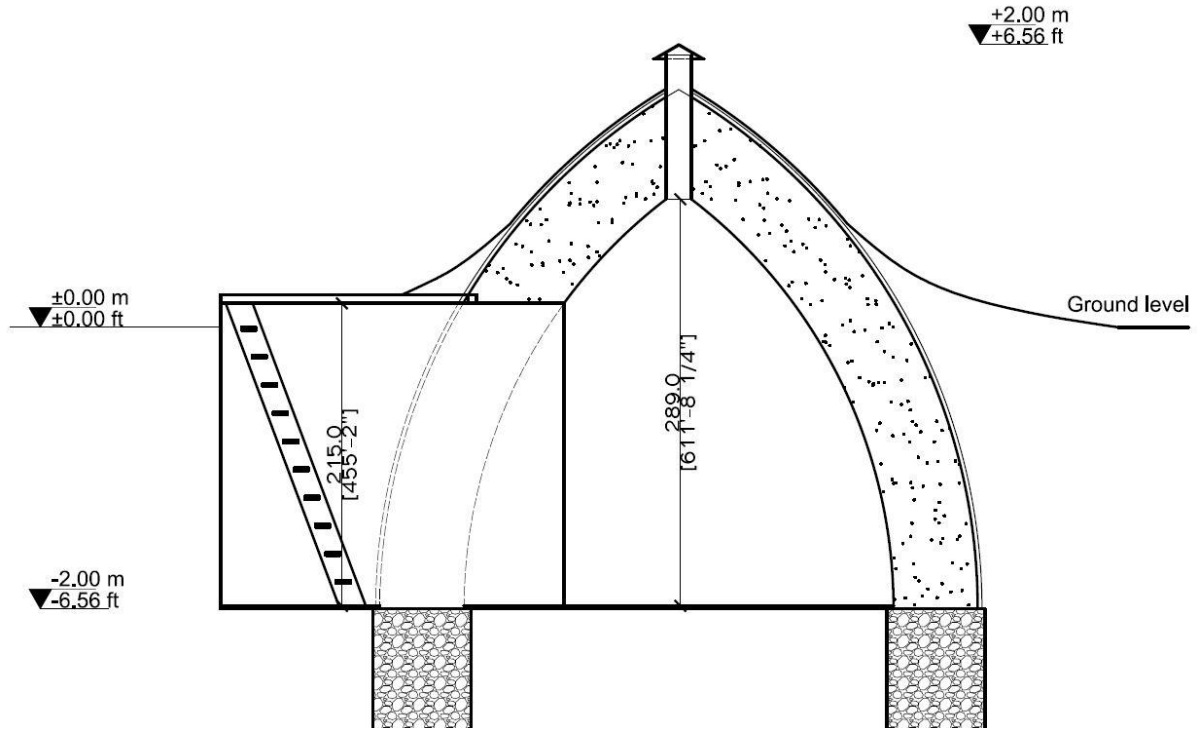


## Plan 2 - SIDE VIEW

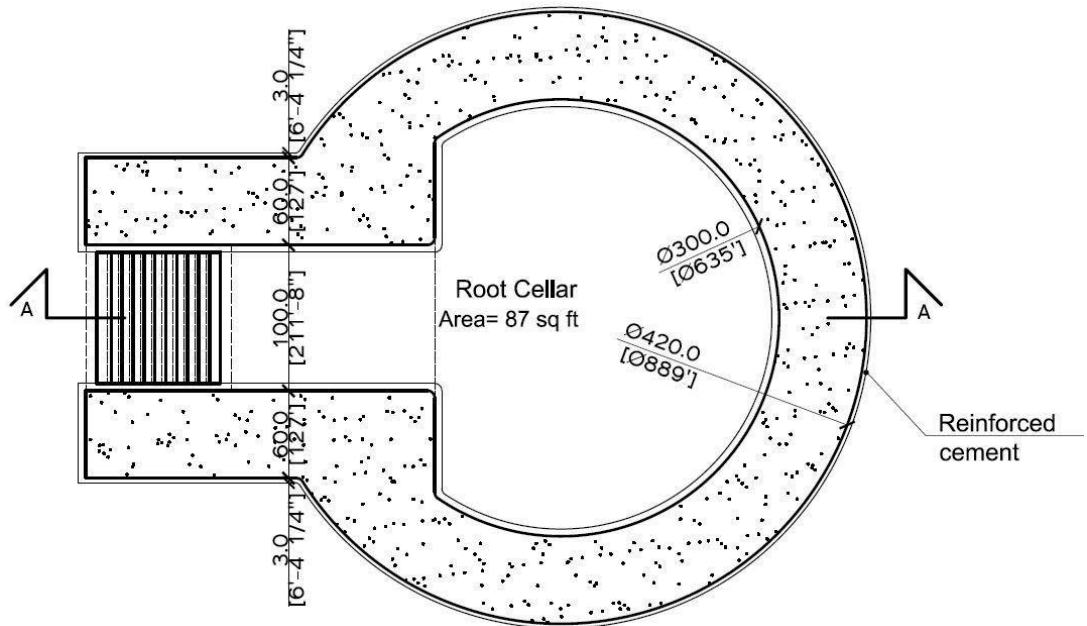




### Plan 3 – CROSS SECTION PLAN

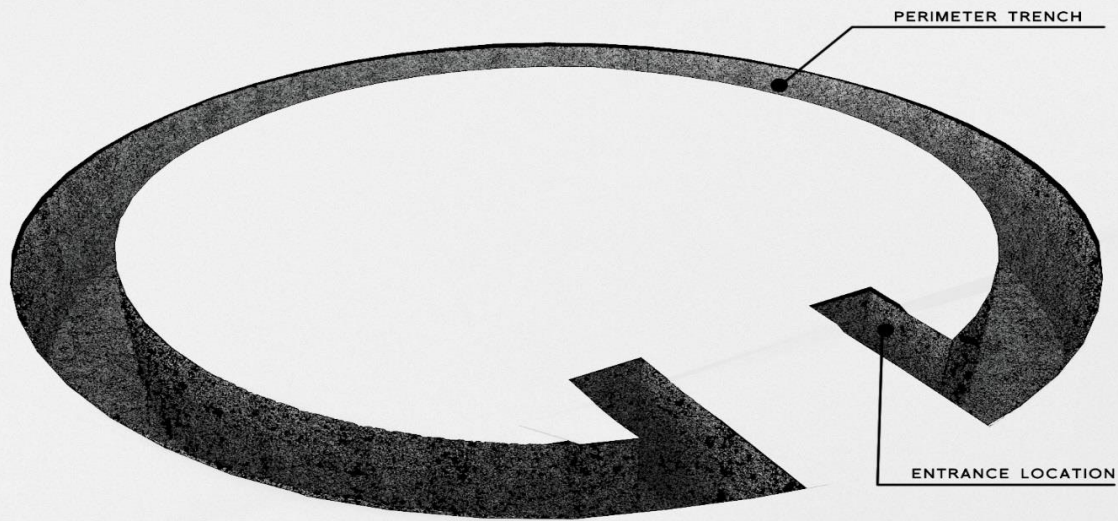


### Plan 4 - GROUND FLOOR PLAN

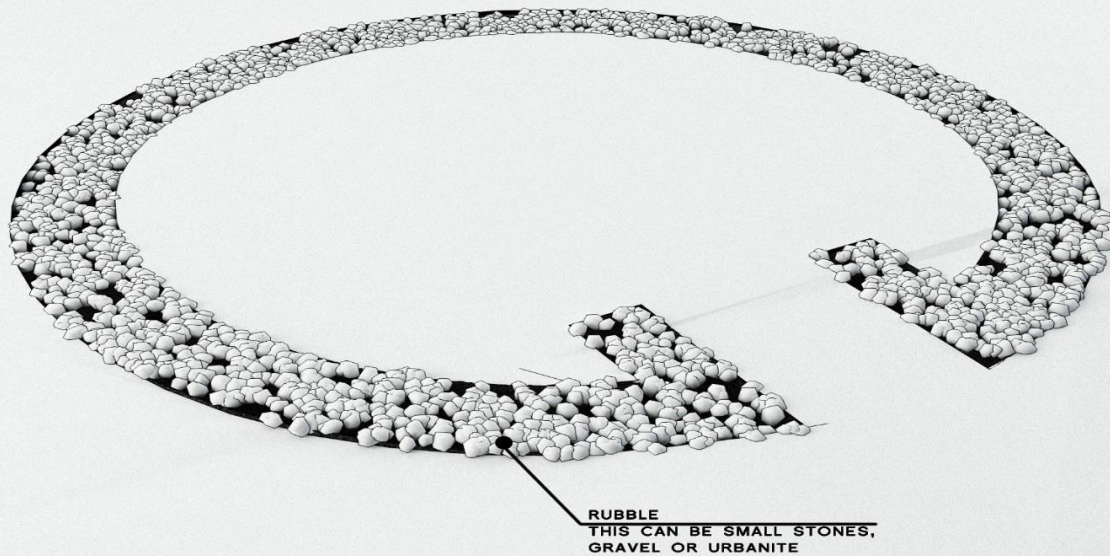


## STEP BY STEP INSTRUCTIONS

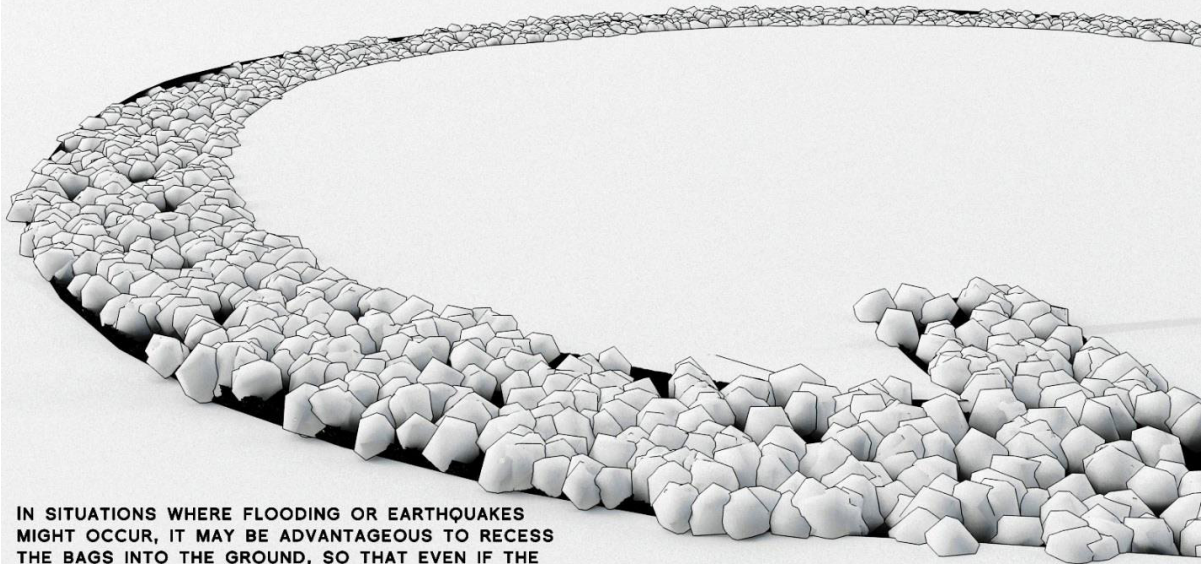
DIG THE PERIMETER TRENCH



FILL THE TRENCH WITH COBBLES

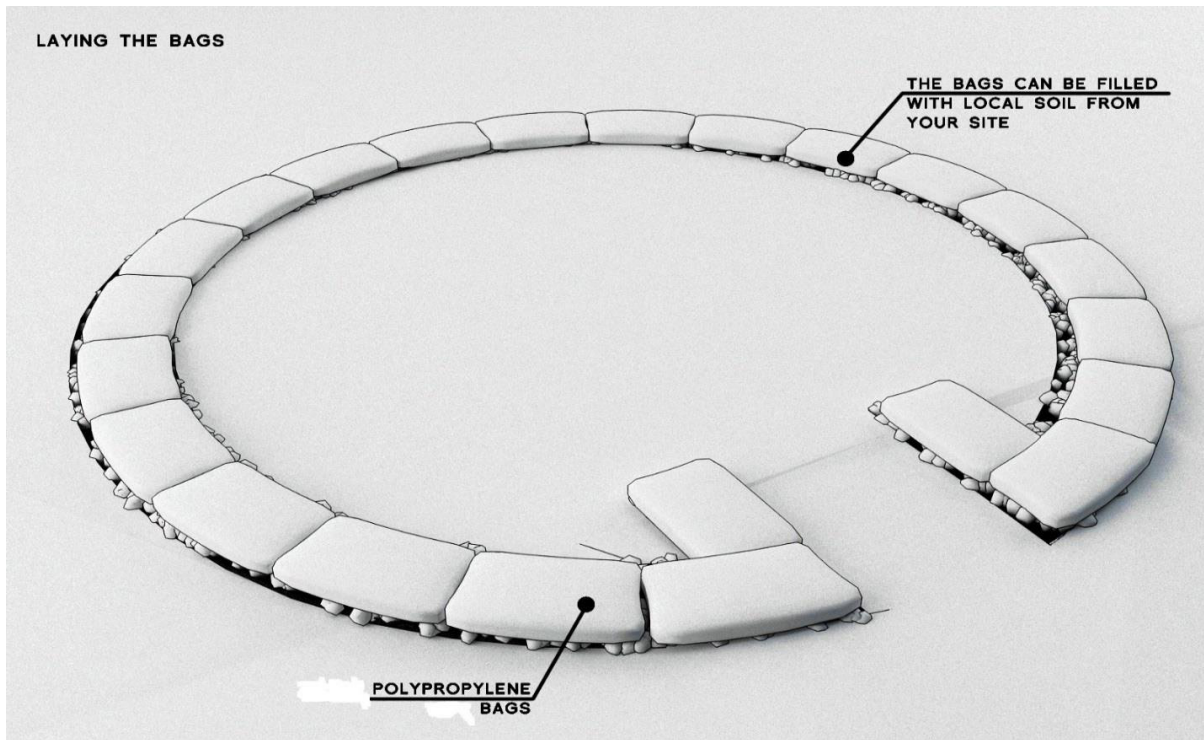


**FILL THE TRENCH WITH COBBLES**



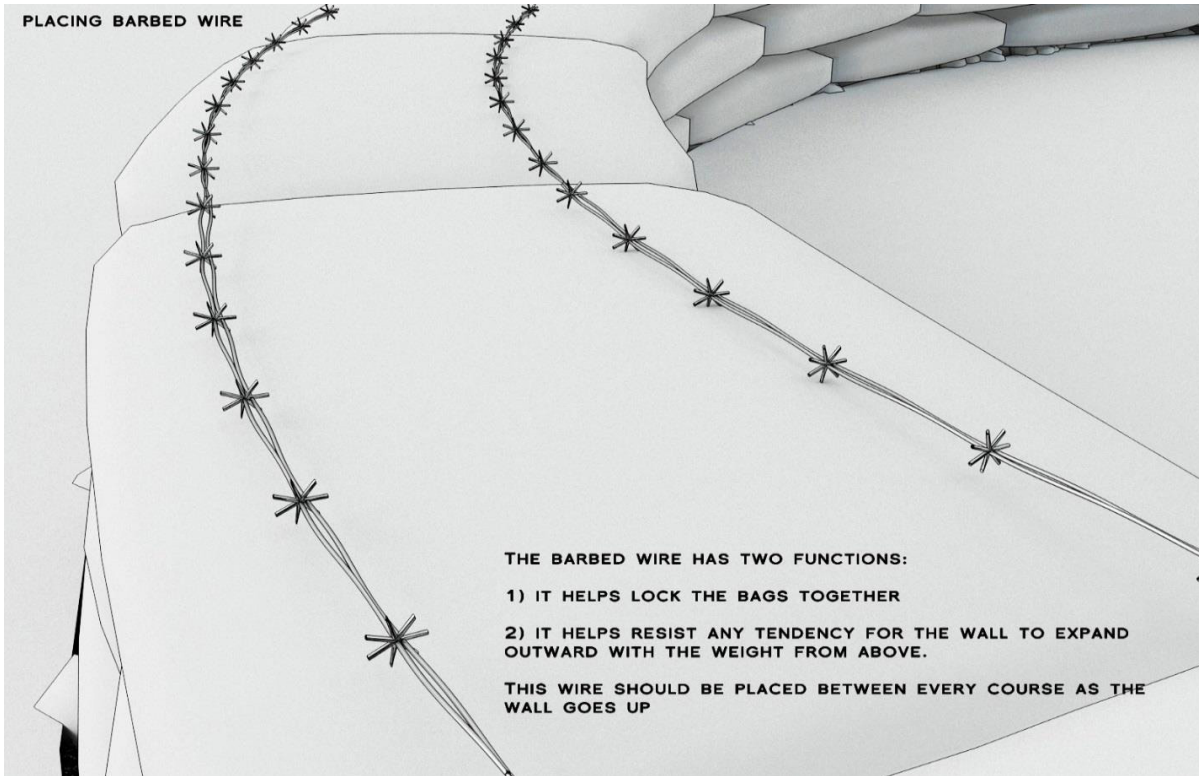
IN SITUATIONS WHERE FLOODING OR EARTHQUAKES MIGHT OCCUR, IT MAY BE ADVANTAGEOUS TO RECESS THE BAGS INTO THE GROUND, SO THAT EVEN IF THE SOIL SURROUNDING THE DOME IS UNDERMINED, THE DOME ITSELF WOULD LIKELY NOT BE AFFECTED.

**LAYING THE BAGS**





**PLACING BARBED WIRE**

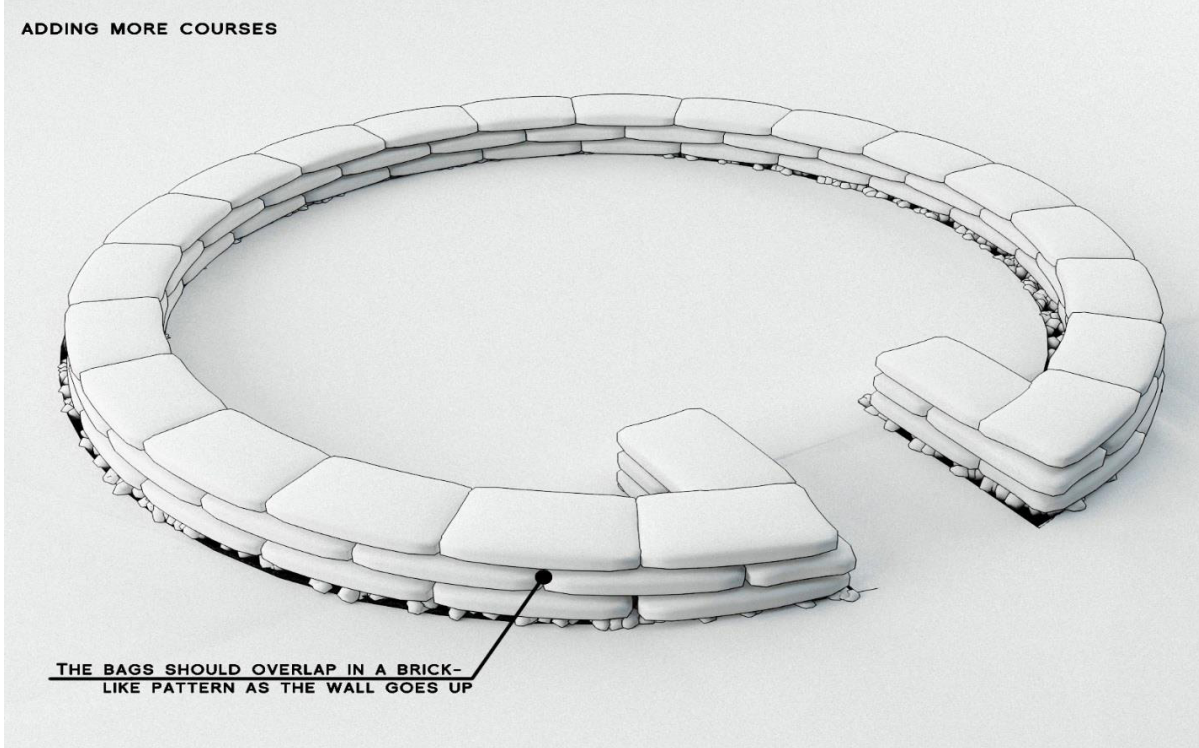


**THE BARBED WIRE HAS TWO FUNCTIONS:**

- 1) IT HELPS LOCK THE BAGS TOGETHER**
- 2) IT HELPS RESIST ANY TENDENCY FOR THE WALL TO EXPAND OUTWARD WITH THE WEIGHT FROM ABOVE.**

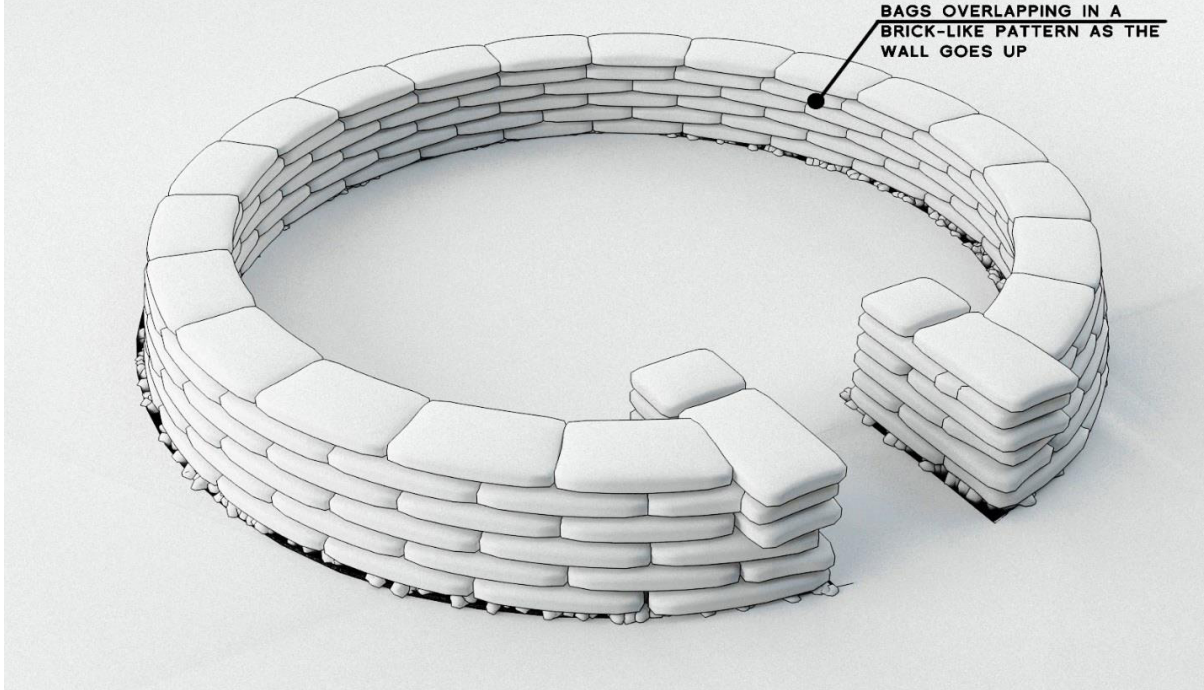
**THIS WIRE SHOULD BE PLACED BETWEEN EVERY COURSE AS THE WALL GOES UP**

**ADDING MORE COURSES**

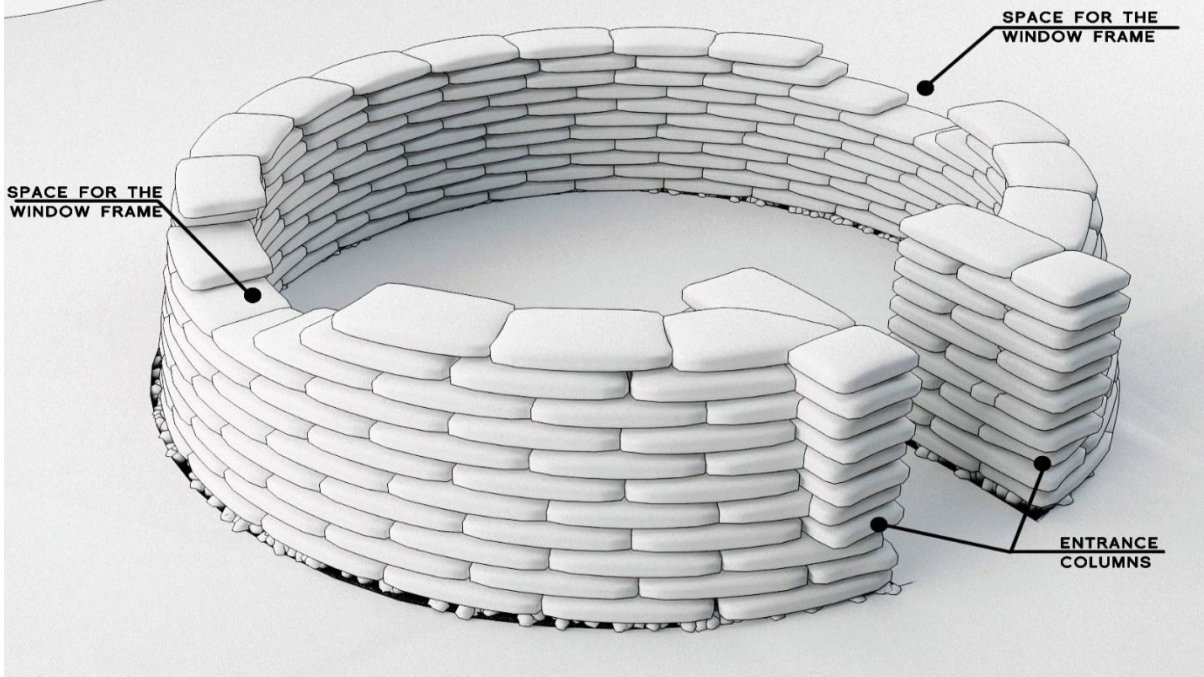


**THE BAGS SHOULD OVERLAP IN A BRICK-LIKE PATTERN AS THE WALL GOES UP**

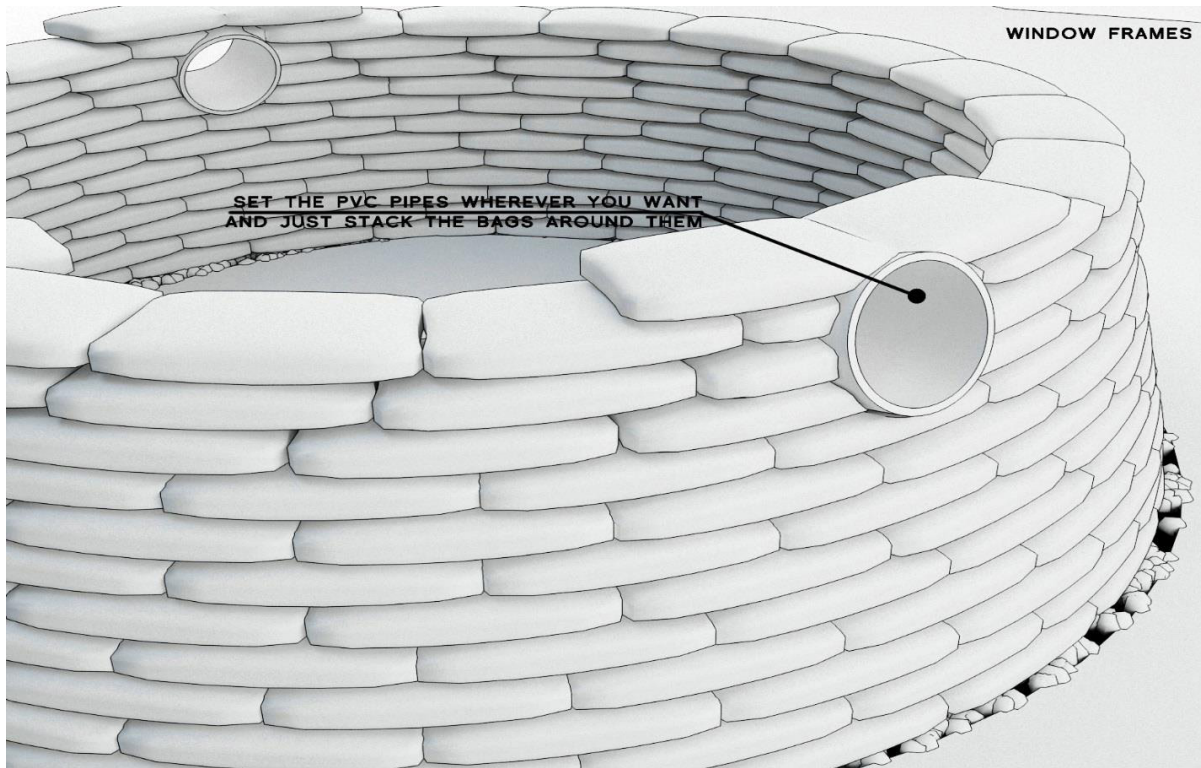
**ADDING MORE COURSES**



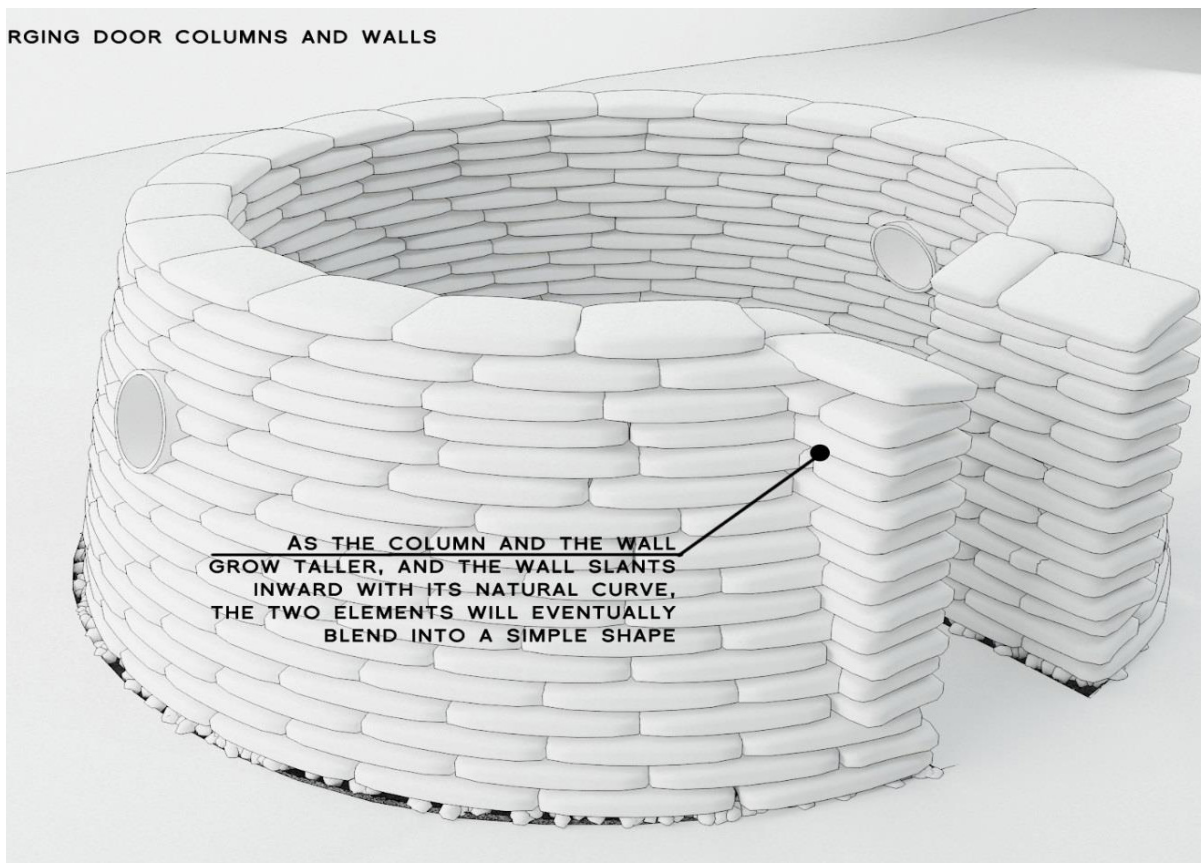
**DOOR AND WINDOWS POSITIONS**







**BRACING DOOR COLUMNS AND WALLS**



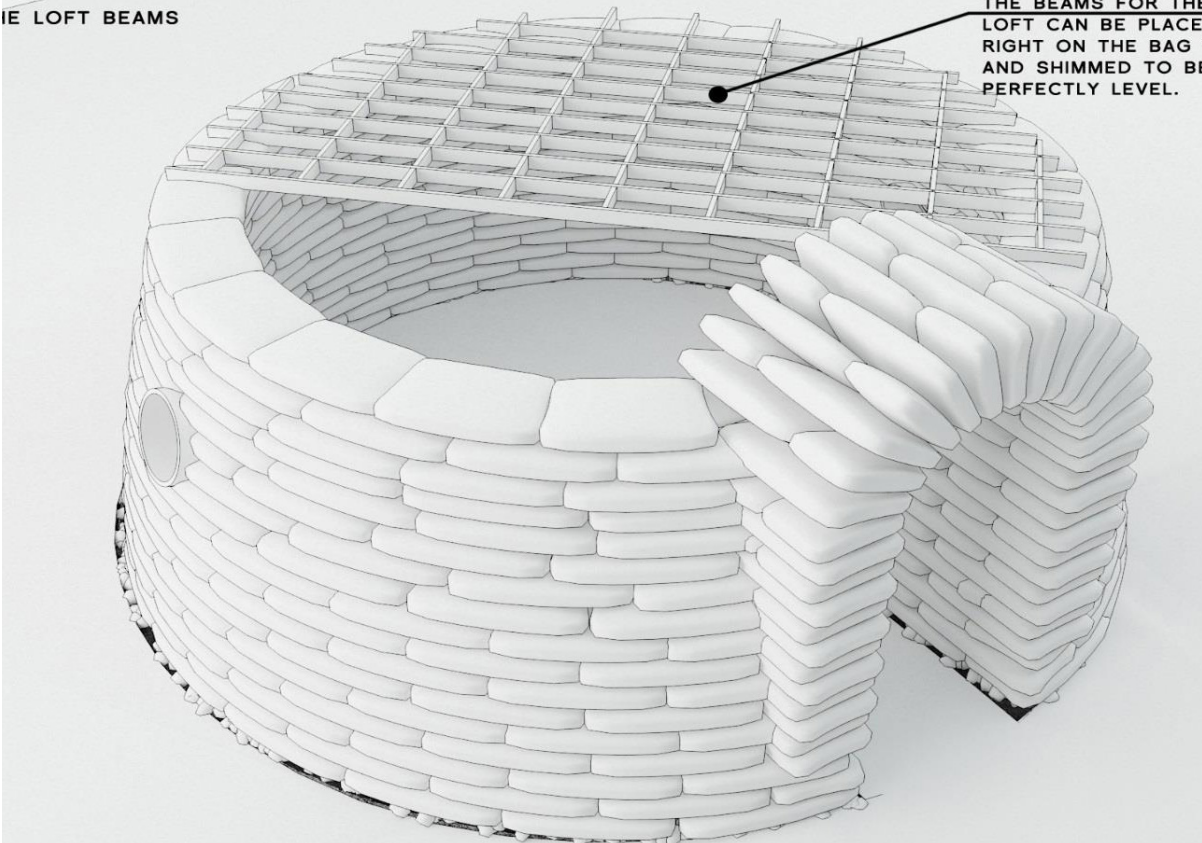
### THE ARCH FORM

THE FORM FOR THE ARCH WAS MADE WITH TWO PIECES OF PLYWOOD CUT TO THE RIGHT SHAPE. THE FORM CAN BE USED OVER AND OVER FOR ANY ARCH OF THIS SIZE. THE BAGS ARE PLACED IN SUCH A WAY THAT THEY RADIATE OUTWARD, AND SHOULD BE TAMPED INTO PLACE.



### THE LOFT BEAMS

THE BEAMS FOR THE LOFT CAN BE PLACED RIGHT ON THE BAGS AND SHIMMED TO BE PERFECTLY LEVEL.



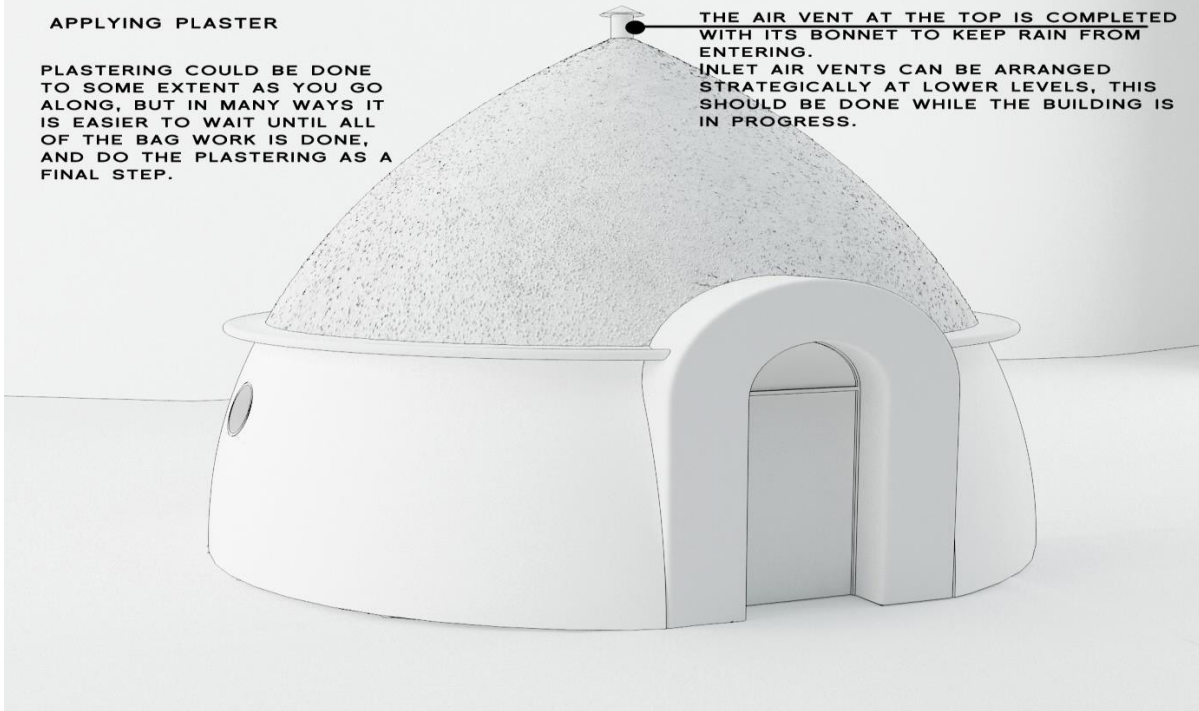


#### APPLYING PLASTER

PLASTERING COULD BE DONE TO SOME EXTENT AS YOU GO ALONG, BUT IN MANY WAYS IT IS EASIER TO WAIT UNTIL ALL OF THE BAG WORK IS DONE, AND DO THE PLASTERING AS A FINAL STEP.

THE AIR VENT AT THE TOP IS COMPLETED WITH ITS BONNET TO KEEP RAIN FROM ENTERING.

INLET AIR VENTS CAN BE ARRANGED STRATEGICALLY AT LOWER LEVELS, THIS SHOULD BE DONE WHILE THE BUILDING IS IN PROGRESS.



#### FINISHING THE FIRST PLASTER COAT

PLASTERING IS AN ACTIVITY WHERE HELP IS ALWAYS WELCOME. IT DOESN'T TAKE MUCH EXPERIENCE TO BE ABLE TO DO IT.

