

Construction Process

Base

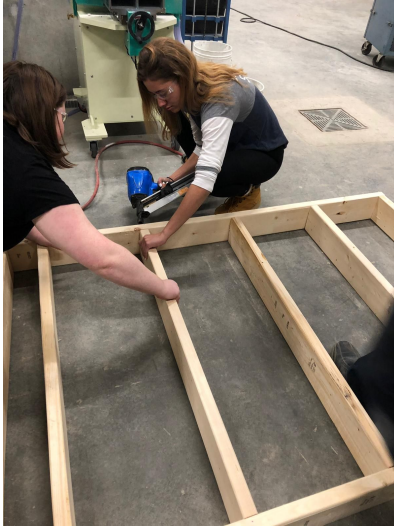


Figure 6. Building the base

Materials: Two 6"x2"x6'
Five 6"x2"x4'
6'x4' OSB

Instructions: To construct the base, make a frame that is six feet by four feet using two 6"x2"x6' pieces and two 6"x2"x4' pieces fixed together with nails at each joint to produce a rectangular frame. To reinforce the frame add the remaining 6"x2"x4' pieces parallel with the four foot length of the frame, each sixteen inches apart starting sixteen inches to the right of the left edge of the frame. The final reinforcement should be only eight inches from the right edge of the frame. Once the frame is completed, nail the OSB to the top face to finish the base.

Walls



Figure 7. Walls

Materials: Long Sides

Four 3"x2"x6'
Ten 3"x2"x5'
Two 1'x6' OSB
Two 8"x6' OSB
5'x6' Polyethylene Plastic Sheet

Short Side

Four 3"x2"x5'
Two 3"x2"x4'
One 1x4' OSB
One 8"x4' OSB
5'x4' Polyethylene Plastic Sheet

Door Side

Four 3"x2"x5'
Two 3"x2"x4'
Two 12"x5' Polyethylene Plastic Sheets

Instructions:

Long Sides (x2): To construct the longer walls, make a frame that is six feet by five feet using two 3"x2"x6' pieces and two 3"x2"x5' pieces fixed together with nails at each joint to produce a rectangular frame. Find and mark the centers of the six foot long sides of the frame, then make a mark sixteen inches away from the center mark on either side. Nail a 3"x2"x5' piece parallel to the shorter side of the frame at each of the markings (three in total). Cover the entire surface area

of the frame (on one side) with the 5'x6' polyethylene sheet, then use staples to fasten the sheet to the frame. Be sure to pull the polyethylene taut against the frame before stapling it to avoid wrinkles and air bubbles. Once the polyethylene has been secured to the frame, position the 8"x6' OSB at what will become the top of the wall (lengthwise, even with the top edge of the frame) and screw it to the frame on top of the polyethylene. Position the 1'x6' OSB at what will become the bottom of the wall (lengthwise, even with the bottom edge of the frame) and screw it to the frame on top of the polyethylene. Repeat this process to make the second of the long side walls.

Short Side: To construct the shorter wall, make a frame that is four feet by five feet using two 3"x2"x4' pieces and two 3"x2"x5' pieces fixed together with nails at each joint to produce a rectangular frame. Make a mark 16" from each side of the four foot long side of the frame. Nail a 3"x2"x5' piece parallel to the five foot side of the frame at each of the markings (two in total). Cover the entire surface area of the frame (on one side) with the 5'x4' polyethylene sheet, then use staples to fasten the sheet to the frame. Be sure to pull the polyethylene taut against the frame before stapling it to avoid wrinkles and air bubbles. Once the polyethylene has been secured to the frame, position the 8"x4' OSB at what will become the top of the wall (along the four foot side of the frame, even with the top edge of the frame) and screw it to the frame on top of the polyethylene. Position the 1'x4' OSB at what will become the bottom of the wall (along the four foot side of the frame, even with the bottom edge of the frame) and screw it to the frame on top of the polyethylene.

Door Side: To construct the door wall, make a frame that is four feet by five feet using two 3"x2"x4' pieces and two 3"x2"x5' pieces fixed together with nails at each joint to produce a rectangular frame. Make a mark 12" from each side of the four foot long side of the frame. Nail a 3"x2"x5' piece parallel to the five foot side of the frame at each of the markings (two in total). Cover the portions of the frame within twelve inches of either side of the five foot side of the frame with the 12"x5' polyethylene sheets, then use staples to fasten the sheet to the frame. Be sure to pull the polyethylene taut against the frame before stapling it to avoid wrinkles and air bubbles.

Door



Figure 8. Door

Materials: Two 3"x2"x5'
Two 3"x2"x2'
Two 8"x2' OSB

Instructions: To construct the door, first create a frame using the two 3"x2"x5' pieces and the two 3"x2"x2' pieces fixed together with nails at each joint, producing a rectangular frame. Cover the entire surface area of the frame (on one side) with the 5'x2' polyethylene sheet, then use staples to fasten the sheet to the frame. Be sure to pull the polyethylene taut against the frame before stapling it to avoid wrinkles and air bubbles. Once the polyethylene has been secured to the frame, position the 8"x2' OSB at both the top and bottom of the door (along the two foot sides of the frame, even with the top edge of the frame) and screw them to the frame on top of the polyethylene.

Roof



Figure 10. Roof

Materials: Five 2"x4"x2'
Ten 2"x4"x13"
Ten 2"x4"x21"
Twenty 2"x4"x18"
Fifty Aluminum Gusset Plates
Two 13"x6' Corrugated Plastic
Two 21"x6' Corrugated Plastic
Two Polyethylene Plastic sheets cut to size

Instructions:

Frame: To construct the frame of the roof first create five identical quadrilaterals using two 2"x4"x13 planks, two 2"x4"x21" and one 2"x4"x2' . Use aluminum gusset plates on both sides of all joints to properly secure them (use a hammer to attach the gusset plates to the wood).

Once the five quadrilateral frames are complete, fasten them equal distance apart along two 2"x4"x6' planks set four feet apart (One at each corner of the quadrilateral, see figure 10). To properly secure the structure and keep the distance between the quadrilateral frames consistent, attach 2"x4"x18" planks between them using screws. There should be eight support pieces attached to each quadrilateral (except the two end pieces which should have only four). To increase structural stability, offset the attachment sites of the support planks.

Finally, nail the corrugated plastic to the wooden frame, matching the pieces to the rectangles of the frame with corresponding dimensions. At the point of the roof, screw in the bent sheet metal to help waterproof the structure. Take the polyethylene sheets and staple one to each of the end quadrilaterals, being sure to pull it taunt against the wooden frame to ensure a proper seal. Cut the polyethylene sheets to size once they are stapled to ensure an accurate measurement.

Putting it all Together:

