



"Rubble" trench served as a foundation. We could have also filled bags with rocks and stacked those to serve as the foundation. I didn't think about it until later. I think I would have put three strands of barbed wire between courses to make sure they "stuck" together.



We placed small pieces of rebar every 4 feet or so to keep the first layer of bags from sliding.



We found marking the bags 6" from the top and filling to that line worked best. We then tamped each course to a line to keep level courses rather than trying to measure the soil.



We used blocks of wood with 5 16d nails driven through them at each corner to hold the string for each course. We used a plumb line to set the corner each time. We had to place them at a slant for the first few courses.



We found a foot long piece of 1/4" bar bent into an "L" helped hold the corner bracket in place.



We opted for barbed wire instead of driving rebar through the courses. We used 3 rolls and it was cheaper than the rebar, as well as easier to transport. It also gave the walls tensile strength.



We placed the barbed wire on a make shift dispenser. This allowed two guys to simply pull off a piece and cut it to length.



By placing marks along the wall for the different lengths of barbed wire we only had to measure once. We simply cut the pieces as needed and carried them to the wall. It was very fast.



By cutting between the barbs it was easy to poke the first few inches down into the bags and stretch the wire tight.



Pleating the corners and then folding the bag down to sew them kept the corners from sticking out along the walls.



We made a two inch fold.



The bags were sewn shut with wire. Poking the wire through the bags 5 times (14" wide bag) seemed to be adequate and fast. Cutting the wire at an angle definitely aided in penetrating the sacks.



As you can see the wire didn't always penetrate at the quarter marks, but it wasn't a big deal.



We formed the door and window openings with the wood at hand. They don't need to look pretty, just get the job done.



No measuring buckets or funnels kept the project moving quickly. Filling to a line and then tamping to a string seemed to take care of the problem of uneven bags.



We moved the top spacer up as we went. The wood header protruded past the sides of the window about a foot on each side. Lots of nails in the header kept it from moving.



Plumbing and measuring the height of each corner took a little time, but became quicker with practice. It kept our walls coming up straight and even. We tried to tamp to the string plus or minus 2 inches. It doesn't need to be exact.



The side forms were removed. The windows and doors will be attached later to the wood cleats placed along the sides of the openings.



Close up of a wood cleat used along the openings. Lots of nails sticking out the top and bottom insured it wouldn't slip in the wall.



This wood cleat was placed along side the door opening. A piece of plywood with a 2x4 nailed to it would have been nice, but the scrap wood we had worked okay.



Here is a shot of the house from the back. It was coming up nicely.



After each course was laid it was then tamped to the string. We found an 8" square tamper worked well. Much bigger and you have to hold it out from your body to keep from hitting your toes. That gets tiring by the end of the day.



The front end loader on the tractor was nice for lifting a course of bags into place, but not essential.



The back wall was 4 coursed higher than the front. Eight 2x4's created the outside of our ring beam form. We placed a temporary support in each window for tamping and pouring the ring beam.



Rebar was placed along the top of the wall and 30" long pieces were driven down at angles and left sticking out 6 inches to connect the concrete beam to the bag wall.



We placed four of these metal brackets on each rafter.



The inside form was made out of scrap wood we had around. It was very twisted and warped, but worked fine.



Once the concrete set we tightened the rafters down by driving pieces of rebar between the strap and rafter. We locked it all in place with bent nails.



The rafters were set in place as we poured the beam. We did the two side rafters first and then set the others to a string stretched between them.



Six rafters seemed adequate and the purlins were placed every 32" to accommodate the 6' long metal sheets.



The columns were formed and poured last so we would know exactly how high to make them.



A double 2x4 header attached to the columns supported the porch rafters.



The roofing was nailed down. I had thought of stretching metal banding across the sheets to hold them down in the wind, but opted not to.



The first coat of plaster was left rough. The second coat will come later and be smoothed to a nice finish.



The gap left by the rafters and purlins gave good ventilation.



Seven days of hard work by 7 guys found us pretty far along!