

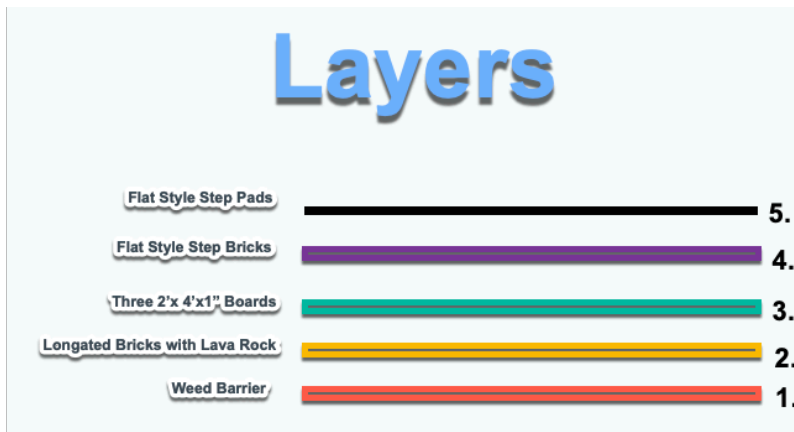
Backup Generator System

This was a \$10,000 project. Why you scream? Well I have learned many things in life. One is the value of peace. In July 2019 I had no peace and it cost me two trips to the hotel at a total cost of over \$400 bucks. First after the storm passed over us the power went out for three days. Then about a week and a half later a repeat of the same thing all over again. When you had power for a long time and then it goes out like that, no matter how many flashlights I had around the house, when that happens I could not find one of them. Bumbling around stumping my toes in the dark and causing along the way, no peace.

Then had to get the generator in position, plug it in then switch current from outside line to generator. Even with 7000 watt generator, there is always something you need that is not on generator, using again. So all this lack of peace became a motivating factor towards the system we have now. After scheduling Lowes and Don's Electric for a pre-inspection, I said I would do it right (to MY satisfaction) this time.

So I ended up ordering a 22kw Generac with an automatic switching system. It took 3 weeks for it to be delivered which gave me the time I needed to build the platform for it. I decided not only to build the base for the Generac, but also for my old generator and have a total system as a backup to the backup.

This is how motivated I was. There are five layers to this platform and it is solid as a rock with the use of no concrete. Note the layer —>



First I used a narrow square garden hoe to dig a (6' x 4') trench. As noted below.



After laying several layers of weed barrier sheets,

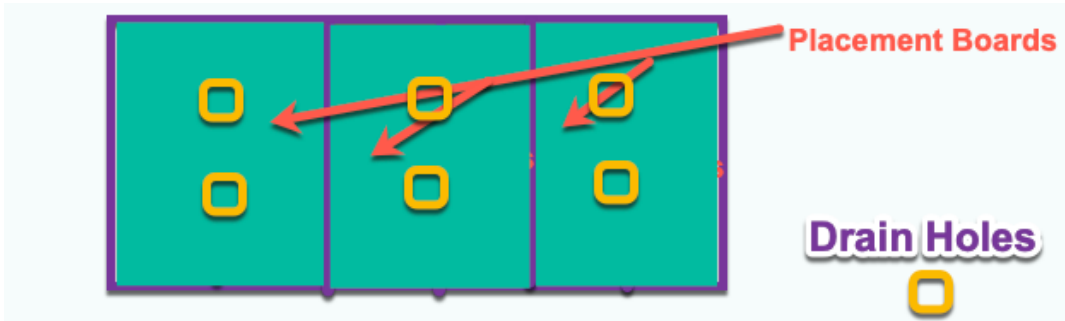




I used long base bricks and placed them in the tracks made with the garden hoe. In between the bricks, I placed layers of lava rocks to help break up drainage water when it would rain.

Next comes three 2' x 4' x 1" boards painted with

two coats of heavy oil deck paint that were placed on top of the bricks as noted below. I drilled drain holes so when it rained, the water could drain through there boards to the lava rocks where it will be broken up from there before it gets to the ground itself. On top of the boards I



placed the red flat bricks with small gaps between them where the water could get to the drain holes in the boards. Last was the rubber brick looking pads where the generator will sit on to

minimize vibration when the generator is running. With all these layers of material, it put the platform approximately 2-4 inches above the ground. This also was important to me to insure proper drainage during long operations of power outage. As far as the Generac itself, it is a solid piece of work (it should



be as much as it cost). I order it with the automatic switch where it would kick in the generator approximately 30 seconds after the lost of power. But it seems to be a smart switch where it is tied into the home circuitry and it knows what was running prior to the outage (air conditioner, etc). So if the air conditioner was running prior to the outage, it will shut it down for five minutes while the generator gets up to speed and maintains a constant 3700 RPM's. Once that is achieved, then the switch turns on the air conditioning in order to not damage the generator (with to much draw) during the switch over. Now many of you reading this may ask, why is the platform so much bigger than the generator itself? Good question, in my case with the Generac being 36" x 25" x 27", the platform has more room required.

Since I already had a gas generator, I decided to have enough area for both systems. So the gas generator is the backup for the backup. It has its own switch system in the house

and the electricians stated that would be the best way to go in times of need. Now putting this all together is the results you see below.



The white marble rocks you see is for cosmetics . The gas generator is electric start and has wheels for mobility.. in the back of the platform are two bricks evenly aligned with the platform for the generator to be rolled on in case the technician needs more space to work on the Generac. The green light on the Generac means it is in a ready state and everything is good. Blinking green means it is generating power for the house. Yellow means needs attention, in

maintenance mode and Red means won't do anything, needs service immediately. Even with my military discount, it is not cheap, but with ever increasing outages, it helps towards a peace that is increasingly getting harder to achieve.

