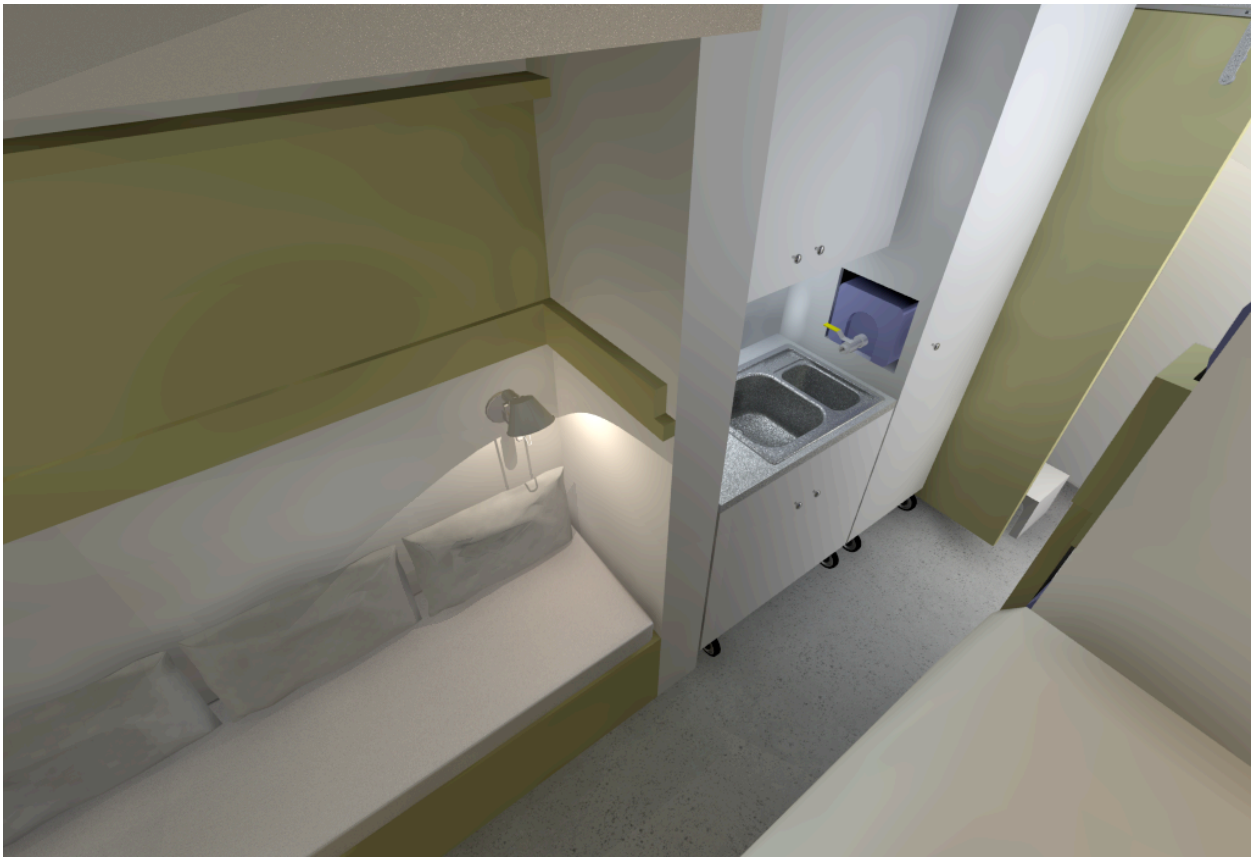
How to Build a Fallout Shelter

Free Guide from FalloutShelter.Me



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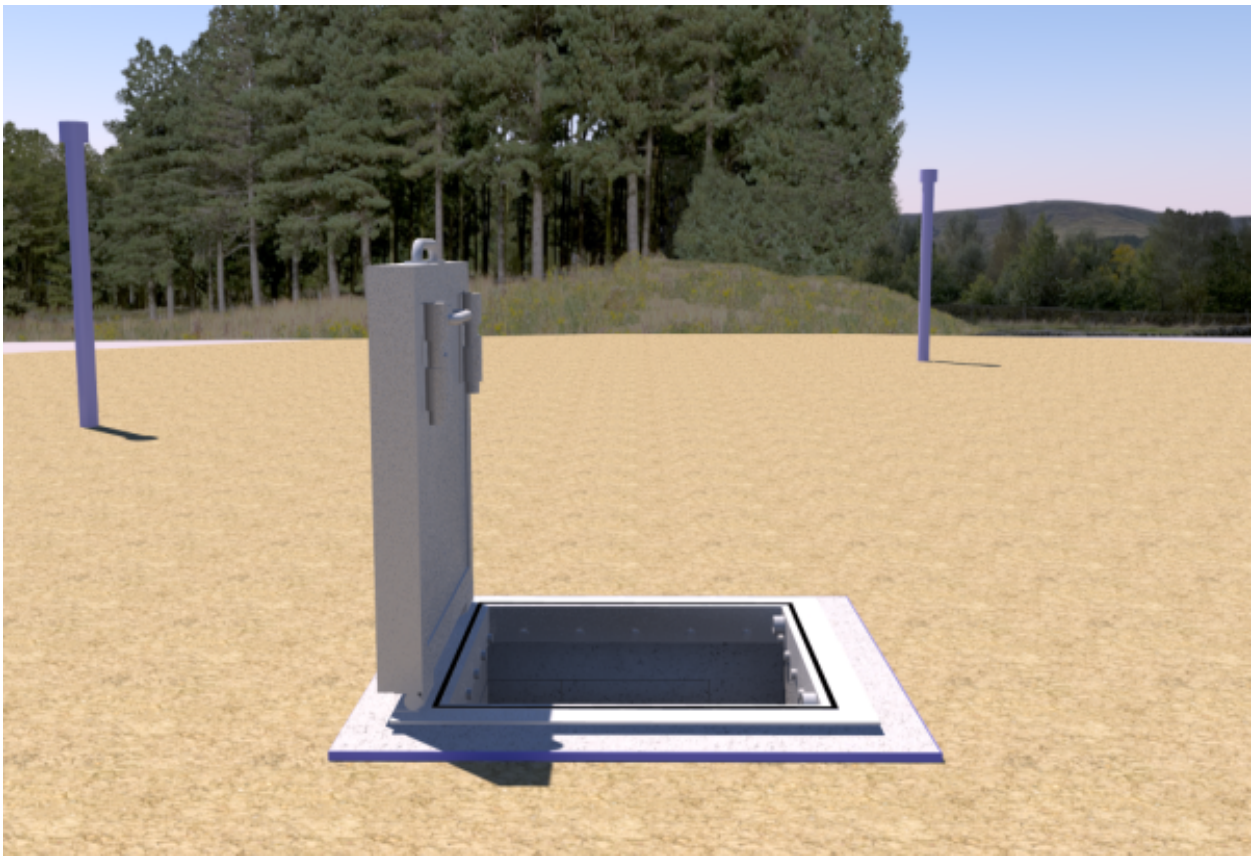
Introduction



There are a growing number of companies producing readymade storm shelters and fallout shelters, but these can be expensive. The advantage of a professionally manufactured shelter is that they are typically quick to install, carefully engineered, and durable. If you have the money to spend and don't want to do-it-yourself, seriously consider a readymade shelter.

If you want to keep your shelter on a frugal budget, consider building it yourself with concrete blocks and your own sweat equity. This approach can also give you a sturdy, safe, and flexible design while keeping the overall cost low if you can acquire some basic skills and professional assistance when needed.

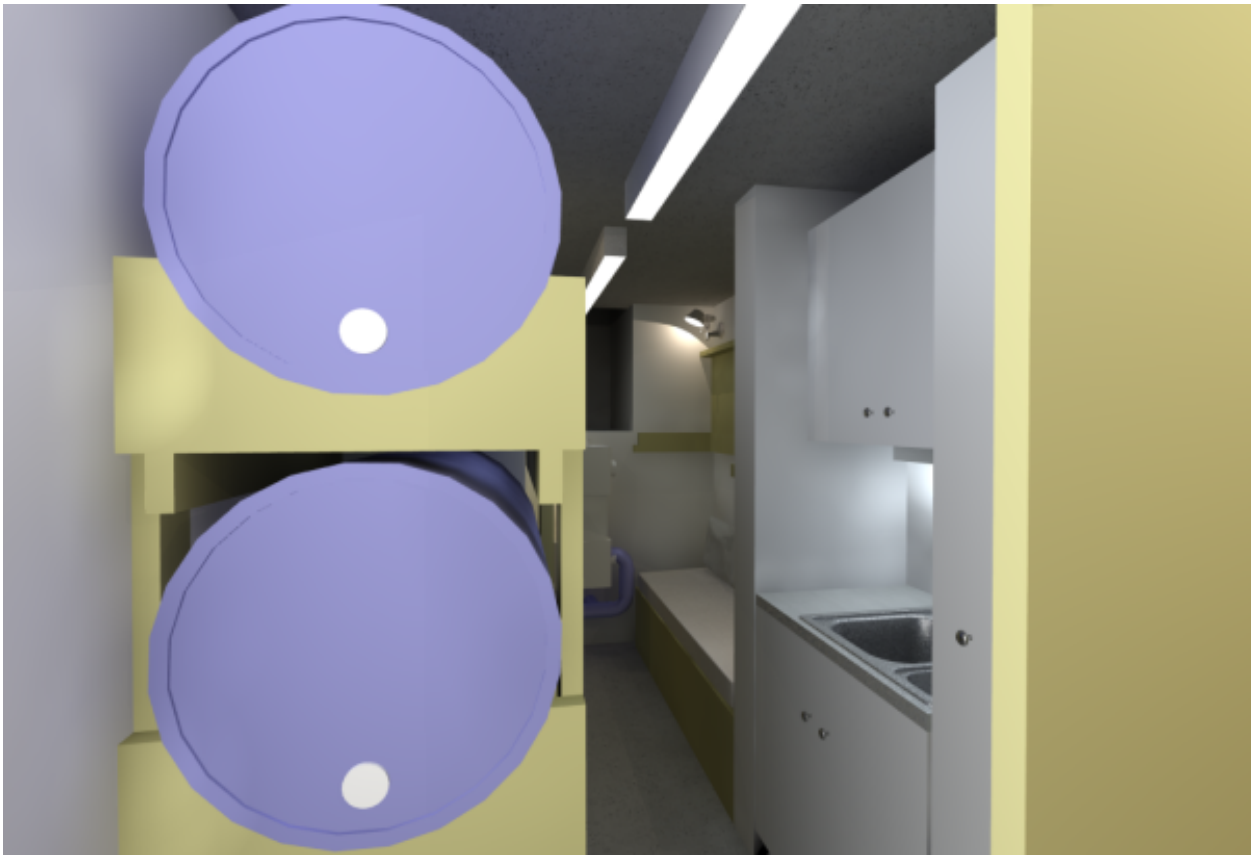
In this illustrated step-by-step guide you'll see one way to build a concrete block fallout shelter using commonly available building materials. This shelter design is presented for your information only; we are not responsible for the shelter you build.

This shelter measures 8' x 16', has a main entry hatch, an inward-opening emergency hatch, requires no outside power or fuel source, and could shelter four

people and their supplies underground for about 28 days - which happens to be the magic number for surviving a nuclear war.

28 Day Stay
Hollywood script writers have been telling nuclear end of the world stories since the 1940's - shortly after the first nukes were used to bomb Japan. Stories of global annilation and armageddon have sold millions of tickets at theater box offices over the years, but the reality is that 28 days after the last bomb explodes the radiation levels will have dropped to levels safe enough for survivors to return to the surface full time.

For more about decay rates from atomic weapons see The Effects of Nuclear Weapons (1977), a publicly available document published by the Department of Defense. For details on residual nuclear radiation and fallout jump right to Chapter IX which begins on page 387. You can also learn more about nuclear weapons testing on Wikipedia.

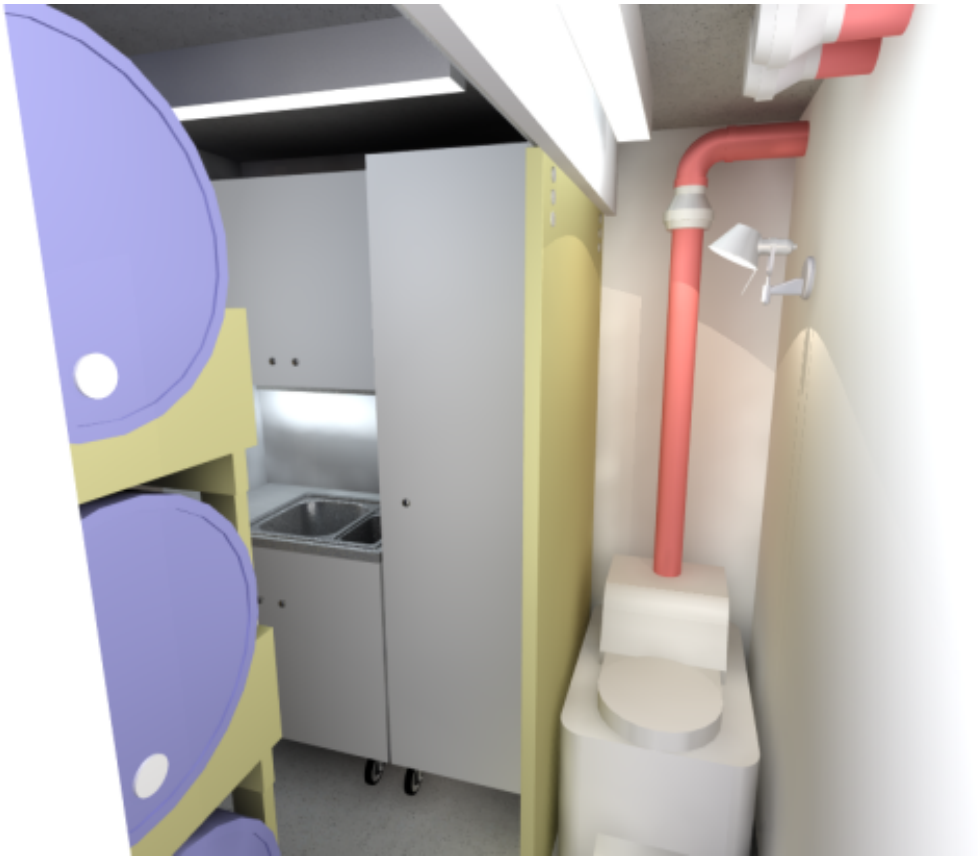


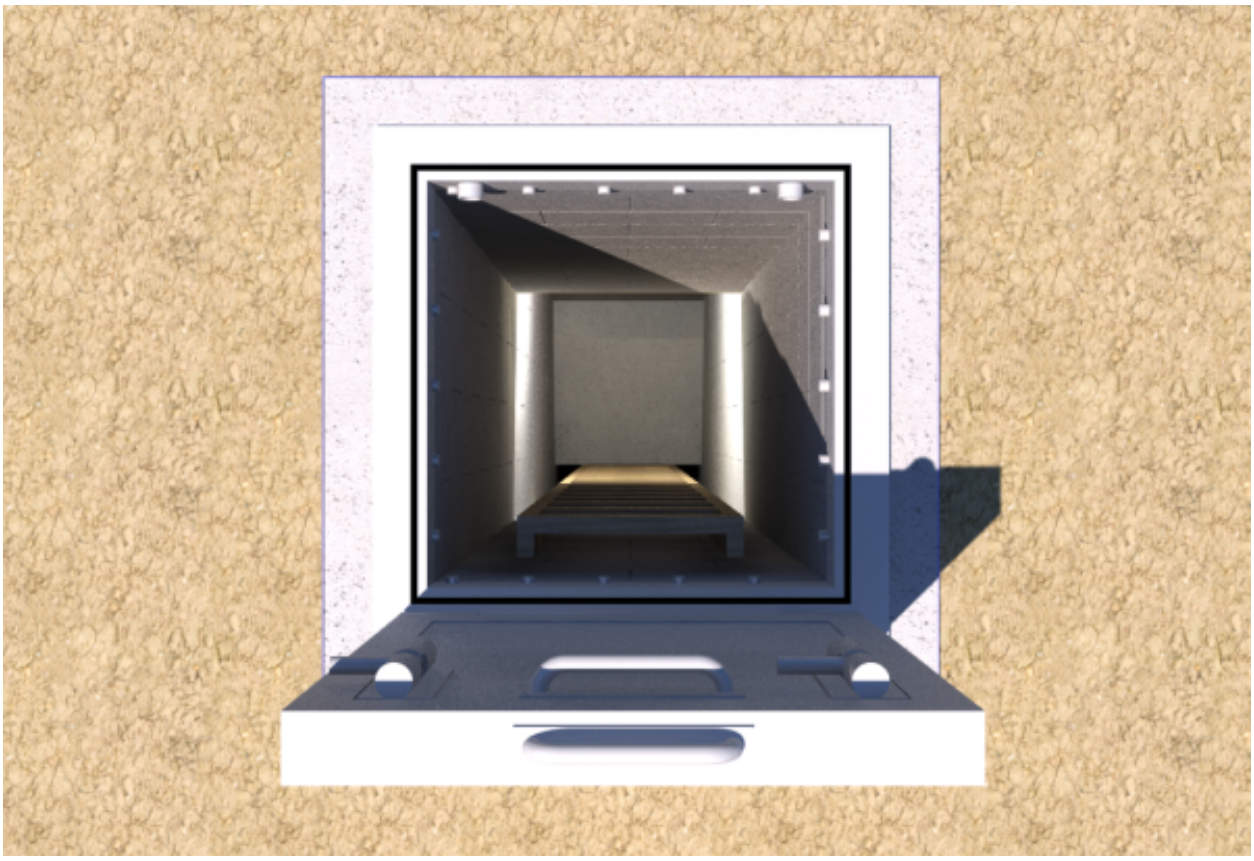
Design Overview
A tiny shelter like this would not be ideal or terribly comfortable, but we wanted to show how much function could be packed inside such a small space. It has four 2-foot wide bunks. The upper bunks would fold-up and out of the way when not in use - making the main living space less claustrophobic. The lower bunks would open to reveal food and gear storage. During the day the lower bunks would also serve as seating.

Also inside the shelter would be a pre-positioned water supply, a basic food preparation area, sink, cabinets, and composting toilet. This design concept uses no outside utilities to show how simple solutions for waste, water, and electricity could be used to lower the cost and dependency on public utilities or off-grid systems on the surface. Any upgrade in utilities would add cost, complexity, and comfort.

If the option for more comfort were desired the owner-builder could rough-in power, water, and waste lines at the time of construction, and then complete those more complex and costly amenities when time and money allows. If the shelter were needed before these enhancements could be completed, the shelter would still be functional with the basics shown here.

Toilet
We recommend using a non-electric composting toilet, camping style porta-potti, or simple sawdust toilet for low-cost fallout shelters. These options use little or no water, often cost less than a complete flush toilet system, and when properly used create little or no offensive odors. The only disadvantage is that you'll need to manually dispose of the waste in a dedicated compost pile or sewer dump after your shelter stay.

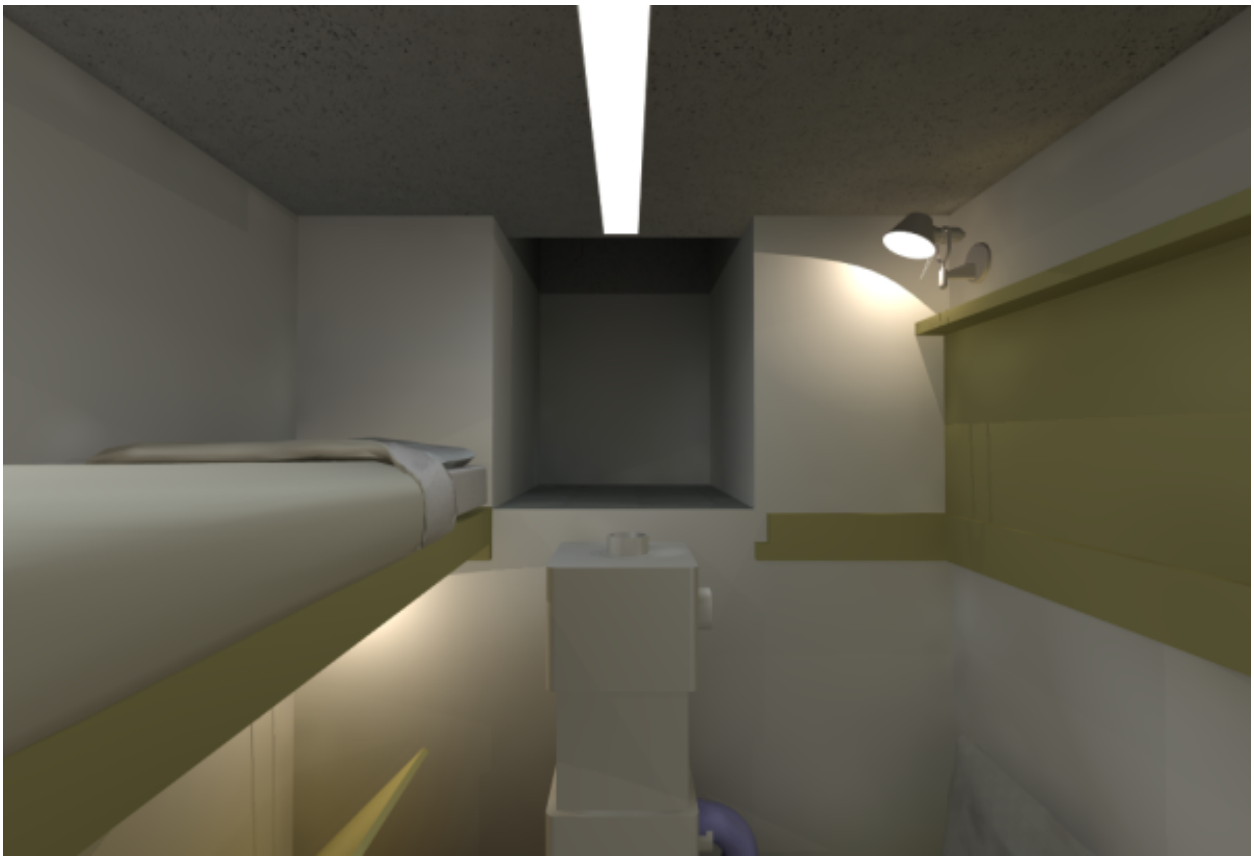




Main Hatch
One main entry with a vertical ladder would be the entry point. This shaft would be sealed off by a blast door at the bottom to add additional protection to the interior during a nuclear blast. An interior blast door is also an added buffer against raiders looking for supplies in the aftermath.

A grenade sump would be located on the floor of the shaft to help contain explosives dropped into the shaft. This sump could also act as a simple yet limited drain for water - depending on how deep your make it. If you have a high water table (ground water) be sure to seal the bottom of the sump to prevent flooding the shelter - and seriously consider a sealed commercially built shelter. A concrete shelter like this would be subject to flooding, just like a basement, in areas with high water tables.

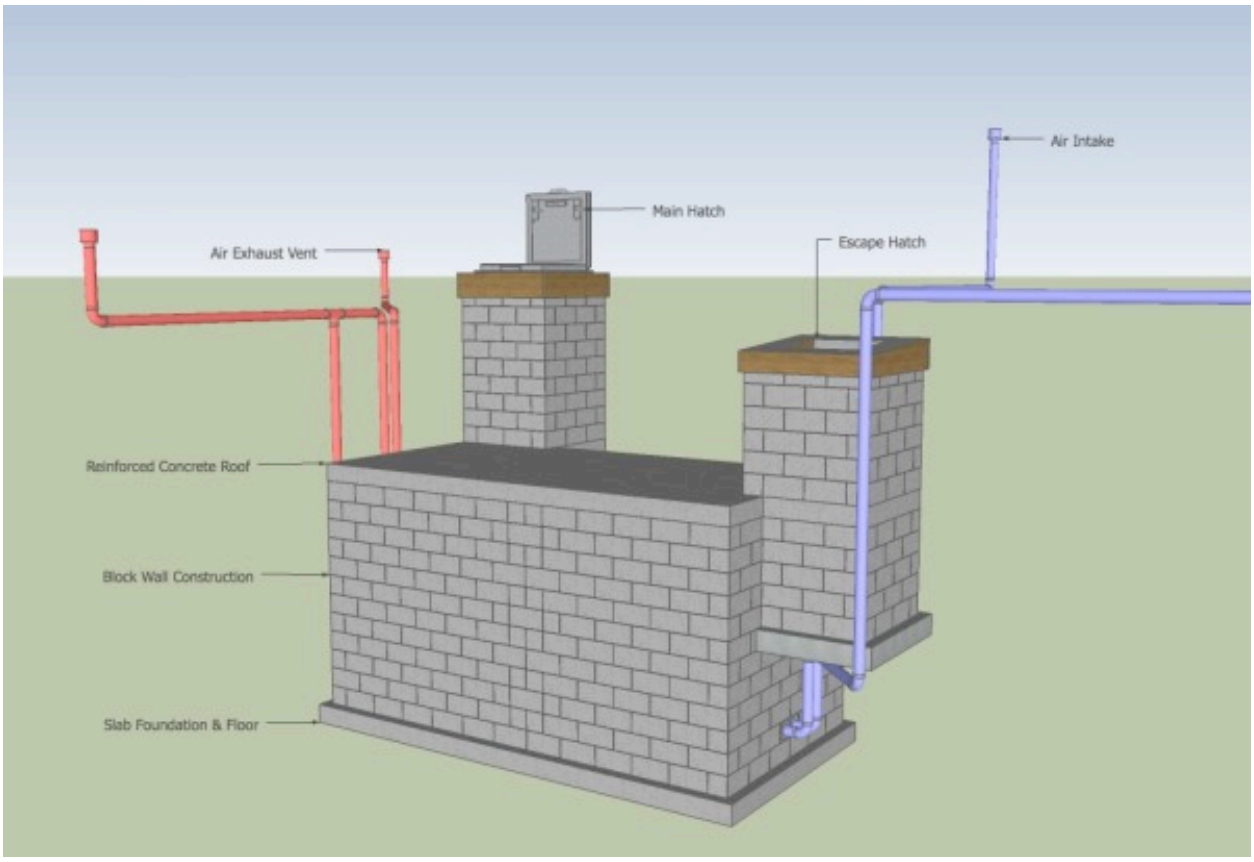
A shower head could also be added to the area at the bottom of the shaft to help residents wash fallout off themselves before re-entering the shelter. Ideally shelter residents will remain inside the shelter during the disaster and avoid ingesting or inhaling any fallout - which elevates the risk to health tremendously.



Emergency Hatch
An emergency hatch would be located in the rear of the shelter. This shorter shaft space could be used to store gear and essentials - like a closet - when not in use. The emergency hatch would only be used if the main hatch were blocked by debris or if the main shelter entrance needed to be defended. The emergency hatch would open inward, under a foot or more of sand. On the surface the emergency hatch would be completely concealed below ground but when opened, the sand would drop into the shelter allowing the residents to exit. Resetting the emergency hatch would take time and the clean-up inside the shelter would be difficult - so opening the emergency hatch would only be done in an emergency.

In the following pages we'll take you through the steps for building this design.

Step 1: Design, Engineer and Research



We've designed this fallout shelter concept using an adapted **rule of three for survival**. We know that humans can't survive blast pressures for more than 3 seconds, live without air for more than 3 minutes, survive in extreme exposure conditions for more than 3 hours, live without water for 3 days, or food for more than 30 days.

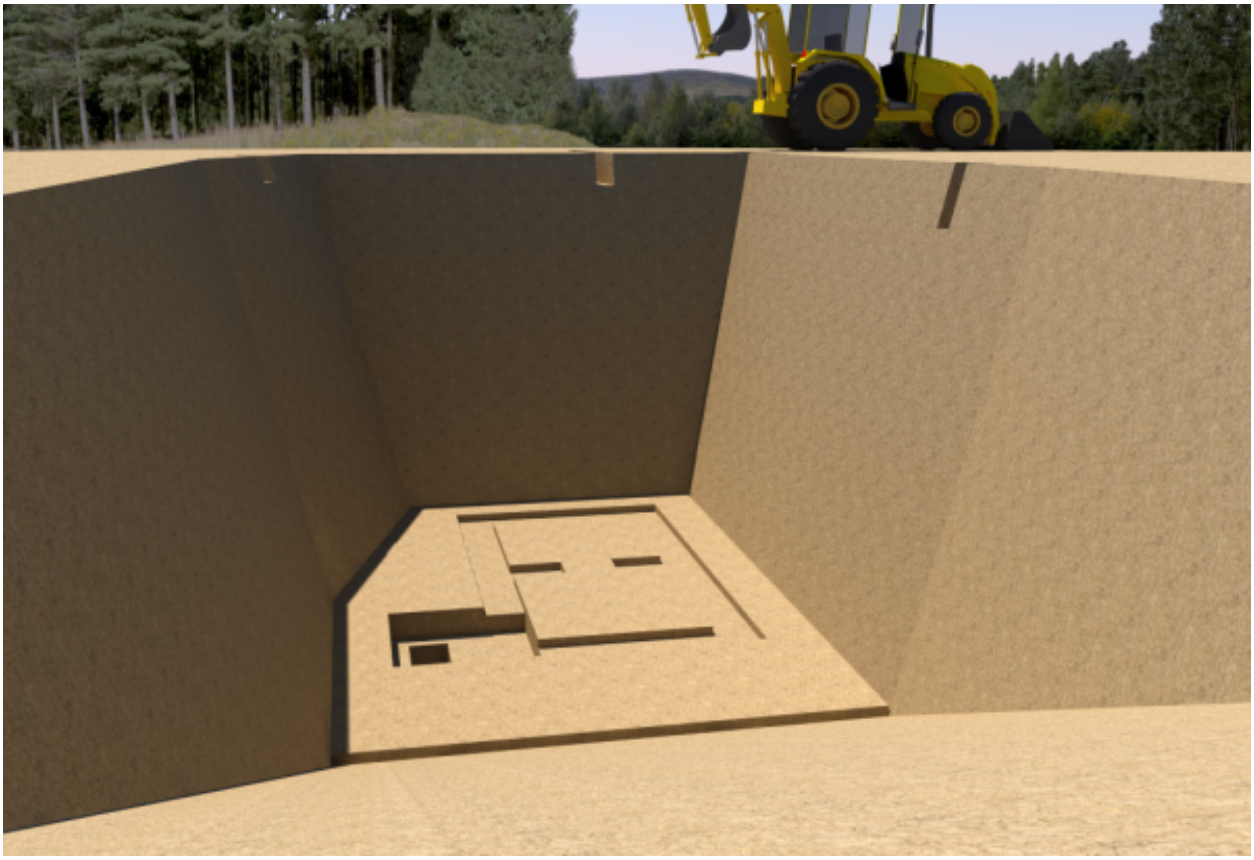
So in the order of priority our shelter design must provide:

1. Ample blast protection from a relatively close nuclear blast as well as explosives that might be used by raiders during the aftermath.
2. Air intake and exhaust vents to provide a constant flow of air through the shelter.
3. Adequate protection from external temperature extremes without any dependence on external energy systems.
4. Ample water for at least a 28-day stay would need to be pre-positioned inside the shelter.
5. Ample food for a 28-day stay should also be pre-positioned inside the shelter.

6. Ironically the last item on our list is protection from radiation. To effectively protect yourself from fallout, your shelter needs to be underground and covered with at least three to eight feet of compacted earth - more depth provides more protection.

Since fallout shelters can also be used for other things like, storm shelters, safe rooms, store rooms, guest rooms, and home offices, it's important to consider these options when designing your shelter. For example, to make your shelter more easily accessible you might want to build a 68-degree ships ladder, true staircase, or position it adjacent to a basement. A vertical shaft, like the one shown in our design, is not conducive to regular easy access.

Step 2: Dig a Big Hole



Digging a hole by hand would take a very long time and be a lot of hard work. If you can operate an excavator or backhoe it might be less expensive to rent one and dig-it-yourself, but it also might be less expensive to simply hire a contractor to dig your hole.

Before doing any digging be sure to contact your local utility companies and ask them to come out and mark any buried lines so you avoid breaking any sewer, water, electric, telephone, cable, or gas lines. Breaking any underground utilities could increase the cost of a shelter project and may cause injury.

Also be sure to expect to dig a hole that is a bit larger than the shelter so you have room to work and to allow for a safe angle for the side walls. Since the walls usually need to be sloped, the deeper you go the wider the hole will need to be at the top. There is no magic angle for the side walls, it really depends on the consistency of the soil at your building site. If you hire a professional to dig your hole, they should be able to dig a hole that's safe to work in.

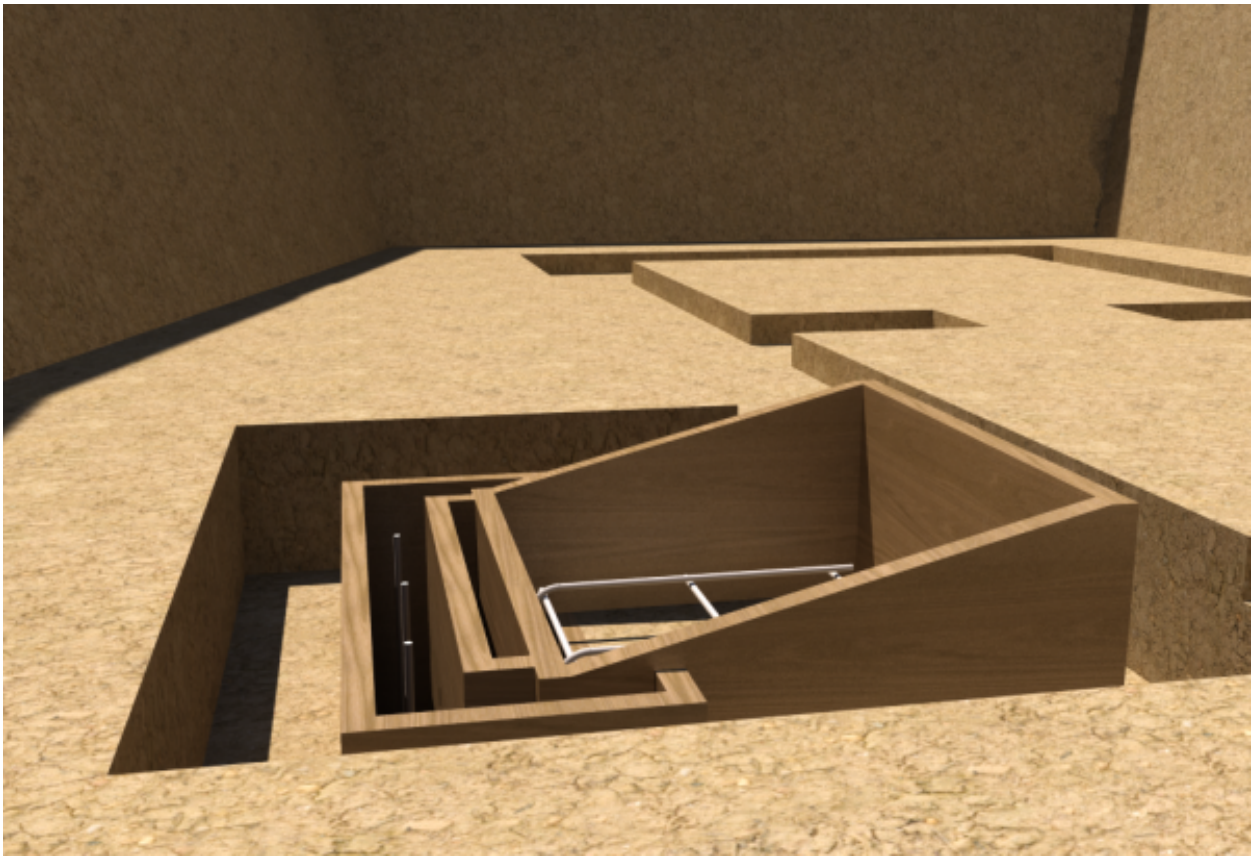
In our example we show a shelter fully buried with a flat grade above. This requires digging a big hole. If you can dig into a hill or pile a mound of dirt on top of your shelter, you can reduce the amount of digging.

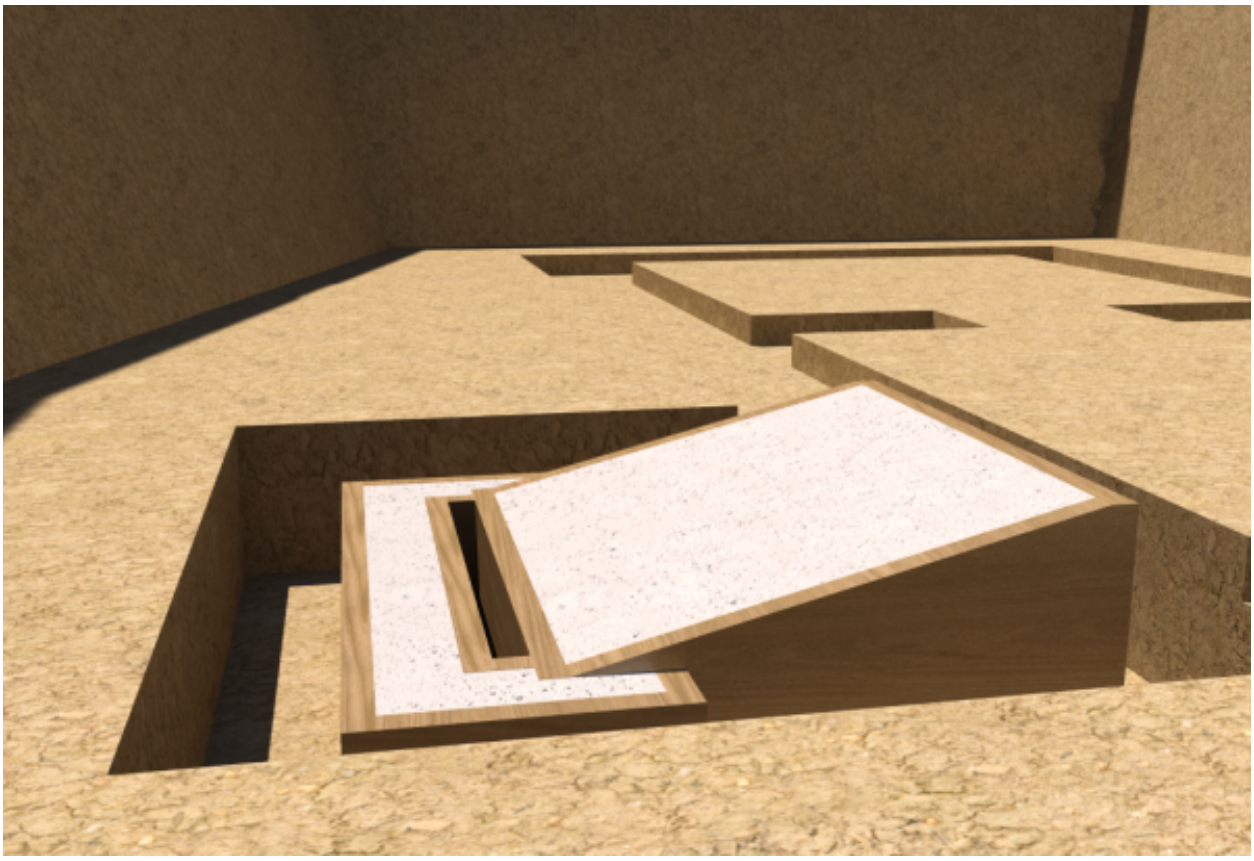
Another consideration is to choose a location that can be easily accessed by a cement truck. If the spot is not easily accessible you will probably need to also hire a cement pumper truck, which adds to the cost of delivery - or worse yet requires you to mix the concrete yourself.

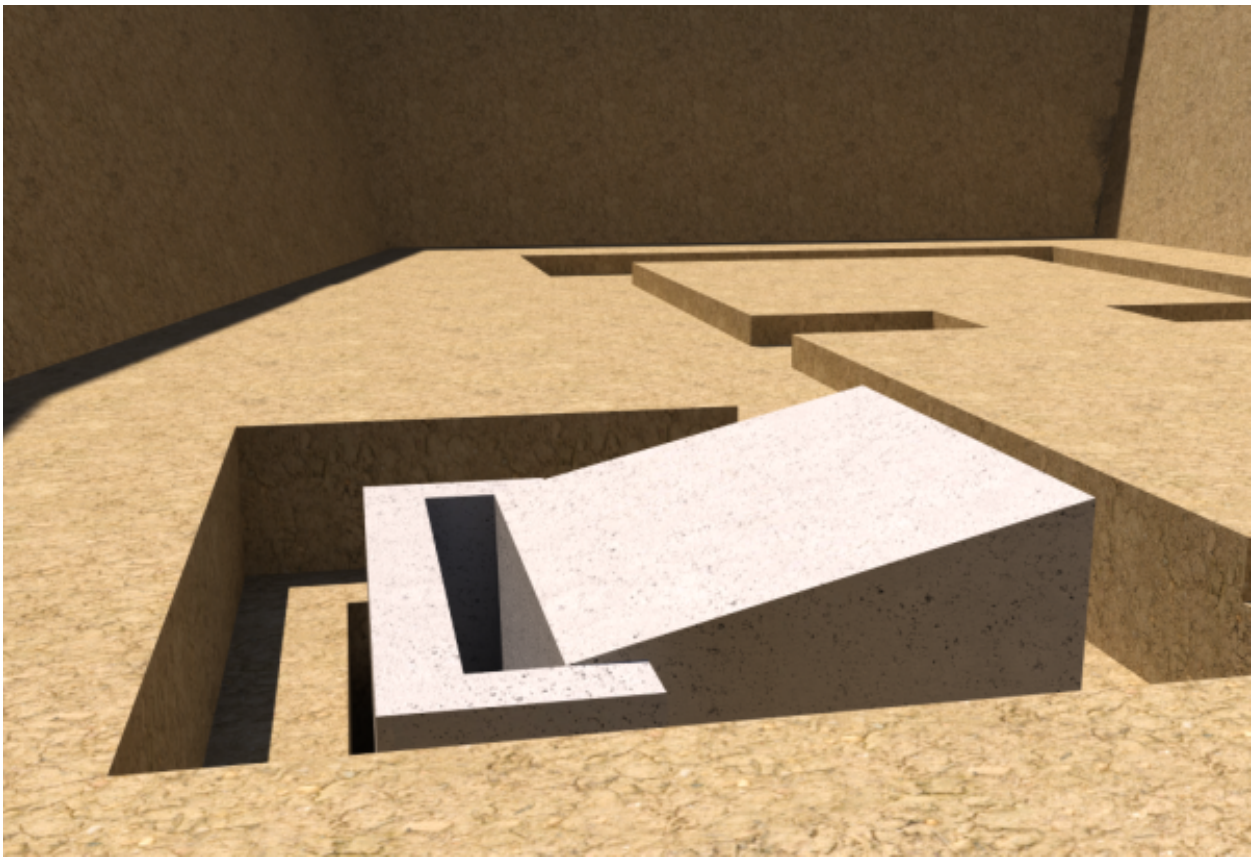
Step 3: Pour a Foundation

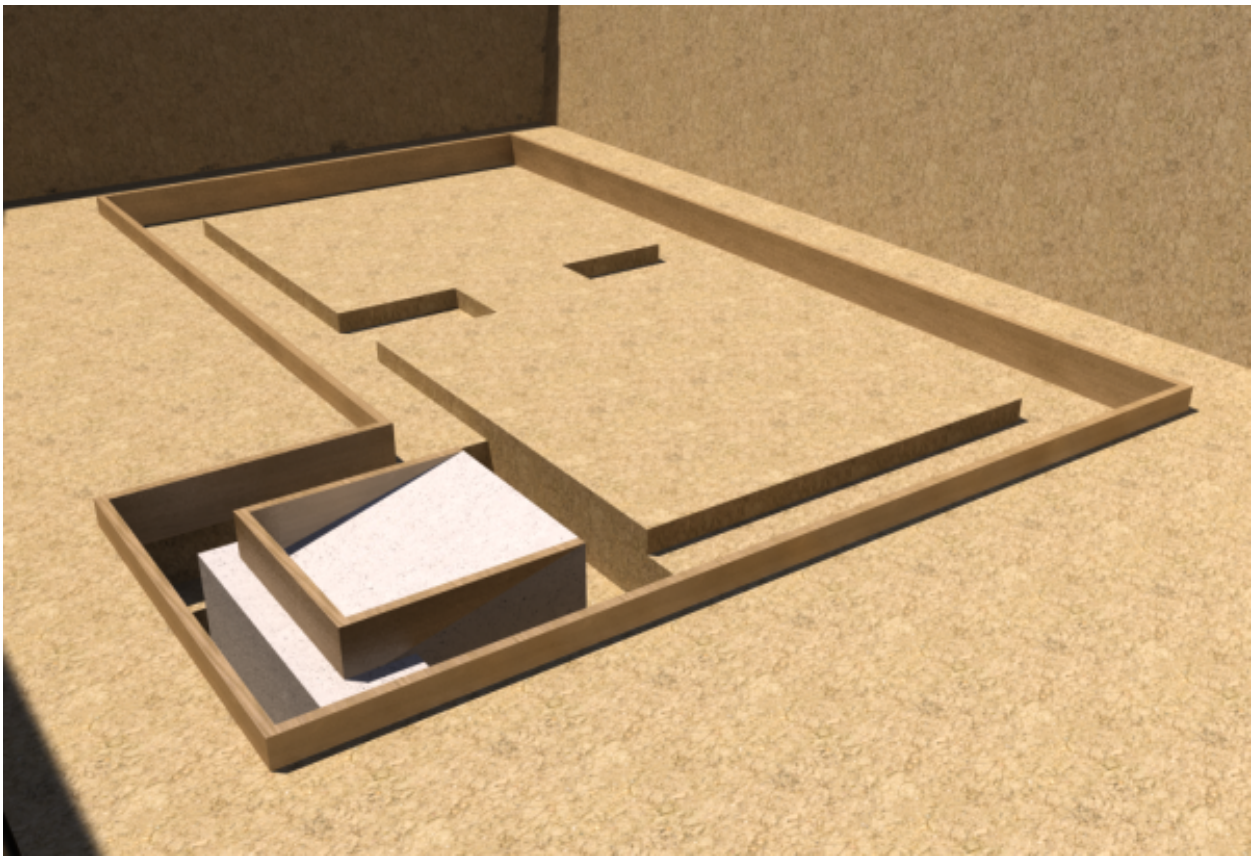
In this design we show the sump going in first and then the foundation being poured around it. The monolithic slab foundation in this design is 4 inches thick in the center. The edges are thicker and form the footer that supports the weight of the blocks, roofs, and earth fill above. In a concrete block structure like this it's common for the footer to be 8 inches thick and twice as thick as the blocks are wide - so 16 inches wide in this example. The blocks are placed centered on the footer.

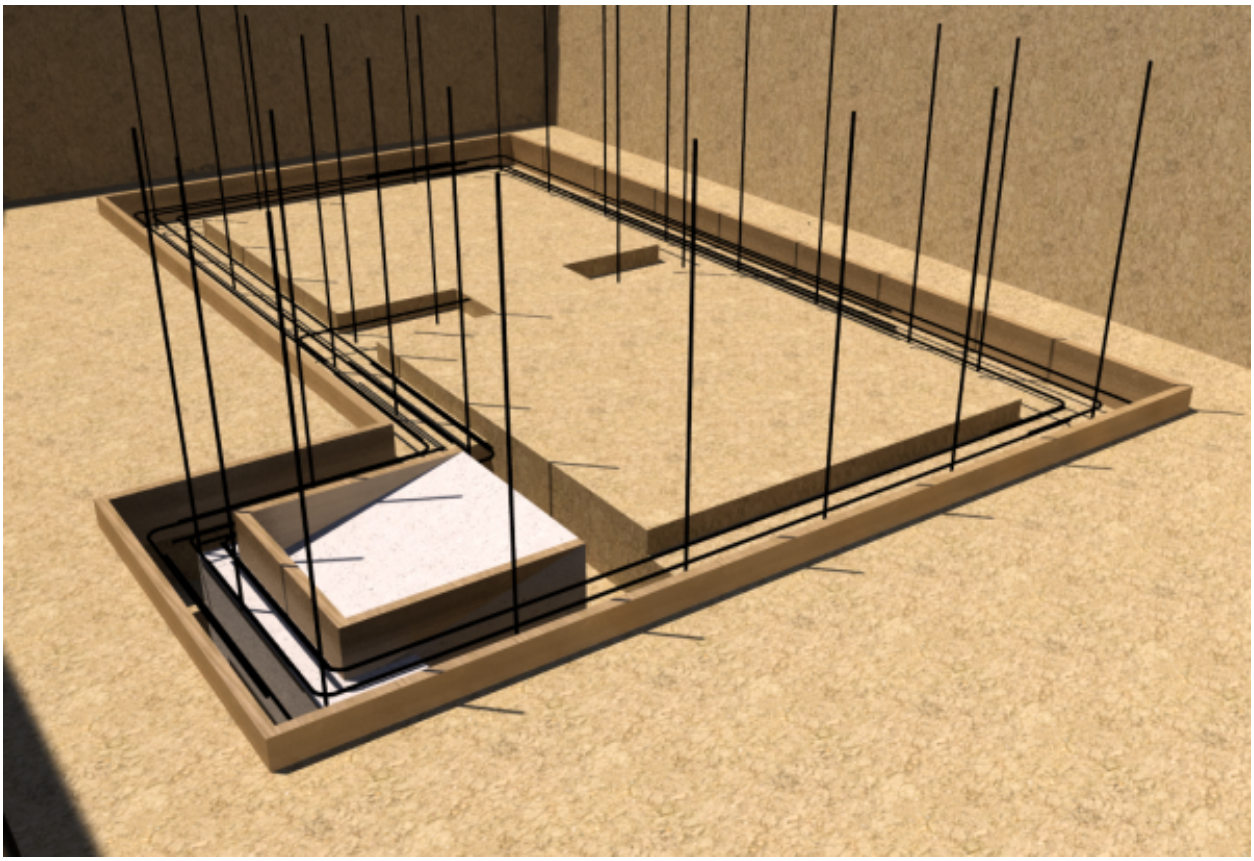
Before ordering the concrete you'll need to build a sturdy and well-supported form that's perfectly level and square. Concrete blocks are made to precise dimensions, so if your foundation is out of plumb it will give you a great deal of trouble when building the walls.

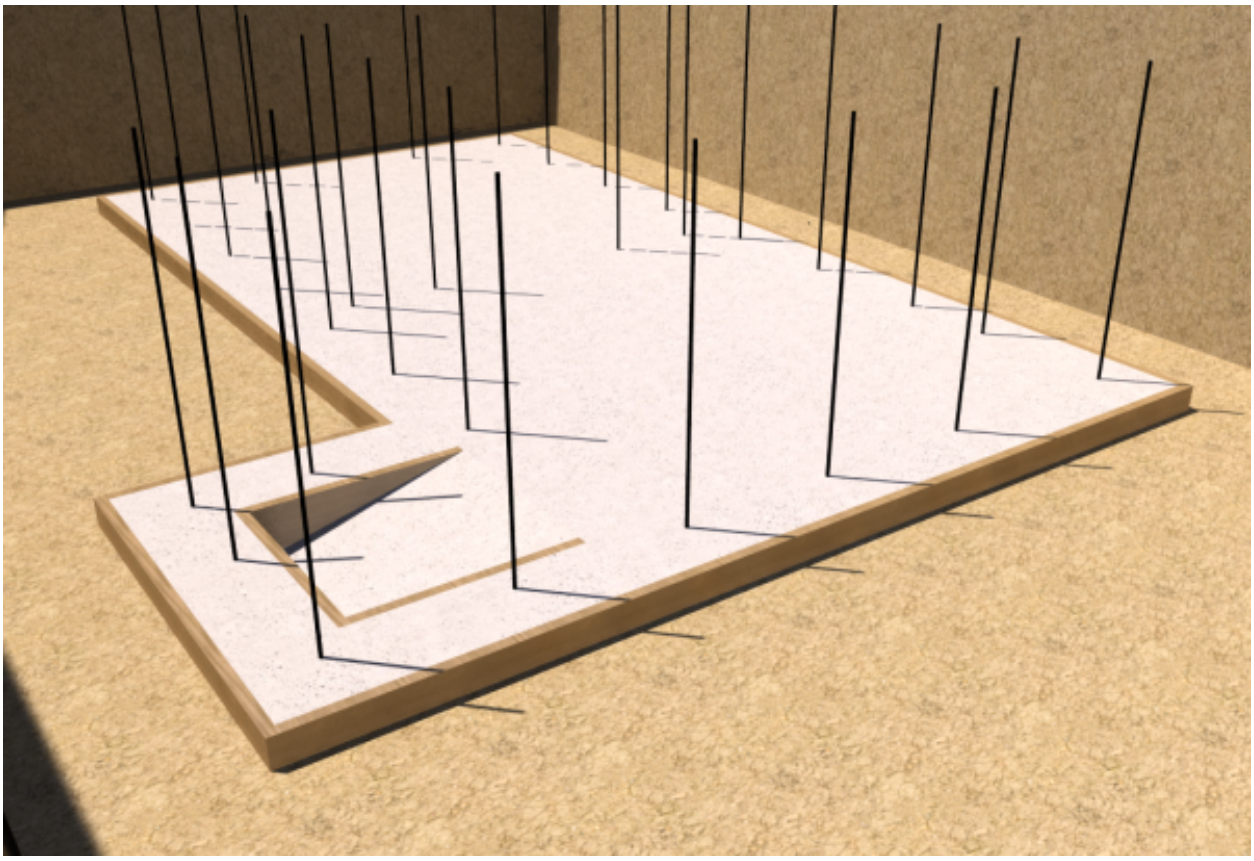


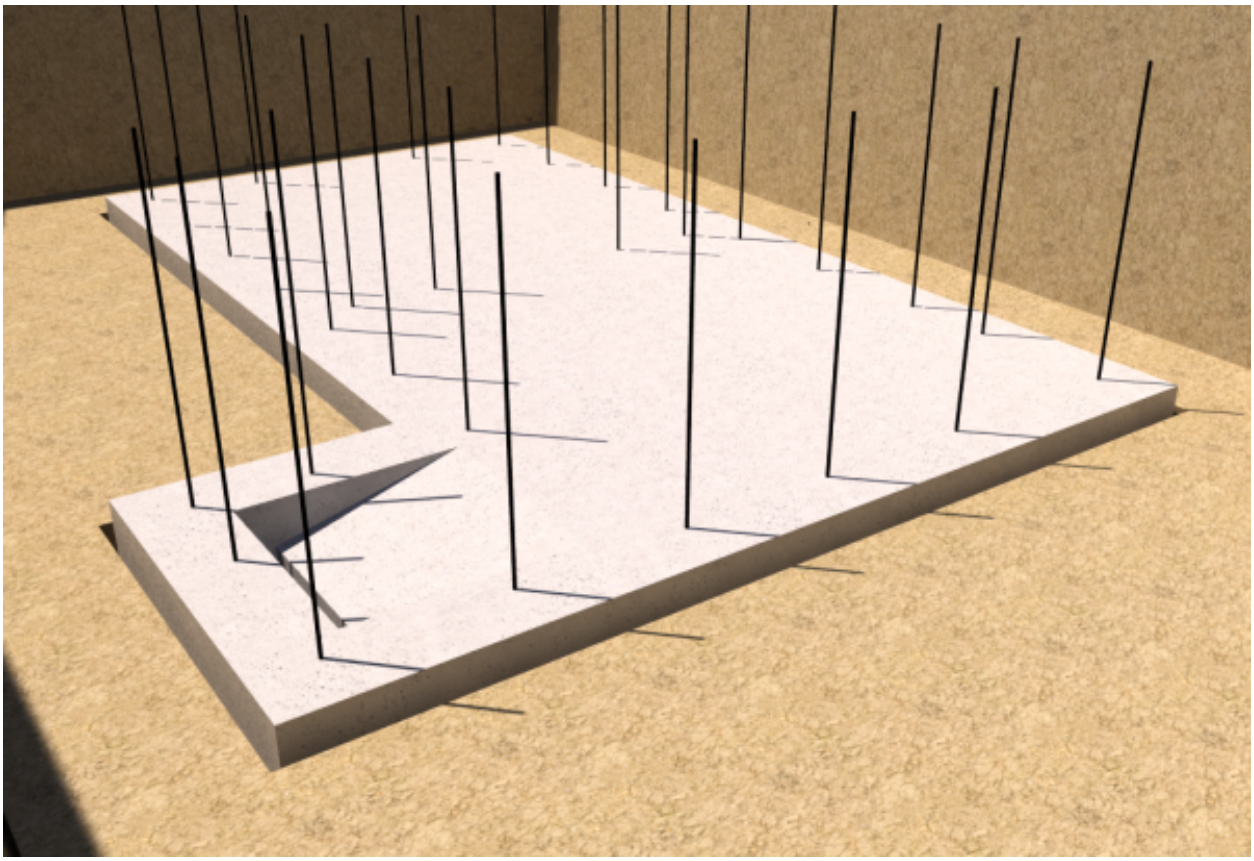










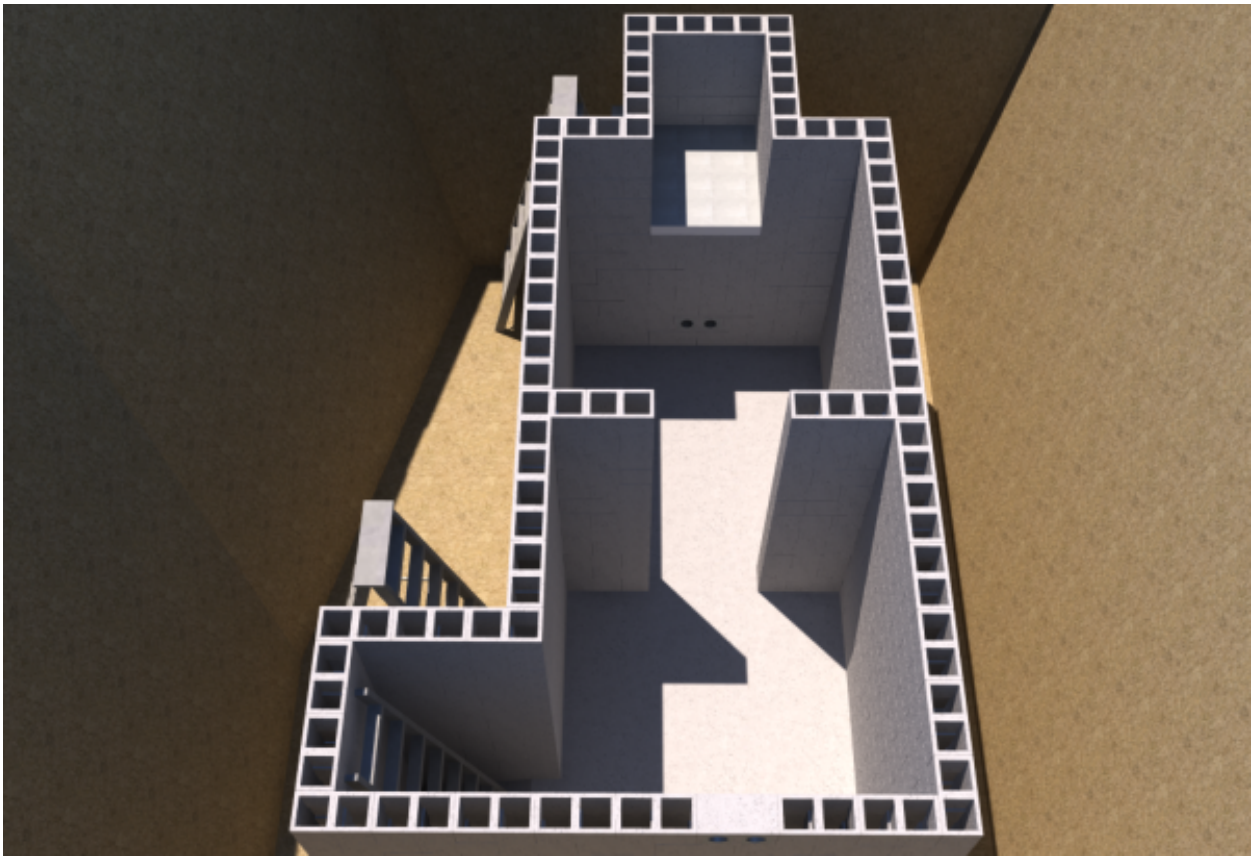


You'll also want to embed rebar in your foundation's footer and add vertical tie-ins that extend into the walls. Here we show 3 rows of 60 KSI #4 rebar running through the footer. We would choose to use 4000 PSI concrete with fiber added. You could also add concrete reinforcing mesh or rebar to the center portion of the foundation too. Like the added fiber, mesh and rebar help strengthen the concrete and reduce cracking.

Be sure to consult your local codes and experts when choosing the amount and type of concrete and rebar as well as the actual design of your foundation. As a general rule of thumb, adding more well-placed rebar, using a higher grade concrete, as well as thicker & wider footers, will yield you a stronger foundation.

If you plan to have a flush toilet, outside electric power, or water, you'll also want to rough plumb these lines before building the forms for your foundation. In other words run short sections of drain and supply lines - as well as electric supply wire - under the footer now so you don't have to dig later. You could also run these lines up and out the roof in an underground shelter. In either case an electric powered basement sump pump will be needed to lift the sewage up and out of the shelter.

Step 4: Build Block Walls



This design shows standard cinder blocks that are dry-stacked, reinforced, and core-filled with concrete. A standard cinder block measures 8" x 8" x 16", but check your local supplier since there are often many different types and sizes of blocks available. Be sure to order the correct size block for your design since cutting blocks is time consuming, difficult, and may weaken the structure.

Now that your foundation has been poured and cured, it's time to erect the walls. You can choose to dry-stack concrete blocks or use mortar between rows. In either case the first layer of blocks is mortared to the slab foundation.

If you choose to use mortar between courses be sure that every block is leveled and seated into the mortar. Set your corner blocks first on each course and then fill in the walls. Use reinforcing wire mesh between rows to increase the strength of the walls.

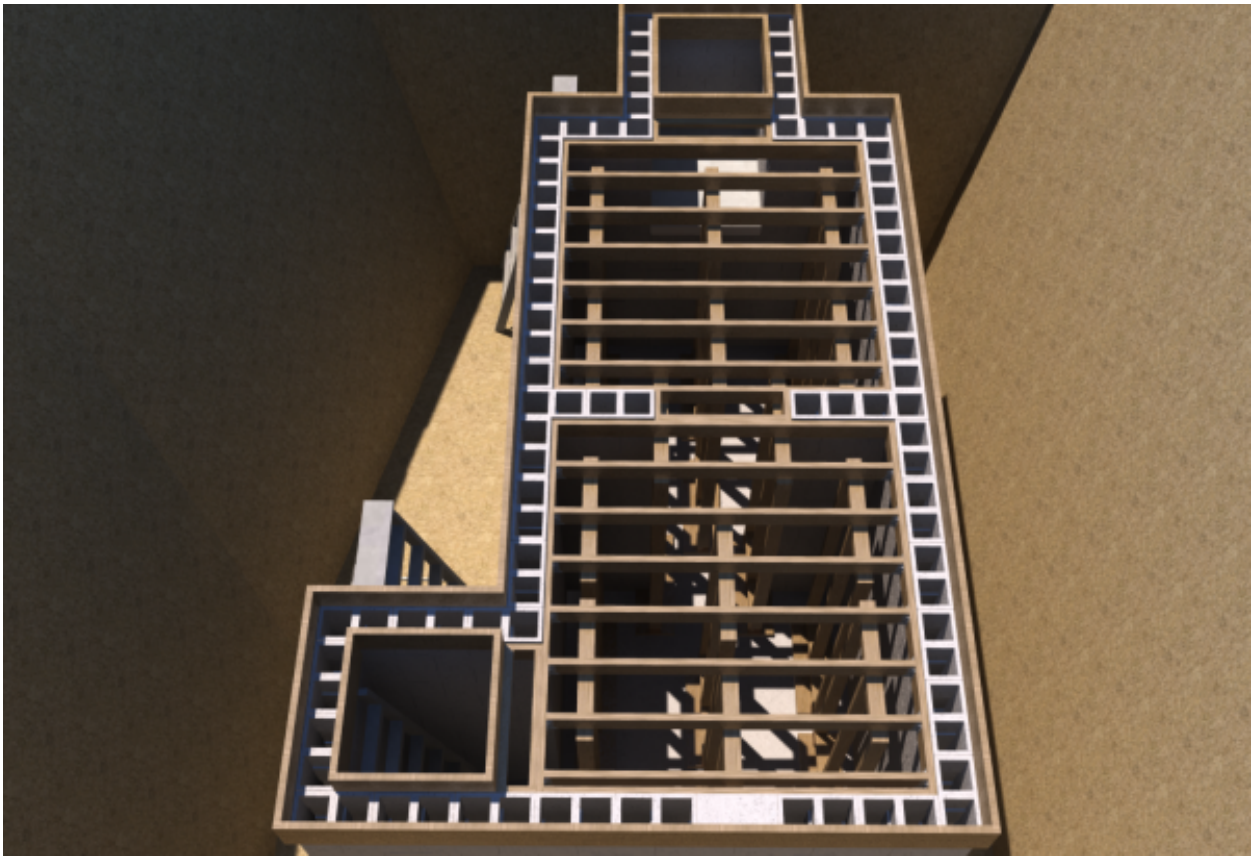
If you choose to dry stack your block walls without mortar you'll need to make sure your first course if perfectly plumb, level, and square. Any variation will

amplify as the blocks go up. Since dry stacking block walls can go very fast be sure to constantly check to be sure the walls are level and square.

Use a running bond (a.k.a. stretcher bond), which is a brick laying pattern that overlaps each course so that few vertical seams are created between coursed. Alternating block walls adds strength to the wall and avoids weak spots. Wall strength is especially important for underground block structures because of the lateral forces pushing in on the building's sides from the surrounding dirt. We've added short interior walls to separate the shelter into two main spaces - the bunk room and the kitchen/bathroom. We used block walls here instead of a wood framed wall to help add support to the long side walls.

Add rebar to the block cavities and be sure to tie them into the slab tie-ins. This can be as simple as wiring them to protruding rebar in the slab. Core will the blocks with concrete at the same time the roof is poured, which we'll describe in the roof section.

Step 5: Build Roof Support



Before you can pour the roof slab you need to build a temporary support system. This is normally built from wood and designed to hold and contain the heavy load of the wet concrete. Once the properly reinforced concrete roof has cured it will not only be self-supporting but will be able to hold up the dirt back-filled above. But until the slab has cured, this temporary support will be all that keeps it from collapsing.

In this example we show form boards anchored directly to the outside of the walls and temporary supports. There is no one right way to build forms for a concrete pour, and if you have any hesitation about your design skills here be sure to hire an expert. If the forms were to collapse during the pour all the work you've done up to this point could be ruined and the people working there could be badly hurt or killed. So please use caution.

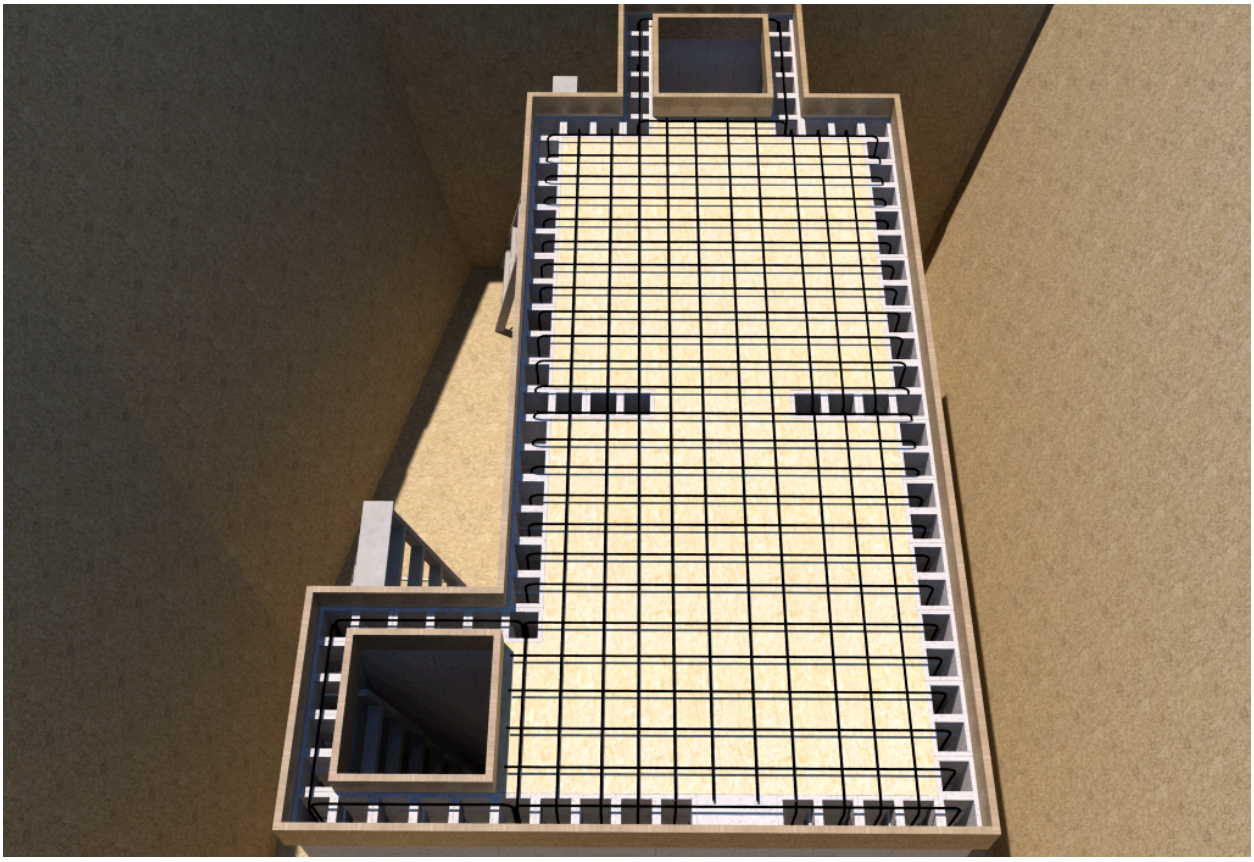
In our drawings we show 2x12's anchored to the exterior of the sidewalls and around the hatch openings. Along the inside of the walls 2x6 nailers with 2x6 rafters on 12 inch centers are supported by joist hangers. Below the rafters small wall panels are tilted into place to provide added support.

Above the framework 3/4" plywood or OSB is laid with all edges supported by the 2x6 edge nailers and rafters. The plywood is fastened with screws to the rafters from below so that it can be removed more easily when the framework is ready to be removed. Also be sure to use screws to fasten the wood to make disassembly easier once the concrete roof has cured.

Building the forms this way should allow you to reuse all the wood used in the forms. The support panels for example could be used in the walls of a shed build above the hatch to help conceal the existence of the shelter.

Before moving onto adding rebar be sure to add a layer of thick plastic sheathing to the plywood. This will make the finished ceiling surface smoother and assist in the removal of the plywood.

Step 6: Add Rebar Reinforcement

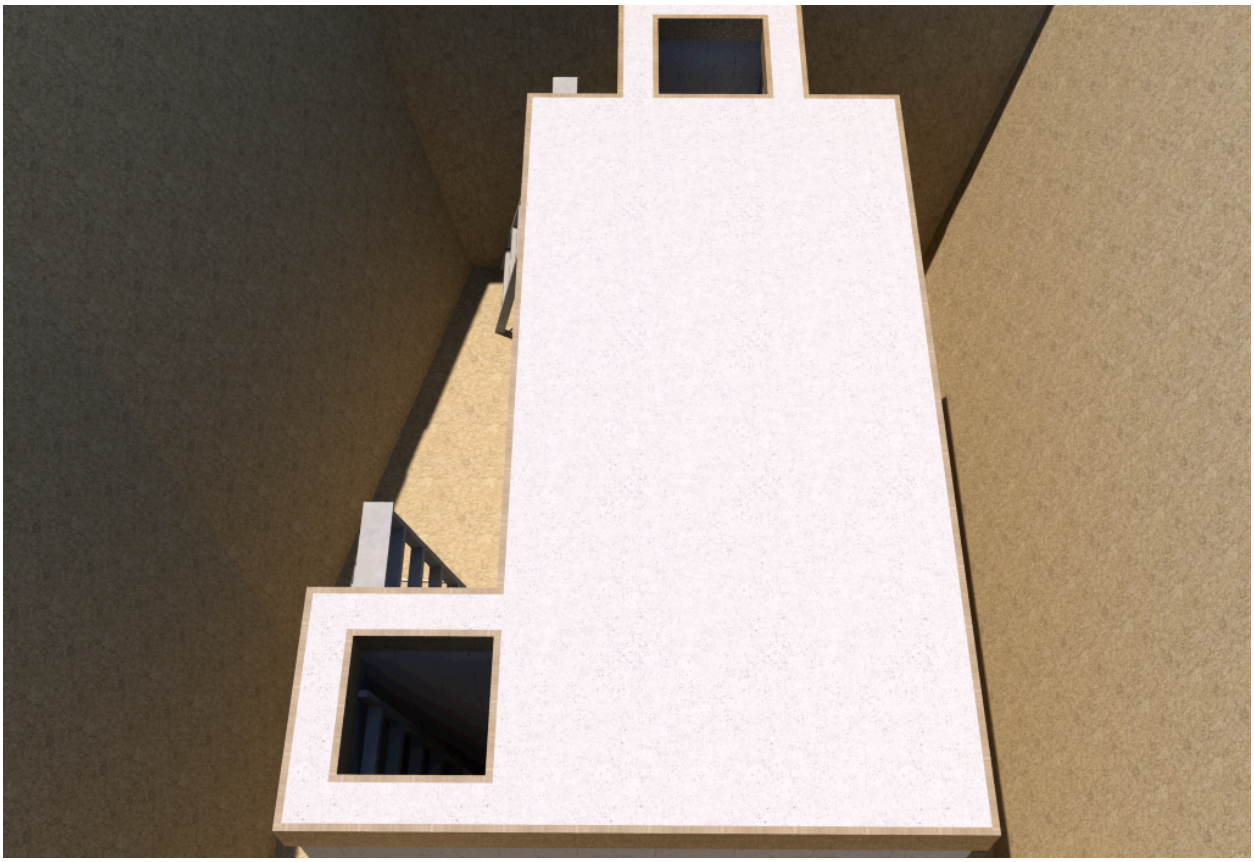


Once the concrete forms are complete it's time to add your rebar. A concrete slab is not strong enough to be a roof with downward pressure over a span, unless it's properly reinforced with steel. This is because concrete has mostly compressive strength and little tensile strength. Combined together steel and concrete make very sturdy spans.

In this example we show #4 60 KSI rebar on 8 inch centers in a grid. The rebar would also be elevated 2-inches above the plywood in rebar chairs. This will place the rebar in the lower portion of the roof slab giving the roof the most strength and the rebar the most cover from the dirt above. The roof slab is about 7 inches thick and would use 4000 PSI concrete with fiber added.

The rebar would be bent at the edges and would extend down into the wall cavities. This way the walls have added reinforcement too. For those that have experience with concrete, the specifications I just outlined may seem like over-kill for a narrow span like this, but since a shelter may need to withstand excessive external forces, a little extra expense for extra rebar and higher quality concrete seems prudent.

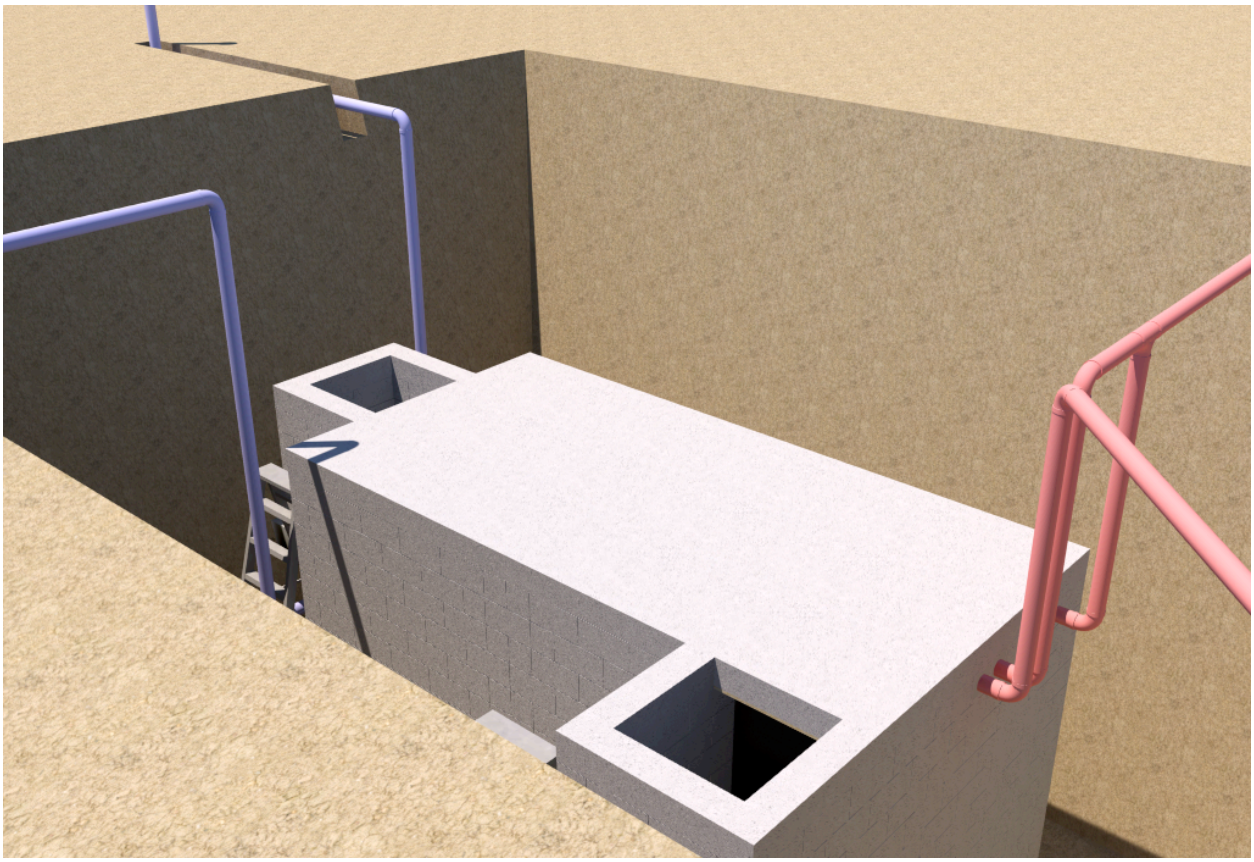
Step 7: Pour Concrete Roof and Fill Block Walls



Once the form is in place, pour the reinforced concrete slab roof and fill the reinforced block walls at the same time. This is the step where the walls get their real strength.

Allow the roof to cure adequately for a week or more before removing the supports. Keep the concrete slab wet to help the concrete cure to it's strongest strength. The water in concrete actually gets chemically combined with the cement so any evaporation from the slab will weaken it. Be very careful when removing the supports and avoid any calamities by making sure the concrete roof is self-supporting without cracking or faults before working below the new roof.

Step 8: Rough Plumbing, Electric, and Air System

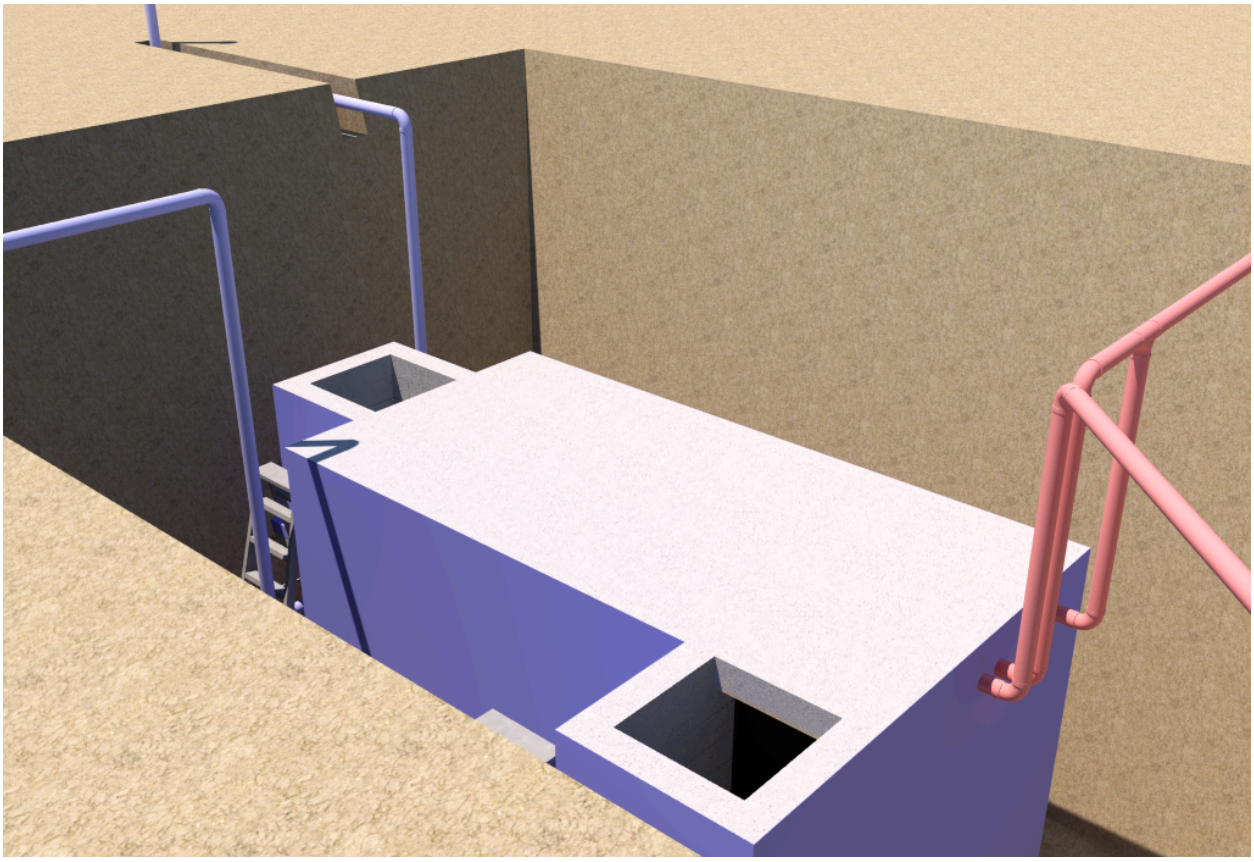


If you've chosen to add plumbing or electric power to your shelter, this is the time to finish the rough plumbing.

In this example we've chosen not to show any of those additional systems because we feel that the benefits of those creature comforts don't out weight the risks of becoming reliant on systems that can break down during a disaster. So our example shows how a comfortable can be created by using simple solutions like water jugs, 55 gallon barrels, and LED battery powered lighting and electric powered vent fans.

You will notice we've added pipes. The blue pipes are air intakes and the red pipes are the exhaust vents. You can also see that we've included a vent pipe for the composting toilet.

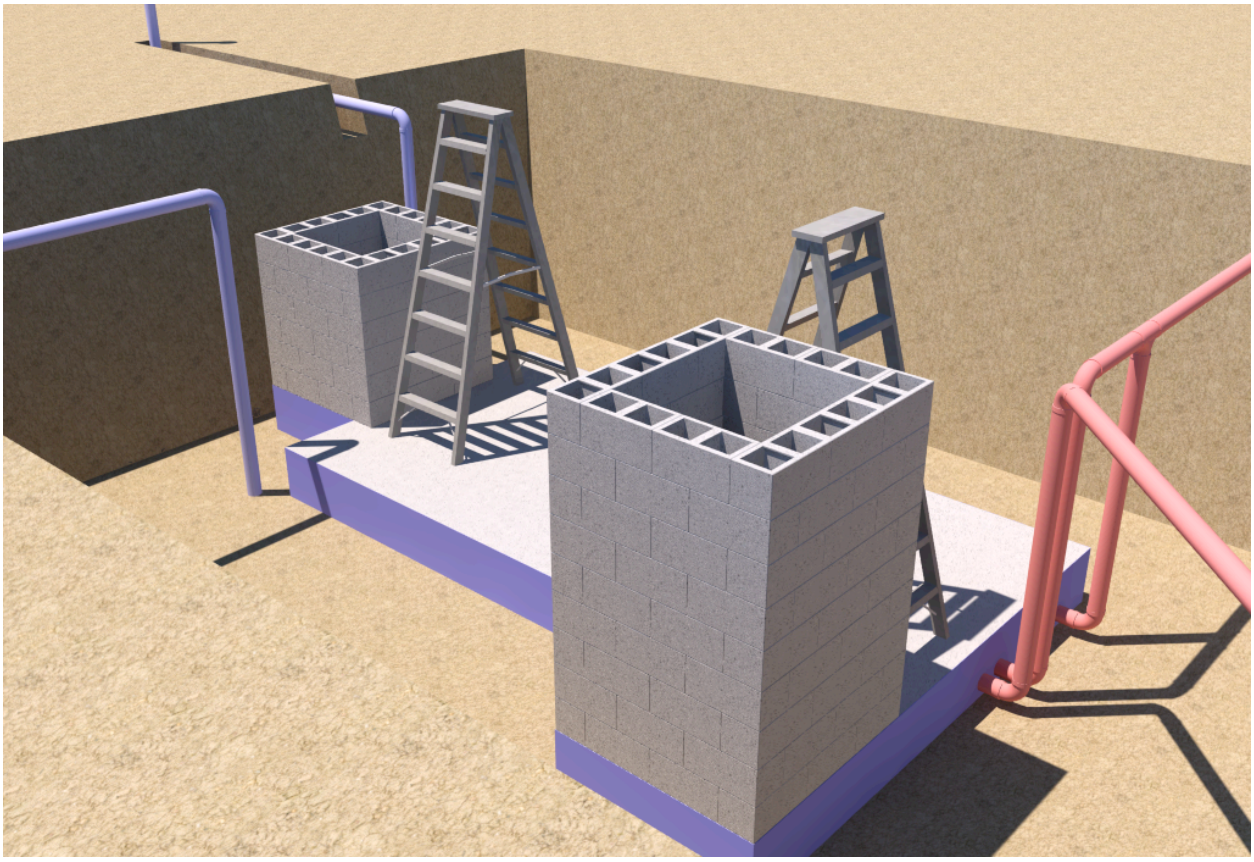
Step 9: Seal and Insulate



Once all the rough plumbing work is complete the concrete block shelter should be coated with a sealant suitable for below grade use. This will help add that extra layer of protection against insects and moisture.

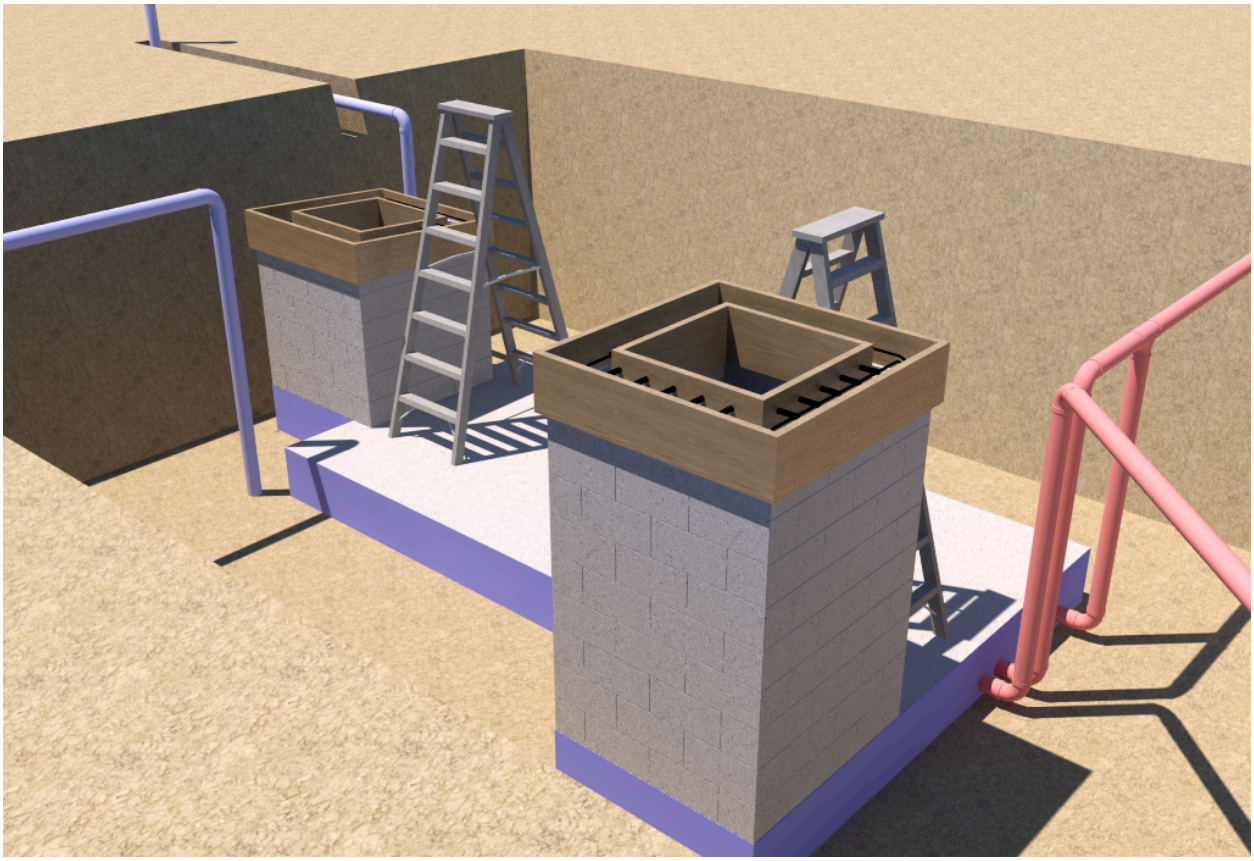
While we don't show any below grade insulation board in our illustrations adding some will help regulate the temperature inside the shelter and may help reduce the build-up of condensation and mold inside the shelter.

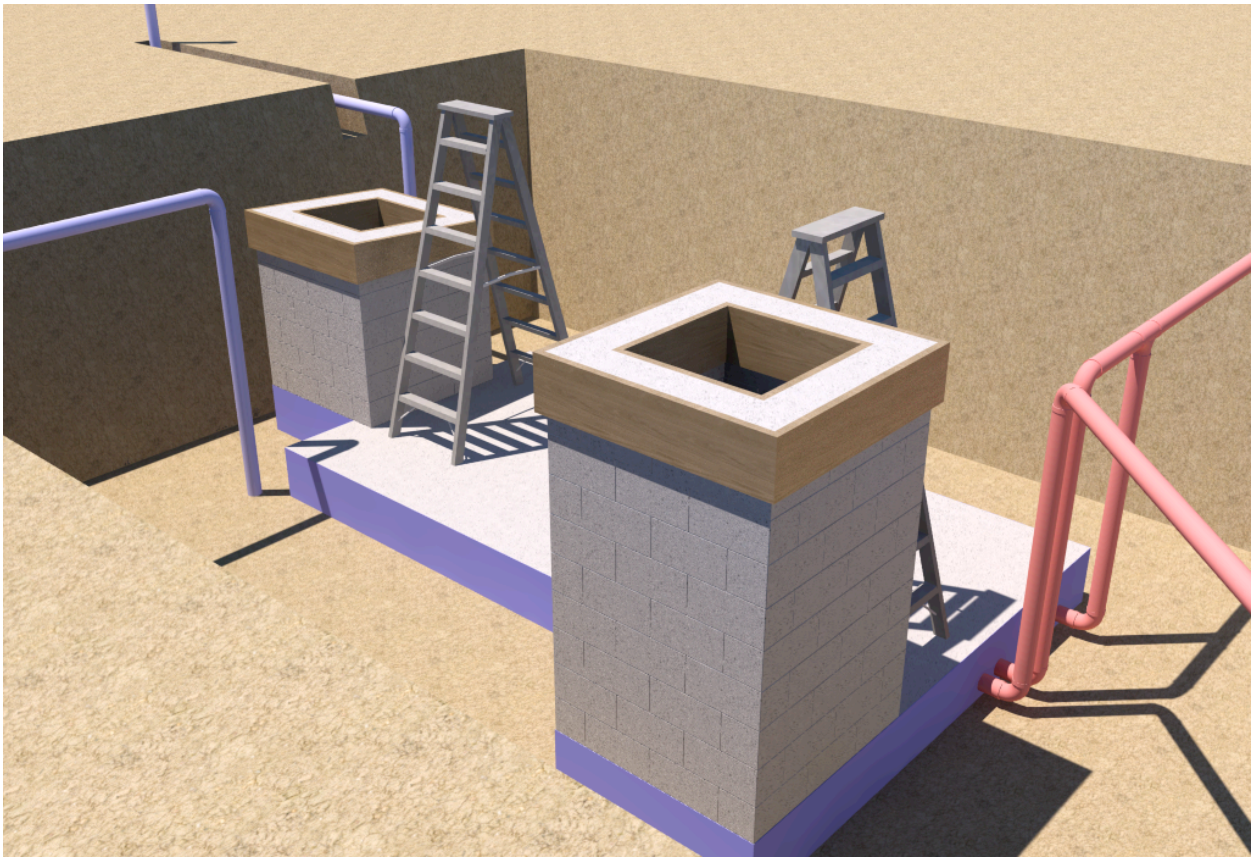
Step 10: Build Access Shafts

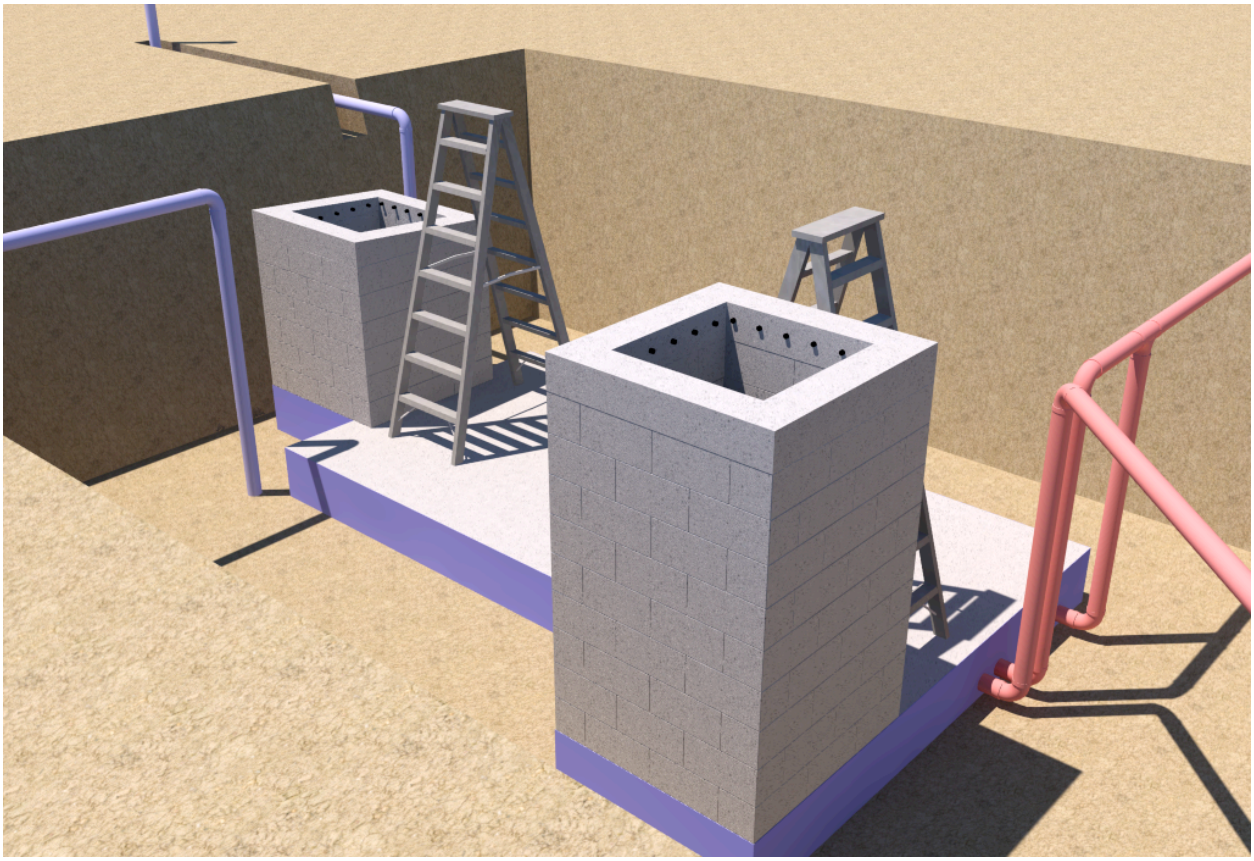


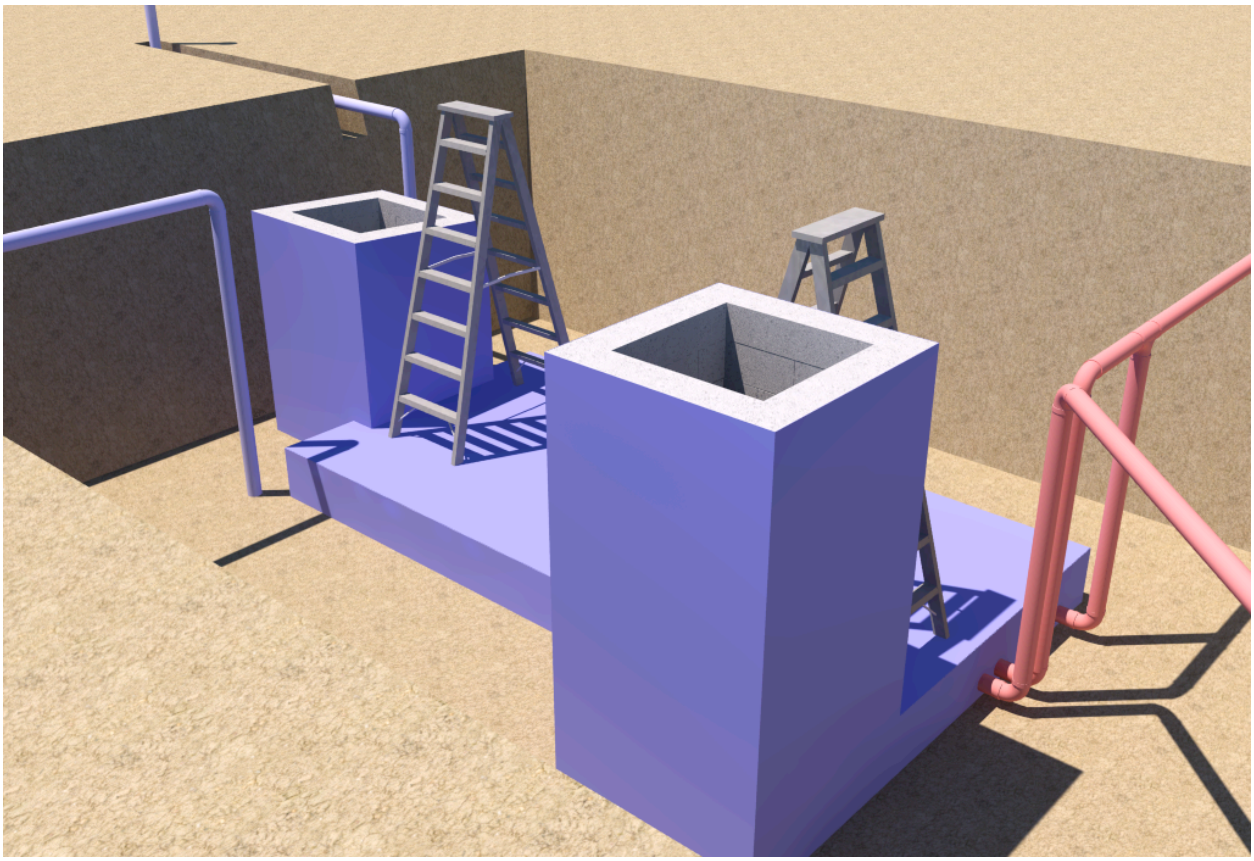
You'll notice in the illustrations that we suggest sealing the shelter and backfill before building the access shafts in our example. This is to make it safer to build the access and emergency shafts. Working high on a ladder, especially with heavy blocks, is dangerous. So reduce risk of injury by planning ahead.

The process for finishing the shafts is similar to the roof except that no supports are needed, only forms. Forms are built, rebar added, and then the forms are poured. Bolts are embedded in the concrete to make fastening the hatches easier and stronger. Seal the walls once complete.

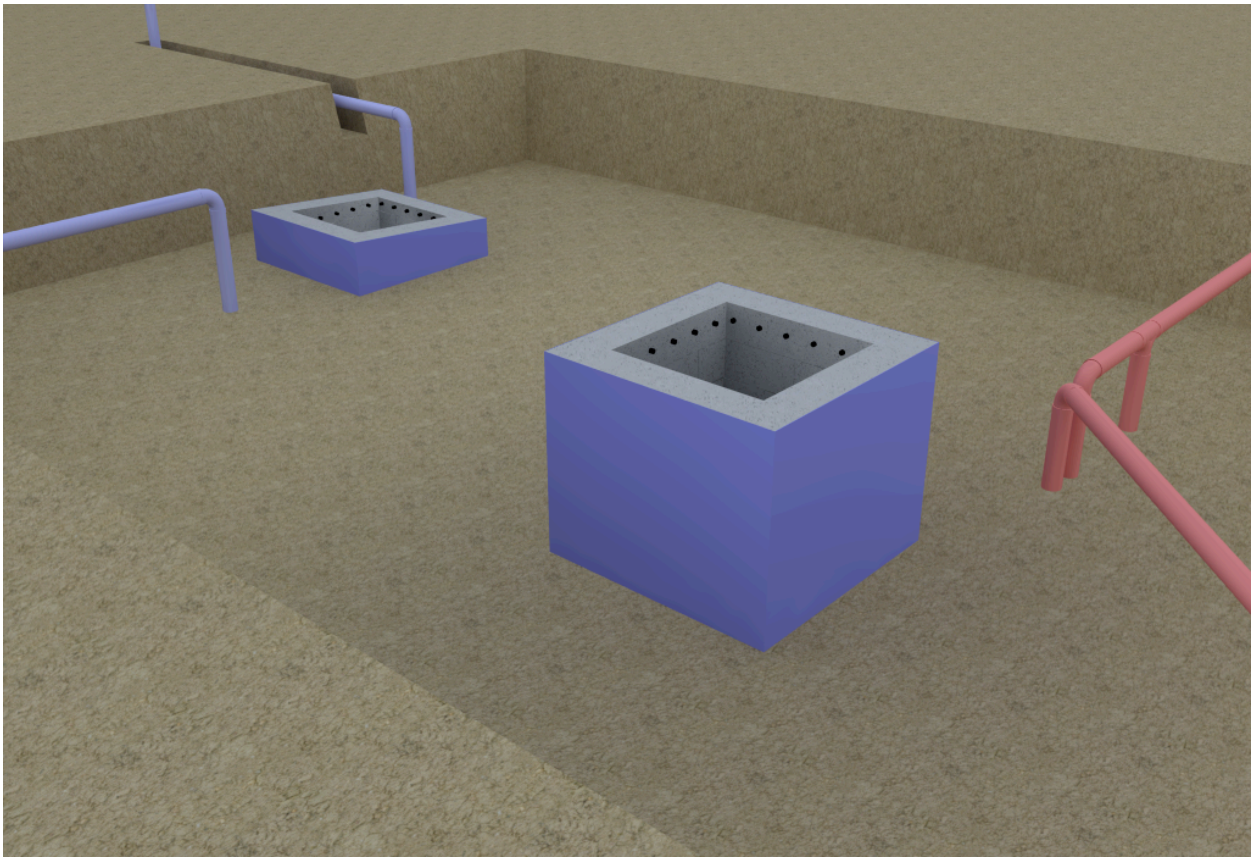






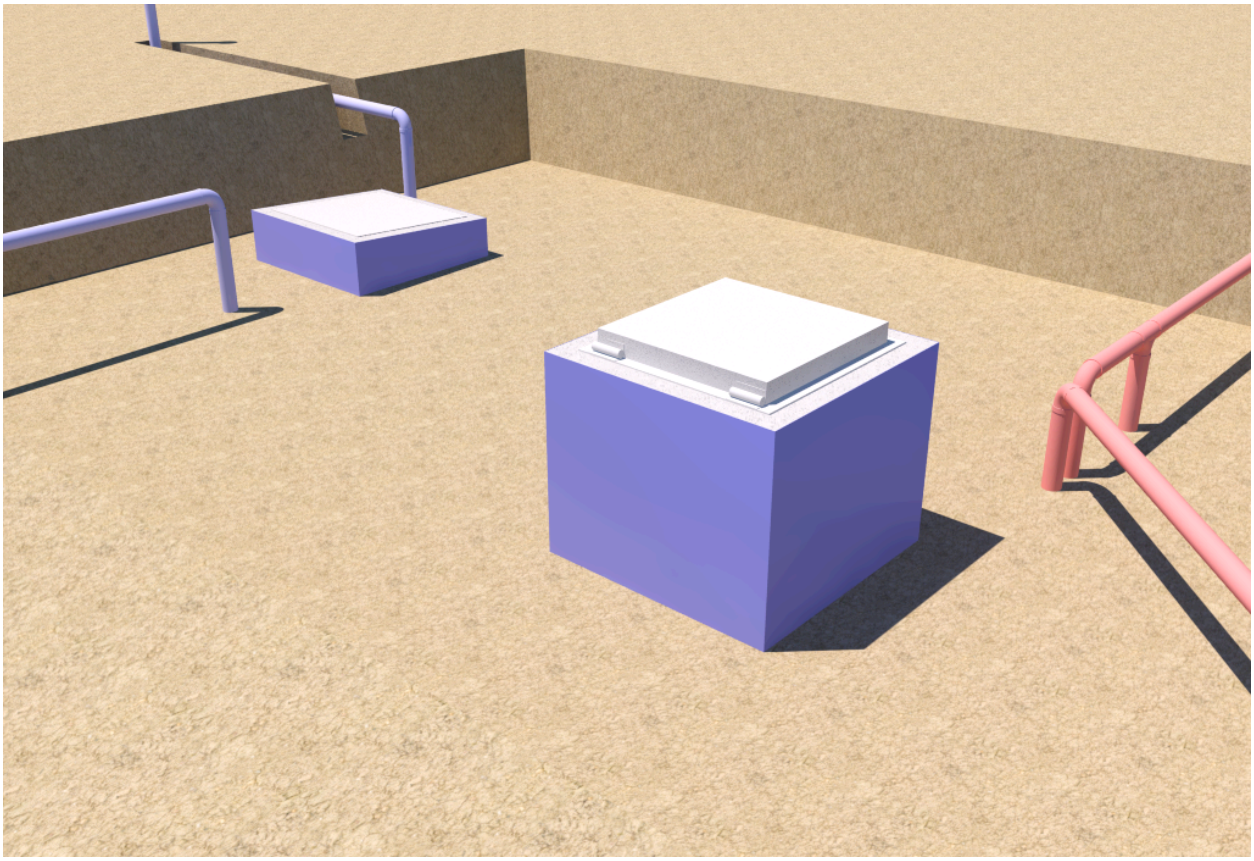


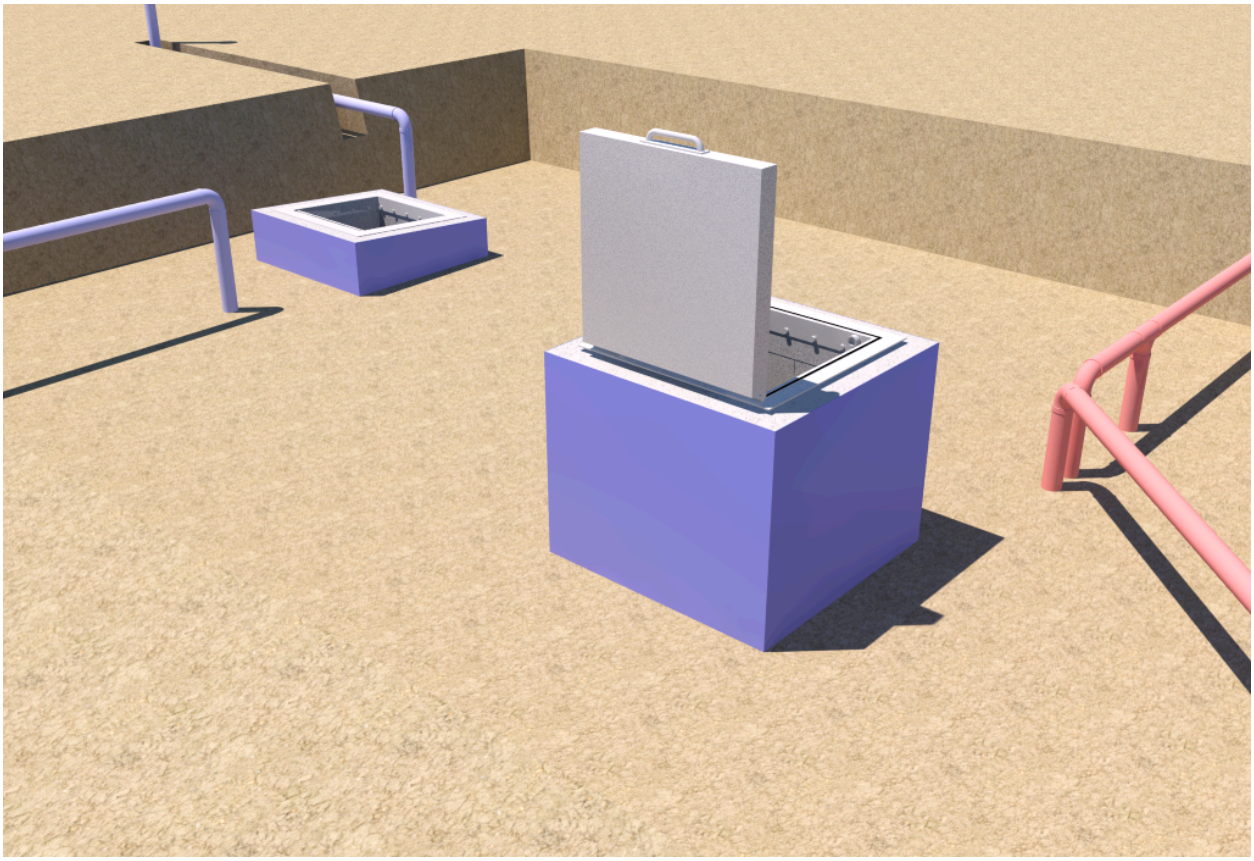
Step 11: Backfill

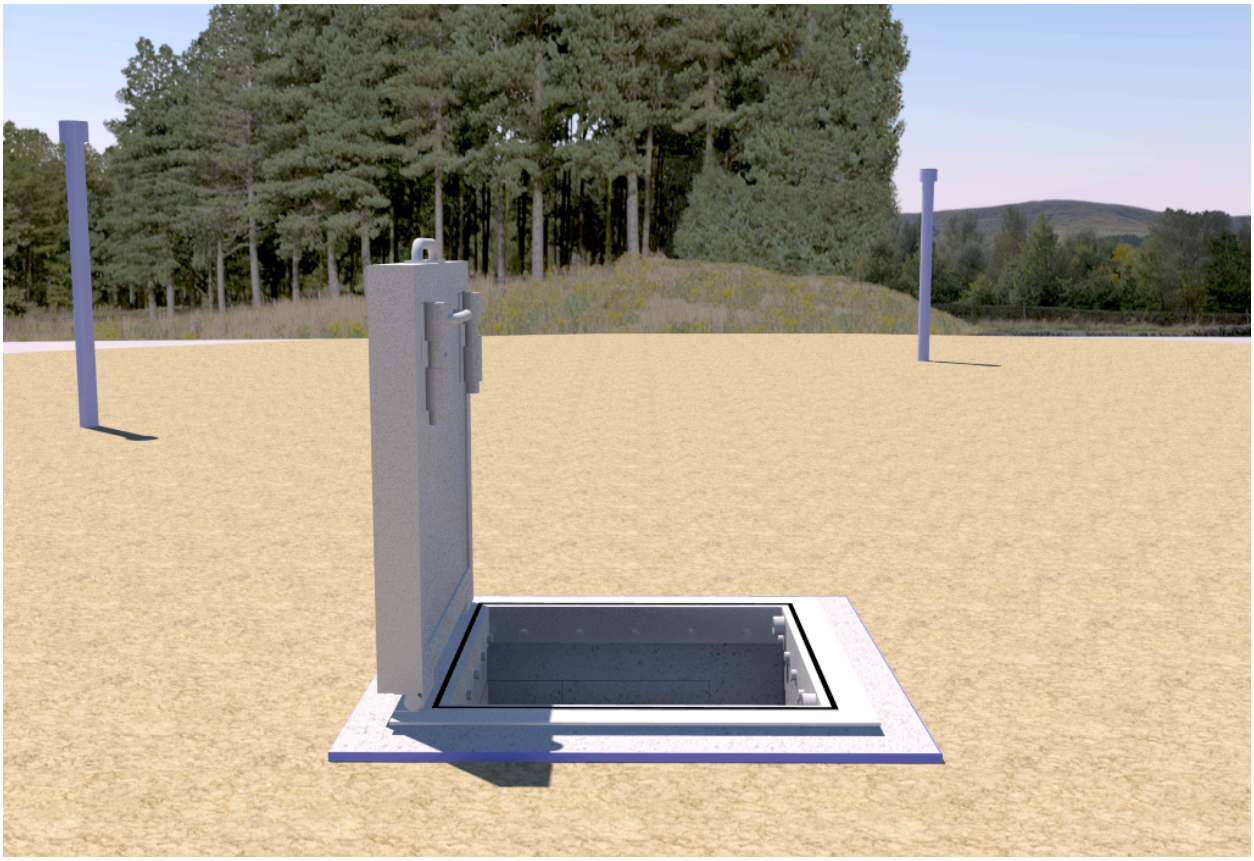


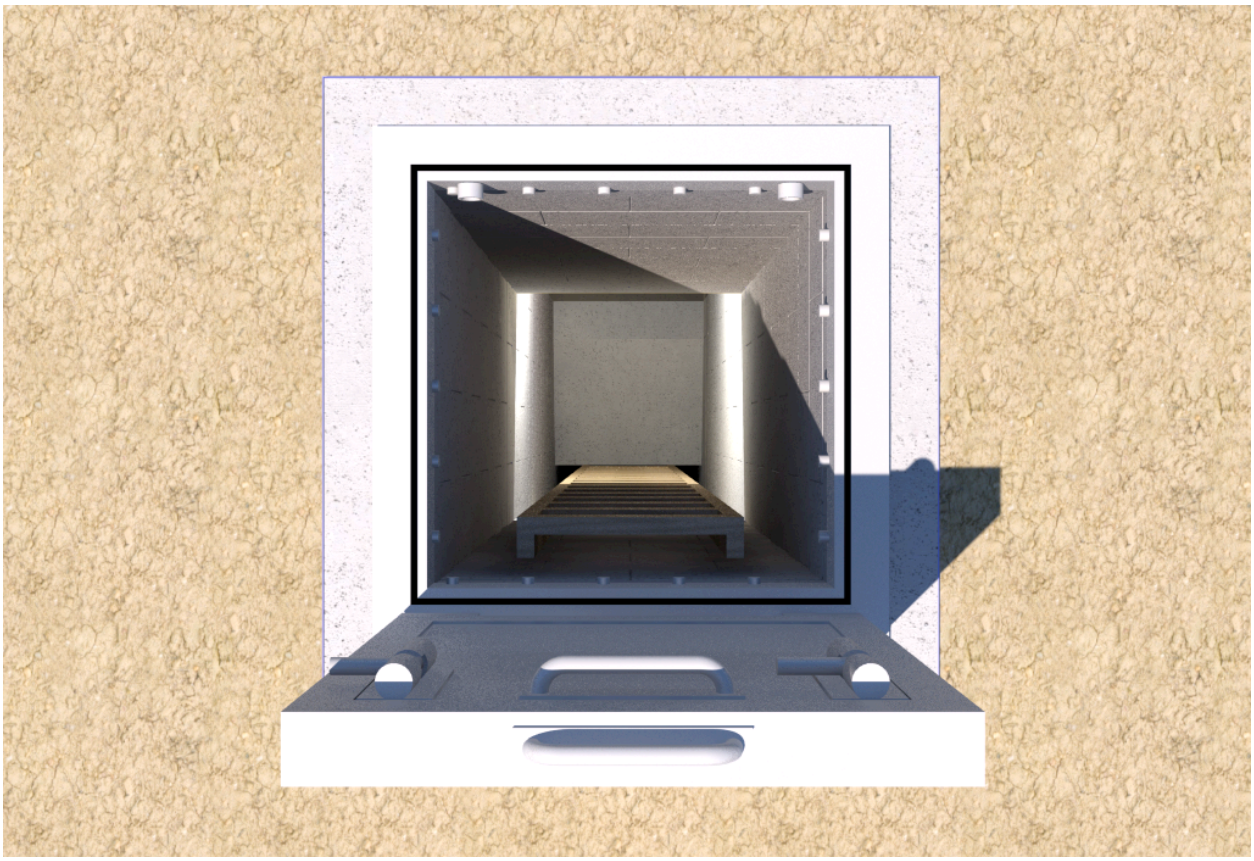
Once the access shafts are sealed begin backfilling. When you've filled the hole enough to stand beside the tops of the shafts install the hatches. These will be very heavy so having firm ground to stand on will help get the job done. Steel hatches often have a concrete core that is poured on-site after the hatches are in place.

Once the hatches are installed and you've finished any last minute sealing fill the hole in the rest of the way. You're now ready to move on into detail work inside the shelter.



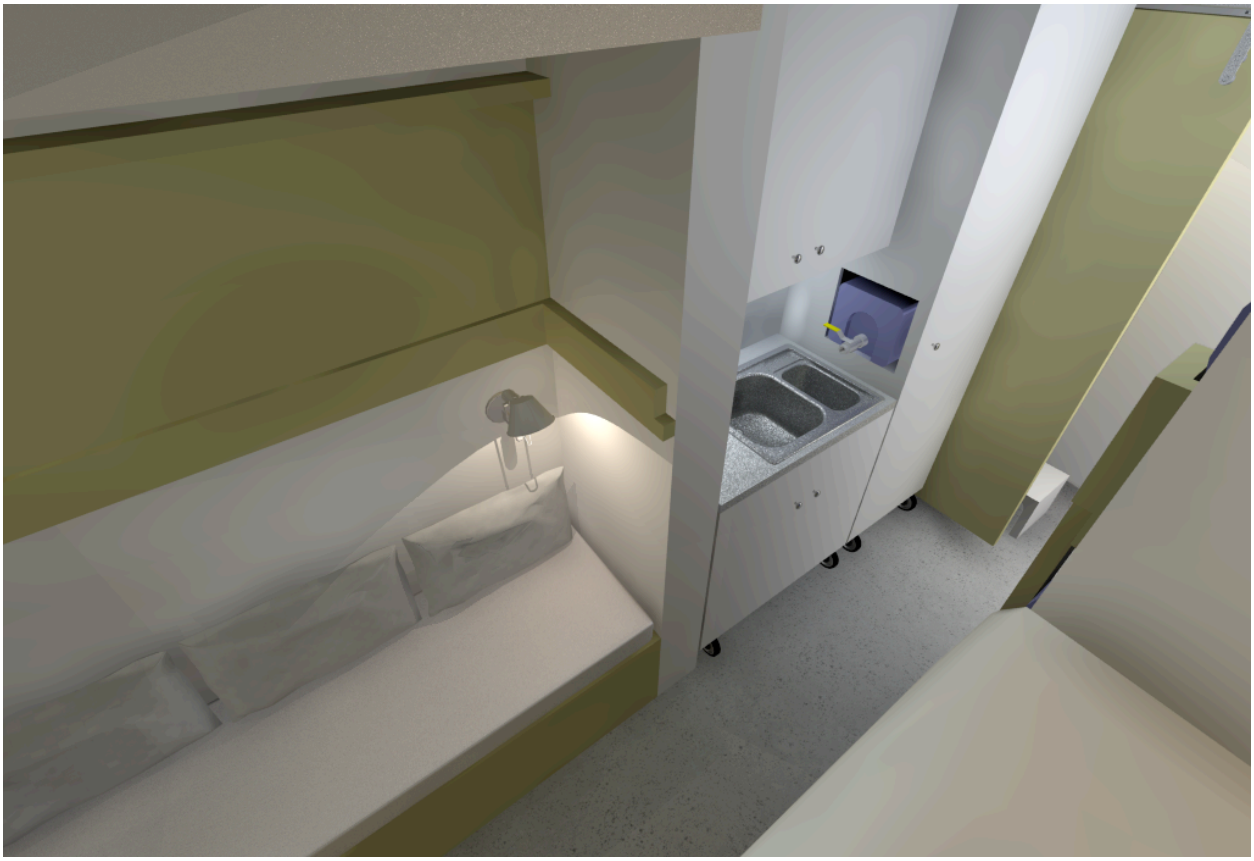






Step 12: Finish Mechanical Systems

Now that the basic shelter is complete it's time to finish the mechanical systems installation. This would be the moment to finish wiring any electrical systems, like lighting, sump pumps, air filtration systems, and security cameras. It would also be the time to finish any plumbing like sinks, showers, and toilets.



Water System

In our design the water storage is self contained in three 55-gallon barrels and the faucet is simply a 5-gallon BPA-free water jug carefully placed above the sink on the shelf. The drain would flow into a 5-gallon bucket located below the sink. When full consider storing this waste grey water in five gallon buckets and reusing it after filtering through an adequate filter - like a backpacking filter. If you use natural soaps and avoid pouring chemicals down the drain the grey water should be possible to safely reuse after filtering in an emergency. You could also boil the water after filtering to kill any biologic contaminants.

Waste System
The toilet in our design is a non-electric composting toilet which requires no plumbing except for an air vent. There toilets collect and compost human waste and urine in the space below the seat. The material is dried by air moving through the toilet and up and out the vent in the back. Electric versions add heat and fans to help speed the composting process. If the toilet fills-up during your shelter stay simply shovel out the compost, and store it in 5-gallon buckets in the entryway behind the blast door. When it's safe to exit the shelter hoist the buckets out of the shelter with a rope and compost separately.

If the additional expense of a commercially made composting toilet is not in the budget, build an ultra low-cost humanure toilet, which is essentially a five gallon bucket, in a box, with a toilet seat. After each use add a layer of sawdust to cover the deposit. This helps to reduce and even eliminate foul odors.

Another way to avoid odors emanating from a humanure toilet is to store urine separately. When mixed together urine and poo make a terrible smell. When kept separate the poo dries out in the sawdust and the urine's odor can be kept sealed in a bottle. Peeing into a bottle is easier to do for the men in your shelter, but

toilet seat adapters (similar to funnels with tubing) are available that make it possible to keep urine stored separately.

When the bucket is full, seal it with a lid and place it in the entryway behind the interior blast door, then dispose of it later just as you would with the compost from a commercial toilet. Once human waste has composted for about two years it should be safe to use on trees and ornamentals. To learn more about humanure toilets and composting human waster read The Humanure Handbook.

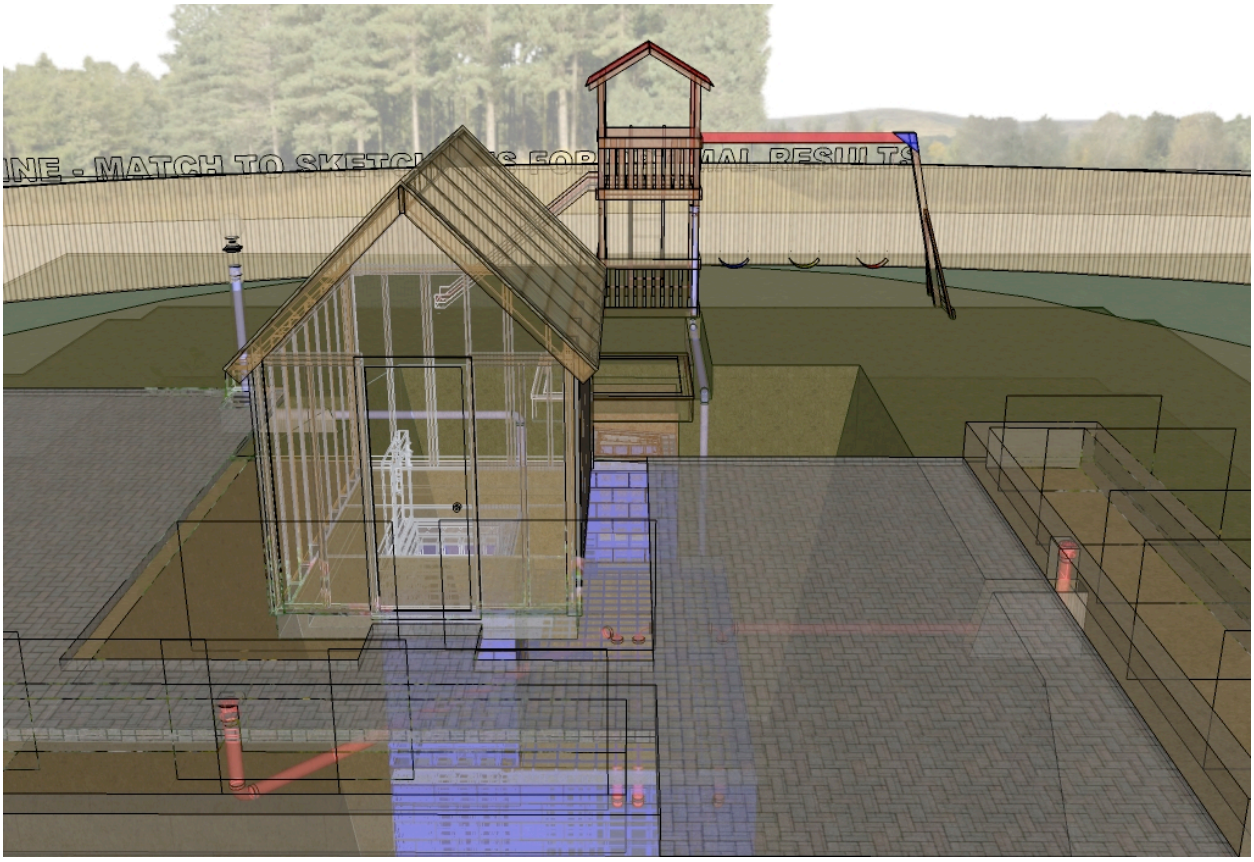
Air System
In our example design you can see several 4-inch diameter air pipes entering and exiting the shelter. The blue pipes bring fresh air in - the red pipes vent air out. Since warm air rises we've placed the vents high on the wall and the intakes near the floor. This should create a natural slow airflow without fans, but we also show how blower fans can be added to the exhaust vents to help assist in air movement. It's important to keep the shelter air fresh to keep carbon dioxide levels down as well as odors.

In our illustration we've shown a representation of a commercially available shelter filtration system mounted on the intake vents. Essentially it's a simple low-voltage blower fan and some special NBC filters. There's a pre-filter for

catching the larger particles, a hepa filter for catching the smaller particles, and a carbon filter for gaseous materials. Carbon filters are also good for filtering out odors.

If expensive NBC filters are not in the budget check online and local greenhouse suppliers for air filters and blower fans. These will not be rated as NBC filters but would be better than no filters in an emergency.

Step 13: Landscape and Build Camouflage



When laying out your shelter's design be sure to plan ahead for how you'll camouflage the main hatch and air intakes and vents. If a nuclear crisis were to present itself some people will undoubtedly panic and be prepared to to anything to save themselves at any cost.

Avoiding contact with desperate or dangerous people during a disaster is probably a good strategy for staying safe - so a bit of pre-planning for camouflage is worth some time and energy.

Ideally your main entry is accessible from inside your home. Since that is not an option for the majority of people another option may be to build something on top of your shelter like a greenhouse, shed, gazebo, or outdoor kitchen. Your hatch will probably be at least 32-inches square, so be prepared to hide something at least that size.

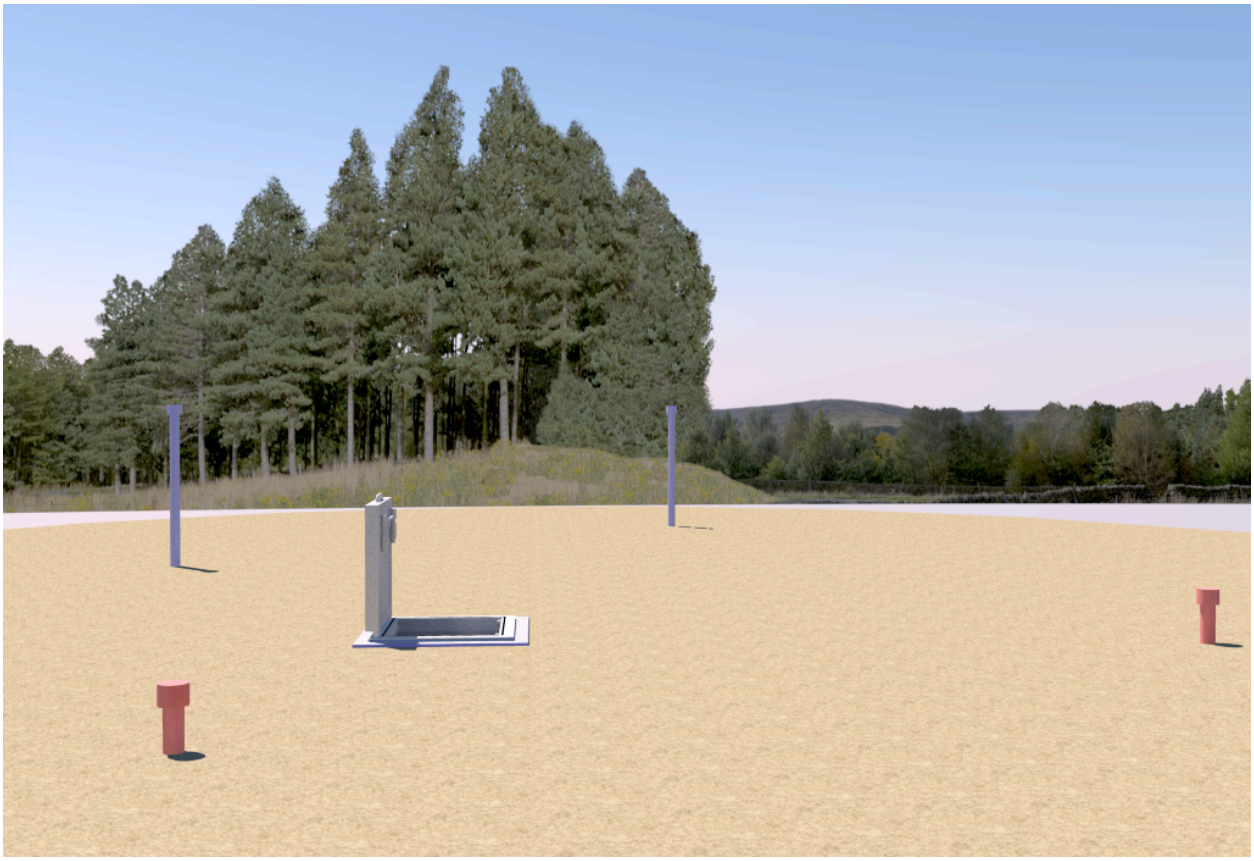
When hiding the hatch be sure that if the structure above it collapses that it doesn't make opening the hatch too difficult - even when using a hydraulic jack for lifting the hatch. For example if you build a greenhouse out of lumber and

fiberglass panels over your hatch and hide it below a slatted floor, the weight of all those things over the hatch will probably still be easily lifted with the help of a jack. But if you were to build a concrete block shed with a concrete roof and it were to collapse you might have to use your emergency exit instead.

Your air intake and vent pipes can be camouflaged in a number of different ways. They can be run up inside outdoor light posts, playground structures, planter boxes, concrete block walls - only your own creativity will limit you.

But when brainstorming your options keep in mind that ideally the air intakes should be elevated above the ground and yet protected from damage or vandals. Also remember that the air that exits the shelter may be warmer than the surrounding air and may bring with it odors from the shelter. The oder may draw attention to your shelter.

If the pipes are warmer than the surrounding air they may stand out like a soar thumb to anyone with thermal imaging cameras. Typically most people wouldn't have access to thermal cameras but soldiers, rescuers, and raiders would likely make this apart of their post-crisis kits. So if at all possible consider thermal camouflage too. By this we mean place barriers/objects in and around your vent pipes to help mask it from being viewed from a distance. You may also be able to mask the thermal signature by diffusing the heat within plantings or in the design of the vent outlet itself.



Step 14: Finish Interior and Stock with Supplies

Now stock your shelter with the gear and supplies you'd need for your stay as well as things you'd want on hand after the crisis has subsided. Some things to consider are:

Water Supplies

A shelter should have at least 1-gallon of water per person per day pre-positioned. If we assume that a 28-day stay in your shelter will be the longest you'd need to stay underground after the last blast, then you need at least 28 gallons per person. Ideally you should store more than that to give you the option to bathe or shower-off after a short trip outside.

You may also want to have extra water on hand in case water supplies on the surface are in short supply after the crisis. The shelter in this example uses three 55 gallon barrels which would theoretically be enough water for four people for just about 40 days.

Storing extra replacement water filters elements and even electric or hand-powered water pumps may also be useful since these items may be hard to find.

Food Supplies

Shelf-stable food that requires no preparation are preferred since they require little preparation, clean-up, or cooking fuel. Some good choices are, military MREs (meals ready to eat), sea rations, and freeze dried food (only requires hot water to reconstitute). Also be sure to stock some treats and favorite foods like chocolate bars, coffee, tea, sodas, etc. While these items don't help you stay alive they may help you stay sane.

Bulk foods like rice, beans, wheat, and other grains is also a good idea since food supplies after a nuclear event may be in short supply. These foods are typically less expensive than most of the ready to eat foods, but require preparation and cooking fuels. Building a pantry of shel-stable foods that you use and rotate regularly can also give you a buffer during tough times too - like job loss or economic hard times.

Seeds may be good to store if you plan to grow a garden after returning to the surface. Be sure to buy only non-GMO or non-hybrid seeds since these sometimes do not have open-pollunated seeds. These are plants that can actually replicate themselves naturally by seed. GMO and some hybrids have been engineered to not replicate requiring that you buy a fresh batch of seeds from the manufacturer each year.

Radiation Detection

Radiation detection gear for measuring the current radiation level and your exposure to radiation over time will help you avoid excessive exposure to radiation. A radiation meter can tell you how much radiation is present at a single any point in time. A dosemeter or exposure card can tell you how much radiation you've been exposed to over time. Both are useful during and after your shelter stay. The meter can tell you what the current radiation levels are outside as well as allow you to test items for radiation - like for testing food, soil, and water sources after you've exited the shelter.

Many of the digital radiation meters are good for measuring low levels of radiation. Most refurbished cold war era survey meters measure wider ranges of radiation and are more appropriate for nuclear war. So it may be smart to buy both - for redundancy as well as flexibility. The wider scale survey meter would be most useful during the first weeks of the event. The finer scale meter would be helpful with detecting low levels of radiation in food and soil months that follow.

Protective Clothing

Fallout resistant clothes and masks, like disposable tyvec coveralls and military surplus gas masks (with new/unexpired filters) can provide basic protection from fallout if you need to exit the shelter prematurely or temporarily for any reason. These items can't protect you from penetrating gamma radiation but they can help keep your body clean of fallout and help prevent the ingestion of fallout.

You may also want to consider storing clothes that clean up easily after the crisis. Even after its safe to move back to the surface, pockets of residual radioactive fallout may be present, so wearing clothes that are less likely to trap fallout in their fibers will probably give you better protection.

Defensive Weapons

Defensive weapons and ammunition may be very useful for protecting yourself during and after your 28-day stay. It's almost impossible to predict exactly how life will be during or after a nuclear crisis, but since most people will be pushed to their limits having the ability to protect one's self and family will be needed.

Mobile Gear Kits

Bug-out bags for each member of your group, pre-positioned in your shelter, will give everyone a kit of gear for use inside the shelter as well as a mobile kit in case you are forced to flee your location. The kit should include personal hygiene items, spare clothes, warm clothes, rain clothes, and common camping tools like fire starters, knives, canteens, flashlights, mess kits, and so on. Keep these kits as lightweight as possible and consider also prepositioning ways to transporting these bags on wheels - like with an easily pulled wagon or dolly.

Evacuation should be a last resort since you'd be immediately thrown into a situation where obtaining water, food, shelter, and security will be constant struggle. Staying inside (or near) your shelter after the disaster is preferable.

Comfort Items

Sleeping pads, pillows, blankets, and towels should be pre-positioned in your shelter so that everyone can make themselves as comfortable as possible. Also be sure to include entertainment items like books, drawing paper, pens, pencils, crayons, crafting items, DVDs, CDs, and so on. Since the space inside the shelter is cramped having things to busy yourself with will help make the time go faster and help reduce stress.

You may also want to consider exercise equipment like small lifting weights, a pull-up bar, and even an stationary bike if space allows, and be sure to not miss any opportunities to generate electricity from the bike. The main disadvantage of turning your shelter into a gym could be the added sweat and odor it may bring. You may also require more calories if you are physically active.

EMP Protection

A cabinet lined with a simple faraday cage can help to protect your electronics in case of an EMP (electromagnetic pulse). EMPs can be generated by the sun and atomic weapons detonated at high altitudes (called HEMP weapons). In the case of a nuclear war with other nations, it is likely that HEMP weapons would be used to cripple communications while ground or air bursts would be used to destroy targets.

A faraday cage can be as simple as a tight wire mesh box that's electrically grounded (connected to a grounding rod (copper spike) in the ground). The reinforced concrete shelter itself might help provide some limited EMP protection but a purpose built cabinet/box will give you dedicated protection. Pre-position electronic items as well as emergency solar panels, wind generator alternators, etc inside the box for use during and after the disaster.

Conclusion

Until humanity matures to a higher level and chooses to dismantle all nuclear weapons and nuclear power plants we must accept the risk of nuclear war and catastrophic nuclear meltdowns. In the mean time, as we continue to demand disarmament and and end to nuclear power, we must reap the harvest humanity has planted.

Building a dedicated fallout shelter like the one shown here is one option. Building multi-function rooms in your home that can also provide fallout protection is another. Building a home that can provide fallout protection and can be lived in full time is still another.

No matter what route you take remember that nuclear war is survivable - Hollywood script writers have it wrong. Also remember that a fallout shelter can also provide you and your family a safe haven for a multitude of manmade and natural disasters. So while the investment in time and materials may seem high the insurance a shelter can provide can save lives.

We'll continue to post shelter design concepts at FalloutShelter.Me. If you liked this one please be sure to follow us on Facebook and/or subscribe by email at our website.