TEXAS SAND & GRAVEL

11311 E. FM 917
ALVARADO, TEXAS 76009
PHONE: 817-225-0059
TSGMATERIALS.COM

THE WORKING WITH SERIES 02

WORKING WITH & UNDERSTANDING FRENCH DRAINS

SO WHAT IS A FRENCH DRAIN?

A French Drain is a trench filled with gravel or rock that usually contains a perforated pipe which is generally covered by rocks to quickly vent water that seeps down. The French Drain can be exposed on the top or completely hidden depending on the location and application. The French Drain is used to redirect surface water and groundwater away from an area. French Drains are primarily used to prevent rain water, ground water and surface water from penetrating or damaging building foundations where proper drainage is problematic. French Drains are also used behind retaining walls to relieve ground water pressure. French Drains are constructed with washed 1" Rock. In our area of North Texas, the two most common materials are either a washed 1" Limestone Rock or washed 1" River Rock. Both materials are free from finer granuals of material and dirt debris, which allows the water to flow freely into the perforated pipe below the gravel.

WHAT IS THE PROPER PROCEDURE TO INSTALL A FRENCH DRAIN?

The first step to installing a French Drain is to get the grade of the surrounding land or area correct. If you have areas that need to be raised or lowered, spend time getting the area completely ready so that when the trench is dug, it will be at the correct depth to allow proper drainage, as well as to allow the proper placement of the French Drain. Keep in mind that the area around the French Drain needs have to appropriate slope or fall toward the French Drain, as well as the French Drain toward the drain exit.

The next step is to begin the trenching process. Typically the depth and width of the trench is 1' wide, by 8" to 1' deep. The depth can be affected by the depth at end of the French Drain where the water actually drains out depending on your terrain. For instance a French Drain might end up being 16" deep near the end in order to maintain fall so that the water can exit the French Drain.

Once the trench is completed, the next step is to line your French Drain with Filter Fabric. If you skip this step, your French Drain will fill in with mud over the years. As you can see in this picture to the left, we installed French Drains at the front of our Flower Beds. We lined the entire Flower Bed with Filter Fabric, going down in to the bottom of the French Drain and then back up. Make sure that you have excess material that can wrap back over the gravel. Your finished French Drain will be completely covered by Filter Fabric, protecting the rock and perforated pipe from becoming filled in with mud. Now, on a side note, it is not necessary to line the entire Flower Bed as we did in our picture, but it is an option if you are installing the Filter Fabric in an area where weed control is desired.

ACTUAL IMAGE:
1" Native River Rock installed on French Drain at Texas Sand & Gravel.

After installing the Filter Fabric, you will run the perforated pipe. We chose to use this flexible 4" pipe, which is readily available at your local hardware store, like Lowe's. This pipe comes in 100' rolls, and also has several types of adapters for connecting to various types of pipes, gutters, and basins. This pipe has slats cut all around the pipe which allows water to enter the pipe that has passed through the rock that will surround the pipe.

Next, we used rakes to hold the perforated pipe in place as we installed the washed 1" River Rock. Failure to hold the perforated pipe in place allows the Washed 1" River Rock to work its way under the perforated pipe, lifting it up from the base of the trench. This can impede the flow of water and cause the French Drain to fail. The washed 1" River Rock needs to fill in the sides and cover the top in the perforated pipe. Depending on the application and depth, you can leave a few inches for soil (although this would not be recommended in areas with drainage issues) or in a flower bed you can fill up the rock to the existing grade.

Once all of the rock has been installed around the perforated pipe, the next step is cover the rock up with the Filter Fabric, completely covering the rock up. Again, this is to keep the rock and pipe from getting filled with mud or debris. Think of the wrapping of the rock and pipe, much like a burrito. In most instances, the Filter Fabric will go down in to the trench and excess amount will be on both sides of the trench. Overlap both of these sides on top of the rock to completely cover the rock - like a burrito.

Now comes the fun part - getting to landscape around your French Drain and completely hiding your water drainage solution. At By The Yard Materials, we have French Drains around the front and side of our building... about 230' of French Drains, so if you've got questions, feel free to stop by and see what we've done or ask some questions.

IT'S ALL IN THE FABRIC, THE FILTER FABRIC THAT IS.

We sale a 4.2 ounces Filter Fabric that is a TxDOT approved drainage filter fabric. It is what we used here on our French Drains, and what we recommend for all French Drain applications. This material is also extremely cost effective and worth consideration as underlayment where weed control might be desired! It is a lot thicker than anything you can get at your local hardware store. We sell this fabric on site here in 15', 7.5' and 3.25' widths and can cut to any length you desire. Give us a call for more information regarding this product and pricing.

WASHED 1" LIMESTONE ROCK & WASHED 1" RIVER ROCK

We carry both materails here on site, ready to load in your vehicle or trialer, or we can even deliver. If you'd like to come and check the materials out or have more questions, feel free to stop by or give us a call.

WE ARE HERE TO HELP.

If you still have questions give us a call, or if you'd like to put your hands on the material- feel free to swing by sometime! Maybe you need a recommendation for a contractor that can help with your project? We've got some guys that we feel great about sending your way, no matter what size your project is. We are here to help!

11311 E. FM 917
ALVARADO, TEXAS 76009
PHONE: 817-225-0059
TSGMATERIALS.COM