



## [Guide To Building A Foundation](#)

### **Step 1: Review Your Plans**

To begin we will typically need to review your architectural drawings. If you don't have plans and need help here give us a call or see our resource links below. Because the house plans may have been created before the lot was chosen we can often make recommendations that will save money or avoid complications down the road. We will work closely with your architect and builder to ensure no details are missed.

### **Step 2: Getting an initial estimate**

With the plans in hand we will be able to provide an initial estimate that will help with your budgeting. With our experience in building foundations throughout southern Ontario we can usually see potential problems in advance but it is important to know that the steps below can mean that you incur additional costs if the plans need to change.

### **Step 3: Soil Samples**

Knowing the soil you are building on is important when it comes to laying a foundation. If the soil is too soft then your foundation would sink. A collection of soil samples from the field must be tested to determine the strength and compressibility characteristics of the soil. Study of ground water level condition and collection of water sample for chemical analysis is also part of the process. All the results from the sample studies will be put into a report and will inform you if a foundation can be built there.

### **Step 4: The Rebar plan**

Placing rebar within footings is a relatively easy and inexpensive practice that can provide increased performance. Footings with large bearing areas or unstable soil can benefit from adding rebar to prevent cracking. The architects will inform you the importance of adding rebar to your foundation.

### **Step 5: Ordering & Pouring Cement (Footings)**

When the cement has been ordered and poured into the footing then the walls can be added. Depending on the size of the foundation walls could be added in 1-2 days. Sometimes, additional footings are added inside the perimeter to support load-bearing interior walls.

### **Step 6: Foundation Drainage Tile System**

This system collects subsurface water and moves it away from the foundation. Foundation drainage tile consists of a continuous run of perforated drainage pipes embedded in gravel along the outside perimeter of the footings. Some building codes require drainage pipes along the inside perimeter of the footings as well. This step must be done by professional contractors.

### **Step 7: Wrapping The Foundation**

Foundation wrap is the most common type of material used for waterproofing foundation walls. The purpose of using foundation wrap is to prevent the entry of moisture, or rain into the wall cavity. Platon is a superior type of foundation wrap. It is a dimpled high-density polyethylene (HDPE) membrane that keeps foundations and flooring dry. This should be able to be completed in one day.

### **Step 8: Backfill**

Backfill is then pushed into the trenches around the exterior of the foundation walls, burying a portion or all the walls below the surface for added stability. You cannot backfill your foundation the same day you pour one or the day after. If you do, you may cause severe damage to the wall by pushing it. You should wait up until 3 days to backfill the foundation.

### **Note: Insulating shallow foundations built above the frost line**

The conventional approach for protection of building foundations against frost heave action is to locate shallow foundations at a depth greater than the design depth of frost penetration. However this is not always convenient or possible and additional insulation techniques are used. It's important to select the right rigid insulation, because only a few products can maintain an effective R-value below grade and throughout the expected lifespan of a building.



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Common building permit applications are available online at the provincial [Ministry of Municipal Affairs and Housing Web site](#)