

So Much Water, So Many Pipes

Drainage pipes vary greatly in size and materials. Here are some of the more popular types currently used in Redmond:

Concrete pipes

last longer—up to 100 years—and can handle more loading (weight from above) than any other pipe. But they're very heavy, making them difficult to install, so they're seldom used by home builders today.

Ductile Iron/Schedule 40 Steel

are very strong pipe materials that can be used in shallow applications subject to heavy loading.

Flexible, single-walled Corrugated Polyethylene Pipe (CPEP)

was, in the past, perhaps the most commonly used drainage pipe in the Northwest—even though it often fails to protect homes. The corrugations on the inside of CPEP pipe can catch and hold debris, which eventually leads to clogging. CPEP pipe collapses under heavy loads, particularly if installed on or under large rocks. This pipe is also difficult to clean and is easily punctured.

Smooth interior double-walled CPEP

doesn't have inside corrugations, so it doesn't catch debris. It is also stronger than single-walled pipe. Gasketed connections are recommended.

Corrugated Metal Pipes (CMP)

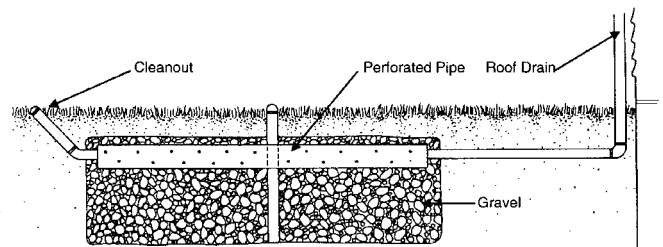
are steel or aluminum pipes that are corrugated for strength and sometimes coated inside with asphalt to increase the capacity

and design life—ordinarily about 20 years. They're lightweight and come in smaller sizes than concrete pipes. Redmond's drainage system is made primarily of corrugated metal pipes.

Polyvinyl Chloride (PVC) pipes

are not as strong as aluminum or concrete, but they're much easier to handle and come in a wide range of sizes. And they last longer than aluminum, because they don't rust or decay. PVC is now being used for most new stormwater piping in Redmond.

Any of these pipe types can be purchased with perforations for use in dry wells or French drains.



Typical French Drain

Redmond has five shallow groundwater wells that provide a significant supply of its daily drinking water. These wells, located in the heart of Redmond's downtown, are protected through the Wellhead Protection Program.

Businesses and residents are asked to ensure safe use and storage of hazardous materials in order to protect the valuable groundwater resource. If you have questions about protecting the groundwater, contact the **Wellhead Protection Lead** at 425-556-2756 or groundwater@redmond.gov.

Please, never allow hazardous materials or other contaminants to enter drains or percolate into the ground.