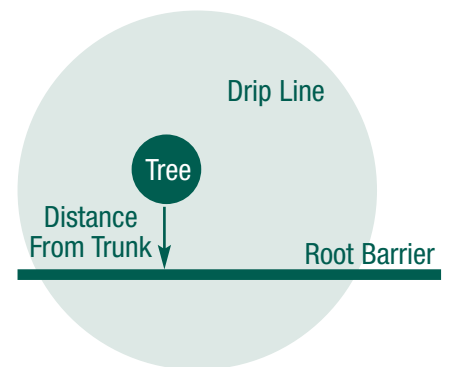


5 CRITICAL POINTS TO SOLVE PROBLEMS WITH TREE ROOTS, MOISTURE AND REACTIVE SOILS

1. Placement

Normal placement of the barrier is to locate it around the structure, out from and parallel to the footings of the structure. Try **not** to surround the tree. Our preferred method is placing the root barrier along beside the building, path, road etc so that the tree roots cannot gain access to the structure. Root barrier works as a waterproof seal protecting the soil under the structure from moisture loss laterally. The structure prevents loss of moisture vertically and so the moisture content of the soil can be stabilised and will stay constant. After installation the soil under the building can be rehydrated to return it to the moisture content that it was when the building was built.

Working in from the drip line, the closer you get to the trunk the higher the risk of damaging or destabilising the tree. 50% of the distance from the drip line to the trunk is regarded as the closest you can cut without major risk to plants health. If it is necessary to trench closer than halfway towards the trunk, it would be advisable to engage the services of an arborist to assess the tree prior to the work being carried out, and to help nurse the tree through the period of installation.



2. Area

The area of good soil that the plant will require to live a healthy life may be calculated by multiplying the radius of the mature plant canopy by $\pi r^2 \times .3m$. The answer will give you the cubic volume of good soil required. If works require the ground surface area is not available for the plant, special pits filled with quality soils, drainage, etc may provide the answer.

3. Depth

Depth is determined by a civil engineer's assessment of 'the zone of influence' in the soil. In 'normal' reactive clay depths between 1500mm and 4 meters may be expected. On the other hand if you strike rock at 700mm, the moisture cannot move through it then that is deep enough.

4. Seal

Sodium Bentonite is used to seal the bottom of the trench and bind the bottom of the root barrier to the undisturbed soil. In summary take the barrier down to the soil that nothing will move through and bind the root barrier to it.

5. Length

The length past the point at which the structure is showing signs of movement, as a minimum at least sufficient to stop the roots going around the end of the barrier, normally 1 or 2 metres outside the drip line of the mature tree.