



How to...

..build a pond

As gardens are becoming more of an entertaining and living space to be admired and enjoyed, people are using elements such as water and lighting to provide that individual touch. While pre-fabricated water features can provide a water feature with minimal time and effort, it will never be as personal as a custom built brick and concrete water feature and it is not as difficult as you may think.

Step 1 – Determine your requirements

Firstly you will need to determine what sort of water feature you are planning to build, whether it be a free-form concrete pond, or a more modern geometric water sculpture. However depending on your selection you may need to use bricks to form edges if a geometric shape is desired.

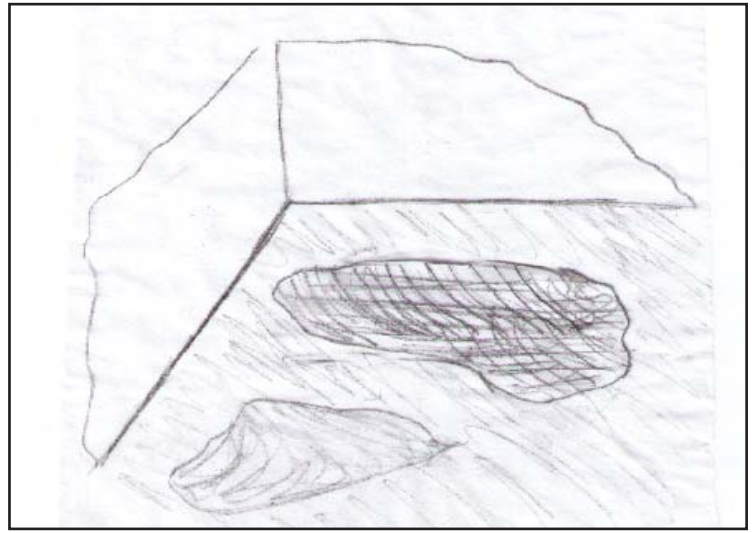
Materials

PondTite (Coloured variants)
HydroCrete
Epoxy-Prep
Shovel
Spirit Level
Tape measure
Brickies sand
Lime
Bricks (optional)
Black Plastic
Portland Cement
Re-inforcing mesh
Garden stakes

Step 2 – Setout

With the area for the water feature marked out with rope or marking paint, you will need to clear the area and excavate the hole. If building a free form feature, you will need to allow at least 100mm (10cm) to allow for the base. Ideally a finished depth of any water feature is between 300mm – 450mm as this body of water will have enough depth for aquatic plants and fish as well as have a low surface area to volume ratio to be less effected by evaporation.

If building a geometric feature, you will need to clear more material to allow for the brickwork to be built and reinforced.



Free Form Step 3 – Preparation

With the site excavated, you will need to cover the entire pond area with black plastic, overlaying any joins, prior to pouring concrete or commencing brickwork. This not only aids in the curing process of the concrete but helps to prevent moisture in the soil migrating through the concrete and bubbling the finished pond membrane.

You are now ready to pour the concrete or commence the brickwork which can then be rendered. If the shape is very curved, you may find it easier to use mesh to form the structure and use the concrete as the structural walls such as in a concrete pool.

Depend on the size of the water feature you may want to reinforce the concrete with steel mesh. If using mesh, ensure to install plastic bar chairs which will hold the mesh in the middle of the concrete and provide greater strength.

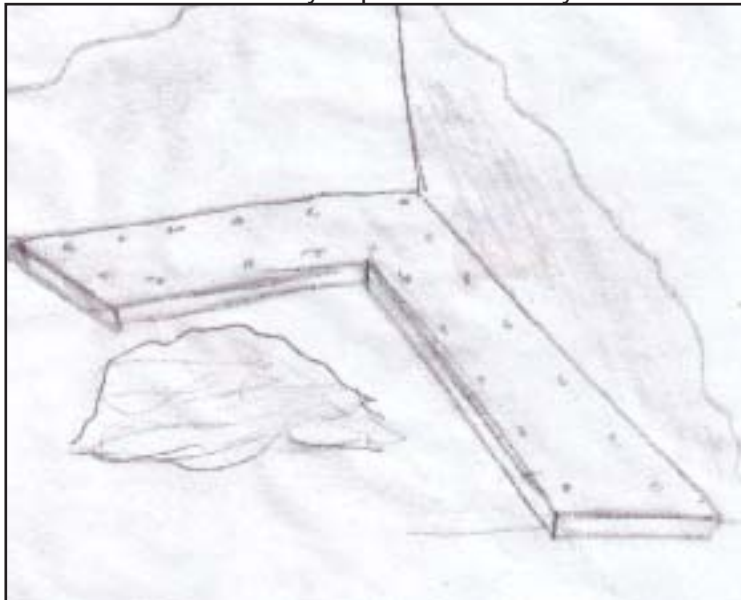
Free Form Step 4 – Concrete

Mix the concrete to a stiff buttery mix. To add greater water proofing to the mix, it is recommended to add HydroCrete (a waterproofing admix). Work the concrete into the base of the water feature and then up the sides to obtain an even cover of between 50 – 100mm to enable the concrete to be compressed into the mesh, ensuring that all the mesh is covered.



Geometric Step 3 – Footings

As a geometric water feature has straight sides, you will need to pour a footing and then build a brick wall surrounding the footings. This will become the base of the pond. To ensure that the base of the water feature is level, hammer pegs into the ground, and using a spirit level. Before pouring the concrete, lay a pad of clean fill to act as a buffer for any impurities that may be in the



Pour the concrete into the cavity for the footings ensuring the tops of the pegs are just below the surface. This will provide you with a level base for the brickwork. As with the freeform water features, you should add HydroCrete to the mix.

Geometric Step 4 – Brickwork and Rendering

Allow the concrete to cure (ideally for seven days) and after which you can commence the brickwork. Like the footings you will need to add HydroCrete to the mortar. Depending on the shape of the water feature, you may also need to reinforce the walls to avoid the walls bowing under the pressure of the water.



Once the brickwork is complete, the walls can be rendered with a 5-10mm mix, again with HydroCrete to further improve the waterproofing ability of the feature.

Step 5 – Pond Membrane

Allow the new concrete or render to cure for at least 7 days for every 25mm thickness. With the concrete and render cured test for renewable moisture prior to applying the first of two coats of Bondall PondTite elastomeric waterproofing membrane (available in Blue Lagoon, Limestone and Black). To test for renewable moisture tape all edges of a small sheet of plastic e.g. 300mm x 300mm to the pond surface. Leave for at least 2 hours then remove and check for moisture. If there are any signs of moisture then Epoxy-Prep Surface Conditioner is required prior to the use of PondTite. Epoxy-Prep Surface Conditioner may be applied to “green” concrete.

The PondTite should then be liberally applied to avoid any air bubbles which once dry will provide an opportunity for a future leak. Allow the first coat to dry for 24 hours and apply the second coat at right angles to reduce the chance of missed areas.

Once the second coat is dry allow a minimum of 7 days for the membrane to cure before continuous immersion in water. It is important to add a filter and remove leaf litter regularly to maintain water quality. If you are planning to not agitate the water, you may want to add fish to keep mosquitos at bay.

Step 6 - Filling

After 7 days (or longer in less optimum conditions) clean the pond with warm water and a little dishwashing detergent then rinse thoroughly. Fill the pond with clean water and let stand. Repeat 24 hours later. As there is a number of factors that can impact the health of fish and aquatic plants it is advisable to obtain information on conditioning the water prior to introducing fish from a reputable pet store, fish breeder, nursery or similar.



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