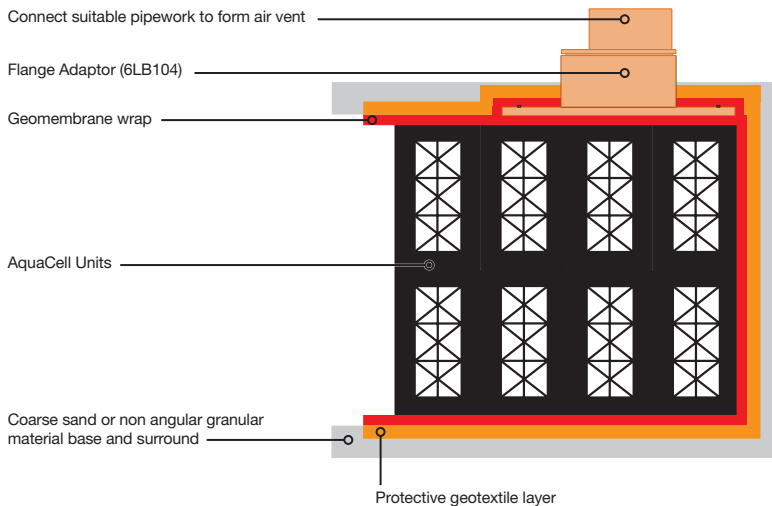


Connections

Top connection for Air Vent

Connect into the top of the AquaCell unit, using Flange Adaptor.

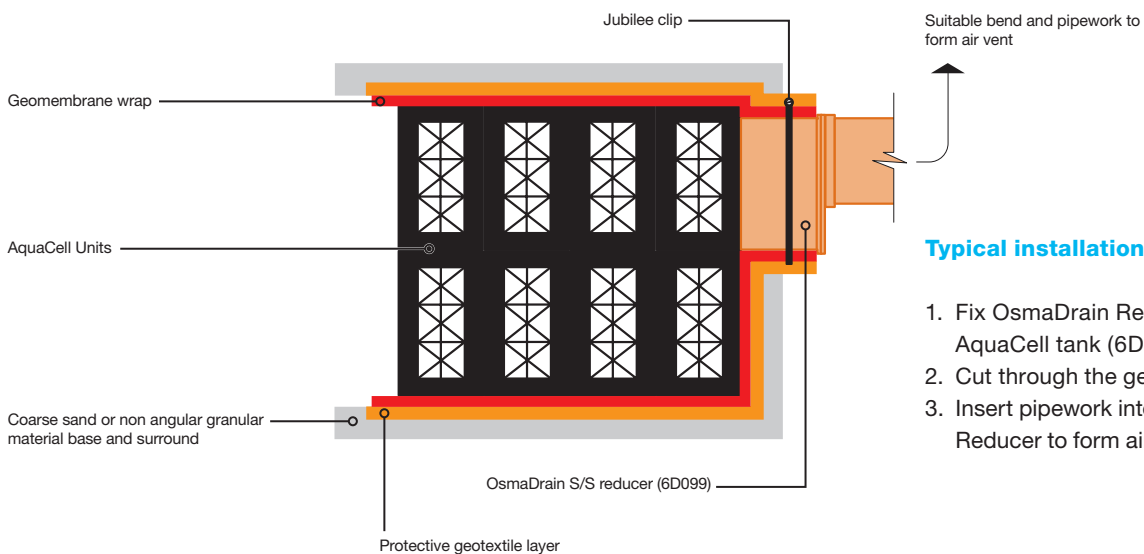


Typical installation procedure

1. Fix Flange Adaptor to the AquaCell unit with self tapping screws.
2. Cut through the geomembrane.
3. Insert pipework into Flange Adaptor to form air vent.

Side connection for Air Vent

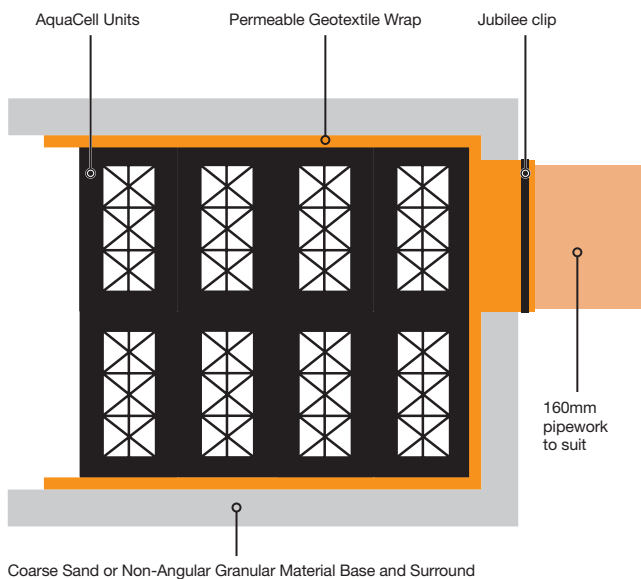
Connect into the side of the AquaCell tank unit using standard Reducer.



Typical installation procedure

1. Fix OsmaDrain Reducer to the AquaCell tank (6D099).
2. Cut through the geomembrane.
3. Insert pipework into OsmaDrain Reducer to form air vent.

Connections

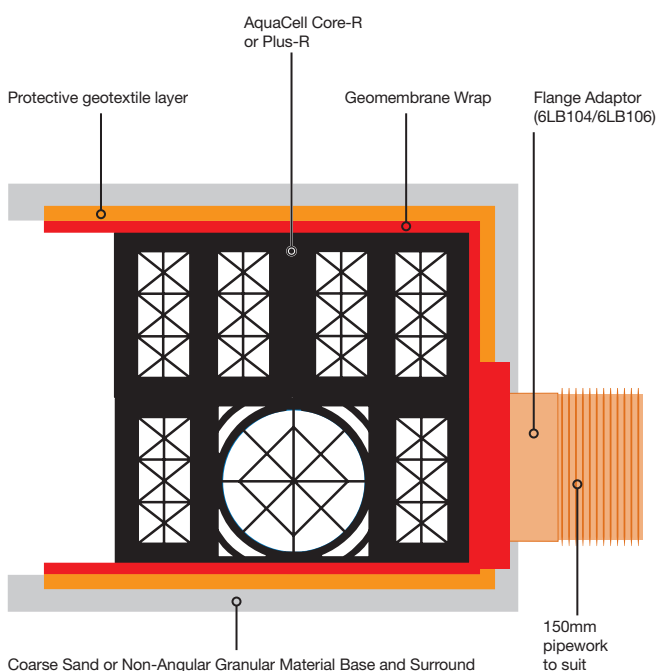


Connections to AquaCell units

Connection for soakaway application using either the pre-formed socket (as shown below) or standard adaptors into pre-formed socket*.

*NOTE: For pipework other than 160mm OsmaDrain, these adaptors can be used to connect to the following:

- ④ 6TW141: TwinWall S/S Adaptor connects to 150mm TwinWall
- ④ 6D099: OsmaDrain Adaptor connects to 110mm OsmaDrain
- ④ 6UR141: UltraRib S/S Adaptor connects to 150mm UltraRib
- ④ SA15/2: Double Spigot Adaptor connects 160mm OsmaDrain to 150mm Supersleve Clay



Connection for storage application using Flange Adaptor at points other than pre-formed socket, (for AquaCell Core-R or Plus-R).

Installation procedure

1. Fix Flange Adaptor to the AquaCell unit with self tapping screws.
2. Cut through the geomembrane.
3. Insert pipework into Flange Adaptor.

*NOTE: When using the 6LB104: For pipework other than 150mm UltraRib these adaptors can be used to connect to the following:

- ④ 6UR099: S/S Level Invert Reducer to 110mm OsmaDrain
- ④ 6UR143: UltraRib 150mm Spigot Adaptor connects to 160mm OsmaDrain
- ④ 6TW145: UltraRib 150mm Spigot Adaptor connects to 150mm Twinwall
- ④ TA/2: UltraRib 150mm Spigot Adaptor connects to 150mm Supersleve Clay

When using the 6LB106: For pipework other than 225mm UltraRib these adaptors can be used to connect to the following:

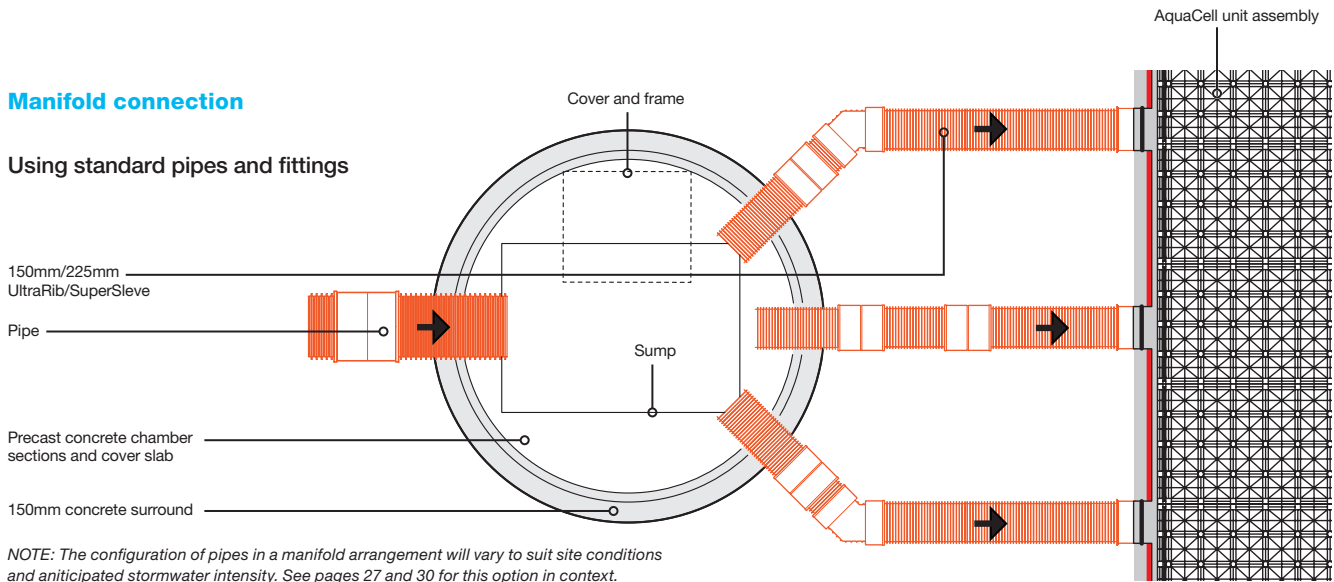
- ④ 9TW145: UltraRib 225mm Spigot Adaptor connects to 225mm Twinwall
- ④ TA/4: UltraRib 225mm Spigot Adaptor connects to 225mm Supersleve Clay

Connection configurations

The connections shown here in schematic form, are the typical options used to connect AquaCell units to control chambers. They provide a controlled feed into and out of the AquaCell units, and are used for either infiltration or attenuation schemes.

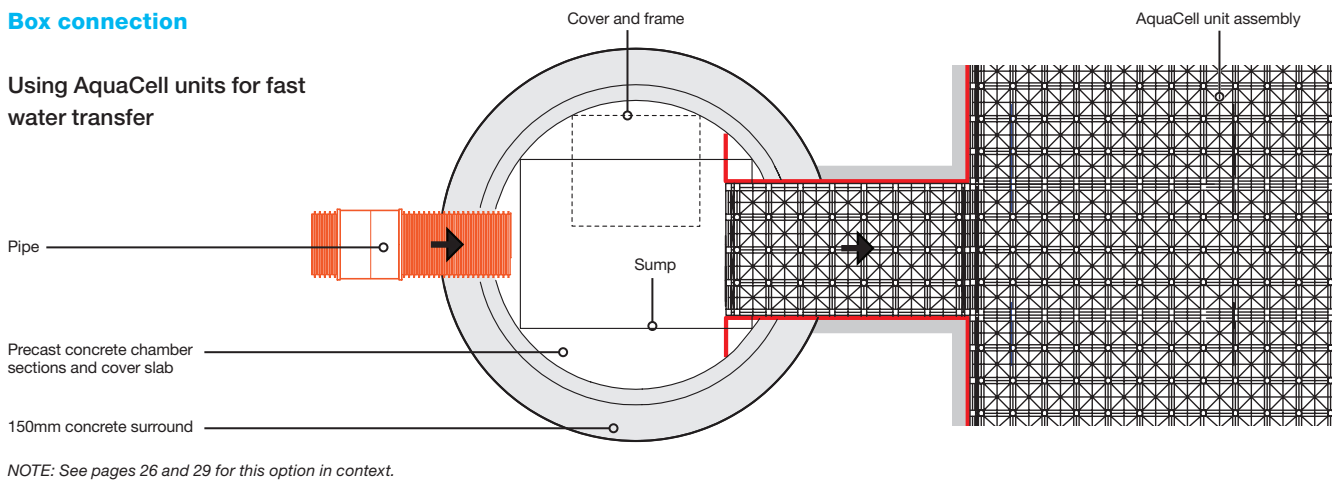
Manifold connection

Using standard pipes and fittings



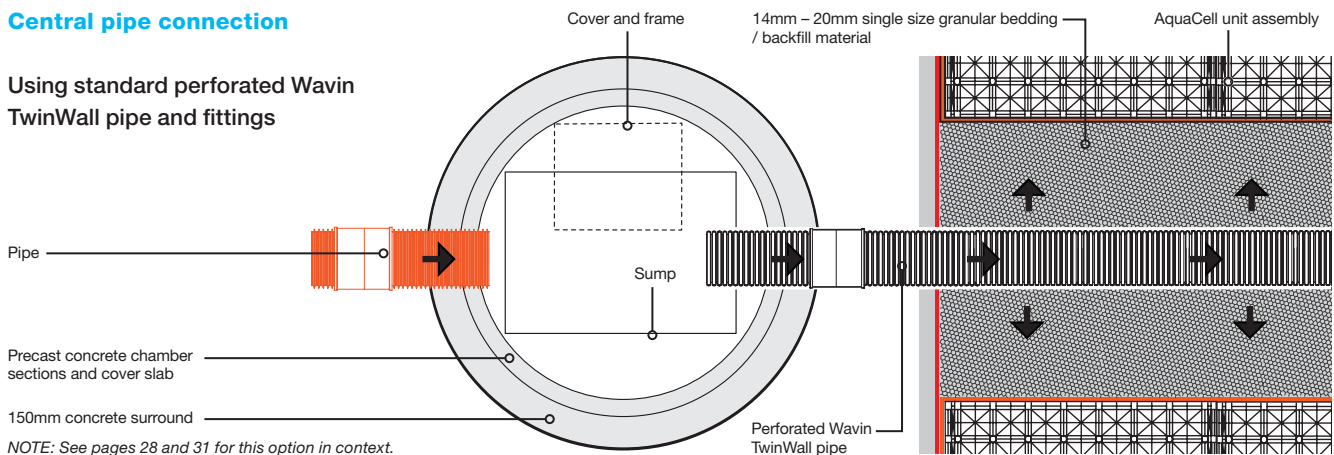
Box connection

Using AquaCell units for fast water transfer



Central pipe connection

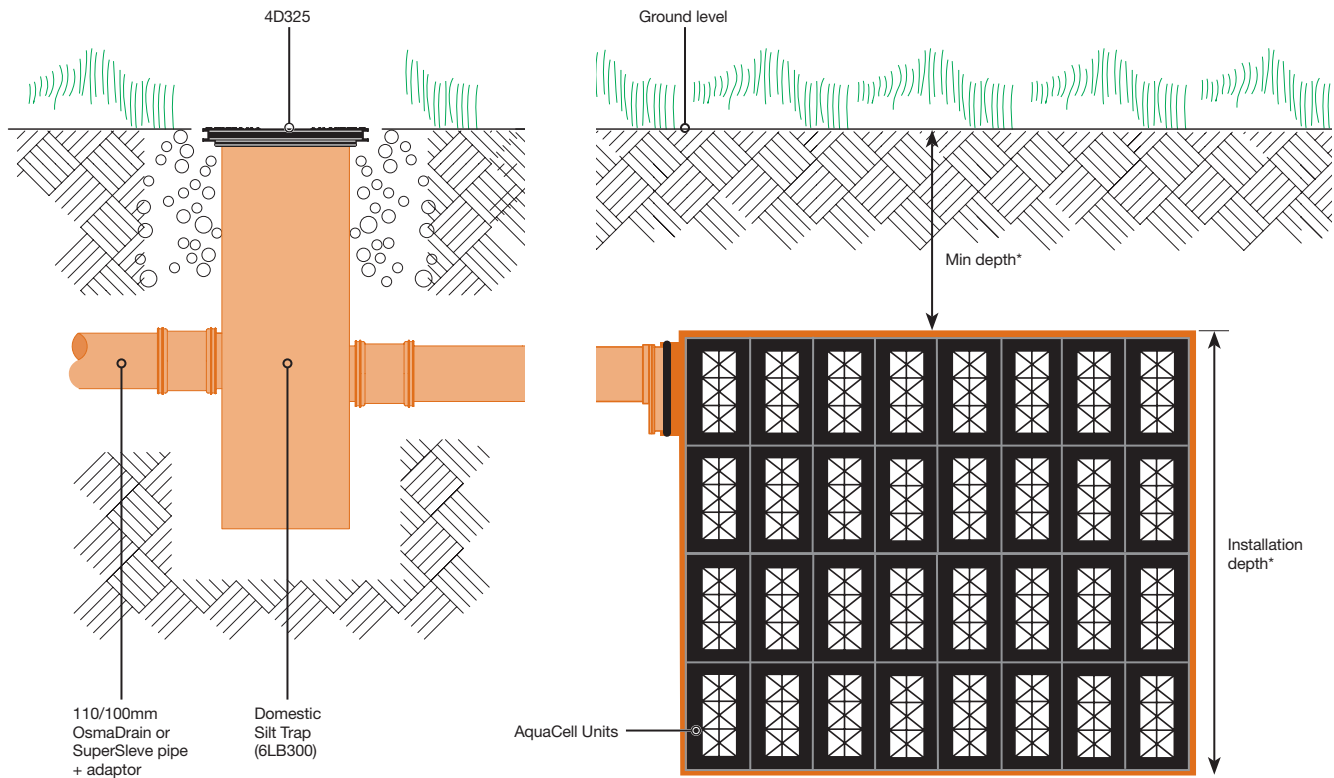
Using standard perforated Wavin TwinWall pipe and fittings



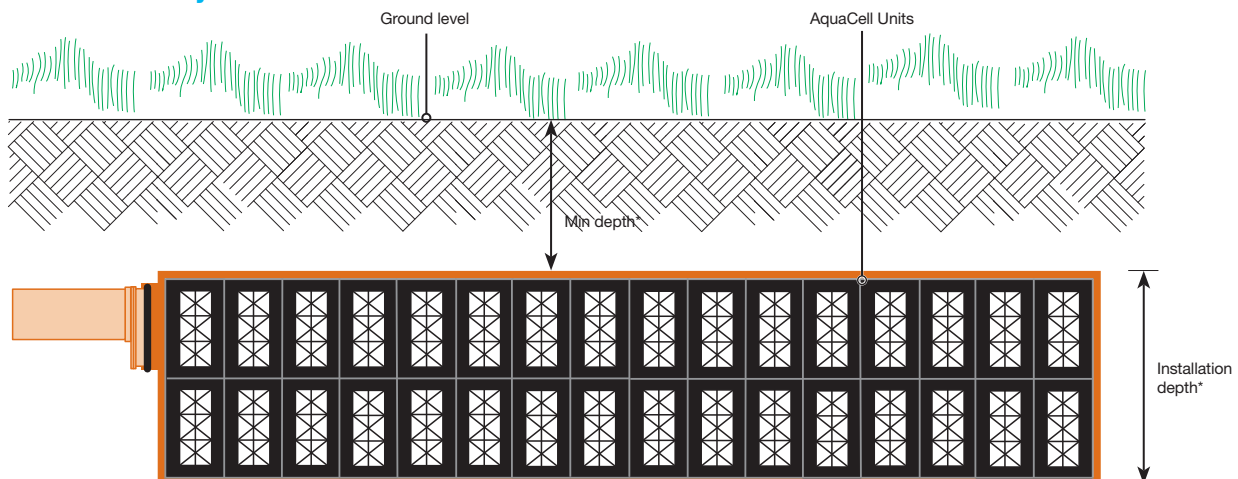
Soakaways

Soakaway – non-traffic loading

Soakaway

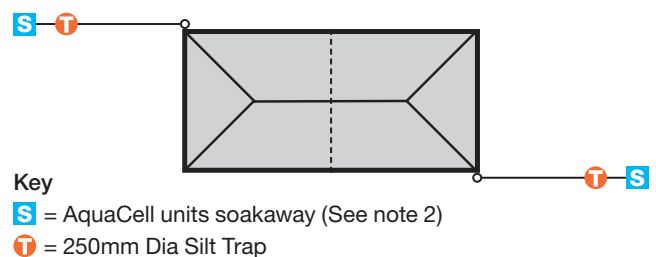


Trench soakaway



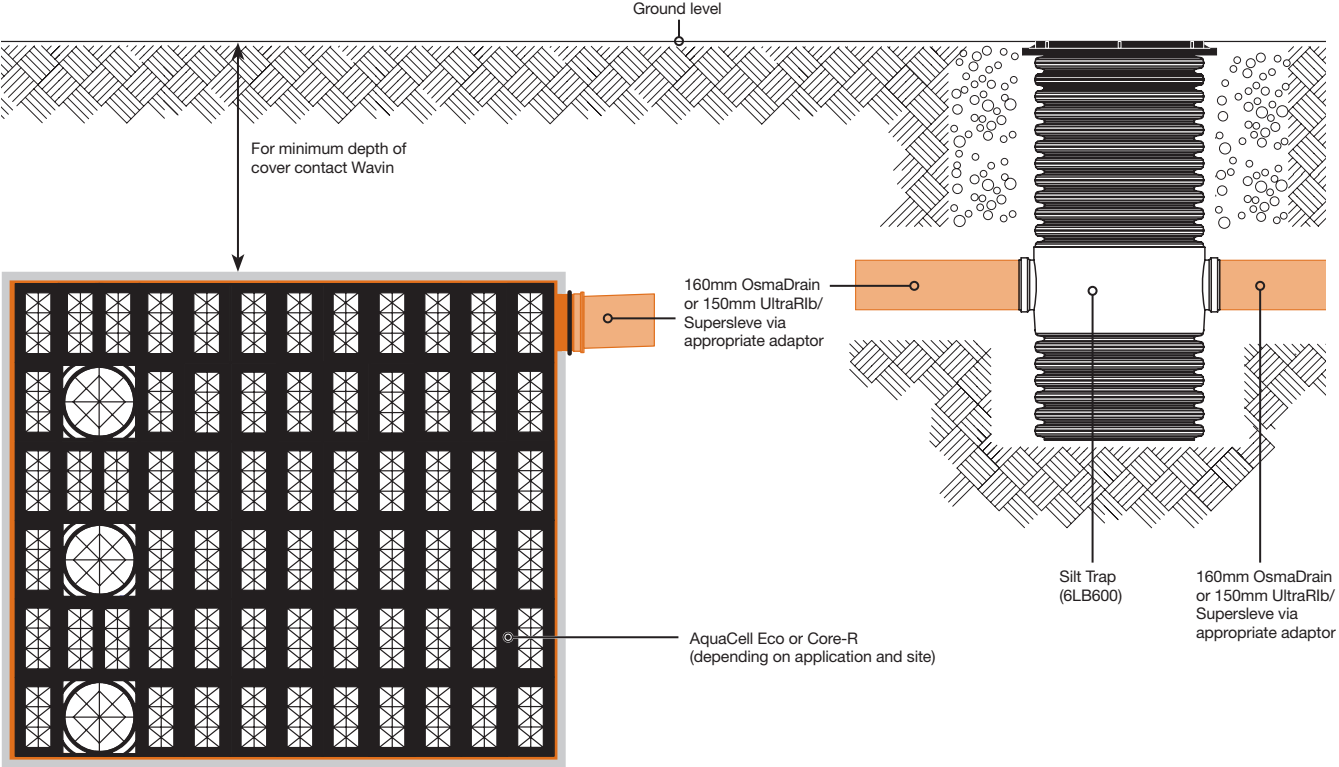
Notes

1. Soakaways should be sited at least 5m away from the building (Ref BS EN 752-4).
2. The exact size and shape of the soakaways are to be determined once all the necessary calculations have been produced.
*For information regarding cover depths and installation depths, see page 15.



Soakaway – traffic loading

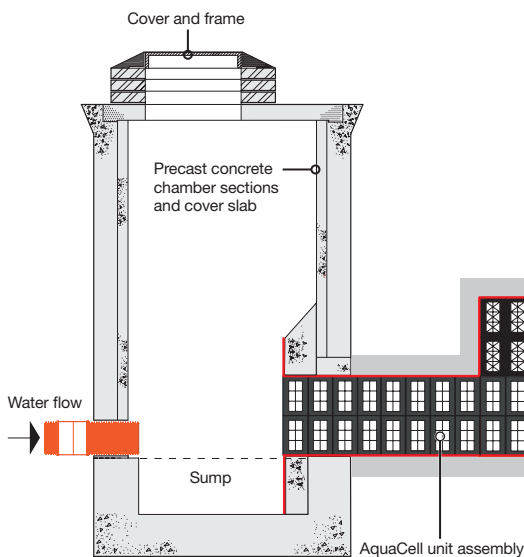
Soakaway



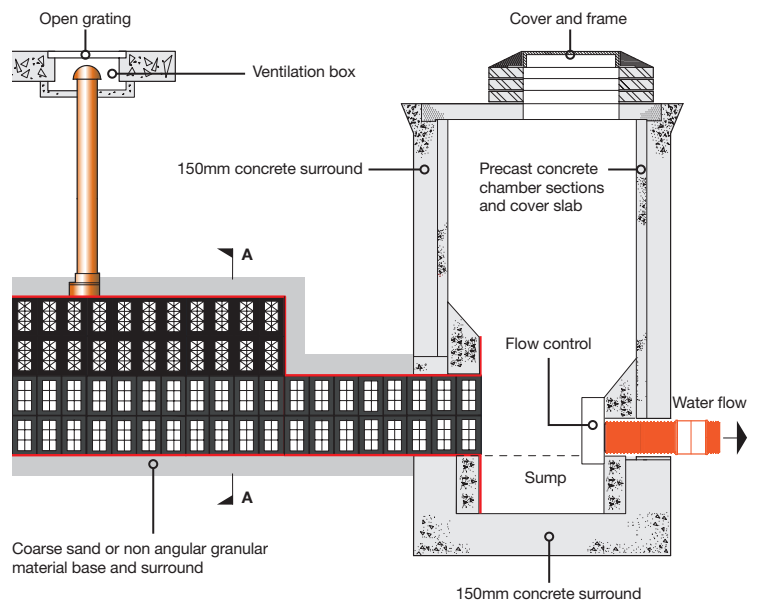
On-line storage

On-line storage – box feed

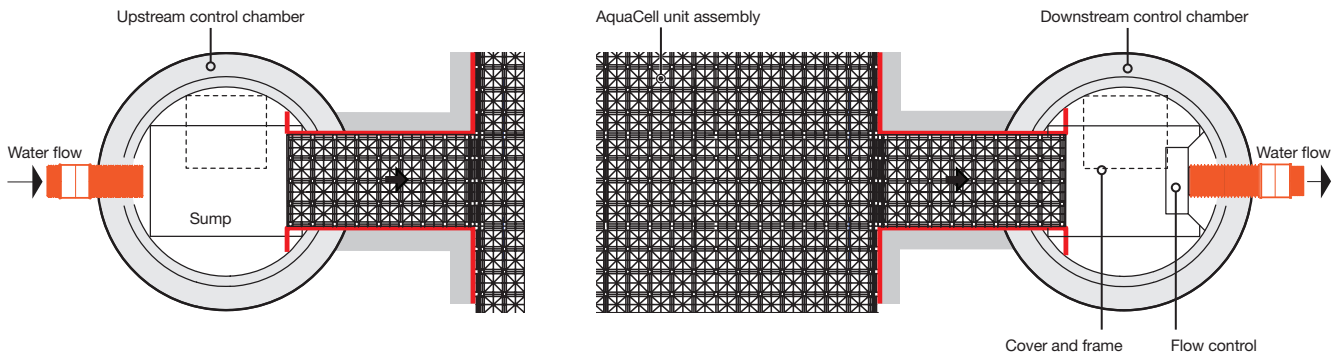
Long section



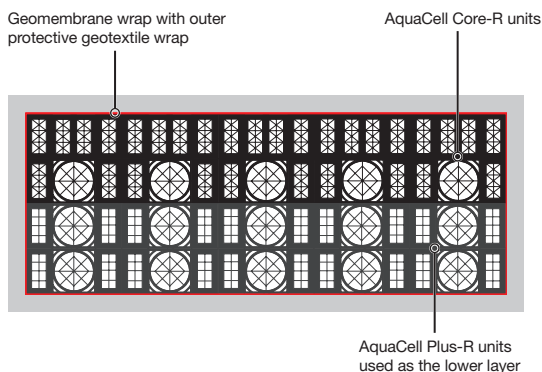
Typical vent detail



Plan



Cross section A-A

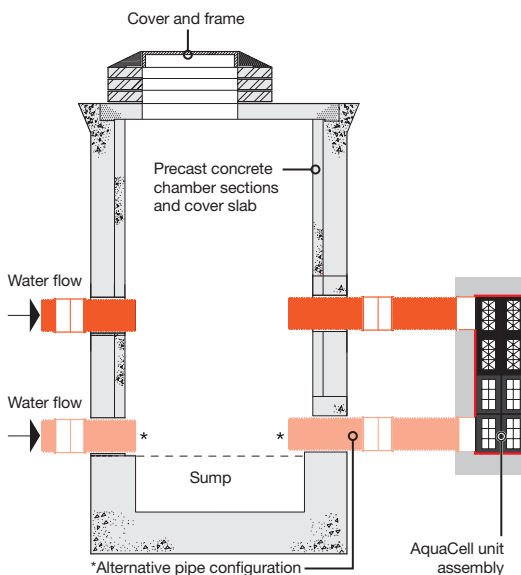


What happens to the water?

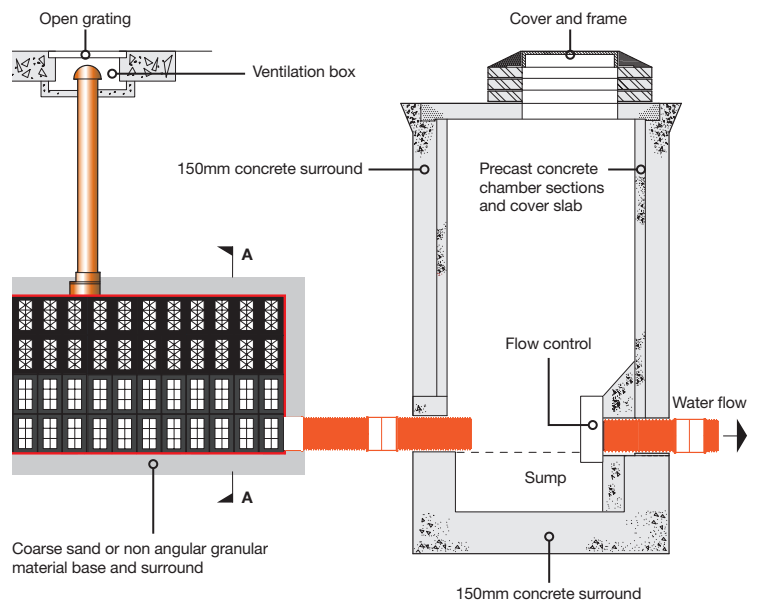
1. The water level in the upstream control chamber rises.
2. Then, during a storm event, the AquaCell storage assembly quickly fills with water via the AquaCell feed connection.
3. After storm event, water flows back out of the AquaCell storage assembly, finding its own level, and into the downstream control chamber.
4. The water then flows through the vortex flow control valve.

On-line storage – manifold feed

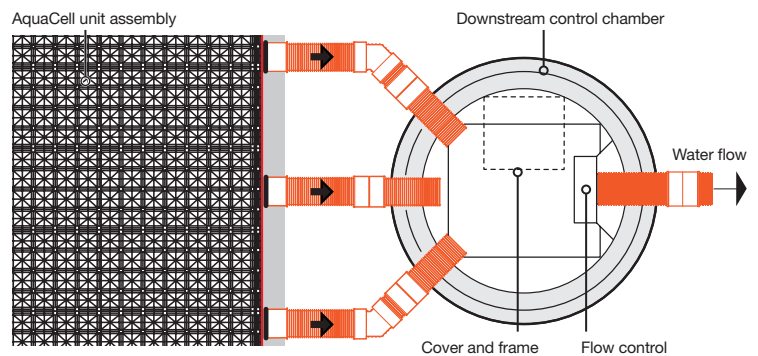
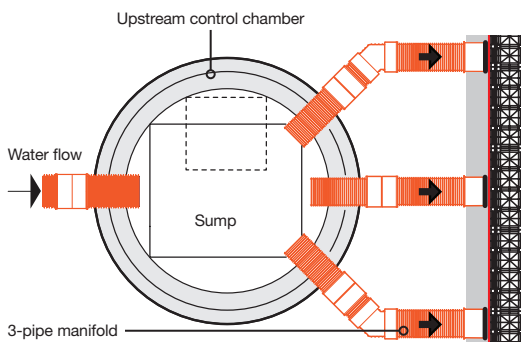
Long section



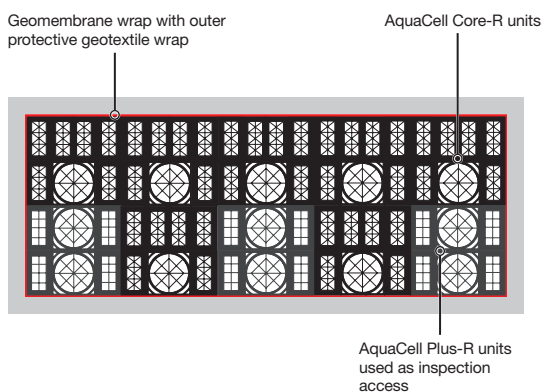
Typical vent detail



Plan



Cross section A-A



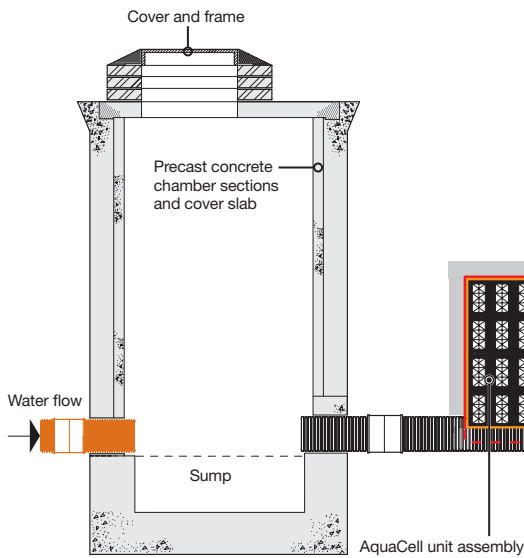
What happens to the water?

1. The water level in the upstream control chamber rises.
2. During a storm event, the AquaCell storage assembly fills with water via the manifold feed connection.
3. After storm event, water flows back out of the AquaCell storage assembly, finding its own level, and into the downstream control chamber.
4. The water then flows through the vortex flow control valve.

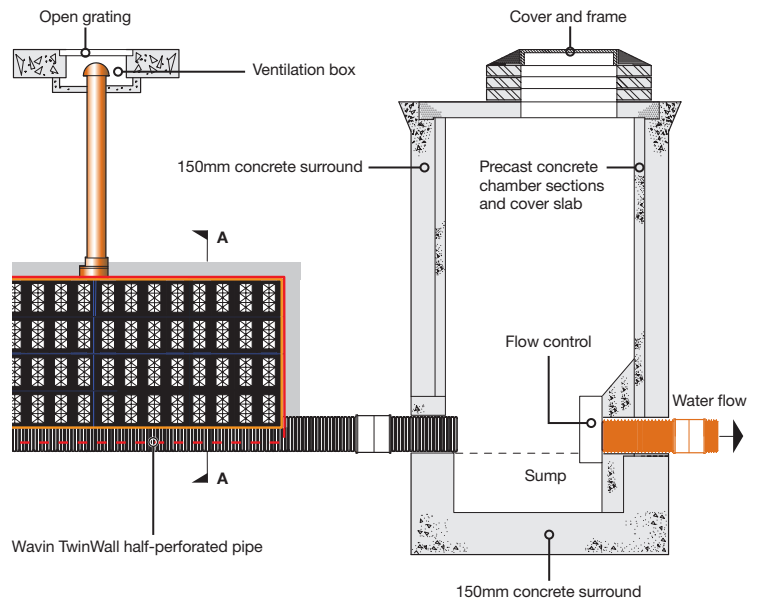
On-line storage

On-line storage – central pipe feed

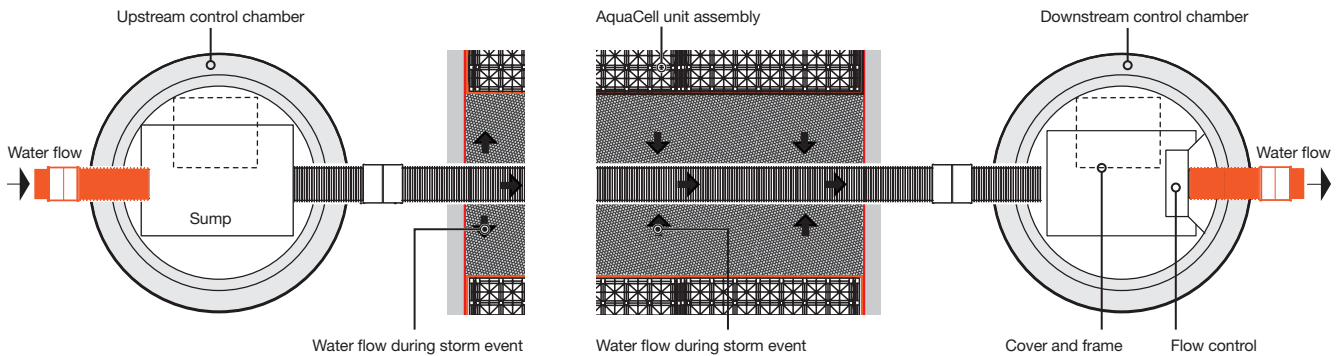
Long section



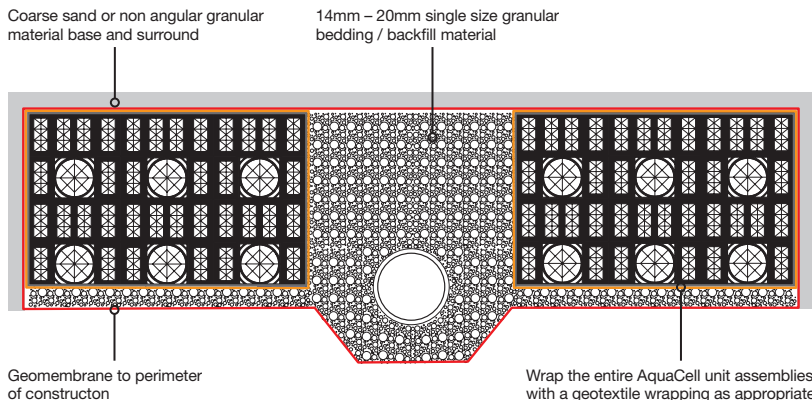
Typical vent detail



Plan



Cross section A-A



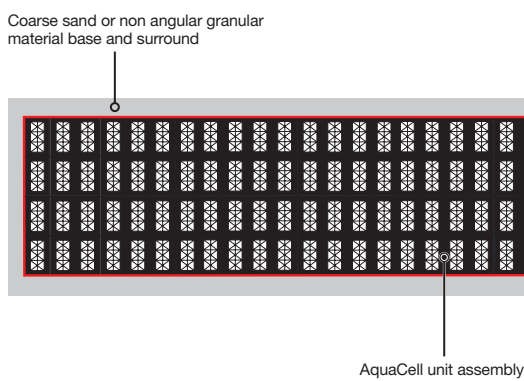
What happens to the water?

1. The water level in the upstream control chamber rises.
2. AquaCell storage assemblies fill with water via the central pipe connection and percolate's through the granular bedding material.
3. After storm event, water flows back out of the AquaCell storage assemblies, finding its own level, and into the downstream control chamber.
4. The water then flows through the vortex flow control valve.

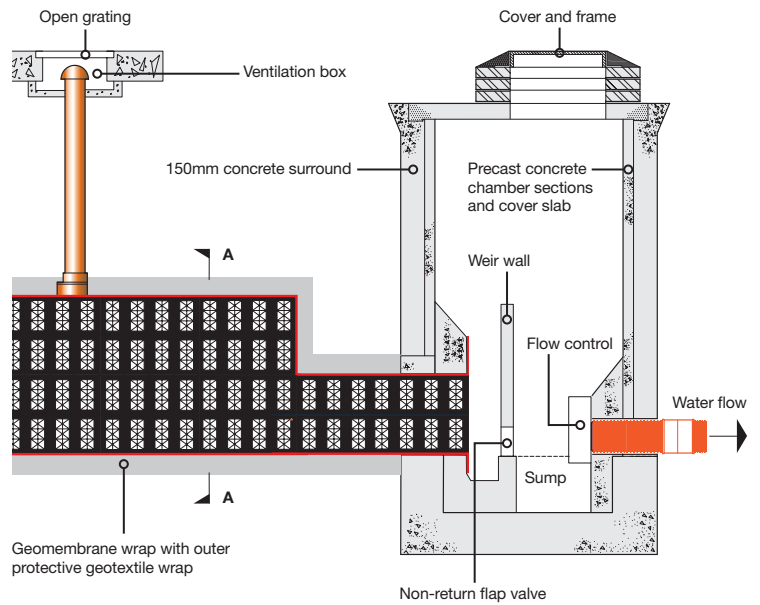
Off-line storage

Off-line storage – box feed

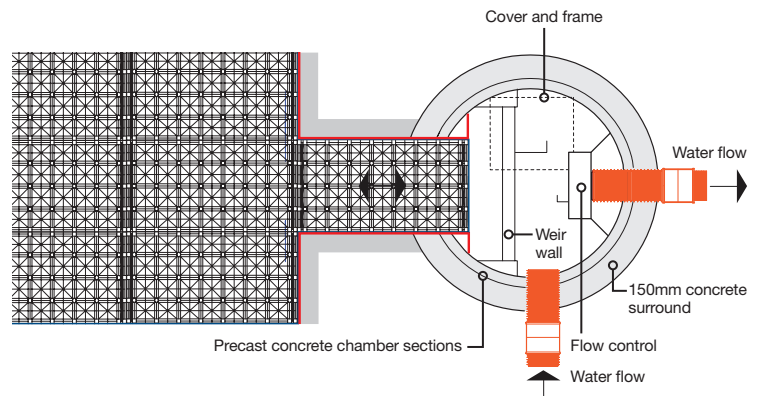
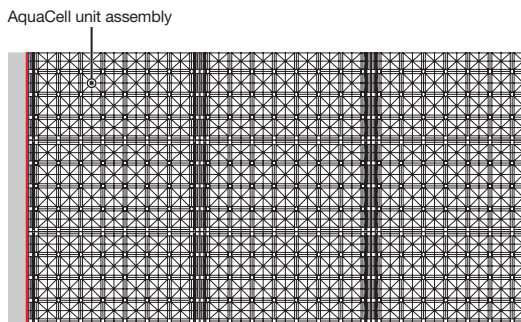
Long section



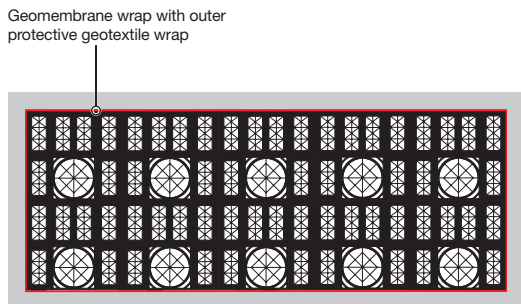
Typical vent detail



Plan



Cross section A-A



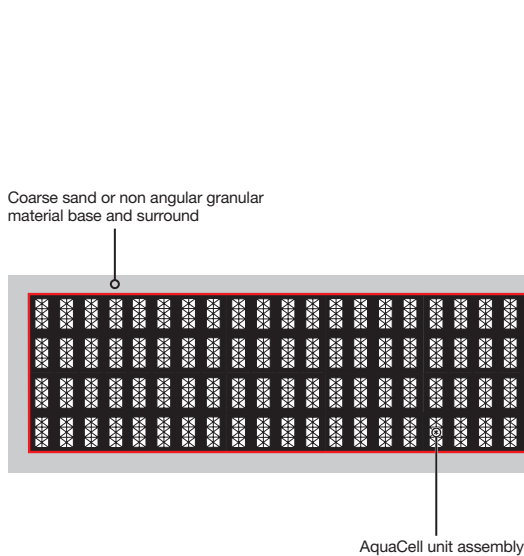
What happens to the water?

1. Control chamber fills with water, up to the top of the weir wall.
2. The water overflows the weir wall and enters the AquaCell storage assembly via the AquaCell connection.
3. The AquaCell storage assembly fills with water.
4. After storm event, water flows back out of the AquaCell storage assembly, finding its own level, and through the non-return flap valve at the bottom of the weir wall.
5. The water then flows through the vortex flow control valve.

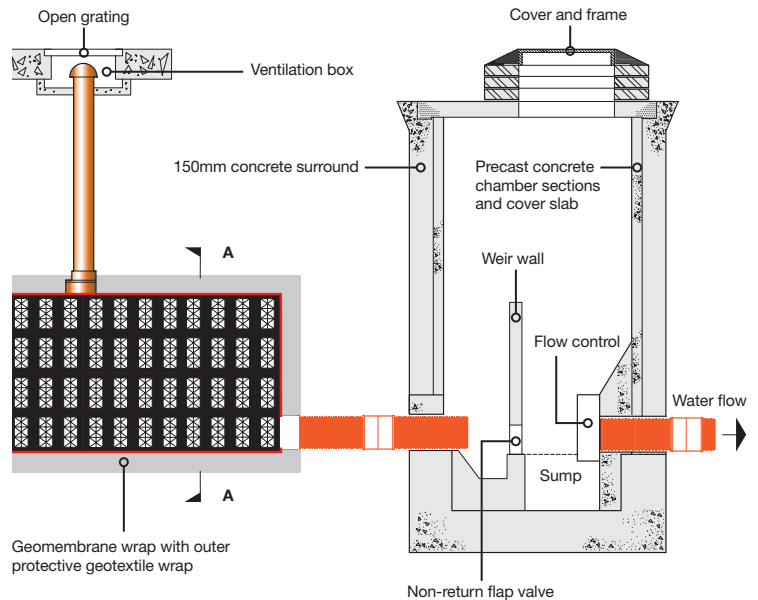
Off-line storage

Off-line storage – manifold feed

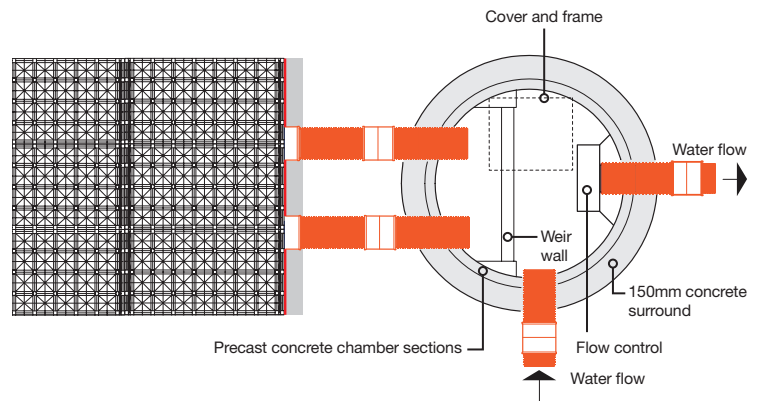
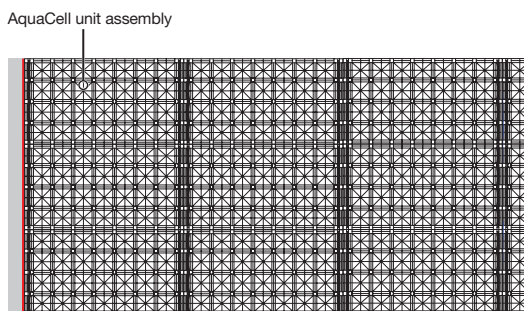
Long section



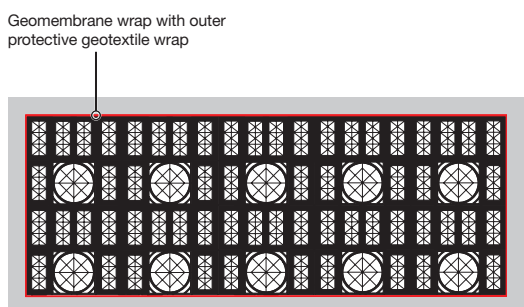
Typical vent detail



Plan



Cross section A-A



What happens to the water?

1. Control chamber fills with water, up to the top of the weir wall.
2. The water overflows the weir wall and enters the AquaCell storage assembly via the manifold connection.
3. The AquaCell storage assembly fills with water.
4. After storm event, water flows back out of the AquaCell storage assembly, finding its own level, and through the non-return flap valve at the bottom of the weir wall.
5. The water then flows through the vortex flow control valve.