



HUME CITY COUNCIL

LANDSCAPE GUIDELINES

Irrigation

Hume City Council is committed to the sustainable use of water resources, maximising efficiency of its landscape irrigation systems and utilising passive irrigation where possible. General requirements

Water supply

Water sources

A suitable water source is to be identified and established prior to the design and installation of an irrigation system. The water source must not be directly connected to a potable water supply installed for drinking purposes.

Passive irrigation, then recycled water, are the preferred sources of water for irrigation before considering potable water.

Water licensing

All water tapings are to be in accordance with the relevant water authority's requirements, and recycled water usage is to be licensed as required by the Department of Health. Flow monitoring

Both recycled and potable water are to have appropriate flow meters installed to monitor water usage. Refer to Council's Irrigation Specifications for detailed requirements.

Back-flow prevention

All irrigation systems are to be fitted with a back-flow prevention device, installed at the meter, in accordance with Australian Standards for Plumbing and Drainage AS/NZS 2500.1:2015 Mechanical Backflow prevention Devices AS2845- 986 and Water Authorities' guidelines. Devices are to be tested annually, and when testing is completed, a Certificate of Compliance is to be provided to Council's Coordinator Property Maintenance.

Recycled water

The use of recycled water or stormwater harvesting is actively encouraged, provided the water is not used on edible plants or for drinking, and complies with the Customer Site Management Plan as required by the relevant water provider.

Where recycled water is used, the source pipe must be purple and labelled accordingly.

Passive irrigation

Passive irrigation includes:

- Shaping paved areas to direct run-off to garden beds and turf.
- Directing roof run-off to garden beds or turf, or capturing for later use.
- Water Sensitive Urban Design (WSUD) can be used as a form of passive irrigation.

Irrigation specifications

Council's Irrigation Specifications are provided for detailed guidance. It is recommended that a specialist irrigation designer is engaged to design the system to meet Council's and the site specific requirements.

Once the design has been approved and is constructed, the irrigation designer or specialist contractor must provide Council with the instruction manual and copy of the as-constructed drawings.

Meters

Water meters, including the shutoff valve and backflow prevention device, are to be installed on a concrete slab, and enclosed in a lockable steel cage.



Irrigation stations

Irrigation systems are to be designed with separate stations for grassed kickabout, areas around shelters and playgrounds, gardenbeds and park entries, to enable isolation of operations according to water and park usage.

Controllers

The irrigation controller is to be:

Hunter ACC 30 station automatic controller with ACC-COM-GPRS-E module and Sim Card to provide cellular mobile communication with the central computer.

The controller, modem and Sim Card must be obtained from HR Products and registered on Hume's HR Service Agreement. Call HR Products (03) 9457 7500.

The GPRS modem depends on the mobile network for communications. Verify that GPRS coverage exists at the location before installation. Route the antenna cable out of the enclosure through a low voltage plastic conduit, and place the antenna in non-metallic conduit for protection.

Refer the owner's manual and installations instructions for component for further details. A copy is available from HR Products Pty Ltd, or can be downloaded at below link: https://www.hunterindustries.com/sites/default/files/manual_acc-com-gprs_lit-569_em.pdf

All cables within the controller shall be tagged identifying each cable.

Tags shall be:

Legrand Type Cab 3 clips suitable for 1.5mm² cable

The controller shall be supplied with a remote operating device:

Hunter ROAM XL Kit

The ROAM receiver antenna shall be mounted on the pole with the rain sensor.

Flow sensor

- A flow sensor (HR IR220B) shall be installed prior to the master valve.
- To avoid turbulence there shall be 800mm straight pipe before the flow sensor and 400mm after.
- The flow meter shall be housed in a valve box.

Rain sensor

A Hunter Mini-Clik is to be mounted on a 65mm galvanised steel pole braced to the side of the cabinet in 3 places and concreted 600mm into base. The pole is to extend a minimum of 3m above the cabinet.

The pole will act as conduiting for the cable and care should be taken to seal the entry and exit points to prevent corrosion.

The pole is to be capped and painted to match the cabinet and tank. The unit is to be installed in a location where it is not affected by trees or any structure.

Valve boxes

Mainline isolating valves and cable joins are to be installed in plastic reinforced circular valve boxes with lids set to finished soil level.

Single valve boxes are to be Rainbird VB10RD lockable valve boxes. The solenoid valve/ball valve assemblies and flow meter and the are to be housed in reinforced plastic rectangular valve boxes set to finished ground level. Solenoid valve/ball valve assembly valve boxes are to be Rainbird VBSTD lockable valve boxes.

All valve boxes are to be supported on treated pine bearers or similar with a 100mm layer of aggregate below the bearers as shown on the detail.

Solenoid valves assemblies are to be installed 300mm off and parallel to the perimeter fence.

Low voltage wiring and connectors

All valve wiring is to be multi-core 1.5mm² multicore cabling c/w HDPE Insulation. The black wire in each loom is to be dedicated to the common. All wire connectors are to be DBY/R connectors. Seal spare cables with heat shrink connectors.

Pipeworks and fittings

All pipework is to be polyethylene (HDPE) PE100B to AS4130. Mains are to be PN12.5 and laterals minimum. A marker tape is to be placed 150mm from the finished ground level on all mainlines. The tape is to be labelled Buried Water Main Below. Mainline 90mm pipework is to be electrofusion jointed. Smaller sizes and laterals may have compression fittings. Tapping saddles may be used for solenoid valves and sprinklers and are to be fitted

with 4 stainless steel nuts and bolts. Solvent weld PVC pipe and fittings are not to be used on this installation. On completion of mainline pipework and solenoid valves pressure test to 800kPa as per the Vinidex PE test procedure.

Sprinklers and risers

Sprinklers are to have stainless steel risers and be installed on articulated risers.

Sprinklers are to be:

Rainbird model 8005SS,6504, 5000 or Hunter MP 1000,2000,3000 full and part circle pop up sprinklers. Articulated riser assemblies shall be sized as the sprinkler and consist of a. 3 – 4 M & F poly elbows

Solenoid valves

All solenoid valves are to be located in lockable valve boxes set at the finished ground level.

Solenoid valves shall be: Irritrol 200 series solenoid valve.

Solenoid valves assemblies shall be installed 300mm off and parallel to the fence.

The master valve shall be: Irritrol 200 series 50mm 24VAC solenoid valve

Isolating valves

Isolating gate valves are to be installed on the mainline and prior to the master valve in accordance with AS1628, be Water Authority tested and are to be Maxiflo or similar with a brass T handle.

Isolating brass ball valves or Philmac style ball valves are to be fitted prior to solenoid valves (excluding the master valve) and sized the same as each solenoid valve. The ball valve and solenoid are to be connected using a PN16 nipple.

Additional requirements for development sites

All water accounts are to have Hume City Council as the owner, with bills to be 'care of' the developer for payment over the 2 year maintenance period. Accounts are to be transferred to Council for payment at the asset handover.

References

IWM section of Guidelines

