



HUME CITY COUNCIL LANDSCAPE GUIDELINES

Drainage

A robust and effective drainage system is a fundamental requirement for activity centres, streetscapes and open space.

General requirements

- Drainage may be provided via surface or sub-surface drainage in accordance with Council's engineering standards. Where the site is adjacent to a creek or other Melbourne Water asset, seek advice from Melbourne Water in regard to their requirements..
- Where possible, stormwater runoff is to be diverted to passively irrigate vegetated areas or to rainwater tanks, and only directed to the stormwater system as a last resort. This will contribute to Integrated Water Management (IWM) outcomes and minimise the extremes between drought and flooding.

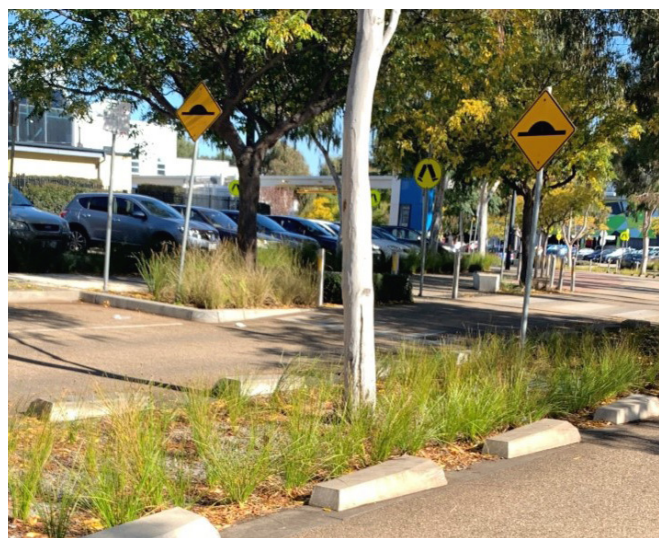
Drainage in activity centres and streetscapes

- All techniques to minimise litter, improve water quality and reduce the quantity of stormwater entering drains are encouraged.
- Drainage in activity centres and streetscapes is generally managed via sub-surface drainage, unless Engineering approval has been provided for tree pits and other mechanisms for passive irrigation.
- Refer to the section on Integrated Water Management for further information.

Drainage in reserves

- Playground design is to include lateral drainage lines in a herringbone pattern, and all discharge is to be directed to pits and the road reserve drainage system.
- Council's preferred approach for reserve drainage is to use a combination of passive irrigation and sub-surface drainage. This includes IWM solutions.

- Mound placement is to consider the fall of the land, avoiding damming surface flows, and utilising passive irrigation principles to irrigate kickabout spaces etc. The placement of mounds is to prevent undesirable wet areas, but where this is unavoidable the construction of drains must be incorporated into the design.
- In addition, reserves should allow for collection of water from shelters into rainwater tanks or passively directed into adjacent garden beds, away from paths and accessible areas (subject to Building Permit requirements). Consideration of stormwater runoff being directed away from downpipes etc, via subsurface herring bone aggregate drainage pipes.
- Where surface drainage is used, design is to take into account the prevailing soil conditions, including the properties of Hume's clay soil profile. Appropriately shaped and sized swales or dry creek beds are to be utilised to capture and transport water to an approved point of discharge.



Drainage pits

Grated pits must consider the needs of those using the site, including maintenance vehicles, pedestrians and cyclists.

- Drainage pits in reserve are to be concrete. Polycrrete is not supported
- Pits and grates are to be minimum class B or C, depending on the site users
- Lockdown bolts are required for all grates
- Grates are to be 600 x600mm or 600 x 900mm, with a 450mm wide concrete apron
- Pits situated in turf are to be concrete and rated to withstand mowing vehicles
- Pits situated in paths are to have heel safe grids
- All pits and their fixings are to be flush with the adjacent surface to avoid tripping hazards

References

Landscape Guidelines Integrated Water Management section

Melbourne Water guidelines drawings and checklists

Standard Drawing:

- **Current Australian Standards - Drainage, AS 3996:2006**
- **Current Australian Standards - Access covers and grates AS 3996:2019**
- **Hume City Council Engineering Standard Drawings**
- **Hume City Council Landscape Standard Drawings**
- **Water authority standards for use of potable and recycled water**

