
WSUD – Typical Raingarden Layout C120.01



DESIGN STATEMENT

Raingardens (bioretention/biofiltration) are specialised garden beds that treat stormwater by infiltrating water through a vegetated soil/sand filter. Stormwater may temporarily pond on the raingarden surface before passing through the filter media in heavy rainfall. The outlets to in-ground raingardens are typically set 600-800mm below the inlet and must drain via gravity; the site must be able to accommodate these drops in levels for the asset to function.

Careful consideration of litter management and planting design is required. Healthy vegetation is integral to pollutant removal and long-term raingarden sustainability.

Council has developed a Raingarden Planting Palette to inform vegetation selection. Plants should be low in height to avoid obstruction to vehicle's line of sight on road corners. Trees may be utilised if the raingarden is larger than 10m², are planted away from inlets and do not obstruct lines of site.

APPLICABLE LOCATIONS

Merri-Bek urban areas, ideally close to existing drainage infrastructure. Can be private or public space and where there are no other underground infrastructure or services.

CROSS-REFERENCE SPECIFICATIONS

- Council technotes C120.01 to C120.07
- Melbourne Water Biofiltration Systems in Development Services Schemes Guidelines (2020).

MAINTENANCE

Ensure there is ongoing maintenance access to the raingarden inlet, outlet and base. Refer to WSUD Design Package, Section 8, Maintenance Checklist.

SIZING

Raingardens are typically sized to have a filter area of 2% of the upstream impervious catchment area.

LEVELS

Raingardens operate passively so surface levels from the catchment through the inlet to the base and overflow must operate under gravity. Refer cross sections for more detail.

CONSTRUCTION SUPERVISION

For selection of approved raingarden configurations, contractor is to determine location of existing utility services prior to any excavation.

Construction hold points are dictated by ensuring the designed levels are achieved in construction.

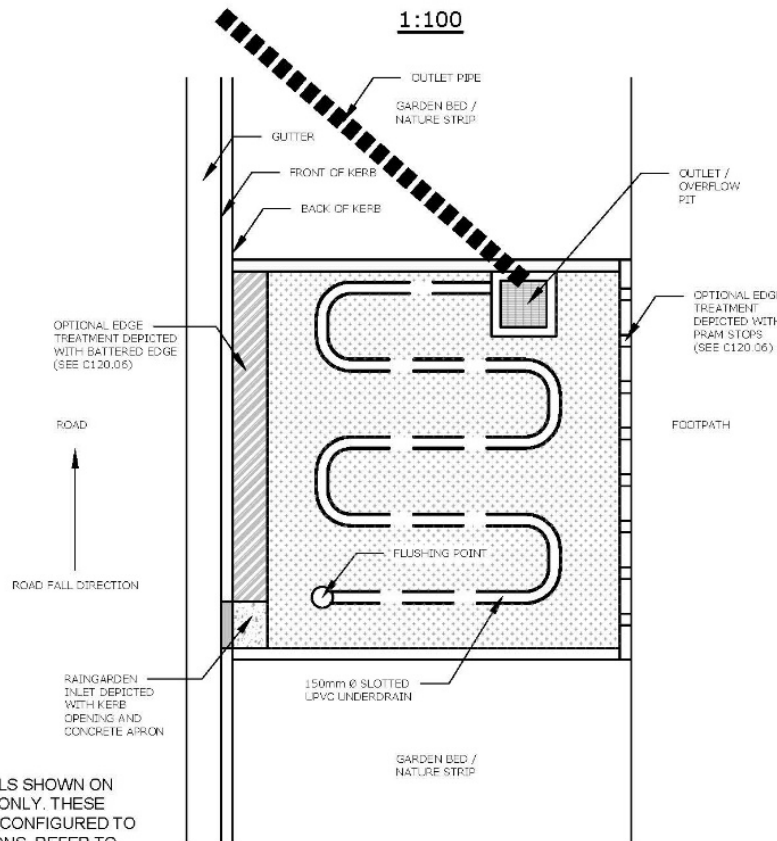
The following elements of the works will constitute hold points for raingardens:

- At the completion of the drainage connections associated with the raingarden and before backfilling with soil material, which includes gravel, sand, soil and filter media to ensure appropriate levels have been maintained.
- Upon completion of backfilling of material to ensure appropriate levels have been maintained.
- At practical completion of the raingarden.

Refer cross sections for more detail.

C120.01 WSUD – Typical Raingarden Layout

**C120.01 RAINGARDEN TYPICAL LAYOUT
PLAN VIEW**



NOTE: THE STANDARD DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. THESE DETAILS MAY NEED TO BE RECONFIGURED TO SUIT SITE SPECIFIC CONDITIONS. REFER TO C120.02 - C120.07 FOR FURTHER DETAILS ON RAINGARDEN DESIGN

**C120.01 RAINGARDEN TYPICAL LAYOUT
CROSS SECTION**

