

## **Town of Victoria Parks - Onsite Stormwater Drainage Requirements Sheet**

Please note this information is only applicable for residential developments with **4 units or less**. If the development will be greater than this or any commercial development the design is to be carried out and certified by a qualified, practicing Hydraulic Engineer.

1. All stormwater grates on soakwell lids denoted on the approved plans shall in no way be covered by any paving material and shall be of such a design that they are conducive to cycling manoeuvres. All stormwater soakwells located in driveway areas are to have a grated, trafficable lid.
2. Connections to the existing road reserve drainage networks are not permitted and bubble-ups shall not be used.
3. All stormwater to be retained, stored, and disposed off on site.
4. An overland flow path is to be designed to ensure diversion of stormwater from the dwellings during storm events.
5. All stormwater drainage for commercial/industrial and multi residential developments (5 or more units) shall be designed and signed by a certified, practicing Hydraulic Consultant. It will be the Engineer's duty to determine the applicable storm duration to be used in order to comply with Planning R-Codes, Building Codes, Australian Standards and any other relevant legislation. Stormwater shall be retained on-site for minor and major storm events (up to and including the 100 year ARI). Where water is retained on-site for the major storm, the ponding water level shall not adversely affect internal dwellings and buildings.
6. All soakwells are to be located a minimum distance equal to their depth away from all wall, footings, fencing, R.O.W or roads, boundary lines and include any and all other services and structures.
7. Included with the plans submitted to the Town's Planning and Development services a site plan showing the following drainage details:
  - 7.1 Existing ground levels or contours.
  - 7.2 Proposed levels of paved or concrete areas.
  - 7.3 Details of roof and pavement drainage disposal.
  - 7.4 Size (depth and diameter), locations and lid types of all soakwells.
  - 7.5 All soakwells installed in paved or concreted areas are to be provided with trafficable lids and made accessible for maintenance purposes.
  - 7.6 All soakwells used shall be of an approved manufacture and standard.
  - 7.7 All soakwells installed within flexible pavement areas (bitumen or brick paving) shall be provided with an approved base to prevent any subsidence of the well liners.
  - 7.8 Minimum size soakwells allowable for roof water disposal is: **900mm diameter x 600mm deep** (**Note:** Approved material concrete).

Definition of "Impervious Area" for purpose of calculations

***"The property ground surface area that is obstructed but all items that will impede the absorption of Stormwater into the natural ground surface."***

### **Examples of Impervious items:**

All structures and buildings, Paving and footpaths, out buildings, Sheds, Stores and Carports, Decking, Driveways and vehicle hardstand areas, Patios, Retaining walls and solid style fencing, Swimming pools, all outdoor areas that are not natural landscaping.

**Note:** Although the use of permeable type pavers may be approved for internal property use, they are classed as Impervious for the purpose of stormwater calculations.

## SOAKWELL SIZES AND CAPACITIES CHART

**NOTE:** The following formula shall be used to determine the soakwell capacities required for Residential Developments up to 4 units only:

$$\text{Impervious Area (m}^2\text{)} \times 0.0150\text{m} = \text{Capacity Required m}^3$$

| Diameter | Depth | Capacity (m <sup>3</sup> ) | Equivalent Impervious Area (m <sup>2</sup> ) |
|----------|-------|----------------------------|--|
| 900      | 600   | 0.38                       | 25.45  |
| 900      | 900   | 0.57                       | 38.17  |
| 900      | 1200  | 0.76                       | 50.89  |
| 1070     | 600   | 0.54                       | 35.97  |
| 1070     | 900   | 0.81                       | 53.95  |
| 1070     | 1200  | 1.08                       | 71.94  |
| 1200     | 600   | 0.68                       | 45.24  |
| 1200     | 900   | 1.02                       | 67.86  |
| 1200     | 1200  | 1.36                       | 90.48  |
| 1200     | 1500  | 1.70                       | 113.10                                       |
| 1200     | 1800  | 2.04                       | 135.72                                       |
| 1500     | 600   | 1.06                       | 70.69  |
| 1500     | 900   | 1.59                       | 106.03                                       |
| 1500     | 1200  | 2.12                       | 141.37                                       |
| 1500     | 1500  | 2.65                       | 176.71                                       |
| 1500     | 1800  | 3.18                       | 212.06                                       |
| 1800     | 600   | 1.53                       | 101.79                                       |
| 1800     | 900   | 2.29                       | 152.68                                       |
| 1800     | 1200  | 3.05                       | 203.58                                       |
| 1800     | 1500  | 3.82                       | 254.47                                       |
| 1800     | 1800  | 4.58                       | 305.36                                       |
| 1800     | 2400  | 6.11                       | 407.12                                       |