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GUIDELINES AND APPLICATION FOR THE INSTALLATION OF AN APPARATUS FOR THE TREATMENT OF SEWAGE ON RESIDENTIAL PREMISES

(& ANY OTHER BUILDING THAT PRODUCES NOT MORE THAN 540 LITRES OF
SEWAGE PER DAY)

January 2017

1. APPLICATION FOR APPROVAL

- 1.1 Before approval for construction, installation or alteration of an apparatus can be granted, a completed application form and checklist must be submitted together with any building application.
- 1.2 The application must include:
- (a) A fee made payable to the City of Gosnells calculated from the application form.
 - (b) Two copies of a site plan of the premises accurately drawn to scale showing:-
 - (i) the position of all buildings erected or proposed and the position of the proposed apparatus for the treatment of sewage;
 - (ii) the position of land contours, any subsoil drains, open drainage channels, wells, streams or underground sources of water intended or available for human consumption;
 - (iii) details of the apparatus (eg. type, brand name);
 - (iv) If the apparatus is an Aerobic Treatment Unit, a copy of the maintenance agreement between the owner and the authorised company must be included.

NB: All work is to be carried out by, or under the supervision of a licenced plumber/drainage plumber whose licence number must be recorded with the applicant's name on the application form. An owner who applies must provide a written statement from a licenced plumber/drainage plumber accepting liability for all works detailed.

For an example of the standard required for a typical site plan, refer to **Figure 3**.

2 THE APPROVAL PROCESS

- 2.1 Once an application has been submitted, an assessment will be undertaken to determine conditions of approval. This may include a site inspection of the proposed location. Please ensure that access is available to the site for the inspection.
- 2.2 The City's Health Service will endeavour to provide a notification of approval or refusal, to the applicant within 14 days of receipt of the application. This will stipulate any conditions of approval that the applicant will need to comply with. Construction or installation of the apparatus may commence once approval has been granted. **However reference should also be made to any conditions attached to the separate building licence approval.**

3. SEPTIC TANK AND LEACH DRAIN SIZES

Only approved septic tanks and leach drains may be used. Please contact the City's Health Service on 9397 3000 if you have any concerns about the approval status of your apparatus.

- 3.1 Septic Tanks - for residences treating combined household wastes which have five (5) or less bedrooms, two standard precast septic tanks may be installed, the first of which has an internal diameter of 1520mm and the second 1220mm
- 3.2 Leach Drains – normally constructed according to the following:
- Internal width - 600mm
 - Effective depth - 450mm
 - Length - a dual leach drain system with an approved alternating device must be installed in accordance with the following table:

TABLE 1

Number of Bedrooms	Soil Classification			
	sand		loams or gravels	
	Minimum infiltrative area (m ²)	Leach Drain (number x length)	Minimum infiltrative area (m ²)	Leach Drain (number x length)
2 or less	18.8	2 x 6m	28.2	2 x 9m
3	25.4	2 x 8m	38.1	2 x 12m
4 – 5	27.6	2 x 9m	41.5	2 x 13m

NB: Where clay soils are encountered semi or fully inverted leach drains or an alternative apparatus may be required. This may also occur due to the height of the water table being unsuitable for standard on-site effluent disposal.

To view a cross section of a fully inverted leach drain refer to **Figure 2**.

Any spas over 350 litres in capacity must be connected directly into a separate disposal system consisting of a sedimentation tank and leach drain with sizes determined by the City of Gosnells.

4. PUMPS AND SUMPS

When a fully or semi inverted leach drain is required the finished floor level of the building may not be sufficient to enable discharge into the leach drain by gravitation. This is when a pump and sump will be required. The following requirements for the sump and pump are to be met.

**Guidelines and Application for the
Installation of an Apparatus For the Treatment of Sewage on Residential Premises**

- 4.1 The approved pump is to be automatically operated, electrically driven, permanently installed and equipped with an approved warning device (such as an alarm and light).
- 4.2 The pump set up is to be installed to ensure maximum storage capacity in the event of pump failure. ie installed near the bottom of the tank.
- 4.3 Where a pump and sump are installed the sump tank is to have a minimum capacity of one thousand (1000) litres.
- 4.4 Subject to 4.2, if the estimated capacity is expected to exceed 1000 Lt the sump is to be of adequate capacity to hold the estimated daily flow rate litres in any 24 hour period.
- 4.5 A submersible pump or surface mounted pump may be used.
- 4.6 Surface mounted pumps are to be suitably enclosed unless designed for outdoor usage.
- 4.7 Lids of sumps are to be at ground level and sealed to prevent the escape of odours or the entry of groundwater.

5. INSTALLATION

- 5.1 Before any system is constructed or installed, you should carefully read the conditions of approval.
- 5.2 The installation must be in accordance with approved plans and any proposed alteration must be submitted to the City of Gosnells for approval.
- 5.3 The following requirements must be observed when considering the location of septic tank and leach drain installations:
 - (a) 300mm of 20-40mm blue metal, washed gravel or other approved material is required to surround each leach drain (discuss with Environmental Health Officer prior to installing).
 - (b) Leach drains must be constructed no closer than 30m from any well, stream or underground source of water intended or available for consumption by humans, unless otherwise approved (50m or 100m can be stipulated depending on environmental factors). Leach drains shall be no closer than 6m from any subsoil drainage system or open drainage channel.
 - (c) Leach drains are required to have a fall of 1 in 200 away from the inlet pipe. A concrete slab is to be fitted into the bed underneath the inlet pipe to prevent scouring of the leach drain beds.
 - (d) Unless otherwise approved, the leach drains must be laid in a straight line parallel to ground contours and not closer than 2m from each other. Joints between modular segments shall be rendered with a cement mix to prevent the ingress of sand and soil

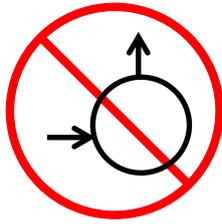
- (e) Leach drains must not be installed within 1.8m of any septic tank, building or boundary of a lot. Where leach drains are required to be semi or fully inverted, a minimum distance of 3m from any septic tank will apply.
- (f) Septic tanks must not be installed within 1.2m of any house or other building foundation or property boundary or structure.
- (g) All subsoil drainage and stormwater must be discharged on diverted away from the leach drain soakage area.
- (h) Approval to construct or install an apparatus is valid for a maximum of 2 years.
- (i) An apparatus must be constructed and installed to a trade standard.

For example of Typical Leach Drain layout refer to **Figure 1**.

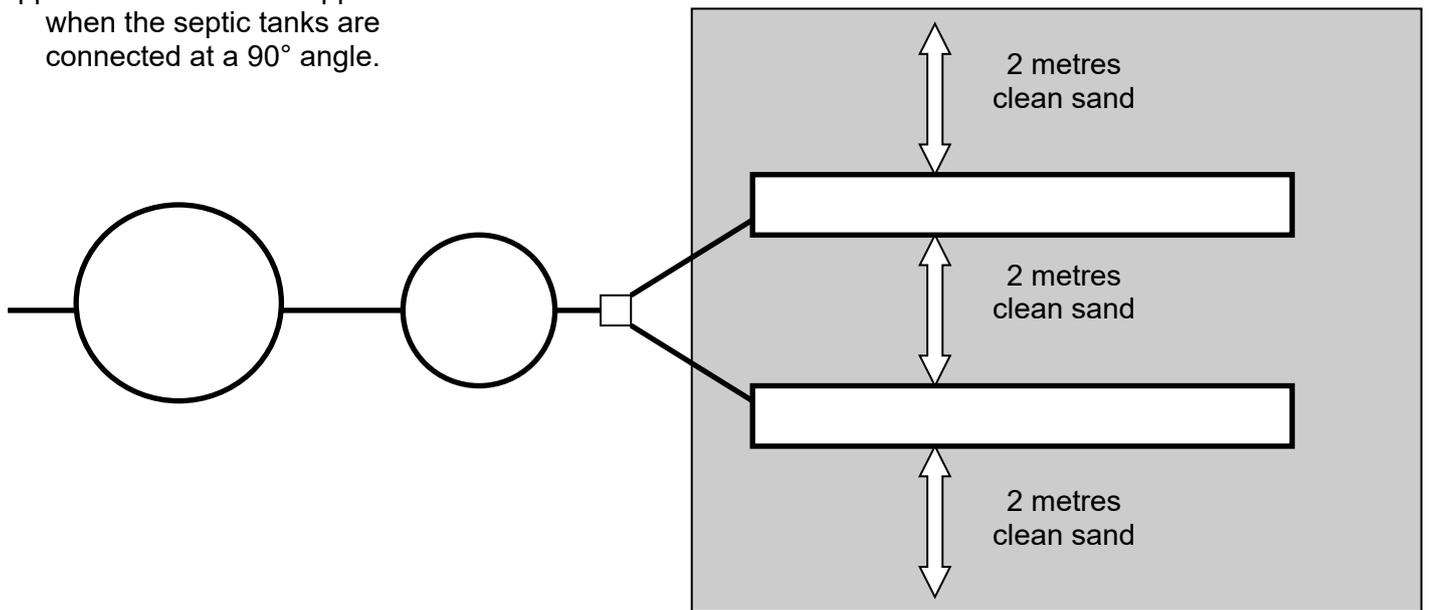
6. INSPECTION AND APPROVAL OF AN APPARATUS INSTALLATION

- 6.1 Upon completion of the installation of an apparatus, an appointment must be made with an Environmental Health Officer at the City of Gosnells to conduct an inspection of the apparatus. It is recommended that the inspection be arranged by a plumber as it may require the application of specific preparation and procedures.**
- 6.2 Where the apparatus is an aerobic treatment unit (A.T.U) servicing a single dwelling the person notifying the City of Gosnells shall also provide written certification that the unit has been installed in accordance with the “Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units (ATUs)” issued by the Department of Health, November 2001.
- 6.3 If the installation is approved a permit will be issued approving the use of the apparatus.**
- 6.4 ‘As constructed’ plans must be provided to the City of Gosnells prior to or at the final inspection of the apparatus.
- 6.5 A re-inspection fee will be payable if it is necessary for a reinspection of an installation as a result of faulty workmanship or incomplete compliance with conditions of approval.

FIGURE 1: TYPICAL LEACH DRAIN LAYOUT



Applications will not be approved
when the septic tanks are
connected at a 90° angle.



NB: In soils with suitable drainage properties,
sand fill may be eliminated at the discretion of
the City of Gosnells

FIGURE 2: CROSS SECTION OF FULLY INVERTED LEACH DRAIN

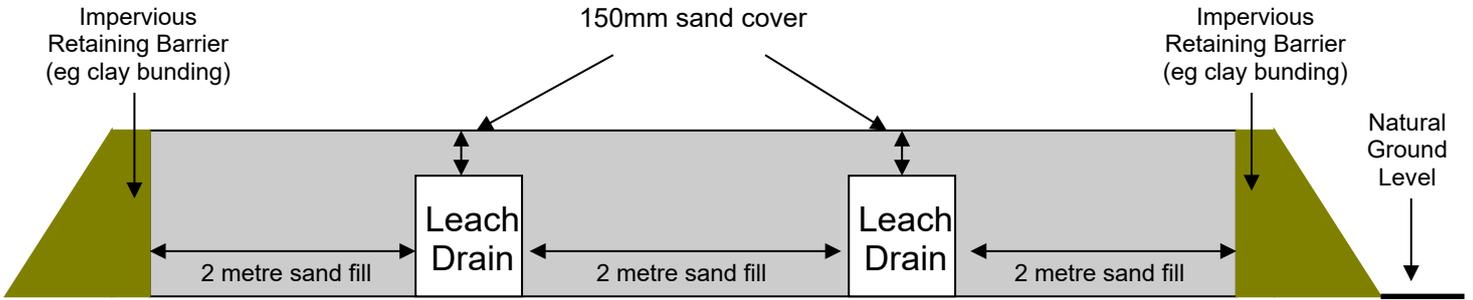


FIGURE 3: TYPICAL SITE PLAN

