TECHNICAL MEMORANDUM 027
SEPTIC TANKS GENERAL ADVICE

The Approved Part H2 provides guidance with respect to your proposed provision of a septic tank.

Responsibility for compliance:

1. Your professional designers are responsible for carrying out an assessment to verify the adequacy of capacity of your proposed septic tank relevant to you anticipated or current occupation of your building (i.e. number of persons within the building, type and number of appliances discharging water outfalls into the septic tank.

2. People who are responsible for building work (e.g. agent, designer, builder or installer) must ensure that the work complies with all applicable requirements of the Building Regulations. The building owner may also be responsible for ensuring that work complies with the Building Regulations. If building work does not comply with the Building Regulations, the building owner may be served with an enforcement notice.

General guidance

Septic tanks should be inspected monthly to check they are working correctly. The effluent in the outlet from the tank should be free-flowing and clear. The flow in the inlet chamber should also be free-flowing.

If the flow is incorrect, the tank should be emptied by a licensed contractor. Some contractors offer annual maintenance contracts at reduced rates.

The septic tank should be emptied at least once a year. It is recommended that not all sludge is removed as it can act as an anaerobic seed.

If the tank is not adequately maintained and solids are carried into a drainage field/ mound, the sediments can block the pores in the soil, necessitating the early replacement of the drainage field/mound. Occasionally, it can render the site unsuitable for future use as drainage field/mound.

d. septic tanks and wastewater treatment systems and cesspools are constructed and sited so as to:

i. have adequate ventilation;
ii. prevent leakage of the contents and
ingress of subsoil water.

Septic tanks provide suitable conditions for the settlement, storage and partial decomposition of solids which need to be removed at regular intervals. The discharge can, however, still be harmful and will require further treatment from either a drainage field/mound or constructed wetland.

Septic tanks with some form of secondary treatment will normally be the most economic means of treating wastewater from small developments (e.g. 1 to 3 dwellings). Appropriate forms of secondary treatment for use with septic tanks (drainage fields, drainage mounds or constructed wetlands) are described in paragraphs 1.4 to 1.10 below.

You should note that:

Drainage fields may be used to provide secondary treatment in conjunction with septic tanks. They may be used where the subsoil is sufficiently free-draining, and the site is not prone to flooding or waterlogging at any time of year.

Septic tanks

Septic tanks should only be used in conjunction with a form of secondary treatment (e.g. a drainage field, drainage mound or constructed wetland).

Siting

Septic tanks should be sited at least 7m from any habitable parts of buildings, and preferably downslope.

Where they are to be emptied using a tanker, the septic tank should be sited within 30m of a vehicle access provided that the invert level of the septic tank is no more than 3m below the level of the vehicle access. This distance may need to be reduced where the depth to the invert of the tank is more than 3m. There should also be a clear route for the hose such that the tank can be emptied and cleaned without hazard to the building occupants and without the contents being taken through a dwelling or place of work.

Design and construction

Septic tanks should have a capacity below the level of the inlet of at least 2,700 litres (2.7m³) for up to 4 users. The size should be increased by 180 litres for each additional user.

Factory-made septic tanks are available in glass reinforced plastics, polyethylene or steel and should meet the requirements of BS EN 12566-1. Particular care is necessary in ensuring stability of these tanks.

Septic tanks may also be constructed in brickwork or concrete, roofed with heavy concrete slabs. Brickwork should be of engineering bricks and be at least 220mm thick. The mortar should be a mix of 1:3 cement–sand ratio. In situ concrete should be at least 150mm thick of C/25/P mix
(see BS 5328).

Septic tanks should prevent leakage of the contents and ingress of subsoil water and should be ventilated. Ventilation should be kept away from buildings.

The inlet and outlet of a septic tank should be designed to prevent disturbance to the surface scum or settled sludge and should incorporate at least two chambers or compartments operating in series. Where the width of the tank does not exceed 1200mm the inlet should be via a dip pipe. To minimise turbulence, provision should be made to limit the flow rate of the incoming foul water. For steeply laid drains up to 150mm the velocity may be limited by laying the last 12m of the incoming drain at a gradient of 1 in 50 or flatter.

The inlet and outlet pipes of a septic tank should be provided with access for sampling and inspection (see Approved Document H1, paragraph 2.48).

Septic tanks should be provided with access for emptying and cleaning. Access covers should be of durable quality having regard to the corrosive nature of the tank contents. The access should be lockable or otherwise engineered to prevent personnel entry.

Marking

A notice should be fixed within the building describing the necessary maintenance.
An example of such wording is:

'The foul drainage system from this property discharges to a septic tank and a <*insert type of secondary treatment*>. The tank requires monthly inspections of the outlet chamber or distribution box to observe that the effluent is free-flowing and clear. The septic tank requires emptying at least once every 12 months by a licensed contractor.

The <*insert type of secondary treatment*> should be <*insert details of maintenance of secondary treatment*>. The owner is legally responsible to ensure that the system does not cause pollution, a health hazard or a nuisance.'

This is general guidance and does not purport to be design consultation input. You are to seek the advice of your own professional advisors.