

2.5 Drainage and services

Adequate sewerage infrastructure (foul and surface water) must be provided.

Foul drainage

Thames Water assessed the foul sewerage infrastructure and confirmed in April 2003 that spare capacity was available within the existing sewerage system to accommodate the discharge from the proposed development. Thames Water does not, however, reserve capacity and it can be taken up on a first come first served basis.

Consequently a foul drainage strategy needs to be agreed with Thames Water prior to the submission of a planning application for the development. Thames Water requires that discharges are confirmed as the development is being designed and that all connections be made to the four adjacent foul manholes within the existing Manor Estate to distribute the discharge.

Surface water

The development must incorporate measures to reduce surface water run-off. A detailed ground investigation will be required to confirm whether soakaways or other mitigating measures will be appropriate. Thames Water has confirmed that on site balancing will be required if soakaways or other sustainable drainage methods cannot be utilised. Attenuation must cater for a 1 in 30 year storm and the site must be protected from a 1 in 100 year storm event.

Utilities – general

Utilities will wherever possible be laid in shared service trenches. Care will be taken to respect the integrity of any existing mains or services. As-built records of all underground services should be maintained.

Water

The developer will be required to fund the laying of approximately 70m of off site main to provide a water supply to the site. Detailed drawings showing the proposed housing layout should be provided to Three Valleys Water as soon as possible.

Gas, electricity, telephone

No specific problems are envisaged in providing a supply of gas, electricity or telephones to the site. However, the developer is requested to provide details as soon as possible to the relevant service provider.

2.6 Other Constraints

Noise

The site lies adjacent to the mainline railway. Noise effects can be mitigated by providing robust sound attenuation coupled with sound damped ventilation as evidenced by several recent schemes completed adjacent to the railway line. The orientation of development provides an additional robust method for reducing noise into quieter private amenity areas.

The mainline railway to the east is a source of noise pollution. Category C noise levels, as defined in PPG 24, penetrate up to 100 metres into the development site. In this zone, new active frontages and private gardens will be restricted. Appropriately designed buildings on the perimeter of the development could partially act as noise buffers, with most non-habitable rooms located on the noisier side of the site. Carefully designed new development will be possible within approved standards and would at the same time act as a buffer for the new and existing residents.

Archaeology

No sites or built structures of archaeological significance have been identified within the site, though areas adjoining the site along the A41T have revealed eight previously unknown sites, ranging from mesolithic onwards.

Further site analysis will be required prior to the commencement of new development.

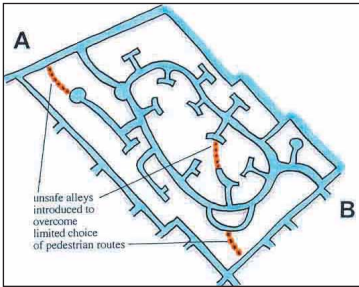
Ecology

Most of the site has only local nature conservation value. Shendish Manor boundary hedge/linear woodland (H10), together with the two hedgerows (H8 and H12) crossing the south-west corner of the site, are considered to be important under the Hedgerow Regulations 1997.

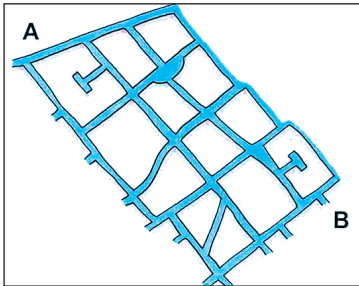
Further information will be required on how the environmental and ecological enhancements will be achieved.



The adjoining mainline railway to the north - east of the site provides a strong edge to the development site



Poorly connected cul de sac environment



Well connected and defined streets

Layout characteristics - the right approach

The development should reflect good practice in terms of layout including:-

Good connections

There are few cul-de-sac roads or 'dead ends'. This ensures potential for a greater variety of routes. A wider choice of potential movement options makes walking and cycling a viable alternative to the car for many short trips.

Perimeter blocks

This layout is based on the principle whereby all building fronts face outwards onto public spaces (e.g. streets). When public space is overlooked by development it feels safer. All private spaces (e.g. back gardens) are secured by being placed 'back to back' with one another. This is the most robust and secure form of development.

Smaller block sizes

Block sizes are relatively small. This makes movement by all modes of transport through the development easier and more convenient. This layout is considered to be more permeable.

Integration of through routes

The strategic through routes are faced by development, providing them with character and keeping traffic speeds lower. They also serve the surrounding area through numerous side roads and connections, thereby integrating themselves with the adjacent areas.