

**PROPOSED OUTLINE APPLICATION
FOR 24 DWELLINGS**

ON

LAND OFF ELLESMERE LANE

PENLEY

WREXHAM

SuDS MAINTENANCE PLAN

IN SUPPORT OF THE OUTLINE PLANNING APPLICATION

FOR

MR. R. EVISON

BOWER EDLESTON
A R C H I T E C T S

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1. DESCRIPTION OF SITE

The proposal is for a residential development comprising 24No. houses on land off Ellesmere Lane at Penley.

For details of preliminary drainage design for indicative layout refer to the Surface Water Management Plan produced by Lees Roxburgh and submitted in support of the outline planning application.

The proposal is that the surface water runoff from the developed site be discharged to soakaways located within the highway and private plot areas and be designed to appropriate Highway Adoptable Standards and Building Control Standards.

2. MANAGING THE SuDS

The preliminary SuDS design has been developed for easy maintenance to comprise:

Occasional tasks - sweep and suction brush permeable paving in autumn after leaf falls. remove silt and check free flow in inspection chambers.

Remedial work - inspect SuDS system regularly to check for damage or failure and repair where necessary.

3. OWNERS/ADOPTERS OF DRAINAGE SYTEM

The individual residential plots will be under individual private ownership. The inspection and maintenance responsibility for the surface water drainage system within the plots will rest with the individual plot owners.

The access road constructed to adoptable standards will be under the control of the local authority with inspection and maintenance of the surface water drainage system resting with Welsh Water.

4. SuDS FEATURES CHECKLIST

Permeable Surfaces

Permeable block paving, porous asphalt, gravel or free draining soils allow rain to percolate through the surface into underlying drainage layers must be protected from silt, sand, compost, mulch, etc.

Soakaways

Soakaways serving the adoptable highway and private plots will comprise pre-fabricated plastic cellular systems or pre-cast concrete segmental systems with access covers to allow for inspection and cleaning. The soakaways will be wrapped in geo-membrane material to prevent ingress of silts.

Inspection Chambers

Inspection chambers and rodding eyes on pipe bends and junctions allow cleaning of the drainage system if necessary.

5. MAINTENANCE SPECIFICATION

General Requirements

Maintenance activities comprise

- Regular maintenance
- Occasional Tasks
- Remedial Work

Avoid use of weedkillers and pesticides to prevent chemical pollution.

Avoid de-icing agents wherever possible to allow bio-remediation of pollutants in permeable surface.

Protect all permeable, porous and infiltration surfaces from silt, sand, mulch and other fine particles.

Permeable Surfaces

Activity	Frequency
Regular Maintenance	
Brush Regularly and remove sweepings from all hard surfaces	Monthly
Occasional Tasks:	
Brush and vacuum surface once a year to prevent silt blockage and enhance design life.	Annually
Remedial Work:	
Monitor effectiveness of permeable pavement and when water does not infiltrate immediately advise Client of possible need for reinstatement of top layers or specialist	As required

cleaning. Jet washing and suction cleaning will substantially reinstate pavement to 90% efficiency.	
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Infiltration Devices - Soakaways

Regular Maintenance	Frequency
Not applicable	
Occasional Tasks: Lift access covers during dry periods and check for silting up of chamber	Annually
Remedial Work: Remove silt	As required

Inlets, Outlets, Inspection Chambers and Rodding Eyes

Regular Maintenance	Frequency
Remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in autumn.	Annually
Occasional Tasks: Check topsoil levels are 20mm above edges of chambers to avoid mower damage.	As necessary
Remedial Work:	
Repair physical damage if necessary.	As required

Spillage - Emergency Action

Most spillages on development sites are of compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner with time available for natural breakdown in a treatment system.

Therefore small spillages of oil, or other known organic substances should be removed where possible using soak mats as recommended by the Environment Agency with residual spillage allowed to bio-remediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then isolate the spillage with soil, turf or fabric and block outley pipes from chambers downstream of the spillage with bungs.

A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric.

Contact the Environment Agency immediately.