

Sustainable Drainage Schemes (SuDS) Handbook (Change Log – June 2018)

1.6 Herefordshire Council Highways Design Guide

February 2018		Revised June 2018
Herefordshire Council have published a Highways Design Guide for New Developments, which includes county specific standards for highway drainage. This provides standards for adoptable highways or any highway built to serve 6 or more houses.		Herefordshire Council have published a Highways Design Guide for New Developments. This provides standards for adoptable highways or any highway built to serve 6 or more houses. All highway drainage aspects have been included in this handbook.

2.3 Flood Risk and Drainage Checklist

February 2018		Revised June 2018
Two Flood Risk and Drainage Checklists have been prepared to help guide applicants and these are available on the Herefordshire Council website .		A Flood Risk and Drainage Checklist has been prepared to help guide applicants and this is available on the Herefordshire Council website.

3.2 Adoption

		Text added June 2018
		Drains that convey surface water from the adoptable highway must be adopted by a Statutory Authority. Within Herefordshire this means the Water Companies, Herefordshire Highways or Highways England.

February 2018	Revised April 2018	
Herefordshire Council will not normally consider adopting any Public Open Space and alternative 'in perpetuity' management arrangements will need to be made. Accordingly SuDS features adopted under the Highways Act would normally be constructed on existing highway verge.	Herefordshire Council will not normally consider adopting any Public Open Space and alternative 'in perpetuity' management arrangements will need to be made. However, Balancing Ponds or Basins with bank maintenance strips may be adopted by means of a land conveyance. SuDS features adopted under the Highways	

	Act would normally be constructed on existing highway verge.	
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February 2018		Revised June 2018
Welsh Water will not adopt Orifice Plates.		Welsh Water will not adopt Orifice Plates. Flow Controls that restrict flow rates into Welsh Water sewers need to be adopted by Welsh Water.

6.9 Impact of Flood Risk from Watercourses

February 2018	Text removed April 2018	
On inclined sites it could prove possible to design an attenuation basin for a less acute storm such as 1 in 30 years and to rely on the freeboard (normally 300mm) to allow mobilisation of storage for a 100 years + CC storm. Alternatively flooding of external areas during storms in excess of 1 in 30 years could be considered.		

7.4 Early development of a foul drainage strategy

		Revised June 2018
		Delete "Cess pits will not be permitted" and substitute with "The use of cess pits will only be permitted in exceptional circumstances and where it can be demonstrated that sufficient precautionary measures will ensure no adverse effect upon natural drainage water quality objectives"

7.5 The use of Package Treatment Plants

February 2018		Revised June 2018
Drainage fields serving Package Treatment Plants should be located:- <ul style="list-style-type: none"> - At least 10m from any watercourse or permeable drain; - At least 7m from any building 		Drainage fields serving Package Treatment Plants should be located:- <ul style="list-style-type: none"> - At least 10m from any watercourse or permeable drain; - At least 15m from any building (7m from single buildings)

		in accordance with BS 6297)
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8.4 Below ground drainage systems

February 2018		Revised June 2018
<p>The Herefordshire Council Highways Design guide (Section 38 adoptions) includes some approved deviations from details in Sewers for Adoption. These include the use of Silt Traps (instead of manholes) built compliant with the Design Manual for Roads & Bridges. The minimum carrier pipe size is 225mm dia. Drainage for highways built to adoptable standards (even if not presented for S38 Adoption) should be designed following this guidance. This guidance is therefore followed for housing developments of 6 or more houses. For developments serving 6 or more houses, the highway drainage shall meet adoptable standards irrespective of whether the highway is offered for adoption</p>		<p>Highway Drainage serving highways built to adoptable standards (even if not presented for S38 Adoption) should be designed following the Design Manual for Roads & Bridges. This specification includes some approved deviations from details in Sewers for Adoption, including the use of Silt Traps (instead of manholes). Highway drainage designs for adoptable highway should feature Silt Traps. For developments <u>servicing 6 or more houses</u>, the highway drainage shall meet adoptable standards irrespective of whether the highway is offered for adoption.</p> <p>Highway Drainage local design criteria</p> <p>Carrier pipes shall be minimum 225mm diameter. However, drainage serving soakaways may utilise 150mm diameter pipework. Pipes laid with less than 1.2m cover should be provided with a Class Z bedding (Concrete Surround). Gully spacing shall be determined using the recommendations of HA 102/00, Spacing of Road Gullies. Gullies will be required immediately upstream of pedestrian crossing points and road junctions but shall never be located on a crossing point. It is the developer's responsibility to demonstrate and ensure that the number and positioning of gullies is</p>

		<p>adequate to drain the highway.</p> <p>Alignment of drains within and alongside Adoptable Highway</p> <p>Lateral connections into public foul or surface water sewers shall be designed and constructed to adoptable standards. All such connections shall run at right angles to the centreline of the road to minimise their length.</p> <p>All prospectively maintainable highway drains shall be located within land that is to be adopted by the Highway Authority. Only in exceptional circumstances will they be permitted in land that is to remain private.</p> <p>Where such circumstances do arise the land owner at the time of completing a Section 38 Agreement will be required to give a grant of easement keeping 3m each side of the pipe clear of all obstructions, which will be binding on successors in title. The developer is strongly advised not to sell any land that will contain a highway drain before completion of such an Agreement. The Highway Authority will not accept any different form of undertaking, which dilutes the rights conferred on it.</p>
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8.5 Intervention level for flow control maintenance and orifice sizes

February 2018	Revised April 2018	
<p>Overflows located upstream of flow control devices shall be installed to ensure that overflowing water is visible, to prompt blockage clearance. On small sites, a leaking manhole cover can be used as an overflow.</p>	<p>Overflows located upstream of flow control devices shall be installed to ensure that overflowing water is visible, to prompt blockage clearance. On small sites, a leaking manhole cover can be used as an overflow.</p> <p>Highway drains do not need</p>	

	to be specified with internal overflows.	
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February 2018	Revised April 2018	
For agricultural developments, banded attenuation basins featuring minimum 75mm diameter orifice plates as flow controls are in some situations considered acceptable. The applicant needs to demonstrate use of a shallow banded system to facilitate a low discharge rate and contrast this with the Greenfield discharge rate. A perforated pipe can be installed vertically to allow drain down in the event of a blockage, facilitating subsequent clearance by operatives.	For agricultural developments, banded attenuation basins featuring minimum 75mm diameter flow controls are in some situations considered acceptable. The applicant needs to demonstrate use of a shallow banded system to facilitate a low discharge rate and contrast this with the Greenfield discharge rate. A perforated pipe can be installed vertically to allow drain down in the event of a blockage, facilitating subsequent clearance by operatives.	

8.12 Soakaways

February 2018		Revised June 2018
The presence of a soakaway below or immediately adjacent to a highway will prevent future adoption of the highway under Section 38. Soakaways are not permitted below highways serving 6 or more houses.		The presence of a soakaway below or immediately adjacent to a carriageway will prevent future adoption of the highway under Section 38. Soakaways are not permitted below carriageways serving 6 or more houses

8.14 Designing to facilitate Maintenance

		Text added June 2018
		Herefordshire Highways encourage applicants to consider how safe cleansing of highway drains will be performed. This issue is particularly significant where Kerb Drainage Systems (e.g. Beany Blocks) feature on lengths of highway presented for S38 adoption.