Proposed SuDS strategy

For the Approved new dwelling r/o

62 Hillfield Road, West Hampstead, London

NW6 1QA.

Prepared by

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Innervision Design Ltd

February 2022

INNERVISION design

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Disclaimer

This document has been prepared solely as a surface water drainage report on behalf of the client in the context of the scope as defined in this document. Innervision Design Ltd maintains that all reasonable care and skill have been used in the compilation of this report. However, Innervision Design Ltd shall not be under any liability for loss or damage (including consequential loss) whatsoever or howsoever arising as a result of the use of this report by the client or his agents. If any un-authorised third party comes into possession of this report they rely on it at their own risk and Innervision Design Ltd owes them no duty, care or skill whatsoever.

Scope

Note: this report can only be assessed under the scope it is intended for as set out below:

Town and Country Planning Act 1990

The scope of this report includes the provision of supplementary information in relation to a planning application set under the provision of this Act and is intended to meet the requirements for "particulars" under Section 62; (3) & (4 A) of same.

The Town and Country Planning (Development Management Procedure) (England) Order 2015

The scope of this report includes the provision of supplementary information in relation to any related planning Condition set under the provision of this Order and is intended to meet the requirements for "particulars" under Section 27(b) of same.

Building Act 1984

Building Regulations 2010 and Statute control

This report **is not** provided in support of any application made under the Building Act 1984 or related Regulations.

Statement of conformity

While this report cannot therefore be lawfully assessed by any persons, in any capacity, for compliance with the above Building Regulations all drainage on this private site, both foul and SW will be subject to full compliance with Part H of the Building Regulations 2010 (as amended 2013).

Hence all construction details, SW runs, pipe diameters etc. as detailed in this report are designed to comply in full with the "Adequate provision" Requirement of Part H and are to be checked, inspected, tested and approved by the Building Control Body of the clients choice at the time of detailed design and construction.

SuDS design additional standards

All SuDS (Sustainable drainage system) on site will also be designed and installed in accordance with CIRIA 753 & CIRIA 768, para 169 of the NPPF, its supporting technical guidance and the DEFRA Non-Statutory Technical standards for sustainable drainage systems (2015).

1 Executive Summary

A The design team have detailed a Sedum roof as the primary SuDS strategy for the site.

B 1 in 1yr peak run-off rate to the SW network is reduced from $1.1ls^{-1}$ to circa $0ls^{-1}$ which represents a circa 100% betterment.

C All areas of hard standing on the site will be re-constructed using a permeable medium.

D The project team will install an "off line" rainwater butt to collect water for external use.

E All SuDS on site will be installed with full consideration to long term maintenance.

2 Introduction

2.1 Site location

The Approved development is on land to the rear of 62 Hillfield Road, West Hampstead, London NW6 1QA (see Figure 1).

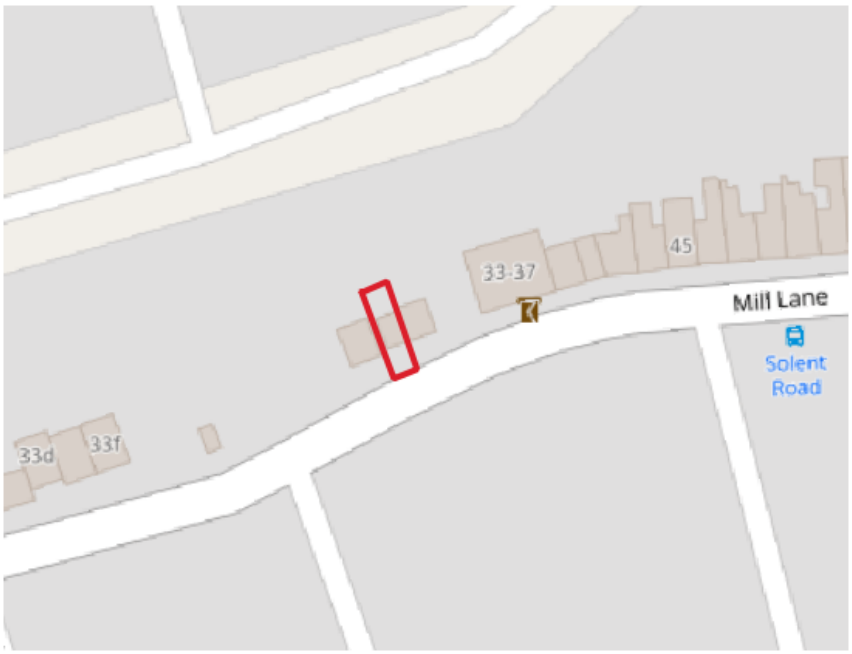

Figure 1: Site location plan, in red (source: Open Street map)

2.2 Approved development description

The Approval, 2019/0682/P, is for a new dwelling (all plans as those submitted and Approved).

2.2.1 Condition 8

> "Prior to commencement of development, details of a sustainable urban drainage systems (SUDS) shall be submitted to and approved in writing by the local planing authority. Such system shall demonstrate greenfield levels of runoff can be achieved where feasible. The system shall be implemented as part of the development and thereafter retained and maintained."

2.3 Geology

With reference to BGS mapping the site is on London Clay.

2.4 Existing surface water disposal strategy

The existing building and associated hard landscaping is drained directly to the surface water, possibly combined, network. The existing parking area is constructed in concrete and hence considered impermeable. This area of garage and car park is being built over.

The curtilage of the entire site encloses an area of approximately 85m^2 of which, pre-development, 85m^2 is classed as being impermeable (40m^2 roofs, 45m^2 impermeable hard-standing and paths). The new development decreases the impermeable area from 85m^2 to 45m^2 (45m^2 roof area).

2.4.1 Existing peak out fall rate

2.4.2 Variables

i_1 = 50.4[1] mm hr^{-1}

i_{100} = 153 mm hr^{-1}

A = 85 m^2

Cr = 1

Cv = 0.9

2.4.3 Impermeable area run-off rate for pre-developed site

$$Q_{BF1} = \frac{0.9 * 50.4 * 85}{3600}$$
$$= 1.1ls^{-1}$$

$$Q_{BF100} = \frac{0.9 * 153 * 85}{3600}$$
$$= 3.3ls^{-1}$$

Existing runff rates from the impermeable areas of the site are calculated as 1.07ls^{-1} (based on 50.4mm hr^{-1}, 1 in 1 yr summer storm).

[1] 50.4mm hr^{-1}is the mean intensity of a 1 in 1yr 6min duration summer storm, calculated to be the worst case, using standard IDF formula.

2.5 Greenfield estimation of peak rate of run-off

2.5.1 Methodology

The following greenfield run-off rate calculations have been carried out in accordance with the IH Report 124 'Flood estimation for small catchments'[1]. The pro rata method on the size of catchment has been used.

2.5.2 Formula

For catchments less than 50ha:

$$Q_{BAR50ha} = 1.08\,(50/100)^{0.89} * SAAR^{1.17} * SPR^{2.17} \tag{1}$$

$$Q_{BAR} = Q_{BAR50ha} * \frac{A}{50} \tag{2}$$

$$Q_{1yr} = Q_{BAR} * 0.85 \tag{3}$$

$$Q_{100yr} = Q_{BAR} * GC_{100} \tag{4}$$

2.5.3 Variables

Qbar/Qmed =0.85

SAAR = 650mm

Hydrological Region 6

Growth curve factors: 30 yr = 2.3; 100 yr = 3.19

SPR = 0.47

Note: Area reflects positively drained areas only. I.e. Whole site area minus areas of significant open space.

2.5.4 Calculations

$$\begin{aligned} Q_{BAR50ha} =& 1.08 * 0.5^{0.89} * 650^{1.17} * 0.47^{2.17} \\ =& 0.58 * 1954.83 * 0.19 \\ =& 221.34 \end{aligned}$$

Using Equation 2:

$$\begin{aligned} Q_{BAR} =& \frac{221.34 * 0.01}{50} \\ =& 0.04 ls^{-1} \end{aligned}$$

Using Equation 3:

$$\begin{aligned} Q_1 =& 0.04 * 0.85 \\ =& 0.03 ls^{-1} \end{aligned}$$

Using Equation 4:

$$\begin{aligned} Q_{100} =& 0.04 * 3.19 \\ =& 0.12 ls^{-1} \end{aligned}$$

2.5.5 Peak green field run-off rates

For the 1 year Return Period event the peak runoff calculates to 0.03 ls^{-1}
For the 30 year Return Period event the peak runoff calculates to 0.09 ls^{-1}
For the 100 year Return Period event the peak runoff calculates to 0.12 ls^{-1}

3 SuDS Principles

3.1 SuDS design philosophy

The CIRIA SuDS[2] manual provides the design philosophy:

> "SuDS design should, as much as possible, be based around the following:
>
> - using surface water run-off as a resource
> - managing rainwater close to where it falls
> - managing run-off at the surface
> - allowing rainwater to soak into the ground
> - promoting evapotranspiration
> - slowing and storing run-off to mimic natural run-off characteristics
> - reducing contamination of run-off through pollution prevention and controlling the run-off at source
> - treating run-off to reduce the risk of urban contaminants causing environmental pollution."

3.2 Source control

The following are widely recognised as source control SuDS.

- Sedum roofing.
- Infiltration devices. Typically soakaways.
- Rainwater harvesting.
- Bio-retention planting, rain gardens.
- Permeable paving, porous asphalt. These provide both infiltration and short term storage volumes thus reducing overall un-mitigated run-off volumes.

3.3 "End of pipe" solutions

To be considered only after implementation of the above options.

- Retention tanks with outfall controlled by hydraulic means to limiting discharge rates and volumes to discharge to existing SW flow pathways.

Sections 4.2.1 to 4.2.5 consider the viability of a range of these SuDS devices.

3.4 Design Criteria

In line with the SuDS management train, the following hierarchy have been considered in applying the use of SuDS into the proposed development scheme.

- Source control
- Site control
- Outfall control

3.4.1 Storm period

All SW drainage shall be designed to a 1 in 100 year storm event allowing for climate change of + 40%.

3.4.2 London Plan - brownfield sites

> "Most developments referred to the Mayor have been able to achieve at least 50% attenuation of the site's (prior to re-development) surface water run-off at peak times. This is the minimum expectation from development proposals"

3.4.3 Consent to discharge

While there are no increase flows proposed to the Thames Water system, drainage discharge consent may be required, hence an application pack is provided at Appendix C.

4 Appraisal of SuDS options

The primary aim is to meet the requirements of the Local Plan core policies.

4.1 Site constraints impacting on SuDS

- Expected poor on-site permeability of the local geology.
- No locations beyond 5m from buildings.
- Very low pro rata greenfield run-off rates.
- No access to adjacent water course or ditch.
- Approved site layout and building.
- Physically constrained site as Approved.

4.2 Source control devices

4.2.1 Sedum roofs

With reference to Section 3.1, sedum roofs promote the following SuDS design criteria:

- manages rainwater close to where it falls
- manages run-off at the surface
- promotes evapotranspiration
- slows and stores run-off to mimic natural run-off characteristics
- treats run-off to reduce the risk of urban contaminants causing environmental pollution.

The use of Sedum roofs can significantly reduce run-off volumes from roofs [3]. These are found suitable for this development.

4.2.2 Infiltration devices

Due to site constraints, as Section 4.1, these are not viable on this site.

4.2.3 Permeable paving

With reference to Section 3.1, permeable paving promotes the following SuDS design criteria:

- manages rainwater close to where it falls
- manages run-off at the surface
- allows rainwater to soak into the ground
- slows and stores run-off to mimic natural run-off characteristics
- treats run-off to reduce the risk of urban contaminants causing environmental pollution.

A 30% void ratio is assumed through a 350mm sub-base. This is appropriate for a DOT Type 3 Sub-base hence the storage capacity equates to circa 105mm per $1m^2$ therefore based on a M6 100hr + cc storm of 87mm rainfall the paving offers, without any allowance for infiltration, a circa 1:1.2 drained volume:storage volume capacity (= 20% space capacity). Hence there is no anticipated exceedance flow from the areas of permeable paving.

The areas of permeable paving are primarily disconnected from the proposed SW network, i.e. they are not primarily designed to drain to the network. Surface water retained in the sub-base matrix is lost through evaporation and infiltration, at shallow depths, into the surrounding naturally fissured sub-soils (due to action of freeze-thaw, roots, earthworms and the proposed local re-grading following any site clearance). In doing so it mimics as close as possible the natural hydrological process of water falling onto the ground and finding natural flow paths for dispersion.

Treatment potential: TSS 0.7, Metals 0.6, Hydrocarbons 0.7 = suitable for trafficked areas

All permeable paving offers sufficient storage volume to accommodate the 5mm event.

4.2.4 Rainwater harvesting

With reference to Section 3.1, Rainwater harvesting promotes the following SuDS design criteria:

- uses surface water run-off as a resource
- manages rainwater close to where it falls

For external use

Rain water harvesting / water butts: These provide additional, "off line" SuDS, and are deemed a suitable SuDS component for small plots[2]. The collection and re-use of water can reduce run off volumes arising from roofs. The collected water, via readily available diverters (e.g. Web link: Standard diverter example), being used for external uses. The project team have detailed "off line" rainwater butts to collect water for external use. Since these are in off-line configuration any exceedance flows are automatically directed back to the downpipes.

Rainwater butts can, in part, accommodate the 5mm event dependent on manual drawdown and evaporation.

4.2.5 Rain gardens/Raised planters

Due to site constraints, as Section 4.1, these are not viable on this site.

4.2.6 "End of pipe" solutions

To be considered only after implementation of the above options.

- Retention tanks with outfall controlled by hydraulic means (e.g. hydrobrakes, pipe sizing, orifice plate etc.) to limiting rates and volumes to discharge to existing flow pathways.

5 Proposed surface water disposal strategy

5.1 Roof area

The design team have detailed a Sedum roof as the primary SuDS strategy for the site, with exceedance flows taken to the existing system (without requiring alteration to, or any increase in capacity of, the existing infrastructure) via a rainwater butt in offline configuration.

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5.1.1 Design parameters

"In summer green roofs can retain 70–80% of rainfall and in winter they retain 10–35%"[3] hence, it follows, will reduce run-off by these amounts.

The green roof will be designed to prevent run-off from all rainfall events up to the 5mm event which is equivalent to a 1 in 1 peak run-off summer storm for the site - generally the standard target reduction for sedum roofs. A suitable option with a max 20mm (20kg.m^{-2}) of retention capacity can be found in Appendix B.

1 in 1yr

Maximum mean intensity storm for the site for a 1 in 1yr return period is a 50.4 mm hr^{-1} giving a total of circa 5.0mm of rainfall.

Proposed total roof area = 45m^2

Sedum roof area = 45m^2

With the accepted 100% retention of a 5mm event by the area of sedum roof, max 1:1 out fall rate from the sedum roof area is therefore 0.04 ls^{-1}

Total proposed mean 1 in 1yr run off rate = 0.0ls^{-1}

1 in 100yr

Maximum intensity storm for the site for a 1 in 100yr return period is a 153 mm hr^{-1} summer profile storm giving a total of circa 15.3mm of rainfall.

Proposed total roof area = 45m^2

Sedum roof area = 45m^2

Assuming a conservative 50% retention of a summer storm (refer to 5.1.1 above) by the sedum roof, max 1:100 out fall rate from the sedum roof area, in ls^{-1}, is therefore circa:

$$\frac{0.5 * 0.95 * 153.0 * 45}{3600} = 0.9ls^{-1}$$

(reducing to circa 0.45ls^{-1} when established).

Total proposed mean 1 in 100yr run off rate = 0.9ls^{-1}

5.2 Permeable hard standing

5.2.1 Permeable paving

Where practicable, any remaining areas of impermeable hard standing on the existing site will be re-constructed using a permeable medium.

SAAR = circa 680mm, circa 55 - 60mm per month

Total losses average circa 350mm per month (3mm per day evaporation and 260mm per month background infiltration based on a nominal rate of 1.0 x $10^{-7}ms^{-1}$[2]).

Exceedance flows (flows over the 1.2 x M1006hr + CC event) will be conveyed at the surface via channels to the SW network on site.

5.3 Betterment on existing

1 in 1yr peak run-off rate to the SW network is reduced from 1.07ls^{-1} to 0ls^{-1} which represents a 100% betterment.

1 in 100yr peak run-off rate to the SW network is reduced from 3.25ls^{-1} to circa 0.9ls^{-1} which represents a circa 72% betterment.

5.4 Exceedance flows

Sedum roof- exceedance flows taken to the existing SW drainage on site via a water butt.

Water butt(s) - when full, the water is diverted to the existing surface water drainage on site.

Permeable paving - Any exceedance flows at the surface will be channelled to the existing SW network via silt traps.

There are no design overland exceedance flow paths other than as noted above.

5.5 Maintenance of SuDS

Ultimate responsibility for the long term maintenance with SuDS in this environment lay with the land owner/management company.

All SuDS on site will be installed with full consideration to long term maintenance. The following guidance is provided and applies:

5.5.1 Permeable pavements

Figure 2[2]provides details maintenance operations and frequency required for a permeable pavement.

TABLE 20.15 Operation and maintenance requirements for pervious pavements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Figure 2: Maintenance operations and scheduling for permeable pavements

5.5.2 Sedum roofs

Extensive roof maintenance - < 100mm low nutrition substrate

- Irrigation: Post-establishment, irrigation should not be required for most extensive green roofs, although the water storage capacity of the system and the plants' water demands should be appropriately assessed.
- Fertilization: Extensive green roofs typically have low nutrient requirements and are therefore often fertilized on an annual basis, each spring, using a slow-release fertilizer.
- Plant management: Removal of undesirable plant species and fallen leaves should take place twice each yearly.
- General: Drainage outlets (including inspection chambers) and shingle/gravel perimeters to be cleared of vegetation, twice yearly.

5.5.3 Water butts

A maintenance plan for water butts should include:

- Regular inspection of silt traps and filters.
- Removal of sediments and debris as required.

5.6 Summary

SuDS are provided on site which provide an up to 100% betterment for 1 in 1yr events and an up to 61% betterment for 1 in 100yr events.

The use of SuDS techniques on site, as detailed above and when installed in line with best practice (I.e. CIRIA 753 & CIRIA 768), will reduce and treat the run-off volumes in line with the core policies.

Signed: 

Dr Robin Saunders CEng, C. Build E, MCABE, BEng(Hons), PhD

Date: 25th February, 2022

References

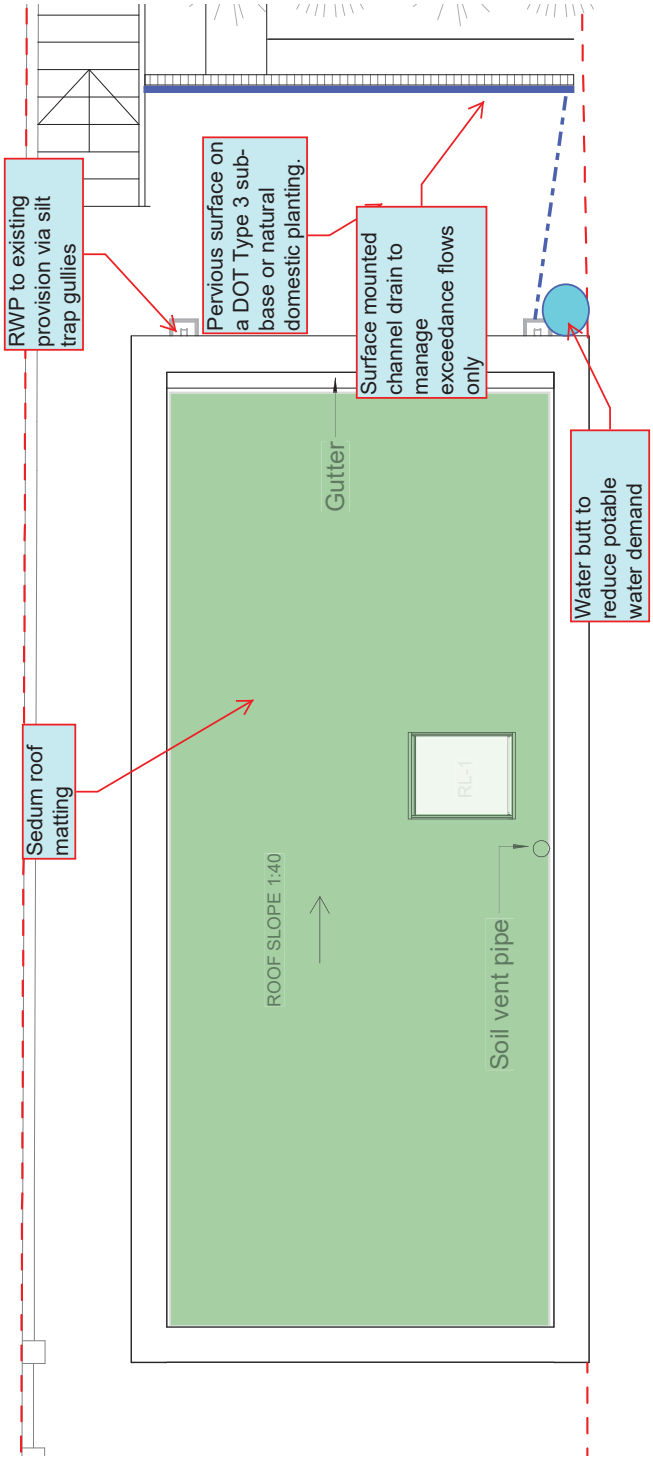
[1] DCW Marshall & AC Bayliss. Flood estimation for small catchments. Technical Report No. 124, Institute of Hydrology, June 1994.

[2] CIRIA. The SUDS manual. Technical report, CIRIA, 2015.

[3] C Hassell and B Coombes. Green roofs. Technical report, CIBSE, 2007.

A Proposal plans

A.1 Proposed Suds



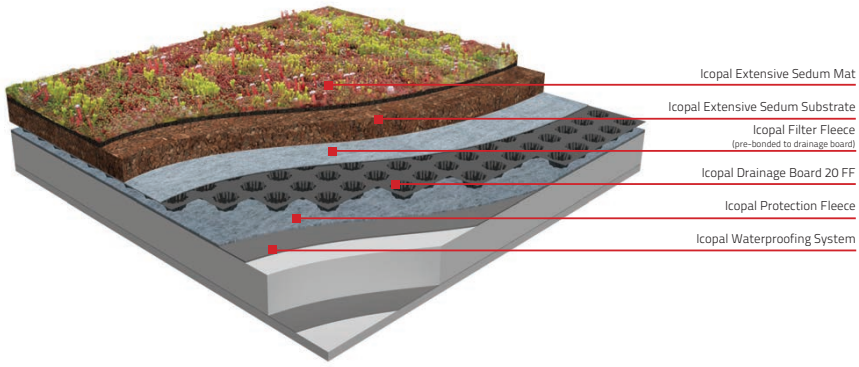
B Sedum roof

Icopal ST Sedum Mat System

GREEN ROOF SYSTEMS

Code: 3101062

An extensive lightweight green roof system utilising a pre-grown vegetation mat of 8 – 12 sedum species. Provides an immediate green planting scheme for instant impact. The vegetation mat is installed on a shallow depth of specially formulated free-draining substrate and drainage board.



System Properties

The following data relates to the green roof element only.

System Dry Weight:	80 kg/m²
System Saturated Weight:	100 kg/m²
System Typical Depth:	104 mm
Growing Substrate Depth:	50 mm (settled)
Contouring:	Flat/level

Biodiversity: ● ● ○ ○ ○

Pollen/Nectar Richness: ● ● ● ○ ○

Habitat Provision: ● ● ○ ○ ○

Key Features

- A lightweight system suitable for a range of roof construction types.
- System type allows for shallower substrate depths.
- Attractive mix of sedum species.
- Sedum plants are low-growing.
- Moderate range of bio-diversity.
- Moderate provision of Nectar and Pollen to attract insects.
- Suitable for flat and pitched roofs.
- Versatile system; quick and easy to install.
- Low maintenance and drought tolerant.
- Pre-grown mat provides an instant green coverage.

Icopal
ST Sedum Mat System

Flowering Period: May – August.
Typical Colours: Seasonal variation of yellows, whites, and pinks. Foliage turns from green to red in periods of plant stress.
N° of Species Sown: 8 – 12.

Typical Species: (subject to season variation) - Sedum acre, Sedum album, Sedum ellacombianum, Sedum floriferum, Sedum forsterianum, Sedum hybridum, Sedum kamtschaticum, Sedum montanum, Sedum oreganum, Sedum reflexum, Sedum rupestre, Sedum selskianum, Sedum sexangulare, Sedum spirium.

Flower Attraction
Low-moderate mixed pollen source, applicable to Bees – Mason, Honey Bombus spp; Insects – Chrysoperla (Lacewing), hoverfly (Episyrphus), Ladybird (Harmonia), Aphidius, Aphilinus, Aphidoletes (beneficial parasitic wasps).

Establishment Period: 6 – 8 months.

Plant Species
The sedum family of flowering plants are succulents and therefore have leaves which are able to store water. The majority grow naturally in arid, well drained areas, often on shallow substrate depths. Therefore they are drought tolerant, and able to survive in extremes of conditions. They generally flower from early summer to autumn.

General Notes
The system is suitable for both new build and refurbishment projects. Roof pitches up to 45° may be used, but for slopes over 9° a retention system is required. All slopes over 5° will require a mechanically fixed eaves edge restraint.

Detailing
A border with a recommended width of 300 – 500 mm of washed river stones (20 – 40 mm diameter) should be used around all roof penetrations, outlets, perimeters and system edges to provide a vegetation free zone.

Irrigation
Initial: Irrigation required immediately after installation for up to 8 – 12 months until fully established. Recommended irrigation period: 12 months. Pitched roofs retain less water and therefore a permanent irrigation system should be considered.
Once established: Irrigation is only generally required during prolonged periods of hot dry weather.
Water Source: A roof top source with a pressure of 2.5 – 3 bar and a flow rate of 60 L/min is recommended to connect a temporary system if required.

Maintenance:
Sedum systems are designed to be low maintenance. Species selection ensures that the roof will evolve naturally, however weeds should be removed periodically through the year to reduce the likelihood that they become dominant. It is recommended that a suitable fertiliser is applied to keep the plants healthy. This may be a spring feed of slow/controlled release fertiliser to last the growing season, or more regular granular/liquid feeds throughout the growing season.

For more information please visit
www.icopal.co.uk
TEL: 0161 865 4444 FAX: 0161 866 2616 E: info.uk@icopal.com

Icopal Limited
Barton Dock Road
Stretford
Manchester
United Kingdom
M32 0YL

Issue 01 ICO3012

Application for a pre-development enquiry

Application form

You can go to our website **thameswater.co.uk/buildover** and apply online or complete this form and return to Thames Water, Developer Services, Clearwater Court, Vastern Road, Reading RG1 8DB

Guidance notes

Pre development enquiries are designed to aid developers and their consultants in understanding the impact of their proposed development on Thames Water sewerage network.

You may also use this application form to enable early discussion/meeting on planning issues such as Flood Risk Assessments, capacity checks, drainage strategies and pre S104 application layouts.

Once we have received your appliation Thames Water will undertake a simple desktop study to determine your sites impact on our network and identify if any detailed further analysis or modelling is required.

Please note, that all relevant sections of the application must be fully completed, as insufficient information will result in your application being returned to you, which will result in your response being delayed.

Applicant Details

Please provide the full name, address and contact details of the person or company making the Pre-development enquiry.
All applications must be paid for prior to any response being answered. Please send your cheque, with the amount (including VAT), to Thames Water Limited with the accompanying fully completed application to:
Thames Water
Developer Services
Clearwater Court
Vastern Road
Reading
Berkshire RG1 8DB

Development site details

The site must hold a comprehensive address, scaled location plan and site layout (if available) which will assist in determining the location of proposed connection points.
A 12 figure grid reference highlighting the centre point of the site will also be helpful to us if an address is difficult to determine.
The type, number of units and size of the development will assist us.

We require information on the history of the site, therefore, if the site is Brownfield ie. land identified for redevelopment, then please let us know if the site has sewerage connections and what was previously occupying the site.

Proposed development and flows

Please indicate the proposed discharge rates for surface water and foul discharge in litres per second (l/s).

Checklist and declartion

Ensure that you have fully completed all relevant sections of the application. Please print your name, sign and date the application form and enclose:

- a scaled location plan
- a scaled site layout
- payment of the required fee of £398 + VAT

What happens next?

- Once we have received your fully completed application form we will provide you with the following response to your application:
- A preliminary assessment of any restrictions and potential connection points to the existing sewerage network.
- A preliminary assessment of any reinforcement works that will be required to service the development.
- Details of any protective measures for sewerage assets which may require diversion or easements.

We will endeavor to respond to you within 15 working days of receipt of your application providing it is not necessary to carry out further investigation works.

If further analysis is required, involving detailed modelling and site investigation (depth loggers, rain gauges or flow monitors) we are able to provide you with a scope, estimated cost and timeframe for undertaking a formal impact study for the price of £400 + VAT. Once completed this study would include a full report detailing the impact and recommendations/network improvements required to alleviate any increased flood risk.

Application for a pre-development enquiry

Please complete all sections of this form in BLOCK CAPITALS

About the person applying

This is the person we'll contact about the application and will recieve all correspondence. This can be the property owner or someone acting on their behalf.

Are you applying as? An individual ☐ or A company ☐

'An individual' is a homeowner and 'A company' is an agent/architect/builder etc acting on behalf of the homeowner

Company name

Title Mr ☐ Mrs ☐ Ms ☐ Miss ☐ Dr. ☐ Other:

First name(s)

Last name

Applicant contact details

We'll use these details to get in touch with you about your application.

Preferred contact number

Alternative number

Email address

Full postal address

Address line 1:

Address line 2:

Town:

County: Postcode:

Nominated contact

Who should we contact to process your application? Applicant ☐ Someone else ☐

(Please tick one)

If someone else:

Title Mr ☐ Mrs ☐ Ms ☐ Miss ☐ Dr. ☐ Other:

First name(s)

Continued...

Last name

Preferred contact number

Alternative number

Email address

Full postal address

Address line 1:

Address line 2:

Town:

County: Postcode:

Invoices

Who should we send invoices to? Applicant ☐ Nominated contact ☐ Someone else ☐

If someone else:

Title Mr ☐ Mrs ☐ Ms ☐ Miss ☐ Dr. ☐ Other:

First name(s)

Last name

Full postal address

Address line 1:

Address line 2:

Town:

County: Postcode:

Email address

Where the work is taking place

What is the address of the property being connected? Same as applicant ☐ Same as the nominated contact ☐ Somewhere else ☐

If somewhere else:

Site name

Continued...

Full postal address

Address line 1:

Address line 2:

Town:

County: Postcode:

About the site

What is your local authority?

Ordance survey grid ref

What is the site currently used for?

Greenfield/agricultural Industry Housing Landfill Other

VAT development classification

New build house or flat Relevant residential or charitable

Commercial, existing or orther Listed Conversion Mixed

Location of existing connection

Does the site already have any of these sewerage connections?

Foul water Yes No

If yes:

Current discharge rate Litres per second

Size of existing site Number of units/hectares

Location of existing connection?

Surface water Yes No

If yes:

Current discharge rate Litres per second

Size of existing site Number of units/hectares

Location of existing connection?

Your proposed development

Type of development Greenfield/agricultural ☐ Industry ☐ Housing ☐ Landfill ☐ Mixed ☐

Preferred foul water connection point

Preferred surface water connection point

Size of proposed development Number of units/hectares

Proposed foul water discharge rate Litres per second

Proposed surface water discharge rate Litres per second

How will development flows reach the connection point? Pumped ☐ Gravity ☐

Trade effluent agreement required? Yes ☐ No ☐ Don't know ☐

If Yes, Trade effluent reference number

Planning status

Is the development identified in the local plan? Yes ☐ No ☐ Don't know ☐ If Yes, reference number

Does the development have outlined planning permission? Yes ☐ No ☐ Don't know ☐ If Yes, reference number

Does the development have full planning permission? Yes ☐ No ☐ Don't know ☐ If Yes, reference number

Does the development have building regulation permission? Yes ☐ No ☐ Don't know ☐

Enclose your documents

All drawings must be of suitable detail and have a drawing reference number on them.

What we need from you to process your application:

Site plan	This should show the site with nearby buidlings, roads and any sewers.
Development plan	This should show propsed layout of new development buildings, roads and sewers.
Site drainage plan	This should show all propsed sewers, pipe sizes and gradients.

Checklist and Declaration

I have completed the application form and enclose the following information:

- Application fee of £398 + VAT
- A scaled location plan ie. site plans showing existing and proposed layouts.
- The development site drainage plan.

Declaration

I agree, that for the purpsoses of the Water Industry Act 2003 and the Data Protection Act 1998, the information provided in this form and in any accompanying documents, may be held on a computer and processed by Thames Water Ltd and its servants and agents for all purposes connected with the Company's statutory water and sewerage undertakings.

Print name	
Position within company	
Company	
Date	
Signature	

Getting in touch with us

For enquiries regarding this application or any other questions relating to your building or development work please contact us on:

thameswater.co.uk/developerservices

developer.services@thameswater.co.uk

0800 009 3921
Monday - Friday 8.00am-5.00pm

Thames Water, Developer Services, Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB

If you have any other questions for Thames Water

thameswater.co.uk

0800 980 8800

- Queries relating to your bill
- Change of address
- Meter readings

Minicom service if you are deaf or hard of hearing 0800 316 6899

0800 316 9800

- For emergencies
- Other non-billing enquiries
- Literature

Minicom service if you are deaf or hard of hearing 0800 316 9898

To contact us from abroad +44 1793 366011

Thames Water, PO Box 286, Swindon, SN38 2RA

This leaflet can be supplied in braille or audio-tape upon request.

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