

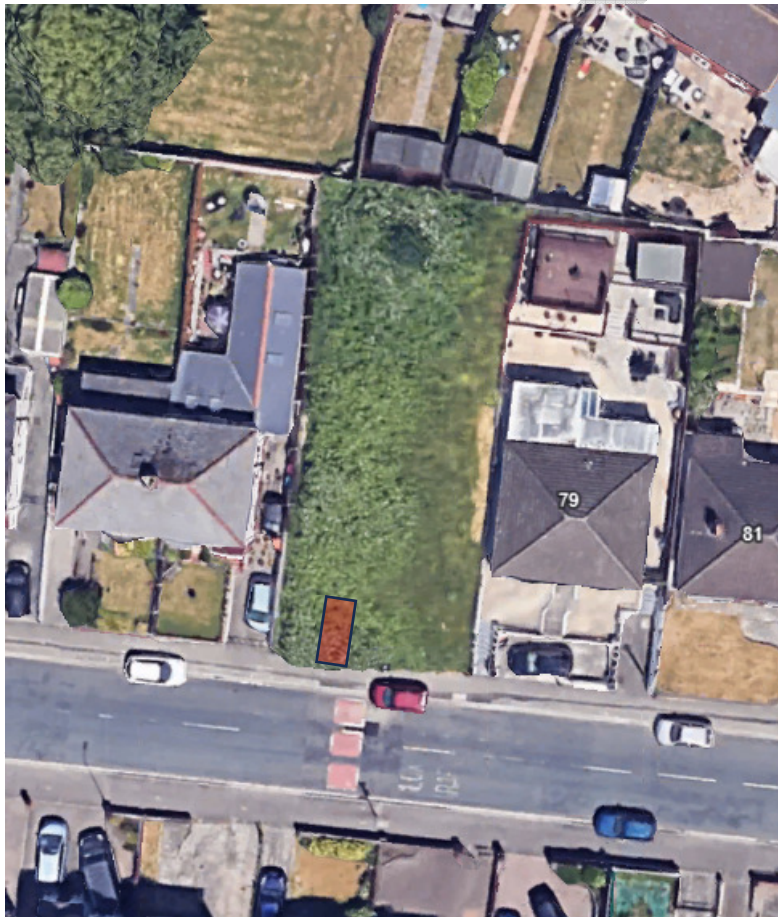
Land at Aberthaw Road, Newport, NP19 9QQ

In conjunction with planning application for new building.

Details of the site location and existing drainage arrangements.

The proposal is for a new domestic detached house with a roof area of 117 sq.m., leaving new paved areas around the building of 94 sq.m. The 31m deep site slopes steeply up from the southern boundary road-line to the North boundary rising approx. 3.6m. The proposed building would be terraced to work with the nature of the ground, leaving a section of the rear garden raised above the levels of the dwelling, and allowing for off road parking at street level.

There is no existing rainwater collection associated with the parcel of land allocated to the proposal. The proposal covers approx. 200sq.m. of building and hardstanding construction area, thus triggering SuDS requirements.



Test pit location



2025

Initial infiltration tests have been undertaken (on 26.5.26) to establish the capacity of the ground to take piped volumes of water for soakaway purposes. Set up to record the ground condition by means of a BRE365 calculation. The results of the tests are covered in a separate document. The result from these shows a very quick draining soil at 1.2m depth and no evident ground water.

Initial design for proposal Drainage Assessment.

How surface water is proposed to be managed and discharged, ensuring compliance with SuDS standards.

In terms of National SuDS Standards, a designed SuDS solution will be assessed through the formal SAB application procedure. Infiltration is good and the site can support a number of attenuation/infiltration methods and could adhere to the priority methods;

1. Some surface water from roofs can be initially stored in a bulk tank for general use on the site (washdown /watering etc.). It is appreciated that water butts etc. do not contribute greatly to a SuDS scheme due to the volumes that can be stored and no real need for stored water use in the winter months etc. As an initial capacity, we would be looking at a tank capacity of around 750 litres (164 gallons), this is variable.
2. Due to minimal soft garden space around the narrow site, and that the garden space at the rear is elevated above ground floor levels, there is limited option for installing a rain garden space, however, a 6sq.m. area in front of the main (side) door can be installed with water volume coming from 25sq.m of roof. Possible outflow from this can be piped to the proposed soakaway if required. An area of 6sq.m. allows for more surface/roof area to be added if necessary.
3. For the remaining 93sq.m. of roof water collected through pipework, a linear cellular soakaway at a depth of approx. 1.4m depth can be installed below the level parking area in front of the proposal. Outline calculations for this are annexed. A soakaway slightly larger than the 6.4m³ requirement could be installed within the plan limitations (5m from house, 2m from boundaries).
4. All other paving around the building areas can be installed with permeable surfaces, approx.. 94sq.m.
5. The size and any overburden/overflow within these features will be calculated as part of the full SuDS submission. It appears that the infiltration rate of the ground are within the limitations of the methods set out.
6. The drainage along Aberthaw Road is a combined sewer, assumption is that storm drains are also connected to this. There is no likely connection required to these.
7. There no watercourses in the immediate locality.

A proposed SuDS system can be installed and contained within the private grounds of the property and be screened and secured appropriately. No permissions for land crossover or discharge to watercourses would be needed (only as a last resort)..

The outline scheme discussed here would be fully designed and submitted for SuDS approval prior to any physical work commencing

Information for the proposed SuDS elements of the surface water drainage system and an indication of the intended future maintenance regime

In summary, it is likely that a fully assessed SuDS scheme for this proposal would incorporate initial surface water storage for use on the property, followed by a mix of discharge to a rain garden and attenuation soakaway.

Maintenance regimes would be confirmed within a full SuDs application. In this instance there is no requirement for a SuDS system, or elements of it to be adopted by the SAB.

SOAKAWAY CALCULATOR

materialcalculator.co.uk

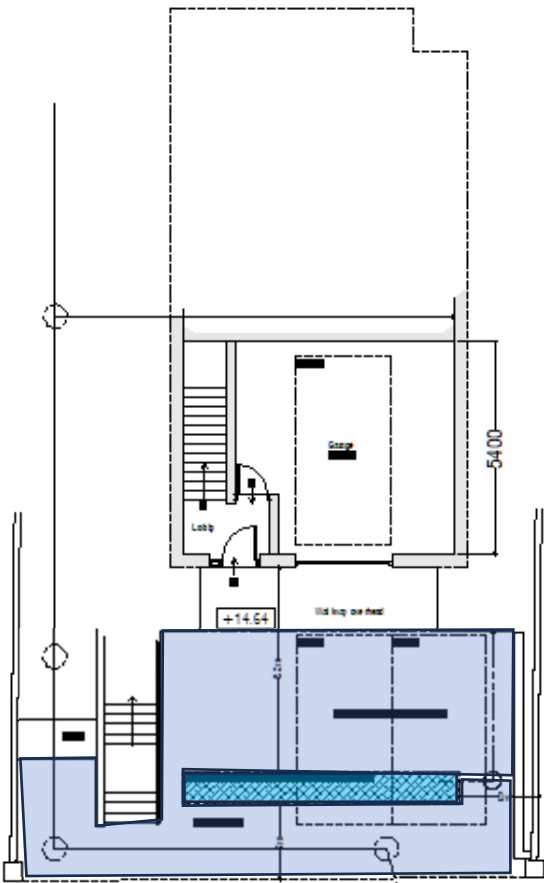
DATE
24/07/2026 (Inc VAT)

PROJECT INPUTS

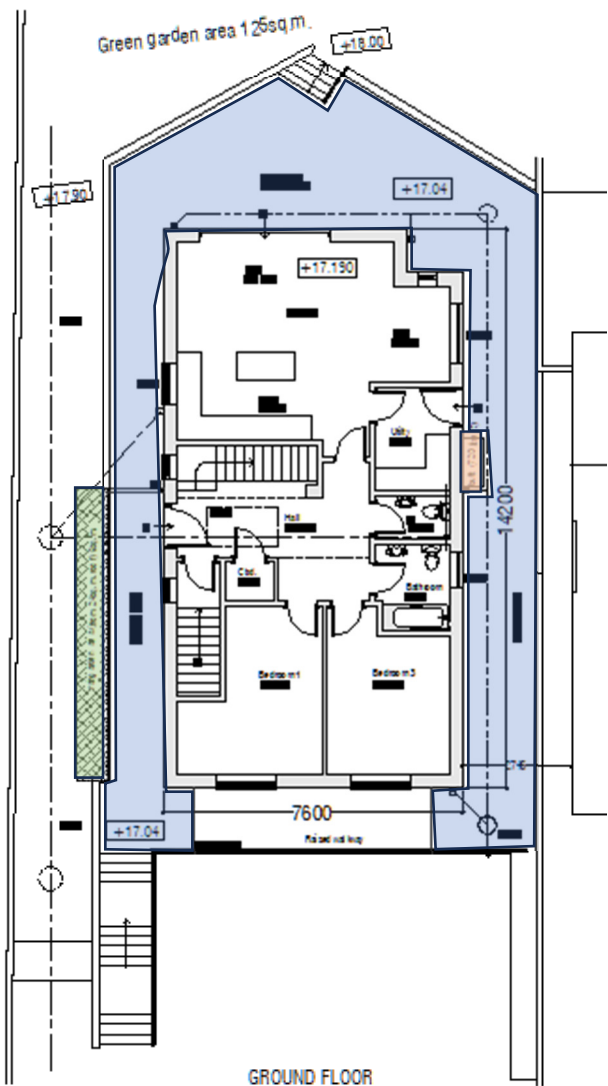
Catchment area	97.0 m ²
Design rainfall	50 mm
Climate uplift	+20%
Soil type	Measured Vp = 1.2 s/mm
Soakaway type	Plastic Crate System

KEY RESULTS

Storage void	6.40 m ³
Excavation	6.7 m ³
Dimensions	1.9x1.9x1.9 m
Est. drain time	0.1 hours
Materials cost	£567-£1,567



LOWER GROUND FLOOR



GROUND FLOOR

- Permeable Paving
- Rain Garden
- Attenuation Soakaway
- Water Butt.