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Starbucks Drive Thru, Neath.

SuDS Compliance Statement

on

Proposed Drive Thru Starbucks

for

Mr Huw Jenkins

Date November 2022

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Document Control

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1.0 INTRODUCTION

The proposed development will redevelop a brownfield former factory site in the Neath Abbey area. A site area of 1350m² (0.135ha) is noted for the proposed Drive Thru scheme.



Site Location Plan

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2.0 DRAINAGE

A schematic layout is appended, detailing the proposals for the strategy outlined in the following sections.

2.1 Existing Foul Drainage

Given the historic site use as a factory and current surrounding industrial units, it is highly likely that an existing adopted foul water network is located within the local area. Welsh Water (DCWW) asset maps have been requested to confirm network location.

2.2 Proposed Foul Drainage

Liaison with DCWW will be required to confirm capacity of the local network and preferred connection point. Hopefully the existing factory spur is still insitu and can be utilised for the scheme. It is then proposed that foul sewage from the development be collected by a gravity drainage system. Section 104 and 106 agreements will likely be required.

2.3 Existing Surface Water Drainage

Given the historic site use as a factory and the current surrounding industrial units, it is highly likely that an existing adopted surface water network is located with the local area. Further evidence of this is noted with the location of surface water gullies within the local highways. Welsh Water (DCWW) asset maps have been requested to confirm network location. An approach to NPT Council will also be required to identify any possible highway sewers with the local area.

2.4 Proposed Surface Water Drainage

Permeability tests will be undertaken as part of the site investigation works to demonstrate if the ground is suitable for drainage systems based on fully permeable ground techniques. Landis.org.uk/Soilscapes website indicates the site conditions as freely draining acid loamy soils over rock. This indicates the use of soakaways as a possible viable solution. Site soil conditions, infiltration rates and ground water levels will be confirmed through site investigation works. If infiltration is ultimately shown to be unviable and following the hierarchy of surface water discharge further investigation will be undertaken. Currently no local watercourses have been identified as possible discharge points. Discussions with surface water sewer owners within the local vicinity will be undertaken to confirm a possible connection point. Alternatively, the previous onsite surface water connection spur may still be in situ. Any proposed discharge rates into a surface water sewer would be proposed as brownfield rates with betterment over historic discharge rates.

The surface water drainage for the scheme will comply with SAB/SuDS protocols, and work within the constraints of the development.

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3.0 COMPLIANCE WITH THE NATIONAL SuDS STANDARDS S1 – S6

3.1 Standard S1 – Surface Water Run-off Destination

Priority Level 1

The use of a SuDS planter is proposed to intercept roof runoff and act as a point of source control. This will allow a limited re-use of rainwater to facilitate the planter and associated flora.

Priority Level 2: Infiltration to Ground

Infiltration testing to BRE 365 will be carried out as part of the initial site investigation contract. Landis.org.uk/Soilscapes website indicates the site conditions as Freely draining acid loamy soils over rock. This indicates the use of soakaways as a possible viable solution. Site soil conditions and infiltration rates will be confirmed through site investigation works.

Priority Level 3: Discharge to a Surface Water Body

Deemed not required/applicable for this development as not water bodies are noted with the immediate surrounding area.

Priority Level 4: Discharge to a Surface Water Sewer, Highway Drain, or other Drainage System

Possible solution if infiltration is deemed unviable through onsite testing. Existing drainage networks will be investigated and surveyed to confirm possible connection points. Discharge rates will need to be agreed if connection /discharge to a sewer is ultimately proposed.

Priority Level 5: Discharge to a Combined Sewer

Deemed not required/applicable for this development.

3.2 Standard S2 – Surface Water Runoff Hydraulic Control

SuDS System Sizing for 100 Year Return Period Rainfall Event, Plus Climate Change

It is proposed that the surface water system be designed such that it is sufficient to store critical storm duration flows in the 100yr+30% event. As noted above there will be no reductions made to the sizing of the attenuation to reflect reductions afforded by the SuDs features. Therefore, allowing for a worst-case scenario.

First 5mm Interception

Interception mechanisms will be required to ensure compliance with the requirement of zero runoff for the first 5mm rainfall for 80% of storm events during the summer and 50% in winter.

The provision of SuDS planter features along with flows through permeable drive subbase will contribute to the objective of first 5mm interception. Deemed to comply with the SAB standards.

Exceedance/Blockage

Any exceedance flows will follow surface topography. The topography is such that any excess flows from the surface water system will be directed towards the adjacent highway. This arrangement will follow existing principles and not increase flood risk to surrounding properties.

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3.3 Standard S3 – Water Quality

The proposed SuDS treatment train devices (SuDS planters, Permeable Surfacing) will deliver the requisite cleansing and filtration of runoff for this development.

3.4 Standard S4 – Amenity

The soft suds features (SuDS planters) and wider proposed landscaping will be carefully designed and integrated into the landscaping scheme for the development, to promote aesthetics and well-being as well as any designed drainage function.

The development is located within a significant industrial area, the proposal will increase greenery and biodiversity greatly over the current landscape.

3.5 Standard S5 - Biodiversity

The soft suds features (Bio-Retention Planters, Landscaping) will be carefully designed with gradients/profiles, planting species and soil properties selected to ensure suitable habitat is delivered to promote biodiversity. These proposals will augment the green infrastructure element of the design proposals to demonstrate a robust response to this Standard.

3.6 Standard S6 - Construction, Operation and Maintenance and Structural Integrity

The proposed infrastructure maintenance will be dealt with at a property level as all of the systems employed are contained within a single curtilage application. All of the proposed SuDS infrastructure is in accessible areas for ease of maintenance. The drainage network will be designed to be fully roddable and jettable with suitably positioned rodding eyes and mini-access chambers.

The suds devices are low maintenance surface/shallow items with established regular maintenance regimes.

The proposed design solution has been designed in accordance with the SuDS manual and is generally served by shallow SuDs features and accessible details. There are no inherent safety issues with the proposed scheme.

The on-property drainage infrastructure will be managed by the Tenant / Landowner. The principal issue is the management of the SuDS planters, which primarily involves periodic inspection to check the overflows are clear and ensure the free-flowing operation. These inspections will also serve to monitor the build-up of any silt in the system to facilitate any cleaning required.

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APPENDIX A
SuDs Strategy Compliance Plan

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