



Stormwater Soakaway Report

Site address

**1 Sundale Green
Tallaght
Dublin 24**

Date

29/09/2022

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1.0 INTRODUCTION

Waste Water Maintenance Ltd were commissioned to assess a site located at No. 1 Sundale Green, Tallaght, Dublin 24 to determine if the site has the capacity to handle the discharge of storm water from the hard stand areas of the proposed extension to the existing house.

There is an existing house on the site and the home owner is applying for planning permission to add an extension. The total hard surface area of the extension will be 52m squared. All paving around the extension will be permeable.

The site consists of a part concrete and part permeable front driveway and a rear garden with some grass. leaving a limited area for any soak-a-way as there is a requirement to retain a separation distance of at least 5m from foundations.

Scope of Works

Complete a BRE365 storm water test on the proposed site in order to facilitate the design of a storm water soakaway system in accordance with BRE Digest 365 to accommodate the storm water run off from the total hard surface area of 5m squared.

2.0 FIELDWORK

A test pit was excavated on the site measuring 0.8m wide X 1.5m long X 1.8m deep which revealed a top layer of filled ground consisting of partially gravelly stiff clays and silts with mixed in rubbles to a depth of 0.9m which in turn overlies a layer of hardcore / 804 fill to a depth of 1.1m which in turn overlies a soil stratum of very firm massive / compact stiff CLAY (no cobbles, sand or gravel within this soil layer) to the base of the pit at 1.8m.

No groundwater or rock was encountered at 1.8m at the time of the excavation and testing.

The soil types encountered are likely to have a very low permeable rate due to the very firm compact nature of the soils.

The test hole was saturated to a depth of 1.2m below ground level and monitored for a two hour period.

The water level dropped to 1.3m (100mm) in a 58 minutes before becoming static with no notable drop over the following period which reflects the soil description as a stiff (putty like) CLAY.

3.0 DESIGN

The soils encountered from ground level to 1.2m consist of infill mixed clay and rubble overlying a hardcore / 805 layer which is considered not suitable for use in a soak area design.

The soil stratum from 1.2 – 1.8m below ground are considered to have very low permeable characteristics and due to the limited available space on the existing site the site is considered unsuitable for a storm water soak-a-way system.

Therefore, any storm water generated from the hard surfaces of the proposed development will need to discharge to the existing mains system which serves the existing house.

4.0 RECOMMENDATIONS

The storm water generated from the proposed extension will need to discharge into the main system along with the existing house.

Permeable paving and drive way is recommended to reduce the hard surface area on the site.

By replacing the concrete drive, which is approximately 60m sq, with a permeable one the site will compensate for the roof area of the proposed extension which will be 52m sq.

APPENDIX
Pit Log

Professional Waste Water Services

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Job No:

WASTE WATER MAINTENANCE LTD.

149 Woodfield, Scholarstown Road, Rathfarnham, Dublin 16

Site location: 1 Sundale Green, Tallaght, Dublin 24

Pit No: SA1

Client: Michael Green

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Architect:

Date: 29/09/2022

Depth (m)	Geotechnical Description	Depth	Sample Number	Sample Type	Sample Depth
-0.5	Filled Ground consisting of mixed soils & some rubble				
-1.0	Hardcore layer / 804 mix	0.9			
-1.5	Red/Brown Massive very stiff CLAY	1.1			
-2.0	END OF PIT AT 1.8M	1.8			
-2.5					
-3.0					
-3.5					
-4					
-4.5					

Depth to groundwater: Not encountered at 1.8m

Depth to bedrock: Not encountered at 1.8m.

Notes: It is likely garden was the building compound at the time the estate was built based on the filled ground overlying the hardcore

Site Pictures

Site Views House, Test location & test pit



Site Pictures

Site Views House, Test location & test pit

