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FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY

**Dementia Care Centre on land to the rear of Baird's
Farm Shop, Crookthorn Lane**

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On behalf of Infrastruct CS Ltd

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Foreword

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1.0 Summary

A Flood Risk Assessment (FRA) and Drainage Strategy have been undertaken to accompany the planning application for the proposed development on land to the rear of Baird's Farm Shop, Crookthorn Lane, Climping, Littlehampton, BN17 5SN. This report has been prepared by Infrastruct CS Ltd on behalf of Brackley Investments Ltd in accordance with the guidelines set out in the National Planning Practice Guidance.

The following table is an overview of the flood risk for the proposed development of the site, based upon currently available information and finds the following –

ITEM	RESPONSE
Site Location	The site is located on land to the rear of Baird's Farm Shop, Crookthorn Lane, Littlehampton, BN17 5SN. The existing vehicular access from Crookthorn Lane (A259).
Size and Current Land Usage	The site covers an approximate area of 0.84Ha, which consists of a greenfield land with low planting.
Flood Zone	Flood Zone 1
Fluvial Flood Risk	Low – Refer to Section 6.1
Overland Flood Risk	Low – Refer to Section 6.2
Groundwater Flood Risk	Medium – Refer to Section 6.3
Sewerage Flood Risk	Low – Refer to Section 6.4
Artificial Flood Risk	Low – Refer to Section 6.5
Proposed Development	The site is to be developed to provide a new care home building with 64 beds, as well as 28 parking spaces and associated gardens.

Based on this assessment, it is concluded that in accordance with the Flood risk vulnerability and flood zone compatibility table in Section 5.6 from the Planning Practice Guidance document, the report considers the proposed development appropriate.



2.0 Introduction

2.1 Commission

Brackley Investments Ltd has commissioned Infrastruct CS Ltd, to prepare a Flood Risk Assessment (FRA) to support a planning application for the development of land to the rear of Baird's Farm Shop, Crookthorn Lane, Littlehampton, BN17 5SN.

2.2 Guidance

This flood risk assessment has been compiled in accordance with the recommendations of the National Planning Policy Framework and the National Planning Practice Guidance.

2.3 Aims and Objectives

The purpose of this flood risk assessment and drainage strategy is to assess the potential flood risks by and to the proposed development. It will identify the flood risk zone, potential sources of flood risk, consider the proposed drainage and will be used to support the proposed planning application.

3.0 Site Details

3.1 Location

The site is located 1Km north off the coast and 2.2 Km west of River Arun. The existing vehicular access is from Crookthorn Lane (A259) to the north. The site is bound by the Baird's Farm Shop and Café to the north, Climping Street to the west, a number of detached properties to the south and open green fields to the east.



Fig 3.1.1 - Site location



Fig 3.1.2 – Site Context

3.2 Grid Reference

The Ordnance Survey National grid reference for the centre of the site is:

499971E, 101709N (Nat Grid SU 99971 01709)

3.3 Topography and Site Description

The site covers an approximate area of 0.84Ha, which consists of greenfield land with low planting. Access to the site is via Crookthorn Lane.

Levels vary within the site between 5.97mAOD to the north, close to the existing shop, falling in a southerly direction down to a level of 5.05mAOD in the southernmost corner of the site. See Appendix A for the topographic survey.

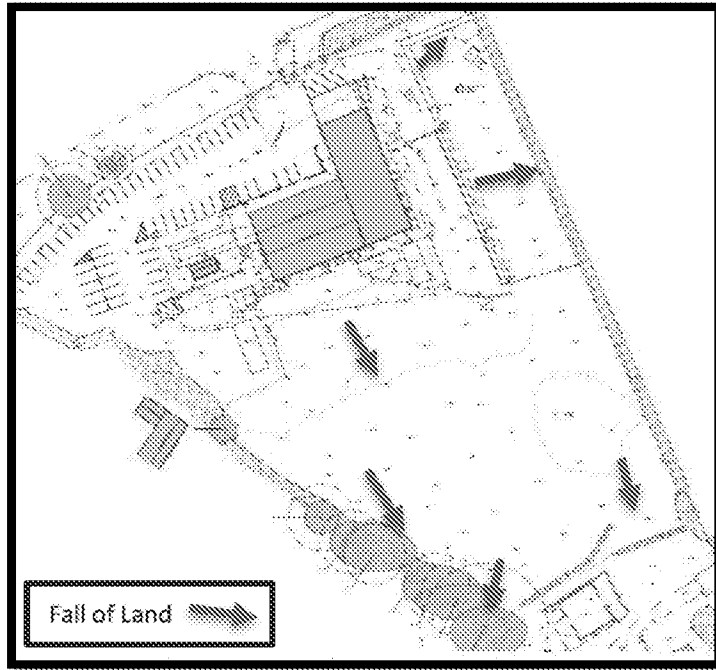


Fig 3.3 – Site Falls

3.4 Ground Conditions

Intrusive ground investigation works have been undertaken on the site and ground conditions were found to consist of a minimal thickness of topsoil (up to 0.20m) over yellowish sandy clay. The access road has around 0.55m of made ground overlying the natural ground.

3.5 Ground Water

Groundwater was encountered on site at a depth of 1.00mBGL.

3.6 Existing Site Drainage

The Southern Water records show a foul water sewer along Climping Street, approximately 1.5m deep, to the west of the site. The head of the surface water sewer, also within Climping Street, is located 75m to the south of the site. The invert levels of this network are unknown. Southern Water sewer records found within Appendix B.

3.7 Existing Watercourses

According to the Environment Agency map, the nearest main river watercourse to the site is the Ryebank Rife, that runs 750m to the south of the site. River Arun lies 2km to the east, reaching sea only 1 mile downstream.

3.8 Environment Agency Groundwater and Aquifer Protection

A study of the aquifer maps on the Environment Agency website revealed the site to be located on a Secondary Aquifer within the superficial deposits and on a Principal Aquifer within the bedrock deposits. The Environment Agency records also show that the site is located outside of any Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater.

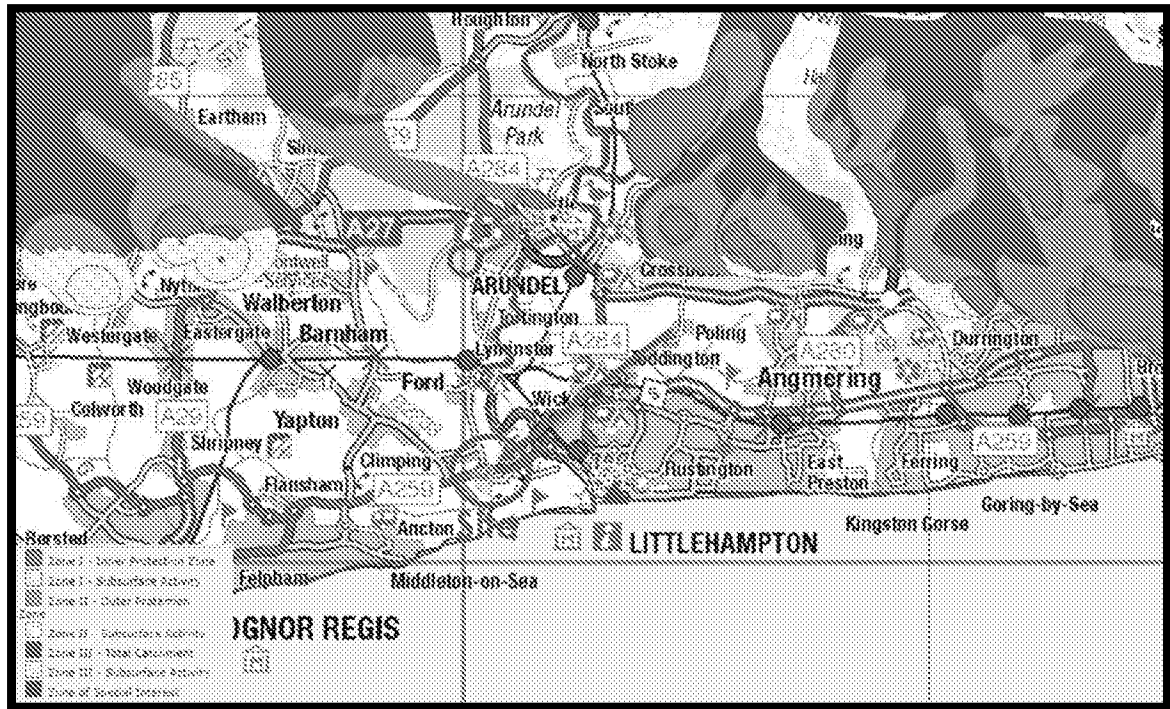


Figure 3.8.1 – Groundwater Source Protection Zone map from the Environment Agency website.

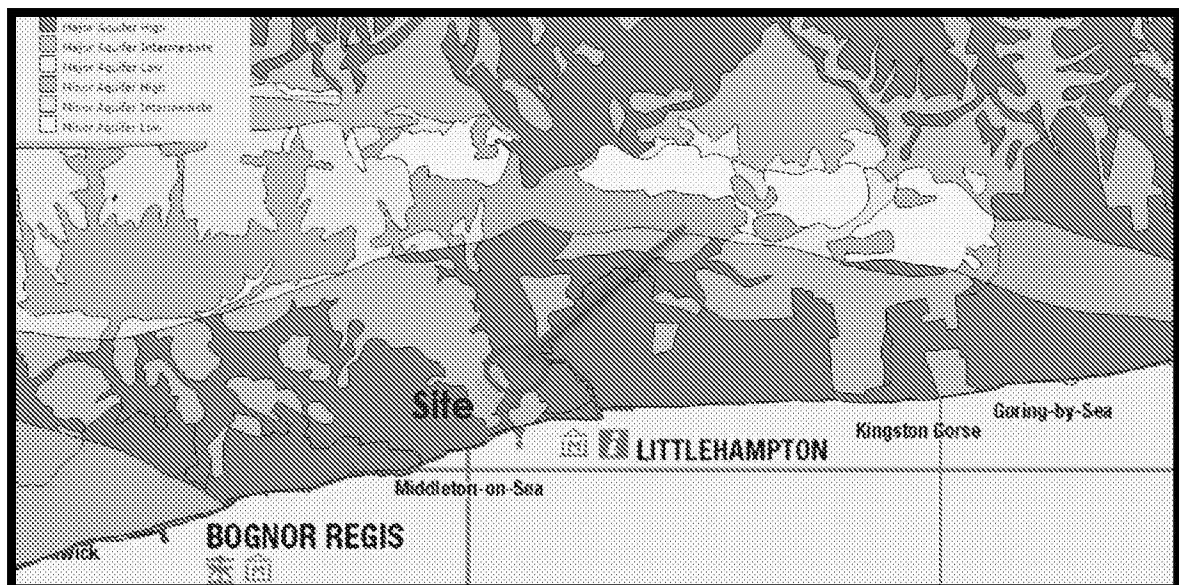


Figure 3.8.2 – Aquifer map from the Environment Agency website.



4.0 Proposed Development

The site is to be developed to provide a new dementia care centre with 64 beds, as well as 28 parking spaces and associated gardens. The proposed development plans can be found in Appendix C.

5.0 Flood Risk Policy

5.1 Environment Agency Flood Map

The flood map for the development site shown below suggests that the site wholly falls within flood zone 1, which is defined as land assessed as having a less than 1 in 1000 annual probability of river flooding in any one year. Flood map from Arun District Council SFRA can be found in Appendix D.



Fig 5.1 – Environment Agency Flood Zone map

5.2 The National Planning Policy Framework

The National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) give direction for development with respect to flooding.

These documents promote a sequential approach to encourage development away from areas that may be or are susceptible to flooding. In doing so it categorizes flood zones in the context of their probability of flooding, as shown in the table within Section 5.3 below.