

20.0394

8th October 2020

South Bonar Campsite, Bonar Bridge

david narro associates



Drainage Impact Assessment

Introduction

The development site is located in the village of Bonar Bridge centred on grid reference (260837E 891467N). The proposal is to upgrade the existing toilets, provide a new septic waste point for campers, create five new electric hook-up points for camper vans and add a new shower block with washing up facilities and a covered eating space.

Site Investigation

A ground investigation is yet to be carried out. However, after carrying out a desktop study of the site, and with reference to the BGS online maps; we would anticipate the ground conditions to comprise of sands, gravels & silts.

A topographical survey has been commissioned.

Foul Water Treatment & Disposal

A new 150mm diameter uPVC private foul drainage system will be laid to collect the foul water flows from the proposed facility. Flows will be conveyed by gravity in a Westerly direction to a new packaged pumping station. The foul flows will be then be pumped to the existing Scottish Water Municipal Tank which is located at grid reference (260785E, 891446N).

A new 3.6m long x 1.5m wide x 2.5m deep chemical waste disposal point and associated Elsan Tank will be installed. The proposed tank will have a capacity of 6000 litres. This system must be installed a minimum distance of 5.0m from the site boundary.

The existing septic tank for the existing toilet block will be de-commissioned and grubbed-up as noted on DNA drawing No. 20.0394-700.

EDINBURGH

34-36 Argyle Place
Edinburgh
EH9 1JT

0131 229 5553

GLASGOW

24 James Morrison Street
Glasgow
G1 5PE

0141 552 6080

FORRES

Horizon Scotland
The Enterprise Park, Forres
IV36 2AB

01309 678 155

STIRLING

5B Viewfield Place
Stirling
FK8 1NQ

01786 449 562

David Narro Associates Ltd –Registration No. SC237904 – Registered office 36 Argyle Place, Edinburgh EH9 1JT



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Surface Water & Disposal

We propose that the tarmacked area of the car park is laid to a crossfall and the surface water run-off is conveyed by gravity to new swale trenches. [Refer to DNA drawing No. 20.0394-700 for location of swales].

New 110mmØ uPVC perforated pipes will be laid in the swale trenches; the surface water will then be conveyed by gravity to connect into the existing gully system. The location of the existing gullies will be confirmed upon receipt of the topographical survey.

The roof-water from the proposed facility building will be collected in new 110mm uPVC surface water pipes and conveyed by gravity to connect into the new swale trench located in the central island of the car park. This will then be conveyed North to connect into the existing gully system as noted above.

Flooding

Potential Sources of Flood Risk

At this location there are potential sources of flooding that may require to be considered. These are outlined below along with a qualitative assessment of the risk they pose to the development.

- Fluvial Flooding: The SEPA Indicative Flood Map shows that the location of the site is at a high risk from Fluvial Flooding.
- Pluvial flooding: The SEPA Indicative Flood Map shows that the location of the site is out with any area that is at risk from Pluvial Flooding
- Coastal flooding: The SEPA Indicative Flood Map shows the location of the site is at a high risk from coastal flooding.
- 1 in 200-year overland flow: Levels will be formed to ensure that surface water runoff from excess storm events will be conveyed away from the building and adjacent buildings.

A flood risk assessment of the site will be carried out in due course.

Maintenance

All components of the proposed foul and surface water sewers in relation to the site will be privately owned and maintained.

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