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Notes:

1. This drawing is to be read in conjunction with all relevant Architects and Engineers Drawings.
2. It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved competent statement.

Drainage Strategy

The development site area totals 5789m²

Existing greenfield run off using IH 124 method based on 50Ha and interpolated down to 0.519Ha

SAAR (mm) 1133; Soil 0.5; Region No 3

Q1 50Ha = 417.1L/sec pro rata to 0.519Ha = 4.329L/sec
Q30 50Ha = 918.5L/sec pro rata to 0.519Ha = 9.534L/sec
Q100 50Ha = 1008.8L/sec pro rata to 0.519Ha = 10.4715L/sec

OBAR 50 Ha = 485L/sec pro rata to 0.519Ha = 5.03L/sec

NPPF requires that surface water arising from a developed site should as far as practicable be managed in a sustainable manner to mimic the surface water flows arising from the site prior to development.
Opportunities to reduce the surface water run off and the associated flood risk should be identified.

Consideration has been given to the use of infiltration devices for dealing with the surface water drainage.

A search of recorded borehole logs in the surrounding area and local knowledge of the site show the underlying strata to consist of yellow/brown silty clays which will be unsuitable for any infiltration devices to work effectively.

The nearest water watercourse is the River Don which flows along the Northern Boundary of the site. The site slopes steeply towards the river.

The floor levels of the proposed new dwellings will be 3.95m above the floor levels of the recently developed Millstone residential development on the opposite side of the river, and 8.2m above the water level of the river (measured at the time of the survey).

The Environment Agency flood maps show the proposed development area to be in flood zone 1, the lower parts of the site to the North East adjacent to the bridge are shown to be in flood zones 2 and 3. This part of the site is to remain un-developed and there will be no alterations to the existing ground levels in this area. The 3 new dwelling will be accessed off Roughbirchworth Lane. In order to gain safe vehicular and pedestrian access to the properties the floor levels will be set above the existing ground levels, however this is well above the flood levels so there will be no loss in the available wash land on the site.

Any groundwater, overland flows or sewer flooding will be able to pass through the site and into the watercourse without affecting the proposed properties.

There are no public sewers available for the disposal of foul drainage. Therefore the proposals are to install a packaged treatment plant with discharge to the watercourse, as the daily volume will be less than 5m³ per day then a permit will not be required however the installation will be registered with the Environment Agency.

The proposed strategy for draining the surface water from the site is to form a new piped outfall into the adjacent watercourse with the flows attenuated to an acceptable level.

The OBAR for the site is 5.03L/sec

The site drainage will be designed to ensure that the peak discharge rate does not exceed 5.03L/sec in a 1in100 year storm event with a 30% allowance for climate change.

The proposed surfaced and drained catchment area is 1560m²

This can be achieved by attenuating the flows using a 93mm MD6 Hydro-brake and providing 60m³ of storage.

See micro-drainage calculations

No.	Revision	Date	Drawn
Status			
Approval			
Client			
Yorkshire Land Ltd			
Project			
Development on Land North of Roughbirchworth Lane, Oxspring			
Drawing title			
Drainage Proposals			
Drawn	PK	June 2014	Scale
Contact No.	14088	Dwg No.	C-50
		Revision	VAR

