

Our Ref: A096474/LLFA

Your Ref: SWM/2020/0453

Sarah Reghif
Flood & Water Management Team
Hampshire County Council
EII Court West
The Castle
Winchester
SO23 8UD

26th October 2020

Dear Sarah

RE: LAND TO THE WEST OF HULBERT ROAD, HAVANT

Please find below additional information in response to your comments at planning to the WYG Flood Risk & Drainage Assessment (FRDA) (ref. A096474, dated April 2020) for the above named site.

1. Evidence of and information of the existing surface water flow paths of undeveloped (greenfield) sites.

As described in Section 3.2 of the FRDA, there are no significant flow paths on site, as shown on the Environment Agency's Surface Water Flood Risk Map. In the event of exceedance floods, Section 4.6 of the FRDA describes that the roads and open space levels should be set so that overland flood routes reflect the current scenario in that runoff will drain towards Hulbert Road, following the natural contours of the ground and away from the buildings. Please find enclosed a plan indicating overland flow routes based on the site's topographical survey.

2. Evidence that the proposed drainage will follow the same pattern as the existing.

As described in Section 4.5.3 of the FRDA, the proposed drainage rate is restricted to the existing greenfield Qbar rate for all storm events. The outfall is to 'Watercourse B' to the south of the site rather than to the assumed highway ditch on the western side of Hulbert Road as it is preferable to discharge to a formal watercourse with known connectivity (i.e. a tributary of the Hermitage Stream). The

topographical survey does not indicate the connectivity of the highway ditch. It is possible that the highway ditch discharges to Watercourse B either directly or via highway drains.

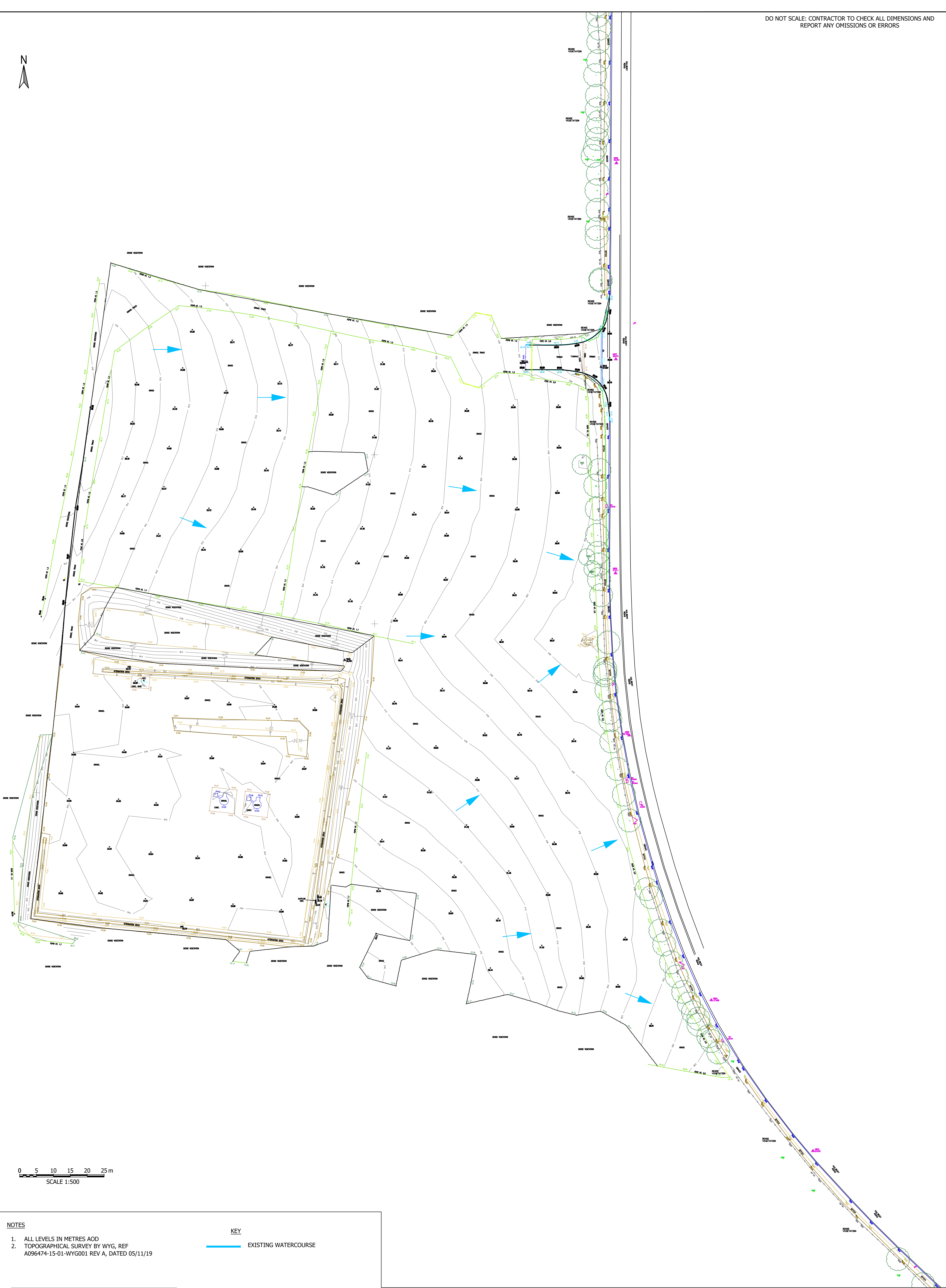
3. Existing and proposed runoff volume calculations. Calculations must show that, where reasonably practical, runoff volume should not exceed the greenfield runoff volume for the same event. This must be shown for a 1 in 100 year rainfall event.

We have followed the approach described in The SuDS Manual (Section 24.4) whereby there will be a higher volume of discharge from the developed site but runoff will be restricted to a much lower rate, in this case 8 l/s from the developed site for all storm events compared to the 17.57 l/s Qbar rate from the whole greenfield site. The increase in volume is offset by the significant reduction in runoff rate.

Yours sincerely

Ross Armstrong
Senior Engineer
WYG Engineering Limited

Enclosures: (i) Overland Flow Routes



NOTES

1. ALL LEVELS IN METRES AOD
2. TOPOGRAPHICAL SURVEY BY WYG, REF
A096474-15-01-WYG001 REV A, DATED 05/11/19

KEY

EXISTING WATERCOURSE

THIS DRAWING IS FOR OUTLINE
PLANNING PURPOSES ONLY AND SUBJECT
TO FURTHER DETAILED DESIGN

PRELIMINARY ISSUE

3 SOVEREIGN SQUARE
SOVEREIGN STREET
LEEDS
LS1 4ER

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Project:
LAND OFF HULBERT ROAD,
HAVANT

Drawing Title:
OVERLAND FLOW ROUTES

REV	DESCRIPTION				BY	CHK	APP	DATE
Scale @	A1	Drawn	Date	Checked	Date	Approved	Date	
1:500		FA	OCT 20	RA	OCT 20			
Project No.		Office	Type	Drawing No.			Revision	
A096474		21	C	SK002			P1	