

RESIDENTIAL DEVELOPMENT AT LIDGETT LANE, PILLEY

TEMPORARY SURFACE WATER DRAINAGE STRATEGY

INTRODUCTION

Avant Homes are proposing to construct 49 dwellings with associated parking, landscaping and infrastructure.

This temporary drainage strategy has been developed to satisfy the requirements of Planning Conditions and to provide guidance for the main contractor and sub-contractors working on the residential development.

The strategy focuses on the construction of the entire development, but makes provision for the management of run-off throughout the varying stages of the build programme.

SITE INFORMATION

The total site area measures approximately 2.4 hectares and is located on land off Pilley Green/Lidgett Lane, approximately 7 miles south of Barnsley Town Centre.

The topography of the site generally falls towards the south-east with levels varying from approximately 158.70m AOD at a high point in the north-west to approximately 139.80m AOD at a low point to the south-east.

As part of the approved Flood Risk Assessment, historic flooding/run-off events were investigated. There is no evidence to suggest there have been any historic incidents and it can be concluded from the Environment Agency flood maps, the site is located within Flood Zone 1, suggesting that the site is not at risk of flooding from fluvial and / or tidal sources. Flooding from pluvial sources can be considered low following the implementation of a suitable surface water scheme. Flood risk to the proposed development from all other sources is considered low.

TEMPORARY DRAINAGE STRATEGY

The temporary surface water drainage strategy is necessary to provide options for the management of increased run-off which will occur as a direct result of the forthcoming construction activity. The completed development will be served by an approved drainage scheme and does not need consideration as part of the temporary strategy.

As part of the proposed development works existing grassed areas should be stripped in small phases to allow for the construction of infrastructure and housing.

The underlying strata is predominantly firm/stiff gravelly clays and soakaway testing has confirmed the site is not suitable for infiltration drainage. It is therefore important to consider the impacts of run-off once the site has been remediated due to the potential for a temporary increase in run-off.

Due to the relatively small nature of the site, the installation of the primary infrastructure will be undertaken in a contract lasting approximately 26 weeks. From that point onwards the newly installed drainage can be used as part of the Temporary Surface Water Strategy. In the meantime and in order to provide a robust temporary drainage strategy we have considered all the temporary drainage options available for the site. These options are summarised below:

Discharge Option	Requirements
1. Existing regime	Whilst infiltration drainage has been discounted as part of the forthcoming development, any rainfall currently landing on the existing grassed areas is assumed to slowly infiltrate into the ground before tracking to the natural outfall(s).
2. New off-site surface water drain, when available.	The primary infrastructure is to be installed within an initial contract of approximately 26 weeks. Once complete the surface water system can be used in a temporary state for the temporary surface water run-off. Depending upon the source of the water, it is likely silt management may be required.
3. Yorkshire Water Sewer	Where options 1 or 2 are not available, or are not successful, Avant Homes would request the permission of Yorkshire Water for a temporary license to allow for excess flows to the existing drainage, at an agreed rate.
4. Tanker removal	If emergency removal of water is required from the bunds, a tanker contractor will be available on 24 hour call out to remove run-off from site. Discharge to be at a Yorkshire Water treatment facility.

During excessive rainfall there may be a requirement for additional run-off bunds to be installed to catch and store the surface water run-off. These will be installed if/when they are required and in locations that could be agreed with the Local Authority.

Depending upon which option is used and the nature of the run-off there may be a requirement for supplementary silt management. This will be considered to suit the works.

Hierarchy of Options

Build Phase	Options
During Initial Build Phase	1. Existing Regime 3. Discharge to Yorkshire Water Sewer. 4. Tanker Removal
Post Initial Build Phase	2. New off-site surface water drain 1. Existing Regime 3. Discharge to Yorkshire Water Sewer 4. Tanker Removal
Balance of build	2. New off-site surface water drain 1. Existing Regime 3. Discharge to Yorkshire Water Sewer. 4. Tanker Removal

Once the works have commenced on site and the initial build phase has started Avant Homes will review this strategy against the site activity and where necessary make amendments/adjustments.