

4th December 2018

Ref: 6241/3A

**PROPOSED DEVELOPMENT OF 233 PLOTS, LAND TO THE WEST OF WHALLEY ROAD,
BARROW, LANCASHIRE.**

DRAINAGE STATEMENT IN SUPPORT OF PLANNING APPLICATION

1.0 Introduction

- 1.1 Lees Roxburgh have been appointed to provide a drainage statement in support of a detailed planning application for 233 plots on behalf of Taylor Wimpey and Barratt Homes.
- 1.2 The Site has an existing Outline and Reserved Matters consent with a detailed design for 225 dwellings. This full application is being submitted to carry out amendments to the previously approved scheme.
- 1.3 This statement and the attached drawing ref: 6241-02-03 set out the drainage proposals for the surface water and foul drainage systems

2.0 Surface Water Drainage

- 2.1 The surface water is split between two positively drained outfalls:

Network 1: To connect into the existing 600 diameter network to the north of the development. This existing network discharges to the existing watercourse 'Barrow Brook'.

Network 2: To discharge to Barrow Brook via a new outfall route.

- 2.2 It is proposed to restrict the development flows offsite to existing greenfield runoff rates by incorporation of tiered hydrobrake arrangements at each outfall. Rates as follows:

Total Development

Q₁ 49.8 l/s
Q₃₀ 84.4 l/s
Q₁₀₀ 103.5 l/s

The development rates are to be split between the two outfalls as follows:

Network 1

Q₁ 16.3 l/s
Q₃₀ 31.7 l/s
Q₁₀₀ 38.2 l/s

Network 2

Q₁ 33.5 l/s
Q₃₀ 52.7 l/s
Q₁₀₀ 65.3 l/s

- 2.3 Surface water volumes up to and including the 1:100 year plus 30% climate change event will be contained on site for both networks

Attenuation for Network 1, will be provided by online attenuation pipes and associated manholes.

Attenuation for Network 2 will be provided by an attenuation basin.

- 2.4 All surface water drainage will be put forward for adoption by United Utilities under a Section 104 agreement.

3.0 Foul Drainage

- 3.1 Foul drainage has been agreed as part of the wider development scheme.
- 3.2 The development foul drainage network is to be split between three connections.

Network 1 positively drains to the existing foul network crossing the eastern side of the development, using new and existing manholes.

Network 2 drains to the existing foul within the road to the north of the development which drains to the existing pump station.

Network 3 drains direct to the existing pump station.

- 3.3 Networks 2 and 3 drain to the existing pump station. Allowance has been made within the wider development proposals for emergency storage for this development.
- 3.4 All foul water drainage will be put forward for adoption by United Utilities under a Section 104 agreement.

Chris Bennett
for and on behalf of LEES ROXBURGH LIMITED