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Ref: 6196/R2

TILIA HOMES

DEVELOPMENT AT ALSTON GRANGE, PRESTON ROAD, LONGRIDGE

DRAINAGE STATEMENT IN SUPPORT OF PROPOSALS FOR PHASE 3 REPLAN

1.0 Introduction

1.1 Tilia Homes have instructed Lees Roxburgh to prepare a Drainage Statement in support of their proposals for a Phase 3 replan of their development at Alston Grange, Preston Road. Longridge. The replan comprises proposals for 91 No. dwellings, an increase of 12 No. dwellings.

1.2 The overall development has the benefit of an Outline Planning Permission consent Ref. 3/2016/0974 which was granted on 18th September 2018. Also the scheme has Reserved Matters consent Ref. 3/2018/0105, granted on 12th February 2018.

1.3 A Flood Risk Assessment (FRA) Ref 6196/R1 Rev A January 2017 was prepared by Lees Roxburgh in support of the original, and consented, development proposals.

For details of the setting of the overall development and general flood risk and drainage matters reference must be made to that FRA.

1.4 It is intended that this statement will provide the appropriate context for approval of the Phase 3 replan by Lancashire County Council Local Planning Authority (LPA) and Lead Local Flood Authority (LLFA), and United Utilities (UU) as the Sewerage Undertaker to enable subsequent detailed design work to be progressed with the necessary confidence.

2.0 Overall Site Location and Description

2.1 Location

2.1.1 The overall site is centred on National Grid references SD59913, 35938 and comprises a total area of 18.84ha.

2.1.2 The site is situated to the southern outskirts of Longridge some 8km to the north east of Preston city centre.

2.2 Surrounding Land Use, Access and Site

2.2.1 The overall site is bounded by residential development within Longridge to the north, including a recent Miller Homes development, and fronts onto the B6243 Preston Road to the east, from which access to the development is achieved, with open countryside beyond.

To the south and west is open countryside which continues around Longridge to the north.

2.2.2 The overall site formerly comprised six open fields which, with the exception of the two areas now designated as Phase 3, have now been substantially developed.

2.3 Topography

2.3.1 Ground levels across the overall site are uniform, falling generally in a south/south westerly direction.

2.3.2 Reference should be made to the topographical survey but overall levels can be summarised as follows;

- North east boundary with Preston Road … 83m AOD
- North west boundary… 85m AOD
- South west boundary… 77m AOD
- South east boundary adjacent to Preston Road… 78.5m AOD

2.3.3 Slopes in a north east to south westerly direction average at about 1 in 85**.**

2.4 Existing Drainage

2.4.1 Numerous minor watercourse systems are recorded in the area, including within the overall site, and these have substantially been retained within the main development as has a surface water outfall from the development to the north.

The nearest main river system is Savick Brook located just beyond a dismantled railway to the north west.

The systems within the site generally flow in a south/south westerly direction through Tippings Farm and Dam House Farm before turning westerly towards Savick Brook.

Drainage to the opposite side of Preston Road generally falls in a southerly direction towards Turn Brook.

2.4.2 The main surface water and foul drainage systems for the overall development, including the two areas now designated as Phase 3, have been designed, approved and constructed to adoptable standards and will be/have been adopted by United Utilities.

These proposals comprise;

- Surface Water – 2 No. drainage networks outfalling to separate basins from which flows restricted to the existing discharge rates prior to outfall to the watercourse network all in accordance with the approved drainage strategy.
- Foul – a single foul drainage network draining to a pumping station located in the south east area of the development from which flows are pumped up to the north west corner of the site into a United Utilities diameter combined sewer.

With the exception of within the areas now proposed for Phase 3, these systems have now been substantially constructed.

3.0 Surface Water Drainage

3.1 The overall proposals incorporate attenuation up to the 1 in 100 year plus 30% climate change event contained within the two attenuation basins located close to the low southern areas of the development.

The proposed impermeable areas associated with Phase 3 will substantially mimic those based on the earlier planning layout upon which the overall surface water drainage design was based. Nonetheless, a design check will be undertaken based on a detailed take off of the Phase 3 replan impermeable areas and the overall surface water drainage design including basins rerun to identify and address any implications associated with the Phase 3 replan.

However it is anticipated that any adjustment to the impermeable areas required will be modest and readily accommodated with the main drain drainage design, including the attenuation basins, with the flow restrictions approved within the original FRA maintained and should not therefore materially impact on the approved surface water drainage scheme. Nonetheless a resubmission will be made to United Utilities to demonstrate the amended proposals as continuing to comply with adoptable standards.

3.2 These proposals are summarised on the attached Drainage Proposals plan 6196/01-07D.

4.0 Foul Drainage

4.1 A proposed increase of 13 No. dwellings is proposed and should not materially impact on the approved foul drainage scheme. Nonetheless a resubmission will be made to United Utilities in conjunction with that for surface water drainage to demonstrate the amended proposals as continuing to comply with adoptable standards.

4.2 Again, these proposals are summarised on the attached Drainage Proposals plan 6196/01-07D.

John E Lees B.Sc., C.Eng., M.I.C.E., M.C.I.W.E.M.

Notes

Surface Water

Developable Area = 11.554 Ha

Western side of development drainage to be restricted to Greenfield Rate + 15L/S for the Miller Homes site to be added to the system. Rates as follows:

- Q_{BAR} 81.1 L/S
- Q_{1} 72.5L/S
- Q_{30} 127.4L/S
- Q_{100} 152.5L/S

Eastern side of development drainage to be restricted to Greenfield Rate. Rates as follows:

- Q_{BAR} 27.6 L/S
- Q_{1} 24L/S
- Q_{30} 47L/S
- Q_{100} 57.5L/S

Flows up to 1 in 100 event + 30% allowance for CC to be contained on site.

Piped system to Sewers for Adoption 6th Edition.

Foul Water

Piped system to Sewers for Adoption 6th Edition.
Pumping Station to Sewers for Adoption 7th Edition.

Key

- PS — S104 Foul Pumping Station
- Existing SW Sewer
- Existing UU Combined Sewer
- Proposed S104 SW Sewer
- Proposed Attenuation Basin (2 No.)
- Proposed S104 FW Sewer
- Proposed S104 Rising Main
- Existing Ditch
- Proposed Culvert

Rev	Revision	By	Date
D	BOUNDARIES UPDATED	RD	20.12.22
C	ADDITIONAL PHASE 3 LAYOUT INCORPORATED.	BP	15.12.22
B	CLIENT NAME CHANGED. NEW LAYOUT FOR PHASE 3 INCORPORATED.	RD	05.12.22
A	NEW LAYOUT ADDED FROM 26.01.18 AND DESIGN AMENDED TO SUIT.	DM	02.02.18

TILIA HOMES

Alston Grange
Preston Road
Longridge

Drainage Proposals

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Job No.	Drawing No.	Revision.
6196	01-07	D

Scale 1:1000@A1 | Date December 2017

Drawn By	Designed By	Checked By
DM	DM	JEL