



Land North and West of Hethersett

Utilities and Services Report

November 2018

Executive Summary

This Utilities and Services Report has been prepared on behalf of Pigeon Land 2 Ltd ('Pigeon') and the Hethersett Consortium (the 'Landowners') in support of a high quality mixed-use sustainable scheme on land to the north and west of Hethersett (the 'Site').

The purpose of this Report is to provide information on existing utilities and provide an assessment of any potential impacts upon the proposed development. It also demonstrates how utility supplies can be obtained to serve the Site.

The concept for the Site is for a high-quality mixed-use scheme comprising approximately 1,000 new homes, 2.8 ha of employment uses, a Primary School (2 FE and Pre-School provision) and a combined Key Stage 3 and Sports Campus and substantial areas of green infrastructure and amenity space.

There is a range of existing utility and service infrastructure within the vicinity of the development Site.

The electric solution to supply the scheme is to connect directly to Earlham Grid Primary Substation to the east of the site. A number of on-site substations will be required to distribute electricity to the various areas of the Site.

The presence of gas mains in close proximity to the Site means that there is an opportunity to provide new homes with domestic gas connections.

Local clean water infrastructure within the vicinity of the Site provides the ability for the proposed development to be connected to the mains water network. Any required reinforcements to the existing network will be carried out under Anglian Water's standard charging regime.

Anglian Water asset plans indicate foul water public sewers running in the vicinity of the Site. It is proposed that the foul drainage from the proposed development will be accommodated within the existing sewer network with any reinforcement works carried out under Anglian Water's

standard charging regime. Due to topography of the Site a number of foul water pumping stations will be installed to discharge the various areas of the Site to the existing network.

The Preliminary Flood Risk Assessment and Surface Water Drainage Strategy Report for the scheme identifies an appropriate strategy for surface water drainage.

Assets and opportunities have been identified to ensure that the Site can be covered in terms of telecommunications connections.

The findings of this Report conclude that the proposed development has the potential to connect to the required range of domestic utilities and services and that utilities infrastructure does not present a constraint to delivery of the Site.

1 Introduction

- 1.1 This Utilities and Services Report has been produced for Pigeon Land 2 Ltd ('Pigeon') and the "Hethersett Consortium" ('The Landowners') in respect of land to the North and West of Hethersett (the 'Site')
- 1.2 The Site location is shown in Fig. 1.1.

Fig. 1.1: Site location



- 1.3 The concept for the Site for a high-quality mixed-use scheme comprising approximately 1,000 new homes, 2.8 ha of employment uses, a Primary School (2 Form Entry and Pre-School provision) and a combined Key Stage 3 and Sports Campus and substantial areas of green infrastructure and amenity space.
- 1.4 The Site sits to the north, east and west of the existing 'Hethersett North' development of around 1,200 new homes which is currently under construction by Taylor Wimpey and Persimmon Homes.

- 1.5 The purpose of this utilities and services report is to provide an assessment of existing utility company assets and services infrastructure in relation to the proposals to establish potential development constraints and opportunities as well as considering the provision of services to supply the Site.
- 1.6 Details relating to existing infrastructure have been obtained from utility and service companies, with the information received presented and summarised in this report. The accuracy of the information within this report is subject to the details provided by these third parties. The precise location of infrastructure should be confirmed through site surveys and investigation prior to any commencement on the Site.

2 Development Proposals

2.1 There is not a detailed site layout available at this stage; however, the indicative Concept Masterplan for the Site indicates the proposed development will have a mix of uses as detailed below.

2.2 The Concept Masterplan provides for the following uses:

- Around 1,000 new homes;
- A Primary School (2 Form Entry and Pre-School provision) site;
- A combined Key Stage 3 and Sports Campus site;
- 2.8 ha of employment use;
- Substantial areas of green infrastructure/amenity space;
- Sustainable Drainage Systems;
- Access Infrastructure;
- Pedestrian and Cycle Links.

3 Existing Utilities and Services

- 3.1 An assessment of existing utilities and services within close proximity of the development Site has been undertaken to identify the type and approximate location of existing infrastructure.
- 3.2 The basis of the assessment of existing utilities and services was a utilities record search undertaken by Pigeon.
- 3.3 Copies of the search responses and asset plans received for this search are contained within **Appendix B**.
- 3.4 The specific details for each utility or service are considered in turn.

Electricity

National Grid

- 3.5 National Grid's High Voltage Overhead Electricity Lines and Underground Cables record plan, sheet TG, has been reviewed.
- 3.6 The National Grid's record plan indicates 400/275 kV overhead HV cables (on pylons) crossing the site east-west to the north of the existing development under construction.
- 3.7 The development proposals for the Site provide a green corridor along the pylon route, as a result of which they will have no impact on the development and can remain in-situ.

UK Power Networks

- 3.8 Plans indicating existing UK Power Networks HV/LV electricity apparatus in the vicinity of the Site have been obtained using Line Search Before You Dig.
- 3.9 The record plans indicate a number of overhead and underground low and high voltage on and in close proximity of the Site, typical of a site of this scale.
- 3.10 The only existing plant which will require diverting are overhead 11 kV HV mains dissecting Area D. These will be diverted underground through new footways constructed as part of the scheme.

3.11 All other existing UKPN plant can be incorporated within the development proposals for the Site. This includes overhead HV mains through the north-east corner of Area B, to the north and west of Area C, to the south of (but within) Areas E and to the north of the Proposed Keys Stage 3 and Sports Campus. There are existing underground HV mains to the East of Area A within New Road. Also, there are 33 kV HV mains to the east of Colney Lane to the east of the Site.

GTC

3.12 A GTC Plant Enquiry search has been undertaken for the Site area and a proximity surrounding the Site. GTC do not have any electricity plant indicated within the Site Boundary.

3.13 GTC existing plant plans indicate they are supplying the existing 'Hethersett North' development to the south/east/west of the Site. The installation of the mains/supplies is in progress as the scheme is to be built out.

Gas

Cadent

3.14 Plans indicating existing Cadent gas apparatus in the vicinity of the Site have been obtained using the Cadent MAPS Viewer.

3.15 A 300mm high pressure gas distribution main is indicated running north to south through the north-east corner of the site (east of the proposed Key Stage 3 Campus). This sits within an area of green infrastructure and will therefore not be affected by the development proposals.

3.16 A low-pressure gas main is present within New Road to the east of Area A. This is outside the Site boundary and within Highway land.

3.17 There is no further Cadent gas apparatus indicated within or in close proximity of the Site.

GTC

- 3.18 A GTC Plant Enquiry search has been undertaken for the Site area and a proximity surrounding the Site. GTC do not have any gas plant indicated within the Site Boundary.
- 3.19 GTC existing plant plans indicate they are supplying the existing 'Hethersett North' development to the south/east/west of the Site. The installation of the mains/supplies is in progress as the scheme is to be built out.

Potable Water

- 3.20 Existing Anglian Water potable water mains records have been obtained and reviewed for the Site area and close proximity of the Site.
- 3.21 The record plans indicate a number of water mains on and in close proximity of the Site, typical of a site of this scale.
- 3.22 The only apparatus within a proposed development area dissects Area D north to south. Dependant upon a detailed layout for the scheme this will either be incorporated within proposals or diverted through on-site highway constructed as part of the scheme.
- 3.23 Other mains within close proximity of the Site includes in Little Melton Road to the east of Area D/west of the Employment Area and north of the Employment Area and Areas E and F, within Colney Lane to the east of the Site/The Key Stage 3 and Sports Campus Area, East of Area A within New Road and north of Area A/south of Area B within Hethersett Road.
- 3.24 Apparatus will/has also been installed as part of the 'Hethersett North' scheme currently under construction by Taylor Wimpey and Persimmon Homes to the south of the Site. Records for these are not currently publicly available.

Foul Water

- 3.25 Existing Anglian Water waste water records have been obtained and reviewed for the Site area and in close proximity of the Site.
- 3.26 There are no foul water sewers located within the Site area. The only apparatus within close proximity of the Site is to the north-east corner of Area A where there is an existing

foul water pumping station pumping east along Great Melton Road. There is also a section of gravity sewer discharging into the pumping station.

- 3.27 Apparatus will/has also been installed as part of the 'Hethersett North' scheme currently under construction by Taylor Wimpey and Persimmon Homes to the south of the Site. Records for these are not currently publicly available.

Telecommunications

- 3.28 Existing BT Openreach apparatus records have been obtained and reviews for the Site area and close proximity of the Site.
- 3.29 Record plans indicate no apparatus within the Site area.
- 3.30 There are existing overhead cables north of Hethersett Road to the north of Area A/south of Area B which will potentially need diverting/lowering to facilitate a new vehicular entrance to Area B.
- 3.31 The only other plant in the vicinity of the Site is east of Area D, west and north of the Employment Area and north of Areas E and F within Little Melton Road to the north of the Site.
- 3.32 Apparatus will/has also been installed as part of the 'Hethersett North' scheme currently under construction by Taylor Wimpey and Persimmon Homes to the south of the Site. Records for these are not currently publicly available.

Oil Pipe Line (Decommissioned)

- 3.33 A 'Line Search Before You Dig' search identified a former Government Oil Pipeline dissecting the site north to south-east through Area E of the Site Concept Masterplan. The search indicates the plant has been decommissioned but confirmation should be obtained from Fisher German (The Governments Agent dealing with the pipeline) prior to commencement of construction in its vicinity.

4 Proposed Utilities and Services

- 4.1 Through engagement with the operators of local utilities and service providers, a framework of potential utilities and services requirements can be developed.
- 4.2 Whilst engagement will continue throughout the planning process, the results of communications to date are outlined in the following section.
- 4.3 Copies of the correspondence received from the various utility companies contacted is presented within **Appendix C**.
- 4.4 The specific details for each utility supply are considered in turn.

Electricity

- 4.5 UK Power Networks have provided a budget estimate for the supply of the proposed scheme detailing a viable option for electric supply to the Site.
- 4.6 To supply the scheme two HV cables are to be installed from the Site heading east to connect to the Earlham Grid Primary Substation.
- 4.7 On-site a total of seven substations will be required to serve the various development areas. The provision of the substations could be phased as the construction of the areas progress.

Gas

- 4.8 An existing gas pressure reducing station ('PRS') is located to the south-east of the Site on the junction between Colney Land and Back Lane this is served from the 300mm diameter high pressure gas main to the east of the PRS via a 100mm diameter high pressure main. This 300mm high pressure gas main also crosses the north-east corner of the Site providing a further option to supply the scheme through a connection directly onto the high-pressure network (and the construction of a further PRS). Based upon the presence of existing high-pressure gas infrastructure in close proximity of the Site and the scale of the proposed scheme this does not present as constraint to delivery of the scheme.

Potable Water

- 4.9 Existing Anglian Water record plans have identified a number of potential connection points in the vicinity of the scheme.
- 4.10 Due to the scale of the Site it is anticipated mitigation and reinforcement works will be required. These works will be funded by the scheme under Anglian Water's standard charging regime and potable water supply does not therefore present a constraint to delivery of the Site.

Foul Water

- 4.11 The foul drainage from the Site is in the catchment of Whitlingham Sewerage Treatment Works. Any works required to the treatment works to accommodate flows from the Site will be undertaken by Anglian Water.
- 4.12 Discussions with Anglian Water are ongoing to determinate the capacity of the sewer network. However, it is anticipated that mitigation and reinforcement works will be required. These works will be funded by the scheme under Anglian Water's standard charging regime. As such the capacity of the foul network does not present a constraint to delivery of the Site.
- 4.13 Existing Anglian Water record plans have identified a number of potential connection points in the vicinity of the scheme.
- 4.14 Due to site topography a number of foul water pumping stations will be installed to discharge the various areas of the Site to the existing network.

Telecommunications

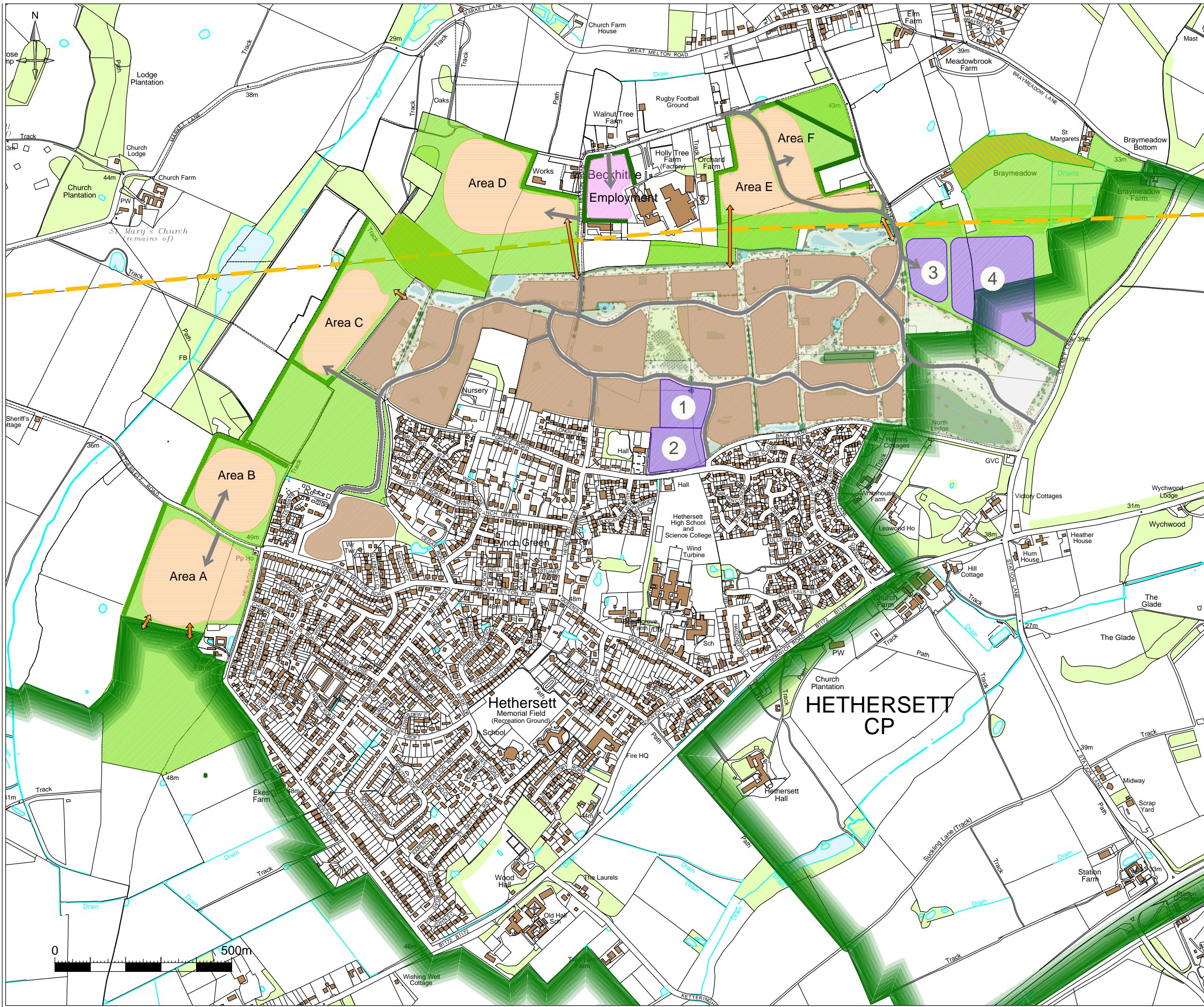
- 4.15 Openreach's fibre broadband checker indicates fibre to the cabinet (FTTC) is available in the vicinity of the Site.
- 4.16 Due to the scale of the development Openreach will deploy fibre to the premises (FTTP) free of charge to the Site to serve the scheme. This applies to all new housing sites of 30 or more homes.

5 Conclusion

- 5.1 This Utility and Services Report demonstrates that the proposed scheme comprising of approximately 1,000 new homes, 2.8 ha of employment uses, a Primary School (2 FE and Pre-School provision) and a combined Key Stage 3 and Sports Campus and substantial areas of green infrastructure and amenity space is capable of being supplied with the required range of utilities and services from existing infrastructure in the vicinity of the Site. There are a number of existing utilities within the Site and the surrounding area but these can all be accommodated within the design of the scheme and do not therefore present a constraint to delivery.

APPENDIX A

Concept Masterplan



- KEY**
- New Homes (Under Construction)
 - New Homes (Proposed)
 - Employment (Classes B1/B8)
 - Education
 - ① Site for relocated Woodside Primary School (by others)
 - ② Site for extension to Hethersett Academy (by others)
 - ③ Site for 2 FE Primary and Pre School
 - ④ Site for Combined Key Stage 3 and Sports Campus
 - New Access
 - Green Infrastructure / Amenity Space
 - Power Cable (Pylons Route)
 - County Wildlife Site
 - Strategic Gap
 - Pedestrian / Cycle Links



PIGEON
Pigeon Investment Management Ltd
Linden Square
146 King's Road
Bury St Edmunds
IP33 3DJ

Drawing Title
Concept Masterplan

Project Name
Land North and West of Hethersett

Drawn	Check	Scale	@
MP	-	1:10,000	A3
Date	Drawing No.	Rev	
03/03/2018	0088/004	D	