

Land at Bankside (Phase 2)
Banbury

Service Supply Statement



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Existing Utilities Plan

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Executive Summary

The proposed development lies to the south of the urban extent of Banbury and to the east of Bodicote village. The site is bound to the west by College Park House, Bodicote Park (Rugby Grounds) and to the south-west by the A4260 Oxford Road. The remaining boundaries of the site are bound by agricultural fields that extend to the surrounding areas. A number of farm properties are shown within proximity of the site.

Thames Water (TW) operate potable water mains (3" main and 6" main) to the south and south-west of the Site along Banbury Road and Oxford Road. **TW** also operate a 500mm Foul Rising Main is shown to cross the proposed development through the centre of the Site. **Western Power Distribution (WPD)** operate an 11kV High Voltage (HV) and Low Voltage (LV) network to the north-east of the proposed development adjacent to the M40. WPD also operate an 11kV to the west of the Site off Oxford Road, and is within close proximity to the proposed development. 11kV networks are also shown to the west along Oxford Road. **SGN** operates Medium Pressure (MP) networks to the west of the Site along Banbury Road and south of the Site along Twyford Road. Additionally, Low Pressure (LP) gas mains are shown along Oxford Road. **BT Openreach** operate networks to the south-west of the Site along Oxford Road. **Virgin Media** and **Vodafone** also operate apparatus to the west along Oxford Road.

Each incumbent company, along with the multi-utility companies **GTC** and **UK Power Solutions (UKPS)**, have been consulted in regards to supplying the proposed development. **TW** has been consulted on their requirements to supply potable water and they confirm they only have capacity to supply 49 dwellings prior to any reinforcement work being required. The reinforcement will need to be confirmed via a Modelling Study. **TW** also confirm hydraulic modelling will be required to confirm their requirements to deal with foul water. **WPD** has provided a budget estimate of £1,190,000.00. **SGN** has confirmed a budget estimate of £590,750.00 to supply the proposed development from a connection to the Medium Pressure Gas Main along Oxford Road, opposite the junction of Weeping Cross. **GTC** are still to provide their electricity and gas budget estimate for the Site. UKPS has confirmed an estimate of £440,351.00 for providing electricity and gas for the proposed development, based on a HV Point of Connection in two different locations (and no upstream reinforcement required) and an assumed MP Point of Connection (with an assumption for no upstream reinforcements).

This statement demonstrates that the Proposed Development has the potential to be supplied with normal network service supplies. However, some localised, non-prohibitive reinforcements may be necessary along with protection or diversions where existing plant apparatus is affected. This will be confirmed once all enquiries have been completed by each respective utility company and once at the detailed design stage.

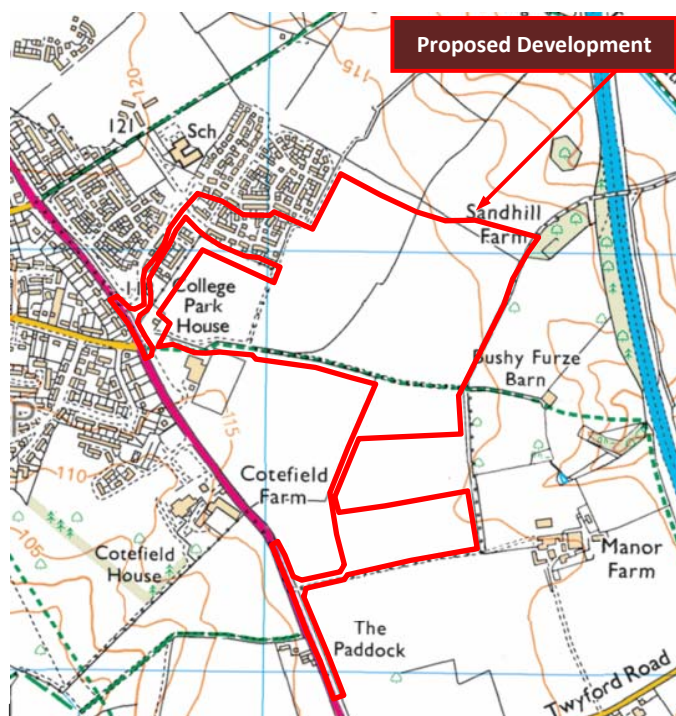
1 Introduction

- 1.1 Brookbanks Consulting Limited is appointed by Hallam Land Management Ltd to complete a Service Supply Statement for a proposed residential development at Land at Bankside (Phase 2), Banbury.
- 1.2 The objective of the study is to demonstrate that the development proposals can adequately be provided with service supplies and to identify the outline requirement for any necessary reinforcements to existing networks.
- 1.3 This report presents the findings of the study and specifically addresses the following issues:
- Existing network apparatus
 - Supply requirements for the Proposed Development
 - Consultations with the incumbent supply network operators
 - Development of outline proposals to supply the Proposed Development.

2 Background Information

Location & Details

- 2.1 The proposed development lies to the south of the urban extent of Banbury and to the east of Bodicote village. The site is bound to the west by College Park House, Bodicote Park (Rugby Grounds) and to the south-west by the A4260 Oxford Road. The remaining boundaries of the site are bound by agricultural fields that extend to the surrounding areas. A number of farm properties are shown within proximity of the site.
- 2.2 The land is currently undeveloped and is not thought to have been historically subject to any significant built development. The site location and boundary is shown indicatively on Figure 2a, below:



Development Criteria

- 2.3 It is proposed to develop up to 850 residential units and an area designated for allotments and green space.

Supply Loading

- 2.4 The following loading assumptions (Table 2b), have been made to determine the Supply loadings to provide to the incumbent potable water, foul water, electricity and gas suppliers, which were based on the original quantum.

Development Type	Potable Water Assumptions	Foul Water Assumptions	Electricity Assumptions	Peak Gas Assumptions	Annual Gas Assumptions
Up to 850 Residential Dwellings	Daily Water Demand of 125l/person/day over an 18 hour day.*	Assuming 95% of the Potable Water Demand.	2KW/Dwelling	23kW/Dwelling	17,000kW/Dwelling

Table 2b: Supply Loading Assumptions

*Peaking Factor of 3

- 2.5 Following the assumptions made above, Table 2c below outlines the supply loadings which have been provided to each incumbent utility company (Thames Water, Western Power Distribution and SGN) in order for them to confirm whether they have capacity in their existing network to supply the proposed development.

Development Type (Area)	Peak Potable Water Demand (l/s)	Peak Foul Water Demand (l/s)	Electricity Demand (kVA)	Peak Gas Demand (kWh)	Annual Gas Demand (kWh)
Up to 850 Residential Dwellings	11.31	10.75	1,700	19,550	14,450,000

Table 2c: Supply Loadings

Sources of Information

- 2.6 The following bodies have been consulted whilst completing this study:

- Thames Water - Potable Water
- Thames Water - Foul Water Sewerage
- Western Power Distribution - Electricity
- SGN - Gas
- BT Openreach - Telecommunications
- Sam Knows Website - Broadband Availability
- Multi Utility Company – GTC - Electricity and Gas
- Multi Utility Company - UK Power Solutions - Electricity and Gas

3 Water Supply

Existing Conditions

- 3.1 **Thames Water (TW)** has been consulted regarding the location and capacity of their existing network within the vicinity of the Site. Location details of their existing water supply network has been provided and the current asset plans provided have been transferred to a composite existing services plan, which is contained in the Appendix.
- 3.2 TW operate 3" and 6" potable waters main to the south and south-west of the Site along Banbury Road and Oxford Road.

3.3 Additional potable water mains are shown to the south and west of the proposed development, along individual roads feeding the residential developments (which include 4" and 6" mains). 125mm HPPE and 250mm HPPE proposed mains are shown to the west of the proposed development.

Supply Loading

3.4 To assist Thames Water in their capacity assessment of their existing network, a total Peak Clean Water Demand of 11.31/s was provided. Further details of the supply loadings and assumptions are outlined in Tables 2b and 2c.

Network Requirements

3.5 TW has been consulted to provide a pre-development enquiry for the proposed development. TW has confirmed that there is only enough capacity within the current local network for 49 properties and they are unable to meet the full development quantum without the appropriate upgrades/offsite reinforcement.

3.6 To ascertain the reinforcement work required, modelling will be required. The modelling will design a solution and build necessary improvements, where required.

3.7 To progress with modelling, Thames Water will need confirmation of the developer owning the land and either having outline/full planning permission.

3.8 However, in advance of TW's formal response, Ofwat has recently instigated significant changes into the charging regimes of the water companies. Whereas prior to April 2018, the water companies would charge developers for any reinforcement works to the existing network directly attributable to the new demand, under the new charging rules the developer has to only fund infrastructure works to the nearest practicable point of connection (defined as network of an equal or greater size to the infrastructure supplying the site). As such any reinforcement works are covered by the Infrastructure Charge, payable per plot for all new connections.

Diversions – onsite

3.9 From the asset records obtaining to date, no TW potable water assets are shown to cross the proposed development. Once confirmed at the detailed design stage, TW could be contacted to confirm whether any necessary diversions will be required.

Diversions – offsite

3.10 TW operate potable water mains to the south and south-west along Banbury Road and Oxford Road. Additionally TW have proposed water main to the west of the Site. Once confirmed at the detailed design stage, TW may be contacted to confirm whether their assets cross the proposed development and whether any necessary diversions will be required.

Regulatory Background

3.11 The introduction of the Water Act 2003 has:

- Formalised the procedures for developers wishing to complete self-lay schemes through multi-utility businesses.
- Implemented revised financial procedures, being more developer focused by offsetting capital costs of infrastructure against supply revenue.

3.12 Under current regulations, the new off-site and on-site infrastructure can be implemented by multi-utility contractors, with the exception of a small element of non-contestable works where the new supply is connected to the existing network. Alternative asset owning businesses are able to implement and supply a strategic area through an Inset

Appointment. Alternative asset owners normally procure the water supply through a bulk supply contract with the incumbent business or by an alternative means of supply such as a borehole.

3.13 The Water Act 2003 allows two principal options in terms of financial arrangement between the developer and water infrastructure business. Both take into account the revenue earned by the business as a result of the new supplies.

- The Discounted Aggregate Deficit (DAD) / Commuted Sum method calculates the cost of implementing and funding the required infrastructure over a ten year period. The year on year income from new supplies is then offset against the funding, which when brought forward to an equivalent present day cost, identifies the contribution attributed to the developer. The mains are then installed by the water infrastructure company.
- The Asset Value method, whereby the mains may be laid by a multi-utility contractor, calculates the year on year income generated from the water supply, which is then paid back to the developer on the adoption of the mains. As a multi-utility contractor generally completes the work at a lower cost than the water supplying company, the Asset Payment method can often be the most cost effective.

3.14 The procedures outlined in the Water Act 2003 should result in all water businesses (including the incumbent operator) giving similar rebates through either the Asset Value or Commuted Sum procedures. The Asset Value method generally offers a cheaper scheme for site developers wishing to procure services through a multi-utility contract.

3.15 Ofwat has recently instigated significant changes into the charging regimes of the water companies. Whereas prior to April 2018, the water companies would charge developers for any reinforcement works to the existing network directly attributable to the new demand, under the new charging rules the developer has to only fund infrastructure works to the nearest practicable point of connection (defined as network of an equal or greater size to the infrastructure supplying the site). As such any reinforcement works are covered by the Infrastructure Charge, payable per plot for all new connections.

4 Foul Water Sewerage and Storm Water Drainage

Existing Conditions

- 4.1 **Thames Water (TW)** has been consulted regarding the location and capacity of their existing sewerage network within the vicinity of the Site. Existing details of their Foul Water supply network has been provided and the current asset plans provided have been transferred to a composite existing services plan, which is contained in the Appendix.
- 4.2 TW operate Foul Water Sewers and Foul Rising Mains within the vicinity of the proposed development. A 500mm Foul Rising Main is shown to cross the proposed development through the centre of the Site.
- 4.3 Additionally, TW operate a 300mm Foul Water Sewer south of the Site within an open field, with additional foul water sewers and foul rising mains to the south-west of the Site, supplying the residential dwellings.

Supply Loading

- 4.4 To assist Thames Water in their capacity assessment of their existing foul network, a total Foul Water demand for the site of 10.75l/s was provided. Further details of the supply loading and assumptions are outlined in Tables 2b and 2c.

Network Requirements

- 4.5 Ofwat has recently instigated significant changes into the charging regimes of the water companies. Whereas prior to April 2018, the water companies would charge developers for any reinforcement works to the existing network directly attributable to the new demand, under the new charging rules the developer has to only fund infrastructure works to the nearest practicable point of connection (defined as network of an equal or greater size to the infrastructure supplying the site). As such, any reinforcement works are covered by the Infrastructure Charge, payable per plot for all new connections.
- 4.6 TW has been consulted to provide a pre-development enquiry for the proposed development. TW has confirmed that the sewerage network will not have enough capacity to accommodate the proposed foul water flows from the proposed development. Therefore TW confirm they will require investigations to be undertaken to assess the impact of the development by hydraulic impact study to determine possible connection points.
- 4.7 To progress with modelling, Thames Water will need confirmation of the developer owning the land and either having outline/full planning permission.

Diversions – onsite

- 4.8 A 500mm Foul Rising Main is shown to run through the centre proposed development. However, once confirmed at the detailed design stage, TW may be contacted to confirm whether any necessary diversions and/or protective measures will be required.

Diversions – offsite

- 4.9 TW do not operate any assets which are shown within close proximity of the proposed development, with the exception of the Rising Main which crosses the proposed development. However once confirmed at the detailed design stage, TW may be contacted to confirm whether their assets cross the proposed development and whether any necessary diversions will be required.

Storm Drainage

- 4.10 The development drainage system has the potential to manage storm water by way of a SuDS management train and ensure peak discharges from the developed land is not increased from the appraised baseline rates. The system will also provide improvements to the quality of water discharged from the development. Further information is provided within the Flood Risk Assessment (FRA) report.

5 Electricity Supply

Existing Conditions

- 5.1 **Western Power Distribution (WPD)** has been consulted regarding their existing network locations. Existing details of the electricity supply network have been provided and the current asset plans provided have been transferred to a composite existing services plan, which is contained in the Appendix.
- 5.2 WPD operate an 11kV High Voltage (HV) and Low Voltage (LV) network to the north-east of the proposed development adjacent to the M40. WPD also operate an 11kV to the west of the Site off Oxford Road, and is within close proximity to the proposed development, but does not appear to be crossing the Site.

5.3 11kV networks are shown to the west along Oxford Road, with addition HV and LV networks shown to the west of the Site along individual roads, feeding the residential area.

5.4 In addition to WPD, **GTC** have proposals to install HV and LV cables adjacent to the west of the Site.

Supply Loading

5.5 To assist Western Power Distribution in their capacity assessment of their existing network, a total Electricity Demand for the Site of 1,700kVA was provided. Further details of the supply loading and assumptions are outlined in Tables 2b and 2c.

Network Requirements

5.6 WPD has provided a budget estimate to supply the proposed development of £1,190,000.00.

Diversions – onsite

5.7 From asset records obtained to date, WPD operate HV networks within close proximity of the Site in the north-east and north-west, which could potentially cross the proposed development. Once confirmed at the detailed design stage, WPD and GTC may be contacted to confirm whether any necessary diversions of their existing assets are required.

Diversions – offsite

5.8 WPD operate HV and LV networks along Oxford Road to the south and west within close proximity of the Site. Once confirmed at the detailed design stage, WPD and GTC may be contacted to confirm whether any necessary diversions of their existing assets are required.

Regulatory Background

5.9 Competition in the electrical market is now reasonably mature and a developer is free to procure third party Distribution Network Operators (DNOs) to provide an embedded network, or indeed multi-utility / third party installations. The likes of Metropolitan and GTC take a holistic view in putting together infrastructure reinforcements, site distribution and supply packages and off-set the costs with anticipated future revenue through the transmission and supply of service to give a better financial arrangement and single point of responsibility for the developer.

6 Gas Supply

Existing Conditions

6.1 **SGN** has been consulted regarding the location of their existing network in the vicinity of the Site. Existing details of the gas supply network have been provided and the current asset plans provided have been transferred to composite existing services plan, which is contained in the Appendix.

6.2 Asset plans provided by SGN highlight Medium Pressure (MP) networks to the west of the Site along Banbury Road and south of the Site along Twyford Road. Additionally, Low Pressure (LP) gas mains are shown along Oxford Road.

6.3 SGN also operate LP gas mains to the north-west of the proposed development along individual road, supplying the adjacent residential dwellings.

6.4 In addition to SGN, **GTC** have proposals to install LP mains adjacent to the west of the Site.

Supply Loading

- 6.5 To assist Cadent Gas in their capacity assessment of their existing network, a Total Peak Gas Demand for the Site of 19,550kWh and an annual gas demand of 14,450,000kWh were provided. Further details of the supply loading and assumptions are outlined in Tables 2b and 2c.

Network Requirements

- 6.6 SGN has provided a budget estimate of £590,750.00 to supply the proposed development. This estimate includes for the installation of appropriately sized gas infrastructure at suitable location. The estimate also includes for carrying out the necessary excavation and reinstatement of the trenches up to the Site boundary.
- 6.7 SGN has confirmed a Point of Connection to the Medium Pressure Gas Main in Oxford Road opposite the junction of Weeping Cross.

Diversions – onsite

- 6.8 SGN do not operate any assets which are shown to cross the proposed development. Once at the detailed design stage, SGN and GTC may be contacted to confirm whether any necessary diversions of their existing assets are required.

Diversions – offsite

- 6.9 SGN operate LP/MP mains along Oxford Road/Banbury Road and MP mains to the south along Twyford Road which may be affected by. Any assets which are shown to be in close proximity of the proposed development. Once at the detailed design stage, SGN and GTC may be contacted to confirm whether any necessary diversions of their existing assets are required.

Regulatory Background

- 6.10 Early deregulation in the gas infrastructure market has led to a competitive environment. Third party shippers are permitted to offset the capital cost of infrastructure against the income generated from conveying the gas which may reduce future development costs.

7 Telecommunications

Existing Conditions

- 7.1 The main incumbent telecommunications provider is **BT Openreach**. An extract from the current asset plans provided have been are shown within the Appendix, which shows existing BT Openreach networks to the south-west of the Site along Oxford Road.
- 7.2 Further BT assets are shown to the west of the proposed development supplying the residential areas off Oxford Road.
- 7.3 **Virgin Media** and **Vodafone** also operate apparatus within close proximity of the Site, also shown within the Appendix. Both operate apparatus to the -west along Oxford Road.

Supply Requirements

7.4 A development of this nature will require a suite of communication services, typically being:

FTTP: Fibre to the Premises (FTTP) technology, where the fibre runs all the way to the home or business, from the local exchange is being deployed in certain areas. FTTP will offer the top current download speed of 330Mbps for residential properties and 1Gbps for commercial properties. This is labelled 'Ultrafast Broadband' by BT Openreach.

ADSL: Asymmetric Digital Subscriber Line (ADSL) is the basic broadband service delivered over the traditional copper network and predominately in use in rural areas offering up to 24Mbps downloads, and up to 2.5Mbps upstream. This is adversely affected by distance from the exchange.

Cable Television: Cable television services provide an option for the proposed domestic dwellings to replace the need for satellite dishes. Cable Television is provided by Virgin Media, BT (BT Vision) and GTC.

FTTC: Fibre to the Cabinet (FTTC) relies on the existing copper network between the telephone cabinets but is then fed by fibre optic cables to the local exchange. This reduces the loss experienced over the copper network. Download speeds offered can be up to 80Mbps.

LLU: Local Loop Unbundling (LLU) is the process of opening up a telephone exchange so that it can be used by a number of different broadband providers. These broadband providers are then able to use connections from the telephone exchange through to the customer's homes to deliver home broadband.

ISP: Internet Service Providers (ISP) supplies the end user with internet access services over the telecom network. The speeds offered by the ISP are restricted by the physical network. The available ISPs delivering services over FTTP are currently limited but will increase as it is rolled out to more customers to increase the market.

Network Requirements

7.5 A Connectivity Assessment can be applied for through BT Openreach to confirm supply requirements for the proposed development. BT Openreach advise the ideal time for this request is at land purchase stage. The north of the proposed development is covered by the Banbury Exchange, and the south of the Site covered by the Adderbury Exchange. In addition to BT Openreach, ADSL, an initial review has identified the following LLU operators are present in the Banbury Exchange: Sky, Talk Talk (CPW) and Vodafone (enabled since 03/06/2006). In addition to BT Openreach, ADSL, an initial review has identified the following LLU operators are present in the Adderbury Exchange: Sky and Talk Talk (CPW).

7.6 The Banbury Exchange (approximately 3.2km north-west of the proposed development) can offer FTTC and FTTP, where the Adderbury Exchange (approximately 1.2km south of the proposed development) can only offer FTTC and not FTTP.

Diversions – onsite

7.7 From the asset records obtained to date, BT Openreach, Virgin Media and Vodafone do not operate apparatus which are shown to cross the proposed development. Once at the detailed design stage, BT Openreach, Virgin Media and Vodafone may be contacted to confirm whether any necessary diversions of their existing assets are required.

Diversions –offsite

- 7.8 BT Openreach, Virgin Media and Vodafone own apparatus along Oxford Road to the west of the proposed development. Once at the detailed design stage, BT Openreach and Virgin Media may be contacted to confirm whether any necessary diversions of their existing assets are required.

Regulatory Background

- 7.9 BT Openreach is the incumbent national communications business throughout most of the country, with the exception of K-Com in the Hull area. They own and operate the majority of fibre and copper telecoms networks in the country.
- 7.10 With BT Openreach controlling the existing cables feeding residential development, and the exchange (known as the 'local loop' or 'last mile'), they have maintained a dominant position in controlling the communications sector.
- 7.11 The industry regulator, Ofcom, has completed much work in unbundling the local loop and bringing competition into the residential market. Following this deregulation, Virgin Media, TalkTalk and Vodafone are undertaking major investment to place switch equipment into BT's existing exchanges and hence allow direct access to their network. This system, known as Carrier Pre-Selection is becoming increasingly popular, although wholesale line provision down at local loop level, within the residential market, has yet to develop. Accordingly, BT or local cable franchise cable operators are the prime source of network connections on residential sites.
- 7.12 Virgin Media and GTC offer rival options to supply telecoms to residential developments, although the choice of alternative ISPs is more restricted than via the BT Openreach network.

8 Multi Utility Companies

- 8.1 The Multi Utility Companies **GTC** and **UK Power Solutions (UKPS)** have been consulted to provide a budget estimate for supplying the proposed development with gas and electricity.

Supply Loading

- 8.2 The same electrical loading assumptions that were provided to WPD and the gas loading assumptions that were provided to SGN have been provided to GTC in order for them to provide their connection budget estimate costs.

Network Requirements

GTC

Electricity and Gas

- 8.3 GTC have been approached to provide a budget estimate to provide electricity and gas. GTC are still to provide their requirements to supply the proposed development.

UK Power Solutions

Electricity and Gas

- 8.4 UKPS have been approached to provide a budget estimate to provide electricity and gas. UKPS has confirmed an estimate of **£440,351.00** for the proposed Site.

- 8.5 A HV Point of Connection has been confirmed from two locations, with no requirement for upstream reinforcement. A MP gas main has been assumed to be available, directly adjacent to the Site, with an assumption for no upstream reinforcement works required.
- 8.6 The estimate includes for 1 x 1000kVA & 1 x 800kVA distribution substation and a Pressure Reduction Installation (including the kiosk)
- 8.7 All onsite civil/excavation works have been assumed to be by other, with all the offsite civil/excavation works carried out by UKPS.

9 Service Supply Competition

- 9.1 The traditional procurement route, up until recently, had been to provide service supplies to a new development through a local network operator. With the incumbent companies having somewhat of a monopoly, competition in the market was poor.
- 9.2 However, following deregulation of the service supply networks, through the likes of Ofgem, Ofcom and Ofwat, independent network operators have been able to enter the market and provide new service supplies to developments.
- 9.3 Companies such as GTC and Connect take a holistic view in putting together infrastructure reinforcements, site distribution and supply packages and off-set the costs with anticipated future revenue through the transmission and supply of service to give a better financial arrangement and single point of responsibility for the developer.
- 9.4 These businesses use a multi-utility approach to implement the infrastructure. The independent companies are still regulated by the relevant office of regulation and subsequently asset owners must:
- Ensure that the installed network meets regulated standards
 - Design to an operating lifetime of 40+ years
 - Manage a return on their investment
 - Ensure that the existing network performance is not compromised
- 9.5 Throughout this document a review has been completed for the provision of service supply infrastructure at the site through the local network operators. This approach provides a good indication as to the likely upgrading requirements for the local infrastructure, but at this stage, does not demonstrate a competitive cost for services procurement.
- 9.6 Multi-utility companies provide significant investment to the provision of services at a development based on a whole life financial model, considering revenue from supply conveyance. Due to these investments, large reductions can be achieved to the capital cost for the provision of services at a site.
- 9.7 A development of this size has the potential to benefit a great deal from the financial investment of companies such as Connect and GTC. As such independent companies may be utilised to provide final network supplies for the Site.
- 9.8 This report summarises the details relating to the current network conditions outlining the requirements for reinforcements and provision of supply through the existing network.

10 Summary

- 10.1 This Services Statement has indicated that the proposed development on the Site has the potential to be supplied with normal network service supplies, potentially without prohibitive reinforcements to the existing networks.
- 10.2 However, some localised, non-prohibitive reinforcements may be necessary together with protections or diversions where existing plant is affected by the proposals. This will be confirmed once all enquiries have been completed by each respective utility company.
- 10.3 Table 10a outlines the supply requirements for each incumbent company, along with the multi-utility company:

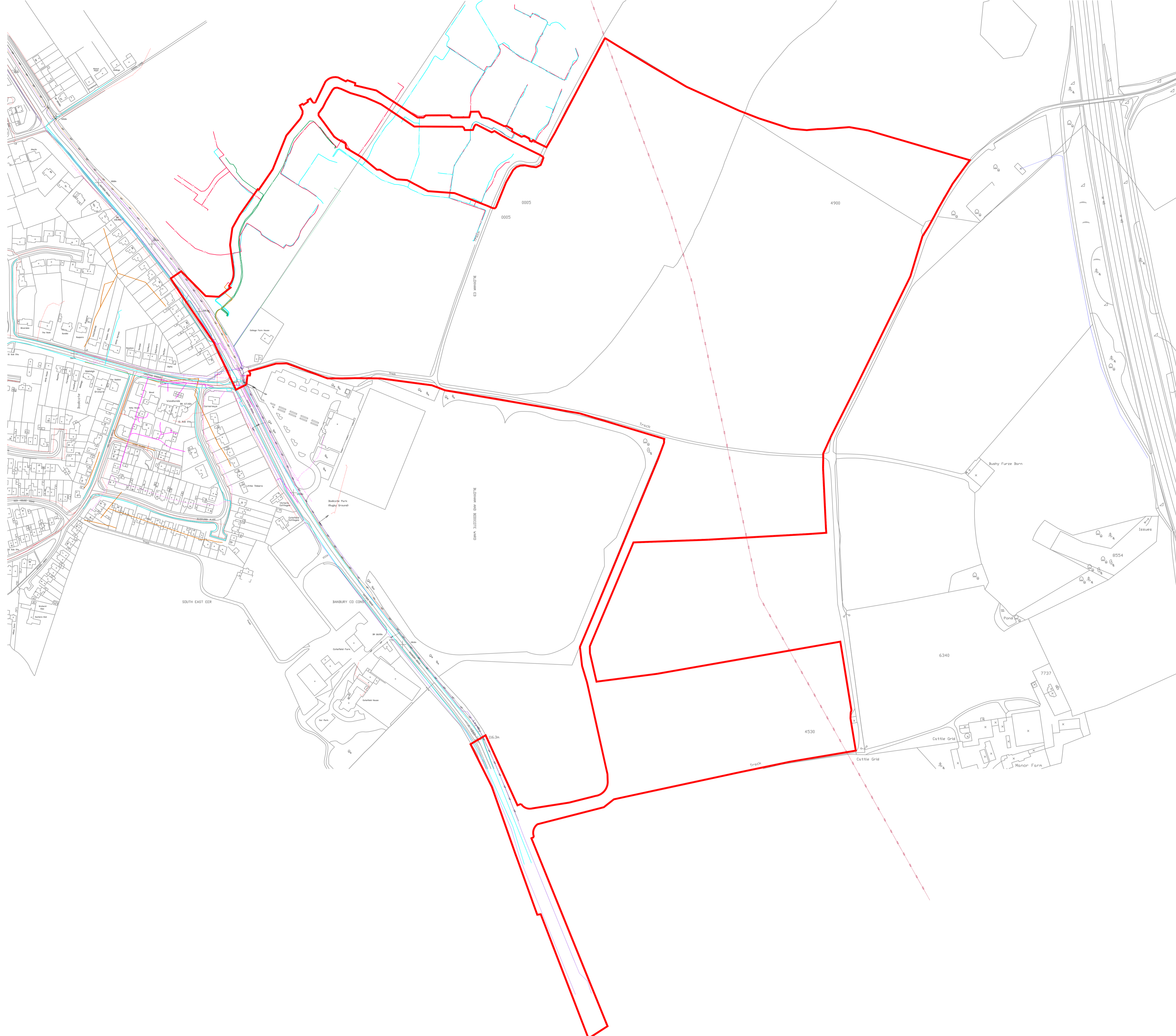
Utility Company	Service	Scope of Works
Thames Water	Potable Water	TW confirm that they currently only have capacity can only supply 49 properties prior to any offsite reinforcement. The reinforcement will need to be confirmed via a Modelling Study.
Thames Water	Foul Sewerage	TW confirm that modelling will be confirmed. The reinforcement will need to be confirmed via a Modelling Study.
Western Power Distribution	Electricity	Budget Estimate of £1,190,000.00 has been provided.
SGN	Gas	Budget Estimate of £590,750.00, with a Point Of Connection to the Medium Pressure Gas Main along Oxford Road, opposite the junction of Weeping Cross.
GTC (Multi Utility)	Electricity and Gas	TBC
UK Power Solutions (Multi Utility)	Electricity and Gas	Budget Estimate of £440,351.00 has been provided. HV Point of Connection confirmed from two different locations with no requirement for upstream reinforcement. A MP Point of Connection has been assumed, with no upstream reinforcement required, directly adjacent to the Site.

Table 10a: Summary of Supply Budget Estimates

11 Limitations

- 11.1 The conclusions and recommendations contained herein are limited to those given the general availability of background information and the planned usage of the Site.
- 11.2 Third Party information has been used in the preparation this report, which Brookbanks Consulting Ltd, by necessity assumes is correct at the time of writing. While all reasonable checks have been made on data sources and the accuracy of data, Brookbanks Consulting Ltd accepts no liability for the same.
- 11.3 Existing network appraisals and proposed reinforcements are based on current infrastructure. Ongoing load growth will occur that may feasibly affect network availability. It is therefore necessary to monitor and review the existing networks capacity regularly.
- 11.4 The benefits of this report are provided solely to Hallam Land Management Ltd for the proposed development on the Site only.
- 11.5 Brookbanks Consulting Ltd excludes third party rights for the information contained in the report.

Appendix



- NOTES:**
1. Do not scale from this drawing.
 2. All dimensions in metres unless otherwise stated.
 3. This drawing has been produced using survey data provided by a Third Party. Brookbanks Consulting Ltd cannot be held responsible for the accuracy of this data. All discrepancies are to be reported to the Engineer immediately, ahead of work commencing.
 4. The existing services shown are not necessarily complete nor is their location with regard to position and depth precise. It is the Contractor's responsibility to liaise with all relevant services companies to ensure that all services are accurately located, marked out and adequately protected during all site works.

- KEY:**
- Site Boundary
 - Existing BT Cables
 - Existing Virgin Media cables
 - Existing Vodafone Cables
 - Existing LP Mains (SGN)
 - Existing MP Mains (SGN)
 - Existing Foul (Thames Water)
 - Existing Foul Rising Main (Thames Water)
 - Existing Water Mains (Thames Water)
 - Existing H.V. Mains 11KV (WPD)
 - Existing H.V. Mains 33KV (WPD)
 - Proposed GTC LP Gas
 - Proposed GTC MP Gas
 - Proposed GTC LV Electricity
 - Proposed GTC HV Electricity

D	Red Line Boundary Amended and scale altered	AM	LW	LW	07.05.14
C	Red Line Boundary Amended	AM	LW	LW	11.02.14
B	Red Line Boundary Amended	AM	DS	PAB	30.05.14
A	Red Line and Rising Main Amended and GTC Included	AM	LW	-	09.03.14

Rev.	Revision Details	Drawn	Checked	Approved	Date

Issue Status			Approved	Date
Drawn	GO	Checked	DW	Date 13/10/14

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Proposed Development
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Existing Services
 Location Plan

Scale at A1	Drawing No.	Rev.
1:2500	10327-SU-01	D

