HOARE LEA

Manor Farm.
Slough.
Manor Farm Propco Limited.

UTILITY & ENERGY INFRASTRUCTURE
UTILITY STATEMENT
REVISION 06 – 12 DECEMBER 2024

Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
01	23/08/24	Planning Statement for Utilities	JN	ST	JN
02	06/11/24	Updated with latest site masterplan. Sections 4, 5 & 7 Updated	ST	EA	DS
03	13/11/24	Site plan and section 3 updated.	ST	EA	DS
04	19/11/24	Updated to suit planning consultant & AIPUT comments	ST	EA	DS
05	09/12/24	Amendments to suit additional comments received. Sections 1, 4, 5.2, 7.1, 7.4, 8.1 & 8.3	ST	EA	DS
06	12/12/24	Updated applicant name for submission	ST	EA	DS

Project number: 29/29510
Document reference: REP-2929510-5A-ST-20240823-Utility Planning Statement-06.docx

Contents.

1. Executive summary

Hoare Lea has been appointed by Manor Farm Propco Limited (hereafter known as 'the applicant') to prepare a utility statement to support the detailed planning application for a data centre and battery storage system development at Manor Farm, Slough.

Hoare Lea were tasked to investigate whether the existing nearby utility infrastructure could support the new development as described below. This document is provided to give an overview of existing utility services, provision for new connections and establish any underlying requirements for diversionary works.

The purpose of this document is to summarise the assessments undertaken on existing utility infrastructure and their impacts to the development. It demonstrates that a utility infrastructure strategy has been formed to support the application, ensuring the site can be accommodated within the local utility networks.

There are three key elements to the utility services infrastructure considered to date:

1. Diversions and disconnection strategy: The impact on existing infrastructure within and adjacent to the development site.
2. New connections and reinforcement strategy: The impact on existing infrastructure locally and upstream in accommodating the increased infrastructure demand, including meeting build out trajectory. Please note the new connections assessment is relating to potable water only as the power has been secured directly by the client with EDF.

Utility	Onsite Apparatus Present (Including S278)	Diversion Required	Assessed Peak Demand	Point of Connection Identified	Upstream reinforcement required
Electricity	✓	✓	×	✓	Unknown to HL
Gas	×	✓	×	n/a	n/a
Water	✓	✓	✓	✓	TBC
Telecoms	✓	✓	n/a	n/a	×

1.1 Energy Strategy

In response to the UK's commitment to achieving net zero carbon emissions by 2050 and in line with policy updates such as Part L 2021 and the Future Homes Standard, the scheme is to adopt a 100% electric energy strategy, providing all, heating, hot water and small power loads.

EV charging has been considered by the client in the load they requested and that it meets minimum requirements of the local planning authority.

2. Terms of Reference and Objectives

Please note that this report is based upon utility information that has been provided by third parties. The information received has been summarised within this report. In the event that the information is relied upon and is subsequently found to be incorrect, Hoare Lea accepts no responsibility for any direct and/or consequential loss that may occur as a result.

A Ground Penetrating Radar (GPR) Survey has been completed on site which highlights that diversions may be necessary surrounding the site boundary to accommodate the proposed development. Any additional diversions will also be committed to by the developer.

Note, any existing supplies to units on the site will be disconnected and abandoned as part of the enabling works package. Where mains or cabling are supplying offsite infrastructure, these assets will be protected or relocated to ensure no loss to existing levels of service.

2.1 Glossary

ADMD	After diversity maximum demand
CSEP	Connected system Exit Point
DNO	Distribution network operator
EHV	Extra high voltage
EML	Electromagnetic location
FTTC	Fibre to the cabinet
FTTP	Fibre to the premises
GDN	Gas distribution network
GPR	Ground penetrating radar
GT	Gas Transporter
HV	High voltage
ICP	Independent Connections Provider
IDNO	Independent distribution network operator
IGT	Independent gas transporter
LP	Low pressure
LTDS	Long term development statement
LV	Low voltage
LZC	Low and zero carbon
MP	Medium pressure
MUSCo	Multi-utility service company
PoC	Point of connection
PV	Photovoltaic

3. The Site.

3.1 Location

The Manor Farm site is located in Poyle, in the District of Slough – with an SL3 postcode.

The development is a mix of Brownfield/Greenfield and currently accommodates industrial use buildings in the northeast quadrant but otherwise is vacant empty fields.

The development area is bordered by the Hilton Hotel serving Heathrow Airport Terminal 5 to the north, Poyle Road to the east and Stanwell Road to the south. Arthur Jacob Nature Reserve lies to the west.

Figure 1 Red line boundary plan.

3.2 Proposed Development

The planning application includes demolition of existing buildings and the redevelopment to comprise a Data Centre (Use Class B8) with ancillary substation and Battery Energy Storage System (BESS) with ancillary offices, associated plant, emergency backup generators and associated fuel storage, landscaping, sustainable drainage systems, car and cycle parking, and new and amended vehicular and emergency access from Poyle Road.

Figure 2 Proposed Site Plan

4. New Supply Strategy

Hoare lea has engaged with the incumbent utility providers for water and telecoms only.

The applicant has entered into a joint venture partnership with EDF to secure and deliver 147MW of capacity to the site.

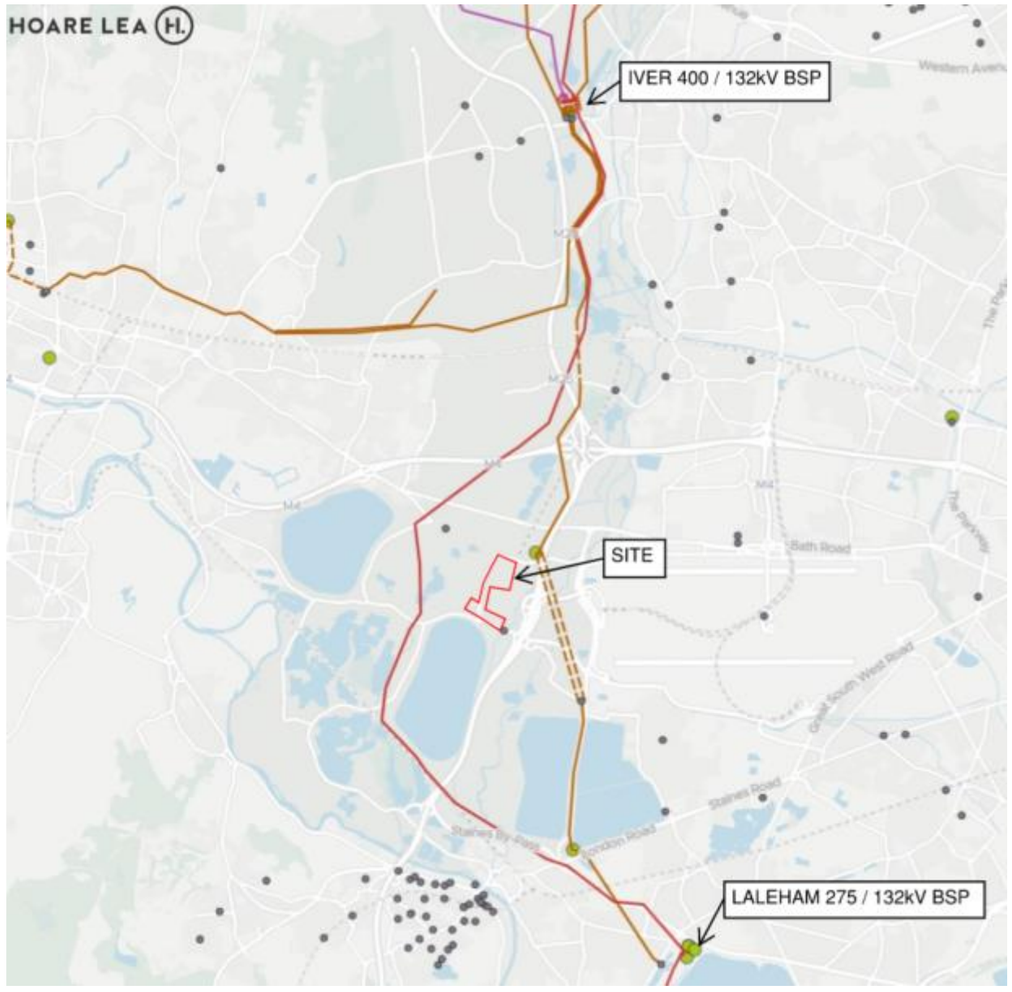

Figure 3 - Electricity Points of Connection

Figure 4 - Thames Water POC

A summary of these is as follows;

- Electricity Point of Connection: 147MW of capacity has been secured from two points of connection, Iver 400 / 132kV & Laleham 275 / 132 kV BSP's. 57MW of capacity is due to be delivered from Iver by 2027, with the capacity from Laleham being delivered in two phases, with 50MW in 2027, and the remaining 40MW by 2030.
- Water Point of Connection: A Pre-development enquiry was submitted to Thames Water, who identified a connection point off the 200mm main on Poyle Road.
- Telecoms Point of connection: There is existing infrastructure along Poyle Road. It is assumed adequate space is available to feed new site requirements. The site will need to be registered with Openreach, and an application to provide and build NIA (network in advance) submitted.
- Gas: It is assumed that no new gas is to be on site. Should there be a requirement then gas connection points can be assessed.

5. Electricity.

5.1 Existing Infrastructure

1. Onsite
    a. There appears to be multiple substations in the proposed Parcel A. The first is named 'Manor Farm ss', the second named Manor Farm 2 on SSEN maps and are fed by two 11kV cables.
    b. According to the GPR survey sent by the client, 2 more unnamed substations exist further to the north east of the site. A site walk would be advantageous to determine location and whether or not they are operational.
    c. LV electric cables are shown entering the site at various points, both independently and from substations.

Figure 5 - 11kV Substations (Manor Farm)

2. Offsite
    a. To the east, on the far side of Poyle Road is an 11kV High Voltage (HV) substation which seems to distribute cables north and south on the far side of the road to the proposed development.

Theoretically, subject to confirmation of capacity from SSE, this could be a likely connection point for a temporary builders supply (TBS).

    b. LV cable also runs along the nearside of the site, in what appears to be footpath primarily, along the length of the site.

5.1.1 Risks / Constraints

1. Onsite
    a. Existing DNO infrastructure is shown to be within the site boundary, discussions with the asset owner will take place to arrange the removal of their assets.
2. Offsite
    a. SSEN cables that run along site entrances may need to be lowered or diverted to facilitate any construction of site entrances where ground levels may change.

5.2 Disconnections

Prior to demolition and site clearance, all existing dedicated site infrastructure within the development boundary (substations, HV and LV) will require disconnection from the utility network, typically outside the site boundary. All associated utility meters to be removed.

5.3 Availability of capacity.

The applicant and EDF have secured 147MVA of capacity which is to be sourced from the bulk supply points Iver and Laleham BSP's.

6. Gas.

6.1 Existing Infrastructure

1. Onsite
    a. The GRP survey has indicted several gas riser points. The below ground pipework was not located during the scan and does not appear on the Cadent record drawings which could suggest that the mains are private.
2. Offsite
    a. A 125mm SI (Spun Iron) main runs along Poyle Road for what appears to be the full length of the site outside the boundary.

Figure 6 - Cadent Gas Main

6.1.1 Risks / Constraints

1. Onsite
    a. All live gas mains are to be isolated and purged prior to any site construction activities.
    b. If laid to NJUG standards, in private land Low Pressure mains would typically be laid to 600mm service cover, service pipe potentially 450mm. Trial holes around meter points strongly recommended.
2. Offsite
    a. Subject to the design of an entrances and subsequent surface level changes, Cadent Gas may need to be approached to establish whether they will allow protection methods for their main or a diversion would be required.

6.2 Disconnections

Prior to demolition and site clearance, all existing dedicated site infrastructure within the development boundary will require disconnection from the utility network, typically outside the site boundary. All associated utility meters to be removed.

6.3 Load Assessment.

In line with the changes to Part L, and Slough Borough Council's climate emergency declaration, the new development will not be heated via natural gas. A connection to Cadent's network is therefore not required.

7. Potable Water.

7.1 Existing Infrastructure

1. Thames Water Owned.
    a. According to maps received no Thames Water owned clean water pipes exist within the site boundary.
    b. Trunk and distribution mains run along Poyle Road to the east but appear to be central or on the far side of the road. A pumping station lies to the south of the site for drainage.
2. The client provided GPR survey does not state any specified water pipe routes on site but there are some water supply points highlighted at the farmhouse and adjacent building. The below text is specified along the access road which suggests that a private pipe is likely.

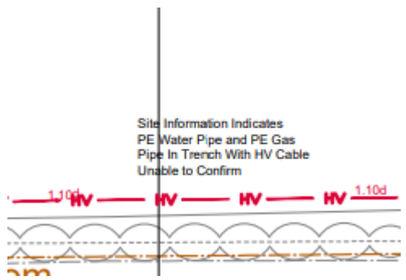

Figure 7 - Potential PE Water

7.1.1 Risks / Constraints

1. Onsite
    a. Supplies to existing units will require disconnection prior to site demolition.
2. Offsite
    a. Asset protection measures may be required if piling or drilling activities are within 5m of existing water mains.

7.2 Disconnections

Prior to demolition and site clearance, all existing dedicated site infrastructure within the development boundary will require disconnection from an accredited contractor (if private pipes), any network owned pipes will need to be disconnected by Thames Water. These would be cut back, typically, to outside the site boundary. All associated utility meters to be removed.

7.3 Load Assessment.

The peak instantaneous load for the development has been assessed at high level. Based on similar schemes our MEP department have estimated that the site will require 2 water main connections.

a. Fire main for external hydrants and sprinkler tank fill – 160mm providing 25 l/s
b. Domestic potable water connection, likely 110mm providing 7.4 l/s, which is based on largest load and filling one of the 80m3 glycol mix chiller plant in 3 hours.

7.4 Availability of capacity.

A Pre-Development Enquiry has been submitted to Thames Water based on the above loads.

Thames Water have responded to advise that reinforcements to the network may be required and that a modelling exercise will confirm the point of connection and any upstream reinforcements required to meet the anticipated peak demands.

Any offsite reinforcement would be developer funded

8. Telecommunications.

8.1 Existing Infrastructure

1. BT Openreach underground cables are shown to exist in and around the proposed site area.
    a. Onsite, cables extend from the junction with Poyle Road and according to the GPR survey provided, they enter along the access road below Manor Farm, cross over northwards and terminate in to the building.
    b. Offsite there appears that that there are BT cables running along the nearside of Poyle Road, including across a potential site entrance way south of Manor Farm.

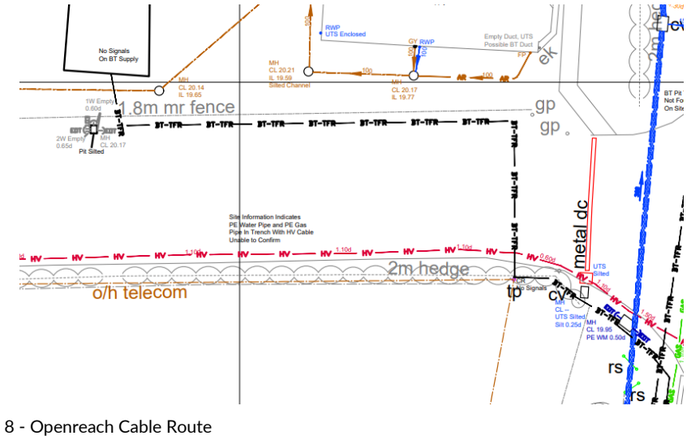

Figure 8 - Openreach Cable Route

8.1.1 Risks / Constraints

2. Onsite Infrastructure
    a. Live cables cannot be in place when demolition occurs.
    b. Any change in ground levels during enabling works could lead to potential risk/harm.
    c. Openreach should be engaged to survey and confirm scope of works and disconnect any relevant supplies.
3. Offsite Infrastructure

Openreach will be engaged to survey and confirm scope of works and disconnect/divert any supplies that may exist and conflict with the proposed development boundary.

8.2 Disconnections

Prior to demolition and site clearance, all existing dedicated site infrastructure within the development boundary will require disconnection by Openreach. Typically, this would be cut back to outside the site boundary.

8.3 Availability of Network Capacity

No application has been made for new connections. Typically, data centre operators have network agreements in place with large scale suppliers due to the demands exceeding that of the typical domestic / small business data networks. These proposals will develop as the development progresses.

As background information, upstream, the local exchange 'Colnbrook (THCK)' is located circa 1.5km from site, just off of Bath Road. The Exchange is fibre enabled, and offers the following broadband services:

- ADSL
- SDSL
- LLU
- Cable

A search on Openreach website suggests Fibre to the Property (FTTP) is not currently available in this area. ADSL (also known as standard or copper broadband is.

Currently, download speeds of up to 24Mbps are available within this service via a Standard Broadband package. Other providers are also available such as Sky, TalkTalk, Vodafone, and PlusNet.

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