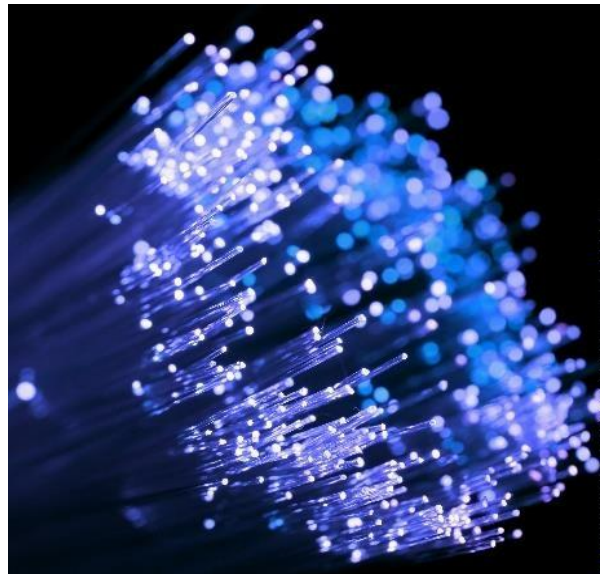




Oakwood Lodge

UCML Utility Study Level 2

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UCML Utility Study – Level 2

Oakwood Lodge,
Off Longley Lane,
Wythenshawe,
Manchester

Produced for: Wythenshawe Community Housing Group

Study Type	Inclusions/Exclusions		
	Electricity Point of Connection (POC)	Gas Capacity Check (GCC)	Water Pre-development Enquiry (PDE)
Level 2	Yes	N/A	Yes

Issue/Revision	Comments	Date	Prepared By	Checked By
1	First Issue	01/04/2022	Joanne Blackburn	Casey Watmore
2				
3				

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1.0 Introduction

UCML has been instructed by Wythenshawe Community Housing Group (hereafter referred to as 'the Client') to provide a desktop utility study to identify the outline constraints derived from the statutory utility infrastructure on a proposed residential development of up to 20 no. dwellings. The site is located off Longley Lane, Wythenshawe. This study includes the land within the red line boundary as indicated within Figure 1.1 below.



Figure 1.1 – Site Location Plan

UCML has been commissioned to provide a desktop utility study defining potential cost and timescale risks that could impact on the overall delivery of the project. The principal aim of this utility study is to identify the key constraints derived from statutory utility infrastructure on the proposed development. The information provided within this desktop study is based on review of the current proposed site plan (drawing no. 5415 P-01, dated 03/11/2021) provided to UCML by the Client, as indicated in Figure 1.2 overleaf.



Figure 1.2 – Site Layout Plan

The information provided within this desktop study is based on the development consisting of up to 20 no. residential dwellings. All utility load requirements have been estimated by UCML based on all dwellings being electrically heated through the installation of Air Source Heat Pumps (ASHPs). UCML has also included an allowance for 1 no. 7.2 kW rated Electric Vehicle (EV) charging point per dwelling. Table 1.1 below summarises the estimated loads used for the study.

Utility	Total load
Electricity	100 kVA

Table 1.1 – Load summary

Please note, these estimated loads are intended for use as a guide only for the production of this study, and it is recommended that a Mechanical and Electrical Consultant is employed to calculate the actual load required based on the final layout design and proposed heating method. It should also be noted that a figure for individual clean water load requirements has not been provided. As residential clean water connections are standardised, no individual load assessment for residential dwellings is required.

This desktop study has been produced using the statutory records received from each relevant body. The host statutory network operators which operate in the vicinity of the development site and covered within this study are listed in Table 1.2 below.

Utility	Statutory Operator
Electricity	Electricity North West Ltd
Gas	Cadent Gas
Water	United Utilities
Telecoms	Openreach
	Virgin Media

Table 1.2 – Host Statutory Network Operators

UCML is not responsible for the accuracy or quality of the information provided on statutory utility infrastructure records, and has attempted to use reasonable skill and care in investigating the existing site services. Unless stated otherwise, UCML has not made any provision for out-of-area water mains, private networks, unrecorded networks, Liquid Petroleum Gas (LPG) networks, street lighting, CCTV, traffic signals/illuminated signage, data centre networks, electricity generation installations, interconnectors, or drainage/sewerage networks.

Please note, all information on the drawings contained within this utility study and elsewhere is indicative only. The verification of the details and plant location given on the relevant infrastructure records should be undertaken using the following methods;

- The use of plant location equipment to trace all underground plant.
- The use of hand dug trial holes to confirm the precise location of plant.

- The use of suitable paint or markers on the surface to clearly indicate the position of buried apparatus.

All works undertaken are to be in accordance and compliance with the Construction Design and Management 2015 Regulations, published Health & Safety Guidelines, and the agreed working practices of the relevant utility companies. The following assumptions must be made in regards to any existing utility apparatus;

- All mains, services cables, and pipes should be assumed live until proven dead prior to any excavation, demolition or groundworks commencing.
- Any existing building is assumed to have live services until proven otherwise.
- Any site is assumed to have existing utility apparatus located within the boundary until proven otherwise.
- Service connections are not indicated on all utility infrastructure records. Where no service connections are indicated, their presence should be anticipated until proven otherwise.

2.0 Scope and Objectives

Utilities Connections Management Limited (UCML) is an independent Utility Consultancy providing services relating to the provision of utility connections to all types of developments.

This desktop utility study aims to provide a 'snapshot' in time of the current statutory utility networks and review the potential connection, diversion, and disconnection works that may be required to accommodate the development proposals. The objective of the commission is to provide a level of information relating to budgetary costs and risks, without incurring significant costs relating to distribution network studies. It should be noted that as this study is desktop in nature, no site visits or surveys have been undertaken during its completion.

The scope of works undertaken by UCML may be summarised as follows;

- Obtain the statutory Network Operators' infrastructure records.
- Review the existing utility distribution networks within the local area of the site.
- Application for firm points of connection for electricity, gas and water supplies to the site to determine the location of proposed connection.
- Consider the impact existing utility apparatus will have on proposed development works and provide a technical review and analysis of all statutory authority infrastructure affected by proposed on and off-site works, including the provision of the following;
 - Budget estimates for anticipated disconnection and diversion works.
 - Budget estimates for connection works, derived from firm non-contestable charges including an estimate of required reinforcement works where applicable.
 - Cost risk and analysis.
 - Timescales for provision and execution of quotations for the required works, highlighting risks to project programme.
 - Highlight of abnormal legal requirements including wayleaves and easements, and explanation of requirements to mitigate risk.

UCML's desktop utility studies provide a detailed overview of the statutory electricity, gas, clean water and telecommunications infrastructure in the vicinity of a proposed site, ideal for:

- Due diligence prior to land purchase to allow negotiation.
- Risk assessment prior to tender.
- Assistance with site layout design to minimise impact on existing utilities, taking into account statutory utility infrastructure legal requirements.
- Detailed planning statements.
- Investment analysis.

3.0 Assumptions and Exclusions

In view of the limitations of the available information, the following assumptions have been made in order to produce this utility study;

- All estimated loads have been based on information provided in the Network Operators Distribution Code and other documented standards.
- The information provided within the desktop study is based on the development site area as identified on the proposed site layout plan shown in Figure 1.2 within the introduction. Any land falling outside of the provided boundary is outside of the scope of this desktop study and, should it be incorporated within the proposed development boundary, this may affect the information and recommendations provided within this desktop study.
- The desktop study has been produced based on the specification provided by the Client/Developer at the time of instruction. Any changes to the size, type, number of specification of the development (for instance the extent of EV charging provision and/or use of Low Carbon heating solutions) may affect the information and recommendations provided within this desktop study.
- In the timescales and budget costs quoted, no allowances have been made in respect to the following unless stated otherwise;
 - Wayleaves, easements, or access rights.
 - Reinforcement charges.
 - Land transfers or lease arrangements for substation requirements if applicable.
 - Abnormal off-site civils.
 - Specialist traffic management (non-standard).
 - On-site civils and builders work.
 - Seasonal Embargoes.

It should be noted that all budgetary figures quoted are exclusive of any Value Added Tax (VAT) that may be applicable unless stated otherwise.

4.0 Terms and Definitions

ADMD	After Diversity Maximum Demand. The development demand taking into account diversity of usage.
CSEP	Controlled System Exit Point. Gas mains connection point.
DNO	Distribution Network Operator. This is the licensed electricity distributor for the geographic region.
EV	Electric Vehicle. Charging points for electric vehicles can significantly increase electricity demand of a development.
FTTP	Fibre to the Premise telecommunications connection.
GT	Gas Transporter. The GT is the licensed gas network operator for a specific geographical area.
ICP	Independent Connection Providers. Undertake new electrical connections, however they do take ownership of the asset.
IDNO	Independent Distribution Network Operator. Network owners and operators that are not constrained to a geographic area.
IGT	Independent Gas Transporter. A GT that is not governed by its geographic location.
POC	Point of Connection. This is a formal document submitted by the DNO identifying the location for a new electrical connection.

5.0 Executive Summary

This study comprises the results of the investigation and appraisal undertaken by UCML of the existing utility infrastructure located in the vicinity of the development site, and provides an overview of the likely demand requirements to support the proposed development works along with a review of any network reconfiguration works that are currently anticipated.

The relevant sections of the study will discuss the development requirements and constraints in further detail, however UCML would highlight the following main site constraints, along with the recommended next steps to be taken;

- ENWL has confirmed that the LV network currently has sufficient capacity to support the development.
- United Utilities has confirmed the clean water distribution network has sufficient capacity to support the development.
- As the development consists of 20 no. total dwellings, Openreach will likely provide a Fibre to the Premise (FTTP) connection offer at no cost to the developer.
- Disconnection of the existing utility connections for 'Oakwood Lodge' will be required to enable demolition works to take place. It may be prudent to undertake a site survey to confirm the number and location of service connections present.

Cost Summary

Table 5.1 below summarises the total anticipated budget costs for the required utility works. Please refer to the relevant section of the study for further detail.

Electricity	Budget Cost
Non-Contestable Works	£1,330.00
Contestable Connection Works	£32,500.00
Diversiory Works	None currently anticipated
Disconnection Works	£2,000.00
Total Electricity Costs	£35,830.00
Gas	Budget Cost
Connection Works	N/A
Diversiory Works	None currently anticipated
Disconnection Works	£1,800.00
Total Gas Costs	£1,800.00
Water	Budget Cost
Connection Works	£47,000.00
Diversiory Works	None currently anticipated
Disconnection Works	£Nil
Total Water Costs	£47,000.00
Openreach	Budget Cost
Connection Works	£Nil
Diversiory Works	None currently anticipated
Disconnection Works	£2,500.00
Total Openreach Costs	£2,500.00
Virgin Media	Budget Cost
Connection Works	£Nil
Diversiory Works	None currently anticipated
Disconnection Works	£2,000.00
Total Virgin Media Costs	£2,000.00
Budgetary sums exclude Value Added Tax, on-site civils and principal contractor preliminaries.	

Table 5.1 – Cost Summary Table

6.0 Electricity

6.1 Existing Electricity Network

The electricity distribution network in the vicinity of the development site is under the ownership of Electricity North West Ltd (ENWL) and is operated within the terms of its Electricity Distribution License issued by Ofgem. The local electricity distribution network in the immediate vicinity of the site comprises of underground cables and associated substations operating at High Voltage (HV) and Low Voltage (LV).

The figure on the following page illustrates the location of existing ENWL infrastructure which has been extracted from its network records. The cables shown in blue are operated at up to 6,600 Volts (HV), and those shown in orange are operated at 415 Volts (LV). Please refer to the infrastructure record appended to this study for further detail.

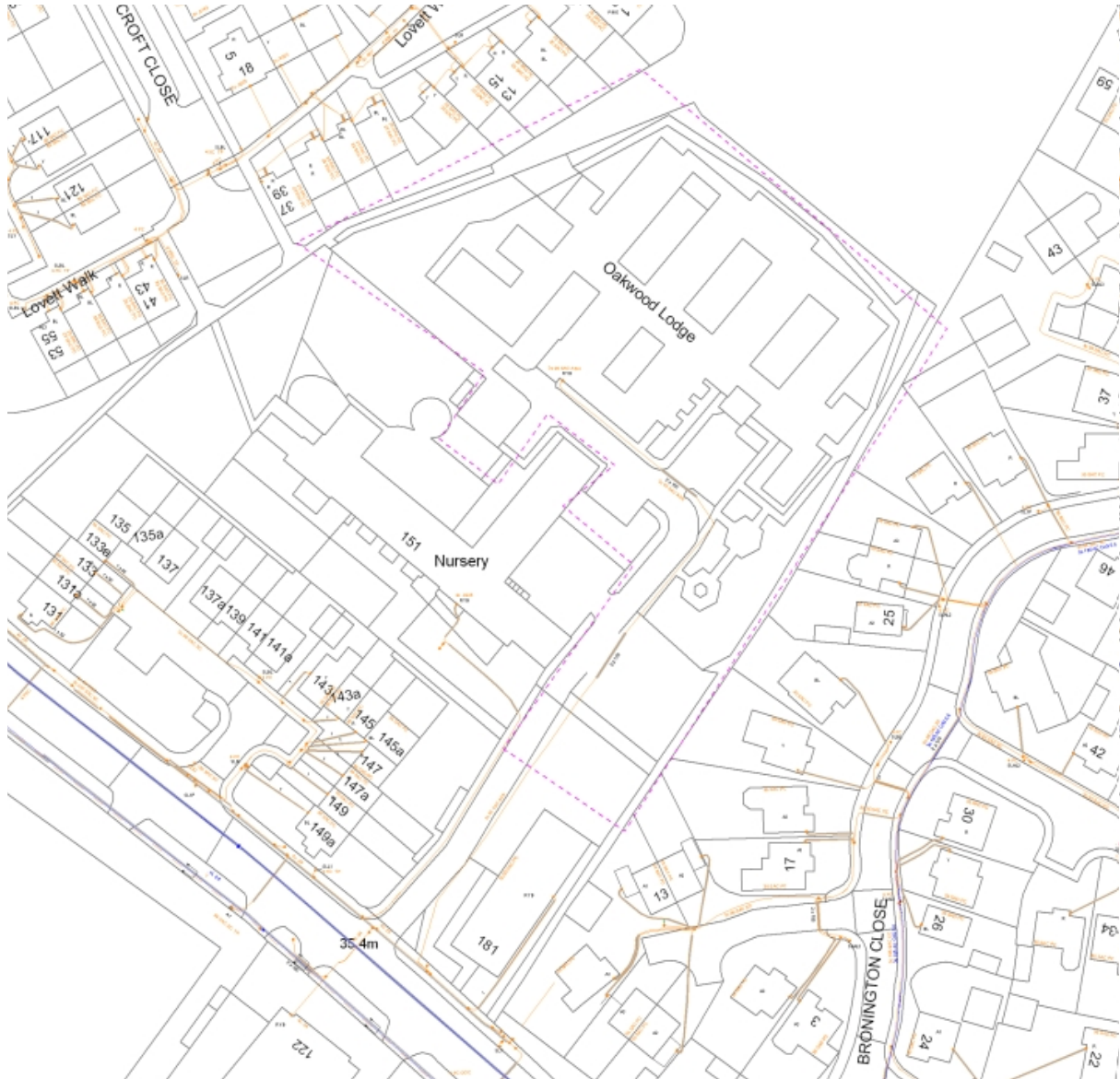
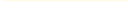


Figure 6.1 – Existing Electricity Infrastructure Plan

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	

6.2 Connection Works

6.2.1 Non-Contestable Works

The non-contestable element of the connection works are works required to accommodate the provision of capacity for the development, which can only be undertaken by the relevant Distribution Network Operator (DNO). The non-contestable costs are covered within a Point of Connection (POC) quotation.

Based on the development information as outlined within the introduction, UCML has estimated the electrical load requirement for the proposed residential development of 20 no. dwellings to be 100 kVA, based on the use of electric heating and an allowance for 1 no. 7.2 kW rated Electric Vehicle (EV) charging point per dwelling. Based on this estimated load, UCML requested a Point of Connection quotation for the non-contestable works from ENWL.

ENWL has provided a POC quotation for a load of up to 100 kVA, confirming the development can be connected to the LV distribution network. The POC will be located from an existing LV cable routed within the site side footpath of Longley Lane, as indicated in Figure 6.2 overleaf.

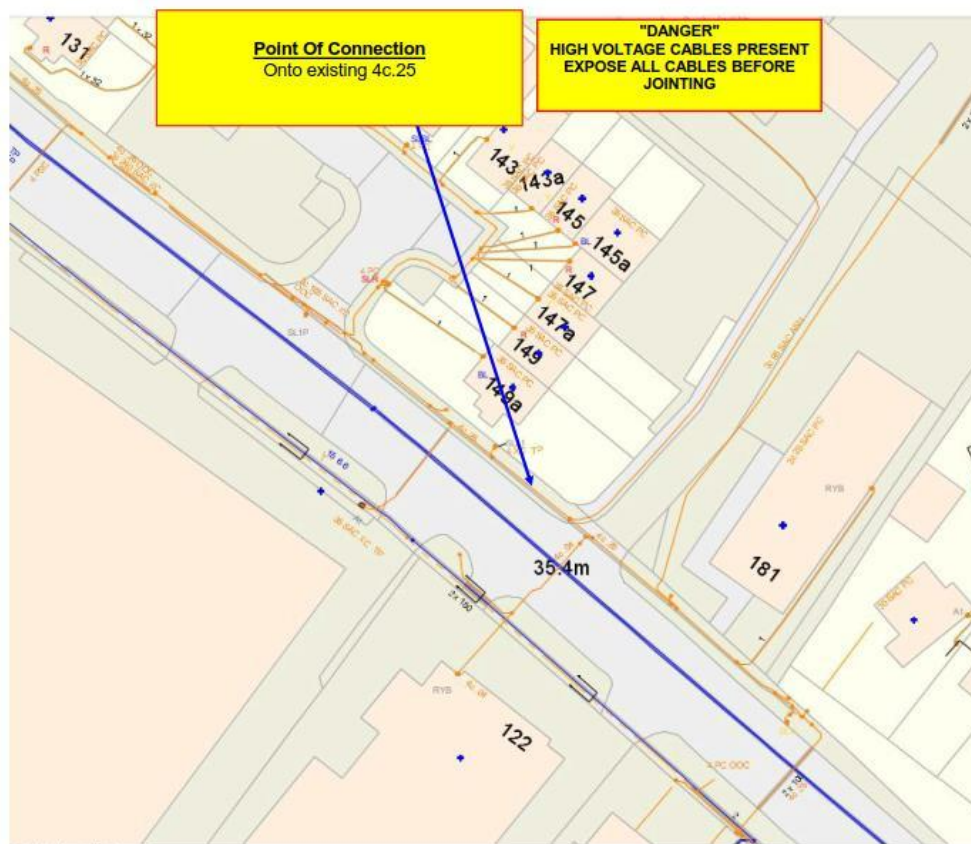


Figure 6.2 – Plan showing electricity LV Point of Connection

As part of the non-contestable works, ENWL will undertake ICP design approval and inspections. Cable jointing works for the POC will typically be undertaken by a ENWL Engineer. Please refer to Section 6.2.2 for further detail on the associated contestable connection works required to utilise the provided LV POC.

The total cost and breakdown of the ENWL non-contestable POC is detailed below;

Description	Cost
Assessment Charges	£1,000.00
Design Charges	£330.00
Total Non-Contestable Charges	£1,330.00

Table 6.1 – Point of Connection cost breakdown

ENWL has advised that, based on current network availability, there is sufficient electric capacity available within the existing electricity infrastructure to serve the proposed development. However, no capacity can be reserved until payment is made for a valid ENWL non-contestable POC offer.

6.2.2 Contestable Works

Based on the confirmed non-contestable POC provided by ENWL, the following contestable connection works will need to be undertaken to provide connections to the proposed dwellings;

- Lay LV cabling from POC location to site boundary
- Excavate, backfill and permanently reinstate public highway/footpath to Local Authority standards.
- Lay LV mains infrastructure on-site to serve all proposed dwellings.
- Install LV service connections to each dwelling, and connect to LV mains infrastructure.
- Install suitable cut out to the DNO standard.

Allow a **budget cost of £32,500.00** for the contestable connection works, based on the confirmed Point of Connection being within 50 metres of the site boundary, as located from the LV main routed within the site side footpath of Longley Lane to the development.

As the above works are contestable, they can be undertaken by the DNO, or alternatively an Independent Connection Provider (ICP) can be appointed to complete the works. The use of an ICP to undertake the contestable connection works provides the opportunity to open the contestable element of the works to competitive tender, which may provide significant cost savings in comparison to the DNO undertaking the works.

6.3 Diversions & Disconnections

ENWL infrastructure record indicates an LV cable routed within the site side footpath of Longley Lane to the development site, and indicates an LV cable routed within the access road which is providing supply to the adjacent Nursery unit. The current site layout plan indicates the existing entrance to the development site will be utilised for the development, which is off the access road leading to the site from Longley Lane. Based on the assumption no alterations will be made to the line or level of Longley Lane, or the section of the access road located outside of the red line boundary, no diversionary works are currently anticipated. Review of the final proposed site drawings and formal consultation is recommended with ENWL to confirm.

ENWL infrastructure record indicates the existing 'Oakwood Lodge' unit currently occupying the development site has an LV service connection, the disconnection of which will be required prior to the proposed demolition of the unit. A **budget cost of £2,000.00** is recommended for disconnection works. It is assumed that the LV cable will be disconnected in the footpath of Longley Lane to clear the site for demolition and subsequent redevelopment works.

6.4 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing ENWL distribution system are identified in the following table;

Detail	Cost
Non-Contestable Works	£1,330.00
Contestable Connection Works	£32,500.00
Diversions	None currently anticipated
Disconnections	£2,000.00
Total	£35,830.00

Table 6.2 – Electricity costs

The main risks associated with the procurement of proposals and required works are as follows;

- Some figures have been applied based on previous projects of similar size and UCML's experience, others have been provided for budgetary purposes by ENWL.
- The Point of Connection is valid for only 180 days from submission. The network capacity can only be reserved upon submission of signed acceptance and a suitable design from either an Independent Connection Provider or Independent Distribution Network Operator.

7.0 Gas

7.1 Existing Gas Network

The local Gas Distribution Network in the vicinity of the development site is owned and operated by Cadent Gas under its Gas Transportation License issued by Ofgem. The gas network in the immediate vicinity of the site comprises of gas mains and apparatus operating at Low Pressure (LP).

The figure on the following page is an extract from Cadent Gas statutory records and details the currently indicated position of existing infrastructure, however it may be prudent to undertake a below ground survey to ensure there are no services present which are not recorded on statutory records. Please refer to the infrastructure record appended to this study for further detail.

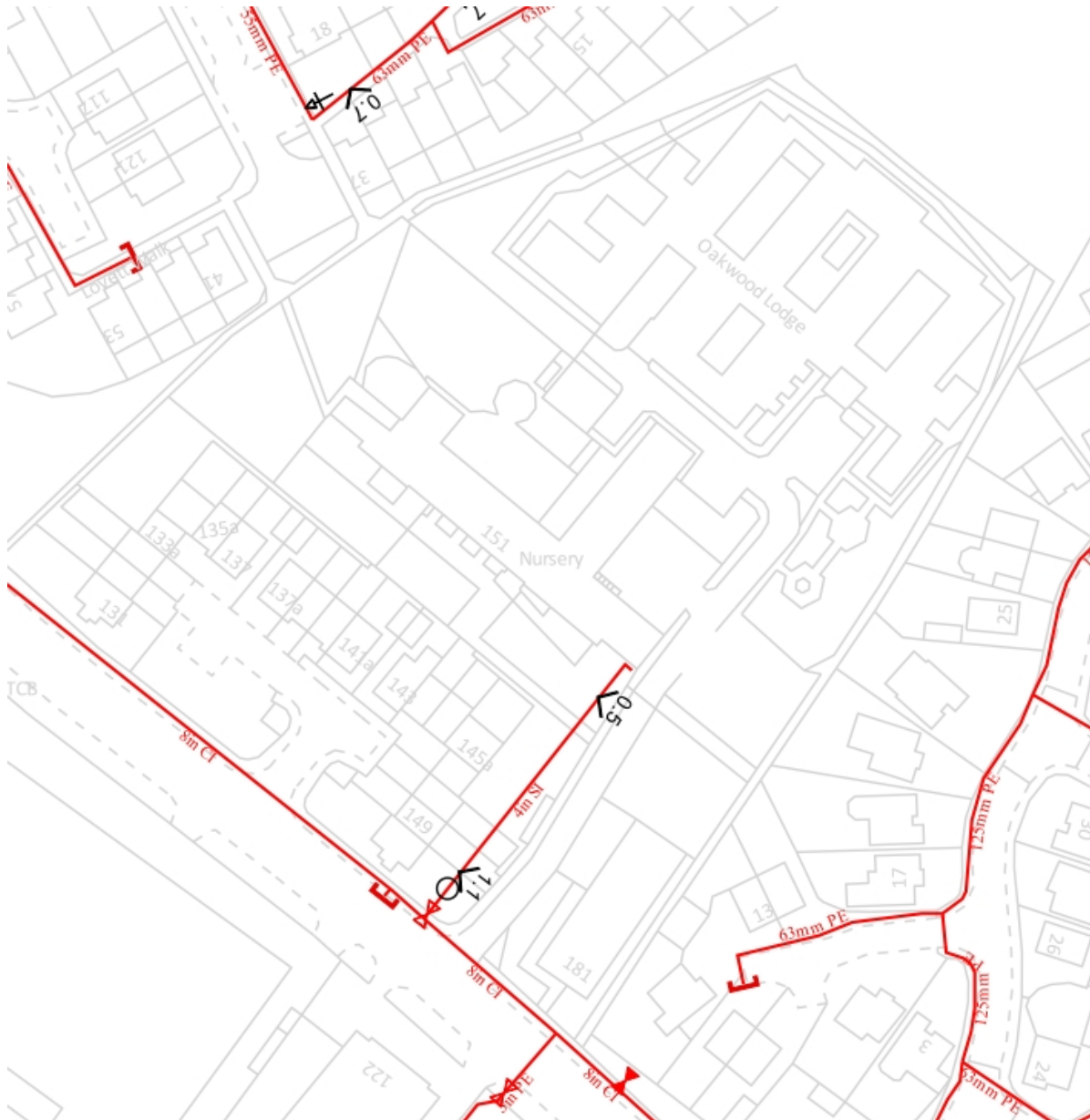
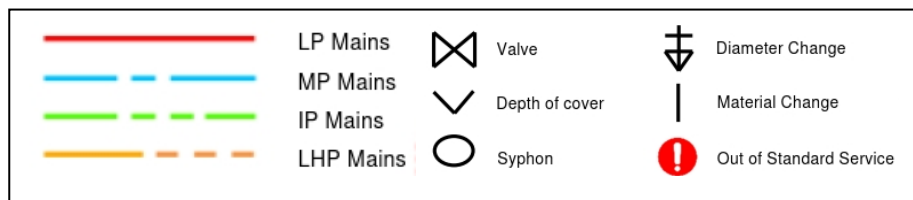


Figure 7.1 – Existing gas infrastructure plan



7.2 Proposed Gas Service

As outlined within the introduction, it is currently intended for the development to utilise an electricity heating strategy with the proposed installation of ASHPs for each dwelling. Therefore, no mains gas connections are currently required for the development.

7.3 Diversions & Disconnections

Cadent Gas infrastructure record indicates an 8" cast iron LP main routed within the site side footpath of Longley Lane to the development site, and indicates a 4" spun iron LP main routed parallel to the access road which appears to be providing supply to the adjacent Nursery unit. The current site layout plan indicates the existing entrance to the development site will be utilised for the development, which is off the access road leading to the site from Longley Lane. Based on the assumption no alterations will be made to the line or level of Longley Lane, or the section of the access road located outside of the red line boundary, no diversionary works are currently anticipated. Review of the final proposed site drawings and formal consultation is recommended with Cadent Gas to confirm.

Cadent Gas do not typically indicate individual service pipes and associated apparatus; however, their presence should be anticipated until proven otherwise. It is recommended that a site survey is undertaken to confirm if an existing gas service is present to 'Oakwood Lodge', as any existing services will require disconnection works to prior to demolition of the unit. A **budget cost of £1,800.00** is recommended for disconnection works in advance of a survey being completed, based on the assumption 1 no. LP service of up to 90mm diameter is present.

7.4 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing Cadent Gas network are identified in the following table;

Detail	Cost
Connections	N/A
Diversions	None currently anticipated
Disconnections	£1,800.00
Total	£1,800.00

Table 7.1 – Gas costs

The main risks associated with the procurement of proposals and required works are as follows;

- If any changes are made to the heating strategy leading to gas connections being required, consultation will be required with Cadent Gas to establish the availability of capacity within the gas network.

8.0 Water

8.1 Existing Water Network

The local clean water distribution network in the vicinity of the development site is owned and operated by United Utilities within the terms of its statutory license issued by Ofwat. The clean water network in the immediate vicinity of the site comprises of distribution water mains and associated apparatus. Please refer to the infrastructure record appended to this study for further detail.

The figure on the following page is an extract from United Utilities statutory records and details the current indicated position of existing infrastructure, however it may be prudent to undertake a below ground survey to ensure there are no unknown services which are not recorded.

Please note on rare occasions 'out of area' water supply authorities have water mains crossing other water supply authority areas. This is typically trunk or raw water mains transporting water extracted from reservoirs or water courses between areas. Unless stated otherwise, UCML's utility study covers the statutory water network operator for this region as identified within the introduction only.



Figure 8.1 – Existing water infrastructure plan

Proposed	Abandoned	Live	
			Distribution Main
			Trunk Main
			Comms Pipe
			Private Pipe
			Concessionary Service
			Raw Water
			LDTM Raw Water
			LDTM Treated Water

8.2 Proposed Water Service

UCML has sourced a pre-development response from United Utilities to establish the availability of capacity within the local distribution network, and confirm the likely connection point for the development. United Utilities has advised that a connection point for the development can be provided from the 6" asbestos cement distribution main routed within the adjacent side footpath of Longley Lane to the development site. Please see Figure 8.2 below for further detail on the location of the provided point of connection.



Figure 8.2 – Proposed water connection plan

United Utilities has also confirmed that this main has sufficient capacity to supply the development without the requirement for associated off-site reinforcement works.

From April 2018, off-site network reinforcement costs have been funded through infrastructure charges which are applied to each new connection. The principle of infrastructure charges recognises that every new connection imposes an additional demand on the overall capacity of the water supply and sewerage systems, and eventually those systems will need to be enlarged. The collection of infrastructure charges is intended to cover the extra demand on the existing network away from the development site.

Infrastructure charges are calculated based on the estimated costs of all off-site reinforcement works required to facilitate connections to new developments within United Utilities' supply area over a rolling 5 year period, based on the total anticipated number of new connections within that supply area. Please note, the infrastructure charge costs can vary year on year and therefore long term developments may be affected by the possible variance in infrastructure charges. Each water company has a differing infrastructure charge based on their individual network and anticipated levels of reinforcement works, and the cost of the infrastructure charges for clean and waste water are likely to differ.

The infrastructure charges applicable to developments within United Utilities' region for the current scheme of charges (2022-2023) are £302.00 per plot for clean water and £279.00 per plot for sewerage, both of which are applied to the clean water connection costs. Based on these infrastructure charges, allow a **budget cost of £47,000.00** for mains and connections.

It is to be confirmed whether there are records of any chargeable water or sewerage connections on-site within the last 5 years, which will determine whether infrastructure credits will be available for this scheme. It is assumed 1 no. credit may be available, assuming the 'Oakwood Lodge' unit has an existing service connection.

A Phase 2 ground investigation and risk assessment will be required to precisely identify contaminated and uncontaminated ground within the site. The level of contamination on-site will determine the material used for the water mains and service pipes on-site. If the level of contamination is low, standard polyethylene pipe could be used. However, if the level of contamination on-site is determined to be high, the site will require the use of barrier pipe

laid in a sterile trench. Should the use of barrier pipe be required, this will increase the cost of connections significantly.

From April 2020, water companies will be transitioning to new charging rules which stipulate that any applicable income offset available for a development will be paid against infrastructure charges instead of the mains requisition cost. Previously, any income offset available for a development would be applied to the mains requisition costs. Based on these new charging rules, the full construction cost for the mains requisition will be payable by the developer upfront. The income offset will then be applied to the infrastructure charges, which are payable once the service connections are made.

As the income offset is paid by United Utilities against infrastructure charges paid by the developer, it will now be applicable to all connections (including any made to existing water mains) where infrastructure charges are payable. The income offset payment is set by each water company at a set charge per plot, and for connections in United Utilities' area for 2022 - 2023 it has been set at £778.00, and an allowance for this has been included within the budget cost provided overleaf. If no infrastructure charges are payable for a connection, no income offset payment will be available. For plots that qualify for the applicable Infrastructure Charge Discount Scheme which is discussed below, the full income offset amount will still apply per plot at the current set rate, which may result in a positive payment to the developer.

As previously mentioned, United Utilities has an Infrastructure Charges Discount Scheme intended to incentivise sustainable development within their region and encourage developers to construct properties which promote the efficient use of water. In compliance with Part G of the Building Regulations 2010, all new homes built in the UK must be built to a rating of 125 litres of water usage per person, per day (PPPD). United Utilities has introduced a reduced infrastructure charge of £30.00 per property for clean water where it can be demonstrated that properties have been built to a usage rating of 100 litres of water PPPD or less.

In order to qualify for the reduced charge, a completed 'Water Efficiency Calculator' form must be submitted with an application for connections, with one completed calculation required for each property type on a development. This is to demonstrate the fixtures and fittings planned to be installed comply with the water usage criteria (please see <http://sites.wrcplc.co.uk/partgcalculator/> for further information). Along with the efficiency calculator results, United Utilities will require a signed disclaimer notice from the Developer. This disclaimer notice is for Developers to agree to United Utilities conducting an audit of built properties to confirm they comply with the requirements of the discount scheme and regulations, and confirms the Developer accepts liability for the full infrastructure charge if the information provided is found to be inaccurate following an audit.

For sewerage, a reduced infrastructure charge of £28.00 per property will be payable for all properties built with no surface water connection to the public sewer. To qualify for the reduced charge for sewerage, a drainage layout plan that confirms the drainage connectivity of the proposed properties must be submitted with an application for water services.

8.3 Diversions & Disconnections

United Utilities infrastructure records indicates a 6" asbestos cement distribution main routed within the adjacent side footpath of Longley Lane to the development site. Given the indicated location of the main, and assuming no alterations will be made to the line or level of the adjacent side footpath as part of the development works, this apparatus appears to be unaffected by the development proposals.

United Utilities infrastructure record indicates a communication pipe located within the entrance to the existing access road, and it can be assumed that a private service pipe continues within the access road to provide a supply to 'Oakwood Lodge' which currently occupies the development site. Disconnection of the service will be required prior to demolition of the existing building, and United Utilities will typically complete the permanent disconnection of existing services at no cost to the developer. It may be prudent to undertake a site survey to confirm if any additional services may be present that are not indicated on the infrastructure record.

8.4 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing United Utilities distribution network are identified in the following table;

Detail	Cost
Mains and Connections	£47,000.00
Diversions	None currently anticipated
Disconnections	£Nil
Total	£47,000.00

Table 8.1 – Water costs

The main risks associated with the procurement of proposals and required works are as follows;

- Some figures have been applied based on previous projects of similar size and UCML's experience, others have been provided for budgetary purposes by United Utilities.
- The pre-development response is valid for only 6 months from submission. The available network capacity can vary continually, due to proposed developments taking capacity from the water distribution network within the vicinity of this specific scheme.
- The developer cannot reserve any water capacity and pressure until a formal order has been placed with the relevant water Network Operator.
- Please be aware that the position of any required fire hydrants will be determined and implemented upon the advice and requirements of the Local Fire Authority.

9.0 Communications

9.1 Openreach

Openreach own and operate telecommunications apparatus in the vicinity of the development site within the terms of its statutory license issued by Ofcom. The Openreach network in the immediate vicinity of the site comprises of underground cables, overhead lines, and associated apparatus. Please refer to the infrastructure record appended to this study for further detail.

The figure on the following page is an extract from Openreach records and details the current indicated position of existing infrastructure, however it may be prudent to undertake a below ground survey to ensure there are no unknown services which are not recorded.

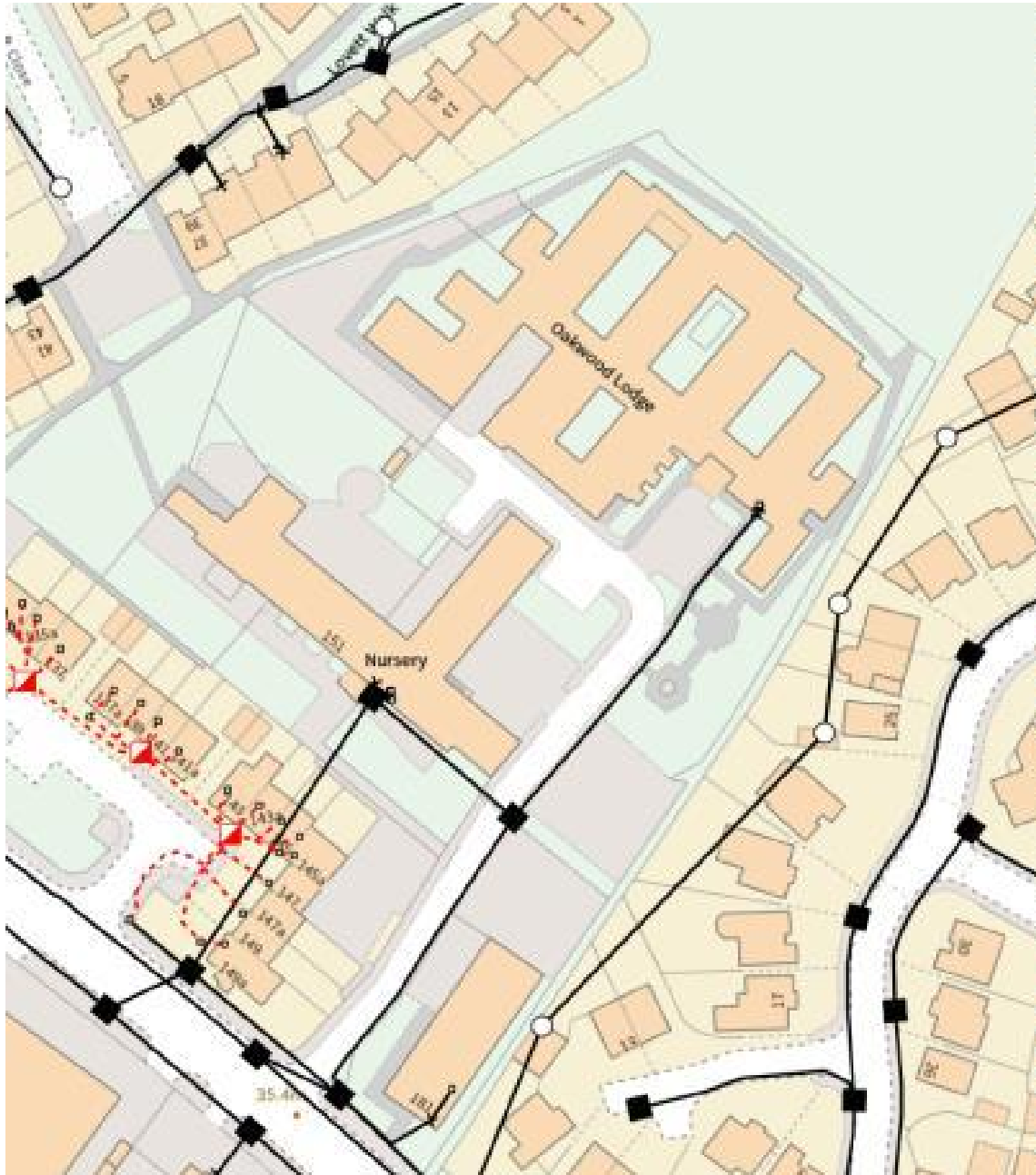


Figure 9.1 – Existing Openreach infrastructure

KEY TO BT SYMBOLS			
DP		Pole	
Planned DP		Planned Pole	
PCP		Joint Box	
Planned PCP		Change Of State	
Built		Split Coupling	
Planned		Duct Tee	
Inferred		Planned Box	
Building		Manhole	
Kiosk		Planned Manhole	
Hatchings		Cabinet	
		Planned Cabinet	

9.1.1 Openreach Connections

Openreach provide a Fibre to the Premise (FTTP) connection design as standard for new developments. FTTP connections will provide ultrafast broadband speeds to each dwelling and deliver a level of future proofing for broadband as the demand for speed increases. Openreach will provide an allowance of up to £3,400.00 per plot to undertake all off-site works required, however any costs incurred above this allowance will be chargeable to the developer. As the development consists of 20 no. residential dwellings, Openreach will likely provide FTTP connections free of charge.

Openreach FTTP network is constructed as an Open Access Network, allowing multiple Internet Service Providers (ISPs) to provide services to future residents and customers utilising the same infrastructure. The installation of Open Access Networks mitigate the requirement for multiple service providers installing duplicate infrastructure within the development site.

Typically, the work undertaken by the developer as part of an Openreach FTTP network installation will consist of laying on-site duct and tubing, building all joint boxes, and providing a cable from a designated joint box to each dwelling (with cappings and covers over external entry points). Openreach will carry out all excess construction works outside of the site boundary and in the public highway.

For a FTTP installation, the developer will need to sign a contract and Wayleave agreement with Openreach. This is a legal requirement for Openreach to install and access its infrastructure. However, if the installation of an independent fibre network is being considered for the development site, exclusivity may be required and therefore the Openreach wayleave should not be signed until it is confirmed an independent third party fibre provider will not be used.

As part of the contract for the installation of Openreach connections, the developer may receive a rebate of up to £140.00 per house for carrying out on-site works as detailed within the contract provided with their connection proposal. The rebate is in line with the Home Builders Federation (HBF) rates and are payable by BT Plc through its Openreach division. If

the developer chooses to self-install the internal FTTP apparatus through Developer Self Install (DSI), an additional rebate payment of £20 per house or apartment will be available.

For the installation of FTTP within an individual dwelling, an Optical Network Termination (ONT) will be installed. The ONT is the Openreach demarcation point and replaces the traditional copper master socket. The Openreach ONT will sit in a wall mounted enclosure along with a Battery Backup Unit (BBU) and the associated wiring. The ONT will include an optical port which connects to the external Customer Splice Point (CSP), an Ethernet port which connects to the communications provider's router, and a telephony port to connect to the voice call network.

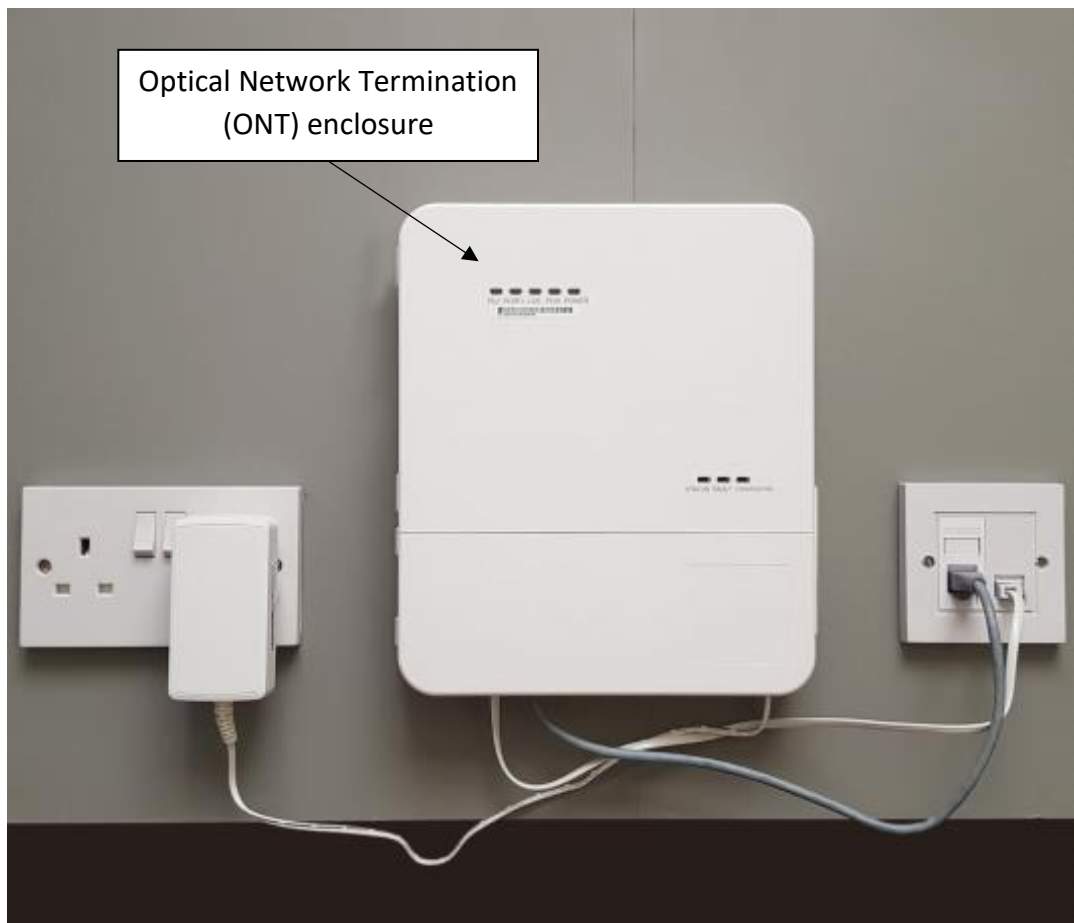


Figure 9.2 – Openreach FTTP Internal Equipment

Should the developer choose for Openreach to install the FTTP equipment, the ONT will be installed at the position of the incoming fibre cable, however, as previously discussed, the developer can choose to self-install the internal FTTP equipment at their preferred internal location within the dwelling. Where a developer opts to undertake the self-install of the internal equipment, Openreach will supply the ONT, BBU, and the required connectorised fibre cable.

Figure 9.3 below illustrates the simplest installation for the FTTP equipment in a domestic dwelling, where the ONT and associated equipment is located adjacent to the outside wall where the incoming fibre cable is located.

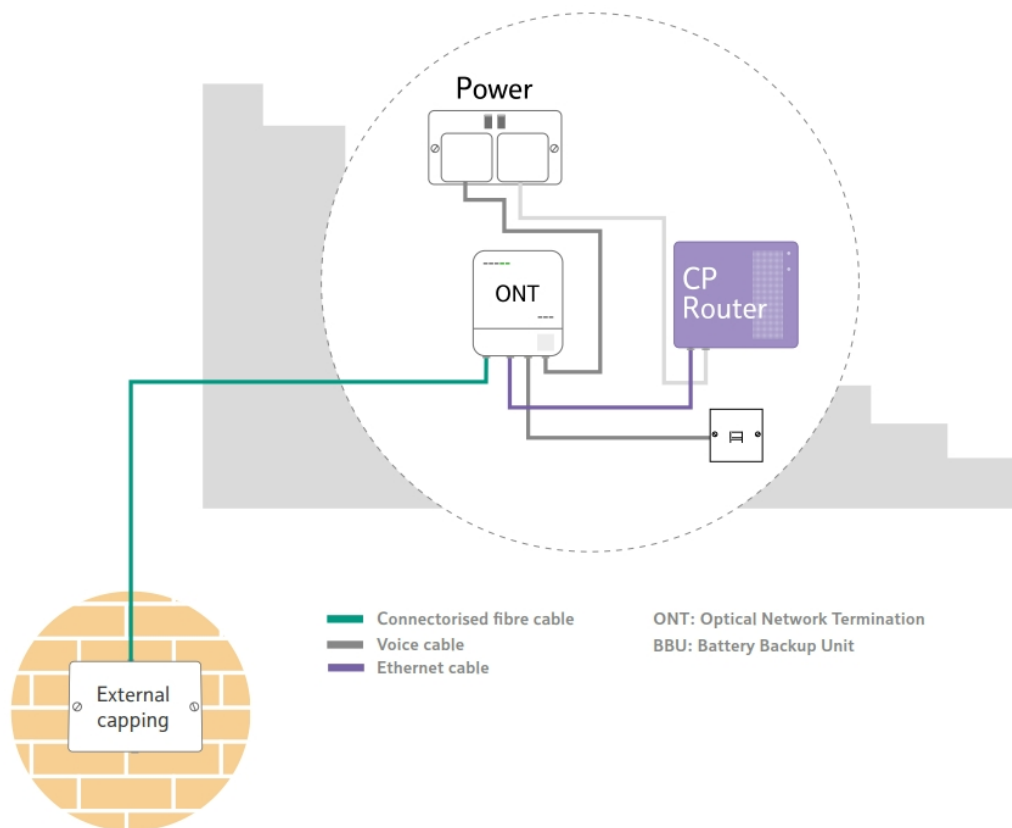


Figure 9.3 – Simple FTTP installation

Figure 9.4 overleaf illustrates a typical example of a developer self-install for the internal equipment, where they have chosen to locate the ONT further inside the dwelling. Further examples of the options for the internal installation are provided within the Openreach Developer Guide for building a fibre network.

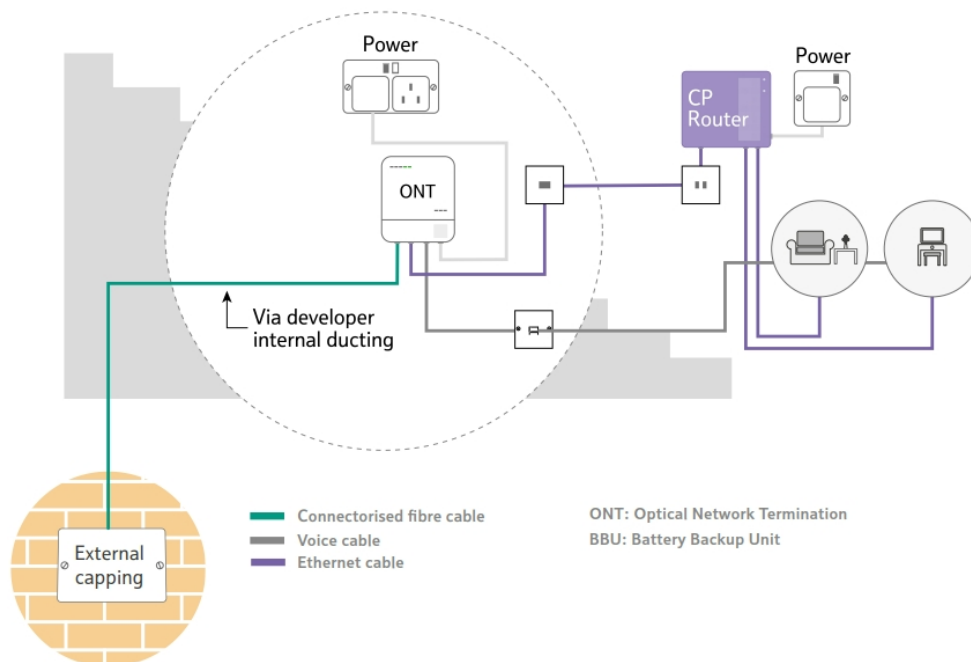


Figure 9.4 – Alternative Option for FTTP installation (DSI)

9.1.2 Diversions & Disconnections

Openreach infrastructure record indicates underground apparatus routed within the site side footpath of Longley Lane to the development site, and indicates a section of underground apparatus routed within the access road which is providing supply to the adjacent Nursery unit. The current site layout plan indicates the existing entrance to the development site will be utilised for the development, which is off the access road leading to the site from Longley Lane. Based on the assumption no alterations will be made to the line or level of Longley Lane, or the section of the access road located outside of the red line boundary, no diversionary works are currently anticipated. Review of the final proposed site drawings and formal consultation is recommended with Openreach to confirm.

Openreach infrastructure record indicates the existing 'Oakwood Lodge' unit currently occupying the development site has an existing Openreach service connection, the disconnection of which will be required prior to the proposed demolition of the unit. A **budget cost of £2,500.00** is recommended for disconnection works, which is inclusive of an upfront site survey fee if required. It is assumed that the underground cable will be disconnected at the existing joint box located along the access road routed from Longley Lane clear the site for demolition and subsequent redevelopment works.

9.1.3 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing Openreach network are identified in the following table;

Detail	Cost
Connections	£Nil
Diversions	None currently anticipated
Disconnections	£2,500.00
Total	£2,500.00

Table 9.1 – Openreach Costs

The main risks associated with the procurement of proposals and the required works are as follows;

- Provisional sums have been applied based on previous projects of similar size and UCML's experience.
- Openreach infrastructure records currently do not differentiate between copper and fibre optic cables, and as such the type of infrastructure within the ground cannot be determined through desktop review of their statutory infrastructure records. Please note, the presence of fibre optic cables could multiply anticipated diversion costs significantly.

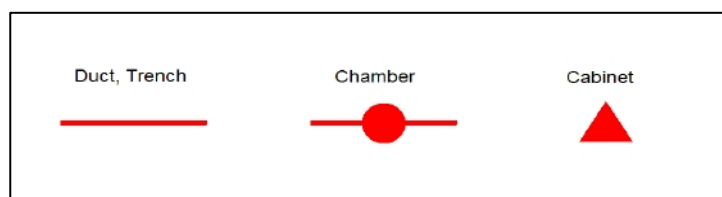
9.2 Virgin Media

Virgin Media has confirmed that they own and operate telecommunications apparatus in the vicinity of the development site. The Virgin Media network in the immediate vicinity of the site comprises of underground cables and associated apparatus.

The figure on the following page is an extract from Virgin Media records and details the current indicated position of existing infrastructure, however it may be prudent to undertake a below ground survey to ensure there are no unknown services which are not recorded. Please refer to the infrastructure record appended to this study for further detail.



Figure 9.5 – Existing Virgin Media Infrastructure



9.2.1 Virgin Media Connections

Should the developer require Virgin Media connections, UCML anticipates that the new development can be connected to the existing network in the immediate vicinity of the development site. As part of the provision of new connections to the development, Virgin Media will undertake all off-site works to enable the required connections, however it will be the responsibility of the main contractor to undertake all on-site works as detailed by Virgin Media to their specification.

Typically, the work undertaken by the developer will consist of laying all on-site duct (roped) and the installation of all on-site chambers as per the agreed layout provided by Virgin Media. The contractor will also be required to install 1 no. Omni box at the cable exit point (external), install 1 no. external ground level termination box, install a minimum of 2 no. internal sockets at agreed locations and install Virgin Media faceplates over the connection points within each dwelling. If the specified works are completed by the contractor within agreed timescales and to the required standard, Virgin Media may provide a rebate payment of up to £125.00 per plot. The actual rebate payment will be agreed by the appointed New Build Officer on issue of the proposal.

Please note, Virgin Media networks are constructed as Closed Access Networks. The infrastructure installed within the development site as part of a Virgin Media installation can only be utilised by Virgin Media as the ISP, and cannot be utilised by any alternative ISP's.

9.2.2 Virgin Media - Diversions & Disconnections

Virgin Media infrastructure record indicates underground apparatus routed within the site side footpath of Longley Lane to the development site, and indicates a section of underground cable routed within the access road which is providing supply to the adjacent Nursery unit. The current site layout plan indicates the existing entrance to the development site will be utilised for the development, which is off the access road leading to the site from Longley Lane. Based on the assumption no alterations will be made to the line or level of Longley Lane, or the section of the access road located outside of the red line boundary, no diversionary works are currently anticipated. Review of the final proposed site drawings and formal consultation is recommended with Virgin Media to confirm.

Virgin Media infrastructure record does not show an existing service to the 'Oakwood Lodge' unit currently occupying the development site. It may be prudent to undertake a site survey to identify if an existing service is present as if so, disconnection will be required prior to the proposed demolition of the unit. If a service is present, a **budget cost of £2,000.00** is recommended for disconnection works, which is inclusive of an upfront site survey fee if required.

Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing Virgin Media network are identified in the following table;

Detail	Cost
Connections	£Nil
Diversion	None currently anticipated
Disconnections	£2,000.00
Total	£2,000.00

Table 9.2 – Virgin Media costs

The main risks associated with the procurement of proposals and the required works are as follows;

- Provisional sums have been applied based on previous projects of similar size and UCML's experience.
- Virgin Media networks are constructed as Closed Access Networks. The infrastructure installed within the development site as part of a Virgin Media installation can only be utilised by Virgin Media as the ISP, and cannot be utilised by alternative ISP's.
- Virgin Media infrastructure records currently do not differentiate between coaxial and fibre optic cables, and as such the type of infrastructure within the ground cannot be determined by reviewing their statutory infrastructure records. Please note, the presence of fibre optic cables could multiply anticipated diversion costs significantly.

10.0 Other

In addition to the statutory network operators operating within the vicinity of the development site, UCML has contacted a number of Independent Distribution Networks Operators (IDNOs), Independent Gas Transporters (IGTs), telecommunications providers, pipeline operators, and other third parties who own and operate apparatus nationwide to determine whether any apparatus is located within the vicinity of the development site.

The companies contacted, and their associated response, are summarised within Table 10.2 overleaf. Please refer to the key provided below for further detail on the definitions used.

Table Key	Definition
Affected	Utility apparatus is indicated as being located within the vicinity of the development site.
Not Affected	Utility apparatus is not indicated as being located within the vicinity of the development site.
No Response	No response has been received from the utility provider to date.
Desk Research	Any response determined from desktop research is indicated in this column. This indicates utility infrastructure records have been obtained in house using mapping software provided by the relevant utility provider.

Table 10.1 – Plant Enquiry Response Key

Utility	Company	Desk Research	Affected (date issued)	Not Affected (date issued)	No Response
IDNO	Engie				01/04/2022
IDNO	Utility Assets				01/04/2022
IDNO	Eclipse Power Networks Ltd			27/01/2022	
IDNO	G2 Energy				01/04/2022
IGT	BBL Company				01/04/2022
IGT	GTC*	✓		25/01/2022	
IGT	Indigo Pipelines				01/04/2022
IGT	Interconnector UK LTD				01/04/2022
Comms	Arqiva				01/04/2022
Comms	Cityfibre	✓		26/01/2022	
Comms	Colt (Catelecom)			01/02/2022	
Comms	Instalcom**			28/01/2022	
Comms	Interoute (Plancast)				01/04/2022
Comms	McNicholas (TATA)				01/04/2022
Comms	Mobile Broadband Network LTD			27/01/2022	
Comms	Sky UK LTD			28/01/2022	
Comms	SOTA			31/01/2022	
Comms	Spectrum Communications				01/04/2022
Comms	Telent	✓		26/01/2022	
Comms	Verizon			28/01/2022	
Comms	Vodafone			10/02/2022	
Transport	Network Rail			27/01/2022	
Transport	NTRS				01/04/2022
Transport	Traffic Master				01/04/2022
Other	Mastdata.com (Mobile Phone Masts)	✓		26/01/2022	

Table 10.2 – Plant Enquiry Responses

*Note GTC includes: GTC Pipelines Ltd, Independent Pipelines Ltd, Quadrant Pipelines Ltd, Electricity Network Company Ltd, Independent Power Networks Ltd, Independent Water Networks Ltd, Independent Fibre Networks Ltd, and Independent Community Heating Ltd.

** Instalcom includes: Lumen Technologies (formerly CenturyLink Communications UK Limited, Level 3, Global Crossing (UK) Ltd, Global Crossing PEC, Fibernet UK Ltd and Fibrespan Ltd.

Optional Searches

Some utility providers are rarely confirmed to be in the vicinity of infrastructure record searches and are therefore only included within the search upon request, as the charge per enquiry is disproportionate to the number of affected responses received. Please advise UCML if you would like to include these additional searches at an additional cost. These optional searches are as follows;

Optional Searches		
IDNO	Harlaxton	Approximate cost £35 (plus VAT)
IDNO	UK Power Distribution	Cost ranges from £9 - £95 (plus VAT) subject to site size
Comms	Vtesse	Approximate cost £55 (plus VAT)

Table 10.3 – Optional Searches

LinesearchbeforeUDig

A number of asset owners are registered with LinesearchbeforeUDig (LSBUD), an online service used to review the location of utility assets in relation to a development site location. UCML has undertaken an LSBUD search for this development site, and the response is shown in Figure 10.1 below.

LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.

List of affected LSBUD members			
Asset Owner	Phone/Email	Emergency Only	Status
Cadent Gas	0800688588	0800111999	Await response
Electricity North West Limited	08001954141	08001954141	Await response
ESP Utilities Group	01372227560	01372227560	Await response
National Grid Electricity Transmission	01926654844	0800404090	Await response

LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD Members make regular changes to their assets and this list may vary for new enquiries in the same area.

List of not affected LSBUD members		
AWE Pipeline	Balfour Beatty Investments Limited	BOC Limited (A Member of the Linde Group)
Box Broadband	BP Exploration Operating Company Limited	BPA
Carrington Gas Pipeline	CATS Pipeline c/o Wood Group PSN	Cemex
Centrica Storage Ltd	CNG Services Ltd	Concept Solutions People Ltd
ConocoPhillips (UK) Teesside Operator Ltd	D.S.Smith	Diamond Transmission Corporation
DIO (MOD Abandoned Pipelines)	DIO (MOD Live Pipelines)	E.ON UK CHP Limited
EirGrid	ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited
EP Langage Limited	ESSAR	Esso Petroleum Company Limited
euNetworks Fiber UK Ltd	EXA Infrastructure	Exolum Pipeline System
Fulcrum Pipelines Limited	Gamma	Gas Networks Ireland (UK)
Gateshead Energy Company	Gigaclear Ltd	Harbour Energy
Heathrow Airport LTD	Humbly Grove Energy	IGas Energy
INEOS FPS Pipelines	INEOS Manufacturing (Scotland and TSEP)	INOVYN ChlorVinyls Limited
INOVYN Enterprises Limited	Intergen (Coryton Energy or Spalding Energy)	Jurassic Fibre Ltd
Last Mile	Mainline Pipelines Limited	Manchester Jetline Limited
Manx Cable Company	Marchwood Power Ltd (Gas Pipeline)	Melbourn Solar Limited
Murphy Utility Assets	National Grid Gas Transmission	Neos Networks
Northumbrian Water Group	NPower CHP Pipelines	NTT Global Data Centers EMEA UK Ltd
NYnet Ltd	Oikos Storage Limited	Ørsted
Palm Paper Ltd	Perenco UK Limited (Purbeck Southampton Pipeline)	Petroineos
Phillips 66	Portsmouth Water	Premier Transmission Ltd (SNIP)
Redundant Pipelines - LPDA	RWE - Great Yarmouth Pipeline (Bacton to Great Yarmouth Power Station)	RWEnpower (Little Barford and South Haven)
SABIC UK Petrochemicals	SAS Utility Services Ltd	Scottish and Southern Electricity Networks
Scottish Power Generation	Seabank Power Ltd	SES Water
SGN	Shell	Shell NOP
SP Energy Networks	Squire Energy Networks	SSE Generation Ltd
SSE Transmission	SSE Utility Solutions Limited	Tata Communications (c/o JSM Construction Ltd)
Total Colnbrook Pipelines	Total Finaline Pipelines	Transmission Capital
UK Power Networks	Uniper UK Ltd	University of Cambridge Granta Backbone Network
Vattenfall	Veolia ES SELCHP Limited	Veolia ES Sheffield Ltd
VPI Power Limited	Wales and West Utilities	West of Duddon Sands Transmission Ltd
Western Power Distribution	Westminster City Council	Zayo Group UK Ltd c/o JSM Group Ltd

Figure 10.1 – LSBUD search result

10.1 ESP Utilities Group

ESP Utilities Group operate both as an Independent Distribution Network Operator (IDNO) and an Independent Gas Transporter (IGT) who own and operate inset independent electricity and gas networks nationally. ESP Utilities Group has advised that they own and operate a section of gas mains network in the vicinity of the development site, which is indicated as providing supply to the existing dwellings at nos. 131 – 149A Longley Lane. Given the location of the ESP gas main, it can be assumed that it will not be affected by the development proposals. Please see Figure 10.2 below for further detail on the location of ESP assets in the vicinity of the development site.



Figure 10.2 – Extract from ESP Utilities Group infrastructure record

	Existing LP mains or services operating up to 75 millibar gauge
	Existing MP mains or services operating between 75 millibar and 2 bar gauge
	Existing IP mains or services operating between 2 bar and 7 bar gauge

10.2 National Grid Transmission

As shown in Figure 10.1 overleaf, completion of a LinesearchbeforeUDig enquiry flagged National Grid Electricity Transmission as a LSBUD member with assets in the vicinity of the development site. Following the LSBUD enquiry, National Grid completed a further assessment of their asset records and subsequently confirmed that the development site is not located in an area that will be affected by National Grid Electricity Transmission assets. Please see Figure 10.3 below for further detail.

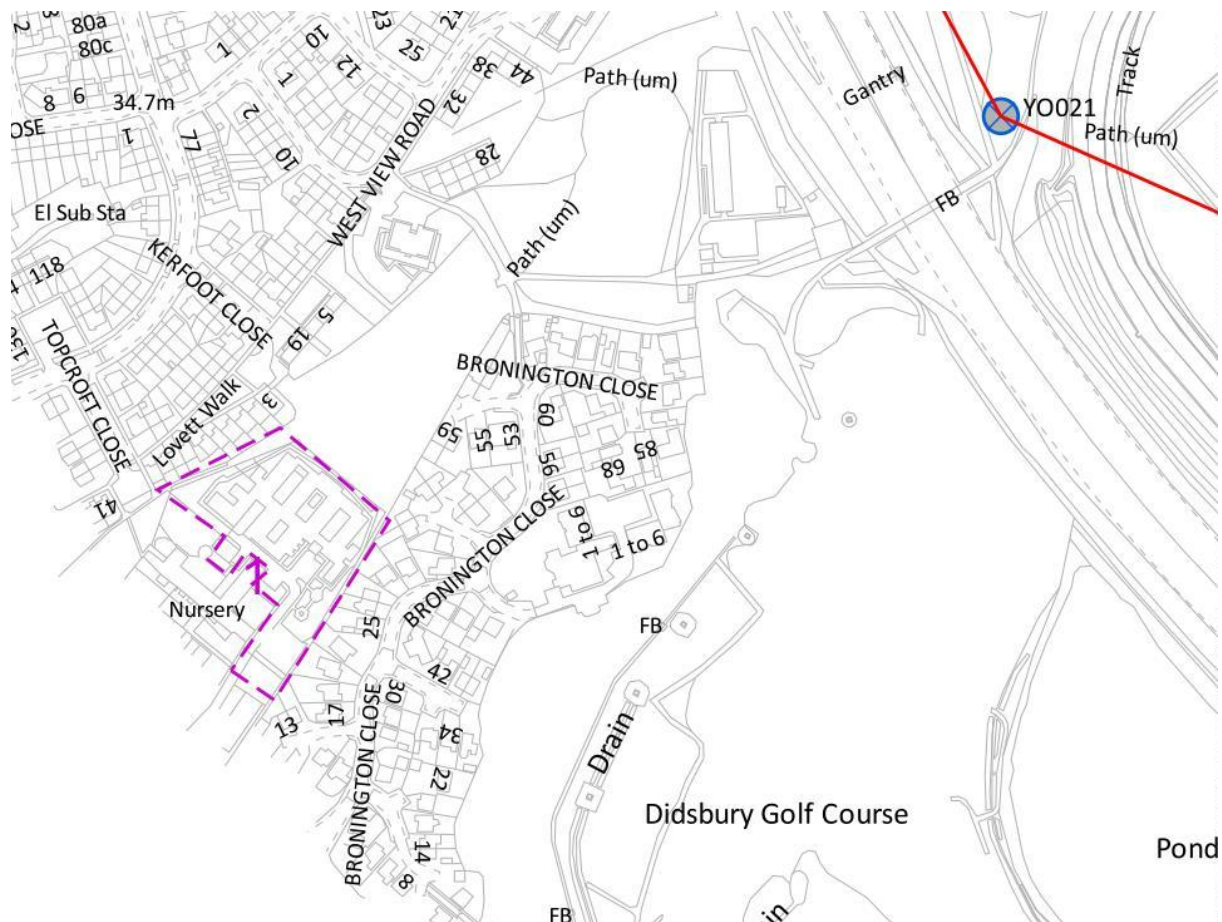
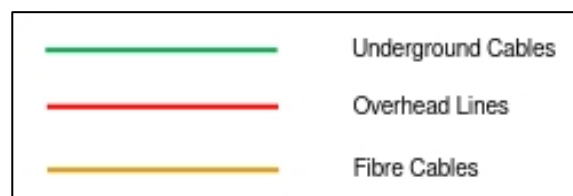


Figure 10.3 – Extract from National Grid Electricity Transmission infrastructure record



11.0 Conclusion

Based on the information currently available for review, the existing utility infrastructure within the vicinity of the development site appears to be capable of supporting the additional demand required to provide connections for the proposed development of 20 no. residential dwellings. As discussed within the study, UCML has undertaken capacity checks with the relevant statutory network operators who have provided confirmation that the existing electricity, clean water, and telecoms services in the immediate vicinity of the development site currently have sufficient capacity to serve the development.

Figure 11.1 below indicates the locations of the points of connection provided by the statutory utility operators in relation to this development.



Figure 11.1 – Location Plan indicating position of points of connection

The above figure includes indicative routes from the points of connection to the development site, which have been included for information and guidance only, and are subject to change. The final routes of utility apparatus to the development site will be provided by the relevant appointed utility provider and are subject to design approval from the adopting network owner, highway authority or landowner and the completion of relevant legal searches.

Based on the information provided by the relevant statutory network operators, no abnormal legal requirements are currently anticipated to utilise the proposed electricity or clean water connection points as they are located within publicly adopted land. Figure 11.2 below is an extract from the One Network adopted road mapping search service confirming the above.



Figure 11.2 – Adopted Road Enquiry

The connection costs provided in the main body of the report are based on individual utility connection proposals being accepted. It may be possible to undertake the connections works as part of a multi utility offering which can combine the installation of electricity, gas, water and telecoms under a single works contract. For some sites, the appointment of a multi utility provider may be more cost-effective option for the connections.

12.0 Risk Matrix

Based upon the anticipated utility works required for this development discussed within this study, UCML has drawn up an indicative risk matrix for the development. For the risk matrix, each item is allocated a 'traffic light' score based on the anticipated risk to the development and associated timescales based on the key shown below.

Matrix Key	
	Do not envisage any major issues.
	Could cause delay that can be measured in weeks, and can also be prevented.
	Could cause delay that can be measured in months, and may be prevented.
	Could cause major delay, that may not be mitigated.
Utility	Risk
Electricity	
Non-Contestable Works – LV POC.	
Contestable Works – Off-site LV mains lay, on-site LV mains lay, and LV service connections to each dwelling.	
Diversiory Works – None currently anticipated.	
Disconnection Works – LV service disconnection.	
Gas	
Connection Works – None required based on use of electrical heating.	
Diversiory Works – None currently anticipated.	
Disconnection Works – LP service disconnection.	
Water	
Connection Works – Off-site mains lay, on-site mains lay, and service connections to each dwelling.	
Diversiory Works – None currently anticipated.	
Disconnection Works – Service disconnection.	
Telecoms – Openreach	
Connection Works – FTTP network installation and connections to each dwelling.	
Diversiory Works – None currently anticipated.	
Disconnection Works – Service disconnection.	
Telecoms – Virgin Media	
Connection Works – Network installation and connections to each dwelling.	
Diversiory Works – None currently anticipated.	
Disconnection Works – Service disconnection, if required.	

Table 12.1 – UCML Risk Matrix

13.0 Street Works UK

Existing and new utilities are assumed to be located in accordance with the Street Works UK (formerly the National Joint Utility Group) guidelines. However, in reality existing utilities are often not laid to these guidelines. Where new road entrances are being formed it is recommended that trial hole investigations are carried out to verify the precise position and depth of infrastructure. In some cases, if the utility infrastructures are sufficiently deep, this may enable the extent and cost of diversions to be reduced.

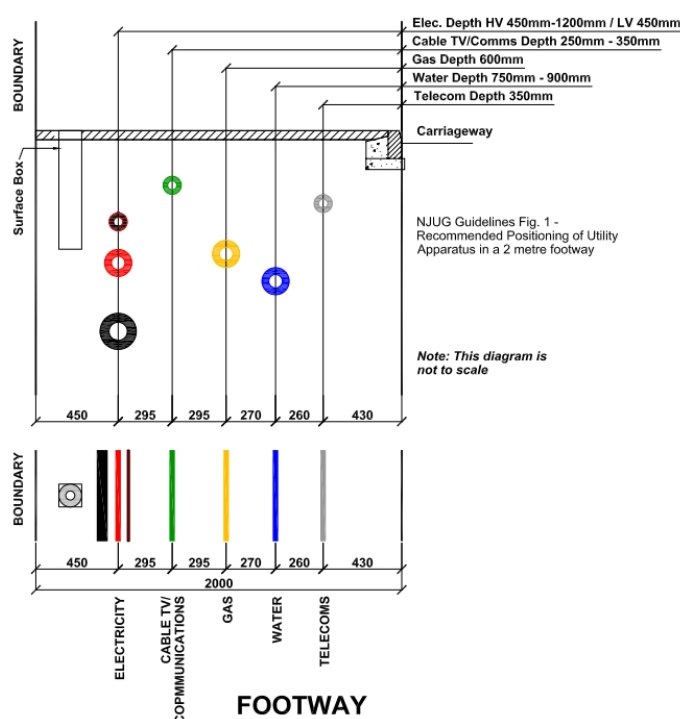
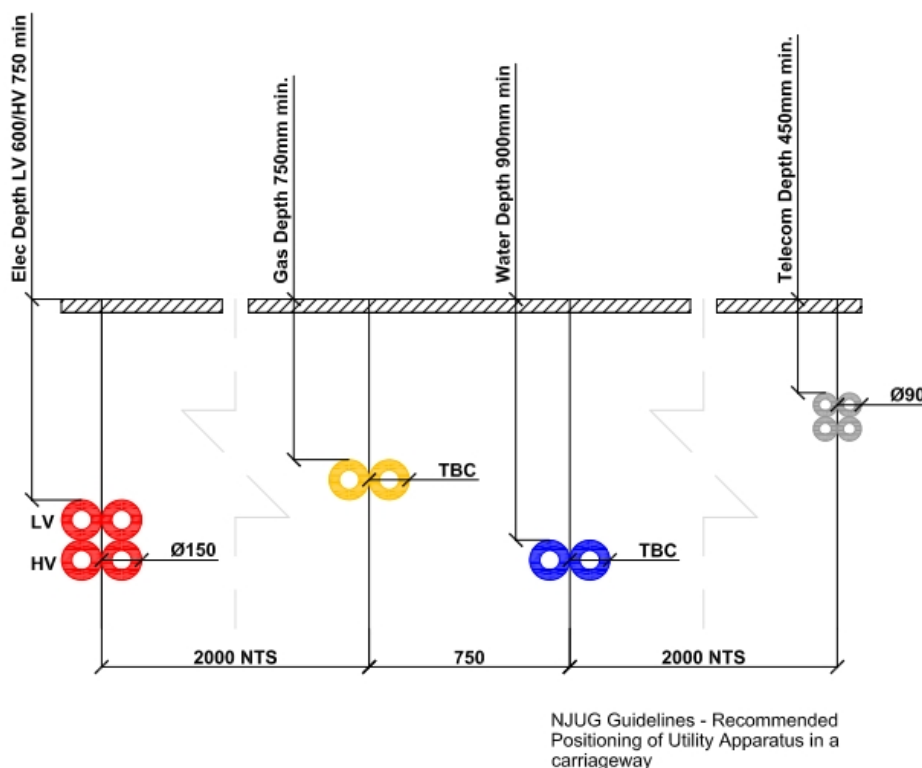


Figure 13.1 – Recommended positioning of utility apparatus in a footpath

The position and depths of underground and overhead apparatus as indicated on infrastructure records included within the utility study are approximate and may deviate from the marked route. The plan information shown is given without warranty and is derived from statutory network information provided by others. The accuracy thereof must not be relied upon in the event of any development or works without further below ground investigations taking place.



CARRIAGEWAY

Figure 13.2 – Recommended positioning of utility apparatus in carriageway

When on-site, the contractor must use safe digging practices, in accordance with HSG 47, to verify and establish the actual position of mains, pipes, services, and any other apparatus on-site before any mechanical plant is used. The responsibility for locating the apparatus precisely before commencing any works rests entirely upon the person undertaking or directly responsible for those works.

The Contractor is to refer to the following documents before works commence within the vicinity of existing services;

- Health and Safety Guidance HSG 47 Avoiding Dangers from Underground Services.
- Health and Safety Guidance GS6 Avoiding Danger from Overhead Electric Lines.
- Street Works UK (formerly NJUG) Guidelines.
- General Safety Measures to Avoid Injury and Damage to Gas Apparatus.
- CDM Regulations 2015 (Regulation 25 – Energy Distribution Installations).

This desktop utility study covers statutory infrastructures surrounding the site. All information has been taken from the records of the statutory authorities and although this information is the most accurate available it may be prudent to undertake trial excavations in strategic locations to definitively determine the depth and location of infrastructure. Utility Providers Networks are constantly under review and subject to applications from other parties and the capacities and loads currently available may be subject to change.

The costs provided are advised as a predicted worst-case scenario of the foreseeable works. However, as these are only budget figures the actual costs entailed will not be determined until detailed proposals are received from the owners of the infrastructure.

Produced;

Joanne Blackburn BA (Hons) – Technical Manager
Utilities Connections Management Ltd.

Checked by;

Casey Watmore – Technical Coordinator
Utilities Connections Management Ltd.

This document has been prepared solely as a Desktop Utility Study for Wythenshawe Community Housing Group. Utilities Connections Management Ltd accepts no responsibility or liability for any use that is made of this document other than by Wythenshawe Community Housing Group for the purposes for which it was originally commissioned and prepared.

No individual is personally liable in connection with the preparation of this Desktop Utility Study. By receiving this study and acting on it, the client or any other person accepts that no individual is personally liable whether in contract, tort, for breach of statutory duty or otherwise.

Completeness – Due care and effort is made to locate all Utility companies in a search area, however, due to the existence of redundant utilities, emergence of new companies and the combining of, takeover or sale of existing companies, UCML cannot guarantee to provide details on all utilities in a given area.

There may be a time delay between the physical installation, repair or upgrading of utilities networks and the subsequent recording of the works on utility infrastructure records. Therefore, it should be noted there may be utilities present that are not shown on the records.

14.0 Further UCML Services

Technical Procurement

UCML's technical procurement service deals with the obtaining of capacity checks as well as disconnection, diversion, connection, service alteration and temporary supply quotations. These include electricity, gas, clean water and telecom supplies for all forms of residential, commercial and industrial developments. Use of our technical procurement services can result in;

- Considerable cost savings.
- Reduced overheads.
- Reduced timescales.
- Reduced delays.
- Reduced time expenditure.
- Removal of provisional sums from tender submissions.

The services provided by UCML's Technical Procurement service includes;

- Review of proposed meter positions to ensure technical and regulatory viability.
- Application for:
 - Existing statutory infrastructure records.
 - Disconnection quotations including meter removals where required.
 - Statutory infrastructure diversion quotations.
 - Temporary building supplies.
 - New connections quotations.
 - Legal searches including easement, wayleaves and Land Registry title searches.
- Technical review of all quotations received including technical and commercial comparison across all competing quotes.
- Submission of successful quotations for acceptance.
- Single point of contact for project administration, and an assigned Technical Engineer to each scheme.

Project Management

UCML's Project Management service deals with the project management of disconnections, diversions, connections, service alterations, capacity checks and temporary supply installations for all forms of residential, commercial and industrial developments. Our Project Management team can work in conjunction with our Technical Procurement service or as a stand-alone offering to manage the delivery of all electricity, gas, clean water and telecom works. Use of our Project Management service can result in:

- Improved program planning accuracy.
- Reduced time expenditure.
- Reduced abortive visit charges.
- Reduced delivery timescales and as a result less delays.

The services provided by UCML's Project Management service includes;

- Management of statutory connections from quotation acceptance to completion.
- Assigned Project Manager to the scheme to provide a single point of contact for site staff, and attend site meetings and design team meetings as required.
- Provision of a site pack including existing and proposed drawings and relevant technical information relating to dimensions and layout of metering enclosures.
- Management of legal agreements required including wayleaves, easements and adoption agreements.
- Programming of all mains, connections and metering works through proactive communication with site staff.

Appendices

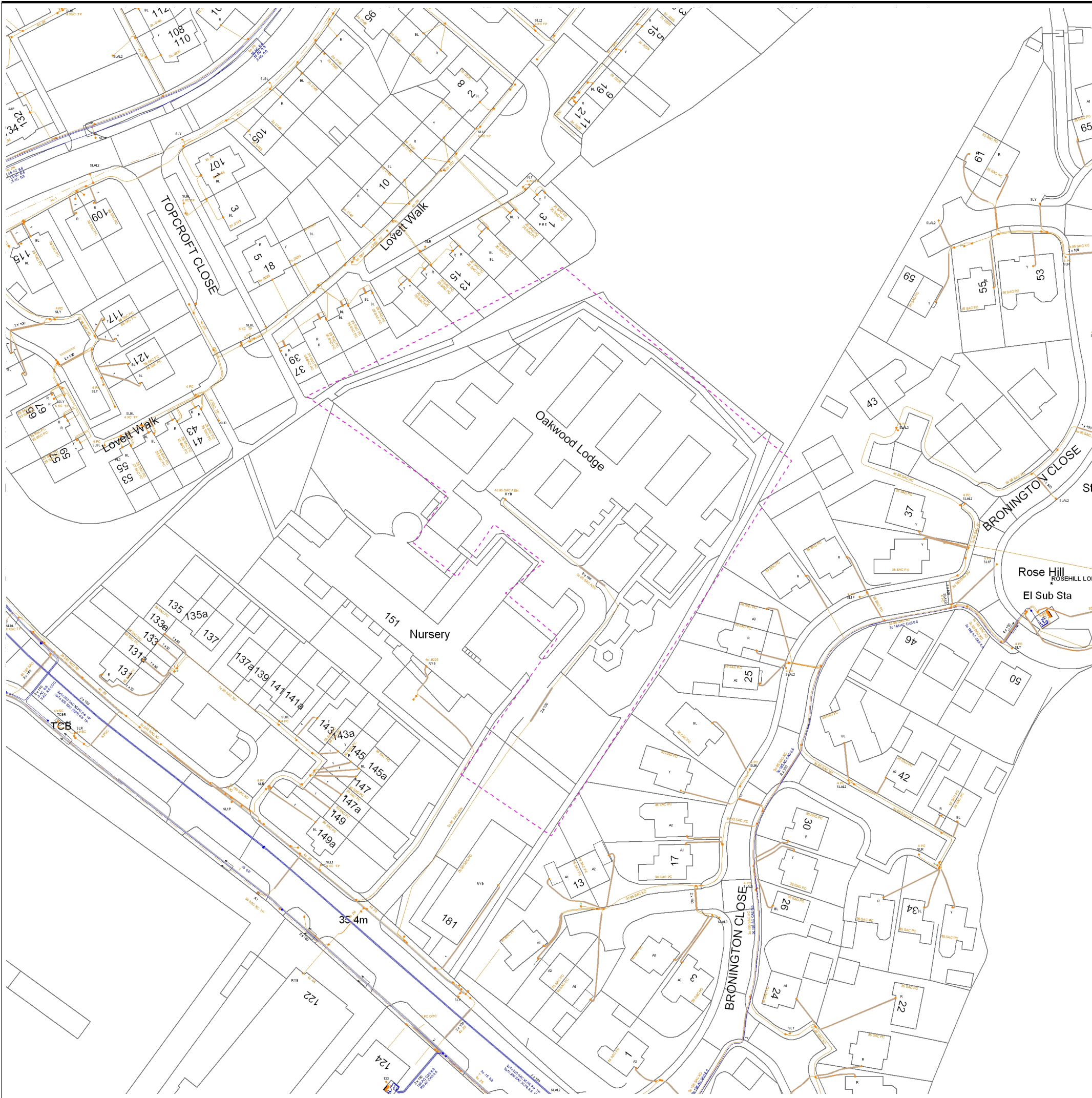
Appendix 1 – ENWL Infrastructure Plan

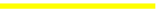
Appendix 2 – Cadent Gas Infrastructure Plan

Appendix 3 – United Utilities Infrastructure Plan

Appendix 4 – Openreach Infrastructure Plan

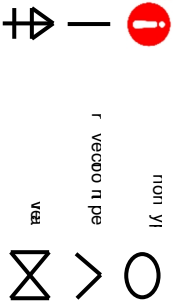
Appendix 5 – Virgin Media Infrastructure Plan



Requested by: Joanne Blackburn Company: UCML Date Requested: 26/01/2022 Job Reference: 24525235 Your Scheme/Reference: PR7101	Operating Voltage Colour Code Line Colour	
	132kV Black  33kV Green  22kV-25kV Yellow  11kV Red  6kV-6.6kV Blue  1kV-6kV Violet  LV Orange  Unknown Voltage Brown 	
Dig Sites: Area  Line 	Unless otherwise indicated the depth of Electricity North West Limited cables are in accordance with NJUG (450mm for Low Voltage & 600mm for 11kV cables) 33kV and 132kV cables are laid at depths as marked. The depth and positions of Electricity North West Limited equipment was accurate as shown when the equipment was installed. However third parties may have altered the level & other reference data. Therefore Electricity North West Limited accept no responsibility for the position of Electricity North West Limited equipment being different from shown. No person, body or company, shall be relieved from liability for damage caused to Electricity North West Limited equipment by reason of being located differently to the indications on this drawing or from any regulatory loss of income or incentive, or expense, which may be suffered by Electricity North West Limited and which is caused or contributed to by any loss of supply as a result of any damage caused to Electricity North West Limited's equipment. Service cables are not necessarily shown but must be assumed to exist to all premises, streetlights and signs. There may be other Electricity North West Limited apparatus in the vicinity which is not indicated on the cable records. Other apparatus may also be present which is owned by a third party other than Electricity North West Limited. Reproduced from or based upon Ordnance Survey's map with the permission of Her Majesty's Stationary Office. Crown Copyright Reserved. LICENCE No. 100017892. Unauthorised reproduction may lead to Prosecution or Civil Proceedings. Reference should be made to HSE Guidance, HS(G)47 "Avoiding Danger from Underground Services" and GS6 "Avoidance of Danger from Overhead Power Lines". Electricity North West Limited 304 Bridgewater Place, Birchwood Park, Warrington WA3 6GX. Registered in England and Wales. Registered No 02366949	



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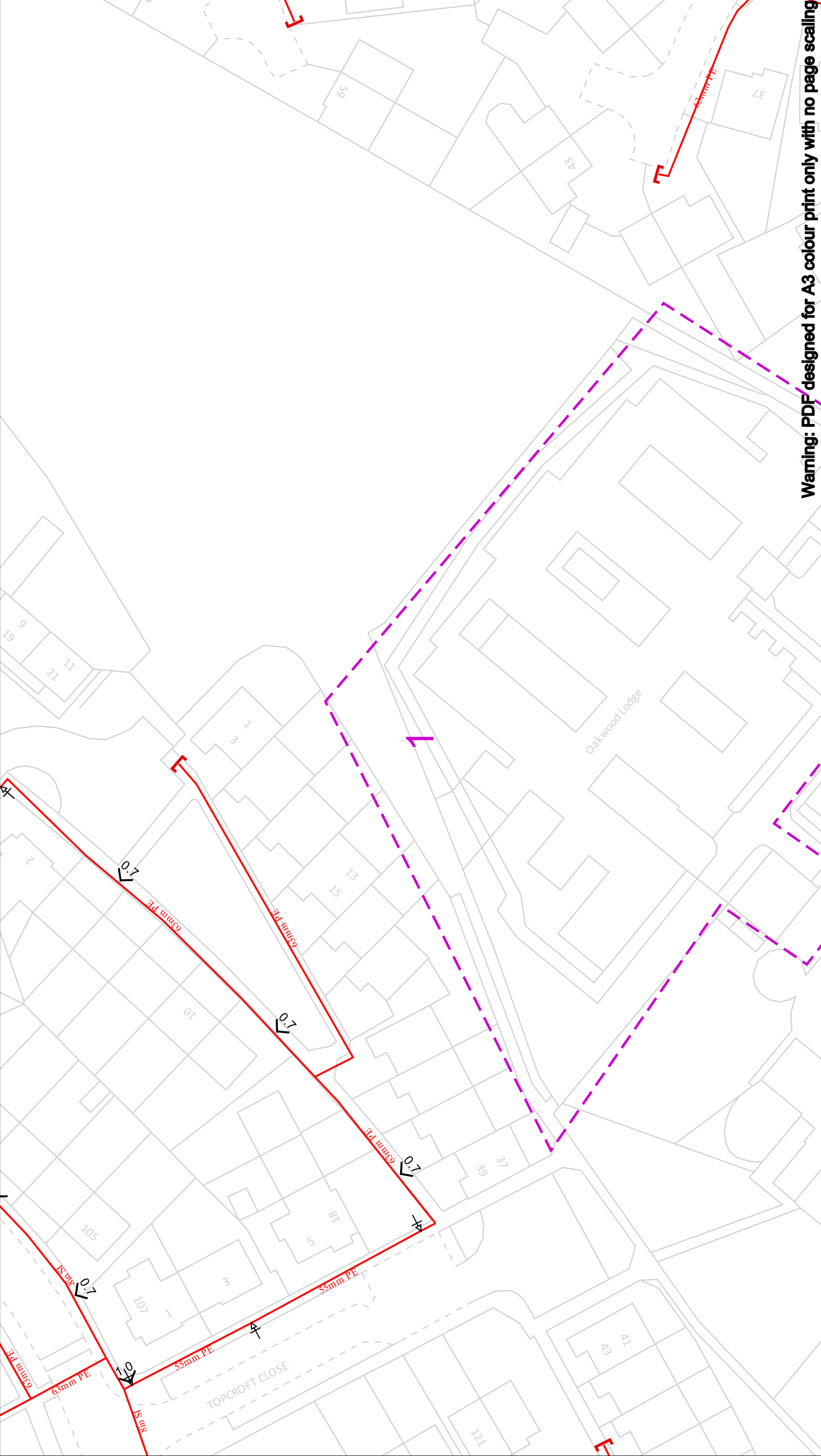
derre ebt on d uote nâ p s ît no dedlîch nôta m d n eîf . s t e r a p p a s a g r a e n t o n o u o y r d g î h r o w s r d c a t n o c
r o r u o b â t c r e i d r e îf d s n o r e p l a d d e d v o r p s n â t a m d n s ît ît t a ît e r u n e d t y l l b s n o s e r r u o y s ît . d e s u s t r i n d p
l â d m a îc e m y n a e d e b d â s n o s t a r a p p a r e ît o d n a s e d v e s , s e p p s ît a m f o n ôi s o p l a u c a e ît î b l î b â t s e d n a y l r e v d
d e u e d i s u m y d q S H îf w e c n â d o c c a n , s e d t c e r p g î b g d e f s . n ô s s m o r o s t a r e y n a r d s r d c a t n o c r o s t n a v e s
, s t n e g a n e ît r o d e î ð l s a G n e d a C y b d e t p e c c a s r e v e e a t a h w d k y n a f o y l l i b â l o N , d e a p d t n a e l d u o ît e c n e s e r p
n e ît t u b n w o ît r o n e r a , d e s n d t e r n o c b u s , s n o h p p s , s e l a v , s e p p o e l v e s , d e t n a u g e b t o m n a e f o e r e ît y c a r c c a
e ît , y n a r r a w t u o ît w n e l g s î n â p s ît n o n w o ît n ô t a m d n e îf . s r e n w o t n a v d e r e ît m o f d e n â t h o e d d u o ît
s e p p h e u s d s d a g e r ði w n ô t a m d n . a e a s ît n î l n e s e r p e d y a m d e n w o y d e a r p e s w e ît o r o s T G r e îf o y b d e n w o
s e p p a s a G) T d r e t o p s n e T s a G d e n e l l a s a d o r s i n d d l ð l s a G n e d a C y b d e n w o s e p p e s e ît s w o ît n â p s ît hT

SECT ONT NATR CP M

m511, m002: t n e x e w e V

Date Requested: 26/01/2022
Job Reference: 24525235
Site Location: 383424 389458
Requested by:
Mrs Joanne Blackburn
Your Scheme/Reference: PR7101

Scale: 1:500 (When plotted at A3)





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egrian u ar e a
egrian U t e r iia

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sh a MP
sh a MP
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688420001 r eb mun seced L yew uS ecedand Q dcev ese Ft hgyrpo C nwr C edif Oyr anoi d S MfH or dñ ot noc eht f o nót cnas eht ñi w, dñi ñil sa G nedacyb pa m SOeht no desabr o mof decudor pñ s ña p s hT - Q hgyrpo C nwr C

Warning: PDF designed for A3 colour print only with no page scaling

derre ebt on d uote ña p s hT no deduch neta mñ n eht . s t e r a p a s a g r a e n t o no uoy r d gñ r e o w s r d c a t n o c
r o r u o b d t c e a i d r e h t d s n o r e p l a e d d e d v o r p s n e t a m d n s i t t a i t e r u n e d t y l l b n o s e r r u o y s i t . d e s u s t n d p
l a d m a l e e m y n a e d e b d s n o s t a r a p p a r e i t o d n a s e d v e s , s e p p s h a n f o n o t s o p l a u c a e i t h i l b a t e d n a gñ r e d
d e u e d i s u m n 7 q d S H ñi w e c n a d o c c a n , s e d t c e p gñ b g d e s . n o s s m o r o s r e y n a r d s r d c a t n o c r o s t n a v e s
, s t n e g a n e i t r o d e i ñ l s a G n e d a c y b d e p e c c a s r e v e a t a h w a k y n a f o y l l i b a l o N d e a p d t n a e i d u o t e c n e s e r p
ñ e i t t u b n w o r s t o n e r a , d e s n o t e n n o c b t s , s n o i p p s , s e l a v , s e p p e d v e s , d e t n a u g e b t o m n a e f o e r e h t y c r e c a
e l t , y n a r r a w t u o h t w n e y g s ña p s hT no n w o t s n e t a m d n e h t . s r e n w o t n a v e r e h t m o f d e n d h o e d d u o t s
s e p p h e u d s d e g e r ñi w n e t a m d n . a e a s i t ñ l n e s e r p e d y a m d e n w o y d e a r p e t w e i t o r o s T G r e h t o y b d e n w o
s e p p s a a G) T q r e t r o p s n e t s a G d e s n e l l a s a d e r s i ñ d d i ñ l s a G n e d a c y b d e n w o s e p p e s e h t s w o t s ña p s hT

SEGT ONT NATR CP M

ñ511, m002: tñe x e w e V

Scale: 1:500 (When plotted at A3)

Date Requested: 26/01/2022
Job Reference: 24525235
Site Location: 383424 389458
Requested by:
Mrs Joanne Blackburn
Your Scheme/Reference: PR7101

Water for the North West

WATER MAIN RECORDS

Address or Site Reference

MANCHESTER SOCIAL
SERVICES 151 LONGLEY LANE,
MANCHESTER,
M22 4HY

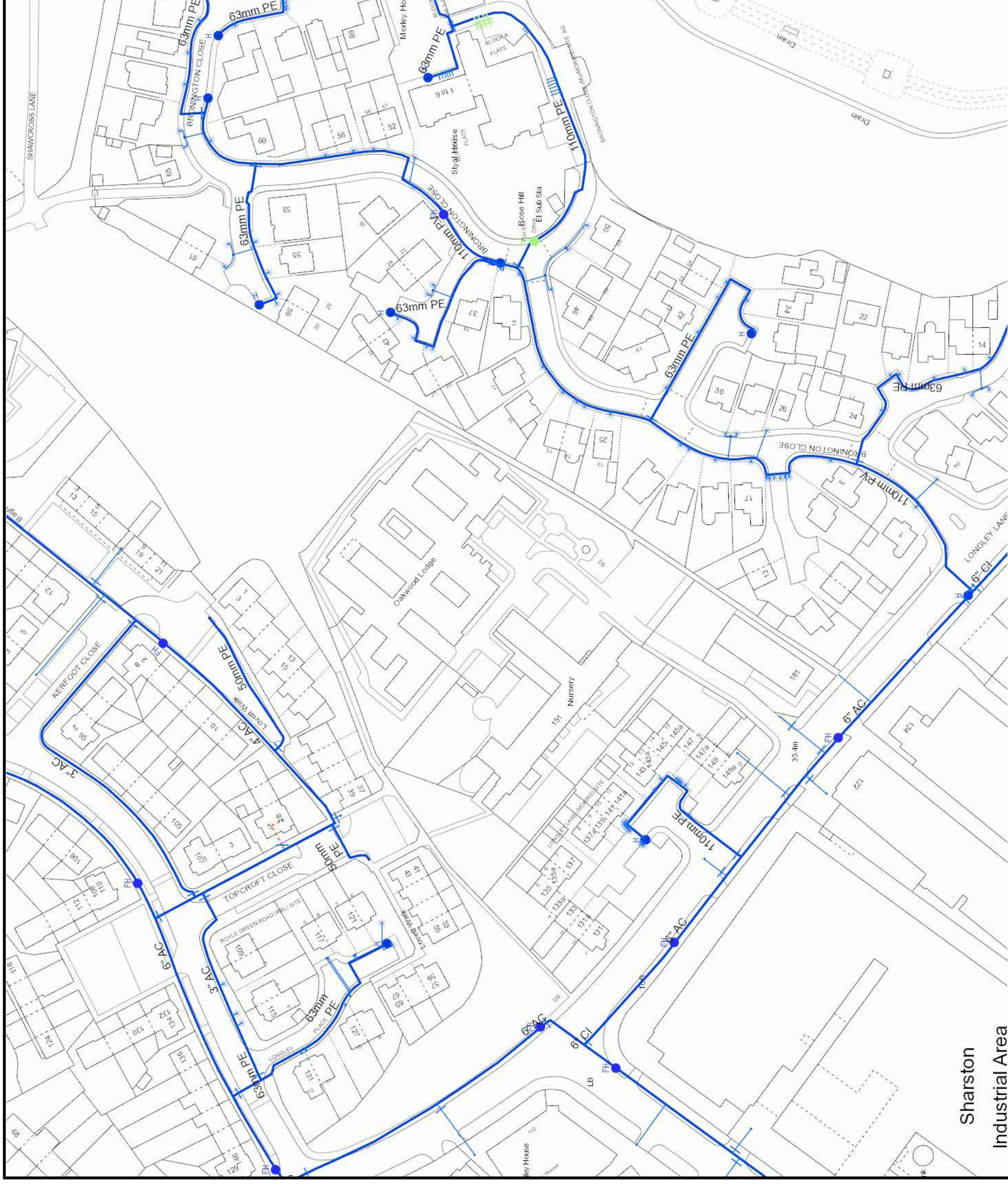
Scale: 1:1250

Date: 09/02/2022

Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Maps by email Plant Information Reply



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email cbyd@openreach.co.uk

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(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling	X	Built	
Pole			Duct Tee	▲	Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable						
Power Duct				N/A		

BT Ref : BCF04276T

Map Reference : (centre) SJ8342489478

Easting/Northing : (centre) 383424,389478

Issued : 26/01/2022 16:27:17

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Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the "Affected Postcodes.pdf", which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2022 Ordnance Survey 100019209.

megan.wright@ucml.co.uk

Oakwood Lodge

Duct, Trench

Chamber / Pole

Cabinet