making the right connections

Ysguborwen Road

Utility Study

Level 2

Document Status				
Issue/Revision	Comments	Date	Prepared By	Checked By
1	First Issue	24/01/2024	Joanne Blackburn	-
2				
3				

UCML Utility Study – Level 2

Ysguborwen Road,

Dwygyfylchi,

Conwy

Produced for: Caulmert

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1.0 Introduction

UCML has been instructed by Caulmert (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 13 no. dwellings. The site is located off Ysguborwen Road, Dwygyfylchi. This study includes the land within the red line boundary as indicated within Figure 1.1 below.

Figure 1.1 – Site Boundary 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 site layout plan (drawing no. C992.SK09 rev. A) 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 13 no. residential dwellings. All utility load requirements have been estimated by UCML based on all dwellings being electrically heated. 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. Please note, these estimated loads are intended for use as a guide only to produce 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. Please note, the load estimations for the residential development does not include a figure for individual clean water load requirements as residential clean water connections are standardised; therefore, no individual load assessment is required.

Utility	Total load
Electricity	83.2 kVA

Table 1.1 – Load summary

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	SP Energy Networks
Gas	Wales & West Utilities
Water	Dŵr Cymru Welsh Water
Telecoms	Openreach

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 statutory utility infrastructure legal requirements into account.
- 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 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 considering diversity of usage.
ASHP	Air Source Heat Pump.
CHP	Combined Heat and Power generator.
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.
GSHP	Ground Source Heat Pump.
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.
NAV	New Appointment and Variation. Agreements signed by independent water network operators, not governed by geographical area, with Ofwat to adopt water infrastructure within a given boundary.
POC	Point of Connection. This is a formal document submitted by the DNO identifying the location for a new electrical connection.
PV	Photovoltaic generation.

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;

- SPEN has provided confirmation that the LV distribution network currently has sufficient capacity to support the development.

- Dŵr Cymru Welsh Water has provided confirmation that the distribution network currently has sufficient capacity to support the development.

- An existing SPEN secondary substation is located within the development site boundary. The current site plan allows for retention of the substation in its current location. Diversionary works might be required to reconfigure the onsite HV and LV cables routed to and from the substation if their current route cannot be retained.

- Diversionary works may be required on the electricity, gas, and Openreach networks to accommodate the construction of the proposed site entrance. It may be prudent to undertake trial excavations to confirm the extent of diversionary works required.

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	£2,050.51	
Contestable Connection Works	£22,000.00	
Diversionary Works	£30,000.00 (on-site diversion)	£35,000.00 (site entrance diversion)
Disconnection Works	N/A	
Total Electricity Costs	£54,050.51 (on-site diversion)	£59,050.51 (site entrance diversion)
Gas	**Budget Cost**	
Connection Works	N/A	
Diversionary Works	£27,000.00	
Disconnection Works	N/A	
Total Gas Costs	£27,000.00	
Water	**Budget Cost**	
Connection Works	£52,000.00	
Diversionary Works	N/A	
Disconnection Works	N/A	
Total Water Costs	£52,000.00	
Openreach	**Budget Cost**	
Connection Works	£6,812.00	
Diversionary Works	£37,000.00	
Disconnection Works	N/A	
Survey Fees	£3,000.00	
Total Openreach Costs	£46,812.00	
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 SP Energy Networks (SPEN) 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 below illustrates the location of existing SPEN infrastructure which has been extracted from its network records. The cables shown in red are operated at 11,000 Volts (HV), and those shown in brown are operated at 415 Volts (LV). Please refer to the infrastructure record appended to this study for further detail.

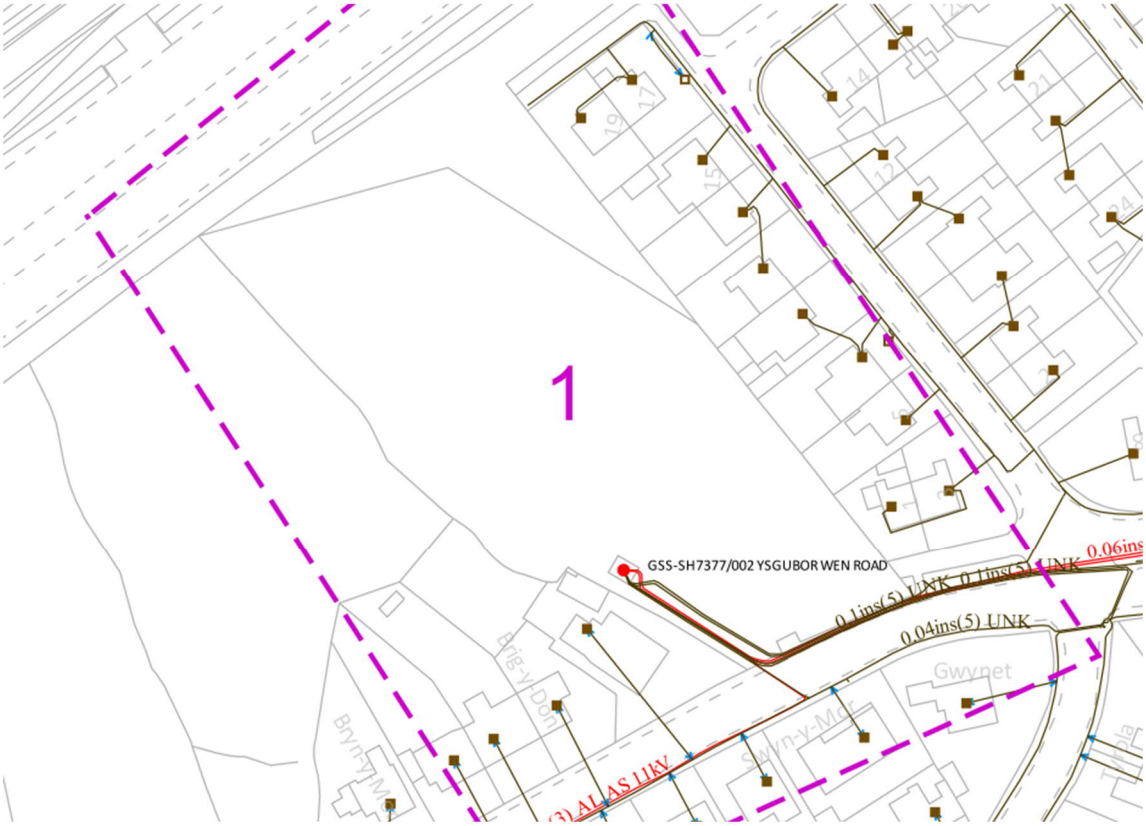
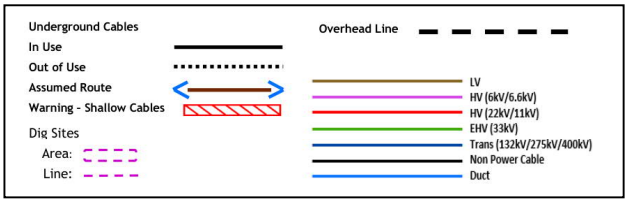


Figure 6.1 – Existing Electricity Infrastructure Plan



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 13 no. dwellings to be 83.2 kVA, based on the use of electric heating and an allowance of 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 SPEN. SPEN has provided a POC quotation for a load of up to 83.4 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 development site boundary, as indicated in Figure 6.2 below.

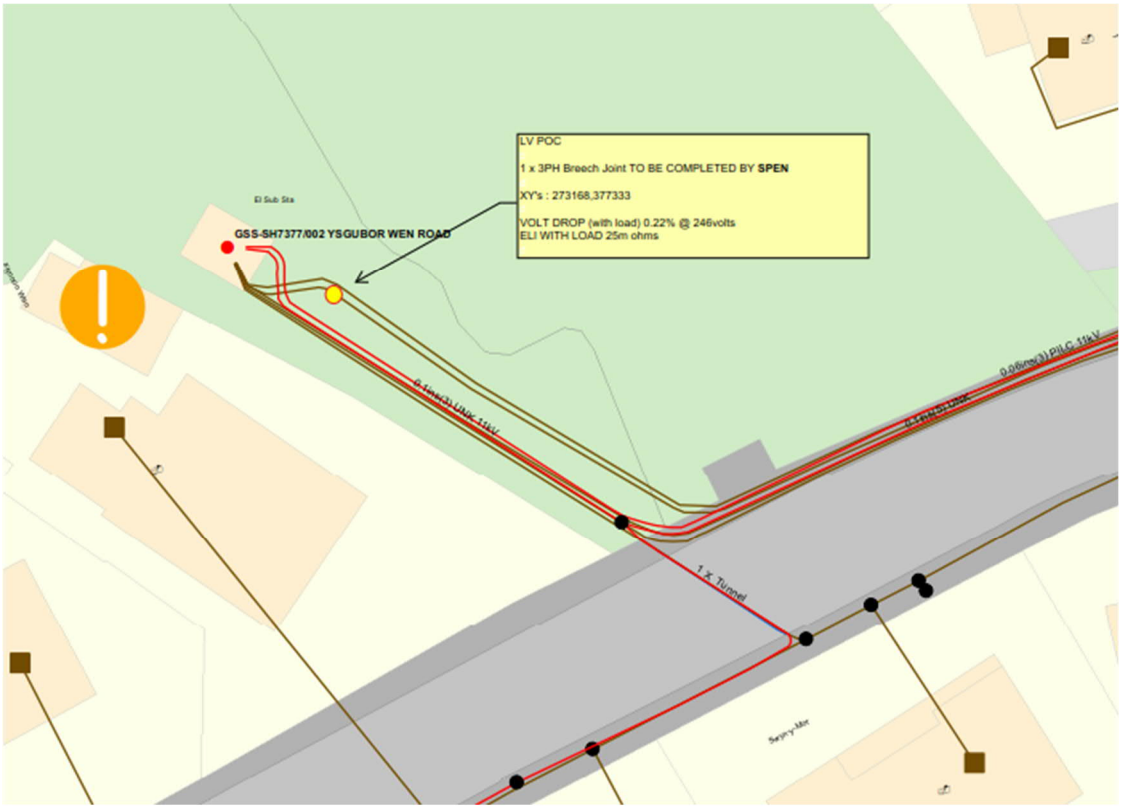


Figure 6.2 – Plan showing electricity LV Point of Connection

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

As part of the non-contestable works SPEN will undertake ICP design approval and inspections. Cable jointing works for the POC will typically be undertaken by a SPEN 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 SPEN non-contestable POC is detailed below;

Description	Cost
Assessment Charges	£250.00
Design Charges	£600.00
Operational Work	£800.51
Inspection Charges	£400.00
Total Non-Contestable Charges	£2,050.51

Table 6.1 – Point of Connection cost breakdown

6.2.2 Contestable Works

The contestable element of the connection works are works required to construct the proposed new network for the development, which can be undertaken by the relevant DNO. Alternatively, an Independent Connection Provider (ICP) can be appointed to complete the works.

Based on the confirmed non-contestable POC provided by SPEN, 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 £22,000.00 for the contestable connection works, based on the confirmed Point of Connection being within the site boundary.

It should be noted that the use of an ICP to undertake the contestable connection works discussed in this section 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 Diversionary Works

SPEN infrastructure record indicates a secondary substation (SPEN ref. GSS-SH7377/001 Ysguborwen Road) located within the development site boundary, along with associated 11 kV HV and LV cables routed to and from the substation. Review of the current site layout plan indicates the substation location has been considered as part of the site layout design and therefore can be retained in situ.

The cables routed to and from the substation appear to cross the proposed amenity space, and it is assumed that these cables could be retained in situ, with suitable legal agreements, to negate the requirement for diversionary works provided they are retained at sufficient depth below the proposed finished ground level in the area. It should be noted that the cables will be subject to an easement to allow SPEN to access the cables for maintenance and repair. The easement strip is anticipated to be a minimum of 1 metre, centred on each cable. There will be planting restrictions within the easement strip with only certain shallow rooted trees and shrubs being permissible within the vicinity of the cables, with SPEN's consent. If the Clients preference is for the cables are to be retained, it may be prudent to undertake below ground survey works to confirm the location and depth of the cables to confirm they can be retained in their current position.

To divert the cables outside of the amenity area, if this is the Client's preference, assuming the cables can be routed within the footpath of the proposed on-site road layout, a budget cost of £30,000.00 is recommended for the works. This is based on a diversion length of 50 metres, and assumes all on-site trenching works associated with the diversion can be completed by the appointed site contractor.

The 11 kV HV and LV cables are indicated as being routed off-site into the site side footpath of Ysguborwen Road, and in their current position they will be affected by the construction of the proposed site entrance. If the cables are diverted on-site to follow the route of the proposed footpath, it can be assumed that the diversion route could include the eastern side footpath which would negate the clash of the cables with the proposed site entrance and ultimately negate the requirement for a separate site entrance diversion.

If the on-site route of the cables is retained, then lowering works may be required to lower the cables across the site entrance position. In this case, it is recommended that trial excavations are undertaken within the footpath to determine the depth and location of the cables. Should it be determined that the 11 kV HV cables are located at a depth of 750mm and the LV cables located at a depth of 600mm or more from the proposed finished ground cover level, the associated diversionary works may be negated dependent upon confirmation from SPEN. If the cables are shallow, a budget cost of £35,000.00 is recommended for the option for the site entrance diversionary works.

6.4 Disconnection Works

SPEN infrastructure record does not indicate any service cables located within the development site boundary and, as desktop review indicates the development site is greenfield, it can be assumed none are present. No disconnection works are currently anticipated.

6.5 Conclusion – Cost & Risk Analysis

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

Detail	Cost	
Non-Contestable Works	£2,020.51	
Contestable Connection Works	£22,000.00	
Diversionary Works	£30,000.00 (on-site diversion)	£35,000.00 (site entrance diversion)
Disconnection Works	None currently anticipated	
Total	£54,050.51 (on-site diversion)	£59,050.51 (site entrance diversion)

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 SPEN.

- The Point of Connection is valid for only 3 months 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.

- Diversionary works where required are not regulated by Ofgem, it is therefore advised that a work commencement date is identified as early as possible as this may have a significant impact on any construction programme.

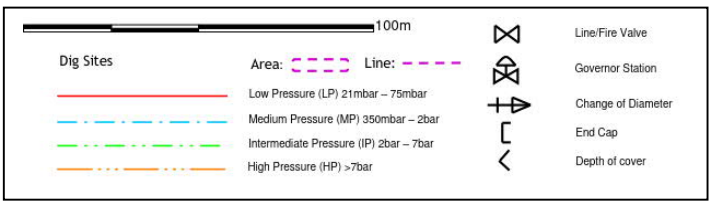
7.0 Gas

7.1 Existing Gas Network

The local Gas Distribution Network in the vicinity of the development site is owned and operated by Wales & West Utilities 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 below is an extract from Wales & West Utilities 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 Connection Works

As outlined within the introduction, it is currently anticipated that the development will utilise an electrical heating strategy. Therefore, there is no current requirement for mains gas connections.

7.3 Diversionary Works

Wales & West Utilities infrastructure records indicate a 6" cast iron LP main routed within the site side footpath of Ysguborwen Road. This main will be affected by the proposed construction of the site entrance and lowering works may be required to lower the main across the site entrance position. It is recommended that trial excavations are undertaken within the footpath to determine the depth and location of the main. Should it be determined that the main is located at a depth of 750mm or more from the proposed finished ground cover level, the associated diversionary works may be negated dependent upon confirmation from Wales & West Utilities. If the main is shallow, a budget cost of £27,000.00 is recommended for diversionary works.

7.4 Disconnection Works

Wales & West Utilities do not typically indicate individual service pipes and associated apparatus on their infrastructure records; however, their presence should be anticipated until proven otherwise. in this instance, as desktop review indicates the site is greenfield, it can be assumed none are present. No disconnection works are currently anticipated.

7.5 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing Wales & West Utilities network are identified in the following table;

Detail	Cost
Connection Works	N/A
Diversionary Works	£27,000.00
Disconnection Works	None currently anticipated
Total	£27,000.00

Table 7.1 – Gas costs

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

- If the development reverts to requiring mains gas connections, consultation will be required with Wales & West Utilities to confirm the availability of capacity within the local network and confirm a connection point for the development.

- Diversionary works are not regulated by Ofgem and it is therefore advisable to programme the works at the earliest opportunity.

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 Dŵr Cymru Welsh Water 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 overleaf is an extract from Dŵr Cymru Welsh Water 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.

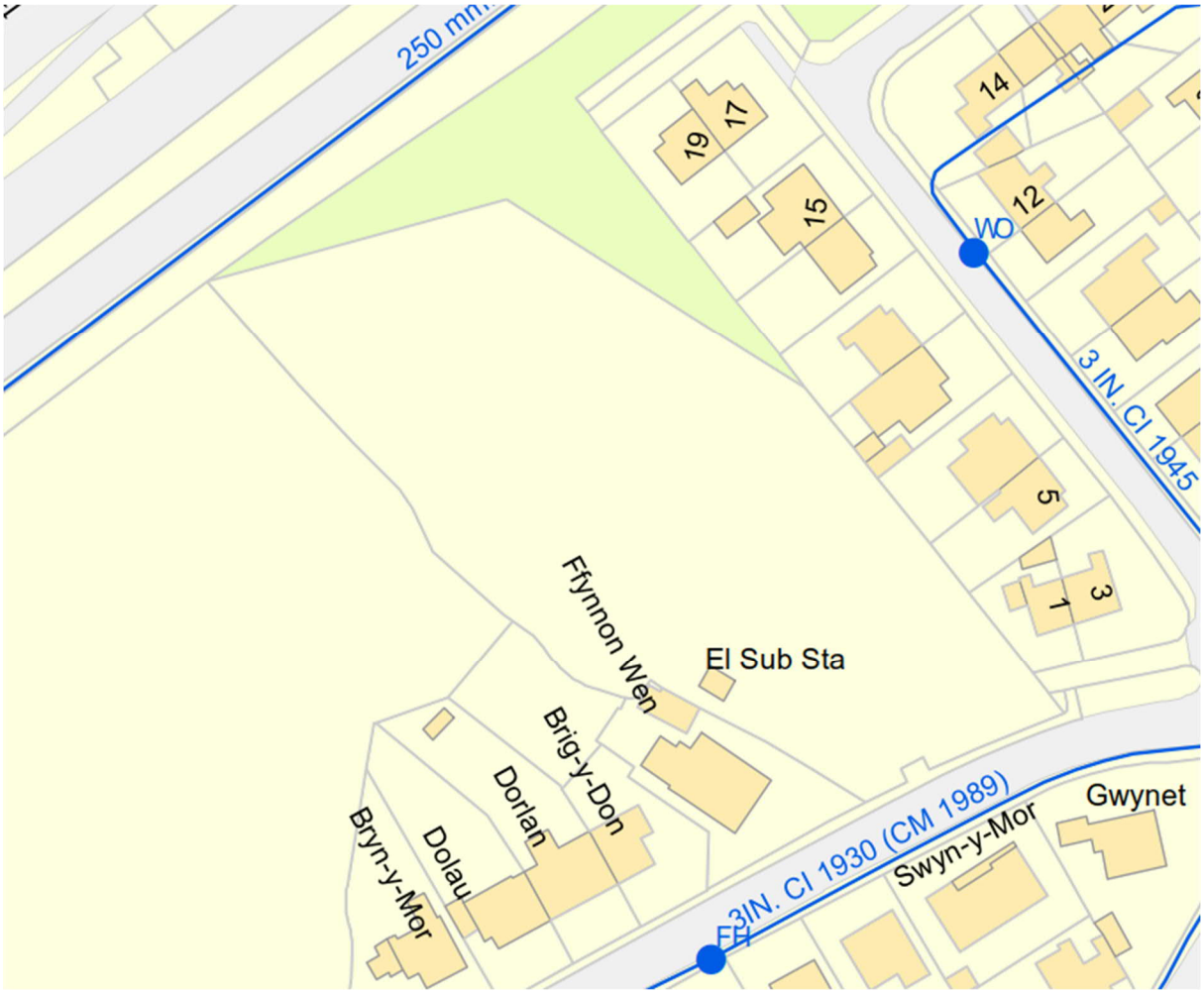
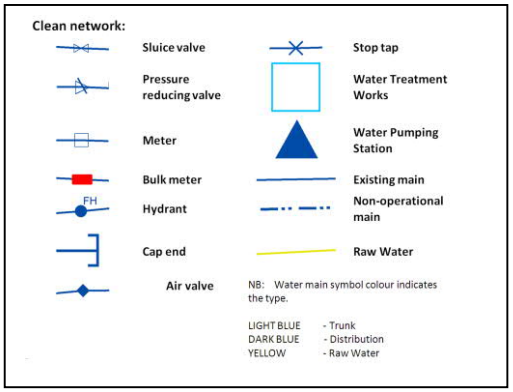


Figure 8.1 – Existing water infrastructure plan



8.2 Connection Works

The Client has sourced a pre-development response from Dŵr Cymru Welsh Water to establish the availability of capacity within the local distribution network, and confirm the likely connection point for the development. Dŵr Cymru Welsh Water has advised that a connection point for the development can be provided from the 3" cast iron distribution main routed within the adjacent side footpath of Ysguborwen Road. Dŵr Cymru Welsh Water has also confirmed that this main has sufficient capacity to supply the development without the requirement for associated off-site reinforcement works. Please see Figure 8.2 below for further detail on the location of the provided point of connection.

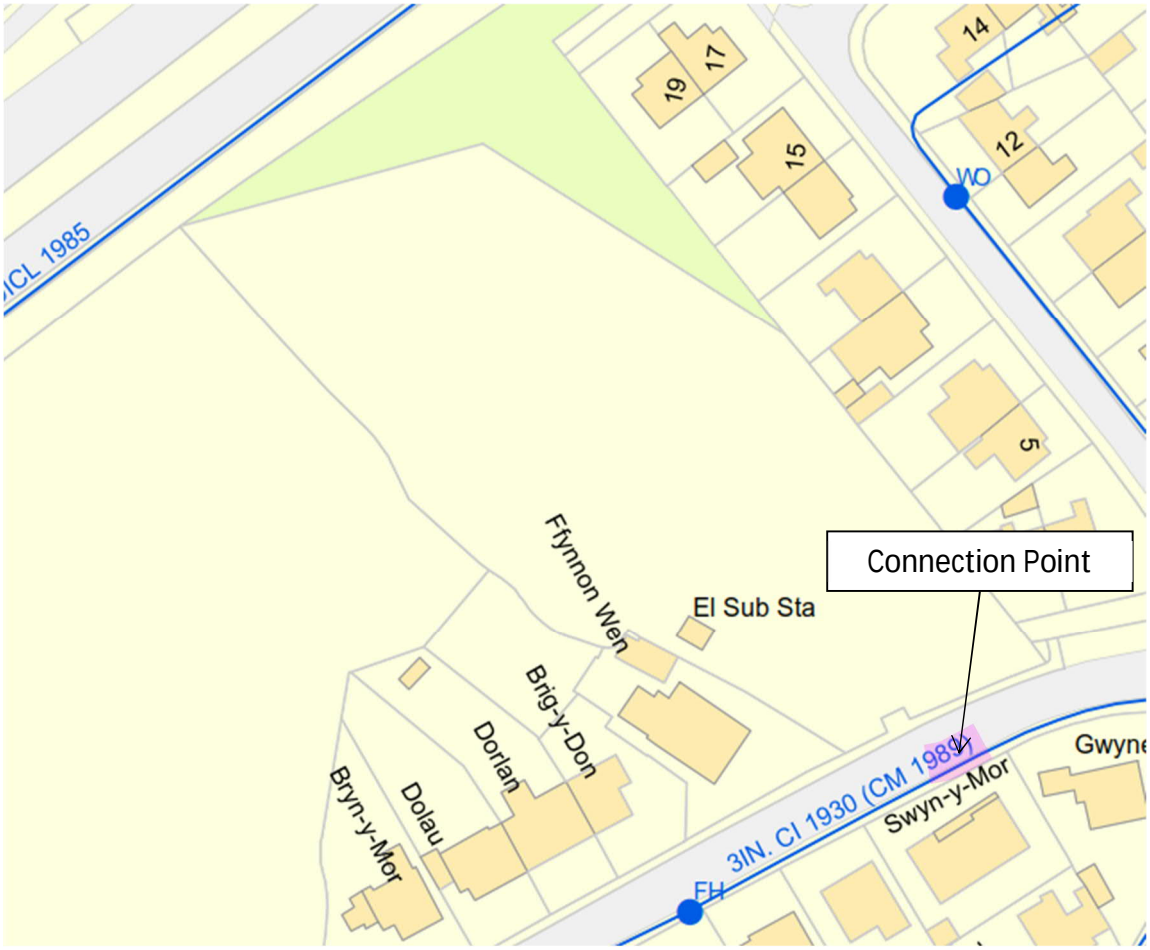


Figure 8.2 – Proposed water connection plan

In advance of a formal application for a mains requisition, a budget cost of £52,000.00 is recommended for mains and connections. This includes an allowance for infrastructure charges at the current rate (2024-25 Scheme of Charges). The provision of new water mains could be carried out under Section 41 of the Water Act 1991 whereby the developer may elect to pay a commuted sum amount based on projected occupancy of the units. This cost would be provided by Dŵr Cymru Welsh Water once they have prepared a mains design for the site.

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.

The Domestic Fire Safety (Wales) Measure, which was passed by the Welsh Assembly Government in February 2011, requires the installation of domestic fire sprinkler systems within all new build residential dwellings constructed from January 2016. The responsibility for the design of the sprinkler system will rest with the developer, installer or domestic fire sprinkler system designer, and the system should be in accordance with BS 9251:2014 (Fire Sprinkler Systems for Domestic and Residential Occupancies – Code of Practice) or BS 8458:2015 (Fixed Fire Protection Systems – Residential and Domestic Watermist System – Code of Practice for Design and Installation).

Dŵr Cymru Welsh Water will be required to assess the proposed fire sprinkler system design as part of their obligation to comply with the Water Regulations to ensure they meet the national requirements for design, composition and maintenance for water fixtures and fittings. For all single dwellings requiring a combined domestic and water/fire sprinkler system, a 32mm metered connection will be provided. Any water used by domestic fire sprinklers for firefighting purposes will not incur charges, and a rebate will be made for any water used for firefighting.

Several options are available for the fire sprinkler systems installed within residential apartment blocks and multi-occupancy premises. Dŵr Cymru Welsh Water will not provide design guidance for sprinkler systems, the responsibility for the design of a suitable system for a development rests with the developer, installer, or domestic fire sprinkler system designer.

8.3 Diversionary Works

Dŵr Cymru Welsh Water infrastructure record indicates a 3" cast iron distribution main routed within the adjacent side footpath of Ysguborwen Road to the development site boundary. Provided no alterations are proposed the adjacent side footpath as part of the development works, it can be assumed that this main will be unaffected. No diversionary works are currently anticipated.

8.4 Disconnection Works

Dŵr Cymru Welsh Water do not typically indicate individual service pipes and associated apparatus on their infrastructure records; however, their presence should be anticipated until proven otherwise. in this instance, as desktop review indicates the site is greenfield, it can be assumed none are present. No disconnection works are currently anticipated.

8.5 Conclusion – Cost & Risk Analysis

Costs relating to the reconfiguration of the existing Dŵr Cymru Welsh Water network distribution system are identified in the following table;

Detail	Cost
Connection Works	£52,000.00
Diversionary Works	None currently anticipated
Disconnection Works	None currently anticipated
Total	£52,000.00

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 Dŵr Cymru Welsh Water.

- The pre-development response is valid for only 12 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.

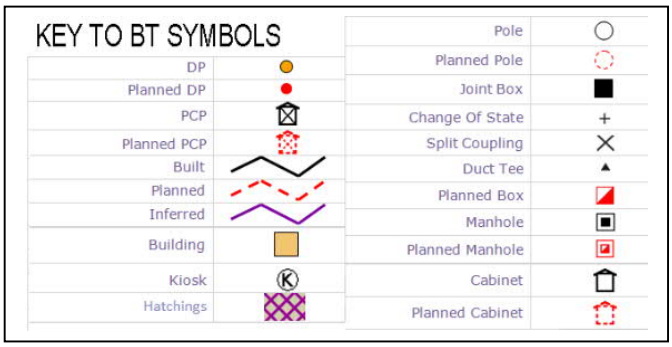
9.0 Communications

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 below 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



9.1.1 Connection Works

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 residential plot to undertake all off-site works required, however any costs incurred above this allowance will be chargeable to the developer. As the development is of less than 20 no. dwellings, the developer will need to make a contribution of £6,812.00 (£524.00 per plot) for the provision of FTTP based on Openreach's current published connections rate card.

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 and £50 per flat 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.

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.

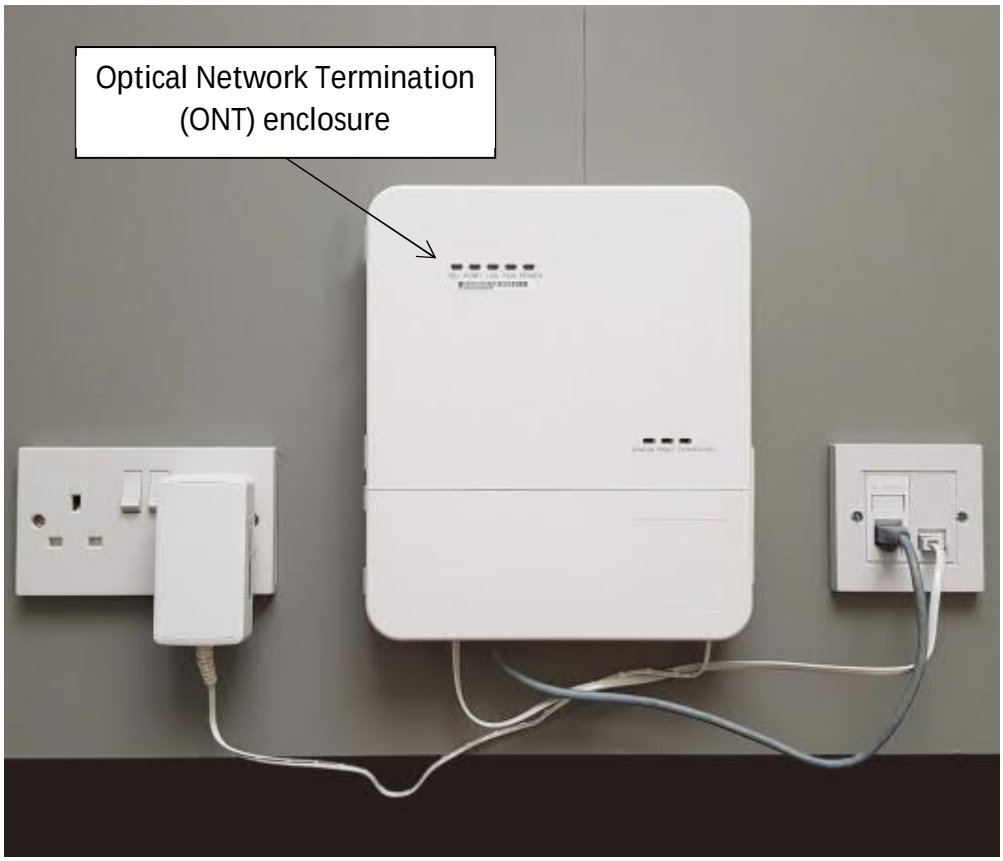


Figure 9.2 – Openreach FTTP Internal Equipment

For all sites installing Openreach Full Fibre Infrastructure, the ONT will be installed by an Openreach engineer. The ONT will be installed at the position of the incoming fibre cable. Figure 9.3 below illustrates the typical 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.

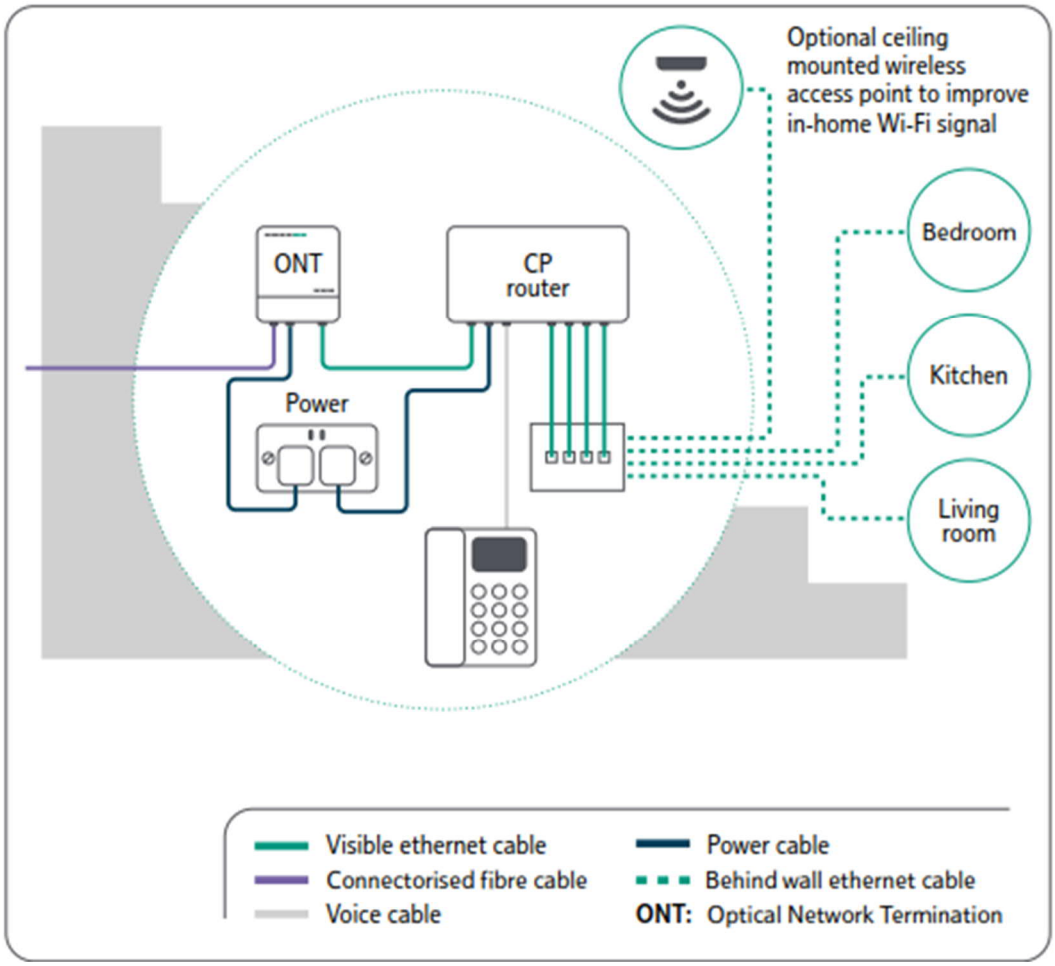


Figure 9.3 – Typical FTTP installation

9.1.2 Diversionary Works

Openreach infrastructure record indicates apparatus routed within the site side footpath of Ysguborwen Road and this apparatus will be affected by the proposed construction of the site entrance and lowering works may be required to lower the duct and associated cable across the site entrance position. It is recommended that trial excavations are undertaken within the footpath to determine the depth and location of the apparatus. Should it be determined that the apparatus is located at a depth of 600mm or more from the proposed finished ground cover level, the associated diversionary works may be negated dependent upon confirmation from Openreach. If the apparatus is shallow, a budget cost of £12,000.00 is recommended for diversionary works to lower the duct across the site entrance.

Openreach infrastructure record indicates a section of overhead line routed along the site side footpath of Ysguborwen Road. it is recommended that an overhead line survey is undertaken to confirm the current clearance below the line to confirm if sufficient clearance is available below to accommodate both site construction traffic and the site entrance. Diversion of the cable may be required, and based on the diversion of the cable underground across the site frontage, a budget cost of £25,000.00 is recommended for the works.

Openreach will need to undertake a site survey to provide a detailed estimate for the works required, and the provision of a site survey is chargeable to the Client. The fee is site specific, and will be confirmed by Openreach on formal application. In advance of this, a budget cost of £3,000.00 is recommended for the survey fee to enable Openreach to undertake the required full site survey and produce a formal offer for the works.

9.2 Disconnection Works

Openreach do not typically indicate individual service connections on their infrastructure records; however, their presence should be anticipated until proven otherwise. in this instance, as desktop review indicates the site is greenfield, it can be assumed none are present. No disconnection works are currently anticipated.

9.2.1 Conclusion – Cost & Risk Analysis

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

Detail	Cost
Connections	£6,812.00
Diversions	£37,000.00
Disconnections	None currently anticipated
Survey Fees	£3,000.00
Total	£46,812.00

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.

10.0 Other

In addition to the statutory network operators operating within the vicinity of the development site, UCML has contacted several 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	Leep Utilities	✓		22/11/2024	
IDNO	Eclipse Power Networks Ltd			22/11/2024	
IGT	GTC*	✓		09/10/2024	
Comms	Arelion (formerly Telia Carrier)	✓		19/12/2024	
Comms	Cityfibre	✓		19/12/2024	
Comms	CA Telecom			25/11/2024	
Comms	Instalcom				24/01/2024
Comms	Mobile Broadband Network LTD			14/11/2024	
Comms	O'Connor Utilities**			25/11/2024	
Comms	Sky UK LTD			26/11/2024	
Comms	SOTA			28/11/2024	
Comms	Telent				24/01/2024
Comms	Verizon			02/12/2024	
Comms	Virgin Media	✓		20/11/2024	
Comms	Vodafone	✓		20/11/2024	
Transport	National Highways				24/01/2024
Transport	Network Rail			22/11/2024	
Other	Mastdata.com (Mobile Phone Masts)	✓		19/12/2024	

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.
** O'Connor Utilities 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

Table 10.3 – Optional Searches

LinesearchbeforeUDig

Several 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.

Affected LSBUD members
(LSBUD Members who have assets registered on LSBUD within the vicinity of your search area.)
Do not proceed until all Members listed below have confirmed that your works can continue.

Asset Owner	Phone/Email	Emergency Only	Status
SP Energy Networks	08452734444	08000929290 / 105	Await response
Wales and West Utilities	02920278912	0800111999	Await response
Zayo Group UK Ltd c/o JSM Group Ltd	01992 655 919	0800 169 1646	Await response

List of not affected LSBUD members
(LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area.)

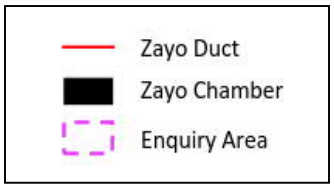
AllPoints Fibre	Angus Energy	AWE Pipeline
B & D Energy Limited	Balfour Beatty Investments Limited	BOC Limited (A Member of the Linde Group)
Box Broadband	BP Exploration Operating Company Limited	BPA
Cadent Gas	Cambridge Water	Cambridgeshire County Council Climate Change and Energy Services
CATS Pipeline 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 Live Pipelines)
Drax Power Limited	EDF Energy Renewables Ltd	EET Fuels
EirGrid	Eleclink Limited	Electricity North West Limited
Energy Assets Networks	ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited
EP Langage Limited	ESB CCGT Power station (Carrington Gas Pipeline)	ESP Utilities Group
Esso Petroleum Company Limited	euNetworks Fiber UK Ltd	EXA Infrastructure
Exolum Pipeline System	Fulcrum Electricity Assets Limited	Fulcrum Pipelines Limited
G.Network Communication Ltd c/o JSM Group Ltd	Gamma	Gas Networks Ireland (UK)
Gateshead Energy Company	Gigaclear Ltd	Greenlink Interconnector 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)
Kensa Utilities	Last Mile	Mainline Pipelines Limited
Manchester Jetline Limited	Manx Cable Company	Marchwood Power Ltd (Gas Pipeline)
Melbourn Solar Limited	MUA Group Limited	National Gas Transmission
National Grid Electricity Distribution	National Grid Electricity Transmission	National Grid Ventures
Neos Networks	Northern Gas Networks Limited	Northumbrian Water Group
NPower CHP Pipelines	NTT Global Data Centers EMEA UK Ltd	NYnet Ltd
Ogi	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
South Staffs Water	Spring Fibre Limited	Squire Energy Networks
SSE Generation Ltd	SSE Transmission	SSE Utility Solutions Limited
Storengy	Tata Communications (c/o JSM Construction Ltd)	TfL – London Underground HV Cables (Road Side Cables)
toob Limited	Total Colnbrook Pipelines	Total Finaline Pipelines
Transmission Capital	Trojan Energy Limited	UK Power Networks
Uniper UK Ltd	University of Cambridge Granta Backbone Network	Vattenfall
Veolia ES SELCHP Limited	Veolia ES Sheffield Ltd	Voneus Limited
VPI Power Limited	Welsh Power	West of Duddon Sands Transmission Ltd
West Sussex OpenNetwork (Cooperative National Infrastructure)	Westminster City Council	Winnington CHP Ltd

Figure 10.1 – LSBUD search result

10.1 Zayo Group Ltd

Zayo Group has confirmed that they own and operate telecoms apparatus in the vicinity of the development site. The Zayo Group network in the vicinity of the site comprises of underground cables and associated apparatus. The figure below is an extract from Zayo Group 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. Based on review of the Zayo Group record, the apparatus appears to be unaffected by the development proposals based on its indicated location.

Figure 10.2 – Existing Zayo Group infrastructure



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 13 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 immediately adjoining 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 – Site Plan indicating position of points of connection

Based on the information provided by SPEN, no abnormal legal requirements are currently anticipated to utilise the proposed electricity connection point as it is located within the development site boundary and is located on land under the developer's control.

Based on the information provided by Dŵr Cymru Welsh Water, no abnormal legal requirements are currently anticipated to utilise the proposed water connection points as it is located on publicly adopted road. Figure 11.2 below is an extract from the FindMyStreet adopted road mapping service confirming the above.

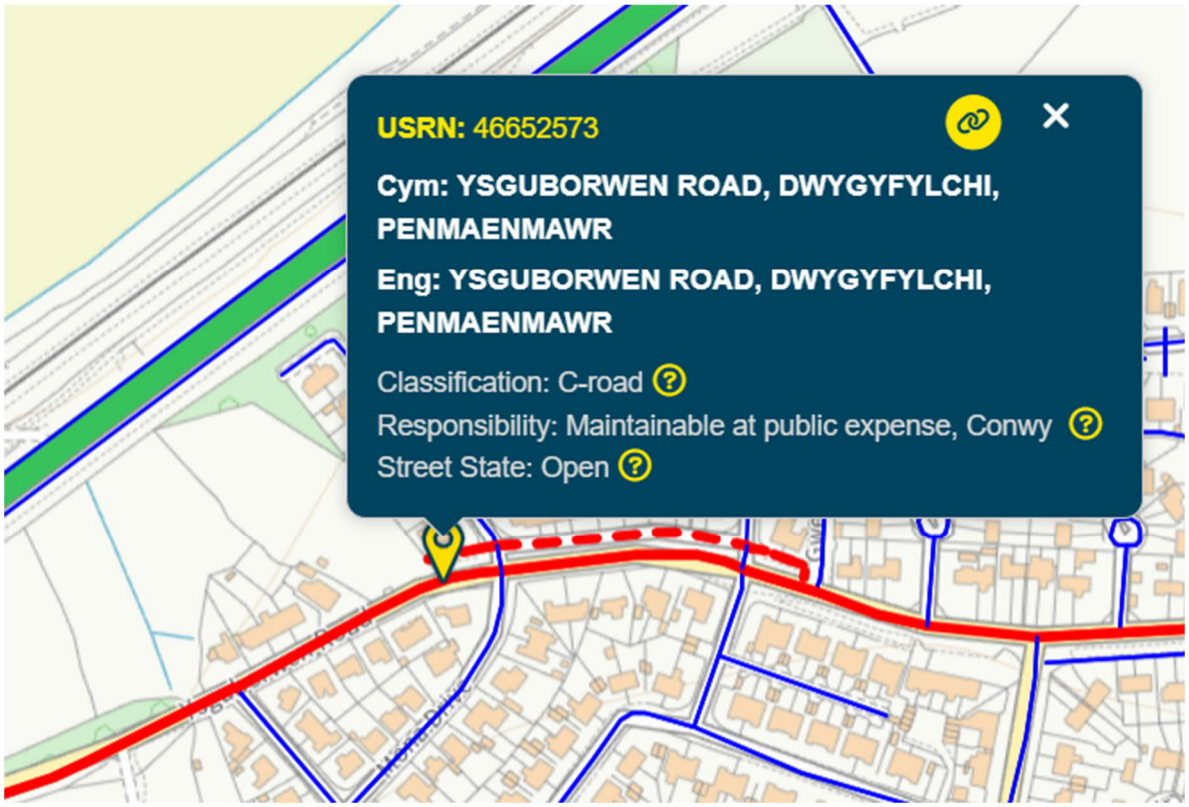


Figure 11.2 – Adopted Road Enquiry

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	
Connection Works – LV POC, on-site LV mains lay, and installation of LV service connection to each dwelling. Diversionary Works – On-site HV and LV cable diversions, or site entrance diversion (if required). Disconnection Works – None currently anticipated.	
Gas	
Connection Works – None required based on use of electric heating. Diversionary Works – Site entrance diversion, if required. Disconnection Works – None currently anticipated.	
Water	
Connection Works – Off-site mains lay, on-site mains lay, and installation of service connection to each dwelling. Diversionary Works – None currently anticipated. Disconnection Works – None currently anticipated.	
Telecoms – Openreach	
Connection Works – FTTP connections. Diversionary Works – Underground and overhead diversion at site entrance, if required. Disconnection Works – None currently anticipated.	

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.

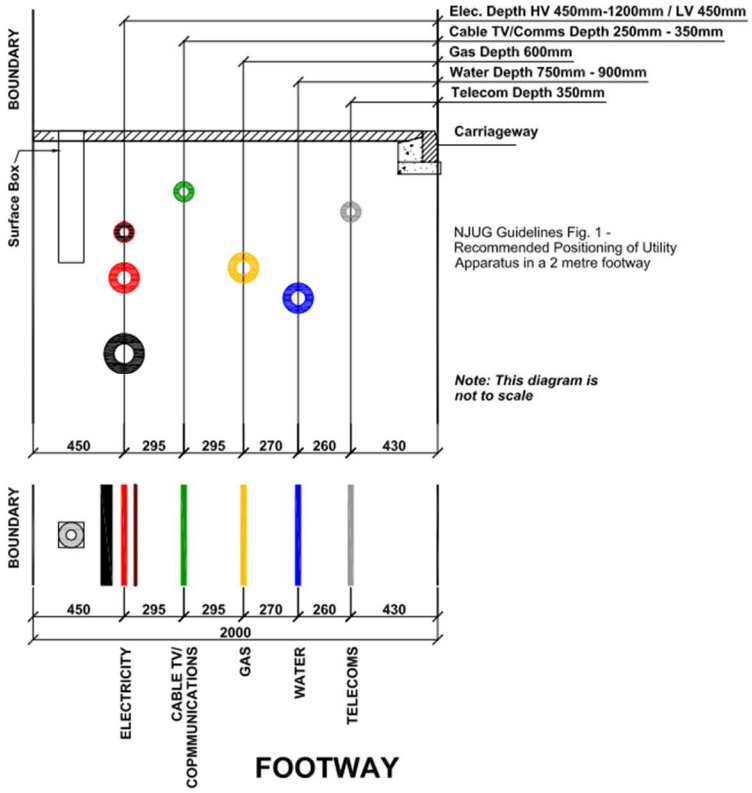


Figure 13.1 – Recommended positioning of utility apparatus in a footpath

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.

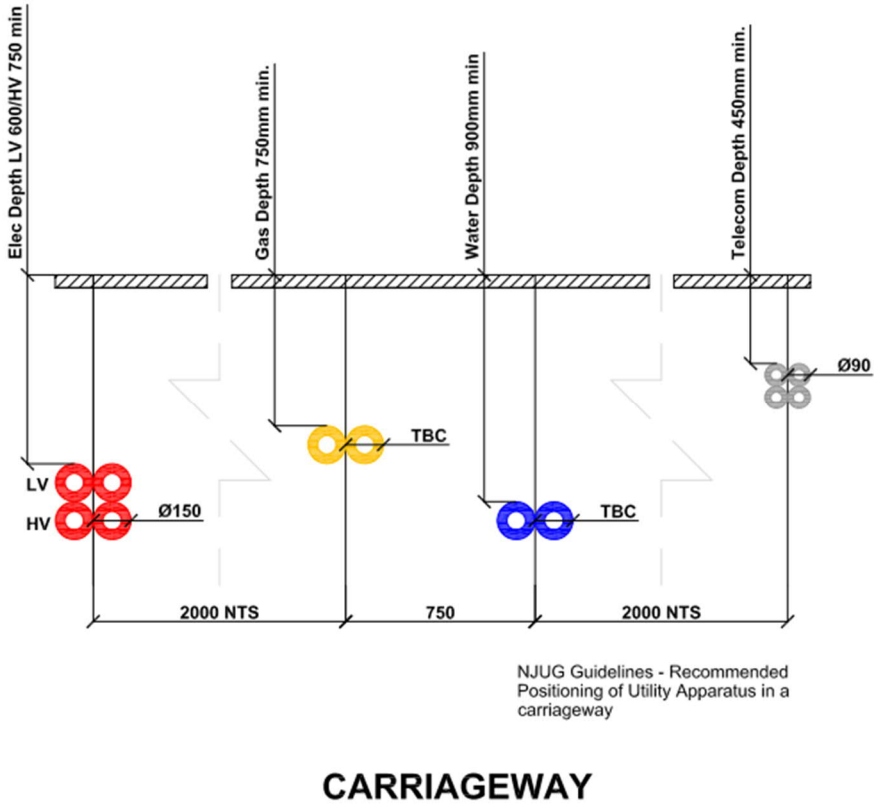


Figure 13.2 – Recommended positioning of utility apparatus in carriageway

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.

Prepared by;
Joanne Blackburn BA (Hons) – Associate Director
Utilities Connections Management Ltd.

14.0 Further UCML Services

Pre-Construction Utility Consultancy

UCML's Pre-Construction Utility Consultancy 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 pre-construction consultancy 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 Pre-Construction Utility Consultancy 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.

Delivery Coordination

UCML's Delivery Coordination service deals with the coordination of disconnections, diversions, connections, service alterations, capacity checks and temporary supply installations for all forms of residential, commercial, and industrial developments. Use of our Delivery Coordination 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 Delivery Coordination service includes;

- Coordination of statutory connections from quotation acceptance to completion.
- Assigned Project Coordinator 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.
- Coordination of legal agreements required including wayleaves, easements, and adoption agreements.

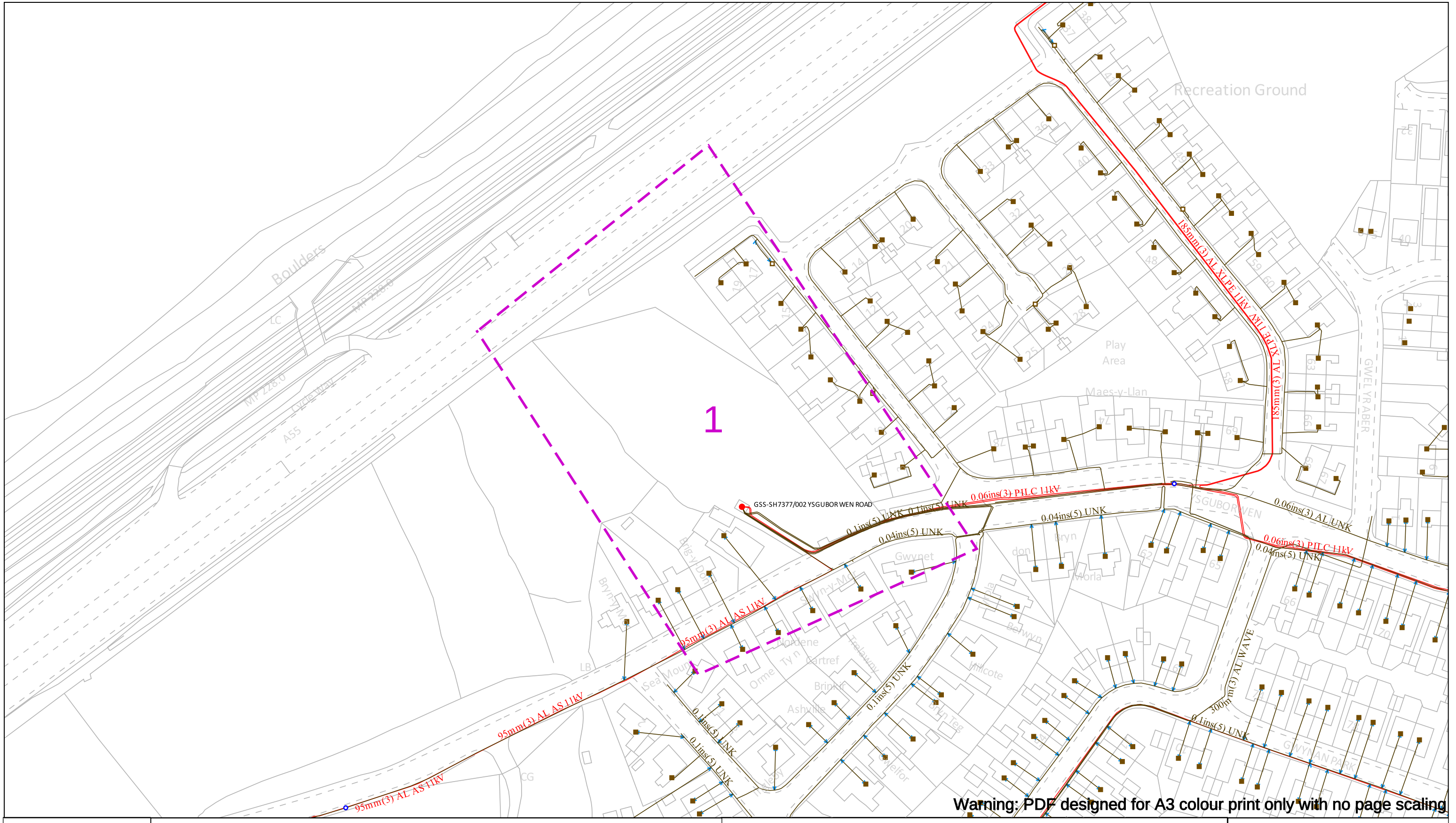
Appendices

Appendix 1 – SP Energy Networks Infrastructure Plan

Appendix 2 – Wales & West Utilities Infrastructure Plan

Appendix 3 – Welsh Water Infrastructure Plan

Appendix 4 – Openreach Infrastructure Plan



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

Date Requested: 09/10/2024
Job Reference: 35001021
Site Location: 273148 377276
Requested by:
Mr steffan lloyd
Your Scheme/Reference:
Ysguborwen Road, Conwy

Scale: 1:1250 (When plotted at A3)

IMPORTANT NOTICES

- This information shown on this plan is indicative only and its accuracy cannot be guaranteed.
- The plan only shows assets owned by SP Energy Networks.
- Positions and depths of cables may have altered since being recorded. A line on a plan may represent more than one cable. Normally electric cables are laid at depths between 450mm and 1m but depths may have changed if land surface levels have since altered.
- The plan may not show, or may inaccurately show, individual property services and services to street lighting installations. Underground services may be found in roads, footpaths and on sites. Always assume that they are present for each property, lamp column and street sign etc and treat any services found anywhere as live.
- You must use safe digging practices in accordance with HS(G)47 to establish the actual position of mains cables, services and other apparatus before any mechanical excavation is used.
- Where overhead lines cross your site, you must comply with the requirements of Health & Safety Executive guidance as laid down in GS6, Avoidance of Danger from Overhead Electric Lines.
- Any works that fall within **5m** of any 132kv or Transmission cables, or within **15m** of any 132kV or Transmission OHL's, please contact our General Enquiries Team **0845 273 4444 / 0330 10 10 444** for further safety advice.
- In the event of an emergency or for further assistance contact **0800-092-9290 (Central & Southern Scotland) or 0800-001-5400 (Merseyside, Cheshire & North Wales) or by dialling 105**
- It is your responsibility to ensure this information is provided to all persons working near our plant.

100m

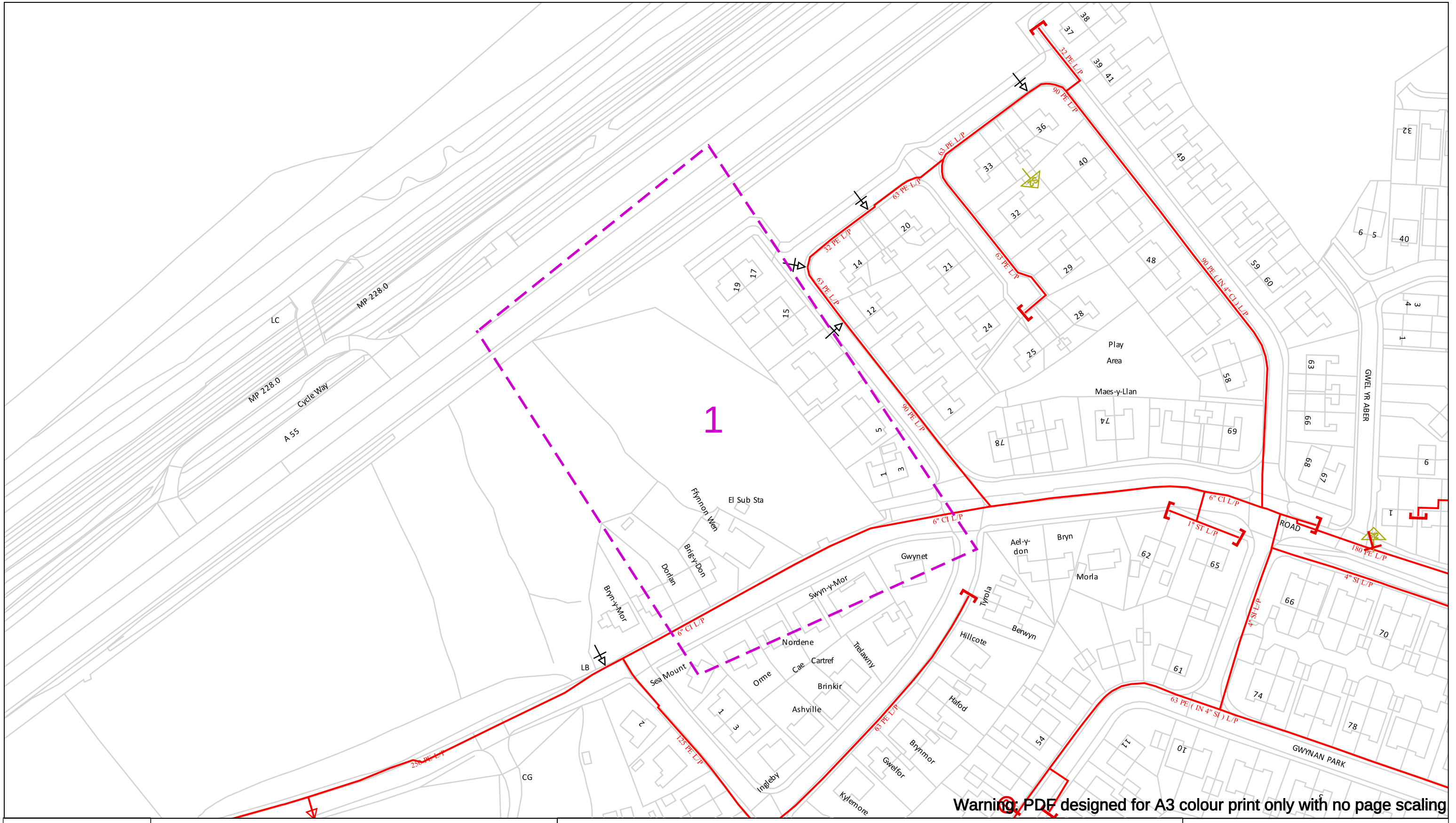
Underground Cables
In Use
Out of Use
Assumed Route
Warning - Shallow Cables

Overhead Line

Dig Sites
Area:
Line:

LV
HV (6kV/6.6kV)
HV (22kV/11kV)
EHV (33kV)
Trans (132kV/275kV/400kV)
Non Power Cable
Duct

SP ENERGY NETWORKS



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

Contact Us
Mapping Enquiries: 02920 278 912
General Enquiries: 0800 912 2999

Date Requested: 09/10/2024
Job Reference: 35001021
Site Location: 273148 377276
Requested by:
Mr steffan lloyd
Your Scheme/Reference: Ysguborwen Road, Conwy

Scale: 1:1250 (When plotted at A3)

IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed
- The plan only shows those pipes owned by Wales & West Utilities (WWU) as its role as a licensed Gas Transporter
- Service pipes, valves, syphons, stub connections etc. may not be shown but their presence should be anticipated
- You must use safe digging practices in accordance with HS(G)47 to establish the actual position of mains, services and other apparatus before any mechanical excavation is used
- It is your responsibility to ensure this information is provided to all persons working near our plant
- If in doubt call the WWU dig team on 02920 278912

In case of an emergency call 0800 111 999

100m

Dig Sites

Area: Line:

- Low Pressure (LP) 21mbar – 75mbar
- Medium Pressure (MP) 350mbar – 2bar
- Intermediate Pressure (IP) 2bar – 7bar
- High Pressure (HP) >7bar

- Line/Fire Valve
- Governor Station
- Change of Diameter
- End Cap
- Depth of cover

WALES&WEST UTILITIES

Smell gas?
Call the Gas Emergency Service on 0800 111 999.

Dial before you dig

Dial
Call 029 2027 8912 before you start work.

Investigate
Before you dig, make sure you know what's below.

Go ahead
Done your research? Now you can dig safely.

We need 10 days' notice

Dŵr Cymru
Welsh Water

Ysguborwen Road Penmaenmawr

N
W E
S

LEGEND

Clean network:

- Sluice valve
- Pressure reducing valve
- Meter
- Bulk meter
- Hydrant
- Cap end
- Air valve
- Stop tap
- Water Treatment Works
- Water Pumping Station
- Existing main
- Non-operational main
- Raw Water

NB: Water main symbol colour indicates the type.

LIGHT BLUE - Trunk
DARK BLUE - Distribution
YELLOW - Raw Water

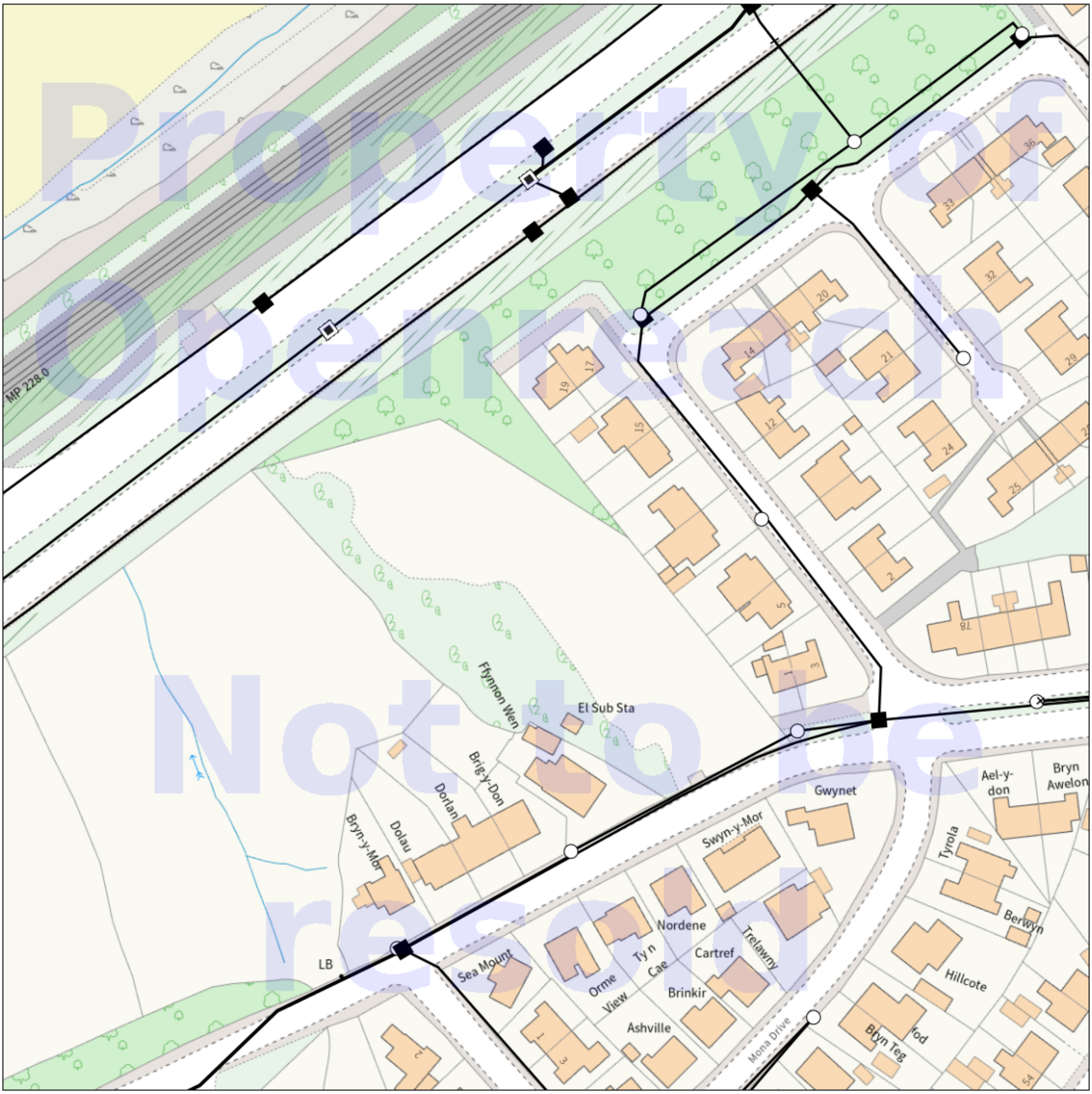
Notes:

Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be asbestos cement (AC) or Pitch Fibre (PF) . It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation

EXACT LOCATIONS OF ALL APPARATUS TO BE DETERMINED ON SITE.

Map Ref:	273293,377287
Map scale:	1:1500
Printed by:	Warren Rees
Printed on:	20 Nov 2024

Maps on Demand Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made newar to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(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
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+
Split Coupling	×
Duct Tee	▲
Building	
Kiosk	K

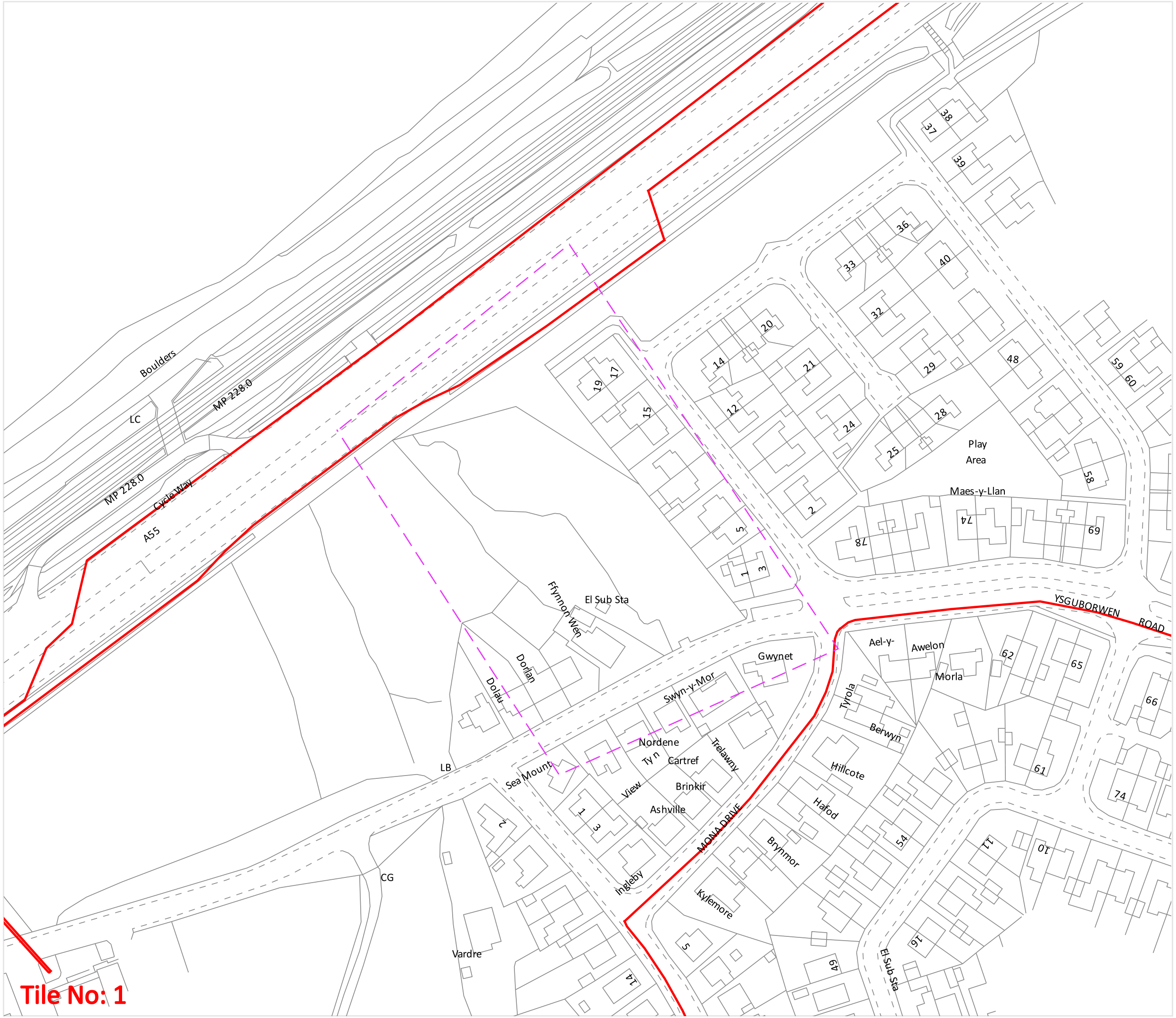
Hatchings	
Built	
Planned	
Inferred	
Duct	

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 : LWZ14397C
Map Reference : (centre) SG7315677376
Easting/Northing : (centre) 273156,377376
Scale : 1:250
Issued : 19/12/2024 14:39:16

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk



Tile No: 1

Zayo Group UK Ltd
4th Floor Harmsworth House
13-15 Bouverie Street
London, EC4Y 8DP

JSM Group Ltd
Sterling House
Mutton Lane, Potters Bar
Hertfordshire, EN6 3AR
T: 01992 655 919
zayoplantenquiries@jsmgroup.com

Legend

- Zayo Duct
- Zayo Chamber
- Enquiry Area

Date requested:	09 Oct 2024
Requested by:	Mr steffan lloyd
Company:	ucml
Job reference:	35001021
Your reference:	Ysguborwen Road, Conwy

Scale on A3 paper: 1:1250

Warning: PDF designed for colour print only with no page scaling. This Information is given as a guide only and its accuracy cannot be guaranteed.

Protecting Lives, Cables & Pipes

In Emergency Only and if Zayo Plant or Cables damaged call: 0800 169 1646