Battersea Park Road

Utilities Statement

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INTRODUCTION

The following design note has been produced by Atelier Ten to outline the key information with regards to the existing Public Utility (PU) drawings throughout and surrounding the proposed student accommodation development at Battersea Park Road. The drawing data received is titled as follows:

- UK Power Networks (referred to as UKPN throughout this document)
- Cadent Gas Ltd (referred to as Cadent throughout this document)
- National Grid Gas & Electricity (referred to as NG throughout this document)
- British Telecom's Openreach (referred to as BTO throughout this document)
- Thames Water Utilities Ltd (referred to as TW throughout this document)
- Virgin Media (referred to as VM throughout this document)
- Vodafone (referred to as Vodafone throughout this document)
- London Underground (referred to as London Underground throughout this document)
- GTT Communications (referred to as GTT throughout this document)
- Wandsworth Borough Council (referred to as WBC throughout this document)

The data within this report is based on a desktop study of existing utility information dated 18th December 2020, which was obtained by Landmark Utilities for the various statutory utility providers outlined above. No guarantee can be given to the accuracy of the information indicated on the drawings received. The accuracy of any record information obtained from utility authorities cannot be verified by Atelier Ten.

We recommend a Ground Penetrating Radar (GPR) survey is carried out to ascertain the proximity of services around the site to help inform of any diversions or demolition requirements.

The site under consideration is shown as outlined below. It should be noted that the BMW service centre shown to the Southeast corner of the site has already been demolished and it is just Booker Wholesale that will be demolished under this application.

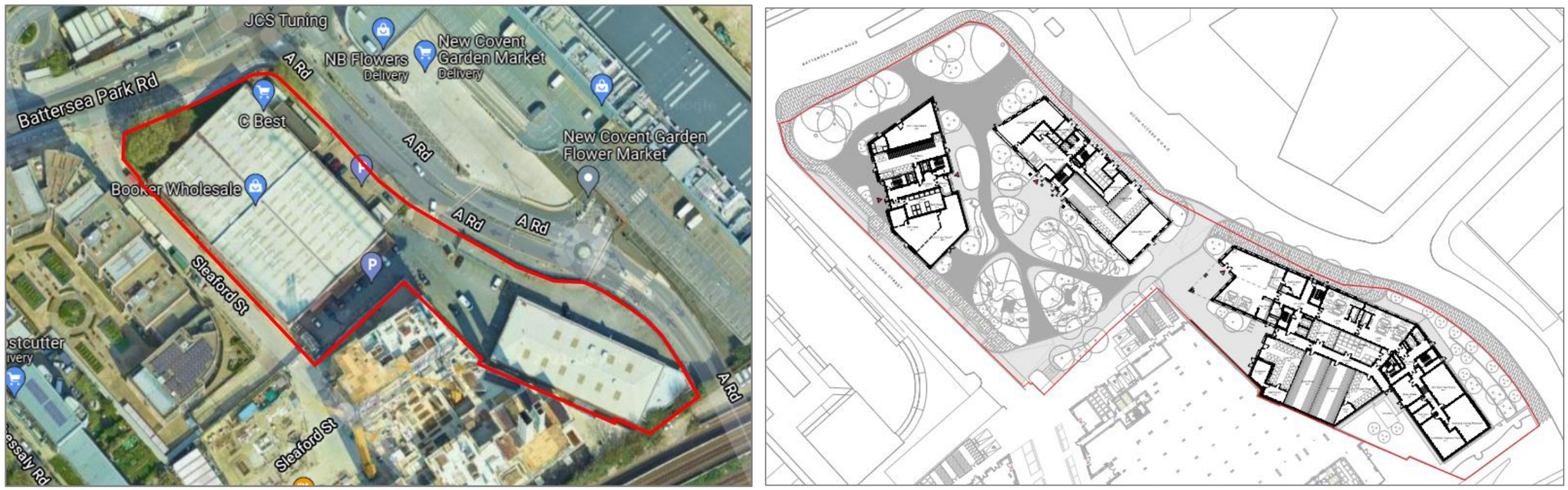

Figure 1 & 2 – Approximate Site Boundary and proposed block locations

The following sections also outline any risks identified at this stage, with a summary provided below:

Service	Risks Identified	Recommended Actions to Control the Risks
Thames Water	• The anticipated peak incoming flowrate is relatively normal for a development of this scale. Whilst we do not foresee an issue with obtaining a connection of sufficient capacity, this does present a minor risk that shall be mitigated with a pre-planning capacity check. • Whilst the TW maps indicate limited existing mains cold water infrastructure within the site boundary, it is advised that this is confirmed via an existing building survey and GPR survey. • 2No. 6" Fire Mains are shown to enter the site via Battersea Park Rd. • The existing combined trunk sewer distributing across the site has been highlighted as a significant site constraint. Atelier Ten understand coordination around this sewer is being led by the appointed Civil Engineer and Architect.	• As the plant areas are developed and a proposed location for the incoming water connections is established, it is recommended that a pre-planning capacity check application is submitted to TW to confirm that the existing mains cold water infrastructure surrounding the site is sufficient fort the proposed development. • Undertake existing building and GPR survey. • TW should be contacted to arrange for the 2No. 6" Fire Mains within the site boundary to be decommissioned, disconnected and stripped-out where not required. • Civil Engineer to review and comment on surrounding drainage network and coordinate with the Architect to ensure the proposed masterplan can accommodate the existing combined trunk sewer that crosses the site.
Cadent Gas	• The Cadent maps indicate a 100mm DI gas main entering the site via Market Entrance Road. It is envisaged that this main will need to be decommissioned, disconnected and stripped back to clear the site of the associated infrastructure.	• Contact Cadent Gas to discuss disconnection and strip-out of the 100mm DI gas main entering the site via Market Entrance Road. • Undertake existing building and GPR survey.
UK Power Networks	• Whilst the UKPN maps do not show any existing HV/LV infrastructure within site boundary, it is advised that this is confirmed via an existing building survey and GPR survey.	• Undertake existing building and GPR survey. • Initial application to determine whether sufficient capacity is available within the existing HV network surrounding the site
BTO	• No assets confirmed within local vicinity – No risk identified	• Initial application to provide the site with a new BT connection to determine the works required to serve the site
Virgin Media	• No assets confirmed within local vicinity – No risk identified	• N/A
Wandsworth Borough Council	• No assets confirmed within local vicinity – No risk identified	• N/A
Vodafone	• No assets confirmed within local vicinity – No risk identified	• N/A
London Underground	• Whilst the London Underground maps do not show any existing cable infrastructure within site boundary, it is advised that this is confirmed via an existing building survey and GPR survey.	• Undertake existing building and GPR survey.

THAMES WATER (TW)

MAINS COLD WATER SERVICE

The TW (Mains cold water) information surrounding the site is shown in Figure 3 below. The light blue services represent standard TW distribution mains, which building connections would be made to. The red services are termed ‘trunk mains’ and are major water services, which only primary water mains (i.e. not buildings) tie into. The drawing shows several red circles, which represent existing fire hydrants.

The drawings do not show any existing water services distributing across the site, with the exception of 2No. 6” Fire Mains entering the site boundary to the West. It is recommended that a GPR Survey is undertaken to establish the extent that these services extend into the site.

There are multiple mains within Battersea Park Road, consisting of a 12” distribution main, in addition to 15” and 30” trunk mains. Sleaford Street to the Southwest of the site also contains a 4” and 6” distribution main. The Market Entrance Rd to the Northeast of the site contains an 8” fire main. These mains serve a number of fire hydrants surrounding the site, although there is a notable lack of existing fire hydrants toward the East of the site. A Fire Strategy report shall be developed to establish the requirement for new fire hydrants.

As there are multiple Thames Water mains surrounding the site, there is nothing to indicate that there would be significant capacity issues associated with the proposed development.

As the design evolves, it is possible to submit a pre-planning enquiry application to TW, to confirm that there’s sufficient existing capacity to serve the proposed development. This is free of charge and typically takes 21 calendar days from receipt of the completed application and requires the submission of a site location plan, scaled site layout showing the proposed point of connection, a site drainage strategy plan showing proposed sewers, pipe sizes and gradients (by Civil Engineer), plus CCTV and topographical surveys.

Following the pre-planning submission, it is then possible to submit a full application to TW to obtain a quote for the proposed works. This will be subject to an application fee and typically takes 28 calendar days (42 calendar days for more technically challenging sites or those with more than 500 plots). The quote will be valid for 180 calendar days and will then expire, in which case a new application would need to be submitted.

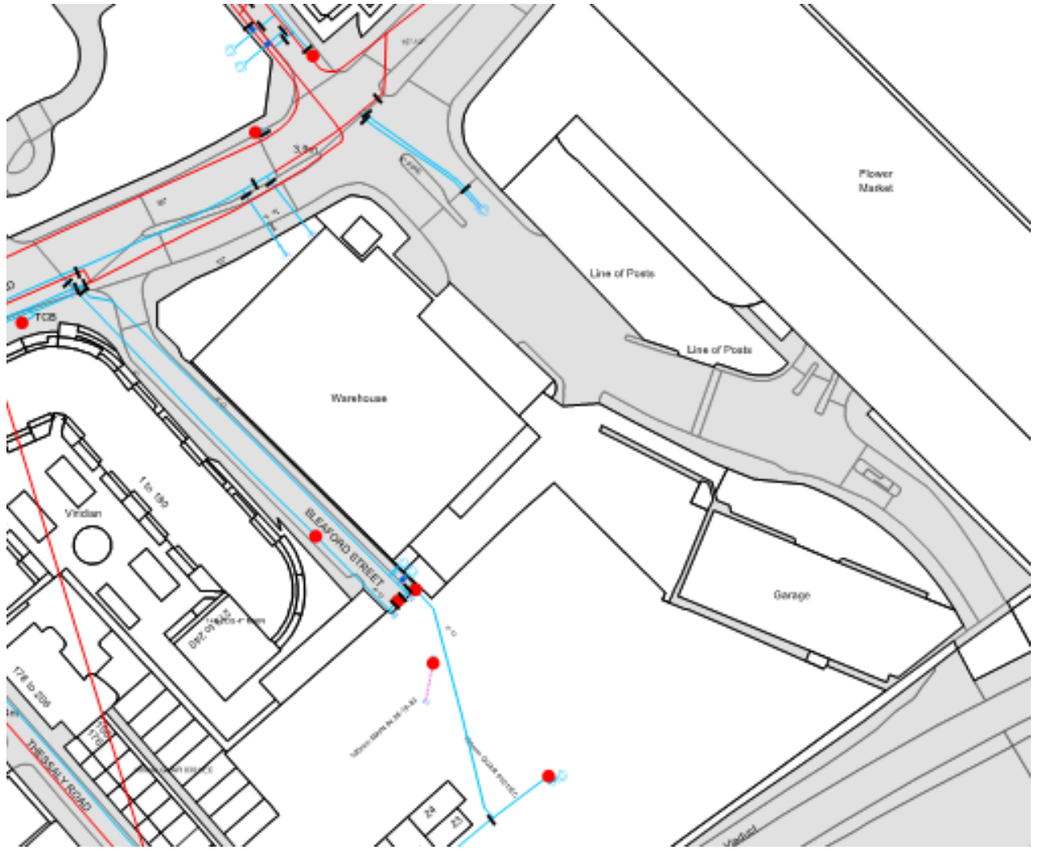

Figure 3 – Thames water existing mains cold water

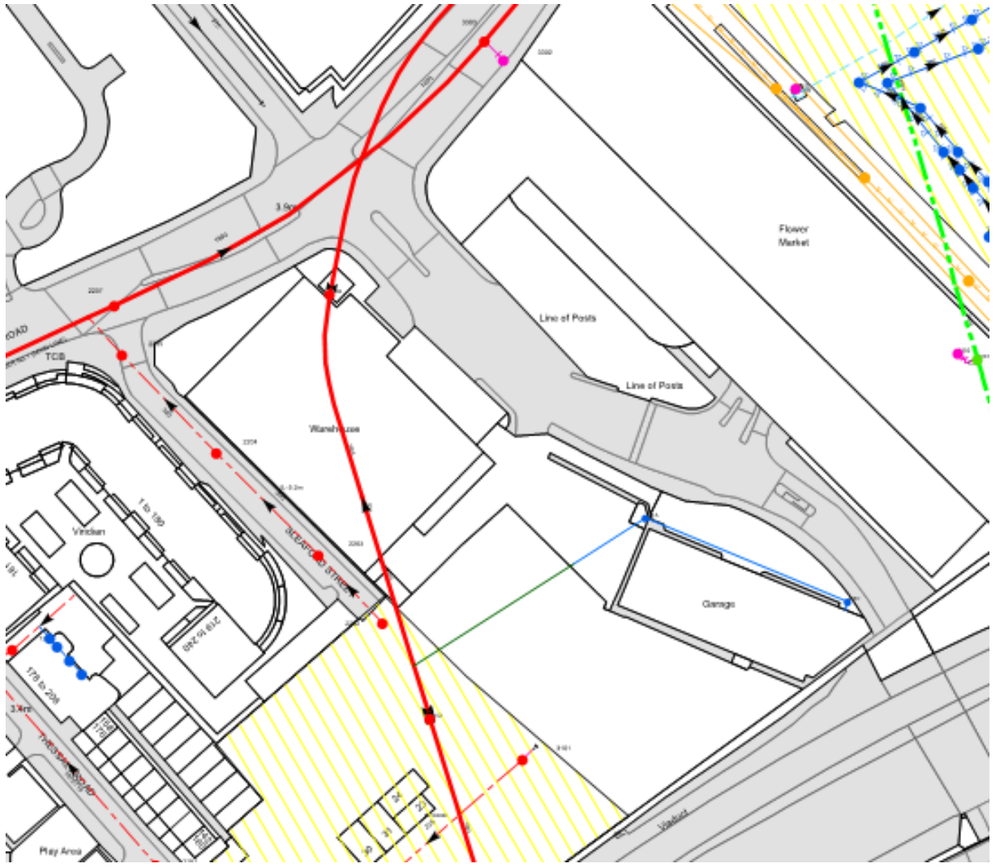

Figure 4 –Drainage infrastructure

The TW (wastewater water) information surrounding the site is shown in Figure 4 above. The red services in 'dash-dot' line-type represent dedicated foul sewers, which are located along Sleaford St, whilst the red services in 'solid' line-type represent combined trunk sewers, one of which passes through the centre of the site. There is also a private combined sewer distributing across the site that appears to serve the Garage to the East of the site, which has now been isolated as part of the demolition works.

This combined trunk sewer will be a significant constraint to the site. However, as shown within Figure 2, the proposed development has been coordinated around the sewer.

It should be noted that there are limited existing dedicated surface water sewers shown surrounding the site (usually shown as light blue services in 'dash-dot' line-type). The appointed Civil Engineer will need to consider this when calculating the SUDs/ attenuation requirements for the site.

GAS SUPPLY

CADENT GAS

The existing Cadent gas network surrounding the site is shown below. The Cadent infrastructure surrounding the site is located along Sleaford St (63mm PE), Battersea Park Rd (18in ST) and Market Entrance Rd (100 DI & 125mm PE).

The existing 100 DI gas main continues along Market Entrance Road and enters the site boundary to the Northeast of the site before converting to 3" ST and then 63mm PE before serving the existing Garage Building located on-site, which has now been isolated as part of the demolition works. It is envisaged that this branch will need to be decommissioned, disconnected and stripped-back to a suitable point outside the site boundary, to be agreed with Cadent Gas.

At this stage of the project, it is envisaged that an 'all-electric' servicing strategy or connection to the proposed Nine Elms District Heating Network will be adopted as the method of heat generation for the proposed development. Where feasible, new gas connections to site will be avoided. However, where this cannot be avoided, the maps provided would indicate that there is a substantial existing network surrounding the site, with no current indication of capacity issues.

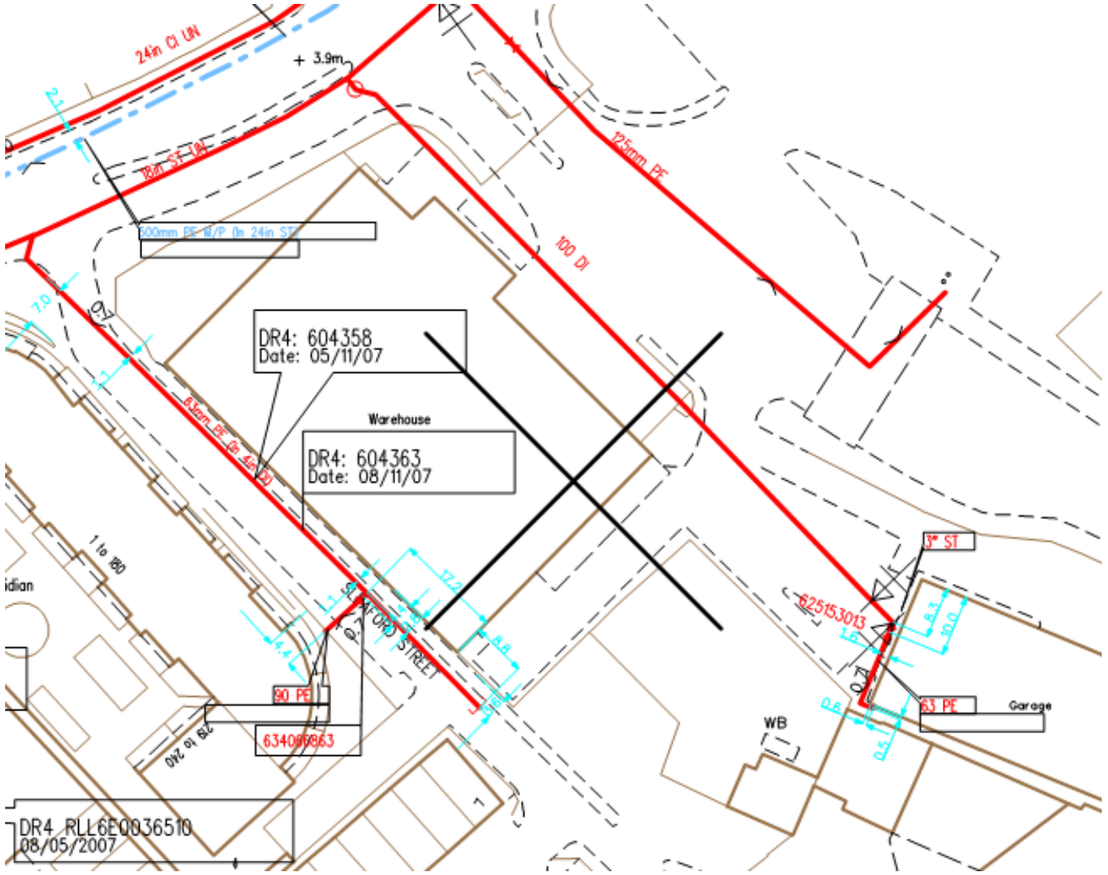

Figure 5 – Cadent exsiting gas distribution

ELECTRICITY

UK POWER NETWORKS (UKPN)

The UKPN infrastructure surrounding the site is shown below.

The UKPN network in this area of the town includes a number of HV substations to the north and south of the site, which are sub-stations serving local sites. From this plant, High Voltage services (shown in red) distribute along Battersea Park Road and along Sleaford Street.

There are several High Voltage (HV) cables shown routed around the site, these are also shown in red. These HV services power secondary sub-stations i.e. sub-stations dedicated to serve buildings and building clusters. It appears that these HV services run around the perimeter of the site and do not enter the site at any point. We would recommend levels outside the side (e.g. access routes into the site) do not alter as this could add cost into the project through lowering or raising of major power infrastructure.

There are several Low Voltage (LV) cables shown routed around the site, these are the blue services. These LV services power buildings and are the dedicated incoming cables to properties onto which electrical meters are applied and billed. It appears that all the buildings existing on the site and the buildings surrounding the site are served using LV cabling. The buildings to be demolished shall require isolation and disconnection from the LV ring surrounding the site, these LV supplies will be capped off and the LV ring shall remain live surrounding the site.

The below images show the electric map provided by UKPN for the four corners of the site.

Figure 6 – Existing UKPN distribution

New Sub-Station Strategy: An LV and HV new sub-station will be required to serve the new Battersea Park Road development. There will be an LV connection serving the proposed Plot 1 and a new sub-station servicing Plot 2 & 3, which is also located within Plot 3. The new sub-station will form part of the new development and would be a dedicated feed for the Battersea Park Road development.

The nearest primary sub-station is 0.5miles away, located at SW8 4UN and the client is currently liaising directly with UKPN to determine the capacity in the network to connect the new sub-station directly into the local HV ring.

Below is a map showing the UKPN grid network in the surrounding area to the site.

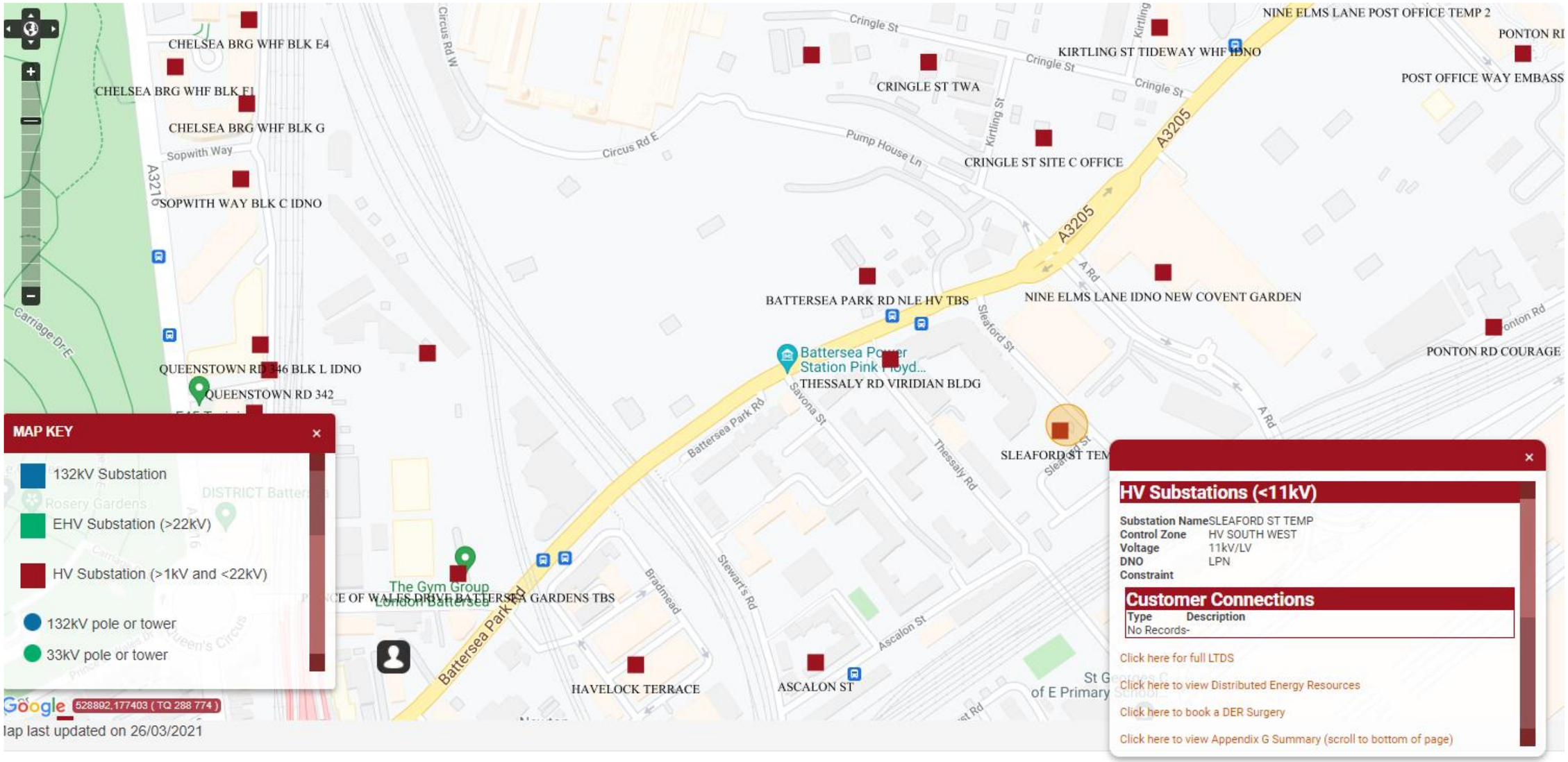

Figure 7 – Existing UKPN substations

TELECOMUNICATIONS

BT OPENREACH (BTO)

BTO have assets running to the north of the site along Battersea Park Road and Market Entrance Rd but also to the south along Sleaford Street. There are also assets entering the site which serve the existing buildings, these assets will require disconnection prior to demolition of the existing buildings.

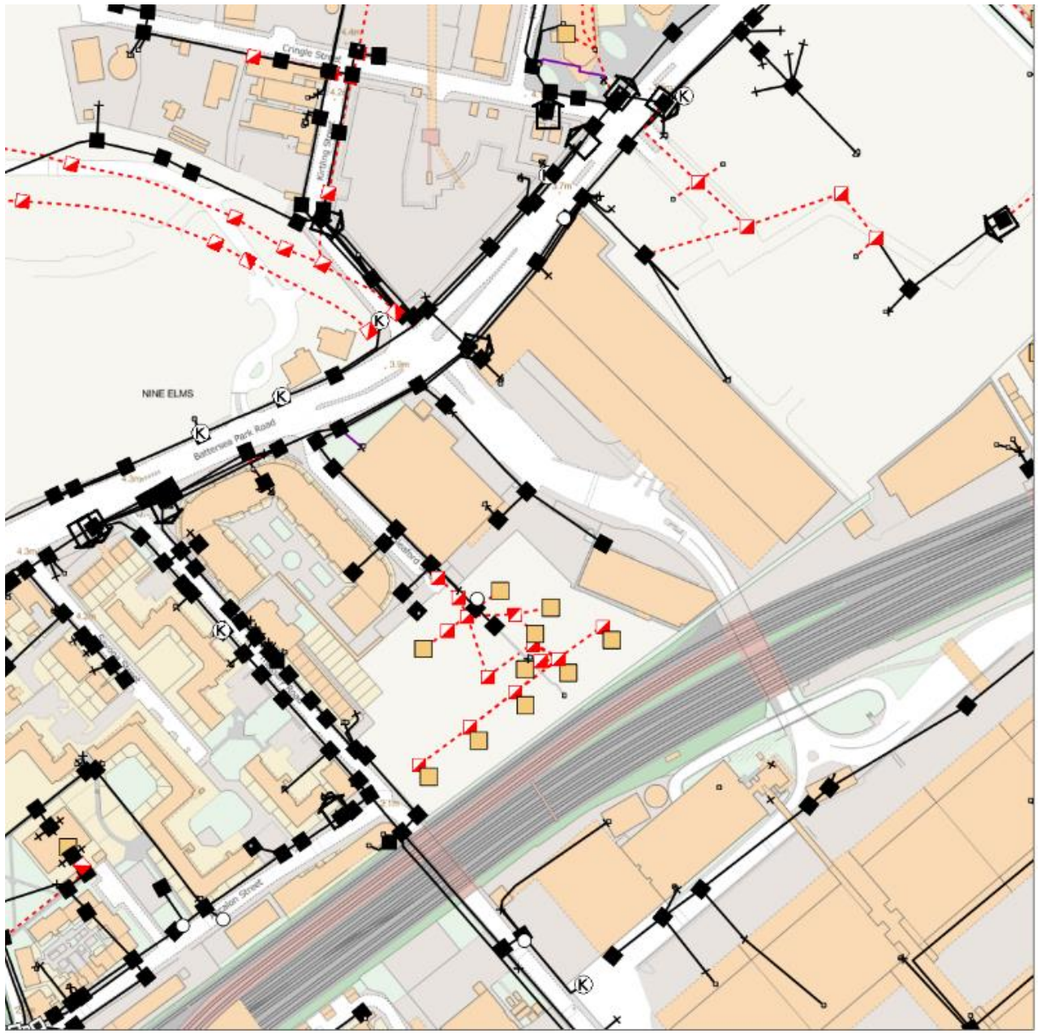

Figure 8 – Existing BTO Infrastructure

VIRGIN MEDIA (VM)

Virgin Media have assets running to the north of the site along Battersea Park Road and to the south along Sleaford Street. All assets do not enter into the site, so no diversions are required.

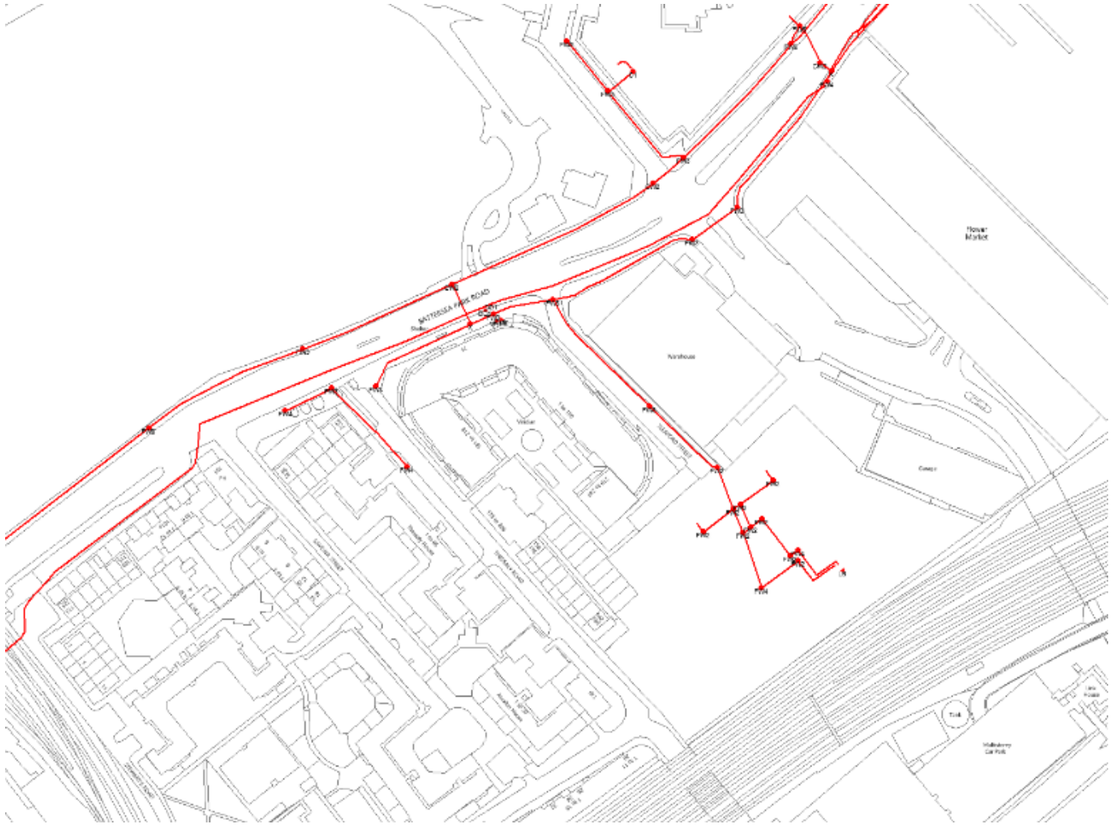

Figure 9 – Existing Virgin Media Infrastructure

VODAFONE

Vodafone have assets running to the north of the site along Battersea Park Road. These assets do not enter into the site, so no diversions are required.

Figure 10 – Existing Vodafone Infrastructure

GTT

GTT have assets running to the north of the site along Battersea Park Road. These assets do not enter into the site, so no diversions are required.

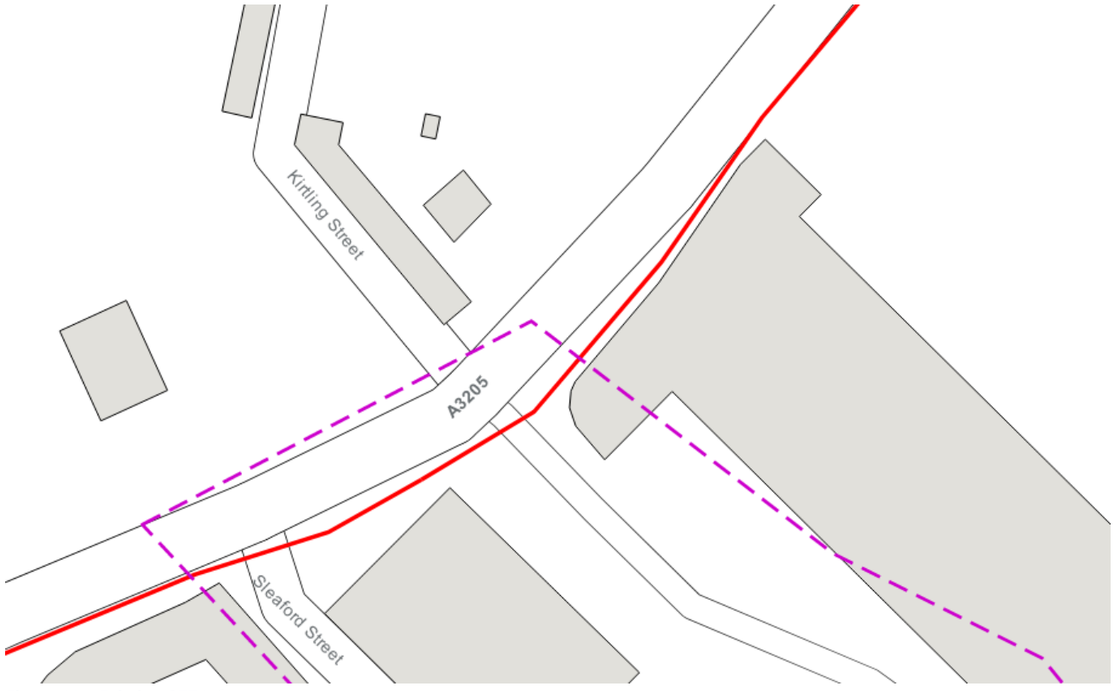

Figure 11 – Existing GTT Infrastructure

LONDON UNDERGROUND

There is London Underground cabling running to the north of the site along Battersea Park Road. Although these cables are not affected by the works, it is important to ensure these cables are not affected by any new utility connection works into the site.

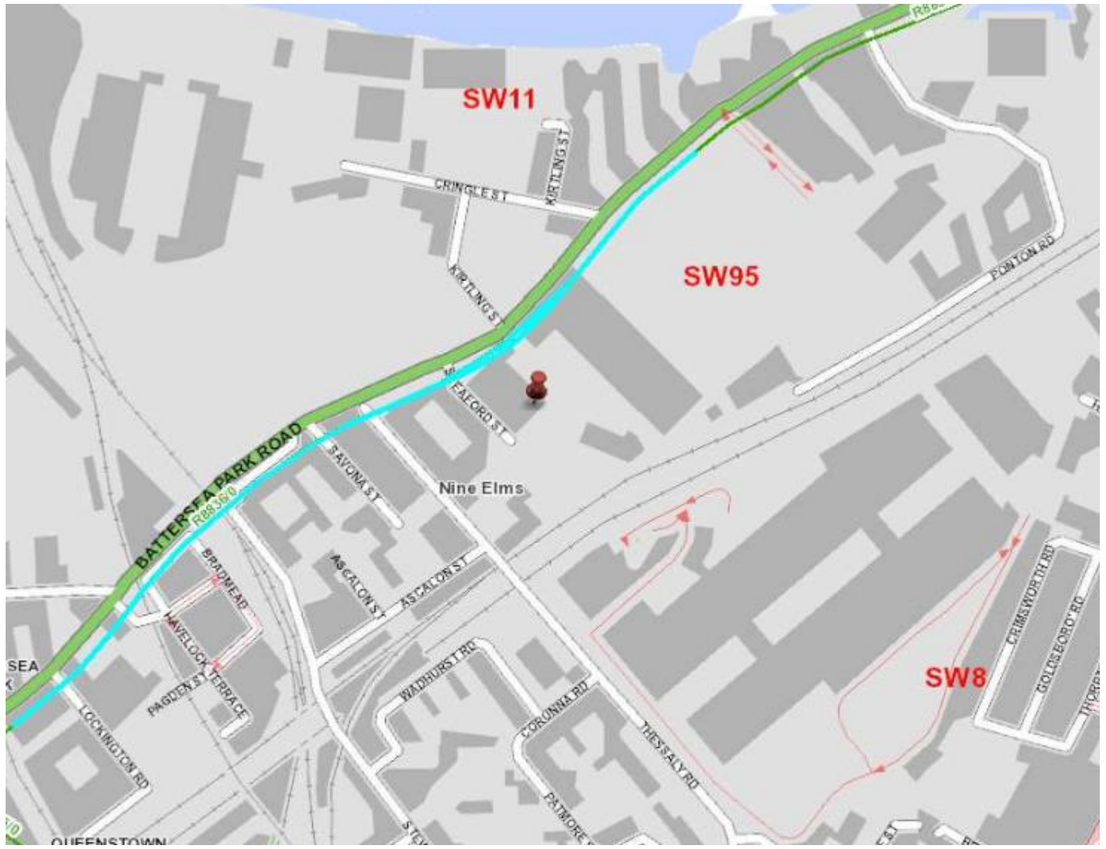

Figure 12 – Existing London Underground Infrastructure

WANDSWORTH BOROUGH COUNCIL

There are external lighting columns situated to the site boundary on both Battersea Park Road and Sleaford Street. These columns are not affected by the works however it is worth noting the locations as they may require relocating to suit the proposed development.

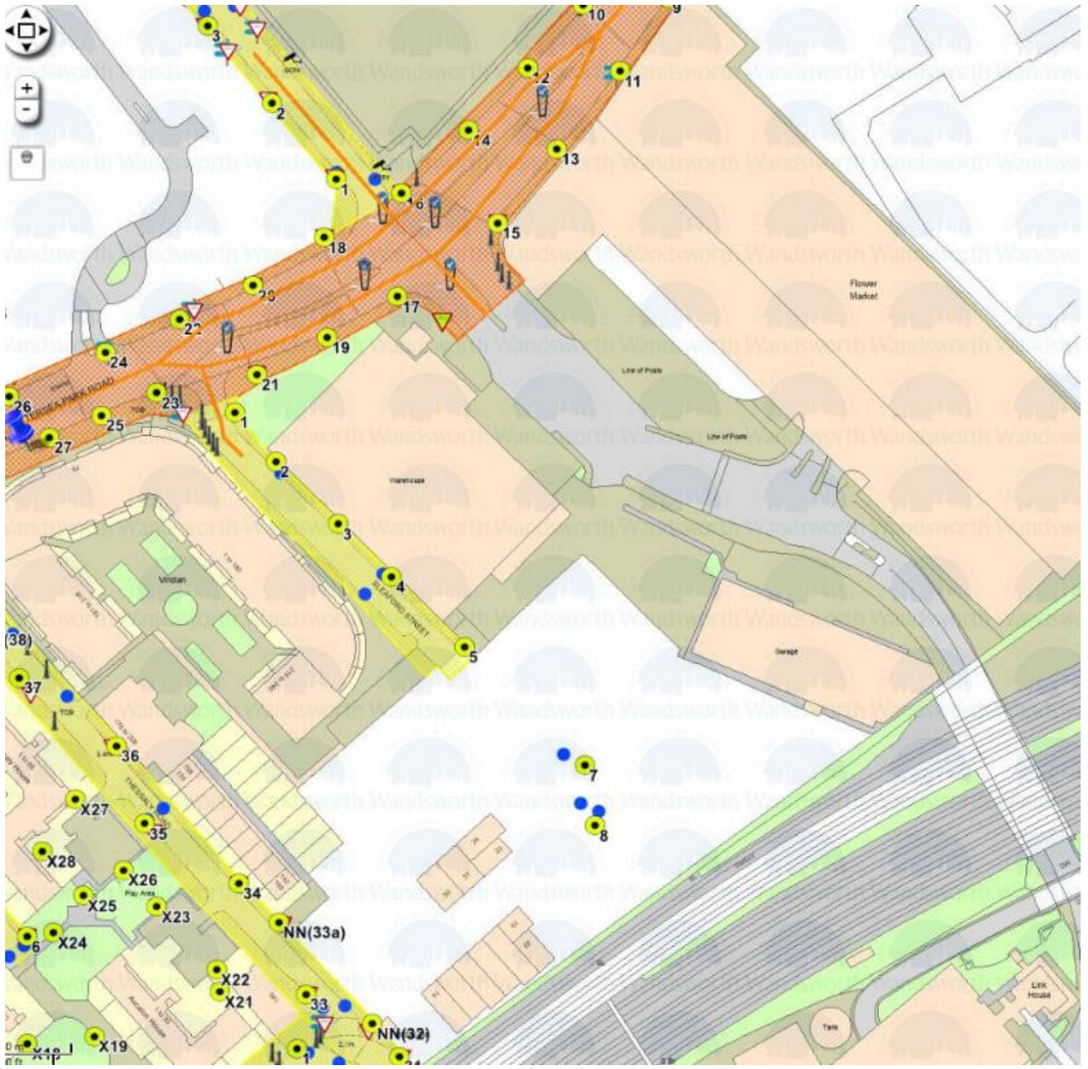

Figure 13 – Existing street lighting

CAPACITY & LOADS

As a typical rule, loads cannot be reserved or guaranteed. Utility authorities all provide their service on a first come, first serve basis. Limitations will come and go within the various utility networks as customers come online or disconnect. As such only a paid full application will guarantee an agreed service load.

This section provides an overview of estimated loads needed for the new development and gives an outline of risk of availability.

Generally, it should be noted that the majority of existing services distribute along Battersea Park Rd and Sleaford St. Market Entrance Rd to the north of the site is an unadopted road and consequently has limited existing infrastructure distributing within this area. As a result, it is anticipated that the majority of new incoming services will connect via Battersea Park Rd and Sleaford St.

Thames Water: As outlined throughout this report, Thames Water have multiple distribution mains surrounding this site on Sleaford St and Battersea Park Rd. The majority of these distribution mains locally connect back to 15" & 30" trunk mains distributing along Battersea Park Rd. Trunk mains are major distribution networks and the fact that the distribution mains surrounding the site are locally connected to the trunk main, would indicate a reasonable pressure should be available.

We expect water demands to be circa 85,500 litres per day with a peak incoming flow rate from the public main to the storage tank to be 5.93 litres per second, which is relatively normal for a development of this scale.

Whilst the surrounding area is reasonably densely populated, as there are multiple distribution mains surrounding the site, we would not anticipate issues with obtaining a connection for the appropriate demand. As has been outlined earlier within this report, this can be confirmed by submitting a pre-planning application, as the location of the proposed water connections are established.

Cadent Gas Networks: At this time, we do not intend to use natural gas within the development and therefore would have no concern over capacity. If gas were to be used for whatever reason, it is not anticipated that there would be restrictions on the network.

UK Power Networks: An LV and HV new sub-station will be required to serve the new Battersea Park Road development. There will be an LV connection serving the proposed Plot 1 and a new sub-station servicing Plot 2 & 3, which is also located within Plot 3. The new sub-station will form part of the new development and would be a dedicated feed for the Battersea Park Road development. The client is currently liaising directly with UKPN to determine the capacity in the network to connect the new sub-station directly into the local HV ring.

Telecommunications: There are BT Openreach, Vodafone and Virgin Media services in and around the area therefore we see no issues with obtaining a BT connection.

CONCLUSION

The public utility layouts show that there are a number of existing LV, water and gas supplies serving the existing buildings to be demolished, which shall be isolated and disconnected at the time of the demolition.

The PU Drawings for Cadent Gas, BTO, UKPN, Vodafone and Virgin Media do not reveal any unusual or unchartered services impacting the potential future development site.

However, the report also highlights that there is an existing combined trunk sewer crossing the site, which will be a significant constraint to the proposed development. It is noted from early workshops that the appointed Civil Engineer and Architect are seeking to develop the masterplan to ensure the proposed buildings are constructed around this sewer.

We also recommend a Ground Penetrating Radar (GPR) survey is carried out to ascertain the proximity of services around the site to help inform of any diversions or demolition requirements.

The overall health check on statutory services we have received so far is concluded in the following table:

Service	PU Drawing Synopsis	PU Drawing Review Complete & Next Actions Noted
Thames Water	• Main infrastructure available to site. • Whilst not indicted on the TW maps, existing building(s) are likely to have private connections that need to be removed post due diligence – this is normal. • 2No. 6" Fire Mains are shown to enter the site via Battersea Park Rd. Thames Water to be contacted to arrange for branches to be decommissioned, disconnected and stripped-out where not required. • Site is surrounded by existing fire hydrants to the North, West and South. However there appear to be limited existing fire hydrants located to the East (i.e. along the unadopted Market Entrance Rd). The appointed Fire Consultant shall advise requirements for new Fire Hydrants. • A combined trunk sewer crosses the site, which is a significant constraint to the project. However, the proposed development has been coordinated around the sewer.	
Cadent Gas	• Main infrastructure available to site (although no new connection currently proposed). • Existing 100 DI gas main enters the site via Market Entrance Road. GPRS survey to confirm full extent of the below ground network within the site boundary. Cadent Gas to be contacted to arrange for branch to be decommissioned, disconnected and stripped-out.	
UKPN	• Significant strategic infrastructure in the general area. • Any change in levels to Battersea Park Road and Sleaford Street will cause issues, we do not recommend additions of furniture or level changes to these roads. • No HV infrastructure within site boundary. All HV infrastructure surrounds site. • A new sub-station is required to serve the new development. • The client is currently engaging with UKPN to determine the electrical supply capacity availability within the network. • Existing building(s) have private LV connections that need to be removed post due diligence – this is normal.	
BTO/ VM/ VODAFONE/ GTT	• Main infrastructure surrounding the site • Existing building(s) have private connections that need to be removed post due diligence – this is normal. • VM have no assets within the site boundary • Vodafone have no assets within the site boundary • GTT have no assets within the boundary