UTILITY STATEMENT
U+I (8AE) Limited and the London Fire Commissioner (LFC)

8 ALBERT EMBANKMENT

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U+I (8AE) Limited and the London Fire Commissioner (LFC)

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Utility Statement

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# QUALITY CONTROL

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<td>Ricky Thompson</td>
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1. EXECUTIVE SUMMARY

The information provided in this Utility Statement is an overview based on the current; proposals, status of the utility networks and strategy for servicing the proposed 8 Albert Embankment site.

The following key elements have been established;

General

It will be necessary to arrange for the disconnection of redundant utility supplies or the alteration of retained supplies falling within the site as part of the demolition/enabling works. Survey works will be required to confirm the presence of service connections within the site.

A further review will be required during the detailed design stage to confirm any anticipated works associated with existing assets affected by any alterations to existing footways and landscaping [i.e. proposed tree planting] layouts including changes to line and level.

Electricity

A contribution to reinforcement works (second corer) in the network are required as a contribution to the Stewarts Rd substation works which will release capacity within the Montford Place primary substation B, SE11 5DE, which is where the 8 Albert Embankment developments will get its connection. The final estimate of this contribution is dependent on the number of capacity reservations for other developments in the area.

Gas

NGG (Now Cadent Gas) conducted analysis of their network and now confirm that no reinforcement works to their network are required to supply the West and Central Sites. This confirms that at this time no additional time or costs are necessary for offsite reinforcement.

Potable Water

Thames Water has provided a response to a Pre-Development Enquiry which has confirmed there is sufficient capacity within their network to support the proposals at full build out.

Telecommunications

Under the terms of their operating license, Openreach are obliged to provide telephone lines to a development or property requesting connectivity, therefore it is assumed that there are no constraints to providing telecommunications connectivity to the site.
2. INTRODUCTION

This Utility Statement has been produced to assist with the delivery of a mixed use development at 8 Albert Embankment (the site).

Description of Development

Phased mixed use development including up to 417 residential units and comprising: part redevelopment and restoration, conversion and extension of former Fire Brigade Headquarters building and demolition of the existing extension and re-provision of obelisk to provide a new fire station (Sui Generis), a new London Fire Brigade museum (Class D1), residential units (Class C3), a ten storey hotel (Class C1) with up to 200 bedrooms and a flexible retail/lobby space (Classes A1/A2/A3/A4/C1), and a rooftop restaurant with ancillary bar (Class A3); demolition and redevelopment of the central workshop building to provide buildings of up to twenty-six storeys plus basements, comprising business floorspace (Use Class B1), a gym (Class D2), retail units (Classes A1/A2/A3/A4) and residential units (Class C3); development of land to the rear to provide a eleven storey building plus basement, comprising a flexible commercial unit (Classes A1/A2/A3/A4/D1/D2/B1) and residential units (Class C3); all together with associated areas of new public realm, hard and soft landscaping, basement and surface parking, servicing, means of access and plant and equipment.

Utility Statement

This Utility Statement reviews the existing utility networks to understand likely utility constraints, the extent of network modifications generated by the proposals and assesses the ability of the existing electricity, gas, potable water and telecommunications networks to support the anticipated utility loads.

The site is bounded by:
- Whitgift Street to the north
- Albert Embankment to the west
- Black Prince Road to the south.

Foul and surface water systems are not covered by this report, but instead covered separately in the drainage strategy.
3. UTILITY STRATEGY

The utility stakeholders have been contacted to obtain network records to identify the location of their assets in relation to the site.

These network records have been used as the basis of consultation between WSP and the utility stakeholders to identify proposed points of connection and required network alterations to accommodate the project proposals.

Records showing the distribution of private services within the site, i.e. private networks are unavailable to the design team.

WSP have undertaken an assessment of the load profile to predict the anticipated utility demands for the site.

Based on the anticipated loads, enquiries have been issued to the incumbent electricity, gas and potable water providers to assess the impact of the demands on their existing networks and to identify required network alterations and/or reinforcement works to accommodate the proposals.

The required on-site infrastructure will be supplied from the existing networks surrounding the 8 Albert Embankment site with the infrastructure and service connections distributed to and around the site below ground and arranged in accordance with National Joint Utilities Group (NJUG) guidelines.

3.1. EXISTING UTILITIES

WSP has obtained utility record information for statutory undertakers known to be operating in the area of the development. A list of statutory undertakers is given in Table 1 below

<table>
<thead>
<tr>
<th>Service</th>
<th>Asset Owner</th>
</tr>
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<tbody>
<tr>
<td>Electricity</td>
<td>UK Power Network (UKPN)</td>
</tr>
<tr>
<td>Gas</td>
<td>Cadent Gas</td>
</tr>
<tr>
<td>Potable Water</td>
<td>Thames Water</td>
</tr>
<tr>
<td>Sewers</td>
<td>Thames Water</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>BT Openreach, Virgin Media, Colt</td>
</tr>
</tbody>
</table>

WSP have prepared a utility constraints mark-ups based on record mapping information received. The mark-ups, which are located in Appendix A.

The following sections outline the existing utilities which are routed within and in close proximity to the site taken from record information obtained during this study.
It should be noted that the utility networks are dynamic by their nature and the asset records are valid at the time of receipt.

**ELECTRICITY**

UKPN is the Electricity Distribution Network Operator (DNO) for the 8 Albert Embankment site.

**West Site** – There are existing LV and HV cables routed within the eastern footway of Albert Embankment. There are also LV cables routed within the Black Prince Road southern footway in close proximity to site boundary. HV cables are routed in the western footway of Lambeth High Street in close proximity to site boundary so may be affected by piling/basement works. The existing supplies to the Fire Brigade Headquarters are routed from Black Prince Road into the SW and SE corners of site and will need to be disconnected prior to demolition/construction works.

**Central Site** – There is an LV supply in the SW corner of existing site and possibly 2 other cables supplying the Fire Brigade Workshop building from the north which will require disconnection. The asset records have shown that no electrical assets apart from connections to existing streetlighting, are routed within the footways of Whitgift Street and Lambeth High Street.

**East Site** – There are LV cable routes through the surrounding southern and eastern footways which may be affected by the construction works. Therefore it is recommended that further survey investigations are carried out in this area to confirm the location and proximity of the cables to the proposed piling works.

It will be necessary to arrange for the disconnection of any redundant electricity supplies or the alteration of retained supplies falling within the site as part of the demolition/enabling works. Survey works will be required to confirm the presence of service connections within the site.

A further review will be required during the detailed design stage to confirm any anticipated works associated with existing assets affected by any alterations to existing highways, footways and landscaping [i.e. proposed tree planting] layouts including changes to line and level.

From record mapping no other LV electrical assets are shown within the site.

**GAS**

Cadent Gas is the Gas Distribution Network Operator for the 8 Albert Embankment site.

**West Site** – There is a 36” Low Pressure Gas (LPG) main which is routed within the footway & carriageway of Lambeth High Street. The proximity of this main to the site may be affected by piling/basement works and therefore further survey investigations are recommended.

**Central Site** – There is a Low Pressure Gas main which is routed within the Whitgift Street, Black Prince Road and Lambeth High Street carriageways around site. There is also an existing 4” ST supply
to the Fire Brigade Workshop buildings connecting off the existing 90mm PE LPG main located in Whitgift Street. This service will require disconnection prior to demolition/construction works.

**East Site** – There is a Low Pressure Gas main routed within the carriageway around site. The main appears to be far enough away from site that piling works would not necessitate diversionary works.
- Based on the available proposals diversions/alterations are not anticipated.

**POTABLE WATER**

Thames Water is the incumbent water utility company for the 8 Albert Embankment site.

**West Site** – The current supplies to building number 8 are located NW of site which are a 6” fire supply and unknown sized supply on Albert Embankment off a 7” CI main. Both supplies would need to be disconnected prior to demolition/construction works. There is also a trunk water main routed in Black Prince Road which is not affected.

**Central Site** – There is a 3” fire main into the site supplying The Workshop building connected from the water main located in Whitgift Street which would need to be disconnected prior to demolition works.

There is another supply to The Workshop off a 4” water main in Lambeth High Street. There are also 2no. 4” water mains in Lambeth High Street which may be affected by Piling work and therefore it is recommended that further survey investigations are carried out in this area prior to construction to confirm.

**East Site** – There are 2no. 6” fire supplies and a customer supply to the west of the site zone which supplies the existing buildings adjacent to the site. The 3 supplies should not be affected by the construction works, but locating them on site would be required to check the location is correct and does not interfere with proposed site hoarding.

It will be necessary to arrange for the disconnection of any redundant potable water supplies or the alteration of retained supplies falling within the site as part of the demolition/enabling works. Survey works will be required to confirm the location of on-site pipework within the site.

A further review will be required during the detailed design stage to confirm any anticipated works associated with existing assets affected by any alterations to existing highways, footways and landscaping layouts including changes to line and level.

**TELECOMMUNICATIONS**

The WSP desktop study has confirmed that the majority of the major fibre providers are located within close proximity of the site. A description of each telecom provider located around the site is provided below.
BT

**West Site** – There is an existing supply to the NE corner of the number 8 building routed through the corner of site. If the cable supplies the adjacent International Maritime Organization building, it will require a diversion, if not then only a disconnection of the service will be required.

**Central Site** – The supply to The Workshop located on this site is routed to the south of the plot. A disconnection of this supply will be required prior to demolition/construction works.

**East Site** – Not affected as there is no network in proximity to the site.

Colt

**West Site** – Colt have a network located within the footway and carriageways surrounding the site. The network appears to be in close proximity to the SE corner of the plot where an existing basement located.

Further investigation will be required to confirm if this asset will be affected by construction of the development.

**Central and East Sites** – Not affected as there is no network in proximity to the site.

Instalcom

**East Site** – Instalcom appear to have a network which runs through the NE corner of the site. The cable route is currently shown beside the railway within the site and therefore further investigation is required. This cable route needs to be reviewed as it may be related to the railway above.

**Central and Central Sites** – Not affected as there is no network in proximity to the site.

Interoute

**West Site** – A cable route is shown routed within carriageway along the west side of the site in Albert Embankment. The cable route could be affected by piling and therefore further surveys are recommended.

**Central and East Sites** – Not affected as there is no network in proximity to the site. 
Virgin Media

**Virgin Media**

**West Site** – A cable route is shown routed within all three footways outside of the site zone. This cable route could be affected by the piling/ basement works and therefore further surveys are recommended.

**Central and East Sites** – Not affected as there is no network in proximity to the site.

**Vodafone**

**West Site** - A cable route is shown routed in the footway of Albert Embankment and within the south and east carriageway surrounding the plot. There is a supply in SW corner of the plot and another supply in the NE corner which will require disconnecting. If the service cable found in the NE corner supplies the International Maritime Organization building adjacent to the site, the cable will require a diversion.

**Central and East Sites** – Not affected as there is no network in proximity to the site.

**Zayo**

**West Site** – A cable route is shown routed in the Albert Embankment and Black Prince Road carriageways and there are supplies to Fire Brigade Headquarters shown in the NW and SW corners of the site area. These supplies will require disconnection prior to demolition/construction works.

**Central and East Sites** – Not affected as there is no network in proximity to the site.

**OTHER ASSETS**

**TFL Traffic Control Equipment**

**West Site** – There are assets routed within the Albert Embankment footway. The safe working distance from any piling/basement works should be confirmed with TfL.

**Central and East Sites** – Not affected as there is no network in proximity to the site.
3.2. Utility Loading and New Networks

An assessment has been carried out to predict the anticipated utility loading requirements for the site to determine the impact on the existing utility infrastructure networks.

It should be noted that the utility networks are dynamic by their nature and the responses are valid at the time of receipt.

**Electricity**

WSP has produced the following loading calculations for the purpose of engaging with the incumbent utility providers to determine points of connections and any off-site reinforcement or upgrade works to supply the proposed development.

**Capacity**

Electricity capacity is a known issue in the area, and UKPN are carrying out works to provide extra capacity to the 11kV HV network.

UKPN has stated that the total load required for Albert Embankment will not be available until works at the Main Substation at Stewarts Road, in the SW8 area are completed. UKPN expect the Stewarts Road substation to be commissioned Q4 2019, but it should be noted however that these works are dependent on works being completed in Wimbledon by National Grid which may push commissioning date into Q2 2020 at best.

There is potential capacity for the East Site but it would be necessary to formally apply for new supply quotation to have the capacity confirmed. (Formal applications to UKPN are not charged)

WSP queried UKPN if the West Site could be supplied with c 800kva based on current usage of that site by Q1/Q2 2020 1MVA. UKPN stated that it would be necessary to formally apply for new supply quotation for confirmation.

**GAS**

WSP has produced the following load calculations for the purpose of engaging with the incumbent utility providers to determine points of connections and any off-site reinforcement or upgrade works to supply the proposed development.

The WSP Points of Connection and Gas loadings were submitted to National Grid Gas (NGG) with applications for capacity checks for all 3 sites of the 8 Albert Embankment developments.

Capacity & New Supply Applications for West & Central Sites

WSP applied for new supply quotations on the 16th March 2017 based on NGG’s response to the capacity inquiry, and the quotations details are attached to this report.

The application was made for the West and Central Sites only so that the project team would be informed of the reinforcement works which NGG stated as being required.
NGG has conducted further analysis of their network and now confirm that no reinforcement works to their network are required to supply the West and Central Sites. This confirms that at this time no additional time or cost are necessary for offsite reinforcement.

The connections to the West and Central Site will be made from the existing low pressure 24” and 36” CI gas mains located in Lambeth High Street and assumes that all onsite excavation and reinstatement works will be carried out by the appointed contractor.

The appointed contractor will also be responsible for the supply and installation of the gas meter, along with any associated outlet pipework and to supply and install the meter housing & base.
POTABLE WATER

The WSP Points of Connection and Water loadings were submitted to Thames Water (TWU) with applications requesting for the budget costs and capacity checks for all 3 sites of the 8 Albert Embankment developments.

Capacity

The TWU response for all 3 sites confirms that the existing network has capacity to supply the water loadings required.

New Connections

West Site
The connection will be made off a 4” water main in Lambeth High Street.

Central Site
The connection will be made off a 4” water main in Lambeth High Street.

East Site
The connection will be made off of a 7” water main in Black Prince Road.

TWU do not provide a separate fire supplies to new developments and therefore internal pipework will be required to supply the sprinkler tank from the water supply which TWU provide to each site.

TELECOMMUNICATIONS

In order to provide resilient telecommunications connectivity and flexibility for end tenants multiple telecommunications providers should be approached for connection proposals.

If Fibre to the Premise (FTTP) connectivity is a goal for the project an early application should be made to Openreach as each site is assessed on an individual basis. The lead time for agreeing FTTP connectivity can be in the order of 12 months.

No further consultation has been progressed with Openreach in the preparation of this Utility Statement.
3.3. UTILITY CONNECTIONS

It is anticipated that new connections to the 8 Albert Embankment site will be from existing networks/extended networks to the north of the site.

Formal connection applications are to be pursued once the scheme is finalised in line with the construction programme.

3.4. SURVEY RECOMMENDATIONS

In order to reduce risk during construction it is recommended that the following surveys are carried out of the existing services located in close proximity to the development prior to construction. With regard to proposing locations of trial holes, this can be actioned at a later stage if requested.

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<th>Location</th>
<th>Survey Recommendation</th>
<th>Comments</th>
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<td>Water</td>
<td>Lambeth High Street</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate 2no 4” water mains shown on Thames Water records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works; however this clearance will need to be clarified by the service operator.</td>
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<td>Water</td>
<td>Phase C Site</td>
<td>GPR the site to trace potential water services within the site which could be currently located within the site</td>
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<td>Gas</td>
<td>Lambeth High Street</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate 36” gas main shown on NGG records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works; however this clearance will need to be clarified by the service operator.</td>
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<td>Electric</td>
<td>Albert Embankment/ Black Prince Rd/Lambeth High Street</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate LV &amp; HV cables shown on UKPN records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works, however this clearance will need to be clarified by the service operator</td>
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<td>Openreach</td>
<td>Phase A Site</td>
<td>Carry out a GPR survey of the site to trace potential Openreach service into International Maritime Organization building. Internal survey should be carried out first to identify which side of the building the supply enters.</td>
<td>Diversion of the service will be required if service belongs to the International Maritime Organization building</td>
</tr>
<tr>
<td>Virgin Media</td>
<td>Albert Embankment/ Black Prince Rd/Lambeth High Street</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate cables shown on Virgin Media records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works, however this clearance will need to be clarified by the service operator</td>
</tr>
<tr>
<td>Colt</td>
<td>Lambeth High St/Black Prince Rd</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate cables shown on Colt records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works, however this clearance will need to be clarified by the service operator</td>
</tr>
<tr>
<td>Instalcom</td>
<td>Phase C Site</td>
<td>GPR the site to trace potential Instalcom service within the NE corner of the site</td>
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<tr>
<td>Interoute</td>
<td>Albert Embankment</td>
<td>Trial Hole up to 2 metres away from piling alignment at specific locations to locate cables shown on Interoute records</td>
<td>Generally 1.5 metres is a suitable clearance zone for assets in close proximity to piling works, however this clearance will need to be clarified by the service operator</td>
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<td>Vodafone</td>
<td>Phase A Site</td>
<td>Carry out a GPR survey of the site to trace potential Vodafone service into International Maritime Organization building. Internal survey should be carried out first to identify which side of the building the supply enters.</td>
<td>Diversion of the service will be required if service belongs to the International Maritime Organization building</td>
</tr>
<tr>
<td>Traffic</td>
<td>Albert Embankment</td>
<td>The safe working distance from piling zones should be confirmed with TfL</td>
<td>WSP are not currently scoped to review asset associated with traffic signalling.</td>
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