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THE
CHOCOLATE
FACTORY



Utilities Statement

Batch No: 003

Date: 02/18

MADE BY FURNESS GREEN

UTILITY STATEMENT

641 – THE CHOCOLATE FACTORY, WOOD GREEN



Furness Green Partnership

Building Services and Environmental Engineering Consultants

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THE CHOCOLATE FACTORY
WOOD GREEN

UTILITY STATEMENT

Ref: 641-25-01-01 Rev 04

Issue	Date	Prepared by	Checked by	Approved by
Rev 00	30 th Aug 2017	A. Fleming T. Sankor	A Fleming D Croft	D. Croft
Rev 01	9 th Oct 2017	A. Fleming T. Sankor	A Fleming D Croft	D. Croft
Rev 02	24 th Jan 2017	D. Croft	A. Fleming	D. Croft
Rev 03	26 th Jan 2018	D. Croft	A. Fleming	D. Croft
Rev 04	18 th Feb 2018	D. Croft	A. Fleming	D. Croft
Comments				
Updated to acknowledge revision to commercial and residential layouts				

Disclaimer

This report has been prepared by Furness Green Partnership, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.



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1 INTRODUCTION

1.1 GENERAL

Furness Green Partnership (FGP) was instructed by Workspace Ltd. ('the client') to undertake a utility constraints study in connection with the Chocolate Factory development as part of an overall site assessment. The objective of the study was to identify any significant utility services constraints on the proposed scheme. This document is intended to act as a statement of progress at the date of production, for the M&E utility design and application progress. The utility provider's status and progress are detailed, covering scope, impact and budgets. This report is intended to be submitted as part of the planning application. The study process consisted of a desk-based investigation and data research to obtain utility record plans and information. The preliminary consultation was undertaken with utility companies to identify any potential development constraints.

1.2 EXECUTIVE SUMMARY

Utility searches have been performed to obtain current information for electricity, gas, water and telecoms to the site.

Provisional cost estimates have been obtained from the utility providers and included within this report along with any record drawings which have been received.

Potential diversion requirements have been based on information received from the utility providers and the existence of any public utility plant/assets being present within the site. Any constraints with regard to potential new supplies to the development are subject to further review of existing supplies to the site and detailed studies by the utility network operators. The site is served by power, gas, water and sewers. Several other utility providers apparatus passes close by and are unaffected by the proposed development.

Alternative means of feeding the site from an energy centre, or on a building by building basis, have been discussed with the utility companies.

A number of revisions to the commercial and residential elements of the scheme have been made in January and February 2018. A reduction has been made to the number of units in Block B. The number of units in Blocks D and E have been increased. Overall, the changes have meant that the total number of units on the site has increased (by 14, from 216 to 230), however the net internal area has fallen slightly. The commercial gross internal area has increased. These changes will have very little effect on the overall utility requirements for the site, however providers are to be re-engaged. The loadings used within this report have not been amended to reflect these minor alterations, although the updated area schedule (rev G – Commercial and rev I - Residential) is contained within Appendix A.

The detailed planning application scheme (Block A, B, D, E and F) requires the following;

- 1.8 Megawatt Electrical Supply across three new substations.
- 2.5 Megawatt total gas supply required for the scheme.
- 133 cubic meters of domestic water, daily demand
- New drainage network, incorporating stormwater attenuation.

The masterplan scheme requires the following;

- 4.3 Megawatt total electrical supply across seven new substations, and three relocated substations.
- 3.8 Megawatt total gas supply required for the scheme.
- 217 cubic meters of domestic water, daily demand
- New drainage network, incorporating stormwater attenuation.



1.3 MASTERPLAN & DETAILED APPLICATION

For the purposes of assessing the impact to the existing utility infrastructure, an assessment has been made to determine the electrical power, space heating and cooling, foul water, domestic hot water, and domestic cold water supply requirements for all blocks on the development site so that a complete picture can be ascertained to identify the impact to the surrounding utilities. In this way, the electrical substations, gas network, Thames Water infrastructure and sewers can be designed to accommodate the requirements of the whole site, and be delivered in phases.

The detailed planning application for the development, known as The Chocolate Factory scheme, consists of five different blocks from A-B, D1-F, of various types and uses. The site is predominantly comprised of residential accommodation, with commercial units interspersed at the ground floor of some blocks (B and D1). There are commercial units in blocks (A, E and F).

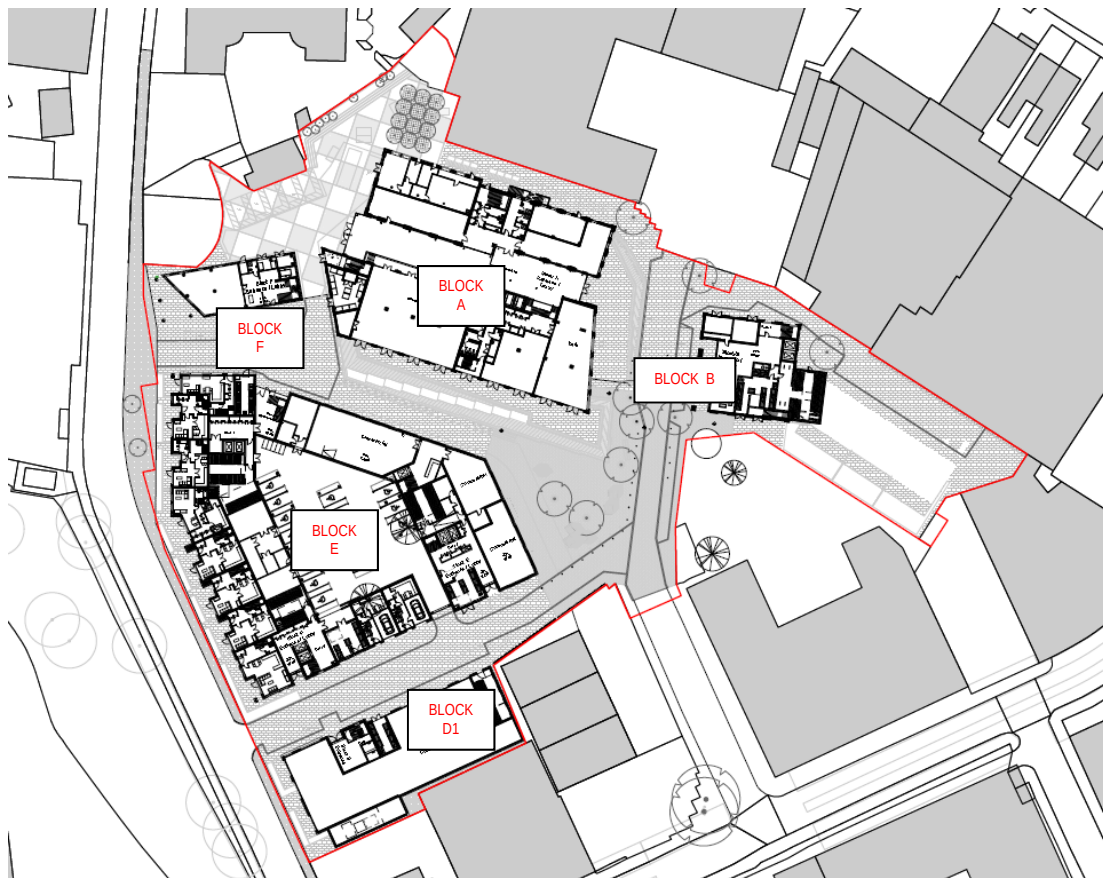


Figure 1 – Proposed site plan for detailed planning application (Jan 18 revision)

1.4 EXISTING SERVICES

A statutory bodies' record drawings search was undertaken, and existing utility services are known to enter and cross the proposed site in order to connect to the existing and surrounding buildings. These are shown below.

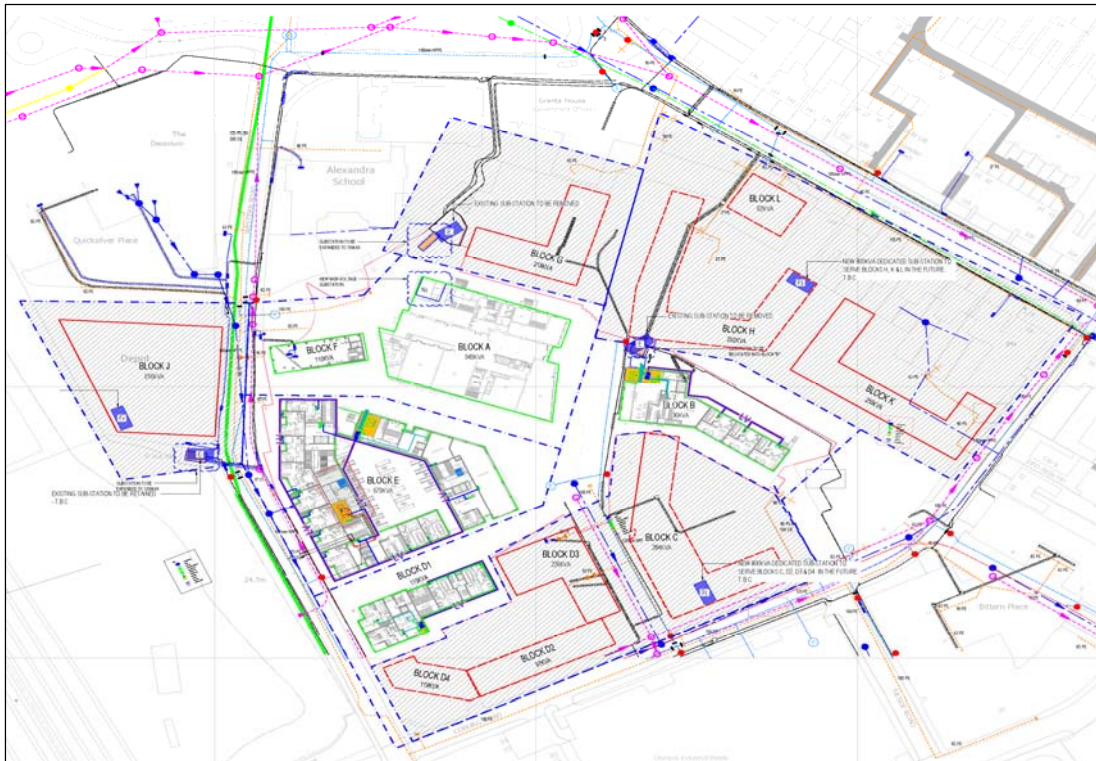


Figure 2 - Existing utility infrastructure overlay

The power, gas, water and sewer networks will require upgrading to accommodate the requirements of the new scheme. The following services are at this time unaffected by the proposals, as confirmed through a development appraisal search (copy of correspondence is contained in Appendix C);

- Arquiva Telecoms WiFi & Small Cells
- CA Telecom Ltd
- Energetics
- ueNetworks Fiber UK Ltd
- Fulcrum (other gas networks do exist)
- GTC
- Vtesse Networks
- KCOM Group PLC
- London Overground
- London Underground Power Distribution
- KPN & TATA Apparatus
- Plancast Infrastructure
- Scottish & Southern Electric
- Telent and Teliasonera
- Trafficmaster
- Verizon
- Vodafone



2 WATER

The local clean water infrastructure is owned and operated by Thames Water Ltd. A pre development capacity application was submitted to establish the impact of the new development on the surrounding infrastructure. Confirmation that proposed masterplan and detail application areas can be supported without infrastructure upgrade was received.

2.1 NEW SUPPLY

Thames Water

Developer Services

Asset Development

Reading

RG1 8DB

Contact: Zaid Kazi

Tel: +44 (0)800 009 3921

2.2 CONTAMINATED LAND

At this time, it is likely that some or all of the development site contains contaminated land. It is recommended that any mains and service connections are undertaken using Barrier Pipe.

2.3 DIVERSIONS

There are no public utility supply mains shown on the site record drawings provided therefore major diversions works are not anticipated.

2.4 NEW SUPPLIES AND CONNECTIONS

Our design assessment is based on having potable water storage in each block of the development to cater for minor disruption of service. The storage volume typically represents twenty four hours of normal usage. The stored water is then boosted to each user via in line water meters. The meters are fitted within the heating interface units (HIU's) in the communal spaces in each block. With the advent of smart metering, consideration has been made where practical for locating the HIU's within each dwelling.

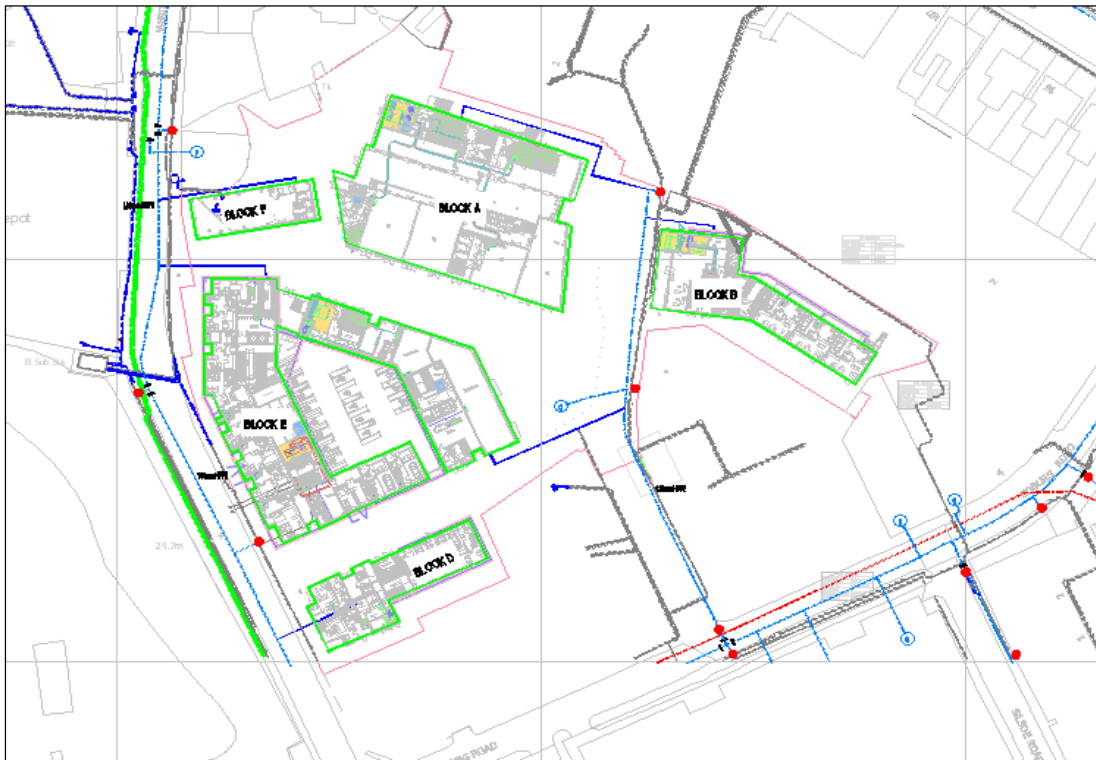


Figure 3 - Proposed new water main distribution (old site plan)

Thames Water has indicated that there are no issues with water supply in this area generally. If peak consumption increased markedly beyond that anticipated in the application, Thames Water would need more details to assess this impact on the existing infrastructure in the area.

This is based on requiring the following summarised peak cold water demands set out in Appendix B.

2.5 INDICATIVE COSTS (DETAILED APPLICATION)

Onsite Mains

Lay approximately 101 metres of 125mm HPPE diameter water main from 90mm main in Clarendon Road & 180mm in Western Road.

Budget Costs = £45,753

Block A

1x63mm barrier pipe metered supply from the existing main if 90mm HPPE on Clarendon road.

Budget Costs = £4,464.29 + VAT £892.85 (£5,357.14)

Block B

1x 90mm HPPE Bulk supply & delivery of 72 internal meters from 90mm HPPE main in Clarendon Road.

Budget Costs = £12,820.58 + VAT £2,564.11 (£15,485.36)

Block D

1x 63mm MDPE Bulk supply & delivery of 32 internal meters from 90mm HPPE main in Clarendon Road.

Budget Costs = £5,741.38 + VAT £1,435.35 (£7,176.73)

Block E (Residential)

1x 90mm MDPE Bulk supply & delivery of 112 internal meters from 180mm HPPE main in Western Road.



Budget Costs = £15,528.45 + VAT £3,882.32 (£19,410.56)

Block E (Commercial)

2 x 32mm barrier pipe metered supply from the existing main of 180mm HPPE on Western Road.

Budget Cost: £4,102.96 + £VAT 820.59 (£4,923.55)

Block F

1x 32mm barrier pipe metered supply from the existing main of 180mm HPPE on Western Road.

Budget Costs = £4,228.13 + VAT £704.69 (£3,523.44)

Infrastructure Charges

Water Infrastructure Charges = £157k

Sewerage Infrastructure Charges= £157k

Infrastructure charge credits may be applicable based on the water consumption at the site within the last 5 years. This will be investigated at the next design stage.

2.6 BUILDING WATER

A charge is made for water used for building purposes where an existing un-metered supply is used. The charge will be based upon the amount of water used or as a percentage of the development contract value, which is currently 0.17%.

3 WASTE WATER

The local sewer infrastructure is owned and operated by Thames Water Ltd. A development application has been lodged with Thames Water in December 2016.

3.1 PROPOSED FOUL WATER DRAINAGE

A complete system of drainage pipework buried below the ground floor slab of the building and buried externally below ground shall be provided to convey foul water discharges from all parts of the development. All foul water discharge stacks and internal foul water drainage shall be kept separate from the residential and commercial elements of the development.

A proposal for the site buried drainage has been undertaken by Furness Partnership Structural Engineers. The map below is an extract from the proposal drawing.

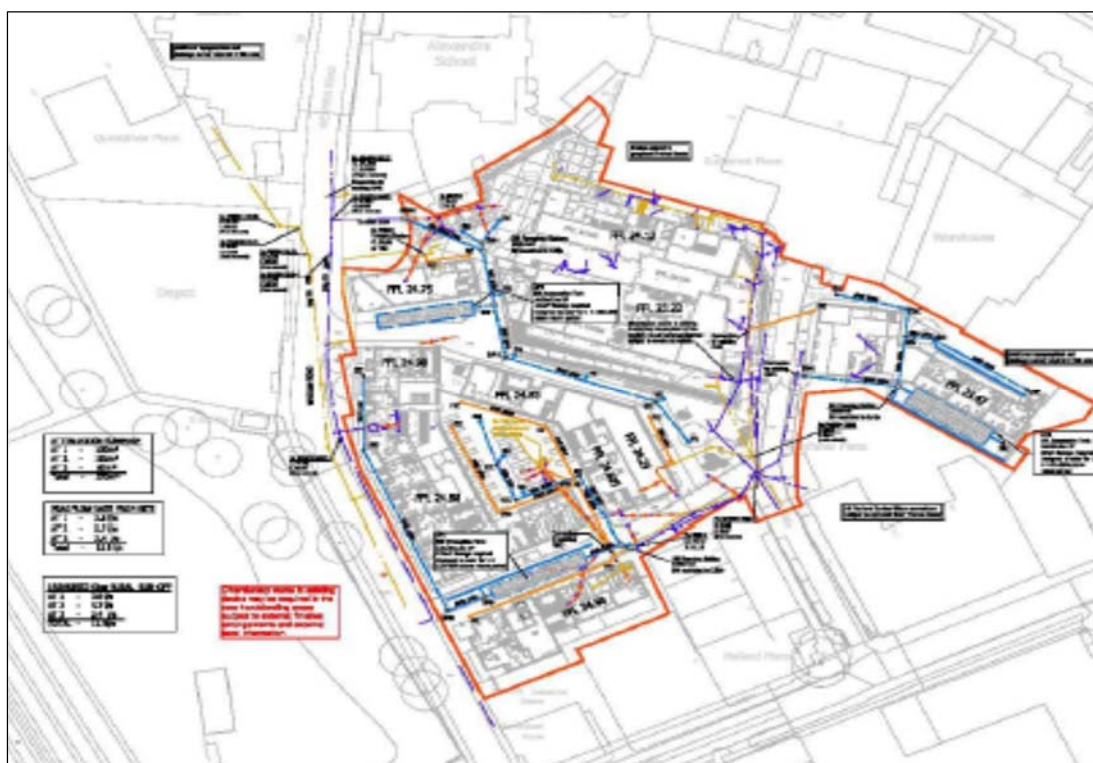


Figure 4 - Proposed Surface and Foul Drainage Strategy (old site plan)

Foul water drainage from each of these elements shall discharge by gravity to a connection on the Thames Water sewer network. There is a minimal requirement for pumped foul water on the site and will be restricted to Block B energy centre.

Drainage from car parking areas at ground and below ground levels will discharge to the foul water drainage system by means of approved petrol/oil separators.



3.2 SURFACE WATER DRAINAGE

To comply with the National Planning Policy Framework (NPPF), surface water drainage systems must be designed with sustainability in mind.

The design intent is to incorporate rain and stormwater attenuation measures into the site master planning landscape, to meet the following requirements:

- Consideration of the elements of SuDS hierarchy has been followed.
- Harvest rainwater for re-use;
- Use infiltration techniques, in permeable soils;
- Attenuate rainwater in ponds and open water features, for gradual release;
- Attenuate rainwater by storing in tanks or sealed water features, for gradual release;
- Discharge rainwater at attenuated rate into watercourse;
- Discharge rainwater at attenuated rate to surface water sewer/drain;
- Discharge rainwater at an attenuated rate to a combined sewer.

The Environment Agency's (EA's) preferred 1 in 100 years limiting flow rate for surface water is to be the urban greenfield runoff rate of 17 l/s which includes an allowance for climate change effects.

London Clay has a notoriously low permeability and so is very unlikely to offer any reasonable infiltration. There are no watercourses on this site hence the only option available for discharging the site's surface water is to provide attenuation prior to discharging to surface water sewers.

The surface water will be attenuated by the incorporation of green roofs and through attenuation tanks. Although there will be additional storage volume in the green roofs, it is difficult to quantify hence this provision is calculated as an excess storage over and above the attenuation tanks volume, making the design conservative.

The different parts of the site connect to different branches of the sewer network at different locations. To distribute the volume proportionately around the development, the site is divided into three catchment areas each served by an attenuation tank.

The surface water drainage strategy proposed utilises these underground tanks to store the volume of water suitable for the required '1 in 100-year plus 30% climate change' storm event.

This stored water will be pumped to the surface water sewer. Pumping is needed due to the flat gradient of the site. The total offsite flow rate is restricted to 17 l/s, this being the Qbar runoff rate and this requires a stored volume of

The green roofs make up 443m² of 50mm thick sedum roof.

3.3 FLOOD RISK

A flood risk assessment has been undertaken by GTA Civils for Furness Partnership.



3.4 GAS

The local natural gas (low and intermediate pressure) infrastructure surrounds the site on three sides. Main runs are present on Western Road to the west, Coburg Road to the south and on Hayes Road to the northeast. Branches serve the existing site and surrounding developments.

3.5 NEW SUPPLY

Squire Energy

Accounts Receivable

25 – 29 High Street

Leatherhead

Surrey

KT22 8AB

Contact: Joanna Loxley

Tel: +44 (0)7557 021 415

3.6 EXISTING SERVICES

A detailed search was undertaken of statutory bodies' record drawings, and existing utility services are known to enter and cross the proposed site in order to connect to the existing and surrounding buildings.

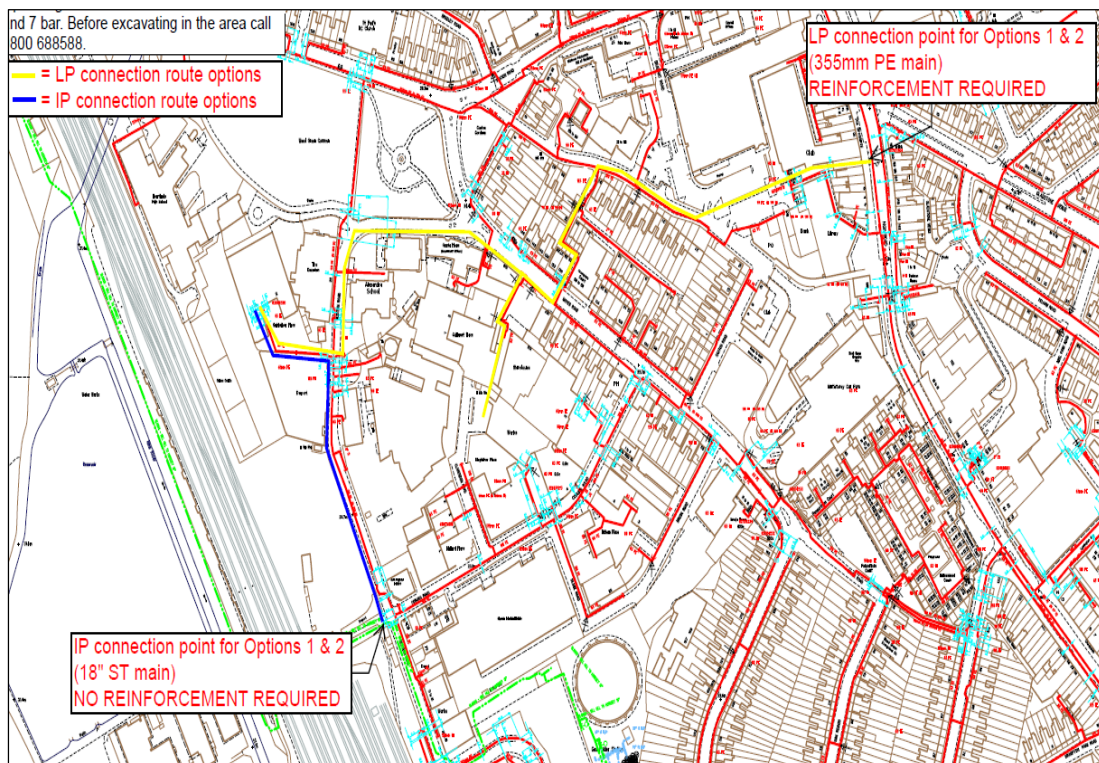


Figure 5 - National grid gas network map

3.7 DIVERSIONS

There are no public utility supply mains shown on the site record drawings provided therefore major diversions works are not anticipated.

3.8 NEW SUPPLIES AND CONNECTIONS

The local natural gas (low and intermediate pressure) infrastructure surrounds the site on three sides. Main runs are present on Western Road to the west, Coburg Road to the south and on Hayes Road to the northeast. Branches serve the existing site and surrounding developments.

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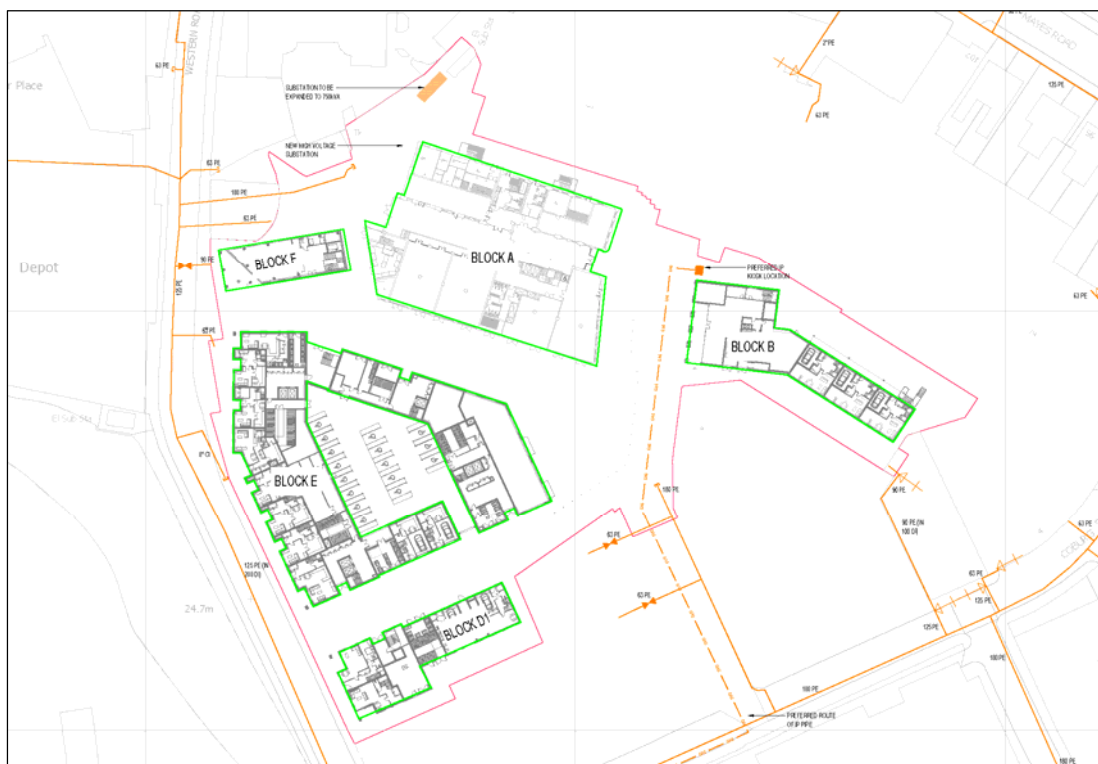


Figure 6 - Existing gas network (connection to existing IP gas main point highlighted) (old site plan)

A number of branches entering the site serving existing buildings will need to be capped off and removed.

An application has been made to Squire Energy to establish the impact of the new scheme on the surrounding infrastructure, based on the anticipated peak gas loads set out in Appendix B.

3.9 INDICATIVE COSTS (DETAILED APPLICATION)

The budget cost for this option is £90k.



4 ELECTRICITY

UK Power Networks is the incumbent power provider for the Chocolate Factory scheme.

A number of substations exist on the site, fed from a 6.6kV high voltage network. Parts of this infrastructure cabling will need to be diverted as part of the enabling works in both phases of the schemes, as it crosses aspects of the development. The substations also serve adjacent properties, and this will need to be considered when relocation works commence.

4.1 NEW SUPPLY

UK Power Networks

Metropolitan House

Drakes Lane

Potters Bar, Herts

EN6 1AG

Contact: Charles Clayden

Tel: +44 (0)1279 824 763

4.2 EXISTING SERVICES

There are three existing substations lying within the footprint of the new development supplying the existing Factory and some surrounding residential buildings. UKPN have indicated that as a result of the new development, two substations are to be removed and one network substation located on Western Road will be retained. This substation located on Western Road (next to Block J) serves adjacent properties.

4.3 DIVERSIONS

In relation to phase 1 scheme which this planning submission is focusing on, one existing substation (adjacent to Block B) needs to be removed and the cables diverted. The Western Road substation located to the West of the site provides power to the adjacent properties and may require some cable diversions. This will need to be taken into account when relocation works commence in the phase 2 scheme. A temporary substation is a likely requirement.

4.4 NEW SUPPLIES AND CONNECTIONS

Furness Green have estimated the electrical load for the complete scheme from an earlier proposed Masterplan that is based on gas heating and without a residential cooling load. Within this estimate, we have also made allowances for the commercial units, site and Land Lord services as per architectural plans of the proposed site.

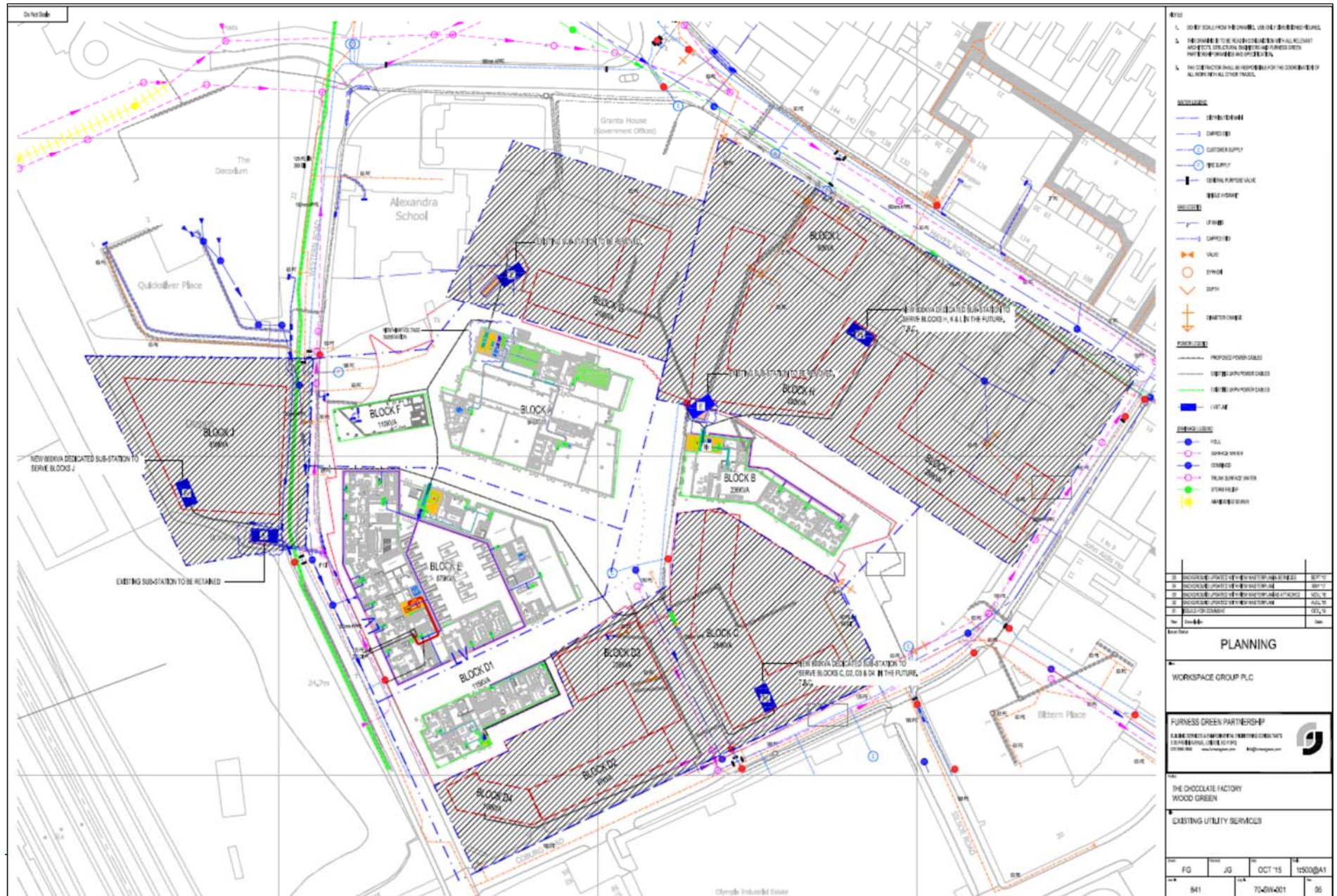
These estimates are set out in Appendix B.

At this point, the load assessments are based on the development without a residential cooling load on the basis that windows can be opened for both ventilation and reduction of summer overheating.

An application has been made to the UK Power Networks to establish the impact of the new development on the surroundings. This is based on requiring 4.3MVA (4.1Megawatts) for the complete development. UKPN has allocated a total number of six substations; three in phase 1 development and four in the phase 2 development. This phase 1 scheme being submitted for planning is a smaller scheme and can therefore be accommodated in terms of utility.



We have received a budget cost for the complete development of the scheme in the sum of £533,244.23k (which includes local cable upgrades and supplies to the dwellings and commercial units). Final diversion costs will be sought once the scheme progresses beyond the planning stage with an agreed building footprint.





5 TELECOMMUNICATIONS

5.1 NEW SUPPLY

Wood Green

PP 2.35E

Midland ATE

60 Station St

Wood Green

B5 4AL

Email: networkalts.london@openreach.co.uk

5.2 EXISTING SERVICES

Furness Green Partnership has obtained record information from British Telecom for the area of The Chocolate Factory, Wood Green Site. This information is included in Appendix D. Records indicate the presence of underground BT apparatus within the site boundary. One distribution point is located to the North of the site and two distribution points along the South East boundary of the site.

5.3 DIVERSIONS

From the record drawings received from BT, there are not expected to be any major diversions required.

5.4 NEW SUPPLIES AND CONNECTIONS

From the existing record drawings, there are not expected to be any issues in providing network services to the development.



6 SUMMARY

Site: The Chocolate Factory, Wood Green

Water – Thames Water

Existing Services

Thames Water records indicate a distribution main around the site perimeter.

Diversions

There are no diversions anticipated.

New Supplies and Connections

Thames Water has indicated that there are no issues with provision of water supply to this area. Any anticipated increase in demand should be discussed with Thames Water to confirm availability of supply.

Gas – National Grid Gas

Existing Services

National Grid has confirmed there is no existing gas services present within the site boundary.

Diversions

There are no diversions anticipated.

New Supplies and Connections

Records indicate monthly gas consumption by the development can be supported by the current infrastructure without any upgrades to existing gas main required.



Electricity – UK Power Networks

Existing Services

UKPN has indicated existing services/substations affected by the development.

Diversions

UKPN has not indicated any diversions required by the development, however, from looking at the existing services within the footprint of the buildings some diversions will be required.

New Supplies and Connections

UKPN has indicated that based on a provisional investigation sufficient capacity is available within the local HV network and new HV/LV Substations will be required for the new development.

Telecommunications – BT

Existing Services

Records indicate the presence of underground BT apparatus within the site boundary.

Diversions

From the record drawings received from BT, there are diversions anticipated.

New Supplies and Connections

From the existing record drawings, we do not anticipate any problems in providing network services to the development.



7 CONCLUSION AND RECOMMENDATIONS

Based upon the anticipated loads and indicative quotations obtained for The Chocolate Factory, Wood Green scheme, it has been established that the current infrastructure in the area for gas, water, electricity and telecoms is capable of supporting the proposed development. The exact location of utilities should be confirmed on site prior to the commencement of any work. Budget quotes for the current scope are contained under Appendix C.

Enquiries shall be made with the relevant network operators as early as possible in the project in order to obtain firm quotations from utility companies for the works, including the alterations to the layouts made in the January 2108 revisions.



APPENDIX A - ACCOMMODATION SCHEDULES

The Chocolate Factory

Accommodation and Areas Schedule

Residential Summary

Preliminary_rev K (12.02.18)

Residential Accommodation

Blocks	Total Units	Total Hab Rooms	Total Unit Type		NIA (m2)	GIA (m2)
Block B	64	154	DX 2B3P	0	3823.0	5919.1
			DX 2B 4P	0		
			DX 3B 5P	0		
			DX 4B 6P	0		
			Studio	4		
			1B 2P	30		
			2B 3P	2		
			2B 4P	28		
			3B5P	0		
Block D1	57	98	DX 2B3P	0	2849.5	4486.0
			DX 2B 4P	0		
			DX 3B 5P	0		
			DX 4B 6P	0		
			Studio	25		
			1B 2P	26		
			2B 3P	0		
			2B 4P	3		
			3B5P	3		
Block E	109	315	DX 2B3P	0	8101.85	11549.0
			DX 2B 4P	7		
			DX 3B 5P	1		
			DX 4B 6P	2		
			Studio	0		
			1B 2P	42		
			2B 3P	5		
			2B 4P	27		
			3B5P	25		
Block E/ Parking						789.8
TOTAL	230	567		230	14774.4	22743.9

Total Unit Detailed Application			
Unit Type	Total Unit Type		Units %
Studio	29	29	13 %
1B 2P	98	98	43 %
2B 3P	7	7	3 %
DX 2B3P	0		
2B 4P	58	65	28 %
DX 2B 4P	7		
3B5P	28	29	13 %
DX 3B 5P	1		
DX 4B 6P	2	2	1 %
Total	230	230	100 %

The Chocolate Factory
Accommodation and Areas Schedule
Residential Summary
Preliminary_rev E (07.04.17)

Residential Accommodation

Blocks	Total Units	Total Hab Rooms	Total Unit Type		NIA (m2)	GIA (m2)	GEA (m2)
Block B	72	192	DX 2B3P	0	4886.8	6910.9	0.0
			DX 2B 4P	0			
			DX 3B 5P	4			
			DX 4B 6P	3			
			Studio	4			
			1B 2P	26			
			2B 3P	2			
			2B 4P	33			
			3B5P	0			
Block D1	32	71	DX 2B3P	0	2037.25	2794.2	0.0
			DX 2B 4P	3			
			DX 3B 5P	1			
			DX 4B 6P	0			
			Studio	10			
			1B 2P	6			
			2B 3P	3			
			2B 4P	9			
			3B5P	0			
Block E	112	316	DX 2B3P	0	8193.93	12107.7	0.0
			DX 2B 4P	7			
			DX 3B 5P	1			
			DX 4B 6P	2			
			Studio	0			
			1B 2P	42			
			2B 3P	2			
			2B 4P	41			
			3B5P	17			
Block E/ Parking						789.8	815.6
TOTAL	216	579		216	15117.9	22602.5	815.6

Total Unit Detailed Application				
Unit Type	Total Unit Type		Units %	
Studio	14	14	6 %	
1B 2P	74	74	34 %	
2B 3P	7	7	3 %	
DX 2B3P	0			
2B 4P	83	93	43 %	
DX 2B 4P	10			
3B5P	17	23	11 %	
DX 3B 5P	6			
DX 4B 6P	5	5	2 %	
Total	216	216	100 %	

NOTE:

Duplex's Garages included in NIA and GIA

DX: Duplex

The Chocolate Factory

Accommodation and Areas Schedule

Commercial

Preliminary_rev F (07.04.17)

Commercial Areas

Blocks	No Floors	GIA (m2)
Block A* Chocolate Factory	6no Floors	8343.8
Block B (tower)	-	-
Block D1	-	-
Block E (Courtyard)	1no Floor Double height	227.0
	1no Floor Single height	76.0
Block F (Western Road)	3no Floors Single height	729.1
TOTAL		9375.9

NOTE: All commercial spaces designed as 'Shell and Core'

*Block A design based on survey received from The Client on 21.01.17 and produced by Plan Lond

The Chocolate Factory

Accommodation and Areas Schedule

Commercial

Preliminary_rev H (12.02.18)

Commercial Areas

Blocks	No Floors	GIA (m2)
Block A* Chocolate Factory	6no Floors	8343.8
Block B	-	-
Block D	1no Floor	570
Block E (Courtyard)	2no Floors	476.0
		538.0
Block F (Western Road)	3no Floors	729
TOTAL		10657

NOTE: All commercial spaces designed as 'Shell and Core'

*Block A design based on survey received from The Client on 21.01.17 and produced by Plan London Limited



APPENDIX B – LOAD SUMMARY



**CHOCOLATE FACTORY - UTILITY LOAD
SCHEDULE (excludes Jan 2018 revisions)**

Block	USE					Fabric Heat Loss (kW)	Domestic Hot Water Load (kW)	Total Gas Load (kWh)	Electrical Load (KW)	WATER CONSUMPTION (m³/day)
	Residential			Commercial	Car Park					
	Area (m²)	Units	Bedrooms	Area (m²)						
A	0		0	8344		809	0	809	895	38
B	4,887	72	124			220	262	482	241	30
D1	2,037	32	49			92	156	248	117	12
E	8,194	112	204	303	790	398	367	765	403	50
F				729.1		71	56	127	110	3
TOTAL	15,118	216	377	9,376	790	1,590	841	2431	1,766	133

Assumptions

Elec Loads - 90w/m² Commercial, 35w/m² residential, 10 w/m² internal car park. Power Factor = 0.85, Diversity = 0.8, 20% spare capacity

Residential Domestic Hot Water load calculated based on DS 439

Gas Loads - 97w/m² Commercial, 45w/m² residential, 0 w/m² internal car park, System efficiency 0.91

Water demand (daily)- 45l/10m² Commercial, 240l/bedroom Residential

Residential ratio m² to bedroom = 40 unless otherwise stated

Residential ratio m² to Unit = 68 unless otherwise stated



APPENDIX C – UTILITY QUOTATIONS

Our Ref: P12771JL5

Furness Green Partnership
3 Dufferin Ave
London
EC1Y 8PQ

FAO: Andrew Fleming

02 October 2017

Dear Andrew,

Re: Installation of New Natural Gas Infrastructure and Primary Gas Meters Quotation
Chocolate Factory Development, Clarendon Road, Wood Green, London, N22 6XJ

Further to our receipt of your correspondence dated 06/09/2017, we are pleased to present our Quotation for the installation and provision of a new natural gas infrastructure (gas mains and services) and primary gas meter works to the above development.

Outlined below is Squire Energy Limited' (SEL) Quotation for the Works. This Quotation is offered as capable of acceptance and is valid for a period of **80** calendar days from the date shown.

We have prepared this Quotation based upon the information that has been supplied to us. In addition to the general assumptions and exclusions we have made we may have had to make a number of project specific assumptions and exclusions, which are detailed below. Please advise in writing if any of these are unclear prior to commencement of the Works.

Gas Network Capacity

Please note, based upon the peak instantaneous (gas) demand (PID) specified, your requirements will be subject to a post-acceptance (SEL quotation) check ('Security of Supply') by the incumbent Gas Transporter (GT – gas network owner, operator). Network 'reinforcement' works (e.g. upsizing, replacement etc) may be deemed as required by the GT to support the PID, which can cause delays in SEL completing the new connection. The GT will usually undertake the reinforcement works at their cost. Upon receipt of the customer's acceptance and clearance of payment, SEL will commence the process required by the GT and will prepare and submit full details so that they can undertake the network analysis works as required to confirm availability.

Capacity in a gas network may not be available without reinforcement; may not be reserved and is only ever offered on a first-come-first-served basis and for a limited period (quotation validity). Other connections and demands coming on stream will limit availability. Full scope of any reinforcement works is determined by the GT.

The Works and Services

This Quotation is to provide the Works (and services) as detailed below:

VISIT ONE: Coburg Road – Blocks B, G and H

- 1) Provision of suitably experienced, trained and accredited operatives and attendance at site / project address during normal working hours.
- 2) Connection to the existing 180mm polyethylene (PE) low pressure (LP) gas main in Coburg Road during normal working hours.
- 3) Construction of a new appropriately sized PE LP gas main from the connection point across the highway of Coburg Road to the site / boundary on Clarendon Road.
- 4) Construction / continuation of a new appropriately sized PE LP gas main extension from the site boundary / curtilage through the development (in an open [suitable and pre-prepared] excavation – works by the customer), terminating with a cap-end in the position indicated on 'SEL Indicative Design Plan' Ref: P12771JL5.
- 5) Construction / continuation of 3no. new appropriately sized PE LP gas supply extensions from the newly installed PE LP gas main (within site curtilage) to points adjacent to the proposed ground floor gas meter rooms serving Blocks B, G and H (as indicated on customer's drawing [as supplied to SEL on 29/09/2017] Ref: 70-SW-001).
- 6) Transition below ground from PE to steel pipework.
- 7) Entry into the ground floor level gas meter rooms (Blocks B, G and H) via a suitable standard above ground service entry terminating immediately upon entry within each gas meter room, each with a blanked emergency control valve (ECV) sited at low level.

Note 1:

Internal gas service pipework / section(s) / manifold etc. can only be located in an area that is **naturally** ventilated **direct** to outside atmosphere and may not be contained within any unventilated void or any duct or box-work. Natural (only permissible method) ventilation of the gas meter room is required and must be provided by the customer. Ventilation is to be calculated / based upon a min. 3% of the floor area of the meter room, equally distributed at high and low levels and installed **direct** to outside atmosphere. For further information please contact us or request 'SEL Customer Guideline' ... on LP gas meter kiosks / rooms.

- 8) Supply, install and commission 1no. U65 (Block B) and 2no. U40 (Blocks G and H) type primary (credit) gas meters in accordance with The Institution of Gas Engineers and Managers (IGEM) Standard IGE/GM/6 Ed. 2 – Non Domestic Meter Installations – Standard Designs and IGEM IGE/GM/8 - Non Domestic Meter Installations - Flow Rates Exceeding 6 scmh and Inlet Pressure Not Exceeding 38 bar. 'U' series / diaphragm type gas meter(s) are left with blanked / capped outlet connection(s).

VISIT ONE: Coburg Road – Blocks C and D

- 9) 2no. connections to the existing 180mm PE LP gas main in Coburg Road during normal working hours.
- 10) Construction of 2no. new appropriately sized PE LP gas supplies from the connection point across the highway of Coburg Road to the site / boundary.
- 11) Construction / continuation of 2no. new appropriately sized PE LP gas supply extensions from the site boundary / curtilage through the development (in an open [suitable and pre-prepared] excavation – works by the customer) to a point adjacent to the proposed ground floor gas meter rooms serving Blocks C and G.
- 12) Transition below ground from PE to steel pipework.
- 13) Entry into the ground floor level gas meter rooms (Blocks C and D) via a suitable standard above ground service entry terminating immediately upon entry within each gas meter room, each with a blanked ECV sited at low level.
- 14) Supply, install and commission 1no. U65 (Block C) and 1no. U25 (Block D) type primary (credit) gas meters in accordance with The Institution of Gas Engineers and Managers (IGEM) Standard IGE/GM/6 Ed. 2 – Non Domestic Meter Installations – Standard Designs and IGEM IGE/GM/8 - Non Domestic Meter Installations - Flow Rates Exceeding 6 scmh and Inlet Pressure Not Exceeding 38 bar. 'U' series / diaphragm type gas meter(s) are left with blanked / capped outlet connection(s).

VISIT TWO: Western Road – Blocks A and F

- 15) Provision of suitably experienced, trained and accredited operatives and attendance at site / project address during normal working hours.
- 16) Connection to the existing 125mm PE LP gas main in Western Road during normal working hours.
- 17) Construction of a new appropriately sized PE LP gas main from the connection point across the highway of Western Road to the site / boundary.
- 18) Construction / continuation of a new appropriately sized PE LP gas main extension from the site boundary / curtilage through the development (in an open [suitable and pre-prepared] excavation – works by the customer), terminating with a cap-end adjacent to Block A.
- 19) Construction / continuation of 2no. new appropriately sized PE LP gas supply extensions from the newly installed PE LP gas main (within site curtilage) to points adjacent to the proposed ground floor gas meter rooms serving Blocks A and F (as indicated on customer's drawing [as supplied to SEL on 29/09/2017] Ref: 70-SW-001).
- 20) Transition below ground from PE to steel pipework.
- 21) Entry into the ground floor level gas meter rooms (Blocks A and F) via a suitable standard above ground service entry terminating immediately upon entry within each gas meter room, each with a blanked ECV sited at low level.
- 22) Supply, install and commission 1no. U100 (Block A) and 1no. U16 (Block F) type primary (credit) gas meters in accordance with The Institution of Gas Engineers and Managers (IGEM) Standard IGE/GM/6 Ed. 2 – Non Domestic Meter Installations – Standard Designs and IGEM IGE/GM/8 - Non Domestic Meter Installations - Flow Rates Exceeding 6 scmh and Inlet Pressure Not Exceeding 38 bar. 'U' series / diaphragm type gas meter(s) are left with blanked / capped outlet connection(s).

VISIT TWO: Western Road – Blocks E and J

- 23) 2no. connections to the existing 125mm PE LP gas main in Western Road during normal working hours.
 - 24) Construction of 2no. new appropriately sized PE LP gas supplies from the connection point across the highway of Western Road to the site / boundary.
 - 25) Construction / continuation of 2no. new appropriately sized PE LP gas supply extensions from the site boundary / curtilage through the development (in an open [suitable and pre-prepared] excavation – works by the customer) to a point adjacent to the proposed ground floor gas meter rooms serving Blocks E and J.
 - 26) Transition below ground from PE to steel pipework.
 - 27) Entry into the ground floor level gas meter rooms (Blocks E and J) via a suitable standard above ground service entry terminating immediately upon entry within each gas meter room, each with a blanked ECV sited at low level.
 - 28) Supply, install and commission 1no. U100 (Block E) and 1no. U16 (Block J) type primary (credit) gas meters in accordance with The Institution of Gas Engineers and Managers (IGEM) Standard IGE/GM/6 Ed. 2 – Non Domestic Meter Installations – Standard Designs and IGEM IGE/GM/8 - Non Domestic Meter Installations - Flow Rates Exceeding 6 scmh and Inlet Pressure Not Exceeding 38 bar. 'U' series / diaphragm type gas meter(s) are left with blanked / capped outlet connection(s).
 - 29) **Additional Option** - Supply and install (fixing to wall in gas meter room immediately adjacent to primary gas meter) 9no. gas meter pulse convertors ('chatterbox') including input cabling and associated electrical wiring – in accordance with BS7671:2001 – Requirements for Electrical Installations, The Institution of Electrical Engineers (IEE) Wiring Regulations 17th Edition (BS 7671:2008), IGEM/GM/7A – Electrical Connections for Gas Metering Equipment and IGEM/GM/7B – Hazardous Area Classification for Gas Metering Equipment – to facilitate connection by end-user of BEMS/EMS to primary gas meter, if required.
 - 30) Excavation and permanent reinstatement of excavation in the public highway, only.
 - 31) All materials deemed necessary for the above upstream LP gas pipework and primary gas meters against the current scope of Works.
 - 32) Testing, purging and commissioning of all upstream LP pipework and primary gas meters.
 - 33) Project supervision and management.
-

Project Price

- **£ 87,606.00 + VAT**

`Additional Option` Works – Supply and Installation of 9no. Meter Pulse Convertor (`Chatterbox`) Interface

- **£ 2,475.00 + VAT**

Total

- **£ 90,081.00 + VAT**

Note 2:

'Project Price' is offered as a fixed price lump sum and is not subject to 'retention' or 'discount'.

Note 3:

Unless stated to the contrary 'Project Price' / Works above are based upon a maximum of **2x visits** and continuous working on each occasion, during normal working hours. If works are to be phased or staged further or if unplanned / unscheduled interruptions occur an additional minimum charge will be levied of **£1,900.00 + VAT** for each mobilisation and de-mobilisation event, plus costs as applicable for any additional or repeat traffic management, re-planning, re-design works, off/on-hiring of plant, additional admin. and management, all of which will be subject to prior consent, Variation to Order and to prior receipt of payment from the customer.

Note 4:

Should working outside of normal working hours be required (by the customer or public body, e.g. Local Authority, Highways Authority, Borough Council, police, transport authority, TfL or 3rd party etc.) this will be subject to prior agreement and consent by SEL and to Variation to Order. Working outside of normal working hours is only possible by prior agreement and is subject to the availability of volunteer labour and resources.

Note 5:

Should or if additional or repeat applications for consents etc, partial or full road or lane closures or suspension of parking bay, bus stop or bus waiting areas and subsequent re-establishment be required, or licences or traffic management plans be required by the public body (e.g. Local Authority, Highways Authority, Borough Council, police, transport authority, TfL or 3rd party etc.) or if works are interrupted or if staged / phased working applicable, or where additional lane rental or additional lane rental charges apply or where additional suspension of parking bays, bus stops or bus waiting areas and re-establishment are required, charges will be imposed by the public body. All such charges, where applicable, will be subject to review, consent and shall be subjugated and presented to the customer as a Variation to Order and to prior receipt of payment in full + VAT.

Note 6:

Project Price, is based upon the assumption that no working outside of 'normal working (weekday) hours' will be required, that no additional or bespoke traffic management is required, that no full or partial lane or road closures will be required, that no suspensions of parking bays, bus stops or bus waiting areas and re-establishment are required and / or that no lane rental charges will apply or will be imposed by the public body (e.g. Local Authority, Highways Authority, Borough Council, police, transport authority, TfL or 3rd party etc.) other than that as may be stated above. Should this / these apply or be imposed (which will not be known until post-acceptance and commencement of the planning process), then this / these will be subject to review, consent and shall be subjugated and presented to the customer as a Variation to Order and to prior receipt of payment in full + VAT.

Terms of Payment

- Full payment + VAT with order

Payments should be made (gross) to Squire Energy Ltd (by 'crossed' company cheque) or via BACS transfer method. If payment by BACS is preferred, please contact us for the relevant SEL bank account details.

SEL Unique Tax Reference (UTR) No.: 6987014110. SEL is registered with HMRC to receive gross payments.

Terms and Conditions

This Quotation has been prepared, is offered and is based solely upon SEL General Terms and Conditions of Contract (available upon request) and to the exclusion of all other terms and conditions. In addition to these terms, any notes, statements, assumptions, exclusions, Additional Project Notes, Important Customer Information or drawing, sketch or schematic as attached and as detailed will apply.

SEL General Terms and Conditions of Contract will supersede any others if stipulated with your order for the work.

Where applicable, the GT (or their agent) will liaise directly with the land owner for easements where required in 'private' or 3rd party owned land or land within the site curtilage or directly with the local authority if an easement is required on 'public land', laid out as highway. All liaison works, negotiations, time expended and costs incurred in regards to any 'legal' / engrossment etc works will be undertaken by and chargeable to the landowner / customer in full + VAT and are not the responsibility of, to be met by or chargeable to SEL.

This offer of Works and Services has been prepared and is offered as valid for the period as stated, after which it will automatically expire and will be withdrawn, and on the assumption that all Works, incl. connection to the GT gas main (where upstream / inlet works proposed) will commence within six (6) months of receipt of acceptance and clearance of payment (and receipt of all consents etc, notices, licences and approvals, as may be required) and that all Works will be finally completed within six (6) months of commencement.

Easement

Please refer to the attached Additional Project Notes / Important Customer Information – '*Easements*'.

In this case, we have been advised / assumed that an easement will not be required.

Where an easement is required, please forward the 'SEL Easement / Land Transfer' pro-forma as attached to this Quotation / Estimate to your client / the landowner for completion, ensuring that it is returned to the (SEL) office above along with your acceptance and payment.

Please contact us as soon as possible if you believe that for any reason that this assumption may be incorrect and / or to request the 'SEL Easement / Land Transfer' pro-forma where this has not been provided or to discuss this matter further.

Estimated (only) costs for establishing a standard easement between the landowner and the GT can be provided.

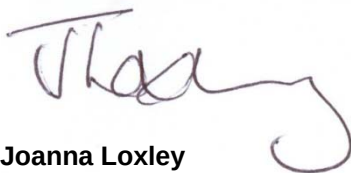
Where an easement is required, SEL's role is to act as facilitator only between the GT and the land owner. All correspondence, agreements and any engrossment will be between and will be negotiated by the solicitors and / or easement agents acting on behalf of these parties. Any 'project price' or costs that may be provided in regards to easements are provided on an 'estimate' basis only as they shall be subject to change to reflect the 'legal works' undertaken by the relevant solicitors, 3rd parties etc. Estimated costs as may be stated exclude any payments which may be required to 3rd party land owners.

We trust we have interpreted your requirements correctly and look forward to receiving your further instruction.

To accept this Quotation, complete the Acceptance pro-forma and, together with your payment, please return it to the (SEL) office above.

Should you require further assistance or wish to discuss this Quotation or the attached 'Additional Project Notes' or Important Customer Information then please contact us.

Yours sincerely,



Joanna Loxley
Project Coordinator
For and On Behalf of Squire Energy Ltd (SEL)

Enc: Project Specific Assumptions
Project Specific Exclusions
Acceptance of Quotation
SEL Indicative Service Entry Drawing – Ref: P12771JL5
Customer Plan / Drawing – Ref: 70-SW-001
Additional Project Notes and Important Customer Information - forming part of this Quotation

Project Specific Assumptions

Should any of the project specific or general assumptions or exclusions prove to be incorrect, in any way unclear or in conflict with you or your clients' requirements you should clarify this to us in writing prior to the commencement of the Works and Services.

1. All Works in accordance with, offered and based upon SEL General Terms and Conditions of Contract.
2. All Works are to be undertaken during normal working weekday hours.
3. All Works are to be undertaken in a safe, clear and freely accessible area – provided and maintained, if off-site by SEL and, provided and maintained, if on-site / within private curtilage by the customer.
4. No obstruction, scaffolding or scaffold supports / stanchions etc. are on or above the proposed area of the Works. No works will be carried out below or in the vicinity of scaffolding. All scaffolding is to be removed in its entirety over / above / within the area of the Works by the customer prior to the commencement of any works by SEL. Temporarily bridging or closing off scaffold is not deemed acceptable.
5. New connections to gas mains and gas service disconnections have been prepared and are offered on the basis of the GT' accuracy of records i.e. that the gas main / service is in the location stated (by the GT) and, that no above ground or subterranean obstruction (e.g. other utility services) will impact upon the working area or prevent the scope of works as required being undertaken.

Design Information – Forming the basis on which this proposal has been prepared

6. The initial, maximum peak hourly (peak instantaneous demand [**PID**] / peak hourly quantity [**HQ**] / 'design capacity') as provided by the customer and estimated annual gas demands (annual offtake quantity [**AOQ**] / estimated annual quantity [**AQ**]) will not exceed:

Site / Building / Unit / Supply Name and Address	Peak Instantaneous Demand* (PID) / Peak Hourly Quantity (HQ) kW / m3/hr.	<u>Estimated</u> * Annual Offtake Quantity (AOQ) / <u>Estimated</u> * Annual Quantity (AQ) kWh
Block A	809 / 75	TBA
Block B	482 / 44	TBA
Block C	518 / 48	TBA
Block D	248 / 23	TBA
Block E	765 / 71	TBA
Block F	127 / 12	TBA
Block G	303 / 28	TBA
Block H	402 / 37	TBA
Block J	125 / 12	TBA
TOTAL	3,779 / 350	TBA

*The **PID** / **HQ** and plant operating profile shall be provided by the customer, their agent or advisor. Where the **AOQ** / **AQ** has not been provided by the customer, your agent or advisor, this may be estimated by SEL. The AOQ / AQ above is given on a best endeavour indicative estimated figure basis only. It is the customer's responsibility to verify this quantity with their advisor or M&E contractor before entering in to any contractual arrangements with a gas supplier. The accuracy of this figure will have an impact on the price you pay / unit of gas and if incorrect (+/-) your gas supplier may levy a penalty charge on you.

Plant Operating Design Parameters

7. PID (above) consists of 3,779 kW / 350 m³/hr @ 'standard' operating pressure (see Gas Meter – Design Data and Pressure Terms Definitions) – serving 'typical' 'conventional' utilisation plant e.g. LTHW boilers, water heaters, catering equipment. The requirement of or for 'non-typical' plant e.g. CHP, CCHP, boosters or compressors have **not** been included in this quotation or design work.
8. If the customer intends to install boosters or compressors (see above) this must be notified to SEL prior to the preparation and production of the quotation and their installer will comply with IGEM/UP/2 and IGEM/UP/6 recommendations for works on downstream (outlet) installation and utilization plant.
9. In accordance with IGEM recommendations, max. design pressure drop across a standard 'U' series type primary gas meter: ≤ 2 mbarg.
10. SEL (as facilitator) and the GT (as owner / operator of the gas network) assume that the customer (and / or landowner) will arrange, at nil cost to SEL or the GT, to enter into the relevant easement agreement (between the GT and the landowner) where required, using the GT's standard documentation without amendment. Bespoke easement documentation or requirements will result in increased costs. Any additional payments to 3rd parties will be met by the customer / land owner.
11. All works in regards to the supply, installation and / or procurement of gas meter(s); associated correction equipment and data logging equipment is the responsibility of the customer – unless where this is stated as included in the Quotation / Estimate.
12. No partial or full road and / or lane closures or parking bay, bus stop or bus waiting area suspensions or lane rental charges will be applicable or required the public body (e.g. Local Authority, Highways Authority, Borough Council, police, transport authority, TfL or 3rd party etc.). - not known until post-acceptance and commencement of the planning process. If partial or full road or lane closures or parking bay or bus stop etc. suspensions are required or lane rental charges imposed or applicable or bespoke specific requirements imposed, additional costs will apply which will be subject to prior consent, Variation to Order and to prior receipt of payment in full by the customer. In such cases extended lead times may also apply.
13. Any / all required builders works, drillings or the forming of (suitable) openings for upstream (inlet) service entry / entries pipework and / or downstream (outlet) installation pipework (see scope) to facilitate building entry or internal pipe routes within the building are the responsibility of the customer - who will, prior to commencement by SEL, design, provide, form and construct suitable, suitably sized, circular opening(s) and fit same with a proprietary sleeve (through any external and / or internal wall, cavity, floor or ceiling areas) which will be of sufficient size for the proposed pipe, and upon immediate completion of Works (by SEL), the customer will seal the annulus (space between pipe and sleeve or base) and provide fire-stopping; weatherproofing and weather-sealing as required. The provision of 'puddle flanges', 'link seals' etc. are not proposed, required or included within the Scope of Works.
14. The Project Price / Scope has been prepared on the basis that SEL as an Ofgem (Office of Gas & Electricity Markets) licensed meter operator (Meter Asset Manager [MAM]) will supply, own and operate the proposed primary gas meter(s) and that following installation SEL will be responsible for meter operational and maintenance costs thereafter.

Provision of a primary gas meter is subject to a valid gas supply agreement being in place with a Gas Shipper / Gas Supplier and the customer and such confirmations of contract / agreement being supplied (in writing) by the customer to SEL prior to commencement of the Works. Without provision by the customer of relevant (gas contract) details to SEL, confirming that a gas supply agreement is in place and subsequent verification with the Shipper / Supplier by SEL, a gas meter cannot be supplied or installed.

Project Specific Exclusions

1. Working to any other terms and conditions.
2. Any additional or other Works (or services) other than those specified.
3. Arranging, obtaining, securing or maintaining access to the working area within the site curtilage.
4. Working in areas deemed inaccessible, 'unsafe', contaminated or in conflict with legislation or industry recommendations or contrary to recognised and accepted safe working practices.
5. Any / all Works beneath, below or in the vicinity of obstructions or scaffolding.
6. Working outside of normal working weekday hours.
7. Partial or full road or lane closures or lane rental charges as applicable.
8. Parking bay, bus stop or bus waiting area suspensions, re-establishment and charges as applicable.
9. Any / all 'legal' works and associated costs - including any negotiations with landowner or solicitors, payments to 3rd party building / landowners, using 'standard' or 'non-standard' documentation for easements, consents etc. or land transfers or engrossment, as may be required.
10. The checking or validation of any design data as supplied by the customer, their agent or advisor. It is the customers responsibility to ensure that any peak instantaneous demand (PID), hourly demand / hourly quantity (HQ), plant operating profiles, estimated annual demand quantity / estimated annual quantity (AQ or AOQ) and other utility requirements are correct. In certain circumstances where SEL may provide an estimated figure for AQ or AOQ for the purpose of general assistance only, where this may not be known by the customer, their agent or advisor but the ensuring of the accuracy of any figure as supplied remains the responsibility of the customer.

Where estimated by SEL, any AQ / AOQ is given on a best endeavour indicative estimated figure basis only. It is the customer's responsibility to verify this quantity with their advisor or M&E contractor before entering in to any contractual arrangements with a gas supplier. The accuracy of this figure will have an impact on the price you pay / unit of gas and if incorrect (+/-) your gas supplier may levy a penalty charge on you.

11. Any / all groundworks, builders works and civils works, including any base or hard standing (for kiosks or housings) or housing or meter room or provision of suitable (natural) ventilation as required within the site / private curtilage, within or behind any site hoarding and / or to any area or location in which it is proposed to locate any gas meter, upstream or downstream pipework.
12. Any / all builders works required to facilitate pipe entry or route through or within building fabric / façade - including any / all drillings; 'cut outs'; forming of openings; provision or fitting of sleeves or sealing or fire-stopping or weatherproofing between any pipe and sleeve or sleeve and wall or floor and any / all other works within or adjacent to site curtilage / building(s) / unit(s), meter housing(s) / bases / kiosks etc, as required in order to facilitate gas pipework, installation, termination or routeing.
13. Supply, provision, erection, certification, relocation and / or dismantling of any working platform / mobile or temporary scaffold / staging etc. – where working at height ($\geq 1.6\text{m}$ from floor level) is required within the site / private curtilage.
14. Any / all works in regards to the design, supply or provision of the suitable (natural) ventilation of gas meter rooms or housings, construction or provision of the gas meter housing / gas meter room / GRP gas meter kiosk or any associated concrete base / hard standing.
15. Any / all works in regards to the design, supply or provision of the suitable (natural) ventilation to any areas containing or to contain any proposed upstream (inlet) or downstream (outlet) gas pipework.

16. Any / all works in regards to the gas supply contract (required to purchase gas from a gas supplier).
 17. Any / all works in regards to the procurement, supply, design or installation of any bracket or shelf for the gas meter, unless this was requested prior to the preparation of quotation and included above.
 18. Any / all works in regards to the connection to / from any gas meter(s) to / from any existing or proposed downstream (outlet) installation pipework.
 19. Any / all works in regards to the procurement, supply, design, re-design, validation or re-validation of design of or installation of downstream (outlet) installation pipework.
 20. Any / all works in regards to the purging, decommissioning, diversion, disconnection, isolation or removal of any existing upstream (inlet) gas supply pipework, primary or secondary gas meter(s), meter module(s) or ancillary metering equipment, downstream (outlet) installation or gas plant.
 21. Provision of any (working) pressure at termination ECV other than `standard` / low pressure (LP) – unless stated in the Quotation / Estimate.
 22. Provision of service entry fittings / termination via any method other than `standard` above ground / above DPC entry / low level termination upon entry – unless stated in the Quotation / Estimate.
 23. Installation of new low pressure (LP) gas supply closer than 1.0m to any building / property line.
 24. Installation or utilisation (by customer) of any `non-typical` plant e.g. CHP (Combined Heat & Power) / CCHP / gas boosting or gas compressor - unless stated in the Quotation / Estimate and then only to the PID / HQ and `Plant Operating Design Parameters`, above. Retro-fitting of `non-typical` plant post-connection or post-completion is not permissible and may result in disconnection of the supply.
-

Acceptance of Quotation
Quotation Ref: P12771JL5
Quotation Date: 02/10/2017



Site Details:

Site Address (at which the Works are to take place):		
Name of Main Site Contact:		
Name of Alternative Site Contact:		
Main Site Contacts:	Tel:	Fax:
Alternative Site Contacts:	Tel:	Fax:
Site Email:		

Customer / Company Details:

Name of Company Accepting Quotation:		
Address of Company Accepting Quotation:		
Company Registration Number:		
Company VAT Number:		
Name of Person Accepting Quotation:		
Position of Person Accepting Quotation:		
Customer / Company Contacts:	Tel:	Fax:
Customer / Company Email:		
Nominated Gas Supplier:		
Anticipated Start Date:		

I / We accept SEL' Quotation for the provision of Works (and Services) as detailed above, for the Project Price sum of **£ 90,081.00 + VAT** constituting an offer capable of acceptance and execution which will be fully in accordance with SEL' General Terms and Conditions of Contract only and to the exclusion of all other terms and conditions.

We have read and understood the Quotation, all notes, statements, assumptions, exclusions, Additional Project Notes and Important Customer Information therein upon which the Quotation is based which will form an integral part of the contract arising from the provision and acceptance of the Quotation.

Duly authorised for and on behalf of:

(Name of Company Accepting Quotation)

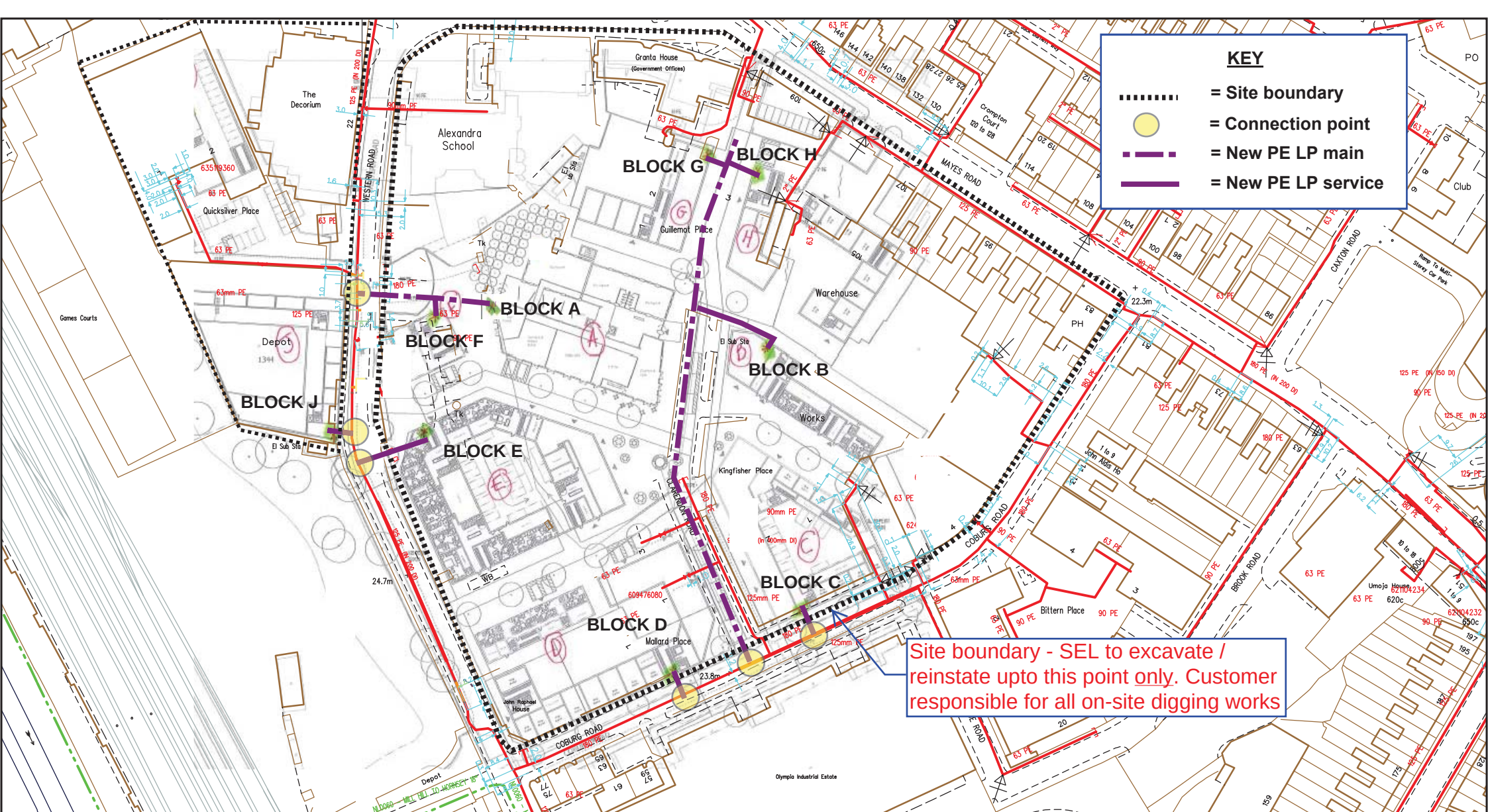
Signed:

(By the 'Client' / 'Customer')

Name and Position / Job Title:

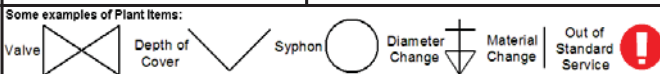
(Please print)

Date:



SCALE: Not to scale
USER ID: joanna.loxley
DATE: 30/08/2017
EXTRACT DATE: 01/03/2017
MAP REF: TQ3090
CENTRE: 530738, 190085

LP MAINS
MP MAINS
IP MAINS
LHP MAINS
NHP MAINS



This plan shows those pipes owned by National Grid Gas plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue. Further information on all DR4s can be determined by calling the DR4 hotline on 01455 892426 (9am-5pm) A DR4 is where a potential error has been identified within the asset record and a process is currently underway to investigate and resolve the error as appropriate.

MAPS Viewer Version 5.7.0.0



Local Machine

This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.



NOTES

- DO NOT SCALE FROM THIS DRAWING. USE ONLY DIMENSIONED FIGURES.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, STRUCTURAL ENGINEERS AND FURNISS GREEN PARTNERSHIP DRAWINGS AND SPECIFICATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK WITH ALL OTHER TRADES.

PREFERRED METER LOCATION

GAS LEGEND

- 4" LP VENT
- 3" CAPPED END
- VALVE
- SYPHON
- DEPTH
- DIAMETER CHANGE

Rev	Description	Date
1	PRELIMINARY	

WORKSPACE GROUP

FURNISS GREEN PARTNERSHIP
BUILDING SERVICES & ENVIRONMENTAL ENGINEERING CONSULTANTS
15 EASTERN AVENUE, LYCCOLLEIGH, EQ
020 8860 2028 info@furnissgreen.com www.furnissgreen.com

THE CHOCOLATE FACTORY WOOD GREEN

EXISTING UTILITY SERVICES

Drawn	Checked	Date	Scale
FG	JG	OCT '15	1:500@A1

Page	Page	Page
641	70-SW-001	2

Mr. Tamba Sankor
Furness Green
3, Dufferin Avenue
London
EC1Y 8PQ

Date: 23 February 2017

Our Ref: 8500032280 / QID 3500030473

Dear Mr. Sankor

Site Address: Clarendon Road, London N22 6UL

Thank you for your recent enquiry regarding the above site. I am pleased to be able to provide you with a Quote to carry out the work requested.

The Works will enable the provision of an import capacity of 4605 kVA and a maximum export capacity of 0 kW. UK Power Networks will extend our 11kV network into the site, establish 7 no. new distribution substations and install mains for BNO installed services. You will be required to carry out all on-site trench excavation, duct installation and reinsatment for our cabling and provide enclosures for our substations.

UK Power Networks would like to carry out all of the requested work for you. However, there are other companies who can do some or all of the work for you; these are Independent Connection Providers (ICPs). You can approach NERS accredited ICPs directly, or you can approach an Independent Distribution Network Operator (IDNO) to request this work and they will arrange for an ICP to carry out the Contestable Works. To find out more about which ICPs work in our area and what work they can undertake please [click here](#).

To give you as much choice as possible we are able to offer you **the following options** for getting your work done:

How much is it going to cost?		Price excluding VAT	Price including VAT
A	UK Power Networks carries out all of the requested 'contestable' and 'non-contestable' works required for your connection	£444,370.19	£533,244.23
B	UK Power Networks carries out all the 'non-contestable' work and the 'contestable closing joint'. The ICP carries out all other requested 'contestable' work	£50,712.34	£60,854.82
C	UK Power Networks carries out the 'non-contestable' works only. The ICP carries out all of the works classified as 'contestable'	£42,114.48	£50,537.36

Terms and Conditions

The Quote is subject to version 7 (September 2016) of our **Terms and Conditions For Connection and Diversionary Works** (the "Terms and Conditions") which you can view [here](#). Alternatively, please let me know if you would like me to send you a copy in the post. These create legally binding obligations so it is important that you take the time to read and understand them. They also contain definitions of terms used in this document and in the linked pages on our website that you may find helpful.

What you need to do next

Before you decide to proceed it is really important that you take note of our **Terms and Conditions**, any **special conditions** detailed below and the details in **Your Information Pack** which includes information contained within the hyperlinked text, all of which constitute your **Quote**.

If you would like to accept this Quote you will need to ensure that the requested payment is in our bank account in full and cleared funds and that we have received your signed Acceptance Form from section 5 below by 5pm on 24 May 2017.

If you would like UK Power Networks to carry out all of the Works please accept option A. If you would prefer to use an ICP to carry out the Contestable Work (or an IDNO to arrange for an ICP to carry out the Contestable Works), you can pass this Quote to them and they can accept either option B or option C. Alternatively, you can accept option B or option C yourself, but you will need to ensure that your appointed ICP or IDNO understands what they must do, and what UK Power Networks will do for these options. **You can only accept one option.**

When can you expect your electricity connection?

Once you have accepted this Quote we will call you to discuss a programme of Works. Subject to the Terms and Conditions the Works referred to in this Quote will be completed on or before 30 April 2018.

We will try to meet your requested dates wherever possible but the completion date will be dependent on:

- The date that the Quote is accepted;
- How much of the work you wish UK Power Networks to complete;
- Any further discussions we may have with you regarding the programming of the works; and
- The completion of work by other people or companies that must be done before we can complete our work.

Interactivity

We have not received a request from any other customer for connections to the same part of our Distribution System, but to find out what happens if they do, please [click here](#).

If you have any questions about this Quote or need more information, please don't hesitate to contact me.

Yours sincerely

Charles Clayden

Telephone: 01279 824763
Mobile: 07875 114 634
Email charles.clayden@ukpowernetworks.co.uk

Your Information Pack

The following pack provides all of the information you should need to successfully complete your electrical connection for the work you have been quoted. Please pay particular attention to the information that is specific to your project.

Do not hesitate to contact me should you require any further support.

Section 1 The Scope of Works

Section 2 Cost Breakdown

Section 3 Your Responsibilities

Section 4 Information To Help You As You Plan For Your Work

Section 5 Acceptance Form To Proceed With The Works

Section 1 Scope of Works

Please read the details in this section in conjunction with the customer proposal plan (referred to in the Drawing Schedule in Section 4).

A	Extend our 11kV network into the site, establish 7 no. new distribution substations and install mains for BNO installed services UK Power Networks carries out all the Contestable and Non-Contestable Works.
B	Jointing only of cables installed by ICP You will need to arrange for the completion of the remaining Contestable Works by an accredited ICP. If option B is accepted, your appointed ICP will be responsible for the production of all detailed constructible designs, which must be submitted to UK Power Networks for review and approved prior to the commencement of any Contestable Works. No charge will be made by UK Power Networks for this service.
C	Disconnection of existing supplies, network outages, commission, legals. You will need to arrange for the completion of the Contestable Works by an accredited ICP. If option C is accepted, your appointed ICP will be responsible for the production of all detailed constructible designs, which must be submitted to UK Power Networks for review and approved prior to the commencement of any Contestable Works. No charge will be made by UK Power Networks for this service.

Your Connections

The table below provides a summary of the technical characteristics and the connection types you have requested:

The below are all fed from one service via a BNO (Building Network Operator) arrangement:

Type of Property	No. of MPANs	Metering Voltage	Phase Type	Import Capacity (kVA)	Export Capacity (kW)
Commercial	12	400V	Three Phase, 50HZ	2514	
Meter Position	Service Cable	Fuse Size	Earthing	Metering	
				CT Metering	

Type of Property	No. of MPANs	Metering Voltage	Phase Type	Import Capacity (kVA)	Export Capacity (kW)
Landlords Supply	13	400V	Three Phase, 50HZ	552	
Meter Position	Service Cable	Fuse Size	Earthing	Metering	

				Whole Current	
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Type of Property	No. of MPANs	Metering Voltage	Phase Type	Import Capacity (kVA)	Export Capacity (kW)
Commercial	1	400V	Three Phase, 50HZ	26	
Meter Position	Service Cable	Fuse Size	Earthing	Metering	
				Whole Current	

Type of Property	No. of MPANs	Metering Voltage	Phase Type	Import Capacity (kVA)	Export Capacity (kW)
Landlords Supply	2	400V	Three Phase, 50HZ	84	
Meter Position	Service Cable	Fuse Size	Earthing	Metering	
Communal	Customer to size service cables			Whole Current	

Type of Property	No. of MPANs	Metering Voltage	Phase Type	Import Capacity (kVA)	Export Capacity (kW)
Flat	226	230V	Single Phase, 50HZ	1429	
Meter Position	Service Cable	Fuse Size	Earthing	Metering	
Communal	Customer to size service cables			Whole Current	

Phases of work

This Quote covers 1 phase of work which may be subject to our performance standards, as detailed in our 'Our Connections Standards of Performance' leaflet which can be found [here](#).

Section **2** Cost Breakdown

Totals

Option	A	B	C
Net Price (Excluding VAT)	£444,370.19	£50,712.34	£42,114.48

Breakdown of Costs

Description of CONTESTABLE WORK that is included in option A only	
Work involved	Net price (£)
Commercial Services	
- Fit customer LV cables in UKPN substation - Connect and install COP5 LV metering termination cubicle and multicore termination.	£9,928.18
LV Underground Mains	
- Install LV 300mm waveform mains cable - Excavate, lay & reinstate 300mm LV waveform mains cable in a category 1 or 2 carriageway. - Excavate, lay & reinstate 300mm LV waveform mains cable in a footway surface type. - Install LV duct with no further trench work 125mm Ridgiduct Solid (supplied in multiples of 2m lengths) - Install LV 95mm waveform mains cable - Install three phase 35mm LV service cable in duct or cable tray. - Install LV 185mm waveform mains cable - Install standard 200amp termination and 95mm² cable up to 5m cable in customer's duct on site and up to 2m in public footpath. Includes energisation of BNO supply. Excludes LV joint - Install standard 400amp termination and 185mm² cable up to 5m cable in customer's duct on site and up to 2m in public footpath. Includes energisation of BNO supply. Excludes LV joint - New three phase 100A service including underground transition joint & termination. - Install three phase 600A cut-out to be fed from an LV Board or Cabinet - Connect and energise unmetered BNO boundary (up to 100 Amps) - Connect and energise unmetered BNO boundary (over 100 Amps) - Excavate & Reinstate LV joint hole in a footway surface type. - Installation of a new 2 way untailed LV link box in unmade ground. Excludes joints. - LV Mains branch joint of a 95-300mm cable to a 240-300mm main. - Traffic Management costs - LV Mains straight joint of a 95-300mm cable to a 240-300mm main. - Removal of third party ducts per metre - Excavate & reinstate LV trench in a footway surface type. - Distribution unit termination (LV Board/Cabinet) - Install LV 300mm waveform mains cable - LV waveform mains pot end & installation of earth pin.	£87,046.51
HV Plant and Switchgear	
- Installation of an 800kVA single ratio ground-mounted distribution transformer - Installation of a transformer mounted 11kV Ring Main Unit. - Installation of a 5 way 1600A LV cabinet with a single 800A metered way. - Associated activity to establish a secondary substation in a brick enclosure. Includes Remote Terminal Unit, internal small power/lighting and substation ancillaries. Excludes plant, civil works, and HV/LV jointing. 300mm HV indoor end box termination - Delivery of plant to site in normal weekday working hours - Installation of a 1000kVA single ratio ground-mounted distribution transformer	£233,050.26

- Installation of a transformer mounted 11kV Ring Main Unit - Installation of a transformer-mounted 1600A Air Circuit Breaker - Installation of a 5 way 1600A LV cabinet.	
HV Underground Mains	
- Install HV duct with no further trench work - Civils groundworks costs 11kV Triplex to Polymeric branch joint 185-300mm - Excavate & reinstate LV trench in a footway surface type. - Install 11kV 300mm aluminium Triplex mains cable in trench. - Excavate, lay & reinstate 11kV 300mm aluminium Triplex mains cable in a footway surface type. - Install HV duct including widening unmade trench - Install HV duct including widening surfaced trench 125mm Ridgiduct Solid (supplied in multiples of 6m lengths) - Install 2 x 300mm² AL HV cables with ducts in Category 3 or 4 road per metre (excluding any traffic management costs). - Excavate & Reinstate 11kV joint hole in a footway surface type. 11kV Triplex to Polymeric straight joint 150-300mm	£63,632.90
TOTAL	£393,657.85

Description of CONTESTABLE FINAL CLOSING JOINT WORK that is included in option	A	and in option	B	
Work involved				Net price (£)
LV Underground Mains				
- LV Mains branch joint of a 95-300mm cable to a 240-300mm main. - LV Mains transition branch joint of a 95-300mm cable to a 0.4-0.5in main. - LV waveform mains pot end & installation of earth pin. - Cable identification - Cable spiking - Network linking				£6,580.78
HV Underground Mains				
- Cable spiking 11kV Triplex to Polymeric straight joint 150-300mm				£2,017.08
TOTAL				£8,597.86

Description of NON-CONTESTABLE WORK that is included in option	A	and in option	B	and in option	C
Work involved					Net price (£)
HV Plant and Switchgear					
- Dismantlement of a secondary substation, removal and de-oiling of switchgear - Collection of plant to site in normal weekday working hours - Commissioning of a Remote Terminal Unit (RTU) 11kV outage associated with the provision of an 11kV substation - Notification of high voltage shutdown to affected parties					£22,518.12
HV Substation Civils					
Inspection of substation civil works					£1,848.53
HV Underground Mains					
11kV PILC Pot End 95-300mm - Excavate & Reinstate 11kV joint hole in a footway surface type.					£1,090.83
Miscellaneous					

Legal fees for a Freehold/Leasehold for the establishment of a substation in a new physical location.	£9,047.00
Transactional Charges	
Assessment & Design Charges	£7,610.00
Other charges	
TOTAL	£42,114.48

Section 3 Your Responsibilities

This section provides information about the work that you are responsible for should you accept this Quote.

We have made all of our general information about your responsibilities available in our Knowledge Centre on our internet site at www.ukpowernetworks.co.uk. Links to each of the relevant articles are in the table below.

Please let me know if you think we can improve the information we have provided.

Job Specific Responsibilities

Subject	Link to our Knowledge Library
Land rights required from You in connection with land within Your occupation, ownership or control (the freehold/leasehold of the substation site)	Section 3.20 Click here

Generic Responsibilities Applicable to all Quotes

Subject	Link to our Knowledge Library
Construction (Design & Management) Regulations 2015 (CDM)	Section 3.25 Click here
Appoint an electricity supplier	Section 3.26 Click here
Works to be undertaken by the ICP/IDNO if UK Power Networks is undertaking the non-contestable Works only	Section 3.27 Click here
Land rights for option B or C - where UK Power Networks is undertaking the non-contestable Works only	Section 3.28 Click here

Section 4 Information to Help You Plan For Your Work

Drawing Schedule

All of our standard drawings can be found [here](#). Below is a summary of the standard drawings that are referenced within this Quote:

Drawing Number	Drawing Description
8500032280 Construction	Customer proposal plan
ECS 02-0019	LV/HV/EHV cable trench details View
EDS 07-0102.07	Integral substation for single transformer View
EDS 08-0123.03a	Service termination for up to 400A cut-out at ground level standard entry View
EDS 08-0123.05a	Service termination for up to 400A cut-out direct from a substation View

Job Specific Information

Subject	Link to our Knowledge Library
Earth Fault Loop Impedance (EFLI)	Section 4.4 Click here
Cables between UK Power Networks and Customer installations up to 400A	Section 4.5 Click here
Private generation	Section 4.6 Click here
Interactive process	Section 4.10 Click here

Generic Information Applicable to all Quotes

Subject	Link to our Knowledge Library
Information common to all Quotes	Section 4.1 Click here

If you are unhappy with our service please follow our Complaints Procedure Specific to Commercial and Industrial Projects which can be found [here](#). This document details your right to contact Ofgem for a formal determination if we have been unable to resolve the matter to your satisfaction.

Section **5** Acceptance Form

Job Reference: 8500032280 / 3500030473

Site Address: Clarendon Road / LONDON N22 6UL

Please return your completed form by post or email:

CC Proj.
UK Power Networks
Metropolitan House
Darkes Lane
Potters Bar, Herts, EN6 1AG

Email: billingteam-networks@ukpowernetworks.co.uk

Please indicate which option you accept:

	Please tick one only	Price excluding VAT	Price including VAT
A UK Power Networks carries out all of the requested 'contestable' and 'non-contestable' works required for your connection	☐	£444,370.19	£533,244.23
B UK Power Networks carries out all the 'non-contestable' work and the 'contestable closing joint'. The ICP carries out all other requested 'contestable' work	☐	£50,712.34	£60,854.82
C UK Power Networks carries out the 'non-contestable' works only. The ICP carries out all of the works classified as 'contestable'	☐	£42,114.48	£50,537.36

Payment Profile

Please indicate your method of payment:

☐	Cheque	Please make cheques payable to UK Power Networks and put our reference number on the back.
☐	Debit/Credit Card	Please call 0203 282 0610 and have your card to hand. We are sorry we cannot accept American Express/Diners Club.
☐	BACS/CHAPS	Account: HSBC Bank Plc Sort Code: 40 05 30 Account Number: 02302934 UK Power Networks Ref. Number: 3500030473

The Invoice Address	Your Site Contact
Name / Company name:	Name / Company name:
Contact name:	Contact name:
Address:	Address:
Telephone:	Telephone:
Email:	Email:

Your Acceptance

I accept your quotation for carrying out the DNO Works in accordance with the Quote for the option I have chosen overleaf.

I have already paid £0.00 inclusive of VAT towards the total price and therefore £533,244.23 remains payable (for option A).

To accept this Quote, the signed Acceptance Form and payment in cleared funds must reach UK Power Networks by 5pm on 24 May 2017. Acceptance Forms and payments received after this date may be returned and you will need to request a new Quote.

Signed:	Date:
Print name:	
Agent acting on behalf of:	

Job Reference: 8500032280 / 3500030473



Mr Tom Belton

Furness Green

**Thames Water Utilities Ltd.
Developer Services**

Our ref 1013676028
Name Kristie Hughes
Phone 0800 009 3921
E-Mail developer.services@thameswater.co.uk

8th March 2016

Dear Mr Belton

**Clean Water Budget Estimate For: Chocolate Factory, Wood Green,
Claredon Road, N22 6XJ.**

Thank you for your correspondence regarding the above development.

Please be aware that this assessment is based upon the details and drawings provided. Should there be any subsequent changes to the details and information on your drawing, the contents of this report would become invalid and would necessitate a new assessment.

Please find listed below the approximate costs for mains and services to serve the site. Subject to survey, additional costs for traffic management and parking bay suspensions may be applicable.

Contaminated Land:

Should the site be deemed 'contaminated' for the use of plastic pipe work, following the assessment of your full soil report, mains service connections will be provided in barrier pipe.

Network Capacity:

No off-site main and reinforcement works are necessary.

Diversiory Works:

According to our records, it is anticipated that no clean water assets diversiory works are required to accommodate your development proposals.

Please note that any diversion is charged at full cost, payable in advance.

Thames Water Utilities Ltd
Developer Services
First Floor West
Clear Water Court
Vastern Road
Reading
Berkshire
RG1 8DB
T 0800 009 3921
I www.thameswater.co.uk

Registered in England and Wales
No. 2366661, Registered office
Clearwater Court, Vastern Road,
Reading, Berks. RG1 8DB

Service Connections:

Commercial - Block A

1x 50mm MDPE metered supply 125mm HPPE main in Clarendon Road.

Budget Costs = £2,125.78 + VAT £425.15 (£2,550.93)

Block B

1x 90mm HPPE Bulk supply & delivery of 71 internal meters from 90mm HPPE main in Clarendon Road.

Budget Costs = £12,820.58 + VAT £2,564.11 (£15,384.69)

Block C

1x 90mm HPPE Bulk supply & delivery of 74 internal meters from 90mm HPPE main in Clarendon Road.

Budget Costs = £13,466.52 + VAT £842.55 (£16,159.82)

Block D1

1x 63mm MDPE Bulk supply & delivery of 25 internal meters from 180mm HPPE main in Western Road.

Budget Costs = £4,212.78+ VAT £842.55 (£5,055.33)

Block D2

1x 100mm HPPE Bulk supply & delivery of 137 internal meters from 180mm HPPE main in Western Road.

Budget Costs = £22,131.26 + VAT £4,426.25 (£26,557.51)

Block E1

1x 63mm MDPE Bulk supply & delivery of 40 internal meters from 90mm HPPE main in Claredon Road.

Budget Costs = £5,321.63 + VAT £1,064.32 (£6,385.95)

Block E2

1x 90mm HPPE Bulk supply & delivery of 83 internal meters from 180mm HPPE main in Western Road.

Budget Costs = £14,404.34 + VAT £2,880.86 (£17,285.20)

Block F

1x 63mm MDPE Bulk supply & delivery of 40 internal meters from 180mm HPPE main in Western Road.

Budget Costs = £5,285.37 + VAT £1,057.07 (£6,342.44)

Block G

1x 63mm MDPE Bulk supply & delivery of 83 internal meters from 180mm HPPE main in Mayes Road.

Budget Costs = £5,893.26 + VAT £1,178.65 (£7,071.91)

Block H

1x 90mm HPPE Bulk supply & delivery of 45 internal meters from 180mm HPPE main in Mayes Road.

Budget Costs = £12,289.10 + VAT £2,457.82 (£14,746.92)

Block I

1x 63mm MDPE Bulk supply & delivery of 39 internal meters from 180mm HPPE main in Western Road.

Budget Costs = £6,460.27 + VAT £1,292.05 (£7,752.32)

Infrastructure Charges:

589 x £353.88 for Water Infrastructure Charges = £208,435.32

589 x £353.88 for Sewerage Infrastructure Charges = £208,435.32

Building Water

A charge is made for water used for building purposes where an existing un-metered supply is used. The charge will be based upon the amount of water used or as a percentage of the contract value, which is currently 0.17%.

Water Quality and Hardness

Please use the link below to check water quality in your area.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/899.htm>

Extracts of Water and Waste Water Mains & Apparatus

Please use the link below to our Property Searches Team to ask for Extracts of Water and Waste Water Mains & Apparatus.

<http://www.thameswater-propertysearches.co.uk/>

Disconnection

Please use the link below if you would like to permanently disconnect your existing water supply.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/15131.htm>

All information enclosed in this letter is for budgetary purposes only and should by no means be taken as the actual cost for serving this development site.

If you would like to proceed with the work, please use the link below to apply for a formal quotation.

<http://www.thameswater.co.uk/developers/1328.htm>

I trust this information will be of assistance in your proposals, however should you require any further information, please do not hesitate to contact me.

Yours sincerely

Kristie Hughes

Thames Water
Developer Services
0800 009 3921



Mr Andrew Fleming
Furness Green Partnership
3 Dufferin Avenue
London
EC1Y 8PQ



Our ref **DS6012627**



developer.services@thameswater.co.uk



08000 093 921

Mon – Fri 8am-5pm

thameswater.co.uk/developerservices

19th May 2017

Dear Andrew,

Clean Water Budget Estimate: Chocolate Factory, Wood Green, Claredon Road, N22 6XJ.

Thank you for your recent correspondence regarding the above development.

Please be aware that this report is based upon the details and drawings provided. Should there be any subsequent changes to the details and information on your drawing, the contents of this report would become invalid and would necessitate a new assessment.

Single payments should be made for each activity (flow and pressure test, modelling report, impact assessment, etc. if applicable) and reference numbers must be quoted to avoid any delay of your projects due to missing payments.

Contaminated Land:

The site is in Industrial estate and is deemed to be 'contaminated' for the use of plastic pipe work, so Mains extension & service connections will need to be installed in Barrier Pipe.

Network Capacity:

Our initial assessment suggests that further investigation will be required before we can give you an understanding of the requirements for serving the site.

This site will require Network Modelling Analysis to determine the effect of the new demand on the local and strategic network.

The cost and duration of this analysis varies according to the complexity of the job and the availability of a data for the area. The cost for a modelling investigation can vary between £10,000 and £35,000 with report delivery time of up to 30 weeks. In order to proceed with this investigation it will be necessary for us to prepare a briefing document for our Network Analysis Group. Due to the work involved we will require **an initial non-refundable deposit of £100 + VAT (£120.00)** to provide you with a quote and timescales for the network analysis investigation specific for your site. If you decide to proceed with the investigation this sum will be deducted from the final cost. The results will be used to indicate what action needs to be taken, both local and strategic, to allow our network to support the new demand. We will provide you a report including an indication, where possible, of costs associated with any such work. The modelling study will investigate:



- Understanding current operation/current demands of zone
- Revision of model demands to reflect current demand forecast
- Identifying impact of development and review solutions
- Preparation of modelling report & liaison with our Operations Team
- Approval and sign off

Payment is required in advance by cheque, made payable to Thames Water Utilities Ltd. and can be to:

Thames Water Utilities Ltd
Developer Services
First Floor West
Clearwater Court
Vastern Road
Reading
Berkshire
RG1 8DB

You can also call 0800 009 3921 and make payment by card quoting the DS reference number above. An invoice showing your payment will be sent on receipt of your instruction.

Alternatively, you can apply and pay for flow and pressure test online using the link below and quoting the DS reference number: DS6012627.

<https://my.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/18743.htm>

Working near our assets:

If you're planning on undertaking significant work near our assets, it's important you minimise the risk of damaging our pipes and other apparatus, please visit the website below for more information.

<http://thameswater.co.uk/developers/18785.htm>

Diversionary Works:

According to our records, it is anticipated that no clean water assets diversionary works are required to accommodate your development proposals.

New Mains Subject to Confirmation of Network Capacity:

Approximately 101m of 125mm barrier pipe will be required to serve the site which consists of 79 flats & 1 commercial unit (Chocolate Factory), connecting to the 180mm HPPE existing main in Mayes Road.

Total £45,753

Note: The above value is based on onsite carriageway & offsite carriageway.

Developer's Lump Sum Contribution **£2,747.54**

Thames Water will fund the difference of **£43,005.46**



Service Commercial Unit, Chocolate Factory:

1 x 63mm barrier pipe metered supply from the existing main of 90mm HPPE on Clarendon road.

Budget Cost: **£4,464.29 + VAT £892.85 (£5,357.14)**

Service Connections to Residential Units, Flats:

BLOCK B – 72 No's

1 x 90mm barrier pipe unmetered bulk supply from the existing main of 90 HPPE on Clarendon road with the delivery of 72x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£15,485.36**

BLOCK C – 74 No's

1 x 90mm barrier pipe unmetered bulk supply from the existing main of 125mm HPPE on Clarendon road with the delivery of 74x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£15,651.62**

BLOCK D1 – 32 No's

1 x 63mm barrier pipe unmetered bulk supply from the existing main of 180mm HPPE on Western road with the delivery of 32x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£7,176.73**

BLOCK E – 112 No's

1 x 90mm barrier pipe unmetered bulk supply from the existing main of 180mm HPPE on Western road with the delivery of 112x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£19,410.56**

BLOCK G – 34 No's

1 x 63mm barrier pipe unmetered bulk supply from the on-site mains of 125mm Barrier pipe with the delivery of 34x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£7,290.71**

BLOCK H – 45 No's

1 x 90mm barrier pipe unmetered bulk supply from the on-site mains of 125mm Barrier pipe with the delivery of 45x20mm internal fit meters which needs to be installed in communal areas.



Budget Cost: **£13,240.85**

BLOCK J – 39 No's

1 x 63mm barrier pipe unmetered bulk supply from the existing main of 180mm HPPE on Western road with the delivery of 39x20mm internal fit meters which needs to be installed in communal areas.

Budget Cost: **£7,237.84**

Service Connections to Commercial Units:

BLOCK E – 2 No's

2 x 32mm barrier pipe metered supply to serve commercial offices from the existing main of 180mm HPPE on Western Road.

Budget Cost: **£4,102.96 + £VAT 820.59 (£4,923.55)**

BLOCK F – 3 No's

3 x 32mm barrier pipe metered supply to serve commercial offices from the existing main of 180mm HPPE on Western Road.

Budget Cost: **£6,154.44 + £VAT 1,230.88 (£7,385.32)**

Infrastructure / Network charges:

Residential:

408 x £365.45 for Water Infrastructure Charges: **£149,103.60**

408 x £365.45 for Sewerage Infrastructure Charges: **£149,103.60**

Commercial:

20 x £365.45 for Water Infrastructure Charges: **£7,309**

20 x £365.45 for Sewerage Infrastructure Charges: **£7,309**

Note: Commercial Unit is equal to 4 dwellings based on relevant multiplier system.

Building Water:

A charge is made for water used for building purposes where an existing un-metered supply is used. The charge will be based upon the amount of water used or as a percentage of the development contract value, which is currently 0.17%.

<http://www.thameswater.co.uk/developers/688.htm>

Water Quality and Hardness

Please use the link below to check water quality in your area.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/899.htm>



Extracts of Water and Waste Water Mains & Apparatus

Please use the link below to our Property Searches Team to ask for Extracts of Water and Waste Water Mains & Apparatus.

<http://www.thameswater-propertysearches.co.uk/>

Disconnection

Please use the link below if you would like to permanently disconnect your existing water supply.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/15131.htm>

All information enclosed in this letter is for budgetary purposes only and should by no means be taken as the actual cost for serving this development site.

Next Step:

If you would like to proceed with your design, please send your request for a capacity check if advised above, or apply for a formal quotation to developer.services@thameswater.co.uk FAO Design Team or Self-Lay Team. Please visit <http://thameswater.co.uk/developers/1328.htm> for more information

Helpful Thames Water literature:

Our website at www.thameswater.co.uk has helpful information and advice. Please visit: www.thameswater.co.uk/literature.

I trust this information will be of assistance in your proposals, however should you require any further information, please do not hesitate to contact us.

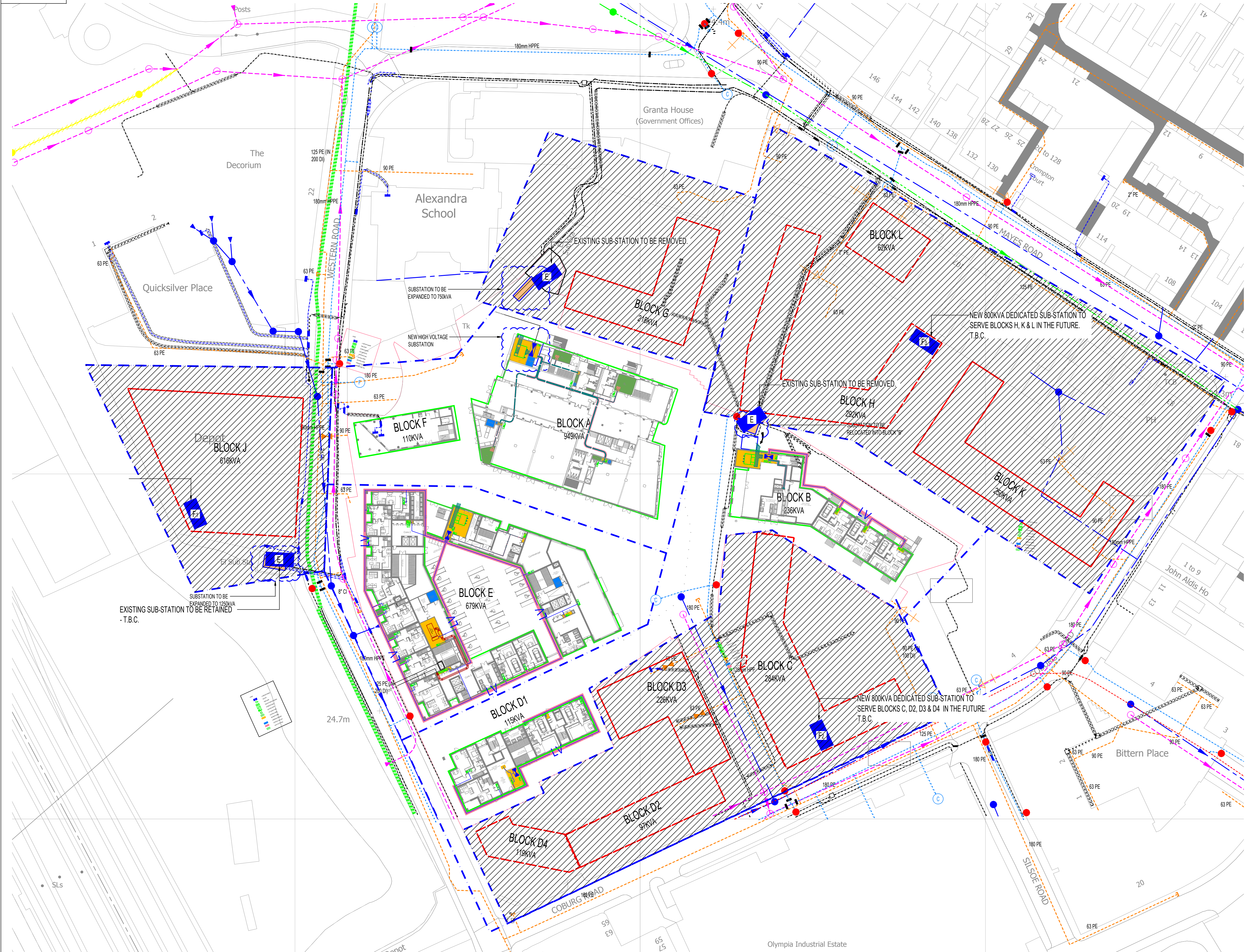
Yours sincerely,

Zaid Kazi
Thames Water
Developer Services
Asset Development
developer.services@thameswater.co.uk
0800 009 3921



APPENDIX D – SITEWIDE LAYOUT

Do Not Scale



- NOTES
1. DO NOT SCALE FROM THIS DRAWING. USE ONLY DIMENSIONED FIGURES.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, STRUCTURAL ENGINEERS AND FURNESS GREEN PARTNERSHIP DRAWINGS AND SPECIFICATION.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK WITH ALL OTHER TRADES.

WATER LEGEND

- DISTRIBUTION MAIN
- CAPPED END
- CUSTOMER SUPPLY
- FIRE SUPPLY
- GENERAL PURPOSE VALVE
- SINGLE HYDRANT

GAS LEGEND

- LP MAINS
- CAPPED END
- VALVE
- SYPHON
- DEPTH
- DIAMETER CHANGE

POWER LEGEND

- POWER CABLES
- POWER CABLES
- POWER CABLES
- LVST JNT

DRAINAGE LEGEND

- FOUL
- SURFACE WATER
- COMBINED
- TRUNK SURFACE WATER
- STORM RELIEF
- ABANDONED SEWER

04	BACKGROUND UPDATED WITH NEW MASTERPLAN	MAY '17
03	BACKGROUND UPDATED WITH NEW MASTERPLAN AS ATTACHED	NOV. '16
02	BACKGROUND UPDATED WITH NEW MASTERPLAN	AUG. '16
01	ISSUED FOR COMMENT	OCT. '15
Rev	Description	Date

Issue Status

PLANNING

Client
WORKSPACE GROUP PLC

FURNESS GREEN PARTNERSHIP
BUILDING SERVICES & ENVIRONMENTAL ENGINEERING CONSULTANTS
3 DUFFERIN AVENUE, LONDON, EC1Y 8PQ
020 3588 3898 www.furnessgreen.com info@furnessgreen.com

Project
THE CHOCOLATE FACTORY
WOOD GREEN

Title
EXISTING UTILITY SERVICES

Drawn	FG	Checked	JG	Date	OCT '15	Scale	1:500@A1
Job No	641	Dep No		70-SW-001	Rev	04	



APPENDIX D – SITEWIDE LAYOUT