



Wellington Way Waterlooville

Client: CPI Wellington Way 2 Limited

Rev: 0.0

CONTENTS

<u>No.</u>	<u>Title</u>	<u>pp</u>
1	INTRODUCTION	2
2	UTILITIES SERVICES APPRAISAL.	2
2.1	Gas	2
2.1.1	Existing Mains Gas Services	2
2.1.2	Works Required to the Existing Mains	2
2.1.3	New Development Connection.	2
2.2	Water Services	3
2.2.1	Existing Mains Water Services	3
2.2.2	Works Required to the Existing Mains	3
2.2.3	New Development Connection.	3
2.3	Electricity	3
2.3.1	Existing Electricity Services	3
2.3.2	Existing Loadings	4
2.3.3	New Development Connection.	4
3	VENTILATION STRATEGY ASSESSMENT	6
3.1	General	6
3.1.1	Café Bar (A3 Retail Classification)	6
3.1.2	Kitchen Dining	6
3.1.3	Gym	6
3.1.4	Habitable rooms	6
4	SUSTAINABLE URBAN DESIGN (SUDS)	7
5	APPENDICES - UTILITIES ASSET SEARCH MAPS	8
5.1	Gas.	9
5.2	Electrical – HV Mains Record	10
5.3	Electrical – LV Mains Record	11
5.4	British Telecoms	12
5.5	Water (awaiting information)	13

1 Introduction

This document purpose is to support planning application for the proposed development Wellington way, Waterloooville. The development is a residential-led mixed use scheme comprising of 264 studio units being built specifically for rent.

This support document covers the preliminary strategies for utilities searches, ventilation, and Sustainable Urban Design (SUDS).

2 Utilities Services Appraisal.

Refer to Appendix I for Utilities asset search maps for the site. In general, the existing site is well served by utilities services.

2.1 Gas

2.1.1 Existing Mains Gas Services

The existing site comprises of a number of Retail Units operating either side of an open shopping mall.

The existing unit Nos 1 to 11 inclusive are served from a gas connection in Hambledon Road. The main is routed through the rear service yard where individual connections are taken off to serve each unit.

The utility assets map shows that this main may also serve properties Nos.93 to 99 inclusive located on London Road.

The existing unit Nos 12 to 21 inclusive are served from a gas connection in Hambledon Road. The main is routed through the rear service yard where individual connections are taken off to serve each unit.

2.1.2 Works Required to the Existing Mains

Each individual existing connection to units Nos. 1 to 11 inclusive shall be exposed and capped off clear of the demolition line; however the supply main should be retained as it serves other existing units.

The branch main and individual connections to units Nos 12 to 21 inclusive requires removal with the main capped off in Hambledon Road.

2.1.3 New Development Connection.

A new single mains gas connection shall be taken from the utility main in Hambledon Road and routed through the service yard to enter the building in the main plantroom.

As a result of the change in use from Retail to Residential accommodation together with the increase in build area there shall be an increase in the daily gas demand required for the new development.

During the next stage of design detailed discussions will be held with the gas utility companies on all of the aspects outlined above.

2.2 Water Services

2.2.1 Existing Mains Water Services

The existing site comprises of a number of Retail Units operating either side of an open shopping mall.

The existing unit Nos 1 to 11 inclusive are served from a water connection in Hambledon Road. The main is routed through the rear service yard where individual connections are taken off to serve each unit.

The utility assets map shows that this main may also serve properties Nos. 93 to 99 inclusive located on London Road.

The existing unit Nos. 12 to 21 inclusive are served from a water connection in Hambledon Road. The main is routed through the rear service yard where individual connections are taken off to serve each unit.

2.2.2 Works Required to the Existing Mains

Each individual existing connection to units' nos. 1 to 11 inclusive shall be exposed and capped off clear of the demolition line; however the supply main shall be retained as it serves other existing units.

The branch main and individual connection to units' Nos. 12 to 21 inclusive requires removal with the main capped off in Hambledon Road.

2.2.3 New Development Connection.

A new single mains water connection shall be taken from the utility main in Hambledon Road and routed through the service yard to enter the building in the main plantroom.

As a result of the change in use from Retail to Residential accommodation together with the increase in build area an increase in the daily potable water demand shall be required for the new development. However, water storage tanks shall be incorporated into the scheme the flow rate required from the utility main will be spread over a number of hours.

During the next stage of design detailed discussions will be held with the water utility on all of the aspects outlined above.

2.3 Electricity

2.3.1 Existing Electricity Services

The existing distribution network operator for the area is Scottish & Southern Electricity Networks (SSE).

Copies of SSE cable records have been obtained for the area surrounding the Wellington Way Shopping area: L.V. Mains Records and H.V. Mains Records.

Commented copies of these record plans are attached to this report for information only.

Please note that the routes of the indicated cables are indicative, and should be treated with caution. Cable locations should be confirmed with ground penetrating radar (GPR) surveys and hand-dug trial pits prior to any mechanical excavation.

The existing site comprises of a number of Retail Units operating either side of an open shopping mall.

From the record information, the existing units 3 to 11 inclusive appear to be served from a low voltage main passing through the rear service yard between Hambledon Road and the pedestrianised Wellington Way.

Similarly, the existing units 12 to 21 inclusive appear to be served from a low voltage main passing through the rear service yard between Hambledon Road and the pedestrianised Wellington Way. Assessing the location and routing of the LV mains, it is likely that the existing SSE Wellington Way substation was installed to serve the retail development. On this basis, it is highly likely that both low voltage mains serving the units emanate from the Wellington Way substation.

On the basis of the existing substation being related to the Wellington Way shopping development; it is likely that adjacent units 1 and 2 Wellington Way; and 93 to 99 London Road are also served from the same low voltage mains.

It follows then that the low voltage mains running in Hambledon Road, Wellington Way, and the linking main to the rear of units 3 to 11 will need to be protected and/or diverted away from any groundworks associated with the new development.

Note that the low voltage mains record appears to show that the low voltage main running in the service yard to the rear of units 3 to 11 passes under unit 3. The main running in the service yard to the rear of units 12 to 21 also appears to run below unit 18-21.

Particular care should be exercised while establishing the route of the existing mains cables, and it is recommended that trial pits are excavated by hand to establish the location of existing services.

2.3.2 Existing Loadings

For the purposes of this utility impact assessment, the existing small retail units have been allocated an estimated load of 8kVA per unit. This is based on a small shop, and is to be applied per unit. For example a single retail outlet occupying 2 units, say units 3 & 4 (Sue Ryder Care) has been allocated a load of 2x8kVA.

Using this method of allocating estimated existing demand, the total existing load for the development site, comprising units 3 to 11 & 12-21 Wellington Way (19 units) is estimated to be 152kVA.

2.3.3 New Development Connection.

The desktop study undertaken to date has not identified the degree of spare capacity available in the existing low voltage networks surrounding the proposed development area; nor the size or available capacity of the existing Wellington Way substation.

An initial maximum demand calculation has been prepared for the new development, based upon the architectural plans prepared for the Planning pre-application meeting SK04-SK09 (Revision B, dated 10 Nov 2017).

The development is estimated to require approximately 440kVA.

This is approximately three times the estimated existing load for the same footprint, and it is therefore recommended that an allowance is made within the scheme to house an SSE substation to serve the development.

Without opening discussions with SSE to determine their network planning policy, we would advise that SSE are likely to request that the development provides space to house a new network substation.

We would anticipate that a 500kVA transformer would be adequate to serve the development, however, there is a small possibility that with the existing load disconnected, the existing low voltage infrastructure may be sufficient to provide a single supply direct from the existing Wellington Way substation.

The matter will not be resolved until a formal application is made for a new connection from Scottish & Southern Electricity Networks.

3 Ventilation Strategy Assessment

3.1 General

The assessment includes:

1. Details of the proposed installation position and design of ventilation and extract must be submitted.
2. For kitchen extract systems, information must include a completed Annex B taken from the 'Control of Odour and Noise in Commercial Kitchen Exhaust Systems' produced by DEFRA.

The ventilation air inlet and exhaust strategies for the proposed development will comply with local and nationwide statutory legislation and guidelines. The following section addresses ventilation strategies for key areas of the development.

3.1.1 Café Bar (A3 Retail Classification)

Ducted kitchen exhaust air shall be ducted routed through the building in a dedicated fire protected enclosure up through the building. The plant equipment shall be contained within plant enclosure. It is proposed to discharge the air at 5th Floor roof level via dedicated fan sufficient distance away from surrounding ventilation intake positions. The proposed scheme will embrace guidance set out in line with Defra Guidance document 'the Control of Odour and Noise from Commercial Kitchen Exhaust Systems' with special attention given to Annex B & C.

3.1.2 Kitchen Dining

It is not confirmed the proposed operation of the kitchen dining area, however, should there be full cooking facilities ducted kitchen exhaust air is proposed to be routed through the building in a dedicated fire protected enclosure up through the building. It is proposed to discharge the air at 10th floor roof level via dedicated fan sufficient distance away from surrounding ventilation intake positions. The proposed scheme will embrace guidance set out in Defra Guidance document 'the Control of Odour and Noise from Commercial Kitchen Exhaust Systems' with special attention given to Annex B & C.

3.1.3 Gym

Ventilation plant will be located within the unit where intake and exhaust air points will occur at louvres integrated with the units shop front façade.

3.1.4 Habitable rooms

Strategies for the ventilation of the habitable rooms shall be developed in the next work stage. The following strategies shall be considered.

1. Apartment whole house systems, MVHR
2. Mechanical Extract Ventilation, MEV
3. Centralised ventilation system

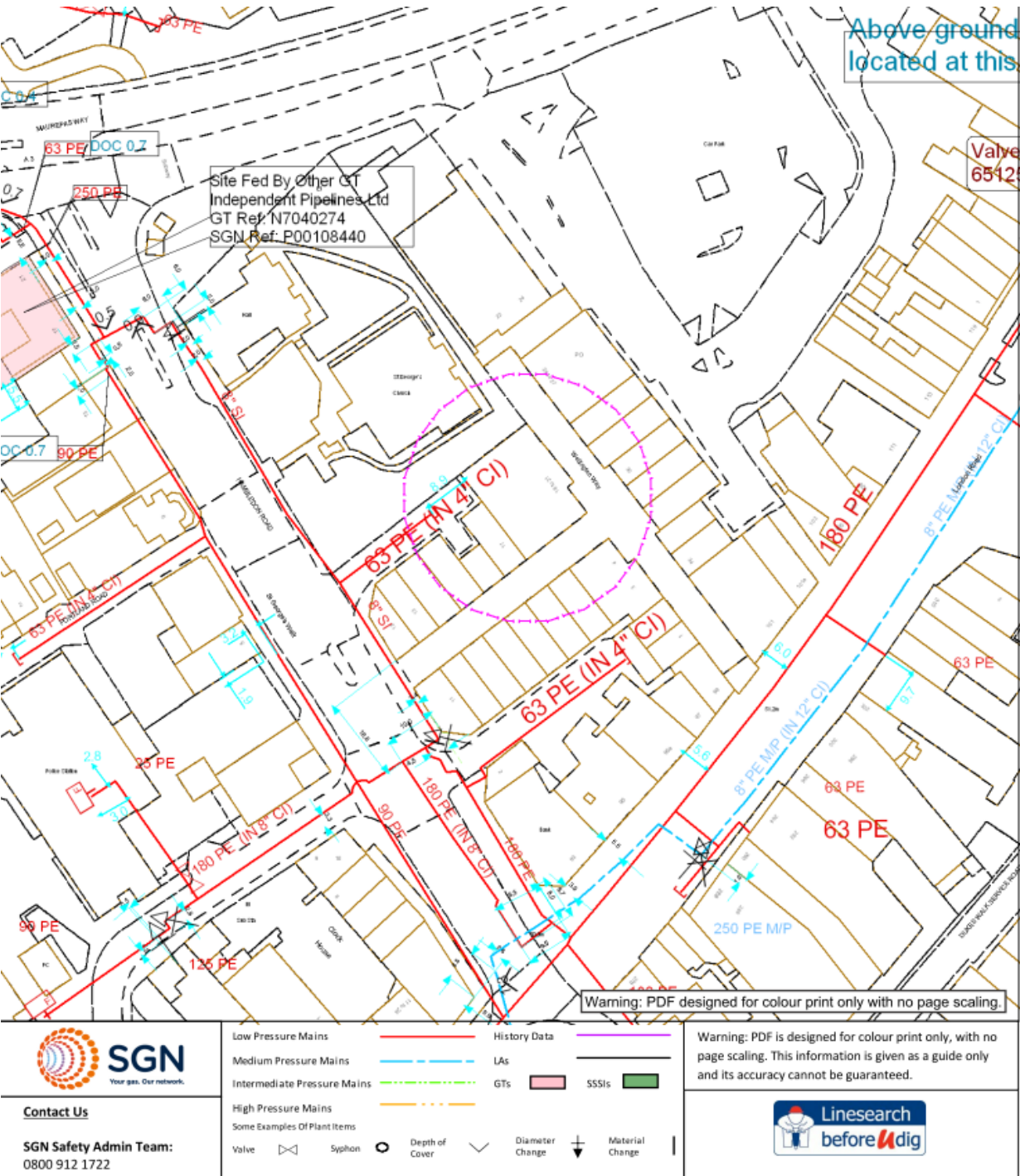
4 Sustainable Urban Design (SUDS)

With reference to Havant Borough Council Environmental Health Department Memorandum, reference CONS/17/02395, dated 15 December, comments on SUDS approach to the proposed development we address points raised as follows;

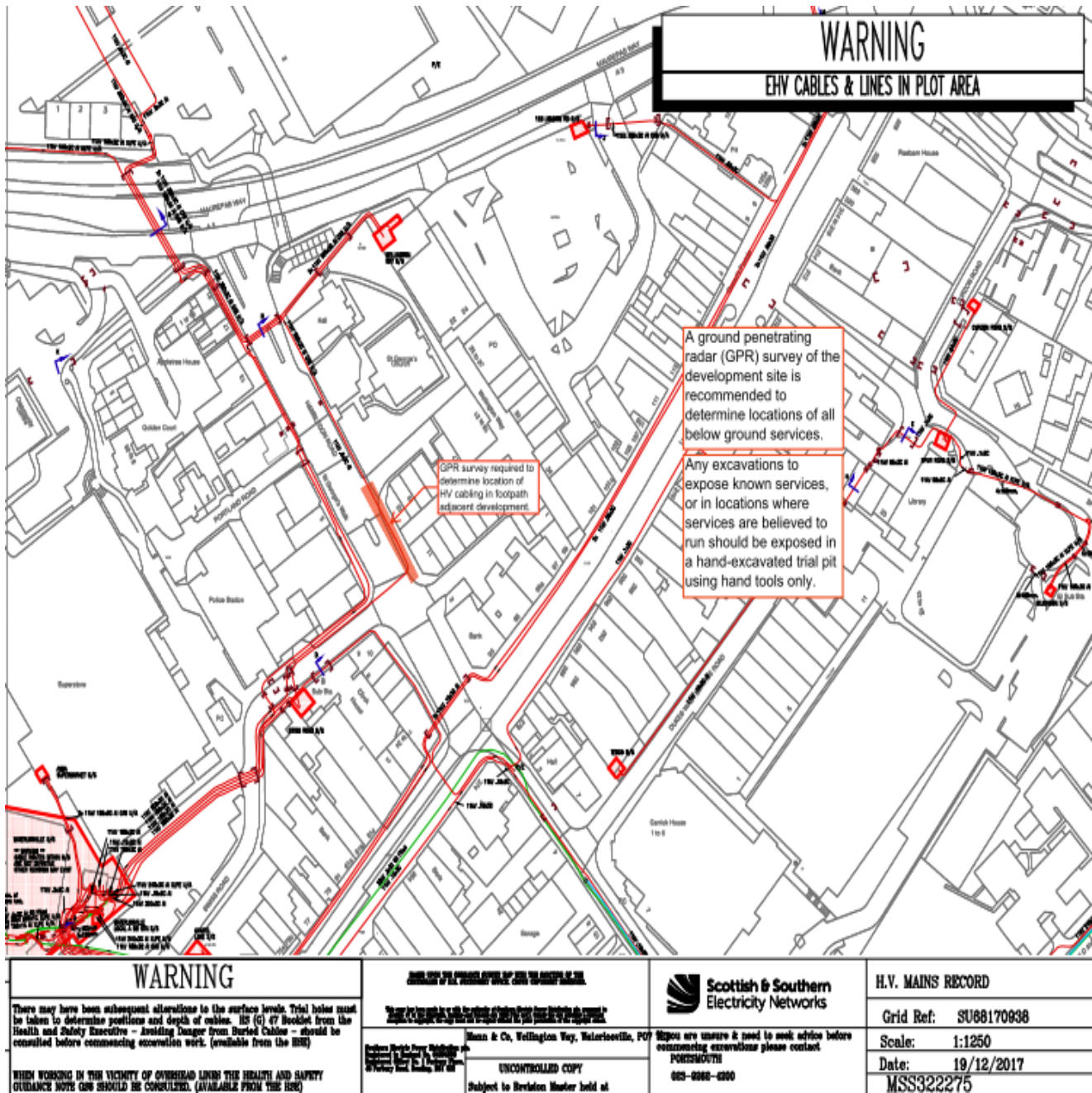
As suggested, we have reviewed the suggestion of rainwater harvesting for WC flushing. Our experience of its application leads to considerable additional costs for rainwater harvested water supply pipework systems (in addition to the normal potable water distribution systems) and along with the practical necessity to 'dye' the rainwater to distinguish it to prevent accidental consumption, we would not suggest this is adopted on this development. Further studies on this cost-effectiveness can be carried out post planning design, but we do not believe this is a viable system that should be adopted.

5 APPENDICES - Utilities Asset Search Maps

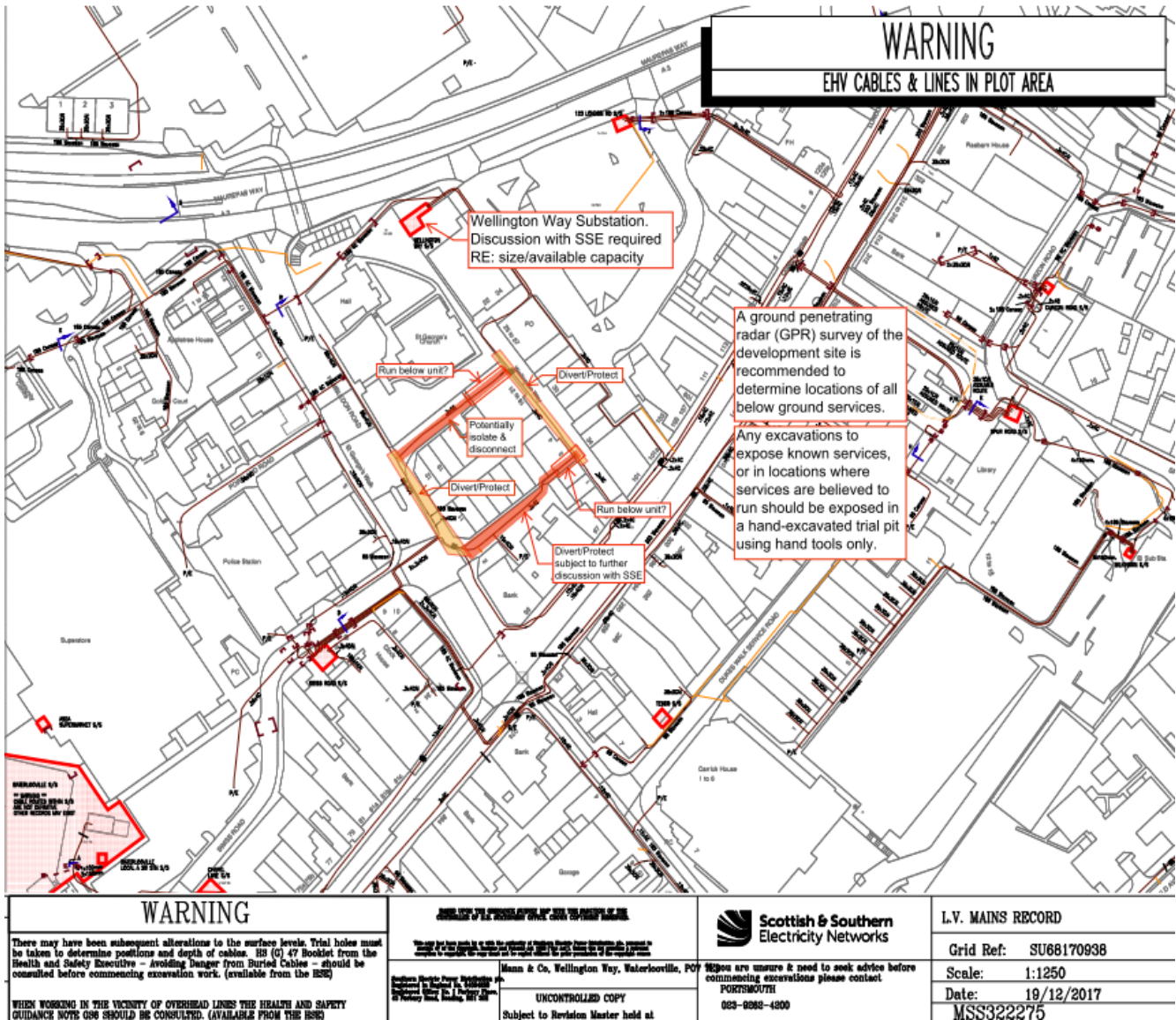
5.1 Gas.



5.2 Electrical – HV Mains Record

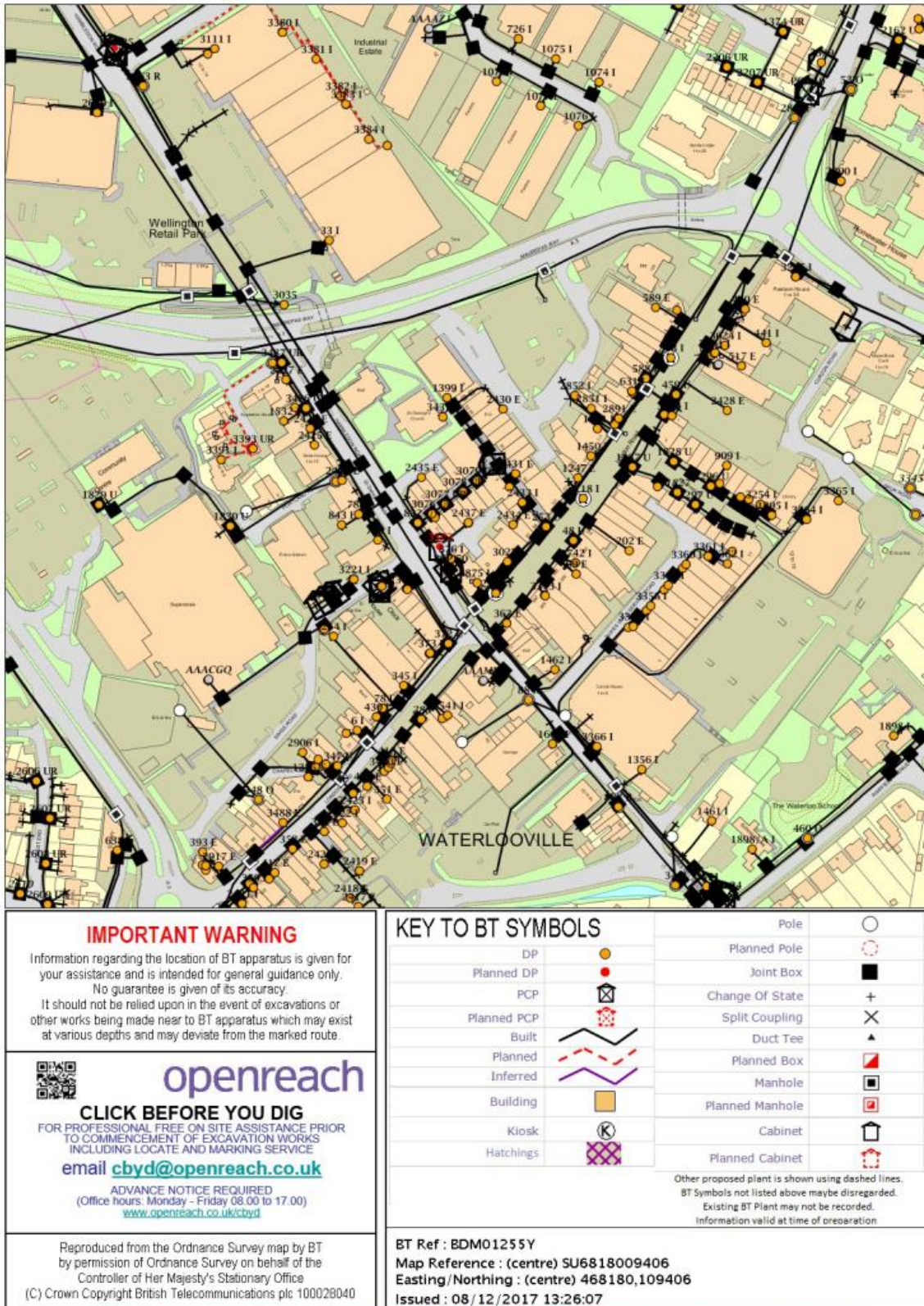


5.3 Electrical – LV Mains Record



5.4 British Telecoms

Maps by email Plant Information Reply



5.5 Water (awaiting information)

Note:

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.