

Elettra Avenue, Waterlooville

Utilities Appraisal

On behalf of **Bridgehouse (Bradford IoM) Limited**

Project Ref: 29169/005 | Rev: C | Date: September 2013



Document Control Sheet

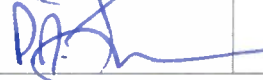
Project Name: Elettra Avenue, Waterlooville

Project Ref: 29169/005

Report Title: Utilities Appraisal

Doc Ref: Revision C

Date: September 2013

	Name	Position	Signature	Date
Prepared by:	A Davies	Senior Engineer		05.09.2013
Reviewed by:	P Swindale	LLP Director		05.09.2013
Approved by:	P Swindale	LLP Director		05.09.2013
For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
A	30.08.2013	Draft Issue for Review	AD	-	-
B	04.09.2013	For outline planning permission – Draft	AD	-	-
C	05.09.2013	For outline planning permission	AD	PS	PS

Peter Brett Associates LLP disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with the Client and generally in accordance with the appropriate ACE Agreement and taking account of the manpower, resources, investigations and testing devoted to it by agreement with the Client. This report is confidential to the Client and Peter Brett Associates LLP accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

© Peter Brett Associates LLP 2013

Contents

1	Executive Summary	1
1.1	Overview.....	1
2	Introduction	2
2.1	Overview.....	2
3	Existing Utility Infrastructure	3
3.1	Overview.....	3
3.2	Electricity	3
3.3	Gas	3
3.4	Telecommunications.....	4
3.5	Potable Water.....	4
3.6	Foul Water	4
3.7	Mobile Telecommunications Masts	4
4	Diversionary Works to Existing Utility Infrastructure	5
4.1	Overview.....	5
4.2	Electricity	5
4.3	Gas	5
4.4	Telecommunications.....	5
4.5	Potable Water.....	5
4.6	Foul Water	5
4.7	Mobile Telecommunications Masts	5
5	Proposed Utility Infrastructure	6
5.1	Introduction	6
5.2	Electricity	6
5.3	Gas	6
5.4	Telecommunications.....	7
5.5	Potable Water.....	7
5.6	Foul Water	7
6	Conclusions	8
6.1	Diversionary Works	8
6.2	New Supply Infrastructure	8
6.3	Summary	8

Tables

Table 1: Existing Utility Infrastructure.....	3
---	---

Appendices

Appendix A	Figures and Drawings
------------	----------------------

This page is intentionally blank

1 Executive Summary

1.1 Overview

- 1.1.1 Peter Brett Associates LLP first looked at this site in 2012 on behalf of BAE Systems plc and undertook a series of desktop investigations and capacity checks with the utility providers to determine if the proposed scheme could be served from their existing utility networks. The results of these investigations were published in June 2012 (BAE Systems, Waterlooville Utilities Appraisal Report)
- 1.1.2 The latest proposals for the development as scheduled in 1.1.6 have been used to update estimates of demand for the load assessment. The revised loading calculations have revealed there is not a significant increase in demand. Due to current time constraints, official capacity checks from respective incumbent suppliers have been issued, however, responses remain outstanding at the time of writing. Given comparable loading to the previous site proposals it is expected that additional reinforcements will not be required.
- 1.1.3 We would recommend that, should outline planning permission be granted, the utility providers are consulted as part of the detailed design stage.
- 1.1.4 Southern Water and Portsmouth Water may attach a planning condition for the development if they are of the opinion that their networks could be detrimentally affected. This is normal practice and should not adversely affect the project. However, there were no such conditions placed when the scheme received outline planning permission (APP/12/00652).

2 Introduction

2.1 Overview

- 2.1.1 Peter Brett Associates LLP (PBA) has been commissioned by Bridgehouse (Bradford IoM) Limited, *'the client'* to prepare a Utilities Appraisal Report to support the outline planning application for the redevelopment of the former BAE Systems site at Elettra Avenue, Waterlooville as a mixed use employment, leisure and retail development.
- 2.1.2 Investigations, information and conclusions relating to the surface water drainage strategy are addressed separately within the Flood Risk Assessment (FRA) also prepared by PBA.
- 2.1.3 The site is located at Elettra Avenue within the Brambles Farm Industrial Estate on the western edge of Waterlooville. The Park is surrounded by Elettra Avenue to the north and west, Silverthorne Way to the south and the B2150 Hambledon Road to the east. The whole complex covers 5.6 hectares (ha); however, the site red line boundary encompasses only 5.15 ha.
- 2.1.4 The site currently comprises office buildings and a restaurant building in the eastern half while the western half of the site comprises car parking.
- 2.1.5 The location of the site is shown on Figure 1 and can be viewed in [Appendix A](#).
- 2.1.6 Bridgehouse (Bradford IoM) Limited is seeking outline planning permission to redevelop the site with the following mix of uses:
- An 8 screen cinema (approx. 3,250m²)
 - A 20 lane bowling alley located within the existing E-Block (approx. 2,320m²)
 - A gymnasium located within the existing E-Block (approx. 1,720m²)
 - A 60-bedroom budget hotel (approx. 2,140m²)
 - A public house (approx. 555m²)
 - 4No. restaurants @ 370m²
 - A drive through fast food establishment (approx. 335m²)
 - A discount foodstore (approx. 1,532m²)
 - Associated access and parking provisions
- 2.1.7 The proposed Masterplan is included in [Appendix A](#).
- 2.1.8 This report has been prepared to assess the impact on the various utilities (electricity, gas, telecoms and water) within and in the immediate vicinity of the site. Assessments have been based on a total development quantum and mix as described above. It has been prepared to support an outline planning application for the redevelopment. In this respect the report is structured as follows:
- **Section 2:** Reviews the existing utility infrastructure in and around the site.
 - **Section 3:** Sets out any potential diversionary works to the existing utility infrastructure.
 - **Section 4:** Sets out the proposed utility infrastructure to support the development.
 - **Section 5:** Provides conclusions to the report.

3 Existing Utility Infrastructure

3.1 Overview

- 3.1.1 The following statutory undertakers have been approached for record drawings of their existing utility infrastructure.

Utility Medium	Statutory Undertaker	Infrastructure within Site
Electricity	Scottish & Southern Energy	Yes
Electricity	National Grid	No
Gas	Southern Gas Networks	No
Telecommunications	British Telecoms	Yes
Potable Water	Portsmouth Water	No
Drainage	Southern Water	Yes

Table 1: Existing Utility Infrastructure

- 3.1.2 An existing utility infrastructure constraints plan (Drawing 29169/005/001) has been prepared showing the extent of the existing utility infrastructure within and adjacent to the site and is contained within **Appendix A**.

3.2 Electricity

- 3.2.1 Scottish and Southern Energy (SSE) is the distribution network operator responsible for the electricity supply to the Waterlooville area. Initial contact has been made with both their mapping centre and their local office to obtain available information. Their records indicate a large amount of low voltage and high voltage electricity infrastructure is present within all roads surrounding the site with a small amount within the site boundary. An existing sub-station is placed within the site to the north corner of Block E, where underground 11kV cables are present from the substation to Silverthorne Way.

3.3 Gas

- 3.3.1 Southern Gas Networks (SGN) is the gas transporter responsible for the gas supply to the Waterlooville area. Initial contact has been made with their land enquiry team to obtain existing utility information. Their record mapping indicates the surrounding area is well served with gas delivered at low pressure with a small amount of medium pressure mains to the north of the site in the northern footpath on Elettra Avenue. A low pressure main exists just outside the boundary in the northern footway on Silverthorne Way with a small amount feeding into the site opposite to Relay Road.

3.4 Telecommunications

- 3.4.1 Openreach BT (BT) is the primary telecommunications provider responsible for the telecommunications supply to the Waterloooville area. Their record mapping indicates underground BT apparatus is present within all roads surrounding the site. A small amount of underground cabling is present within the site surrounding the main building to the east of the site.
- 3.4.2 C&W (Cable and Wireless) infrastructure is present in the Western footpath of Hambledon Road just on the outside of the site boundary line.

3.5 Potable Water

- 3.5.1 Portsmouth Water (PW) is the statutory undertaker responsible for the potable water supply to the Waterloooville area. Initial contact has been made with their developer services team to obtain information. SEW record mapping indicates that a main is present within all the surrounding roads. There are no water mains present within the site itself.

3.6 Foul Water

- 3.6.1 Southern Water (SW) is the statutory undertaker responsible for the foul water drainage to the Waterloooville area. Initial contact has been made with their developer services team to obtain information. There are foul water sewers present within almost all roads surrounding the site. All of these sewers are fed to a pumping station on Silverthorne Way to the south of the site where they are then pumped eastwards to a main within Hambledon Road (B2150).

3.7 Mobile Telecommunications Masts

- 3.7.1 There are no mobile phone masts apparent within the site boundary; however, there is one Orange radio transmitter on Hambledon Road, which is to the North of the site.

4 Diversionary Works to Existing Utility Infrastructure

4.1 Overview

- 4.1.1 Initial consideration has been given as to the need to divert and/or protect any existing utility infrastructure within the site boundary to allow development to proceed whilst maintaining the integrity of the existing utility networks.

4.2 Electricity

- 4.2.1 There are no diversionary works anticipated to any existing electricity infrastructure.

4.3 Gas

- 4.3.1 There are no diversionary works anticipated to any existing gas infrastructure.

4.4 Telecommunications

- 4.4.1 There are no diversionary works anticipated to any telecoms infrastructure.

4.5 Potable Water

- 4.5.1 There are no diversionary works anticipated to any existing water infrastructure.

4.6 Foul Water

- 4.6.1 There are no diversionary works anticipated to any existing foul water infrastructure.

4.7 Mobile Telecommunications Masts

- 4.7.1 There are no diversionary works required as no mobile masts are present within the site.

5 Proposed Utility Infrastructure

5.1 Introduction

5.1.1 PBA previously undertook a preliminary load assessment based on the development proposals of June 2012, these were:

- Buildings for Class B uses in the western part of the site (around 8,500m² of floor area).
- A 60-bedroom hotel in the south-east of the site.
- A restaurant with drive-through facility in the north-east of the development.
- A car showroom and forecourt to the east of the access from Elettra Avenue from the north.
- Associated access and parking provisions

5.1.2 Provisional demand assessments were issued to the utility suppliers with a request that they confirm if the proposed scope of development / demand could be served from their existing utility supply infrastructure.

5.1.3 The utility providers advised in 2012 that the development could, without the requirement for offsite reinforcement be supplied from the existing utility networks in the locality of the site.

5.1.4 The latest proposals for the development as scheduled in 1.1.6 have been used to update estimates of demand for the load assessment. The revised loading calculations have revealed there isn't a significant increase in demand. Due to current time constraints official capacity checks from respective incumbent suppliers have been issued however responses remain outstanding at the time of writing. However, given comparable loading to the previous site proposals it is expected that additional reinforcements will not be required.

5.2 Electricity

5.2.1 SSE has confirmed that a new sub-station(s) may be needed within the site to be able to sustain the additional load requirements from the proposed development.

5.2.2 In order for SSE to determine the extent of the onsite infrastructure works they will need to undertake a feasibility study, which requires payment of a fee by the developer. The results of the feasibility study will be used in determining the costs associated with the required infrastructure during the budget estimate stage.

5.2.3 The feasibility study would normally be undertaken during the detailed planning stage of the project, and as such has not been progressed at this stage.

5.3 Gas

5.3.1 SGN have confirmed that the proposed development could be served from their existing network. They also confirmed that the point of connection into the existing mains would be on Silverthorne Way into the 8" low pressure steel main within the northern footpath.

5.4 Telecommunications

- 5.4.1 BT cable ducts, chambers, lines and poles are present in all the public highways around the site and as such, BT should be able to extend their network in to the site to suit the proposed masterplan.
- 5.4.2 All civils works will be undertaken by the developer using free issue BT ducts and BT specified duct boxes to BT's confirmed design. BT will then pull cables through the newly installed ducts as and when required.
- 5.4.3 BT normally undertake to provide telephone and broadband services to all new developments free of charge with the end user ultimately paying for connection costs.

5.5 Potable Water

- 5.5.1 PW has confirmed that the proposed development could be accommodated by their existing network as long as the connections are standard domestic/commercial.

5.6 Foul Water

- 5.6.1 SW has confirmed that the proposed development could be connected into the existing surrounding network. They have also confirmed that the location of the connection could be into the last manhole before the pumping station – MH 5702.

6 Conclusions

6.1 Diversionary Works

- 6.1.1 From our initial review of the existing utility infrastructure, it is apparent that no diversionary works need to be carried out within the site.

6.2 New Supply Infrastructure

- 6.2.1 Having reviewed the available utility information and liaised with the incumbent utility providers in the area it would appear that the proposed development site can be adequately supplied from the existing/surrounding utility infrastructure network, albeit that some local reinforcements may be required.
- 6.2.2 SSE has confirmed that a new sub-station(s) may be needed within the site to be able to sustain the additional load requirements from the proposed development.

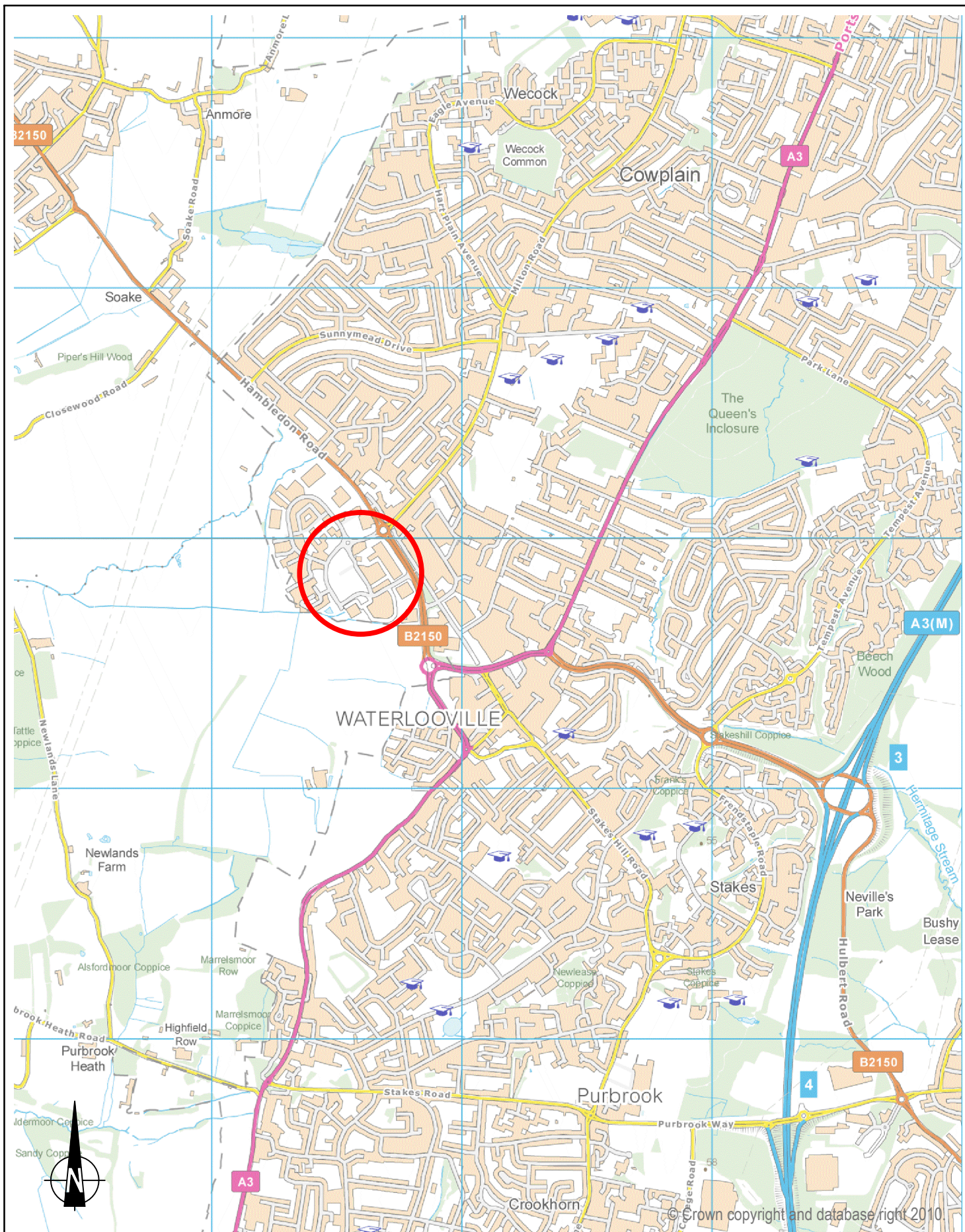
6.3 Summary

- 6.3.1 In summary the study has identified that, subject to detailed design, the Waterloooville site can be adequately supplied with both utility and foul drainage services thus enabling the development site to be taken forward.

Appendix A Figures and Drawings

- Figure 1: Location Plan
- Proposed Masterplan
- Drawing 29169/005/001: Existing Utility Infrastructure Constraints Plan

This page is intentionally blank



© Crown copyright and database right 2010



Offices throughout
the UK and Europe
www.peterbrett.com
© Peter Brett Associates LLP
TAUNTON
Tel: 01823 445150

Client
Bridgehouse Limited

Reproduced from/based upon Ordnance Survey material with the permission of Ordnance Survey © on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence No. Year of Publication
Owner/Purchaser of Mapping

Elettra Avenue, Waterloo

Location Plan

Date 28.08.2013

A4 Scale 1:20,000

Drawn by DM

Checked by PH

Figure Number

Figure 1



Notes:

Drawing based on Ordnance Survey data and is subject to a full line & level survey.
Contractors to check dimensions and notify any discrepancies or errors to the company immediately.
Work to figured dimensions only. Do not scale.
© All Rights Reserved.

Accommodation Schedule: (approximate GIA)

- Cinema 8-screen - approx 3,250m² m2 / 35,000sqft (approx 1,300seats)
- Bowling 20-lane - located within existing E-Block approx 2,320m² m2 / 25,000sqft
- Gymnasia - located within existing E-Block approx 1,720m² m2 / 18,500sqft

Sub-Total = 350 car parking spaces

- Budget Hotel - 60-bed hotel (3-storey) approx 2,140m² / 23,000sqft 60 car parking spaces

- Eating & Drinking [1] 335m² / 3,600sqft - Drive thru 32 car parking spaces

- [2] 370m² / 4,000sqft - Restaurant 30 car parking spaces

- [3] 370m² / 4,000sqft - Restaurant 35 car parking spaces

- [4] 370m² / 4,000sqft - Restaurant 35 car parking spaces

- [5] 370m² / 4,000sqft - Restaurant 30 car parking spaces

- [6] 555m² / 6,000sqft - Public House 45 car parking spaces

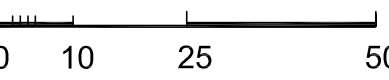
Sub-Total = 267 car parking spaces

- Discount Foodstore - 1,532m² / 16,500sqft (1,125m² / 12,110sqft Sales) 90 car parking spaces

Site Area:

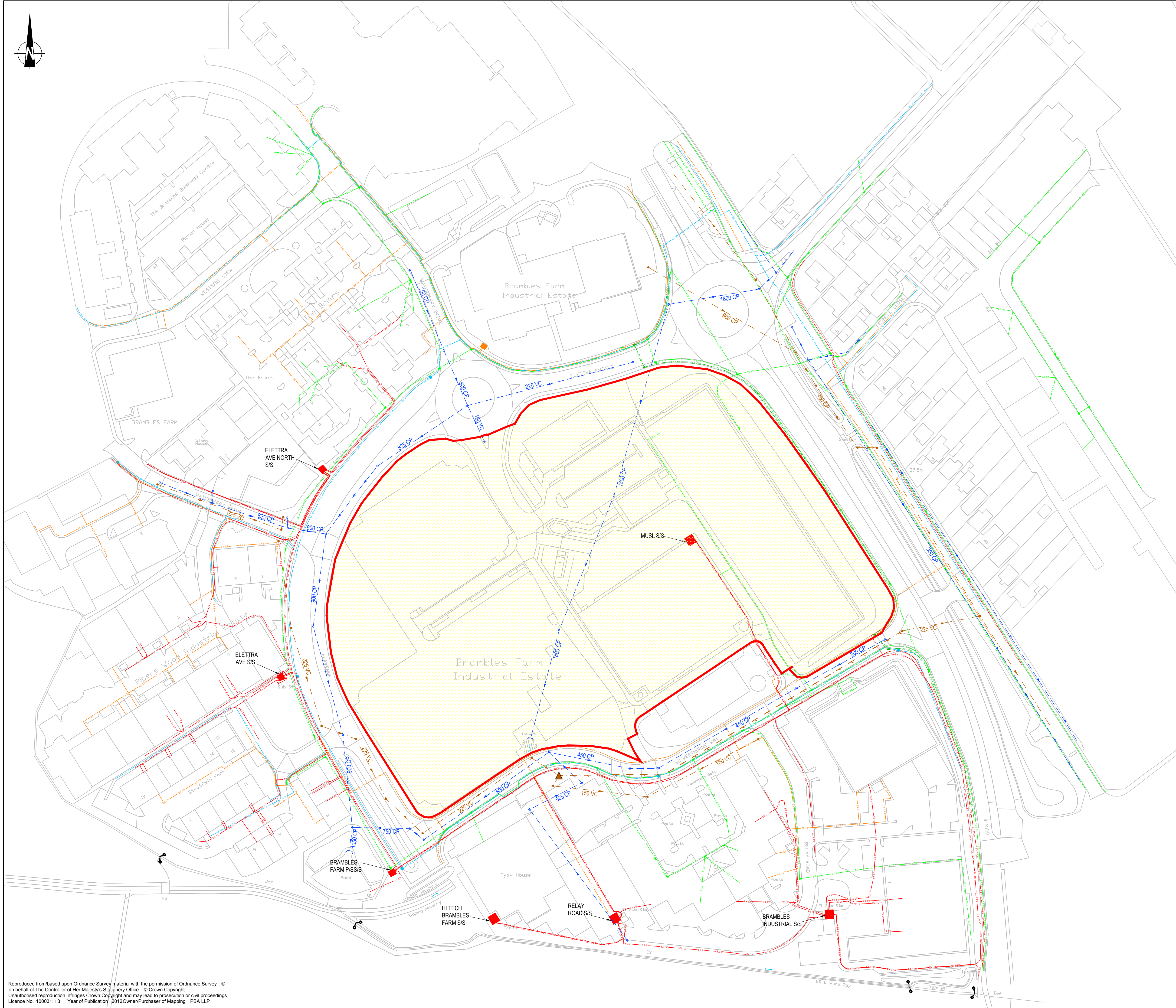
= 51,383m² / 5.14ha / 12.70 acres (as identified by red line and subject to Client confirmation)

All information shown is approximate only and based on OS Promap data, therefore this sketch drawing is subject to full line and level topographical survey.



Ordnance Survey, (c) Crown Copyright 2013.

Rev.	Date	Description	Drawn	Checked
DAVIS WEATHERILL PARTNERSHIP CHARTERED ARCHITECTS Harborne Court 67-69 Harborne Rd Edgbaston Birmingham B15 3BU T: 0121 455 0234 F: 0121 456 2232 E: info@davisweatherill.co.uk The Arch Barn Unit 7B, Estate Yard Harwood Leeds LS17 9LF T: 0113 288 6106 F: 0113 288 6787 E: info@davisweatherill.co.uk Contact Birmingham Office ☒ Contact Leeds Office ☐ www.davisweatherill.co.uk				
Client: Bridgehouse Capital			Project: Proposed new Development Elettra Avenue WATERLOOVILLE	
Title: Proposed Masterplan			Rev. B	
Drawn JB Date 08.2013 Status FEASIBILITY			Checked SRD Scale 1:1000@A1	
Drp. No. 13484 / SK10				



- NOTES**
- ABANDONED SERVICES MAY NOT BE SHOWN ON THIS PLAN.
 - TRUE POSITION OF THE SERVICES MAY BE DIFFERENT TO THAT SHOWN ON THIS PLAN, WHICH IS INTENDED FOR GENERAL GUIDANCE ONLY. NO GUARANTEE CAN BE GIVEN TO ITS ACCURACY AND IT SHOULD NOT BE RELIED UPON WHEN EXCAVATING IN THE VICINITY.
 - THESE SERVICES MAY NOT RUN IN A STRAIGHT LINE EITHER HORIZONTALLY OR VERTICALLY BECAUSE OF GROUND CONDITIONS, OBSTACLES AND OTHER REASONS.
 - BURIED SERVICES MAY EXIST AT VARIOUS DEPTHS AS GROUND LEVEL MAY HAVE BEEN ALTERED SINCE THE UTILITY APPARATUS WAS LAID.
- BEFORE EXCAVATING OR GROUND WORKS**
- ANY SITE INVESTIGATION OR GROUND PENETRATING ACTIVITY SHALL COMPLY WITH THE REQUIREMENTS OF HSE GUIDANCE DOCUMENT HS(G) 47 "AVOIDING DANGER FROM UNDERGROUND SERVICES"
 - ALL UNDERGROUND SERVICES i.e., CABLES, PIPES, DUCTS SHOULD BE LOCATED USING THE FOLLOWING TECHNIQUES:
 - REFERENCE TO DETAILED LARGER SCALE DRAWINGS AND CABLE ROUTE PROFILES. THESE WILL NEED TO BE REQUESTED FROM THE SERVICE PROVIDER AND REFERRED TO DURING THE DESIGN STAGE AND MADE AVAILABLE ON SITE TO SITE OPERATIVES PRIOR TO THE COMMENCEMENT OF ANY GROUNDWORKS.
 - SUITABLE INSTRUMENTS i.e., GROUND PENETRATING RADAR, CABLE LOCATING DEVICES WILL NEED TO BE USED TO DETERMINE THE LOCATION AND PRESENCE OF UNDERGROUND SERVICES/OBSTRUCTIONS BEFORE EXCAVATION WORKS PROCEED.
 - SAFE DIGGING TECHNIQUES (HAND EXCAVATION) AS DETAILED IN HS(G) 47 WILL BE NECESSARY TO DETERMINE THE EXACT POSITION OF BURIED SERVICES AND OBSTRUCTIONS BEFORE WORK CAN PROCEED.
 - ALL APPARATUS FOUND SHOULD BE CROSS REFERENCED WITH THE DETAILED RECORD PLANS. ANY ABNORMALITIES SHOULD BE REPORTED TO THE PROJECT MANAGER.
 - INFORMATION CONCERNING THE POSITION OF EXISTING UTILITY INFRASTRUCTURE HAS BEEN EXTRACTED FROM RECORD MAPPING OBTAINED FROM THE FOLLOWING STATUTORY UNDERTAKERS:

STATUTORY UNDERTAKER	MAPPING RECEIVED
SCOTTISH AND SOUTHERN ENERGY	19/04/2012
SOUTHERN GAS NETWORKS	17/04/2012
OPENREACH BT	13/04/2012
SOUTHERN WATER	30/01/2012
PORTSMOUTH WATER	03/04/2012

- KEY**
- EXISTING LOW VOLTAGE ELECTRIC DUCTS
 - EXISTING 11kV ELECTRIC DUCTS
 - EXISTING LOW PRESSURE GAS MAINS
 - EXISTING MEDIUM PRESSURE GAS MAINS
 - EXISTING BT DUCTS AND CHAMBERS
 - EXISTING CABLE & WIRELESS DUCTS AND CHAMBERS
 - EXISTING POTABLE WATER MAINS
 - EXISTING FOUL DRAINAGE SEWER
 - EXISTING FOUL DRAINAGE RISING MAIN
 - EXISTING FOUL DRAINAGE PUMPING STATION
 - EXISTING SURFACE WATER SEWERS
 - SITE BOUNDARY

Mark	Revision		Drawn	Date	Chkd

SCALE NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing issue Status

INFORMATION

ELETTRA AVENUE, WATERLOO HILL

EXISTING UTILITY INFRASTRUCTURE
CONSTRAINTS PLAN

Client BRIDGHOUSE BRADFORD TOM LIMITED		 Offices throughout the UK and Europe www.peterbrett.com © Peter Brett Associates LLP TAUNTON Tel: 01823 445150
Date of 1st issue 04.01.13	Drawn by SMW	
A1 Scale 1:1000	Checked by AD	
Drawing Number 21000001	Revision ☐	