



Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13

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Order DetailsOrder Number:300390822_1_1Customer Ref:1921744National Grid Reference:515410, 173730 Slice: Site Area (Ha): Search Buffer (m): А 2.41 100

Site Details Richmond Upon Thames College, Langhorn Drive, TWICKENHAM, TW2 7SJ



0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 25-Aug-2022 Page 23 of 23

Tel: Fax: Web:

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WMGR	Infilled Ground	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand And Peat	Not Supplied - Holocene
	KPGR	KEMPTON PARK GRAVEL MEMBER	Sand and Gravel	Not Supplied - Devensian
	LASI	Langley Silt Member	Clay and Silt	Not Supplied - Devensian
	TPGR	TAPLOW GRAVEL MEMBER	Sand and Gravel	Not Supplied - Wolstonian
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LC	London Clay Formation	Clay and Silt	Not Supplied - Ypresian



Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps. The various geological layers - artificial and landslip deposits, superficial

geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage Map ID: Map Sh Map Na Map Da

Map ID:	1
Map Sheet No:	270
Map Name:	South London
Map Date:	1998
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

Landmark

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Artificial Ground and Landslip

Artificial ground is a term used by BGS for those areas where the ground Aufficial glound is a term seek by BoS of the host activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.

- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.

 Landscaped ground - areas where the surface has been reshaped.
 Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details: Order Number: Customer Reference: 300390822_1_1 1921744 National Grid Reference: 515410, 173730 Slice: A 2.41 Site Area (Ha): Search Buffer (m): 1000 Site Details:

Richmond Upon Thames College, Langhorn Drive, TWICKENHAM, TW2 7SJ

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Bedrock and Faults

Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.





Order Details: Order Number: Customer Reference:

1921744 515410, 173730 National Grid Reference: A 2.41 Site Area (Ha): Search Buffer (m): 1000

Site Details:

Slice:

Richmond Upon Thames College, Langhorn Drive, TWICKENHAM, TW2 7SJ

300390822_1_1

0844 844 9952 0844 844 9951 Tel: Fax: Landmark Web www.envirocheck.co.uk ● ● ■ INFORMATION GRO v15.0 25-Aug-2022 Page 4 of 5





Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BCS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BCS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

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Combined Geology Map - Slice A



Order Details: Order Number: Customer Reference: National Grid Reference: Slice: Site Area (Ha): Search Buffer (m):	300390822_1_1 1921744 515410, 173730 A 2.41 1000	
Site Details: Richmond Upon Thames Co 7SJ	ollege, Langhorn D	rive, TWICKENHAM, TW2
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Web:

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APPENDIX E SUPPORTING DESK STUDY INFORMATION

Clarion Housing Group Supplementary Site Investigation: Phase 2 Area, Richmond Upon Thames College 1921744 R0201 (00)

Danielle Evans

From:	Gavin Day <gavin.day@merton.gov.uk></gavin.day@merton.gov.uk>
Sent:	21 September 2022 11:21
То:	Matthew Jackaman
Subject:	FW: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ - Our
-	Ref. 202240969

Matthew, Thank you for the mail. Have uploaded, site investigation to our sftp site, login details below:

https://sft.merton.gov.uk

Username: abc limited Password: 19River@2019

Shall leave this on there for a fortnight. Please don't hesitate to contact me if you encounter problems with the download.

Gavin Day Environmental Protection Officer Regulatory Services Partnership Serving Merton, Richmond and Wandsworth Councils



From: Matthew Jackaman <MJackaman@rsk.co.uk>
Sent: 21 September 2022 10:45
To: Gavin Day <Gavin.Day@merton.gov.uk>
Subject: Re: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ - Our Ref. 202240969

Hi Gavin,

Thanks for your help, if you're able to get me the investigation report for the site that would be great as well!

Kind regards, Matthew Jackaman

Get Outlook for Android

From: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Sent: Tuesday, 20 September 2022, 19:57
To: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Subject: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ - Our Ref. 202240969

Matthew, Thank you for bearing with me. Please accept my apologies, an here answer to Q3 (rather than Q5), no recorded *landfill* sites exist within 500m, and whilst Twickenham gravel pit existed 200m to the south-west though was backfilled around the year 1915. And in reference to Q4, we have at least one investigation for the site footprint that is Richmond upon Thames College. If you would like that please let me know and shall be able to get that over to you via our stmp site.

This concludes the enquiry with what the contaminated land function can answer. If some delay occurs with the return of the PWS question, of please let me know, for example, in two or three days.

Gavin Day Environmental Protection Officer Regulatory Services Partnership Serving Merton, Richmond and Wandsworth Councils



From: Gavin Day
Sent: 20 September 2022 13:54
To: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Cc: Food and Safety <<u>FoodandSafety@merton.gov.uk</u>>
Subject: 20220920c Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ - Our Ref. 202240969

Matthew, The answer to Q5 is that the petroleum directorate of the London Fire Brigade holds records on those phenomena. And Q7, is answered as, nothing that we know of. My colleagues in the food team cc'd, deal with private water supplies and can answer your Q6.

I shall get back you shortly regarding Q4 & Q5.

Gavin Day Environmental Protection Officer Regulatory Services Partnership Serving Merton, Richmond and Wandsworth Councils



From: Don Gray <<u>Don.Gray@merton.gov.uk</u>>
Sent: 16 September 2022 14:11
To: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Subject: 20220920b Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ - Our Ref. 202240969

Hi Gavin,

I've now taken the payment of £91.00, so please proceed with the required report.

Kind regards

Don

From: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Sent: 15 September 2022 15:08
To: Hemel Geo Admin <<u>HGeoAdmin@rsk.co.uk</u>>
Subject: FW: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Hi,

Would it be possible to arrange payment for this enquiry please, the job number is 1922744.

Cheers,

Matthew Jackaman BSc Graduate Geo-environmental Consultant



RSK Environment Limited

18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK Telephone: +44 (0)1442 437500 Mobile: +44 (0) 7774 112796 Email: <u>mjackaman@rsk.co.uk</u>

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From: Don Gray <<u>Don.Gray@merton.gov.uk</u>>
Sent: 15 September 2022 14:55
To: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>; Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Subject: RE: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Hi Matthew,

Sorry for the delay in contacting you, but I was on leave and swamped with several urgent matters on my return.

I will get your request set up and give you a call to take the payment of **£91.00**, and it will probably be some time on Friday morning.

Just to speed up the process, please can you confirm the name on the payment card and the card address, so that I can ensure that our Finance system is set up accordingly before I call you as it can sometimes be temperamental.

Kind regards

Don Gray Residential Coordinator Environment & Regeneration (Business Support) **Regulatory Services Partnership, Serving Merton, Richmond and Wandsworth Councils** Tel; 0208 288 5654 Email: <u>don.gray@merton.gov.uk</u> www.merton.gov.uk www.richmond.gov.uk/ www.wandsworth.gov.uk



From: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Sent: 15 September 2022 13:02
To: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Cc: Don Gray <<u>Don.Gray@merton.gov.uk</u>>
Subject: RE: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Hi Gavin,

I haven't heard anything from Don at all, so just wanted to follow up on proceeding with the payment for this enquiry.

Kind regards,

Matthew Jackaman BSc

Graduate Geo-environmental Consultant



RSK Environment Limited

18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK Telephone: +44 (0)1442 437500 Mobile: +44 (0) 7774 112796 Email: <u>mjackaman@rsk.co.uk</u>

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From: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Sent: 14 September 2022 11:25
To: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Subject: FW: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

From: Gavin Day
Sent: 14 September 2022 11:24
To: Don Gray <<u>Don.Gray@merton.gov.uk</u>>
Cc: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Subject: FW: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Don, Please accept my apologies, am not recalling if you are setup to take payment for LBRuT historic-use enquiries. If so, am wondering if you can liaise with Matthew to take payment. If not, please don't hesitate to get back to me. Have pasted below, as much for officers who will provide various answers, benefit, Matthew's questions which were initially supplied as an attachment. And Matthew, please find here an answer to your Q2, that we have not declared the site contaminated under Part 2a of the EPA 1990, and have no imminent plans to investigate.

... [with regards to] Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ located at grid reference 515403, 173745 (a site location/layout drawing is attached for information).

We are trying to establish whether there are any potential contamination issues in connection with the site and we would therefore be grateful for the following information:

Is the Council aware of any contamination issues or specific incidents in connection with the site?

- Has the site been identified under the Council's Contaminated Land Strategy for further investigation under the provisions of Part IIA of the EPA 1990? If so, please provide further details, including your predicted timescales for further action. If not, what is the likelihood of the site being identified in the future?
- Are there any closed, licensed or unlicensed landfill sites within a 250 m radius of the site? If yes, what is their location (NGR) and what types of waste were deposited in them? Are there any known gassing issues? If any gas spiking/monitoring has been carried out, could you please supply the results?
- Is the Council aware of any environmental assessments or remedial activities having been undertaken at the site?

Is the Council aware of any fuel/chemical storage infrastructure at the site?

Is there any private drinking water supplies on your Local Authority Water Supply Register, within a 2 km radius of the site? If yes, what is the location (i.e. NGR) and the source of the abstraction and its purpose.

Is there any other relevant information that may need to be considered if redeveloping the site?

Trust you are well and shall wait on you for confirmation that payment is taken.

Gavin Day Environmental Protection Officer Regulatory Services Partnership Serving Merton, Richmond and Wandsworth Councils



From: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Sent: 14 September 2022 10:57
To: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Subject: RE: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Hi Gavin,

That's great thanks for your reply, what's the best way to proceed with the payment?

Kind regards,

Matthew Jackaman BSc

Graduate Geo-environmental Consultant



RSK Environment Limited 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK Telephone: +44 (0)1442 437500 Mobile: +44 (0) 7774 112796 Email: <u>mjackaman@rsk.co.uk</u>

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PLEDGE TO NET Z E R O

TAKING THE NEXT STEP IN OUR COMMITMENT TO SUSTAINABILITY: WE'VE SIGNED THE PLEDGE TO NET ZERO



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From: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>>
Sent: 13 September 2022 13:24
To: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>>
Subject: Richmond upon Thames College, Egerton Road, Twickenham, TW2 7SJ

Matthew, Thank you for the mail. Some bits of your enquiry invoke the fee, £91. Please don't hesitate to let me know if you want to proceed. And for your information in answer to your Q1, we're not aware of any land contamination issues to do with the site, for example that would lead to an EPA 1990, Part 2a declaration.

Gavin Day Contaminated-land officer Regulatory Services Partnership Serving Merton, Richmond and Wandsworth Councils working from home in Hammersmith today T: 0208 2885651



From: Matthew Jackaman <<u>MJackaman@rsk.co.uk</u>> Sent: 13 September 2022 13:03 To: Gavin Day <<u>Gavin.Day@merton.gov.uk</u>> Cc: Danielle Evans <<u>DEvans@rsk.co.uk</u>> Subject: EHO Enquiry

Dear Gavin,

Please see the attached enquiry regarding a site we're currently working on at Richmond College. For the site map please consider the red (current) site boundary as the one in use for the enquiry.

Kind regards,

Matthew Jackaman BSc Graduate Geo-environmental Consultant



Down to Earth De-risking the ground webinar series



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18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK Telephone: +44 (0)1442 437500 Mobile: +44 (0) 7774 112796 Email: <u>mjackaman@rsk.co.uk</u>

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Danielle Evans

FEnquiries <hnlenquiries@environment-agency.gov.uk></hnlenquiries@environment-agency.gov.uk>
October 2022 11:53
tthew Jackaman
L 282146 JH - RE: 220922/GA04- 220922/GA04-EA Enquiry - Richmond College

Dear Matthew

Enquiry regarding: Groundwater and contaminated land search Richmond College

Thank you for your enquiry which was received on 13 September 2022.

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

1. Any available dissolved organic carbon (DOC), pH and calcium (Ca) data relating to the Duke of Northumberland's River and the River Crane at an upstream point close to the site.

Our water quality data is available online via open data website. <u>https://data.gov.uk/dataset/a0e6f23e-d631-4584-9ea2-7053620e4af2/water-quality-archive</u>

Additionally, you can view the catchment data explorer for Water Framework Directive status and details of the area. - <u>https://environment.data.gov.uk/catchment-planning/</u>

2. Has the Environment Agency been consulted in regards to any previous environmental assessments or remedial activities undertaken at the site?

We have checked with our Groundwater and contaminated land team records and we hold no site investigations or remediation work records for the site and postcode areas. Please be aware that we only consider risks to groundwater. The local council's Environmental Health Department is responsible for risks to other receptors (for example human health, property and ecology) and should be contacted for further information.

The site is not designated as a Special Site under Part IIa of the EPA 1990. The Environment Agency only regulates Special Sites. The local council regulates all other contaminated land sites and maintains the Contaminated Land Strategy. Please contact the relevant local authority for further information.

3. Records pertaining to past pollution incidents recorded to have occurred at or near to the site.

We hold no records of pollution incidents in the search areas defined. Pollution incident data can be found online as open data

<u>https://data.gov.uk/search?q=pollution+incidents&filters%5Bpublisher%5D=&filters%5Btopic%5D=&filters</u>
 <u>%5Bformat%5D=&sort=best</u>

4. Any waste exemptions which have been submitted to the Environment Agency for the site or in the near vicinity of the site?

Please refer to the public register for all waste sites - <u>https://www.gov.uk/guidance/access-the-public-register-for-environmental-information</u>

Please refer to **Open Government Licence** which explains the permitted use of this information.

Please get in touch if you have any further queries. If you want us to review the information we have sent, please contact us again within two months from the date of this email.

Yours sincerely

James Hammett

Customers and Engagement Officer Direct dial 0203 0259058 / 07769 365347 Direct email HNLenquiries@environment-agency.gov.uk

Did you know that the Environment Agency publishes most of its data via <u>www.data.gov.uk</u>? Using this site, you can search for our data alongside other environmental data providers from local authorites or from DEFRA (the Department of the Environment, Fisheries and Rural Affairs).

Pronouns: he/him/his (why is this here?)



The Love Water campaign is raising awareness of how people, wildlife and plants depend on a healthy water environment.

Find out more www.water.org.uk/love-water





FIND OUT MORE

PREPARE, ACT. SURVIVE.

From: Matthew Jackaman <MJackaman@rsk.co.uk> Sent: 13 September 2022 13:22 To: Enquiries, Unit < enquiries@environment-agency.gov.uk > Cc: Danielle Evans <DEvans@rsk.co.uk> Subject: Ref:220922/GA04-220922/GA04-EA Enquiry - Richmond College Please see the attached enquiry regarding a site we're currently working on at Richmond College. For the site map please consider the red (current) site boundary as the one in use for the enquiry.

Kind regards,

Matthew Jackaman BSc

Graduate Geo-environmental Consultant



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APPENDIX F UTILITY SERVICE PLANS



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Site Location: 515421 173718 Requested by: Miss Moniaue Elsom	Inis plan shows these pipes owned by Cadent Gas Limited in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GT's or otherwise privately owned may be present in this area. Information with regards to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the	Dig Sites Area: C C C C Line:	
Your Scheme/Reference: 1921744	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 Cadent Gas Limited or their agents, servants or contractors for any errors or omission. Safe digging practices, in accordance with HS(G)47, must be used	LP Mains	Valve
	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	IP Mains	Depth of cover Material C
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Rev	Revision Note	Date	Drawn by	Approve
10	Original drawing: P-0090535/DWG/010 Rev0 Original design: P-0090535/DWG/001 Rev0	06/12/17	H57	N/A
1-1	DND as-laid data added as per DS. JPID112255	06/12/17	NST	N/A
1-2	DNO as-laid data added as per DS, JPID 113951	13/12/17	SH	N/A
1-1	LRC Data added from LV31631 JPID131786	08/03/18	EW/7	N/A
1-1	Updated design: P-0090535/DWG/001 Rev1	27/12/18	HST	N/A
1-5	Update: P-0095931-DWG-013 Rev1 P-0095501 DWG 701 Rev1 (PHD 228857) P-0095501-DWG-701 Rev2 (PHD 230420) P-0095501-DWG-701 Rev3 (PHD 230423)	25/04/19	NC	N/A

 1-6
 LRC Data added from LV44778 JPED 273407
 18/09/19
 PH
 N/A

 1-7
 Schematic applaced (JPED 272849)
 26/09/19
 NC
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NICK COWIE 26.09.2019



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SAFE WORKING IN THE VICINITY OF UTILITY NETWORKS

(Refer to the HSE Guidance Document HSG47)

Introduction

This document should be issued to anyone intending on working in the vicinity of GTC and associated entities' utility networks and should be used in conjunction with HSG47, NJUG guidance and industry recognised practices.

Confirmation should be sought from the asset owner in any instance of ambiguity or if there is confusion.

Any querries regarding diversions, alterations, and disconnections for Gas, Water, Distributed Heat and Fibre please contact: <u>Network_Variations@gtc-uk.co.uk</u>

Any querries regarding diversions, alterations, and disconnections for Electric, please contact: <u>Electricity.diversion@gtc-uk.co.uk</u>

For more information please see the GTC website: <u>https://www.gtc-uk.co.uk/</u> or alternatively contact <u>plant.enquiries@bu-uk.co.uk</u>

The Dangers

Damage to services can cause significant disruption and project delays and therefore incur considerable costs as well as the potential for severe or fatal injury to not only to those directly involved but also the general public.

Damages often have instantaneous reactions like explosive arcing with cables or leaks for gas and water mains however latent reactions due to damages that are ignored, consealed, or unnoticed can have much greater consequences.

General

- It is imperative that all works are carried out in accordance with the guidance provided by the HSE (Health and Safety Executive) in their document HSG47 "Avoiding Danger from Underground Services", ISBN 9780717665846, 3rd Edition 2014. No party shall carry out any excavation works or other intrusive works such as piling, blasting or demolition without following the guidance in HSG47.
- 2. We own gas, electricity, water, waste water, fibre, and district heating apparatus located in the highway, private property and through the countryside. Some plant may be located in land for which a wayleave or easement has been granted and there may be no surface evidence of the presence of apparatus.
- **3.** Ensure that you have obtained detailed plans of existing and proposed gas, electricity, water, waste water, fibre, and district heating networks before any works commence.
- 4. The position of the networks shall be pinpointed as accurately as possible by visually surveying the area for indications of apparatus, by means of a locating device, and reference the information gathered to the plans. Locating equipment must be tested and calibrated within the manufacturer's calibration date.

Excavation work should be carried out where applicable, carefully following recognised safe digging practices. Once a locating device has been used to determine position and route, excavation may proceed; trial holes should be dug using suitable hand tools to confirm the position of buried networks. During excavation the locating device should be reused to check position and route of buried apparatus.

Once the apparatus has been located, appropriate marking be made on the covering hard surface confirming location and any errors in plans identified, GTC should be advised to allow plans to be updated.

- 5. Hand-held power tools can damage buried apparatus and shall be used with care until the exact position of a utility has been determined. They may only be used to break a paved or concrete surface above the network, unless there are any indications that the network is particularly shallow; in such circumstances, accuracy of plant location is determined and excavation initiated adjacent to the apparatus.
- 6. No manhole, chamber or other structure shall be built over, around or under the network. Such structures, other pipes, ducts and cables should be laid to provide a minimum clearance from the existing network of 300mm or 1.5 times the diameter of the asset, whichever is the greater. No work should be carried out if this minimum clearance cannot be met or which results in a reduction of cover or protection over the network, without first consulting GTC, please seek advice from GTC.
 - 7. Where an excavation uncovers any network apparatus the backfill shall be adequately compacted, particularly beneath the network, to prevent any settlement, which would subsequently damage the network. Backfill material adjacent to the network shall be selected fine material or sand, containing no stones, bricks or lumps of concrete etc. and shall be suitably compacted to give comparable support and protection to that provided before excavation. No power compaction shall take place until at least 200mm cover of selected fine fill has been suitably compacted by hand tools.
- 8. If the road construction is close to the top of the network, GTC shall be asked to identify whether any additional precautions are necessary. The road construction depth should not be reduced without permission from the local Highway Authority.
- 9. Costs incurred by GTC through direct or consequential damage shall be recharged.
- **10.** Where utilities are within a duct the duct should be treated in the same manner as live utility cable/pipe/fibre and any work in the vicinity of the apparatus shall be carried out with caution.

Any damage caused no matter how insignificant or minor in appearance SHALL BE REPORTED to GTC as soon as possible.

Precautions for Gas Networks

- **11.** Plans do not always show the presence of gas service pipes (from the gas main to premises) but their existence should be assumed with consideration given to the increased height of the service off-take fitting on the main.
- 12. The depth of cover for gas mains is typically 750mm in carriageways and grass verges, 600mm in footways and 1.1m in open field. The depth of cover for gas services is typically between 375mm and 600mm. Reference should always be made to the network drawing. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.
- **13.** Gas pipes should be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.

- **14.** If a gas leak is suspected, the following action should be taken immediately:
 - Remove all people from the immediate vicinity of the escape. If the service connection to a building or the adjacent main has been damaged, warn the occupants to leave the building, and any adjoining building, until it is safe for them to return. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building. Gas leaking from the damage inside or gas travelling along the line of the service connection pipe from outside the building may cause a build-up of gas within the building.
 - Prohibit smoking, and extinguish all naked flames and other sources of ignition i.e. stop excavator and compressor engines within at least 5.0m of the leak.
 - Inform the National Gas Emergency Service immediately by dialling:

0800 111 999

- Remain on site.
- Assist the Gas Emergency Service Provider staff, Police, Fire Services or other Statutory Authorities as requested.
- **15.** Where gas pipes cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the gas pipe or cause excessive loading over the gas pipe then GTC shall be consulted.
- **16.** No concrete or other hard material should be placed or left under or adjacent to any gas pipe as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a gas pipe.
- **17.** Where an excavation uncovers a gas pipe with a damaged wrapping, GTC shall be informed, so that repairs can be made to prevent future corrosion and leakage.
- **18.** Pipe restraints or thrust blocks close to gas mains shall not be removed or interfered with as they are a safety feature of the live gas network.
- **19.** Anyone who carries out work near underground gas plant should observe any specific requirements made by the site manager, and ensure that access to the plant by the asset owners staff is available at all times. No unauthorised repairs to gas pipes should be made.
- **20.** Where excavation is within 5m proximity to above or below ground pressure control equipment, ground workers must be aware of the possibility of encountering small auxilary pipework that is more susceptible to damage.
- **21.** Where PE pipes and cables have been exposed and it is intended that hot work (e.g. welding, grinding, etc) be carried out, contact shall be made with GTC to confirm additional precautions and actions that may require to be undertaken.
- **22.** GTC shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of gas pipes or 400m of gas pressure reduction equipment.
- Piling or boring within 15m of gas plant.
- Excavating within 10m of pressure reduction equipment.
- Reducing the cover or protection of a gas pipe.
- Carrying out deep excavations nearby (minimum of 2m up to 15m).
- Working within 3m of GTC's intermediate pressure (IP) mains.

Precautions for Electricity Networks

- **23.** Plans do not always show the presence of electric service cables (from the electricity main to premises) but their existence should be assumed.
- 24. In most cases there will be no permanent surface marker posts or other visible indication of the presence of a buried cable. Even if no cables are shown on plans or detected by a locator, there may still be cables present, which could be live and a close watch should be kept for any signs which could indicate their presence such as marker tape, tape tile, concrete tiles and wooden battens. Any marker which is disturbed by our excavations must be replaced once work is completed.
- **25.** Typically underground cables are laid in trenches between 450mm and 1000mm deep, although some high voltage cables will be deeper, however, depths should never be assumed.
- **26.** A cable is positively located only when it has been safely exposed. Even then, digging should still proceed with care as there may be other cables adjacent or lower down.
- 27. Occasionally, cables are terminated in the ground by means of a seal, sometimes with external mechanical protection. These "pot ended" or "bottle ended" cables should be treated as live and should not be assumed to be abandoned or disused. They can be difficult to detect with locators even when "live".
- **28.** Where practicable, such power tools shall only be used 500mm or more away from the indicated line of a cable buried in or below a hard surface. Having done so, the cable shall then be positively located by careful hand digging under the hard surface. The hard surface should be gradually removed until the cable is exposed. If the cable is not exposed then it must be assumed to be embedded within the surface. Where possible a cable locator shall be used as a depth guide down the side of the excavation.
- **29.** Because of the difficulty in confirming depth, hand held power tools shall never be used over the cable unless either:
 - The cable has already been exposed by digging under the surface to be broken out and it is at a safe depth (at least 300mm) below the bottom of the hard surface material.

or

• Physical precautions have been taken to prevent the tool striking the cable.

GU-DPR-IG-0022 Rev 05

- **30.** Excavating close to electricity cables buried in concrete is dangerous and shall not be undertaken unless the cable(s) have been isolated. For this reason alone electricity cables should not be buried in concrete.
- **31.** Where mechanical excavators are used in the possible vicinity of underground cables, the work should be arranged so that damage to cables is avoided so far as is reasonably practicable. To minimise danger to operatives those onsite shall be outside of the reach of the excavator bucket and shall not enter the trench whilst digging is undertaken. Excavator operators shall be instructed to stay in the cab if a cable is struck. If excavator operators have to exit the cab they should jump clear. If excavator operators climb down from the cab the risk of electrocution is significantly increased. If a cable is struck, the machine involved shall be subject to continous observation and no one shall enter the excavation or approach the machine or the cable until GTC have been contacted and the damaged cable has been made safe.
- **32.** Where cables have been exposed:
 - Any damage shall be reported to GTC immediately on: 0800 032 6990

And work shall not be undertaken in the vicinity of a damaged cable until GTC has investigated its condition.

- For more than 1.0m and they cross a trench, support shall be provided. If the exposed cable length is shorter than 1.0m support shall still be considered if joints have been exposed or the cable appears otherwise vulnerable to damage. Where advice and help is needed contact GTC.
- Suitable precautions shall be taken to prevent damage from on-going work in the excavation. This may involve for example the use of physical means (e.g. timber boards, sandbags etc) to prevent mechanical damage. Materials or equipment which could damage or penetrate the outer sheath of the cable shall not be used. Cables lying in the bottom of an excavation are particularly vulnerable and shall be protected by nail free wooden planks, troughing or other suitable means.
- Cables shall not be moved aside unless the operation is supervised by GTC.
- Precautions shall be taken to prevent access by members of the public.
- 33. GTC shall be consulted if it is intended to carry out any of the following activities:
 - Using explosives within 30m of plant or substations piling or boring within 15m of electric plant.
 - Excavating within 10m of a substation.
 - Carrying out deep excavations nearby (minimum of 2m up to 15m).
 - Working near GTC's HV plant.

Precautions for Water Networks

34. Plans do not always show the presence of water service pipes (from the water main to premises) but their existence should be assumed with consideration given to the increased height of the service off-take fitting on the main.

- **35.** The depth of cover for water mains are typically 900mm. The depth of cover for water services are typically 750mm. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.
- **36.** Water mains shall be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.
- **37.** The danger created by damaging a water pipe with an excavator is much greater than if the damage is done with a hand-held power tool. Water pipes may have projections such as valve housings, which are not shown on the plans and to allow for this mechanical excavators shall not be used within 500mm of a water pipe.
- **38.** If a water leak is suspected, the following action should be taken immediately:
 - Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building may result in further, unseen damage to the connection inside the building.
 - Shut down all working plant and machinery in the vicinity of the damage
 - Inform IWNL by dialling: 02920 442 716
 - Remain on site.
 - Do not attempt to make a repair.
 - Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.
- **39.** Where water pipes cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the water pipe or cause excessive loading over the water pipe then GTC must be consulted.
- **40.** No concrete or other hard material should be placed or left under or adjacent to any water pipe as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a water pipe.
- **41.** Where an excavation uncovers a water pipe with a damaged wrapping, GTC shall be told, so that repairs can be made to prevent future corrosion and leakage.
- **42.** Pipe restraints or thrust blocks close to water mains should never be removed.
- **43.** Anyone who carries out work near underground water plant shall observe any specific requirements made by the site manager, and ensure that access to the plant by GTC staff is available at all times. No unauthorised repairs to water pipes should be made.
- **44.** Where PE pipes and cables have been exposed and it is intended hot work (e.g. welding, grinding, etc) be carried out, contact shall be made with GTC to confirm additional precautions and actions that may require to be undertaken.
- **45.** GTC shall be consulted if it is intended to carry out any of the following activities:
 - Using explosives within 30m of plant.

- Piling or boring within 15m of water plant.
- Excavating within 10m of water asset structures.
- Reducing the cover or protection of a water main or service.
- Carrying out deep excavations nearby (minimum of 2m up to 15m).

Precautions for Fibre Networks

- **46.** Plans may not always show the presence of fibre ducts but their existence should be assumed if GTC advise they have fibre services deployed in the given area. Any planned excavation work should only proceed with due care and attention.
- **47.** Chambers with IFNL or OFNL marked lids can be used as an onsite indictor that GTC have fibre plant deployed in a given area however an exclusion of their presence does not necessarily mean there is no plant present.
- **48.** In most cases there will be no permanent surface marker posts or other visible indication of the presence of a buried fibre duct. Even if no ducts are shown on plans there may still be ducts present which could have live fibre service installed. A close watch shall be kept for any signs which could indicate duct presence such as marker tape. Any marker which is disturbed by our excavations must be replaced once work is completed.
- 49. The depth of cover for fibre duct is typically between 350mm and 600mm in footways and grass verges, 600mm in carriageways and 1m in agricultural deployments. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.
- 50. Fibre ducts should be located by hand digging before mechanical excavation begins. When the positions and depth of the ducts have been determined, work can proceed. Even then, digging should still proceed with care as there may be other ducts adjacent or lower down.
- **51.** If fibre duct damage is suspected, the following action should be taken immediately:
 - Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage at the point of impact. For example, damage to a fibre connection outside the building may result in further, unseen damage to the connection inside the building.
 - Shut down all working plant and machinery in the vicinity of the damage.
 - Inform GTC Fibre immediately on: 02920 028 726
 - Remain on site.
 - Do not attempt to make a repair.
 - Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.
- **52.** Where fibre ducts cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress on the duct. For ducts parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the duct from the excavation, the type of soil and any

excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the fibre duct or cause excessive loading over the fibre duct then GTC must be consulted.

- **53.** No concrete or other hard material shall be placed or left under or adjacent to any fibre duct as this can cause damage to the duct at a later date. Any backfill should comply with the requirements of NRSWA. Concrete backfill should not be used within 300mm of a fibre duct.
- **54.** Anyone who carries out work near underground fibre plant should observe any specific requirements made by the site manager, and ensure that access to the plant by GTC staff is available at all times. No unauthorised repairs to fibre ducts should be made.
- **55.** Where fibre ducts have been exposed and it is intended hot work (e.g. welding, grinding, etc) be carried out, contact must be made with GTC to confirm additional precautions and actions that may require to be undertaken.
- 56. GTC shall be consulted if it is intended to carry out any of the following activities:
 - Using explosives within 30m of plant or fibre asset structures.
 - Piling or boring within 15m of fibre plant.
 - Excavating within 10m of fibre asset structures (including the OSCP).
 - Reducing the cover or protection of a fibre asset.
 - Carrying out deep excavations nearby (minimum of 2m up to 15m).

Precautions for District Heating Networks

For information with respect to Dstrict Heating Networks this could also include District Cooling.

- **57.** Plans do not always show the presence of District Heating service pipes (from the District Heating main to premises) but their existence should be assumed.
- **58.** The depth of cover for District Heating mains is typically a minimum of 600mm under normal light carriageways and during construction activities, additional temporary protective bridging should be placed over DHN pipe runs. The depth of cover for District Heating services is typically 6000mm. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.
- **59.** District Heating mains shall be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.
- **60.** The danger created by damaging a District Heating with an excavator is much greater than if the damage is done with a hand-held power tool. District Heating pipes may have projections such as valve housings, which are not shown on the plans and to allow for this mechanical excavators should not be used within 600mm of a District Heating pipe.
- **61.** If a water leak is suspected, the following action should be taken immediately:

- Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building may result in further, unseen damage to the connection inside the building.
- Shut down all working plant and machinery in the vicinity of the damage.
- Inform Metropolitan by dialling: 02920 100 346
- Remain on site.
- Do not attempt to make a repair.
- Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.
- **62.** Where District Heating cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the District Heating or cause excessive loading over the water pipe then Metropolitan must be consulted.
- **63.** No concrete or other hard material should be placed or left under or adjacent to any District Heating as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a District Heating.
- **64.** Where an excavation uncovers a District Heating pipe with a damaged insulation, Metropolitan should be told, so that repairs can be made to prevent future corrosions and leakage.
- **65.** Pipe restraints , Anchor blocks or foam padding close to district heating mains shall never be removed.
- **66.** Anyone who carries out work near underground district heating plant shall observe any specific requirements made by the site manager, and ensure that access to the plant by the asset owners staff is available at all times. No unauthorised repairs to district heating pipes shall be made.
- **67.** Where District Heating pipes have been exposed and it is intended hot work (e.g. welding, grinding, etc) will be carried out, contact shall be made with Metropolitan to confirm additional precautions and actions that may require to be undertaken.
- 68. Metropolitan shall be consulted if it is intended to carry out any of the following activities:
 - Using explosives within 30m of gas pipes or 400m of gas pressure reduction equipment.
 - Piling or boring within 15m of District Heating pipe.
 - Reducing the cover or protection of a District Heating pipe.
 - Carrying out deep excavations nearby.

Our Ref: 26790933 Your Ref: 1921744

Thursday, 01 September 2022

Monique Elsom Spring Lodge Spring Lodge 172 Chester Road Helsby Hertfordshire WA6 0AR

Dear Monique Elsom

Indigo Pipelines Ltd - Asset Network Plans

In response to your enquiry regarding the location of network and equipment at the requested location, copies of our Record Plans are enclosed.

The plans show the positions and normal depths for the buried Indigo Pipelines Ltd Gas Plant. When they were installed. It must be stressed, however, that alterations to road alignments, surface levels and buildings may have been made subsequent to the records being taken. If you find buried Gas Plant that are not marked or are incorrectly marked, then you are required to contact us as soon as possible to give us the opportunity to amend our records.

Please note that the plans supplied are based on the location/map information supplied by yourselves and, therefore, YOU MUST SATISFY YOURSELF THAT OUR PLANS SUPPLIED ADEQUATELY COVER THE AREA THAT YOU REQUIRE.

Please note that these records only show Gas plant owned by Indigo Pipelines Ltd. There may be other privately owned buried Gas Plant in the area, which is outside the control of Indigo Pipelines Ltd. You should also check with the Local Authority, Cadent; Southern Gas Networks, Scotland Gas networks & Wales & West Utilities before proceeding.

For more information, consult the Health & Safety Executive's booklet HS (G) 47 - obtainable from the HSE.

I would particularly draw your attention to the need to take trial holes to determine the exact position and depth of buried Gas Plant to avoid the risk of injury to staff or damage to the existing Plant.

General Advice:

- a) Please ensure, where appropriate, that your CONTRACTORS have a copy of this letter and the enclosed plan(s).
- b) Please note that the cost of any repairs or claims against Indigo Pipelines Ltd as a result of your works will be invoiced to you or your contractor.
- c) Indigo Pipelines Ltd retains the right to its property, including disconnected cables and recoverable materials.

Should you require further information, please do not hesitate to contact me on the below telephone number.

Kind regards,

Indigo Pipelines Ltd

Contact Us

Emergency and Supply issues

In an emergency call 0800 111 999, 24 hours a day.

Mapping Enquiries

If you have an enquiry relating to this letter or the attached map plan, please contact us using the following information:

Telephone:0345 070 7386.Email:DBYDEnterpriseEnquiries@sse.com

LinesearchbeforeUdig

If you have an enquiry relating to the use of the LinesearchbeforeUdig website please contact LinesearchbeforeUdig using the following information:

Telephone:	0845 437 7365
Email:	enquiries@linesearchbeforeudig.co.uk
Website:	www.linesearchbeforeudig.co.uk