

Hounslow Small Sites
Garage Block (Site 5)
Utility Mapping Survey
Site Report
Project No. 1716

Prepared by: Guy Collis 40SEVEN Limited
Unit E Great Hollanden Business Centre Underriver Sevenoaks Kent TN15 0SQ Tel: 08450 179 300
Commissioned by: Alison Pugh
1 st Floor, 2 Glass Wharf, Temple Quay, Bristol BS2 0FR

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Utility Surveyor: Guy Collis, Micheal Graham

Topographical Surveyor: Darius Drobot

Date of Survey: April 2019

Drawings Number Issued to the Client: 1716 _Site5_P.dwg

Type of Survey: Underground Utility Location & Mapping Survey.

Survey Grid: ORDNANCE SURVEY - Related to the OS Active Network via GPS observations.

Survey Datum: ORDNANCE SURVEY - Related to the OS Active Network via GPS observations.

Accuracies: Depth by Electromagnetic Detection: +/- 10% of Depth.

Plan position by Electromagnetic Detection: +/- 10% of Depth.

Depth by GPR: +/- 10% of depth (in Normal Ground Conditions)

Plan position by GPR: +/- 10% of Depth.

Specification Notes:

1. All survey works carried out in the areas defined by Arcadis.
2. All drawings must be read in conjunction with record information.
3. Field distortions from any above ground metallic objects i.e. temporary heras fences, temporary safety barriers or parked vehicles can limit the locatable signal due to interference from above ground fields.
4. Statutory information available at the time of survey, provided by the client.
5. All services have been surveyed robustly using a combination of Electromagnetic Detection & Ground Penetrating Radar (GPR). All utility positions were surveyed in using a Robotic Total Station.

Existing Service Records Provided to Field Surveyor

Service	Provider	Remarks
Gas	Cadent	TQ2077
Telecom	BT Openreach	TQ2053477980
Media	Zayo	Job Reference: 15242341
		NOTE: No other existing statutory undertaker's records were available at the time of the survey or during post processing.

Field Equipment

Type	Make	Model	Company I.D No.	Operator(s) Initials
Electrolocation Instrument	RD	8000	PDL002 TXT002	GC
GPR	Mala	HDR Pro	ELP003	MG
Robotic Total Station	Trimble	S7	Rob 43	DD

Utility Location & Mapping Survey Results

Service	Comment Number	Successes / Problems Differences between survey & "Stats"
Drainage	1	Surface water located inside the survey extents. Routes were located by sonding techniques.
	2	Gullies are located on site and have been traced by sonding techniques.
	3	No foul water inspection chamber located inside the survey extents.
	4	No statutory record information available at time of survey.
Electric	1	Electric feeding lampposts around the survey area have been traced by direct connection to the lamppost.
	2	A full passive power sweep has been carried out across the survey area using electromagnetic location instrument.
	3	No statutory record information available at time of survey.
Gas	1	No Gas markers located within the survey extents.
	2	A full passive power sweep has been carried out across the survey area using electromagnetic location instrument.
	3	Statutory record information available at time of survey.
Water	1	No water feed located inside the survey extents at time of survey.
	3	A full passive power sweep has been carried out across the survey area using electromagnetic location instrument.
	4	No statutory record information available at time of survey.
Telecom	1	No Telecom routes located inside the survey extents at the time of survey.
	2	A full passive power sweep has been carried out across the survey area using electromagnetic location instrument.
	3	Statutory record information available at time of survey.
CATV	1	No CATV markers located within the survey extents.
	2	A full passive power sweep has been carried out across the survey area using electromagnetic location instrument.
	3	Statutory record information available at time of survey.
GPR	1	The radar reflects changes in the electrical properties of materials in the sub-surface. The data prevents definition of unknown targets.
	2	A PAS128 MP3p survey has been carried out across the site where possible.
	3	GPR images shown within this report, and are not necessarily indicative of actual routes / anomalies detected.

Photos & GPR Images:

Photo 1



Description: General View of survey extents.

Photo 2



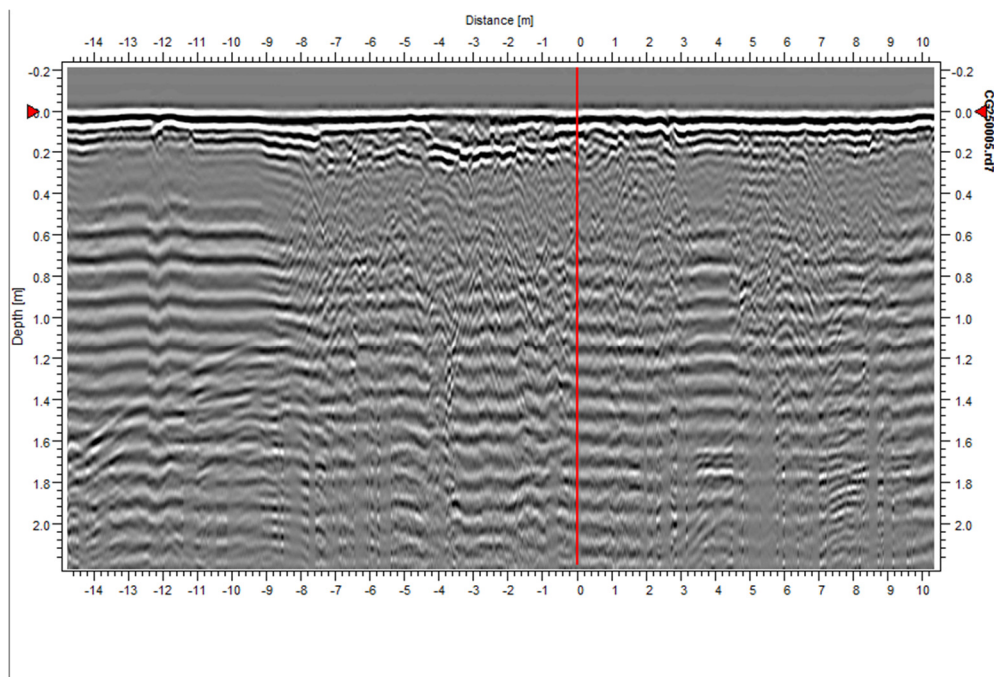
Description: General View of survey extents.

Photo 3



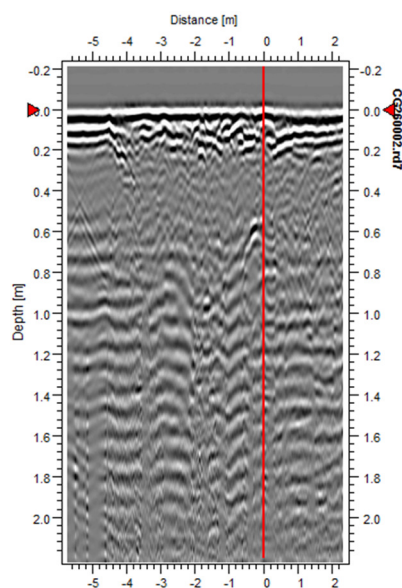
Description: General View of survey extents.

GPR 1



Description: GPR Image 1.

GPR 2



Description: GPR Image 2.

Site Notes:

1. Survey was undertaken in the areas defined by Arcadis.
2. Where utilities on site could not be proven or completed and the appropriate comments have been added to the drawing.
3. Services plotted outside survey extents should not be considered exhaustive.
4. Through non-intrusive surveying techniques, it always remains possible that there are additional services within the survey boundary that we have not been able to detect. We recommend that care is taken on site and that all service providers records should be checked prior to any works being carried out.
5. Existing service provider's records were not available during the site survey.

CAD Operators Comments:

1. Survey work corresponds to Utility Surveyor's fieldwork.
2. Services shown outside the survey extents should not be considered exhaustive.

QA Managers Comments:

1. All procedures have been followed.
2. Checked that all topographical features have utilities connected, or if not are appropriately notated.
3. Services shown outside the survey extents should not be considered exhaustive.

Project Managers Comments:

1. A full electromagnetic and GPR survey carried out across the site.
2. GPR works by emitting electromagnetic signals into the ground and analysing signal returns. The use of GPR is strongly dependent upon local soil properties. Depth of penetration is limited by the presence of clays or other highly conductive materials. There must be a significant electrical contrast between the target and the host materials.
3. If the survey interacts with any above ground metallic features this may hinder the survey therefore caution should be taken within those areas while excavating.
4. It is recommended that statutory authority records are acquired and read in conjunction with this information, as no guarantee can be made for the completeness of this drawing.