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Proposed basement extension **40** Chester Terrace London, NW1

Basement impact assessment report Stage 1 Screening

Cedar Barn, White Lodge, Walgrave, Northamptonshire NN6 9PY

f: 01604 781007

t: 01604 781877 e: mail@soiltechnics.net w: www.soiltechnics.net



Proposed basement extension at 40 Chester Terrace, London NW1

BASEMENT IMPACT ASSESSMENT REPORT Stage1 -Screening

	Soiltechnics Ltd. Cedar Tel: (01604) 781877	Barn, White Lodge, Walg Fax: (01604) 781007	ave, Northampton. NN6 9PY. E-mail: mail@soiltechnics.net	
Report orig	inators			
Prepared by	N.T			
	Nigel Thornton B.Sc (Hons)., C.Eng., M.I.C.	E., M.I.H.T., F.G.S Direct.	hornton@soiltechnics.net or, Soiltechnics Limited	

eport issue						
Company	Name	Issue	Date	Paper	e-mail	FTP
Kerr Parker	Roger Parker	draft	23.03.12		√	
Associates		First	28.03.12		\checkmark	
Jampel	Paul Bell	draft	23.03.12		\checkmark	
Davison& Bell		First	28.03.12		\checkmark	
Client	Victor Segal	First	28.03.12		√	





Aerial photograph of site



Report status and format

Report	Principal coverage	Report status	
section		Revision	Comments
1	Introduction and brief		
2	Description of the property and project proposals		
3	Desk study information and site observations		
4	Subterranean (Groundwater flow) screening		
5	Stability impact identification		
6	Surface flow and flooding impact identification		
7	Drawings		

List of drawings

Drawing	Principal coverage		Status	
		Revision	Comments	
S1	Plan showing existing site features, extent of proposed pitch and approximate location of exploratory points.			

List of appendices

Appendix	Content
А	Copy of Architects proposal drawings
В	Copies of Statutory Undertakers replies

1 Introduction and brief

1.1 Objectives

- 1.1.1 This report describes a basement impact assessment for a proposed basement extension at 40 Chester Terrace, London NW1.
- 1.1.2 The principal objective of the assessment is to present evidence to support a planning application for the project as required by Camden Planning Guidance (CPG4) '*Basements and lightwells*'. Following CPG4 we are of the opinion, based on available information, that the impact assessment needs only to be taken to stage 1 –'screening' at this the planning stage of the project. Further stages of CPG4 will be required once planning permission has been granted.

1.2 Client instructions and confidentiality

- 1.2.1 This report has been produced following instructions received through Kerr Parker Associates (architects for the project) on behalf of Victor Segal.
- 1.2.2 This report has been prepared for the sole benefit of our above named instructing client, but this report, and its contents, remains the property of Soiltechnics Limited until payment in full of our invoices in connection with production of this report.

1.3 Author qualifications

1.3.1 This report has been prepared by a chartered Civil Engineer, (C.Eng., M.I.C.E) who is also a Fellow of the Geological society (FGS). The Author is a practicing Civil Engineer with specialist experience (exceeding 25 years) in geotechnical engineering, flood risk and drainage.

1.4 Guidance used for scoping exercise

1.3.1 As described in paragraph 2.12 above we have followed Camden Planning Guidance (CPG4) 'Basements and lightwells', and Camden geological, hydrogeological and hydrological study report 'Guidance for subterranean development,' produced by Arup on behalf of the London Borough of Camden. We have also referred to the Strategic flood risk assessment report for north London dated August 2008 prepared by Mouchel, as well as other readily available information on Web sites.

2 Description of the property and project proposals

2.1 Description of the property

The property comprises an end of terrace four storey residential building, with a two storey annex (including garage) attached to the eastern elevation of the main house. The main house also includes a single storey deep basement. There is also a garden area to the north which includes a large patio area paved in York stone flags with some mature trees on the northern extremity of the garden.

We have carried out an inspection of drainage systems serving the property. Rainwater collected by the roof is served by internal rainwater pipes which enter internal manholes which also serve internal foul water drainage systems located in the existing basement floor. This basement drainage system seems to outfall both into the Thames Water sewer in Chester Terrace and probably a sewer which follows a route along the east facing elevation of the terrace of buildings to the south of the subject property. The inspection was limited due to two manhole covers which could not be lifted in the basement. Our best estimate of the drainage system in the basement is shown on drawing S1. There are no visible drainage systems serving garden areas.

2.2 Project proposals

The project comprises an extension to the existing single storey deep basement into garden areas to the north of the house and below the two storey annex to the west. Copies of our client's architect's drawings are presented in appendix A which details the project proposals. It is prosed to retain the existing drainage system serving the property,

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3 Desk study information and site observations

3.1 Site history

3.1.1 Review of Ordnance Survey and London town maps dating back to 1873 all record the current footprint of the property and surrounding buildings.

3.2 Geology and geohydrology of the area

3.2.1 Geology

3.2.1.1 Inspection of the geological map of the area published by the British Geological Survey (BGS) indicates the following sequence of strata. The thickness of the strata has been obtained from a combination borehole record data formed within 50m of the property available on the BGS website, and geological sections shown on the BGS map.

Summary of Geology and likely aquifer containing strata						
Strata	Bedrock or drift	Approximate thickness	Typical soil type	Likely permeability	Likely aquifer designation	
London Clay	Bedrock	43	Clays	Impermeable	unproductive	
Woolwich and Reading Beds	Bedrock	6	Clays and sands	Marginally permeable	unproductive	
Thanet sands	Bedrock	6	Fine sands	Marginally permeable	unproductive	
Chalk	Bedrock	200	Chalk	Permeable	Principal	
Table 3.2						

The soil types and assessments of permeability are based on geological memoirs, in combination with our experience of investigations in these soil types.

An extract copy of the geological map is presented below, with brown shading representing the outcrop of the London Clays. Yellow / orange shading represents terrace sand and gravel deposits which overly the London clays within the Thames Valley basin. The property location is within the red box.



3.2.2 Geohydrology

Strata overlying the Chalk are considered unproductive strata are defined as deposits exhibiting low permeability with negligible significance for water supply or river base flow. An unproductive strata is generally regarded as not containing groundwater in exploitable quantities.

Chalk is a Principal aquifer. Principal aquifers are defined as deposits exhibiting high permeability capable of high levels of groundwater storage. Such deposits are able to support water supply and river base flows on a strategic scale.

3.2.3 Source protection zone

The site is not recorded as being located within or close to a zone protecting a potable water supply abstracting from a principle aquifer (i.e. a source protection zone). An extract of the plan recording source protection zones is presented below with green shading representing outer zone and red inner zone. The abstraction points within the red (inner zones) are probably within the chalk aquifer. The property is located within the red square.



3.3 Quarrying / mining

3.3.1 With reference to the coal mining and brine subsidence claims gazetteer for England and Wales, available on the Coal Authority web site reports the area has not been subject to exploitation of coal or brine. Inspection of old ordnance survey maps dating back to the first editions (late 1800's) do not record any quarrying activities within 250m of the property.

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3.4 Flood risk

3.4.1 Fluvial / tidal flooding

The Environment Agency Web site indicates the site is not located within a fluvial or tidal flood plain. An extract copy of the flood risk map is presented below. The blue shading represents areas at risk of flooding from the River Thames to the south of the site. The property is located within the red box.



3.4.2 Flooding from Reservoirs, Canals and other Artificial Sources

The Environment Agency Web site indicates the site is not located within an area considered at risk of flooding from beach of reservoir containment systems. An extract copy of the flood risk map is presented below. The green shading represents areas at risk of flooding. The property is located within the red box.



The site is located about 150 to the east of a basin of Regents canal. The strategic flood risk assessment report for the area does not provide any detailed information

on the risk of flooding from the canal, but we have not been able to obtain any recorded incidences of flooding of the canal in this area.

There are below ground water supply pipes operated by Thames water in public highways around the property. These are generally relatively small diameter pipes. It is considered that the property is unlikely to be at enhanced risk of flooding due to ruptures in the potable water supply system in the area.

With reference to internet information the site is located midway between the former watercourses of the Fleet and Tyburn which have probably been culverted to allow urban development of London.

3.4.3 Flooding from Groundwater

The site is underlain with a substantial thickness of relatively impermeable London Clays. On this basis groundwater is not likely to be available at the site and thus unlikely to present a risk of causing groundwater flooding.

3.4.2 Flooding from sewers

The strategic flood risk assessment report for the area does not provide any detailed information on the risk of flooding from sewers. We have obtained sewer records for the area which are presented in appendix B. The records indicate the property is at the head of relatively small diameter combined sewers, which outfall into larger size sewers some distance to the east and west of the property. We are not aware of any flooding in the area which has affected the subject property. In addition the property is not located on a topographical low rendering the property at enhanced risk of flooding (ground levels in the area tend to fall gently in a southerly direction). In conclusion based on available evidence the property is not considered to be at an enhanced risk of flooding from sewers in the area.

3.5 Enquiries with statutory undertakers

- 3.5.1 We have contacted the following Statutory Undertakers (SUs) to obtain copies of their records to establish if the proposals directly affect underground apparatus:
 - a) Thames Water
 - b) London Underground
 - c) BT Openreach
 - d) Transco
 - e) EDF energy

Copies of responses received prior to publication of this report are presented in Appendix B. These records have been obtained solely for the purposes described above. Some of these records have been obtained from the Internet and from our database without contacting the statutory undertaker direct. In addition, we have visited the linesearch web site (www.linesearch.org) which provides a report on national grid networks (National Gas and Electricity Transmission Networks). Again a copy of their report is presented in Appendix B

- 3.5.2 Normally Statutory Undertakers drawings record the approximate location of their services. We recommend further on site investigations be undertaken to confirm the position of the apparatus and thus establish the effect on the proposed development and the necessity or otherwise for the permanent or temporary diversion of the service to allow the construction of the development to safely and successfully proceed.
- 3.5.3 It should be noted that statutory undertakers' records normally exclude private services.

4 Subterranean (Ground water) flow screening

4.1 General overview.

The property is located towards the floor of the Thames valley close to central London. The property is outside areas considered to be at risk of being affected by tidal and fluvial flooding associated with the Thames or its tributaries, or artificial water sources (canals / reservoirs). In addition the property is not considered to be at enhanced risk of flooding from sewers or water supply pipes

Geological records indicate the site is underlain in deposits of London Clays extending to depths of 43m. There is likely to be a thin spread of made ground overlying the London clays as a result of development in the area. The property (being underlain with a substantial; thickness of London Clays) is not considered to be at risk of flooding from groundwater.

4.2 Responses to flow chart questions

The following provides site specific responses to questions posed in figure 1 of CPG4

Question 1a	Is the site located directly above an aquifer?
Response.	The property is directly constructed above some 43m thickness of London Clays. It is therefore not located directly above an aquifer
Question 1b	Will the proposed basement extend beneath the water table surface?
Response	As the London Clays comprise reasonably homogenous relatively impermeable Clays, such soils do not contain groundwater and thus the proposed basement extension will not penetrate any water tables.
Question 2	Is the site within 100m of a watercourse, well or potential spring line?
Response.	The site is remote (in excess of 100m) of any known water courses (including old water courses such as the Feet and Tyburn). The geology of the area is not conducive to spring lines or wells for extraction of water.
Question 3	Is the site within the catchment of the pond chains on Hampstead Heath?
Response	The property is located about 3km to the south (and downslope) of the pond chain on Hampstead Heath and thus not within their catchment

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Question 4	Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?
Response	The basement extension will extend under a small proportion of the gardens to the north of the property. On completion the roof to the basement will be covered with 500mm thickness of soil capped with a patio to match the existing. This proposal is designed to restore natural drainage conditions which currently exist at the site. On this basis the proposed basement will not result in a change in the proportion of hard surfaced / paved areas.
Question 5	As part of the site drainage, will more surface water (e.g. rainfall and run off) than present be discharged to the ground (e.g. via soakaways / SUDS)?
Response	Proposals are to restore garden areas to their current layout, with rainwater falling onto the garden area disposed of using natural absorption and natural run off (which is currently the case). No additional surface water will be discharged to the ground.
Question 6	Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than the mean water level in any local pond (not just the pond chains on Hampstead Heath) or spring line?
Response	The site is remote (in excess of 100m) of any known water courses or ponds. The geology of the area is not conducive to spring lines or retention of groundwater as a water table.

5 Stability impact identification

5.1 General overview.

The property is located towards the floor of the Thames valley close to central London. There are no significant changes in ground levels within or indeed within a considerable distance of the property.

No trees are to be felled as part of the development. The footprint of the proposed basement extension is outside root protection zones of trees which will remain in the northern part of gardens

Proposals are to adopt an embedded piled perimeter wall solution (probably secant or contiguous bored piles) where possible to allow the basement extension to proceed whilst providing a robust support system to remaining soils outside the basement footprint and in particular the highway. Reinforced concrete underpinning techniques will be used to support existing buildings (annex to the east) to allow basement construction. The underpinning concrete will be designed as a retaining wall. Any retaining structure in close proximity to the highway / pedestrian right of way will be submitted for approval to the local highway authority for approval prior to commencement of works.

Underpinning techniques will be used on the annex building to the east of the main house to facilitate basement construction. These techniques will be used on the party wall line of the annex building. The construction in this area will be subject to agreement with the neighbour under the party wall act.

5.2 Responses to flow chart questions

The following provides site specific responses to questions posed in figure 2 of CPG4

Question 1	Does the existing site include slopes, natural or manmade greater than 7° (approximately 1 in 8)
Response.	The topography of the area is reasonably flat and there are no slopes in the general area greater than 7°
Question 2	Will the proposed profiling of landscaping at the site change slopes at the property boundary to more than 7° ?
Response	Proposals are to reinstate garden areas to their current topographical condition, with no slopes exceeding 7°
Question 3	Does the development neighbour land including railway cuttings and the like with slopes greater than 7° (approximately 1 in 8)?
Response.	The topography of the area is reasonably flat and there are no slopes in the general area greater than 7°

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Question 4	Is the site within a wider hillside setting in which the slope is greater than 7°?
Response	The topography of the area is reasonably flat and there are no slopes in the general area greater than 7°
Question 5 Response	Is the London Clay the shallowest strata at the site? The London Clays are at crop at the site. Given the topography of the area (being reasonably flat) the consequence of the geology is not conducive to slope instability.
Question 6	Will any trees be felled as part of the development and / or are there any works proposed within any tree protection zones where trees are to be retained?
Response	No trees are to be felled as part of the development. The footprint of the proposed basement extension is outside root protection zones of trees which will remain in the northern part of gardens.
Question 7	Is there a history of any seasonal shrink swell subsidence in the local area and (or evidence of such effects on site?
Response	The London Clays soils are shrinkable. Based on observations of properties in the area, we did not observe any adverse crack or movement damage attributable to adverse foundation movement due to trees. In addition the subject property does not exhibit any evidence of damage attributable to subsidence.
Question 8 Response	Is the site within 100m of a watercourse, well or potential spring line. The site is remote (in excess of 100m) of any known water courses (including old water courses such as the Fleet and Tyburn). The geology of the area is not conducive to spring lines or wells for extraction of water.
Question 9 Response	Is the site within an area of previously worked ground? There is no evidence to indicate the site is within an area of previously worked ground
Question 10	Is the site located above an aquifer? If so will the proposed basement extend beneath the water table such that dewatering may be
Response	The property is directly constructed above some 43m thickness of London Clays. It is therefore not located directly above an aquifer. As the London Clays comprise reasonably homogenous relatively impermeable Clays, such soils do not contain groundwater and thus the proposed basement extension will not penetrate any water tables.
Question 11 Response	Is the site within 50m of Hampstead Heath ponds? The property is located about 3km to the south of the pond chain on Hampstead Heath.
Question 12	Is the site within 5m of a public highway or pedestrian right of way?

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- Response. The site is within 5m of a public highway. Proposals are to adopt an embedded piled perimeter wall solution (probably secant or contiguous bored piles) where possible to allow the basement extension to proceed whilst providing a robust support system to remaining soils outside the basement footprint and in particular the highway. Traditional mass concrete underpinning techniques will be used to support existing buildings (annex to the east) to allow basement construction. The underpinning concrete will be designed as a gravity retaining wall. Any retaining structure in close proximity to the highway / pedestrian right of way will be submitted for approval to the local highway authority for approval prior to commencement of works.
- Question 13 Will the proposed basement significantly increase the differential depth of foundations relative to adjacent properties? Response Underpinning techniques will be used on the annex building to the east of the main house to facilitate basement construction. These techniques will be used on the party wall line of the annex building. The construction in this area will be subject to agreement with the neighbour under the party wall act.
- Question 14 Is the site over (or within the exclusion zone of) any tunnels eg Railway lines. We have contacted London Underground and have been advised that Response the site is not within 50m of an underground railway.

6 Surface flow and flooding impact identification

6.1 General overview.

Proposals are to restore garden areas to their current layout, with rainwater falling onto the garden area disposed of using natural absorption and natural run off (which is currently the case). No additional surface water will be discharged to the ground. On this basis surface water flows and the quality of surface waters will not materially change as a result of the development.

6.2 Responses to flow chart questions

The following provides site specific responses to questions posed in figure 3 of CPG4

Question 1 Is the site within the catchment of the pond chains on Hampstead Heath? Response. The property is located about 3km to the south (and downslope) of the pond chain on Hampstead Heath and thus not within their catchment Question 2 As part of the site drainage, will surface water flows (e.g rainfall and run off) be materially changed from the existing route? Proposals are to restore garden areas to their current layout, with Response rainwater falling onto the garden area disposed of using natural absorption and natural run off (which is currently the case). No additional surface water will be discharged to the ground. On this basis surface water flows will not materially change as a result of the development. Question 3 Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas? The basement extension will extend under a small proportion of the Response. gardens to the north of the property. On completion the roof to the basement will be covered with 500mm thickness of soil (which includes a 100mm thick granular drainage layer) capped with a patio to match the existing. This proposal is designed to restore current natural drainage conditions which currently exist at the site Question 4 Will the proposed basement result in changes to the profile of the inflows (instantaneous and long term) of surface water being received by adjacent properties or downstream water courses Proposals are to restore soft / hard landscaping to current pre Response development conditions, and thus will have no impact on existing surface water flows.

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Question 5 Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream water courses?
 Response Proposals are to restore soft / hard landscaping to current pre development conditions, and thus will have no impact on the quality

of surface waters.



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Base drawings provided by Callidus Surveys





1:100 @ A3

Drawing number

S1







40 CHESTER TERRACE LONDON NW1

THE GRANARY, COPPID HALL, NORTH STIFFORD, ESSEX RM16 5UE TEL: 01375-377731

KERR PARKER ASSOCIATES LTD

PLANNING

Rev. A 00/00/00 Planning Application





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GD04

Lift

- Line of proposed basement

Boundary hedges replanted to maintain privacy along the boundary

Stone paying slat

GD01

HALL

DINING ROOM

12 7

GD06

101.38 *

101.49

GD09

GD10

LEIEV

- Flat roof over nev plant room

P

101.3

Re-fit Guest WC

V Elevation 3

DEN ROOM

New Balcony to match existing (incl. handrail)

GARAGE

 $O_{_{\!B}}$ 101.18

Yorkstone paving with open joints to random pattern

GD08

GUEST

NPH

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Elev

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C Elevation 2

101.47

New staircase

New walkable skylight

KITCHEN

-New sliding pocket doors





NOTE: ALL DIMENSIONS IN MILIMETRES.

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CONTRACT 40 CH LONE	40 CHESTER TERRACE LONDON NW1			
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SCALE	1/50 @A1	DATE Aug 11		
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DRAWING N	D.	REV.		
	K-1023-	12 A		

Rev. A 00/00/00 Planning Application

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LTD

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Our Ref 20878-SI-4-270112

Your Ref

To Rachel Brown
 Soiltechnics
 rachel.brown@soiltechnics.net

Hello Rachel,

40 Chester Terrace, London, NW1

Thank you for your communication of 24th January 2012.

I can confirm that London Underground has no assets within 50 metres of this area.

Should you have any further enquiries, please do not hesitate to contact me.

Shahina Inayathusein Information Manager LUL Infrastructure Protection E-mail: Locationenquiries@tube.tfl.gov.uk Tel: 020 7918 0016







This plan shows those pipes owned by National Grid Gas plc in their role as a

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

MAPS Viewer Version 5.6.6.0

Local Machine

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Thames Water Property Searches 12 Vastern Road READING RG1 8DB

Search address supplied

40 Chester Terrace London NW1 4ND

Your reference Our reference STJ2117T ALS/ALS Standard/2012_2157681

Search date

23 January 2012

You are now able to order your Asset Location Search requests online by visiting www.thameswater-propertysearches.co.uk

Thames Water Utilities Ltd

Property Searches PO Box 3189 Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504

F 0118 923 6655/57 E searches@thameswater.co.uk

I <u>www.thameswater</u> propertysearches.co.uk



Search address supplied: 40, Chester Terrace, London, NW1 4ND

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0118 925 1504, or use the address below:

Thames Water Utilities Ltd Property Searches PO Box 3189 Slough SL1 4WW

Tel: 0118 925 1504 Fax: 0118 923 6657

Email: searches@thameswater.co.uk Web: <u>www.thameswater-propertysearches.co.uk</u> Thames Water Utilities Ltd

Property Searches PO Box 3189 Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504

F 0118 923 6655/57

E searches@thameswater.co.uk I www.thameswaterpropertysearches.co.uk



Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0845 920 0800. The Customer Centre can

Thames Water Utilities Ltd

Property Searches PO Box 3189 Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504

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also arrange for a full flow and pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

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Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

> Developer Services (Waste Water) Thames Water Clearwater Court Vastern Road Reading RG1 8DB

Tel: 0845 850 2777 Fax: 0118 923 6613 Email: developer.services@thameswater.co.uk

Should you require any further information regarding budget estimates, diversions or stopping up notices then please contact:

DevCon Team Asset Investment Thames Water Maple Lodge STW Denham Way Rickmansworth Hertfordshire WD3 9SQ

 Tel:
 01923 898 072

 Fax:
 01923 898 106

 Email:
 devcon.team@thameswater.co.uk

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Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water) Thames Water Clearwater Court Vastern Road Reading RG1 8DB

 Tel:
 0845 850 2777

 Fax:
 0208 213 8833

 Email:
 developer.services@thameswater.co.uk

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
8801	30.52	n/a
8818	32.33	23.62
8802	n/a	n/a
6902A	35.53	33.55
6901A	34.95	33.02
6802	33.71	32.41
6801	33.24	31.7
7905	n/a	n/a
7801	33.31	31.85
7901B	n/a	28.71
-	-	-
7914	33.31	25.03

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.





Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

Air Valve Dam Chase Fitting Σ Meter

Vent Column

0

X

4

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

Control Valve Drop Pipe 3 Ancillary

Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

<u>\</u>-⁄ Outfall

Undefined End Inlet

Other Symbols

Symbols used on maps which do not fall under other general categories

- **A** / **A** Public/Private Pumping Station
- * Change of characteristic indicator (C.O.C.I.)
- Ø Invert Level
- <1 Summit

Areas

Lines denoting areas of underground surveys, etc

Agreement **Operational Site** 111 :::::: Chamber Tunnel Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)



Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.

2) All measurements on the plans are metric.

3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow

4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

5) 'na' or '0' on a manhole level indicates that data is unavailable.

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in milimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0118 925 1504.



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ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

- Distribution Main: The most common pipe shown on water maps.
 With few exceptions, domestic connections are only made to distribution mains.
- Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- ^{3' METERED} Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
 - Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
 - **Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND	
Up to 300mm (12")	900mm (3')	
300mm - 600mm (12" - 24")	1100mm (3' 8")	
600mm and bigger (24" plus)	1200mm (4')	

Valves General PurposeValve Air Valve Pressure ControlValve Customer Valve Hydrants Single Hydrant Meter

End Items



- Ondefined End
- Manifold
- Fire Supply

Operational Sites



Other Symbols

_____ Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

 Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indiates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who
 rely on the information included in property search reports undertaken by subscribers on residential
 and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- · display the Search Code logo prominently on their search reports
- · act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- · conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details:

The Property Ombudsman scheme Milford House 43-55 Milford Street Salisbury Wiltshire SP1 2BP Tel: 01722 333306 Fax: 01722 332296 Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Maps by email Plant Information Reply





mains are not included. For all other energy network operators' information and contact details see

http://www.energynetworks.org/

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