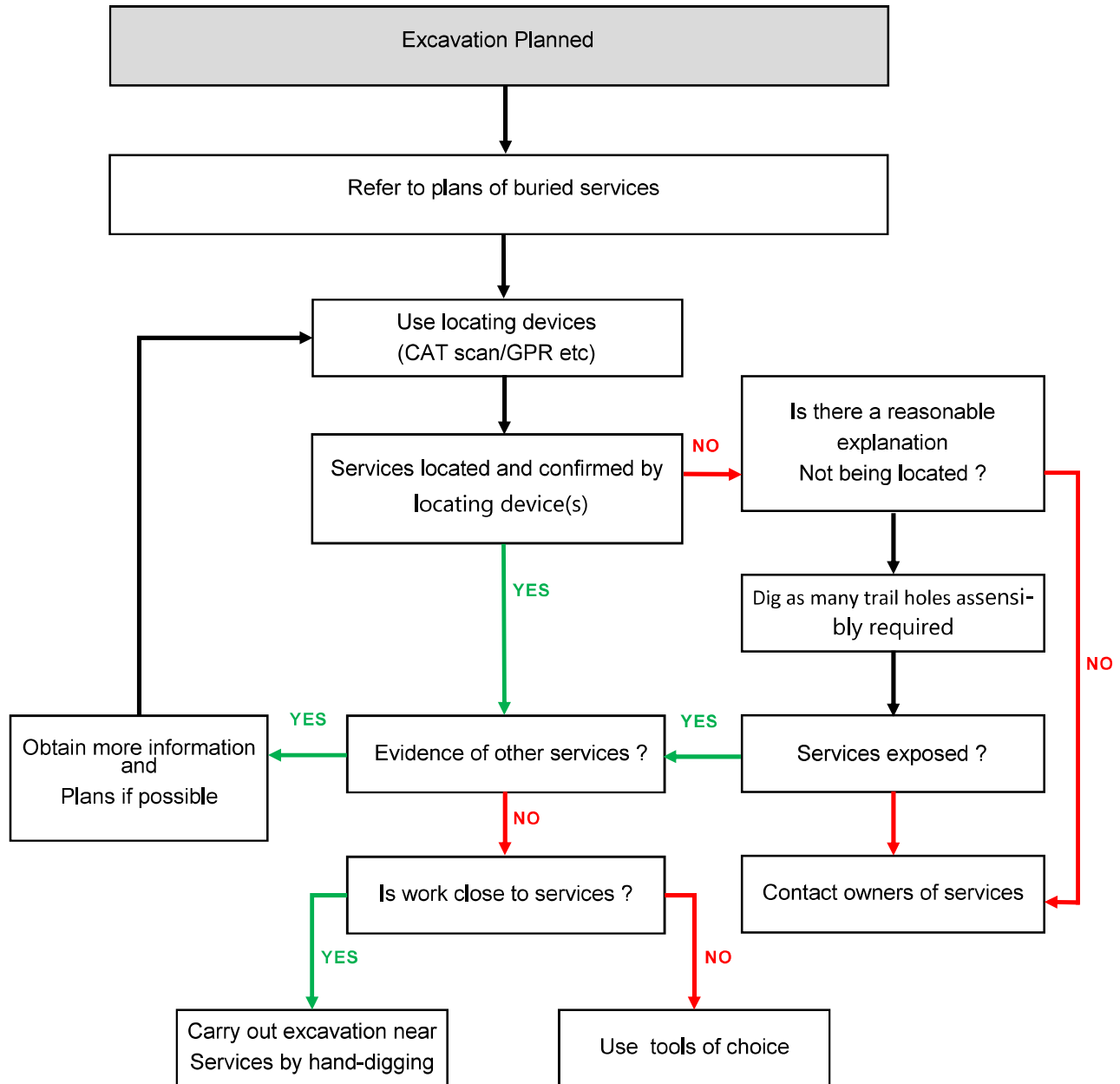


This flow diagram is intended to help give an understanding of the process from referring to plans on-site through to the start of excavation.



For example, could services be non-metallic pipes? Please refer to HS (G) 47 text for further information.

† In particular; visual evidence. Ensure that the presence of services, which may be unmarked on plans or for which no plans are available, has been considered, for example service connections.



*** If there is visual evidence of services, but owners cannot be traced, despite all reasonable attempts to do so, any excavation could proceed but using hand-dug trial holes and proceeding with great care.*

Utility Guidance

Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus

Recommended Colour Coding of Underground Utilities Apparatus

All depths are from the surface level to the crown of the apparatus.

Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
Electricity HV (High Voltage)	Black or red duct or tile	N/A	Red or black	Yellow with black and red legend or concrete tiles	450mm - 1200mm	750m - 1200mm
Electricity LV (Low Voltage)	Black or red duct or tile	N/A	Black or red	Yellow with black legend		750mm
Gas	Yellow	* See row below	N/A	Black legend on PE pipes every linear metre.	600mm footway 750mm verge	750mm
*** PE - up to 2 bar - yellow or yellow with brown stripes (removable skin revealing white or black core pipe). - between 2 to 7 bar -orange. Steel pipes may have yellow wrap or black tar coating or no coating. Ductile Iron may have plastic wrapping Asbestos & Pit / Spun Cast Iron – No distinguishable colour						
Water non Potable & Grey Water	N/A	Black with green stripes	N/A	N/A	600mm - 750mm	600mm - 750mm
Water - Firefighting	N/A	Black with red stripes or bands	N/A	N/A	600mm - 750mm	600mm - 750mm
Oil / fuel pipelines	N/A	Black	N/A	Various Surface markers Marker tape or tiles above red concrete	900mm All work within 3 metres of oil fuel pipelines must receive prior approval	900mm All work within 3 metres of oil fuel pipelines must receive prior approval
Sewerage	Black	No distinguishing colour / material (eg: Ductile Iron may be red; PVC may be brown)	N/A	N/A	Variable	Variable
Communications	Grey, white, green, Black, purple	N/A	Black or Light Grey	Various	250mm - 350mm	750mm minimum
Water 	Blue or Grey	Blue polymer or blue or uncoated Iron / GRP. Blue polymer with brown stripe (removable skin revealing white or black pipe)	N/A	Blue or blue/black	750mm	750mm minimum
Water pipes for special purposes (e.g. contaminated ground) 	N/A	Blue polymer with brown stripes (non removable skin)	N/A	Blue or blue/black	750mm	750mm minimum

*These guidelines describe utility industry practice. However, it should not be Assumed that all apparatus will conform the recommendations for positioning And colour coding contained in this report.

Utility Guidance

Recommended Colour Coding of Other Underground Apparatus

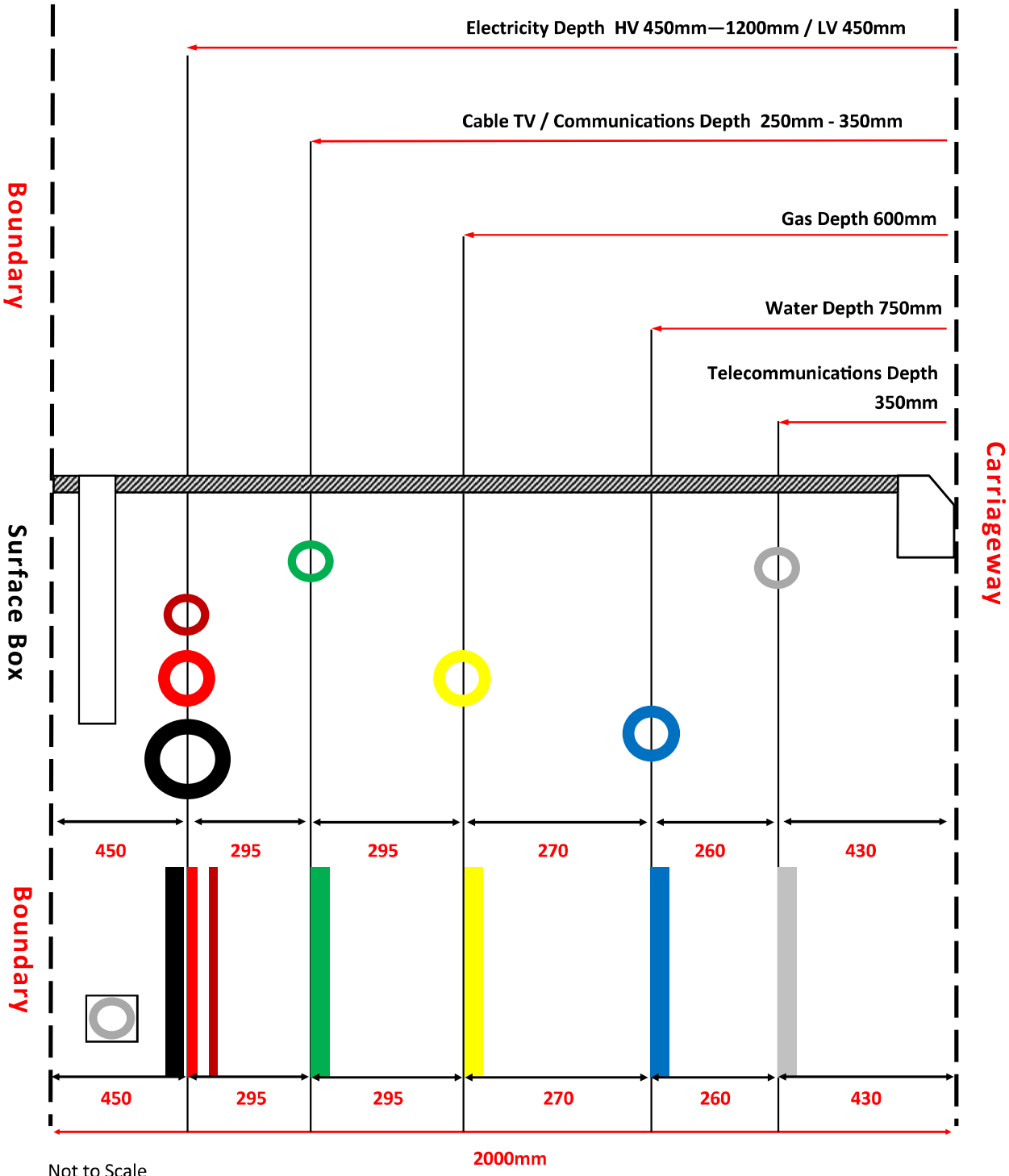
All depths are from the surface level to the crown of the apparatus.

Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
At the time of publication the following were current examples of known highway authority apparatus colour coding but local variations may occur.						
Street Lighting						
England and Wales	Orange	N/A	Black	Yellow with black legend	450mm	600mm
Scotland	Purple	N/A	Purple	Yellow with black legend	450mm	450mm
Northern Ireland	Orange	N/A	Black or orange		450mm	450mm
Other						
Traffic Control	Orange	N/A	Orange	Yellow with black legend		
Street Furniture		N/A	Black	Yellow with black legend	450mm	600mm
Communications		N/A	Light grey or black	Yellow with black legend		
CCTV	Purple	N/A		Yellow with black legend		
Motorways and Trunk Roads England and Wales						
Communications	Purple	N/A	Grey	Yellow with black legend	450mm	
Communications Power	Purple	N/A	Black	Yellow with black legend		
Road Lighting	Orange	N/A	Black	Yellow with black legend		
Scotland						
Communications ○ ●	Black or grey	N/A	Black	Yellow with black legend		
Road Lighting	Purple	N/A	Purple	Yellow with black legend		

*These guidelines describe utility industry practise. However, it should not be assumed that all apparatus will conform to the recommendations for Positioning and colour coding contained in this publication.

NJUG Guidelines on the Positioning and Colour Coding of Underground Utilities Recommended Positioning of Utility Apparatus in a 2 metre Footway (s)

Note - the same positioning should apply in the carriageway service strip (if safe and practical to do so) where a development has footways) available for services and or the boundary of the property in on the carriageway (please refer to minimum depths in carriageways) For further advise please contact the asset owner.



Other warnings

WARNING PIPELINE OFFSET BEHIND MARKER



The markers may not always be directly over the pipeline. In which case an additional warning sticker will indicate the direction of off-set.



Studs such as these may be found in footpaths and car parks etc.

CAUTION

THIS STRUCTURE IS IN CLOSE PROXIMITY TO A HIGH PRESSURE OIL PIPELINE. BEFORE COMMENCING ANY EXCAVATION WORK PLEASE CALL FREEPHONE 0800 XXXXXXXX.



You may find signs such as these on apparatus close to the pipeline.

When the pipeline route has been located it will be marked with location pegs.



Site warning marker



Pole warning marker

IMPORTANT

Marker posts only denote the presence of our pipelines. Never presume that the pipeline runs in a straight line between marker posts as there could either be a bend or the posts may have been moved without our knowledge.

DO NOT PRESUME ANYTHING; TELEPHONE OUR AGENTS AND WE WILL SEND SOMEONE TO VERIFY EXACTLY WHERE THE PIPELINE IS SITUATED.



Watch out - there's a pipeline about!

Typical pipeline Markers



LINENWATCH WEBSITE

www.linewatch.co.uk

Revision No 06-1

Awareness and preparation is the key to safe excavation

Typical pipeline markers



Mainline marker post



Huntsman marker post



BPA marker post



ConocoPhillips marker post



MLL marker post



BP marker post



Esso marker posts



Total marker post



GPSS marker post



Shell marker posts



Beware of posts with brass studs (such as the post above) which have cables connecting to the pipeline below.



New design marker post

Typical pipeline aerial markers



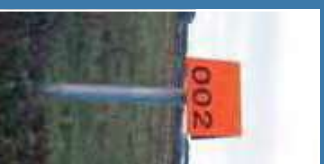
Shell aerial marker



Esso & MLP aerial marker



GPSS aerial marker



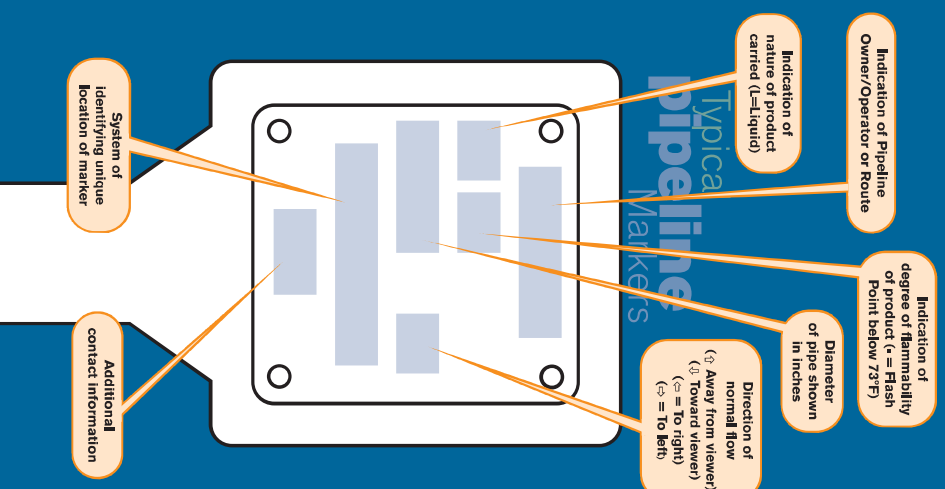
BP aerial marker



Plain orange with white stick

BPA
ConocoPhillips
Total/Huntsman
have similar aerial
markers to left

Standard symbols on marker posts



The above information may not appear in the same order as indicated and some items may be omitted

Useful pipeline enquiry sites

www.linewatch.co.uk

for links to individual pipeline websites

www.linereach.org

Water & Drainage

Asset location search



Property Searches

Search address supplied 40
Church Road
Richmond
TW10 6LN

Your reference meadows Hall

Our reference ALS/ALS Standard/2020_4242702

Search date 27 August 2020

Knowledge of features below the surface is essential for every development

The benefits of this knowledge not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility of any development.

Did you know that Thames Water Property Searches can also provide a variety of utility searches including a more comprehensive view of utility providers' assets (across up to 35-45 different providers), as well as more focused searches relating to specific major utility companies such as National Grid (gas and electric).

Contact us to find out more.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148

Asset location search



Property Searches

Search address supplied: 40, Church Road, Richmond, TW10 6LN

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.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

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 0845 070 9148, or use the address below:

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

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.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 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.