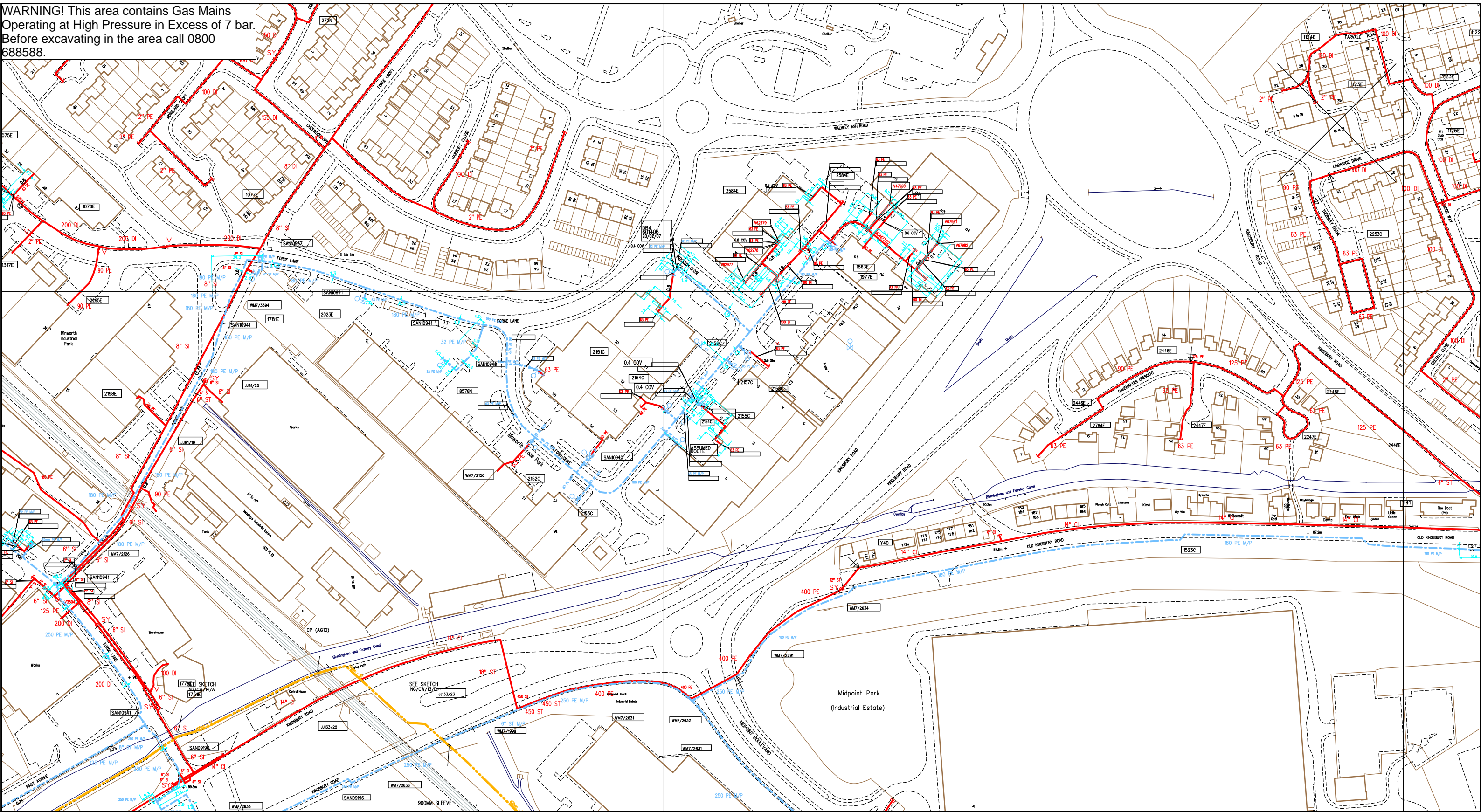


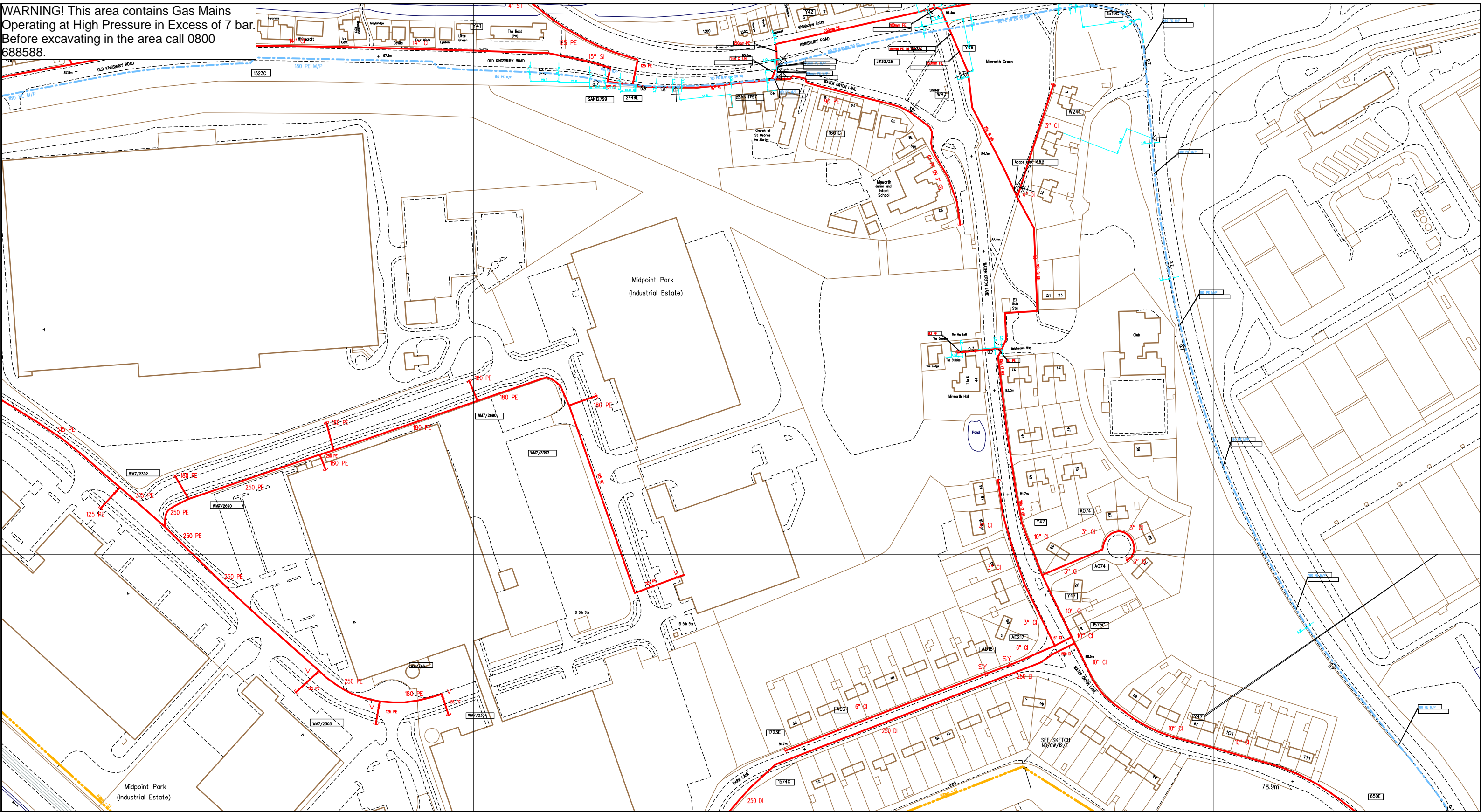
<p>SCALE: Not to scale</p> <p>USER ID: thom7296</p> <p>DATE: 14/04/2014</p> <p>EXTRACT DATE: 10/12/2013</p> <p>MAP REF: SP1692</p> <p>CENTRE: 416011, 292420</p>	<p>LP MAINS <span style="color: red;">—</span></p> <p>MP MAINS <span style="color: blue;">—</span></p> <p>IP MAINS <span style="color: green;">—</span></p> <p>LHP MAINS <span style="color: yellow;">—</span></p> <p>NHP MAINS <span style="color: purple;">—</span></p>	<p>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 investigate and resolve the error as appropriate.</p>	<p>MAPS Viewer Version 5.6.7.0</p> <p>Local Machine</p> <p>This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Some examples of Plant Items:</p> <p>Valve  Depth of Cover  Syphon  Diameter Change  Material Change </p>			

**WARNING!** This area contains Gas Mains Operating at High Pressure in Excess of 7 bar. Before excavating in the area call 0800 688588.



SCALE: Not to scale	LP MAINS		<p>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 investigate and resolve the error as appropriate.</p>	MAPS Viewer Version 5.6.7.0						
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DATE: 14/04/2014	IP MAINS									
EXTRACT DATE: 10/12/2013	LHP MAINS									
MAP REF: SP1592	NHP MAINS									
CENTRE: 415052, 292422	Valve		Depth of Cover		Syphon		Diameter Change		Material Change	

**WARNING!** This area contains Gas Mains Operating at High Pressure in Excess of 7 bar. Before excavating in the area call 0800 688588.



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DATE: 14/04/2014	IP MAINS			
EXTRACT DATE: 10/12/2013	LHP MAINS			
MAP REF: SP1592	NHP MAINS			
CENTRE: 415681, 292099	<p>Some examples of Plant Items:</p>			

**ATKINS CHECKED**

**JF2**



**SEVERN TRENT WATER Ltd**  
Asset Data Management  
GISmapping Team  
PO Box 5344  
Coventry  
CV3 9FT

Tel 0845 601 6616 (opt 5)  
Fax 02477 715862

Our Ref 83203

11 April 2014

**Apparatus Location Enquiry**

**Further to your enquiry re: Minworth Island near Sutton Coldfield B76 9RQ  
(Your ref: 30584)**

Enclosed is a copy of the plans showing the approximate positions of the **public sewers and water mains** situated within the vicinity of the land/property which is the subject of your enquiry.

**There are NO water or sewer assets in tiles: SP1593SW & SP1692NW.**

**Asset Data Management can only provide plans of the location of the Company's underground assets.** Therefore service pipes and drains are the responsibility of the property owner and should be anticipated during any excavation.

However, we wish to inform you that although most private lateral drains and sewers were transferred to Severn Trent Water's ownership on 1<sup>st</sup> October 2011, the Company does not possess complete records of these assets and therefore they may not be shown on these maps.

Please also find enclosed a copy of Severn Trent Water's General Conditions and Precautions for your information.

**Please forward VAT receipt to your finance department.**

Kind Regards  
**GISmapping Team**

Enquiry received  
GISmapping:  
11 April 2014

## TERMS AND CONDITIONS AND GENERAL PRECAUTIONS

These general terms and conditions and precautions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an Agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the Agreement for the self construction of water mains) (STW Apparatus) of Severn Trent Water Limited (STW) and are not to be taken as exhaustive.

### TERMS AND CONDITIONS:

1. This plan and any information supplied with it is issued subject to these terms and conditions.
2. This plan and any information supplied with it is furnished as a general guide only and no representation or warranty as to its accuracy is given or implied.
3. In particular, the position and depth of STW Apparatus shown on the plan are approximate only. It is strongly recommended that a survey is carried out to determine the precise location of STW Apparatus. The exact positions and depths should be obtained by excavation trial holes.
4. The position of private drains, private sewers and service pipes to properties are not normally shown on this plan but their presence must be anticipated and you are strongly advised to carry out your own enquiries and investigations to locate them.
5. The position and depth of STW Apparatus may change and therefore this plan is issued subject to any such change. The onus is entirely upon you to confirm whether any changes to the plan have been made subsequent to issue and prior to any works being carried out.
6. This plan and any information shown on it must not be relied upon in the event of any development or other works (including but not limited to excavations) in the vicinity of STW Apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or distribution systems.
7. No person or company shall be relieved from liability for any damage caused to STW Apparatus by reason of the actual position and/or depths of STW Apparatus being different from those shown on the plan and any information supplied with it.
8. If any provision of these terms is or becomes invalid or unenforceable, it will be taken to be removed from the rest of these terms to the extent that it is invalid or unenforceable. No other provision of these terms shall be affected.
9. These terms shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts.
2. During construction work, where heavy plant will cross the line of STW Apparatus, specific crossing points must be agreed with STW and suitably reinforced where required. These crossing points should be clearly marked and crossing of the line of STW Apparatus at other locations must be prevented.
3. No explosives are to be used in the vicinity of any STW Apparatus without prior consultation with STW.
4. Where it is proposed to carry out piling or boring within 15 metres of any STW Apparatus, STW should be consulted to enable any affected STW Apparatus to be surveyed prior to the works commencing.
5. Where excavation of trenches adjacent to any STW Apparatus affects its support, the STW Apparatus must be supported to the satisfaction of STW. Water mains and some sewers are pressurised and can fail if excavation removes support to thrust blocks to bends and other fittings.
6. Where a trench is excavated crossing or parallel to the line of any STW Apparatus, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the STW Apparatus. In special cases, it may be necessary to provide permanent support to STW Apparatus which has been exposed over a length of the excavation before backfilling and reinstatement is carried out. There should be no concrete backfill in contact with the STW Apparatus.
7. No apparatus should be laid along the line of STW Apparatus irrespective of clearance. Above ground apparatus must not be located within 5.0 metres either side of the centre line of STW Apparatus without prior approval. A minimum of radial clearance of 300 millimetres should be allowed between any plant being installed and existing STW Apparatus. No manhole or chamber shall be built over or around any STW Apparatus.
8. Where any STW Apparatus coated with a special wrapping is damaged, even to a minor extent, STW must be notified and the trench left open until the damage has been inspected and the necessary repairs have been carried out. In the case of any material damage to any STW Apparatus causing leakage, weakening of the mechanical strength of the pipe or corrosion-protection damage, the necessary remedial work will be recharged.
9. With regard to any proposed resurfacing works, you are required to contact STW on the number given below to arrange a site inspection to establish the condition of any STW Apparatus in the nature of surface boxes or manhole covers and frames affected by the works. STW will then advise on any measures to be taken.

### PRECAUTIONS:

STW staff will visit any site at reasonable notice to assist in the location of our apparatus and advise of any precautions necessary to avoid damage.

In order to achieve safe working conditions adjacent to any apparatus the following should be observed:

1. All STW Apparatus should be located by hand digging prior to the use of mechanical excavators.
10. Trees or shrubs - please ensure that, in relation to STW Apparatus, the mature root systems and canopies of any tree planted do not encroach within the recommended distances specified in the notes overleaf.

## **NOTES:**

### **PARTICULAR RISKS INVOLVED WHEN WORKING WITH SEWERAGE SYSTEMS AND WATER MAINS**

The following risks can be encountered when working on STW Apparatus

- Working in deep excavations.
- Working in the public highway (NRSWA)
- Working in confined spaces.
- Contents of the sewage. i.e. Aggressive Trade Effluent, Petrol, Chemicals etc.
- Accidental spillages may enter a public sewer and cause a harmful and/or explosive atmosphere
- In times of storm the water level in sewers may rise rapidly.
- Sewage can contain rat's urine. Infection from such contaminated sewage can cause Leptospirosis (Weil's Disease) and therefore appropriate hygiene measures should be taken.

**You must not enter the public sewerage system without prior approval.**

### **TREE PLANTING RESTRICTIONS**

There are many problems with the location of trees adjacent to sewers, water mains and other STW Apparatus and these can lead to the loss of trees and hence amenity to the area which many people may have become used to. It is best if the problem is not created in the first place. Set out below are the recommendations for tree planting in close proximity to public sewers, water mains and other STW Apparatus.

- 1 Both Poplar and Willow trees have extensive root systems and should not be planted within 10 metres of a sewer, water main or other STW Apparatus.
- 2 The following trees and those of similar size, be they deciduous or evergreen, should not be planted within 6 metres of a sewer, water main or other STW Apparatus. e.g. Ash, Beech, Birch, most Conifers, Elm, Horse Chestnut, Lime, Oak, Sycamore, Apple and Pear.
- 3 STW personnel require a clear path to conduct surveys etc. No shrubs or bushes should be planted within 1 metre of the centre line of a sewer, water main or other STW Apparatus.
- 4 In certain circumstances, both STW and landowners may wish to plant shrubs/bushes in close proximity to a sewer, water main or other STW Apparatus for screening purposes. The following are shallow rooting and are suitable for this purpose: Blackthorn, Broom, Cotoneaster, Elder, Hazel, Laurel, Privet, Quickthorn, Snowberry, and most ornamental flowering shrubs.

**Please ensure that a copy of this is passed to your representative and/or your Contractor on site. If any damage is caused to STW apparatus, the person, Contractor or Subcontractor responsible must inform STW immediately on**

**0800 783 4444 (24 hours)**



SP1593SE

SP1492NW

SP1592NW

SP1592SE



<ul style="list-style-type: none"> <li>Distribution Main</li> <li>Trunk Main (local/primary)</li> <li>Strategic Main</li> <li>Fire Supply Main</li> <li>Fire Main</li> <li>Non-Domestic Customer Service Pipe</li> <li>Domestic Customer Service Pipe</li> <li>Abandoned Main</li> <li>Elevated Main</li> <li>Aqueduct</li> <li>Duct</li> <li>Cable, Earthing</li> <li>Cable, Optical Fibre/Instrumentation</li> <li>Cable, Low Voltage</li> <li>Cable, High Voltage</li> <li>Cable, Other</li> </ul>	<ul style="list-style-type: none"> <li>Pumping Facility</li> <li>Booster Facility</li> <li>Potable Water Storage</li> <li>Water Tower</li> <li>Well / Borehole</li> <li>Intake</li> <li>Water Treatment Works / Chamber</li> <li>Draw-off Tower</li> <li>Bowser Point</li> <li>Water Facility Connection</li> </ul>	<ul style="list-style-type: none"> <li>Water Isolation Valve (Closed)</li> <li>Water Isolation Valve (Open)</li> <li>Water Isolation Valve (Partially Open)</li> <li>Water Air Valve</li> <li>Pressure Reducing Valve</li> <li>Pressure Sustaining Valve</li> <li>Non-Return Valve</li> <li>Float Valve</li> <li>Hydrant (Single/Double)</li> <li>Washout (Single/Double)</li> <li>Bulk Meter</li> <li>Water Hatch Box</li> <li>Pressure Tapping</li> <li>Insertion Flow Meter Point</li> </ul>	<ul style="list-style-type: none"> <li>Water Chemical Injection Point</li> <li>Motive Water Point</li> <li>Quality Sample Point</li> <li>Change In Characteristic</li> <li>Marker Post</li> <li>Cable Junction</li> <li>Anode</li> <li>Boundary Box</li> <li>Stop tap</li> <li>Cross Piece</li> <li>Strainer</li> <li>Listening Post</li> <li>Revenue Meter</li> </ul>	<ul style="list-style-type: none"> <li>Housing, Building</li> <li>Housing, Kiosk</li> <li>Housing, Other</li> <li>Pipe Support Structure</li> <li>Open Pipe</li> <li>Discharge</li> <li>End Cap</li> <li>SSSI Area</li> <li>Access Right</li> <li>Pre-1937 Properties</li> </ul>
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**MATERIALS**

AC	- ASBESTOS CEMENT
AK	- ALKATHENE
C	- CONCRETE
CI	- CAST IRON
CU	- COPPER
GF	- GLASS FIBRE
GRC	- GLASS REINFORCED CONCRETE
GRP	- GLASS REINFORCED PLASTIC
HDPE	- HIGH DENSITY POLY
HDPE	- HIGH PERFORMANCE POLY
LDPE	- LOW DENSITY POLY
LEAD	- LEAD
MDPE	- MEDIUM DENSITY POLY
O	- OTHER
PC	- PRE-STRESSED CONCRETE
PF	- PITCH FIBRE
PP	- POLY PROPYLENE
PSC	- PLASTIC STEEL COMPOSITE
PVC	- POLY VINYL CHLORIDE
RPM	- REINFORCED PLASTIC MATRIX
SI	- SPIRIR IRON
SST	- STAINLESS STEEL
ST	- STEEL
UPVC	- UNPLASTICISED PVC

**LINING**

BI	- BITUMEN
CL	- CEMENT
PL	- PLASTIC
RL	- RESIN
O	- OTHER



Severn Trent Water Limited  
 Asset Data Management  
 PO Box 5344  
 Coventry  
 CV3 9FT  
 Telephone: 0845 601 6616

**WATER MAINS RECORD (TILE)**

O/S Map scale: 1:1250  
 Date of issue: 11.04.14  
 This map is centred upon:  
 O / S Tile reference:

SP1592NE

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## WATER MAINS RECORD (TILE)

O/S Map scale: 1:1250 This map is centred upon:  
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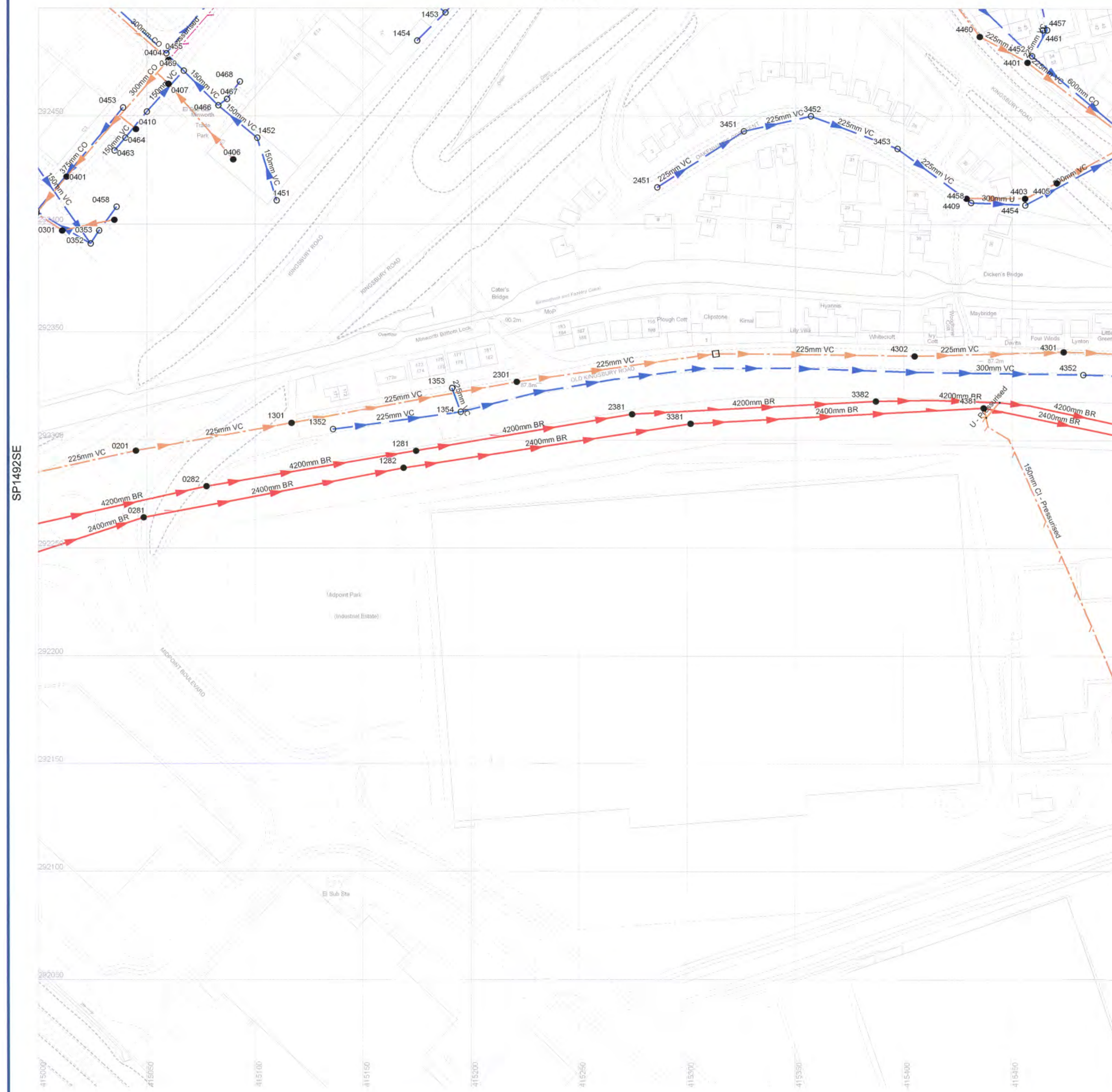
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SP1592NW



SEWER NODE	COVER LEVEL	INV LEVEL UPSTR	INV LEVEL DOWNSTR	PURP	MATL	SHAPE	MAX SIZE	MIN SIZE	GRADIENT	YEAR LAID
SP1592001	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592002	0.00	0.00	0.00	C	BR	C	2400	0.00	0.00	0.00
SP1592003	0.00	0.00	0.00	C	BR	C	4200	0.00	0.00	0.00
SP1592004	0.00	0.00	0.00	F	VC	C	150	0.00	46.52	0.00
SP1592005	0.00	0.00	0.00	S	VC	C	150	0.00	323.89	0.00
SP1592006	0.00	0.00	0.00	S	VC	C	150	0.00	240.33	0.00
SP1592007	0.00	0.00	0.00	F	VC	C	300	0.00	220.20	0.00
SP1592008	0.00	0.00	0.00	F	CO	C	300	0.00	196.58	0.00
SP1592009	0.00	0.00	0.00	F	VC	C	150	0.00	131.71	0.00
SP1592010	0.00	0.00	0.00	F	VC	C	150	0.00	0.00	0.00
SP1592011	0.00	0.00	0.00	F	VC	C	150	0.00	90.81	0.00
SP1592012	0.00	0.00	0.00	F	VC	C	150	0.00	0.00	0.00
SP1592013	0.00	0.00	0.00	S	CO	C	375	0.00	568.00	0.00
SP1592014	0.00	0.00	0.00	S	CO	C	525	0.00	214.89	0.00
SP1592015	0.00	0.00	0.00	S	VC	C	150	0.00	123.64	0.00
SP1592016	0.00	0.00	0.00	S	VC	C	150	0.00	136.17	0.00
SP1592017	0.00	0.00	0.00	S	VC	C	150	0.00	312.40	0.00
SP1592018	0.00	0.00	0.00	S	VC	C	150	0.00	212.50	0.00
SP1592019	0.00	0.00	0.00	S	VC	C	150	0.00	251.44	0.00
SP1592020	0.00	0.00	0.00	S	VC	C	150	0.00	45.45	0.00
SP1592021	0.00	0.00	0.00	S	VC	C	150	0.00	142.86	0.00
SP1592022	0.00	0.00	0.00	S	VC	C	150	0.00	1131.00	0.00
SP1592023	0.00	0.00	0.00	C	BR	C	4200	0.00	0.00	0.00
SP1592024	0.00	0.00	0.00	C	BR	C	2400	0.00	0.00	0.00
SP1592025	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592026	0.00	0.00	0.00	S	VC	C	225	0.00	0.00	0.00
SP1592027	0.00	0.00	0.00	S	VC	C	225	0.00	39.00	0.00
SP1592028	0.00	0.00	0.00	S	VC	C	300	0.00	0.00	0.00
SP1592029	0.00	0.00	0.00	S	VC	C	150	0.00	506.00	0.00
SP1592030	0.00	0.00	0.00	S	VC	C	150	0.00	260.33	0.00
SP1592031	0.00	0.00	0.00	S	U	C	300	0.00	340.60	0.00
SP1592032	0.00	0.00	0.00	S	VC	C	225	0.00	141.36	0.00
SP1592033	0.00	0.00	0.00	F	VC	C	225	0.00	265.46	0.00
SP1592034	0.00	0.00	0.00	C	BR	C	4200	0.00	0.00	0.00
SP1592035	0.00	0.00	0.00	S	VC	C	225	0.00	136.31	0.00
SP1592036	0.00	0.00	0.00	C	BR	C	2400	0.00	0.00	0.00
SP1592037	0.00	0.00	0.00	C	BR	C	4200	0.00	0.00	0.00
SP1592038	0.00	0.00	0.00	S	VC	C	225	0.00	113.50	0.00
SP1592039	0.00	0.00	0.00	S	VC	C	225	0.00	126.65	0.00
SP1592040	0.00	0.00	0.00	S	VC	C	225	0.00	117.22	0.00
SP1592041	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592042	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592043	0.00	0.00	0.00	S	VC	C	300	0.00	0.00	0.00
SP1592044	0.00	0.00	0.00	C	BR	C	2400	0.00	0.00	0.00
SP1592045	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592046	0.00	0.00	0.00	F	VC	C	225	0.00	38.07	0.00
SP1592047	0.00	0.00	0.00	F	VC	C	225	0.00	260.80	0.00
SP1592048	0.00	0.00	0.00	F	VC	C	225	0.00	84.38	0.00
SP1592049	0.00	0.00	0.00	S	CO	C	600	0.00	0.00	0.00
SP1592050	0.00	0.00	0.00	S	VC	C	300	0.00	256.78	0.00
SP1592051	0.00	0.00	0.00	S	VC	C	225	0.00	0.00	0.00
SP1592052	0.00	0.00	0.00	S	U	C	300	0.00	89.36	0.00
SP1592053	0.00	0.00	0.00	F	VC	C	225	0.00	0.00	0.00
SP1592054	0.00	0.00	0.00	S	VC	C	150	0.00	0.00	0.00

SP1592SE

SP1591NW

- Abandoned Sewer
  - Private Combined Gravity Sewer
  - Private Foul Gravity Sewer
  - Private Surface Water Gravity Sewer
  - Public Combined Gravity Sewer
  - Public Foul Gravity Sewer
  - Public Surface Water Gravity Sewer
  - Trunk Combined Gravity Sewer
  - Trunk Foul Use Gravity Sewer
  - Trunk Surface Water Gravity Sewer
  - Combined Use Pressurised Sewer
  - Foul Use Pressurised Sewer
  - Surface Water Pressurised Sewer
  - Highway Drain
  - Combined Lateral Drain (SS)
  - Foul Lateral Drain (SS)
  - Surface Water Lateral Drain (SS)
- Cable, Earthing
  - Cable Junction
  - Cable, Optical Fibre/Instrumentation
  - Cable, Low Voltage
  - Cable, High Voltage
  - Cable, Other
  - Housing, Building
  - Housing, Kiosk
  - Disposal Site
  - Sewage Treatment Works
  - Housing, Other
  - Pipe Support Structure
  - Sewage Pumping Facility
  - Sewer Facility Connection Inlet / Outlet
- Blind Shaft
  - Combined Use Manhole
  - Flushing Chamber
  - Foul Use Manhole
  - Grease Trap
  - Head Node
  - Hydrobrake
  - Lamphole
  - Outfall
  - Overflow
  - Penstock
  - Petrol Interceptor
  - Sewer Blockage
  - Sewer Collapse
- Sewer Chemical Injection Point
  - Sewer Junction
  - Sewerage Air Valve
  - Sewerage Hatch Box Point
  - Sewerage Isolation Valve
  - Soakaway
  - Surface Water Manhole
  - Vent Column
  - Waste Water Storage
  - Culverted Watercourse
  - Pre-1937 Properties

- MATERIALS**
- AC - ASBESTOS CEMENT
  - BR - BRICK
  - CC - CONCRETE BOX CULVERT
  - CI - CAST IRON
  - CO - CONCRETE
  - CSB - CONCRETE SEGMENTS (BOLTED)
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  - MAC - MASONRY IN REGULAR COURSES
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  - PE - POLYETHYLENE
  - PF - PITCH
  - PP - POLYPROPYLENE
  - PSC - PLASTIC STEEL COMPOSITE
  - PVC - POLYVINYL CHLORIDE
  - RPM - REINFORCED PLASTIC MATRIX
  - SI - SPUN (GREY) IRON
  - XXX - OTHER

- CATEGORIES**
- W - WEIR
  - C - CASCADE
  - DB - DAMBOARD
  - SE - SIDE ENTRY
  - FV - FLAP VALVE
  - BD - BACK DROP
  - S - SIPHON
  - HD - HIGHWAY DRAIN
  - S104 - SECTION 104
- SHAPE**
- C - CIRCULAR
  - E - EGG SHAPED
  - O - OTHER
  - R - RECTANGLE
  - S - SQUARE
  - T - TRAPEZOIDAL
  - U - UNKNOWN

- TABULAR KEY**
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- PURPOSE**
- C - COMBINED
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  - S - SURFACE WATER



SEVERN TRENT WATER

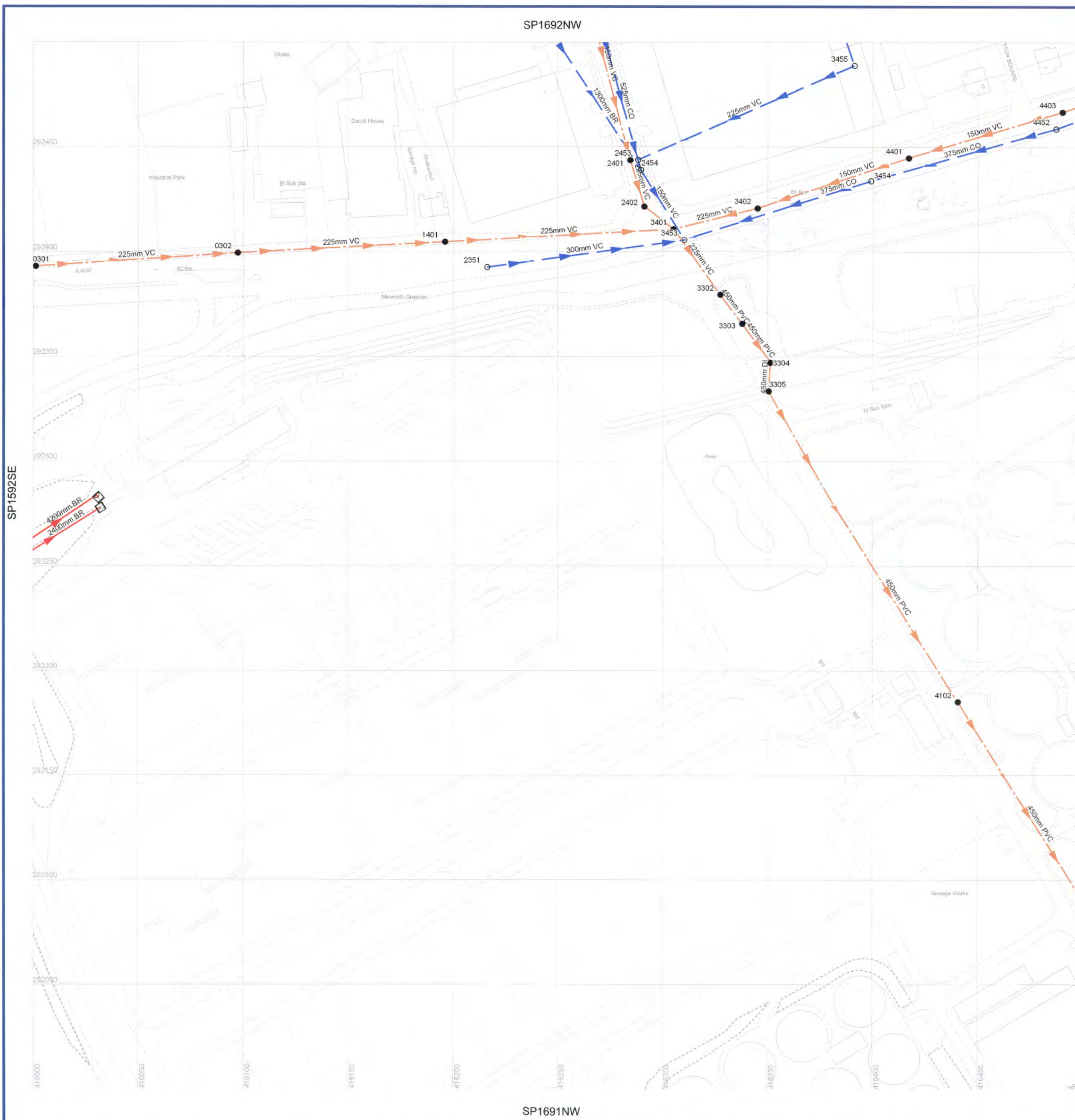
Sewern Trent Water Limited  
 Asset Data Management  
 PO Box 5344  
 Coventry CV3 9FT  
 Telephone: 0845 601 6616

**SEWER RECORD (TABULAR)**

O/S Map scale: 1:1250  
 Date of issue: 11.04.14  
 Sheet No. 1 of 1

This map is centred upon:  
 O / S Tile reference:  
 SP1592SW

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REFERENCE	COVER LEVEL	INV LEVEL UPSTR	INV LEVEL DOWNSTR	PURP	MATL	SHAPE	MAX SIZE	MIN SIZE	GRADIENT	YEAR LAID
SP16920301	83.05	81.45	81.27	F	VC	C	225	nil	534.39	nil
SP16920302	82.72	81.27	79.85	F	VC	C	225	nil	71.32	nil
SP16921401	81.47	79.88	79.78	F	VC	C	225	nil	992.45	nil
SP16922351	nil	nil	79.22	S	VC	C	300	nil	0.00	nil
SP16922401	81.82	79.64	79.65	F	VC	C	225	nil	0.00	nil
SP16922402	81.68	79.65	79.48	F	VC	C	300	nil	97.78	nil
SP16922453	81.89	78.58	nil	S	CO	C	525	nil	0.00	nil
SP16922454	81.70	79.87	79.22	S	VC	C	150	nil	59.33	nil
SP16923302	nil	nil	78.63	F	PVC	C	450	nil	0.00	2002
SP16923303	nil	78.63	77.56	F	PVC	C	450	nil	11.68	2002
SP16923304	nil	77.96	77.54	F	DI	C	450	450	750.00	2002
SP16923305	nil	77.54	77.44	F	PVC	C	450	450	146.83	nil
SP16923401	81.70	78.86	nil	F	VC	C	225	nil	1.17	nil
SP16923402	81.83	nil	79.78	F	VC	C	225	nil	0.00	nil
SP16923454	nil	nil	79.22	S	CO	C	375	nil	0.00	nil
SP16923455	82.51	80.82	78.73	S	VC	C	225	nil	53.78	nil
SP16924102	80.18	77.44	77.28	F	PVC	C	450	450	1012.90	2002
SP16924401	82.30	80.67	nil	F	VC	C	150	nil	0.00	nil
SP16924403	82.86	81.06	80.67	F	VC	C	150	nil	195.49	nil
SP16924452	82.96	81.21	nil	S	CO	C	375	nil	0.00	nil

<ul style="list-style-type: none"> <li> Abandoned Sewer</li> <li> Private Combined Gravity Sewer</li> <li> Private Foul Gravity Sewer</li> <li> Private Surface Water Gravity Sewer</li> <li> Public Combined Gravity Sewer</li> <li> Public Foul Gravity Sewer</li> <li> Public Surface Water Gravity Sewer</li> <li> Trunk Combined Gravity Sewer</li> <li> Trunk Foul Use Gravity Sewer</li> <li> Trunk Surface Water Gravity Sewer</li> <li> Combined Use Pressurised Sewer</li> <li> Foul Use Pressurised Sewer</li> <li> Surface Water Pressurised Sewer</li> <li> Highway Drain</li> <li> Combined Lateral Drain (SS)</li> <li> Foul Lateral Drain (SS)</li> <li> Surface Water Lateral Drain (SS)</li> </ul>	<ul style="list-style-type: none"> <li> Cable, Earthing</li> <li> Cable Junction</li> <li> Cable, Optical Fibre/Instrumentation</li> <li> Cable, Low Voltage</li> <li> Cable, High Voltage</li> <li> Cable, Other</li> <li> Housing, Building</li> <li> Housing, Kiosk</li> <li> Disposal Site</li> <li> Sewage Treatment Works</li> <li> Housing, Other</li> <li> Pipe Support Structure</li> <li> Sewage Pumping Facility</li> <li> Sewer Facility Connection Inlet / Outlet</li> </ul>	<ul style="list-style-type: none"> <li> Blind Shaft</li> <li> Combined Use Manhole</li> <li> Flushing Chamber</li> <li> Foul Use Manhole</li> <li> Grease Trap</li> <li> Head Node</li> <li> Hydrobrake</li> <li> Lamphole</li> <li> Outfall</li> <li> Overflow</li> <li> Penstock</li> <li> Petrol Interceptor</li> <li> Sewer Blockage</li> <li> Sewer Collapse</li> </ul>	<ul style="list-style-type: none"> <li> Sewer Chemical Injection Point</li> <li> Sewer Junction</li> <li> Sewerage Air Valve</li> <li> Sewerage Hatch Box Point</li> <li> Sewerage Isolation Valve</li> <li> Soakaway</li> <li> Surface Water Manhole</li> <li> Vent Column</li> <li> Waste Water Storage</li> <li> Culverted Watercourse</li> <li> Pre-1937 Properties</li> </ul>
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**MATERIALS**

- AC - ASBESTOS CEMENT
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**CATEGORIES**

- W - WEIR
- C - CASCADE
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- T - TRAPEZOIDAL
- U - UNKNOWN

**TABULAR KEY**

- A. Sewer pipe data refers to downstream sewer pipe.
- B. Where the node bifurcates (splits) X and Y indicates downstream sewer pipe.
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**PURPOSE**

- C - COMBINED
- E - FINAL EFFLUENT
- F - FOUL
- L - SLUDGE
- S - SURFACE WATER



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 Asset Data Management  
 PO Box 5344  
 Coventry  
 CV3 9FT  
 Telephone: 0845 601 6616

**SEWER RECORD (TABULAR)**

O/S Map scale: 1:1250  
 Date of issue: 11.04.14  
 Sheet No. 1 of 1

This map is centred upon:  
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All Private Sewers are shown in magenta  
 All section 104 sewers are shown in green  
 All Sewers that have been transferred to Severn Trent Water after the 1<sup>st</sup> October 2011, but have not been surveyed and confirmed by Severn Trent Water are shown in orange



REFERENCE	COVER LEVEL	INVERT LEVEL UPST	INVERT LEVEL DOWNSTR	PURP	MATL	SHAPE	MAX SIZE	MIN SIZE	GRADIENT	YEAR LAID
SP15925281	nil	nil	nil	C	BR	C	2400	nil	0.00	nil
SP15925352	85.93	84.16	82.82	S	CO	C	600	nil	52.61	nil
SP15925381	nil	nil	nil	C	BR	C	4200	nil	0.00	nil
SP15925401	87.30	85.47	84.92	F	VC	C	225	nil	132.76	nil
SP15925408	86.88	84.66	84.64	F	VC	C	225	nil	1661.00	nil
SP15925429	86.98	84.90	84.89	F	VC	C	225	nil	90.33	nil
SP15925452	87.19	84.74	84.57	S	CO	C	600	nil	16.65	nil
SP15925463	87.18	84.36	84.16	S	CO	C	600	nil	201.99	nil
SP15925454	86.98	83.79	83.57	S	CO	C	450	nil	170.21	nil
SP15925455	86.87	83.56	83.49	S	CO	C	450	nil	400.29	nil
SP15928251	86.48	80.39	nil	S	CO	C	1200	nil	0.00	nil
SP15928255	nil	nil	nil	S	CO	C	1200	nil	0.00	nil
SP15928256	nil	nil	78.84	S	CO	C	1200	nil	0.00	nil
SP15928281	nil	nil	nil	C	BR	C	4200	nil	0.00	nil
SP15928282	nil	nil	nil	C	BR	C	2400	nil	0.00	nil
SP15928352	85.33	84.21	nil	S	VC	C	225	nil	0.00	nil
SP15928353	87.27	81.29	80.74	S	BR	C	1200	nil	140.95	nil
SP15928354	nil	nil	83.10	S	VC	C	450	nil	0.00	nil
SP15928355	86.80	82.48	81.60	S	CO	C	750	nil	9.82	nil
SP15928356	85.82	80.66	80.41	S	BR	C	1200	nil	247.22	nil
SP15928401	86.00	84.00	nil	F	VC	C	300	nil	0.00	nil
SP15928404	86.39	84.05	84.00	F	VC	C	225	nil	488.20	nil
SP15928406	86.39	84.06	84.06	F	VC	C	225	nil	948.50	nil
SP15928420	86.62	84.62	84.06	F	VC	C	225	nil	91.45	nil
SP15928411	86.74	84.64	84.56	F	VC	C	225	nil	414.25	nil
SP15928452	86.32	83.04	82.88	S	CO	C	525	nil	514.57	nil
SP15928453	86.38	83.09	83.04	S	CO	C	525	nil	379.40	nil
SP15928456	86.42	83.18	83.11	S	CO	C	525	nil	185.71	nil
SP15928458	86.64	83.26	83.18	S	CO	C	525	nil	580.00	nil
SP15928461	86.74	83.44	83.28	S	CO	C	450	nil	206.65	nil
SP15927052	nil	nil	78.84	S	VC	C	225	nil	0.00	nil
SP15927053	nil	nil	nil	S	CO	C	1200	nil	0.00	nil
SP15927151	nil	nil	nil	S	CO	C	1200	nil	0.00	nil
SP15927281	nil	nil	nil	C	BR	C	4200	nil	0.00	nil
SP15927282	nil	nil	nil	C	BR	C	4200	nil	0.00	nil
SP15927283	nil	nil	nil	C	BR	C	2400	nil	0.00	nil
SP15927294	nil	nil	nil	C	BR	C	2400	nil	0.00	nil
SP15927301	nil	nil	nil	F	VC	C	225	nil	0.00	nil
SP15927304	nil	nil	82.79	F	VC	C	225	nil	0.00	nil
SP15927306	84.89	82.79	82.68	F	VC	C	225	nil	194.33	nil
SP15927306	84.28	83.08	nil	F	VC	C	225	nil	0.00	nil
SP15927302	nil	nil	82.98	S	VC	C	225	nil	0.00	nil
SP15927401	nil	nil	83.08	F	VC	C	225	nil	0.00	nil
SP15927402	nil	nil	nil	F	VC	C	300	nil	0.00	nil
SP15927403	89.13	83.81	nil	F	VC	C	225	nil	0.00	nil
SP15927454	85.75	83.89	nil	S	VC	C	300	nil	0.00	nil
SP15927455	85.80	83.59	83.89	S	VC	C	300	nil	0.00	nil
SP15927456	86.17	nil	83.64	S	VC	C	225	nil	0.00	nil
SP15927457	nil	nil	nil	S	VC	C	225	nil	0.00	nil
SP15927459	86.11	84.41	84.05	S	VC	C	225	nil	133.39	nil
SP15927481	86.30	84.05	83.45	S	VC	C	225	nil	59.18	nil
SP15928001	81.48	80.92	79.12	F	VC	C	225	nil	65.48	nil
SP15928102	82.78	80.66	80.92	F	VC	C	225	nil	0.00	nil
SP15928191	84.41	nil	nil	S	VC	C	225	nil	0.00	nil
SP15928203	84.00	82.40	80.66	F	VC	C	225	nil	85.05	nil
SP15928251	nil	nil	nil	S	VC	C	225	nil	0.00	nil
SP15928252	84.15	82.83	nil	S	VC	C	225	nil	0.00	nil
SP15928254	84.32	82.99	82.85	S	VC	C	225	nil	198.43	nil
SP15928301	84.50	82.66	81.98	F	VC	C	225	nil	136.03	nil
SP15928302	83.86	81.98	81.45	F	VC	C	225	nil	220.04	nil
SP15928401	86.50	84.20	83.82	F	VC	C	225	nil	113.66	nil
SP15928281	nil	nil	nil	C	BR	C	2400	nil	0.00	nil
SP15929301	nil	nil	nil	F	VC	C	150	nil	0.00	nil
SP15929302	nil	nil	nil	F	VC	C	150	nil	0.00	nil

- Abandoned Sewer
- Private Combined Gravity Sewer
- Private Foul Gravity Sewer
- Private Surface Water Gravity Sewer
- Public Combined Gravity Sewer
- Public Foul Gravity Sewer
- Public Surface Water Gravity Sewer
- Trunk Combined Gravity Sewer
- Trunk Foul Use Gravity Sewer
- Trunk Surface Water Gravity Sewer
- Combined Use Pressurised Sewer
- Foul Use Pressurised Sewer
- Surface Water Pressurised Sewer
- Highway Drain
- Combined Lateral Drain (SS)
- Foul Lateral Drain (SS)
- Surface Water Lateral Drain (SS)
- Cable, Earthing
- Cable Junction
- Cable, Optical Fibre/Instrumentation
- Cable, Low Voltage
- Cable, High Voltage
- Cable, Other
- Housing, Building
- Housing, Kiosk
- Disposal Site
- Sewage Treatment Works
- Housing, Other
- Pipe Support Structure
- Sewage Pumping Facility
- Sewer Facility Connection Inlet / Outlet
- Blind Shaft
- Combined Use Manhole
- Flushing Chamber
- Foul Use Manhole
- Grease Trap
- Head Node
- Hydrobrake
- Lampole
- Outfall
- Overflow
- Penstock
- Petrol Interceptor
- Sewer Blockage
- Sewer Collapse
- Sewer Chemical Injection Point
- Sewer Junction
- Sewerage Air Valve
- Sewerage Hatch Box Point
- Sewerage Isolation Valve
- Soakaway
- Surface Water Manhole
- Vent Column
- Waste Water Storage
- Culverted Watercourse
- Pre-1937 Properties

- ### MATERIALS
- AC - ASBESTOS CEMENT
  - BR - BRICK
  - CC - CONCRETE BOX CULVERT
  - CI - CAST IRON
  - CO - CONCRETE
  - CSB - CONCRETE SEGMENTS (BOLTED)
  - CSU - CONCRETE SEGMENTS (UNBOLTED)
  - DI - DUCTILE IRON
  - GRC - GLASS REINFORCED CONCRETE
  - MAC - MASONRY IN REGULAR COURSES
  - MAR - MASONRY RANDOMLY COURSED
  - PE - POLYETHYLENE
  - PF - PITCH
  - PP - POLYPROPYLENE
  - PSC - PLASTIC STEEL COMPOSITE
  - PVC - POLYVINYL CHLORIDE
  - RPM - REINFORCED PLASTIC MATRIX
  - SI - SPUN (GREY) IRON
  - XXX - OTHER

- ### CATEGORIES
- W - WEIR
  - C - CASCADE
  - DB - DAMBOARD
  - SE - SIDE ENTRY
  - FV - FLAP VALVE
  - BD - BACK DROP
  - S - SIPHON
  - HD - HIGHWAY DRAIN
  - S104 - SECTION 104
  - C - CIRCULAR
  - E - EGG SHAPED
  - O - OTHER
  - R - RECTANGLE
  - S - SQUARE
  - T - TRAPEZOIDAL
  - U - UNKNOWN

- ### TABULAR KEY
- A. Sewer pipe data refers to downstream sewer pipes.
- B. Where the node bifurcates (splits) X and Y indicates downstream sewer pipe.
- C. Gradient is stated a 1 in...
- ### PURPOSE
- C - COMBINED
  - E - FINAL EFFLUENT
  - F - FOUL
  - L - SLUDGE
  - S - SURFACE WATER



Severn Trent Water Limited  
 Asset Data Management  
 PO Box 5344  
 Coventry  
 CV3 9FT  
 Telephone: 0845 601 6616

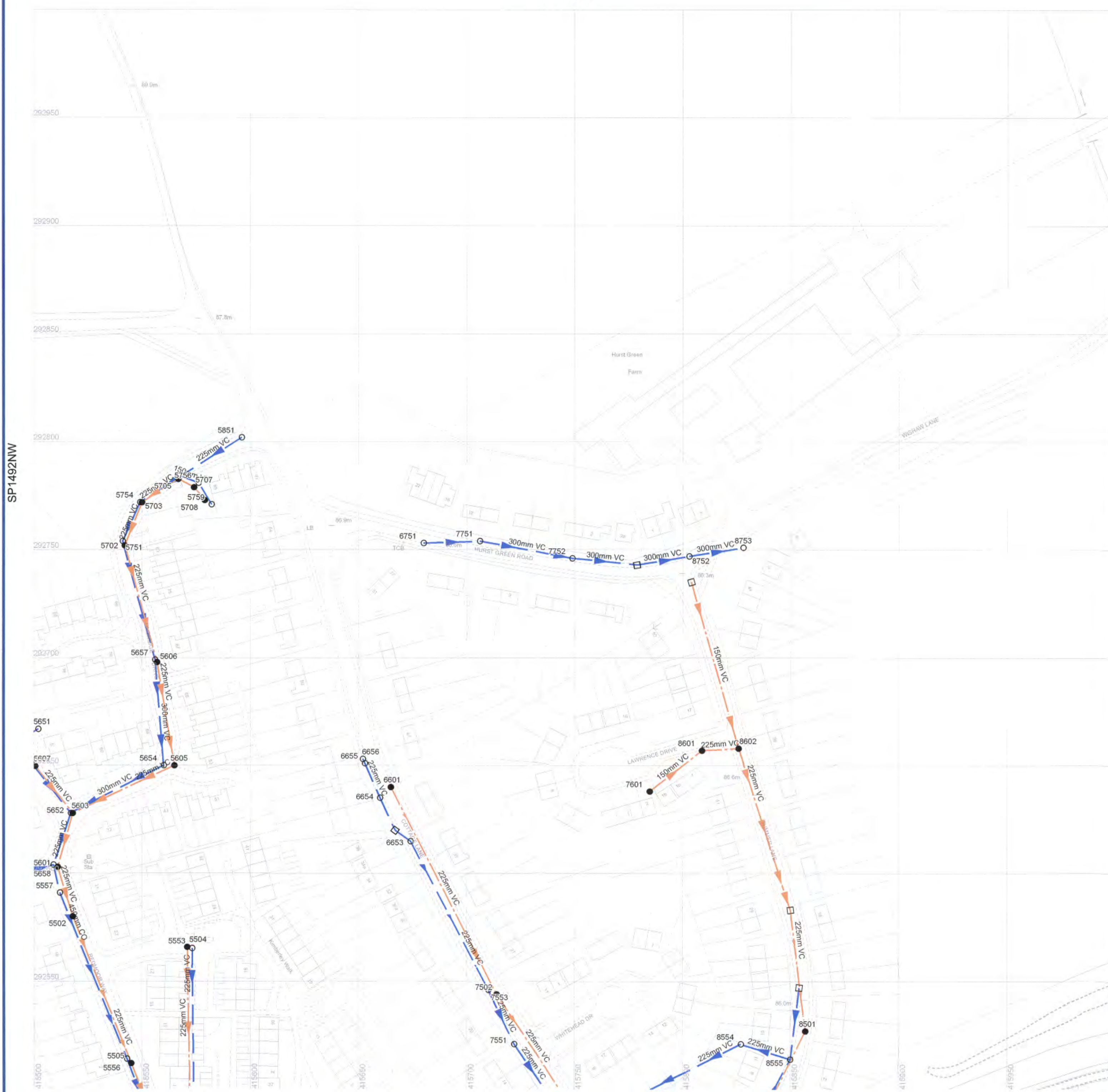
## SEWER RECORD (TABULAR)

O/S Map scale: 1:1250  
 Date of issue: 11.04.14  
 Sheet No. 1 of 1  
 This map is centred upon:  
 O/S Tile reference: SP1592SE

**Disclaimer Statement:**  
 1. Do not scale off this Map.  
 2. This map and any information supplied with it is furnished as a general guide, is only valid at the date of issue and no warranty as to its correctness is given or implied. In particular this Map and any information shown on it must not be relied upon in the event of any development or works (including but not limited to encroachments) in the vicinity of Severn Trent Water's assets or for the purposes of determining the suitability of a point of connection to the sewerage or distribution systems.  
 3. On 1 October 2014 most private sewers and private lateral drains in Severn Trent Water's sewerage area, which were connected to a public sewer as at 1 July 2011, transferred to the ownership of Severn Trent Water and became public sewers and public lateral drains. A further transfer takes place on 1 October 2012 (date to be confirmed).  
 Private pumping stations, which form part of these sewers or lateral drains, will transfer to the ownership of Severn Trent Water on or before 1 October 2016.  
 Severn Trent Water does not possess complete records of these assets.  
 These assets may not be displayed on this Map.  
 4. Reproduction by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and database right 2004. All rights reserved. Ordnance Survey licence number 100018202. Document users other than Severn Trent Water business users are advised that this document is provided for reference purpose only and is subject to copyright, therefore, no further copies should be made from it.







REFERENCE	COVER LEVEL	NW LEVEL UPSTR	NW LEVEL DOWNSTR	PURP	MATL	SHAPE	MAX SIZE	MIN SIZE	GRADIENT	YEAR LAID
SP1592502	87.14	85.40	85.08	F	VC	C	225	nil	221.70	nil
SP1592504	87.12	85.29	84.69	F	VC	C	225	nil	130.52	nil
SP1592505	87.06	85.06	84.93	F	VC	C	225	nil	160.92	nil
SP1592503	87.10	85.00	84.04	S	VC	C	225	nil	82.61	nil
SP1592506	87.01	83.86	83.71	S	CO	C	450	nil	149.80	nil
SP1592507	87.25	84.57	83.86	S	CO	C	450	nil	116.92	nil
SP1592508	87.05	85.45	85.42	F	VC	C	225	nil	801.23	nil
SP1592509	86.98	85.58	85.46	F	VC	C	225	nil	288.44	nil
SP1592510	86.86	85.80	85.57	F	VC	C	225	nil	157.24	nil
SP1592511	87.20	85.91	85.90	F	VC	C	225	nil	2433.00	nil
SP1592512	nil	nil	85.66	F	VC	C	225	nil	0.00	nil
SP1592513	87.25	85.04	nil	S	VC	C	150	nil	0.00	nil
SP1592514	86.96	84.74	84.73	S	CO	C	450	nil	2530.00	nil
SP1592515	86.85	85.13	84.82	S	VC	C	300	nil	155.81	nil
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SP1592518	87.50	86.27	85.94	F	VC	C	225	nil	169.82	nil
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SP1592521	87.34	86.54	86.30	F	VC	C	150	nil	34.29	nil
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SP1592528	86.52	85.18	84.52	F	VC	C	225	nil	160.87	nil
SP1592529	86.47	85.15	84.86	S	VC	C	225	nil	268.38	nil
SP1592530	86.64	85.32	85.31	S	VC	C	225	nil	1655.00	nil
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SP1592532	86.73	85.66	85.39	S	VC	C	225	nil	8.30	nil
SP1592533	86.31	85.78	85.26	S	VC	C	300	nil	50.04	nil
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SP1592590	86.83	84.23	84.22	F	VC	C	225	nil	7992.00	nil
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SP1592596	86.83	84.23	84.22	F	VC	C	225	nil	7992.00	nil
SP1592597	86.83	84.23	84.22	F	VC	C	225	nil	7992.00	nil
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SP1592599	86.83	84.23	84.22	F	VC	C	225	nil	7992.00	nil
SP1592600	86.83	84.23	84.22	F	VC	C	225	nil	7992.00	nil

SP1592NW

<ul style="list-style-type: none"> <li>✕✕✕ Abandoned Sewer</li> <li>— Private Combined Gravity Sewer</li> <li>— Private Foul Gravity Sewer</li> <li>— Private Surface Water Gravity Sewer</li> <li>— Public Combined Gravity Sewer</li> <li>— Public Foul Gravity Sewer</li> <li>— Public Surface Water Gravity Sewer</li> <li>— Trunk Combined Gravity Sewer</li> <li>— Trunk Foul Use Gravity Sewer</li> <li>— Trunk Surface Water Gravity Sewer</li> <li>— Combined Use Pressurised Sewer</li> <li>— Foul Use Pressurised Sewer</li> <li>— Surface Water Pressurised Sewer</li> <li>— Highway Drain</li> <li>— Combined Lateral Drain (SS)</li> <li>— Foul Lateral Drain (SS)</li> <li>— Surface Water Lateral Drain (SS)</li> </ul>	<ul style="list-style-type: none"> <li>○ Cable, Earthing</li> <li>○ Cable Junction</li> <li>— Cable, Optical Fibre/Instrumentation</li> <li>— Cable, Low Voltage</li> <li>— Cable, High Voltage</li> <li>— Cable, Other</li> <li>□ Housing, Building</li> <li>□ Housing, Kiosk</li> <li>□ Disposal Site</li> <li>□ Sewage Treatment Works</li> <li>○ Housing, Other</li> <li>○ Pipe Support Structure</li> <li>○ Sewage Pumping Facility</li> <li>○ Sewer Facility Connection Inlet / Outlet</li> </ul>	<ul style="list-style-type: none"> <li>■ Blind Shaft</li> <li>● Combined Use Manhole</li> <li>○ Flushing Chamber</li> <li>● Foul Use Manhole</li> <li>● Grease Trap</li> <li>● Head Node</li> <li>— Hydrobrake</li> <li>□ Lamphole</li> <li>□ Outfall</li> <li>□ Overflow</li> <li>— Penstock</li> <li>○ Petrol Interceptor</li> <li>★ Sewer Blockage</li> <li>☆ Sewer Collapse</li> </ul>	<ul style="list-style-type: none"> <li>— Sewer Chemical Injection Point</li> <li>● Sewer Junction</li> <li>◆ Sewerage Air Valve</li> <li>□ Sewerage Hatch Box Point</li> <li>— Sewerage Isolation Valve</li> <li>○ Soakaway</li> <li>○ Surface Water Manhole</li> <li>— Vent Column</li> <li>■ Waste Water Storage</li> <li>— Culverted Watercourse</li> <li>— Pre-1937 Properties</li> </ul>
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**MATERIALS**

AC	- ASBESTOS CEMENT
BR	- BRICK
CC	- CONCRETE BOX CULVERT
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**CATEGORIES**

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FV	- FLAP VALVE
BD	- BACK DROP
S	- SIPHON
HD	- HIGHWAY DRAIN
S104	- SECTION 104

**SHAPE**

C	- CIRCULAR
E	- EGG SHAPED
O	- OTHER
R	- RECTANGLE
S	- SQUARE
T	- TRAPEZOIDAL
U	- UNKNOWN

**PURPOSE**

C	- COMBINED
E	- FINAL EFFLUENT
F	- FOUL
L	- SLUDGE
S	- SURFACE WATER

**TABULAR KEY**

- A. Sewer pipe data refers to downstream sewer pipe.
- B. Where the node bifurcates (splits) X and Y indicates downstream sewer pipe.
- C. Gradient is stated as 1 in...



**SEVERN TRENT WATER**

Severn Trent Water Limited  
 Asset Data Management  
 PO Box 5344  
 Coventry CV3 9FT  
 Telephone: 0845 601 6616

**SEWER RECORD (TABULAR)**

O/S Map scale:





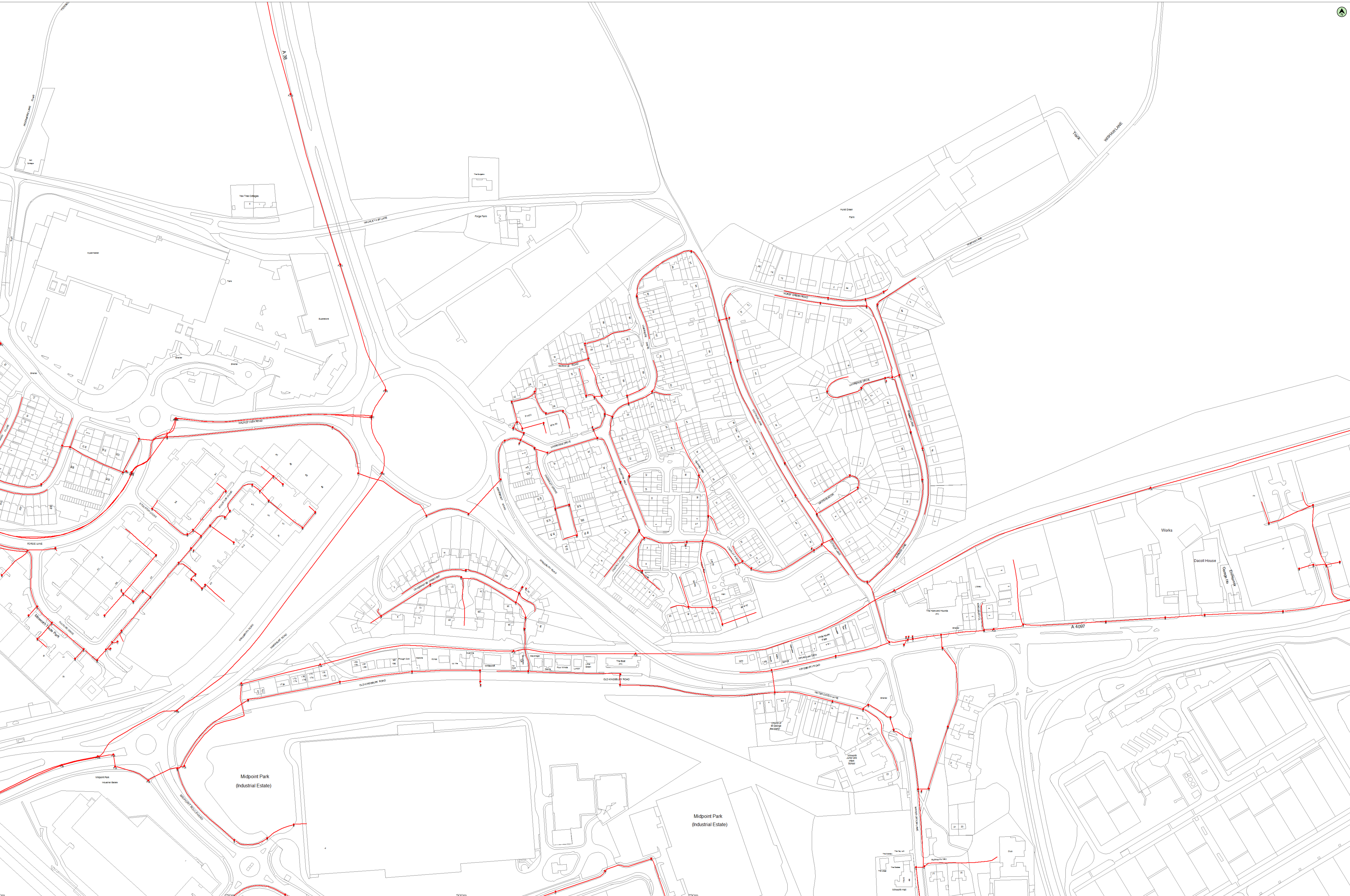
0m 750m 750m  
Map Centre: 413340,293027  
Data updated: 23/02/14  
Our Ref: 96254 - 1  
Telecoms Plan A1

Important information - please read  
The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be modules where mobile telephone power cables have been placed inside green, rather than black, casing. Further details can be found using the 'Internal Positions.pdf' which can be downloaded from the website.  
Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used.  
Accordingly, we disclaim any liability to the neighbours of Virgin Media, its employees or agents. Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan.  
This plan is produced by Virgin Media Limited from Ordnance Survey © Crown Copyright 100019209

Duct, Trench	Chamber	Cabinet

christy.elliott@atkinsglobal.com
20584





© Crown Copyright and database rights 2011 Ordnance Survey 100019209 Date: 16/04/14 Scale: 1:1250 Map Centre: 415587 292581 Data updated: 23/02/14 Our Ref: 96254 - 2 Telecons Plan A0

**Important Information - please read**  
The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be installations where mains voltage power cables have been placed inside green, rather than black, ducting. Further details can be found using the 'Affected Postboxes.pdf' which can be downloaded from this website.  
Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, where it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan.  
This plan is produced by Virgin Media Limited from Ordnance Survey © Crown Copyright 100019209

Duct, Trench	Chamber	Cabinet		
<table border="1"> <tr> <td>christy.elliott@virginmedia.com</td> </tr> <tr> <td>30584</td> </tr> </table>			christy.elliott@virginmedia.com	30584
christy.elliott@virginmedia.com				
30584				



## Rathore, Neha

---

**From:** Jamadar, Arif  
**Sent:** Friday, April 11, 2014 3:59 PM  
**To:** Statutory Enquiries  
**Subject:** RE: Urgent:PLANT ENQUIRY:- 30584/NVS, Minworth Island, near Sutton Coldfield  
**Attachments:** Minworth Island.pdf; Data Key + Special Requirements.pdf

**This response is made only in respect to electronic communications apparatus forming part of the Vodafone: Fixed electronic communications network formerly being part of the electronic communications networks of Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited.**

Please accept this email as confirmation that Vodafone: Fixed **does** have apparatus within the vicinity of your proposed works detailed below.

And according to our records we have leased network within your proposed works boundary. However, because the plant is leased we do not hold 'As Built' records. Therefore, we recommend you contact all other utility providers to gather the extent of services within that area.

Please see attached network information.

Many thanks.

Plant Enquiries Team  
T: 01454 662881  
E: [osm.enquiries@atkinsglobal.com](mailto:osm.enquiries@atkinsglobal.com)



**ATKINS** working on behalf of Vodafone



### **IMPORTANT - PLEASE READ:**

Diversionary works may be necessary if the existing line of the highway/railway or its levels are altered, where apparatus is affected. Where apparatus is affected and requires diversion, you must submit draft details of the proposed scheme with a request for a 'C3 Budget Estimate' to [osm.enquiries@atkinsglobal.com](mailto:osm.enquiries@atkinsglobal.com). Once your C3 request has been received, it will be submitted to Vodafone. These estimates should be provided by Vodafone normally within 20 working days from receipt of your request. Please include proof of this C2 response when requesting a C3 (using the 'forward' option).

### **PLEASE NOTE:**

**The information given is indicative only. No warranty is made as to its accuracy. This information must not be solely relied upon in the event of excavation or other works carried out in the vicinity of Vodafone plant. No liability of any kind whatsoever is accepted by Vodafone, its servants, or agents, for any error or omission in respect of information contained on this information. The actual position of underground services must be verified and established on site before any mechanical plant is used. Authorities and contractors will be held liable for the full cost of repairs to Vodafone's apparatus and all claims made against them by Third parties as a result of any interference or damage.**

---

**From:** Shankar, Naveen **On Behalf Of** Statutory Enquiries  
**Sent:** Friday, April 11, 2014 12:06 PM  
**To:** National Plant Enquiry's; 'Easynet'; 'Environment agn'; 'Interoute'; 'McNic'; 'Global Crossing New'; 'Networkrail'; 'Telenttelia.Plantenquiries@telent.com'; 'verizonbusiness'; 'plantenquiries@energetics-uk.com';

'plantenquiries@cityfibreholdings.com'; 'plantenquiries@catelecomuk.com'; [streetlighting@birmingham.gov.uk](mailto:streetlighting@birmingham.gov.uk); [contact@birmingham.gov.uk](mailto:contact@birmingham.gov.uk); [BHMEquiries@amey.co.uk](mailto:BHMEquiries@amey.co.uk); [martyn.parker@birmingham.gov.uk](mailto:martyn.parker@birmingham.gov.uk); [NRSWA@cofely-gdfsuez.com](mailto:NRSWA@cofely-gdfsuez.com); [plantenquiries@trafficmaster.co.uk](mailto:plantenquiries@trafficmaster.co.uk)

**Subject:** Urgent:PLANT ENQUIRY:- 30584/NVS, Minworth Island, near Sutton Coldfield

**Importance:** High

**Urgent- It would be greatly appreciated if you could reply ASAP, where possible by 15.04.14 . Thanks in advance.**

To whom it may concern,

**Please reply to this Email id: - [AtkinsStatutory.Enquiries@atkinsglobal.com](mailto:AtkinsStatutory.Enquiries@atkinsglobal.com);**

McNicholas - Please reply for KPN & TATA.

**[30584/NVS, Minworth Island, near Sutton Coldfield , 415393,292589 , B76 9RQ](#)**

**[Works Description- design](#)**

**[Reply required by date - 15.04.14](#)**

Please find attached a plant enquiry with corresponding map for your attention. Please could you send us plans showing the location of your company's affected plant to the below address quoting our reference number and the name of the scheme shown above.

Please cover the **entire area** shown in the boundary on the attached map not just the arrow, this is just an indicator of the middle of the site

If you do not have any apparatus in this area, please could you send written confirmation to declare that no apparatus is affected.

Many thanks,

**[Please don't hesitate to contact me with any questions.](#)**

Thanks and Regards,

**Naveen Shankar M.R**

**Coordinator, Communications-Network Services**

**ATKINS**

Find out more about what we do and how we do it – [www.atkinsglobal.com](http://www.atkinsglobal.com)

The hub, 500 Park Avenue, Aztec West, Almondsbury, Bristol, BS32 4RZ | Tel: 01454 663130 & 01454 663222 |

Email: [Naveen.Shankar@atkinsglobal.com](mailto:Naveen.Shankar@atkinsglobal.com) | Web: [www.atkinsglobal.com](http://www.atkinsglobal.com)


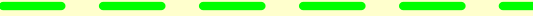


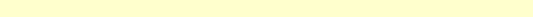
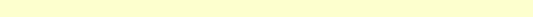
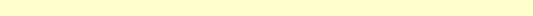
 please consider the environment - do you really need to print this email?









**Vodafone Network Colour:**

-  Ex-Cable&Wireless UK Network (now Vodafone)
-  Planned & Approved Route
-  Planned Route – Awaiting Approval
-  Other Licensed Operator (OLO)
-  Ex-Thus Network (now Vodafone)
-  Ex-Energis Network (now Vodafone)
-  OLO

**Other:**

-  Overhead Electricity Line (non Vodafone)
-  Network Rail

**Other Licensed Operator (OLO).**

= Ex-Cable&Wireless UK, Energis and Thus fibre-optic cable within an OLO duct. Please contact all other operators for further details of their apparatus within that area.

# Fibre Services

## Special Requirements relating to the External Plant Network of Vodafone

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## 1. Introduction

This document sets out the procedure that will apply when Other Parties intend or are undertaking works in the vicinity of Vodafone apparatus.

## 2. Purpose of document

This document provides a means by which the Vodafone specific special requirements relating to their apparatus, regardless of it being situated in the public highway / road, private street, land or any other areas, is made aware to Other Parties.



### 3. Scope

This document will be presented to Other Parties or Contractors to encourage those undertaking works within the vicinity of Vodafone apparatus to refer to and comply with. This is in order to protect where necessary the Vodafone apparatus and to avoid damage to the apparatus and loss of service.

A National Joint Utilities Group (NJUG) document NJUG 9 titled "Recommendations for the Exchange of Records of Apparatus between Utilities" provides useful reference material.

It should be noted that, where appropriate, additional information on avoiding danger from underground apparatus is contained within the HSG47 guidance book titled "Avoiding Danger from Underground Services."

### 4. Vodafone Network and Apparatus

Damage to Vodafone apparatus is extremely disruptive and can be expensive to repair, especially where long lengths of cable have to be replaced.

In order to maintain the network integrity and minimise disruption to service, it is essential that disturbances are absolutely minimal. When working within the vicinity of Vodafone apparatus, extreme care is necessary in order to avoid costly repairs. The Other Parties / Contractor shall make every effort to ensure that disturbance of Vodafone apparatus is no more than is absolutely necessary for the completion of the works in accordance with their contract.

### 5. Plant records

It is the responsibility of the Other Parties undertaking works which may affect Vodafone apparatus to obtain all relevant Vodafone plant records from our agent Atkins Global prior to works commencing. This may be done by contacting the Atkins Global Plant Enquiries Team listed in Appendix B.

Plant records for such enquiries will generally be provided within 10 working days of receipt and in compliance with the New Roads and Street Works Act 1991 [NRSWA] requirements. If Vodafone plant is affected, the response will contain reference to this document. Other Parties and Contractors are advised to refer to the National Joint Utilities Group [NJUG] 9 Document which outlines recommendations for the exchange of records of apparatus between utilities.

### 6. Definitions

The following definitions are applicable in this document:

- a) **Apparatus** means all electronic communications apparatus above surface, at the surface or sub-surface apparatus, Cable, Jointing Chamber and plant formerly being apparatus owned or used by the Code Operators Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited including any associated cables or ducts owned, leased or rented by the said Code Operators now owned and used by the Code Operator Vodafone Limited ("Vodafone").
- b) **Cable** means any polythene or other sheath containing optical fibres or metallic conductors.
- c) **Depth of cover** means the depth from the surface to the topmost barrel of the duct nest, in the case of ducts encased in concrete, to the top of the concrete, and in the case of directly buried cable, the top of the cable.
- d) **Jointing chamber** means any manhole, surface box or other chamber giving access to Vodafone apparatus or their network.
- e) **Utility** means an organisation licensed to provide gas, water, electricity, Cable TV or telecommunications services.
- f) **Developer** means an organisation licensed to develop industrial/residential premises or given license to connect to utility apparatus.



- g) **Contractor** means the individual, firm or company contracted to undertake the work for a Utility or Other Parties.
- h) **Other Parties** means the Utilities, Highway Authorities, Developers, Street Authority (Roads Authority - Scotland).
- i) **Site** means the location of, or in the vicinity of, the various works.

## 7. Requirements

Prior to commencing any work or moving heavy plant or equipment over any portion of the site, the Other Parties or Contractor shall notify Vodafone of their intentions. This may be done by contacting Atkins Global, contact listed in Appendix B.

Upon receipt of this notification, Atkins Global will identify if Vodafone apparatus is affected. If any Vodafone apparatus is affected by the works then Atkins Global will provide necessary records and confirm details of Vodafone apparatus and network operated within the affected area or adjacent to the proposed work site.

### 7.1 Location of Plant

It is the responsibility of the Other Parties or Contractors to undertake adequate plant location procedures. These may include searches for metallic cables which must be performed by actively inducing a signal in a cable conductor via a transmitter. A passive search is not considered sufficient.

Before applying a tracing signal to the Vodafone apparatus, the Other Parties or Contractors shall seek confirmation from Atkins Global that the Vodafone apparatus will not suffer any disruption to its networks normal workings as a result of the nature of the signal being induced.

### 7.2 Trial excavations

Optic fibre cables are very susceptible to damage from excavation tools. They are not electrically conductive and cannot be located by radio induction methods. Once an approximate location is known, the exact location must be ascertained by means of hand dug pilot holes. Where the work to be carried out by the Other Party or Contractor involves excavation in the vicinity of our apparatus, the Other Party or Contractor shall, by trial excavation at his own expense, determine the exact location and depth of the Cable & Wireless Worldwide apparatus. All excavations adjacent to the Vodafone apparatus are to be carried out by hand until the extent and /or location of the apparatus is known.

**All excavation work shall be executed in accordance with the current issue of Health and Safety series booklet HSG47, Avoiding danger from underground services.**

## 8. Depths of cover

The Other Party or Contractor should note that the minimum depths of cover for Vodafone apparatus shall be maintained together with specified separation requirements. Where the minimum depths of cover specified by Vodafone cannot be maintained, the Other Party or Contractor shall at their own expense, carry out the instructions of Vodafone requirements for the protection or diversion of their apparatus.

**The Other Party or Contractor should have particular regard to the possibility of encountering Vodafone apparatus (including ducts and cables), at depths of cover other than that reported.**

Surface cables (such as cables on bridges or walls) which are liable to be placed in danger from the Other Parties or Contractors works shall be protected, at the Other Parties expense, as directed by the Vodafone representative.

## 9. Separation

Reference should be made to HSG47 to ensure that adequate separation is achieved. The following details outline the specific requirements of Vodafone and capture the HSG47 requirements.



### 9.1 High voltage cables

High voltage single core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 500 mm.

High voltage multi-core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 350 mm.

In exceptional circumstances where the above clearances cannot be maintained, the separating distance may be reduced to a minimum of 175 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the High Voltage cable and the Company Apparatus, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

### 9.2 Low voltage cables

Low voltage cables of less than 1000 V shall have a minimum clearance from Company Apparatus of 180 mm. In exceptional circumstances where the above clearance cannot be maintained, the separating distance may be reduced to a minimum of 75 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the services, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

### 9.3 Ancillary electrical apparatus

Lamp posts, traffic posts and other such ancillary electrical apparatus shall have a minimum clearance of 150 mm from underground Company Apparatus and 600mm clearance from above ground Company Apparatus.

### 9.4 High pressure gas mains and other Undertakers plant/equipment

High pressure gas mains shall have a minimum clearance of 450 mm from Company Apparatus. All other undertakers' plant and equipment, when running in parallel with Company Apparatus, shall have a minimum clearance of 200mm. Where gas mains cross Company Apparatus, the minimum clearance shall be 200mm. All other undertakers' plant and equipment, when running across Company Apparatus, shall have a minimum clearance of 100 mm.

### 9.5 Other Undertakers plant

Other undertakers' plant and equipment which runs in parallel with Company Apparatus shall have a minimum clearance of 200mm. All other undertakers' plant and equipment when running across Company Apparatus shall have a minimum clearance of 100mm.

### 9.6 Tramways

Each separating distance shall be individually agreed with the Company Representative.



## 10. Jointing chambers

### 10.1 Protection

Footway type jointing chambers are not designed to withstand carriageway loadings.

Where such chambers are liable to be placed at risk, either temporarily or permanently, from vehicular traffic or from the movement of plant and/or equipment, they will need to be adequately protected. Alternatively, they may have to be demolished and rebuilt to carriageway standards, at the Other Parties or Contractors expense under supervision of Vodafone representative.

All Vodafone jointing chambers and / or other access points shall be kept clear and unobstructed. Access for vehicles, winches, cable drums and / or any further equipment required by Vodafone for the maintenance of its apparatus, must be maintained at all reasonable times.

### 10.2 Access

The covers to Vodafone jointing chambers and / or apparatus shall only be lifted by means of the appropriate keys and under the direct supervision of a Cable & Wireless Worldwide representative. Other Parties or Contractors shall not enter any Vodafone jointing chamber and / or apparatus unless under the supervision of a Vodafone representative and in any case not before the mandatory gas test has been carried out in the presence of Vodafone representative and such checks have shown it to be safe to enter the Vodafone chamber and / or apparatus. The Other Parties or Contractors shall be given reasonable access to Vodafone apparatus and chambers when required.

## 11. Notification periods

Where the Other Parties or Contractors works or the movement of plant or equipment may endanger Vodafone apparatus, the Other Party or Contractor shall give the Vodafone agent Atkins Global [as indicated at Appendix B] at least 7 working days notice in writing of the intended date to commence operations.

No excavation should be made without first consulting the relevant Vodafone apparatus layout drawings, which will be made available from the Vodafone agent Atkins Global on request and allowing 28 working days for processing the relevant drawings. However, should this not be possible, direct contact should be made to the Atkins Global Bristol Plant Enquiries Team as soon as possible to assess the situation.

When excavating, moving or backfilling (including use of Foamed Concrete for Reinstatements – FCR) around Vodafone apparatus, Atkins Global (as agent for Vodafone) shall be given adequate prior written notice of the Other Parties or Contractors intentions, in order that the works may be adequately supervised. Such notice shall not be less than 3 working days.

## 12. Excavation and backfill

All excavations adjacent to Vodafone apparatus are to be carried out by hand until the extent and or location of the Vodafone apparatus is known.

Use of mechanical borers and / or excavators shall not be used without the supervisory presence of a Vodafone representative or a given exemption.

Shuttering of the excavation or support to Vodafone apparatus, at the Other Parties or Contractors expense, shall be used as directed by the Vodafone representative.

At least 7 working days notice must be given to Vodafone in order that any special protective measures which may be required to protect Vodafone apparatus, at the Other Parties or Contractors expense, when equipment such as pile driving, explosives, laser cutting high powered RF equipment or RF test gear, is to be used in conjunction with the works.

Other Parties or Contractors are advised to refer to the National Joint Utilities Group [NJUG] 4 Document which outlines the identification of small buried mains and services.



## 13. Foam concrete

If foam concrete is being used as the backfill material, it shall not be used either above or within 500 mm of any Company Apparatus. A suitable material in accordance with the specification for the Reinstatement of Openings in Highways shall be substituted.

## 14. Attendance of Company Representative

If a situation requires the attendance on site of a Vodafone representative for a continuous period of more than 6 hours, suitable facilities shall be provided by the Other Party or Contractor, at their expense, to meet the office and ablution requirements.

## 15. Damage reports

In the event of any damage whatsoever occurring to Vodafone apparatus, the Other Party or Contractor shall immediately inform Vodafone by contacting Julia Burgoyne, (for contact details please refer to Appendix B).

All relevant costs of any subsequent repair and / or removal of the Vodafone apparatus shall be charged to the Other Party or Contractor, irrespective of who affects the repair.

The above requirements do not relieve the Other Party or Contractor of any of their obligations under their contract.



## Appendix A - office address details

### **Glasgow Office**

Vodafone  
Pavillion 1  
1 - 2 Berkeley Square  
99 Berkeley Street  
Glasgow  
G3 7HR

### **Bristol Office**

Vodafone  
Unit 1,  
Tamar Road  
St Philips  
Bristol  
BS2 0TY

### **Manchester Office**

Vodafone  
Unit M  
Atlas Business Park  
Wythenshawe  
Manchester  
M22 5RR





## Appendix B – Street Works Team Contacts for Vodafone

Function	Name	Job Title	Address	Phone	Mobile	Fax	Email Address
Co-ordination	Sandra Semple	National Street Works Manager	Glasgow Office (see above)	0141 303 2857	07775 792133	0141 300 9611	sandra.semple@cw.com
Customer Complaints	CMC	Customer Management Centre	n/a	08456 021585	n/a	n/a	n/a
Liability Claims	Julia Burgoyne	Major Incident Resolution Coordinator	Bristol Office (see above)	01454 895114	07803 259857	n/a	julia.burgoyne@cw.com
Diversiory Works	Samantha Wilkinson	C3 Diversiory Works Project Controller	Manchester Office (see above)	0161 423 2740	n/a	n/a	samantha.wilkinson@cw.com
Emergencies (24 Hour)	CMC	Customer Management Centre	n/a	08456 021585	n/a	n/a	n/a
Plant Enquiries- Including Thus Plc, (formerly Scottish Telecom), Your Comms (formerly Norweb), Energis & Mercury Communications	Plant Enquiries Team	n/a	Atkins Global PO Box 290 500 Aztec West, Almondsbury, Bristol, BS32 4RZ	01454 662881	n/a	01454 663330	Osm.Enquiries@atkinsglobal.com



## 16. About this Document

### Content Owner

Price, David J

### Changes since last version

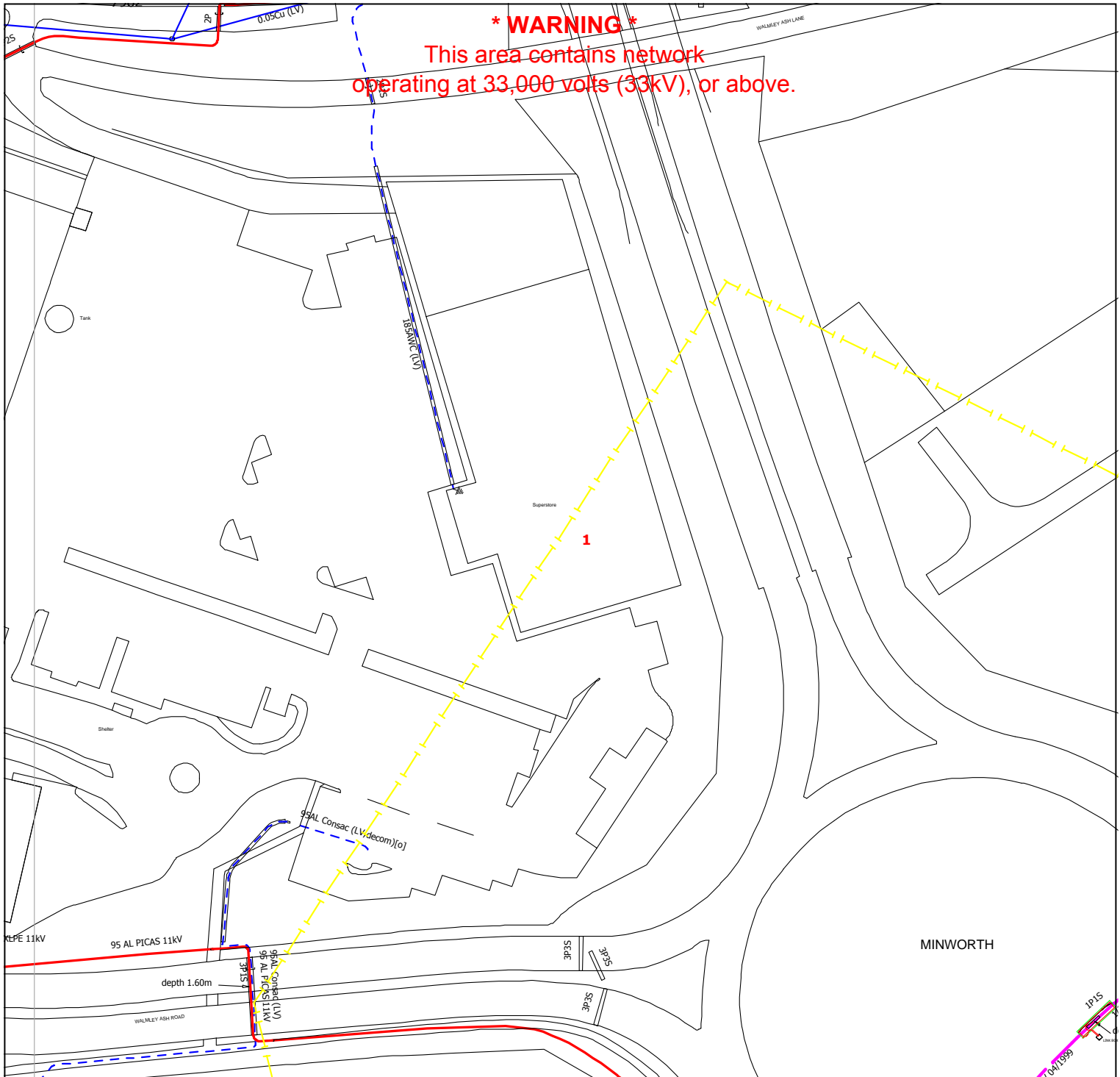
Reformatted using the current Vodafone template.

End of Document





**\* WARNING \***  
 This area contains network  
 operating at 33,000 volts (33kV), or above.



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**Contact Us**  
**Mapping Enquiries:**  
 All areas 0121 623 9780  
**General Enquiries:**  
 Midlands 0845 724 0240  
 South Wales 0845 601 3341  
 South West 0845 601 2989

Date Requested: 14/01/2014  
 Job Reference: 1525462  
 Site Location: 415330 292596  
 Requested by:  
 Mr Alexander Prosser  
 Your Scheme/Reference:  
 Minworth Rbt Options

Approx. Scales:  
 1:1250 Area or Circle dig site  
 1:500 Line dig site

Link Box	Overhead Line	Underground Cable	SURF Telecoms	Pilot Cables
●	○ PL ○ Service ○ LV ○ HV (11kV) ○ HV (33kV) ○ HV (66kV) ○ HV (132kV)	---	—S—S—	—P—P—
●	○	---	⏏	○
Site Location Line/Area	★	---	⏏	□
		---	⏏	

\* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place in proximity to 132kV underground cables and 132kV overhead lines

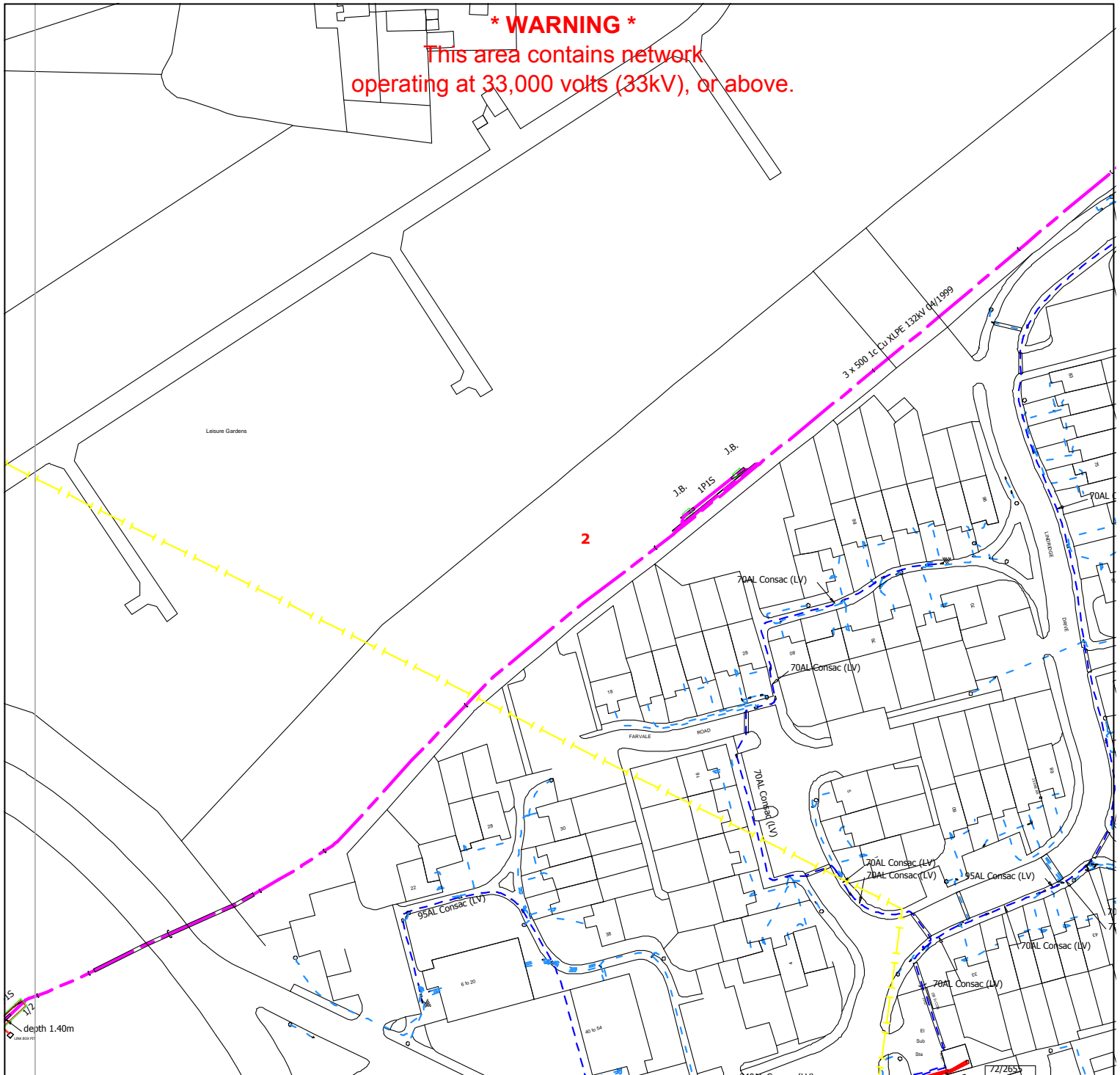
**IMPORTANT NOTICES**

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines. call our General Enquiries number.

**Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA**  
**East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900**

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**\* WARNING \***  
 This area contains network  
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**General Enquiries:**  
 Midlands 0845 724 0240  
 South Wales 0845 601 3341  
 South West 0845 601 2989

Date Requested: 14/01/2014  
 Job Reference: 1525462  
 Site Location: 415330 292596  
 Requested by:  
 Mr Alexander Prosser  
 Your Scheme/Reference:  
 Minworth Rbt Options

Approx. Scales:  
 1:1250 Area or Circle dig site  
 1:500 Line dig site

Link Box	Overhead Line	Underground Cable	SURF Telecoms	Pole Cables
●	○ PL ○ Service ○ LV	---	—S—S—	—P—P—
Site Location	○ HV (11kV) ○ HV (33kV) ○ HV (66kV) ○ HV (132kV)	---	⏏ <b>PME Earth</b>	○ <b>Pole Mounted Transformer</b>
Line/Area	—*—*—*—*—*—*—*	---	—E— <b>Underground Earth</b>	□ <b>Ground Mounted Transformer</b>

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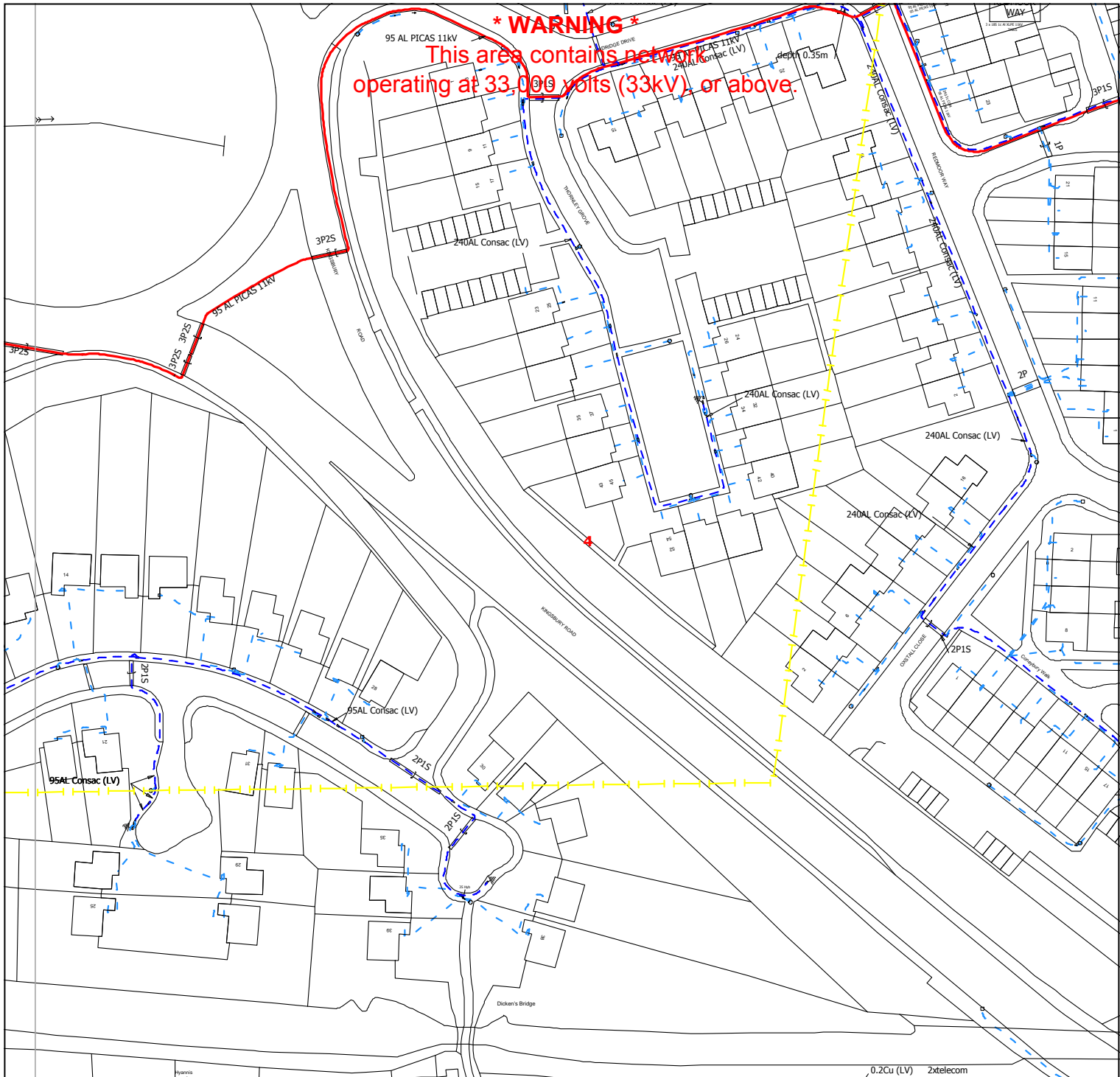
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Minworth Rbt Options

Approx. Scales:

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Link Box	Overhead Line	Underground Cable	SURF Telecoms	Pilot Cables
●	○ PL ○ Service ○ LV ○ HV (11kV) ○ HV (33kV) ○ HV (66kV) ○ HV (132kV)	---	—S—S—	—P—P—
○	★	---	⏏	○
□	★	---	⏏	□

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