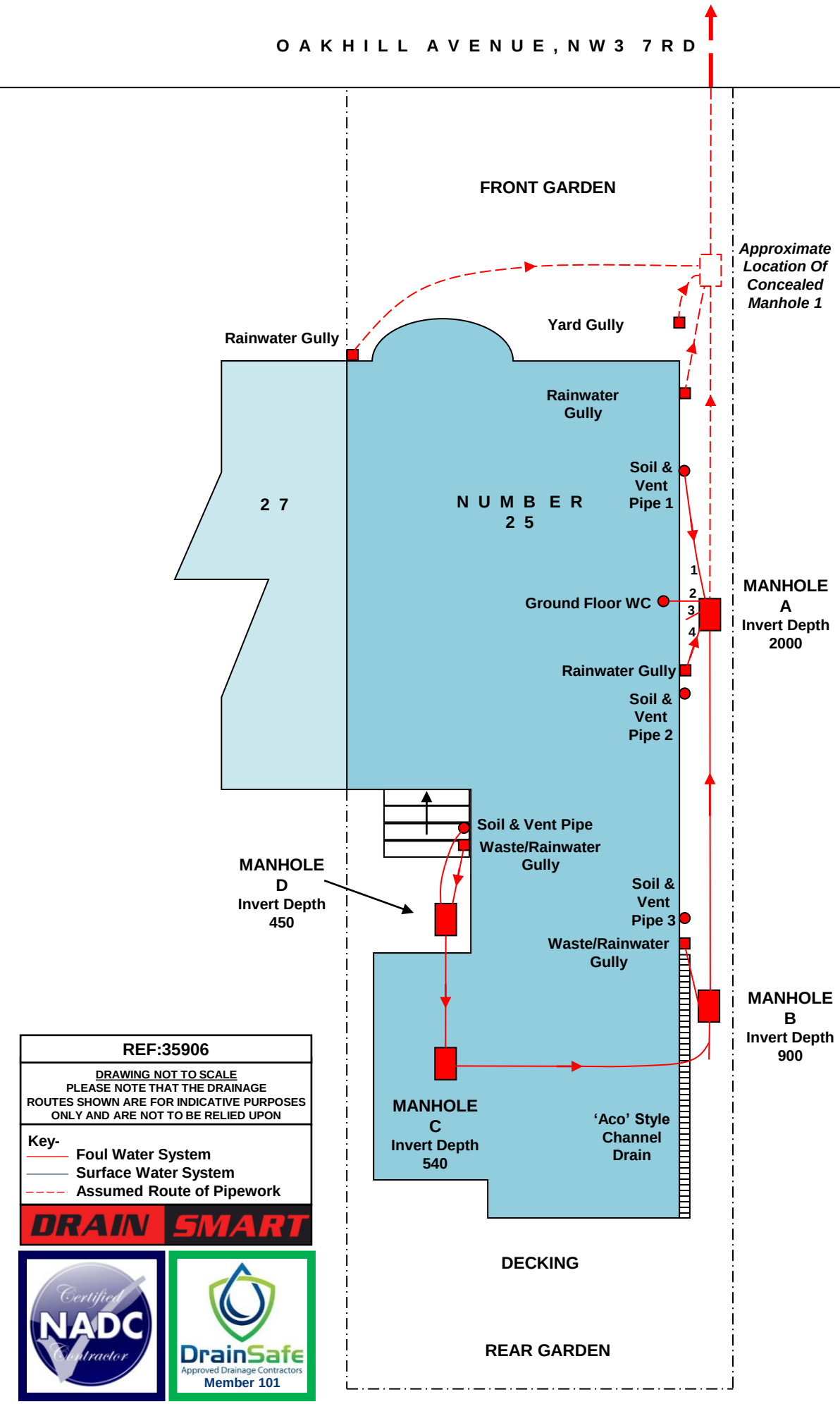

REF:35906

DRAWING NOT TO SCALE
PLEASE NOTE THAT THE DRAINAGE ROUTES SHOWN ARE FOR INDICATIVE PURPOSES ONLY AND ARE NOT TO BE RELIED UPON

Key-
- Foul Water System
- Surface Water System
- Assumed Route of Pipework

DRAIN SMART

Certified NADC Contractor

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DRAIN SMART

THE COMPLETE DRAINAGE SERVICE ● CCTV CAMERA SURVEYS ● STRUCTURAL SOFT FELT LINING REPAIRS WITHOUT EXCAVATIONS ● REFORMING OF PITCH FIBRE PIPES

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TFF Architects
250 Kennington Lane
London
SE11 5RD

07 October 2022

Our reference: 35906

CCTV CAMERA INSPECTION REPORT

Site Location – 25 Oakhill Avenue, London, NW3 7RD

Further to recent instruction, our engineers attended the above site location to carry out a CCTV camera inspection of the drainage and our findings are as follows:

Commence survey from Manhole C upstream. 100mm earthenware pipework. Duty foul water system.

Distance (m)	Observations & Remarks
0.0	Joint
0.1	Joint
0.8	Joint
1.2	Joint
1.9	Joint
2.5	Joint
2.9	Circumferential fracture
3.2	Joint
3.3	Manhole D

Continue survey from Manhole D upstream. 100mm earthenware pipework. Duty foul water system.

0.0	Joint and scale deposits
0.5	Scale deposits
0.6	Joint, scale deposits and slight bend to right
0.9	Joint, scale deposits and slight bend to right
1.3	Joint and bend upwards
1.8	Offset joint and circumferential fracture
2.2	Joint
2.5	Offset joint and outlet of soil and vent pipe

Continue survey from Manhole C downstream. 100mm cast iron pipework. Duty foul water system.

0.0	Joint and debris deposits
0.7	Scale deposits
1.3	Joint and scale deposits
5.3	Offset joint and change of pipework material to 100mm earthenware
5.6	Junction with unknown pipework which prevented passage of the camera due to angle of entry

Continue survey from Manhole D up branch connection. 100mm earthenware pipework. Duty foul water system.

0.0	Joint and slight bend to left
0.1	Offset joint and slight bend to left
0.3	Joint, slight bend to left and cement intrusion
0.6	Offset joint and cement intrusion
0.7	Offset joint
0.8	Outlet of waste gully

Continue survey from Manhole B up branch connection. 100mm cast iron pipework. Duty foul water system.

0.0	Joint
1.0	Joint and change of pipework diameter and material to 110mm PVC
1.2	Branch connection at 3 o'clock to Manhole C
1.3	Joint and reverse gradient
4.2	Joint
6.6	Heavy debris deposits which prevented passage of the camera

Continue survey from Manhole B up branch connection. 100mm earthenware pipework. Duty foul water system.

0.0	Joint
0.2	Joint
0.7	Joint and slight bend to level
1.2	Outlet of waste/rainwater gully

Continue survey from Manhole B downstream. 100mm earthenware pipework. Duty foul water system.

0.2	Joint
0.9	Joint and circumferential fracture
1.1	Joint
1.5	Joint
2.2	Offset joint and water holding in pipework which prevented a full view
2.8	Joint
3.5	Joint
4.1	Joint

4.7	Offset joint
5.4	Joint
6.0	Offset joint
6.6	Offset joint
7.2	Joint and circumferential fracture
7.6	Circumferential fracture
7.9	Offset joint and radial fracture
8.3	Longitudinal fracture and radial fracture
8.6	Joint and longitudinal fracture
9.1	Joint, longitudinal fracture and radial fracture
9.8	Offset joint
10.3	Manhole A

Continue survey from Manhole A up branch connection 4. 100mm earthenware pipework. Duty foul water system.

0.0	Joint
0.6	Joint
1.1	Offset joint
1.4	Joint, radial fracture and 90° bend upwards
2.1	Joint and radial fracture
2.6	Joint
2.8	Joint and 90° bend to level
3.0	Outlet of rainwater gully

Continue survey from Manhole A up branch connection 3. 100mm cast iron pipework. Duty foul water system.

0.0	Joint, rust deposits and 90° bend upwards which prevented passage of the camera

Continue survey from Manhole A up branch connection 2. 100mm cast iron pipework. Duty foul water system.

0.0	Joint
0.7	Joint
1.4	Joint
3.0	Outlet of ground floor WC

Continue survey from Manhole A up branch connection 1. 100mm earthenware pipework. Duty foul water system.

0.0	Joint and longitudinal fracture
0.2	Joint
0.8	Offset joint
1.2	Offset joint
1.9	Joint, bend to left and upwards
2.3	Offset joint and bend upwards
2.7	Offset joint and slight bend upwards
3.1	Offset joint
3.5	Offset joint and outlet of soil and vent pipe

Continue survey from Manhole A downstream. 100mm earthenware pipework. Duty foul water system.

0.0	Joint
0.2	Offset joint
0.8	Joint
1.4	Joint
2.0	Offset joint
2.7	Offset joint
3.3	Offset joint
3.9	Offset joint
4.6	Joint
5.2	Joint and radial fracture
5.9	Joint
6.5	Joint
7.1	Joint
7.8	Offset joint
8.4	Concealed Manhole 1 and interceptor trap (fractured)

END OF SURVEY

Conclusions and Recommendations

It was apparent from the CCTV camera inspection that the accessible private drainage system is not in a satisfactory structural condition having fracturing which will be allowing the loss of water into the surrounding ground area. The interceptor trap in the concealed manhole was also found to be defective and requires replacement. The trap is designed to prevent the passage of rats and smells from the main sewer and it is important that this is functioning properly.

The system is also suffering from scale and rust deposits which is affecting the free flow of waste through the pipework and prevented a clear view of some sections.

A concealed manhole was also discovered which prevented access to the connecting pipework and therefore the condition of these sections are unknown. Ideally this would be exposed as in the event of a emergency blockage, the engineer would have difficulty without full access.

Should the exact position of the concealed chamber be required, we recommend that electronic sonde tracing is carried out as the approximate position shown on the drawing cannot be relied upon.

It was also discovered that some runs have a poor gradient where water is pooling which is causing the accelerated accumulation of debris deposits. These problems are usually impossible or too expensive to remedy and therefore the only option is likely to be regular maintenance.

The engineers also noted two soil pipes in the side passage which do not appear to connect to the accessible system and we recommend these are further investigated.

Please note that all of the pipework inspected on the property appears to be private and therefore the responsibility of the homeowner until it passes the front boundary line, after which it becomes the ownership of Thames Water.

In order to determine where Soil and Vent Pipe 2 and Soil and Vent Pipe 3 discharge to and complete the inspection at the front of the property, we recommend the following works:

1a. To cut into above ground section of Soil and Vent Pipe 2 to gain access to below ground drainage.

1b. Whilst pipework is open to carry out a further CCTV camera inspection and electronic sonde tracing downstream to ascertain the condition and route of the unseen sections and report findings. Please note that further remedial works may be recommended.

1c. Upon completion, to reinstate pipework making all necessary connections

2a. To cut into above ground section of Soil and Vent Pipe 3 to gain access to below ground drainage.

2b. Whilst pipework is open to carry out a further CCTV camera inspection and electronic sonde tracing downstream to ascertain the condition and route of the unseen sections and report findings. Please note that further remedial works may be recommended.

2c. Upon completion, to reinstate pipework making all necessary connections

3a. To carry out electronic sonde tracing to locate the cover on Concealed Manhole 1 and excavate to expose for access.

3b. To raise the manhole walls up to ground level and supply and install new cover and frame. Please note that the maximum height allowed for raising the wall of the concealed manhole is 300mm.

3c. Whilst access is available, to carry out a further CCTV camera inspection to ascertain the condition of the unseen sections and report findings. Please note that further remedial works may be recommended.

4. To backfill all excavations in compacted layers and reinstate all surfaces to match existing where possible.

5. To remove all excess spoil and materials from site and leave clean and tidy.

We would be pleased to carry out the above works for the sum of £985.00 plus VAT and we look forward to receiving your further instructions.

Should you require an estimate for the works to repair the damaged sections, please do not hesitate to contact us.

We do hope that the above meets with your approval but should you have any queries please do not hesitate to contact us.

PLEASE NOTE 1: ALL REPAIR WORKS CARRIED OUT ARE COVERED BY CERTIFIED ENGINEERS AS PART OF THE NATIONAL ASSOCIATION OF DRAINAGE CONTRACTORS (NADC) SCHEME. THIS ENSURES THAT ANY REMEDIAL WORKS MEET THE HIGHEST INDUSTRY STANDARDS AND CARRY OUR 15-YEAR GUARANTEE AGAINST FAULTY WORKMANSHIP AND MATERIALS. PLEASE BEWARE CONTRACTORS WHO ARE NOT NADC CERTIFIED.

PLEASE NOTE 2:
(A) THE MEASUREMENTS IN OUR REPORTS OR ON OUR RECORDINGS ARE TO BE USED AS A GUIDE LINE ONLY. THE LINES SHOWN ON OUR DRAWINGS ARE AN APPROXIMATE

ROUTE AND SHOULD NOT BE RELIED UPON. SHOULD CONFIRMATION OF THE ROUTE BE REQUIRED, ELECTRONIC SONDE TRACING WOULD BE NECESSARY.
(B) WE HAVE ALLOWED FOR A THICKNESS OF CONCRETE TO A MAXIMUM OF 150MM AND IF THE ACTUAL DEPTH IS MORE, WE RESERVE THE RIGHT TO REQUEST ADDITIONAL COSTS.
(C) WE WILL UTILISE CAT SCANNING EQUIPMENT PRIOR TO ANY EXCAVATIONS HOWEVER IT IS NOT POSSIBLE TO DETECT POLYMAIN OR SIMILAR PIPEWORK. SHOULD YOU HAVE ACCESS TO ANY SERVICES DRAWINGS, WE WILL REQUIRE A COPY OF THESE PRIOR TO COMMENCEMENT OF WORKS. SHOULD THESE NOT BE PROVIDED AND WE STRIKE A SERVICE PIPE OR CABLE IN THE COURSE OF OUR WORKS, WE RESERVE THE RIGHT TO CHARGE FOR ITS REPAIR.