

DETECTION SURVEY REPORT

GENERAL
This survey was carried out in accordance with PAS 128:2014 (Publicly Available Specification from BSi). After a pre-survey consultation with the client it was agreed to carry out the detection survey using methodology M1 as per Table 2 of the PAS 128:2014. The survey boundary has been shown on the drawing; please see line/side section of the key for reference.

DESKTOP UTILITY REPORT
Prior to the survey commencing record information was gathered and compiled in a separate desktop utility report. This report should be read in conjunction with the information contained in this utility detection survey. Record information was at the time of the survey less than 90 days old in accordance with the requirements of the PAS 128:2014. For a full list of the providers searched, records received and the dates the information was obtained, please refer to the attachments page of the desktop utility report.

DETECTION SURVEY
DRAINAGE
Drainage was traced with pipe sizes and invert levels recorded. Wherever possible the chamber sizes have been recorded and positioned on the drawing. Assumed connection between MHs and MKs2 through internal drainage, not surveyed. All connections from gullies, external sewerage pipes and external soil stacks have been proven wherever possible into manholes and sewer runs by radio sonde location and/or GPR. Where a saddle connection is present the position is assumed only until proven otherwise. In instances where other detection methods were unsuccessful connections between manholes have been assumed to be straight and labeled as QAS. All drainage should be cross checked in critical areas by CCTV survey or verification survey type A.

WATER
Water was located utilizing EML and GPR methods to quality level QB2. The supply to the site could not be located and has been transcribed to the drawing from the supplied record information through any relevant water furniture to quality level QB4.

GAS
Gas services located using EML methods to quality level QB2. Two gas supplies to the site were located. Where confirmed services meant that we could no longer induce a signal onto the pipe in Burton Road, record information has been transcribed to the drawing to quality level QB4.

ELECTRICITY
Electricity cables located utilizing EML and GPR methods to quality level QB2, where GPR results confirmed EML findings the quality level has been upgraded to QB1. While every effort is made to detect all underground cables it is not always possible, pot ended cables being particularly difficult to locate. Extreme care should be taken when undertaking any excavations. The LV lines supplying the lamp posts in the east car park is an assumed route and labeled QB4 accordingly.

TELECOM
Telecom ducts have been traced with depths recorded. Due to less protecting British Telecom apparatus at ducts have been located using remote detection techniques only and compared with record information. Chamber sizes have been recorded using GPR techniques wherever possible. For further information regarding BT apparatus please contact Openreach directly.

CATV
CATV was located utilizing EML and GPR methods to quality level QB2. Where possible the fibre optic ducting has been located along Burton Road, where it could not be located the record information has been transcribed to the drawing to quality level QB4.

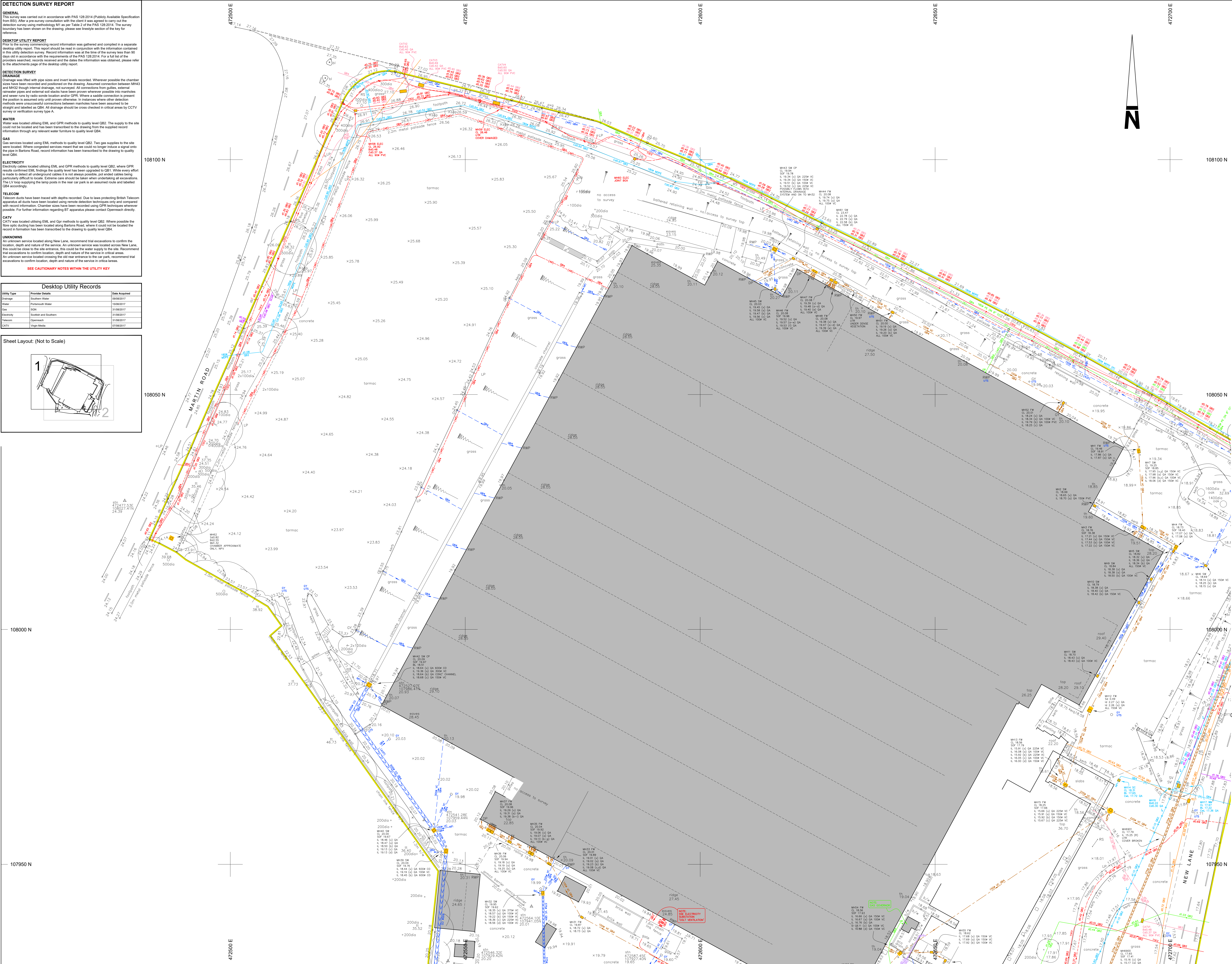
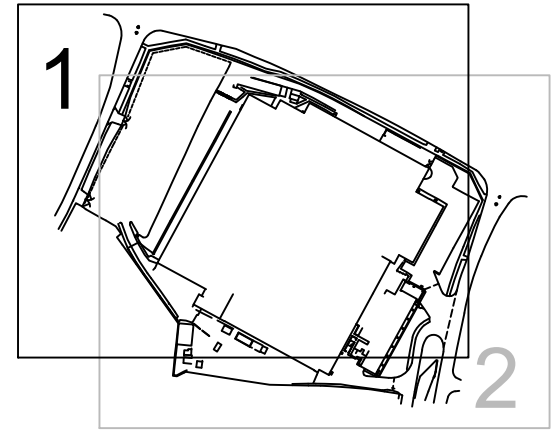
UNKNOWN
An unknown service located along New Lane, recommend trial excavations to confirm the location, depth and nature of the service. An unknown service was located across New Lane, this could be close to the site entrance, this could be the water supply to the site. Recommend trial excavations to confirm location, depth and nature of the service in critical areas. An unknown service located crossing the old road entrance to the car park, recommend trial excavations to confirm location, depth and nature of the service in critical areas.

SEE CAUTIONARY NOTES WITHIN THE UTILITY KEY

Desktop Utility Records

Utility Type	Provider Details	Date Ascribed
Drainage	Southern Water	06/06/2017
Water	Portsmouth Water	15/06/2017
Gas	Southern	31/06/2017
Electricity	Scottish and Southern	31/06/2017
Telecom	Openreach	31/06/2017
CATV	Virgin Media	01/06/2017

Sheet Layout: (Not to Scale)



GENERAL
This survey was carried out in accordance with PAS 128:2014 (Publicly Available Specification for the use of geophysics in the investigation and assessment of the subsurface) and in consultation with the client. It was agreed to carry out the detection survey using methodology M1 as per Table 2 of the PAS 128:2014. The survey information has been shown on the drawing; please see line/drawings section of the key for reference.

DISKTOP UTILITY REPORT
Prior to the survey commencing recorded information was gathered and compiled in a separate file. This information was used to read and interpret the results of the survey. The information in this utility detection survey. Recorded information was at the time of the survey less than 12 months old. The survey was carried out in accordance with the requirements of the PAS 128:2014. For a full list of the providers searched, records received and the dates the information was obtained, please refer to the Appendix A of the survey report.

DETECTION SURVEY
DRIVEWAY
Driveway was filled with pea stone and gravel report recorded. Wherever possible the chamber was located, recorded and positioned on the drawing. Assement connection between MH43 and MH62 through internal drainage, not surveyed. All connections from gullies, external drains, downpipes, manholes, etc. were surveyed. All connections from gullies, external drains and sewer runs to pipe sende location and/or GPR. Where a saddle connection is present the position is recorded. The results of the survey were used to read and interpret the results of the survey. Where the results of the survey were used to read and interpret the results of the survey, the results were unsuccessful/confirmed connections from manholes have been assumed to be correct. The results of the survey were used to read and interpret the results of the survey.

WATER
Water was located utilising EML and GPR methods to quality level Q4. The survey to the site was carried out in accordance with the requirements of the PAS 128:2014. The supplied record information through any relevant water fume to quality level Q4B.

GAS
Gas was located using EML methods to quality level Q2. Two gas supplies to the site were located. Where congested services EML that was too large to insert a signal into the ground. Barlons Road, record information has been transferred to the drawing to quality level Q4B.

ELECTRICITY
Electricity cables located utilising EML and GPR methods to quality level Q2B, where GPR was used to quality level Q4B. Findings the quality level has been upgraded to Q2B1. Where every effort is made to detect all underground cables it is not always possible, not every cable can be detected. It is not always possible to detect every cable to the satisfaction of the client. The results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey.

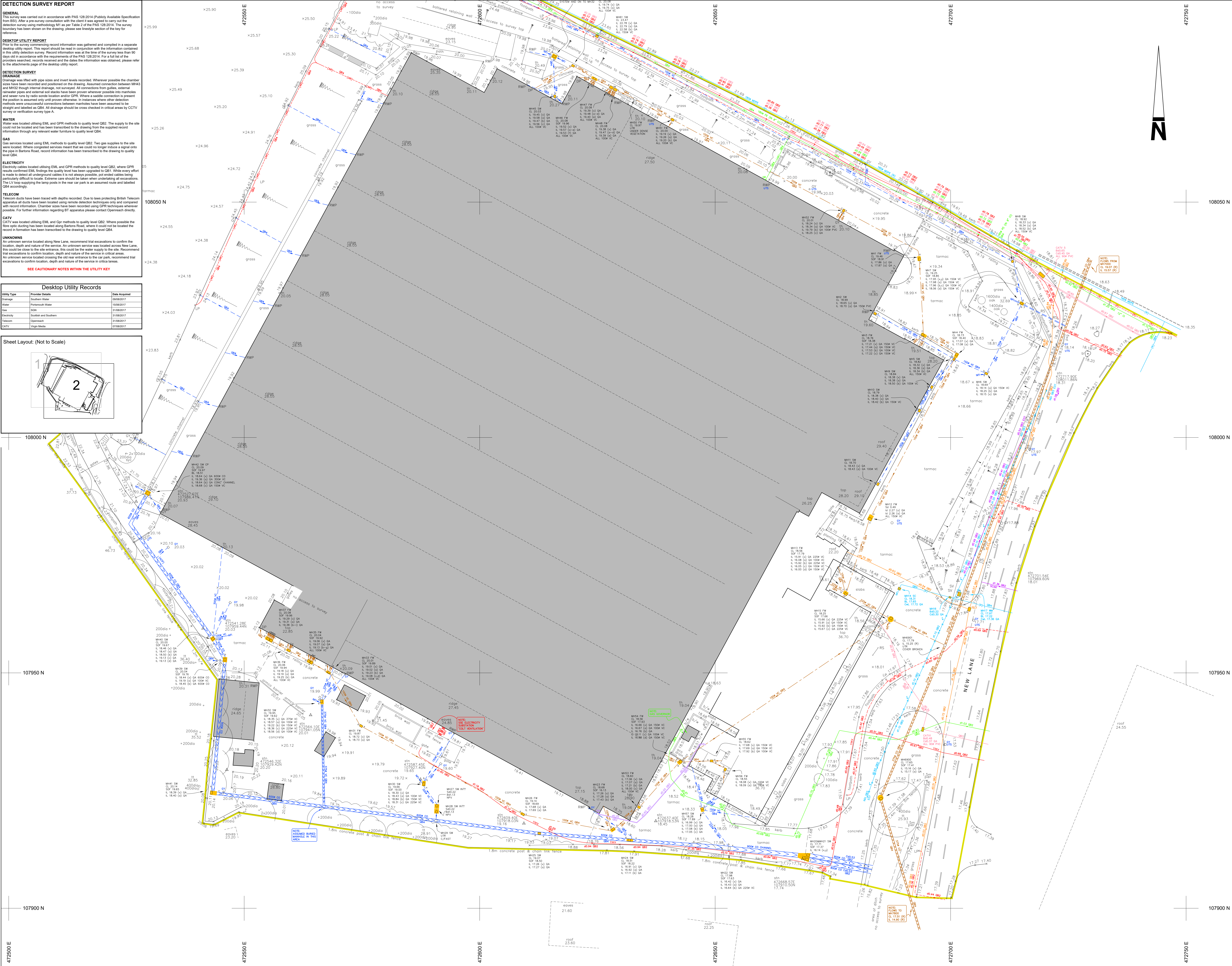
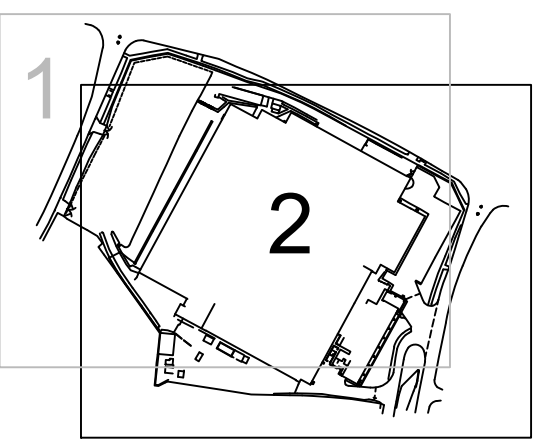
TELECOM
Telecom ducts have been traced with depths recorded. Due to the latest British Telecom equipment all ducts have been traced using remote detection techniques only and compared with the results of the survey. The results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey.

CATV
CATV was located utilising EML and GPR methods to quality level Q2B. Where possible the fibre optic cabling has been located along Barlons Road, where it could not be located the results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey. The results of the survey were used to read and interpret the results of the survey.

UNKNOWN
An unknown service located along New Lane, recommended trial excavations to confirm the location and nature of the service. An unknown service was located across New Lane, recommended trial excavations to confirm the location and nature of the service in critical areas. An unknown service was located across New Lane, recommended trial excavations to confirm the location and nature of the service in critical areas. An unknown service was located across New Lane, recommended trial excavations to confirm the location and nature of the service in critical areas.

Desktop Utility Records		
Utility Type	Provider Details	Date Acquired
Drainage	Southern Water	06/06/2017
Water	Portsmouth Water	15/03/2017
Gas	SGN	31/06/2017
Electricity	Scottish and Southern	31/06/2017
Telecom	Openreach	31/06/2017
CATV	Virgin Media	07/06/2017

Sheet Layout: (Not to Scale)



- Notes :**
1. UTILITY AND SERVICE INFORMATION ADDED TO TOPOGRAPHICAL SURVEY PRODUCED BY P STUBBINGTON LAND SURVEYS LTD. JOB No. 4816/01. DATE DECEMBER 2014. NO SITE VERIFICATION CARRIED OUT BY MK SURVEYS
 2. THIS SURVEY SHOULD ALWAYS BE READ IN CONJUNCTION WITH THE DESKTOP UTILITY REPORT, THAT WAS CARRIED OUT AS A PREREQUISITE TO THE DETECTION SURVEY.

[illegible]

PAS 128:2014 Quality Level Guide											
Quality Level	Description	Accuracy									
Q1A	A utility is expected to use at least can be obtained - (APL, RS), (LV)	Unfused									
Q1B	Horizontal location only, using one geospatial technique	± 500mm horizontal									
Q1C	No depth information - NDI	± 500mm or less - (APL, RS)									
Q2A	Horizontal and vertical location only using one geospatial technique	± 500mm or less - whichever is greater									
Q2B	Horizontal and vertical location only using two geospatial techniques	± 500mm or less - whichever is greater									
Q2C	Horizontal and vertical location only using two geospatial techniques	± 500mm or less - whichever is greater									
Q3A	A service is verified in an open excavation, inside an inspection chamber / man pit, or at the point the service enters the ground	± 50mm horizontal ± 50mm vertical									

Phenomenon Description Sun to Apr to Date

n 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

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Utility Survey			
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Project Number: 24301	Rev: -	Surveyed By: AH	Approved By: DF
			