ENGINEERING

Service Report

for the Proposed Development of Land between

Haverhill Road and Hinton Way, Stapleford, South Cambridgeshire

Contents

Appendices

2453 – Services Report Rev A – March 2020

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Service Report
for the Proposed Development of Land between
Haverhill Road and Hinton Way, Stapleford, South Cambridgeshire

1 Introduction

1.1 MTC Engineering (Cambridge) Limited have been asked to provide a report in relation to service provision in respect of proposed development of land between Haverhill Road and Hinton Way, Stapleford, for a retirement care village in Use Class C2 comprising housing with care, communal health, wellbeing and leisure facilities, public open space, landscaping, car parking, access and associated development and the provision of land for use as a countryside park for public access.

2 Site Description

2.1 The site involves the development of a 24.37Ha site currently in arable use, lying between Haverhill Road and Hinton Way, in Stapleford, South Cambridgeshire. A site location plan is provided in Appendix 1.

2.2 To the northeast of the site lies some sparse/low density residential and agricultural buildings, along with open agricultural land.

2.3 To the southeast the site is bound by Haverhill Road, past which lies open agricultural land.

2.4 To the southwest the site is bound primarily by open agricultural land, along with some residential development off Hinton Way and Gog Magog Way.

2.5 To the northwest the site is bound by Hinton Way and some residential development along Hinton Way, past which lies open agricultural land.

2.6 The site itself is currently entirely in agricultural use with exception of a very small copse of trees. The highest part of the site is midway along the central part of the northeastern boundary about 100 metres southwest of the boundary itself where there is a crest with a maximum level of about 56.64m above Ordnance Datum (AOD).

2.7 From this crest there is a shallow fall in a northwesterly direction to levels of just over 44m AOD along the northern boundary (land then rises again to the northwest), but steeper falls in all other directions to less than 30m AOD in the eastern area, and about 20m AOD in the southern area of the site.

2.8 The section of the site in which the care home and apartments/dwellings will be located is the southern part of the site just northwest of Gog Magog Way. Levels at the northwestern part of this area of the site are about 25m AOD, falling to a low point of just below 20m AOD in the western corner of this area of the site.

2.9 British Geological Survey Mapping indicates that the bedrock geology underlying the site is the zig zag chalk formation, with no superficial geology present across the site.

2.10 Infiltration testing in line with BRE 365 has been carried out at the site at five locations in the southern area of the site in which the built development will take place (as this is the only area in which impermeable area will be created), with three tests carried out at each location. A copy of the location of the tests, along with results and logs is provided in Appendix 2.

2.11 Pits SA1 (at the low point in the southwest corner), SA2 (the northern area) and SA4 (the southwestern area) all drained extremely quickly, with the lowest infiltration rates obtained in the three tests at each location being 0.9374m/hr, 0.5414m/hr, and 0.7538m/hr respectively. Pit SA3 (the northeastern area) had a slightly lower rate of 0.2629 m/hr for the slowest test.

2.12 Pit SA5 (in the central area) had the slowest infiltration rate by some distance, with the final one of the three tests having to be extrapolated (it was also checked the following morning and was dry), with lowest test result obtained at this pit being 0.0089m/hr and thus the lowest rate at the site. This is however still significantly above the minimum rate of 10^{-6}m/s or 0.0036m/hr at which a site is generally considered suitable for infiltration.

2.13 A 3m deep trial pit was also excavated during the ground investigations as a check for groundwater depth, and no groundwater encountered. As such it is not considered that groundwater levels will prevent infiltration being used.

3 Line Search

3.1 An initial enquiry was made to LinesearchbeforeUdig to learn of any assets near the proposed work site, including underground and overhead transmission/distribution electricity networks, transmission/distribution gas networks, oil pipelines, and fibre optic networks (Appendix 3).

3.2 The search revealed that UK Power Networks have Assets surrounding the site and therefore were contacted to discuss further (see following sections).

4 Surface Water Drainage

4.1 Infiltration testing in line with BRE365 has been undertaken at the development as detailed in Appendix 2. The infiltration rates across the site are generally high and significantly above the minimum rate of 0.0036m/hr indicated by CIRIA to be the rate in which infiltration provides an acceptable means of discharge.

4.2 All surface water drainage from the proposed development will therefore be to infiltration systems, with full details of the proposed drainage system including attenuation requirements, sustainable drainage systems, pollution treatment, and future management/maintenance are provided in the separate Flood Risk Assessment and Surface Water Drainage Strategy produced by MTC Engineering (Cambridge) Ltd.

5 Foul Drainage

5.1 A Pre-Planning application enquiry has been made to Anglian Water with a copy of the Pre-Planning Assessment Report provided in Appendix 4. The report indicates a 150mm diameter foul water sewer to run southeast along Gog Magog Way before turning to run south to the rear of residential development to the southeast of the site. A second 225mm diameter Anglian Water foul sewer runs east along Gog Magog Way to the southwest of the site before turning to run south along Bar Lane.

5.2 Anglian Water have advised that the nearest practicable connection point is to the 225mm diameter foul sewer at manhole 4101 located on Gog Magog Way, and have confirmed that sufficient capacity is available within the system to serve the proposed development. It is not known at present whether a gravity discharge can be feasibly made to manhole 4101, and as such a pumped system may be required. Full detailed design of the proposed foul system and requirement of a pump system will however be decided at the detailed design stage once conditional planning approval has been granted.

5.3 Foul discharge from the development lies within the Cambridge Water Recycling Centre catchment. Anglian Water have confirmed that the centre does not currently have sufficient capacity to take flows from the proposed development, however will take necessary steps to ensure there is sufficient treatment capacity once planning permission is granted.

5.4 The Pre-Planning Assessment report confirms that the development lies within 15m of a sewerage pumping station. The site layout is required to take into account this type of infrastructure to ensure future amenity issues are not created by providing necessary cordon sanitaire and public open space or highway infrastructure.

6 Water Supply

6.1 Cambridge Water Mapping (Appendix 5) shows a 10-inch cast iron water main to run along Hinton Way to the northwest of the site. The 10-inch main has two hydrants and a closed valve present in the vicinity of the site.

6.2 A second 18-inch cast iron water main runs along the northeastern boundary of the site. An open valve is located at the northeastern corner of the site, whilst two meters are situated on the main approximately midway along the northern boundary.

6.3 To the southeast of the site a 12-inch asbestos cement water main runs along Haverhill Road.

6.4 The development will require a new supply main/metered pipe to be installed off either of the mains to service the care home, flats and bungalows, and it is recommended a Pre-Planning Application to Cambridge Water is carried out to determine and confirm costs for the development.

7 Electricity Supply

7.1 Existing plant location plans have been obtained from UK Power Networks Plans (Appendix 6) which shows that an existing HV network runs near the site which is believed to be where the development will connect to. To confirm this, UK Power Networks on behalf of Eastern Power Networks PLC, have been contacted to provide a quote to connect the development.

7.2 UK Power Networks have provided a budget cost of £90,000.00 estimated on the bases that development will connect to the High Voltage network along Haverhill Road.

7.3 Full details of the budget estimate are provided in the letter from UK Power Networks, a copy of which is provided in Appendix 7.

8 Gas Supply

8.1 Cadent have advised that the existing low or medium pressure main along Hinton Way has sufficient capacity to supply the development, as also indicated on the map provided in Appendix 8.

8.2 The gas connection to main supply is outside the site boundary therefore work within the site boundary will be undertaken by main contractor and work outside the boundary will be undertaken by Cadent.

8.3 Thus, other than the standard connection charges and laying of infrastructure throughout the site itself it is not anticipated that any abnormal costs associated with off-site network reinforcement are required.

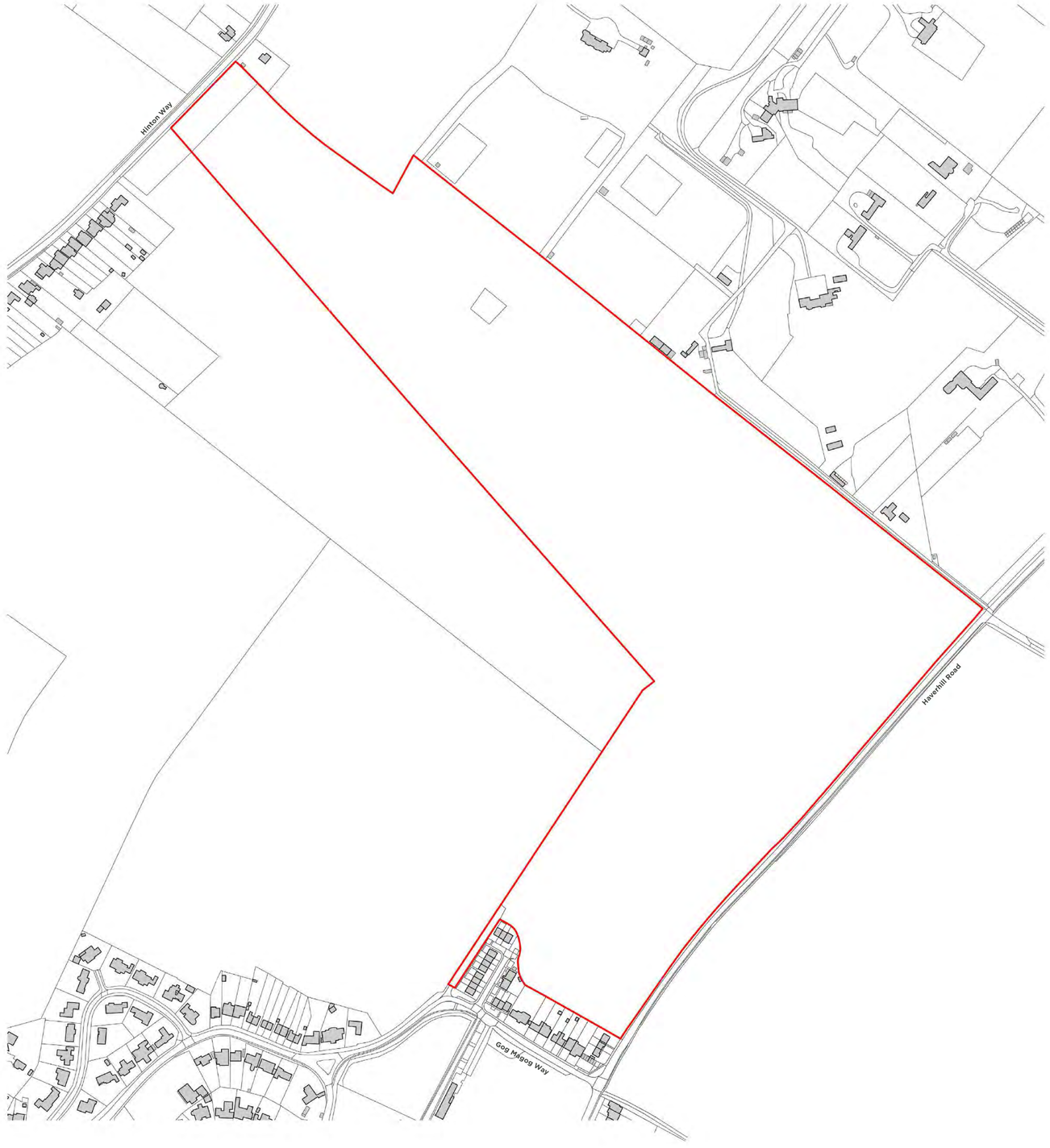
9 Telecommunications

9.1 Existing plant location plans have been obtained from BT Openreach (Appendix 9). This shows an existing plant running through Hinton Way which is believed that the new development will connect to if BT lines are required.

9.2 Given the scale of development it is not anticipated that any off-site network reinforcement will be required, however it is not possible to obtain a detailed or budget cost estimate for the supply or any off-site network strengthening that is required until such time as a detailed site layout is available. This will be subject to a £500.00 plus VAT charge.

APPENDIX 1

SITE LOCATION PLAN



0 100m

LEGEND

Site boundary (24.32 Ha)

Carter Jonas

PROJECT TITLE

LAND BETWEEN HAVERHILL ROAD AND HINTON WAY, STAPLEFORD

DRAWING TITLE

J0027450_011
SITE LOCATION PLAN

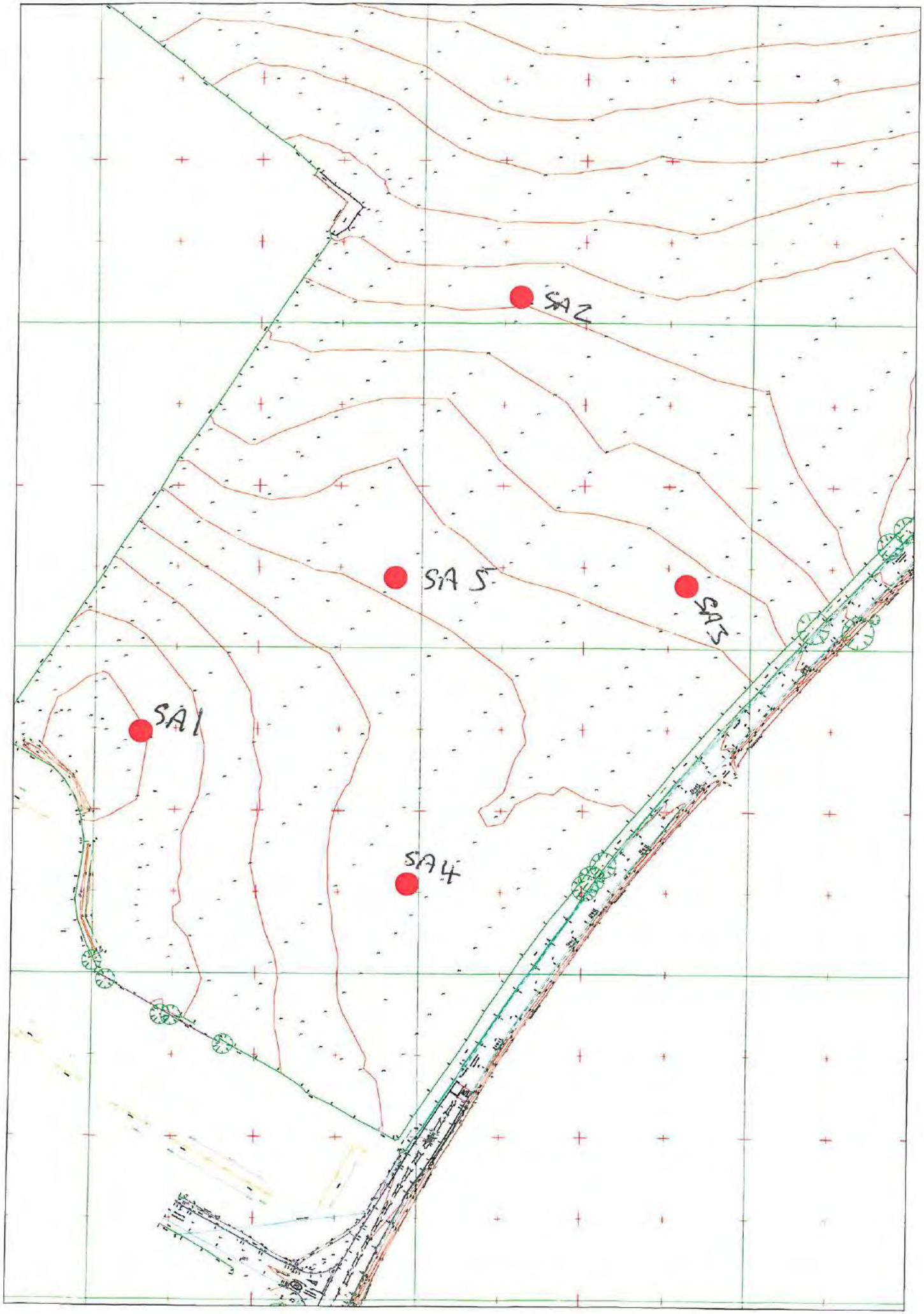
ISSUED BY	London	T: 020 7016 0720	
DATE	12.03.2020	**DRAWN**	NM
SCALE@A1	1:2500	**CHECKED**	JC
STATUS	Draft	**APPROVED**	JC

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

Source: Ordnance Survey

APPENDIX 2

INFILTRATION TEST RESULTS


SA 2
SA 5
SA 3
SA 1
SA 4

JAMES and MILTON DRILLING Ltd.

Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Norfolk. NR21 7AW

BH No. SA1

Sheet No. 1 of 1

Job No		Site	Chalk Hill Stapleford	Date	13-1-20
Bore depth, start		Casing Depth, start of day		Water level, start of day	

Strata Details

Depth from	Depth to	Description
GL	0.80	Brown slightly gravelly sandy CLAY fine to coarse flint angular to rounded medium sand.
0.80	2.26	White granular CHALK fine to coarse chalk gravels.

Sample Details

SPT Details

Samp. No.	Type	Start Depth	End Depth	Casing Depth	Water level	0-75mm	75-150mm	0-75mm	75-150mm	150-225mm	225-300mm

Water Observations

				Casing	From	To
Water entry	DRY			150mm		
Rate				200mm		
Level after 20mins				250mm		
Casing Depth						
Depth sealed						

Chiselling

From			
To			
Time taken			
Material			

Notes

Hole depth, end	2.26	Casing Depth, end of day		Water level, end of day	

Crew Employed

Driller	Nick	Second Man		Others	

JAMES and MILTON DRILLING Ltd.

Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Norfolk. NR21 7AW

BH No. SA 2

Sheet No. 1 of 1

Job No		Site	Chalk Hill Stapleford.	Date	13-1-20
Bore depth, start		Casing Depth, start of day		Water level, start of day	

Strata Details

Depth from	Depth to	Description
GL	1.10	Brown slightly gravelly sandy CLAY fine to coarse flint angular to rounded medium sand.
1.10	2.20	White granular CHALK fine to coarse chalk gravel

Sample Details

SPT Details

Samp. No	Type	Start Depth	End Depth	Casing Depth	Water level	SPT 0-75mm	SPT 75-150mm	SPT 0-75mm	SPT 75-150mm	SPT 150-225mm	SPT 225-300mm

Water Observations

				Casing	From	To
Water entry	DRY			150mm		
Rate				200mm		
Level after 20mins				250mm		
Casing Depth						
Depth sealed						

Chiselling

From			
To			
Time taken			
Material			

Notes

Hole depth, end	2.20	Casing Depth, end of day		Water level, end of day	

Crew Employed

Driller	Nod	Second Man		Others	

JAMES and MILTON DRILLING Ltd.

Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Norfolk. NR21 7AW

BH No.	SA 3	Sheet No.	1 of 1

Job No		Site	Chalk A11 Stapleford.	Date	13-1-20
Bore depth, start		Casing Depth, start of day		Water level, start of day	

Strata Details

Depth from	Depth to	Description
GL	0.80	Brown slightly gravelly sandy CLAY fine to coarse flint angular to Rounded medium sand.
0.80	2.40	White granular CHALK fine to coarse flint gravelly

Sample Details

SPT Details

Samp. No.	Type	Start Depth	End Depth	Casing Depth	Water level	0-75mm	75-150mm	0-75mm	75-150mm	150-225mm	225-300mm

Water Observations

Water entry	Dry		
Rate			
Level after 20mins			
Casing Depth			
Depth sealed			

Casing	From	To
150mm		
200mm		
250mm		

Chiselling

From				
To				
Time taken				
Material				

Notes

Hole depth, end	2.40	Casing Depth, end of day		Water level, end of day	

Crew Employed

Driller	Nod	Second Man		Others	

JAMES and MILTON DRILLING Ltd.

Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Norfolk NR21 7AW

BH No. SA 4

Sheet No. 1 of 1

Job No		Site	Chalk Hill Stapleford	Date	13-1-20
Bore depth, start		Casing Depth, start of day		Water level, start of day	

Strata Details

Depth from	Depth to	Description
GL	0.40	Brown slightly gravelly, sandy CLAY fine to coarse flint angular to rounded medium sand.
0.40	2.40	White granular CHALK fine to coarse chalk gravels

Sample Details

SPT Details

Samp. No.	Type	Start Depth	End Depth	Casing Depth	Water level	0-75mm	75-150mm	0-75mm	75-150mm	150-225mm	225-300mm

Water Observations

Water entry	DRY		
Rate			
Level after 20mins			
Casing Depth			
Depth sealed			

Casing	From	To
150mm		
200mm		
250mm		

Chiselling

From			
To			
Time taken			
Material			

Notes

Hole depth, end	2.40	Casing Depth, end of day		Water level, end of day	

Crew Employed

Driller	Mad	Second Man		Others	

JAMES and MILTON DRILLING Ltd.

Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Norfolk. NR21 7AW

BH No: SA 5

Sheet No: 1 of 1

Job No		Site	Chalk Hill Stapleford	Date	13-1-20
Bore depth, start		Casing Depth, start of day		Water level, start of day	

Strata Details

Depth from	Depth to	Description
GL	1.10	Brown slightly gravelly sandy CLAY fine to coarse flint angular to rounded medium sand.
1.10	2.30	White granular CHALK fine to coarse chalk gravels medium to coarse chalk sands.

Sample Details

SPT Details

Samp. No.	Type	Start Depth	End Depth	Casing Depth	Water level	0-75mm	75-150mm	0-75mm	75-150mm	150-225mm	225-300mm

Water Observations

Water entry	DRY		
Rate			
Level after 20mins			
Casing Depth			
Depth sealed			

Casing	From	To
150mm		
200mm		
250mm		

Chiselling

From			
To			
Time taken			
Material			

Notes

Hole depth, end	2.30	Casing Depth, end of day		Water level, end of day	

Crew Employed

Driller	Nod	Second Man		Others	

Trial Pit Permeability Testing

James & Milton
DRILLING Ltd.
Site Investigation Specialists

Address : Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Fakenham, Norfolk, NR21 7AW
Telephone: (01328) 829767 Mobile: 07958 785545

Client	MTC	**Date**	13-1-20
Contract	Chalk Hill Stapleford	**Job Number**	

Trial Pit No.	SA1	Water Level Prior to Test	DRY		
Trial Pit Depth	2.26m	Trial Pit Topped up to	1.26		
Trial Pit Length.	2.20m	Approx. Quantity of Water Added	300m		
Trial Pit Width	0.50m	Gravel Pack Installed From	1.26	To	2.26

Time (min/sec)	Water Level	Time (min/sec)	Water Level	Time (min/sec)	Water Level
0	1.26	0	1.26	0	1.26
1	1.61	1	1.63	1	1.62
2	1.97	2	1.79	2	1.76
3	2.06	3	1.97	3	1.94
4	2.15	4	2.01	4	1.99
5	2.18	5	2.08	5	2.06
6	2.20	6	2.17	6	2.13
7	2.22	7	2.24	7	2.20
8	2.24	8	2.2[illegible]	8	2.22
9	2.25	9	225[illegible]	9	2.24
10	DRY	10	2.25	10	2.25
		11	DRY	11	DRY

Trial Pit Permeability Testing

James & Milton
DRILLING Ltd.
Site Investigation Specialists

Address : Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Fakenham, Norfolk, NR21 7AW
Telephone: (01328) 829767 Mobile: 07958 785545

Client	MTC	Date	14-1-19
Contract	Chalk Hill Stapleford	Job Number	

Trial Pit No.	SA2	Water Level Prior to Test	DRY		
Trial Pit Depth	2.20m	Trial Pit Topped up to	1.20		
Trial Pit Length.	2.20m	Approx. Quantity of Water Added	800lts		
Trial Pit Width	0.50m	Gravel Pack Installed From	120	To	220

TEST 1		TEST 2		TEST 3	
Time (min/~~sec~~)	Water Level	Time (min/~~sec~~)	Water Level	Time (min/~~sec~~)	Water Level
0	1.20	0	1.20	0	1.20
1	1.44	1	1.41	1	1.39
2	1.63	2	1.60	2	1.57
3	1.81	3	1.78	3	1.65
4	1.89	4	1.86	4	1.74
5	DRY	5	1.94	5	1.82
6		6	DRY	6	1.87
7		7		7	1.92
8		8		8	1.96
9		9		9	1.99
10		10		10	DRY

Trial Pit Permeability Testing

James & Milton DRILLING Ltd.
Site Investigation Specialists

Address : Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Fakenham, Norfolk, NR21 7AW
Telephone: (01328) 829767 Mobile: 07958 785545

Client	MTC	Date	15-1-20
Contract	Chalk Hill Stapleford.	Job Number	

Trial Pit No.	SA3	Water Level Prior to Test	DRY		
Trial Pit Depth	2.20m	Trial Pit Topped up to	1.40m		
Trial Pit Length.	2.40m	Approx. Quantity of Water Added	300Ltrs		
Trial Pit Width	0.50m	Gravel Pack Installed From	1.40	To	2.40

TEST 1		TEST 2		TEST 3	
Time (min/~~see~~)	Water Level	Time (min/~~see~~)	Water Level	Time (min/~~sec~~)	Water Level
0	1.40	0	1.40	0	1.40
1	1.63	1	1.63	1	1.62
2	1.70	2	1.69	2	1.68
3	1.74	3	1.73	3	1.71
4	1.78	4	1.77	4	1.75
5	1.81	5	1.80	5	1.78
6	1.84	6	1.83	6	1.81
7	1.87	7	1.85	7	1.84
8	1.89	8	1.87	8	1.86
9	1.91	9	1.89	9	1.88
10	1.93	10	1.91	10	1.90
15	2.00	15	1.98	15	1.96
20	2.06	20	2.03	20	2.01
25	2.11	25	2.07	25	2.06
30	2.15	30	2.10	30	2.10
45	2.26	45	2.19	45	2.17
60	2.34	60	2.26	60	2.22
90	DRY	90	2.33	90	2.30
120		120	DRY	120	2.37
				150	DRY

Trial Pit Permeability Testing

James & Milton DRILLING Ltd.
Site Investigation Specialists

Address : Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Fakenham, Norfolk, NR21 7AW
Telephone: (01328) 829767 Mobile: 07958 785545

Client	MTC	Date	15-1-19
Contract	Chalk Hill Stapleford	Job Number	

Trial Pit No.	SA4	Water Level Prior to Test	DRY		
Trial Pit Depth	2.20m	Trial Pit Topped up to	1.20		
Trial Pit Length.	2.30m	Approx. Quantity of Water Added	800lts		
Trial Pit Width	0.50m	Gravel Pack Installed From	1.20	To	2.20

TEST 1		TEST 2		TEST 3	
Time (min/~~sec~~)	Water Level	Time (min/~~sec~~)	Water Level	Time (min/sec)	Water Level
0	1.20	0	1.20	0	1.20
1	1.45	1	1.42	1	1.41
2	1.70	2	1.68	2	1.57
3	1.95	3	1.85	3	1.71
4	2.10	4	1.99	4	1.80
5	2.15	5	2.10	5	1.89
6	DRY	6	2.14	6	1.96
7		7	2.18	7	2.04
8		8	DRY	8	2.10
9		9		9	2.15
10		10		10	2.18
				15	DRY

Trial Pit Permeability Testing

James & Milton
DRILLING Ltd.
Site Investigation Specialists

Address : Ryburgh House Farm, 63 Fakenham Road, Great Ryburgh, Fakenham, Norfolk, NR21 7AW
Telephone: (01328) 829767 Mobile: 07958 785545

Client	MTC	Date	15-1-20
Contract	Chalk Hill Stapleford	Job Number	16-1-20

Trial Pit No.	SA5	Water Level Prior to Test	DRY		
Trial Pit Depth	2.10m	Trial Pit Topped up to	1.00		
Trial Pit Length.	2.50m	Approx. Quantity of Water Added	3.00lts		
Trial Pit Width	0.50m	Gravel Pack Installed From	1.00	To	2.00

TEST 1 | TEST 2 | TEST 3

Time (min/~~sec~~)	Water Level	Time (min/~~sec~~)	Water Level	Time (min/sec)	Water Level
0	1.00	0	1.00	0	1.00
1	1.16	1	1.15	1	1.16
2	1.18	2	1.17	2	1.17
3	1.20	3	1.18	3	1.18
4	1.22	4	1.19	4	1.19
5	1.23	5	1.20	5	1.21
6	1.24	6	1.21	6	1.21
7	1.24	7	1.21	7	1.22
8	1.24	8	1.21	8	1.23
9	1.25	9	1.21	9	1.23
10	1.26	10	1.22	10	1.24
15	1.28	15	1.24	15	1.26
20	1.30	20	1.26	20	1.28
25	1.31	25	1.28	25	1.30
30	1.32	30	1.30	30	1.32
45	1.36	45	1.34		
60	1.40	60	1.37		
120	1.53	120	1.41	16hr	DRY
180	1.61	180	1.53		
240	1.68	240	1.60		
300	1.74	300	1.66		
360	1.83	360	1.71		
410	1.89	410	1.80		
470	1.96	470	1.87		
530	DRY	530	1.91		
		590	1.95		
		650	DRY		

Michael Brindley

From: andy@jamesandmiltondrilling.co.uk
Sent: 20 January 2020 17:21
To: Michael Brindley
Subject: RE: Fee proposal request - Land at Stapleford [CJ-WORKSITE.FID541380]

HI Mike,

Yes, he did one near the centre of the site to 3.0m and it was dry.

Kind regards

Andy James
Director
+44 (0)1328 829767
+44 (0)7958 785545
http://www.jamesandmiltondrilling.co.uk

From: Michael Brindley [mailto:mbrindley@mtcengineering.co.uk]
Sent: 20 January 2020 15:48
To: andy@jamesandmiltondrilling.co.uk
Subject: RE: Fee proposal request - Land at Stapleford [CJ-WORKSITE.FID541380]

Hi Andy,

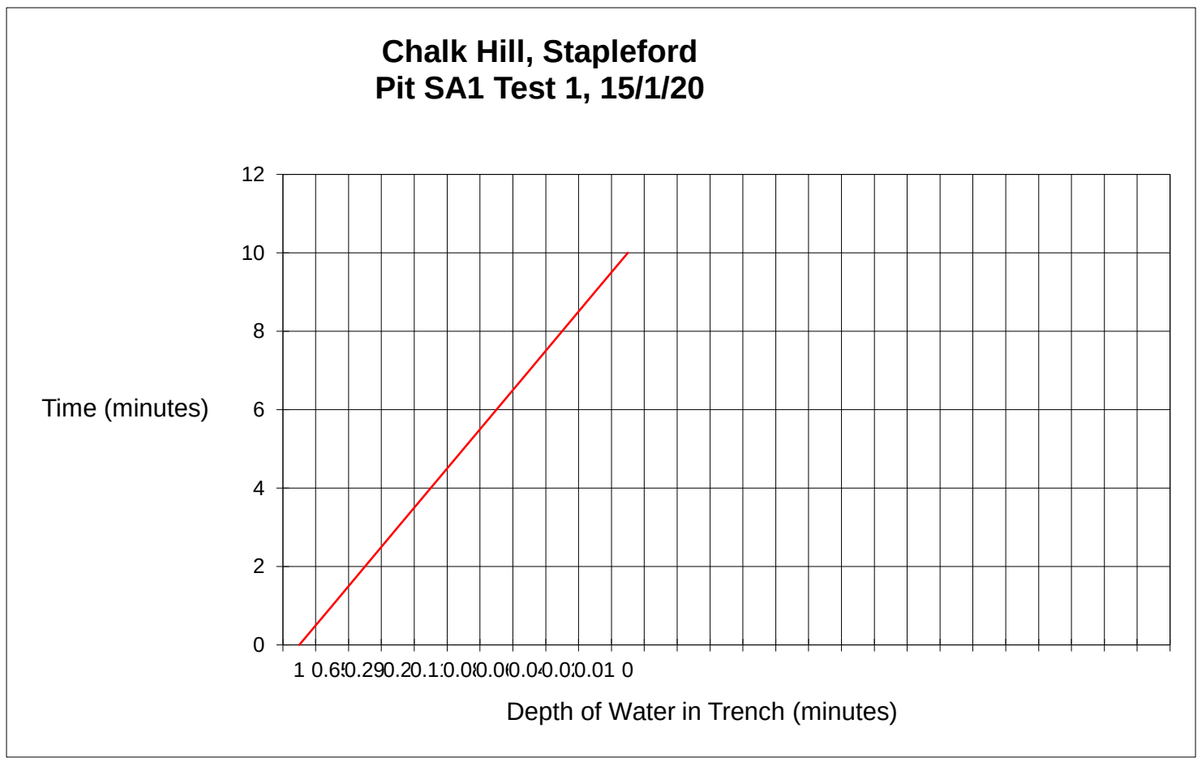
Thanks for this, certainly seems infiltration will work at the site. Did you also do a couple of deeper pits to 3m to check groundwater levels as per the attached request?

Kind regards

Mike Brindley
For and on behalf of
MTC Engineering (Cambridge) Ltd.

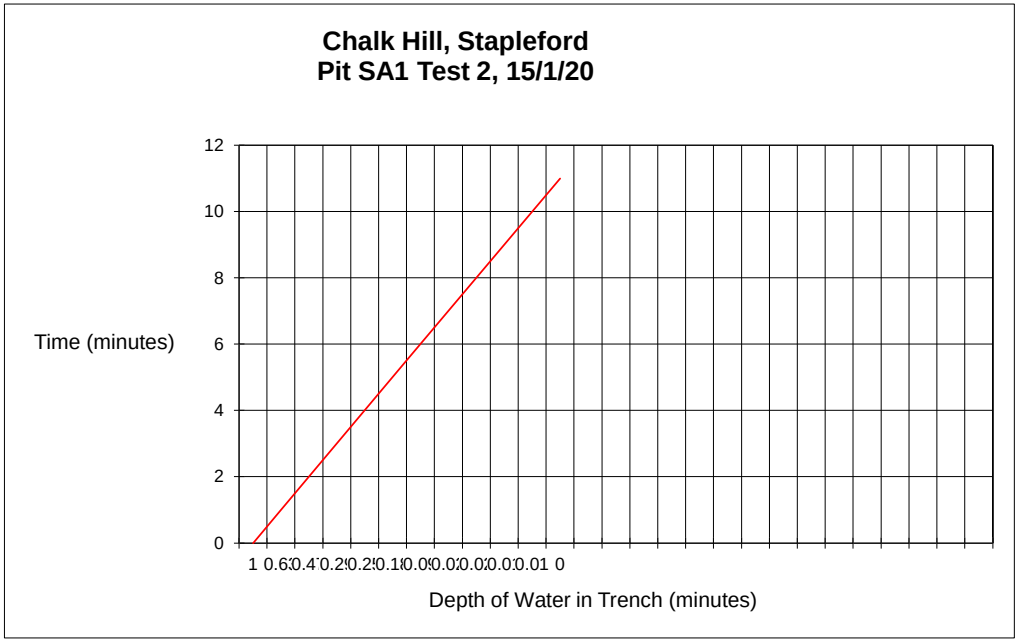
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.26	1
1	1.61	0.65
2	1.97	0.29
3	2.06	0.2
4	2.15	0.11
5	2.18	0.08
6	2.2	0.06
7	2.22	0.04
8	2.24	0.02
9	2.25	0.01
10	2.26	0

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.26
Pipe Length	2.26
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	0.7143
T25	2.4444
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	103.8095
q (m/sec)	5.58E-04
q (mm/hour)	2007.7257
q (m/hour)	2.0077
q (mm/sec)	5.58E-01



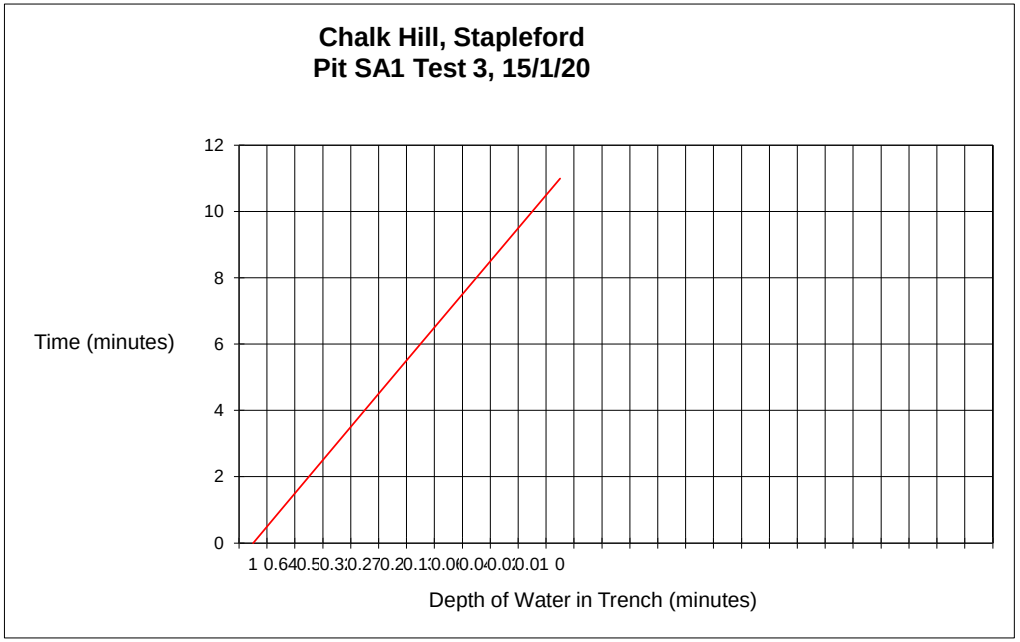
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.26	1
1	1.63	0.63
2	1.79	0.47
3	1.97	0.29
4	2.01	0.25
5	2.08	0.18
6	2.17	0.09
7	2.24	0.02
8	2.24	0.02
9	2.25	0.01
10	2.25	0.01
11	2.26	0

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.26
Pipe Length	2.26
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	0.6757
T25	4.0000
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	199.4595
q (m/sec)	2.90E-04
q (mm/hour)	1044.9294
q (m/hour)	1.0449
q (mm/sec)	2.90E-01



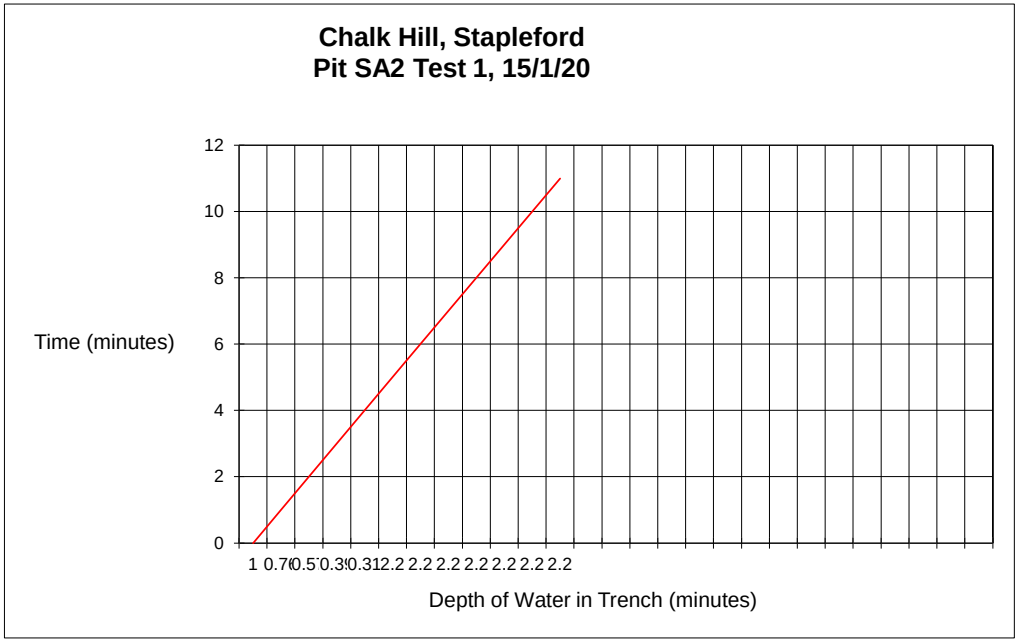
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.26	1
1	1.62	0.64
2	1.76	0.5
3	1.94	0.32
4	1.99	0.27
5	2.06	0.2
6	2.13	0.13
7	2.2	0.06
8	2.22	0.04
9	2.24	0.02
10	2.25	0.01
11	2.26	0

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.26
Pipe Length	2.26
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	0.6944
T25	4.4000
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	222.3333
q (m/sec)	2.60E-04
q (mm/hour)	937.4260
q (m/hour)	0.9374
q (mm/sec)	2.60E-01



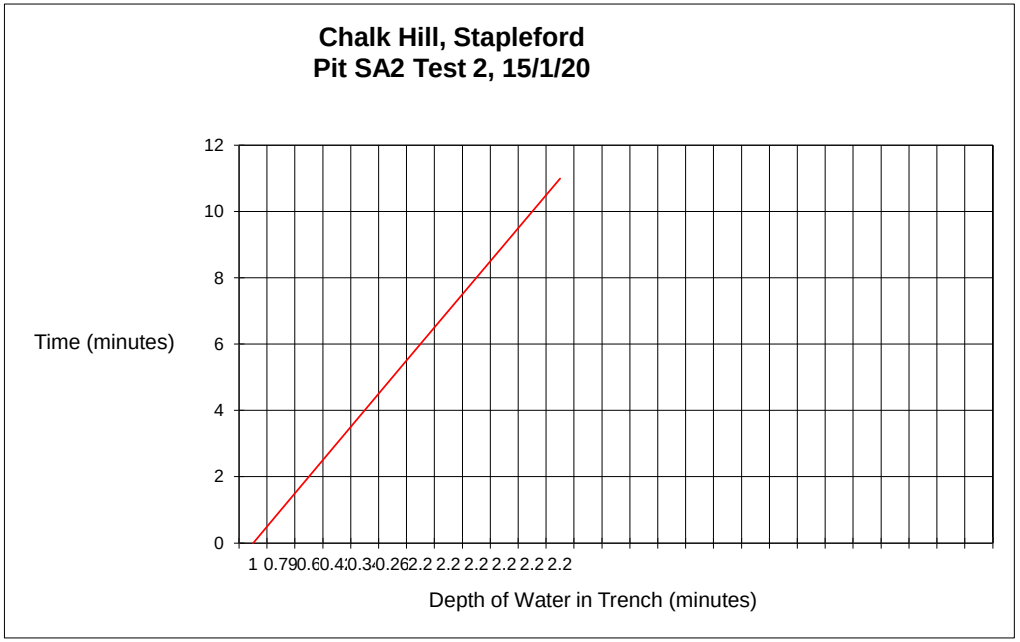
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.44	0.76
2	1.63	0.57
3	1.81	0.39
4	1.89	0.31
5	0	2.2
6		2.2
7		2.2
8		2.2
9		2.2
10		2.2
11		2.2

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.0526
T25	3.9683
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	174.9373
q (m/sec)	3.31E-04
q (mm/hour)	1191.4040
q (m/hour)	1.1914
q (mm/sec)	3.31E-01



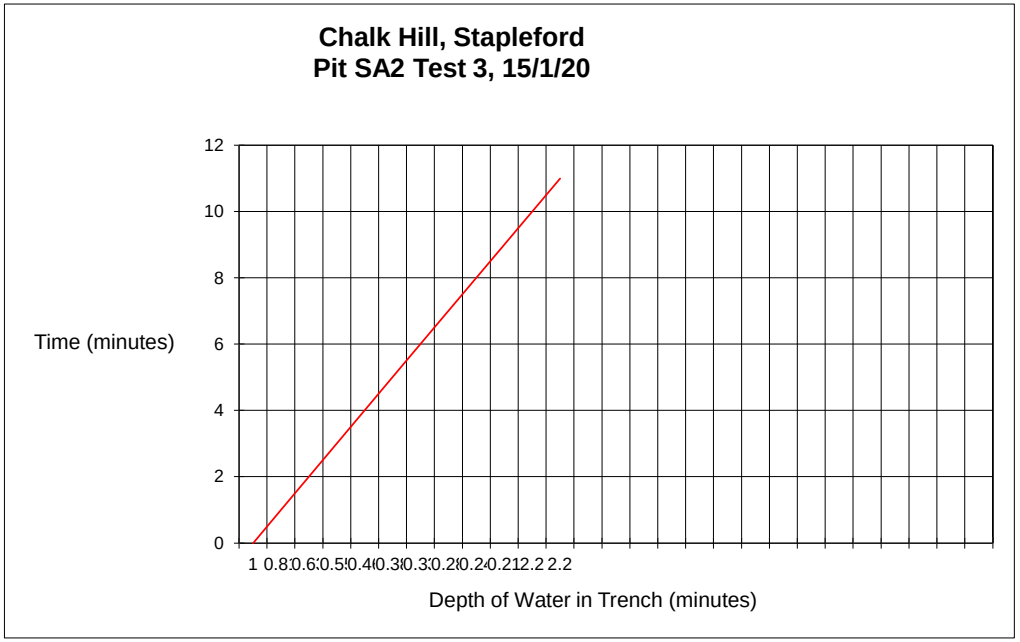
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.41	0.79
2	1.6	0.6
3	1.78	0.42
4	1.86	0.34
5	1.94	0.26
6	0	2.2
7		2.2
8		2.2
9		2.2
10		2.2
11		2.2

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.2105
T25	4.9948
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	227.0591
q (m/sec)	2.55E-04
q (mm/hour)	917.9153
q (m/hour)	0.9179
q (mm/sec)	2.55E-01



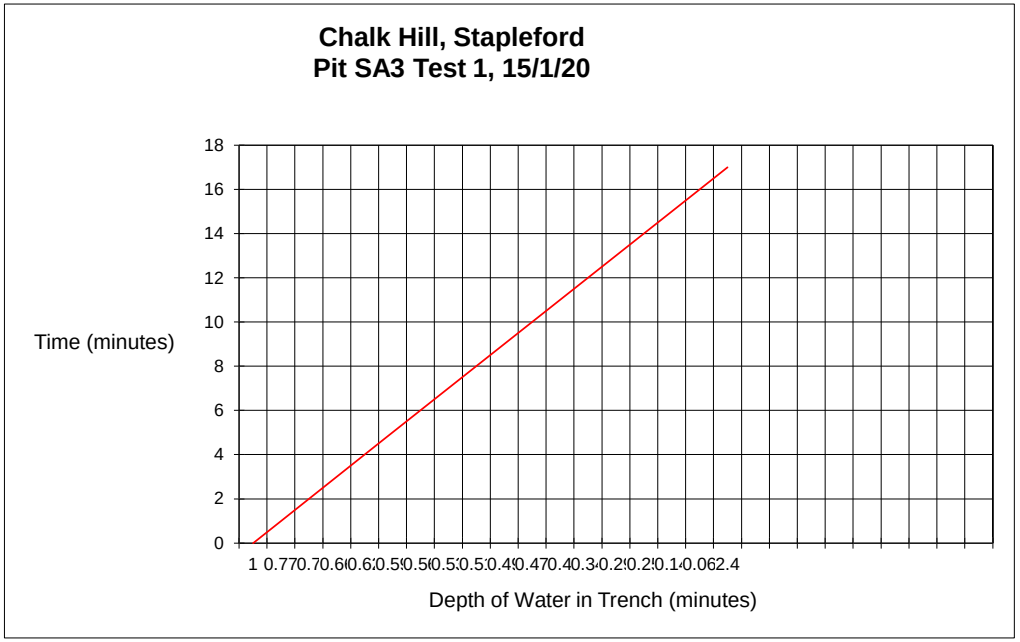
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.39	0.81
2	1.57	0.63
3	1.65	0.55
4	1.74	0.46
5	1.82	0.38
6	1.87	0.33
7	1.92	0.28
8	1.96	0.24
9	1.99	0.21
10	0	2.2
11		2.2

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.3333
T25	7.7500
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	385.0000
q (m/sec)	1.50E-04
q (mm/hour)	541.3534
q (m/hour)	0.5414
q (mm/sec)	1.50E-01



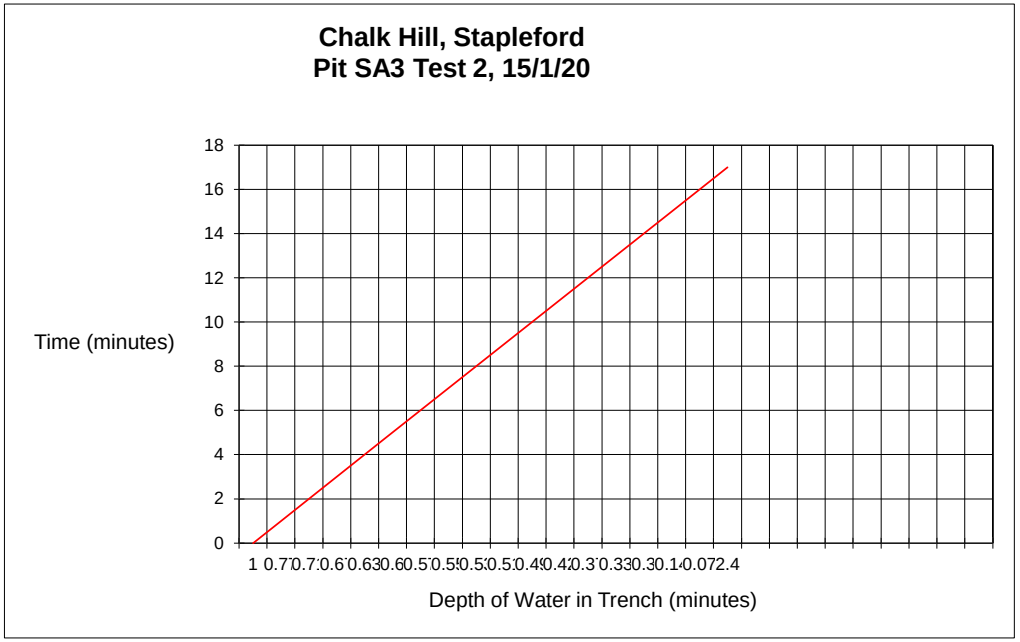
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.4	1
1	1.63	0.77
2	1.7	0.7
3	1.74	0.66
4	1.78	0.62
5	1.81	0.59
6	1.84	0.56
7	1.87	0.53
8	1.89	0.51
9	1.91	0.49
10	1.93	0.47
11	2	0.4
12	2.06	0.34
13	2.11	0.29
14	2.15	0.25
15	2.26	0.14
16	2.34	0.06
17	0	2.4

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.4
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.2857
T25	14.0000
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	762.8571
q (m/sec)	7.59E-05
q (mm/hour)	273.2111
q (m/hour)	0.2732
q (mm/sec)	7.59E-02



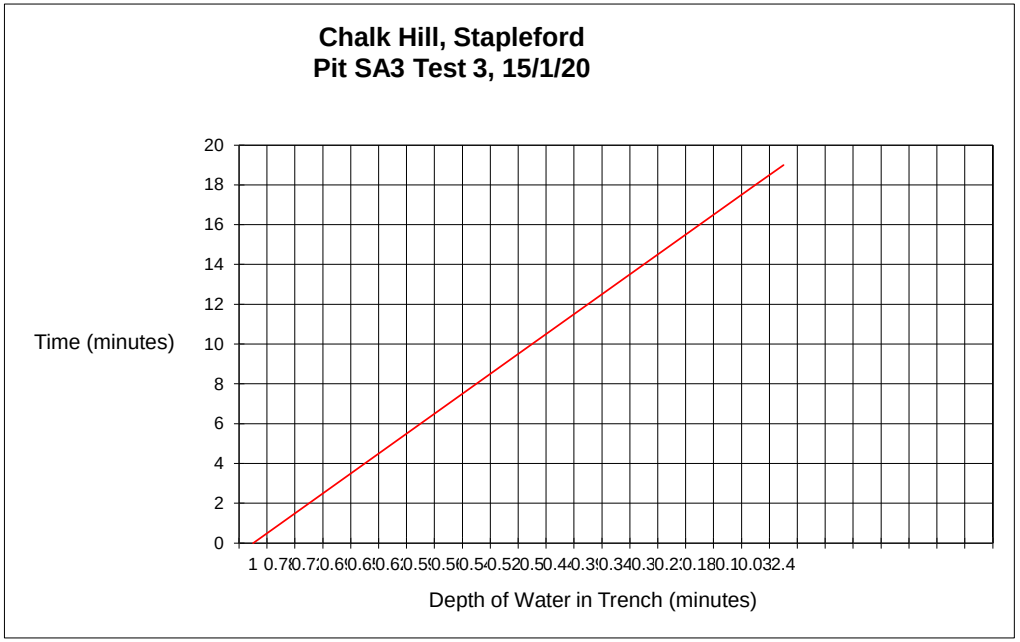
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.4	1
1	1.63	0.77
2	1.69	0.71
3	1.73	0.67
4	1.77	0.63
5	1.8	0.6
6	1.83	0.57
7	1.85	0.55
8	1.87	0.53
9	1.89	0.51
10	1.91	0.49
11	1.98	0.42
12	2.03	0.37
13	2.07	0.33
14	2.1	0.3
15	2.26	0.14
16	2.33	0.07
17	0	2.4

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.4
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.3333
T25	14.3125
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	778.7500
q (m/sec)	7.43E-05
q (mm/hour)	267.6354
q (m/hour)	0.2676
q (mm/sec)	7.43E-02



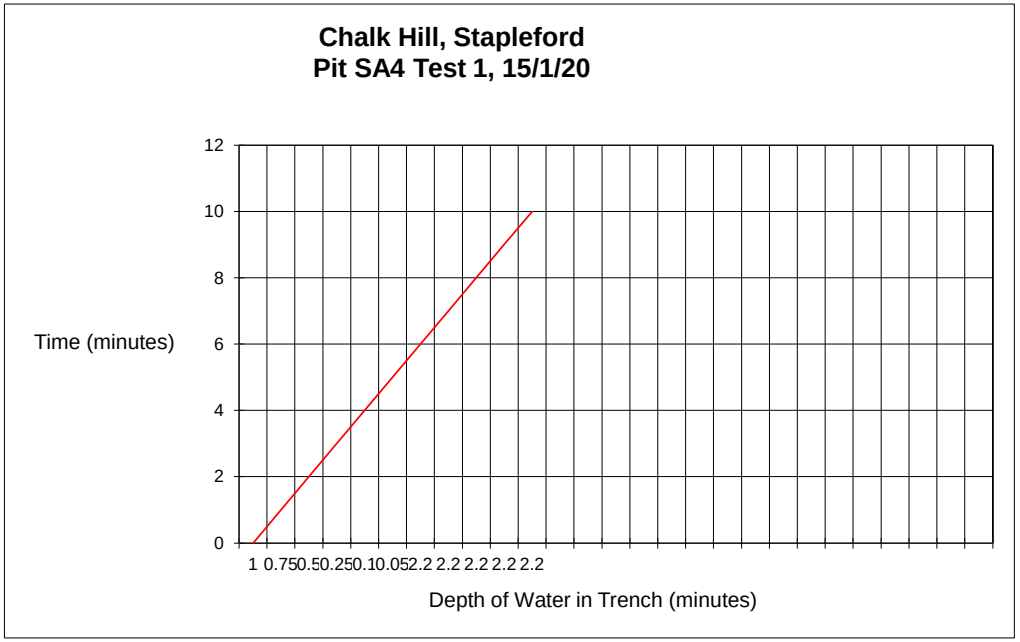
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.4	1
1	1.62	0.78
2	1.68	0.72
3	1.71	0.69
4	1.75	0.65
5	1.78	0.62
6	1.81	0.59
7	1.84	0.56
8	1.86	0.54
9	1.88	0.52
10	1.9	0.5
11	1.96	0.44
12	2.01	0.39
13	2.06	0.34
14	2.1	0.3
15	2.17	0.23
16	2.22	0.18
17	2.3	0.1
18	2.37	0.03
19	0	2.4

Pit Dimensions (m)	
Pit Length	2.2
Pit Width	0.5
Pit Depth	2.4
Pipe Length	2.2
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.5000
T25	14.7143
Volumes, Areas and Times	
Vp75-25	0.2200
Ap50	3.8
Tp75-25	792.8571
q (m/sec)	7.30E-05
q (mm/hour)	262.8734
q (m/hour)	0.2629
q (mm/sec)	7.30E-02



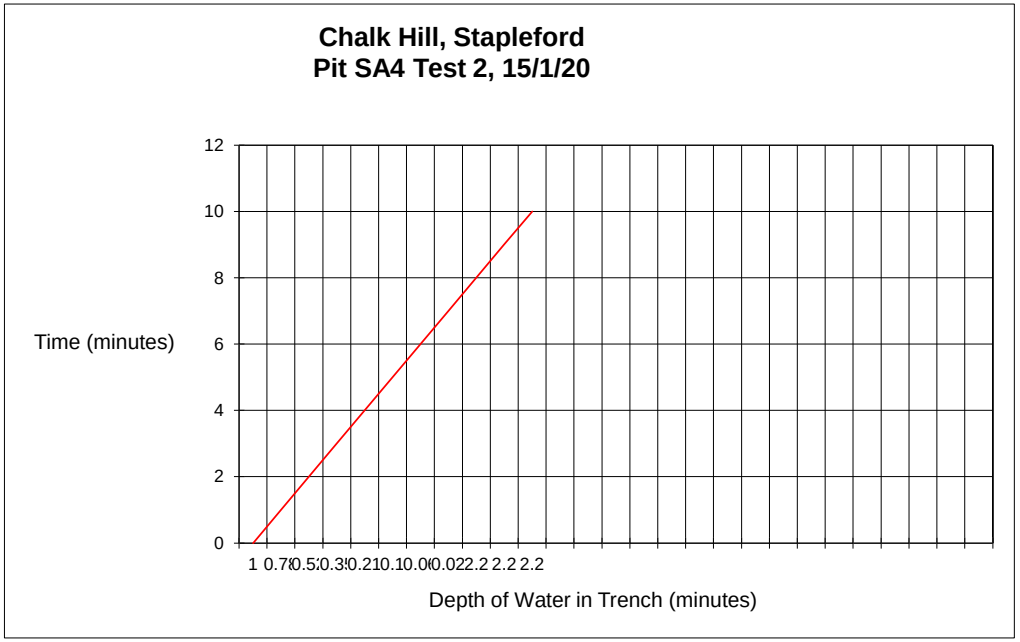
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.45	0.75
2	1.7	0.5
3	1.95	0.25
4	2.1	0.1
5	2.15	0.05
6	0	2.2
7		2.2
8		2.2
9		2.2
10		2.2

Pit Dimensions (m)	
Pit Length	2.3
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.3
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.0000
T25	3.0000
Volumes, Areas and Times	
Vp75-25	0.2300
Ap50	3.95
Tp75-25	120.0000
q (m/sec)	4.85E-04
q (mm/hour)	1746.8354
q (m/hour)	1.7468
q (mm/sec)	4.85E-01



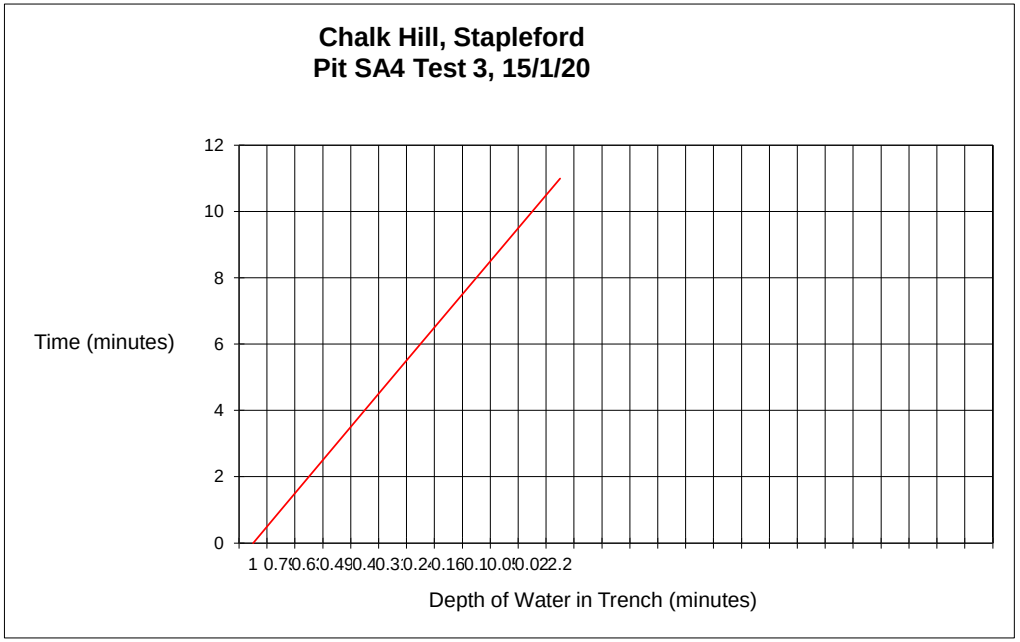
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.42	0.78
2	1.68	0.52
3	1.85	0.35
4	1.99	0.21
5	2.1	0.1
6	2.14	0.06
7	2.18	0.02
8	0	2.2
9		2.2
10		2.2

Pit Dimensions (m)	
Pit Length	2.3
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.3
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.1154
T25	3.7143
Volumes, Areas and Times	
Vp75-25	0.2300
Ap50	3.95
Tp75-25	155.9341
q (m/sec)	3.73E-04
q (mm/hour)	1344.2877
q (m/hour)	1.3443
q (mm/sec)	3.73E-01



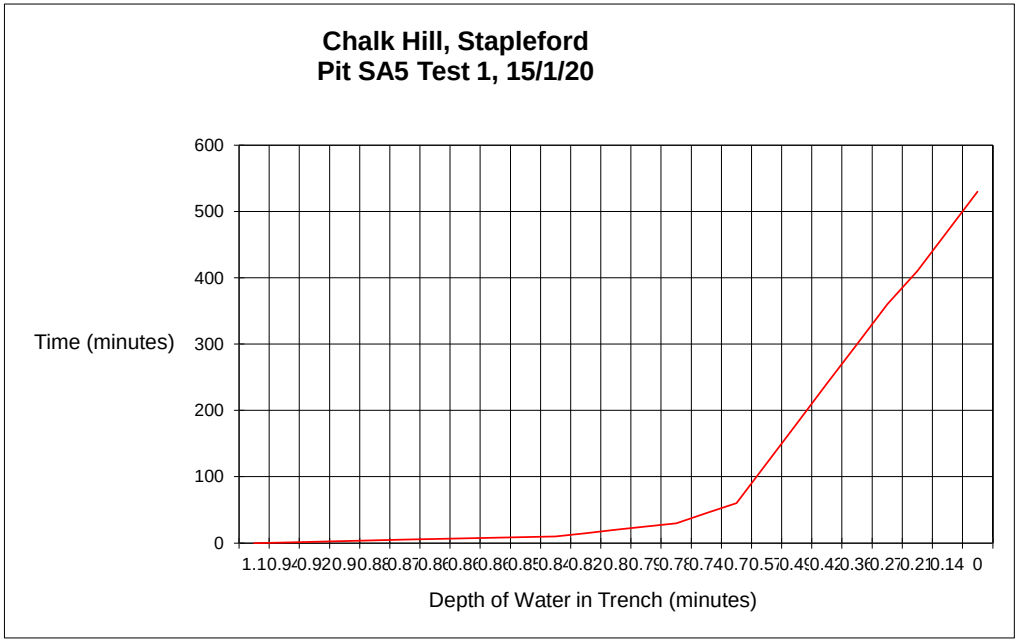
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1.2	1
1	1.41	0.79
2	1.57	0.63
3	1.71	0.49
4	1.8	0.4
5	1.89	0.31
6	1.96	0.24
7	2.04	0.16
8	2.1	0.1
9	2.15	0.05
10	2.18	0.02
11	0	2.2

Pit Dimensions (m)	
Pit Length	2.3
Pit Width	0.5
Pit Depth	2.2
Pipe Length	2.3
Void Space	40%
Depths (m)	
D75	0.75
D25	0.25
D50	0.5
Times (minutes)	
T75	1.2500
T25	5.8571
Volumes, Areas and Times	
Vp75-25	0.2300
Ap50	3.95
Tp75-25	276.4286
q (m/sec)	2.11E-04
q (mm/hour)	758.3162
q (m/hour)	0.7583
q (mm/sec)	2.11E-01



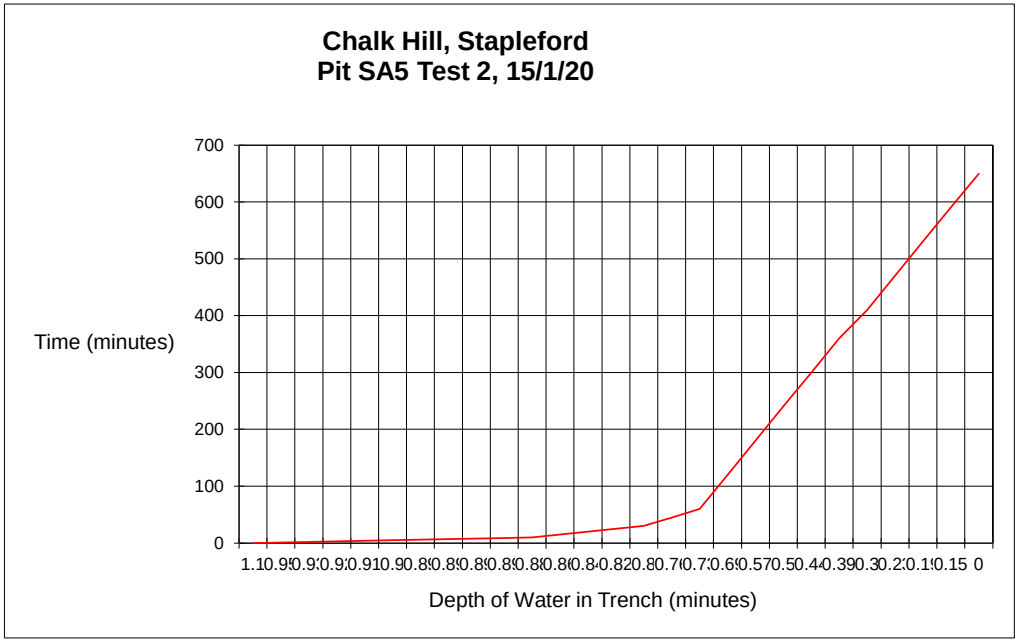
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1	1.1
1	1.16	0.94
2	1.18	0.92
3	1.2	0.9
4	1.22	0.88
5	1.23	0.87
6	1.24	0.86
7	1.24	0.86
8	1.24	0.86
9	1.25	0.85
10	1.26	0.84
15	1.28	0.82
20	1.3	0.8
25	1.31	0.79
30	1.32	0.78
45	1.36	0.74
60	1.4	0.7
120	1.53	0.57
180	1.61	0.49
240	1.68	0.42
300	1.74	0.36
360	1.83	0.27
410	1.89	0.21
470	1.96	0.14
530	2.1	0

Pit Dimensions (m)	
Pit Length	2.5
Pit Width	0.5
Pit Depth	2.1
Pipe Length	2.1
Void Space	40%
Depths (m)	
D75	0.825
D25	0.275
D50	0.55
Times (minutes)	
T75	13.1250
T25	355.8333
Volumes, Areas and Times	
Vp75-25	0.2750
Ap50	4.55
Tp75-25	20562.5000
q (m/sec)	2.94E-06
q (mm/hour)	10.5815
q (m/hour)	0.0106
q (mm/sec)	2.94E-03



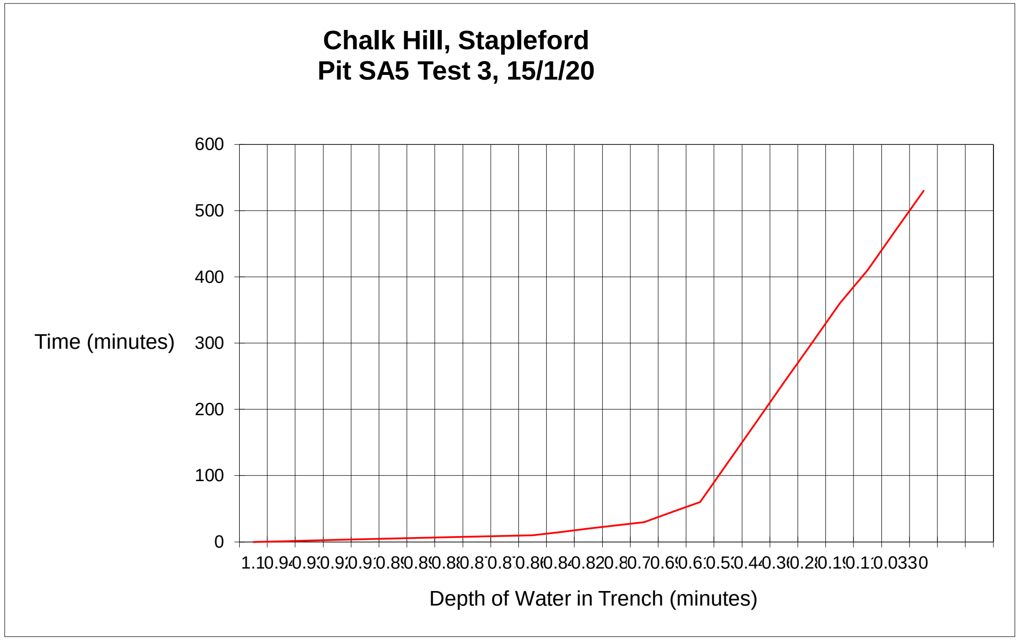
Time (min)	Depth to Water (m)	Depth of Water (m)
0	1	1.1
1	1.15	0.95
2	1.17	0.93
3	1.18	0.92
4	1.19	0.91
5	1.2	0.9
6	1.21	0.89
7	1.21	0.89
8	1.21	0.89
9	1.21	0.89
10	1.22	0.88
15	1.24	0.86
20	1.26	0.84
25	1.28	0.82
30	1.3	0.8
45	1.34	0.76
60	1.37	0.73
120	1.41	0.69
180	1.53	0.57
240	1.6	0.5
300	1.66	0.44
360	1.71	0.39
410	1.8	0.3
470	1.87	0.23
530	1.91	0.19
590	1.95	0.15
650	2.1	0

Pit Dimensions (m)	
Pit Length	2.5
Pit Width	0.5
Pit Depth	2.1
Pipe Length	2.1
Void Space	40%
Depths (m)	
D75	0.825
D25	0.275
D50	0.55
Times (minutes)	
T75	23.7500
T25	431.4286
Volumes, Areas and Times	
Vp75-25	0.2750
Ap50	4.55
Tp75-25	24460.7143
q (m/sec)	2.47E-06
q (mm/hour)	8.8952
q (m/hour)	0.0089
q (mm/sec)	2.47E-03



Time (min)	Depth to Water (m)	Depth of Water (m)
0	1	1.1
1	1.16	0.94
2	1.17	0.93
3	1.18	0.92
4	1.19	0.91
5	1.21	0.89
6	1.21	0.89
7	1.22	0.88
8	1.23	0.87
9	1.23	0.87
10	1.24	0.86
15	1.26	0.84
20	1.28	0.82
25	1.3	0.8
30	1.32	0.78
45	1.403	0.697
60	1.486	0.614
120	1.569	0.531
180	1.652	0.448
240	1.735	0.365
300	1.818	0.282
360	1.901	0.199
410	1.984	0.116
470	2.067	0.033
530	2.1	0

Pit Dimensions (m)	
Pit Length	2.5
Pit Width	0.5
Pit Depth	2.1
Pipe Length	2.1
Void Space	40%
Depths (m)	
D75	0.825
D25	0.275
D50	0.55
Times (minutes)	
T75	21.8675
T25	305.0602
Volumes, Areas and Times	
Vp75-25	0.2750
Ap50	4.55
Tp75-25	16991.5663
q (m/sec)	3.56E-06
q (mm/hour)	12.8053
q (m/hour)	0.0128
q (mm/sec)	3.56E-03



APPENDIX 3

LINE SEARCH

Enquiry Confirmation

LSBUD Ref: 17569532

Date of enquiry: 29/01/2020
Time of enquiry: 14:01

Enquirer

Name	Miss Emily Fell	Phone	01223 837270
Company	MTC Engineering (Cambridge) Ltd	Mobile	Not Supplied
Address	Ground Floor, 24 High Street Whittlesford Cambridge Cambridgeshire CB22 4LT		
Email	office@mtcengineering.co.uk		

Enquiry Details

Scheme/Reference	2453		
Enquiry type	Initial Enquiry	Work category	Development Projects
Start date	26/03/2020	Work type	Housing
End date	23/12/2020	Site size	286415 metres square
Searched location	XY= 547720, 252720	Work type buffer*	25 metres
Confirmed location	547685 252793		
Site Contact Name	MTC Engineering Ltd	Site Phone No	01223 837 270
Description of Works	Not Supplied		

* The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen.

Site Map

Enquiry Confirmation

LSBUD Ref: 17569532

Date of enquiry: 29/01/2020
Time of enquiry: 14:01

Asset Owners

Terms and Conditions. Please note that this enquiry is subject always to our standard terms and conditions available at www.linesearchbeforeudig.co.uk ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

Notes. Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.

Validity and search criteria. The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LinesearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

Asset Owners & Responses. Please note the enquiry results include the following:

1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

1. LSBUD Members who have assets registered within your search area. ("Affected")
   a. These LSBUD Members will either:
      i. Ask for further information ("Email Additional Info" noted in status). The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.

      ii. Respond directly to you ("Await Response"). In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.

2. LSBUD Members who do not have assets registered within your search area. ("Not Affected")

3. Non LSBUD Members who may have assets within your search area. Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

National Grid. Please note that the LSBUD service only contains information on National Grid's Gas above 7 bar asset, all National Grid Electricity Transmission assets and National Grid's Gas Distribution Limited above 2 bar asset.

For National Grid Gas Distribution Ltd below 2 bar asset information please go to www.beforeyoudig.nationalgrid.com

Enquiry Confirmation

LSBUD Ref: 17569532

Date of enquiry: 29/01/2020
Time of enquiry: 14:01

LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.

List of affected LSBUD members			
Asset Owner	**Phone/Email**	**Emergency Only**	**Status**
UK Power Networks	08000565866	08000565866	Await response

LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD Members make regular changes to their assets and this list may vary for new enquiries in the same area.

List of not affected LSBUD members		
AWE Pipeline	Balfour Beatty Investments Limited	BOC Limited (A Member of the Linde Group)
BP Exploration Operating Company Limited	BPA	Carrington Gas Pipeline
CATS Pipeline c/o Wood Group PSN	Cemex	Centrica Storage Ltd
Chrysaor Production (UK) Limited	CLH Pipeline System Ltd	CNG Services Ltd
Concept Solutions People Ltd	ConocoPhillips (UK) Teesside Operator Ltd	DIO (MOD Abandoned Pipelines)
Drax Group	E.ON UK CHP Limited	EirGrid
Electricity North West Limited	ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited
EP Langage Limited	ESP Utilities Group	ESSAR
Esso Petroleum Company Limited	Fulcrum Pipelines Limited	Gamma
Gateshead Energy Company	Gigaclear Ltd	Gtt
Hafren Dyfrdwy	Heathrow Airport LTD	Humbly Grove Energy
IGas Energy	INEOS FPS Pipelines	INEOS Manufacturing (Scotland and TSEP)
INOVYN Enterprises Limited	Intergen (Coryton Energy or Spalding Energy)	Mainline Pipelines Limited
Manchester Jetline Limited	Manx Cable Company	Marchwood Power Ltd (Gas Pipeline)
Melbourn Solar Limited	Murphy Utility Assets	National Grid Gas (Above 7 bar), National Grid Gas Distribution Limited (Above 2 bar) and National Grid Electricity Transmission
Northumbrian Water Group	NPower CHP Pipelines	Oikos Storage Limited
Ørsted	Perenco UK Limited (Purbeck Southampton Pipeline)	Perenco UK Limited (Purbeck Southampton Pipeline)
Petroineos	Phillips 66	Premier Transmission Ltd (SNIP)
Redundant Pipelines - LPDA	RWE - Great Yarmouth Pipeline (Bacton to Great Yarmouth Power Station)	RWEnpower (Little Barford and South Haven)
SABIC UK Petrochemicals	Scottish and Southern Electricity Networks	Scottish Power Generation
Seabank Power Ltd	SES Water	Severn Trent (Chester area only)
SGN	Shell (St Fergus to Mossmorran)	Shell Pipelines
SSE (Peterhead Power Station)	SSE Enterprise Telecoms	SSE Utility Solutions Limited
Tata Communications (c/o JSM Construction Ltd)	Total (Colnbrook & Colwick Pipelines)	Total Finaline Pipelines
Transmission Capital	Uniper UK Ltd	Vattenfall
Veolia ES SELCHP Limited	Veolia ES Sheffield Ltd	Wales and West Utilities
Western Power Distribution	Westminster City Council	Zayo Group UK Ltd c/o JSM Group Ltd

Enquiry Confirmation

LSBUD Ref: 17569532

Date of enquiry: 29/01/2020
Time of enquiry: 14:01

The following Non-LSBUD Members may have assets in your search area. It is YOUR RESPONSIBILITY to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non-LSBUD members (Asset owners not registered on LSBUD)			
Asset Owner	**Preferred contact method**	**Phone**	**Status**
Anglian Water	http://www.digdat.co.uk	01480323891	Not Notified
BT	https://www.swns.bt.com/pls/mbe/welcome.home	08009173993	Not Notified
Cadent Gas	plantprotection@cadentgas.com	0800688588	Not Notified
Cambridge Water	mapservices@cambridge-water.co.uk	01223706050	Not Notified
CenturyLink Communications UK Limited	plantenquiries@instalcom.co.uk	02087314613	Not Notified
CityFibre	asset.team@cityfibre.com	033 3150 7282	Not Notified
Colt	plantenquiries@catelecomuk.com	01227768427	Not Notified
Energetics Electricity	plantenquiries@lastmile-uk.com	01698404646	Not Notified
ENGIE	nrswa@cofely-gdfsuez.com	01293 549944	Not Notified
GTC	https://pe.gtc-uk.co.uk/PlantEnqMembership	01359240363	Not Notified
KPN (c/-Instalcom)	kpn.plantenquiries@instalcom.co.uk	n/a	Not Notified
Mobile Broadband Network Limited	mbnlplantenquiries@turntown.com	01212 621 100	Not Notified
Sky UK Limited	nrswa@sky.uk	02070323234	Not Notified
Sota	SOTA.plantenquiries@instalcom.co.uk		Not Notified
Teliasonera	telenttelia.plantenquiries@telent.com	0800526015	Not Notified
Utility assets Ltd	assetrecords@utilityassets.co.uk		Not Notified
Verizon Business	osp-team@uk.verizonbusiness.com	01293611736	Not Notified
Virgin Media	http://www.digdat.co.uk	08708883116	Not Notified
Vodafone	osm.enquiries@atkinsglobal.com	01454662881	Not Notified

APPENDIX 4

ANGLIAN WATER PRE-PLANNING ENQUIRY REPORT

Pre-Planning
Assessment Report

LAND AT STAPLEFORD 155593/903900878/1/0076887

Report published 30/01/2020

Section 1: Proposed development

Thank you for submitting a pre-planning enquiry. This has been produced for MTC Engineering (Cambridge) Limited. Your reference number is **155593/903900878/1/0076887**. If you have any questions upon receipt of this report, please contact the Pre-Development team on 03456 066087 or email planningliaison@anglianwater.co.uk.

The response within this report has been based on the following information which was submitted as part of your application:

List of planned developments	
Type of development	**No. Of units**
Residential institution	106
Dwellings	110

The anticipated residential build rate is:

Year	Y1	Y2	Y3	Y4	Y5
Build rate	50	50	50	50	16

Site grid reference no.

TL4772752598

Development type

Greenfield

Planning application status

Pending Consideration

The comments contained within this report relate to the public water mains and sewers indicated on our records. Your attention is drawn to the disclaimer in the useful information section of this report.

Section 2: Assets affected

Our records indicate that we have the following types of assets within or overlapping the boundary of your development site as listed in the table below.

Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence. We are unable to permit development either over or within the easement strip without our prior consent. The extent of the easement is provided in the table below. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Water and Used water easement information		
Asset type	Pipe size (mm)	Total easement required (m)
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	6	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
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Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	6	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
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Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line

Water and Used water easement information		
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line
Sewer mains	Unknown	3.00 m either side of the centre line

If it is not possible to avoid our assets then these may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). You will need to make a formal application if you would like a diversion to be considered.

Pumping Station

The development site is within 15 metres of a sewage pumping station. This asset requires access for maintenance and will have sewerage infrastructure leading to it.For practical reasons therefore it cannot be easily relocated.Anglian Water consider that dwellings located within 15 metres of the pumping station would place them at risk of nuisance in the form of noise, odour or the general disruption from maintenance work caused by the normal operation of the pumping station.The site layout should take this into account and accommodate this infrastructure type through a necessary cordon sanitaire, through public space or highway infrastructure to ensure that no development within 15 metres from the boundary of a sewage pumping station if the development is potentially sensitive to noise or other disturbance or to ensure future amenity issues are not created.

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

Section 3: Water recycling services

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving water recycling centre and determine whether the water recycling centre can cope with the increased flow and influent quality arising from your development.

Water recycling centre

The foul drainage from this development is in the catchment of Cambridge Water Recycling Centre, which currently does not have capacity to treat the flows from your development site. Anglian Water are obligated to accept the foul flows from your development with the benefit of planning consent and would therefore take the necessary steps to ensure that there is sufficient treatment capacity should the planning authority grant planning permission.

Used water network

Our assessment has been based on development flows connecting to the nearest foul water sewer of the same size or greater pipe diameter to that required to drain the site. The infrastructure to convey foul water flows to the receiving sewerage network is assumed to be the responsibility of the developer. Conveyance to the connection point is considered as Onsite Work and includes all work carried out upstream from of the point of connection, including making the connection to our existing network. This connection point has been determined in reference to the calculated discharge flow and on this basis, a 150mm internal diameter pipe is required to drain the development site. The nearest practicable connection is to the 225mm diameter sewer at manhole 4101 in Gog Magog Way at National Grid Reference NGR TL 47503 52115. Anglian water has assessed the impact of gravity flows from the planned development to the public foul sewerage network. We can confirm that this is acceptable as the foul sewerage system, at present, has available capacity for your site. Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure this strategy is implemented to mitigate the risk of flooding.

It is assumed that the developer will provide the necessary infrastructure to convey flows from the site to the network. Consequently, this report does not include any costs for the conveyance of flows.

Surface water disposal

You indicated on the Pre-Planning Application form that a connection to the public surface water sewer network is not required. Therefore a capacity assessment has not been made on the public surface water network.

As you may be aware, Anglian Water will consider the adoption of SuDs provided that they meet the criteria outline in our SuDs adoption manual. This can be found on our website at http://www.anglianwater.co.uk/developers/suds.aspx. We will adopt features located in public open space that are designed and constructed, in conjunction with the Local Authority and Lead Local Flood Authority (LLFA), to the criteria within our SuDs adoption manual. Specifically, developers must be able to demonstrate:

1. Effective upstream source control,
2. Effective exceedance design, and
3. Effective maintenance schedule demonstrating than the assets can be maintained both now and in the future with adequate access.

If you wish to look at the adoption of any SuDs then an expression of interest form can be found on our website at: http://www.anglianwater.co.uk/developers/suds.aspx

The proposed method of surface water disposal is not relevant to Anglian Water; we suggest that you contact the relevant Local Authority, Lead Local Flood Authority, the Environment Agency or the Internal Drainage Board, as appropriate.

Trade Effluent

We note that you do not have any trade effluent requirements. Should this be required in the future you will need our written formal consent. This is in accordance with Section 118 of the Water Industry Act (1991).

Used Water Budget Costs

As a result of the recent charging rules published by Ofwat, our charging regime has changed. Your development site will be required to pay a Zonal charge for each new property connecting to the public sewer that benefits from Full planning permission.

Payment of the Zonal charge must be made before premises are connected to the public sewer. More information on the Zonal charge can be found at http://www.anglianwater.co.uk/developers/charges

The Zonal charge consists of two elements. The first is called the 'Fixed Element' which is the same in nature to the Infrastructure charge applied prior to April 2018. The second is called the 'Variable Element' which may vary each financial year.

The elements are combined together to create the 2018/19 Zonal charge for Sewerage:

Fixed Element	£ 370
Variable Element	£ 101

In most circumstances zonal charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage). However, if the new connection is to non-household premises, the fixed element is calculated according to the number and type of water fittings in the premises.This is called the "relevant multiplier" method of calculating the charge. Details of the relevant multiplier for each fitting can be found at our web-page: http://www.anglianwater.co.uk/developers/charges/

The total Zonal charge payable for your site for Sewerage is:

Zonal charge per new connection - Sewerage	No. Of Units	Total amount payable
£ 471	110	£ 51,810.00

It has been assumed that the onsite used water network will be provided under a section 104 Water Industry Act application.

It is recommended that you also budget for connection costs. Please note that we offer alternative types of connections depending on your needs and these costs are available at our website.

Section 4: Map of Proposed Connection Points

Figure 1:Showing your used water point of connection

Section 5: Useful Information

Used water

Water Industry Act – Key Used Water Sections:

Section 98:

This provides you with the right to requisition a new public sewer. The new public sewer can be constructed by Anglian Water on your behalf. Alternatively, you can construct the sewer yourself under section 30 of the Anglian Water Authority Act 1977.

Section 102:

This provides you with the right to have an existing sewerage asset vested by us. It is your responsibility to bring the infrastructure to an adoptable condition ahead of the asset being vested.

Section 104:

This provides you with the right to have a design technically vetted and an agreement reached that will see us adopt your assets following their satisfactory construction and connection to the public sewer.

Section 106:

This provides you with the right to have your constructed sewer connected to the public sewer.

Section 185:

This provides you with the right to have a public sewerage asset diverted.

Details on how to make a formal application for a new sewer, new connection or diversion are available on our website at http://www.anglianwater.co.uk/developers or via our Development Services team on 03456 066087.

Sustainable drainage systems:

Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. Therefore our preferred method of surface water disposal is through the use of Sustainable Drainage Systems (SuDS). SuDS are a range of techniques that aim to mimic the way surface water drains in natural systems within urban areas. For more information on SuDS, please visit our website at http://www.anglianwater.co.uk/developers/suds.aspx . We also recommend that you contact the Local Authority and Lead Local Flood Authority (LLFA) for the area to discuss your application.

Private sewer transfers:

Sewers and lateral drains connected to the public sewer on the 1 July 2011 transferred into Water Company ownership on the 1 October 2011. This follows the implementation of the Floods and Water Management Act (FWMA). This included sewers and lateral drains that were subject to an existing Section 104 Adoption Agreement and those that were not. There were exemptions and the main non-transferable assets were as follows:

- Surface water sewers and lateral drains that did not discharge to the public sewer, e.g. those that discharged to a watercourse.
- Foul sewers and lateral drains that discharged to a privately owned sewage treatment/collection facility.
- Pumping stations and rising mains will transfer between 1 October 2011 and 1 October 2016.

The implementation of Section 42 of the FWMA will ensure that future private sewers will not be created. It is anticipated that all new sewer applications will need to have an approved section 104 application ahead of a section 106 connection.

Encroachment:

Anglian Water operates a risk based approach to development encroaching close to our used water infrastructure. We assess the issue of encroachment if you are planning to build within 400 metres of a water recycling centre or, within 15 metres to 100 metres of a pumping station. We have more information available on our website at http://anglianwater.co.uk/developers/encroachment.aspx

Locating our assets:

Maps detailing the location of our water and used water infrastructure including both underground assets and above ground assets such as pumping stations and recycling centres are available from . All requests from members of the public or non-statutory bodies for maps showing the location of our assets will be subject to an appropriate administrative charge. We have more information on our website at: http://www.anglianwater.co.uk/developers/our-assets/

Summary of charges:

A summary of this year's water and used water connection and infrastructure charges can be found at http://www.anglianwater.co.uk/developers/charges

Disclaimer:

The information provided in this report is based on data currently held by Anglian Water Services Limited ('Anglian Water') or provided by a third party. Accordingly, the information in this report is provided with no guarantee of accuracy, timeliness, completeness and is without indemnity or warranty of any kind (express or implied).

This report should not be considered in isolation and does not nullify the need for the enquirer to make additional appropriate searches, inspections and enquiries. Anglian Water supports the plan led approach to sustainable development that is set out in the National Planning Policy Framework ('NPPF') and any infrastructure needs identified in this report must be considered in the context of current, adopted and/or emerging local plans. Where local plans are absent, silent or have expired these needs should be considered against the definition of sustainability holistically as set out in the NPPF.

Whilst the information in this report is based on the presumption that proposed development obtains planning permission, nothing in this report confirms that planning permission will be granted or that Anglian Water will be bound to carry out the works/proposals contained within this report.

No liability whatsoever, including liability for negligence is accepted by Anglian Water, or its partners, employees or agents, for any error or omission, or for the results obtained from the use of this report and/or its content. Furthermore in no event will any of those parties be liable to the applicant or any third party for any decision made or action taken as a result of reliance on this report.

This report is valid for the date printed and the enquirer is advised to resubmit their request for an up to date report should there be a delay in submitting any subsequent application for water supply/sewer connection(s).

APPENDIX 5

CAMBRIDGE WATER MAPPING

CAMBRIDGE WATER COMPANY

90 Fulbourn Road
Cambridge
CB1 9JN

Tel: 01223 706050
https://www.cambridge-water.co.uk/

MTC - Haverhill

Scale 1:3,000
Date: 23/03/2020

- Main
- Service
- Decommissioned Main
- Hydrant
- Valve (open)
- Valve (closed)
- Meter

CAMBRIDGE WATER COMPANY

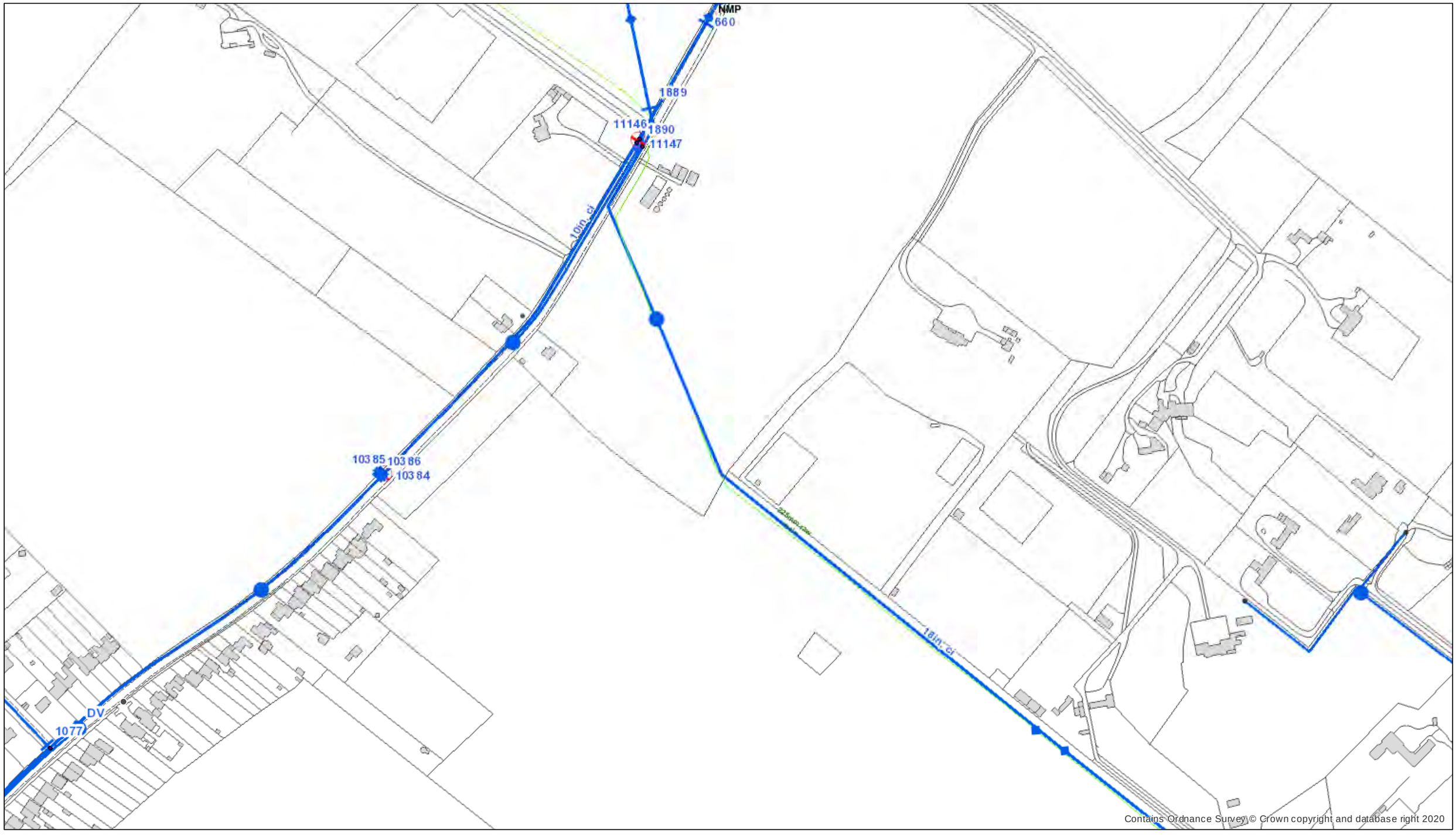
90 Fulbourn Road
Cambridge
CB1 9JN

Tel: 01223 706050
https://www.cambridge-water.co.uk/

MTC - Haverhill 2

Scale 1:3,000
Date: 23/03/2020

- Main
- Service
- Decommissioned Main
- Hydrant
- Valve (open)
- Valve (closed)
- Meter



CAMBRIDGE WATER COMPANY

90 Fulbourn Road
Cambridge
CB1 9JN

Tel: 01223 706050
https://www.cambridge-water.co.uk/

MTC - Haverhill 3

Scale 1:3,000
Date: 23/03/2020

- Main
- Service
- Decommissioned Main
- Hydrant
- Valve (open)
- Valve (closed)
- Meter

APPENDIX 6

UKPN PLANS

Ms. Verity Smith
MTC Engineering
Ground Floor
24 High Street
Whittlesford
Cambridgeshire
CB22 4LT

Our Ref: 2020/2288490
Your Ref: MJB/2453
29 January 2020

Dear Sir/Madam

Land at Stapleford, between Haverhill Road and Hinton Way

Thank you for your letter of 29/01/2020 regarding the above site. We have written to you in this instance to advise you of the fees applicable in researching and producing the underground mains network plans in connection with your enquiry.
In this instance the fee is £66.67 + VAT at 20 % £13.33 **Total amount due. £80.00**. The fee is applicable even if our plant does not affect the site, as the research still has to be undertaken. In some cases it is possible that there will be no maps for the site at all. Following receipt of the full payment, together with the enclosed invoice, we will dispatch to you any plans we may hold for the site. Please note that service cables are not usually shown.

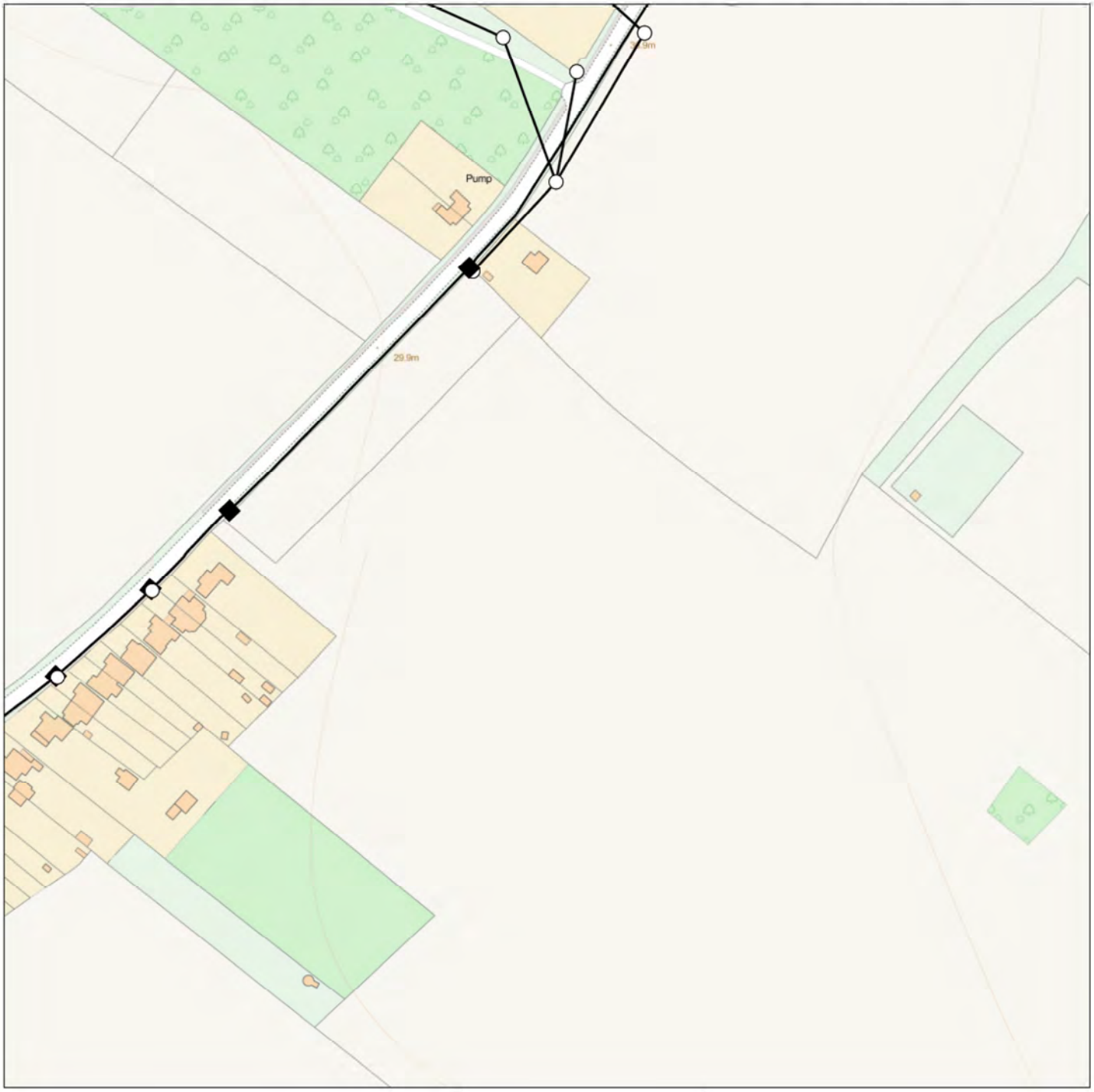
Should you wish us to proceed with the plan search, payment must be received within 60 days. If payment is not received within 60 days, the request will be closed and it will be necessary to make a new request.

Please make cheques payable to **UK Power Networks** and return to The Plan Provision department at the address below.

Yours sincerely
T Gilbert

Tracy Gilbert - Telephone: 0800 0565 866
Plan Provision

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

KEY TO BT SYMBOLS

	Planned	Live
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling		Built	
Duct Tee		Planned	
Building		Inferred	
Kiosk	K	Duct	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	In Place	Pending Remove	Not In Use
Power Cable				
Power Duct				N/A

BT Ref : DUL02078X
Map Reference : (centre) TL4744253007
Easting/Northing : (centre) 547442,253007
Issued : 29/01/2020 14:07:49

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply

IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

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KEY TO BT SYMBOLS

	Planned	Live
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State		Hatchings	
Split Coupling		Built	
Duct Tee		Planned	
Building		Inferred	
Kiosk	K	Duct	

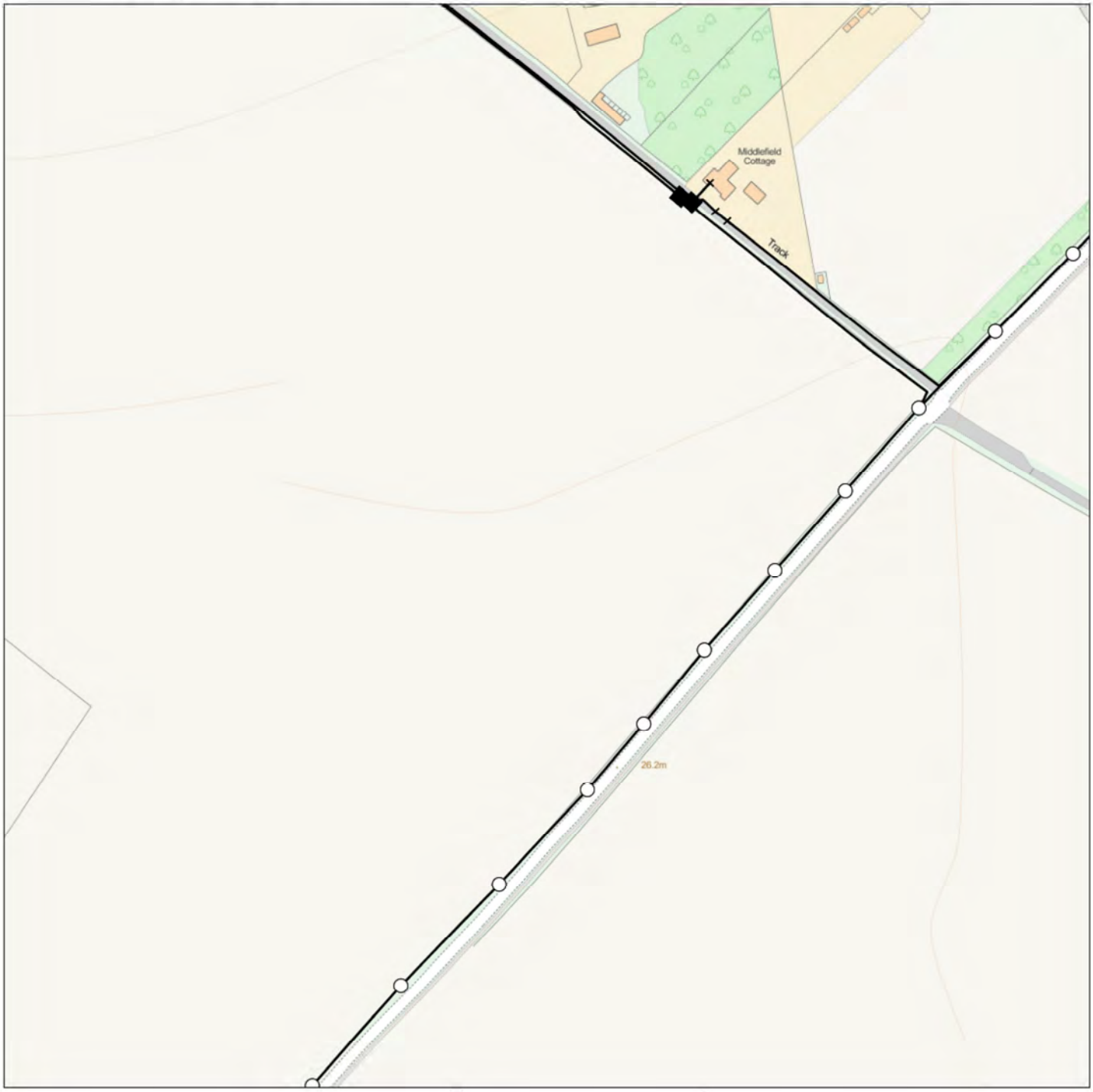
Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	In Place	Pending Remove	Not In Use
Power Cable				
Power Duct				N/A

BT Ref : AGF014821
Map Reference : (centre) TL4785952592
Easting/Northing : (centre) 547859,252592
Issued : 29/01/2020 13:46:28

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

	Planned	Live
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State		Hatchings	
Split Coupling		Built	
Duct Tee		Planned	
Building		Inferred	
Kiosk	K	Duct	

Other proposed plant is shown using dashed lines.
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Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	In Place	Pending Remove	Not In Use
Power Cable				
Power Duct				N/A

BT Ref : FYH02076D
Map Reference : (centre) TL4798752511
Easting/Northing : (centre) 547987,252511
Issued : 29/01/2020 14:07:15

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

APPENDIX 7

UKPN BUDGET ESTIMATE

Registered Office
Newington House
237 Southwark Bridge Road
London SE1 6NP

Company:
UK Power Networks
(Operations) Limited

Registered in England and Wales No: 3870728

Miss Verity Smith
MTC Engineering (Cambridge) Ltd
Ground Flo
24 High Street
Cambridgeshire
CB22 4LT

Date: 25 February 2020

Our Ref: 8500139538 / QID 3000025278

Dear Miss Smith

Site Address: Hinton Way/ Haverhill Road, Cambridge CB22 5AD

Thank you for your recent enquiry regarding the above premises. I am writing to you on behalf of Eastern Power Networks plc the licensed distributor of electricity for the above address trading as UK Power Networks.

I am pleased to be able to provide you with a budget estimate for the work.

It is important to note that this budget estimate is intended as a guide only. It may have been prepared without carrying out a site visit or system studies. No enquiry has been made as to the availability of consents or the existence of any ground conditions that may affect the ground works. It is not an offer to provide the connection and nor does it reserve any capacity on UK Power Networks electricity distribution system.

Budget estimate:

The budget estimation for this work is: £90, 000.00 plus VAT at the appropriate rate

Description

A 1.7MVA service metered at High Voltage for a care home and retirement flats

High Voltage Point Of Connection

£90,000.00 (exclusive of VAT) if the Point Of Connection (POC) is to our High Voltage network along Haverhill Road

Assumptions

This budget estimate is based on the following assumptions:

- The most appropriate Point of Connection (POC) is as described above.
- A viable cable or overhead line route exists along the route we have assumed between the Point of Connection (POC) and your site.

- In cases where the Point of Connection (POC) is to be at High Voltage, that a substation can be located on your premises at or close to the position we have assumed.

- Where electric lines are to be installed in private land UK Power Networks will require an easement in perpetuity for its electric lines and in the case of electrical plant the freehold interest in the substation site, on UK Power Networks terms, without charge and before any work commences.

- You will carry out, at no charge to UK Power Networks, all the civil works within the site boundary, including substation bases, substation buildings where applicable and the excavation/reinstatement of cable trenches.

- Unless stated in your application, all loads are assumed to be of a resistive nature. Should you intend to install equipment that may cause disturbances on UK Power Networks' electricity distribution system (e.g. motors; welders; etc.) this may affect the estimate considerably.

- All UK Power Networks' work is to be carried out as a continuous programme of work that can be completed substantially within 12 months from the acceptance of the formal offer.

Please note that if any of the assumptions prove to be incorrect, this may have a significant impact on the price in any subsequent quotation. You should note also that UK Power Networks' formal connection offer may vary considerably from the budget estimate. If you place reliance upon the budget estimate for budgeting or other planning purposes, you do so at your own risk.

Post estimate call

I will contact you within the next few days to discuss your estimate, to ensure you understand the work we will do for the estimated price, your responsibilities, any dependencies and the likely timescales for the work. UK Power Networks are always looking to improve our service offering and as such, the post estimate call may be recorded for training purposes. We will not share the recorded call with anyone outside of our connections business and it will be deleted as soon as we have completed the training review. However, if you do not want us to record the call please let me know at the beginning of the call.

If you would like to proceed

If you would like to proceed to a formal offer of connection then you should apply for a quotation. Please refer to our website click here for `The connection process' which details our application process.

To help us progress any future enquiry as quickly as possible please quote the UK Power Networks Reference Number from this letter on all correspondence.

If you have any questions about your budget estimate or need more information, please do not hesitate to contact me. The best time to call is between the hours of 9am and 4pm, Monday to Friday. If the person you need to speak to is unavailable or engaged on another call when you ring, you may like to leave a message or call back later.

Yours sincerely

Zoe Eyre

Zoe Eyre
07875 116 546
01279 314 481
zoe.eyre@ukpowernetworks.co.uk

APPENDIX 8

CADENT LAND ENQUIRY LETTER

Plant Protection
Cadent
Block 1; Floor 1
Brick Kiln Street
Hinckley
LE10 0NA
E-mail: plantprotection@cadentgas.com
Telephone: +44 (0)800 688588

National Gas Emergency Number:
0800 111 999*

National Grid Electricity Emergency Number:
0800 40 40 90*
* Available 24 hours, 7 days/week.
Calls may be recorded and monitored.

www.cadentgas.com

Verity Smith
MTC ENGINEERING
GROUND FLOOR
24 HIGH STREET
WHITTLESFORD
CAMBRIDGESHIRE
CB22 4LT

Date: 30/01/2020
Our Ref: EA_GE3B_3SWP_637434
Your Ref: MJB/2453 (TA)
RE: Proposed Works, CB22 5BQ, Land at Stapleford, between Haverhill Road and Hinton Way

Thank you for your enquiry which was received on 29/01/2020.
Please note this response and any attached map(s) are valid for 28 days.

An assessment has been carried out with respect to Cadent Gas Limited, National Grid Electricity Transmission plc's and National Grid Gas Transmission plc's apparatus. Please note it does not cover the items listed in the section "Your Responsibilities and Obligations", including gas service pipes and related apparatus.
For details of Network areas please see the Cadent website (http://cadentgas.com/Digging-safely/Dial-before-you-dig) or the enclosed documentation.

As your works are at a "proposed" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Scheduled Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. Plant Protection will endeavour to provide an initial assessment within 14 days of receipt of a Scheduled Works enquiry and dependent on the outcome of this, further consultation may be required.

In any event, for safety and legal reasons, works must not be carried out until a Scheduled Works enquiry has been completed and final response received.

Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near Cadent and/or National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to Cadent Gas Limited, National Grid Electricity Transmission plc (NGET) and National Grid Gas Transmission plc (NGGT) and apparatus. This assessment does **NOT** include:

- Cadent and/or National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to Cadent and/or National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Plant Protection.
- Gas service pipes and related apparatus
- Recently installed apparatus
- Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities. Further "Essential Guidance" in respect of these items can be found on either the National Grid or Cadent website.

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to Cadent and/or National Grid's easements or wayleaves nor any planning or building regulations applications.

Cadent Gas Limited, NGGT and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the Plant Protection team via e-mail (click here) or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

ASSESSMENT

Affected Apparatus
The apparatus that has been identified as being in the vicinity of your proposed works is:

- Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)

Requirements

BEFORE carrying out any work you must:

- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe Cadent and/or National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near Cadent and/or National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at http://www.hse.gov.uk
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

GUIDANCE

Excavating Safely - Avoiding injury when working near gas pipes:
http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf

Standard Guidance

Essential Guidance document:
http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982

General Guidance document:
http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103

Excavating Safely in the vicinity of gas pipes guidance (Credit card):
http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf

Excavating Safely in the vicinity of electricity cables guidance (Credit card):
http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf

Copies of all the Guidance Documents can also be downloaded from the National Grid and Cadent websites.

ID: EA_GE3B_3SWP_637434	View extent: 2890m, 3670m
USER: Abdul.Ali	LP MAINS MP MAINS IP MAINS LHP MAINS NHP MAINS
DATE: 30/01/2020	0m — 200m Approximate scale 1:10000 on A3 Colour Portrait
DATA DATE: 29/01/2020	
REF: MJB/2453 (TA)	
MAP REF: TL4752 CENTRE: 547702, 252642	

Some examples of Plant Items:

Valve | Depth of Cover | Syphon | Diameter Change | Material Change | Out of Standard Service

Map not to be used for construction

This plan shows those pipes owned by Cadent Gas Limited in its 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 Cadent Gas Limited 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.

Map 1 of 1 (GAS)

MAPS Plot Server Version 1.11.0

Cadent

Your Gas Network

Requested by: MTC ENGINEERING

ENQUIRY SUMMARY

Received Date
29/01/2020

Your Reference
MJB/2453 (TA)

Location
Centre Point: 547702, 252642
X Extent: 924
Y Extent: 987
Postcode: CB22 5BQ
Location Description: CB22 5BQ, Land at Stapleford, between Haverhill Road and Hinton Way

Map Options
Paper Size: A3
Orientation: PORTRAIT
Requested Scale: 10000
Actual Scale: 1:10000 (GAS)
Real World Extents: 2890m x 3670m (GAS)

Recipients
pprsteam@cadentgas.com

Enquirer Details
Organisation Name: MTC ENGINEERING
Contact Name: Verity Smith
Email Address: office@mtcengineering.co.uk
Telephone: 01223837270
Address: GROUND FLOOR, 24 HIGH STREET, WHITTLESFORD, CAMBRIDGESHIRE, CB22 4LT

Description of Works
PLANS ONLY.

Enquiry Type
Proposed Works

Activity Type
General Excavation

Work Types
Work Type: Plans Only

APPENDIX 9

OPENREACH PLANT ENQUIRY RESPONSE

Maps by email Plant Information Reply

IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	(K)	Duct	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : FYH02076D
Map Reference : (centre) TL4798752511
Easting/Northing : (centre) 547987,252511
Issued : 29/01/2020 14:07:15

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply

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Accidents happen

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KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

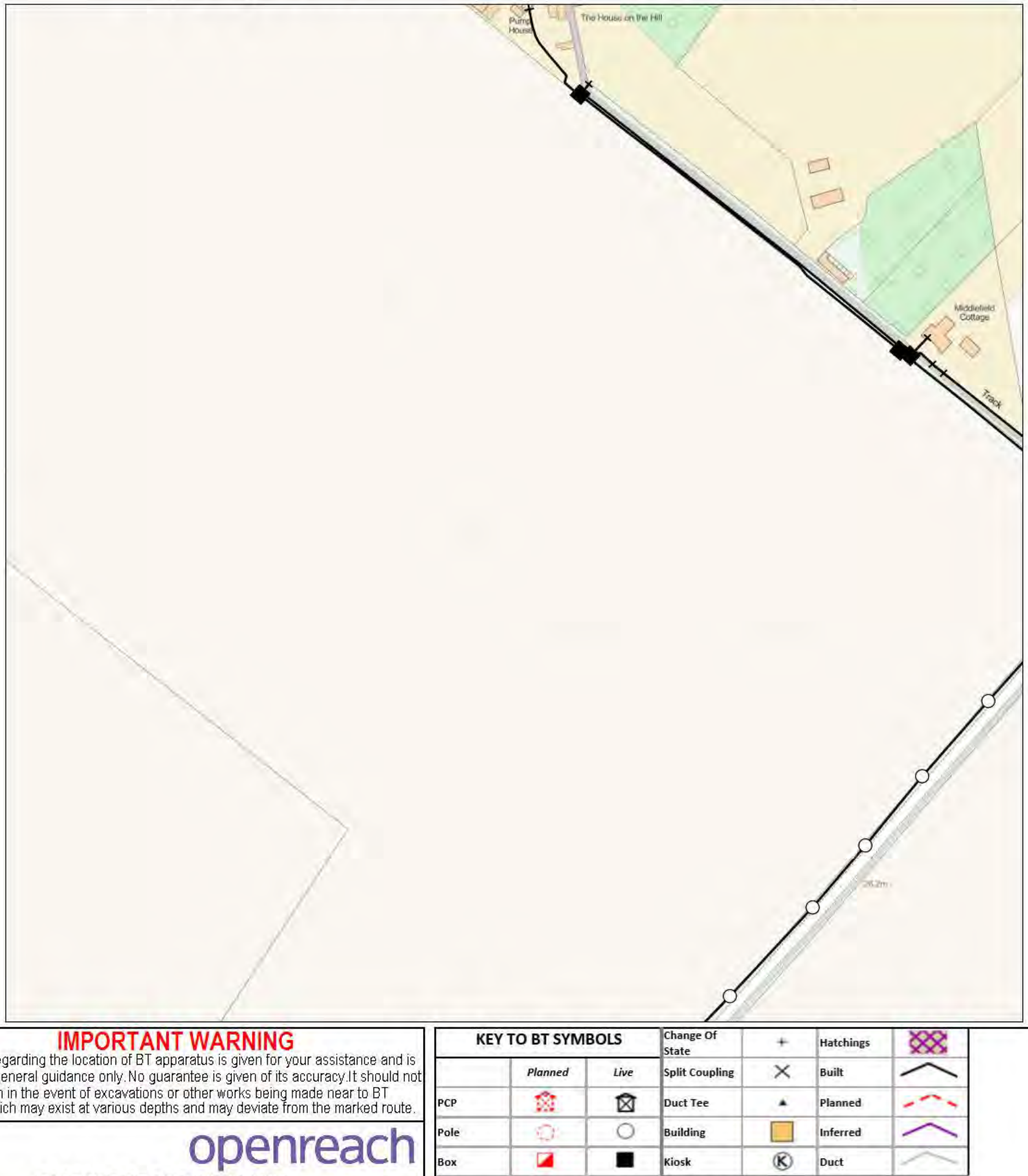
Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : DUL02078X
Map Reference : (centre) TL4744253007
Easting/Northing : (centre) 547442,253007
Issued : 29/01/2020 14:07:49

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : AGF01482I
Map Reference : (centre) TL4785952592
Easting/Northing : (centre) 547859,252592
Issued : 29/01/2020 13:48:28

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk