

11<sup>th</sup> May 2017

**Our Ref:** DR17/418A-1

**Client:** Victory Housing Trust  
Cromer Road  
North Walsham  
Norfolk  
NR28 0NB

**Site:** Proposed Development Site  
47 Holt Road  
Fakenham  
Norfolk  
NR21 8BW

**Report To:** Oxbury & Co. Ltd.  
St. Thomas House  
14 Central Avenue  
St. Andrews Business Park  
Norwich  
NR7 0HR

**Contact:** Joshua Bell -01603 707975

P Bowyer Associates Ltd  
Mahoney Green, Green Lane West,  
Rackheath, Norfolk, NR13 6JY

Tel: 01603 722325  
Email: pbowyer@dyno.com

VAT No. 106 9770 56  
Company Reg No. 1895836



By Appointment to  
Her Majesty The Queen  
Drainage Specialists  
P. Bowyer Associates Ltd  
(Dyno-Rod East Anglia)

## SUMMARY

As requested, we attended site on 4<sup>th</sup> May 2017.

The purpose of the visit was to undertake an investigation of any existing drainage within the proposed development area. Specifically, to confirm the following:

- The routes of the existing foul and surface water drains on and adjacent to the site and thence to the main sewers (where access allowed).
- A C.C.T.V survey to determine the size and condition of any existing pipework.
- Identify invert levels, chamber depths and pipework diameters.

On completion of the survey to supply a marked-up plan of the drainage with all requested information (please refer to the enclosed plan for full details.)

### C.C.T.V Investigation

Observations on the structural condition of the pipework have been noted in accordance with the Water Research Council's (WRc) Manual of Sewer Classification, 5<sup>th</sup> Edition. All structural defects are noted, and their severity graded 1 – 5, with 5 being the most structurally compromised (as described below)

<b>Pipework Condition Grade</b>	<b>Structural Condition</b>
1 & 2	Structurally sound with no leakage evident. Slight cracks/defects permitted.
3	Cracks and/or fractures observed but pipe provides sufficient arching support. Some leakage may be evident
4 & 5	Structurally unsound with insufficient arching support. Total collapse/blockage likely in the future.

### Foul Water

The C.C.T.V survey revealed that there is an adopted, 150mm diameter Anglian Water foul sewer that crosses the site area discharging into Manhole 3903 outside of the proposed development area.

The pipework is serviceable but would benefit from high-pressure cleaning to remove general debris/sewage scale. Minor defects were noted. This cleaning/remedial work would fall under the responsibility of Anglian Water.

The C.C.T.V survey did not identify any additional 'blind' connections or hidden manholes.

### Surface Water

The survey noted that the rainwater pipes discharge to underground pipework without access or rodding-eyes. We suspect that the rainwater is dispersed via localised soakaways located close to the properties.

Cont.../

All work has been carried out in accordance with current Health and Safety Regulations and in line with our site-specific Method Statement and Risk Assessments.

We trust our findings meet with your approval and we look forward to being of continued service. Should there be any aspect that you wish to discuss further, or if you require additional information, please do not hesitate to contact this office.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Dan Bowyer', with a long, sweeping horizontal flourish extending to the right.

**DANIEL BOWYER**  
**DIRECTOR**

Encl. DVD



**DYNO ROD**

Client: Victory Housing Trust,

Proposed Site,

47 Holt Road,

Fakenham,

Norfolk

NR21 8BW

Date: May 2017

NOT TO SCALE

## Independent licensed operator

P Bowyer Assocs. Ltd (Co.Reg: 1895836)  
Mahoney Green, Rackheath  
Norwich  
NR13 6JY  
Tel: 01603 722325  
Fax: 01603 735628  
e-mail: admin@bowyer-drains.com

# DYNO-ROD

Drain services

Part of **British Gas**



**Freephone: 0800 112 112**

## CCTV SURVEY REPORT

Date of Survey:	04/05/2017
Survey Conducted by:	
Log No.:	
Our Reference:	DR17/418A-1
Your Reference:	AD01-155

## CLIENT DETAILS

Client Name:	Victory Housing Trust
Client Ref.:	AD01-155
Contact:	(Joshua Bell - Oxbury)
Position:	
Address:	Cromer Road, North Walsham, Norfolk NR28 0NB
Tel:	01603 707 900
Mobile:	07939 887 529
e-mail:	

## SITE DETAILS

Site Contact:	
Position:	
Site Address:	47 Holt Road, Fakenham, Norfolk NR21 8BW
Tel:	
Mobile:	
e-mail:	



## Inspection report

Date: <b>04/05/2017</b>	Job N°: <b>DR17/418A-1</b>	Weather: <b>Dry</b>	Operator: <b>JV</b>	section number: <b>1</b>	PLR: <b>3902 X</b>
Video Volume No.:	Flow Ctrl:	Temperature:	Year laid:	Cleaned: <b>No</b>	Strat. Drain:

Road: <b>47 Holt Road</b>	Div/Dist:	start MH: <b>3903</b>
Place: <b>Fakenham</b>	Drain. Area:	end MH: <b>3902</b>
Location:	Standard: <b>BS EN 13508-2:2003</b>	Total length: <b>26.63 m</b>
Purpose: <b>Other</b>	Shape/Size: <b>Circular 150</b>	Pipe length:
Type:	Material: <b>Vitreous Clay</b>	
Use: <b>Foul</b>	Lining:	
	Lining Type:	

Comment:

1:200	position	code	observation	counter	photo	grade
<b>Depth: 2.10</b>						
	0.20	MH	Start node type, manhole, reference number: 3903	00:00:00		(Misc) 0
	0.66	DEX	Other settled deposits 40 % cross-sectional area loss	00:00:00	<a href="#">2_2a</a>	
	5.26	DEX	Other settled deposits 50 % cross-sectional area loss	00:00:00	<a href="#">3_3a</a>	
	13.90	DEX	Other settled deposits 80 % cross-sectional area loss	00:00:00	<a href="#">4_4a</a>	
	26.63	MHF	Finish node type, manhole, reference number: 3902	00:00:00		
<b>Depth: 2.80</b>						

<b>Structural Defects</b>	<b>Constructional Features</b>
<b>Service Defects</b>	<b>Miscellaneous Features</b>

### Inspection photos

Place: <b>Fakenham</b>	Road: <b>47 Holt Road</b>	Date: <b>04/05/2017</b>	section number: <b>1</b>	PLR: <b>3902 X</b>
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Photo: 2\_2a, 00:00:00  
0.66m, Other settled deposits 40 % cross-sectional area loss



Photo: 3\_3a, 00:00:00  
5.26m, Other settled deposits 50 % cross-sectional area loss



Photo: 4\_4a, 00:00:00  
13.9m, Other settled deposits 80 % cross-sectional area loss

## Inspection report

Date: <b>04/05/2017</b>	Job N°: <b>DR17/418A-1</b>	Weather: <b>Dry</b>	Operator: <b>JV</b>	section number: <b>2</b>	PLR: <b>LINE A X</b>
Video Volume No.:	Flow Ctrl:	Temperature:	Year laid:	Cleaned: <b>No</b>	Strat. Drain:

Road: <b>47 Holt Road</b>	Div/Dist:	start MH: <b>3903</b>
Place: <b>Fakenham</b>	Drain. Area:	end MH: <b>LINE A</b>
Location:	Standard: <b>BS EN 13508-2:2003</b>	Total length: <b>24.1 m</b>
Purpose: <b>Other</b>	Shape/Size: <b>Circular 100</b>	Pipe length:
Type:	Material: <b>Vitreous Clay</b>	
Use: <b>Foul</b>	Lining:	
	Lining Type:	

Comment:

1:200	position	code	observation	counter	photo	grade
<b>Depth: 2.1</b>						
	0.20	MH	Start node type, manhole, reference number: 3903	00:00:00		(Misc) 0
	0.30	JDL	Joint displaced large, from 09 to 03 o'clock	00:00:00	7_2a	(Struct) 2
	0.79	RF	Roots fine	00:00:00		(Serv) 1
	0.79	CC	Crack Circumferential from 09 to 03 o'clock	00:00:00	9_4a	(Struct) 2
	2.05	CC	Crack Circumferential from 09 to 03 o'clock	00:00:00	10_5a	(Struct) 2
	3.51	CC	Crack Circumferential from 06 to 12 o'clock	00:00:00	11_6a	(Struct) 2
	7.13	CC	Crack Circumferential from 07 to 12 o'clock	00:00:00	12_7a	(Struct) 2
	10.91	CC	Crack Circumferential from 07 to 02 o'clock	00:00:00	13_8a	(Struct) 2
	11.56	RF	Roots fine	00:00:00		(Serv) 1
	21.23	REM	General remark - HIDDEN MANHOLE (UNDER FLOORING OF No.47)	00:00:00		
	21.88	LU	Line of drain/sewer deviates up 45 degrees	00:00:00		
	23.04	MC	Material of drain/sewer changes to PVC	00:00:00		
	23.05	LU	Line of drain/sewer deviates up 45 degrees	00:00:00		
	24.10	OCF	Finish node type, other special chamber, reference number: SOIL PIPE	00:00:00		

Depth: NA

<b>Structural Defects</b>	<b>Constructional Features</b>
<b>Service Defects</b>	<b>Miscellaneous Features</b>



### Inspection photos

Place: <b>Fakenham</b>	Road: <b>47 Holt Road</b>	Date: <b>04/05/2017</b>	section number: <b>2</b>	PLR: <b>LINE A X</b>
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Photo: 7\_2a, 00:00:00  
0.3m, Joint displaced large, from 09 to 03 o'clock



Photo: 9\_4a, 00:00:00  
0.79m, Crack Circumferential from 09 to 03 o'clock



Photo: 10\_5a, 00:00:00  
2.05m, Crack Circumferential from 09 to 03 o'clock



Photo: 11\_6a, 00:00:00  
3.51m, Crack Circumferential from 06 to 12 o'clock

### Inspection photos

Place: <b>Fakenham</b>	Road: <b>47 Holt Road</b>	Date: <b>04/05/2017</b>	section number: <b>2</b>	PLR: <b>LINE A X</b>
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Photo: 12\_7a, 00:00:00  
7.13m, Crack Circumferential from 07 to 12 o'clock



Photo: 13\_8a, 00:00:00  
10.91m, Crack Circumferential from 07 to 02 o'clock