

FOUL SEWER , SURFACE WATER & UTILITIES ASSESSMENT

PROPOSED FIRST HOMES SITE, LAND WEST OF CHURCH LANE. KEYINGHAM

OUTLINE PLANNING APPLICATION

DATE :- 27-11-2023

THE SITE

The area identified for development is a parcel of land on the western side of Church Lane in the village of Keyingham.

The land itself has been primarily used for grazing animals and is enclosed by a low wire fence on all flanks.

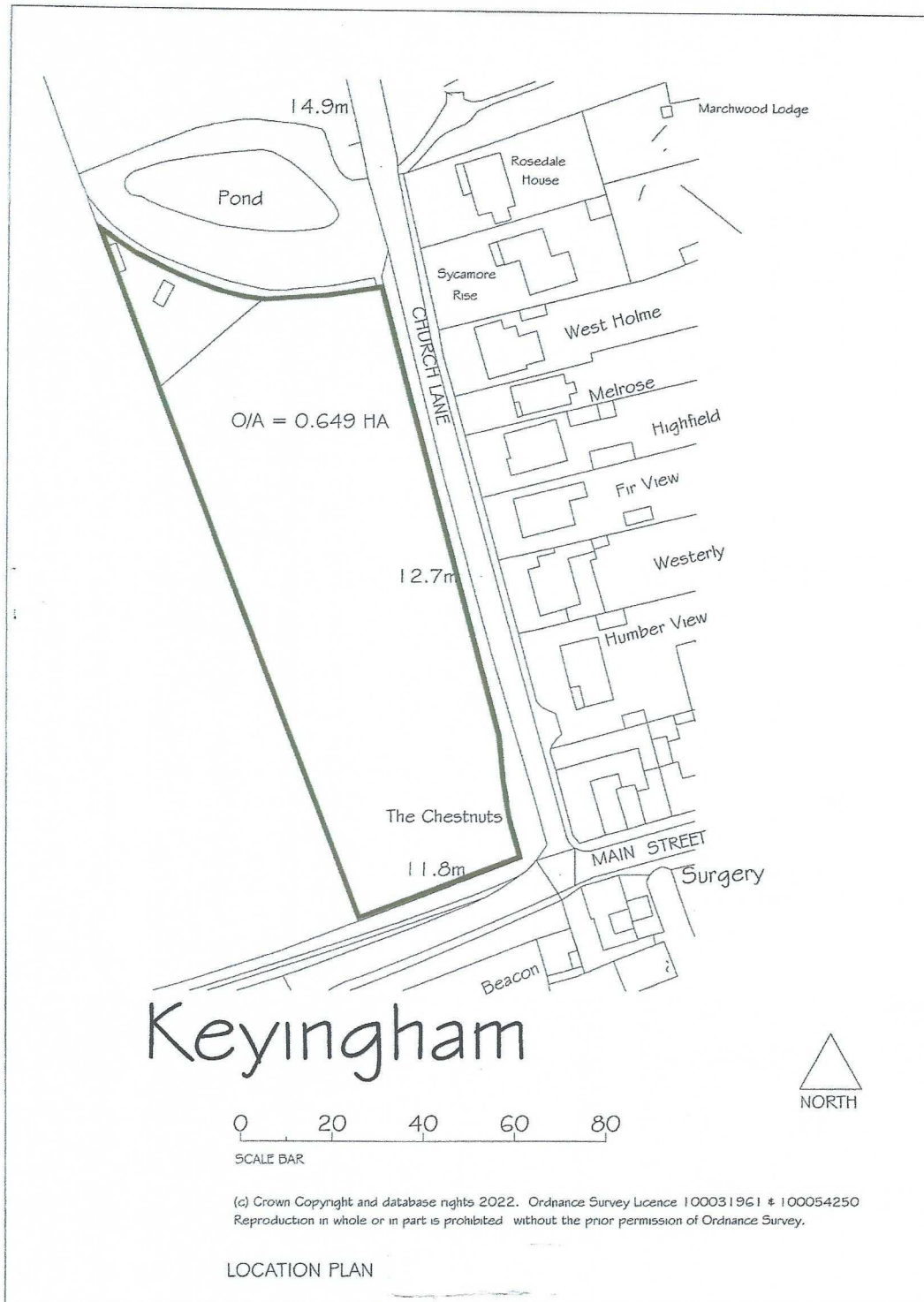
There are mature trees abutting the northern boundary of the site, outside the eastern boundary alongside Church Lane and some along the southern boundary adjacent to the A1033.

Gated access to the site is on the eastern boundary, very close to the northern edge of the land.

On the opposite side of the road are residential properties which are primarily bungalows.

To the west of the site is a large agricultural field.

The site lies outside but adjacent to the Development Limits of the village.



LAND WEST OF CHURCH LANE KEYINGHAM - LOCATION PLAN

EXISTING SEWER RECORDS IN THE VICINITY OF THE DEVELOPMENT SITE

There are no foul sewers in Church Lane between the northern & southern boundary of the development site.

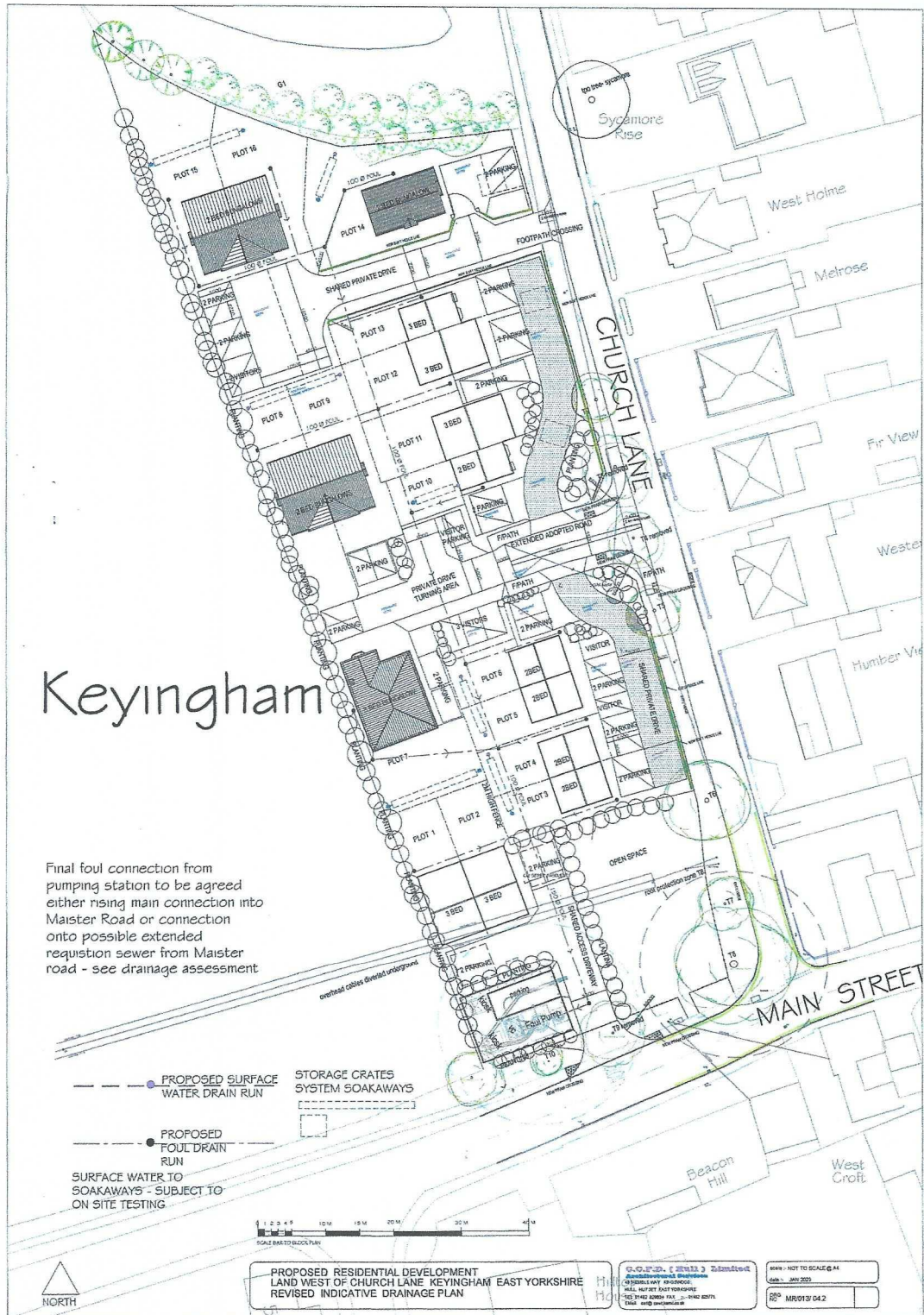
The public sewer located above the site crosses east into the rear of adjacent gardens running north to south before turning away from the site between 'Westerly' and 'Humber View' properties

The nearest foul sewer connection shown on record is located in Maister Road



LAND WEST OF CHURCH LANE
KEYINGHAM - POSSIBLE SEWER ACQUISITION

EXTRACT OF EXISTING SEWER RECORDS 2023 , WITH POSSIBLE NEW CONNECTION ROUTES



PROPOSED DRAINAGE PLAN FOR IDENTIFICATION ONLY - NOT TO SCALE

PROPOSED DRAINAGE SOLUTIONS – FOUL

A new 150mm diameter foul sewer connection will be laid into Main Street where sewer depths are at their greatest.

A 150mm diameter lateral connection will come off the main sewer from a newly formed soffit to soffit connection.

Within the new site 150mm diameter foul only sewer will run north / south with 100mm diameter foul branch connections both north/south and east / west.

All drains will be laid to achieve self cleansing gradients at all times.

Option no 1 :- There may be a foul sewer on the southern side of Main Street, where running parallel with plots 1 & 2 of the development site

This would be the preferred connection point by gravity from the development site, subject to depth confirmations and pipe diameter.

A new 150mm diameter lateral connection with soffit to soffit connection would be constructed.

Option no 2 :- Where a connection is not readily available directly outside of the development site, a REQUISITION SEWER will be requested to connect to the adopted foul sewer in Maister Road

This would be designed and undertaken by the adopting sewage undertaker up to the site Entrance , with confirmation where drainage can be provided by gravity .

Option no 3 :- Where a gravity connection is not possible a foul pumping station will have to be introduced to provide a rising main connection into the foul sewer in Maister Road- see alternative plot 1 & 2 layout with foul pumping station. Foul Pump chamber to have minimum 15 metres clearance from external face of dwellings

Foul station to be located either on the southern boundary with access off Main Street, or positioned further to the north away from root protection zone of Tree no 8.

A 6 metre sewer easement will protect the 150mm diameter foul sewer entering the pumping station

All connecting inspection chambers will be constructed in accordance with the latest sewers for adoption edition 6 details .

As the site levels fall both north to south and east to west , all gradients of foul drainage will be laid to achieve falls by gravity only

PROPOSED SURFACE WATER RUN-OFF

Surface water run off from the new dwellings will be connected to a shallow crate system soakaway in the rear garden areas – see drainage plan proposed.

The final crate volume will be calculated once a soakaway percolation rate has been confirmed. Percolation rate shall be used to calculate design storage for a 1 :1, 1: 30 & 1:100 year return storm with 30% additional storage for climate change

Where soakaways are proven not to work, the storage system will be designed for attenuation storage and controlled release into the main sewer . An agreed rate of 5 litres/ second (to be confirmed by sewage undertaker) shall be used to calculate design storage for a 1 :1, 1: 30 & 1:100 year return storm with 30% additional storage for climate change

Separate drainage will be laid in the application site with a combined 150mm diameter surface water connection at the last manhole (lateral connection) before connecting onto the main sewer in Main street.

Private shared driveways will discharge into the public sewer where no other means of discharge is possible.

Over sized pipes or approved crate system will be used for attenuation , prior to an agreed discharge rate

UTILITIES

All Utility services are available to site being Electric , clean water and telephone services. Central heating and hot water will be provided by gas powered condensing boiler

New Service ducts will laid down under the private shared driveways to service plots

All plots fronting existing main roads will be served from existing services in established roads , extended to suit

Revised Nov 2023

From: Mick Ralph [Mick@mralphbuilder.co.uk]
Sent: Monday, November 06, 2023 12:21 PM
To: CARL CAWTHORNE
Subject: FW: Soakaway test hole positions and measurements - Land west of Church Lane Keyingham

Carl

Please find below the test holes which were filled with water up to the mark on the pegs on 13/9 at 15.44 and checked by the building inspector.

Then on 14/9 at 11.25 they were checked again by myself and the building inspector they were completely dry and wouldn't hold water.

Hole 1, 2 and three positions are marked on the plan we are forwarding to you.

Regards

Mick

From: Mick Ralph <mick.ralph@icloud.com>
Sent: 06 November 2023 12:14
To: Mick Ralph <Mick@mralphbuilder.co.uk>
Subject:

CARL CAWTHORNE

From: Mick Ralph [Mick@mralphbuilder.co.uk]
Sent: Monday, November 06, 2023 12:59 PM
To: CARL CAWTHORNE
Subject: Soak away test - Church Lane Keyingham
Attachments: DOC061123-06112023130324.pdf

Carl

Please see soak away test holes which are 600 x 600 x 1 metre deep.

No water was held in any hole for more than 5 mins, each hole seeped away instantly.

Please take note: Simon Dee viewed each trial hole which he approved.

Also see pictures sent in my earlier e mail.

Regards

Mick

CHURCH LANE KEYINGHAM APPLICATION SITE

Confirmation email soakaway tests acceptable nov 2023

Carl

Please see email below from Simon Dee.

Regards

Mick

From: Simon Dee <simon.dee@eastriding.gov.uk>
Sent: 07 November 2023 10:32
To: Mick Ralph <Mick@mralphbuilder.co.uk>
Subject: Re: Soakaway test holes - church lane Keyingham

Mick

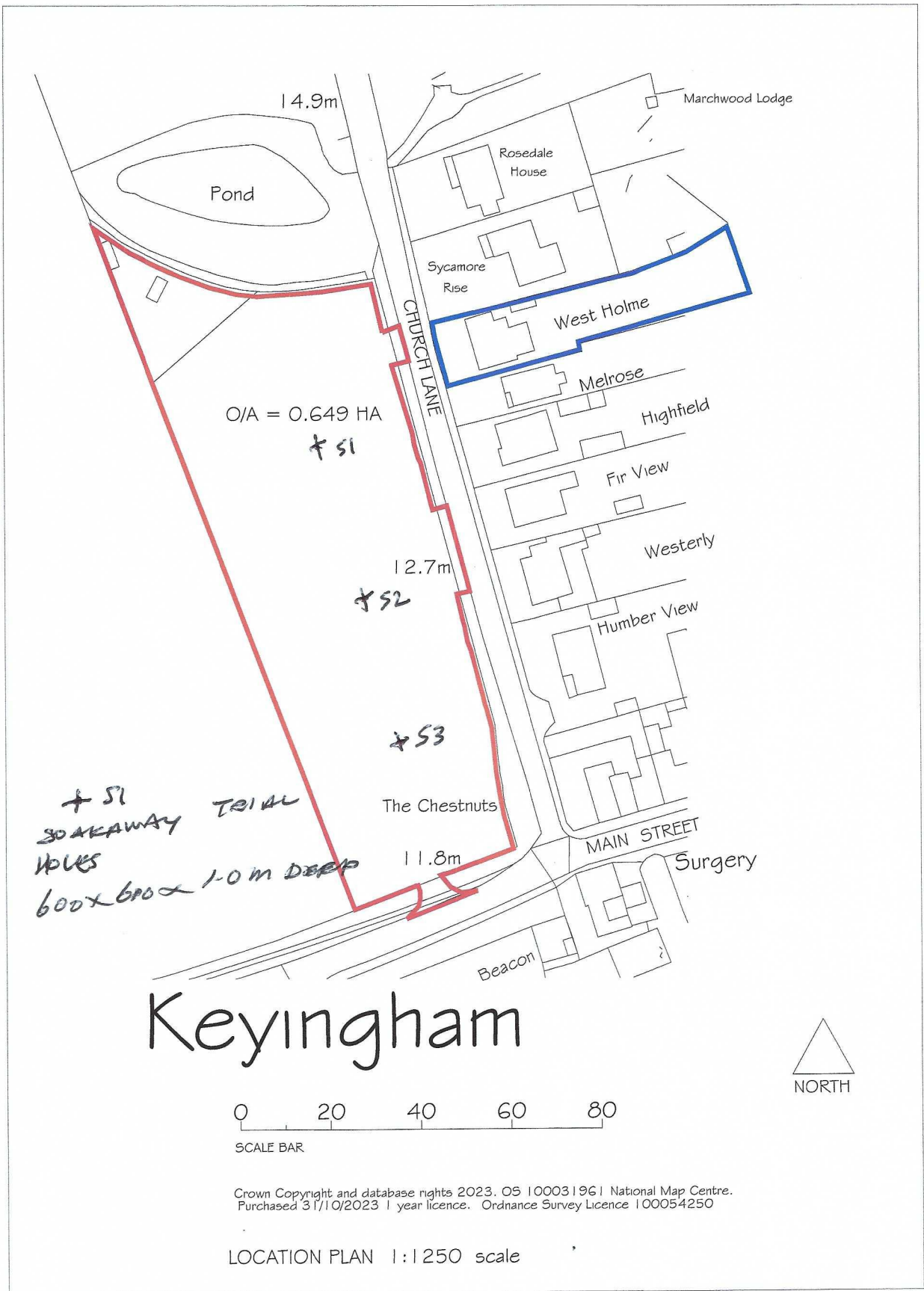
The 3 test holes for soak aways on that site appear to work.
The size, number and location will need to be confirmed on site at a later date.
The soak away design should follow the BRE digest 365 soak away design guidance.

Regards

Simon Dee MCABE

Principle Building Control Officer
(07990) 510525

www.eastriding.gov.uk



PROPOSED RESIDENTIAL DEVELOPMENT
 LAND WEST OF CHURCH LANE KEYINGHAM EAST YORKSHIRE
 LOCATION PLAN - SOAKAWAY TRIAL HOLES POSITIONS

Rev A - Red line application boundary adjusted - Jan 2023
 Rev B - Blue line around West Holme added as requested- May 2023
 Rev C - Red line adjusted to suit revised block plan Oct 2023

C.C.F.D. (Hull) Limited
 Architectural Services
 46, HEMBLE WAY, KINGSWOOD
 HULL, HU7 3ET, EAST YORKSHIRE
 TEL 01482 826634 FAX : 01482 826771.
 Email carl@ccfd.karoo.co.uk

scale :- 1:1250 - location plan@ A4
 date :- Aug 2022

DRG NO MR/013/01 C



SOAKAWAY NO 1

600 x 600 x 1m DEEP



SOAKAWAY NO 2

600 x 600 x 1m DEEP



SIKAWAY NO 3

6m x 6m x 1m DEEP



SOAKAWAY 001 - END



Soakaway #2 empty



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