

HURST ROAD, EAST PRESTON

Proposed Development for Two Residential Dwellings

DRAINAGE STRATEGY

Foul Drainage

There is a 150mm dia. public foul sewer in Hurst Road fronting the northern boundary of the site. The proposed development is for two residential units which will produce a discharge of 0.09lits/sec. Southern Water have confirmed that the existing sewer has capacity to cater for the flow from the proposed development. A copy of this correspondence is provided with this statement.

Discharge into the public sewer will be through the existing foul drainage connection from the site to the sewer. It's condition will be confirmed by a CCTV survey. Approval for the connection will be subject to a Section 106 Agreement with Southern Water.

Details of the proposed foul drainage strategy can be seen on the Escher Silverman drawing ES1702-502-03

Surface Water Drainage

There are no public surface water sewers in the vicinity of the site.

In line with current SUDS practise it is proposed to utilise soakaways as the means of surface water disposal. Infiltration test have been undertaken on the site and details are supplied with this report. Trench soakaways will be used to cater for the discharge from roofs and a permeable construction will be used on the driveways. Soakaways will be designed in line with current Environment Agency recommendations and include for the effect of climate change.

In line with current local drainage authority requirements winter monitoring of ground water levels has been undertaken and the results are supplied with this report.

Details of the proposed surface water drainage strategy utilising infiltration methods can be seen on the Escher Silverman drawing ES1702-502-03.

*Escher Silverman ES1702
July 2018*



RECEIVED 14 DEC 2016

MJH Executive Homes Limited
Cypress House
Waterford House
Long Furlong
Clapham
West Sussex
BN13 3UT

Developer Services
Southern Water
Sparrowgrove House
Sparrowgrove
Otterbourne
Hampshire
SO21 2SW

Your Reference:

F.A.O: Mr. Backhouse

Our Reference:
SWS-SUSXW-CC-003208

Date:
12 December 2016

Level 1: Capacity check application for: St. Marys Close, Hurst Road, East
Preston, Littlehampton, West Sussex, BN16 3AP.

Dear Sirs,

I am now in receipt of the results of the capacity check you requested for the above development site.

FOUL WATER

Following initial investigations, there is currently adequate capacity in the local sewerage network to accommodate a foul flow for the above proposal at manhole reference number TQ06023602. Please note that no surface water flows (existing or proposed) can be accommodated within the existing foul sewerage system.

Before any connection/s are made, an application form needs to be completed and approved by Southern Water Services.

Please let me know if we can be of any further assistance in this matter.

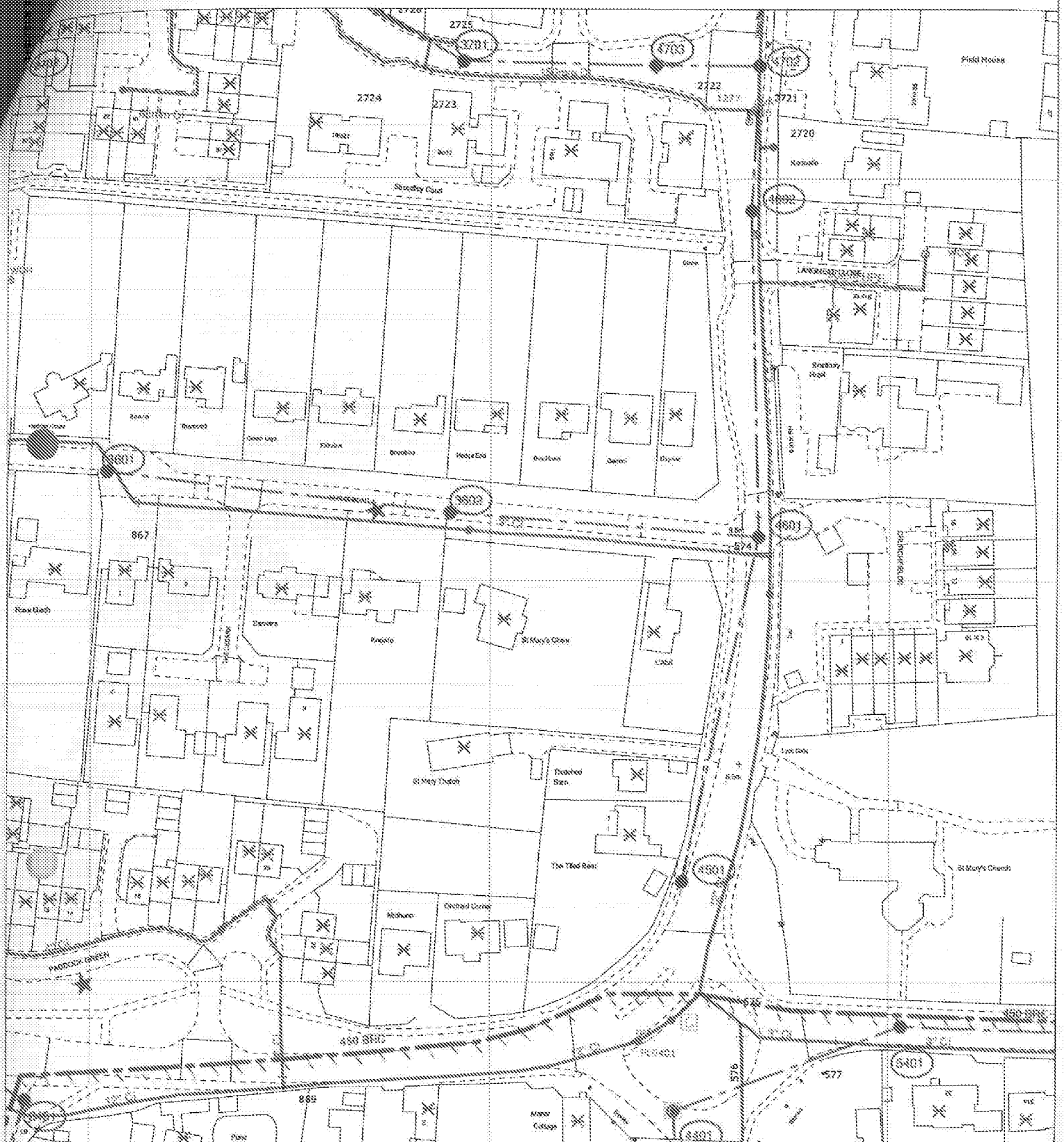
Yours faithfully,

Developer services

Please note: -

The information provided above does not grant approval for any designs/drawings submitted for the capacity analysis.
The results quoted above are only valid for 12 months from the date of issue of this letter.

SOUTHERN WATER



The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site.

Based upon Ordnance Survey Digital Data with the permission of the controller of H.M.S.O. Crown Copyright Reserved Licence No. WU 298530

O.S. REF: TQ0602NW

Scale: 1:1250

Screen Print

WARNING: H&C pipes are constructed of bonded Asbestos Cement

WARNING: Unknown (UNE) materials may include Blended Asbestos Cement.



Printed By: Giri

Date: 7-12-2016

Site Plan

Requested By:





TP3
Trial Pit Locations



THE NEW YORK PUBLIC LIBRARY

Civil & Structural Consulting Engineers

Boughton, A2 Omega Park, Eleonora Way, Chandlers Ford, Hampshire SO5 4SL

Tel: 023 8027 8659 Email: reception@desches.co.uk

www.scholarlycommons.com

Project

HURST ROAD, EAST PRESTON

Drawing Title

Engineering Details

Trial Pit Locations

Drawing Status

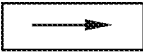
For Information

Client

MJH Executive Homes

	Scale	Paper Size
	1:250	A3
Job No.		
ES1702		
Drawing No.	Rev	
500-01	A	
Rev.	Date	Details
		Initials

Crossfield CONSULTING GEOTECHNICAL ENVIRONMENTAL		Trial Pit Record Sheet				Hole Ref. TP1	
Project		Hurst Road, East Preston				Sheet 1 of 1	
Date		19/06/2018				Job No. CCL03104	
Bearing: Northwest		Shoring None used				Ground Level m OD	
Plant Tracked 3T excavator		Stability Stable during excavation				Co-ordinates	
Trial Pit		Water Dry during excavation				Logged by DB Logged on site during excavation	
Plan						Checked by <i>AM</i>	
Depth	Face A		Face B		Face C		Depth
0.60			(1)				0.60
2.00			(2)				2.00
2.20			(3)				2.20
2.80			Base of pit				2.80
Sampling		Strata					
Sample/Test Depth	Type	Strength (kN/m ²)	Ref. No.	Strata Depth	Description		
0.30	J		1	0.00-0.60	Turf on brown slightly gravelly silty clay. (TOPSOIL)		
1.20	c _{uv}	124, 110,	2	0.60-2.00/2.20	Stiff consistency orangish brown CLAY with occasional black organic remains. (RIVER TERRACE DEPOSITS)		
1.00	J	100, 110,			...becoming gravelly from 2.0 m.		
1.30	J	70					
1.70	J		3	2.00/2.20-2.80	Brown clayey slightly sandy fine to coarse and rounded GRAVEL. (RIVER TERRACE DEPOSITS)		
					...Cobbles from 2.4 m.		
Remarks					Notes		
					1. All logging and sampling in accordance with BS 5930:2015 2. Symbols and abbreviations are explained on the accompanying key 3. All linear dimensions are in metres unless otherwise stated		

Crossfield CONSULTING GEOTECHNICAL ENVIRONMENTAL		Trial Pit Record Sheet			Hole Ref. TP2	
Project		Hurst Road, East Preston			Sheet 1 of 1	
Date		19/06/2018			Job No. CCL03104	
Bearing: East		Shoring None used			Ground Level m OD	
Plant Tracked 3T excavator		Stability Stable during excavation			Co-ordinates	
Trial Pit Plan		Water Dry during excavation			Logged by DB Logged on site during excavation Checked by <i>AM</i>	
A  B C						
Depth	Face A		Face B		Face C	
0.60			(1)		0.60	
1.70			(2)		1.70	
1.80			(3)		1.80	
2.00			(2)		2.00	
2.60			(4)		2.60	
			Base of pit			
Sampling						
Sample/Test	Type	Strength	Ref. No.	Strata	Description	
Depth		(kN/m ²)		Depth		
			1	0.00-0.60	Turf on brown fine to medium and rounded slightly gravelly silty clay. (TOPSOIL)	
1.20	c _{uv}	80, 78,	2	0.60-2.00	Stiff consistency orangish brown fine and rounded slightly gravelly CLAY. (RIVER TERRACE DEPOSITS)	
1.00	J	90, 90, 86	3		...Very clayey gravel lens from 1.7 m to 1.8 m.	
1.50	J		4	2.00-2.60	Firm consistency light grey mottled orangish brown sandy CLAY. (POSSIBLE WEATHERED CHALK)	
2.50	J					
Remarks					Notes	
					1. All logging and sampling in accordance with BS 5930:2015 2. Symbols and abbreviations are explained on the accompanying key 3. All linear dimensions are in metres unless otherwise stated	

Crossfield CONSULTING GEOTECHNICAL ENVIRONMENTAL		Trial Pit Record Sheet				Hole Ref. TP3	
Project		Hurst Road, East Preston				Sheet 1 of 1	
Date		19/06/2018				Job No. CCL03104	
Bearing: North		Shoring None used				Ground Level m OD	
Plant Tracked 3T excavator		Stability Stable during excavation				Co-ordinates	
Trial Pit		Water Dry during excavation				Logged by DB Logged on site during excavation	
Plan						Checked by <i>AM</i>	
A → B C							
Depth	Face A		Face B		Face C		Depth
0.60			(1)				0.60
1.80			(2)				1.80
			Base of pit				
Sampling							
Sample/Test	Type	Strength	Ref. No.	Strata	Description		
Depth		(kN/m ²)		Depth			
1.20	c _{fu} J	118, 132, 116, 136, 112, 100	1	0.00-0.60	Brown clayey silt. (TOPSOIL)		
			2	0.60-1.80	Stiff consistency brown slightly gravelly CLAY. (RIVER TERRACE DEPOSITS)		
Remarks					Notes		
					1. All logging and sampling in accordance with BS 5930:2015 2. Symbols and abbreviations are explained on the accompanying key 3. All linear dimensions are in metres unless otherwise stated		

In Situ Percolation Test

Hole Ref. **TP1**

Project: Hurst Road, East Preston

Sheet 1 of 2

Job No. CCL03104

Date: 19/06/2018

Test by: DB

Checked by: *APM*

Trial Pit 1

Depth 2.80 m
Length 1.90 m
Width 0.70 m

Depth to water at start of test 2.02 m
Max Effective Depth 0.78 m
75% Effective Depth 0.59 m
25% Effective Depth 0.20 m

Water Level Measurements

Time at Start of Test	Time (Minutes)	Depth to Water (metres)	Effective Depth (m)
10:52	0	2.02	0.78
	5	2.03	0.77
	11	2.05	0.75
	24	2.08	0.72
	45	2.12	0.68
	69	2.15	0.65
	92	2.18	0.62
	114	2.20	0.60
	185	2.27	0.53
	237	2.30	0.50
	304	2.35	0.45
	367	2.39	0.41
	418	2.42	0.38

75% Effective Depth - 125 - 0.59
25% Effective Depth - 780 - 0.20

Outflow Volume

Volume outflowing between 75% & 25% effective depth:

$$V_{p75} = 0.52 \text{ m}^3$$

The mean surface area through which the outflow occurs, taken to be the pit sides to 50% effective depth and the base.

$$a_{p50} = 3.36 \text{ m}^2$$

Time for outflow

$$t_p = 655 \text{ mins}$$

Soil Infiltration Rate

as defined in

BRE Digest 365 (1991)

$$f = V_{p75} / a_{p50} * t_p$$

$$f = 3.9E-06 \text{ m/sec Estimated}$$

In Situ Percolation Test

Hole Ref. **TP1**

Project: Hurst Road, East Preston

Sheet 2 of 2

Job No. CCL03104

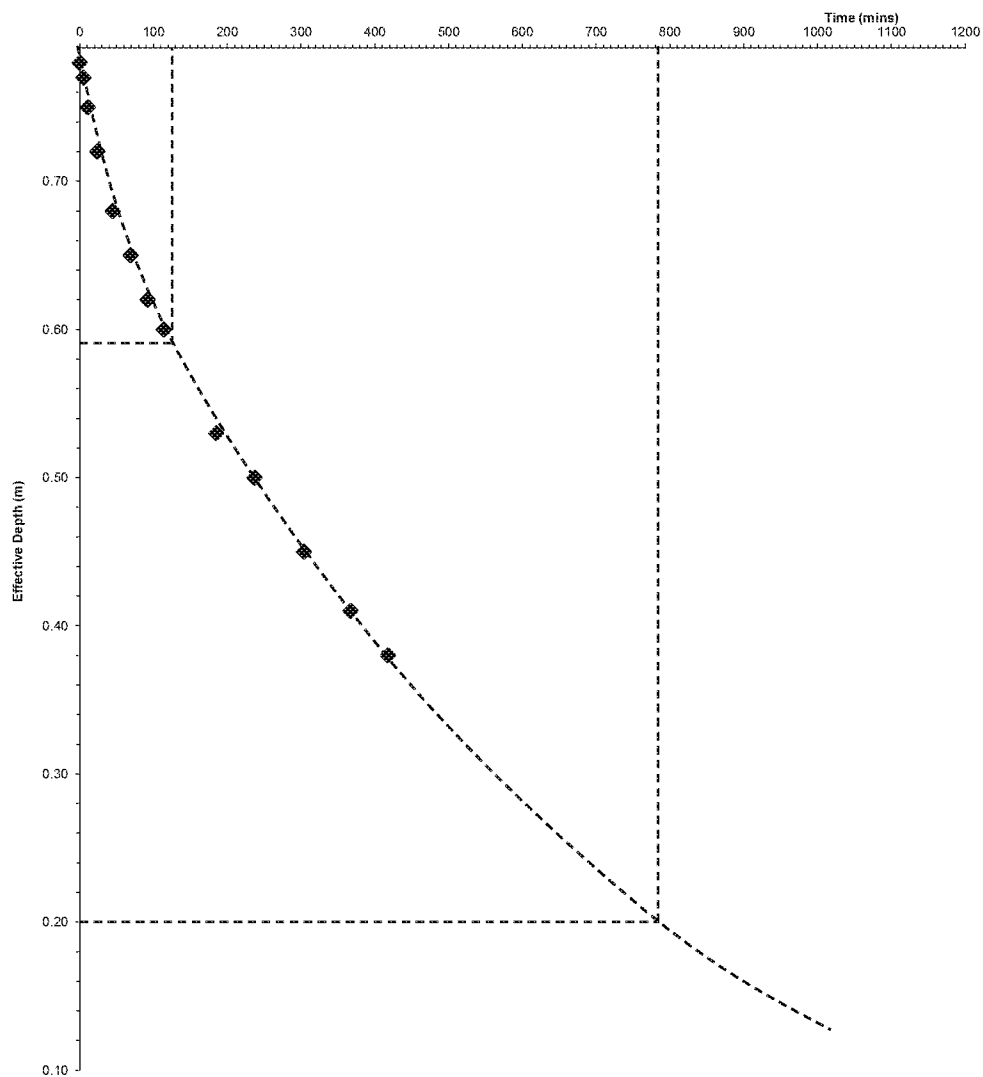
Date: 19/06/2018

Test by: DB

Checked by: *ARUN*

Trial Pit 1

Infiltration Rate



Date	WS	H ₂ O (m bgl)	Base of Well (m bgl)
14/02/17	WS1	Dry	2.20
	WS2	Dry	3.00
27/02/17	WS1	Dry (damp at base)	2.20
	WS2	Dry (damp at base)	3.00
22/03/17	WS1	Dry	2.23
	WS2	Dry	3.04
w/c	WS1	Dry	2.20
30/03/17	WS2	Dry	3.00
w/c	WS1	Dry	2.20
10/04/17	WS2	Dry	3.00