

WELLINGTON MILL POLLARD STREET EAST MANCHESTER



PRETTY LITTLE THING HQ EXTENSION DRAINAGE STRATEGY

Report Reference: 1577-001-001

Date of Issue: 15/07/20



Document Verification

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Job Number	Report Reference	Date
1577	1577-001-001	15/07/20

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Executive Summary

Site Setting	The site is roughly rectangular in shape, with dimensions of approximately 70m by 60m on plan, with an area of approximately 0.42 ha. The site is located close to the junction of Pollard Street East and Beswick Street in the New Islington area of Manchester, centred at National Grid reference 385800, 398600.
Flood Risk	The site is in Environment Agency (EA) Flood Zone 1. As the site is in an area with the lowest risk of flooding, it is not necessary to apply an exception test. The nearest watercourse to the site is the Ashton Canal, located adjacent to the North West boundary of the site. Overall, the site is considered to have a low probability of flooding provided that surface water flooding risks are appropriately managed during the development. The risk of flooding elsewhere should not be increased as a result of the development.
Consultations	A pre-development enquiry has been submitted to United Utilities.
SUDS, Surface Water Management & Preliminary Drainage Strategy	The site is expected to be underlain by Made Ground. The superficial deposits beneath the Made Ground are likely to be Glacial Till (Secondary Aquifer) which is expected to be underlain by mudstone, siltstone and sandstone of the Halesowen Formation (Secondary (A) aquifer), with the Collyhurst Sandstone Formation beneath the extreme southwestern corner of the site (Principal Aquifer). The new site drainage will be designed with adequate capacity not to flood during a 1 in 30 year storm event and to contain flood water generated from a 1 in 100 year within the site. The risk of off-site flooding would not increase as a result of the development and safe access and egress will be maintained. Foul flows originating from the site will be utilising the existing soil vent pipe connections discharging to the adopted United Utilities system. Discharge restrictions/charges may apply for connections to the public drainage network.
Controlled Water Pollution	The existing site is designated as brownfield. However, contamination risks are considered to be low. Pollution risks to controlled waters during development are also considered to be low provided that best practice procedures are followed. Drainage systems should be maintained to ensure that they do not become blocked and unable to discharge.
Further Work	A CCTV survey is required to confirm the condition of the existing connections and outfalls.

The findings of this report should be agreed with the approving bodies, such as the Local Authority and Environment Agency prior to site development. As the local public water utility company, United Utilities should be consulted for connections to public drainage systems. Once a formal site layout is agreed additional guidance can be sought.



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- 3. 2 pipe System Microdrainage output**
- 4. Preliminary Drainage Drawing**



1 Introduction

Westlakes Engineering Ltd, has been commissioned by Pretty Little Thing to produce preliminary drainage strategy for a 0.42 hectare (ha) site at the former Wellington Mill on Pollard Street in Manchester.

Pretty Little Thing are proposing to carry out refurbishment of the former Wellington Mill, a single storey 19th Century former mill building in the Ancoats area of Manchester, to create a workspace for personnel associated with digital retail within the fashion industry. The scope of the refurbishment work is broadly as follows:

- Provide an additional storey of accommodation above the existing flat roof section of the existing building to generate circa 900m² of additional office space.
- Minor works to the existing ground floor layout to accommodate the new floor above.

This report presents the management of surface water run-off and outlines the proposed drainage strategy.

The site is located within an area designated as EA Flood Zone 1, and is less than 1 hectare in area and therefore it is not necessary to complete a flood risk assessment unless it could be affected by sources of flooding other than rivers and the sea, for example surface water drains. Consideration has also been given to minimising the risk of pollution to controlled waters and the site conditions prior to, during and after development.

No external works are proposed and existing ground levels post-development will remain as present levels.

This report is based on information obtained via a site walkover visit, a site topographical survey, drainage record plans and anecdotal information. It has also been informed by communication with Internal Drainage Board and the local public water utility company (United Utilities).

2 Site Setting

2.1 Site Description

The site is roughly square in shape, with dimensions of approximately 85m by 57m on plan, with an area of approximately 0.42 ha. The site is located close to the junction of Pollard Street and Carruthers Street in the New Islington area of Manchester, centred at National Grid reference 385800, 398600. A site location plan and site layout plan are shown in the drawings section of this report.

The site is currently occupied by a single storey former industrial building over most of the site, with car parking and hardstanding in the south-western portion.

To the north-west is the Ashton Canal, south-east is Pollard Street East and south-west is Beswick Street. The immediate vicinity is used mainly for other low-rise commercial use.

2.2 Proposed Future Use

It is proposed to extend the existing building by the construction of an additional storey above the existing flat roof section of Wellington Mill, generating circa 900m² of office space.

2.3 Site Levels

Site features were observed during the walkover and levels are given on the topographic survey. The site is generally flat and level, at an elevation of approximately 52m to 53m AOD.

Post-development site surface levels will remain as to the pre-development, with no works beyond the footprint of the existing building proposed.

2.4 Underlying Ground

The external ground surface is a mix of concrete hardstanding and compact Made Ground. As the site is located in an urban area and has been developed, some thickness of Made Ground underlying the site is to be expected.

Superficial deposits are likely to be Glacial Till to a significant depth. The bedrock is anticipated to be mudstone, siltstone and sandstone of the Halesowen Formation, with the Collyhurst Sandstone Formation beneath the extreme southwestern corner of the site.

The depth to groundwater is currently unknown.

3 Managing Surface Water

In accordance with the NPPF and SFRA, consideration should be given to natural water flows at the site. The development should not adversely affect flow or increase flood risk elsewhere, including increasing run-off rates. The disposal of surface water should be dealt with in a sustainable way and climate change should also be accounted for. The site drainage strategy is discussed in Section 4.

3.1 Previous Situation and Development Proposals

The site is currently identified as brownfield, which is understood to be approximately 100% impermeable. Therefore, for the purposes of the calculations included in Section 5, the site has been deemed to be 100% impermeable.

A number of chambers and drainage runs are thought to still be in existence beneath the development. It is assumed that the existing network has been designed to accommodate the flows arising from the total area of hardstanding under the site's current use.

Post-development, the site impermeable area will remain the same as at present. Surface water collected from impermeable areas, such as roofs and roads, will need to be managed. The proposed drainage strategy is included in Section 4.

3.2 Climate Change

There is evidence to suggest that the climate is changing with sea levels predicted to continue to rise along with more frequent short-duration, high-intensity rainfall and more frequent periods of long-duration rainfall. The NPPF recommends that the effects of climate change be accounted for in FRA, with consideration of the EA flood maps and local authority SFRA. A 30% increase is therefore allowed for within the new surface water drainage design to take account of climate change. Climate change may also lead to variations in groundwater level. This will also be considered in the drainage design.

3.3 Sustainable Drainage Systems (SUDS)

SUDS are a desirable way to manage surface water disposal within new developments and SUDS methods for surface water drainage management are discussed further within the SUDS Manual. When designing surface water drainage strategies priority should be given to disposal of surface water via infiltration drainage systems over first watercourses and then sewers.

Soakaways are not considered to be suitable at this site because:

- the site is located in a city centre with adjacent structures.
- the site sits on approximately 25m of relatively impermeable Glacial Till, and
- the underlying Collyhurst Sandstone is classified as a Principal aquifer.

Surface waters may require disposal via the public sewers within the surrounding streets. Discharge restrictions may apply, and this should be discussed with the local water company.

Although the Ashton Canal is in close proximity to the site, it is our understanding that discharge to the Ashton Canal has been ruled out on other nearby development sites. Although no dialogue has yet been possible with the Canal and Rivers Trust, given the identified risk of breach in close proximity to the proposed site, it is our current belief that any attempt to increase flows to the canal during significant storm events would be met with strong opposition. Consequently it has been ruled out at this time.

3.4 United Utilities Existing Apparatus

From a review of the public sewer record included within Appendix 2, a 500mm diameter combined sewer is shown as being present in Pollard Street East falling from south to north.



Immediately outside the site along Beswick Street, a 1200mm diameter surface sewer is present falling from west to east.

A CCTV survey is recommended to confirm the condition of the existing connections and outfalls.



4 Drainage Strategy

The proposed site drainage strategy is summarised here.

4.1 Surface Water Drainage Strategy

On the basis that the surface water catchment post-development is not increased, the strategy will be to reuse exiting rooftop rainwater collection points to drain the new development.

With the presence of an existing network of sewers currently serving the existing site it will be our intention to discharge all surface water flows at the current rate to a number of existing outfalls across the site. All existing rainwater downpipes will be retained for this purpose.

A predevelopment enquiry has been submitted to United Utilities and their response is included in Appendix 2, stating that they would not insist on the existing below ground drainage on this basis.

4.2 Foul Flows

The existing foul connections within the ground floor of the building will be retained and their connections to the existing combined sewer located within Pollard Street East unaltered. Additional toilets and wash basins to the first floor extension are located above similar existing facilities to the ground floor making their connection to the existing system straightforward.

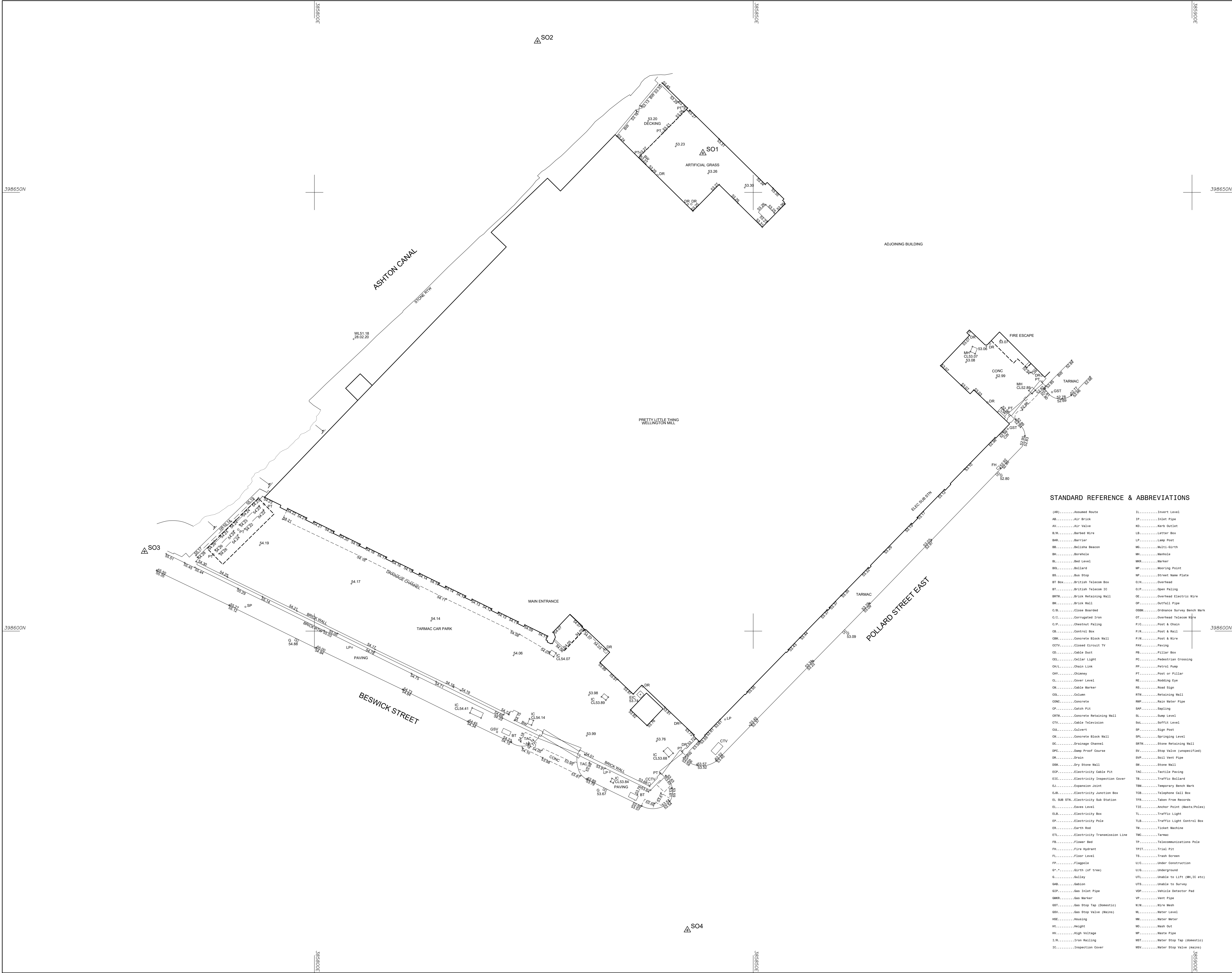
5 Conclusions

The following conclusions are drawn:

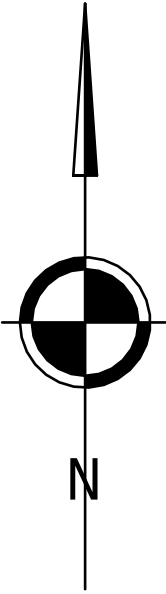
- The site is in Environment Agency Flood Zone 1. As it is in an area at the lowest risk of flooding it is not necessary to apply an exception test.
- The site is expected to be underlain by glacial till and as such the use of infiltration drainage systems such as soakaways are unlikely to be feasible due to poor infiltration rates.
- The nearest watercourse to the site is the Ashton Canal that runs along the north western boundary of the existing site.
- The rainwater catchment area does not increase post-development and it is proposed to discharge surface water flows into the existing adopted United Utilities network in Pollard Street East at current flow rates.
- The risk of off-site flooding would not increase as a result of the development and safe access and egress will be maintained to the building.
- Foul flows are proposed to be taken to the public network operated by United Utilities.
- The potential for pollution of controlled waters is considered to be low provided best practice procedures are following during development. Drainage systems should be maintained to ensure that they do not become blocked and unable to discharge.
- CCTV and further investigation are proposed to establish existing connections and conditions of RWP's and SVP's as suitable for reuse.



Appendix 1 – Topographical Survey



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Note:
The survey is plotted on a plane local
Grid. Orientation to National Grid.
All levels relate to Ordnance Datum,
achieved using the
OS National GPS Network.
Survey Control Markers established for
Mapping purposes only and should not be
used for Construction without the written
approval of Survey Operations Ltd.

SURVEY STATIONS			
Name	Easting	Northing	Height
SO1	385844.26	398654.48	53.27
SO2	385825.42	398667.22	52.37
SO3	385780.64	398609.07	55.54
SO4	385842.50	398565.92	53.32

STANDARD REFERENCE & ABBREVIATIONS

(M).....Assumed Route	IL.....Invert Level
AB.....Air Brick	IP.....Inlet Pipe
AV.....Air Valve	KO.....Kerb Outlet
B/W.....Barbed Wire	LB.....Letter Box
BAR.....Barrier	LP.....Lamp Post
BR.....Brick	MS.....Multi-ditch
BS.....Brick	WH.....Manhole
BL.....Bad Level	MB.....Marker
BL.....Ballard	MP.....Measuring Point
BS.....Bus Stop	MP.....Metric Name Plate
BT Box.....British Telecom Box	O/R.....Overhead
BT.....British Telecom IC	O/P.....Open Paving
BRW.....Brick Retaining Wall	OE.....Overhead Electric Wire
BW.....Brick Wall	OP.....Outfall Pipe
C/B.....Close Boarded	OSBM.....Ordnance Survey Bench Mark
C/I.....Corrugated Iron	OT.....Overhead Telephone Wire
C/P.....Concrete Paving	P/C.....Post & Chain
CB.....Control Box	P/B.....Post & Nail
CBW.....Concrete Block Wall	P/W.....Post & Wire
CCTV.....Closed Circuit TV	PAV.....Paving
CD.....Cable Duct	PS.....Pillar Box
CEL.....Cellar Light	PC.....Pedestrian Crossing
CHL.....Chain Link	PP.....Petrol Pump
CH.....Chimney	PJ.....Post or Pillar
CL.....Cover Level	RE.....Roadway Eye
CM.....Cable Marker	RS.....Road Sign
COL.....Column	RTW.....Retaining Wall
CONC.....Concrete	RWP.....Main Water Pipe
CP.....Catch Pit	RAP.....Railing
CRW.....Concrete Retaining Wall	RL.....Ramp Level
CTV.....Cable Television	Sol.....Soffit Level
CL.....Gutter	SP.....Sign Post
CB.....Concrete Block Wall	SR.....Surrounding Level
CC.....Drainage Channel	SRW.....Stone Retaining Wall
CP.....Damp Proof Course	SV.....Stop Valve (unspecified)
DR.....Drain	SV.....Soil Vent Pipe
DSW.....Dry Stone Wall	SW.....Stone Wall
EGP.....Electricity Gable Pit	TAC.....Tactile Paving
ELC.....Electricity Inspection Cover	TR.....Traffic Barrier
EL.....Electricity Junction Box	TRM.....Temporary Bench Mark
ELB.....Electricity Pole	TCL.....Telephone Call Box
EL.....Earth Rod	TRM.....Taken From Records
EL.....Electricity Transmission Line	TIE.....Anchor Point (Masts/Poles)
FL.....Flower Box	TL.....Traffic Light
FR.....Fire Hydrant	TLS.....Traffic Light Control Box
FL.....Floor Level	TM.....Ticket Machine
FP.....Flagpole	TMC.....Tarmac
G*.....Girth (of tree)	TP.....Telecommunications Pole
G.....Gully	TPIT.....Trial Pit
GAB.....Gable	TS.....Trash Screen
GIP.....Gas Inlet Pipe	U/C.....Under Construction
GHW.....Gas Meter	UG.....Underground
GST.....Gas Stop Tap (domestic)	UL.....Unable to Lift (M, IC etc)
GSV.....Gas Stop Valve (Main)	UTS.....Unable to Survey
HSE.....Housing	VDP.....Vehicle Detector Pad
HT.....Height	VP.....Vent Pipe
HV.....High Voltage	W/W.....Wire Mesh
I/R.....Iron Railing	WL.....Water Level
IC.....Inspection Cover	WM.....Water Meter
	WO.....Wash Out
	WP.....Waste Pipe
	WST.....Water Stop Tap (domestic)
	WSV.....Water Stop Valve (main)



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Client
Jenkins Design Services Limited

Drawing Title
Topographical Survey of Land at:
Wellington Mill
Manchester

Scale(s)	1:200	Surveyor	DC
Date	Mar 20	Drawn	OKS
Job Number	20B018	Checked	MG

Sheet Size & Drg Number & Revision
A1 20B018/001



Appendix 2 – United utilities Records - Correspondence

Eleni Zachara

From: Garry Eyres
Sent: 10 July 2020 17:04
To: Eleni Zachara; Matthew Short
Subject: FW: PLT Wellington Mill M40 7FS - New Storey - 4200032189

FYI

Garry Eyres
Principal Engineer

Tel: 0161 236 8203
Mob: 07910 147 643
Web: www.westlakes.co.uk

Unit 2.1, 20 Dale Street, Manchester, M1 1EZ



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From: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Sent: 10 July 2020 14:41
To: Garry Eyres <Garry.Eyres@westlakes.co.uk>
Cc: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Subject: RE: PLT Wellington Mill M40 7FS - New Storey - 4200032189

CAUTION:EXTERNAL EMAIL!

Good Afternoon Garry,

Thank you for getting in touch.

We would not insist that the site drainage is altered or insist on new surface water restrictions providing the following:

- The existing building is not being demolished and reconstructed
- The proposals do not involve alterations to the below-ground drainage
- No increase in impermeable areas

Hope this helps,

Kind regards,

Tom

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Thomas Bethell
Assistant Engineer
Developer Services & Metering
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From: Garry Eyres [<mailto:Garry.Eyres@westlakes.co.uk>]

Sent: 29 June 2020 10:11

To: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>

Subject: PLT Wellington Mill - New Storey

Good Morning,

Our client is proposing to construct a new story on top of the existing structure and I wanted to understand if there would be any restrictions to be applied to the site even if the impermeable area remains the same.

I look forward to hearing from you.

Regards

Garry Eyres
Principal Engineer

Tel: 0161 236 8203

Mob: 07910 147 643

Web: www.westlakes.co.uk

Unit 2.1, 20 Dale Street, Manchester, M1 1EZ



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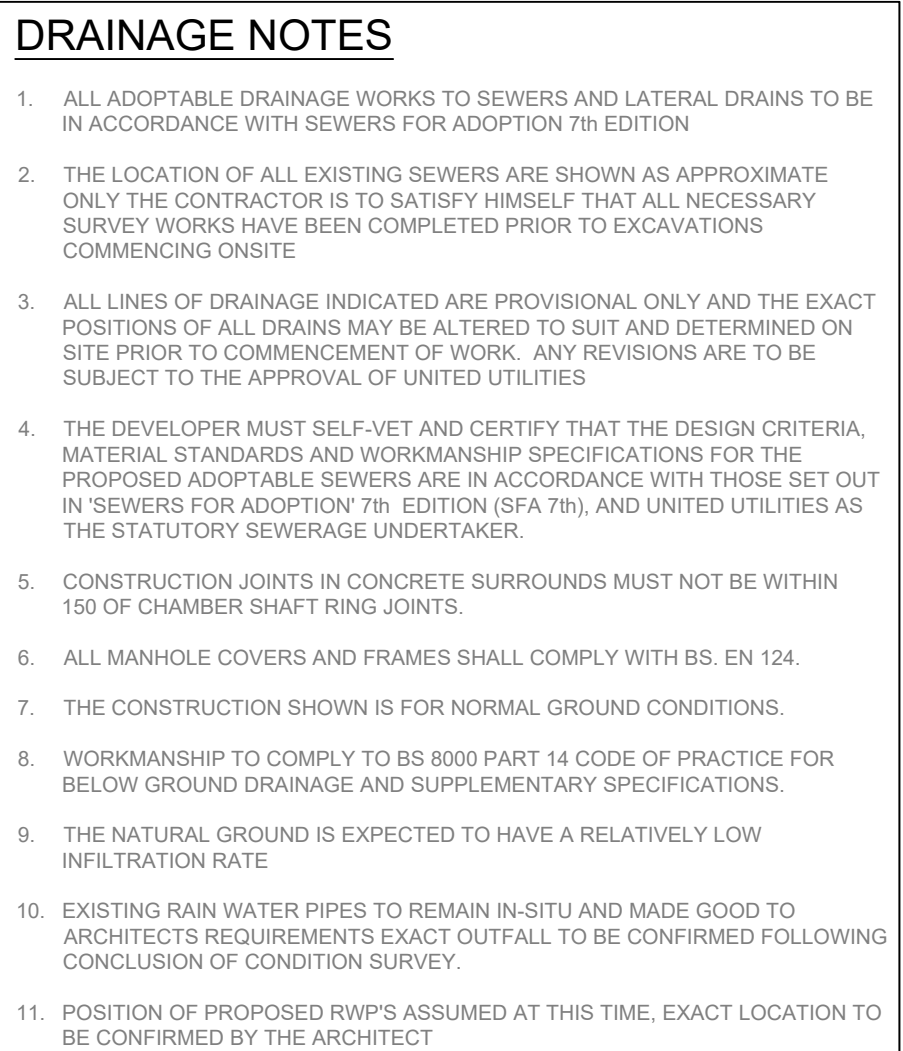
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Appendix 4 – Preliminary Drainage Drawing



Title	INDICATIVE DRAINAGE STRATEGY
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Drawing No.				Revision	
WL_1577_100				P1	
Scale		NTS		Date	
				JULY 2020	
Drawn		EZ		CP	
		Chk		MS	
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