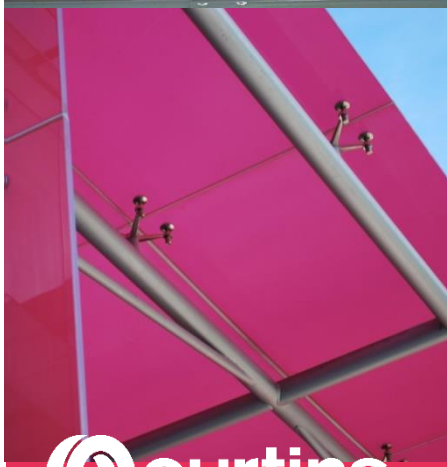








Wilmott Street Car Park, Manchester

Drainage Statement

Curtins Ref: 069831-CUR-00-XX-RE-C-001

Revision: V04

Issue Date: 14 January 2019

Client Name: National Car Parks Ltd

Site Address: Wilmott Street, Manchester M15 6BD

Curtins
Merchant Exchange
17-19 Whitworth Street West
Manchester, M1 5WG
Tel: 0161 236 2394
www.curtins.com

STRUCTURES • TRANSPORT PLANNING • ENVIRONMENTAL • CIVILS & INFRASTRUCTURE • EXPERT ADVICE • SUSTAINABILITY • STAKEHOLDER ENGAGEMENT

Birmingham • Bristol • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Control Sheet

Rev	Description	Issued by	Checked	Date
V01	First Issue	CG	CG	26/10/2018
V02	Updated to include Topographical Information	CG	CG	30/10/2018
V03	Changed to Wilmott Street Car Park	MJ	MJ	05/11/2018
V04	Updated to include UU correspondence	CG	CG	14/01/2019

This report has been prepared for the sole benefit, use, and information for the client. The liability of Curtins with respect to the information contained in the report will not extend to any third party.

Author	*Signature*	*Date*
Chloé Grimsley BSc (Hons) Principal Engineer		14 January 2019

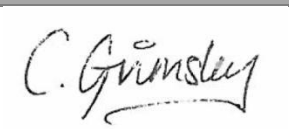
Reviewed	*Signature*	*Date*
Chloé Grimsley BSc (Hons) Principal Engineer		14 January 2019

Table of contents

1.0 Introduction 1
1.1 Project Background 1
1.2 Scope of Assessment 1
1.3 Proposed Development 1
2.0 Existing Site Details 2
2.1 History and Current Use 2
2.2 Existing Watercourses and Other Waterbodies 2
2.3 Topography 2
3.0 Development and Flood Risk 3
3.1 Site Specific Flood Zone Compatibility 3
4.0 Drainage 4
4.1 Existing Drainage 4
4.2 Proposed Drainage 5

Appendices

Appendix A

Proposed Site Layout

Appendix B

Topographical Survey

Appendix C

United Utilities Correspondence

1.0 Introduction

1.1 Project Background

1.1.1 Curtins was appointed by National Car Parks Ltd (NCP Ltd) to provide a Drainage Statement for the proposed Temporary Car Park located on Wilmott Street, Manchester City Centre.

1.1.2 The statement is based on currently available information and preliminary discussions.

1.1.3 Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design and are deemed a material deviation from the intent contained in this document, prior approval shall be obtained from the relevant authority in advance of commencing such works.

1.1.4 Where the proposed works to which this report refers are undertaken more than twelve months following the issue of this report, Curtins shall reserve the right to re-validate the findings and conclusions by undertaking appropriate further investigations at no cost to Curtins.

1.2 Scope of Assessment

1.2.1 The assessment will:

- Consider surface water drainage proposals for the proposed development.

1.2.2 Although the proposals are for a temporary condition, it will be necessary to confirm the drainage requirements to ensure that there is sufficient drainage provision and pollution protection.

1.2.3 The total site area is approximately 0.38 hectares and following scrutiny of the Environment Agency flood maps it has been identified that the entire area of the site lies within an area classified as Flood Zone 1, indicating that the risk of flooding from rivers or the sea is low (without taking into account the presence of flood defences or other manmade structures and channel improvements).

1.2.4 A Flood Risk Assessment is therefore not required to support a planning application.

1.3 Proposed Development

1.3.1 The proposals are for a temporary car parking facility for approximately 111 Car Parking Spaces, which includes 5 disable parking spaces. Access and egress is proposed via the existing access from Hulme Street. Refer to the proposed Site Layout enclosed in *Appendix A*.

2.0 Existing Site Details

2.1 History and Current Use

2.1.1 The site is located on the southern side of Manchester City Centre.

2.1.2 The site is bounded by Hulme Street to the north, existing car parking to the east, Chester Street to the south and Willmott Street to the west. Refer to Figure 1.

Figure 1: Aerial Photograph (© Google 2018)



2.2 Existing Watercourses and Other Waterbodies

2.2.1 No above ground watercourses have been identified within the proposed site or immediately adjacent to the site.

2.2.2 The River Medlock is located approximately 140m north of the site and flows generally from east to west.

2.3 Topography

2.3.1 A topographical survey has been carried out on the proposed site in September 2018. The site appears to fall in a south-east to north-west direction.

2.3.2 The levels along the south-eastern boundary is approximately 34.3m AOD and the levels along the north-western boundary are approximately 32.7m AOD.

3.0 Development and Flood Risk

3.1 Site Specific Flood Zone Compatibility

3.1.1 The proposals for the development site are likely to be classed as ‘Less Vulnerable’ development in the Flood Risk Vulnerability Classification (Planning Practice Guidance).

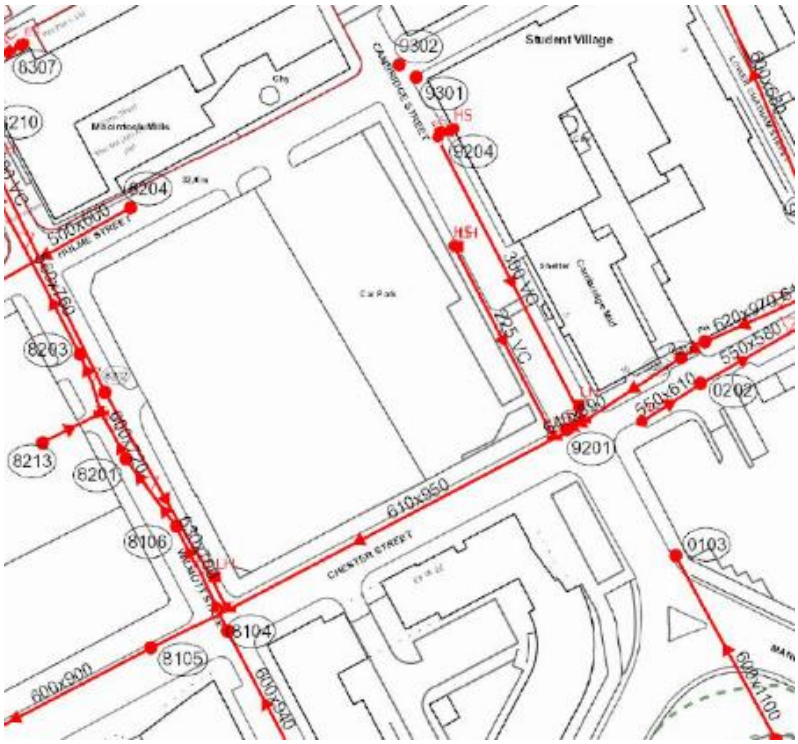
3.1.2 The site is located within Flood Zone 1, for which ‘Less Vulnerable’ development is deemed to be appropriate (refer to the Flood Zone compatibility table in the NPPF technical guidance).

4.0 Drainage

4.1 Existing Drainage

4.1.1 An extract of the existing public sewer records is illustrated in Figure 2.

Figure 2: Extract from Public Sewer Records (United Utilities 2018)



4.1.2 The records indicate that there are no public sewers within the development site. The following public sewers are in the vicinity of the site:

- There is a 610 x 950mm combined public sewer in Chester Street which flows in a north-east to south-west direction.
- There is a 560 x 760mm combined public sewer in Willmott Street which flows in a south-east to north-west direction.
- There is also a 630 x 700mm combined public sewer which is parallel to the above-mentioned sewer in Willmott Street and flows in a north-west to south-east direction.
- There is a 500 x 600mm combined public sewer in Hulme Street which flows in a north-east to south-west direction.

4.1.3 There are no further sewers recorded in the vicinity of the site.

4.1.4 The site was formerly the Salvation Army Social Services Centre, therefore there is likely to be existing historical drainage present beneath the site, however the historical drainage system is unknown.

4.1.5 The site has more recently been used as car parking and a construction compound. The topographical survey identifies existing gullies and chambers locally within the existing car parking areas which are likely to have drained the car parking areas.

4.2 Proposed Drainage

4.2.1 There are no proposals for foul drainage.

4.2.2 A surface water system will be necessary within the site and an appraisal of potential outfall proposals has been completed:

Infiltration

The existing site is likely to consist of made ground to a significant depth given the brownfield nature of the site. The British Geological Survey (BGS) map confirms that the superficial deposits are listed as Devensian Till and the strata is described as comprising diamicton, i.e. sand or larger size particles that are suspended in a mud matrix. The bedrock geology is described as Cheshire Formation – Sandstone, however the nearby boreholes available on the BGS online mapping suggest that the primary material identified is fill over clay. It is therefore anticipated that infiltration will be unviable.

Watercourse

The nearest known watercourse is the River Medlock which is located approximately 140m north of the site. This would require construction within the public highway of approximately 200m along Cambridge Street into the River Medlock and would therefore be considered unviable.

Surface Water Sewer

There are no known surface water sewers recorded within the vicinity of the site.

Highway Drain

There are no known highway drains recorded within the vicinity of the site.

Combined Sewer

There are various combined public sewers in the vicinity of the site. It appears that there is an existing drainage connection from the site into the 500 x 600mm combined public sewer in Hulme Street which flows in a north-east to south-west direction.

4.2.3 Based on the above information it is proposed that the site will discharge into the combined public sewer system in Hulme Street. Connection should be made via the existing connection where suitable, however this will be subject to confirmation of the existing connection details following a CCTV survey.

4.2.4 The topographical survey identifies existing gullies and chambers locally within the existing car parking areas which are likely to have drained the car parking areas, however the majority of the site will likely be considered as ‘Greenfield’.

4.2.5 The existing car parking area likely to be drained via the gullies is approximately 0.08ha. Based on a 150mm pipe at a gradient of 1 in 100, this would likely discharge 9.4 l/s during the 1-year event, 19.9 l/s during the 30-year event and 23.8 l/s during the 100-year event.

4.2.6 The Greenfield flow rate for the remaining areas has been calculated as 1.4 l/s for the 1 in 1-year event, 2.8 l/s for the 1 in 30-year event and 3.4 l/s for the 1 in 100-year event based on a development site area of approximately 0.30Ha.

Figure 3: Greenfield Run-off Rate

Curtins Consulting		Page 1
Merchant Exchange 17-19 Whitworth Street West Manchester M1 5WG		Micro Drainage
Date 30/10/2018 11:32 File	Designed by grimsley_c Checked by	
Micro Drainage	Source Control 2016.1	

ICP SUDS Mean Annual Flood

Input

Return Period (years)	100	Soil	0.450
Area (ha)	0.300	Urban	0.000
SAAR (mm)	852	Region Number	Region 10

Results l/s

QBAR Rural	1.7
QBAR Urban	1.7
Q100 years	3.4
Q1 year	1.4
Q30 years	2.8
Q100 years	3.4

4.2.7 The total flow rates are therefore assumed to be:

- 10.8 l/s during the 1-year event,
- 22.7 l/s during the 30-year event; and
- 27.2 l/s during the 100-year event.

4.2.8 In accordance with Manchester City Council Guidance of restricting development flows by 50% of existing flows, proposed flow rates should not exceed 5.4 l/s during the 1-year event, 11.3 l/s during the 30-year event and 13.6 l/s during the 100-year event. However, following various correspondence with United Utilities regarding appraisal of the discharge options, they have confirmed that a maximum discharge of 5 l/s is acceptable in principle into the public sewer network. Refer to the United Utilities correspondence enclosed in *Appendix C*.

4.2.9 Further surveys confirming the existing drainage system is required to determine the flows being discharged. This will also inform whether any existing connections can be reused for the proposed drainage system.

4.2.10 The proposed connection, whether via the existing drain or via a new drain connection will be subject to a Section 106 Agreement with United Utilities.

4.2.11 The low points on site are likely to be along the north-west boundary, therefore it is recommended that a filter drain system is proposed along the north-west boundary. It may also be necessary to install additional intermediate filter drains to provide additional capacity and intercept the surface run-off.

4.2.12 We have currently sized the system for the 100-year event with an allowance of 5% for climate change, based on the temporary nature of the development and the necessary attenuation is expected to be up to 171m³ restricting to 5 l/s. It may also be possible to provide surface water storage above ground, where localised bunding is provided to prevent run-off into the surrounding footways/highways. This will reduce the below ground storage requirement to between 74-114m³.

4.2.13 Surface water run-off from hard paved areas at risk of contamination should receive water quality treatment. Car Parking is considered low hazard in terms of contamination. Figure 4 illustrates the pollution hazard indices for different land use classifications from The CIRIA SuDS Manual C753 (2015).

Figure 4: Pollution Hazard indices for land use classification (Table 26.2 the CIRIA SuDS manual 2015)

TABLE 26.2 Pollution hazard indices for different land use classifications

Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydro-carbons
Residential roofs	Very low	0.2	0.2	0.05
Other roofs (typically commercial/ industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways[1]	Medium	0.7	0.6	0.7
Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways[1]	High	0.8[2]	0.8[2]	0.9[2]

4.2.14 Figure 5 illustrates the SuDS Component mitigation indices from The CIRIA SuDS Manual C753 (2015).

Figure 5: Indicative SuDS mitigation indices (Table 26.3 the CIRIA SuDS manual 2015)

TABLE 26.3 Indicative SuDS mitigation indices for discharges to surface waters

	Mitigation indices[1]		
Type of SuDS component	**TSS**	**Metals**	**Hydrocarbons**
Filter strip	0.4	0.4	0.5
Filter drain	0.4[2]	0.4	0.4
Swale	0.5	0.6	0.6
Bioretention system	0.8	0.8	0.8
Permeable pavement	0.7	0.6	0.7
Detention basin	0.5	0.5	0.6
Pond[4]	0.7[3]	0.7	0.5
Wetland	0.8[3]	0.8	0.8
Proprietary treatment systems[5,6]	These must demonstrate that they can address each of the contaminant types to acceptable levels for frequent events up to approximately the 1 in 1 year return period event, for inflow concentrations relevant to the contributing drainage area.		

Notes

1 SuDS components only deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters.

2 Filter drains can remove coarse sediments, but their use for this purpose will have significant implications with respect to maintenance requirements, and this should be taken into account in the design and Maintenance Plan.

3 Ponds and wetlands can remove coarse sediments, but their use for this purpose will have significant implications with respect to the maintenance requirements and amenity value of the system. Sediment should normally be removed upstream, unless they are specifically designed to retain sediment in a separate part of the component, where it cannot easily migrate to the main body of water.

4 Where a wetland is not specifically designed to provide significantly enhanced treatment, it should be considered as having the same mitigation indices as a pond.

5 See Chapter 14 for approaches to demonstrate product performance. A British Water/Environment Agency assessment code of practice is currently under development that will allow manufacturers to complete an agreed test protocol for systems intended to treat contaminated surface water runoff. Full details can be found at: **http://tinyurl.com/qf7yuj7**

6 SEPA only considers proprietary treatment systems as appropriate in exceptional circumstances where other types of SuDS component are not practicable. Proprietary treatment systems may also be considered appropriate for existing sites that are causing pollution where there is a requirement to retrofit treatment. SEPA (2014) also provides a flowchart with a summary of checks on suitability of a proprietary system.

4.2.15 The selection of treatment should ensure that the SuDS mitigation component index (Figure 5) exceeds the pollution hazard index (Figure 4). Where two stages of treatment are required, the second stage of treatment should account for reduced performance due to lower inflows; therefore 0.5 (mitigation index) should be used.

4.2.16 Treatment could be provided using sustainable methods such as: filter strips, filter drains and/or permeable paving. It is anticipated that perimeter filter drains will be installed to capture any run-off prior to exiting the site, these filter drains are likely to provide attenuation storage.

4.2.17 The low points on site are likely to be along the north-west boundary, therefore it is recommended that a filter drain system is proposed along the north-west boundary. It may also be necessary to install additional intermediate filter drains to provide additional capacity and intercept the surface run-off.

4.2.18 Where perimeter land drains do not provide all storage for up to the 100-year +5% event, it may be possible to install localised bunds along the boundary to allow some storage of water above ground.

4.2.19 The final design of the drainage networks shall be in accordance with the legislation set by Manchester City Council, and United Utilities.

Appendix A

Proposed Site Layout

Car park entrance and exit

Existing gates removed and car park entrance increased to 10.5m width

This section of brick boundary wall and pier demolished and replaced with low level concrete posts and rails

Remove all shrubs and vegetation

HULME STREET

Ticket machine

ANPR Camera and light

Ticket machine

Existing low level concrete post and rails to be retained along Hulme Street boundary up to the entrance

5 disabled spaces

Brick boundary wall retained

Existing low level concrete post and rails to be retained along Wilmott Street boundary

9 spaces

8 spaces

NEW CAR PARK

111 car parking spaces (incl 5 disabled)

Existing surface to be levelled and stone chippings to be provided as necessary

18 spaces

8 spaces

18 spaces

8 spaces

Existing hoarding removed in this corner

18 spaces

18 spaces

Existing low level concrete post and rails to be retained along Chester Street boundary

EZER STREET

87

WILMOTT STRE

CHESTER STREET

Laboratory

scale metres

0 5 10 20

N

HULME STREET CAR PARK

PROPOSED SITE PLAN

Rev	Date	By	Description
D	01.10.18	RD	Disabled spaces moved towards Wilmott Street
C	27.09.18	RD	Spaces decreased to 111 (incl 5 disabled spaces)
B	24.09.18	RD	Spaces decreased to 149 (incl 6 disabled) / Ticket machines reduced to 2 no and relocated / ANPR camera and light added / aisle widths increased to 6m / entrance width incr to 10.5m
A	11.09.18	RD	Spaces increased to 154 (Incl 6 disabled) / Notes added

Planning

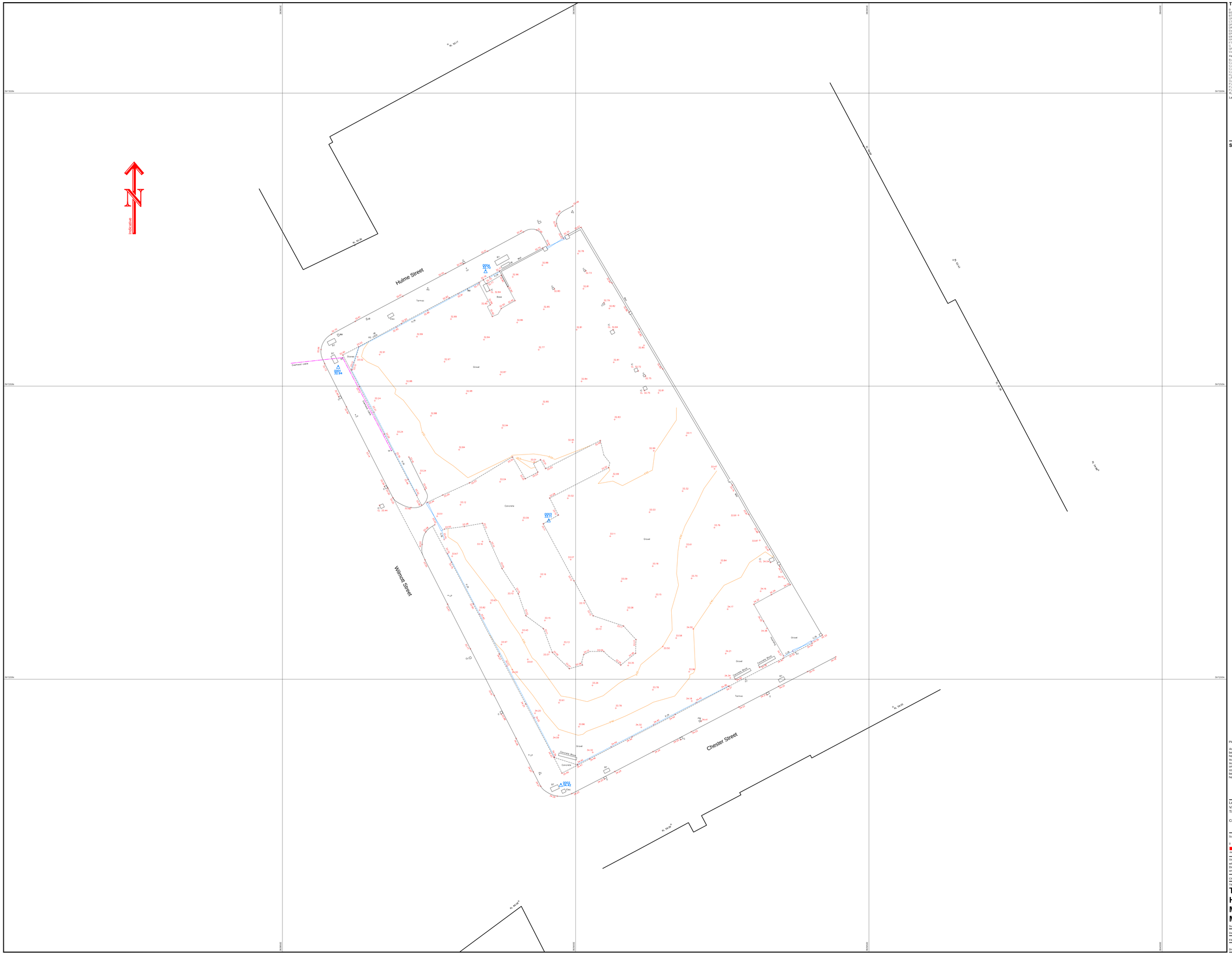
Richard Drinkwater Architects
Unit 8, Oak Green, Stanley Green Business Park, Cheadle Hulme, Cheadle SK8 6QL
t 0161 358 1101 e richard@drinkwaterarchitects.com

Project	Change of Use
Location	Land Bounded by Hulme Street, Wilmott Street and Chester Street Manchester M15 6AW
Title	Proposed Site Plan
Drawing No	07474_03 Revision D
Scale	1:200 @ A1
Drawn By	RD
Date	28.08.18

© Copyright Richard Drinkwater Architects 1998 - 2018

Appendix B

Topographical Survey


383650E
383700E
383750E
397300N
397250N
397200N
Hulme Street
Willmott Street
Chester Street
Overhead cable
Concrete Kerb
Tarmac
Gravel
Concrete
Stones
Grass
Rose
Hedge
Fence
Wall
Ch
Elec
Mw
Ph
Tr
Lp
Cp
Ch
Ch
Ch

Appendix C

United Utilities Correspondence

Chloé Grimsley

From: Bethell, Thomas <Thomas.Bethell@uuplc.co.uk>
Sent: 07 January 2019 13:54
To: Chloé Grimsley
Cc: Wastewater Developer Services
Subject: FW: REPEAT Willmott Street/Hulme Street Temporary Car Park 4200023218
Attachments: RE: 121766/FO/2018 Land Adjacent To NCP Hulme Street Car Park Wilmott Street Manchester M15 6BQ

Importance: High

Hi Chloe,

Thanks for providing the confirmation.

Based on the lack of a highway drainage system and the ground conditions (mentioned in my previous email) United Utilities will allow surface water to drain to the public combined network.

Looking at the site on google street view, it appears to be completely vacant and is therefore treated entirely as a greenfield site. As such, surface water must be restricted to a maximum pass-forward flow rate of 5 l/s.

Hope this helps,

Kind regards,

Tom

If you have received a great service today why not tell us?
Visit: unitedutilities.com/wow

Thomas Bethell
Assistant Developer Engineer
United Utilities
01925 679 308

From: Chloé Grimsley [mailto:Chloe.Grimsley@curtins.com]
Sent: 04 January 2019 12:54
To: Bethell, Thomas <Thomas.Bethell@uuplc.co.uk>
Cc: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Subject: RE: Willmott Street/Hulme Street Temporary Car Park
Importance: High

Good Afternoon Thomas,

Further to your response to the Pre-Development Enquiry at the above site, we have reviewed your comments and have been liaising with Manchester City Council regarding potential discharge to a highway drain.
Manchester City Council have confirmed that there are no recorded highway drains in the vicinity of the site – Please see attached.

For completeness, we have assessed the specific-site options in accordance with the Hierarchy:

Infiltration
The existing site is likely to consist of made ground to a significant depth given the brownfield nature of the site.
The British Geological Survey (BGS) map confirms that the superficial deposits are listed as Devensian Till and the strata is described as comprising diamicton, i.e. sand or larger size particles that are suspended in a mud matrix. The bedrock geology is described as Cheshire Formation – Sandstone, however the nearby boreholes available on the BGS online mapping suggest that the primary material identified is fill over clay.
It is therefore anticipated that infiltration will be unviable.

Watercourse
The nearest known watercourse is the River Medlock which is located approximately 140m north of the site. This would require construction within the public highway of approximately 200m along Cambridge Street into the River Medlock and would therefore be considered unviable.

Surface Water Sewer
There are no known surface water sewers recorded within the vicinity of the site.

Highway Drain
There are no known Highway Drains recorded within the vicinity of the site.

It is based on the above information that the reuse of the existing outfall to the public sewer system is proposed. Please could you therefore review your position in relation to a connection and any restrictions imposed.

If you require any further information, please let me know.

Kind Regards,
Chloé
Chloé Grimsley Principal Engineer
Curtins
T. 0161 236 2394 | chloe.grimsley@curtins.com

From: Bethell, Thomas <Thomas.Bethell@uuplc.co.uk>
Sent: 12 December 2018 17:49
To: Chloé Grimsley <Chloe.Grimsley@curtins.com>
Cc: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Subject: RE: Willmott Street/Hulme Street Temporary Car Park

Good Afternoon Chloe,

We have carried out an assessment of your application which is based on the information provided; this pre development advice will be valid for 12 months

Surface Water

Unfortunately United Utilities are not obliged to take flows from a site with no premises, and I would therefore urge other options to be fully explored.

Generally, in order to follow the drainage heirachy outlined in Building Regulations part H3 and National Planning Practice Guidance (NPPG), surface water should be drained via infiltration systems/soakaways. Many nearby borehole logs (found on the BGS website) show the ground within this area to consist almost entirely of clay, so this is likely not an option.

I would therefore suggest discharging surface water to a highway drain, though you will need the permission of the highways authority. Please liaise with them and provide the outcome, if this turns out to not be an option we will review our position

Kind regards,

Tom

If you have received a great service today why not tell us?
Visit: unitedutilities.com/wow

Thomas Bethell
Assistant Developer Engineer
United Utilities
01925 679 308

From: Chloé Grimsley [mailto:Chloe.Grimsley@curtins.com]
Sent: 29 November 2018 08:53
To: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Subject: Willmott Street/Hulme Street Temporary Car Park

Good Afternoon Sir/Madam,

Please find attached the Pre-Development Enquiry form for the above temporary development.

I have also attached the Drainage Statement we have prepared for the proposals.
There are existing gullies and chambers on the site and the proposal is to lay the full area in gravel and install perimeter drainage.
The gravel will act as temporary attenuation as well as filtration.

The existing flow rates are assumed to be:

- 10.8 l/s during the 1-year event,
- 22.7 l/s during the 30-year event; and
- 27.2 l/s during the 100-year event.

Flow rates are proposed to be restricted to 5.4 l/s during the 1-year event, 11.3 l/s during the 30-year event and 13.6 l/s during the 100-year event; which is in accordance with Manchester City Council Guidance of restricting development flows by 50% of existing.

We propose that the existing outfall is reused, however there hasn't yet been a drainage survey undertaken therefore connection point and depth is unknown.

If you require any further information, please let me know,

Kind Regards,
Chloé

Chloé Grimsley
Principal Engineer
T. 0161 236 2394
chloe.grimsley@curtins.com

Merchant Exchange
17-19 Whitworth Street West
Manchester M1 5WG

CIVILS & STRUCTURES • TRANSPORT PLANNING • ENVIRONMENTAL • INFRASTRUCTURE • GEOTECHNICAL • CONSERVATION & HERITAGE • PRINCIPAL DESIGNER
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Follow us on Twitter www.curtins.com

EMGateway3.uuplc.co.uk made the following annotations

The information contained in this e-mail is intended only for the individual to whom it is addressed. It may contain legally privileged or confidential information or otherwise be exempt from disclosure. If you have received this Message in error or there are any problems, please notify the sender immediately and delete the message from your computer. You must not use, disclose, copy or alter this message for any unauthorised purpose. Neither United Utilities Group PLC nor any of its subsidiaries will be liable for any direct, special, indirect or consequential damages as a result of any virus being passed on, or arising from the alteration of the contents of this message by a third party.

United Utilities Group PLC, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP
Registered in England and Wales. Registered No 6559020

www.unitedutilities.com
www.unitedutilities.com/subsidiaries

Our Locations

Birmingham
2 The Wharf
Bridge Street
Birmingham
B1 2JS
T. 0121 643 4694
birmingham@curtins.com

Bristol
Quayside
40-58 Hotwell Road
Bristol
BS8 4UQ
T. 0117 302 7560
bristol@curtins.com

Cambridge
50 Cambridge Place
Cambridge
CB2 1NS
T. 01223 631 799
cambridge@curtins.com

Cardiff
3 Cwrt-y-Parc
Earlswood Road
Cardiff
CF14 5GH
T. 029 2068 0900
cardiff@curtins.com

Douglas
Varley House
29-31 Duke Street
Douglas
Isle of Man
IM1 2AZ
T. 01624 624 585
douglas@curtins.com

Dublin
39 Fitzwilliam Square
Dublin 2
Ireland
T. 00353 1 507 9447
dublin@curtins.com

Edinburgh
1a Belford Road
Edinburgh
EH4 3BL
T. 0131 225 2175
edinburgh@curtins.com

Glasgow
Queens House
29 St Vincent Place
Glasgow
G1 2DT
T. 0141 319 8777
glasgow@curtins.com

Kendal
28 Lowther Street
Kendal
Cumbria
LA9 4DH
T. 01539 724 823
kendal@curtins.com

Leeds
Rose Wharf
Ground Floor
Leeds
L29 8EE
T. 0113 274 8509
leeds@curtins.com

Liverpool
51-55 Tithebarn Street
Liverpool
L2 2SB
T. 0151 726 2000
liverpool@curtins.com

London
40 Compton Street
London
EC1V 0BD
T. 020 7324 2240
london@curtins.com

Manchester
Merchant Exchange
17-19 Whitworth Street West
Manchester
M1 5WG
T. 0161 236 2394
manchester@curtins.com

Nottingham
56 The Ropewalk
Nottingham
NG1 5DW
T. 0115 941 5551
nottingham@curtins.com

Curtins Consulting Ltd registered in England and Wales No: 2054159
Registered office: 51-55 Tithebarn Street, Liverpool, L2 2SB