

Former Shredded Wheat Site Drainage Strategy Addendum Drainage Strategy Addendum

Curtins Ref: 066571-CUR-00-XX-RP-D-00001.1

Revision: P01

Issue Date: 13 February 2020

Client Name: Metropolitan Thames Valley

Site Address: Former Shredded Wheat Site
Broadwater Road
Welwyn Garden City
AL8 6UN

Curtins Consulting Limited
40 Compton Street
London
EC1V 0BD
Tel: 020 7324 2240
Email: london@curtins.com
www.curtins.com

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



Attenuation Half Drain Down Times

Planning Condition 6.2 states the requirement for;

Detailed calculations to demonstrate how the system operates during up to and including the 1 in 100 year critical duration storm event including drain down times for all storage features included within the drainage proposal.

The proposed half drain times have been taken from the MicroDrainage model and summarised below for each of the ponds and storage tanks. The drain down times for the permeable pavements have not been included as they are all at a higher level than the tanks and the flows are not restricted. Therefore, when the tanks are half drained, the permeable pavements will be fully drained. As the detention basins are all located at a level above the tanks, the basins are required to fully drain before the tanks begin to drain, leading to a notable difference in drain down times between the tanks and basins. All drain down times noted below are taken from the point the critical storm event has ended. All drain down times are shown for the 960 minute event. The table below shows the times for the 1 in 30 year event and the 1 in 100 year event.

Catchment	Storage Feature (DS MH)	Half Drain Time (mins)	
		1 in 30 Year Event	1 in 100 Year Event +40% CC
1	Storage Tank (SW08)	574	1623
	Storage Tank (SW13)	574	1623
	Detention Basin (SW14)	N/A	231
2	Storage Tank (SW40)	1291	2755
	Storage Tank (SW38)	846	2308
	Detention Basin (SW37)	N/A	47
	Detention Basin (SW35)	N/A	790
3	Storage Tank (SW60)	898	2360
	Storage Tank (SW56)	551	2014

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

11 Pembroke Lane
Dublin 2
D02 CX82
Ireland
T. +353 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

Units 24 & 25 Riverside Place
K Village
Lound Road
Kendal
LA9 7FH
T. 01539 724 823
kendal@curtins.com

Leeds

Ground Floor
Rose Wharf
78-80 East Street
Leeds
LS9 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