

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_1

Type : Catchment Area

Area (ha) 0.027

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



CA_2

Type : Catchment Area

Area (ha) 0.013

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



CA_3

Type : Catchment Area

Area (ha) 0.016

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100




CA_4

Type : Catchment Area

Area (ha) 0.024

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_5

Type : Catchment Area

Area (ha) 0.062

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



CA_6

Type : Catchment Area

Area (ha) 0.009

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



CA_7

Type : Catchment Area

Area (ha) 0.007

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



CA_8

Type : Catchment Area

Area (ha) 0.04

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_9

Type : Catchment Area

Area (ha) 0.034

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



CA_10

Type : Catchment Area

Area (ha) 0.025

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_11

Type : Catchment Area

Area (ha) 0.009

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100



CA_12

Type : Catchment Area

Area (ha) 0.002

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_13

Type : Catchment Area

Area (ha) 0.024

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100




CA_15

Type : Catchment Area

Area (ha) 0.032

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			



CA_14

Type : Catchment Area

Area (ha)

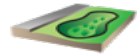
Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	
Report Details: Type: Junctions Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)	Manhole Locked	Access Required	Easting (m)	Northing (m)
CP S1	Manhole	616262.891	341024.746	90.218	1.168	89.050	Circular	1.200	<input type="checkbox"/>	<input type="checkbox"/>		
CP S2	Manhole	616279.735	341017.896	89.908	1.088	88.820	Circular	1.200	<input type="checkbox"/>	<input type="checkbox"/>		
CP S3	Manhole	616288.890	341021.904	89.679	1.134	88.545	Circular	1.200	<input type="checkbox"/>	<input type="checkbox"/>		
CP S4	Manhole	616309.916	341012.954	89.663	1.209	88.454	Circular	1.200	<input type="checkbox"/>	<input type="checkbox"/>		
CP S5	Manhole	616312.130	341012.081	89.507	1.065	88.442	Circular	1.200	<input type="checkbox"/>	<input type="checkbox"/>		
IC	Manhole	616278.657	341043.260	90.200	1.150	89.050	Circular	0.300	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
RE	Simple Junction	616275.706	341035.870									

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin

Type : Bioretention

Ponding Area

Exceedence Level (m)	89.150
Depth (m)	1.300
Base Level (m)	87.850
Top Area (m ²)	270.06
Side Slope (1:x)	1.74
Base Area (m ²)	82.94
Freeboard (mm)	300
Porosity (%)	100
Length (m)	41.342
Long. Slope (1:x)	0.00
Filtration Rate (m/hr)	0.3
Friction Scheme	Manning's n
n	0.045
Total Volume (m ³)	174.815

Filter Area

Base Level (m)	87.050
----------------	--------

Filtration Layers

Use	Name	Filtration Layer Depth (mm)	Porosity (%)	Conductivity (m/hr)	Soil Type
<input type="checkbox"/>	Soil	0	0	0.0	Soil Type
	Storage	800	30	0.3	

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			

Advanced

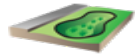
Safety Factor	1.5
---------------	-----

Ponding Area

Side Infiltration Rate (m/hr)	0.126
Base Perimeter (m)	86.697
Top Perimeter (m)	95.749

Filter Area

Base Infiltration Rate (m/hr)	0.126
Side Infiltration Rate (m/hr)	0.126



Rain Garden

Type : Bioretention

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			

Ponding Area

Exceedence Level (m)	90.499
Depth (m)	0.400
Base Level (m)	90.099
Top Area (m ²)	5.75
Side Slope (1:x)	0.00
Base Area (m ²)	5.75
Freeboard (mm)	0
Porosity (%)	100
Length (m)	4.439
Long. Slope (1:x)	0.00
Filtration Rate (m/hr)	0.295
Friction Scheme	Manning's n
n	0.045
Total Volume (m ³)	2.989

Filter Area

Base Level (m)	89.699
----------------	--------

Filtration Layers

Use	Name	Filtration Layer Depth (mm)	Porosity (%)	Conductivity (m/hr)	Soil Type
<input type="checkbox"/>	Soil	0	0	0.0	Soil Type
	Storage	400	30	0.3	

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023			
	Designed by: RO	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH			

Advanced

Safety Factor	2.0
---------------	-----

Ponding Area

Base Perimeter (m)	11.468
Top Perimeter (m)	11.468

Filter Area

Base Infiltration Rate (m/hr)	0.295
-------------------------------	-------

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale

Type : Swale

Swale

Exceedence Level (m)	89.135
Depth (m)	0.400
Base Level (m)	88.735
Top Width (m)	2.500
Side Slope (1:x)	2.50
Base Width (m)	0.500
Freeboard (mm)	0
Length (m)	79.493
Long. Slope (1:x)	300.00
Filtration Rate (m/hr)	0.173
Friction Scheme	Manning's n
n	0.045
Total Volume (m³)	47.696

Advanced

Safety Factor	1.5
---------------	-----

Swale

Base Infiltration Rate (m/hr)	0.212
Side Infiltration Rate (m/hr)	0.212
Porosity (%)	100

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Name	Length (m)	Connection Type	Slope (1:x)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)	Downstream Cover Level (m)	Downstream Invert Level (m)	Velocity (m/s)
S1.000	18.184	Pipe	80.105		0.6	150	90.218	89.050	89.908	88.823	
S1.001	9.993	Pipe	79.947		0.6	150	89.908	88.820	89.679	88.695	
S1.002	22.852	Pipe	251.119		0.6	300	89.679	88.545	89.663	88.454	
S1.003	2.380	Pipe	198.341		0.6	300	89.663	88.454	89.507	88.442	
S1.004	8.102	Pipe	225.063		0.6	300	89.507	88.442	88.900	88.406	
S3.000	1.398	Pipe	20.000		0.6	150	90.221	89.950	89.894	89.880	
S2.001	9.574	Pipe	100.000		0.6	100	90.200	89.050	89.925	88.954	
S2.000	7.957	Pipe	99.465		0.6	100	90.100	89.130	90.200	89.050	

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	
Report Details: Type: Network Design Criteria Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	Slopes and Invert Levels
Use Flow Restriction	<input type="checkbox"/>
Reduce Channel Depths	<input type="checkbox"/>

Manhole Options

Apply Offset	<input type="checkbox"/>
Synchronise Manhole Invert Levels	<input checked="" type="checkbox"/>

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Rainfall Analysis Criteria	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	<input type="checkbox"/>

Rainfall

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Rainfall Analysis Criteria	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH

Type: FEH

Site Location	GB 616285 341035 TG 16285 41035	
Rainfall Version		2013
Data Type		Point
Summer	<input checked="" type="checkbox"/>	
Winter	<input checked="" type="checkbox"/>	

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0
30.0	40
100.0	45

Storm Durations

Duration (mins)	Run Time (mins)
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640
5760	11520

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Rainfall Analysis Criteria	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR

Type: FSR

Region	England and Wales	
M5-60 (mm)		19.0
Ratio R		0.400
Summer	<input checked="" type="checkbox"/>	
Winter	<input checked="" type="checkbox"/>	

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0
30.0	40
100.0	45

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FEH: 2 years: +0 %: 120 mins: Summer	88.054	88.054	1.004	1.004	20.5	27.287	0.000	38.576	0.0	0.000	80	84	OK
Infiltration Swale	FEH: 2 years: +0 %: 120 mins: Summer	89.064	88.928	0.064	0.193	7.7	5.943	0.000	16.259	0.0	0.000	17	88	OK
Rain Garden	FEH: 2 years: +0 %: 60 mins: Summer	90.107	89.699	0.408	0.000	0.2	0.022	0.000	0.288	0.0	0.000	2	99	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FEH: 30 years: +40 %: 120 mins: Winter	88.566	88.566	1.516	1.516	45.0	102.776	0.000	68.461	0.0	0.000	180	41	OK
Infiltration Swale	FEH: 30 years: +40 %: 120 mins: Winter	89.135	89.134	0.135	0.399	17.4	26.462	0.000	50.029	0.0	0.000	51	45	OK
Rain Garden	FEH: 30 years: +40 %: 60 mins: Winter	90.171	90.171	0.472	0.472	0.7	0.414	0.000	1.032	0.0	0.000	18	86	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FEH: 100 years: +45 %: 180 mins: Winter	88.808	88.808	1.758	1.758	47.9	153.483	0.000	122.628	0.0	0.186	239	12	OK
Infiltration Swale	FEH: 100 years: +45 %: 120 mins: Winter	89.217	89.217	0.218	0.482	23.9	40.003	4.203	66.470	0.0	0.000	65	16	Flood
Rain Garden	FEH: 100 years: +45 %: 60 mins: Winter	90.225	90.225	0.526	0.526	0.9	0.721	0.000	1.428	0.0	0.000	32	76	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FSR: 2 years: +0 %: 30 mins: Winter	88.058	88.058	1.008	1.008	30.1	23.154	0.000	9.007	0.0	0.000	101	87	OK
Infiltration Swale	FSR: 2 years: +0 %: 30 mins: Winter	89.081	88.941	0.081	0.206	11.6	6.693	0.000	7.860	0.0	0.000	24	86	OK
Rain Garden	FSR: 2 years: +0 %: 15 mins: Winter	90.110	90.109	0.411	0.410	0.5	0.055	0.000	0.216	0.0	0.000	5	98	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FSR: 30 years: +40 %: 30 mins: Winter	88.401	88.401	1.351	1.351	80.3	67.522	0.000	13.047	0.0	0.000	213	61	OK
Infiltration Swale	FSR: 30 years: +40 %: 30 mins: Winter	89.136	89.099	0.137	0.364	31.0	21.684	0.000	14.915	0.0	0.000	50	55	OK
Rain Garden	FSR: 30 years: +40 %: 30 mins: Winter	90.164	90.164	0.465	0.465	0.8	0.373	0.000	0.738	0.0	0.000	18	88	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)	Status
Bioretention Basin	FSR: 100 years: +45 %: 30 mins: Winter	88.556	88.556	1.506	1.506	108.7	92.422	0.000	14.813	0.0	0.000	258	47	OK
Infiltration Swale	FSR: 100 years: +45 %: 30 mins: Winter	89.161	89.160	0.161	0.425	41.9	30.436	1.027	17.712	0.0	0.000	61	36	Flood
Rain Garden	FSR: 100 years: +45 %: 30 mins: Winter	90.204	90.204	0.505	0.505	1.1	0.601	0.000	0.789	0.0	0.000	29	80	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m ³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	CP S1	CP S2	90.2	89.090	0.049	3.811	0.6	0.15	3.0	OK
S1.001	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	CP S2	CP S3	89.9	88.881	0.060	7.886	1.0	0.32	6.3	OK
S1.002	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	CP S3	CP S4	89.7	88.645	0.109	19.824	0.7	0.23	15.9	OK
S1.003	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	CP S4	CP S5	89.7	88.571	0.112	22.024	0.7	0.22	17.6	OK
S1.004	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.549	0.104	22.021	0.8	0.24	17.6	OK
S3.000	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.103	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	IC	Infiltration Swale	90.2	89.080	0.051	0.974	0.2	0.13	0.8	OK
S2.000	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	RE	IC	90.1	89.155	0.027	0.977	0.5	0.13	0.8	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	CP S1	CP S2	90.2	89.125	0.131	12.641	0.7	0.51	10.1	OK
S1.001	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	CP S2	CP S3	89.9	89.009	0.150	26.155	1.2	1.05	20.9	Surcharged
S1.002	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	CP S3	CP S4	89.7	88.772	0.237	65.737	0.9	0.75	52.6	OK
S1.003	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	CP S4	CP S5	89.7	88.700	0.233	73.030	1.0	0.74	58.5	OK
S1.004	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.661	0.204	72.963	1.1	0.79	58.5	OK
S3.000	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.162	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	IC	Infiltration Swale	90.2	89.157	0.100	3.236	0.3	0.43	2.6	Surcharged
S2.000	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	RE	IC	90.1	89.175	0.076	3.238	0.4	0.43	2.6	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	CP S1	CP S2	90.2	89.338	0.150	17.461	0.8	0.7	13.9	Surcharged
S1.001	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	CP S2	CP S3	89.9	89.213	0.150	36.126	1.6	1.45	28.8	Surcharged
S1.002	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	CP S3	CP S4	89.7	88.891	0.300	90.722	1.0	1.04	72.6	Surcharged
S1.003	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	CP S4	CP S5	89.7	88.771	0.298	100.342	1.1	1.03	80.6	Surcharged
S1.004	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.720	0.284	99.813	1.3	1.09	80.6	OK
S3.000	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.207	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	IC	Infiltration Swale	90.2	89.205	0.100	4.455	0.4	0.56	3.4	Surcharged
S2.000	FEH: 100 years: +45 %: 60 mins: Summer	Pipe	RE	IC	90.1	89.236	0.100	4.461	0.5	0.58	3.5	Surcharged

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	CP S1	CP S2	90.2	89.105	0.071	2.606	0.7	0.29	5.8	OK
S1.001	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	CP S2	CP S3	89.9	88.909	0.086	5.395	1.1	0.58	11.6	OK
S1.002	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	CP S3	CP S4	89.7	88.692	0.155	13.551	0.8	0.42	29.2	OK
S1.003	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	CP S4	CP S5	89.7	88.617	0.156	15.038	0.8	0.4	31.2	OK
S1.004	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.589	0.140	15.025	0.9	0.41	30.1	OK
S3.000	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.107	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FSR: 2 years: +0 %: 15 mins: Winter	Pipe	IC	Infiltration Swale	90.2	89.104	0.074	0.744	0.2	0.23	1.4	OK
S2.000	FSR: 2 years: +0 %: 15 mins: Winter	Pipe	RE	IC	90.1	89.165	0.044	0.747	0.5	0.26	1.6	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	CP S1	CP S2	90.2	89.276	0.150	6.918	0.7	0.61	12.2	Surcharged
S1.001	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	CP S2	CP S3	89.9	89.175	0.150	14.319	1.5	1.32	26.2	Surcharged
S1.002	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	CP S3	CP S4	89.7	88.903	0.300	35.974	1.0	1.06	74.1	Surcharged
S1.003	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	CP S4	CP S5	89.7	88.774	0.299	39.957	1.2	1.04	81.8	Surcharged
S1.004	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.720	0.250	39.944	1.3	1.09	80.2	OK
S3.000	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.152	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FSR: 30 years: +40 %: 15 mins: Winter	Pipe	IC	Infiltration Swale	90.2	89.190	0.100	1.977	0.4	0.52	3.1	Surcharged
S2.000	FSR: 30 years: +40 %: 15 mins: Winter	Pipe	RE	IC	90.1	89.223	0.100	1.982	0.5	0.59	3.6	OK

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



FSR: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	CP S1	CP S2	90.2	89.661	0.150	9.304	0.9	0.77	15.3	Surcharged
S1.001	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	CP S2	CP S3	89.9	89.513	0.150	19.256	1.9	1.65	32.8	Surcharged
S1.002	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	CP S3	CP S4	89.7	89.111	0.300	48.343	1.4	1.37	95.8	Surcharged
S1.003	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	CP S4	CP S5	89.7	88.891	0.300	53.708	1.5	1.35	106.3	Surcharged
S1.004	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	CP S5	Bioretention Basin	89.5	88.815	0.300	53.690	1.5	1.42	105.0	Surcharged
S3.000	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	Rain Garden	Infiltration Swale	90.2	90.178	0.000	0.000	0.0	0	0.0	Surcharged
S2.001	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	IC	Infiltration Swale	90.2	89.237	0.100	2.606	0.5	0.68	4.1	Surcharged
S2.000	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	RE	IC	90.1	89.296	0.100	2.660	0.6	0.78	4.7	Surcharged

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 120 mins: Summer

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	1.0	0.800	0.800	0.020	0.000	0.4	0.4
10	2.1	0.813	0.800	0.393	0.000	0.8	0.8
15	2.2	0.821	0.800	0.788	0.000	0.8	0.8
20	2.4	0.822	0.800	1.210	0.000	0.9	0.9
25	2.6	0.822	0.800	1.627	0.000	1.3	1.3
30	2.9	0.824	0.800	2.063	0.000	1.3	1.3
35	3.3	0.827	0.800	2.597	0.000	1.3	1.3
40	4.1	0.831	0.800	3.282	0.000	1.5	1.5
45	5.6	0.837	0.800	4.199	0.000	1.8	1.8
50	8.7	0.849	0.800	5.701	0.000	2.3	2.3
55	13.3	0.865	0.837	8.244	0.000	2.5	2.5
60	19.5	0.893	0.885	12.362	0.000	2.7	2.7
65	20.5	0.938	0.936	17.627	0.000	2.9	2.9
70	15.0	0.975	0.975	22.147	0.000	3.1	3.1
75	10.1	0.996	0.996	24.932	0.000	3.3	3.3
80	6.6	1.004	1.004	26.422	0.000	3.3	3.3
85	4.7	1.004	1.004	27.078	0.000	3.4	3.4
90	3.6	1.000	1.000	27.287	0.000	3.4	3.4
95	3.1	0.994	0.994	27.257	0.000	3.5	3.5
100	2.7	0.987	0.987	27.094	0.000	3.5	3.5
105	2.5	0.979	0.979	26.833	0.000	3.5	3.5
110	2.3	0.971	0.971	26.499	0.000	3.5	3.5
115	2.1	0.962	0.962	26.111	0.000	3.5	3.5
120	2.0	0.952	0.952	25.684	0.000	3.5	3.5
125	0.7	0.941	0.941	25.069	0.000	3.5	3.5

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP		Date: 11/08/2023	
		Designed by: RO	Checked by: Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase		Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH	



Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
130	0.1	0.926	0.926	24.122	0.000	3.5	3.5
135	0.0	0.910	0.910	23.113	0.000	3.5	3.5
140	0.0	0.894	0.894	22.093	0.000	3.4	3.4
145	0.0	0.878	0.878	21.074	0.000	3.4	3.4
150	0.0	0.862	0.862	20.062	0.000	3.4	3.4
155	0.0	0.845	0.845	19.055	0.000	3.3	3.3
160	0.0	0.829	0.829	18.059	0.000	3.3	3.3
165	0.0	0.813	0.812	17.083	0.000	3.3	3.3
170	0.0	0.800	0.800	16.088	0.000	3.2	3.2
175	0.0	0.800	0.800	15.128	0.000	3.2	3.2
180	0.0	0.800	0.800	14.190	0.000	3.1	3.1
185	0.0	0.800	0.800	13.276	0.000	3.0	3.0
190	0.0	0.800	0.800	12.383	0.000	2.9	2.9
195	0.0	0.800	0.800	11.512	0.000	2.9	2.9
200	0.0	0.800	0.800	10.661	0.000	2.8	2.8
205	0.0	0.800	0.800	9.832	0.000	2.7	2.7
210	0.0	0.800	0.800	9.022	0.000	2.7	2.7
215	0.0	0.800	0.800	8.231	0.000	2.6	2.6
220	0.0	0.800	0.800	7.460	0.000	2.5	2.5
225	0.0	0.800	0.800	6.707	0.000	2.5	2.5
230	0.0	0.800	0.800	5.973	0.000	2.4	2.4
235	0.0	0.800	0.800	5.256	0.000	2.4	2.4
240	0.0	0.800	0.800	4.575	0.000	2.3	2.3

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 120 mins: Summer

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	0.7	0.004	0.000	0.028	0.000	0.3	0.3
10	0.8	0.014	0.000	0.119	0.000	0.5	0.5
15	0.8	0.020	0.000	0.174	0.000	0.7	0.7
20	0.9	0.022	0.000	0.222	0.000	0.7	0.7
25	1.0	0.020	0.000	0.271	0.000	0.8	0.8
30	1.1	0.018	0.000	0.307	0.000	1.0	1.0
35	1.3	0.019	0.000	0.351	0.000	1.1	1.1
40	1.6	0.022	0.000	0.453	0.000	1.2	1.2
45	2.2	0.028	0.000	0.636	0.000	1.5	1.5
50	3.5	0.040	0.000	1.018	0.000	1.8	1.8
55	5.3	0.050	0.014	1.720	0.000	2.2	2.2
60	7.7	0.062	0.075	2.957	0.000	2.5	2.5
65	7.7	0.064	0.135	4.462	0.000	2.9	2.9
70	5.3	0.054	0.174	5.535	0.000	3.1	3.1
75	3.5	0.042	0.189	5.943	0.000	3.1	3.1
80	2.3	0.033	0.193	5.892	0.000	3.1	3.1
85	1.6	0.026	0.190	5.575	0.000	3.0	3.0
90	1.3	0.023	0.183	5.139	0.000	2.9	2.9
95	1.1	0.021	0.175	4.657	0.000	2.8	2.8
100	1.0	0.019	0.165	4.159	0.000	2.7	2.7
105	0.9	0.018	0.155	3.660	0.000	2.6	2.6
110	0.8	0.018	0.144	3.173	0.000	2.4	2.4
115	0.8	0.018	0.133	2.706	0.000	2.3	2.3
120	0.8	0.016	0.121	2.314	0.000	2.0	2.0
125	0.0	0.007	0.109	1.856	0.000	1.8	1.8
130	0.0	0.000	0.097	1.427	0.000	1.1	1.1

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
135	0.0	0.000	0.085	1.125	0.000	1.0	1.0
140	0.0	0.000	0.073	0.846	0.000	0.9	0.9
145	0.0	0.000	0.060	0.630	0.000	0.5	0.5
150	0.0	0.000	0.048	0.482	0.000	0.5	0.5
155	0.0	0.000	0.036	0.345	0.000	0.4	0.4
160	0.0	0.000	0.024	0.221	0.000	0.4	0.4
165	0.0	0.000	0.012	0.110	0.000	0.4	0.4
170	0.0	0.000	0.001	0.009	0.000	0.3	0.3
175	0.0	0.000	0.000	0.000	0.000	0.0	0.0
180	0.0	0.000	0.000	0.000	0.000	0.0	0.0
185	0.0	0.000	0.000	0.000	0.000	0.0	0.0
190	0.0	0.000	0.000	0.000	0.000	0.0	0.0
195	0.0	0.000	0.000	0.000	0.000	0.0	0.0
200	0.0	0.000	0.000	0.000	0.000	0.0	0.0
205	0.0	0.000	0.000	0.000	0.000	0.0	0.0
210	0.0	0.000	0.000	0.000	0.000	0.0	0.0
215	0.0	0.000	0.000	0.000	0.000	0.0	0.0
220	0.0	0.000	0.000	0.000	0.000	0.0	0.0
225	0.0	0.000	0.000	0.000	0.000	0.0	0.0
230	0.0	0.000	0.000	0.000	0.000	0.0	0.0
235	0.0	0.000	0.000	0.000	0.000	0.0	0.0
240	0.0	0.000	0.000	0.000	0.000	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 60 mins: Summer

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
10	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
15	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
20	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
25	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
30	0.2	0.404	0.400	0.012	0.000	0.0	0.2	0.2
35	0.2	0.408	0.400	0.022	0.000	0.0	0.2	0.2
40	0.1	0.404	0.400	0.013	0.000	0.0	0.2	0.2
45	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
50	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
55	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
60	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
65	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
70	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
75	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
80	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
85	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
90	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
95	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
100	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
105	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
110	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
115	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
120	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin

Critical by Return Period: FEH: 30 years: Increase Rainfall (%): +40: 120 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	1.8	0.802	0.800	0.081	0.000	0.4	0.4
10	6.2	0.836	0.800	1.074	0.000	1.1	1.1
15	7.9	0.847	0.800	2.803	0.000	1.7	1.7
20	8.1	0.852	0.814	4.602	0.000	2.2	2.2
25	8.5	0.855	0.844	6.407	0.000	2.3	2.3
30	9.8	0.867	0.861	8.415	0.000	2.4	2.4
35	12.9	0.887	0.883	11.046	0.000	2.6	2.6
40	17.8	0.919	0.916	14.829	0.000	2.8	2.8
45	24.4	0.966	0.965	20.268	0.000	3.0	3.0
50	31.8	1.031	1.030	27.723	0.000	3.3	3.3
55	38.9	1.110	1.109	37.279	0.000	3.7	3.7
60	44.4	1.197	1.196	48.638	0.000	4.1	4.1
65	45.0	1.283	1.283	60.840	0.000	4.5	4.5
70	40.5	1.358	1.358	72.338	0.000	4.8	4.8
75	33.6	1.417	1.417	81.985	0.000	5.1	5.1
80	26.3	1.459	1.459	89.406	0.000	5.4	5.4
85	19.3	1.486	1.486	94.561	0.000	5.5	5.5
90	13.8	1.502	1.502	97.786	0.000	5.6	5.6
95	10.3	1.510	1.510	99.686	0.000	5.7	5.7
100	8.6	1.513	1.513	100.792	0.000	5.8	5.8
105	8.2	1.515	1.515	101.564	0.000	5.8	5.8
110	8.1	1.516	1.516	102.248	0.000	5.8	5.8
115	7.1	1.516	1.516	102.776	0.000	5.9	5.9
120	3.7	1.513	1.513	102.655	0.000	5.9	5.9
125	0.8	1.504	1.504	101.537	0.000	5.9	5.9

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
130	0.3	1.491	1.491	99.908	0.000	5.9	5.9
135	0.3	1.479	1.479	98.236	0.000	5.9	5.9
140	0.3	1.466	1.466	96.561	0.000	5.9	5.9
145	0.3	1.453	1.453	94.887	0.000	5.8	5.8
150	0.2	1.440	1.440	93.214	0.000	5.8	5.8
155	0.2	1.428	1.428	91.542	0.000	5.8	5.8
160	0.2	1.415	1.415	89.870	0.000	5.8	5.8
165	0.1	1.401	1.401	88.189	0.000	5.8	5.8
170	0.0	1.388	1.388	86.444	0.000	5.7	5.7
175	0.0	1.374	1.374	84.732	0.000	5.7	5.7
180	0.0	1.361	1.361	83.017	0.000	5.7	5.7
185	0.0	1.347	1.347	81.340	0.000	5.7	5.7
190	0.0	1.333	1.333	79.635	0.000	5.6	5.6
195	0.0	1.320	1.320	77.961	0.000	5.6	5.6
200	0.0	1.307	1.307	76.283	0.000	5.6	5.6
205	0.0	1.294	1.294	74.627	0.000	5.5	5.5
210	0.0	1.282	1.282	72.951	0.000	5.5	5.5
215	0.0	1.270	1.270	71.317	0.000	5.4	5.4
220	0.0	1.258	1.258	69.688	0.000	5.4	5.4
225	0.0	1.246	1.246	68.084	0.000	5.3	5.3
230	0.0	1.234	1.234	66.510	0.000	5.3	5.3
235	0.0	1.222	1.222	64.930	0.000	5.2	5.2
240	0.0	1.211	1.211	63.335	0.000	5.2	5.2

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale
Critical by Return Period: FEH: 30 years: Increase Rainfall (%): +40: 120 mins: Winter

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	1.1	0.009	0.000	0.070	0.000	0.4	0.4
10	2.6	0.037	0.000	0.427	0.000	0.9	0.9
15	3.1	0.036	0.000	0.924	0.000	1.6	1.6
20	3.1	0.037	0.004	1.317	0.000	2.0	2.0
25	3.3	0.039	0.046	1.652	0.000	2.2	2.2
30	3.9	0.042	0.070	2.063	0.000	2.3	2.3
35	5.2	0.050	0.095	2.713	0.000	2.4	2.4
40	7.1	0.060	0.122	3.787	0.000	2.7	2.7
45	9.7	0.071	0.159	5.446	0.000	3.1	3.1
50	12.6	0.083	0.203	7.795	0.000	3.5	3.5
55	15.3	0.093	0.249	10.845	0.000	4.0	4.0
60	17.3	0.099	0.293	14.459	0.000	4.6	4.6
65	17.4	0.102	0.332	18.228	0.000	5.1	5.1
70	15.4	0.112	0.361	21.558	0.000	5.5	5.5
75	12.6	0.123	0.381	24.067	0.000	5.8	5.8
80	9.8	0.131	0.393	25.665	0.000	6.0	6.0
85	7.2	0.135	0.398	26.411	0.000	6.0	6.0
90	5.2	0.135	0.399	26.462	0.000	6.0	6.0
95	3.9	0.131	0.396	26.029	0.000	6.0	6.0
100	3.3	0.126	0.391	25.330	0.000	5.9	5.9
105	3.2	0.121	0.385	24.543	0.000	5.8	5.8
110	3.1	0.115	0.380	23.757	0.000	5.7	5.7
115	2.7	0.109	0.374	22.934	0.000	5.6	5.6
120	1.2	0.101	0.366	21.865	0.000	5.5	5.5
125	0.1	0.090	0.355	20.448	0.000	5.3	5.3
130	0.1	0.078	0.343	18.905	0.000	5.1	5.1

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
135	0.1	0.065	0.330	17.423	0.000	4.9	4.9
140	0.0	0.053	0.318	16.000	0.000	4.7	4.7
145	0.0	0.041	0.306	14.629	0.000	4.5	4.5
150	0.0	0.028	0.293	13.320	0.000	4.3	4.3
155	0.0	0.016	0.281	12.073	0.000	4.1	4.1
160	0.0	0.004	0.269	10.889	0.000	3.9	3.9
165	0.0	0.000	0.257	9.827	0.000	3.4	3.4
170	0.0	0.000	0.244	8.824	0.000	3.2	3.2
175	0.0	0.000	0.232	7.892	0.000	3.0	3.0
180	0.0	0.000	0.220	7.004	0.000	2.9	2.9
185	0.0	0.000	0.207	6.181	0.000	2.7	2.7
190	0.0	0.000	0.195	5.417	0.000	2.2	2.2
195	0.0	0.000	0.183	4.768	0.000	2.1	2.1
200	0.0	0.000	0.171	4.151	0.000	2.0	2.0
205	0.0	0.000	0.158	3.575	0.000	1.9	1.9
210	0.0	0.000	0.146	3.024	0.000	1.7	1.7
215	0.0	0.000	0.134	2.520	0.000	1.6	1.6
220	0.0	0.000	0.122	2.124	0.000	1.2	1.2
225	0.0	0.000	0.110	1.771	0.000	1.1	1.1
230	0.0	0.000	0.097	1.446	0.000	1.1	1.1
235	0.0	0.000	0.085	1.141	0.000	1.0	1.0
240	0.0	0.000	0.073	0.855	0.000	0.9	0.9

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden

Critical by Return Period: FEH: 30 years: Increase Rainfall (%): +40: 60 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
10	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
15	0.1	0.402	0.400	0.005	0.000	0.0	0.1	0.1
20	0.2	0.407	0.400	0.019	0.000	0.0	0.2	0.2
25	0.5	0.411	0.409	0.056	0.000	0.0	0.2	0.2
30	0.7	0.427	0.427	0.153	0.000	0.0	0.2	0.2
35	0.7	0.449	0.449	0.280	0.000	0.0	0.2	0.2
40	0.5	0.466	0.466	0.378	0.000	0.0	0.2	0.2
45	0.3	0.472	0.472	0.414	0.000	0.0	0.2	0.2
50	0.1	0.470	0.470	0.402	0.000	0.0	0.2	0.2
55	0.1	0.465	0.465	0.372	0.000	0.0	0.2	0.2
60	0.1	0.458	0.458	0.333	0.000	0.0	0.2	0.2
65	0.0	0.448	0.448	0.274	0.000	0.0	0.2	0.2
70	0.0	0.435	0.435	0.204	0.000	0.0	0.2	0.2
75	0.0	0.423	0.423	0.133	0.000	0.0	0.2	0.2
80	0.0	0.411	0.411	0.063	0.000	0.0	0.2	0.2
85	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
90	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
95	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
100	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
105	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
110	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
115	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
120	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +45: 180 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	1.2	0.800	0.800	0.034	0.000	0.4	0.4
10	5.0	0.829	0.800	0.769	0.000	0.8	0.8
15	7.3	0.844	0.800	2.287	0.000	1.7	1.7
20	8.3	0.851	0.802	4.073	0.000	2.2	2.2
25	8.5	0.854	0.839	5.937	0.000	2.3	2.3
30	8.6	0.862	0.856	7.801	0.000	2.4	2.4
35	8.7	0.873	0.870	9.659	0.000	2.5	2.5
40	9.4	0.886	0.884	11.603	0.000	2.6	2.6
45	10.7	0.902	0.900	13.808	0.000	2.7	2.7
50	13.0	0.923	0.922	16.506	0.000	2.9	2.9
55	16.1	0.951	0.950	19.959	0.000	3.0	3.0
60	20.0	0.989	0.988	24.406	0.000	3.2	3.2
65	24.6	1.036	1.036	30.065	0.000	3.5	3.5
70	29.7	1.093	1.093	37.109	0.000	3.8	3.8
75	35.0	1.159	1.159	45.636	0.000	4.1	4.1
80	40.1	1.233	1.232	55.629	0.000	4.4	4.4
85	44.4	1.310	1.310	66.935	0.000	4.8	4.8
90	47.6	1.389	1.389	79.276	0.000	5.1	5.1
95	47.9	1.466	1.466	92.028	0.000	5.5	5.5
100	44.6	1.534	1.534	104.244	0.000	5.8	5.8
105	39.7	1.592	1.592	115.115	0.000	6.1	6.1
110	34.7	1.638	1.638	124.322	0.000	6.3	6.3
115	29.7	1.675	1.675	132.045	0.000	6.5	6.5
120	24.4	1.705	1.704	138.222	0.000	6.7	6.7
125	20.5	1.725	1.724	142.976	0.000	6.8	6.8

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
130	16.2	1.740	1.739	146.427	0.000	6.9	6.9
135	13.8	1.748	1.749	148.816	0.000	7.0	7.0
140	11.1	1.754	1.754	150.373	0.000	7.0	7.0
145	7.2	1.756	1.756	151.351	0.000	7.1	7.1
150	5.9	1.758	1.758	151.978	0.000	7.1	7.1
155	8.7	1.758	1.758	152.422	0.000	7.2	7.2
160	8.6	1.758	1.758	152.836	0.000	7.2	7.2
165	8.4	1.758	1.758	153.223	0.000	7.2	7.2
170	7.7	1.758	1.757	153.483	0.000	7.2	7.2
175	5.9	1.755	1.755	153.374	0.000	7.3	7.3
180	2.4	1.750	1.749	152.505	0.000	7.3	7.3
185	0.5	1.739	1.739	150.770	0.000	7.3	7.3
190	0.1	1.727	1.727	148.613	0.000	7.2	7.2
195	0.6	1.716	1.716	146.572	0.000	7.2	7.2
200	0.5	1.704	1.705	144.495	0.000	7.2	7.2
205	0.6	1.694	1.694	142.426	0.000	7.2	7.2
210	0.5	1.683	1.683	140.408	0.000	7.1	7.1
215	0.4	1.673	1.673	138.361	0.000	7.1	7.1
220	0.4	1.662	1.662	136.354	0.000	7.0	7.0
225	0.3	1.652	1.652	134.380	0.000	7.0	7.0
230	0.4	1.642	1.642	132.417	0.000	7.0	7.0
235	0.4	1.631	1.631	130.431	0.000	6.9	6.9
240	0.4	1.621	1.621	128.487	0.000	6.9	6.9
245	0.4	1.611	1.611	126.603	0.000	6.8	6.8
250	0.4	1.601	1.601	124.633	0.000	6.8	6.8
255	0.4	1.590	1.590	122.727	0.000	6.7	6.7
260	0.4	1.580	1.580	120.833	0.000	6.7	6.7
265	0.4	1.570	1.569	118.945	0.000	6.7	6.7
270	0.4	1.559	1.559	117.088	0.000	6.6	6.6
275	0.4	1.549	1.549	115.245	0.000	6.6	6.6
280	0.4	1.538	1.538	113.398	0.000	6.5	6.5
285	0.4	1.528	1.528	111.541	0.000	6.5	6.5
290	0.4	1.517	1.517	109.726	0.000	6.4	6.4
295	0.4	1.507	1.507	107.911	0.000	6.4	6.4

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
300	0.3	1.496	1.496	106.083	0.000	6.4	6.4
305	0.3	1.485	1.485	104.273	0.000	6.3	6.3
310	0.2	1.474	1.474	102.461	0.000	6.3	6.3
315	0.2	1.464	1.464	100.660	0.000	6.2	6.2
320	0.2	1.453	1.453	98.870	0.000	6.2	6.2
325	0.2	1.442	1.442	97.090	0.000	6.1	6.1
330	0.2	1.431	1.431	95.320	0.000	6.1	6.1
335	0.2	1.420	1.420	93.559	0.000	6.0	6.0
340	0.1	1.409	1.409	91.788	0.000	6.0	6.0
345	0.0	1.397	1.397	90.021	0.000	6.0	6.0
350	0.0	1.386	1.386	88.237	0.000	5.9	5.9
355	0.0	1.374	1.374	86.480	0.000	5.9	5.9
360	0.0	1.363	1.363	84.723	0.000	5.8	5.8

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +45: 120 mins: Winter

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	1.5	0.014	0.000	0.118	0.000	0.5	0.5
10	3.7	0.044	0.000	0.647	0.000	1.2	1.2
15	4.3	0.044	0.000	1.391	0.000	1.9	1.9
20	4.3	0.046	0.045	2.043	0.000	2.3	2.3
25	4.5	0.047	0.093	2.669	0.000	2.4	2.4
30	5.4	0.051	0.118	3.398	0.000	2.6	2.6
35	7.1	0.060	0.143	4.454	0.000	2.9	2.9
40	9.8	0.072	0.176	6.096	0.000	3.2	3.2
45	13.4	0.086	0.215	8.556	0.000	3.7	3.7
50	17.4	0.099	0.262	11.989	0.000	4.2	4.2
55	21.2	0.110	0.311	16.411	0.000	4.8	4.8
60	23.9	0.125	0.359	21.617	0.000	5.5	5.5
65	23.9	0.150	0.401	27.042	0.016	6.1	6.1
70	21.1	0.174	0.433	31.879	1.370	6.5	6.5
75	17.3	0.194	0.457	35.637	2.386	6.8	6.8
80	13.4	0.208	0.472	38.177	3.295	7.0	7.0
85	9.9	0.215	0.480	39.556	3.980	7.1	7.1
90	7.2	0.218	0.482	40.003	4.203	7.1	7.1
95	5.4	0.216	0.481	39.764	4.087	7.1	7.1
100	4.6	0.213	0.477	39.146	3.785	7.1	7.1
105	4.4	0.208	0.473	38.373	3.406	7.0	7.0
110	4.3	0.204	0.469	37.589	3.021	7.0	7.0
115	3.7	0.199	0.464	36.708	2.686	6.9	6.9
120	1.7	0.191	0.456	35.488	2.368	6.8	6.8
125	0.1	0.181	0.446	33.759	1.913	6.7	6.7
130	0.1	0.169	0.434	31.791	1.391	6.5	6.5

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
135	0.1	0.157	0.422	29.879	0.881	6.4	6.4
140	0.1	0.144	0.409	28.022	0.381	6.2	6.2
145	0.1	0.132	0.397	26.277	0.000	6.0	6.0
150	0.0	0.120	0.385	24.489	0.000	5.8	5.8
155	0.0	0.108	0.373	22.772	0.000	5.6	5.6
160	0.0	0.095	0.360	21.154	0.000	5.4	5.4
165	0.0	0.083	0.348	19.573	0.000	5.2	5.2
170	0.0	0.071	0.336	18.050	0.000	5.0	5.0
175	0.0	0.058	0.323	16.604	0.000	4.8	4.8
180	0.0	0.046	0.311	15.224	0.000	4.6	4.6
185	0.0	0.034	0.299	13.887	0.000	4.4	4.4
190	0.0	0.021	0.286	12.600	0.000	4.2	4.2
195	0.0	0.009	0.274	11.421	0.000	4.0	4.0
200	0.0	0.000	0.262	10.247	0.000	3.4	3.4
205	0.0	0.000	0.249	9.244	0.000	3.3	3.3
210	0.0	0.000	0.237	8.291	0.000	3.1	3.1
215	0.0	0.000	0.225	7.385	0.000	2.9	2.9
220	0.0	0.000	0.213	6.528	0.000	2.8	2.8
225	0.0	0.000	0.200	5.721	0.000	2.6	2.6
230	0.0	0.000	0.188	5.040	0.000	2.2	2.2
235	0.0	0.000	0.176	4.409	0.000	2.0	2.0
240	0.0	0.000	0.164	3.813	0.000	1.9	1.9

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +45: 60 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
10	0.2	0.403	0.400	0.008	0.000	0.0	0.1	0.1
15	0.2	0.406	0.400	0.017	0.000	0.0	0.2	0.2
20	0.3	0.409	0.402	0.032	0.000	0.0	0.2	0.2
25	0.6	0.419	0.418	0.107	0.000	0.0	0.2	0.2
30	0.9	0.447	0.447	0.268	0.000	0.0	0.2	0.2
35	0.9	0.482	0.482	0.473	0.000	0.0	0.2	0.2
40	0.6	0.511	0.511	0.636	0.000	0.0	0.2	0.2
45	0.3	0.524	0.524	0.711	0.000	0.0	0.2	0.2
50	0.2	0.526	0.526	0.721	0.000	0.0	0.2	0.2
55	0.2	0.523	0.523	0.708	0.000	0.0	0.2	0.2
60	0.1	0.518	0.518	0.681	0.000	0.0	0.2	0.2
65	0.0	0.509	0.509	0.629	0.000	0.0	0.2	0.2
70	0.0	0.497	0.497	0.557	0.000	0.0	0.2	0.2
75	0.0	0.484	0.484	0.486	0.000	0.0	0.2	0.2
80	0.0	0.472	0.472	0.415	0.000	0.0	0.2	0.2
85	0.0	0.460	0.460	0.344	0.000	0.0	0.2	0.2
90	0.0	0.448	0.447	0.273	0.000	0.0	0.2	0.2
95	0.0	0.435	0.435	0.204	0.000	0.0	0.2	0.2
100	0.0	0.423	0.423	0.132	0.000	0.0	0.2	0.2
105	0.0	0.411	0.411	0.061	0.000	0.0	0.2	0.2
110	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
115	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
120	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin
Critical by Return Period: FSR: 2 years: Increase Rainfall (%): +0: 30 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	4.0	0.811	0.800	0.266	0.000	0.6	0.6
10	9.8	0.848	0.800	2.058	0.000	1.4	1.4
15	27.5	0.890	0.835	6.783	0.000	2.3	2.3
20	30.1	0.947	0.944	14.982	0.000	2.7	2.7
25	13.6	0.996	0.997	20.980	0.000	2.9	2.9
30	6.5	1.008	1.008	22.881	0.000	3.0	3.0
35	1.4	1.003	1.003	23.154	0.000	3.1	3.1
40	0.2	0.989	0.989	22.405	0.000	3.1	3.1
45	0.1	0.974	0.974	21.518	0.000	3.1	3.1
50	0.0	0.959	0.959	20.614	0.000	3.1	3.1
55	0.0	0.943	0.943	19.703	0.000	3.1	3.1
60	0.0	0.927	0.927	18.788	0.000	3.0	3.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale
Critical by Return Period: FSR: 2 years: Increase Rainfall (%): +0: 30 mins: Winter

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	2.0	0.020	0.000	0.172	0.000	0.7	0.7
10	4.1	0.046	0.000	0.811	0.000	1.2	1.2
15	11.4	0.075	0.004	2.587	0.000	2.4	2.4
20	11.6	0.081	0.136	5.245	0.000	3.1	3.1
25	4.3	0.054	0.196	6.693	0.000	3.3	3.3
30	2.2	0.033	0.206	6.677	0.000	3.2	3.2
35	0.1	0.013	0.202	6.082	0.000	3.0	3.0
40	0.0	0.000	0.191	5.231	0.000	2.5	2.5
45	0.0	0.000	0.179	4.585	0.000	2.1	2.1
50	0.0	0.000	0.167	3.983	0.000	2.0	2.0
55	0.0	0.000	0.155	3.415	0.000	1.8	1.8
60	0.0	0.000	0.143	2.881	0.000	1.7	1.7

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden

Critical by Return Period: FSR: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.1	0.400	0.400	0.000	0.000	0.0	0.1	0.1
10	0.5	0.411	0.402	0.037	0.000	0.0	0.2	0.2
15	0.1	0.410	0.410	0.055	0.000	0.0	0.2	0.2
20	0.0	0.401	0.401	0.005	0.000	0.0	0.2	0.2
25	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
30	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin
Critical by Return Period: FSR: 30 years: Increase Rainfall (%): +40: 30 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	12.1	0.846	0.800	1.117	0.000	1.1	1.1
10	26.7	0.891	0.829	6.441	0.000	2.3	2.3
15	74.6	1.005	0.998	20.290	0.000	2.9	2.9
20	80.3	1.191	1.191	43.166	0.000	3.7	3.7
25	35.0	1.309	1.309	59.974	0.000	4.2	4.2
30	16.8	1.345	1.345	65.908	0.000	4.4	4.4
35	3.0	1.351	1.351	67.522	0.000	4.5	4.5
40	0.2	1.339	1.339	66.468	0.000	4.5	4.5
45	0.1	1.326	1.326	65.155	0.000	4.5	4.5
50	0.0	1.312	1.312	63.797	0.000	4.5	4.5
55	0.0	1.298	1.298	62.444	0.000	4.5	4.5
60	0.0	1.284	1.284	61.094	0.000	4.5	4.5

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale
Critical by Return Period: FSR: 30 years: Increase Rainfall (%): +40: 30 mins: Winter

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m ³)	Flooded Volume (m ³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	5.6	0.051	0.000	0.616	0.000	1.0	1.0
10	10.9	0.074	0.001	2.592	0.000	2.4	2.4
15	30.6	0.129	0.154	7.893	0.000	3.6	3.6
20	31.0	0.137	0.295	15.913	0.000	4.8	4.8
25	11.3	0.104	0.356	20.781	0.000	5.4	5.4
30	5.8	0.101	0.364	21.684	0.000	5.5	5.5
35	0.2	0.093	0.359	20.951	0.000	5.4	5.4
40	0.1	0.081	0.347	19.402	0.000	5.2	5.2
45	0.1	0.069	0.334	17.906	0.000	5.0	5.0
50	0.0	0.057	0.322	16.446	0.000	4.8	4.8
55	0.0	0.045	0.310	15.052	0.000	4.5	4.5
60	0.0	0.032	0.297	13.722	0.000	4.3	4.3

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden

Critical by Return Period: FSR: 30 years: Increase Rainfall (%): +40: 30 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.1	0.400	0.400	0.001	0.000	0.0	0.1	0.1
10	0.3	0.407	0.400	0.021	0.000	0.0	0.2	0.2
15	0.8	0.420	0.419	0.111	0.000	0.0	0.2	0.2
20	0.8	0.449	0.449	0.281	0.000	0.0	0.2	0.2
25	0.3	0.465	0.465	0.373	0.000	0.0	0.2	0.2
30	0.2	0.464	0.464	0.367	0.000	0.0	0.2	0.2
35	0.0	0.455	0.455	0.319	0.000	0.0	0.2	0.2
40	0.0	0.443	0.443	0.249	0.000	0.0	0.2	0.2
45	0.0	0.431	0.431	0.179	0.000	0.0	0.2	0.2
50	0.0	0.419	0.419	0.107	0.000	0.0	0.2	0.2
55	0.0	0.406	0.406	0.036	0.000	0.0	0.2	0.2
60	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Bioretention Basin

Critical by Return Period: FSR: 100 years: Increase Rainfall (%): +45: 30 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.800	0.800	0.000	0.000	0.0	0.0
5	16.8	0.858	0.800	1.651	0.000	1.2	1.2
10	36.2	0.910	0.882	9.058	0.000	2.4	2.4
15	100.6	1.074	1.069	28.065	0.000	3.1	3.1
20	108.7	1.308	1.308	59.136	0.000	4.2	4.2
25	47.1	1.454	1.454	82.255	0.000	4.8	4.8
30	21.9	1.498	1.498	90.393	0.000	5.1	5.1
35	2.3	1.506	1.506	92.422	0.000	5.1	5.1
40	0.4	1.494	1.494	91.102	0.000	5.2	5.2
45	0.3	1.482	1.482	89.654	0.000	5.2	5.2
50	0.3	1.469	1.469	88.195	0.000	5.2	5.2
55	0.3	1.456	1.456	86.732	0.000	5.2	5.2
60	0.3	1.443	1.443	85.258	0.000	5.2	5.2

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Infiltration Swale

Critical by Return Period: FSR: 100 years: Increase Rainfall (%): +45: 30 mins: Winter

Type : Swale

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0	0.0
5	7.6	0.062	0.000	0.880	0.000	1.2	1.2
10	14.7	0.088	0.016	3.641	0.000	2.7	2.7
15	41.1	0.151	0.205	11.003	0.000	4.2	4.2
20	41.9	0.160	0.353	22.054	0.000	5.6	5.6
25	15.2	0.154	0.415	28.936	0.610	6.3	6.3
30	7.8	0.161	0.425	30.436	1.027	6.4	6.4
35	0.1	0.155	0.421	29.722	0.843	6.3	6.3
40	0.1	0.143	0.408	27.875	0.344	6.2	6.2
45	0.1	0.131	0.396	26.074	0.000	6.0	6.0
50	0.0	0.119	0.384	24.323	0.000	5.8	5.8
55	0.0	0.106	0.372	22.634	0.000	5.6	5.6
60	0.0	0.094	0.359	21.001	0.000	5.4	5.4

Sheringham Recycling Centre: Surface Water Drainage 1 in 2, 30 (+40% CC) and 100 (+45% CC) RP	Date: 11/08/2023		
	Designed by: RO	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Stantec UK Ltd: 3rd Floor, Station Road, Cambridge CB1 2JH		



Rain Garden

Critical by Return Period: FSR: 100 years: Increase Rainfall (%): +45: 30 mins: Winter

Type : Bioretention

Tables

Time (mins)	Total Inflow (L/s)	US Depth (Ponding Area)(m)	DS Depth (Ponding Area)(m)	Total Resident Volume(m³)	Flooded Volume (m³)	Outlet(L/s)	Infiltration (L/s)	Total Outflow (L/s)
0	0.0	0.400	0.400	0.000	0.000	0.0	0.0	0.0
5	0.2	0.402	0.400	0.005	0.000	0.0	0.1	0.1
10	0.4	0.410	0.402	0.034	0.000	0.0	0.2	0.2
15	1.1	0.432	0.432	0.182	0.000	0.0	0.2	0.2
20	1.1	0.476	0.476	0.435	0.000	0.0	0.2	0.2
25	0.4	0.502	0.502	0.584	0.000	0.0	0.2	0.2
30	0.2	0.505	0.505	0.601	0.000	0.0	0.2	0.2
35	0.0	0.498	0.498	0.561	0.000	0.0	0.2	0.2
40	0.0	0.485	0.485	0.490	0.000	0.0	0.2	0.2
45	0.0	0.473	0.473	0.420	0.000	0.0	0.2	0.2
50	0.0	0.461	0.461	0.349	0.000	0.0	0.2	0.2
55	0.0	0.448	0.448	0.278	0.000	0.0	0.2	0.2
60	0.0	0.436	0.436	0.208	0.000	0.0	0.2	0.2