SUDS REPORT FOR THE RISE, BROXTED,

CM6 2BJ

DOCUMENT NUMBER.: C2998-R1-REV-A

PREPARED BY

Nimbus
ENGINEERING CONSULTANTS

Contents

1. INTRODUCTION

1.1 Appointment

Nimbus Engineering Consultants Ltd have been appointed to provide a solution on the management of Surface Water runoff and to ensure that there is no risk of flooding caused by the proposed demolition of 2 existing buildings and erection of 3 new buildings together with the creation of a craft hub and re-formation of existing parking areas and landscaping.

Uttlesford District Council.have imposed the following planning condition, relating to surface water:

"11. *No works except demolition shall takes place until a detailed surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the local planning authority. The development should be undertaken in accordance with the approved details. The scheme should include but not be limited to:*

• Limiting discharge rates to 1 l/s for all storm events up to and including the 1 in 100-year rate plus 40% allowance for climate change subject to agreement with the relevant third party. All relevant permissions to discharge from the site into any outfall should be demonstrated.

• Rainwater harvesting should be utilised wherever possible in line with the preliminary design.

• Demonstrate that all storage features can half empty within 24 hours for the 1 in 30 plus 40% climate change critical storm event.

• Final modelling and calculations for all areas of the drainage system.

• The appropriate level of treatment for all runoff leaving the site, in line with the Simple Index Approach in chapter 26 of the CIRIA SuDS Manual C753.

• Detailed engineering drawings of each component of the drainage scheme.

• A final drainage plan which details exceedance and conveyance routes, FFL and ground levels, and location and sizing of any drainage features.

• A written report summarising the final strategy and highlighting any minor changes to the approved strategy. The scheme shall subsequently be implemented prior to occupation. It should be noted that all outline applications are subject to the most up to date design criteria held by the LLFA.

1.2 Objectives

This report will address the concerns raised by the Borough and provide details on a suitable Sustainable Urban Drainage System (SuDS) in order to reduce the surface water run-off leaving the site and show that the proposed development will not increase Flood Risk at the site or elsewhere.

1.3 Limitations

The general limitations of this report are:

- A number of data and information sources have been used to prepare this report. Whilst Nimbus Engineering believes them to be trustworthy, Nimbus Engineering is unable to guarantee the accuracy of data and information that has been provided by others;

- This report has been prepared using the best data and information that was available at the time of writing. There is the potential for further information or data to become available, leading to changes in the conclusions drawn by this report, for which Nimbus Engineering cannot be held responsible.

2. GEOLOGY OF THE AREA

According to the British Geological Survey (BGS), the superficial deposits at the site are of the Lowestoft Formation, as shown in Figure 1 below. The bedrock in the area is of the London Clay Formation consisting of clay and silt, as shown in Figure 2, below.

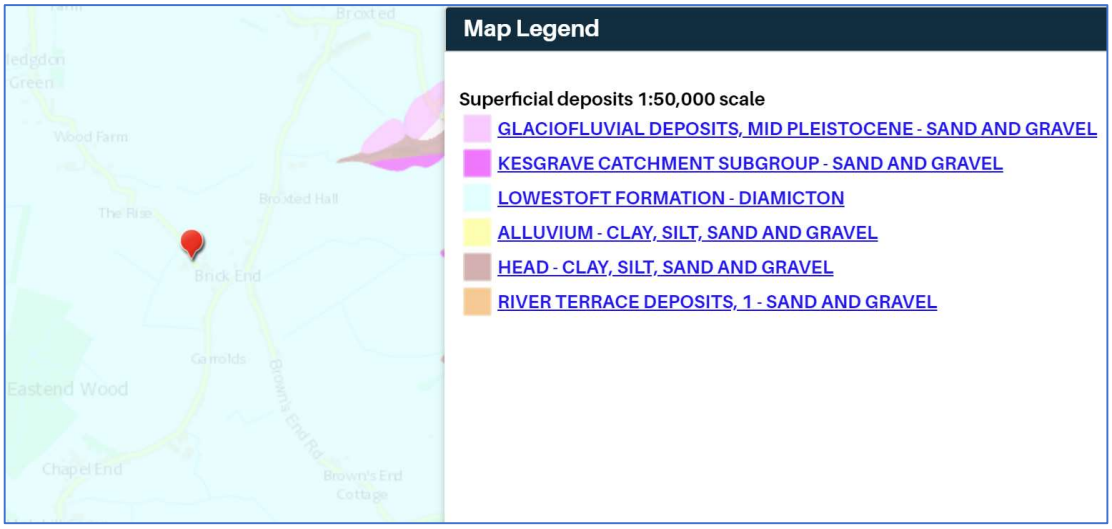

Figure 1- Superficial deposits at the site. (Source: British Geological Society Website (Contains British Geological Survey materials © URKI [2023]. Base mapping is provided by ESRI)).

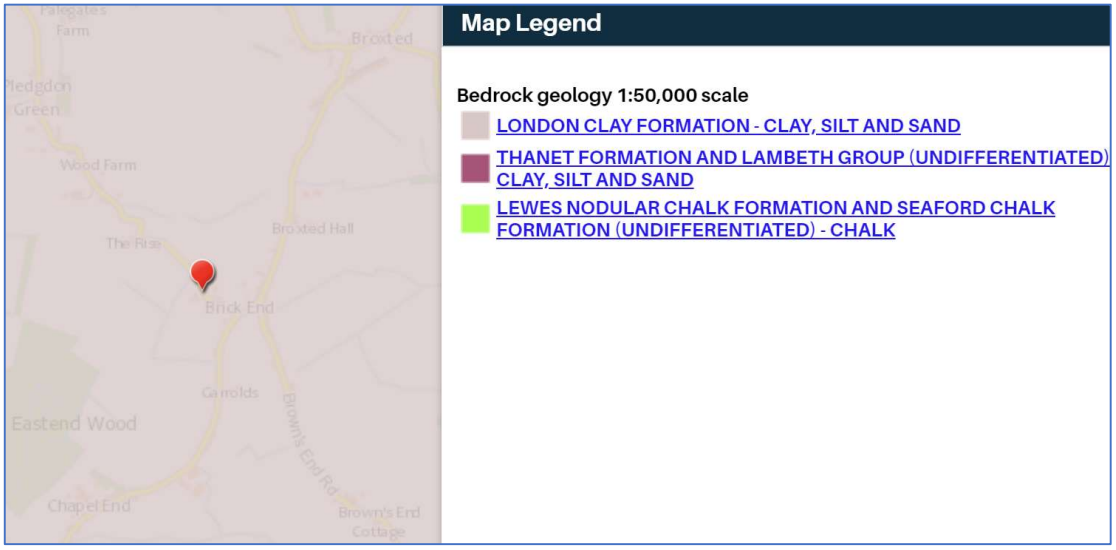

Figure 2- Bedrock at the site. (Source: British Geological Society Website (Contains British Geological Survey materials © URKI [2023]. Base mapping is provided by ESRI))

3. SUSTAINABLE URBAN DRAINAGE SYSTEMS

Surface water arising from a developed site should, as far as is practicable, be managed in a sustainable manner to mimic the surface water flows arising from the site prior to the proposed development, while reducing the flood risk to the site itself and elsewhere, taking climate change into account.

Reducing the rate of surface water discharge from urban sites is one of the most effective ways of reducing and managing flood risk.

Traditional piped surface water systems work by removing surface water from our developments as quickly as possible, however this can cause various adverse impacts:

- Increased downstream flooding, and sudden rises in flow rates and water levels in local water courses.

- Reduction in groundwater levels and dry weather flows in watercourses.

- Reduce amenity and adversely affect biodiversity due to the surface water runoff containing contaminants such as oil, organic matter and toxic materials.

SuDS are defined as a sequence of management principles and control structures deigned to drain surface water in a more sustainable fashion than conventional piped drainage techniques. SuDS should utilise the natural landscape of an area which as well as slowing down the rate of runoff provides a number of environmental, ecological and social benefits.

These include:

- Protection and enhancement of water quality. As well as providing on-site attenuation, SuDS treat the water, resulting in an improved quality of water leaving the site. This is achieved when the water passes through fine soils and the roots of specially selected plants. Pollutants washed off the hard landscaping by rainfall will be safely removed before the water reaches the natural receiving water course.

- A sympathetic approach to the environmental setting by providing opportunities to create habitats for flora and fauna in urban watercourses and open spaces.

- Meeting the amenity and social needs of the local community and residents in the creation of attractive green spaces.

The various types of SuDS include:

Permeable paving	
Soakaways;	
Swales and basins;	
Bioretention/ rain gardens;	
Green roofs and rainwater re-use;	

Preferably a combination of these techniques should be used as part of the surface water management train, and it is important for all stakeholders, such as developers, architects, landscape architects and engineers to work in order to determine a feasible solution.

The SuDS management train is shown below, and this has been followed when proposing the proposed Sustainable Urban Drainage Systems for this site.

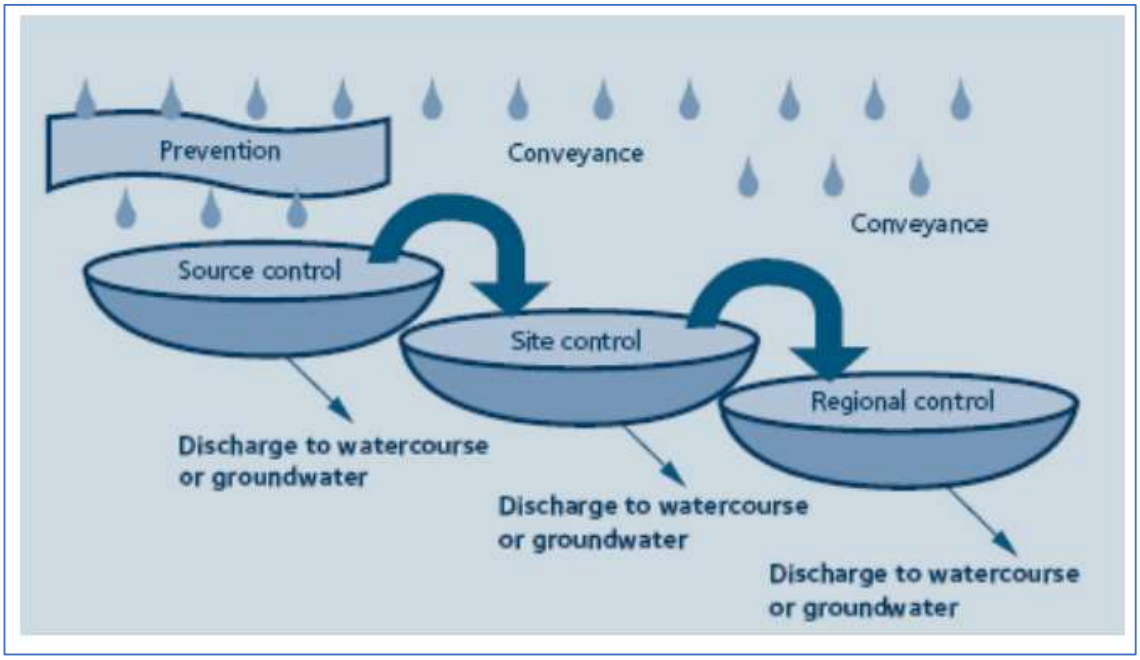

Figure 3 – SuDS Management Train

4. SuDS PROPOSALS FOR DEVELOPMENT

In accordance with the CIRIA SuDS Manual C753, the SuDS hierarchy has been considered in relation to the site-specific constraints and its surroundings. Table 1 below outlines the hierarchical approach considered for the development at The Rise, Broxted, CM6 2BJ.

Sustainable Drainage Proposal	Description	Constraints/Comments	Appropriate
Rainwater Use as a Resource	Use of rainwater runoff for reuse, e.g. Rainwater harvesting tanks, Blue Roofs for irrigation	Wall mounted rainwater harvesting tanks will be provided, where possible	Yes
Rainwater Full Infiltration to Ground (Source Control)	Infiltration devices and/or soakaways. Surface water runoff stored on site and gradually percolating into receiving ground	Due to the underlying geology consisting of clay, full infiltration has been discounted as an option. Also a BRE365 infiltration test was carried out at planning stage, which failed	No
Rainwater Partial Infiltration to Ground (Source Control)	Installation of permeable/porous surfacing	All new proposed hardstanding areas will be formed or porous surfacing or grasscrete	No
Rainwater attenuation in green infrastructure features for gradual release	The onsite storage of all surface water runoff which can then be gradually conveyed to a nearby watercourse, sewer or infiltration into the ground. Forms of green infrastructure features: Green Roofs, Raingardens, Ponds, Swales, Detention basins, Infiltration Trenches and raingarden planters	Large areas of green roof have been proposed as per the roof plan, provided in Appendix A Ponds were provided at planning stage however these have been removed due to the glare that would distract air traffic, as per the local authorities recommendations	Yes

Rainwater discharge direct to a watercourse	All surface water runoff on site discharged at a restricted rate to a nearby watercourse	The surface water run off have been attenuation either in the sub base of the porous surfacing or an attenuation tank, with restricted discharge to the adjacent ditch at a rate of 3.4 l/s, to match the urban greenfield run off rate	N/A
Controlled rainwater discharge to a surface water sewer or drain	All surface water runoff on site discharged at a restricted rate to a nearby surface water sewer or drain, all rainwater runoff stored in below ground attenuation features. E.g. oversized pipes or geo-cellular tanks	N/A	N/A
Controlled rainwater discharge to a combined sewer	All surface water runoff on site discharged at a restricted rate to a nearby combined sewer all rainwater runoff stored in below ground attenuation features. E.g. oversized pipes or geo-cellular tanks	N/A	N/A

Table 1: SuDS Control Measures for Development

5. PROPOSED SOLUTION

NPPF states that any proposed SuDS solution is proportionate to the nature and scale of the development. The proposals include the demolition of 2 existing buildings and erection of 3 new buildings together with the creation of a craft hub and re-formation of existing parking areas and landscaping.

The proposed SuDS solution drawings have been provided in Appendix A, and the surface water runoff and hydraulic modelling outputs have been provided in Appendix B.

We believe the above solution is proportionate to the nature and scale of the development as there will be a reduction in peak surface water run off leaving the site, and the SuDS management train has been followed.

6. TIMESCALE AND MAINTENANCE OF WORKS

All drainage works shall be completed prior to first occupation and there shall be no adoption of any of the drainage works within the site, the managers of the site will be responsible to oversee the long-term maintenance of the drains. The following outline maintenance strategy sets out recommended timescales for maintenance of the proposed drainage works, in line with CIRIA SuDS Design Guide. A management and maintenance plan drawing has also been included in Appendix A.

- Regular inspection will comprise the inspection and cleaning of catchment, gutters, filters and tanks to reduce the likelihood of contamination, this is recommended to be carried out every 3 to 6 months

Maintenance schedule	Required action	Typical Frequency
Regular maintenance	Inspection of the tank for debris and sediment build-up, inlets/outlets/withdraw devices, overflow areas, pumps, filters	Annually (and following poor performance)
	Cleaning of tank, inlets, outlets, gutters. Withdrawal devices and roof drain filters of silts and other debris	Annually (and following poor performance)
Occasional maintenance	Cleaning and/ or replacement of any filters	Three monthly (or as required)
Remedial actions	Repair of overflow erosion damage or damage to tank	As required
	Pump repairs	As required

Table 2: Operation and maintenance requirement for RWH systems.

Maintenance schedule	Required action	Typical Frequency
Regular Inspections	Inspect all components including soil substrate vegetation, drains irrigation systems (if applicable), membranes and roof structure for proper operation integrity of waterproofing and structural stability	Annually and after severe storms
	Inspect soil substrate for evidence of erosion channels and identify any sediment sources	Annually and after severe storms
	Inspect drain inlets to ensure unrestricted runoff from the drainage layer to the conveyance or roof drain system	Annually and after severe storms
	Inspect underside of roof for evidence of leakage	Annually and after severe storms
Regular Maintenance	Remove debris and litter to prevent clogging of inlet drains and interference with plant growth	Six monthly and annually or as required
	During establishment (ie year one) replace dead plants as required	Monthly (but usually responsibility of manufacturer)
	Post establishment, replace dead plants as required (where > 5% of coverage)	Annually (in autumn)
	Remove fallen leaves and debris from deciduous plant foliage	Six monthly or as required
	Remove nuisance and invasive vegetation, including weeds	Six monthly or as required
	Mow grasses, prune shrubs and manage other planting (if appropriate) as required- clippings should be removed and not allowed to accumulate	Six monthly or as required
Remedial Actions	If erosion channels are evident, these should e stabilised with extra soil substrate similar to the original material and sources of erosion damage should be identified and controlled	As required
	If drain inlet has settled, cracked or moved, investigate and repair as appropriate	As required

Table 3: Operation and maintenance requirement for green roofs.

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations or clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this is the most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying	As required
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving.	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material.	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48hr after large storms in six months
	Inspect slit accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Table 4: Operation and maintenance requirements for pervious pavements.

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockages by sediment, algae or other matter: remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/ or internal forebays	Annually, or as required
Remedial actions	Repair/ rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that the are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Table 5: Operation and maintenance requirements for attenuation storage tanks.

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect from surface and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then 6 monthly intervals
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Orifice plates within plastic chambers or vortex controls to be jetted from the surface after heavy rainfall events to remove any debris or silt	As required
	Empty catchpits upstream of SuDS features to ensure no debris is passed downstream	3 months or as required
Remedial actions*	In the event of a blockage, a vortex flow control can be removed from the chamber via the lifting cabled located at the access, this will be cleaned at surface level and reinstalled into its original location	As required
	In the event of a blockage, the orifice plate should be jetted from surface, and if blockage is not cleared the orifice plate can be removed by removing fixing bolts. These fixing bolts should be checked and replaced if needed.	As required
Monitoring	Following installation it is important that any extraneous materials i.e. building materials: granular backfill, in-situ pour concrete etc are removed from the unit and the new flow control chamber is fully jetted down	Upon installation
	Inspect/check chamber channel for any debris or silt build-up. Upstream chambers should be checked at the same time as these monitoring works to ensure network is operating at full capacity.	Annually

Table 6: Operation and maintenance requirements for flow control chambers

*All Remedial Works should be carried out by a competent and certified contractor, with no access to chambers or removal of parts to be undertaken by homeowners

If upstream network of flow control chamber is regularly maintained, little maintenance is required within the chamber as there are no moving parts

7. FOUL WATER DRAINAGE

As there are no foul sewers within the vicinity of the site, the foul water from the proposals will be conveyed into a Biodisc sewage treatment plant with outflow to the adjacent ditch, as per the drawings provided in Appendix A.

8. CONCLUSIONS

The purpose of this report and associated drawings, is to satisfy the planning condition imposed by the local planning authority relating to foul and surface water flows arising due to the development at this site.

As requested, SuDS have been incorporated into this design, in the form of:

1. Wall mounted rainwater harvesting tanks where feasible
2. Large areas of green roof
3. Porous surfacing
4. Attenuation in Porous surfacing and crate system tanks with outflow to the adjacent ditch

The foul discharge from the site will be treated via a Biodisc unit, with the treated discharge from this conveyed to the adjacent ditch.

APPENDIX A – DRAWINGS

KEY

1 - Sedum
2 - Grasscrete
3 - Granite stone pavers or similar
4 - Grass
5 - Block paved car-parking pavers
6 - Gravel
7 - Concrete
8 - PV panels

CH-4
CH-3
CH-1
CH-2
SBG-3
SBG-4
SBG-2
SBG-1
WATER BUTTS
CYCLE PARKING
SEATING
VEHICLE ACCESS ROUTE BOUNDARY
ENTRANCE
Hard standing for research, development and storage
EXISTING SHED
Existing timber fence
43600
10500
31000
4800
33853
6500
40000
22000
52261
21460
9000
20000
2000
1289

0 5 10 15 20 25

Revisions

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CLIENT	**DARREN BYE**	DATE	OCT 2020
TITLE	PROPOSED LAYOUT ROOF PLAN	SCALE	1:500 (1:700)
PROJ. NO.	**234**	© copyright	A2 (A3)
PROJECT	THE RISE, BROXTED, CM6 2BJ	DWG	**234 P 003**

/Volumes/MTA/234 - RISE/02 - DRAWINGS/CAD/P234 - P 230419.dwg

NOT FOR CONSTRUCTION

SCHEDULE OF SURFACE WATER CHAMBERS *COVER LEVELS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION					
NAME	TYPE	DIAMETER (m)	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH (m)
SWC-01	CP	0.600	109.775	109.039	0.736
SWC-02	CP	0.600	109.775	108.878	0.897
SWC-03	CP	0.600	109.800	109.033	0.767
SWC-04	CP	0.600	109.775	108.717	1.058
SWC-05	CP	0.600	109.775	108.989	0.786
SWC-06	CP	0.600	109.775	108.841	0.934
SWC-07	CP	0.600	109.775	108.672	1.103
SWC-08	CP	0.600	109.775	108.500	1.275
SWC-09	FC	0.600	109.750	108.409	1.341
SWC-10	CP	0.600	109.800	108.282	1.518
SWC-11	IC	0.450	109.650	109.081	0.569
SWC-12	IC	0.450	109.650	108.893	0.757
SWC-13	CP	0.600	109.500	108.771	0.729
SWC-14	IC	0.450	109.600	108.913	0.687
SWC-15	CP	0.600	109.550	108.705	0.845
SWC-16	CP	0.600	109.725	108.777	0.948
SWC-17	CP	0.600	109.700	108.654	1.046
SWC-18	IC	0.600	109.725	108.571	1.154
SWC-19	FC	0.600	109.725	108.521	1.204
SWC-20	IC	0.450	109.850	108.888	0.962
SWC-21	CP	0.600	109.725	108.329	1.396
SWC-22	CP	0.600	109.800	108.439	1.361
SWC-23	FC	0.600	109.800	108.194	1.606
SWC-24	IC	0.450	109.725	108.076	1.649
SWC-25	IC	0.450	109.750	107.731	2.019
SWC-26	CP	0.600	109.650	107.549	2.101

PREDEVELOPMENT SURFACE WATER RUNOFF RATES						
QBAR Rural (l/s)	QBAR Urban (l/s)	Q 1 years (l/s)	Q 30 years (l/s)	Q 100 years (l/s)	Considered Area for the hydraulic assessment (ha)	Pre-Development Impermeable Area (ha)
2.3	4.0	3.400	7.9	10.0	0.932	0.289

PROPOSED SURFACE WATER RUNOFF RATES			
Q 1 years (l/s)	Q 30 years (l/s)	Q 30 years + 40% Climate change (l/s)	Q 100 years + 40% Climate change (l/s)
1.5	2.4	2.9	3.4

NORTH
Indicative

Surface Water Underground Attenuation Tank from Polystorm (1m long x 0.5m wide x 0.40m deep) or similar approved product to be at least 30.0mx16.5mx0.8m deep with 95% void ratio to provide minimum 376.20m³ of net storage to avoid any flooding for 1:100 storm event +40% Climate Change.
CL: Varies and min. 109.800m is considered
Top of tank:109.057m
IL of tank:108.257m
Supplier of tank to provide structural and floatation calculations and contractor to follow their recommendations regarding storing, handling and installation.
Attenuation tank to be wrapped with welded impermeable membrane.

Permeable Pavement up to 05 (in infodrainage).
Assumed 150mm pavement buildup (both block paving and grasscrete) with 550mm deep suitable granular subbase storage with at least 30% void ratio.
CL:109.775m (modelled in Infodrainage) assumed that pavement will slope away from buildings. TBC in detailed design stage.
IL:109.075m.
App. 2487m² total surface area with a total net storage of 410.36m³.

No existing routes for services were provided to the drainage designer. If any unavoidable routes are encountered on site by the contractor the drainage engineer will need to be advised as soon as possible.

Permeable Pavement 06 to 09.
Assumed 150mm pavement buildup (both block paving and grasscrete) with 470mm deep suitable granular subbase storage with at least 30% void ratio.
CL:varies (modelled in Infodrainage) assumed that pavement will slope away from buildings. TBC in detailed design stage.
App. 941m² total surface area with a total net storage of 132.68m³.

SWC-09 Intermediary orifice flow control chamber with Ø50mm orifice.

SWC-19 Intermediary orifice flow control chamber with Ø45mm orifice.

SWC-23 Orifice Flow control chamber to restrict flow to 3.4l/s using a Ø43mm orifice.
Restrict flow rate is to match the urban greenfield runoff rate for 1:1 storm event as per Essex LLFA requirements.

Existing ditch to be maintained. Architect and contractor to review the site layout and ensure the existing ditch is not affected.

New headwall to be built on existing ditch with non-return valve. IL:107.483m TBC on site.

CH4 FFL-109.900m TBC
CH3 FFL-109.900m TBC
Reception FFL-109.900m TBC
CH1 FFL -109.900m TBC
CH2 FFL-109.900m TBC
SBG-3 FFL-109.900m TBC
SBG-2 FFL-109.900m TBC
SBG-1 FFL-109.800m TBC

SCHEDULE OF SURFACE WATER PIPES			
START AND END STRUCTURE	DIAMETER (m)	LENGTH (m)	GRADIENT
SWC-01 to SWC-02	0.150	22.505	1:140
SWC-02 to SWC-04	0.150	22.505	1:140
SWC-03 to SWC-04	0.150	12.911	1:41
SWC-04 to SWC-08	0.150	30.354	1:140
SWC-05 to SWC-06	0.150	20.708	1:140
SWC-06 to SWC-07	0.150	23.642	1:140
SWC-07 to SWC-08	0.150	23.942	1:140
SWC-08 to SWC-09	0.150	12.751	1:140
SWC-09 to SWC-10	0.150	16.430	1:130
SWC-10 to Att. Tank	0.150	2.000	1:80
SWC-11 to SWC-12	0.150	20.586	1:110
SWC-12 to SWC-13	0.150	15.933	1:130
SWC-13 to SWC-15	0.150	9.245	1:140
SWC-14 to SWC-15	0.150	24.952	1:120
SWC-15 to SWC-18	0.150	18.719	1:140
SWC-16 to SWC-17	0.150	13.508	1:110
SWC-17 to SWC-18	0.150	10.000	1:120
SWC-18 to SWC-19	0.150	7.000	1:140
SWC-19 to SWC-21	0.150	26.884	1:140
SWC-20 to SWC-21	0.150	16.947	1:30
SWC-21 to Attenuation	0.150	10.031	1:140
SWC-22 to Attenuation	0.150	2.000	1:11
Attenuation to SWC-23	0.150	2.500	1:40
SWC-23 to SWC-24	0.150	15.288	1:130
SWC-24 to SWC-25	0.150	44.751	1:130
SWC-25 to SWC-26	0.150	23.551	1:130
SWC-26 to SW Headwall	0.150	2.034	1:130

NOTES:

1. DRAWING WILL NEED TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS FROM ARCHITECT, LANDSCAPE ARCHITECT, STRUCTURAL ENGINEER AND M&E.
2. ROOT PROTECTION AREAS CURRENTLY NOT PROVIDED. IF THAT INFORMATION IS MADE AVAILABLE DESIGN WILL NEED TO BE CHECKED.
3. EXISTING AND PROPOSED LEVELS ARE BASED ON TOPOGRAPHICAL SURVEY AND WILL NEED TO BE CONFIRMED.
4. FINISHED FLOOR LEVELS TO BE CONFIRMED BY ARCHITECT DURING SUBSEQUENT DESIGN STAGES.
5. THE RESTRICTED FLOW RATE OF 3.4l/s IS BASED ON URBAN GREENFIELD RUNOFF RATE FOR 1:1 YEARS STORM EVENT.
6. CATCH-PITS TO HAVE 300mm SUMP FROM VALUE SHOWN IN TABLE.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION THIS DRAINAGE DESIGN WITH OTHER UTILITIES AND CHECK FOR CLASHES. ANY UNAVOIDABLE CLASHES TO BE REPORTED TO DRAINAGE DESIGN ENGINEER.
8. ALL SURFACE WATER PIPES TO BE Ø150mm LAID AT A GRADIENT BETWEEN 1:10 AND 1:100 UNLESS OTHERWISE NOTED.
9. ALL FOUL WATER PIPES TO BE Ø100mm LAID AT A GRADIENT BETWEEN 1:10 AND 1:40 UNLESS OTHERWISE NOTED.
10. COVERS FOR CHAMBERS TO BE B125 IN GARDEN AREAS AND C250 IN ACCESS DRIVE. IN ROAD OR WHERE EMERGENCY VEHICLES ARE TO ACCESS THE AREA D400 COVERS TO BE USED.
11. NO FOUNDATION DESIGN WAS PRESENTED TO DRAINAGE CIVIL DESIGN ENGINEER. ONCE THIS IS MADE AVAILABLE DESIGN WILL NEED TO BE REVIEWED.
12. CURRENTLY SVP ARE SHOWN INDICATIVE AND ARCHITECT/M&E WILL NEED TO CONFIRM/SUPPLY THEM IN DETAILED DESIGN STAGE.

DRAWING TO BE PRINTED IN COLOUR.

KEY:

- Proposed Surface Water Pipes.
- Proposed Perforated Surface Water Pipes.
- Proposed Foul Water Pipes.
- Proposed Treated Effluent Pipes.
- Channel drain position shown indicative. Threshold drains to be detailed by architect.
- Proposed Site Boundary.
- Proposed RWP.
- Proposed SW inspection/catchpit chamber.
- Proposed SW headwall to be built on existing ditch with no return valve.
- Proposed assumed SVP location. TBC by others in subsequent design stages.
- Proposed FW inspection chamber.
- Proposed sample chamber for treated effluent. Details TBC by supplier.
- Proposed Biodisc unit to treat the foul water before discharging into the ditch. Details to be confirmed once amount of people using the site are known. Size TBC.
- Proposed treated effluent headwall to be built on the existing ditch with no return valve. To be built at least 10m away from the proposed building.
- Proposed Permeable Pavement 01 as per Landscape Architect specification. (Both grasscrete and block paving to have at least 550mm deep suitable subbase for drainage from granular material with at least 30% voids.
- Proposed Permeable Pavement 02 as per Landscape Architect specification. (Both grasscrete and block paving to have at least 470mm deep suitable subbase for drainage from granular material with at least 30% voids.
- Proposed geocellular underground attenuation tank to be Polystorm Xtra or similar approved product. Supplier to provide structural calcs and guidance.

REV	DATE	DRAWN	DESCRIPTION	CHECK	APPR.
C	14-09-23	M.H	Site Layout updated.	SL	SL
B	10-09-23	M.H	Detention basin removed. Attenuation tank moved and storage increased.	SL	SL
A	01-06-23	M.H	For Information.	SL	SL

PROJECT:
C2998 - The Rise, Broxted CM6 2BJ

TITLE:
Proposed Surface Water Drainage Strategy and Suds Layout.

CLIENT:
The Rise Ltd

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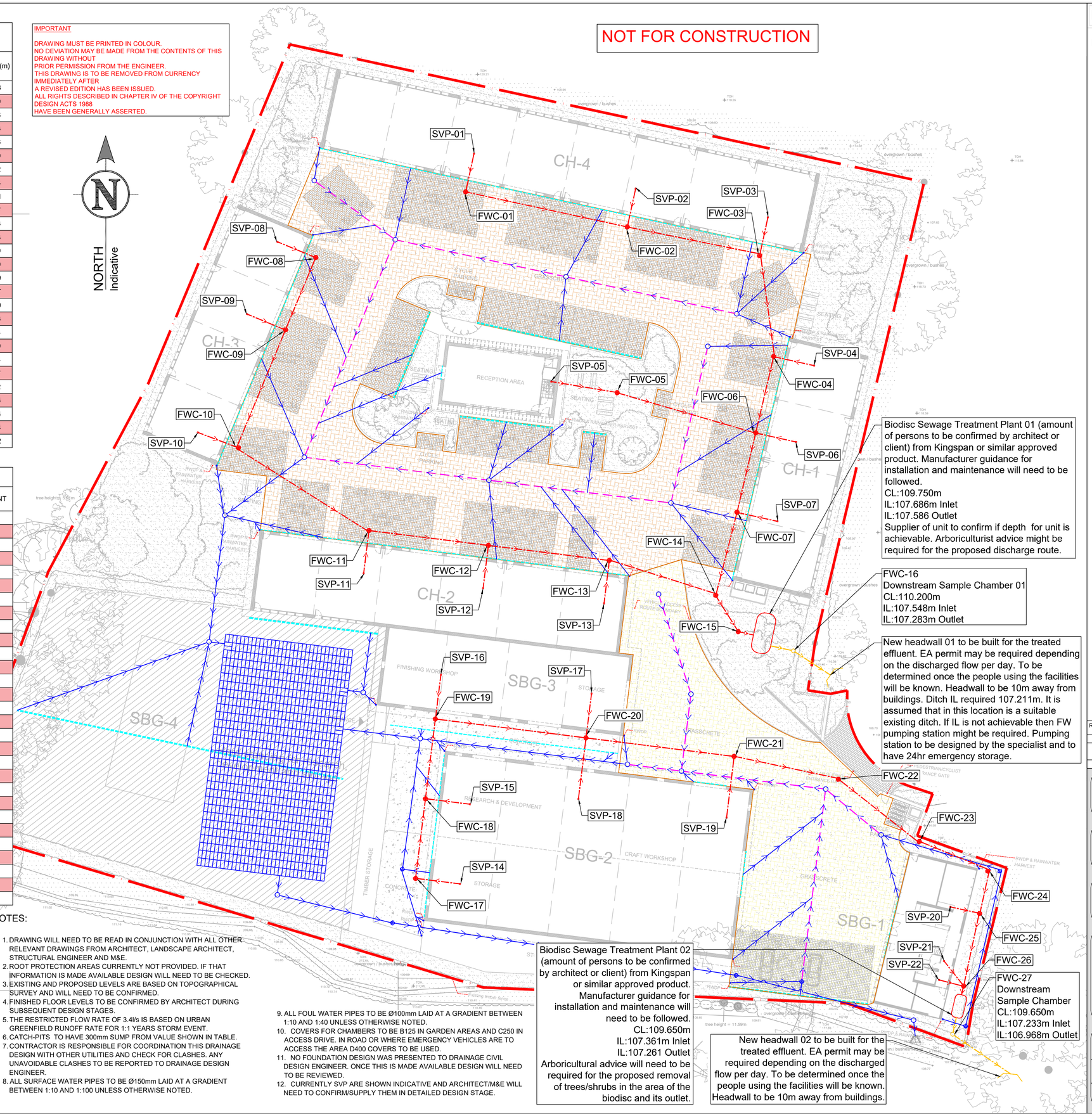
CHECKED BY:	DATE:	APPROVED BY:	DATE:
S.L	01-06-23	S.L	01-06-23
DRN BY: M.H	SCALE: 1:250	DRAWING NUMBER: C2998-01	REV: C
DATE: 01-06-23	SIZE: A1		

SCHEDULE OF FOUL WATER CHAMBERS *COVER LEVELS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION					
NAME	TYPE	DIAMETER (m)	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH (m)
FWC-01	IC	0.450	109.880	108.947	0.933
FWC-02	IC	0.450	109.880	108.681	1.199
FWC-03	IC	0.450	109.880	108.462	1.418
FWC-04	IC	0.450	109.880	108.297	1.583
FWC-05	IC	0.450	109.800	108.694	1.106
FWC-06	IC	0.450	109.880	108.170	1.710
FWC-07	IC	0.450	109.880	108.038	1.842
FWC-08	IC	0.450	109.880	109.146	0.734
FWC-09	IC	0.450	109.880	109.019	0.861
FWC-10	IC	0.450	109.880	108.813	1.067
FWC-11	IC	0.450	109.880	108.527	1.353
FWC-12	IC	0.450	109.880	108.217	1.663
FWC-13	IC	0.450	109.880	108.021	1.859
FWC-14	IC	0.450	109.800	107.840	1.960
FWC-15	IC	0.450	109.750	107.711	2.039
FWC-16	SIC	0.450	110.200	107.283	2.917
FWC-17	IC	0.450	109.855	109.105	0.750
FWC-18	IC	0.450	109.855	108.409	1.446
FWC-19	IC	0.450	109.750	108.656	1.094
FWC-20	IC	0.450	109.750	108.411	1.339
FWC-21	IC	0.450	109.700	108.026	1.674
FWC-22	IC	0.450	109.200	107.853	1.347
FWC-23	IC	0.450	109.650	107.688	1.962
FWC-24	IC	0.450	109.650	107.566	2.084
FWC-25	IC	0.450	109.650	107.496	2.154
FWC-26	IC	0.450	109.650	107.376	2.274
FWC-27	IC	0.450	109.650	106.968	2.682

SCHEDULE OF FOUL WATER PIPES			
START AND END STRUCTURE	DIAMETER (m)	LENGTH (m)	GRADIENT
FWC-01 to FWC-02	0.100	21.310	1:80
FWC-02 to FWC-03	0.100	17.539	1:80
FWC-03 to FWC-04	0.100	13.202	1:80
FWC-04 to FWC-06	0.100	10.124	1:80
FWC-05 to FWC-06	0.100	18.570	1:40
FWC-06 to FWC-07	0.100	10.545	1:80
FWC-07 to FWC-14	0.100	11.042	1:80
FWC-08 to FWC-09	0.100	10.100	1:80
FWC-09 to FWC-10	0.100	16.444	1:80
FWC-10 to FWC-11	0.100	19.991	1:70
FWC-11 to FWC-12	0.100	15.500	1:50
FWC-12 to FWC-13	0.100	15.704	1:80
FWC-13 to FWC-14	0.100	14.506	1:80
FWC-14 to FWC-15	0.100	5.503	1:80
FWC-15 to Biodisc 01	0.100	1.982	1:80
Biodisc 01 to FWC-16	0.100	3.000	1:80
FWC-16 to Headwall 01	0.100	5.698	1:80
FWC-17 to FWC-18	0.100	10.336	1:40
FWC-18 to FWC-19	0.100	10.342	1:80
FWC-19 to FWC-20	0.100	19.556	1:80
FWC-20 to FWC-21	0.100	19.228	1:50
FWC-21 to FWC-22	0.100	13.778	1:80
FWC-22 to FWC-23	0.100	13.162	1:80
FWC-23 to FWC-24	0.100	9.737	1:80
FWC-24 to FWC-25	0.100	5.599	1:80
FWC-25 to FWC-26	0.100	9.577	1:80
FWC-26 to Biodisc 02	0.100	1.141	1:80
Biodisc 02 to FWC-27	0.100	2.214	1:80
FWC-27 to Headwall 02	0.100	9.046	1:80

NOT FOR CONSTRUCTION

NORTH
Indicative



Biodisc Sewage Treatment Plant 01 (amount of persons to be confirmed by architect or client) from Kingspan or similar approved product. Manufacturer guidance for installation and maintenance will need to be followed.
CL:109.750m
IL:107.686m Inlet
IL:107.586 Outlet
Supplier of unit to confirm if depth for unit is achievable. Arboriculturist advice might be required for the proposed discharge route.

FWC-16
Downstream Sample Chamber 01
CL:110.200m
IL:107.548m Inlet
IL:107.283m Outlet

New headwall 01 to be built for the treated effluent. EA permit may be required depending on the discharged flow per day. To be determined once the people using the facilities will be known. Headwall to be 10m away from buildings. Ditch IL required 107.211m. It is assumed that in this location is a suitable existing ditch. If IL is not achievable then FW pumping station might be required. Pumping station to be designed by the specialist and to have 24hr emergency storage.

Biodisc Sewage Treatment Plant 02 (amount of persons to be confirmed by architect or client) from Kingspan or similar approved product. Manufacturer guidance for installation and maintenance will need to be followed.
CL:109.650m
IL:107.361m Inlet
IL:107.261 Outlet
Arboricultural advice will need to be required for the proposed removal of trees/shrubs in the area of the biodisc and its outlet.

New headwall 02 to be built for the treated effluent. EA permit may be required depending on the discharged flow per day. To be determined once the people using the facilities will be known. Headwall to be 10m away from buildings.

FWC-27
Downstream Sample Chamber
CL:109.650m
IL:107.233m Inlet
IL:106.968m Outlet

NOTES:

1. DRAWING WILL NEED TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS FROM ARCHITECT, LANDSCAPE ARCHITECT, STRUCTURAL ENGINEER AND M&E.
2. ROOT PROTECTION AREAS CURRENTLY NOT PROVIDED. IF THAT INFORMATION IS MADE AVAILABLE DESIGN WILL NEED TO BE CHECKED.
3. EXISTING AND PROPOSED LEVELS ARE BASED ON TOPOGRAPHICAL SURVEY AND WILL NEED TO BE CONFIRMED.
4. FINISHED FLOOR LEVELS TO BE CONFIRMED BY ARCHITECT DURING SUBSEQUENT DESIGN STAGES.
5. THE RESTRICTED FLOW RATE OF 3.4l/s IS BASED ON URBAN GREENFIELD RUNOFF RATE FOR 1:1 YEARS STORM EVENT.
6. CATCH-PITS TO HAVE 300mm SUMP FROM VALUE SHOWN IN TABLE.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION THIS DRAINAGE DESIGN WITH OTHER UTILITIES AND CHECK FOR CLASHES. ANY UNAVOIDABLE CLASHES TO BE REPORTED TO DRAINAGE DESIGN ENGINEER.
8. ALL SURFACE WATER PIPES TO BE Ø150mm LAID AT A GRADIENT BETWEEN 1:10 AND 1:100 UNLESS OTHERWISE NOTED.
9. ALL FOUL WATER PIPES TO BE Ø100mm LAID AT A GRADIENT BETWEEN 1:10 AND 1:40 UNLESS OTHERWISE NOTED.
10. COVERS FOR CHAMBERS TO BE B125 IN GARDEN AREAS AND C250 IN ACCESS DRIVE. IN ROAD OR WHERE EMERGENCY VEHICLES ARE TO ACCESS THE AREA D400 COVERS TO BE USED.
11. NO FOUNDATION DESIGN WAS PRESENTED TO DRAINAGE CIVIL DESIGN ENGINEER. ONCE THIS IS MADE AVAILABLE DESIGN WILL NEED TO BE REVIEWED.
12. CURRENTLY SVP ARE SHOWN INDICATIVE AND ARCHITECT/M&E WILL NEED TO CONFIRM/SUPPLY THEM IN DETAILED DESIGN STAGE.

DRAWING TO BE PRINTED IN COLOUR.

KEY:

- Proposed Surface Water Pipes.
- Proposed Perforated Surface Water Pipes.
- Proposed Foul Water Pipes.
- Proposed Treated Effluent Pipes.
- Channel drain position shown indicative. Threshold drains to be detailed by architect.
- Proposed Site Boundary.
- Proposed RWP.
- Proposed SW inspection/catchpit chamber.
- Proposed SW headwall to be built on existing ditch with no return valve.
- Proposed assumed SVP location. TBC by others in subsequent design stages.
- Proposed FW inspection chamber.
- Proposed sample chamber for treated effluent. Details TBC by supplier.
- Proposed Biodisc unit to treat the foul water before discharging into the ditch. Details to be confirmed once amount of people using the site are known. Size TBC.
- Proposed treated effluent headwall to be built on the existing ditch with no return valve. To be built at least 10m away from the proposed building.
- Proposed Permeable Pavement 01 as per Landscape Architect specification. (Both grasscrete and block paving to have at least 550mm deep suitable subbase for drainage from granular material with at least 30% voids.
- Proposed Permeable Pavement 02 as per Landscape Architect specification. (Both grasscrete and block paving to have at least 470mm deep suitable subbase for drainage from granular material with at least 30% voids.
- Proposed geocellular underground attenuation tank to be Polystorm Xtra or similar approved product. Supplier to provide structural calcs and guidance.

REV	DATE	DRAWN	DESCRIPTION	CHECK	APPR.
C	14-09-23	M.H	Site Layout updated.	SL	SL
B	10-09-23	M.H	FW separated and a new Biodisc Treatment Plant introduced.	SL	SL
A	01-06-23	M.H	For Information.	SL	SL

PROJECT:
C2998 - The Rise, Broxted CM6 2BJ

TITLE:
Proposed Foul Water Drainage Strategy.

CLIENT:
The Rise Ltd

Nimbus ENGINEERING CONSULTANTS
www.nimbusengineering.co.uk
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CHECKED BY:	DATE:	APPROVED BY:	DATE:
S.L	01-06-23	S.L	01-06-23
DRN BY:	SCALE:	DRAWING NUMBER:	REV:
M.H	1:250	C2998-02	C
DATE:	SIZE:		
01-06-23	A1		

XXX

MAINTENANCE REQUIREMENTS FOR ALL DRAINAGE FEATURES WITHIN DEVELOPMENT	
MANAGEMENT COMPANY WILL BE FORMED AND BE RESPONSIBLE FOR ALL DRAINAGE FEATURES	
IDENTIFIER	MAINTENANCE REQUIREMENTS & REMEDIAL ACTIONS
1. CATCHPITS AND FLOW CONTROLS	CATCHPIT CHAMBERS ARE TO BE INSPECTED AND EMPTIED EVERY 3 MONTHS, ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THE SYSTEM DOES NOT CLOG UP WITH SILT OR GET BLOCKED.
2. PERMEABLE PAVING	REGULAR JET-WASHING OF PERMEABLE BLOCK PAVING TO KEEP JOINTS AND VOIDS CLEAR. THIS SHOULD BE CARRIED OUT EVERY 6 MONTHS.
3. DRAINAGE RUNS	ANY DEFORMED OR DAMAGED PIPEWORK IS TO BE IDENTIFIED BY A DRAINAGE/CCTV SURVEY AND IS TO BE REPLACED BY APPOINTED MANAGEMENT COMPANY.
4. CHANNEL DRAINS	CHANNEL DRAINS ARE TO BE INSPECTED AND ANY DEBRIS OR LITTER REMOVED EVERY 3 MONTHS OF AFTER A HEAVY RAINFALL EVENT TO ENSURE THERE ARE NO BLOCKAGES.
5.ATTENUATION TANK	ATTENUATION TANK MAINTENANCE SHOULD BE MINIMAL IF CORRECT INSTALLATION METHODS ARE FOLLOWED AND UPSTREAM AND DOWNSTREAM NETWORK IS CORRECTLY MAINTAINED.

NOT FOR CONSTRUCTION

NORTH
Indicative

Surface Water Underground Attenuation Tank from Polystorm (1m long x 0.5m wide x 0.40m deep) or similar approved product to be at least 30.0mx16.5mx0.8m deep with 95% void ratio to provide minimum 376.20m³ of net storage to avoid any flooding for 1:100 storm event +40% Climate Change.
CL: Varies and min. 109.800m is considered
Top of tank:109.057m
IL of tank:108.257m
Supplier of tank to provide structural and floatation calculations and contractor to follow their recommendations regarding storing, handling and installation.
Attenuation tank to be wrapped with welded impermeable membrane.

SWC-09 Intermediary orifice flow control chamber with Ø50mm orifice.

Permeable Pavement up to 05 (in infodrainage).
Assumed 150mm pavement buildup (both block paving and grasscrete) with 550mm deep suitable granular subbase storage with at least 30% void ratio.
CL:109.775m (modelled in Infodrainage) assumed that pavement will slope away from buildings. TBC in detailed design stage.
IL:109.075m.
App. 2487m² total surface area with a total net storage of 410.36m³.

No existing routes for services were provided to the drainage designer. If any unavoidable routes are encountered on site by the contractor the drainage engineer will need to be advised as soon as possible.

Permeable Pavement 06 to 09.
Assumed 150mm pavement buildup (both block paving and grasscrete) with 470mm deep suitable granular subbase storage with at least 30% void ratio.
CL:varies (modelled in Infodrainage) assumed that pavement will slope away from buildings. TBC in detailed design stage.
App. 941m² total surface area with a total net storage of 132.68m³.

SWC-19 Intermediary orifice flow control chamber with Ø45mm orifice.

SWC-23 Orifice Flow control chamber to restrict flow to 3.4l/s using a Ø43mm orifice.
Restrict flow rate is to match the urban greenfield runoff rate for 1:1 storm event as per Essex LLFA requirements.

Existing ditch to be maintained. Architect and contractor to review the site layout and ensure the existing ditch is not affected.

New headwall to be built on existing ditch with non-return valve. IL:107.483m TBC on site.

CH4 FFL-109.900m TBC
CH3 FFL-109.900m TBC
Reception FFL-109.900m TBC
CH1 FFL -109.900m TBC
CH2 FFL-109.900m TBC
SBG-3 FFL-109.900m TBC
SBG-2 FFL-109.900m TBC
SBG-1 FFL-109.800m TBC

SWC-01 SWC-02 SWC-03 SWC-04 SWC-05 SWC-06 SWC-07 SWC-08 SWC-10 SWC-11 SWC-12 SWC-13 SWC-14 SWC-15 SWC-16 SWC-17 SWC-18 SWC-20 SWC-21 SWC-22 SWC-24 SWC-25 SWC-26

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REV	DATE	DRAWN	DESCRIPTION	CHECK	APPR.
C	14-09-23	M.H	Site Layout updated.	SL	SL
B	10-09-23	M.H	Detention basin removed. Attenuation tank moved and storage increased.	SL	SL
A	01-06-23	M.H	For Information.	SL	SL

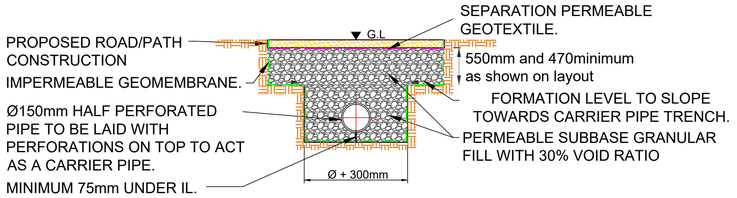
PROJECT:
C2998 - The Rise, Broxted CM6 2BJ

TITLE:
Proposed Surface Water Drainage Strategy and Maintenance Layout.

CLIENT:
The Rise Ltd

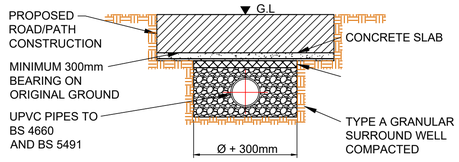
Nimbus ENGINEERING CONSULTANTS
www.nimbusengineering.co.uk
info@nimbusengineering.co.uk

CHECKED BY:	DATE:	APPROVED BY:	DATE:
S.L	01-06-23	S.L	01-06-23
DRN BY: M.H	SCALE: 1:250	DRAWING NUMBER: C2998-03	REV: C
DATE: 01-06-23	SIZE: A1		



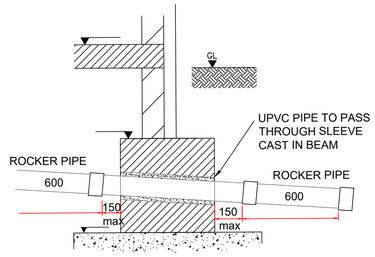
SUBBASE ATTENUATION TANK - TYPICAL SECTION

NOT TO SCALE



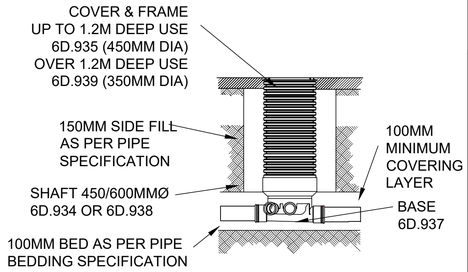
PROTECTION FOR PIPES LAID AT SHALLOW DEPTHS (UPVC PIPES)

NOT TO SCALE



DETAIL OF DRAIN PASSING THROUGH GROUND BEAM OR OTHER STRUCTURE

NOT TO SCALE



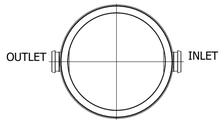
TYPICAL INSPECTION CHAMBER DETAIL (WITHIN PRIVATE LAND)

NOT TO SCALE

TRENCH BEDDING AND FILL MATERIALS

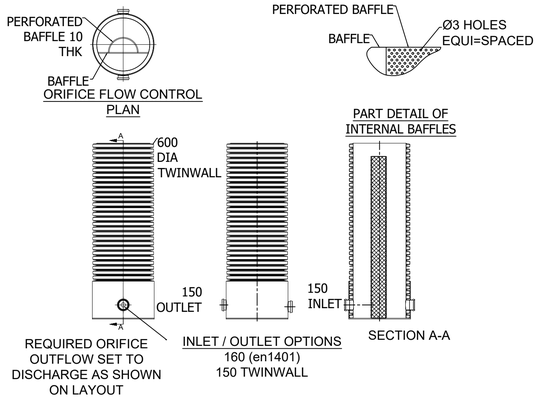
GRANULAR BEDDING TYPE A

TYPE	USE FOR NOMINAL PIPE (DIA.)	% PASSING BY MASS BS 410 SIEVE SIZES (mm)						
		63	37.5	20	14	10	5	2.36
A40	>1350	100	85-100	0-25	–	0-5	–	–
A20	600-1350	–	100	85-100	–	0-25	0-5	–
A14	300-525	–	–	100	85-100	0-50	0-10	–
A10	<300	–	–	–	100	85-100	0-25	0-5



CATCHPIT CHAMBER PLAN

NOT TO SCALE



ORIFICE FLOW CONTROL ELEVATION

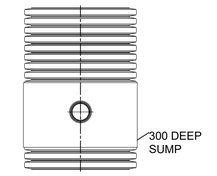
NOT TO SCALE

ORIFICE FLOW CONTROL ELEVATION

NOT TO SCALE

ORIFICE FLOW CONTROL SECTION A-A

NOT TO SCALE



CATCHPIT CHAMBER ELEVATION

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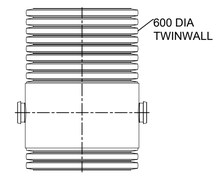
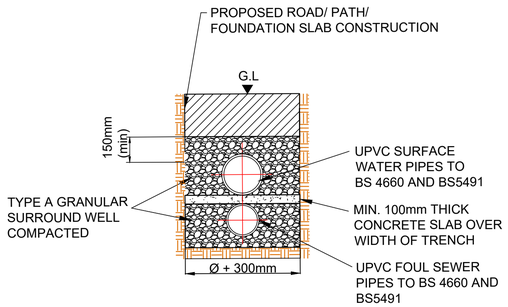


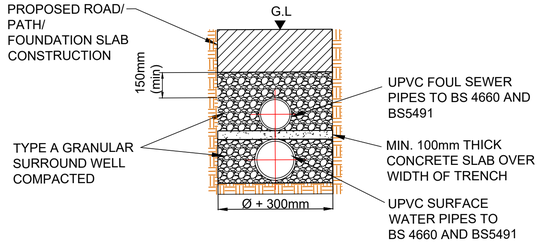
CATCHPIT CHAMBER ELEVATION

NOT TO SCALE



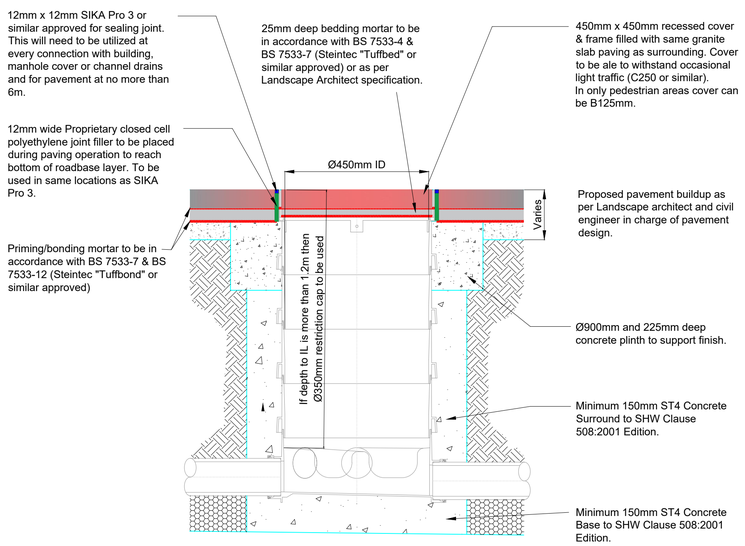
PROTECTION FOR SURFACE WATER SEWER CROSSINGS ABOVE FOUL SEWERS (UPVC PIPES)

NOT TO SCALE



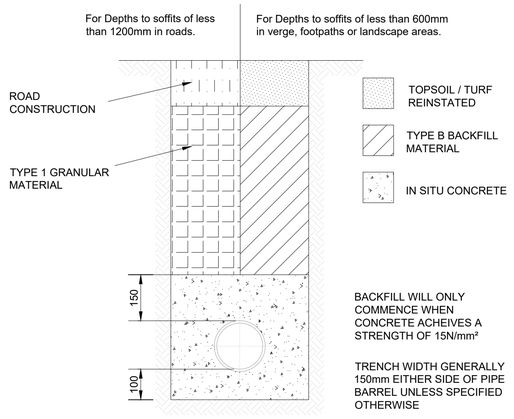
PROTECTION FOR FOUL SEWER CROSSINGS ABOVE SURFACE WATER SEWERS (UPVC PIPES)

NOT TO SCALE



Ø450mm SURFACE AND FOUL WATER INSPECTION CHAMBER TYPICAL INSTALLATION DETAIL

NOT TO SCALE



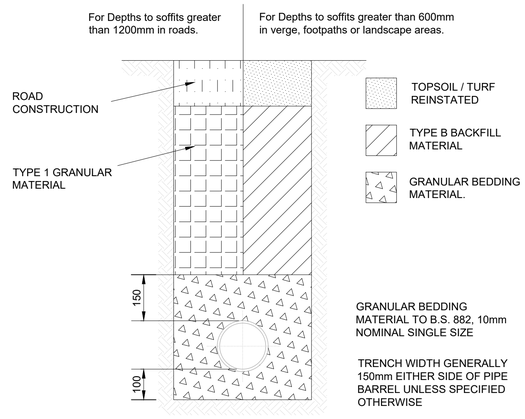
CONCRETE BED AND SURROUND TO BE GEN3 SULPHATE RESISTING WITH FLEXIBLE JOINTS 18mm THICK, AT ALTERNATE PIPE JOINTS.

SELECTED BACKFILL TYPE B AS SPECIFIED BUT GENERALLY LOCALLY EXCAVATED MATERIAL OR IMPORTED, READILY COMPACTIBLE , FREE FROM VEGETABLE MATTER, RUBBISH, FROZEN SOIL, AND MATERIAL RETAINED ON A 37.5mm SEIVE. COMPACTED IN LAYERS OF 150mm.

VERGE/LANDSCAPED AREAS REINSTATED TO MATCH EXISTING . PREPARE AND SEED GROUND TO BE REINSTATED AS SPECIFIED.

CLASS Z BEDDING FOR DRAINAGE PIPES

NOT TO SCALE



GRANULAR BACKFILL MATERIAL DTp TYPE 1. DTp CLAUSES 803 OR 804 RESPECTIVELY OR SUITABLE APPROVED EQUIVALENT COMPACTED IN LAYERS OF 150mm.

SELECTED BACKFILL TYPE B AS SPECIFIED BUT GENERALLY LOCALLY EXCAVATED MATERIAL OR IMPORTED, READILY COMPACTIBLE , FREE FROM VEGETABLE MATTER, RUBBISH, FROZEN SOIL, AND MATERIAL RETAINED ON A 37.5mm SEIVE. COMPACTED IN LAYERS OF 150mm.

VERGE/LANDSCAPED AREAS REINSTATED TO MATCH EXISTING . PREPARE AND SEED GROUND TO BE REINSTATED AS SPECIFIED.

CLASS S BEDDING FOR DRAINAGE PIPES

NOT TO SCALE

NOT FOR CONSTRUCTION

IMPORTANT

DRAWING MUST BE PRINTED IN COLOUR.
NO DEVIATION MAY BE MADE FROM THE CONTENTS OF THIS DRAWING WITHOUT PRIOR PERMISSION FROM THE ENGINEER.
THIS DRAWING IS TO BE REMOVED FROM CURRENCY IMMEDIATELY AFTER A REVISED EDITION HAS BEEN ISSUED.

REV	DATE	DRAWN	DESCRIPTION	CHECK	APPR.
B	10-09-23	M.H	Depth of subbase amended.	SL	SL
A	01-06-23	M.H	For Information.	SL	SL

PROJECT:

C2998 - The Rise, Broxted CM6 2BJ

TITLE:

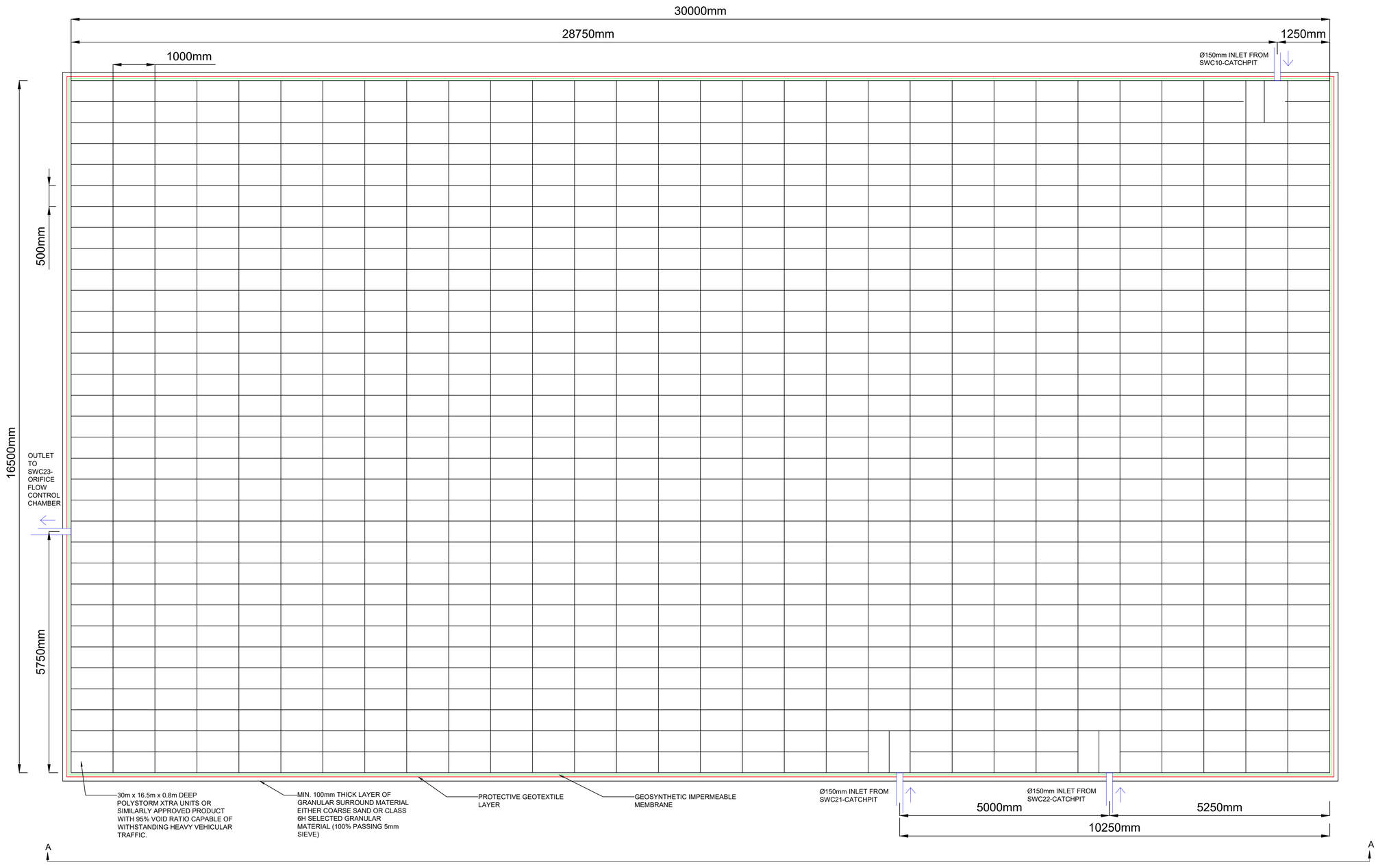
Standard Drainage Details - Sheet 01 from 02.

CLIENT:

The Rise Ltd

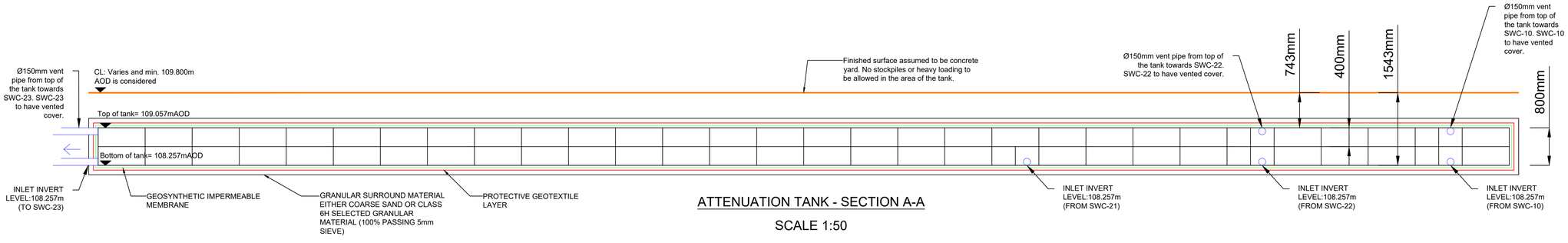
Nimbus ENGINEERING CONSULTANTS
www.nimbusengineering.co.uk
info@nimbusengineering.co.uk

CHECKED BY:	DATE:	APPROVED BY:	DATE:
S.L	01-06-23	S.L	01-06-23
DRN BY:	SCALE:	DRAWING NUMBER:	REV:
M.H	N/A	C2998-04	B
DATE:	SIZE:		
01-06-23	A1		



ATTENUATION TANK - PLAN VIEW

SCALE 1:50



ATTENUATION TANK - SECTION A-A

SCALE 1:50

NOT FOR CONSTRUCTION

REV	DATE	DRAWN	DESCRIPTION	CHECK	APPR.
B	10-09-23	M.H	Attenuation tank storage increased.	SL	SL
A	01-06-23	M.H	For Information.	SL	SL

PROJECT:

C2998 - The Rise, Broxted CM6 2BJ

TITLE:

Standard Drainage Details - Sheet 02 from 02.

CLIENT:

The Rise Ltd

Nimbus ENGINEERING CONSULTANTS
www.nimbusengineering.co.uk
info@nimbusengineering.co.uk

CHECKED BY:	DATE:	APPROVED BY:	DATE:
S.L	01-06-23	S.L	01-06-23
DRN BY: M.H	SCALE: N/A	DRAWING NUMBER: C2998-05	REV: B
DATE: 01-06-23	SIZE: A1		

APPENDIX B – SURFACE WATER RUN OFF CALCULATIONS & HYDRAULIC MODELLING OUTPUTS

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.830
Long. Slope (1:X)	1000.00
Width (m)	10.591
Total Volume (m³)	43.698

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.461
Long. Slope (1:X)	1000.00
Width (m)	11.813
Total Volume (m³)	51.903

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	28.925
Long. Slope (1:X)	1000.00
Width (m)	11.070
Total Volume (m³)	53.191

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	38.740
Long. Slope (1:X)	1000.00
Width (m)	15.000
Total Volume (m³)	96.358

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	31.775
Long. Slope (1:X)	1000.00
Width (m)	12.470
Total Volume (m³)	65.775

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (5)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	37.569
Long. Slope (1:X)	1000.00
Width (m)	11.915
Total Volume (m³)	74.328

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (6)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.725
Depth (m)	0.620
Base Level (m)	109.105
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	17.974
Long. Slope (1:X)	1000.00
Width (m)	5.717
Total Volume (m³)	14.710

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (7)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.700
Depth (m)	0.620
Base Level (m)	109.080
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.602
Long. Slope (1:X)	1000.00
Width (m)	9.846
Total Volume (m³)	37.259

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (8)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.500
Depth (m)	0.620
Base Level (m)	108.880
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	25.225
Long. Slope (1:X)	1000.00
Width (m)	12.721
Total Volume (m³)	45.558

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (9)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.600
Depth (m)	0.620
Base Level (m)	108.980
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.111
Long. Slope (1:X)	1000.00
Width (m)	10.685
Total Volume (m³)	36.623

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Attenuation Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	109.800
Depth (m)	0.800
Base Level (m)	108.257
Number of Crates Long	32
Number of Crates Wide	35
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m^3)	426.343

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Inflow Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (1)	Porous Paving (1)		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	Porous Paving (2)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (3)	Porous Paving (3)		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (4)	Porous Paving (4)		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (5)	Porous Paving (5)		Time of Concentration	0.045	100	0	100	0.045
Catchment Area (6)	Porous Paving (6)		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (7)	Porous Paving (7)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (8)	Porous Paving (8)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (9)	Porous Paving (9)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (10)	SWC-08		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (11)	SWC-07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (12)	SWC-10		Time of Concentration	0.109	100	0	100	0.109
Catchment Area (13)	SWC-22		Time of Concentration	0.069	100	0	100	0.069
Catchment Area (14)	SWC-20		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (15)	SWC-21		Time of Concentration	0.024	100	0	100	0.024
Green Roof	SWC-01		Green Roof	0.040		0		0.040
Green Roof (1)	SWC-03		Green Roof	0.040		0		0.040
Green Roof (2)	SWC-04		Green Roof	0.021		0		0.021
Green Roof (3)	SWC-09 (FC)		Green Roof	0.021		0		0.021
Green Roof (4)	SWC-05		Green Roof	0.021		0		0.021
Green Roof (5)	SWC-06		Green Roof	0.021		0		0.021
Green Roof (6)	SWC-07		Green Roof	0.027		0		0.027
Green Roof (7)	SWC-08		Green Roof	0.030		0		0.030
Green Roof (8)	SWC-21		Green Roof	0.016		0		0.016
Green Roof (9)	SWC-19 (FC)		Green Roof	0.016		0		0.016
Green Roof (10)	SWC-21		Green Roof	0.025		0		0.025
Green Roof (11)	SWC-18		Green Roof	0.019		0		0.019
Green Roof (12)	SWC-20		Green Roof	0.037		0		0.037
Green Roof (13)	SWC-14		Green Roof	0.025		0		0.025
Green Roof (14)	SWC-12		Green Roof	0.008		0		0.008
Green Roof (15)	SWC-11		Green Roof	0.010		0		0.010
TOTAL		**0.0**		**0.932**				**0.932**

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by:	Checked by:	Approved By:
	M.H	S.L	S.L
Report Title:	Kemp House:: 124 City Road London EC1V 2NX		
Rainfall Analysis Criteria			

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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	19.5
Ratio R	0.428
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
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
7200	14400
8640	17280
10080	20160

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: UK and Ireland Rural Runoff Calculator	Kemp House:: 124 City Road London EC1V 2NX		

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.932
SAAR (mm)	611.0
Soil	0.37
Region	Region 6
Urban	0.31
Return Period (years)	100

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 100 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 6	2.3	4.0	10.0	3.4	7.9	10.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SWC-01	FSR: 100 years: +40 %: 240 mins: Summer	109.775	109.039	109.623	0.584	4.4	0.165	0.000	2.4	28.749	Flood Risk
SWC-02	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.878	109.622	0.744	6.7	0.210	0.000	1.5	32.489	Flood Risk
SWC-03	FSR: 100 years: +40 %: 240 mins: Summer	109.800	109.033	109.621	0.588	4.4	0.166	0.000	4.4	21.130	Flood Risk
SWC-04	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.717	109.621	0.904	6.7	0.256	0.000	3.4	62.771	Flood Risk
SWC-05	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.989	109.619	0.630	2.3	0.178	0.000	2.3	10.641	Flood Risk
SWC-06	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.841	109.619	0.778	4.5	0.220	0.000	1.1	32.138	Flood Risk
SWC-07	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.672	109.618	0.946	4.9	0.268	0.000	2.0	49.349	Flood Risk
SWC-08	FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.500	109.616	1.116	8.5	0.316	0.000	4.8	120.868	Flood Risk
SWC-09 (FC)	FSR: 100 years: +40 %: 240 mins: Summer	109.750	108.409	109.607	1.198	5.4	0.190	0.000	5.0	116.101	Flood Risk
SWC-10	FSR: 100 years: +40 %: 15 mins: Summer	109.850	108.292	109.525	1.233	77.8	0.349	0.000	62.0	40.227	Surcharged
SWC-11	FSR: 100 years: +40 %: 120 mins: Winter	109.650	109.081	109.349	0.268	1.2	0.043	0.000	1.2	4.360	Surcharged
SWC-12	FSR: 100 years: +40 %: 120 mins: Winter	109.650	108.893	109.349	0.456	2.1	0.072	0.000	2.0	7.624	Surcharged
SWC-13	FSR: 100 years: +40 %: 120 mins: Winter	109.500	108.771	109.349	0.578	2.0	0.164	0.000	1.8	7.000	Flood Risk
SWC-14	FSR: 100 years: +40 %: 120 mins: Winter	109.600	108.913	109.350	0.437	3.1	0.069	0.000	2.3	19.405	Flood Risk
SWC-15	FSR: 100 years: +40 %: 120 mins: Winter	109.550	108.705	109.348	0.643	4.0	0.182	0.000	3.2	32.320	Flood Risk
SWC-16	FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.777	109.345	0.568	0.5	0.161	0.000	0.1	0.656	Surcharged
SWC-17	FSR: 100 years: +40 %: 120 mins: Winter	109.700	108.654	109.345	0.691	1.0	0.196	0.000	0.2	1.888	Surcharged
SWC-18	FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.571	109.345	0.774	3.3	0.219	0.000	3.3	34.173	Surcharged
SWC-19 (FC)	FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.521	109.343	0.822	3.6	0.232	0.000	3.5	38.502	Surcharged

SWC-20	FSR: 100 years: +40 %: 1440 mins: Summer	109.850	108.888	109.034	0.146	1.8	0.023	0.000	1.8	40.592	OK
SWC-21	FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.329	109.034	0.705	7.1	0.200	0.000	7.1	210.130	Surcharged
SWC-22	FSR: 100 years: +40 %: 1440 mins: Summer	109.800	108.439	109.034	0.595	3.1	0.168	0.000	3.0	67.202	Surcharged
SWC-23 (FC)	FSR: 100 years: +40 %: 1440 mins: Summer	109.800	108.194	109.032	0.838	3.4	0.237	0.000	3.4	445.385	Surcharged
SWC-24	FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	445.201	OK
SWC-25	FSR: 100 years: +40 %: 1440 mins: Summer	109.750	107.731	107.780	0.049	3.4	0.008	0.000	3.4	445.056	OK
SWC-26	FSR: 100 years: +40 %: 1440 mins: Summer	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	445.056	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
Attenuation Tank	FSR: 100 years: +40 %: 1440 mins: Summer	109.034	109.034	0.777	0.777	19.3	413.307	0.000	0.000	3.4	446.014	3.058	OK
Porous Paving	FSR: 100 years: +40 %: 240 mins: Summer	109.622	109.623	0.523	0.548	8.0	42.225	0.000	0.000	2.1	6.493	3.370	OK
Porous Paving (1)	FSR: 100 years: +40 %: 240 mins: Summer	109.622	109.622	0.521	0.547	8.8	50.059	0.000	0.000	1.4	7.828	3.553	OK
Porous Paving (2)	FSR: 100 years: +40 %: 240 mins: Summer	109.621	109.621	0.517	0.546	9.3	51.069	0.000	0.000	2.3	7.775	3.990	OK
Porous Paving (3)	FSR: 100 years: +40 %: 240 mins: Summer	109.616	109.616	0.502	0.541	14.0	91.010	0.000	0.000	2.2	14.089	5.550	OK
Porous Paving (4)	FSR: 100 years: +40 %: 240 mins: Summer	109.618	109.618	0.512	0.543	10.7	62.723	0.000	0.000	1.8	8.928	4.640	OK
Porous Paving (5)	FSR: 100 years: +40 %: 240 mins: Summer	109.619	109.619	0.506	0.544	11.7	70.600	0.000	0.000	1.8	10.345	5.016	OK
Porous Paving (6)	FSR: 100 years: +40 %: 2160 mins: Winter	109.387	109.387	0.264	0.282	0.2	8.404	0.000	0.000	0.1	3.235	42.869	OK
Porous Paving (7)	FSR: 100 years: +40 %: 2160 mins: Winter	109.366	109.367	0.260	0.287	0.5	21.464	0.000	0.000	0.3	7.304	42.395	OK
Porous Paving (8)	FSR: 100 years: +40 %: 120 mins: Winter	109.349	109.348	0.443	0.468	10.2	43.890	0.000	0.000	2.7	10.223	3.662	OK
Porous Paving (9)	FSR: 100 years: +40 %: 120 mins: Winter	109.350	109.350	0.346	0.370	6.0	27.653	0.000	0.000	2.0	8.080	24.492	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.830
Long. Slope (1:X)	1000.00
Width (m)	10.591
Total Volume (m³)	43.698

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.461
Long. Slope (1:X)	1000.00
Width (m)	11.813
Total Volume (m³)	51.903

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	28.925
Long. Slope (1:X)	1000.00
Width (m)	11.070
Total Volume (m³)	53.191

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	38.740
Long. Slope (1:X)	1000.00
Width (m)	15.000
Total Volume (m³)	96.358

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	31.775
Long. Slope (1:X)	1000.00
Width (m)	12.470
Total Volume (m³)	65.775

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (5)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	37.569
Long. Slope (1:X)	1000.00
Width (m)	11.915
Total Volume (m³)	74.328

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (6)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.725
Depth (m)	0.620
Base Level (m)	109.105
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	17.974
Long. Slope (1:X)	1000.00
Width (m)	5.717
Total Volume (m³)	14.710

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (7)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.700
Depth (m)	0.620
Base Level (m)	109.080
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.602
Long. Slope (1:X)	1000.00
Width (m)	9.846
Total Volume (m³)	37.259

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (8)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.500
Depth (m)	0.620
Base Level (m)	108.880
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	25.225
Long. Slope (1:X)	1000.00
Width (m)	12.721
Total Volume (m³)	45.558

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (9)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.600
Depth (m)	0.620
Base Level (m)	108.980
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.111
Long. Slope (1:X)	1000.00
Width (m)	10.685
Total Volume (m³)	36.623

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Attenuation Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	109.800
Depth (m)	0.800
Base Level (m)	108.257
Number of Crates Long	32
Number of Crates Wide	35
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m^3)	426.343

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Inflow Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (1)	Porous Paving (1)		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	Porous Paving (2)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (3)	Porous Paving (3)		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (4)	Porous Paving (4)		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (5)	Porous Paving (5)		Time of Concentration	0.045	100	0	100	0.045
Catchment Area (6)	Porous Paving (6)		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (7)	Porous Paving (7)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (8)	Porous Paving (8)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (9)	Porous Paving (9)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (10)	SWC-08		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (11)	SWC-07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (12)	SWC-10		Time of Concentration	0.109	100	0	100	0.109
Catchment Area (13)	SWC-22		Time of Concentration	0.069	100	0	100	0.069
Catchment Area (14)	SWC-20		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (15)	SWC-21		Time of Concentration	0.024	100	0	100	0.024
Green Roof	SWC-01		Green Roof	0.040		0		0.040
Green Roof (1)	SWC-03		Green Roof	0.040		0		0.040
Green Roof (2)	SWC-04		Green Roof	0.021		0		0.021
Green Roof (3)	SWC-09 (FC)		Green Roof	0.021		0		0.021
Green Roof (4)	SWC-05		Green Roof	0.021		0		0.021
Green Roof (5)	SWC-06		Green Roof	0.021		0		0.021
Green Roof (6)	SWC-07		Green Roof	0.027		0		0.027
Green Roof (7)	SWC-08		Green Roof	0.030		0		0.030
Green Roof (8)	SWC-21		Green Roof	0.016		0		0.016
Green Roof (9)	SWC-19 (FC)		Green Roof	0.016		0		0.016
Green Roof (10)	SWC-21		Green Roof	0.025		0		0.025
Green Roof (11)	SWC-18		Green Roof	0.019		0		0.019
Green Roof (12)	SWC-20		Green Roof	0.037		0		0.037
Green Roof (13)	SWC-14		Green Roof	0.025		0		0.025
Green Roof (14)	SWC-12		Green Roof	0.008		0		0.008
Green Roof (15)	SWC-11		Green Roof	0.010		0		0.010
TOTAL		**0.0**		**0.932**				**0.932**

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by:	Checked by:	Approved By:
	M.H	S.L	S.L
Report Title:	Kemp House::		
Rainfall Analysis Criteria	124 City Road London EC1V 2NX		

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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	19.5
Ratio R	0.428
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
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
7200	14400
8640	17280
10080	20160

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: UK and Ireland Rural Runoff Calculator	Kemp House:: 124 City Road London EC1V 2NX		

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.932
SAAR (mm)	611.0
Soil	0.37
Region	Region 6
Urban	0.31
Return Period (years)	100

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 100 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 6	2.3	4.0	10.0	3.4	7.9	10.0

Summary Results for SWC-01: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	109.039	109.432	0.393	6.2	0.111	0.000	1.2	6.125	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	109.039	109.432	0.393	6.0	0.111	0.000	1.2	6.074	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	109.039	109.440	0.401	6.9	0.114	0.000	4.3	10.856	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	109.039	109.438	0.399	6.7	0.113	0.000	4.2	10.795	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	109.039	109.510	0.471	6.7	0.133	0.000	2.5	15.316	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	109.039	109.506	0.467	6.3	0.132	0.000	2.7	15.189	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	109.039	109.582	0.543	5.8	0.154	0.000	2.9	20.900	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	109.039	109.591	0.552	5.0	0.156	0.000	2.5	21.161	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	109.039	109.613	0.574	5.0	0.162	0.000	2.6	25.319	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	109.039	109.611	0.572	4.1	0.162	0.000	2.9	25.223	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	109.039	109.623	0.584	4.4	0.165	0.000	2.4	28.749	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	109.039	109.604	0.565	3.5	0.160	0.000	2.4	28.335	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	109.039	109.592	0.553	3.5	0.157	0.000	2.4	35.104	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	109.039	109.585	0.546	2.7	0.154	0.000	2.1	34.954	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	109.039	109.571	0.532	3.0	0.151	0.000	2.1	41.105	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	109.039	109.560	0.521	2.2	0.147	0.000	1.9	40.375	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	109.039	109.559	0.520	2.6	0.147	0.000	2.0	45.388	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	109.039	109.532	0.493	1.9	0.140	0.000	1.7	43.564	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	109.039	109.543	0.504	2.3	0.143	0.000	1.8	46.987	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	109.039	109.517	0.478	1.6	0.135	0.000	1.6	43.288	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	109.039	109.518	0.479	1.9	0.136	0.000	1.6	48.473	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	109.039	109.490	0.451	1.3	0.128	0.000	1.3	46.804	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	109.039	109.476	0.437	1.4	0.124	0.000	1.3	47.639	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	109.039	109.403	0.364	0.9	0.103	0.000	0.9	39.543	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	109.039	109.403	0.364	1.0	0.103	0.000	0.9	44.248	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	109.039	109.370	0.331	0.7	0.094	0.000	0.6	40.778	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	109.039	109.370	0.331	0.8	0.094	0.000	0.7	44.647	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	109.039	109.364	0.325	0.6	0.092	0.000	0.5	44.300	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	109.039	109.359	0.320	0.6	0.090	0.000	0.6	49.308	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	109.039	109.259	0.220	0.5	0.062	0.000	0.5	49.574	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	109.039	109.266	0.227	0.5	0.064	0.000	0.5	53.182	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	109.039	109.104	0.065	0.4	0.018	0.000	0.4	53.143	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	109.039	109.165	0.126	0.5	0.036	0.000	0.5	56.945	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	109.039	109.056	0.017	0.4	0.005	0.000	0.4	57.285	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	109.039	109.080	0.041	0.5	0.012	0.000	0.5	59.530	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	109.039	109.055	0.016	0.4	0.005	0.000	0.4	59.833	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	109.039	109.056	0.017	0.4	0.005	0.000	0.4	61.680	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	109.039	109.054	0.015	0.3	0.004	0.000	0.3	62.302	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-02: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.878	109.431	0.553	6.0	0.156	0.000	0.0	4.470	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.878	109.431	0.553	5.4	0.156	0.000	0.0	4.415	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.878	109.439	0.561	5.7	0.159	0.000	1.3	8.387	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.878	109.436	0.558	5.5	0.158	0.000	1.3	8.307	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.878	109.509	0.631	5.4	0.178	0.000	2.0	12.706	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.878	109.505	0.627	4.9	0.178	0.000	2.4	12.500	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.878	109.582	0.704	4.5	0.199	0.000	1.5	20.647	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.878	109.590	0.712	4.0	0.201	0.000	1.4	20.358	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.878	109.612	0.734	3.9	0.208	0.000	1.5	27.103	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.878	109.610	0.732	3.6	0.207	0.000	1.7	26.251	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.878	109.622	0.744	6.7	0.210	0.000	1.5	32.489	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.878	109.603	0.725	2.8	0.205	0.000	1.4	31.399	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.878	109.592	0.714	2.8	0.202	0.000	1.4	43.582	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.878	109.585	0.707	2.1	0.200	0.000	1.4	42.330	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.878	109.571	0.693	2.2	0.196	0.000	1.3	53.693	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.878	109.559	0.681	1.9	0.193	0.000	1.4	51.910	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.878	109.559	0.681	2.0	0.193	0.000	1.4	62.272	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.878	109.532	0.654	1.7	0.185	0.000	1.1	57.250	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.878	109.543	0.665	1.8	0.188	0.000	1.2	65.022	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.878	109.517	0.639	1.6	0.181	0.000	1.1	56.910	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.878	109.518	0.640	1.6	0.181	0.000	1.2	66.671	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.878	109.490	0.612	1.4	0.173	0.000	1.2	62.859	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.878	109.475	0.597	1.3	0.169	0.000	1.1	62.740	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.878	109.403	0.525	0.9	0.148	0.000	0.9	47.432	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.878	109.402	0.524	0.9	0.148	0.000	0.9	54.927	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.878	109.370	0.492	0.8	0.139	0.000	0.8	49.293	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.878	109.370	0.492	0.8	0.139	0.000	0.8	55.137	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.878	109.364	0.486	0.8	0.137	0.000	0.8	54.930	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.878	109.358	0.480	0.8	0.136	0.000	0.8	62.741	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.878	109.259	0.381	0.7	0.108	0.000	0.7	63.106	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.878	109.265	0.387	0.7	0.110	0.000	0.7	69.194	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.878	109.104	0.226	0.7	0.064	0.000	0.6	69.239	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.878	109.164	0.286	0.7	0.081	0.000	0.7	74.824	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.878	108.986	0.108	0.6	0.030	0.000	0.6	75.167	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.878	109.080	0.202	0.7	0.057	0.000	0.7	79.404	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.878	108.897	0.019	0.5	0.005	0.000	0.5	80.035	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.878	108.998	0.120	0.6	0.034	0.000	0.6	83.084	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.878	108.896	0.018	0.5	0.005	0.000	0.5	83.756	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-03: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.800	109.033	109.458	0.425	6.2	0.120	0.000	6.1	6.129	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.800	109.033	109.458	0.425	6.0	0.120	0.000	6.1	6.081	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.800	109.033	109.479	0.446	6.9	0.126	0.000	6.7	10.878	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.800	109.033	109.473	0.440	6.7	0.125	0.000	6.5	10.814	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.800	109.033	109.508	0.475	6.7	0.134	0.000	6.6	14.762	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.800	109.033	109.505	0.472	6.3	0.134	0.000	6.3	14.695	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.800	109.033	109.581	0.548	5.8	0.155	0.000	5.8	17.856	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.800	109.033	109.589	0.556	5.0	0.157	0.000	5.0	17.848	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.800	109.033	109.611	0.578	5.0	0.164	0.000	5.0	19.823	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.800	109.033	109.610	0.577	4.1	0.163	0.000	4.1	19.845	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.800	109.033	109.621	0.588	4.4	0.166	0.000	4.4	21.130	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.800	109.033	109.603	0.570	3.5	0.161	0.000	3.5	21.170	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.800	109.033	109.591	0.558	3.5	0.158	0.000	3.5	22.989	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.800	109.033	109.584	0.551	2.7	0.156	0.000	2.7	23.107	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.800	109.033	109.570	0.537	3.0	0.152	0.000	3.0	24.592	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.800	109.033	109.559	0.526	2.2	0.149	0.000	2.2	24.552	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.800	109.033	109.557	0.524	2.6	0.148	0.000	2.6	25.712	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.800	109.033	109.531	0.498	1.9	0.141	0.000	1.9	25.921	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.800	109.033	109.542	0.509	2.3	0.144	0.000	2.3	27.069	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.800	109.033	109.516	0.483	1.6	0.137	0.000	1.6	27.005	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.800	109.033	109.517	0.484	1.9	0.137	0.000	1.9	28.673	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.800	109.033	109.489	0.456	1.3	0.129	0.000	1.3	28.660	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.800	109.033	109.474	0.441	1.4	0.125	0.000	1.4	30.793	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.800	109.033	109.402	0.369	0.9	0.104	0.000	0.9	30.888	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.800	109.033	109.402	0.369	1.0	0.104	0.000	1.0	33.336	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.800	109.033	109.370	0.337	0.7	0.095	0.000	0.7	33.315	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.800	109.033	109.369	0.336	0.8	0.095	0.000	0.8	35.127	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.800	109.033	109.363	0.330	0.5	0.093	0.000	0.5	35.148	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.800	109.033	109.358	0.325	0.6	0.092	0.000	0.6	37.749	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.800	109.033	109.258	0.225	0.4	0.064	0.000	0.4	37.806	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.800	109.033	109.265	0.232	0.5	0.066	0.000	0.5	39.597	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.800	109.033	109.104	0.071	0.3	0.020	0.000	0.3	39.534	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.800	109.033	109.164	0.131	0.4	0.037	0.000	0.4	41.142	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.800	109.033	109.043	0.010	0.3	0.003	0.000	0.3	41.052	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.800	109.033	109.079	0.046	0.3	0.013	0.000	0.3	42.468	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.800	109.033	109.043	0.010	0.2	0.003	0.000	0.2	42.525	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.800	109.033	109.044	0.011	0.3	0.003	0.000	0.3	43.419	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.800	109.033	109.042	0.009	0.2	0.003	0.000	0.2	43.191	OK

Summary Results for SWC-04: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.717	109.440	0.723	11.1	0.205	0.000	1.7	9.671	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.717	109.441	0.724	11.0	0.205	0.000	1.7	9.511	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.717	109.456	0.739	11.9	0.209	0.000	3.4	17.225	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.717	109.452	0.735	11.3	0.208	0.000	3.3	16.987	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.717	109.508	0.791	11.1	0.224	0.000	3.7	26.607	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.717	109.505	0.788	9.5	0.223	0.000	3.7	26.088	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.717	109.581	0.864	8.8	0.244	0.000	3.6	40.787	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.717	109.589	0.872	7.6	0.247	0.000	3.5	40.395	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.717	109.611	0.894	7.6	0.253	0.000	3.5	52.130	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.717	109.609	0.892	6.3	0.253	0.000	3.4	51.733	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.717	109.621	0.904	6.7	0.256	0.000	3.4	62.771	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.717	109.603	0.886	5.3	0.251	0.000	3.4	61.911	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.717	109.591	0.874	5.4	0.247	0.000	3.4	82.607	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.717	109.584	0.867	4.3	0.245	0.000	3.3	81.273	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.717	109.570	0.853	4.8	0.241	0.000	3.3	100.196	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.717	109.558	0.841	3.7	0.238	0.000	3.1	97.983	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.717	109.557	0.840	4.0	0.238	0.000	3.1	115.095	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.717	109.531	0.814	3.3	0.230	0.000	2.9	108.840	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.717	109.542	0.825	3.7	0.233	0.000	3.0	121.430	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.717	109.516	0.799	3.0	0.226	0.000	2.7	110.405	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.717	109.517	0.800	3.2	0.226	0.000	2.7	126.458	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.717	109.489	0.772	2.6	0.218	0.000	2.3	121.106	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.717	109.474	0.757	2.5	0.214	0.000	2.3	124.146	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.717	109.402	0.685	2.0	0.194	0.000	2.0	102.254	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.717	109.402	0.685	2.0	0.194	0.000	2.0	116.373	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.717	109.370	0.653	1.6	0.185	0.000	1.5	108.747	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.717	109.369	0.652	1.8	0.185	0.000	1.7	119.356	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.717	109.363	0.646	1.5	0.183	0.000	1.4	118.995	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.717	109.358	0.641	1.5	0.181	0.000	1.5	133.937	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.717	109.258	0.541	1.4	0.153	0.000	1.4	134.708	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.717	109.265	0.548	1.4	0.155	0.000	1.4	145.770	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.717	109.104	0.387	1.2	0.109	0.000	1.2	145.817	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.717	109.164	0.447	1.3	0.126	0.000	1.3	155.774	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.717	108.985	0.268	1.1	0.076	0.000	1.1	155.078	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.717	109.079	0.362	1.3	0.103	0.000	1.3	164.225	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.717	108.894	0.177	1.0	0.050	0.000	1.0	164.876	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.717	108.998	0.281	1.2	0.080	0.000	1.2	170.869	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.717	108.827	0.110	0.9	0.031	0.000	0.9	170.915	OK

Summary Results for SWC-05: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.989	109.448	0.459	3.2	0.130	0.000	3.2	3.026	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.989	109.449	0.460	3.1	0.130	0.000	3.2	3.001	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.989	109.469	0.480	3.6	0.136	0.000	3.4	5.468	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.989	109.464	0.475	3.5	0.134	0.000	3.3	5.428	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.989	109.505	0.516	3.5	0.146	0.000	3.4	7.384	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.989	109.502	0.513	3.2	0.145	0.000	3.2	7.345	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.989	109.578	0.589	3.0	0.167	0.000	3.0	8.957	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.989	109.587	0.598	2.6	0.169	0.000	2.6	8.948	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.989	109.609	0.620	2.6	0.176	0.000	2.6	9.946	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.989	109.607	0.618	2.1	0.175	0.000	2.1	9.965	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.989	109.619	0.630	2.3	0.178	0.000	2.3	10.641	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.989	109.601	0.612	1.8	0.173	0.000	1.8	10.673	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.989	109.590	0.601	1.8	0.170	0.000	1.8	11.594	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.989	109.582	0.593	1.4	0.168	0.000	1.4	11.657	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.989	109.569	0.580	1.6	0.164	0.000	1.6	12.468	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.989	109.557	0.568	1.1	0.161	0.000	1.1	12.424	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.989	109.556	0.567	1.4	0.160	0.000	1.4	13.082	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.989	109.530	0.541	1.0	0.153	0.000	1.0	13.346	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.989	109.540	0.551	1.2	0.156	0.000	1.2	14.078	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.989	109.515	0.526	0.8	0.149	0.000	0.8	14.010	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.989	109.515	0.526	1.0	0.149	0.000	1.0	14.919	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.989	109.487	0.498	0.7	0.141	0.000	0.7	14.901	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.989	109.472	0.483	0.7	0.137	0.000	0.7	15.998	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.989	109.401	0.412	0.5	0.117	0.000	0.5	16.043	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.989	109.401	0.412	0.5	0.117	0.000	0.5	17.301	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.989	109.369	0.380	0.3	0.108	0.000	0.3	17.238	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.989	109.369	0.380	0.4	0.108	0.000	0.4	18.255	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.989	109.363	0.374	0.3	0.106	0.000	0.3	18.227	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.989	109.357	0.368	0.3	0.104	0.000	0.3	19.595	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.989	109.258	0.269	0.2	0.076	0.000	0.2	19.720	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.989	109.264	0.275	0.2	0.078	0.000	0.2	20.519	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.989	109.103	0.114	0.2	0.032	0.000	0.2	20.680	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.989	109.164	0.175	0.2	0.049	0.000	0.2	21.379	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.989	108.999	0.010	0.1	0.003	0.000	0.1	21.172	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.989	109.079	0.090	0.2	0.025	0.000	0.2	22.030	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.989	108.998	0.009	0.1	0.003	0.000	0.1	21.948	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.989	109.000	0.011	0.2	0.003	0.000	0.2	22.429	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.989	108.998	0.009	0.1	0.003	0.000	0.1	22.698	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-06: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.841	109.440	0.599	8.5	0.170	0.000	1.3	6.314	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.841	109.441	0.600	8.8	0.170	0.000	1.3	6.192	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.841	109.460	0.619	7.5	0.175	0.000	1.3	10.945	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.841	109.455	0.614	7.1	0.174	0.000	1.3	10.811	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.841	109.505	0.664	6.9	0.188	0.000	2.2	15.410	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.841	109.502	0.661	6.5	0.187	0.000	1.4	15.213	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.841	109.578	0.737	6.0	0.209	0.000	1.3	22.157	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.841	109.586	0.745	5.2	0.211	0.000	1.3	22.156	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.841	109.610	0.769	5.2	0.218	0.000	1.1	27.572	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.841	109.607	0.766	4.3	0.217	0.000	1.2	27.649	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.841	109.619	0.778	4.5	0.220	0.000	1.1	32.138	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.841	109.601	0.760	3.6	0.215	0.000	0.9	32.131	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.841	109.590	0.749	3.7	0.212	0.000	1.0	39.776	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.841	109.582	0.741	2.8	0.210	0.000	1.0	39.334	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.841	109.569	0.728	3.1	0.206	0.000	1.0	46.464	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.841	109.557	0.716	2.3	0.203	0.000	1.0	45.882	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.841	109.555	0.714	2.7	0.202	0.000	1.0	52.879	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.841	109.530	0.689	1.9	0.195	0.000	1.0	52.412	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.841	109.540	0.699	2.4	0.198	0.000	1.0	56.574	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.841	109.515	0.674	1.7	0.191	0.000	1.0	53.246	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.841	109.515	0.674	2.0	0.191	0.000	0.9	57.212	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.841	109.488	0.647	1.3	0.183	0.000	0.9	52.729	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.841	109.473	0.632	1.5	0.179	0.000	0.9	55.784	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.841	109.401	0.560	1.0	0.159	0.000	0.8	45.527	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.841	109.401	0.560	1.1	0.159	0.000	0.8	52.133	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.841	109.369	0.528	0.7	0.149	0.000	0.7	47.634	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.841	109.369	0.528	0.8	0.149	0.000	0.7	52.514	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.841	109.363	0.522	0.7	0.148	0.000	0.7	52.005	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.841	109.357	0.516	0.7	0.146	0.000	0.7	58.924	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.841	109.258	0.417	0.6	0.118	0.000	0.6	59.270	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.841	109.264	0.423	0.7	0.120	0.000	0.6	64.249	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.841	109.103	0.262	0.6	0.074	0.000	0.6	64.487	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.841	109.164	0.323	0.6	0.091	0.000	0.6	69.147	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.841	108.985	0.144	0.5	0.041	0.000	0.5	68.303	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.841	109.079	0.238	0.6	0.067	0.000	0.6	73.012	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.841	108.894	0.053	0.5	0.015	0.000	0.5	72.680	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.841	108.998	0.157	0.6	0.044	0.000	0.5	76.084	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.841	108.858	0.017	0.4	0.005	0.000	0.4	77.405	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-07: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.672	109.439	0.767	11.7	0.217	0.000	1.3	7.395	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.672	109.439	0.767	11.2	0.217	0.000	1.3	7.292	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.672	109.460	0.788	8.4	0.223	0.000	1.9	12.177	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.672	109.455	0.783	8.0	0.222	0.000	1.8	12.073	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.672	109.504	0.832	7.7	0.235	0.000	3.0	19.073	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.672	109.501	0.829	6.9	0.235	0.000	5.3	18.946	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.672	109.577	0.905	6.4	0.256	0.000	2.1	30.165	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.672	109.586	0.914	5.5	0.259	0.000	2.8	30.387	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.672	109.608	0.936	5.6	0.265	0.000	2.0	40.302	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.672	109.607	0.935	4.7	0.264	0.000	1.9	40.437	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.672	109.618	0.946	4.9	0.268	0.000	2.0	49.349	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.672	109.600	0.928	4.1	0.263	0.000	2.0	49.320	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.672	109.589	0.917	4.1	0.259	0.000	1.9	64.862	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.672	109.582	0.910	3.3	0.258	0.000	1.9	64.427	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.672	109.568	0.896	3.6	0.254	0.000	1.9	78.345	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.672	109.556	0.884	2.8	0.250	0.000	1.9	77.947	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.672	109.555	0.883	3.2	0.250	0.000	1.9	91.340	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.672	109.530	0.858	2.5	0.243	0.000	1.9	91.137	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.672	109.539	0.867	2.9	0.245	0.000	1.9	98.651	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.672	109.515	0.843	2.3	0.239	0.000	1.8	93.512	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.672	109.515	0.843	2.6	0.239	0.000	1.8	101.589	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.672	109.487	0.815	2.0	0.231	0.000	1.7	94.550	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.672	109.472	0.800	2.1	0.226	0.000	1.6	101.433	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.672	109.401	0.729	1.6	0.206	0.000	1.5	84.138	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.672	109.401	0.729	1.7	0.206	0.000	1.5	96.644	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.672	109.369	0.697	1.3	0.197	0.000	1.3	89.862	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.672	109.368	0.696	1.5	0.197	0.000	1.4	98.816	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.672	109.363	0.691	1.3	0.195	0.000	1.3	98.195	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.672	109.357	0.685	1.3	0.194	0.000	1.3	111.517	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.672	109.257	0.585	1.2	0.166	0.000	1.2	112.321	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.672	109.264	0.592	1.2	0.168	0.000	1.2	121.592	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.672	109.103	0.431	1.1	0.122	0.000	1.1	122.248	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.672	109.163	0.491	1.2	0.139	0.000	1.1	130.942	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.672	108.985	0.313	1.0	0.089	0.000	0.9	130.017	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.672	109.079	0.407	1.1	0.115	0.000	1.1	139.030	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.672	108.894	0.222	0.9	0.063	0.000	0.9	137.847	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.672	108.997	0.325	1.0	0.092	0.000	1.0	145.543	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.672	108.827	0.155	0.8	0.044	0.000	0.8	146.934	Surcharged

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-08: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.775	108.500	109.438	0.938	12.7	0.265	0.000	3.5	9.602	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.775	108.500	109.438	0.938	11.5	0.266	0.000	3.5	9.432	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.775	108.500	109.459	0.959	9.3	0.271	0.000	4.2	18.865	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.775	108.500	109.454	0.954	9.0	0.270	0.000	4.2	18.710	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.775	108.500	109.502	1.002	9.7	0.284	0.000	4.9	36.348	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.775	108.500	109.499	0.999	9.2	0.283	0.000	5.3	36.166	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.775	108.500	109.575	1.075	8.7	0.304	0.000	4.9	66.558	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.775	108.500	109.583	1.083	8.7	0.307	0.000	4.9	66.466	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.775	108.500	109.606	1.106	8.6	0.313	0.000	5.0	94.563	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.775	108.500	109.604	1.104	8.5	0.313	0.000	4.8	94.982	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.775	108.500	109.616	1.116	8.5	0.316	0.000	4.8	120.868	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.775	108.500	109.598	1.098	8.2	0.311	0.000	4.7	120.836	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.775	108.500	109.587	1.087	7.9	0.308	0.000	4.6	167.461	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.775	108.500	109.580	1.080	7.5	0.306	0.000	4.5	167.146	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.775	108.500	109.566	1.066	7.4	0.302	0.000	4.4	209.164	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.775	108.500	109.554	1.054	6.8	0.298	0.000	4.4	207.903	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.775	108.500	109.553	1.053	6.9	0.298	0.000	4.3	246.523	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.775	108.500	109.528	1.028	6.2	0.291	0.000	4.4	241.734	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.775	108.500	109.537	1.037	6.6	0.294	0.000	4.3	265.191	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.775	108.500	109.512	1.012	5.8	0.287	0.000	4.3	248.689	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.775	108.500	109.513	1.013	5.9	0.287	0.000	4.3	275.634	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.775	108.500	109.485	0.985	5.0	0.279	0.000	4.3	261.534	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.775	108.500	109.471	0.971	4.9	0.275	0.000	4.2	276.103	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.775	108.500	109.400	0.900	4.2	0.255	0.000	4.0	229.544	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.775	108.500	109.399	0.899	4.2	0.255	0.000	4.0	264.453	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.775	108.500	109.367	0.867	3.4	0.245	0.000	3.4	248.571	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.775	108.500	109.367	0.867	3.9	0.245	0.000	3.8	272.710	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.775	108.500	109.361	0.861	3.5	0.244	0.000	3.5	272.303	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.775	108.500	109.355	0.855	3.6	0.242	0.000	3.5	307.767	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.775	108.500	109.256	0.756	3.2	0.214	0.000	3.2	309.804	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.775	108.500	109.263	0.763	3.3	0.216	0.000	3.3	335.753	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.775	108.500	109.102	0.602	2.9	0.170	0.000	2.9	336.416	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.775	108.500	109.162	0.662	3.1	0.187	0.000	3.1	360.758	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.775	108.500	108.984	0.484	2.6	0.137	0.000	2.6	359.117	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.775	108.500	109.077	0.577	3.0	0.163	0.000	3.0	381.466	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.775	108.500	108.893	0.393	2.4	0.111	0.000	2.4	381.411	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.775	108.500	108.996	0.496	2.8	0.140	0.000	2.8	398.940	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.775	108.500	108.826	0.326	2.1	0.092	0.000	2.1	400.852	Surcharged

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-09 (FC): Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.750	108.409	109.436	1.027	5.8	0.163	0.000	5.1	6.217	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.750	108.409	109.436	1.027	5.2	0.163	0.000	5.1	6.150	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.750	108.409	109.459	1.050	5.2	0.167	0.000	5.1	13.757	Flood Risk
FSR: 100 years: +40 %: 30 mins: Winter	109.750	108.409	109.454	1.045	5.2	0.166	0.000	5.1	13.902	Flood Risk
FSR: 100 years: +40 %: 60 mins: Summer	109.750	108.409	109.492	1.083	6.1	0.172	0.000	5.0	29.093	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.750	108.409	109.490	1.081	6.8	0.172	0.000	5.0	29.409	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.750	108.409	109.566	1.157	5.8	0.184	0.000	5.0	59.144	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.750	108.409	109.574	1.165	5.3	0.185	0.000	5.1	59.718	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.750	108.409	109.597	1.188	5.5	0.189	0.000	5.0	88.454	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.750	108.409	109.595	1.186	5.5	0.189	0.000	5.0	88.855	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.750	108.409	109.607	1.198	5.4	0.190	0.000	5.0	116.101	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.750	108.409	109.589	1.180	5.2	0.188	0.000	5.0	115.789	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.750	108.409	109.578	1.169	5.1	0.186	0.000	5.0	164.481	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.750	108.409	109.571	1.162	5.1	0.185	0.000	5.0	164.819	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.750	108.409	109.557	1.148	5.1	0.183	0.000	5.0	208.185	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.750	108.409	109.547	1.138	5.1	0.181	0.000	4.9	208.223	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.750	108.409	109.545	1.136	5.1	0.181	0.000	4.9	247.527	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.750	108.409	109.520	1.111	5.1	0.177	0.000	4.9	244.386	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.750	108.409	109.530	1.121	5.0	0.178	0.000	4.9	268.170	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.750	108.409	109.505	1.096	5.0	0.174	0.000	4.9	253.398	Flood Risk
FSR: 100 years: +40 %: 960 mins: Summer	109.750	108.409	109.506	1.097	5.0	0.174	0.000	4.8	281.223	Flood Risk
FSR: 100 years: +40 %: 960 mins: Winter	109.750	108.409	109.479	1.070	4.8	0.170	0.000	4.8	269.720	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Summer	109.750	108.409	109.464	1.055	4.7	0.168	0.000	4.7	286.425	Flood Risk
FSR: 100 years: +40 %: 1440 mins: Winter	109.750	108.409	109.394	0.985	4.5	0.157	0.000	4.5	243.302	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.750	108.409	109.394	0.985	4.5	0.157	0.000	4.4	279.971	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.750	108.409	109.363	0.954	3.7	0.152	0.000	3.7	265.844	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.750	108.409	109.362	0.953	4.2	0.151	0.000	4.2	290.814	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.750	108.409	109.356	0.947	3.6	0.151	0.000	3.6	290.743	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.750	108.409	109.350	0.941	3.7	0.150	0.000	3.7	327.508	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.750	108.409	109.251	0.842	3.4	0.134	0.000	3.4	329.676	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.750	108.409	109.257	0.848	3.5	0.135	0.000	3.5	356.409	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.750	108.409	109.098	0.689	3.0	0.110	0.000	3.0	357.254	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.750	108.409	109.157	0.748	3.3	0.119	0.000	3.3	382.115	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.750	108.409	108.981	0.572	2.7	0.091	0.000	2.7	380.279	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.750	108.409	109.073	0.664	3.1	0.106	0.000	3.1	403.461	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.750	108.409	108.891	0.482	2.5	0.077	0.000	2.5	403.320	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.750	108.409	108.992	0.583	2.9	0.093	0.000	2.9	421.330	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.750	108.409	108.824	0.415	2.2	0.066	0.000	2.2	423.498	Surcharged

Summary Results for SWC-10: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.850	108.292	109.525	1.233	77.8	0.349	0.000	62.0	40.227	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.850	108.292	109.424	1.132	73.0	0.320	0.000	59.4	40.224	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.850	108.292	108.943	0.651	55.7	0.184	0.000	57.1	57.493	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.850	108.292	108.884	0.592	52.5	0.167	0.000	53.8	57.549	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.850	108.292	108.770	0.478	48.5	0.135	0.000	49.2	82.765	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.850	108.292	108.602	0.310	39.9	0.088	0.000	40.3	83.012	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.850	108.292	108.692	0.400	35.4	0.113	0.000	35.2	123.105	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.850	108.292	108.693	0.401	27.0	0.114	0.000	27.0	123.676	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.850	108.292	108.775	0.483	28.8	0.137	0.000	28.6	158.518	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.850	108.292	108.775	0.483	21.3	0.137	0.000	21.2	158.895	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.850	108.292	108.838	0.546	24.3	0.155	0.000	24.2	190.443	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.850	108.292	108.837	0.545	18.0	0.154	0.000	18.0	190.127	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.850	108.292	108.917	0.625	19.2	0.177	0.000	19.1	244.840	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.850	108.292	108.912	0.620	14.3	0.175	0.000	14.3	245.191	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.850	108.292	108.952	0.660	16.5	0.187	0.000	16.4	293.230	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.850	108.292	108.945	0.653	12.3	0.185	0.000	12.3	293.286	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.850	108.292	108.972	0.680	14.5	0.192	0.000	14.5	336.372	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.850	108.292	108.965	0.673	11.0	0.190	0.000	11.0	333.271	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.850	108.292	108.985	0.693	13.1	0.196	0.000	13.1	360.278	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.850	108.292	108.978	0.686	10.1	0.194	0.000	10.1	345.577	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.850	108.292	109.005	0.713	11.3	0.202	0.000	11.3	378.800	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.850	108.292	109.000	0.708	8.9	0.200	0.000	8.9	367.223	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.850	108.292	109.035	0.743	9.4	0.210	0.000	9.3	391.893	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.850	108.292	109.027	0.735	7.6	0.208	0.000	7.5	348.839	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.850	108.292	109.020	0.728	7.9	0.206	0.000	7.9	394.276	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.850	108.292	109.000	0.708	5.9	0.201	0.000	5.8	379.807	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.850	108.292	108.983	0.691	6.8	0.195	0.000	6.8	411.271	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.850	108.292	108.977	0.685	4.8	0.194	0.000	4.8	411.186	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.850	108.292	108.947	0.655	5.3	0.185	0.000	5.3	457.530	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.850	108.292	108.926	0.634	4.2	0.179	0.000	4.2	459.414	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.850	108.292	108.907	0.615	4.4	0.174	0.000	4.4	492.768	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.850	108.292	108.868	0.576	3.8	0.163	0.000	3.8	493.966	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.850	108.292	108.870	0.578	4.1	0.163	0.000	4.1	524.114	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.850	108.292	108.815	0.523	3.4	0.148	0.000	3.4	522.515	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.850	108.292	108.834	0.542	3.9	0.153	0.000	3.9	549.912	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.850	108.292	108.768	0.476	3.1	0.135	0.000	3.1	549.706	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.850	108.292	108.800	0.508	3.6	0.144	0.000	3.6	571.498	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.850	108.292	108.725	0.433	2.8	0.123	0.000	2.8	573.924	Surcharged

Summary Results for SWC-11: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.650	109.081	109.141	0.060	1.5	0.009	0.000	1.5	1.536	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.650	109.081	109.138	0.057	1.5	0.009	0.000	1.5	1.524	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.650	109.081	109.238	0.157	1.7	0.025	0.000	1.7	2.590	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.650	109.081	109.236	0.155	1.6	0.025	0.000	1.6	2.581	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.650	109.081	109.316	0.235	1.6	0.037	0.000	1.6	3.525	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.650	109.081	109.311	0.230	1.5	0.036	0.000	1.5	3.524	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.650	109.081	109.348	0.267	1.4	0.042	0.000	1.4	4.363	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.650	109.081	109.349	0.268	1.2	0.043	0.000	1.2	4.360	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.650	109.081	109.343	0.262	1.2	0.042	0.000	1.2	4.899	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.650	109.081	109.335	0.254	1.0	0.040	0.000	1.0	4.918	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.650	109.081	109.333	0.252	1.1	0.040	0.000	1.0	5.301	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.650	109.081	109.310	0.229	0.9	0.036	0.000	0.8	5.314	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.650	109.081	109.297	0.216	0.9	0.034	0.000	0.8	5.761	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.650	109.081	109.266	0.185	0.7	0.029	0.000	0.6	5.755	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.650	109.081	109.271	0.190	0.7	0.030	0.000	0.7	6.124	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.650	109.081	109.230	0.149	0.5	0.024	0.000	0.5	6.102	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.650	109.081	109.248	0.167	0.6	0.027	0.000	0.6	6.393	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.650	109.081	109.203	0.122	0.5	0.019	0.000	0.4	6.405	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.650	109.081	109.228	0.147	0.6	0.023	0.000	0.5	6.632	OK

FSR: 100 years: +40 %: 720 mins: Winter	109.650	109.081	109.178	0.097	0.4	0.015	0.000	0.4	6.644	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.650	109.081	109.195	0.114	0.5	0.018	0.000	0.5	7.006	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.650	109.081	109.143	0.062	0.3	0.010	0.000	0.3	7.029	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.650	109.081	109.143	0.062	0.3	0.010	0.000	0.3	7.561	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.650	109.081	109.094	0.013	0.2	0.002	0.000	0.2	7.558	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.650	109.081	109.094	0.013	0.3	0.002	0.000	0.3	8.172	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.650	109.081	109.092	0.011	0.2	0.002	0.000	0.2	8.187	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.650	109.081	109.092	0.011	0.2	0.002	0.000	0.2	8.610	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.650	109.081	109.091	0.010	0.1	0.002	0.000	0.1	8.550	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.650	109.081	109.091	0.010	0.2	0.002	0.000	0.2	9.267	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.650	109.081	109.089	0.008	0.1	0.001	0.000	0.1	9.363	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.650	109.081	109.090	0.009	0.1	0.001	0.000	0.1	9.645	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.650	109.081	109.088	0.007	0.1	0.001	0.000	0.1	9.489	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.650	109.081	109.089	0.008	0.1	0.001	0.000	0.1	10.059	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.650	109.081	109.087	0.006	0.1	0.001	0.000	0.1	9.984	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.650	109.081	109.089	0.008	0.1	0.001	0.000	0.1	10.524	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.650	109.081	109.086	0.005	0.0	0.001	0.000	0.1	10.368	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.650	109.081	109.088	0.007	0.1	0.001	0.000	0.1	11.061	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.650	109.081	109.086	0.005	0.0	0.001	0.000	0.1	10.893	OK

Summary Results for SWC-12: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.650	108.893	109.140	0.247	2.7	0.039	0.000	2.5	2.460	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.650	108.893	109.137	0.244	2.7	0.039	0.000	2.4	2.438	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.650	108.893	109.238	0.345	3.1	0.055	0.000	2.5	4.378	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.650	108.893	109.235	0.342	3.0	0.054	0.000	2.5	4.356	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.650	108.893	109.315	0.422	3.0	0.067	0.000	2.5	6.088	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.650	108.893	109.310	0.417	2.7	0.066	0.000	2.4	6.084	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.650	108.893	109.347	0.454	2.5	0.072	0.000	2.3	7.633	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.650	108.893	109.349	0.456	2.1	0.072	0.000	2.0	7.624	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.650	108.893	109.343	0.450	2.2	0.072	0.000	1.9	8.639	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.650	108.893	109.335	0.442	1.8	0.070	0.000	1.6	8.654	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.650	108.893	109.333	0.440	1.9	0.070	0.000	1.7	9.368	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.650	108.893	109.310	0.417	1.5	0.066	0.000	1.4	9.391	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.650	108.893	109.297	0.404	1.5	0.064	0.000	1.4	10.456	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.650	108.893	109.265	0.372	1.2	0.059	0.000	1.1	10.559	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.650	108.893	109.271	0.378	1.3	0.060	0.000	1.2	11.163	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.650	108.893	109.230	0.337	1.0	0.054	0.000	0.9	11.147	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.650	108.893	109.248	0.355	1.1	0.056	0.000	1.1	11.624	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.650	108.893	109.203	0.310	0.8	0.049	0.000	0.8	11.634	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.650	108.893	109.228	0.335	1.0	0.053	0.000	0.9	12.158	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.650	108.893	109.178	0.285	0.7	0.045	0.000	0.7	12.207	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.650	108.893	109.195	0.302	0.8	0.048	0.000	0.8	13.076	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.650	108.893	109.143	0.250	0.6	0.040	0.000	0.6	13.051	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.650	108.893	109.143	0.250	0.6	0.040	0.000	0.6	14.158	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.650	108.893	109.094	0.201	0.4	0.032	0.000	0.4	13.913	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.650	108.893	109.088	0.195	0.5	0.031	0.000	0.4	15.031	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.650	108.893	109.041	0.148	0.3	0.024	0.000	0.3	15.026	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.650	108.893	109.032	0.139	0.4	0.022	0.000	0.4	15.903	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.650	108.893	109.001	0.108	0.2	0.017	0.000	0.2	15.783	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.650	108.893	108.976	0.083	0.3	0.013	0.000	0.3	16.957	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.650	108.893	108.951	0.058	0.2	0.009	0.000	0.2	17.023	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.650	108.893	108.932	0.039	0.2	0.006	0.000	0.2	17.761	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.650	108.893	108.903	0.010	0.1	0.002	0.000	0.1	17.535	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.650	108.893	108.905	0.012	0.2	0.002	0.000	0.2	18.667	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.650	108.893	108.902	0.009	0.1	0.001	0.000	0.1	18.450	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.650	108.893	108.904	0.011	0.2	0.002	0.000	0.2	19.596	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.650	108.893	108.901	0.008	0.1	0.001	0.000	0.1	19.127	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.650	108.893	108.903	0.010	0.1	0.002	0.000	0.1	20.736	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.650	108.893	108.901	0.008	0.1	0.001	0.000	0.1	20.231	OK

Summary Results for SWC-13: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.500	108.771	109.139	0.368	2.5	0.104	0.000	2.4	2.060	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.500	108.771	109.137	0.366	2.4	0.103	0.000	2.3	2.031	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.500	108.771	109.238	0.467	2.5	0.132	0.000	2.3	3.809	Flood Risk
FSR: 100 years: +40 %: 30 mins: Winter	109.500	108.771	109.235	0.464	2.5	0.131	0.000	2.3	3.784	Flood Risk
FSR: 100 years: +40 %: 60 mins: Summer	109.500	108.771	109.315	0.544	2.5	0.154	0.000	2.3	5.449	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.500	108.771	109.310	0.539	2.4	0.153	0.000	2.1	5.437	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.500	108.771	109.347	0.576	2.3	0.163	0.000	2.0	7.010	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.500	108.771	109.349	0.578	2.0	0.164	0.000	1.8	7.000	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.500	108.771	109.343	0.572	1.9	0.162	0.000	1.7	8.077	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.500	108.771	109.335	0.564	1.6	0.160	0.000	1.5	8.104	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.500	108.771	109.333	0.562	1.7	0.159	0.000	1.5	8.874	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.500	108.771	109.310	0.539	1.4	0.152	0.000	1.3	8.916	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.500	108.771	109.297	0.526	1.4	0.149	0.000	1.3	10.141	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.500	108.771	109.265	0.494	1.1	0.140	0.000	1.0	10.294	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.500	108.771	109.271	0.500	1.2	0.142	0.000	1.1	10.880	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.500	108.771	109.230	0.459	0.9	0.130	0.000	0.9	10.873	Flood Risk
FSR: 100 years: +40 %: 600 mins: Summer	109.500	108.771	109.248	0.477	1.1	0.135	0.000	1.0	11.350	Flood Risk
FSR: 100 years: +40 %: 600 mins: Winter	109.500	108.771	109.203	0.432	0.8	0.122	0.000	0.8	11.335	Flood Risk
FSR: 100 years: +40 %: 720 mins: Summer	109.500	108.771	109.228	0.457	0.9	0.129	0.000	0.9	11.932	Flood Risk

FSR: 100 years: +40 %: 720 mins: Winter	109.500	108.771	109.178	0.407	0.7	0.115	0.000	0.7	11.972	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.500	108.771	109.195	0.424	0.8	0.120	0.000	0.8	13.075	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.500	108.771	109.143	0.372	0.6	0.105	0.000	0.6	13.053	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.500	108.771	109.143	0.372	0.6	0.105	0.000	0.6	14.415	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.500	108.771	109.094	0.323	0.4	0.091	0.000	0.4	13.963	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.500	108.771	109.088	0.317	0.4	0.090	0.000	0.4	15.064	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.500	108.771	109.041	0.270	0.3	0.077	0.000	0.3	15.022	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.500	108.771	109.032	0.261	0.4	0.074	0.000	0.3	15.899	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.500	108.771	109.001	0.230	0.2	0.065	0.000	0.2	15.780	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.500	108.771	108.976	0.205	0.3	0.058	0.000	0.3	16.954	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.500	108.771	108.951	0.180	0.2	0.051	0.000	0.2	17.021	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.500	108.771	108.932	0.161	0.2	0.046	0.000	0.2	17.759	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.500	108.771	108.889	0.118	0.1	0.033	0.000	0.1	17.534	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.500	108.771	108.893	0.122	0.2	0.034	0.000	0.2	18.665	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.500	108.771	108.834	0.063	0.1	0.018	0.000	0.1	18.449	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.500	108.771	108.855	0.084	0.2	0.024	0.000	0.2	19.595	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.500	108.771	108.785	0.014	0.1	0.004	0.000	0.1	19.127	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.500	108.771	108.819	0.048	0.1	0.014	0.000	0.1	20.735	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.500	108.771	108.779	0.008	0.1	0.002	0.000	0.1	20.231	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-14: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.600	108.913	109.140	0.227	3.8	0.036	0.000	3.7	3.801	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.600	108.913	109.137	0.224	3.7	0.036	0.000	3.6	3.774	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.600	108.913	109.239	0.326	4.3	0.052	0.000	2.7	6.758	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.600	108.913	109.236	0.323	4.2	0.051	0.000	2.6	6.711	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.600	108.913	109.316	0.403	4.2	0.064	0.000	3.2	11.543	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.600	108.913	109.311	0.398	3.9	0.063	0.000	3.0	11.446	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.600	108.913	109.349	0.436	3.6	0.069	0.000	2.1	19.438	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.600	108.913	109.350	0.437	3.1	0.069	0.000	2.3	19.405	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.600	108.913	109.345	0.432	3.1	0.069	0.000	2.5	25.822	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.600	108.913	109.336	0.423	2.6	0.067	0.000	2.4	25.581	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.600	108.913	109.334	0.421	2.9	0.067	0.000	2.6	30.963	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.600	108.913	109.311	0.398	2.5	0.063	0.000	2.4	30.034	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.600	108.913	109.298	0.385	2.8	0.061	0.000	2.6	33.730	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.600	108.913	109.267	0.354	2.3	0.056	0.000	2.2	31.554	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.600	108.913	109.272	0.359	2.7	0.057	0.000	2.5	34.082	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.600	108.913	109.231	0.318	2.2	0.051	0.000	2.1	31.933	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.600	108.913	109.249	0.336	2.5	0.053	0.000	2.4	34.469	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.600	108.913	109.205	0.292	2.1	0.047	0.000	2.1	33.276	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.600	108.913	109.229	0.316	2.4	0.050	0.000	2.3	35.290	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.600	108.913	109.179	0.266	2.0	0.042	0.000	1.9	32.962	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.600	108.913	109.197	0.284	2.2	0.045	0.000	2.1	36.279	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.600	108.913	109.144	0.231	1.7	0.037	0.000	1.7	33.846	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.600	108.913	109.144	0.231	1.8	0.037	0.000	1.8	37.352	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.600	108.913	109.095	0.182	1.3	0.029	0.000	1.3	37.893	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.600	108.913	109.089	0.176	1.4	0.028	0.000	1.4	42.125	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.600	108.913	109.042	0.129	1.0	0.020	0.000	0.9	42.110	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.600	108.913	109.032	0.119	1.2	0.019	0.000	1.1	44.636	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.600	108.913	109.002	0.089	0.8	0.014	0.000	0.8	44.551	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.600	108.913	108.976	0.063	0.8	0.010	0.000	0.8	48.511	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.600	108.913	108.951	0.038	0.5	0.006	0.000	0.5	48.279	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.600	108.913	108.933	0.020	0.7	0.003	0.000	0.7	51.158	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.600	108.913	108.930	0.017	0.4	0.003	0.000	0.4	51.169	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.600	108.913	108.932	0.019	0.5	0.003	0.000	0.5	53.726	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.600	108.913	108.929	0.016	0.4	0.002	0.000	0.4	53.482	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.600	108.913	108.931	0.018	0.5	0.003	0.000	0.5	55.111	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.600	108.913	108.928	0.015	0.3	0.002	0.000	0.3	55.091	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.600	108.913	108.930	0.017	0.4	0.003	0.000	0.4	56.959	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.600	108.913	108.927	0.014	0.3	0.002	0.000	0.3	57.554	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-15: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.550	108.705	109.139	0.434	6.6	0.123	0.000	0.9	4.509	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.550	108.705	109.136	0.431	5.9	0.122	0.000	0.9	4.466	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.550	108.705	109.238	0.533	5.7	0.151	0.000	3.8	8.226	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.550	108.705	109.235	0.530	5.7	0.150	0.000	3.8	8.161	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.550	108.705	109.315	0.610	5.8	0.173	0.000	3.1	16.658	Flood Risk
FSR: 100 years: +40 %: 60 mins: Winter	109.550	108.705	109.310	0.605	5.1	0.171	0.000	3.1	16.453	Flood Risk
FSR: 100 years: +40 %: 120 mins: Summer	109.550	108.705	109.347	0.642	4.9	0.182	0.000	3.2	32.801	Flood Risk
FSR: 100 years: +40 %: 120 mins: Winter	109.550	108.705	109.348	0.643	4.0	0.182	0.000	3.2	32.320	Flood Risk
FSR: 100 years: +40 %: 180 mins: Summer	109.550	108.705	109.343	0.638	4.1	0.180	0.000	3.0	46.568	Flood Risk
FSR: 100 years: +40 %: 180 mins: Winter	109.550	108.705	109.335	0.630	3.7	0.178	0.000	3.0	45.941	Flood Risk
FSR: 100 years: +40 %: 240 mins: Summer	109.550	108.705	109.333	0.628	3.8	0.178	0.000	2.9	58.151	Flood Risk
FSR: 100 years: +40 %: 240 mins: Winter	109.550	108.705	109.310	0.605	3.5	0.171	0.000	2.8	57.148	Flood Risk
FSR: 100 years: +40 %: 360 mins: Summer	109.550	108.705	109.297	0.592	3.7	0.167	0.000	2.5	72.200	Flood Risk
FSR: 100 years: +40 %: 360 mins: Winter	109.550	108.705	109.265	0.560	3.2	0.158	0.000	2.5	68.378	Flood Risk
FSR: 100 years: +40 %: 480 mins: Summer	109.550	108.705	109.271	0.566	3.5	0.160	0.000	2.4	73.191	Flood Risk
FSR: 100 years: +40 %: 480 mins: Winter	109.550	108.705	109.230	0.525	2.9	0.149	0.000	2.2	68.628	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.550	108.705	109.248	0.543	3.3	0.154	0.000	2.3	73.165	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.550	108.705	109.203	0.498	2.7	0.141	0.000	2.1	69.540	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.550	108.705	109.228	0.523	3.1	0.148	0.000	2.2	74.224	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.550	108.705	109.178	0.473	2.5	0.134	0.000	2.0	69.055	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.550	108.705	109.195	0.490	2.7	0.139	0.000	2.1	76.021	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.550	108.705	109.143	0.438	2.2	0.124	0.000	2.0	70.539	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.550	108.705	109.143	0.438	2.3	0.124	0.000	2.0	82.619	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.550	108.705	109.094	0.389	2.1	0.110	0.000	2.0	79.441	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.550	108.705	109.088	0.383	2.1	0.108	0.000	2.0	92.537	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.550	108.705	109.041	0.336	1.8	0.095	0.000	1.8	86.153	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.550	108.705	109.032	0.327	2.0	0.092	0.000	1.9	88.949	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.550	108.705	109.001	0.296	1.5	0.084	0.000	1.4	88.687	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.550	108.705	108.976	0.271	1.6	0.077	0.000	1.6	96.474	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.550	108.705	108.951	0.246	1.1	0.069	0.000	1.1	96.419	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.550	108.705	108.932	0.227	1.3	0.064	0.000	1.3	102.116	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.550	108.705	108.889	0.184	0.8	0.052	0.000	0.8	101.516	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.550	108.705	108.893	0.188	1.1	0.053	0.000	1.1	107.089	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.550	108.705	108.834	0.129	0.7	0.037	0.000	0.7	106.213	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.550	108.705	108.855	0.150	0.9	0.042	0.000	0.9	110.765	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.550	108.705	108.785	0.080	0.6	0.023	0.000	0.6	110.474	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.550	108.705	108.819	0.114	0.8	0.032	0.000	0.8	114.922	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.550	108.705	108.741	0.036	0.5	0.010	0.000	0.5	114.652	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-16: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.725	108.777	109.138	0.361	1.1	0.102	0.000	0.0	0.038	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.725	108.777	109.135	0.358	0.5	0.101	0.000	0.0	0.035	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.725	108.777	109.235	0.458	0.9	0.129	0.000	0.0	0.158	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.725	108.777	109.232	0.455	0.6	0.129	0.000	0.0	0.155	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.725	108.777	109.312	0.535	0.7	0.151	0.000	0.1	0.347	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.725	108.777	109.307	0.530	0.9	0.150	0.000	0.1	0.347	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.725	108.777	109.344	0.567	0.5	0.160	0.000	0.1	0.607	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.777	109.345	0.568	0.5	0.161	0.000	0.1	0.656	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.725	108.777	109.339	0.562	0.4	0.159	0.000	0.1	0.734	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.725	108.777	109.331	0.554	0.3	0.157	0.000	0.1	0.710	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.725	108.777	109.329	0.552	0.4	0.156	0.000	0.1	0.824	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.725	108.777	109.306	0.529	0.2	0.150	0.000	0.1	0.744	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.725	108.777	109.293	0.516	0.3	0.146	0.000	0.1	0.868	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.725	108.777	109.262	0.485	0.2	0.137	0.000	0.0	0.797	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.725	108.777	109.267	0.490	0.3	0.139	0.000	0.1	0.923	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.725	108.777	109.227	0.450	0.2	0.127	0.000	0.0	0.785	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.725	108.777	109.245	0.468	0.2	0.132	0.000	0.1	1.192	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.725	108.777	109.200	0.423	0.2	0.120	0.000	0.1	1.017	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.725	108.777	109.225	0.448	0.2	0.127	0.000	0.1	1.429	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.725	108.777	109.176	0.399	0.2	0.113	0.000	0.1	1.239	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.725	108.777	109.192	0.415	0.2	0.118	0.000	0.1	1.891	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.725	108.777	109.141	0.364	0.1	0.103	0.000	0.1	1.812	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.777	109.140	0.363	0.1	0.103	0.000	0.1	2.784	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.725	108.777	109.092	0.315	0.1	0.089	0.000	0.1	2.523	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.725	108.777	109.086	0.309	0.1	0.087	0.000	0.1	3.495	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.725	108.777	109.041	0.264	0.1	0.075	0.000	0.1	3.510	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.725	108.777	109.031	0.254	0.1	0.072	0.000	0.1	4.183	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.725	108.777	109.001	0.224	0.1	0.063	0.000	0.1	4.158	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.725	108.777	108.976	0.199	0.1	0.056	0.000	0.1	5.561	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.725	108.777	108.950	0.173	0.1	0.049	0.000	0.1	5.291	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.725	108.777	108.932	0.155	0.1	0.044	0.000	0.1	5.965	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.725	108.777	108.889	0.112	0.1	0.032	0.000	0.1	6.447	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.725	108.777	108.893	0.116	0.1	0.033	0.000	0.1	6.682	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.725	108.777	108.834	0.057	0.1	0.016	0.000	0.1	6.931	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.725	108.777	108.855	0.078	0.1	0.022	0.000	0.1	7.891	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.725	108.777	108.785	0.008	0.1	0.002	0.000	0.1	7.899	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.725	108.777	108.819	0.042	0.1	0.012	0.000	0.1	8.561	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.725	108.777	108.783	0.006	0.1	0.002	0.000	0.1	8.760	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-17: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.700	108.654	109.138	0.484	2.0	0.137	0.000	0.0	0.534	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.700	108.654	109.135	0.481	2.1	0.136	0.000	0.0	0.525	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.700	108.654	109.234	0.580	3.3	0.164	0.000	0.0	0.888	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.700	108.654	109.232	0.578	3.2	0.164	0.000	0.0	0.878	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.700	108.654	109.312	0.658	1.5	0.186	0.000	0.1	1.355	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.700	108.654	109.307	0.653	1.8	0.185	0.000	0.1	1.347	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.700	108.654	109.344	0.690	1.1	0.195	0.000	0.1	1.859	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.700	108.654	109.345	0.691	1.0	0.196	0.000	0.2	1.888	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.700	108.654	109.339	0.685	0.7	0.194	0.000	0.1	2.118	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.700	108.654	109.331	0.677	0.6	0.192	0.000	0.2	2.077	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.700	108.654	109.329	0.675	0.7	0.191	0.000	0.1	2.273	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.700	108.654	109.306	0.652	0.5	0.185	0.000	0.2	2.160	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.700	108.654	109.293	0.639	0.5	0.181	0.000	0.1	2.447	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.700	108.654	109.262	0.608	0.5	0.172	0.000	0.1	2.203	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.700	108.654	109.267	0.613	0.5	0.174	0.000	0.2	2.755	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.700	108.654	109.227	0.573	0.4	0.162	0.000	0.1	2.435	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.700	108.654	109.244	0.590	0.4	0.167	0.000	0.3	3.612	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.700	108.654	109.200	0.546	0.3	0.155	0.000	0.3	3.247	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.700	108.654	109.225	0.571	0.4	0.162	0.000	0.3	4.581	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.700	108.654	109.176	0.522	0.3	0.148	0.000	0.3	4.008	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.700	108.654	109.192	0.538	0.3	0.152	0.000	0.3	6.125	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.700	108.654	109.141	0.487	0.3	0.138	0.000	0.3	5.844	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.700	108.654	109.140	0.486	0.3	0.138	0.000	0.3	9.037	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.700	108.654	109.092	0.438	0.3	0.124	0.000	0.3	8.716	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.700	108.654	109.086	0.432	0.4	0.122	0.000	0.4	11.567	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.700	108.654	109.041	0.387	0.4	0.109	0.000	0.4	11.591	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.700	108.654	109.031	0.377	0.4	0.107	0.000	0.4	13.918	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.700	108.654	109.001	0.347	0.4	0.098	0.000	0.4	13.806	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.700	108.654	108.976	0.322	0.4	0.091	0.000	0.4	17.773	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.700	108.654	108.950	0.296	0.3	0.084	0.000	0.3	17.204	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.700	108.654	108.932	0.278	0.3	0.079	0.000	0.3	20.050	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.700	108.654	108.889	0.235	0.3	0.067	0.000	0.3	20.515	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.700	108.654	108.893	0.239	0.3	0.068	0.000	0.3	22.116	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.700	108.654	108.834	0.180	0.2	0.051	0.000	0.2	22.968	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.700	108.654	108.855	0.201	0.3	0.057	0.000	0.3	24.886	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.700	108.654	108.785	0.131	0.2	0.037	0.000	0.2	25.313	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.700	108.654	108.819	0.165	0.3	0.047	0.000	0.3	26.487	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.700	108.654	108.741	0.087	0.2	0.025	0.000	0.2	27.853	OK

Summary Results for SWC-18: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.725	108.571	109.138	0.567	4.3	0.160	0.000	2.1	3.271	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.725	108.571	109.135	0.564	4.3	0.160	0.000	2.1	3.225	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.725	108.571	109.234	0.663	6.0	0.188	0.000	2.9	7.357	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.725	108.571	109.232	0.661	5.9	0.187	0.000	2.9	7.325	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.725	108.571	109.312	0.741	3.6	0.210	0.000	3.4	16.704	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.725	108.571	109.307	0.736	4.1	0.208	0.000	3.3	16.616	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.725	108.571	109.344	0.773	3.3	0.219	0.000	3.3	34.401	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.571	109.345	0.774	3.3	0.219	0.000	3.3	34.173	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.725	108.571	109.339	0.768	3.2	0.217	0.000	3.2	49.812	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.725	108.571	109.331	0.760	3.1	0.215	0.000	3.1	49.590	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.725	108.571	109.329	0.758	3.0	0.214	0.000	3.0	62.885	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.725	108.571	109.306	0.735	3.0	0.208	0.000	3.0	62.306	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.725	108.571	109.293	0.722	2.8	0.204	0.000	2.8	79.103	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.725	108.571	109.262	0.691	2.7	0.195	0.000	2.7	76.256	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.725	108.571	109.268	0.697	2.8	0.197	0.000	2.7	82.045	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.725	108.571	109.227	0.656	2.6	0.186	0.000	2.5	78.405	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.725	108.571	109.244	0.673	2.6	0.191	0.000	2.6	84.060	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.725	108.571	109.200	0.629	2.6	0.178	0.000	2.4	81.676	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.725	108.571	109.225	0.654	2.7	0.185	0.000	2.5	87.034	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.725	108.571	109.176	0.605	2.6	0.171	0.000	2.3	83.024	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.725	108.571	109.192	0.621	2.7	0.176	0.000	2.4	92.073	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.725	108.571	109.141	0.570	2.6	0.161	0.000	2.3	87.668	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.571	109.140	0.569	2.6	0.161	0.000	2.3	103.950	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.725	108.571	109.092	0.521	2.5	0.148	0.000	2.3	102.485	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.725	108.571	109.086	0.515	2.5	0.146	0.000	2.3	119.597	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.725	108.571	109.041	0.470	2.1	0.133	0.000	2.0	113.570	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.725	108.571	109.031	0.460	2.3	0.130	0.000	2.2	119.526	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.725	108.571	109.001	0.430	1.7	0.122	0.000	1.7	119.346	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.725	108.571	108.976	0.405	1.9	0.114	0.000	1.8	132.334	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.725	108.571	108.950	0.379	1.3	0.107	0.000	1.3	131.701	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.725	108.571	108.932	0.361	1.5	0.102	0.000	1.5	141.224	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.725	108.571	108.889	0.318	1.1	0.090	0.000	1.1	141.401	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.725	108.571	108.893	0.322	1.3	0.091	0.000	1.3	149.129	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.725	108.571	108.834	0.263	1.0	0.074	0.000	1.0	148.937	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.725	108.571	108.855	0.284	1.2	0.080	0.000	1.1	156.108	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.725	108.571	108.785	0.214	0.9	0.061	0.000	0.9	156.376	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.725	108.571	108.819	0.248	1.1	0.070	0.000	1.1	162.277	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.725	108.571	108.741	0.170	0.8	0.048	0.000	0.8	163.766	Surcharged

Summary Results for SWC-19 (FC): Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.725	108.521	109.137	0.616	3.3	0.174	0.000	3.2	3.592	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.725	108.521	109.134	0.613	3.2	0.173	0.000	3.2	3.560	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.725	108.521	109.232	0.711	3.5	0.201	0.000	3.4	8.574	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.725	108.521	109.230	0.709	3.5	0.201	0.000	3.4	8.591	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.725	108.521	109.309	0.788	3.6	0.223	0.000	3.6	19.036	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.725	108.521	109.304	0.783	3.6	0.222	0.000	3.6	19.127	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.725	108.521	109.341	0.820	3.6	0.232	0.000	3.6	38.292	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.521	109.343	0.822	3.6	0.232	0.000	3.5	38.502	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.725	108.521	109.336	0.815	3.5	0.231	0.000	3.5	55.050	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.725	108.521	109.328	0.807	3.5	0.229	0.000	3.5	55.082	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.725	108.521	109.326	0.805	3.5	0.228	0.000	3.4	68.962	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.725	108.521	109.304	0.783	3.4	0.222	0.000	3.3	68.521	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.725	108.521	109.291	0.770	3.3	0.218	0.000	3.3	86.276	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.725	108.521	109.260	0.739	3.2	0.209	0.000	3.2	83.618	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.725	108.521	109.265	0.744	3.2	0.211	0.000	3.2	89.923	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.725	108.521	109.225	0.704	3.1	0.199	0.000	3.1	86.464	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.725	108.521	109.242	0.721	3.1	0.204	0.000	3.1	92.457	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.725	108.521	109.198	0.677	3.0	0.192	0.000	3.0	90.307	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.725	108.521	109.223	0.702	3.1	0.199	0.000	3.0	95.949	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.725	108.521	109.174	0.653	3.0	0.185	0.000	2.9	92.226	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.725	108.521	109.191	0.670	3.0	0.190	0.000	2.9	101.879	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.725	108.521	109.139	0.618	2.8	0.175	0.000	2.8	97.776	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.521	109.139	0.618	2.8	0.175	0.000	2.8	115.145	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.725	108.521	109.091	0.570	2.7	0.161	0.000	2.6	113.988	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.725	108.521	109.085	0.564	2.7	0.160	0.000	2.6	132.284	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.725	108.521	109.040	0.519	2.3	0.147	0.000	2.3	126.431	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.725	108.521	109.030	0.509	2.5	0.144	0.000	2.5	133.065	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.725	108.521	109.001	0.480	1.9	0.136	0.000	1.9	133.134	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.725	108.521	108.975	0.454	2.0	0.129	0.000	2.0	147.173	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.725	108.521	108.950	0.429	1.4	0.121	0.000	1.4	146.924	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.725	108.521	108.932	0.411	1.7	0.116	0.000	1.7	157.131	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.725	108.521	108.889	0.368	1.2	0.104	0.000	1.2	157.321	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.725	108.521	108.893	0.372	1.4	0.105	0.000	1.4	165.755	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.725	108.521	108.834	0.313	1.1	0.089	0.000	1.1	165.797	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.725	108.521	108.855	0.334	1.3	0.094	0.000	1.3	173.311	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.725	108.521	108.785	0.264	0.9	0.075	0.000	0.9	174.087	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.725	108.521	108.819	0.298	1.2	0.084	0.000	1.2	179.730	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.725	108.521	108.740	0.219	0.9	0.062	0.000	0.9	181.261	Surcharged

Summary Results for SWC-20: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.850	108.888	108.959	0.071	14.4	0.011	0.000	13.8	9.810	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.850	108.888	108.956	0.068	13.7	0.011	0.000	13.6	9.763	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.850	108.888	108.951	0.063	12.1	0.010	0.000	12.1	15.354	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.850	108.888	108.949	0.061	11.5	0.010	0.000	11.5	15.294	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.850	108.888	108.948	0.060	11.0	0.010	0.000	11.0	20.236	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.850	108.888	108.943	0.055	9.4	0.009	0.000	9.4	20.171	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.850	108.888	108.940	0.052	8.6	0.008	0.000	8.6	24.311	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.850	108.888	108.934	0.046	6.9	0.007	0.000	6.8	24.302	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.850	108.888	108.935	0.047	7.1	0.007	0.000	7.1	26.793	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.850	108.888	108.929	0.041	5.5	0.006	0.000	5.5	26.801	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.850	108.888	108.931	0.043	6.1	0.007	0.000	6.1	28.490	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.850	108.888	108.925	0.037	4.6	0.006	0.000	4.6	28.532	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.850	108.888	108.926	0.038	4.8	0.006	0.000	4.8	30.860	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.850	108.888	108.920	0.032	3.5	0.005	0.000	3.5	30.884	OK
FSR: 100 years: +40 %: 480 mins: Summer	109.850	108.888	108.951	0.063	4.0	0.010	0.000	4.0	32.762	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.850	108.888	108.944	0.056	2.9	0.009	0.000	2.9	32.699	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.850	108.888	108.971	0.083	3.5	0.013	0.000	3.5	34.163	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.850	108.888	108.964	0.076	2.4	0.012	0.000	2.4	34.217	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.850	108.888	108.984	0.096	3.0	0.015	0.000	3.0	35.479	OK

FSR: 100 years: +40 %: 720 mins: Winter	109.850	108.888	108.977	0.089	2.1	0.014	0.000	2.1	35.526	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.850	108.888	109.004	0.116	2.5	0.018	0.000	2.5	37.581	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.850	108.888	108.999	0.111	1.7	0.018	0.000	1.7	37.624	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.850	108.888	109.034	0.146	1.8	0.023	0.000	1.8	40.592	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.850	108.888	109.026	0.138	1.2	0.022	0.000	1.2	40.501	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.850	108.888	109.019	0.131	1.4	0.021	0.000	1.3	43.701	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.850	108.888	109.001	0.113	0.9	0.018	0.000	0.9	43.620	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.850	108.888	108.983	0.095	1.1	0.015	0.000	1.1	46.218	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.850	108.888	108.977	0.089	0.7	0.014	0.000	0.7	46.050	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.850	108.888	108.947	0.059	0.8	0.009	0.000	0.8	49.509	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.850	108.888	108.926	0.038	0.5	0.006	0.000	0.5	49.533	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.850	108.888	108.907	0.019	0.6	0.003	0.000	0.6	52.116	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.850	108.888	108.899	0.011	0.4	0.002	0.000	0.4	52.083	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.850	108.888	108.901	0.013	0.5	0.002	0.000	0.5	53.706	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.850	108.888	108.898	0.010	0.3	0.002	0.000	0.3	54.207	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.850	108.888	108.900	0.012	0.4	0.002	0.000	0.4	55.341	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.850	108.888	108.897	0.009	0.3	0.002	0.000	0.3	55.542	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.850	108.888	108.899	0.011	0.4	0.002	0.000	0.4	56.784	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.850	108.888	108.897	0.009	0.3	0.001	0.000	0.3	56.436	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-21: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.725	108.329	108.865	0.536	37.5	0.152	0.000	30.2	27.297	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.725	108.329	108.830	0.501	36.0	0.142	0.000	29.2	27.168	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.725	108.329	108.823	0.494	31.9	0.140	0.000	31.6	44.674	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.725	108.329	108.786	0.457	30.5	0.129	0.000	30.2	44.557	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.725	108.329	108.746	0.417	29.6	0.118	0.000	29.3	66.233	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.725	108.329	108.654	0.325	25.7	0.092	0.000	25.5	66.191	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.725	108.329	108.693	0.364	23.7	0.103	0.000	23.4	94.865	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.329	108.695	0.366	19.5	0.103	0.000	19.3	95.038	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.725	108.329	108.775	0.446	20.1	0.126	0.000	19.9	117.313	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.725	108.329	108.776	0.447	16.2	0.126	0.000	16.1	117.358	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.725	108.329	108.838	0.509	17.6	0.144	0.000	17.5	135.116	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.725	108.329	108.837	0.508	14.1	0.144	0.000	14.0	134.745	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.725	108.329	108.915	0.586	14.4	0.166	0.000	14.3	157.833	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.725	108.329	108.910	0.581	11.4	0.165	0.000	11.3	155.251	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.725	108.329	108.951	0.622	12.5	0.176	0.000	12.4	165.894	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.725	108.329	108.944	0.615	9.8	0.174	0.000	9.7	162.330	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.725	108.329	108.971	0.642	11.2	0.182	0.000	11.1	171.778	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.725	108.329	108.964	0.635	8.7	0.180	0.000	8.6	169.694	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.725	108.329	108.984	0.655	10.2	0.185	0.000	10.1	178.301	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.725	108.329	108.977	0.648	7.9	0.183	0.000	7.8	174.748	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.725	108.329	109.004	0.675	8.8	0.191	0.000	8.8	189.340	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.725	108.329	108.999	0.670	6.7	0.190	0.000	6.7	185.341	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.329	109.034	0.705	7.1	0.200	0.000	7.1	210.130	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.725	108.329	109.026	0.697	5.5	0.197	0.000	5.4	208.997	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.725	108.329	109.019	0.690	5.8	0.195	0.000	5.7	235.372	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.725	108.329	109.001	0.672	4.3	0.190	0.000	4.3	229.547	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.725	108.329	108.983	0.654	5.0	0.185	0.000	5.0	242.228	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.725	108.329	108.977	0.648	3.5	0.183	0.000	3.5	242.250	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.725	108.329	108.947	0.618	3.8	0.175	0.000	3.8	264.354	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.725	108.329	108.926	0.597	2.6	0.169	0.000	2.5	264.109	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.725	108.329	108.907	0.578	3.1	0.163	0.000	3.1	280.396	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.725	108.329	108.868	0.539	2.0	0.152	0.000	2.0	280.199	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.725	108.329	108.870	0.541	2.6	0.153	0.000	2.6	293.385	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.725	108.329	108.815	0.486	1.7	0.138	0.000	1.7	293.759	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.725	108.329	108.834	0.505	2.3	0.143	0.000	2.2	304.805	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.725	108.329	108.768	0.439	1.6	0.124	0.000	1.5	306.310	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.725	108.329	108.800	0.471	2.0	0.133	0.000	2.0	314.495	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.725	108.329	108.725	0.396	1.4	0.112	0.000	1.4	315.055	Surcharged

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-22: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.800	108.439	108.642	0.203	49.2	0.057	0.000	47.8	21.316	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.800	108.439	108.619	0.180	46.2	0.051	0.000	45.2	21.316	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.800	108.439	108.558	0.119	32.0	0.034	0.000	31.9	27.666	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.800	108.439	108.552	0.113	30.0	0.032	0.000	29.9	27.666	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.800	108.439	108.577	0.138	27.4	0.039	0.000	27.4	34.144	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.800	108.439	108.578	0.139	22.0	0.039	0.000	22.0	34.147	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.800	108.439	108.690	0.251	19.4	0.071	0.000	19.5	40.780	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.800	108.439	108.691	0.252	14.0	0.071	0.000	14.0	40.769	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.800	108.439	108.773	0.334	15.1	0.094	0.000	15.1	44.693	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.800	108.439	108.773	0.334	10.4	0.095	0.000	10.4	44.663	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.800	108.439	108.836	0.397	12.4	0.112	0.000	12.4	47.436	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.800	108.439	108.835	0.396	8.3	0.112	0.000	8.3	47.437	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.800	108.439	108.915	0.476	9.2	0.135	0.000	9.1	51.263	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.800	108.439	108.910	0.471	6.0	0.133	0.000	6.0	51.256	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.800	108.439	108.951	0.512	7.4	0.145	0.000	7.3	54.229	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.800	108.439	108.944	0.505	4.8	0.143	0.000	4.7	54.200	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.800	108.439	108.971	0.532	6.2	0.150	0.000	6.2	56.618	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.800	108.439	108.964	0.525	4.0	0.149	0.000	4.0	56.585	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.800	108.439	108.984	0.545	5.4	0.154	0.000	5.3	58.652	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.800	108.439	108.977	0.538	3.5	0.152	0.000	3.4	58.717	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.800	108.439	109.004	0.565	4.3	0.160	0.000	4.2	62.062	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.800	108.439	108.999	0.560	2.7	0.158	0.000	2.7	62.075	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.800	108.439	109.034	0.595	3.1	0.168	0.000	3.0	67.202	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.800	108.439	109.026	0.587	2.0	0.166	0.000	1.9	67.178	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.800	108.439	109.019	0.580	2.2	0.164	0.000	2.2	72.506	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.800	108.439	109.000	0.561	1.4	0.159	0.000	1.4	72.596	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.800	108.439	108.982	0.543	1.7	0.154	0.000	1.7	76.399	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.800	108.439	108.976	0.537	1.1	0.152	0.000	1.1	76.448	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.800	108.439	108.947	0.508	1.2	0.144	0.000	1.2	82.033	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.800	108.439	108.925	0.486	0.8	0.138	0.000	0.8	82.033	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.800	108.439	108.906	0.467	1.0	0.132	0.000	1.0	85.950	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.800	108.439	108.867	0.428	0.6	0.121	0.000	0.6	86.148	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.800	108.439	108.869	0.430	0.8	0.122	0.000	0.8	89.700	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.800	108.439	108.815	0.376	0.5	0.106	0.000	0.5	89.922	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.800	108.439	108.834	0.395	0.7	0.112	0.000	0.7	92.688	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.800	108.439	108.767	0.328	0.4	0.093	0.000	0.4	92.700	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.800	108.439	108.800	0.361	0.6	0.102	0.000	0.6	94.830	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.800	108.439	108.725	0.286	0.4	0.081	0.000	0.4	94.614	Surcharged

Summary Results for SWC-23 (FC): Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.800	108.194	108.416	0.222	1.7	0.063	0.000	1.7	2.065	Surcharged
FSR: 100 years: +40 %: 15 mins: Winter	109.800	108.194	108.416	0.222	1.7	0.063	0.000	1.7	2.080	Surcharged
FSR: 100 years: +40 %: 30 mins: Summer	109.800	108.194	108.489	0.295	2.0	0.084	0.000	2.0	5.126	Surcharged
FSR: 100 years: +40 %: 30 mins: Winter	109.800	108.194	108.489	0.295	2.0	0.084	0.000	2.0	5.142	Surcharged
FSR: 100 years: +40 %: 60 mins: Summer	109.800	108.194	108.577	0.383	2.3	0.108	0.000	2.3	12.101	Surcharged
FSR: 100 years: +40 %: 60 mins: Winter	109.800	108.194	108.577	0.383	2.3	0.108	0.000	2.3	12.116	Surcharged
FSR: 100 years: +40 %: 120 mins: Summer	109.800	108.194	108.689	0.495	2.6	0.140	0.000	2.6	27.934	Surcharged
FSR: 100 years: +40 %: 120 mins: Winter	109.800	108.194	108.690	0.496	2.6	0.140	0.000	2.6	27.976	Surcharged
FSR: 100 years: +40 %: 180 mins: Summer	109.800	108.194	108.771	0.577	2.8	0.163	0.000	2.8	45.443	Surcharged
FSR: 100 years: +40 %: 180 mins: Winter	109.800	108.194	108.772	0.578	2.8	0.164	0.000	2.8	45.497	Surcharged
FSR: 100 years: +40 %: 240 mins: Summer	109.800	108.194	108.835	0.641	3.0	0.181	0.000	3.0	63.995	Surcharged
FSR: 100 years: +40 %: 240 mins: Winter	109.800	108.194	108.833	0.639	3.0	0.181	0.000	3.0	64.034	Surcharged
FSR: 100 years: +40 %: 360 mins: Summer	109.800	108.194	108.914	0.720	3.2	0.204	0.000	3.2	102.823	Surcharged
FSR: 100 years: +40 %: 360 mins: Winter	109.800	108.194	108.909	0.715	3.2	0.202	0.000	3.2	102.966	Surcharged
FSR: 100 years: +40 %: 480 mins: Summer	109.800	108.194	108.949	0.755	3.2	0.214	0.000	3.2	143.269	Surcharged
FSR: 100 years: +40 %: 480 mins: Winter	109.800	108.194	108.942	0.748	3.2	0.212	0.000	3.2	143.253	Surcharged
FSR: 100 years: +40 %: 600 mins: Summer	109.800	108.194	108.969	0.775	3.3	0.219	0.000	3.3	184.111	Surcharged
FSR: 100 years: +40 %: 600 mins: Winter	109.800	108.194	108.962	0.768	3.3	0.217	0.000	3.3	184.330	Surcharged
FSR: 100 years: +40 %: 720 mins: Summer	109.800	108.194	108.982	0.788	3.3	0.223	0.000	3.3	225.131	Surcharged

FSR: 100 years: +40 %: 720 mins: Winter	109.800	108.194	108.975	0.781	3.3	0.221	0.000	3.3	224.852	Surcharged
FSR: 100 years: +40 %: 960 mins: Summer	109.800	108.194	109.002	0.808	3.4	0.229	0.000	3.4	304.278	Surcharged
FSR: 100 years: +40 %: 960 mins: Winter	109.800	108.194	108.997	0.803	3.4	0.227	0.000	3.4	303.051	Surcharged
FSR: 100 years: +40 %: 1440 mins: Summer	109.800	108.194	109.032	0.838	3.4	0.237	0.000	3.4	445.385	Surcharged
FSR: 100 years: +40 %: 1440 mins: Winter	109.800	108.194	109.024	0.830	3.4	0.235	0.000	3.4	432.953	Surcharged
FSR: 100 years: +40 %: 2160 mins: Summer	109.800	108.194	109.017	0.823	3.4	0.233	0.000	3.4	597.540	Surcharged
FSR: 100 years: +40 %: 2160 mins: Winter	109.800	108.194	108.998	0.804	3.4	0.228	0.000	3.4	594.321	Surcharged
FSR: 100 years: +40 %: 2880 mins: Summer	109.800	108.194	108.981	0.787	3.3	0.223	0.000	3.3	704.692	Surcharged
FSR: 100 years: +40 %: 2880 mins: Winter	109.800	108.194	108.975	0.781	3.3	0.221	0.000	3.3	705.235	Surcharged
FSR: 100 years: +40 %: 4320 mins: Summer	109.800	108.194	108.945	0.751	3.2	0.213	0.000	3.2	788.222	Surcharged
FSR: 100 years: +40 %: 4320 mins: Winter	109.800	108.194	108.924	0.730	3.2	0.206	0.000	3.2	789.918	Surcharged
FSR: 100 years: +40 %: 5760 mins: Summer	109.800	108.194	108.905	0.711	3.1	0.201	0.000	3.1	839.293	Surcharged
FSR: 100 years: +40 %: 5760 mins: Winter	109.800	108.194	108.866	0.672	3.1	0.190	0.000	3.1	843.646	Surcharged
FSR: 100 years: +40 %: 7200 mins: Summer	109.800	108.194	108.868	0.674	3.1	0.191	0.000	3.1	865.306	Surcharged
FSR: 100 years: +40 %: 7200 mins: Winter	109.800	108.194	108.813	0.619	2.9	0.175	0.000	2.9	870.682	Surcharged
FSR: 100 years: +40 %: 8640 mins: Summer	109.800	108.194	108.833	0.639	3.0	0.181	0.000	3.0	885.846	Surcharged
FSR: 100 years: +40 %: 8640 mins: Winter	109.800	108.194	108.766	0.572	2.8	0.162	0.000	2.8	900.039	Surcharged
FSR: 100 years: +40 %: 10080 mins: Summer	109.800	108.194	108.799	0.605	2.9	0.171	0.000	2.9	907.186	Surcharged
FSR: 100 years: +40 %: 10080 mins: Winter	109.800	108.194	108.724	0.530	2.7	0.150	0.000	2.7	926.442	Surcharged

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-24: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.725	108.076	108.109	0.033	1.7	0.005	0.000	1.7	1.931	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.725	108.076	108.109	0.033	1.7	0.005	0.000	1.7	1.946	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.725	108.076	108.112	0.036	2.0	0.006	0.000	2.0	4.975	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.725	108.076	108.112	0.036	2.0	0.006	0.000	2.0	4.991	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.725	108.076	108.115	0.039	2.3	0.006	0.000	2.3	11.934	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.725	108.076	108.115	0.039	2.3	0.006	0.000	2.3	11.948	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.725	108.076	108.118	0.042	2.6	0.007	0.000	2.6	27.750	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.725	108.076	108.118	0.042	2.6	0.007	0.000	2.6	27.792	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.725	108.076	108.120	0.044	2.8	0.007	0.000	2.8	45.249	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.725	108.076	108.120	0.044	2.8	0.007	0.000	2.8	45.303	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.725	108.076	108.121	0.045	3.0	0.007	0.000	3.0	63.794	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.725	108.076	108.121	0.045	3.0	0.007	0.000	3.0	63.834	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.725	108.076	108.122	0.046	3.2	0.007	0.000	3.2	102.613	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.725	108.076	108.122	0.046	3.2	0.007	0.000	3.2	102.757	OK
FSR: 100 years: +40 %: 480 mins: Summer	109.725	108.076	108.123	0.047	3.2	0.007	0.000	3.2	143.056	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.725	108.076	108.123	0.047	3.2	0.007	0.000	3.2	143.041	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.725	108.076	108.123	0.047	3.3	0.008	0.000	3.3	183.896	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.725	108.076	108.123	0.047	3.3	0.007	0.000	3.3	184.116	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.725	108.076	108.123	0.047	3.3	0.008	0.000	3.3	224.917	OK

FSR: 100 years: +40 %: 720 mins: Winter	109.725	108.076	108.123	0.047	3.3	0.008	0.000	3.3	224.641	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	304.072	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	302.849	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	445.201	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	432.778	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	597.396	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.725	108.076	108.124	0.048	3.4	0.008	0.000	3.4	594.181	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.725	108.076	108.123	0.047	3.3	0.008	0.000	3.3	704.592	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.725	108.076	108.123	0.047	3.3	0.008	0.000	3.3	705.136	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.725	108.076	108.123	0.047	3.2	0.007	0.000	3.2	788.207	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.725	108.076	108.122	0.046	3.2	0.007	0.000	3.2	789.903	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.725	108.076	108.122	0.046	3.1	0.007	0.000	3.1	839.278	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.725	108.076	108.121	0.045	3.1	0.007	0.000	3.1	843.631	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.725	108.076	108.121	0.045	3.1	0.007	0.000	3.1	865.290	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.725	108.076	108.120	0.044	2.9	0.007	0.000	2.9	870.667	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.725	108.076	108.121	0.045	3.0	0.007	0.000	3.0	885.830	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.725	108.076	108.119	0.043	2.8	0.007	0.000	2.8	900.023	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.725	108.076	108.120	0.044	2.9	0.007	0.000	2.9	907.172	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.725	108.076	108.119	0.043	2.7	0.007	0.000	2.7	926.426	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-25: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.750	107.731	107.765	0.034	1.7	0.005	0.000	1.7	1.820	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.750	107.731	107.765	0.034	1.7	0.005	0.000	1.7	1.835	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.750	107.731	107.768	0.037	2.0	0.006	0.000	2.0	4.852	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.750	107.731	107.768	0.037	2.0	0.006	0.000	2.0	4.867	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.750	107.731	107.770	0.039	2.3	0.006	0.000	2.3	11.799	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.750	107.731	107.770	0.039	2.3	0.006	0.000	2.3	11.813	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.750	107.731	107.773	0.042	2.6	0.007	0.000	2.6	27.603	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.750	107.731	107.773	0.042	2.6	0.007	0.000	2.6	27.644	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.750	107.731	107.775	0.044	2.8	0.007	0.000	2.8	45.092	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.750	107.731	107.775	0.044	2.8	0.007	0.000	2.8	45.147	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.750	107.731	107.776	0.045	3.0	0.007	0.000	3.0	63.632	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.750	107.731	107.776	0.045	3.0	0.007	0.000	3.0	63.671	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.750	107.731	107.778	0.047	3.2	0.007	0.000	3.2	102.444	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.750	107.731	107.778	0.047	3.2	0.007	0.000	3.2	102.588	OK
FSR: 100 years: +40 %: 480 mins: Summer	109.750	107.731	107.778	0.047	3.2	0.008	0.000	3.2	142.884	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.750	107.731	107.778	0.047	3.2	0.008	0.000	3.2	142.869	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	183.722	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	183.943	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	224.744	OK

FSR: 100 years: +40 %: 720 mins: Winter	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	224.472	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.750	107.731	107.779	0.048	3.4	0.008	0.000	3.4	303.908	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.750	107.731	107.779	0.048	3.4	0.008	0.000	3.4	302.686	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.750	107.731	107.780	0.049	3.4	0.008	0.000	3.4	445.056	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.750	107.731	107.780	0.049	3.4	0.008	0.000	3.4	432.640	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.750	107.731	107.780	0.049	3.4	0.008	0.000	3.4	597.286	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.750	107.731	107.779	0.048	3.4	0.008	0.000	3.4	594.074	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	704.520	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.750	107.731	107.779	0.048	3.3	0.008	0.000	3.3	705.064	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.750	107.731	107.778	0.047	3.2	0.008	0.000	3.2	788.197	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.750	107.731	107.778	0.047	3.2	0.007	0.000	3.2	789.893	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.750	107.731	107.778	0.047	3.1	0.007	0.000	3.1	839.268	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.750	107.731	107.777	0.046	3.1	0.007	0.000	3.1	843.621	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.750	107.731	107.777	0.046	3.1	0.007	0.000	3.1	865.280	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.750	107.731	107.776	0.045	2.9	0.007	0.000	2.9	870.658	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.750	107.731	107.776	0.045	3.0	0.007	0.000	3.0	885.820	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.750	107.731	107.775	0.044	2.8	0.007	0.000	2.8	900.014	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.750	107.731	107.776	0.045	2.9	0.007	0.000	2.9	907.163	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.750	107.731	107.774	0.043	2.7	0.007	0.000	2.7	926.416	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for SWC-26: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.650	107.549	107.582	0.033	1.7	0.000	0.000	1.7	1.820	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.650	107.549	107.582	0.033	1.7	0.000	0.000	1.7	1.835	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.650	107.549	107.585	0.036	2.0	0.000	0.000	2.0	4.852	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.650	107.549	107.585	0.036	2.0	0.000	0.000	2.0	4.867	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.650	107.549	107.587	0.038	2.3	0.000	0.000	2.3	11.799	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.650	107.549	107.587	0.038	2.3	0.000	0.000	2.3	11.813	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.650	107.549	107.590	0.041	2.6	0.000	0.000	2.6	27.603	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.650	107.549	107.590	0.041	2.6	0.000	0.000	2.6	27.644	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.650	107.549	107.592	0.043	2.8	0.000	0.000	2.8	45.092	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.650	107.549	107.592	0.043	2.8	0.000	0.000	2.8	45.147	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.650	107.549	107.593	0.044	3.0	0.000	0.000	3.0	63.632	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.650	107.549	107.593	0.044	3.0	0.000	0.000	3.0	63.671	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.650	107.549	107.595	0.046	3.2	0.000	0.000	3.2	102.444	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.650	107.549	107.594	0.045	3.2	0.000	0.000	3.2	102.588	OK
FSR: 100 years: +40 %: 480 mins: Summer	109.650	107.549	107.595	0.046	3.2	0.000	0.000	3.2	142.884	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.650	107.549	107.595	0.046	3.2	0.000	0.000	3.2	142.869	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.650	107.549	107.595	0.046	3.3	0.000	0.000	3.3	183.722	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.650	107.549	107.595	0.046	3.3	0.000	0.000	3.3	183.943	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.650	107.549	107.596	0.047	3.3	0.000	0.000	3.3	224.744	OK

FSR: 100 years: +40 %: 720 mins: Winter	109.650	107.549	107.596	0.047	3.3	0.000	0.000	3.3	224.472	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	303.908	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	302.686	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	445.056	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	432.640	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	597.286	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.650	107.549	107.596	0.047	3.4	0.000	0.000	3.4	594.074	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.650	107.549	107.596	0.047	3.3	0.000	0.000	3.3	704.520	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.650	107.549	107.596	0.047	3.3	0.000	0.000	3.3	705.064	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.650	107.549	107.595	0.046	3.2	0.000	0.000	3.2	788.197	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.650	107.549	107.595	0.046	3.2	0.000	0.000	3.2	789.893	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.650	107.549	107.594	0.045	3.1	0.000	0.000	3.1	839.268	OK
FSR: 100 years: +40 %: 5760 mins: Winter	109.650	107.549	107.594	0.045	3.1	0.000	0.000	3.1	843.621	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.650	107.549	107.594	0.045	3.1	0.000	0.000	3.1	865.280	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.650	107.549	107.593	0.044	2.9	0.000	0.000	2.9	870.658	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.650	107.549	107.593	0.044	3.0	0.000	0.000	3.0	885.820	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.650	107.549	107.592	0.043	2.8	0.000	0.000	2.8	900.014	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.650	107.549	107.592	0.043	2.9	0.000	0.000	2.9	907.163	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.650	107.549	107.591	0.042	2.7	0.000	0.000	2.7	926.416	OK

Summary Results for Attenuation Tank: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	108.416	108.416	0.159	0.159	140.0	84.650	0.000	0.000	1.7	2.323	80.145	OK
FSR: 100 years: +40 %: 15 mins: Winter	108.416	108.416	0.159	0.159	133.8	84.787	0.000	0.000	1.7	2.339	80.113	OK
FSR: 100 years: +40 %: 30 mins: Summer	108.490	108.490	0.233	0.233	120.6	123.934	0.000	0.000	2.0	5.508	70.931	OK
FSR: 100 years: +40 %: 30 mins: Winter	108.490	108.490	0.233	0.233	113.9	123.964	0.000	0.000	2.0	5.523	70.924	OK
FSR: 100 years: +40 %: 60 mins: Summer	108.577	108.577	0.320	0.320	105.9	170.459	0.000	0.000	2.3	12.607	60.018	OK
FSR: 100 years: +40 %: 60 mins: Winter	108.578	108.578	0.321	0.321	87.8	170.735	0.000	0.000	2.3	12.622	59.954	OK
FSR: 100 years: +40 %: 120 mins: Summer	108.690	108.690	0.433	0.433	78.1	230.167	0.000	0.000	2.6	28.603	46.014	OK
FSR: 100 years: +40 %: 120 mins: Winter	108.691	108.691	0.434	0.434	60.2	230.877	0.000	0.000	2.6	28.646	45.847	OK
FSR: 100 years: +40 %: 180 mins: Summer	108.773	108.773	0.516	0.516	63.4	274.313	0.000	0.000	2.8	46.234	35.659	OK
FSR: 100 years: +40 %: 180 mins: Winter	108.773	108.773	0.516	0.516	47.5	274.626	0.000	0.000	2.8	46.288	35.586	OK
FSR: 100 years: +40 %: 240 mins: Summer	108.836	108.836	0.579	0.579	54.0	308.143	0.000	0.000	3.0	64.879	27.724	OK
FSR: 100 years: +40 %: 240 mins: Winter	108.835	108.835	0.578	0.578	40.1	307.350	0.000	0.000	3.0	64.914	27.910	OK
FSR: 100 years: +40 %: 360 mins: Summer	108.915	108.915	0.658	0.658	42.5	350.108	0.000	0.000	3.2	103.808	17.881	OK
FSR: 100 years: +40 %: 360 mins: Winter	108.910	108.910	0.653	0.653	31.4	347.646	0.000	0.000	3.2	103.937	18.459	OK

FSR: 100 years: +40 %: 480 mins: Summer	108.951	108.951	0.694	0.694	36.1	369.000	0.000	0.000	3.2	144.271	13.450	OK
FSR: 100 years: +40 %: 480 mins: Winter	108.944	108.944	0.687	0.687	26.7	365.381	0.000	0.000	3.2	144.237	14.299	OK
FSR: 100 years: +40 %: 600 mins: Summer	108.970	108.970	0.713	0.713	31.7	379.576	0.000	0.000	3.3	185.125	10.969	OK
FSR: 100 years: +40 %: 600 mins: Winter	108.964	108.964	0.707	0.707	23.5	376.067	0.000	0.000	3.3	185.338	11.792	OK
FSR: 100 years: +40 %: 720 mins: Summer	108.984	108.984	0.727	0.727	28.5	386.600	0.000	0.000	3.3	226.142	9.322	OK
FSR: 100 years: +40 %: 720 mins: Winter	108.977	108.977	0.720	0.720	21.2	382.840	0.000	0.000	3.3	225.796	10.204	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.004	109.004	0.747	0.747	24.1	397.456	0.000	0.000	3.4	305.165	6.775	OK
FSR: 100 years: +40 %: 960 mins: Winter	108.999	108.999	0.742	0.742	18.2	394.617	0.000	0.000	3.4	303.890	7.441	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.034	109.034	0.777	0.777	19.3	413.307	0.000	0.000	3.4	446.014	3.058	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.026	109.026	0.769	0.769	14.9	409.056	0.000	0.000	3.4	433.479	4.055	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.019	109.019	0.762	0.762	15.7	405.375	0.000	0.000	3.4	597.911	4.918	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.000	109.000	0.743	0.743	11.6	395.289	0.000	0.000	3.4	594.651	7.284	OK
FSR: 100 years: +40 %: 2880 mins: Summer	108.982	108.982	0.725	0.725	13.4	385.875	0.000	0.000	3.3	704.806	9.492	OK
FSR: 100 years: +40 %: 2880 mins: Winter	108.976	108.976	0.719	0.719	9.4	382.659	0.000	0.000	3.3	705.364	10.246	OK
FSR: 100 years: +40 %: 4320 mins: Summer	108.947	108.947	0.690	0.690	10.3	367.065	0.000	0.000	3.2	788.292	13.904	OK
FSR: 100 years: +40 %: 4320 mins: Winter	108.925	108.925	0.668	0.668	7.0	355.452	0.000	0.000	3.2	789.977	16.628	OK
FSR: 100 years: +40 %: 5760 mins: Summer	108.906	108.906	0.649	0.649	8.2	345.327	0.000	0.000	3.1	839.346	19.003	OK

FSR: 100 years: +40 %: 5760 mins: Winter	108.867	108.867	0.610	0.610	6.2	324.654	0.000	0.000	3.1	843.692	23.851	OK
FSR: 100 years: +40 %: 7200 mins: Summer	108.869	108.869	0.612	0.612	6.9	325.670	0.000	0.000	3.1	865.354	23.613	OK
FSR: 100 years: +40 %: 7200 mins: Winter	108.815	108.815	0.558	0.558	5.5	296.740	0.000	0.000	2.9	870.728	30.399	OK
FSR: 100 years: +40 %: 8640 mins: Summer	108.834	108.834	0.577	0.577	6.4	306.944	0.000	0.000	3.0	885.895	28.005	OK
FSR: 100 years: +40 %: 8640 mins: Winter	108.767	108.767	0.510	0.510	5.0	271.541	0.000	0.000	2.8	900.083	36.309	OK
FSR: 100 years: +40 %: 10080 mins: Summer	108.800	108.800	0.543	0.543	6.0	288.841	0.000	0.000	2.9	907.232	32.252	OK
FSR: 100 years: +40 %: 10080 mins: Winter	108.725	108.725	0.468	0.468	4.5	248.969	0.000	0.000	2.7	926.488	41.604	OK

Summary Results for Porous Paving: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.290	109.291	0.190	0.216	18.8	16.031	0.000	0.000	0.0	0.000	63.313	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.289	109.290	0.189	0.215	17.6	15.925	0.000	0.000	0.0	0.000	63.557	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.408	109.408	0.308	0.333	17.8	25.314	0.000	0.000	0.1	0.033	42.070	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.406	109.406	0.306	0.331	16.8	25.142	0.000	0.000	0.3	0.038	42.463	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.509	109.510	0.409	0.435	15.9	33.293	0.000	0.000	0.7	0.594	23.811	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.506	109.506	0.406	0.431	13.2	33.031	0.000	0.000	0.6	0.707	24.410	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.582	109.582	0.482	0.507	11.9	39.041	0.000	0.000	1.2	2.604	10.657	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.591	109.591	0.491	0.516	9.0	39.720	0.000	0.000	1.5	2.733	9.103	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.613	109.613	0.513	0.538	9.5	41.451	0.000	0.000	2.0	4.832	5.141	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.611	109.611	0.511	0.536	6.9	41.319	0.000	0.000	1.0	4.775	5.443	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.622	109.623	0.523	0.548	8.0	42.225	0.000	0.000	2.1	6.493	3.370	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.604	109.604	0.504	0.529	5.7	40.782	0.000	0.000	1.1	6.471	6.672	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.593	109.593	0.493	0.518	6.0	39.866	0.000	0.000	1.7	12.197	8.768	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.585	109.585	0.485	0.510	4.1	39.264	0.000	0.000	1.3	12.201	10.145	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.571	109.571	0.471	0.496	4.9	38.154	0.000	0.000	1.8	16.930	12.685	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.560	109.560	0.460	0.485	3.2	37.266	0.000	0.000	1.5	16.178	14.719	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.559	109.559	0.459	0.484	4.1	37.206	0.000	0.000	1.3	19.973	14.855	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.532	109.532	0.432	0.457	2.6	35.098	0.000	0.000	1.0	17.246	19.680	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.543	109.543	0.443	0.468	3.5	35.933	0.000	0.000	1.4	19.250	17.768	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.517	109.517	0.417	0.442	2.2	33.911	0.000	0.000	1.1	16.171	22.397	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.518	109.518	0.418	0.443	2.8	33.967	0.000	0.000	1.5	19.571	22.267	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.490	109.490	0.390	0.415	1.6	31.744	0.000	0.000	1.3	19.763	27.356	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.476	109.475	0.376	0.400	1.9	30.607	0.000	0.000	2.2	17.023	29.957	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.403	109.403	0.303	0.328	1.0	24.892	0.000	0.000	0.5	8.402	43.036	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.403	109.403	0.303	0.328	1.2	24.883	0.000	0.000	0.3	10.590	43.056	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.371	109.371	0.271	0.296	0.5	22.371	0.000	0.000	0.3	7.264	48.806	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.371	109.371	0.271	0.296	0.7	22.355	0.000	0.000	0.3	9.199	48.841	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.365	109.366	0.266	0.291	0.4	21.940	0.000	0.000	0.3	9.152	49.791	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.362	109.362	0.262	0.287	0.5	21.659	0.000	0.000	0.3	11.549	50.435	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.360	109.360	0.260	0.285	0.3	21.516	0.000	0.000	0.2	11.770	50.762	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.360	109.360	0.260	0.285	0.4	21.529	0.000	0.000	0.2	13.588	50.731	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.359	109.359	0.259	0.284	0.2	21.439	0.000	0.000	0.2	13.612	50.938	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.360	109.360	0.260	0.285	0.3	21.493	0.000	0.000	0.2	15.806	50.814	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.358	109.359	0.259	0.284	0.2	21.387	0.000	0.000	0.2	16.236	51.056	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.359	109.359	0.259	0.284	0.3	21.435	0.000	0.000	0.2	17.069	50.948	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.358	109.358	0.258	0.283	0.2	21.333	0.000	0.000	0.2	17.313	51.179	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.359	109.359	0.259	0.284	0.2	21.404	0.000	0.000	0.2	18.264	51.019	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.357	109.357	0.257	0.282	0.1	21.294	0.000	0.000	0.1	19.115	51.271	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023			Nimbus ENGINEERING CONSULTANTS
	Designed by: M.H	Checked by: S.L	Approved By: S.L	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX			

Summary Results for Porous Paving (1): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.272	109.273	0.171	0.198	22.3	17.255	0.000	0.000	0.0	0.000	66.755	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.271	109.272	0.170	0.197	21.0	17.144	0.000	0.000	0.0	0.000	66.968	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.407	109.407	0.306	0.332	20.0	29.860	0.000	0.000	0.2	0.014	42.469	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.405	109.404	0.303	0.329	18.9	29.649	0.000	0.000	0.2	0.011	42.876	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.509	109.509	0.408	0.434	17.8	39.426	0.000	0.000	0.6	0.686	24.039	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.506	109.505	0.405	0.430	14.7	39.119	0.000	0.000	0.9	0.670	24.631	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.582	109.582	0.481	0.507	13.2	46.262	0.000	0.000	1.2	3.110	10.868	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.591	109.590	0.489	0.515	10.0	47.060	0.000	0.000	2.5	3.232	9.331	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.613	109.612	0.511	0.537	10.5	49.136	0.000	0.000	1.2	5.870	5.330	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.611	109.610	0.509	0.535	7.6	48.979	0.000	0.000	1.5	5.643	5.633	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.622	109.622	0.521	0.547	8.8	50.059	0.000	0.000	1.4	7.828	3.553	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.604	109.604	0.503	0.529	6.2	48.343	0.000	0.000	1.2	7.754	6.858	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.593	109.592	0.491	0.517	6.6	47.266	0.000	0.000	1.7	13.650	8.934	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.585	109.585	0.484	0.510	4.5	46.552	0.000	0.000	1.5	13.579	10.309	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.571	109.571	0.470	0.496	5.4	45.232	0.000	0.000	1.8	18.070	12.853	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.560	109.559	0.458	0.484	3.5	44.175	0.000	0.000	1.5	17.545	14.888	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.559	109.559	0.458	0.484	4.5	44.107	0.000	0.000	1.2	22.321	15.020	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.532	109.532	0.431	0.457	2.9	41.605	0.000	0.000	1.0	18.693	19.840	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.543	109.543	0.442	0.468	3.9	42.599	0.000	0.000	1.3	21.564	17.925	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.517	109.517	0.416	0.442	2.4	40.197	0.000	0.000	1.0	18.468	22.553	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.518	109.518	0.417	0.443	3.1	40.274	0.000	0.000	2.0	21.489	22.404	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.490	109.490	0.388	0.415	1.8	37.617	0.000	0.000	2.0	20.627	27.524	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.476	109.475	0.374	0.400	2.1	36.260	0.000	0.000	2.0	19.122	30.139	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.403	109.403	0.302	0.328	1.1	29.491	0.000	0.000	0.4	9.653	43.181	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.403	109.403	0.302	0.328	1.3	29.479	0.000	0.000	0.3	12.268	43.202	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.372	109.371	0.270	0.296	0.6	26.522	0.000	0.000	0.3	8.520	48.900	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.371	109.371	0.270	0.296	0.8	26.506	0.000	0.000	0.3	10.647	48.931	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.366	109.366	0.265	0.291	0.5	26.046	0.000	0.000	0.3	10.635	49.818	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.363	109.363	0.262	0.288	0.6	25.755	0.000	0.000	0.3	13.438	50.379	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.362	109.361	0.260	0.286	0.4	25.593	0.000	0.000	0.3	13.535	50.691	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.362	109.361	0.260	0.286	0.4	25.622	0.000	0.000	0.3	16.017	50.634	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.361	109.360	0.259	0.285	0.3	25.497	0.000	0.000	0.2	16.101	50.876	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.361	109.361	0.260	0.286	0.4	25.573	0.000	0.000	0.3	17.884	50.730	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.360	109.359	0.258	0.284	0.2	25.422	0.000	0.000	0.2	17.887	51.019	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.361	109.360	0.259	0.285	0.3	25.518	0.000	0.000	0.2	19.880	50.834	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.359	109.359	0.258	0.284	0.2	25.370	0.000	0.000	0.2	20.204	51.120	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.360	109.360	0.259	0.285	0.3	25.460	0.000	0.000	0.2	21.408	50.946	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.359	109.358	0.257	0.283	0.2	25.329	0.000	0.000	0.2	21.459	51.199	OK

Summary Results for Porous Paving (2): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.281	109.283	0.178	0.208	22.9	18.500	0.000	0.000	0.0	0.000	65.220	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.280	109.281	0.176	0.206	21.5	18.343	0.000	0.000	0.0	0.000	65.515	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.405	109.405	0.301	0.330	21.9	30.312	0.000	0.000	0.1	0.012	43.013	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.403	109.403	0.299	0.328	20.6	30.110	0.000	0.000	0.1	0.013	43.394	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.508	109.508	0.404	0.433	19.4	40.173	0.000	0.000	0.7	0.724	24.475	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.505	109.504	0.401	0.429	15.9	39.876	0.000	0.000	0.6	0.762	25.032	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.581	109.581	0.477	0.506	14.2	47.180	0.000	0.000	1.2	3.139	11.301	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.589	109.589	0.485	0.514	10.6	47.998	0.000	0.000	2.0	3.327	9.764	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.611	109.611	0.507	0.536	11.2	50.131	0.000	0.000	1.2	5.817	5.754	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.610	109.610	0.506	0.535	8.0	49.969	0.000	0.000	2.1	5.798	6.057	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.621	109.621	0.517	0.546	9.3	51.069	0.000	0.000	2.3	7.775	3.990	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.603	109.603	0.499	0.528	6.5	49.314	0.000	0.000	1.2	7.814	7.290	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.591	109.591	0.487	0.516	6.9	48.209	0.000	0.000	1.9	13.632	9.367	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.584	109.584	0.480	0.509	4.6	47.484	0.000	0.000	1.4	13.481	10.730	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.570	109.570	0.466	0.495	5.6	46.125	0.000	0.000	1.5	18.118	13.284	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.559	109.558	0.455	0.483	3.6	45.044	0.000	0.000	1.5	17.553	15.316	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.557	109.558	0.453	0.483	4.7	44.955	0.000	0.000	1.3	21.992	15.484	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.531	109.531	0.427	0.456	2.9	42.421	0.000	0.000	1.1	18.981	20.247	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.542	109.541	0.438	0.466	4.0	43.426	0.000	0.000	1.6	21.552	18.360	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.516	109.516	0.412	0.441	2.5	40.980	0.000	0.000	0.9	18.785	22.957	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.517	109.517	0.413	0.442	3.1	41.045	0.000	0.000	1.2	21.657	22.835	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.488	109.488	0.384	0.413	1.8	38.320	0.000	0.000	1.3	20.616	27.959	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.474	109.474	0.370	0.399	2.1	36.924	0.000	0.000	1.3	19.094	30.582	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.402	109.402	0.298	0.327	1.1	30.035	0.000	0.000	0.4	9.846	43.533	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.402	109.402	0.298	0.327	1.3	30.023	0.000	0.000	0.3	12.526	43.557	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.371	109.371	0.267	0.296	0.7	27.014	0.000	0.000	0.3	8.913	49.214	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.370	109.370	0.266	0.295	0.8	26.991	0.000	0.000	0.3	10.977	49.257	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.366	109.366	0.262	0.291	0.5	26.538	0.000	0.000	0.3	10.701	50.108	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.363	109.363	0.259	0.288	0.6	26.274	0.000	0.000	0.3	13.862	50.605	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.361	109.361	0.257	0.286	0.4	26.127	0.000	0.000	0.3	14.085	50.880	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.362	109.362	0.258	0.287	0.5	26.156	0.000	0.000	0.3	16.467	50.826	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.360	109.360	0.256	0.285	0.3	26.024	0.000	0.000	0.2	16.368	51.075	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.361	109.361	0.257	0.286	0.4	26.085	0.000	0.000	0.3	18.439	50.959	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.360	109.360	0.256	0.285	0.2	25.949	0.000	0.000	0.2	17.693	51.215	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.361	109.361	0.257	0.286	0.3	26.052	0.000	0.000	0.2	20.332	51.022	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.359	109.359	0.255	0.284	0.2	25.888	0.000	0.000	0.2	20.375	51.330	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.360	109.360	0.256	0.285	0.3	25.989	0.000	0.000	0.2	21.945	51.140	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.358	109.358	0.254	0.283	0.2	25.821	0.000	0.000	0.2	21.277	51.456	OK

Summary Results for Porous Paving (3): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.223	109.252	0.110	0.177	41.5	25.900	0.000	0.000	0.0	0.000	73.121	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.222	109.251	0.108	0.176	39.0	25.611	0.000	0.000	0.0	0.000	73.421	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.343	109.344	0.229	0.269	34.2	43.440	0.000	0.000	0.0	0.000	54.918	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.340	109.341	0.226	0.266	32.1	42.922	0.000	0.000	0.0	0.000	55.456	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.501	109.502	0.388	0.427	29.8	71.018	0.000	0.000	1.0	0.992	26.298	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.499	109.499	0.385	0.424	24.3	70.583	0.000	0.000	2.1	1.348	26.750	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.575	109.575	0.461	0.500	21.6	83.816	0.000	0.000	1.2	5.454	13.016	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.583	109.584	0.470	0.509	15.9	85.287	0.000	0.000	1.6	5.631	11.489	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.606	109.606	0.492	0.531	16.9	89.276	0.000	0.000	2.1	10.188	7.350	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.604	109.604	0.491	0.529	11.9	88.944	0.000	0.000	2.5	10.229	7.694	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.616	109.616	0.502	0.541	14.0	91.010	0.000	0.000	2.2	14.089	5.550	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.598	109.598	0.484	0.523	9.5	87.846	0.000	0.000	2.3	14.023	8.834	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.587	109.587	0.473	0.512	10.3	85.928	0.000	0.000	1.1	20.168	10.825	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.579	109.580	0.466	0.505	7.5	84.612	0.000	0.000	1.5	20.413	12.190	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.566	109.566	0.452	0.491	8.3	82.170	0.000	0.000	1.4	27.103	14.724	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.554	109.554	0.441	0.479	6.1	80.230	0.000	0.000	1.2	26.985	16.738	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.553	109.553	0.440	0.478	6.9	80.030	0.000	0.000	1.4	33.566	16.945	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.527	109.528	0.414	0.453	5.1	75.531	0.000	0.000	1.3	31.548	21.614	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.538	109.538	0.424	0.463	5.9	77.300	0.000	0.000	1.5	34.103	19.779	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.512	109.513	0.399	0.438	4.4	72.912	0.000	0.000	1.6	30.605	24.332	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.513	109.513	0.399	0.438	4.6	73.027	0.000	0.000	1.5	31.615	24.213	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.485	109.485	0.371	0.410	3.2	68.095	0.000	0.000	1.5	28.706	29.332	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.470	109.470	0.356	0.395	3.1	65.564	0.000	0.000	1.7	29.165	31.958	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.400	109.400	0.286	0.325	1.8	53.306	0.000	0.000	0.6	16.956	44.679	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.400	109.400	0.286	0.325	2.1	53.270	0.000	0.000	0.6	21.947	44.717	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.372	109.372	0.258	0.297	1.2	48.393	0.000	0.000	0.5	17.032	49.778	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.372	109.372	0.258	0.297	1.5	48.358	0.000	0.000	0.5	20.048	49.814	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.369	109.369	0.255	0.294	0.9	47.913	0.000	0.000	0.5	20.278	50.277	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.368	109.368	0.254	0.293	1.0	47.685	0.000	0.000	0.5	24.921	50.513	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.366	109.367	0.253	0.292	0.7	47.457	0.000	0.000	0.5	25.162	50.749	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.367	109.367	0.253	0.292	0.8	47.506	0.000	0.000	0.5	29.186	50.699	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.365	109.365	0.251	0.290	0.5	47.219	0.000	0.000	0.4	29.281	50.997	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.366	109.366	0.252	0.291	0.7	47.375	0.000	0.000	0.4	33.076	50.835	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.364	109.364	0.250	0.289	0.4	47.015	0.000	0.000	0.4	33.325	51.208	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.365	109.365	0.251	0.290	0.6	47.199	0.000	0.000	0.4	35.742	51.017	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.363	109.363	0.249	0.288	0.4	46.856	0.000	0.000	0.3	36.467	51.373	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.364	109.365	0.251	0.290	0.5	47.109	0.000	0.000	0.4	38.577	51.110	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.362	109.362	0.248	0.287	0.3	46.711	0.000	0.000	0.3	39.423	51.524	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023			Nimbus ENGINEERING CONSULTANTS
	Designed by: M.H	Checked by: S.L	Approved By: S.L	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX			

Summary Results for Porous Paving (4): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.279	109.280	0.172	0.205	28.3	22.432	0.000	0.000	0.0	0.000	65.895	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.277	109.278	0.170	0.203	26.6	22.184	0.000	0.000	0.0	0.000	66.272	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.396	109.397	0.289	0.322	25.6	36.323	0.000	0.000	0.0	0.009	44.776	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.394	109.394	0.287	0.319	24.1	36.059	0.000	0.000	0.1	0.017	45.178	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.504	109.504	0.397	0.429	22.5	49.083	0.000	0.000	2.1	0.768	25.376	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.501	109.501	0.394	0.426	18.4	48.758	0.000	0.000	1.9	1.128	25.871	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.577	109.577	0.470	0.502	16.4	57.813	0.000	0.000	1.0	3.370	12.105	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.586	109.586	0.479	0.511	12.2	58.816	0.000	0.000	1.0	3.529	10.579	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.608	109.609	0.502	0.534	13.0	61.542	0.000	0.000	1.9	6.514	6.435	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.607	109.607	0.500	0.532	9.2	61.316	0.000	0.000	1.9	6.478	6.778	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.618	109.618	0.512	0.543	10.7	62.723	0.000	0.000	1.8	8.928	4.640	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.600	109.600	0.493	0.525	7.4	60.554	0.000	0.000	1.6	8.984	7.937	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.589	109.589	0.482	0.514	8.0	59.243	0.000	0.000	1.5	14.573	9.931	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.582	109.582	0.475	0.507	5.3	58.336	0.000	0.000	1.5	14.299	11.309	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.568	109.568	0.461	0.493	6.5	56.678	0.000	0.000	1.6	18.956	13.830	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.556	109.556	0.450	0.481	4.1	55.332	0.000	0.000	2.0	18.900	15.877	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.555	109.555	0.448	0.480	5.4	55.182	0.000	0.000	1.2	23.385	16.104	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.529	109.529	0.422	0.454	3.4	52.113	0.000	0.000	1.9	22.212	20.770	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.539	109.540	0.433	0.465	4.6	53.331	0.000	0.000	1.5	24.216	18.918	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.514	109.514	0.407	0.439	2.8	50.332	0.000	0.000	1.5	22.093	23.478	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.515	109.515	0.408	0.440	3.6	50.417	0.000	0.000	1.5	23.807	23.349	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.486	109.486	0.380	0.411	2.1	47.007	0.000	0.000	2.0	21.305	28.533	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.472	109.472	0.365	0.397	2.4	45.282	0.000	0.000	1.4	21.540	31.155	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.401	109.401	0.294	0.326	1.3	36.877	0.000	0.000	0.5	11.724	43.934	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.401	109.401	0.294	0.326	1.5	36.860	0.000	0.000	0.4	15.203	43.960	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.370	109.371	0.264	0.296	0.8	33.242	0.000	0.000	0.3	11.194	49.461	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.370	109.370	0.263	0.295	1.0	33.219	0.000	0.000	0.4	13.565	49.496	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.366	109.367	0.260	0.292	0.6	32.759	0.000	0.000	0.4	13.583	50.195	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.364	109.364	0.257	0.289	0.7	32.506	0.000	0.000	0.4	17.552	50.579	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.363	109.363	0.256	0.288	0.5	32.345	0.000	0.000	0.3	17.596	50.825	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.363	109.363	0.256	0.288	0.6	32.387	0.000	0.000	0.3	20.545	50.761	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.362	109.362	0.255	0.287	0.4	32.226	0.000	0.000	0.3	20.970	51.006	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.363	109.363	0.256	0.288	0.5	32.311	0.000	0.000	0.3	23.417	50.877	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.361	109.361	0.254	0.286	0.3	32.109	0.000	0.000	0.3	23.534	51.184	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.362	109.362	0.255	0.287	0.4	32.251	0.000	0.000	0.3	26.175	50.967	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.360	109.360	0.253	0.285	0.3	32.024	0.000	0.000	0.2	25.282	51.312	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.361	109.362	0.255	0.287	0.3	32.164	0.000	0.000	0.3	28.140	51.100	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.359	109.360	0.253	0.285	0.2	31.938	0.000	0.000	0.2	28.883	51.443	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:100 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Summary Results for Porous Paving (5): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.266	109.273	0.153	0.198	32.0	23.746	0.000	0.000	0.0	0.000	68.052	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.262	109.272	0.149	0.197	30.0	23.436	0.000	0.000	0.0	0.000	68.469	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.398	109.398	0.286	0.323	28.0	40.899	0.000	0.000	0.0	0.000	44.975	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.396	109.395	0.283	0.320	26.4	40.554	0.000	0.000	0.0	0.000	45.438	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.504	109.505	0.392	0.430	24.5	55.179	0.000	0.000	1.1	0.818	25.762	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.501	109.502	0.389	0.427	20.1	54.783	0.000	0.000	1.7	0.929	26.296	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.578	109.578	0.465	0.503	17.9	65.051	0.000	0.000	1.1	3.954	12.481	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.586	109.587	0.474	0.512	13.3	66.199	0.000	0.000	2.8	4.081	10.936	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.609	109.609	0.497	0.534	14.1	69.271	0.000	0.000	1.9	7.544	6.803	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.607	109.607	0.495	0.532	10.0	69.015	0.000	0.000	2.0	7.613	7.147	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.619	109.619	0.506	0.544	11.7	70.600	0.000	0.000	1.8	10.345	5.016	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.601	109.601	0.488	0.526	8.1	68.149	0.000	0.000	1.6	10.394	8.313	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.590	109.590	0.477	0.515	8.7	66.636	0.000	0.000	1.7	16.029	10.348	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.582	109.582	0.469	0.507	5.8	65.626	0.000	0.000	1.8	16.082	11.708	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.568	109.568	0.456	0.493	7.0	63.744	0.000	0.000	1.3	21.094	14.239	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.557	109.557	0.444	0.482	4.5	62.219	0.000	0.000	2.0	21.182	16.290	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.556	109.556	0.443	0.481	5.9	62.047	0.000	0.000	1.3	26.177	16.523	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.530	109.530	0.417	0.455	3.7	58.577	0.000	0.000	1.2	24.752	21.191	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.540	109.540	0.427	0.465	5.0	59.960	0.000	0.000	1.4	26.933	19.330	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.515	109.515	0.402	0.440	3.1	56.567	0.000	0.000	1.6	24.498	23.895	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.515	109.516	0.403	0.441	3.9	56.649	0.000	0.000	1.4	25.518	23.784	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.487	109.487	0.374	0.412	2.3	52.785	0.000	0.000	1.1	23.502	28.983	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.472	109.472	0.360	0.397	2.7	50.847	0.000	0.000	1.1	23.765	31.591	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.401	109.402	0.289	0.327	1.5	41.355	0.000	0.000	0.5	13.342	44.361	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.401	109.402	0.289	0.327	1.7	41.340	0.000	0.000	0.5	17.218	44.381	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.371	109.371	0.259	0.296	0.9	37.298	0.000	0.000	0.4	12.966	49.820	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.371	109.371	0.258	0.296	1.1	37.273	0.000	0.000	0.4	15.686	49.853	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.367	109.368	0.255	0.293	0.7	36.778	0.000	0.000	0.4	15.553	50.519	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.365	109.366	0.253	0.291	0.8	36.516	0.000	0.000	0.4	19.730	50.872	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.364	109.364	0.251	0.289	0.5	36.330	0.000	0.000	0.4	19.833	51.122	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.364	109.365	0.252	0.290	0.6	36.375	0.000	0.000	0.4	23.218	51.062	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.363	109.363	0.250	0.288	0.4	36.149	0.000	0.000	0.3	23.133	51.366	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.363	109.364	0.251	0.289	0.5	36.276	0.000	0.000	0.4	26.394	51.194	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.361	109.362	0.249	0.287	0.3	36.010	0.000	0.000	0.3	25.962	51.553	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.363	109.363	0.250	0.288	0.4	36.189	0.000	0.000	0.3	28.957	51.311	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.361	109.361	0.248	0.286	0.3	35.898	0.000	0.000	0.3	28.787	51.703	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.362	109.362	0.250	0.287	0.4	36.091	0.000	0.000	0.3	31.231	51.443	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.360	109.360	0.248	0.285	0.3	35.822	0.000	0.000	0.2	32.012	51.805	OK

Summary Results for Porous Paving (6): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.220	109.217	0.097	0.112	7.3	3.184	0.000	0.000	0.0	0.000	78.354	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.220	109.217	0.097	0.112	6.9	3.187	0.000	0.000	0.0	0.000	78.333	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.249	109.250	0.126	0.145	4.8	4.178	0.000	0.000	0.0	0.000	71.598	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.250	109.250	0.127	0.145	4.5	4.184	0.000	0.000	0.0	0.000	71.555	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.283	109.283	0.160	0.178	4.1	5.198	0.000	0.000	0.0	0.000	64.665	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.282	109.282	0.159	0.177	3.3	5.189	0.000	0.000	0.0	0.000	64.725	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.315	109.316	0.192	0.211	2.9	6.212	0.000	0.000	0.0	0.000	57.773	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.315	109.315	0.192	0.210	2.1	6.205	0.000	0.000	0.0	0.000	57.820	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.336	109.336	0.213	0.231	2.3	6.832	0.000	0.000	0.0	0.000	53.554	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.335	109.335	0.212	0.230	1.5	6.813	0.000	0.000	0.0	0.000	53.687	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.349	109.349	0.226	0.244	1.8	7.259	0.000	0.000	0.0	0.000	50.653	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.349	109.349	0.226	0.244	1.2	7.240	0.000	0.000	0.0	0.000	50.785	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.370	109.370	0.247	0.265	1.4	7.906	0.000	0.000	0.0	0.000	46.257	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.371	109.371	0.248	0.266	0.9	7.916	0.000	0.000	0.0	0.000	46.190	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.382	109.382	0.259	0.277	1.1	8.256	0.000	0.000	0.0	0.153	43.876	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.381	109.381	0.258	0.276	0.7	8.231	0.000	0.000	0.0	0.140	44.042	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.385	109.385	0.262	0.280	0.9	8.344	0.000	0.000	0.1	0.522	43.275	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.385	109.385	0.262	0.280	0.6	8.354	0.000	0.000	0.1	0.510	43.210	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.385	109.385	0.262	0.280	0.8	8.346	0.000	0.000	0.1	0.829	43.265	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.385	109.385	0.262	0.280	0.5	8.356	0.000	0.000	0.1	0.785	43.193	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.385	109.385	0.262	0.280	0.6	8.346	0.000	0.000	0.1	1.324	43.265	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.385	109.385	0.262	0.280	0.4	8.354	0.000	0.000	0.1	1.329	43.211	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.385	109.385	0.262	0.280	0.5	8.367	0.000	0.000	0.1	2.200	43.118	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.386	109.386	0.263	0.281	0.3	8.376	0.000	0.000	0.1	2.194	43.058	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.386	109.386	0.263	0.281	0.3	8.397	0.000	0.000	0.1	3.132	42.916	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.387	109.387	0.264	0.282	0.2	8.404	0.000	0.000	0.1	3.235	42.869	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.386	109.386	0.263	0.281	0.3	8.399	0.000	0.000	0.1	3.889	42.902	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.386	109.386	0.263	0.281	0.2	8.393	0.000	0.000	0.1	3.959	42.942	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.386	109.386	0.263	0.281	0.2	8.400	0.000	0.000	0.1	5.390	42.896	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.386	109.386	0.263	0.281	0.1	8.374	0.000	0.000	0.1	5.249	43.076	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.386	109.386	0.263	0.281	0.2	8.374	0.000	0.000	0.1	5.904	43.070	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.385	109.385	0.262	0.280	0.1	8.357	0.000	0.000	0.1	6.450	43.189	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.385	109.385	0.262	0.280	0.1	8.358	0.000	0.000	0.1	6.685	43.183	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.385	109.385	0.262	0.280	0.1	8.344	0.000	0.000	0.1	6.934	43.280	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.385	109.385	0.262	0.280	0.1	8.366	0.000	0.000	0.1	7.895	43.129	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.384	109.384	0.261	0.279	0.1	8.330	0.000	0.000	0.1	7.903	43.375	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.385	109.385	0.262	0.280	0.1	8.356	0.000	0.000	0.1	8.564	43.194	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.384	109.384	0.261	0.279	0.1	8.330	0.000	0.000	0.1	8.763	43.375	OK

Summary Results for Porous Paving (7): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.206	109.194	0.099	0.114	18.7	8.109	0.000	0.000	0.0	0.000	78.236	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.206	109.194	0.100	0.114	17.6	8.112	0.000	0.000	0.0	0.000	78.228	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.228	109.229	0.122	0.149	12.2	10.615	0.000	0.000	0.0	0.000	71.510	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.228	109.229	0.122	0.149	11.4	10.610	0.000	0.000	0.0	0.000	71.525	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.261	109.261	0.154	0.181	10.4	13.201	0.000	0.000	0.0	0.000	64.571	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.261	109.261	0.154	0.181	8.4	13.201	0.000	0.000	0.0	0.000	64.570	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.294	109.294	0.187	0.214	7.4	15.776	0.000	0.000	0.0	0.000	57.659	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.294	109.294	0.187	0.214	5.3	15.789	0.000	0.000	0.0	0.000	57.624	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.314	109.315	0.208	0.235	5.7	17.376	0.000	0.000	0.0	0.000	53.366	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.313	109.314	0.207	0.234	3.9	17.319	0.000	0.000	0.0	0.000	53.518	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.329	109.329	0.222	0.249	4.7	18.503	0.000	0.000	0.0	0.000	50.341	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.328	109.329	0.222	0.249	3.2	18.494	0.000	0.000	0.0	0.000	50.364	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.348	109.349	0.242	0.269	3.5	20.060	0.000	0.000	0.0	0.000	46.162	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.348	109.349	0.242	0.269	2.3	20.045	0.000	0.000	0.0	0.000	46.202	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.359	109.360	0.253	0.280	2.8	20.912	0.000	0.000	0.1	0.446	43.874	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.359	109.359	0.252	0.279	1.8	20.891	0.000	0.000	0.1	0.436	43.931	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.363	109.363	0.256	0.283	2.4	21.180	0.000	0.000	0.2	1.208	43.157	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.363	109.363	0.256	0.283	1.5	21.203	0.000	0.000	0.2	1.197	43.094	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.363	109.363	0.256	0.283	2.0	21.191	0.000	0.000	0.2	2.029	43.125	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.363	109.364	0.257	0.284	1.3	21.239	0.000	0.000	0.2	1.837	42.997	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.363	109.363	0.256	0.283	1.6	21.201	0.000	0.000	0.2	3.212	43.099	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.363	109.363	0.256	0.283	1.0	21.214	0.000	0.000	0.2	3.243	43.064	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.363	109.364	0.257	0.284	1.2	21.248	0.000	0.000	0.2	5.191	42.972	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.364	109.365	0.258	0.285	0.7	21.320	0.000	0.000	0.2	5.327	42.780	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.366	109.366	0.259	0.286	0.8	21.416	0.000	0.000	0.3	7.103	42.523	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.366	109.367	0.260	0.287	0.5	21.464	0.000	0.000	0.3	7.304	42.395	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.366	109.366	0.259	0.286	0.7	21.448	0.000	0.000	0.3	8.922	42.437	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.366	109.366	0.259	0.286	0.4	21.427	0.000	0.000	0.3	9.028	42.493	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.366	109.366	0.259	0.286	0.5	21.408	0.000	0.000	0.3	11.646	42.543	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.365	109.365	0.258	0.285	0.3	21.348	0.000	0.000	0.2	11.596	42.706	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.365	109.365	0.258	0.285	0.4	21.370	0.000	0.000	0.2	13.757	42.646	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.364	109.364	0.257	0.284	0.2	21.283	0.000	0.000	0.2	13.942	42.880	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.365	109.365	0.258	0.285	0.3	21.333	0.000	0.000	0.2	15.264	42.745	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.363	109.364	0.257	0.284	0.2	21.223	0.000	0.000	0.2	16.034	43.041	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.364	109.364	0.257	0.284	0.3	21.278	0.000	0.000	0.2	16.924	42.894	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.363	109.363	0.256	0.283	0.2	21.174	0.000	0.000	0.2	17.419	43.171	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.364	109.364	0.257	0.284	0.2	21.255	0.000	0.000	0.2	17.930	42.955	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.362	109.362	0.255	0.282	0.2	21.130	0.000	0.000	0.1	19.098	43.289	OK

Summary Results for Porous Paving (8): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.137	109.138	0.232	0.258	22.9	23.556	0.000	0.000	0.0	0.000	48.296	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.134	109.135	0.229	0.255	21.5	23.277	0.000	0.000	0.0	0.000	48.907	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.238	109.238	0.333	0.358	17.5	33.233	0.000	0.000	0.5	0.117	27.054	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.235	109.235	0.330	0.355	16.2	32.984	0.000	0.000	0.5	0.120	27.601	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.315	109.315	0.410	0.435	17.5	40.676	0.000	0.000	1.6	3.013	10.717	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.310	109.310	0.405	0.430	14.5	40.194	0.000	0.000	1.5	3.082	11.774	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.348	109.347	0.442	0.467	13.5	43.786	0.000	0.000	1.8	10.319	3.891	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.349	109.348	0.443	0.468	10.2	43.890	0.000	0.000	2.7	10.223	3.662	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.344	109.343	0.438	0.463	10.7	43.401	0.000	0.000	2.3	16.648	4.735	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.336	109.335	0.430	0.455	7.6	42.632	0.000	0.000	1.6	16.251	6.424	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.333	109.333	0.428	0.453	8.9	42.412	0.000	0.000	1.7	22.040	6.906	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.310	109.310	0.405	0.430	6.3	40.216	0.000	0.000	1.6	21.379	11.726	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.297	109.297	0.392	0.417	6.7	38.959	0.000	0.000	2.0	31.159	14.484	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.266	109.265	0.361	0.385	4.6	35.917	0.000	0.000	1.8	28.647	21.162	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.272	109.271	0.366	0.391	5.5	36.478	0.000	0.000	1.5	30.752	19.930	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.231	109.230	0.326	0.350	4.2	32.544	0.000	0.000	1.5	27.604	28.566	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.249	109.248	0.343	0.368	4.6	34.249	0.000	0.000	1.9	29.641	24.824	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.204	109.204	0.299	0.324	2.8	29.959	0.000	0.000	2.0	26.439	34.240	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.228	109.228	0.323	0.348	3.9	32.312	0.000	0.000	1.6	28.725	29.076	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.179	109.179	0.274	0.299	2.5	27.564	0.000	0.000	1.4	24.797	39.496	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.196	109.196	0.291	0.316	3.0	29.205	0.000	0.000	1.6	28.248	35.895	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.144	109.143	0.238	0.263	1.8	24.159	0.000	0.000	1.2	25.306	46.970	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.144	109.143	0.238	0.263	2.1	24.146	0.000	0.000	2.6	31.984	47.000	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.095	109.094	0.190	0.214	1.2	19.440	0.000	0.000	2.4	28.834	57.330	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.089	109.089	0.184	0.209	1.3	18.887	0.000	0.000	1.0	38.868	58.543	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.042	109.042	0.137	0.162	0.7	14.359	0.000	0.000	0.6	29.562	68.482	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.032	109.032	0.127	0.152	0.8	13.412	0.000	0.000	0.7	28.418	70.561	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.002	109.001	0.097	0.121	0.5	10.517	0.000	0.000	0.5	28.360	76.916	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.003	108.977	0.098	0.097	0.6	9.744	0.000	0.000	0.6	31.012	78.612	OK
FSR: 100 years: +40 %: 4320 mins: Winter	108.998	108.969	0.093	0.089	0.4	9.237	0.000	0.000	0.4	31.122	79.725	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.001	108.971	0.095	0.091	0.5	9.469	0.000	0.000	0.5	33.201	79.215	OK

FSR: 100 years: +40 %: 5760 mins: Winter	108.995	108.967	0.090	0.087	0.3	8.987	0.000	0.000	0.3	32.815	80.273	OK
FSR: 100 years: +40 %: 7200 mins: Summer	108.998	108.969	0.093	0.089	0.4	9.260	0.000	0.000	0.4	34.701	79.675	OK
FSR: 100 years: +40 %: 7200 mins: Winter	108.994	108.966	0.089	0.086	0.2	8.816	0.000	0.000	0.2	34.284	80.649	OK
FSR: 100 years: +40 %: 8640 mins: Summer	108.997	108.968	0.092	0.088	0.3	9.112	0.000	0.000	0.3	36.061	80.000	OK
FSR: 100 years: +40 %: 8640 mins: Winter	108.993	108.965	0.087	0.085	0.2	8.708	0.000	0.000	0.2	36.257	80.885	OK
FSR: 100 years: +40 %: 10080 mins: Summer	108.995	108.967	0.090	0.087	0.3	8.984	0.000	0.000	0.3	37.230	80.280	OK
FSR: 100 years: +40 %: 10080 mins: Winter	108.992	108.964	0.087	0.084	0.2	8.630	0.000	0.000	0.2	36.867	81.056	OK

Summary Results for Porous Paving (9): Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
FSR: 100 years: +40 %: 15 mins: Summer	109.134	109.139	0.129	0.159	18.4	11.173	0.000	0.000	0.0	0.042	69.491	OK
FSR: 100 years: +40 %: 15 mins: Winter	109.129	109.136	0.125	0.156	17.3	10.905	0.000	0.000	0.3	0.046	70.222	OK
FSR: 100 years: +40 %: 30 mins: Summer	109.239	109.239	0.235	0.259	12.0	19.097	0.000	0.000	0.4	0.154	47.854	OK
FSR: 100 years: +40 %: 30 mins: Winter	109.236	109.236	0.232	0.256	11.2	18.883	0.000	0.000	0.4	0.163	48.439	OK
FSR: 100 years: +40 %: 60 mins: Summer	109.316	109.316	0.312	0.336	10.3	25.060	0.000	0.000	1.3	2.555	31.572	OK
FSR: 100 years: +40 %: 60 mins: Winter	109.311	109.311	0.307	0.331	8.2	24.675	0.000	0.000	1.9	2.536	32.623	OK
FSR: 100 years: +40 %: 120 mins: Summer	109.349	109.349	0.345	0.369	8.1	27.574	0.000	0.000	1.4	8.265	24.710	OK
FSR: 100 years: +40 %: 120 mins: Winter	109.350	109.350	0.346	0.370	6.0	27.653	0.000	0.000	2.0	8.080	24.492	OK
FSR: 100 years: +40 %: 180 mins: Summer	109.345	109.345	0.341	0.365	6.2	27.267	0.000	0.000	1.5	13.334	25.546	OK
FSR: 100 years: +40 %: 180 mins: Winter	109.337	109.337	0.333	0.357	4.8	26.642	0.000	0.000	2.0	12.968	27.254	OK
FSR: 100 years: +40 %: 240 mins: Summer	109.335	109.334	0.330	0.354	5.2	26.463	0.000	0.000	2.0	17.554	27.741	OK
FSR: 100 years: +40 %: 240 mins: Winter	109.311	109.311	0.307	0.331	4.2	24.685	0.000	0.000	1.7	16.779	32.597	OK
FSR: 100 years: +40 %: 360 mins: Summer	109.299	109.298	0.294	0.318	3.9	23.685	0.000	0.000	1.7	18.848	35.326	OK
FSR: 100 years: +40 %: 360 mins: Winter	109.267	109.267	0.263	0.287	2.8	21.231	0.000	0.000	1.9	16.905	42.029	OK

FSR: 100 years: +40 %: 480 mins: Summer	109.273	109.272	0.269	0.292	3.1	21.680	0.000	0.000	1.8	18.139	40.803	OK
FSR: 100 years: +40 %: 480 mins: Winter	109.232	109.231	0.228	0.251	2.3	18.512	0.000	0.000	1.7	16.573	49.454	OK
FSR: 100 years: +40 %: 600 mins: Summer	109.249	109.249	0.245	0.269	2.9	19.887	0.000	0.000	1.7	17.557	45.699	OK
FSR: 100 years: +40 %: 600 mins: Winter	109.205	109.205	0.201	0.225	2.0	16.444	0.000	0.000	1.7	16.607	55.099	OK
FSR: 100 years: +40 %: 720 mins: Summer	109.229	109.229	0.225	0.249	2.6	18.321	0.000	0.000	1.8	17.484	49.974	OK
FSR: 100 years: +40 %: 720 mins: Winter	109.180	109.179	0.176	0.199	1.4	14.489	0.000	0.000	1.1	15.232	60.436	OK
FSR: 100 years: +40 %: 960 mins: Summer	109.197	109.197	0.193	0.217	1.8	15.818	0.000	0.000	2.0	17.674	56.810	OK
FSR: 100 years: +40 %: 960 mins: Winter	109.144	109.144	0.140	0.164	1.0	11.756	0.000	0.000	1.0	15.842	67.900	OK
FSR: 100 years: +40 %: 1440 mins: Summer	109.144	109.144	0.140	0.164	1.1	11.749	0.000	0.000	1.0	17.886	67.920	OK
FSR: 100 years: +40 %: 1440 mins: Winter	109.106	109.095	0.102	0.115	0.7	8.240	0.000	0.000	0.7	18.827	77.500	OK
FSR: 100 years: +40 %: 2160 mins: Summer	109.108	109.090	0.103	0.110	0.8	8.200	0.000	0.000	0.8	21.319	77.611	OK
FSR: 100 years: +40 %: 2160 mins: Winter	109.101	109.073	0.097	0.093	0.5	7.744	0.000	0.000	0.5	21.260	78.856	OK
FSR: 100 years: +40 %: 2880 mins: Summer	109.104	109.075	0.100	0.095	0.6	7.944	0.000	0.000	0.6	22.708	78.310	OK
FSR: 100 years: +40 %: 2880 mins: Winter	109.099	109.070	0.094	0.090	0.4	7.530	0.000	0.000	0.4	22.620	79.440	OK
FSR: 100 years: +40 %: 4320 mins: Summer	109.100	109.071	0.096	0.091	0.5	7.609	0.000	0.000	0.5	24.974	79.224	OK
FSR: 100 years: +40 %: 4320 mins: Winter	109.095	109.067	0.091	0.087	0.3	7.250	0.000	0.000	0.3	24.784	80.203	OK
FSR: 100 years: +40 %: 5760 mins: Summer	109.097	109.069	0.093	0.089	0.4	7.418	0.000	0.000	0.4	26.427	79.746	OK

FSR: 100 years: +40 %: 5760 mins: Winter	109.093	109.066	0.089	0.086	0.2	7.083	0.000	0.000	0.2	26.537	80.660	OK
FSR: 100 years: +40 %: 7200 mins: Summer	109.095	109.067	0.091	0.087	0.3	7.248	0.000	0.000	0.3	28.053	80.210	OK
FSR: 100 years: +40 %: 7200 mins: Winter	109.091	109.064	0.087	0.084	0.2	6.967	0.000	0.000	0.2	27.653	80.976	OK
FSR: 100 years: +40 %: 8640 mins: Summer	109.093	109.066	0.089	0.086	0.3	7.140	0.000	0.000	0.3	28.754	80.503	OK
FSR: 100 years: +40 %: 8640 mins: Winter	109.090	109.063	0.086	0.083	0.2	6.875	0.000	0.000	0.2	28.859	81.228	OK
FSR: 100 years: +40 %: 10080 mins: Summer	109.092	109.065	0.088	0.085	0.2	7.057	0.000	0.000	0.2	29.676	80.731	OK
FSR: 100 years: +40 %: 10080 mins: Winter	109.089	109.063	0.085	0.083	0.1	6.805	0.000	0.000	0.1	30.507	81.418	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.830
Long. Slope (1:X)	1000.00
Width (m)	10.591
Total Volume (m³)	43.698

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.461
Long. Slope (1:X)	1000.00
Width (m)	11.813
Total Volume (m³)	51.903

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	28.925
Long. Slope (1:X)	1000.00
Width (m)	11.070
Total Volume (m³)	53.191

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	38.740
Long. Slope (1:X)	1000.00
Width (m)	15.000
Total Volume (m³)	96.358

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	31.775
Long. Slope (1:X)	1000.00
Width (m)	12.470
Total Volume (m³)	65.775

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (5)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	37.569
Long. Slope (1:X)	1000.00
Width (m)	11.915
Total Volume (m³)	74.328

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (6)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.725
Depth (m)	0.620
Base Level (m)	109.105
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	17.974
Long. Slope (1:X)	1000.00
Width (m)	5.717
Total Volume (m³)	14.710

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (7)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.700
Depth (m)	0.620
Base Level (m)	109.080
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.602
Long. Slope (1:X)	1000.00
Width (m)	9.846
Total Volume (m³)	37.259

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (8)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.500
Depth (m)	0.620
Base Level (m)	108.880
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	25.225
Long. Slope (1:X)	1000.00
Width (m)	12.721
Total Volume (m³)	45.558

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (9)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.600
Depth (m)	0.620
Base Level (m)	108.980
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.111
Long. Slope (1:X)	1000.00
Width (m)	10.685
Total Volume (m³)	36.623

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Attenuation Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	109.800
Depth (m)	0.800
Base Level (m)	108.257
Number of Crates Long	32
Number of Crates Wide	35
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m^3)	426.343

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Inflow Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (1)	Porous Paving (1)		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	Porous Paving (2)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (3)	Porous Paving (3)		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (4)	Porous Paving (4)		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (5)	Porous Paving (5)		Time of Concentration	0.045	100	0	100	0.045
Catchment Area (6)	Porous Paving (6)		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (7)	Porous Paving (7)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (8)	Porous Paving (8)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (9)	Porous Paving (9)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (10)	SWC-08		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (11)	SWC-07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (12)	SWC-10		Time of Concentration	0.109	100	0	100	0.109
Catchment Area (13)	SWC-22		Time of Concentration	0.069	100	0	100	0.069
Catchment Area (14)	SWC-20		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (15)	SWC-21		Time of Concentration	0.024	100	0	100	0.024
Green Roof	SWC-01		Green Roof	0.040		0		0.040
Green Roof (1)	SWC-03		Green Roof	0.040		0		0.040
Green Roof (2)	SWC-04		Green Roof	0.021		0		0.021
Green Roof (3)	SWC-09 (FC)		Green Roof	0.021		0		0.021
Green Roof (4)	SWC-05		Green Roof	0.021		0		0.021
Green Roof (5)	SWC-06		Green Roof	0.021		0		0.021
Green Roof (6)	SWC-07		Green Roof	0.027		0		0.027
Green Roof (7)	SWC-08		Green Roof	0.030		0		0.030
Green Roof (8)	SWC-21		Green Roof	0.016		0		0.016
Green Roof (9)	SWC-19 (FC)		Green Roof	0.016		0		0.016
Green Roof (10)	SWC-21		Green Roof	0.025		0		0.025
Green Roof (11)	SWC-18		Green Roof	0.019		0		0.019
Green Roof (12)	SWC-20		Green Roof	0.037		0		0.037
Green Roof (13)	SWC-14		Green Roof	0.025		0		0.025
Green Roof (14)	SWC-12		Green Roof	0.008		0		0.008
Green Roof (15)	SWC-11		Green Roof	0.010		0		0.010
TOTAL		**0.0**		**0.932**				**0.932**

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: Rainfall Analysis Criteria	Kemp House:: 124 City Road London EC1V 2NX		

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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	19.5
Ratio R	0.428
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
30.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
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
7200	14400
8640	17280
10080	20160

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: UK and Ireland Rural Runoff Calculator	Kemp House:: 124 City Road London EC1V 2NX		

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.932
SAAR (mm)	611.0
Soil	0.37
Region	Region 6
Urban	0.31
Return Period (years)	100

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 100 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 6	2.3	4.0	10.0	3.4	7.9	10.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SWC-01	FSR: 30 years: +40 %: 60 mins: Summer	109.775	109.039	109.419	0.380	5.1	0.108	0.000	3.4	12.049	Surcharged
SWC-02	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.878	109.418	0.540	7.0	0.153	0.000	1.3	9.646	Surcharged
SWC-03	FSR: 30 years: +40 %: 60 mins: Summer	109.800	109.033	109.436	0.403	5.1	0.114	0.000	5.0	11.014	Surcharged
SWC-04	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.717	109.424	0.707	7.5	0.200	0.000	2.5	19.887	Surcharged
SWC-05	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.989	109.430	0.441	2.6	0.125	0.000	2.6	5.662	Surcharged
SWC-06	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.841	109.425	0.584	5.2	0.165	0.000	1.1	11.420	Surcharged
SWC-07	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.672	109.424	0.752	5.9	0.213	0.000	1.5	15.042	Surcharged
SWC-08	FSR: 30 years: +40 %: 60 mins: Summer	109.775	108.500	109.423	0.923	8.6	0.261	0.000	4.4	28.401	Surcharged
SWC-09 (FC)	FSR: 30 years: +40 %: 60 mins: Summer	109.750	108.409	109.420	1.011	6.2	0.161	0.000	5.1	27.088	Surcharged
SWC-10	FSR: 30 years: +40 %: 15 mins: Summer	109.850	108.292	109.084	0.792	59.9	0.224	0.000	47.3	32.409	Surcharged
SWC-11	FSR: 30 years: +40 %: 120 mins: Summer	109.650	109.081	109.206	0.125	1.1	0.020	0.000	1.1	3.352	OK
SWC-12	FSR: 30 years: +40 %: 120 mins: Summer	109.650	108.893	109.206	0.313	2.0	0.050	0.000	1.8	5.791	Surcharged
SWC-13	FSR: 30 years: +40 %: 120 mins: Summer	109.500	108.771	109.206	0.435	1.8	0.123	0.000	1.7	5.326	Flood Risk
SWC-14	FSR: 30 years: +40 %: 120 mins: Summer	109.600	108.913	109.207	0.294	2.7	0.047	0.000	2.2	16.687	Surcharged
SWC-15	FSR: 30 years: +40 %: 120 mins: Summer	109.550	108.705	109.206	0.501	4.0	0.142	0.000	3.0	30.340	Surcharged
SWC-16	FSR: 30 years: +40 %: 120 mins: Summer	109.725	108.777	109.202	0.425	0.6	0.120	0.000	0.1	0.362	Surcharged
SWC-17	FSR: 30 years: +40 %: 120 mins: Summer	109.700	108.654	109.202	0.548	1.2	0.155	0.000	0.1	1.275	Surcharged
SWC-18	FSR: 30 years: +40 %: 120 mins: Summer	109.725	108.571	109.202	0.631	3.4	0.179	0.000	3.2	32.401	Surcharged
SWC-19 (FC)	FSR: 30 years: +40 %: 120 mins: Summer	109.725	108.521	109.199	0.678	3.4	0.192	0.000	3.4	35.818	Surcharged

SWC-20	FSR: 30 years: +40 %: 15 mins: Summer	109.850	108.888	108.948	0.060	11.1	0.010	0.000	11.0	7.561	OK
SWC-21	FSR: 30 years: +40 %: 720 mins: Summer	109.725	108.329	108.800	0.471	8.4	0.133	0.000	8.3	133.748	Surcharged
SWC-22	FSR: 30 years: +40 %: 720 mins: Summer	109.800	108.439	108.800	0.361	4.2	0.102	0.000	4.1	45.674	Surcharged
SWC-23 (FC)	FSR: 30 years: +40 %: 720 mins: Summer	109.800	108.194	108.798	0.604	2.9	0.171	0.000	2.9	188.705	Surcharged
SWC-24	FSR: 30 years: +40 %: 720 mins: Summer	109.725	108.076	108.120	0.044	2.9	0.007	0.000	2.9	188.529	OK
SWC-25	FSR: 30 years: +40 %: 720 mins: Summer	109.750	107.731	107.776	0.045	2.9	0.007	0.000	2.9	188.391	OK
SWC-26	FSR: 30 years: +40 %: 720 mins: Summer	109.650	107.549	107.592	0.043	2.9	0.000	0.000	2.9	188.391	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 40% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
Attenuation Tank	FSR: 30 years: +40 %: 720 mins: Summer	108.800	108.800	0.543	0.543	23.7	288.719	0.000	0.000	2.9	189.201	32.280	OK
Porous Paving	FSR: 30 years: +40 %: 240 mins: Summer	109.417	109.417	0.317	0.342	6.0	26.025	0.000	0.000	0.7	5.598	40.442	OK
Porous Paving (1)	FSR: 30 years: +40 %: 240 mins: Summer	109.417	109.417	0.316	0.342	6.6	30.819	0.000	0.000	0.7	6.352	40.621	OK
Porous Paving (2)	FSR: 30 years: +40 %: 240 mins: Summer	109.416	109.416	0.312	0.341	6.9	31.358	0.000	0.000	0.8	6.402	41.047	OK
Porous Paving (3)	FSR: 30 years: +40 %: 240 mins: Summer	109.411	109.412	0.298	0.337	10.4	55.314	0.000	0.000	1.0	9.658	42.596	OK
Porous Paving (4)	FSR: 30 years: +40 %: 240 mins: Summer	109.413	109.414	0.307	0.339	8.0	38.351	0.000	0.000	0.8	7.279	41.693	OK
Porous Paving (5)	FSR: 30 years: +40 %: 240 mins: Summer	109.414	109.414	0.301	0.339	8.7	43.046	0.000	0.000	0.8	8.175	42.086	OK
Porous Paving (6)	FSR: 30 years: +40 %: 10080 mins: Summer	109.384	109.384	0.261	0.279	0.1	8.313	0.000	0.000	0.0	6.632	43.487	OK
Porous Paving (7)	FSR: 30 years: +40 %: 5760 mins: Winter	109.361	109.361	0.254	0.281	0.2	21.021	0.000	0.000	0.1	7.547	43.583	OK
Porous Paving (8)	FSR: 30 years: +40 %: 120 mins: Summer	109.206	109.206	0.301	0.326	9.0	30.193	0.000	0.000	1.7	10.543	33.726	OK
Porous Paving (9)	FSR: 30 years: +40 %: 120 mins: Summer	109.207	109.207	0.203	0.227	5.5	16.647	0.000	0.000	1.4	8.448	54.544	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.830
Long. Slope (1:X)	1000.00
Width (m)	10.591
Total Volume (m³)	43.698

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.461
Long. Slope (1:X)	1000.00
Width (m)	11.813
Total Volume (m³)	51.903

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	28.925
Long. Slope (1:X)	1000.00
Width (m)	11.070
Total Volume (m³)	53.191

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	38.740
Long. Slope (1:X)	1000.00
Width (m)	15.000
Total Volume (m³)	96.358

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	31.775
Long. Slope (1:X)	1000.00
Width (m)	12.470
Total Volume (m³)	65.775

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (5)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	37.569
Long. Slope (1:X)	1000.00
Width (m)	11.915
Total Volume (m³)	74.328

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (6)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.725
Depth (m)	0.620
Base Level (m)	109.105
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	17.974
Long. Slope (1:X)	1000.00
Width (m)	5.717
Total Volume (m³)	14.710

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (7)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.700
Depth (m)	0.620
Base Level (m)	109.080
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.602
Long. Slope (1:X)	1000.00
Width (m)	9.846
Total Volume (m³)	37.259

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (8)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.500
Depth (m)	0.620
Base Level (m)	108.880
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	25.225
Long. Slope (1:X)	1000.00
Width (m)	12.721
Total Volume (m³)	45.558

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (9)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.600
Depth (m)	0.620
Base Level (m)	108.980
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.111
Long. Slope (1:X)	1000.00
Width (m)	10.685
Total Volume (m³)	36.623

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Attenuation Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	109.800
Depth (m)	0.800
Base Level (m)	108.257
Number of Crates Long	32
Number of Crates Wide	35
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m^3)	426.343

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Inflow Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (1)	Porous Paving (1)		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	Porous Paving (2)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (3)	Porous Paving (3)		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (4)	Porous Paving (4)		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (5)	Porous Paving (5)		Time of Concentration	0.045	100	0	100	0.045
Catchment Area (6)	Porous Paving (6)		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (7)	Porous Paving (7)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (8)	Porous Paving (8)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (9)	Porous Paving (9)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (10)	SWC-08		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (11)	SWC-07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (12)	SWC-10		Time of Concentration	0.109	100	0	100	0.109
Catchment Area (13)	SWC-22		Time of Concentration	0.069	100	0	100	0.069
Catchment Area (14)	SWC-20		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (15)	SWC-21		Time of Concentration	0.024	100	0	100	0.024
Green Roof	SWC-01		Green Roof	0.040		0		0.040
Green Roof (1)	SWC-03		Green Roof	0.040		0		0.040
Green Roof (2)	SWC-04		Green Roof	0.021		0		0.021
Green Roof (3)	SWC-09 (FC)		Green Roof	0.021		0		0.021
Green Roof (4)	SWC-05		Green Roof	0.021		0		0.021
Green Roof (5)	SWC-06		Green Roof	0.021		0		0.021
Green Roof (6)	SWC-07		Green Roof	0.027		0		0.027
Green Roof (7)	SWC-08		Green Roof	0.030		0		0.030
Green Roof (8)	SWC-21		Green Roof	0.016		0		0.016
Green Roof (9)	SWC-19 (FC)		Green Roof	0.016		0		0.016
Green Roof (10)	SWC-21		Green Roof	0.025		0		0.025
Green Roof (11)	SWC-18		Green Roof	0.019		0		0.019
Green Roof (12)	SWC-20		Green Roof	0.037		0		0.037
Green Roof (13)	SWC-14		Green Roof	0.025		0		0.025
Green Roof (14)	SWC-12		Green Roof	0.008		0		0.008
Green Roof (15)	SWC-11		Green Roof	0.010		0		0.010
TOTAL		**0.0**		**0.932**				**0.932**

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: Rainfall Analysis Criteria	Kemp House:: 124 City Road London EC1V 2NX		

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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	19.5
Ratio R	0.428
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
30.0	0.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
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
7200	14400
8640	17280
10080	20160

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: UK and Ireland Rural Runoff Calculator	Kemp House:: 124 City Road London EC1V 2NX		

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.932
SAAR (mm)	611.0
Soil	0.37
Region	Region 6
Urban	0.31
Return Period (years)	100

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 100 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 6	2.3	4.0	10.0	3.4	7.9	10.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SWC-01	FSR: 30 years: +0 %: 60 mins: Summer	109.775	109.039	109.403	0.364	3.6	0.103	0.000	2.4	8.252	Surcharged
SWC-02	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.878	109.402	0.524	2.6	0.148	0.000	2.2	6.781	Surcharged
SWC-03	FSR: 30 years: +0 %: 60 mins: Summer	109.800	109.033	109.410	0.377	3.6	0.107	0.000	3.5	7.920	Surcharged
SWC-04	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.717	109.404	0.687	6.1	0.194	0.000	2.2	15.139	Surcharged
SWC-05	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.989	109.408	0.419	1.9	0.119	0.000	1.8	4.146	Surcharged
SWC-06	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.841	109.405	0.564	3.7	0.160	0.000	2.4	8.545	Surcharged
SWC-07	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.672	109.404	0.732	6.6	0.207	0.000	2.9	12.442	Surcharged
SWC-08	FSR: 30 years: +0 %: 60 mins: Summer	109.775	108.500	109.402	0.902	7.3	0.255	0.000	4.4	26.050	Surcharged
SWC-09 (FC)	FSR: 30 years: +0 %: 60 mins: Summer	109.750	108.409	109.398	0.989	6.2	0.157	0.000	5.0	26.279	Surcharged
SWC-10	FSR: 30 years: +0 %: 720 mins: Winter	109.850	108.292	108.614	0.322	7.4	0.091	0.000	7.3	137.192	Surcharged
SWC-11	FSR: 30 years: +0 %: 30 mins: Summer	109.650	109.081	109.104	0.023	0.9	0.004	0.000	0.9	1.329	OK
SWC-12	FSR: 30 years: +0 %: 120 mins: Summer	109.650	108.893	109.081	0.188	1.4	0.030	0.000	1.4	4.303	Surcharged
SWC-13	FSR: 30 years: +0 %: 120 mins: Summer	109.500	108.771	109.081	0.310	1.4	0.088	0.000	1.1	4.297	Surcharged
SWC-14	FSR: 30 years: +0 %: 120 mins: Summer	109.600	108.913	109.082	0.169	2.0	0.027	0.000	1.9	7.924	Surcharged
SWC-15	FSR: 30 years: +0 %: 120 mins: Summer	109.550	108.705	109.081	0.376	2.8	0.106	0.000	2.6	22.021	Surcharged
SWC-16	FSR: 30 years: +0 %: 120 mins: Summer	109.725	108.777	109.077	0.300	0.5	0.085	0.000	0.2	0.358	Surcharged
SWC-17	FSR: 30 years: +0 %: 120 mins: Summer	109.700	108.654	109.077	0.423	1.0	0.120	0.000	0.4	1.297	Surcharged
SWC-18	FSR: 30 years: +0 %: 120 mins: Summer	109.725	108.571	109.077	0.506	3.2	0.143	0.000	2.8	25.269	Surcharged
SWC-19 (FC)	FSR: 30 years: +0 %: 120 mins: Summer	109.725	108.521	109.075	0.554	3.0	0.157	0.000	3.0	28.182	Surcharged
SWC-20	FSR: 30 years: +0 %: 30 mins: Summer	109.850	108.888	108.933	0.045	6.6	0.007	0.000	6.5	7.691	OK

SWC-21	FSR: 30 years: +0 %: 720 mins: Winter	109.725	108.329	108.614	0.285	4.6	0.081	0.000	4.6	86.786	Surcharged
SWC-22	FSR: 30 years: +0 %: 720 mins: Winter	109.800	108.439	108.614	0.175	1.9	0.049	0.000	1.9	32.747	Surcharged
SWC-23 (FC)	FSR: 30 years: +0 %: 720 mins: Winter	109.800	108.194	108.613	0.419	2.4	0.119	0.000	2.4	152.655	Surcharged
SWC-24	FSR: 30 years: +0 %: 720 mins: Winter	109.725	108.076	108.116	0.040	2.4	0.006	0.000	2.4	152.506	OK
SWC-25	FSR: 30 years: +0 %: 720 mins: Winter	109.750	107.731	107.771	0.040	2.4	0.006	0.000	2.4	152.392	OK
SWC-26	FSR: 30 years: +0 %: 720 mins: Winter	109.650	107.549	107.588	0.039	2.4	0.000	0.000	2.4	152.392	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:30 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
Attenuation Tank	FSR: 30 years: +0 %: 720 mins: Winter	108.614	108.614	0.357	0.357	13.7	189.794	0.000	0.000	2.4	152.956	55.483	OK
Porous Paving	FSR: 30 years: +0 %: 8640 mins: Winter	109.352	109.352	0.252	0.277	0.1	20.872	0.000	0.000	0.0	3.868	52.235	OK
Porous Paving (1)	FSR: 30 years: +0 %: 10080 mins: Winter	109.352	109.352	0.251	0.277	0.1	24.736	0.000	0.000	0.0	4.558	52.341	OK
Porous Paving (2)	FSR: 30 years: +0 %: 10080 mins: Summer	109.352	109.352	0.248	0.277	0.2	25.219	0.000	0.000	0.0	4.855	52.588	OK
Porous Paving (3)	FSR: 30 years: +0 %: 8640 mins: Winter	109.353	109.353	0.239	0.278	0.2	45.113	0.000	0.000	0.0	4.596	53.182	OK
Porous Paving (4)	FSR: 30 years: +0 %: 8640 mins: Winter	109.352	109.353	0.246	0.278	0.1	31.104	0.000	0.000	0.0	5.889	52.711	OK
Porous Paving (5)	FSR: 30 years: +0 %: 10080 mins: Winter	109.352	109.353	0.240	0.278	0.1	34.764	0.000	0.000	0.0	7.119	53.228	OK
Porous Paving (6)	FSR: 30 years: +0 %: 7200 mins: Summer	109.382	109.382	0.259	0.277	0.1	8.248	0.000	0.000	0.0	2.491	43.928	OK
Porous Paving (7)	FSR: 30 years: +0 %: 10080 mins: Winter	109.357	109.357	0.250	0.277	0.1	20.710	0.000	0.000	0.0	4.986	44.417	OK
Porous Paving (8)	FSR: 30 years: +0 %: 120 mins: Summer	109.081	109.081	0.176	0.201	4.9	18.154	0.000	0.000	2.1	9.823	60.152	OK
Porous Paving (9)	FSR: 30 years: +0 %: 600 mins: Summer	109.102	109.073	0.098	0.093	1.3	7.791	0.000	0.000	0.5	5.829	78.725	OK

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.830
Long. Slope (1:X)	1000.00
Width (m)	10.591
Total Volume (m³)	43.698

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.461
Long. Slope (1:X)	1000.00
Width (m)	11.813
Total Volume (m³)	51.903

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	28.925
Long. Slope (1:X)	1000.00
Width (m)	11.070
Total Volume (m³)	53.191

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	38.740
Long. Slope (1:X)	1000.00
Width (m)	15.000
Total Volume (m³)	96.358

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	31.775
Long. Slope (1:X)	1000.00
Width (m)	12.470
Total Volume (m³)	65.775

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (5)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.775
Depth (m)	0.700
Base Level (m)	109.075
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	37.569
Long. Slope (1:X)	1000.00
Width (m)	11.915
Total Volume (m³)	74.328

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (6)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.725
Depth (m)	0.620
Base Level (m)	109.105
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	17.974
Long. Slope (1:X)	1000.00
Width (m)	5.717
Total Volume (m³)	14.710

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (7)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.700
Depth (m)	0.620
Base Level (m)	109.080
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	26.602
Long. Slope (1:X)	1000.00
Width (m)	9.846
Total Volume (m³)	37.259

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.200
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (8)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.500
Depth (m)	0.620
Base Level (m)	108.880
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	25.225
Long. Slope (1:X)	1000.00
Width (m)	12.721
Total Volume (m³)	45.558

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

Porous Paving (9)

Type : Porous Paving

Dimensions

Exceedance Level (m)	109.600
Depth (m)	0.620
Base Level (m)	108.980
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	5.0
Porosity (%)	30
Length (m)	24.111
Long. Slope (1:X)	1000.00
Width (m)	10.685
Total Volume (m³)	36.623

Under Drain

Height Above Base (m)	0.075
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	5.0

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Attenuation Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	109.800
Depth (m)	0.800
Base Level (m)	108.257
Number of Crates Long	32
Number of Crates Wide	35
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m^3)	426.343

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial	09/09/2023		
1:1 Years Storm Event + 0% Climate	Designed by:	Checked by:	Approved By:
3.4 l/s Restricted Discharge Rate_RevB	M.H	S.L	S.L
Report Details:	Kemp House::		
Type: Inflow Summary	124 City Road		
Storm Phase: Phase	London		
	EC1V 2NX		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (1)	Porous Paving (1)		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	Porous Paving (2)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (3)	Porous Paving (3)		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (4)	Porous Paving (4)		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (5)	Porous Paving (5)		Time of Concentration	0.045	100	0	100	0.045
Catchment Area (6)	Porous Paving (6)		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (7)	Porous Paving (7)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (8)	Porous Paving (8)		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (9)	Porous Paving (9)		Time of Concentration	0.026	100	0	100	0.026
Catchment Area (10)	SWC-08		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (11)	SWC-07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (12)	SWC-10		Time of Concentration	0.109	100	0	100	0.109
Catchment Area (13)	SWC-22		Time of Concentration	0.069	100	0	100	0.069
Catchment Area (14)	SWC-20		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (15)	SWC-21		Time of Concentration	0.024	100	0	100	0.024
Green Roof	SWC-01		Green Roof	0.040		0		0.040
Green Roof (1)	SWC-03		Green Roof	0.040		0		0.040
Green Roof (2)	SWC-04		Green Roof	0.021		0		0.021
Green Roof (3)	SWC-09 (FC)		Green Roof	0.021		0		0.021
Green Roof (4)	SWC-05		Green Roof	0.021		0		0.021
Green Roof (5)	SWC-06		Green Roof	0.021		0		0.021
Green Roof (6)	SWC-07		Green Roof	0.027		0		0.027
Green Roof (7)	SWC-08		Green Roof	0.030		0		0.030
Green Roof (8)	SWC-21		Green Roof	0.016		0		0.016
Green Roof (9)	SWC-19 (FC)		Green Roof	0.016		0		0.016
Green Roof (10)	SWC-21		Green Roof	0.025		0		0.025
Green Roof (11)	SWC-18		Green Roof	0.019		0		0.019
Green Roof (12)	SWC-20		Green Roof	0.037		0		0.037
Green Roof (13)	SWC-14		Green Roof	0.025		0		0.025
Green Roof (14)	SWC-12		Green Roof	0.008		0		0.008
Green Roof (15)	SWC-11		Green Roof	0.010		0		0.010
TOTAL		**0.0**		**0.932**				**0.932**

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: Rainfall Analysis Criteria	Kemp House:: 124 City Road London EC1V 2NX		

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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	19.5
Ratio R	0.428
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
1.0	0.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
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
7200	14400
8640	17280
10080	20160

C2998- The Rise_RevB:	Date:		
Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Title: UK and Ireland Rural Runoff Calculator	Kemp House:: 124 City Road London EC1V 2NX		

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.932
SAAR (mm)	611.0
Soil	0.37
Region	Region 6
Urban	0.31
Return Period (years)	100

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 100 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 6	2.3	4.0	10.0	3.4	7.9	10.0

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Junctions Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SWC-01	FSR: 1 years: +0 %: 120 mins: Summer	109.775	109.039	109.132	0.093	1.3	0.026	0.000	1.3	3.431	OK
SWC-02	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.878	109.132	0.254	1.3	0.072	0.000	1.3	3.456	Surcharged
SWC-03	FSR: 1 years: +0 %: 120 mins: Summer	109.800	109.033	109.131	0.098	1.3	0.028	0.000	1.3	3.360	OK
SWC-04	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.717	109.131	0.414	3.3	0.117	0.000	2.4	8.546	Surcharged
SWC-05	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.989	109.129	0.140	0.7	0.040	0.000	0.7	1.752	OK
SWC-06	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.841	109.129	0.288	1.4	0.082	0.000	1.4	3.612	Surcharged
SWC-07	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.672	109.129	0.457	2.6	0.129	0.000	2.3	7.062	Surcharged
SWC-08	FSR: 1 years: +0 %: 120 mins: Summer	109.775	108.500	109.127	0.627	6.2	0.177	0.000	3.8	19.060	Surcharged
SWC-09 (FC)	FSR: 1 years: +0 %: 120 mins: Summer	109.750	108.409	109.120	0.711	4.3	0.113	0.000	4.2	20.655	Surcharged
SWC-10	FSR: 1 years: +0 %: 15 mins: Summer	109.850	108.292	108.385	0.093	18.9	0.026	0.000	18.6	8.685	OK
SWC-11	FSR: 1 years: +0 %: 120 mins: Summer	109.650	109.081	109.096	0.015	0.3	0.002	0.000	0.3	0.828	OK
SWC-12	FSR: 1 years: +0 %: 60 mins: Summer	109.650	108.893	108.913	0.020	0.6	0.003	0.000	0.6	1.124	OK
SWC-13	FSR: 1 years: +0 %: 60 mins: Summer	109.500	108.771	108.792	0.021	0.6	0.006	0.000	0.6	1.120	OK
SWC-14	FSR: 1 years: +0 %: 60 mins: Summer	109.600	108.913	108.937	0.024	0.9	0.004	0.000	0.9	1.558	OK
SWC-15	FSR: 1 years: +0 %: 120 mins: Summer	109.550	108.705	108.761	0.056	1.4	0.016	0.000	1.4	3.617	OK
SWC-16	FSR: 1 years: +0 %: 10080 mins: Summer	109.725	108.777	108.779	0.002	0.0	0.001	0.000	0.0	0.335	OK
SWC-17	FSR: 1 years: +0 %: 120 mins: Summer	109.700	108.654	108.759	0.105	0.3	0.030	0.000	0.2	0.193	OK
SWC-18	FSR: 1 years: +0 %: 120 mins: Summer	109.725	108.571	108.759	0.188	2.1	0.053	0.000	1.5	5.428	Surcharged
SWC-19 (FC)	FSR: 1 years: +0 %: 120 mins: Summer	109.725	108.521	108.759	0.238	1.9	0.067	0.000	1.9	6.603	Surcharged
SWC-20	FSR: 1 years: +0 %: 120 mins: Summer	109.850	108.888	108.913	0.025	2.0	0.004	0.000	2.0	4.794	OK
SWC-21	FSR: 1 years: +0 %: 15 mins: Summer	109.725	108.329	108.396	0.067	5.8	0.019	0.000	5.4	2.643	OK
SWC-22	FSR: 1 years: +0 %: 15 mins: Summer	109.800	108.439	108.497	0.058	11.0	0.016	0.000	10.9	4.780	OK
SWC-23 (FC)	FSR: 1 years: +0 %: 480 mins: Winter	109.800	108.194	108.379	0.185	1.5	0.052	0.000	1.5	61.926	Surcharged
SWC-24	FSR: 1 years: +0 %: 480 mins: Winter	109.725	108.076	108.108	0.032	1.5	0.005	0.000	1.5	61.814	OK
SWC-25	FSR: 1 years: +0 %: 480 mins: Winter	109.750	107.731	107.763	0.032	1.5	0.005	0.000	1.5	61.732	OK
SWC-26	FSR: 1 years: +0 %: 480 mins: Winter	109.650	107.549	107.580	0.031	1.5	0.000	0.000	1.5	61.732	OK

C2998- The Rise_RevB: Proposed New 8 buildings for light industrial 1:1 Years Storm Event + 0% Climate 3.4 l/s Restricted Discharge Rate_RevB	Date: 09/09/2023		
	Designed by: M.H	Checked by: S.L	Approved By: S.L
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Kemp House:: 124 City Road London EC1V 2NX		

Critical Storm Per Item: Rank By: Max. Avg. Depth

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)	Percentage Available (%)	Status
Attenuation Tank	FSR: 1 years: +0 %: 480 mins: Winter	108.380	108.380	0.123	0.123	8.7	65.342	0.000	0.000	1.5	62.060	84.674	OK
Porous Paving	FSR: 1 years: +0 %: 10080 mins: Summer	109.351	109.351	0.251	0.276	0.1	20.804	0.000	0.000	0.0	0.499	52.390	OK
Porous Paving (1)	FSR: 1 years: +0 %: 10080 mins: Summer	109.328	109.328	0.227	0.253	0.1	22.451	0.000	0.000	0.0	0.000	56.744	OK
Porous Paving (2)	FSR: 1 years: +0 %: 10080 mins: Winter	109.323	109.324	0.219	0.249	0.1	22.480	0.000	0.000	0.0	0.000	57.738	OK
Porous Paving (3)	FSR: 1 years: +0 %: 10080 mins: Summer	109.309	109.309	0.195	0.234	0.2	37.424	0.000	0.000	0.0	0.000	61.162	OK
Porous Paving (4)	FSR: 1 years: +0 %: 10080 mins: Summer	109.351	109.351	0.244	0.276	0.1	30.927	0.000	0.000	0.0	0.154	52.980	OK
Porous Paving (5)	FSR: 1 years: +0 %: 10080 mins: Winter	109.335	109.336	0.223	0.261	0.1	32.495	0.000	0.000	0.0	0.000	56.282	OK
Porous Paving (6)	FSR: 1 years: +0 %: 10080 mins: Summer	109.381	109.381	0.258	0.276	0.0	8.230	0.000	0.000	0.0	0.339	44.052	OK
Porous Paving (7)	FSR: 1 years: +0 %: 10080 mins: Summer	109.356	109.356	0.249	0.276	0.1	20.640	0.000	0.000	0.0	0.547	44.603	OK
Porous Paving (8)	FSR: 1 years: +0 %: 7200 mins: Summer	108.987	108.959	0.082	0.079	0.1	8.054	0.000	0.000	0.1	5.246	82.322	OK
Porous Paving (9)	FSR: 1 years: +0 %: 8640 mins: Summer	109.086	109.059	0.081	0.079	0.1	6.431	0.000	0.000	0.1	5.314	82.441	OK