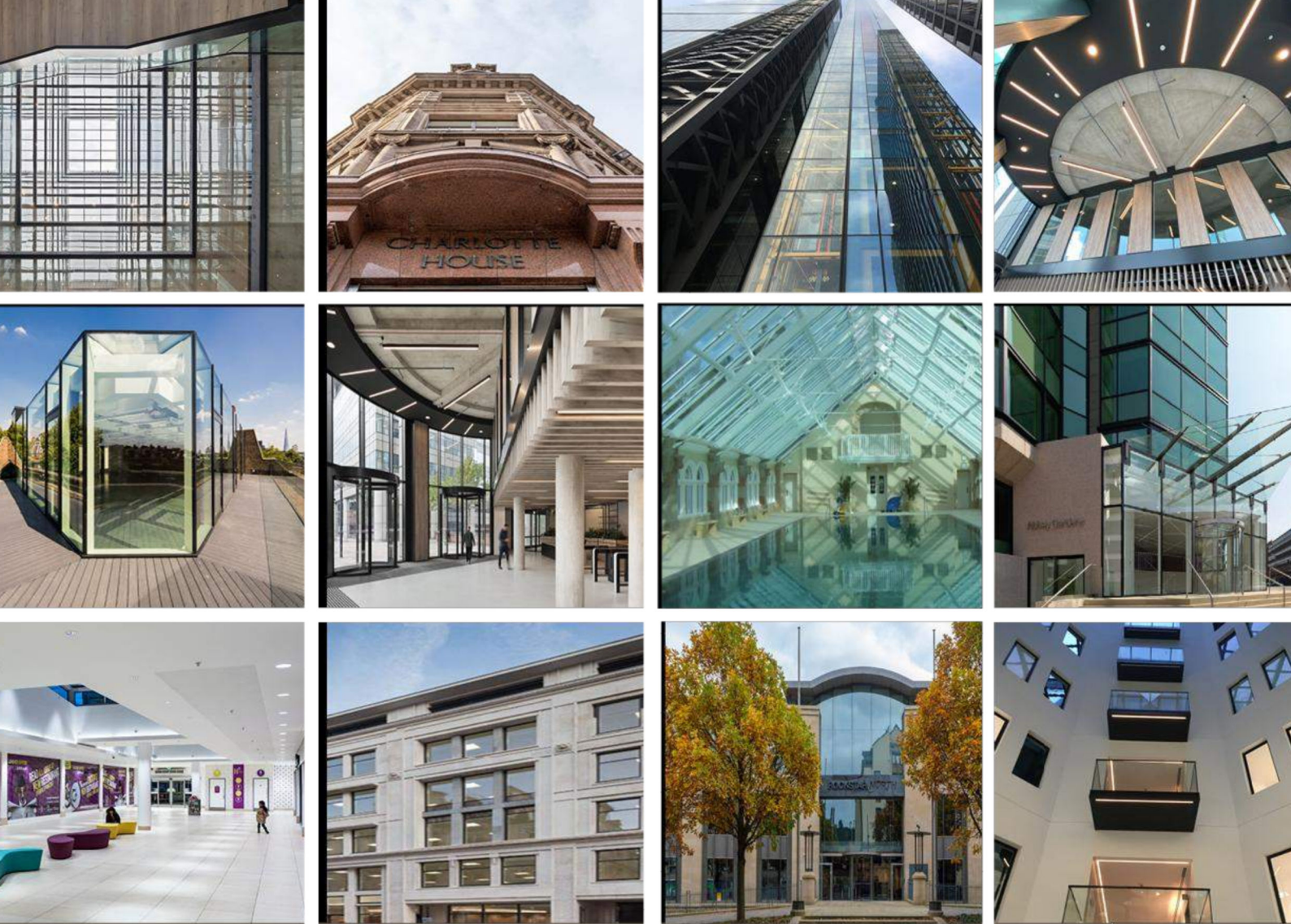




Drainage Strategy

Shinfield Community Church

Shinfield Community Church

Date of issue: 11/06/2025

Document reference: 2311334-ACS-XX-XX-T-C-RP01

Revision: C01

ACIES
an RSK company

Document Control

Title:	Drainage Strategy
Client:	Shinfield Community Church
Project:	Shinfield Community Church
Issue Date:	11/06/2025
Issuing Office:	Birmingham, UK

Authorised by:	Brian McClement	Senior Engineer	Date:	06.06.2025
Authorised by:	Matthew Foster	Technical Reviewer	Date:	06.06.2025

Lead

Author: Brian McClement

Signature

Date: 11.06.2025

Digitally signed by Brian McClement
DN: C=GB,
E=brianmcclement@aciesgroup.co.uk,
OU=Acies, CN=Brian McClement
Reason: I am the author of this document
Date: 2025.06.11 12:20:20+01'00'

Project

Manager: Brian McClement

Signature

Date: 11.06.2025

Digitally signed by Brian McClement
DN: C=GB,
E=brianmcclement@aciesgroup.co.uk,
OU=Acies, CN=Brian McClement
Reason: I am the author of this document
Date: 2025.06.11 12:20:49+01'00'

Technical

Reviewer: Matthew Foster

Signature

Date: 11.06.2025

Digitally signed by Matt Foster
DN: C=GB,
E=matthewfoster@aciesgroup.co.uk,
OU=Acies, CN=Matt Foster
Reason: I am the author of this document
Date: 2025.06.11 12:34:53+01'00'

Document Control	2
1. Introduction.....	4
2. Existing Site	4
2.1 Site Location	4
3. Proposed Site.....	6
4. Drainage Policy & Consultation.....	7
4.1 Drainage Authority	7
5. Drainage Strategy – Surface Water	7
5.1 Surface Water Drainage	7
5.2 Sustainable Drainage	8
5.3 Drainage Maintenance Plan	9
6. Drainage Strategy – Foul Sewerage	9
7. Summary	10

Appendix A – Existing Information

Appendix B – Proposed Site Plan

Appendix C – Surface Water Drainage Calculations

Appendix D – Foul Water Drainage Calculations

Appendix E – Proposed Drainage Layout

Appendix F – Drainage Maintenance Plan

1. Introduction

Acies Civils and Structural Limited has been commissioned by the Shinfield Community Church, Limited to prepare a Drainage Strategy for the redevelopment of the existing Shinfield Community Church, 1 Fairmead Road, Reading. It is proposed to partially demolish the existing building to erect a new portalised church building with associated parking and landscaping.

Policy CC09 of the MDD Local Plan requires consideration of flood risk from historic flooding and Policy CC10 requires sustainable drainage methods and the minimisation of surface water flow. However preplanning consultation confirmed the site and access thereto is located within Flood Zone 1 and the proposal represents no additional flood risk or vulnerability. Given the limited loss of permeable ground, the proposal is found as acceptable in terms of Policy CC09.

2. Existing Site

2.1 Site Location

The development site is situated on the corner of Hollow Lane and Fairmead Road within the town of Shinfield, Reading. The British National Grid Reference of the site is SU 734680, with a post code of RG2 9DL. The site comprises 2 buildings and a car park area belonging to Shinfield Community Church. Both buildings are internally connected. The site has an approximate area of 0.1322ha, with the buildings occupying 20% of this, the gravel car park occupies 50% and the rear soft landscaping occupying 30%.

Target surveys topographical survey drawing of the existing site, drawing number 5162/1 can be found in Appendix A.



FIGURE 1: SITE LOCATION.

SOURCE: ORDNANCE SURVEY



FIGURE 2: SITE BOUNDARY

SOURCE: GOOGLE MAPS

3. Proposed Site

The proposed development consists of the partial demolition of the existing buildings that form the office accommodation and kitchen areas and a new self-contained church building and link connecting to the refurbished hall building. The works include the creation of soft landscaped areas and the resurfacing of parking spaces to the front of the property.

JBKS Architects' site plan, SHIN 06-901 Pre Planning Issue REV 00, issued April 2024, can be found in Appendix B.

4. Drainage Policy & Consultation

4.1 Drainage Authority

Water and sewerage services in the area are provided by Thames Water, and as such any connections to their adopted network will require their approval.

5. Drainage Strategy – Surface Water

5.1 Surface Water Drainage

Generally, the aim should be to discharge surface water run-off as high up the following hierarchy of drainage options as reasonably practicable.

- Into the ground (infiltration)
- To a surface water body
- To a surface water sewer, highway drain, or other drainage systems
- To a combined sewer

The development is located on a brownfield site which has a gravel, free draining car park to the front and the existing building roof draining to the existing sewers along Farmead Road. Given the car park to the front is not contributing to the volume draining into the system, it is proposed to form the car park with porous paving and porous asphalt and thus not included within our consideration.

There are no nearby watercourses which would provide a suitable discharge location for the proposed surface water on site.

There is an existing adopted combined sewer located within the rear soft landscaping area of the church site. This combined sewer turns at ninety degrees to head east along Fairmead Road. CCTV survey confirms an existing un-adopted surface water sewer which the property connects into and later discharges into this combined sewer. It is proposed to utilise this existing connection if possible.

The Greenfield run-off values have been calculated below based on the site area of approximately 0.05ha, using FSR data. The calculated Greenfield peak flow runoff rates can be found below in Table 2.

Return Period	Qbar	1:1 Year	1:30 Year	1:100 Year

Greenfield Runoff Rate (l/s)	0.22	0.19	0.51	0.82
Brownfield Runoff Rate (l/s)	7.5	9.6	17.5	22.0

Table 2. Greenfield/Brownfield runoff rates

The QBar greenfield runoff rate for the development is too low to feasibly discharge surface water offsite at, as the orifice size required would be far too small and would lead to blockage and potential flooding; as such it is proposed to discharge flows offsite at a practical minimum rate of 2l/s in up to a 1%AEP + 40% climate change event. This gives a betterment of 91% over the pre-development runoff during a 1% AEP event.

In order to restrict flows to this rate it is proposed to provide 30.875m³ of geocellular attenuation beneath soft landscaped area to east of the proposed building, with a vortex flow control device after this to restrict flows.

The geocellular attenuation is to be supplemented by filter drains and linear rain gardens bordering the rear paving zone. These have not been designed to provide additional attenuation, but will provide interception of runoff, and slow flows into the system.

Surface water drainage calculations utilising FSR Data for the development can be found in Appendix F.

The proposed drainage layout can be found in Appendix G.

5.2 Sustainable Drainage

There's limited space on site to introduce widespread above ground SuDS features across the site such as ponds and swales, however there are opportunities to introduce smaller items in some sections of the site.

To the rear of the property, linear rain gardens and filter trenches are proposed to drain the paving and roof drainage before discharging into the geocellular attenuation beneath the soft landscaping. These will provide amenity and biodiversity benefits, as well as interception of runoff and a small amount of attenuation.

5.3 Drainage Maintenance Plan

All drainage on site is to remain private, including all sustainable drainage features, and as such are to be owned and maintained by the client.

A proposed drainage maintenance plan for the property can be found in Appendix H. This is to be updated as the development progresses and included within the O&M manual for the final project.

6. Drainage Strategy – Foul Sewerage

The foul drainage on site is assumed to utilise an existing connection into the adopted Thames Water combined sewer to the rear of the property, and this is proposed to be re-utilised if possible, following investigation into the plot's existing foul drainage.

Existing guidance publication "Flow and Loads – 3" by British Water do not give rates for places of worship and as such we have to compare the actual discharge rates as noted in BS EN 12056.

The existing facilities include 3 WC, 3 WHB and 3 Kitchen sinks resulting in $DU = 9.1$, but assuming use of appliances of $k = 0.5$ (intermittent dwellings guesthouse /office) results in flow of 1.5l/s .

The new scheme facilities are proposed to be 5 WC, 5 WHB and one Kitchen sink resulting in $DU = 13.3$, but assuming use of appliances of $k = 0.5$ (intermittent dwellings guesthouse /office) results in flow of 1.82l/s . Whilst this is an increase in foul flow the 91% betterment of the SW flow more than compensates for this.

The proposed drainage layout can be found in Appendix G.

7. Summary

The development site is situated on the corner of Hollow Lane and Fairmead Road within the town of Shinfield , Reading. The site has an approximate area of 0.1322ha, with the buildings occupying 20% of this, the gravel car park occupies 50% and the rear soft landscaping occupying 30% . The proposed development consists of the partial demolition of the existing buildings that form the office accommodation and kitchen areas and a new self-contained church building and link connecting to the refurbished hall building. The works include the creation of soft landscaped areas and the resurfacing of parking spaces to the front of the property.

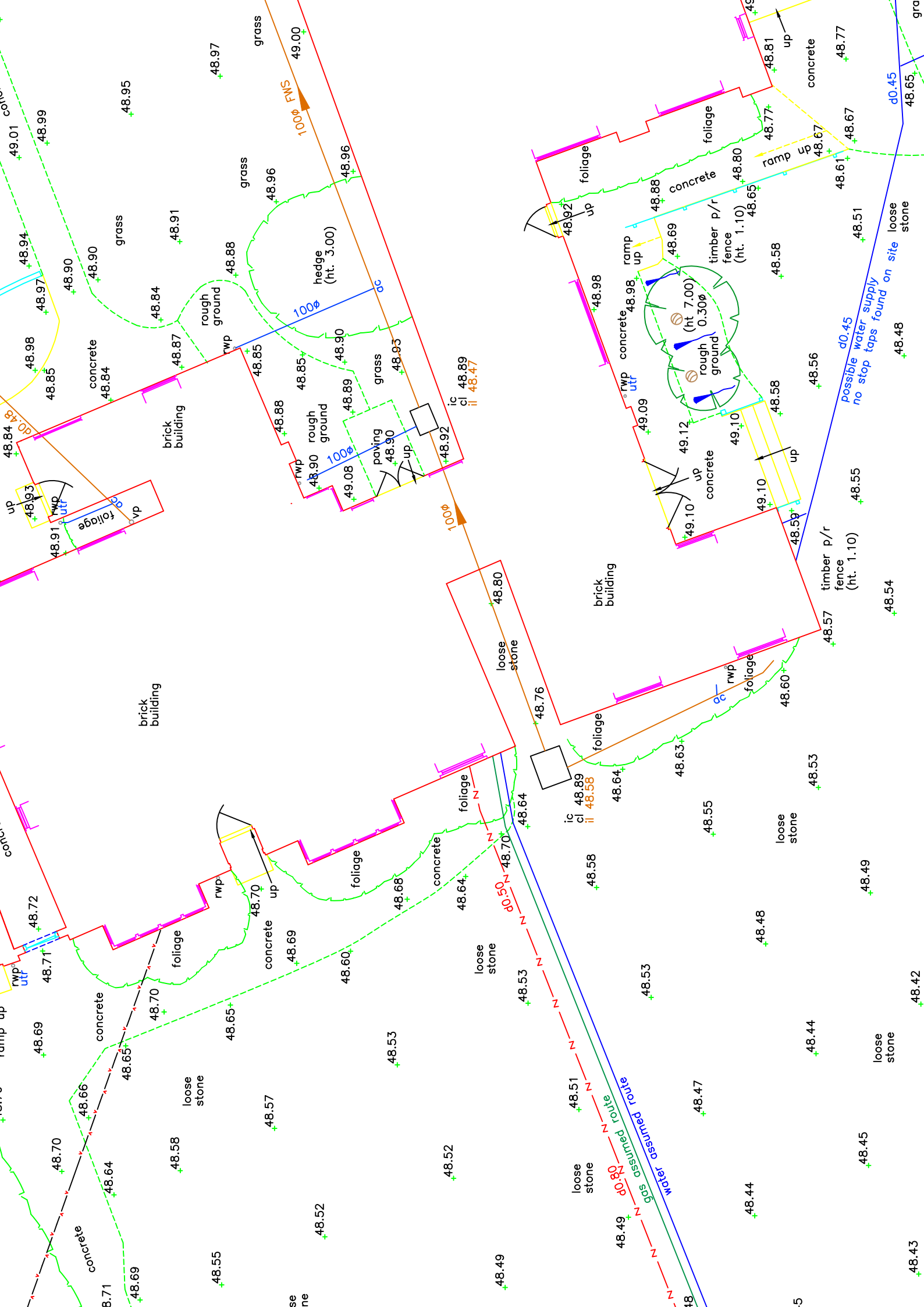
It is proposed to discharge flows offsite at a restricted rate of 2l/s in up to a 1%AEP + 40% climate change event; this flow rate is in line with the local authority guidance.

In order to restrict flows to this rate it is proposed to provide 30.875m³ of geocellular attenuation beneath the soft landscaping to the east of the property, with a vortex flow control after this to restrict flows. To the rear of the property linear rain gardens feeding into underground filter drains are proposed to drain the roof and rear paving areas before discharging into the geocellular attenuation beneath the soft landscaping.

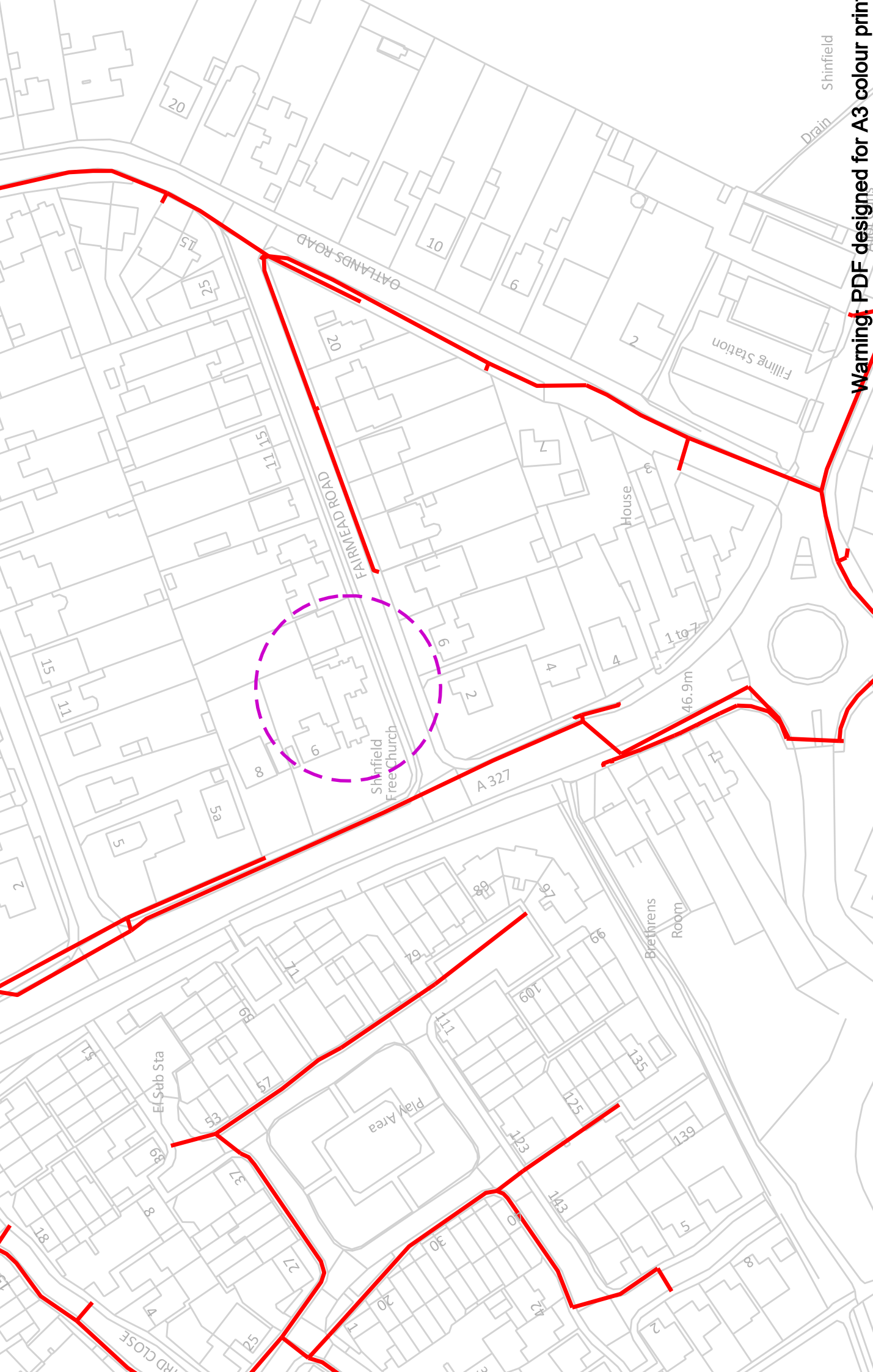
The foul drainage on site is assumed to utilise an existing connection into the adopted Thames Water combined sewer to the east of the property, and this is proposed to be re-utilised if possible, following investigation into the plot's existing foul drainage.

Appendix A – Existing Information

- A.1 Topographical Survey – Target Surveys 5162/1
- A.2 Utilities Plans







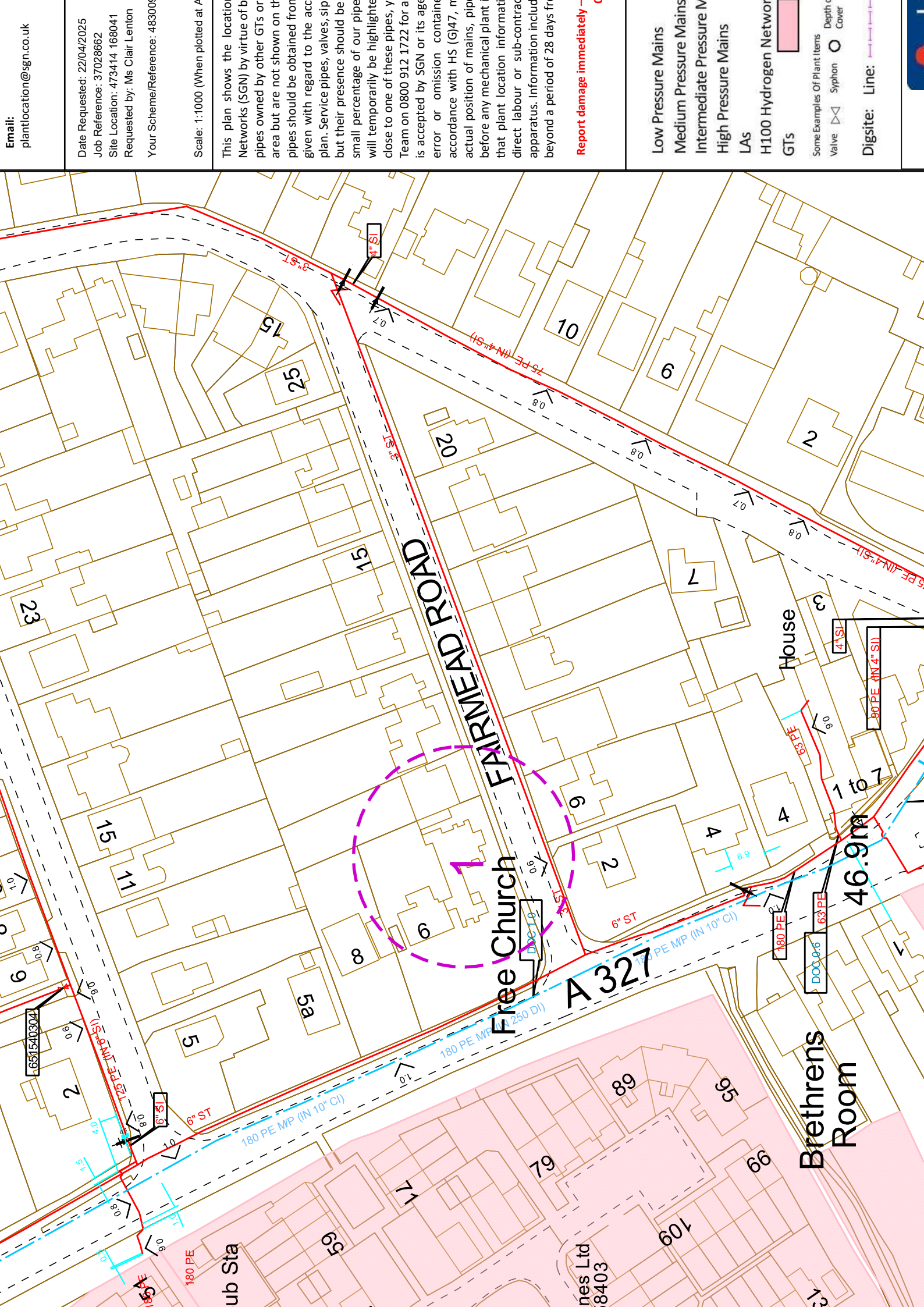
Warning: PDF designed for A3 colour print

The quality and accuracy of any print will depend on your printer, your computer and its print settings. Measurements scaled from this plan may not match measurements between the same points on the ground.

100 m

Dig Sites Area: Line:

Information on this document is proprietary and shall not be used, copied, reproduced or disclosed in whole or in part without written consent of Gigaclear Ltd. The location of Gigaclear's apparatus is indicated on the plan for general guidance but the exact location may vary from that shown.



Email: plantlocation@sgn.co.uk

Date Requested: 22/04/2025
Job Reference: 37028662
Site Location: 473414 168041
Requested by: Ms Clair Lenton
Your Scheme/Reference: 483000

Scale: 1:1000 (When plotted at A

This plan shows the location of
Networks (SGN) by virtue of b
pipes owned by other GTs or
area but are not shown on th
pipes should be obtained from
given with regard to the acc
plan. Service pipes, valves, sip
but their presence should be
small percentage of our pipe
will temporarily be highlighte
close to one of these pipes, y
Team on 0800 912 1722 for a
is accepted by SGN or its age
error or omission containin
accordance with HS (G47, m
actual position of mains, pip
before any mechanical plant
that plant location informati
direct labour or sub-contract
apparatus. Information includ
beyond a period of 28 days fr

Report damage immediately -

Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure M
High Pressure Mains
LAS
H1000 Hydrogen Network
GTs

Some Examples Of Plant Items
Valve
Depth
Cover

Digsite: Line:

LEGEND

EXISTING PLANT

— EXISTING PLANT

Head Office
CityFibre Holdings Ltd
15 Bedford Street,
London,
WC2E 9HE

Tel: 0845 293 0774
Web: www.cityfibre.com

Asset Office
CityFibre Holdings Ltd,
Rutherford House,
Birchwood,
Warrington,
WA3 6ZH
Email: asset.team@cityfibre.co.uk

Disclaimer:

Information shown on this plan is for general guidance only. No warranty is made as to its accuracy. This plan must not be solely relied upon in the event of excavation or other works being carried out in the vicinity of Cityfibre plant. No liability of any kind is accepted by Cityfibre, its agents or servants for any error, omission, discrepancy or deviation. This information is valid for the date printed.

Project

Plant Enquiry

Drawing

Existing Plant

Drawn by:

smallworld

Date: 22/04/2025

Drawing No.

CFH EP 000001

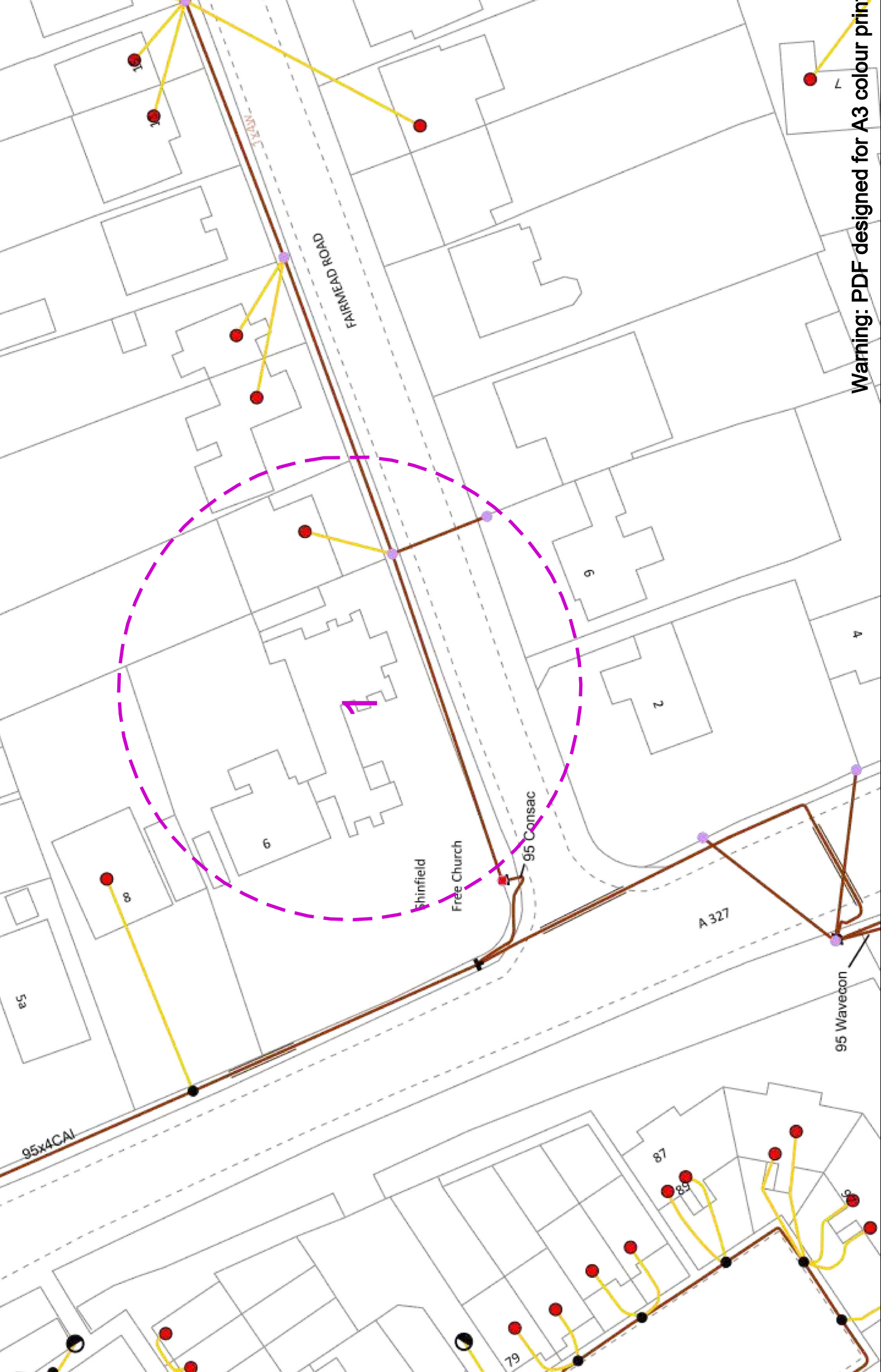
Revision

001

Scale: 1:2500

A4





WARNING
may have been subsequent alteration to the surface levels. Trial holes must be undertaken to

50 m

Dig Sites Area: Line:

Legend

- Service Cable
- LV Mains

Distribution Structures (Electric)

- Pole, Existing Location
- Pole, Existing Location - Single

Voltages (V)

- LV (230V Mains) and LV (230V Mains) - Single

Warning: PDF designed for A3 colour print



Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the "Affected Postcodes.pdf", which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2025 Ordnance Survey AC00000818557.

utilities@geocore.co.uk

4830093

Duct, Trench

Chamber

Cabinet

Asset Location Search



Property Searches

Geocore Site Investigations
GEOCORE SITE INVESTIGATIONS, T
KIRKLEATHAM
TS10 5SG

Search address supplied 4
Fairmead Road
Shinfield
Reading
RG2 9DL

Your reference 4830093

Our reference ALS/ALS Standard/2025_5152213

Search date 22 April 2025

Keeping you up-to-date

We have a new website and email address

Website URL: thameswater.co.uk/propertysearches

Email address: property.searches@thameswater.co.uk

Please do get in contact with us if you have any questions.



Thames Water Utilities Ltd
Property Searches,
Clearwater Court, Vastern Road, Reading RG1 8DB



property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches



0800 009 4540

Search address supplied: 4, Fairmead Road, Shinfield, Reading, RG2 9DL

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position and size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the contact details below:

Thames Water Utilities Ltd
Property Searches
Clearwater Court
Vastern Road
Reading
RG1 8DB

Email: property.searches@thameswater.co.uk

Web: thameswater.co.uk/propertysearches

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority. Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners. The public sewer map relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus. The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies. For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

Asset Location Search



Property Searches

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. You can do this by emailing customer.feedback@thameswater.co.uk with the email subject header 'Enquiry – TWOSA', along with details of the request.

If you have any questions regarding sewer connections, budget estimates, diversions or building over issues please direct them to our service desk which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

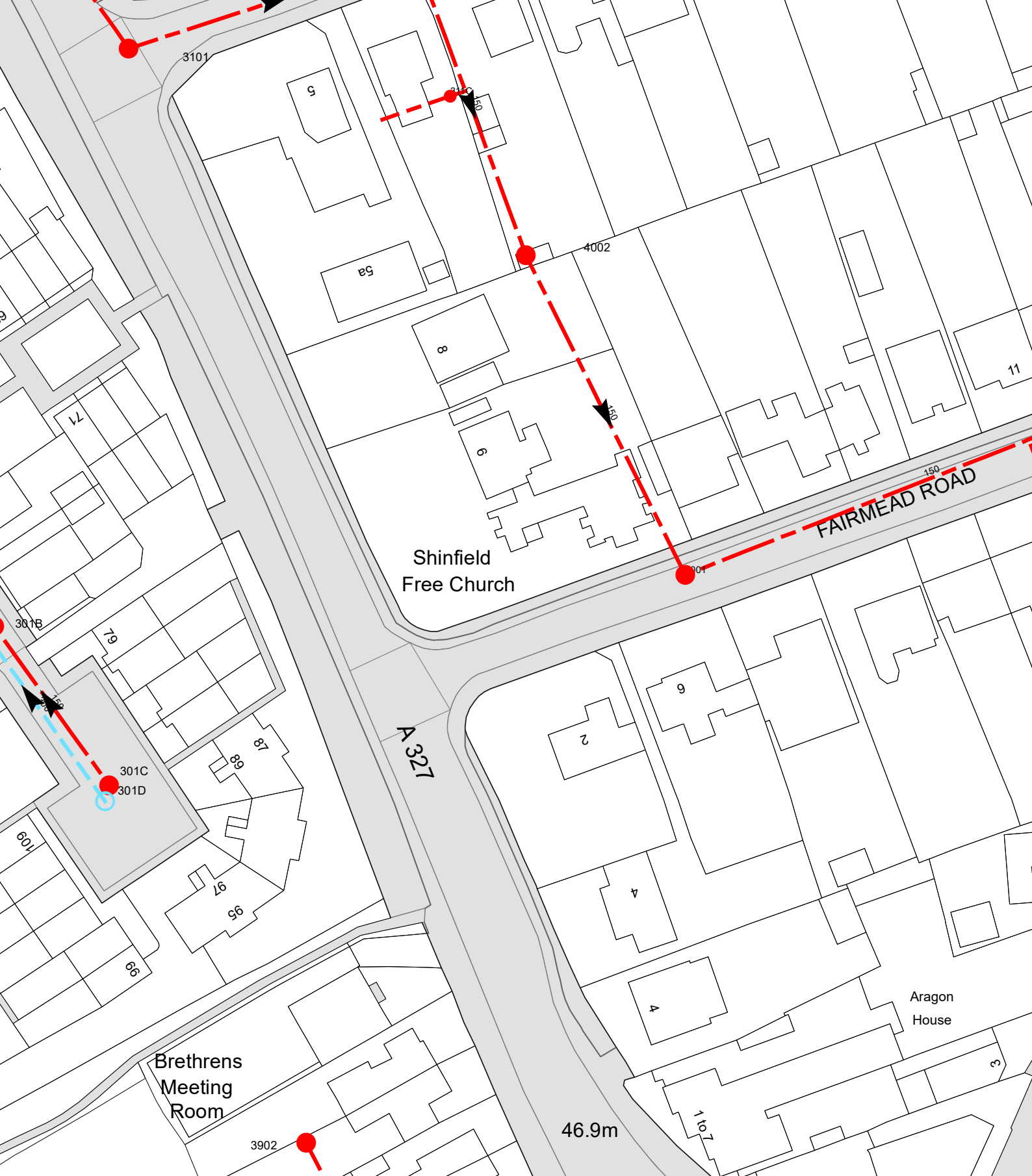
Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk



ay area is 200 m and the centre of the map is located at OS coordinates 473402,168043

atus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken

ce Survey Map (2024) with the Sanction of the controller of H.M. Stationery Office, License no. AC0000849556 Crown Copyright Reser

501A	n/a	n/a
401D	n/a	n/a
311A	n/a	n/a
3101	49.89	48.92
301E	50.88	49.81
311B	n/a	n/a
301A	49.2	47.33
301B	49.11	46.88
3902	48.24	47.18
391A	n/a	n/a
301D	48.78	47.57
301C	48.79	47.15

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.



Asset Location Search - Sewer Key

Public Sewer Types (Operated and maintained by Thames Water)

Foul Sewer: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

Surface Water Sewer: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

Combined Sewer: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

Storm Sewer

Foul Trunk Sewer

Combined Trunk Sewer

Surface Water Rising Main

Vacuum

Vent Pipe

Gallery

Other Sewer Types (Not operated and maintained by Thames Water)

Sewer

Proposed

Content of this drainage network is currently unknown

Culverted Watercourse

Decommissioned Sewer

Ownership of this drainage network is currently unknown

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plan are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

Air Valve

Dam Chase

Filling

Meter

Vent

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

Ancillary

Control Valve

Weir

Drop Pipe

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

Inlet

Undefined End

Outfall

Other Symbols

Symbols used on maps which do not fall under other general categories.

Change of Characteristic Indicator

Invert Level

Public / Private Pumping Station

Summit

Areas

Lines denoting areas of underground surveys, etc.

Agreement

Chamber

Operational Site

Ducts or Crossings

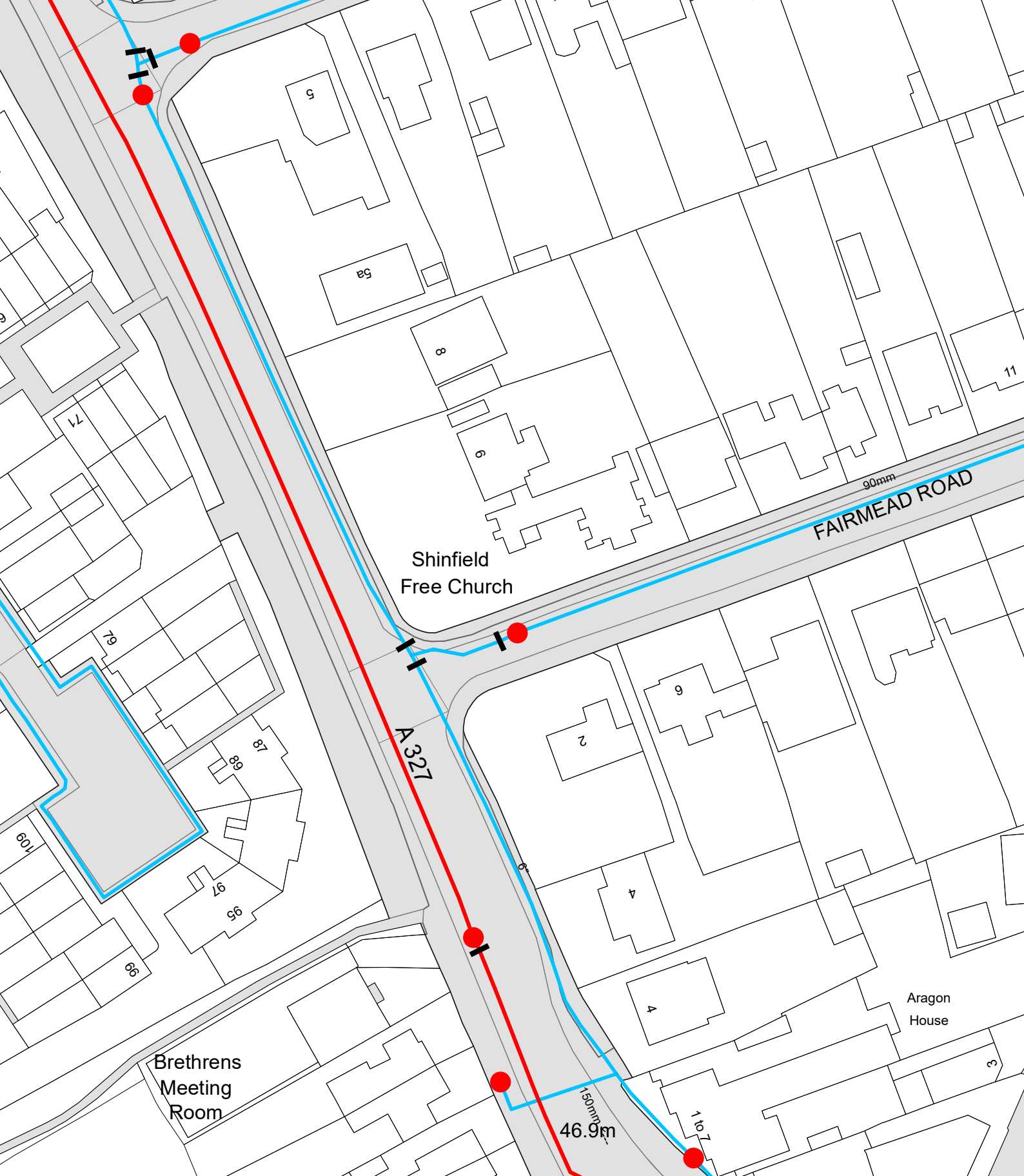
Casement

Ducts may contain high voltage cables. Please check with Thames Water.

Conduit Bridge

Subway

Tunnel



played area is 200 m and the centre of the map is located at OS coordinates 473402, 168043.

atus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken

urvey Map (2024) with the Sanction of the controller of H.M. Stationery Office, License no. AC0000849556 Crown Copyright Reserved.



Asset Location Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

4"  **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16"  **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY  **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE  **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED  **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

 **Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

 **Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

 General Purpose Valve

 Air Valve

 Pressure Control Valve

 Customer Valve

Hydrants

 Single Hydrant

Meters

 Meter

End Items

Symbol indicating what happens at the end of a water main.

 Blank Flange

 Capped End

 Emptying Pit

 Undefined End

 Manifold

 Customer Supply

 Fire Supply

Operational Sites

 Booster Station

 Other

 Other (Proposed)

 Pumping Station

 Service Reservoir

 Shaft Inspection

 Treatment Works

 Unknown

 Water Tower

Other Symbols

 Data Logger

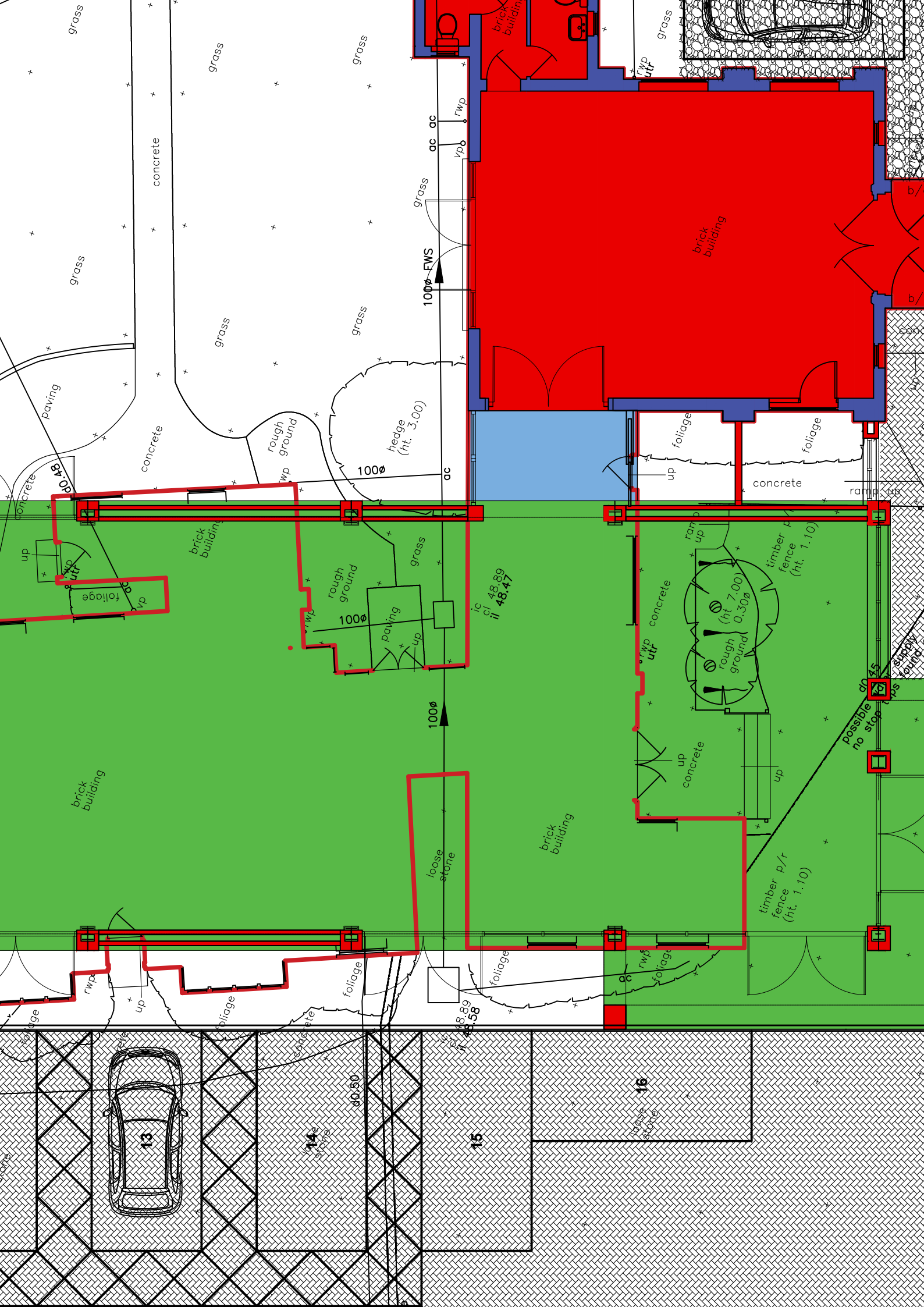
 Casement: Ducts may contain high voltage cables. Please check with Thames Water.

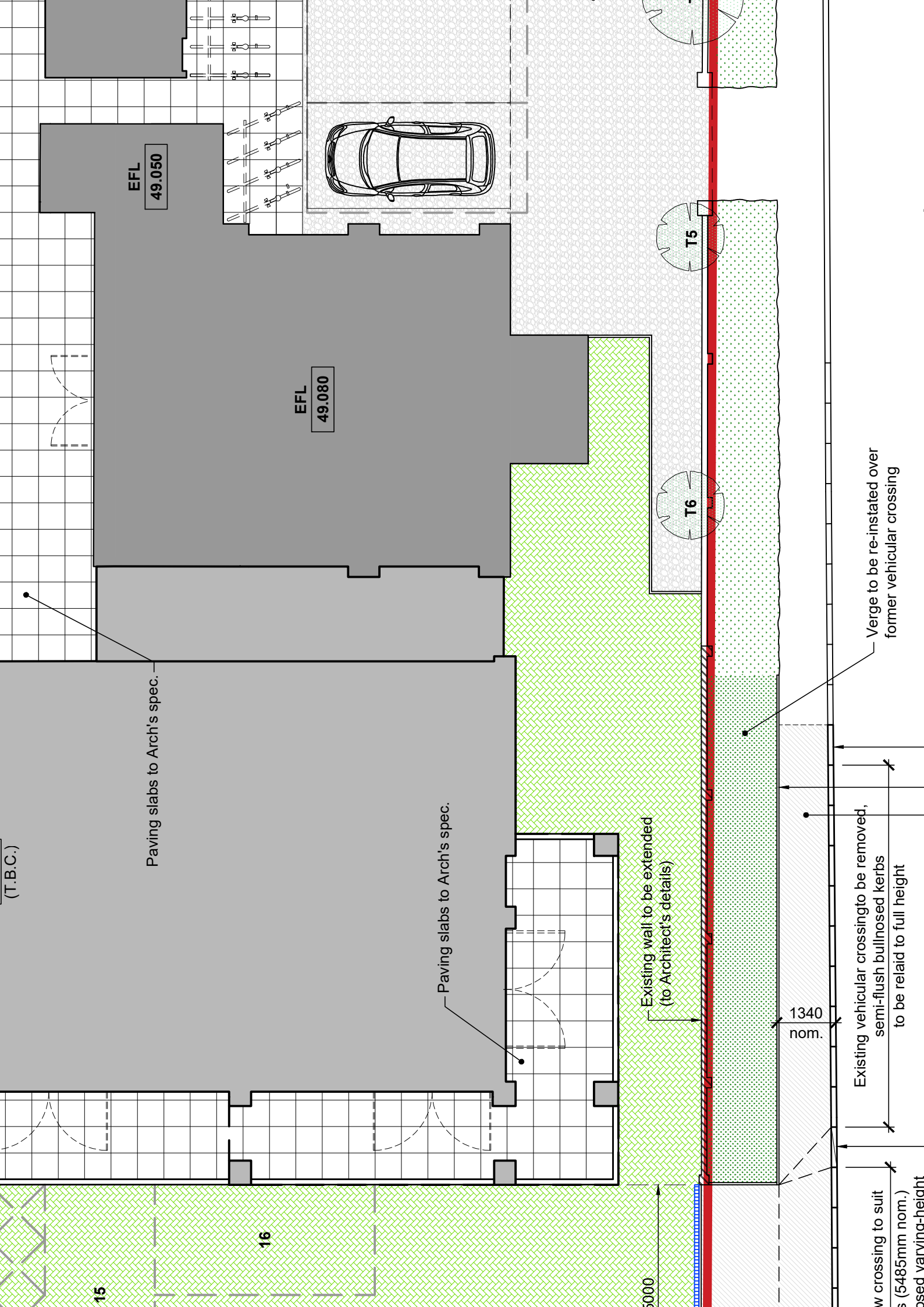
Other Water Pipes (Not Operated or Maintained by Thames Water)

 **Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

 **Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Appendix B – Proposed Site Plan





Appendix C – Surface Water Drainage Calculations

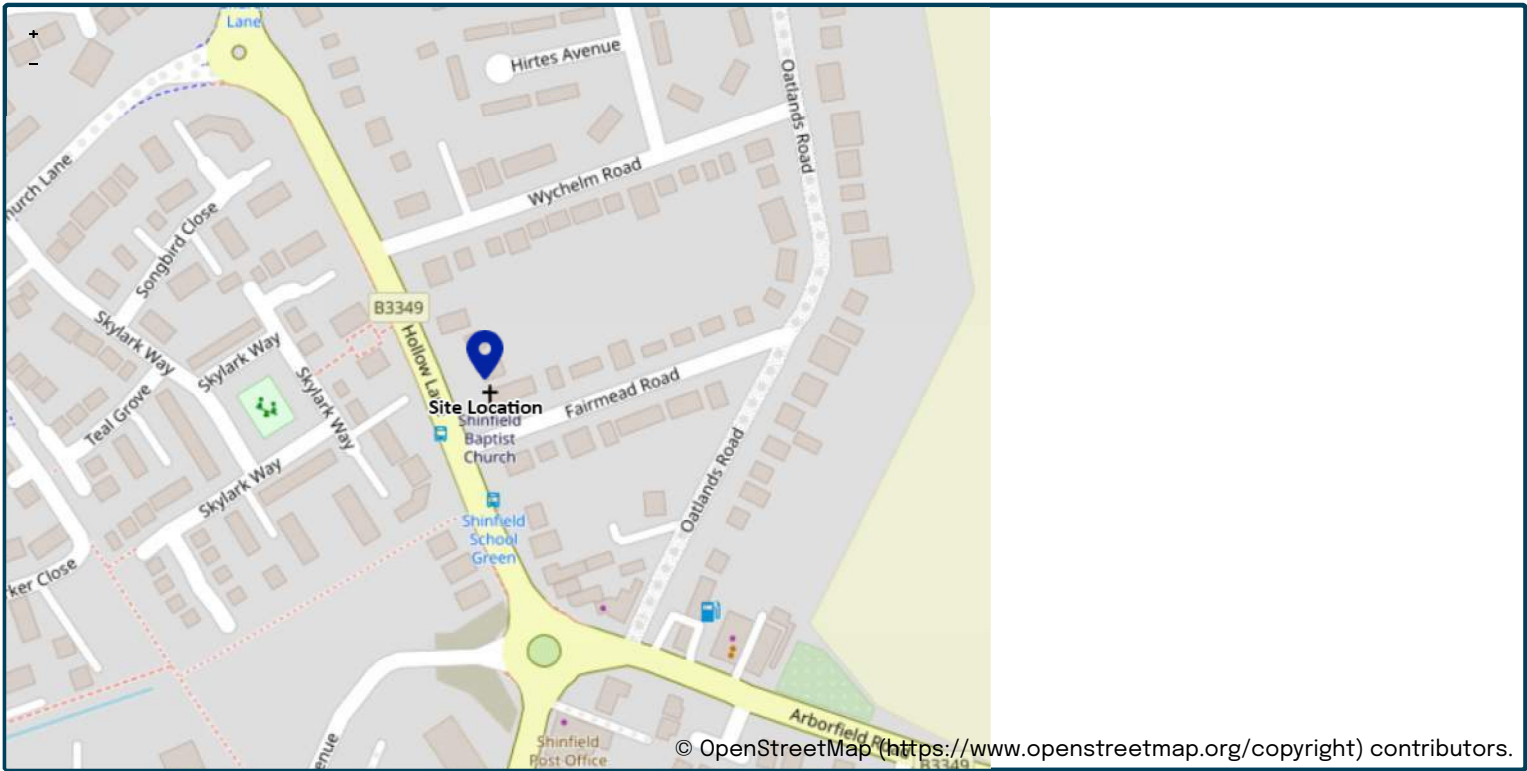
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	28/05/2025
Calculated by	AC
Reference	Shinfield
Model version	2.0.1

Location

Site name	Shinfield Community Church
Site location	Shinfield



Site easting	473396
Site northing	168038

Site details

Total site area (ha)	0.05	ha
----------------------	-----------------------------------	----

Greenfield runoff

Method

Method	IH124	
IH124		
SAAR (mm)	My value 646mm	Map value 646
How should SPR be derived?	WRAP soil type	
WRAP soil type	4	4
SPR	0.47	
QBar (IH124) (l/s)	0.22l/s	

Growth curve factors

Hydrological region	My value 6	Map value 6
1 year growth factor	0.85	
2 year growth factor	0.88	
10 year growth factor	1.62	
30 year growth factor	2.3	
100 year growth factor	3.19	
200 year growth factor	3.74	

Results

Method	IH124	
Flow rate 1 year (l/s)	0.19	l/s
Flow rate 2 year (l/s)	0.19	l/s
Flow rate 10 years (l/s)	0.36	l/s
Flow rate 30 years (l/s)	0.51	l/s
Flow rate 100 years (l/s)	0.7	l/s
Flow rate 200 years (l/s)	0.82	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com) (<https://www.uksuds.com/>).

The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Pre-development discharge

Site Makeup	Brownfield	OK
Brownfield Method	MRM	Cancel
Contributing Area (ha)	0.050	
PIMP (%)	100	
CV	0.750	
Time of Concentration (mins)	4.00	
Betterment (%)	0	
	Calc	

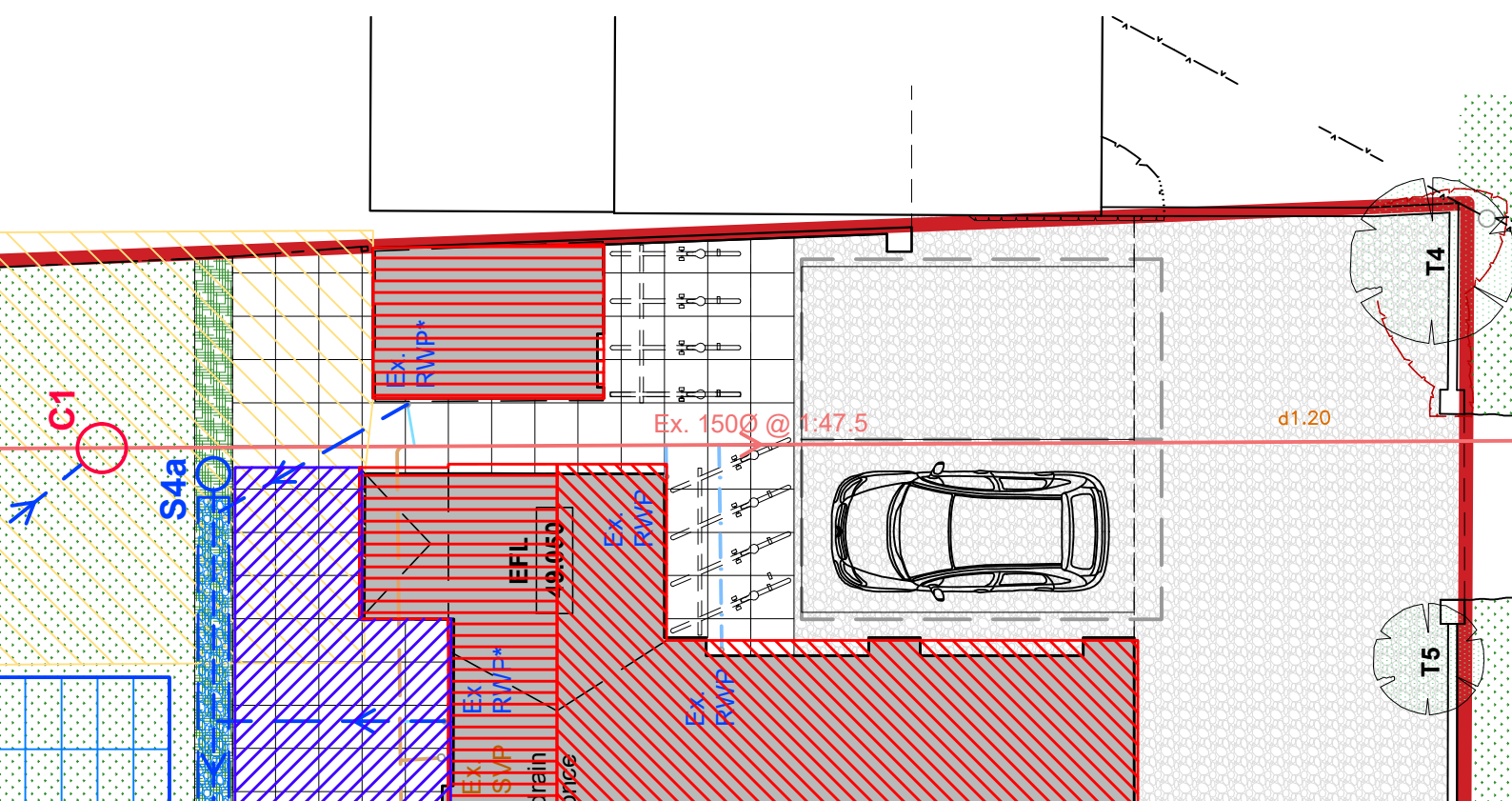
Note: FEH point descriptors can be downloaded from fehweb.ceh.ac.uk

Only XML file format can be used

FEH-22 is the current FEH data and this should be used for new development

ReFH2 legacy – Doesn't contain the new BFIHOST19 descriptor
ReFH2 – Contains the new BFIHOST19 descriptor

Return Period (years)	Q (l/s)
1	7.5
2	9.6
30	17.5
100	22.0



Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	40	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	18.430	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	0.600
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	4.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Node Type	Manhole Type	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
✓ S1		4.00	48.900	Manhole	Adoptable	450	1339.696	114.064	0.750
✓ S2	0.007	4.00	48.900	Manhole	Adoptable	450	1328.504	127.640	0.750
✓ S3	0.019	4.00	48.900	Manhole	Adoptable	450	1339.696	127.640	0.886
✓ S4	0.011	4.00	48.900	Manhole	Adoptable	450	1342.885	129.790	0.924
✓ S5	0.012	4.00	48.900	Manhole	Adoptable	450	1339.829	141.740	0.750
✓ S6			48.900	Manhole	Adoptable	450	1342.879	140.995	0.781
✓ S7			48.900	Manhole	Adoptable	450	1342.879	132.082	0.947
✓ S8			48.900	Manhole	Adoptable	1500	1349.806	132.142	1.016
✓ C01			48.900	Manhole	Adoptable	900	1351.500	131.252	1.035

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	Velocity Equation	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	Link Type	T of C (mins)	Rain (mm/hr)
✓ 1.000	S1	S3	13.576	0.600	Colebrook-White	48.150	48.014	0.136	100.0	150	Circular	4.23	50.0
✓ 2.000	S2	S3	11.192	0.600	Colebrook-White	48.150	48.014	0.136	82.3	150	Circular	4.17	50.0
✓ 1.001	S3	S4	3.846	0.600	Colebrook-White	48.014	47.976	0.038	100.0	150	Circular	4.29	50.0
✓ 1.002	S4	S7	2.292	0.600	Colebrook-White	47.976	47.953	0.023	100.0	150	Circular	4.33	50.0
✓ 3.000	S5	S6	3.140	0.600	Colebrook-White	48.150	48.119	0.031	100.0	150	Circular	4.05	50.0
✓ 3.001	S6	S7	8.913	0.600	Colebrook-White	48.119	47.953	0.166	53.7	150	Circular	4.16	50.0
✓ 1.003	S7	S8	6.927	0.600	Colebrook-White	47.953	47.884	0.069	100.0	150	Circular	4.44	50.0
✓ 1.004	S8	C01	1.914	0.600	Colebrook-White	47.884	47.865	0.019	100.0	150	Circular	4.47	50.0

Simulation Settings

Rainfall Methodology	FSR	Summer CV	1.000	Additional Storage (m³/ha)	20.0
Rainfall Events	Singular	Winter CV	1.000	Starting Level (m)	
FSR Region	England and Wales	Analysis Speed	Detailed	Check Discharge Rate(s)	x
M5-60 (mm)	18.430	Skip Steady State	x	Check Discharge Volume	x
Ratio-R	0.400	Drain Down Time (mins)	240		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0	30	0	0	0
10	0	0	0	100	40	0	0

Node S8 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	47.884	Product Number	CTL-SHE-0070-2000-0800-2000
Design Depth (m)	0.800	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.0	Min Node Diameter (mm)	1200

Node S7 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	47.953
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	76

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	30.3	0.0	0.800	30.3	0.0	0.801	0.0	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	10	48.180	0.030	1.7	0.0103	0.0000	OK
15 minute summer	S3	10	48.086	0.072	6.2	0.0426	0.0000	OK
30 minute summer	S4	24	48.062	0.086	7.3	0.0343	0.0000	OK
15 minute summer	S5	10	48.194	0.044	2.8	0.0209	0.0000	OK
15 minute summer	S6	10	48.153	0.034	2.8	0.0055	0.0000	OK
30 minute summer	S7	24	48.062	0.109	9.5	3.1583	0.0000	OK
30 minute summer	S8	24	48.061	0.177	3.8	0.3136	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0572	
15 minute summer	S2	2.000	S3	1.7	0.324	0.087	0.0610	
15 minute summer	S3	1.001	S4	6.2	0.679	0.347	0.0349	
30 minute summer	S4	1.002	S7	7.2	1.032	0.404	0.0278	
15 minute summer	S5	3.000	S6	2.8	0.772	0.158	0.0114	
15 minute summer	S6	3.001	S7	2.8	0.829	0.115	0.0590	
30 minute summer	S7	1.003	S8	3.8	0.421	0.215	0.1085	
30 minute summer	S8	Hydro-Brake®	C01	2.0				5.8

Results for 10 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	10	48.186	0.036	2.5	0.0125	0.0000	OK
60 minute summer	S3	44	48.132	0.118	5.6	0.0696	0.0000	OK
60 minute summer	S4	44	48.132	0.156	7.9	0.0620	0.0000	SURCHARGED
15 minute summer	S5	10	48.204	0.054	4.2	0.0259	0.0000	OK
15 minute summer	S6	10	48.161	0.042	4.2	0.0067	0.0000	OK
60 minute summer	S7	45	48.132	0.179	10.2	5.1774	0.0000	SURCHARGED
60 minute summer	S8	45	48.131	0.247	2.9	0.4358	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0805	
15 minute summer	S2	2.000	S3	2.5	0.343	0.128	0.0846	
60 minute summer	S3	1.001	S4	5.5	0.587	0.309	0.0625	
60 minute summer	S4	1.002	S7	7.7	0.804	0.432	0.0404	
15 minute summer	S5	3.000	S6	4.2	0.862	0.237	0.0153	
15 minute summer	S6	3.001	S7	4.2	0.908	0.173	0.0873	
60 minute summer	S7	1.003	S8	2.9	0.398	0.161	0.1219	
60 minute summer	S8	Hydro-Brake®	C01	2.0				10.8

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	46	48.196	0.046	0.4	0.0072	0.0000	OK
60 minute summer	S2	48	48.195	0.045	1.9	0.0157	0.0000	OK
60 minute summer	S3	48	48.195	0.181	7.2	0.1066	0.0000	SURCHARGED
60 minute summer	S4	48	48.195	0.219	9.6	0.0869	0.0000	SURCHARGED
15 minute summer	S5	10	48.212	0.062	5.4	0.0298	0.0000	OK
60 minute summer	S6	48	48.195	0.076	3.3	0.0122	0.0000	OK
60 minute summer	S7	47	48.194	0.241	12.5	6.9893	0.0000	SURCHARGED
60 minute summer	S8	47	48.193	0.309	3.5	0.5464	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S3	-0.4	-0.037	-0.021	0.1501	
60 minute summer	S2	2.000	S3	1.9	0.313	0.097	0.1237	
60 minute summer	S3	1.001	S4	6.5	0.585	0.368	0.0677	
60 minute summer	S4	1.002	S7	9.3	0.878	0.521	0.0404	
15 minute summer	S5	3.000	S6	5.4	0.922	0.304	0.0184	
60 minute summer	S6	3.001	S7	3.3	0.738	0.134	0.1187	
60 minute summer	S7	1.003	S8	3.5	0.420	0.196	0.1219	
60 minute summer	S8	Hydro-Brake®	C01	2.0				13.8

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	60	48.489	0.339	0.9	0.0538	0.0000	SURCHARGED
60 minute winter	S2	60	48.489	0.339	2.5	0.1171	0.0000	SURCHARGED
60 minute winter	S3	60	48.489	0.475	8.7	0.2791	0.0000	SURCHARGED
60 minute winter	S4	60	48.489	0.513	11.5	0.2035	0.0000	SURCHARGED
60 minute winter	S5	60	48.488	0.338	4.3	0.1620	0.0000	SURCHARGED
60 minute winter	S6	60	48.488	0.369	4.1	0.0587	0.0000	SURCHARGED
60 minute winter	S7	60	48.488	0.535	14.4	15.4936	0.0000	SURCHARGED
60 minute winter	S8	60	48.487	0.603	3.4	1.0661	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S3	-0.9	-0.076	-0.053	0.2390	
60 minute winter	S2	2.000	S3	2.3	0.306	0.116	0.1970	
60 minute winter	S3	1.001	S4	7.7	0.551	0.436	0.0677	
60 minute winter	S4	1.002	S7	11.1	1.021	0.628	0.0404	
60 minute winter	S5	3.000	S6	4.1	0.845	0.233	0.0553	
60 minute winter	S6	3.001	S7	3.8	0.847	0.158	0.1569	
60 minute winter	S7	1.003	S8	3.4	0.503	0.193	0.1219	
60 minute winter	S8	Hydro-Brake®	C01	2.0				25.3

Results for 2 year 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	10	48.180	0.030	1.7	0.0103	0.0000	OK
15 minute summer	S3	10	48.086	0.072	6.2	0.0426	0.0000	OK
15 minute summer	S4	11	48.057	0.081	8.8	0.0323	0.0000	OK
15 minute summer	S5	10	48.194	0.044	2.8	0.0209	0.0000	OK
15 minute summer	S6	10	48.153	0.034	2.8	0.0055	0.0000	OK
15 minute summer	S7	16	48.051	0.098	11.5	2.8225	0.0000	OK
15 minute summer	S8	16	48.052	0.168	5.2	0.2964	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0572	
15 minute summer	S2	2.000	S3	1.7	0.324	0.087	0.0610	
15 minute summer	S3	1.001	S4	6.2	0.679	0.347	0.0349	
15 minute summer	S4	1.002	S7	8.7	1.239	0.490	0.0240	
15 minute summer	S5	3.000	S6	2.8	0.772	0.158	0.0114	
15 minute summer	S6	3.001	S7	2.8	0.829	0.115	0.0590	
15 minute summer	S7	1.003	S8	5.2	0.552	0.292	0.1030	
15 minute summer	S8	Hydro-Brake®	C01	2.0				4.4

Results for 2 year 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute winter	S2	10	48.178	0.028	1.5	0.0097	0.0000	OK
15 minute winter	S3	10	48.081	0.067	5.5	0.0395	0.0000	OK
15 minute winter	S4	11	48.053	0.077	7.8	0.0307	0.0000	OK
15 minute winter	S5	10	48.191	0.041	2.5	0.0196	0.0000	OK
15 minute winter	S6	10	48.151	0.032	2.5	0.0052	0.0000	OK
15 minute winter	S7	16	48.051	0.098	10.2	2.8240	0.0000	OK
15 minute winter	S8	15	48.053	0.169	5.2	0.2979	0.0000	SURCHARGED
15 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0518	
15 minute winter	S2	2.000	S3	1.5	0.315	0.077	0.0555	
15 minute winter	S3	1.001	S4	5.5	0.659	0.308	0.0319	
15 minute winter	S4	1.002	S7	7.7	1.199	0.434	0.0239	
15 minute winter	S5	3.000	S6	2.5	0.749	0.141	0.0105	
15 minute winter	S6	3.001	S7	2.5	0.854	0.103	0.0593	
15 minute winter	S7	1.003	S8	5.2	0.573	0.294	0.1030	
15 minute winter	S8	Hydro-Brake®	C01	2.0				4.4

Results for 2 year 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
30 minute summer	S2	17	48.177	0.027	1.4	0.0093	0.0000	OK
30 minute summer	S3	17	48.079	0.065	5.3	0.0381	0.0000	OK
30 minute summer	S4	24	48.062	0.086	7.3	0.0343	0.0000	OK
30 minute summer	S5	17	48.190	0.040	2.4	0.0192	0.0000	OK
30 minute summer	S6	17	48.151	0.032	2.4	0.0050	0.0000	OK
30 minute summer	S7	24	48.062	0.109	9.5	3.1583	0.0000	OK
30 minute summer	S8	24	48.061	0.177	3.8	0.3136	0.0000	SURCHARGED
30 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0494	
30 minute summer	S2	2.000	S3	1.4	0.302	0.070	0.0527	
30 minute summer	S3	1.001	S4	5.1	0.638	0.289	0.0321	
30 minute summer	S4	1.002	S7	7.2	1.032	0.404	0.0278	
30 minute summer	S5	3.000	S6	2.4	0.740	0.134	0.0101	
30 minute summer	S6	3.001	S7	2.4	0.735	0.097	0.0661	
30 minute summer	S7	1.003	S8	3.8	0.421	0.215	0.1085	
30 minute summer	S8	Hydro-Brake®	C01	2.0				5.8

Results for 2 year 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
30 minute winter	S2	18	48.174	0.024	1.1	0.0083	0.0000	OK
30 minute winter	S3	17	48.070	0.056	4.1	0.0329	0.0000	OK
30 minute winter	S4	25	48.060	0.084	5.7	0.0333	0.0000	OK
30 minute winter	S5	17	48.185	0.035	1.9	0.0170	0.0000	OK
30 minute winter	S6	17	48.147	0.028	1.9	0.0045	0.0000	OK
30 minute winter	S7	25	48.060	0.107	7.5	3.0842	0.0000	OK
30 minute winter	S8	24	48.059	0.175	3.8	0.3093	0.0000	SURCHARGED
30 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0406	
30 minute winter	S2	2.000	S3	1.1	0.296	0.056	0.0437	
30 minute winter	S3	1.001	S4	4.0	0.599	0.228	0.0283	
30 minute winter	S4	1.002	S7	5.7	0.925	0.320	0.0270	
30 minute winter	S5	3.000	S6	1.9	0.693	0.106	0.0085	
30 minute winter	S6	3.001	S7	1.9	0.736	0.076	0.0647	
30 minute winter	S7	1.003	S8	3.8	0.436	0.215	0.1073	
30 minute winter	S8	Hydro-Brake®	C01	2.0				5.8

Results for 2 year 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
60 minute summer	S2	33	48.173	0.023	1.0	0.0080	0.0000	OK
60 minute summer	S3	32	48.067	0.053	3.8	0.0313	0.0000	OK
60 minute summer	S4	41	48.062	0.086	5.3	0.0341	0.0000	OK
60 minute summer	S5	32	48.184	0.034	1.8	0.0165	0.0000	OK
60 minute summer	S6	32	48.146	0.027	1.8	0.0043	0.0000	OK
60 minute summer	S7	42	48.062	0.108	7.0	3.1404	0.0000	OK
60 minute summer	S8	42	48.061	0.177	2.8	0.3123	0.0000	SURCHARGED
60 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0380	
60 minute summer	S2	2.000	S3	1.0	0.287	0.051	0.0409	
60 minute summer	S3	1.001	S4	3.7	0.574	0.211	0.0294	
60 minute summer	S4	1.002	S7	5.3	0.827	0.297	0.0276	
60 minute summer	S5	3.000	S6	1.8	0.683	0.100	0.0082	
60 minute summer	S6	3.001	S7	1.8	0.662	0.072	0.0655	
60 minute summer	S7	1.003	S8	2.8	0.370	0.157	0.1082	
60 minute summer	S8	Hydro-Brake®	C01	2.0				7.3

Results for 2 year 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
60 minute winter	S2	34	48.169	0.019	0.7	0.0067	0.0000	OK
60 minute winter	S3	31	48.057	0.043	2.6	0.0251	0.0000	OK
60 minute winter	S4	44	48.054	0.078	3.7	0.0309	0.0000	OK
60 minute winter	S5	31	48.178	0.028	1.2	0.0135	0.0000	OK
60 minute winter	S6	34	48.142	0.023	1.2	0.0036	0.0000	OK
60 minute winter	S7	44	48.054	0.101	4.9	2.9122	0.0000	OK
60 minute winter	S8	44	48.053	0.169	3.5	0.2983	0.0000	SURCHARGED
60 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0280	
60 minute winter	S2	2.000	S3	0.7	0.274	0.036	0.0306	
60 minute winter	S3	1.001	S4	2.6	0.532	0.147	0.0249	
60 minute winter	S4	1.002	S7	3.7	0.785	0.206	0.0250	
60 minute winter	S5	3.000	S6	1.2	0.610	0.068	0.0062	
60 minute winter	S6	3.001	S7	1.2	0.665	0.049	0.0605	
60 minute winter	S7	1.003	S8	3.5	0.371	0.198	0.1045	
60 minute winter	S8	Hydro-Brake®	C01	2.0				7.2

Results for 2 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	2	48.150	0.000	0.0	0.0000	0.0000	OK
120 minute summer	S2	62	48.169	0.019	0.7	0.0066	0.0000	OK
120 minute summer	S3	62	48.055	0.041	2.5	0.0242	0.0000	OK
120 minute summer	S4	74	48.044	0.068	3.4	0.0268	0.0000	OK
120 minute summer	S5	62	48.177	0.027	1.1	0.0129	0.0000	OK
120 minute summer	S6	64	48.141	0.022	1.1	0.0035	0.0000	OK
120 minute summer	S7	74	48.043	0.090	4.5	2.6122	0.0000	OK
120 minute summer	S8	76	48.042	0.158	3.7	0.2793	0.0000	SURCHARGED
120 minute summer	C01	2	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0266	
120 minute summer	S2	2.000	S3	0.7	0.270	0.035	0.0292	
120 minute summer	S3	1.001	S4	2.4	0.513	0.137	0.0192	
120 minute summer	S4	1.002	S7	3.4	0.668	0.192	0.0215	
120 minute summer	S5	3.000	S6	1.1	0.595	0.062	0.0058	
120 minute summer	S6	3.001	S7	1.1	0.510	0.045	0.0536	
120 minute summer	S7	1.003	S8	3.7	0.324	0.209	0.0993	
120 minute summer	S8	Hydro-Brake®	C01	1.9				8.9

Results for 2 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	2	48.150	0.000	0.0	0.0000	0.0000	OK
120 minute winter	S2	60	48.165	0.015	0.4	0.0052	0.0000	OK
120 minute winter	S3	62	48.046	0.032	1.6	0.0190	0.0000	OK
120 minute winter	S4	80	48.026	0.050	2.3	0.0200	0.0000	OK
120 minute winter	S5	62	48.173	0.023	0.8	0.0110	0.0000	OK
120 minute winter	S6	64	48.138	0.019	0.8	0.0030	0.0000	OK
120 minute winter	S7	78	48.026	0.073	3.1	2.1189	0.0000	OK
120 minute winter	S8	76	48.032	0.148	4.6	0.2618	0.0000	OK
120 minute winter	C01	2	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0189	
120 minute winter	S2	2.000	S3	0.4	0.255	0.020	0.0206	
120 minute winter	S3	1.001	S4	1.6	0.474	0.090	0.0135	
120 minute winter	S4	1.002	S7	2.3	0.674	0.130	0.0157	
120 minute winter	S5	3.000	S6	0.8	0.543	0.045	0.0046	
120 minute winter	S6	3.001	S7	0.8	0.532	0.033	0.0421	
120 minute winter	S7	1.003	S8	4.6	0.416	0.260	0.0901	
120 minute winter	S8	Hydro-Brake®	C01	1.9				8.8

Results for 2 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
180 minute summer	S2	92	48.166	0.016	0.5	0.0057	0.0000	OK
180 minute summer	S3	92	48.049	0.035	1.9	0.0207	0.0000	OK
180 minute summer	S4	108	48.027	0.051	2.7	0.0202	0.0000	OK
180 minute summer	S5	92	48.174	0.024	0.9	0.0116	0.0000	OK
180 minute summer	S6	92	48.139	0.020	0.9	0.0031	0.0000	OK
180 minute summer	S7	108	48.027	0.074	3.5	2.1276	0.0000	OK
180 minute summer	S8	104	48.031	0.147	4.4	0.2601	0.0000	OK
180 minute summer	C01	4	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0213	
180 minute summer	S2	2.000	S3	0.5	0.252	0.025	0.0234	
180 minute summer	S3	1.001	S4	1.9	0.484	0.105	0.0148	
180 minute summer	S4	1.002	S7	2.6	0.614	0.147	0.0159	
180 minute summer	S5	3.000	S6	0.9	0.561	0.050	0.0050	
180 minute summer	S6	3.001	S7	0.9	0.555	0.036	0.0420	
180 minute summer	S7	1.003	S8	4.4	0.377	0.245	0.0901	
180 minute summer	S8	Hydro-Brake®	C01	1.9				9.9

Results for 2 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
180 minute winter	S2	84	48.163	0.013	0.3	0.0045	0.0000	OK
180 minute winter	S3	92	48.042	0.028	1.2	0.0163	0.0000	OK
180 minute winter	S4	96	48.012	0.036	1.7	0.0142	0.0000	OK
180 minute winter	S5	92	48.170	0.020	0.6	0.0095	0.0000	OK
180 minute winter	S6	92	48.135	0.016	0.6	0.0026	0.0000	OK
180 minute winter	S7	108	48.000	0.047	2.3	1.3734	0.0000	OK
180 minute winter	S8	104	48.012	0.128	2.3	0.2269	0.0000	OK
180 minute winter	C01	4	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0152	
180 minute winter	S2	2.000	S3	0.3	0.228	0.015	0.0167	
180 minute winter	S3	1.001	S4	1.2	0.449	0.068	0.0105	
180 minute winter	S4	1.002	S7	1.7	0.574	0.096	0.0086	
180 minute winter	S5	3.000	S6	0.6	0.498	0.034	0.0038	
180 minute winter	S6	3.001	S7	0.6	0.548	0.025	0.0249	
180 minute winter	S7	1.003	S8	2.3	0.304	0.132	0.0719	
180 minute winter	S8	Hydro-Brake®	C01	1.9				10.1

Results for 2 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute summer	S2	124	48.165	0.015	0.4	0.0052	0.0000	OK
240 minute summer	S3	120	48.045	0.031	1.5	0.0184	0.0000	OK
240 minute summer	S4	124	48.016	0.040	2.1	0.0160	0.0000	OK
240 minute summer	S5	124	48.171	0.021	0.7	0.0103	0.0000	OK
240 minute summer	S6	124	48.137	0.018	0.7	0.0028	0.0000	OK
240 minute summer	S7	132	48.012	0.059	3.0	1.7067	0.0000	OK
240 minute summer	S8	136	48.026	0.142	4.3	0.2507	0.0000	OK
240 minute summer	C01	4	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0181	
240 minute summer	S2	2.000	S3	0.4	0.242	0.020	0.0200	
240 minute summer	S3	1.001	S4	1.5	0.473	0.085	0.0125	
240 minute summer	S4	1.002	S7	2.1	0.603	0.118	0.0113	
240 minute summer	S5	3.000	S6	0.7	0.522	0.039	0.0042	
240 minute summer	S6	3.001	S7	0.7	0.555	0.029	0.0328	
240 minute summer	S7	1.003	S8	4.3	0.388	0.241	0.0817	
240 minute summer	S8	Hydro-Brake®	C01	1.9				10.9

Results for 2 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute winter	S2	120	48.163	0.013	0.3	0.0045	0.0000	OK
240 minute winter	S3	116	48.039	0.025	1.0	0.0149	0.0000	OK
240 minute winter	S4	132	48.008	0.032	1.4	0.0125	0.0000	OK
240 minute winter	S5	124	48.168	0.018	0.5	0.0087	0.0000	OK
240 minute winter	S6	124	48.134	0.015	0.5	0.0024	0.0000	OK
240 minute winter	S7	132	47.986	0.033	1.9	0.9632	0.0000	OK
240 minute winter	S8	132	47.987	0.103	1.9	0.1820	0.0000	OK
240 minute winter	C01	4	47.865	0.000	1.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0134	
240 minute winter	S2	2.000	S3	0.3	0.229	0.015	0.0151	
240 minute winter	S3	1.001	S4	1.0	0.435	0.056	0.0089	
240 minute winter	S4	1.002	S7	1.4	0.559	0.079	0.0064	
240 minute winter	S5	3.000	S6	0.5	0.474	0.028	0.0033	
240 minute winter	S6	3.001	S7	0.5	0.505	0.021	0.0166	
240 minute winter	S7	1.003	S8	1.9	0.284	0.107	0.0547	
240 minute winter	S8	Hydro-Brake®	C01	1.8				10.7

Results for 2 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute summer	S2	184	48.163	0.013	0.3	0.0045	0.0000	OK
360 minute summer	S3	184	48.041	0.027	1.1	0.0156	0.0000	OK
360 minute summer	S4	184	48.009	0.033	1.6	0.0133	0.0000	OK
360 minute summer	S5	184	48.168	0.018	0.5	0.0087	0.0000	OK
360 minute summer	S6	184	48.134	0.015	0.5	0.0024	0.0000	OK
360 minute summer	S7	192	47.990	0.037	2.1	1.0774	0.0000	OK
360 minute summer	S8	200	47.990	0.106	2.2	0.1880	0.0000	OK
360 minute summer	C01	8	47.865	0.000	1.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0142	
360 minute summer	S2	2.000	S3	0.3	0.229	0.015	0.0158	
360 minute summer	S3	1.001	S4	1.1	0.438	0.062	0.0096	
360 minute summer	S4	1.002	S7	1.6	0.541	0.089	0.0071	
360 minute summer	S5	3.000	S6	0.5	0.474	0.028	0.0033	
360 minute summer	S6	3.001	S7	0.5	0.328	0.021	0.0192	
360 minute summer	S7	1.003	S8	2.2	0.282	0.126	0.0575	
360 minute summer	S8	Hydro-Brake®	C01	1.8				11.7

Results for 2 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute winter	S2	160	48.161	0.011	0.2	0.0037	0.0000	OK
360 minute winter	S3	168	48.035	0.021	0.7	0.0124	0.0000	OK
360 minute winter	S4	208	48.002	0.026	1.0	0.0104	0.0000	OK
360 minute winter	S5	160	48.164	0.014	0.3	0.0068	0.0000	OK
360 minute winter	S6	160	48.131	0.012	0.3	0.0019	0.0000	OK
360 minute winter	S7	208	47.980	0.027	1.3	0.7954	0.0000	OK
360 minute winter	S8	208	47.952	0.068	1.3	0.1197	0.0000	OK
360 minute winter	C01	8	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0102	
360 minute winter	S2	2.000	S3	0.2	0.216	0.010	0.0115	
360 minute winter	S3	1.001	S4	0.7	0.397	0.039	0.0068	
360 minute winter	S4	1.002	S7	1.0	0.510	0.056	0.0049	
360 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
360 minute winter	S6	3.001	S7	0.3	0.375	0.012	0.0127	
360 minute winter	S7	1.003	S8	1.3	0.281	0.073	0.0344	
360 minute winter	S8	Hydro-Brake®	C01	1.3				12.1

Results for 2 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute summer	S2	224	48.161	0.011	0.2	0.0037	0.0000	OK
480 minute summer	S3	248	48.038	0.024	0.9	0.0141	0.0000	OK
480 minute summer	S4	248	48.006	0.030	1.3	0.0120	0.0000	OK
480 minute summer	S5	240	48.166	0.016	0.4	0.0078	0.0000	OK
480 minute summer	S6	240	48.132	0.013	0.4	0.0021	0.0000	OK
480 minute summer	S7	248	47.984	0.031	1.7	0.9005	0.0000	OK
480 minute summer	S8	248	47.971	0.087	1.7	0.1545	0.0000	OK
480 minute summer	C01	8	47.865	0.000	1.7	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0123	
480 minute summer	S2	2.000	S3	0.2	0.216	0.010	0.0132	
480 minute summer	S3	1.001	S4	0.9	0.419	0.051	0.0083	
480 minute summer	S4	1.002	S7	1.3	0.516	0.073	0.0059	
480 minute summer	S5	3.000	S6	0.4	0.442	0.023	0.0028	
480 minute summer	S6	3.001	S7	0.4	0.268	0.016	0.0152	
480 minute summer	S7	1.003	S8	1.7	0.281	0.094	0.0460	
480 minute summer	S8	Hydro-Brake®	C01	1.7				12.3

Results for 2 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute winter	S2	232	48.161	0.011	0.2	0.0037	0.0000	OK
480 minute winter	S3	232	48.033	0.019	0.6	0.0114	0.0000	OK
480 minute winter	S4	248	48.001	0.025	0.9	0.0098	0.0000	OK
480 minute winter	S5	232	48.164	0.014	0.3	0.0068	0.0000	OK
480 minute winter	S6	232	48.131	0.012	0.3	0.0019	0.0000	OK
480 minute winter	S7	248	47.979	0.026	1.2	0.7607	0.0000	OK
480 minute winter	S8	248	47.946	0.062	1.2	0.1095	0.0000	OK
480 minute winter	C01	8	47.865	0.000	1.2	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0091	
480 minute winter	S2	2.000	S3	0.2	0.219	0.010	0.0106	
480 minute winter	S3	1.001	S4	0.6	0.391	0.034	0.0062	
480 minute winter	S4	1.002	S7	0.9	0.493	0.051	0.0045	
480 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
480 minute winter	S6	3.001	S7	0.3	0.253	0.012	0.0120	
480 minute winter	S7	1.003	S8	1.2	0.277	0.067	0.0309	
480 minute winter	S8	Hydro-Brake®	C01	1.2				12.1

Results for 2 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute summer	S2	300	48.161	0.011	0.2	0.0037	0.0000	OK
600 minute summer	S3	315	48.035	0.021	0.7	0.0124	0.0000	OK
600 minute summer	S4	315	48.002	0.026	1.0	0.0104	0.0000	OK
600 minute summer	S5	300	48.164	0.014	0.3	0.0068	0.0000	OK
600 minute summer	S6	300	48.131	0.012	0.3	0.0019	0.0000	OK
600 minute summer	S7	315	47.980	0.027	1.3	0.7946	0.0000	OK
600 minute summer	S8	315	47.952	0.068	1.3	0.1193	0.0000	OK
600 minute summer	C01	15	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0102	
600 minute summer	S2	2.000	S3	0.2	0.218	0.010	0.0115	
600 minute summer	S3	1.001	S4	0.7	0.396	0.039	0.0068	
600 minute summer	S4	1.002	S7	1.0	0.475	0.056	0.0049	
600 minute summer	S5	3.000	S6	0.3	0.408	0.017	0.0023	
600 minute summer	S6	3.001	S7	0.3	0.258	0.012	0.0127	
600 minute summer	S7	1.003	S8	1.3	0.279	0.073	0.0343	
600 minute summer	S8	Hydro-Brake®	C01	1.3				12.5

Results for 2 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute winter	S2	210	48.158	0.008	0.1	0.0027	0.0000	OK
600 minute winter	S3	315	48.032	0.018	0.5	0.0104	0.0000	OK
600 minute winter	S4	315	47.998	0.022	0.7	0.0086	0.0000	OK
600 minute winter	S5	255	48.162	0.012	0.2	0.0056	0.0000	OK
600 minute winter	S6	255	48.129	0.010	0.2	0.0016	0.0000	OK
600 minute winter	S7	315	47.976	0.023	0.9	0.6637	0.0000	OK
600 minute winter	S8	315	47.934	0.050	0.9	0.0892	0.0000	OK
600 minute winter	C01	15	47.865	0.000	0.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0079	
600 minute winter	S2	2.000	S3	0.1	0.213	0.005	0.0085	
600 minute winter	S3	1.001	S4	0.5	0.368	0.028	0.0053	
600 minute winter	S4	1.002	S7	0.7	0.434	0.039	0.0037	
600 minute winter	S5	3.000	S6	0.2	0.360	0.011	0.0018	
600 minute winter	S6	3.001	S7	0.2	0.258	0.008	0.0097	
600 minute winter	S7	1.003	S8	0.9	0.269	0.050	0.0239	
600 minute winter	S8	Hydro-Brake®	C01	0.9				12.2

Results for 2 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute summer	S2	375	48.161	0.011	0.2	0.0037	0.0000	OK
720 minute summer	S3	375	48.035	0.021	0.7	0.0124	0.0000	OK
720 minute summer	S4	375	48.002	0.026	1.0	0.0104	0.0000	OK
720 minute summer	S5	360	48.164	0.014	0.3	0.0068	0.0000	OK
720 minute summer	S6	360	48.131	0.012	0.3	0.0019	0.0000	OK
720 minute summer	S7	375	47.980	0.027	1.3	0.7933	0.0000	OK
720 minute summer	S8	375	47.951	0.067	1.3	0.1187	0.0000	OK
720 minute summer	C01	15	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0102	
720 minute summer	S2	2.000	S3	0.2	0.213	0.010	0.0115	
720 minute summer	S3	1.001	S4	0.7	0.396	0.039	0.0068	
720 minute summer	S4	1.002	S7	1.0	0.483	0.056	0.0049	
720 minute summer	S5	3.000	S6	0.3	0.408	0.017	0.0023	
720 minute summer	S6	3.001	S7	0.3	0.260	0.012	0.0126	
720 minute summer	S7	1.003	S8	1.3	0.280	0.073	0.0341	
720 minute summer	S8	Hydro-Brake®	C01	1.3				12.4

Results for 2 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute winter	S2	255	48.158	0.008	0.1	0.0027	0.0000	OK
720 minute winter	S3	330	48.030	0.016	0.4	0.0093	0.0000	OK
720 minute winter	S4	390	47.996	0.020	0.6	0.0080	0.0000	OK
720 minute winter	S5	315	48.162	0.012	0.2	0.0056	0.0000	OK
720 minute winter	S6	315	48.129	0.010	0.2	0.0016	0.0000	OK
720 minute winter	S7	405	47.975	0.022	0.8	0.6282	0.0000	OK
720 minute winter	S8	420	47.931	0.047	0.8	0.0828	0.0000	OK
720 minute winter	C01	15	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0066	
720 minute winter	S2	2.000	S3	0.1	0.213	0.005	0.0074	
720 minute winter	S3	1.001	S4	0.4	0.339	0.023	0.0046	
720 minute winter	S4	1.002	S7	0.6	0.431	0.034	0.0034	
720 minute winter	S5	3.000	S6	0.2	0.360	0.011	0.0018	
720 minute winter	S6	3.001	S7	0.2	0.237	0.008	0.0091	
720 minute winter	S7	1.003	S8	0.8	0.264	0.045	0.0217	
720 minute winter	S8	Hydro-Brake®	C01	0.8				13.5

Results for 2 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute summer	S2	390	48.158	0.008	0.1	0.0027	0.0000	OK
960 minute summer	S3	495	48.032	0.018	0.5	0.0104	0.0000	OK
960 minute summer	S4	495	47.998	0.022	0.7	0.0086	0.0000	OK
960 minute summer	S5	450	48.162	0.012	0.2	0.0056	0.0000	OK
960 minute summer	S6	450	48.129	0.010	0.2	0.0016	0.0000	OK
960 minute summer	S7	495	47.976	0.023	0.9	0.6637	0.0000	OK
960 minute summer	S8	495	47.934	0.050	0.9	0.0891	0.0000	OK
960 minute summer	C01	15	47.865	0.000	0.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0079	
960 minute summer	S2	2.000	S3	0.1	0.213	0.005	0.0085	
960 minute summer	S3	1.001	S4	0.5	0.368	0.028	0.0053	
960 minute summer	S4	1.002	S7	0.7	0.434	0.039	0.0037	
960 minute summer	S5	3.000	S6	0.2	0.360	0.011	0.0018	
960 minute summer	S6	3.001	S7	0.2	0.234	0.008	0.0097	
960 minute summer	S7	1.003	S8	0.9	0.269	0.050	0.0239	
960 minute summer	S8	Hydro-Brake®	C01	0.9				12.2

Results for 2 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute winter	S2	360	48.158	0.008	0.1	0.0027	0.0000	OK
960 minute winter	S3	510	48.030	0.016	0.4	0.0094	0.0000	OK
960 minute winter	S4	495	47.996	0.020	0.6	0.0080	0.0000	OK
960 minute winter	S5	465	48.162	0.012	0.2	0.0056	0.0000	OK
960 minute winter	S6	465	48.129	0.010	0.2	0.0016	0.0000	OK
960 minute winter	S7	495	47.975	0.022	0.8	0.6263	0.0000	OK
960 minute winter	S8	495	47.931	0.047	0.8	0.0824	0.0000	OK
960 minute winter	C01	15	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0067	
960 minute winter	S2	2.000	S3	0.1	0.213	0.005	0.0075	
960 minute winter	S3	1.001	S4	0.4	0.362	0.023	0.0046	
960 minute winter	S4	1.002	S7	0.6	0.431	0.034	0.0034	
960 minute winter	S5	3.000	S6	0.2	0.360	0.011	0.0018	
960 minute winter	S6	3.001	S7	0.2	0.237	0.008	0.0091	
960 minute winter	S7	1.003	S8	0.8	0.264	0.045	0.0216	
960 minute winter	S8	Hydro-Brake®	C01	0.8				12.9

Results for 2 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	S2	660	48.158	0.008	0.1	0.0027	0.0000	OK
1440 minute summer	S3	750	48.030	0.016	0.4	0.0093	0.0000	OK
1440 minute summer	S4	750	47.996	0.020	0.6	0.0080	0.0000	OK
1440 minute summer	S5	750	48.162	0.012	0.2	0.0056	0.0000	OK
1440 minute summer	S6	750	48.129	0.010	0.2	0.0016	0.0000	OK
1440 minute summer	S7	750	47.975	0.022	0.8	0.6279	0.0000	OK
1440 minute summer	S8	750	47.931	0.047	0.8	0.0828	0.0000	OK
1440 minute summer	C01	30	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0066	
1440 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0074	
1440 minute summer	S3	1.001	S4	0.4	0.339	0.023	0.0046	
1440 minute summer	S4	1.002	S7	0.6	0.437	0.034	0.0034	
1440 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
1440 minute summer	S6	3.001	S7	0.2	0.250	0.008	0.0091	
1440 minute summer	S7	1.003	S8	0.8	0.264	0.045	0.0217	
1440 minute summer	S8	Hydro-Brake®	C01	0.8				12.2

Results for 2 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	S2	630	48.158	0.008	0.1	0.0027	0.0000	OK
1440 minute winter	S3	660	48.028	0.014	0.3	0.0081	0.0000	OK
1440 minute winter	S4	720	47.992	0.016	0.4	0.0065	0.0000	OK
1440 minute winter	S5	510	48.158	0.008	0.1	0.0041	0.0000	OK
1440 minute winter	S6	510	48.126	0.007	0.1	0.0011	0.0000	OK
1440 minute winter	S7	750	47.970	0.017	0.5	0.5025	0.0000	OK
1440 minute winter	S8	750	47.919	0.035	0.5	0.0622	0.0000	OK
1440 minute winter	C01	30	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
1440 minute winter	S2	2.000	S3	0.1	0.214	0.005	0.0064	
1440 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
1440 minute winter	S4	1.002	S7	0.4	0.437	0.023	0.0025	
1440 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
1440 minute winter	S6	3.001	S7	0.1	0.250	0.004	0.0064	
1440 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
1440 minute winter	S8	Hydro-Brake®	C01	0.5				13.6

Results for 2 year 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute summer	S2	1080	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute summer	S3	1080	48.028	0.014	0.3	0.0081	0.0000	OK
2160 minute summer	S4	1140	47.992	0.016	0.4	0.0065	0.0000	OK
2160 minute summer	S5	960	48.158	0.008	0.1	0.0041	0.0000	OK
2160 minute summer	S6	960	48.126	0.007	0.1	0.0011	0.0000	OK
2160 minute summer	S7	1140	47.970	0.017	0.5	0.5025	0.0000	OK
2160 minute summer	S8	1140	47.919	0.035	0.5	0.0622	0.0000	OK
2160 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2160 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0064	
2160 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2160 minute summer	S4	1.002	S7	0.4	0.378	0.023	0.0025	
2160 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2160 minute summer	S6	3.001	S7	0.1	0.203	0.004	0.0064	
2160 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2160 minute summer	S8	Hydro-Brake®	C01	0.5				12.9

Results for 2 year 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute winter	S2	1140	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute winter	S3	1140	48.025	0.011	0.2	0.0067	0.0000	OK
2160 minute winter	S4	1140	47.990	0.014	0.3	0.0056	0.0000	OK
2160 minute winter	S5	900	48.158	0.008	0.1	0.0041	0.0000	OK
2160 minute winter	S6	900	48.126	0.007	0.1	0.0011	0.0000	OK
2160 minute winter	S7	1140	47.969	0.016	0.4	0.4521	0.0000	OK
2160 minute winter	S8	1140	47.915	0.031	0.4	0.0549	0.0000	OK
2160 minute winter	C01	60	47.865	0.000	0.4	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0041	
2160 minute winter	S2	2.000	S3	0.1	0.216	0.005	0.0053	
2160 minute winter	S3	1.001	S4	0.2	0.282	0.011	0.0027	
2160 minute winter	S4	1.002	S7	0.3	0.353	0.017	0.0021	
2160 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2160 minute winter	S6	3.001	S7	0.1	0.203	0.004	0.0056	
2160 minute winter	S7	1.003	S8	0.4	0.230	0.023	0.0125	
2160 minute winter	S8	Hydro-Brake®	C01	0.4				12.9

Results for 2 year 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute summer	S2	1440	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute summer	S3	1500	48.028	0.014	0.3	0.0081	0.0000	OK
2880 minute summer	S4	1500	47.992	0.016	0.4	0.0065	0.0000	OK
2880 minute summer	S5	1320	48.158	0.008	0.1	0.0041	0.0000	OK
2880 minute summer	S6	1320	48.126	0.007	0.1	0.0011	0.0000	OK
2880 minute summer	S7	1500	47.970	0.017	0.5	0.5025	0.0000	OK
2880 minute summer	S8	1500	47.919	0.035	0.5	0.0622	0.0000	OK
2880 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2880 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0064	
2880 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2880 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
2880 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2880 minute summer	S6	3.001	S7	0.1	0.203	0.004	0.0064	
2880 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2880 minute summer	S8	Hydro-Brake®	C01	0.5				12.9

Results for 2 year 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	S3	1200	48.022	0.008	0.1	0.0049	0.0000	OK
2880 minute winter	S4	1260	47.987	0.011	0.2	0.0046	0.0000	OK
2880 minute winter	S5	1260	48.158	0.008	0.1	0.0041	0.0000	OK
2880 minute winter	S6	1260	48.126	0.007	0.1	0.0011	0.0000	OK
2880 minute winter	S7	1440	47.967	0.014	0.3	0.3948	0.0000	OK
2880 minute winter	S8	1440	47.910	0.026	0.3	0.0464	0.0000	OK
2880 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
2880 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
2880 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
2880 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
2880 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2880 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
2880 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
2880 minute winter	S8	Hydro-Brake®	C01	0.3				12.9

Results for 2 year 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute summer	S3	2460	48.022	0.008	0.1	0.0049	0.0000	OK
4320 minute summer	S4	1980	47.988	0.012	0.2	0.0046	0.0000	OK
4320 minute summer	S5	2040	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute summer	S6	2040	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute summer	S7	2160	47.967	0.014	0.3	0.3948	0.0000	OK
4320 minute summer	S8	2160	47.910	0.026	0.3	0.0464	0.0000	OK
4320 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
4320 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
4320 minute summer	S3	1.001	S4	0.1	0.266	0.006	0.0019	
4320 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
4320 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute summer	S6	3.001	S7	0.1	0.203	0.004	0.0048	
4320 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
4320 minute summer	S8	Hydro-Brake®	C01	0.3				11.5

Results for 2 year 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S3	2040	48.022	0.008	0.1	0.0049	0.0000	OK
4320 minute winter	S4	1620	47.985	0.009	0.1	0.0035	0.0000	OK
4320 minute winter	S5	2100	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute winter	S6	2100	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute winter	S7	2220	47.964	0.011	0.2	0.3267	0.0000	OK
4320 minute winter	S8	2280	47.905	0.021	0.2	0.0374	0.0000	OK
4320 minute winter	C01	60	47.865	0.000	0.2	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
4320 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
4320 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0015	
4320 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0011	
4320 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0040	
4320 minute winter	S7	1.003	S8	0.2	0.211	0.011	0.0073	
4320 minute winter	S8	Hydro-Brake®	C01	0.2				9.3

Results for 2 year 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute summer	S3	2700	48.022	0.008	0.1	0.0049	0.0000	OK
5760 minute summer	S4	2760	47.987	0.011	0.2	0.0046	0.0000	OK
5760 minute summer	S5	2760	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute summer	S6	2760	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute summer	S7	2940	47.967	0.014	0.3	0.3948	0.0000	OK
5760 minute summer	S8	2940	47.910	0.026	0.3	0.0464	0.0000	OK
5760 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
5760 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
5760 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
5760 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
5760 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
5760 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
5760 minute summer	S8	Hydro-Brake®	C01	0.3				10.8

Results for 2 year 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S3	2640	48.022	0.008	0.1	0.0049	0.0000	OK
5760 minute winter	S4	2400	47.985	0.009	0.1	0.0035	0.0000	OK
5760 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S7	2760	47.961	0.008	0.1	0.2367	0.0000	OK
5760 minute winter	S8	2760	47.898	0.014	0.1	0.0249	0.0000	OK
5760 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
5760 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
5760 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
5760 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
5760 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
5760 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
5760 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
5760 minute winter	S8	Hydro-Brake®	C01	0.1				6.4

Results for 2 year 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S3	3540	48.022	0.008	0.1	0.0049	0.0000	OK
7200 minute summer	S4	3600	47.987	0.011	0.2	0.0046	0.0000	OK
7200 minute summer	S5	3600	48.158	0.008	0.1	0.0041	0.0000	OK
7200 minute summer	S6	3600	48.126	0.007	0.1	0.0011	0.0000	OK
7200 minute summer	S7	3660	47.967	0.014	0.3	0.3947	0.0000	OK
7200 minute summer	S8	3660	47.910	0.026	0.3	0.0464	0.0000	OK
7200 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
7200 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
7200 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
7200 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
7200 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
7200 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
7200 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
7200 minute summer	S8	Hydro-Brake®	C01	0.3				7.9

Results for 2 year 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S3	3420	48.022	0.008	0.1	0.0049	0.0000	OK
7200 minute winter	S4	3180	47.985	0.009	0.1	0.0035	0.0000	OK
7200 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S7	3540	47.961	0.008	0.1	0.2367	0.0000	OK
7200 minute winter	S8	3540	47.898	0.014	0.1	0.0249	0.0000	OK
7200 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
7200 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
7200 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
7200 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
7200 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
7200 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
7200 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
7200 minute winter	S8	Hydro-Brake®	C01	0.1				5.7

Results for 2 year 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S3	4140	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute summer	S4	3900	47.985	0.009	0.1	0.0035	0.0000	OK
8640 minute summer	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S7	4260	47.961	0.008	0.1	0.2367	0.0000	OK
8640 minute summer	S8	4260	47.898	0.014	0.1	0.0249	0.0000	OK
8640 minute summer	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute summer	S3	1.001	S4	0.1	0.264	0.006	0.0015	
8640 minute summer	S4	1.002	S7	0.1	0.353	0.006	0.0009	
8640 minute summer	S5	3.000	S6	0.0	0.000	0.000	0.0000	
8640 minute summer	S6	3.001	S7	0.0	0.000	0.000	0.0017	
8640 minute summer	S7	1.003	S8	0.1	0.211	0.006	0.0042	
8640 minute summer	S8	Hydro-Brake®	C01	0.1				5.7

Results for 2 year 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S3	4440	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute winter	S4	4260	47.985	0.009	0.1	0.0035	0.0000	OK
8640 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S7	4440	47.961	0.008	0.1	0.2367	0.0000	OK
8640 minute winter	S8	4440	47.898	0.014	0.1	0.0249	0.0000	OK
8640 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
8640 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
8640 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
8640 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
8640 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
8640 minute winter	S8	Hydro-Brake®	C01	0.1				1.4

Results for 2 year 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S3	4920	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute summer	S4	4680	47.985	0.009	0.1	0.0035	0.0000	OK
10080 minute summer	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S7	5040	47.961	0.008	0.1	0.2367	0.0000	OK
10080 minute summer	S8	5040	47.898	0.014	0.1	0.0249	0.0000	OK
10080 minute summer	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute summer	S3	1.001	S4	0.1	0.264	0.006	0.0015	
10080 minute summer	S4	1.002	S7	0.1	0.353	0.006	0.0009	
10080 minute summer	S5	3.000	S6	0.0	0.000	0.000	0.0000	
10080 minute summer	S6	3.001	S7	0.0	0.000	0.000	0.0017	
10080 minute summer	S7	1.003	S8	0.1	0.211	0.006	0.0042	
10080 minute summer	S8	Hydro-Brake®	C01	0.1				5.0

Results for 2 year 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S3	60	48.014	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S4	60	47.976	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S7	60	47.953	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S8	60	47.884	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	C01	60	47.865	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0000	
10080 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0000	
10080 minute winter	S3	1.001	S4	0.0	0.000	0.000	0.0000	
10080 minute winter	S4	1.002	S7	0.0	0.000	0.000	0.0000	
10080 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
10080 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0000	
10080 minute winter	S7	1.003	S8	0.0	0.000	0.000	0.0000	
10080 minute winter	S8	Hydro-Brake®	C01	0.0				0.0

Results for 10 year 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	10	48.186	0.036	2.5	0.0125	0.0000	OK
15 minute summer	S3	10	48.110	0.096	9.2	0.0563	0.0000	OK
15 minute summer	S4	16	48.107	0.131	12.9	0.0519	0.0000	OK
15 minute summer	S5	10	48.204	0.054	4.2	0.0259	0.0000	OK
15 minute summer	S6	10	48.161	0.042	4.2	0.0067	0.0000	OK
15 minute summer	S7	16	48.107	0.154	16.9	4.4436	0.0000	SURCHARGED
15 minute summer	S8	16	48.105	0.221	5.9	0.3909	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0805	
15 minute summer	S2	2.000	S3	2.5	0.343	0.128	0.0846	
15 minute summer	S3	1.001	S4	9.0	0.729	0.509	0.0533	
15 minute summer	S4	1.002	S7	12.7	1.300	0.715	0.0388	
15 minute summer	S5	3.000	S6	4.2	0.862	0.237	0.0153	
15 minute summer	S6	3.001	S7	4.2	0.908	0.173	0.0873	
15 minute summer	S7	1.003	S8	5.9	0.559	0.332	0.1219	
15 minute summer	S8	Hydro-Brake®	C01	2.0				6.6

Results for 10 year 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
15 minute winter	S2	10	48.184	0.034	2.2	0.0117	0.0000	OK
15 minute winter	S3	16	48.108	0.094	8.2	0.0550	0.0000	OK
15 minute winter	S4	16	48.108	0.132	11.6	0.0522	0.0000	OK
15 minute winter	S5	10	48.201	0.051	3.8	0.0246	0.0000	OK
15 minute winter	S6	10	48.159	0.040	3.8	0.0064	0.0000	OK
15 minute winter	S7	16	48.107	0.154	15.2	4.4684	0.0000	SURCHARGED
15 minute winter	S8	16	48.106	0.222	4.0	0.3925	0.0000	SURCHARGED
15 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0784	
15 minute winter	S2	2.000	S3	2.2	0.334	0.112	0.0772	
15 minute winter	S3	1.001	S4	8.1	0.709	0.455	0.0537	
15 minute winter	S4	1.002	S7	11.4	1.239	0.641	0.0389	
15 minute winter	S5	3.000	S6	3.8	0.839	0.214	0.0143	
15 minute winter	S6	3.001	S7	3.8	0.903	0.156	0.0874	
15 minute winter	S7	1.003	S8	4.0	0.587	0.225	0.1219	
15 minute winter	S8	Hydro-Brake®	C01	2.0				6.7

Results for 10 year 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
30 minute summer	S2	17	48.183	0.033	2.1	0.0114	0.0000	OK
30 minute summer	S3	27	48.130	0.116	7.9	0.0683	0.0000	OK
30 minute summer	S4	27	48.130	0.154	11.0	0.0611	0.0000	SURCHARGED
30 minute summer	S5	17	48.200	0.050	3.7	0.0241	0.0000	OK
30 minute summer	S6	17	48.158	0.039	3.7	0.0062	0.0000	OK
30 minute summer	S7	28	48.130	0.177	14.2	5.1125	0.0000	SURCHARGED
30 minute summer	S8	28	48.128	0.244	3.2	0.4318	0.0000	SURCHARGED
30 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0993	
30 minute summer	S2	2.000	S3	2.1	0.326	0.106	0.0862	
30 minute summer	S3	1.001	S4	7.6	0.671	0.428	0.0620	
30 minute summer	S4	1.002	S7	10.6	1.025	0.596	0.0404	
30 minute summer	S5	3.000	S6	3.7	0.832	0.206	0.0138	
30 minute summer	S6	3.001	S7	3.6	0.766	0.148	0.0902	
30 minute summer	S7	1.003	S8	3.2	0.464	0.178	0.1219	
30 minute summer	S8	Hydro-Brake®	C01	2.0				8.7

Results for 10 year 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
30 minute winter	S2	18	48.179	0.029	1.6	0.0100	0.0000	OK
30 minute winter	S3	29	48.129	0.115	6.1	0.0676	0.0000	OK
30 minute winter	S4	29	48.129	0.153	8.5	0.0607	0.0000	SURCHARGED
30 minute winter	S5	17	48.193	0.043	2.8	0.0208	0.0000	OK
30 minute winter	S6	17	48.153	0.034	2.8	0.0054	0.0000	OK
30 minute winter	S7	29	48.128	0.175	11.1	5.0780	0.0000	SURCHARGED
30 minute winter	S8	29	48.127	0.243	4.4	0.4297	0.0000	SURCHARGED
30 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0983	
30 minute winter	S2	2.000	S3	1.6	0.314	0.082	0.0853	
30 minute winter	S3	1.001	S4	5.9	0.632	0.335	0.0617	
30 minute winter	S4	1.002	S7	8.4	0.985	0.471	0.0404	
30 minute winter	S5	3.000	S6	2.8	0.772	0.157	0.0114	
30 minute winter	S6	3.001	S7	2.8	0.827	0.114	0.0890	
30 minute winter	S7	1.003	S8	4.4	0.479	0.248	0.1219	
30 minute winter	S8	Hydro-Brake®	C01	2.0				8.6

Results for 10 year 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
60 minute summer	S2	33	48.178	0.028	1.5	0.0097	0.0000	OK
60 minute summer	S3	44	48.132	0.118	5.6	0.0696	0.0000	OK
60 minute summer	S4	44	48.132	0.156	7.9	0.0620	0.0000	SURCHARGED
60 minute summer	S5	32	48.192	0.042	2.6	0.0200	0.0000	OK
60 minute summer	S6	32	48.152	0.033	2.6	0.0052	0.0000	OK
60 minute summer	S7	45	48.132	0.179	10.2	5.1774	0.0000	SURCHARGED
60 minute summer	S8	45	48.131	0.247	2.9	0.4358	0.0000	SURCHARGED
60 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.1012	
60 minute summer	S2	2.000	S3	1.5	0.309	0.077	0.0879	
60 minute summer	S3	1.001	S4	5.5	0.587	0.309	0.0625	
60 minute summer	S4	1.002	S7	7.7	0.804	0.432	0.0404	
60 minute summer	S5	3.000	S6	2.6	0.757	0.145	0.0108	
60 minute summer	S6	3.001	S7	2.6	0.696	0.105	0.0884	
60 minute summer	S7	1.003	S8	2.9	0.398	0.161	0.1219	
60 minute summer	S8	Hydro-Brake®	C01	2.0				10.8

Results for 10 year 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	1	48.150	0.000	0.0	0.0000	0.0000	OK
60 minute winter	S2	33	48.174	0.024	1.1	0.0083	0.0000	OK
60 minute winter	S3	47	48.128	0.114	4.0	0.0670	0.0000	OK
60 minute winter	S4	47	48.128	0.152	5.7	0.0603	0.0000	SURCHARGED
60 minute winter	S5	32	48.185	0.035	1.8	0.0166	0.0000	OK
60 minute winter	S6	33	48.147	0.028	1.8	0.0044	0.0000	OK
60 minute winter	S7	47	48.128	0.175	7.3	5.0535	0.0000	SURCHARGED
60 minute winter	S8	47	48.126	0.242	3.1	0.4282	0.0000	SURCHARGED
60 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0975	
60 minute winter	S2	2.000	S3	1.1	0.294	0.056	0.0851	
60 minute winter	S3	1.001	S4	4.0	0.549	0.223	0.0615	
60 minute winter	S4	1.002	S7	5.5	0.863	0.310	0.0404	
60 minute winter	S5	3.000	S6	1.8	0.683	0.101	0.0083	
60 minute winter	S6	3.001	S7	1.8	0.692	0.074	0.0867	
60 minute winter	S7	1.003	S8	3.1	0.417	0.174	0.1219	
60 minute winter	S8	Hydro-Brake®	C01	2.0				10.8

Results for 10 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	2	48.150	0.000	0.0	0.0000	0.0000	OK
120 minute summer	S2	62	48.173	0.023	1.0	0.0079	0.0000	OK
120 minute summer	S3	78	48.114	0.100	3.7	0.0588	0.0000	OK
120 minute summer	S4	78	48.114	0.138	5.1	0.0548	0.0000	OK
120 minute summer	S5	62	48.183	0.033	1.7	0.0160	0.0000	OK
120 minute summer	S6	62	48.146	0.027	1.7	0.0043	0.0000	OK
120 minute summer	S7	78	48.114	0.161	6.6	4.6486	0.0000	SURCHARGED
120 minute summer	S8	78	48.112	0.228	3.3	0.4035	0.0000	SURCHARGED
120 minute summer	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0847	
120 minute summer	S2	2.000	S3	1.0	0.288	0.050	0.0740	
120 minute summer	S3	1.001	S4	3.6	0.523	0.204	0.0566	
120 minute summer	S4	1.002	S7	4.9	0.681	0.277	0.0396	
120 minute summer	S5	3.000	S6	1.7	0.672	0.095	0.0079	
120 minute summer	S6	3.001	S7	1.7	0.559	0.069	0.0848	
120 minute summer	S7	1.003	S8	3.3	0.343	0.187	0.1219	
120 minute summer	S8	Hydro-Brake®	C01	2.0				13.1

Results for 10 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	2	48.150	0.000	0.0	0.0000	0.0000	OK
120 minute winter	S2	62	48.169	0.019	0.7	0.0066	0.0000	OK
120 minute winter	S3	82	48.095	0.081	2.5	0.0479	0.0000	OK
120 minute winter	S4	82	48.095	0.119	3.5	0.0474	0.0000	OK
120 minute winter	S5	60	48.177	0.027	1.1	0.0129	0.0000	OK
120 minute winter	S6	62	48.141	0.022	1.1	0.0035	0.0000	OK
120 minute winter	S7	84	48.095	0.142	4.5	4.1135	0.0000	OK
120 minute winter	S8	84	48.094	0.210	4.1	0.3710	0.0000	SURCHARGED
120 minute winter	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0663	
120 minute winter	S2	2.000	S3	0.7	0.281	0.035	0.0588	
120 minute winter	S3	1.001	S4	2.5	0.494	0.139	0.0477	
120 minute winter	S4	1.002	S7	3.4	0.731	0.194	0.0370	
120 minute winter	S5	3.000	S6	1.1	0.595	0.062	0.0058	
120 minute winter	S6	3.001	S7	1.1	0.610	0.045	0.0814	
120 minute winter	S7	1.003	S8	4.1	0.391	0.229	0.1208	
120 minute winter	S8	Hydro-Brake®	C01	2.0				13.0

Results for 10 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
180 minute summer	S2	92	48.169	0.019	0.7	0.0067	0.0000	OK
180 minute summer	S3	112	48.089	0.075	2.7	0.0444	0.0000	OK
180 minute summer	S4	112	48.089	0.113	3.9	0.0450	0.0000	OK
180 minute summer	S5	92	48.179	0.029	1.3	0.0140	0.0000	OK
180 minute summer	S6	92	48.142	0.023	1.3	0.0037	0.0000	OK
180 minute summer	S7	112	48.089	0.136	5.1	3.9422	0.0000	OK
180 minute summer	S8	112	48.088	0.204	4.0	0.3606	0.0000	SURCHARGED
180 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0602	
180 minute summer	S2	2.000	S3	0.7	0.267	0.035	0.0539	
180 minute summer	S3	1.001	S4	2.7	0.499	0.151	0.0445	
180 minute summer	S4	1.002	S7	3.8	0.646	0.215	0.0356	
180 minute summer	S5	3.000	S6	1.3	0.624	0.073	0.0065	
180 minute summer	S6	3.001	S7	1.3	0.532	0.052	0.0790	
180 minute summer	S7	1.003	S8	4.0	0.385	0.226	0.1192	
180 minute summer	S8	Hydro-Brake®	C01	2.0				14.4

Results for 10 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
180 minute winter	S2	92	48.167	0.017	0.5	0.0057	0.0000	OK
180 minute winter	S3	116	48.061	0.047	1.8	0.0279	0.0000	OK
180 minute winter	S4	116	48.061	0.085	2.6	0.0339	0.0000	OK
180 minute winter	S5	88	48.173	0.023	0.8	0.0110	0.0000	OK
180 minute winter	S6	88	48.138	0.019	0.8	0.0030	0.0000	OK
180 minute winter	S7	116	48.061	0.108	3.3	3.1280	0.0000	OK
180 minute winter	S8	116	48.060	0.176	4.5	0.3115	0.0000	SURCHARGED
180 minute winter	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0324	
180 minute winter	S2	2.000	S3	0.5	0.269	0.026	0.0308	
180 minute winter	S3	1.001	S4	1.8	0.472	0.102	0.0291	
180 minute winter	S4	1.002	S7	2.5	0.632	0.141	0.0274	
180 minute winter	S5	3.000	S6	0.8	0.543	0.045	0.0046	
180 minute winter	S6	3.001	S7	0.8	0.540	0.033	0.0647	
180 minute winter	S7	1.003	S8	4.5	0.366	0.255	0.1080	
180 minute winter	S8	Hydro-Brake®	C01	2.0				14.2

Results for 10 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute summer	S2	124	48.168	0.018	0.6	0.0062	0.0000	OK
240 minute summer	S3	144	48.070	0.056	2.2	0.0330	0.0000	OK
240 minute summer	S4	144	48.070	0.094	3.1	0.0374	0.0000	OK
240 minute summer	S5	124	48.176	0.026	1.0	0.0123	0.0000	OK
240 minute summer	S6	124	48.140	0.021	1.0	0.0033	0.0000	OK
240 minute summer	S7	144	48.070	0.117	4.0	3.3847	0.0000	OK
240 minute summer	S8	144	48.069	0.185	4.7	0.3270	0.0000	SURCHARGED
240 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0408	
240 minute summer	S2	2.000	S3	0.6	0.271	0.031	0.0378	
240 minute summer	S3	1.001	S4	2.2	0.484	0.126	0.0339	
240 minute summer	S4	1.002	S7	3.0	0.614	0.171	0.0302	
240 minute summer	S5	3.000	S6	1.0	0.579	0.056	0.0054	
240 minute summer	S6	3.001	S7	1.0	0.550	0.041	0.0698	
240 minute summer	S7	1.003	S8	4.7	0.363	0.264	0.1120	
240 minute summer	S8	Hydro-Brake®	C01	2.0				15.8

Results for 10 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute winter	S2	120	48.165	0.015	0.4	0.0052	0.0000	OK
240 minute winter	S3	120	48.045	0.031	1.5	0.0183	0.0000	OK
240 minute winter	S4	148	48.035	0.059	2.1	0.0234	0.0000	OK
240 minute winter	S5	120	48.171	0.021	0.7	0.0103	0.0000	OK
240 minute winter	S6	120	48.137	0.018	0.7	0.0028	0.0000	OK
240 minute winter	S7	148	48.035	0.082	3.5	2.3698	0.0000	OK
240 minute winter	S8	148	48.035	0.151	3.0	0.2661	0.0000	SURCHARGED
240 minute winter	C01	4	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0179	
240 minute winter	S2	2.000	S3	0.4	0.255	0.020	0.0198	
240 minute winter	S3	1.001	S4	1.5	0.462	0.085	0.0160	
240 minute winter	S4	1.002	S7	2.1	0.586	0.118	0.0186	
240 minute winter	S5	3.000	S6	0.7	0.522	0.039	0.0042	
240 minute winter	S6	3.001	S7	0.7	0.548	0.029	0.0479	
240 minute winter	S7	1.003	S8	3.0	0.313	0.166	0.0950	
240 minute winter	S8	Hydro-Brake®	C01	1.9				15.7

Results for 10 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute summer	S2	184	48.165	0.015	0.4	0.0052	0.0000	OK
360 minute summer	S3	184	48.046	0.032	1.6	0.0189	0.0000	OK
360 minute summer	S4	208	48.035	0.059	2.3	0.0234	0.0000	OK
360 minute summer	S5	184	48.173	0.023	0.8	0.0110	0.0000	OK
360 minute summer	S6	184	48.138	0.019	0.8	0.0030	0.0000	OK
360 minute summer	S7	208	48.035	0.082	3.8	2.3680	0.0000	OK
360 minute summer	S8	208	48.034	0.150	2.4	0.2659	0.0000	SURCHARGED
360 minute summer	C01	8	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0187	
360 minute summer	S2	2.000	S3	0.4	0.254	0.020	0.0205	
360 minute summer	S3	1.001	S4	1.6	0.461	0.089	0.0161	
360 minute summer	S4	1.002	S7	2.3	0.563	0.129	0.0186	
360 minute summer	S5	3.000	S6	0.8	0.543	0.045	0.0046	
360 minute summer	S6	3.001	S7	0.8	0.489	0.033	0.0473	
360 minute summer	S7	1.003	S8	2.4	0.286	0.134	0.0950	
360 minute summer	S8	Hydro-Brake®	C01	1.9				17.5

Results for 10 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute winter	S2	176	48.163	0.013	0.3	0.0045	0.0000	OK
360 minute winter	S3	176	48.041	0.027	1.1	0.0157	0.0000	OK
360 minute winter	S4	184	48.010	0.034	1.6	0.0136	0.0000	OK
360 minute winter	S5	176	48.168	0.018	0.5	0.0087	0.0000	OK
360 minute winter	S6	176	48.134	0.015	0.5	0.0024	0.0000	OK
360 minute winter	S7	208	47.996	0.043	2.1	1.2454	0.0000	OK
360 minute winter	S8	200	48.005	0.121	3.2	0.2143	0.0000	OK
360 minute winter	C01	8	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0143	
360 minute winter	S2	2.000	S3	0.3	0.229	0.015	0.0159	
360 minute winter	S3	1.001	S4	1.1	0.446	0.062	0.0098	
360 minute winter	S4	1.002	S7	1.6	0.516	0.090	0.0078	
360 minute winter	S5	3.000	S6	0.5	0.474	0.028	0.0033	
360 minute winter	S6	3.001	S7	0.5	0.589	0.021	0.0223	
360 minute winter	S7	1.003	S8	3.2	0.339	0.180	0.0671	
360 minute winter	S8	Hydro-Brake®	C01	1.9				17.5

Results for 10 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute summer	S2	232	48.163	0.013	0.3	0.0045	0.0000	OK
480 minute summer	S3	248	48.042	0.028	1.2	0.0163	0.0000	OK
480 minute summer	S4	248	48.012	0.036	1.7	0.0142	0.0000	OK
480 minute summer	S5	248	48.170	0.020	0.6	0.0095	0.0000	OK
480 minute summer	S6	248	48.135	0.016	0.6	0.0026	0.0000	OK
480 minute summer	S7	256	48.005	0.052	2.4	1.5164	0.0000	OK
480 minute summer	S8	264	48.016	0.132	4.3	0.2326	0.0000	OK
480 minute summer	C01	8	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0152	
480 minute summer	S2	2.000	S3	0.3	0.230	0.015	0.0166	
480 minute summer	S3	1.001	S4	1.2	0.444	0.068	0.0105	
480 minute summer	S4	1.002	S7	1.7	0.547	0.096	0.0098	
480 minute summer	S5	3.000	S6	0.6	0.498	0.034	0.0038	
480 minute summer	S6	3.001	S7	0.6	0.562	0.025	0.0285	
480 minute summer	S7	1.003	S8	4.3	0.381	0.243	0.0757	
480 minute summer	S8	Hydro-Brake®	C01	1.9				18.7

Results for 10 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute winter	S2	200	48.161	0.011	0.2	0.0037	0.0000	OK
480 minute winter	S3	264	48.037	0.023	0.8	0.0133	0.0000	OK
480 minute winter	S4	256	48.005	0.029	1.2	0.0115	0.0000	OK
480 minute winter	S5	232	48.166	0.016	0.4	0.0078	0.0000	OK
480 minute winter	S6	232	48.132	0.013	0.4	0.0021	0.0000	OK
480 minute winter	S7	256	47.983	0.030	1.6	0.8803	0.0000	OK
480 minute winter	S8	256	47.968	0.084	1.6	0.1487	0.0000	OK
480 minute winter	C01	8	47.865	0.000	1.6	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0113	
480 minute winter	S2	2.000	S3	0.2	0.217	0.010	0.0124	
480 minute winter	S3	1.001	S4	0.8	0.414	0.045	0.0077	
480 minute winter	S4	1.002	S7	1.2	0.510	0.068	0.0056	
480 minute winter	S5	3.000	S6	0.4	0.442	0.023	0.0028	
480 minute winter	S6	3.001	S7	0.4	0.375	0.016	0.0148	
480 minute winter	S7	1.003	S8	1.6	0.280	0.090	0.0441	
480 minute winter	S8	Hydro-Brake®	C01	1.6				18.4

Results for 10 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute summer	S2	315	48.163	0.013	0.3	0.0045	0.0000	OK
600 minute summer	S3	315	48.041	0.027	1.1	0.0157	0.0000	OK
600 minute summer	S4	315	48.009	0.033	1.5	0.0132	0.0000	OK
600 minute summer	S5	315	48.168	0.018	0.5	0.0087	0.0000	OK
600 minute summer	S6	315	48.134	0.015	0.5	0.0024	0.0000	OK
600 minute summer	S7	315	47.991	0.038	2.0	1.1122	0.0000	OK
600 minute summer	S8	330	47.997	0.113	2.3	0.2000	0.0000	OK
600 minute summer	C01	15	47.865	0.000	1.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0143	
600 minute summer	S2	2.000	S3	0.3	0.219	0.015	0.0159	
600 minute summer	S3	1.001	S4	1.1	0.447	0.062	0.0096	
600 minute summer	S4	1.002	S7	1.5	0.528	0.084	0.0074	
600 minute summer	S5	3.000	S6	0.5	0.474	0.028	0.0033	
600 minute summer	S6	3.001	S7	0.5	0.276	0.021	0.0199	
600 minute summer	S7	1.003	S8	2.3	0.285	0.131	0.0616	
600 minute summer	S8	Hydro-Brake®	C01	1.8				18.9

Results for 10 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute winter	S2	270	48.161	0.011	0.2	0.0037	0.0000	OK
600 minute winter	S3	285	48.035	0.021	0.7	0.0124	0.0000	OK
600 minute winter	S4	330	48.002	0.026	1.0	0.0104	0.0000	OK
600 minute winter	S5	270	48.164	0.014	0.3	0.0068	0.0000	OK
600 minute winter	S6	270	48.131	0.012	0.3	0.0019	0.0000	OK
600 minute winter	S7	345	47.980	0.027	1.3	0.7955	0.0000	OK
600 minute winter	S8	345	47.952	0.068	1.3	0.1197	0.0000	OK
600 minute winter	C01	15	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0102	
600 minute winter	S2	2.000	S3	0.2	0.216	0.010	0.0115	
600 minute winter	S3	1.001	S4	0.7	0.396	0.039	0.0068	
600 minute winter	S4	1.002	S7	1.0	0.479	0.056	0.0049	
600 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
600 minute winter	S6	3.001	S7	0.3	0.402	0.012	0.0127	
600 minute winter	S7	1.003	S8	1.3	0.277	0.073	0.0344	
600 minute winter	S8	Hydro-Brake®	C01	1.3				20.1

Results for 10 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute summer	S2	375	48.163	0.013	0.3	0.0045	0.0000	OK
720 minute summer	S3	375	48.039	0.025	1.0	0.0149	0.0000	OK
720 minute summer	S4	375	48.007	0.031	1.4	0.0124	0.0000	OK
720 minute summer	S5	360	48.166	0.016	0.4	0.0078	0.0000	OK
720 minute summer	S6	360	48.132	0.013	0.4	0.0021	0.0000	OK
720 minute summer	S7	375	47.985	0.032	1.8	0.9322	0.0000	OK
720 minute summer	S8	375	47.985	0.101	1.8	0.1782	0.0000	OK
720 minute summer	C01	15	47.865	0.000	1.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0133	
720 minute summer	S2	2.000	S3	0.3	0.229	0.015	0.0151	
720 minute summer	S3	1.001	S4	1.0	0.434	0.056	0.0089	
720 minute summer	S4	1.002	S7	1.4	0.524	0.079	0.0062	
720 minute summer	S5	3.000	S6	0.4	0.442	0.023	0.0028	
720 minute summer	S6	3.001	S7	0.4	0.264	0.016	0.0158	
720 minute summer	S7	1.003	S8	1.8	0.281	0.101	0.0532	
720 minute summer	S8	Hydro-Brake®	C01	1.8				19.7

Results for 10 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute winter	S2	345	48.161	0.011	0.2	0.0037	0.0000	OK
720 minute winter	S3	375	48.035	0.021	0.7	0.0124	0.0000	OK
720 minute winter	S4	375	48.002	0.026	1.0	0.0104	0.0000	OK
720 minute winter	S5	345	48.164	0.014	0.3	0.0068	0.0000	OK
720 minute winter	S6	345	48.131	0.012	0.3	0.0019	0.0000	OK
720 minute winter	S7	375	47.980	0.027	1.3	0.7948	0.0000	OK
720 minute winter	S8	375	47.952	0.068	1.3	0.1194	0.0000	OK
720 minute winter	C01	15	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0102	
720 minute winter	S2	2.000	S3	0.2	0.218	0.010	0.0115	
720 minute winter	S3	1.001	S4	0.7	0.396	0.039	0.0068	
720 minute winter	S4	1.002	S7	1.0	0.474	0.056	0.0049	
720 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
720 minute winter	S6	3.001	S7	0.3	0.327	0.012	0.0127	
720 minute winter	S7	1.003	S8	1.3	0.276	0.073	0.0343	
720 minute winter	S8	Hydro-Brake®	C01	1.3				20.1

Results for 10 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute summer	S2	465	48.161	0.011	0.2	0.0037	0.0000	OK
960 minute summer	S3	495	48.037	0.023	0.8	0.0133	0.0000	OK
960 minute summer	S4	495	48.004	0.028	1.1	0.0110	0.0000	OK
960 minute summer	S5	495	48.166	0.016	0.4	0.0078	0.0000	OK
960 minute summer	S6	495	48.132	0.013	0.4	0.0021	0.0000	OK
960 minute summer	S7	495	47.982	0.029	1.5	0.8519	0.0000	OK
960 minute summer	S8	495	47.962	0.078	1.5	0.1377	0.0000	OK
960 minute summer	C01	15	47.865	0.000	1.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0113	
960 minute summer	S2	2.000	S3	0.2	0.216	0.010	0.0124	
960 minute summer	S3	1.001	S4	0.8	0.414	0.045	0.0075	
960 minute summer	S4	1.002	S7	1.1	0.481	0.062	0.0053	
960 minute summer	S5	3.000	S6	0.4	0.442	0.023	0.0028	
960 minute summer	S6	3.001	S7	0.4	0.263	0.016	0.0143	
960 minute summer	S7	1.003	S8	1.5	0.277	0.084	0.0404	
960 minute summer	S8	Hydro-Brake®	C01	1.5				20.1

Results for 10 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute winter	S2	315	48.158	0.008	0.1	0.0027	0.0000	OK
960 minute winter	S3	480	48.032	0.018	0.5	0.0104	0.0000	OK
960 minute winter	S4	510	47.998	0.022	0.7	0.0086	0.0000	OK
960 minute winter	S5	390	48.162	0.012	0.2	0.0056	0.0000	OK
960 minute winter	S6	390	48.129	0.010	0.2	0.0016	0.0000	OK
960 minute winter	S7	510	47.976	0.023	0.9	0.6652	0.0000	OK
960 minute winter	S8	510	47.935	0.051	0.9	0.0895	0.0000	OK
960 minute winter	C01	15	47.865	0.000	0.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0079	
960 minute winter	S2	2.000	S3	0.1	0.213	0.005	0.0085	
960 minute winter	S3	1.001	S4	0.5	0.368	0.028	0.0053	
960 minute winter	S4	1.002	S7	0.7	0.434	0.039	0.0037	
960 minute winter	S5	3.000	S6	0.2	0.360	0.011	0.0018	
960 minute winter	S6	3.001	S7	0.2	0.257	0.008	0.0097	
960 minute winter	S7	1.003	S8	0.9	0.269	0.051	0.0240	
960 minute winter	S8	Hydro-Brake®	C01	0.9				19.9

Results for 10 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	S2	600	48.158	0.008	0.1	0.0027	0.0000	OK
1440 minute summer	S3	750	48.032	0.018	0.5	0.0104	0.0000	OK
1440 minute summer	S4	750	47.998	0.022	0.7	0.0087	0.0000	OK
1440 minute summer	S5	750	48.164	0.014	0.3	0.0068	0.0000	OK
1440 minute summer	S6	750	48.131	0.012	0.3	0.0019	0.0000	OK
1440 minute summer	S7	750	47.977	0.024	1.0	0.6998	0.0000	OK
1440 minute summer	S8	750	47.939	0.055	1.0	0.0965	0.0000	OK
1440 minute summer	C01	30	47.865	0.000	1.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0079	
1440 minute summer	S2	2.000	S3	0.1	0.214	0.005	0.0085	
1440 minute summer	S3	1.001	S4	0.5	0.367	0.028	0.0053	
1440 minute summer	S4	1.002	S7	0.7	0.437	0.039	0.0039	
1440 minute summer	S5	3.000	S6	0.3	0.408	0.017	0.0023	
1440 minute summer	S6	3.001	S7	0.3	0.256	0.012	0.0110	
1440 minute summer	S7	1.003	S8	1.0	0.272	0.056	0.0264	
1440 minute summer	S8	Hydro-Brake®	C01	1.0				19.1

Results for 10 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	S2	540	48.158	0.008	0.1	0.0027	0.0000	OK
1440 minute winter	S3	780	48.030	0.016	0.4	0.0094	0.0000	OK
1440 minute winter	S4	750	47.996	0.020	0.6	0.0080	0.0000	OK
1440 minute winter	S5	690	48.162	0.012	0.2	0.0056	0.0000	OK
1440 minute winter	S6	690	48.129	0.010	0.2	0.0016	0.0000	OK
1440 minute winter	S7	750	47.975	0.022	0.8	0.6281	0.0000	OK
1440 minute winter	S8	750	47.931	0.047	0.8	0.0828	0.0000	OK
1440 minute winter	C01	30	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0067	
1440 minute winter	S2	2.000	S3	0.1	0.214	0.005	0.0075	
1440 minute winter	S3	1.001	S4	0.4	0.362	0.023	0.0046	
1440 minute winter	S4	1.002	S7	0.6	0.437	0.034	0.0034	
1440 minute winter	S5	3.000	S6	0.2	0.359	0.011	0.0018	
1440 minute winter	S6	3.001	S7	0.2	0.248	0.008	0.0091	
1440 minute winter	S7	1.003	S8	0.8	0.264	0.045	0.0217	
1440 minute winter	S8	Hydro-Brake®	C01	0.8				20.5

Results for 10 year 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute summer	S2	1020	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute summer	S3	1140	48.030	0.016	0.4	0.0093	0.0000	OK
2160 minute summer	S4	1140	47.996	0.020	0.6	0.0080	0.0000	OK
2160 minute summer	S5	1140	48.162	0.012	0.2	0.0056	0.0000	OK
2160 minute summer	S6	1140	48.129	0.010	0.2	0.0016	0.0000	OK
2160 minute summer	S7	1140	47.975	0.022	0.8	0.6282	0.0000	OK
2160 minute summer	S8	1140	47.931	0.047	0.8	0.0828	0.0000	OK
2160 minute summer	C01	60	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0066	
2160 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0074	
2160 minute summer	S3	1.001	S4	0.4	0.339	0.023	0.0046	
2160 minute summer	S4	1.002	S7	0.6	0.412	0.034	0.0034	
2160 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
2160 minute summer	S6	3.001	S7	0.2	0.208	0.008	0.0091	
2160 minute summer	S7	1.003	S8	0.8	0.264	0.045	0.0217	
2160 minute summer	S8	Hydro-Brake®	C01	0.8				18.7

Results for 10 year 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute winter	S2	960	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute winter	S3	1020	48.028	0.014	0.3	0.0081	0.0000	OK
2160 minute winter	S4	1080	47.992	0.016	0.4	0.0065	0.0000	OK
2160 minute winter	S5	780	48.158	0.008	0.1	0.0041	0.0000	OK
2160 minute winter	S6	780	48.126	0.007	0.1	0.0011	0.0000	OK
2160 minute winter	S7	1080	47.970	0.017	0.5	0.5025	0.0000	OK
2160 minute winter	S8	1080	47.919	0.035	0.5	0.0622	0.0000	OK
2160 minute winter	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2160 minute winter	S2	2.000	S3	0.1	0.215	0.005	0.0064	
2160 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2160 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0025	
2160 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2160 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0064	
2160 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2160 minute winter	S8	Hydro-Brake®	C01	0.5				20.8

Results for 10 year 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute summer	S2	1380	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute summer	S3	1380	48.028	0.014	0.3	0.0081	0.0000	OK
2880 minute summer	S4	1440	47.992	0.016	0.4	0.0065	0.0000	OK
2880 minute summer	S5	1200	48.158	0.008	0.1	0.0041	0.0000	OK
2880 minute summer	S6	1200	48.126	0.007	0.1	0.0011	0.0000	OK
2880 minute summer	S7	1440	47.970	0.017	0.5	0.5025	0.0000	OK
2880 minute summer	S8	1440	47.919	0.035	0.5	0.0622	0.0000	OK
2880 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2880 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0064	
2880 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2880 minute summer	S4	1.002	S7	0.4	0.378	0.023	0.0025	
2880 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2880 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0064	
2880 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2880 minute summer	S8	Hydro-Brake®	C01	0.5				18.0

Results for 10 year 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	S2	1380	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute winter	S3	1440	48.028	0.014	0.3	0.0081	0.0000	OK
2880 minute winter	S4	1500	47.992	0.016	0.4	0.0065	0.0000	OK
2880 minute winter	S5	1080	48.158	0.008	0.1	0.0041	0.0000	OK
2880 minute winter	S6	1080	48.126	0.007	0.1	0.0011	0.0000	OK
2880 minute winter	S7	1500	47.970	0.017	0.5	0.5025	0.0000	OK
2880 minute winter	S8	1500	47.919	0.035	0.5	0.0622	0.0000	OK
2880 minute winter	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2880 minute winter	S2	2.000	S3	0.1	0.215	0.005	0.0064	
2880 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2880 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0025	
2880 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2880 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0064	
2880 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2880 minute winter	S8	Hydro-Brake®	C01	0.5				21.6

Results for 10 year 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute summer	S2	2100	48.158	0.008	0.1	0.0027	0.0000	OK
4320 minute summer	S3	2160	48.028	0.014	0.3	0.0081	0.0000	OK
4320 minute summer	S4	2220	47.992	0.016	0.4	0.0065	0.0000	OK
4320 minute summer	S5	1860	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute summer	S6	1860	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute summer	S7	2220	47.970	0.017	0.5	0.5025	0.0000	OK
4320 minute summer	S8	2220	47.919	0.035	0.5	0.0622	0.0000	OK
4320 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
4320 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0064	
4320 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
4320 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
4320 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0064	
4320 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
4320 minute summer	S8	Hydro-Brake®	C01	0.5				20.1

Results for 10 year 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S3	1740	48.022	0.008	0.1	0.0049	0.0000	OK
4320 minute winter	S4	1800	47.987	0.011	0.2	0.0046	0.0000	OK
4320 minute winter	S5	1800	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute winter	S6	1800	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute winter	S7	1980	47.967	0.014	0.3	0.3948	0.0000	OK
4320 minute winter	S8	1980	47.910	0.026	0.3	0.0464	0.0000	OK
4320 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
4320 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
4320 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
4320 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
4320 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
4320 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
4320 minute winter	S8	Hydro-Brake®	C01	0.3				20.1

Results for 10 year 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute summer	S2	2940	48.158	0.008	0.1	0.0027	0.0000	OK
5760 minute summer	S3	2940	48.025	0.011	0.2	0.0067	0.0000	OK
5760 minute summer	S4	2940	47.990	0.014	0.3	0.0056	0.0000	OK
5760 minute summer	S5	2580	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute summer	S6	2580	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute summer	S7	2940	47.969	0.016	0.4	0.4521	0.0000	OK
5760 minute summer	S8	2940	47.915	0.031	0.4	0.0549	0.0000	OK
5760 minute summer	C01	60	47.865	0.000	0.4	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0041	
5760 minute summer	S2	2.000	S3	0.1	0.216	0.005	0.0053	
5760 minute summer	S3	1.001	S4	0.2	0.282	0.011	0.0027	
5760 minute summer	S4	1.002	S7	0.3	0.353	0.017	0.0021	
5760 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0056	
5760 minute summer	S7	1.003	S8	0.4	0.230	0.023	0.0125	
5760 minute summer	S8	Hydro-Brake®	C01	0.4				18.0

Results for 10 year 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S3	2580	48.022	0.008	0.1	0.0049	0.0000	OK
5760 minute winter	S4	2700	47.987	0.011	0.2	0.0046	0.0000	OK
5760 minute winter	S5	2640	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute winter	S6	2640	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute winter	S7	2880	47.967	0.014	0.3	0.3948	0.0000	OK
5760 minute winter	S8	2880	47.910	0.026	0.3	0.0464	0.0000	OK
5760 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
5760 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
5760 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
5760 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
5760 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
5760 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
5760 minute winter	S8	Hydro-Brake®	C01	0.3				17.2

Results for 10 year 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S3	3300	48.022	0.008	0.1	0.0049	0.0000	OK
7200 minute summer	S4	3360	47.987	0.011	0.2	0.0046	0.0000	OK
7200 minute summer	S5	3360	48.158	0.008	0.1	0.0041	0.0000	OK
7200 minute summer	S6	3360	48.126	0.007	0.1	0.0011	0.0000	OK
7200 minute summer	S7	3540	47.967	0.014	0.3	0.3948	0.0000	OK
7200 minute summer	S8	3540	47.910	0.026	0.3	0.0464	0.0000	OK
7200 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
7200 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
7200 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
7200 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
7200 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
7200 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
7200 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
7200 minute summer	S8	Hydro-Brake®	C01	0.3				16.5

Results for 10 year 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S3	3060	48.022	0.008	0.1	0.0049	0.0000	OK
7200 minute winter	S4	2820	47.985	0.009	0.1	0.0035	0.0000	OK
7200 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S7	3180	47.961	0.008	0.1	0.2367	0.0000	OK
7200 minute winter	S8	3180	47.898	0.014	0.1	0.0249	0.0000	OK
7200 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
7200 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
7200 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
7200 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
7200 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
7200 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
7200 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
7200 minute winter	S8	Hydro-Brake®	C01	0.1				10.0

Results for 10 year 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S3	4080	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute summer	S4	4140	47.987	0.011	0.2	0.0046	0.0000	OK
8640 minute summer	S5	4140	48.158	0.008	0.1	0.0041	0.0000	OK
8640 minute summer	S6	4140	48.126	0.007	0.1	0.0011	0.0000	OK
8640 minute summer	S7	4320	47.967	0.014	0.3	0.3948	0.0000	OK
8640 minute summer	S8	4320	47.910	0.026	0.3	0.0464	0.0000	OK
8640 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
8640 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
8640 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
8640 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
8640 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
8640 minute summer	S8	Hydro-Brake®	C01	0.3				15.8

Results for 10 year 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S3	3780	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute winter	S4	3540	47.985	0.009	0.1	0.0035	0.0000	OK
8640 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S7	3900	47.961	0.008	0.1	0.2367	0.0000	OK
8640 minute winter	S8	3900	47.898	0.014	0.1	0.0249	0.0000	OK
8640 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
8640 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
8640 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
8640 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
8640 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
8640 minute winter	S8	Hydro-Brake®	C01	0.1				10.0

Results for 10 year 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S3	4860	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute summer	S4	4980	47.987	0.011	0.2	0.0046	0.0000	OK
10080 minute summer	S5	4920	48.158	0.008	0.1	0.0041	0.0000	OK
10080 minute summer	S6	4920	48.126	0.007	0.1	0.0011	0.0000	OK
10080 minute summer	S7	5160	47.967	0.014	0.3	0.3948	0.0000	OK
10080 minute summer	S8	5160	47.910	0.026	0.3	0.0464	0.0000	OK
10080 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
10080 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
10080 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
10080 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
10080 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
10080 minute summer	S8	Hydro-Brake®	C01	0.3				12.9

Results for 10 year 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S3	4620	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute winter	S4	4380	47.985	0.009	0.1	0.0035	0.0000	OK
10080 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S7	4740	47.961	0.008	0.1	0.2367	0.0000	OK
10080 minute winter	S8	4740	47.898	0.014	0.1	0.0249	0.0000	OK
10080 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
10080 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
10080 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
10080 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
10080 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
10080 minute winter	S8	Hydro-Brake®	C01	0.1				8.6

Results for 30 year 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	16	48.155	0.005	0.1	0.0007	0.0000	OK
15 minute summer	S2	10	48.190	0.040	3.1	0.0139	0.0000	OK
15 minute summer	S3	16	48.154	0.140	11.6	0.0825	0.0000	OK
15 minute summer	S4	17	48.154	0.178	15.9	0.0708	0.0000	SURCHARGED
15 minute summer	S5	10	48.212	0.062	5.4	0.0298	0.0000	OK
15 minute summer	S6	10	48.167	0.048	5.4	0.0076	0.0000	OK
15 minute summer	S7	17	48.154	0.201	20.6	5.8220	0.0000	SURCHARGED
15 minute summer	S8	17	48.153	0.269	4.5	0.4750	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	-0.1	-0.014	-0.006	0.1173	
15 minute summer	S2	2.000	S3	3.1	0.352	0.158	0.1073	
15 minute summer	S3	1.001	S4	11.0	0.761	0.620	0.0668	
15 minute summer	S4	1.002	S7	15.2	1.337	0.857	0.0404	
15 minute summer	S5	3.000	S6	5.4	0.922	0.304	0.0184	
15 minute summer	S6	3.001	S7	5.4	0.959	0.222	0.0979	
15 minute summer	S7	1.003	S8	4.5	0.582	0.254	0.1219	
15 minute summer	S8	Hydro-Brake®	C01	2.0				8.4

Results for 30 year 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	16	48.155	0.005	0.1	0.0009	0.0000	OK
15 minute winter	S2	10	48.188	0.038	2.8	0.0132	0.0000	OK
15 minute winter	S3	17	48.155	0.141	10.4	0.0828	0.0000	OK
15 minute winter	S4	17	48.155	0.179	14.3	0.0710	0.0000	SURCHARGED
15 minute winter	S5	10	48.208	0.058	4.8	0.0279	0.0000	OK
15 minute winter	S6	10	48.164	0.045	4.8	0.0072	0.0000	OK
15 minute winter	S7	17	48.155	0.202	18.6	5.8420	0.0000	SURCHARGED
15 minute winter	S8	17	48.154	0.270	5.4	0.4764	0.0000	SURCHARGED
15 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S3	-0.1	-0.014	-0.006	0.1178	
15 minute winter	S2	2.000	S3	2.8	0.344	0.143	0.1031	
15 minute winter	S3	1.001	S4	9.9	0.731	0.555	0.0669	
15 minute winter	S4	1.002	S7	13.8	1.267	0.779	0.0404	
15 minute winter	S5	3.000	S6	4.8	0.893	0.270	0.0169	
15 minute winter	S6	3.001	S7	4.8	0.981	0.197	0.0960	
15 minute winter	S7	1.003	S8	5.4	0.611	0.305	0.1219	
15 minute winter	S8	Hydro-Brake®	C01	2.0				8.5

Results for 30 year 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	29	48.187	0.037	0.3	0.0059	0.0000	OK
30 minute summer	S2	17	48.187	0.037	2.7	0.0130	0.0000	OK
30 minute summer	S3	29	48.187	0.173	10.1	0.1018	0.0000	SURCHARGED
30 minute summer	S4	29	48.187	0.211	13.7	0.0836	0.0000	SURCHARGED
30 minute summer	S5	17	48.207	0.057	4.7	0.0275	0.0000	OK
30 minute summer	S6	30	48.190	0.071	4.7	0.0113	0.0000	OK
30 minute summer	S7	30	48.186	0.233	17.8	6.7562	0.0000	SURCHARGED
30 minute summer	S8	30	48.185	0.301	3.2	0.5324	0.0000	SURCHARGED
30 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S3	-0.3	-0.037	-0.018	0.1427	
30 minute summer	S2	2.000	S3	2.7	0.339	0.137	0.1175	
30 minute summer	S3	1.001	S4	9.4	0.684	0.527	0.0677	
30 minute summer	S4	1.002	S7	13.2	1.006	0.743	0.0404	
30 minute summer	S5	3.000	S6	4.7	0.888	0.262	0.0172	
30 minute summer	S6	3.001	S7	4.6	0.833	0.190	0.1150	
30 minute summer	S7	1.003	S8	3.2	0.488	0.179	0.1219	
30 minute summer	S8	Hydro-Brake®	C01	2.0				11.0

Results for 30 year 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	30	48.187	0.037	0.4	0.0059	0.0000	OK
30 minute winter	S2	29	48.187	0.037	2.1	0.0127	0.0000	OK
30 minute winter	S3	30	48.187	0.173	7.8	0.1017	0.0000	SURCHARGED
30 minute winter	S4	30	48.187	0.211	10.6	0.0837	0.0000	SURCHARGED
30 minute winter	S5	17	48.200	0.050	3.6	0.0238	0.0000	OK
30 minute winter	S6	29	48.188	0.069	3.6	0.0109	0.0000	OK
30 minute winter	S7	30	48.186	0.233	13.9	6.7535	0.0000	SURCHARGED
30 minute winter	S8	30	48.185	0.301	3.4	0.5319	0.0000	SURCHARGED
30 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S3	-0.4	-0.043	-0.023	0.1427	
30 minute winter	S2	2.000	S3	2.1	0.325	0.106	0.1171	
30 minute winter	S3	1.001	S4	7.3	0.641	0.414	0.0677	
30 minute winter	S4	1.002	S7	10.3	1.043	0.580	0.0404	
30 minute winter	S5	3.000	S6	3.6	0.826	0.202	0.0173	
30 minute winter	S6	3.001	S7	3.6	0.842	0.147	0.1135	
30 minute winter	S7	1.003	S8	3.4	0.512	0.191	0.1219	
30 minute winter	S8	Hydro-Brake®	C01	2.0				11.0

Results for 30 year 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	46	48.196	0.046	0.4	0.0072	0.0000	OK
60 minute summer	S2	48	48.195	0.045	1.9	0.0157	0.0000	OK
60 minute summer	S3	48	48.195	0.181	7.2	0.1066	0.0000	SURCHARGED
60 minute summer	S4	48	48.195	0.219	9.6	0.0869	0.0000	SURCHARGED
60 minute summer	S5	32	48.197	0.047	3.3	0.0227	0.0000	OK
60 minute summer	S6	48	48.195	0.076	3.3	0.0122	0.0000	OK
60 minute summer	S7	47	48.194	0.241	12.5	6.9893	0.0000	SURCHARGED
60 minute summer	S8	47	48.193	0.309	3.5	0.5464	0.0000	SURCHARGED
60 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S3	-0.4	-0.037	-0.021	0.1501	
60 minute summer	S2	2.000	S3	1.9	0.313	0.097	0.1237	
60 minute summer	S3	1.001	S4	6.5	0.585	0.368	0.0677	
60 minute summer	S4	1.002	S7	9.3	0.878	0.521	0.0404	
60 minute summer	S5	3.000	S6	3.3	0.807	0.185	0.0210	
60 minute summer	S6	3.001	S7	3.3	0.738	0.134	0.1187	
60 minute summer	S7	1.003	S8	3.5	0.420	0.196	0.1219	
60 minute summer	S8	Hydro-Brake®	C01	2.0				13.8

Results for 30 year 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	51	48.194	0.044	0.3	0.0069	0.0000	OK
60 minute winter	S2	49	48.194	0.044	1.4	0.0152	0.0000	OK
60 minute winter	S3	50	48.194	0.180	5.1	0.1056	0.0000	SURCHARGED
60 minute winter	S4	49	48.193	0.217	6.7	0.0863	0.0000	SURCHARGED
60 minute winter	S5	51	48.193	0.043	2.3	0.0207	0.0000	OK
60 minute winter	S6	50	48.194	0.075	2.3	0.0120	0.0000	OK
60 minute winter	S7	49	48.193	0.240	8.7	6.9444	0.0000	SURCHARGED
60 minute winter	S8	50	48.192	0.308	3.5	0.5437	0.0000	SURCHARGED
60 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S3	-0.3	-0.026	-0.014	0.1483	
60 minute winter	S2	2.000	S3	1.4	0.298	0.071	0.1224	
60 minute winter	S3	1.001	S4	4.6	0.550	0.261	0.0677	
60 minute winter	S4	1.002	S7	6.5	0.907	0.365	0.0404	
60 minute winter	S5	3.000	S6	2.3	0.732	0.130	0.0204	
60 minute winter	S6	3.001	S7	2.3	0.745	0.095	0.1180	
60 minute winter	S7	1.003	S8	3.5	0.446	0.198	0.1219	
60 minute winter	S8	Hydro-Brake®	C01	2.0				13.8

Results for 30 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	80	48.180	0.030	0.2	0.0047	0.0000	OK
120 minute summer	S2	82	48.180	0.030	1.3	0.0103	0.0000	OK
120 minute summer	S3	82	48.180	0.166	4.7	0.0975	0.0000	SURCHARGED
120 minute summer	S4	82	48.180	0.204	6.0	0.0808	0.0000	SURCHARGED
120 minute summer	S5	62	48.188	0.038	2.2	0.0183	0.0000	OK
120 minute summer	S6	88	48.180	0.061	2.2	0.0097	0.0000	OK
120 minute summer	S7	82	48.179	0.226	7.9	6.5462	0.0000	SURCHARGED
120 minute summer	S8	82	48.178	0.294	3.7	0.5194	0.0000	SURCHARGED
120 minute summer	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S3	-0.2	-0.022	-0.011	0.1362	
120 minute summer	S2	2.000	S3	1.3	0.293	0.066	0.1124	
120 minute summer	S3	1.001	S4	4.1	0.528	0.234	0.0677	
120 minute summer	S4	1.002	S7	5.8	0.812	0.329	0.0404	
120 minute summer	S5	3.000	S6	2.2	0.722	0.123	0.0140	
120 minute summer	S6	3.001	S7	2.2	0.671	0.089	0.1083	
120 minute summer	S7	1.003	S8	3.7	0.371	0.206	0.1219	
120 minute summer	S8	Hydro-Brake®	C01	2.0				16.7

Results for 30 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	86	48.170	0.020	0.1	0.0031	0.0000	OK
120 minute winter	S2	60	48.171	0.021	0.8	0.0072	0.0000	OK
120 minute winter	S3	86	48.170	0.156	3.1	0.0915	0.0000	SURCHARGED
120 minute winter	S4	86	48.169	0.193	4.2	0.0768	0.0000	SURCHARGED
120 minute winter	S5	60	48.180	0.030	1.4	0.0146	0.0000	OK
120 minute winter	S6	86	48.169	0.050	1.4	0.0079	0.0000	OK
120 minute winter	S7	88	48.169	0.216	5.5	6.2538	0.0000	SURCHARGED
120 minute winter	S8	86	48.168	0.284	4.3	0.5015	0.0000	SURCHARGED
120 minute winter	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S3	-0.1	-0.014	-0.007	0.1287	
120 minute winter	S2	2.000	S3	0.8	0.285	0.041	0.1062	
120 minute winter	S3	1.001	S4	2.9	0.501	0.164	0.0677	
120 minute winter	S4	1.002	S7	4.1	0.776	0.231	0.0404	
120 minute winter	S5	3.000	S6	1.4	0.637	0.079	0.0100	
120 minute winter	S6	3.001	S7	1.4	0.605	0.058	0.1013	
120 minute winter	S7	1.003	S8	4.3	0.376	0.240	0.1219	
120 minute winter	S8	Hydro-Brake®	C01	2.0				16.8

Results for 30 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	116	48.160	0.010	0.0	0.0016	0.0000	OK
180 minute summer	S2	92	48.173	0.023	1.0	0.0079	0.0000	OK
180 minute summer	S3	116	48.160	0.146	3.6	0.0860	0.0000	OK
180 minute summer	S4	116	48.160	0.184	4.7	0.0731	0.0000	SURCHARGED
180 minute summer	S5	92	48.182	0.032	1.6	0.0155	0.0000	OK
180 minute summer	S6	116	48.160	0.041	1.6	0.0065	0.0000	OK
180 minute summer	S7	116	48.160	0.207	6.1	5.9834	0.0000	SURCHARGED
180 minute summer	S8	116	48.158	0.274	4.6	0.4850	0.0000	SURCHARGED
180 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S3	0.0	-0.006	-0.003	0.1223	
180 minute summer	S2	2.000	S3	1.0	0.280	0.050	0.1025	
180 minute summer	S3	1.001	S4	3.2	0.494	0.180	0.0675	
180 minute summer	S4	1.002	S7	4.5	0.646	0.254	0.0404	
180 minute summer	S5	3.000	S6	1.6	0.661	0.090	0.0079	
180 minute summer	S6	3.001	S7	1.6	0.532	0.065	0.0958	
180 minute summer	S7	1.003	S8	4.6	0.360	0.257	0.1219	
180 minute summer	S8	Hydro-Brake®	C01	2.0				18.5

Results for 30 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
180 minute winter	S2	92	48.168	0.018	0.6	0.0062	0.0000	OK
180 minute winter	S3	124	48.131	0.117	2.3	0.0688	0.0000	OK
180 minute winter	S4	124	48.131	0.155	3.2	0.0615	0.0000	SURCHARGED
180 minute winter	S5	92	48.177	0.027	1.1	0.0129	0.0000	OK
180 minute winter	S6	92	48.141	0.022	1.1	0.0034	0.0000	OK
180 minute winter	S7	124	48.131	0.178	4.1	5.1403	0.0000	SURCHARGED
180 minute winter	S8	124	48.129	0.245	2.1	0.4335	0.0000	SURCHARGED
180 minute winter	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.1001	
180 minute winter	S2	2.000	S3	0.6	0.277	0.031	0.0866	
180 minute winter	S3	1.001	S4	2.2	0.476	0.124	0.0622	
180 minute winter	S4	1.002	S7	3.1	0.793	0.175	0.0404	
180 minute winter	S5	3.000	S6	1.1	0.594	0.062	0.0058	
180 minute winter	S6	3.001	S7	1.1	0.562	0.045	0.0846	
180 minute winter	S7	1.003	S8	2.1	0.348	0.119	0.1219	
180 minute winter	S8	Hydro-Brake®	C01	2.0				18.6

Results for 30 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute summer	S2	124	48.171	0.021	0.8	0.0072	0.0000	OK
240 minute summer	S3	148	48.138	0.124	2.8	0.0731	0.0000	OK
240 minute summer	S4	148	48.138	0.162	3.9	0.0644	0.0000	SURCHARGED
240 minute summer	S5	124	48.179	0.029	1.3	0.0140	0.0000	OK
240 minute summer	S6	124	48.143	0.024	1.3	0.0038	0.0000	OK
240 minute summer	S7	148	48.138	0.185	5.0	5.3464	0.0000	SURCHARGED
240 minute summer	S8	148	48.136	0.252	3.2	0.4461	0.0000	SURCHARGED
240 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.1059	
240 minute summer	S2	2.000	S3	0.8	0.290	0.041	0.0916	
240 minute summer	S3	1.001	S4	2.7	0.486	0.152	0.0639	
240 minute summer	S4	1.002	S7	3.8	0.646	0.212	0.0404	
240 minute summer	S5	3.000	S6	1.3	0.624	0.073	0.0066	
240 minute summer	S6	3.001	S7	1.3	0.532	0.053	0.0851	
240 minute summer	S7	1.003	S8	3.2	0.312	0.178	0.1219	
240 minute summer	S8	Hydro-Brake®	C01	2.0				20.1

Results for 30 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	4	48.150	0.000	0.0	0.0000	0.0000	OK
240 minute winter	S2	120	48.167	0.017	0.5	0.0057	0.0000	OK
240 minute winter	S3	156	48.096	0.082	1.9	0.0482	0.0000	OK
240 minute winter	S4	156	48.096	0.120	2.7	0.0476	0.0000	OK
240 minute winter	S5	124	48.174	0.024	0.9	0.0117	0.0000	OK
240 minute winter	S6	124	48.139	0.020	0.9	0.0031	0.0000	OK
240 minute winter	S7	156	48.096	0.143	3.5	4.1304	0.0000	OK
240 minute winter	S8	156	48.095	0.211	2.6	0.3720	0.0000	SURCHARGED
240 minute winter	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0669	
240 minute winter	S2	2.000	S3	0.5	0.262	0.026	0.0593	
240 minute winter	S3	1.001	S4	1.9	0.468	0.106	0.0480	
240 minute winter	S4	1.002	S7	2.6	0.632	0.149	0.0371	
240 minute winter	S5	3.000	S6	0.9	0.561	0.051	0.0050	
240 minute winter	S6	3.001	S7	0.9	0.540	0.037	0.0811	
240 minute winter	S7	1.003	S8	2.6	0.314	0.144	0.1209	
240 minute winter	S8	Hydro-Brake®	C01	2.0				19.9

Results for 30 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute summer	S2	184	48.168	0.018	0.6	0.0062	0.0000	OK
360 minute summer	S3	216	48.089	0.075	2.1	0.0443	0.0000	OK
360 minute summer	S4	216	48.089	0.113	3.0	0.0450	0.0000	OK
360 minute summer	S5	184	48.176	0.026	1.0	0.0123	0.0000	OK
360 minute summer	S6	184	48.140	0.021	1.0	0.0033	0.0000	OK
360 minute summer	S7	216	48.089	0.136	3.9	3.9385	0.0000	OK
360 minute summer	S8	216	48.088	0.204	2.8	0.3604	0.0000	SURCHARGED
360 minute summer	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0601	
360 minute summer	S2	2.000	S3	0.6	0.287	0.030	0.0537	
360 minute summer	S3	1.001	S4	2.1	0.466	0.117	0.0445	
360 minute summer	S4	1.002	S7	2.9	0.547	0.162	0.0356	
360 minute summer	S5	3.000	S6	1.0	0.579	0.056	0.0054	
360 minute summer	S6	3.001	S7	1.0	0.489	0.041	0.0789	
360 minute summer	S7	1.003	S8	2.8	0.284	0.156	0.1191	
360 minute summer	S8	Hydro-Brake®	C01	2.0				22.4

Results for 30 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
360 minute winter	S2	184	48.165	0.015	0.4	0.0052	0.0000	OK
360 minute winter	S3	176	48.044	0.030	1.4	0.0176	0.0000	OK
360 minute winter	S4	216	48.038	0.062	2.0	0.0245	0.0000	OK
360 minute winter	S5	176	48.170	0.020	0.6	0.0095	0.0000	OK
360 minute winter	S6	176	48.135	0.016	0.6	0.0026	0.0000	OK
360 minute winter	S7	216	48.038	0.085	3.0	2.4476	0.0000	OK
360 minute winter	S8	216	48.037	0.153	4.4	0.2704	0.0000	SURCHARGED
360 minute winter	C01	8	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0169	
360 minute winter	S2	2.000	S3	0.4	0.255	0.020	0.0189	
360 minute winter	S3	1.001	S4	1.4	0.453	0.079	0.0169	
360 minute winter	S4	1.002	S7	2.2	0.532	0.123	0.0196	
360 minute winter	S5	3.000	S6	0.6	0.498	0.034	0.0038	
360 minute winter	S6	3.001	S7	0.6	0.532	0.025	0.0496	
360 minute winter	S7	1.003	S8	4.4	0.384	0.247	0.0964	
360 minute winter	S8	Hydro-Brake®	C01	1.9				22.0

Results for 30 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute summer	S2	240	48.165	0.015	0.4	0.0052	0.0000	OK
480 minute summer	S3	272	48.055	0.041	1.6	0.0242	0.0000	OK
480 minute summer	S4	272	48.056	0.080	2.3	0.0316	0.0000	OK
480 minute summer	S5	248	48.173	0.023	0.8	0.0110	0.0000	OK
480 minute summer	S6	248	48.138	0.019	0.8	0.0030	0.0000	OK
480 minute summer	S7	272	48.055	0.102	3.1	2.9655	0.0000	OK
480 minute summer	S8	272	48.055	0.171	3.9	0.3017	0.0000	SURCHARGED
480 minute summer	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0266	
480 minute summer	S2	2.000	S3	0.4	0.241	0.020	0.0260	
480 minute summer	S3	1.001	S4	1.6	0.456	0.090	0.0258	
480 minute summer	S4	1.002	S7	2.3	0.547	0.129	0.0256	
480 minute summer	S5	3.000	S6	0.8	0.543	0.045	0.0046	
480 minute summer	S6	3.001	S7	0.8	0.489	0.033	0.0612	
480 minute summer	S7	1.003	S8	3.9	0.307	0.218	0.1054	
480 minute summer	S8	Hydro-Brake®	C01	2.0				23.7

Results for 30 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	8	48.150	0.000	0.0	0.0000	0.0000	OK
480 minute winter	S2	224	48.163	0.013	0.3	0.0045	0.0000	OK
480 minute winter	S3	256	48.041	0.027	1.1	0.0157	0.0000	OK
480 minute winter	S4	248	48.010	0.034	1.6	0.0137	0.0000	OK
480 minute winter	S5	232	48.168	0.018	0.5	0.0087	0.0000	OK
480 minute winter	S6	232	48.134	0.015	0.5	0.0024	0.0000	OK
480 minute winter	S7	264	48.001	0.048	2.1	1.3750	0.0000	OK
480 minute winter	S8	280	48.012	0.128	3.9	0.2255	0.0000	OK
480 minute winter	C01	8	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0143	
480 minute winter	S2	2.000	S3	0.3	0.229	0.015	0.0159	
480 minute winter	S3	1.001	S4	1.1	0.445	0.062	0.0099	
480 minute winter	S4	1.002	S7	1.6	0.552	0.090	0.0086	
480 minute winter	S5	3.000	S6	0.5	0.474	0.028	0.0033	
480 minute winter	S6	3.001	S7	0.5	0.448	0.021	0.0254	
480 minute winter	S7	1.003	S8	3.9	0.383	0.218	0.0714	
480 minute winter	S8	Hydro-Brake®	C01	1.9				23.5

Results for 30 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute summer	S2	315	48.165	0.015	0.4	0.0052	0.0000	OK
600 minute summer	S3	300	48.044	0.030	1.4	0.0176	0.0000	OK
600 minute summer	S4	330	48.033	0.057	2.0	0.0226	0.0000	OK
600 minute summer	S5	315	48.170	0.020	0.6	0.0095	0.0000	OK
600 minute summer	S6	315	48.135	0.016	0.6	0.0026	0.0000	OK
600 minute summer	S7	330	48.033	0.080	2.7	2.3072	0.0000	OK
600 minute summer	S8	330	48.033	0.149	4.1	0.2639	0.0000	OK
600 minute summer	C01	15	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0169	
600 minute summer	S2	2.000	S3	0.4	0.253	0.020	0.0190	
600 minute summer	S3	1.001	S4	1.4	0.454	0.080	0.0156	
600 minute summer	S4	1.002	S7	2.1	0.543	0.118	0.0179	
600 minute summer	S5	3.000	S6	0.6	0.498	0.034	0.0038	
600 minute summer	S6	3.001	S7	0.6	0.380	0.025	0.0464	
600 minute summer	S7	1.003	S8	4.1	0.319	0.231	0.0938	
600 minute summer	S8	Hydro-Brake®	C01	1.9				25.2

Results for 30 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
600 minute winter	S2	255	48.161	0.011	0.2	0.0037	0.0000	OK
600 minute winter	S3	315	48.038	0.024	0.9	0.0141	0.0000	OK
600 minute winter	S4	315	48.006	0.030	1.3	0.0120	0.0000	OK
600 minute winter	S5	285	48.166	0.016	0.4	0.0078	0.0000	OK
600 minute winter	S6	285	48.132	0.013	0.4	0.0021	0.0000	OK
600 minute winter	S7	315	47.984	0.031	1.7	0.9067	0.0000	OK
600 minute winter	S8	315	47.974	0.090	1.7	0.1593	0.0000	OK
600 minute winter	C01	15	47.865	0.000	1.7	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0123	
600 minute winter	S2	2.000	S3	0.2	0.202	0.010	0.0132	
600 minute winter	S3	1.001	S4	0.9	0.418	0.051	0.0083	
600 minute winter	S4	1.002	S7	1.3	0.505	0.073	0.0059	
600 minute winter	S5	3.000	S6	0.4	0.442	0.023	0.0028	
600 minute winter	S6	3.001	S7	0.4	0.357	0.016	0.0153	
600 minute winter	S7	1.003	S8	1.7	0.281	0.096	0.0475	
600 minute winter	S8	Hydro-Brake®	C01	1.7				24.4

Results for 30 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute summer	S2	360	48.163	0.013	0.3	0.0045	0.0000	OK
720 minute summer	S3	375	48.042	0.028	1.2	0.0163	0.0000	OK
720 minute summer	S4	375	48.012	0.036	1.7	0.0142	0.0000	OK
720 minute summer	S5	360	48.168	0.018	0.5	0.0087	0.0000	OK
720 minute summer	S6	360	48.134	0.015	0.5	0.0024	0.0000	OK
720 minute summer	S7	390	48.006	0.053	2.2	1.5433	0.0000	OK
720 minute summer	S8	390	48.024	0.140	1.9	0.2472	0.0000	OK
720 minute summer	C01	15	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0152	
720 minute summer	S2	2.000	S3	0.3	0.231	0.015	0.0166	
720 minute summer	S3	1.001	S4	1.2	0.445	0.068	0.0105	
720 minute summer	S4	1.002	S7	1.7	0.516	0.096	0.0097	
720 minute summer	S5	3.000	S6	0.5	0.474	0.028	0.0033	
720 minute summer	S6	3.001	S7	0.5	0.358	0.021	0.0290	
720 minute summer	S7	1.003	S8	1.9	0.281	0.108	0.0786	
720 minute summer	S8	Hydro-Brake®	C01	1.9				25.9

Results for 30 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute winter	S2	315	48.161	0.011	0.2	0.0037	0.0000	OK
720 minute winter	S3	375	48.037	0.023	0.8	0.0133	0.0000	OK
720 minute winter	S4	375	48.004	0.028	1.1	0.0110	0.0000	OK
720 minute winter	S5	375	48.166	0.016	0.4	0.0078	0.0000	OK
720 minute winter	S6	375	48.132	0.013	0.4	0.0021	0.0000	OK
720 minute winter	S7	375	47.982	0.029	1.5	0.8525	0.0000	OK
720 minute winter	S8	375	47.962	0.078	1.5	0.1381	0.0000	OK
720 minute winter	C01	15	47.865	0.000	1.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0113	
720 minute winter	S2	2.000	S3	0.2	0.218	0.010	0.0124	
720 minute winter	S3	1.001	S4	0.8	0.415	0.045	0.0075	
720 minute winter	S4	1.002	S7	1.1	0.489	0.062	0.0053	
720 minute winter	S5	3.000	S6	0.4	0.442	0.023	0.0028	
720 minute winter	S6	3.001	S7	0.4	0.402	0.016	0.0143	
720 minute winter	S7	1.003	S8	1.5	0.278	0.084	0.0405	
720 minute winter	S8	Hydro-Brake®	C01	1.5				25.9

Results for 30 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute summer	S2	495	48.163	0.013	0.3	0.0045	0.0000	OK
960 minute summer	S3	495	48.039	0.025	1.0	0.0149	0.0000	OK
960 minute summer	S4	495	48.007	0.031	1.4	0.0124	0.0000	OK
960 minute summer	S5	480	48.166	0.016	0.4	0.0078	0.0000	OK
960 minute summer	S6	480	48.132	0.013	0.4	0.0021	0.0000	OK
960 minute summer	S7	495	47.985	0.032	1.8	0.9325	0.0000	OK
960 minute summer	S8	495	47.986	0.102	1.8	0.1794	0.0000	OK
960 minute summer	C01	15	47.865	0.000	1.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0133	
960 minute summer	S2	2.000	S3	0.3	0.229	0.015	0.0151	
960 minute summer	S3	1.001	S4	1.0	0.434	0.056	0.0089	
960 minute summer	S4	1.002	S7	1.4	0.521	0.079	0.0062	
960 minute summer	S5	3.000	S6	0.4	0.442	0.023	0.0028	
960 minute summer	S6	3.001	S7	0.4	0.260	0.016	0.0158	
960 minute summer	S7	1.003	S8	1.8	0.280	0.101	0.0535	
960 minute summer	S8	Hydro-Brake®	C01	1.8				26.4

Results for 30 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute winter	S2	450	48.161	0.011	0.2	0.0037	0.0000	OK
960 minute winter	S3	480	48.035	0.021	0.7	0.0124	0.0000	OK
960 minute winter	S4	510	48.002	0.026	1.0	0.0104	0.0000	OK
960 minute winter	S5	450	48.164	0.014	0.3	0.0068	0.0000	OK
960 minute winter	S6	450	48.131	0.012	0.3	0.0019	0.0000	OK
960 minute winter	S7	510	47.980	0.027	1.3	0.7955	0.0000	OK
960 minute winter	S8	510	47.952	0.068	1.3	0.1197	0.0000	OK
960 minute winter	C01	15	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0102	
960 minute winter	S2	2.000	S3	0.2	0.218	0.010	0.0115	
960 minute winter	S3	1.001	S4	0.7	0.396	0.039	0.0068	
960 minute winter	S4	1.002	S7	1.0	0.474	0.056	0.0049	
960 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
960 minute winter	S6	3.001	S7	0.3	0.270	0.012	0.0127	
960 minute winter	S7	1.003	S8	1.3	0.276	0.073	0.0344	
960 minute winter	S8	Hydro-Brake®	C01	1.3				27.3

Results for 30 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	S2	720	48.161	0.011	0.2	0.0037	0.0000	OK
1440 minute summer	S3	750	48.035	0.021	0.7	0.0124	0.0000	OK
1440 minute summer	S4	750	48.002	0.026	1.0	0.0104	0.0000	OK
1440 minute summer	S5	720	48.164	0.014	0.3	0.0068	0.0000	OK
1440 minute summer	S6	720	48.131	0.012	0.3	0.0019	0.0000	OK
1440 minute summer	S7	750	47.980	0.027	1.3	0.7954	0.0000	OK
1440 minute summer	S8	750	47.952	0.068	1.3	0.1197	0.0000	OK
1440 minute summer	C01	30	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0102	
1440 minute summer	S2	2.000	S3	0.2	0.216	0.010	0.0115	
1440 minute summer	S3	1.001	S4	0.7	0.396	0.039	0.0068	
1440 minute summer	S4	1.002	S7	1.0	0.474	0.056	0.0049	
1440 minute summer	S5	3.000	S6	0.3	0.408	0.017	0.0023	
1440 minute summer	S6	3.001	S7	0.3	0.248	0.012	0.0127	
1440 minute summer	S7	1.003	S8	1.3	0.275	0.073	0.0344	
1440 minute summer	S8	Hydro-Brake®	C01	1.3				26.3

Results for 30 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	S2	510	48.158	0.008	0.1	0.0027	0.0000	OK
1440 minute winter	S3	870	48.030	0.016	0.4	0.0094	0.0000	OK
1440 minute winter	S4	720	47.996	0.020	0.6	0.0080	0.0000	OK
1440 minute winter	S5	630	48.162	0.012	0.2	0.0056	0.0000	OK
1440 minute winter	S6	630	48.129	0.010	0.2	0.0016	0.0000	OK
1440 minute winter	S7	720	47.975	0.022	0.8	0.6282	0.0000	OK
1440 minute winter	S8	720	47.931	0.047	0.8	0.0828	0.0000	OK
1440 minute winter	C01	30	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0067	
1440 minute winter	S2	2.000	S3	0.1	0.214	0.005	0.0075	
1440 minute winter	S3	1.001	S4	0.4	0.363	0.023	0.0046	
1440 minute winter	S4	1.002	S7	0.6	0.437	0.034	0.0034	
1440 minute winter	S5	3.000	S6	0.2	0.359	0.011	0.0018	
1440 minute winter	S6	3.001	S7	0.2	0.223	0.008	0.0091	
1440 minute winter	S7	1.003	S8	0.8	0.264	0.045	0.0217	
1440 minute winter	S8	Hydro-Brake®	C01	0.8				27.3

Results for 30 year 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute summer	S2	960	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute summer	S3	1140	48.032	0.018	0.5	0.0104	0.0000	OK
2160 minute summer	S4	1140	47.998	0.022	0.7	0.0086	0.0000	OK
2160 minute summer	S5	1080	48.162	0.012	0.2	0.0056	0.0000	OK
2160 minute summer	S6	1080	48.129	0.010	0.2	0.0016	0.0000	OK
2160 minute summer	S7	1140	47.976	0.023	0.9	0.6652	0.0000	OK
2160 minute summer	S8	1140	47.935	0.051	0.9	0.0895	0.0000	OK
2160 minute summer	C01	60	47.865	0.000	0.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0079	
2160 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0085	
2160 minute summer	S3	1.001	S4	0.5	0.368	0.028	0.0053	
2160 minute summer	S4	1.002	S7	0.7	0.430	0.039	0.0037	
2160 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
2160 minute summer	S6	3.001	S7	0.2	0.208	0.008	0.0097	
2160 minute summer	S7	1.003	S8	0.9	0.269	0.051	0.0240	
2160 minute summer	S8	Hydro-Brake®	C01	0.9				25.9

Results for 30 year 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute winter	S2	900	48.158	0.008	0.1	0.0027	0.0000	OK
2160 minute winter	S3	900	48.028	0.014	0.3	0.0081	0.0000	OK
2160 minute winter	S4	1140	47.992	0.016	0.4	0.0065	0.0000	OK
2160 minute winter	S5	1140	48.162	0.012	0.2	0.0056	0.0000	OK
2160 minute winter	S6	1140	48.129	0.010	0.2	0.0016	0.0000	OK
2160 minute winter	S7	1140	47.972	0.019	0.6	0.5476	0.0000	OK
2160 minute winter	S8	1140	47.923	0.039	0.6	0.0694	0.0000	OK
2160 minute winter	C01	60	47.865	0.000	0.6	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2160 minute winter	S2	2.000	S3	0.1	0.179	0.005	0.0064	
2160 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2160 minute winter	S4	1.002	S7	0.4	0.378	0.023	0.0026	
2160 minute winter	S5	3.000	S6	0.2	0.359	0.011	0.0018	
2160 minute winter	S6	3.001	S7	0.2	0.237	0.008	0.0079	
2160 minute winter	S7	1.003	S8	0.6	0.251	0.034	0.0172	
2160 minute winter	S8	Hydro-Brake®	C01	0.6				25.9

Results for 30 year 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute summer	S2	1320	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute summer	S3	1500	48.030	0.016	0.4	0.0093	0.0000	OK
2880 minute summer	S4	1500	47.996	0.020	0.6	0.0080	0.0000	OK
2880 minute summer	S5	1440	48.162	0.012	0.2	0.0056	0.0000	OK
2880 minute summer	S6	1440	48.129	0.010	0.2	0.0016	0.0000	OK
2880 minute summer	S7	1500	47.975	0.022	0.8	0.6282	0.0000	OK
2880 minute summer	S8	1500	47.931	0.047	0.8	0.0828	0.0000	OK
2880 minute summer	C01	60	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0066	
2880 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0074	
2880 minute summer	S3	1.001	S4	0.4	0.339	0.023	0.0046	
2880 minute summer	S4	1.002	S7	0.6	0.409	0.034	0.0034	
2880 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
2880 minute summer	S6	3.001	S7	0.2	0.237	0.008	0.0091	
2880 minute summer	S7	1.003	S8	0.8	0.264	0.045	0.0217	
2880 minute summer	S8	Hydro-Brake®	C01	0.8				25.2

Results for 30 year 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	S2	1260	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute winter	S3	1320	48.028	0.014	0.3	0.0081	0.0000	OK
2880 minute winter	S4	1380	47.992	0.016	0.4	0.0065	0.0000	OK
2880 minute winter	S5	1020	48.158	0.008	0.1	0.0041	0.0000	OK
2880 minute winter	S6	1020	48.126	0.007	0.1	0.0011	0.0000	OK
2880 minute winter	S7	1380	47.970	0.017	0.5	0.5025	0.0000	OK
2880 minute winter	S8	1380	47.919	0.035	0.5	0.0622	0.0000	OK
2880 minute winter	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
2880 minute winter	S2	2.000	S3	0.1	0.215	0.005	0.0064	
2880 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
2880 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0025	
2880 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
2880 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0064	
2880 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
2880 minute winter	S8	Hydro-Brake®	C01	0.5				27.3

Results for 30 year 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute summer	S2	2040	48.158	0.008	0.1	0.0027	0.0000	OK
4320 minute summer	S3	2100	48.028	0.014	0.3	0.0081	0.0000	OK
4320 minute summer	S4	2160	47.992	0.016	0.4	0.0065	0.0000	OK
4320 minute summer	S5	1800	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute summer	S6	1800	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute summer	S7	2160	47.970	0.017	0.5	0.5025	0.0000	OK
4320 minute summer	S8	2160	47.919	0.035	0.5	0.0622	0.0000	OK
4320 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
4320 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0064	
4320 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
4320 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
4320 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute summer	S6	3.001	S7	0.1	0.203	0.004	0.0064	
4320 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
4320 minute summer	S8	Hydro-Brake®	C01	0.5				24.5

Results for 30 year 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S2	2160	48.158	0.008	0.1	0.0027	0.0000	OK
4320 minute winter	S3	2160	48.025	0.011	0.2	0.0067	0.0000	OK
4320 minute winter	S4	2160	47.990	0.014	0.3	0.0056	0.0000	OK
4320 minute winter	S5	1680	48.158	0.008	0.1	0.0041	0.0000	OK
4320 minute winter	S6	1680	48.126	0.007	0.1	0.0011	0.0000	OK
4320 minute winter	S7	2280	47.969	0.016	0.4	0.4522	0.0000	OK
4320 minute winter	S8	2280	47.915	0.031	0.4	0.0549	0.0000	OK
4320 minute winter	C01	60	47.865	0.000	0.4	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0041	
4320 minute winter	S2	2.000	S3	0.1	0.216	0.005	0.0053	
4320 minute winter	S3	1.001	S4	0.2	0.282	0.011	0.0027	
4320 minute winter	S4	1.002	S7	0.3	0.353	0.017	0.0021	
4320 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
4320 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0056	
4320 minute winter	S7	1.003	S8	0.4	0.230	0.023	0.0125	
4320 minute winter	S8	Hydro-Brake®	C01	0.4				25.9

Results for 30 year 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute summer	S2	2820	48.158	0.008	0.1	0.0027	0.0000	OK
5760 minute summer	S3	2880	48.028	0.014	0.3	0.0081	0.0000	OK
5760 minute summer	S4	2940	47.992	0.016	0.4	0.0065	0.0000	OK
5760 minute summer	S5	2460	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute summer	S6	2460	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute summer	S7	2940	47.970	0.017	0.5	0.5025	0.0000	OK
5760 minute summer	S8	2940	47.919	0.035	0.5	0.0622	0.0000	OK
5760 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
5760 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0064	
5760 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
5760 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
5760 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0064	
5760 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
5760 minute summer	S8	Hydro-Brake®	C01	0.5				25.2

Results for 30 year 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S3	2340	48.022	0.008	0.1	0.0049	0.0000	OK
5760 minute winter	S4	2400	47.987	0.011	0.2	0.0046	0.0000	OK
5760 minute winter	S5	2400	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute winter	S6	2400	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute winter	S7	2580	47.967	0.014	0.3	0.3948	0.0000	OK
5760 minute winter	S8	2580	47.910	0.026	0.3	0.0464	0.0000	OK
5760 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
5760 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
5760 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
5760 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
5760 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
5760 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
5760 minute winter	S8	Hydro-Brake®	C01	0.3				25.9

Results for 30 year 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S2	3600	48.158	0.008	0.1	0.0027	0.0000	OK
7200 minute summer	S3	3600	48.025	0.011	0.2	0.0067	0.0000	OK
7200 minute summer	S4	3600	47.990	0.014	0.3	0.0056	0.0000	OK
7200 minute summer	S5	3180	48.158	0.008	0.1	0.0041	0.0000	OK
7200 minute summer	S6	3180	48.126	0.007	0.1	0.0011	0.0000	OK
7200 minute summer	S7	3720	47.969	0.016	0.4	0.4522	0.0000	OK
7200 minute summer	S8	3720	47.915	0.031	0.4	0.0549	0.0000	OK
7200 minute summer	C01	60	47.865	0.000	0.4	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0041	
7200 minute summer	S2	2.000	S3	0.1	0.216	0.005	0.0053	
7200 minute summer	S3	1.001	S4	0.2	0.282	0.011	0.0027	
7200 minute summer	S4	1.002	S7	0.3	0.353	0.017	0.0021	
7200 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
7200 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0056	
7200 minute summer	S7	1.003	S8	0.4	0.230	0.023	0.0125	
7200 minute summer	S8	Hydro-Brake®	C01	0.4				23.7

Results for 30 year 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S3	3180	48.022	0.008	0.1	0.0049	0.0000	OK
7200 minute winter	S4	3300	47.987	0.011	0.2	0.0046	0.0000	OK
7200 minute winter	S5	3240	48.158	0.008	0.1	0.0041	0.0000	OK
7200 minute winter	S6	3240	48.126	0.007	0.1	0.0011	0.0000	OK
7200 minute winter	S7	3480	47.967	0.014	0.3	0.3948	0.0000	OK
7200 minute winter	S8	3480	47.910	0.026	0.3	0.0464	0.0000	OK
7200 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
7200 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
7200 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
7200 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
7200 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
7200 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
7200 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
7200 minute winter	S8	Hydro-Brake®	C01	0.3				23.0

Results for 30 year 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S3	3900	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute summer	S4	3960	47.987	0.011	0.2	0.0046	0.0000	OK
8640 minute summer	S5	3960	48.158	0.008	0.1	0.0041	0.0000	OK
8640 minute summer	S6	3960	48.126	0.007	0.1	0.0011	0.0000	OK
8640 minute summer	S7	4140	47.967	0.014	0.3	0.3948	0.0000	OK
8640 minute summer	S8	4140	47.910	0.026	0.3	0.0464	0.0000	OK
8640 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
8640 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
8640 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
8640 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
8640 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
8640 minute summer	S8	Hydro-Brake®	C01	0.3				21.6

Results for 30 year 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S3	4140	48.022	0.008	0.1	0.0049	0.0000	OK
8640 minute winter	S4	3240	47.985	0.009	0.1	0.0035	0.0000	OK
8640 minute winter	S5	4200	48.158	0.008	0.1	0.0041	0.0000	OK
8640 minute winter	S6	4200	48.126	0.007	0.1	0.0011	0.0000	OK
8640 minute winter	S7	4320	47.964	0.011	0.2	0.3267	0.0000	OK
8640 minute winter	S8	4380	47.905	0.021	0.2	0.0374	0.0000	OK
8640 minute winter	C01	60	47.865	0.000	0.2	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
8640 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
8640 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0015	
8640 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0011	
8640 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
8640 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0040	
8640 minute winter	S7	1.003	S8	0.2	0.211	0.011	0.0073	
8640 minute winter	S8	Hydro-Brake®	C01	0.2				16.5

Results for 30 year 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S3	4680	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute summer	S4	4740	47.987	0.011	0.2	0.0046	0.0000	OK
10080 minute summer	S5	4740	48.158	0.008	0.1	0.0041	0.0000	OK
10080 minute summer	S6	4740	48.126	0.007	0.1	0.0011	0.0000	OK
10080 minute summer	S7	4920	47.967	0.014	0.3	0.3948	0.0000	OK
10080 minute summer	S8	4920	47.910	0.026	0.3	0.0464	0.0000	OK
10080 minute summer	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute summer	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute summer	S3	1.001	S4	0.1	0.268	0.006	0.0019	
10080 minute summer	S4	1.002	S7	0.2	0.353	0.011	0.0016	
10080 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
10080 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0048	
10080 minute summer	S7	1.003	S8	0.3	0.217	0.017	0.0099	
10080 minute summer	S8	Hydro-Brake®	C01	0.3				20.1

Results for 30 year 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S3	4260	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute winter	S4	4020	47.985	0.009	0.1	0.0035	0.0000	OK
10080 minute winter	S5	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S6	60	48.119	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S7	4380	47.961	0.008	0.1	0.2367	0.0000	OK
10080 minute winter	S8	4380	47.898	0.014	0.1	0.0249	0.0000	OK
10080 minute winter	C01	60	47.865	0.000	0.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute winter	S3	1.001	S4	0.1	0.264	0.006	0.0015	
10080 minute winter	S4	1.002	S7	0.1	0.353	0.006	0.0009	
10080 minute winter	S5	3.000	S6	0.0	0.000	0.000	0.0000	
10080 minute winter	S6	3.001	S7	0.0	0.000	0.000	0.0017	
10080 minute winter	S7	1.003	S8	0.1	0.211	0.006	0.0042	
10080 minute winter	S8	Hydro-Brake®	C01	0.1				12.9

Results for 100 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	11	48.360	0.210	3.0	0.0334	0.0000	SURCHARGED
15 minute summer	S2	11	48.368	0.218	5.7	0.0753	0.0000	SURCHARGED
15 minute summer	S3	11	48.359	0.345	19.6	0.2028	0.0000	SURCHARGED
15 minute summer	S4	18	48.327	0.351	24.8	0.1395	0.0000	SURCHARGED
15 minute summer	S5	18	48.327	0.177	9.7	0.0849	0.0000	SURCHARGED
15 minute summer	S6	18	48.327	0.208	9.7	0.0331	0.0000	SURCHARGED
15 minute summer	S7	18	48.327	0.374	33.1	10.8386	0.0000	SURCHARGED
15 minute summer	S8	18	48.326	0.442	5.9	0.7818	0.0000	SURCHARGED
15 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S3	-3.0	-0.201	-0.170	0.2390	
15 minute summer	S2	2.000	S3	4.5	0.369	0.228	0.1970	
15 minute summer	S3	1.001	S4	16.3	0.927	0.919	0.0677	
15 minute summer	S4	1.002	S7	23.5	1.333	1.321	0.0404	
15 minute summer	S5	3.000	S6	9.7	1.074	0.546	0.0553	
15 minute summer	S6	3.001	S7	9.6	1.019	0.396	0.1569	
15 minute summer	S7	1.003	S8	5.9	0.662	0.335	0.1219	
15 minute summer	S8	Hydro-Brake®	C01	2.0				15.4

Results for 100 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	12	48.331	0.181	2.7	0.0288	0.0000	SURCHARGED
15 minute winter	S2	12	48.336	0.186	5.1	0.0642	0.0000	SURCHARGED
15 minute winter	S3	12	48.331	0.317	17.4	0.1863	0.0000	SURCHARGED
15 minute winter	S4	17	48.328	0.352	21.9	0.1397	0.0000	SURCHARGED
15 minute winter	S5	18	48.328	0.178	8.7	0.0850	0.0000	SURCHARGED
15 minute winter	S6	18	48.328	0.209	8.7	0.0332	0.0000	SURCHARGED
15 minute winter	S7	18	48.328	0.375	29.6	10.8481	0.0000	SURCHARGED
15 minute winter	S8	18	48.327	0.443	6.2	0.7824	0.0000	SURCHARGED
15 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S3	-2.7	-0.186	-0.150	0.2390	
15 minute winter	S2	2.000	S3	4.1	0.360	0.209	0.1970	
15 minute winter	S3	1.001	S4	14.5	0.826	0.819	0.0677	
15 minute winter	S4	1.002	S7	20.9	1.340	1.176	0.0404	
15 minute winter	S5	3.000	S6	8.7	1.045	0.490	0.0553	
15 minute winter	S6	3.001	S7	8.7	1.065	0.358	0.1569	
15 minute winter	S7	1.003	S8	6.2	0.681	0.352	0.1219	
15 minute winter	S8	Hydro-Brake®	C01	2.0				15.4

Results for 100 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	32	48.423	0.273	2.6	0.0434	0.0000	SURCHARGED
30 minute summer	S2	32	48.423	0.273	5.0	0.0944	0.0000	SURCHARGED
30 minute summer	S3	32	48.423	0.409	16.8	0.2405	0.0000	SURCHARGED
30 minute summer	S4	32	48.423	0.447	22.3	0.1774	0.0000	SURCHARGED
30 minute summer	S5	32	48.423	0.273	8.5	0.1307	0.0000	SURCHARGED
30 minute summer	S6	32	48.423	0.304	8.3	0.0483	0.0000	SURCHARGED
30 minute summer	S7	32	48.423	0.470	27.7	13.5973	0.0000	SURCHARGED
30 minute summer	S8	32	48.422	0.538	4.1	0.9505	0.0000	SURCHARGED
30 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S3	-2.6	-0.184	-0.149	0.2390	
30 minute summer	S2	2.000	S3	4.0	0.340	0.205	0.1970	
30 minute summer	S3	1.001	S4	14.9	0.846	0.839	0.0677	
30 minute summer	S4	1.002	S7	21.5	1.220	1.209	0.0404	
30 minute summer	S5	3.000	S6	8.3	1.021	0.470	0.0553	
30 minute summer	S6	3.001	S7	7.6	0.953	0.314	0.1569	
30 minute summer	S7	1.003	S8	4.1	0.554	0.229	0.1219	
30 minute summer	S8	Hydro-Brake®	C01	2.0				20.2

Results for 100 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	31	48.425	0.275	1.8	0.0436	0.0000	SURCHARGED
30 minute winter	S2	31	48.424	0.274	3.8	0.0949	0.0000	SURCHARGED
30 minute winter	S3	31	48.424	0.410	13.2	0.2414	0.0000	SURCHARGED
30 minute winter	S4	32	48.424	0.448	17.1	0.1780	0.0000	SURCHARGED
30 minute winter	S5	32	48.424	0.274	6.6	0.1314	0.0000	SURCHARGED
30 minute winter	S6	32	48.424	0.305	6.3	0.0485	0.0000	SURCHARGED
30 minute winter	S7	32	48.424	0.471	21.4	13.6439	0.0000	SURCHARGED
30 minute winter	S8	32	48.424	0.540	4.6	0.9534	0.0000	SURCHARGED
30 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S3	-1.8	-0.106	-0.099	0.2390	
30 minute winter	S2	2.000	S3	3.3	0.329	0.169	0.1970	
30 minute winter	S3	1.001	S4	11.3	0.645	0.638	0.0677	
30 minute winter	S4	1.002	S7	16.4	1.177	0.925	0.0404	
30 minute winter	S5	3.000	S6	6.3	0.963	0.356	0.0553	
30 minute winter	S6	3.001	S7	6.2	0.946	0.257	0.1569	
30 minute winter	S7	1.003	S8	4.6	0.583	0.257	0.1219	
30 minute winter	S8	Hydro-Brake®	C01	2.0				20.2

Results for 100 year +40% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	61	48.488	0.338	1.7	0.0537	0.0000	SURCHARGED
60 minute summer	S2	61	48.488	0.338	3.6	0.1168	0.0000	SURCHARGED
60 minute summer	S3	61	48.488	0.474	12.4	0.2784	0.0000	SURCHARGED
60 minute summer	S4	61	48.487	0.511	16.5	0.2030	0.0000	SURCHARGED
60 minute summer	S5	61	48.487	0.337	6.1	0.1615	0.0000	SURCHARGED
60 minute summer	S6	61	48.487	0.368	5.7	0.0585	0.0000	SURCHARGED
60 minute summer	S7	61	48.487	0.534	20.2	15.4589	0.0000	SURCHARGED
60 minute summer	S8	61	48.486	0.602	4.3	1.0639	0.0000	SURCHARGED
60 minute summer	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S3	-1.7	-0.111	-0.098	0.2390	
60 minute summer	S2	2.000	S3	3.0	0.310	0.151	0.1970	
60 minute summer	S3	1.001	S4	11.1	0.633	0.627	0.0677	
60 minute summer	S4	1.002	S7	16.0	1.020	0.899	0.0404	
60 minute summer	S5	3.000	S6	5.7	0.916	0.321	0.0553	
60 minute summer	S6	3.001	S7	5.1	0.839	0.210	0.1569	
60 minute summer	S7	1.003	S8	4.3	0.490	0.240	0.1219	
60 minute summer	S8	Hydro-Brake®	C01	2.0				25.4

Results for 100 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	60	48.489	0.339	0.9	0.0538	0.0000	SURCHARGED
60 minute winter	S2	60	48.489	0.339	2.5	0.1171	0.0000	SURCHARGED
60 minute winter	S3	60	48.489	0.475	8.7	0.2791	0.0000	SURCHARGED
60 minute winter	S4	60	48.489	0.513	11.5	0.2035	0.0000	SURCHARGED
60 minute winter	S5	60	48.488	0.338	4.3	0.1620	0.0000	SURCHARGED
60 minute winter	S6	60	48.488	0.369	4.1	0.0587	0.0000	SURCHARGED
60 minute winter	S7	60	48.488	0.535	14.4	15.4936	0.0000	SURCHARGED
60 minute winter	S8	60	48.487	0.603	3.4	1.0661	0.0000	SURCHARGED
60 minute winter	C01	1	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S3	-0.9	-0.076	-0.053	0.2390	
60 minute winter	S2	2.000	S3	2.3	0.306	0.116	0.1970	
60 minute winter	S3	1.001	S4	7.7	0.551	0.436	0.0677	
60 minute winter	S4	1.002	S7	11.1	1.021	0.628	0.0404	
60 minute winter	S5	3.000	S6	4.1	0.845	0.233	0.0553	
60 minute winter	S6	3.001	S7	3.8	0.847	0.158	0.1569	
60 minute winter	S7	1.003	S8	3.4	0.503	0.193	0.1219	
60 minute winter	S8	Hydro-Brake®	C01	2.0				25.3

Results for 100 year +40% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	102	48.485	0.335	0.9	0.0532	0.0000	SURCHARGED
120 minute summer	S2	102	48.485	0.335	2.3	0.1158	0.0000	SURCHARGED
120 minute summer	S3	102	48.485	0.471	7.9	0.2767	0.0000	SURCHARGED
120 minute summer	S4	102	48.484	0.508	10.3	0.2018	0.0000	SURCHARGED
120 minute summer	S5	104	48.484	0.334	4.0	0.1600	0.0000	SURCHARGED
120 minute summer	S6	102	48.484	0.365	3.6	0.0580	0.0000	SURCHARGED
120 minute summer	S7	102	48.484	0.531	12.9	15.3682	0.0000	SURCHARGED
120 minute summer	S8	102	48.483	0.599	4.8	1.0584	0.0000	SURCHARGED
120 minute summer	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S3	-0.9	-0.087	-0.053	0.2390	
120 minute summer	S2	2.000	S3	1.9	0.290	0.095	0.1970	
120 minute summer	S3	1.001	S4	6.9	0.503	0.391	0.0677	
120 minute summer	S4	1.002	S7	10.0	0.884	0.562	0.0404	
120 minute summer	S5	3.000	S6	3.6	0.800	0.205	0.0553	
120 minute summer	S6	3.001	S7	3.1	0.729	0.129	0.1569	
120 minute summer	S7	1.003	S8	4.8	0.435	0.270	0.1219	
120 minute summer	S8	Hydro-Brake®	C01	2.0				30.7

Results for 100 year +40% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	112	48.487	0.337	0.6	0.0536	0.0000	SURCHARGED
120 minute winter	S2	112	48.487	0.337	1.5	0.1167	0.0000	SURCHARGED
120 minute winter	S3	112	48.487	0.473	5.3	0.2783	0.0000	SURCHARGED
120 minute winter	S4	112	48.487	0.511	7.1	0.2029	0.0000	SURCHARGED
120 minute winter	S5	112	48.487	0.337	2.7	0.1613	0.0000	SURCHARGED
120 minute winter	S6	112	48.487	0.368	2.5	0.0585	0.0000	SURCHARGED
120 minute winter	S7	112	48.487	0.534	8.8	15.4491	0.0000	SURCHARGED
120 minute winter	S8	112	48.486	0.602	4.3	1.0633	0.0000	SURCHARGED
120 minute winter	C01	2	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S3	-0.6	-0.060	-0.032	0.2390	
120 minute winter	S2	2.000	S3	1.4	0.282	0.071	0.1970	
120 minute winter	S3	1.001	S4	4.8	0.506	0.268	0.0677	
120 minute winter	S4	1.002	S7	6.8	0.866	0.385	0.0404	
120 minute winter	S5	3.000	S6	2.5	0.731	0.141	0.0553	
120 minute winter	S6	3.001	S7	2.3	0.728	0.093	0.1569	
120 minute winter	S7	1.003	S8	4.3	0.438	0.241	0.1219	
120 minute winter	S8	Hydro-Brake®	C01	2.0				30.8

Results for 100 year +40% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	136	48.458	0.308	0.5	0.0490	0.0000	SURCHARGED
180 minute summer	S2	136	48.458	0.308	1.8	0.1067	0.0000	SURCHARGED
180 minute summer	S3	136	48.458	0.444	6.1	0.2612	0.0000	SURCHARGED
180 minute summer	S4	136	48.458	0.482	7.9	0.1914	0.0000	SURCHARGED
180 minute summer	S5	136	48.458	0.308	3.0	0.1475	0.0000	SURCHARGED
180 minute summer	S6	136	48.458	0.339	2.8	0.0539	0.0000	SURCHARGED
180 minute summer	S7	136	48.458	0.505	9.9	14.6104	0.0000	SURCHARGED
180 minute summer	S8	136	48.457	0.573	4.0	1.0122	0.0000	SURCHARGED
180 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S3	-0.5	-0.049	-0.030	0.2390	
180 minute summer	S2	2.000	S3	1.5	0.278	0.076	0.1970	
180 minute summer	S3	1.001	S4	5.1	0.492	0.290	0.0677	
180 minute summer	S4	1.002	S7	7.7	0.815	0.432	0.0404	
180 minute summer	S5	3.000	S6	2.8	0.713	0.155	0.0553	
180 minute summer	S6	3.001	S7	2.3	0.711	0.093	0.1569	
180 minute summer	S7	1.003	S8	4.0	0.380	0.225	0.1219	
180 minute summer	S8	Hydro-Brake®	C01	2.0				34.0

Results for 100 year +40% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	140	48.456	0.306	0.4	0.0487	0.0000	SURCHARGED
180 minute winter	S2	140	48.456	0.306	1.1	0.1059	0.0000	SURCHARGED
180 minute winter	S3	140	48.456	0.442	4.0	0.2599	0.0000	SURCHARGED
180 minute winter	S4	140	48.456	0.480	5.3	0.1905	0.0000	SURCHARGED
180 minute winter	S5	140	48.456	0.306	2.0	0.1464	0.0000	SURCHARGED
180 minute winter	S6	140	48.456	0.337	1.9	0.0535	0.0000	SURCHARGED
180 minute winter	S7	140	48.456	0.503	6.9	14.5467	0.0000	SURCHARGED
180 minute winter	S8	140	48.455	0.571	3.9	1.0083	0.0000	SURCHARGED
180 minute winter	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S3	-0.4	-0.029	-0.021	0.2390	
180 minute winter	S2	2.000	S3	1.1	0.280	0.056	0.1970	
180 minute winter	S3	1.001	S4	3.6	0.491	0.200	0.0677	
180 minute winter	S4	1.002	S7	5.1	0.779	0.287	0.0404	
180 minute winter	S5	3.000	S6	1.9	0.683	0.107	0.0553	
180 minute winter	S6	3.001	S7	1.8	0.653	0.074	0.1569	
180 minute winter	S7	1.003	S8	3.9	0.394	0.217	0.1219	
180 minute winter	S8	Hydro-Brake®	C01	2.0				34.1

Results for 100 year +40% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	168	48.436	0.286	0.5	0.0455	0.0000	SURCHARGED
240 minute summer	S2	168	48.436	0.286	1.4	0.0991	0.0000	SURCHARGED
240 minute summer	S3	168	48.436	0.422	4.8	0.2484	0.0000	SURCHARGED
240 minute summer	S4	168	48.436	0.460	6.3	0.1827	0.0000	SURCHARGED
240 minute summer	S5	172	48.436	0.286	2.4	0.1370	0.0000	SURCHARGED
240 minute summer	S6	172	48.436	0.317	2.4	0.0504	0.0000	SURCHARGED
240 minute summer	S7	172	48.436	0.483	8.1	13.9786	0.0000	SURCHARGED
240 minute summer	S8	172	48.435	0.551	3.9	0.9737	0.0000	SURCHARGED
240 minute summer	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S3	-0.5	-0.037	-0.027	0.2390	
240 minute summer	S2	2.000	S3	1.2	0.285	0.060	0.1970	
240 minute summer	S3	1.001	S4	4.1	0.488	0.230	0.0677	
240 minute summer	S4	1.002	S7	6.1	0.720	0.343	0.0404	
240 minute summer	S5	3.000	S6	2.4	0.704	0.133	0.0553	
240 minute summer	S6	3.001	S7	2.1	0.648	0.086	0.1569	
240 minute summer	S7	1.003	S8	3.9	0.365	0.219	0.1219	
240 minute summer	S8	Hydro-Brake®	C01	2.0				36.3

Results for 100 year +40% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	180	48.417	0.267	0.3	0.0425	0.0000	SURCHARGED
240 minute winter	S2	180	48.417	0.267	0.9	0.0925	0.0000	SURCHARGED
240 minute winter	S3	180	48.417	0.403	3.3	0.2371	0.0000	SURCHARGED
240 minute winter	S4	180	48.417	0.441	4.3	0.1751	0.0000	SURCHARGED
240 minute winter	S5	180	48.417	0.267	1.6	0.1279	0.0000	SURCHARGED
240 minute winter	S6	180	48.417	0.298	1.5	0.0474	0.0000	SURCHARGED
240 minute winter	S7	180	48.417	0.464	5.6	13.4250	0.0000	SURCHARGED
240 minute winter	S8	180	48.416	0.532	4.7	0.9399	0.0000	SURCHARGED
240 minute winter	C01	4	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S3	-0.3	-0.021	-0.015	0.2390	
240 minute winter	S2	2.000	S3	0.9	0.269	0.046	0.1970	
240 minute winter	S3	1.001	S4	2.9	0.477	0.162	0.0677	
240 minute winter	S4	1.002	S7	4.2	0.793	0.235	0.0404	
240 minute winter	S5	3.000	S6	1.5	0.649	0.086	0.0553	
240 minute winter	S6	3.001	S7	1.5	0.541	0.061	0.1569	
240 minute winter	S7	1.003	S8	4.7	0.407	0.265	0.1219	
240 minute winter	S8	Hydro-Brake®	C01	2.0				36.7

Results for 100 year +40% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	240	48.370	0.220	0.3	0.0350	0.0000	SURCHARGED
360 minute summer	S2	240	48.370	0.220	1.0	0.0762	0.0000	SURCHARGED
360 minute summer	S3	240	48.370	0.356	3.6	0.2095	0.0000	SURCHARGED
360 minute summer	S4	240	48.370	0.394	4.7	0.1565	0.0000	SURCHARGED
360 minute summer	S5	240	48.370	0.220	1.8	0.1054	0.0000	SURCHARGED
360 minute summer	S6	240	48.370	0.251	1.8	0.0399	0.0000	SURCHARGED
360 minute summer	S7	240	48.370	0.417	6.1	12.0678	0.0000	SURCHARGED
360 minute summer	S8	240	48.369	0.485	2.8	0.8570	0.0000	SURCHARGED
360 minute summer	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S3	-0.3	-0.024	-0.017	0.2390	
360 minute summer	S2	2.000	S3	0.9	0.271	0.046	0.1970	
360 minute summer	S3	1.001	S4	3.1	0.473	0.173	0.0677	
360 minute summer	S4	1.002	S7	4.5	0.632	0.256	0.0404	
360 minute summer	S5	3.000	S6	1.8	0.649	0.100	0.0553	
360 minute summer	S6	3.001	S7	1.6	0.508	0.066	0.1569	
360 minute summer	S7	1.003	S8	2.8	0.325	0.160	0.1219	
360 minute summer	S8	Hydro-Brake®	C01	2.0				39.7

Results for 100 year +40% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	256	48.317	0.167	0.1	0.0266	0.0000	SURCHARGED
360 minute winter	S2	256	48.317	0.167	0.7	0.0579	0.0000	SURCHARGED
360 minute winter	S3	256	48.317	0.303	2.5	0.1784	0.0000	SURCHARGED
360 minute winter	S4	256	48.317	0.341	3.2	0.1355	0.0000	SURCHARGED
360 minute winter	S5	256	48.317	0.167	1.1	0.0800	0.0000	SURCHARGED
360 minute winter	S6	256	48.317	0.198	1.1	0.0315	0.0000	SURCHARGED
360 minute winter	S7	256	48.317	0.364	4.2	10.5346	0.0000	SURCHARGED
360 minute winter	S8	256	48.316	0.432	4.7	0.7631	0.0000	SURCHARGED
360 minute winter	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S3	-0.1	-0.014	-0.007	0.2390	
360 minute winter	S2	2.000	S3	0.7	0.262	0.035	0.1970	
360 minute winter	S3	1.001	S4	2.2	0.463	0.125	0.0677	
360 minute winter	S4	1.002	S7	3.1	0.635	0.177	0.0404	
360 minute winter	S5	3.000	S6	1.1	0.595	0.063	0.0553	
360 minute winter	S6	3.001	S7	1.1	0.456	0.045	0.1569	
360 minute winter	S7	1.003	S8	4.7	0.380	0.263	0.1219	
360 minute winter	S8	Hydro-Brake®	C01	2.0				39.9

Results for 100 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	304	48.313	0.163	0.1	0.0259	0.0000	SURCHARGED
480 minute summer	S2	304	48.313	0.163	0.8	0.0564	0.0000	SURCHARGED
480 minute summer	S3	304	48.313	0.299	3.0	0.1758	0.0000	SURCHARGED
480 minute summer	S4	304	48.313	0.337	4.0	0.1337	0.0000	SURCHARGED
480 minute summer	S5	304	48.313	0.163	1.4	0.0779	0.0000	SURCHARGED
480 minute summer	S6	304	48.313	0.194	1.4	0.0308	0.0000	SURCHARGED
480 minute summer	S7	304	48.312	0.359	5.3	10.4040	0.0000	SURCHARGED
480 minute summer	S8	304	48.311	0.427	4.4	0.7551	0.0000	SURCHARGED
480 minute summer	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S3	-0.1	-0.011	-0.008	0.2390	
480 minute summer	S2	2.000	S3	0.8	0.254	0.041	0.1970	
480 minute summer	S3	1.001	S4	2.7	0.463	0.151	0.0677	
480 minute summer	S4	1.002	S7	3.9	0.646	0.218	0.0404	
480 minute summer	S5	3.000	S6	1.4	0.637	0.079	0.0553	
480 minute summer	S6	3.001	S7	1.4	0.397	0.057	0.1569	
480 minute summer	S7	1.003	S8	4.4	0.418	0.249	0.1219	
480 minute summer	S8	Hydro-Brake®	C01	2.0				42.2

Results for 100 year +40% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	320	48.227	0.077	0.1	0.0122	0.0000	OK
480 minute winter	S2	320	48.227	0.077	0.5	0.0265	0.0000	OK
480 minute winter	S3	320	48.227	0.213	1.9	0.1250	0.0000	SURCHARGED
480 minute winter	S4	320	48.226	0.250	2.6	0.0994	0.0000	SURCHARGED
480 minute winter	S5	320	48.226	0.076	0.9	0.0365	0.0000	OK
480 minute winter	S6	320	48.226	0.107	0.9	0.0170	0.0000	OK
480 minute winter	S7	320	48.226	0.273	3.4	7.9055	0.0000	SURCHARGED
480 minute winter	S8	320	48.225	0.341	3.9	0.6024	0.0000	SURCHARGED
480 minute winter	C01	8	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S3	-0.1	-0.007	-0.004	0.1809	
480 minute winter	S2	2.000	S3	0.5	0.267	0.026	0.1492	
480 minute winter	S3	1.001	S4	1.8	0.453	0.101	0.0677	
480 minute winter	S4	1.002	S7	2.5	0.584	0.143	0.0404	
480 minute winter	S5	3.000	S6	0.9	0.561	0.052	0.0353	
480 minute winter	S6	3.001	S7	0.9	0.532	0.037	0.1385	
480 minute winter	S7	1.003	S8	3.9	0.350	0.220	0.1219	
480 minute winter	S8	Hydro-Brake®	C01	2.0				42.3

Results for 100 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	375	48.247	0.097	0.1	0.0154	0.0000	OK
600 minute summer	S2	375	48.247	0.097	0.6	0.0336	0.0000	OK
600 minute summer	S3	375	48.247	0.233	2.4	0.1370	0.0000	SURCHARGED
600 minute summer	S4	375	48.247	0.271	3.2	0.1075	0.0000	SURCHARGED
600 minute summer	S5	375	48.247	0.097	1.1	0.0463	0.0000	OK
600 minute summer	S6	375	48.247	0.128	1.1	0.0203	0.0000	OK
600 minute summer	S7	375	48.247	0.294	4.2	8.4969	0.0000	SURCHARGED
600 minute summer	S8	375	48.245	0.361	2.1	0.6385	0.0000	SURCHARGED
600 minute summer	C01	15	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S3	-0.1	-0.012	-0.006	0.2013	
600 minute summer	S2	2.000	S3	0.6	0.261	0.031	0.1660	
600 minute summer	S3	1.001	S4	2.2	0.461	0.123	0.0677	
600 minute summer	S4	1.002	S7	3.1	0.524	0.174	0.0404	
600 minute summer	S5	3.000	S6	1.1	0.594	0.063	0.0439	
600 minute summer	S6	3.001	S7	1.1	0.285	0.045	0.1496	
600 minute summer	S7	1.003	S8	2.1	0.278	0.119	0.1219	
600 minute summer	S8	Hydro-Brake®	C01	2.0				44.2

Results for 100 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	375	48.157	0.007	0.0	0.0012	0.0000	OK
600 minute winter	S2	285	48.165	0.015	0.4	0.0052	0.0000	OK
600 minute winter	S3	375	48.157	0.143	1.6	0.0842	0.0000	OK
600 minute winter	S4	375	48.157	0.181	2.2	0.0719	0.0000	SURCHARGED
600 minute winter	S5	315	48.173	0.023	0.8	0.0110	0.0000	OK
600 minute winter	S6	375	48.157	0.038	0.8	0.0060	0.0000	OK
600 minute winter	S7	375	48.157	0.204	3.3	5.8936	0.0000	SURCHARGED
600 minute winter	S8	375	48.155	0.271	2.1	0.4795	0.0000	SURCHARGED
600 minute winter	C01	15	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S3	0.0	-0.002	-0.001	0.1197	
600 minute winter	S2	2.000	S3	0.4	0.247	0.020	0.1011	
600 minute winter	S3	1.001	S4	1.5	0.442	0.085	0.0672	
600 minute winter	S4	1.002	S7	2.2	0.524	0.122	0.0404	
600 minute winter	S5	3.000	S6	0.8	0.543	0.045	0.0072	
600 minute winter	S6	3.001	S7	0.8	0.407	0.033	0.0938	
600 minute winter	S7	1.003	S8	2.1	0.280	0.119	0.1219	
600 minute winter	S8	Hydro-Brake®	C01	2.0				43.7

Results for 100 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	435	48.214	0.064	0.1	0.0102	0.0000	OK
720 minute summer	S2	435	48.214	0.064	0.6	0.0222	0.0000	OK
720 minute summer	S3	435	48.214	0.200	2.1	0.1177	0.0000	SURCHARGED
720 minute summer	S4	435	48.214	0.238	2.8	0.0944	0.0000	SURCHARGED
720 minute summer	S5	435	48.213	0.063	1.0	0.0304	0.0000	OK
720 minute summer	S6	435	48.214	0.095	1.0	0.0151	0.0000	OK
720 minute summer	S7	435	48.214	0.261	3.8	7.5416	0.0000	SURCHARGED
720 minute summer	S8	435	48.212	0.328	4.7	0.5802	0.0000	SURCHARGED
720 minute summer	C01	15	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S3	-0.1	-0.005	-0.004	0.1682	
720 minute summer	S2	2.000	S3	0.6	0.268	0.031	0.1387	
720 minute summer	S3	1.001	S4	1.9	0.456	0.109	0.0677	
720 minute summer	S4	1.002	S7	2.8	0.516	0.156	0.0404	
720 minute summer	S5	3.000	S6	1.0	0.579	0.056	0.0295	
720 minute summer	S6	3.001	S7	1.0	0.305	0.041	0.1307	
720 minute summer	S7	1.003	S8	4.7	0.417	0.265	0.1219	
720 minute summer	S8	Hydro-Brake®	C01	2.0				47.1

Results for 100 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
720 minute winter	S2	360	48.165	0.015	0.4	0.0052	0.0000	OK
720 minute winter	S3	435	48.100	0.086	1.4	0.0508	0.0000	OK
720 minute winter	S4	435	48.100	0.124	2.0	0.0494	0.0000	OK
720 minute winter	S5	375	48.171	0.021	0.7	0.0103	0.0000	OK
720 minute winter	S6	375	48.137	0.018	0.7	0.0028	0.0000	OK
720 minute winter	S7	435	48.100	0.147	2.9	4.2563	0.0000	OK
720 minute winter	S8	435	48.099	0.215	3.1	0.3796	0.0000	SURCHARGED
720 minute winter	C01	15	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0713	
720 minute winter	S2	2.000	S3	0.4	0.255	0.020	0.0629	
720 minute winter	S3	1.001	S4	1.4	0.442	0.079	0.0502	
720 minute winter	S4	1.002	S7	2.0	0.532	0.111	0.0380	
720 minute winter	S5	3.000	S6	0.7	0.522	0.039	0.0042	
720 minute winter	S6	3.001	S7	0.7	0.471	0.029	0.0821	
720 minute winter	S7	1.003	S8	3.1	0.350	0.177	0.1217	
720 minute winter	S8	Hydro-Brake®	C01	2.0				46.3

Results for 100 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute summer	S2	495	48.167	0.017	0.5	0.0057	0.0000	OK
960 minute summer	S3	540	48.142	0.128	1.8	0.0752	0.0000	OK
960 minute summer	S4	540	48.142	0.166	2.4	0.0658	0.0000	SURCHARGED
960 minute summer	S5	495	48.173	0.023	0.8	0.0110	0.0000	OK
960 minute summer	S6	555	48.141	0.022	0.8	0.0036	0.0000	OK
960 minute summer	S7	540	48.141	0.188	3.1	5.4523	0.0000	SURCHARGED
960 minute summer	S8	555	48.140	0.256	4.2	0.4525	0.0000	SURCHARGED
960 minute summer	C01	15	47.865	0.000	2.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.1087	
960 minute summer	S2	2.000	S3	0.5	0.247	0.026	0.0937	
960 minute summer	S3	1.001	S4	1.7	0.453	0.095	0.0646	
960 minute summer	S4	1.002	S7	2.3	0.513	0.132	0.0404	
960 minute summer	S5	3.000	S6	0.8	0.543	0.045	0.0046	
960 minute summer	S6	3.001	S7	0.8	0.337	0.033	0.0858	
960 minute summer	S7	1.003	S8	4.2	0.419	0.238	0.1219	
960 minute summer	S8	Hydro-Brake®	C01	2.0				49.4

Results for 100 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	15	48.150	0.000	0.0	0.0000	0.0000	OK
960 minute winter	S2	435	48.163	0.013	0.3	0.0045	0.0000	OK
960 minute winter	S3	465	48.040	0.026	1.1	0.0155	0.0000	OK
960 minute winter	S4	540	48.027	0.051	1.6	0.0201	0.0000	OK
960 minute winter	S5	450	48.168	0.018	0.5	0.0087	0.0000	OK
960 minute winter	S6	450	48.134	0.015	0.5	0.0024	0.0000	OK
960 minute winter	S7	540	48.026	0.073	2.2	2.1259	0.0000	OK
960 minute winter	S8	540	48.026	0.142	2.6	0.2503	0.0000	OK
960 minute winter	C01	15	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0141	
960 minute winter	S2	2.000	S3	0.3	0.239	0.015	0.0158	
960 minute winter	S3	1.001	S4	1.1	0.433	0.062	0.0136	
960 minute winter	S4	1.002	S7	1.7	0.521	0.093	0.0158	
960 minute winter	S5	3.000	S6	0.5	0.474	0.028	0.0033	
960 minute winter	S6	3.001	S7	0.5	0.357	0.021	0.0422	
960 minute winter	S7	1.003	S8	2.6	0.277	0.144	0.0894	
960 minute winter	S8	Hydro-Brake®	C01	1.9				49.3

Results for 100 year +40% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	S2	720	48.163	0.013	0.3	0.0045	0.0000	OK
1440 minute summer	S3	720	48.042	0.028	1.2	0.0163	0.0000	OK
1440 minute summer	S4	780	48.034	0.058	1.7	0.0232	0.0000	OK
1440 minute summer	S5	750	48.170	0.020	0.6	0.0095	0.0000	OK
1440 minute summer	S6	750	48.135	0.016	0.6	0.0026	0.0000	OK
1440 minute summer	S7	780	48.034	0.081	2.3	2.3492	0.0000	OK
1440 minute summer	S8	780	48.034	0.150	1.9	0.2645	0.0000	OK
1440 minute summer	C01	30	47.865	0.000	1.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0152	
1440 minute summer	S2	2.000	S3	0.3	0.239	0.015	0.0166	
1440 minute summer	S3	1.001	S4	1.2	0.443	0.068	0.0157	
1440 minute summer	S4	1.002	S7	1.7	0.507	0.096	0.0184	
1440 minute summer	S5	3.000	S6	0.6	0.498	0.034	0.0038	
1440 minute summer	S6	3.001	S7	0.6	0.333	0.025	0.0474	
1440 minute summer	S7	1.003	S8	1.9	0.275	0.108	0.0946	
1440 minute summer	S8	Hydro-Brake®	C01	1.9				54.1

Results for 100 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	30	48.150	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	S2	630	48.161	0.011	0.2	0.0037	0.0000	OK
1440 minute winter	S3	750	48.037	0.023	0.8	0.0133	0.0000	OK
1440 minute winter	S4	750	48.004	0.028	1.1	0.0110	0.0000	OK
1440 minute winter	S5	720	48.166	0.016	0.4	0.0078	0.0000	OK
1440 minute winter	S6	720	48.132	0.013	0.4	0.0021	0.0000	OK
1440 minute winter	S7	780	47.982	0.029	1.5	0.8530	0.0000	OK
1440 minute winter	S8	780	47.962	0.078	1.5	0.1384	0.0000	OK
1440 minute winter	C01	30	47.865	0.000	1.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0113	
1440 minute winter	S2	2.000	S3	0.2	0.214	0.010	0.0124	
1440 minute winter	S3	1.001	S4	0.8	0.413	0.045	0.0075	
1440 minute winter	S4	1.002	S7	1.1	0.476	0.062	0.0053	
1440 minute winter	S5	3.000	S6	0.4	0.442	0.023	0.0028	
1440 minute winter	S6	3.001	S7	0.4	0.285	0.016	0.0143	
1440 minute winter	S7	1.003	S8	1.5	0.276	0.084	0.0406	
1440 minute winter	S8	Hydro-Brake®	C01	1.5				54.0

Results for 100 year +40% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute summer	S2	1080	48.161	0.011	0.2	0.0037	0.0000	OK
2160 minute summer	S3	1140	48.036	0.022	0.8	0.0132	0.0000	OK
2160 minute summer	S4	1140	48.005	0.029	1.2	0.0115	0.0000	OK
2160 minute summer	S5	1140	48.166	0.016	0.4	0.0078	0.0000	OK
2160 minute summer	S6	1140	48.132	0.013	0.4	0.0021	0.0000	OK
2160 minute summer	S7	1140	47.983	0.030	1.6	0.8804	0.0000	OK
2160 minute summer	S8	1140	47.968	0.084	1.6	0.1488	0.0000	OK
2160 minute summer	C01	60	47.865	0.000	1.6	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0111	
2160 minute summer	S2	2.000	S3	0.2	0.202	0.010	0.0123	
2160 minute summer	S3	1.001	S4	0.8	0.401	0.045	0.0077	
2160 minute summer	S4	1.002	S7	1.2	0.491	0.068	0.0056	
2160 minute summer	S5	3.000	S6	0.4	0.442	0.023	0.0028	
2160 minute summer	S6	3.001	S7	0.4	0.253	0.016	0.0148	
2160 minute summer	S7	1.003	S8	1.6	0.274	0.090	0.0441	
2160 minute summer	S8	Hydro-Brake®	C01	1.6				55.3

Results for 100 year +40% CC 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2160 minute winter	S2	1140	48.161	0.011	0.2	0.0037	0.0000	OK
2160 minute winter	S3	1140	48.033	0.019	0.6	0.0114	0.0000	OK
2160 minute winter	S4	1140	47.999	0.023	0.8	0.0093	0.0000	OK
2160 minute winter	S5	1080	48.164	0.014	0.3	0.0068	0.0000	OK
2160 minute winter	S6	1080	48.131	0.012	0.3	0.0019	0.0000	OK
2160 minute winter	S7	1140	47.978	0.025	1.1	0.7333	0.0000	OK
2160 minute winter	S8	1140	47.943	0.059	1.1	0.1035	0.0000	OK
2160 minute winter	C01	60	47.865	0.000	1.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2160 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0091	
2160 minute winter	S2	2.000	S3	0.2	0.217	0.010	0.0106	
2160 minute winter	S3	1.001	S4	0.6	0.391	0.034	0.0059	
2160 minute winter	S4	1.002	S7	0.8	0.434	0.045	0.0042	
2160 minute winter	S5	3.000	S6	0.3	0.408	0.017	0.0023	
2160 minute winter	S6	3.001	S7	0.3	0.253	0.012	0.0116	
2160 minute winter	S7	1.003	S8	1.1	0.274	0.062	0.0288	
2160 minute winter	S8	Hydro-Brake®	C01	1.1				53.3

Results for 100 year +40% CC 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute summer	S2	1440	48.161	0.011	0.2	0.0037	0.0000	OK
2880 minute summer	S3	1500	48.035	0.021	0.7	0.0124	0.0000	OK
2880 minute summer	S4	1500	48.002	0.026	1.0	0.0104	0.0000	OK
2880 minute summer	S5	1440	48.164	0.014	0.3	0.0068	0.0000	OK
2880 minute summer	S6	1440	48.131	0.012	0.3	0.0019	0.0000	OK
2880 minute summer	S7	1500	47.980	0.027	1.3	0.7955	0.0000	OK
2880 minute summer	S8	1500	47.952	0.068	1.3	0.1197	0.0000	OK
2880 minute summer	C01	60	47.865	0.000	1.3	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0102	
2880 minute summer	S2	2.000	S3	0.2	0.217	0.010	0.0115	
2880 minute summer	S3	1.001	S4	0.7	0.396	0.039	0.0068	
2880 minute summer	S4	1.002	S7	1.0	0.472	0.056	0.0049	
2880 minute summer	S5	3.000	S6	0.3	0.408	0.017	0.0023	
2880 minute summer	S6	3.001	S7	0.3	0.242	0.012	0.0127	
2880 minute summer	S7	1.003	S8	1.3	0.274	0.073	0.0344	
2880 minute summer	S8	Hydro-Brake®	C01	1.3				54.7

Results for 100 year +40% CC 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	S2	1020	48.158	0.008	0.1	0.0027	0.0000	OK
2880 minute winter	S3	1740	48.030	0.016	0.4	0.0094	0.0000	OK
2880 minute winter	S4	1320	47.996	0.020	0.6	0.0080	0.0000	OK
2880 minute winter	S5	1260	48.162	0.012	0.2	0.0056	0.0000	OK
2880 minute winter	S6	1260	48.129	0.010	0.2	0.0016	0.0000	OK
2880 minute winter	S7	1380	47.975	0.022	0.8	0.6282	0.0000	OK
2880 minute winter	S8	1380	47.931	0.047	0.8	0.0828	0.0000	OK
2880 minute winter	C01	60	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0067	
2880 minute winter	S2	2.000	S3	0.1	0.179	0.005	0.0075	
2880 minute winter	S3	1.001	S4	0.4	0.363	0.023	0.0046	
2880 minute winter	S4	1.002	S7	0.6	0.407	0.034	0.0034	
2880 minute winter	S5	3.000	S6	0.2	0.359	0.011	0.0018	
2880 minute winter	S6	3.001	S7	0.2	0.237	0.008	0.0091	
2880 minute winter	S7	1.003	S8	0.8	0.264	0.045	0.0217	
2880 minute winter	S8	Hydro-Brake®	C01	0.8				56.1

Results for 100 year +40% CC 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute summer	S2	1800	48.158	0.008	0.1	0.0027	0.0000	OK
4320 minute summer	S3	2220	48.032	0.018	0.5	0.0104	0.0000	OK
4320 minute summer	S4	2220	47.998	0.022	0.7	0.0086	0.0000	OK
4320 minute summer	S5	2040	48.162	0.012	0.2	0.0056	0.0000	OK
4320 minute summer	S6	2040	48.129	0.010	0.2	0.0016	0.0000	OK
4320 minute summer	S7	2220	47.976	0.023	0.9	0.6652	0.0000	OK
4320 minute summer	S8	2220	47.935	0.051	0.9	0.0895	0.0000	OK
4320 minute summer	C01	60	47.865	0.000	0.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0079	
4320 minute summer	S2	2.000	S3	0.1	0.179	0.005	0.0085	
4320 minute summer	S3	1.001	S4	0.5	0.368	0.028	0.0053	
4320 minute summer	S4	1.002	S7	0.7	0.430	0.039	0.0037	
4320 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
4320 minute summer	S6	3.001	S7	0.2	0.237	0.008	0.0097	
4320 minute summer	S7	1.003	S8	0.9	0.269	0.051	0.0240	
4320 minute summer	S8	Hydro-Brake®	C01	0.9				51.1

Results for 100 year +40% CC 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
4320 minute winter	S2	1680	48.158	0.008	0.1	0.0027	0.0000	OK
4320 minute winter	S3	1740	48.028	0.014	0.3	0.0081	0.0000	OK
4320 minute winter	S4	2220	47.992	0.016	0.4	0.0065	0.0000	OK
4320 minute winter	S5	2160	48.162	0.012	0.2	0.0056	0.0000	OK
4320 minute winter	S6	2160	48.129	0.010	0.2	0.0016	0.0000	OK
4320 minute winter	S7	2220	47.972	0.019	0.6	0.5476	0.0000	OK
4320 minute winter	S8	2220	47.923	0.039	0.6	0.0694	0.0000	OK
4320 minute winter	C01	60	47.865	0.000	0.6	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
4320 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
4320 minute winter	S2	2.000	S3	0.1	0.215	0.005	0.0064	
4320 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
4320 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0026	
4320 minute winter	S5	3.000	S6	0.2	0.359	0.011	0.0018	
4320 minute winter	S6	3.001	S7	0.2	0.237	0.008	0.0079	
4320 minute winter	S7	1.003	S8	0.6	0.251	0.034	0.0172	
4320 minute winter	S8	Hydro-Brake®	C01	0.6				52.5

Results for 100 year +40% CC 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute summer	S2	2460	48.158	0.008	0.1	0.0027	0.0000	OK
5760 minute summer	S3	3060	48.030	0.016	0.4	0.0094	0.0000	OK
5760 minute summer	S4	2880	47.996	0.020	0.6	0.0080	0.0000	OK
5760 minute summer	S5	2820	48.162	0.012	0.2	0.0056	0.0000	OK
5760 minute summer	S6	2820	48.129	0.010	0.2	0.0016	0.0000	OK
5760 minute summer	S7	2940	47.975	0.022	0.8	0.6282	0.0000	OK
5760 minute summer	S8	2940	47.931	0.047	0.8	0.0828	0.0000	OK
5760 minute summer	C01	60	47.865	0.000	0.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0067	
5760 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0075	
5760 minute summer	S3	1.001	S4	0.4	0.363	0.023	0.0046	
5760 minute summer	S4	1.002	S7	0.6	0.407	0.034	0.0034	
5760 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
5760 minute summer	S6	3.001	S7	0.2	0.237	0.008	0.0091	
5760 minute summer	S7	1.003	S8	0.8	0.264	0.045	0.0217	
5760 minute summer	S8	Hydro-Brake®	C01	0.8				51.8

Results for 100 year +40% CC 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
5760 minute winter	S2	2400	48.158	0.008	0.1	0.0027	0.0000	OK
5760 minute winter	S3	2460	48.028	0.014	0.3	0.0081	0.0000	OK
5760 minute winter	S4	2520	47.992	0.016	0.4	0.0065	0.0000	OK
5760 minute winter	S5	1920	48.158	0.008	0.1	0.0041	0.0000	OK
5760 minute winter	S6	1920	48.126	0.007	0.1	0.0011	0.0000	OK
5760 minute winter	S7	2520	47.970	0.017	0.5	0.5025	0.0000	OK
5760 minute winter	S8	2520	47.919	0.035	0.5	0.0622	0.0000	OK
5760 minute winter	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
5760 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
5760 minute winter	S2	2.000	S3	0.1	0.215	0.005	0.0064	
5760 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
5760 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0025	
5760 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
5760 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0064	
5760 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
5760 minute winter	S8	Hydro-Brake®	C01	0.5				56.1

Results for 100 year +40% CC 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute summer	S2	3180	48.158	0.008	0.1	0.0027	0.0000	OK
7200 minute summer	S3	3660	48.030	0.016	0.4	0.0094	0.0000	OK
7200 minute summer	S4	3660	47.994	0.018	0.5	0.0073	0.0000	OK
7200 minute summer	S5	3660	48.162	0.012	0.2	0.0056	0.0000	OK
7200 minute summer	S6	3660	48.129	0.010	0.2	0.0016	0.0000	OK
7200 minute summer	S7	3660	47.973	0.020	0.7	0.5894	0.0000	OK
7200 minute summer	S8	3660	47.927	0.043	0.7	0.0762	0.0000	OK
7200 minute summer	C01	60	47.865	0.000	0.7	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0067	
7200 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0075	
7200 minute summer	S3	1.001	S4	0.4	0.363	0.023	0.0043	
7200 minute summer	S4	1.002	S7	0.5	0.383	0.028	0.0030	
7200 minute summer	S5	3.000	S6	0.2	0.359	0.011	0.0018	
7200 minute summer	S6	3.001	S7	0.2	0.237	0.008	0.0085	
7200 minute summer	S7	1.003	S8	0.7	0.258	0.039	0.0194	
7200 minute summer	S8	Hydro-Brake®	C01	0.7				49.7

Results for 100 year +40% CC 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
7200 minute winter	S2	3180	48.158	0.008	0.1	0.0027	0.0000	OK
7200 minute winter	S3	3360	48.028	0.014	0.3	0.0081	0.0000	OK
7200 minute winter	S4	3420	47.992	0.016	0.4	0.0065	0.0000	OK
7200 minute winter	S5	2520	48.158	0.008	0.1	0.0041	0.0000	OK
7200 minute winter	S6	2520	48.126	0.007	0.1	0.0011	0.0000	OK
7200 minute winter	S7	3420	47.970	0.017	0.5	0.5025	0.0000	OK
7200 minute winter	S8	3420	47.919	0.035	0.5	0.0622	0.0000	OK
7200 minute winter	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0054	
7200 minute winter	S2	2.000	S3	0.1	0.216	0.005	0.0064	
7200 minute winter	S3	1.001	S4	0.3	0.328	0.017	0.0035	
7200 minute winter	S4	1.002	S7	0.4	0.374	0.023	0.0025	
7200 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
7200 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0064	
7200 minute winter	S7	1.003	S8	0.5	0.242	0.028	0.0148	
7200 minute winter	S8	Hydro-Brake®	C01	0.5				57.6

Results for 100 year +40% CC 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute summer	S2	3960	48.158	0.008	0.1	0.0027	0.0000	OK
8640 minute summer	S3	4020	48.028	0.014	0.3	0.0081	0.0000	OK
8640 minute summer	S4	4080	47.992	0.016	0.4	0.0065	0.0000	OK
8640 minute summer	S5	3480	48.158	0.008	0.1	0.0041	0.0000	OK
8640 minute summer	S6	3480	48.126	0.007	0.1	0.0011	0.0000	OK
8640 minute summer	S7	4080	47.970	0.017	0.5	0.5025	0.0000	OK
8640 minute summer	S8	4080	47.919	0.035	0.5	0.0622	0.0000	OK
8640 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
8640 minute summer	S2	2.000	S3	0.1	0.215	0.005	0.0064	
8640 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
8640 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
8640 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
8640 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0064	
8640 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
8640 minute summer	S8	Hydro-Brake®	C01	0.5				49.6

Results for 100 year +40% CC 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
8640 minute winter	S2	4200	48.158	0.008	0.1	0.0027	0.0000	OK
8640 minute winter	S3	4200	48.025	0.011	0.2	0.0067	0.0000	OK
8640 minute winter	S4	4200	47.990	0.014	0.3	0.0056	0.0000	OK
8640 minute winter	S5	3240	48.158	0.008	0.1	0.0041	0.0000	OK
8640 minute winter	S6	3240	48.126	0.007	0.1	0.0011	0.0000	OK
8640 minute winter	S7	4320	47.969	0.016	0.4	0.4522	0.0000	OK
8640 minute winter	S8	4320	47.915	0.031	0.4	0.0549	0.0000	OK
8640 minute winter	C01	60	47.865	0.000	0.4	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0041	
8640 minute winter	S2	2.000	S3	0.1	0.216	0.005	0.0053	
8640 minute winter	S3	1.001	S4	0.2	0.282	0.011	0.0027	
8640 minute winter	S4	1.002	S7	0.3	0.353	0.017	0.0021	
8640 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
8640 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0056	
8640 minute winter	S7	1.003	S8	0.4	0.230	0.023	0.0125	
8640 minute winter	S8	Hydro-Brake®	C01	0.4				51.8

Results for 100 year +40% CC 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	S2	4740	48.158	0.008	0.1	0.0027	0.0000	OK
10080 minute summer	S3	4860	48.028	0.014	0.3	0.0081	0.0000	OK
10080 minute summer	S4	4920	47.992	0.016	0.4	0.0065	0.0000	OK
10080 minute summer	S5	4140	48.158	0.008	0.1	0.0041	0.0000	OK
10080 minute summer	S6	4140	48.126	0.007	0.1	0.0011	0.0000	OK
10080 minute summer	S7	4920	47.970	0.017	0.5	0.5025	0.0000	OK
10080 minute summer	S8	4920	47.919	0.035	0.5	0.0622	0.0000	OK
10080 minute summer	C01	60	47.865	0.000	0.5	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute summer	S1	1.000	S3	0.0	0.000	0.000	0.0054	
10080 minute summer	S2	2.000	S3	0.1	0.216	0.005	0.0064	
10080 minute summer	S3	1.001	S4	0.3	0.328	0.017	0.0035	
10080 minute summer	S4	1.002	S7	0.4	0.374	0.023	0.0025	
10080 minute summer	S5	3.000	S6	0.1	0.291	0.006	0.0011	
10080 minute summer	S6	3.001	S7	0.1	0.237	0.004	0.0064	
10080 minute summer	S7	1.003	S8	0.5	0.242	0.028	0.0148	
10080 minute summer	S8	Hydro-Brake®	C01	0.5				48.9

Results for 100 year +40% CC 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	S1	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S2	60	48.150	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	S3	3900	48.022	0.008	0.1	0.0049	0.0000	OK
10080 minute winter	S4	4020	47.987	0.011	0.2	0.0046	0.0000	OK
10080 minute winter	S5	3960	48.158	0.008	0.1	0.0041	0.0000	OK
10080 minute winter	S6	3960	48.126	0.007	0.1	0.0011	0.0000	OK
10080 minute winter	S7	4200	47.967	0.014	0.3	0.3948	0.0000	OK
10080 minute winter	S8	4200	47.910	0.026	0.3	0.0464	0.0000	OK
10080 minute winter	C01	60	47.865	0.000	0.3	0.0000	0.0000	OK

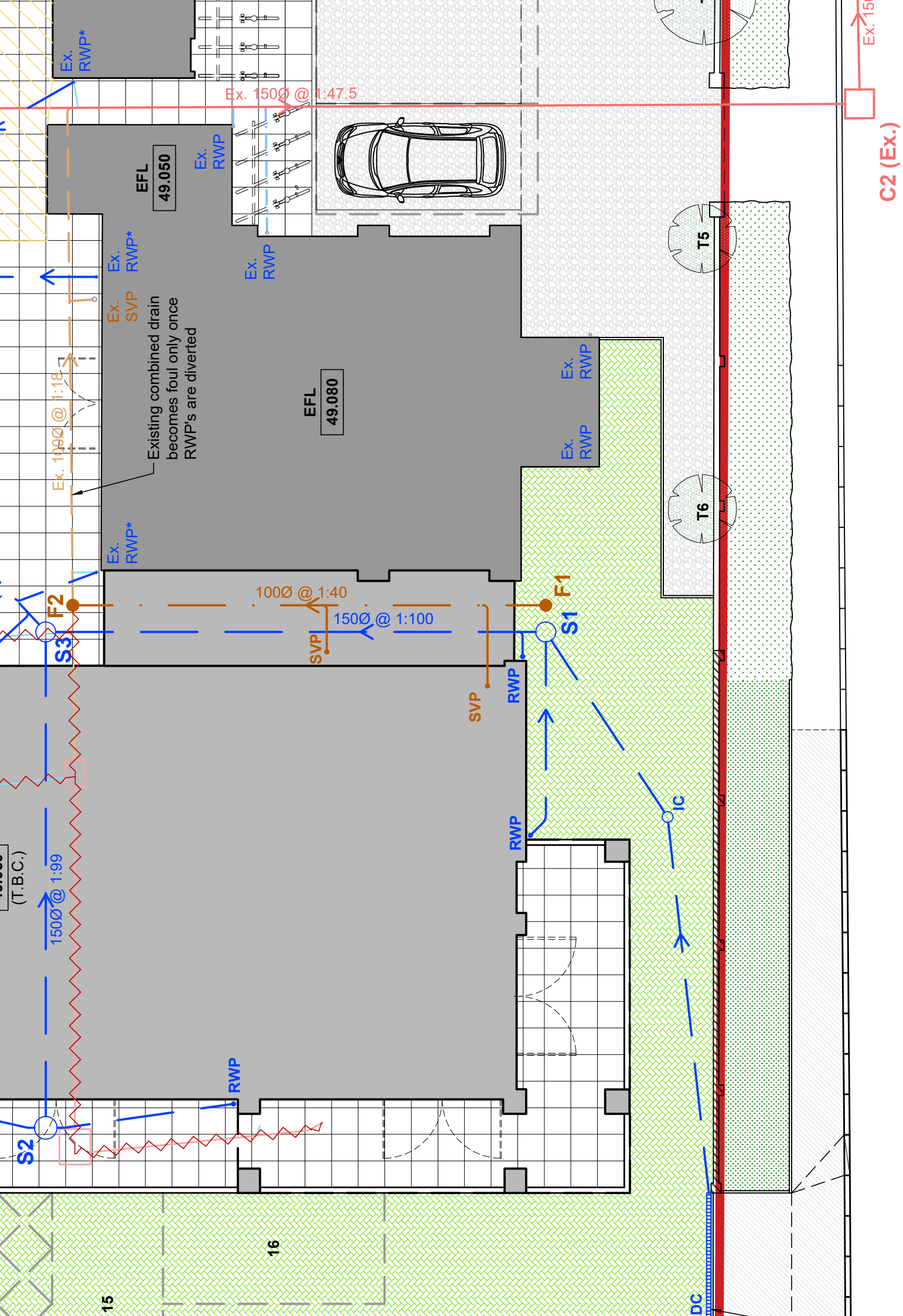
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute winter	S1	1.000	S3	0.0	0.000	0.000	0.0026	
10080 minute winter	S2	2.000	S3	0.0	0.000	0.000	0.0021	
10080 minute winter	S3	1.001	S4	0.1	0.268	0.006	0.0019	
10080 minute winter	S4	1.002	S7	0.2	0.353	0.011	0.0016	
10080 minute winter	S5	3.000	S6	0.1	0.291	0.006	0.0011	
10080 minute winter	S6	3.001	S7	0.1	0.237	0.004	0.0048	
10080 minute winter	S7	1.003	S8	0.3	0.217	0.017	0.0099	
10080 minute winter	S8	Hydro-Brake®	C01	0.3				50.4

Appendix D – Foul Water Drainage Calculations

Existing Foul Drainage Flow Rate - Discharge Unit				Shinfield Community Church	
Appliance	DU	Quantity	SUM DU		
Wash Basin Bidet	0.5	3	1.5		
Shower Without Plug	0.6	0	0	intermittent dwellings guesthouse office	0.5
Single Urinal With Cistern	0.8	0	0	frequent use hospital school restaurant hotel	0.7
Kitchen Sink	0.8	2	1.6	congested use public toilets/showers	1
Dishwasher	0.8	0	0	special use (lab)	1.2
WC 6.0 l Cistern	2	3	6		
Floor Gully DN 50	0.8	0	0		
		Total DU	9.1		
Use of Appliances	k				
intermittent dwellings guesthouse office	0.5				
$Q = K(DU^{0.5})$	1.51	l/s			

Proposed Foul Drainage Flow Rate - Discharge Unit				Shinfield Community Church	
Appliance	DU	Quantity	SUM DU		
Wash Basin Bidet	0.5	5	2.5		
Shower Without Plug	0.6		0	intermittent dwellings guesthouse office	0.5
Single Urinal With Cistern	0.8		0	frequent use hospital school restaurant hotel	0.7
Kitchen Sink	0.8	1	0.8	congested use public toilets/showers	1
Dishwasher	0.8		0	special use (lab)	1.2
WC 6.0 l Cistern	2	5	10		
Floor Gully DN 50	0.8		0		
		Total DU	13.3		
Use of Appliances	k				
intermittent dwellings guesthouse office	0.5				
$Q = K(DU^{0.5})$	1.82	l/s			

Appendix E – Proposed Drainage Layout



Appendix F – Drainage Maintenance Plan

Rain Garden (Management Company)

Maintenance Frequency	Action Required	Maintenance Frequency
Regular Maintenance	Check for compaction of the soil and de-compact as necessary	Monthly or as required
	Remove nuisance/invasive vegetation and litter/debris in the area	Monthly or as required
	Inspect and remove debris from around the “mushroom” vertical drainage caps.	Monthly or as required
	Inspect and remove debris from inlet structure (catchpit)	Monthly or as required
Occasional Maintenance	Remove all dead growth prior to growing season, replant as necessary	Annually or as required
	Check that soil level is below adjacent hardstanding by 100mm.	Annually or as required
	Relevel uneven surface and reinstate design level	As required
Remedial Works	Largescale impermeability will require structures to be repaired or replaced as required	As required
Following all significant events	Inspect and carry out essential maintenance works as required to return feature to full working order	As required

Cellular attenuation Soakaway (Management Company)

Maintenance Frequency	Action Required	Maintenance Frequency
Regular Maintenance	Inspect/identify areas not operating correctly and take remedial action	3 months initially, every 6 months for next year, than as required.
	Inspect structure as specified by manufacturer	Monthly or as required
	Inspect and remove debris from inlet structure (catchpit)	Monthly or as required
	Check inlets and outlets	Annually or as required
Occasional Maintenance	Jetting and suction where silt has settled in structure	As required
Remedial Works	Full replacement of the structure if permanently silted or structural failure	As required
Following all significant event	Inspect and carry out essential recovery works to return feature to full working order	As required

Permeable Paving (Management Company)

Maintenance Frequency	Action Required	Maintenance Frequency
Regular Maintenance	Refer to manufacturer specification for details of specific maintenance requirements	Defined by manufacturer
	Inspect permeable paving outfalls to ensure functioning correctly	3 months as required
	Brush surface regularly remove sweepings away from paving blocks	3 months or as required
Occasional Maintenance	Vacuum surface and brush and re-grit where necessary to prevent silt blockage and enhance design life	6 month or as required
	Remove weeds and plant growth in gaps between paving	As required
Remedial Works	Monitor effectiveness i.e. note if water fails to infiltrate immediately upon contact as the reinstatement of pavement if jet washing and suction cleaning does not restore it	As required
Following all significant events	Inspect and carry out essential maintenance works as required to return feature to full working order	As required

Underground Drainage and Chambers (Management Company)

Maintenance Frequency	Action Required	Maintenance Frequency
Regular Maintenance	Cleaning gutters and any filters on downpipe	Every 6 months or as required
	Remove sediment, debris etc. from manhole chambers, catchpits and inspection chambers	Annually or as required
Occasional Maintenance	CCTV Survey to check pipe alignment, cracks, joint displacements and root ingress for repair	Every 10 years
Remedial Works	Full replacement of the structure if permanently silted or structural failure	As required
Ad-hoc	If blockage/flooding reported utilise jetting/rodding practices to remove obstruction within 24 hours of report.	As required
Following all significant events	Inspect and carry out essential maintenance works to return feature to full working order	As required

Flow Control Chamber (Management Company)

Maintenance Frequency	Action Required	Maintenance Frequency
Regular / Occasional Maintenance	Inspect and identify any areas within the flow control are operating correctly	Monthly or as required
	Remove sediment build up within chamber	Monthly or as required
	Review manufacturer specification for additional maintenance requirements	Monthly or as required
Remedial Works	Blockages of structure- attempt to jet out however consider replacing unit if this does not work	As required
Following all significant events	Inspect and carry out essential maintenance works as required to return feature to full working order	As required

Note – at detailed design stage a specific management strategy based on the final proposals will need to review the above and amend as necessary.