

Cyfarthfa Retail Park, Costa Drive Thru

TECHNICAL NOTE

Drainage Strategy

DOCUMENT CONTROL SHEET

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Client: British Land

Project: Cyfarthfa Retail Park, Costa Drive Thru

Document No: 30106-BGL-XX-XX-TN-X-00002

Title: Drainage Strategy

Status: P03

Date: 10/12/2024

Prepared By: Jack Williams CEng MICE MCIHT – Civils Director

Document Revision Record

Version Number	Date	Revision Details
P01	02/08/2024	First Issue
P02	19/11/2024	Updated to suit comments received
P03	10/12/2024	Updated to suit client comments

Burrows Graham Limited has prepared this report in accordance with the instructions of the above-named Client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Introduction

Burrows Graham Ltd. have been appointed by British Land to produce a detailed design for planning and SAB submission for the drainage strategy of a Costa Drive-Thru.

The following is based on the pre-application review ref. SAB/PRE/23/0011 from Merthyr Tydfil County Borough Council. Note that this was based on a previous pre-app which reflected an EV Charging Car Park which is no longer the proposal for this development, however, the fundamental principles of the drainage design remain and therefore the comments and responses are still valid.

To ensure that all points are captured this report will address each comment from the SAB approving body by cross referencing to the standards in the pre-app report.

Standard S1 – Surface Water Destination

Level 1 – Rainwater collected for use

Rainwater harvesting has been proposed on the site for a minimal use for connections to hose pipes and sprinklers. However, the benefit is limited to small areas of runoff and the re-use demand is very low given the operations on site, therefore, due to the cost and maintenance of such features is not deemed viable for the entirety of the roof.

Level 2 – Discharge of surface water to the ground

Based on the site investigation carried out by Ground Investigation Specialists Limited, the site is underlain by a thick layer of made ground associated with the spoil from the Cyfarthfa ironworks (including varying amounts of slag, cinder, coal, ash, pottery, clinker and brick), mixed with suspected spoil from nearby coal and ironstone mining operations (namely argillaceous siltstone, shale and mudstone).

As colliery waste is regarded as hazardous waste use of infiltration on the development has been discounted.

Level 3 – Discharge to a surface water body

There are no watercourses in the vicinity of the site that can be accessed without using third party land. The nearest watercourses are located c. 150m from the site located between the A470 and the Keir Hardie Pharmacy and on the west of the A470. As such, this has been discounted.

Level 4 – Discharge to a surface water sewer or highway drain

There are no public surface water sewers in the vicinity of the site, currently it is unknown whether there are any highway drains in close proximity and if the highway authority will accept this method of discharge. As such at this stage this has been discounted. However, if the highway authority confirm the

location of a highway drain and accept this method of discharge this will be acceptable and is a minimal change to the design.

Level 5 – Discharge to combined sewer

Based on the above, it is proposed to discharge to the combined sewer to the south of the site within Pantycelyn at a restricted rate of 2.58 l/s. Due to the protection provided by the permeable paving for the majority of the external areas, a small diameter orifice is proposed.

Standard S2 – Surface water runoff hydraulic control

1. Given infiltration is not feasible on the site due to the ground conditions not above, it will not be possible to prevent any discharge from the site in events up to 5mm.
2. The surface water from site will be managed to 2.58 l/s which reflects the current greenfield runoff rate (QBar) for all storm events.
3. Restricting to the greenfield runoff rate noted above, results in betterment in the most extreme storm events above the Qbar event.

Standard S3 – Water Quality

Sustainable Drainage Systems (SuDS) will be utilised in line with The SuDS Manual (C753) guidance and aim to minimise the impact a development has on the runoff quantity and quality and maximise amenity and biodiversity opportunities.

The management train approach is a fundamental principle of SuDS, it aims to primarily reduce pollution, flow rates and volume of runoff from the site. The main objective is to treat the runoff as close to the source as possible and it is imperative that at least two of the following should be included within the drainage strategy.

- **Prevention** – The use of good site design and rainwater re-use measures to prevent runoff.
- **Source Control** – Controlling the runoff as close to source as possible by using; green roofs, porous pavements and soakaways.
- **Site Control** – Use of water management techniques within local area, i.e. detention basins and geo-cellular storage.
- **Regional Control** – Management of water from a number of sites in a specific location, i.e. balancing ponds and wetlands.

The drainage strategy for this development will incorporate source control using permeable paving in carparking bays and site control measures through the use of attenuation and flow control device which are incorporated to control storm water for all rainfall events.

The design will follow BS: 7533 -13:2009 Pavements constructed with Clay, natural stone or concrete pavers - Guide for the design of permeable pavements constructed with concrete paving blocks and flags, natural stone slabs and setts and clay pavers. The design below outlined in this technical note covers both the structural and then the hydraulic needs of the site.

Should the proposals use porous asphalt surfacing courses the subbase / reservoir will remain the same depth with just the top layers being replaced.

Treatment

The design follows the mitigation indices approach set out in CIRIA C753 and shall specifically achieve the mitigation required as set out below and in Chapter 26.

Table 26.2 classifies this site as a low pollution hazard as below with the following pollution indices for Total Suspended Solids (TSS), Metals and Hydrocarbons.

Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
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It is proposed that the highest risk car park areas will pass through permeable paving, which in line with Table 26.3 has the required mitigation for a low risk site.

Permeable pavement	0.7	0.6	0.7
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It is proposed that for the areas that do not pass through the permeable paving, these will be treated via a proprietary SPEL Stormceptor or similar which achieves the required mitigation for low risk sites as below.

SPEL Smartceptor

Certified Mitigation Index

TSS	0.5
Metals	0.4
Hydrocarbons	0.5

As such, we consider the proposed mitigation suitable for this application.

Standard S4 – Amenity

The proposed development will be leased to Costa and will deliver development on a vacant site that first got planning permission for coffee shop drive thru development over 5 years ago. Costa will employ 15 people in the proposed coffee shop in a mix of full time and part time positions.

The landscaping proposal meets the relevant requirements of LDP Policy SW11. It is appropriate to its local context in terms of layout, form, scale, height, massing, elevational treatment and materials. It is a sustainable design that will integrate effectively into the local area providing an ancillary facility for the established Shopping Park and will enhance the street scene at this vacant site. It provides space and facilities for waste collections and recycling. It incorporates a good standard of landscape design including native tree planting. It will create an active environment that will improve the safety of the site and adjoining footpath.

The majority of the existing habitat on the site will be lost to facilitate the proposed development, although it is of limited intrinsic value. Although the non-native species present in this habitat are not WCA9, care will be taken to prevent their spread into the surrounding environment during vegetation removal.

We have shown a grey water harvesting solution with integrated pump for connections to hose pipes and sprinklers.

Standard S5 – Biodiversity

In accordance with the requirements of the Planning Policy Wales (2024) and BSI 42020:2013, ecological enhancements are proposed which will result in a net benefit for biodiversity.

The proposed landscape design (as shown on the Soft Landscape Proposal produced by Sarah Byrne Limited (SB/CyfarthfaRP/P/01 Rev B) provided in Appendix xx) intends to reinforce/strengthen the 'woodland' character of the Site, enhance the approach into the retail park with formal tree planting and ornamental shrub/groundcover planting, and provide a native hedgerow along the southern

boundary of the Site. It is proposed that, along with the native hedgerow planting, the formal tree and ornamental shrub/groundcover planting consists of native species.

Evergreen shrub planting has been proposed to screen/soften views of retaining walls in prominent locations, particularly along the southern edge of the car park. It is proposed that these comprise native species.

Bat and bird boxes will be provided as an enhancement measure. These will be installed away from any light spill from the development.

The installation of hibernacula, woodpiles / loggeries and bug hotels will benefit invertebrates, common reptiles, and hedgehogs.

Standard S6 – Design of Drainage for Construction, Operation and Maintenance and Structural Integrity

Due to the size and nature of the site, it is considered that there will be a minimal requirement for major temporary drainage during the construction of the scheme. All the permanent design features will be maintained in accordance with manufacturers guidelines and in conjunction with the schedule set out in Appendix A.

Conclusion

The following is a response on the key points raised by the SAB Approval body in their summary/conclusions in the pre-app response.

Greenfield Runoff Calculations

A calculation of the greenfield runoff rate for the site has been included in Appendix B.

More detail on the discharge hierarchy and evidence for meeting exception criteria for each level

This information has been set out above in response to S1.

Site specific sections, and details for pipes and chambers including clearer information regarding the flow control.

The drainage layout and details drawings in Appendix C have been provided to include this information.

Post development runoff calculations completed using FEH13

The hydraulic calculations using FEH13 are in Appendix D.

Use of the Simple Index Approach to demonstrate water quality proposals

This information has been set out above in response to S3

Landscaping plan with planting densities and a maintenance schedule for planted areas.

Refer to landscape plan ref. SB_CyfarthfaRP_P_01_RevB.

A plan showing catchment areas and exceedance routes for the proposed development

Catchment area plan has been provided in Appendix C. There is no flooding in the proposed drainage design, all exceedance flooding caused by blockage will fall to the low areas of the site and hold in the car park whilst the levels recede.

Evidence of agreement in principle from DCWW for connection to the combined sewer and discharge rate

Discussions with Maria Evans at Welsh Water are ongoing and the outcome will depend on the SAB approval of the strategy and any agreement to discharge to a nearby highway drain. If discharge to a highway drain cannot be agreed with the local highway authority then the only option will be to discharge to the combined sewer.

A construction management plan should be provided which includes how the SuDS will be phased appropriately and protected during construction.

Given the scale of the development, it is considered that all the SuDS elements will be completed in their entirety early in the construction programme which will help to aid the temporary drainage for the site whilst the unit is construction. This will reduce the risk of temporary water flooding the site.

A designer's risk assessment

Designers Risk Assessment included in Appendix E.

APPENDIX A – MAINTENANCE SCHEDULE

Maintenance Schedule	Required Action	Typical Frequency
Below Ground Drainage Pipes, Manholes, Outfall headwalls, ditches, trash screens etc		
Regular Maintenance	Lift covers and inspect manholes for evidence of debris and silt deposits and evidence of blockages (standing water). Carry out CCTV survey if required. Inspect ditches, trash screens, headwalls etc. and clear debris and silt deposits to avoid restriction to flow.	Quarterly or following significant rainfall events.
Remedial Actions	High pressure jetting and/or remove minor blockages and silt build up	As required – 20% loss of pipe cross-section
	Replace broken access covers, remove major blockages, repair structurally defective pipework	As required
Flow control chamber		
Regular Maintenance	Lift covers and inspect chamber for evidence of debris and silt deposits and evidence of blockages. Test bypass door operating correctly.	Quarterly or following significant rainfall events.
Remedial Actions	High pressure jetting and or remove minor blockages and silt build up	As required
	Replace broken access covers, remove major blockages, repair/replace defective flow control devices	As required
Linear channel drains and gullies		
Regular Maintenance	Lift access covers and inspect for silt/debris accumulation	Quarterly or following significant rainfall events.
Remedial Actions	Replace broken access covers, gratings	Annually
	High pressure jetting and/or remove minor blockages and silt build up	As required
Rainwater pipes		
Regular Maintenance	Inspect rainwater goods for evidence of leaking pipework	Monthly (or as required)
Occasional Maintenance	Remove rodding eyes and carry out high pressure jetting to remove any debris	Quarterly
Remedial Actions	Replace cracked / leaking pipework	As required
Remedial actions	Repair erosion or other damage	As required
	Replant, where necessary	As required
	Aerate pond when signs of eutrophication are detected	As required

Maintenance Schedule	Required Action	Typical Frequency
	Realign rip-rap or repair other damage	As required
	Repair / rehabilitate inlets, outlets and overflows	As required
Attenuation Tank (Maintenance activities recommended by the manufacturer should be added to this schedule where not included)		
Regular maintenance	Remove litter and debris and inspect for sediment, oil and grease accumulation.	Six monthly
	Change the filter media	As recommended by manufacturer
Remedial actions	Replace malfunctioning parts or structures	As required
Monitoring	Inspect for evidence of poor performance	Six monthly
	Inspect sediment accumulation rates and filter media, and establish appropriate replacement frequencies.	Monthly during first half of the year, then every six months

APPENDIX B – GREENFIELD CALCULATIONS

Calculated by:	Josh Booth
Site name:	Costa Cyfarthfa Retail Park
Site location:	South Wales

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.

Site Details

Latitude:	51.74778° N
Longitude:	3.39228° W
Reference:	936077977
Date:	Dec 10 2024 13:20

Runoff estimation approach

IH124

Site characteristics

Total site area (ha):	0.162
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Methodology

Q _{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

Soil characteristics

	Default	Edited
SOIL type:	5	5
HOST class:	N/A	N/A
SPR/SPRHOST:	0.53	0.53

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	1555	1555
Hydrological region:	9	9
Growth curve factor 1 year:	0.88	0.88
Growth curve factor 30 years:	1.78	1.78
Growth curve factor 100 years:	2.18	2.18
Growth curve factor 200 years:	2.46	2.46

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

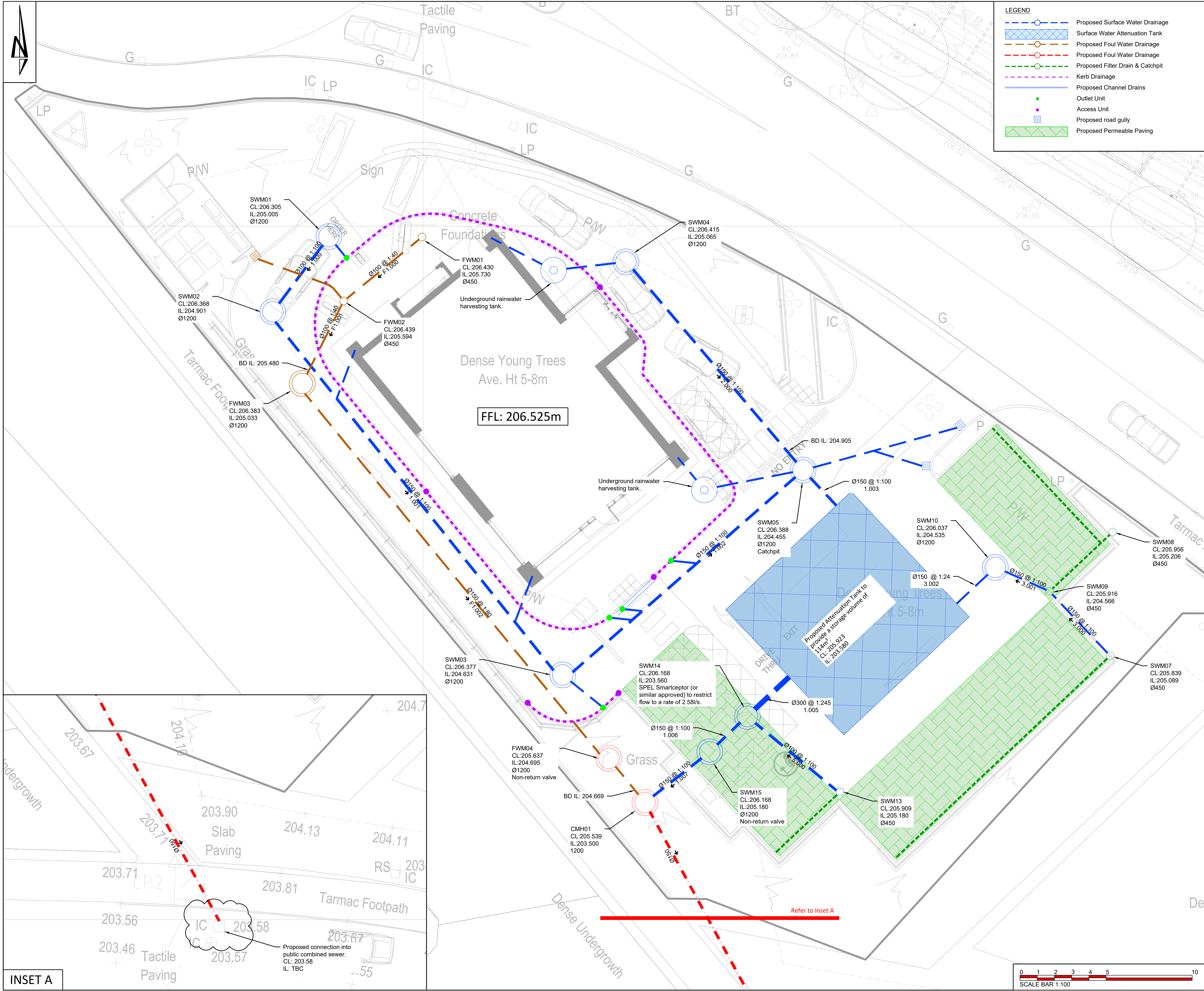
Default

Edited

Q_{BAR} (l/s):	2.58	2.58
1 in 1 year (l/s):	2.27	2.27
1 in 30 years (l/s):	4.6	4.6
1 in 100 year (l/s):	5.63	5.63
1 in 200 years (l/s):	6.35	6.35

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at 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 www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of 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, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

APPENDIX C – DRAINAGE DRAWINGS AND DETAILS



INSET A

LEGEND

- Proposed Surface Water Drainage
- Surface Water Attenuation Tank
- Proposed Foul Water Drainage
- Proposed Filter Drain & Catchpit
- Kerb Drainage
- Proposed Channel Drains
- Outlet Unit
- Access Unit
- Proposed road gully
- Proposed Permeable Paving

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION

MAINTENANCE

DEMOLITION

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT

GENERAL NOTES:

- This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
- All units in millimetres U.O.N. on the drawing. Do not scale off the drawing.
- All temporary works for formwork, excavations etc. to be the design responsibility of the Contractor.
- The Contractor shall allow for the protection, temporary and permanent support and diversion works as necessary, to all existing services to the satisfaction of the host owners.
- The Contractor shall allow for dealing with surface water run-off into excavations and from groundwater by means of sumps, pumping and de-watering as appropriate, in order to keep the excavation as reasonably dry as possible during the construction of the works.
- The Contractor is responsible for obtaining all required permits and licences.
- All private drainage within the site is to comply with the requirements of the relevant British/European Standard, (including BS EN 752, BS EN 650, BS EN 295, BS EN 1917, BS EN 11, BS EN 11, BS EN 124), and the Building Regulations Part H.
- Any adoptable drainage is to be in accordance with the requirements of the adopting authority. If in doubt seek clarification.
- All pipework within chambers are to be laid soffit to soffit (U.O.N). All chamber invert levels are for the outgoing pipe levels. Backdrop pipework shall be connected at soffit to soffit with the backdrop / adding access level specified.
- Catchpit invert levels are for the outgoing pipe, pipes to be soffit level, sump level specified separately. All Catchpits are to be built with a 300 sump (U.O.N).
- Any gradients of drains indicated are indicative only and the Contractor shall install the drains to the specified levels shown for each chamber (U.O.N).
- Cover levels of the access points are provisional and subject to adjustment on site to suit the finished ground levels.
- Positions and sizes of above ground foul and surface water drainage connections ("pop-ups") are indicative only. Setting out and confirmation of the internal requirements is the responsibility of the Architect. Contractor to confirm requirement prior to construction.
- Ø of PCC manholes varies with pipe size, number of connections, depth etc. Minimum sizes are shown on the Burrows Graham Standard Details drawings. Sizes shown on drainage layout and/or manhole schedules take precedence over minimum sizes.
- Flow control chambers should be built in accordance with the requirement of the manufacturer. Allowance should be made for a 600 sump and double covers and frames on the chambers.
- All concrete grades to be as stated on the drawings. Design chemical class for all precast concrete products shall be C40 unless agreed otherwise.
- All separators shall be in accordance with Building Regulations Part H3-A and with BS EN 858 and be like-marked / CE marked in accordance. The oil alarm system is to be in accordance with Client's requirements. Separators to be installed in accordance with manufacturer's recommendations / requirements (venting, protection etc)
- All below ground plastic/GRP tanks shall be installed in accordance with the manufacturers instructions / requirements. They shall be provided with sufficient concrete surround to counter floatation and shall have a wall thickness adequate to resist the highest ground water level which could be encountered at their location.
- All existing drainage/structures to be abandoned shall be broken out and removed from site, the excavation shall be backfilled with a suitable granular material to the required level. Alternatively, deep drains may be cleaned and grouted with a 1:10 cementitious grout, with structures broken down to 1m below proposed finished ground level and infilled with a suitable granular material. Abandoned gullies are to be removed from site and abandoned tails are to be sealed with a 300 thick concrete plug at a depth of 1.0m below proposed finished ground level.
- Where utility/land drainage trenches etc cross over drainage trenches, the Contractor shall construct an impermeable barrier to prevent groundwater infiltrating into the drainage trench.
- Design assumes that no sewerage authority sewers or other drainage systems require modification, diversion or abandoning (U.O.N on the drawings). Unless otherwise agreed, all outfalls to ponds and watercourses to be proprietary PCC units. Where applicable, headwall details are to be approved by the relevant authority (i.e. Internal Drainage Board / Lead Local Flood Authority / Environment Agency / Highway Authority).
- All headwalls to have guardrail and headwalls with pipes greater than Ø375 to have a trash screen/grating fitted.
- All manholes less than 1.5m deep are considered as none man entry and shall be maintained from ground level.
- Upon completion of the works, the Contractor shall clean all drainage by jetting, removing all debris from site and the system is to be CCTV surveyed. No debris shall be permitted to enter the existing drainage system.
- No deep rooting trees/vegetation should be planted within 5.0m of any drainage works.
- The storage and installation of all proprietary drainage items used are to be strictly in accordance with the manufacturers instructions / requirements.
- Any works within the public highway to be reinstated to highway authority requirements. All relevant permits/licences must be sought by the contractor prior to the works being undertaken.
- Peristocks, where indicated, shall be electronically operated complete with power supply and connection (refer to service engineers drawings for cable and ducting etc.)
- Statutory Undertakers information, where shown, is indicative only based on supplied records. The contractor shall verify the depth position and nature of the services as necessary in order to construct the works.
- Drainage channels are to be ACO Omnia in service yards and ACO Multidrain in car parks, or similar approved. Channels are to be sized by the supplier and approved by the Engineer in writing prior to ordering. Drainage channels to be installed to manufacturers' requirements. Design of channels shall be based on a 1 in 30 year storm return period, 15 minute duration. Outlet units on channel drains to include silt traps.
- All RWP, gully and channel connections shall be Ø150 U.O.N. Waste/soil stack connections shall be Ø100mm U.O.N. and shall have internal above ground rodding eyes or large access fittings in accordance with Building Regulations.
- All WPC, SWP's and RWP's are shown indicatively. Locations shall be confirmed by others.
- Siphonic break chambers (i.e. with SWP entering) to be constructed with open grated manhole covers. ("Waterway 2000" or similar approved).
- All sprinkler drain, gully locations and flow rates to be confirmed by the sprinkler Contractor. Potential local storage manholes for sprinkler discharge are to be confirmed following definition of system requirements. It is assumed that future sprinkler installation points will be located close to foul water drainage runs.
- Below ground drainage connections to be provided to all canopy downpipes.
- Ø150mm with concrete bed and surround U.O.N.
- All rising mains to be laid at minimum gradients of 1:500 rising and 1:300 falling. Air valves and washout valves may be required at high and low points respectively.

PO3	10.12.24	JB	Raiwater harvesting tanks added	JW
PO2	09.08.24	JB	Issued for Information	JW
PO1	02.08.24	JB	Issued for Information	JW
REV	DATE	BY	DESCRIPTION	CHKD
				CHKD

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CLIENT: **BROOKFIELD**

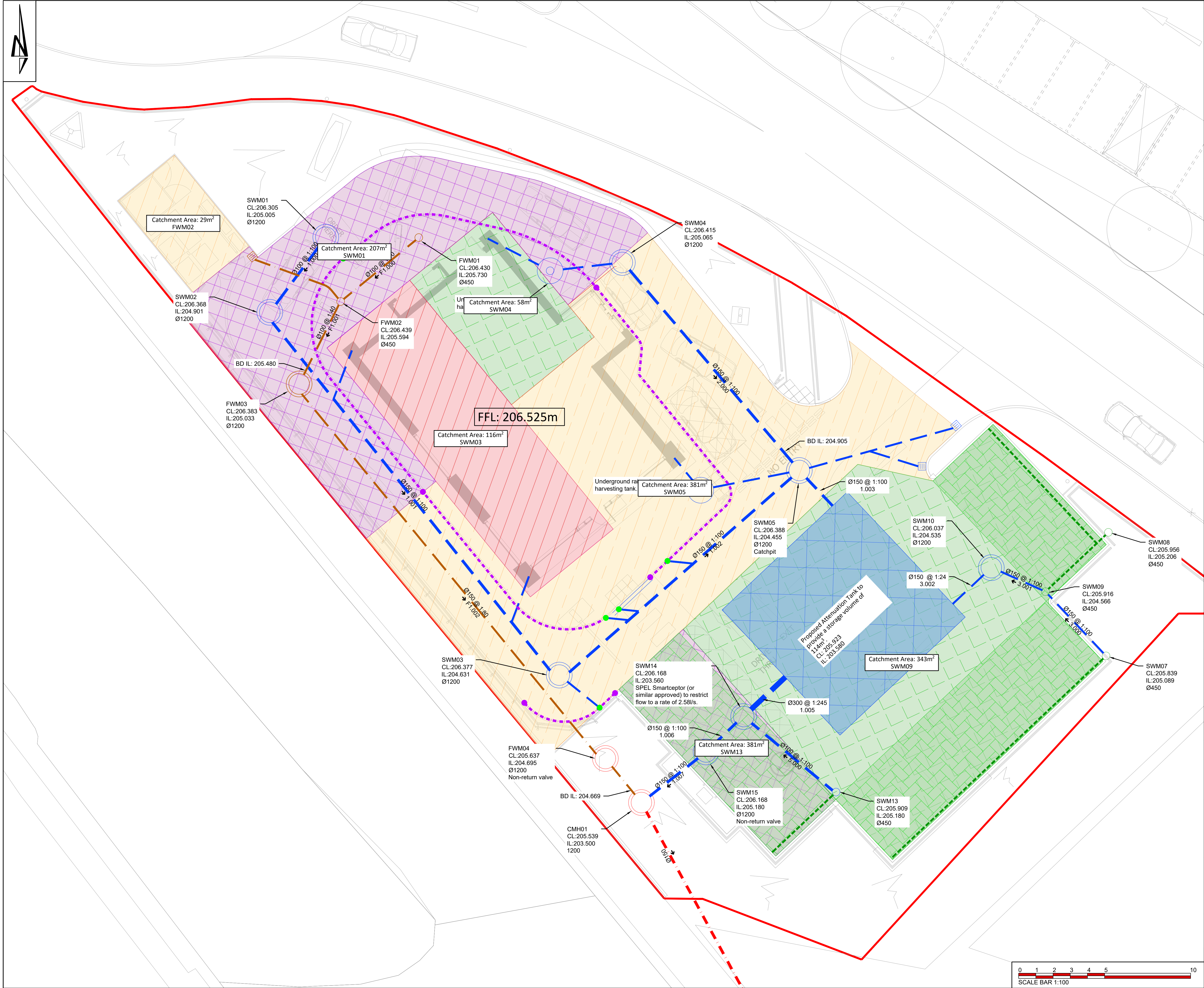
PROJECT: **CYFARTHFA RETAIL PARK COSTA COFFEE DRIVE THRU**

DRAWING TITLE: **PROPOSED DRAINAGE STRATEGY**

BGL PROJECT NUMBER	DRAWING STATUS	OFFICE
30106	PRELIMINARY	NORTH

SCALE @ A1	DATE	DRAWN BY	CHECKED BY
1:100	02.08.2024	JB	JW

DRAWING No	REV
30106-BGL-XX-XX-DR-C-00250	P03



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 MAINTENANCE
 DEMOLITION
 IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT
 GENERAL NOTES:
 1. This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
 2. All units in millimeters U.O.N. on the drawing.
 3. Do Not Scale off the drawing.

LEGEND
 Proposed Surface Water Drainage
 Surface Water Attenuation Tank
 Proposed Foul Water Drainage
 Proposed Foul Water Drainage
 Proposed Filter Drain & Catchpit
 Kerb Drainage
 Proposed Channel Drains
 Outlet Unit
 Access Unit
 Proposed road gully
 Site Boundary

P03	12.12.24	JB	Revised drainage layout overlaid	JW
P02	09.08.24	JB	Issued for Information	JW
P01	05.08.24	JB	Issued for Information	JW
REV	DATE	BY	DESCRIPTION	CHKD

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 High Street, Berkhamsted HP4 2BL
 Tel: +44 (0)1442 508 402

CLIENT
BROOKFIELD

PROJECT
**CYFARTHFA RETAIL PARK
COSTA COFFEE DRIVE THRU**

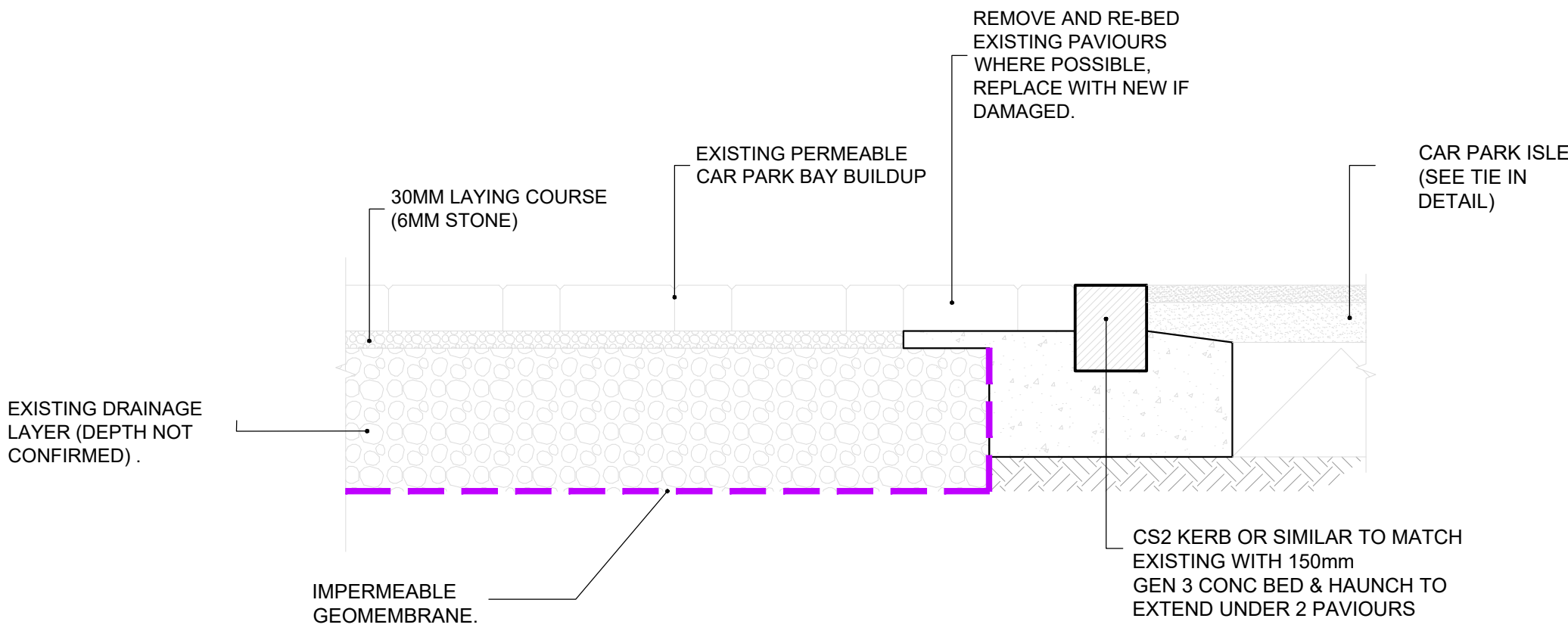
DRAWING TITLE
DRAINAGE CATCHMENT AREA

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SCALE @ A1 1:100	DATE 05.08.2024	DRAWN BY JB CHECKED BY JW

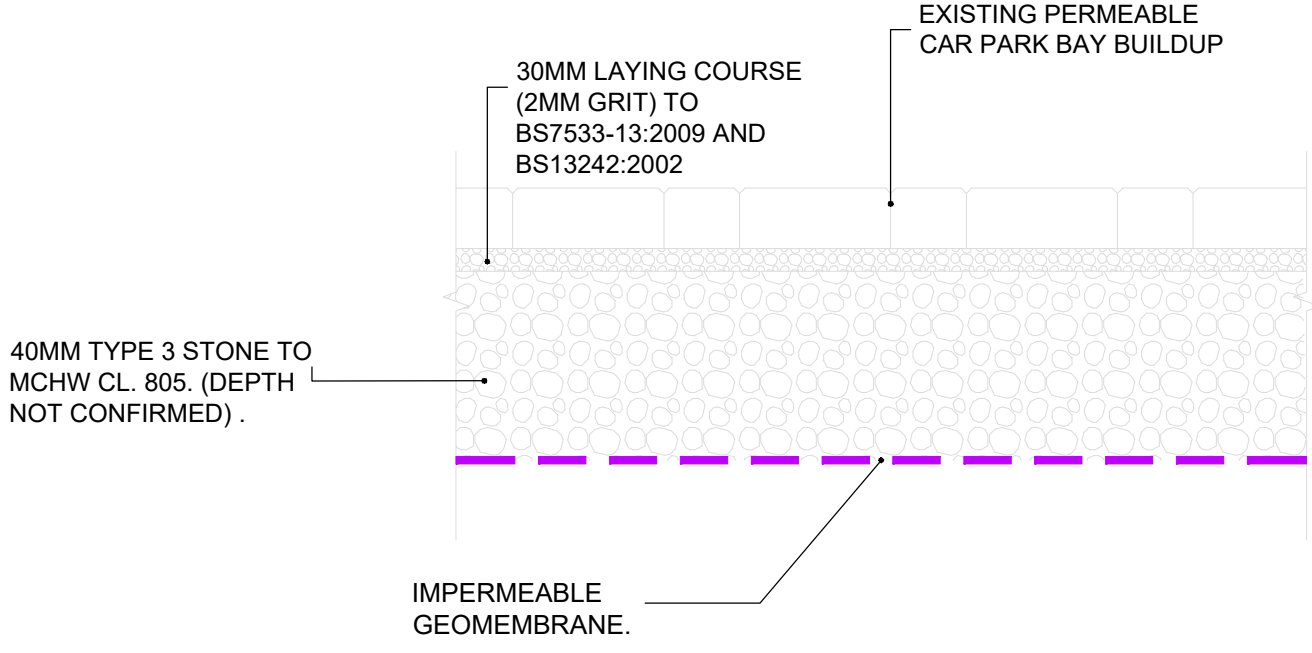
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REV
P03

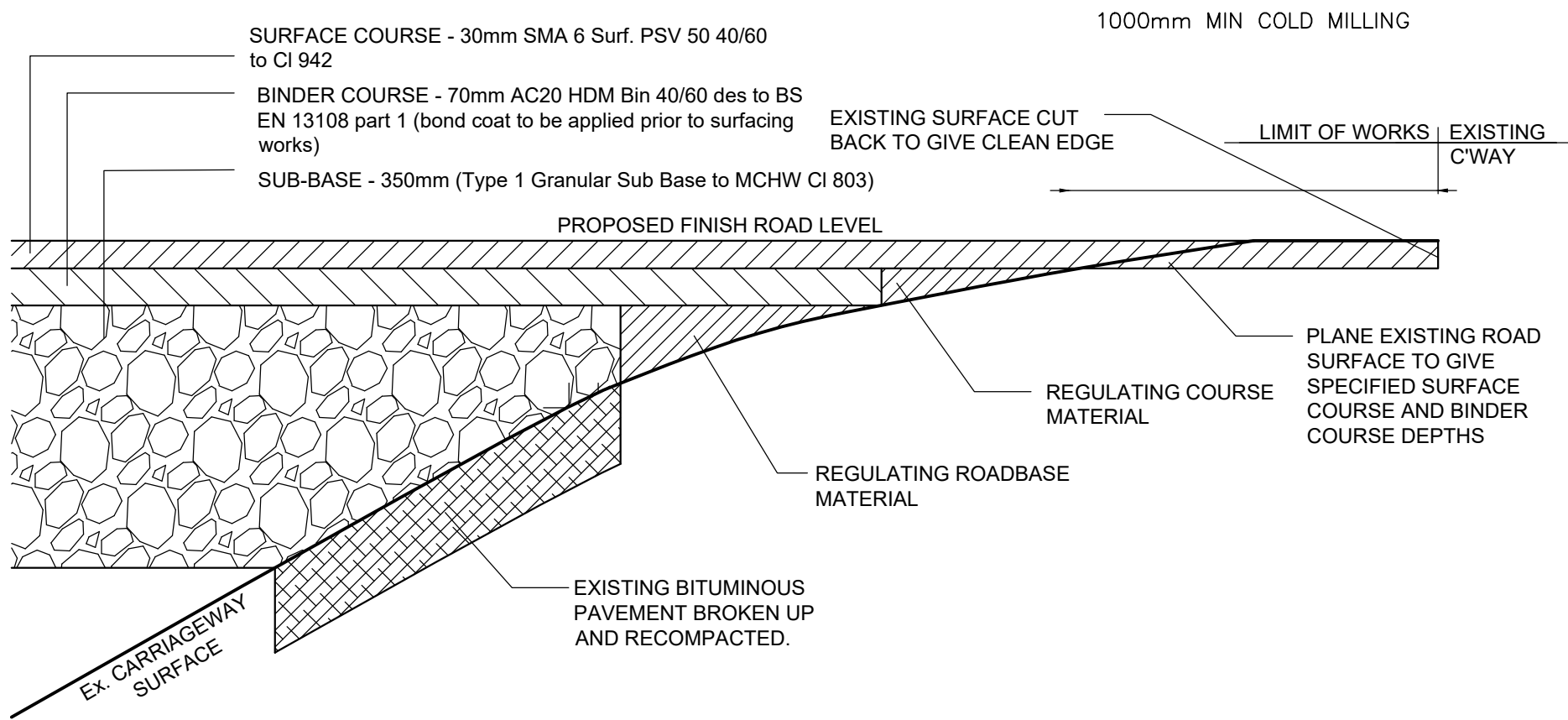
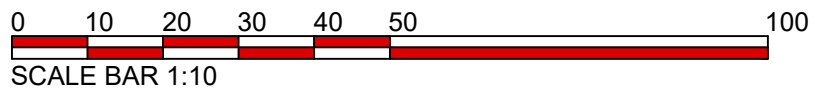
SCALE BAR 1:100



PERMEABLE PAVING ADJACENT TO
PARKING BAYS
SCALE 1:10



FULL DEPTH RECONSTRUCTION
FOR PARKING BAYS WITH
LOCALISED PONDING
SCALE 1:10



NOTES:

- PAVING & REGULATING MATERIALS SHALL BE AS SPECIFIED ON PAVEMENT DRAWINGS.
- REFER TO CONTRACT DRAWINGS FOR SPECIFIC SCHEME REQUIREMENTS GIVING DETAILS OF THE EXTENT AND TYPE OF COLD MILLING & PAVEMENT CONSTRUCTION.
- THE EXTENT OF COLD MILLING SHALL UNLESS DIRECTED OTHERWISE BE:
TRANSVERSE JOINTS (TIE-INS) 1000mm WIDE.
LONGITUDINAL JOINTS (NEW TO EXISTING) 500mm WIDE.
- WHERE NEW PAVEMENT IS TO BE CONSTRUCTED ADJACENT TO EXISTING PAVEMENT, AND UNLESS LEVELS PERMIT OVERLAYING OF THE EXISTING PAVEMENT BY THE PROPOSED FULL DEPTH OF BOUND MATERIALS, THE EXISTING BITUMINOUS PAVEMENT SHALL BE REMOVED FOR 500mm WIDTH FROM THE EDGE AND REPLACED WITH FULL BOUND CONSTRUCTION. THE EXISTING PAVEMENT SHALL BE COLD MILLED FOR A FURTHER WIDTH OF 500mm PAST THE INTERFACE TO PERMIT BOTH BINDER COURSE AND SURFACE COURSE TO BE LAID TO FORM THE LONGITUDINAL JOINT.

A BOND COAT IS REQUIRED AS SPECIFIED ON THE PAVEMENT DRAWINGS.

CARRIAGEWAY TIE IN DETAIL /
RENEWAL DETAIL
SCALE: N.T.S

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CONSTRUCTION			
1. Prior to breaking ground follow HSG47 guidance to avoid danger from underground services.			
MAINTENANCE			
DEMOLITION			
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT			

- GENERAL NOTES:
- This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
 - All units in millimeters U.O.N. on the drawing.
 - Do Not Scale off the drawing.
 - Carriageway tie-in details are to be used for kerb repair and renewal of wearing course details.

P02	23.08.24	JDL	Issued for Information	JW
P01	20.08.24	JDL	Issued for Information	JW
REV	DATE	BY	DESCRIPTION	CHKD

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CLIENT
CORONA VULCAN
MERTHYR LIMITED

PROJECT
CYFARTHA RETAIL PARK

DRAWING TITLE CAR PARK REMEDIAL WORKS			
BGL PROJECT NUMBER 30106	DRAWING STATUS PRELIMINARY	OFFICE NORTH	
SCALE @ A1 AS SHOWN	DATE 20.08.2024	DRAWN BY JDL	CHECKED BY JW
DRAWING No 30106-BGL-XX-XX-DR-C-00224			REV P02

APPENDIX D – HYDRAULIC CALCULATIONS

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	20	0	0
100	20	0	0
100	40	0	0

Node 14 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	203.568	Product Number	CTL-SHE-0077-2600-1000-2600
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.6	Min Node Diameter (mm)	1200

Node Attenuation Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	203.580
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	100.0	0.0	1.200	100.0	0.0	1.201	0.0	0.0

Node 13 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	205.180	Slope (1:X)	30.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.400
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	13.300		

Node 7 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	205.089	Slope (1:X)	300.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.400
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	16.800		

Node 9 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	204.566	Slope (1:X)	30.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.400
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	9.600		

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	205.051	0.046	2.4	0.0666	0.0000	OK
15 minute winter	2	11	204.940	0.039	2.6	0.0454	0.0000	OK
15 minute winter	3	11	204.685	0.054	4.9	0.0745	0.0000	OK
15 minute winter	4	10	205.100	0.035	2.1	0.0490	0.0000	OK
15 minute winter	5	11	204.525	0.070	7.9	0.0848	0.0000	OK
15 minute winter	6	10	204.470	0.040	7.9	0.0000	0.0000	OK
15 minute winter	7	11	205.116	0.027	4.0	0.1827	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.621	0.055	4.4	0.0831	0.0000	OK
15 minute winter	10	11	204.574	0.039	4.9	0.0469	0.0000	OK
15 minute winter	11	11	204.410	0.033	4.9	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	320	203.798	0.218	4.5	20.7927	0.0000	OK
15 minute winter	13	11	205.210	0.030	1.1	0.0333	0.0000	OK
480 minute winter	14	320	203.798	0.230	2.6	0.2772	0.0000	SURCHARGED
480 minute winter	CMH01	320	203.524	0.034	2.6	0.0388	0.0000	OK
480 minute winter	EXMH01	320	202.254	0.024	2.6	0.0000	0.0000	OK
480 minute winter	15	320	203.579	0.041	2.6	0.0462	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 winter	1	1.000	2	2.3	0.690	0.384	0.0183	
15 minute winter	2	1.001	3	2.6	0.562	0.147	0.1259	
15 minute winter	3	1.002	5	4.9	0.719	0.278	0.1211	
15 minute winter	4	2.000	5	2.0	0.665	0.115	0.0490	
15 minute winter	5	1.003	6	7.9	1.355	0.443	0.0148	
15 minute winter	6	1.004	Attenuation Tank	7.9	2.491	0.152	0.0534	
15 minute winter	7	3.000	9	3.8	1.002	0.068	0.0205	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0141	
15 minute winter	9	3.001	10	4.4	0.922	0.246	0.0149	
15 minute winter	10	3.002	11	4.9	1.383	0.132	0.0087	
15 minute winter	11	3.003	Attenuation Tank	4.9	1.849	0.109	0.0650	
480 minute winter	Attenuation Tank	1.005	14	2.3	0.150	0.033	0.1698	
15 minute winter	13	5.000	14	1.1	0.572	0.182	0.0133	
480 minute winter	14	Hydro-Brake®	15	2.6				
480 minute winter	CMH01	1.008	EXMH01	2.6	1.399	0.055	0.0346	57.0
480 minute winter	15	1.007	CMH01	2.6	0.742	0.144	0.0165	

Results for 30 year +20% CC Critical Storm Duration. Lowest mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	205.128	0.123	7.2	0.1787	0.0000	SURCHARGED
15 minute winter	2	11	204.971	0.070	7.8	0.0814	0.0000	OK
15 minute winter	3	11	204.741	0.109	14.9	0.1504	0.0000	OK
15 minute winter	4	10	205.128	0.063	6.3	0.0887	0.0000	OK
15 minute winter	5	11	204.596	0.140	23.4	0.1705	0.0000	OK
15 minute winter	6	11	204.501	0.071	24.9	0.0000	0.0000	OK
15 minute winter	7	11	205.135	0.046	12.1	0.5096	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.671	0.105	13.2	0.2693	0.0000	OK
15 minute winter	10	11	204.609	0.074	14.7	0.0879	0.0000	OK
15 minute winter	11	11	204.435	0.059	14.6	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	376	204.309	0.729	9.4	69.4318	0.0000	SURCHARGED
15 minute winter	13	11	205.237	0.057	3.5	0.0931	0.0000	OK
480 minute winter	14	376	204.309	0.741	2.7	0.8919	0.0000	SURCHARGED
30 minute summer	CMH01	27	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute summer	EXMH01	27	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute summer	15	37	203.579	0.041	2.6	0.0467	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 winter	1	1.000	2	6.9	0.892	1.147	0.0405	
15 minute winter	2	1.001	3	7.9	0.716	0.442	0.2936	
15 minute winter	3	1.002	5	14.8	0.944	0.834	0.2720	
15 minute winter	4	2.000	5	6.1	0.895	0.346	0.1098	
15 minute winter	5	1.003	6	24.9	1.890	1.404	0.0318	
15 minute winter	6	1.004	Attenuation Tank	23.6	2.786	0.456	0.1283	
15 minute winter	7	3.000	9	11.6	1.332	0.204	0.0458	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0319	
15 minute winter	9	3.001	10	13.2	1.206	0.741	0.0340	
15 minute winter	10	3.002	11	14.6	1.825	0.398	0.0199	
15 minute winter	11	3.003	Attenuation Tank	14.6	2.072	0.327	0.1522	
480 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
15 minute winter	13	5.000	14	3.4	0.762	0.559	0.0307	
480 minute winter	14	Hydro-Brake®	15	2.6				
30 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	32.4
60 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	205.187	0.182	9.0	0.2633	0.0000	SURCHARGED
15 minute winter	2	11	204.980	0.079	9.8	0.0927	0.0000	OK
15 minute winter	3	11	204.820	0.189	18.6	0.2592	0.0000	SURCHARGED
15 minute winter	4	10	205.137	0.072	7.9	0.1013	0.0000	OK
15 minute winter	5	11	204.617	0.162	28.1	0.1968	0.0000	SURCHARGED
15 minute winter	6	11	204.508	0.078	27.9	0.0000	0.0000	OK
15 minute winter	7	11	205.141	0.052	15.2	0.6380	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.688	0.122	16.5	0.3611	0.0000	OK
15 minute winter	10	11	204.620	0.085	18.3	0.1013	0.0000	OK
480 minute winter	11	384	204.496	0.120	3.3	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	384	204.496	0.916	11.2	87.2626	0.0000	SURCHARGED
15 minute winter	13	11	205.246	0.066	4.3	0.1185	0.0000	OK
480 minute winter	14	384	204.496	0.928	2.7	1.1172	0.0000	SURCHARGED
15 minute winter	CMH01	31	203.525	0.034	2.6	0.0390	0.0000	OK
15 minute winter	EXMH01	31	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute summer	15	62	203.579	0.041	2.6	0.0467	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 winter	1	1.000	2	8.6	1.098	1.422	0.0417	
15 minute winter	2	1.001	3	9.8	0.712	0.552	0.3647	
15 minute winter	3	1.002	5	17.7	1.027	0.996	0.3098	
15 minute winter	4	2.000	5	7.7	0.947	0.435	0.1303	
15 minute winter	5	1.003	6	27.9	1.942	1.572	0.0339	
15 minute winter	6	1.004	Attenuation Tank	27.9	2.858	0.538	0.1368	
15 minute winter	7	3.000	9	14.5	1.402	0.256	0.0537	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0375	
15 minute winter	9	3.001	10	16.4	1.267	0.926	0.0402	
15 minute winter	10	3.002	11	18.3	1.920	0.499	0.0237	
480 minute winter	11	3.003	Attenuation Tank	3.3	1.070	0.074	0.2088	
480 minute winter	Attenuation Tank	1.005	14	2.4	0.126	0.034	0.2118	
15 minute winter	13	5.000	14	4.2	0.797	0.691	0.0363	
480 minute winter	14	Hydro-Brake®	15	2.6				
15 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	31.3
120 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	205.242	0.237	10.5	0.3431	0.0000	SURCHARGED
15 minute winter	2	12	205.012	0.111	11.4	0.1299	0.0000	OK
15 minute winter	3	11	204.925	0.294	21.7	0.4034	0.0000	SURCHARGED
15 minute winter	4	10	205.145	0.080	9.2	0.1113	0.0000	OK
600 minute winter	5	480	204.691	0.236	5.3	0.2861	0.0000	SURCHARGED
600 minute winter	6	480	204.691	0.261	5.3	0.0000	0.0000	SURCHARGED
15 minute winter	7	11	205.145	0.056	17.8	0.7470	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.704	0.138	19.4	0.4556	0.0000	OK
600 minute winter	10	480	204.690	0.155	3.3	0.1853	0.0000	SURCHARGED
600 minute winter	11	480	204.690	0.314	3.3	0.0000	0.0000	SURCHARGED
600 minute winter	Attenuation Tank	480	204.690	1.110	11.2	105.7637	0.0000	SURCHARGED
15 minute winter	13	11	205.254	0.074	5.1	0.1459	0.0000	OK
600 minute winter	14	480	204.690	1.122	2.7	1.3510	0.0000	SURCHARGED
600 minute winter	CMH01	480	203.525	0.035	2.7	0.0397	0.0000	OK
600 minute winter	EXMH01	480	202.255	0.025	2.7	0.0000	0.0000	OK
600 minute winter	15	480	203.580	0.042	2.7	0.0478	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 winter	1	1.000	2	10.0	1.276	1.654	0.0421	
15 minute winter	2	1.001	3	10.9	0.704	0.612	0.4260	
15 minute winter	3	1.002	5	20.0	1.134	1.125	0.3098	
15 minute winter	4	2.000	5	9.0	0.983	0.508	0.1467	
600 minute winter	5	1.003	6	5.3	1.221	0.299	0.0443	
600 minute winter	6	1.004	Attenuation Tank	5.3	1.375	0.102	0.1789	
15 minute winter	7	3.000	9	17.0	1.449	0.299	0.0595	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0414	
15 minute winter	9	3.001	10	19.0	1.307	1.072	0.0447	
600 minute winter	10	3.002	11	3.3	1.245	0.090	0.0437	
600 minute winter	11	3.003	Attenuation Tank	3.3	0.828	0.074	0.2247	
600 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.037	0.2118	
15 minute winter	13	5.000	14	4.9	0.821	0.811	0.0413	
600 minute winter	14	Hydro-Brake®	15	2.7				
600 minute winter	CMH01	1.008	EXMH01	2.7	1.425	0.059	0.0362	113.0
600 minute winter	15	1.007	CMH01	2.7	0.760	0.153	0.0172	

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	1	10	205.050	0.045	2.3	0.0654	0.0000	OK
15 minute summer	2	11	204.939	0.038	2.6	0.0449	0.0000	OK
15 minute summer	3	11	204.684	0.053	4.8	0.0731	0.0000	OK
15 minute summer	4	10	205.099	0.034	2.0	0.0478	0.0000	OK
15 minute summer	5	11	204.523	0.068	7.5	0.0826	0.0000	OK
15 minute summer	6	10	204.470	0.040	7.5	0.0000	0.0000	OK
15 minute summer	7	11	205.115	0.026	3.8	0.1741	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute summer	9	11	204.619	0.053	4.1	0.0789	0.0000	OK
15 minute summer	10	11	204.573	0.038	4.6	0.0457	0.0000	OK
15 minute summer	11	11	204.409	0.033	4.6	0.0000	0.0000	OK
15 minute summer	Attenuation Tank	19	203.649	0.069	16.7	6.5415	0.0000	OK
15 minute summer	13	10	205.209	0.029	1.1	0.0320	0.0000	OK
15 minute summer	14	18	203.648	0.080	2.0	0.0968	0.0000	OK
15 minute summer	CMH01	19	203.520	0.030	1.7	0.0339	0.0000	OK
15 minute summer	EXMH01	19	202.250	0.020	1.7	0.0000	0.0000	OK
15 minute summer	15	19	203.571	0.033	1.7	0.0374	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	1	1.000	2	2.3	0.685	0.373	0.0179	
15 minute summer	2	1.001	3	2.6	0.562	0.144	0.1231	
15 minute summer	3	1.002	5	4.8	0.715	0.269	0.1175	
15 minute summer	4	2.000	5	1.9	0.656	0.109	0.0473	
15 minute summer	5	1.003	6	7.5	1.332	0.424	0.0144	
15 minute summer	6	1.004	Attenuation Tank	7.6	2.549	0.147	0.0461	
15 minute summer	7	3.000	9	3.6	0.994	0.064	0.0198	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0141	
15 minute summer	9	3.001	10	4.1	0.908	0.233	0.0143	
15 minute summer	10	3.002	11	4.6	1.363	0.126	0.0084	
15 minute summer	11	3.003	Attenuation Tank	4.6	1.869	0.103	0.0555	
15 minute summer	Attenuation Tank	1.005	14	1.7	-0.280	0.023	0.0410	
15 minute summer	13	5.000	14	1.0	0.565	0.172	0.0128	
15 minute summer	14	Hydro-Brake®	15	1.7				
15 minute summer	CMH01	1.008	EXMH01	1.7	1.243	0.037	0.0260	7.4
15 minute summer	15	1.007	CMH01	1.7	0.636	0.096	0.0128	

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	1	10	205.051	0.046	2.4	0.0666	0.0000	OK
15 minute winter	2	11	204.940	0.039	2.6	0.0454	0.0000	OK
15 minute winter	3	11	204.685	0.054	4.9	0.0745	0.0000	OK
15 minute winter	4	10	205.100	0.035	2.1	0.0490	0.0000	OK
15 minute winter	5	11	204.525	0.070	7.9	0.0848	0.0000	OK
15 minute winter	6	10	204.470	0.040	7.9	0.0000	0.0000	OK
15 minute winter	7	11	205.116	0.027	4.0	0.1827	0.0000	OK
15 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.621	0.055	4.4	0.0831	0.0000	OK
15 minute winter	10	11	204.574	0.039	4.9	0.0469	0.0000	OK
15 minute winter	11	11	204.410	0.033	4.9	0.0000	0.0000	OK
15 minute winter	Attenuation Tank	19	203.658	0.078	17.3	7.4101	0.0000	OK
15 minute winter	13	11	205.210	0.030	1.1	0.0333	0.0000	OK
15 minute winter	14	19	203.658	0.090	2.2	0.1079	0.0000	OK
15 minute winter	CMH01	19	203.521	0.031	1.9	0.0349	0.0000	OK
15 minute winter	EXMH01	19	202.251	0.021	1.9	0.0000	0.0000	OK
15 minute winter	15	19	203.573	0.035	1.9	0.0392	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	1	1.000	2	2.3	0.690	0.384	0.0183	
15 minute winter	2	1.001	3	2.6	0.562	0.147	0.1259	
15 minute winter	3	1.002	5	4.9	0.719	0.278	0.1211	
15 minute winter	4	2.000	5	2.0	0.665	0.115	0.0490	
15 minute winter	5	1.003	6	7.9	1.355	0.443	0.0148	
15 minute winter	6	1.004	Attenuation Tank	7.9	2.491	0.152	0.0534	
15 minute winter	7	3.000	9	3.8	1.002	0.068	0.0205	
15 minute winter	8	4.000	9	0.0	0.000	0.000	0.0147	
15 minute winter	9	3.001	10	4.4	0.922	0.246	0.0149	
15 minute winter	10	3.002	11	4.9	1.383	0.132	0.0087	
15 minute winter	11	3.003	Attenuation Tank	4.9	1.849	0.109	0.0650	
15 minute winter	Attenuation Tank	1.005	14	1.8	-0.274	0.026	0.0483	
15 minute winter	13	5.000	14	1.1	0.572	0.182	0.0133	
15 minute winter	14	Hydro-Brake®	15	1.9				
15 minute winter	CMH01	1.008	EXMH01	1.9	1.276	0.040	0.0277	8.4
15 minute winter	15	1.007	CMH01	1.9	0.659	0.105	0.0135	

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	1	18	205.049	0.044	2.2	0.0643	0.0000	OK
30 minute summer	2	18	204.939	0.038	2.5	0.0442	0.0000	OK
30 minute summer	3	18	204.683	0.052	4.7	0.0718	0.0000	OK
30 minute summer	4	18	205.099	0.034	1.9	0.0471	0.0000	OK
30 minute summer	5	18	204.522	0.066	7.3	0.0807	0.0000	OK
30 minute summer	6	19	204.468	0.038	7.2	0.0000	0.0000	OK
30 minute summer	7	18	205.115	0.026	3.7	0.1732	0.0000	OK
30 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute summer	9	19	204.619	0.053	4.1	0.0780	0.0000	OK
30 minute summer	10	18	204.573	0.038	4.6	0.0452	0.0000	OK
30 minute summer	11	19	204.408	0.032	4.5	0.0000	0.0000	OK
30 minute summer	Attenuation Tank	31	203.671	0.091	16.0	8.6635	0.0000	OK
30 minute summer	13	18	205.210	0.030	1.1	0.0331	0.0000	OK
30 minute summer	14	31	203.671	0.103	2.1	0.1238	0.0000	OK
30 minute summer	CMH01	32	203.522	0.032	2.1	0.0362	0.0000	OK
30 minute summer	EXMH01	32	202.252	0.022	2.1	0.0000	0.0000	OK
30 minute summer	15	32	203.575	0.037	2.1	0.0415	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	1	1.000	2	2.2	0.682	0.364	0.0175	
30 minute summer	2	1.001	3	2.5	0.557	0.139	0.1203	
30 minute summer	3	1.002	5	4.6	0.710	0.259	0.1143	
30 minute summer	4	2.000	5	1.9	0.650	0.106	0.0464	
30 minute summer	5	1.003	6	7.2	1.326	0.406	0.0139	
30 minute summer	6	1.004	Attenuation Tank	7.2	1.983	0.140	0.0613	
30 minute summer	7	3.000	9	3.6	0.988	0.064	0.0195	
30 minute summer	8	4.000	9	0.0	0.000	0.000	0.0140	
30 minute summer	9	3.001	10	4.1	0.911	0.231	0.0142	
30 minute summer	10	3.002	11	4.5	1.356	0.123	0.0083	
30 minute summer	11	3.003	Attenuation Tank	4.5	1.547	0.101	0.0760	
30 minute summer	Attenuation Tank	1.005	14	2.0	-0.162	0.029	0.0592	
30 minute summer	13	5.000	14	1.1	0.571	0.181	0.0132	
30 minute summer	14	Hydro-Brake®	15	2.1				
30 minute summer	CMH01	1.008	EXMH01	2.1	1.318	0.045	0.0299	10.6
30 minute summer	15	1.007	CMH01	2.1	0.687	0.117	0.0145	

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	1	18	205.047	0.042	2.0	0.0609	0.0000	OK
30 minute winter	2	18	204.937	0.036	2.3	0.0425	0.0000	OK
30 minute winter	3	18	204.681	0.050	4.3	0.0686	0.0000	OK
30 minute winter	4	18	205.097	0.032	1.7	0.0446	0.0000	OK
30 minute winter	5	18	204.519	0.064	6.7	0.0774	0.0000	OK
30 minute winter	6	18	204.467	0.036	6.7	0.0000	0.0000	OK
30 minute winter	7	18	205.114	0.024	3.3	0.1579	0.0000	OK
30 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute winter	9	19	204.617	0.051	3.8	0.0721	0.0000	OK
30 minute winter	10	19	204.571	0.036	4.2	0.0432	0.0000	OK
30 minute winter	11	19	204.407	0.031	4.2	0.0000	0.0000	OK
30 minute winter	Attenuation Tank	32	203.683	0.103	14.3	9.8548	0.0000	OK
30 minute winter	13	18	205.208	0.028	1.0	0.0307	0.0000	OK
30 minute winter	14	32	203.683	0.115	2.2	0.1389	0.0000	OK
30 minute winter	CMH01	32	203.523	0.033	2.2	0.0369	0.0000	OK
30 minute winter	EXMH01	32	202.253	0.022	2.2	0.0000	0.0000	OK
30 minute winter	15	32	203.576	0.038	2.2	0.0428	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	1	1.000	2	2.0	0.666	0.331	0.0163	
30 minute winter	2	1.001	3	2.3	0.547	0.129	0.1133	
30 minute winter	3	1.002	5	4.2	0.696	0.239	0.1078	
30 minute winter	4	2.000	5	1.7	0.630	0.095	0.0429	
30 minute winter	5	1.003	6	6.7	1.300	0.377	0.0131	
30 minute winter	6	1.004	Attenuation Tank	6.7	1.921	0.129	0.0709	
30 minute winter	7	3.000	9	3.3	0.951	0.057	0.0184	
30 minute winter	8	4.000	9	0.0	0.000	0.000	0.0132	
30 minute winter	9	3.001	10	3.8	0.889	0.212	0.0133	
30 minute winter	10	3.002	11	4.2	1.326	0.113	0.0078	
30 minute winter	11	3.003	Attenuation Tank	4.2	1.570	0.093	0.0878	
30 minute winter	Attenuation Tank	1.005	14	2.2	0.150	0.030	0.0698	
30 minute winter	13	5.000	14	1.0	0.557	0.164	0.0124	
30 minute winter	14	Hydro-Brake®	15	2.2				
30 minute winter	CMH01	1.008	EXMH01	2.2	1.341	0.048	0.0311	12.0
30 minute winter	15	1.007	CMH01	2.2	0.702	0.124	0.0150	

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	1	33	205.045	0.040	1.8	0.0573	0.0000	OK
60 minute summer	2	33	204.935	0.034	2.0	0.0395	0.0000	OK
60 minute summer	3	33	204.678	0.047	3.8	0.0641	0.0000	OK
60 minute summer	4	33	205.096	0.031	1.6	0.0432	0.0000	OK
60 minute summer	5	34	204.515	0.060	6.0	0.0729	0.0000	OK
60 minute summer	6	34	204.465	0.035	6.0	0.0000	0.0000	OK
60 minute summer	7	33	205.112	0.023	3.0	0.1452	0.0000	OK
60 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute summer	9	34	204.614	0.048	3.4	0.0649	0.0000	OK
60 minute summer	10	34	204.569	0.034	3.8	0.0409	0.0000	OK
60 minute summer	11	34	204.406	0.030	3.8	0.0000	0.0000	OK
60 minute summer	Attenuation Tank	49	203.691	0.111	12.7	10.5787	0.0000	OK
60 minute summer	13	33	205.207	0.027	0.9	0.0282	0.0000	OK
60 minute summer	14	50	203.691	0.123	2.3	0.1480	0.0000	OK
60 minute summer	CMH01	50	203.523	0.033	2.2	0.0371	0.0000	OK
60 minute summer	EXMH01	50	202.253	0.023	2.2	0.0000	0.0000	OK
60 minute summer	15	50	203.576	0.038	2.2	0.0432	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	1	1.000	2	1.8	0.648	0.298	0.0151	
60 minute summer	2	1.001	3	2.0	0.523	0.112	0.1029	
60 minute summer	3	1.002	5	3.7	0.667	0.211	0.0989	
60 minute summer	4	2.000	5	1.6	0.619	0.090	0.0411	
60 minute summer	5	1.003	6	6.0	1.263	0.338	0.0121	
60 minute summer	6	1.004	Attenuation Tank	6.0	1.633	0.116	0.0760	
60 minute summer	7	3.000	9	3.0	0.934	0.052	0.0170	
60 minute summer	8	4.000	9	0.0	0.000	0.000	0.0121	
60 minute summer	9	3.001	10	3.4	0.861	0.189	0.0123	
60 minute summer	10	3.002	11	3.8	1.291	0.102	0.0072	
60 minute summer	11	3.003	Attenuation Tank	3.8	1.189	0.084	0.0941	
60 minute summer	Attenuation Tank	1.005	14	2.2	0.150	0.031	0.0765	
60 minute summer	13	5.000	14	0.9	0.541	0.148	0.0114	
60 minute summer	14	Hydro-Brake®	15	2.2				
60 minute summer	CMH01	1.008	EXMH01	2.2	1.348	0.048	0.0315	14.7
60 minute summer	15	1.007	CMH01	2.2	0.707	0.126	0.0152	

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	1	34	205.039	0.034	1.4	0.0499	0.0000	OK
60 minute winter	2	35	204.931	0.030	1.6	0.0355	0.0000	OK
60 minute winter	3	33	204.673	0.042	3.1	0.0581	0.0000	OK
60 minute winter	4	33	205.093	0.028	1.3	0.0389	0.0000	OK
60 minute winter	5	33	204.509	0.054	5.0	0.0658	0.0000	OK
60 minute winter	6	33	204.461	0.031	5.0	0.0000	0.0000	OK
60 minute winter	7	34	205.110	0.021	2.4	0.1205	0.0000	OK
60 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute winter	9	34	204.609	0.043	2.7	0.0531	0.0000	OK
60 minute winter	10	34	204.566	0.030	3.0	0.0363	0.0000	OK
60 minute winter	11	34	204.402	0.026	3.0	0.0000	0.0000	OK
60 minute winter	Attenuation Tank	53	203.706	0.126	10.3	11.9956	0.0000	OK
60 minute winter	13	35	205.204	0.024	0.7	0.0234	0.0000	OK
60 minute winter	14	53	203.706	0.138	2.4	0.1660	0.0000	OK
60 minute winter	CMH01	53	203.523	0.033	2.3	0.0375	0.0000	OK
60 minute winter	EXMH01	53	202.253	0.023	2.3	0.0000	0.0000	OK
60 minute winter	15	53	203.577	0.039	2.3	0.0439	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	1	1.000	2	1.4	0.607	0.232	0.0126	
60 minute winter	2	1.001	3	1.6	0.493	0.090	0.0892	
60 minute winter	3	1.002	5	3.1	0.633	0.174	0.0863	
60 minute winter	4	2.000	5	1.3	0.583	0.073	0.0355	
60 minute winter	5	1.003	6	5.0	1.200	0.280	0.0106	
60 minute winter	6	1.004	Attenuation Tank	5.0	1.652	0.096	0.0856	
60 minute winter	7	3.000	9	2.4	0.882	0.042	0.0145	
60 minute winter	8	4.000	9	0.0	0.000	0.000	0.0103	
60 minute winter	9	3.001	10	2.7	0.815	0.152	0.0104	
60 minute winter	10	3.002	11	3.0	1.213	0.082	0.0061	
60 minute winter	11	3.003	Attenuation Tank	3.0	1.462	0.067	0.1059	
60 minute winter	Attenuation Tank	1.005	14	2.3	0.150	0.032	0.0896	
60 minute winter	13	5.000	14	0.7	0.505	0.116	0.0096	
60 minute winter	14	Hydro-Brake®	15	2.3				
60 minute winter	CMH01	1.008	EXMH01	2.3	1.361	0.050	0.0322	16.6
60 minute winter	15	1.007	CMH01	2.3	0.715	0.130	0.0155	

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	1	64	205.041	0.036	1.5	0.0518	0.0000	OK
120 minute summer	2	64	204.932	0.031	1.7	0.0366	0.0000	OK
120 minute summer	3	64	204.674	0.043	3.2	0.0591	0.0000	OK
120 minute summer	4	64	205.093	0.028	1.3	0.0390	0.0000	OK
120 minute summer	5	64	204.510	0.055	5.1	0.0667	0.0000	OK
120 minute summer	6	64	204.462	0.032	5.1	0.0000	0.0000	OK
120 minute summer	7	64	205.111	0.021	2.5	0.1247	0.0000	OK
120 minute summer	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute summer	9	64	204.610	0.044	2.9	0.0565	0.0000	OK
120 minute summer	10	64	204.567	0.031	3.2	0.0375	0.0000	OK
120 minute summer	11	64	204.403	0.027	3.2	0.0000	0.0000	OK
120 minute summer	Attenuation Tank	86	203.734	0.153	10.8	14.6238	0.0000	OK
120 minute summer	13	66	205.204	0.024	0.7	0.0234	0.0000	OK
120 minute summer	14	86	203.733	0.165	2.5	0.1992	0.0000	SURCHARGED
120 minute summer	CMH01	88	203.524	0.034	2.4	0.0380	0.0000	OK
120 minute summer	EXMH01	88	202.254	0.023	2.4	0.0000	0.0000	OK
120 minute summer	15	88	203.578	0.040	2.4	0.0449	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	1	1.000	2	1.5	0.618	0.248	0.0132	
120 minute summer	2	1.001	3	1.7	0.501	0.096	0.0920	
120 minute summer	3	1.002	5	3.2	0.641	0.180	0.0880	
120 minute summer	4	2.000	5	1.3	0.584	0.073	0.0356	
120 minute summer	5	1.003	6	5.1	1.208	0.287	0.0108	
120 minute summer	6	1.004	Attenuation Tank	5.1	1.391	0.098	0.0966	
120 minute summer	7	3.000	9	2.5	0.879	0.044	0.0152	
120 minute summer	8	4.000	9	0.0	0.000	0.000	0.0109	
120 minute summer	9	3.001	10	2.9	0.831	0.163	0.0110	
120 minute summer	10	3.002	11	3.2	1.234	0.087	0.0064	
120 minute summer	11	3.003	Attenuation Tank	3.2	1.099	0.071	0.1194	
120 minute summer	Attenuation Tank	1.005	14	2.3	0.150	0.033	0.1144	
120 minute summer	13	5.000	14	0.7	0.505	0.116	0.0096	
120 minute summer	14	Hydro-Brake®	15	2.4				
120 minute summer	CMH01	1.008	EXMH01	2.4	1.378	0.052	0.0332	23.3
120 minute summer	15	1.007	CMH01	2.4	0.727	0.136	0.0159	

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	1	64	205.035	0.030	1.1	0.0438	0.0000	OK
120 minute winter	2	66	204.929	0.027	1.3	0.0321	0.0000	OK
120 minute winter	3	64	204.669	0.038	2.5	0.0522	0.0000	OK
120 minute winter	4	66	205.090	0.024	1.0	0.0343	0.0000	OK
120 minute winter	5	64	204.503	0.048	3.9	0.0580	0.0000	OK
120 minute winter	6	64	204.458	0.028	3.9	0.0000	0.0000	OK
120 minute winter	7	66	205.108	0.019	1.9	0.0989	0.0000	OK
120 minute winter	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute winter	9	66	204.604	0.038	2.2	0.0443	0.0000	OK
120 minute winter	10	64	204.563	0.028	2.5	0.0331	0.0000	OK
120 minute winter	11	64	204.400	0.024	2.5	0.0000	0.0000	OK
120 minute winter	Attenuation Tank	94	203.752	0.172	8.3	16.4050	0.0000	OK
120 minute winter	13	64	205.202	0.022	0.6	0.0209	0.0000	OK
120 minute winter	14	94	203.752	0.184	2.5	0.2217	0.0000	SURCHARGED
120 minute winter	CMH01	94	203.524	0.034	2.5	0.0383	0.0000	OK
120 minute winter	EXMH01	94	202.254	0.024	2.5	0.0000	0.0000	OK
120 minute winter	15	94	203.578	0.040	2.5	0.0454	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	1	1.000	2	1.1	0.569	0.182	0.0105	
120 minute winter	2	1.001	3	1.3	0.468	0.073	0.0769	
120 minute winter	3	1.002	5	2.5	0.603	0.141	0.0731	
120 minute winter	4	2.000	5	1.0	0.541	0.056	0.0295	
120 minute winter	5	1.003	6	3.9	1.121	0.220	0.0089	
120 minute winter	6	1.004	Attenuation Tank	3.9	1.572	0.075	0.0987	
120 minute winter	7	3.000	9	1.9	0.814	0.033	0.0125	
120 minute winter	8	4.000	9	0.0	0.000	0.000	0.0089	
120 minute winter	9	3.001	10	2.2	0.775	0.124	0.0091	
120 minute winter	10	3.002	11	2.5	1.153	0.068	0.0054	
120 minute winter	11	3.003	Attenuation Tank	2.5	1.150	0.056	0.1218	
120 minute winter	Attenuation Tank	1.005	14	2.4	0.150	0.034	0.1311	
120 minute winter	13	5.000	14	0.6	0.484	0.099	0.0086	
120 minute winter	14	Hydro-Brake®	15	2.5				
120 minute winter	CMH01	1.008	EXMH01	2.5	1.386	0.053	0.0337	26.0
120 minute winter	15	1.007	CMH01	2.5	0.733	0.139	0.0161	

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	1	96	205.038	0.033	1.3	0.0479	0.0000	OK
180 minute summer	2	96	204.930	0.029	1.5	0.0344	0.0000	OK
180 minute summer	3	96	204.671	0.040	2.8	0.0552	0.0000	OK
180 minute summer	4	96	205.091	0.026	1.1	0.0359	0.0000	OK
180 minute summer	5	96	204.506	0.051	4.4	0.0617	0.0000	OK
180 minute summer	6	96	204.460	0.030	4.4	0.0000	0.0000	OK
180 minute summer	7	96	205.109	0.020	2.1	0.1077	0.0000	OK
180 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute summer	9	96	204.606	0.040	2.4	0.0478	0.0000	OK
180 minute summer	10	96	204.564	0.029	2.7	0.0344	0.0000	OK
180 minute summer	11	96	204.401	0.025	2.7	0.0000	0.0000	OK
180 minute summer	Attenuation Tank	124	203.759	0.179	9.2	17.0595	0.0000	OK
180 minute summer	13	96	205.202	0.022	0.6	0.0209	0.0000	OK
180 minute summer	14	124	203.759	0.191	2.5	0.2300	0.0000	SURCHARGED
180 minute summer	CMH01	124	203.524	0.034	2.5	0.0384	0.0000	OK
180 minute summer	EXMH01	124	202.254	0.024	2.5	0.0000	0.0000	OK
180 minute summer	15	124	203.578	0.040	2.5	0.0456	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	1	1.000	2	1.3	0.595	0.215	0.0119	
180 minute summer	2	1.001	3	1.5	0.485	0.084	0.0839	
180 minute summer	3	1.002	5	2.8	0.621	0.158	0.0796	
180 minute summer	4	2.000	5	1.1	0.556	0.062	0.0316	
180 minute summer	5	1.003	6	4.4	1.160	0.248	0.0097	
180 minute summer	6	1.004	Attenuation Tank	4.4	1.280	0.085	0.0994	
180 minute summer	7	3.000	9	2.1	0.843	0.037	0.0133	
180 minute summer	8	4.000	9	0.0	0.000	0.000	0.0095	
180 minute summer	9	3.001	10	2.4	0.787	0.135	0.0096	
180 minute summer	10	3.002	11	2.7	1.178	0.073	0.0057	
180 minute summer	11	3.003	Attenuation Tank	2.7	1.068	0.060	0.1224	
180 minute summer	Attenuation Tank	1.005	14	2.3	0.150	0.033	0.1371	
180 minute summer	13	5.000	14	0.6	0.484	0.099	0.0086	
180 minute summer	14	Hydro-Brake®	15	2.5				
180 minute summer	CMH01	1.008	EXMH01	2.5	1.389	0.054	0.0339	30.0
180 minute summer	15	1.007	CMH01	2.5	0.735	0.140	0.0162	

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	1	96	205.034	0.029	1.0	0.0416	0.0000	OK
180 minute winter	2	96	204.926	0.025	1.1	0.0296	0.0000	OK
180 minute winter	3	96	204.666	0.035	2.1	0.0478	0.0000	OK
180 minute winter	4	96	205.088	0.023	0.9	0.0325	0.0000	OK
180 minute winter	5	96	204.500	0.044	3.4	0.0540	0.0000	OK
180 minute winter	6	96	204.456	0.026	3.4	0.0000	0.0000	OK
180 minute winter	7	96	205.107	0.018	1.7	0.0901	0.0000	OK
180 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute winter	9	96	204.602	0.036	1.9	0.0389	0.0000	OK
180 minute winter	10	96	204.560	0.025	2.1	0.0303	0.0000	OK
180 minute winter	11	96	204.398	0.022	2.1	0.0000	0.0000	OK
180 minute winter	Attenuation Tank	136	203.780	0.200	7.1	19.0945	0.0000	OK
180 minute winter	13	96	205.200	0.020	0.5	0.0183	0.0000	OK
180 minute winter	14	136	203.780	0.212	2.6	0.2557	0.0000	SURCHARGED
180 minute winter	CMH01	136	203.524	0.034	2.5	0.0386	0.0000	OK
180 minute winter	EXMH01	136	202.254	0.024	2.5	0.0000	0.0000	OK
180 minute winter	15	136	203.579	0.041	2.5	0.0460	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	1	1.000	2	1.0	0.555	0.166	0.0098	
180 minute winter	2	1.001	3	1.1	0.439	0.062	0.0681	
180 minute winter	3	1.002	5	2.1	0.566	0.118	0.0656	
180 minute winter	4	2.000	5	0.9	0.526	0.051	0.0274	
180 minute winter	5	1.003	6	3.4	1.078	0.191	0.0081	
180 minute winter	6	1.004	Attenuation Tank	3.4	1.443	0.066	0.0991	
180 minute winter	7	3.000	9	1.7	0.803	0.030	0.0113	
180 minute winter	8	4.000	9	0.0	0.000	0.000	0.0080	
180 minute winter	9	3.001	10	1.9	0.742	0.107	0.0081	
180 minute winter	10	3.002	11	2.1	1.098	0.057	0.0047	
180 minute winter	11	3.003	Attenuation Tank	2.1	1.059	0.047	0.1221	
180 minute winter	Attenuation Tank	1.005	14	2.4	0.150	0.034	0.1554	
180 minute winter	13	5.000	14	0.5	0.460	0.083	0.0075	
180 minute winter	14	Hydro-Brake®	15	2.5				
180 minute winter	CMH01	1.008	EXMH01	2.5	1.395	0.055	0.0343	34.1
180 minute winter	15	1.007	CMH01	2.5	0.739	0.142	0.0164	

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	1	124	205.037	0.031	1.2	0.0457	0.0000	OK
240 minute summer	2	124	204.929	0.028	1.4	0.0330	0.0000	OK
240 minute summer	3	124	204.669	0.038	2.6	0.0527	0.0000	OK
240 minute summer	4	128	205.090	0.024	1.0	0.0343	0.0000	OK
240 minute summer	5	124	204.504	0.049	4.0	0.0590	0.0000	OK
240 minute summer	6	124	204.458	0.028	4.0	0.0000	0.0000	OK
240 minute summer	7	124	205.108	0.019	2.0	0.1025	0.0000	OK
240 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute summer	9	124	204.605	0.039	2.3	0.0455	0.0000	OK
240 minute summer	10	124	204.563	0.028	2.6	0.0335	0.0000	OK
240 minute summer	11	124	204.400	0.024	2.6	0.0000	0.0000	OK
240 minute summer	Attenuation Tank	160	203.774	0.194	8.6	18.4568	0.0000	OK
240 minute summer	13	124	205.202	0.022	0.6	0.0205	0.0000	OK
240 minute summer	14	160	203.774	0.206	2.5	0.2477	0.0000	SURCHARGED
240 minute summer	CMH01	160	203.524	0.034	2.5	0.0386	0.0000	OK
240 minute summer	EXMH01	160	202.254	0.024	2.5	0.0000	0.0000	OK
240 minute summer	15	160	203.579	0.041	2.5	0.0459	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	1	1.000	2	1.2	0.581	0.197	0.0111	
240 minute summer	2	1.001	3	1.4	0.475	0.078	0.0787	
240 minute summer	3	1.002	5	2.5	0.603	0.144	0.0746	
240 minute summer	4	2.000	5	1.0	0.541	0.056	0.0295	
240 minute summer	5	1.003	6	4.0	1.132	0.227	0.0091	
240 minute summer	6	1.004	Attenuation Tank	4.0	1.283	0.078	0.0999	
240 minute summer	7	3.000	9	2.0	0.828	0.035	0.0128	
240 minute summer	8	4.000	9	0.0	0.000	0.000	0.0091	
240 minute summer	9	3.001	10	2.3	0.778	0.128	0.0093	
240 minute summer	10	3.002	11	2.6	1.160	0.070	0.0055	
240 minute summer	11	3.003	Attenuation Tank	2.6	1.088	0.057	0.1228	
240 minute summer	Attenuation Tank	1.005	14	2.3	0.150	0.033	0.1497	
240 minute summer	13	5.000	14	0.6	0.480	0.097	0.0084	
240 minute summer	14	Hydro-Brake®	15	2.5				
240 minute summer	CMH01	1.008	EXMH01	2.5	1.393	0.054	0.0342	35.4
240 minute summer	15	1.007	CMH01	2.5	0.738	0.142	0.0163	

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	1	124	205.032	0.027	0.9	0.0394	0.0000	OK
240 minute winter	2	128	204.925	0.024	1.0	0.0283	0.0000	OK
240 minute winter	3	128	204.664	0.033	1.9	0.0455	0.0000	OK
240 minute winter	4	128	205.087	0.022	0.8	0.0307	0.0000	OK
240 minute winter	5	128	204.497	0.042	3.0	0.0506	0.0000	OK
240 minute winter	6	128	204.455	0.025	3.0	0.0000	0.0000	OK
240 minute winter	7	128	205.106	0.017	1.5	0.0813	0.0000	OK
240 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute winter	9	128	204.600	0.034	1.7	0.0354	0.0000	OK
240 minute winter	10	128	204.559	0.024	1.9	0.0288	0.0000	OK
240 minute winter	11	128	204.397	0.021	1.9	0.0000	0.0000	OK
240 minute winter	Attenuation Tank	172	203.797	0.217	6.4	20.6467	0.0000	OK
240 minute winter	13	116	205.198	0.018	0.4	0.0157	0.0000	OK
240 minute winter	14	172	203.797	0.229	2.6	0.2753	0.0000	SURCHARGED
240 minute winter	CMH01	172	203.524	0.034	2.6	0.0388	0.0000	OK
240 minute winter	EXMH01	172	202.254	0.024	2.6	0.0000	0.0000	OK
240 minute winter	15	172	203.579	0.041	2.6	0.0462	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	1	1.000	2	0.9	0.539	0.149	0.0091	
240 minute winter	2	1.001	3	1.0	0.428	0.056	0.0635	
240 minute winter	3	1.002	5	1.9	0.555	0.107	0.0604	
240 minute winter	4	2.000	5	0.8	0.507	0.045	0.0252	
240 minute winter	5	1.003	6	3.0	1.041	0.169	0.0074	
240 minute winter	6	1.004	Attenuation Tank	3.0	1.328	0.058	0.0987	
240 minute winter	7	3.000	9	1.5	0.770	0.026	0.0104	
240 minute winter	8	4.000	9	0.0	0.000	0.000	0.0074	
240 minute winter	9	3.001	10	1.7	0.718	0.096	0.0075	
240 minute winter	10	3.002	11	1.9	1.068	0.052	0.0044	
240 minute winter	11	3.003	Attenuation Tank	1.9	0.972	0.043	0.1218	
240 minute winter	Attenuation Tank	1.005	14	2.4	0.150	0.034	0.1686	
240 minute winter	13	5.000	14	0.4	0.431	0.066	0.0064	
240 minute winter	14	Hydro-Brake®	15	2.6				
240 minute winter	CMH01	1.008	EXMH01	2.6	1.399	0.055	0.0345	40.4
240 minute winter	15	1.007	CMH01	2.6	0.742	0.144	0.0165	

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	1	184	205.034	0.029	1.0	0.0415	0.0000	OK
360 minute summer	2	184	204.926	0.025	1.1	0.0294	0.0000	OK
360 minute summer	3	184	204.666	0.035	2.1	0.0475	0.0000	OK
360 minute summer	4	184	205.088	0.023	0.9	0.0324	0.0000	OK
360 minute summer	5	184	204.499	0.044	3.4	0.0536	0.0000	OK
360 minute summer	6	184	204.456	0.026	3.4	0.0000	0.0000	OK
360 minute summer	7	184	205.107	0.018	1.7	0.0893	0.0000	OK
360 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute summer	9	184	204.601	0.035	1.9	0.0384	0.0000	OK
360 minute summer	10	184	204.560	0.025	2.1	0.0301	0.0000	OK
360 minute summer	11	184	204.398	0.022	2.1	0.0000	0.0000	OK
360 minute summer	Attenuation Tank	232	203.791	0.211	7.1	20.1085	0.0000	OK
360 minute summer	13	184	205.200	0.020	0.5	0.0181	0.0000	OK
360 minute summer	14	232	203.791	0.223	2.6	0.2685	0.0000	SURCHARGED
360 minute summer	CMH01	232	203.524	0.034	2.5	0.0387	0.0000	OK
360 minute summer	EXMH01	232	202.254	0.024	2.5	0.0000	0.0000	OK
360 minute summer	15	232	203.579	0.041	2.5	0.0462	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	1	1.000	2	1.0	0.554	0.165	0.0098	
360 minute summer	2	1.001	3	1.1	0.438	0.061	0.0675	
360 minute summer	3	1.002	5	2.1	0.564	0.117	0.0649	
360 minute summer	4	2.000	5	0.9	0.524	0.050	0.0272	
360 minute summer	5	1.003	6	3.4	1.074	0.189	0.0080	
360 minute summer	6	1.004	Attenuation Tank	3.3	1.359	0.065	0.0991	
360 minute summer	7	3.000	9	1.7	0.803	0.030	0.0112	
360 minute summer	8	4.000	9	0.0	0.000	0.000	0.0079	
360 minute summer	9	3.001	10	1.9	0.739	0.105	0.0080	
360 minute summer	10	3.002	11	2.1	1.093	0.056	0.0047	
360 minute summer	11	3.003	Attenuation Tank	2.1	0.886	0.046	0.1221	
360 minute summer	Attenuation Tank	1.005	14	2.4	0.156	0.033	0.1641	
360 minute summer	13	5.000	14	0.5	0.457	0.082	0.0075	
360 minute summer	14	Hydro-Brake®	15	2.5				
360 minute summer	CMH01	1.008	EXMH01	2.5	1.398	0.055	0.0345	44.0
360 minute summer	15	1.007	CMH01	2.5	0.741	0.143	0.0164	

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	1	176	205.029	0.024	0.7	0.0345	0.0000	OK
360 minute winter	2	176	204.923	0.022	0.8	0.0254	0.0000	OK
360 minute winter	3	184	204.660	0.029	1.5	0.0405	0.0000	OK
360 minute winter	4	184	205.084	0.019	0.6	0.0267	0.0000	OK
360 minute winter	5	184	204.492	0.037	2.4	0.0454	0.0000	OK
360 minute winter	6	184	204.452	0.022	2.4	0.0000	0.0000	OK
360 minute winter	7	184	205.104	0.015	1.2	0.0675	0.0000	OK
360 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute winter	9	192	204.597	0.030	1.4	0.0300	0.0000	OK
360 minute winter	10	184	204.557	0.022	1.6	0.0264	0.0000	OK
360 minute winter	11	192	204.396	0.019	1.6	0.0000	0.0000	OK
360 minute winter	Attenuation Tank	248	203.798	0.218	5.2	20.7915	0.0000	OK
360 minute winter	13	184	205.198	0.018	0.4	0.0154	0.0000	OK
360 minute winter	14	248	203.798	0.230	2.6	0.2772	0.0000	SURCHARGED
360 minute winter	CMH01	248	203.524	0.034	2.6	0.0388	0.0000	OK
360 minute winter	EXMH01	248	202.254	0.024	2.6	0.0000	0.0000	OK
360 minute winter	15	248	203.579	0.041	2.6	0.0462	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	1	1.000	2	0.7	0.503	0.116	0.0076	
360 minute winter	2	1.001	3	0.8	0.403	0.045	0.0539	
360 minute winter	3	1.002	5	1.5	0.514	0.084	0.0516	
360 minute winter	4	2.000	5	0.6	0.466	0.034	0.0206	
360 minute winter	5	1.003	6	2.4	0.972	0.135	0.0063	
360 minute winter	6	1.004	Attenuation Tank	2.4	1.253	0.046	0.0976	
360 minute winter	7	3.000	9	1.2	0.714	0.021	0.0090	
360 minute winter	8	4.000	9	0.0	0.000	0.000	0.0064	
360 minute winter	9	3.001	10	1.4	0.677	0.079	0.0065	
360 minute winter	10	3.002	11	1.6	1.017	0.044	0.0039	
360 minute winter	11	3.003	Attenuation Tank	1.6	0.909	0.036	0.1209	
360 minute winter	Attenuation Tank	1.005	14	2.3	0.149	0.033	0.1698	
360 minute winter	13	5.000	14	0.4	0.428	0.065	0.0063	
360 minute winter	14	Hydro-Brake®	15	2.6				
360 minute winter	CMH01	1.008	EXMH01	2.6	1.399	0.055	0.0346	48.6
360 minute winter	15	1.007	CMH01	2.6	0.742	0.144	0.0165	

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	1	248	205.031	0.026	0.8	0.0370	0.0000	OK
480 minute summer	2	248	204.924	0.023	0.9	0.0269	0.0000	OK
480 minute summer	3	248	204.663	0.032	1.8	0.0443	0.0000	OK
480 minute summer	4	248	205.086	0.021	0.7	0.0288	0.0000	OK
480 minute summer	5	248	204.495	0.040	2.8	0.0489	0.0000	OK
480 minute summer	6	248	204.454	0.024	2.8	0.0000	0.0000	OK
480 minute summer	7	248	205.105	0.016	1.4	0.0769	0.0000	OK
480 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute summer	9	248	204.599	0.033	1.6	0.0336	0.0000	OK
480 minute summer	10	248	204.559	0.024	1.8	0.0280	0.0000	OK
480 minute summer	11	248	204.397	0.021	1.8	0.0000	0.0000	OK
480 minute summer	Attenuation Tank	296	203.790	0.210	6.0	20.0426	0.0000	OK
480 minute summer	13	240	205.198	0.018	0.4	0.0157	0.0000	OK
480 minute summer	14	296	203.790	0.222	2.6	0.2677	0.0000	SURCHARGED
480 minute summer	CMH01	296	203.524	0.034	2.5	0.0387	0.0000	OK
480 minute summer	EXMH01	296	202.254	0.024	2.5	0.0000	0.0000	OK
480 minute summer	15	296	203.579	0.041	2.5	0.0461	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	1	1.000	2	0.8	0.522	0.133	0.0084	
480 minute summer	2	1.001	3	0.9	0.406	0.051	0.0602	
480 minute summer	3	1.002	5	1.8	0.550	0.101	0.0578	
480 minute summer	4	2.000	5	0.7	0.488	0.039	0.0229	
480 minute summer	5	1.003	6	2.8	1.020	0.158	0.0070	
480 minute summer	6	1.004	Attenuation Tank	2.8	1.359	0.054	0.0982	
480 minute summer	7	3.000	9	1.4	0.752	0.025	0.0099	
480 minute summer	8	4.000	9	0.0	0.000	0.000	0.0071	
480 minute summer	9	3.001	10	1.6	0.705	0.090	0.0072	
480 minute summer	10	3.002	11	1.8	1.053	0.049	0.0042	
480 minute summer	11	3.003	Attenuation Tank	1.8	0.886	0.040	0.1212	
480 minute summer	Attenuation Tank	1.005	14	2.3	0.155	0.033	0.1635	
480 minute summer	13	5.000	14	0.4	0.431	0.066	0.0064	
480 minute summer	14	Hydro-Brake®	15	2.5				
480 minute summer	CMH01	1.008	EXMH01	2.5	1.398	0.055	0.0345	49.9
480 minute summer	15	1.007	CMH01	2.5	0.741	0.143	0.0164	

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	1	232	205.027	0.022	0.6	0.0319	0.0000	OK
480 minute winter	2	240	204.921	0.020	0.7	0.0238	0.0000	OK
480 minute winter	3	240	204.659	0.027	1.3	0.0377	0.0000	OK
480 minute winter	4	224	205.083	0.017	0.5	0.0245	0.0000	OK
480 minute winter	5	240	204.489	0.034	2.0	0.0416	0.0000	OK
480 minute winter	6	240	204.450	0.020	2.0	0.0000	0.0000	OK
480 minute winter	7	248	205.104	0.015	1.1	0.0629	0.0000	OK
480 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute winter	9	248	204.595	0.029	1.3	0.0283	0.0000	OK
480 minute winter	10	248	204.556	0.021	1.4	0.0247	0.0000	OK
480 minute winter	11	248	204.394	0.018	1.4	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	320	203.798	0.218	4.5	20.7927	0.0000	OK
480 minute winter	13	232	205.195	0.015	0.3	0.0129	0.0000	OK
480 minute winter	14	320	203.798	0.230	2.6	0.2772	0.0000	SURCHARGED
480 minute winter	CMH01	320	203.524	0.034	2.6	0.0388	0.0000	OK
480 minute winter	EXMH01	320	202.254	0.024	2.6	0.0000	0.0000	OK
480 minute winter	15	320	203.579	0.041	2.6	0.0462	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	1	1.000	2	0.6	0.482	0.099	0.0068	
480 minute winter	2	1.001	3	0.7	0.389	0.039	0.0489	
480 minute winter	3	1.002	5	1.3	0.499	0.073	0.0460	
480 minute winter	4	2.000	5	0.5	0.441	0.028	0.0181	
480 minute winter	5	1.003	6	2.0	0.918	0.113	0.0056	
480 minute winter	6	1.004	Attenuation Tank	2.0	1.260	0.039	0.0966	
480 minute winter	7	3.000	9	1.1	0.695	0.019	0.0085	
480 minute winter	8	4.000	9	0.0	0.000	0.000	0.0061	
480 minute winter	9	3.001	10	1.3	0.674	0.073	0.0061	
480 minute winter	10	3.002	11	1.4	0.979	0.038	0.0035	
480 minute winter	11	3.003	Attenuation Tank	1.4	0.817	0.031	0.1201	
480 minute winter	Attenuation Tank	1.005	14	2.3	0.150	0.033	0.1698	
480 minute winter	13	5.000	14	0.3	0.397	0.050	0.0052	
480 minute winter	14	Hydro-Brake®	15	2.6				
480 minute winter	CMH01	1.008	EXMH01	2.6	1.399	0.055	0.0346	57.0
480 minute winter	15	1.007	CMH01	2.6	0.742	0.144	0.0165	

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	1	315	205.029	0.024	0.7	0.0345	0.0000	OK
600 minute summer	2	315	204.923	0.022	0.8	0.0254	0.0000	OK
600 minute summer	3	315	204.660	0.029	1.5	0.0405	0.0000	OK
600 minute summer	4	315	205.084	0.019	0.6	0.0267	0.0000	OK
600 minute summer	5	315	204.492	0.037	2.4	0.0454	0.0000	OK
600 minute summer	6	315	204.452	0.022	2.4	0.0000	0.0000	OK
600 minute summer	7	315	205.104	0.015	1.2	0.0675	0.0000	OK
600 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute summer	9	315	204.597	0.030	1.4	0.0300	0.0000	OK
600 minute summer	10	315	204.557	0.022	1.6	0.0264	0.0000	OK
600 minute summer	11	315	204.396	0.019	1.6	0.0000	0.0000	OK
600 minute summer	Attenuation Tank	375	203.790	0.210	5.2	19.9889	0.0000	OK
600 minute summer	13	300	205.195	0.015	0.3	0.0129	0.0000	OK
600 minute summer	14	375	203.790	0.222	2.6	0.2670	0.0000	SURCHARGED
600 minute summer	CMH01	375	203.524	0.034	2.5	0.0387	0.0000	OK
600 minute summer	EXMH01	375	202.254	0.024	2.5	0.0000	0.0000	OK
600 minute summer	15	375	203.579	0.041	2.5	0.0461	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	1	1.000	2	0.7	0.503	0.116	0.0076	
600 minute summer	2	1.001	3	0.8	0.403	0.045	0.0539	
600 minute summer	3	1.002	5	1.5	0.514	0.084	0.0516	
600 minute summer	4	2.000	5	0.6	0.466	0.034	0.0206	
600 minute summer	5	1.003	6	2.4	0.972	0.135	0.0063	
600 minute summer	6	1.004	Attenuation Tank	2.4	1.199	0.046	0.0976	
600 minute summer	7	3.000	9	1.2	0.714	0.021	0.0090	
600 minute summer	8	4.000	9	0.0	0.000	0.000	0.0064	
600 minute summer	9	3.001	10	1.4	0.677	0.079	0.0065	
600 minute summer	10	3.002	11	1.6	1.017	0.044	0.0039	
600 minute summer	11	3.003	Attenuation Tank	1.6	0.681	0.036	0.1209	
600 minute summer	Attenuation Tank	1.005	14	2.3	0.152	0.033	0.1631	
600 minute summer	13	5.000	14	0.3	0.397	0.050	0.0052	
600 minute summer	14	Hydro-Brake®	15	2.5				
600 minute summer	CMH01	1.008	EXMH01	2.5	1.398	0.055	0.0344	55.6
600 minute summer	15	1.007	CMH01	2.5	0.741	0.143	0.0164	

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	1	315	205.027	0.022	0.6	0.0319	0.0000	OK
600 minute winter	2	315	204.921	0.020	0.7	0.0238	0.0000	OK
600 minute winter	3	315	204.659	0.027	1.3	0.0377	0.0000	OK
600 minute winter	4	300	205.083	0.017	0.5	0.0245	0.0000	OK
600 minute winter	5	315	204.489	0.034	2.0	0.0416	0.0000	OK
600 minute winter	6	315	204.450	0.020	2.0	0.0000	0.0000	OK
600 minute winter	7	300	205.102	0.013	0.9	0.0536	0.0000	OK
600 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute winter	9	300	204.592	0.026	1.0	0.0228	0.0000	OK
600 minute winter	10	300	204.553	0.018	1.1	0.0219	0.0000	OK
600 minute winter	11	300	204.392	0.016	1.1	0.0000	0.0000	OK
600 minute winter	Attenuation Tank	390	203.788	0.208	4.0	19.8072	0.0000	OK
600 minute winter	13	300	205.195	0.015	0.3	0.0129	0.0000	OK
600 minute winter	14	390	203.788	0.220	2.5	0.2647	0.0000	SURCHARGED
600 minute winter	CMH01	390	203.524	0.034	2.5	0.0387	0.0000	OK
600 minute winter	EXMH01	390	202.254	0.024	2.5	0.0000	0.0000	OK
600 minute winter	15	390	203.579	0.041	2.5	0.0461	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	1	1.000	2	0.6	0.482	0.099	0.0068	
600 minute winter	2	1.001	3	0.7	0.389	0.039	0.0489	
600 minute winter	3	1.002	5	1.3	0.499	0.073	0.0460	
600 minute winter	4	2.000	5	0.5	0.441	0.028	0.0181	
600 minute winter	5	1.003	6	2.0	0.918	0.113	0.0056	
600 minute winter	6	1.004	Attenuation Tank	2.0	1.271	0.039	0.0966	
600 minute winter	7	3.000	9	0.9	0.672	0.016	0.0072	
600 minute winter	8	4.000	9	0.0	0.000	0.000	0.0051	
600 minute winter	9	3.001	10	1.0	0.622	0.056	0.0051	
600 minute winter	10	3.002	11	1.1	0.912	0.030	0.0030	
600 minute winter	11	3.003	Attenuation Tank	1.1	0.813	0.025	0.1189	
600 minute winter	Attenuation Tank	1.005	14	2.4	0.157	0.033	0.1615	
600 minute winter	13	5.000	14	0.3	0.397	0.050	0.0052	
600 minute winter	14	Hydro-Brake®	15	2.5				
600 minute winter	CMH01	1.008	EXMH01	2.5	1.397	0.055	0.0344	62.8
600 minute winter	15	1.007	CMH01	2.5	0.740	0.143	0.0164	

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	1	375	205.029	0.024	0.7	0.0345	0.0000	OK
720 minute summer	2	375	204.923	0.022	0.8	0.0254	0.0000	OK
720 minute summer	3	375	204.660	0.029	1.5	0.0405	0.0000	OK
720 minute summer	4	375	205.084	0.019	0.6	0.0267	0.0000	OK
720 minute summer	5	375	204.492	0.037	2.4	0.0454	0.0000	OK
720 minute summer	6	375	204.452	0.022	2.4	0.0000	0.0000	OK
720 minute summer	7	375	205.104	0.015	1.1	0.0629	0.0000	OK
720 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute summer	9	375	204.595	0.029	1.3	0.0283	0.0000	OK
720 minute summer	10	375	204.556	0.021	1.4	0.0247	0.0000	OK
720 minute summer	11	375	204.394	0.018	1.4	0.0000	0.0000	OK
720 minute summer	Attenuation Tank	435	203.785	0.205	4.9	19.5053	0.0000	OK
720 minute summer	13	360	205.195	0.015	0.3	0.0129	0.0000	OK
720 minute summer	14	435	203.785	0.217	2.5	0.2609	0.0000	SURCHARGED
720 minute summer	CMH01	435	203.524	0.034	2.5	0.0387	0.0000	OK
720 minute summer	EXMH01	435	202.254	0.024	2.5	0.0000	0.0000	OK
720 minute summer	15	435	203.579	0.041	2.5	0.0461	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	1	1.000	2	0.7	0.503	0.116	0.0076	
720 minute summer	2	1.001	3	0.8	0.403	0.045	0.0539	
720 minute summer	3	1.002	5	1.5	0.514	0.084	0.0516	
720 minute summer	4	2.000	5	0.6	0.466	0.034	0.0206	
720 minute summer	5	1.003	6	2.4	0.972	0.135	0.0063	
720 minute summer	6	1.004	Attenuation Tank	2.4	1.199	0.046	0.0976	
720 minute summer	7	3.000	9	1.1	0.690	0.019	0.0085	
720 minute summer	8	4.000	9	0.0	0.000	0.000	0.0061	
720 minute summer	9	3.001	10	1.3	0.674	0.073	0.0061	
720 minute summer	10	3.002	11	1.4	0.979	0.038	0.0035	
720 minute summer	11	3.003	Attenuation Tank	1.4	0.681	0.031	0.1201	
720 minute summer	Attenuation Tank	1.005	14	2.3	0.152	0.033	0.1590	
720 minute summer	13	5.000	14	0.3	0.397	0.050	0.0052	
720 minute summer	14	Hydro-Brake®	15	2.5				
720 minute summer	CMH01	1.008	EXMH01	2.5	1.396	0.055	0.0344	60.5
720 minute summer	15	1.007	CMH01	2.5	0.740	0.143	0.0164	

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	1	345	205.025	0.020	0.5	0.0291	0.0000	OK
720 minute winter	2	345	204.920	0.019	0.6	0.0221	0.0000	OK
720 minute winter	3	345	204.656	0.025	1.1	0.0348	0.0000	OK
720 minute winter	4	330	205.081	0.016	0.4	0.0220	0.0000	OK
720 minute winter	5	345	204.487	0.032	1.7	0.0386	0.0000	OK
720 minute winter	6	345	204.449	0.019	1.7	0.0000	0.0000	OK
720 minute winter	7	345	205.102	0.013	0.8	0.0487	0.0000	OK
720 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute winter	9	345	204.591	0.024	0.9	0.0210	0.0000	OK
720 minute winter	10	345	204.553	0.018	1.0	0.0209	0.0000	OK
720 minute winter	11	345	204.392	0.016	1.0	0.0000	0.0000	OK
720 minute winter	Attenuation Tank	465	203.777	0.197	3.5	18.7649	0.0000	OK
720 minute winter	13	300	205.193	0.013	0.2	0.0099	0.0000	OK
720 minute winter	14	465	203.777	0.209	2.5	0.2516	0.0000	SURCHARGED
720 minute winter	CMH01	465	203.524	0.034	2.5	0.0386	0.0000	OK
720 minute winter	EXMH01	465	202.254	0.024	2.5	0.0000	0.0000	OK
720 minute winter	15	465	203.579	0.041	2.5	0.0459	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	1	1.000	2	0.5	0.458	0.083	0.0060	
720 minute winter	2	1.001	3	0.6	0.373	0.034	0.0437	
720 minute winter	3	1.002	5	1.1	0.473	0.062	0.0411	
720 minute winter	4	2.000	5	0.4	0.412	0.023	0.0155	
720 minute winter	5	1.003	6	1.7	0.872	0.096	0.0050	
720 minute winter	6	1.004	Attenuation Tank	1.7	1.011	0.033	0.0959	
720 minute winter	7	3.000	9	0.8	0.645	0.014	0.0066	
720 minute winter	8	4.000	9	0.0	0.000	0.000	0.0047	
720 minute winter	9	3.001	10	0.9	0.602	0.051	0.0047	
720 minute winter	10	3.002	11	1.0	0.887	0.027	0.0028	
720 minute winter	11	3.003	Attenuation Tank	1.0	0.849	0.022	0.1185	
720 minute winter	Attenuation Tank	1.005	14	2.3	0.153	0.033	0.1525	
720 minute winter	13	5.000	14	0.2	0.352	0.033	0.0039	
720 minute winter	14	Hydro-Brake®	15	2.5				
720 minute winter	CMH01	1.008	EXMH01	2.5	1.394	0.054	0.0342	67.5
720 minute winter	15	1.007	CMH01	2.5	0.739	0.142	0.0164	

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	1	495	205.027	0.022	0.6	0.0319	0.0000	OK
960 minute summer	2	495	204.921	0.020	0.7	0.0238	0.0000	OK
960 minute summer	3	495	204.659	0.027	1.3	0.0377	0.0000	OK
960 minute summer	4	495	205.083	0.017	0.5	0.0245	0.0000	OK
960 minute summer	5	495	204.489	0.034	2.0	0.0416	0.0000	OK
960 minute summer	6	495	204.450	0.020	2.0	0.0000	0.0000	OK
960 minute summer	7	495	205.103	0.014	1.0	0.0582	0.0000	OK
960 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute summer	9	495	204.593	0.027	1.1	0.0247	0.0000	OK
960 minute summer	10	495	204.554	0.019	1.2	0.0229	0.0000	OK
960 minute summer	11	495	204.393	0.017	1.2	0.0000	0.0000	OK
960 minute summer	Attenuation Tank	570	203.762	0.182	4.2	17.3650	0.0000	OK
960 minute summer	13	495	205.195	0.015	0.3	0.0129	0.0000	OK
960 minute summer	14	570	203.762	0.194	2.5	0.2339	0.0000	SURCHARGED
960 minute summer	CMH01	570	203.524	0.034	2.5	0.0385	0.0000	OK
960 minute summer	EXMH01	570	202.254	0.024	2.5	0.0000	0.0000	OK
960 minute summer	15	570	203.578	0.040	2.5	0.0457	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	1	1.000	2	0.6	0.482	0.099	0.0068	
960 minute summer	2	1.001	3	0.7	0.389	0.039	0.0489	
960 minute summer	3	1.002	5	1.3	0.499	0.073	0.0460	
960 minute summer	4	2.000	5	0.5	0.441	0.028	0.0181	
960 minute summer	5	1.003	6	2.0	0.918	0.113	0.0056	
960 minute summer	6	1.004	Attenuation Tank	2.0	0.790	0.039	0.0960	
960 minute summer	7	3.000	9	1.0	0.695	0.018	0.0077	
960 minute summer	8	4.000	9	0.0	0.000	0.000	0.0054	
960 minute summer	9	3.001	10	1.1	0.641	0.062	0.0054	
960 minute summer	10	3.002	11	1.2	0.936	0.033	0.0032	
960 minute summer	11	3.003	Attenuation Tank	1.2	0.834	0.027	0.1186	
960 minute summer	Attenuation Tank	1.005	14	2.3	0.153	0.032	0.1399	
960 minute summer	13	5.000	14	0.3	0.397	0.050	0.0052	
960 minute summer	14	Hydro-Brake®	15	2.5				
960 minute summer	CMH01	1.008	EXMH01	2.5	1.390	0.054	0.0340	66.6
960 minute summer	15	1.007	CMH01	2.5	0.735	0.140	0.0162	

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	1	435	205.023	0.018	0.4	0.0260	0.0000	OK
960 minute winter	2	450	204.918	0.017	0.5	0.0203	0.0000	OK
960 minute winter	3	450	204.654	0.023	0.9	0.0315	0.0000	OK
960 minute winter	4	480	205.081	0.016	0.4	0.0220	0.0000	OK
960 minute winter	5	480	204.485	0.030	1.5	0.0364	0.0000	OK
960 minute winter	6	480	204.448	0.018	1.5	0.0000	0.0000	OK
960 minute winter	7	465	205.101	0.012	0.7	0.0439	0.0000	OK
960 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute winter	9	465	204.589	0.023	0.8	0.0191	0.0000	OK
960 minute winter	10	465	204.552	0.017	0.9	0.0199	0.0000	OK
960 minute winter	11	465	204.391	0.015	0.9	0.0000	0.0000	OK
960 minute winter	Attenuation Tank	585	203.753	0.173	3.1	16.5122	0.0000	OK
960 minute winter	13	420	205.193	0.013	0.2	0.0099	0.0000	OK
960 minute winter	14	585	203.753	0.185	2.5	0.2231	0.0000	SURCHARGED
960 minute winter	CMH01	585	203.524	0.034	2.5	0.0383	0.0000	OK
960 minute winter	EXMH01	585	202.254	0.024	2.5	0.0000	0.0000	OK
960 minute winter	15	585	203.578	0.040	2.5	0.0455	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	1	1.000	2	0.4	0.429	0.066	0.0051	
960 minute winter	2	1.001	3	0.5	0.356	0.028	0.0381	
960 minute winter	3	1.002	5	0.9	0.455	0.051	0.0369	
960 minute winter	4	2.000	5	0.4	0.412	0.023	0.0155	
960 minute winter	5	1.003	6	1.5	0.838	0.084	0.0046	
960 minute winter	6	1.004	Attenuation Tank	1.5	0.859	0.029	0.0951	
960 minute winter	7	3.000	9	0.7	0.616	0.012	0.0061	
960 minute winter	8	4.000	9	0.0	0.000	0.000	0.0043	
960 minute winter	9	3.001	10	0.8	0.581	0.045	0.0043	
960 minute winter	10	3.002	11	0.9	0.861	0.024	0.0026	
960 minute winter	11	3.003	Attenuation Tank	0.9	0.861	0.020	0.1181	
960 minute winter	Attenuation Tank	1.005	14	2.3	0.153	0.032	0.1321	
960 minute winter	13	5.000	14	0.2	0.352	0.033	0.0039	
960 minute winter	14	Hydro-Brake®	15	2.5				
960 minute winter	CMH01	1.008	EXMH01	2.5	1.387	0.053	0.0338	76.3
960 minute winter	15	1.007	CMH01	2.5	0.733	0.139	0.0162	

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	1	720	205.023	0.018	0.4	0.0260	0.0000	OK
1440 minute summer	2	720	204.918	0.017	0.5	0.0203	0.0000	OK
1440 minute summer	3	720	204.654	0.023	0.9	0.0315	0.0000	OK
1440 minute summer	4	750	205.081	0.016	0.4	0.0220	0.0000	OK
1440 minute summer	5	750	204.485	0.030	1.5	0.0364	0.0000	OK
1440 minute summer	6	750	204.448	0.018	1.5	0.0000	0.0000	OK
1440 minute summer	7	750	205.101	0.012	0.7	0.0439	0.0000	OK
1440 minute summer	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	9	750	204.589	0.023	0.8	0.0191	0.0000	OK
1440 minute summer	10	750	204.552	0.017	0.9	0.0199	0.0000	OK
1440 minute summer	11	750	204.391	0.015	0.9	0.0000	0.0000	OK
1440 minute summer	Attenuation Tank	810	203.730	0.150	3.1	14.3134	0.0000	OK
1440 minute summer	13	720	205.193	0.013	0.2	0.0099	0.0000	OK
1440 minute summer	14	810	203.730	0.162	2.4	0.1953	0.0000	SURCHARGED
1440 minute summer	CMH01	810	203.524	0.034	2.4	0.0380	0.0000	OK
1440 minute summer	EXMH01	810	202.254	0.023	2.4	0.0000	0.0000	OK
1440 minute summer	15	810	203.578	0.040	2.4	0.0448	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	1	1.000	2	0.4	0.429	0.066	0.0051	
1440 minute summer	2	1.001	3	0.5	0.356	0.028	0.0381	
1440 minute summer	3	1.002	5	0.9	0.454	0.051	0.0369	
1440 minute summer	4	2.000	5	0.4	0.412	0.023	0.0155	
1440 minute summer	5	1.003	6	1.5	0.838	0.084	0.0046	
1440 minute summer	6	1.004	Attenuation Tank	1.5	0.396	0.029	0.0939	
1440 minute summer	7	3.000	9	0.7	0.616	0.012	0.0061	
1440 minute summer	8	4.000	9	0.0	0.000	0.000	0.0043	
1440 minute summer	9	3.001	10	0.8	0.581	0.045	0.0043	
1440 minute summer	10	3.002	11	0.9	0.861	0.024	0.0026	
1440 minute summer	11	3.003	Attenuation Tank	0.9	0.660	0.020	0.1171	
1440 minute summer	Attenuation Tank	1.005	14	2.2	0.152	0.031	0.1115	
1440 minute summer	13	5.000	14	0.2	0.352	0.033	0.0039	
1440 minute summer	14	Hydro-Brake®	15	2.4				
1440 minute summer	CMH01	1.008	EXMH01	2.4	1.376	0.052	0.0331	75.4
1440 minute summer	15	1.007	CMH01	2.4	0.726	0.135	0.0159	

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	1	660	205.021	0.016	0.3	0.0225	0.0000	OK
1440 minute winter	2	660	204.915	0.014	0.3	0.0159	0.0000	OK
1440 minute winter	3	660	204.650	0.019	0.6	0.0260	0.0000	OK
1440 minute winter	4	690	205.079	0.014	0.3	0.0192	0.0000	OK
1440 minute winter	5	690	204.480	0.025	1.0	0.0301	0.0000	OK
1440 minute winter	6	690	204.445	0.015	1.0	0.0000	0.0000	OK
1440 minute winter	7	750	205.100	0.011	0.6	0.0390	0.0000	OK
1440 minute winter	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	9	750	204.588	0.022	0.7	0.0172	0.0000	OK
1440 minute winter	10	750	204.551	0.016	0.8	0.0188	0.0000	OK
1440 minute winter	11	750	204.390	0.014	0.8	0.0000	0.0000	OK
1440 minute winter	Attenuation Tank	840	203.700	0.120	2.4	11.4333	0.0000	OK
1440 minute winter	13	720	205.193	0.013	0.2	0.0099	0.0000	OK
1440 minute winter	14	840	203.700	0.132	2.3	0.1589	0.0000	OK
1440 minute winter	CMH01	840	203.523	0.033	2.3	0.0373	0.0000	OK
1440 minute winter	EXMH01	840	202.253	0.023	2.3	0.0000	0.0000	OK
1440 minute winter	15	840	203.577	0.039	2.3	0.0436	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	1	1.000	2	0.3	0.395	0.050	0.0041	
1440 minute winter	2	1.001	3	0.3	0.293	0.017	0.0279	
1440 minute winter	3	1.002	5	0.6	0.394	0.034	0.0280	
1440 minute winter	4	2.000	5	0.3	0.379	0.017	0.0127	
1440 minute winter	5	1.003	6	1.0	0.738	0.056	0.0035	
1440 minute winter	6	1.004	Attenuation Tank	1.0	0.515	0.019	0.0809	
1440 minute winter	7	3.000	9	0.6	0.585	0.011	0.0055	
1440 minute winter	8	4.000	9	0.0	0.000	0.000	0.0039	
1440 minute winter	9	3.001	10	0.7	0.556	0.039	0.0040	
1440 minute winter	10	3.002	11	0.8	0.831	0.022	0.0024	
1440 minute winter	11	3.003	Attenuation Tank	0.8	0.803	0.018	0.1012	
1440 minute winter	Attenuation Tank	1.005	14	2.1	0.151	0.030	0.0844	
1440 minute winter	13	5.000	14	0.2	0.352	0.033	0.0039	
1440 minute winter	14	Hydro-Brake®	15	2.3				
1440 minute winter	CMH01	1.008	EXMH01	2.3	1.356	0.049	0.0319	88.5
1440 minute winter	15	1.007	CMH01	2.3	0.712	0.129	0.0154	

Results for 30 year +20% 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	1	11	205.119	0.114	6.8	0.1646	0.0000	SURCHARGED
15 minute summer	2	11	204.969	0.068	7.5	0.0794	0.0000	OK
15 minute summer	3	11	204.736	0.105	14.2	0.1446	0.0000	OK
15 minute summer	4	10	205.127	0.062	6.0	0.0864	0.0000	OK
15 minute summer	5	11	204.594	0.139	22.5	0.1687	0.0000	OK
15 minute summer	6	11	204.500	0.070	23.2	0.0000	0.0000	OK
15 minute summer	7	11	205.134	0.045	11.5	0.4886	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute summer	9	11	204.668	0.102	12.7	0.2556	0.0000	OK
15 minute summer	10	11	204.607	0.072	14.0	0.0854	0.0000	OK
15 minute summer	11	11	204.434	0.058	14.0	0.0000	0.0000	OK
15 minute summer	Attenuation Tank	20	203.804	0.224	50.8	21.2985	0.0000	OK
15 minute summer	13	11	205.235	0.055	3.3	0.0873	0.0000	OK
15 minute summer	14	20	203.804	0.236	6.2	0.2836	0.0000	SURCHARGED
15 minute summer	CMH01	20	203.524	0.034	2.6	0.0388	0.0000	OK
15 minute summer	EXMH01	20	202.254	0.024	2.6	0.0000	0.0000	OK
15 minute summer	15	20	203.579	0.041	2.6	0.0463	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	1	1.000	2	6.6	0.851	1.090	0.0401	
15 minute summer	2	1.001	3	7.5	0.713	0.423	0.2825	
15 minute summer	3	1.002	5	14.2	0.927	0.801	0.2659	
15 minute summer	4	2.000	5	5.9	0.885	0.331	0.1062	
15 minute summer	5	1.003	6	23.2	1.799	1.309	0.0315	
15 minute summer	6	1.004	Attenuation Tank	22.8	2.730	0.440	0.1275	
15 minute summer	7	3.000	9	11.1	1.318	0.195	0.0444	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0319	
15 minute summer	9	3.001	10	12.6	1.195	0.710	0.0329	
15 minute summer	10	3.002	11	14.0	1.805	0.380	0.0192	
15 minute summer	11	3.003	Attenuation Tank	14.0	1.995	0.312	0.1511	
15 minute summer	Attenuation Tank	1.005	14	-3.6	-0.346	-0.050	0.1739	
15 minute summer	13	5.000	14	3.2	0.752	0.526	0.0293	
15 minute summer	14	Hydro-Brake®	15	2.6				
15 minute summer	CMH01	1.008	EXMH01	2.6	1.400	0.055	0.0346	23.0
15 minute summer	15	1.007	CMH01	2.6	0.743	0.144	0.0165	

Results for 30 year +20% 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	1	11	205.128	0.123	7.2	0.1787	0.0000	SURCHARGED
15 minute winter	2	11	204.971	0.070	7.8	0.0814	0.0000	OK
15 minute winter	3	11	204.741	0.109	14.9	0.1504	0.0000	OK
15 minute winter	4	10	205.128	0.063	6.3	0.0887	0.0000	OK
15 minute winter	5	11	204.596	0.140	23.4	0.1705	0.0000	OK
15 minute winter	6	11	204.501	0.071	24.9	0.0000	0.0000	OK
15 minute winter	7	11	205.135	0.046	12.1	0.5096	0.0000	OK
15 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.671	0.105	13.2	0.2693	0.0000	OK
15 minute winter	10	11	204.609	0.074	14.7	0.0879	0.0000	OK
15 minute winter	11	11	204.435	0.059	14.6	0.0000	0.0000	OK
15 minute winter	Attenuation Tank	20	203.832	0.252	52.9	24.0276	0.0000	OK
15 minute winter	13	11	205.237	0.057	3.5	0.0931	0.0000	OK
15 minute winter	14	20	203.832	0.264	6.6	0.3180	0.0000	SURCHARGED
15 minute winter	CMH01	20	203.524	0.034	2.6	0.0389	0.0000	OK
15 minute winter	EXMH01	20	202.254	0.024	2.6	0.0000	0.0000	OK
15 minute winter	15	20	203.579	0.041	2.6	0.0465	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	1	1.000	2	6.9	0.892	1.147	0.0405	
15 minute winter	2	1.001	3	7.9	0.716	0.442	0.2936	
15 minute winter	3	1.002	5	14.8	0.944	0.834	0.2720	
15 minute winter	4	2.000	5	6.1	0.895	0.346	0.1098	
15 minute winter	5	1.003	6	24.9	1.890	1.404	0.0318	
15 minute winter	6	1.004	Attenuation Tank	23.6	2.786	0.456	0.1283	
15 minute winter	7	3.000	9	11.6	1.332	0.204	0.0458	
15 minute winter	8	4.000	9	0.0	0.000	0.000	0.0329	
15 minute winter	9	3.001	10	13.2	1.206	0.741	0.0340	
15 minute winter	10	3.002	11	14.6	1.825	0.398	0.0199	
15 minute winter	11	3.003	Attenuation Tank	14.6	2.072	0.327	0.1522	
15 minute winter	Attenuation Tank	1.005	14	-3.6	-0.347	-0.050	0.1938	
15 minute winter	13	5.000	14	3.4	0.762	0.559	0.0307	
15 minute winter	14	Hydro-Brake®	15	2.6				
15 minute winter	CMH01	1.008	EXMH01	2.6	1.404	0.056	0.0349	25.6
15 minute winter	15	1.007	CMH01	2.6	0.745	0.145	0.0166	

Results for 30 year +20% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	205.121	0.116	6.8	0.1684	0.0000	SURCHARGED
30 minute summer	2	18	204.969	0.068	7.6	0.0792	0.0000	OK
30 minute summer	3	18	204.736	0.105	14.4	0.1437	0.0000	OK
30 minute summer	4	18	205.127	0.062	5.9	0.0863	0.0000	OK
30 minute summer	5	19	204.594	0.139	22.6	0.1691	0.0000	OK
30 minute summer	6	18	204.500	0.070	23.8	0.0000	0.0000	OK
30 minute summer	7	18	205.134	0.045	11.4	0.4916	0.0000	OK
30 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute summer	9	19	204.668	0.102	12.8	0.2549	0.0000	OK
30 minute summer	10	19	204.607	0.072	14.0	0.0856	0.0000	OK
30 minute summer	11	19	204.434	0.058	14.0	0.0000	0.0000	OK
30 minute summer	Attenuation Tank	34	203.897	0.317	51.2	30.2411	0.0000	SURCHARGED
30 minute summer	13	18	205.236	0.056	3.3	0.0902	0.0000	OK
30 minute summer	14	34	203.897	0.329	6.4	0.3966	0.0000	SURCHARGED
30 minute summer	CMH01	27	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute summer	EXMH01	27	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute summer	15	26	203.579	0.041	2.6	0.0467	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	1	1.000	2	6.7	0.861	1.104	0.0402	
30 minute summer	2	1.001	3	7.5	0.716	0.421	0.2810	
30 minute summer	3	1.002	5	14.1	0.922	0.794	0.2649	
30 minute summer	4	2.000	5	5.9	0.887	0.332	0.1063	
30 minute summer	5	1.003	6	23.8	1.821	1.339	0.0315	
30 minute summer	6	1.004	Attenuation Tank	22.8	2.341	0.441	0.1303	
30 minute summer	7	3.000	9	11.2	1.312	0.196	0.0442	
30 minute summer	8	4.000	9	0.0	0.000	0.000	0.0319	
30 minute summer	9	3.001	10	12.6	1.195	0.709	0.0329	
30 minute summer	10	3.002	11	14.0	1.808	0.382	0.0193	
30 minute summer	11	3.003	Attenuation Tank	14.1	1.821	0.315	0.1523	
30 minute summer	Attenuation Tank	1.005	14	-3.1	-0.192	-0.044	0.2118	
30 minute summer	13	5.000	14	3.3	0.756	0.541	0.0300	
30 minute summer	14	Hydro-Brake®	15	2.6				
30 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	32.4
30 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	205.102	0.096	6.1	0.1399	0.0000	OK
30 minute winter	2	18	204.966	0.065	6.9	0.0758	0.0000	OK
30 minute winter	3	18	204.729	0.098	13.2	0.1343	0.0000	OK
30 minute winter	4	18	205.124	0.059	5.4	0.0821	0.0000	OK
30 minute winter	5	18	204.591	0.136	20.9	0.1652	0.0000	OK
30 minute winter	6	18	204.496	0.066	21.0	0.0000	0.0000	OK
30 minute winter	7	18	205.132	0.043	10.3	0.4492	0.0000	OK
30 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute winter	9	19	204.662	0.096	11.7	0.2306	0.0000	OK
30 minute winter	10	18	204.603	0.068	12.9	0.0814	0.0000	OK
30 minute winter	11	19	204.431	0.055	12.9	0.0000	0.0000	OK
30 minute winter	Attenuation Tank	34	203.940	0.360	46.6	34.2572	0.0000	SURCHARGED
30 minute winter	13	18	205.232	0.052	2.9	0.0793	0.0000	OK
30 minute winter	14	34	203.940	0.372	5.7	0.4473	0.0000	SURCHARGED
30 minute winter	CMH01	69	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute winter	EXMH01	69	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute winter	15	69	203.579	0.041	2.6	0.0467	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	1	1.000	2	6.0	0.829	1.001	0.0392	
30 minute winter	2	1.001	3	6.9	0.711	0.389	0.2620	
30 minute winter	3	1.002	5	13.1	0.891	0.739	0.2546	
30 minute winter	4	2.000	5	5.4	0.867	0.304	0.0995	
30 minute winter	5	1.003	6	21.0	1.681	1.186	0.0306	
30 minute winter	6	1.004	Attenuation Tank	21.0	2.410	0.406	0.1276	
30 minute winter	7	3.000	9	10.2	1.275	0.179	0.0417	
30 minute winter	8	4.000	9	0.0	0.000	0.000	0.0300	
30 minute winter	9	3.001	10	11.6	1.171	0.652	0.0309	
30 minute winter	10	3.002	11	12.9	1.772	0.351	0.0181	
30 minute winter	11	3.003	Attenuation Tank	12.9	1.878	0.289	0.1499	
30 minute winter	Attenuation Tank	1.005	14	2.6	-0.218	0.036	0.2118	
30 minute winter	13	5.000	14	2.9	0.735	0.478	0.0273	
30 minute winter	14	Hydro-Brake®	15	2.6				
30 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	35.4
30 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	33	205.091	0.086	5.6	0.1245	0.0000	OK
60 minute summer	2	33	204.963	0.062	6.4	0.0723	0.0000	OK
60 minute summer	3	33	204.722	0.091	12.1	0.1248	0.0000	OK
60 minute summer	4	33	205.121	0.056	4.9	0.0778	0.0000	OK
60 minute summer	5	34	204.585	0.130	19.1	0.1579	0.0000	OK
60 minute summer	6	33	204.493	0.063	19.1	0.0000	0.0000	OK
60 minute summer	7	33	205.130	0.041	9.4	0.4118	0.0000	OK
60 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute summer	9	34	204.657	0.091	10.6	0.2076	0.0000	OK
60 minute summer	10	34	204.600	0.065	11.8	0.0770	0.0000	OK
60 minute summer	11	34	204.429	0.053	11.8	0.0000	0.0000	OK
60 minute summer	Attenuation Tank	63	204.003	0.423	42.1	40.2829	0.0000	SURCHARGED
60 minute summer	13	33	205.230	0.049	2.7	0.0738	0.0000	OK
60 minute summer	14	63	204.003	0.435	5.3	0.5235	0.0000	SURCHARGED
60 minute summer	CMH01	139	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute summer	EXMH01	139	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute summer	15	37	203.579	0.041	2.6	0.0467	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	1	1.000	2	5.6	0.823	0.924	0.0368	
60 minute summer	2	1.001	3	6.4	0.706	0.358	0.2427	
60 minute summer	3	1.002	5	12.0	0.861	0.674	0.2409	
60 minute summer	4	2.000	5	4.9	0.845	0.276	0.0926	
60 minute summer	5	1.003	6	19.1	1.599	1.076	0.0292	
60 minute summer	6	1.004	Attenuation Tank	19.1	2.077	0.368	0.1251	
60 minute summer	7	3.000	9	9.3	1.251	0.163	0.0389	
60 minute summer	8	4.000	9	0.0	0.000	0.000	0.0281	
60 minute summer	9	3.001	10	10.6	1.146	0.595	0.0289	
60 minute summer	10	3.002	11	11.8	1.733	0.320	0.0169	
60 minute summer	11	3.003	Attenuation Tank	11.8	1.654	0.264	0.1475	
60 minute summer	Attenuation Tank	1.005	14	2.6	-0.165	0.036	0.2118	
60 minute summer	13	5.000	14	2.7	0.722	0.445	0.0258	
60 minute summer	14	Hydro-Brake®	15	2.6				
60 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	41.7
60 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	33	205.075	0.070	4.5	0.1020	0.0000	OK
60 minute winter	2	33	204.956	0.055	5.1	0.0642	0.0000	OK
60 minute winter	3	33	204.711	0.080	9.7	0.1103	0.0000	OK
60 minute winter	4	33	205.115	0.050	4.0	0.0697	0.0000	OK
60 minute winter	5	33	204.563	0.108	15.5	0.1311	0.0000	OK
60 minute winter	6	33	204.486	0.056	15.5	0.0000	0.0000	OK
60 minute winter	7	33	205.126	0.037	7.6	0.3390	0.0000	OK
60 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute winter	9	34	204.647	0.081	8.7	0.1668	0.0000	OK
60 minute winter	10	34	204.593	0.058	9.7	0.0686	0.0000	OK
60 minute winter	11	34	204.424	0.047	9.7	0.0000	0.0000	OK
60 minute winter	Attenuation Tank	63	204.061	0.481	33.8	45.8435	0.0000	SURCHARGED
60 minute winter	13	33	205.224	0.044	2.2	0.0606	0.0000	OK
60 minute winter	14	63	204.061	0.493	4.3	0.5938	0.0000	SURCHARGED
60 minute winter	CMH01	175	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute winter	EXMH01	175	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute winter	15	36	203.579	0.041	2.6	0.0467	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	1	1.000	2	4.5	0.802	0.745	0.0305	
60 minute winter	2	1.001	3	5.1	0.662	0.287	0.2080	
60 minute winter	3	1.002	5	9.7	0.832	0.545	0.2039	
60 minute winter	4	2.000	5	4.0	0.800	0.225	0.0799	
60 minute winter	5	1.003	6	15.5	1.567	0.871	0.0247	
60 minute winter	6	1.004	Attenuation Tank	15.5	2.178	0.298	0.1201	
60 minute winter	7	3.000	9	7.6	1.182	0.133	0.0337	
60 minute winter	8	4.000	9	0.0	0.000	0.000	0.0243	
60 minute winter	9	3.001	10	8.7	1.092	0.488	0.0249	
60 minute winter	10	3.002	11	9.7	1.651	0.263	0.0145	
60 minute winter	11	3.003	Attenuation Tank	9.7	1.757	0.216	0.1428	
60 minute winter	Attenuation Tank	1.005	14	2.6	-0.177	0.036	0.2118	
60 minute winter	13	5.000	14	2.2	0.687	0.363	0.0222	
60 minute winter	14	Hydro-Brake®	15	2.6				
60 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	42.9
60 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	1	64	205.069	0.064	3.9	0.0921	0.0000	OK
120 minute summer	2	64	204.952	0.051	4.4	0.0594	0.0000	OK
120 minute summer	3	64	204.705	0.074	8.4	0.1019	0.0000	OK
120 minute summer	4	64	205.111	0.046	3.4	0.0639	0.0000	OK
120 minute summer	5	64	204.552	0.097	13.3	0.1173	0.0000	OK
120 minute summer	6	64	204.482	0.052	13.3	0.0000	0.0000	OK
120 minute summer	7	64	205.124	0.035	6.6	0.2974	0.0000	OK
120 minute summer	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute summer	9	64	204.640	0.074	7.5	0.1425	0.0000	OK
120 minute summer	10	64	204.588	0.053	8.4	0.0632	0.0000	OK
120 minute summer	11	64	204.420	0.044	8.4	0.0000	0.0000	OK
120 minute summer	Attenuation Tank	122	204.089	0.509	28.9	48.5101	0.0000	SURCHARGED
120 minute summer	13	64	205.220	0.040	1.9	0.0531	0.0000	OK
120 minute summer	14	122	204.089	0.521	3.7	0.6275	0.0000	SURCHARGED
120 minute summer	CMH01	254	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute summer	EXMH01	256	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute summer	15	254	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.9	0.780	0.646	0.0272	
120 minute summer	2	1.001	3	4.4	0.634	0.248	0.1877	
120 minute summer	3	1.002	5	8.4	0.811	0.473	0.1819	
120 minute summer	4	2.000	5	3.4	0.766	0.192	0.0709	
120 minute summer	5	1.003	6	13.3	1.529	0.749	0.0219	
120 minute summer	6	1.004	Attenuation Tank	13.3	1.852	0.257	0.1169	
120 minute summer	7	3.000	9	6.6	1.146	0.116	0.0304	
120 minute summer	8	4.000	9	0.0	0.000	0.000	0.0218	
120 minute summer	9	3.001	10	7.5	1.052	0.421	0.0223	
120 minute summer	10	3.002	11	8.4	1.592	0.228	0.0130	
120 minute summer	11	3.003	Attenuation Tank	8.4	1.548	0.187	0.1398	
120 minute summer	Attenuation Tank	1.005	14	2.6	-0.128	0.036	0.2118	
120 minute summer	13	5.000	14	1.9	0.662	0.315	0.0199	
120 minute summer	14	Hydro-Brake®	15	2.6				
120 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	49.8
120 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	64	205.059	0.054	3.0	0.0776	0.0000	OK
120 minute winter	2	64	204.945	0.044	3.4	0.0519	0.0000	OK
120 minute winter	3	64	204.695	0.064	6.5	0.0874	0.0000	OK
120 minute winter	4	64	205.105	0.040	2.6	0.0555	0.0000	OK
120 minute winter	5	64	204.537	0.082	10.3	0.0994	0.0000	OK
120 minute winter	6	64	204.475	0.045	10.3	0.0000	0.0000	OK
120 minute winter	7	64	205.119	0.030	5.1	0.2349	0.0000	OK
120 minute winter	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute winter	9	64	204.630	0.064	5.8	0.1098	0.0000	OK
120 minute winter	10	64	204.581	0.046	6.5	0.0549	0.0000	OK
120 minute winter	11	64	204.415	0.039	6.5	0.0000	0.0000	OK
120 minute winter	Attenuation Tank	120	204.169	0.589	21.9	56.0840	0.0000	SURCHARGED
120 minute winter	13	64	205.215	0.035	1.5	0.0431	0.0000	OK
120 minute winter	14	120	204.169	0.601	2.9	0.7232	0.0000	SURCHARGED
120 minute winter	CMH01	308	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute winter	EXMH01	64	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute winter	15	308	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.0	0.735	0.497	0.0222	
120 minute winter	2	1.001	3	3.4	0.596	0.192	0.1546	
120 minute winter	3	1.002	5	6.5	0.768	0.366	0.1491	
120 minute winter	4	2.000	5	2.6	0.711	0.146	0.0584	
120 minute winter	5	1.003	6	10.3	1.448	0.580	0.0180	
120 minute winter	6	1.004	Attenuation Tank	10.3	1.851	0.199	0.1123	
120 minute winter	7	3.000	9	5.1	1.072	0.090	0.0252	
120 minute winter	8	4.000	9	0.0	0.000	0.000	0.0181	
120 minute winter	9	3.001	10	5.8	0.988	0.326	0.0185	
120 minute winter	10	3.002	11	6.5	1.492	0.177	0.0108	
120 minute winter	11	3.003	Attenuation Tank	6.5	1.544	0.145	0.1353	
120 minute winter	Attenuation Tank	1.005	14	2.6	-0.125	0.036	0.2118	
120 minute winter	13	5.000	14	1.5	0.622	0.248	0.0167	
120 minute winter	14	Hydro-Brake®	15	2.6				
120 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	49.3
120 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	96	205.060	0.055	3.1	0.0792	0.0000	OK
180 minute summer	2	96	204.946	0.045	3.5	0.0527	0.0000	OK
180 minute summer	3	96	204.695	0.064	6.6	0.0882	0.0000	OK
180 minute summer	4	96	205.105	0.040	2.7	0.0566	0.0000	OK
180 minute summer	5	96	204.538	0.083	10.5	0.1006	0.0000	OK
180 minute summer	6	96	204.476	0.046	10.5	0.0000	0.0000	OK
180 minute summer	7	96	205.120	0.031	5.2	0.2391	0.0000	OK
180 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute summer	9	96	204.631	0.065	5.9	0.1117	0.0000	OK
180 minute summer	10	96	204.582	0.046	6.6	0.0554	0.0000	OK
180 minute summer	11	96	204.415	0.039	6.6	0.0000	0.0000	OK
180 minute summer	Attenuation Tank	180	204.136	0.556	22.3	52.9468	0.0000	SURCHARGED
180 minute summer	13	96	205.215	0.035	1.5	0.0431	0.0000	OK
180 minute summer	14	180	204.136	0.568	2.9	0.6835	0.0000	SURCHARGED
180 minute summer	CMH01	348	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute summer	EXMH01	348	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute summer	15	348	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.1	0.741	0.513	0.0228	
180 minute summer	2	1.001	3	3.5	0.604	0.197	0.1570	
180 minute summer	3	1.002	5	6.6	0.769	0.372	0.1511	
180 minute summer	4	2.000	5	2.7	0.719	0.152	0.0600	
180 minute summer	5	1.003	6	10.5	1.454	0.591	0.0183	
180 minute summer	6	1.004	Attenuation Tank	10.5	1.620	0.203	0.1126	
180 minute summer	7	3.000	9	5.2	1.079	0.091	0.0256	
180 minute summer	8	4.000	9	0.0	0.000	0.000	0.0183	
180 minute summer	9	3.001	10	5.9	0.993	0.332	0.0187	
180 minute summer	10	3.002	11	6.6	1.498	0.180	0.0109	
180 minute summer	11	3.003	Attenuation Tank	6.6	1.446	0.148	0.1356	
180 minute summer	Attenuation Tank	1.005	14	2.6	0.106	0.036	0.2118	
180 minute summer	13	5.000	14	1.5	0.622	0.248	0.0167	
180 minute summer	14	Hydro-Brake®	15	2.6				
180 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	56.2
180 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	1	96	205.052	0.047	2.4	0.0678	0.0000	OK
180 minute winter	2	96	204.941	0.039	2.7	0.0462	0.0000	OK
180 minute winter	3	96	204.686	0.055	5.1	0.0759	0.0000	OK
180 minute winter	4	96	205.101	0.036	2.1	0.0497	0.0000	OK
180 minute winter	5	96	204.526	0.071	8.1	0.0862	0.0000	OK
180 minute winter	6	96	204.470	0.040	8.1	0.0000	0.0000	OK
180 minute winter	7	96	205.116	0.027	4.0	0.1890	0.0000	OK
180 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute winter	9	96	204.623	0.057	4.6	0.0874	0.0000	OK
180 minute winter	10	96	204.575	0.040	5.1	0.0481	0.0000	OK
180 minute winter	11	96	204.410	0.034	5.1	0.0000	0.0000	OK
180 minute winter	Attenuation Tank	180	204.234	0.654	17.2	62.3240	0.0000	SURCHARGED
180 minute winter	13	96	205.210	0.030	1.1	0.0333	0.0000	OK
180 minute winter	14	180	204.234	0.666	2.8	0.8021	0.0000	SURCHARGED
180 minute winter	CMH01	420	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute winter	EXMH01	420	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute winter	15	416	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.4	0.697	0.398	0.0188	
180 minute winter	2	1.001	3	2.7	0.567	0.152	0.1291	
180 minute winter	3	1.002	5	5.1	0.725	0.287	0.1240	
180 minute winter	4	2.000	5	2.1	0.670	0.118	0.0501	
180 minute winter	5	1.003	6	8.1	1.365	0.456	0.0151	
180 minute winter	6	1.004	Attenuation Tank	8.1	1.661	0.156	0.1087	
180 minute winter	7	3.000	9	4.0	1.000	0.070	0.0213	
180 minute winter	8	4.000	9	0.0	0.000	0.000	0.0152	
180 minute winter	9	3.001	10	4.6	0.936	0.259	0.0155	
180 minute winter	10	3.002	11	5.1	1.400	0.139	0.0090	
180 minute winter	11	3.003	Attenuation Tank	5.1	1.401	0.114	0.1317	
180 minute winter	Attenuation Tank	1.005	14	2.6	0.106	0.036	0.2118	
180 minute winter	13	5.000	14	1.1	0.573	0.182	0.0133	
180 minute winter	14	Hydro-Brake®	15	2.6				
180 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	54.5
180 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	124	205.055	0.050	2.7	0.0725	0.0000	OK
240 minute summer	2	124	204.943	0.042	3.1	0.0492	0.0000	OK
240 minute summer	3	124	204.691	0.060	5.9	0.0820	0.0000	OK
240 minute summer	4	124	205.103	0.038	2.4	0.0530	0.0000	OK
240 minute summer	5	124	204.531	0.076	9.2	0.0926	0.0000	OK
240 minute summer	6	124	204.473	0.043	9.2	0.0000	0.0000	OK
240 minute summer	7	124	205.118	0.029	4.6	0.2118	0.0000	OK
240 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute summer	9	124	204.627	0.061	5.2	0.0987	0.0000	OK
240 minute summer	10	124	204.578	0.043	5.8	0.0516	0.0000	OK
240 minute summer	11	124	204.413	0.037	5.8	0.0000	0.0000	OK
240 minute summer	Attenuation Tank	216	204.168	0.588	19.4	56.0105	0.0000	SURCHARGED
240 minute summer	13	124	205.213	0.033	1.3	0.0379	0.0000	OK
240 minute summer	14	216	204.168	0.600	2.9	0.7223	0.0000	SURCHARGED
240 minute summer	CMH01	428	203.525	0.034	2.6	0.0390	0.0000	OK
240 minute summer	EXMH01	428	202.255	0.024	2.6	0.0000	0.0000	OK
240 minute summer	15	428	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.7	0.716	0.444	0.0204	
240 minute summer	2	1.001	3	3.1	0.583	0.173	0.1425	
240 minute summer	3	1.002	5	5.8	0.750	0.328	0.1366	
240 minute summer	4	2.000	5	2.4	0.693	0.134	0.0548	
240 minute summer	5	1.003	6	9.2	1.408	0.516	0.0165	
240 minute summer	6	1.004	Attenuation Tank	9.1	1.494	0.177	0.1105	
240 minute summer	7	3.000	9	4.5	1.037	0.080	0.0233	
240 minute summer	8	4.000	9	0.0	0.000	0.000	0.0167	
240 minute summer	9	3.001	10	5.2	0.964	0.293	0.0170	
240 minute summer	10	3.002	11	5.8	1.448	0.158	0.0099	
240 minute summer	11	3.003	Attenuation Tank	5.8	1.408	0.129	0.1335	
240 minute summer	Attenuation Tank	1.005	14	2.6	0.122	0.036	0.2118	
240 minute summer	13	5.000	14	1.3	0.597	0.213	0.0149	
240 minute summer	14	Hydro-Brake®	15	2.6				
240 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	62.3
240 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	1	124	205.047	0.042	2.0	0.0609	0.0000	OK
240 minute winter	2	128	204.937	0.036	2.3	0.0426	0.0000	OK
240 minute winter	3	124	204.682	0.051	4.4	0.0698	0.0000	OK
240 minute winter	4	124	205.098	0.033	1.8	0.0458	0.0000	OK
240 minute winter	5	124	204.520	0.065	7.0	0.0791	0.0000	OK
240 minute winter	6	124	204.467	0.037	7.0	0.0000	0.0000	OK
240 minute winter	7	124	205.114	0.025	3.4	0.1627	0.0000	OK
240 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute winter	9	124	204.618	0.052	3.9	0.0741	0.0000	OK
240 minute winter	10	124	204.572	0.037	4.3	0.0438	0.0000	OK
240 minute winter	11	124	204.407	0.031	4.3	0.0000	0.0000	OK
240 minute winter	Attenuation Tank	232	204.273	0.693	14.6	65.9767	0.0000	SURCHARGED
240 minute winter	13	128	205.209	0.028	1.0	0.0309	0.0000	OK
240 minute winter	14	232	204.273	0.705	2.8	0.8482	0.0000	SURCHARGED
240 minute winter	CMH01	116	203.525	0.034	2.6	0.0390	0.0000	OK
240 minute winter	EXMH01	116	202.255	0.024	2.6	0.0000	0.0000	OK
240 minute winter	15	116	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.0	0.666	0.331	0.0164	
240 minute winter	2	1.001	3	2.3	0.546	0.130	0.1152	
240 minute winter	3	1.002	5	4.4	0.699	0.247	0.1107	
240 minute winter	4	2.000	5	1.8	0.640	0.101	0.0446	
240 minute winter	5	1.003	6	7.0	1.313	0.392	0.0135	
240 minute winter	6	1.004	Attenuation Tank	7.0	1.576	0.134	0.1067	
240 minute winter	7	3.000	9	3.4	0.959	0.059	0.0188	
240 minute winter	8	4.000	9	0.0	0.000	0.000	0.0134	
240 minute winter	9	3.001	10	3.9	0.897	0.218	0.0136	
240 minute winter	10	3.002	11	4.3	1.335	0.116	0.0079	
240 minute winter	11	3.003	Attenuation Tank	4.3	1.269	0.095	0.1294	
240 minute winter	Attenuation Tank	1.005	14	2.6	0.105	0.036	0.2118	
240 minute winter	13	5.000	14	1.0	0.558	0.166	0.0124	
240 minute winter	14	Hydro-Brake®	15	2.6				
240 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	60.8
240 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	184	205.049	0.044	2.2	0.0642	0.0000	OK
360 minute summer	2	184	204.939	0.038	2.5	0.0442	0.0000	OK
360 minute summer	3	184	204.683	0.052	4.7	0.0720	0.0000	OK
360 minute summer	4	184	205.099	0.034	1.9	0.0470	0.0000	OK
360 minute summer	5	184	204.522	0.067	7.3	0.0812	0.0000	OK
360 minute summer	6	184	204.468	0.038	7.3	0.0000	0.0000	OK
360 minute summer	7	184	205.115	0.026	3.6	0.1705	0.0000	OK
360 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute summer	9	184	204.619	0.053	4.1	0.0773	0.0000	OK
360 minute summer	10	184	204.573	0.038	4.5	0.0452	0.0000	OK
360 minute summer	11	184	204.408	0.032	4.5	0.0000	0.0000	OK
360 minute summer	Attenuation Tank	288	204.198	0.618	15.4	58.9033	0.0000	SURCHARGED
360 minute summer	13	184	205.208	0.028	1.0	0.0307	0.0000	OK
360 minute summer	14	288	204.198	0.630	2.8	0.7588	0.0000	SURCHARGED
360 minute summer	CMH01	560	203.525	0.034	2.6	0.0390	0.0000	OK
360 minute summer	EXMH01	560	202.255	0.024	2.6	0.0000	0.0000	OK
360 minute summer	15	560	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.2	0.681	0.362	0.0175	
360 minute summer	2	1.001	3	2.5	0.556	0.139	0.1206	
360 minute summer	3	1.002	5	4.6	0.711	0.261	0.1149	
360 minute summer	4	2.000	5	1.9	0.650	0.106	0.0463	
360 minute summer	5	1.003	6	7.3	1.329	0.410	0.0140	
360 minute summer	6	1.004	Attenuation Tank	7.3	1.566	0.141	0.1073	
360 minute summer	7	3.000	9	3.6	0.977	0.063	0.0194	
360 minute summer	8	4.000	9	0.0	0.000	0.000	0.0139	
360 minute summer	9	3.001	10	4.0	0.902	0.228	0.0141	
360 minute summer	10	3.002	11	4.5	1.357	0.123	0.0083	
360 minute summer	11	3.003	Attenuation Tank	4.5	1.012	0.101	0.1301	
360 minute summer	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
360 minute summer	13	5.000	14	1.0	0.557	0.164	0.0124	
360 minute summer	14	Hydro-Brake®	15	2.6				
360 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	74.4
360 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.88%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	184	205.042	0.037	1.6	0.0536	0.0000	OK
360 minute winter	2	184	204.933	0.032	1.8	0.0376	0.0000	OK
360 minute winter	3	184	204.675	0.044	3.4	0.0608	0.0000	OK
360 minute winter	4	184	205.094	0.029	1.4	0.0404	0.0000	OK
360 minute winter	5	184	204.512	0.057	5.4	0.0686	0.0000	OK
360 minute winter	6	184	204.463	0.033	5.4	0.0000	0.0000	OK
360 minute winter	7	184	205.111	0.022	2.7	0.1331	0.0000	OK
360 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute winter	9	184	204.612	0.046	3.1	0.0600	0.0000	OK
360 minute winter	10	184	204.568	0.032	3.4	0.0387	0.0000	OK
360 minute winter	11	184	204.404	0.028	3.4	0.0000	0.0000	OK
360 minute winter	Attenuation Tank	328	204.303	0.723	11.4	68.8457	0.0000	SURCHARGED
360 minute winter	13	184	205.205	0.025	0.8	0.0258	0.0000	OK
360 minute winter	14	328	204.303	0.735	2.7	0.8845	0.0000	SURCHARGED
360 minute winter	CMH01	168	203.525	0.034	2.6	0.0390	0.0000	OK
360 minute winter	EXMH01	168	202.255	0.024	2.6	0.0000	0.0000	OK
360 minute winter	15	168	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.6	0.628	0.264	0.0138	
360 minute winter	2	1.001	3	1.8	0.507	0.101	0.0957	
360 minute winter	3	1.002	5	3.4	0.652	0.191	0.0916	
360 minute winter	4	2.000	5	1.4	0.596	0.078	0.0374	
360 minute winter	5	1.003	6	5.4	1.225	0.302	0.0112	
360 minute winter	6	1.004	Attenuation Tank	5.4	1.550	0.104	0.1038	
360 minute winter	7	3.000	9	2.7	0.901	0.047	0.0159	
360 minute winter	8	4.000	9	0.0	0.000	0.000	0.0114	
360 minute winter	9	3.001	10	3.1	0.847	0.174	0.0115	
360 minute winter	10	3.002	11	3.4	1.254	0.092	0.0067	
360 minute winter	11	3.003	Attenuation Tank	3.4	1.095	0.076	0.1268	
360 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
360 minute winter	13	5.000	14	0.8	0.523	0.131	0.0105	
360 minute winter	14	Hydro-Brake®	15	2.6				
360 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	74.5
360 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	248	205.045	0.040	1.8	0.0574	0.0000	OK
480 minute summer	2	248	204.935	0.034	2.0	0.0397	0.0000	OK
480 minute summer	3	248	204.678	0.047	3.8	0.0646	0.0000	OK
480 minute summer	4	248	205.095	0.030	1.5	0.0419	0.0000	OK
480 minute summer	5	248	204.515	0.060	6.0	0.0729	0.0000	OK
480 minute summer	6	248	204.465	0.035	6.0	0.0000	0.0000	OK
480 minute summer	7	248	205.113	0.023	3.0	0.1464	0.0000	OK
480 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute summer	9	248	204.614	0.048	3.4	0.0656	0.0000	OK
480 minute summer	10	248	204.570	0.035	3.8	0.0411	0.0000	OK
480 minute summer	11	248	204.406	0.030	3.8	0.0000	0.0000	OK
480 minute summer	Attenuation Tank	360	204.211	0.631	12.8	60.0944	0.0000	SURCHARGED
480 minute summer	13	248	205.205	0.025	0.8	0.0259	0.0000	OK
480 minute summer	14	360	204.211	0.643	2.7	0.7739	0.0000	SURCHARGED
480 minute summer	CMH01	672	203.525	0.034	2.6	0.0390	0.0000	OK
480 minute summer	EXMH01	672	202.255	0.024	2.6	0.0000	0.0000	OK
480 minute summer	15	672	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.8	0.648	0.298	0.0151	
480 minute summer	2	1.001	3	2.0	0.523	0.113	0.1038	
480 minute summer	3	1.002	5	3.8	0.674	0.214	0.0994	
480 minute summer	4	2.000	5	1.5	0.609	0.084	0.0394	
480 minute summer	5	1.003	6	6.0	1.262	0.338	0.0121	
480 minute summer	6	1.004	Attenuation Tank	6.0	1.491	0.116	0.1050	
480 minute summer	7	3.000	9	3.0	0.933	0.053	0.0171	
480 minute summer	8	4.000	9	0.0	0.000	0.000	0.0122	
480 minute summer	9	3.001	10	3.4	0.864	0.192	0.0124	
480 minute summer	10	3.002	11	3.8	1.294	0.103	0.0073	
480 minute summer	11	3.003	Attenuation Tank	3.8	1.043	0.085	0.1280	
480 minute summer	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
480 minute summer	13	5.000	14	0.8	0.525	0.133	0.0106	
480 minute summer	14	Hydro-Brake®	15	2.6				
480 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	87.5
480 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	240	205.038	0.033	1.3	0.0479	0.0000	OK
480 minute winter	2	240	204.930	0.029	1.5	0.0344	0.0000	OK
480 minute winter	3	240	204.671	0.040	2.8	0.0552	0.0000	OK
480 minute winter	4	232	205.091	0.026	1.1	0.0359	0.0000	OK
480 minute winter	5	248	204.506	0.051	4.4	0.0617	0.0000	OK
480 minute winter	6	248	204.460	0.030	4.4	0.0000	0.0000	OK
480 minute winter	7	248	205.109	0.020	2.2	0.1120	0.0000	OK
480 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute winter	9	248	204.607	0.041	2.5	0.0496	0.0000	OK
480 minute winter	10	248	204.564	0.029	2.8	0.0351	0.0000	OK
480 minute winter	11	248	204.402	0.026	2.8	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	376	204.309	0.729	9.4	69.4318	0.0000	SURCHARGED
480 minute winter	13	224	205.202	0.022	0.6	0.0209	0.0000	OK
480 minute winter	14	376	204.309	0.741	2.7	0.8919	0.0000	SURCHARGED
480 minute winter	CMH01	224	203.525	0.034	2.6	0.0390	0.0000	OK
480 minute winter	EXMH01	224	202.255	0.024	2.6	0.0000	0.0000	OK
480 minute winter	15	224	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.3	0.595	0.215	0.0119	
480 minute winter	2	1.001	3	1.5	0.485	0.084	0.0839	
480 minute winter	3	1.002	5	2.8	0.621	0.158	0.0796	
480 minute winter	4	2.000	5	1.1	0.556	0.062	0.0316	
480 minute winter	5	1.003	6	4.4	1.160	0.248	0.0097	
480 minute winter	6	1.004	Attenuation Tank	4.4	1.317	0.085	0.1019	
480 minute winter	7	3.000	9	2.2	0.856	0.039	0.0137	
480 minute winter	8	4.000	9	0.0	0.000	0.000	0.0098	
480 minute winter	9	3.001	10	2.5	0.796	0.141	0.0099	
480 minute winter	10	3.002	11	2.8	1.190	0.076	0.0058	
480 minute winter	11	3.003	Attenuation Tank	2.8	1.071	0.063	0.1250	
480 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
480 minute winter	13	5.000	14	0.6	0.484	0.099	0.0086	
480 minute winter	14	Hydro-Brake®	15	2.6				
480 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	88.5
480 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	315	205.041	0.036	1.5	0.0518	0.0000	OK
600 minute summer	2	315	204.932	0.031	1.7	0.0366	0.0000	OK
600 minute summer	3	315	204.674	0.043	3.2	0.0591	0.0000	OK
600 minute summer	4	315	205.093	0.028	1.3	0.0390	0.0000	OK
600 minute summer	5	315	204.510	0.055	5.1	0.0667	0.0000	OK
600 minute summer	6	315	204.462	0.032	5.1	0.0000	0.0000	OK
600 minute summer	7	315	205.111	0.021	2.5	0.1249	0.0000	OK
600 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute summer	9	315	204.610	0.044	2.9	0.0567	0.0000	OK
600 minute summer	10	315	204.567	0.032	3.2	0.0376	0.0000	OK
600 minute summer	11	315	204.403	0.027	3.2	0.0000	0.0000	OK
600 minute summer	Attenuation Tank	435	204.218	0.638	10.8	60.7994	0.0000	SURCHARGED
600 minute summer	13	315	205.204	0.024	0.7	0.0234	0.0000	OK
600 minute summer	14	435	204.218	0.650	2.7	0.7828	0.0000	SURCHARGED
600 minute summer	CMH01	300	203.525	0.034	2.6	0.0390	0.0000	OK
600 minute summer	EXMH01	300	202.255	0.024	2.6	0.0000	0.0000	OK
600 minute summer	15	300	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.5	0.618	0.248	0.0132	
600 minute summer	2	1.001	3	1.7	0.501	0.096	0.0921	
600 minute summer	3	1.002	5	3.2	0.641	0.180	0.0881	
600 minute summer	4	2.000	5	1.3	0.584	0.073	0.0356	
600 minute summer	5	1.003	6	5.1	1.208	0.287	0.0108	
600 minute summer	6	1.004	Attenuation Tank	5.1	1.084	0.099	0.1033	
600 minute summer	7	3.000	9	2.5	0.878	0.044	0.0152	
600 minute summer	8	4.000	9	0.0	0.000	0.000	0.0109	
600 minute summer	9	3.001	10	2.9	0.832	0.163	0.0110	
600 minute summer	10	3.002	11	3.2	1.235	0.087	0.0064	
600 minute summer	11	3.003	Attenuation Tank	3.2	0.717	0.072	0.1263	
600 minute summer	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
600 minute summer	13	5.000	14	0.7	0.505	0.116	0.0096	
600 minute summer	14	Hydro-Brake®	15	2.6				
600 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	99.4
600 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	300	205.035	0.030	1.1	0.0438	0.0000	OK
600 minute winter	2	315	204.929	0.027	1.3	0.0321	0.0000	OK
600 minute winter	3	315	204.669	0.038	2.5	0.0522	0.0000	OK
600 minute winter	4	315	205.090	0.024	1.0	0.0343	0.0000	OK
600 minute winter	5	315	204.503	0.048	3.9	0.0580	0.0000	OK
600 minute winter	6	315	204.458	0.028	3.9	0.0000	0.0000	OK
600 minute winter	7	315	205.108	0.019	1.9	0.0989	0.0000	OK
600 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute winter	9	315	204.604	0.038	2.2	0.0443	0.0000	OK
600 minute winter	10	315	204.563	0.028	2.5	0.0331	0.0000	OK
600 minute winter	11	315	204.400	0.024	2.5	0.0000	0.0000	OK
600 minute winter	Attenuation Tank	465	204.308	0.727	8.3	69.3053	0.0000	SURCHARGED
600 minute winter	13	285	205.200	0.020	0.5	0.0183	0.0000	OK
600 minute winter	14	465	204.307	0.739	2.7	0.8903	0.0000	SURCHARGED
600 minute winter	CMH01	285	203.525	0.034	2.6	0.0390	0.0000	OK
600 minute winter	EXMH01	285	202.255	0.024	2.6	0.0000	0.0000	OK
600 minute winter	15	285	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.1	0.569	0.182	0.0105	
600 minute winter	2	1.001	3	1.3	0.460	0.073	0.0769	
600 minute winter	3	1.002	5	2.5	0.603	0.141	0.0732	
600 minute winter	4	2.000	5	1.0	0.541	0.056	0.0295	
600 minute winter	5	1.003	6	3.9	1.121	0.220	0.0089	
600 minute winter	6	1.004	Attenuation Tank	3.9	1.058	0.075	0.1009	
600 minute winter	7	3.000	9	1.9	0.814	0.033	0.0125	
600 minute winter	8	4.000	9	0.0	0.000	0.000	0.0089	
600 minute winter	9	3.001	10	2.2	0.766	0.124	0.0091	
600 minute winter	10	3.002	11	2.5	1.153	0.068	0.0054	
600 minute winter	11	3.003	Attenuation Tank	2.5	0.932	0.056	0.1240	
600 minute winter	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
600 minute winter	13	5.000	14	0.5	0.460	0.083	0.0075	
600 minute winter	14	Hydro-Brake®	15	2.6				
600 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	101.3
600 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	375	205.038	0.033	1.3	0.0479	0.0000	OK
720 minute summer	2	375	204.930	0.029	1.5	0.0344	0.0000	OK
720 minute summer	3	375	204.672	0.041	2.9	0.0562	0.0000	OK
720 minute summer	4	375	205.092	0.027	1.2	0.0375	0.0000	OK
720 minute summer	5	375	204.507	0.052	4.6	0.0632	0.0000	OK
720 minute summer	6	375	204.460	0.030	4.6	0.0000	0.0000	OK
720 minute summer	7	375	205.109	0.020	2.2	0.1120	0.0000	OK
720 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute summer	9	375	204.607	0.041	2.5	0.0496	0.0000	OK
720 minute summer	10	375	204.564	0.029	2.8	0.0351	0.0000	OK
720 minute summer	11	375	204.402	0.026	2.8	0.0000	0.0000	OK
720 minute summer	Attenuation Tank	510	204.194	0.614	9.6	58.4789	0.0000	SURCHARGED
720 minute summer	13	375	205.202	0.022	0.6	0.0209	0.0000	OK
720 minute summer	14	510	204.194	0.626	2.7	0.7535	0.0000	SURCHARGED
720 minute summer	CMH01	360	203.525	0.034	2.6	0.0390	0.0000	OK
720 minute summer	EXMH01	360	202.255	0.024	2.6	0.0000	0.0000	OK
720 minute summer	15	360	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.3	0.595	0.215	0.0119	
720 minute summer	2	1.001	3	1.5	0.478	0.084	0.0852	
720 minute summer	3	1.002	5	2.9	0.625	0.163	0.0819	
720 minute summer	4	2.000	5	1.2	0.571	0.068	0.0336	
720 minute summer	5	1.003	6	4.6	1.174	0.259	0.0100	
720 minute summer	6	1.004	Attenuation Tank	4.6	1.008	0.089	0.1023	
720 minute summer	7	3.000	9	2.2	0.856	0.039	0.0137	
720 minute summer	8	4.000	9	0.0	0.000	0.000	0.0098	
720 minute summer	9	3.001	10	2.5	0.796	0.141	0.0099	
720 minute summer	10	3.002	11	2.8	1.190	0.076	0.0058	
720 minute summer	11	3.003	Attenuation Tank	2.8	0.776	0.063	0.1250	
720 minute summer	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
720 minute summer	13	5.000	14	0.6	0.484	0.099	0.0086	
720 minute summer	14	Hydro-Brake®	15	2.6				
720 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	113.2
720 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	360	205.034	0.029	1.0	0.0416	0.0000	OK
720 minute winter	2	360	204.926	0.025	1.1	0.0296	0.0000	OK
720 minute winter	3	360	204.666	0.035	2.1	0.0478	0.0000	OK
720 minute winter	4	375	205.088	0.023	0.9	0.0325	0.0000	OK
720 minute winter	5	375	204.500	0.044	3.4	0.0540	0.0000	OK
720 minute winter	6	375	204.456	0.026	3.4	0.0000	0.0000	OK
720 minute winter	7	375	205.107	0.018	1.7	0.0901	0.0000	OK
720 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute winter	9	375	204.602	0.036	1.9	0.0389	0.0000	OK
720 minute winter	10	375	204.560	0.025	2.1	0.0303	0.0000	OK
720 minute winter	11	375	204.398	0.022	2.1	0.0000	0.0000	OK
720 minute winter	Attenuation Tank	540	204.284	0.704	7.2	67.0700	0.0000	SURCHARGED
720 minute winter	13	360	205.200	0.020	0.5	0.0183	0.0000	OK
720 minute winter	14	540	204.284	0.716	2.7	0.8620	0.0000	SURCHARGED
720 minute winter	CMH01	345	203.525	0.034	2.6	0.0390	0.0000	OK
720 minute winter	EXMH01	345	202.255	0.024	2.6	0.0000	0.0000	OK
720 minute winter	15	345	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.0	0.555	0.166	0.0098	
720 minute winter	2	1.001	3	1.1	0.439	0.062	0.0681	
720 minute winter	3	1.002	5	2.1	0.572	0.118	0.0656	
720 minute winter	4	2.000	5	0.9	0.526	0.051	0.0274	
720 minute winter	5	1.003	6	3.4	1.078	0.192	0.0081	
720 minute winter	6	1.004	Attenuation Tank	3.4	1.066	0.066	0.0999	
720 minute winter	7	3.000	9	1.7	0.803	0.030	0.0113	
720 minute winter	8	4.000	9	0.0	0.000	0.000	0.0080	
720 minute winter	9	3.001	10	1.9	0.742	0.107	0.0081	
720 minute winter	10	3.002	11	2.1	1.098	0.057	0.0047	
720 minute winter	11	3.003	Attenuation Tank	2.1	0.939	0.047	0.1227	
720 minute winter	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
720 minute winter	13	5.000	14	0.5	0.460	0.083	0.0075	
720 minute winter	14	Hydro-Brake®	15	2.6				
720 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	115.1
720 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.98%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	1	495	205.035	0.030	1.1	0.0438	0.0000	OK
960 minute summer	2	495	204.929	0.027	1.3	0.0321	0.0000	OK
960 minute summer	3	495	204.668	0.037	2.4	0.0511	0.0000	OK
960 minute summer	4	495	205.090	0.024	1.0	0.0343	0.0000	OK
960 minute summer	5	495	204.502	0.047	3.8	0.0572	0.0000	OK
960 minute summer	6	495	204.458	0.028	3.8	0.0000	0.0000	OK
960 minute summer	7	495	205.108	0.019	1.9	0.0989	0.0000	OK
960 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute summer	9	495	204.604	0.038	2.2	0.0443	0.0000	OK
960 minute summer	10	495	204.562	0.027	2.4	0.0324	0.0000	OK
960 minute summer	11	495	204.400	0.024	2.4	0.0000	0.0000	OK
960 minute summer	Attenuation Tank	645	204.181	0.601	8.1	57.2135	0.0000	SURCHARGED
960 minute summer	13	480	205.200	0.020	0.5	0.0183	0.0000	OK
960 minute summer	14	645	204.181	0.613	2.7	0.7375	0.0000	SURCHARGED
960 minute summer	CMH01	480	203.525	0.034	2.6	0.0390	0.0000	OK
960 minute summer	EXMH01	480	202.255	0.024	2.6	0.0000	0.0000	OK
960 minute summer	15	480	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.1	0.569	0.182	0.0105	
960 minute summer	2	1.001	3	1.3	0.467	0.073	0.0755	
960 minute summer	3	1.002	5	2.4	0.593	0.135	0.0715	
960 minute summer	4	2.000	5	1.0	0.541	0.056	0.0295	
960 minute summer	5	1.003	6	3.8	1.113	0.214	0.0087	
960 minute summer	6	1.004	Attenuation Tank	3.8	1.039	0.073	0.1007	
960 minute summer	7	3.000	9	1.9	0.814	0.033	0.0125	
960 minute summer	8	4.000	9	0.0	0.000	0.000	0.0089	
960 minute summer	9	3.001	10	2.2	0.776	0.124	0.0090	
960 minute summer	10	3.002	11	2.4	1.140	0.065	0.0052	
960 minute summer	11	3.003	Attenuation Tank	2.4	0.801	0.054	0.1237	
960 minute summer	Attenuation Tank	1.005	14	2.6	0.173	0.036	0.2118	
960 minute summer	13	5.000	14	0.5	0.460	0.083	0.0075	
960 minute summer	14	Hydro-Brake®	15	2.6				
960 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	134.0
960 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	465	205.031	0.026	0.8	0.0370	0.0000	OK
960 minute winter	2	465	204.924	0.023	0.9	0.0269	0.0000	OK
960 minute winter	3	465	204.662	0.031	1.7	0.0430	0.0000	OK
960 minute winter	4	465	205.086	0.021	0.7	0.0288	0.0000	OK
960 minute winter	5	465	204.495	0.040	2.7	0.0480	0.0000	OK
960 minute winter	6	465	204.453	0.023	2.7	0.0000	0.0000	OK
960 minute winter	7	480	205.105	0.016	1.4	0.0769	0.0000	OK
960 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute winter	9	480	204.599	0.033	1.6	0.0336	0.0000	OK
960 minute winter	10	480	204.559	0.024	1.8	0.0280	0.0000	OK
960 minute winter	11	480	204.397	0.021	1.8	0.0000	0.0000	OK
960 minute winter	Attenuation Tank	705	204.255	0.675	5.9	64.2741	0.0000	SURCHARGED
960 minute winter	13	450	205.198	0.018	0.4	0.0157	0.0000	OK
960 minute winter	14	705	204.255	0.687	2.7	0.8267	0.0000	SURCHARGED
960 minute winter	CMH01	465	203.525	0.034	2.6	0.0390	0.0000	OK
960 minute winter	EXMH01	465	202.255	0.024	2.6	0.0000	0.0000	OK
960 minute winter	15	465	203.579	0.041	2.6	0.0467	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	1	1.000	2	0.8	0.522	0.133	0.0084	
960 minute winter	2	1.001	3	0.9	0.416	0.051	0.0588	
960 minute winter	3	1.002	5	1.7	0.536	0.096	0.0560	
960 minute winter	4	2.000	5	0.7	0.488	0.039	0.0229	
960 minute winter	5	1.003	6	2.7	1.008	0.152	0.0068	
960 minute winter	6	1.004	Attenuation Tank	2.7	1.271	0.052	0.0983	
960 minute winter	7	3.000	9	1.4	0.752	0.025	0.0099	
960 minute winter	8	4.000	9	0.0	0.000	0.000	0.0071	
960 minute winter	9	3.001	10	1.6	0.705	0.090	0.0072	
960 minute winter	10	3.002	11	1.8	1.053	0.049	0.0042	
960 minute winter	11	3.003	Attenuation Tank	1.8	0.813	0.040	0.1216	
960 minute winter	Attenuation Tank	1.005	14	2.6	0.154	0.036	0.2118	
960 minute winter	13	5.000	14	0.4	0.431	0.066	0.0064	
960 minute winter	14	Hydro-Brake®	15	2.6				
960 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	141.4
960 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	750	205.031	0.026	0.8	0.0370	0.0000	OK
1440 minute summer	2	750	204.924	0.023	0.9	0.0269	0.0000	OK
1440 minute summer	3	750	204.663	0.032	1.8	0.0443	0.0000	OK
1440 minute summer	4	750	205.086	0.021	0.7	0.0288	0.0000	OK
1440 minute summer	5	750	204.495	0.040	2.8	0.0489	0.0000	OK
1440 minute summer	6	750	204.454	0.024	2.8	0.0000	0.0000	OK
1440 minute summer	7	750	205.105	0.016	1.4	0.0769	0.0000	OK
1440 minute summer	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	9	750	204.599	0.033	1.6	0.0336	0.0000	OK
1440 minute summer	10	750	204.559	0.024	1.8	0.0280	0.0000	OK
1440 minute summer	11	750	204.397	0.021	1.8	0.0000	0.0000	OK
1440 minute summer	Attenuation Tank	900	204.105	0.525	6.0	49.9805	0.0000	SURCHARGED
1440 minute summer	13	750	205.198	0.018	0.4	0.0157	0.0000	OK
1440 minute summer	14	900	204.105	0.537	2.7	0.6461	0.0000	SURCHARGED
1440 minute summer	CMH01	1200	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute summer	EXMH01	1200	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute summer	15	1200	203.579	0.041	2.6	0.0467	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	1	1.000	2	0.8	0.522	0.133	0.0084	
1440 minute summer	2	1.001	3	0.9	0.406	0.051	0.0602	
1440 minute summer	3	1.002	5	1.8	0.550	0.101	0.0578	
1440 minute summer	4	2.000	5	0.7	0.488	0.039	0.0229	
1440 minute summer	5	1.003	6	2.8	1.020	0.158	0.0070	
1440 minute summer	6	1.004	Attenuation Tank	2.8	0.837	0.054	0.0985	
1440 minute summer	7	3.000	9	1.4	0.752	0.025	0.0099	
1440 minute summer	8	4.000	9	0.0	0.000	0.000	0.0071	
1440 minute summer	9	3.001	10	1.6	0.705	0.090	0.0072	
1440 minute summer	10	3.002	11	1.8	1.053	0.049	0.0042	
1440 minute summer	11	3.003	Attenuation Tank	1.8	0.391	0.040	0.1216	
1440 minute summer	Attenuation Tank	1.005	14	2.6	0.152	0.036	0.2118	
1440 minute summer	13	5.000	14	0.4	0.431	0.066	0.0064	
1440 minute summer	14	Hydro-Brake®	15	2.6				
1440 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	151.2
1440 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 30 year +20% 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	1	690	205.027	0.022	0.6	0.0319	0.0000	OK
1440 minute winter	2	690	204.921	0.020	0.7	0.0238	0.0000	OK
1440 minute winter	3	690	204.659	0.027	1.3	0.0377	0.0000	OK
1440 minute winter	4	750	205.084	0.019	0.6	0.0267	0.0000	OK
1440 minute winter	5	750	204.490	0.035	2.1	0.0426	0.0000	OK
1440 minute winter	6	750	204.451	0.021	2.1	0.0000	0.0000	OK
1440 minute winter	7	750	205.104	0.015	1.1	0.0629	0.0000	OK
1440 minute winter	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	9	750	204.595	0.029	1.3	0.0283	0.0000	OK
1440 minute winter	10	750	204.556	0.021	1.4	0.0247	0.0000	OK
1440 minute winter	11	750	204.394	0.018	1.4	0.0000	0.0000	OK
1440 minute winter	Attenuation Tank	990	204.120	0.540	4.6	51.4002	0.0000	SURCHARGED
1440 minute winter	13	660	205.195	0.015	0.3	0.0129	0.0000	OK
1440 minute winter	14	990	204.120	0.551	2.6	0.6640	0.0000	SURCHARGED
1440 minute winter	CMH01	1290	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute winter	EXMH01	1290	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute winter	15	1290	203.579	0.041	2.6	0.0467	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	1	1.000	2	0.6	0.482	0.099	0.0068	
1440 minute winter	2	1.001	3	0.7	0.389	0.039	0.0489	
1440 minute winter	3	1.002	5	1.3	0.499	0.073	0.0469	
1440 minute winter	4	2.000	5	0.6	0.466	0.034	0.0206	
1440 minute winter	5	1.003	6	2.1	0.932	0.118	0.0058	
1440 minute winter	6	1.004	Attenuation Tank	2.1	1.131	0.041	0.0969	
1440 minute winter	7	3.000	9	1.1	0.695	0.019	0.0085	
1440 minute winter	8	4.000	9	0.0	0.000	0.000	0.0061	
1440 minute winter	9	3.001	10	1.3	0.674	0.073	0.0061	
1440 minute winter	10	3.002	11	1.4	0.979	0.038	0.0035	
1440 minute winter	11	3.003	Attenuation Tank	1.4	0.634	0.031	0.1201	
1440 minute winter	Attenuation Tank	1.005	14	2.5	0.152	0.036	0.2118	
1440 minute winter	13	5.000	14	0.3	0.397	0.050	0.0052	
1440 minute winter	14	Hydro-Brake®	15	2.6				
1440 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	173.2
1440 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 99.90%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1		11	205.174	0.169	8.6	0.2444	0.0000	SURCHARGED
15 minute summer	2		11	204.978	0.077	9.4	0.0903	0.0000	OK
15 minute summer	3		11	204.778	0.146	17.8	0.2012	0.0000	OK
15 minute summer	4		10	205.135	0.070	7.5	0.0985	0.0000	OK
15 minute summer	5		11	204.610	0.155	27.4	0.1877	0.0000	SURCHARGED
15 minute summer	6		11	204.507	0.077	27.2	0.0000	0.0000	OK
15 minute summer	7		11	205.140	0.051	14.5	0.6121	0.0000	OK
15 minute summer	8		1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute summer	9		11	204.685	0.119	16.0	0.3413	0.0000	OK
15 minute summer	10		11	204.618	0.083	17.6	0.0986	0.0000	OK
15 minute summer	11		11	204.441	0.065	17.6	0.0000	0.0000	OK
15 minute summer	Attenuation Tank		20	203.865	0.285	62.8	27.1493	0.0000	OK
15 minute summer	13		11	205.243	0.063	4.1	0.1118	0.0000	OK
15 minute summer	14		20	203.865	0.297	7.8	0.3575	0.0000	SURCHARGED
15 minute summer	CMH01		20	203.525	0.034	2.6	0.0390	0.0000	OK
15 minute summer	EXMH01		20	202.255	0.024	2.6	0.0000	0.0000	OK
15 minute summer	15		20	203.579	0.041	2.6	0.0467	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	1		1.000	2	8.3	1.057	1.368	0.0415	
15 minute summer	2		1.001	3	9.4	0.710	0.528	0.3590	
15 minute summer	3		1.002	5	17.6	1.010	0.990	0.3089	
15 minute summer	4		2.000	5	7.4	0.938	0.416	0.1259	
15 minute summer	5		1.003	6	27.2	1.934	1.531	0.0336	
15 minute summer	6		1.004	Attenuation Tank	27.2	2.743	0.526	0.1360	
15 minute summer	7		3.000	9	14.0	1.388	0.245	0.0522	
15 minute summer	8		4.000	9	0.0	0.000	0.000	0.0375	
15 minute summer	9		3.001	10	15.8	1.257	0.890	0.0390	
15 minute summer	10		3.002	11	17.6	1.902	0.478	0.0229	
15 minute summer	11		3.003	Attenuation Tank	17.5	2.055	0.393	0.1593	
15 minute summer	Attenuation Tank		1.005	14	-4.5	-0.342	-0.063	0.2097	
15 minute summer	13		5.000	14	4.0	0.790	0.658	0.0349	
15 minute summer	14		Hydro-Brake®	15	2.6				
15 minute summer	CMH01		1.008	EXMH01	2.6	1.406	0.056	0.0350	28.4
15 minute summer	15		1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 99.88%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	205.187	0.182	9.0	0.2633	0.0000	SURCHARGED
15 minute winter	2	11	204.980	0.079	9.8	0.0927	0.0000	OK
15 minute winter	3	11	204.820	0.189	18.6	0.2592	0.0000	SURCHARGED
15 minute winter	4	10	205.137	0.072	7.9	0.1013	0.0000	OK
15 minute winter	5	11	204.617	0.162	28.1	0.1968	0.0000	SURCHARGED
15 minute winter	6	11	204.508	0.078	27.9	0.0000	0.0000	OK
15 minute winter	7	11	205.141	0.052	15.2	0.6380	0.0000	OK
15 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.688	0.122	16.5	0.3611	0.0000	OK
15 minute winter	10	11	204.620	0.085	18.3	0.1013	0.0000	OK
15 minute winter	11	11	204.443	0.067	18.3	0.0000	0.0000	OK
15 minute winter	Attenuation Tank	20	203.902	0.322	64.9	30.6802	0.0000	SURCHARGED
15 minute winter	13	11	205.246	0.066	4.3	0.1185	0.0000	OK
15 minute winter	14	20	203.902	0.334	8.2	0.4021	0.0000	SURCHARGED
15 minute winter	CMH01	31	203.525	0.034	2.6	0.0390	0.0000	OK
15 minute winter	EXMH01	31	202.255	0.024	2.6	0.0000	0.0000	OK
15 minute winter	15	16	203.579	0.041	2.6	0.0467	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	1	1.000	2	8.6	1.098	1.422	0.0417	
15 minute winter	2	1.001	3	9.8	0.712	0.552	0.3647	
15 minute winter	3	1.002	5	17.7	1.027	0.996	0.3098	
15 minute winter	4	2.000	5	7.7	0.947	0.435	0.1303	
15 minute winter	5	1.003	6	27.9	1.942	1.572	0.0339	
15 minute winter	6	1.004	Attenuation Tank	27.9	2.858	0.538	0.1368	
15 minute winter	7	3.000	9	14.5	1.402	0.256	0.0537	
15 minute winter	8	4.000	9	0.0	0.000	0.000	0.0386	
15 minute winter	9	3.001	10	16.4	1.267	0.926	0.0402	
15 minute winter	10	3.002	11	18.3	1.920	0.499	0.0237	
15 minute winter	11	3.003	Attenuation Tank	18.3	2.138	0.410	0.1608	
15 minute winter	Attenuation Tank	1.005	14	-4.8	-0.431	-0.068	0.2118	
15 minute winter	13	5.000	14	4.2	0.797	0.691	0.0363	
15 minute winter	14	Hydro-Brake®	15	2.6				
15 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	31.3
15 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.84%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1		18	205.177	0.172	8.6	0.2499	0.0000	SURCHARGED
30 minute summer	2		18	204.979	0.078	9.5	0.0908	0.0000	OK
30 minute summer	3		19	204.808	0.177	18.3	0.2436	0.0000	SURCHARGED
30 minute summer	4		18	205.136	0.071	7.6	0.1000	0.0000	OK
30 minute summer	5		18	204.612	0.157	27.3	0.1905	0.0000	SURCHARGED
30 minute summer	6		18	204.508	0.078	27.4	0.0000	0.0000	OK
30 minute summer	7		18	205.140	0.051	14.6	0.6266	0.0000	OK
30 minute summer	8		1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute summer	9		19	204.686	0.120	16.4	0.3492	0.0000	OK
30 minute summer	10		19	204.619	0.083	17.8	0.0995	0.0000	OK
30 minute summer	11		19	204.442	0.066	17.9	0.0000	0.0000	OK
30 minute summer	Attenuation Tank		35	203.995	0.415	64.1	39.5361	0.0000	SURCHARGED
30 minute summer	13		18	205.246	0.065	4.2	0.1179	0.0000	OK
30 minute summer	14		35	203.995	0.427	8.1	0.5140	0.0000	SURCHARGED
30 minute summer	CMH01		105	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute summer	EXMH01		105	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute summer	15		104	203.579	0.041	2.6	0.0467	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	1		1.000	2	8.3	1.068	1.383	0.0416	
30 minute summer	2		1.001	3	9.5	0.711	0.533	0.3610	
30 minute summer	3		1.002	5	17.6	1.004	0.990	0.3098	
30 minute summer	4		2.000	5	7.6	0.945	0.428	0.1284	
30 minute summer	5		1.003	6	27.4	1.933	1.545	0.0337	
30 minute summer	6		1.004	Attenuation Tank	27.5	2.434	0.530	0.1363	
30 minute summer	7		3.000	9	14.3	1.389	0.251	0.0526	
30 minute summer	8		4.000	9	0.0	0.000	0.000	0.0380	
30 minute summer	9		3.001	10	16.1	1.265	0.907	0.0395	
30 minute summer	10		3.002	11	17.9	1.910	0.486	0.0232	
30 minute summer	11		3.003	Attenuation Tank	17.9	1.902	0.400	0.1600	
30 minute summer	Attenuation Tank		1.005	14	-4.5	-0.218	-0.064	0.2118	
30 minute summer	13		5.000	14	4.1	0.795	0.686	0.0361	
30 minute summer	14		Hydro-Brake®	15	2.6				
30 minute summer	CMH01		1.008	EXMH01	2.6	1.406	0.056	0.0350	38.1
30 minute summer	15		1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	205.153	0.148	7.8	0.2141	0.0000	SURCHARGED
30 minute winter	2	18	204.975	0.074	8.8	0.0866	0.0000	OK
30 minute winter	3	19	204.755	0.124	16.7	0.1704	0.0000	OK
30 minute winter	4	18	205.132	0.067	6.8	0.0937	0.0000	OK
30 minute winter	5	20	204.599	0.144	26.2	0.1743	0.0000	OK
30 minute winter	6	18	204.506	0.076	26.7	0.0000	0.0000	OK
30 minute winter	7	18	205.138	0.049	13.2	0.5722	0.0000	OK
30 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute winter	9	19	204.679	0.113	14.9	0.3120	0.0000	OK
30 minute winter	10	19	204.614	0.079	16.4	0.0944	0.0000	OK
30 minute winter	11	19	204.439	0.063	16.4	0.0000	0.0000	OK
30 minute winter	Attenuation Tank	34	204.049	0.469	59.9	44.6891	0.0000	SURCHARGED
30 minute winter	13	18	205.241	0.061	3.8	0.1056	0.0000	OK
30 minute winter	14	34	204.049	0.481	7.4	0.5792	0.0000	SURCHARGED
30 minute winter	CMH01	139	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute winter	EXMH01	139	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute winter	15	138	203.579	0.041	2.6	0.0467	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	1	1.000	2	7.7	0.984	1.274	0.0412	
30 minute winter	2	1.001	3	8.7	0.713	0.492	0.3267	
30 minute winter	3	1.002	5	16.5	0.998	0.929	0.2889	
30 minute winter	4	2.000	5	6.8	0.920	0.383	0.1182	
30 minute winter	5	1.003	6	26.7	1.944	1.503	0.0330	
30 minute winter	6	1.004	Attenuation Tank	26.6	2.552	0.514	0.1352	
30 minute winter	7	3.000	9	13.0	1.352	0.229	0.0496	
30 minute winter	8	4.000	9	0.0	0.000	0.000	0.0358	
30 minute winter	9	3.001	10	14.8	1.241	0.834	0.0371	
30 minute winter	10	3.002	11	16.4	1.875	0.447	0.0217	
30 minute winter	11	3.003	Attenuation Tank	16.4	1.963	0.368	0.1572	
30 minute winter	Attenuation Tank	1.005	14	-3.9	-0.262	-0.055	0.2118	
30 minute winter	13	5.000	14	3.8	0.780	0.625	0.0335	
30 minute winter	14	Hydro-Brake®	15	2.6				
30 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	39.3
30 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	33	205.134	0.129	7.2	0.1873	0.0000	SURCHARGED
60 minute summer	2	33	204.972	0.071	8.1	0.0827	0.0000	OK
60 minute summer	3	33	204.744	0.113	15.5	0.1554	0.0000	OK
60 minute summer	4	33	205.129	0.064	6.3	0.0896	0.0000	OK
60 minute summer	5	34	204.596	0.141	24.3	0.1710	0.0000	OK
60 minute summer	6	34	204.503	0.073	25.0	0.0000	0.0000	OK
60 minute summer	7	33	205.136	0.047	12.1	0.5255	0.0000	OK
60 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute summer	9	34	204.673	0.106	13.7	0.2786	0.0000	OK
60 minute summer	10	34	204.610	0.075	15.1	0.0894	0.0000	OK
60 minute summer	11	34	204.436	0.060	15.1	0.0000	0.0000	OK
60 minute summer	Attenuation Tank	64	204.143	0.563	54.8	53.6540	0.0000	SURCHARGED
60 minute summer	13	33	205.238	0.058	3.5	0.0964	0.0000	OK
60 minute summer	14	64	204.143	0.575	6.8	0.6925	0.0000	SURCHARGED
60 minute summer	CMH01	232	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute summer	EXMH01	232	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute summer	15	231	203.579	0.041	2.6	0.0467	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	1	1.000	2	7.1	0.914	1.178	0.0407	
60 minute summer	2	1.001	3	8.1	0.715	0.454	0.3022	
60 minute summer	3	1.002	5	15.2	0.960	0.859	0.2762	
60 minute summer	4	2.000	5	6.3	0.902	0.355	0.1116	
60 minute summer	5	1.003	6	25.0	1.867	1.406	0.0323	
60 minute summer	6	1.004	Attenuation Tank	24.7	2.214	0.476	0.1329	
60 minute summer	7	3.000	9	12.0	1.327	0.210	0.0467	
60 minute summer	8	4.000	9	0.0	0.000	0.000	0.0336	
60 minute summer	9	3.001	10	13.5	1.215	0.762	0.0347	
60 minute summer	10	3.002	11	15.1	1.838	0.410	0.0203	
60 minute summer	11	3.003	Attenuation Tank	15.1	1.784	0.338	0.1544	
60 minute summer	Attenuation Tank	1.005	14	-3.4	-0.166	-0.048	0.2118	
60 minute summer	13	5.000	14	3.5	0.767	0.576	0.0315	
60 minute summer	14	Hydro-Brake®	15	2.6				
60 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	42.7
60 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	33	205.095	0.090	5.8	0.1305	0.0000	OK
60 minute winter	2	33	204.964	0.063	6.6	0.0737	0.0000	OK
60 minute winter	3	33	204.725	0.094	12.6	0.1293	0.0000	OK
60 minute winter	4	33	205.122	0.057	5.1	0.0795	0.0000	OK
60 minute winter	5	33	204.589	0.134	20.0	0.1624	0.0000	OK
60 minute winter	6	33	204.495	0.065	20.2	0.0000	0.0000	OK
60 minute winter	7	33	205.131	0.042	9.8	0.4310	0.0000	OK
60 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute winter	9	34	204.660	0.094	11.2	0.2208	0.0000	OK
60 minute winter	10	34	204.602	0.067	12.4	0.0796	0.0000	OK
60 minute winter	11	34	204.430	0.054	12.4	0.0000	0.0000	OK
60 minute winter	Attenuation Tank	63	204.222	0.642	44.5	61.1988	0.0000	SURCHARGED
60 minute winter	13	34	205.231	0.051	2.8	0.0768	0.0000	OK
60 minute winter	14	63	204.222	0.654	5.5	0.7878	0.0000	SURCHARGED
60 minute winter	CMH01	290	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute winter	EXMH01	290	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute winter	15	290	203.579	0.041	2.6	0.0467	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	1	1.000	2	5.8	0.825	0.959	0.0380	
60 minute winter	2	1.001	3	6.6	0.708	0.371	0.2515	
60 minute winter	3	1.002	5	12.6	0.875	0.707	0.2482	
60 minute winter	4	2.000	5	5.1	0.854	0.287	0.0954	
60 minute winter	5	1.003	6	20.2	1.684	1.139	0.0300	
60 minute winter	6	1.004	Attenuation Tank	20.0	2.280	0.386	0.1264	
60 minute winter	7	3.000	9	9.8	1.258	0.171	0.0405	
60 minute winter	8	4.000	9	0.0	0.000	0.000	0.0292	
60 minute winter	9	3.001	10	11.1	1.159	0.627	0.0301	
60 minute winter	10	3.002	11	12.4	1.756	0.338	0.0176	
60 minute winter	11	3.003	Attenuation Tank	12.4	1.816	0.278	0.1489	
60 minute winter	Attenuation Tank	1.005	14	2.6	-0.196	0.036	0.2118	
60 minute winter	13	5.000	14	2.8	0.729	0.464	0.0266	
60 minute winter	14	Hydro-Brake®	15	2.6				
60 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	41.3
60 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	1	64	205.080	0.075	4.9	0.1091	0.0000	OK
120 minute summer	2	64	204.959	0.058	5.6	0.0675	0.0000	OK
120 minute summer	3	64	204.716	0.085	10.6	0.1164	0.0000	OK
120 minute summer	4	64	205.117	0.052	4.3	0.0724	0.0000	OK
120 minute summer	5	64	204.571	0.116	16.8	0.1407	0.0000	OK
120 minute summer	6	64	204.489	0.059	16.8	0.0000	0.0000	OK
120 minute summer	7	64	205.128	0.038	8.2	0.3646	0.0000	OK
120 minute summer	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute summer	9	64	204.651	0.085	9.4	0.1817	0.0000	OK
120 minute summer	10	64	204.595	0.060	10.5	0.0718	0.0000	OK
120 minute summer	11	64	204.425	0.049	10.5	0.0000	0.0000	OK
120 minute summer	Attenuation Tank	124	204.251	0.671	36.9	63.9063	0.0000	SURCHARGED
120 minute summer	13	64	205.225	0.045	2.3	0.0634	0.0000	OK
120 minute summer	14	124	204.251	0.683	4.5	0.8221	0.0000	SURCHARGED
120 minute summer	CMH01	62	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute summer	EXMH01	62	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute summer	15	62	203.579	0.041	2.6	0.0467	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	1	1.000	2	4.9	0.814	0.812	0.0327	
120 minute summer	2	1.001	3	5.6	0.680	0.315	0.2224	
120 minute summer	3	1.002	5	10.6	0.847	0.597	0.2187	
120 minute summer	4	2.000	5	4.3	0.816	0.242	0.0842	
120 minute summer	5	1.003	6	16.8	1.578	0.946	0.0264	
120 minute summer	6	1.004	Attenuation Tank	16.8	1.978	0.324	0.1220	
120 minute summer	7	3.000	9	8.2	1.203	0.144	0.0357	
120 minute summer	8	4.000	9	0.0	0.000	0.000	0.0257	
120 minute summer	9	3.001	10	9.4	1.112	0.527	0.0264	
120 minute summer	10	3.002	11	10.5	1.683	0.285	0.0154	
120 minute summer	11	3.003	Attenuation Tank	10.5	1.606	0.234	0.1446	
120 minute summer	Attenuation Tank	1.005	14	2.6	-0.118	0.036	0.2118	
120 minute summer	13	5.000	14	2.3	0.695	0.381	0.0230	
120 minute summer	14	Hydro-Brake®	15	2.6				
120 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	47.2
120 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	64	205.067	0.062	3.8	0.0905	0.0000	OK
120 minute winter	2	64	204.951	0.050	4.3	0.0587	0.0000	OK
120 minute winter	3	64	204.704	0.073	8.1	0.0996	0.0000	OK
120 minute winter	4	64	205.110	0.045	3.3	0.0629	0.0000	OK
120 minute winter	5	64	204.550	0.095	12.9	0.1149	0.0000	OK
120 minute winter	6	64	204.481	0.051	12.9	0.0000	0.0000	OK
120 minute winter	7	64	205.123	0.034	6.3	0.2852	0.0000	OK
120 minute winter	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute winter	9	64	204.639	0.073	7.2	0.1369	0.0000	OK
120 minute winter	10	64	204.587	0.052	8.0	0.0616	0.0000	OK
120 minute winter	11	64	204.419	0.043	8.0	0.0000	0.0000	OK
120 minute winter	Attenuation Tank	122	204.345	0.765	27.8	72.8709	0.0000	SURCHARGED
120 minute winter	13	66	205.219	0.039	1.8	0.0506	0.0000	OK
120 minute winter	14	122	204.345	0.777	3.5	0.9353	0.0000	SURCHARGED
120 minute winter	CMH01	58	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute winter	EXMH01	58	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute winter	15	58	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.8	0.775	0.629	0.0267	
120 minute winter	2	1.001	3	4.3	0.635	0.242	0.1832	
120 minute winter	3	1.002	5	8.1	0.805	0.456	0.1772	
120 minute winter	4	2.000	5	3.3	0.760	0.186	0.0694	
120 minute winter	5	1.003	6	12.9	1.520	0.727	0.0214	
120 minute winter	6	1.004	Attenuation Tank	12.9	1.982	0.249	0.1163	
120 minute winter	7	3.000	9	6.3	1.129	0.111	0.0295	
120 minute winter	8	4.000	9	0.0	0.000	0.000	0.0212	
120 minute winter	9	3.001	10	7.2	1.045	0.405	0.0216	
120 minute winter	10	3.002	11	8.0	1.574	0.217	0.0126	
120 minute winter	11	3.003	Attenuation Tank	8.0	1.589	0.179	0.1389	
120 minute winter	Attenuation Tank	1.005	14	2.5	-0.143	0.036	0.2118	
120 minute winter	13	5.000	14	1.8	0.653	0.298	0.0191	
120 minute winter	14	Hydro-Brake®	15	2.6				
120 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	46.5
120 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	1	96	205.067	0.062	3.8	0.0905	0.0000	OK
180 minute summer	2	96	204.951	0.050	4.3	0.0587	0.0000	OK
180 minute summer	3	96	204.704	0.073	8.1	0.0996	0.0000	OK
180 minute summer	4	96	205.110	0.045	3.3	0.0629	0.0000	OK
180 minute summer	5	96	204.550	0.095	12.9	0.1149	0.0000	OK
180 minute summer	6	96	204.481	0.051	12.9	0.0000	0.0000	OK
180 minute summer	7	96	205.123	0.034	6.3	0.2853	0.0000	OK
180 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute summer	9	96	204.639	0.073	7.2	0.1370	0.0000	OK
180 minute summer	10	96	204.587	0.052	8.0	0.0616	0.0000	OK
180 minute summer	11	96	204.419	0.043	8.0	0.0000	0.0000	OK
180 minute summer	Attenuation Tank	184	204.310	0.730	27.8	69.5626	0.0000	SURCHARGED
180 minute summer	13	96	205.219	0.039	1.8	0.0506	0.0000	OK
180 minute summer	14	184	204.310	0.742	3.5	0.8935	0.0000	SURCHARGED
180 minute summer	CMH01	92	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute summer	EXMH01	92	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute summer	15	92	203.579	0.041	2.6	0.0466	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	1	1.000	2	3.8	0.775	0.629	0.0267	
180 minute summer	2	1.001	3	4.3	0.635	0.242	0.1832	
180 minute summer	3	1.002	5	8.1	0.803	0.456	0.1772	
180 minute summer	4	2.000	5	3.3	0.760	0.186	0.0694	
180 minute summer	5	1.003	6	12.9	1.521	0.727	0.0214	
180 minute summer	6	1.004	Attenuation Tank	12.9	1.668	0.249	0.1163	
180 minute summer	7	3.000	9	6.3	1.129	0.111	0.0295	
180 minute summer	8	4.000	9	0.0	0.000	0.000	0.0212	
180 minute summer	9	3.001	10	7.2	1.046	0.406	0.0216	
180 minute summer	10	3.002	11	8.0	1.574	0.218	0.0126	
180 minute summer	11	3.003	Attenuation Tank	8.0	1.528	0.179	0.1390	
180 minute summer	Attenuation Tank	1.005	14	2.5	-0.122	0.036	0.2118	
180 minute summer	13	5.000	14	1.8	0.653	0.298	0.0191	
180 minute summer	14	Hydro-Brake®	15	2.6				
180 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	53.3
180 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +20% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	1	96	205.057	0.052	2.9	0.0760	0.0000	OK
180 minute winter	2	96	204.945	0.044	3.3	0.0511	0.0000	OK
180 minute winter	3	96	204.694	0.062	6.3	0.0859	0.0000	OK
180 minute winter	4	96	205.104	0.039	2.5	0.0544	0.0000	OK
180 minute winter	5	96	204.535	0.080	9.9	0.0970	0.0000	OK
180 minute winter	6	96	204.475	0.045	9.9	0.0000	0.0000	OK
180 minute winter	7	96	205.119	0.030	4.9	0.2266	0.0000	OK
180 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute winter	9	96	204.629	0.063	5.6	0.1060	0.0000	OK
180 minute winter	10	96	204.580	0.045	6.2	0.0535	0.0000	OK
180 minute winter	11	96	204.414	0.038	6.2	0.0000	0.0000	OK
180 minute winter	Attenuation Tank	180	204.413	0.833	21.0	79.3973	0.0000	SURCHARGED
180 minute winter	13	96	205.214	0.034	1.4	0.0407	0.0000	OK
180 minute winter	14	180	204.413	0.845	2.8	1.0178	0.0000	SURCHARGED
180 minute winter	CMH01	84	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute winter	EXMH01	84	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute winter	15	84	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.9	0.729	0.480	0.0216	
180 minute winter	2	1.001	3	3.3	0.593	0.186	0.1511	
180 minute winter	3	1.002	5	6.3	0.765	0.355	0.1450	
180 minute winter	4	2.000	5	2.5	0.704	0.141	0.0568	
180 minute winter	5	1.003	6	9.9	1.435	0.558	0.0175	
180 minute winter	6	1.004	Attenuation Tank	9.9	1.798	0.191	0.1117	
180 minute winter	7	3.000	9	4.9	1.059	0.086	0.0246	
180 minute winter	8	4.000	9	0.0	0.000	0.000	0.0176	
180 minute winter	9	3.001	10	5.6	0.984	0.315	0.0179	
180 minute winter	10	3.002	11	6.2	1.474	0.169	0.0104	
180 minute winter	11	3.003	Attenuation Tank	6.2	1.396	0.139	0.1345	
180 minute winter	Attenuation Tank	1.005	14	2.4	-0.117	0.034	0.2118	
180 minute winter	13	5.000	14	1.4	0.611	0.232	0.0159	
180 minute winter	14	Hydro-Brake®	15	2.6				
180 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	53.4
180 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	1	124	205.062	0.057	3.3	0.0822	0.0000	OK
240 minute summer	2	124	204.948	0.047	3.8	0.0547	0.0000	OK
240 minute summer	3	124	204.698	0.067	7.1	0.0915	0.0000	OK
240 minute summer	4	124	205.107	0.042	2.9	0.0585	0.0000	OK
240 minute summer	5	124	204.541	0.086	11.2	0.1044	0.0000	OK
240 minute summer	6	124	204.477	0.047	11.1	0.0000	0.0000	OK
240 minute summer	7	124	205.120	0.031	5.5	0.2495	0.0000	OK
240 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute summer	9	124	204.633	0.067	6.2	0.1176	0.0000	OK
240 minute summer	10	124	204.583	0.048	6.9	0.0567	0.0000	OK
240 minute summer	11	124	204.416	0.040	6.9	0.0000	0.0000	OK
240 minute summer	Attenuation Tank	240	204.339	0.759	23.7	72.3143	0.0000	SURCHARGED
240 minute summer	13	124	205.217	0.037	1.6	0.0453	0.0000	OK
240 minute summer	14	240	204.339	0.771	3.1	0.9283	0.0000	SURCHARGED
240 minute summer	CMH01	116	203.525	0.034	2.6	0.0390	0.0000	OK
240 minute summer	EXMH01	116	202.255	0.024	2.6	0.0000	0.0000	OK
240 minute summer	15	116	203.579	0.041	2.6	0.0466	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	1	1.000	2	3.3	0.750	0.544	0.0238	
240 minute summer	2	1.001	3	3.8	0.617	0.212	0.1649	
240 minute summer	3	1.002	5	7.0	0.778	0.394	0.1583	
240 minute summer	4	2.000	5	2.9	0.731	0.162	0.0629	
240 minute summer	5	1.003	6	11.1	1.474	0.627	0.0191	
240 minute summer	6	1.004	Attenuation Tank	11.1	1.620	0.215	0.1136	
240 minute summer	7	3.000	9	5.4	1.089	0.096	0.0265	
240 minute summer	8	4.000	9	0.0	0.000	0.000	0.0190	
240 minute summer	9	3.001	10	6.2	1.007	0.350	0.0194	
240 minute summer	10	3.002	11	6.9	1.515	0.188	0.0113	
240 minute summer	11	3.003	Attenuation Tank	6.9	1.446	0.154	0.1363	
240 minute summer	Attenuation Tank	1.005	14	2.5	0.106	0.036	0.2118	
240 minute summer	13	5.000	14	1.6	0.632	0.263	0.0174	
240 minute summer	14	Hydro-Brake®	15	2.6				
240 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	60.1
240 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	1	124	205.052	0.047	2.4	0.0678	0.0000	OK
240 minute winter	2	128	204.941	0.039	2.7	0.0462	0.0000	OK
240 minute winter	3	128	204.687	0.056	5.2	0.0768	0.0000	OK
240 minute winter	4	124	205.101	0.036	2.1	0.0497	0.0000	OK
240 minute winter	5	128	204.527	0.072	8.2	0.0868	0.0000	OK
240 minute winter	6	128	204.470	0.040	8.2	0.0000	0.0000	OK
240 minute winter	7	128	205.116	0.027	4.1	0.1931	0.0000	OK
240 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute winter	9	128	204.623	0.057	4.7	0.0892	0.0000	OK
240 minute winter	10	128	204.576	0.041	5.2	0.0486	0.0000	OK
240 minute winter	11	236	204.454	0.078	5.2	0.0000	0.0000	OK
240 minute winter	Attenuation Tank	236	204.454	0.874	17.5	83.2415	0.0000	SURCHARGED
240 minute winter	13	128	205.211	0.031	1.2	0.0358	0.0000	OK
240 minute winter	14	236	204.454	0.886	2.8	1.0664	0.0000	SURCHARGED
240 minute winter	CMH01	108	203.525	0.034	2.6	0.0390	0.0000	OK
240 minute winter	EXMH01	108	202.255	0.024	2.6	0.0000	0.0000	OK
240 minute winter	15	108	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.4	0.697	0.398	0.0188	
240 minute winter	2	1.001	3	2.7	0.562	0.152	0.1303	
240 minute winter	3	1.002	5	5.2	0.731	0.293	0.1254	
240 minute winter	4	2.000	5	2.1	0.670	0.118	0.0501	
240 minute winter	5	1.003	6	8.2	1.370	0.462	0.0152	
240 minute winter	6	1.004	Attenuation Tank	8.2	1.504	0.158	0.1089	
240 minute winter	7	3.000	9	4.1	1.009	0.072	0.0216	
240 minute winter	8	4.000	9	0.0	0.000	0.000	0.0155	
240 minute winter	9	3.001	10	4.7	0.942	0.265	0.0157	
240 minute winter	10	3.002	11	5.2	1.408	0.141	0.0092	
240 minute winter	11	3.003	Attenuation Tank	5.2	1.370	0.116	0.1710	
240 minute winter	Attenuation Tank	1.005	14	2.4	0.106	0.034	0.2118	
240 minute winter	13	5.000	14	1.2	0.587	0.199	0.0142	
240 minute winter	14	Hydro-Brake®	15	2.6				
240 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	61.1
240 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	1	184	205.054	0.049	2.6	0.0708	0.0000	OK
360 minute summer	2	184	204.942	0.041	3.0	0.0484	0.0000	OK
360 minute summer	3	184	204.689	0.058	5.6	0.0794	0.0000	OK
360 minute summer	4	184	205.102	0.037	2.3	0.0519	0.0000	OK
360 minute summer	5	184	204.529	0.074	8.8	0.0902	0.0000	OK
360 minute summer	6	184	204.472	0.042	8.8	0.0000	0.0000	OK
360 minute summer	7	184	205.117	0.028	4.4	0.2034	0.0000	OK
360 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute summer	9	184	204.625	0.059	4.9	0.0932	0.0000	OK
360 minute summer	10	184	204.577	0.042	5.5	0.0501	0.0000	OK
360 minute summer	11	184	204.412	0.036	5.5	0.0000	0.0000	OK
360 minute summer	Attenuation Tank	304	204.366	0.786	18.6	74.8661	0.0000	SURCHARGED
360 minute summer	13	184	205.211	0.031	1.2	0.0356	0.0000	OK
360 minute summer	14	304	204.366	0.798	2.8	0.9606	0.0000	SURCHARGED
360 minute summer	CMH01	176	203.525	0.034	2.6	0.0390	0.0000	OK
360 minute summer	EXMH01	176	202.255	0.024	2.6	0.0000	0.0000	OK
360 minute summer	15	176	203.579	0.041	2.6	0.0466	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	1	1.000	2	2.6	0.709	0.428	0.0198	
360 minute summer	2	1.001	3	3.0	0.583	0.167	0.1375	
360 minute summer	3	1.002	5	5.5	0.738	0.310	0.1316	
360 minute summer	4	2.000	5	2.3	0.686	0.129	0.0532	
360 minute summer	5	1.003	6	8.8	1.393	0.493	0.0160	
360 minute summer	6	1.004	Attenuation Tank	8.7	1.460	0.169	0.1098	
360 minute summer	7	3.000	9	4.3	1.032	0.076	0.0224	
360 minute summer	8	4.000	9	0.0	0.000	0.000	0.0160	
360 minute summer	9	3.001	10	4.9	0.948	0.277	0.0163	
360 minute summer	10	3.002	11	5.5	1.428	0.150	0.0096	
360 minute summer	11	3.003	Attenuation Tank	5.5	1.170	0.123	0.1327	
360 minute summer	Attenuation Tank	1.005	14	2.5	0.125	0.035	0.2118	
360 minute summer	13	5.000	14	1.2	0.585	0.198	0.0141	
360 minute summer	14	Hydro-Brake®	15	2.6				
360 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	74.0
360 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +20% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	184	205.046	0.041	1.9	0.0591	0.0000	OK
360 minute winter	2	184	204.937	0.036	2.2	0.0416	0.0000	OK
360 minute winter	3	184	204.680	0.049	4.1	0.0671	0.0000	OK
360 minute winter	4	184	205.097	0.032	1.7	0.0446	0.0000	OK
360 minute winter	5	184	204.518	0.063	6.5	0.0760	0.0000	OK
360 minute winter	6	336	204.496	0.066	6.5	0.0000	0.0000	OK
360 minute winter	7	184	205.113	0.024	3.2	0.1545	0.0000	OK
360 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute winter	9	184	204.616	0.050	3.7	0.0707	0.0000	OK
360 minute winter	10	184	204.571	0.036	4.1	0.0427	0.0000	OK
360 minute winter	11	336	204.491	0.115	4.1	0.0000	0.0000	OK
360 minute winter	Attenuation Tank	336	204.491	0.911	13.7	86.7580	0.0000	SURCHARGED
360 minute winter	13	184	205.207	0.027	0.9	0.0284	0.0000	OK
360 minute winter	14	336	204.491	0.923	2.7	1.1108	0.0000	SURCHARGED
360 minute winter	CMH01	160	203.525	0.034	2.6	0.0390	0.0000	OK
360 minute winter	EXMH01	160	202.255	0.024	2.6	0.0000	0.0000	OK
360 minute winter	15	160	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.9	0.657	0.314	0.0157	
360 minute winter	2	1.001	3	2.2	0.540	0.123	0.1099	
360 minute winter	3	1.002	5	4.1	0.687	0.230	0.1049	
360 minute winter	4	2.000	5	1.7	0.630	0.095	0.0429	
360 minute winter	5	1.003	6	6.5	1.288	0.365	0.0130	
360 minute winter	6	1.004	Attenuation Tank	6.5	1.619	0.125	0.1275	
360 minute winter	7	3.000	9	3.2	0.943	0.056	0.0181	
360 minute winter	8	4.000	9	0.0	0.000	0.000	0.0130	
360 minute winter	9	3.001	10	3.7	0.884	0.207	0.0131	
360 minute winter	10	3.002	11	4.1	1.319	0.111	0.0094	
360 minute winter	11	3.003	Attenuation Tank	4.1	1.082	0.091	0.2047	
360 minute winter	Attenuation Tank	1.005	14	2.4	0.105	0.035	0.2118	
360 minute winter	13	5.000	14	0.9	0.542	0.149	0.0115	
360 minute winter	14	Hydro-Brake®	15	2.6				
360 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	76.4
360 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	248	205.048	0.043	2.1	0.0627	0.0000	OK
480 minute summer	2	248	204.938	0.037	2.4	0.0435	0.0000	OK
480 minute summer	3	248	204.683	0.051	4.5	0.0707	0.0000	OK
480 minute summer	4	248	205.098	0.033	1.8	0.0459	0.0000	OK
480 minute summer	5	248	204.521	0.066	7.1	0.0800	0.0000	OK
480 minute summer	6	248	204.468	0.038	7.1	0.0000	0.0000	OK
480 minute summer	7	248	205.114	0.025	3.5	0.1678	0.0000	OK
480 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute summer	9	248	204.618	0.052	4.0	0.0764	0.0000	OK
480 minute summer	10	248	204.573	0.038	4.5	0.0450	0.0000	OK
480 minute summer	11	248	204.408	0.032	4.5	0.0000	0.0000	OK
480 minute summer	Attenuation Tank	368	204.374	0.794	15.1	75.6507	0.0000	SURCHARGED
480 minute summer	13	248	205.209	0.028	1.0	0.0309	0.0000	OK
480 minute summer	14	368	204.374	0.806	2.8	0.9705	0.0000	SURCHARGED
480 minute summer	CMH01	232	203.525	0.034	2.6	0.0390	0.0000	OK
480 minute summer	EXMH01	232	202.255	0.024	2.6	0.0000	0.0000	OK
480 minute summer	15	232	203.579	0.041	2.6	0.0467	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	1	1.000	2	2.1	0.674	0.348	0.0170	
480 minute summer	2	1.001	3	2.4	0.552	0.135	0.1179	
480 minute summer	3	1.002	5	4.5	0.705	0.253	0.1125	
480 minute summer	4	2.000	5	1.8	0.642	0.101	0.0448	
480 minute summer	5	1.003	6	7.1	1.320	0.400	0.0137	
480 minute summer	6	1.004	Attenuation Tank	7.1	1.566	0.137	0.1070	
480 minute summer	7	3.000	9	3.5	0.968	0.062	0.0193	
480 minute summer	8	4.000	9	0.0	0.000	0.000	0.0138	
480 minute summer	9	3.001	10	4.0	0.899	0.225	0.0140	
480 minute summer	10	3.002	11	4.5	1.354	0.122	0.0082	
480 minute summer	11	3.003	Attenuation Tank	4.5	1.012	0.101	0.1300	
480 minute summer	Attenuation Tank	1.005	14	2.5	0.125	0.036	0.2118	
480 minute summer	13	5.000	14	1.0	0.558	0.166	0.0124	
480 minute summer	14	Hydro-Brake®	15	2.6				
480 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	87.8
480 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	240	205.041	0.036	1.5	0.0518	0.0000	OK
480 minute winter	2	240	204.932	0.031	1.7	0.0366	0.0000	OK
480 minute winter	3	248	204.675	0.044	3.3	0.0601	0.0000	OK
480 minute winter	4	248	205.094	0.029	1.4	0.0405	0.0000	OK
480 minute winter	5	248	204.511	0.056	5.3	0.0681	0.0000	OK
480 minute winter	6	392	204.500	0.070	5.3	0.0000	0.0000	OK
480 minute winter	7	248	205.111	0.022	2.6	0.1292	0.0000	OK
480 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute winter	9	248	204.611	0.045	3.0	0.0584	0.0000	OK
480 minute winter	10	248	204.567	0.032	3.3	0.0382	0.0000	OK
480 minute winter	11	384	204.496	0.120	3.3	0.0000	0.0000	OK
480 minute winter	Attenuation Tank	384	204.496	0.916	11.2	87.2626	0.0000	SURCHARGED
480 minute winter	13	224	205.204	0.024	0.7	0.0234	0.0000	OK
480 minute winter	14	384	204.496	0.928	2.7	1.1172	0.0000	SURCHARGED
480 minute winter	CMH01	208	203.525	0.034	2.6	0.0390	0.0000	OK
480 minute winter	EXMH01	208	202.255	0.024	2.6	0.0000	0.0000	OK
480 minute winter	15	208	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.5	0.618	0.248	0.0132	
480 minute winter	2	1.001	3	1.7	0.501	0.096	0.0933	
480 minute winter	3	1.002	5	3.3	0.644	0.186	0.0904	
480 minute winter	4	2.000	5	1.4	0.597	0.079	0.0375	
480 minute winter	5	1.003	6	5.3	1.221	0.299	0.0145	
480 minute winter	6	1.004	Attenuation Tank	5.3	1.378	0.102	0.1303	
480 minute winter	7	3.000	9	2.6	0.890	0.046	0.0156	
480 minute winter	8	4.000	9	0.0	0.000	0.000	0.0112	
480 minute winter	9	3.001	10	3.0	0.840	0.169	0.0113	
480 minute winter	10	3.002	11	3.3	1.245	0.090	0.0103	
480 minute winter	11	3.003	Attenuation Tank	3.3	1.070	0.074	0.2088	
480 minute winter	Attenuation Tank	1.005	14	2.4	0.126	0.034	0.2118	
480 minute winter	13	5.000	14	0.7	0.505	0.116	0.0096	
480 minute winter	14	Hydro-Brake®	15	2.6				
480 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	91.2
480 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	315	205.043	0.038	1.7	0.0555	0.0000	OK
600 minute summer	2	315	204.934	0.033	1.9	0.0387	0.0000	OK
600 minute summer	3	315	204.677	0.046	3.7	0.0637	0.0000	OK
600 minute summer	4	315	205.095	0.030	1.5	0.0419	0.0000	OK
600 minute summer	5	315	204.515	0.059	5.9	0.0722	0.0000	OK
600 minute summer	6	315	204.464	0.034	5.9	0.0000	0.0000	OK
600 minute summer	7	315	205.112	0.023	2.9	0.1422	0.0000	OK
600 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute summer	9	315	204.613	0.047	3.3	0.0638	0.0000	OK
600 minute summer	10	315	204.569	0.034	3.7	0.0406	0.0000	OK
600 minute summer	11	315	204.405	0.029	3.7	0.0000	0.0000	OK
600 minute summer	Attenuation Tank	435	204.376	0.796	12.5	75.8198	0.0000	SURCHARGED
600 minute summer	13	315	205.205	0.025	0.8	0.0259	0.0000	OK
600 minute summer	14	435	204.376	0.808	2.7	0.9726	0.0000	SURCHARGED
600 minute summer	CMH01	285	203.525	0.034	2.6	0.0390	0.0000	OK
600 minute summer	EXMH01	285	202.255	0.024	2.6	0.0000	0.0000	OK
600 minute summer	15	285	203.579	0.041	2.6	0.0466	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	1	1.000	2	1.7	0.639	0.282	0.0145	
600 minute summer	2	1.001	3	1.9	0.510	0.107	0.1012	
600 minute summer	3	1.002	5	3.7	0.667	0.208	0.0979	
600 minute summer	4	2.000	5	1.5	0.609	0.084	0.0394	
600 minute summer	5	1.003	6	5.9	1.257	0.332	0.0120	
600 minute summer	6	1.004	Attenuation Tank	5.9	1.115	0.114	0.1048	
600 minute summer	7	3.000	9	2.9	0.923	0.051	0.0168	
600 minute summer	8	4.000	9	0.0	0.000	0.000	0.0120	
600 minute summer	9	3.001	10	3.3	0.856	0.186	0.0122	
600 minute summer	10	3.002	11	3.7	1.285	0.101	0.0071	
600 minute summer	11	3.003	Attenuation Tank	3.7	0.704	0.083	0.1277	
600 minute summer	Attenuation Tank	1.005	14	2.5	0.125	0.036	0.2118	
600 minute summer	13	5.000	14	0.8	0.525	0.133	0.0106	
600 minute summer	14	Hydro-Brake®	15	2.6				
600 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	100.9
600 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +20% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	300	205.038	0.033	1.3	0.0479	0.0000	OK
600 minute winter	2	300	204.930	0.029	1.5	0.0344	0.0000	OK
600 minute winter	3	315	204.672	0.041	2.9	0.0562	0.0000	OK
600 minute winter	4	315	205.092	0.027	1.2	0.0375	0.0000	OK
600 minute winter	5	315	204.507	0.052	4.6	0.0632	0.0000	OK
600 minute winter	6	480	204.495	0.065	4.6	0.0000	0.0000	OK
600 minute winter	7	315	205.109	0.020	2.2	0.1120	0.0000	OK
600 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute winter	9	315	204.607	0.041	2.5	0.0496	0.0000	OK
600 minute winter	10	315	204.564	0.029	2.8	0.0351	0.0000	OK
600 minute winter	11	465	204.496	0.120	2.8	0.0000	0.0000	OK
600 minute winter	Attenuation Tank	465	204.496	0.915	9.6	87.2191	0.0000	SURCHARGED
600 minute winter	13	285	205.202	0.022	0.6	0.0209	0.0000	OK
600 minute winter	14	465	204.496	0.927	2.7	1.1167	0.0000	SURCHARGED
600 minute winter	CMH01	270	203.525	0.034	2.6	0.0390	0.0000	OK
600 minute winter	EXMH01	270	202.255	0.024	2.6	0.0000	0.0000	OK
600 minute winter	15	270	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.3	0.595	0.215	0.0119	
600 minute winter	2	1.001	3	1.5	0.485	0.084	0.0852	
600 minute winter	3	1.002	5	2.9	0.625	0.163	0.0819	
600 minute winter	4	2.000	5	1.2	0.571	0.068	0.0336	
600 minute winter	5	1.003	6	4.6	1.174	0.259	0.0138	
600 minute winter	6	1.004	Attenuation Tank	4.6	1.315	0.089	0.1267	
600 minute winter	7	3.000	9	2.2	0.856	0.039	0.0137	
600 minute winter	8	4.000	9	0.0	0.000	0.000	0.0098	
600 minute winter	9	3.001	10	2.5	0.796	0.141	0.0099	
600 minute winter	10	3.002	11	2.8	1.190	0.076	0.0103	
600 minute winter	11	3.003	Attenuation Tank	2.8	0.804	0.063	0.2085	
600 minute winter	Attenuation Tank	1.005	14	2.4	0.125	0.034	0.2118	
600 minute winter	13	5.000	14	0.6	0.484	0.099	0.0086	
600 minute winter	14	Hydro-Brake®	15	2.6				
600 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	104.6
600 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	375	205.042	0.037	1.6	0.0537	0.0000	OK
720 minute summer	2	375	204.933	0.032	1.8	0.0377	0.0000	OK
720 minute summer	3	375	204.675	0.044	3.4	0.0610	0.0000	OK
720 minute summer	4	375	205.094	0.029	1.4	0.0405	0.0000	OK
720 minute summer	5	375	204.512	0.057	5.4	0.0688	0.0000	OK
720 minute summer	6	375	204.463	0.033	5.4	0.0000	0.0000	OK
720 minute summer	7	375	205.111	0.022	2.6	0.1292	0.0000	OK
720 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute summer	9	375	204.611	0.045	3.0	0.0584	0.0000	OK
720 minute summer	10	375	204.567	0.032	3.3	0.0382	0.0000	OK
720 minute summer	11	375	204.404	0.028	3.3	0.0000	0.0000	OK
720 minute summer	Attenuation Tank	510	204.365	0.785	11.3	74.7534	0.0000	SURCHARGED
720 minute summer	13	375	205.205	0.025	0.8	0.0259	0.0000	OK
720 minute summer	14	510	204.365	0.797	2.7	0.9591	0.0000	SURCHARGED
720 minute summer	CMH01	345	203.525	0.034	2.6	0.0390	0.0000	OK
720 minute summer	EXMH01	345	202.255	0.024	2.6	0.0000	0.0000	OK
720 minute summer	15	345	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.6	0.629	0.265	0.0139	
720 minute summer	2	1.001	3	1.8	0.508	0.101	0.0961	
720 minute summer	3	1.002	5	3.4	0.653	0.192	0.0919	
720 minute summer	4	2.000	5	1.4	0.597	0.079	0.0375	
720 minute summer	5	1.003	6	5.4	1.227	0.304	0.0112	
720 minute summer	6	1.004	Attenuation Tank	5.4	1.084	0.104	0.1039	
720 minute summer	7	3.000	9	2.6	0.890	0.046	0.0156	
720 minute summer	8	4.000	9	0.0	0.000	0.000	0.0112	
720 minute summer	9	3.001	10	3.0	0.840	0.169	0.0113	
720 minute summer	10	3.002	11	3.3	1.245	0.090	0.0066	
720 minute summer	11	3.003	Attenuation Tank	3.3	0.717	0.074	0.1266	
720 minute summer	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
720 minute summer	13	5.000	14	0.8	0.525	0.133	0.0106	
720 minute summer	14	Hydro-Brake®	15	2.6				
720 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	113.8
720 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	375	205.037	0.032	1.2	0.0459	0.0000	OK
720 minute winter	2	375	204.930	0.028	1.4	0.0333	0.0000	OK
720 minute winter	3	375	204.670	0.039	2.6	0.0532	0.0000	OK
720 minute winter	4	360	205.090	0.024	1.0	0.0343	0.0000	OK
720 minute winter	5	375	204.504	0.049	4.1	0.0595	0.0000	OK
720 minute winter	6	555	204.479	0.049	4.1	0.0000	0.0000	OK
720 minute winter	7	375	205.108	0.019	2.0	0.1033	0.0000	OK
720 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute winter	9	375	204.605	0.039	2.3	0.0460	0.0000	OK
720 minute winter	10	375	204.563	0.028	2.6	0.0338	0.0000	OK
720 minute winter	11	540	204.480	0.104	2.6	0.0000	0.0000	OK
720 minute winter	Attenuation Tank	540	204.480	0.900	8.7	85.7354	0.0000	SURCHARGED
720 minute winter	13	375	205.202	0.022	0.6	0.0209	0.0000	OK
720 minute winter	14	540	204.480	0.912	2.7	1.0979	0.0000	SURCHARGED
720 minute winter	CMH01	330	203.525	0.034	2.6	0.0390	0.0000	OK
720 minute winter	EXMH01	330	202.255	0.024	2.6	0.0000	0.0000	OK
720 minute winter	15	330	203.579	0.041	2.6	0.0466	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	1	1.000	2	1.2	0.583	0.199	0.0112	
720 minute winter	2	1.001	3	1.4	0.476	0.079	0.0798	
720 minute winter	3	1.002	5	2.6	0.607	0.146	0.0756	
720 minute winter	4	2.000	5	1.0	0.541	0.056	0.0295	
720 minute winter	5	1.003	6	4.1	1.137	0.231	0.0092	
720 minute winter	6	1.004	Attenuation Tank	4.1	1.058	0.079	0.1150	
720 minute winter	7	3.000	9	2.0	0.829	0.035	0.0129	
720 minute winter	8	4.000	9	0.0	0.000	0.000	0.0092	
720 minute winter	9	3.001	10	2.3	0.777	0.130	0.0093	
720 minute winter	10	3.002	11	2.6	1.165	0.071	0.0074	
720 minute winter	11	3.003	Attenuation Tank	2.6	0.932	0.058	0.1952	
720 minute winter	Attenuation Tank	1.005	14	2.5	0.125	0.035	0.2118	
720 minute winter	13	5.000	14	0.6	0.484	0.099	0.0086	
720 minute winter	14	Hydro-Brake®	15	2.6				
720 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	118.6
720 minute winter	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +20% 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	1	495	205.038	0.033	1.3	0.0479	0.0000	OK
960 minute summer	2	495	204.930	0.029	1.5	0.0344	0.0000	OK
960 minute summer	3	495	204.671	0.040	2.8	0.0552	0.0000	OK
960 minute summer	4	495	205.091	0.026	1.1	0.0359	0.0000	OK
960 minute summer	5	495	204.506	0.051	4.4	0.0617	0.0000	OK
960 minute summer	6	495	204.460	0.030	4.4	0.0000	0.0000	OK
960 minute summer	7	495	205.109	0.020	2.2	0.1120	0.0000	OK
960 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute summer	9	495	204.607	0.041	2.5	0.0496	0.0000	OK
960 minute summer	10	495	204.564	0.029	2.8	0.0351	0.0000	OK
960 minute summer	11	495	204.402	0.026	2.8	0.0000	0.0000	OK
960 minute summer	Attenuation Tank	645	204.359	0.779	9.4	74.2098	0.0000	SURCHARGED
960 minute summer	13	480	205.202	0.022	0.6	0.0209	0.0000	OK
960 minute summer	14	645	204.359	0.791	2.7	0.9523	0.0000	SURCHARGED
960 minute summer	CMH01	1155	203.525	0.034	2.6	0.0390	0.0000	OK
960 minute summer	EXMH01	1155	202.255	0.024	2.6	0.0000	0.0000	OK
960 minute summer	15	1155	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.3	0.595	0.215	0.0119	
960 minute summer	2	1.001	3	1.5	0.485	0.084	0.0839	
960 minute summer	3	1.002	5	2.8	0.621	0.158	0.0796	
960 minute summer	4	2.000	5	1.1	0.556	0.062	0.0316	
960 minute summer	5	1.003	6	4.4	1.160	0.248	0.0097	
960 minute summer	6	1.004	Attenuation Tank	4.4	1.008	0.085	0.1019	
960 minute summer	7	3.000	9	2.2	0.856	0.039	0.0137	
960 minute summer	8	4.000	9	0.0	0.000	0.000	0.0098	
960 minute summer	9	3.001	10	2.5	0.796	0.141	0.0099	
960 minute summer	10	3.002	11	2.8	1.190	0.076	0.0058	
960 minute summer	11	3.003	Attenuation Tank	2.8	0.776	0.063	0.1250	
960 minute summer	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
960 minute summer	13	5.000	14	0.6	0.484	0.099	0.0086	
960 minute summer	14	Hydro-Brake®	15	2.6				
960 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	138.8
960 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	495	205.034	0.029	1.0	0.0416	0.0000	OK
960 minute winter	2	495	204.926	0.025	1.1	0.0296	0.0000	OK
960 minute winter	3	495	204.666	0.035	2.1	0.0478	0.0000	OK
960 minute winter	4	495	205.088	0.023	0.9	0.0325	0.0000	OK
960 minute winter	5	495	204.500	0.044	3.4	0.0540	0.0000	OK
960 minute winter	6	495	204.456	0.026	3.4	0.0000	0.0000	OK
960 minute winter	7	480	205.106	0.017	1.6	0.0857	0.0000	OK
960 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute winter	9	480	204.601	0.035	1.8	0.0372	0.0000	OK
960 minute winter	10	480	204.560	0.025	2.0	0.0295	0.0000	OK
960 minute winter	11	720	204.453	0.077	2.0	0.0000	0.0000	OK
960 minute winter	Attenuation Tank	705	204.453	0.873	7.0	83.1407	0.0000	SURCHARGED
960 minute winter	13	480	205.200	0.020	0.5	0.0183	0.0000	OK
960 minute winter	14	705	204.453	0.885	2.7	1.0651	0.0000	SURCHARGED
960 minute winter	CMH01	435	203.525	0.034	2.6	0.0390	0.0000	OK
960 minute winter	EXMH01	435	202.255	0.024	2.6	0.0000	0.0000	OK
960 minute winter	15	435	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.0	0.555	0.166	0.0098	
960 minute winter	2	1.001	3	1.1	0.439	0.062	0.0681	
960 minute winter	3	1.002	5	2.1	0.566	0.118	0.0656	
960 minute winter	4	2.000	5	0.9	0.526	0.051	0.0274	
960 minute winter	5	1.003	6	3.4	1.078	0.192	0.0081	
960 minute winter	6	1.004	Attenuation Tank	3.4	1.271	0.066	0.0999	
960 minute winter	7	3.000	9	1.6	0.787	0.028	0.0109	
960 minute winter	8	4.000	9	0.0	0.000	0.000	0.0077	
960 minute winter	9	3.001	10	1.8	0.731	0.101	0.0078	
960 minute winter	10	3.002	11	2.0	1.083	0.054	0.0046	
960 minute winter	11	3.003	Attenuation Tank	2.0	0.813	0.045	0.1701	
960 minute winter	Attenuation Tank	1.005	14	2.5	0.124	0.036	0.2118	
960 minute winter	13	5.000	14	0.5	0.460	0.083	0.0075	
960 minute winter	14	Hydro-Brake®	15	2.6				
960 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	145.9
960 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% 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	1	750	205.034	0.029	1.0	0.0416	0.0000	OK
1440 minute summer	2	750	204.926	0.025	1.1	0.0296	0.0000	OK
1440 minute summer	3	750	204.666	0.035	2.1	0.0478	0.0000	OK
1440 minute summer	4	750	205.087	0.022	0.8	0.0307	0.0000	OK
1440 minute summer	5	750	204.499	0.044	3.3	0.0532	0.0000	OK
1440 minute summer	6	750	204.456	0.026	3.3	0.0000	0.0000	OK
1440 minute summer	7	750	205.106	0.017	1.6	0.0857	0.0000	OK
1440 minute summer	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	9	750	204.601	0.035	1.8	0.0372	0.0000	OK
1440 minute summer	10	750	204.560	0.025	2.0	0.0295	0.0000	OK
1440 minute summer	11	750	204.398	0.022	2.0	0.0000	0.0000	OK
1440 minute summer	Attenuation Tank	930	204.293	0.713	6.9	67.8963	0.0000	SURCHARGED
1440 minute summer	13	750	205.200	0.020	0.5	0.0183	0.0000	OK
1440 minute summer	14	930	204.293	0.725	2.7	0.8725	0.0000	SURCHARGED
1440 minute summer	CMH01	1440	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute summer	EXMH01	1440	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute summer	15	1440	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.0	0.555	0.166	0.0098	
1440 minute summer	2	1.001	3	1.1	0.439	0.062	0.0681	
1440 minute summer	3	1.002	5	2.1	0.572	0.118	0.0648	
1440 minute summer	4	2.000	5	0.8	0.507	0.045	0.0252	
1440 minute summer	5	1.003	6	3.3	1.069	0.186	0.0079	
1440 minute summer	6	1.004	Attenuation Tank	3.3	0.837	0.064	0.0997	
1440 minute summer	7	3.000	9	1.6	0.787	0.028	0.0109	
1440 minute summer	8	4.000	9	0.0	0.000	0.000	0.0077	
1440 minute summer	9	3.001	10	1.8	0.731	0.101	0.0078	
1440 minute summer	10	3.002	11	2.0	1.083	0.054	0.0046	
1440 minute summer	11	3.003	Attenuation Tank	2.0	0.391	0.045	0.1223	
1440 minute summer	Attenuation Tank	1.005	14	2.6	0.154	0.036	0.2118	
1440 minute summer	13	5.000	14	0.5	0.460	0.083	0.0075	
1440 minute summer	14	Hydro-Brake®	15	2.6				
1440 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	177.4
1440 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +20% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	690	205.029	0.024	0.7	0.0345	0.0000	OK
1440 minute winter	2	690	204.923	0.022	0.8	0.0254	0.0000	OK
1440 minute winter	3	690	204.660	0.029	1.5	0.0405	0.0000	OK
1440 minute winter	4	690	205.084	0.019	0.6	0.0267	0.0000	OK
1440 minute winter	5	690	204.492	0.037	2.4	0.0454	0.0000	OK
1440 minute winter	6	690	204.452	0.022	2.4	0.0000	0.0000	OK
1440 minute winter	7	720	205.104	0.015	1.2	0.0675	0.0000	OK
1440 minute winter	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	9	720	204.597	0.030	1.4	0.0300	0.0000	OK
1440 minute winter	10	720	204.557	0.022	1.6	0.0264	0.0000	OK
1440 minute winter	11	720	204.396	0.019	1.6	0.0000	0.0000	OK
1440 minute winter	Attenuation Tank	1020	204.333	0.753	5.2	71.7083	0.0000	SURCHARGED
1440 minute winter	13	750	205.198	0.018	0.4	0.0157	0.0000	OK
1440 minute winter	14	1020	204.333	0.765	2.6	0.9207	0.0000	SURCHARGED
1440 minute winter	CMH01	690	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute winter	EXMH01	690	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute winter	15	690	203.579	0.041	2.6	0.0467	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	1	1.000	2	0.7	0.503	0.116	0.0076	
1440 minute winter	2	1.001	3	0.8	0.403	0.045	0.0539	
1440 minute winter	3	1.002	5	1.5	0.514	0.084	0.0516	
1440 minute winter	4	2.000	5	0.6	0.466	0.034	0.0206	
1440 minute winter	5	1.003	6	2.4	0.972	0.135	0.0063	
1440 minute winter	6	1.004	Attenuation Tank	2.4	1.131	0.046	0.0976	
1440 minute winter	7	3.000	9	1.2	0.714	0.021	0.0090	
1440 minute winter	8	4.000	9	0.0	0.000	0.000	0.0064	
1440 minute winter	9	3.001	10	1.4	0.677	0.079	0.0065	
1440 minute winter	10	3.002	11	1.6	1.017	0.044	0.0039	
1440 minute winter	11	3.003	Attenuation Tank	1.6	0.634	0.036	0.1209	
1440 minute winter	Attenuation Tank	1.005	14	2.6	0.144	0.036	0.2118	
1440 minute winter	13	5.000	14	0.4	0.431	0.066	0.0064	
1440 minute winter	14	Hydro-Brake®	15	2.6				
1440 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	193.0
1440 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	205.224	0.219	10.0	0.3182	0.0000	SURCHARGED
15 minute summer	2	12	204.989	0.088	10.8	0.1025	0.0000	OK
15 minute summer	3	11	204.899	0.268	20.5	0.3686	0.0000	SURCHARGED
15 minute summer	4	10	205.143	0.077	8.8	0.1085	0.0000	OK
15 minute summer	5	11	204.648	0.193	31.4	0.2343	0.0000	SURCHARGED
15 minute summer	6	11	204.514	0.084	31.2	0.0000	0.0000	OK
15 minute summer	7	11	205.144	0.055	16.9	0.7141	0.0000	OK
15 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute summer	9	11	204.699	0.133	18.6	0.4227	0.0000	OK
15 minute summer	10	11	204.626	0.091	20.3	0.1085	0.0000	OK
15 minute summer	11	11	204.447	0.071	20.3	0.0000	0.0000	OK
15 minute summer	Attenuation Tank	20	203.916	0.336	72.8	32.0522	0.0000	SURCHARGED
15 minute summer	13	11	205.251	0.071	4.8	0.1364	0.0000	OK
15 minute summer	14	20	203.916	0.348	9.2	0.4194	0.0000	SURCHARGED
15 minute summer	CMH01	41	203.525	0.034	2.6	0.0390	0.0000	OK
15 minute summer	EXMH01	41	202.255	0.024	2.6	0.0000	0.0000	OK
15 minute summer	15	15	203.579	0.041	2.6	0.0467	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	1	1.000	2	9.5	1.220	1.581	0.0420	
15 minute summer	2	1.001	3	10.5	0.708	0.593	0.3815	
15 minute summer	3	1.002	5	19.5	1.105	1.096	0.3098	
15 minute summer	4	2.000	5	8.7	0.974	0.488	0.1420	
15 minute summer	5	1.003	6	31.2	1.996	1.756	0.0349	
15 minute summer	6	1.004	Attenuation Tank	31.1	2.772	0.601	0.1410	
15 minute summer	7	3.000	9	16.3	1.437	0.286	0.0578	
15 minute summer	8	4.000	9	0.0	0.000	0.000	0.0414	
15 minute summer	9	3.001	10	18.2	1.296	1.027	0.0434	
15 minute summer	10	3.002	11	20.3	1.963	0.552	0.0256	
15 minute summer	11	3.003	Attenuation Tank	20.3	2.085	0.453	0.1646	
15 minute summer	Attenuation Tank	1.005	14	-5.6	-0.339	-0.080	0.2118	
15 minute summer	13	5.000	14	4.7	0.814	0.772	0.0397	
15 minute summer	14	Hydro-Brake®	15	2.6				
15 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	32.4
15 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	205.242	0.237	10.5	0.3431	0.0000	SURCHARGED
15 minute winter	2	12	205.012	0.111	11.4	0.1299	0.0000	OK
15 minute winter	3	11	204.925	0.294	21.7	0.4034	0.0000	SURCHARGED
15 minute winter	4	10	205.145	0.080	9.2	0.1113	0.0000	OK
15 minute winter	5	11	204.659	0.204	32.4	0.2475	0.0000	SURCHARGED
15 minute winter	6	11	204.516	0.086	32.3	0.0000	0.0000	OK
15 minute winter	7	11	205.145	0.056	17.8	0.7470	0.0000	OK
15 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
15 minute winter	9	11	204.704	0.138	19.4	0.4556	0.0000	OK
15 minute winter	10	11	204.629	0.094	21.2	0.1117	0.0000	OK
15 minute winter	11	11	204.449	0.073	21.2	0.0000	0.0000	OK
15 minute winter	Attenuation Tank	20	203.960	0.380	75.7	36.2153	0.0000	SURCHARGED
15 minute winter	13	11	205.254	0.074	5.1	0.1459	0.0000	OK
15 minute winter	14	20	203.960	0.392	9.6	0.4721	0.0000	SURCHARGED
15 minute winter	CMH01	68	203.525	0.034	2.6	0.0390	0.0000	OK
15 minute winter	EXMH01	68	202.255	0.024	2.6	0.0000	0.0000	OK
15 minute winter	15	68	203.579	0.041	2.6	0.0467	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	1	1.000	2	10.0	1.276	1.654	0.0421	
15 minute winter	2	1.001	3	10.9	0.704	0.612	0.4260	
15 minute winter	3	1.002	5	20.0	1.134	1.125	0.3098	
15 minute winter	4	2.000	5	9.0	0.983	0.508	0.1467	
15 minute winter	5	1.003	6	32.3	2.053	1.819	0.0352	
15 minute winter	6	1.004	Attenuation Tank	32.3	2.893	0.624	0.1424	
15 minute winter	7	3.000	9	17.0	1.449	0.299	0.0595	
15 minute winter	8	4.000	9	0.0	0.000	0.000	0.0426	
15 minute winter	9	3.001	10	19.0	1.307	1.072	0.0447	
15 minute winter	10	3.002	11	21.2	1.981	0.576	0.0265	
15 minute winter	11	3.003	Attenuation Tank	21.1	2.142	0.473	0.1663	
15 minute winter	Attenuation Tank	1.005	14	-5.9	-0.438	-0.084	0.2118	
15 minute winter	13	5.000	14	4.9	0.821	0.811	0.0413	
15 minute winter	14	Hydro-Brake®	15	2.6				
15 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	35.1
15 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.82%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1		18	205.233	0.227	10.1	0.3299	0.0000	SURCHARGED
30 minute summer	2		19	205.002	0.101	11.1	0.1179	0.0000	OK
30 minute summer	3		19	204.920	0.289	20.9	0.3973	0.0000	SURCHARGED
30 minute summer	4		18	205.143	0.078	8.8	0.1093	0.0000	OK
30 minute summer	5		19	204.653	0.198	31.7	0.2399	0.0000	SURCHARGED
30 minute summer	6		19	204.515	0.085	31.7	0.0000	0.0000	OK
30 minute summer	7		18	205.145	0.056	17.0	0.7305	0.0000	OK
30 minute summer	8		1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute summer	9		19	204.702	0.136	19.0	0.4391	0.0000	OK
30 minute summer	10		19	204.627	0.092	20.7	0.1099	0.0000	OK
30 minute summer	11		19	204.448	0.072	20.7	0.0000	0.0000	OK
30 minute summer		Attenuation Tank	35	204.070	0.490	74.1	46.7127	0.0000	SURCHARGED
30 minute summer	13		18	205.253	0.073	4.9	0.1425	0.0000	OK
30 minute summer	14		35	204.070	0.502	9.4	0.6047	0.0000	SURCHARGED
30 minute summer		CMH01	153	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute summer		EXMH01	153	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute summer	15		153	203.579	0.041	2.6	0.0467	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	1		1.000	2	9.7	1.245	1.613	0.0421	
30 minute summer	2		1.001	3	10.8	0.711	0.610	0.4071	
30 minute summer	3		1.002	5	19.8	1.124	1.114	0.3098	
30 minute summer	4		2.000	5	8.8	0.979	0.495	0.1436	
30 minute summer	5		1.003	6	31.7	2.021	1.785	0.0351	
30 minute summer	6		1.004	Attenuation Tank	31.7	2.470	0.613	0.1417	
30 minute summer	7		3.000	9	16.6	1.439	0.292	0.0584	
30 minute summer	8		4.000	9	0.0	0.000	0.000	0.0421	
30 minute summer	9		3.001	10	18.7	1.303	1.053	0.0440	
30 minute summer	10		3.002	11	20.7	1.973	0.564	0.0260	
30 minute summer	11		3.003	Attenuation Tank	20.7	1.940	0.464	0.1655	
30 minute summer		Attenuation Tank	1.005	14	-5.6	-0.251	-0.080	0.2118	
30 minute summer	13		5.000	14	4.8	0.817	0.795	0.0407	
30 minute summer	14		Hydro-Brake®	15	2.6				
30 minute summer		CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	39.5
30 minute summer	15		1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	205.200	0.195	9.1	0.2824	0.0000	SURCHARGED
30 minute winter	2	18	204.982	0.081	10.2	0.0946	0.0000	OK
30 minute winter	3	19	204.872	0.241	19.4	0.3311	0.0000	SURCHARGED
30 minute winter	4	18	205.139	0.074	8.0	0.1031	0.0000	OK
30 minute winter	5	19	204.634	0.179	29.7	0.2171	0.0000	SURCHARGED
30 minute winter	6	19	204.512	0.082	29.7	0.0000	0.0000	OK
30 minute winter	7	18	205.142	0.053	15.4	0.6665	0.0000	OK
30 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
30 minute winter	9	19	204.693	0.127	17.4	0.3853	0.0000	OK
30 minute winter	10	19	204.622	0.087	19.1	0.1042	0.0000	OK
30 minute winter	11	19	204.445	0.069	19.1	0.0000	0.0000	OK
30 minute winter	Attenuation Tank	35	204.135	0.555	68.2	52.8712	0.0000	SURCHARGED
30 minute winter	13	18	205.248	0.068	4.4	0.1256	0.0000	OK
30 minute winter	14	35	204.135	0.567	8.6	0.6826	0.0000	SURCHARGED
30 minute winter	CMH01	197	203.525	0.034	2.6	0.0390	0.0000	OK
30 minute winter	EXMH01	197	202.255	0.024	2.6	0.0000	0.0000	OK
30 minute winter	15	196	203.579	0.041	2.6	0.0467	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	1	1.000	2	8.9	1.136	1.473	0.0418	
30 minute winter	2	1.001	3	10.1	0.713	0.570	0.3680	
30 minute winter	3	1.002	5	18.7	1.060	1.051	0.3098	
30 minute winter	4	2.000	5	8.0	0.957	0.451	0.1335	
30 minute winter	5	1.003	6	29.7	1.934	1.674	0.0344	
30 minute winter	6	1.004	Attenuation Tank	29.7	2.572	0.574	0.1392	
30 minute winter	7	3.000	9	15.2	1.397	0.267	0.0552	
30 minute winter	8	4.000	9	0.0	0.000	0.000	0.0398	
30 minute winter	9	3.001	10	17.2	1.281	0.970	0.0415	
30 minute winter	10	3.002	11	19.1	1.940	0.521	0.0245	
30 minute winter	11	3.003	Attenuation Tank	19.2	2.016	0.429	0.1625	
30 minute winter	Attenuation Tank	1.005	14	-4.9	-0.272	-0.070	0.2118	
30 minute winter	13	5.000	14	4.4	0.804	0.723	0.0376	
30 minute winter	14	Hydro-Brake®	15	2.6				
30 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	39.5
30 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	33	205.173	0.168	8.4	0.2436	0.0000	SURCHARGED
60 minute summer	2	33	204.978	0.077	9.4	0.0903	0.0000	OK
60 minute summer	3	34	204.804	0.173	18.0	0.2371	0.0000	SURCHARGED
60 minute summer	4	33	205.135	0.070	7.4	0.0984	0.0000	OK
60 minute summer	5	33	204.611	0.156	27.3	0.1895	0.0000	SURCHARGED
60 minute summer	6	33	204.508	0.078	27.3	0.0000	0.0000	OK
60 minute summer	7	33	205.140	0.051	14.2	0.6150	0.0000	OK
60 minute summer	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute summer	9	34	204.685	0.119	16.0	0.3429	0.0000	OK
60 minute summer	10	34	204.618	0.083	17.7	0.0990	0.0000	OK
60 minute summer	11	34	204.442	0.066	17.7	0.0000	0.0000	OK
60 minute summer	Attenuation Tank	65	204.251	0.671	63.4	63.9525	0.0000	SURCHARGED
60 minute summer	13	33	205.244	0.064	4.0	0.1121	0.0000	OK
60 minute summer	14	65	204.251	0.683	7.8	0.8226	0.0000	SURCHARGED
60 minute summer	CMH01	33	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute summer	EXMH01	33	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute summer	15	32	203.579	0.041	2.6	0.0467	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	1	1.000	2	8.2	1.054	1.365	0.0415	
60 minute summer	2	1.001	3	9.4	0.713	0.528	0.3601	
60 minute summer	3	1.002	5	17.1	1.013	0.966	0.3098	
60 minute summer	4	2.000	5	7.4	0.939	0.417	0.1259	
60 minute summer	5	1.003	6	27.3	1.949	1.540	0.0337	
60 minute summer	6	1.004	Attenuation Tank	27.4	2.300	0.528	0.1361	
60 minute summer	7	3.000	9	14.0	1.375	0.246	0.0522	
60 minute summer	8	4.000	9	0.0	0.000	0.000	0.0376	
60 minute summer	9	3.001	10	15.9	1.258	0.893	0.0391	
60 minute summer	10	3.002	11	17.7	1.906	0.481	0.0230	
60 minute summer	11	3.003	Attenuation Tank	17.7	1.820	0.396	0.1597	
60 minute summer	Attenuation Tank	1.005	14	-4.4	-0.192	-0.062	0.2118	
60 minute summer	13	5.000	14	4.0	0.789	0.658	0.0349	
60 minute summer	14	Hydro-Brake®	15	2.6				
60 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	40.6
60 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.82%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	33	205.124	0.119	6.8	0.1722	0.0000	SURCHARGED
60 minute winter	2	33	204.970	0.069	7.7	0.0802	0.0000	OK
60 minute winter	3	34	204.738	0.107	14.5	0.1472	0.0000	OK
60 minute winter	4	33	205.127	0.062	6.0	0.0872	0.0000	OK
60 minute winter	5	33	204.594	0.139	23.0	0.1690	0.0000	OK
60 minute winter	6	34	204.501	0.071	24.1	0.0000	0.0000	OK
60 minute winter	7	33	205.135	0.046	11.5	0.5030	0.0000	OK
60 minute winter	8	1	205.206	0.000	0.0	0.0000	0.0000	OK
60 minute winter	9	34	204.670	0.104	13.0	0.2653	0.0000	OK
60 minute winter	10	34	204.608	0.073	14.5	0.0873	0.0000	OK
60 minute winter	11	34	204.435	0.059	14.5	0.0000	0.0000	OK
60 minute winter	Attenuation Tank	64	204.341	0.761	52.3	72.4941	0.0000	SURCHARGED
60 minute winter	13	33	205.236	0.056	3.3	0.0908	0.0000	OK
60 minute winter	14	64	204.341	0.773	6.4	0.9306	0.0000	SURCHARGED
60 minute winter	CMH01	31	203.525	0.034	2.6	0.0390	0.0000	OK
60 minute winter	EXMH01	31	202.255	0.024	2.6	0.0000	0.0000	OK
60 minute winter	15	31	203.579	0.041	2.6	0.0467	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	1	1.000	2	6.8	0.872	1.120	0.0403	
60 minute winter	2	1.001	3	7.6	0.714	0.431	0.2872	
60 minute winter	3	1.002	5	14.5	0.936	0.815	0.2684	
60 minute winter	4	2.000	5	6.0	0.891	0.338	0.1076	
60 minute winter	5	1.003	6	24.1	1.844	1.356	0.0317	
60 minute winter	6	1.004	Attenuation Tank	23.4	2.367	0.452	0.1310	
60 minute winter	7	3.000	9	11.4	1.308	0.201	0.0453	
60 minute winter	8	4.000	9	0.0	0.000	0.000	0.0327	
60 minute winter	9	3.001	10	13.0	1.202	0.732	0.0338	
60 minute winter	10	3.002	11	14.5	1.821	0.395	0.0198	
60 minute winter	11	3.003	Attenuation Tank	14.5	1.864	0.325	0.1532	
60 minute winter	Attenuation Tank	1.005	14	-3.2	-0.215	-0.045	0.2118	
60 minute winter	13	5.000	14	3.3	0.757	0.545	0.0301	
60 minute winter	14	Hydro-Brake®	15	2.6				
60 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	39.6
60 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.79%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	1	64	205.093	0.088	5.7	0.1278	0.0000	OK
120 minute summer	2	64	204.964	0.063	6.5	0.0732	0.0000	OK
120 minute summer	3	64	204.724	0.093	12.3	0.1277	0.0000	OK
120 minute summer	4	64	205.121	0.056	5.0	0.0787	0.0000	OK
120 minute summer	5	64	204.585	0.130	19.5	0.1583	0.0000	OK
120 minute summer	6	64	204.494	0.064	20.0	0.0000	0.0000	OK
120 minute summer	7	64	205.131	0.042	9.6	0.4236	0.0000	OK
120 minute summer	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute summer	9	64	204.659	0.093	11.0	0.2169	0.0000	OK
120 minute summer	10	64	204.601	0.066	12.3	0.0788	0.0000	OK
120 minute summer	11	64	204.430	0.054	12.2	0.0000	0.0000	OK
120 minute summer	Attenuation Tank	124	204.382	0.802	43.5	76.3864	0.0000	SURCHARGED
120 minute summer	13	64	205.230	0.050	2.7	0.0740	0.0000	OK
120 minute summer	14	124	204.382	0.814	5.3	0.9798	0.0000	SURCHARGED
120 minute summer	CMH01	60	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute summer	EXMH01	60	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute summer	15	60	203.579	0.041	2.6	0.0467	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	1	1.000	2	5.7	0.822	0.943	0.0376	
120 minute summer	2	1.001	3	6.5	0.705	0.366	0.2483	
120 minute summer	3	1.002	5	12.3	0.873	0.691	0.2438	
120 minute summer	4	2.000	5	5.0	0.850	0.282	0.0940	
120 minute summer	5	1.003	6	20.0	1.656	1.124	0.0294	
120 minute summer	6	1.004	Attenuation Tank	19.4	1.986	0.376	0.1257	
120 minute summer	7	3.000	9	9.6	1.250	0.168	0.0401	
120 minute summer	8	4.000	9	0.0	0.000	0.000	0.0289	
120 minute summer	9	3.001	10	11.0	1.154	0.617	0.0297	
120 minute summer	10	3.002	11	12.2	1.750	0.333	0.0174	
120 minute summer	11	3.003	Attenuation Tank	12.2	1.660	0.274	0.1485	
120 minute summer	Attenuation Tank	1.005	14	2.5	-0.141	0.035	0.2118	
120 minute summer	13	5.000	14	2.7	0.723	0.447	0.0259	
120 minute summer	14	Hydro-Brake®	15	2.6				
120 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	46.3
120 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	64	205.074	0.069	4.4	0.1004	0.0000	OK
120 minute winter	2	64	204.955	0.054	5.0	0.0635	0.0000	OK
120 minute winter	3	64	204.711	0.080	9.5	0.1094	0.0000	OK
120 minute winter	4	64	205.113	0.048	3.8	0.0678	0.0000	OK
120 minute winter	5	64	204.561	0.105	15.0	0.1281	0.0000	OK
120 minute winter	6	122	204.491	0.061	15.0	0.0000	0.0000	OK
120 minute winter	7	64	205.126	0.037	7.4	0.3315	0.0000	OK
120 minute winter	8	2	205.206	0.000	0.0	0.0000	0.0000	OK
120 minute winter	9	64	204.646	0.080	8.5	0.1633	0.0000	OK
120 minute winter	10	64	204.592	0.057	9.5	0.0679	0.0000	OK
120 minute winter	11	120	204.490	0.114	9.5	0.0000	0.0000	OK
120 minute winter	Attenuation Tank	122	204.490	0.910	33.1	86.7325	0.0000	SURCHARGED
120 minute winter	13	66	205.223	0.043	2.1	0.0582	0.0000	OK
120 minute winter	14	122	204.490	0.922	4.1	1.1105	0.0000	SURCHARGED
120 minute winter	CMH01	56	203.525	0.034	2.6	0.0390	0.0000	OK
120 minute winter	EXMH01	56	202.255	0.024	2.6	0.0000	0.0000	OK
120 minute winter	15	56	203.579	0.041	2.6	0.0467	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	1	1.000	2	4.4	0.799	0.729	0.0300	
120 minute winter	2	1.001	3	5.0	0.658	0.282	0.2056	
120 minute winter	3	1.002	5	9.5	0.833	0.535	0.2000	
120 minute winter	4	2.000	5	3.8	0.790	0.214	0.0769	
120 minute winter	5	1.003	6	15.0	1.561	0.845	0.0241	
120 minute winter	6	1.004	Attenuation Tank	15.0	1.987	0.290	0.1236	
120 minute winter	7	3.000	9	7.4	1.172	0.130	0.0333	
120 minute winter	8	4.000	9	0.0	0.000	0.000	0.0239	
120 minute winter	9	3.001	10	8.5	1.086	0.478	0.0245	
120 minute winter	10	3.002	11	9.5	1.643	0.258	0.0143	
120 minute winter	11	3.003	Attenuation Tank	9.5	1.615	0.212	0.2043	
120 minute winter	Attenuation Tank	1.005	14	2.5	-0.148	0.035	0.2118	
120 minute winter	13	5.000	14	2.1	0.679	0.348	0.0215	
120 minute winter	14	Hydro-Brake®	15	2.6				
120 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	47.1
120 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	1	96	205.074	0.069	4.4	0.1004	0.0000	OK
180 minute summer	2	96	204.955	0.054	5.0	0.0635	0.0000	OK
180 minute summer	3	96	204.711	0.080	9.5	0.1094	0.0000	OK
180 minute summer	4	96	205.113	0.048	3.8	0.0678	0.0000	OK
180 minute summer	5	96	204.561	0.105	15.0	0.1281	0.0000	OK
180 minute summer	6	96	204.485	0.055	15.0	0.0000	0.0000	OK
180 minute summer	7	96	205.126	0.037	7.4	0.3317	0.0000	OK
180 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute summer	9	96	204.646	0.080	8.5	0.1634	0.0000	OK
180 minute summer	10	96	204.592	0.057	9.5	0.0679	0.0000	OK
180 minute summer	11	184	204.453	0.077	9.5	0.0000	0.0000	OK
180 minute summer	Attenuation Tank	184	204.453	0.873	33.1	83.1692	0.0000	SURCHARGED
180 minute summer	13	96	205.223	0.043	2.1	0.0582	0.0000	OK
180 minute summer	14	184	204.453	0.885	4.1	1.0655	0.0000	SURCHARGED
180 minute summer	CMH01	88	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute summer	EXMH01	88	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute summer	15	88	203.579	0.041	2.6	0.0466	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	1	1.000	2	4.4	0.799	0.729	0.0300	
180 minute summer	2	1.001	3	5.0	0.658	0.282	0.2056	
180 minute summer	3	1.002	5	9.5	0.833	0.535	0.2001	
180 minute summer	4	2.000	5	3.8	0.790	0.214	0.0769	
180 minute summer	5	1.003	6	15.0	1.561	0.845	0.0241	
180 minute summer	6	1.004	Attenuation Tank	15.0	1.886	0.290	0.1194	
180 minute summer	7	3.000	9	7.4	1.171	0.130	0.0333	
180 minute summer	8	4.000	9	0.0	0.000	0.000	0.0240	
180 minute summer	9	3.001	10	8.5	1.086	0.479	0.0246	
180 minute summer	10	3.002	11	9.5	1.644	0.258	0.0143	
180 minute summer	11	3.003	Attenuation Tank	9.5	1.551	0.213	0.1703	
180 minute summer	Attenuation Tank	1.005	14	2.4	-0.120	0.034	0.2118	
180 minute summer	13	5.000	14	2.1	0.679	0.348	0.0215	
180 minute summer	14	Hydro-Brake®	15	2.6				
180 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	53.7
180 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	1	96	205.063	0.058	3.4	0.0841	0.0000	OK
180 minute winter	2	96	204.949	0.048	3.9	0.0558	0.0000	OK
180 minute winter	3	96	204.700	0.069	7.4	0.0946	0.0000	OK
180 minute winter	4	96	205.108	0.043	3.0	0.0598	0.0000	OK
180 minute winter	5	180	204.570	0.115	11.7	0.1396	0.0000	OK
180 minute winter	6	180	204.570	0.140	11.7	0.0000	0.0000	OK
180 minute winter	7	96	205.121	0.032	5.7	0.2601	0.0000	OK
180 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
180 minute winter	9	96	204.635	0.068	6.5	0.1234	0.0000	OK
180 minute winter	10	96	204.584	0.049	7.3	0.0586	0.0000	OK
180 minute winter	11	180	204.572	0.196	7.3	0.0000	0.0000	SURCHARGED
180 minute winter	Attenuation Tank	180	204.570	0.990	25.2	94.3034	0.0000	SURCHARGED
180 minute winter	13	96	205.217	0.037	1.6	0.0456	0.0000	OK
180 minute winter	14	180	204.570	1.002	3.2	1.2062	0.0000	SURCHARGED
180 minute winter	CMH01	80	203.525	0.034	2.6	0.0390	0.0000	OK
180 minute winter	EXMH01	80	202.255	0.024	2.6	0.0000	0.0000	OK
180 minute winter	15	80	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.4	0.757	0.563	0.0245	
180 minute winter	2	1.001	3	3.9	0.617	0.220	0.1712	
180 minute winter	3	1.002	5	7.4	0.790	0.417	0.1648	
180 minute winter	4	2.000	5	3.0	0.740	0.169	0.0648	
180 minute winter	5	1.003	6	11.7	1.490	0.659	0.0397	
180 minute winter	6	1.004	Attenuation Tank	11.7	1.786	0.226	0.1764	
180 minute winter	7	3.000	9	5.7	1.101	0.100	0.0274	
180 minute winter	8	4.000	9	0.0	0.000	0.000	0.0197	
180 minute winter	9	3.001	10	6.5	1.016	0.366	0.0201	
180 minute winter	10	3.002	11	7.3	1.537	0.199	0.0246	
180 minute winter	11	3.003	Attenuation Tank	7.3	1.423	0.163	0.2247	
180 minute winter	Attenuation Tank	1.005	14	2.5	-0.107	0.036	0.2118	
180 minute winter	13	5.000	14	1.6	0.633	0.265	0.0175	
180 minute winter	14	Hydro-Brake®	15	2.6				
180 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	56.1
180 minute winter	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	1	124	205.067	0.062	3.8	0.0902	0.0000	OK
240 minute summer	2	124	204.951	0.050	4.3	0.0584	0.0000	OK
240 minute summer	3	124	204.704	0.073	8.2	0.0999	0.0000	OK
240 minute summer	4	124	205.110	0.045	3.3	0.0627	0.0000	OK
240 minute summer	5	124	204.549	0.094	12.9	0.1146	0.0000	OK
240 minute summer	6	236	204.494	0.064	12.8	0.0000	0.0000	OK
240 minute summer	7	124	205.123	0.034	6.4	0.2865	0.0000	OK
240 minute summer	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute summer	9	124	204.639	0.072	7.2	0.1368	0.0000	OK
240 minute summer	10	124	204.587	0.052	8.0	0.0615	0.0000	OK
240 minute summer	11	240	204.491	0.115	8.0	0.0000	0.0000	OK
240 minute summer	Attenuation Tank	240	204.490	0.910	27.9	86.7296	0.0000	SURCHARGED
240 minute summer	13	124	205.219	0.039	1.8	0.0503	0.0000	OK
240 minute summer	14	240	204.490	0.922	3.6	1.1105	0.0000	SURCHARGED
240 minute summer	CMH01	112	203.525	0.034	2.6	0.0390	0.0000	OK
240 minute summer	EXMH01	112	202.255	0.024	2.6	0.0000	0.0000	OK
240 minute summer	15	112	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.8	0.774	0.626	0.0266	
240 minute summer	2	1.001	3	4.3	0.630	0.240	0.1833	
240 minute summer	3	1.002	5	8.1	0.805	0.457	0.1772	
240 minute summer	4	2.000	5	3.3	0.758	0.185	0.0691	
240 minute summer	5	1.003	6	12.8	1.520	0.724	0.0213	
240 minute summer	6	1.004	Attenuation Tank	12.8	1.606	0.248	0.1257	
240 minute summer	7	3.000	9	6.3	1.134	0.111	0.0295	
240 minute summer	8	4.000	9	0.0	0.000	0.000	0.0212	
240 minute summer	9	3.001	10	7.2	1.045	0.405	0.0216	
240 minute summer	10	3.002	11	8.0	1.572	0.217	0.0126	
240 minute summer	11	3.003	Attenuation Tank	8.0	1.532	0.178	0.2045	
240 minute summer	Attenuation Tank	1.005	14	2.4	-0.123	0.035	0.2118	
240 minute summer	13	5.000	14	1.8	0.652	0.296	0.0190	
240 minute summer	14	Hydro-Brake®	15	2.6				
240 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	61.8
240 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	1	124	205.056	0.051	2.8	0.0744	0.0000	OK
240 minute winter	2	128	204.944	0.043	3.2	0.0503	0.0000	OK
240 minute winter	3	128	204.692	0.061	6.1	0.0842	0.0000	OK
240 minute winter	4	124	205.104	0.039	2.5	0.0544	0.0000	OK
240 minute winter	5	236	204.623	0.168	9.7	0.2036	0.0000	SURCHARGED
240 minute winter	6	236	204.623	0.193	9.7	0.0000	0.0000	SURCHARGED
240 minute winter	7	124	205.119	0.029	4.8	0.2217	0.0000	OK
240 minute winter	8	4	205.206	0.000	0.0	0.0000	0.0000	OK
240 minute winter	9	124	204.628	0.062	5.5	0.1036	0.0000	OK
240 minute winter	10	232	204.623	0.088	6.1	0.1048	0.0000	OK
240 minute winter	11	236	204.624	0.248	6.4	0.0000	0.0000	SURCHARGED
240 minute winter	Attenuation Tank	236	204.622	1.042	20.7	99.2883	0.0000	SURCHARGED
240 minute winter	13	128	205.214	0.034	1.4	0.0407	0.0000	OK
240 minute winter	14	236	204.622	1.054	2.8	1.2692	0.0000	SURCHARGED
240 minute winter	CMH01	236	203.525	0.035	2.7	0.0393	0.0000	OK
240 minute winter	EXMH01	236	202.255	0.024	2.7	0.0000	0.0000	OK
240 minute winter	15	236	203.580	0.042	2.7	0.0471	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	1	1.000	2	2.8	0.723	0.464	0.0211	
240 minute winter	2	1.001	3	3.2	0.588	0.180	0.1474	
240 minute winter	3	1.002	5	6.1	0.756	0.344	0.1721	
240 minute winter	4	2.000	5	2.5	0.704	0.141	0.0568	
240 minute winter	5	1.003	6	9.7	1.428	0.546	0.0443	
240 minute winter	6	1.004	Attenuation Tank	9.7	1.661	0.187	0.1789	
240 minute winter	7	3.000	9	4.8	1.051	0.084	0.0242	
240 minute winter	8	4.000	9	0.0	0.000	0.000	0.0173	
240 minute winter	9	3.001	10	5.5	0.977	0.308	0.0263	
240 minute winter	10	3.002	11	6.4	1.466	0.173	0.0351	
240 minute winter	11	3.003	Attenuation Tank	6.1	1.401	0.136	0.2247	
240 minute winter	Attenuation Tank	1.005	14	2.6	0.107	0.037	0.2118	
240 minute winter	13	5.000	14	1.4	0.611	0.232	0.0159	
240 minute winter	14	Hydro-Brake®	15	2.7				
240 minute winter	CMH01	1.008	EXMH01	2.7	1.414	0.057	0.0355	65.1
240 minute winter	15	1.007	CMH01	2.7	0.752	0.149	0.0169	

Results for 100 year +40% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	1	184	205.058	0.053	3.0	0.0774	0.0000	OK
360 minute summer	2	184	204.945	0.044	3.4	0.0517	0.0000	OK
360 minute summer	3	184	204.694	0.063	6.5	0.0869	0.0000	OK
360 minute summer	4	184	205.105	0.040	2.6	0.0553	0.0000	OK
360 minute summer	5	184	204.536	0.081	10.2	0.0986	0.0000	OK
360 minute summer	6	304	204.534	0.104	10.2	0.0000	0.0000	OK
360 minute summer	7	184	205.119	0.030	5.1	0.2324	0.0000	OK
360 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute summer	9	184	204.630	0.064	5.7	0.1080	0.0000	OK
360 minute summer	10	184	204.581	0.046	6.4	0.0544	0.0000	OK
360 minute summer	11	312	204.531	0.155	6.4	0.0000	0.0000	SURCHARGED
360 minute summer	Attenuation Tank	312	204.530	0.950	21.8	90.5389	0.0000	SURCHARGED
360 minute summer	13	184	205.215	0.035	1.5	0.0428	0.0000	OK
360 minute summer	14	312	204.530	0.962	2.9	1.1586	0.0000	SURCHARGED
360 minute summer	CMH01	168	203.525	0.034	2.6	0.0390	0.0000	OK
360 minute summer	EXMH01	168	202.255	0.024	2.6	0.0000	0.0000	OK
360 minute summer	15	168	203.579	0.041	2.6	0.0467	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	1	1.000	2	3.0	0.734	0.494	0.0221	
360 minute summer	2	1.001	3	3.4	0.595	0.190	0.1533	
360 minute summer	3	1.002	5	6.4	0.765	0.362	0.1477	
360 minute summer	4	2.000	5	2.6	0.710	0.145	0.0582	
360 minute summer	5	1.003	6	10.2	1.444	0.573	0.0272	
360 minute summer	6	1.004	Attenuation Tank	10.2	1.546	0.196	0.1557	
360 minute summer	7	3.000	9	5.0	1.072	0.089	0.0249	
360 minute summer	8	4.000	9	0.0	0.000	0.000	0.0179	
360 minute summer	9	3.001	10	5.7	0.983	0.321	0.0182	
360 minute summer	10	3.002	11	6.4	1.485	0.174	0.0167	
360 minute summer	11	3.003	Attenuation Tank	6.4	1.199	0.143	0.2247	
360 minute summer	Attenuation Tank	1.005	14	2.5	0.126	0.035	0.2118	
360 minute summer	13	5.000	14	1.5	0.621	0.246	0.0166	
360 minute summer	14	Hydro-Brake®	15	2.6				
360 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	77.5
360 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	184	205.049	0.044	2.2	0.0643	0.0000	OK
360 minute winter	2	184	204.939	0.038	2.5	0.0443	0.0000	OK
360 minute winter	3	184	204.684	0.053	4.7	0.0723	0.0000	OK
360 minute winter	4	184	205.099	0.034	1.9	0.0472	0.0000	OK
360 minute winter	5	344	204.673	0.218	7.5	0.2646	0.0000	SURCHARGED
360 minute winter	6	344	204.673	0.243	7.5	0.0000	0.0000	SURCHARGED
360 minute winter	7	184	205.115	0.026	3.7	0.1760	0.0000	OK
360 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
360 minute winter	9	344	204.673	0.107	4.2	0.2802	0.0000	OK
360 minute winter	10	344	204.673	0.138	4.7	0.1642	0.0000	OK
360 minute winter	11	344	204.673	0.297	8.0	0.0000	0.0000	SURCHARGED
360 minute winter	Attenuation Tank	344	204.673	1.093	15.9	104.0825	0.0000	SURCHARGED
360 minute winter	13	184	205.210	0.030	1.1	0.0332	0.0000	OK
360 minute winter	14	344	204.673	1.104	2.7	1.3298	0.0000	SURCHARGED
360 minute winter	CMH01	344	203.525	0.035	2.7	0.0396	0.0000	OK
360 minute winter	EXMH01	344	202.255	0.025	2.7	0.0000	0.0000	OK
360 minute winter	15	344	203.580	0.042	2.7	0.0477	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	1	1.000	2	2.2	0.681	0.364	0.0175	
360 minute winter	2	1.001	3	2.5	0.557	0.140	0.1213	
360 minute winter	3	1.002	5	4.7	0.709	0.264	0.1905	
360 minute winter	4	2.000	5	1.9	0.652	0.107	0.0466	
360 minute winter	5	1.003	6	7.5	1.338	0.421	0.0443	
360 minute winter	6	1.004	Attenuation Tank	7.5	1.539	0.144	0.1789	
360 minute winter	7	3.000	9	3.7	0.986	0.065	0.0361	
360 minute winter	8	4.000	9	0.0	0.000	0.000	0.0337	
360 minute winter	9	3.001	10	4.2	0.911	0.236	0.0476	
360 minute winter	10	3.002	11	8.0	1.368	0.217	0.0428	
360 minute winter	11	3.003	Attenuation Tank	4.7	1.357	0.105	0.2247	
360 minute winter	Attenuation Tank	1.005	14	2.7	0.105	0.038	0.2118	
360 minute winter	13	5.000	14	1.1	0.572	0.181	0.0133	
360 minute winter	14	Hydro-Brake®	15	2.7				
360 minute winter	CMH01	1.008	EXMH01	2.7	1.423	0.058	0.0360	82.2
360 minute winter	15	1.007	CMH01	2.7	0.758	0.152	0.0171	

Results for 100 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.78%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	248	205.052	0.047	2.4	0.0678	0.0000	OK
480 minute summer	2	248	204.941	0.039	2.7	0.0462	0.0000	OK
480 minute summer	3	248	204.687	0.056	5.2	0.0768	0.0000	OK
480 minute summer	4	248	205.101	0.036	2.1	0.0497	0.0000	OK
480 minute summer	5	376	204.547	0.092	8.2	0.1116	0.0000	OK
480 minute summer	6	376	204.547	0.117	8.2	0.0000	0.0000	OK
480 minute summer	7	248	205.116	0.027	4.1	0.1931	0.0000	OK
480 minute summer	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute summer	9	248	204.623	0.057	4.7	0.0892	0.0000	OK
480 minute summer	10	248	204.576	0.041	5.2	0.0486	0.0000	OK
480 minute summer	11	376	204.547	0.171	5.2	0.0000	0.0000	SURCHARGED
480 minute summer	Attenuation Tank	376	204.547	0.967	17.5	92.0955	0.0000	SURCHARGED
480 minute summer	13	248	205.211	0.031	1.2	0.0358	0.0000	OK
480 minute summer	14	376	204.547	0.979	2.8	1.1783	0.0000	SURCHARGED
480 minute summer	CMH01	224	203.525	0.034	2.6	0.0390	0.0000	OK
480 minute summer	EXMH01	224	202.255	0.024	2.6	0.0000	0.0000	OK
480 minute summer	15	224	203.579	0.041	2.6	0.0466	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	1	1.000	2	2.4	0.697	0.398	0.0188	
480 minute summer	2	1.001	3	2.7	0.562	0.152	0.1303	
480 minute summer	3	1.002	5	5.2	0.731	0.293	0.1254	
480 minute summer	4	2.000	5	2.1	0.670	0.118	0.0501	
480 minute summer	5	1.003	6	8.2	1.370	0.462	0.0328	
480 minute summer	6	1.004	Attenuation Tank	8.2	1.460	0.158	0.1643	
480 minute summer	7	3.000	9	4.1	1.009	0.072	0.0216	
480 minute summer	8	4.000	9	0.0	0.000	0.000	0.0155	
480 minute summer	9	3.001	10	4.7	0.942	0.265	0.0157	
480 minute summer	10	3.002	11	5.2	1.408	0.141	0.0194	
480 minute summer	11	3.003	Attenuation Tank	5.2	1.170	0.116	0.2247	
480 minute summer	Attenuation Tank	1.005	14	2.5	0.125	0.035	0.2118	
480 minute summer	13	5.000	14	1.2	0.587	0.199	0.0142	
480 minute summer	14	Hydro-Brake®	15	2.6				
480 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	92.5
480 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +40% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	240	205.045	0.040	1.8	0.0574	0.0000	OK
480 minute winter	2	248	204.936	0.035	2.1	0.0407	0.0000	OK
480 minute winter	3	392	204.681	0.050	4.0	0.0682	0.0000	OK
480 minute winter	4	248	205.096	0.031	1.6	0.0433	0.0000	OK
480 minute winter	5	392	204.681	0.225	6.3	0.2738	0.0000	SURCHARGED
480 minute winter	6	392	204.680	0.250	6.3	0.0000	0.0000	SURCHARGED
480 minute winter	7	248	205.113	0.024	3.1	0.1507	0.0000	OK
480 minute winter	8	8	205.206	0.000	0.0	0.0000	0.0000	OK
480 minute winter	9	392	204.681	0.114	3.5	0.3190	0.0000	OK
480 minute winter	10	392	204.680	0.145	3.9	0.1733	0.0000	OK
480 minute winter	11	392	204.680	0.304	5.8	0.0000	0.0000	SURCHARGED
480 minute winter	Attenuation Tank	392	204.680	1.100	13.3	104.8006	0.0000	SURCHARGED
480 minute winter	13	248	205.207	0.027	0.9	0.0284	0.0000	OK
480 minute winter	14	392	204.680	1.112	2.7	1.3389	0.0000	SURCHARGED
480 minute winter	CMH01	392	203.525	0.035	2.7	0.0396	0.0000	OK
480 minute winter	EXMH01	392	202.255	0.025	2.7	0.0000	0.0000	OK
480 minute winter	15	392	203.580	0.042	2.7	0.0477	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	1	1.000	2	1.8	0.648	0.298	0.0151	
480 minute winter	2	1.001	3	2.1	0.529	0.118	0.1077	
480 minute winter	3	1.002	5	4.0	0.684	0.225	0.1996	
480 minute winter	4	2.000	5	1.6	0.620	0.090	0.0412	
480 minute winter	5	1.003	6	6.3	1.279	0.355	0.0443	
480 minute winter	6	1.004	Attenuation Tank	6.3	1.494	0.122	0.1789	
480 minute winter	7	3.000	9	3.1	0.944	0.054	0.0388	
480 minute winter	8	4.000	9	0.0	0.000	0.000	0.0362	
480 minute winter	9	3.001	10	3.5	0.871	0.197	0.0499	
480 minute winter	10	3.002	11	5.8	1.303	0.157	0.0435	
480 minute winter	11	3.003	Attenuation Tank	3.9	1.145	0.087	0.2247	
480 minute winter	Attenuation Tank	1.005	14	2.6	0.114	0.037	0.2118	
480 minute winter	13	5.000	14	0.9	0.542	0.149	0.0115	
480 minute winter	14	Hydro-Brake®	15	2.7				
480 minute winter	CMH01	1.008	EXMH01	2.7	1.424	0.059	0.0361	97.8
480 minute winter	15	1.007	CMH01	2.7	0.759	0.153	0.0171	

Results for 100 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	315	205.047	0.042	2.0	0.0609	0.0000	OK
600 minute summer	2	315	204.937	0.036	2.3	0.0426	0.0000	OK
600 minute summer	3	315	204.682	0.051	4.4	0.0698	0.0000	OK
600 minute summer	4	315	205.098	0.033	1.8	0.0459	0.0000	OK
600 minute summer	5	450	204.550	0.095	7.0	0.1150	0.0000	OK
600 minute summer	6	450	204.550	0.120	7.0	0.0000	0.0000	OK
600 minute summer	7	315	205.114	0.025	3.4	0.1635	0.0000	OK
600 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute summer	9	315	204.618	0.052	3.9	0.0746	0.0000	OK
600 minute summer	10	315	204.572	0.037	4.4	0.0445	0.0000	OK
600 minute summer	11	450	204.550	0.174	4.4	0.0000	0.0000	SURCHARGED
600 minute summer	Attenuation Tank	450	204.550	0.969	14.8	92.3624	0.0000	SURCHARGED
600 minute summer	13	315	205.209	0.028	1.0	0.0309	0.0000	OK
600 minute summer	14	450	204.550	0.981	2.7	1.1817	0.0000	SURCHARGED
600 minute summer	CMH01	285	203.525	0.034	2.6	0.0390	0.0000	OK
600 minute summer	EXMH01	285	202.255	0.024	2.6	0.0000	0.0000	OK
600 minute summer	15	285	203.579	0.041	2.6	0.0466	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	1	1.000	2	2.0	0.666	0.331	0.0164	
600 minute summer	2	1.001	3	2.3	0.541	0.130	0.1153	
600 minute summer	3	1.002	5	4.4	0.699	0.248	0.1144	
600 minute summer	4	2.000	5	1.8	0.642	0.101	0.0448	
600 minute summer	5	1.003	6	7.0	1.315	0.394	0.0337	
600 minute summer	6	1.004	Attenuation Tank	7.0	1.161	0.135	0.1661	
600 minute summer	7	3.000	9	3.4	0.959	0.060	0.0189	
600 minute summer	8	4.000	9	0.0	0.000	0.000	0.0135	
600 minute summer	9	3.001	10	3.9	0.892	0.220	0.0138	
600 minute summer	10	3.002	11	4.4	1.346	0.120	0.0198	
600 minute summer	11	3.003	Attenuation Tank	4.4	0.661	0.099	0.2247	
600 minute summer	Attenuation Tank	1.005	14	2.4	0.125	0.034	0.2118	
600 minute summer	13	5.000	14	1.0	0.558	0.166	0.0124	
600 minute summer	14	Hydro-Brake®	15	2.6				
600 minute summer	CMH01	1.008	EXMH01	2.6	1.405	0.056	0.0349	105.5
600 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0166	

Results for 100 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	300	205.041	0.036	1.5	0.0518	0.0000	OK
600 minute winter	2	300	204.932	0.031	1.7	0.0366	0.0000	OK
600 minute winter	3	480	204.691	0.060	3.3	0.0821	0.0000	OK
600 minute winter	4	315	205.094	0.029	1.4	0.0405	0.0000	OK
600 minute winter	5	480	204.691	0.236	5.3	0.2861	0.0000	SURCHARGED
600 minute winter	6	480	204.691	0.261	5.3	0.0000	0.0000	SURCHARGED
600 minute winter	7	315	205.111	0.022	2.6	0.1292	0.0000	OK
600 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
600 minute winter	9	480	204.691	0.124	3.0	0.3737	0.0000	OK
600 minute winter	10	480	204.690	0.155	3.3	0.1853	0.0000	SURCHARGED
600 minute winter	11	480	204.690	0.314	3.3	0.0000	0.0000	SURCHARGED
600 minute winter	Attenuation Tank	480	204.690	1.110	11.2	105.7637	0.0000	SURCHARGED
600 minute winter	13	285	205.204	0.024	0.7	0.0234	0.0000	OK
600 minute winter	14	480	204.690	1.122	2.7	1.3510	0.0000	SURCHARGED
600 minute winter	CMH01	480	203.525	0.035	2.7	0.0397	0.0000	OK
600 minute winter	EXMH01	480	202.255	0.025	2.7	0.0000	0.0000	OK
600 minute winter	15	480	203.580	0.042	2.7	0.0478	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	1	1.000	2	1.5	0.618	0.248	0.0132	
600 minute winter	2	1.001	3	1.7	0.501	0.096	0.1013	
600 minute winter	3	1.002	5	3.3	0.644	0.186	0.2125	
600 minute winter	4	2.000	5	1.4	0.597	0.079	0.0375	
600 minute winter	5	1.003	6	5.3	1.221	0.299	0.0443	
600 minute winter	6	1.004	Attenuation Tank	5.3	1.375	0.102	0.1789	
600 minute winter	7	3.000	9	2.6	0.890	0.046	0.0419	
600 minute winter	8	4.000	9	0.0	0.000	0.000	0.0393	
600 minute winter	9	3.001	10	3.0	0.840	0.169	0.0521	
600 minute winter	10	3.002	11	3.3	1.245	0.090	0.0437	
600 minute winter	11	3.003	Attenuation Tank	3.3	0.828	0.074	0.2247	
600 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.037	0.2118	
600 minute winter	13	5.000	14	0.7	0.505	0.116	0.0096	
600 minute winter	14	Hydro-Brake®	15	2.7				
600 minute winter	CMH01	1.008	EXMH01	2.7	1.425	0.059	0.0362	113.0
600 minute winter	15	1.007	CMH01	2.7	0.760	0.153	0.0172	

Results for 100 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	375	205.045	0.040	1.8	0.0574	0.0000	OK
720 minute summer	2	375	204.936	0.035	2.1	0.0407	0.0000	OK
720 minute summer	3	375	204.679	0.048	4.0	0.0664	0.0000	OK
720 minute summer	4	375	205.096	0.031	1.6	0.0433	0.0000	OK
720 minute summer	5	525	204.547	0.092	6.3	0.1118	0.0000	OK
720 minute summer	6	525	204.547	0.117	6.3	0.0000	0.0000	OK
720 minute summer	7	375	205.113	0.024	3.1	0.1507	0.0000	OK
720 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute summer	9	375	204.615	0.049	3.5	0.0674	0.0000	OK
720 minute summer	10	375	204.570	0.035	3.9	0.0417	0.0000	OK
720 minute summer	11	525	204.547	0.171	3.9	0.0000	0.0000	SURCHARGED
720 minute summer	Attenuation Tank	525	204.547	0.967	13.3	92.1093	0.0000	SURCHARGED
720 minute summer	13	375	205.207	0.027	0.9	0.0284	0.0000	OK
720 minute summer	14	525	204.547	0.979	2.7	1.1785	0.0000	SURCHARGED
720 minute summer	CMH01	330	203.525	0.034	2.6	0.0390	0.0000	OK
720 minute summer	EXMH01	330	202.255	0.024	2.6	0.0000	0.0000	OK
720 minute summer	15	330	203.579	0.041	2.6	0.0466	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	1	1.000	2	1.8	0.648	0.298	0.0151	
720 minute summer	2	1.001	3	2.1	0.529	0.118	0.1077	
720 minute summer	3	1.002	5	4.0	0.684	0.225	0.1110	
720 minute summer	4	2.000	5	1.6	0.620	0.090	0.0412	
720 minute summer	5	1.003	6	6.3	1.279	0.355	0.0328	
720 minute summer	6	1.004	Attenuation Tank	6.3	1.115	0.122	0.1644	
720 minute summer	7	3.000	9	3.1	0.944	0.054	0.0175	
720 minute summer	8	4.000	9	0.0	0.000	0.000	0.0125	
720 minute summer	9	3.001	10	3.5	0.871	0.197	0.0127	
720 minute summer	10	3.002	11	3.9	1.303	0.106	0.0194	
720 minute summer	11	3.003	Attenuation Tank	3.9	0.704	0.087	0.2247	
720 minute summer	Attenuation Tank	1.005	14	2.4	0.124	0.034	0.2118	
720 minute summer	13	5.000	14	0.9	0.542	0.149	0.0115	
720 minute summer	14	Hydro-Brake®	15	2.6				
720 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	119.5
720 minute summer	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

Results for 100 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	375	205.039	0.034	1.4	0.0499	0.0000	OK
720 minute winter	2	375	204.931	0.030	1.6	0.0355	0.0000	OK
720 minute winter	3	555	204.674	0.042	3.0	0.0583	0.0000	OK
720 minute winter	4	360	205.092	0.027	1.2	0.0375	0.0000	OK
720 minute winter	5	555	204.673	0.218	4.7	0.2650	0.0000	SURCHARGED
720 minute winter	6	555	204.673	0.243	4.7	0.0000	0.0000	SURCHARGED
720 minute winter	7	375	205.110	0.021	2.3	0.1163	0.0000	OK
720 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
720 minute winter	9	555	204.673	0.107	2.6	0.2819	0.0000	OK
720 minute winter	10	555	204.673	0.138	5.0	0.1646	0.0000	OK
720 minute winter	11	555	204.673	0.297	3.0	0.0000	0.0000	SURCHARGED
720 minute winter	Attenuation Tank	555	204.673	1.093	9.9	104.1144	0.0000	SURCHARGED
720 minute winter	13	375	205.204	0.024	0.7	0.0234	0.0000	OK
720 minute winter	14	555	204.673	1.105	2.7	1.3302	0.0000	SURCHARGED
720 minute winter	CMH01	555	203.525	0.035	2.7	0.0396	0.0000	OK
720 minute winter	EXMH01	555	202.255	0.025	2.7	0.0000	0.0000	OK
720 minute winter	15	555	203.580	0.042	2.7	0.0477	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	1	1.000	2	1.4	0.607	0.232	0.0126	
720 minute winter	2	1.001	3	1.6	0.493	0.090	0.0880	
720 minute winter	3	1.002	5	3.0	0.634	0.169	0.1909	
720 minute winter	4	2.000	5	1.2	0.571	0.068	0.0336	
720 minute winter	5	1.003	6	4.7	1.181	0.265	0.0443	
720 minute winter	6	1.004	Attenuation Tank	4.7	1.202	0.091	0.1789	
720 minute winter	7	3.000	9	2.3	0.869	0.040	0.0362	
720 minute winter	8	4.000	9	0.0	0.000	0.000	0.0338	
720 minute winter	9	3.001	10	2.6	0.806	0.146	0.0477	
720 minute winter	10	3.002	11	-3.2	1.202	-0.088	0.0429	
720 minute winter	11	3.003	Attenuation Tank	2.9	0.897	0.065	0.2247	
720 minute winter	Attenuation Tank	1.005	14	2.6	0.125	0.036	0.2118	
720 minute winter	13	5.000	14	0.7	0.505	0.116	0.0096	
720 minute winter	14	Hydro-Brake®	15	2.7				
720 minute winter	CMH01	1.008	EXMH01	2.7	1.423	0.058	0.0360	126.3
720 minute winter	15	1.007	CMH01	2.7	0.758	0.152	0.0171	

Results for 100 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	1	495	205.041	0.036	1.5	0.0518	0.0000	OK
960 minute summer	2	495	204.932	0.031	1.7	0.0366	0.0000	OK
960 minute summer	3	495	204.675	0.044	3.3	0.0601	0.0000	OK
960 minute summer	4	495	205.093	0.028	1.3	0.0390	0.0000	OK
960 minute summer	5	645	204.537	0.082	5.2	0.0993	0.0000	OK
960 minute summer	6	660	204.541	0.111	5.2	0.0000	0.0000	OK
960 minute summer	7	495	205.111	0.022	2.6	0.1292	0.0000	OK
960 minute summer	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute summer	9	495	204.611	0.045	3.0	0.0584	0.0000	OK
960 minute summer	10	495	204.567	0.032	3.3	0.0382	0.0000	OK
960 minute summer	11	660	204.537	0.161	3.3	0.0000	0.0000	SURCHARGED
960 minute summer	Attenuation Tank	660	204.537	0.957	11.1	91.1794	0.0000	SURCHARGED
960 minute summer	13	495	205.204	0.024	0.7	0.0234	0.0000	OK
960 minute summer	14	660	204.537	0.969	2.7	1.1667	0.0000	SURCHARGED
960 minute summer	CMH01	450	203.525	0.034	2.6	0.0390	0.0000	OK
960 minute summer	EXMH01	450	202.255	0.024	2.6	0.0000	0.0000	OK
960 minute summer	15	450	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.5	0.618	0.248	0.0132	
960 minute summer	2	1.001	3	1.7	0.495	0.096	0.0933	
960 minute summer	3	1.002	5	3.3	0.649	0.186	0.0981	
960 minute summer	4	2.000	5	1.3	0.584	0.073	0.0356	
960 minute summer	5	1.003	6	5.2	1.215	0.293	0.0296	
960 minute summer	6	1.004	Attenuation Tank	5.2	1.084	0.100	0.1603	
960 minute summer	7	3.000	9	2.6	0.890	0.046	0.0156	
960 minute summer	8	4.000	9	0.0	0.000	0.000	0.0112	
960 minute summer	9	3.001	10	3.0	0.840	0.169	0.0113	
960 minute summer	10	3.002	11	3.3	1.245	0.090	0.0178	
960 minute summer	11	3.003	Attenuation Tank	3.3	0.717	0.074	0.2247	
960 minute summer	Attenuation Tank	1.005	14	2.5	0.124	0.035	0.2118	
960 minute summer	13	5.000	14	0.7	0.505	0.116	0.0096	
960 minute summer	14	Hydro-Brake®	15	2.6				
960 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	145.4
960 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	465	205.035	0.030	1.1	0.0438	0.0000	OK
960 minute winter	2	480	204.929	0.027	1.3	0.0321	0.0000	OK
960 minute winter	3	495	204.669	0.038	2.5	0.0522	0.0000	OK
960 minute winter	4	480	205.090	0.024	1.0	0.0343	0.0000	OK
960 minute winter	5	705	204.649	0.194	3.9	0.2361	0.0000	SURCHARGED
960 minute winter	6	705	204.649	0.219	3.9	0.0000	0.0000	SURCHARGED
960 minute winter	7	480	205.108	0.019	1.9	0.0989	0.0000	OK
960 minute winter	8	15	205.206	0.000	0.0	0.0000	0.0000	OK
960 minute winter	9	705	204.649	0.083	2.2	0.1760	0.0000	OK
960 minute winter	10	705	204.649	0.114	2.5	0.1363	0.0000	OK
960 minute winter	11	705	204.649	0.273	3.4	0.0000	0.0000	SURCHARGED
960 minute winter	Attenuation Tank	705	204.649	1.069	8.3	101.8405	0.0000	SURCHARGED
960 minute winter	13	435	205.200	0.020	0.5	0.0183	0.0000	OK
960 minute winter	14	705	204.649	1.081	2.7	1.3015	0.0000	SURCHARGED
960 minute winter	CMH01	705	203.525	0.035	2.7	0.0394	0.0000	OK
960 minute winter	EXMH01	705	202.255	0.025	2.7	0.0000	0.0000	OK
960 minute winter	15	705	203.580	0.042	2.7	0.0474	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	1	1.000	2	1.1	0.569	0.182	0.0105	
960 minute winter	2	1.001	3	1.3	0.467	0.073	0.0769	
960 minute winter	3	1.002	5	2.5	0.603	0.141	0.1741	
960 minute winter	4	2.000	5	1.0	0.541	0.056	0.0295	
960 minute winter	5	1.003	6	3.9	1.121	0.220	0.0443	
960 minute winter	6	1.004	Attenuation Tank	3.9	1.153	0.075	0.1789	
960 minute winter	7	3.000	9	1.9	0.814	0.033	0.0274	
960 minute winter	8	4.000	9	0.0	0.000	0.000	0.0252	
960 minute winter	9	3.001	10	2.2	0.776	0.124	0.0383	
960 minute winter	10	3.002	11	3.4	1.153	0.093	0.0397	
960 minute winter	11	3.003	Attenuation Tank	2.5	0.804	0.056	0.2247	
960 minute winter	Attenuation Tank	1.005	14	2.5	0.124	0.035	0.2118	
960 minute winter	13	5.000	14	0.5	0.460	0.083	0.0075	
960 minute winter	14	Hydro-Brake®	15	2.7				
960 minute winter	CMH01	1.008	EXMH01	2.7	1.418	0.058	0.0357	152.8
960 minute winter	15	1.007	CMH01	2.7	0.755	0.151	0.0170	

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	1	750	205.035	0.030	1.1	0.0438	0.0000	OK
1440 minute summer	2	750	204.929	0.027	1.3	0.0321	0.0000	OK
1440 minute summer	3	750	204.669	0.038	2.5	0.0522	0.0000	OK
1440 minute summer	4	750	205.090	0.024	1.0	0.0343	0.0000	OK
1440 minute summer	5	750	204.503	0.048	3.9	0.0580	0.0000	OK
1440 minute summer	6	960	204.490	0.060	3.9	0.0000	0.0000	OK
1440 minute summer	7	750	205.108	0.019	1.9	0.0989	0.0000	OK
1440 minute summer	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute summer	9	750	204.604	0.038	2.2	0.0443	0.0000	OK
1440 minute summer	10	750	204.563	0.028	2.5	0.0331	0.0000	OK
1440 minute summer	11	960	204.488	0.112	2.5	0.0000	0.0000	OK
1440 minute summer	Attenuation Tank	960	204.488	0.908	8.3	86.5327	0.0000	SURCHARGED
1440 minute summer	13	720	205.200	0.020	0.5	0.0183	0.0000	OK
1440 minute summer	14	960	204.488	0.920	2.7	1.1080	0.0000	SURCHARGED
1440 minute summer	CMH01	1620	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute summer	EXMH01	1620	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute summer	15	1620	203.579	0.041	2.6	0.0467	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	1	1.000	2	1.1	0.569	0.182	0.0105	
1440 minute summer	2	1.001	3	1.3	0.460	0.073	0.0769	
1440 minute summer	3	1.002	5	2.5	0.603	0.141	0.0732	
1440 minute summer	4	2.000	5	1.0	0.541	0.056	0.0295	
1440 minute summer	5	1.003	6	3.9	1.121	0.220	0.0118	
1440 minute summer	6	1.004	Attenuation Tank	3.9	0.655	0.075	0.1230	
1440 minute summer	7	3.000	9	1.9	0.814	0.033	0.0125	
1440 minute summer	8	4.000	9	0.0	0.000	0.000	0.0089	
1440 minute summer	9	3.001	10	2.2	0.766	0.124	0.0091	
1440 minute summer	10	3.002	11	2.5	1.153	0.068	0.0089	
1440 minute summer	11	3.003	Attenuation Tank	2.5	0.469	0.056	0.2027	
1440 minute summer	Attenuation Tank	1.005	14	2.6	0.142	0.036	0.2118	
1440 minute summer	13	5.000	14	0.5	0.460	0.083	0.0075	
1440 minute summer	14	Hydro-Brake®	15	2.6				
1440 minute summer	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0350	192.2
1440 minute summer	15	1.007	CMH01	2.6	0.747	0.146	0.0167	

Results for 100 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	690	205.031	0.026	0.8	0.0370	0.0000	OK
1440 minute winter	2	690	204.924	0.023	0.9	0.0269	0.0000	OK
1440 minute winter	3	750	204.663	0.032	1.8	0.0443	0.0000	OK
1440 minute winter	4	690	205.086	0.021	0.7	0.0288	0.0000	OK
1440 minute winter	5	1020	204.563	0.108	2.8	0.1312	0.0000	OK
1440 minute winter	6	1020	204.563	0.133	2.8	0.0000	0.0000	OK
1440 minute winter	7	720	205.105	0.016	1.4	0.0769	0.0000	OK
1440 minute winter	8	30	205.206	0.000	0.0	0.0000	0.0000	OK
1440 minute winter	9	720	204.599	0.033	1.6	0.0336	0.0000	OK
1440 minute winter	10	990	204.561	0.026	1.8	0.0311	0.0000	OK
1440 minute winter	11	1020	204.570	0.194	1.8	0.0000	0.0000	SURCHARGED
1440 minute winter	Attenuation Tank	1020	204.563	0.983	6.0	93.6255	0.0000	SURCHARGED
1440 minute winter	13	690	205.198	0.018	0.4	0.0157	0.0000	OK
1440 minute winter	14	1020	204.563	0.995	2.6	1.1976	0.0000	SURCHARGED
1440 minute winter	CMH01	630	203.525	0.034	2.6	0.0390	0.0000	OK
1440 minute winter	EXMH01	630	202.255	0.024	2.6	0.0000	0.0000	OK
1440 minute winter	15	630	203.579	0.041	2.6	0.0466	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	1	1.000	2	0.8	0.522	0.133	0.0084	
1440 minute winter	2	1.001	3	0.9	0.416	0.051	0.0602	
1440 minute winter	3	1.002	5	1.8	0.550	0.101	0.1311	
1440 minute winter	4	2.000	5	0.7	0.488	0.039	0.0229	
1440 minute winter	5	1.003	6	2.8	1.020	0.158	0.0379	
1440 minute winter	6	1.004	Attenuation Tank	2.8	1.131	0.054	0.1734	
1440 minute winter	7	3.000	9	1.4	0.752	0.025	0.0099	
1440 minute winter	8	4.000	9	0.0	0.000	0.000	0.0071	
1440 minute winter	9	3.001	10	1.6	0.705	0.090	0.0072	
1440 minute winter	10	3.002	11	1.8	1.053	0.049	0.0232	
1440 minute winter	11	3.003	Attenuation Tank	1.8	0.634	0.040	0.2247	
1440 minute winter	Attenuation Tank	1.005	14	2.6	0.124	0.036	0.2118	
1440 minute winter	13	5.000	14	0.4	0.431	0.066	0.0064	
1440 minute winter	14	Hydro-Brake®	15	2.6				
1440 minute winter	CMH01	1.008	EXMH01	2.6	1.406	0.056	0.0349	204.4
1440 minute winter	15	1.007	CMH01	2.6	0.746	0.146	0.0167	

APPENDIX E – DESIGNERS RISK ASSESSMENT

Cyfarthfa Retail Park, Costa Drive Thru

DESIGN RISK ASSESSMENT SUMMARY

DOCUMENT CONTROL SHEET

Issued by: Burrows Graham Limited
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Client: British Land

Project: Cyfarthfa Retail Park, Costa Drive Thru

Document No: 30106-BGL-XX-XX-TN-X-00003

Title: Design Risk Assessment Summary

Status: Final

Date: 10/12/2024

Prepared By: Jack Williams CEng MICE MCIHT – Civils Director

Document Revision Record

Version Number	Date	Revision Details
01	10/12/2024	Issued

Burrows Graham Limited has prepared this report in accordance with the instructions of the above-named Client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Design Risk Assessment Summary

1.0 Designer's Duties

As a designer under the CDM 2015 regulations, our key responsibilities in relation to the design are:

- make sure the client is aware of the client duties under CDM 2015 before starting any design work
- when preparing or modifying designs:
 - take account of any pre-construction information provided by the client (and principal designer, if one is involved)
 - eliminate foreseeable health and safety risks to anyone affected by the project (if possible)
 - take steps to reduce or control any risks that cannot be eliminated
- provide design information to:
 - the principal designer (if involved), for inclusion in the pre-construction information and the health and safety file
 - the client and principal contractor (or the contractor for single contractor projects) to help them comply with their duties, such as ensuring a construction phase plan PDF is prepared
- communicate, cooperate and coordinate with:
 - any other designers (including the principal designer) so that all designs are compatible and ensure health and safety, both during the project and beyond
 - all contractors (including the principal contractor), to take account of their knowledge and experience of building designs

2.0 Residual Risk Information

We consider it essential to provide clear and concise information about residual risks associated with our design, however in accordance with HSE guidance we will not be providing "generic" information or details of usual risks associated with this type of project. A competent contractor should be aware of these risks.

We have reviewed the elements within our design responsibility and have taken the following measures within the design to reduce/eliminate risk:

- **drainage manholes have been located where possible away from heavily trafficked locations to facilitate safe access, and reduce risk of damage around covers**
- **retaining wall extent has been limited through the levels design**
- **drainage system has been designed to suit ground conditions and kept shallow to reduce depth.**

The following residual *unusual* risks have been identified and are/will be annotated on our drawings:

- **Retaining wall on sensitive boundary adjacent to existing public footpath.**
- **Backfilled mine workings and colliery spoil – refer to SI for details.**
- **Potential obstructions in existing ground.**
- **Working near live sewers/services below ground.**

We will continue to review our design as the project progresses and will provide any further information as appropriate in relation to any unusual risks.

We will also be involved in regular reviews of the developing design as part of the ongoing design team meetings. In addition, we will review construction related issues with the contractor as necessary to assist in managing risk during the construction phase of the project.