

Parcel N, Arborfield Green, Wokingham

Flood Risk Assessment Compliance Note

July 2025



Woods Hardwick
Architecture | Engineering | Planning | Surveying

Contents

1	Introduction	05
2	Review of Approved Documents	10
3	Proposed Drainage Strategy	13
	Surface Water Drainage Strategy	14
	Foul Water Drainage Strategy	15
4	Maintenance and Management	16
5	FRA Compliance	20

Appendices

Appendix A	Site Layout Plan
Appendix B	Approved Outline Surface and Foul Water Drainage Strategy
Appendix C	Extracts from Wilson Bailey Site Investigation Report
Appendix D	Proposed Drainage Strategy Drawings
Appendix E	Surface Water Drainage Calculations

Report Reference

19632/FRA-C

Revision History

Rev	Amendments	Prepared By	Checked By	Date
First Issue	N/A	GBR	GBR	31/07/2025

Introduction

Introduction

The following paragraphs state the document's purpose and provide a summary of the site's planning history; together with the relevant conditions to which the report seeks to demonstrate compliance.

- 1.1 This Flood Risk Assessment Compliance Report (FRA-C) has been prepared by Woods Hardwick Ltd on behalf of Crest Nicholson in support of their Reserved Matters Planning Application for a site known as 'Parcel N, Arborfield Green, Wokingham'.
- 1.2 The site forms part of a wider scheme known as Arborfield Green which benefits from Outline Planning Approval (Ref: 14/02121/OUT) for the following;

OUTLINE PERMISSION FOR: Demolition of buildings and phased redevelopment of Arborfield Garrison and adjoining land for: Up to 2,000 new dwellings (including up to 80 units of extra care housing). District centre comprising a foodstore up to 4,000 sq m gross with up to a further 3,500 sq m (gross) floor space within Classes A1, A2, A3, A4, A5, B1, D1 and D2 (with residential above - Class C3)), and transport interchange, village square, car parking, servicing and drop off area. Up to a further 1,500 sq m (gross) floor space within Classes D1 and D2. Neighbourhood centre to provide up to 300 sq m (gross) floor space within Classes A1, A2, A3, A4, A5, B1, D1 and D2, with parking/servicing area. Secondary school for up to 1,500 pupils (Class D1) including sports pitches, floodlit all-weather pitch, and indoor swimming pool and parking areas. Up to three-form primary school (Class D1) with sports pitch and parking areas. Associated phased provision of: car parking; public open space including sports pitches, informal/incidental open space, children's play areas including multi-use games area (MUGA), skate park, community gardens/allotments; landscaping/buffer areas; boundary treatments; new roads, footpaths, cycleways and bridleways; sustainable urban drainage systems, including flood alleviation works.

PART 2 - FULL PERMISSION FOR phased development of: Creation of two new areas of Suitable Alternative Natural Greenspace (SANGS) (In the north-eastern part of the application site ("Northern SANGS") and at West Court ("West Court SANGS") including car parking areas, path/walkways, fencing and associated landscaping; re-use Application No: O/2014/2280 - 2 - of existing MoD gymnasium for sports/community uses/centre (Classes D1/D2; new roundabout junction to A327 Reading Road; junction improvements to Langley Common Road, Baird Road and Biggs Lane; junction improvements and new access at Biggs Lane/Princess Marina Drive; re-use and improvements to existing site accesses from Biggs Lane.

- 1.3 The outline planning application was supported by a Flood Risk Assessment Report dated March 2015 which was prepared by AECOM. A separate Foul and Surface Water Drainage Strategy document was prepared by AECOM also dated March 2015.
- 1.4 Whilst the Outline Planning Permission applies to the entire Arborfield Green development this report specifically pertains to Parcel N, located within the central area of the wider site to the south of the existing development.
- 1.5 The development proposals for Parcel N comprise 67 residential dwellings plus associated infrastructure. A Site Layout Plan is included in **Appendix A**.
- 1.6 This document has been prepared to demonstrate that the proposed drainage strategy for Parcel N complies with the approved documents and to allow discharge of Conditions 19 and 34 of the Outline Planning Consent (14/02121/OUT), which are as follows:

43. The development hereby permitted shall be carried out in accordance with the approved Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001 including the mitigation measures detailed in this strategy unless otherwise agreed in writing by the Local Planning Authority. In addition, an off-site drainage strategy will be submitted to and approved in writing by the Local Planning Authority (in consultation with the Sewage Undertaker) prior to the commencement of development and in any relevant phase. No discharge of foul water from the site shall be accepted into the public system until the drainage works relevant to that phase have been completed in accordance with the approved Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001 and the approved off-site drainage strategy. Application No: O/2014/2280 - 22 -

Reason: To ensure that the development does not increase flood risk and to ensure that sufficient capacity is made available to cope with the new development in order to avoid adverse environmental impact upon the community. Relevant policy: NPPF, Wokingham Borough Core Strategy Policy CP1 and CP18 and the Managing Development Delivery Local Plan Policy CC10 and the Arborfield Strategic Development Location Supplementary Planning Document (2011).

44. No part of the development within a phase shall take place until a surface water drainage scheme for the phase, based on sustainable drainage principles outlined in the agreed FRA (Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001) and an assessment of the hydrological and hydrogeological context of the development, has been submitted to and approved in writing by the local planning authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall also include:

- a. Detailed surface water drainage calculations for all rainfall events (1 in 1, 1 in 30 and 1 in 100) up to and including the 1 in 100 plus climate change storm event.
- b. Demonstration that there will be no flooding on the site up to the 1 in 30 storm event and that and flooding up to the 1 in 100 plus climate change storm event can be safely stored within the site without increasing flood risk to the surrounding area.
- c. SuDS features shall be located outside of the 1 in 100 year plus 20% allowance for climate change flood level.
- d. Limiting the discharge rate from the entire site to Greenfield rates
- e. Details of the feasibility of the use of soakaways in line with BRE 365 to demonstrate whether they are technically feasible and confirmation that there will be a minimum of 1 metre between the base of the infiltration device and the water table.
- f. Information on the hierarchy of options to explain the choice of any proposed SuDS technique.
- g. Details of how the scheme shall be maintained and managed after completion.

Reason: To prevent the increased risk of flooding, to improve and protect water quality, improve habitat and amenity, and ensure future maintenance of the surface water drainage system.

45. No development shall take place within each phase until full details of the Drainage System(s) have been submitted to and approved in writing by the Local Planning Authority. These shall include:

- a. Wherever practical, measures to manage surface water at the surface through incorporation of SuDS that integrate with wider landscape proposals and provide a range of benefits in terms of amenity provision, ecological enhancements and water quality;
- b. Demonstration of where and how surface water attenuation shall be provided across the site and that attenuation features are adequately sized to serve the development for all events up to and including the 1 in 100 year plus Application No: O/2014/2280 - 23 - allowances for climate change taking into consideration detailed intrusive site investigations at the site;
- c. Details of the phased implementation of the drainage system(s) and demonstration that flood risk will not be exacerbated at any time during installation;
- d. Details of the implementation of the drainage system(s) and demonstration that water quality will not be impacted at any time during installation;
- e. Details of the implementation and final state of the drainage system(s) and demonstration that the structural integrity of receiving watercourses will not be impacted at any time;

- f. Clear definition of where surface water outfalls will discharge and demonstration that discharges and attenuation volumes have accounted for the effect of flood levels on receiving water bodies;
- g. Demonstration that any seasonal variation in groundwater levels has been considered in the sizing and location of SuDS features;
- h. Details of the freeboard allowance for any structures required to cross ditches and/or watercourses requiring demonstration that structures do not increase flood risk in all areas upstream and downstream of the proposed development;
- i. Detailed hydraulic modelling of the drainage system(s) incorporating the watercourses, SuDS features both online and offline and demonstration that SuDS storage is not compromised by fluvial flood flows / levels;
- j. Full details of the maintenance and/or adoption proposals /agreements for the development covering all aspects of the proposed drainage system(s), with provision for annual inspection reports to be submitted to the Local Authority for any SUDS that will be retained by private management companies. Development should be implemented in accordance with the approved details and thereafter retained unless otherwise agreed in writing by the Local Planning Authority.

Reason: To prevent the increased risk of flooding, to improve and protect water quality, improve habitat and amenity, and ensure future maintenance of the surface water drainage system in accordance with NPPF, Wokingham Borough Core Strategy Policy CP1 and CP18 and the Managing Development Delivery Local Plan Policy CC10 and the Arborfield Strategic Development Location Supplementary Planning Document (2011).

- 1.7 The purpose of this report is to demonstrate that the proposed drainage design complies with the principles of the approved Surface Water Drainage Strategy prepared by AECOM.
- 1.8 This report confirms that the strategy is compliant with the approved FRA and meets the necessary requirements to discharge Condition 43, 44 and 45 of the Outline Planning Consent.

Review of Approved Documents

Review of Approved Documents

This section reviews the FRA and Drainage Statement (Ref 3723.FRA.03) and Drainage Strategy Report (Ref: 5348/DS.05) to ensure that proposals at this stage are in accordance with the approved principles.

Surface Water Drainage Strategy

- 2.1 The site-wide approved surface water drainage strategy is contained within the approved Foul and Surface Water Drainage Strategy document prepared by AECOM dated March 2015.
- 2.2 The approved surface water drainage strategy split the site into sub-catchments to mimic the natural drainage regime. A copy of Surface Water Drainage Strategy that was included within the approved document is included as **Appendix B** of this report.
- 2.3 The runoff rate for each catchment was based upon the Q_{bar} rate of 4.3l/s per impermeable hectare. The agreed rates for each catchment were calculated based upon an assumed impermeable area for each catchment. For residential parcels the calculations were based upon 60% impermeable surfacing.
- 2.4 Parcel N was included within Catchment 11 which also include Parcels L and M. The combined allowable discharge rate of the three parcels is 34.7l/s.
- 2.5 Attenuation for all three parcels was proposed within two attenuation basins within the proposed linear park located to the south of Parcel N.
- 2.6 The eastern attenuation basin will have a discharge rate of 9.7l/s and the western basin will have a discharge rate of 25l/s. Both basins discharge into the existing watercourse located to the immediate south of the proposed basins.
- 2.7 The eastern basin would accommodate flows from Parcel N only while the western basin is designed to accommodate the remainder of Parcel N as well as Parcels L and M.
- 2.8 The total attenuation volume calculated for the parcels to attenuate storms up to the 1 in 100 year event with 40% climate change allowance was 1580m³.

Foul Water Drainage Strategy

- 2.9 In terms of foul drainage, the approved (outline) Foul and Surface Water Drainage Strategy proposed to construct a gravity foul sewer network within each of the development parcels that would generally follow the existing topography and discharge into the existing combined sewer that crosses the site.
- 2.10 The strategy proposed 12 connections from the site into the existing sewer network with existing connections being utilised where possible. The proposed outfall from Parcel N was to the Thames water sewer that runs slightly beyond the eastern boundary of the parcel. A copy of the outline sitewide Foul Water drainage strategy is included within **Appendix B**.
- 2.11 Through discussions with Thames Water it was confirmed that there would be capacity at the treatment works to serve the development at such time as discharge from the site is required.

Proposed Drainage Strategy



Woods Hardwick

Architecture | Engineering | Planning | Surveying

Proposed Drainage Strategy

The following paragraphs provide detail on the proposed drainage strategy which follows the general principles of the approved FRA and DS with some amendments as necessary.

Proposed Surface Water Drainage Strategy

- 3.1 The proposed drainage strategy for Parcel N has been prepared by Woods Hardwick and is shown on the Drainage Strategy Drawing included in **Appendix D**.
- 3.2 In order to ensure that the proposals follow the hierarchy for surface water discharge the applicant commissioned Wilson and Bailey Geotechnical & Environmental (WB) to undertake a Desk Study and Phase 1 Ground Investigation Report.
- 3.3 Within their report WB confirm that soakaways are not considered to present a viable option for disposal of surface water due to the predominantly clayey nature of the near surface soils. It is therefore recommended that discharge to the local surface water drainage network of ditches, swales and basins should be explored by the civil engineers as part of the detailed drainage design.
- 3.4 The WB investigations also included groundwater monitoring which confirmed that groundwater seepages and inflows were encountered in a number of exploratory boreholes at depths of between about 2.00 m and 4.00 m below ground level. Limited monitoring of the standpipes installed into the small diameter boreholes indicates boreholes to be generally dry but where groundwater has been detected it is present at inconsistent depths that are indicative of localised pockets of groundwater perched within the sandier layers, rather than being indicative of a single body of laterally consistent and hydraulic continuous groundwater. Relevant extracts from the WB report can be found in **Appendix C**.
- 3.5 In light of the above and in accordance with the hierarchy it is proposed to discharge to the existing watercourses as per the approved outline strategy.
- 3.6 The strategy comprises two separate drainage networks, each serving a portion of the site. Both networks convey surface water unrestricted into the attenuation basins located within the proposed linear park to the south.
- 3.7 The basins were designed to accommodate flows from Parcel L, M and N. The eastern basin accommodates Parcel N only while the western basin accommodates the remainder of Parcel N as well as Parcels L and M.

- 3.8 The proposed discharge rates from the eastern and western basins are 9.7l/s and 24.4l/s respectively. The discharge rate of 9.7l/s is equal to the rate approved at the outline planning stage while the rate of 24.4 l/s represents slight betterment on the approved rate of 25l/s from the western basin.
- 3.9 The surface water drainage calculations, included in **Appendix E**, demonstrate that the proposed onsite attenuation features are capable of accepting flows from the 1 in 100-year rainfall event including 40% climate change plus 10% urban creep.

Proposed Foul Water Drainage Strategy

- 3.10 The proposed foul water drainage strategy is also shown on the Drainage Strategy Drawing included in **Appendix D**.
- 3.11 The drawing confirms that foul water flows from the site will be discharged via gravity into the existing foul water that crosses the site.

Maintenance and Management



Woods Hardwick

Architecture | Engineering | Planning | Surveying

Maintenance and Management

The following paragraphs provide detail on the likely maintenance and management measures that will need to be undertaken across the lifetime of the development.

- 4.1 The arrangements for further maintenance of the surface water drainage system needs to be fully considered to ensure long-term functionality of the drainage system.
- 4.2 It is proposed that the piped surface water network including flow controls and headwalls and will be offered to Thames Water for adoption under S104 of the Water Industry Act. These systems will be subject to the maintenance regime of Thames Water which is subject to regulatory approval.
- 4.3 The maintenance regime defines the scope of inspections and maintenance that is to be carried out on the pipes and flow control device during and following construction, the stormwater drains will need to be regularly inspected in order to assess their performance and to schedule any required maintenance.
- 4.4 Items that are subjected to routine inspections for maintenance may comprise but are not limited to those listed in the table below, the party that will potentially be responsible for the various components are listed in the fourth column.

Item	Routine Inspections for Maintenance	Minimum Frequency	Responsibility
Pipes / Manholes / Catchpits	Inspect surface access points to manholes and catchpits as well as the surrounding area. Particular attention should be paid to damage or blockage. To be visually inspected after heavy rainfall events to ensure that they are free of debris and litter.	6 monthly As required	Thames Water
Flow Control Device	Inspect flow control device for blockages, damage and general condition. To be visually inspected after heavy rainfall events to ensure that they are free of debris and litter.	6 monthly As required	Thames Water

- 4.5 In addition, personnel completing the routine inspections for maintenance should be generally observant of items such as equipment failures, leaking water, scouring and/or signs of blockages of water flow. If such items are observed, an immediate inspection for engineering maintenance may be necessary.
- 4.6 Engineering inspections will generally comprise a walk over survey of the site, along with additional investigation activities as considered necessary. These inspections are primarily concerned with checking engineering aspects of the drainage that are not likely to be picked up during a routine inspection such as manhole damage and concrete deterioration.
- 4.7 During inspections for engineering maintenance, care is needed to look for signs of pipe blockages. This can only be checked at the inlet and outlet of manholes at the base. Items that are to be subject to Engineering Inspections for Maintenance will comprise of those listed in the table below:

Item	Engineering Inspections for Maintenance
Manholes / Catchpits	All manholes/Catchpits will require to be inspected externally and internally. External inspections will determine the overall condition of the access points, and should record deterioration of exposed concrete, access lids, restricted access due to overgrown vegetation/debris.
Flow Control Device	Inspections will determine the overall condition of the flow control device to ensure it is working efficiently and effectively.

- 4.8 As a result of the routine inspections, a schedule of maintenance activities shall be drawn up to address those issues identified during the inspection. Examples of possible maintenance activities may comprise, but not be limited to those listed in the table below:

Item	Scheduled Maintenance Activities	Minimum Frequency
Manholes / Catchpits	Clear accumulated sedimentation	6 monthly
	Repair/replace damaged pit covers and grates	As required
Pipes / Flow Control Device	Clear accumulated sediment and debris	6 monthly

- 4.9 The table below highlights the likely renewal and replacement works that will be required and how this work will be funded.

Item	Renewal & Replacement Works	Undertaken / Financed by
Flow Control Device	Flow control to be replaced by a competent Contractor to the manufacturer's specification	Thames Water

FRA Compliance



Woods Hardwick

Architecture | Engineering | Planning | Surveying

FRA Compliance

Presented below is a summary of how the proposed drainage strategy complies with the requirements of Planning Conditions 6, 8 and 11 and where the relevant information can be found.

- 5.1 On the basis of the information presented below it can be concluded that sufficient information has been provided to allow the discharge of Planning Conditions 43, 44 and 45.

Requirement	Compliance
43. The development hereby permitted shall be carried out in accordance with the approved Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001 including the mitigation measures detailed in this strategy unless otherwise agreed in writing by the Local Planning Authority. In addition, an off-site drainage strategy will be submitted to and approved in writing by the Local Planning Authority (in consultation with the Sewage Undertaker) prior to the commencement of development and in any relevant phase. No discharge of foul water from the site shall be accepted into the public system until the drainage works relevant to that phase have been completed in accordance with the approved Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001 and the approved off-site drainage strategy. Application No: O/2014/2280 - 22 •	The proposed Surface and Foul Water drainage strategies for parcel N have been designed in accordance with the plans and strategies that were approved at the outline planning stage. The Strategy for parcel N is described in Section 3 of this report and shown on the plans included within Appendix D. The calculations are included within Appendix E.

Requirement	Compliance
44. No part of the development within a phase shall take place until a surface water drainage scheme for the phase, based on sustainable drainage principles outlined in the agreed FRA (Foul and Surface Water Drainage Strategy Revision 3 Updated drainage strategy plan and phasing plan included dated 03/03/15 Job No 60312043 Reference DS/001) and an assessment of the hydrological and hydrogeological context of the development, has been submitted to and approved in writing by the local planning authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall also include: a. Detailed surface water drainage calculations for all rainfall events (1 in 1, 1 in 30 and 1 in 100) up to and including the 1 in 100 plus climate change storm event. b. Demonstration that there will be no flooding on the site up to the 1 in 30 storm event and that and flooding up to the 1 in 100 plus climate change storm event can be safely stored within the site without increasing flood risk to the surrounding area. c. SuDS features shall be located outside of the 1 in 100 year plus 20% allowance for climate change flood level. d. Limiting the discharge rate from the entire site to Greenfield rates e. Details of the feasibility of the use of soakaways in line with BRE 365 to demonstrate whether they are technically feasible and confirmation that there will be a minimum of 1 metre between the base of the infiltration device and the water table. f. Information on the hierarchy of options to explain the choice of any proposed SuDS technique. g. Details of how the scheme shall be maintained and managed after completion.	a. Calculations for all storm events up to the 1 in 100 year + CC event are included within Appendix E. b. The calculations in Appendix E confirm this requirement. c. All SuDS features are located outside of the Flood Zone. d. The discharge rate from Parcel N is restricted downstream of the basins to the Qbar rate. e. Based upon the underlying ground conditions infiltration is not feasible. This is confirmed in Section 3 and Appendix D. f. The hierarchy of options was reviewed and agreed at the outline stage and confirmed within Sections 2 and 3 of this report. g. A maintenance schedule is included as Section 4 of this report.

Requirement	Compliance
45. No development shall take place within each phase until full details of the Drainage System(s) have been submitted to and approved in writing by the Local Planning Authority. These shall include: a. Wherever practical, measures to manage surface water at the surface through incorporation of SuDS that integrate with wider landscape proposals and provide a range of benefits in terms of amenity provision, ecological enhancements and water quality; b. Demonstration of where and how surface water attenuation shall be provided across the site and that attenuation features are adequately sized to serve the development for all events up to and including the 1 in 100 year plus Application No: O/2014/2280 - 23 - allowances for climate change taking into consideration detailed intrusive site investigations at the site; c. Details of the phased implementation of the drainage system(s) and demonstration that flood risk will not be exacerbated at any time during installation; d. Details of the implementation of the drainage system(s) and demonstration that water quality will not be impacted at any time during installation; e. Details of the implementation and final state of the drainage system(s) and demonstration that the structural integrity of receiving watercourses will not be impacted at any time; f. Clear definition of where surface water outfalls will discharge and demonstration that discharges and attenuation volumes have accounted for the effect of flood levels on receiving water bodies; g. Demonstration that any seasonal variation in groundwater levels has been considered in the sizing and location of SuDS features; h. Details of the freeboard allowance for any structures required to cross ditches and/or watercourses requiring demonstration that structures do not increase flood risk in all areas upstream and downstream of the proposed development; i. Detailed hydraulic modelling of the drainage system(s) incorporating the watercourses, SuDS features both online and offline and demonstration that SuDS storage is not compromised by fluvial flood flows / levels; j. Full details of the maintenance and/or adoption proposals /agreements for the development covering all aspects of the proposed drainage system(s), with provision for annual inspection reports to be submitted to the Local Authority for any SUDS that will be retained by private management companies. Development should be implemented in accordance with the approved details and thereafter retained unless otherwise agreed in writing by the Local Planning Authority.	a. All of the proposed attenuation for Parcel N is above ground in accordance with the approved strategy. b. The attenuations features are shown on the Appended Drainage Strategy drawings. c. The attenuation basins required to attenuate Parcel N will be constructed in advance of connections being required from the parcel. d. Details of implementation will be provided at the detailed design stage. e. The required details will be provided at the detailed design stage. f. The required details are shown on the Drainage Strategy drawings. g. Groundwater seepages were encountered at depths between 2.0-4.0m below ground level. The inconsistent depths are inficative of localised pockets of groundwater perched on sandier layers rather thanbeing indicative of a single body of laterally consistent and hydraulic continuous groundwater. h. A minimum of 300mm of freeboard is provided in the basins i. The Calculations relevant for Parcel N are included within Appendix D. j. The maintenance strategy is included within Appendix 4 of this report.

Appendix A

Site Layout Plan

All Intellectual Property Rights (including copyright) in or arising out of this drawing and the building works depicted are owned by Pegasus Planning Group, Ltd (Pegasus Group) and may not be reproduced and/or copied without a written licence. Pegasus Group accepts no liability for any use of this drawing other than for its original purpose and by the original client except in circumstances where approval for use has been supplied by Pegasus Group in writing. Use only written dimensions. Drawing prepared for planning application purposes only. DO NOT SCALE (or use) for construction, sales or any other purpose. Any queries to be reported to Pegasus Group for clarification. © Pegasus Planning Group Limited. © Crown copyright and database rights OS 100022093. Promap Licence number 100022093. Promap Licence number 100022093. Terms & Conditions @pegasusgroup.co.uk



- KEY: SITE LAYOUT**
- APPLICATION BOUNDARY
- SURFACE MATERIALS:**
- GARDEN/POS/HIGHWAY VERGE (SEE DETAILED LANDSCAPE PROPOSALS)
 - TARMACADUM
 - BLOCK PAVING
- ENCLOSURE DETAILS:**
- 1.8M HIGH BRICK WALL
 - 1.8M HIGH CLOSE BOARDED FENCING
 - 0.9M HIGH ESTATE RAILING
- LANDSCAPING:**
- INDICATIVE TREE PLANTING (SEE DETAILED LANDSCAPE PROPOSALS)
 - RETAINED VEGETATION (SEE TREE RETENTION PLAN)
 - ROOT PROTECTION AREA
 - POTENTIAL ALLOTMENTS
 - DITCH
- OTHER:**
- BIN COLLECTION POINT
 - GATE/PERSONNEL DOOR
 - CYCLE STORE
 - SOCIAL RENT
 - SHARED OWNERSHIP
 - AFFORDABLE RENT

House Type Schedule - Parcel N, Arborfield Green						
Open Mix Housetypes	No's	Sq. ft.	Total Sq. ft.	Beds	Storeys	Individual %
Donner	1	755	755	2	2	2%
Rodgrieve	8	922	7,376	3	2	15%
Chelmsford M(2)	4	997	3,988	3	2	7%
Seaton	5	1,043	5,215	3	2	9%
Fairway	6	1,127	6,762	3	2.5	11%
Romsey	9	1,176	10,584	4	2	17%
Marlborough	2	1,347	2,694	4	2	4%
Burford	3	1,516	4,548	4	2	6%
Buckingham	9	1,517	13,653	5	2	17%
Walton	7	1,855	12,985	5	2.5	13%
Affordable Housetypes	No's	Sq. ft.	Total Sq. ft.	Beds	Storeys	Individual %
Social Rent						
1B Maisonette M(2) GF	3	538	1,614	1	1	
1B Maisonette M(2) FF	3	663	1,989	1	1	
AFR 2B3P M(2)	1	767	767	2	2	38%
AFR 3B4P M(2)	1	914	914	3	2	
AFR 4B5P M(2)	1	1,056	1,056	3	2	
Shared Ownership						
AFR 2B3P M(2)	1	767	767	2	2	
AFR 3B4P M(2)	2	914	1,828	3	2	23%
Affordable Rent						
AFR 2B3P M(2)	1	767	767	2	2	8%
Total Open Market Units	54		68,560			
Total Affordable Units	13		9,702			
Total Units	67		78,262			

PARCEL N, ARBORFIELD GREEN, WOKINGHAM – SITE LAYOUT

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: THA | APPROVED BY: STH | DATE: 29/07/2025 | SCALE: 1:500@A0 | DRWG: P24-1739_DE_O1_Q_01 | CLIENT: CREST NICHOLSON (CHILTERN) |



Appendix B

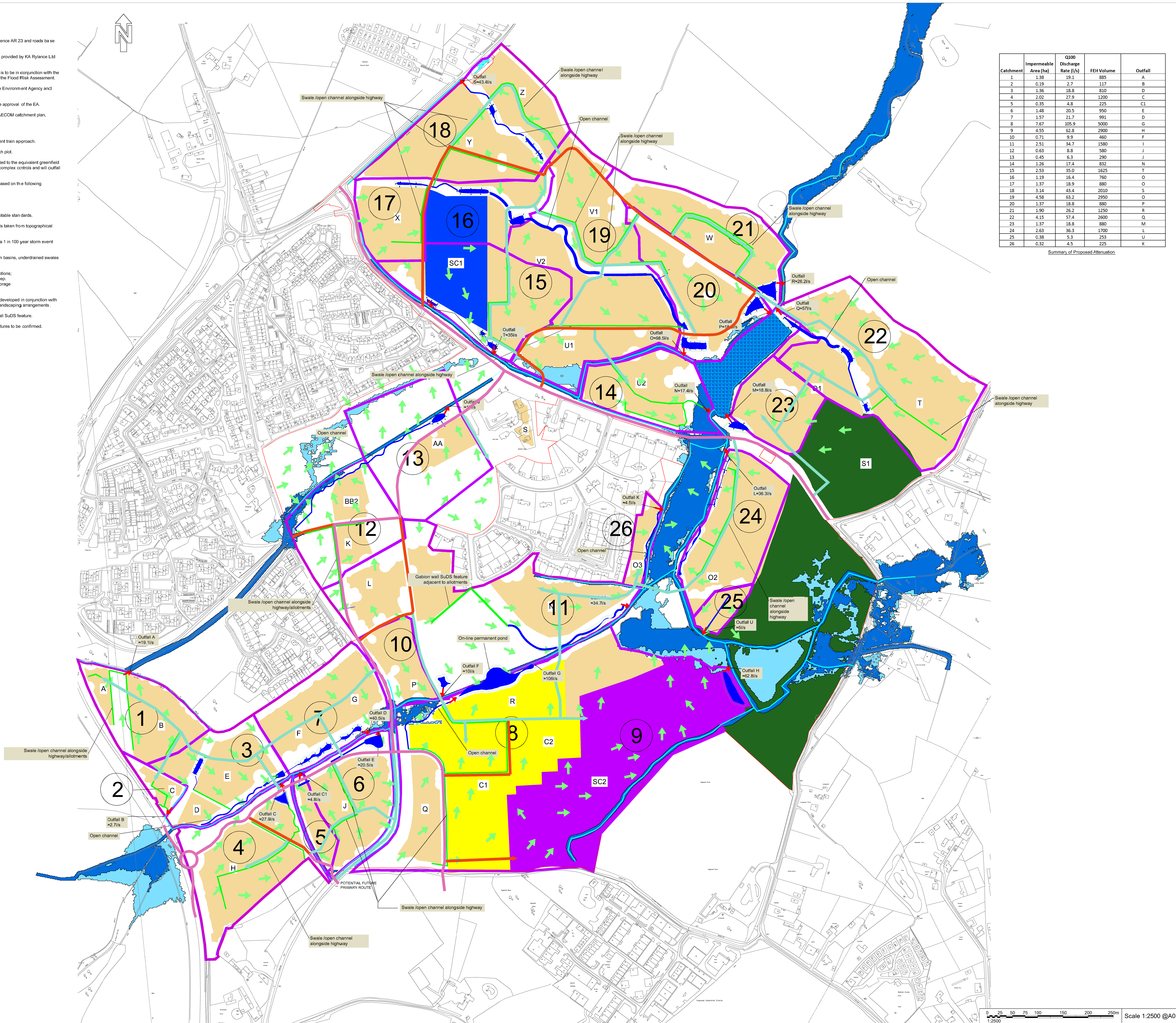
Approved Outline Surface and Foul Water Drainage Strategy



Woods Hardwick
Architecture | Engineering | Planning | Surveying

ISO A3 841mm x 1189mm
Approved
Project Management Initials: Designer: 1:2500

- Notes**
- Drawing based on IOP masterplan reference AR 23 and roads base rev 1 issued 19 September 2014.
 - Design based on Topographical Survey provided by KA Rylands Ltd dated March 2014 (ref Arbor release v5).
 - The location of the attenuation features is to be in conjunction with the fluvial flood extents as determined from the Flood Risk Assessment.
 - Extents of flooding to be agreed with the Environment Agency and Wokingham Borough Council.
 - On line permanent pond is subject to the approval of the EA.
 - Drawing to be read in conjunction with AECOM catchment plan, section and flood routing drawings.
- SuDS Strategy**
- SuDS strategy is based on a management train approach.
 - Source control to be provided within each plot.
 - Outflow from the development is restricted to the equivalent greenfield rate of runoff (Q_{eq} & Q_{eq}) by the use of complex controls and will outfall to existing watercourses.
 - Assumed areas of impermeability are based on the following assumptions:
 - Residential - 65%
 - Commercial - 80%
 - Schools - 50%
 - Drainage system to be designed to adoptable standards.
 - Drainage design based on existing levels taken from topographical survey.
 - SuDS features to attenuate runoff from a 1 in 100 year storm event plus 30% climate change.
 - SuDS storage features include detention basins, underdrained swales and open channels.
 - SuDS layout based on following assumptions:
 - Basins and channels - 1 - 1.5m deep.
 - Underdrained swales - 1.5m/m storage
 - 150mm freeboard.
 - SuDS features layout and design to be developed in conjunction with Murdoch Wickham to reflect proposed landscaping arrangements.
 - Maintenance access to be provided for all SuDS features.
 - Adoption and maintenance of SuDS features to be confirmed.



Catchment	Impermeable Area (ha)	Q100 Discharge Rate (l/s)	FEH Volume	Outfall
1	1.35	19.1	885	A
2	0.19	2.7	117	B
3	1.36	18.8	810	D
4	2.02	27.9	1200	C
5	0.35	4.8	225	C1
6	1.48	20.5	950	E
7	1.57	21.7	991	D
8	7.67	105.9	5000	G
9	4.55	62.8	2900	H
10	0.71	9.9	460	F
11	2.51	34.7	1580	I
12	0.63	8.8	580	J
13	0.45	6.3	290	J
14	1.26	17.4	832	N
15	2.53	35.0	1625	T
16	1.19	16.4	760	O
17	1.37	18.9	880	O
18	3.14	43.4	2010	S
19	4.58	63.2	2950	O
20	1.37	18.8	880	P
21	1.90	26.2	1250	R
22	4.15	57.4	2600	Q
23	1.37	18.8	880	M
24	2.63	36.3	1700	L
25	0.38	5.3	253	U
26	0.32	4.5	225	K

Summary of Proposed Attenuation

AECOM

PROJECT
Arborfield Garrison SDL

CLIENT
Crest Nicholson

CONSULTANT
AECOM
Colmore Plaza
Colmore Circus Queensway
Birmingham
B4 6AT
T +44 (0)121 710 1100
F +44 (0)121 710 1399
www.aecom.com

- KEY**
- Proposed SuDS Surface water attenuation feature.
 - Proposed SuDS Open channel - storage & conveyance.
 - Proposed SuDS Swale/Underdrained swale - storage & conveyance.
 - Existing watercourse
 - Existing pond
 - Proposed Site Boundary
 - Extent of 100 year flood envelope including 30% climate change
 - Extent of 20 year flood envelope
 - Existing drainage path
 - Existing drainage sub-catchment boundary.
 - Drainage catchment reference
 - Proposed discharge rate from 1 in 100 year storm event plus climate change.
 - Proposed outfall point.
 - Proposed Highway Network (Primary)
 - Proposed Highway Network (Secondary)
 - Proposed Highway Network (Tertiary)

WORK IN PROGRESS

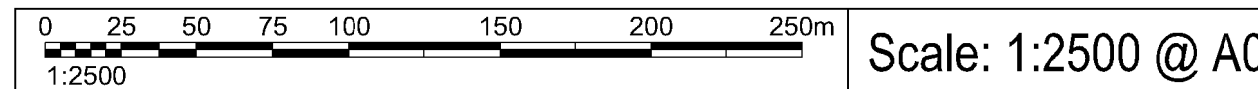
ISSUE/REVISION

Rev	Date	Detail	Made	Checked	App'd
P1	15/09/14	Initial design	AM	SLM	BLM
P2	16/09/14	Design development	AM	SLM	BLM
P3	16/09/14	Design development	AM	SLM	BLM
P4	16/09/14	Design development	AM	SLM	BLM
P5	16/09/14	Design development	AM	SLM	BLM
P6	16/09/14	Design development	AM	SLM	BLM
P7	16/09/14	Design development	AM	SLM	BLM
P8	16/09/14	Design development	AM	SLM	BLM
P9	16/09/14	Design development	AM	SLM	BLM
P10	16/09/14	Design development	AM	SLM	BLM
P11	16/09/14	Design development	AM	SLM	BLM
P12	16/09/14	Design development	AM	SLM	BLM
P13	16/09/14	Design development	AM	SLM	BLM
P14	16/09/14	Design development	AM	SLM	BLM
P15	16/09/14	Design development	AM	SLM	BLM
P16	16/09/14	Design development	AM	SLM	BLM
P17	16/09/14	Design development	AM	SLM	BLM
P18	16/09/14	Design development	AM	SLM	BLM
P19	16/09/14	Design development	AM	SLM	BLM
P20	16/09/14	Design development	AM	SLM	BLM
P21	16/09/14	Design development	AM	SLM	BLM
P22	16/09/14	Design development	AM	SLM	BLM
P23	16/09/14	Design development	AM	SLM	BLM
P24	16/09/14	Design development	AM	SLM	BLM
P25	16/09/14	Design development	AM	SLM	BLM
P26	16/09/14	Design development	AM	SLM	BLM
P27	16/09/14	Design development	AM	SLM	BLM
P28	16/09/14	Design development	AM	SLM	BLM
P29	16/09/14	Design development	AM	SLM	BLM
P30	16/09/14	Design development	AM	SLM	BLM
P31	16/09/14	Design development	AM	SLM	BLM
P32	16/09/14	Design development	AM	SLM	BLM
P33	16/09/14	Design development	AM	SLM	BLM
P34	16/09/14	Design development	AM	SLM	BLM
P35	16/09/14	Design development	AM	SLM	BLM
P36	16/09/14	Design development	AM	SLM	BLM
P37	16/09/14	Design development	AM	SLM	BLM
P38	16/09/14	Design development	AM	SLM	BLM
P39	16/09/14	Design development	AM	SLM	BLM
P40	16/09/14	Design development	AM	SLM	BLM
P41	16/09/14	Design development	AM	SLM	BLM
P42	16/09/14	Design development	AM	SLM	BLM
P43	16/09/14	Design development	AM	SLM	BLM
P44	16/09/14	Design development	AM	SLM	BLM
P45	16/09/14	Design development	AM	SLM	BLM
P46	16/09/14	Design development	AM	SLM	BLM
P47	16/09/14	Design development	AM	SLM	BLM
P48	16/09/14	Design development	AM	SLM	BLM
P49	16/09/14	Design development	AM	SLM	BLM
P50	16/09/14	Design development	AM	SLM	BLM
P51	16/09/14	Design development	AM	SLM	BLM
P52	16/09/14	Design development	AM	SLM	BLM
P53	16/09/14	Design development	AM	SLM	BLM
P54	16/09/14	Design development	AM	SLM	BLM
P55	16/09/14	Design development	AM	SLM	BLM
P56	16/09/14	Design development	AM	SLM	BLM
P57	16/09/14	Design development	AM	SLM	BLM
P58	16/09/14	Design development	AM	SLM	BLM
P59	16/09/14	Design development	AM	SLM	BLM
P60	16/09/14	Design development	AM	SLM	BLM
P61	16/09/14	Design development	AM	SLM	BLM
P62	16/09/14	Design development	AM	SLM	BLM
P63	16/09/14	Design development	AM	SLM	BLM
P64	16/09/14	Design development	AM	SLM	BLM
P65	16/09/14	Design development	AM	SLM	BLM
P66	16/09/14	Design development	AM	SLM	BLM
P67	16/09/14	Design development	AM	SLM	BLM
P68	16/09/14	Design development	AM	SLM	BLM
P69	16/09/14	Design development	AM	SLM	BLM
P70	16/09/14	Design development	AM	SLM	BLM
P71	16/09/14	Design development	AM	SLM	BLM
P72	16/09/14	Design development	AM	SLM	BLM
P73	16/09/14	Design development	AM	SLM	BLM
P74	16/09/14	Design development	AM	SLM	BLM
P75	16/09/14	Design development	AM	SLM	BLM
P76	16/09/14	Design development	AM	SLM	BLM
P77	16/09/14	Design development	AM	SLM	BLM
P78	16/09/14	Design development	AM	SLM	BLM
P79	16/09/14	Design development	AM	SLM	BLM
P80	16/09/14	Design development	AM	SLM	BLM
P81	16/09/14	Design development	AM	SLM	BLM
P82	16/09/14	Design development	AM	SLM	BLM
P83	16/09/14	Design development	AM	SLM	BLM
P84	16/09/14	Design development	AM	SLM	BLM
P85	16/09/14	Design development	AM	SLM	BLM
P86	16/09/14	Design development	AM	SLM	BLM
P87	16/09/14	Design development	AM	SLM	BLM
P88	16/09/14	Design development	AM	SLM	BLM
P89	16/09/14	Design development	AM	SLM	BLM
P90	16/09/14	Design development	AM	SLM	BLM
P91	16/09/14	Design development	AM	SLM	BLM
P92	16/09/14	Design development	AM	SLM	BLM
P93	16/09/14	Design development	AM	SLM	BLM
P94	16/09/14	Design development	AM	SLM	BLM
P95	16/09/14	Design development	AM	SLM	BLM
P96	16/09/14	Design development	AM	SLM	BLM
P97	16/09/14	Design development	AM	SLM	BLM
P98	16/09/14	Design development	AM	SLM	BLM
P99	16/09/14	Design development	AM	SLM	BLM
P100	16/09/14	Design development	AM	SLM	BLM

PROJECT NUMBER
60312043 - Arborfield Garrison SDL

SHEET TITLE
DRAFT Surface Water Drainage Strategy

SHEET NUMBER
60312043/CIV/001



Summary of Proposed Attenuation

60312043/CIV/010

CLIENT

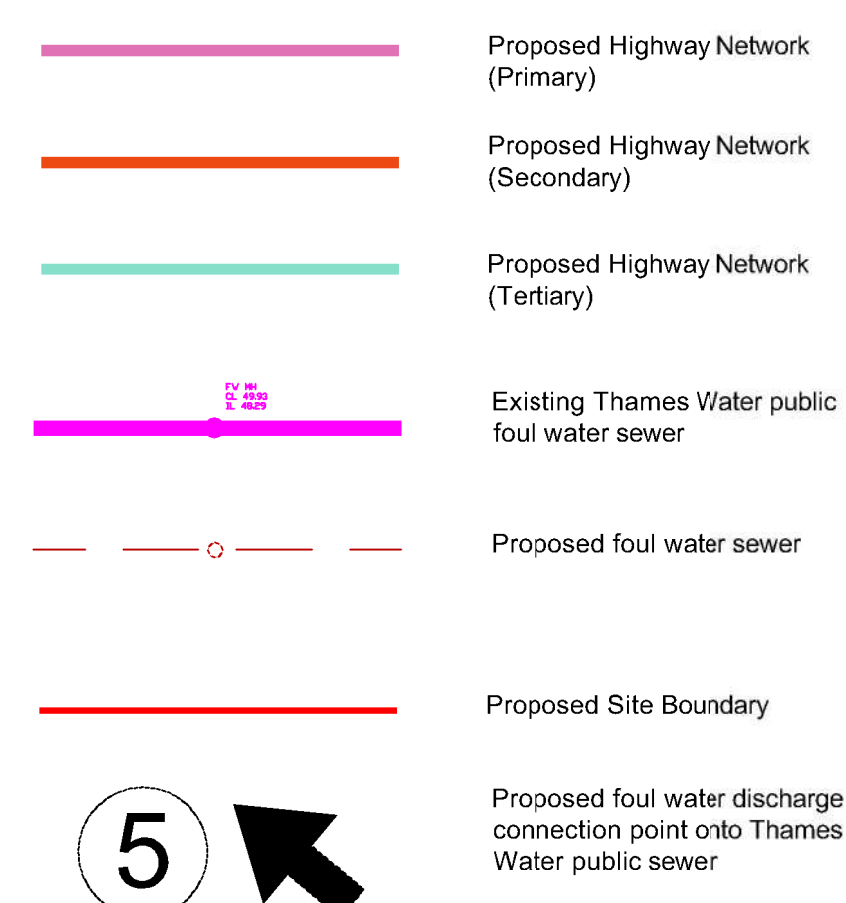
Crest Nicholson



CONSULTANT

AECOM
Colmore Plaza
Colmore Circus Queensway
Birmingham
B4 6AT
T +44 (0)121 710 1100
F +44 (0)121 710 1399
www.aecom.com

KEY



Notes

1. Drawing based on IDP masterplan reference AR 23 and roads base rev 1 issued 19 September 2014.
2. Design based on Topographical survey provided by KA Rylands Ltd dated March 2014 (ref ABor release v6)
3. The proposed sewers, connection points and discharge rates shown are indicative only and are subject to the final parcel layout and detailed design.
4. All existing four water services have been taken from Thames Water sewer records. The location and levels of these services are indicative only and are to be verified by a site survey at earliest opportunity.
5. The proposed sewers are shown on the plan inside a gravity sewerage system. There may be isolated low spots in the downstream following confirmation of finished ground levels, which may require a pumping station.
6. The proposed four water discharge rates shown in Table A are based on a design flow of 4000 (l/bed/daily) (as per IA). The flow rates are subject to confirmation of the final masterplan and discharge rates and dischargeability.

**WORK IN
PROGRESS**

ISSUE/REVISION

P5	19/09/14	Updated to current masterplan and notes added	CH	SM	SLM
P4	04/07/14	Updated to current masterplan	PP	SLM	SLM
P3	11/06/14	Proposals updated	PP	SLM	SLM
P2	23/05/14	Masterplan Removed	AM	SLM	SLM
P1	25/03/14	Preliminary Issues	AM	SLM	SLM
Rev.	Date	Detail	Made	Checked	Approved

PROJECT NUMBER

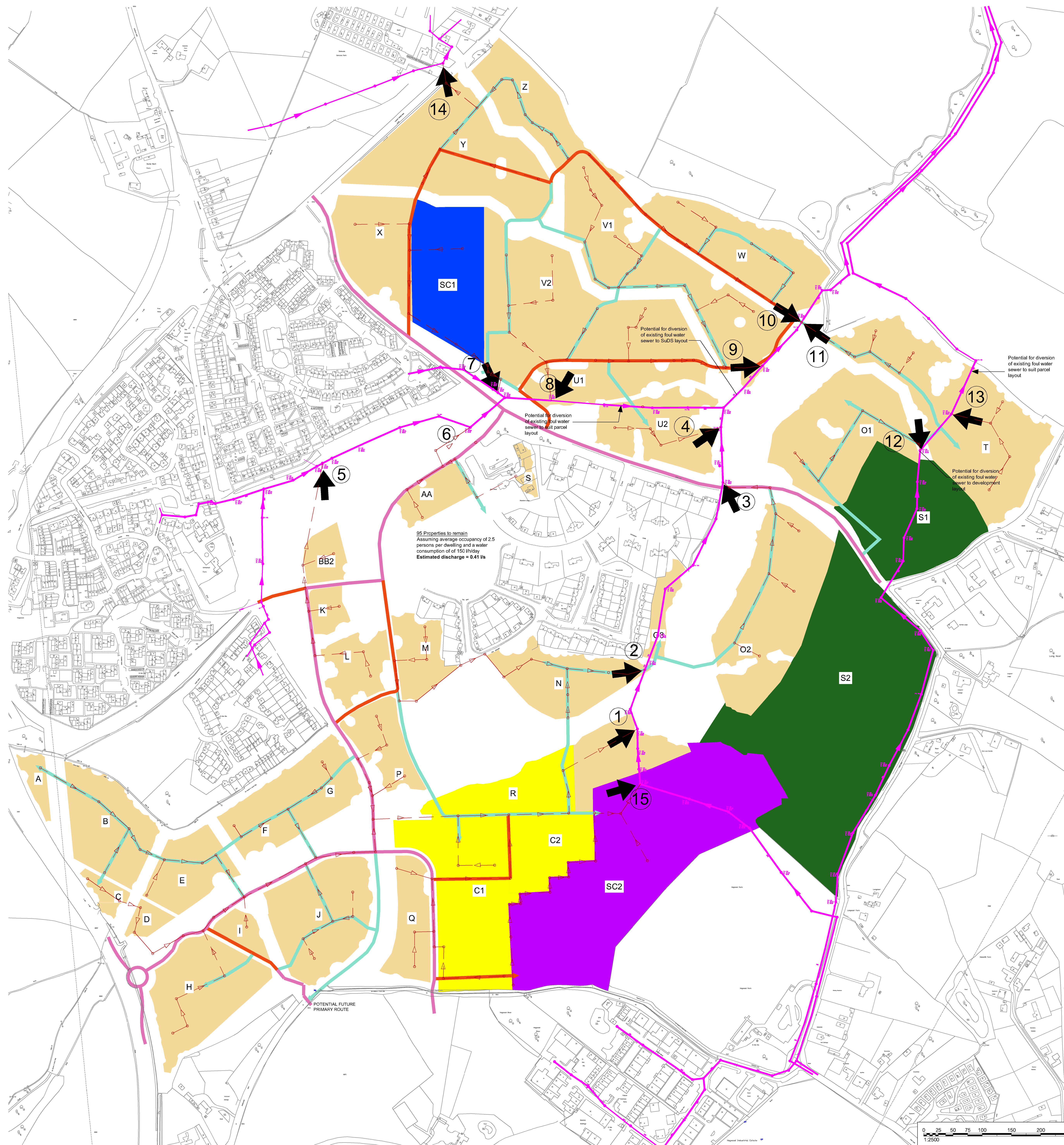
60312043 - Arborfield Garrison SDI

SHEET TITLE

DRAFT Foul Water Drainage Strategy

SHEET NUMBER

60312043/CIV/003



Discharge point	Average DWF (l/s)	Peak DWF (l/s)
1	5.0	30.0
2	0.7	4.4
3	1.1	6.9
4	0.5	2.9
5	0.5	2.9
6	0.2	1.1
7	0.6	3.8
8	0.9	5.5
9	2.1	12.4
10	0.7	4.4
11	0.8	4.9
12	0.8	5.1
13	0.4	2.4
14	1.5	9.1
15	0.5	3.2
TOTAL	16.4	98.8

Table A - Proposed Foul Water Discharge Rates
(based on SFA 4000 l/dwelling/day)

A horizontal scale bar with alternating black and white segments. Numerical labels are placed above the bar at intervals of 25, starting from 0 and ending at 250. Below the bar, the text '1:2500' is printed.

Scale - 1:2500 @ A0

Appendix C

Extracts from Wilson Bailey Site Investigation Report

GEOTECHNICAL CONCLUSIONS AND RECOMMENDATIONS

The near surface medium strength clay soils are considered suitable to support the light to moderate foundation loads anticipated to be associated with traditional two storey houses and to provide an assumed net allowable bearing capacity of 100 kPa. Floor slabs should be designed to be suspended over a naturally ventilated void and foundations in the vicinity of trees will require deepening in accordance with the NHBC guidelines for medium plasticity clay soils.

Elevated sulphates have not been identified and whilst localised groundwater inflows and excavation side instability may be expected within the sandier near surface soils, foundation excavation are anticipated to remain generally dry and stable.

On the basis of preliminary testing, road pavements may be designed on the basis of an assessed CBR of about 7%-15% within the near surface natural clay soils, although once the road levels have been designed, further testing should be carried out to determine the design CBR, particularly if the development scheme will involve raising of site levels.

Whilst soakage testing has not been carried out, soakaways are not considered to present a viable option for the disposal of surface waters due to the predominantly clayey nature of the near surface soils. Attenuated discharge to the local surface water drainage network of ditches, swales and basins should be explored further by the Civil Engineers as part of the detailed drainage design.

GEOENVIRONMENTAL CONCLUSIONS AND RECOMMENDATIONS

The historical use of the site as part of a private sewerage treatment facility may be considered to be potentially contaminative, although the more recent use as open grassland is not considered to be potentially contaminative. The ground investigation has not indicated the presence of elevated concentrations of a wide range of potential soil contamination. The desk study has identified an adjacent off site potential source of potentially mobile contaminants in the form of the adjacent landfill, although work carried out by others suggests that this landfill does not present an unacceptable risk to the wider environment. The ground investigation has indicated the presence of assumed low to negligible permeability clays soils and gas monitoring has not indicated the presence of soil gasses.

The results of soil contamination testing do not indicate a requirement for ground remediation on the basis of a Residential with Plant Uptake end use and the results of soil gas monitoring have not indicated a requirement for soil gas protection to be incorporated into the design of ground floor slabs. The proposed formation level to areas of private domestic garden are likely to be formed within natural soils, where they may locally be formed in made ground, additional inspection and verification will be required to confirm the suitability of soils that remain at garden formation level. Garden inspections will need to be documented and photographed, with further plot specific inspections and testing carried out as necessary.

Preliminary testing has suggested that site won topsoil may be chemically suitable for reuse on this site, although further testing should be carried out to confirm suitability once the topsoil strip has been completed and the topsoil is contained within stockpiles.

A requirement for soil and groundwater remediation, over and above a routine geo-environmental watching brief has not been identified as part of this ground investigation.

FURTHER WORK

In accordance with best practice for redevelopment of any brownfield site, a geo-environmental watching brief should be maintained during the course of the subsequent development in order that should any suspicious or contaminated soils be encountered, they may be investigated, assessed and remediated as necessary under the supervision of Wilson Bailey Partnership and in conjunction with the Local Authority.

As with any historically developed site there remains an albeit low potential for discarded, abandoned or deliberately buried materials to be present on site, although no indications of any such materials have been identified as part of the site works and these should be readily resolved as part of the above watching brief.

The table below presents a summary of the results of the laboratory testing carried out as part of the supplementary ground investigation works and are based upon the analyses of 10 soil samples taken from across Parcel N;

Determinant	Maximum concentration recorded (mg/kg)	Minimum concentration recorded (mg/kg)	Number of samples below detection limit	Normalised upper bound US ₉₅
Arsenic	12	5.0	None	7.0
Boron	<1.0	<1.0	All	--
Cadmium	<0.5	<0.5	All	--
Chromium	24	10	None	18
Hexavalent Chromium	<2.0	<2.0	All	--
Copper	20	5.0	None	14
Lead	55	9.0	None	33
Mercury	<1.0	<1.0	All	--
Nickel	10	4.0	None	8.2
Selenium	<3.0	<3.0	All	--
Zinc	105	21	None	69
Phenols	<2.0	<2.0	All	--
Benzo(a)pyrene	3.1	<0.1	7	1.5
Total Organic Carbon	5.4	0.4	None	2.5

Note: The use of the normalised upper bound for 95th percentile confidence aims to remove some of the uncertainty associated with calculation of an arithmetic sample mean of a relatively small number of samples. The US95 value is the upper bound of the range within which it can be stated with 95% confidence that the true mean concentration of the data set will fall.

In addition to the results presented above, all soil samples have been screened for the presence of detectable asbestos fibres and all results indicate that fibres have not been detected.

4.4 Groundwater

Groundwater seepages and inflows were encountered in a number of exploratory boreholes at depths of between about 2.00 m and 4.00 m below ground level.

Limited monitoring of the standpipes installed into the small diameter boreholes indicates boreholes to be generally dry but where groundwater has been detected it is present at inconsistent depths that are indicative of localised pockets of groundwater perched within the sandier layers, rather than being indicative of a single body of laterally consistent and hydraulic continuous groundwater.

4.5 Soil Gas

The results of a programme of soil gas monitoring are included within the appendix to this report.

The results of the monitoring carried out to date have not indicated elevated concentrations of soil gasses of concern and have not indicated any appreciable flow regime.

The programme of soil gas monitoring is currently ongoing and will be presented as an addendum to this report.

6.5 Buried Services

Precautions to ensure the protection of potentially sensitive underground services with regards to ground contamination are not envisaged as part of the development of this site, although discussions should be held with the statutory providers as they have a duty to ensure the appropriate protection of buried services from any deleterious ground conditions.

6.6 Effect of Sulphates

The results of laboratory geotechnical testing indicate low concentrations of soluble sulphate, corresponding to Class DS-1 AC-1s of Table 2 of BRE Special Digest 1: SD1 Part 1.

6.7 Surface Water Drainage

Soakage testing did not form part of the brief to this investigation, although it is considered that the assumed low permeability of the clay soils underlying the site would preclude the effective use of soakaways as part of the drainage solution for this site

6.8 Contamination Risk Assessment

The historical use of the site as part of a private sewerage treatment facility could present a source of potential contamination, however the biological contamination potentially associated with this use would be expected to be short lived and no longer pose a threat to this site. Furthermore, the duration of the presence of the sewerage treatment filter beds prior to removal and clearance as part of subsequent military upgrades is not likely to be sufficient to result in accumulations of potential metallic contaminants associated with sewerage. On this basis it is considered that this historical use of the site is not likely to present a realistic risk of ground contamination in view of the subsequent long term use as an area of open amenity grassland.

The results of the ground investigation have not identified widespread visual or olfactory indications of contamination, although localised brick and tile have been locally encountered within the made ground where present. A single elevated concentration of benzo(a)pyrene has been detected in a single sample of the made ground, although the statistical analysis of the results for this determinand indicate that this result is not considered to be of concern.

Trial trenching has not indicated the presence of any relic structures associated with the former sewerage filter beds, although localised obstructions may potentially remain within other parts of the site.

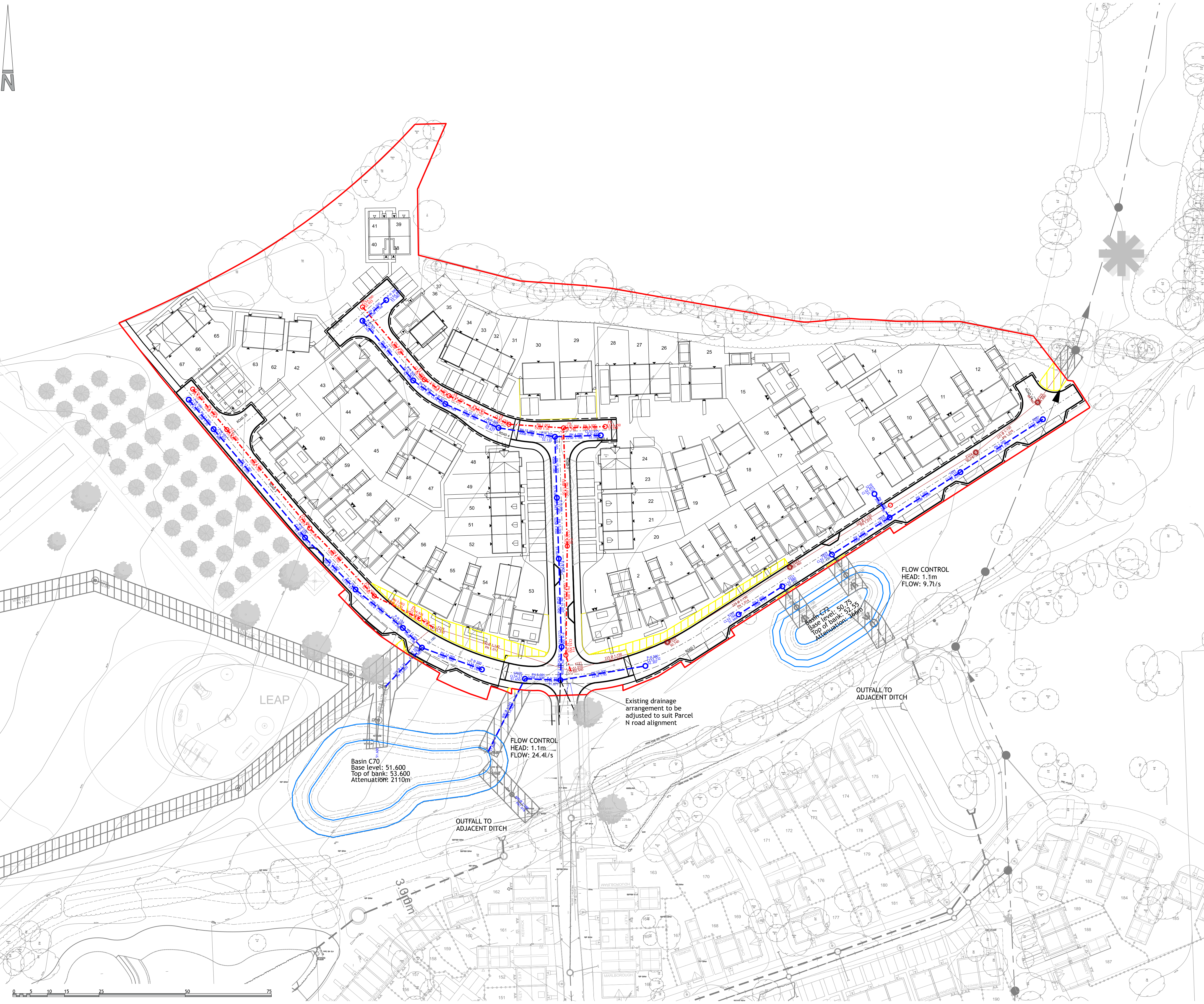
The monitoring carried out to date has also not indicated the presence of elevated concentrations of soil gasses potentially associated with the nearby historical landfill site.

One of the requirements of the Environment Act (1995) is that local authorities carry out inspections of their area with a view to identifying sites that may be contaminated. When assessing whether a site is contaminated the local authority will attempt to establish the presence of a 'pollution linkage'. A pollution linkage requires there to be a source of contamination, a sensitive receptor that can be adversely affected by the contamination and a pathway via which contamination can reach the target.

The proposed development of the site will introduce new sensitive receptors in the form of end users and construction workers, together with the formation of new pathways through the creation of areas of private domestic gardens.

Appendix D

Proposed Drainage Strategy Drawings



- NOTES
- Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported to the Architect or Engineer before proceeding.
© This drawing is copyright.
 - This drawing is for planning purposes only and must not be read as a construction issue. It indicates design intent only and is subject to amendment during final design development
 - All plans and drawings are drawn true to stated scales and can be used for the purpose of planning only. Responsibility is not accepted for errors made by others in scaling from this drawing.
 - Reproduced from OS Sitemap © by permission of Ordnance Survey on behalf of The Controller of His Majesty's Stationery Office.
© Crown copyright 2008. All rights reserved. Licence number 100007126.
 - Until technical approval has been obtained from the relevant authorities, all drawings are issued as preliminary and not for construction. Should the Contractor commence site work prior to approval being given it is entirely at their own risk.
 - All adoptable highway works to be undertaken in accordance with Wokingham Borough Council's 'Living Streets - A Highways Guide for Developers in Wokingham' 2019, under the direction of the Borough Council's engineers.
 - Drainage is indicative and subject to detailed design.

SAFETY, HEALTH AND ENVIRONMENTAL

In addition to the hazards, risks normally associated with the type of work detailed on this drawing, note the following significant risks and information.

Construction:

- The contractor should make all necessary enquiries and take all necessary measures to identify the location of existing utilities and take appropriate precautions.

For information relating to end use, maintenance, demolition, see the health and safety file.

It is assumed that all works will be carried out by a competent Contractor, where appropriate, to an approved method statement.

- KEY
- Existing FW sewer & manhole
 - Proposed FW sewer & manhole
 - Existing SW sewer & manhole
 - Proposed SW sewer & manhole
 - Attenuation pond
 - Sewer easement
 - Headwall
 - Red line boundary

Details of the existing foul and surface water sewers are as per AECOM Drainage General Arrangement drawings 60312043/LP2/002 and 60312043/LP2/003 and Hydraulic Calculations reference: Network-70 231019-SWS Rev M SIM Results_1.5.10.30.100yr

Details of Basin C70 and Basin C72 are as per AECOM Drainage General Arrangement drawings 60312043/LP2/002 and 60312043/LP2/003 and Hydraulic Calculations reference: Network-70 231019-SWS Rev M SIM Results_1.5.10.30.100yr

A	Revised layout	ShD	SD	30.07.25	
REV	DESCRIPTION	DRN	CHD	DATE	
☐	PRELIMINARY	☐	INFORMATION	☐	TENDER
☐	CONSTRUCTION	☐	AS BUILT		
SCALE	1:500 @ A1	DATE	JULY 2025		
DRAWN	SW	CHK	ShD		
DRAWING NO.	19632-ARB-100-006	REV	A		
TITLE	PARCEL N, ARBORFIELD GREEN WOKINGHAM				
DETAILS	DRAINAGE STRATEGY PLAN				

Woods Hardwick

Architecture Engineering Planning Surveying

BEDFORD : HEAD OFFICE
15-17 Goldington Road
Bedford MK40 3NH
T: +44 (0) 1234 268862

BIRMINGHAM
Fort Dunlop, Fort Parkway
Birmingham B24 9FE
T: +44 (0) 121 6297784

ONLINE: mail@woodshardwick.com | woodshardwick.com

Appendix E

Surface Water Drainage Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	40	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	6.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1000	0.069	6.00	42.852	1500	566348.861	322772.733	1.425
1001	0.000		42.476	1200	566342.040	322774.303	1.425
1002	0.068	6.00	41.610	1500	566324.708	322770.167	1.425
1003	0.059	6.00	41.258	1500	566312.379	322772.533	1.425
1004	0.022	6.00	41.186	1500	566310.816	322778.683	1.425
1005	0.031	6.00	40.863	1500	566312.356	322801.917	1.500
1006	0.078	6.00	40.605	1500	566307.480	322820.525	1.500
1007	0.022	6.00	37.717	1500	566274.205	322810.945	1.500
1008	0.063	6.00	38.567	1500	566262.841	322757.259	2.472
1009	0.057	6.00	38.108	1800	566251.896	322753.702	2.189
1010	0.129	6.00	38.845	1800	566256.148	322735.898	2.963
1070	0.055	6.00	43.569	1500	566364.540	322735.235	1.425
1071	0.039	6.00	43.509	1500	566361.280	322723.006	1.665
1072	0.060	6.00	43.420	1350	566352.145	322725.441	1.650
1073	0.157	6.00	40.891	1500	566293.930	322709.277	2.142
1011	0.024	6.00	40.071	1800	566265.713	322701.260	4.261
1012	0.029	6.00	40.370	1800	566269.007	322691.366	4.579
1080	0.066	6.00	42.852	1500	566332.156	322615.802	1.425
1081	0.066	6.00	42.361	1800	566306.977	322609.871	1.500
1082	0.118	6.00	42.122	1800	566297.799	322615.306	1.500
1090	0.160	6.00	42.273	1500	566317.054	322656.314	1.500
1083	0.070	6.00	41.440	1500	566287.647	322646.849	1.575
1084	0.000		40.990	1500	566282.959	322663.383	1.799
1013	0.000		40.613	1800	566274.376	322680.581	4.844
1014	0.015	6.00	40.443	1800	566261.679	322674.245	4.700
1100	0.058	6.00	40.270	1500	566243.582	322572.827	1.425
1101	0.017	6.00	39.974	1200	566239.342	322595.830	1.425
1110	0.065	6.00	37.725	1800	566182.721	322600.662	1.125
1111	0.103	6.00	37.807	1500	566183.136	322594.372	1.395
1112	0.042	6.00	38.305	1500	566201.268	322595.799	1.949
1113	0.005	6.00	39.002	1500	566213.600	322599.736	2.686
1102	0.052	6.00	39.834	1500	566236.453	322606.140	3.591
1103	0.060	6.00	39.414	1500	566227.822	322636.087	3.267
1104	0.054	6.00	38.978	1500	566223.176	322652.593	2.884
1016	0.127	6.00	39.850	1800	566220.578	322664.264	4.262
1017	0.000		37.939	1800	566203.111	322661.961	2.386
1018	0.088	6.00	37.179	1800	566187.717	322661.314	1.725
1019	0.104	6.00	36.207	1800	566154.667	322662.594	1.725
1020	0.090	6.00	35.596	1800	566129.888	322661.801	1.725
1021	0.113	6.00	34.816	1800	566098.925	322652.213	1.725
1460	0.042	6.00	33.672	1500	566076.821	322645.408	1.125
1022			33.937	2400	566081.807	322646.913	2.100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1023	0.036	6.00	33.890	2400	566083.379	322641.739	2.100
1024	0.059	6.00	34.063	2400	566085.422	322620.473	2.316
1025	0.118	6.00	34.432	2400	566087.878	322579.437	2.767
1120	0.119	6.00	35.852	1800	566142.263	322576.423	1.500
1121	0.054	6.00	35.934	1500	566142.225	322568.588	1.629
1122	0.063	6.00	35.322	1500	566124.377	322567.277	1.500
1123	0.029	6.00	34.242	1500	566098.235	322564.444	1.500
1026	0.012	6.00	34.032	2400	566087.192	322565.197	2.396
1027	0.058	6.00	33.669	2400	566085.752	322548.668	2.104
1470	0.021	6.00	33.015	1200	566087.766	322505.516	1.125
1028	0.082	6.00	33.202	2400	566087.486	322517.369	2.358
1029	0.037	6.00	34.741	2400	566113.557	322518.760	3.949
1029a			35.760	2100	566126.717	322513.911	4.996
1030	0.050	6.00	35.628	2400	566134.022	322478.403	4.939
1031	0.092	6.00	35.881	2400	566133.491	322468.084	5.209
1130	0.112	6.00	36.875	1500	566148.321	322420.421	3.158
1032	0.084	6.00	36.602	2400	566132.225	322422.308	6.006
1033	0.046	6.00	36.365	2400	566128.947	322405.798	5.810
1034	0.046	6.00	36.025	2400	566120.082	322383.218	5.519
1035	0.159	6.00	35.818	2400	566118.082	322368.459	5.342
1036	0.053	6.00	34.531	2400	566117.463	322323.511	4.145
1140	0.055	6.00	36.053	1500	566176.513	322312.557	1.425
1141	0.070	6.00	34.385	1500	566127.452	322311.984	2.052
1037	0.039	6.00	34.405	2400	566119.675	322316.938	4.033
1038	0.044	6.00	34.352	2400	566112.275	322305.997	4.006
1039	0.000	6.00	32.400	1	566112.883	322242.278	2.181
1150	0.043	6.00	35.643	1200	566177.869	322274.323	1.471
1480	0.027	6.00	34.615	1200	566190.970	322255.471	1.171
1151	0.027	6.00	35.084	1800	566183.098	322262.814	2.379
1152	0.000		33.041	1	566159.731	322237.766	1.125
1040	0.078	6.00	32.300	1	566155.776	322216.545	2.400
1160	0.016	6.00	41.076	1200	566289.468	322592.393	1.425
1161	0.000		40.657	1200	566276.058	322574.980	1.425
1190	0.114	6.00	40.879	1200	566273.155	322549.503	1.425
1162	0.000		40.559	1500	566251.052	322557.752	1.508
1163	0.102	6.00	39.060	1500	566226.511	322539.841	1.575
1164	0.000	6.00	38.905	1500	566216.470	322532.044	1.459
1165	0.000		39.158	1500	566228.991	322512.558	1.783
1166	0.036	6.00	39.382	1500	566239.652	322490.468	2.083
1200	0.060	6.00	41.074	1200	566328.157	322477.534	1.425
1201	0.101	6.00	41.049	1500	566314.110	322490.351	1.588
1202	0.061	6.00	41.455	1500	566301.983	322515.104	2.109
1203	0.029	6.00	40.811	1500	566278.044	322504.022	1.575
1204	0.026	6.00	39.990	1500	566256.353	322492.197	1.500
1167	0.023	6.00	39.694	1800	566250.673	322482.892	2.586
1168	0.037	6.00	39.636	1800	566252.211	322470.644	2.553
1210	0.096	6.00	40.024	1200	566306.108	322423.069	1.425
1211	0.014	6.00	39.990	1500	566271.458	322444.864	1.635
1169	0.037	6.00	39.910	1800	566265.808	322450.177	2.877
1170	0.000		39.286	1500	566260.523	322444.558	2.269
1220	0.059	6.00	37.955	1200	566178.211	322419.737	1.125
1171	0.000		38.531	1500	566225.469	322419.854	2.282

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1172	0.000		38.466	1	566225.489	322411.907	2.233
1230	0.088	6.00	37.821	1200	566187.698	322391.893	1.125
1231	0.000		38.277	1	566219.745	322391.893	1.772
1173	0.000		38.100	1800	566221.455	322371.839	2.090
1174	0.000		37.944	1500	566223.603	322362.044	1.954
1240	0.048	6.00	37.547	1200	566190.129	322344.542	1.125
1178	0.000	6.00	37.501	1	566227.137	322316.221	2.901
1250	0.071	6.00	44.795	1500	566418.374	322732.303	1.425
1251	0.051	6.00	44.922	1500	566423.414	322714.202	1.664
1252	0.023	6.00	44.194	1500	566392.519	322705.723	1.425
1253	0.109	6.00	43.685	1500	566370.890	322699.173	1.650
1254	0.095	6.00	43.951	1500	566381.926	322661.398	1.425
1255	0.084	6.00	44.105	1500	566389.604	322638.167	2.254
1256	0.047	6.00	43.658	1500	566386.073	322627.039	1.837
1257	0.000		42.745	1500	566350.590	322616.731	1.725
1258	0.017	6.00	43.089	1500	566343.026	322610.125	2.089
1259	0.051	6.00	43.205	1500	566347.079	322601.620	2.224
1260	0.183	6.00	42.917	1800	566353.443	322568.476	2.080
1261	0.131	6.00	42.537	1800	566378.091	322505.929	1.834
1280	0.056	6.00	42.914	1500	566416.910	322485.221	1.425
1281	0.080	6.00	42.610	1500	566399.392	322495.273	1.425
1262	0.007	6.00	42.466	1800	566379.699	322495.524	1.800
1263	0.107	6.00	42.216	1800	566375.447	322478.987	1.800
1264	0.102	6.00	40.799	1800	566346.392	322430.349	1.800
1265	0.043	6.00	40.470	1800	566345.754	322415.120	1.800
1290	0.033	6.00	40.510	1200	566366.972	322395.447	1.425
1266	0.000		40.126	1800	566349.857	322392.606	1.800
1267	0.040	6.00	39.846	1800	566350.901	322374.799	1.800
1268	0.025	6.00	39.553	1800	566342.686	322354.641	1.800
1269	0.037	6.00	39.335	1800	566335.529	322342.888	1.800
1270	0.000		38.114	1800	566317.021	322312.132	1.800
1300	0.075	6.00	44.279	1500	566398.593	322617.927	1.425
1320	0.073	6.00	45.465	1200	566475.175	322601.968	1.425
1321	0.062	6.00	45.090	1500	566458.148	322596.544	1.425
1322	0.076	6.00	44.569	1500	566434.496	322589.009	1.500
1301	0.061	6.00	44.071	1500	566410.844	322581.475	1.596
1302	0.135	6.00	43.553	1800	566421.174	322549.936	1.725
1303	0.054	6.00	43.680	1800	566432.971	322534.848	1.891
1304	0.078	6.00	43.999	1800	566460.766	322515.794	2.279
1305	0.017	6.00	43.844	1500	566462.750	322504.966	2.146
1306	0.042	6.00	43.392	1800	566446.653	322478.667	1.757
1307	0.000		42.598	1500	566443.826	322467.421	1.725
1308	0.072	6.00	41.742	1500	566418.753	322427.196	1.725
1309	0.080	6.00	41.147	1500	566395.808	322390.668	1.725
1310	0.019	6.00	40.678	1500	566386.979	322376.612	1.725
1311	0.000		39.675	1	566373.930	322365.326	1.725
1312	0.000		39.500	1800	566360.976	322349.221	1.600
1313	0.000		38.046	1	566346.483	322320.742	1.410
1314	0.000		38.000	1800	566327.833	322297.637	1.500
1271	0.032	6.00	37.661	1800	566307.499	322301.463	1.800
1272	0.096	6.00	37.345	1800	566293.722	322291.986	1.800
1273	0.076	6.00	36.904	1800	566272.194	322280.717	2.100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1274	0.000		36.975	1	566261.390	322299.888	2.375
1179	0.000		36.500	1800	566234.742	322284.281	2.050
1180	0.092	6.00	36.225	1800	566244.214	322265.145	2.000
1181	0.014	6.00	35.426	1200	566228.994	322257.275	2.000
1182	0.034	6.00	34.589	1200	566213.695	322247.813	2.000
1183	0.051	6.00	33.214	1200	566196.428	322226.790	2.000
1184	0.000		32.302	1800	566183.528	322215.654	1.258
1330	0.090	6.00	32.996	1200	566291.553	322209.679	1.050
1331	0.032	6.00	32.437	1200	566283.087	322188.843	1.050
1340	0.063	6.00	33.515	1200	566228.495	322210.847	1.425
1332	0.021	6.00	32.950	1200	566254.708	322200.374	1.895
1333	0.021	6.00	31.800	1200	566249.210	322186.705	1.000
1334	0.000		31.800	1200	566201.980	322200.300	1.150
1041	0.038	6.00	31.139	2100	566163.903	322203.505	2.732
1350	0.042	6.00	29.538	1200	566170.845	322168.376	1.500
1042	0.070	6.00	29.764	1800	566149.790	322178.922	2.091
1043	0.102	6.00	29.123	1800	566136.491	322157.393	1.650
1360	0.037	6.00	27.567	1500	566099.337	322127.832	1.425
1044	0.078	6.00	27.536	1800	566116.246	322119.540	1.731
1045	0.040	6.00	26.403	1500	566106.274	322098.090	1.650
1370	0.074	6.00	28.931	1500	566228.032	322147.294	1.425
1371	0.000		28.715	1200	566246.772	322137.714	1.425
1372	0.000		28.630	1200	566251.026	322129.687	1.425
1373	0.026	6.00	28.533	1200	566249.983	322122.257	1.425
1374	0.000		28.175	1200	566244.858	322112.135	1.425
1375	0.066	6.00	26.019	1500	566228.374	322079.152	1.425
1376	0.063	6.00	24.449	1200	566213.057	322051.051	1.200
1377	0.061	6.00	25.114	1800	566175.726	322069.323	2.113
1390	0.066	6.00	29.230	1200	566199.199	322158.364	1.425
1391	0.107	6.00	26.180	1500	566170.009	322099.043	1.425
1378	0.010	6.00	25.433	1800	566159.045	322076.603	2.564
1379	0.024	6.00	25.818	1500	566135.442	322085.142	3.011
1380	0.037	6.00	25.724	1500	566123.114	322083.892	2.948
1046	0.040	6.00	25.508	1800	566108.136	322077.930	3.109
1047	0.039	6.00	24.594	1800	566112.296	322057.935	2.236
1400	0.121	6.00	27.377	1200	566069.643	322150.020	1.425
1401	0.088	6.00	25.021	1200	566043.463	322098.335	1.500
1402	0.000		23.865	1500	566042.154	322052.787	1.500
1403	0.086	6.00	23.711	1500	566049.031	322037.279	1.850
1404			23.711	1500	566072.862	322030.632	3.112
1048	0.034	6.00	23.959	2700	566108.824	322038.463	2.522
1049	0.112	6.00	23.711	2700	566099.218	322020.859	3.168
1050	0.098	6.00	23.359	1800	566086.407	321996.159	2.872
1051	0.099	6.00	23.056	1800	566083.754	321970.488	2.621
1052	0.105	6.00	22.723	2100	566071.698	321945.511	2.343
1410	0.076	6.00	22.605	1200	566012.248	321951.704	1.425
1420	0.069	6.00	22.306	1500	566001.338	321930.182	1.425
1421		6.00	21.900	1500	565983.219	321928.316	1.725
1422			21.500	1500	565975.366	321888.680	1.400
1423			21.450	1500	565973.710	321883.962	1.428
1424			21.800	1500	566023.919	321867.803	2.602
1411	0.040	6.00	22.396	1500	566004.612	321936.639	1.634

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1412	0.035	6.00	22.653	1500	566031.447	321923.036	2.016
1053	0.062	6.00	22.333	2700	566054.032	321911.084	2.177
1054	0.091	6.00	21.972	2700	566044.570	321889.188	2.551
1055	0.066	6.00	21.672	2700	566038.722	321864.804	2.551
1056	0.079	6.00	21.547	2700	566032.659	321857.429	2.551
1057	0.064	6.00	21.116	2700	566020.448	321847.869	2.551
1058	0.052	6.00	19.948	1500	566005.331	321817.841	1.951
1059	0.075	6.00	18.196	1800	565982.939	321773.054	1.950
1060	0.000	6.00	15.814	1500	565983.426	321730.342	1.501
1430	0.015	6.00	21.712	1200	566100.170	321931.634	1.425
1440	0.102	6.00	20.858	1500	566130.387	321929.836	1.500
1431	0.042	6.00	21.014	1500	566124.702	321919.150	1.706
1432	0.076	6.00	20.068	1500	566097.740	321866.168	1.500
1433	0.074	6.00	19.370	1500	566080.367	321835.780	1.500
1450	0.043	6.00	19.279	1500	566033.001	321804.009	2.691
1434	0.070	6.00	17.867	1500	566054.602	321792.482	1.500
1435	0.078	6.00	16.352	1500	566031.316	321748.841	1.575
1436	0.000		15.160	1350	565999.464	321721.438	1.575
1061	0.000		13.095	1500	565969.093	321667.632	3.964
1062	0.000	6.00	11.570	1200	565961.539	321641.726	2.668
1063	0.000	6.00	8.035	1200	565930.577	321566.286	0.912
1064			8.000	1200	565906.484	321554.263	1.050

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1000	1001	6.999	0.600	41.427	41.051	0.376	18.6	225	6.04	50.0
1.001	1001	1002	17.819	0.600	41.051	40.185	0.866	20.6	225	6.14	50.0
1.002	1002	1003	12.554	0.600	40.185	39.833	0.352	35.7	225	6.24	50.0
1.003	1003	1004	6.346	0.600	39.833	39.761	0.072	88.1	225	6.31	50.0
1.004	1004	1005	23.285	0.600	39.761	39.438	0.323	72.1	225	6.56	50.0
1.005	1005	1006	19.236	0.600	39.363	39.105	0.258	74.6	300	6.74	50.0
1.006	1006	1007	34.627	0.600	39.105	36.517	2.588	13.4	300	6.87	50.0
1.007	1007	1008	54.876	0.600	36.217	36.095	0.122	450.0	600	7.67	50.0
1.008	1008	1009	11.508	0.600	36.095	36.069	0.026	442.6	600	7.84	50.0
1.009	1009	1010	18.305	0.600	35.919	35.882	0.037	494.7	750	8.09	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	3.047	121.1	17.5	1.200	1.200	0.069	0.0	58	2.185
1.001	2.897	115.2	17.5	1.200	1.200	0.069	0.0	59	2.113
1.002	2.197	87.4	34.7	1.200	1.200	0.137	0.0	98	2.070
1.003	1.393	55.4	49.6	1.200	1.200	0.196	0.0	167	1.569
1.004	1.542	61.3	55.1	1.200	1.200	0.218	0.0	167	1.737
1.005	1.823	128.8	63.0	1.200	1.200	0.249	0.0	148	1.812
1.006	4.320	305.4	82.7	1.200	0.900	0.327	0.0	106	3.693
1.007	1.141	322.7	88.3	0.900	1.872	0.349	0.0	214	0.979
1.008	1.151	325.4	104.2	1.872	1.439	0.412	0.0	233	1.029
1.009	1.251	552.7	118.6	1.439	2.213	0.469	0.0	234	1.006

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.010	1010	1011	35.934	0.600	35.882	35.810	0.072	499.1	750	8.57	50.0
2.000	1070	1071	12.656	0.600	42.144	42.069	0.075	168.0	225	6.21	50.0
39.000	1250	1251	18.790	0.600	43.370	43.258	0.112	168.0	225	6.31	50.0
39.001	1251	1252	32.037	0.600	43.258	42.769	0.489	65.5	225	6.64	50.0
39.002	1252	1253	22.599	0.600	42.769	42.260	0.509	44.4	225	6.83	50.0
40.000	1254	1253	39.354	0.600	42.526	42.260	0.266	147.9	225	6.61	50.0
39.003	1253	1071	25.698	0.600	42.035	41.844	0.191	134.5	450	7.08	50.0
2.001	1071	1072	9.454	0.600	41.844	41.770	0.074	127.8	450	7.17	50.0
2.002	1072	1073	60.417	0.600	41.770	38.749	3.021	20.0	450	7.39	50.0
2.003	1073	1011	29.334	0.600	38.749	36.110	2.639	11.1	450	7.47	50.0
1.011	1011	1012	10.428	0.600	35.810	35.791	0.019	548.8	750	8.71	50.0
1.012	1012	1013	12.048	0.600	35.791	35.769	0.022	547.6	750	8.88	50.0
3.000	1080	1081	25.868	0.600	41.427	40.936	0.491	52.7	225	6.24	50.0
3.001	1081	1082	10.667	0.600	40.861	40.622	0.239	44.6	300	6.31	50.0
3.002	1082	1083	33.136	0.600	40.622	39.940	0.682	48.6	300	6.56	50.0
4.000	1090	1083	30.893	0.600	40.773	39.940	0.833	37.1	300	6.20	50.0
3.003	1083	1084	17.186	0.600	39.865	39.191	0.674	25.5	375	6.64	50.0
3.004	1084	1013	19.221	0.600	39.191	37.269	1.922	10.0	375	6.69	50.0
1.013	1013	1014	14.190	0.600	35.769	35.743	0.026	545.8	750	9.08	50.0
1.014	1014	1016	42.296	0.600	35.743	35.663	0.080	528.7	750	9.66	50.0
5.000	1100	1101	23.391	0.600	38.845	38.549	0.296	79.0	225	6.26	50.0
5.001	1101	1102	10.707	0.600	38.549	37.478	1.071	10.0	225	6.31	50.0
6.000	1110	1111	6.304	0.600	36.600	36.562	0.038	168.0	225	6.10	50.0
6.001	1111	1112	18.188	0.600	36.412	36.356	0.056	324.0	375	6.41	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.010	1.246	550.2	151.3	2.213	3.511	0.598	0.0	268	1.071
2.000	1.006	40.0	13.9	1.200	1.215	0.055	0.0	92	0.919
39.000	1.006	40.0	18.0	1.200	1.439	0.071	0.0	106	0.980
39.001	1.618	64.3	30.9	1.439	1.200	0.122	0.0	109	1.599
39.002	1.968	78.3	36.7	1.200	1.200	0.145	0.0	109	1.939
40.000	1.072	42.6	24.0	1.200	1.200	0.095	0.0	121	1.103
39.003	1.751	278.4	88.3	1.200	1.215	0.349	0.0	174	1.561
2.001	1.797	285.8	112.1	1.215	1.200	0.443	0.0	196	1.693
2.002	4.561	725.5	127.2	1.200	1.692	0.503	0.0	127	3.475
2.003	6.123	973.8	167.0	1.692	3.511	0.660	0.0	125	4.631
1.011	1.187	524.5	324.3	3.511	3.829	1.282	0.0	427	1.246
1.012	1.188	525.1	331.7	3.829	4.094	1.311	0.0	433	1.253
3.000	1.806	71.8	16.7	1.200	1.200	0.066	0.0	73	1.476
3.001	2.359	166.8	33.4	1.200	1.200	0.132	0.0	91	1.855
3.002	2.261	159.8	63.2	1.200	1.200	0.250	0.0	131	2.133
4.000	2.590	183.0	40.5	1.200	1.200	0.160	0.0	95	2.091
3.003	3.600	397.6	121.4	1.200	1.424	0.480	0.0	142	3.178
3.004	5.757	635.8	121.4	1.424	2.969	0.480	0.0	110	4.476
1.013	1.191	526.0	453.1	4.094	3.950	1.791	0.0	540	1.330
1.014	1.210	534.5	456.9	3.950	3.437	1.806	0.0	536	1.350
5.000	1.472	58.5	14.7	1.200	1.200	0.058	0.0	77	1.232
5.001	4.161	165.5	19.0	1.200	2.131	0.075	0.0	51	2.802
6.000	1.006	40.0	16.4	0.900	1.020	0.065	0.0	101	0.958
6.001	1.001	110.5	42.5	1.020	1.574	0.168	0.0	161	0.937

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
6.002	1112	1113	12.945	0.600	36.356	36.316	0.040	324.0	375	6.62	50.0
6.003	1113	1102	23.733	0.600	36.316	36.243	0.073	324.0	375	7.02	50.0
5.002	1102	1103	31.166	0.600	36.243	36.147	0.096	324.0	375	7.54	50.0
5.003	1103	1104	17.147	0.600	36.147	36.094	0.053	324.0	375	7.82	50.0
5.004	1104	1016	11.957	0.600	36.094	36.038	0.056	213.5	375	7.98	50.0
1.016	1016	1017	17.618	0.600	35.588	35.553	0.035	503.4	825	9.89	50.0
1.017	1017	1018	15.408	0.600	35.553	35.454	0.099	155.6	825	9.99	50.0
1.018	1018	1019	33.075	0.600	35.454	34.482	0.972	34.0	825	10.10	50.0
1.019	1019	1020	24.792	0.600	34.482	33.871	0.611	40.6	825	10.19	50.0
1.020	1020	1021	32.414	0.600	33.871	33.091	0.780	41.6	825	10.31	50.0
1.021	1021	1022	17.920	0.600	33.091	32.212	0.879	20.4	825	10.35	50.0
35.000	1460	1022	5.208	0.600	32.547	32.516	0.031	168.0	225	6.09	50.0
1.022	1022	1023	5.408	0.600	31.837	31.790	0.047	115.1	1200	10.38	50.0
1.023	1023	1024	21.364	0.600	31.790	31.747	0.043	500.0	1200	10.59	50.0
1.024	1024	1025	41.109	0.600	31.747	31.665	0.082	500.0	1200	11.00	50.0
1.025	1025	1026	14.257	0.600	31.665	31.636	0.029	500.0	1200	11.15	50.0
7.000	1120	1121	7.835	0.600	34.352	34.305	0.047	168.0	300	6.11	50.0
7.001	1121	1122	17.896	0.600	34.305	33.822	0.483	37.1	300	6.22	50.0
7.002	1122	1123	26.295	0.600	33.822	32.742	1.080	24.3	300	6.36	50.0
7.003	1123	1026	11.069	0.600	32.742	32.537	0.205	54.0	300	6.45	50.0
1.026	1026	1027	16.592	0.600	31.636	31.565	0.071	233.7	1200	11.26	50.0
1.027	1027	1028	31.347	0.600	31.565	31.093	0.472	66.4	1200	11.37	50.0
36.000	1470	1028	11.856	0.600	31.890	31.819	0.071	168.0	225	6.20	50.0
1.028	1028	1029	26.108	0.600	30.844	30.792	0.052	500.0	1200	11.63	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
6.002	1.001	110.5	53.1	1.574	2.311	0.210	0.0	183	0.992
6.003	1.001	110.5	54.4	2.311	3.216	0.215	0.0	186	0.997
5.002	1.001	110.5	86.5	3.216	2.892	0.342	0.0	251	1.103
5.003	1.001	110.5	101.7	2.892	2.509	0.402	0.0	285	1.130
5.004	1.236	136.5	115.4	2.509	3.437	0.456	0.0	266	1.379
1.016	1.316	703.6	604.4	3.437	1.561	2.389	0.0	593	1.470
1.017	2.377	1270.7	604.4	1.561	0.900	2.389	0.0	400	2.348
1.018	5.099	2725.5	626.6	0.900	0.900	2.477	0.0	267	4.184
1.019	4.668	2495.3	652.9	0.900	0.900	2.581	0.0	286	3.966
1.020	4.612	2465.6	675.7	0.900	0.900	2.671	0.0	294	3.966
1.021	6.591	3523.2	704.3	0.900	0.900	2.784	0.0	248	5.207
35.000	1.006	40.0	10.6	0.900	1.196	0.042	0.0	79	0.851
1.022	3.487	3943.4	714.9	0.900	0.900	2.826	0.0	342	2.688
1.023	1.666	1884.1	724.0	0.900	1.116	2.862	0.0	515	1.563
1.024	1.666	1884.1	739.0	1.116	1.567	2.921	0.0	521	1.570
1.025	1.666	1884.1	768.8	1.567	1.196	3.039	0.0	532	1.586
7.000	1.210	85.5	30.1	1.200	1.329	0.119	0.0	123	1.108
7.001	2.591	183.1	43.8	1.329	1.200	0.173	0.0	99	2.138
7.002	3.199	226.1	59.7	1.200	1.200	0.236	0.0	105	2.711
7.003	2.144	151.5	67.0	1.200	1.195	0.265	0.0	140	2.081
1.026	2.443	2762.6	838.9	1.196	0.904	3.316	0.0	451	2.159
1.027	4.593	5195.0	853.6	0.904	0.909	3.374	0.0	325	3.446
36.000	1.006	40.0	5.3	0.900	1.158	0.021	0.0	55	0.700
1.028	1.666	1884.1	879.6	1.158	2.749	3.477	0.0	576	1.639

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.029	1029	1029a	14.025	0.600	30.792	30.764	0.028	500.0	1200	11.77	50.0
1.030	1029a	1030	45.249	0.600	30.764	30.689	0.075	603.3	1200	12.27	50.0
1.031	1030	1031	10.333	0.600	30.689	30.672	0.017	607.8	1200	12.39	50.0
1.032	1031	1032	45.794	0.600	30.672	30.596	0.076	602.6	1200	12.89	50.0
8.000	1130	1032	16.206	0.600	33.717	32.096	1.621	10.0	150	6.08	50.0
1.033	1032	1033	16.832	0.600	30.596	30.555	0.041	410.5	1200	13.04	50.0
1.034	1033	1034	24.258	0.600	30.555	30.506	0.049	495.1	1200	13.28	50.0
1.035	1034	1035	14.894	0.600	30.506	30.476	0.030	500.0	1200	13.43	50.0
1.036	1035	1036	44.952	0.600	30.476	30.386	0.090	500.0	1200	13.88	50.0
1.037	1036	1037	6.935	0.600	30.386	30.372	0.014	500.0	1200	13.95	50.0
9.000	1140	1141	49.064	0.600	34.628	32.333	2.295	21.4	225	6.29	50.0
9.001	1141	1037	9.221	0.600	32.333	31.872	0.461	20.0	225	6.34	50.0
1.038	1037	1038	13.209	0.600	30.372	30.346	0.026	508.0	1200	14.09	50.0
1.039	1038	1039	63.722	0.600	30.346	30.219	0.127	500.0	1200	14.72	50.0
1.040	1039	1040	50.020	0.600	30.219	30.119	0.100	500.0	1200	15.22	50.0
10.000	1150	1151	12.641	0.600	34.172	33.380	0.792	16.0	225	6.06	50.0
37.000	1480	1151	10.765	0.600	33.444	33.380	0.064	168.0	225	6.18	50.0
10.001	1151	1152	34.255	0.600	32.705	31.916	0.789	43.4	900	10.85	50.0
10.002	1152	1040	21.586	0.600	31.916	31.178	0.738	29.2	900	10.91	50.0
1.041	1040	1041	24.662	0.600	29.900	28.407	1.493	16.5	450	15.30	0.0
11.000	1160	1161	21.978	0.600	39.651	39.232	0.419	52.5	225	6.20	50.0
11.001	1161	1162	30.366	0.600	39.232	39.051	0.181	168.0	225	6.71	50.0
12.000	1190	1162	23.592	0.600	39.454	39.051	0.403	58.5	225	6.23	50.0
11.002	1162	1163	30.382	0.600	39.051	37.635	1.416	21.5	225	6.88	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.029	1.666	1884.1	889.0	2.749	3.796	3.514	0.0	580	1.643
1.030	1.515	1713.9	889.0	3.796	3.739	3.514	0.0	613	1.528
1.031	1.510	1707.5	901.6	3.739	4.009	3.564	0.0	620	1.529
1.032	1.516	1715.0	924.9	4.009	4.806	3.656	0.0	628	1.544
8.000	3.204	56.6	28.3	3.008	4.356	0.112	0.0	75	3.210
1.033	1.840	2080.8	974.5	4.806	4.610	3.852	0.0	577	1.811
1.034	1.674	1893.5	986.1	4.610	4.319	3.898	0.0	615	1.690
1.035	1.666	1884.1	997.8	4.319	4.142	3.944	0.0	621	1.689
1.036	1.666	1884.1	1038.0	4.142	2.945	4.103	0.0	637	1.704
1.037	1.666	1884.1	1051.4	2.945	2.833	4.156	0.0	641	1.709
9.000	2.842	113.0	13.9	1.200	1.827	0.055	0.0	53	1.949
9.001	2.939	116.8	31.6	1.827	2.308	0.125	0.0	80	2.504
1.038	1.653	1869.0	1092.9	2.833	2.806	4.320	0.0	661	1.713
1.039	1.666	1884.1	1104.0	2.806	0.981	4.364	0.0	661	1.728
1.040	1.666	1884.1	1104.0	0.981	0.981	4.364	0.0	661	1.728
10.000	3.291	130.9	10.9	1.246	1.479	0.043	0.0	44	2.010
37.000	1.006	40.0	6.8	0.946	1.479	0.027	0.0	63	0.755
10.001	4.762	3029.2	793.1	1.479	0.225	3.135	0.0	312	4.047
10.002	5.804	3692.4	793.1	0.225	0.222	3.135	0.0	281	4.678
1.041	5.020	798.5	0.0	1.950	2.282	7.577	0.0	0	0.000
11.000	1.810	72.0	4.0	1.200	1.200	0.016	0.0	36	0.978
11.001	1.006	40.0	4.0	1.200	1.283	0.016	0.0	48	0.647
12.000	1.712	68.1	28.8	1.200	1.283	0.114	0.0	102	1.645
11.002	2.837	112.8	32.9	1.283	1.200	0.130	0.0	83	2.470

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
11.003	1163	1164	12.713	0.600	37.485	37.446	0.039	324.0	375	7.10	50.0
11.004	1164	1165	23.162	0.600	37.446	37.375	0.071	324.0	375	7.48	50.0
11.005	1165	1166	24.528	0.600	37.375	37.299	0.076	324.0	375	7.89	50.0
11.006	1166	1167	13.374	0.600	37.299	37.258	0.041	324.0	375	8.11	50.0
13.000	1200	1201	19.016	0.600	39.649	39.536	0.113	168.0	225	6.32	50.0
13.001	1201	1202	27.564	0.600	39.461	39.346	0.115	240.0	300	6.77	50.0
13.002	1202	1203	26.380	0.600	39.346	39.236	0.110	240.0	300	7.21	50.0
13.003	1203	1204	24.705	0.600	39.236	38.490	0.746	33.1	300	7.36	50.0
13.004	1204	1167	10.902	0.600	38.490	37.333	1.157	9.4	300	7.39	50.0
11.007	1167	1168	12.344	0.600	37.108	37.083	0.025	490.0	525	8.32	50.0
11.008	1168	1169	24.572	0.600	37.083	37.033	0.050	491.4	525	8.73	50.0
14.000	1210	1211	40.935	0.600	38.599	38.355	0.244	168.0	225	6.68	50.0
14.001	1211	1169	7.756	0.600	38.355	37.333	1.022	7.6	225	6.71	50.0
11.009	1169	1170	7.714	0.600	37.033	37.017	0.016	490.0	525	8.85	50.0
11.010	1170	1171	42.884	0.600	37.017	36.249	0.768	55.8	525	9.09	50.0
15.000	1220	1171	47.258	0.600	36.830	36.549	0.281	168.0	225	6.78	50.0
11.011	1171	1172	7.947	0.600	36.249	36.233	0.016	490.0	525	9.22	50.0
11.012	1172	1173	40.271	0.600	36.233	36.151	0.082	490.0	525	9.89	50.0
16.000	1230	1231	32.047	0.600	36.696	36.505	0.191	168.0	225	6.53	50.0
16.001	1231	1173	20.127	0.600	36.505	36.385	0.120	168.0	225	6.86	50.0
11.013	1173	1174	10.028	0.600	36.010	35.990	0.020	500.0	600	10.05	50.0
11.014	1174	1178	45.959	0.600	35.990	34.600	1.390	33.1	600	10.23	50.0
17.000	1240	1178	46.601	0.600	36.422	34.600	1.822	25.6	225	6.30	50.0
11.018	1178	1179	32.833	0.600	34.600	34.450	0.150	218.9	600	10.56	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
11.003	1.001	110.5	58.7	1.200	1.084	0.232	0.0	194	1.016
11.004	1.001	110.5	58.7	1.084	1.408	0.232	0.0	194	1.016
11.005	1.001	110.5	58.7	1.408	1.708	0.232	0.0	194	1.016
11.006	1.001	110.5	67.8	1.708	2.061	0.268	0.0	213	1.050
13.000	1.006	40.0	15.2	1.200	1.288	0.060	0.0	96	0.939
13.001	1.010	71.4	40.7	1.288	1.809	0.161	0.0	163	1.043
13.002	1.010	71.4	56.2	1.809	1.275	0.222	0.0	201	1.115
13.003	2.741	193.8	63.5	1.275	1.200	0.251	0.0	118	2.465
13.004	5.150	364.1	70.1	1.200	2.061	0.277	0.0	89	4.011
11.007	1.005	217.5	143.7	2.061	2.028	0.568	0.0	312	1.071
11.008	1.003	217.2	153.1	2.028	2.352	0.605	0.0	326	1.083
14.000	1.006	40.0	24.3	1.200	1.410	0.096	0.0	127	1.054
14.001	4.779	190.0	27.8	1.410	2.352	0.110	0.0	58	3.430
11.009	1.005	217.5	190.2	2.352	1.744	0.752	0.0	382	1.126
11.010	3.001	649.7	190.2	1.744	1.757	0.752	0.0	194	2.621
15.000	1.006	40.0	14.9	0.900	1.757	0.059	0.0	95	0.935
11.011	1.005	217.5	205.2	1.757	1.708	0.811	0.0	408	1.135
11.012	1.005	217.5	205.2	1.708	1.424	0.811	0.0	408	1.135
16.000	1.006	40.0	22.3	0.900	1.547	0.088	0.0	120	1.032
16.001	1.006	40.0	22.3	1.547	1.490	0.088	0.0	120	1.032
11.013	1.082	305.9	227.4	1.490	1.354	0.899	0.0	387	1.180
11.014	4.244	1200.0	227.4	1.354	2.301	0.899	0.0	175	3.300
17.000	2.597	103.3	12.1	0.900	2.676	0.048	0.0	51	1.747
11.018	1.642	464.2	239.6	2.301	1.450	0.947	0.0	306	1.654

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
18.000	1255	1256	11.675	0.600	41.851	41.821	0.030	389.2	450	6.19	50.0
18.001	1256	1257	36.950	0.600	41.821	41.095	0.726	50.9	450	6.41	50.0
18.002	1257	1258	10.043	0.600	41.020	41.000	0.020	490.0	525	6.57	50.0
18.003	1258	1259	9.421	0.600	41.000	40.981	0.019	490.0	525	6.73	50.0
18.004	1259	1260	33.749	0.600	40.981	40.912	0.069	490.0	525	7.29	50.0
18.005	1260	1261	67.228	0.600	40.837	40.703	0.134	500.0	600	8.32	50.0
18.006	1261	1262	10.529	0.600	40.703	40.666	0.037	284.6	600	8.45	50.0
19.000	1280	1281	20.197	0.600	41.489	41.185	0.304	66.4	225	6.21	50.0
19.001	1281	1262	19.695	0.600	41.185	41.041	0.144	136.8	225	6.50	50.0
18.007	1262	1263	17.075	0.600	40.666	40.416	0.250	68.3	600	8.54	50.0
18.008	1263	1264	56.656	0.600	40.416	38.999	1.417	40.0	600	8.79	50.0
18.009	1264	1265	15.242	0.600	38.999	38.670	0.329	46.3	600	8.86	50.0
18.010	1265	1266	22.885	0.600	38.670	38.326	0.344	66.5	600	8.99	50.0
20.000	1290	1266	17.349	0.600	39.085	38.701	0.384	45.2	225	6.15	50.0
18.011	1266	1267	17.838	0.600	38.326	38.046	0.280	63.7	600	9.08	50.0
18.012	1267	1268	21.768	0.600	38.046	37.753	0.293	74.3	600	9.21	50.0
18.013	1268	1269	13.761	0.600	37.753	37.535	0.218	63.1	600	9.29	50.0
18.014	1269	1270	35.895	0.600	37.535	36.314	1.221	29.4	600	9.42	50.0
18.015	1270	1271	14.300	0.600	36.314	35.861	0.453	31.6	600	9.47	50.0
21.000	1300	1301	38.456	0.600	42.854	42.625	0.229	168.0	225	6.64	50.0
22.000	1320	1321	17.870	0.600	44.040	43.665	0.375	47.7	225	6.16	50.0
22.001	1321	1322	24.823	0.600	43.665	43.144	0.521	47.6	225	6.37	50.0
22.002	1322	1301	24.823	0.600	43.069	42.550	0.519	47.8	300	6.56	50.0
21.001	1301	1302	33.188	0.600	42.475	41.978	0.497	66.8	375	6.89	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
18.000	1.024	162.9	21.3	1.804	1.387	0.084	0.0	109	0.714
18.001	2.855	454.0	33.1	1.387	1.200	0.131	0.0	81	1.693
18.002	1.005	217.5	33.1	1.200	1.564	0.131	0.0	138	0.734
18.003	1.005	217.5	37.4	1.564	1.699	0.148	0.0	146	0.759
18.004	1.005	217.5	50.3	1.699	1.480	0.199	0.0	171	0.824
18.005	1.082	305.9	96.6	1.480	1.234	0.382	0.0	231	0.964
18.006	1.438	406.7	129.8	1.234	1.200	0.513	0.0	232	1.285
19.000	1.607	63.9	14.2	1.200	1.200	0.056	0.0	72	1.296
19.001	1.116	44.4	34.4	1.200	1.200	0.136	0.0	149	1.229
18.007	2.949	833.8	166.0	1.200	1.200	0.656	0.0	180	2.324
18.008	3.858	1090.9	193.0	1.200	1.200	0.763	0.0	170	2.947
18.009	3.583	1013.2	218.8	1.200	1.200	0.865	0.0	188	2.886
18.010	2.988	844.9	229.7	1.200	1.200	0.908	0.0	212	2.559
20.000	1.951	77.6	8.3	1.200	1.200	0.033	0.0	50	1.285
18.011	3.054	863.5	238.1	1.200	1.200	0.941	0.0	214	2.626
18.012	2.827	799.3	248.2	1.200	1.200	0.981	0.0	229	2.510
18.013	3.068	867.5	254.5	1.200	1.200	1.006	0.0	222	2.683
18.014	4.502	1272.8	263.9	1.200	1.200	1.043	0.0	184	3.591
18.015	4.344	1228.2	263.9	1.200	1.200	1.043	0.0	187	3.493
21.000	1.006	40.0	19.0	1.200	1.221	0.075	0.0	109	0.994
22.000	1.899	75.5	18.5	1.200	1.200	0.073	0.0	75	1.572
22.001	1.899	75.5	34.2	1.200	1.200	0.135	0.0	106	1.852
22.002	2.279	161.1	53.4	1.200	1.221	0.211	0.0	119	2.054
21.001	2.220	245.2	87.8	1.221	1.200	0.347	0.0	155	2.043

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
21.002	1302	1303	19.152	0.600	41.828	41.789	0.039	490.0	525	7.20	50.0
21.003	1303	1304	33.699	0.600	41.789	41.720	0.069	490.0	525	7.76	50.0
21.004	1304	1305	11.008	0.600	41.720	41.698	0.022	490.0	525	7.95	50.0
21.005	1305	1306	30.834	0.600	41.698	41.635	0.063	490.0	525	8.46	50.0
21.006	1306	1307	11.596	0.600	41.635	40.873	0.762	15.2	525	8.49	50.0
21.007	1307	1308	47.399	0.600	40.873	40.017	0.856	55.4	525	8.75	50.0
21.008	1308	1309	43.137	0.600	40.017	39.422	0.595	72.5	525	9.03	50.0
21.009	1309	1310	16.599	0.600	39.422	38.953	0.469	35.4	525	9.10	50.0
21.010	1310	1311	17.253	0.600	38.953	37.950	1.003	17.2	525	9.15	50.0
21.011	1311	1312	20.668	0.600	37.950	37.900	0.050	413.4	525	9.47	50.0
21.012	1312	1313	31.955	0.600	37.900	36.636	1.264	25.3	525	9.59	50.0
21.013	1313	1314	29.693	0.600	36.636	36.500	0.136	218.3	600	9.89	0.0
21.014	1314	1271	20.691	0.600	36.500	35.936	0.564	36.7	600	9.97	50.0
18.016	1271	1272	16.722	0.600	35.861	35.545	0.316	52.9	600	10.06	50.0
18.017	1272	1273	24.299	0.600	35.545	35.104	0.441	55.1	600	10.18	50.0
18.018	1273	1274	22.006	0.600	34.804	34.600	0.204	107.9	900	10.30	50.0
18.019	1274	1179	30.882	0.600	34.600	34.450	0.150	205.9	900	10.54	50.0
18.020	1179	1151	55.928	0.600	34.450	32.705	1.745	32.1	900	10.73	50.0
41.000	1180	1181	17.134	0.600	34.225	33.426	0.799	21.4	225	6.10	50.0
41.001	1181	1182	17.989	0.600	33.426	32.589	0.837	21.5	225	6.21	50.0
41.002	1182	1183	27.205	0.600	32.589	31.214	1.375	19.8	225	6.36	50.0
41.003	1183	1184	17.042	0.600	31.214	31.044	0.170	100.2	225	6.58	50.0
41.004	1184	1334	24.005	0.600	31.044	30.800	0.244	98.4	225	6.88	50.0
23.000	1330	1331	22.490	0.600	31.946	31.387	0.559	40.2	225	6.18	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
21.002	1.005	217.5	121.9	1.200	1.366	0.482	0.0	281	1.032
21.003	1.005	217.5	135.6	1.366	1.754	0.536	0.0	301	1.057
21.004	1.005	217.5	155.3	1.754	1.621	0.614	0.0	329	1.088
21.005	1.005	217.5	159.6	1.621	1.232	0.631	0.0	335	1.093
21.006	5.762	1247.2	170.3	1.232	1.200	0.673	0.0	129	4.087
21.007	3.014	652.5	170.3	1.200	1.200	0.673	0.0	182	2.555
21.008	2.633	569.9	188.5	1.200	1.200	0.745	0.0	207	2.375
21.009	3.773	816.9	208.7	1.200	1.200	0.825	0.0	180	3.182
21.010	5.418	1173.0	213.5	1.200	1.200	0.844	0.0	150	4.166
21.011	1.095	237.1	213.5	1.200	1.075	0.844	0.0	392	1.232
21.012	4.467	967.0	213.5	1.075	0.885	0.844	0.0	166	3.618
21.013	1.644	464.8	0.0	0.810	0.900	0.844	0.0	0	0.000
21.014	4.029	1139.0	213.5	0.900	1.125	0.844	0.0	174	3.122
18.016	3.352	947.8	485.5	1.200	1.200	1.919	0.0	304	3.371
18.017	3.285	928.7	509.8	1.200	1.200	2.015	0.0	317	3.357
18.018	3.016	1918.7	529.0	1.200	1.475	2.091	0.0	321	2.597
18.019	2.180	1386.6	529.0	1.475	1.150	2.091	0.0	385	2.040
18.020	5.544	3527.0	768.6	1.150	1.479	3.038	0.0	283	4.489
41.000	2.838	112.8	23.3	1.775	1.775	0.092	0.0	69	2.246
41.001	2.834	112.7	26.8	1.775	1.775	0.106	0.0	74	2.332
41.002	2.955	117.5	35.4	1.775	1.775	0.140	0.0	85	2.600
41.003	1.306	51.9	48.3	1.775	1.033	0.191	0.0	173	1.477
41.004	1.318	52.4	48.3	1.033	0.775	0.191	0.0	171	1.489
23.000	2.068	82.2	22.8	0.825	0.825	0.090	0.0	80	1.772

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
23.001	1331	1332	30.632	0.600	31.387	31.205	0.182	168.0	225	6.69	50.0
24.000	1340	1332	28.228	0.600	32.090	31.130	0.960	29.4	225	6.19	50.0
23.002	1332	1333	14.733	0.600	31.055	30.967	0.088	168.0	300	6.89	50.0
23.003	1333	1334	5.000	0.600	30.800	30.650	0.150	33.3	300	6.92	50.0
23.004	1334	1041	38.212	0.600	30.650	29.639	1.011	37.8	300	7.17	50.0
1.042	1041	1042	28.346	0.600	28.407	27.673	0.734	38.6	450	15.45	0.0
25.000	1350	1042	23.548	0.600	28.038	27.898	0.140	168.0	225	6.39	50.0
1.043	1042	1043	25.305	0.600	27.673	27.473	0.200	126.5	450	15.68	0.0
1.044	1043	1044	42.927	0.600	27.473	25.805	1.668	25.7	450	15.86	0.0
26.000	1360	1044	18.833	0.600	26.142	26.030	0.112	168.0	225	6.31	50.0
1.045	1044	1045	23.655	0.600	25.805	24.753	1.052	22.5	450	15.95	0.0
1.046	1045	1046	20.246	0.600	24.753	22.624	2.129	9.5	450	16.00	0.0
27.000	1370	1371	21.047	0.600	27.506	27.290	0.216	97.4	225	6.26	50.0
27.001	1371	1372	9.085	0.600	27.290	27.205	0.085	106.9	225	6.38	50.0
27.002	1372	1373	7.503	0.600	27.205	27.108	0.097	77.3	225	6.47	50.0
27.003	1373	1374	11.346	0.600	27.108	26.750	0.358	31.7	225	6.55	50.0
27.004	1374	1375	36.873	0.600	26.750	24.594	2.156	17.1	225	6.74	50.0
27.005	1375	1376	32.004	0.600	24.594	23.324	1.270	25.2	225	6.95	50.0
27.006	1376	1377	41.563	0.600	23.249	23.076	0.173	240.0	300	7.63	50.0
27.007	1377	1378	18.200	0.600	23.001	22.944	0.057	320.0	375	7.93	50.0
28.000	1390	1391	66.114	0.600	27.805	24.755	3.050	21.7	225	6.39	50.0
28.001	1391	1378	24.975	0.600	24.755	23.094	1.661	15.0	225	6.51	50.0
27.008	1378	1379	25.100	0.600	22.869	22.807	0.062	405.0	450	8.35	50.0
27.009	1379	1380	12.391	0.600	22.807	22.776	0.031	405.0	450	8.56	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
23.001	1.006	40.0	30.9	0.825	1.520	0.122	0.0	149	1.107
24.000	2.421	96.3	15.9	1.200	1.595	0.063	0.0	62	1.808
23.002	1.210	85.5	52.1	1.595	0.533	0.206	0.0	169	1.266
23.003	2.732	193.1	57.4	0.700	0.850	0.227	0.0	112	2.391
23.004	2.565	181.3	105.7	0.850	1.200	0.418	0.0	165	2.661
1.042	3.279	521.5	0.0	2.282	1.641	8.033	0.0	0	0.000
25.000	1.006	40.0	10.6	1.275	1.641	0.042	0.0	79	0.851
1.043	1.806	287.2	0.0	1.641	1.200	8.145	0.0	0	0.000
1.044	4.020	639.3	0.0	1.200	1.281	8.247	0.0	0	0.000
26.000	1.006	40.0	9.4	1.200	1.281	0.037	0.0	74	0.826
1.045	4.301	684.1	0.0	1.281	1.200	8.362	0.0	0	0.000
1.046	6.621	1053.0	0.0	1.200	2.434	8.402	0.0	0	0.000
27.000	1.324	52.7	18.7	1.200	1.200	0.074	0.0	93	1.216
27.001	1.264	50.3	18.7	1.200	1.200	0.074	0.0	95	1.176
27.002	1.488	59.2	18.7	1.200	1.200	0.074	0.0	87	1.322
27.003	2.332	92.7	25.3	1.200	1.200	0.100	0.0	80	1.998
27.004	3.179	126.4	25.3	1.200	1.200	0.100	0.0	68	2.500
27.005	2.617	104.0	42.0	1.200	0.900	0.166	0.0	100	2.485
27.006	1.010	71.4	57.9	0.900	1.738	0.229	0.0	206	1.121
27.007	1.007	111.2	73.4	1.738	2.114	0.290	0.0	223	1.074
28.000	2.822	112.2	16.7	1.200	1.200	0.066	0.0	58	2.041
28.001	3.391	134.8	43.8	1.200	2.114	0.173	0.0	88	3.044
27.008	1.004	159.6	119.7	2.114	2.561	0.473	0.0	291	1.097
27.009	1.004	159.6	125.7	2.561	2.498	0.497	0.0	302	1.107

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
27.010	1380	1046	16.121	0.600	22.776	22.624	0.152	106.1	450	8.69	50.0
1.047	1046	1047	20.423	0.600	22.399	22.358	0.041	498.1	675	16.29	0.0
1.048	1047	1048	19.779	0.600	22.358	21.437	0.921	21.5	675	16.35	0.0
29.000	1400	1401	57.937	0.600	25.952	23.596	2.356	24.6	225	6.36	50.0
29.001	1401	1402	45.567	0.600	23.521	22.365	1.156	39.4	300	6.67	50.0
29.002	1402	1403	16.964	0.600	22.365	21.861	0.504	33.7	300	6.77	50.0
29.003	1403	1404	5.000	0.600	21.861	21.711	0.150	33.3	300	6.80	0.0
29.004	1404	1049	28.110	0.600	20.599	20.543	0.056	500.0	675	7.20	50.0
1.049	1048	1049	20.054	0.600	21.437	20.543	0.894	22.4	675	16.41	0.0
1.050	1049	1050	27.825	0.600	20.543	20.487	0.056	500.0	600	16.84	0.0
1.051	1050	1051	25.808	0.600	20.487	20.435	0.052	500.0	600	17.24	0.0
1.052	1051	1052	27.734	0.600	20.435	20.380	0.055	500.0	600	17.67	0.0
1.053	1052	1053	38.695	0.600	20.380	20.231	0.149	259.7	600	18.09	0.0
30.000	1410	1411	16.890	0.600	21.180	20.837	0.343	49.2	225	6.15	50.0
31.000	1420	1411	7.240	0.600	20.881	20.838	0.043	168.0	225	6.12	50.0
30.001	1411	1412	30.086	0.600	20.762	20.637	0.125	240.0	300	6.65	50.0
30.002	1412	1053	25.553	0.600	20.637	20.531	0.106	240.0	300	7.07	50.0
1.054	1053	1054	23.853	0.600	20.156	19.421	0.735	32.5	675	18.18	0.0
1.055	1054	1055	25.075	0.600	19.421	19.121	0.300	83.6	675	18.33	0.0
1.056	1055	1056	9.547	0.600	19.121	18.996	0.125	76.4	675	18.38	0.0
38.000	1421	1422	5.000	0.600	20.175	20.100	0.075	66.7	675	6.03	50.0
38.001	1422	1423	5.000	0.600	20.100	20.022	0.078	64.0	675	6.05	50.0
38.002	1423	1424	52.745	0.600	20.022	19.198	0.824	64.0	675	6.32	50.0
38.003	1424	1056	13.565	0.600	19.198	18.996	0.202	67.2	675	6.39	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
27.010	1.973	313.9	135.1	2.498	2.434	0.534	0.0	206	1.903
1.047	1.167	417.7	0.0	2.434	1.561	8.976	0.0	0	0.000
1.048	5.670	2029.0	0.0	1.561	1.847	9.015	0.0	0	0.000
29.000	2.649	105.3	30.6	1.200	1.200	0.121	0.0	83	2.307
29.001	2.511	177.5	52.9	1.200	1.200	0.209	0.0	112	2.198
29.002	2.719	192.2	52.9	1.200	1.550	0.209	0.0	107	2.330
29.003	2.732	193.1	0.0	1.550	1.700	0.295	0.0	0	0.000
29.004	1.165	416.9	74.6	2.437	2.493	0.295	0.0	192	0.892
1.049	5.548	1985.2	0.0	1.847	2.493	9.049	0.0	0	0.000
1.050	1.082	305.9	0.0	2.568	2.272	9.456	0.0	0	0.000
1.051	1.082	305.9	0.0	2.272	2.021	9.554	0.0	0	0.000
1.052	1.082	305.9	0.0	2.021	1.743	9.653	0.0	0	0.000
1.053	1.506	425.8	0.0	1.743	1.502	9.758	0.0	0	0.000
30.000	1.868	74.3	19.2	1.200	1.334	0.076	0.0	78	1.573
31.000	1.006	40.0	17.5	1.200	1.333	0.069	0.0	104	0.973
30.001	1.010	71.4	46.8	1.334	1.716	0.185	0.0	177	1.075
30.002	1.010	71.4	55.7	1.716	1.502	0.220	0.0	200	1.113
1.054	4.610	1649.7	0.0	1.502	1.876	10.040	0.0	0	0.000
1.055	2.868	1026.2	0.0	1.876	1.876	10.131	0.0	0	0.000
1.056	3.000	1073.7	0.0	1.876	1.876	10.197	0.0	0	0.000
38.000	3.213	1149.6	0.0	1.050	0.725	0.000	0.0	0	0.000
38.001	3.279	1173.4	0.0	0.725	0.753	0.000	0.0	0	0.000
38.002	3.279	1173.4	0.0	0.753	1.927	0.000	0.0	0	0.000
38.003	3.201	1145.4	0.0	1.927	1.876	0.000	0.0	0	0.000

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.057	1056	1057	15.508	0.600	18.996	18.565	0.431	36.0	675	18.44	0.0
1.058	1057	1058	33.619	0.600	18.565	17.997	0.568	59.2	675	18.60	0.0
1.059	1058	1059	50.073	0.600	17.997	16.246	1.751	28.6	675	18.77	0.0
1.060	1059	1060	42.715	0.600	16.246	14.313	1.933	22.1	525	18.92	0.0
1.061	1060	1061	64.327	0.600	14.313	11.594	2.719	23.7	525	19.15	0.0
32.000	1430	1431	27.526	0.600	20.287	19.439	0.848	32.5	225	6.20	50.0
33.000	1440	1431	12.104	0.600	19.358	19.308	0.050	240.0	300	6.20	50.0
32.001	1431	1432	59.448	0.600	19.308	18.568	0.740	80.3	300	6.76	50.0
32.002	1432	1433	35.004	0.600	18.568	17.870	0.698	50.1	300	7.03	50.0
32.003	1433	1434	50.384	0.600	17.870	16.367	1.503	33.5	300	7.33	50.0
34.000	1450	1434	24.484	0.600	16.588	16.442	0.146	168.0	225	6.41	50.0
32.004	1434	1435	49.465	0.600	16.367	14.852	1.515	32.7	300	7.63	50.0
32.005	1435	1436	42.018	0.600	14.777	13.585	1.192	35.2	375	7.86	50.0
32.006	1436	1061	61.786	0.600	13.585	11.520	2.065	29.9	375	8.17	50.0
1.062	1061	1062	38.498	0.600	9.131	8.902	0.229	168.1	225	19.79	0.0
1.063	1062	1063	81.547	0.600	8.902	7.123	1.779	45.8	225	20.49	0.0
1.064	1063	1064	29.133	0.600	7.123	6.950	0.173	168.4	225	20.98	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.057	4.378	1566.5	0.0	1.876	1.876	10.276	0.0	0	0.000
1.058	3.410	1220.3	0.0	1.876	1.276	10.340	0.0	0	0.000
1.059	4.912	1757.7	0.0	1.276	1.275	10.392	0.0	0	0.000
1.060	4.779	1034.5	0.0	1.425	0.976	10.467	0.0	0	0.000
1.061	4.618	999.7	0.0	0.976	0.976	10.467	0.0	0	0.000
32.000	2.304	91.6	3.8	1.200	1.350	0.015	0.0	31	1.149
33.000	1.010	71.4	25.8	1.200	1.406	0.102	0.0	125	0.931
32.001	1.755	124.1	40.2	1.406	1.200	0.159	0.0	117	1.574
32.002	2.225	157.3	59.5	1.200	1.200	0.235	0.0	127	2.073
32.003	2.724	192.6	78.2	1.200	1.200	0.309	0.0	133	2.586
34.000	1.006	40.0	10.9	2.466	1.200	0.043	0.0	80	0.861
32.004	2.761	195.1	106.8	1.200	1.200	0.422	0.0	158	2.821
32.005	3.060	338.0	126.5	1.200	1.200	0.500	0.0	159	2.847
32.006	3.323	367.0	126.5	1.200	1.200	0.500	0.0	151	3.025
1.062	1.005	40.0	0.0	3.739	2.443	10.967	0.0	0	0.000
1.063	1.937	77.0	0.0	2.443	0.687	10.967	0.0	0	0.000
1.064	1.004	39.9	0.0	0.687	0.825	10.967	0.0	0	0.000

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	6.999	18.6	225	Circular_Default Sewer Type	42.852	41.427	1.200	42.476	41.051	1.200
1.001	17.819	20.6	225	Circular_Default Sewer Type	42.476	41.051	1.200	41.610	40.185	1.200
1.002	12.554	35.7	225	Circular_Default Sewer Type	41.610	40.185	1.200	41.258	39.833	1.200
1.003	6.346	88.1	225	Circular_Default Sewer Type	41.258	39.833	1.200	41.186	39.761	1.200
1.004	23.285	72.1	225	Circular_Default Sewer Type	41.186	39.761	1.200	40.863	39.438	1.200
1.005	19.236	74.6	300	Circular_Default Sewer Type	40.863	39.363	1.200	40.605	39.105	1.200
1.006	34.627	13.4	300	Circular_Default Sewer Type	40.605	39.105	1.200	37.717	36.517	0.900
1.007	54.876	450.0	600	Circular_Default Sewer Type	37.717	36.217	0.900	38.567	36.095	1.872
1.008	11.508	442.6	600	Circular_Default Sewer Type	38.567	36.095	1.872	38.108	36.069	1.439
1.009	18.305	494.7	750	Circular_Default Sewer Type	38.108	35.919	1.439	38.845	35.882	2.213
1.010	35.934	499.1	750	Circular_Default Sewer Type	38.845	35.882	2.213	40.071	35.810	3.511
2.000	12.656	168.0	225	Circular_Default Sewer Type	43.569	42.144	1.200	43.509	42.069	1.215
39.000	18.790	168.0	225	Circular_Default Sewer Type	44.795	43.370	1.200	44.922	43.258	1.439
39.001	32.037	65.5	225	Circular_Default Sewer Type	44.922	43.258	1.439	44.194	42.769	1.200
39.002	22.599	44.4	225	Circular_Default Sewer Type	44.194	42.769	1.200	43.685	42.260	1.200
40.000	39.354	147.9	225	Circular_Default Sewer Type	43.951	42.526	1.200	43.685	42.260	1.200
39.003	25.698	134.5	450	Circular_Default Sewer Type	43.685	42.035	1.200	43.509	41.844	1.215
2.001	9.454	127.8	450	Circular_Default Sewer Type	43.509	41.844	1.215	43.420	41.770	1.200
2.002	60.417	20.0	450	Circular_Default Sewer Type	43.420	41.770	1.200	40.891	38.749	1.692
2.003	29.334	11.1	450	Circular_Default Sewer Type	40.891	38.749	1.692	40.071	36.110	3.511
1.011	10.428	548.8	750	Circular_Default Sewer Type	40.071	35.810	3.511	40.370	35.791	3.829
1.012	12.048	547.6	750	Circular_Default Sewer Type	40.370	35.791	3.829	40.613	35.769	4.094
3.000	25.868	52.7	225	Circular_Default Sewer Type	42.852	41.427	1.200	42.361	40.936	1.200
3.001	10.667	44.6	300	Circular_Default Sewer Type	42.361	40.861	1.200	42.122	40.622	1.200
3.002	33.136	48.6	300	Circular_Default Sewer Type	42.122	40.622	1.200	41.440	39.940	1.200

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1000	1500	Manhole	Adoptable	1001	1200	Manhole	Adoptable
1.001	1001	1200	Manhole	Adoptable	1002	1500	Manhole	Adoptable
1.002	1002	1500	Manhole	Adoptable	1003	1500	Manhole	Adoptable
1.003	1003	1500	Manhole	Adoptable	1004	1500	Manhole	Adoptable
1.004	1004	1500	Manhole	Adoptable	1005	1500	Manhole	Adoptable
1.005	1005	1500	Manhole	Adoptable	1006	1500	Manhole	Adoptable
1.006	1006	1500	Manhole	Adoptable	1007	1500	Manhole	Adoptable
1.007	1007	1500	Manhole	Adoptable	1008	1500	Manhole	Adoptable
1.008	1008	1500	Manhole	Adoptable	1009	1800	Manhole	Adoptable
1.009	1009	1800	Manhole	Adoptable	1010	1800	Manhole	Adoptable
1.010	1010	1800	Manhole	Adoptable	1011	1800	Manhole	Adoptable
2.000	1070	1500	Manhole	Adoptable	1071	1500	Manhole	Adoptable
39.000	1250	1500	Manhole	Adoptable	1251	1500	Manhole	Adoptable
39.001	1251	1500	Manhole	Adoptable	1252	1500	Manhole	Adoptable
39.002	1252	1500	Manhole	Adoptable	1253	1500	Manhole	Adoptable
40.000	1254	1500	Manhole	Adoptable	1253	1500	Manhole	Adoptable
39.003	1253	1500	Manhole	Adoptable	1071	1500	Manhole	Adoptable
2.001	1071	1500	Manhole	Adoptable	1072	1350	Manhole	Adoptable
2.002	1072	1350	Manhole	Adoptable	1073	1500	Manhole	Adoptable
2.003	1073	1500	Manhole	Adoptable	1011	1800	Manhole	Adoptable
1.011	1011	1800	Manhole	Adoptable	1012	1800	Manhole	Adoptable
1.012	1012	1800	Manhole	Adoptable	1013	1800	Manhole	Adoptable
3.000	1080	1500	Manhole	Adoptable	1081	1800	Manhole	Adoptable
3.001	1081	1800	Manhole	Adoptable	1082	1800	Manhole	Adoptable
3.002	1082	1800	Manhole	Adoptable	1083	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.000	30.893	37.1	300	Circular_Default Sewer Type	42.273	40.773	1.200	41.440	39.940	1.200
3.003	17.186	25.5	375	Circular_Default Sewer Type	41.440	39.865	1.200	40.990	39.191	1.424
3.004	19.221	10.0	375	Circular_Default Sewer Type	40.990	39.191	1.424	40.613	37.269	2.969
1.013	14.190	545.8	750	Circular_Default Sewer Type	40.613	35.769	4.094	40.443	35.743	3.950
1.014	42.296	528.7	750	Circular_Default Sewer Type	40.443	35.743	3.950	39.850	35.663	3.437
5.000	23.391	79.0	225	Circular_Default Sewer Type	40.270	38.845	1.200	39.974	38.549	1.200
5.001	10.707	10.0	225	Circular_Default Sewer Type	39.974	38.549	1.200	39.834	37.478	2.131
6.000	6.304	168.0	225	Circular_Default Sewer Type	37.725	36.600	0.900	37.807	36.562	1.020
6.001	18.188	324.0	375	Circular_Default Sewer Type	37.807	36.412	1.020	38.305	36.356	1.574
6.002	12.945	324.0	375	Circular_Default Sewer Type	38.305	36.356	1.574	39.002	36.316	2.311
6.003	23.733	324.0	375	Circular_Default Sewer Type	39.002	36.316	2.311	39.834	36.243	3.216
5.002	31.166	324.0	375	Circular_Default Sewer Type	39.834	36.243	3.216	39.414	36.147	2.892
5.003	17.147	324.0	375	Circular_Default Sewer Type	39.414	36.147	2.892	38.978	36.094	2.509
5.004	11.957	213.5	375	Circular_Default Sewer Type	38.978	36.094	2.509	39.850	36.038	3.437
1.016	17.618	503.4	825	Circular_Default Sewer Type	39.850	35.588	3.437	37.939	35.553	1.561
1.017	15.408	155.6	825	Circular_Default Sewer Type	37.939	35.553	1.561	37.179	35.454	0.900
1.018	33.075	34.0	825	Circular_Default Sewer Type	37.179	35.454	0.900	36.207	34.482	0.900
1.019	24.792	40.6	825	Circular_Default Sewer Type	36.207	34.482	0.900	35.596	33.871	0.900
1.020	32.414	41.6	825	Circular_Default Sewer Type	35.596	33.871	0.900	34.816	33.091	0.900
1.021	17.920	20.4	825	Circular_Default Sewer Type	34.816	33.091	0.900	33.937	32.212	0.900
35.000	5.208	168.0	225	Circular_Default Sewer Type	33.672	32.547	0.900	33.937	32.516	1.196
1.022	5.408	115.1	1200	Circular_Default Sewer Type	33.937	31.837	0.900	33.890	31.790	0.900
1.023	21.364	500.0	1200	Circular_Default Sewer Type	33.890	31.790	0.900	34.063	31.747	1.116
1.024	41.109	500.0	1200	Circular_Default Sewer Type	34.063	31.747	1.116	34.432	31.665	1.567
1.025	14.257	500.0	1200	Circular_Default Sewer Type	34.432	31.665	1.567	34.032	31.636	1.196

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.000	1090	1500	Manhole	Adoptable	1083	1500	Manhole	Adoptable
3.003	1083	1500	Manhole	Adoptable	1084	1500	Manhole	Adoptable
3.004	1084	1500	Manhole	Adoptable	1013	1800	Manhole	Adoptable
1.013	1013	1800	Manhole	Adoptable	1014	1800	Manhole	Adoptable
1.014	1014	1800	Manhole	Adoptable	1016	1800	Manhole	Adoptable
5.000	1100	1500	Manhole	Adoptable	1101	1200	Manhole	Adoptable
5.001	1101	1200	Manhole	Adoptable	1102	1500	Manhole	Adoptable
6.000	1110	1800	Manhole	Adoptable	1111	1500	Manhole	Adoptable
6.001	1111	1500	Manhole	Adoptable	1112	1500	Manhole	Adoptable
6.002	1112	1500	Manhole	Adoptable	1113	1500	Manhole	Adoptable
6.003	1113	1500	Manhole	Adoptable	1102	1500	Manhole	Adoptable
5.002	1102	1500	Manhole	Adoptable	1103	1500	Manhole	Adoptable
5.003	1103	1500	Manhole	Adoptable	1104	1500	Manhole	Adoptable
5.004	1104	1500	Manhole	Adoptable	1016	1800	Manhole	Adoptable
1.016	1016	1800	Manhole	Adoptable	1017	1800	Manhole	Adoptable
1.017	1017	1800	Manhole	Adoptable	1018	1800	Manhole	Adoptable
1.018	1018	1800	Manhole	Adoptable	1019	1800	Manhole	Adoptable
1.019	1019	1800	Manhole	Adoptable	1020	1800	Manhole	Adoptable
1.020	1020	1800	Manhole	Adoptable	1021	1800	Manhole	Adoptable
1.021	1021	1800	Manhole	Adoptable	1022	2400	Manhole	Adoptable
35.000	1460	1500	Manhole	Adoptable	1022	2400	Manhole	Adoptable
1.022	1022	2400	Manhole	Adoptable	1023	2400	Manhole	Adoptable
1.023	1023	2400	Manhole	Adoptable	1024	2400	Manhole	Adoptable
1.024	1024	2400	Manhole	Adoptable	1025	2400	Manhole	Adoptable
1.025	1025	2400	Manhole	Adoptable	1026	2400	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
7.000	7.835	168.0	300	Circular_Default Sewer Type	35.852	34.352	1.200	35.934	34.305	1.329
7.001	17.896	37.1	300	Circular_Default Sewer Type	35.934	34.305	1.329	35.322	33.822	1.200
7.002	26.295	24.3	300	Circular_Default Sewer Type	35.322	33.822	1.200	34.242	32.742	1.200
7.003	11.069	54.0	300	Circular_Default Sewer Type	34.242	32.742	1.200	34.032	32.537	1.195
1.026	16.592	233.7	1200	Circular_Default Sewer Type	34.032	31.636	1.196	33.669	31.565	0.904
1.027	31.347	66.4	1200	Circular_Default Sewer Type	33.669	31.565	0.904	33.202	31.093	0.909
36.000	11.856	168.0	225	Circular_Default Sewer Type	33.015	31.890	0.900	33.202	31.819	1.158
1.028	26.108	500.0	1200	Circular_Default Sewer Type	33.202	30.844	1.158	34.741	30.792	2.749
1.029	14.025	500.0	1200	Circular_Default Sewer Type	34.741	30.792	2.749	35.760	30.764	3.796
1.030	45.249	603.3	1200	Circular_Default Sewer Type	35.760	30.764	3.796	35.628	30.689	3.739
1.031	10.333	607.8	1200	Circular_Default Sewer Type	35.628	30.689	3.739	35.881	30.672	4.009
1.032	45.794	602.6	1200	Circular_Default Sewer Type	35.881	30.672	4.009	36.602	30.596	4.806
8.000	16.206	10.0	150	Circular_Default Sewer Type	36.875	33.717	3.008	36.602	32.096	4.356
1.033	16.832	410.5	1200	Circular_Default Sewer Type	36.602	30.596	4.806	36.365	30.555	4.610
1.034	24.258	495.1	1200	Circular_Default Sewer Type	36.365	30.555	4.610	36.025	30.506	4.319
1.035	14.894	500.0	1200	Circular_Default Sewer Type	36.025	30.506	4.319	35.818	30.476	4.142
1.036	44.952	500.0	1200	Circular_Default Sewer Type	35.818	30.476	4.142	34.531	30.386	2.945
1.037	6.935	500.0	1200	Circular_Default Sewer Type	34.531	30.386	2.945	34.405	30.372	2.833
9.000	49.064	21.4	225	Circular_Default Sewer Type	36.053	34.628	1.200	34.385	32.333	1.827
9.001	9.221	20.0	225	Circular_Default Sewer Type	34.385	32.333	1.827	34.405	31.872	2.308
1.038	13.209	508.0	1200	Circular_Default Sewer Type	34.405	30.372	2.833	34.352	30.346	2.806
1.039	63.722	500.0	1200	Circular_Default Sewer Type	34.352	30.346	2.806	32.400	30.219	0.981
1.040	50.020	500.0	1200	Circular_Default Sewer Type	32.400	30.219	0.981	32.300	30.119	0.981
10.000	12.641	16.0	225	Circular_Default Sewer Type	35.643	34.172	1.246	35.084	33.380	1.479
37.000	10.765	168.0	225	Circular_Default Sewer Type	34.615	33.444	0.946	35.084	33.380	1.479

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
7.000	1120	1800	Manhole	Adoptable	1121	1500	Manhole	Adoptable
7.001	1121	1500	Manhole	Adoptable	1122	1500	Manhole	Adoptable
7.002	1122	1500	Manhole	Adoptable	1123	1500	Manhole	Adoptable
7.003	1123	1500	Manhole	Adoptable	1026	2400	Manhole	Adoptable
1.026	1026	2400	Manhole	Adoptable	1027	2400	Manhole	Adoptable
1.027	1027	2400	Manhole	Adoptable	1028	2400	Manhole	Adoptable
36.000	1470	1200	Manhole	Adoptable	1028	2400	Manhole	Adoptable
1.028	1028	2400	Manhole	Adoptable	1029	2400	Manhole	Adoptable
1.029	1029	2400	Manhole	Adoptable	1029a	2100	Manhole	Adoptable
1.030	1029a	2100	Manhole	Adoptable	1030	2400	Manhole	Adoptable
1.031	1030	2400	Manhole	Adoptable	1031	2400	Manhole	Adoptable
1.032	1031	2400	Manhole	Adoptable	1032	2400	Manhole	Adoptable
8.000	1130	1500	Manhole	Adoptable	1032	2400	Manhole	Adoptable
1.033	1032	2400	Manhole	Adoptable	1033	2400	Manhole	Adoptable
1.034	1033	2400	Manhole	Adoptable	1034	2400	Manhole	Adoptable
1.035	1034	2400	Manhole	Adoptable	1035	2400	Manhole	Adoptable
1.036	1035	2400	Manhole	Adoptable	1036	2400	Manhole	Adoptable
1.037	1036	2400	Manhole	Adoptable	1037	2400	Manhole	Adoptable
9.000	1140	1500	Manhole	Adoptable	1141	1500	Manhole	Adoptable
9.001	1141	1500	Manhole	Adoptable	1037	2400	Manhole	Adoptable
1.038	1037	2400	Manhole	Adoptable	1038	2400	Manhole	Adoptable
1.039	1038	2400	Manhole	Adoptable	1039	1	Manhole	Adoptable
1.040	1039	1	Manhole	Adoptable	1040	1	Manhole	Adoptable
10.000	1150	1200	Manhole	Adoptable	1151	1800	Manhole	Adoptable
37.000	1480	1200	Manhole	Adoptable	1151	1800	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
10.001	34.255	43.4	900	Circular_Default Sewer Type	35.084	32.705	1.479	33.041	31.916	0.225
10.002	21.586	29.2	900	Circular_Default Sewer Type	33.041	31.916	0.225	32.300	31.178	0.222
1.041	24.662	16.5	450	Circular_Default Sewer Type	32.300	29.900	1.950	31.139	28.407	2.282
11.000	21.978	52.5	225	Circular_Default Sewer Type	41.076	39.651	1.200	40.657	39.232	1.200
11.001	30.366	168.0	225	Circular_Default Sewer Type	40.657	39.232	1.200	40.559	39.051	1.283
12.000	23.592	58.5	225	Circular_Default Sewer Type	40.879	39.454	1.200	40.559	39.051	1.283
11.002	30.382	21.5	225	Circular_Default Sewer Type	40.559	39.051	1.283	39.060	37.635	1.200
11.003	12.713	324.0	375	Circular_Default Sewer Type	39.060	37.485	1.200	38.905	37.446	1.084
11.004	23.162	324.0	375	Circular_Default Sewer Type	38.905	37.446	1.084	39.158	37.375	1.408
11.005	24.528	324.0	375	Circular_Default Sewer Type	39.158	37.375	1.408	39.382	37.299	1.708
11.006	13.374	324.0	375	Circular_Default Sewer Type	39.382	37.299	1.708	39.694	37.258	2.061
13.000	19.016	168.0	225	Circular_Default Sewer Type	41.074	39.649	1.200	41.049	39.536	1.288
13.001	27.564	240.0	300	Circular_Default Sewer Type	41.049	39.461	1.288	41.455	39.346	1.809
13.002	26.380	240.0	300	Circular_Default Sewer Type	41.455	39.346	1.809	40.811	39.236	1.275
13.003	24.705	33.1	300	Circular_Default Sewer Type	40.811	39.236	1.275	39.990	38.490	1.200
13.004	10.902	9.4	300	Circular_Default Sewer Type	39.990	38.490	1.200	39.694	37.333	2.061
11.007	12.344	490.0	525	Circular_Default Sewer Type	39.694	37.108	2.061	39.636	37.083	2.028
11.008	24.572	491.4	525	Circular_Default Sewer Type	39.636	37.083	2.028	39.910	37.033	2.352
14.000	40.935	168.0	225	Circular_Default Sewer Type	40.024	38.599	1.200	39.990	38.355	1.410
14.001	7.756	7.6	225	Circular_Default Sewer Type	39.990	38.355	1.410	39.910	37.333	2.352
11.009	7.714	490.0	525	Circular_Default Sewer Type	39.910	37.033	2.352	39.286	37.017	1.744
11.010	42.884	55.8	525	Circular_Default Sewer Type	39.286	37.017	1.744	38.531	36.249	1.757
15.000	47.258	168.0	225	Circular_Default Sewer Type	37.955	36.830	0.900	38.531	36.549	1.757
11.011	7.947	490.0	525	Circular_Default Sewer Type	38.531	36.249	1.757	38.466	36.233	1.708
11.012	40.271	490.0	525	Circular_Default Sewer Type	38.466	36.233	1.708	38.100	36.151	1.424

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
10.001	1151	1800	Manhole	Adoptable	1152	1	Manhole	Adoptable
10.002	1152	1	Manhole	Adoptable	1040	1	Manhole	Adoptable
1.041	1040	1	Manhole	Adoptable	1041	2100	Manhole	Adoptable
11.000	1160	1200	Manhole	Adoptable	1161	1200	Manhole	Adoptable
11.001	1161	1200	Manhole	Adoptable	1162	1500	Manhole	Adoptable
12.000	1190	1200	Manhole	Adoptable	1162	1500	Manhole	Adoptable
11.002	1162	1500	Manhole	Adoptable	1163	1500	Manhole	Adoptable
11.003	1163	1500	Manhole	Adoptable	1164	1500	Manhole	Adoptable
11.004	1164	1500	Manhole	Adoptable	1165	1500	Manhole	Adoptable
11.005	1165	1500	Manhole	Adoptable	1166	1500	Manhole	Adoptable
11.006	1166	1500	Manhole	Adoptable	1167	1800	Manhole	Adoptable
13.000	1200	1200	Manhole	Adoptable	1201	1500	Manhole	Adoptable
13.001	1201	1500	Manhole	Adoptable	1202	1500	Manhole	Adoptable
13.002	1202	1500	Manhole	Adoptable	1203	1500	Manhole	Adoptable
13.003	1203	1500	Manhole	Adoptable	1204	1500	Manhole	Adoptable
13.004	1204	1500	Manhole	Adoptable	1167	1800	Manhole	Adoptable
11.007	1167	1800	Manhole	Adoptable	1168	1800	Manhole	Adoptable
11.008	1168	1800	Manhole	Adoptable	1169	1800	Manhole	Adoptable
14.000	1210	1200	Manhole	Adoptable	1211	1500	Manhole	Adoptable
14.001	1211	1500	Manhole	Adoptable	1169	1800	Manhole	Adoptable
11.009	1169	1800	Manhole	Adoptable	1170	1500	Manhole	Adoptable
11.010	1170	1500	Manhole	Adoptable	1171	1500	Manhole	Adoptable
15.000	1220	1200	Manhole	Adoptable	1171	1500	Manhole	Adoptable
11.011	1171	1500	Manhole	Adoptable	1172	1	Manhole	Adoptable
11.012	1172	1	Manhole	Adoptable	1173	1800	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
16.000	32.047	168.0	225	Circular_Default Sewer Type	37.821	36.696	0.900	38.277	36.505	1.547
16.001	20.127	168.0	225	Circular_Default Sewer Type	38.277	36.505	1.547	38.100	36.385	1.490
11.013	10.028	500.0	600	Circular_Default Sewer Type	38.100	36.010	1.490	37.944	35.990	1.354
11.014	45.959	33.1	600	Circular_Default Sewer Type	37.944	35.990	1.354	37.501	34.600	2.301
17.000	46.601	25.6	225	Circular_Default Sewer Type	37.547	36.422	0.900	37.501	34.600	2.676
11.018	32.833	218.9	600	Circular_Default Sewer Type	37.501	34.600	2.301	36.500	34.450	1.450
18.000	11.675	389.2	450	Circular_Default Sewer Type	44.105	41.851	1.804	43.658	41.821	1.387
18.001	36.950	50.9	450	Circular_Default Sewer Type	43.658	41.821	1.387	42.745	41.095	1.200
18.002	10.043	490.0	525	Circular_Default Sewer Type	42.745	41.020	1.200	43.089	41.000	1.564
18.003	9.421	490.0	525	Circular_Default Sewer Type	43.089	41.000	1.564	43.205	40.981	1.699
18.004	33.749	490.0	525	Circular_Default Sewer Type	43.205	40.981	1.699	42.917	40.912	1.480
18.005	67.228	500.0	600	Circular_Default Sewer Type	42.917	40.837	1.480	42.537	40.703	1.234
18.006	10.529	284.6	600	Circular_Default Sewer Type	42.537	40.703	1.234	42.466	40.666	1.200
19.000	20.197	66.4	225	Circular_Default Sewer Type	42.914	41.489	1.200	42.610	41.185	1.200
19.001	19.695	136.8	225	Circular_Default Sewer Type	42.610	41.185	1.200	42.466	41.041	1.200
18.007	17.075	68.3	600	Circular_Default Sewer Type	42.466	40.666	1.200	42.216	40.416	1.200
18.008	56.656	40.0	600	Circular_Default Sewer Type	42.216	40.416	1.200	40.799	38.999	1.200
18.009	15.242	46.3	600	Circular_Default Sewer Type	40.799	38.999	1.200	40.470	38.670	1.200
18.010	22.885	66.5	600	Circular_Default Sewer Type	40.470	38.670	1.200	40.126	38.326	1.200
20.000	17.349	45.2	225	Circular_Default Sewer Type	40.510	39.085	1.200	40.126	38.701	1.200
18.011	17.838	63.7	600	Circular_Default Sewer Type	40.126	38.326	1.200	39.846	38.046	1.200
18.012	21.768	74.3	600	Circular_Default Sewer Type	39.846	38.046	1.200	39.553	37.753	1.200
18.013	13.761	63.1	600	Circular_Default Sewer Type	39.553	37.753	1.200	39.335	37.535	1.200
18.014	35.895	29.4	600	Circular_Default Sewer Type	39.335	37.535	1.200	38.114	36.314	1.200
18.015	14.300	31.6	600	Circular_Default Sewer Type	38.114	36.314	1.200	37.661	35.861	1.200

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
16.000	1230	1200	Manhole	Adoptable	1231	1	Manhole	Adoptable
16.001	1231	1	Manhole	Adoptable	1173	1800	Manhole	Adoptable
11.013	1173	1800	Manhole	Adoptable	1174	1500	Manhole	Adoptable
11.014	1174	1500	Manhole	Adoptable	1178	1	Manhole	Adoptable
17.000	1240	1200	Manhole	Adoptable	1178	1	Manhole	Adoptable
11.018	1178	1	Manhole	Adoptable	1179	1800	Manhole	Adoptable
18.000	1255	1500	Manhole	Adoptable	1256	1500	Manhole	Adoptable
18.001	1256	1500	Manhole	Adoptable	1257	1500	Manhole	Adoptable
18.002	1257	1500	Manhole	Adoptable	1258	1500	Manhole	Adoptable
18.003	1258	1500	Manhole	Adoptable	1259	1500	Manhole	Adoptable
18.004	1259	1500	Manhole	Adoptable	1260	1800	Manhole	Adoptable
18.005	1260	1800	Manhole	Adoptable	1261	1800	Manhole	Adoptable
18.006	1261	1800	Manhole	Adoptable	1262	1800	Manhole	Adoptable
19.000	1280	1500	Manhole	Adoptable	1281	1500	Manhole	Adoptable
19.001	1281	1500	Manhole	Adoptable	1262	1800	Manhole	Adoptable
18.007	1262	1800	Manhole	Adoptable	1263	1800	Manhole	Adoptable
18.008	1263	1800	Manhole	Adoptable	1264	1800	Manhole	Adoptable
18.009	1264	1800	Manhole	Adoptable	1265	1800	Manhole	Adoptable
18.010	1265	1800	Manhole	Adoptable	1266	1800	Manhole	Adoptable
20.000	1290	1200	Manhole	Adoptable	1266	1800	Manhole	Adoptable
18.011	1266	1800	Manhole	Adoptable	1267	1800	Manhole	Adoptable
18.012	1267	1800	Manhole	Adoptable	1268	1800	Manhole	Adoptable
18.013	1268	1800	Manhole	Adoptable	1269	1800	Manhole	Adoptable
18.014	1269	1800	Manhole	Adoptable	1270	1800	Manhole	Adoptable
18.015	1270	1800	Manhole	Adoptable	1271	1800	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
21.000	38.456	168.0	225	Circular_Default Sewer Type	44.279	42.854	1.200	44.071	42.625	1.221
22.000	17.870	47.7	225	Circular_Default Sewer Type	45.465	44.040	1.200	45.090	43.665	1.200
22.001	24.823	47.6	225	Circular_Default Sewer Type	45.090	43.665	1.200	44.569	43.144	1.200
22.002	24.823	47.8	300	Circular_Default Sewer Type	44.569	43.069	1.200	44.071	42.550	1.221
21.001	33.188	66.8	375	Circular_Default Sewer Type	44.071	42.475	1.221	43.553	41.978	1.200
21.002	19.152	490.0	525	Circular_Default Sewer Type	43.553	41.828	1.200	43.680	41.789	1.366
21.003	33.699	490.0	525	Circular_Default Sewer Type	43.680	41.789	1.366	43.999	41.720	1.754
21.004	11.008	490.0	525	Circular_Default Sewer Type	43.999	41.720	1.754	43.844	41.698	1.621
21.005	30.834	490.0	525	Circular_Default Sewer Type	43.844	41.698	1.621	43.392	41.635	1.232
21.006	11.596	15.2	525	Circular_Default Sewer Type	43.392	41.635	1.232	42.598	40.873	1.200
21.007	47.399	55.4	525	Circular_Default Sewer Type	42.598	40.873	1.200	41.742	40.017	1.200
21.008	43.137	72.5	525	Circular_Default Sewer Type	41.742	40.017	1.200	41.147	39.422	1.200
21.009	16.599	35.4	525	Circular_Default Sewer Type	41.147	39.422	1.200	40.678	38.953	1.200
21.010	17.253	17.2	525	Circular_Default Sewer Type	40.678	38.953	1.200	39.675	37.950	1.200
21.011	20.668	413.4	525	Circular_Default Sewer Type	39.675	37.950	1.200	39.500	37.900	1.075
21.012	31.955	25.3	525	Circular_Default Sewer Type	39.500	37.900	1.075	38.046	36.636	0.885
21.013	29.693	218.3	600	Circular_Default Sewer Type	38.046	36.636	0.810	38.000	36.500	0.900
21.014	20.691	36.7	600	Circular_Default Sewer Type	38.000	36.500	0.900	37.661	35.936	1.125
18.016	16.722	52.9	600	Circular_Default Sewer Type	37.661	35.861	1.200	37.345	35.545	1.200
18.017	24.299	55.1	600	Circular_Default Sewer Type	37.345	35.545	1.200	36.904	35.104	1.200
18.018	22.006	107.9	900	Circular_Default Sewer Type	36.904	34.804	1.200	36.975	34.600	1.475
18.019	30.882	205.9	900	Circular_Default Sewer Type	36.975	34.600	1.475	36.500	34.450	1.150
18.020	55.928	32.1	900	Circular_Default Sewer Type	36.500	34.450	1.150	35.084	32.705	1.479
41.000	17.134	21.4	225	Circular_Default Sewer Type	36.225	34.225	1.775	35.426	33.426	1.775
41.001	17.989	21.5	225	Circular_Default Sewer Type	35.426	33.426	1.775	34.589	32.589	1.775

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
21.000	1300	1500	Manhole	Adoptable	1301	1500	Manhole	Adoptable
22.000	1320	1200	Manhole	Adoptable	1321	1500	Manhole	Adoptable
22.001	1321	1500	Manhole	Adoptable	1322	1500	Manhole	Adoptable
22.002	1322	1500	Manhole	Adoptable	1301	1500	Manhole	Adoptable
21.001	1301	1500	Manhole	Adoptable	1302	1800	Manhole	Adoptable
21.002	1302	1800	Manhole	Adoptable	1303	1800	Manhole	Adoptable
21.003	1303	1800	Manhole	Adoptable	1304	1800	Manhole	Adoptable
21.004	1304	1800	Manhole	Adoptable	1305	1500	Manhole	Adoptable
21.005	1305	1500	Manhole	Adoptable	1306	1800	Manhole	Adoptable
21.006	1306	1800	Manhole	Adoptable	1307	1500	Manhole	Adoptable
21.007	1307	1500	Manhole	Adoptable	1308	1500	Manhole	Adoptable
21.008	1308	1500	Manhole	Adoptable	1309	1500	Manhole	Adoptable
21.009	1309	1500	Manhole	Adoptable	1310	1500	Manhole	Adoptable
21.010	1310	1500	Manhole	Adoptable	1311	1	Manhole	Adoptable
21.011	1311	1	Manhole	Adoptable	1312	1800	Manhole	Adoptable
21.012	1312	1800	Manhole	Adoptable	1313	1	Manhole	Adoptable
21.013	1313	1	Manhole	Adoptable	1314	1800	Manhole	Adoptable
21.014	1314	1800	Manhole	Adoptable	1271	1800	Manhole	Adoptable
18.016	1271	1800	Manhole	Adoptable	1272	1800	Manhole	Adoptable
18.017	1272	1800	Manhole	Adoptable	1273	1800	Manhole	Adoptable
18.018	1273	1800	Manhole	Adoptable	1274	1	Manhole	Adoptable
18.019	1274	1	Manhole	Adoptable	1179	1800	Manhole	Adoptable
18.020	1179	1800	Manhole	Adoptable	1151	1800	Manhole	Adoptable
41.000	1180	1800	Manhole	Adoptable	1181	1200	Manhole	Adoptable
41.001	1181	1200	Manhole	Adoptable	1182	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
41.002	27.205	19.8	225	Circular_Default Sewer Type	34.589	32.589	1.775	33.214	31.214	1.775
41.003	17.042	100.2	225	Circular_Default Sewer Type	33.214	31.214	1.775	32.302	31.044	1.033
41.004	24.005	98.4	225	Circular_Default Sewer Type	32.302	31.044	1.033	31.800	30.800	0.775
23.000	22.490	40.2	225	Circular_Default Sewer Type	32.996	31.946	0.825	32.437	31.387	0.825
23.001	30.632	168.0	225	Circular_Default Sewer Type	32.437	31.387	0.825	32.950	31.205	1.520
24.000	28.228	29.4	225	Circular_Default Sewer Type	33.515	32.090	1.200	32.950	31.130	1.595
23.002	14.733	168.0	300	Circular_Default Sewer Type	32.950	31.055	1.595	31.800	30.967	0.533
23.003	5.000	33.3	300	Circular_Default Sewer Type	31.800	30.800	0.700	31.800	30.650	0.850
23.004	38.212	37.8	300	Circular_Default Sewer Type	31.800	30.650	0.850	31.139	29.639	1.200
1.042	28.346	38.6	450	Circular_Default Sewer Type	31.139	28.407	2.282	29.764	27.673	1.641
25.000	23.548	168.0	225	Circular_Default Sewer Type	29.538	28.038	1.275	29.764	27.898	1.641
1.043	25.305	126.5	450	Circular_Default Sewer Type	29.764	27.673	1.641	29.123	27.473	1.200
1.044	42.927	25.7	450	Circular_Default Sewer Type	29.123	27.473	1.200	27.536	25.805	1.281
26.000	18.833	168.0	225	Circular_Default Sewer Type	27.567	26.142	1.200	27.536	26.030	1.281
1.045	23.655	22.5	450	Circular_Default Sewer Type	27.536	25.805	1.281	26.403	24.753	1.200
1.046	20.246	9.5	450	Circular_Default Sewer Type	26.403	24.753	1.200	25.508	22.624	2.434
27.000	21.047	97.4	225	Circular_Default Sewer Type	28.931	27.506	1.200	28.715	27.290	1.200
27.001	9.085	106.9	225	Circular_Default Sewer Type	28.715	27.290	1.200	28.630	27.205	1.200
27.002	7.503	77.3	225	Circular_Default Sewer Type	28.630	27.205	1.200	28.533	27.108	1.200
27.003	11.346	31.7	225	Circular_Default Sewer Type	28.533	27.108	1.200	28.175	26.750	1.200
27.004	36.873	17.1	225	Circular_Default Sewer Type	28.175	26.750	1.200	26.019	24.594	1.200
27.005	32.004	25.2	225	Circular_Default Sewer Type	26.019	24.594	1.200	24.449	23.324	0.900
27.006	41.563	240.0	300	Circular_Default Sewer Type	24.449	23.249	0.900	25.114	23.076	1.738
27.007	18.200	320.0	375	Circular_Default Sewer Type	25.114	23.001	1.738	25.433	22.944	2.114
28.000	66.114	21.7	225	Circular_Default Sewer Type	29.230	27.805	1.200	26.180	24.755	1.200

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
41.002	1182	1200	Manhole	Adoptable	1183	1200	Manhole	Adoptable
41.003	1183	1200	Manhole	Adoptable	1184	1800	Manhole	Adoptable
41.004	1184	1800	Manhole	Adoptable	1334	1200	Manhole	Adoptable
23.000	1330	1200	Manhole	Adoptable	1331	1200	Manhole	Adoptable
23.001	1331	1200	Manhole	Adoptable	1332	1200	Manhole	Adoptable
24.000	1340	1200	Manhole	Adoptable	1332	1200	Manhole	Adoptable
23.002	1332	1200	Manhole	Adoptable	1333	1200	Manhole	Adoptable
23.003	1333	1200	Manhole	Adoptable	1334	1200	Manhole	Adoptable
23.004	1334	1200	Manhole	Adoptable	1041	2100	Manhole	Adoptable
1.042	1041	2100	Manhole	Adoptable	1042	1800	Manhole	Adoptable
25.000	1350	1200	Manhole	Adoptable	1042	1800	Manhole	Adoptable
1.043	1042	1800	Manhole	Adoptable	1043	1800	Manhole	Adoptable
1.044	1043	1800	Manhole	Adoptable	1044	1800	Manhole	Adoptable
26.000	1360	1500	Manhole	Adoptable	1044	1800	Manhole	Adoptable
1.045	1044	1800	Manhole	Adoptable	1045	1500	Manhole	Adoptable
1.046	1045	1500	Manhole	Adoptable	1046	1800	Manhole	Adoptable
27.000	1370	1500	Manhole	Adoptable	1371	1200	Manhole	Adoptable
27.001	1371	1200	Manhole	Adoptable	1372	1200	Manhole	Adoptable
27.002	1372	1200	Manhole	Adoptable	1373	1200	Manhole	Adoptable
27.003	1373	1200	Manhole	Adoptable	1374	1200	Manhole	Adoptable
27.004	1374	1200	Manhole	Adoptable	1375	1500	Manhole	Adoptable
27.005	1375	1500	Manhole	Adoptable	1376	1200	Manhole	Adoptable
27.006	1376	1200	Manhole	Adoptable	1377	1800	Manhole	Adoptable
27.007	1377	1800	Manhole	Adoptable	1378	1800	Manhole	Adoptable
28.000	1390	1200	Manhole	Adoptable	1391	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
28.001	24.975	15.0	225	Circular_Default Sewer Type	26.180	24.755	1.200	25.433	23.094	2.114
27.008	25.100	405.0	450	Circular_Default Sewer Type	25.433	22.869	2.114	25.818	22.807	2.561
27.009	12.391	405.0	450	Circular_Default Sewer Type	25.818	22.807	2.561	25.724	22.776	2.498
27.010	16.121	106.1	450	Circular_Default Sewer Type	25.724	22.776	2.498	25.508	22.624	2.434
1.047	20.423	498.1	675	Circular_Default Sewer Type	25.508	22.399	2.434	24.594	22.358	1.561
1.048	19.779	21.5	675	Circular_Default Sewer Type	24.594	22.358	1.561	23.959	21.437	1.847
29.000	57.937	24.6	225	Circular_Default Sewer Type	27.377	25.952	1.200	25.021	23.596	1.200
29.001	45.567	39.4	300	Circular_Default Sewer Type	25.021	23.521	1.200	23.865	22.365	1.200
29.002	16.964	33.7	300	Circular_Default Sewer Type	23.865	22.365	1.200	23.711	21.861	1.550
29.003	5.000	33.3	300	Circular_Default Sewer Type	23.711	21.861	1.550	23.711	21.711	1.700
29.004	28.110	500.0	675	Circular_Default Sewer Type	23.711	20.599	2.437	23.711	20.543	2.493
1.049	20.054	22.4	675	Circular_Default Sewer Type	23.959	21.437	1.847	23.711	20.543	2.493
1.050	27.825	500.0	600	Circular_Default Sewer Type	23.711	20.543	2.568	23.359	20.487	2.272
1.051	25.808	500.0	600	Circular_Default Sewer Type	23.359	20.487	2.272	23.056	20.435	2.021
1.052	27.734	500.0	600	Circular_Default Sewer Type	23.056	20.435	2.021	22.723	20.380	1.743
1.053	38.695	259.7	600	Circular_Default Sewer Type	22.723	20.380	1.743	22.333	20.231	1.502
30.000	16.890	49.2	225	Circular_Default Sewer Type	22.605	21.180	1.200	22.396	20.837	1.334
31.000	7.240	168.0	225	Circular_Default Sewer Type	22.306	20.881	1.200	22.396	20.838	1.333
30.001	30.086	240.0	300	Circular_Default Sewer Type	22.396	20.762	1.334	22.653	20.637	1.716
30.002	25.553	240.0	300	Circular_Default Sewer Type	22.653	20.637	1.716	22.333	20.531	1.502
1.054	23.853	32.5	675	Circular_Default Sewer Type	22.333	20.156	1.502	21.972	19.421	1.876
1.055	25.075	83.6	675	Circular_Default Sewer Type	21.972	19.421	1.876	21.672	19.121	1.876
1.056	9.547	76.4	675	Circular_Default Sewer Type	21.672	19.121	1.876	21.547	18.996	1.876
38.000	5.000	66.7	675	Circular_Default Sewer Type	21.900	20.175	1.050	21.500	20.100	0.725
38.001	5.000	64.0	675	Circular_Default Sewer Type	21.500	20.100	0.725	21.450	20.022	0.753

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
28.001	1391	1500	Manhole	Adoptable	1378	1800	Manhole	Adoptable
27.008	1378	1800	Manhole	Adoptable	1379	1500	Manhole	Adoptable
27.009	1379	1500	Manhole	Adoptable	1380	1500	Manhole	Adoptable
27.010	1380	1500	Manhole	Adoptable	1046	1800	Manhole	Adoptable
1.047	1046	1800	Manhole	Adoptable	1047	1800	Manhole	Adoptable
1.048	1047	1800	Manhole	Adoptable	1048	2700	Manhole	Adoptable
29.000	1400	1200	Manhole	Adoptable	1401	1200	Manhole	Adoptable
29.001	1401	1200	Manhole	Adoptable	1402	1500	Manhole	Adoptable
29.002	1402	1500	Manhole	Adoptable	1403	1500	Manhole	Adoptable
29.003	1403	1500	Manhole	Adoptable	1404	1500	Manhole	Adoptable
29.004	1404	1500	Manhole	Adoptable	1049	2700	Manhole	Adoptable
1.049	1048	2700	Manhole	Adoptable	1049	2700	Manhole	Adoptable
1.050	1049	2700	Manhole	Adoptable	1050	1800	Manhole	Adoptable
1.051	1050	1800	Manhole	Adoptable	1051	1800	Manhole	Adoptable
1.052	1051	1800	Manhole	Adoptable	1052	2100	Manhole	Adoptable
1.053	1052	2100	Manhole	Adoptable	1053	2700	Manhole	Adoptable
30.000	1410	1200	Manhole	Adoptable	1411	1500	Manhole	Adoptable
31.000	1420	1500	Manhole	Adoptable	1411	1500	Manhole	Adoptable
30.001	1411	1500	Manhole	Adoptable	1412	1500	Manhole	Adoptable
30.002	1412	1500	Manhole	Adoptable	1053	2700	Manhole	Adoptable
1.054	1053	2700	Manhole	Adoptable	1054	2700	Manhole	Adoptable
1.055	1054	2700	Manhole	Adoptable	1055	2700	Manhole	Adoptable
1.056	1055	2700	Manhole	Adoptable	1056	2700	Manhole	Adoptable
38.000	1421	1500	Manhole	Adoptable	1422	1500	Manhole	Adoptable
38.001	1422	1500	Manhole	Adoptable	1423	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
38.002	52.745	64.0	675	Circular_Default Sewer Type	21.450	20.022	0.753	21.800	19.198	1.927
38.003	13.565	67.2	675	Circular_Default Sewer Type	21.800	19.198	1.927	21.547	18.996	1.876
1.057	15.508	36.0	675	Circular_Default Sewer Type	21.547	18.996	1.876	21.116	18.565	1.876
1.058	33.619	59.2	675	Circular_Default Sewer Type	21.116	18.565	1.876	19.948	17.997	1.276
1.059	50.073	28.6	675	Circular_Default Sewer Type	19.948	17.997	1.276	18.196	16.246	1.275
1.060	42.715	22.1	525	Circular_Default Sewer Type	18.196	16.246	1.425	15.814	14.313	0.976
1.061	64.327	23.7	525	Circular_Default Sewer Type	15.814	14.313	0.976	13.095	11.594	0.976
32.000	27.526	32.5	225	Circular_Default Sewer Type	21.712	20.287	1.200	21.014	19.439	1.350
33.000	12.104	240.0	300	Circular_Default Sewer Type	20.858	19.358	1.200	21.014	19.308	1.406
32.001	59.448	80.3	300	Circular_Default Sewer Type	21.014	19.308	1.406	20.068	18.568	1.200
32.002	35.004	50.1	300	Circular_Default Sewer Type	20.068	18.568	1.200	19.370	17.870	1.200
32.003	50.384	33.5	300	Circular_Default Sewer Type	19.370	17.870	1.200	17.867	16.367	1.200
34.000	24.484	168.0	225	Circular_Default Sewer Type	19.279	16.588	2.466	17.867	16.442	1.200
32.004	49.465	32.7	300	Circular_Default Sewer Type	17.867	16.367	1.200	16.352	14.852	1.200
32.005	42.018	35.2	375	Circular_Default Sewer Type	16.352	14.777	1.200	15.160	13.585	1.200
32.006	61.786	29.9	375	Circular_Default Sewer Type	15.160	13.585	1.200	13.095	11.520	1.200
1.062	38.498	168.1	225	Circular_Default Sewer Type	13.095	9.131	3.739	11.570	8.902	2.443
1.063	81.547	45.8	225	Circular_Default Sewer Type	11.570	8.902	2.443	8.035	7.123	0.687
1.064	29.133	168.4	225	Circular_Default Sewer Type	8.035	7.123	0.687	8.000	6.950	0.825

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
38.002	1423	1500	Manhole	Adoptable	1424	1500	Manhole	Adoptable
38.003	1424	1500	Manhole	Adoptable	1056	2700	Manhole	Adoptable
1.057	1056	2700	Manhole	Adoptable	1057	2700	Manhole	Adoptable
1.058	1057	2700	Manhole	Adoptable	1058	1500	Manhole	Adoptable
1.059	1058	1500	Manhole	Adoptable	1059	1800	Manhole	Adoptable
1.060	1059	1800	Manhole	Adoptable	1060	1500	Manhole	Adoptable
1.061	1060	1500	Manhole	Adoptable	1061	1500	Manhole	Adoptable
32.000	1430	1200	Manhole	Adoptable	1431	1500	Manhole	Adoptable
33.000	1440	1500	Manhole	Adoptable	1431	1500	Manhole	Adoptable
32.001	1431	1500	Manhole	Adoptable	1432	1500	Manhole	Adoptable
32.002	1432	1500	Manhole	Adoptable	1433	1500	Manhole	Adoptable
32.003	1433	1500	Manhole	Adoptable	1434	1500	Manhole	Adoptable
34.000	1450	1500	Manhole	Adoptable	1434	1500	Manhole	Adoptable
32.004	1434	1500	Manhole	Adoptable	1435	1500	Manhole	Adoptable
32.005	1435	1500	Manhole	Adoptable	1436	1350	Manhole	Adoptable
32.006	1436	1350	Manhole	Adoptable	1061	1500	Manhole	Adoptable
1.062	1061	1500	Manhole	Adoptable	1062	1200	Manhole	Adoptable
1.063	1062	1200	Manhole	Adoptable	1063	1200	Manhole	Adoptable
1.064	1063	1200	Manhole	Adoptable	1064	1200	Manhole	Adoptable

Simulation Settings

Rainfall Methodology	FEH-22	Drain Down Time (mins)	240	30 year (l/s)	21.1
Rainfall Events	Singular	Additional Storage (m³/ha)	20.0	100 year (l/s)	29.4
Winter CV	0.840	Starting Level (m)		Check Discharge Volume	✓
Analysis Speed	Detailed	Check Discharge Rate(s)	✓	100 year 360 minute (m³)	
Skip Steady State	✓	2 year (l/s)	7.4		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	------

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	6	0
30	40	6	0
100	40	6	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	2.55
Greenfield Method	FEH	Growth Factor 100 year	3.56
Positively Drained Area (ha)	9.700	Betterment (%)	0
SAAR (mm)	640	QMed	7.3
Host	1	QBar	8.3
BFIHost	0.780	Q 2 year (l/s)	7.4
Region	5	Q 30 year (l/s)	21.1
QBar/QMed conversion factor	1.124	Q 100 year (l/s)	29.4
Growth Factor 2 year	0.89		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)	9.700	Storm Duration (mins)	360
Soil Index	5	Betterment (%)	0
SPR	0.53	PR	
CWI		Runoff Volume (m³)	

Node 1061 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	9.131	Product Number	CTL-SHE-0103-8300-3700-8300
Design Depth (m)	3.700	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	8.3	Min Node Diameter (mm)	1200

Node 1173 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	36.010	Product Number	CTL-SHE-0049-1500-2000-1500
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.5	Min Node Diameter (mm)	1200

Node 1312 Online Weir Control

Flap Valve	x	Invert Level (m)	39.100	Discharge Coefficient	0.590
Replaces Downstream Link	✓	Width (m)	1.000		

Node 1314 Online Weir Control

Flap Valve	x	Invert Level (m)	37.700	Discharge Coefficient	0.590
Replaces Downstream Link	✓	Width (m)	1.000		

Node 1179 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	34.450	Product Number	CTL-SHE-0085-4000-1700-4000
Design Depth (m)	1.700	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	4.0	Min Node Diameter (mm)	1200

Node 1040 Online Orifice Control

Flap Valve	x	Invert Level (m)	31.900	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	2.000		

Node 1049 Online Orifice Control

Flap Valve	x	Design Depth (m)	2.550	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	210.0		
Invert Level (m)	20.543	Diameter (m)	0.270		

Node 1334 Online Weir Control

Flap Valve	x	Invert Level (m)	31.500	Discharge Coefficient	0.590
Replaces Downstream Link	✓	Width (m)	1.000		

Node 1056 Online Orifice Control

Flap Valve	x	Design Depth (m)	2.000	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	25.0		
Invert Level (m)	18.996	Diameter (m)	0.250		

Node 1173 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	36.010
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	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	372.0	0.0	1.950	1026.0	0.0	1.960	0.0	0.0

Node 1179 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	34.450
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	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	425.0	0.0	2.050	1642.0	0.0	2.051	0.0	0.0

Node 1314 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.02430	Safety Factor	5.0	Invert Level (m)	36.500
Side Inf Coefficient (m/hr)	0.04860	Porosity	1.00	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	203.0	203.0	1.500	743.0	743.0	1.501	0.0	743.0

Node 1312 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00500	Safety Factor	5.0	Invert Level (m)	37.900
Side Inf Coefficient (m/hr)	0.01000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	174.0	174.0	1.600	742.0	742.0	1.601	0.0	742.0

Node 1040 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03400	Safety Factor	2.0	Invert Level (m)	28.486
Side Inf Coefficient (m/hr)	0.06800	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	895.0	895.0	0.915	0.1	1018.0	1.414	181.0	1018.0
0.914	895.0	1018.0	1.413	0.2	1018.0	3.714	1130.0	1968.0

Node 1334 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.02850	Safety Factor	5.0	Invert Level (m)	30.800
Side Inf Coefficient (m/hr)	0.05700	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	331.0	331.0	1.000	1031.0	1031.0

Node 1404 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	20.599
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	120

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	745.0	0.0	0.613	1.0	0.0	1.112	101.0	0.0
0.612	745.0	0.0	1.111	1.0	0.0	3.112	776.0	0.0

Node 1423 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.11750	Safety Factor	2.0	Invert Level (m)	20.022
Side Inf Coefficient (m/hr)	0.23500	Porosity	0.95	Time to half empty (mins)	152

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	679.0	679.0	0.914	679.0	692.0	0.915	0.0	692.0

Node 1061 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	9.131
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	2361.0	0.0	0.914	2361.0	0.0	0.915	0.0	0.0

Node 1061 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	10.545
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	757.0	0.0	2.550	2426.0	0.0

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1000	11	41.471	0.044	8.9	0.1217	0.0000	OK
15 minute winter	1001	11	41.093	0.042	8.9	0.0477	0.0000	OK
15 minute winter	1002	11	40.253	0.068	17.7	0.1900	0.0000	OK
15 minute winter	1003	11	39.955	0.122	25.3	0.3231	0.0000	OK
15 minute winter	1004	11	39.873	0.112	28.0	0.2344	0.0000	OK
15 minute winter	1005	11	39.473	0.110	31.9	0.2433	0.0000	OK
15 minute winter	1006	11	39.181	0.076	41.9	0.2194	0.0000	OK
15 minute winter	1007	12	36.367	0.150	44.3	0.3119	0.0000	OK
15 minute winter	1008	12	36.260	0.165	51.9	0.3816	0.0000	OK
15 minute winter	1009	13	36.180	0.261	58.1	0.8094	0.0000	OK
15 minute winter	1010	13	36.175	0.293	71.0	1.0159	0.0000	OK
15 minute winter	1070	11	42.211	0.067	7.1	0.1727	0.0000	OK
15 minute winter	1071	11	41.990	0.146	56.6	0.3313	0.0000	OK
15 minute winter	1072	11	41.860	0.090	64.0	0.1988	0.0000	OK
15 minute winter	1073	11	38.840	0.091	83.9	0.3037	0.0000	OK
15 minute winter	1011	13	36.167	0.357	150.1	0.9512	0.0000	OK
15 minute winter	1012	13	36.147	0.356	152.0	0.9540	0.0000	OK
15 minute winter	1080	11	41.480	0.053	8.5	0.1463	0.0000	OK
15 minute winter	1081	11	40.927	0.066	17.0	0.2284	0.0000	OK
15 minute winter	1082	11	40.716	0.094	32.3	0.3954	0.0000	OK
15 minute winter	1090	11	40.842	0.069	20.7	0.2799	0.0000	OK
15 minute winter	1083	11	39.975	0.110	61.9	0.2984	0.0000	OK
15 minute winter	1084	11	39.273	0.082	61.9	0.1458	0.0000	OK
15 minute winter	1013	13	36.125	0.356	205.4	0.9060	0.0000	OK
15 minute winter	1014	13	36.070	0.327	207.6	0.8543	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	1000	1.000	1001	8.9	1.693	0.073	0.0368	
15 minute winter	1001	1.001	1002	8.9	1.179	0.077	0.1364	
15 minute winter	1002	1.002	1003	17.7	1.107	0.203	0.2020	
15 minute winter	1003	1.003	1004	25.2	1.211	0.456	0.1324	
15 minute winter	1004	1.004	1005	27.9	1.468	0.455	0.4426	
15 minute winter	1005	1.005	1006	31.8	1.702	0.247	0.3617	
15 minute winter	1006	1.006	1007	41.5	3.003	0.136	0.4790	
15 minute winter	1007	1.007	1008	44.5	0.754	0.138	3.2413	
15 minute winter	1008	1.008	1009	51.4	0.900	0.158	0.6585	
15 minute winter	1009	1.009	1010	56.6	0.491	0.102	2.7056	
15 minute winter	1010	1.010	1011	70.1	0.413	0.127	6.5735	
15 minute winter	1070	2.000	1071	7.1	0.743	0.177	0.1207	
15 minute winter	1071	2.001	1072	56.2	1.696	0.197	0.3179	
15 minute winter	1072	2.002	1073	63.6	2.794	0.088	1.3786	
15 minute winter	1073	2.003	1011	83.0	3.720	0.085	0.6552	
15 minute winter	1011	1.011	1012	149.2	0.723	0.284	2.1513	
15 minute winter	1012	1.012	1013	152.5	0.743	0.290	2.4808	
15 minute winter	1080	3.000	1081	8.5	1.205	0.118	0.1821	
15 minute winter	1081	3.001	1082	17.0	1.132	0.102	0.1611	
15 minute winter	1082	3.002	1083	32.1	1.752	0.201	0.6081	
15 minute winter	1090	4.000	1083	20.7	1.710	0.113	0.3738	
15 minute winter	1083	3.003	1084	61.9	2.771	0.156	0.3856	
15 minute winter	1084	3.004	1013	61.8	3.584	0.097	0.3314	
15 minute winter	1013	1.013	1014	206.1	1.065	0.392	2.7686	
15 minute winter	1014	1.014	1016	207.7	1.259	0.389	7.0001	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1100	11	38.903	0.058	7.5	0.1536	0.0000	OK
15 minute winter	1101	11	38.587	0.038	9.7	0.0530	0.0000	OK
15 minute winter	1110	11	36.675	0.075	8.4	0.2825	0.0000	OK
15 minute winter	1111	11	36.532	0.120	21.7	0.4003	0.0000	OK
15 minute winter	1112	11	36.493	0.137	27.0	0.3036	0.0000	OK
15 minute winter	1113	12	36.451	0.135	27.3	0.2431	0.0000	OK
15 minute winter	1102	12	36.414	0.171	43.0	0.3539	0.0000	OK
15 minute winter	1103	12	36.339	0.192	50.0	0.4146	0.0000	OK
15 minute winter	1104	12	36.276	0.182	56.4	0.3943	0.0000	OK
15 minute winter	1016	13	35.927	0.339	275.0	1.0778	0.0000	OK
15 minute winter	1017	13	35.833	0.280	275.2	0.7120	0.0000	OK
15 minute winter	1018	13	35.640	0.186	283.6	0.6727	0.0000	OK
15 minute winter	1019	13	34.688	0.205	293.4	0.7856	0.0000	OK
15 minute winter	1020	13	34.080	0.209	301.5	0.7622	0.0000	OK
15 minute winter	1021	13	33.276	0.185	311.6	0.7269	0.0000	OK
15 minute winter	1460	11	32.607	0.060	5.4	0.1529	0.0000	OK
15 minute winter	1022	14	32.196	0.359	314.8	1.6236	0.0000	OK
15 minute winter	1023	14	32.165	0.375	317.1	1.8345	0.0000	OK
15 minute winter	1024	14	32.108	0.361	321.2	1.8284	0.0000	OK
15 minute winter	1025	14	32.015	0.350	332.2	1.9018	0.0000	OK
15 minute winter	1120	11	34.443	0.091	15.4	0.3832	0.0000	OK
15 minute winter	1121	11	34.378	0.073	22.4	0.1808	0.0000	OK
15 minute winter	1122	11	33.896	0.074	30.5	0.1965	0.0000	OK
15 minute winter	1123	11	32.848	0.106	34.3	0.2309	0.0000	OK
15 minute winter	1026	14	31.939	0.303	357.5	1.4030	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	1100	5.000	1101	7.5	1.202	0.128	0.1477	
15 minute winter	1101	5.001	1102	9.7	2.232	0.059	0.0465	
15 minute winter	1110	6.000	1111	8.4	0.766	0.210	0.0690	
15 minute winter	1111	6.001	1112	21.6	0.649	0.196	0.6059	
15 minute winter	1112	6.002	1113	26.7	0.752	0.242	0.4618	
15 minute winter	1113	6.003	1102	27.2	0.647	0.246	1.0001	
15 minute winter	1102	5.002	1103	42.9	0.813	0.388	1.6461	
15 minute winter	1103	5.003	1104	50.0	0.909	0.452	0.9427	
15 minute winter	1104	5.004	1016	56.2	1.128	0.412	0.5957	
15 minute winter	1016	1.016	1017	275.2	1.508	0.391	3.2206	
15 minute winter	1017	1.017	1018	275.0	2.233	0.216	1.9148	
15 minute winter	1018	1.018	1019	283.2	2.939	0.104	3.1901	
15 minute winter	1019	1.019	1020	292.7	2.801	0.117	2.5936	
15 minute winter	1020	1.020	1021	300.6	3.096	0.122	3.1564	
15 minute winter	1021	1.021	1022	310.3	3.834	0.088	1.4526	
15 minute winter	1460	35.000	1022	5.4	0.674	0.135	0.0417	
15 minute winter	1022	1.022	1023	313.6	1.080	0.080	1.5784	
15 minute winter	1023	1.023	1024	316.9	1.084	0.168	6.2608	
15 minute winter	1024	1.024	1025	323.6	1.159	0.172	11.4818	
15 minute winter	1025	1.025	1026	332.7	1.351	0.177	3.5394	
15 minute winter	1120	7.000	1121	15.4	0.989	0.180	0.1222	
15 minute winter	1121	7.001	1122	22.4	1.676	0.122	0.2392	
15 minute winter	1122	7.002	1123	30.5	1.718	0.135	0.4696	
15 minute winter	1123	7.003	1026	34.2	1.641	0.226	0.2307	
15 minute winter	1026	1.026	1027	357.5	1.928	0.129	3.0940	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1027	14	31.794	0.229	361.7	1.1709	0.0000	OK
15 minute winter	1470	11	31.931	0.041	2.7	0.0618	0.0000	OK
15 minute winter	1028	15	31.267	0.423	368.2	2.2239	0.0000	OK
15 minute winter	1029	15	31.222	0.430	366.1	2.0288	0.0000	OK
15 minute winter	1029a	15	31.179	0.415	363.8	1.4363	0.0000	OK
15 minute winter	1030	16	31.121	0.432	362.9	2.0471	0.0000	OK
15 minute winter	1031	16	31.080	0.408	358.8	1.9976	0.0000	OK
15 minute winter	1130	11	33.771	0.054	14.5	0.1354	0.0000	OK
15 minute winter	1032	16	31.011	0.415	365.0	2.0021	0.0000	OK
15 minute winter	1033	17	30.970	0.415	361.6	1.9480	0.0000	OK
15 minute winter	1034	17	30.923	0.417	357.9	1.9582	0.0000	OK
15 minute winter	1035	17	30.875	0.399	360.3	2.0570	0.0000	OK
15 minute winter	1036	18	30.814	0.428	359.5	2.0506	0.0000	OK
15 minute winter	1140	11	34.666	0.038	7.1	0.0986	0.0000	OK
15 minute winter	1141	11	32.393	0.060	16.2	0.1502	0.0000	OK
15 minute winter	1037	18	30.773	0.401	358.5	1.8979	0.0000	OK
15 minute winter	1038	18	30.716	0.370	359.0	1.7607	0.0000	OK
1440 minute winter	1039	1410	30.644	0.425	38.5	0.0000	0.0000	OK
15 minute winter	1150	11	34.204	0.032	5.6	0.0569	0.0000	OK
15 minute winter	1480	11	33.490	0.046	3.5	0.0751	0.0000	OK
15 minute winter	1151	11	32.748	0.043	13.1	0.1210	0.0000	OK
15 minute winter	1152	12	31.955	0.039	13.0	0.0000	0.0000	OK
1440 minute winter	1040	1410	30.644	0.744	43.4	1068.1280	0.0000	SURCHARGED
15 minute winter	1160	11	39.677	0.026	2.1	0.0361	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	1027	1.027	1028	360.4	2.590	0.069	4.3723	
15 minute winter	1470	36.000	1028	2.7	0.569	0.067	0.0562	
15 minute winter	1028	1.028	1029	363.4	1.048	0.193	9.3550	
15 minute winter	1029	1.029	1029a	363.8	1.055	0.193	4.9611	
15 minute winter	1029a	1.030	1030	360.4	1.035	0.210	16.0020	
15 minute winter	1030	1.031	1031	355.0	1.030	0.208	3.6296	
15 minute winter	1031	1.032	1032	358.2	1.063	0.209	15.6503	
15 minute winter	1130	8.000	1032	14.5	2.623	0.256	0.0896	
15 minute winter	1032	1.033	1033	360.1	1.057	0.173	5.8196	
15 minute winter	1033	1.034	1034	356.4	1.050	0.188	8.4076	
15 minute winter	1034	1.035	1035	357.0	1.073	0.189	5.0254	
15 minute winter	1035	1.036	1036	358.4	1.052	0.190	15.3983	
15 minute winter	1036	1.037	1037	354.6	1.036	0.188	2.3931	
15 minute winter	1140	9.000	1141	7.1	1.108	0.063	0.3185	
15 minute winter	1141	9.001	1037	16.2	1.983	0.138	0.0752	
15 minute winter	1037	1.038	1038	358.4	1.156	0.192	4.1289	
15 minute winter	1038	1.039	1039	359.7	1.249	0.191	18.4128	
1440 minute winter	1039	1.040	1040	38.5	0.741	0.020	20.7953	
15 minute winter	1150	10.000	1151	5.6	1.621	0.043	0.0437	
15 minute winter	1480	37.000	1151	3.5	0.610	0.087	0.0617	
15 minute winter	1151	10.001	1152	13.0	1.277	0.004	0.3486	
15 minute winter	1152	10.002	1040	13.0	1.402	0.004	0.1995	
1440 minute winter	1040	Orifice	1041	0.0				
1440 minute winter	1040	Infiltration		8.3				
15 minute winter	1160	11.000	1161	2.1	0.676	0.029	0.0700	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1161	12	39.266	0.034	2.1	0.0387	0.0000	OK
15 minute winter	1190	11	39.529	0.075	14.7	0.2126	0.0000	OK
15 minute winter	1162	11	39.111	0.060	16.7	0.1051	0.0000	OK
15 minute winter	1163	11	37.630	0.145	29.8	0.4542	0.0000	OK
15 minute winter	1164	11	37.585	0.139	29.6	0.2452	0.0000	OK
15 minute winter	1165	12	37.514	0.139	29.3	0.2452	0.0000	OK
15 minute winter	1166	12	37.448	0.149	33.7	0.3178	0.0000	OK
15 minute winter	1200	11	39.718	0.069	7.8	0.1402	0.0000	OK
15 minute winter	1201	11	39.574	0.113	20.9	0.3520	0.0000	OK
15 minute winter	1202	11	39.481	0.135	28.7	0.3204	0.0000	OK
15 minute winter	1203	11	39.325	0.089	32.2	0.1909	0.0000	OK
15 minute winter	1204	11	38.557	0.067	35.4	0.1433	0.0000	OK
15 minute winter	1167	12	37.341	0.233	71.3	0.6373	0.0000	OK
15 minute winter	1168	12	37.307	0.224	75.7	0.6382	0.0000	OK
15 minute winter	1210	11	38.693	0.094	12.4	0.2395	0.0000	OK
15 minute winter	1211	11	38.399	0.044	14.2	0.0856	0.0000	OK
15 minute winter	1169	12	37.236	0.203	93.5	0.5716	0.0000	OK
15 minute winter	1170	12	37.149	0.132	93.2	0.2325	0.0000	OK
15 minute winter	1220	11	36.896	0.066	7.6	0.1483	0.0000	OK
15 minute winter	1171	13	36.523	0.274	100.0	0.4846	0.0000	OK
15 minute winter	1172	13	36.484	0.251	98.8	0.0000	0.0000	OK
15 minute winter	1230	11	36.780	0.084	11.4	0.2335	0.0000	OK
15 minute winter	1231	11	36.589	0.084	11.4	0.0000	0.0000	OK
1440 minute winter	1173	1410	36.470	0.460	7.7	207.7812	0.0000	OK
720 minute winter	1174	360	36.003	0.013	0.9	0.0236	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	1161	11.001	1162	2.0	0.343	0.051	0.1846	
15 minute winter	1190	12.000	1162	14.7	1.481	0.216	0.2358	
15 minute winter	1162	11.002	1163	16.6	2.014	0.147	0.2504	
15 minute winter	1163	11.003	1164	29.6	0.777	0.268	0.4844	
15 minute winter	1164	11.004	1165	29.3	0.799	0.265	0.8557	
15 minute winter	1165	11.005	1166	29.4	0.758	0.266	0.9535	
15 minute winter	1166	11.006	1167	33.5	0.891	0.303	0.5024	
15 minute winter	1200	13.000	1201	7.8	0.770	0.195	0.1922	
15 minute winter	1201	13.001	1202	20.9	0.761	0.292	0.7563	
15 minute winter	1202	13.002	1203	28.5	1.194	0.398	0.6327	
15 minute winter	1203	13.003	1204	32.0	2.210	0.165	0.3592	
15 minute winter	1204	13.004	1167	35.2	3.150	0.097	0.1218	
15 minute winter	1167	11.007	1168	71.3	0.791	0.328	1.1127	
15 minute winter	1168	11.008	1169	75.4	0.919	0.347	2.0230	
15 minute winter	1210	14.000	1211	12.4	1.207	0.310	0.4308	
15 minute winter	1211	14.001	1169	14.1	2.710	0.074	0.0405	
15 minute winter	1169	11.009	1170	93.2	1.577	0.428	0.4598	
15 minute winter	1170	11.010	1171	92.6	1.244	0.143	3.3456	
15 minute winter	1220	15.000	1171	7.4	0.770	0.184	0.4530	
15 minute winter	1171	11.011	1172	98.8	0.927	0.454	0.8577	
15 minute winter	1172	11.012	1173	98.2	1.088	0.451	3.6511	
15 minute winter	1230	16.000	1231	11.4	0.848	0.285	0.4325	
15 minute winter	1231	16.001	1173	11.2	0.853	0.280	0.2646	
1440 minute winter	1173	11.013	1174	0.9	0.368	0.003	0.0261	
720 minute winter	1174	11.014	1178	0.9	0.362	0.001	3.0633	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1240	11	36.459	0.037	6.2	0.0759	0.0000	OK
600 minute winter	1178	585	34.886	0.286	1.7	0.0000	0.0000	OK
15 minute winter	1250	11	43.446	0.076	9.2	0.2138	0.0000	OK
15 minute winter	1251	11	43.335	0.077	15.8	0.1871	0.0000	OK
15 minute winter	1252	11	42.846	0.077	18.8	0.1631	0.0000	OK
15 minute winter	1253	11	42.162	0.127	44.8	0.4030	0.0000	OK
15 minute winter	1254	11	42.610	0.084	12.3	0.2657	0.0000	OK
15 minute winter	1255	11	41.928	0.077	10.9	0.1977	0.0000	OK
15 minute winter	1256	11	41.881	0.060	17.0	0.1383	0.0000	OK
15 minute winter	1257	11	41.132	0.112	16.9	0.1971	0.0000	OK
15 minute winter	1258	12	41.118	0.118	18.9	0.2288	0.0000	OK
15 minute winter	1259	12	41.103	0.122	25.1	0.2741	0.0000	OK
15 minute winter	1260	12	40.997	0.160	47.0	0.7037	0.0000	OK
15 minute winter	1261	12	40.866	0.163	62.3	0.6598	0.0000	OK
15 minute winter	1280	11	41.540	0.051	7.2	0.1320	0.0000	OK
15 minute winter	1281	11	41.287	0.102	17.5	0.3025	0.0000	OK
15 minute winter	1262	12	40.801	0.135	79.5	0.3550	0.0000	OK
15 minute winter	1263	12	40.531	0.115	92.1	0.4391	0.0000	OK
15 minute winter	1264	12	39.138	0.139	103.7	0.5222	0.0000	OK
15 minute winter	1265	12	38.824	0.153	108.4	0.4683	0.0000	OK
15 minute winter	1290	11	39.122	0.037	4.3	0.0594	0.0000	OK
15 minute winter	1266	12	38.484	0.158	112.0	0.4011	0.0000	OK
15 minute winter	1267	12	38.211	0.165	116.1	0.4981	0.0000	OK
15 minute winter	1268	13	37.921	0.168	118.3	0.4781	0.0000	OK
15 minute winter	1269	13	37.662	0.127	122.6	0.3797	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	1240	17.000	1178	6.2	1.125	0.060	0.2591	
600 minute winter	1178	11.018	1179	1.6	0.221	0.003	5.7689	
15 minute winter	1250	39.000	1251	9.2	0.773	0.230	0.2236	
15 minute winter	1251	39.001	1252	15.8	1.308	0.245	0.3867	
15 minute winter	1252	39.002	1253	18.6	1.583	0.237	0.2652	
15 minute winter	1253	39.003	1071	44.5	1.096	0.160	1.0460	
15 minute winter	1254	40.000	1253	12.1	0.920	0.284	0.5181	
15 minute winter	1255	18.000	1256	10.9	0.717	0.067	0.1783	
15 minute winter	1256	18.001	1257	16.9	1.378	0.037	0.4536	
15 minute winter	1257	18.002	1258	16.7	0.486	0.077	0.3495	
15 minute winter	1258	18.003	1259	18.7	0.511	0.086	0.3485	
15 minute winter	1259	18.004	1260	24.8	0.739	0.114	1.1341	
15 minute winter	1260	18.005	1261	46.8	0.770	0.153	4.0860	
15 minute winter	1261	18.006	1262	61.9	1.145	0.152	0.5738	
15 minute winter	1280	19.000	1281	7.2	0.610	0.113	0.2448	
15 minute winter	1281	19.001	1262	17.4	1.025	0.391	0.3338	
15 minute winter	1262	18.007	1263	79.5	1.867	0.095	0.7278	
15 minute winter	1263	18.008	1264	91.8	2.105	0.084	2.4756	
15 minute winter	1264	18.009	1265	103.3	1.944	0.102	0.8106	
15 minute winter	1265	18.010	1266	108.0	1.867	0.128	1.3245	
15 minute winter	1290	20.000	1266	4.3	1.042	0.055	0.0715	
15 minute winter	1266	18.011	1267	111.4	1.835	0.129	1.0874	
15 minute winter	1267	18.012	1268	115.9	1.821	0.145	1.3862	
15 minute winter	1268	18.013	1269	119.0	2.209	0.137	0.7452	
15 minute winter	1269	18.014	1270	123.1	2.672	0.097	1.6560	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1270	13	36.452	0.138	123.1	0.3503	0.0000	OK
15 minute winter	1300	11	42.930	0.076	9.7	0.2189	0.0000	OK
15 minute winter	1320	11	44.093	0.053	9.4	0.1184	0.0000	OK
15 minute winter	1321	11	43.741	0.076	17.4	0.2035	0.0000	OK
15 minute winter	1322	11	43.155	0.086	27.2	0.2447	0.0000	OK
15 minute winter	1301	11	42.586	0.111	44.5	0.2868	0.0000	OK
15 minute winter	1302	12	42.039	0.211	61.7	0.8850	0.0000	OK
15 minute winter	1303	12	42.003	0.214	67.7	0.6754	0.0000	OK
15 minute winter	1304	12	41.947	0.227	76.5	0.7424	0.0000	OK
15 minute winter	1305	12	41.899	0.201	78.4	0.3897	0.0000	OK
15 minute winter	1306	12	41.729	0.094	83.1	0.2871	0.0000	OK
15 minute winter	1307	12	40.998	0.125	82.9	0.2216	0.0000	OK
15 minute winter	1308	13	40.163	0.146	90.8	0.3861	0.0000	OK
15 minute winter	1309	13	39.559	0.137	98.5	0.3772	0.0000	OK
15 minute winter	1310	13	39.056	0.102	101.0	0.2051	0.0000	OK
1440 minute winter	1311	1470	38.652	0.702	7.5	0.0000	0.0000	SURCHARGED
1440 minute winter	1312	1470	38.652	0.752	7.3	233.0818	0.0000	SURCHARGED
15 minute winter	1313	1	36.636	0.000	0.0	0.0000	0.0000	OK
15 minute winter	1314	1	36.500	0.000	0.0	0.0000	0.0000	OK
15 minute winter	1271	13	36.022	0.161	126.6	0.4717	0.0000	OK
15 minute winter	1272	13	35.711	0.166	136.2	0.6117	0.0000	OK
15 minute winter	1273	13	34.986	0.182	144.0	0.6025	0.0000	OK
600 minute winter	1274	585	34.895	0.295	22.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1270	18.015	1271	123.5	2.256	0.101	0.7839	
15 minute winter	1300	21.000	1301	9.5	0.823	0.238	0.4450	
15 minute winter	1320	22.000	1321	9.4	1.006	0.124	0.1688	
15 minute winter	1321	22.001	1322	17.4	1.520	0.230	0.2836	
15 minute winter	1322	22.002	1301	27.1	1.670	0.168	0.4026	
15 minute winter	1301	21.001	1302	44.2	1.666	0.180	0.8798	
15 minute winter	1302	21.002	1303	60.7	0.749	0.279	1.5677	
15 minute winter	1303	21.003	1304	67.3	0.781	0.309	2.9023	
15 minute winter	1304	21.004	1305	76.4	0.923	0.351	0.9114	
15 minute winter	1305	21.005	1306	78.1	1.575	0.359	1.5782	
15 minute winter	1306	21.006	1307	82.9	2.537	0.066	0.3807	
15 minute winter	1307	21.007	1308	82.4	1.877	0.126	2.0870	
15 minute winter	1308	21.008	1309	90.6	1.938	0.159	2.0178	
15 minute winter	1309	21.009	1310	99.1	2.677	0.121	0.6177	
15 minute winter	1310	21.010	1311	101.2	1.810	0.086	1.1703	
1440 minute winter	1311	21.011	1312	7.3	0.492	0.031	4.4650	
1440 minute winter	1312	Weir	1313	0.0				
1440 minute winter	1312	Infiltration		0.2				
15 minute winter	1313	21.013	1314	0.0	0.000	0.000	0.0001	
15 minute winter	1314	Weir	1271	0.0				
15 minute winter	1314	Infiltration		0.0				
15 minute winter	1271	18.016	1272	126.8	2.036	0.134	1.0420	
15 minute winter	1272	18.017	1273	136.6	2.281	0.147	1.4561	
15 minute winter	1273	18.018	1274	144.5	1.415	0.075	2.3405	
600 minute winter	1274	18.019	1179	21.4	0.829	0.015	7.4765	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1179	585	34.885	0.435	22.5	242.4810	0.0000	OK
15 minute winter	1180	11	34.275	0.050	11.9	0.1760	0.0000	OK
15 minute winter	1181	11	33.479	0.053	13.7	0.0682	0.0000	OK
15 minute winter	1182	11	32.648	0.059	18.1	0.0887	0.0000	OK
15 minute winter	1183	11	31.330	0.116	24.7	0.1942	0.0000	OK
15 minute winter	1184	11	31.157	0.113	24.6	0.2866	0.0000	OK
15 minute winter	1330	11	32.003	0.057	11.6	0.1676	0.0000	OK
15 minute winter	1331	11	31.487	0.100	15.7	0.1776	0.0000	OK
15 minute winter	1340	11	32.135	0.045	8.1	0.0920	0.0000	OK
15 minute winter	1332	11	31.176	0.121	26.3	0.1650	0.0000	OK
600 minute winter	1333	585	31.011	0.211	12.0	0.3317	0.0000	OK
600 minute winter	1334	585	31.011	0.361	14.1	85.7588	0.0000	SURCHARGED
15 minute winter	1041	11	28.438	0.031	4.9	0.1158	0.0000	OK
15 minute winter	1350	11	28.095	0.057	5.4	0.0979	0.0000	OK
15 minute winter	1042	11	27.755	0.082	19.4	0.2663	0.0000	OK
15 minute winter	1043	11	27.541	0.068	32.4	0.2617	0.0000	OK
15 minute winter	1360	11	26.196	0.054	4.8	0.1243	0.0000	OK
15 minute winter	1044	11	25.889	0.084	47.1	0.2947	0.0000	OK
15 minute winter	1045	11	24.823	0.070	52.1	0.1599	0.0000	OK
15 minute winter	1370	11	27.572	0.066	9.6	0.1899	0.0000	OK
15 minute winter	1371	11	27.361	0.071	9.6	0.0802	0.0000	OK
15 minute winter	1372	11	27.271	0.066	9.6	0.0744	0.0000	OK
15 minute winter	1373	11	27.169	0.061	13.0	0.0932	0.0000	OK
15 minute winter	1374	11	26.798	0.048	12.9	0.0546	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)
600 minute winter	1179	Hydro-Brake®	1151	3.4				
15 minute winter	1180	41.000	1181	11.9	1.735	0.105	0.1175	
15 minute winter	1181	41.001	1182	13.7	1.764	0.122	0.1399	
15 minute winter	1182	41.002	1183	18.1	1.263	0.154	0.3950	
15 minute winter	1183	41.003	1184	24.6	1.216	0.475	0.3454	
15 minute winter	1184	41.004	1334	24.4	1.268	0.465	0.4611	
15 minute winter	1330	23.000	1331	11.6	0.961	0.141	0.2797	
15 minute winter	1331	23.001	1332	15.4	0.932	0.386	0.5085	
15 minute winter	1340	24.000	1332	8.1	1.453	0.085	0.1597	
15 minute winter	1332	23.002	1333	26.0	1.032	0.304	0.3720	
600 minute winter	1333	23.003	1334	10.9	-0.217	0.057	0.3081	
600 minute winter	1334	Weir	1041	0.0				
600 minute winter	1334	Infiltration		0.9				
15 minute winter	1041	1.042	1042	4.9	0.430	0.009	0.3442	
15 minute winter	1350	25.000	1042	5.4	0.698	0.134	0.1813	
15 minute winter	1042	1.043	1043	19.2	1.115	0.067	0.4379	
15 minute winter	1043	1.044	1044	32.3	1.827	0.050	0.7605	
15 minute winter	1360	26.000	1044	4.8	0.673	0.119	0.1335	
15 minute winter	1044	1.045	1045	46.9	2.600	0.069	0.4274	
15 minute winter	1045	1.046	1046	51.8	3.413	0.049	0.3076	
15 minute winter	1370	27.000	1371	9.6	0.940	0.182	0.2151	
15 minute winter	1371	27.001	1372	9.6	0.943	0.191	0.0925	
15 minute winter	1372	27.002	1373	9.6	1.041	0.162	0.0691	
15 minute winter	1373	27.003	1374	12.9	1.733	0.139	0.0850	
15 minute winter	1374	27.004	1375	12.8	1.543	0.102	0.3092	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1375	11	24.664	0.070	21.3	0.1928	0.0000	OK
15 minute winter	1376	12	23.385	0.136	29.1	0.3047	0.0000	OK
15 minute winter	1377	12	23.154	0.153	36.0	0.4840	0.0000	OK
15 minute winter	1390	11	27.847	0.042	8.5	0.0883	0.0000	OK
15 minute winter	1391	11	24.818	0.063	22.3	0.2131	0.0000	OK
15 minute winter	1378	12	23.069	0.200	58.6	0.5247	0.0000	OK
15 minute winter	1379	12	22.994	0.187	61.7	0.3623	0.0000	OK
15 minute winter	1380	12	22.928	0.152	66.2	0.3088	0.0000	OK
15 minute winter	1046	12	22.621	0.222	121.6	0.6262	0.0000	OK
15 minute winter	1047	12	22.479	0.121	126.5	0.3521	0.0000	OK
15 minute winter	1400	11	26.011	0.059	15.6	0.1727	0.0000	OK
15 minute winter	1401	11	23.602	0.081	26.9	0.1919	0.0000	OK
15 minute winter	1402	11	22.440	0.075	26.9	0.1328	0.0000	OK
15 minute winter	1403	11	21.968	0.107	37.9	0.2938	0.0000	OK
180 minute winter	1404	128	20.724	0.125	32.8	92.9915	0.0000	OK
15 minute winter	1048	12	21.552	0.115	130.6	0.6905	0.0000	OK
15 minute winter	1049	12	20.937	0.394	143.7	2.5484	0.0000	OK
15 minute winter	1050	12	20.720	0.233	82.5	0.7609	0.0000	OK
15 minute winter	1051	12	20.672	0.237	94.2	0.7921	0.0000	OK
15 minute winter	1052	12	20.591	0.211	106.4	0.9302	0.0000	OK
15 minute winter	1410	11	21.237	0.057	9.8	0.1289	0.0000	OK
15 minute winter	1420	11	20.958	0.077	8.9	0.2157	0.0000	OK
15 minute winter	1421	1	20.175	0.000	0.0	0.0000	0.0000	OK
15 minute winter	1422	1	20.100	0.000	0.0	0.0000	0.0000	OK
15 minute winter	1423	1	20.022	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1375	27.005	1376	21.0	2.029	0.201	0.3310	
15 minute winter	1376	27.006	1377	28.8	0.956	0.403	1.2506	
15 minute winter	1377	27.007	1378	36.1	0.920	0.325	0.7155	
15 minute winter	1390	28.000	1391	8.5	1.206	0.076	0.4704	
15 minute winter	1391	28.001	1378	22.2	2.475	0.165	0.2242	
15 minute winter	1378	27.008	1379	58.9	0.905	0.369	1.6345	
15 minute winter	1379	27.009	1380	61.8	1.131	0.387	0.6774	
15 minute winter	1380	27.010	1046	66.0	1.498	0.210	0.7100	
15 minute winter	1046	1.047	1047	121.9	1.710	0.292	1.4853	
15 minute winter	1047	1.048	1048	126.6	3.041	0.062	0.8240	
15 minute winter	1400	29.000	1401	15.5	1.897	0.148	0.4747	
15 minute winter	1401	29.001	1402	26.9	1.854	0.152	0.6618	
15 minute winter	1402	29.002	1403	26.8	1.488	0.139	0.3073	
15 minute winter	1403	29.003	1404	37.7	1.891	0.195	0.0999	
180 minute winter	1404	29.004	1049	-20.7	-0.453	-0.050	1.7008	
15 minute winter	1048	1.049	1049	130.5	1.211	0.066	2.5679	
15 minute winter	1049	Orifice	1050	70.9				
15 minute winter	1050	1.051	1051	82.5	0.809	0.270	2.6365	
15 minute winter	1051	1.052	1052	94.0	0.982	0.307	2.6563	
15 minute winter	1052	1.053	1053	105.1	1.246	0.247	3.2677	
15 minute winter	1410	30.000	1411	9.8	1.275	0.132	0.1298	
15 minute winter	1420	31.000	1411	8.9	0.778	0.222	0.0828	
15 minute winter	1421	38.000	1422	0.0	0.000	0.000	0.0000	
15 minute winter	1422	38.001	1423	0.0	0.000	0.000	0.0000	
15 minute winter	1423	38.002	1424	0.0	0.000	0.000	7.3550	

Results for 2 year +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1424	17	19.690	0.492	38.7	0.8699	0.0000	OK
15 minute winter	1411	11	20.885	0.123	23.9	0.2814	0.0000	OK
15 minute winter	1412	12	20.773	0.136	28.4	0.2895	0.0000	OK
15 minute winter	1053	12	20.290	0.134	139.5	0.8478	0.0000	OK
15 minute winter	1054	16	19.698	0.277	149.1	1.7936	0.0000	OK
15 minute winter	1055	16	19.687	0.566	161.0	3.5497	0.0000	OK
15 minute winter	1056	17	19.683	0.687	144.7	4.3822	0.0000	SURCHARGED
30 minute winter	1057	23	18.703	0.138	100.1	0.8640	0.0000	OK
30 minute winter	1058	23	18.108	0.111	103.5	0.2589	0.0000	OK
15 minute winter	1059	14	16.363	0.116	108.8	0.3914	0.0000	OK
15 minute winter	1060	15	14.431	0.118	108.4	0.2077	0.0000	OK
15 minute winter	1430	11	20.310	0.023	1.9	0.0306	0.0000	OK
15 minute winter	1440	11	19.449	0.091	13.2	0.2916	0.0000	OK
15 minute winter	1431	11	19.390	0.082	20.5	0.1869	0.0000	OK
15 minute winter	1432	11	18.658	0.090	30.2	0.2569	0.0000	OK
15 minute winter	1433	11	17.961	0.091	39.5	0.2556	0.0000	OK
15 minute winter	1450	11	16.646	0.058	5.6	0.1214	0.0000	OK
15 minute winter	1434	12	16.476	0.109	53.6	0.3009	0.0000	OK
15 minute winter	1435	12	14.889	0.112	62.3	0.3166	0.0000	OK
15 minute winter	1436	12	13.691	0.106	62.7	0.1519	0.0000	OK
960 minute winter	1061	930	9.416	0.285	33.2	640.7418	0.0000	SURCHARGED
960 minute winter	1062	930	8.942	0.040	5.2	0.0448	0.0000	OK
960 minute winter	1063	930	7.179	0.056	5.2	0.0630	0.0000	OK
960 minute winter	1064	930	7.005	0.055	5.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1423	Infiltration		0.0				
15 minute winter	1424	38.003	1056	44.0	0.284	0.038	4.3128	
15 minute winter	1411	30.001	1412	23.9	0.824	0.335	0.8740	
15 minute winter	1412	30.002	1053	28.0	0.939	0.392	0.7608	
15 minute winter	1053	1.054	1054	138.4	2.315	0.084	2.0525	
15 minute winter	1054	1.055	1055	153.2	1.483	0.149	5.7313	
15 minute winter	1055	1.056	1056	135.4	0.761	0.126	3.2291	
15 minute winter	1056	Orifice	1057	97.8				
30 minute winter	1057	1.058	1058	100.5	2.227	0.082	1.5223	
30 minute winter	1058	1.059	1059	103.4	2.623	0.059	1.9732	
15 minute winter	1059	1.060	1060	108.4	3.033	0.105	1.5269	
15 minute winter	1060	1.061	1061	108.0	3.055	0.108	2.2742	
15 minute winter	1430	32.000	1431	1.9	0.923	0.021	0.0565	
15 minute winter	1440	33.000	1431	13.2	0.789	0.185	0.2026	
15 minute winter	1431	32.001	1432	20.4	1.226	0.165	0.9916	
15 minute winter	1432	32.002	1433	29.9	1.667	0.190	0.6275	
15 minute winter	1433	32.003	1434	39.0	1.907	0.202	1.0341	
15 minute winter	1450	34.000	1434	5.6	0.705	0.139	0.1928	
15 minute winter	1434	32.004	1435	53.1	2.340	0.272	1.1234	
15 minute winter	1435	32.005	1436	62.7	2.360	0.186	1.1200	
15 minute winter	1436	32.006	1061	62.6	2.488	0.171	1.5549	
960 minute winter	1061	Hydro-Brake®	1062	5.2				
960 minute winter	1062	1.063	1063	5.2	0.855	0.068	0.5021	
960 minute winter	1063	1.064	1064	5.2	0.695	0.131	0.2192	252.5

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1000	10	41.525	0.098	37.9	0.2746	0.0000	OK
15 minute winter	1001	13	41.295	0.244	38.2	0.2758	0.0000	SURCHARGED
15 minute winter	1002	13	41.214	1.029	73.5	2.8605	0.0000	SURCHARGED
15 minute winter	1003	13	40.966	1.133	93.3	2.9957	0.0000	FLOOD RISK
15 minute winter	1004	13	40.647	0.886	99.6	1.8545	0.0000	SURCHARGED
15 minute winter	1005	12	39.611	0.248	113.5	0.5465	0.0000	OK
15 minute winter	1006	10	39.256	0.151	152.4	0.4324	0.0000	OK
15 minute winter	1007	12	37.284	1.067	163.5	2.2174	0.0000	SURCHARGED
15 minute winter	1008	12	37.261	1.166	197.1	2.6900	0.0000	SURCHARGED
15 minute winter	1009	12	37.243	1.324	225.2	4.0994	0.0000	SURCHARGED
15 minute winter	1010	12	37.232	1.350	291.7	4.6825	0.0000	SURCHARGED
15 minute winter	1070	11	42.304	0.160	30.2	0.4128	0.0000	OK
15 minute winter	1071	11	42.175	0.331	236.4	0.7487	0.0000	OK
15 minute winter	1072	11	41.967	0.197	268.6	0.4329	0.0000	OK
15 minute winter	1073	12	38.934	0.185	354.1	0.6129	0.0000	OK
15 minute winter	1011	12	37.194	1.384	649.0	3.6867	0.0000	SURCHARGED
15 minute winter	1012	12	37.110	1.319	658.6	3.5334	0.0000	SURCHARGED
15 minute winter	1080	11	41.546	0.119	36.2	0.3265	0.0000	OK
15 minute winter	1081	11	41.027	0.166	72.4	0.5761	0.0000	OK
15 minute winter	1082	11	40.856	0.234	137.2	0.9872	0.0000	OK
15 minute winter	1090	10	40.921	0.148	87.8	0.5970	0.0000	OK
15 minute winter	1083	11	40.135	0.270	263.1	0.7320	0.0000	OK
15 minute winter	1084	11	39.380	0.189	263.0	0.3342	0.0000	OK
15 minute winter	1013	12	37.018	1.249	908.6	3.1786	0.0000	SURCHARGED
15 minute winter	1014	12	36.834	1.091	914.9	2.8492	0.0000	SURCHARGED

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	1000	1.000	1001	38.2	2.394	0.315	0.1885	
15 minute winter	1001	1.001	1002	36.2	1.391	0.314	0.7087	
15 minute winter	1002	1.002	1003	62.1	1.562	0.711	0.4993	
15 minute winter	1003	1.003	1004	88.6	2.228	1.599	0.2524	
15 minute winter	1004	1.004	1005	98.7	2.481	1.609	0.9167	
15 minute winter	1005	1.005	1006	113.3	2.326	0.879	0.9331	
15 minute winter	1006	1.006	1007	152.5	3.981	0.499	1.8211	
15 minute winter	1007	1.007	1008	169.0	0.895	0.524	15.4573	
15 minute winter	1008	1.008	1009	200.8	0.952	0.617	3.2415	
15 minute winter	1009	1.009	1010	232.8	0.529	0.421	8.0564	
15 minute winter	1010	1.010	1011	296.1	0.673	0.538	15.8153	
15 minute winter	1070	2.000	1071	30.2	1.057	0.755	0.3611	
15 minute winter	1071	2.001	1072	235.7	2.446	0.825	0.9047	
15 minute winter	1072	2.002	1073	267.9	4.196	0.369	3.8577	
15 minute winter	1073	2.003	1011	351.4	4.332	0.361	3.2212	
15 minute winter	1011	1.011	1012	644.1	1.464	1.228	4.5896	
15 minute winter	1012	1.012	1013	656.7	1.492	1.251	5.3026	
15 minute winter	1080	3.000	1081	36.2	1.765	0.504	0.5307	
15 minute winter	1081	3.001	1082	72.4	1.457	0.434	0.5277	
15 minute winter	1082	3.002	1083	136.9	2.443	0.857	1.8549	
15 minute winter	1090	4.000	1083	87.8	2.184	0.480	1.2843	
15 minute winter	1083	3.003	1084	263.0	3.719	0.661	1.2090	
15 minute winter	1084	3.004	1013	262.9	5.127	0.413	0.9858	
15 minute winter	1013	1.013	1014	907.4	2.062	1.725	6.2453	
15 minute winter	1014	1.014	1016	914.2	2.077	1.710	18.6153	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1100	11	38.974	0.129	31.8	0.3393	0.0000	OK
15 minute winter	1101	11	38.632	0.083	41.1	0.1149	0.0000	OK
15 minute winter	1110	13	37.407	0.807	35.7	3.0428	0.0000	SURCHARGED
15 minute winter	1111	12	37.369	0.957	81.8	3.1877	0.0000	SURCHARGED
15 minute winter	1112	12	37.328	0.972	96.6	2.1622	0.0000	SURCHARGED
15 minute winter	1113	12	37.279	0.963	100.0	1.7401	0.0000	SURCHARGED
15 minute winter	1102	12	37.203	0.960	159.0	1.9912	0.0000	SURCHARGED
15 minute winter	1103	12	36.953	0.806	187.3	1.7368	0.0000	SURCHARGED
15 minute winter	1104	12	36.727	0.633	213.1	1.3704	0.0000	SURCHARGED
15 minute winter	1016	12	36.495	0.907	1190.0	2.8805	0.0000	SURCHARGED
15 minute winter	1017	12	36.216	0.663	1188.5	1.6867	0.0000	OK
15 minute winter	1018	12	35.901	0.447	1230.2	1.6206	0.0000	OK
15 minute winter	1019	12	34.996	0.514	1274.2	1.9665	0.0000	OK
15 minute winter	1020	12	34.381	0.510	1317.6	1.8624	0.0000	OK
15 minute winter	1021	12	33.555	0.464	1396.1	1.8254	0.0000	OK
15 minute winter	1460	13	32.814	0.267	23.1	0.6841	0.0000	SURCHARGED
15 minute winter	1022	13	32.801	0.964	1424.1	4.3621	0.0000	OK
15 minute winter	1023	13	32.740	0.950	1431.4	4.6436	0.0000	OK
15 minute winter	1024	13	32.649	0.902	1435.9	4.5663	0.0000	OK
15 minute winter	1025	13	32.513	0.848	1474.4	4.6036	0.0000	OK
15 minute winter	1120	11	34.561	0.209	65.3	0.8837	0.0000	OK
15 minute winter	1121	11	34.474	0.169	94.9	0.4171	0.0000	OK
15 minute winter	1122	11	33.983	0.161	129.5	0.4283	0.0000	OK
15 minute winter	1123	11	33.084	0.342	145.4	0.7452	0.0000	SURCHARGED
15 minute winter	1026	14	32.373	0.737	1607.0	3.4140	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	1100	5.000	1101	31.8	1.730	0.543	0.4307	
15 minute winter	1101	5.001	1102	41.1	3.279	0.248	0.1343	
15 minute winter	1110	6.000	1111	33.5	0.995	0.837	0.2507	
15 minute winter	1111	6.001	1112	77.7	0.777	0.703	2.0061	
15 minute winter	1112	6.002	1113	98.3	0.892	0.890	1.4278	
15 minute winter	1113	6.003	1102	106.2	0.963	0.961	2.6177	
15 minute winter	1102	5.002	1103	160.1	1.452	1.448	3.4375	
15 minute winter	1103	5.003	1104	187.8	1.703	1.699	1.8913	
15 minute winter	1104	5.004	1016	212.6	1.928	1.558	1.3188	
15 minute winter	1016	1.016	1017	1188.5	2.270	1.689	8.7396	
15 minute winter	1017	1.017	1018	1186.1	3.122	0.933	5.8066	
15 minute winter	1018	1.018	1019	1222.1	3.811	0.448	10.6526	
15 minute winter	1019	1.019	1020	1272.5	3.680	0.510	8.6207	
15 minute winter	1020	1.020	1021	1339.5	4.092	0.543	10.6124	
15 minute winter	1021	1.021	1022	1406.9	4.633	0.399	6.3576	
15 minute winter	1460	35.000	1022	22.6	0.972	0.565	0.2071	
15 minute winter	1022	1.022	1023	1413.4	1.483	0.358	5.2136	
15 minute winter	1023	1.023	1024	1409.7	1.537	0.748	19.9340	
15 minute winter	1024	1.024	1025	1425.5	1.619	0.757	36.1859	
15 minute winter	1025	1.025	1026	1478.4	1.877	0.785	11.2170	
15 minute winter	1120	7.000	1121	65.3	1.397	0.764	0.3654	
15 minute winter	1121	7.001	1122	94.9	2.391	0.518	0.7104	
15 minute winter	1122	7.002	1123	129.5	2.271	0.573	1.4326	
15 minute winter	1123	7.003	1026	143.6	2.186	0.948	0.7092	
15 minute winter	1026	1.026	1027	1613.3	2.473	0.584	11.1645	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1027	14	32.212	0.647	1637.3	3.3039	0.0000	OK
15 minute winter	1470	14	32.238	0.348	19.3	0.5315	0.0000	SURCHARGED
15 minute winter	1028	14	32.236	1.392	1683.8	7.3227	0.0000	SURCHARGED
15 minute winter	1029	14	32.159	1.367	1611.7	6.4541	0.0000	SURCHARGED
15 minute winter	1029a	14	32.094	1.330	1594.0	4.6062	0.0000	SURCHARGED
480 minute winter	1030	328	32.033	1.344	229.2	6.3694	0.0000	SURCHARGED
480 minute winter	1031	328	32.033	1.361	230.5	6.6647	0.0000	SURCHARGED
15 minute winter	1130	12	34.209	0.492	61.5	1.2404	0.0000	SURCHARGED
480 minute winter	1032	328	32.032	1.436	237.1	6.9220	0.0000	SURCHARGED
480 minute winter	1033	328	32.032	1.477	235.1	6.9284	0.0000	SURCHARGED
480 minute winter	1034	328	32.031	1.525	234.0	7.1696	0.0000	SURCHARGED
480 minute winter	1035	328	32.031	1.555	238.6	8.0144	0.0000	SURCHARGED
480 minute winter	1036	328	32.030	1.644	235.9	7.8828	0.0000	SURCHARGED
15 minute winter	1140	11	34.707	0.079	30.2	0.2044	0.0000	OK
15 minute winter	1141	11	32.479	0.146	68.6	0.3625	0.0000	OK
480 minute winter	1037	328	32.030	1.658	241.8	7.8386	0.0000	SURCHARGED
480 minute winter	1038	328	32.029	1.683	241.9	8.0064	0.0000	SURCHARGED
480 minute winter	1039	328	32.028	1.809	227.8	0.0000	0.0000	SURCHARGED
15 minute winter	1150	11	34.240	0.068	23.6	0.1199	0.0000	OK
15 minute winter	1480	11	33.545	0.101	14.8	0.1638	0.0000	OK
15 minute winter	1151	11	32.792	0.087	56.4	0.2418	0.0000	OK
480 minute winter	1152	328	32.027	0.111	9.9	0.0000	0.0000	OK
480 minute winter	1040	328	32.028	2.128	234.3	2139.0620	0.0000	FLOOD RISK
15 minute winter	1160	11	39.704	0.053	8.8	0.0724	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	1027	1.027	1028	1649.8	2.734	0.318	27.0663	
15 minute winter	1470	36.000	1028	11.5	0.847	0.288	0.4715	
15 minute winter	1028	1.028	1029	1596.4	1.417	0.847	29.4161	
15 minute winter	1029	1.029	1029a	1594.0	1.416	0.846	15.8021	
15 minute winter	1029a	1.030	1030	1555.1	1.390	0.907	50.9825	
480 minute winter	1030	1.031	1031	224.3	0.882	0.131	11.6423	
480 minute winter	1031	1.032	1032	224.0	0.912	0.131	51.5965	
15 minute winter	1130	8.000	1032	56.5	3.383	0.998	0.2853	
480 minute winter	1032	1.033	1033	232.1	0.927	0.112	18.9648	
480 minute winter	1033	1.034	1034	231.0	0.917	0.122	27.3317	
480 minute winter	1034	1.035	1035	228.4	0.933	0.121	16.7812	
480 minute winter	1035	1.036	1036	232.7	0.916	0.124	50.6478	
480 minute winter	1036	1.037	1037	232.0	0.896	0.123	7.8137	
15 minute winter	1140	9.000	1141	30.2	1.530	0.267	0.9714	
15 minute winter	1141	9.001	1037	68.6	2.774	0.587	0.2277	
480 minute winter	1037	1.038	1038	239.2	1.022	0.128	14.8827	
480 minute winter	1038	1.039	1039	227.8	1.080	0.121	71.7962	
480 minute winter	1039	1.040	1040	221.1	1.179	0.117	56.3580	
15 minute winter	1150	10.000	1151	23.6	2.412	0.180	0.1237	
15 minute winter	1480	37.000	1151	14.8	0.898	0.370	0.1774	
15 minute winter	1151	10.001	1152	56.4	1.935	0.019	0.9983	
480 minute winter	1152	10.002	1040	9.9	1.302	0.003	7.1744	
480 minute winter	1040	Orifice	1041	134.6				
480 minute winter	1040	Infiltration		13.7				
15 minute winter	1160	11.000	1161	8.8	1.008	0.122	0.1953	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1161	11	39.303	0.071	8.8	0.0801	0.0000	OK
15 minute winter	1190	11	39.646	0.192	62.6	0.5433	0.0000	OK
15 minute winter	1162	11	39.181	0.130	71.4	0.2299	0.0000	OK
15 minute winter	1163	12	38.162	0.677	126.3	2.1243	0.0000	SURCHARGED
15 minute winter	1164	12	38.087	0.641	119.0	1.1321	0.0000	SURCHARGED
15 minute winter	1165	12	37.975	0.600	118.6	1.0600	0.0000	SURCHARGED
15 minute winter	1166	12	37.859	0.560	136.0	1.1944	0.0000	SURCHARGED
15 minute winter	1200	12	40.122	0.473	32.9	0.9582	0.0000	SURCHARGED
15 minute winter	1201	12	40.034	0.573	85.9	1.7867	0.0000	SURCHARGED
15 minute winter	1202	12	39.837	0.491	116.2	1.1676	0.0000	SURCHARGED
15 minute winter	1203	12	39.442	0.206	130.0	0.4454	0.0000	OK
15 minute winter	1204	12	38.629	0.139	143.6	0.2961	0.0000	OK
15 minute winter	1167	12	37.758	0.650	290.4	1.7757	0.0000	SURCHARGED
15 minute winter	1168	12	37.668	0.585	307.7	1.6686	0.0000	SURCHARGED
15 minute winter	1210	12	39.008	0.409	52.7	1.0461	0.0000	SURCHARGED
15 minute winter	1211	9	38.442	0.087	56.4	0.1705	0.0000	OK
15 minute winter	1169	13	37.520	0.487	381.5	1.3709	0.0000	OK
15 minute winter	1170	13	37.375	0.358	376.9	0.6327	0.0000	OK
1440 minute winter	1220	1440	37.243	0.413	1.6	0.9264	0.0000	SURCHARGED
1440 minute winter	1171	1440	37.243	0.994	21.8	1.7564	0.0000	SURCHARGED
1440 minute winter	1172	1440	37.243	1.010	21.4	0.0000	0.0000	SURCHARGED
1440 minute winter	1230	1440	37.243	0.547	2.4	1.5256	0.0000	SURCHARGED
1440 minute winter	1231	1440	37.243	0.738	2.4	0.0000	0.0000	SURCHARGED
1440 minute winter	1173	1440	37.243	1.233	23.4	716.7593	0.0000	SURCHARGED
1440 minute winter	1174	1440	36.005	0.015	1.2	0.0262	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	1161	11.001	1162	8.7	0.509	0.218	0.5232	
15 minute winter	1190	12.000	1162	62.7	2.065	0.920	0.7067	
15 minute winter	1162	11.002	1163	70.4	2.391	0.624	0.9654	
15 minute winter	1163	11.003	1164	119.0	1.079	1.077	1.4022	
15 minute winter	1164	11.004	1165	118.6	1.076	1.073	2.5547	
15 minute winter	1165	11.005	1166	118.0	1.070	1.067	2.7054	
15 minute winter	1166	11.006	1167	135.2	1.226	1.223	1.4751	
15 minute winter	1200	13.000	1201	31.4	0.890	0.784	0.7563	
15 minute winter	1201	13.001	1202	83.7	1.189	1.172	1.9410	
15 minute winter	1202	13.002	1203	115.5	1.738	1.618	1.6109	
15 minute winter	1203	13.003	1204	130.6	3.116	0.674	1.0320	
15 minute winter	1204	13.004	1167	143.7	3.613	0.395	0.5574	
15 minute winter	1167	11.007	1168	289.2	1.339	1.330	2.6667	
15 minute winter	1168	11.008	1169	306.5	1.419	1.411	5.2212	
15 minute winter	1210	14.000	1211	49.4	1.577	1.237	1.1053	
15 minute winter	1211	14.001	1169	56.7	3.707	0.299	0.1877	
15 minute winter	1169	11.009	1170	376.9	2.285	1.733	1.4110	
15 minute winter	1170	11.010	1171	374.3	1.844	0.576	7.9961	
1440 minute winter	1220	15.000	1171	1.6	0.472	0.040	1.8795	
1440 minute winter	1171	11.011	1172	21.4	0.491	0.098	1.7168	
1440 minute winter	1172	11.012	1173	21.3	0.481	0.098	8.6999	
1440 minute winter	1230	16.000	1231	2.4	0.528	0.060	1.2745	
1440 minute winter	1231	16.001	1173	2.2	0.491	0.055	0.8005	
1440 minute winter	1173	11.013	1174	1.2	0.401	0.004	0.0310	
1440 minute winter	1174	11.014	1178	1.2	0.400	0.001	6.5122	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1240	11	36.499	0.077	26.3	0.1569	0.0000	OK
1440 minute winter	1178	1440	35.664	1.064	2.3	0.0000	0.0000	SURCHARGED
15 minute winter	1250	11	43.581	0.211	39.0	0.5955	0.0000	OK
15 minute winter	1251	11	43.474	0.216	66.3	0.5216	0.0000	OK
15 minute winter	1252	12	42.983	0.214	77.7	0.4509	0.0000	OK
15 minute winter	1253	11	42.345	0.310	185.5	0.9836	0.0000	OK
15 minute winter	1254	12	42.818	0.292	52.1	0.9290	0.0000	SURCHARGED
15 minute winter	1255	11	42.007	0.156	46.1	0.4000	0.0000	OK
15 minute winter	1256	11	41.940	0.119	71.9	0.2756	0.0000	OK
15 minute winter	1257	12	41.298	0.278	71.9	0.4907	0.0000	OK
15 minute winter	1258	12	41.284	0.284	79.2	0.5516	0.0000	OK
15 minute winter	1259	12	41.267	0.286	106.0	0.6447	0.0000	OK
15 minute winter	1260	12	41.210	0.373	204.3	1.6449	0.0000	OK
15 minute winter	1261	12	41.075	0.372	269.9	1.5101	0.0000	OK
15 minute winter	1280	12	41.766	0.277	30.7	0.7212	0.0000	SURCHARGED
15 minute winter	1281	12	41.687	0.502	71.4	1.4849	0.0000	SURCHARGED
15 minute winter	1262	12	40.979	0.313	342.5	0.8214	0.0000	OK
15 minute winter	1263	12	40.665	0.249	396.7	0.9463	0.0000	OK
15 minute winter	1264	12	39.353	0.354	449.2	1.3258	0.0000	OK
15 minute winter	1265	12	39.057	0.387	472.5	1.1800	0.0000	OK
15 minute winter	1290	11	39.162	0.077	18.1	0.1254	0.0000	OK
15 minute winter	1266	12	38.736	0.410	490.2	1.0440	0.0000	OK
15 minute winter	1267	12	38.470	0.424	510.6	1.2778	0.0000	OK
15 minute winter	1268	12	38.165	0.412	523.1	1.1685	0.0000	OK
15 minute winter	1269	12	37.826	0.291	541.1	0.8660	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	1240	17.000	1178	26.3	1.888	0.255	1.1218	
1440 minute winter	1178	11.018	1179	1.9	0.193	0.004	9.2483	
15 minute winter	1250	39.000	1251	38.3	1.011	0.957	0.7318	
15 minute winter	1251	39.001	1252	65.1	1.716	1.012	1.2465	
15 minute winter	1252	39.002	1253	76.7	2.140	0.980	0.8804	
15 minute winter	1253	39.003	1071	184.9	1.535	0.664	3.1032	
15 minute winter	1254	40.000	1253	49.7	1.266	1.166	1.4718	
15 minute winter	1255	18.000	1256	46.1	1.122	0.283	0.4817	
15 minute winter	1256	18.001	1257	71.9	1.664	0.158	1.8926	
15 minute winter	1257	18.002	1258	69.9	0.619	0.321	1.1812	
15 minute winter	1258	18.003	1259	78.2	0.658	0.360	1.1288	
15 minute winter	1259	18.004	1260	105.3	0.875	0.484	4.1634	
15 minute winter	1260	18.005	1261	201.0	1.093	0.657	12.3574	
15 minute winter	1261	18.006	1262	269.1	1.620	0.662	1.7477	
15 minute winter	1280	19.000	1281	28.9	0.817	0.453	0.8033	
15 minute winter	1281	19.001	1262	69.9	1.758	1.576	0.7708	
15 minute winter	1262	18.007	1263	343.1	2.654	0.412	2.2091	
15 minute winter	1263	18.008	1264	398.1	2.811	0.365	8.0243	
15 minute winter	1264	18.009	1265	450.9	2.474	0.445	2.7815	
15 minute winter	1265	18.010	1266	473.3	2.384	0.560	4.5465	
15 minute winter	1290	20.000	1266	18.1	1.552	0.233	0.2024	
15 minute winter	1266	18.011	1267	490.5	2.350	0.568	3.7285	
15 minute winter	1267	18.012	1268	510.6	2.439	0.639	4.5582	
15 minute winter	1268	18.013	1269	522.6	3.056	0.602	2.3483	
15 minute winter	1269	18.014	1270	540.7	3.490	0.425	5.5586	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1270	12	36.671	0.357	540.7	0.9074	0.0000	OK
15 minute winter	1300	11	43.053	0.199	41.2	0.5733	0.0000	OK
15 minute winter	1320	11	44.162	0.122	40.1	0.2701	0.0000	OK
15 minute winter	1321	11	43.869	0.204	74.1	0.5486	0.0000	OK
15 minute winter	1322	11	43.273	0.204	115.4	0.5784	0.0000	OK
15 minute winter	1301	12	42.835	0.360	189.2	0.9271	0.0000	OK
15 minute winter	1302	11	42.518	0.690	256.2	2.9027	0.0000	SURCHARGED
15 minute winter	1303	11	42.429	0.640	284.1	2.0166	0.0000	SURCHARGED
15 minute winter	1304	11	42.270	0.550	325.6	1.7989	0.0000	SURCHARGED
15 minute winter	1305	11	42.147	0.449	333.7	0.8690	0.0000	OK
15 minute winter	1306	11	41.858	0.223	354.3	0.6804	0.0000	OK
15 minute winter	1307	12	41.162	0.289	352.7	0.5103	0.0000	OK
15 minute winter	1308	12	40.368	0.351	392.4	0.9307	0.0000	OK
15 minute winter	1309	12	39.754	0.332	435.6	0.9140	0.0000	OK
15 minute winter	1310	12	39.219	0.266	446.0	0.5326	0.0000	OK
480 minute winter	1311	328	39.158	1.208	58.2	0.0000	0.0000	SURCHARGED
480 minute winter	1312	328	39.157	1.257	57.8	502.5159	0.0000	SURCHARGED
1440 minute winter	1313	1470	37.218	0.582	16.5	0.0000	0.0000	OK
1440 minute winter	1314	1470	37.218	0.718	16.5	240.3978	0.0000	SURCHARGED
15 minute winter	1271	12	36.281	0.420	554.6	1.2270	0.0000	OK
15 minute winter	1272	12	35.960	0.415	600.7	1.5258	0.0000	OK
960 minute winter	1273	930	35.687	0.883	49.1	2.9260	0.0000	OK
1440 minute winter	1274	1380	35.677	1.077	94.0	0.0000	0.0000	SURCHARGED
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	1270	18.015	1271	538.6	2.806	0.439	2.7540	
15 minute winter	1300	21.000	1301	40.4	1.153	1.011	1.4291	
15 minute winter	1320	22.000	1321	40.1	1.345	0.531	0.5342	
15 minute winter	1321	22.001	1322	73.7	2.071	0.975	0.9505	
15 minute winter	1322	22.002	1301	115.3	2.301	0.716	1.4643	
15 minute winter	1301	21.001	1302	182.8	1.905	0.746	3.6347	
15 minute winter	1302	21.002	1303	254.5	1.178	1.170	4.1375	
15 minute winter	1303	21.003	1304	282.8	1.309	1.300	7.2801	
15 minute winter	1304	21.004	1305	324.4	1.529	1.491	2.2718	
15 minute winter	1305	21.005	1306	331.2	2.289	1.522	4.3787	
15 minute winter	1306	21.006	1307	352.7	3.385	0.283	1.2107	
15 minute winter	1307	21.007	1308	356.3	2.588	0.546	6.5182	
15 minute winter	1308	21.008	1309	395.5	2.659	0.694	6.4156	
15 minute winter	1309	21.009	1310	436.5	3.490	0.534	2.1074	
15 minute winter	1310	21.010	1311	444.7	2.523	0.379	2.8112	
480 minute winter	1311	21.011	1312	57.8	0.871	0.244	4.4650	
480 minute winter	1312	Weir	1313	25.3				
480 minute winter	1312	Infiltration		0.3				
1440 minute winter	1313	21.013	1314	16.5	0.892	0.036	8.3289	
1440 minute winter	1314	Weir	1271	0.0				
1440 minute winter	1314	Infiltration		0.9				
15 minute winter	1271	18.016	1272	552.6	2.657	0.583	3.5010	
15 minute winter	1272	18.017	1273	597.2	3.209	0.643	4.5324	
960 minute winter	1273	18.018	1274	127.3	0.813	0.066	13.9166	
1440 minute winter	1274	18.019	1179	55.1	0.797	0.040	19.5722	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1179	1440	35.664	1.214	56.9	956.7241	0.0000	SURCHARGED
15 minute winter	1180	11	34.336	0.111	50.5	0.3920	0.0000	OK
15 minute winter	1181	12	33.556	0.130	58.5	0.1663	0.0000	OK
15 minute winter	1182	12	33.146	0.557	76.1	0.8310	0.0000	SURCHARGED
15 minute winter	1183	12	32.574	1.360	98.5	2.2734	0.0000	SURCHARGED
15 minute winter	1184	13	31.889	0.845	92.5	2.1518	0.0000	SURCHARGED
15 minute winter	1330	12	32.120	0.174	49.4	0.5140	0.0000	OK
15 minute winter	1331	12	31.943	0.556	64.7	0.9880	0.0000	SURCHARGED
15 minute winter	1340	11	32.183	0.093	34.6	0.1918	0.0000	OK
15 minute winter	1332	11	31.425	0.370	108.4	0.5054	0.0000	SURCHARGED
720 minute winter	1333	705	31.364	0.564	12.3	0.8881	0.0000	SURCHARGED
720 minute winter	1334	705	31.363	0.713	20.0	298.6207	0.0000	SURCHARGED
480 minute winter	1041	328	28.564	0.157	135.8	0.5913	0.0000	OK
15 minute winter	1350	11	28.166	0.128	23.1	0.2214	0.0000	OK
480 minute winter	1042	328	27.911	0.238	139.1	0.7733	0.0000	OK
480 minute winter	1043	328	27.620	0.147	142.2	0.5664	0.0000	OK
15 minute winter	1360	11	26.261	0.119	20.3	0.2766	0.0000	OK
15 minute winter	1044	11	25.994	0.189	201.4	0.6598	0.0000	OK
15 minute winter	1045	11	24.891	0.138	223.1	0.3158	0.0000	OK
15 minute winter	1370	11	27.668	0.162	40.6	0.4638	0.0000	OK
15 minute winter	1371	11	27.466	0.176	40.6	0.1993	0.0000	OK
15 minute winter	1372	11	27.365	0.160	40.6	0.1811	0.0000	OK
15 minute winter	1373	11	27.253	0.145	54.8	0.2195	0.0000	OK
15 minute winter	1374	11	26.853	0.103	54.8	0.1164	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)
1440 minute winter	1179	Hydro-Brake®	1151	3.4				
15 minute winter	1180	41.000	1181	50.8	2.512	0.450	0.3552	
15 minute winter	1181	41.001	1182	57.5	2.359	0.510	0.5714	
15 minute winter	1182	41.002	1183	70.5	1.801	0.600	1.0820	
15 minute winter	1183	41.003	1184	92.5	2.326	1.782	0.6778	
15 minute winter	1184	41.004	1334	91.4	2.298	1.744	0.9547	
15 minute winter	1330	23.000	1331	47.1	1.285	0.572	0.8186	
15 minute winter	1331	23.001	1332	63.5	1.598	1.589	1.2144	
15 minute winter	1340	24.000	1332	34.6	1.554	0.359	0.7789	
15 minute winter	1332	23.002	1333	107.3	1.536	1.255	0.9855	
720 minute winter	1333	23.003	1334	13.9	0.315	0.072	0.3521	
720 minute winter	1334	Weir	1041	0.0				
720 minute winter	1334	Infiltration		1.7				
480 minute winter	1041	1.042	1042	135.7	2.028	0.260	1.9027	
15 minute winter	1350	25.000	1042	23.1	1.021	0.578	0.5325	
480 minute winter	1042	1.043	1043	139.1	2.154	0.484	1.6425	
480 minute winter	1043	1.044	1044	142.2	3.048	0.223	2.0037	
15 minute winter	1360	26.000	1044	20.3	0.986	0.508	0.3878	
15 minute winter	1044	1.045	1045	201.1	3.870	0.294	1.2333	
15 minute winter	1045	1.046	1046	223.0	4.190	0.212	1.3311	
15 minute winter	1370	27.000	1371	40.6	1.270	0.771	0.6726	
15 minute winter	1371	27.001	1372	40.6	1.274	0.807	0.2889	
15 minute winter	1372	27.002	1373	40.5	1.422	0.685	0.2145	
15 minute winter	1373	27.003	1374	54.8	2.451	0.591	0.2532	
15 minute winter	1374	27.004	1375	54.7	2.145	0.433	1.0593	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1375	12	25.063	0.469	90.9	1.2901	0.0000	SURCHARGED
15 minute winter	1376	12	24.151	0.902	114.3	2.0247	0.0000	FLOOD RISK
15 minute winter	1377	12	23.645	0.644	142.3	2.0336	0.0000	SURCHARGED
15 minute winter	1390	11	27.892	0.087	36.2	0.1848	0.0000	OK
15 minute winter	1391	11	24.896	0.141	94.9	0.4737	0.0000	OK
15 minute winter	1378	11	23.507	0.638	239.1	1.6753	0.0000	SURCHARGED
15 minute winter	1379	12	23.309	0.502	251.2	0.9728	0.0000	SURCHARGED
15 minute winter	1380	12	23.152	0.376	270.9	0.7640	0.0000	OK
15 minute winter	1046	11	22.873	0.474	513.6	1.3363	0.0000	OK
15 minute winter	1047	11	22.627	0.269	533.3	0.7834	0.0000	OK
15 minute winter	1400	11	26.085	0.133	66.4	0.3899	0.0000	OK
15 minute winter	1401	11	23.703	0.182	114.7	0.4313	0.0000	OK
15 minute winter	1402	11	22.554	0.189	114.8	0.3338	0.0000	OK
15 minute winter	1403	11	22.188	0.327	161.3	0.8990	0.0000	SURCHARGED
360 minute winter	1404	280	21.600	1.001	81.4	458.4701	0.0000	SURCHARGED
15 minute winter	1048	12	21.716	0.279	550.8	1.6799	0.0000	OK
360 minute winter	1049	280	21.625	1.082	168.0	7.0090	0.0000	SURCHARGED
15 minute winter	1050	13	21.143	0.656	155.0	2.1424	0.0000	SURCHARGED
15 minute winter	1051	12	21.155	0.720	201.2	2.4080	0.0000	SURCHARGED
15 minute winter	1052	13	21.130	0.750	257.2	3.3105	0.0000	SURCHARGED
15 minute winter	1410	13	21.616	0.436	41.7	0.9852	0.0000	SURCHARGED
15 minute winter	1420	13	21.572	0.691	37.9	1.9305	0.0000	SURCHARGED
60 minute winter	1421	51	20.224	0.049	0.5	0.0867	0.0000	OK
60 minute winter	1422	51	20.224	0.124	1.2	0.2194	0.0000	OK
60 minute winter	1423	51	20.224	0.202	218.3	130.7377	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	1375	27.005	1376	82.5	2.223	0.793	1.2728	
15 minute winter	1376	27.006	1377	112.5	1.598	1.576	2.9268	
15 minute winter	1377	27.007	1378	143.2	1.299	1.288	2.0074	
15 minute winter	1390	28.000	1391	36.2	1.817	0.323	1.3367	
15 minute winter	1391	28.001	1378	94.4	3.112	0.700	0.8236	
15 minute winter	1378	27.008	1379	239.2	1.510	1.499	3.9769	
15 minute winter	1379	27.009	1380	251.6	1.603	1.576	1.8579	
15 minute winter	1380	27.010	1046	271.2	2.079	0.864	2.0936	
15 minute winter	1046	1.047	1047	511.9	2.555	1.226	4.0892	
15 minute winter	1047	1.048	1048	532.1	4.141	0.262	2.6824	
15 minute winter	1400	29.000	1401	66.4	2.772	0.630	1.3872	
15 minute winter	1401	29.001	1402	114.8	2.529	0.647	2.0806	
15 minute winter	1402	29.002	1403	114.1	1.873	0.594	0.9936	
15 minute winter	1403	29.003	1404	160.1	2.494	0.829	0.3048	
360 minute winter	1404	29.004	1049	-71.9	0.449	-0.172	10.0347	
15 minute winter	1048	1.049	1049	546.9	2.079	0.276	4.9584	
360 minute winter	1049	Orifice	1050	138.7				
15 minute winter	1050	1.051	1051	150.8	0.877	0.493	7.2695	
15 minute winter	1051	1.052	1052	199.6	1.116	0.652	7.8120	
15 minute winter	1052	1.053	1053	252.0	1.533	0.592	10.8995	
15 minute winter	1410	30.000	1411	37.6	1.347	0.506	0.6717	
15 minute winter	1420	31.000	1411	32.2	0.853	0.806	0.2879	
60 minute winter	1421	38.000	1422	-0.5	-0.042	0.000	0.1410	
60 minute winter	1422	38.001	1423	-1.2	-0.091	-0.001	0.3365	
60 minute winter	1423	38.002	1424	-218.3	-0.963	-0.186	11.7790	

Results for 30 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1424	13	20.974	1.776	289.4	3.1380	0.0000	SURCHARGED
15 minute winter	1411	13	21.532	0.770	91.8	1.7606	0.0000	SURCHARGED
15 minute winter	1412	13	21.339	0.702	104.2	1.4996	0.0000	SURCHARGED
15 minute winter	1053	13	21.100	0.944	386.1	5.9760	0.0000	SURCHARGED
15 minute winter	1054	13	21.074	1.653	374.9	10.7130	0.0000	SURCHARGED
15 minute winter	1055	13	21.024	1.903	402.3	11.9374	0.0000	SURCHARGED
15 minute winter	1056	13	20.987	1.991	434.5	12.7050	0.0000	SURCHARGED
15 minute winter	1057	12	18.767	0.202	208.0	1.2670	0.0000	OK
15 minute winter	1058	12	18.163	0.166	234.3	0.3882	0.0000	OK
15 minute winter	1059	12	16.437	0.191	272.7	0.6429	0.0000	OK
15 minute winter	1060	12	14.506	0.193	274.0	0.3411	0.0000	OK
15 minute winter	1430	11	20.332	0.045	8.2	0.0614	0.0000	OK
15 minute winter	1440	11	19.575	0.217	56.0	0.6977	0.0000	OK
15 minute winter	1431	11	19.496	0.188	87.3	0.4299	0.0000	OK
15 minute winter	1432	11	18.789	0.221	129.0	0.6291	0.0000	OK
15 minute winter	1433	12	18.117	0.247	169.2	0.6936	0.0000	OK
15 minute winter	1450	13	17.126	0.538	23.6	1.1321	0.0000	SURCHARGED
15 minute winter	1434	13	17.076	0.709	219.1	1.9530	0.0000	SURCHARGED
15 minute winter	1435	12	15.031	0.254	243.9	0.7167	0.0000	OK
15 minute winter	1436	13	13.818	0.233	243.5	0.3331	0.0000	OK
1440 minute winter	1061	1470	11.718	2.587	101.7	3393.8050	0.0000	SURCHARGED
1440 minute winter	1062	1470	8.948	0.046	7.0	0.0517	0.0000	OK
1440 minute winter	1063	1470	7.188	0.065	7.0	0.0734	0.0000	OK
1440 minute winter	1064	1470	7.013	0.063	7.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	1423	Infiltration		11.2				
15 minute winter	1424	38.003	1056	-289.4	-0.811	-0.253	4.8424	
15 minute winter	1411	30.001	1412	85.0	1.207	1.190	2.1186	
15 minute winter	1412	30.002	1053	100.2	1.443	1.403	1.7994	
15 minute winter	1053	1.054	1054	358.1	2.372	0.217	8.5150	
15 minute winter	1054	1.055	1055	388.7	1.491	0.379	8.9512	
15 minute winter	1055	1.056	1056	417.7	1.170	0.389	3.4081	
15 minute winter	1056	Orifice	1057	178.2				
15 minute winter	1057	1.058	1058	208.2	2.642	0.171	2.6586	
15 minute winter	1058	1.059	1059	235.1	3.113	0.134	3.7886	
15 minute winter	1059	1.060	1060	274.0	3.831	0.265	3.0550	
15 minute winter	1060	1.061	1061	272.8	3.919	0.273	4.4791	
15 minute winter	1430	32.000	1431	8.2	1.358	0.090	0.1864	
15 minute winter	1440	33.000	1431	56.0	1.106	0.784	0.6118	
15 minute winter	1431	32.001	1432	87.3	1.705	0.704	3.0367	
15 minute winter	1432	32.002	1433	128.6	2.290	0.817	2.0234	
15 minute winter	1433	32.003	1434	164.5	2.523	0.854	3.3348	
15 minute winter	1450	34.000	1434	23.1	0.850	0.578	0.9738	
15 minute winter	1434	32.004	1435	206.9	2.999	1.060	3.4832	
15 minute winter	1435	32.005	1436	243.5	3.231	0.721	3.1773	
15 minute winter	1436	32.006	1061	243.1	3.503	0.662	4.2876	
1440 minute winter	1061	Hydro-Brake®	1062	7.0				
1440 minute winter	1062	1.063	1063	7.0	0.929	0.091	0.6205	
1440 minute winter	1063	1.064	1064	7.0	0.754	0.176	0.2710	488.7

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1000	12	41.878	0.451	49.6	1.2603	0.0000	SURCHARGED
15 minute winter	1001	12	41.788	0.737	45.6	0.8338	0.0000	SURCHARGED
15 minute winter	1002	11	41.610	1.425	90.4	3.9601	1.8477	FLOOD
15 minute winter	1003	11	41.258	1.425	115.9	3.7691	3.0851	FLOOD
15 minute winter	1004	12	40.910	1.149	110.7	2.4051	0.0000	FLOOD RISK
15 minute winter	1005	12	39.687	0.324	131.3	0.7152	0.0000	SURCHARGED
15 minute winter	1006	11	39.295	0.190	182.9	0.5448	0.0000	OK
15 minute winter	1007	11	37.717	1.500	200.3	3.1170	9.5967	FLOOD
15 minute winter	1008	11	37.721	1.626	215.1	3.7503	0.0000	SURCHARGED
15 minute winter	1009	11	37.708	1.789	249.3	5.5419	0.0000	SURCHARGED
15 minute winter	1010	11	37.707	1.825	316.4	6.3303	0.0000	SURCHARGED
15 minute winter	1070	11	42.345	0.201	39.6	0.5187	0.0000	OK
15 minute winter	1071	11	42.226	0.382	292.5	0.8653	0.0000	OK
15 minute winter	1072	11	41.985	0.215	334.1	0.4739	0.0000	OK
15 minute winter	1073	11	39.005	0.256	446.9	0.8489	0.0000	OK
15 minute winter	1011	11	37.672	1.862	770.6	4.9597	0.0000	SURCHARGED
15 minute winter	1012	11	37.557	1.766	775.5	4.7317	0.0000	SURCHARGED
15 minute winter	1080	10	41.568	0.141	47.5	0.3867	0.0000	OK
15 minute winter	1081	12	41.255	0.394	95.3	1.3716	0.0000	SURCHARGED
15 minute winter	1082	12	41.143	0.520	172.3	2.1923	0.0000	SURCHARGED
15 minute winter	1090	10	40.949	0.176	115.1	0.7088	0.0000	OK
15 minute winter	1083	11	40.198	0.333	328.8	0.9030	0.0000	OK
15 minute winter	1084	11	39.411	0.220	328.2	0.3880	0.0000	OK
15 minute winter	1013	11	37.432	1.663	1095.9	4.2330	0.0000	SURCHARGED
15 minute winter	1014	11	37.165	1.422	1100.8	3.7149	0.0000	SURCHARGED

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	1000	1.000	1001	45.6	2.413	0.377	0.2784	
15 minute winter	1001	1.001	1002	45.7	1.428	0.396	0.7087	
15 minute winter	1002	1.002	1003	73.7	1.853	0.844	0.4993	
15 minute winter	1003	1.003	1004	97.9	2.461	1.766	0.2524	
15 minute winter	1004	1.004	1005	109.0	2.742	1.779	0.9261	
15 minute winter	1005	1.005	1006	128.1	2.365	0.995	1.1292	
15 minute winter	1006	1.006	1007	184.5	4.021	0.604	2.0326	
15 minute winter	1007	1.007	1008	189.5	0.896	0.587	15.4573	
15 minute winter	1008	1.008	1009	226.2	0.985	0.695	3.2415	
15 minute winter	1009	1.009	1010	264.0	0.600	0.478	8.0564	
15 minute winter	1010	1.010	1011	332.8	0.756	0.605	15.8153	
15 minute winter	1070	2.000	1071	39.6	1.139	0.989	0.4364	
15 minute winter	1071	2.001	1072	290.9	2.620	1.018	1.0322	
15 minute winter	1072	2.002	1073	334.0	4.202	0.460	5.0680	
15 minute winter	1073	2.003	1011	440.9	4.147	0.453	3.6868	
15 minute winter	1011	1.011	1012	754.6	1.715	1.439	4.5896	
15 minute winter	1012	1.012	1013	767.9	1.745	1.462	5.3026	
15 minute winter	1080	3.000	1081	47.8	1.809	0.666	0.8310	
15 minute winter	1081	3.001	1082	89.3	1.460	0.536	0.7512	
15 minute winter	1082	3.002	1083	168.3	2.474	1.053	2.3331	
15 minute winter	1090	4.000	1083	115.1	2.197	0.629	1.6587	
15 minute winter	1083	3.003	1084	328.2	3.785	0.825	1.4657	
15 minute winter	1084	3.004	1013	328.0	5.361	0.516	1.1757	
15 minute winter	1013	1.013	1014	1090.4	2.478	2.073	6.2453	
15 minute winter	1014	1.014	1016	1103.7	2.508	2.065	18.6153	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1100	11	38.999	0.154	41.7	0.4062	0.0000	OK
15 minute winter	1101	10	38.645	0.096	53.6	0.1332	0.0000	OK
15 minute winter	1110	11	37.725	1.125	61.3	4.2413	8.3721	FLOOD
15 minute winter	1111	11	37.747	1.335	98.0	4.4484	0.0000	FLOOD RISK
15 minute winter	1112	11	37.741	1.384	107.7	3.0791	0.0000	SURCHARGED
15 minute winter	1113	11	37.705	1.389	110.7	2.5103	0.0000	SURCHARGED
15 minute winter	1102	11	37.645	1.402	187.8	2.9077	0.0000	SURCHARGED
15 minute winter	1103	11	37.307	1.160	223.9	2.5015	0.0000	SURCHARGED
15 minute winter	1104	11	36.997	0.903	255.8	1.9541	0.0000	SURCHARGED
15 minute winter	1016	11	36.669	1.081	1440.9	3.4334	0.0000	SURCHARGED
15 minute winter	1017	12	36.329	0.776	1443.1	1.9741	0.0000	OK
15 minute winter	1018	12	35.974	0.520	1504.5	1.8848	0.0000	OK
15 minute winter	1019	12	35.098	0.616	1578.9	2.3548	0.0000	OK
15 minute winter	1020	12	34.477	0.606	1649.1	2.2123	0.0000	OK
15 minute winter	1021	14	33.732	0.641	1732.2	2.5227	0.0000	OK
15 minute winter	1460	14	33.411	0.864	35.6	2.2105	0.0000	FLOOD RISK
15 minute winter	1022	14	33.402	1.565	1758.8	7.0785	0.0000	SURCHARGED
15 minute winter	1023	14	33.347	1.557	1776.2	7.6098	0.0000	SURCHARGED
15 minute winter	1024	14	33.272	1.525	1805.9	7.7215	0.0000	SURCHARGED
15 minute winter	1025	14	33.170	1.505	1853.7	8.1706	0.0000	SURCHARGED
15 minute winter	1120	11	34.607	0.255	85.6	1.0788	0.0000	OK
15 minute winter	1121	11	34.508	0.203	124.4	0.5018	0.0000	OK
15 minute winter	1122	11	34.061	0.239	169.7	0.6358	0.0000	OK
15 minute winter	1123	11	33.337	0.595	190.0	1.2945	0.0000	SURCHARGED
15 minute winter	1026	14	33.097	1.461	1940.1	6.7665	0.0000	SURCHARGED

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	1100	5.000	1101	41.4	1.889	0.707	0.5255	
15 minute winter	1101	5.001	1102	55.5	3.473	0.335	0.2474	
15 minute winter	1110	6.000	1111	37.8	0.984	0.944	0.2507	
15 minute winter	1111	6.001	1112	86.1	0.793	0.779	2.0061	
15 minute winter	1112	6.002	1113	108.7	0.985	0.983	1.4278	
15 minute winter	1113	6.003	1102	117.6	1.066	1.064	2.6177	
15 minute winter	1102	5.002	1103	180.7	1.638	1.634	3.4375	
15 minute winter	1103	5.003	1104	217.0	1.967	1.963	1.8913	
15 minute winter	1104	5.004	1016	253.8	2.302	1.860	1.3188	
15 minute winter	1016	1.016	1017	1443.1	2.707	2.051	9.2786	
15 minute winter	1017	1.017	1018	1446.7	3.222	1.139	6.7326	
15 minute winter	1018	1.018	1019	1510.6	3.869	0.554	12.9099	
15 minute winter	1019	1.019	1020	1590.0	3.757	0.637	10.4941	
15 minute winter	1020	1.020	1021	1658.0	4.093	0.672	13.4190	
15 minute winter	1021	1.021	1022	1733.1	4.538	0.492	8.7618	
15 minute winter	1460	35.000	1022	26.4	1.002	0.661	0.2071	
15 minute winter	1022	1.022	1023	1752.6	1.581	0.444	6.0932	
15 minute winter	1023	1.023	1024	1767.1	1.629	0.938	24.0710	
15 minute winter	1024	1.024	1025	1776.2	1.693	0.943	46.3179	
15 minute winter	1025	1.025	1026	1747.2	1.884	0.927	16.0635	
15 minute winter	1120	7.000	1121	85.6	1.482	1.001	0.4492	
15 minute winter	1121	7.001	1122	124.4	2.393	0.679	0.9934	
15 minute winter	1122	7.002	1123	169.1	2.448	0.748	1.7178	
15 minute winter	1123	7.003	1026	189.1	2.686	1.248	0.7795	
15 minute winter	1026	1.026	1027	1831.5	2.491	0.663	18.6944	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1027	14	33.010	1.445	1869.6	7.3787	0.0000	SURCHARGED
15 minute winter	1470	14	32.901	1.011	15.1	1.5441	0.0000	FLOOD RISK
15 minute winter	1028	14	32.894	2.050	1841.0	10.7846	0.0000	SURCHARGED
15 minute winter	1029	14	32.782	1.990	1839.9	9.3983	0.0000	SURCHARGED
15 minute winter	1029a	14	32.690	1.926	1835.3	6.6719	0.0000	SURCHARGED
15 minute winter	1030	14	32.545	1.856	1851.4	8.7961	0.0000	SURCHARGED
15 minute winter	1031	14	32.458	1.786	1885.4	8.7478	0.0000	SURCHARGED
15 minute winter	1130	12	35.182	1.465	80.6	3.6909	0.0000	SURCHARGED
15 minute winter	1032	14	32.299	1.703	1980.0	8.2076	0.0000	SURCHARGED
240 minute winter	1033	156	32.207	1.652	517.3	7.7501	0.0000	SURCHARGED
240 minute winter	1034	156	32.202	1.696	513.5	7.9726	0.0000	SURCHARGED
240 minute winter	1035	156	32.198	1.722	534.1	8.8750	0.0000	SURCHARGED
240 minute winter	1036	160	32.191	1.805	539.3	8.6536	0.0000	SURCHARGED
15 minute winter	1140	11	34.719	0.091	39.6	0.2365	0.0000	OK
15 minute winter	1141	11	32.515	0.182	89.9	0.4542	0.0000	OK
240 minute winter	1037	160	32.187	1.815	561.6	8.5843	0.0000	SURCHARGED
240 minute winter	1038	160	32.183	1.837	566.5	8.7389	0.0000	SURCHARGED
240 minute winter	1039	160	32.175	1.956	564.9	0.0000	0.0000	FLOOD RISK
15 minute winter	1150	11	34.252	0.080	30.9	0.1393	0.0000	OK
15 minute winter	1480	11	33.563	0.119	19.4	0.1925	0.0000	OK
15 minute winter	1151	11	32.804	0.099	73.1	0.2747	0.0000	OK
180 minute winter	1152	128	32.171	0.255	22.0	0.0000	0.0000	OK
240 minute winter	1040	160	32.168	2.268	592.8	2292.2860	0.0000	FLOOD RISK
15 minute winter	1160	11	39.712	0.061	11.5	0.0829	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	1027	1.027	1028	1783.4	2.753	0.343	35.3189	
15 minute winter	1470	36.000	1028	14.7	0.899	0.369	0.4715	
15 minute winter	1028	1.028	1029	1824.8	1.620	0.969	29.4161	
15 minute winter	1029	1.029	1029a	1835.3	1.629	0.974	15.8021	
15 minute winter	1029a	1.030	1030	1831.1	1.625	1.068	50.9825	
15 minute winter	1030	1.031	1031	1848.1	1.640	1.082	11.6423	
15 minute winter	1031	1.032	1032	1882.9	1.671	1.098	51.5965	
15 minute winter	1130	8.000	1032	69.5	3.951	1.228	0.2853	
15 minute winter	1032	1.033	1033	1978.9	1.757	0.951	18.9648	
240 minute winter	1033	1.034	1034	506.8	1.039	0.268	27.3317	
240 minute winter	1034	1.035	1035	511.1	1.060	0.271	16.7812	
240 minute winter	1035	1.036	1036	531.6	1.068	0.282	50.6478	
240 minute winter	1036	1.037	1037	537.7	1.064	0.285	7.8137	
15 minute winter	1140	9.000	1141	39.6	1.581	0.350	1.2175	
15 minute winter	1141	9.001	1037	89.8	2.886	0.769	0.2855	
240 minute winter	1037	1.038	1038	560.1	1.219	0.300	14.8827	
240 minute winter	1038	1.039	1039	564.9	1.328	0.300	71.7962	
240 minute winter	1039	1.040	1040	564.4	1.423	0.300	56.3580	
15 minute winter	1150	10.000	1151	30.9	2.585	0.236	0.1512	
15 minute winter	1480	37.000	1151	19.4	0.960	0.485	0.2175	
15 minute winter	1151	10.001	1152	73.1	2.074	0.024	1.2066	
180 minute winter	1152	10.002	1040	22.5	1.620	0.006	8.4303	
240 minute winter	1040	Orifice	1041	410.4				
240 minute winter	1040	Infiltration		14.2				
15 minute winter	1160	11.000	1161	11.5	1.085	0.160	0.5163	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1161	13	39.501	0.269	14.9	0.3043	0.0000	SURCHARGED
15 minute winter	1190	12	39.989	0.535	82.0	1.5128	0.0000	SURCHARGED
15 minute winter	1162	13	39.486	0.435	90.6	0.7679	0.0000	SURCHARGED
15 minute winter	1163	13	38.794	1.309	151.9	4.1095	0.0000	FLOOD RISK
15 minute winter	1164	13	38.708	1.262	140.2	2.2298	0.0000	FLOOD RISK
15 minute winter	1165	13	38.578	1.203	134.8	2.1258	0.0000	SURCHARGED
15 minute winter	1166	13	38.441	1.142	154.0	2.4368	0.0000	SURCHARGED
15 minute winter	1200	12	40.580	0.931	43.2	1.8839	0.0000	SURCHARGED
15 minute winter	1201	12	40.431	0.970	111.8	3.0240	0.0000	SURCHARGED
15 minute winter	1202	12	40.097	0.751	150.5	1.7868	0.0000	SURCHARGED
15 minute winter	1203	11	39.484	0.248	168.8	0.5349	0.0000	OK
15 minute winter	1204	13	38.740	0.250	187.0	0.5328	0.0000	OK
15 minute winter	1167	13	38.320	1.212	341.1	3.3129	0.0000	SURCHARGED
15 minute winter	1168	13	38.199	1.116	358.7	3.1817	0.0000	SURCHARGED
15 minute winter	1210	12	39.334	0.735	69.0	1.8803	0.0000	SURCHARGED
15 minute winter	1211	13	38.475	0.120	74.0	0.2347	0.0000	OK
15 minute winter	1169	13	37.994	0.961	450.2	2.7078	0.0000	SURCHARGED
15 minute winter	1170	13	37.817	0.800	450.4	1.4140	0.0000	SURCHARGED
15 minute winter	1220	12	37.581	0.751	42.4	1.6853	0.0000	SURCHARGED
1440 minute winter	1171	1440	37.562	1.313	29.1	2.3201	0.0000	SURCHARGED
1440 minute winter	1172	1440	37.562	1.329	28.8	0.0000	0.0000	SURCHARGED
1440 minute winter	1230	1440	37.562	0.866	3.2	2.4154	0.0000	FLOOD RISK
1440 minute winter	1231	1440	37.562	1.057	3.1	0.0000	0.0000	SURCHARGED
1440 minute winter	1173	1440	37.562	1.552	31.7	985.2384	0.0000	SURCHARGED
1440 minute winter	1174	1440	36.006	0.016	1.3	0.0274	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	1161	11.001	1162	18.2	0.549	0.456	1.2077	
15 minute winter	1190	12.000	1162	79.1	2.060	1.162	0.9383	
15 minute winter	1162	11.002	1163	78.5	2.439	0.696	1.2083	
15 minute winter	1163	11.003	1164	140.2	1.271	1.268	1.4022	
15 minute winter	1164	11.004	1165	134.8	1.222	1.219	2.5547	
15 minute winter	1165	11.005	1166	137.3	1.245	1.242	2.7054	
15 minute winter	1166	11.006	1167	157.8	1.431	1.427	1.4751	
15 minute winter	1200	13.000	1201	40.6	1.022	1.017	0.7563	
15 minute winter	1201	13.001	1202	108.7	1.544	1.522	1.9410	
15 minute winter	1202	13.002	1203	149.8	2.156	2.097	1.7504	
15 minute winter	1203	13.003	1204	169.9	3.091	0.877	1.5292	
15 minute winter	1204	13.004	1167	183.7	3.466	0.505	0.7253	
15 minute winter	1167	11.007	1168	337.2	1.561	1.550	2.6667	
15 minute winter	1168	11.008	1169	358.5	1.660	1.651	5.3084	
15 minute winter	1210	14.000	1211	64.8	1.871	1.620	1.2565	
15 minute winter	1211	14.001	1169	72.8	3.713	0.383	0.2381	
15 minute winter	1169	11.009	1170	450.4	2.306	2.070	1.6665	
15 minute winter	1170	11.010	1171	450.9	2.087	0.694	9.2643	
15 minute winter	1220	15.000	1171	38.2	0.965	0.956	1.8795	
1440 minute winter	1171	11.011	1172	28.8	0.491	0.132	1.7168	
1440 minute winter	1172	11.012	1173	28.7	0.481	0.132	8.6999	
1440 minute winter	1230	16.000	1231	3.1	0.543	0.077	1.2745	
1440 minute winter	1231	16.001	1173	3.0	0.472	0.076	0.8005	
1440 minute winter	1173	11.013	1174	1.3	0.416	0.004	0.0333	
1440 minute winter	1174	11.014	1178	1.3	0.389	0.001	6.5152	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1240	11	36.511	0.089	34.5	0.1814	0.0000	OK
1440 minute winter	1178	1440	35.989	1.389	2.8	0.0000	0.0000	SURCHARGED
15 minute winter	1250	12	44.210	0.840	51.1	2.3720	0.0000	SURCHARGED
15 minute winter	1251	12	44.041	0.783	78.5	1.8928	0.0000	SURCHARGED
15 minute winter	1252	12	43.259	0.490	89.7	1.0326	0.0000	SURCHARGED
15 minute winter	1253	11	42.404	0.369	226.8	1.1686	0.0000	OK
15 minute winter	1254	12	43.114	0.588	68.3	1.8687	0.0000	SURCHARGED
15 minute winter	1255	11	42.031	0.180	60.4	0.4596	0.0000	OK
15 minute winter	1256	11	41.958	0.137	94.2	0.3164	0.0000	OK
15 minute winter	1257	12	41.369	0.349	94.2	0.6167	0.0000	OK
15 minute winter	1258	12	41.356	0.356	102.7	0.6916	0.0000	OK
15 minute winter	1259	12	41.340	0.359	137.4	0.8098	0.0000	OK
15 minute winter	1260	12	41.292	0.455	265.2	2.0045	0.0000	OK
15 minute winter	1261	12	41.151	0.448	349.3	1.8201	0.0000	OK
15 minute winter	1280	12	42.133	0.644	40.3	1.6753	0.0000	SURCHARGED
15 minute winter	1281	12	41.998	0.813	93.6	2.4054	0.0000	SURCHARGED
15 minute winter	1262	12	41.037	0.371	445.0	0.9737	0.0000	OK
15 minute winter	1263	12	40.707	0.291	515.9	1.1079	0.0000	OK
15 minute winter	1264	12	39.446	0.447	584.8	1.6752	0.0000	OK
15 minute winter	1265	12	39.165	0.495	614.6	1.5105	0.0000	OK
15 minute winter	1290	10	39.174	0.089	23.7	0.1451	0.0000	OK
15 minute winter	1266	12	38.855	0.529	636.8	1.3452	0.0000	OK
15 minute winter	1267	12	38.583	0.537	662.1	1.6193	0.0000	OK
15 minute winter	1268	12	38.252	0.499	677.2	1.4175	0.0000	OK
15 minute winter	1269	12	37.880	0.345	700.3	1.0278	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	1240	17.000	1178	34.5	2.075	0.334	1.2117	
1440 minute winter	1178	11.018	1179	2.4	0.275	0.005	9.2483	
15 minute winter	1250	39.000	1251	43.5	1.094	1.088	0.7473	
15 minute winter	1251	39.001	1252	74.6	1.875	1.159	1.2741	
15 minute winter	1252	39.002	1253	88.6	2.227	1.132	0.8966	
15 minute winter	1253	39.003	1071	225.9	1.607	0.811	3.6308	
15 minute winter	1254	40.000	1253	64.5	1.622	1.512	1.5289	
15 minute winter	1255	18.000	1256	60.4	1.214	0.371	0.5826	
15 minute winter	1256	18.001	1257	94.2	1.712	0.207	2.5839	
15 minute winter	1257	18.002	1258	90.5	0.637	0.416	1.5492	
15 minute winter	1258	18.003	1259	101.4	0.665	0.466	1.4775	
15 minute winter	1259	18.004	1260	136.6	0.879	0.628	5.4797	
15 minute winter	1260	18.005	1261	260.4	1.145	0.851	15.2938	
15 minute winter	1261	18.006	1262	349.0	1.703	0.858	2.1514	
15 minute winter	1280	19.000	1281	37.8	0.949	0.591	0.8033	
15 minute winter	1281	19.001	1262	91.3	2.297	2.059	0.7754	
15 minute winter	1262	18.007	1263	445.6	2.803	0.534	2.7175	
15 minute winter	1263	18.008	1264	517.8	2.854	0.475	10.2222	
15 minute winter	1264	18.009	1265	586.4	2.502	0.579	3.6124	
15 minute winter	1265	18.010	1266	614.9	2.412	0.728	5.8542	
15 minute winter	1290	20.000	1266	23.9	1.653	0.308	0.3626	
15 minute winter	1266	18.011	1267	635.8	2.410	0.736	4.7173	
15 minute winter	1267	18.012	1268	660.8	2.558	0.827	5.6231	
15 minute winter	1268	18.013	1269	676.0	3.204	0.779	2.8778	
15 minute winter	1269	18.014	1270	699.2	3.529	0.549	7.0949	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1270	12	36.766	0.452	699.2	1.1500	0.0000	OK
15 minute winter	1300	12	43.678	0.824	53.9	2.3757	0.0000	SURCHARGED
15 minute winter	1320	12	44.663	0.623	52.5	1.3802	0.0000	SURCHARGED
15 minute winter	1321	12	44.492	0.827	88.7	2.2248	0.0000	SURCHARGED
15 minute winter	1322	12	43.742	0.673	134.1	1.9125	0.0000	SURCHARGED
15 minute winter	1301	12	43.300	0.825	217.5	2.1262	0.0000	SURCHARGED
15 minute winter	1302	12	42.799	0.971	305.7	4.0834	0.0000	SURCHARGED
15 minute winter	1303	12	42.671	0.882	341.8	2.7795	0.0000	SURCHARGED
15 minute winter	1304	12	42.439	0.719	393.5	2.3516	0.0000	SURCHARGED
15 minute winter	1305	12	42.282	0.584	405.1	1.1299	0.0000	SURCHARGED
15 minute winter	1306	12	41.892	0.257	433.0	0.7829	0.0000	OK
15 minute winter	1307	12	41.207	0.334	433.2	0.5908	0.0000	OK
15 minute winter	1308	12	40.430	0.413	480.8	1.0962	0.0000	OK
15 minute winter	1309	12	39.809	0.387	532.9	1.0648	0.0000	OK
15 minute winter	1310	13	39.314	0.361	544.5	0.7229	0.0000	OK
240 minute winter	1311	160	39.221	1.271	134.1	0.0000	0.0000	SURCHARGED
240 minute winter	1312	164	39.214	1.314	133.3	538.2975	0.0000	FLOOD RISK
1440 minute winter	1313	1470	37.689	1.053	29.1	0.0000	0.0000	SURCHARGED
1440 minute winter	1314	1470	37.689	1.189	28.3	498.7543	0.0000	SURCHARGED
15 minute winter	1271	12	36.397	0.536	716.3	1.5671	0.0000	OK
15 minute winter	1272	12	36.061	0.516	776.3	1.8949	0.0000	OK
1440 minute winter	1273	1410	35.997	1.193	154.0	3.9517	0.0000	SURCHARGED
1440 minute winter	1274	1410	35.993	1.393	92.0	0.0000	0.0000	SURCHARGED
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	1270	18.015	1271	696.2	2.838	0.567	3.5284	
15 minute winter	1300	21.000	1301	48.1	1.209	1.202	1.5294	
15 minute winter	1320	22.000	1321	48.0	1.363	0.635	0.7107	
15 minute winter	1321	22.001	1322	83.6	2.102	1.107	0.9872	
15 minute winter	1322	22.002	1301	131.5	2.266	0.816	1.7480	
15 minute winter	1301	21.001	1302	218.4	1.980	0.891	3.6605	
15 minute winter	1302	21.002	1303	306.3	1.418	1.408	4.1375	
15 minute winter	1303	21.003	1304	342.3	1.585	1.574	7.2801	
15 minute winter	1304	21.004	1305	393.9	1.823	1.811	2.3781	
15 minute winter	1305	21.005	1306	405.4	2.357	1.864	4.9465	
15 minute winter	1306	21.006	1307	433.2	3.463	0.347	1.4489	
15 minute winter	1307	21.007	1308	433.5	2.660	0.664	7.7608	
15 minute winter	1308	21.008	1309	480.4	2.735	0.843	7.6163	
15 minute winter	1309	21.009	1310	532.0	3.456	0.651	2.6990	
15 minute winter	1310	21.010	1311	540.7	2.673	0.461	3.2305	
240 minute winter	1311	21.011	1312	133.3	1.203	0.562	4.4650	
240 minute winter	1312	Weir	1313	70.9				
240 minute winter	1312	Infiltration		0.3				
1440 minute winter	1313	21.013	1314	28.3	0.787	0.061	8.3638	
1440 minute winter	1314	Weir	1271	0.0				
1440 minute winter	1314	Infiltration		1.4				
15 minute winter	1271	18.016	1272	717.2	2.745	0.757	4.3768	
15 minute winter	1272	18.017	1273	774.9	3.344	0.834	5.5856	
1440 minute winter	1273	18.018	1274	92.0	0.702	0.048	13.9468	
1440 minute winter	1274	18.019	1179	71.2	0.879	0.051	19.5722	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1179	1440	35.989	1.539	72.8	1361.6230	0.0000	SURCHARGED
15 minute winter	1180	13	34.550	0.325	66.2	1.1441	0.0000	SURCHARGED
15 minute winter	1181	13	34.321	0.895	76.3	1.1445	0.0000	SURCHARGED
15 minute winter	1182	13	34.000	1.411	87.9	2.1035	0.0000	SURCHARGED
15 minute winter	1183	12	33.214	2.000	114.2	3.3437	0.1444	FLOOD
15 minute winter	1184	13	32.246	1.202	110.3	3.0581	0.0000	FLOOD RISK
15 minute winter	1330	12	32.736	0.790	64.7	2.3299	0.0000	FLOOD RISK
15 minute winter	1331	12	32.389	1.002	78.9	1.7804	0.0000	FLOOD RISK
15 minute winter	1340	11	32.198	0.108	45.3	0.2232	0.0000	OK
15 minute winter	1332	12	31.557	0.502	135.1	0.6857	0.0000	SURCHARGED
720 minute winter	1333	690	31.508	0.708	14.9	1.1165	0.0000	FLOOD RISK
720 minute winter	1334	690	31.508	0.858	27.4	411.2336	0.0000	FLOOD RISK
240 minute winter	1041	160	29.106	0.699	413.6	2.6275	0.0000	SURCHARGED
240 minute winter	1350	160	28.463	0.425	6.7	0.7327	0.0000	SURCHARGED
240 minute winter	1042	160	28.462	0.789	422.9	2.5667	0.0000	SURCHARGED
240 minute winter	1043	160	27.760	0.287	431.4	1.1050	0.0000	OK
15 minute winter	1360	11	26.284	0.142	26.6	0.3299	0.0000	OK
240 minute winter	1044	160	26.125	0.320	441.2	1.1204	0.0000	OK
240 minute winter	1045	156	24.969	0.216	444.3	0.4936	0.0000	OK
15 minute winter	1370	11	27.787	0.281	53.2	0.8056	0.0000	SURCHARGED
15 minute winter	1371	12	27.532	0.242	51.2	0.2734	0.0000	SURCHARGED
15 minute winter	1372	12	27.399	0.194	51.1	0.2197	0.0000	OK
15 minute winter	1373	11	27.279	0.171	69.2	0.2597	0.0000	OK
15 minute winter	1374	12	26.891	0.141	68.9	0.1590	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)
1440 minute winter	1179	Hydro-Brake®	1151	3.8				
15 minute winter	1180	41.000	1181	66.2	2.597	0.587	0.6814	
15 minute winter	1181	41.001	1182	65.6	2.388	0.582	0.7154	
15 minute winter	1182	41.002	1183	80.5	2.024	0.685	1.0820	
15 minute winter	1183	41.003	1184	110.3	2.775	2.126	0.6778	
15 minute winter	1184	41.004	1334	108.1	2.719	2.063	0.9547	
15 minute winter	1330	23.000	1331	57.9	1.457	0.704	0.8945	
15 minute winter	1331	23.001	1332	78.4	1.972	1.961	1.2183	
15 minute winter	1340	24.000	1332	45.3	1.539	0.471	0.8268	
15 minute winter	1332	23.002	1333	134.7	1.914	1.576	1.0159	
720 minute winter	1333	23.003	1334	14.8	0.392	0.076	0.3521	
720 minute winter	1334	Weir	1041	1.4				
720 minute winter	1334	Infiltration		2.1				
240 minute winter	1041	1.042	1042	413.2	2.608	0.792	4.4912	
240 minute winter	1350	25.000	1042	6.7	0.742	0.167	0.9365	
240 minute winter	1042	1.043	1043	422.7	2.892	1.472	3.3528	
240 minute winter	1043	1.044	1044	431.4	3.795	0.675	4.8758	
15 minute winter	1360	26.000	1044	26.6	1.047	0.665	0.4783	
240 minute winter	1044	1.045	1045	440.9	4.589	0.645	2.2639	
240 minute winter	1045	1.046	1046	444.8	5.337	0.422	2.3029	
15 minute winter	1370	27.000	1371	51.2	1.302	0.973	0.8371	
15 minute winter	1371	27.001	1372	51.1	1.297	1.016	0.3463	
15 minute winter	1372	27.002	1373	51.3	1.517	0.867	0.2581	
15 minute winter	1373	27.003	1374	68.9	2.537	0.743	0.3287	
15 minute winter	1374	27.004	1375	68.1	2.139	0.539	1.2143	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1375	13	25.942	1.348	114.4	3.7046	0.0000	FLOOD RISK
15 minute winter	1376	11	24.449	1.200	142.4	2.6928	3.7796	FLOOD
15 minute winter	1377	12	23.901	0.900	161.9	2.8407	0.0000	SURCHARGED
15 minute winter	1390	11	27.907	0.102	47.5	0.2147	0.0000	OK
15 minute winter	1391	12	25.138	0.383	124.5	1.2857	0.0000	SURCHARGED
15 minute winter	1378	12	23.734	0.865	275.4	2.2735	0.0000	SURCHARGED
15 minute winter	1379	12	23.472	0.665	291.5	1.2869	0.0000	SURCHARGED
360 minute winter	1380	264	23.465	0.689	63.0	1.4014	0.0000	SURCHARGED
360 minute winter	1046	264	23.464	1.065	446.7	3.0014	0.0000	SURCHARGED
360 minute winter	1047	264	23.437	1.079	444.2	3.1444	0.0000	SURCHARGED
15 minute winter	1400	11	26.114	0.162	87.0	0.4735	0.0000	OK
15 minute winter	1401	11	23.745	0.224	150.2	0.5315	0.0000	OK
360 minute winter	1402	272	23.395	1.030	24.7	1.8199	0.0000	SURCHARGED
360 minute winter	1403	272	23.394	1.533	34.8	4.2207	0.0000	SURCHARGED
360 minute winter	1404	272	23.393	2.794	269.3	1109.3420	0.0000	SURCHARGED
360 minute winter	1048	272	23.413	1.976	437.7	11.8794	0.0000	SURCHARGED
360 minute winter	1049	272	23.393	2.850	441.9	18.4529	0.0000	SURCHARGED
360 minute winter	1050	328	21.510	1.023	240.6	3.3428	0.0000	SURCHARGED
360 minute winter	1051	328	21.478	1.043	244.2	3.4887	0.0000	SURCHARGED
15 minute winter	1052	12	21.478	1.098	312.5	4.8482	0.0000	SURCHARGED
15 minute winter	1410	13	22.346	1.166	54.7	2.6373	0.0000	FLOOD RISK
15 minute winter	1420	13	22.262	1.381	49.6	3.8580	0.0000	FLOOD RISK
360 minute winter	1421	328	21.348	1.173	3.5	2.0726	0.0000	SURCHARGED
360 minute winter	1422	328	21.348	1.248	4.8	2.2051	0.0000	FLOOD RISK
360 minute winter	1423	328	21.348	1.326	119.5	592.2412	0.0000	FLOOD RISK

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	1375	27.005	1376	103.2	2.596	0.992	1.2728	
15 minute winter	1376	27.006	1377	126.0	1.789	1.764	2.9268	
15 minute winter	1377	27.007	1378	160.0	1.451	1.439	2.0074	
15 minute winter	1390	28.000	1391	47.5	1.834	0.423	1.8897	
15 minute winter	1391	28.001	1378	116.5	3.193	0.864	0.9933	
15 minute winter	1378	27.008	1379	275.7	1.740	1.727	3.9769	
15 minute winter	1379	27.009	1380	291.8	1.842	1.828	1.9633	
360 minute winter	1380	27.010	1046	62.9	1.482	0.200	2.5543	
360 minute winter	1046	1.047	1047	441.1	2.505	1.056	7.2906	
360 minute winter	1047	1.048	1048	434.6	3.256	0.214	7.0607	
15 minute winter	1400	29.000	1401	86.9	2.918	0.825	1.7257	
15 minute winter	1401	29.001	1402	148.2	2.550	0.835	2.8886	
360 minute winter	1402	29.002	1403	24.6	1.546	0.128	1.1946	
360 minute winter	1403	29.003	1404	34.8	1.857	0.180	0.3521	
360 minute winter	1404	29.004	1049	-245.4	-0.688	-0.589	10.0347	
360 minute winter	1048	1.049	1049	432.9	1.213	0.218	7.1588	
360 minute winter	1049	Orifice	1050	237.1				
360 minute winter	1050	1.051	1051	240.1	1.109	0.785	7.2695	
360 minute winter	1051	1.052	1052	243.6	1.275	0.796	7.8120	
15 minute winter	1052	1.053	1053	271.2	1.544	0.637	10.8995	
15 minute winter	1410	30.000	1411	44.6	1.338	0.601	0.6717	
15 minute winter	1420	31.000	1411	42.5	1.068	1.063	0.2879	
360 minute winter	1421	38.000	1422	-3.5	-0.022	-0.003	1.7849	
360 minute winter	1422	38.001	1423	-4.8	0.020	-0.004	1.7849	
360 minute winter	1423	38.002	1424	-119.5	0.901	-0.102	18.8288	

Results for 100 year +40% CC +6% A Critical Storm Duration. Lowest mass balance: 98.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1424	328	21.348	2.150	120.8	3.7995	0.0000	SURCHARGED
15 minute winter	1411	13	22.190	1.428	110.8	3.2646	0.0000	FLOOD RISK
15 minute winter	1412	12	21.830	1.193	127.8	2.5471	0.0000	SURCHARGED
15 minute winter	1053	12	21.452	1.296	418.9	8.2032	0.0000	SURCHARGED
15 minute winter	1054	12	21.419	1.998	447.3	12.9491	0.0000	SURCHARGED
360 minute winter	1055	328	21.361	2.240	266.6	14.0551	0.0000	SURCHARGED
360 minute winter	1056	328	21.348	2.352	271.2	15.0125	0.0000	FLOOD RISK
15 minute winter	1057	12	18.782	0.217	234.7	1.3551	0.0000	OK
15 minute winter	1058	12	18.176	0.179	269.7	0.4172	0.0000	OK
15 minute winter	1059	11	16.455	0.209	320.1	0.7027	0.0000	OK
15 minute winter	1060	12	14.524	0.211	319.9	0.3731	0.0000	OK
15 minute winter	1430	11	20.339	0.052	10.8	0.0704	0.0000	OK
15 minute winter	1440	13	20.003	0.645	73.4	2.0698	0.0000	SURCHARGED
15 minute winter	1431	13	19.957	0.649	112.5	1.4863	0.0000	SURCHARGED
15 minute winter	1432	13	19.549	0.981	165.9	2.7858	0.0000	SURCHARGED
15 minute winter	1433	13	18.983	1.113	183.1	3.1300	0.0000	SURCHARGED
15 minute winter	1450	13	17.685	1.097	30.9	2.3112	0.0000	SURCHARGED
15 minute winter	1434	13	17.614	1.247	238.1	3.4371	0.0000	FLOOD RISK
15 minute winter	1435	12	15.067	0.290	285.6	0.8159	0.0000	OK
15 minute winter	1436	12	13.847	0.262	285.7	0.3753	0.0000	OK
1440 minute winter	1061	1500	12.856	3.725	165.8	5555.4240	0.0000	FLOOD RISK
1440 minute winter	1062	1500	8.952	0.050	8.3	0.0563	0.0000	OK
1440 minute winter	1063	1500	7.194	0.071	8.3	0.0804	0.0000	OK
1440 minute winter	1064	1500	7.019	0.069	8.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	1423	Infiltration		11.5				
360 minute winter	1424	38.003	1056	-120.8	-0.338	-0.105	4.8424	
15 minute winter	1411	30.001	1412	113.6	1.613	1.591	2.1186	
15 minute winter	1412	30.002	1053	137.4	1.951	1.924	1.7994	
15 minute winter	1053	1.054	1054	422.0	2.332	0.256	8.5150	
15 minute winter	1054	1.055	1055	467.2	1.472	0.455	8.9512	
360 minute winter	1055	1.056	1056	265.7	0.789	0.247	3.4081	
360 minute winter	1056	Orifice	1057	194.7				
15 minute winter	1057	1.058	1058	235.5	2.709	0.193	2.9291	
15 minute winter	1058	1.059	1059	270.2	3.192	0.154	4.2442	
15 minute winter	1059	1.060	1060	319.9	3.969	0.309	3.4444	
15 minute winter	1060	1.061	1061	320.3	4.087	0.320	5.0426	
15 minute winter	1430	32.000	1431	10.8	1.364	0.118	0.6378	
15 minute winter	1440	33.000	1431	71.7	1.155	1.004	0.8524	
15 minute winter	1431	32.001	1432	111.3	1.718	0.897	4.1863	
15 minute winter	1432	32.002	1433	135.2	2.289	0.859	2.4650	
15 minute winter	1433	32.003	1434	171.1	2.535	0.889	3.5480	
15 minute winter	1450	34.000	1434	25.5	0.861	0.637	0.9738	
15 minute winter	1434	32.004	1435	235.2	3.340	1.205	3.4817	
15 minute winter	1435	32.005	1436	285.7	3.287	0.845	3.6489	
15 minute winter	1436	32.006	1061	285.1	3.604	0.777	4.8876	
1440 minute winter	1061	Hydro-Brake®	1062	8.3				
1440 minute winter	1062	1.063	1063	8.3	0.974	0.108	0.7028	
1440 minute winter	1063	1.064	1064	8.3	0.791	0.209	0.3071	574.7

