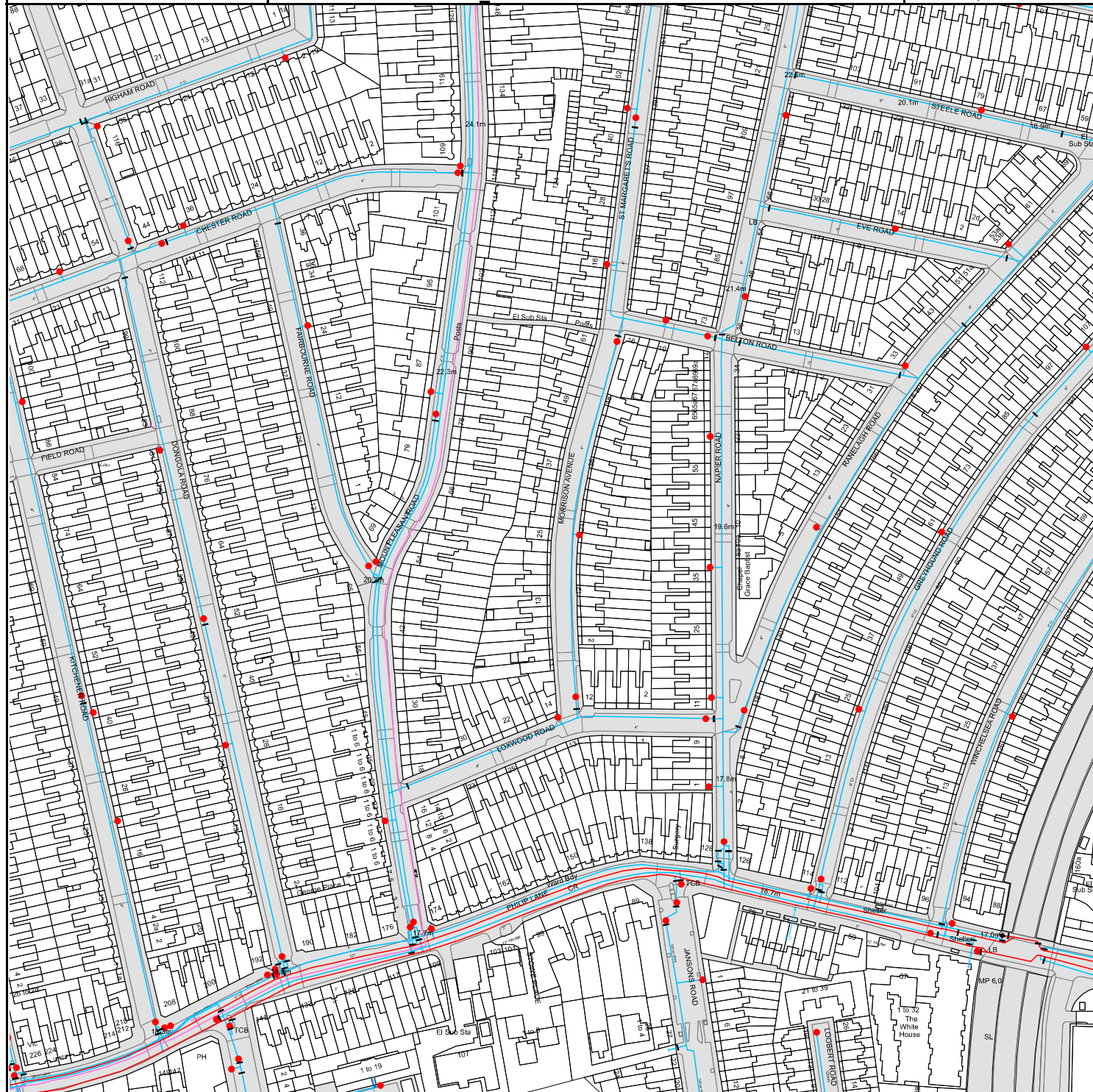




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 532750,190250

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

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



The width of the displayed area is 500m and the centre of the map is located at OS coordinates 533250,189750

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

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

-  **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
-  **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
-  **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
-  **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
-  **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
-  **Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
-  **Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

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

Thames Water Utilities Ltd, Property Searches, PO Box 3189, Slough SL1 4W, DX 151280 Slough 13
T 0845 070 9148 E searches@thameswater.co.uk | www.thameswater-propertysearches.co.uk

Valves

-  General Purpose Valve
-  Air Valve
-  Pressure Control Valve
-  Customer Valve

Hydrants

-  Single Hydrant

Meters

-  Meter

End Items

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

-  Blank Flange
-  Capped End
-  Emptying Pit
-  Undefined End
-  Manifold
-  Customer Supply
-  Fire Supply

Operational Sites

-  Booster Station
-  Other
-  Other (Proposed)
-  Pumping Station
-  Service Reservoir
-  Shaft Inspection
-  Treatment Works
-  Unknown
-  Water Tower

Other Symbols

-  Data Logger

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

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

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

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call 0845 070 9148 quoting your invoice number starting CBA or ADS / OSS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater. co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number	Made payable to ' Thames Water Utilities Ltd ' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13

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Terms and Conditions

Search Code



IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

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- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if the Ombudsman finds that you have suffered actual loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details

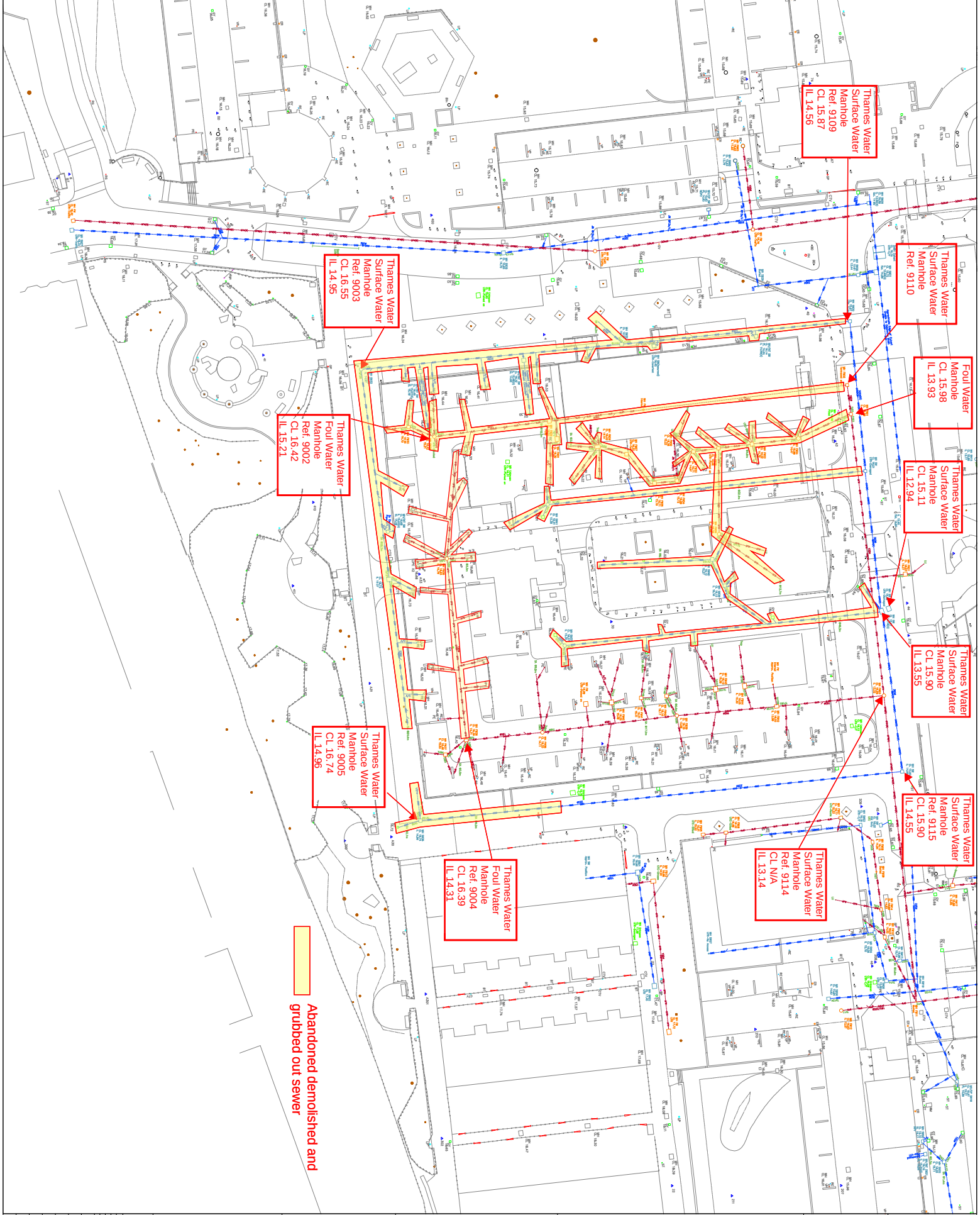
The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Web site: www.tpos.co.uk
Email: admin@tpos.co.uk

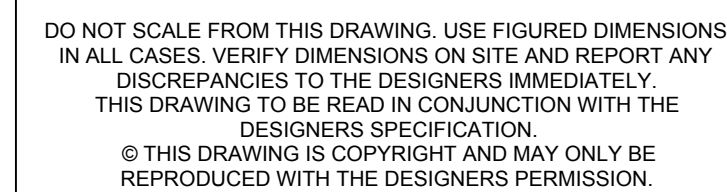
You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Appendix D

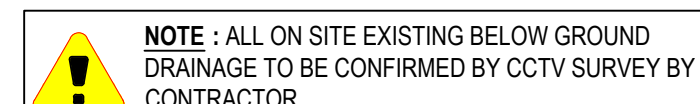
MWP – Sewer Abandonment Plan





1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, BILLS OF QUANTITIES, ARCHITECTURAL, SERVICES AND ENGINEERING DRAWINGS.
2. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE. TBC ON SITE
4. ALL LEVELS ARE IN METRES RELATED TO ORDNANCE DATUM. TBC ON SITE
5. DRAWINGS ARE NOT TO BE SCALED.
6. ALL TEMPORARY WORKS TO CONTRACTORS DETAILS.
7. CONTRACTOR TO APPROVE ALL SET OUT INFORMATION PRIOR TO CONSTRUCTION.

 SITE BOUNDARY
 EXISTING THAMES FOUL WATER SEWER
 EXISTING THAMES FOUL WATER SEWER TO BE ABANDONED
 EXISTING THAMES SURFACE WATER SEWER
 EXISTING THAMES SURFACE WATER SEWER TO BE ABANDONED
 EXISTING PRIVATE FOUL WATER PIPE
 EXISTING PRIVATE SURFACE WATER SEWER
 NEW SURFACE WATER SEWER



 **NOTE: ALL EXISTING THAMES WATER ASSETS ARE SHOWN APPROXIMATELY AND NEED TO BE CONFIRMED ON SITE BY CONTRACTOR**

P01	05.03.26	issued for information	DO	

Tangmere

TITLE:

SEWER ABANDONMENT

CLIENT:

Formation D&B Ltd

MWP
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
CORIE | TRALEE | LONDON | LIMERICK

DRAWN: VH	CHECKED: SZ	APPROVED: RS
PROJECT NUMBER: 26015	DATE: 02/02/26	SCALE @ A: As indicated
STATUS DESCRIPTION: FOR INFORMATION		STATUS: S2
DRAWING NUMBER: TAN-MWP-XX-00-DR-CV-2300		REV: P01

SCALE1 : 150

Appendix E

MWP – Existing Runoff Rates Calculations

Tangmere Main Block

Project No.	26015
Date	Mar-26
Design By	DO
Checked By	RS
Calc Pg No.	1

Surface Water Run-off Calculation:

SW run-off from pre-developed site:

Impermeable area =	5094	m ²
Permeable area =	0	m ²
Proposed Discharge from Site =	2.5	l/s

Formula for calculating run-off from impermeable areas:

$$Q = 2.78 C i A$$

C = Run-off Coefficient =	0.9
i = rainfall intensity (50mm/hr)	50 mm/h for an average 1 in 2 year storm event
A = impermeable area	0.5094 hectares

Hydrological Growth Curve Factors:

1 year factor =	0.85
30 year factor =	2.3
100 year factor =	3.19

Run-off from impermeable Surfaces:

Surface	Area (ha) (ha)	Coefficient © ©	Storm Event (1 in x yr)	Growth Curve Factor	Surface Water Run-off Discharge Rate (l/s)
Hard Standing	0.5094	0.9	1	0.85	54.17
	0.5094	0.9	30	2.3	146.57
	0.5094	0.9	100	3.19	203.29
	0.5094	0.9	100 + 40% CC	3.19	284.60

Summary of Existing Run-off:

Storm Event (1 in x yr)	Discharge from permeable area of site (l/s)	Discharge from impermeable area of site (l/s)	Total Discharge from Site (l/s)
1	0	54.17	54.17
30	0	146.57	146.57
100	0	203.29	203.29
100+40%CC	0	284.60	284.60

Existing vs Proposed Runoff rates:

Storm Event (1 in x yr)	Existing Discharge from Site (l/s)	Proposed Discharge from Site (l/s)	Reduction (l/s)
1	54.17	2.50	95%
30	146.57	2.50	98%
100	203.29	2.50	99%
100+40%CC	284.60	2.50	99%

Appendix F

MWP – Greenfield Runoff Rate

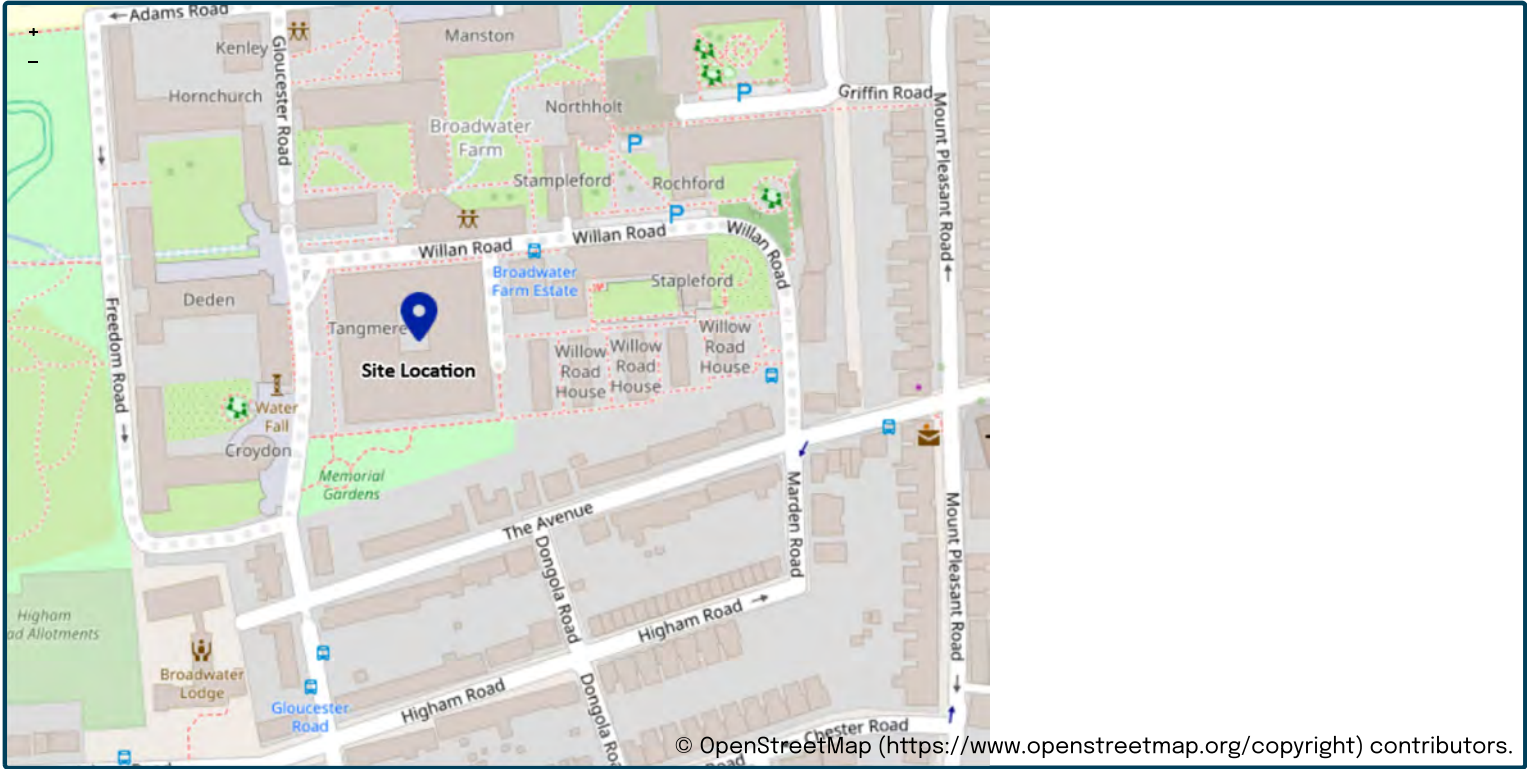
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015).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

Project details

Date	03/03/2026
Calculated by	David Omonitan
Reference	Tangmere
Model version	2.2.3

Location

Site name	Tangmere
Site location	Harringey



Site easting (British National Grid)	532952
Site northing (British National Grid)	190087

Site details

Total site area (ha)	0.5094	ha
----------------------	--------	----

Greenfield runoff

Method

Method	IH124
--------	-------

IH124

	<u>My value</u>		<u>Map value</u>
SAAR (mm)	631	mm	631
How should SPR be derived?	WRAP soil type		
WRAP soil type	2		2
SPR	0.3		
QBar (IH124) (l/s)	0.8	l/s	

Growth curve factors

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

Results

Method	IH124	
Flow rate 1 year (l/s)	0.7	l/s
Flow rate 2 year (l/s)	0.7	l/s
Flow rate 10 years (l/s)	1.3	l/s
Flow rate 30 years (l/s)	1.9	l/s
Flow rate 100 years (l/s)	2.6	l/s
Flow rate 200 years (l/s)	3.1	l/s

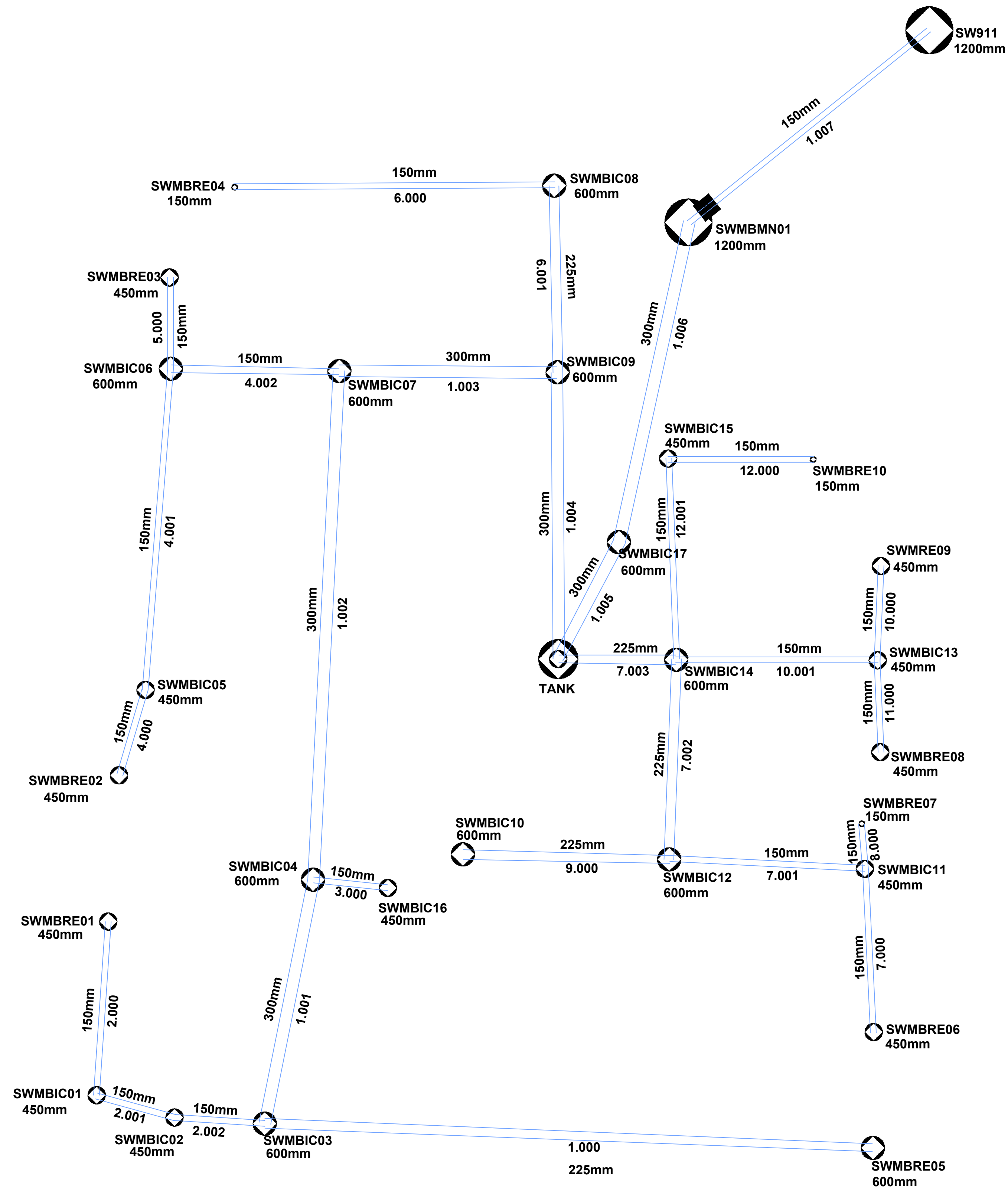
Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent 'zero' figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.2.3) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com) (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Appendix G

MWP – Causeway Flow Simulation Report



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
SWMBRE04		5.00	16.150	150	22.237	64.784	0.800	15.350
SWMBIC08	0.028	5.00	16.150	600	30.297	64.824	1.120	15.030
SWMBIC09	0.031	5.00	16.140	600	30.382	60.100	1.410	14.730
SWMBRE03		5.00	16.150	450	20.596	62.501	0.600	15.550
SWMBIC06	0.015	5.00	16.000	600	20.627	60.190	0.820	15.180
SWMBIC07	0.031	5.00	16.130	600	24.878	60.131	1.265	14.865
SWMBRE02	0.005	5.00	16.100	450	19.321	49.898	0.550	15.550
SWMBIC05	0.010	5.00	16.150	450	19.990	52.061	0.675	15.475
SWMBRE01	0.004	5.00	16.250	450	19.050	46.198	0.550	15.700
SWMBIC01	0.004	5.00	16.300	450	18.756	41.803	0.650	15.650
SWMBIC02			16.280	450	20.720	41.239	0.680	15.600
SWMBIC03	0.055	5.00	16.300	600	22.996	41.084	0.940	15.360
SWMBRE05	0.020	5.00	16.480	600	38.332	40.469	0.725	15.755
SWMBIC04	0.035	5.00	16.345	600	24.214	47.259	1.075	15.270
SWMBIC10	0.030	5.00	16.165	600	27.993	47.899	0.800	15.365
SWMBIC12			16.290	600	33.195	47.772	1.150	15.140
SWMBRE06		5.00	16.500	450	38.352	43.402	0.950	15.550
SWMBIC11	0.014	5.00	16.275	450	38.129	47.533	0.885	15.390
SWMBIC14	0.050	5.00	16.150	600	33.374	52.826	1.195	14.955
SWMBIC13	0.014	5.00	16.200	450	38.453	52.811	0.665	15.535
SWMBRE08		5.00	16.200	450	38.518	50.485	0.600	15.600
SWMBRE09		5.00	16.200	450	38.535	55.196	0.600	15.600
SWMBRE10	0.006	5.00	16.085	150	36.826	57.895	0.790	15.295
SWMBIC15			16.085	450	33.169	57.916	0.900	15.185
TANK			16.070	450	30.397	52.841	1.370	14.700
SWMBMN01	0.040	5.00	16.100	1200	33.680	63.895	1.530	14.570
SW911			15.925	1200	39.757	68.757	2.306	13.619
SWMBRE07		5.00	16.200	150	38.053	48.675	0.600	15.600
SWMBIC16		5.00	16.180	450	26.100	47.048	0.695	15.485
SWMBIC17			16.085	600	31.927	55.800	1.405	14.680

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)
6.000	SWMBRE04	SWMBIC08	36.765	0.600	15.350	15.105	0.245	150.1	150	5.75	50.0
6.001	SWMBIC08	SWMBIC09	17.969	0.600	15.030	14.805	0.225	79.9	225	5.95	50.0
5.000	SWMBRE03	SWMBIC06	7.603	0.600	15.550	15.180	0.370	20.5	150	5.06	50.0
4.002	SWMBIC06	SWMBIC07	18.101	0.600	15.180	15.015	0.165	109.7	150	5.99	50.0
1.003	SWMBIC07	SWMBIC09	21.162	0.600	14.865	14.730	0.135	156.8	300	6.77	50.0
4.000	SWMBRE02	SWMBIC05	7.738	0.600	15.550	15.475	0.075	103.2	150	5.13	50.0
4.001	SWMBIC05	SWMBIC06	31.854	0.600	15.475	15.180	0.295	108.0	150	5.68	50.0
2.000	SWMBRE01	SWMBIC01	6.045	0.600	15.700	15.650	0.050	120.9	150	5.11	50.0
2.001	SWMBIC01	SWMBIC02	6.522	0.600	15.650	15.600	0.050	130.4	150	5.23	50.0
2.002	SWMBIC02	SWMBIC03	11.368	0.600	15.600	15.510	0.090	126.3	150	5.45	50.0
1.000	SWMBRE05	SWMBIC03	48.275	0.600	15.755	15.435	0.320	150.9	225	5.76	50.0
1.001	SWMBIC03	SWMBIC04	20.297	0.600	15.360	15.270	0.090	225.5	300	6.08	50.0
1.002	SWMBIC04	SWMBIC07	38.877	0.600	15.270	14.865	0.405	96.0	300	6.49	50.0
9.000	SWMBIC10	SWMBIC12	17.913	0.600	15.365	15.140	0.225	79.6	225	5.20	50.0
7.000	SWMBRE06	SWMBIC11	15.091	0.600	15.550	15.390	0.160	94.3	150	5.24	50.0
7.001	SWMBIC11	SWMBIC12	13.203	0.600	15.390	15.215	0.175	75.4	150	5.43	50.0
7.002	SWMBIC12	SWMBIC14	25.340	0.600	15.140	14.955	0.185	137.0	225	5.81	50.0
10.001	SWMBIC13	SWMBIC14	13.222	0.600	15.535	15.030	0.505	26.2	150	5.24	50.0
11.000	SWMBRE08	SWMBIC13	3.566	0.600	15.600	15.535	0.065	54.9	150	5.04	50.0
10.000	SWMRE09	SWMBIC13	7.365	0.600	15.600	15.535	0.065	113.3	150	5.13	50.0
12.000	SWMBRE10	SWMBIC15	4.430	0.600	15.295	15.185	0.110	40.3	150	5.05	50.0
12.001	SWMBIC15	SWMBIC14	15.049	0.600	15.185	15.030	0.155	97.1	150	5.29	50.0
7.003	SWMBIC14	TANK	6.750	0.600	14.955	14.910	0.045	150.0	225	5.92	50.0
1.004	SWMBIC09	TANK	7.500	0.600	14.730	14.700	0.030	250.0	300	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)
6.000	0.818	14.5	0.0	0.650	0.895	0.000	0.0	0	0.000
6.001	1.464	58.2	3.8	0.895	1.110	0.028	0.0	39	0.837
5.000	2.231	39.4	0.0	0.450	0.670	0.000	0.0	0	0.000
4.002	0.959	16.9	4.1	0.670	0.965	0.030	0.0	50	0.790
1.003	1.253	88.6	24.3	0.965	1.110	0.179	0.0	107	1.073
4.000	0.989	17.5	0.7	0.400	0.525	0.005	0.0	20	0.476
4.001	0.966	17.1	2.0	0.525	0.670	0.015	0.0	35	0.650
2.000	0.913	16.1	0.5	0.400	0.500	0.004	0.0	19	0.422
2.001	0.878	15.5	1.1	0.500	0.530	0.008	0.0	27	0.503
2.002	0.893	15.8	1.1	0.530	0.640	0.008	0.0	27	0.511
1.000	1.062	42.2	2.7	0.500	0.640	0.020	0.0	38	0.597
1.001	1.043	73.7	11.2	0.640	0.775	0.083	0.0	79	0.759
1.002	1.605	113.4	16.0	0.775	0.965	0.118	0.0	76	1.146
9.000	1.467	58.3	4.1	0.575	0.925	0.030	0.0	40	0.849
7.000	1.035	18.3	0.0	0.800	0.735	0.000	0.0	0	0.000
7.001	1.158	20.5	1.9	0.735	0.925	0.014	0.0	31	0.725
7.002	1.115	44.3	6.0	0.925	0.970	0.044	0.0	56	0.784
10.001	1.975	34.9	1.9	0.515	0.970	0.014	0.0	24	1.058
11.000	1.361	24.0	0.0	0.450	0.515	0.000	0.0	0	0.000
10.000	0.943	16.7	0.0	0.450	0.515	0.000	0.0	0	0.000
12.000	1.590	28.1	0.8	0.640	0.750	0.006	0.0	17	0.695
12.001	1.020	18.0	0.8	0.750	0.970	0.006	0.0	22	0.518
7.003	1.065	42.3	15.4	0.970	0.935	0.114	0.0	94	0.982
1.004	0.990	70.0	32.3	1.110	1.070	0.238	0.0	143	0.971

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)
1.007	SWMBMN01	SW911	11.479	0.600	14.570	13.619	0.951	12.1	150	7.31	50.0
8.000	SWMBRE07	SWMBIC11	12.500	0.600	15.600	15.390	0.210	59.5	150	5.16	50.0
3.000	SWMBIC16	SWMBIC04	6.522	0.600	15.485	15.420	0.065	100.3	150	5.11	50.0
1.005	TANK	SWMBIC17	2.447	0.600	14.700	14.680	0.020	122.4	300	6.92	50.0
1.006	SWMBIC17	SWMBMN01	21.632	0.600	14.680	14.570	0.110	196.7	300	7.25	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)
1.007	2.915	51.5	53.1	1.380	2.156	0.392	0.0	128	3.302
8.000	1.306	23.1	0.0	0.450	0.735	0.000	0.0	0	0.000
3.000	1.003	17.7	0.0	0.545	0.775	0.000	0.0	0	0.000
1.005	1.420	100.4	47.7	1.070	1.105	0.352	0.0	146	1.403
1.006	1.117	79.0	47.7	1.105	1.230	0.352	0.0	168	1.168

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)
6.000	36.765	150.1	150	Circular	16.150	15.350	0.650	16.150	15.105	0.895
6.001	17.969	79.9	225	Circular	16.150	15.030	0.895	16.140	14.805	1.110
5.000	7.603	20.5	150	Circular	16.150	15.550	0.450	16.000	15.180	0.670
4.002	18.101	109.7	150	Circular	16.000	15.180	0.670	16.130	15.015	0.965
1.003	21.162	156.8	300	Circular	16.130	14.865	0.965	16.140	14.730	1.110
4.000	7.738	103.2	150	Circular	16.100	15.550	0.400	16.150	15.475	0.525
4.001	31.854	108.0	150	Circular	16.150	15.475	0.525	16.000	15.180	0.670
2.000	6.045	120.9	150	Circular	16.250	15.700	0.400	16.300	15.650	0.500
2.001	6.522	130.4	150	Circular	16.300	15.650	0.500	16.280	15.600	0.530
2.002	11.368	126.3	150	Circular	16.280	15.600	0.530	16.300	15.510	0.640
1.000	48.275	150.9	225	Circular	16.480	15.755	0.500	16.300	15.435	0.640
1.001	20.297	225.5	300	Circular	16.300	15.360	0.640	16.345	15.270	0.775
1.002	38.877	96.0	300	Circular	16.345	15.270	0.775	16.130	14.865	0.965
9.000	17.913	79.6	225	Circular	16.165	15.365	0.575	16.290	15.140	0.925

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
6.000	SWMBRE04	150	Manhole	Adoptable	SWMBIC08	600	Manhole	Adoptable
6.001	SWMBIC08	600	Manhole	Adoptable	SWMBIC09	600	Manhole	Adoptable
5.000	SWMBRE03	450	Manhole	Adoptable	SWMBIC06	600	Manhole	Adoptable
4.002	SWMBIC06	600	Manhole	Adoptable	SWMBIC07	600	Manhole	Adoptable
1.003	SWMBIC07	600	Manhole	Adoptable	SWMBIC09	600	Manhole	Adoptable
4.000	SWMBRE02	450	Manhole	Adoptable	SWMBIC05	450	Manhole	Adoptable
4.001	SWMBIC05	450	Manhole	Adoptable	SWMBIC06	600	Manhole	Adoptable
2.000	SWMBRE01	450	Manhole	Adoptable	SWMBIC01	450	Manhole	Adoptable
2.001	SWMBIC01	450	Manhole	Adoptable	SWMBIC02	450	Manhole	Adoptable
2.002	SWMBIC02	450	Manhole	Adoptable	SWMBIC03	600	Manhole	Adoptable
1.000	SWMBRE05	600	Manhole	Adoptable	SWMBIC03	600	Manhole	Adoptable
1.001	SWMBIC03	600	Manhole	Adoptable	SWMBIC04	600	Manhole	Adoptable
1.002	SWMBIC04	600	Manhole	Adoptable	SWMBIC07	600	Manhole	Adoptable
9.000	SWMBIC10	600	Manhole	Adoptable	SWMBIC12	600	Manhole	Adoptable

Pipeline Schedule

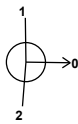
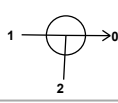
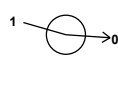
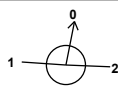
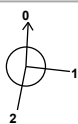
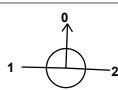
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
7.000	15.091	94.3	150	Circular	16.500	15.550	0.800	16.275	15.390	0.735
7.001	13.203	75.4	150	Circular	16.275	15.390	0.735	16.290	15.215	0.925
7.002	25.340	137.0	225	Circular	16.290	15.140	0.925	16.150	14.955	0.970
10.001	13.222	26.2	150	Circular	16.200	15.535	0.515	16.150	15.030	0.970
11.000	3.566	54.9	150	Circular	16.200	15.600	0.450	16.200	15.535	0.515
10.000	7.365	113.3	150	Circular	16.200	15.600	0.450	16.200	15.535	0.515
12.000	4.430	40.3	150	Circular	16.085	15.295	0.640	16.085	15.185	0.750
12.001	15.049	97.1	150	Circular	16.085	15.185	0.750	16.150	15.030	0.970
7.003	6.750	150.0	225	Circular	16.150	14.955	0.970	16.070	14.910	0.935
1.004	7.500	250.0	300	Circular	16.140	14.730	1.110	16.070	14.700	1.070
1.007	11.479	12.1	150	Circular	16.100	14.570	1.380	15.925	13.619	2.156
8.000	12.500	59.5	150	Circular	16.200	15.600	0.450	16.275	15.390	0.735
3.000	6.522	100.3	150	Circular	16.180	15.485	0.545	16.345	15.420	0.775
1.005	2.447	122.4	300	Circular	16.070	14.700	1.070	16.085	14.680	1.105
1.006	21.632	196.7	300	Circular	16.085	14.680	1.105	16.100	14.570	1.230

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
7.000	SWMBRE06	450	Manhole	Adoptable	SWMBIC11	450	Manhole	Adoptable
7.001	SWMBIC11	450	Manhole	Adoptable	SWMBIC12	600	Manhole	Adoptable
7.002	SWMBIC12	600	Manhole	Adoptable	SWMBIC14	600	Manhole	Adoptable
10.001	SWMBIC13	450	Manhole	Adoptable	SWMBIC14	600	Manhole	Adoptable
11.000	SWMBRE08	450	Manhole	Adoptable	SWMBIC13	450	Manhole	Adoptable
10.000	SWMBRE09	450	Manhole	Adoptable	SWMBIC13	450	Manhole	Adoptable
12.000	SWMBRE10	150	Manhole	Adoptable	SWMBIC15	450	Manhole	Adoptable
12.001	SWMBIC15	450	Manhole	Adoptable	SWMBIC14	600	Manhole	Adoptable
7.003	SWMBIC14	600	Manhole	Adoptable	TANK	450	Manhole	Adoptable
1.004	SWMBIC09	600	Manhole	Adoptable	TANK	450	Manhole	Adoptable
1.007	SWMBMN01	1200	Manhole	Adoptable	SW911	1200	Manhole	Adoptable
8.000	SWMBRE07	150	Manhole	Adoptable	SWMBIC11	450	Manhole	Adoptable
3.000	SWMBIC16	450	Manhole	Adoptable	SWMBIC04	600	Manhole	Adoptable
1.005	TANK	450	Manhole	Adoptable	SWMBIC17	600	Manhole	Adoptable
1.006	SWMBIC17	600	Manhole	Adoptable	SWMBMN01	1200	Manhole	Adoptable

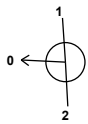
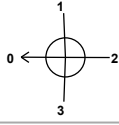
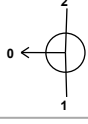
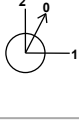
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
SWMBRE04	22.237	64.784	16.150	0.800	150					
						0	6.000	15.350	150	
SWMBIC08	30.297	64.824	16.150	1.120	600		1	6.000	15.105	150
						0	6.001	15.030	225	
SWMBIC09	30.382	60.100	16.140	1.410	600		1	6.001	14.805	225
						2	1.003	14.730	300	
						0	1.004	14.730	300	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
SWMBRE03	20.596	62.501	16.150	0.600	450		0	5.000	15.550	150
SWMBIC06	20.627	60.190	16.000	0.820	600		1 2	5.000 4.001	15.180 15.180	150 150
SWMBIC07	24.878	60.131	16.130	1.265	600		1 2	4.002 1.002	15.015 14.865	150 300
SWMBRE02	19.321	49.898	16.100	0.550	450		0	4.000	15.550	150
SWMBIC05	19.990	52.061	16.150	0.675	450		1 0	4.000 4.001	15.475 15.475	150 150
SWMBRE01	19.050	46.198	16.250	0.550	450		0	2.000	15.700	150
SWMBIC01	18.756	41.803	16.300	0.650	450		1 0	2.000 2.001	15.650 15.650	150 150
SWMBIC02	20.720	41.239	16.280	0.680	450		1 0	2.001 2.002	15.600 15.600	150 150
SWMBIC03	22.996	41.084	16.300	0.940	600		1 2	2.002 1.000	15.510 15.435	150 225
SWMBRE05	38.332	40.469	16.480	0.725	600		0	1.000	15.755	225
SWMBIC04	24.214	47.259	16.345	1.075	600		1 2	3.000 1.001	15.420 15.270	150 300
SWMBIC10	27.993	47.899	16.165	0.800	600		0	9.000	15.365	225
SWMBIC12	33.195	47.772	16.290	1.150	600		1 2	9.000 7.001	15.140 15.215	225 150
							0	7.002	15.140	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
SWMBRE06	38.352	43.402	16.500	0.950	450		0	7.000	15.550	150
SWMBIC11	38.129	47.533	16.275	0.885	450		1 2 0	8.000 7.000	15.390 15.390	150 150
SWMBIC14	33.374	52.826	16.150	1.195	600		1 2 3 0	12.001 10.001 7.002 7.003	15.030 15.030 14.955 14.955	150 150 225 225
SWMBIC13	38.453	52.811	16.200	0.665	450		1 2 0	11.000 10.000	15.535 15.535	150 150
SWMBRE08	38.518	50.485	16.200	0.600	450		0	11.000	15.600	150
SWMRE09	38.535	55.196	16.200	0.600	450		0	10.000	15.600	150
SWMBRE10	36.826	57.895	16.085	0.790	150		0	12.000	15.295	150
SWMBIC15	33.169	57.916	16.085	0.900	450		1 0	12.000 12.001	15.185 15.185	150 150
TANK	30.397	52.841	16.070	1.370	450		1 2 0	7.003 1.004 1.005	14.910 14.700 14.700	225 300 300
SWMBMN01	33.680	63.895	16.100	1.530	1200		1 0	1.006 1.007	14.570 14.570	300 150
SW911	39.757	68.757	15.925	2.306	1200		1	1.007	13.619	150
SWMBRE07	38.053	48.675	16.200	0.600	150		0	8.000	15.600	150
SWMBIC16	26.100	47.048	16.180	0.695	450		0	3.000	15.485	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
SWMBIC17	31.927	55.800	16.085	1.405	600	0	1.005	14.680	300
						1	1.006	14.680	300

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	Check Discharge Rate(s)	x
Rainfall Events	Singular	Drain Down Time (mins)	240	Check Discharge Volume	x
Summer CV	0.750	Additional Storage (m³/ha)	20.0		
Analysis Speed	Normal	Starting Level (m)			

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

Node SWMBMN01 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	14.570	Product Number	CTL-SHE-0077-2500-0914-2500
Design Depth (m)	0.914	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.5	Min Node Diameter (mm)	1200

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	14.700
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.97	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	267.4	267.4	0.914	267.4	320.4	0.915	0.0	320.4

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMBRE04	1	15.350	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC08	10	15.059	0.029	2.1	0.0227	0.0000	OK
15 minute summer	SWMBIC09	9	14.908	0.178	16.9	0.1287	0.0000	OK
15 minute summer	SWMBRE03	1	15.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC06	11	15.217	0.037	2.2	0.0241	0.0000	OK
15 minute summer	SWMBIC07	11	14.941	0.076	12.9	0.0588	0.0000	OK
15 minute summer	SWMBRE02	11	15.566	0.016	0.4	0.0054	0.0000	OK
15 minute summer	SWMBIC05	11	15.501	0.026	1.2	0.0119	0.0000	OK
15 minute summer	SWMBRE01	11	15.714	0.014	0.3	0.0043	0.0000	OK
15 minute summer	SWMBIC01	11	15.671	0.021	0.6	0.0058	0.0000	OK
15 minute summer	SWMBIC02	11	15.620	0.020	0.6	0.0032	0.0000	OK
15 minute summer	SWMBIC03	11	15.419	0.059	5.9	0.0855	0.0000	OK
15 minute summer	SWMBRE05	11	15.783	0.028	1.5	0.0230	0.0000	OK
15 minute summer	SWMBIC04	11	15.325	0.055	8.5	0.0515	0.0000	OK
15 minute summer	SWMBIC10	10	15.395	0.030	2.3	0.0312	0.0000	OK
15 minute summer	SWMBIC12	11	15.181	0.041	3.3	0.0117	0.0000	OK
15 minute summer	SWMBRE06	1	15.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC11	11	15.413	0.023	1.1	0.0111	0.0000	OK
15 minute summer	SWMBIC14	11	15.028	0.073	8.4	0.0819	0.0000	OK
15 minute summer	SWMBIC13	10	15.553	0.018	1.1	0.0106	0.0000	OK
15 minute summer	SWMBRE08	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBRE09	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBRE10	10	15.309	0.014	0.5	0.0023	0.0000	OK
15 minute summer	SWMBIC15	11	15.202	0.017	0.5	0.0026	0.0000	OK
240 minute summer	TANK	168	14.798	0.098	10.7	25.5080	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMBRE04	6.000	SWMBIC08	0.0	0.000	0.000	0.0000	
15 minute summer	SWMBIC08	6.001	SWMBIC09	2.1	0.600	0.036	0.1848	
15 minute summer	SWMBIC09	1.004	TANK	20.2	1.513	0.288	0.1646	
15 minute summer	SWMBRE03	5.000	SWMBIC06	0.0	0.000	0.000	0.0129	
15 minute summer	SWMBIC06	4.002	SWMBIC07	2.2	0.655	0.129	0.0603	
15 minute summer	SWMBIC07	1.003	SWMBIC09	12.7	0.687	0.143	0.5738	
15 minute summer	SWMBRE02	4.000	SWMBIC05	0.4	0.271	0.023	0.0117	
15 minute summer	SWMBIC05	4.001	SWMBIC06	1.1	0.432	0.067	0.0866	
15 minute summer	SWMBRE01	2.000	SWMBIC01	0.3	0.264	0.019	0.0069	
15 minute summer	SWMBIC01	2.001	SWMBIC02	0.6	0.426	0.039	0.0093	
15 minute summer	SWMBIC02	2.002	SWMBIC03	0.6	0.427	0.038	0.0159	
15 minute summer	SWMBIC03	1.001	SWMBIC04	6.0	0.644	0.081	0.1887	
15 minute summer	SWMBRE05	1.000	SWMBIC03	1.3	0.487	0.032	0.1334	
15 minute summer	SWMBIC04	1.002	SWMBIC07	8.5	0.748	0.075	0.4448	
15 minute summer	SWMBIC10	9.000	SWMBIC12	2.3	0.579	0.039	0.0725	
15 minute summer	SWMBIC12	7.002	SWMBIC14	3.3	0.415	0.074	0.2046	
15 minute summer	SWMBRE06	7.000	SWMBIC11	0.0	0.000	0.000	0.0131	
15 minute summer	SWMBIC11	7.001	SWMBIC12	1.0	0.605	0.051	0.0227	
15 minute summer	SWMBIC14	7.003	TANK	8.5	0.798	0.200	0.0716	
15 minute summer	SWMBIC13	10.001	SWMBIC14	1.1	0.881	0.030	0.0159	
15 minute summer	SWMBRE08	11.000	SWMBIC13	0.0	0.000	0.000	0.0022	
15 minute summer	SWMBRE09	10.000	SWMBIC13	0.0	0.000	0.000	0.0045	
15 minute summer	SWMBRE10	12.000	SWMBIC15	0.5	0.523	0.017	0.0040	
15 minute summer	SWMBIC15	12.001	SWMBIC14	0.5	0.434	0.025	0.0158	
240 minute summer	TANK	1.005	SWMBIC17	2.4	0.496	0.024	0.0561	

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	SWMBMN01	168	14.798	0.228	3.2	0.3777	0.0000	SURCHARGED
240 minute summer	SW911	168	13.641	0.022	2.5	0.0000	0.0000	OK
15 minute summer	SWMBRE07	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC16	1	15.485	0.000	0.0	0.0000	0.0000	OK
240 minute summer	SWMBIC17	168	14.798	0.118	2.4	0.0335	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)
240 minute summer	SWMBMN01	1.007	SW911	2.5	1.485	0.048	0.0191	42.8
15 minute summer	SWMBRE07	8.000	SWMBIC11	0.0	0.000	0.000	0.0109	
15 minute summer	SWMBIC16	3.000	SWMBIC04	0.0	0.000	0.000	0.0000	
240 minute summer	SWMBIC17	1.006	SWMBMN01	2.4	0.148	0.030	0.9011	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMBRE04	1	15.350	0.000	0.0	0.0000	0.0000	OK
240 minute summer	SWMBIC08	244	15.166	0.136	3.0	0.1067	0.0000	OK
240 minute summer	SWMBIC09	244	15.166	0.436	25.1	0.3150	0.0000	SURCHARGED
15 minute summer	SWMBRE03	1	15.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC06	11	15.275	0.095	11.7	0.0618	0.0000	OK
240 minute summer	SWMBIC07	244	15.166	0.301	18.9	0.2328	0.0000	SURCHARGED
15 minute summer	SWMBRE02	10	15.584	0.034	2.0	0.0116	0.0000	OK
15 minute summer	SWMBIC05	10	15.535	0.060	5.9	0.0273	0.0000	OK
15 minute summer	SWMBRE01	10	15.732	0.032	1.6	0.0096	0.0000	OK
15 minute summer	SWMBIC01	10	15.699	0.049	3.2	0.0137	0.0000	OK
15 minute summer	SWMBIC02	10	15.647	0.047	3.1	0.0074	0.0000	OK
15 minute summer	SWMBIC03	10	15.505	0.145	32.4	0.2101	0.0000	OK
15 minute summer	SWMBRE05	10	15.820	0.065	7.9	0.0546	0.0000	OK
15 minute summer	SWMBIC04	11	15.400	0.130	45.6	0.1218	0.0000	OK
15 minute summer	SWMBIC10	10	15.434	0.069	11.8	0.0709	0.0000	OK
15 minute summer	SWMBIC12	11	15.236	0.096	17.1	0.0270	0.0000	OK
15 minute summer	SWMBRE06	1	15.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC11	10	15.445	0.055	5.5	0.0260	0.0000	OK
15 minute summer	SWMBIC14	11	15.175	0.220	44.4	0.2463	0.0000	OK
15 minute summer	SWMBIC13	10	15.575	0.040	5.5	0.0233	0.0000	OK
15 minute summer	SWMBRE08	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBRE09	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBRE10	10	15.326	0.031	2.4	0.0052	0.0000	OK
15 minute summer	SWMBIC15	10	15.222	0.037	2.4	0.0058	0.0000	OK
240 minute summer	TANK	244	15.166	0.466	37.4	121.0173	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 summer	SWMBRE04	6.000	SWMBIC08	0.0	0.000	0.000	0.0000	
240 minute summer	SWMBIC08	6.001	SWMBIC09	3.0	0.623	0.051	0.5832	
240 minute summer	SWMBIC09	1.004	TANK	24.1	0.822	0.345	0.5281	
15 minute summer	SWMBRE03	5.000	SWMBIC06	0.0	0.000	0.000	0.0448	
15 minute summer	SWMBIC06	4.002	SWMBIC07	11.5	1.007	0.679	0.2069	
240 minute summer	SWMBIC07	1.003	SWMBIC09	18.8	0.608	0.212	1.4898	
15 minute summer	SWMBRE02	4.000	SWMBIC05	2.0	0.420	0.114	0.0371	
15 minute summer	SWMBIC05	4.001	SWMBIC06	5.8	0.642	0.340	0.2922	
15 minute summer	SWMBRE01	2.000	SWMBIC01	1.6	0.419	0.098	0.0231	
15 minute summer	SWMBIC01	2.001	SWMBIC02	3.1	0.656	0.203	0.0313	
15 minute summer	SWMBIC02	2.002	SWMBIC03	3.1	0.683	0.197	0.0517	
15 minute summer	SWMBIC03	1.001	SWMBIC04	31.8	1.017	0.432	0.6355	
15 minute summer	SWMBRE05	1.000	SWMBIC03	7.8	0.786	0.184	0.4831	
15 minute summer	SWMBIC04	1.002	SWMBIC07	45.4	1.062	0.400	1.6845	
15 minute summer	SWMBIC10	9.000	SWMBIC12	11.7	0.896	0.201	0.2352	
15 minute summer	SWMBIC12	7.002	SWMBIC14	16.9	0.586	0.382	0.7039	
15 minute summer	SWMBRE06	7.000	SWMBIC11	0.0	0.000	0.000	0.0439	
15 minute summer	SWMBIC11	7.001	SWMBIC12	5.4	0.957	0.264	0.0746	
15 minute summer	SWMBIC14	7.003	TANK	43.8	1.186	1.035	0.2453	
15 minute summer	SWMBIC13	10.001	SWMBIC14	5.5	1.035	0.157	0.1398	
15 minute summer	SWMBRE08	11.000	SWMBIC13	0.0	0.000	0.000	0.0068	
15 minute summer	SWMBRE09	10.000	SWMBIC13	0.0	0.000	0.000	0.0140	
15 minute summer	SWMBRE10	12.000	SWMBIC15	2.4	0.811	0.085	0.0131	
15 minute summer	SWMBIC15	12.001	SWMBIC14	2.4	0.473	0.131	0.1559	
240 minute summer	TANK	1.005	SWMBIC17	5.6	0.500	0.056	0.1723	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	SWMBMN01	244	15.166	0.596	4.3	0.9855	0.0000	SURCHARGED
60 minute summer	SW911	33	13.642	0.023	2.5	0.0000	0.0000	OK
15 minute summer	SWMBRE07	1	15.600	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SWMBIC16	1	15.485	0.000	0.0	0.0000	0.0000	OK
240 minute summer	SWMBIC17	244	15.163	0.483	5.6	0.1368	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)
240 minute summer	SWMBMN01	1.007	SW911	2.5	1.491	0.049	0.0193	59.7
15 minute summer	SWMBRE07	8.000	SWMBIC11	0.0	0.000	0.000	0.0364	
15 minute summer	SWMBIC16	3.000	SWMBIC04	0.0	0.000	0.000	0.0000	
240 minute summer	SWMBIC17	1.006	SWMBMN01	2.8	0.137	0.035	1.5233	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.31%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	SWMBRE04	480	16.000	0.650	0.4	0.0117	0.0000	FLOOD RISK
480 minute summer	SWMBIC08	472	16.000	0.970	3.2	0.7598	0.0000	FLOOD RISK
480 minute summer	SWMBIC09	472	16.000	1.270	25.7	0.9173	0.0000	FLOOD RISK
480 minute summer	SWMBRE03	480	16.000	0.450	0.3	0.0715	0.0000	FLOOD RISK
480 minute summer	SWMBIC06	472	16.000	0.820	3.5	0.5322	0.7865	FLOOD
480 minute summer	SWMBIC07	472	16.001	1.136	20.4	0.8781	0.0000	FLOOD RISK
480 minute summer	SWMBRE02	480	16.000	0.450	0.6	0.1535	0.0000	FLOOD RISK
480 minute summer	SWMBIC05	480	16.000	0.525	1.8	0.2389	0.0000	FLOOD RISK
480 minute summer	SWMBRE01	472	16.001	0.301	0.5	0.0916	0.0000	FLOOD RISK
480 minute summer	SWMBIC01	472	16.001	0.351	1.0	0.0991	0.0000	FLOOD RISK
480 minute summer	SWMBIC02	472	16.001	0.401	1.0	0.0638	0.0000	FLOOD RISK
480 minute summer	SWMBIC03	472	16.001	0.641	9.6	0.9319	0.0000	FLOOD RISK
480 minute summer	SWMBRE05	472	16.002	0.247	2.3	0.2058	0.0000	SURCHARGED
480 minute summer	SWMBIC04	472	16.001	0.731	13.6	0.6830	0.0000	SURCHARGED
480 minute summer	SWMBIC10	472	16.001	0.636	3.5	0.6565	0.0000	FLOOD RISK
480 minute summer	SWMBIC12	472	16.001	0.861	5.1	0.2435	0.0000	FLOOD RISK
480 minute summer	SWMBRE06	464	16.001	0.451	0.2	0.0717	0.0000	SURCHARGED
480 minute summer	SWMBIC11	464	16.001	0.611	1.6	0.2902	0.0000	FLOOD RISK
480 minute summer	SWMBIC14	472	16.001	1.046	13.1	1.1710	0.0000	FLOOD RISK
480 minute summer	SWMBIC13	472	16.000	0.465	1.6	0.2700	0.0000	FLOOD RISK
480 minute summer	SWMBRE08	472	16.000	0.400	0.2	0.0637	0.0000	FLOOD RISK
480 minute summer	SWMBRE09	472	16.001	0.401	0.2	0.0637	0.0000	FLOOD RISK
480 minute summer	SWMBRE10	472	16.001	0.706	0.7	0.1200	0.0000	FLOOD RISK
480 minute summer	SWMBIC15	472	16.001	0.816	0.7	0.1297	0.0000	FLOOD RISK
480 minute summer	TANK	472	16.001	1.301	40.0	237.4080	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)
480 minute summer	SWMBRE04	6.000	SWMBIC08	-0.4	-0.022	-0.026	0.6472	
480 minute summer	SWMBIC08	6.001	SWMBIC09	2.7	0.496	0.047	0.7146	
480 minute summer	SWMBIC09	1.004	TANK	25.6	0.846	0.365	0.5281	
480 minute summer	SWMBRE03	5.000	SWMBIC06	-0.3	-0.016	-0.007	0.1338	
480 minute summer	SWMBIC06	4.002	SWMBIC07	3.4	0.685	0.203	0.3187	
480 minute summer	SWMBIC07	1.003	SWMBIC09	19.7	0.464	0.223	1.4902	
480 minute summer	SWMBRE02	4.000	SWMBIC05	0.6	0.296	0.034	0.1362	
480 minute summer	SWMBIC05	4.001	SWMBIC06	1.8	0.486	0.105	0.5608	
480 minute summer	SWMBRE01	2.000	SWMBIC01	0.5	0.306	0.031	0.1064	
480 minute summer	SWMBIC01	2.001	SWMBIC02	1.0	0.483	0.064	0.1148	
480 minute summer	SWMBIC02	2.002	SWMBIC03	1.0	0.496	0.063	0.2001	
480 minute summer	SWMBIC03	1.001	SWMBIC04	9.6	0.737	0.130	1.4293	
480 minute summer	SWMBRE05	1.000	SWMBIC03	2.3	0.573	0.054	1.9199	
480 minute summer	SWMBIC04	1.002	SWMBIC07	13.6	0.683	0.120	2.7377	
480 minute summer	SWMBIC10	9.000	SWMBIC12	3.5	0.638	0.060	0.7124	
480 minute summer	SWMBIC12	7.002	SWMBIC14	5.0	0.397	0.114	1.0078	
480 minute summer	SWMBRE06	7.000	SWMBIC11	-0.2	0.010	-0.009	0.2657	
480 minute summer	SWMBIC11	7.001	SWMBIC12	1.6	0.682	0.079	0.2324	
480 minute summer	SWMBIC14	7.003	TANK	12.3	0.764	0.291	0.2685	
480 minute summer	SWMBIC13	10.001	SWMBIC14	1.6	0.912	0.046	0.2328	
480 minute summer	SWMBRE08	11.000	SWMBIC13	-0.2	-0.021	-0.010	0.0628	
480 minute summer	SWMBRE09	10.000	SWMBIC13	-0.2	-0.019	-0.014	0.1297	
480 minute summer	SWMBRE10	12.000	SWMBIC15	0.7	0.573	0.025	0.0780	
480 minute summer	SWMBIC15	12.001	SWMBIC14	0.7	0.442	0.038	0.2649	
480 minute summer	TANK	1.005	SWMBIC17	10.2	0.482	0.101	0.1723	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.31%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	SWMBMN01	472	16.000	1.430	4.6	2.3653	0.0000	FLOOD RISK
480 minute summer	SW911	472	13.644	0.025	3.0	0.0000	0.0000	OK
480 minute summer	SWMBRE07	472	16.000	0.400	0.1	0.0072	0.0000	FLOOD RISK
480 minute summer	SWMBIC16	472	16.001	0.516	0.2	0.0821	0.0000	FLOOD RISK
480 minute summer	SWMBIC17	472	16.000	1.320	10.2	0.3736	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)
480 minute summer	SWMBMN01	1.007	SW911	3.0	1.577	0.059	0.0222	106.4
480 minute summer	SWMBRE07	8.000	SWMBIC11	-0.1	-0.008	-0.006	0.2201	
480 minute summer	SWMBIC16	3.000	SWMBIC04	0.2	-0.023	0.009	0.1148	
480 minute summer	SWMBIC17	1.006	SWMBMN01	3.5	0.140	0.044	1.5233	

Appendix H

MWP – Exceedance Plan