

**TECHNICAL NOTE** | Third-party Support Note – Side-Infiltration Check  
Drainage Strategy (DS): 19 Farncombe Road, Worthing, West Sussex**Project Name:** | 19 Farncombe Road, Worthing, West Sussex**File Ref:** U0787**Our Ref:** **Date:** 24/02/2026**Revision:** P1 **Status:** FOR INFORMATION

**Status Key:** S0 – Work In Progress | S1 – Co-ordination | S2 – Information | S3 – Comment  
| S4 – Approval RIBA Stage 2, 3, 4, Client, Planning, Building Regulations | D1 – For Costing |  
D2 For Tender | A - For Construction | CR - Construction Record

**Introduction**

This Technical Note has been prepared to support the discharge of the surface water drainage planning condition(s) for 19 Farncombe Road, Worthing, West Sussex, by providing an independent (third-party) check of the proposed geocellular soakaway sizing using the parameters and dimensions presented within the latest submitted calculations (Appendix A).

The check has been undertaken on a conservative side-infiltration-only basis (i.e. no base infiltration credit), in line with the approach requested by WSP / the LPA drainage advisor when considering infiltration uncertainty and long-term performance, including the criterion of < 24-hour half-drain time.

**Purpose of this Technical Note**

This note is issued for the following purpose only:

1. Provide an independent check calculation confirming that the proposed soakaway sizing works on a side-infiltration-only basis, demonstrating no flooding in the modelled critical event(s) and < 24-hour half-drain time.

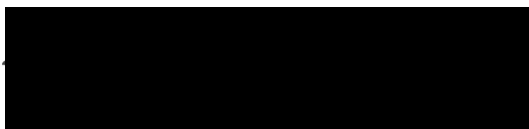
**Information and documents reviewed (as submitted)**

- Drainage Strategy – 19 Farncombe Road (PDF)
- 25-Supporting Statement – 06/11/2025 (PDF)
- 25-Latest plan – 06/11/2025 (PDF)
- 25-Consultation Response – 12/12/2025 (PDF)
- 25-Latest plan – 01/12/2025 (PDF)
- 25-Latest plan – 01/12/2025 (1) (PDF)

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|  | <ul style="list-style-type: none"> <li>• 25-Latest plan – 01/12/2025 (2) (PDF)</li> <li>• 25-Supporting Statement – 29/01/2026 (PDF)</li> <li>• 25-Consultation Response – 23/01/2026 (PDF)</li> <li>• 25-Consultation Response – 10/02/2026 (PDF)</li> <li>• TN04 – 1ecfar – 18/02/2026 (Motion Technical Note / updated modelling) (PDF)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|  | <p><b><u>Independent check approach</u></b></p> <ol style="list-style-type: none"> <li>1. We reviewed the submitted calculation outputs and re-checked the soakaway on a side-infiltration-only basis by confirming that: <ul style="list-style-type: none"> <li>○ the base infiltration coefficient is set to 0, and</li> <li>○ the side infiltration coefficient is applied as per the submitted output.</li> </ul> </li> <li>2. We then reviewed the critical storm results to confirm whether any flooding is reported at the development node and the soakaway node.</li> <li>3. We also reviewed the submitted drain-down / recovery output to confirm the reported half-empty / half-drain time against the &lt; 24-hour criterion.</li> </ol> <p>The independent check is based on the submitted modelling outputs and is intended to confirm whether the proposed storage provision is hydraulically sufficient (i.e., containment without flooding) and demonstrates acceptable recovery, subject to detailed design and construction.</p> |
|  | <p><b><u>Key inputs adopted (from submitted calculations)</u></b></p> <p>The following soakaway inputs are recorded in the calculation output (Appendix A):</p> <ul style="list-style-type: none"> <li>• Contributing area (to Development node): 0.023 ha (<math>\approx 230 \text{ m}^2</math>)</li> <li>• Base infiltration coefficient: 0.00000 m/hr</li> <li>• Side infiltration coefficient: 0.00421 m/hr</li> <li>• Safety factor: 2.0</li> <li>• Porosity: 0.95</li> <li>• Soakaway plan dimensions: 7.0 m <math>\times</math> 5.5 m</li> <li>• Soakaway depth: 1.2 m</li> <li>• Number of structures: 1</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                          |
|  | <p><b><u>Results summary – flooding check (side infiltration only)</u></b></p> <p>Appendix A presents Urban Water’s independent check of the proposed soakaway storage, modelled conservatively on a side-infiltration-only basis (i.e. base infiltration set to 0.00000 m/hr). The model uses a single soakaway storage structure with side infiltration coefficient = 0.00421 m/hr, porosity = 0.95, and a proposed storage footprint/depth of 7.0 m <math>\times</math> 5.5 m <math>\times</math> 1.2 m.</p> <p>The results confirm no flooding for the critical storm duration assessment up to and including the 1 in 100-year +45% climate change event.</p>                                                                                                                                                                                                                                                                                                                                                                                   |

In addition, the submitted drain-down output indicates a half-empty / half-drain time of less than 24 hours, satisfying the recovery criterion typically expected by WSP / the LPA for infiltration-led SuDS systems.

Signed by

A black rectangular box redacting the signature of Arge Rivera.

**Arge Rivera**

BEng(Hons) MSC CEng MICE MCIWEM C.WEM CEnv

Director | Urban Water

# Appendix A

## Calculation

### Design Settings

|                       |                   |                                      |               |
|-----------------------|-------------------|--------------------------------------|---------------|
| Rainfall Methodology  | FSR               | Maximum Time of Concentration (mins) | 30.00         |
| Return Period (years) | 2                 | Maximum Rainfall (mm/hr)             | 50.0          |
| Additional Flow (%)   | 0                 | Minimum Velocity (m/s)               | 1.00          |
| FSR Region            | England and Wales | Connection Type                      | Level Inverts |
| M5-60 (mm)            | 20.000            | Minimum Backdrop Height (m)          | 0.200         |
| Ratio-R               | 0.340             | Preferred Cover Depth (m)            | 0.500         |
| CV                    | 1.000             | Include Intermediate Ground          | ✓             |
| Time of Entry (mins)  | 6.00              | Enforce best practice design rules   | x             |

### Circular -Gravity Link Type

|                     |                  |                        |                 |
|---------------------|------------------|------------------------|-----------------|
| Template            | Freeform Carrier | Minimum Velocity (m/s) | 1.00            |
| Shape               | Circular         | Follow Ground          | ✓               |
| Barrels             | 1                | Velocity               | Colebrook-White |
| Auto Increment (mm) | 50               | ks (mm) / n            | 120.000         |

### Available Diameters (mm)

100 | 150

### Nodes

| Name        | Area<br>(ha) | T of E<br>(mins) | Cover<br>Level<br>(m) | Node<br>Type |
|-------------|--------------|------------------|-----------------------|--------------|
| Development | 0.023        | 6.00             | 100.000               | Manhole      |
| Soakaway    |              |                  | 100.000               | Junction     |
| Dummy       |              |                  | 100.000               | Manhole      |

### Links (Input)

| Name  | US<br>Node  | DS<br>Node | Length<br>(m) | ks (mm) /<br>n | US IL<br>(m) | DS IL<br>(m) | Fall<br>(m) | Slope<br>(1:X) | Dia<br>(mm) | T of C<br>(mins) | Rain<br>(mm/hr) |
|-------|-------------|------------|---------------|----------------|--------------|--------------|-------------|----------------|-------------|------------------|-----------------|
| 1.000 | Development | Soakaway   | 15.000        | 120.000        | 99.350       | 98.100       | 1.250       | 12.0           | 150         | 6.38             | 50.0            |
| 1.001 | Soakaway    | Dummy      | 10.000        | 120.000        | 98.100       | 97.975       | 0.125       | 80.0           | 150         | 7.03             | 50.0            |

### Node Soakaway Online Pump Control

|                          |        |                     |       |                      |       |
|--------------------------|--------|---------------------|-------|----------------------|-------|
| Flap Valve               | x      | Design Depth (m)    | 0.800 | Switch off depth (m) | 0.010 |
| Replaces Downstream Link | ✓      | Design Flow (l/s)   | 0.1   |                      |       |
| Invert Level (m)         | 98.100 | Switch on depth (m) | 0.800 |                      |       |

| Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) |
|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| 0.100        | 0.000         | 0.300        | 0.000         | 0.500        | 0.000         | 0.700        | 0.000         |
| 0.200        | 0.000         | 0.400        | 0.000         | 0.600        | 0.000         | 0.800        | 0.000         |

### Node Soakaway Soakaway Storage Structure

|                             |         |                           |        |                 |       |
|-----------------------------|---------|---------------------------|--------|-----------------|-------|
| Base Inf Coefficient (m/hr) | 0.00000 | Invert Level (m)          | 98.100 | Depth (m)       | 1.200 |
| Side Inf Coefficient (m/hr) | 0.00421 | Time to half empty (mins) |        | Inf Depth (m)   |       |
| Safety Factor               | 2.0     | Pit Width (m)             | 7.000  | Number Required | 1     |
| Porosity                    | 0.95    | Pit Length (m)            | 5.500  |                 |       |

### Approval Settings

|             |   |                       |   |                       |    |                  |   |
|-------------|---|-----------------------|---|-----------------------|----|------------------|---|
| Node Size   | x | Crossings             | x | Surcharged Depth      | x  | Discharge Volume | x |
| Node Losses | x | Cover Depth           | x | Flooding              | x  | First Flush      | x |
| Link Size   | x | Backdrops             | x | Time to Half Empty    | ✓  |                  |   |
| Link Length | x | Full Bore Velocity    | x | Return Period (years) | 10 |                  |   |
| Coordinates | x | Proportional Velocity | x | Discharge Rates       | x  |                  |   |

### Rainfall

| Event                     | Peak Intensity (mm/hr) | Average Intensity (mm/hr) | Event                             | Peak Intensity (mm/hr) | Average Intensity (mm/hr) |
|---------------------------|------------------------|---------------------------|-----------------------------------|------------------------|---------------------------|
| 1 year 15 minute summer   | 103.774                | 29.365                    | 2 year 960 minute summer          | 9.163                  | 2.413                     |
| 1 year 15 minute winter   | 72.824                 | 29.365                    | 2 year 960 minute winter          | 6.069                  | 2.413                     |
| 1 year 30 minute summer   | 69.344                 | 19.622                    | 2 year 1440 minute summer         | 6.778                  | 1.817                     |
| 1 year 30 minute winter   | 48.663                 | 19.622                    | 2 year 1440 minute winter         | 4.555                  | 1.817                     |
| 1 year 60 minute summer   | 48.435                 | 12.800                    | 30 year 15 minute summer          | 254.354                | 71.973                    |
| 1 year 60 minute winter   | 32.179                 | 12.800                    | 30 year 15 minute winter          | 178.494                | 71.973                    |
| 1 year 120 minute summer  | 31.043                 | 8.204                     | 30 year 30 minute summer          | 170.055                | 48.120                    |
| 1 year 120 minute winter  | 20.625                 | 8.204                     | 30 year 30 minute winter          | 119.337                | 48.120                    |
| 1 year 180 minute summer  | 24.484                 | 6.301                     | 30 year 60 minute summer          | 116.589                | 30.811                    |
| 1 year 180 minute winter  | 15.916                 | 6.301                     | 30 year 60 minute winter          | 77.459                 | 30.811                    |
| 1 year 240 minute summer  | 19.723                 | 5.212                     | 30 year 120 minute summer         | 72.382                 | 19.129                    |
| 1 year 240 minute winter  | 13.103                 | 5.212                     | 30 year 120 minute winter         | 48.089                 | 19.129                    |
| 1 year 360 minute summer  | 15.370                 | 3.955                     | 30 year 180 minute summer         | 55.551                 | 14.295                    |
| 1 year 360 minute winter  | 9.991                  | 3.955                     | 30 year 180 minute winter         | 36.110                 | 14.295                    |
| 1 year 480 minute summer  | 12.303                 | 3.251                     | 30 year 240 minute summer         | 43.799                 | 11.575                    |
| 1 year 480 minute winter  | 8.174                  | 3.251                     | 30 year 240 minute winter         | 29.099                 | 11.575                    |
| 1 year 600 minute summer  | 10.212                 | 2.793                     | 30 year 360 minute summer         | 33.404                 | 8.596                     |
| 1 year 600 minute winter  | 6.977                  | 2.793                     | 30 year 360 minute winter         | 21.714                 | 8.596                     |
| 1 year 720 minute summer  | 9.206                  | 2.467                     | 30 year 480 minute summer         | 26.301                 | 6.950                     |
| 1 year 720 minute winter  | 6.187                  | 2.467                     | 30 year 480 minute winter         | 17.474                 | 6.950                     |
| 1 year 960 minute summer  | 7.707                  | 2.029                     | 30 year 600 minute summer         | 21.535                 | 5.890                     |
| 1 year 960 minute winter  | 5.105                  | 2.029                     | 30 year 600 minute winter         | 14.714                 | 5.890                     |
| 1 year 1440 minute summer | 5.750                  | 1.541                     | 30 year 720 minute summer         | 19.190                 | 5.143                     |
| 1 year 1440 minute winter | 3.865                  | 1.541                     | 30 year 720 minute winter         | 12.897                 | 5.143                     |
| 2 year 15 minute summer   | 134.201                | 37.974                    | 30 year 960 minute summer         | 15.756                 | 4.149                     |
| 2 year 15 minute winter   | 94.176                 | 37.974                    | 30 year 960 minute winter         | 10.437                 | 4.149                     |
| 2 year 30 minute summer   | 89.213                 | 25.244                    | 30 year 1440 minute summer        | 11.422                 | 3.061                     |
| 2 year 30 minute winter   | 62.606                 | 25.244                    | 30 year 1440 minute winter        | 7.676                  | 3.061                     |
| 2 year 60 minute summer   | 61.301                 | 16.200                    | 30 year +40% CC 15 minute summer  | 356.095                | 100.763                   |
| 2 year 60 minute winter   | 40.727                 | 16.200                    | 30 year +40% CC 15 minute winter  | 249.891                | 100.763                   |
| 2 year 120 minute summer  | 38.586                 | 10.197                    | 30 year +40% CC 30 minute summer  | 238.077                | 67.367                    |
| 2 year 120 minute winter  | 25.636                 | 10.197                    | 30 year +40% CC 30 minute winter  | 167.071                | 67.367                    |
| 2 year 180 minute summer  | 30.084                 | 7.742                     | 30 year +40% CC 60 minute summer  | 163.225                | 43.136                    |
| 2 year 180 minute winter  | 19.555                 | 7.742                     | 30 year +40% CC 60 minute winter  | 108.443                | 43.136                    |
| 2 year 240 minute summer  | 24.048                 | 6.355                     | 30 year +40% CC 120 minute summer | 101.335                | 26.780                    |
| 2 year 240 minute winter  | 15.977                 | 6.355                     | 30 year +40% CC 120 minute winter | 67.325                 | 26.780                    |
| 2 year 360 minute summer  | 18.617                 | 4.791                     | 30 year +40% CC 180 minute summer | 77.772                 | 20.013                    |
| 2 year 360 minute winter  | 12.102                 | 4.791                     | 30 year +40% CC 180 minute winter | 50.554                 | 20.013                    |
| 2 year 480 minute summer  | 14.827                 | 3.918                     | 30 year +40% CC 240 minute summer | 61.319                 | 16.205                    |
| 2 year 480 minute winter  | 9.851                  | 3.918                     | 30 year +40% CC 240 minute winter | 40.739                 | 16.205                    |
| 2 year 600 minute summer  | 12.256                 | 3.352                     | 30 year +40% CC 360 minute summer | 46.766                 | 12.034                    |
| 2 year 600 minute winter  | 8.374                  | 3.352                     | 30 year +40% CC 360 minute winter | 30.399                 | 12.034                    |
| 2 year 720 minute summer  | 11.010                 | 2.951                     | 30 year +40% CC 480 minute summer | 36.821                 | 9.731                     |
| 2 year 720 minute winter  | 7.399                  | 2.951                     | 30 year +40% CC 480 minute winter | 24.463                 | 9.731                     |

### Rainfall

| Event                              | Peak<br>Intensity<br>(mm/hr) | Average<br>Intensity<br>(mm/hr) | Event                               | Peak<br>Intensity<br>(mm/hr) | Average<br>Intensity<br>(mm/hr) |
|------------------------------------|------------------------------|---------------------------------|-------------------------------------|------------------------------|---------------------------------|
| 30 year +40% CC 600 minute summer  | 30.149                       | 8.246                           | 100 year 960 minute summer          | 19.973                       | 5.259                           |
| 30 year +40% CC 600 minute winter  | 20.599                       | 8.246                           | 100 year 960 minute winter          | 13.231                       | 5.259                           |
| 30 year +40% CC 720 minute summer  | 26.865                       | 7.200                           | 100 year 1440 minute summer         | 14.351                       | 3.846                           |
| 30 year +40% CC 720 minute winter  | 18.055                       | 7.200                           | 100 year 1440 minute winter         | 9.645                        | 3.846                           |
| 30 year +40% CC 960 minute summer  | 22.059                       | 5.809                           | 100 year +45% CC 15 minute summer   | 477.732                      | 135.182                         |
| 30 year +40% CC 960 minute winter  | 14.612                       | 5.809                           | 100 year +45% CC 15 minute winter   | 335.251                      | 135.182                         |
| 30 year +40% CC 1440 minute summer | 15.991                       | 4.286                           | 100 year +45% CC 30 minute summer   | 322.491                      | 91.254                          |
| 30 year +40% CC 1440 minute winter | 10.747                       | 4.286                           | 100 year +45% CC 30 minute winter   | 226.309                      | 91.254                          |
| 100 year 15 minute summer          | 329.470                      | 93.229                          | 100 year +45% CC 60 minute summer   | 222.268                      | 58.739                          |
| 100 year 15 minute winter          | 231.207                      | 93.229                          | 100 year +45% CC 60 minute winter   | 147.669                      | 58.739                          |
| 100 year 30 minute summer          | 222.407                      | 62.934                          | 100 year +45% CC 120 minute summer  | 137.832                      | 36.425                          |
| 100 year 30 minute winter          | 156.075                      | 62.934                          | 100 year +45% CC 120 minute winter  | 91.572                       | 36.425                          |
| 100 year 60 minute summer          | 153.288                      | 40.510                          | 100 year +45% CC 180 minute summer  | 105.255                      | 27.086                          |
| 100 year 60 minute winter          | 101.841                      | 40.510                          | 100 year +45% CC 180 minute winter  | 68.418                       | 27.086                          |
| 100 year 120 minute summer         | 95.057                       | 25.121                          | 100 year +45% CC 240 minute summer  | 82.544                       | 21.814                          |
| 100 year 120 minute winter         | 63.153                       | 25.121                          | 100 year +45% CC 240 minute winter  | 54.840                       | 21.814                          |
| 100 year 180 minute summer         | 72.589                       | 18.680                          | 100 year +45% CC 360 minute summer  | 62.543                       | 16.094                          |
| 100 year 180 minute winter         | 47.185                       | 18.680                          | 100 year +45% CC 360 minute winter  | 40.654                       | 16.094                          |
| 100 year 240 minute summer         | 56.927                       | 15.044                          | 100 year +45% CC 480 minute summer  | 48.996                       | 12.948                          |
| 100 year 240 minute winter         | 37.821                       | 15.044                          | 100 year +45% CC 480 minute winter  | 32.552                       | 12.948                          |
| 100 year 360 minute summer         | 43.133                       | 11.100                          | 100 year +45% CC 600 minute summer  | 39.953                       | 10.928                          |
| 100 year 360 minute winter         | 28.037                       | 11.100                          | 100 year +45% CC 600 minute winter  | 27.298                       | 10.928                          |
| 100 year 480 minute summer         | 33.791                       | 8.930                           | 100 year +45% CC 720 minute summer  | 35.478                       | 9.508                           |
| 100 year 480 minute winter         | 22.450                       | 8.930                           | 100 year +45% CC 720 minute winter  | 23.843                       | 9.508                           |
| 100 year 600 minute summer         | 27.554                       | 7.537                           | 100 year +45% CC 960 minute summer  | 28.961                       | 7.626                           |
| 100 year 600 minute winter         | 18.826                       | 7.537                           | 100 year +45% CC 960 minute winter  | 19.184                       | 7.626                           |
| 100 year 720 minute summer         | 24.467                       | 6.557                           | 100 year +45% CC 1440 minute summer | 20.809                       | 5.577                           |
| 100 year 720 minute winter         | 16.444                       | 6.557                           | 100 year +45% CC 1440 minute winter | 13.985                       | 5.577                           |

**Results for 1 year Critical Storm Duration. Lowest mass balance: 99.56%**

| Node Event        | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|-------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute summer  | Development | 10          | 99.397    | 0.047     | 3.5          | 0.0531        | 0.0000     | OK         |
| 960 minute winter | Soakaway    | 930         | 98.314    | 0.214     | 0.3          | 7.8355        | 0.0000     | SURCHARGED |
| 15 minute summer  | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event<br>(Upstream Depth) | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute summer               | Development | 1.000        | Soakaway | 3.6           | 1.326          | 0.305    | 0.0491        |                    |
| 960 minute winter              | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 960 minute winter              | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 2 year Critical Storm Duration. Lowest mass balance: 99.31%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 15 minute summer   | Development | 10             | 99.403       | 0.053        | 4.5             | 0.0594           | 0.0000        | OK         |
| 1440 minute winter | Soakaway    | 1350           | 98.385       | 0.285        | 0.3             | 10.4164          | 0.0000        | SURCHARGED |
| 15 minute summer   | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event<br>(Upstream Depth) | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer               | Development | 1.000        | Soakaway   | 4.6              | 1.373             | 0.392    | 0.0626           |                       |
| 1440 minute winter             | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute winter             | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year Critical Storm Duration. Lowest mass balance: 99.02%**

| Node Event                     | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|--------------------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 15 minute summer               | Development | 10             | 99.421       | 0.071            | 8.5               | 0.0805           | 0.0000           | OK                    |
| 1440 minute summer             | Soakaway    | 1470           | 98.563       | 0.463            | 0.7               | 16.9198          | 0.0000           | SURCHARGED            |
| 15 minute summer               | Dummy       | 1              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event<br>(Upstream Depth) | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 15 minute summer               | Development | 1.000          | Soakaway     | 8.6              | 1.507             | 0.740            | 0.1226           |                       |
| 1440 minute summer             | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 1440 minute summer             | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 98.89%**

| Node Event         | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|--------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute summer   | Development | 10          | 99.435    | 0.085     | 11.9         | 0.0957        | 0.0000     | OK         |
| 1440 minute winter | Soakaway    | 1440        | 98.727    | 0.627     | 0.7          | 22.9475       | 0.0000     | SURCHARGED |
| 15 minute summer   | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event<br>(Upstream Depth) | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute summer               | Development | 1.000        | Soakaway | 12.0          | 1.565          | 1.035    | 0.1710        |                    |
| 1440 minute winter             | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 1440 minute winter             | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 100 year Critical Storm Duration. Lowest mass balance: 98.94%**

| Node Event         | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|--------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute summer   | Development | 10          | 99.431    | 0.081     | 11.0         | 0.0918        | 0.0000     | OK         |
| 1440 minute winter | Soakaway    | 1440        | 98.661    | 0.561     | 0.6          | 20.5059       | 0.0000     | SURCHARGED |
| 15 minute summer   | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event<br>(Upstream Depth) | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute summer               | Development | 1.000        | Soakaway | 11.1          | 1.557          | 0.957    | 0.1584        |                    |
| 1440 minute winter             | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 1440 minute winter             | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.81%**

| Node Event         | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|--------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute summer   | Development | 10          | 99.450    | 0.100     | 15.9         | 0.1134        | 0.0000     | OK         |
| 1440 minute winter | Soakaway    | 1440        | 98.928    | 0.828     | 0.9          | 30.2721       | 0.0000     | SURCHARGED |
| 15 minute summer   | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event<br>(Upstream Depth) | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute summer               | Development | 1.000        | Soakaway | 15.9          | 1.607          | 1.368    | 0.2106        |                    |
| 1440 minute winter             | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 1440 minute winter             | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute summer | Development | 10             | 99.397       | 0.047        | 3.5             | 0.0531           | 0.0000        | OK     |
| 15 minute summer | Soakaway    | 42             | 98.146       | 0.046        | 3.6             | 1.6689           | 0.0000        | OK     |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer | Development | 1.000        | Soakaway   | 3.6              | 1.326             | 0.305    | 0.0491           |                       |
| 15 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute winter | Development | 10             | 99.395       | 0.045        | 3.3             | 0.0510           | 0.0000        | OK     |
| 15 minute winter | Soakaway    | 43             | 98.145       | 0.045        | 3.3             | 1.6455           | 0.0000        | OK     |
| 15 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute winter | Development | 1.000        | Soakaway   | 3.3              | 1.272             | 0.288    | 0.0465           |                       |
| 15 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m <sup>3</sup> ) | Flood<br>(m <sup>3</sup> ) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|-------------------------------|----------------------------|--------|
| 30 minute summer | Development | 18             | 99.394       | 0.044        | 3.4             | 0.0493                        | 0.0000                     | OK     |
| 30 minute summer | Soakaway    | 55             | 98.161       | 0.061        | 3.4             | 2.2173                        | 0.0000                     | OK     |
| 30 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000                        | 0.0000                     | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m <sup>3</sup> ) | Discharge<br>Vol (m <sup>3</sup> ) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|-------------------------------|------------------------------------|
| 30 minute summer | Development | 1.000        | Soakaway   | 3.4              | 1.130             | 0.293    | 0.0546                        |                                    |
| 30 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                               | 0.0                                |
| 30 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                               |                                    |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 30 minute winter | Development | 17             | 99.389       | 0.039        | 2.8             | 0.0447           | 0.0000        | OK     |
| 30 minute winter | Soakaway    | 54             | 98.161       | 0.061        | 2.8             | 2.2318           | 0.0000        | OK     |
| 30 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute winter | Development | 1.000        | Soakaway   | 2.8              | 1.061             | 0.244    | 0.0552           |                       |
| 30 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 60 minute summer | Development | 33             | 99.386       | 0.036        | 2.7             | 0.0407           | 0.0000        | OK     |
| 60 minute summer | Soakaway    | 82             | 98.178       | 0.078        | 2.7             | 2.8660           | 0.0000        | OK     |
| 60 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute summer | Development | 1.000        | Soakaway   | 2.7              | 0.874             | 0.230    | 0.0731           |                       |
| 60 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 60 minute winter | Development | 34             | 99.381       | 0.031        | 2.0             | 0.0351           | 0.0000        | OK     |
| 60 minute winter | Soakaway    | 81             | 98.179       | 0.079        | 2.0             | 2.8719           | 0.0000        | OK     |
| 60 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute winter | Development | 1.000        | Soakaway   | 2.0              | 0.800             | 0.172    | 0.0733           |                       |
| 60 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 120 minute summer | Development | 64             | 99.380       | 0.030        | 1.9             | 0.0343           | 0.0000        | OK     |
| 120 minute summer | Soakaway    | 142            | 98.200       | 0.100        | 1.9             | 3.6666           | 0.0000        | OK     |
| 120 minute summer | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute summer | Development | 1.000        | Soakaway   | 1.9              | 0.700             | 0.163    | 0.0963           |                       |
| 120 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 120 minute winter | Development | 64             | 99.375       | 0.025        | 1.3             | 0.0285           | 0.0000        | OK     |
| 120 minute winter | Soakaway    | 138            | 98.200       | 0.100        | 1.3             | 3.6493           | 0.0000        | OK     |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 1.3              | 0.707             | 0.112    | 0.0961           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 180 minute summer | Development | 96             | 99.377       | 0.027        | 1.5             | 0.0305           | 0.0000        | OK     |
| 180 minute summer | Soakaway    | 200            | 98.216       | 0.116        | 1.5             | 4.2394           | 0.0000        | OK     |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute summer | Development | 1.000        | Soakaway   | 1.5              | 0.576             | 0.129    | 0.1114           |                       |
| 180 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 180 minute winter | Development | 96             | 99.372       | 0.022        | 1.0             | 0.0251           | 0.0000        | OK     |
| 180 minute winter | Soakaway    | 196            | 98.216       | 0.116        | 1.0             | 4.2513           | 0.0000        | OK     |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 1.0              | 0.651             | 0.086    | 0.1117           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 240 minute summer | Development | 124            | 99.375       | 0.025        | 1.3             | 0.0284           | 0.0000        | OK     |
| 240 minute summer | Soakaway    | 260            | 98.224       | 0.124        | 1.3             | 4.5386           | 0.0000        | OK     |
| 240 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute summer | Development | 1.000        | Soakaway   | 1.3              | 0.576             | 0.111    | 0.1188           |                       |
| 240 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 240 minute winter | Development | 120            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK     |
| 240 minute winter | Soakaway    | 252            | 98.225       | 0.125        | 0.8             | 4.5742           | 0.0000        | OK     |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 0.8              | 0.575             | 0.069    | 0.1196           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 360 minute summer | Development | 184            | 99.372       | 0.022        | 1.0             | 0.0249           | 0.0000        | OK     |
| 360 minute summer | Soakaway    | 376            | 98.245       | 0.145        | 1.0             | 5.2888           | 0.0000        | OK     |
| 360 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute summer | Development | 1.000        | Soakaway   | 1.0              | 0.560             | 0.085    | 0.1326           |                       |
| 360 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 360 minute winter | Development | 176            | 99.367       | 0.017        | 0.6             | 0.0197           | 0.0000        | OK     |
| 360 minute winter | Soakaway    | 368            | 98.240       | 0.140        | 0.6             | 5.1259           | 0.0000        | OK     |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 0.6              | 0.555             | 0.052    | 0.1303           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute summer | Development | 248            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK         |
| 480 minute summer | Soakaway    | 496            | 98.265       | 0.165        | 0.8             | 6.0309           | 0.0000        | SURCHARGED |
| 480 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute summer | Development | 1.000        | Soakaway   | 0.8              | 0.560             | 0.069    | 0.1345           |                       |
| 480 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute winter | Development | 224            | 99.366       | 0.016        | 0.5             | 0.0180           | 0.0000        | OK         |
| 480 minute winter | Soakaway    | 480            | 98.260       | 0.160        | 0.5             | 5.8686           | 0.0000        | SURCHARGED |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute winter | Development | 1.000        | Soakaway   | 0.5              | 0.555             | 0.043    | 0.1345           |                       |
| 480 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute summer | Development | 315            | 99.369       | 0.019        | 0.7             | 0.0211           | 0.0000        | OK         |
| 600 minute summer | Soakaway    | 630            | 98.280       | 0.180        | 0.7             | 6.5863           | 0.0000        | SURCHARGED |
| 600 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute summer | Development | 1.000        | Soakaway   | 0.7              | 0.502             | 0.060    | 0.1352           |                       |
| 600 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 600 minute winter | Development | 285            | 99.364       | 0.014        | 0.4             | 0.0162           | 0.0000        | OK                |
| 600 minute winter | Soakaway    | 600            | 98.267       | 0.167        | 0.4             | 6.1069           | 0.0000        | <b>SURCHARGED</b> |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute winter | Development | 1.000        | Soakaway   | 0.4              | 0.547             | 0.034    | 0.1345           |                       |
| 600 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute summer | Development | 375            | 99.367       | 0.017        | 0.6             | 0.0197           | 0.0000        | OK         |
| 720 minute summer | Soakaway    | 750            | 98.299       | 0.199        | 0.6             | 7.2781           | 0.0000        | SURCHARGED |

|                   |       |    |        |       |     |        |        |    |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|
| 720 minute summer | Dummy | 15 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute summer | Development | 1.000        | Soakaway   | 0.6              | 0.502             | 0.052    | 0.1361           |                       |
| 720 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute winter | Development | 345            | 99.364       | 0.014        | 0.4             | 0.0162           | 0.0000        | OK         |
| 720 minute winter | Soakaway    | 720            | 98.291       | 0.191        | 0.4             | 6.9757           | 0.0000        | SURCHARGED |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute winter | Development | 1.000        | Soakaway   | 0.4              | 0.547             | 0.034    | 0.1360           |                       |
| 720 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute summer | Development | 495            | 99.366       | 0.016        | 0.5             | 0.0180           | 0.0000        | OK         |
| 960 minute summer | Soakaway    | 870            | 98.295       | 0.195        | 0.5             | 7.1456           | 0.0000        | SURCHARGED |

|                   |       |    |        |       |     |        |        |    |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|
| 960 minute summer | Dummy | 15 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute summer | Development | 1.000        | Soakaway   | 0.5              | 0.547             | 0.043    | 0.1360           |                       |
| 960 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.56%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute winter | Development | 420            | 99.363       | 0.013        | 0.3             | 0.0142           | 0.0000        | OK         |
| 960 minute winter | Soakaway    | 930            | 98.314       | 0.214        | 0.3             | 7.8355           | 0.0000        | SURCHARGED |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute winter | Development | 1.000        | Soakaway   | 0.3              | 0.547             | 0.026    | 0.1364           |                       |
| 960 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.59%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute summer | Development | 750            | 99.364       | 0.014        | 0.4             | 0.0162           | 0.0000        | OK         |
| 1440 minute summer | Soakaway    | 1140           | 98.310       | 0.210        | 0.4             | 7.6649           | 0.0000        | SURCHARGED |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute summer | Development | 1.000        | Soakaway   | 0.4              | 0.493             | 0.034    | 0.1361           |                       |
| 1440 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 1 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%**

| Node Event         | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|--------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 1440 minute winter | Development | 600         | 99.360    | 0.010     | 0.2          | 0.0118        | 0.0000     | OK         |
| 1440 minute winter | Soakaway    | 1170        | 98.290    | 0.190     | 0.2          | 6.9566        | 0.0000     | SURCHARGED |

|                    |       |    |        |       |     |        |        |    |
|--------------------|-------|----|--------|-------|-----|--------|--------|----|
| 1440 minute winter | Dummy | 30 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|--------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event         | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 1440 minute winter | Development | 1.000        | Soakaway | 0.2           | 0.493          | 0.017    | 0.1355        |                    |
| 1440 minute winter | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 1440 minute winter | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute summer | Development | 10             | 99.403       | 0.053        | 4.5             | 0.0594           | 0.0000        | OK     |
| 15 minute summer | Soakaway    | 41             | 98.159       | 0.059        | 4.6             | 2.1478           | 0.0000        | OK     |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer | Development | 1.000        | Soakaway   | 4.6              | 1.373             | 0.392    | 0.0626           |                       |
| 15 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute winter | Development | 10             | 99.401       | 0.051        | 4.3             | 0.0575           | 0.0000        | OK     |
| 15 minute winter | Soakaway    | 41             | 98.159       | 0.059        | 4.4             | 2.1478           | 0.0000        | OK     |
| 15 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute winter | Development | 1.000        | Soakaway   | 4.4              | 1.330             | 0.375    | 0.0603           |                       |
| 15 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m <sup>3</sup> ) | Flood<br>(m <sup>3</sup> ) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|-------------------------------|----------------------------|--------|
| 30 minute summer | Development | 17             | 99.398       | 0.048        | 4.3             | 0.0546                        | 0.0000                     | OK     |
| 30 minute summer | Soakaway    | 53             | 98.178       | 0.078        | 4.3             | 2.8411                        | 0.0000                     | OK     |
| 30 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000                        | 0.0000                     | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m <sup>3</sup> ) | Discharge<br>Vol (m <sup>3</sup> ) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|-------------------------------|------------------------------------|
| 30 minute summer | Development | 1.000        | Soakaway   | 4.3              | 1.158             | 0.372    | 0.0738                        |                                    |
| 30 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                               | 0.0                                |
| 30 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                               |                                    |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 30 minute winter | Development | 17             | 99.393       | 0.043        | 3.6             | 0.0491           | 0.0000        | OK     |
| 30 minute winter | Soakaway    | 53             | 98.177       | 0.077        | 3.6             | 2.8265           | 0.0000        | OK     |
| 30 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute winter | Development | 1.000        | Soakaway   | 3.6              | 1.092             | 0.310    | 0.0739           |                       |
| 30 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 60 minute summer | Development | 33             | 99.390       | 0.040        | 3.4             | 0.0457           | 0.0000        | OK     |
| 60 minute summer | Soakaway    | 82             | 98.199       | 0.099        | 3.4             | 3.6260           | 0.0000        | OK     |
| 60 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute summer | Development | 1.000        | Soakaway   | 3.4              | 0.875             | 0.290    | 0.0965           |                       |
| 60 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 60 minute winter | Development | 34             | 99.385       | 0.035        | 2.5             | 0.0393           | 0.0000        | OK     |
| 60 minute winter | Soakaway    | 80             | 98.200       | 0.100        | 2.5             | 3.6464           | 0.0000        | OK     |
| 60 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute winter | Development | 1.000        | Soakaway   | 2.5              | 0.844             | 0.215    | 0.0973           |                       |
| 60 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 120 minute summer | Development | 64             | 99.384       | 0.034        | 2.4             | 0.0385           | 0.0000        | OK     |
| 120 minute summer | Soakaway    | 140            | 98.226       | 0.126        | 2.4             | 4.6221           | 0.0000        | OK     |
| 120 minute summer | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute summer | Development | 1.000        | Soakaway   | 2.4              | 0.700             | 0.206    | 0.1216           |                       |
| 120 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 120 minute winter | Development | 64             | 99.378       | 0.028        | 1.6             | 0.0315           | 0.0000        | OK     |
| 120 minute winter | Soakaway    | 138            | 98.223       | 0.123        | 1.6             | 4.5112           | 0.0000        | OK     |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 1.6              | 0.723             | 0.137    | 0.1190           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 180 minute summer | Development | 96             | 99.379       | 0.029        | 1.8             | 0.0334           | 0.0000        | OK     |
| 180 minute summer | Soakaway    | 200            | 98.243       | 0.143        | 1.8             | 5.2198           | 0.0000        | OK     |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute summer | Development | 1.000        | Soakaway   | 1.8              | 0.690             | 0.155    | 0.1328           |                       |
| 180 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 180 minute winter | Development | 96             | 99.374       | 0.024        | 1.2             | 0.0274           | 0.0000        | OK     |
| 180 minute winter | Soakaway    | 196            | 98.242       | 0.142        | 1.2             | 5.1850           | 0.0000        | OK     |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 1.2              | 0.684             | 0.103    | 0.1323           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute summer | Development | 124            | 99.377       | 0.027        | 1.5             | 0.0304           | 0.0000        | OK         |
| 240 minute summer | Soakaway    | 260            | 98.255       | 0.155        | 1.5             | 5.6619           | 0.0000        | SURCHARGED |
| 240 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute summer | Development | 1.000        | Soakaway   | 1.5              | 0.576             | 0.128    | 0.1359           |                       |
| 240 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute winter | Development | 124            | 99.372       | 0.022        | 1.0             | 0.0251           | 0.0000        | OK         |
| 240 minute winter | Soakaway    | 256            | 98.257       | 0.157        | 1.0             | 5.7447           | 0.0000        | SURCHARGED |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 1.0              | 0.618             | 0.086    | 0.1360           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute summer | Development | 184            | 99.374       | 0.024        | 1.2             | 0.0273           | 0.0000        | OK         |
| 360 minute summer | Soakaway    | 376            | 98.270       | 0.170        | 1.2             | 6.2292           | 0.0000        | SURCHARGED |
| 360 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute summer | Development | 1.000        | Soakaway   | 1.2              | 0.560             | 0.102    | 0.1360           |                       |
| 360 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute winter | Development | 184            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK         |
| 360 minute winter | Soakaway    | 368            | 98.274       | 0.174        | 0.8             | 6.3479           | 0.0000        | SURCHARGED |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 0.8              | 0.555             | 0.069    | 0.1372           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute summer | Development | 248            | 99.371       | 0.021        | 0.9             | 0.0238           | 0.0000        | OK         |
| 480 minute summer | Soakaway    | 496            | 98.288       | 0.188        | 0.9             | 6.8769           | 0.0000        | SURCHARGED |

|                   |       |   |        |       |     |        |        |    |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|
| 480 minute summer | Dummy | 8 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute summer | Development | 1.000        | Soakaway   | 0.9              | 0.560             | 0.077    | 0.1373           |                       |
| 480 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 480 minute winter | Development | 224            | 99.367       | 0.017        | 0.6             | 0.0197           | 0.0000        | OK                |
| 480 minute winter | Soakaway    | 488            | 98.289       | 0.189        | 0.6             | 6.9015           | 0.0000        | <b>SURCHARGED</b> |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute winter | Development | 1.000        | Soakaway   | 0.6              | 0.555             | 0.052    | 0.1383           |                       |
| 480 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.58%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute summer | Development | 315            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK         |
| 600 minute summer | Soakaway    | 630            | 98.309       | 0.209        | 0.8             | 7.6420           | 0.0000        | SURCHARGED |
| 600 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute summer | Development | 1.000        | Soakaway   | 0.8              | 0.502             | 0.069    | 0.1385           |                       |
| 600 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.60%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute winter | Development | 285            | 99.366       | 0.016        | 0.5             | 0.0180           | 0.0000        | OK         |
| 600 minute winter | Soakaway    | 615            | 98.305       | 0.205        | 0.5             | 7.5125           | 0.0000        | SURCHARGED |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute winter | Development | 1.000        | Soakaway   | 0.5              | 0.547             | 0.043    | 0.1384           |                       |
| 600 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.50%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute summer | Development | 375            | 99.369       | 0.019        | 0.7             | 0.0211           | 0.0000        | OK         |
| 720 minute summer | Soakaway    | 750            | 98.328       | 0.228        | 0.7             | 8.3323           | 0.0000        | SURCHARGED |

|                   |       |    |        |       |     |        |        |    |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|
| 720 minute summer | Dummy | 15 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute summer | Development | 1.000        | Soakaway   | 0.7              | 0.502             | 0.060    | 0.1394           |                       |
| 720 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.53%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute winter | Development | 360            | 99.366       | 0.016        | 0.5             | 0.0180           | 0.0000        | OK         |
| 720 minute winter | Soakaway    | 720            | 98.320       | 0.220        | 0.5             | 8.0307           | 0.0000        | SURCHARGED |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute winter | Development | 1.000        | Soakaway   | 0.5              | 0.547             | 0.043    | 0.1384           |                       |
| 720 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.40%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute summer | Development | 495            | 99.367       | 0.017        | 0.6             | 0.0197           | 0.0000        | OK         |
| 960 minute summer | Soakaway    | 975            | 98.352       | 0.252        | 0.6             | 9.2280           | 0.0000        | SURCHARGED |
| 960 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute summer | Development | 1.000        | Soakaway   | 0.6              | 0.547             | 0.052    | 0.1386           |                       |
| 960 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.42%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute winter | Development | 465            | 99.364       | 0.014        | 0.4             | 0.0162           | 0.0000        | OK         |
| 960 minute winter | Soakaway    | 945            | 98.348       | 0.248        | 0.4             | 9.0600           | 0.0000        | SURCHARGED |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute winter | Development | 1.000        | Soakaway   | 0.4              | 0.547             | 0.034    | 0.1379           |                       |
| 960 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.40%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute summer | Development | 720            | 99.364       | 0.014        | 0.4             | 0.0162           | 0.0000        | OK         |
| 1440 minute summer | Soakaway    | 1230           | 98.357       | 0.257        | 0.4             | 9.3983           | 0.0000        | SURCHARGED |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute summer | Development | 1.000        | Soakaway   | 0.4              | 0.493             | 0.034    | 0.1384           |                       |
| 1440 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 2 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.31%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute winter | Development | 690            | 99.363       | 0.013        | 0.3             | 0.0142           | 0.0000        | OK         |
| 1440 minute winter | Soakaway    | 1350           | 98.385       | 0.285        | 0.3             | 10.4164          | 0.0000        | SURCHARGED |
| 1440 minute winter | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute winter | Development | 1.000        | Soakaway   | 0.3              | 0.493             | 0.026    | 0.1373           |                       |
| 1440 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute summer | Development | 10             | 99.421       | 0.071        | 8.5             | 0.0805           | 0.0000        | OK     |
| 15 minute summer | Soakaway    | 37             | 98.211       | 0.111        | 8.6             | 4.0425           | 0.0000        | OK     |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer | Development | 1.000        | Soakaway   | 8.6              | 1.507             | 0.740    | 0.1226           |                       |
| 15 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute winter | Development | 10             | 99.419       | 0.069        | 8.2             | 0.0781           | 0.0000        | OK     |
| 15 minute winter | Soakaway    | 36             | 98.211       | 0.111        | 8.3             | 4.0453           | 0.0000        | OK     |
| 15 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute winter | Development | 1.000        | Soakaway   | 8.3              | 1.465             | 0.714    | 0.1213           |                       |
| 15 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 30 minute summer | Development | 17             | 99.415       | 0.065        | 8.3             | 0.0733           | 0.0000        | OK     |
| 30 minute summer | Soakaway    | 49             | 98.247       | 0.147        | 8.3             | 5.3717           | 0.0000        | OK     |
| 30 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute summer | Development | 1.000        | Soakaway   | 8.3              | 1.223             | 0.709    | 0.1427           |                       |
| 30 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 30 minute winter | Development | 18             | 99.408       | 0.058        | 6.9             | 0.0661           | 0.0000        | OK     |
| 30 minute winter | Soakaway    | 49             | 98.248       | 0.148        | 6.9             | 5.3980           | 0.0000        | OK     |
| 30 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute winter | Development | 1.000        | Soakaway   | 6.9              | 1.146             | 0.589    | 0.1436           |                       |
| 30 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 60 minute summer | Development | 33             | 99.407       | 0.057        | 6.5             | 0.0641           | 0.0000        | OK                |
| 60 minute summer | Soakaway    | 77             | 98.289       | 0.189        | 6.5             | 6.9307           | 0.0000        | <b>SURCHARGED</b> |
| 60 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute summer | Development | 1.000        | Soakaway   | 6.5              | 0.969             | 0.556    | 0.1582           |                       |
| 60 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 60 minute winter | Development | 33             | 99.398       | 0.048        | 4.8             | 0.0546           | 0.0000        | OK                |
| 60 minute winter | Soakaway    | 76             | 98.289       | 0.189        | 4.8             | 6.9278           | 0.0000        | <b>SURCHARGED</b> |
| 60 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute winter | Development | 1.000        | Soakaway   | 4.8              | 0.980             | 0.410    | 0.1572           |                       |
| 60 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.47%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 120 minute summer | Development | 64             | 99.396       | 0.046        | 4.4             | 0.0523           | 0.0000        | OK         |
| 120 minute summer | Soakaway    | 136            | 98.335       | 0.235        | 4.4             | 8.6044           | 0.0000        | SURCHARGED |
| 120 minute summer | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute summer | Development | 1.000        | Soakaway   | 4.4              | 0.840             | 0.378    | 0.1611           |                       |
| 120 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.48%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 120 minute winter | Development | 64             | 99.388       | 0.038        | 3.0             | 0.0430           | 0.0000        | OK         |
| 120 minute winter | Soakaway    | 134            | 98.333       | 0.233        | 3.0             | 8.5161           | 0.0000        | SURCHARGED |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 3.0              | 0.829             | 0.258    | 0.1559           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.37%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 180 minute summer | Development | 96             | 99.390       | 0.040        | 3.3             | 0.0451           | 0.0000        | OK         |
| 180 minute summer | Soakaway    | 196            | 98.364       | 0.264        | 3.3             | 9.6532           | 0.0000        | SURCHARGED |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute summer | Development | 1.000        | Soakaway   | 3.3              | 0.767             | 0.284    | 0.1573           |                       |
| 180 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.37%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 180 minute winter | Development | 96             | 99.383       | 0.033        | 2.3             | 0.0377           | 0.0000        | OK         |
| 180 minute winter | Soakaway    | 192            | 98.366       | 0.266        | 2.3             | 9.7127           | 0.0000        | SURCHARGED |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 2.3              | 0.750             | 0.198    | 0.1532           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.31%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute summer | Development | 124            | 99.387       | 0.037        | 2.8             | 0.0415           | 0.0000        | OK         |
| 240 minute summer | Soakaway    | 256            | 98.383       | 0.283        | 2.8             | 10.3527          | 0.0000        | SURCHARGED |
| 240 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute summer | Development | 1.000        | Soakaway   | 2.8              | 0.690             | 0.239    | 0.1559           |                       |
| 240 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.31%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute winter | Development | 124            | 99.380       | 0.030        | 1.9             | 0.0342           | 0.0000        | OK         |
| 240 minute winter | Soakaway    | 252            | 98.385       | 0.285        | 1.9             | 10.4360          | 0.0000        | SURCHARGED |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 1.9              | 0.721             | 0.163    | 0.1504           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.24%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute summer | Development | 184            | 99.382       | 0.032        | 2.1             | 0.0359           | 0.0000        | OK         |
| 360 minute summer | Soakaway    | 376            | 98.413       | 0.313        | 2.1             | 11.4312          | 0.0000        | SURCHARGED |
| 360 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute summer | Development | 1.000        | Soakaway   | 2.1              | 0.648             | 0.179    | 0.1524           |                       |
| 360 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.24%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute winter | Development | 184            | 99.376       | 0.026        | 1.4             | 0.0295           | 0.0000        | OK         |
| 360 minute winter | Soakaway    | 376            | 98.412       | 0.312        | 1.4             | 11.4075          | 0.0000        | SURCHARGED |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 1.4              | 0.603             | 0.120    | 0.1473           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.18%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute summer | Development | 248            | 99.379       | 0.029        | 1.7             | 0.0324           | 0.0000        | OK         |
| 480 minute summer | Soakaway    | 496            | 98.445       | 0.345        | 1.7             | 12.6119          | 0.0000        | SURCHARGED |
| 480 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute summer | Development | 1.000        | Soakaway   | 1.7              | 0.603             | 0.146    | 0.1496           |                       |
| 480 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.18%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute winter | Development | 240            | 99.373       | 0.023        | 1.1             | 0.0262           | 0.0000        | OK         |
| 480 minute winter | Soakaway    | 488            | 98.440       | 0.340        | 1.1             | 12.4494          | 0.0000        | SURCHARGED |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute winter | Development | 1.000        | Soakaway   | 1.1              | 0.575             | 0.095    | 0.1450           |                       |
| 480 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.16%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute summer | Development | 315            | 99.376       | 0.026        | 1.4             | 0.0295           | 0.0000        | OK         |
| 600 minute summer | Soakaway    | 615            | 98.453       | 0.353        | 1.4             | 12.9226          | 0.0000        | SURCHARGED |

|                   |       |    |        |       |     |        |        |    |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|
| 600 minute summer | Dummy | 15 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute summer | Development | 1.000        | Soakaway   | 1.4              | 0.502             | 0.120    | 0.1474           |                       |
| 600 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.14%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute winter | Development | 300            | 99.371       | 0.021        | 0.9             | 0.0238           | 0.0000        | OK         |
| 600 minute winter | Soakaway    | 600            | 98.464       | 0.364        | 0.9             | 13.3228          | 0.0000        | SURCHARGED |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute winter | Development | 1.000        | Soakaway   | 0.9              | 0.547             | 0.077    | 0.1433           |                       |
| 600 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.13%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute summer | Development | 375            | 99.374       | 0.024        | 1.2             | 0.0274           | 0.0000        | OK         |
| 720 minute summer | Soakaway    | 735            | 98.472       | 0.372        | 1.2             | 13.6057          | 0.0000        | SURCHARGED |

|                   |       |    |        |       |     |        |        |    |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|
| 720 minute summer | Dummy | 15 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|----|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute summer | Development | 1.000        | Soakaway   | 1.2              | 0.502             | 0.103    | 0.1458           |                       |
| 720 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.13%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute winter | Development | 360            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK         |
| 720 minute winter | Soakaway    | 720            | 98.469       | 0.369        | 0.8             | 13.4781          | 0.0000        | SURCHARGED |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute winter | Development | 1.000        | Soakaway   | 0.8              | 0.547             | 0.069    | 0.1424           |                       |
| 720 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.08%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute summer | Development | 495            | 99.372       | 0.022        | 1.0             | 0.0251           | 0.0000        | OK         |
| 960 minute summer | Soakaway    | 975            | 98.509       | 0.409        | 1.0             | 14.9658          | 0.0000        | SURCHARGED |
| 960 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute summer | Development | 1.000        | Soakaway   | 1.0              | 0.502             | 0.086    | 0.1441           |                       |
| 960 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.08%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute winter | Development | 480            | 99.369       | 0.019        | 0.7             | 0.0211           | 0.0000        | OK         |
| 960 minute winter | Soakaway    | 960            | 98.506       | 0.406        | 0.7             | 14.8390          | 0.0000        | SURCHARGED |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute winter | Development | 1.000        | Soakaway   | 0.7              | 0.547             | 0.060    | 0.1415           |                       |
| 960 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.02%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute summer | Development | 750            | 99.369       | 0.019        | 0.7             | 0.0211           | 0.0000        | OK         |
| 1440 minute summer | Soakaway    | 1470           | 98.563       | 0.463        | 0.7             | 16.9198          | 0.0000        | SURCHARGED |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute summer | Development | 1.000        | Soakaway   | 0.7              | 0.400             | 0.060    | 0.1415           |                       |
| 1440 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.02%**

| Node Event         | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|--------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 1440 minute winter | Development | 720         | 99.366    | 0.016     | 0.5          | 0.0180        | 0.0000     | OK         |
| 1440 minute winter | Soakaway    | 1410        | 98.556    | 0.456     | 0.5          | 16.6820       | 0.0000     | SURCHARGED |
| 1440 minute winter | Dummy       | 30          | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event         | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|--------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 1440 minute winter | Development | 1.000        | Soakaway | 0.5           | 0.493          | 0.043    | 0.1395        |                    |
| 1440 minute winter | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 1440 minute winter | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 30 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 15 minute summer | Development | 10             | 99.435       | 0.085            | 11.9              | 0.0957           | 0.0000           | OK                    |
| 15 minute summer | Soakaway    | 34             | 98.255       | 0.155            | 12.0              | 5.6681           | 0.0000           | SURCHARGED            |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event       | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 15 minute summer | Development | 1.000          | Soakaway     | 12.0             | 1.565             | 1.035            | 0.1710           |                       |
| 15 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%**

| Node Event       | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute winter | Development | 10          | 99.432    | 0.082     | 11.5         | 0.0928        | 0.0000     | OK         |
| 15 minute winter | Soakaway    | 34          | 98.255    | 0.155     | 11.6         | 5.6591        | 0.0000     | SURCHARGED |
| 15 minute winter | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event       | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute winter | Development | 1.000        | Soakaway | 11.6          | 1.523          | 1.000    | 0.1677        |                    |
| 15 minute winter | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 15 minute winter | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 30 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.60%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 30 minute summer | Development | 18             | 99.429       | 0.079        | 11.6            | 0.0888           | 0.0000        | OK         |
| 30 minute summer | Soakaway    | 47             | 98.307       | 0.207        | 11.5            | 7.5635           | 0.0000        | SURCHARGED |
| 30 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute summer | Development | 1.000        | Soakaway   | 11.5             | 1.242             | 0.989    | 0.1877           |                       |
| 30 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.61%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 30 minute winter | Development | 18             | 99.421       | 0.071        | 9.7             | 0.0800           | 0.0000        | OK         |
| 30 minute winter | Soakaway    | 47             | 98.307       | 0.207        | 9.6             | 7.5605           | 0.0000        | SURCHARGED |
| 30 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute winter | Development | 1.000        | Soakaway   | 9.6              | 1.179             | 0.828    | 0.1821           |                       |
| 30 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.39%**

| Node Event       | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 60 minute summer | Development | 33          | 99.418    | 0.068     | 9.1          | 0.0772        | 0.0000     | OK         |
| 60 minute summer | Soakaway    | 75          | 98.366    | 0.266     | 9.1          | 9.7326        | 0.0000     | SURCHARGED |
| 60 minute summer | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event       | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 60 minute summer | Development | 1.000        | Soakaway | 9.1           | 1.043          | 0.778    | 0.1877        |                    |
| 60 minute summer | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 60 minute summer | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 30 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.39%**

| Node Event       | US Node     | Peak (mins)  | Level (m) | Depth (m)     | Inflow (l/s)   | Node Vol (m³) | Flood (m³)    | Status             |
|------------------|-------------|--------------|-----------|---------------|----------------|---------------|---------------|--------------------|
| 60 minute winter | Development | 33           | 99.408    | 0.058         | 6.7            | 0.0652        | 0.0000        | OK                 |
| 60 minute winter | Soakaway    | 74           | 98.365    | 0.265         | 6.7            | 9.6762        | 0.0000        | SURCHARGED         |
| 60 minute winter | Dummy       | 1            | 97.975    | 0.000         | 0.0            | 0.0000        | 0.0000        | OK                 |
| Link Event       | US Node     | Link         | DS Node   | Outflow (l/s) | Velocity (m/s) | Flow/Cap      | Link Vol (m³) | Discharge Vol (m³) |
| 60 minute winter | Development | 1.000        | Soakaway  | 6.7           | 1.051          | 0.574         | 0.1778        |                    |
| 60 minute winter | Soakaway    | Pump         | Dummy     | 0.0           |                |               |               | 0.0                |
| 60 minute winter | Soakaway    | Infiltration |           | 0.0           |                |               |               |                    |

**Results for 30 year +40% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.23%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 120 minute summer | Development | 64             | 99.405       | 0.055            | 6.2               | 0.0626           | 0.0000           | OK                    |
| 120 minute summer | Soakaway    | 134            | 98.429       | 0.329            | 6.2               | 12.0484          | 0.0000           | SURCHARGED            |
| 120 minute summer | Dummy       | 2              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 120 minute summer | Development | 1.000          | Soakaway     | 6.2              | 0.932             | 0.533            | 0.1763           |                       |
| 120 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.22%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 120 minute winter | Development | 64             | 99.396       | 0.046        | 4.3             | 0.0517           | 0.0000        | OK         |
| 120 minute winter | Soakaway    | 132            | 98.431       | 0.331        | 4.3             | 12.1068          | 0.0000        | SURCHARGED |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 4.3              | 0.889             | 0.369    | 0.1660           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.15%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 180 minute summer | Development | 96             | 99.397       | 0.047            | 4.6               | 0.0535           | 0.0000           | OK                    |
| 180 minute summer | Soakaway    | 196            | 98.469       | 0.369            | 4.6               | 13.5130          | 0.0000           | SURCHARGED            |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 180 minute summer | Development | 1.000          | Soakaway     | 4.6              | 0.836             | 0.395            | 0.1677           |                       |
| 180 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.14%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 180 minute winter | Development | 96             | 99.389       | 0.039        | 3.2             | 0.0444           | 0.0000        | OK         |
| 180 minute winter | Soakaway    | 196            | 98.472       | 0.372        | 3.2             | 13.6182          | 0.0000        | SURCHARGED |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 3.2              | 0.797             | 0.275    | 0.1596           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.10%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 240 minute summer | Development | 124            | 99.393       | 0.043            | 3.9               | 0.0491           | 0.0000           | OK                    |
| 240 minute summer | Soakaway    | 256            | 98.502       | 0.402            | 3.9               | 14.7045          | 0.0000           | SURCHARGED            |
| 240 minute summer | Dummy       | 4              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 240 minute summer | Development | 1.000          | Soakaway     | 3.9              | 0.776             | 0.334            | 0.1637           |                       |
| 240 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.09%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute winter | Development | 124            | 99.385       | 0.035        | 2.6             | 0.0400           | 0.0000        | OK         |
| 240 minute winter | Soakaway    | 248            | 98.503       | 0.403        | 2.6             | 14.7520          | 0.0000        | SURCHARGED |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 2.6              | 0.775             | 0.223    | 0.1558           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.04%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 360 minute summer | Development | 184            | 99.388       | 0.038            | 3.0               | 0.0429           | 0.0000           | OK                    |
| 360 minute summer | Soakaway    | 376            | 98.547       | 0.447            | 3.0               | 16.3529          | 0.0000           | SURCHARGED            |
| 360 minute summer | Dummy       | 8              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 360 minute summer | Development | 1.000          | Soakaway     | 3.0              | 0.701             | 0.256            | 0.1583           |                       |
| 360 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.04%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 360 minute winter | Development | 184            | 99.380       | 0.030        | 1.9             | 0.0343           | 0.0000        | OK                |
| 360 minute winter | Soakaway    | 376            | 98.539       | 0.439        | 1.9             | 16.0694          | 0.0000        | <b>SURCHARGED</b> |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 1.9              | 0.667             | 0.163    | 0.1510           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.01%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 480 minute summer | Development | 248            | 99.384       | 0.034            | 2.4               | 0.0385           | 0.0000           | OK                    |
| 480 minute summer | Soakaway    | 496            | 98.573       | 0.473            | 2.4               | 17.2910          | 0.0000           | SURCHARGED            |
| 480 minute summer | Dummy       | 8              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 480 minute summer | Development | 1.000          | Soakaway     | 2.4              | 0.648             | 0.206            | 0.1545           |                       |
| 480 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute winter | Development | 248            | 99.378       | 0.028        | 1.6             | 0.0315           | 0.0000        | OK         |
| 480 minute winter | Soakaway    | 488            | 98.584       | 0.484        | 1.6             | 17.7165          | 0.0000        | SURCHARGED |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute winter | Development | 1.000        | Soakaway   | 1.6              | 0.634             | 0.137    | 0.1489           |                       |
| 480 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 98.98%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 600 minute summer | Development | 315            | 99.380       | 0.030            | 1.9               | 0.0343           | 0.0000           | OK                    |
| 600 minute summer | Soakaway    | 615            | 98.606       | 0.506            | 1.9               | 18.5124          | 0.0000           | SURCHARGED            |
| 600 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 600 minute summer | Development | 1.000          | Soakaway     | 1.9              | 0.551             | 0.163            | 0.1510           |                       |
| 600 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 98.99%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 600 minute winter | Development | 300            | 99.375       | 0.025            | 1.3               | 0.0285           | 0.0000           | OK                    |
| 600 minute winter | Soakaway    | 615            | 98.593       | 0.493            | 1.3               | 18.0285          | 0.0000           | SURCHARGED            |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 600 minute winter | Development | 1.000          | Soakaway     | 1.3              | 0.502             | 0.112            | 0.1466           |                       |
| 600 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 98.96%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 720 minute summer | Development | 375            | 99.379       | 0.029            | 1.7               | 0.0324           | 0.0000           | OK                    |
| 720 minute summer | Soakaway    | 735            | 98.635       | 0.535            | 1.7               | 19.5835          | 0.0000           | SURCHARGED            |
| 720 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 720 minute summer | Development | 1.000          | Soakaway     | 1.7              | 0.593             | 0.146            | 0.1496           |                       |
| 720 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 98.95%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute winter | Development | 375            | 99.374       | 0.024        | 1.2             | 0.0274           | 0.0000        | OK         |
| 720 minute winter | Soakaway    | 720            | 98.632       | 0.532        | 1.2             | 19.4579          | 0.0000        | SURCHARGED |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute winter | Development | 1.000        | Soakaway   | 1.2              | 0.547             | 0.103    | 0.1458           |                       |
| 720 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 30 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 98.94%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 960 minute summer | Development | 495            | 99.376       | 0.026            | 1.4               | 0.0295           | 0.0000           | OK                    |
| 960 minute summer | Soakaway    | 975            | 98.658       | 0.558            | 1.4               | 20.4007          | 0.0000           | SURCHARGED            |
| 960 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 960 minute summer | Development | 1.000          | Soakaway     | 1.4              | 0.502             | 0.120            | 0.1474           |                       |
| 960 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 98.92%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 960 minute winter | Development | 465            | 99.371       | 0.021            | 0.9               | 0.0238           | 0.0000           | OK                    |
| 960 minute winter | Soakaway    | 960            | 98.674       | 0.574            | 0.9               | 20.9766          | 0.0000           | SURCHARGED            |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 960 minute winter | Development | 1.000          | Soakaway     | 0.9              | 0.547             | 0.077            | 0.1433           |                       |
| 960 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 98.90%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|--------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 1440 minute summer | Development | 750            | 99.372       | 0.022            | 1.0               | 0.0251           | 0.0000           | OK                    |
| 1440 minute summer | Soakaway    | 1470           | 98.715       | 0.615            | 1.0               | 22.4969          | 0.0000           | SURCHARGED            |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event         | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 1440 minute summer | Development | 1.000          | Soakaway     | 1.0              | 0.400             | 0.086            | 0.1441           |                       |
| 1440 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 30 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 98.89%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m <sup>3</sup> ) | Flood<br>(m <sup>3</sup> ) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|-------------------------------|----------------------------|------------|
| 1440 minute winter | Development | 720            | 99.369       | 0.019        | 0.7             | 0.0211                        | 0.0000                     | OK         |
| 1440 minute winter | Soakaway    | 1440           | 98.727       | 0.627        | 0.7             | 22.9475                       | 0.0000                     | SURCHARGED |
| 1440 minute winter | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000                        | 0.0000                     | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m <sup>3</sup> ) | Discharge<br>Vol (m <sup>3</sup> ) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|-------------------------------|------------------------------------|
| 1440 minute winter | Development | 1.000        | Soakaway   | 0.7              | 0.493             | 0.060    | 0.1415                        |                                    |
| 1440 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                               | 0.0                                |
| 1440 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                               |                                    |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute summer | Development | 10             | 99.431       | 0.081        | 11.0            | 0.0918           | 0.0000        | OK     |
| 15 minute summer | Soakaway    | 35             | 98.242       | 0.142        | 11.1            | 5.2115           | 0.0000        | OK     |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer | Development | 1.000        | Soakaway   | 11.1             | 1.557             | 0.957    | 0.1584           |                       |
| 15 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|--------|
| 15 minute winter | Development | 10             | 99.429       | 0.079        | 10.6            | 0.0889           | 0.0000        | OK     |
| 15 minute winter | Soakaway    | 35             | 98.243       | 0.143        | 10.7            | 5.2260           | 0.0000        | OK     |
| 15 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK     |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute winter | Development | 1.000        | Soakaway   | 10.7             | 1.508             | 0.922    | 0.1564           |                       |
| 15 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 30 minute summer | Development | 18             | 99.425       | 0.075        | 10.8            | 0.0851           | 0.0000        | OK         |
| 30 minute summer | Soakaway    | 48             | 98.293       | 0.193        | 10.7            | 7.0432           | 0.0000        | SURCHARGED |
| 30 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute summer | Development | 1.000        | Soakaway   | 10.7             | 1.238             | 0.920    | 0.1795           |                       |
| 30 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

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

| Node Event       | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 30 minute winter | Development | 18          | 99.418    | 0.068     | 9.0          | 0.0767        | 0.0000     | OK         |
| 30 minute winter | Soakaway    | 47          | 98.293    | 0.193     | 9.0          | 7.0579        | 0.0000     | SURCHARGED |
| 30 minute winter | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event       | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 30 minute winter | Development | 1.000        | Soakaway | 9.0           | 1.168          | 0.769    | 0.1748        |                    |
| 30 minute winter | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 30 minute winter | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 100 year 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.43%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 60 minute summer | Development | 33             | 99.416       | 0.066        | 8.6             | 0.0747           | 0.0000        | OK                |
| 60 minute summer | Soakaway    | 76             | 98.349       | 0.249        | 8.6             | 9.1234           | 0.0000        | <b>SURCHARGED</b> |
| 60 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute summer | Development | 1.000        | Soakaway   | 8.6              | 1.015             | 0.735    | 0.1841           |                       |
| 60 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.43%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 60 minute winter | Development | 33             | 99.406       | 0.056        | 6.3             | 0.0631           | 0.0000        | OK                |
| 60 minute winter | Soakaway    | 74             | 98.349       | 0.249        | 6.3             | 9.0967           | 0.0000        | <b>SURCHARGED</b> |
| 60 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute winter | Development | 1.000        | Soakaway   | 6.3              | 1.032             | 0.539    | 0.1744           |                       |
| 60 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.27%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 120 minute summer | Development | 64             | 99.403       | 0.053        | 5.8             | 0.0604           | 0.0000        | OK         |
| 120 minute summer | Soakaway    | 134            | 98.409       | 0.309        | 5.8             | 11.3156          | 0.0000        | SURCHARGED |

|                   |       |   |        |       |     |        |        |    |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|
| 120 minute summer | Dummy | 2 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute summer | Development | 1.000        | Soakaway   | 5.8              | 0.896             | 0.498    | 0.1742           |                       |
| 120 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.26%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 120 minute winter | Development | 64             | 99.394       | 0.044        | 4.0             | 0.0498           | 0.0000        | OK                |
| 120 minute winter | Soakaway    | 132            | 98.409       | 0.309        | 4.0             | 11.3035          | 0.0000        | <b>SURCHARGED</b> |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 4.0              | 0.901             | 0.344    | 0.1643           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.20%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 180 minute summer | Development | 96             | 99.396       | 0.046        | 4.3             | 0.0517           | 0.0000        | OK         |
| 180 minute summer | Soakaway    | 196            | 98.441       | 0.341        | 4.3             | 12.4741          | 0.0000        | SURCHARGED |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute summer | Development | 1.000        | Soakaway   | 4.3              | 0.836             | 0.369    | 0.1660           |                       |
| 180 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.19%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 180 minute winter | Development | 96             | 99.388       | 0.038        | 3.0             | 0.0430           | 0.0000        | OK         |
| 180 minute winter | Soakaway    | 196            | 98.444       | 0.344        | 3.0             | 12.5797          | 0.0000        | SURCHARGED |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 3.0              | 0.797             | 0.258    | 0.1583           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.15%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute summer | Development | 124            | 99.392       | 0.042        | 3.6             | 0.0471           | 0.0000        | OK         |
| 240 minute summer | Soakaway    | 256            | 98.469       | 0.369        | 3.6             | 13.5014          | 0.0000        | SURCHARGED |

|                   |       |   |        |       |     |        |        |    |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|
| 240 minute summer | Dummy | 4 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute summer | Development | 1.000        | Soakaway   | 3.6              | 0.776             | 0.308    | 0.1619           |                       |
| 240 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.14%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 240 minute winter | Development | 124            | 99.384       | 0.034        | 2.4             | 0.0385           | 0.0000        | OK                |
| 240 minute winter | Soakaway    | 252            | 98.467       | 0.367        | 2.4             | 13.4311          | 0.0000        | <b>SURCHARGED</b> |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 2.4              | 0.723             | 0.206    | 0.1545           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.08%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute summer | Development | 184            | 99.387       | 0.037        | 2.8             | 0.0415           | 0.0000        | OK         |
| 360 minute summer | Soakaway    | 376            | 98.509       | 0.409        | 2.8             | 14.9633          | 0.0000        | SURCHARGED |

|                   |       |   |        |       |     |        |        |    |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|
| 360 minute summer | Dummy | 8 | 97.975 | 0.000 | 0.0 | 0.0000 | 0.0000 | OK |
|-------------------|-------|---|--------|-------|-----|--------|--------|----|

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute summer | Development | 1.000        | Soakaway   | 2.8              | 0.648             | 0.239    | 0.1570           |                       |
| 360 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.08%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute winter | Development | 184            | 99.379       | 0.029        | 1.8             | 0.0333           | 0.0000        | OK         |
| 360 minute winter | Soakaway    | 376            | 98.507       | 0.407        | 1.8             | 14.8919          | 0.0000        | SURCHARGED |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 1.8              | 0.667             | 0.154    | 0.1503           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.05%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute summer | Development | 248            | 99.383       | 0.033        | 2.2             | 0.0368           | 0.0000        | OK         |
| 480 minute summer | Soakaway    | 496            | 98.537       | 0.437        | 2.2             | 15.9742          | 0.0000        | SURCHARGED |
| 480 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute summer | Development | 1.000        | Soakaway   | 2.2              | 0.648             | 0.189    | 0.1531           |                       |
| 480 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.04%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 480 minute winter | Development | 240            | 99.376       | 0.026        | 1.4             | 0.0295           | 0.0000        | OK                |
| 480 minute winter | Soakaway    | 488            | 98.541       | 0.441        | 1.4             | 16.1174          | 0.0000        | <b>SURCHARGED</b> |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute winter | Development | 1.000        | Soakaway   | 1.4              | 0.634             | 0.120    | 0.1474           |                       |
| 480 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.02%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute summer | Development | 315            | 99.379       | 0.029        | 1.8             | 0.0334           | 0.0000        | OK         |
| 600 minute summer | Soakaway    | 615            | 98.563       | 0.463        | 1.8             | 16.9275          | 0.0000        | SURCHARGED |
| 600 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute summer | Development | 1.000        | Soakaway   | 1.8              | 0.551             | 0.155    | 0.1503           |                       |
| 600 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.03%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 600 minute winter | Development | 315            | 99.374       | 0.024        | 1.2             | 0.0274           | 0.0000        | OK         |
| 600 minute winter | Soakaway    | 615            | 98.550       | 0.450        | 1.2             | 16.4436          | 0.0000        | SURCHARGED |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute winter | Development | 1.000        | Soakaway   | 1.2              | 0.502             | 0.103    | 0.1458           |                       |
| 600 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 98.99%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 720 minute summer | Development | 375            | 99.378       | 0.028        | 1.6             | 0.0315           | 0.0000        | OK         |
| 720 minute summer | Soakaway    | 735            | 98.587       | 0.487        | 1.6             | 17.8254          | 0.0000        | SURCHARGED |
| 720 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute summer | Development | 1.000        | Soakaway   | 1.6              | 0.502             | 0.137    | 0.1489           |                       |
| 720 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.00%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 720 minute winter | Development | 375            | 99.373       | 0.023        | 1.1             | 0.0262           | 0.0000        | OK                |
| 720 minute winter | Soakaway    | 720            | 98.579       | 0.479        | 1.1             | 17.5231          | 0.0000        | <b>SURCHARGED</b> |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 720 minute winter | Development | 1.000        | Soakaway   | 1.1              | 0.547             | 0.095    | 0.1450           |                       |
| 720 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 98.98%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute summer | Development | 495            | 99.375       | 0.025        | 1.3             | 0.0285           | 0.0000        | OK         |
| 960 minute summer | Soakaway    | 975            | 98.600       | 0.500        | 1.3             | 18.2969          | 0.0000        | SURCHARGED |
| 960 minute summer | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute summer | Development | 1.000        | Soakaway   | 1.3              | 0.502             | 0.112    | 0.1466           |                       |
| 960 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 98.97%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 960 minute winter | Development | 450            | 99.370       | 0.020        | 0.8             | 0.0225           | 0.0000        | OK         |
| 960 minute winter | Soakaway    | 960            | 98.611       | 0.511        | 0.8             | 18.6970          | 0.0000        | SURCHARGED |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 960 minute winter | Development | 1.000        | Soakaway   | 0.8              | 0.547             | 0.069    | 0.1424           |                       |
| 960 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 98.95%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute summer | Development | 750            | 99.371       | 0.021        | 0.9             | 0.0238           | 0.0000        | OK         |
| 1440 minute summer | Soakaway    | 1470           | 98.648       | 0.548        | 0.9             | 20.0570          | 0.0000        | SURCHARGED |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute summer | Development | 1.000        | Soakaway   | 0.9              | 0.400             | 0.077    | 0.1433           |                       |
| 1440 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 98.94%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute winter | Development | 690            | 99.367       | 0.017        | 0.6             | 0.0197           | 0.0000        | OK         |
| 1440 minute winter | Soakaway    | 1440           | 98.661       | 0.561        | 0.6             | 20.5059          | 0.0000        | SURCHARGED |
| 1440 minute winter | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute winter | Development | 1.000        | Soakaway   | 0.6              | 0.493             | 0.052    | 0.1405           |                       |
| 1440 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 99.62%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 15 minute summer | Development | 10             | 99.450       | 0.100        | 15.9            | 0.1134           | 0.0000        | OK                |
| 15 minute summer | Soakaway    | 32             | 98.308       | 0.208        | 15.9            | 7.5939           | 0.0000        | <b>SURCHARGED</b> |
| 15 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 15 minute summer | Development | 1.000        | Soakaway   | 15.9             | 1.607             | 1.368    | 0.2106           |                       |
| 15 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 15 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 99.62%**

| Node Event       | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute winter | Development | 10          | 99.447    | 0.097     | 15.4         | 0.1094        | 0.0000     | OK         |
| 15 minute winter | Soakaway    | 32          | 98.307    | 0.207     | 15.4         | 7.5873        | 0.0000     | SURCHARGED |
| 15 minute winter | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event       | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 15 minute winter | Development | 1.000        | Soakaway | 15.4          | 1.574          | 1.324    | 0.2056        |                    |
| 15 minute winter | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 15 minute winter | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 100 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.39%**

| Node Event       | US Node     | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status            |
|------------------|-------------|-------------|-----------|-----------|--------------|---------------|------------|-------------------|
| 30 minute summer | Development | 18          | 99.445    | 0.095     | 15.7         | 0.1077        | 0.0000     | OK                |
| 30 minute summer | Soakaway    | 45          | 98.381    | 0.281     | 15.6         | 10.2793       | 0.0000     | <b>SURCHARGED</b> |
| 30 minute summer | Dummy       | 1           | 97.975    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK                |

| Link Event       | US Node     | Link         | DS Node  | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|------------------|-------------|--------------|----------|---------------|----------------|----------|---------------|--------------------|
| 30 minute summer | Development | 1.000        | Soakaway | 15.6          | 1.253          | 1.340    | 0.2190        |                    |
| 30 minute summer | Soakaway    | Pump         | Dummy    | 0.0           |                |          |               | 0.0                |
| 30 minute summer | Soakaway    | Infiltration |          | 0.0           |                |          |               |                    |

**Results for 100 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.38%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 30 minute winter | Development | 18             | 99.435       | 0.085        | 13.1            | 0.0958           | 0.0000        | OK         |
| 30 minute winter | Soakaway    | 45             | 98.382       | 0.282        | 13.0            | 10.2964          | 0.0000        | SURCHARGED |
| 30 minute winter | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 30 minute winter | Development | 1.000        | Soakaway   | 13.0             | 1.247             | 1.120    | 0.2080           |                       |
| 30 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 30 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.23%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 60 minute summer | Development | 33             | 99.432       | 0.082        | 12.4            | 0.0926           | 0.0000        | OK                |
| 60 minute summer | Soakaway    | 74             | 98.462       | 0.362        | 12.3            | 13.2531          | 0.0000        | <b>SURCHARGED</b> |
| 60 minute summer | Dummy       | 1              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event       | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 60 minute summer | Development | 1.000        | Soakaway   | 12.3             | 1.113             | 1.060    | 0.2058           |                       |
| 60 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 60 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.21%**

| Node Event       | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 60 minute winter | Development | 33             | 99.418       | 0.068            | 9.1               | 0.0774           | 0.0000           | OK                    |
| 60 minute winter | Soakaway    | 73             | 98.462       | 0.362            | 9.1               | 13.2446          | 0.0000           | SURCHARGED            |
| 60 minute winter | Dummy       | 1              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event       | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 60 minute winter | Development | 1.000          | Soakaway     | 9.1              | 1.120             | 0.782            | 0.1907           |                       |
| 60 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 60 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.09%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 120 minute summer | Development | 64             | 99.415       | 0.065            | 8.4               | 0.0739           | 0.0000           | OK                    |
| 120 minute summer | Soakaway    | 132            | 98.550       | 0.450            | 8.4               | 16.4412          | 0.0000           | SURCHARGED            |
| 120 minute summer | Dummy       | 2              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 120 minute summer | Development | 1.000          | Soakaway     | 8.4              | 1.000             | 0.722            | 0.1873           |                       |
| 120 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 120 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.07%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 120 minute winter | Development | 64             | 99.403       | 0.053        | 5.8             | 0.0604           | 0.0000        | OK         |
| 120 minute winter | Soakaway    | 132            | 98.548       | 0.448        | 5.8             | 16.4029          | 0.0000        | SURCHARGED |
| 120 minute winter | Dummy       | 2              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 120 minute winter | Development | 1.000        | Soakaway   | 5.8              | 0.949             | 0.498    | 0.1742           |                       |
| 120 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 120 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.02%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 180 minute summer | Development | 96             | 99.406       | 0.056            | 6.3               | 0.0632           | 0.0000           | OK                    |
| 180 minute summer | Soakaway    | 192            | 98.600       | 0.500            | 6.3               | 18.2724          | 0.0000           | SURCHARGED            |
| 180 minute summer | Dummy       | 4              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 180 minute summer | Development | 1.000          | Soakaway     | 6.3              | 0.930             | 0.541            | 0.1768           |                       |
| 180 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 180 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.01%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 180 minute winter | Development | 96             | 99.396       | 0.046        | 4.3             | 0.0517           | 0.0000        | OK                |
| 180 minute winter | Soakaway    | 192            | 98.601       | 0.501        | 4.3             | 18.3410          | 0.0000        | <b>SURCHARGED</b> |
| 180 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 180 minute winter | Development | 1.000        | Soakaway   | 4.3              | 0.836             | 0.369    | 0.1660           |                       |
| 180 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 180 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 98.98%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 240 minute summer | Development | 124            | 99.401       | 0.051            | 5.3               | 0.0575           | 0.0000           | OK                    |
| 240 minute summer | Soakaway    | 252            | 98.636       | 0.536            | 5.3               | 19.6128          | 0.0000           | SURCHARGED            |
| 240 minute summer | Dummy       | 4              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 240 minute summer | Development | 1.000          | Soakaway     | 5.3              | 0.891             | 0.453            | 0.1715           |                       |
| 240 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 240 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 98.97%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 240 minute winter | Development | 124            | 99.391       | 0.041        | 3.5             | 0.0465           | 0.0000        | OK         |
| 240 minute winter | Soakaway    | 248            | 98.638       | 0.538        | 3.5             | 19.6827          | 0.0000        | SURCHARGED |
| 240 minute winter | Dummy       | 4              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 240 minute winter | Development | 1.000        | Soakaway   | 3.5              | 0.811             | 0.301    | 0.1614           |                       |
| 240 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 240 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 98.93%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute summer | Development | 184            | 99.394       | 0.044        | 4.0             | 0.0497           | 0.0000        | OK         |
| 360 minute summer | Soakaway    | 376            | 98.697       | 0.597        | 4.0             | 21.8175          | 0.0000        | SURCHARGED |
| 360 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute summer | Development | 1.000        | Soakaway   | 4.0              | 0.701             | 0.342    | 0.1642           |                       |
| 360 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 98.92%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 360 minute winter | Development | 184            | 99.385       | 0.035        | 2.6             | 0.0400           | 0.0000        | OK         |
| 360 minute winter | Soakaway    | 368            | 98.698       | 0.598        | 2.6             | 21.8626          | 0.0000        | SURCHARGED |
| 360 minute winter | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 360 minute winter | Development | 1.000        | Soakaway   | 2.6              | 0.735             | 0.223    | 0.1558           |                       |
| 360 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 360 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 98.90%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 480 minute summer | Development | 248            | 99.389       | 0.039        | 3.1             | 0.0437           | 0.0000        | OK         |
| 480 minute summer | Soakaway    | 496            | 98.737       | 0.637        | 3.1             | 23.2877          | 0.0000        | SURCHARGED |
| 480 minute summer | Dummy       | 8              | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 480 minute summer | Development | 1.000        | Soakaway   | 3.1              | 0.701             | 0.266    | 0.1590           |                       |
| 480 minute summer | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 480 minute summer | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 98.90%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 480 minute winter | Development | 248            | 99.382       | 0.032            | 2.1               | 0.0360           | 0.0000           | OK                    |
| 480 minute winter | Soakaway    | 488            | 98.735       | 0.635            | 2.1               | 23.2393          | 0.0000           | SURCHARGED            |
| 480 minute winter | Dummy       | 8              | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 480 minute winter | Development | 1.000          | Soakaway     | 2.1              | 0.667             | 0.180            | 0.1524           |                       |
| 480 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 480 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 98.88%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 600 minute summer | Development | 315            | 99.385       | 0.035            | 2.6               | 0.0400           | 0.0000           | OK                    |
| 600 minute summer | Soakaway    | 615            | 98.775       | 0.675            | 2.6               | 24.6767          | 0.0000           | SURCHARGED            |
| 600 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 600 minute summer | Development | 1.000          | Soakaway     | 2.6              | 0.551             | 0.223            | 0.1558           |                       |
| 600 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 600 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 98.87%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status            |
|-------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|-------------------|
| 600 minute winter | Development | 300            | 99.379       | 0.029        | 1.7             | 0.0324           | 0.0000        | OK                |
| 600 minute winter | Soakaway    | 615            | 98.776       | 0.676        | 1.7             | 24.7202          | 0.0000        | <b>SURCHARGED</b> |
| 600 minute winter | Dummy       | 15             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK                |

| Link Event        | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|-------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 600 minute winter | Development | 1.000        | Soakaway   | 1.7              | 0.593             | 0.146    | 0.1496           |                       |
| 600 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 600 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |

**Results for 100 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 98.87%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 720 minute summer | Development | 375            | 99.383       | 0.033            | 2.3               | 0.0377           | 0.0000           | OK                    |
| 720 minute summer | Soakaway    | 735            | 98.793       | 0.693            | 2.3               | 25.3423          | 0.0000           | SURCHARGED            |
| 720 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 720 minute summer | Development | 1.000          | Soakaway     | 2.3              | 0.551             | 0.198            | 0.1538           |                       |
| 720 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 720 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 98.86%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 720 minute winter | Development | 360            | 99.377       | 0.027            | 1.5               | 0.0305           | 0.0000           | OK                    |
| 720 minute winter | Soakaway    | 735            | 98.813       | 0.713            | 1.5               | 26.0890          | 0.0000           | SURCHARGED            |
| 720 minute winter | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 720 minute winter | Development | 1.000          | Soakaway     | 1.5              | 0.593             | 0.129            | 0.1481           |                       |
| 720 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 720 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 98.84%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 960 minute summer | Development | 495            | 99.380       | 0.030            | 1.9               | 0.0343           | 0.0000           | OK                    |
| 960 minute summer | Soakaway    | 975            | 98.858       | 0.758            | 1.9               | 27.7198          | 0.0000           | SURCHARGED            |
| 960 minute summer | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 960 minute summer | Development | 1.000          | Soakaway     | 1.9              | 0.551             | 0.163            | 0.1510           |                       |
| 960 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 960 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 98.84%**

| Node Event        | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|-------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 960 minute winter | Development | 480            | 99.374       | 0.024            | 1.2               | 0.0274           | 0.0000           | OK                    |
| 960 minute winter | Soakaway    | 960            | 98.837       | 0.737            | 1.2               | 26.9399          | 0.0000           | SURCHARGED            |
| 960 minute winter | Dummy       | 15             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event        | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 960 minute winter | Development | 1.000          | Soakaway     | 1.2              | 0.547             | 0.103            | 0.1458           |                       |
| 960 minute winter | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 960 minute winter | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 98.83%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m)     | Inflow<br>(l/s)   | Node<br>Vol (m³) | Flood<br>(m³)    | Status                |
|--------------------|-------------|----------------|--------------|------------------|-------------------|------------------|------------------|-----------------------|
| 1440 minute summer | Development | 750            | 99.375       | 0.025            | 1.3               | 0.0285           | 0.0000           | OK                    |
| 1440 minute summer | Soakaway    | 1470           | 98.896       | 0.796            | 1.3               | 29.1201          | 0.0000           | SURCHARGED            |
| 1440 minute summer | Dummy       | 30             | 97.975       | 0.000            | 0.0               | 0.0000           | 0.0000           | OK                    |
| Link Event         | US<br>Node  | Link           | DS<br>Node   | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap         | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
| 1440 minute summer | Development | 1.000          | Soakaway     | 1.3              | 0.400             | 0.112            | 0.1466           |                       |
| 1440 minute summer | Soakaway    | Pump           | Dummy        | 0.0              |                   |                  |                  | 0.0                   |
| 1440 minute summer | Soakaway    | Infiltration   |              | 0.0              |                   |                  |                  |                       |

**Results for 100 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 98.81%**

| Node Event         | US<br>Node  | Peak<br>(mins) | Level<br>(m) | Depth<br>(m) | Inflow<br>(l/s) | Node<br>Vol (m³) | Flood<br>(m³) | Status     |
|--------------------|-------------|----------------|--------------|--------------|-----------------|------------------|---------------|------------|
| 1440 minute winter | Development | 720            | 99.371       | 0.021        | 0.9             | 0.0238           | 0.0000        | OK         |
| 1440 minute winter | Soakaway    | 1440           | 98.928       | 0.828        | 0.9             | 30.2721          | 0.0000        | SURCHARGED |
| 1440 minute winter | Dummy       | 30             | 97.975       | 0.000        | 0.0             | 0.0000           | 0.0000        | OK         |

| Link Event         | US<br>Node  | Link         | DS<br>Node | Outflow<br>(l/s) | Velocity<br>(m/s) | Flow/Cap | Link<br>Vol (m³) | Discharge<br>Vol (m³) |
|--------------------|-------------|--------------|------------|------------------|-------------------|----------|------------------|-----------------------|
| 1440 minute winter | Development | 1.000        | Soakaway   | 0.9              | 0.493             | 0.077    | 0.1433           |                       |
| 1440 minute winter | Soakaway    | Pump         | Dummy      | 0.0              |                   |          |                  | 0.0                   |
| 1440 minute winter | Soakaway    | Infiltration |            | 0.0              |                   |          |                  |                       |