

| AKS Ward Limited                                                                                                                                                                                                                                                                                                                                                                                               |                                                                    | Page 1                                                                              |                |              |                |              |     |       |     |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|--------------|----------------|--------------|-----|-------|-----|-------|
| 10 Bonhill Street<br>London<br>EC2A 4QJ                                                                                                                                                                                                                                                                                                                                                                        | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |                |              |                |              |     |       |     |       |
| Date 04/10/2021 14:10                                                                                                                                                                                                                                                                                                                                                                                          | Designed by KJ                                                     |                                                                                     |                |              |                |              |     |       |     |       |
| File House Trench Soakaway Ne...                                                                                                                                                                                                                                                                                                                                                                               | Checked by                                                         |                                                                                     |                |              |                |              |     |       |     |       |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    | Network 2020.1                                                                      |                |              |                |              |     |       |     |       |
| <p style="text-align: center;"><u>Time Area Diagram for Storm</u></p> <table border="1"> <thead> <tr> <th>Time<br/>(mins)</th> <th>Area<br/>(ha)</th> <th>Time<br/>(mins)</th> <th>Area<br/>(ha)</th> </tr> </thead> <tbody> <tr> <td>0-4</td> <td>0.030</td> <td>4-8</td> <td>0.012</td> </tr> </tbody> </table> <p>Total Area Contributing (ha) = 0.042</p> <p>Total Pipe Volume (m<sup>3</sup>) = 0.990</p> |                                                                    |                                                                                     | Time<br>(mins) | Area<br>(ha) | Time<br>(mins) | Area<br>(ha) | 0-4 | 0.030 | 4-8 | 0.012 |
| Time<br>(mins)                                                                                                                                                                                                                                                                                                                                                                                                 | Area<br>(ha)                                                       | Time<br>(mins)                                                                      | Area<br>(ha)   |              |                |              |     |       |     |       |
| 0-4                                                                                                                                                                                                                                                                                                                                                                                                            | 0.030                                                              | 4-8                                                                                 | 0.012          |              |                |              |     |       |     |       |
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AKS Ward Limited

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10 Bonhill Street  
London  
EC2A 4QJ

Date 04/10/2021 14:10  
File House Trench Soakaway Ne...

Littlehampton Academy  
Trench Soakaway between  
Plots 87 & 103

Designed by KJ  
Checked by

Micro Drainage

Innovyze

Network 2020.1

Existing Network Details for Storm

| PN    | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type |
|-------|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|
| 1.000 | 7.851         | 0.000       | 0.0            | 0.000          | 5.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 2.000 | 9.776         | 0.489       | 20.0           | 0.009          | 5.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 2.001 | 10.589        | 3.181       | 3.3            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 1.001 | 0.762         | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 3.000 | 8.905         | 0.445       | 20.0           | 0.009          | 5.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 3.001 | 10.514        | 2.905       | 3.6            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 1.002 | 15.807        | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 4.000 | 16.319        | 0.816       | 20.0           | 0.013          | 5.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 4.001 | 10.498        | 2.404       | 4.4            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 1.003 | 4.171         | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 5.000 | 13.335        | 0.667       | 20.0           | 0.011          | 5.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |
| 5.001 | 10.598        | 2.643       | 4.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |

Network Results Table

| PN    | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Vel<br>(m/s) | Cap<br>(l/s) |
|-------|--------------|------------------|----------------------|--------------|--------------|
| 1.000 | 4.000        | 0.000            | 0.0                  | 0.00         | 0.0          |
| 2.000 | 7.670        | 0.009            | 0.0                  | 1.73         | 13.6         |
| 2.001 | 7.181        | 0.009            | 0.0                  | 4.27         | 33.5         |
| 1.001 | 4.000        | 0.009            | 0.0                  | 0.00         | 0.0          |
| 3.000 | 7.350        | 0.009            | 0.0                  | 1.73         | 13.6         |
| 3.001 | 6.905        | 0.009            | 0.0                  | 4.10         | 32.2         |
| 1.002 | 4.000        | 0.018            | 0.0                  | 0.00         | 0.0          |
| 4.000 | 7.220        | 0.013            | 0.0                  | 1.73         | 13.6         |
| 4.001 | 6.404        | 0.013            | 0.0                  | 3.73         | 29.3         |
| 1.003 | 4.000        | 0.031            | 0.0                  | 0.00         | 0.0          |
| 5.000 | 7.310        | 0.011            | 0.0                  | 1.73         | 13.6         |
| 5.001 | 6.643        | 0.011            | 0.0                  | 3.89         | 30.6         |

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|                                         |                                                                    |                                                                                     |
|-----------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AKS Ward Limited                        |                                                                    | Page 3                                                                              |
| 10 Bonhill Street<br>London<br>EC2A 4QJ | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |
| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

  

Existing Network Details for Storm

| PN    | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type |
|-------|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|
| 1.004 | 6.905         | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 100         | Pipe/Conduit |

  

Network Results Table

| PN    | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Vel<br>(m/s) | Cap<br>(l/s) |
|-------|--------------|------------------|----------------------|--------------|--------------|
| 1.004 | 4.000        | 0.042            | 0.0                  | 0.00         | 0.0          |

  

Free Flowing Outfall Details for Storm

| Outfall<br>Pipe Number | Outfall<br>Name | C. Level<br>(m) | I. Level<br>(m) | Min<br>I. Level<br>(m) | D,L<br>(mm) | W<br>(mm) |
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|
| 1.004                  | O/Flow          | 8.020           | 4.000           | 5.050                  | 50          | 0         |

  

Simulation Criteria for Storm

|                                 |       |                                     |       |
|---------------------------------|-------|-------------------------------------|-------|
| Volumetric Runoff Coeff         | 0.750 | Additional Flow - % of Total Flow   | 0.000 |
| Areal Reduction Factor          | 1.000 | MADD Factor * 10m³/ha Storage       | 2.000 |
| Hot Start (mins)                | 0     | Inlet Coefficient                   | 0.800 |
| Hot Start Level (mm)            | 0     | Flow per Person per Day (l/per/day) | 0.000 |
| Manhole Headloss Coeff (Global) | 0.500 | Run Time (mins)                     | 60    |
| Foul Sewage per hectare (l/s)   | 0.000 | Output Interval (mins)              | 1     |

  

Number of Input Hydrographs 0    Number of Offline Controls 0    Number of Time/Area Diagrams 0  
Number of Online Controls 0    Number of Storage Structures 1    Number of Real Time Controls 0

  

Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 100                             |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 502300 102250 TQ 02300 02250 |
| C (1km)               | -0.026                          |
| D1 (1km)              | 0.384                           |
| D2 (1km)              | 0.275                           |
| D3 (1km)              | 0.403                           |
| E (1km)               | 0.313                           |
| F (1km)               | 2.333                           |
| Summer Storms         | Yes                             |
| Winter Storms         | Yes                             |

  

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|                                                                                                                                                                              |                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| 10 Bonhill Street<br>London<br>EC2A 4QJ                                                                                                                                      | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |
| Date 04/10/2021 14:10                                                                                                                                                        | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...                                                                                                                                             | Checked by                                                         |                                                                                     |
| Innovyze                                                                                                                                                                     |                                                                    | Network 2020.1                                                                      |
| <p style="text-align: center;"><u>Synthetic Rainfall Details</u></p> <p style="text-align: center;">Cv (Summer) 0.750<br/>Cv (Winter) 0.840<br/>Storm Duration (mins) 30</p> |                                                                    |                                                                                     |
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|                                                           |                                                                    |                                                                                     |
|-----------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| 10 Bonhill Street<br>London<br>EC2A 4QJ                   | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |
| Date 04/10/2021 14:10<br>File House Trench Soakaway Ne... | Designed by KJ<br>Checked by                                       |                                                                                     |
| Innovyze                                                  | Network 2020.1                                                     |                                                                                     |

Storage Structures for Storm

Trench Soakaway Manhole: 5, DS/PN: 1.004

|                                              |                                  |
|----------------------------------------------|----------------------------------|
| Infiltration Coefficient Base (m/hr) 0.00000 | Trench Width (m) 1.2             |
| Infiltration Coefficient Side (m/hr) 0.06120 | Trench Length (m) 35.5           |
| Safety Factor 2.0                            | Slope (1:X) 0.0                  |
| Porosity 0.30                                | Cap Volume Depth (m) 1.100       |
| Invert Level (m) 3.727                       | Cap Infiltration Depth (m) 1.100 |

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|                                         |                                                                    |                                                                                     |
|-----------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| 10 Bonhill Street<br>London<br>EC2A 4QJ | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |
| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

  

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

  

Simulation Criteria

|                                 |       |                                     |       |
|---------------------------------|-------|-------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow   | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m³/ha Storage       | 2.000 |
| Hot Start Level (mm)            | 0     | Inlet Coefficient                   | 0.800 |
| Manhole Headloss Coeff (Global) | 0.500 | Flow per Person per Day (l/per/day) | 0.000 |
| Foul Sewage per hectare (l/s)   | 0.000 |                                     |       |

  

|                             |   |                              |   |                              |   |
|-----------------------------|---|------------------------------|---|------------------------------|---|
| Number of Input Hydrographs | 0 | Number of Offline Controls   | 0 | Number of Time/Area Diagrams | 0 |
| Number of Online Controls   | 0 | Number of Storage Structures | 1 | Number of Real Time Controls | 0 |

  

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 502300 102250 TQ 02300 02250 |
| C (1km)              | -0.026                          |
| D1 (1km)             | 0.384                           |
| D2 (1km)             | 0.275                           |
| D3 (1km)             | 0.403                           |
| E (1km)              | 0.313                           |
| F (1km)              | 2.333                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

  

|                                    |       |                |     |
|------------------------------------|-------|----------------|-----|
| Margin for Flood Risk Warning (mm) | 300.0 | DVD Status     | OFF |
| Analysis Timestep                  | Fine  | Inertia Status | OFF |
| DTS Status                         | ON    |                |     |

  

|                          |                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------|
| Profile(s)               | Summer and Winter                                                                                   |
| Duration(s) (mins)       | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080 |
| Return Period(s) (years) | 1, 30, 100                                                                                          |
| Climate Change (%)       | 0, 0, 40                                                                                            |

  

| PN    | US/MH Name | Storm      | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|------------|---------------|----------------|-----------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | 1          | 15 Winter  | 1             | +0%            | 30/15 Summer    |                 |                    |               | 4.096           |
| 2.000 | 2          | 15 Winter  | 1             | +0%            |                 |                 |                    |               | 7.688           |
| 2.001 | 3          | 15 Winter  | 1             | +0%            |                 |                 |                    |               | 7.193           |
| 1.001 | 2          | 15 Winter  | 1             | +0%            | 30/15 Summer    |                 |                    |               | 4.096           |
| 3.000 | 5          | 15 Winter  | 1             | +0%            |                 |                 |                    |               | 7.369           |
| 3.001 | 6          | 15 Winter  | 1             | +0%            |                 |                 |                    |               | 6.917           |
| 1.002 | 3          | 120 Summer | 1             | +0%            | 1/120 Summer    |                 |                    |               | 4.112           |

  

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| AKS Ward Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |             |                                                                    |              |             | Page 8                                                                              |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------|--------------------------------------------------------------------|--------------|-------------|-------------------------------------------------------------------------------------|--------|-----------|--|-------|--|--------------------|--|-----------------|-----------|------------|----------|-------|----|------|-------|-----------|-------------|-----------|-------|-------------|------------|-----------|----------|-------|-----------|--------|-------|------|--|--|-----|-------|-------|-------|-----------|--------|-------|------|--|--|-----|-------|-------|-------|-----------|--------|-------|--------------|--|--|-----|-------|-------|-------|-----------|--------|-------|------|--|--|-----|-------|-------|-------|-----------|--------|-------|------|--|--|-----|-------|-------|-------|------------|--------|-------|--------------|--|-----|-----|-------|--|
| 10 Bonhill Street<br>London<br>EC2A 4QJ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |             | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |              |             |  |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| Date 04/10/2021 14:10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                    |             | Designed by KJ                                                     |              |             |                                                                                     |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| File House Trench Soakaway Ne...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |             | Checked by                                                         |              |             |                                                                                     |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |             | Network 2020.1                                                     |              |             |                                                                                     |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                    |             |                                                                    |              |             |                                                                                     |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |             |                                                                    |              |             |                                                                                     |        |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| <table><tr><th colspan="2">US/MH</th><th colspan="2">Return Climate</th><th>First (X)</th><th>First (Y)</th><th>First (Z)</th><th>Overflow</th><th>Water</th></tr><tr><th>PN</th><th>Name</th><th>Storm</th><th>Period</th><th>Change</th><th>Surcharge</th><th>Flood</th><th>Overflow</th><th>Act.</th><th>Level (m)</th></tr><tr><td>4.000</td><td>8</td><td>15 Winter</td><td>1</td><td>+0%</td><td></td><td></td><td></td><td></td><td>7.242</td></tr><tr><td>4.001</td><td>9</td><td>15 Winter</td><td>1</td><td>+0%</td><td></td><td></td><td></td><td></td><td>6.419</td></tr><tr><td>1.003</td><td>4</td><td>15 Winter</td><td>1</td><td>+0%</td><td>30/15 Summer</td><td></td><td></td><td></td><td>4.075</td></tr><tr><td>5.000</td><td>11</td><td>15 Winter</td><td>1</td><td>+0%</td><td></td><td></td><td></td><td></td><td>7.330</td></tr><tr><td>5.001</td><td>12</td><td>15 Winter</td><td>1</td><td>+0%</td><td></td><td></td><td></td><td></td><td>6.656</td></tr><tr><td>1.004</td><td>5</td><td>360 Winter</td><td>1</td><td>+0%</td><td>30/15 Summer</td><td></td><td></td><td></td><td>4.028</td></tr></table>                |      |                    |             |                                                                    |              |             |                                                                                     |        |           |  | US/MH |  | Return Climate     |  | First (X)       | First (Y) | First (Z)  | Overflow | Water | PN | Name | Storm | Period    | Change      | Surcharge | Flood | Overflow    | Act.       | Level (m) | 4.000    | 8     | 15 Winter | 1      | +0%   |      |  |  |     | 7.242 | 4.001 | 9     | 15 Winter | 1      | +0%   |      |  |  |     | 6.419 | 1.003 | 4     | 15 Winter | 1      | +0%   | 30/15 Summer |  |  |     | 4.075 | 5.000 | 11    | 15 Winter | 1      | +0%   |      |  |  |     | 7.330 | 5.001 | 12    | 15 Winter | 1      | +0%   |      |  |  |     | 6.656 | 1.004 | 5     | 360 Winter | 1      | +0%   | 30/15 Summer |  |     |     | 4.028 |  |
| US/MH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      | Return Climate     |             | First (X)                                                          | First (Y)    | First (Z)   | Overflow                                                                            | Water  |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Name | Storm              | Period      | Change                                                             | Surcharge    | Flood       | Overflow                                                                            | Act.   | Level (m) |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8    | 15 Winter          | 1           | +0%                                                                |              |             |                                                                                     |        | 7.242     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9    | 15 Winter          | 1           | +0%                                                                |              |             |                                                                                     |        | 6.419     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4    | 15 Winter          | 1           | +0%                                                                | 30/15 Summer |             |                                                                                     |        | 4.075     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 11   | 15 Winter          | 1           | +0%                                                                |              |             |                                                                                     |        | 7.330     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 5.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12   | 15 Winter          | 1           | +0%                                                                |              |             |                                                                                     |        | 6.656     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5    | 360 Winter         | 1           | +0%                                                                | 30/15 Summer |             |                                                                                     |        | 4.028     |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| <table><tr><th colspan="2">US/MH</th><th colspan="2">Surcharged Flooded</th><th colspan="2">Flow / Overflow</th><th>Half Drain</th><th>Pipe</th><th colspan="2">Level</th></tr><tr><th>PN</th><th>Name</th><th>Depth (m)</th><th>Volume (m³)</th><th>Cap.</th><th>(l/s)</th><th>Time (mins)</th><th>Flow (l/s)</th><th>Status</th><th>Exceeded</th></tr><tr><td>4.000</td><td>8</td><td>-0.078</td><td>0.000</td><td>0.11</td><td></td><td></td><td>1.4</td><td>OK</td><td></td></tr><tr><td>4.001</td><td>9</td><td>-0.085</td><td>0.000</td><td>0.05</td><td></td><td></td><td>1.4</td><td>OK</td><td></td></tr><tr><td>1.003</td><td>4</td><td>-0.025</td><td>0.000</td><td>0.92</td><td></td><td></td><td>3.3</td><td>OK</td><td></td></tr><tr><td>5.000</td><td>11</td><td>-0.080</td><td>0.000</td><td>0.09</td><td></td><td></td><td>1.2</td><td>OK</td><td></td></tr><tr><td>5.001</td><td>12</td><td>-0.087</td><td>0.000</td><td>0.04</td><td></td><td></td><td>1.2</td><td>OK</td><td></td></tr><tr><td>1.004</td><td>5</td><td>-0.072</td><td>0.000</td><td>0.18</td><td></td><td>348</td><td>0.5</td><td>OK</td><td></td></tr></table> |      |                    |             |                                                                    |              |             |                                                                                     |        |           |  | US/MH |  | Surcharged Flooded |  | Flow / Overflow |           | Half Drain | Pipe     | Level |    | PN   | Name  | Depth (m) | Volume (m³) | Cap.      | (l/s) | Time (mins) | Flow (l/s) | Status    | Exceeded | 4.000 | 8         | -0.078 | 0.000 | 0.11 |  |  | 1.4 | OK    |       | 4.001 | 9         | -0.085 | 0.000 | 0.05 |  |  | 1.4 | OK    |       | 1.003 | 4         | -0.025 | 0.000 | 0.92         |  |  | 3.3 | OK    |       | 5.000 | 11        | -0.080 | 0.000 | 0.09 |  |  | 1.2 | OK    |       | 5.001 | 12        | -0.087 | 0.000 | 0.04 |  |  | 1.2 | OK    |       | 1.004 | 5          | -0.072 | 0.000 | 0.18         |  | 348 | 0.5 | OK    |  |
| US/MH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      | Surcharged Flooded |             | Flow / Overflow                                                    |              | Half Drain  | Pipe                                                                                | Level  |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Name | Depth (m)          | Volume (m³) | Cap.                                                               | (l/s)        | Time (mins) | Flow (l/s)                                                                          | Status | Exceeded  |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8    | -0.078             | 0.000       | 0.11                                                               |              |             | 1.4                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9    | -0.085             | 0.000       | 0.05                                                               |              |             | 1.4                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4    | -0.025             | 0.000       | 0.92                                                               |              |             | 3.3                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 11   | -0.080             | 0.000       | 0.09                                                               |              |             | 1.2                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 5.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12   | -0.087             | 0.000       | 0.04                                                               |              |             | 1.2                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
| 1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5    | -0.072             | 0.000       | 0.18                                                               |              | 348         | 0.5                                                                                 | OK     |           |  |       |  |                    |  |                 |           |            |          |       |    |      |       |           |             |           |       |             |            |           |          |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |              |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |           |        |       |      |  |  |     |       |       |       |            |        |       |              |  |     |     |       |  |
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|                                         |                                                                    |                                                                                     |
|-----------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AKS Ward Limited                        |                                                                    | Page 9                                                                              |
| 10 Bonhill Street<br>London<br>EC2A 4QJ | Littlehampton Academy<br>Trench Soakaway between<br>Plots 87 & 103 |  |
| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

  

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

  

Simulation Criteria

|                                 |       |                                     |       |
|---------------------------------|-------|-------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow   | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m³/ha Storage       | 2.000 |
| Hot Start Level (mm)            | 0     | Inlet Coefficient                   | 0.800 |
| Manhole Headloss Coeff (Global) | 0.500 | Flow per Person per Day (l/per/day) | 0.000 |
| Foul Sewage per hectare (l/s)   | 0.000 |                                     |       |

  

|                             |   |                              |   |                              |   |
|-----------------------------|---|------------------------------|---|------------------------------|---|
| Number of Input Hydrographs | 0 | Number of Offline Controls   | 0 | Number of Time/Area Diagrams | 0 |
| Number of Online Controls   | 0 | Number of Storage Structures | 1 | Number of Real Time Controls | 0 |

  

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 502300 102250 TQ 02300 02250 |
| C (1km)              | -0.026                          |
| D1 (1km)             | 0.384                           |
| D2 (1km)             | 0.275                           |
| D3 (1km)             | 0.403                           |
| E (1km)              | 0.313                           |
| F (1km)              | 2.333                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

  

|                                    |       |                |     |
|------------------------------------|-------|----------------|-----|
| Margin for Flood Risk Warning (mm) | 300.0 | DVD Status     | OFF |
| Analysis Timestep                  | Fine  | Inertia Status | OFF |
| DTS Status                         | ON    |                |     |

  

|                          |                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------|
| Profile(s)               | Summer and Winter                                                                                   |
| Duration(s) (mins)       | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080 |
| Return Period(s) (years) | 1, 30, 100                                                                                          |
| Climate Change (%)       | 0, 0, 40                                                                                            |

  

| PN    | US/MH Name | Storm  | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|--------|---------------|----------------|-----------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | 1 15       | Winter | 30            | +0%            | 30/15           | Summer          |                    |               | 4.483           |
| 2.000 | 2 15       | Winter | 30            | +0%            |                 |                 |                    |               | 7.704           |
| 2.001 | 3 15       | Winter | 30            | +0%            |                 |                 |                    |               | 7.202           |
| 1.001 | 2 15       | Winter | 30            | +0%            | 30/15           | Summer          |                    |               | 4.485           |
| 3.000 | 5 15       | Winter | 30            | +0%            |                 |                 |                    |               | 7.384           |
| 3.001 | 6 15       | Winter | 30            | +0%            |                 |                 |                    |               | 6.927           |
| 1.002 | 3 15       | Winter | 30            | +0%            | 1/120           | Summer          |                    |               | 4.478           |

  

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|                                         |                                                                    |                                                                                     |
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| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN    | US/MH<br>Name | Surcharged   |                | Flooded |          | Flow / Overflow<br>Cap. (l/s) | Half Drain<br>Time (mins) | Pipe<br>Flow (l/s) | Status     | Level<br>Exceeded |
|-------|---------------|--------------|----------------|---------|----------|-------------------------------|---------------------------|--------------------|------------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m³) | Flow    | Overflow |                               |                           |                    |            |                   |
| 1.000 | 1             | 0.383        | 0.000          | 0.10    |          |                               |                           | 0.3                | SURCHARGED |                   |
| 2.000 | 2             | -0.066       | 0.000          | 0.25    |          |                               |                           | 3.2                | OK         |                   |
| 2.001 | 3             | -0.079       | 0.000          | 0.10    |          |                               |                           | 3.2                | OK         |                   |
| 1.001 | 2             | 0.385        | 0.000          | 0.80    |          |                               |                           | 3.1                | SURCHARGED |                   |
| 3.000 | 5             | -0.066       | 0.000          | 0.25    |          |                               |                           | 3.2                | OK         |                   |
| 3.001 | 6             | -0.078       | 0.000          | 0.11    |          |                               |                           | 3.2                | OK         |                   |
| 1.002 | 3             | 0.378        | 0.000          | 3.21    |          |                               |                           | 6.2                | SURCHARGED |                   |

AKS Ward Limited

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Littlehampton Academy  
Trench Soakaway between  
Plots 87 & 103

Date 04/10/2021 14:10  
File House Trench Soakaway Ne...

Designed by KJ  
Checked by

Innovyze

Network 2020.1

Micro  
Drainage

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN    | US/MH<br>Name | Storm     | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow | Overflow<br>Act. | Water<br>Level<br>(m) |
|-------|---------------|-----------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|-----------------------|
| 4.000 | 8             | 15 Winter | 30               | +0%               |                        |                    |                       |                  | 7.261                 |
| 4.001 | 9             | 15 Winter | 30               | +0%               |                        |                    |                       |                  | 6.432                 |
| 1.003 | 4             | 15 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  | 4.281                 |
| 5.000 | 11            | 15 Winter | 30               | +0%               |                        |                    |                       |                  | 7.348                 |
| 5.001 | 12            | 15 Winter | 30               | +0%               |                        |                    |                       |                  | 6.668                 |
| 1.004 | 5             | 30 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  | 4.159                 |

| PN    | US/MH<br>Name | Depth<br>(m) | Surcharged<br>Volume<br>(m³) | Flooded<br>Flow /<br>Cap. | Overflow<br>(l/s) | Half Drain<br>Time<br>(mins) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|--------------|------------------------------|---------------------------|-------------------|------------------------------|-----------------------|------------|-------------------|
| 4.000 | 8             | -0.059       | 0.000                        | 0.35                      |                   |                              | 4.6                   | OK         |                   |
| 4.001 | 9             | -0.072       | 0.000                        | 0.17                      |                   |                              | 4.6                   | OK         |                   |
| 1.003 | 4             | 0.181        | 0.000                        | 3.03                      |                   |                              | 10.7                  | SURCHARGED |                   |
| 5.000 | 11            | -0.062       | 0.000                        | 0.30                      |                   |                              | 3.9                   | OK         |                   |
| 5.001 | 12            | -0.075       | 0.000                        | 0.14                      |                   |                              | 3.9                   | OK         |                   |
| 1.004 | 5             | 0.059        | 0.000                        | 1.79                      |                   | 129                          | 5.2                   | SURCHARGED |                   |

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|                                         |                                                                    |                                                                                     |
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| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

  

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

  

Simulation Criteria

|                                 |       |                                     |       |
|---------------------------------|-------|-------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow   | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m³/ha Storage       | 2.000 |
| Hot Start Level (mm)            | 0     | Inlet Coefficient                   | 0.800 |
| Manhole Headloss Coeff (Global) | 0.500 | Flow per Person per Day (l/per/day) | 0.000 |
| Foul Sewage per hectare (l/s)   | 0.000 |                                     |       |

  

|                             |   |                              |   |                              |   |
|-----------------------------|---|------------------------------|---|------------------------------|---|
| Number of Input Hydrographs | 0 | Number of Offline Controls   | 0 | Number of Time/Area Diagrams | 0 |
| Number of Online Controls   | 0 | Number of Storage Structures | 1 | Number of Real Time Controls | 0 |

  

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 502300 102250 TQ 02300 02250 |
| C (1km)              | -0.026                          |
| D1 (1km)             | 0.384                           |
| D2 (1km)             | 0.275                           |
| D3 (1km)             | 0.403                           |
| E (1km)              | 0.313                           |
| F (1km)              | 2.333                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

  

|                                    |       |                |     |
|------------------------------------|-------|----------------|-----|
| Margin for Flood Risk Warning (mm) | 300.0 | DVD Status     | OFF |
| Analysis Timestep                  | Fine  | Inertia Status | OFF |
| DTS Status                         | ON    |                |     |

  

|                          |                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------|
| Profile(s)               | Summer and Winter                                                                                   |
| Duration(s) (mins)       | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080 |
| Return Period(s) (years) | 1, 30, 100                                                                                          |
| Climate Change (%)       | 0, 0, 40                                                                                            |

  

| PN    | US/MH Name | Storm  | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|--------|---------------|----------------|-----------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | 1 15       | Winter | 100           | +40%           | 30/15           | Summer          |                    |               | 5.934           |
| 2.000 | 2 15       | Winter | 100           | +40%           |                 |                 |                    |               | 7.723           |
| 2.001 | 3 15       | Winter | 100           | +40%           |                 |                 |                    |               | 7.213           |
| 1.001 | 2 15       | Winter | 100           | +40%           | 30/15           | Summer          |                    |               | 5.939           |
| 3.000 | 5 15       | Winter | 100           | +40%           |                 |                 |                    |               | 7.403           |
| 3.001 | 6 15       | Winter | 100           | +40%           |                 |                 |                    |               | 6.937           |
| 1.002 | 3 15       | Winter | 100           | +40%           | 1/120           | Summer          |                    |               | 5.889           |

  

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|                                         |                                                                    |                                                                                     |
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| Date 04/10/2021 14:10                   | Designed by KJ                                                     |                                                                                     |
| File House Trench Soakaway Ne...        | Checked by                                                         |                                                                                     |
| Innovyze                                | Network 2020.1                                                     |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN    | US/MH<br>Name | Surcharged   |                | Flooded        |                   | Half Drain     |               | Pipe          | Status     | Level<br>Exceeded |
|-------|---------------|--------------|----------------|----------------|-------------------|----------------|---------------|---------------|------------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Time<br>(mins) | Flow<br>(l/s) | Flow<br>(l/s) |            |                   |
| 1.000 | 1             | 1.834        | 0.000          | 0.39           |                   |                | 1.1           |               | SURCHARGED |                   |
| 2.000 | 2             | -0.047       | 0.000          | 0.54           |                   |                | 6.8           |               | OK         |                   |
| 2.001 | 3             | -0.068       | 0.000          | 0.22           |                   |                | 6.8           |               | OK         |                   |
| 1.001 | 2             | 1.839        | 0.000          | 1.62           |                   |                | 6.4           |               | SURCHARGED |                   |
| 3.000 | 5             | -0.047       | 0.000          | 0.54           |                   |                | 6.8           |               | OK         |                   |
| 3.001 | 6             | -0.068       | 0.000          | 0.23           |                   |                | 6.8           |               | OK         |                   |
| 1.002 | 3             | 1.789        | 0.000          | 6.48           |                   |                | 12.6          |               | SURCHARGED |                   |

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Trench Soakaway between  
Plots 87 & 103

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Micro  
Drainage

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN    | US/MH<br>Name | Storm     | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow | Overflow<br>Act. | Water<br>Level<br>(m) |
|-------|---------------|-----------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|-----------------------|
| 4.000 | 8             | 15 Winter | 100              | +40%              |                        |                    |                       |                  | 7.286                 |
| 4.001 | 9             | 15 Winter | 100              | +40%              |                        |                    |                       |                  | 6.446                 |
| 1.003 | 4             | 15 Winter | 100              | +40%              | 30/15 Summer           |                    |                       |                  | 5.082                 |
| 5.000 | 11            | 15 Winter | 100              | +40%              |                        |                    |                       |                  | 7.369                 |
| 5.001 | 12            | 15 Winter | 100              | +40%              |                        |                    |                       |                  | 6.680                 |
| 1.004 | 5             | 15 Winter | 100              | +40%              | 30/15 Summer           |                    |                       |                  | 4.475                 |

| PN    | US/MH<br>Name | Depth<br>(m) | Surcharged<br>Volume<br>(m³) | Flooded<br>Flow /<br>Cap. | Overflow<br>(l/s) | Half Drain<br>Time<br>(mins) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|--------------|------------------------------|---------------------------|-------------------|------------------------------|-----------------------|------------|-------------------|
| 4.000 | 8             | -0.034       | 0.000                        | 0.76                      |                   |                              | 9.9                   | OK         |                   |
| 4.001 | 9             | -0.058       | 0.000                        | 0.36                      |                   |                              | 9.8                   | OK         |                   |
| 1.003 | 4             | 0.982        | 0.000                        | 6.22                      |                   |                              | 22.1                  | SURCHARGED |                   |
| 5.000 | 11            | -0.041       | 0.000                        | 0.65                      |                   |                              | 8.4                   | OK         |                   |
| 5.001 | 12            | -0.063       | 0.000                        | 0.29                      |                   |                              | 8.3                   | OK         |                   |
| 1.004 | 5             | 0.375        | 0.000                        | 4.39                      |                   | 15                           | 12.7                  | SURCHARGED |                   |

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