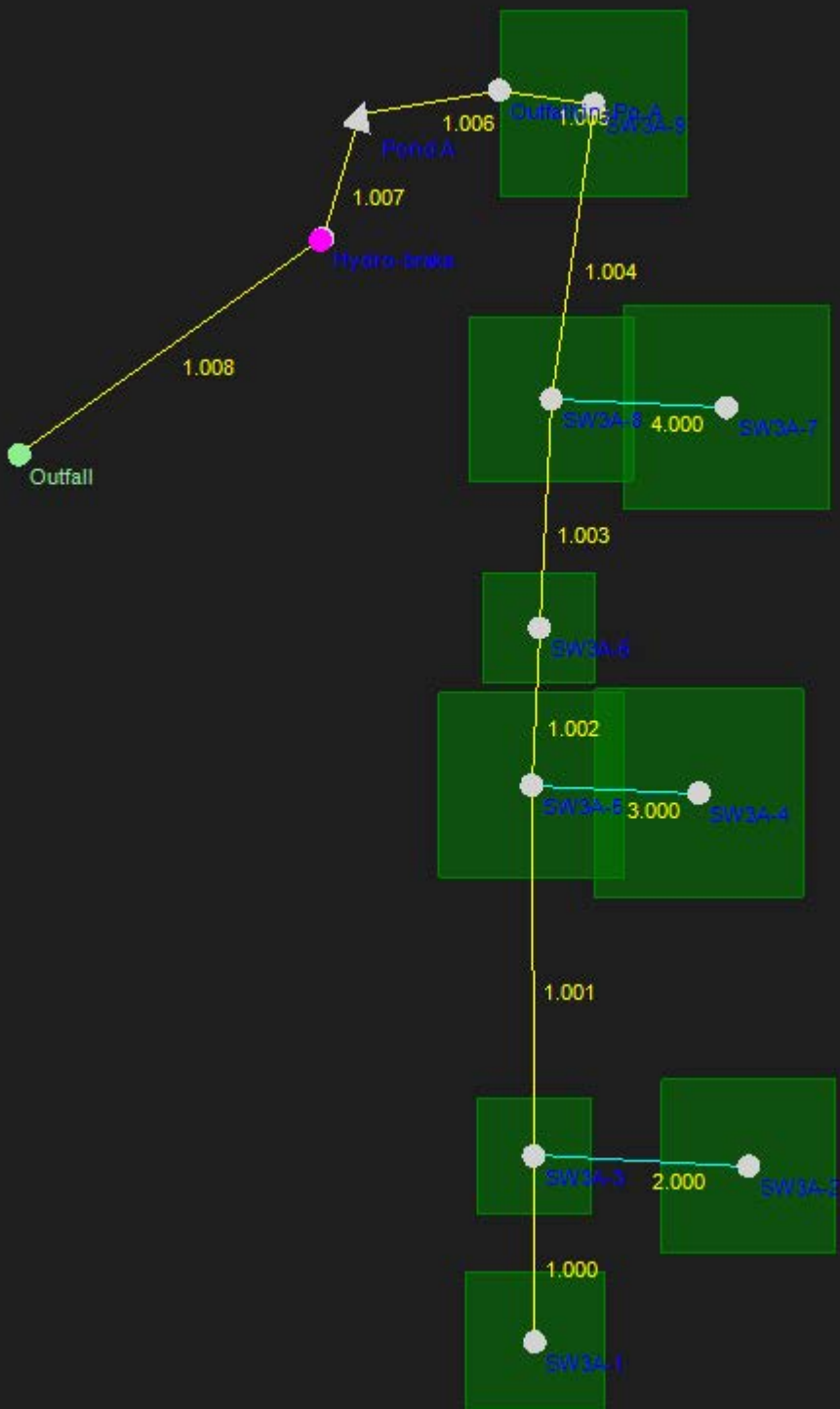




|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

#### 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 | 30.893        | 0.490       | 63.0           | 0.053          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 2.000 | 35.719        | 0.260       | 137.4          | 0.083          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.001 | 61.591        | 0.995       | 61.9           | 0.036          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 3.000 | 27.833        | 0.305       | 91.3           | 0.119          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.002 | 26.148        | 0.185       | 141.3          | 0.094          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.003 | 38.076        | 0.200       | 190.4          | 0.034          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 4.000 | 29.152        | 0.255       | 114.3          | 0.115          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.004 | 49.533        | 0.695       | 71.3           | 0.074          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.005 | 15.834        | 0.515       | 30.7           | 0.096          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.006 | 23.467        | 0.200       | 117.3          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.007 | 21.310        | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.008 | 61.975        | 2.160       | 28.7           | 0.000          | 0.00           | 0.0                | 0.600     | o           | 150         | 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 | 49.355       | 0.053            | 0.0                  | 1.65         | 65.6         |
| 2.000 | 49.200       | 0.083            | 0.0                  | 0.86         | 15.1         |
| 1.001 | 48.865       | 0.172            | 0.0                  | 1.67         | 66.2         |
| 3.000 | 48.250       | 0.119            | 0.0                  | 1.05         | 18.6         |
| 1.002 | 47.870       | 0.385            | 0.0                  | 1.10         | 43.6         |
| 1.003 | 47.610       | 0.419            | 0.0                  | 1.14         | 80.3         |
| 4.000 | 47.815       | 0.115            | 0.0                  | 0.94         | 16.6         |
| 1.004 | 47.410       | 0.608            | 0.0                  | 1.86         | 131.8        |
| 1.005 | 46.715       | 0.704            | 0.0                  | 2.85         | 201.2        |
| 1.006 | 46.200       | 0.704            | 0.0                  | 1.45         | 102.5        |
| 1.007 | 46.000       | 0.704            | 0.0                  | 0.00         | 0.0          |
| 1.008 | 46.000       | 0.704            | 0.0                  | 1.89         | 33.3         |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### PIPELINE SCHEDULES for Storm

#### Upstream Manhole

| PN    | Hyd<br>Sect | Diam<br>(mm) | MH<br>Name         | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|-------|-------------|--------------|--------------------|----------------|----------------|----------------|------------------|-----------------------|
| 1.000 | o           | 225          | SW3A-1             | 50.783         | 49.355         | 1.203          | Open Manhole     | 1200                  |
| 2.000 | o           | 150          | SW3A-2             | 50.553         | 49.200         | 1.203          | Open Manhole     | 1200                  |
| 1.001 | o           | 225          | SW3A-3             | 50.324         | 48.865         | 1.234          | Open Manhole     | 1200                  |
| 3.000 | o           | 150          | SW3A-4             | 49.600         | 48.250         | 1.200          | Open Manhole     | 1200                  |
| 1.002 | o           | 225          | SW3A-5             | 49.315         | 47.870         | 1.220          | Open Manhole     | 1200                  |
| 1.003 | o           | 300          | SW3A-6             | 49.041         | 47.610         | 1.131          | Open Manhole     | 1200                  |
| 4.000 | o           | 150          | SW3A-7             | 49.165         | 47.815         | 1.200          | Open Manhole     | 1200                  |
| 1.004 | o           | 300          | SW3A-8             | 49.356         | 47.410         | 1.646          | Open Manhole     | 1200                  |
| 1.005 | o           | 300          | SW3A-9             | 48.280         | 46.715         | 1.265          | Open Manhole     | 1200                  |
| 1.006 | o           | 300          | Outfall (in) Po. A | 47.600         | 46.200         | 1.100          | Open Manhole     | 1200                  |
| 1.007 | o           | 300          | Pond A             | 47.600         | 46.000         | 1.300          | Open Manhole     | 1200                  |
| 1.008 | o           | 150          | Hydro-brake        | 47.600         | 46.000         | 1.450          | Open Manhole     | 1200                  |

#### Downstream Manhole

| PN    | Length<br>(m) | Slope<br>(1:X) | MH<br>Name         | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|-------|---------------|----------------|--------------------|----------------|----------------|----------------|------------------|-----------------------|
| 1.000 | 30.893        | 63.0           | SW3A-3             | 50.324         | 48.865         | 1.234          | Open Manhole     | 1200                  |
| 2.000 | 35.719        | 137.4          | SW3A-3             | 50.324         | 48.940         | 1.234          | Open Manhole     | 1200                  |
| 1.001 | 61.591        | 61.9           | SW3A-5             | 49.315         | 47.870         | 1.220          | Open Manhole     | 1200                  |
| 3.000 | 27.833        | 91.3           | SW3A-5             | 49.315         | 47.945         | 1.220          | Open Manhole     | 1200                  |
| 1.002 | 26.148        | 141.3          | SW3A-6             | 49.041         | 47.685         | 1.131          | Open Manhole     | 1200                  |
| 1.003 | 38.076        | 190.4          | SW3A-8             | 49.356         | 47.410         | 1.646          | Open Manhole     | 1200                  |
| 4.000 | 29.152        | 114.3          | SW3A-8             | 49.356         | 47.560         | 1.646          | Open Manhole     | 1200                  |
| 1.004 | 49.533        | 71.3           | SW3A-9             | 48.280         | 46.715         | 1.265          | Open Manhole     | 1200                  |
| 1.005 | 15.834        | 30.7           | Outfall (in) Po. A | 47.600         | 46.200         | 1.100          | Open Manhole     | 1200                  |
| 1.006 | 23.467        | 117.3          | Pond A             | 47.600         | 46.000         | 1.300          | Open Manhole     | 1200                  |
| 1.007 | 21.310        | 0.0            | Hydro-brake        | 47.600         | 46.000         | 1.300          | Open Manhole     | 1200                  |
| 1.008 | 61.975        | 28.7           | Outfall            | 45.154         | 43.840         | 1.164          | Open Manhole     | 1200                  |

|                                                       |                                                                       |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment A<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

### 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) |
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|

|       |         |        |        |       |      |   |
|-------|---------|--------|--------|-------|------|---|
| 1.008 | Outfall | 45.154 | 43.840 | 0.000 | 1200 | 0 |
|-------|---------|--------|--------|-------|------|---|

### Simulation Criteria for Storm

|                                 |       |                                            |       |
|---------------------------------|-------|--------------------------------------------|-------|
| Volumetric Runoff Coeff         | 0.750 | Additional Flow - % of Total Flow          | 0.000 |
| Areal Reduction Factor          | 1.000 | MADD Factor * 10m <sup>3</sup> /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 Storage Structures | 1 |
| Number of Online Controls   | 1 | Number of Time/Area Diagrams | 0 |
| Number of Offline Controls  | 0 | Number of Real Time Controls | 0 |

### Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 100                             |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 467450 109700 SU 67450 09700 |
| C (1km)               | -0.027                          |
| D1 (1km)              | 0.461                           |
| D2 (1km)              | 0.289                           |
| D3 (1km)              | 0.376                           |
| E (1km)               | 0.304                           |
| F (1km)               | 2.245                           |
| Summer Storms         | Yes                             |
| Winter Storms         | No                              |
| Cv (Summer)           | 0.750                           |
| Cv (Winter)           | 0.840                           |
| Storm Duration (mins) | 30                              |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

Online Controls for Storm

Depth/Flow Relationship Manhole: Hydro-brake, DS/PN: 1.008, Volume (m³): 3.2

Invert Level (m) 46.000

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 3.0300     | 0.900     | 5.2700     | 1.700     | 7.0200     | 2.500     | 7.0200     |
| 0.200     | 5.2500     | 1.000     | 5.5000     | 1.800     | 7.0200     | 2.600     | 7.0200     |
| 0.300     | 5.8500     | 1.100     | 5.8200     | 1.900     | 7.0200     | 2.700     | 7.0200     |
| 0.400     | 5.5900     | 1.200     | 6.0800     | 2.000     | 7.0200     | 2.800     | 7.0200     |
| 0.500     | 5.1800     | 1.300     | 6.3300     | 2.100     | 7.0200     | 2.900     | 7.0200     |
| 0.600     | 4.9400     | 1.400     | 6.5700     | 2.200     | 7.0200     | 3.000     | 7.0200     |
| 0.700     | 4.8200     | 1.500     | 6.8000     | 2.300     | 7.0200     |           |            |
| 0.800     | 4.9700     | 1.600     | 7.0200     | 2.400     | 7.0200     |           |            |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### Storage Structures for Storm

#### Tank or Pond Manhole: Pond A, DS/PN: 1.007

Invert Level (m) 46.000

| Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000     | 339.2                  | 1.500     | 783.4                  | 1.600     | 817.6                  |

|                                                       |                                                                     |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1  
 Climate Change (%) 0

| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3A-1            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 2.000 | SW3A-2            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.001 | SW3A-3            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 3.000 | SW3A-4            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.002 | SW3A-5            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.003 | SW3A-6            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 4.000 | SW3A-7            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.004 | SW3A-8            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.005 | SW3A-9            | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.006 | Outfall(in) Po. A | 15 Winter  | 1                | +0%               |                        |                    |                       |
| 1.007 | Pond A            | 480 Winter | 1                | +0%               |                        |                    |                       |
| 1.008 | Hydro-brake       | 480 Winter | 1                | +0%               | 1/120 Winter           |                    |                       |

|                                                       |                                                                     |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water        | Surcharged   | Flooded                     | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe          |
|-------|-------------------|------------------|--------------|--------------|-----------------------------|----------------|-------------------|---------------|
|       |                   |                  | Level<br>(m) | Depth<br>(m) | Volume<br>(m <sup>3</sup> ) |                |                   | Flow<br>(l/s) |
| 1.000 | SW3A-1            |                  | 49.397       | -0.183       | 0.000                       | 0.08           |                   | 4.7           |
| 2.000 | SW3A-2            |                  | 49.276       | -0.074       | 0.000                       | 0.51           |                   | 7.4           |
| 1.001 | SW3A-3            |                  | 48.938       | -0.152       | 0.000                       | 0.23           |                   | 14.5          |
| 3.000 | SW3A-4            |                  | 48.334       | -0.066       | 0.000                       | 0.59           |                   | 10.5          |
| 1.002 | SW3A-5            |                  | 48.022       | -0.073       | 0.000                       | 0.78           |                   | 31.4          |
| 1.003 | SW3A-6            |                  | 47.752       | -0.158       | 0.000                       | 0.45           |                   | 33.4          |
| 4.000 | SW3A-7            |                  | 47.904       | -0.061       | 0.000                       | 0.64           |                   | 10.3          |
| 1.004 | SW3A-8            |                  | 47.539       | -0.171       | 0.000                       | 0.38           |                   | 47.2          |
| 1.005 | SW3A-9            |                  | 46.831       | -0.184       | 0.000                       | 0.31           |                   | 53.3          |
| 1.006 | Outfall(in) Po. A |                  | 46.367       | -0.133       | 0.000                       | 0.59           |                   | 53.6          |
| 1.007 | Pond A            |                  | 46.216       | -0.084       | 0.000                       | 0.27           |                   | 5.3           |
| 1.008 | Hydro-brake       |                  | 46.210       | 0.060        | 0.000                       | 0.16           |                   | 5.3           |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3A-1            | OK         |                   |
| 2.000 | SW3A-2            | OK         |                   |
| 1.001 | SW3A-3            | OK         |                   |
| 3.000 | SW3A-4            | OK         |                   |
| 1.002 | SW3A-5            | OK         |                   |
| 1.003 | SW3A-6            | OK         |                   |
| 4.000 | SW3A-7            | OK         |                   |
| 1.004 | SW3A-8            | OK         |                   |
| 1.005 | SW3A-9            | OK         |                   |
| 1.006 | Outfall(in) Po. A | OK         |                   |
| 1.007 | Pond A            | OK         |                   |
| 1.008 | Hydro-brake       | SURCHARGED |                   |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment A<br>1in2yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 2  
 Climate Change (%) 0

| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3A-1            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 2.000 | SW3A-2            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.001 | SW3A-3            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 3.000 | SW3A-4            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.002 | SW3A-5            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.003 | SW3A-6            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 4.000 | SW3A-7            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.004 | SW3A-8            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.005 | SW3A-9            | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.006 | Outfall(in) Po. A | 15 Winter  | 2                | +0%               |                        |                    |                       |
| 1.007 | Pond A            | 480 Winter | 2                | +0%               |                        |                    |                       |
| 1.008 | Hydro-brake       | 480 Winter | 2                | +0%               | 2/60 Winter            |                    |                       |

|                                                       |                                                                     |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                     | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in2yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3A-1            |                  | 49.402             | -0.178                     | 0.000                                  | 0.10           |                   | 5.9                   |
| 2.000 | SW3A-2            |                  | 49.288             | -0.062                     | 0.000                                  | 0.65           |                   | 9.4                   |
| 1.001 | SW3A-3            |                  | 48.948             | -0.142                     | 0.000                                  | 0.29           |                   | 18.3                  |
| 3.000 | SW3A-4            |                  | 48.349             | -0.051                     | 0.000                                  | 0.75           |                   | 13.3                  |
| 1.002 | SW3A-5            |                  | 48.051             | -0.044                     | 0.000                                  | 0.98           |                   | 39.8                  |
| 1.003 | SW3A-6            |                  | 47.774             | -0.136                     | 0.000                                  | 0.57           |                   | 42.3                  |
| 4.000 | SW3A-7            |                  | 47.920             | -0.045                     | 0.000                                  | 0.82           |                   | 13.0                  |
| 1.004 | SW3A-8            |                  | 47.558             | -0.152                     | 0.000                                  | 0.48           |                   | 59.9                  |
| 1.005 | SW3A-9            |                  | 46.848             | -0.167                     | 0.000                                  | 0.40           |                   | 67.6                  |
| 1.006 | Outfall(in) Po. A |                  | 46.395             | -0.105                     | 0.000                                  | 0.75           |                   | 67.9                  |
| 1.007 | Pond A            |                  | 46.259             | -0.041                     | 0.000                                  | 0.36           |                   | 7.1                   |
| 1.008 | Hydro-brake       |                  | 46.257             | 0.107                      | 0.000                                  | 0.17           |                   | 5.6                   |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3A-1            | OK         |                   |
| 2.000 | SW3A-2            | OK         |                   |
| 1.001 | SW3A-3            | OK         |                   |
| 3.000 | SW3A-4            | OK         |                   |
| 1.002 | SW3A-5            | OK         |                   |
| 1.003 | SW3A-6            | OK         |                   |
| 4.000 | SW3A-7            | OK         |                   |
| 1.004 | SW3A-8            | OK         |                   |
| 1.005 | SW3A-9            | OK         |                   |
| 1.006 | Outfall(in) Po. A | OK         |                   |
| 1.007 | Pond A            | OK         |                   |
| 1.008 | Hydro-brake       | SURCHARGED |                   |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                       | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment A<br>1in30yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 30  
 Climate Change (%) 0

| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3A-1            | 15 Winter  | 30               | +0%               |                        |                    |                       |
| 2.000 | SW3A-2            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.001 | SW3A-3            | 15 Winter  | 30               | +0%               |                        |                    |                       |
| 3.000 | SW3A-4            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.002 | SW3A-5            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.003 | SW3A-6            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 4.000 | SW3A-7            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.004 | SW3A-8            | 15 Winter  | 30               | +0%               |                        |                    |                       |
| 1.005 | SW3A-9            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.006 | Outfall(in) Po. A | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.007 | Pond A            | 480 Winter | 30               | +0%               | 30/60 Summer           |                    |                       |
| 1.008 | Hydro-brake       | 480 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |

|                                                       |                                                                      |                                                                                     |
|-------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                      | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in30yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3A-1            |                  | 49.431             | -0.149                     | 0.000                                  | 0.24           |                   | 14.9                  |
| 2.000 | SW3A-2            |                  | 49.637             | 0.287                      | 0.000                                  | 1.43           |                   | 20.8                  |
| 1.001 | SW3A-3            |                  | 49.087             | -0.003                     | 0.000                                  | 0.64           |                   | 40.7                  |
| 3.000 | SW3A-4            |                  | 49.294             | 0.894                      | 0.000                                  | 1.37           |                   | 24.3                  |
| 1.002 | SW3A-5            |                  | 48.709             | 0.614                      | 0.000                                  | 1.99           |                   | 80.3                  |
| 1.003 | SW3A-6            |                  | 47.972             | 0.062                      | 0.000                                  | 1.15           |                   | 85.4                  |
| 4.000 | SW3A-7            |                  | 48.492             | 0.527                      | 0.000                                  | 1.73           |                   | 27.6                  |
| 1.004 | SW3A-8            |                  | 47.706             | -0.004                     | 0.000                                  | 0.98           |                   | 121.4                 |
| 1.005 | SW3A-9            |                  | 47.055             | 0.040                      | 0.000                                  | 0.80           |                   | 135.3                 |
| 1.006 | Outfall(in) Po. A |                  | 46.727             | 0.227                      | 0.000                                  | 1.48           |                   | 135.0                 |
| 1.007 | Pond A            |                  | 46.555             | 0.255                      | 0.000                                  | 0.97           |                   | 19.3                  |
| 1.008 | Hydro-brake       |                  | 47.078             | 0.928                      | 0.000                                  | 0.18           |                   | 5.8                   |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3A-1            | OK         |                   |
| 2.000 | SW3A-2            | SURCHARGED |                   |
| 1.001 | SW3A-3            | OK         |                   |
| 3.000 | SW3A-4            | SURCHARGED |                   |
| 1.002 | SW3A-5            | SURCHARGED |                   |
| 1.003 | SW3A-6            | SURCHARGED |                   |
| 4.000 | SW3A-7            | SURCHARGED |                   |
| 1.004 | SW3A-8            | OK         |                   |
| 1.005 | SW3A-9            | SURCHARGED |                   |
| 1.006 | Outfall(in) Po. A | SURCHARGED |                   |
| 1.007 | Pond A            | SURCHARGED |                   |
| 1.008 | Hydro-brake       | SURCHARGED |                   |

|                                                       |                                                                              |                                                                                     |
|-------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                              | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br><b>1in100yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                               |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                                |                                                                                     |
| XP Solutions                                          |                                                                              | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 0

| PN    | US/MH Name        | Storm      | Return Period | Climate Change | First (X) Surchage | First (Y) Flood | First (Z) Overflow |
|-------|-------------------|------------|---------------|----------------|--------------------|-----------------|--------------------|
| 1.000 | SW3A-1            | 30 Summer  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 2.000 | SW3A-2            | 30 Summer  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.001 | SW3A-3            | 30 Summer  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 3.000 | SW3A-4            | 30 Winter  | 100           | +0%            | 100/30 Summer      | 100/30 Summer   |                    |
| 1.002 | SW3A-5            | 30 Winter  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.003 | SW3A-6            | 30 Winter  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 4.000 | SW3A-7            | 30 Summer  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.004 | SW3A-8            | 30 Winter  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.005 | SW3A-9            | 30 Winter  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.006 | Outfall(in) Po. A | 30 Winter  | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.007 | Pond A            | 480 Winter | 100           | +0%            | 100/30 Summer      |                 |                    |
| 1.008 | Hydro-brake       | 960 Winter | 100           | +0%            | 100/30 Summer      |                 |                    |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in100yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m) | Flooded Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|-------------------------|-------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3A-1            |                  | 49.587             | 0.007                   | 0.000                               | 0.31           |                   | 19.0                  |
| 2.000 | SW3A-2            |                  | 50.093             | 0.743                   | 0.000                               | 1.53           |                   | 22.3                  |
| 1.001 | SW3A-3            |                  | 49.554             | 0.464                   | 0.000                               | 0.65           |                   | 41.6                  |
| 3.000 | SW3A-4            |                  | 49.602             | 1.202                   | 2.133                               | 1.56           |                   | 27.7                  |
| 1.002 | SW3A-5            |                  | 49.171             | 1.076                   | 0.000                               | 2.06           |                   | 83.3                  |
| 1.003 | SW3A-6            |                  | 48.404             | 0.494                   | 0.000                               | 1.20           |                   | 89.6                  |
| 4.000 | SW3A-7            |                  | 48.995             | 1.030                   | 0.000                               | 1.92           |                   | 30.6                  |
| 1.004 | SW3A-8            |                  | 48.114             | 0.404                   | 0.000                               | 1.09           |                   | 134.8                 |
| 1.005 | SW3A-9            |                  | 47.292             | 0.277                   | 0.000                               | 0.91           |                   | 154.7                 |
| 1.006 | Outfall(in) Po. A |                  | 46.864             | 0.364                   | 0.000                               | 1.70           |                   | 154.5                 |
| 1.007 | Pond A            |                  | 46.759             | 0.459                   | 0.000                               | 0.97           |                   | 19.2                  |
| 1.008 | Hydro-brake       |                  | 47.375             | 1.225                   | 0.000                               | 0.18           |                   | 5.8                   |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3A-1            | SURCHARGED |                   |
| 2.000 | SW3A-2            | SURCHARGED |                   |
| 1.001 | SW3A-3            | SURCHARGED |                   |
| 3.000 | SW3A-4            | FLOOD      | 2                 |
| 1.002 | SW3A-5            | FLOOD RISK |                   |
| 1.003 | SW3A-6            | SURCHARGED |                   |
| 4.000 | SW3A-7            | FLOOD RISK |                   |
| 1.004 | SW3A-8            | SURCHARGED |                   |
| 1.005 | SW3A-9            | SURCHARGED |                   |
| 1.006 | Outfall(in) Po. A | SURCHARGED |                   |
| 1.007 | Pond A            | SURCHARGED |                   |
| 1.008 | Hydro-brake       | FLOOD RISK |                   |

|                                                       |                                                                                 |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                                 | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br><b>1in100yr+CC Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                  |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                                   |                                                                                     |
| XP Solutions                                          |                                                                                 | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 40

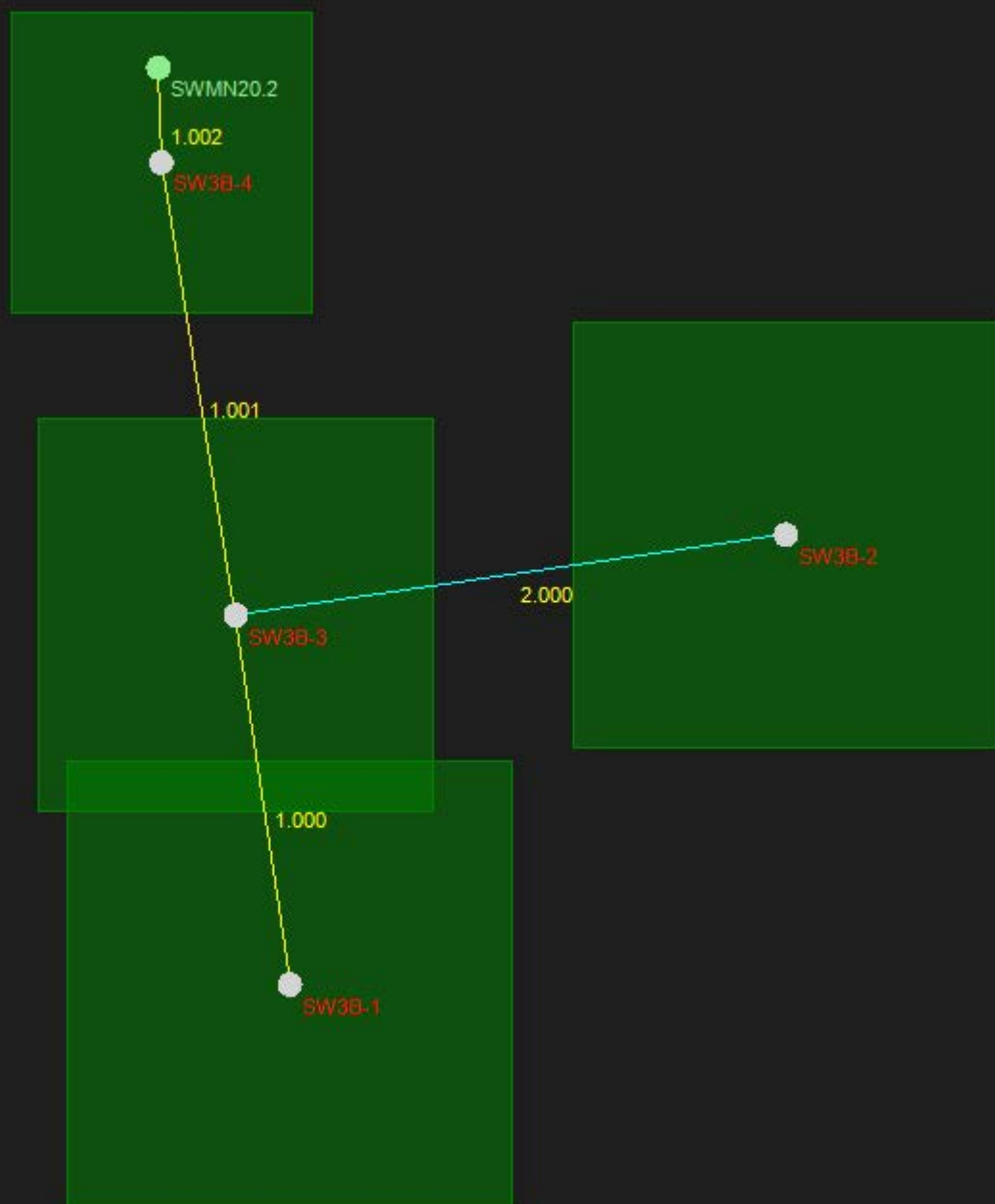
| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3A-1            | 60 Summer  | 100              | +40%              | 100/60 Summer          |                    |                       |
| 2.000 | SW3A-2            | 60 Summer  | 100              | +40%              | 100/60 Summer          | 100/60 Summer      |                       |
| 1.001 | SW3A-3            | 60 Summer  | 100              | +40%              | 100/60 Summer          |                    |                       |
| 3.000 | SW3A-4            | 60 Summer  | 100              | +40%              | 100/60 Summer          | 100/60 Summer      |                       |
| 1.002 | SW3A-5            | 60 Summer  | 100              | +40%              | 100/60 Summer          | 100/60 Summer      |                       |
| 1.003 | SW3A-6            | 60 Summer  | 100              | +40%              | 100/60 Summer          |                    |                       |
| 4.000 | SW3A-7            | 60 Summer  | 100              | +40%              | 100/60 Summer          | 100/60 Summer      |                       |
| 1.004 | SW3A-8            | 60 Summer  | 100              | +40%              | 100/60 Summer          |                    |                       |
| 1.005 | SW3A-9            | 60 Summer  | 100              | +40%              | 100/60 Summer          |                    |                       |
| 1.006 | Outfall(in) Po. A | 480 Winter | 100              | +40%              | 100/60 Summer          |                    |                       |
| 1.007 | Pond A            | 960 Winter | 100              | +40%              | 100/60 Summer          |                    |                       |
| 1.008 | Hydro-brake       | 960 Winter | 100              | +40%              | 100/60 Summer          | 100/240 Winter     |                       |

|                                                       |                                                                          |                                                                                     |
|-------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment A<br>1in100yr+CC Results |  |
| Date 12/01/2022                                       | Designed by TC                                                           |                                                                                     |
| File 220112 - PHASE 3A (A) MICRODRAI...               | Checked by IC                                                            |                                                                                     |
| XP Solutions                                          |                                                                          | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3A-1            |                  | 49.930             | 0.350                      | 0.000                                  | 0.31           |                   | 19.0                  |
| 2.000 | SW3A-2            |                  | 50.553             | 1.203                      | 0.017                                  | 1.60           |                   | 23.3                  |
| 1.001 | SW3A-3            |                  | 49.890             | 0.800                      | 0.000                                  | 0.75           |                   | 47.9                  |
| 3.000 | SW3A-4            |                  | 49.608             | 1.208                      | 7.706                                  | 1.96           |                   | 34.9                  |
| 1.002 | SW3A-5            |                  | 49.318             | 1.223                      | 2.719                                  | 2.17           |                   | 87.7                  |
| 1.003 | SW3A-6            |                  | 48.652             | 0.742                      | 0.000                                  | 1.24           |                   | 92.4                  |
| 4.000 | SW3A-7            |                  | 49.167             | 1.202                      | 1.706                                  | 1.97           |                   | 31.3                  |
| 1.004 | SW3A-8            |                  | 48.370             | 0.660                      | 0.000                                  | 1.14           |                   | 141.8                 |
| 1.005 | SW3A-9            |                  | 47.481             | 0.466                      | 0.000                                  | 0.98           |                   | 167.3                 |
| 1.006 | Outfall(in) Po. A |                  | 47.051             | 0.551                      | 0.000                                  | 0.61           |                   | 55.7                  |
| 1.007 | Pond A            |                  | 47.045             | 0.745                      | 0.000                                  | 0.98           |                   | 19.5                  |
| 1.008 | Hydro-brake       |                  | 47.600             | 1.450                      | 0.184                                  | 0.19           |                   | 6.0                   |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3A-1            | SURCHARGED |                   |
| 2.000 | SW3A-2            | FLOOD      | 1                 |
| 1.001 | SW3A-3            | SURCHARGED |                   |
| 3.000 | SW3A-4            | FLOOD      | 2                 |
| 1.002 | SW3A-5            | FLOOD      | 2                 |
| 1.003 | SW3A-6            | SURCHARGED |                   |
| 4.000 | SW3A-7            | FLOOD      | 2                 |
| 1.004 | SW3A-8            | SURCHARGED |                   |
| 1.005 | SW3A-9            | SURCHARGED |                   |
| 1.006 | Outfall(in) Po. A | SURCHARGED |                   |
| 1.007 | Pond A            | SURCHARGED |                   |
| 1.008 | Hydro-brake       | FLOOD      | 6                 |



|                                                    |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>Network Details |  |
| Date 01/10/2021<br>File 211027 - PHASE 3B (B) M... | Designed by TC<br>Checked by IC                                      |                                                                                     |
| Innovyze                                           | Network 2016.1.1                                                     |                                                                                     |

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 | 17.972        | 1.415       | 12.7           | 0.046          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 2.000 | 26.761        | 0.270       | 99.1           | 0.042          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.001 | 22.084        | 0.925       | 23.9           | 0.036          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.002 | 4.564         | 0.175       | 26.1           | 0.021          | 0.00           | 0.0                | 0.600     | o           | 225         | 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 | 44.470       | 0.046            | 0.0                  | 3.69         | 146.8        |
| 2.000 | 43.400       | 0.042            | 0.0                  | 1.01         | 17.8         |
| 1.001 | 43.055       | 0.124            | 0.0                  | 2.69         | 106.9        |
| 1.002 | 42.130       | 0.145            | 0.0                  | 2.57         | 102.3        |

|                                                    |                                                                      |                                                                                     |
|----------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                |                                                                      | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>Network Details |  |
| Date 01/10/2021<br>File 211027 - PHASE 3B (B) M... | Designed by TC<br>Checked by IC                                      |                                                                                     |
| Innovyze Network 2016.1.1                          |                                                                      |                                                                                     |

PIPELINE SCHEDULES for Storm

Upstream Manhole

| PN    | Hyd Sect | Diam (mm) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|----------|-----------|---------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | o        | 225       | SW3B-1  | 45.900      | 44.470      | 1.205       | Open Manhole  | 1200               |
| 2.000 | o        | 150       | SW3B-2  | 44.781      | 43.400      | 1.231       | Open Manhole  | 1200               |
| 1.001 | o        | 225       | SW3B-3  | 44.896      | 43.055      | 1.616       | Open Manhole  | 1200               |
| 1.002 | o        | 225       | SW3B-4  | 43.560      | 42.130      | 1.205       | Open Manhole  | 1200               |

Downstream Manhole

| PN    | Length (m) | Slope (1:X) | MH Name  | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|------------|-------------|----------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | 17.972     | 12.7        | SW3B-3   | 44.896      | 43.055      | 1.616       | Open Manhole  | 1200               |
| 2.000 | 26.761     | 99.1        | SW3B-3   | 44.896      | 43.130      | 1.616       | Open Manhole  | 1200               |
| 1.001 | 22.084     | 23.9        | SW3B-4   | 43.560      | 42.130      | 1.205       | Open Manhole  | 1200               |
| 1.002 | 4.564      | 26.1        | SWMN20.2 | 43.500      | 41.955      | 1.320       | Open Manhole  | 1200               |

Free Flowing Outfall Details for Storm

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D,L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|----------|--------|
| 1.002               | SWMN20.2     | 43.500       | 41.955       | 0.000            | 1200     | 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 Storage Structures        | 0     |
| Number of Online Controls       | 0     | Number of Time/Area Diagrams        | 0     |
| Number of Offline Controls      | 0     | Number of Real Time Controls        | 0     |

Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 100                             |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 467450 109700 SU 67450 09700 |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|--------|----------|-------|----------|-------|----------|-------|---------|-------|---------|-------|---------------|-----|---------------|----|-------------|-------|-------------|-------|-----------------------|----|
| Mayer Brown Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                      | Page 3                                                                              |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>Network Details |  |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Date 01/10/2021<br>File 211027 - PHASE 3B (B) M...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Designed by TC<br>Checked by IC                                      |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Innovyze Network 2016.1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| <p style="text-align: center;"><u>Synthetic Rainfall Details</u></p> <table> <tr><td>C (1km)</td><td>-0.027</td></tr> <tr><td>D1 (1km)</td><td>0.461</td></tr> <tr><td>D2 (1km)</td><td>0.289</td></tr> <tr><td>D3 (1km)</td><td>0.376</td></tr> <tr><td>E (1km)</td><td>0.304</td></tr> <tr><td>F (1km)</td><td>2.245</td></tr> <tr><td>Summer Storms</td><td>Yes</td></tr> <tr><td>Winter Storms</td><td>No</td></tr> <tr><td>Cv (Summer)</td><td>0.750</td></tr> <tr><td>Cv (Winter)</td><td>0.840</td></tr> <tr><td>Storm Duration (mins)</td><td>30</td></tr> </table> |                                                                      |                                                                                     | C (1km) | -0.027 | D1 (1km) | 0.461 | D2 (1km) | 0.289 | D3 (1km) | 0.376 | E (1km) | 0.304 | F (1km) | 2.245 | Summer Storms | Yes | Winter Storms | No | Cv (Summer) | 0.750 | Cv (Winter) | 0.840 | Storm Duration (mins) | 30 |
| C (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -0.027                                                               |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D1 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.461                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D2 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.289                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D3 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.376                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| E (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.304                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| F (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.245                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Summer Storms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                  |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Winter Storms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | No                                                                   |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Cv (Summer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.750                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Cv (Winter)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.840                                                                |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Storm Duration (mins)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30                                                                   |                                                                                     |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
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|                                                       |                                                                     |                                                                                     |
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| Mayer Brown Ltd                                       |                                                                     | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1  
 Climate Change (%) 0

| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) Surcharged | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|-----------|---------------|----------------|----------------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | SW3B-1     | 15 Winter | 1             | +0%            |                      |                 |                    |               | 44.496          |
| 2.000 | SW3B-2     | 15 Winter | 1             | +0%            |                      |                 |                    |               | 43.448          |
| 1.001 | SW3B-3     | 15 Winter | 1             | +0%            |                      |                 |                    |               | 43.105          |
| 1.002 | SW3B-4     | 15 Winter | 1             | +0%            |                      |                 |                    |               | 42.200          |

| PN    | US/MH Name | Depth (m) | Surcharged Volume (m <sup>3</sup> ) | Flooded Flow / Cap. (l/s) | Pipe Flow (l/s) | Level Status |
|-------|------------|-----------|-------------------------------------|---------------------------|-----------------|--------------|
| 1.000 | SW3B-1     | -0.199    | 0.000                               | 0.03                      | 4.1             | OK           |
| 2.000 | SW3B-2     | -0.102    | 0.000                               | 0.22                      | 3.7             | OK           |

|                                                       |                                                                     |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Surcharged   |                             | Flooded        |                   | Pipe          |        | Level<br>Exceeded |
|-------|---------------|--------------|-----------------------------|----------------|-------------------|---------------|--------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) | Status |                   |
| 1.001 | SW3B-3        | -0.175       | 0.000                       | 0.11           |                   | 10.5          | OK     |                   |
| 1.002 | SW3B-4        | -0.155       | 0.000                       | 0.21           |                   | 12.2          | OK     |                   |



|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>1in2yr Results |  |
| Date 01/10/2021<br>File 211027 - PHASE 3B (B) M... | Designed by TC<br>Checked by IC                                     |                                                                                     |
| Innovyze                                           | Network 2016.1.1                                                    |                                                                                     |

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

| PN    | US/MH<br>Name | Surcharged Flooded |                             | Pipe                          |               | Level  |          |
|-------|---------------|--------------------|-----------------------------|-------------------------------|---------------|--------|----------|
|       |               | Depth<br>(m)       | Volume<br>(m <sup>3</sup> ) | Flow / Overflow<br>Cap. (1/s) | Flow<br>(1/s) | Status | Exceeded |
| 1.001 | SW3B-3        | -0.169             | 0.000                       | 0.14                          | 13.3          | OK     |          |
| 1.002 | SW3B-4        | -0.147             | 0.000                       | 0.26                          | 15.5          | OK     |          |



|                                                    |                                                                      |                                                                                     |
|----------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>lin30yr Results |  |
| Date 01/10/2021<br>File 211027 - PHASE 3B (B) M... | Designed by TC<br>Checked by IC                                      |                                                                                     |
| Innovyze                                           | Network 2016.1.1                                                     |                                                                                     |

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

| PN    | US/MH<br>Name | Surcharged   |                             | Flooded        |                   | Pipe          |        | Level<br>Exceeded |
|-------|---------------|--------------|-----------------------------|----------------|-------------------|---------------|--------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) | Status |                   |
| 1.001 | SW3B-3        | -0.130       | 0.000                       | 0.36           |                   | 35.3          | OK     |                   |
| 1.002 | SW3B-4        | -0.083       | 0.000                       | 0.70           |                   | 41.3          | OK     |                   |

|                                                       |                                                                             |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloovile<br>Phase 3B - Catchment B<br><b>1in100yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                              |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                               |                                                                                     |
| XP Solutions                                          |                                                                             | Network 2019.1                                                                      |

### 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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 0

|       |            |           |               |                |                 |                 |                    |               |  | Water     |
|-------|------------|-----------|---------------|----------------|-----------------|-----------------|--------------------|---------------|--|-----------|
| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. |  | Level (m) |
| 1.000 | SW3B-1     | 15 Winter | 100           | +0%            |                 |                 |                    |               |  | 44.528    |
| 2.000 | SW3B-2     | 15 Winter | 100           | +0%            | 100/15 Winter   |                 |                    |               |  | 43.561    |
| 1.001 | SW3B-3     | 15 Winter | 100           | +0%            |                 |                 |                    |               |  | 43.174    |
| 1.002 | SW3B-4     | 15 Winter | 100           | +0%            | 100/15 Summer   |                 |                    |               |  | 42.373    |

|       |            | <u>Surcharged Flooded</u> |             |             |                | <u>Pipe</u> |            |                |  |
|-------|------------|---------------------------|-------------|-------------|----------------|-------------|------------|----------------|--|
| PN    | US/MH Name | Depth (m)                 | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s)  | Status     | Level Exceeded |  |
| 1.000 | SW3B-1     | -0.167                    | 0.000       | 0.15        |                | 19.8        | OK         |                |  |
| 2.000 | SW3B-2     | 0.011                     | 0.000       | 1.02        |                | 17.4        | SURCHARGED |                |  |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>1in100yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Surcharged   |                | Flooded        |                   | Pipe          |  | Status     | Level<br>Exceeded |
|-------|---------------|--------------|----------------|----------------|-------------------|---------------|--|------------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) |  |            |                   |
| 1.001 | SW3B-3        | -0.106       | 0.000          | 0.54           |                   | 53.0          |  | OK         |                   |
| 1.002 | SW3B-4        | 0.018        | 0.000          | 1.04           |                   | 61.4          |  | SURCHARGED |                   |

|                                                       |                                                                                 |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br><b>1in100yr+CC Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                  |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                                   |                                                                                     |
| XP Solutions                                          |                                                                                 | Network 2019.1                                                                      |

### 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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 40

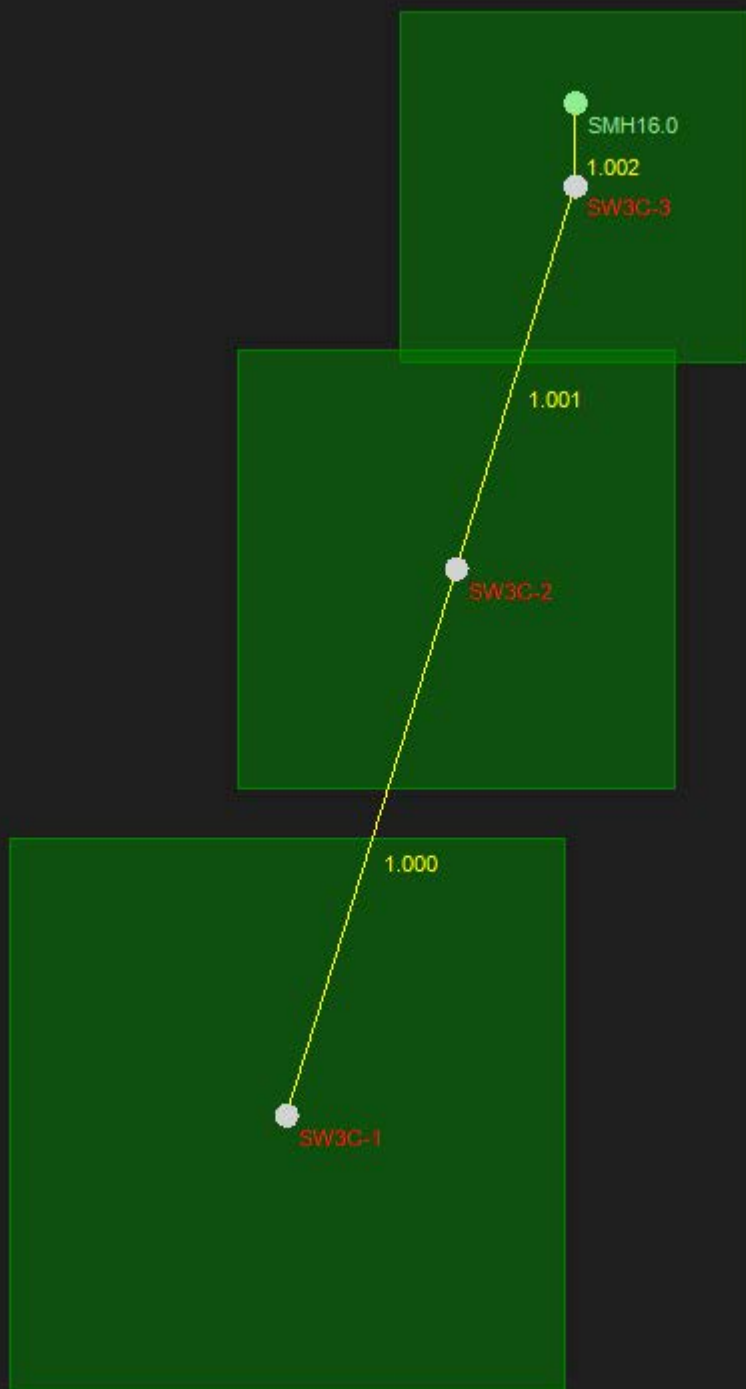
|       |            |           |               |                |                 |                 |                    |               |  | Water     |
|-------|------------|-----------|---------------|----------------|-----------------|-----------------|--------------------|---------------|--|-----------|
| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. |  | Level (m) |
| 1.000 | SW3B-1     | 15 Winter | 100           | +40%           |                 |                 |                    |               |  | 44.540    |
| 2.000 | SW3B-2     | 15 Winter | 100           | +40%           | 100/15          | Summer          |                    |               |  | 43.809    |
| 1.001 | SW3B-3     | 15 Winter | 100           | +40%           |                 |                 |                    |               |  | 43.203    |
| 1.002 | SW3B-4     | 15 Winter | 100           | +40%           | 100/15          | Summer          |                    |               |  | 42.549    |

|       |            | Surcharged |             | Flooded     |                |            | Pipe       |                |  |
|-------|------------|------------|-------------|-------------|----------------|------------|------------|----------------|--|
| PN    | US/MH Name | Depth (m)  | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | Status     | Level Exceeded |  |
| 1.000 | SW3B-1     | -0.155     | 0.000       | 0.21        |                | 27.8       | OK         |                |  |
| 2.000 | SW3B-2     | 0.259      | 0.000       | 1.38        |                | 23.6       | SURCHARGED |                |  |

|                                                       |                                                                          |                                                                                     |
|-------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                          | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooovile<br>Phase 3B - Catchment B<br>1in100yr+CC Results |  |
| Date 12/01/2022                                       | Designed by TC                                                           |                                                                                     |
| File 211027 - PHASE 3B (B) MICRODRAI...               | Checked by IC                                                            |                                                                                     |
| XP Solutions                                          |                                                                          | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Surcharged   |                | Flooded        |                   | Pipe          |  | Status     | Level<br>Exceeded |
|-------|---------------|--------------|----------------|----------------|-------------------|---------------|--|------------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) |  |            |                   |
| 1.001 | SW3B-3        | -0.077       | 0.000          | 0.74           |                   | 72.0          |  | OK         |                   |
| 1.002 | SW3B-4        | 0.194        | 0.000          | 1.44           |                   | 85.0          |  | SURCHARGED |                   |



|                                                 |                                                                      |                                                                                     |
|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                             |                                                                      | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment C<br>Network Details |  |
| Date 01/10/2021                                 | Designed by TC                                                       |                                                                                     |
| File 211027 - PHASE 3C (C) M...                 | Checked by IC                                                        |                                                                                     |
| Innovyze                                        | Network 2016.1.1                                                     |                                                                                     |

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 | 37.666        | 1.675       | 22.5           | 0.133          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.001 | 26.363        | 1.405       | 18.8           | 0.083          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.002 | 5.479         | 0.640       | 8.6            | 0.053          | 0.00           | 0.0                | 0.600     | o           | 300         | 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 | 45.395       | 0.133            | 0.0                  | 2.77         | 110.2        |
| 1.001 | 43.720       | 0.216            | 0.0                  | 3.04         | 120.7        |
| 1.002 | 42.240       | 0.269            | 0.0                  | 5.40         | 382.0        |

|                                                 |                                                                      |                                                                                     |
|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                             |                                                                      | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment C<br>Network Details |  |
| Date 01/10/2021                                 | Designed by TC                                                       |                                                                                     |
| File 211027 - PHASE 3C (C) M...                 | Checked by IC                                                        |                                                                                     |
| Innovyze                                        | Network 2016.1.1                                                     |                                                                                     |

### PIPELINE SCHEDULES for Storm

#### Upstream Manhole

| PN    | Hyd Sect | Diam (mm) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|----------|-----------|---------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | o        | 225       | SW3C-1  | 46.820      | 45.395      | 1.200       | Open Manhole  | 1200               |
| 1.001 | o        | 225       | SW3C-2  | 45.152      | 43.720      | 1.207       | Open Manhole  | 1200               |
| 1.002 | o        | 300       | SW3C-3  | 43.870      | 42.240      | 1.330       | Open Manhole  | 1200               |

#### Downstream Manhole

| PN    | Length (m) | Slope (1:X) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|------------|-------------|---------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | 37.666     | 22.5        | SW3C-2  | 45.152      | 43.720      | 1.207       | Open Manhole  | 1200               |
| 1.001 | 26.363     | 18.8        | SW3C-3  | 43.870      | 42.315      | 1.330       | Open Manhole  | 1200               |
| 1.002 | 5.479      | 8.6         | SMH16.0 | 43.660      | 41.600      | 1.760       | Open Manhole  | 1200               |

#### Free Flowing Outfall Details for Storm

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D,L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|----------|--------|
|---------------------|--------------|--------------|--------------|------------------|----------|--------|

|       |         |        |        |       |      |   |
|-------|---------|--------|--------|-------|------|---|
| 1.002 | SMH16.0 | 43.660 | 41.600 | 0.000 | 1200 | 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 Storage Structures        | 0     |
| Number of Online Controls       | 0     | Number of Time/Area Diagrams        | 0     |
| Number of Offline Controls      | 0     | Number of Real Time Controls        | 0     |

#### Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 100                             |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 467450 109700 SU 67450 09700 |
| C (1km)               | -0.027                          |
| D1 (1km)              | 0.461                           |
| D2 (1km)              | 0.289                           |
| D3 (1km)              | 0.376                           |
| E (1km)               | 0.304                           |
| F (1km)               | 2.245                           |

|                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                                                                                                                                                                                                                                                                                                |                                                                       | Page 3                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR                                                                                                                                                                                                                                                                                    | Berewood, Waterloooville<br>Phase 3B - Catchment C<br>Network Details |  |
| Date 01/10/2021<br>File 211027 - PHASE 3C (C) M...                                                                                                                                                                                                                                                                                 | Designed by TC<br>Checked by IC                                       |                                                                                     |
| Innovyze Network 2016.1.1                                                                                                                                                                                                                                                                                                          |                                                                       |                                                                                     |
| <p style="text-align: center;"><u>Synthetic Rainfall Details</u></p> <p style="text-align: center;">           Summer Storms    Yes<br/>           Winter Storms    No<br/>                            Cv (Summer) 0.750<br/>                            Cv (Winter) 0.840<br/>           Storm Duration (mins)    30         </p> |                                                                       |                                                                                     |
| ©1982-2016 XP Solutions                                                                                                                                                                                                                                                                                                            |                                                                       |                                                                                     |

|                                                       |                                                                            |                                                                                     |
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| Mayer Brown Ltd                                       |                                                                            | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment C<br><b>1in1yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                             |                                                                                     |
| File 211027 - PHASE 3B (C) MICRODRAI...               | Checked by IC                                                              |                                                                                     |
| XP Solutions                                          |                                                                            | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1  
 Climate Change (%) 0

| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) SurchARGE | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|-----------|---------------|----------------|---------------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | SW3C-1     | 15 Winter | 1             | +0%            |                     |                 |                    |               | 45.446          |
| 1.001 | SW3C-2     | 15 Winter | 1             | +0%            |                     |                 |                    |               | 43.781          |
| 1.002 | SW3C-3     | 15 Winter | 1             | +0%            |                     |                 |                    |               | 42.307          |

| PN    | US/MH Name | Depth (m) | Volume (m <sup>3</sup> ) | Flow / Cap. | Overflow (l/s) | Pipe Flow (l/s) | Status | Level Exceeded |
|-------|------------|-----------|--------------------------|-------------|----------------|-----------------|--------|----------------|
| 1.000 | SW3C-1     | -0.174    | 0.000                    | 0.11        |                | 11.8            | OK     |                |
| 1.001 | SW3C-2     | -0.164    | 0.000                    | 0.16        |                | 18.0            | OK     |                |
| 1.002 | SW3C-3     | -0.233    | 0.000                    | 0.11        |                | 22.2            | OK     |                |





|                                                       |                                                                               |                                                                                     |
|-------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                               | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment C<br><b>1in100yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                |                                                                                     |
| File 211027 - PHASE 3B (C) MICRODRAI...               | Checked by IC                                                                 |                                                                                     |
| XP Solutions                                          |                                                                               | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 0

| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) SurchARGE | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|-------|------------|-----------|---------------|----------------|---------------------|-----------------|--------------------|---------------|-----------------|
| 1.000 | SW3C-1     | 15 Winter | 100           | +0%            |                     |                 |                    |               | 45.515          |
| 1.001 | SW3C-2     | 15 Winter | 100           | +0%            |                     |                 |                    |               | 43.881          |
| 1.002 | SW3C-3     | 15 Winter | 100           | +0%            |                     |                 |                    |               | 42.409          |

| PN    | US/MH Name | Depth (m) | Volume (m <sup>3</sup> ) | Flow / Cap. | Overflow (l/s) | Pipe Flow (l/s) | Status | Level Exceeded |
|-------|------------|-----------|--------------------------|-------------|----------------|-----------------|--------|----------------|
| 1.000 | SW3C-1     | -0.105    | 0.000                    | 0.55        |                | 57.2            | OK     |                |
| 1.001 | SW3C-2     | -0.064    | 0.000                    | 0.85        |                | 94.7            | OK     |                |
| 1.002 | SW3C-3     | -0.131    | 0.000                    | 0.59        |                | 118.6           | OK     |                |

|                                                       |                                                                                 |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                                 | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment C<br><b>1in100yr+CC Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                  |                                                                                     |
| File 211027 - PHASE 3B (C) MICRODRAI...               | Checked by IC                                                                   |                                                                                     |
| XP Solutions                                          |                                                                                 | Network 2019.1                                                                      |

### 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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

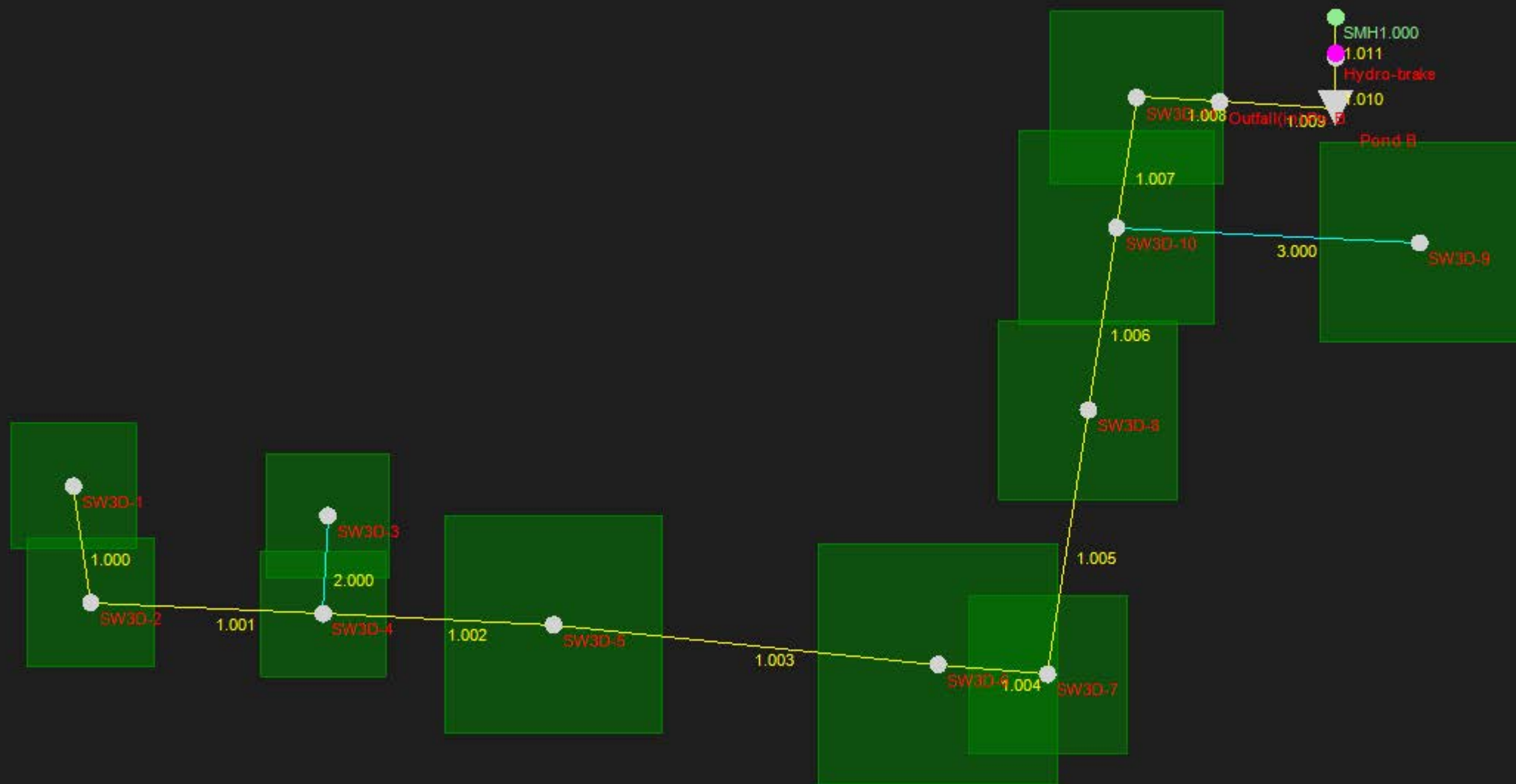
Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 40

| US/MH |        | Storm     | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level |
|-------|--------|-----------|---------------|----------------|-----------------|-----------------|--------------------|---------------|-------------|
| PN    | Name   |           |               |                |                 |                 |                    |               | (m)         |
| 1.000 | SW3C-1 | 15 Winter | 100           | +40%           |                 |                 |                    |               | 45.545      |
| 1.001 | SW3C-2 | 15 Winter | 100           | +40%           | 100/15 Summer   |                 |                    |               | 44.340      |
| 1.002 | SW3C-3 | 15 Winter | 100           | +40%           |                 |                 |                    |               | 42.443      |

|       |            | Surcharged |             | Flooded     |                | Pipe            |            | Level Exceeded |
|-------|------------|------------|-------------|-------------|----------------|-----------------|------------|----------------|
| PN    | US/MH Name | Depth (m)  | Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe Flow (l/s) | Status     |                |
| 1.000 | SW3C-1     | -0.075     | 0.000       | 0.77        |                | 80.1            | OK         |                |
| 1.001 | SW3C-2     | 0.395      | 0.000       | 1.13        |                | 126.0           | SURCHARGED |                |
| 1.002 | SW3C-3     | -0.097     | 0.000       | 0.78        |                | 155.8           | OK         |                |



|                                                       |                                                                      |                                                                                     |
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| Mayer Brown Ltd                                       |                                                                      | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

#### 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 | 16.272        | 0.080       | 203.4          | 0.030          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.001 | 32.219        | 0.160       | 201.4          | 0.031          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 2.000 | 13.555        | 1.350       | 10.0           | 0.029          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.002 | 31.912        | 0.160       | 199.4          | 0.030          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.003 | 53.503        | 0.270       | 198.2          | 0.090          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.004 | 15.199        | 0.075       | 202.7          | 0.110          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.005 | 36.994        | 0.355       | 104.2          | 0.048          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.006 | 25.550        | 1.925       | 13.3           | 0.061          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 3.000 | 41.990        | 0.540       | 77.8           | 0.076          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.007 | 18.208        | 0.200       | 91.0           | 0.072          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.008 | 11.479        | 0.100       | 114.8          | 0.057          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.009 | 16.091        | 0.100       | 160.9          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.010 | 6.977         | 0.000       | 0.0            | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| 1.011 | 5.569         | 0.415       | 13.4           | 0.000          | 0.00           | 0.0                | 0.600     | o           | 225         | 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 | 45.100       | 0.030            | 0.0                  | 0.91         | 36.3         |
| 1.001 | 45.020       | 0.061            | 0.0                  | 0.92         | 36.5         |
| 2.000 | 46.285       | 0.029            | 0.0                  | 3.20         | 56.5         |
| 1.002 | 44.860       | 0.120            | 0.0                  | 0.92         | 36.7         |
| 1.003 | 44.700       | 0.210            | 0.0                  | 0.93         | 36.8         |
| 1.004 | 44.430       | 0.320            | 0.0                  | 0.91         | 36.4         |
| 1.005 | 44.355       | 0.368            | 0.0                  | 1.28         | 50.9         |
| 1.006 | 44.000       | 0.429            | 0.0                  | 3.61         | 143.6        |
| 3.000 | 42.690       | 0.076            | 0.0                  | 1.14         | 20.2         |
| 1.007 | 42.000       | 0.577            | 0.0                  | 1.65         | 116.5        |
| 1.008 | 41.800       | 0.634            | 0.0                  | 1.47         | 103.7        |
| 1.009 | 41.700       | 0.634            | 0.0                  | 1.24         | 87.4         |
| 1.010 | 41.600       | 0.634            | 0.0                  | 0.00         | 0.0          |
| 1.011 | 41.600       | 0.634            | 0.0                  | 3.59         | 142.8        |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### PIPELINE SCHEDULES for Storm

#### Upstream Manhole

| PN    | Hyd<br>Sect | Diam<br>(mm) | MH<br>Name        | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|-------|-------------|--------------|-------------------|----------------|----------------|----------------|------------------|-----------------------|
| 1.000 | o           | 225          | SW3D-1            | 46.529         | 45.100         | 1.204          | Open Manhole     | 1200                  |
| 1.001 | o           | 225          | SW3D-2            | 47.139         | 45.020         | 1.894          | Open Manhole     | 1200                  |
| 2.000 | o           | 150          | SW3D-3            | 47.635         | 46.285         | 1.200          | Open Manhole     | 1200                  |
| 1.002 | o           | 225          | SW3D-4            | 48.011         | 44.860         | 2.926          | Open Manhole     | 1200                  |
| 1.003 | o           | 225          | SW3D-5            | 47.958         | 44.700         | 3.033          | Open Manhole     | 1200                  |
| 1.004 | o           | 225          | SW3D-6            | 47.417         | 44.430         | 2.762          | Open Manhole     | 1200                  |
| 1.005 | o           | 225          | SW3D-7            | 47.227         | 44.355         | 2.647          | Open Manhole     | 1200                  |
| 1.006 | o           | 225          | SW3D-8            | 45.746         | 44.000         | 1.521          | Open Manhole     | 1200                  |
| 3.000 | o           | 150          | SW3D-9            | 44.040         | 42.690         | 1.200          | Open Manhole     | 1200                  |
| 1.007 | o           | 300          | SW3D-10           | 44.590         | 42.000         | 2.290          | Open Manhole     | 1200                  |
| 1.008 | o           | 300          | SW3D-11           | 44.590         | 41.800         | 2.490          | Open Manhole     | 1200                  |
| 1.009 | o           | 300          | Outfall(in) Po. B | 43.200         | 41.700         | 1.200          | Open Manhole     | 1200                  |
| 1.010 | o           | 300          | Pond B            | 43.200         | 41.600         | 1.300          | Open Manhole     | 1200                  |
| 1.011 | o           | 225          | Hydro-brake       | 43.300         | 41.600         | 1.475          | Open Manhole     | 1200                  |

#### Downstream Manhole

| PN    | Length<br>(m) | Slope<br>(1:X) | MH<br>Name        | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|-------|---------------|----------------|-------------------|----------------|----------------|----------------|------------------|-----------------------|
| 1.000 | 16.272        | 203.4          | SW3D-2            | 47.139         | 45.020         | 1.894          | Open Manhole     | 1200                  |
| 1.001 | 32.219        | 201.4          | SW3D-4            | 48.011         | 44.860         | 2.926          | Open Manhole     | 1200                  |
| 2.000 | 13.555        | 10.0           | SW3D-4            | 48.011         | 44.935         | 2.926          | Open Manhole     | 1200                  |
| 1.002 | 31.912        | 199.4          | SW3D-5            | 47.958         | 44.700         | 3.033          | Open Manhole     | 1200                  |
| 1.003 | 53.503        | 198.2          | SW3D-6            | 47.417         | 44.430         | 2.762          | Open Manhole     | 1200                  |
| 1.004 | 15.199        | 202.7          | SW3D-7            | 47.227         | 44.355         | 2.647          | Open Manhole     | 1200                  |
| 1.005 | 36.994        | 104.2          | SW3D-8            | 45.746         | 44.000         | 1.521          | Open Manhole     | 1200                  |
| 1.006 | 25.550        | 13.3           | SW3D-10           | 44.590         | 42.075         | 2.290          | Open Manhole     | 1200                  |
| 3.000 | 41.990        | 77.8           | SW3D-10           | 44.590         | 42.150         | 2.290          | Open Manhole     | 1200                  |
| 1.007 | 18.208        | 91.0           | SW3D-11           | 44.590         | 41.800         | 2.490          | Open Manhole     | 1200                  |
| 1.008 | 11.479        | 114.8          | Outfall(in) Po. B | 43.200         | 41.700         | 1.200          | Open Manhole     | 1200                  |
| 1.009 | 16.091        | 160.9          | Pond B            | 43.200         | 41.600         | 1.300          | Open Manhole     | 1200                  |
| 1.010 | 6.977         | 0.0            | Hydro-brake       | 43.300         | 41.600         | 1.400          | Open Manhole     | 1200                  |
| 1.011 | 5.569         | 13.4           | SMH1.000          | 43.200         | 41.185         | 1.790          | Open Manhole     | 1200                  |

|                                                       |                                                                       |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

#### 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) |
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|

|       |          |        |        |       |      |   |
|-------|----------|--------|--------|-------|------|---|
| 1.011 | SMH1.000 | 43.200 | 41.185 | 0.000 | 1200 | 0 |
|-------|----------|--------|--------|-------|------|---|

#### Simulation Criteria for Storm

|                                 |       |                                            |       |
|---------------------------------|-------|--------------------------------------------|-------|
| Volumetric Runoff Coeff         | 0.750 | Additional Flow - % of Total Flow          | 0.000 |
| Areal Reduction Factor          | 1.000 | MADD Factor * 10m <sup>3</sup> /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 Storage Structures | 1 |
| Number of Online Controls   | 1 | Number of Time/Area Diagrams | 0 |
| Number of Offline Controls  | 0 | Number of Real Time Controls | 0 |

#### Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 100                             |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 467450 109700 SU 67450 09700 |
| C (1km)               | -0.027                          |
| D1 (1km)              | 0.461                           |
| D2 (1km)              | 0.289                           |
| D3 (1km)              | 0.376                           |
| E (1km)               | 0.304                           |
| F (1km)               | 2.245                           |
| Summer Storms         | Yes                             |
| Winter Storms         | No                              |
| Cv (Summer)           | 0.750                           |
| Cv (Winter)           | 0.840                           |
| Storm Duration (mins) | 30                              |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

Online Controls for Storm

Depth/Flow Relationship Manhole: Hydro-brake, DS/PN: 1.011, Volume (m³): 2.3

Invert Level (m) 41.600

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 2.4000     | 0.900     | 3.8700     | 1.700     | 5.0000     | 2.500     | 5.0000     |
| 0.200     | 3.8100     | 1.000     | 4.0800     | 1.800     | 5.0000     | 2.600     | 5.0000     |
| 0.300     | 3.9300     | 1.100     | 4.2800     | 1.900     | 5.0000     | 2.700     | 5.0000     |
| 0.400     | 3.6200     | 1.200     | 4.4700     | 2.000     | 5.0000     | 2.800     | 5.0000     |
| 0.500     | 3.3800     | 1.300     | 4.6500     | 2.100     | 5.0000     | 2.900     | 5.0000     |
| 0.600     | 3.2800     | 1.400     | 4.8300     | 2.200     | 5.0000     | 3.000     | 5.0000     |
| 0.700     | 3.4200     | 1.500     | 5.0000     | 2.300     | 5.0000     |           |            |
| 0.800     | 3.6500     | 1.600     | 5.0000     | 2.400     | 5.0000     |           |            |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>Network Details |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### Storage Structures for Storm

#### Tank or Pond Manhole: Pond B, DS/PN: 1.010

Invert Level (m) 41.600

| Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000     | 191.7                  | 1.500     | 588.0                  | 1.600     | 620.0                  |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1  
 Climate Change (%) 0

| 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. |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.000 | SW3D-1            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.001 | SW3D-2            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 2.000 | SW3D-3            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.002 | SW3D-4            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.003 | SW3D-5            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.004 | SW3D-6            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.005 | SW3D-7            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.006 | SW3D-8            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 3.000 | SW3D-9            | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.007 | SW3D-10           | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.008 | SW3D-11           | 15 Winter  | 1                | +0%               |                        |                    |                       |                  |
| 1.009 | Outfall(in) Po. B | 480 Winter | 1                | +0%               |                        |                    |                       |                  |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status | Level<br>Exceeded |
|-------|-------------------|-----------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|--------|-------------------|
| 1.000 | SW3D-1            | 45.144                | -0.181                     | 0.000                                  | 0.08           |                   | 2.6                   | OK     |                   |
| 1.001 | SW3D-2            | 45.077                | -0.168                     | 0.000                                  | 0.14           |                   | 4.9                   | OK     |                   |
| 2.000 | SW3D-3            | 46.307                | -0.128                     | 0.000                                  | 0.05           |                   | 2.6                   | OK     |                   |
| 1.002 | SW3D-4            | 44.941                | -0.144                     | 0.000                                  | 0.27           |                   | 9.4                   | OK     |                   |
| 1.003 | SW3D-5            | 44.806                | -0.119                     | 0.000                                  | 0.43           |                   | 15.3                  | OK     |                   |
| 1.004 | SW3D-6            | 44.570                | -0.085                     | 0.000                                  | 0.70           |                   | 22.4                  | OK     |                   |
| 1.005 | SW3D-7            | 44.472                | -0.108                     | 0.000                                  | 0.53           |                   | 25.5                  | OK     |                   |
| 1.006 | SW3D-8            | 44.072                | -0.153                     | 0.000                                  | 0.22           |                   | 29.2                  | OK     |                   |
| 3.000 | SW3D-9            | 42.751                | -0.089                     | 0.000                                  | 0.35           |                   | 6.8                   | OK     |                   |
| 1.007 | SW3D-10           | 42.132                | -0.168                     | 0.000                                  | 0.40           |                   | 39.9                  | OK     |                   |
| 1.008 | SW3D-11           | 41.959                | -0.141                     | 0.000                                  | 0.55           |                   | 43.7                  | OK     |                   |
| 1.009 | Outfall(in) Po. B | 41.916                | -0.084                     | 0.000                                  | 0.15           |                   | 11.4                  | OK     |                   |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

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. |
|-------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.010 | Pond B        | 480 Winter | 1                | +0%               | 1/360 Winter           |                    |                       |                  |
| 1.011 | Hydro-brake   | 480 Winter | 1                | +0%               | 1/120 Winter           |                    |                       |                  |

| PN    | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| 1.010 | Pond B        | 41.912                | 0.012                      | 0.000                     | 0.13           |                   | 5.0                   | SURCHARGED |                   |
| 1.011 | Hydro-brake   | 41.998                | 0.173                      | 0.000                     | 0.04           |                   | 3.6                   | SURCHARGED |                   |

|                                                       |                                                                     |                                                                                     |
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| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 2  
 Climate Change (%) 0

| 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. |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.000 | SW3D-1            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.001 | SW3D-2            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 2.000 | SW3D-3            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.002 | SW3D-4            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.003 | SW3D-5            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.004 | SW3D-6            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.005 | SW3D-7            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.006 | SW3D-8            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 3.000 | SW3D-9            | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.007 | SW3D-10           | 15 Winter  | 2                | +0%               |                        |                    |                       |                  |
| 1.008 | SW3D-11           | 480 Winter | 2                | +0%               |                        |                    |                       |                  |
| 1.009 | Outfall(in) Po. B | 480 Winter | 2                | +0%               |                        |                    |                       |                  |

|                                                       |                                                                     |                                                                                     |
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| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status | Level<br>Exceeded |
|-------|-------------------|-----------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|--------|-------------------|
| 1.000 | SW3D-1            | 45.149                | -0.176                     | 0.000                                  | 0.10           |                   | 3.3                   | OK     |                   |
| 1.001 | SW3D-2            | 45.085                | -0.160                     | 0.000                                  | 0.18           |                   | 6.2                   | OK     |                   |
| 2.000 | SW3D-3            | 46.310                | -0.125                     | 0.000                                  | 0.06           |                   | 3.3                   | OK     |                   |
| 1.002 | SW3D-4            | 44.953                | -0.132                     | 0.000                                  | 0.35           |                   | 12.0                  | OK     |                   |
| 1.003 | SW3D-5            | 44.823                | -0.102                     | 0.000                                  | 0.55           |                   | 19.4                  | OK     |                   |
| 1.004 | SW3D-6            | 44.596                | -0.059                     | 0.000                                  | 0.89           |                   | 28.4                  | OK     |                   |
| 1.005 | SW3D-7            | 44.491                | -0.089                     | 0.000                                  | 0.67           |                   | 32.2                  | OK     |                   |
| 1.006 | SW3D-8            | 44.081                | -0.144                     | 0.000                                  | 0.28           |                   | 36.9                  | OK     |                   |
| 3.000 | SW3D-9            | 42.760                | -0.080                     | 0.000                                  | 0.44           |                   | 8.6                   | OK     |                   |
| 1.007 | SW3D-10           | 42.151                | -0.149                     | 0.000                                  | 0.50           |                   | 50.2                  | OK     |                   |
| 1.008 | SW3D-11           | 41.986                | -0.114                     | 0.000                                  | 0.17           |                   | 13.6                  | OK     |                   |
| 1.009 | Outfall(in) Po. B | 41.983                | -0.017                     | 0.000                                  | 0.18           |                   | 13.4                  | OK     |                   |

|                                                       |                                                                      |                                                                                     |
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| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

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. |
|-------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.010 | Pond B        | 480 Winter | 2                | +0%               | 2/240 Summer           |                    |                       |                  |
| 1.011 | Hydro-brake   | 480 Winter | 2                | +0%               | 2/60 Winter            |                    |                       |                  |

| PN    | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| 1.010 | Pond B        | 41.979                | 0.079                      | 0.000                     | 0.15           |                   | 5.9                   | SURCHARGED |                   |
| 1.011 | Hydro-brake   | 42.040                | 0.215                      | 0.000                     | 0.04           |                   | 3.7                   | SURCHARGED |                   |

|                                                       |                                                                      |                                                                                     |
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| Mayer Brown Ltd                                       |                                                                      | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>1in30yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 30  
 Climate Change (%) 0

| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3D-1            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.001 | SW3D-2            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 2.000 | SW3D-3            | 15 Winter  | 30               | +0%               |                        |                    |                       |
| 1.002 | SW3D-4            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.003 | SW3D-5            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.004 | SW3D-6            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.005 | SW3D-7            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.006 | SW3D-8            | 15 Winter  | 30               | +0%               |                        |                    |                       |
| 3.000 | SW3D-9            | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.007 | SW3D-10           | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.008 | SW3D-11           | 15 Winter  | 30               | +0%               | 30/15 Summer           |                    |                       |
| 1.009 | Outfall(in) Po. B | 480 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |

|                                                       |                                                                      |                                                                                     |
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>1in30yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                       |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                        |                                                                                     |
| XP Solutions                                          |                                                                      | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m) | Flooded Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|-------------------------|-------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3D-1            |                  | 45.626             | 0.301                   | 0.000                               | 0.25           |                   | 8.2                   |
| 1.001 | SW3D-2            |                  | 45.617             | 0.372                   | 0.000                               | 0.45           |                   | 15.4                  |
| 2.000 | SW3D-3            |                  | 46.325             | -0.110                  | 0.000                               | 0.16           |                   | 8.2                   |
| 1.002 | SW3D-4            |                  | 45.594             | 0.509                   | 0.000                               | 0.74           |                   | 25.5                  |
| 1.003 | SW3D-5            |                  | 45.543             | 0.618                   | 0.000                               | 1.08           |                   | 38.2                  |
| 1.004 | SW3D-6            |                  | 45.253             | 0.598                   | 0.000                               | 1.85           |                   | 59.1                  |
| 1.005 | SW3D-7            |                  | 44.986             | 0.406                   | 0.000                               | 1.45           |                   | 69.7                  |
| 1.006 | SW3D-8            |                  | 44.131             | -0.094                  | 0.000                               | 0.62           |                   | 82.1                  |
| 3.000 | SW3D-9            |                  | 43.121             | 0.281                   | 0.000                               | 0.89           |                   | 17.4                  |
| 1.007 | SW3D-10           |                  | 42.725             | 0.425                   | 0.000                               | 1.15           |                   | 115.3                 |
| 1.008 | SW3D-11           |                  | 42.453             | 0.353                   | 0.000                               | 1.61           |                   | 127.3                 |
| 1.009 | Outfall(in) Po. B |                  | 42.382             | 0.382                   | 0.000                               | 0.35           |                   | 26.0                  |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3D-1            | SURCHARGED |                   |
| 1.001 | SW3D-2            | SURCHARGED |                   |
| 2.000 | SW3D-3            | OK         |                   |
| 1.002 | SW3D-4            | SURCHARGED |                   |
| 1.003 | SW3D-5            | SURCHARGED |                   |
| 1.004 | SW3D-6            | SURCHARGED |                   |
| 1.005 | SW3D-7            | SURCHARGED |                   |
| 1.006 | SW3D-8            | OK         |                   |
| 3.000 | SW3D-9            | SURCHARGED |                   |
| 1.007 | SW3D-10           | SURCHARGED |                   |
| 1.008 | SW3D-11           | SURCHARGED |                   |
| 1.009 | Outfall(in) Po. B | SURCHARGED |                   |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                       | Page 3                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in30yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

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. |
|-------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.010 | Pond B        | 480 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  |
| 1.011 | Hydro-brake   | 480 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  |

| PN    | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| 1.010 | Pond B        | 42.379                | 0.479                      | 0.000                     | 0.21           |                   | 8.3                   | SURCHARGED |                   |
| 1.011 | Hydro-brake   | 42.415                | 0.590                      | 0.000                     | 0.04           |                   | 3.7                   | SURCHARGED |                   |

|                                                       |                                                                              |                                                                                     |
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| Mayer Brown Ltd                                       |                                                                              | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br><b>1in100yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                               |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                                |                                                                                     |
| XP Solutions                                          |                                                                              | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 0

| PN    | US/MH<br>Name     | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow |
|-------|-------------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|
| 1.000 | SW3D-1            | 30 Winter  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.001 | SW3D-2            | 30 Winter  | 100              | +0%               | 100/30                 | Summer             |                       |
| 2.000 | SW3D-3            | 30 Summer  | 100              | +0%               |                        |                    |                       |
| 1.002 | SW3D-4            | 30 Winter  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.003 | SW3D-5            | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.004 | SW3D-6            | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.005 | SW3D-7            | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.006 | SW3D-8            | 30 Summer  | 100              | +0%               |                        |                    |                       |
| 3.000 | SW3D-9            | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.007 | SW3D-10           | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.008 | SW3D-11           | 30 Summer  | 100              | +0%               | 100/30                 | Summer             |                       |
| 1.009 | Outfall(in) Po. B | 480 Winter | 100              | +0%               | 100/30                 | Summer             |                       |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>1in100yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m) | Flooded Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|-------------------------|-------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3D-1            |                  | 46.334             | 1.009                   | 0.000                               | 0.29           |                   | 9.2                   |
| 1.001 | SW3D-2            |                  | 46.321             | 1.076                   | 0.000                               | 0.51           |                   | 17.5                  |
| 2.000 | SW3D-3            |                  | 46.330             | -0.105                  | 0.000                               | 0.20           |                   | 10.4                  |
| 1.002 | SW3D-4            |                  | 46.287             | 1.202                   | 0.000                               | 0.87           |                   | 29.8                  |
| 1.003 | SW3D-5            |                  | 46.197             | 1.272                   | 0.000                               | 1.33           |                   | 47.2                  |
| 1.004 | SW3D-6            |                  | 45.741             | 1.086                   | 0.000                               | 2.24           |                   | 71.9                  |
| 1.005 | SW3D-7            |                  | 45.351             | 0.771                   | 0.000                               | 1.77           |                   | 85.1                  |
| 1.006 | SW3D-8            |                  | 44.213             | -0.012                  | 0.000                               | 0.76           |                   | 101.1                 |
| 3.000 | SW3D-9            |                  | 43.705             | 0.865                   | 0.000                               | 1.07           |                   | 20.9                  |
| 1.007 | SW3D-10           |                  | 43.121             | 0.821                   | 0.000                               | 1.39           |                   | 139.2                 |
| 1.008 | SW3D-11           |                  | 42.733             | 0.633                   | 0.000                               | 1.97           |                   | 156.1                 |
| 1.009 | Outfall(in) Po. B |                  | 42.618             | 0.618                   | 0.000                               | 0.48           |                   | 35.3                  |

| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3D-1            | FLOOD RISK |                   |
| 1.001 | SW3D-2            | SURCHARGED |                   |
| 2.000 | SW3D-3            | OK         |                   |
| 1.002 | SW3D-4            | SURCHARGED |                   |
| 1.003 | SW3D-5            | SURCHARGED |                   |
| 1.004 | SW3D-6            | SURCHARGED |                   |
| 1.005 | SW3D-7            | SURCHARGED |                   |
| 1.006 | SW3D-8            | OK         |                   |
| 3.000 | SW3D-9            | SURCHARGED |                   |
| 1.007 | SW3D-10           | SURCHARGED |                   |
| 1.008 | SW3D-11           | SURCHARGED |                   |
| 1.009 | Outfall(in) Po. B | SURCHARGED |                   |

|                                                       |                                                                        |                                                                                     |
|-------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                        | Page 3                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in100yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                         |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                          |                                                                                     |
| XP Solutions                                          |                                                                        | Network 2019.1                                                                      |

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. |
|-------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.010 | Pond B        | 480 Winter | 100              | +0%               | 100/30 Summer          |                    |                       |                  |
| 1.011 | Hydro-brake   | 480 Winter | 100              | +0%               | 100/30 Summer          |                    |                       |                  |

| PN    | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| 1.010 | Pond B        | 42.614                | 0.714                      | 0.000                     | 0.20           |                   | 7.9                   | SURCHARGED |                   |
| 1.011 | Hydro-brake   | 42.653                | 0.828                      | 0.000                     | 0.05           |                   | 4.1                   | SURCHARGED |                   |

|                                                       |                                                                                 |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br><b>1in100yr+CC Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                  |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                                   |                                                                                     |
| XP Solutions                                          |                                                                                 | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 1  
 Number of Online Controls 1      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 40

| PN    | US/MH Name        | Storm      | Return Period | Climate Change | First (X) Surchage | First (Y) Flood | First (Z) Overflow |
|-------|-------------------|------------|---------------|----------------|--------------------|-----------------|--------------------|
| 1.000 | SW3D-1            | 60 Summer  | 100           | +40%           | 100/60 Summer      | 100/60 Summer   |                    |
| 1.001 | SW3D-2            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 2.000 | SW3D-3            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.002 | SW3D-4            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.003 | SW3D-5            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.004 | SW3D-6            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.005 | SW3D-7            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.006 | SW3D-8            | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 3.000 | SW3D-9            | 60 Summer  | 100           | +40%           | 100/60 Summer      | 100/60 Summer   |                    |
| 1.007 | SW3D-10           | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.008 | SW3D-11           | 60 Summer  | 100           | +40%           | 100/60 Summer      |                 |                    |
| 1.009 | Outfall(in) Po. B | 960 Winter | 100           | +40%           | 100/60 Summer      |                 |                    |

|                                                       |                                                                          |                                                                                     |
|-------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
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| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment D<br>1in100yr+CC Results |  |
| Date 12/01/2022                                       | Designed by TC                                                           |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                            |                                                                                     |
| XP Solutions                                          |                                                                          | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name     | Overflow<br>Act. | Water Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) |
|-------|-------------------|------------------|--------------------|----------------------------|----------------------------------------|----------------|-------------------|-----------------------|
| 1.000 | SW3D-1            |                  | 46.534             | 1.209                      | 5.331                                  | 0.99           |                   | 32.0                  |
| 1.001 | SW3D-2            |                  | 46.627             | 1.382                      | 0.000                                  | 0.98           |                   | 33.5                  |
| 2.000 | SW3D-3            |                  | 46.737             | 0.302                      | 0.000                                  | 0.22           |                   | 11.4                  |
| 1.002 | SW3D-4            |                  | 46.691             | 1.606                      | 0.000                                  | 1.25           |                   | 42.8                  |
| 1.003 | SW3D-5            |                  | 46.662             | 1.737                      | 0.000                                  | 1.50           |                   | 53.0                  |
| 1.004 | SW3D-6            |                  | 46.254             | 1.599                      | 0.000                                  | 2.43           |                   | 78.0                  |
| 1.005 | SW3D-7            |                  | 45.841             | 1.261                      | 0.000                                  | 1.88           |                   | 90.4                  |
| 1.006 | SW3D-8            |                  | 44.625             | 0.400                      | 0.000                                  | 0.80           |                   | 105.9                 |
| 3.000 | SW3D-9            |                  | 44.040             | 1.200                      | 0.195                                  | 1.11           |                   | 21.8                  |
| 1.007 | SW3D-10           |                  | 43.389             | 1.089                      | 0.000                                  | 1.46           |                   | 146.4                 |
| 1.008 | SW3D-11           |                  | 42.962             | 0.862                      | 0.000                                  | 2.05           |                   | 162.1                 |
| 1.009 | Outfall(in) Po. B |                  | 42.954             | 0.954                      | 0.000                                  | 0.40           |                   | 29.9                  |

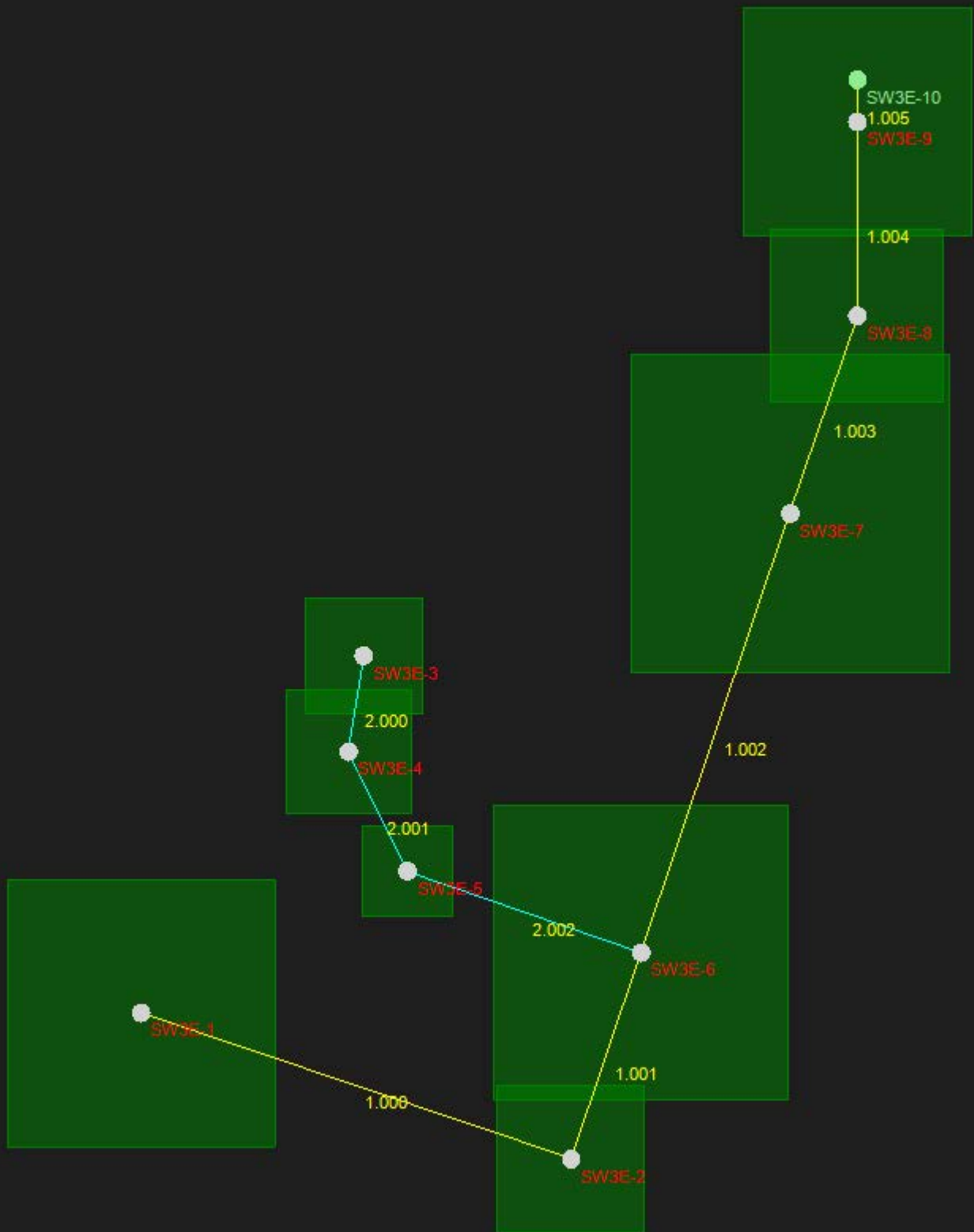
| PN    | US/MH<br>Name     | Status     | Level<br>Exceeded |
|-------|-------------------|------------|-------------------|
| 1.000 | SW3D-1            | FLOOD      | 2                 |
| 1.001 | SW3D-2            | SURCHARGED |                   |
| 2.000 | SW3D-3            | SURCHARGED |                   |
| 1.002 | SW3D-4            | SURCHARGED |                   |
| 1.003 | SW3D-5            | SURCHARGED |                   |
| 1.004 | SW3D-6            | SURCHARGED |                   |
| 1.005 | SW3D-7            | SURCHARGED |                   |
| 1.006 | SW3D-8            | SURCHARGED |                   |
| 3.000 | SW3D-9            | FLOOD      | 1                 |
| 1.007 | SW3D-10           | SURCHARGED |                   |
| 1.008 | SW3D-11           | SURCHARGED |                   |
| 1.009 | Outfall(in) Po. B | FLOOD RISK |                   |

|                                                       |                                                                           |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                           | Page 3                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterloooville<br>Phase 3B - Catchment D<br>1in100yr+CC Results |  |
| Date 12/01/2022                                       | Designed by TC                                                            |                                                                                     |
| File 220122 - PHASE 3D (D) MICRODRAI...               | Checked by IC                                                             |                                                                                     |
| XP Solutions                                          |                                                                           | Network 2019.1                                                                      |

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. |
|-------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| 1.010 | Pond B        | 960 Winter | 100              | +40%              | 100/60 Summer          |                    |                       |                  |
| 1.011 | Hydro-brake   | 960 Winter | 100              | +40%              | 100/60 Summer          |                    |                       |                  |

| PN    | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|-------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| 1.010 | Pond B        | 42.950                | 1.050                      | 0.000                     | 0.23           |                   | 9.3                   | FLOOD RISK |                   |
| 1.011 | Hydro-brake   | 42.991                | 1.166                      | 0.000                     | 0.05           |                   | 4.7                   | SURCHARGED |                   |



|                                                 |                                                                      |                                                                                     |
|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                             |                                                                      | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>Network Details |  |
| Date 01/10/2021                                 | Designed by TC                                                       |                                                                                     |
| File 211027 - PHASE 3E (E) M...                 | Checked by IC                                                        |                                                                                     |
| Innovyze                                        | Network 2016.1.1                                                     |                                                                                     |

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 | 47.776        | 0.475       | 100.6          | 0.079          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.001 | 22.917        | 1.020       | 22.5           | 0.024          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 2.000 | 10.221        | 0.285       | 35.9           | 0.015          | 5.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 2.001 | 13.987        | 0.140       | 99.9           | 0.017          | 0.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 2.002 | 26.032        | 0.185       | 140.7          | 0.009          | 0.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| 1.002 | 48.792        | 1.940       | 25.2           | 0.096          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.003 | 21.946        | 0.860       | 25.5           | 0.112          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.004 | 20.378        | 0.605       | 33.7           | 0.033          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| 1.005 | 4.434         | 0.670       | 6.6            | 0.058          | 0.00           | 0.0                | 0.600     | o           | 225         | 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 | 45.670       | 0.079            | 0.0                  | 1.30         | 51.8         |
| 1.001 | 45.195       | 0.103            | 0.0                  | 2.77         | 110.2        |
| 2.000 | 44.860       | 0.015            | 0.0                  | 1.69         | 29.8         |
| 2.001 | 44.575       | 0.032            | 0.0                  | 1.01         | 17.8         |
| 2.002 | 44.435       | 0.041            | 0.0                  | 0.85         | 14.9         |
| 1.002 | 44.175       | 0.240            | 0.0                  | 2.62         | 104.2        |
| 1.003 | 42.235       | 0.352            | 0.0                  | 2.60         | 103.4        |
| 1.004 | 41.375       | 0.385            | 0.0                  | 2.26         | 89.9         |
| 1.005 | 40.770       | 0.443            | 0.0                  | 5.12         | 203.6        |

|                                                 |                                                                      |                                                                                     |
|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                             |                                                                      | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>Network Details |  |
| Date 01/10/2021                                 | Designed by TC                                                       |                                                                                     |
| File 211027 - PHASE 3E (E) M...                 | Checked by IC                                                        |                                                                                     |
| Innovyze                                        | Network 2016.1.1                                                     |                                                                                     |

### PIPELINE SCHEDULES for Storm

#### Upstream Manhole

| PN    | Hyd Sect | Diam (mm) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|----------|-----------|---------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | o        | 225       | SW3E-1  | 47.096      | 45.670      | 1.201       | Open Manhole  | 1200               |
| 1.001 | o        | 225       | SW3E-2  | 46.619      | 45.195      | 1.199       | Open Manhole  | 1200               |
| 2.000 | o        | 150       | SW3E-3  | 45.741      | 44.860      | 0.731       | Open Manhole  | 1200               |
| 2.001 | o        | 150       | SW3E-4  | 46.203      | 44.575      | 1.478       | Open Manhole  | 1200               |
| 2.002 | o        | 150       | SW3E-5  | 46.654      | 44.435      | 2.069       | Open Manhole  | 1200               |
| 1.002 | o        | 225       | SW3E-6  | 45.786      | 44.175      | 1.386       | Open Manhole  | 1200               |
| 1.003 | o        | 225       | SW3E-7  | 43.664      | 42.235      | 1.204       | Open Manhole  | 1200               |
| 1.004 | o        | 225       | SW3E-8  | 42.800      | 41.375      | 1.200       | Open Manhole  | 1200               |
| 1.005 | o        | 225       | SW3E-9  | 42.198      | 40.770      | 1.203       | Open Manhole  | 1200               |

#### Downstream Manhole

| PN    | Length (m) | Slope (1:X) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|------------|-------------|---------|-------------|-------------|-------------|---------------|--------------------|
| 1.000 | 47.776     | 100.6       | SW3E-2  | 46.619      | 45.195      | 1.199       | Open Manhole  | 1200               |
| 1.001 | 22.917     | 22.5        | SW3E-6  | 45.786      | 44.175      | 1.386       | Open Manhole  | 1200               |
| 2.000 | 10.221     | 35.9        | SW3E-4  | 46.203      | 44.575      | 1.478       | Open Manhole  | 1200               |
| 2.001 | 13.987     | 99.9        | SW3E-5  | 46.654      | 44.435      | 2.069       | Open Manhole  | 1200               |
| 2.002 | 26.032     | 140.7       | SW3E-6  | 45.786      | 44.250      | 1.386       | Open Manhole  | 1200               |
| 1.002 | 48.792     | 25.2        | SW3E-7  | 43.664      | 42.235      | 1.204       | Open Manhole  | 1200               |
| 1.003 | 21.946     | 25.5        | SW3E-8  | 42.800      | 41.375      | 1.200       | Open Manhole  | 1200               |
| 1.004 | 20.378     | 33.7        | SW3E-9  | 42.198      | 40.770      | 1.203       | Open Manhole  | 1200               |
| 1.005 | 4.434      | 6.6         | SW3E-10 | 42.025      | 40.100      | 1.700       | Open Manhole  | 1500               |

#### Free Flowing Outfall Details for Storm

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D,L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|----------|--------|
| 1.005               | SW3E-10      | 42.025       | 40.100       | 0.000            | 1500     | 0      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                       |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|-----|-----------------------|-----|----------------------|------|---------------|---------------------------------|---------|--------|----------|-------|----------|-------|----------|-------|---------|-------|---------|-------|---------------|-----|---------------|----|-------------|-------|-------------|-------|-----------------------|----|
| Mayer Brown Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                       | Page 3                                                                              |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Berewood, Waterloooville<br>Phase 3B - Catchment E<br>Network Details |  |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Date 01/10/2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Designed by TC                                                        |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| File 211027 - PHASE 3E (E) M...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Checked by IC                                                         |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Network 2016.1.1                                                      |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| <p style="text-align: center;"><u>Simulation Criteria for Storm</u></p> <p> Volumetric Runoff Coeff 0.750    Additional Flow - % of Total Flow 0.000<br/> Areal Reduction Factor 1.000    MADD Factor * 10m³/ha Storage 2.000<br/> Hot Start (mins) 0    Inlet Coefficient 0.800<br/> Hot Start Level (mm) 0    Flow per Person per Day (l/per/day) 0.000<br/> Manhole Headloss Coeff (Global) 0.500    Run Time (mins) 60<br/> Foul Sewage per hectare (l/s) 0.000    Output Interval (mins) 1 </p> <p> Number of Input Hydrographs 0    Number of Storage Structures 0<br/> Number of Online Controls 0    Number of Time/Area Diagrams 0<br/> Number of Offline Controls 0    Number of Real Time Controls 0 </p> <p style="text-align: center;"><u>Synthetic Rainfall Details</u></p> <table> <tr> <td>Rainfall Model</td> <td>FEH</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> </tr> <tr> <td>FEH Rainfall Version</td> <td>1999</td> </tr> <tr> <td>Site Location</td> <td>GB 467450 109700 SU 67450 09700</td> </tr> <tr> <td>C (1km)</td> <td>-0.027</td> </tr> <tr> <td>D1 (1km)</td> <td>0.461</td> </tr> <tr> <td>D2 (1km)</td> <td>0.289</td> </tr> <tr> <td>D3 (1km)</td> <td>0.376</td> </tr> <tr> <td>E (1km)</td> <td>0.304</td> </tr> <tr> <td>F (1km)</td> <td>2.245</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> </tr> <tr> <td>Winter Storms</td> <td>No</td> </tr> <tr> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>Storm Duration (mins)</td> <td>30</td> </tr> </table> |                                                                       |                                                                                     | Rainfall Model | FEH | Return Period (years) | 100 | FEH Rainfall Version | 1999 | Site Location | GB 467450 109700 SU 67450 09700 | C (1km) | -0.027 | D1 (1km) | 0.461 | D2 (1km) | 0.289 | D3 (1km) | 0.376 | E (1km) | 0.304 | F (1km) | 2.245 | Summer Storms | Yes | Winter Storms | No | Cv (Summer) | 0.750 | Cv (Winter) | 0.840 | Storm Duration (mins) | 30 |
| Rainfall Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FEH                                                                   |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Return Period (years)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 100                                                                   |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| FEH Rainfall Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1999                                                                  |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Site Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | GB 467450 109700 SU 67450 09700                                       |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| C (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -0.027                                                                |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D1 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.461                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D2 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.289                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| D3 (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.376                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| E (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.304                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| F (1km)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.245                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Summer Storms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                                                   |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Winter Storms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | No                                                                    |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Cv (Summer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.750                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Cv (Winter)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.840                                                                 |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
| Storm Duration (mins)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30                                                                    |                                                                                     |                |     |                       |     |                      |      |               |                                 |         |        |          |       |          |       |          |       |         |       |         |       |               |     |               |    |             |       |             |       |                       |    |
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|                                                       |                                                                     |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                     | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1  
 Climate Change (%) 0

| US/MH |        | Return    |        | Climate | First (X) | First (Y) | First (Z) | Overflow | Water  |
|-------|--------|-----------|--------|---------|-----------|-----------|-----------|----------|--------|
| PN    | Name   | Storm     | Period | Change  | Surcharge | Flood     | Overflow  | Act.     | Level  |
| 1.000 | SW3E-1 | 15 Winter | 1      | +0%     |           |           |           |          | 45.727 |
| 1.001 | SW3E-2 | 15 Winter | 1      | +0%     |           |           |           |          | 45.240 |
| 2.000 | SW3E-3 | 15 Winter | 1      | +0%     |           |           |           |          | 44.882 |
| 2.001 | SW3E-4 | 15 Winter | 1      | +0%     |           |           |           |          | 44.615 |
| 2.002 | SW3E-5 | 15 Winter | 1      | +0%     |           |           |           |          | 44.484 |
| 1.002 | SW3E-6 | 15 Winter | 1      | +0%     |           |           |           |          | 44.242 |
| 1.003 | SW3E-7 | 15 Winter | 1      | +0%     |           |           |           |          | 42.318 |
| 1.004 | SW3E-8 | 15 Winter | 1      | +0%     |           |           |           |          | 41.469 |
| 1.005 | SW3E-9 | 15 Winter | 1      | +0%     |           |           |           |          | 40.853 |

|                                                       |                                                                     |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                     | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>1in1yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                      |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                       |                                                                                     |
| XP Solutions                                          |                                                                     | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Surcharged   |                             | Flooded        |                   | Pipe          |        | Level<br>Exceeded |
|-------|---------------|--------------|-----------------------------|----------------|-------------------|---------------|--------|-------------------|
|       |               | Depth<br>(m) | Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) | Status |                   |
| 1.000 | SW3E-1        | -0.168       | 0.000                       | 0.14           |                   | 6.9           | OK     |                   |
| 1.001 | SW3E-2        | -0.180       | 0.000                       | 0.09           |                   | 8.8           | OK     |                   |
| 2.000 | SW3E-3        | -0.128       | 0.000                       | 0.05           |                   | 1.3           | OK     |                   |
| 2.001 | SW3E-4        | -0.110       | 0.000                       | 0.16           |                   | 2.6           | OK     |                   |
| 2.002 | SW3E-5        | -0.101       | 0.000                       | 0.23           |                   | 3.3           | OK     |                   |
| 1.002 | SW3E-6        | -0.158       | 0.000                       | 0.19           |                   | 19.1          | OK     |                   |
| 1.003 | SW3E-7        | -0.142       | 0.000                       | 0.29           |                   | 27.4          | OK     |                   |
| 1.004 | SW3E-8        | -0.131       | 0.000                       | 0.37           |                   | 29.8          | OK     |                   |
| 1.005 | SW3E-9        | -0.142       | 0.000                       | 0.29           |                   | 33.9          | OK     |                   |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                |                                                                     | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>lin2yr Results |  |
| Date 01/10/2021<br>File 211027 - PHASE 3E (E) M... | Designed by TC<br>Checked by IC                                     |                                                                                     |
| Innovyze Network 2016.1.1                          |                                                                     |                                                                                     |

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 Storage Structures | 0 |
| Number of Online Controls   | 0 | Number of Time/Area Diagrams | 0 |
| Number of Offline Controls  | 0 | Number of Real Time Controls | 0 |

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 467450 109700 SU 67450 09700 |
| C (1km)              | -0.027                          |
| D1 (1km)             | 0.461                           |
| D2 (1km)             | 0.289                           |
| D3 (1km)             | 0.376                           |
| E (1km)              | 0.304                           |
| F (1km)              | 2.245                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

|                                    |                                 |
|------------------------------------|---------------------------------|
| Margin for Flood Risk Warning (mm) | 300.0                           |
| Analysis Timestep                  | 2.5 Second Increment (Extended) |
| DTS Status                         | ON                              |
| DVD Status                         | OFF                             |
| Inertia Status                     | ON                              |

|                          |                                           |
|--------------------------|-------------------------------------------|
| Profile(s)               | Summer and Winter                         |
| Duration(s) (mins)       | 15, 30, 60, 120, 240, 360, 480, 960, 1440 |
| Return Period(s) (years) | 2                                         |
| Climate Change (%)       | 0                                         |

| 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 | SW3E-1     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 45.735          |
| 1.001 | SW3E-2     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 45.245          |
| 2.000 | SW3E-3     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 44.885          |
| 2.001 | SW3E-4     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 44.621          |
| 2.002 | SW3E-5     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 44.490          |
| 1.002 | SW3E-6     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 44.250          |
| 1.003 | SW3E-7     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 42.330          |
| 1.004 | SW3E-8     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 41.483          |
| 1.005 | SW3E-9     | 15 Winter | 2             | +0%            |                 |                 |                    |               | 40.865          |

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|                                                    |                                                                      |                                                                                     |
|----------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                |                                                                      | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterloooville<br>Phase 3B - Catchment E<br>1in2yr Results |  |
| Date 01/10/2021<br>File 211027 - PHASE 3E (E) M... | Designed by TC<br>Checked by IC                                      |                                                                                     |
| Innovyze                                           | Network 2016.1.1                                                     |                                                                                     |

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

| PN    | US/MH<br>Name | Surcharged Flooded |                             | Pipe                          |               | Level<br>Exceeded |
|-------|---------------|--------------------|-----------------------------|-------------------------------|---------------|-------------------|
|       |               | Depth<br>(m)       | Volume<br>(m <sup>3</sup> ) | Flow / Overflow<br>Cap. (l/s) | Flow<br>(l/s) |                   |
| 1.000 | SW3E-1        | -0.160             | 0.000                       | 0.18                          | 8.8           | OK                |
| 1.001 | SW3E-2        | -0.175             | 0.000                       | 0.11                          | 11.1          | OK                |
| 2.000 | SW3E-3        | -0.125             | 0.000                       | 0.06                          | 1.7           | OK                |
| 2.001 | SW3E-4        | -0.104             | 0.000                       | 0.20                          | 3.3           | OK                |
| 2.002 | SW3E-5        | -0.095             | 0.000                       | 0.29                          | 4.2           | OK                |
| 1.002 | SW3E-6        | -0.150             | 0.000                       | 0.24                          | 24.3          | OK                |
| 1.003 | SW3E-7        | -0.130             | 0.000                       | 0.37                          | 34.8          | OK                |
| 1.004 | SW3E-8        | -0.117             | 0.000                       | 0.46                          | 37.8          | OK                |
| 1.005 | SW3E-9        | -0.130             | 0.000                       | 0.37                          | 43.1          | OK                |

|                                                    |                                                                             |                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                |                                                                             | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterlooville<br>Phase 3B - Catchment E<br><b>lin30yr Results</b> |  |
| Date 01/10/2021<br>File 211027 - PHASE 3E (E) M... | Designed by TC<br>Checked by IC                                             |                                                                                     |
| Innovyze Network 2016.1.1                          |                                                                             |                                                                                     |

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 Storage Structures | 0 |
| Number of Online Controls   | 0 | Number of Time/Area Diagrams | 0 |
| Number of Offline Controls  | 0 | Number of Real Time Controls | 0 |

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 467450 109700 SU 67450 09700 |
| C (1km)              | -0.027                          |
| D1 (1km)             | 0.461                           |
| D2 (1km)             | 0.289                           |
| D3 (1km)             | 0.376                           |
| E (1km)              | 0.304                           |
| F (1km)              | 2.245                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

|                                    |                                 |
|------------------------------------|---------------------------------|
| Margin for Flood Risk Warning (mm) | 300.0                           |
| Analysis Timestep                  | 2.5 Second Increment (Extended) |
| DTS Status                         | ON                              |
| DVD Status                         | OFF                             |
| Inertia Status                     | ON                              |

|                          |                                           |
|--------------------------|-------------------------------------------|
| Profile(s)               | Summer and Winter                         |
| Duration(s) (mins)       | 15, 30, 60, 120, 240, 360, 480, 960, 1440 |
| Return Period(s) (years) | 30                                        |
| Climate Change (%)       | 0                                         |

| 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 | SW3E-1     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 45.777          |
| 1.001 | SW3E-2     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 45.278          |
| 2.000 | SW3E-3     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 44.900          |
| 2.001 | SW3E-4     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 44.657          |
| 2.002 | SW3E-5     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 44.542          |
| 1.002 | SW3E-6     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 44.315          |
| 1.003 | SW3E-7     | 15 Winter | 30            | +0%            | 30/15 Summer    |                 |                    |               | 42.752          |
| 1.004 | SW3E-8     | 15 Winter | 30            | +0%            | 30/15 Summer    |                 |                    |               | 41.913          |
| 1.005 | SW3E-9     | 15 Winter | 30            | +0%            |                 |                 |                    |               | 40.950          |

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|                                                    |                                                                       |                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Limited                                |                                                                       | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking, GU22 8AR    | Berewood, Waterloooville<br>Phase 3B - Catchment E<br>1in30yr Results |  |
| Date 01/10/2021<br>File 211027 - PHASE 3E (E) M... | Designed by TC<br>Checked by IC                                       |                                                                                     |
| Innovyze                                           | Network 2016.1.1                                                      |                                                                                     |

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

| PN    | US/MH<br>Name | Surcharged Flooded |                | Pipe           |                   | Status        | Level<br>Exceeded |
|-------|---------------|--------------------|----------------|----------------|-------------------|---------------|-------------------|
|       |               | Depth<br>(m)       | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) |                   |
| 1.000 | SW3E-1        | -0.118             | 0.000          | 0.44           |                   | 22.0          | OK                |
| 1.001 | SW3E-2        | -0.142             | 0.000          | 0.28           |                   | 28.5          | OK                |
| 2.000 | SW3E-3        | -0.110             | 0.000          | 0.16           |                   | 4.3           | OK                |
| 2.001 | SW3E-4        | -0.068             | 0.000          | 0.57           |                   | 9.4           | OK                |
| 2.002 | SW3E-5        | -0.043             | 0.000          | 0.83           |                   | 11.8          | OK                |
| 1.002 | SW3E-6        | -0.085             | 0.000          | 0.68           |                   | 67.7          | OK                |
| 1.003 | SW3E-7        | 0.292              | 0.000          | 0.98           |                   | 92.8          | SURCHARGED        |
| 1.004 | SW3E-8        | 0.313              | 0.000          | 1.23           |                   | 100.3         | SURCHARGED        |
| 1.005 | SW3E-9        | -0.045             | 0.000          | 0.99           |                   | 113.6         | OK                |

|                                                       |                                                                              |                                                                                     |
|-------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                              | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br><b>1in100yr Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                               |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                                |                                                                                     |
| XP Solutions                                          |                                                                              | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 0

| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) Surchage | First (Y) Flood | First (Z) Overflow | Overflow Act. |
|-------|------------|-----------|---------------|----------------|--------------------|-----------------|--------------------|---------------|
| 1.000 | SW3E-1     | 15 Winter | 100           | +0%            |                    |                 |                    |               |
| 1.001 | SW3E-2     | 15 Winter | 100           | +0%            |                    |                 |                    |               |
| 2.000 | SW3E-3     | 15 Winter | 100           | +0%            | 100/15 Winter      |                 |                    |               |
| 2.001 | SW3E-4     | 15 Winter | 100           | +0%            | 100/15 Summer      |                 |                    |               |
| 2.002 | SW3E-5     | 15 Winter | 100           | +0%            | 100/15 Summer      |                 |                    |               |
| 1.002 | SW3E-6     | 15 Winter | 100           | +0%            | 100/15 Summer      |                 |                    |               |
| 1.003 | SW3E-7     | 15 Winter | 100           | +0%            | 100/15 Summer      | 100/15 Summer   |                    |               |
| 1.004 | SW3E-8     | 15 Winter | 100           | +0%            | 100/15 Summer      |                 |                    |               |
| 1.005 | SW3E-9     | 15 Winter | 100           | +0%            | 100/15 Summer      |                 |                    |               |

|                                                       |                                                                       |                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                       | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>1in100yr Results |  |
| Date 12/01/2022                                       | Designed by TC                                                        |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                         |                                                                                     |
| XP Solutions                                          |                                                                       | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Water        | Surcharged   | Flooded        |                |                   | Pipe          | Status     | Level<br>Exceeded |
|-------|---------------|--------------|--------------|----------------|----------------|-------------------|---------------|------------|-------------------|
|       |               | Level<br>(m) | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) |            |                   |
| 1.000 | SW3E-1        | 45.808       | -0.087       | 0.000          | 0.67           |                   | 33.3          | OK         |                   |
| 1.001 | SW3E-2        | 45.300       | -0.120       | 0.000          | 0.43           |                   | 43.3          | OK         |                   |
| 2.000 | SW3E-3        | 45.079       | 0.069        | 0.000          | 0.24           |                   | 6.4           | SURCHARGED |                   |
| 2.001 | SW3E-4        | 45.059       | 0.334        | 0.000          | 0.79           |                   | 12.9          | SURCHARGED |                   |
| 2.002 | SW3E-5        | 44.997       | 0.412        | 0.000          | 1.23           |                   | 17.5          | SURCHARGED |                   |
| 1.002 | SW3E-6        | 44.956       | 0.556        | 0.000          | 0.83           |                   | 83.0          | SURCHARGED |                   |
| 1.003 | SW3E-7        | 43.665       | 1.205        | 1.036          | 1.17           |                   | 110.3         | FLOOD      | 2                 |
| 1.004 | SW3E-8        | 42.582       | 0.982        | 0.000          | 1.45           |                   | 118.6         | FLOOD RISK |                   |
| 1.005 | SW3E-9        | 41.293       | 0.298        | 0.000          | 1.20           |                   | 138.1         | SURCHARGED |                   |

|                                                       |                                                                                 |                                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                                 | Page 1                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br><b>1in100yr+CC Results</b> |  |
| Date 12/01/2022                                       | Designed by TC                                                                  |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                                   |                                                                                     |
| XP Solutions                                          |                                                                                 | Network 2019.1                                                                      |

### 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 \* 10m<sup>3</sup>/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 Storage Structures 0  
 Number of Online Controls 0      Number of Time/Area Diagrams 0  
 Number of Offline Controls 0      Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 1999  
 Site Location GB 467450 109700 SU 67450 09700  
 C (1km) -0.027  
 D1 (1km) 0.461  
 D2 (1km) 0.289  
 D3 (1km) 0.376  
 E (1km) 0.304  
 F (1km) 2.245  
 Cv (Summer) 0.750  
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status OFF  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 100  
 Climate Change (%) 40

| PN    | US/MH Name | Storm     | Return Period | Climate Change | First (X) Surchage | First (Y) Flood | First (Z) Overflow | Overflow Act. |
|-------|------------|-----------|---------------|----------------|--------------------|-----------------|--------------------|---------------|
| 1.000 | SW3E-1     | 30 Summer | 100           | +40%           |                    |                 |                    |               |
| 1.001 | SW3E-2     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 2.000 | SW3E-3     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 2.001 | SW3E-4     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 2.002 | SW3E-5     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 1.002 | SW3E-6     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 1.003 | SW3E-7     | 30 Winter | 100           | +40%           | 100/30 Summer      | 100/30 Summer   |                    |               |
| 1.004 | SW3E-8     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |
| 1.005 | SW3E-9     | 30 Summer | 100           | +40%           | 100/30 Summer      |                 |                    |               |

|                                                       |                                                                          |                                                                                     |
|-------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mayer Brown Ltd                                       |                                                                          | Page 2                                                                              |
| Lion House<br>Oriental Road<br>Woking Surrey GU22 8AR | Berewood, Waterlooville<br>Phase 3B - Catchment E<br>1in100yr+CC Results |  |
| Date 12/01/2022                                       | Designed by TC                                                           |                                                                                     |
| File 211027 - PHASE 3B (E) MICRODRAI...               | Checked by IC                                                            |                                                                                     |
| XP Solutions                                          |                                                                          | Network 2019.1                                                                      |

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

| PN    | US/MH<br>Name | Water        | Surcharged   | Flooded        |                |                   | Pipe          | Status     | Level<br>Exceeded |
|-------|---------------|--------------|--------------|----------------|----------------|-------------------|---------------|------------|-------------------|
|       |               | Level<br>(m) | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Flow<br>(l/s) |            |                   |
| 1.000 | SW3E-1        | 45.823       | -0.072       | 0.000          | 0.79           |                   | 39.2          | OK         |                   |
| 1.001 | SW3E-2        | 45.461       | 0.041        | 0.000          | 0.48           |                   | 48.5          | SURCHARGED |                   |
| 2.000 | SW3E-3        | 45.464       | 0.454        | 0.000          | 0.31           |                   | 8.1           | FLOOD RISK |                   |
| 2.001 | SW3E-4        | 45.443       | 0.718        | 0.000          | 0.95           |                   | 15.4          | SURCHARGED |                   |
| 2.002 | SW3E-5        | 45.384       | 0.799        | 0.000          | 1.45           |                   | 20.6          | SURCHARGED |                   |
| 1.002 | SW3E-6        | 45.266       | 0.866        | 0.000          | 0.90           |                   | 89.7          | SURCHARGED |                   |
| 1.003 | SW3E-7        | 43.671       | 1.211        | 6.883          | 1.21           |                   | 114.5         | FLOOD      | 2                 |
| 1.004 | SW3E-8        | 42.677       | 1.077        | 0.000          | 1.46           |                   | 119.0         | FLOOD RISK |                   |
| 1.005 | SW3E-9        | 41.410       | 0.415        | 0.000          | 1.26           |                   | 145.9         | SURCHARGED |                   |