





|                                                                |                        |                                                                                     |
|----------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
| GGP Consult                                                    |                        | Page 3                                                                              |
| 2 Hallam Road<br>Priory Park East, Hull<br>Humberside, HU4 7DY |                        |  |
| Date 02/03/2026 10:37                                          | Designed by GGPAeecOne |                                                                                     |
| File Network Model - 02.03.26...                               | Checked by             |                                                                                     |
| Innovyze                                                       |                        | Network 2020.1.3                                                                    |

  

Area Summary for Storm

| Pipe Number | PIMP Type | PIMP Name | PIMP (%) | Gross Area (ha) | Imp. Area (ha) | Pipe Total (ha) |
|-------------|-----------|-----------|----------|-----------------|----------------|-----------------|
| 1.000       | User      | -         | 100      | 0.010           | 0.010          | 0.010           |
|             | User      | -         | 100      | 0.006           | 0.006          | 0.016           |
| 1.001       | User      | -         | 100      | 0.003           | 0.003          | 0.003           |
| 1.002       | User      | -         | 100      | 0.004           | 0.004          | 0.004           |
| 2.000       | User      | -         | 100      | 0.014           | 0.014          | 0.014           |
|             | User      | -         | 100      | 0.008           | 0.008          | 0.022           |
| 3.000       | User      | -         | 100      | 0.023           | 0.023          | 0.023           |
| 3.001       | User      | -         | 100      | 0.023           | 0.023          | 0.023           |
| 2.001       | User      | -         | 100      | 0.022           | 0.022          | 0.022           |
| 1.003       | User      | -         | 100      | 0.008           | 0.008          | 0.008           |
|             | User      | -         | 100      | 0.011           | 0.011          | 0.019           |
| 1.004       | -         | -         | 100      | 0.000           | 0.000          | 0.000           |
| 1.005       | -         | -         | 100      | 0.000           | 0.000          | 0.000           |
| 1.006       | -         | -         | 100      | 0.000           | 0.000          | 0.000           |
|             |           |           |          | Total           | Total          | Total           |
|             |           |           |          | 0.132           | 0.132          | 0.132           |

  

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) |
|---------------------|--------------|--------------|--------------|------------------|----------|--------|
| S1.006              | SHEADWALL    | 3.000        | 1.660        | 0.000            | 150      | 0      |

  

Simulation Criteria for Storm

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

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

  

Synthetic Rainfall Details

|                       |                   |                       |        |
|-----------------------|-------------------|-----------------------|--------|
| Rainfall Model        | FSR               | Profile Type          | Summer |
| Return Period (years) | 100               | Cv (Summer)           | 1.000  |
| Region                | England and Wales | Cv (Winter)           | 0.840  |
| M5-60 (mm)            | 19.000            | Storm Duration (mins) | 30     |
| Ratio R               | 0.400             |                       |        |

  

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|---------------------------|------------|------------|----------------|------------|------------|---------------------------|------------|-------|-----------|-------|-----|------------|-------|-------|---------------------------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|--|--|-------|-----|-------|-----|-------|-----|--|--|
| GGP Consult                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        | Page 4                                                                              |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 2 Hallam Road<br>Priory Park East, Hull<br>Humberside, HU4 7DY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |  |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Date 02/03/2026 10:37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Designed by GGPAeecOne |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| File Network Model - 02.03.26...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Checked by             |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Innovyze Network 2020.1.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| <u>Online Controls for Storm</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Hydro-Brake® Optimum Manhole: SHYDROBRAKE.08, DS/PN: S1.004, Volume (m³): 4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Unit Reference MD-SHE-0067-2000-1000-2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Design Head (m) 1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Design Flow (l/s) 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Flush-Flo™ Calculated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Objective Minimise upstream storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Application Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Sump Available Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Diameter (mm) 67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Invert Level (m) 1.780                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Minimum Outlet Pipe Diameter (mm) 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Suggested Manhole Diameter (mm) 1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| <table><tr><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td></tr><tr><td>Design Point (Calculated)</td><td>1.000</td><td>2.0</td><td>Kick-Flo®</td><td>0.599</td><td>1.6</td></tr><tr><td>Flush-Flo™</td><td>0.296</td><td>1.9</td><td>Mean Flow over Head Range</td><td>-</td><td>1.7</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                                     | Control Points            | Head (m)   | Flow (l/s) | Control Points | Head (m)   | Flow (l/s) | Design Point (Calculated) | 1.000      | 2.0   | Kick-Flo® | 0.599 | 1.6 | Flush-Flo™ | 0.296 | 1.9   | Mean Flow over Head Range | -     | 1.7 |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Control Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Head (m)               | Flow (l/s)                                                                          | Control Points            | Head (m)   | Flow (l/s) |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Design Point (Calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.000                  | 2.0                                                                                 | Kick-Flo®                 | 0.599      | 1.6        |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| Flush-Flo™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.296                  | 1.9                                                                                 | Mean Flow over Head Range | -          | 1.7        |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                                                     |                           |            |            |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| <table><tr><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td></tr><tr><td>0.100</td><td>1.6</td><td>1.200</td><td>2.2</td><td>3.000</td><td>3.3</td><td>7.000</td><td>4.9</td></tr><tr><td>0.200</td><td>1.9</td><td>1.400</td><td>2.3</td><td>3.500</td><td>3.5</td><td>7.500</td><td>5.1</td></tr><tr><td>0.300</td><td>1.9</td><td>1.600</td><td>2.5</td><td>4.000</td><td>3.8</td><td>8.000</td><td>5.2</td></tr><tr><td>0.400</td><td>1.9</td><td>1.800</td><td>2.6</td><td>4.500</td><td>4.0</td><td>8.500</td><td>5.4</td></tr><tr><td>0.500</td><td>1.8</td><td>2.000</td><td>2.7</td><td>5.000</td><td>4.2</td><td>9.000</td><td>5.5</td></tr><tr><td>0.600</td><td>1.6</td><td>2.200</td><td>2.9</td><td>5.500</td><td>4.4</td><td>9.500</td><td>5.7</td></tr><tr><td>0.800</td><td>1.8</td><td>2.400</td><td>3.0</td><td>6.000</td><td>4.6</td><td></td><td></td></tr><tr><td>1.000</td><td>2.0</td><td>2.600</td><td>3.1</td><td>6.500</td><td>4.7</td><td></td><td></td></tr></table> |                        |                                                                                     | Depth (m)                 | Flow (l/s) | Depth (m)  | Flow (l/s)     | Depth (m)  | Flow (l/s) | Depth (m)                 | Flow (l/s) | 0.100 | 1.6       | 1.200 | 2.2 | 3.000      | 3.3   | 7.000 | 4.9                       | 0.200 | 1.9 | 1.400 | 2.3 | 3.500 | 3.5 | 7.500 | 5.1 | 0.300 | 1.9 | 1.600 | 2.5 | 4.000 | 3.8 | 8.000 | 5.2 | 0.400 | 1.9 | 1.800 | 2.6 | 4.500 | 4.0 | 8.500 | 5.4 | 0.500 | 1.8 | 2.000 | 2.7 | 5.000 | 4.2 | 9.000 | 5.5 | 0.600 | 1.6 | 2.200 | 2.9 | 5.500 | 4.4 | 9.500 | 5.7 | 0.800 | 1.8 | 2.400 | 3.0 | 6.000 | 4.6 |  |  | 1.000 | 2.0 | 2.600 | 3.1 | 6.500 | 4.7 |  |  |
| Depth (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Flow (l/s)             | Depth (m)                                                                           | Flow (l/s)                | Depth (m)  | Flow (l/s) | Depth (m)      | Flow (l/s) |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.6                    | 1.200                                                                               | 2.2                       | 3.000      | 3.3        | 7.000          | 4.9        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.9                    | 1.400                                                                               | 2.3                       | 3.500      | 3.5        | 7.500          | 5.1        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.9                    | 1.600                                                                               | 2.5                       | 4.000      | 3.8        | 8.000          | 5.2        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.9                    | 1.800                                                                               | 2.6                       | 4.500      | 4.0        | 8.500          | 5.4        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.8                    | 2.000                                                                               | 2.7                       | 5.000      | 4.2        | 9.000          | 5.5        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.6                    | 2.200                                                                               | 2.9                       | 5.500      | 4.4        | 9.500          | 5.7        |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 0.800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.8                    | 2.400                                                                               | 3.0                       | 6.000      | 4.6        |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
| 1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2.0                    | 2.600                                                                               | 3.1                       | 6.500      | 4.7        |                |            |            |                           |            |       |           |       |     |            |       |       |                           |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |  |  |       |     |       |     |       |     |  |  |
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|                                                                |                        |                                                                                     |
|----------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
| GGP Consult                                                    |                        | Page 5                                                                              |
| 2 Hallam Road<br>Priory Park East, Hull<br>Humberside, HU4 7DY |                        |  |
| Date 02/03/2026 10:37                                          | Designed by GGPAeecOne |                                                                                     |
| File Network Model - 02.03.26...                               | Checked by             |                                                                                     |
| Innovyze                                                       | Network 2020.1.3       |                                                                                     |

### Storage Structures for Storm

Tank or Pond Manhole: SSW.TANK, DS/PN: S1.003

Invert Level (m) 1.790

| Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000     | 120.0                  | 0.800     | 120.0                  | 0.801     | 1.0                    | 1.500     | 1.0                    |

### Volume Summary (Static)

Length Calculations based on True Length

| Pipe<br>Number | USMH<br>Name   | Manhole<br>Volume (m <sup>3</sup> ) | Pipe<br>Volume (m <sup>3</sup> ) | Storage<br>Structure<br>Volume (m <sup>3</sup> ) | Total<br>Volume (m <sup>3</sup> ) |
|----------------|----------------|-------------------------------------|----------------------------------|--------------------------------------------------|-----------------------------------|
| S1.000         | SSWMH.02       | 0.288                               | 0.549                            | 0.000                                            | 0.838                             |
| S1.001         | SSWMH.03       | 0.215                               | 0.158                            | 0.000                                            | 0.373                             |
| S1.002         | SSWMH.04       | 0.298                               | 0.167                            | 0.000                                            | 0.465                             |
| S2.000         | SSWMH.05       | 0.291                               | 1.013                            | 0.000                                            | 1.304                             |
| S3.000         | SSWMH.06       | 0.257                               | 0.475                            | 0.000                                            | 0.732                             |
| S3.001         | S6             | 0.278                               | 0.451                            | 0.000                                            | 0.729                             |
| S2.001         | SSWMH.07       | 0.298                               | 0.291                            | 0.000                                            | 0.589                             |
| S1.003         | SSW.TANK       | 1.696                               | 0.779                            | 96.743                                           | 99.218                            |
| S1.004         | SHYDROBRAKE.08 | 3.232                               | 0.119                            | 0.000                                            | 3.351                             |
| S1.005         | SSWMH.22       | 0.322                               | 1.914                            | 0.000                                            | 2.236                             |
| S1.006         | SSWMH.23       | 1.510                               | 0.214                            | 0.000                                            | 1.724                             |
| Total          |                | 8.687                               | 6.131                            | 96.743                                           | 111.561                           |

|                                                                |                        |                                                                                     |
|----------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
| GGP Consult                                                    |                        | Page 6                                                                              |
| 2 Hallam Road<br>Priory Park East, Hull<br>Humberside, HU4 7DY |                        |  |
| Date 02/03/2026 10:37                                          | Designed by GGPAeecOne |                                                                                     |
| File Network Model - 02.03.26...                               | Checked by             |                                                                                     |
| Innovyze                                                       | Network 2020.1.3       |                                                                                     |

  

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

  

Simulation Criteria

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

  

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

  

Synthetic Rainfall Details

|                |                   |             |       |
|----------------|-------------------|-------------|-------|
| Rainfall Model | FSR               | Ratio R     | 0.400 |
| Region         | England and Wales | Cv (Summer) | 1.000 |
| M5-60 (mm)     | 19.000            | Cv (Winter) | 1.000 |

  

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

  

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

  

| PN     | US/MH Name     | Storm      | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. |
|--------|----------------|------------|---------------|----------------|-----------------|-----------------|--------------------|---------------|
| S1.000 | SSWMH.02       | 15 Summer  | 1             | +40%           |                 |                 |                    |               |
| S1.001 | SSWMH.03       | 15 Summer  | 1             | +40%           |                 |                 |                    |               |
| S1.002 | SSWMH.04       | 15 Summer  | 1             | +40%           |                 |                 |                    |               |
| S2.000 | SSWMH.05       | 15 Summer  | 1             | +40%           |                 |                 |                    |               |
| S3.000 | SSWMH.06       | 15 Summer  | 1             | +40%           | 30/15 Summer    |                 |                    |               |
| S3.001 | S6             | 15 Summer  | 1             | +40%           | 30/15 Summer    |                 |                    |               |
| S2.001 | SSWMH.07       | 15 Summer  | 1             | +40%           |                 |                 |                    |               |
| S1.003 | SSW.TANK       | 360 Summer | 1             | +40%           | 30/30 Summer    |                 |                    |               |
| S1.004 | SHYDROBRAKE.08 | 240 Summer | 1             | +40%           | 30/15 Summer    |                 |                    |               |
| S1.005 | SSWMH.22       | 240 Summer | 1             | +40%           |                 |                 |                    |               |
| S1.006 | SSWMH.23       | 360 Summer | 1             | +40%           |                 |                 |                    |               |

  

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## for Storm

|                                 |       |                                     |       |
|---------------------------------|-------|-------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow   | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m³/ha Storage       | 1.000 |
| Hot Start Level (mm)            | 0     | Inlet Coeffiecient                  | 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 Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

|                |                   |             |       |
|----------------|-------------------|-------------|-------|
| Rainfall Model | FSR               | Ratio R     | 0.400 |
| Region         | England and Wales | Cv (Summer) | 1.000 |
| M5-60 (mm)     | 19.000            | Cv (Winter) | 1.000 |

Analysis Timestep 2.5 Second Increment (Extended)

|            |                   |
|------------|-------------------|
| Profile(s) | Summer and Winter |
|------------|-------------------|

|        | US/MH          |             | Return | Climate | First (X)    | First (Y) | First (Z) | Overflow |
|--------|----------------|-------------|--------|---------|--------------|-----------|-----------|----------|
| PN     | Name           | Storm       | Period | Change  | Surcharge    | Flood     | Overflow  | Act.     |
| S1.000 | SSWMH.02       | 15 Summer   | 100    | +40%    |              |           |           |          |
| S1.001 | SSWMH.03       | 15 Summer   | 100    | +40%    |              |           |           |          |
| S1.002 | SSWMH.04       | 15 Summer   | 100    | +40%    |              |           |           |          |
| S2.000 | SSWMH.05       | 15 Summer   | 100    | +40%    |              |           |           |          |
| S3.000 | SSWMH.06       | 15 Summer   | 100    | +40%    | 30/15 Summer |           |           |          |
| S3.001 | S6             | 15 Summer   | 100    | +40%    | 30/15 Summer |           |           |          |
| S2.001 | SSWMH.07       | 15 Summer   | 100    | +40%    |              |           |           |          |
| S1.003 | SSW.TANK       | 240 Summer  | 100    | +40%    | 30/30 Summer |           |           |          |
| S1.004 | SHYDROBRAKE.08 | 240 Winter  | 100    | +40%    | 30/15 Summer |           |           |          |
| S1.005 | SSWMH.22       | 1440 Winter | 100    | +40%    |              |           |           |          |
| S1.006 | SSWMH.23       | 600 Summer  | 100    | +40%    |              |           |           |          |

