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| Edge Consulting UK | | Page 0 |
| Barton Arcade Manchester M3 2BH | | |
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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for SW








Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

| | | | |
|--------------------------------------|--------|---------------------------------------|-------|
| Return Period (years) | 30 | PIMP (%) | 100 |
| M5-60 (mm) | 19.000 | Add Flow / Climate Change (%) | 0 |
| Ratio R | 0.300 | Minimum Backdrop Height (m) | 0.600 |
| Maximum Rainfall (mm/hr) | 50 | Maximum Backdrop Height (m) | 3.000 |
| Maximum Time of Concentration (mins) | 30 | Min Design Depth for Optimisation (m) | 1.200 |
| Foul Sewage (l/s/ha) | 0.000 | Min Vel for Auto Design only (m/s) | 1.00 |
| Volumetric Runoff Coeff. | 0.750 | Min Slope for Optimisation (1:X) | 500 |

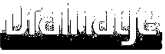
Designed with Level Soffits

Network Design Table for SW

| PN | Length (m) | Fall (m) | Slope (1:X) | I.Area (ha) | T.E. (mins) | Base Flow (l/s) | k (mm) | HYD SECT | DIA (mm) | Section Type | Auto Design |
|-------|------------|----------|-------------|-------------|-------------|-----------------|--------|----------|----------|--------------|---|
| 1.000 | 18.580 | 0.111 | 167.4 | 0.121 | 5.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  |
| 1.001 | 36.068 | 0.147 | 245.4 | 0.083 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit |  |
| 1.002 | 35.623 | 0.253 | 140.8 | 0.140 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit |  |
| 1.003 | 26.998 | 0.180 | 150.0 | 0.039 | 0.00 | 0.0 | 0.600 | o | 375 | Pipe/Conduit |  |
| 2.000 | 25.358 | 0.079 | 321.0 | 0.078 | 5.00 | 0.0 | 0.600 | o | 375 | Pipe/Conduit |  |
| 1.004 | 36.673 | 0.091 | 403.0 | 0.112 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  |
| 1.005 | 18.005 | 0.044 | 409.2 | 0.054 | 0.00 | 0.0 | 0.600 | o | 525 | Pipe/Conduit |  |

Network Results Table

| PN | Rain (mm/hr) | T.C. (mins) | US/IL (m) | E I.Area (ha) | E Base Flow (l/s) | Foul (l/s) | Add Flow (l/s) | Vel (m/s) | Cap (l/s) | Flow (l/s) |
|-------|--------------|-------------|-----------|---------------|-------------------|------------|----------------|-----------|-----------|------------|
| 1.000 | 50.00 | 5.31 | 80.320 | 0.121 | 0.0 | 0.0 | 0.0 | 1.01 | 40.1 | 16.4 |
| 1.001 | 50.00 | 5.91 | 80.134 | 0.204 | 0.0 | 0.0 | 0.0 | 1.00 | 70.6 | 27.6 |
| 1.002 | 50.00 | 6.36 | 79.987 | 0.344 | 0.0 | 0.0 | 0.0 | 1.32 | 93.5 | 46.6 |
| 1.003 | 50.00 | 6.66 | 79.659 | 0.383 | 0.0 | 0.0 | 0.0 | 1.48 | 163.1 | 51.9 |
| 2.000 | 50.00 | 5.42 | 79.558 | 0.078 | 0.0 | 0.0 | 0.0 | 1.01 | 111.1 | 10.6 |
| 1.004 | 50.00 | 7.27 | 79.404 | 0.573 | 0.0 | 0.0 | 0.0 | 1.01 | 160.1 | 77.6 |
| 1.005 | 50.00 | 7.54 | 79.238 | 0.627 | 0.0 | 0.0 | 0.0 | 1.10 | 238.3 | 84.9 |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 1 |
| Barton Arcade Manchester M3 2BH | | |
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Network Design Table for SW

| PN | Length (m) | Fall (m) | Slope (1:X) | I.Area (ha) | T.E. (mins) | Base Flow (l/s) | k (mm) | HYD SECT | DIA (mm) | Section | Type | Auto Design |
|-------|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|---------|----------------|
| 3.000 | 33.413 | 0.234 | 142.8 | 0.062 | 5.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit | | 🔒 |
| 1.006 | 9.625 | 0.025 | 385.0 | 0.023 | 0.00 | 0.0 | 0.600 | o | 525 | Pipe/Conduit | | 🔒 |
| 1.007 | 7.777 | 0.020 | 388.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 525 | Pipe/Conduit | | 🔒 |
| 1.008 | 8.747 | 0.022 | 397.6 | 0.000 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |
| 1.009 | 17.540 | 0.044 | 398.6 | 0.160 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |
| 4.000 | 14.818 | 0.111 | 133.5 | 0.140 | 1.00 | 25.4 | 0.600 | 600 [] | 600 | 600 | Culvert | 🔒 |
| 4.001 | 25.456 | 0.191 | 133.3 | 0.000 | 0.00 | 0.0 | 0.600 | 600 [] | 600 | 600 | Culvert | 🔒 |
| 4.002 | 11.184 | 0.063 | 177.5 | 0.000 | 0.00 | 0.0 | 0.600 | 600 [] | 600 | 600 | Culvert | 🔒 |
| 4.003 | 4.968 | 0.049 | 101.4 | 0.000 | 0.00 | 0.0 | 0.600 | 600 [] | 600 | 600 | Culvert | 🔒 |
| 4.004 | 35.913 | 0.089 | 403.5 | 0.000 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |
| 1.010 | 21.289 | 0.063 | 337.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |
| 1.011 | 25.640 | 0.223 | 115.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |
| 1.012 | 29.928 | 0.272 | 110.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 750 | Pipe/Conduit | | 🔒 |

Network Results Table


| PN | Rain (mm/hr) | T.C. (mins) | US/IL (m) | E I.Area (ha) | E Base Flow (l/s) | Foul (l/s) | Add Flow (l/s) | Vel (m/s) | Cap (l/s) | Flow (l/s) |
|-------|-----------------|----------------|--------------|------------------|----------------------|---------------|-------------------|--------------|--------------|---------------|
| 3.000 | 50.00 | 5.33 | 79.503 | 0.062 | 0.0 | 0.0 | 0.0 | 1.70 | 270.3 | 8.4 |
| 1.006 | 50.00 | 7.68 | 79.194 | 0.712 | 0.0 | 0.0 | 0.0 | 1.14 | 245.8 | 96.4 |
| 1.007 | 50.00 | 7.80 | 79.169 | 0.712 | 0.0 | 0.0 | 0.0 | 1.13 | 244.6 | 96.4 |
| 1.008 | 50.00 | 7.90 | 78.924 | 0.712 | 0.0 | 0.0 | 0.0 | 1.40 | 617.3 | 96.4 |
| 1.009 | 50.00 | 8.11 | 78.902 | 0.872 | 0.0 | 0.0 | 0.0 | 1.40 | 616.5 | 118.1 |
| 4.000 | 50.00 | 1.12 | 79.361 | 0.140 | 25.4 | 0.0 | 0.0 | 2.06 | 577.3 | 44.4 |
| 4.001 | 50.00 | 1.33 | 79.250 | 0.140 | 25.4 | 0.0 | 0.0 | 2.06 | 577.7 | 44.4 |
| 4.002 | 50.00 | 1.43 | 79.059 | 0.140 | 25.4 | 0.0 | 0.0 | 1.79 | 500.1 | 44.4 |
| 4.003 | 50.00 | 1.46 | 78.996 | 0.140 | 25.4 | 0.0 | 0.0 | 2.37 | 662.9 | 44.4 |
| 4.004 | 50.00 | 1.90 | 78.936 | 0.140 | 25.4 | 0.0 | 0.0 | 1.39 | 612.7 | 44.4 |
| 1.010 | 50.00 | 8.35 | 78.858 | 1.012 | 25.4 | 0.0 | 0.0 | 1.52 | 670.0 | 162.4 |
| 1.011 | 50.00 | 8.51 | 78.795 | 1.012 | 25.4 | 0.0 | 0.0 | 2.61 | 1152.7 | 162.4 |
| 1.012 | 50.00 | 8.70 | 78.572 | 1.012 | 25.4 | 0.0 | 0.0 | 2.67 | 1178.5 | 162.4 |

Manhole Schedules for SW

| MH Name | MH CL (m) | MH Depth (m) | MH Connection | MH Diam.,L*W (mm) | Pipe Out | | Pipes In | | Backdr (mm) | |
|----------------|-----------|--------------|---------------|-------------------|----------|------------------|---------------|-------|-------------|------------------|
| | | | | | PN | Invert Level (m) | Diameter (mm) | PN | | Invert Level (m) |
| SW1 | 81.745 | 1.425 | Open Manhole | 1350 | 1.000 | 80.320 | 225 | | | |
| SW2 | 81.819 | 1.685 | Open Manhole | 1350 | 1.001 | 80.134 | 300 | 1.000 | 80.209 | 225 |
| SW3 | 81.712 | 1.725 | Open Manhole | 1350 | 1.002 | 79.987 | 300 | 1.001 | 79.987 | 300 |
| SW4 | 81.234 | 1.575 | Open Manhole | 1350 | 1.003 | 79.659 | 375 | 1.002 | 79.734 | 300 |
| SW15 | 80.809 | 1.251 | Open Manhole | 1500 | 2.000 | 79.558 | 375 | | | |
| SW5 | 81.085 | 1.681 | Open Manhole | 1800 | 1.004 | 79.404 | 450 | 1.003 | 79.479 | 375 |
| | | | | | | | | 2.000 | 79.479 | 375 |
| SW6 | 81.222 | 1.984 | Open Manhole | 2100 | 1.005 | 79.238 | 525 | 1.004 | 79.313 | 450 |
| SW16 | 81.139 | 1.636 | Open Manhole | 2100 | 3.000 | 79.503 | 450 | | | |
| SW7 | 81.043 | 1.849 | Open Manhole | 2400 | 1.006 | 79.194 | 525 | 1.005 | 79.194 | 525 |
| | | | | | | | | 3.000 | 79.269 | 450 |
| SW8hwall | 81.924 | 2.755 | Open Manhole | 2400 | 1.007 | 79.169 | 525 | 1.006 | 79.169 | 525 |
| SW9hwall | 81.924 | 3.000 | Open Manhole | 2400 | 1.008 | 78.924 | 750 | 1.007 | 79.149 | 525 |
| S10 HYDROBRAKE | 81.000 | 2.098 | Open Manhole | 2400 | 1.009 | 78.902 | 750 | 1.008 | 78.902 | 750 |
| CUL1 | 81.000 | 1.639 | Open Manhole | 1800 | 4.000 | 79.361 | 600 | | | |
| CUL2 | 81.200 | 1.950 | Open Manhole | 1800 | 4.001 | 79.250 | 600 | 4.000 | 79.250 | 600 |
| CUL3 | 81.200 | 2.141 | Open Manhole | 1800 | 4.002 | 79.059 | 600 | 4.001 | 79.059 | 600 |
| CUL4 | 79.596 | 0.600 | Open Manhole | 1800 | 4.003 | 78.996 | 600 | 4.002 | 78.996 | 600 |
| SW17 | 81.259 | 2.323 | Open Manhole | 1800 | 4.004 | 78.936 | 750 | 4.003 | 78.947 | 600 |
| SW11 | 80.800 | 1.953 | Open Manhole | 1800 | 1.010 | 78.858 | 750 | 1.009 | 78.858 | 750 |
| | | | | | | | | 4.004 | 78.847 | 750 |
| SW12 | 80.500 | 1.705 | Open Manhole | 1800 | 1.011 | 78.795 | 750 | 1.010 | 78.795 | 750 |
| SW13 | 80.450 | 1.878 | Open Manhole | 1800 | 1.012 | 78.572 | 750 | 1.011 | 78.572 | 750 |
| SW14 | 80.800 | 2.500 | Open Manhole | 1800 | | OUTFALL | | 1.012 | 78.300 | 750 |

| MH Name | Manhole Easting (m) | Manhole Northing (m) | Intersection Easting (m) | Intersection Northing (m) | Manhole Access | Layout (North) |
|---------|---------------------|----------------------|--------------------------|---------------------------|----------------|----------------|
| SW1 | 374356.378 | 442588.682 | 374356.378 | 442588.682 | Required | |
| SW2 | 374345.853 | 442573.371 | 374345.853 | 442573.371 | Required | |

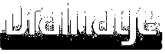
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Manhole Schedules for SW

| MH Name | Manhole Easting (m) | Manhole Northing (m) | Intersection Easting (m) | Intersection Northing (m) | Manhole Access | Layout (North) |
|----------------|---------------------|----------------------|--------------------------|---------------------------|----------------|----------------|
| SW3 | 374326.574 | 442542.887 | 374326.574 | 442542.887 | Required | |
| SW4 | 374357.544 | 442525.285 | 374357.544 | 442525.285 | Required | |
| SW15 | 374368.290 | 442488.889 | 374368.290 | 442488.889 | Required | |
| SW5 | 374380.518 | 442511.104 | 374380.518 | 442511.104 | Required | |
| SW6 | 374398.081 | 442543.298 | 374398.081 | 442543.298 | Required | |
| SW16 | 374425.645 | 442586.317 | 374425.645 | 442586.317 | Required | |
| SW7 | 374409.998 | 442556.795 | 374409.998 | 442556.795 | Required | |
| SW8hwall | 374417.883 | 442551.275 | 374417.883 | 442551.275 | Required | |
| SW9hwall | 374415.718 | 442543.805 | 374415.718 | 442543.805 | Required | |
| S10 HYDROBRAKE | 374412.909 | 442535.521 | 374412.909 | 442535.521 | Required | |
| CUL1 | 374434.041 | 442604.590 | 374434.041 | 442604.590 | Required | |
| CUL2 | 374433.478 | 442589.783 | 374433.478 | 442589.783 | Required | |
| CUL3 | 374431.835 | 442564.380 | 374431.835 | 442564.380 | Required | |
| CUL4 | 374432.635 | 442553.225 | 374432.635 | 442553.225 | Required | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 4 |
| Barton Arcade Manchester M3 2BH | |  |
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Manhole Schedules for SW

| MH Name | Manhole Easting (m) | Manhole Northing (m) | Intersection Easting (m) | Intersection Northing (m) | Manhole Access | Layout (North) |
|----------------|----------------------------|-----------------------------|---------------------------------|----------------------------------|-----------------------|-----------------------|
| SW17 | 374436.943 | 442550.750 | 374436.943 | 442550.750 | Required | |
| SW11 | 374419.594 | 442519.305 | 374419.594 | 442519.305 | Required | |
| SW12 | 374436.579 | 442506.470 | 374436.579 | 442506.470 | Required | |
| SW13 | 374422.104 | 442485.307 | 374422.104 | 442485.307 | Required | |
| SW14 | 374405.209 | 442460.604 | | | No Entry | |

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| Edge Consulting UK | | Page 5 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by |  |
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PIPELINE SCHEDULES for SW

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 | SW1 | 81.745 | 80.320 | 1.200 | Open Manhole | 1350 |
| 1.001 | o | 300 | SW2 | 81.819 | 80.134 | 1.385 | Open Manhole | 1350 |
| 1.002 | o | 300 | SW3 | 81.712 | 79.987 | 1.425 | Open Manhole | 1350 |
| 1.003 | o | 375 | SW4 | 81.234 | 79.659 | 1.200 | Open Manhole | 1350 |
| 2.000 | o | 375 | SW15 | 80.809 | 79.558 | 0.876 | Open Manhole | 1500 |
| 1.004 | o | 450 | SW5 | 81.085 | 79.404 | 1.231 | Open Manhole | 1800 |
| 1.005 | o | 525 | SW6 | 81.222 | 79.238 | 1.459 | Open Manhole | 2100 |
| 3.000 | o | 450 | SW16 | 81.139 | 79.503 | 1.186 | Open Manhole | 2100 |
| 1.006 | o | 525 | SW7 | 81.043 | 79.194 | 1.324 | Open Manhole | 2400 |
| 1.007 | o | 525 | SW8hwall | 81.924 | 79.169 | 2.230 | Open Manhole | 2400 |
| 1.008 | o | 750 | SW9hwall | 81.924 | 78.924 | 2.250 | Open Manhole | 2400 |
| 1.009 | o | 750 | S10 HYDROBRAKE | 81.000 | 78.902 | 1.348 | Open Manhole | 2400 |
| 4.000 | 600 [] | 600 | CUL1 | 81.000 | 79.361 | 1.039 | Open Manhole | 1800 |

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 | 18.580 | 167.4 | SW2 | 81.819 | 80.209 | 1.385 | Open Manhole | 1350 |
| 1.001 | 36.068 | 245.4 | SW3 | 81.712 | 79.987 | 1.425 | Open Manhole | 1350 |
| 1.002 | 35.623 | 140.8 | SW4 | 81.234 | 79.734 | 1.200 | Open Manhole | 1350 |
| 1.003 | 26.998 | 150.0 | SW5 | 81.085 | 79.479 | 1.231 | Open Manhole | 1800 |
| 2.000 | 25.358 | 321.0 | SW5 | 81.085 | 79.479 | 1.231 | Open Manhole | 1800 |
| 1.004 | 36.673 | 403.0 | SW6 | 81.222 | 79.313 | 1.459 | Open Manhole | 2100 |
| 1.005 | 18.005 | 409.2 | SW7 | 81.043 | 79.194 | 1.324 | Open Manhole | 2400 |
| 3.000 | 33.413 | 142.8 | SW7 | 81.043 | 79.269 | 1.324 | Open Manhole | 2400 |
| 1.006 | 9.625 | 385.0 | SW8hwall | 81.924 | 79.169 | 2.230 | Open Manhole | 2400 |
| 1.007 | 7.777 | 388.9 | SW9hwall | 81.924 | 79.149 | 2.250 | Open Manhole | 2400 |
| 1.008 | 8.747 | 397.6 | S10 HYDROBRAKE | 81.000 | 78.902 | 1.348 | Open Manhole | 2400 |
| 1.009 | 17.540 | 398.6 | SW11 | 80.800 | 78.858 | 1.192 | Open Manhole | 1800 |
| 4.000 | 14.818 | 133.5 | CUL2 | 81.200 | 79.250 | 1.350 | Open Manhole | 1800 |



PIPELINE SCHEDULES for SW

Upstream Manhole

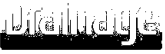
| PN | Hyd Sect | Diam (mm) | MH Name | C.Level (m) | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm) |
|-------|----------|-----------|---------|-------------|-------------|-------------|---------------|--------------------|
| 4.001 | 600 [] | 600 | CUL2 | 81.200 | 79.250 | 1.350 | Open Manhole | 1800 |
| 4.002 | 600 [] | 600 | CUL3 | 81.200 | 79.059 | 1.541 | Open Manhole | 1800 |
| 4.003 | 600 [] | 600 | CUL4 | 79.596 | 78.996 | 0.000 | Open Manhole | 1800 |
| 4.004 | o | 750 | SW17 | 81.259 | 78.936 | 1.573 | Open Manhole | 1800 |
| 1.010 | o | 750 | SW11 | 80.800 | 78.858 | 1.192 | Open Manhole | 1800 |
| 1.011 | o | 750 | SW12 | 80.500 | 78.795 | 0.955 | Open Manhole | 1800 |
| 1.012 | o | 750 | SW13 | 80.450 | 78.572 | 1.128 | Open Manhole | 1800 |

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) |
|-------|------------|-------------|---------|-------------|-------------|-------------|---------------|--------------------|
| 4.001 | 25.456 | 133.3 | CUL3 | 81.200 | 79.059 | 1.541 | Open Manhole | 1800 |
| 4.002 | 11.184 | 177.5 | CUL4 | 79.596 | 78.996 | 0.000 | Open Manhole | 1800 |
| 4.003 | 4.968 | 101.4 | SW17 | 81.259 | 78.947 | 1.712 | Open Manhole | 1800 |
| 4.004 | 35.913 | 403.5 | SW11 | 80.800 | 78.847 | 1.203 | Open Manhole | 1800 |
| 1.010 | 21.289 | 337.9 | SW12 | 80.500 | 78.795 | 0.955 | Open Manhole | 1800 |
| 1.011 | 25.640 | 115.0 | SW13 | 80.450 | 78.572 | 1.128 | Open Manhole | 1800 |
| 1.012 | 29.928 | 110.0 | SW14 | 80.800 | 78.300 | 1.750 | Open Manhole | 1800 |

Free Flowing Outfall Details for SW

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D,L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|----------|--------|
| 1.012 | SW14 | 80.800 | 78.300 | 0.000 | 1800 | 0 |

| | | |
|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 7 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Simulation Criteria for SW

| | | | |
|---------------------------------|-------|--|-------|
| Volumetric Runoff Coeff | 0.750 | Additional Flow - % of Total Flow | 0.000 |
| Areal Reduction Factor | 1.000 | MADD Factor * 10m ³ /ha Storage | 1.000 |
| Hot Start (mins) | 0 | Inlet Coefficient | 0.800 |
| Hot Start Level (mm) | 0 | Flow per Person per Day (l/per/day) | 0.000 |
| Manhole Headloss Coeff (Global) | 0.500 | Run Time (mins) | 60 |
| Foul Sewage per hectare (l/s) | 0.000 | Output Interval (mins) | 1 |

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

| | | | |
|-----------------------|-------------------|-----------------------|--------|
| Rainfall Model | FSR | Profile Type | Summer |
| Return Period (years) | 30 | Cv (Summer) | 0.750 |
| Region | England and Wales | Cv (Winter) | 0.840 |
| M5-60 (mm) | 19.000 | Storm Duration (mins) | 30 |
| Ratio R | 0.300 | | |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 8 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Online Controls for SW

Non Return Valve Manhole: SW7, DS/PN: 1.006, Volume (m³): 16.7

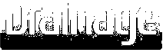
Hydro-Brake® Optimum Manhole: S10 HYDROBRAKE, DS/PN: 1.009, Volume (m³): 12.3

Unit Reference MD-SHE-0143-1170-1900-1170
 Design Head (m) 1.900
 Design Flow (l/s) 11.7
 Flush-Flo™ Calculated
 Objective Minimise upstream storage
 Application Surface
 Sump Available Yes
 Diameter (mm) 143
 Invert Level (m) 78.902
 Minimum Outlet Pipe Diameter (mm) 225
 Suggested Manhole Diameter (mm) 1500

| Control Points | Head (m) | Flow (l/s) | Control Points | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|---------------------------|----------|------------|
| Design Point (Calculated) | 1.900 | 11.7 | Kick-Flo® | 1.152 | 9.2 |
| Flush-Flo™ | 0.555 | 11.7 | Mean Flow over Head Range | - | 10.2 |

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

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100 | 5.2 | 1.200 | 9.4 | 3.000 | 14.5 | 7.000 | 21.8 |
| 0.200 | 9.9 | 1.400 | 10.1 | 3.500 | 15.6 | 7.500 | 22.5 |
| 0.300 | 11.0 | 1.600 | 10.8 | 4.000 | 16.7 | 8.000 | 23.2 |
| 0.400 | 11.5 | 1.800 | 11.4 | 4.500 | 17.6 | 8.500 | 23.9 |
| 0.500 | 11.7 | 2.000 | 12.0 | 5.000 | 18.5 | 9.000 | 24.6 |
| 0.600 | 11.7 | 2.200 | 12.5 | 5.500 | 19.4 | 9.500 | 25.2 |
| 0.800 | 11.4 | 2.400 | 13.1 | 6.000 | 20.2 | | |
| 1.000 | 10.6 | 2.600 | 13.6 | 6.500 | 21.0 | | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 9 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Storage Structures for SW

Tank or Pond Manhole: S10 HYDROBRAKE, DS/PN: 1.009

Invert Level (m) 79.000

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|
| 0.000 | 71.0 | 2.000 | 493.0 |

Summary Wizard of 15 minute 1 year Summer I+0% for SW

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 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 Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 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 OFF

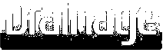
Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 30 | 80.417 | -0.128 | 0.000 | 0.38 | 13.6 | OK | |
| 1.001 | SW2 | 35 | 80.254 | -0.180 | 0.000 | 0.33 | 21.3 | OK | |
| 1.002 | SW3 | 35 | 80.118 | -0.169 | 0.000 | 0.39 | 33.4 | OK | |
| 1.003 | SW4 | 46 | 79.789 | -0.245 | 0.000 | 0.26 | 36.9 | OK | |
| 2.000 | SW15 | 48 | 79.643 | -0.290 | 0.000 | 0.09 | 8.6 | OK | |
| 1.004 | SW5 | 49 | 79.598 | -0.256 | 0.000 | 0.38 | 53.4 | OK | |
| 1.005 | SW6 | 54 | 79.476 | -0.287 | 0.000 | 0.32 | 54.8 | OK | |
| 3.000 | SW16 | 50 | 79.554 | -0.399 | 0.000 | 0.03 | 7.0 | OK | |
| 1.006 | SW7 | 59 | 79.442 | -0.277 | 0.000 | 0.42 | 59.3 | OK | |
| 1.007 | SW8hwall | 62 | 79.415 | -0.279 | 0.000 | 0.45 | 59.3 | OK | |
| 1.008 | SW9hwall | 67 | 79.316 | -0.358 | 0.000 | 0.19 | 56.8 | OK | |
| 1.009 | S10 HYDROBRAKE | 67 | 79.315 | -0.337 | 0.000 | 0.03 | 11.1 | OK | |
| 4.000 | CUL1 | 13 | 79.495 | -0.466 | 0.000 | 0.15 | 50.6 | OK | |
| 4.001 | CUL2 | 13 | 79.381 | -0.469 | 0.000 | 0.11 | 49.0 | OK | |
| 4.002 | CUL3 | 15 | 79.207 | -0.452 | 0.000 | 0.15 | 51.0 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 11 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 15 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 15 | 79.134 | -0.462 | 0.000 | 0.15 | | 49.8 | OK |
| 4.004 | SW17 | 18 | 79.106 | -0.580 | 0.000 | 0.10 | | 48.7 | OK |
| 1.010 | SW11 | 25 | 79.017 | -0.591 | 0.000 | 0.10 | | 47.7 | OK |
| 1.011 | SW12 | 28 | 78.918 | -0.627 | 0.000 | 0.06 | | 47.8 | OK |
| 1.012 | SW13 | 28 | 78.689 | -0.633 | 0.000 | 0.06 | | 47.1 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 12 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 30 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

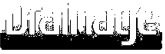
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

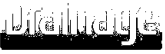
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 33 | 80.413 | -0.132 | 0.000 | 0.36 | 13.0 | OK | |
| 1.001 | SW2 | 36 | 80.250 | -0.184 | 0.000 | 0.31 | 20.4 | OK | |
| 1.002 | SW3 | 36 | 80.116 | -0.171 | 0.000 | 0.38 | 32.9 | OK | |
| 1.003 | SW4 | 47 | 79.787 | -0.247 | 0.000 | 0.25 | 36.0 | OK | |
| 2.000 | SW15 | 49 | 79.641 | -0.292 | 0.000 | 0.09 | 8.2 | OK | |
| 1.004 | SW5 | 50 | 79.596 | -0.258 | 0.000 | 0.38 | 52.9 | OK | |
| 1.005 | SW6 | 52 | 79.477 | -0.286 | 0.000 | 0.32 | 55.0 | OK | |
| 3.000 | SW16 | 51 | 79.553 | -0.400 | 0.000 | 0.03 | 6.7 | OK | |
| 1.006 | SW7 | 57 | 79.444 | -0.275 | 0.000 | 0.42 | 59.8 | OK | |
| 1.007 | SW8hwall | 59 | 79.418 | -0.276 | 0.000 | 0.46 | 60.0 | OK | |
| 1.008 | SW9hwall | 61 | 79.378 | -0.296 | 0.000 | 0.19 | 57.1 | OK | |
| 1.009 | S10 HYDROBRAKE | 61 | 79.378 | -0.274 | 0.000 | 0.03 | 11.4 | OK | |
| 4.000 | CUL1 | 21 | 79.483 | -0.478 | 0.000 | 0.13 | 44.1 | OK | |
| 4.001 | CUL2 | 21 | 79.368 | -0.482 | 0.000 | 0.10 | 44.2 | OK | |
| 4.002 | CUL3 | 21 | 79.194 | -0.465 | 0.000 | 0.13 | 43.7 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 13 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 30 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|----------------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow Cap. (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 21 | 79.125 | -0.471 | 0.000 | 0.13 | 44.1 | OK |
| 4.004 | SW17 | 24 | 79.098 | -0.588 | 0.000 | 0.09 | 43.3 | OK |
| 1.010 | SW11 | 29 | 79.015 | -0.593 | 0.000 | 0.10 | 46.8 | OK |
| 1.011 | SW12 | 29 | 78.918 | -0.627 | 0.000 | 0.06 | 47.0 | OK |
| 1.012 | SW13 | 32 | 78.687 | -0.635 | 0.000 | 0.06 | 46.6 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 14 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 60 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

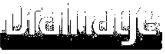
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 37 | 80.402 | -0.143 | 0.000 | 0.29 | 10.3 | OK | |
| 1.001 | SW2 | 39 | 80.237 | -0.197 | 0.000 | 0.26 | 16.8 | OK | |
| 1.002 | SW3 | 40 | 80.103 | -0.184 | 0.000 | 0.32 | 27.5 | OK | |
| 1.003 | SW4 | 49 | 79.776 | -0.258 | 0.000 | 0.21 | 30.4 | OK | |
| 2.000 | SW15 | 52 | 79.630 | -0.303 | 0.000 | 0.07 | 6.5 | OK | |
| 1.004 | SW5 | 52 | 79.579 | -0.275 | 0.000 | 0.32 | 44.9 | OK | |
| 1.005 | SW6 | 57 | 79.460 | -0.303 | 0.000 | 0.28 | 47.8 | OK | |
| 3.000 | SW16 | 53 | 79.549 | -0.404 | 0.000 | 0.02 | 5.3 | OK | |
| 1.006 | SW7 | 60 | 79.427 | -0.292 | 0.000 | 0.37 | 52.9 | OK | |
| 1.007 | SW8hwall | 57 | 79.423 | -0.271 | 0.000 | 0.40 | 53.0 | OK | |
| 1.008 | SW9hwall | 56 | 79.422 | -0.252 | 0.000 | 0.17 | 50.3 | OK | |
| 1.009 | S10 HYDROBRAKE | 56 | 79.421 | -0.231 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 28 | 79.473 | -0.488 | 0.000 | 0.11 | 38.7 | OK | |
| 4.001 | CUL2 | 27 | 79.358 | -0.492 | 0.000 | 0.09 | 38.8 | OK | |
| 4.002 | CUL3 | 28 | 79.185 | -0.474 | 0.000 | 0.12 | 38.6 | OK | |

Summary Wizard of 60 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 27 | 79.115 | -0.481 | 0.000 | 0.12 | 38.8 | OK |
| 4.004 | SW17 | 29 | 79.092 | -0.594 | 0.000 | 0.08 | 38.4 | OK |
| 1.010 | SW11 | 30 | 79.015 | -0.593 | 0.000 | 0.10 | 47.0 | OK |
| 1.011 | SW12 | 30 | 78.917 | -0.628 | 0.000 | 0.06 | 46.8 | OK |
| 1.012 | SW13 | 30 | 78.688 | -0.634 | 0.000 | 0.06 | 46.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 16 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 120 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|---------------|------------------|--------------|-----------------------------|----------------|-------------------|---------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 42 | 80.389 | -0.156 | 0.000 | 0.21 | 7.4 | OK | |
| 1.001 | SW2 | 44 | 80.222 | -0.212 | 0.000 | 0.19 | 12.2 | OK | |
| 1.002 | SW3 | 44 | 80.086 | -0.201 | 0.000 | 0.24 | 20.4 | OK | |
| 1.003 | SW4 | 53 | 79.759 | -0.275 | 0.000 | 0.16 | 22.7 | OK | |
| 2.000 | SW15 | 54 | 79.614 | -0.319 | 0.000 | 0.05 | 4.7 | OK | |
| 1.004 | SW5 | 55 | 79.553 | -0.301 | 0.000 | 0.24 | 33.7 | OK | |
| 1.005 | SW6 | 59 | 79.453 | -0.310 | 0.000 | 0.21 | 36.4 | OK | |
| 3.000 | SW16 | 55 | 79.537 | -0.416 | 0.000 | 0.02 | 3.8 | OK | |
| 1.006 | SW7 | 55 | 79.451 | -0.268 | 0.000 | 0.29 | 40.9 | OK | |
| 1.007 | SW8hwall | 54 | 79.449 | -0.245 | 0.000 | 0.31 | 40.9 | OK | |
| 1.008 | SW9hwall | 54 | 79.448 | -0.226 | 0.000 | 0.13 | 38.9 | OK | |
| 1.009 | S10 HYDROBRAKE | 54 | 79.447 | -0.205 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 38 | 79.465 | -0.496 | 0.000 | 0.10 | 34.5 | OK | |
| 4.001 | CUL2 | 38 | 79.350 | -0.500 | 0.000 | 0.08 | 34.5 | OK | |
| 4.002 | CUL3 | 38 | 79.177 | -0.482 | 0.000 | 0.10 | 34.4 | OK | |

Summary Wizard of 120 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 38 | 79.105 | -0.491 | 0.000 | 0.10 | 34.5 | OK |
| 4.004 | SW17 | 38 | 79.086 | -0.600 | 0.000 | 0.07 | 34.3 | OK |
| 1.010 | SW11 | 41 | 79.011 | -0.597 | 0.000 | 0.09 | 44.6 | OK |
| 1.011 | SW12 | 41 | 78.914 | -0.631 | 0.000 | 0.06 | 44.6 | OK |
| 1.012 | SW13 | 41 | 78.684 | -0.638 | 0.000 | 0.05 | 44.6 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 18 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 180 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

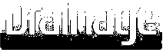
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 45 | 80.381 | -0.164 | 0.000 | 0.17 | 6.0 | OK | |
| 1.001 | SW2 | 48 | 80.212 | -0.222 | 0.000 | 0.15 | 9.9 | OK | |
| 1.002 | SW3 | 48 | 80.076 | -0.211 | 0.000 | 0.19 | 16.6 | OK | |
| 1.003 | SW4 | 54 | 79.748 | -0.286 | 0.000 | 0.13 | 18.4 | OK | |
| 2.000 | SW15 | 55 | 79.607 | -0.326 | 0.000 | 0.04 | 3.8 | OK | |
| 1.004 | SW5 | 56 | 79.538 | -0.316 | 0.000 | 0.19 | 27.4 | OK | |
| 1.005 | SW6 | 58 | 79.455 | -0.308 | 0.000 | 0.17 | 29.7 | OK | |
| 3.000 | SW16 | 56 | 79.531 | -0.422 | 0.000 | 0.01 | 3.0 | OK | |
| 1.006 | SW7 | 54 | 79.453 | -0.266 | 0.000 | 0.23 | 33.1 | OK | |
| 1.007 | SW8hwall | 53 | 79.451 | -0.243 | 0.000 | 0.25 | 32.7 | OK | |
| 1.008 | SW9hwall | 53 | 79.450 | -0.224 | 0.000 | 0.11 | 31.3 | OK | |
| 1.009 | S10 HYDROBRAKE | 53 | 79.449 | -0.203 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 44 | 79.461 | -0.500 | 0.000 | 0.10 | 32.5 | OK | |
| 4.001 | CUL2 | 44 | 79.346 | -0.504 | 0.000 | 0.07 | 32.5 | OK | |
| 4.002 | CUL3 | 44 | 79.172 | -0.487 | 0.000 | 0.10 | 32.5 | OK | |

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| Edge Consulting UK | | Page 19 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 180 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 44 | 79.101 | -0.495 | 0.000 | 0.10 | 32.5 | OK |
| 4.004 | SW17 | 45 | 79.082 | -0.604 | 0.000 | 0.07 | 32.4 | OK |
| 1.010 | SW11 | 46 | 79.009 | -0.599 | 0.000 | 0.09 | 43.1 | OK |
| 1.011 | SW12 | 46 | 78.911 | -0.634 | 0.000 | 0.06 | 43.0 | OK |
| 1.012 | SW13 | 46 | 78.682 | -0.640 | 0.000 | 0.05 | 43.0 | OK |

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| Edge Consulting UK | | Page 20 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 240 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

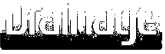
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

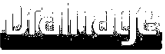
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 50 | 80.376 | -0.169 | 0.000 | 0.14 | 5.1 | OK | |
| 1.001 | SW2 | 52 | 80.205 | -0.229 | 0.000 | 0.13 | 8.4 | OK | |
| 1.002 | SW3 | 52 | 80.068 | -0.219 | 0.000 | 0.16 | 14.1 | OK | |
| 1.003 | SW4 | 56 | 79.742 | -0.292 | 0.000 | 0.11 | 15.7 | OK | |
| 2.000 | SW15 | 57 | 79.603 | -0.330 | 0.000 | 0.03 | 3.3 | OK | |
| 1.004 | SW5 | 58 | 79.526 | -0.328 | 0.000 | 0.17 | 23.4 | OK | |
| 1.005 | SW6 | 60 | 79.449 | -0.314 | 0.000 | 0.15 | 25.2 | OK | |
| 3.000 | SW16 | 58 | 79.526 | -0.427 | 0.000 | 0.01 | 2.6 | OK | |
| 1.006 | SW7 | 56 | 79.447 | -0.272 | 0.000 | 0.20 | 27.9 | OK | |
| 1.007 | SW8hwall | 55 | 79.445 | -0.249 | 0.000 | 0.21 | 27.5 | OK | |
| 1.008 | SW9hwall | 55 | 79.444 | -0.230 | 0.000 | 0.09 | 26.2 | OK | |
| 1.009 | S10 HYDROBRAKE | 55 | 79.443 | -0.209 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 49 | 79.459 | -0.502 | 0.000 | 0.09 | 31.3 | OK | |
| 4.001 | CUL2 | 49 | 79.344 | -0.506 | 0.000 | 0.07 | 31.3 | OK | |
| 4.002 | CUL3 | 49 | 79.169 | -0.490 | 0.000 | 0.10 | 31.3 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 21 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 240 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 49 | 79.098 | -0.498 | 0.000 | 0.09 | 31.3 | OK |
| 4.004 | SW17 | 51 | 79.079 | -0.607 | 0.000 | 0.06 | 31.3 | OK |
| 1.010 | SW11 | 51 | 79.007 | -0.601 | 0.000 | 0.09 | 42.1 | OK |
| 1.011 | SW12 | 51 | 78.910 | -0.635 | 0.000 | 0.06 | 42.1 | OK |
| 1.012 | SW13 | 51 | 78.681 | -0.641 | 0.000 | 0.05 | 42.1 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 22 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 360 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

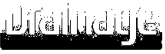
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 55 | 80.369 | -0.176 | 0.000 | 0.11 | 3.9 | OK | |
| 1.001 | SW2 | 56 | 80.198 | -0.236 | 0.000 | 0.10 | 6.6 | OK | |
| 1.002 | SW3 | 56 | 80.058 | -0.229 | 0.000 | 0.13 | 11.1 | OK | |
| 1.003 | SW4 | 58 | 79.733 | -0.301 | 0.000 | 0.09 | 12.4 | OK | |
| 2.000 | SW15 | 59 | 79.598 | -0.335 | 0.000 | 0.03 | 2.5 | OK | |
| 1.004 | SW5 | 60 | 79.512 | -0.342 | 0.000 | 0.13 | 18.4 | OK | |
| 1.005 | SW6 | 61 | 79.423 | -0.340 | 0.000 | 0.12 | 19.8 | OK | |
| 3.000 | SW16 | 60 | 79.521 | -0.432 | 0.000 | 0.01 | 2.0 | OK | |
| 1.006 | SW7 | 61 | 79.421 | -0.298 | 0.000 | 0.15 | 21.7 | OK | |
| 1.007 | SW8hwall | 58 | 79.419 | -0.275 | 0.000 | 0.16 | 21.1 | OK | |
| 1.008 | SW9hwall | 57 | 79.418 | -0.256 | 0.000 | 0.07 | 20.3 | OK | |
| 1.009 | S10 HYDROBRAKE | 57 | 79.417 | -0.235 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 55 | 79.456 | -0.505 | 0.000 | 0.09 | 30.0 | OK | |
| 4.001 | CUL2 | 55 | 79.342 | -0.508 | 0.000 | 0.07 | 30.0 | OK | |
| 4.002 | CUL3 | 55 | 79.166 | -0.493 | 0.000 | 0.09 | 30.0 | OK | |

Summary Wizard of 360 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 55 | 79.095 | -0.501 | 0.000 | 0.09 | 30.0 | OK |
| 4.004 | SW17 | 57 | 79.075 | -0.611 | 0.000 | 0.06 | 29.9 | OK |
| 1.010 | SW11 | 57 | 79.004 | -0.604 | 0.000 | 0.08 | 40.8 | OK |
| 1.011 | SW12 | 57 | 78.908 | -0.637 | 0.000 | 0.06 | 40.8 | OK |
| 1.012 | SW13 | 57 | 78.679 | -0.643 | 0.000 | 0.05 | 40.8 | OK |

| | | |
|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 24 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 480 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 59 | 80.365 | -0.180 | 0.000 | 0.09 | 3.3 | OK | |
| 1.001 | SW2 | 59 | 80.192 | -0.242 | 0.000 | 0.08 | 5.5 | OK | |
| 1.002 | SW3 | 59 | 80.052 | -0.235 | 0.000 | 0.11 | 9.3 | OK | |
| 1.003 | SW4 | 60 | 79.725 | -0.309 | 0.000 | 0.07 | 10.3 | OK | |
| 2.000 | SW15 | 61 | 79.596 | -0.337 | 0.000 | 0.02 | 2.1 | OK | |
| 1.004 | SW5 | 62 | 79.503 | -0.351 | 0.000 | 0.11 | 15.4 | OK | |
| 1.005 | SW6 | 63 | 79.396 | -0.367 | 0.000 | 0.10 | 16.7 | OK | |
| 3.000 | SW16 | 62 | 79.518 | -0.435 | 0.000 | 0.01 | 1.7 | OK | |
| 1.006 | SW7 | 63 | 79.393 | -0.326 | 0.000 | 0.13 | 18.4 | OK | |
| 1.007 | SW8hwall | 63 | 79.391 | -0.303 | 0.000 | 0.14 | 18.0 | OK | |
| 1.008 | SW9hwall | 60 | 79.389 | -0.285 | 0.000 | 0.06 | 17.4 | OK | |
| 1.009 | S10 HYDROBRAKE | 60 | 79.389 | -0.263 | 0.000 | 0.03 | 11.4 | OK | |
| 4.000 | CUL1 | 59 | 79.454 | -0.507 | 0.000 | 0.09 | 29.2 | OK | |
| 4.001 | CUL2 | 56 | 79.342 | -0.508 | 0.000 | 0.07 | 29.2 | OK | |
| 4.002 | CUL3 | 59 | 79.164 | -0.495 | 0.000 | 0.09 | 29.2 | OK | |

Summary Wizard of 480 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 59 | 79.093 | -0.503 | 0.000 | 0.09 | | 29.2 | OK |
| 4.004 | SW17 | 61 | 79.073 | -0.613 | 0.000 | 0.06 | | 29.2 | OK |
| 1.010 | SW11 | 61 | 79.002 | -0.606 | 0.000 | 0.08 | | 40.0 | OK |
| 1.011 | SW12 | 61 | 78.907 | -0.638 | 0.000 | 0.05 | | 40.0 | OK |
| 1.012 | SW13 | 61 | 78.678 | -0.644 | 0.000 | 0.05 | | 40.0 | OK |

Summary Wizard of 600 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 63 | 80.362 | -0.183 | 0.000 | 0.08 | 2.8 | OK | |
| 1.001 | SW2 | 63 | 80.187 | -0.247 | 0.000 | 0.07 | 4.8 | OK | |
| 1.002 | SW3 | 63 | 80.048 | -0.239 | 0.000 | 0.09 | 8.0 | OK | |
| 1.003 | SW4 | 63 | 79.720 | -0.314 | 0.000 | 0.06 | 9.0 | OK | |
| 2.000 | SW15 | 63 | 79.592 | -0.341 | 0.000 | 0.02 | 1.8 | OK | |
| 1.004 | SW5 | 64 | 79.497 | -0.357 | 0.000 | 0.10 | 13.4 | OK | |
| 1.005 | SW6 | 65 | 79.372 | -0.391 | 0.000 | 0.09 | 14.6 | OK | |
| 3.000 | SW16 | 64 | 79.516 | -0.437 | 0.000 | 0.01 | 1.5 | OK | |
| 1.006 | SW7 | 65 | 79.365 | -0.354 | 0.000 | 0.11 | 16.2 | OK | |
| 1.007 | SW8hwall | 65 | 79.362 | -0.332 | 0.000 | 0.12 | 16.1 | OK | |
| 1.008 | SW9hwall | 63 | 79.361 | -0.313 | 0.000 | 0.05 | 15.6 | OK | |
| 1.009 | S10 HYDROBRAKE | 63 | 79.360 | -0.292 | 0.000 | 0.03 | 11.3 | OK | |
| 4.000 | CUL1 | 63 | 79.453 | -0.508 | 0.000 | 0.08 | 28.7 | OK | |
| 4.001 | CUL2 | 58 | 79.342 | -0.508 | 0.000 | 0.07 | 28.7 | OK | |
| 4.002 | CUL3 | 63 | 79.163 | -0.496 | 0.000 | 0.09 | 28.7 | OK | |

Summary Wizard of 600 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 61 | 79.093 | -0.503 | 0.000 | 0.09 | | 28.7 | OK |
| 4.004 | SW17 | 63 | 79.072 | -0.614 | 0.000 | 0.06 | | 28.7 | OK |
| 1.010 | SW11 | 64 | 79.001 | -0.607 | 0.000 | 0.08 | | 39.4 | OK |
| 1.011 | SW12 | 64 | 78.906 | -0.639 | 0.000 | 0.05 | | 39.4 | OK |
| 1.012 | SW13 | 64 | 78.677 | -0.645 | 0.000 | 0.05 | | 39.4 | OK |

Summary Wizard of 720 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

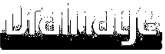
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 64 | 80.359 | -0.186 | 0.000 | 0.07 | 2.5 | OK | |
| 1.001 | SW2 | 64 | 80.184 | -0.250 | 0.000 | 0.07 | 4.2 | OK | |
| 1.002 | SW3 | 64 | 80.045 | -0.242 | 0.000 | 0.08 | 7.2 | OK | |
| 1.003 | SW4 | 64 | 79.716 | -0.318 | 0.000 | 0.06 | 8.0 | OK | |
| 2.000 | SW15 | 65 | 79.588 | -0.345 | 0.000 | 0.02 | 1.6 | OK | |
| 1.004 | SW5 | 65 | 79.491 | -0.363 | 0.000 | 0.08 | 11.9 | OK | |
| 1.005 | SW6 | 66 | 79.353 | -0.410 | 0.000 | 0.08 | 13.0 | OK | |
| 3.000 | SW16 | 65 | 79.515 | -0.438 | 0.000 | 0.01 | 1.3 | OK | |
| 1.006 | SW7 | 66 | 79.340 | -0.379 | 0.000 | 0.10 | 14.7 | OK | |
| 1.007 | SW8hwall | 66 | 79.336 | -0.358 | 0.000 | 0.11 | 14.7 | OK | |
| 1.008 | SW9hwall | 65 | 79.333 | -0.341 | 0.000 | 0.05 | 14.3 | OK | |
| 1.009 | S10 HYDROBRAKE | 65 | 79.333 | -0.319 | 0.000 | 0.03 | 11.1 | OK | |
| 4.000 | CUL1 | 64 | 79.453 | -0.508 | 0.000 | 0.08 | 28.3 | OK | |
| 4.001 | CUL2 | 59 | 79.342 | -0.508 | 0.000 | 0.07 | 28.3 | OK | |
| 4.002 | CUL3 | 64 | 79.162 | -0.497 | 0.000 | 0.09 | 28.3 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 29 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 720 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 63 | 79.093 | -0.503 | 0.000 | 0.08 | 28.3 | OK |
| 4.004 | SW17 | 65 | 79.071 | -0.615 | 0.000 | 0.06 | 28.3 | OK |
| 1.010 | SW11 | 66 | 79.000 | -0.608 | 0.000 | 0.08 | 39.0 | OK |
| 1.011 | SW12 | 66 | 78.905 | -0.640 | 0.000 | 0.05 | 39.0 | OK |
| 1.012 | SW13 | 66 | 78.677 | -0.645 | 0.000 | 0.05 | 39.0 | OK |

Summary Wizard of 960 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 67 | 80.355 | -0.190 | 0.000 | 0.06 | 2.1 | OK | |
| 1.001 | SW2 | 67 | 80.179 | -0.255 | 0.000 | 0.05 | 3.5 | OK | |
| 1.002 | SW3 | 67 | 80.038 | -0.249 | 0.000 | 0.07 | 6.0 | OK | |
| 1.003 | SW4 | 67 | 79.711 | -0.323 | 0.000 | 0.05 | 6.6 | OK | |
| 2.000 | SW15 | 67 | 79.583 | -0.350 | 0.000 | 0.01 | 1.3 | OK | |
| 1.004 | SW5 | 67 | 79.482 | -0.372 | 0.000 | 0.07 | 9.9 | OK | |
| 1.005 | SW6 | 68 | 79.338 | -0.425 | 0.000 | 0.06 | 10.8 | OK | |
| 3.000 | SW16 | 67 | 79.513 | -0.440 | 0.000 | 0.00 | 1.1 | OK | |
| 1.006 | SW7 | 68 | 79.306 | -0.413 | 0.000 | 0.09 | 12.3 | OK | |
| 1.007 | SW8hwall | 68 | 79.293 | -0.401 | 0.000 | 0.09 | 12.3 | OK | |
| 1.008 | SW9hwall | 68 | 79.286 | -0.388 | 0.000 | 0.04 | 12.1 | OK | |
| 1.009 | S10 HYDROBRAKE | 68 | 79.285 | -0.367 | 0.000 | 0.03 | 10.8 | OK | |
| 4.000 | CUL1 | 67 | 79.452 | -0.509 | 0.000 | 0.08 | 27.8 | OK | |
| 4.001 | CUL2 | 60 | 79.341 | -0.509 | 0.000 | 0.06 | 27.8 | OK | |
| 4.002 | CUL3 | 67 | 79.161 | -0.498 | 0.000 | 0.08 | 27.8 | OK | |

Summary Wizard of 960 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 64 | 79.092 | -0.504 | 0.000 | 0.08 | 27.8 | OK |
| 4.004 | SW17 | 68 | 79.069 | -0.617 | 0.000 | 0.06 | 27.8 | OK |
| 1.010 | SW11 | 68 | 78.998 | -0.610 | 0.000 | 0.08 | 38.2 | OK |
| 1.011 | SW12 | 68 | 78.904 | -0.641 | 0.000 | 0.05 | 38.2 | OK |
| 1.012 | SW13 | 68 | 78.676 | -0.646 | 0.000 | 0.05 | 38.2 | OK |

Summary Wizard of 1440 minute 1 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 70 | 80.350 | -0.195 | 0.000 | 0.04 | 1.6 | OK | |
| 1.001 | SW2 | 70 | 80.173 | -0.261 | 0.000 | 0.04 | 2.7 | OK | |
| 1.002 | SW3 | 70 | 80.031 | -0.256 | 0.000 | 0.05 | 4.6 | OK | |
| 1.003 | SW4 | 70 | 79.705 | -0.329 | 0.000 | 0.04 | 5.1 | OK | |
| 2.000 | SW15 | 70 | 79.577 | -0.356 | 0.000 | 0.01 | 1.0 | OK | |
| 1.004 | SW5 | 70 | 79.471 | -0.383 | 0.000 | 0.05 | 7.6 | OK | |
| 1.005 | SW6 | 70 | 79.323 | -0.440 | 0.000 | 0.05 | 8.4 | OK | |
| 3.000 | SW16 | 70 | 79.510 | -0.443 | 0.000 | 0.00 | 0.8 | OK | |
| 1.006 | SW7 | 70 | 79.288 | -0.431 | 0.000 | 0.07 | 9.5 | OK | |
| 1.007 | SW8hwall | 70 | 79.261 | -0.433 | 0.000 | 0.07 | 9.5 | OK | |
| 1.008 | SW9hwall | 70 | 79.214 | -0.460 | 0.000 | 0.03 | 9.4 | OK | |
| 1.009 | S10 HYDROBRAKE | 70 | 79.213 | -0.439 | 0.000 | 0.03 | 10.1 | OK | |
| 4.000 | CUL1 | 70 | 79.450 | -0.511 | 0.000 | 0.08 | 27.3 | OK | |
| 4.001 | CUL2 | 61 | 79.341 | -0.509 | 0.000 | 0.06 | 27.3 | OK | |
| 4.002 | CUL3 | 70 | 79.159 | -0.500 | 0.000 | 0.08 | 27.3 | OK | |

Summary Wizard of 1440 minute 1 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 65 | 79.092 | -0.504 | 0.000 | 0.08 | | 27.3 | OK |
| 4.004 | SW17 | 70 | 79.067 | -0.619 | 0.000 | 0.06 | | 27.3 | OK |
| 1.010 | SW11 | 70 | 78.996 | -0.612 | 0.000 | 0.08 | | 37.2 | OK |
| 1.011 | SW12 | 70 | 78.903 | -0.642 | 0.000 | 0.05 | | 37.2 | OK |
| 1.012 | SW13 | 70 | 78.674 | -0.648 | 0.000 | 0.05 | | 37.2 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 34 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 15 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 20 | 80.493 | -0.052 | 0.000 | 0.93 | 33.4 | OK |
| 1.001 | SW2 | 24 | 80.399 | -0.035 | 0.000 | 0.84 | 54.5 | OK |
| 1.002 | SW3 | 25 | 80.297 | 0.010 | 0.000 | 1.02 | 88.3 | SURCHARGED |
| 1.003 | SW4 | 38 | 79.890 | -0.144 | 0.000 | 0.68 | 97.1 | OK |
| 2.000 | SW15 | 43 | 79.792 | -0.141 | 0.000 | 0.21 | 20.3 | OK |
| 1.004 | SW5 | 43 | 79.779 | -0.075 | 0.000 | 0.99 | 139.3 | OK |
| 1.005 | SW6 | 46 | 79.691 | -0.072 | 0.000 | 0.80 | 137.0 | OK |
| 3.000 | SW16 | 46 | 79.662 | -0.291 | 0.000 | 0.07 | 16.3 | OK |
| 1.006 | SW7 | 46 | 79.658 | -0.061 | 0.000 | 1.00 | 141.5 | OK |
| 1.007 | SW8hwall | 47 | 79.626 | -0.068 | 0.000 | 1.07 | 140.5 | OK |
| 1.008 | SW9hwall | 47 | 79.617 | -0.057 | 0.000 | 0.45 | 133.7 | OK |
| 1.009 | S10 HYDROBRAKE | 47 | 79.616 | -0.036 | 0.000 | 0.03 | 11.7 | OK |
| 4.000 | CUL1 | 4 | 79.547 | -0.414 | 0.000 | 0.26 | 87.3 | OK |
| 4.001 | CUL2 | 4 | 79.430 | -0.420 | 0.000 | 0.19 | 82.3 | OK |
| 4.002 | CUL3 | 4 | 79.265 | -0.394 | 0.000 | 0.27 | 88.2 | OK |

Summary Wizard of 15 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 5 | 79.186 | -0.410 | 0.000 | 0.26 | | 86.6 | OK |
| 4.004 | SW17 | 5 | 79.160 | -0.526 | 0.000 | 0.17 | | 81.7 | OK |
| 1.010 | SW11 | 6 | 79.067 | -0.541 | 0.000 | 0.17 | | 81.5 | OK |
| 1.011 | SW12 | 6 | 78.962 | -0.583 | 0.000 | 0.11 | | 82.4 | OK |
| 1.012 | SW13 | 6 | 78.730 | -0.592 | 0.000 | 0.10 | | 80.0 | OK |

Summary Wizard of 30 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|------------|-----------|-----------|-------------|-------------|----------------|------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | | |
| 1.000 | SW1 | 21 | 80.485 | -0.060 | 0.000 | 0.89 | | 32.0 | OK | |
| 1.001 | SW2 | 25 | 80.355 | -0.079 | 0.000 | 0.82 | | 53.1 | OK | |
| 1.002 | SW3 | 27 | 80.260 | -0.027 | 0.000 | 1.00 | | 86.1 | OK | |
| 1.003 | SW4 | 39 | 79.885 | -0.149 | 0.000 | 0.67 | | 95.2 | OK | |
| 2.000 | SW15 | 44 | 79.777 | -0.156 | 0.000 | 0.20 | | 19.3 | OK | |
| 1.004 | SW5 | 44 | 79.767 | -0.087 | 0.000 | 0.97 | | 136.5 | OK | |
| 1.005 | SW6 | 44 | 79.747 | -0.016 | 0.000 | 0.80 | | 137.0 | OK | |
| 3.000 | SW16 | 44 | 79.742 | -0.211 | 0.000 | 0.06 | | 15.3 | OK | |
| 1.006 | SW7 | 44 | 79.742 | 0.023 | 0.000 | 1.00 | | 141.8 | SURCHARGED | |
| 1.007 | SW8hwall | 44 | 79.740 | 0.046 | 0.000 | 1.07 | | 140.9 | SURCHARGED | |
| 1.008 | SW9hwall | 44 | 79.738 | 0.064 | 0.000 | 0.45 | | 134.1 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 44 | 79.737 | 0.085 | 0.000 | 0.03 | | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 8 | 79.520 | -0.441 | 0.000 | 0.21 | | 71.4 | OK | |
| 4.001 | CUL2 | 8 | 79.404 | -0.446 | 0.000 | 0.17 | | 71.6 | OK | |
| 4.002 | CUL3 | 8 | 79.240 | -0.419 | 0.000 | 0.21 | | 70.7 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 37 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 30 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 8 | 79.170 | -0.426 | 0.000 | 0.21 | 71.3 | OK |
| 4.004 | SW17 | 8 | 79.142 | -0.544 | 0.000 | 0.14 | 69.9 | OK |
| 1.010 | SW11 | 8 | 79.059 | -0.549 | 0.000 | 0.16 | 78.1 | OK |
| 1.011 | SW12 | 8 | 78.958 | -0.587 | 0.000 | 0.10 | 77.6 | OK |
| 1.012 | SW13 | 8 | 78.727 | -0.595 | 0.000 | 0.10 | 78.1 | OK |

Summary Wizard of 60 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|------------|-------------|--------|------------|--------------------------|-------------------|----------------|------------|--------|
| | | | (m) | (m) | Depth (m) | Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 25 | 80.458 | -0.087 | 0.000 | 0.69 | 25.0 | OK | | |
| 1.001 | SW2 | 28 | 80.311 | -0.123 | 0.000 | 0.64 | 41.9 | OK | | |
| 1.002 | SW3 | 29 | 80.195 | -0.092 | 0.000 | 0.81 | 70.1 | OK | | |
| 1.003 | SW4 | 42 | 79.865 | -0.169 | 0.000 | 0.55 | 77.9 | OK | | |
| 2.000 | SW15 | 38 | 79.861 | -0.072 | 0.000 | 0.16 | 15.6 | OK | | |
| 1.004 | SW5 | 38 | 79.860 | 0.006 | 0.000 | 0.79 | 111.9 | SURCHARGED | | |
| 1.005 | SW6 | 39 | 79.855 | 0.092 | 0.000 | 0.66 | 112.5 | SURCHARGED | | |
| 3.000 | SW16 | 39 | 79.853 | -0.100 | 0.000 | 0.05 | 12.1 | OK | | |
| 1.006 | SW7 | 39 | 79.853 | 0.134 | 0.000 | 0.80 | 114.0 | SURCHARGED | | |
| 1.007 | SW8hwall | 39 | 79.851 | 0.157 | 0.000 | 0.82 | 108.6 | SURCHARGED | | |
| 1.008 | SW9hwall | 39 | 79.849 | 0.175 | 0.000 | 0.35 | 102.9 | SURCHARGED | | |
| 1.009 | S10 HYDROBRAKE | 39 | 79.848 | 0.196 | 0.000 | 0.03 | 11.6 | SURCHARGED | | |
| 4.000 | CUL1 | 12 | 79.502 | -0.459 | 0.000 | 0.17 | 57.7 | OK | | |
| 4.001 | CUL2 | 12 | 79.386 | -0.464 | 0.000 | 0.13 | 57.8 | OK | | |
| 4.002 | CUL3 | 12 | 79.217 | -0.442 | 0.000 | 0.17 | 57.4 | OK | | |

Summary Wizard of 60 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 12 | 79.147 | -0.449 | 0.000 | 0.17 | 57.7 | OK |
| 4.004 | SW17 | 12 | 79.124 | -0.562 | 0.000 | 0.12 | 57.1 | OK |
| 1.010 | SW11 | 12 | 79.045 | -0.563 | 0.000 | 0.14 | 68.1 | OK |
| 1.011 | SW12 | 12 | 78.948 | -0.597 | 0.000 | 0.09 | 67.7 | OK |
| 1.012 | SW13 | 12 | 78.716 | -0.606 | 0.000 | 0.08 | 67.9 | OK |

Summary Wizard of 120 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

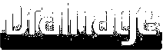
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

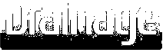
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|---------------|------------------|--------------|-----------------------------|----------------|-------------------|---------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 28 | 80.430 | -0.115 | 0.000 | 0.48 | 17.4 | OK | |
| 1.001 | SW2 | 31 | 80.275 | -0.159 | 0.000 | 0.45 | 29.2 | OK | |
| 1.002 | SW3 | 31 | 80.150 | -0.137 | 0.000 | 0.57 | 49.0 | OK | |
| 1.003 | SW4 | 33 | 79.931 | -0.103 | 0.000 | 0.38 | 54.5 | OK | |
| 2.000 | SW15 | 33 | 79.928 | -0.005 | 0.000 | 0.11 | 10.6 | OK | |
| 1.004 | SW5 | 33 | 79.927 | 0.073 | 0.000 | 0.53 | 74.8 | SURCHARGED | |
| 1.005 | SW6 | 32 | 79.924 | 0.161 | 0.000 | 0.43 | 73.6 | SURCHARGED | |
| 3.000 | SW16 | 32 | 79.921 | -0.032 | 0.000 | 0.03 | 7.9 | OK | |
| 1.006 | SW7 | 32 | 79.922 | 0.203 | 0.000 | 0.51 | 72.5 | SURCHARGED | |
| 1.007 | SW8hwall | 32 | 79.920 | 0.226 | 0.000 | 0.53 | 69.2 | SURCHARGED | |
| 1.008 | SW9hwall | 32 | 79.918 | 0.244 | 0.000 | 0.22 | 66.3 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 32 | 79.918 | 0.266 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 19 | 79.487 | -0.474 | 0.000 | 0.14 | 46.7 | OK | |
| 4.001 | CUL2 | 19 | 79.372 | -0.478 | 0.000 | 0.11 | 46.7 | OK | |
| 4.002 | CUL3 | 18 | 79.198 | -0.461 | 0.000 | 0.14 | 46.5 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 41 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 120 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 18 | 79.129 | -0.467 | 0.000 | 0.14 | | 46.7 | OK |
| 4.004 | SW17 | 17 | 79.107 | -0.579 | 0.000 | 0.09 | | 46.4 | OK |
| 1.010 | SW11 | 17 | 79.030 | -0.578 | 0.000 | 0.12 | | 57.9 | OK |
| 1.011 | SW12 | 17 | 78.934 | -0.611 | 0.000 | 0.08 | | 57.8 | OK |
| 1.012 | SW13 | 17 | 78.702 | -0.620 | 0.000 | 0.07 | | 57.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 42 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 180 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

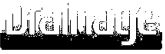
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 31 | 80.415 | -0.130 | 0.000 | 0.38 | 13.6 | OK |
| 1.001 | SW2 | 33 | 80.257 | -0.177 | 0.000 | 0.35 | 22.8 | OK |
| 1.002 | SW3 | 32 | 80.127 | -0.160 | 0.000 | 0.44 | 38.3 | OK |
| 1.003 | SW4 | 31 | 79.944 | -0.090 | 0.000 | 0.30 | 42.7 | OK |
| 2.000 | SW15 | 31 | 79.941 | 0.008 | 0.000 | 0.09 | 8.3 | SURCHARGED |
| 1.004 | SW5 | 31 | 79.940 | 0.086 | 0.000 | 0.41 | 58.2 | SURCHARGED |
| 1.005 | SW6 | 30 | 79.937 | 0.174 | 0.000 | 0.34 | 57.8 | SURCHARGED |
| 3.000 | SW16 | 30 | 79.934 | -0.019 | 0.000 | 0.02 | 5.8 | OK |
| 1.006 | SW7 | 30 | 79.934 | 0.215 | 0.000 | 0.40 | 57.4 | SURCHARGED |
| 1.007 | SW8hwall | 30 | 79.933 | 0.239 | 0.000 | 0.42 | 54.8 | SURCHARGED |
| 1.008 | SW9hwall | 30 | 79.931 | 0.257 | 0.000 | 0.18 | 52.7 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 30 | 79.931 | 0.279 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 23 | 79.479 | -0.482 | 0.000 | 0.12 | 41.5 | OK |
| 4.001 | CUL2 | 23 | 79.363 | -0.487 | 0.000 | 0.10 | 41.5 | OK |
| 4.002 | CUL3 | 23 | 79.190 | -0.469 | 0.000 | 0.13 | 41.5 | OK |

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| Edge Consulting UK | | Page 43 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 180 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-------------|----------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (1/s) | |
| 4.003 | CUL4 | 23 | 79.120 | -0.476 | 0.000 | 0.12 | 41.5 | OK |
| 4.004 | SW17 | 22 | 79.098 | -0.588 | 0.000 | 0.08 | 41.4 | OK |
| 1.010 | SW11 | 20 | 79.023 | -0.585 | 0.000 | 0.11 | 53.0 | OK |
| 1.011 | SW12 | 20 | 78.926 | -0.619 | 0.000 | 0.07 | 53.0 | OK |
| 1.012 | SW13 | 20 | 78.696 | -0.626 | 0.000 | 0.06 | 53.0 | OK |

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| Edge Consulting UK | | Page 44 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 240 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

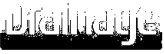
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 36 | 80.406 | -0.139 | 0.000 | 0.31 | 11.2 | OK |
| 1.001 | SW2 | 38 | 80.244 | -0.190 | 0.000 | 0.29 | 18.9 | OK |
| 1.002 | SW3 | 37 | 80.113 | -0.174 | 0.000 | 0.37 | 31.8 | OK |
| 1.003 | SW4 | 32 | 79.940 | -0.094 | 0.000 | 0.25 | 35.4 | OK |
| 2.000 | SW15 | 32 | 79.938 | 0.005 | 0.000 | 0.07 | 6.8 | SURCHARGED |
| 1.004 | SW5 | 32 | 79.937 | 0.083 | 0.000 | 0.34 | 48.3 | SURCHARGED |
| 1.005 | SW6 | 31 | 79.933 | 0.170 | 0.000 | 0.28 | 48.0 | SURCHARGED |
| 3.000 | SW16 | 31 | 79.931 | -0.022 | 0.000 | 0.02 | 4.7 | OK |
| 1.006 | SW7 | 31 | 79.931 | 0.212 | 0.000 | 0.34 | 48.0 | SURCHARGED |
| 1.007 | SW8hwall | 31 | 79.929 | 0.235 | 0.000 | 0.35 | 45.9 | SURCHARGED |
| 1.008 | SW9hwall | 31 | 79.928 | 0.254 | 0.000 | 0.15 | 44.1 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 31 | 79.927 | 0.275 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 29 | 79.473 | -0.488 | 0.000 | 0.11 | 38.5 | OK |
| 4.001 | CUL2 | 29 | 79.358 | -0.492 | 0.000 | 0.09 | 38.6 | OK |
| 4.002 | CUL3 | 29 | 79.184 | -0.475 | 0.000 | 0.12 | 38.6 | OK |

Summary Wizard of 240 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 29 | 79.115 | -0.481 | 0.000 | 0.12 | 38.6 | OK |
| 4.004 | SW17 | 27 | 79.094 | -0.592 | 0.000 | 0.08 | 38.5 | OK |
| 1.010 | SW11 | 24 | 79.019 | -0.589 | 0.000 | 0.10 | 50.2 | OK |
| 1.011 | SW12 | 24 | 78.922 | -0.623 | 0.000 | 0.07 | 50.2 | OK |
| 1.012 | SW13 | 24 | 78.692 | -0.630 | 0.000 | 0.06 | 50.2 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 46 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 | Designed by [REDACTED] | |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 360 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 Cv (Winter) 0.840

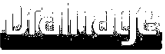
 Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status ON
 DVD Status OFF
 Inertia Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 39 | 80.394 | -0.151 | 0.000 | 0.24 | 8.5 | OK |
| 1.001 | SW2 | 41 | 80.229 | -0.205 | 0.000 | 0.22 | 14.4 | OK |
| 1.002 | SW3 | 41 | 80.095 | -0.192 | 0.000 | 0.28 | 24.2 | OK |
| 1.003 | SW4 | 34 | 79.922 | -0.112 | 0.000 | 0.19 | 26.9 | OK |
| 2.000 | SW15 | 34 | 79.919 | -0.014 | 0.000 | 0.05 | 5.2 | OK |
| 1.004 | SW5 | 34 | 79.918 | 0.064 | 0.000 | 0.26 | 36.9 | SURCHARGED |
| 1.005 | SW6 | 33 | 79.914 | 0.151 | 0.000 | 0.22 | 36.9 | SURCHARGED |
| 3.000 | SW16 | 33 | 79.912 | -0.041 | 0.000 | 0.02 | 3.6 | OK |
| 1.006 | SW7 | 33 | 79.912 | 0.193 | 0.000 | 0.26 | 37.1 | SURCHARGED |
| 1.007 | SW8hwall | 33 | 79.910 | 0.216 | 0.000 | 0.27 | 35.6 | SURCHARGED |
| 1.008 | SW9hwall | 33 | 79.909 | 0.235 | 0.000 | 0.12 | 34.3 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 33 | 79.908 | 0.256 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 35 | 79.466 | -0.495 | 0.000 | 0.10 | 35.3 | OK |
| 4.001 | CUL2 | 35 | 79.352 | -0.498 | 0.000 | 0.08 | 35.3 | OK |
| 4.002 | CUL3 | 35 | 79.179 | -0.480 | 0.000 | 0.11 | 35.3 | OK |

Summary Wizard of 360 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 35 | 79.107 | -0.489 | 0.000 | 0.11 | | 35.3 | OK |
| 4.004 | SW17 | 34 | 79.088 | -0.598 | 0.000 | 0.07 | | 35.3 | OK |
| 1.010 | SW11 | 33 | 79.014 | -0.594 | 0.000 | 0.10 | | 46.9 | OK |
| 1.011 | SW12 | 32 | 78.917 | -0.628 | 0.000 | 0.06 | | 46.9 | OK |
| 1.012 | SW13 | 31 | 78.687 | -0.635 | 0.000 | 0.06 | | 46.9 | OK |

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| Edge Consulting UK | | Page 48 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 | Designed by XXXXXXXXXX | |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 480 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

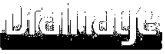
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|---------------|-----------------------|----------------------------|--|----------------|-------------------|---------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 43 | 80.387 | -0.158 | 0.000 | 0.19 | 7.0 | | OK |
| 1.001 | SW2 | 45 | 80.219 | -0.215 | 0.000 | 0.18 | 11.7 | | OK |
| 1.002 | SW3 | 45 | 80.084 | -0.203 | 0.000 | 0.23 | 19.8 | | OK |
| 1.003 | SW4 | 37 | 79.894 | -0.140 | 0.000 | 0.15 | 22.0 | | OK |
| 2.000 | SW15 | 36 | 79.891 | -0.042 | 0.000 | 0.04 | 4.3 | | OK |
| 1.004 | SW5 | 36 | 79.891 | 0.037 | 0.000 | 0.22 | 30.5 | SURCHARGED | |
| 1.005 | SW6 | 36 | 79.887 | 0.124 | 0.000 | 0.18 | 30.6 | SURCHARGED | |
| 3.000 | SW16 | 36 | 79.885 | -0.068 | 0.000 | 0.01 | 3.1 | | OK |
| 1.006 | SW7 | 36 | 79.885 | 0.166 | 0.000 | 0.22 | 30.9 | SURCHARGED | |
| 1.007 | SW8hwall | 36 | 79.883 | 0.189 | 0.000 | 0.23 | 29.7 | SURCHARGED | |
| 1.008 | SW9hwall | 36 | 79.882 | 0.208 | 0.000 | 0.10 | 28.7 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 36 | 79.881 | 0.229 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 41 | 79.463 | -0.498 | 0.000 | 0.10 | 33.5 | | OK |
| 4.001 | CUL2 | 41 | 79.348 | -0.502 | 0.000 | 0.08 | 33.5 | | OK |
| 4.002 | CUL3 | 41 | 79.174 | -0.485 | 0.000 | 0.10 | 33.5 | | OK |

Summary Wizard of 480 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 41 | 79.103 | -0.493 | 0.000 | 0.10 | | 33.5 | OK |
| 4.004 | SW17 | 41 | 79.085 | -0.601 | 0.000 | 0.07 | | 33.5 | OK |
| 1.010 | SW11 | 39 | 79.012 | -0.596 | 0.000 | 0.09 | | 45.1 | OK |
| 1.011 | SW12 | 39 | 78.914 | -0.631 | 0.000 | 0.06 | | 45.1 | OK |
| 1.012 | SW13 | 39 | 78.685 | -0.637 | 0.000 | 0.06 | | 45.1 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 50 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 | Designed by [REDACTED] | |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 600 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

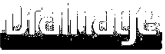
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

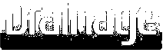
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe | | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------------|----------------|------------|
| | | | | | | Flow / Cap. (l/s) | Overflow (l/s) | |
| 1.000 | SW1 | 46 | 80.381 | -0.164 | 0.000 | 0.16 | 5.9 | OK |
| 1.001 | SW2 | 47 | 80.212 | -0.222 | 0.000 | 0.15 | 10.0 | OK |
| 1.002 | SW3 | 47 | 80.077 | -0.210 | 0.000 | 0.20 | 16.9 | OK |
| 1.003 | SW4 | 43 | 79.864 | -0.170 | 0.000 | 0.13 | 18.8 | OK |
| 2.000 | SW15 | 39 | 79.861 | -0.072 | 0.000 | 0.04 | 3.7 | OK |
| 1.004 | SW5 | 39 | 79.860 | 0.006 | 0.000 | 0.19 | 26.9 | SURCHARGED |
| 1.005 | SW6 | 38 | 79.856 | 0.093 | 0.000 | 0.16 | 27.0 | SURCHARGED |
| 3.000 | SW16 | 38 | 79.854 | -0.099 | 0.000 | 0.01 | 2.7 | OK |
| 1.006 | SW7 | 38 | 79.854 | 0.135 | 0.000 | 0.19 | 27.3 | SURCHARGED |
| 1.007 | SW8hwall | 38 | 79.852 | 0.158 | 0.000 | 0.20 | 26.2 | SURCHARGED |
| 1.008 | SW9hwall | 38 | 79.851 | 0.177 | 0.000 | 0.09 | 25.3 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 38 | 79.850 | 0.198 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 45 | 79.460 | -0.501 | 0.000 | 0.10 | 32.3 | OK |
| 4.001 | CUL2 | 45 | 79.346 | -0.504 | 0.000 | 0.07 | 32.3 | OK |
| 4.002 | CUL3 | 45 | 79.172 | -0.487 | 0.000 | 0.10 | 32.3 | OK |

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| Edge Consulting UK | | Page 51 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 600 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 45 | 79.100 | -0.496 | 0.000 | 0.10 | | 32.3 | OK |
| 4.004 | SW17 | 44 | 79.082 | -0.604 | 0.000 | 0.07 | | 32.3 | OK |
| 1.010 | SW11 | 44 | 79.010 | -0.598 | 0.000 | 0.09 | | 43.9 | OK |
| 1.011 | SW12 | 44 | 78.913 | -0.632 | 0.000 | 0.06 | | 43.9 | OK |
| 1.012 | SW13 | 44 | 78.683 | -0.639 | 0.000 | 0.05 | | 43.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 52 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 720 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Cap. (l/s) | Overflow Flow (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|------------------------|---------------------|-----------------|------------|
| | | | | | | | | | |
| 1.000 | SW1 | 48 | 80.377 | -0.168 | 0.000 | 0.14 | | 5.2 | OK |
| 1.001 | SW2 | 50 | 80.207 | -0.227 | 0.000 | 0.13 | | 8.8 | OK |
| 1.002 | SW3 | 50 | 80.070 | -0.217 | 0.000 | 0.17 | | 14.8 | OK |
| 1.003 | SW4 | 44 | 79.831 | -0.203 | 0.000 | 0.12 | | 16.5 | OK |
| 2.000 | SW15 | 40 | 79.828 | -0.105 | 0.000 | 0.03 | | 3.3 | OK |
| 1.004 | SW5 | 40 | 79.827 | -0.027 | 0.000 | 0.17 | | 23.8 | OK |
| 1.005 | SW6 | 40 | 79.823 | 0.060 | 0.000 | 0.14 | | 23.9 | SURCHARGED |
| 3.000 | SW16 | 40 | 79.821 | -0.132 | 0.000 | 0.01 | | 2.5 | OK |
| 1.006 | SW7 | 40 | 79.821 | 0.102 | 0.000 | 0.17 | | 24.4 | SURCHARGED |
| 1.007 | SW8hwall | 40 | 79.820 | 0.126 | 0.000 | 0.18 | | 23.5 | SURCHARGED |
| 1.008 | SW9hwall | 40 | 79.818 | 0.144 | 0.000 | 0.08 | | 22.7 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 40 | 79.817 | 0.165 | 0.000 | 0.03 | | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 47 | 79.459 | -0.502 | 0.000 | 0.09 | | 31.4 | OK |
| 4.001 | CUL2 | 47 | 79.344 | -0.506 | 0.000 | 0.07 | | 31.4 | OK |
| 4.002 | CUL3 | 47 | 79.169 | -0.490 | 0.000 | 0.10 | | 31.4 | OK |

Summary Wizard of 720 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 47 | 79.098 | -0.498 | 0.000 | 0.09 | 31.4 | OK |
| 4.004 | SW17 | 47 | 79.080 | -0.606 | 0.000 | 0.06 | 31.4 | OK |
| 1.010 | SW11 | 45 | 79.009 | -0.599 | 0.000 | 0.09 | 43.1 | OK |
| 1.011 | SW12 | 45 | 78.911 | -0.634 | 0.000 | 0.06 | 43.1 | OK |
| 1.012 | SW13 | 45 | 78.682 | -0.640 | 0.000 | 0.05 | 43.1 | OK |

Summary Wizard of 960 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

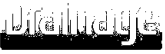
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|------------------------|----------------|-----------------|------------|
| | | | | | | | | | |
| 1.000 | SW1 | 54 | 80.371 | -0.174 | 0.000 | 0.12 | | 4.2 | OK |
| 1.001 | SW2 | 55 | 80.200 | -0.234 | 0.000 | 0.11 | | 7.1 | OK |
| 1.002 | SW3 | 55 | 80.061 | -0.226 | 0.000 | 0.14 | | 12.1 | OK |
| 1.003 | SW4 | 50 | 79.766 | -0.268 | 0.000 | 0.09 | | 13.4 | OK |
| 2.000 | SW15 | 45 | 79.764 | -0.169 | 0.000 | 0.03 | | 2.7 | OK |
| 1.004 | SW5 | 45 | 79.763 | -0.091 | 0.000 | 0.14 | | 19.6 | OK |
| 1.005 | SW6 | 42 | 79.759 | -0.004 | 0.000 | 0.12 | | 19.9 | OK |
| 3.000 | SW16 | 42 | 79.755 | -0.198 | 0.000 | 0.01 | | 2.1 | OK |
| 1.006 | SW7 | 42 | 79.755 | 0.036 | 0.000 | 0.14 | | 20.6 | SURCHARGED |
| 1.007 | SW8hwall | 42 | 79.753 | 0.059 | 0.000 | 0.15 | | 19.9 | SURCHARGED |
| 1.008 | SW9hwall | 42 | 79.751 | 0.077 | 0.000 | 0.07 | | 19.2 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 42 | 79.751 | 0.099 | 0.000 | 0.03 | | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 54 | 79.457 | -0.504 | 0.000 | 0.09 | | 30.3 | OK |
| 4.001 | CUL2 | 54 | 79.342 | -0.508 | 0.000 | 0.07 | | 30.3 | OK |
| 4.002 | CUL3 | 54 | 79.167 | -0.492 | 0.000 | 0.09 | | 30.3 | OK |

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|---|---|---|
| Edge Consulting UK | | Page 55 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by [REDACTED] | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 960 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-------------|----------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (1/s) | |
| 4.003 | CUL4 | 54 | 79.096 | -0.500 | 0.000 | 0.09 | 30.3 | OK |
| 4.004 | SW17 | 53 | 79.077 | -0.609 | 0.000 | 0.06 | 30.3 | OK |
| 1.010 | SW11 | 53 | 79.007 | -0.601 | 0.000 | 0.09 | 42.0 | OK |
| 1.011 | SW12 | 53 | 78.910 | -0.635 | 0.000 | 0.06 | 42.0 | OK |
| 1.012 | SW13 | 53 | 78.681 | -0.641 | 0.000 | 0.05 | 42.0 | OK |

Summary Wizard of 1440 minute 30 year Summer I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 60 | 80.365 | -0.180 | 0.000 | 0.09 | 3.2 | OK | |
| 1.001 | SW2 | 60 | 80.191 | -0.243 | 0.000 | 0.08 | 5.3 | OK | |
| 1.002 | SW3 | 60 | 80.051 | -0.236 | 0.000 | 0.10 | 9.0 | OK | |
| 1.003 | SW4 | 61 | 79.724 | -0.310 | 0.000 | 0.07 | 10.0 | OK | |
| 2.000 | SW15 | 50 | 79.637 | -0.296 | 0.000 | 0.02 | 2.0 | OK | |
| 1.004 | SW5 | 47 | 79.636 | -0.218 | 0.000 | 0.11 | 14.8 | OK | |
| 1.005 | SW6 | 47 | 79.633 | -0.130 | 0.000 | 0.09 | 15.5 | OK | |
| 3.000 | SW16 | 47 | 79.630 | -0.323 | 0.000 | 0.01 | 1.6 | OK | |
| 1.006 | SW7 | 47 | 79.630 | -0.089 | 0.000 | 0.12 | 16.5 | OK | |
| 1.007 | SW8hwall | 46 | 79.629 | -0.065 | 0.000 | 0.12 | 16.0 | OK | |
| 1.008 | SW9hwall | 46 | 79.627 | -0.047 | 0.000 | 0.05 | 15.6 | OK | |
| 1.009 | S10 HYDROBRAKE | 46 | 79.626 | -0.026 | 0.000 | 0.03 | 11.7 | OK | |
| 4.000 | CUL1 | 60 | 79.454 | -0.507 | 0.000 | 0.09 | 29.1 | OK | |
| 4.001 | CUL2 | 57 | 79.342 | -0.508 | 0.000 | 0.07 | 29.1 | OK | |
| 4.002 | CUL3 | 60 | 79.164 | -0.495 | 0.000 | 0.09 | 29.1 | OK | |

Summary Wizard of 1440 minute 30 year Summer I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 60 | 79.093 | -0.503 | 0.000 | 0.09 | 29.1 | OK |
| 4.004 | SW17 | 59 | 79.074 | -0.612 | 0.000 | 0.06 | 29.1 | OK |
| 1.010 | SW11 | 59 | 79.004 | -0.604 | 0.000 | 0.08 | 40.7 | OK |
| 1.011 | SW12 | 59 | 78.908 | -0.637 | 0.000 | 0.06 | 40.7 | OK |
| 1.012 | SW13 | 59 | 78.679 | -0.643 | 0.000 | 0.05 | 40.7 | OK |

Summary Wizard of 15 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

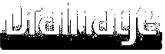
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 2 | 81.341 | 0.796 | 0.000 | 1.46 | 52.5 | SURCHARGED | |
| 1.001 | SW2 | 2 | 81.129 | 0.695 | 0.000 | 1.25 | 81.7 | SURCHARGED | |
| 1.002 | SW3 | 2 | 80.896 | 0.609 | 0.000 | 1.59 | 136.8 | SURCHARGED | |
| 1.003 | SW4 | 23 | 80.257 | 0.223 | 0.000 | 1.04 | 147.4 | SURCHARGED | |
| 2.000 | SW15 | 24 | 80.080 | 0.147 | 0.000 | 0.33 | 31.8 | SURCHARGED | |
| 1.004 | SW5 | 24 | 80.059 | 0.205 | 0.000 | 1.51 | 212.4 | SURCHARGED | |
| 1.005 | SW6 | 35 | 79.904 | 0.141 | 0.000 | 1.31 | 223.2 | SURCHARGED | |
| 3.000 | SW16 | 35 | 79.895 | -0.058 | 0.000 | 0.10 | 24.5 | OK | |
| 1.006 | SW7 | 35 | 79.895 | 0.176 | 0.000 | 1.74 | 246.7 | SURCHARGED | |
| 1.007 | SW8hwall | 35 | 79.892 | 0.198 | 0.000 | 1.87 | 245.9 | SURCHARGED | |
| 1.008 | SW9hwall | 35 | 79.890 | 0.216 | 0.000 | 0.80 | 237.0 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 35 | 79.889 | 0.237 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 1 | 79.595 | -0.366 | 0.000 | 0.38 | 129.9 | OK | |
| 4.001 | CUL2 | 1 | 79.474 | -0.376 | 0.000 | 0.27 | 119.2 | OK | |
| 4.002 | CUL3 | 1 | 79.319 | -0.340 | 0.000 | 0.39 | 129.9 | OK | |

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| Edge Consulting UK | | Page 59 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 15 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow Flow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|---------------------|-----------------|--------|
| 4.003 | CUL4 | 1 | 79.240 | -0.356 | 0.000 | 0.38 | | 125.9 | OK |
| 4.004 | SW17 | 1 | 79.206 | -0.480 | 0.000 | 0.24 | | 119.6 | OK |
| 1.010 | SW11 | 1 | 79.115 | -0.493 | 0.000 | 0.25 | | 118.0 | OK |
| 1.011 | SW12 | 1 | 78.999 | -0.546 | 0.000 | 0.16 | | 120.8 | OK |
| 1.012 | SW13 | 1 | 78.761 | -0.561 | 0.000 | 0.14 | | 117.1 | OK |

Summary Wizard of 30 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

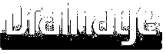
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | Flooded | | Pipe | | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Flow / Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 3 | 81.231 | 0.686 | 0.000 | 1.35 | 48.6 | SURCHARGED | |
| 1.001 | SW2 | 3 | 81.032 | 0.598 | 0.000 | 1.20 | 78.4 | SURCHARGED | |
| 1.002 | SW3 | 3 | 80.817 | 0.530 | 0.000 | 1.53 | 131.7 | SURCHARGED | |
| 1.003 | SW4 | 24 | 80.241 | 0.207 | 0.000 | 1.00 | 142.4 | SURCHARGED | |
| 2.000 | SW15 | 23 | 80.126 | 0.193 | 0.000 | 0.32 | 30.8 | SURCHARGED | |
| 1.004 | SW5 | 23 | 80.124 | 0.270 | 0.000 | 1.46 | 206.0 | SURCHARGED | |
| 1.005 | SW6 | 22 | 80.114 | 0.351 | 0.000 | 1.28 | 218.0 | SURCHARGED | |
| 3.000 | SW16 | 22 | 80.109 | 0.156 | 0.000 | 0.10 | 24.1 | SURCHARGED | |
| 1.006 | SW7 | 22 | 80.109 | 0.390 | 0.000 | 1.66 | 235.6 | SURCHARGED | |
| 1.007 | SW8hwall | 22 | 80.106 | 0.412 | 0.000 | 1.75 | 230.5 | SURCHARGED | |
| 1.008 | SW9hwall | 22 | 80.104 | 0.430 | 0.000 | 0.74 | 218.7 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 22 | 80.103 | 0.451 | 0.000 | 0.03 | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 3 | 79.559 | -0.402 | 0.000 | 0.31 | 103.4 | OK | |
| 4.001 | CUL2 | 3 | 79.440 | -0.410 | 0.000 | 0.24 | 103.7 | OK | |
| 4.002 | CUL3 | 3 | 79.282 | -0.377 | 0.000 | 0.31 | 102.2 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 61 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 30 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 3 | 79.214 | -0.382 | 0.000 | 0.31 | 103.2 | OK |
| 4.004 | SW17 | 3 | 79.185 | -0.501 | 0.000 | 0.21 | 100.9 | OK |
| 1.010 | SW11 | 3 | 79.099 | -0.509 | 0.000 | 0.23 | 109.0 | OK |
| 1.011 | SW12 | 3 | 78.986 | -0.559 | 0.000 | 0.15 | 107.4 | OK |
| 1.012 | SW13 | 3 | 78.754 | -0.568 | 0.000 | 0.13 | 108.4 | OK |

Summary Wizard of 60 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 5 | 80.830 | 0.285 | 0.000 | 1.08 | 38.9 | SURCHARGED |
| 1.001 | SW2 | 5 | 80.706 | 0.272 | 0.000 | 0.99 | 64.6 | SURCHARGED |
| 1.002 | SW3 | 12 | 80.570 | 0.283 | 0.000 | 1.26 | 108.5 | SURCHARGED |
| 1.003 | SW4 | 20 | 80.318 | 0.284 | 0.000 | 0.79 | 113.0 | SURCHARGED |
| 2.000 | SW15 | 19 | 80.312 | 0.379 | 0.000 | 0.25 | 23.8 | SURCHARGED |
| 1.004 | SW5 | 19 | 80.310 | 0.456 | 0.000 | 1.16 | 163.6 | SURCHARGED |
| 1.005 | SW6 | 19 | 80.303 | 0.540 | 0.000 | 1.02 | 174.5 | SURCHARGED |
| 3.000 | SW16 | 19 | 80.299 | 0.346 | 0.000 | 0.07 | 17.4 | SURCHARGED |
| 1.006 | SW7 | 19 | 80.299 | 0.580 | 0.000 | 1.34 | 190.1 | SURCHARGED |
| 1.007 | SW8hwall | 19 | 80.296 | 0.602 | 0.000 | 1.40 | 184.7 | SURCHARGED |
| 1.008 | SW9hwall | 19 | 80.295 | 0.621 | 0.000 | 0.61 | 180.5 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 19 | 80.294 | 0.642 | 0.000 | 0.03 | 11.6 | SURCHARGED |
| 4.000 | CUL1 | 6 | 79.533 | -0.428 | 0.000 | 0.24 | 80.5 | OK |
| 4.001 | CUL2 | 6 | 79.414 | -0.436 | 0.000 | 0.19 | 80.7 | OK |
| 4.002 | CUL3 | 6 | 79.252 | -0.407 | 0.000 | 0.24 | 80.3 | OK |

Summary Wizard of 60 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 6 | 79.183 | -0.413 | 0.000 | 0.24 | 80.4 | OK |
| 4.004 | SW17 | 6 | 79.159 | -0.527 | 0.000 | 0.16 | 79.7 | OK |
| 1.010 | SW11 | 5 | 79.076 | -0.532 | 0.000 | 0.19 | 89.6 | OK |
| 1.011 | SW12 | 5 | 78.968 | -0.577 | 0.000 | 0.12 | 89.1 | OK |
| 1.012 | SW13 | 5 | 78.737 | -0.585 | 0.000 | 0.11 | 89.5 | OK |

Summary Wizard of 120 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 22 | 80.478 | -0.067 | 0.000 | 0.82 | 29.7 | | OK |
| 1.001 | SW2 | 20 | 80.473 | 0.039 | 0.000 | 0.75 | 48.8 | SURCHARGED | |
| 1.002 | SW3 | 20 | 80.467 | 0.180 | 0.000 | 0.91 | 78.5 | SURCHARGED | |
| 1.003 | SW4 | 14 | 80.457 | 0.423 | 0.000 | 0.55 | 78.7 | SURCHARGED | |
| 2.000 | SW15 | 14 | 80.453 | 0.520 | 0.000 | 0.17 | 16.8 | SURCHARGED | |
| 1.004 | SW5 | 14 | 80.452 | 0.598 | 0.000 | 0.84 | 119.2 | SURCHARGED | |
| 1.005 | SW6 | 14 | 80.447 | 0.684 | 0.000 | 0.75 | 128.7 | SURCHARGED | |
| 3.000 | SW16 | 14 | 80.443 | 0.490 | 0.000 | 0.05 | 12.0 | SURCHARGED | |
| 1.006 | SW7 | 14 | 80.444 | 0.725 | 0.000 | 1.00 | 142.1 | SURCHARGED | |
| 1.007 | SW8hwall | 14 | 80.441 | 0.747 | 0.000 | 1.05 | 138.7 | SURCHARGED | |
| 1.008 | SW9hwall | 14 | 80.440 | 0.766 | 0.000 | 0.46 | 135.7 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 14 | 80.439 | 0.787 | 0.000 | 0.03 | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 10 | 79.507 | -0.454 | 0.000 | 0.18 | 61.7 | | OK |
| 4.001 | CUL2 | 10 | 79.391 | -0.459 | 0.000 | 0.14 | 61.8 | | OK |
| 4.002 | CUL3 | 10 | 79.224 | -0.435 | 0.000 | 0.19 | 61.5 | | OK |

Summary Wizard of 120 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 10 | 79.153 | -0.443 | 0.000 | 0.19 | 61.7 | OK |
| 4.004 | SW17 | 10 | 79.131 | -0.555 | 0.000 | 0.13 | 61.4 | OK |
| 1.010 | SW11 | 10 | 79.052 | -0.556 | 0.000 | 0.15 | 72.8 | OK |
| 1.011 | SW12 | 10 | 78.952 | -0.593 | 0.000 | 0.10 | 72.6 | OK |
| 1.012 | SW13 | 10 | 78.722 | -0.600 | 0.000 | 0.09 | 72.7 | OK |

Summary Wizard of 180 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 16 | 80.517 | -0.028 | 0.000 | 0.64 | 23.1 | | OK |
| 1.001 | SW2 | 16 | 80.513 | 0.079 | 0.000 | 0.60 | 38.8 | SURCHARGED | |
| 1.002 | SW3 | 15 | 80.509 | 0.222 | 0.000 | 0.74 | 63.4 | SURCHARGED | |
| 1.003 | SW4 | 10 | 80.502 | 0.468 | 0.000 | 0.45 | 64.5 | SURCHARGED | |
| 2.000 | SW15 | 10 | 80.499 | 0.566 | 0.000 | 0.14 | 13.2 | SURCHARGED | |
| 1.004 | SW5 | 10 | 80.498 | 0.644 | 0.000 | 0.68 | 95.9 | SURCHARGED | |
| 1.005 | SW6 | 11 | 80.493 | 0.730 | 0.000 | 0.61 | 103.9 | SURCHARGED | |
| 3.000 | SW16 | 11 | 80.491 | 0.538 | 0.000 | 0.04 | 9.5 | SURCHARGED | |
| 1.006 | SW7 | 11 | 80.491 | 0.772 | 0.000 | 0.81 | 114.8 | SURCHARGED | |
| 1.007 | SW8hwall | 11 | 80.489 | 0.795 | 0.000 | 0.85 | 112.2 | SURCHARGED | |
| 1.008 | SW9hwall | 11 | 80.488 | 0.814 | 0.000 | 0.37 | 109.5 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 11 | 80.487 | 0.835 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 14 | 79.495 | -0.466 | 0.000 | 0.16 | 52.8 | | OK |
| 4.001 | CUL2 | 14 | 79.379 | -0.471 | 0.000 | 0.12 | 52.8 | | OK |
| 4.002 | CUL3 | 13 | 79.209 | -0.450 | 0.000 | 0.16 | 52.8 | | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 67 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 180 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 13 | 79.139 | -0.457 | 0.000 | 0.16 | 52.8 | OK |
| 4.004 | SW17 | 13 | 79.117 | -0.569 | 0.000 | 0.11 | 52.7 | OK |
| 1.010 | SW11 | 13 | 79.039 | -0.569 | 0.000 | 0.13 | 64.3 | OK |
| 1.011 | SW12 | 13 | 78.943 | -0.602 | 0.000 | 0.09 | 64.2 | OK |
| 1.012 | SW13 | 13 | 78.711 | -0.611 | 0.000 | 0.08 | 64.2 | OK |



Summary Wizard of 240 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 14 | 80.521 | -0.024 | 0.000 | 0.53 | 19.0 | OK | |
| 1.001 | SW2 | 14 | 80.518 | 0.084 | 0.000 | 0.49 | 31.9 | SURCHARGED | |
| 1.002 | SW3 | 13 | 80.514 | 0.227 | 0.000 | 0.61 | 52.8 | SURCHARGED | |
| 1.003 | SW4 | 8 | 80.508 | 0.474 | 0.000 | 0.38 | 54.6 | SURCHARGED | |
| 2.000 | SW15 | 8 | 80.506 | 0.573 | 0.000 | 0.11 | 10.9 | SURCHARGED | |
| 1.004 | SW5 | 8 | 80.505 | 0.651 | 0.000 | 0.57 | 80.7 | SURCHARGED | |
| 1.005 | SW6 | 8 | 80.501 | 0.738 | 0.000 | 0.51 | 87.2 | SURCHARGED | |
| 3.000 | SW16 | 8 | 80.499 | 0.546 | 0.000 | 0.03 | 7.8 | SURCHARGED | |
| 1.006 | SW7 | 8 | 80.499 | 0.780 | 0.000 | 0.68 | 96.2 | SURCHARGED | |
| 1.007 | SW8hwall | 8 | 80.498 | 0.804 | 0.000 | 0.71 | 94.0 | SURCHARGED | |
| 1.008 | SW9hwall | 8 | 80.496 | 0.822 | 0.000 | 0.31 | 92.0 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 8 | 80.496 | 0.844 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 17 | 79.488 | -0.473 | 0.000 | 0.14 | 47.6 | OK | |
| 4.001 | CUL2 | 17 | 79.373 | -0.477 | 0.000 | 0.11 | 47.6 | OK | |
| 4.002 | CUL3 | 17 | 79.200 | -0.459 | 0.000 | 0.14 | 47.6 | OK | |

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Date 10/11/2020 09:36
 File 19310-MDX-CULVERT_200930...


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Summary Wizard of 240 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|-------------|-------------|----------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (1/s) | |
| 4.003 | CUL4 | 17 | 79.130 | -0.466 | 0.000 | 0.14 | 47.7 | OK |
| 4.004 | SW17 | 16 | 79.109 | -0.577 | 0.000 | 0.10 | 47.6 | OK |
| 1.010 | SW11 | 16 | 79.032 | -0.576 | 0.000 | 0.12 | 59.2 | OK |
| 1.011 | SW12 | 16 | 78.936 | -0.609 | 0.000 | 0.08 | 59.2 | OK |
| 1.012 | SW13 | 16 | 78.704 | -0.618 | 0.000 | 0.07 | 59.2 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 70 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 360 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|------------|-------------|--------|------------|--------------------------|-------------------|----------------|------------|--------|
| | | | (m) | (m) | Depth (m) | Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 18 | 80.513 | -0.032 | 0.000 | 0.40 | | 14.3 | | OK |
| 1.001 | SW2 | 17 | 80.510 | 0.076 | 0.000 | 0.37 | | 24.1 | SURCHARGED | |
| 1.002 | SW3 | 17 | 80.506 | 0.219 | 0.000 | 0.47 | | 40.5 | SURCHARGED | |
| 1.003 | SW4 | 11 | 80.500 | 0.466 | 0.000 | 0.29 | | 42.0 | SURCHARGED | |
| 2.000 | SW15 | 11 | 80.498 | 0.565 | 0.000 | 0.09 | | 8.3 | SURCHARGED | |
| 1.004 | SW5 | 11 | 80.497 | 0.643 | 0.000 | 0.44 | | 61.8 | SURCHARGED | |
| 1.005 | SW6 | 10 | 80.493 | 0.730 | 0.000 | 0.39 | | 66.9 | SURCHARGED | |
| 3.000 | SW16 | 10 | 80.491 | 0.538 | 0.000 | 0.03 | | 6.0 | SURCHARGED | |
| 1.006 | SW7 | 10 | 80.491 | 0.772 | 0.000 | 0.52 | | 73.9 | SURCHARGED | |
| 1.007 | SW8hwall | 10 | 80.490 | 0.796 | 0.000 | 0.55 | | 72.4 | SURCHARGED | |
| 1.008 | SW9hwall | 10 | 80.488 | 0.814 | 0.000 | 0.24 | | 70.8 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 10 | 80.488 | 0.836 | 0.000 | 0.03 | | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 22 | 79.480 | -0.481 | 0.000 | 0.12 | | 42.0 | | OK |
| 4.001 | CUL2 | 22 | 79.364 | -0.486 | 0.000 | 0.10 | | 42.0 | | OK |
| 4.002 | CUL3 | 22 | 79.190 | -0.469 | 0.000 | 0.13 | | 42.0 | | OK |

Summary Wizard of 360 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 22 | 79.121 | -0.475 | 0.000 | 0.13 | 42.0 | OK |
| 4.004 | SW17 | 21 | 79.099 | -0.587 | 0.000 | 0.09 | 42.0 | OK |
| 1.010 | SW11 | 19 | 79.024 | -0.584 | 0.000 | 0.11 | 53.6 | OK |
| 1.011 | SW12 | 19 | 78.927 | -0.618 | 0.000 | 0.07 | 53.6 | OK |
| 1.012 | SW13 | 19 | 78.697 | -0.625 | 0.000 | 0.07 | 53.6 | OK |

Summary Wizard of 480 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|-----------------------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 19 | 80.496 | -0.049 | 0.000 | 0.32 | 11.6 | OK |
| 1.001 | SW2 | 18 | 80.493 | 0.059 | 0.000 | 0.30 | 19.6 | SURCHARGED |
| 1.002 | SW3 | 18 | 80.489 | 0.202 | 0.000 | 0.38 | 33.0 | SURCHARGED |
| 1.003 | SW4 | 12 | 80.483 | 0.449 | 0.000 | 0.24 | 33.9 | SURCHARGED |
| 2.000 | SW15 | 12 | 80.481 | 0.548 | 0.000 | 0.07 | 6.8 | SURCHARGED |
| 1.004 | SW5 | 12 | 80.480 | 0.626 | 0.000 | 0.36 | 50.4 | SURCHARGED |
| 1.005 | SW6 | 12 | 80.476 | 0.713 | 0.000 | 0.32 | 54.5 | SURCHARGED |
| 3.000 | SW16 | 12 | 80.474 | 0.521 | 0.000 | 0.02 | 4.9 | SURCHARGED |
| 1.006 | SW7 | 12 | 80.474 | 0.755 | 0.000 | 0.42 | 60.2 | SURCHARGED |
| 1.007 | SW8hwall | 12 | 80.473 | 0.779 | 0.000 | 0.45 | 59.0 | SURCHARGED |
| 1.008 | SW9hwall | 12 | 80.471 | 0.797 | 0.000 | 0.20 | 57.9 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 12 | 80.471 | 0.819 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 27 | 79.473 | -0.488 | 0.000 | 0.11 | 38.8 | OK |
| 4.001 | CUL2 | 28 | 79.358 | -0.492 | 0.000 | 0.09 | 38.8 | OK |
| 4.002 | CUL3 | 27 | 79.185 | -0.474 | 0.000 | 0.12 | 38.8 | OK |

Summary Wizard of 480 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 28 | 79.115 | -0.481 | 0.000 | 0.12 | 38.8 | OK |
| 4.004 | SW17 | 26 | 79.094 | -0.592 | 0.000 | 0.08 | 38.8 | OK |
| 1.010 | SW11 | 23 | 79.019 | -0.589 | 0.000 | 0.11 | 50.5 | OK |
| 1.011 | SW12 | 23 | 78.922 | -0.623 | 0.000 | 0.07 | 50.5 | OK |
| 1.012 | SW13 | 23 | 78.692 | -0.630 | 0.000 | 0.06 | 50.5 | OK |

Summary Wizard of 600 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

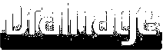
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 23 | 80.477 | -0.068 | 0.000 | 0.27 | 9.9 | OK |
| 1.001 | SW2 | 19 | 80.473 | 0.039 | 0.000 | 0.26 | 16.6 | SURCHARGED |
| 1.002 | SW3 | 19 | 80.470 | 0.183 | 0.000 | 0.33 | 28.0 | SURCHARGED |
| 1.003 | SW4 | 13 | 80.464 | 0.430 | 0.000 | 0.20 | 28.9 | SURCHARGED |
| 2.000 | SW15 | 13 | 80.461 | 0.528 | 0.000 | 0.06 | 5.8 | SURCHARGED |
| 1.004 | SW5 | 13 | 80.460 | 0.606 | 0.000 | 0.30 | 42.8 | SURCHARGED |
| 1.005 | SW6 | 13 | 80.457 | 0.694 | 0.000 | 0.27 | 46.3 | SURCHARGED |
| 3.000 | SW16 | 13 | 80.455 | 0.502 | 0.000 | 0.02 | 4.2 | SURCHARGED |
| 1.006 | SW7 | 13 | 80.455 | 0.736 | 0.000 | 0.36 | 51.3 | SURCHARGED |
| 1.007 | SW8hwall | 13 | 80.453 | 0.759 | 0.000 | 0.38 | 50.3 | SURCHARGED |
| 1.008 | SW9hwall | 13 | 80.452 | 0.778 | 0.000 | 0.17 | 49.4 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 13 | 80.451 | 0.799 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 32 | 79.469 | -0.492 | 0.000 | 0.11 | 36.8 | OK |
| 4.001 | CUL2 | 32 | 79.355 | -0.495 | 0.000 | 0.08 | 36.8 | OK |
| 4.002 | CUL3 | 32 | 79.181 | -0.478 | 0.000 | 0.11 | 36.8 | OK |

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| Edge Consulting UK | | Page 75 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 600 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 32 | 79.111 | -0.485 | 0.000 | 0.11 | 36.8 | OK |
| 4.004 | SW17 | 32 | 79.091 | -0.595 | 0.000 | 0.07 | 36.8 | OK |
| 1.010 | SW11 | 28 | 79.017 | -0.591 | 0.000 | 0.10 | 48.5 | OK |
| 1.011 | SW12 | 27 | 78.919 | -0.626 | 0.000 | 0.07 | 48.5 | OK |
| 1.012 | SW13 | 27 | 78.690 | -0.632 | 0.000 | 0.06 | 48.5 | OK |

Summary Wizard of 720 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 26 | 80.455 | -0.090 | 0.000 | 0.24 | 8.6 | | OK |
| 1.001 | SW2 | 21 | 80.452 | 0.018 | 0.000 | 0.22 | 14.5 | SURCHARGED | |
| 1.002 | SW3 | 21 | 80.448 | 0.161 | 0.000 | 0.28 | 24.5 | SURCHARGED | |
| 1.003 | SW4 | 15 | 80.442 | 0.408 | 0.000 | 0.18 | 25.7 | SURCHARGED | |
| 2.000 | SW15 | 15 | 80.440 | 0.507 | 0.000 | 0.05 | 5.0 | SURCHARGED | |
| 1.004 | SW5 | 15 | 80.439 | 0.585 | 0.000 | 0.27 | 37.4 | SURCHARGED | |
| 1.005 | SW6 | 15 | 80.436 | 0.673 | 0.000 | 0.24 | 40.5 | SURCHARGED | |
| 3.000 | SW16 | 15 | 80.434 | 0.481 | 0.000 | 0.02 | 3.7 | SURCHARGED | |
| 1.006 | SW7 | 15 | 80.434 | 0.715 | 0.000 | 0.32 | 44.8 | SURCHARGED | |
| 1.007 | SW8hwall | 15 | 80.432 | 0.738 | 0.000 | 0.33 | 43.9 | SURCHARGED | |
| 1.008 | SW9hwall | 15 | 80.431 | 0.757 | 0.000 | 0.15 | 43.1 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 15 | 80.430 | 0.778 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 33 | 79.467 | -0.494 | 0.000 | 0.10 | 35.4 | | OK |
| 4.001 | CUL2 | 33 | 79.352 | -0.498 | 0.000 | 0.08 | 35.4 | | OK |
| 4.002 | CUL3 | 33 | 79.179 | -0.480 | 0.000 | 0.11 | 35.4 | | OK |

Summary Wizard of 720 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 33 | 79.107 | -0.489 | 0.000 | 0.11 | 35.4 | OK |
| 4.004 | SW17 | 33 | 79.088 | -0.598 | 0.000 | 0.07 | 35.4 | OK |
| 1.010 | SW11 | 32 | 79.014 | -0.594 | 0.000 | 0.10 | 47.0 | OK |
| 1.011 | SW12 | 31 | 78.917 | -0.628 | 0.000 | 0.06 | 47.0 | OK |
| 1.012 | SW13 | 29 | 78.688 | -0.634 | 0.000 | 0.06 | 47.0 | OK |

Summary Wizard of 960 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

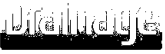
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|---------------|------------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 35 | 80.408 | -0.137 | 0.000 | 0.19 | 7.0 | | OK |
| 1.001 | SW2 | 23 | 80.404 | -0.030 | 0.000 | 0.18 | 11.7 | | OK |
| 1.002 | SW3 | 22 | 80.401 | 0.114 | 0.000 | 0.23 | 19.8 | | SURCHARGED |
| 1.003 | SW4 | 17 | 80.395 | 0.361 | 0.000 | 0.15 | 21.2 | | SURCHARGED |
| 2.000 | SW15 | 17 | 80.392 | 0.459 | 0.000 | 0.04 | 4.2 | | SURCHARGED |
| 1.004 | SW5 | 17 | 80.392 | 0.538 | 0.000 | 0.22 | 30.5 | | SURCHARGED |
| 1.005 | SW6 | 17 | 80.388 | 0.625 | 0.000 | 0.19 | 33.0 | | SURCHARGED |
| 3.000 | SW16 | 17 | 80.386 | 0.433 | 0.000 | 0.01 | 3.0 | | SURCHARGED |
| 1.006 | SW7 | 17 | 80.386 | 0.667 | 0.000 | 0.26 | 36.6 | | SURCHARGED |
| 1.007 | SW8hwall | 17 | 80.385 | 0.691 | 0.000 | 0.27 | 35.9 | | SURCHARGED |
| 1.008 | SW9hwall | 17 | 80.383 | 0.709 | 0.000 | 0.12 | 35.2 | | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 17 | 80.383 | 0.731 | 0.000 | 0.03 | 11.7 | | SURCHARGED |
| 4.000 | CUL1 | 40 | 79.463 | -0.498 | 0.000 | 0.10 | 33.5 | | OK |
| 4.001 | CUL2 | 40 | 79.348 | -0.502 | 0.000 | 0.08 | 33.5 | | OK |
| 4.002 | CUL3 | 40 | 79.174 | -0.485 | 0.000 | 0.10 | 33.5 | | OK |

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|---|---|---|
| Edge Consulting UK | | Page 79 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by [REDACTED] | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 960 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 40 | 79.103 | -0.493 | 0.000 | 0.10 | 33.5 | OK |
| 4.004 | SW17 | 40 | 79.085 | -0.601 | 0.000 | 0.07 | 33.5 | OK |
| 1.010 | SW11 | 38 | 79.012 | -0.596 | 0.000 | 0.09 | 45.1 | OK |
| 1.011 | SW12 | 38 | 78.914 | -0.631 | 0.000 | 0.06 | 45.1 | OK |
| 1.012 | SW13 | 38 | 78.685 | -0.637 | 0.000 | 0.06 | 45.1 | OK |

Summary Wizard of 1440 minute 100 year Summer I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 49 | 80.376 | -0.169 | 0.000 | 0.14 | 5.1 | | OK |
| 1.001 | SW2 | 29 | 80.297 | -0.137 | 0.000 | 0.13 | 8.7 | | OK |
| 1.002 | SW3 | 26 | 80.293 | 0.006 | 0.000 | 0.17 | 14.6 | SURCHARGED | |
| 1.003 | SW4 | 22 | 80.287 | 0.253 | 0.000 | 0.11 | 16.1 | SURCHARGED | |
| 2.000 | SW15 | 20 | 80.285 | 0.352 | 0.000 | 0.03 | 3.2 | SURCHARGED | |
| 1.004 | SW5 | 20 | 80.284 | 0.430 | 0.000 | 0.16 | 23.3 | SURCHARGED | |
| 1.005 | SW6 | 20 | 80.281 | 0.518 | 0.000 | 0.14 | 24.5 | SURCHARGED | |
| 3.000 | SW16 | 20 | 80.279 | 0.326 | 0.000 | 0.01 | 2.3 | SURCHARGED | |
| 1.006 | SW7 | 20 | 80.279 | 0.560 | 0.000 | 0.19 | 26.9 | SURCHARGED | |
| 1.007 | SW8hwall | 20 | 80.278 | 0.584 | 0.000 | 0.20 | 26.5 | SURCHARGED | |
| 1.008 | SW9hwall | 20 | 80.276 | 0.602 | 0.000 | 0.09 | 26.0 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 20 | 80.276 | 0.624 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 48 | 79.459 | -0.502 | 0.000 | 0.09 | 31.4 | | OK |
| 4.001 | CUL2 | 48 | 79.344 | -0.506 | 0.000 | 0.07 | 31.4 | | OK |
| 4.002 | CUL3 | 48 | 79.169 | -0.490 | 0.000 | 0.10 | 31.4 | | OK |

Summary Wizard of 1440 minute 100 year Summer I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 48 | 79.098 | -0.498 | 0.000 | 0.09 | 31.4 | OK |
| 4.004 | SW17 | 48 | 79.080 | -0.606 | 0.000 | 0.06 | 31.4 | OK |
| 1.010 | SW11 | 47 | 79.009 | -0.599 | 0.000 | 0.09 | 43.0 | OK |
| 1.011 | SW12 | 47 | 78.911 | -0.634 | 0.000 | 0.06 | 43.0 | OK |
| 1.012 | SW13 | 47 | 78.682 | -0.640 | 0.000 | 0.05 | 43.0 | OK |

Summary Wizard of 15 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 29 | 80.420 | -0.125 | 0.000 | 0.40 | 14.3 | OK | |
| 1.001 | SW2 | 32 | 80.257 | -0.177 | 0.000 | 0.34 | 22.4 | OK | |
| 1.002 | SW3 | 34 | 80.123 | -0.164 | 0.000 | 0.41 | 35.7 | OK | |
| 1.003 | SW4 | 45 | 79.793 | -0.241 | 0.000 | 0.28 | 39.4 | OK | |
| 2.000 | SW15 | 47 | 79.646 | -0.287 | 0.000 | 0.09 | 9.0 | OK | |
| 1.004 | SW5 | 48 | 79.605 | -0.249 | 0.000 | 0.40 | 56.8 | OK | |
| 1.005 | SW6 | 50 | 79.487 | -0.276 | 0.000 | 0.35 | 59.0 | OK | |
| 3.000 | SW16 | 48 | 79.555 | -0.398 | 0.000 | 0.03 | 7.3 | OK | |
| 1.006 | SW7 | 53 | 79.453 | -0.266 | 0.000 | 0.45 | 64.1 | OK | |
| 1.007 | SW8hwall | 56 | 79.427 | -0.267 | 0.000 | 0.48 | 63.8 | OK | |
| 1.008 | SW9hwall | 64 | 79.347 | -0.327 | 0.000 | 0.21 | 60.9 | OK | |
| 1.009 | S10 HYDROBRAKE | 64 | 79.346 | -0.306 | 0.000 | 0.03 | 11.2 | OK | |
| 4.000 | CUL1 | 18 | 79.487 | -0.474 | 0.000 | 0.14 | 46.3 | OK | |
| 4.001 | CUL2 | 18 | 79.372 | -0.478 | 0.000 | 0.11 | 45.9 | OK | |
| 4.002 | CUL3 | 19 | 79.198 | -0.461 | 0.000 | 0.14 | 46.5 | OK | |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 83 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 | Designed by [REDACTED] | |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 15 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 19 | 79.128 | -0.468 | 0.000 | 0.14 | 46.1 | OK |
| 4.004 | SW17 | 20 | 79.100 | -0.586 | 0.000 | 0.09 | 45.7 | OK |
| 1.010 | SW11 | 31 | 79.014 | -0.594 | 0.000 | 0.10 | 46.8 | OK |
| 1.011 | SW12 | 34 | 78.917 | -0.628 | 0.000 | 0.06 | 46.4 | OK |
| 1.012 | SW13 | 33 | 78.687 | -0.635 | 0.000 | 0.06 | 46.5 | OK |

Summary Wizard of 30 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 34 | 80.408 | -0.137 | 0.000 | 0.33 | 11.8 | OK | |
| 1.001 | SW2 | 37 | 80.245 | -0.189 | 0.000 | 0.29 | 19.1 | OK | |
| 1.002 | SW3 | 38 | 80.112 | -0.175 | 0.000 | 0.36 | 31.3 | OK | |
| 1.003 | SW4 | 48 | 79.784 | -0.250 | 0.000 | 0.24 | 34.7 | OK | |
| 2.000 | SW15 | 51 | 79.637 | -0.296 | 0.000 | 0.08 | 7.5 | OK | |
| 1.004 | SW5 | 51 | 79.592 | -0.262 | 0.000 | 0.36 | 51.1 | OK | |
| 1.005 | SW6 | 53 | 79.476 | -0.287 | 0.000 | 0.32 | 54.1 | OK | |
| 3.000 | SW16 | 52 | 79.551 | -0.402 | 0.000 | 0.03 | 6.0 | OK | |
| 1.006 | SW7 | 58 | 79.443 | -0.276 | 0.000 | 0.42 | 59.6 | OK | |
| 1.007 | SW8hwall | 61 | 79.416 | -0.278 | 0.000 | 0.45 | 59.7 | OK | |
| 1.008 | SW9hwall | 59 | 79.415 | -0.259 | 0.000 | 0.19 | 56.7 | OK | |
| 1.009 | S10 HYDROBRAKE | 59 | 79.414 | -0.238 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 26 | 79.476 | -0.485 | 0.000 | 0.12 | 40.1 | OK | |
| 4.001 | CUL2 | 26 | 79.360 | -0.490 | 0.000 | 0.09 | 40.1 | OK | |
| 4.002 | CUL3 | 26 | 79.187 | -0.472 | 0.000 | 0.12 | 40.0 | OK | |

Summary Wizard of 30 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 26 | 79.118 | -0.478 | 0.000 | 0.12 | 40.1 | OK |
| 4.004 | SW17 | 28 | 79.093 | -0.593 | 0.000 | 0.08 | 39.8 | OK |
| 1.010 | SW11 | 34 | 79.014 | -0.594 | 0.000 | 0.10 | 46.7 | OK |
| 1.011 | SW12 | 33 | 78.917 | -0.628 | 0.000 | 0.06 | 46.7 | OK |
| 1.012 | SW13 | 34 | 78.687 | -0.635 | 0.000 | 0.06 | 46.7 | OK |

Summary Wizard of 60 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 40 | 80.393 | -0.152 | 0.000 | 0.23 | 8.4 | OK | |
| 1.001 | SW2 | 42 | 80.228 | -0.206 | 0.000 | 0.21 | 13.9 | OK | |
| 1.002 | SW3 | 42 | 80.093 | -0.194 | 0.000 | 0.27 | 23.2 | OK | |
| 1.003 | SW4 | 51 | 79.766 | -0.268 | 0.000 | 0.18 | 25.8 | OK | |
| 2.000 | SW15 | 53 | 79.620 | -0.313 | 0.000 | 0.06 | 5.4 | OK | |
| 1.004 | SW5 | 53 | 79.563 | -0.291 | 0.000 | 0.27 | 38.4 | OK | |
| 1.005 | SW6 | 56 | 79.466 | -0.297 | 0.000 | 0.24 | 41.5 | OK | |
| 3.000 | SW16 | 54 | 79.542 | -0.411 | 0.000 | 0.02 | 4.3 | OK | |
| 1.006 | SW7 | 52 | 79.464 | -0.255 | 0.000 | 0.33 | 46.6 | OK | |
| 1.007 | SW8hwall | 52 | 79.462 | -0.232 | 0.000 | 0.35 | 46.6 | OK | |
| 1.008 | SW9hwall | 52 | 79.461 | -0.213 | 0.000 | 0.15 | 44.2 | OK | |
| 1.009 | S10 HYDROBRAKE | 52 | 79.460 | -0.192 | 0.000 | 0.03 | 11.6 | OK | |
| 4.000 | CUL1 | 34 | 79.467 | -0.494 | 0.000 | 0.10 | 35.3 | OK | |
| 4.001 | CUL2 | 34 | 79.352 | -0.498 | 0.000 | 0.08 | 35.3 | OK | |
| 4.002 | CUL3 | 34 | 79.179 | -0.480 | 0.000 | 0.11 | 35.3 | OK | |

Summary Wizard of 60 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 34 | 79.107 | -0.489 | 0.000 | 0.11 | | 35.3 | OK |
| 4.004 | SW17 | 37 | 79.087 | -0.599 | 0.000 | 0.07 | | 35.3 | OK |
| 1.010 | SW11 | 37 | 79.012 | -0.596 | 0.000 | 0.09 | | 45.4 | OK |
| 1.011 | SW12 | 37 | 78.915 | -0.630 | 0.000 | 0.06 | | 45.4 | OK |
| 1.012 | SW13 | 37 | 78.685 | -0.637 | 0.000 | 0.06 | | 45.4 | OK |

Summary Wizard of 120 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 47 | 80.379 | -0.166 | 0.000 | 0.16 | 5.6 | OK | |
| 1.001 | SW2 | 49 | 80.210 | -0.224 | 0.000 | 0.14 | 9.4 | OK | |
| 1.002 | SW3 | 49 | 80.073 | -0.214 | 0.000 | 0.18 | 15.8 | OK | |
| 1.003 | SW4 | 55 | 79.746 | -0.288 | 0.000 | 0.12 | 17.6 | OK | |
| 2.000 | SW15 | 56 | 79.606 | -0.327 | 0.000 | 0.04 | 3.6 | OK | |
| 1.004 | SW5 | 57 | 79.535 | -0.319 | 0.000 | 0.19 | 26.3 | OK | |
| 1.005 | SW6 | 49 | 79.488 | -0.275 | 0.000 | 0.17 | 28.3 | OK | |
| 3.000 | SW16 | 57 | 79.529 | -0.424 | 0.000 | 0.01 | 2.9 | OK | |
| 1.006 | SW7 | 49 | 79.486 | -0.233 | 0.000 | 0.22 | 31.6 | OK | |
| 1.007 | SW8hwall | 49 | 79.484 | -0.210 | 0.000 | 0.24 | 31.1 | OK | |
| 1.008 | SW9hwall | 49 | 79.482 | -0.192 | 0.000 | 0.10 | 29.8 | OK | |
| 1.009 | S10 HYDROBRAKE | 49 | 79.482 | -0.170 | 0.000 | 0.03 | 11.6 | OK | |
| 4.000 | CUL1 | 46 | 79.460 | -0.501 | 0.000 | 0.09 | 32.0 | OK | |
| 4.001 | CUL2 | 46 | 79.345 | -0.505 | 0.000 | 0.07 | 32.0 | OK | |
| 4.002 | CUL3 | 46 | 79.171 | -0.488 | 0.000 | 0.10 | 31.9 | OK | |

Summary Wizard of 120 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 46 | 79.099 | -0.497 | 0.000 | 0.10 | 32.0 | OK |
| 4.004 | SW17 | 46 | 79.081 | -0.605 | 0.000 | 0.07 | 31.9 | OK |
| 1.010 | SW11 | 50 | 79.008 | -0.600 | 0.000 | 0.09 | 42.8 | OK |
| 1.011 | SW12 | 50 | 78.911 | -0.634 | 0.000 | 0.06 | 42.8 | OK |
| 1.012 | SW13 | 50 | 78.682 | -0.640 | 0.000 | 0.05 | 42.8 | OK |

Summary Wizard of 180 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

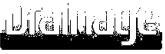
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 52 | 80.372 | -0.173 | 0.000 | 0.12 | 4.4 | OK | |
| 1.001 | SW2 | 53 | 80.201 | -0.233 | 0.000 | 0.11 | 7.4 | OK | |
| 1.002 | SW3 | 53 | 80.062 | -0.225 | 0.000 | 0.14 | 12.4 | OK | |
| 1.003 | SW4 | 57 | 79.737 | -0.297 | 0.000 | 0.10 | 13.9 | OK | |
| 2.000 | SW15 | 58 | 79.600 | -0.333 | 0.000 | 0.03 | 2.8 | OK | |
| 1.004 | SW5 | 59 | 79.518 | -0.336 | 0.000 | 0.15 | 20.7 | OK | |
| 1.005 | SW6 | 51 | 79.483 | -0.280 | 0.000 | 0.13 | 22.1 | OK | |
| 3.000 | SW16 | 59 | 79.523 | -0.430 | 0.000 | 0.01 | 2.3 | OK | |
| 1.006 | SW7 | 50 | 79.480 | -0.239 | 0.000 | 0.17 | 24.2 | OK | |
| 1.007 | SW8hwall | 50 | 79.479 | -0.215 | 0.000 | 0.18 | 23.5 | OK | |
| 1.008 | SW9hwall | 50 | 79.477 | -0.197 | 0.000 | 0.08 | 22.6 | OK | |
| 1.009 | S10 HYDROBRAKE | 50 | 79.477 | -0.175 | 0.000 | 0.03 | 11.6 | OK | |
| 4.000 | CUL1 | 52 | 79.457 | -0.504 | 0.000 | 0.09 | 30.5 | OK | |
| 4.001 | CUL2 | 52 | 79.343 | -0.507 | 0.000 | 0.07 | 30.5 | OK | |
| 4.002 | CUL3 | 52 | 79.167 | -0.492 | 0.000 | 0.09 | 30.5 | OK | |

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| Edge Consulting UK | | Page 91 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 180 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 52 | 79.096 | -0.500 | 0.000 | 0.09 | 30.5 | OK |
| 4.004 | SW17 | 54 | 79.077 | -0.609 | 0.000 | 0.06 | 30.5 | OK |
| 1.010 | SW11 | 54 | 79.006 | -0.602 | 0.000 | 0.09 | 41.5 | OK |
| 1.011 | SW12 | 54 | 78.909 | -0.636 | 0.000 | 0.06 | 41.5 | OK |
| 1.012 | SW13 | 54 | 78.680 | -0.642 | 0.000 | 0.05 | 41.5 | OK |

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| Edge Consulting UK | | Page 92 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 240 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

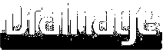
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 58 | 80.368 | -0.177 | 0.000 | 0.10 | 3.7 | OK | |
| 1.001 | SW2 | 58 | 80.196 | -0.238 | 0.000 | 0.10 | 6.2 | OK | |
| 1.002 | SW3 | 58 | 80.056 | -0.231 | 0.000 | 0.12 | 10.5 | OK | |
| 1.003 | SW4 | 59 | 79.730 | -0.304 | 0.000 | 0.08 | 11.6 | OK | |
| 2.000 | SW15 | 60 | 79.597 | -0.336 | 0.000 | 0.02 | 2.4 | OK | |
| 1.004 | SW5 | 61 | 79.508 | -0.346 | 0.000 | 0.12 | 17.4 | OK | |
| 1.005 | SW6 | 55 | 79.467 | -0.296 | 0.000 | 0.11 | 18.6 | OK | |
| 3.000 | SW16 | 61 | 79.520 | -0.433 | 0.000 | 0.01 | 1.9 | OK | |
| 1.006 | SW7 | 51 | 79.465 | -0.254 | 0.000 | 0.14 | 20.4 | OK | |
| 1.007 | SW8hwall | 51 | 79.463 | -0.231 | 0.000 | 0.15 | 19.8 | OK | |
| 1.008 | SW9hwall | 51 | 79.462 | -0.212 | 0.000 | 0.06 | 19.1 | OK | |
| 1.009 | S10 HYDROBRAKE | 51 | 79.461 | -0.191 | 0.000 | 0.03 | 11.6 | OK | |
| 4.000 | CUL1 | 58 | 79.455 | -0.506 | 0.000 | 0.09 | 29.7 | OK | |
| 4.001 | CUL2 | 64 | 79.341 | -0.509 | 0.000 | 0.07 | 29.7 | OK | |
| 4.002 | CUL3 | 58 | 79.165 | -0.494 | 0.000 | 0.09 | 29.7 | OK | |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 93 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 240 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 58 | 79.094 | -0.502 | 0.000 | 0.09 | 29.7 | OK |
| 4.004 | SW17 | 58 | 79.075 | -0.611 | 0.000 | 0.06 | 29.7 | OK |
| 1.010 | SW11 | 58 | 79.004 | -0.604 | 0.000 | 0.08 | 40.7 | OK |
| 1.011 | SW12 | 58 | 78.908 | -0.637 | 0.000 | 0.06 | 40.7 | OK |
| 1.012 | SW13 | 58 | 78.679 | -0.643 | 0.000 | 0.05 | 40.7 | OK |

Summary Wizard of 360 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 62 | 80.362 | -0.183 | 0.000 | 0.08 | 2.8 | OK | |
| 1.001 | SW2 | 62 | 80.187 | -0.247 | 0.000 | 0.07 | 4.8 | OK | |
| 1.002 | SW3 | 62 | 80.048 | -0.239 | 0.000 | 0.09 | 8.1 | OK | |
| 1.003 | SW4 | 62 | 79.720 | -0.314 | 0.000 | 0.06 | 9.0 | OK | |
| 2.000 | SW15 | 62 | 79.592 | -0.341 | 0.000 | 0.02 | 1.8 | OK | |
| 1.004 | SW5 | 63 | 79.497 | -0.357 | 0.000 | 0.10 | 13.4 | OK | |
| 1.005 | SW6 | 62 | 79.421 | -0.342 | 0.000 | 0.08 | 14.5 | OK | |
| 3.000 | SW16 | 63 | 79.516 | -0.437 | 0.000 | 0.01 | 1.5 | OK | |
| 1.006 | SW7 | 62 | 79.418 | -0.301 | 0.000 | 0.11 | 16.0 | OK | |
| 1.007 | SW8hwall | 60 | 79.417 | -0.277 | 0.000 | 0.12 | 15.6 | OK | |
| 1.008 | SW9hwall | 58 | 79.415 | -0.259 | 0.000 | 0.05 | 15.2 | OK | |
| 1.009 | S10 HYDROBRAKE | 58 | 79.415 | -0.237 | 0.000 | 0.03 | 11.5 | OK | |
| 4.000 | CUL1 | 62 | 79.453 | -0.508 | 0.000 | 0.08 | 28.7 | OK | |
| 4.001 | CUL2 | 66 | 79.341 | -0.509 | 0.000 | 0.07 | 28.7 | OK | |
| 4.002 | CUL3 | 62 | 79.163 | -0.496 | 0.000 | 0.09 | 28.7 | OK | |

Summary Wizard of 360 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 66 | 79.092 | -0.504 | 0.000 | 0.09 | 28.7 | OK |
| 4.004 | SW17 | 62 | 79.072 | -0.614 | 0.000 | 0.06 | 28.7 | OK |
| 1.010 | SW11 | 62 | 79.001 | -0.607 | 0.000 | 0.08 | 39.7 | OK |
| 1.011 | SW12 | 62 | 78.906 | -0.639 | 0.000 | 0.05 | 39.7 | OK |
| 1.012 | SW13 | 62 | 78.678 | -0.644 | 0.000 | 0.05 | 39.7 | OK |

Summary Wizard of 480 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

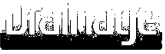
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 65 | 80.357 | -0.188 | 0.000 | 0.07 | 2.4 | OK | |
| 1.001 | SW2 | 65 | 80.182 | -0.252 | 0.000 | 0.06 | 4.0 | OK | |
| 1.002 | SW3 | 65 | 80.042 | -0.245 | 0.000 | 0.08 | 6.7 | OK | |
| 1.003 | SW4 | 65 | 79.714 | -0.320 | 0.000 | 0.05 | 7.5 | OK | |
| 2.000 | SW15 | 66 | 79.586 | -0.347 | 0.000 | 0.02 | 1.5 | OK | |
| 1.004 | SW5 | 66 | 79.488 | -0.366 | 0.000 | 0.08 | 11.2 | OK | |
| 1.005 | SW6 | 64 | 79.376 | -0.387 | 0.000 | 0.07 | 12.2 | OK | |
| 3.000 | SW16 | 66 | 79.514 | -0.439 | 0.000 | 0.01 | 1.2 | OK | |
| 1.006 | SW7 | 64 | 79.370 | -0.349 | 0.000 | 0.10 | 13.5 | OK | |
| 1.007 | SW8hwall | 64 | 79.368 | -0.326 | 0.000 | 0.10 | 13.3 | OK | |
| 1.008 | SW9hwall | 62 | 79.367 | -0.307 | 0.000 | 0.04 | 13.0 | OK | |
| 1.009 | S10 HYDROBRAKE | 62 | 79.366 | -0.286 | 0.000 | 0.03 | 11.3 | OK | |
| 4.000 | CUL1 | 65 | 79.452 | -0.509 | 0.000 | 0.08 | 28.1 | OK | |
| 4.001 | CUL2 | 67 | 79.341 | -0.509 | 0.000 | 0.06 | 28.1 | OK | |
| 4.002 | CUL3 | 65 | 79.162 | -0.497 | 0.000 | 0.09 | 28.1 | OK | |

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| Edge Consulting UK | | Page 97 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 480 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-------------|----------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (1/s) | |
| 4.003 | CUL4 | 67 | 79.092 | -0.504 | 0.000 | 0.08 | 28.1 | OK |
| 4.004 | SW17 | 66 | 79.070 | -0.616 | 0.000 | 0.06 | 28.1 | OK |
| 1.010 | SW11 | 65 | 79.000 | -0.608 | 0.000 | 0.08 | 39.0 | OK |
| 1.011 | SW12 | 65 | 78.905 | -0.640 | 0.000 | 0.05 | 39.0 | OK |
| 1.012 | SW13 | 65 | 78.677 | -0.645 | 0.000 | 0.05 | 39.0 | OK |

Summary Wizard of 600 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

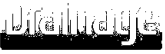
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 68 | 80.354 | -0.191 | 0.000 | 0.06 | 2.0 | OK | |
| 1.001 | SW2 | 68 | 80.178 | -0.256 | 0.000 | 0.05 | 3.4 | OK | |
| 1.002 | SW3 | 68 | 80.038 | -0.249 | 0.000 | 0.07 | 5.8 | OK | |
| 1.003 | SW4 | 68 | 79.710 | -0.324 | 0.000 | 0.05 | 6.5 | OK | |
| 2.000 | SW15 | 68 | 79.582 | -0.351 | 0.000 | 0.01 | 1.3 | OK | |
| 1.004 | SW5 | 68 | 79.481 | -0.373 | 0.000 | 0.07 | 9.7 | OK | |
| 1.005 | SW6 | 67 | 79.346 | -0.417 | 0.000 | 0.06 | 10.6 | OK | |
| 3.000 | SW16 | 68 | 79.512 | -0.441 | 0.000 | 0.00 | 1.0 | OK | |
| 1.006 | SW7 | 67 | 79.329 | -0.390 | 0.000 | 0.08 | 11.9 | OK | |
| 1.007 | SW8hwall | 67 | 79.323 | -0.371 | 0.000 | 0.09 | 11.9 | OK | |
| 1.008 | SW9hwall | 66 | 79.320 | -0.354 | 0.000 | 0.04 | 11.7 | OK | |
| 1.009 | S10 HYDROBRAKE | 66 | 79.319 | -0.333 | 0.000 | 0.03 | 11.1 | OK | |
| 4.000 | CUL1 | 68 | 79.451 | -0.510 | 0.000 | 0.08 | 27.8 | OK | |
| 4.001 | CUL2 | 69 | 79.341 | -0.509 | 0.000 | 0.06 | 27.8 | OK | |
| 4.002 | CUL3 | 68 | 79.161 | -0.498 | 0.000 | 0.08 | 27.8 | OK | |

Summary Wizard of 600 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 69 | 79.092 | -0.504 | 0.000 | 0.08 | 27.8 | OK |
| 4.004 | SW17 | 67 | 79.069 | -0.617 | 0.000 | 0.06 | 27.8 | OK |
| 1.010 | SW11 | 67 | 78.999 | -0.609 | 0.000 | 0.08 | 38.5 | OK |
| 1.011 | SW12 | 67 | 78.904 | -0.641 | 0.000 | 0.05 | 38.5 | OK |
| 1.012 | SW13 | 67 | 78.676 | -0.646 | 0.000 | 0.05 | 38.5 | OK |

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| Edge Consulting UK | | Page 100 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 720 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

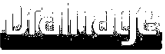
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 69 | 80.352 | -0.193 | 0.000 | 0.05 | 1.8 | OK | |
| 1.001 | SW2 | 69 | 80.176 | -0.258 | 0.000 | 0.05 | 3.1 | OK | |
| 1.002 | SW3 | 69 | 80.034 | -0.253 | 0.000 | 0.06 | 5.2 | OK | |
| 1.003 | SW4 | 69 | 79.707 | -0.327 | 0.000 | 0.04 | 5.8 | OK | |
| 2.000 | SW15 | 69 | 79.580 | -0.353 | 0.000 | 0.01 | 1.2 | OK | |
| 1.004 | SW5 | 69 | 79.476 | -0.378 | 0.000 | 0.06 | 8.6 | OK | |
| 1.005 | SW6 | 69 | 79.331 | -0.432 | 0.000 | 0.06 | 9.4 | OK | |
| 3.000 | SW16 | 69 | 79.511 | -0.442 | 0.000 | 0.00 | 0.9 | OK | |
| 1.006 | SW7 | 69 | 79.302 | -0.417 | 0.000 | 0.08 | 10.7 | OK | |
| 1.007 | SW8hwall | 69 | 79.287 | -0.407 | 0.000 | 0.08 | 10.7 | OK | |
| 1.008 | SW9hwall | 69 | 79.279 | -0.395 | 0.000 | 0.04 | 10.6 | OK | |
| 1.009 | S10 HYDROBRAKE | 69 | 79.278 | -0.374 | 0.000 | 0.03 | 10.7 | OK | |
| 4.000 | CUL1 | 69 | 79.451 | -0.510 | 0.000 | 0.08 | 27.5 | OK | |
| 4.001 | CUL2 | 70 | 79.341 | -0.509 | 0.000 | 0.06 | 27.5 | OK | |
| 4.002 | CUL3 | 69 | 79.160 | -0.499 | 0.000 | 0.08 | 27.5 | OK | |

Summary Wizard of 720 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 70 | 79.092 | -0.504 | 0.000 | 0.08 | | 27.5 | OK |
| 4.004 | SW17 | 69 | 79.068 | -0.618 | 0.000 | 0.06 | | 27.5 | OK |
| 1.010 | SW11 | 69 | 78.997 | -0.611 | 0.000 | 0.08 | | 38.0 | OK |
| 1.011 | SW12 | 69 | 78.904 | -0.641 | 0.000 | 0.05 | | 38.0 | OK |
| 1.012 | SW13 | 69 | 78.675 | -0.647 | 0.000 | 0.05 | | 38.0 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 102 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 960 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 71 | 80.349 | -0.196 | 0.000 | 0.04 | 1.5 | OK | |
| 1.001 | SW2 | 71 | 80.172 | -0.262 | 0.000 | 0.04 | 2.5 | OK | |
| 1.002 | SW3 | 71 | 80.030 | -0.257 | 0.000 | 0.05 | 4.3 | OK | |
| 1.003 | SW4 | 71 | 79.703 | -0.331 | 0.000 | 0.03 | 4.8 | OK | |
| 2.000 | SW15 | 71 | 79.576 | -0.357 | 0.000 | 0.01 | 1.0 | OK | |
| 1.004 | SW5 | 71 | 79.469 | -0.385 | 0.000 | 0.05 | 7.2 | OK | |
| 1.005 | SW6 | 71 | 79.320 | -0.443 | 0.000 | 0.05 | 7.8 | OK | |
| 3.000 | SW16 | 71 | 79.510 | -0.443 | 0.000 | 0.00 | 0.8 | OK | |
| 1.006 | SW7 | 71 | 79.284 | -0.435 | 0.000 | 0.06 | 8.9 | OK | |
| 1.007 | SW8hwall | 71 | 79.258 | -0.436 | 0.000 | 0.07 | 8.9 | OK | |
| 1.008 | SW9hwall | 71 | 79.212 | -0.462 | 0.000 | 0.03 | 8.9 | OK | |
| 1.009 | S10 HYDROBRAKE | 71 | 79.211 | -0.441 | 0.000 | 0.03 | 10.1 | OK | |
| 4.000 | CUL1 | 71 | 79.450 | -0.511 | 0.000 | 0.08 | 27.1 | OK | |
| 4.001 | CUL2 | 71 | 79.341 | -0.509 | 0.000 | 0.06 | 27.2 | OK | |
| 4.002 | CUL3 | 71 | 79.159 | -0.500 | 0.000 | 0.08 | 27.1 | OK | |

Summary Wizard of 960 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 71 | 79.092 | -0.504 | 0.000 | 0.08 | 27.1 | OK |
| 4.004 | SW17 | 71 | 79.067 | -0.619 | 0.000 | 0.06 | 27.1 | OK |
| 1.010 | SW11 | 71 | 78.995 | -0.613 | 0.000 | 0.08 | 37.1 | OK |
| 1.011 | SW12 | 71 | 78.902 | -0.643 | 0.000 | 0.05 | 37.1 | OK |
| 1.012 | SW13 | 71 | 78.674 | -0.648 | 0.000 | 0.05 | 37.1 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 104 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by [REDACTED] | |
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Summary Wizard of 1440 minute 1 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 72 | 80.346 | -0.199 | 0.000 | 0.03 | 1.2 | OK | |
| 1.001 | SW2 | 72 | 80.168 | -0.266 | 0.000 | 0.03 | 2.0 | OK | |
| 1.002 | SW3 | 72 | 80.025 | -0.262 | 0.000 | 0.04 | 3.3 | OK | |
| 1.003 | SW4 | 72 | 79.699 | -0.335 | 0.000 | 0.03 | 3.7 | OK | |
| 2.000 | SW15 | 72 | 79.572 | -0.361 | 0.000 | 0.01 | 0.8 | OK | |
| 1.004 | SW5 | 72 | 79.461 | -0.393 | 0.000 | 0.04 | 5.5 | OK | |
| 1.005 | SW6 | 72 | 79.309 | -0.454 | 0.000 | 0.04 | 6.0 | OK | |
| 3.000 | SW16 | 72 | 79.508 | -0.445 | 0.000 | 0.00 | 0.6 | OK | |
| 1.006 | SW7 | 72 | 79.272 | -0.447 | 0.000 | 0.05 | 6.9 | OK | |
| 1.007 | SW8hwall | 72 | 79.246 | -0.448 | 0.000 | 0.05 | 6.9 | OK | |
| 1.008 | SW9hwall | 72 | 79.163 | -0.511 | 0.000 | 0.02 | 6.8 | OK | |
| 1.009 | S10 HYDROBRAKE | 72 | 79.162 | -0.490 | 0.000 | 0.02 | 8.2 | OK | |
| 4.000 | CUL1 | 72 | 79.449 | -0.512 | 0.000 | 0.08 | 26.7 | OK | |
| 4.001 | CUL2 | 72 | 79.341 | -0.509 | 0.000 | 0.06 | 26.7 | OK | |
| 4.002 | CUL3 | 72 | 79.158 | -0.501 | 0.000 | 0.08 | 26.7 | OK | |

Summary Wizard of 1440 minute 1 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 72 | 79.092 | -0.504 | 0.000 | 0.08 | | 26.7 | OK |
| 4.004 | SW17 | 72 | 79.064 | -0.622 | 0.000 | 0.05 | | 26.7 | OK |
| 1.010 | SW11 | 72 | 78.990 | -0.618 | 0.000 | 0.07 | | 34.9 | OK |
| 1.011 | SW12 | 72 | 78.899 | -0.646 | 0.000 | 0.05 | | 34.9 | OK |
| 1.012 | SW13 | 72 | 78.671 | -0.651 | 0.000 | 0.04 | | 34.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 106 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 15 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|---------------|-----------------------|----------------------------|--|----------------|-------------------|---------------|------------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 17 | 80.516 | -0.029 | 0.000 | 0.96 | 34.7 | | OK |
| 1.001 | SW2 | 22 | 80.419 | -0.015 | 0.000 | 0.85 | 55.4 | | OK |
| 1.002 | SW3 | 24 | 80.312 | 0.025 | 0.000 | 1.05 | 90.5 | | SURCHARGED |
| 1.003 | SW4 | 36 | 79.894 | -0.140 | 0.000 | 0.70 | 100.2 | | OK |
| 2.000 | SW15 | 42 | 79.814 | -0.119 | 0.000 | 0.22 | 21.0 | | OK |
| 1.004 | SW5 | 42 | 79.802 | -0.052 | 0.000 | 0.99 | 140.3 | | OK |
| 1.005 | SW6 | 45 | 79.729 | -0.034 | 0.000 | 0.82 | 139.4 | | OK |
| 3.000 | SW16 | 45 | 79.697 | -0.256 | 0.000 | 0.07 | 16.8 | | OK |
| 1.006 | SW7 | 45 | 79.693 | -0.026 | 0.000 | 1.00 | 141.9 | | OK |
| 1.007 | SW8hwall | 45 | 79.669 | -0.025 | 0.000 | 1.08 | 141.8 | | OK |
| 1.008 | SW9hwall | 45 | 79.667 | -0.007 | 0.000 | 0.46 | 135.8 | | OK |
| 1.009 | S10 HYDROBRAKE | 45 | 79.664 | 0.012 | 0.000 | 0.03 | 11.7 | | SURCHARGED |
| 4.000 | CUL1 | 7 | 79.530 | -0.431 | 0.000 | 0.23 | 76.6 | | OK |
| 4.001 | CUL2 | 7 | 79.412 | -0.438 | 0.000 | 0.17 | 75.2 | | OK |
| 4.002 | CUL3 | 7 | 79.248 | -0.411 | 0.000 | 0.23 | 77.0 | | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 107 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 | Designed by [REDACTED] | |
| File 19310-MDX-CULVERT_200930... | Checked by [REDACTED] | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 15 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 7 | 79.175 | -0.421 | 0.000 | 0.23 | | 76.7 | OK |
| 4.004 | SW17 | 7 | 79.148 | -0.538 | 0.000 | 0.15 | | 74.8 | OK |
| 1.010 | SW11 | 7 | 79.062 | -0.546 | 0.000 | 0.17 | | 79.6 | OK |
| 1.011 | SW12 | 7 | 78.958 | -0.587 | 0.000 | 0.11 | | 79.3 | OK |
| 1.012 | SW13 | 7 | 78.728 | -0.594 | 0.000 | 0.10 | | 78.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 108 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 30 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 24 | 80.473 | -0.072 | 0.000 | 0.80 | 29.0 | OK | |
| 1.001 | SW2 | 27 | 80.330 | -0.104 | 0.000 | 0.74 | 48.4 | OK | |
| 1.002 | SW3 | 28 | 80.218 | -0.069 | 0.000 | 0.94 | 80.9 | OK | |
| 1.003 | SW4 | 40 | 79.876 | -0.158 | 0.000 | 0.63 | 89.8 | OK | |
| 2.000 | SW15 | 41 | 79.821 | -0.112 | 0.000 | 0.19 | 17.9 | OK | |
| 1.004 | SW5 | 41 | 79.820 | -0.034 | 0.000 | 0.91 | 128.1 | OK | |
| 1.005 | SW6 | 41 | 79.813 | 0.050 | 0.000 | 0.77 | 132.0 | SURCHARGED | |
| 3.000 | SW16 | 41 | 79.809 | -0.144 | 0.000 | 0.06 | 13.7 | OK | |
| 1.006 | SW7 | 41 | 79.809 | 0.090 | 0.000 | 0.99 | 140.5 | SURCHARGED | |
| 1.007 | SW8hwall | 41 | 79.806 | 0.112 | 0.000 | 1.05 | 137.8 | SURCHARGED | |
| 1.008 | SW9hwall | 41 | 79.804 | 0.130 | 0.000 | 0.45 | 132.5 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 41 | 79.804 | 0.152 | 0.000 | 0.03 | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 11 | 79.507 | -0.454 | 0.000 | 0.18 | 61.5 | OK | |
| 4.001 | CUL2 | 11 | 79.391 | -0.459 | 0.000 | 0.14 | 61.6 | OK | |
| 4.002 | CUL3 | 11 | 79.223 | -0.436 | 0.000 | 0.19 | 61.4 | OK | |

Summary Wizard of 30 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 11 | 79.153 | -0.443 | 0.000 | 0.18 | 61.5 | OK |
| 4.004 | SW17 | 11 | 79.130 | -0.556 | 0.000 | 0.12 | 61.1 | OK |
| 1.010 | SW11 | 11 | 79.050 | -0.558 | 0.000 | 0.15 | 71.7 | OK |
| 1.011 | SW12 | 11 | 78.951 | -0.594 | 0.000 | 0.10 | 71.5 | OK |
| 1.012 | SW13 | 11 | 78.721 | -0.601 | 0.000 | 0.09 | 71.6 | OK |

Summary Wizard of 60 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 27 | 80.441 | -0.104 | 0.000 | 0.56 | 20.2 | OK |
| 1.001 | SW2 | 30 | 80.288 | -0.146 | 0.000 | 0.52 | 34.0 | OK |
| 1.002 | SW3 | 30 | 80.166 | -0.121 | 0.000 | 0.66 | 57.2 | OK |
| 1.003 | SW4 | 30 | 79.955 | -0.079 | 0.000 | 0.45 | 63.6 | OK |
| 2.000 | SW15 | 30 | 79.950 | 0.017 | 0.000 | 0.13 | 12.5 | SURCHARGED |
| 1.004 | SW5 | 30 | 79.949 | 0.095 | 0.000 | 0.63 | 88.6 | SURCHARGED |
| 1.005 | SW6 | 29 | 79.943 | 0.180 | 0.000 | 0.51 | 87.9 | SURCHARGED |
| 3.000 | SW16 | 29 | 79.940 | -0.013 | 0.000 | 0.04 | 9.5 | OK |
| 1.006 | SW7 | 29 | 79.940 | 0.221 | 0.000 | 0.62 | 87.3 | SURCHARGED |
| 1.007 | SW8hwall | 29 | 79.938 | 0.244 | 0.000 | 0.63 | 82.9 | SURCHARGED |
| 1.008 | SW9hwall | 29 | 79.936 | 0.262 | 0.000 | 0.27 | 79.0 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 29 | 79.935 | 0.283 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 16 | 79.490 | -0.471 | 0.000 | 0.15 | 49.4 | OK |
| 4.001 | CUL2 | 16 | 79.375 | -0.475 | 0.000 | 0.11 | 49.4 | OK |
| 4.002 | CUL3 | 16 | 79.203 | -0.456 | 0.000 | 0.15 | 49.4 | OK |

Summary Wizard of 60 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 16 | 79.133 | -0.463 | 0.000 | 0.15 | 49.4 | OK |
| 4.004 | SW17 | 15 | 79.111 | -0.575 | 0.000 | 0.10 | 49.3 | OK |
| 1.010 | SW11 | 15 | 79.034 | -0.574 | 0.000 | 0.13 | 60.9 | OK |
| 1.011 | SW12 | 15 | 78.938 | -0.607 | 0.000 | 0.08 | 60.8 | OK |
| 1.012 | SW13 | 15 | 78.706 | -0.616 | 0.000 | 0.07 | 60.8 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 112 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 120 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

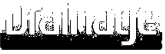
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|---------------|-----------------------|----------------------------|--|----------------|-------------------|---------------|------------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 32 | 80.414 | -0.131 | 0.000 | 0.36 | 13.1 | | OK |
| 1.001 | SW2 | 34 | 80.254 | -0.180 | 0.000 | 0.34 | 22.1 | | OK |
| 1.002 | SW3 | 33 | 80.125 | -0.162 | 0.000 | 0.43 | 37.3 | | OK |
| 1.003 | SW4 | 27 | 80.041 | 0.007 | 0.000 | 0.29 | 41.4 | | SURCHARGED |
| 2.000 | SW15 | 27 | 80.038 | 0.105 | 0.000 | 0.08 | 7.9 | | SURCHARGED |
| 1.004 | SW5 | 27 | 80.037 | 0.183 | 0.000 | 0.40 | 56.1 | | SURCHARGED |
| 1.005 | SW6 | 25 | 80.033 | 0.270 | 0.000 | 0.33 | 56.2 | | SURCHARGED |
| 3.000 | SW16 | 25 | 80.031 | 0.078 | 0.000 | 0.02 | 5.7 | | SURCHARGED |
| 1.006 | SW7 | 25 | 80.031 | 0.312 | 0.000 | 0.40 | 56.5 | | SURCHARGED |
| 1.007 | SW8hwall | 25 | 80.029 | 0.335 | 0.000 | 0.41 | 54.6 | | SURCHARGED |
| 1.008 | SW9hwall | 25 | 80.027 | 0.353 | 0.000 | 0.18 | 53.0 | | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 25 | 80.027 | 0.375 | 0.000 | 0.03 | 11.7 | | SURCHARGED |
| 4.000 | CUL1 | 25 | 79.477 | -0.484 | 0.000 | 0.12 | 40.8 | | OK |
| 4.001 | CUL2 | 25 | 79.361 | -0.489 | 0.000 | 0.09 | 40.8 | | OK |
| 4.002 | CUL3 | 25 | 79.188 | -0.471 | 0.000 | 0.12 | 40.7 | | OK |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 113 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 120 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 25 | 79.119 | -0.477 | 0.000 | 0.12 | | 40.8 | OK |
| 4.004 | SW17 | 25 | 79.097 | -0.589 | 0.000 | 0.08 | | 40.7 | OK |
| 1.010 | SW11 | 22 | 79.022 | -0.586 | 0.000 | 0.11 | | 52.4 | OK |
| 1.011 | SW12 | 22 | 78.925 | -0.620 | 0.000 | 0.07 | | 52.4 | OK |
| 1.012 | SW13 | 22 | 78.695 | -0.627 | 0.000 | 0.06 | | 52.4 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 114 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 180 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|---------------|-------------|--------|--------------|-----------------------------|----------------|-------------------|---------------|--------|
| | | | (m) | (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 38 | 80.400 | -0.145 | 0.000 | 0.28 | 10.0 | OK | | |
| 1.001 | SW2 | 40 | 80.237 | -0.197 | 0.000 | 0.26 | 16.9 | OK | | |
| 1.002 | SW3 | 39 | 80.105 | -0.182 | 0.000 | 0.33 | 28.4 | OK | | |
| 1.003 | SW4 | 25 | 80.057 | 0.023 | 0.000 | 0.22 | 31.4 | SURCHARGED | | |
| 2.000 | SW15 | 25 | 80.054 | 0.121 | 0.000 | 0.06 | 5.9 | SURCHARGED | | |
| 1.004 | SW5 | 25 | 80.053 | 0.199 | 0.000 | 0.30 | 42.1 | SURCHARGED | | |
| 1.005 | SW6 | 23 | 80.050 | 0.287 | 0.000 | 0.25 | 42.5 | SURCHARGED | | |
| 3.000 | SW16 | 23 | 80.048 | 0.095 | 0.000 | 0.02 | 4.3 | SURCHARGED | | |
| 1.006 | SW7 | 23 | 80.048 | 0.329 | 0.000 | 0.31 | 44.4 | SURCHARGED | | |
| 1.007 | SW8hwall | 23 | 80.046 | 0.352 | 0.000 | 0.33 | 43.1 | SURCHARGED | | |
| 1.008 | SW9hwall | 23 | 80.045 | 0.371 | 0.000 | 0.14 | 42.1 | SURCHARGED | | |
| 1.009 | S10 HYDROBRAKE | 23 | 80.044 | 0.392 | 0.000 | 0.03 | 11.7 | SURCHARGED | | |
| 4.000 | CUL1 | 31 | 79.470 | -0.491 | 0.000 | 0.11 | 37.0 | OK | | |
| 4.001 | CUL2 | 31 | 79.355 | -0.495 | 0.000 | 0.09 | 37.0 | OK | | |
| 4.002 | CUL3 | 31 | 79.182 | -0.477 | 0.000 | 0.11 | 37.0 | OK | | |

Summary Wizard of 180 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 31 | 79.111 | -0.485 | 0.000 | 0.11 | 37.0 | OK |
| 4.004 | SW17 | 31 | 79.091 | -0.595 | 0.000 | 0.08 | 37.0 | OK |
| 1.010 | SW11 | 26 | 79.017 | -0.591 | 0.000 | 0.10 | 48.7 | OK |
| 1.011 | SW12 | 25 | 78.920 | -0.625 | 0.000 | 0.07 | 48.7 | OK |
| 1.012 | SW13 | 25 | 78.690 | -0.632 | 0.000 | 0.06 | 48.7 | OK |

Summary Wizard of 240 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|------------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 41 | 80.392 | -0.153 | 0.000 | 0.23 | 8.2 | | OK |
| 1.001 | SW2 | 43 | 80.227 | -0.207 | 0.000 | 0.21 | 13.8 | | OK |
| 1.002 | SW3 | 43 | 80.093 | -0.194 | 0.000 | 0.27 | 23.3 | | OK |
| 1.003 | SW4 | 26 | 80.047 | 0.013 | 0.000 | 0.18 | 25.8 | | SURCHARGED |
| 2.000 | SW15 | 26 | 80.045 | 0.112 | 0.000 | 0.05 | 4.9 | | SURCHARGED |
| 1.004 | SW5 | 26 | 80.044 | 0.190 | 0.000 | 0.25 | 35.0 | | SURCHARGED |
| 1.005 | SW6 | 24 | 80.040 | 0.277 | 0.000 | 0.21 | 35.9 | | SURCHARGED |
| 3.000 | SW16 | 24 | 80.038 | 0.085 | 0.000 | 0.02 | 3.7 | | SURCHARGED |
| 1.006 | SW7 | 24 | 80.038 | 0.319 | 0.000 | 0.27 | 37.7 | | SURCHARGED |
| 1.007 | SW8hwall | 24 | 80.037 | 0.343 | 0.000 | 0.28 | 36.8 | | SURCHARGED |
| 1.008 | SW9hwall | 24 | 80.035 | 0.361 | 0.000 | 0.12 | 35.8 | | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 24 | 80.035 | 0.383 | 0.000 | 0.03 | 11.7 | | SURCHARGED |
| 4.000 | CUL1 | 37 | 79.466 | -0.495 | 0.000 | 0.10 | 34.9 | | OK |
| 4.001 | CUL2 | 37 | 79.351 | -0.499 | 0.000 | 0.08 | 34.9 | | OK |
| 4.002 | CUL3 | 37 | 79.178 | -0.481 | 0.000 | 0.11 | 34.9 | | OK |

Summary Wizard of 240 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 37 | 79.106 | -0.490 | 0.000 | 0.10 | | 34.9 | OK |
| 4.004 | SW17 | 36 | 79.087 | -0.599 | 0.000 | 0.07 | | 34.9 | OK |
| 1.010 | SW11 | 35 | 79.014 | -0.594 | 0.000 | 0.10 | | 46.5 | OK |
| 1.011 | SW12 | 35 | 78.917 | -0.628 | 0.000 | 0.06 | | 46.5 | OK |
| 1.012 | SW13 | 35 | 78.687 | -0.635 | 0.000 | 0.06 | | 46.5 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 118 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 360 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|---------------|--------------------|----------------------------|--|---|-----------------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 44 | 80.382 | -0.163 | 0.000 | 0.17 | 6.2 | OK |
| 1.001 | SW2 | 46 | 80.214 | -0.220 | 0.000 | 0.16 | 10.4 | OK |
| 1.002 | SW3 | 46 | 80.078 | -0.209 | 0.000 | 0.20 | 17.5 | OK |
| 1.003 | SW4 | 28 | 80.018 | -0.016 | 0.000 | 0.14 | 19.4 | OK |
| 2.000 | SW15 | 28 | 80.015 | 0.082 | 0.000 | 0.04 | 3.7 | SURCHARGED |
| 1.004 | SW5 | 28 | 80.015 | 0.161 | 0.000 | 0.19 | 26.7 | SURCHARGED |
| 1.005 | SW6 | 26 | 80.011 | 0.248 | 0.000 | 0.16 | 27.6 | SURCHARGED |
| 3.000 | SW16 | 26 | 80.009 | 0.056 | 0.000 | 0.01 | 2.8 | SURCHARGED |
| 1.006 | SW7 | 26 | 80.009 | 0.290 | 0.000 | 0.21 | 29.5 | SURCHARGED |
| 1.007 | SW8hwall | 26 | 80.007 | 0.313 | 0.000 | 0.22 | 28.5 | SURCHARGED |
| 1.008 | SW9hwall | 26 | 80.006 | 0.332 | 0.000 | 0.09 | 27.8 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 26 | 80.005 | 0.353 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 43 | 79.461 | -0.500 | 0.000 | 0.10 | 32.5 | OK |
| 4.001 | CUL2 | 43 | 79.346 | -0.504 | 0.000 | 0.08 | 32.5 | OK |
| 4.002 | CUL3 | 43 | 79.172 | -0.487 | 0.000 | 0.10 | 32.5 | OK |

Summary Wizard of 360 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 43 | 79.101 | -0.495 | 0.000 | 0.10 | | 32.5 | OK |
| 4.004 | SW17 | 43 | 79.083 | -0.603 | 0.000 | 0.07 | | 32.5 | OK |
| 1.010 | SW11 | 42 | 79.010 | -0.598 | 0.000 | 0.09 | | 44.2 | OK |
| 1.011 | SW12 | 42 | 78.913 | -0.632 | 0.000 | 0.06 | | 44.2 | OK |
| 1.012 | SW13 | 42 | 78.684 | -0.638 | 0.000 | 0.05 | | 44.2 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 120 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 480 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

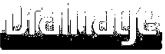
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|------------------------|----------------|-----------------|------------|
| | | | | | | | | | |
| 1.000 | SW1 | 51 | 80.376 | -0.169 | 0.000 | 0.14 | | 5.0 | OK |
| 1.001 | SW2 | 51 | 80.206 | -0.228 | 0.000 | 0.13 | | 8.5 | OK |
| 1.002 | SW3 | 51 | 80.068 | -0.219 | 0.000 | 0.17 | | 14.3 | OK |
| 1.003 | SW4 | 29 | 79.973 | -0.061 | 0.000 | 0.11 | | 15.9 | OK |
| 2.000 | SW15 | 29 | 79.970 | 0.037 | 0.000 | 0.03 | | 3.1 | SURCHARGED |
| 1.004 | SW5 | 29 | 79.970 | 0.116 | 0.000 | 0.16 | | 22.1 | SURCHARGED |
| 1.005 | SW6 | 28 | 79.966 | 0.203 | 0.000 | 0.13 | | 23.0 | SURCHARGED |
| 3.000 | SW16 | 28 | 79.964 | 0.011 | 0.000 | 0.01 | | 2.3 | SURCHARGED |
| 1.006 | SW7 | 28 | 79.964 | 0.245 | 0.000 | 0.17 | | 24.7 | SURCHARGED |
| 1.007 | SW8hwall | 28 | 79.962 | 0.268 | 0.000 | 0.18 | | 23.9 | SURCHARGED |
| 1.008 | SW9hwall | 28 | 79.961 | 0.287 | 0.000 | 0.08 | | 23.5 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 28 | 79.960 | 0.308 | 0.000 | 0.03 | | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 51 | 79.458 | -0.503 | 0.000 | 0.09 | | 31.2 | OK |
| 4.001 | CUL2 | 51 | 79.344 | -0.506 | 0.000 | 0.07 | | 31.2 | OK |
| 4.002 | CUL3 | 51 | 79.169 | -0.490 | 0.000 | 0.09 | | 31.2 | OK |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 121 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 480 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 51 | 79.098 | -0.498 | 0.000 | 0.09 | | 31.2 | OK |
| 4.004 | SW17 | 49 | 79.079 | -0.607 | 0.000 | 0.06 | | 31.2 | OK |
| 1.010 | SW11 | 48 | 79.008 | -0.600 | 0.000 | 0.09 | | 42.9 | OK |
| 1.011 | SW12 | 48 | 78.911 | -0.634 | 0.000 | 0.06 | | 42.9 | OK |
| 1.012 | SW13 | 48 | 78.682 | -0.640 | 0.000 | 0.05 | | 42.9 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 122 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 600 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

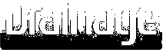
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 53 | 80.371 | -0.174 | 0.000 | 0.12 | 4.3 | OK |
| 1.001 | SW2 | 54 | 80.200 | -0.234 | 0.000 | 0.11 | 7.2 | OK |
| 1.002 | SW3 | 54 | 80.062 | -0.225 | 0.000 | 0.14 | 12.2 | OK |
| 1.003 | SW4 | 35 | 79.920 | -0.114 | 0.000 | 0.10 | 13.6 | OK |
| 2.000 | SW15 | 35 | 79.917 | -0.016 | 0.000 | 0.03 | 2.7 | OK |
| 1.004 | SW5 | 35 | 79.916 | 0.062 | 0.000 | 0.14 | 19.3 | SURCHARGED |
| 1.005 | SW6 | 34 | 79.913 | 0.150 | 0.000 | 0.12 | 19.9 | SURCHARGED |
| 3.000 | SW16 | 34 | 79.910 | -0.043 | 0.000 | 0.01 | 2.0 | OK |
| 1.006 | SW7 | 34 | 79.911 | 0.192 | 0.000 | 0.15 | 21.3 | SURCHARGED |
| 1.007 | SW8hwall | 34 | 79.909 | 0.215 | 0.000 | 0.16 | 21.1 | SURCHARGED |
| 1.008 | SW9hwall | 34 | 79.907 | 0.233 | 0.000 | 0.07 | 21.0 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 34 | 79.907 | 0.255 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 53 | 79.457 | -0.504 | 0.000 | 0.09 | 30.4 | OK |
| 4.001 | CUL2 | 53 | 79.342 | -0.508 | 0.000 | 0.07 | 30.4 | OK |
| 4.002 | CUL3 | 53 | 79.167 | -0.492 | 0.000 | 0.09 | 30.4 | OK |

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|---|--------------------------------------|---|
| Edge Consulting UK | | Page 123 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 600 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 53 | 79.096 | -0.500 | 0.000 | 0.09 | | 30.4 | OK |
| 4.004 | SW17 | 52 | 79.077 | -0.609 | 0.000 | 0.06 | | 30.4 | OK |
| 1.010 | SW11 | 52 | 79.007 | -0.601 | 0.000 | 0.09 | | 42.0 | OK |
| 1.011 | SW12 | 52 | 78.910 | -0.635 | 0.000 | 0.06 | | 42.0 | OK |
| 1.012 | SW13 | 52 | 78.681 | -0.641 | 0.000 | 0.05 | | 42.0 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 124 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 720 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

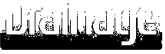
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

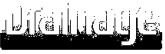
Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|-----------------------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 56 | 80.368 | -0.177 | 0.000 | 0.10 | 3.8 | OK |
| 1.001 | SW2 | 57 | 80.196 | -0.238 | 0.000 | 0.10 | 6.4 | OK |
| 1.002 | SW3 | 57 | 80.057 | -0.230 | 0.000 | 0.12 | 10.7 | OK |
| 1.003 | SW4 | 41 | 79.866 | -0.168 | 0.000 | 0.08 | 11.9 | OK |
| 2.000 | SW15 | 37 | 79.863 | -0.070 | 0.000 | 0.02 | 2.4 | OK |
| 1.004 | SW5 | 37 | 79.863 | 0.009 | 0.000 | 0.12 | 17.2 | SURCHARGED |
| 1.005 | SW6 | 37 | 79.859 | 0.096 | 0.000 | 0.10 | 17.6 | SURCHARGED |
| 3.000 | SW16 | 37 | 79.857 | -0.096 | 0.000 | 0.01 | 1.8 | OK |
| 1.006 | SW7 | 37 | 79.857 | 0.138 | 0.000 | 0.14 | 19.2 | SURCHARGED |
| 1.007 | SW8hwall | 37 | 79.855 | 0.161 | 0.000 | 0.14 | 18.9 | SURCHARGED |
| 1.008 | SW9hwall | 37 | 79.854 | 0.180 | 0.000 | 0.06 | 18.5 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 37 | 79.853 | 0.201 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 56 | 79.455 | -0.506 | 0.000 | 0.09 | 29.8 | OK |
| 4.001 | CUL2 | 62 | 79.341 | -0.509 | 0.000 | 0.07 | 29.8 | OK |
| 4.002 | CUL3 | 56 | 79.165 | -0.494 | 0.000 | 0.09 | 29.8 | OK |

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| Edge Consulting UK | | Page 125 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by | |
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Summary Wizard of 720 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|----------------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow Cap. (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 56 | 79.094 | -0.502 | 0.000 | 0.09 | 29.8 | OK |
| 4.004 | SW17 | 55 | 79.076 | -0.610 | 0.000 | 0.06 | 29.8 | OK |
| 1.010 | SW11 | 55 | 79.005 | -0.603 | 0.000 | 0.09 | 41.4 | OK |
| 1.011 | SW12 | 55 | 78.909 | -0.636 | 0.000 | 0.06 | 41.4 | OK |
| 1.012 | SW13 | 55 | 78.680 | -0.642 | 0.000 | 0.05 | 41.4 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 126 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 960 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 Cv (Winter) 0.840

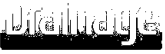
Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
DVD Status OFF
Inertia Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|-----------------------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 61 | 80.364 | -0.181 | 0.000 | 0.09 | 3.1 | OK |
| 1.001 | SW2 | 61 | 80.190 | -0.244 | 0.000 | 0.08 | 5.2 | OK |
| 1.002 | SW3 | 61 | 80.050 | -0.237 | 0.000 | 0.10 | 8.7 | OK |
| 1.003 | SW4 | 52 | 79.759 | -0.275 | 0.000 | 0.07 | 9.7 | OK |
| 2.000 | SW15 | 46 | 79.755 | -0.178 | 0.000 | 0.02 | 2.0 | OK |
| 1.004 | SW5 | 46 | 79.755 | -0.099 | 0.000 | 0.10 | 14.2 | OK |
| 1.005 | SW6 | 43 | 79.751 | -0.012 | 0.000 | 0.09 | 14.7 | OK |
| 3.000 | SW16 | 43 | 79.748 | -0.205 | 0.000 | 0.01 | 1.5 | OK |
| 1.006 | SW7 | 43 | 79.748 | 0.029 | 0.000 | 0.11 | 15.6 | SURCHARGED |
| 1.007 | SW8hwall | 43 | 79.747 | 0.053 | 0.000 | 0.12 | 15.2 | SURCHARGED |
| 1.008 | SW9hwall | 43 | 79.745 | 0.071 | 0.000 | 0.05 | 14.8 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 43 | 79.744 | 0.092 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 61 | 79.454 | -0.507 | 0.000 | 0.09 | 28.9 | OK |
| 4.001 | CUL2 | 65 | 79.341 | -0.509 | 0.000 | 0.07 | 28.9 | OK |
| 4.002 | CUL3 | 61 | 79.164 | -0.495 | 0.000 | 0.09 | 28.9 | OK |

Summary Wizard of 960 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 62 | 79.093 | -0.503 | 0.000 | 0.09 | | 28.9 | OK |
| 4.004 | SW17 | 60 | 79.073 | -0.613 | 0.000 | 0.06 | | 28.9 | OK |
| 1.010 | SW11 | 60 | 79.003 | -0.605 | 0.000 | 0.08 | | 40.6 | OK |
| 1.011 | SW12 | 60 | 78.908 | -0.637 | 0.000 | 0.05 | | 40.6 | OK |
| 1.012 | SW13 | 60 | 78.679 | -0.643 | 0.000 | 0.05 | | 40.6 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 128 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 1440 minute 30 year Winter I+0% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 66 | 80.357 | -0.188 | 0.000 | 0.06 | 2.3 | OK | |
| 1.001 | SW2 | 66 | 80.181 | -0.253 | 0.000 | 0.06 | 3.9 | OK | |
| 1.002 | SW3 | 66 | 80.041 | -0.246 | 0.000 | 0.08 | 6.5 | OK | |
| 1.003 | SW4 | 66 | 79.713 | -0.321 | 0.000 | 0.05 | 7.2 | OK | |
| 2.000 | SW15 | 64 | 79.591 | -0.342 | 0.000 | 0.02 | 1.5 | OK | |
| 1.004 | SW5 | 54 | 79.560 | -0.294 | 0.000 | 0.08 | 10.8 | OK | |
| 1.005 | SW6 | 48 | 79.555 | -0.208 | 0.000 | 0.07 | 11.6 | OK | |
| 3.000 | SW16 | 49 | 79.554 | -0.399 | 0.000 | 0.00 | 1.2 | OK | |
| 1.006 | SW7 | 48 | 79.553 | -0.166 | 0.000 | 0.09 | 12.6 | OK | |
| 1.007 | SW8hwall | 48 | 79.552 | -0.142 | 0.000 | 0.09 | 12.4 | OK | |
| 1.008 | SW9hwall | 48 | 79.550 | -0.124 | 0.000 | 0.04 | 12.2 | OK | |
| 1.009 | S10 HYDROBRAKE | 48 | 79.549 | -0.103 | 0.000 | 0.03 | 11.6 | OK | |
| 4.000 | CUL1 | 66 | 79.452 | -0.509 | 0.000 | 0.08 | 28.0 | OK | |
| 4.001 | CUL2 | 68 | 79.341 | -0.509 | 0.000 | 0.06 | 28.0 | OK | |
| 4.002 | CUL3 | 66 | 79.161 | -0.498 | 0.000 | 0.09 | 28.0 | OK | |

Summary Wizard of 1440 minute 30 year Winter I+0% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 68 | 79.092 | -0.504 | 0.000 | 0.08 | 28.0 | OK |
| 4.004 | SW17 | 64 | 79.071 | -0.615 | 0.000 | 0.06 | 28.0 | OK |
| 1.010 | SW11 | 63 | 79.001 | -0.607 | 0.000 | 0.08 | 39.6 | OK |
| 1.011 | SW12 | 63 | 78.906 | -0.639 | 0.000 | 0.05 | 39.6 | OK |
| 1.012 | SW13 | 63 | 78.677 | -0.645 | 0.000 | 0.05 | 39.6 | OK |

Summary Wizard of 15 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|-------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 1 | 81.464 | 0.919 | 0.000 | 1.45 | 52.3 | FLOOD RISK | |
| 1.001 | SW2 | 1 | 81.240 | 0.806 | 0.000 | 1.28 | 83.6 | SURCHARGED | |
| 1.002 | SW3 | 1 | 80.994 | 0.707 | 0.000 | 1.61 | 139.0 | SURCHARGED | |
| 1.003 | SW4 | 19 | 80.321 | 0.287 | 0.000 | 1.07 | 151.9 | SURCHARGED | |
| 2.000 | SW15 | 22 | 80.149 | 0.216 | 0.000 | 0.34 | 33.1 | SURCHARGED | |
| 1.004 | SW5 | 22 | 80.130 | 0.276 | 0.000 | 1.57 | 222.0 | SURCHARGED | |
| 1.005 | SW6 | 27 | 79.988 | 0.225 | 0.000 | 1.38 | 235.2 | SURCHARGED | |
| 3.000 | SW16 | 27 | 79.976 | 0.023 | 0.000 | 0.11 | 26.4 | SURCHARGED | |
| 1.006 | SW7 | 27 | 79.976 | 0.257 | 0.000 | 1.78 | 252.5 | SURCHARGED | |
| 1.007 | SW8hwall | 27 | 79.972 | 0.278 | 0.000 | 1.89 | 248.3 | SURCHARGED | |
| 1.008 | SW9hwall | 27 | 79.970 | 0.296 | 0.000 | 0.81 | 239.3 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 27 | 79.969 | 0.317 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 2 | 79.570 | -0.391 | 0.000 | 0.33 | 111.6 | OK | |
| 4.001 | CUL2 | 2 | 79.449 | -0.401 | 0.000 | 0.25 | 108.5 | OK | |
| 4.002 | CUL3 | 2 | 79.294 | -0.365 | 0.000 | 0.34 | 111.6 | OK | |

Summary Wizard of 15 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|----------------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow Cap. (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 2 | 79.221 | -0.375 | 0.000 | 0.33 | 110.6 | OK |
| 4.004 | SW17 | 2 | 79.192 | -0.494 | 0.000 | 0.22 | 108.2 | OK |
| 1.010 | SW11 | 2 | 79.106 | -0.502 | 0.000 | 0.24 | 113.8 | OK |
| 1.011 | SW12 | 2 | 78.991 | -0.554 | 0.000 | 0.15 | 114.4 | OK |
| 1.012 | SW13 | 2 | 78.757 | -0.565 | 0.000 | 0.14 | 111.7 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 132 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 30 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged | | | Flooded | | Pipe | Status |
|-------|----------------|------------|------------------|-----------|--------------------------|-------------|----------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | |
| 1.000 | SW1 | 4 | 81.096 | 0.551 | 0.000 | 1.24 | 44.7 | SURCHARGED | |
| 1.001 | SW2 | 4 | 80.930 | 0.496 | 0.000 | 1.13 | 73.6 | SURCHARGED | |
| 1.002 | SW3 | 4 | 80.746 | 0.459 | 0.000 | 1.44 | 124.1 | SURCHARGED | |
| 1.003 | SW4 | 21 | 80.296 | 0.262 | 0.000 | 0.93 | 132.4 | SURCHARGED | |
| 2.000 | SW15 | 21 | 80.225 | 0.292 | 0.000 | 0.30 | 28.9 | SURCHARGED | |
| 1.004 | SW5 | 21 | 80.222 | 0.368 | 0.000 | 1.38 | 194.6 | SURCHARGED | |
| 1.005 | SW6 | 21 | 80.209 | 0.446 | 0.000 | 1.21 | 207.0 | SURCHARGED | |
| 3.000 | SW16 | 21 | 80.203 | 0.250 | 0.000 | 0.10 | 23.4 | SURCHARGED | |
| 1.006 | SW7 | 21 | 80.203 | 0.484 | 0.000 | 1.56 | 221.4 | SURCHARGED | |
| 1.007 | SW8hwall | 21 | 80.200 | 0.506 | 0.000 | 1.63 | 214.9 | SURCHARGED | |
| 1.008 | SW9hwall | 21 | 80.198 | 0.524 | 0.000 | 0.71 | 209.8 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 21 | 80.197 | 0.545 | 0.000 | 0.03 | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 5 | 79.541 | -0.420 | 0.000 | 0.26 | 86.7 | OK | |
| 4.001 | CUL2 | 5 | 79.421 | -0.429 | 0.000 | 0.20 | 86.8 | OK | |
| 4.002 | CUL3 | 5 | 79.260 | -0.399 | 0.000 | 0.26 | 86.4 | OK | |

Summary Wizard of 30 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 4 | 79.191 | -0.405 | 0.000 | 0.26 | 86.6 | OK |
| 4.004 | SW17 | 4 | 79.168 | -0.518 | 0.000 | 0.18 | 86.0 | OK |
| 1.010 | SW11 | 4 | 79.085 | -0.523 | 0.000 | 0.20 | 96.3 | OK |
| 1.011 | SW12 | 4 | 78.974 | -0.571 | 0.000 | 0.13 | 96.0 | OK |
| 1.012 | SW13 | 4 | 78.743 | -0.579 | 0.000 | 0.12 | 96.3 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 134 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 60 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|-----------------------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 9 | 80.657 | 0.112 | 0.000 | 0.94 | 33.7 | SURCHARGED |
| 1.001 | SW2 | 12 | 80.586 | 0.152 | 0.000 | 0.83 | 54.0 | SURCHARGED |
| 1.002 | SW3 | 16 | 80.508 | 0.221 | 0.000 | 1.03 | 88.9 | SURCHARGED |
| 1.003 | SW4 | 16 | 80.432 | 0.398 | 0.000 | 0.65 | 93.1 | SURCHARGED |
| 2.000 | SW15 | 16 | 80.423 | 0.490 | 0.000 | 0.20 | 19.4 | SURCHARGED |
| 1.004 | SW5 | 16 | 80.421 | 0.567 | 0.000 | 0.98 | 138.1 | SURCHARGED |
| 1.005 | SW6 | 16 | 80.412 | 0.649 | 0.000 | 0.87 | 149.0 | SURCHARGED |
| 3.000 | SW16 | 16 | 80.407 | 0.454 | 0.000 | 0.06 | 14.0 | SURCHARGED |
| 1.006 | SW7 | 16 | 80.407 | 0.688 | 0.000 | 1.16 | 164.4 | SURCHARGED |
| 1.007 | SW8hwall | 16 | 80.405 | 0.711 | 0.000 | 1.22 | 160.7 | SURCHARGED |
| 1.008 | SW9hwall | 16 | 80.403 | 0.729 | 0.000 | 0.53 | 157.1 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 16 | 80.402 | 0.750 | 0.000 | 0.03 | 11.6 | SURCHARGED |
| 4.000 | CUL1 | 9 | 79.514 | -0.447 | 0.000 | 0.20 | 66.4 | OK |
| 4.001 | CUL2 | 9 | 79.396 | -0.454 | 0.000 | 0.15 | 66.5 | OK |
| 4.002 | CUL3 | 9 | 79.231 | -0.428 | 0.000 | 0.20 | 66.4 | OK |

Summary Wizard of 60 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|----------------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow Cap. (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 9 | 79.161 | -0.435 | 0.000 | 0.20 | 66.4 | OK |
| 4.004 | SW17 | 9 | 79.139 | -0.547 | 0.000 | 0.13 | 66.3 | OK |
| 1.010 | SW11 | 9 | 79.058 | -0.550 | 0.000 | 0.16 | 77.6 | OK |
| 1.011 | SW12 | 9 | 78.956 | -0.589 | 0.000 | 0.10 | 77.6 | OK |
| 1.012 | SW13 | 9 | 78.727 | -0.595 | 0.000 | 0.10 | 77.6 | OK |

Summary Wizard of 120 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 12 | 80.612 | 0.067 | 0.000 | 0.62 | 22.5 | SURCHARGED | |
| 1.001 | SW2 | 11 | 80.605 | 0.171 | 0.000 | 0.58 | 37.6 | SURCHARGED | |
| 1.002 | SW3 | 10 | 80.597 | 0.310 | 0.000 | 0.71 | 61.3 | SURCHARGED | |
| 1.003 | SW4 | 6 | 80.585 | 0.551 | 0.000 | 0.44 | 62.7 | SURCHARGED | |
| 2.000 | SW15 | 6 | 80.580 | 0.647 | 0.000 | 0.14 | 13.0 | FLOOD RISK | |
| 1.004 | SW5 | 6 | 80.579 | 0.725 | 0.000 | 0.66 | 93.7 | SURCHARGED | |
| 1.005 | SW6 | 6 | 80.573 | 0.810 | 0.000 | 0.59 | 101.5 | SURCHARGED | |
| 3.000 | SW16 | 6 | 80.570 | 0.617 | 0.000 | 0.04 | 9.3 | SURCHARGED | |
| 1.006 | SW7 | 6 | 80.570 | 0.851 | 0.000 | 0.79 | 112.5 | SURCHARGED | |
| 1.007 | SW8hwall | 6 | 80.568 | 0.874 | 0.000 | 0.84 | 110.0 | SURCHARGED | |
| 1.008 | SW9hwall | 6 | 80.566 | 0.892 | 0.000 | 0.36 | 107.6 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 6 | 80.565 | 0.913 | 0.000 | 0.03 | 11.6 | SURCHARGED | |
| 4.000 | CUL1 | 15 | 79.493 | -0.468 | 0.000 | 0.15 | 51.6 | | OK |
| 4.001 | CUL2 | 15 | 79.378 | -0.472 | 0.000 | 0.12 | 51.6 | | OK |
| 4.002 | CUL3 | 14 | 79.207 | -0.452 | 0.000 | 0.16 | 51.6 | | OK |

Summary Wizard of 120 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|------------|------------|-----------------|----------------------|----------------------------------|-------------------|----------------|-----------------|--------|
| 4.003 | CUL4 | 14 | 79.137 | -0.459 | 0.000 | 0.15 | | 51.6 | OK |
| 4.004 | SW17 | 14 | 79.115 | -0.571 | 0.000 | 0.11 | | 51.6 | OK |
| 1.010 | SW11 | 14 | 79.038 | -0.570 | 0.000 | 0.13 | | 63.2 | OK |
| 1.011 | SW12 | 14 | 78.942 | -0.603 | 0.000 | 0.09 | | 63.2 | OK |
| 1.012 | SW13 | 14 | 78.710 | -0.612 | 0.000 | 0.08 | | 63.2 | OK |

Summary Wizard of 180 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 8 | 80.661 | 0.116 | 0.000 | 0.47 | 17.0 | SURCHARGED |
| 1.001 | SW2 | 8 | 80.656 | 0.222 | 0.000 | 0.44 | 28.6 | SURCHARGED |
| 1.002 | SW3 | 7 | 80.650 | 0.363 | 0.000 | 0.54 | 46.8 | SURCHARGED |
| 1.003 | SW4 | 3 | 80.641 | 0.607 | 0.000 | 0.34 | 48.6 | SURCHARGED |
| 2.000 | SW15 | 3 | 80.637 | 0.704 | 0.000 | 0.10 | 9.9 | FLOOD RISK |
| 1.004 | SW5 | 3 | 80.636 | 0.782 | 0.000 | 0.51 | 72.1 | SURCHARGED |
| 1.005 | SW6 | 3 | 80.631 | 0.868 | 0.000 | 0.46 | 78.0 | SURCHARGED |
| 3.000 | SW16 | 3 | 80.628 | 0.675 | 0.000 | 0.03 | 7.2 | SURCHARGED |
| 1.006 | SW7 | 3 | 80.629 | 0.910 | 0.000 | 0.61 | 86.4 | SURCHARGED |
| 1.007 | SW8hwall | 3 | 80.627 | 0.933 | 0.000 | 0.64 | 84.7 | SURCHARGED |
| 1.008 | SW9hwall | 3 | 80.625 | 0.951 | 0.000 | 0.28 | 82.9 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 3 | 80.624 | 0.972 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 20 | 79.484 | -0.477 | 0.000 | 0.13 | 45.2 | OK |
| 4.001 | CUL2 | 20 | 79.369 | -0.481 | 0.000 | 0.10 | 45.2 | OK |
| 4.002 | CUL3 | 20 | 79.196 | -0.463 | 0.000 | 0.14 | 45.2 | OK |

Summary Wizard of 180 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 20 | 79.126 | -0.470 | 0.000 | 0.14 | 45.2 | OK |
| 4.004 | SW17 | 19 | 79.104 | -0.582 | 0.000 | 0.09 | 45.2 | OK |
| 1.010 | SW11 | 18 | 79.028 | -0.580 | 0.000 | 0.12 | 56.5 | OK |
| 1.011 | SW12 | 18 | 78.932 | -0.613 | 0.000 | 0.08 | 56.5 | OK |
| 1.012 | SW13 | 18 | 78.701 | -0.621 | 0.000 | 0.07 | 56.5 | OK |

| | | |
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| Edge Consulting UK | | Page 140 |
| Barton Arcade Manchester M3 2BH | | |
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| XP Solutions | Network 2019.1 | |

Summary Wizard of 240 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|----------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 6 | 80.674 | 0.129 | 0.000 | 0.38 | 13.9 | SURCHARGED |
| 1.001 | SW2 | 6 | 80.670 | 0.236 | 0.000 | 0.36 | 23.3 | SURCHARGED |
| 1.002 | SW3 | 5 | 80.665 | 0.378 | 0.000 | 0.44 | 38.2 | SURCHARGED |
| 1.003 | SW4 | 1 | 80.658 | 0.624 | 0.000 | 0.28 | 39.5 | SURCHARGED |
| 2.000 | SW15 | 1 | 80.654 | 0.721 | 0.000 | 0.08 | 8.1 | FLOOD RISK |
| 1.004 | SW5 | 1 | 80.653 | 0.799 | 0.000 | 0.42 | 58.9 | SURCHARGED |
| 1.005 | SW6 | 1 | 80.649 | 0.886 | 0.000 | 0.37 | 63.7 | SURCHARGED |
| 3.000 | SW16 | 1 | 80.647 | 0.694 | 0.000 | 0.03 | 5.9 | SURCHARGED |
| 1.006 | SW7 | 1 | 80.647 | 0.928 | 0.000 | 0.50 | 70.7 | SURCHARGED |
| 1.007 | SW8hwall | 1 | 80.645 | 0.951 | 0.000 | 0.53 | 69.4 | SURCHARGED |
| 1.008 | SW9hwall | 1 | 80.644 | 0.970 | 0.000 | 0.23 | 68.0 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 1 | 80.643 | 0.991 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 24 | 79.479 | -0.482 | 0.000 | 0.12 | 41.5 | OK |
| 4.001 | CUL2 | 24 | 79.363 | -0.487 | 0.000 | 0.10 | 41.5 | OK |
| 4.002 | CUL3 | 24 | 79.189 | -0.470 | 0.000 | 0.13 | 41.5 | OK |

Summary Wizard of 240 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 24 | 79.120 | -0.476 | 0.000 | 0.12 | 41.5 | OK |
| 4.004 | SW17 | 23 | 79.098 | -0.588 | 0.000 | 0.08 | 41.5 | OK |
| 1.010 | SW11 | 21 | 79.023 | -0.585 | 0.000 | 0.11 | 52.6 | OK |
| 1.011 | SW12 | 21 | 78.926 | -0.619 | 0.000 | 0.07 | 52.6 | OK |
| 1.012 | SW13 | 21 | 78.695 | -0.627 | 0.000 | 0.06 | 52.6 | OK |

Summary Wizard of 360 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|---------------|--------------|--------------|-----------------------------|----------------|-------------------|---------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | | |
| 1.000 | SW1 | 7 | 80.668 | 0.123 | 0.000 | 0.29 | | 10.4 | SURCHARGED | |
| 1.001 | SW2 | 7 | 80.665 | 0.231 | 0.000 | 0.27 | | 17.4 | SURCHARGED | |
| 1.002 | SW3 | 6 | 80.661 | 0.374 | 0.000 | 0.33 | | 28.5 | SURCHARGED | |
| 1.003 | SW4 | 2 | 80.655 | 0.621 | 0.000 | 0.21 | | 29.6 | SURCHARGED | |
| 2.000 | SW15 | 2 | 80.652 | 0.719 | 0.000 | 0.06 | | 6.1 | FLOOD RISK | |
| 1.004 | SW5 | 2 | 80.651 | 0.797 | 0.000 | 0.31 | | 44.2 | SURCHARGED | |
| 1.005 | SW6 | 2 | 80.647 | 0.884 | 0.000 | 0.28 | | 48.0 | SURCHARGED | |
| 3.000 | SW16 | 2 | 80.645 | 0.692 | 0.000 | 0.02 | | 4.5 | SURCHARGED | |
| 1.006 | SW7 | 2 | 80.645 | 0.926 | 0.000 | 0.38 | | 53.3 | SURCHARGED | |
| 1.007 | SW8hwall | 2 | 80.643 | 0.949 | 0.000 | 0.40 | | 52.3 | SURCHARGED | |
| 1.008 | SW9hwall | 2 | 80.642 | 0.968 | 0.000 | 0.17 | | 51.3 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 2 | 80.641 | 0.989 | 0.000 | 0.03 | | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 30 | 79.471 | -0.490 | 0.000 | 0.11 | | 37.4 | OK | |
| 4.001 | CUL2 | 30 | 79.355 | -0.495 | 0.000 | 0.09 | | 37.4 | OK | |
| 4.002 | CUL3 | 30 | 79.182 | -0.477 | 0.000 | 0.11 | | 37.4 | OK | |

Summary Wizard of 360 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 30 | 79.112 | -0.484 | 0.000 | 0.11 | 37.4 | OK |
| 4.004 | SW17 | 30 | 79.091 | -0.595 | 0.000 | 0.08 | 37.4 | OK |
| 1.010 | SW11 | 27 | 79.017 | -0.591 | 0.000 | 0.10 | 48.6 | OK |
| 1.011 | SW12 | 26 | 78.920 | -0.625 | 0.000 | 0.07 | 48.6 | OK |
| 1.012 | SW13 | 26 | 78.690 | -0.632 | 0.000 | 0.06 | 48.5 | OK |

Summary Wizard of 480 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Surcharged Flooded | | | Pipe | | Status |
|-------|----------------|---------------|--------------------------------|--------------|-----------------------------|----------------|-------------------|------------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Cap. | Overflow (l/s) | |
| 1.000 | SW1 | 10 | 80.644 | 0.099 | 0.000 | 0.23 | 8.4 | SURCHARGED |
| 1.001 | SW2 | 9 | 80.640 | 0.206 | 0.000 | 0.22 | 14.2 | SURCHARGED |
| 1.002 | SW3 | 8 | 80.636 | 0.349 | 0.000 | 0.27 | 23.3 | SURCHARGED |
| 1.003 | SW4 | 4 | 80.630 | 0.596 | 0.000 | 0.17 | 24.2 | SURCHARGED |
| 2.000 | SW15 | 4 | 80.627 | 0.694 | 0.000 | 0.05 | 5.0 | FLOOD RISK |
| 1.004 | SW5 | 4 | 80.626 | 0.772 | 0.000 | 0.26 | 36.2 | SURCHARGED |
| 1.005 | SW6 | 4 | 80.622 | 0.859 | 0.000 | 0.23 | 39.3 | SURCHARGED |
| 3.000 | SW16 | 4 | 80.620 | 0.667 | 0.000 | 0.02 | 3.6 | SURCHARGED |
| 1.006 | SW7 | 4 | 80.620 | 0.901 | 0.000 | 0.31 | 43.7 | SURCHARGED |
| 1.007 | SW8hwall | 4 | 80.619 | 0.925 | 0.000 | 0.33 | 43.0 | SURCHARGED |
| 1.008 | SW9hwall | 4 | 80.617 | 0.943 | 0.000 | 0.14 | 42.2 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 4 | 80.617 | 0.965 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 36 | 79.466 | -0.495 | 0.000 | 0.10 | 35.1 | OK |
| 4.001 | CUL2 | 36 | 79.351 | -0.499 | 0.000 | 0.08 | 35.1 | OK |
| 4.002 | CUL3 | 36 | 79.178 | -0.481 | 0.000 | 0.11 | 35.1 | OK |

Summary Wizard of 480 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 36 | 79.107 | -0.489 | 0.000 | 0.11 | 35.1 | OK |
| 4.004 | SW17 | 35 | 79.088 | -0.598 | 0.000 | 0.07 | 35.1 | OK |
| 1.010 | SW11 | 36 | 79.014 | -0.594 | 0.000 | 0.10 | 46.4 | OK |
| 1.011 | SW12 | 36 | 78.916 | -0.629 | 0.000 | 0.06 | 46.4 | OK |
| 1.012 | SW13 | 36 | 78.687 | -0.635 | 0.000 | 0.06 | 46.4 | OK |

Summary Wizard of 600 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

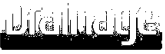
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF


Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Cap. (l/s) | Overflow (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|------------------------|----------------|-----------------|------------|
| | | | | | | | | | |
| 1.000 | SW1 | 11 | 80.619 | 0.074 | 0.000 | 0.20 | | 7.1 | SURCHARGED |
| 1.001 | SW2 | 10 | 80.615 | 0.181 | 0.000 | 0.18 | | 12.0 | SURCHARGED |
| 1.002 | SW3 | 9 | 80.611 | 0.324 | 0.000 | 0.23 | | 20.0 | SURCHARGED |
| 1.003 | SW4 | 5 | 80.605 | 0.571 | 0.000 | 0.15 | | 20.7 | SURCHARGED |
| 2.000 | SW15 | 5 | 80.602 | 0.669 | 0.000 | 0.04 | | 4.2 | FLOOD RISK |
| 1.004 | SW5 | 5 | 80.601 | 0.747 | 0.000 | 0.22 | | 31.0 | SURCHARGED |
| 1.005 | SW6 | 5 | 80.597 | 0.834 | 0.000 | 0.20 | | 33.7 | SURCHARGED |
| 3.000 | SW16 | 5 | 80.595 | 0.642 | 0.000 | 0.01 | | 3.1 | SURCHARGED |
| 1.006 | SW7 | 5 | 80.595 | 0.876 | 0.000 | 0.26 | | 37.4 | SURCHARGED |
| 1.007 | SW8hwall | 5 | 80.594 | 0.900 | 0.000 | 0.28 | | 36.8 | SURCHARGED |
| 1.008 | SW9hwall | 5 | 80.592 | 0.918 | 0.000 | 0.12 | | 36.2 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 5 | 80.592 | 0.940 | 0.000 | 0.03 | | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 39 | 79.463 | -0.498 | 0.000 | 0.10 | | 33.6 | OK |
| 4.001 | CUL2 | 39 | 79.349 | -0.501 | 0.000 | 0.08 | | 33.6 | OK |
| 4.002 | CUL3 | 39 | 79.175 | -0.484 | 0.000 | 0.10 | | 33.6 | OK |

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|---|---|---|
| Edge Consulting UK | | Page 147 |
| Barton Arcade Manchester M3 2BH | |  |
| Date 10/11/2020 09:36 File 19310-MDX-CULVERT_200930... | Designed by [REDACTED] Checked by [REDACTED] | |
| XP Solutions | | Network 2019.1 |

Summary Wizard of 600 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 39 | 79.103 | -0.493 | 0.000 | 0.10 | 33.6 | OK |
| 4.004 | SW17 | 39 | 79.085 | -0.601 | 0.000 | 0.07 | 33.6 | OK |
| 1.010 | SW11 | 40 | 79.012 | -0.596 | 0.000 | 0.09 | 45.0 | OK |
| 1.011 | SW12 | 40 | 78.914 | -0.631 | 0.000 | 0.06 | 45.0 | OK |
| 1.012 | SW13 | 40 | 78.685 | -0.637 | 0.000 | 0.06 | 45.0 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 148 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by [REDACTED] | |
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Summary Wizard of 720 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Pipe Flow / Overflow Cap. (l/s) | Pipe Flow (l/s) | Status |
|-------|----------------|------------|-----------------|----------------------|----------------------------------|---------------------------------|-----------------|------------|
| | | | | | | | | |
| 1.000 | SW1 | 13 | 80.589 | 0.044 | 0.000 | 0.17 | 6.2 | SURCHARGED |
| 1.001 | SW2 | 13 | 80.585 | 0.151 | 0.000 | 0.16 | 10.5 | SURCHARGED |
| 1.002 | SW3 | 11 | 80.582 | 0.295 | 0.000 | 0.20 | 17.6 | SURCHARGED |
| 1.003 | SW4 | 7 | 80.575 | 0.541 | 0.000 | 0.13 | 18.3 | SURCHARGED |
| 2.000 | SW15 | 7 | 80.572 | 0.639 | 0.000 | 0.04 | 3.7 | FLOOD RISK |
| 1.004 | SW5 | 7 | 80.572 | 0.718 | 0.000 | 0.19 | 27.3 | SURCHARGED |
| 1.005 | SW6 | 7 | 80.568 | 0.805 | 0.000 | 0.17 | 29.6 | SURCHARGED |
| 3.000 | SW16 | 7 | 80.566 | 0.613 | 0.000 | 0.01 | 2.7 | SURCHARGED |
| 1.006 | SW7 | 7 | 80.566 | 0.847 | 0.000 | 0.23 | 32.9 | SURCHARGED |
| 1.007 | SW8hwall | 7 | 80.564 | 0.870 | 0.000 | 0.25 | 32.4 | SURCHARGED |
| 1.008 | SW9hwall | 7 | 80.563 | 0.889 | 0.000 | 0.11 | 31.9 | SURCHARGED |
| 1.009 | S10 HYDROBRAKE | 7 | 80.562 | 0.910 | 0.000 | 0.03 | 11.7 | SURCHARGED |
| 4.000 | CUL1 | 42 | 79.461 | -0.500 | 0.000 | 0.10 | 32.6 | OK |
| 4.001 | CUL2 | 42 | 79.347 | -0.503 | 0.000 | 0.08 | 32.6 | OK |
| 4.002 | CUL3 | 42 | 79.172 | -0.487 | 0.000 | 0.10 | 32.6 | OK |

Summary Wizard of 720 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|----------------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow Cap. (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 42 | 79.101 | -0.495 | 0.000 | 0.10 | 32.6 | OK |
| 4.004 | SW17 | 42 | 79.083 | -0.603 | 0.000 | 0.07 | 32.6 | OK |
| 1.010 | SW11 | 43 | 79.010 | -0.598 | 0.000 | 0.09 | 44.1 | OK |
| 1.011 | SW12 | 43 | 78.913 | -0.632 | 0.000 | 0.06 | 44.1 | OK |
| 1.012 | SW13 | 43 | 78.684 | -0.638 | 0.000 | 0.05 | 44.1 | OK |

Summary Wizard of 960 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,
960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water | | Surcharged | | Flooded | | Pipe | Status |
|-------|----------------|---------------|--------------|--------------|----------------|----------------|-------------------|---------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m³) | Flow / Cap. | Overflow (l/s) | Flow (l/s) | | |
| 1.000 | SW1 | 15 | 80.520 | -0.025 | 0.000 | 0.14 | | 5.0 | OK | |
| 1.001 | SW2 | 15 | 80.517 | 0.083 | 0.000 | 0.13 | | 8.5 | SURCHARGED | |
| 1.002 | SW3 | 14 | 80.513 | 0.226 | 0.000 | 0.17 | | 14.3 | SURCHARGED | |
| 1.003 | SW4 | 9 | 80.507 | 0.473 | 0.000 | 0.11 | | 15.3 | SURCHARGED | |
| 2.000 | SW15 | 9 | 80.504 | 0.571 | 0.000 | 0.03 | | 3.0 | SURCHARGED | |
| 1.004 | SW5 | 9 | 80.503 | 0.649 | 0.000 | 0.16 | | 22.2 | SURCHARGED | |
| 1.005 | SW6 | 9 | 80.500 | 0.737 | 0.000 | 0.14 | | 24.1 | SURCHARGED | |
| 3.000 | SW16 | 9 | 80.498 | 0.545 | 0.000 | 0.01 | | 2.2 | SURCHARGED | |
| 1.006 | SW7 | 9 | 80.498 | 0.779 | 0.000 | 0.19 | | 26.8 | SURCHARGED | |
| 1.007 | SW8hwall | 9 | 80.496 | 0.802 | 0.000 | 0.20 | | 26.4 | SURCHARGED | |
| 1.008 | SW9hwall | 9 | 80.495 | 0.821 | 0.000 | 0.09 | | 26.0 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 9 | 80.494 | 0.842 | 0.000 | 0.03 | | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 50 | 79.458 | -0.503 | 0.000 | 0.09 | | 31.2 | OK | |
| 4.001 | CUL2 | 50 | 79.344 | -0.506 | 0.000 | 0.07 | | 31.2 | OK | |
| 4.002 | CUL3 | 50 | 79.169 | -0.490 | 0.000 | 0.09 | | 31.2 | OK | |

Summary Wizard of 960 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 50 | 79.098 | -0.498 | 0.000 | 0.09 | 31.2 | OK |
| 4.004 | SW17 | 50 | 79.079 | -0.607 | 0.000 | 0.06 | 31.2 | OK |
| 1.010 | SW11 | 49 | 79.008 | -0.600 | 0.000 | 0.09 | 42.8 | OK |
| 1.011 | SW12 | 49 | 78.911 | -0.634 | 0.000 | 0.06 | 42.8 | OK |
| 1.012 | SW13 | 49 | 78.682 | -0.640 | 0.000 | 0.05 | 42.8 | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 152 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
| XP Solutions | Network 2019.1 | |

Summary Wizard of 1440 minute 100 year Winter I+30% for SW

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 2 Number of Storage Structures 1 Number of Real Time Controls 0

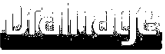
Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.300
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.000 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 OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

| PN | US/MH Name | Storm Rank | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe | Status |
|-------|----------------|------------|-----------------|----------------------|---------------------|-------------|----------------|------------|--------|
| | | | | | | | | Flow (l/s) | |
| 1.000 | SW1 | 57 | 80.368 | -0.177 | 0.000 | 0.10 | 3.7 | | OK |
| 1.001 | SW2 | 26 | 80.354 | -0.080 | 0.000 | 0.10 | 6.3 | | OK |
| 1.002 | SW3 | 23 | 80.350 | 0.063 | 0.000 | 0.12 | 10.6 | SURCHARGED | |
| 1.003 | SW4 | 18 | 80.345 | 0.311 | 0.000 | 0.08 | 11.7 | SURCHARGED | |
| 2.000 | SW15 | 18 | 80.342 | 0.409 | 0.000 | 0.02 | 2.4 | SURCHARGED | |
| 1.004 | SW5 | 18 | 80.342 | 0.488 | 0.000 | 0.12 | 17.3 | SURCHARGED | |
| 1.005 | SW6 | 18 | 80.338 | 0.575 | 0.000 | 0.11 | 18.4 | SURCHARGED | |
| 3.000 | SW16 | 18 | 80.336 | 0.383 | 0.000 | 0.01 | 1.8 | SURCHARGED | |
| 1.006 | SW7 | 18 | 80.336 | 0.617 | 0.000 | 0.14 | 20.2 | SURCHARGED | |
| 1.007 | SW8hwall | 18 | 80.335 | 0.641 | 0.000 | 0.15 | 20.0 | SURCHARGED | |
| 1.008 | SW9hwall | 18 | 80.333 | 0.659 | 0.000 | 0.07 | 19.7 | SURCHARGED | |
| 1.009 | S10 HYDROBRAKE | 18 | 80.333 | 0.681 | 0.000 | 0.03 | 11.7 | SURCHARGED | |
| 4.000 | CUL1 | 57 | 79.455 | -0.506 | 0.000 | 0.09 | 29.7 | | OK |
| 4.001 | CUL2 | 63 | 79.341 | -0.509 | 0.000 | 0.07 | 29.7 | | OK |
| 4.002 | CUL3 | 57 | 79.165 | -0.494 | 0.000 | 0.09 | 29.7 | | OK |

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|---------------------------------------|------------------------|---|
| Edge Consulting UK | | Page 153 |
| Barton Arcade Manchester M3 2BH | | |
| Date 10/11/2020 09:36 | Designed by [REDACTED] |  |
| File 19310-MDX-CULVERT_200930... | Checked by | |
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Summary Wizard of 1440 minute 100 year Winter I+30% for SW

| PN | US/MH Name | Storm Rank | Water | Surcharged | Flooded | Pipe | | Status |
|-------|------------|------------|-----------|------------|--------------------------|-----------------------|------------|--------|
| | | | Level (m) | Depth (m) | Volume (m ³) | Flow / Overflow (l/s) | Flow (l/s) | |
| 4.003 | CUL4 | 57 | 79.094 | -0.502 | 0.000 | 0.09 | 29.7 | OK |
| 4.004 | SW17 | 56 | 79.075 | -0.611 | 0.000 | 0.06 | 29.7 | OK |
| 1.010 | SW11 | 56 | 79.005 | -0.603 | 0.000 | 0.09 | 41.4 | OK |
| 1.011 | SW12 | 56 | 78.909 | -0.636 | 0.000 | 0.06 | 41.4 | OK |
| 1.012 | SW13 | 56 | 78.680 | -0.642 | 0.000 | 0.05 | 41.4 | OK |