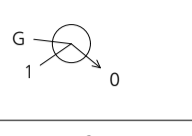
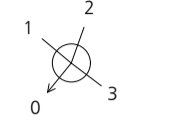
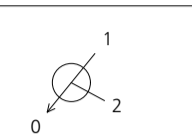
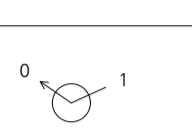
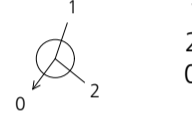
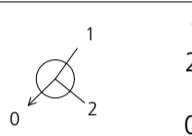


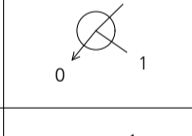
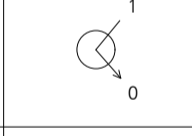
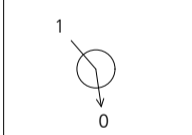
S104 SURFACE WATER MANHOLE SCHEDULE

| Node ID | Easting (m) | Northing (m) | CL (m) | Depth (m) | Depth to Soffit (m) | Sump (m) | Dia (mm) | Manhole Type | Connections | Link ID | IL (m) | Dia (mm) | Cover |
|-----------|-------------|--------------|---------|-----------|---------------------|----------|----------|--------------|--|-------------------------------------|--|--------------------------|---|
| SW1.00 | 422687.200 | 424004.297 | 132.729 | 3.114 | 2.814 | | 1200 | Type B |  1 0 | LATERAL | 129.765 | 150 | D400 600x600 |
| SW1.01 | 422707.909 | 423987.249 | 132.459 | 2.959 | 2.659 | | 1500 | Type B |  1 2 3 0 | 1.000 LATERAL 538.00 1.001 | 129.500 129.650 129.650 129.500 | 300 150 150 300 | D400 600x600 |
| SW1.02 | 422702.332 | 423980.378 | 132.081 | 3.516 | 3.216 | 0.300 | 1500 | Type A |  1 2 0 | 1.001 LATERAL | 128.715 128.865 | 300 150 | D400 600x600 |
| SW1.04-FC | 422690.812 | 423966.187 | 131.260 | 3.310 | 2.290 | 0.260 | 1800 | Flow Control |  1 0 | 1.003 1.004 | 128.520 128.470 | 450 150 | D400 TWIN 600x600 OR D400 TWIN 675x610 |

S104 FOUL WATER MANHOLE SCHEDULE

| Node ID | Easting (m) | Northing (m) | CL (m) | Depth (m) | Depth to Soffit (m) | Dia (mm) | Manhole Type | Connections | Link ID | IL (m) | Dia (mm) | Cover |
|---------|-------------|--------------|---------|-----------|---------------------|----------|--------------|---|-----------------------------|-------------------------------|-------------------|-----------------|
| FW1.00 | 422705.760 | 423987.261 | 132.442 | 1.729 | 1.579 | 1200 | Type B |  1 2 0 | LATERAL LATERAL 1.000 | 130.713 130.713 130.713 | 150 150 150 | D400 600x600 |
| FW1.01 | 422699.543 | 423978.732 | 131.959 | 1.964 | 1.814 | 1200 | Type B |  1 2 0 | 1.000 LATERAL 1.001 | 129.995 129.995 129.995 | 150 150 150 | D400 600x600 |

S104 COMBINED WATER MANHOLE SCHEDULE

| Node ID | Easting (m) | Northing (m) | CL (m) | Depth (m) | Depth to Soffit (m) | Dia (mm) | Manhole Type | Connections | Link ID | IL (m) | Dia (mm) | Cover |
|---------|-------------|--------------|---------|-----------|---------------------|----------|--------------|---|------------------|----------------------|------------|-----------------|
| CW1.00 | 422688.455 | 423967.831 | 131.050 | 2.610 | 2.460 | 1200 | Type B |  2 1 0 | 1.004 F1.001 | 128.440 128.440 | 150 150 | D400 600x600 |
| CW1.01 | 422677.272 | 423954.025 | 130.000 | 1.738 | 1.588 | 1200 | Type B |  1 0 | 1.005 1.006 | 128.262 128.262 | 150 150 | D400 600x600 |
| CW1.02 | 422686.054 | 423943.967 | 129.460 | 2.460 | 2.310 | 1200 | Type B |  1 0 | 1.006 OUTFALL | BD128.110 127.000 | 150 150 | D400 600x600 |

ADOPTABLE SW LATERAL - MANHOLES


| Manhole Name | X Co-Ord | Y Co-Ord | Cover Level (m) | MH Depth (m) | Manhole Diam (mm) | Pipe Out Invert Level (m) | Pipe Out Diameter (mm) | Pipes In Invert Level (m) | Pipes In Diameter (mm) | Cover | MH Depth to SL | MH Material | MH Type | Notes | Pipe Material | Pipe Lengths (m) | Pipe Gradients | Demarcation Manufacturer | Pipe Manufacturer |
|--------------|------------|------------|-----------------|--------------|-------------------|---------------------------|------------------------|---------------------------|------------------------|----------------|----------------|-------------|---------------|-------|---------------|------------------|----------------|--|--------------------|
| SWL1 | 422682.262 | 424000.890 | 132.796 | 2.956 | 1200 | 129.840 | 150 | 129.840 | 150 | D400 600 X 600 | 2.806 | PCC | TYPE B | | PVC | 6.000 | 1:80 | FP McCANN | Polypipe Polysewer |
| SWL2 | 422709.628 | 423992.145 | 132.644 | 2.896 | 1200 | 129.748 | 150 | 129.798 | 150 | B125 600 X 600 | 2.746 | PCC | TYPE B | | PVC | 5.189 | 1:53 | FP McCANN | Polypipe Polysewer |
| | | | | | | | | BD131.594 | 100 | | | | | | | | | | |
| SWL3 | 422705.975 | 423978.435 | 132.060 | 2.782 | 450 | 129.278 | 150 | 129.328 | 100 | B125 450 X 450 | 2.632 | PLASTIC | PPIC DRIVEWAY | | PVC | 4.129 | 1:10 | Polypipe Non Man Entry Deep Inspection Chamber | Polypipe Polysewer |
| | | | | | | | | 123.328 | 100 | | | | | | | | | | |

ADOPTABLE FW LATERAL - MANHOLES

| Manhole Name | X Co-Ord | Y Co-Ord | Cover Level (m) | MH Depth (m) | Manhole Diam (mm) | Pipe Out Invert Level (m) | Pipe Out Diameter (mm) | Pipes In Invert Level (m) | Pipes In Diameter (mm) | Cover | MH Depth to SL | MH Material | MH Type | Notes | Pipe Material | Pipe Lengths (m) | Pipe Gradients | Demarcation Manufacturer | Pipe Manufacturer |
|--------------|------------|------------|-----------------|--------------|-------------------|---------------------------|------------------------|---------------------------|------------------------|----------------|----------------|-------------|---------------|-------|---------------|------------------|----------------|--|--------------------|
| FWL1 | 422691.342 | 423972.683 | 131.420 | 2.265 | 1200 | 129.155 | 150 | 129.155 | 150 | D400 600 X 600 | 2.115 | PCC | TYPE B | | PVC | 1.773 | 1:10 | FP McCANN | Polypipe Polysewer |
| FWL2 | 422707.947 | 423993.607 | 132.693 | 1.350 | 450 | 131.343 | 150 | 131.393 | 100 | B125 450 X 450 | 1.200 | PLASTIC | PPIC DRIVEWAY | | PVC | 6.713 | 1:11 | Polypipe Inspection Chamber | Polypipe Polysewer |
| | | | | | | | | 131.393 | 100 | | | | | | | | | | |
| FWL3 | 422720.546 | 423975.424 | 132.300 | 1.350 | 450 | 130.950 | 150 | 131.000 | 100 | B125 450 X 450 | 1.200 | PLASTIC | PPIC DRIVEWAY | | PVC | 18.94 | 1:80 | Polypipe Inspection Chamber | Polypipe Polysewer |
| | | | | | | | | 131.000 | 100 | | | | | | | | | | |
| FWL4 | 422703.640 | 423975.420 | 131.850 | 1.790 | 450 | 130.060 | 150 | 130.110 | 100 | B125 450 X 450 | 1.640 | PLASTIC | PPIC DRIVEWAY | | PVC | 5.268 | 1:80 | Polypipe Non Man Entry Deep Inspection Chamber | Polypipe Polysewer |

DESIGNERS HAZARD IDENTIFICATION

IT IS ASSUMED THAT ALL WORKS WILL BE UNDERTAKEN BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT. IN ADDITION TO THE HAZARDS TYPICALLY ASSOCIATED WITH THE TYPES OF CONSTRUCTION DETAILED ON THIS DRAWING, ANY KNOWN ABNORMAL HAZARDS SPECIFIC TO THIS SCHEME HAVE BEEN IDENTIFIED.




ABNORMAL HAZARD REFERENCE

NOTES

- DO NOT SCALE FROM THIS DRAWING.
 - THIS DRAWING IS TO BE REPRODUCED IN COLOUR.
 - IF ANY DISCREPANCIES ARE FOUND IN THIS DRAWING, PLEASE REPORT TO DUDLEYS CONSULTING ENGINEERS.
- YORKSHIRE WATER NOTES:
- ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED.
 - MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
 - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
 - YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION REGARDING THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
 - THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
 - SEWERS MUST HAVE 5m CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT (PLEASE ALSO REFER DESIGN AND CONSTRUCTION GUIDANCE FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS).
 - SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONVEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
 - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A1).
 - YORKSHIRE WATER POLICY IS THAT BRICK MANHOLES AND 1050mm DIA. MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIA., 1350mm DIA. OR 1500mm DIA. RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5m.
 - ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS/EN13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD REQUIRE CLAY WARE CHANNEL IN MANHOLES.
 - THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS : 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
 - WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
 - THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300mm - IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED.
 - ALL PRECAST CONCRETE ELEMENTS, INCLUDING COVER SLABS, TO BE IN ACCORDANCE WITH THE SEWERAGE SECTOR GUIDANCE APPENDIX C CLAUSES E2.29 AND E2.30 AND TO HAVE A CONCRETE DESIGN CHEMICAL CLASS OF DC-4.
 - PCC COVER SLABS TO HAVE A MINIMUM OF 300mm COVER.
 - ALL PCC UNITS IN OVERSIZE MANHOLES MUST HAVE A DESIGN WORKING LIFE OF 100 YEARS (MIN.) IN ACCORDANCE WITH BS 8500-1:2015+A2:2019-TABLE A.5.

| DATE | REVISION DESCRIPTION | BY | CHK. | REV. |
|----------|---|-----|------|------|
| 26.11.25 | AMENDED FOLLOWING AMENDMENTS TO DRAINAGE STRATEGY | DC | JA | P06 |
| 29.09.25 | TITLE BLOCK NAME CHANGED | DC | JA | P05 |
| 08.09.25 | UPDATED TO SUIT LHA COMMENTS | JA | PD | P04 |
| 20.08.25 | UPDATED TO SUIT YW COMMENTS | JA | PD | P03 |
| 27.01.25 | LATERAL SCHEDULES UPDATED | APW | JA | P02 |
| 10.01.25 | PRELIMINARY ISSUE | JA | PD | P01 |



Tithe House
35 Town Street
Leeds, LS18 5JU
0113 258 3611
info@dudleys.co.uk

PROJECT
**HEALEY LANE
BATLEY, WF17 8BN**

TITLE
**S104 MANHOLE SCHEDULES
SHEET 1 OF 2**

| SCALE | PAPER | STATUS |
|-------------------------|-------|-------------|
| N.T.S. | A1 | PRELIMINARY |
| DRAWING NO. | REV. | |
| 24106-DCE-XX-XX-D-C-120 | P06 | |