

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 TYPE OF CONSTRUCTION DETAILED ON THIS DRAWING, ANY KNOWN ABNORMAL HAZARDS SPECIFIC TO THIS DRAWING HAVE BEEN IDENTIFIED.



- DO NOT SCALE FROM THIS DRAWING AS IT MAY NOT BE REPRODUCED TO SCALE.
- PLEASE REPORT ANY DISCREPANCIES TO DUDLEYS CONSULTING ENGINEERS PRIOR TO CONSTRUCTION.

YORKSHIRE WATER GENERAL NOTES

- ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERGIBLE FOLL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED.
- MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS 4000 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 ULAISE WITH THE LOCAL AUTHORITY LAND DRAINAGE SECTION WITH REGARD TO 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 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.
- 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 NONE VEHICULAR 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 A2).
- YORKSHIRE WATER POLICY IS THAT TYPE "C" BRICK MANHOLES AND 1500MM DIA. MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM DIA OR 1500MM DIA RINGS, WITH THE OPENING SETD 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 EN 13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES.
- THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS - 100MM DIA. 400NM, 150MM DIA. 400NM, 225MM DIA. 450NM AND 300MM DIA. 230NM. 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.

ADOPTABLE SW LATERAL - MANHOLES

Manhole Name	X Co-Ord	Y Co-Ord	Cover Level (m)	MH Depth (m)	Manhole Diam.,L* W (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
SWL 1	423340.962	410877.880	148.175	1.525	450	146.650	150	146.650	150	C250 450 X 450 WITH 450 X 350 RDER	1.375	PLASTIC	PPIC GDN		VC	8	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
SWL 2	423360.554	410917.665	146.950	1.582	450	145.368	150	145.368	150	C250 450 X 450 WITH 450 X 350 RDER	1.432	PLASTIC	PPIC GDN		VC	8	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
SWL 3	423353.424	410933.869	146.850	1.119	450	145.731	150	145.731	150	C250 450 X 450	0.969	PLASTIC	PPIC DRIVE		VC	6.5	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								145.781	100										
SWL 5	423384.677	410969.487	144.400	1.466	450	142.934	150	142.934	150	C250 450 X 450 WITH 450 X 350 RDER	1.316	PLASTIC	PPIC GDN		VC	4.7	1:18	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								142.984	100										
								142.984	100										
SWL 8	423462.814	410943.914	138.900	1.069	450	137.831	150	137.831	150	C250 450 X 450	0.919	PLASTIC	PPIC GDN		VC	6.1	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								137.881	100										
SWL 11	423480.593	410979.490	138.450	1.160	450	137.290	150	137.290	150	C250 450 X 450	1.01	PLASTIC	PPIC DRIVE		VC	7.8	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								137.340	100										
								137.340	100										
								137.340	100										

ADOPTABLE FW LATERAL - MANHOLES

Manhole Name	X Co-Ord	Y Co-Ord	Cover Level (m)	MH Depth (m)	Manhole Diam.,L* W (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
FWL CW	423339.766	410877.047	148.300	1.515	450	146.785	150	148.835	100	C250 450 X 450 WITH 450 X 350 RDER	1.365	PLASTIC	PPIC GDN		VC	6.4	1:14	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								148.835	100										
FWL 1-1	423350.922	410929.667	146.900	1.650	450	145.250	150	145.300	100	C250 450 X 450 WITH 450 X 350 RDER	1.5	PLASTIC	PPIC GDN		VC	8.5	1:10	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								145.300	100										
FWL 1-2	423363.006	410925.211	146.725	1.182	450	145.543	150	145.593	100	C250 450 X 450	1.032	PLASTIC	PPIC GDN		VC	5.1	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
FWL 3	423387.319	410972.557	144.275	2.445	450	141.830	150	141.880	100	C250 450 X 450 WITH 450 X 350 RDER	2.295	PLASTIC	PPIC DRIVE		VC	8.4	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								141.880	100										
FWL 5	423467.409	410958.118	138.950	0.961	450	137.989	150	138.039	100	C250 450 X 450	0.811	PLASTIC	PPIC GDN		VC	11.7	1:80	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								138.039	100										
								138.039	100										
FWL 7	423481.229	410978.360	138.350	0.622	450	137.728	150	137.752	150	C250 450 X 450	0.472	PLASTIC	PPIC GDN		VC	2.9	1:28	Wavin Osma drain Universal inspection chamber	Hepworth supersleve
								137.752	150										

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 Title  
**ADOPTABLE SW & FW**  
 LATERAL MANHOLE SCHEDULES

Scale	N/A	Paper	A0	Drawn	MDJ	Check	PD
Date	JAN 23	Status	CONSTRUCTION				
Job No.	21374	Drp. No.	121	Rev.	A		