



ATER DEMARCATION CHAMBER SCHEDULE

COVER LEVEL	PIPE LENGTH	PIPE DIA	PIPE GRADIENT	PIPE MATERIAL
210.00	4.30m	150	1 IN 26	VITRIFIED CLAY
211.00	2.80m	150	1 IN 57	VITRIFIED CLAY
210.80	6.80m	150	1 IN 60	VITRIFIED CLAY
211.04	8.40m	150	1 IN 150	VITRIFIED CLAY
211.90	2.80m	150	1 IN 10	VITRIFIED CLAY
211.40	5.90m	150	1 IN 14	VITRIFIED CLAY
210.85	3.50m	150	1 IN 18	VITRIFIED CLAY
208.30	4.80m	150	1 IN 19	VITRIFIED CLAY
207.70	4.00m	150	1 IN 75	VITRIFIED CLAY
208.90	4.65m	150	1 IN 77	VITRIFIED CLAY
207.01	5.70m	150	1 IN 33	VITRIFIED CLAY
208.54	7.90m	150	1 IN 23	VITRIFIED CLAY
205.30	4.35m	150	1 IN 46	VITRIFIED CLAY
202.05	7.70m	150	1 IN 77	VITRIFIED CLAY
204.310	6.90m	150	1 IN 32	VITRIFIED CLAY
203.00	6.80m	150	1 IN 10	VITRIFIED CLAY
205.365	6.30m	150	1 IN 78	VITRIFIED CLAY
206.00	5.70m	150	1 IN 10	VITRIFIED CLAY
205.80	3.85m	150	1 IN 10	VITRIFIED CLAY
205.615	4.90m	150	1 IN 10	VITRIFIED CLAY
202.95	7.50m	150	1 IN 22	VITRIFIED CLAY
202.750	4.20m	150	1 IN 28	VITRIFIED CLAY
199.715	4.40m	150	1 IN 14	VITRIFIED CLAY
199.730	6.80m	150	1 IN 11	VITRIFIED CLAY

YORKSHIRE WATER NOTES:
(THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE HW)

ALL ADOPTABLE SEWER WORKS AND MATERIAL, TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (CODE FOR ADOPTION), THE RELEVANT BRITISH EUROPEAN AND YORKSHIRE WATER'S STANDARDS / REQUIREMENTS / ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND ITEM MARK.

MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 800mm AND SHALL BE CLASS D40 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.

WHERE A 150 COVER AND FRAME HAS BEEN APPROVED, THE MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUFFICIENT TO ACCOMMODATE STANDARD LIFTING KEYS. SOFTEN DOWN COVERS ARE NOT ACCEPTABLE.

FILED 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 INDIRECTLY). 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 WITH REGARD TO THE DISPOSAL OF THE FILTER DRAIN / LAND DRAINAGE RUN-OFF.

ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.

SEWERS TO BE LAD 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 800mm IN NON VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.

THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO 300mm APPROX. 300mm OF CROSSOVER IS NEAR THE ROCKER THEN CLEARANCE MAY NEED TO BE INCREASED.

BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).

ADOPTABLE PLASTIC SEWER PIPES TO BE KIT-MARKED, CERTIFIED TO BS 4154 AND BS EN 1401. ADOPTABLE PLASTIC SEWER PIPES TO BE LAD 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 PREFER CLAYWARE CHANNEL IN MANHOLES.

THE MINIMUM CROSSING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA 40kN, 150mm DIA 60kN, 225mm DIA 85kN, 300mm DIA 120kN. THE MINIMUM CROSSING STRENGTH FOR CONCRETE PIPES SHOULD BE CLASS 100 TO EN 1996 / BS EN 12454 (M40). PLASTIC PIPES SHOULD CONFORM TO BS 4154 AND BS EN 1401.

SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.

YORKSHIRE WATER POLICY IS THAT TYPE C BRICK MANHOLES AND 100mm DIAMETER RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE F MANHOLE WITH 100mm OR 150mm DIAMETER RINGS, WITH THE OPENING SEATED OVER THE CHANNEL WHERE DEPTH OF COVER TO THE SLOTT IS 1.5:1.5m.

- NOTES:**
- THIS DRAWING IS BASED UPON:
 - HARRON HOMES SITE LAYOUT 429-001 REV A2;
 - HARRON HOMES SECTION 104 APPROVED LAYOUTS: 18-002 REV C, 18-003 REV D AND 18-013 REV H;
 - TOPOGRAPHIC SURVEY PROVIDED BY HARRON HOMES, 04.12.20;
 - ORDNANCE SURVEY MAPS.
 - ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH 'SEWERS FOR ADOPTION' CODES EDITION AND YORKSHIRE WATER SPECIFICATIONS/SPECIAL REQUIREMENTS.
 - ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL, SPECIFICATIONS AND REGULATIONS.
 - THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT & DIVERSION WORKS AS NECESSARY TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITY COMPANIES.
 - ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS. DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL RELEVANT APPROVALS FROM THE RELEVANT AUTHORITIES (WHEN WORKING IN THE PUBLIC HIGHWAY AND ON SEWERAGE SYSTEMS).
 - UPON COMPLETION OF THE WORKS, THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC DRAINAGE OR WATERCOURSE SYSTEM. ALL DRAINS SHALL BE CCTV SURVEYED WITH THE CD PASSED TO THE CLIENT FOR REVIEW.

KEY:

- PHASE 2 DEVELOPMENT BOUNDARY
- EXISTING SEWER MANHOLE (NOTED COMBINED ON THE TOPOGRAPHIC SURVEY)
- F25 FOLL WATER SEWER MANHOLE (TO BE ADOPTED UNDER SEPARATE S104 AGREEMENT)
- S38 SURFACE WATER SEWER MANHOLE (TO BE ADOPTED UNDER SEPARATE S104 AGREEMENT)
- F201 PROPOSED FOLL WATER SEWER MANHOLE (S104)
- S314 PROPOSED SURFACE WATER SEWER MANHOLE (S104)
- F202 PROPOSED FOLL AND SURFACE WATER BACKDROPS (S104)
- F203 PROPOSED FOLL WATER LATERAL DRAIN / DEMARCATION CHAMBER
- S309 PROPOSED SURFACE WATER LATERAL DRAIN / DEMARCATION CHAMBER
- F301 PROPOSED HIGHWAY DRAIN (S3)
- RD DENOTES DOUBLE GULLY

FOLL WATER DEMARCATION CHAMBER SCHEDULE

DC REF	COORDINATES	COVER TYPE	PIPE LENGTH	PIPE DIA	PIPE GRADIENT
F201	E: 41348.073 N: 42020.547	600x600 D400	6.33m	100	1 IN 60
F202	E: 41352.287 N: 42025.483	450x450 B125	4.65m	100	1 IN 31
F203	E: 41351.983 N: 42028.101	450x450 B125	5.60m	100	1 IN 75
F204	E: 41358.075 N: 42004.545	450x450 B125	11.48m	100	1 IN 57
F205	E: 41322.841 N: 42009.154	450x450 B125	5.80m	100	1 IN 60
F206	E: 41353.694 N: 42063.347	450x450 B125	3.54m	100	1 IN 80
F207	E: 41354.700 N: 42013.239	450x450 B125	4.00m	100	1 IN 20
F208	E: 41357.872 N: 42022.284	450x450 B125	2.90m	100	1 IN 10
F209	E: 41358.179 N: 42012.697	450x450 B125	6.00m	100	1 IN 10
F210	E: 41359.991 N: 42028.122	450x450 B125	4.72m	100	1 IN 10
F211	E: 41361.112 N: 42034.097	450x450 B125	6.65m	100	1 IN 60
F212	E: 41368.402 N: 42021.317	450x450 B125	6.93m	100	1 IN 77
F213	E: 41363.407 N: 42022.883	450x450 B125	4.40m	100	1 IN 60
F214	E: 41362.801 N: 42027.453	450x450 B125	4.40m	100	1 IN 10
F215	E: 41344.202 N: 42024.042	450x450 B125	3.20m	100	1 IN 60
F216	E: 41352.871 N: 42024.578	450x450 B125	3.20m	100	1 IN 10
F217	E: 41364.594 N: 42018.997	600x600 D400	3.15m	100	1 IN 60
F218	E: 41360.665 N: 42019.018	450x450 B125	9.80m	100	1 IN 32
F219	E: 41361.491 N: 42019.991	450x450 B125	6.10m	100	1 IN 10
F220	E: 41366.219 N: 42012.025	450x450 B125	4.95m	100	1 IN 50

THIS DRAWING IS SUBJECT TO THE APPROVAL OF YORKSHIRE WATER

Rev	Date	Amendments	By
D	22.08.22	Updated to suit YW comments.	ML
C	24.04.22	Updated to suit revised layout.	ML
B	21.02.22	YV notes revised and general update in accordance with YV comments.	ML
A	19.01.22	YV notes revised, general update in accordance with YV comments and YV reference added.	ML

TENDER PACK

FORTEM

FORTEM Civil Engineering Consultants Ltd
T: 01777 550170 | 01748 882458
E: info@fortemconsultants.co.uk
W: www.fortemconsultants.co.uk

Client: HARRON HOMES

Project: PHASE 2 GERNHILL AVENUE, FIXBY

Drawing Title: SECTION 104 LAYOUT

Drawn: ML Scale: 1:500 @ A0
Checked: RD Date: DEC 2021

Drawing No: 1113 - 311 Rev: D