

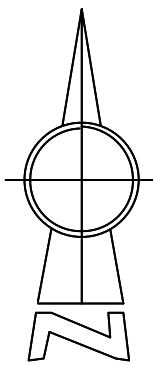
Impermeable Area	1.486ha	Based on Layout Ref: F
Discharge Rate	5 l/sec	Taken from Enzygo FRA Ref: CRM 1122.003.HY.R.001.A
Climate Change	30%	
Urban Creep	Nil	Barnsley MBC LLFA Requirements
CV Values	0.75/0.84	Default values (Barnsley LLFA)
Plan area at 28.425m	975m ²	
Plan Area at 29.725m	1520m ²	Maximum water depth 1.0m
Design parameters are based on the latest information available from Barnsley MBC and will be subject to their requirements at detailed design / planning approval stage		

FLOW CONTROL DATA

MANUFACTURER	HYDRO INTERNATIONAL
TELEPHONE	01275 878371
TYPE	optimum HE
FLOW/HEAD	5 l/s @ 1.500m
HYDRO REF	CTL-SHE-0093-5000-1900-5000
To be installed in accordance with manufacturers specifications and recommendations before the manhole cover slab is installed	

NOTE
Lateral sewers to be Hepworth Plastidrain (110 & 160 O.D.) in UPVC.
Demarcation chamber to be polypropylene Non-Entry Inspection Chamber up to 2.0m depth manufactured by Wavin to BS EN 13598-1:2003.

- K E Y
- Storm water manhole
 - Foul water manhole
 - Storm water sewer
 - Foul water sewer
 - Combined sewer
 - Gully
 - Yard gully
 - Channel Drain (min B125 grade cover)
 - Easement
 - 3.5m Basin access



ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN

- For longitudinal sections refer to drawing 1048/141/06.
- No services are to be sited directly over, or within 1m of, an adoptable sewer or manhole.
- Private drainage connections to adoptable sewers to be via 45° junction.
- Off site manholes already built must have invert levels checked prior to connection to the off site drainage.
- Any connections to existing sewers/manholes are to be supervised by Yorkshire Water.
- All connections to proposed public sewers to be minimum 150mmØ.
- Any land drain or water course on site to be diverted as not to pass under proposed buildings. Diversion to be approved and inspected on site by the Local Authority.

Yorkshire Water General 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/Addendum to the Mechanical and Electrical Specification and 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.
- Cover slabs must carry the BSI Kitemark or will be rejected by the Yorkshire Water inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600x600mm for the Yorkshire Water specified cover size. Please refer to the Concrete Pipe Systems Association (CPSA) 'Technical Bulletin' issued autumn 2004 for kitemarked cover slab opening sizes.
- 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, (please also refer to 5.1.10 in Code for Adoption 2020 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 none vehicular access areas) then a concrete slab should be provided above the granular bed and surround.
- Adoptable plastic sewer pipes to be BSI Kitemarked (Certified to WS 4-35-01 and BS/EN13476). Adoptable sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer.
- Plastic channel sections in manholes are not acceptable and clayware is preferable. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the benching.
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- Yorkshire Water policy is not to accept Type "C" brick manhole and 1050mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia or 1500mm dia rings, with the opening sited over the channel where depth of cover to pipe soffit is 1-1.5m.
- Surface water and foul rising mains to be provided with marker tape above the rising mains.
- Bedding and backfill material to conform to the requirements of Water industry Specification 4-08-02 (Table A2)
- Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
- Where plastic pipes are installed into the ground prior to getting full technical approval, the developer must provide a CCTV survey of the prospectively adoptable sewers and a deformation test (Light-Line test) of the plastic pipes.
- Demarcation chambers to be a min. 450mmØ chamber for 100mmØ foul & 150mmØ surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 350mm is required for safety reasons.
- Maximum depth of demarcation chamber to be 2m, where depth exceeds 2m, manhole to be constructed as type B manhole.
- 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.
- Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Land Drainage Authority/Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff.
- Sulphate resisting cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- 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 WS 4-35-01 and BS EN13476.
- All levels of existing drainage to be confirmed prior to work commencing on site.
- The contractor must allow for any fee's required for road and sewer opening permits, sewer connections and make the appropriate applications.
- There should be enough clearance to accommodate the bedding for both pipes, approx 300mm; If crossover is near rocker then the clearance needed may be increased.

C	AT	26.11.21	Revised to YW comments of 16.11.21	RJ	MI
B	RJ	28.10.21	Demarcation chambers amended	AT	RJ
A	CR	14.10.21	Layout F	AT	RJ
/	MB	20.08.21	Issued for approval	AT	MI
Rev	By	Date	Revision	Chk	Apvd.

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TITLE SECTION 104 LAYOUT
(SHEET 2 OF 2)

PROJECT
PITT STREET
DARFIELD

CLIENT
BDW YORKSHIRE WEST

DRAWING STATUS
PRELIMINARY

Scale	Date	Drawn	MB
1:500 @ A1	AUG 21	Chk.	AT

Drg. No.	Rev
1048/141/03.02	C

SUBJECT TO THE
APPROVAL OF
ALL RELEVANT
AUTHORITIES

