DOMESTIC FOUL WATER MANHOLE SCHEDULE

M/H No.	COVER LEVEL	INVERT LEVEL	M/H TYPE
F27.5	5.58	4.41	4F-G
F27.6	5.33	4.41	4F-G
F28.1	5.08	3.48	3F-G
F28.2	4.88	4.03	4F-G
F28.3	4.80	4.10	4F-G
F28.4	5.05	3.57	3F-G
F28.5	4.74	3.90	4F-D
F28.6	4.70	3.99	4F-D
F28.7	4.84	4.09	4F-G

DOMESTIC SURFACE WATER MANHOLE SCHEDULE

M/H No.	COVER LEVEL	INVERT LEVEL	M/H TYPE
S76.1	5.23	3.23	3F-D
S76.2	4.79	3.98	4F-G
S84.1	4.90	3.50	3F-G
S84.2	4.80	3.65	4F-G
S84.3	4.81	3.83	4F-G
S84.4	4.75	4.04	4F-G
S84.5	4.97	4.04	3F-G
S84a.1	4.67	3.39	3F-D
S84a.2	4.67	3.44	3F-D
S84a.3	REMOVED FROM DESIGN		C

NOTES

1. All dimensions are in metres unless stated otherwise.
2. Do not scale from this drawing. Only written dimensions are to be used.
3. FW & SW house drainage is to be constructed in accordance with the Building Regulations & BS8301 & the WRC Guide Sewers for Adoption 7th Edition.
4. Drains are to be constructed using flexibly jointed vitrified clay pipes to BS EN 295-1991 "Super Strength" specification (e.g. Hepworth Supersleve or similar) or uPVC drainage pipework to BS4660 & BS434, bedded & backfilled in accordance with manufacturers instructions.
5. Location of sewers & lateral drains to be in accordance with the WRC Guide Sewers for Adoption 6th Edition and specific requirements of Icosa Water.
6. Backfilling of drain trenches adjacent to dwelling or other structure to be in accordance with BS8301-Fig. 9.
7. Cover levels indicated on the Drainage Schedules are nominal & may be adjusted to suit finished ground levels as necessary.
8. Generally Inspection chamber covers should be Grade D400 in trafficked areas Grade B125 in parking areas and occasional traffic and A15 in pedestrian only areas.
9. Rainwater downpipes to be connected direct to drain using an appropriate adaptor & removable section of downpipe to permit rodding access.
10. The positions of SVP's, stub stacks, WC outlets, Back inlet gullies etc. & rainwater downpipes are to be accurately located from the house type working drawings.
11. Generally FW drains are to be laid to falls of 1 in 40, SW drains are to be laid to falls of 1 in 60, both in 100mm diameter pipes. SW pipes are to be 150mm diameter when serving 2 dwellings or 2 RWP connections. FW pipes are to be 150mm diameter when serving 10 dwellings or more unless stated otherwise, or where a schedule is provided.
12. 100mmØ Drains are to be laid to a minimum fall of 1 in 80 and 150mmØ Drains are to be laid to a minimum fall of 1 in 150.
13. Gullies situated in areas accessible to wheeled vehicles to be of suitable construction for trafficked areas.
14. Where land drain is identified on the Architect's details, connect into nearest SW system.
15. Where catchpits have been shown in rear gardens connecting to land drains, 600mm PP/C catchpit to be used.
16. This drawing should be read in conjunction with the Architect's and Structural Engineer's design drawings and specification.
17. Site layout shown in this drawing is based on ID Partnership Proposed Site Layout Plan, drawing number PL-04 revision G, issued to RCP in .dwg format on 08/01/2019.
18. Architectural blocks based on RCP Block Foundation Layouts, drawing numbers 4519/A/FOUNDS/01 to 31 dated December 2018. Substations based on SSE Standard Substation Enclosures, drawing number MP/32/1644 revision A, as provided by Client on 10/01/2019.
19. Topographical Survey as per Siteline Site Survey, drawing number 36FA01, dated August 2016.
20. Background landscaping proposals based on Fabrik drawing number D2434, issued to RCP in .dwg format on 08/01/2019.
21. This drawing should be read in conjunction with Adoptable Drainage Construction Details (BSO/E4519/411 & 412), Foul Water Sewer Manhole Schedules (BSO/E4519/413 & 414), Surface Water Sewer Manhole Schedules (BSO/E4519/415 to 417), other Drainage General Arrangements and Domestic Drainage Construction Details (BSO/E4519/471 & 472).
22. Where backdrop is less than 1.0m for domestic drainage, backdrop to be accommodated with internal benching.
23. ***ANY VARIANCE OR DISCREPANCY MUST BE REPORTED BACK TO RCP ENGINEERING BEFORE WORK BEGINS.***

TYPE	DEPTH RANGE	DESCRIPTION	TYPE	DEPTH RANGE	DESCRIPTION
3-F	0.6m to 3.0m	min. 450mm diameter Flexible (uPVC) access chamber (Non Entry)	4-F	0.6m to 2.0m	min. 450mm (min.) diameter Flexible (uPVC) access chamber (Non Entry)
3-R	0.6m to 3.0m	min. 450mm x 450 mm Rigid (PCC) or access chamber (Non Entry)	4-R	0.6m to 2.0m	min. 450mm x 600mm Rigid (PCC or Brickwork) access chamber (Non Entry)
Type 3 manholes to be used where 3 or more properties are connected.			Type 4 manholes to be used where less than 3 properties are connected.		

LOCATION	CODE	COVER GRADE	RE	Rodding point at head of drain
Road	R	D400		
Driveway	D	B125		
Garden	G	A15		

KEY

Site Boundary

Section S278 Works By Others
(Refer to Paul Basham Associates Design Drawings for Details)

FFL = Plot/Garage Finished Floor Level
SSL = Plot/Garage Structural Slab Level
FFL=20.000
SSL=19.775

Existing Southern Water Foul & Surface Water Sewers

Adoptable Surface Water Sewers
Flow Control Device
S1

Adoptable Foul Water Sewers
F1
Backdrop

Adoptable Foul Water Rising Main

Concrete Bagwork / PCC Headwalls

Road Gully and 150Ø Connection
RG

Private Surface Water Domestic Drainage
S1.1

Private Foul Water Domestic Drainage
F1.1

House connection via 300mm dia. shallow access chamber not more than 600mm deep *(Based on floor make-up of 75mm screed, 150mm insulation & 150mm Beam & Block Floor).*
In the event that conditions on-site result in maximum depth of 600mm being exceeded, then Type 4-F chambers to be used.

Internal Foul Connections
Soil Vent Pipe — SVP
Direct Drain (WHB, WC, W/C, W/M) — DD
Sealed Floor Gully — SFG
Gully — G
Rodding Eye
(Refer to Vehicular Rodding Eye construction details for RE Located in Parking Bays)
'Aco' Channel or similar
YG
20.00
Yard Gully and Connection

Root Protection Areas.
(Based on Barrell Tree Consultancy Tree Protection Plan, drawing number 16270-BT2, issued to RCP in .dwg format on 17/12/2018)

Tree Protection Fencing
(Based on Barrell Tree Consultancy Tree Protection Plan, drawing number 16270-BT2, issued to RCP in .dwg format on 17/12/2018)

Any proposed works within Root Protection Areas are subject to supervision and approval by the Arboriculturist.

CDM NOTES

1. EXISTING SERVICES. Depth of existing services must be determined prior to works commencing. The contractor is responsible for establishing underground services in accordance with HSE Guidance note HS (G) 47. Any services which would be within the proposed construction layers must be lowered to below the sub-base.

0m 5m 10m 15m 20m

SCALE BAR 1:200 at A1

SWMH S77 COMPLEX CONTROL CHAMBER.
HYDROBRAKE 1 DETAILS: "Hydro-Brake Optimum"
PRODUCT CODE = TBC
HEAD = TBC
FLOW = 10.5 l/s PEAK FLOW
HYDROBRAKE 2 DETAILS: "Hydro-Brake Optimum"
PRODUCT CODE = TBC
HEAD = TBC
FLOW = 18.0 l/s PEAK FLOW

Lined Attenuation Basin Max 1 in 3 Side Slopes
Base of Basin Level = 3.100m *(Area = 1788m²)*
Top Water Level = 4.100m
Top of Bank = 4.400m
Impermeable liner to be used in the permanent pond as well as areas of the basin with bunding.

Lined Attenuation Pond Max 1 in 3 Side Slopes
Base of Pond Level = 0.700m *(Area = 265m²)*
Top Water Level = 1.900m
Impermeable liner to be used in the permanent pond as well as areas of the basin with bunding.

SUBJECT TO FURTHER DESIGN DEVELOPMENT

Rev.	Date	Details	By	Chkd	Appd
C	06.12.19	S84a.3 Removed from Design, 150Ø pipes indicated	PJ	LD	TRS
B	21.10.19	Updated to Clients Comments and Updated Drainage in POS	RM	LD	TRS
A	14.03.19	Updated Work in Progress	PJ	TS	TS

Client:- BARRATT HOMES / DAVID WILSON HOMES — WHERE QUALITY LIVES

Site:-
Harbour Place,
Forty Acre Farm,
Bedhampton

Drawing Title:-
DRAINAGE GENERAL ARRANGEMENT
SHEET 13 of 14

Date: February 2019 | Scales: 1:200 at A1
Drawn: AC | Checked: NW | Approved: TRS

Drawing No.
BSO/E4519/463 C

TENDER ISSUE
SUBJECT TO ADOPTING AUTHORITY APPROVAL

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