SURFACE WATER DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
HB2	6,40	4,800	1,450	1500 diameter	Hydro Brake® Type HD-Tronic Concrete (recast small headed)	D400
H2	6,30	4,70	1,45	150 diameter		
S100/1	6,20	5,720	0,430	450 diameter	3	B125
S100/2	6,30	5,720	0,480	450 diameter	3	B125
S100/3	6,75	6,200	0,450	450 diameter	3	B125
S100/4	6,85	6,200	0,550	450 diameter	3	B125
R20	6,225	5,85	0,275		RE	B125
R21	6,225	5,75	0,375		RE	**B125**
R22	6,225	5,80	0,325		RE	B125
R23	6,275	5,80	0,375		RE	B125
R24	6,30	5,82	0,380		RE	B125
R25	6,375	5,90	0,375		RE	B125
R26	6,375	5,90	0,375		RE	B125
R27	6,40	5,95	0,350		RE	B125
R28	6,375	5,90	0,375		RE	B125
R29	6,30	5,75	0,450		RE	B125
R30	6,30	5,85	0,350		RE	B125
R31	6,30	5,85	0,350		RE	B125
ST50	6,115	5,61	0,405	450 diameter	5	B125
ST51	6,160	5,67	0,390	450 diameter	5	**B125**
ST52	6,275	5,70	0,45	450 diameter	5	B125
ST53	6,300	5,70	0,500	450 diameter	5	B125
ST54	6,375	5,75	0,525	450 diameter	5	B125
ST55	6,400	5,88	0,420	450 diameter	5	B125
ST56	6,375	5,80	0,475	450 diameter	5	B125
ST57	6,300	5,78	0,420	450 diameter	5	B125
ST58	6,200	5,62	0,460	450 diameter	5	B125
ST59	6,300	5,64	0,560	450 diameter	5	B125
ST60	6,500	5,60	0,800	450 diameter	5	B125
ST61	6,500	5,60	0,800	450 diameter	5	B125

FOUL DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
F29	6,85	5,850	0,850	450 diameter	3	B125
F30	6,95	6,005/6,055	0,795	450 diameter	3	B125
F100	6,25	5,550	0,600	450 diameter	3	B125
F101	6,27	5,200/5,150	0,970	450 diameter	3	B125
F102	6,375	4,945	1,280	450 diameter	3	B125
F103	6,45	4,882	1,418	450 diameter	3	B125
F104	6,40	4,600/4,650	1,650	450 diameter	3	B125
F105	6,32	5,250	0,970	450 diameter	3	B125
F106	6,30	5,330	0,870	450 diameter	3	B125
F107	6,30	5,600	0,600	450 diameter	3	B125
F108	6,40	4,500	0,500	450 diameter	3	B125
F109	6,85	6,250	0,500	450 diameter	3	B125
F100/1	6,25	5,650	0,500	250 diameter	4	B125
F100/2	6,25	5,650	0,500	250 diameter	4	B125
F100/3	6,25	5,650	0,500	250 diameter	4	B125
F100/4	6,275	5,675	0,500	250 diameter	4	B125
F100/5	6,275	5,675	0,500	250 diameter	4	B125
F101/1	6,275	5,675	0,500	250 diameter	4	B125
F101/2	6,275	5,675	0,500	250 diameter	4	B125
F101/3	6,30	5,700	0,500	250 diameter	4	B125
F101/4	6,30	5,700	0,500	250 diameter	4	B125
F101/5	6,30	5,700	0,500	250 diameter	4	B125
F101/6	6,30	5,700	0,500	250 diameter	4	B125
F101/7	6,375	5,775	0,500	250 diameter	4	B125
F103/1	6,40	5,800	0,500	250 diameter	4	B125
F103/2	6,40	5,800	0,500	250 diameter	4	B125
F103/3	6,40	5,800	0,500	250 diameter	4	B125
F103/4	6,40	5,800	0,500	250 diameter	4	B125
F103/5	6,40	5,800	0,500	250 diameter	4	B125
F103/6	6,375	5,775	0,500	250 diameter	4	B125
F103/7	6,375	5,775	0,500	250 diameter	4	B125
F104/1	6,375	5,775	0,500	250 diameter	4	B125
F104/2	6,375	5,775	**0,500**	250 diameter	4	B125
F106/1	6,30	5,600	0,500	250 diameter	4	B125
F106/2	6,30	5,600	0,500	250 diameter	4	B125
F106/3	6,30	5,600	0,500	250 diameter	4	B125
F109/1	6,85	6,250	0,500	250 diameter	4	B125
F109/2	6,85	6,250	0,500	250 diameter	4	B125
F109/3	6,85	6,250	0,500	250 diameter	4	B125

SURFACE WATER DRAINAGE - DIFFUSERS

REFERENCE	Carriageway Level (m)	Diffuser Level (m)	Formation Level (m)	Type
D1	6,00	5,20	5,087	PVD005102
D2	6,04	5,24	5,070	PVD005101
D3	6,08	5,28	5,054	PVD005102
D4	6,10	5,30	5,047	PVD005101
D5	6,18	5,38	5,016	PVD005101
D6	6,19	5,39	5,012	PVD005102
D7	6,26	5,46	4,984	PVD005101
D8	6,27	5,47	4,980	PVD005102
D9	6,28	5,45	4,975	PVD005101
D10	6,31	5,46	4,961	PVD005101
D11	6,32	5,42	4,953	PVD005101
D12	6,33	5,43	4,931	PVD005101
D13	6,31	5,41	4,909	PVD005101
D14	6,30	5,35	4,904	PVD005102
D15	6,27	5,32	4,888	PVD005102
D16	6,27	5,32	4,880	PVD005101
D17	6,27	5,32	4,869	PVD005101
D18	6,28	5,28	4,849	PVD005102
D19	6,22	5,22	4,810	PVD005101

Legend:

- Domestic foul water drainage
- Domestic surface water drain.
- Fin drain outlet
- HB1 'Hydro Brake' manhole
- Type 3 manhole
- Type 4 Inspection chamber - 250mm Ø
- ST20 Type 5 - 450mm Silt Trap
- H1 Headwall discharge to watercourse
- ACO drainage channel
- Unadopted highway gully with Polyplpe Permavoid Diffuser drapped in 2mm mesh to diffuse surface water into the sub grade
- Yard/driveway gully
- Impermeable block paved drives
- Permeable block access court and parking
- Area of sub base attenuation
- +8.385 Proposed road levels
- +8.385 Proposed levels
- +8.40 Existing surveyed levels
- FFL 6.90 Proposed Finished Floor Level
- Carriageway crossfall
- Underbuild

Notes:

1.All levels are to local Datum.
2.All Highway work's on or adjacent to existing public highway shall be executed in accordance with the Traffic Safety Code for Roadwork's and Chapter 8 of the Traffic Signs Manual.
3.At the commencement of works on site the contractor is to carry out trial pits and liaise with Utility Companies in order to establish the exact position of all existing statutory utility plant in the vicinity of works and take adequate precautions or their protection.
4.The Contractor is to comply fully with the CDM Regulations in the course of constructing the works.
5.Highways in the vicinity of the works must be kept free from mud, debris and dust falling from vehicles or the wheels of vehicles connected with the works.
6.All drain and sewer pipes to be laid soffit to soffit, unless shown otherwise.
7.Minimum gradient for 1000 SW is 1:100 and 1000 FW is 1:80 with one WC connected otherwise 1:40. Bedding for domestic drainage Class B. All pipe runs near buildings to comply with the Building Regulations 2010 Part H1.
8.Position of soil pipes, standing wastes, wc outlets etc. are shown on the Architect's working drawings. Rainwater downpipe positions are to be checked against Architects details to ensure compatibility. Rainwater downpipes to have rodding access facilities where surface water drainage passes under buildings.
9.All concrete and concrete products to be in accordance with BRE 363 for sulphates.
10.All slab levels shown are for guidance only and may need to be adjusted on site, subject to approval by the engineer.
11.Do not scale from this drawing, work only from stated dimensions or setting out details.
12.Refer to tables for manhole schedules
13. Where paths falls towards the front door use suitable linear/slot drainage sysytem connected to surface water system as per architects details.
14. All plots to have gardens sloping away from properties otherwise interceptor drains to be installed.
15. Surface water drainage connected to catchit manhole prior to discharge to attenuation storage
16. Controlled discharge to watercourse subject to Ordinary Watercourse Consent from Arun District Council.
17. This drawing is to be read in conjunction with all relevent engineering drawings issued by Kazys Narbutas Consulting and Crayfern Homes for this site only.
18. Where connections to drain runs are not at manholes/inspection chambers connections should be made using oblique 45° junctions.
19. All ACO drainage channels to connect to sump outlet prior to discharge into drainage system.

RISK ANALYSIS KEY:

- Indicates a residual risk requiring a compulsory action
- Indicates a residual risk for information
- Indicates a residual risk requiring a a prohibitive action
- Indicates a residual risk as a Warning

SAFETY, HEALTH & ENVIRONMENTAL INFORMATION CDM Regulations 2015

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of live highway
- Services to be located prior to any excavation work being undertaken
- Deep excavations
- Working on live foul sewers

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

Rev.	Date	Details	Initials
F	15.01.21	Fence dimension to western ditch and notes 18 & 19 added	KN
E	13.01.21	Additional information added, 2-18 & 2-19 surface drainage amended	KN
D	25.10.20	Scale bar & risk analysis key added	KN
C	14.10.20	Detailed design	KN
B	23.02.20	Adjusted for revised layout	KN
A	28.01.20	First issue	KN

Drawing Status: PRELIMINARY-FOR CONSTRUCTION

Project: CINDERS NURSERY: Phase 2
YAPTON

Client: Crayfern HOMES

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Drawing Title: Engineering Details
Drainage Layout

Drawn	Checked	Scales	Paper Size	Date
KN		1:250	A1	01.20
Job No.		Drawing No.		Revision
KNC2006		502-01		F

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Dimensions should be checked and verified on site and any discrepancies should be reported to Kazys Narbutas Consulting as soon as possible.

ARUN DISTRICT COUNCIL 1/64/2/DOC