FA: New manhole with backdrop connection constructed on existing foul sewer subject to S106 Agreement with Southern Water

Notes:

1.All levels relate to Ordnance 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. All domestic sewers shall be 100mmØ unless shown otherwise. Connections from gullies shall be 150Ø.
7.Minimum gradient for 100Ø SW is 1:100 and 100Ø 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 soakaway
16. Soakaways to be minimum 5.0m from dwelling foundations and 2.0m from boundary wall foundations where possible. Boundary walls within 2.0m of soakaways to have reinforced foundations in accordance with structural engineers details.
17. Surface water drainage soakaways qre designed in accordance with Environment Agency criteria and have been designed for a 1 in 100year storm return + 40% increase for climate change and domestic areas have been increased by 10% for 'urban creep'.
18. Prior to construction of any drainage works, the Contractor is to confirm the invert level of receiving sewer. Any variations from the designed level shown on the drawings shall be reported to the Engineer in advance of construction works commencing.
19. 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.

Surface Water Drainage Legend:

- R2 — Domestic surface water drain.
- S3/2 — TYPE 3 - 450mm Ø with B125/D400 cover
- ST2 — 450mm Ø Silt Trap
- So1 — Soakaway designed in accordance with Environment Agency and Arun District Council criteria to cater for 1 in 10yr storm return and catering for 10% increase for 'urban creep'. No flooding to occour for 1 in 100yr storm with 40% allowance for climate change. Sizing determined by in-situ testing in accordance with BRE365, depth of soakaway above observed winter groundwater monitoring levels and sited a minimum of 5.0 metres from new dwellings.
- ACO drainage channel
- Highway gully

Foul Water Drainage Legend:

- New Type 1B manhole constructed on existing foul sewer with backdrop connection
- Existing foul water sewer
- Domestic foul water sewer and manholes
- F15 — Type 3 - 450mm Ø with B125/D400 cover and frame
- F15/3 — Type 4 Shallow PPIC inspection chamber - 225mm Ø with A15/B125 cover and frame, Invert 750mm lower than FFL unless noted otherwise

Key:

- Permeable block paved access road construction Road Type 1
- Permeable block paved drive construction Road Type 2
- Flexible Entrance Construction Road Type 3
- S278 Surfacing Works
- Sub surface 'baffles' under carriageway surfacing.
- Fence
- Direction of crossfall
- Tree Root Protection Zone

FOUL DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
FA	24.66	22.90/21.40	3.11	1200 diameter	1B	D400
F1	25.40	24.100	1.150	450 diameter	3	D400
F2	25.95	24.600	1.200	450 diameter	3	D400
F3	26.13	24.935	1.045	450 diameter	3	B125
F4	26.40	25.088	1.162	450 diameter	3	B125
F5	26.56	25.200	1.210	450 diameter	3	B125
F6	26.45	25.300	1.000	450 diameter	3	B125
F7	26.50	25.400	0.950	450 diameter	3	B125
F8	26.75	25.850	0.750	450 diameter	3	B125
F9	26.90	26.000	0.750	450 diameter	3	B125
F10	27.05	26.156	0.744	450 diameter	3	B125
F11	27.10	26.233	0.717	450 diameter	3	B125
F12	27.50	26.433	0.917	450 diameter	3	B125
F13	27.70	26.643/26.593	0.957	450 diameter	3	B125
F14	27.80	26.750	0.900	450 diameter	3	B125
F15	28.00	27.000	0.850	450 diameter	3	B125
F5/1	26.65	26.050	0.500	450 diameter	3	B125
F5/2	26.65	26.050	0.500	250 diameter	4	A15
F5/3	26.65	26.050	0.500	250 diameter	4	A15
F5/4	26.40	25.675	0.725	450 diameter	3	B125
F5/5	26.40	25.750	0.550	450 diameter	3	B125
F5/6	26.40	25.800	0.500	250 diameter	4	A15
F5/7	26.40	25.800	0.500	250 diameter	4	A15
F8/1	26.75	26.150	0.500	450 diameter	3	A15
F10/1	27.15	26.380	0.670	450 diameter	3	B125
F10/2	27.15	26.550	0.500	450 diameter	3	B125
F10/3	27.15	26.550	0.500	250 diameter	4	A15
F11/1	27.05	26.450	0.500	250 diameter	4	A15
F11/2	27.05	26.450	0.500	250 diameter	4	A15
F11/3	27.05	26.450	0.500	250 diameter	4	A15
F12/1	27.50	26.900	0.500	250 diameter	4	A15
F12/2	27.50	26.900	0.500	250 diameter	4	A15
F12/3	27.50	26.900	0.500	250 diameter	4	A15
F15/1	28.15	27.150	0.800	450 diameter	3	B125
F15/2	28.15	27.550	0.500	250 diameter	4	B125
F15/3	28.00	27.350	0.550	450 diameter	3	B125
F15/4	28.15	27.400	0.650	250 diameter	4	B125

SURFACE WATER DRAINAGE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
S1/1	28.15	27.520	0.530	450 diameter	3	B125
S1/2	28.10	27.550	0.450	450 diameter	3	B125
S2/1	28.00	27.460	0.460	450 diameter	3	B125
S2/2	28.00	27.290	0.610	450 diameter	3	B125
S2/3	28.00	27.280	0.665	450 diameter	3	B125
S3/1	27.50	26.870	0.530	450 diameter	3	B125
S3/2	27.50	26.850	0.550	450 diameter	3	B125
S4/1	27.05	26.480	0.510	450 diameter	3	B125
S5/1	27.15	26.580	0.482	450 diameter	3	B125
S6/1	26.85	26.300	0.450	450 diameter	3	B125
S6/2	26.75	26.130	0.520	450 diameter	3	B125
S6/3	26.75	26.100	0.550	450 diameter	3	B125
S7/1	26.65	26.070	0.480	450 diameter	3	B125
S7/2	26.65	26.070	0.480	450 diameter	3	B125
S8/1	26.40	25.830	0.470	450 diameter	3	B125
S8/2	26.40	25.810	0.490	450 diameter	3	B125
ST1	28.15	27.450	0.600	450 diameter	5	B125
ST2	28.00	27.200	0.700	450 diameter	5	B125
ST3	27.50	26.750	0.650	450 diameter	5	B125
ST4	27.05	26.350	0.600	450 diameter	5	B125
ST5	27.15	26.450	0.600	450 diameter	5	B125
ST6	26.75	26.050	0.600	450 diameter	5	B125
ST7	26.65	25.970	0.580	450 diameter	5	B125
ST8	26.40	25.720	0.580	450 diameter	5	B125
ST9	27.90	25.720	0.580	450 diameter	5	B125

SURFACE WATER DRAINAGE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
R1	28.15	27.70	0.350		RE	B125
R2	28.15	27.670	0.380		RE	B125
R3	28.00	27.550	0.350		RE	B125
R4	28.00	27.400	0.500		RE	B125
R5	27.50	26.950	0.450		RE	B125
R6	27.50	26.990	0.410		RE	B125
R7	27.05	26.450	0.500		RE	B125
R8	27.05	26.500	0.450		RE	B125
R9	27.05	26.600	0.350		RE	B125
R10	27.15	26.700	0.350		RE	B125
R11	27.15	26.600	0.450		RE	B125
R12	27.15	26.600	0.450		RE	B125
		26.250	0.400		RE	B125
		26.200	0.350		RE	B125
		26.200	0.350		RE	B125
		26.950	0.350		RE	B125
		26.950	0.350		RE	B125

SOAKAWAY DETAILS-Domestic Trench Soakaways

Soakaway Ref	Area Draining (inc. +10% Urban Creep) m²	Width m	Length m	Ground level	Invert level incoming pipe	Soakaway base Invert	Infiltration Zone
So1	154	1.2	5.0	28.10	27.400	25.50	1
So2	154	1.2	5.0	27.50	27.150	24.90	1
So3	154	1.2	6.0	27.20	26.760	25.00	1
So4	160	1.3	6.0	26.80	26.33	24.50	2
So5	168	1.3	6.0	27.20	26.43	24.50	2
So6	158	1.6	9.0	26.25	25.90	24.70	3
So7	160	1.6	8.0	26.60	25.92	24.70	3
So8	160	1.6	8.0	26.10	25.70	24.40	3
So9	27	1.0	2.0	27.90	27.25	26.45	1

Infiltration Zone

Infiltration Zone	Soakage Rate (m/s)	Soakage Rate (m/hr)
1	1.040 E-04	0.30596
2	7.592 E-05	0.2733
3	4.126 E-06	0.14853

Infiltration rates have been measured on site in accordance with BRE365.

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 detailled on this drawing note should be made of the following:

- Working in vicinity of live highway
- Existing services in highway and off site drainage route
- Deep excavations
- Working on live 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 any of his obligations under all applicable health and safety regulations.

Rev.	Date	Details	Initials
A	27.09.20	First Issue	KN

Drawing Status: PRELIMINARY FOR TENDER

Project: ARUNDEL ROAD FONTWELL

Client: Crayfern HOMES

KAZYS NARBUTAS CONSULTING
Civil Engineering Consultant
Unit 5B, Tanners Court, Tanners Lane, East Wellow, Romsey, Hants. SO51 6DP
Telephone: 01794 522903 Email: kazys.n@knc.email

Drawing Title: Engineering Details Drainage Layout

Drawn	Checked	Scales	Paper Size	Date
KN		1:250	A0	09.20
Job No.		Drawing No.		Revision
KNC1822		502-01		A

This drawing is the copyright of Kazys Narbutas Consulting and may not be copied, altered or reproduced in any form or passed to a third party without the consent of Kazys Narbutas Consulting. Do not scale from this drawing, use figured dimensions only.
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 WA/72/20/DOC