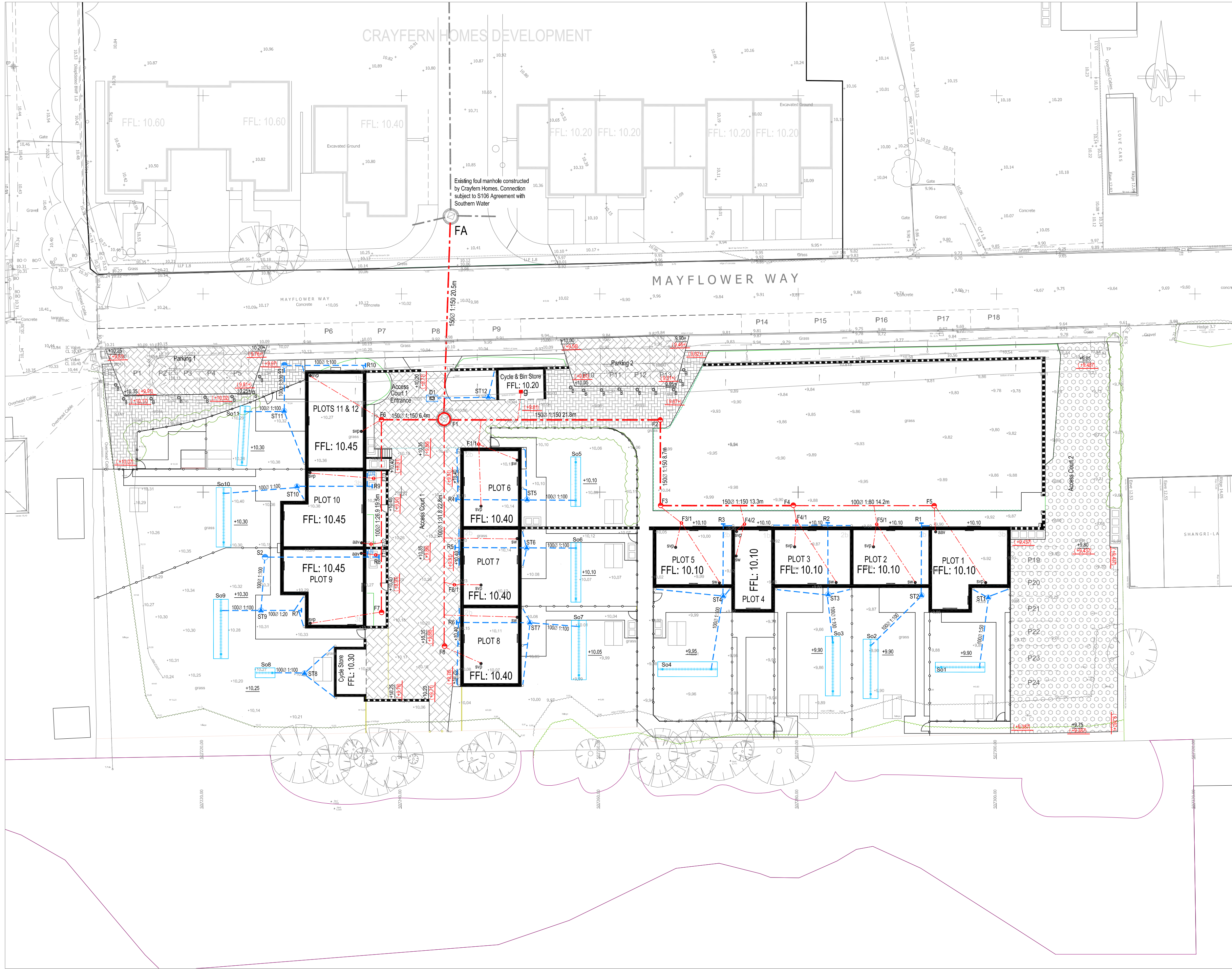




FOUL DRAINAGE MANHOLE SCHEDULE						
REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
FA	10.20	8.745		Existing manhole		
F1	10.20	8.882/8.932	1.168	1200 diameter	2	D400
F2	10.00	9.027	0.823	450 diameter	3	B125
F3	10.05	9.085	0.815	450 diameter	3	B125
F4	10.00	9.174/9.224	0.676	450 diameter	3	B125
F5	10.00	9.401	0.499	450 diameter	3	B125
F6	10.30	8.925/8.975	1.225	450 diameter	3	B125
F7	10.30	9.700	0.500	450 diameter	3	B125
F8	10.35	9.650	0.600	450 diameter	3	B125
F11	10.25	9.650	0.500	250 diameter	4	B125
F31	10.00	9.350	0.550	250 diameter	4	B125
F41	10.00	9.350	0.550	250 diameter	4	B125
F42	10.00	9.350	0.550	250 diameter	4	B125
F51	10.00	9.400	0.500	250 diameter	4	B125
F71	10.30	9.700	0.500	250 diameter	4	B125
F72	10.30	9.700	0.500	250 diameter	4	B125
F73	10.30	9.700	0.500	250 diameter	4	B125
F81	10.40	9.650	0.650	250 diameter	4	B125

SURFACE WATER DRAINAGE MANHOLE SCHEDULE						
REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
S1	10.30	9.670	0.430	450 diameter	3	B125
S2	10.30	9.670	0.430	450 diameter	3	B125
ST1	9.95	9.400	0.450	450 diameter	5	B125
ST2	9.95	9.320	0.530	450 diameter	5	B125
ST3	9.95	9.320	0.530	450 diameter	5	B125
ST4	9.95	9.320	0.530	450 diameter	5	B125
ST5	10.25	9.620	0.530	450 diameter	5	B125
ST6	10.25	9.620	0.530	450 diameter	5	B125
ST7	10.25	9.620	0.530	450 diameter	5	B125
ST8	10.30	9.800	0.400	450 diameter	5	B125
ST9	10.30	9.610	0.590	450 diameter	5	B125
ST10	10.30	9.670	0.530	450 diameter	5	B125
ST11	10.30	9.590	0.610	450 diameter	5	B125
ST12	10.20	9.760	0.340	450 diameter	5	B125
Diffuser	Carriageway Level (m)	Diffuser Level (m)	Formation Level (m)	Type		
D1	10.20	9.710	9.710	PV0005102		

DOMESTIC SOAKAWAY DETAILS-Trench Soakaways (Based on in-situ tests)

Soakaway Ref	Area Draining m ²	Width m	Length m	Soakaway: Finished Ground Level m	Soakaway: Circular stone III Level m	Soakaway: Discharge Pipe Level m	Soakaway: Base Level m	Soakaway: Depth to base m	Infiltration Zone
So1	36	1.0	5.0	9.90	9.60	9.270	7.80	2.10	1
So2	73	1.5	6.0	9.90	9.60	9.240	7.70	2.20	1
So3	67	1.5	6.0	9.90	9.60	9.270	7.70	2.20	1
So4	67	1.5	6.0	9.95	9.65	9.250	7.70	2.25	1
So5	38	1.0	5.0	10.10	9.80	9.570	7.90	2.20	1
So6	49	1.0	6.0	10.10	9.80	9.570	7.80	2.30	1
So7	62	1.5	6.0	10.05	9.75	9.570	8.10	1.95	1
So8	16	1.0	2.0	10.25	9.95	9.750	8.35	1.90	2
So9	74	1.5	6.0	10.30	10.00	9.570	8.60	1.70	2
So10	77	1.5	6.0	10.30	10.00	9.600	8.60	1.70	2
So11	61	1.0	6.0	10.30	10.00	9.550	8.60	1.70	2

Infiltration Rates

Infiltration Zone	Soakage Rate (m/h)	Soakage Rate (m/h)	Test Depth (m)
1	3.99 E-06	0.014364	2.60
2	2.33 E-05	0.08368	2.60
Shallow Zone 1	1.15 E-05	0.04088	1.00
Shallow Zone 2	6.31 E-05	0.22716	1.00

Infiltration rates have been confirmed by in-situ tests.

Notes:

- All levels are to local Datum.
- 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.
- 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.
- The Contractor is to comply fully with the CDM Regulations in the course of constructing the works.
- 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.
- All drain and sewer pipes to be laid to soffit, unless shown otherwise.
- Minimum gradient for 1000 SW to be 1:100 and 1000 FW to be 1:100 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.
- 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.
- All concrete and concrete products to be in accordance with BRE 363 for sulphates.
- All slab levels shown are for guidance only and may need to be adjusted on site, subject to approval by the engineer.
- Do not scale from this drawing, work only from stated dimensions or setting out details.
- Refer to tables for manhole schedules.
- Where paths falls towards the front door use suitable linear/slot drainage system connected to surface water system as per architects details.
- All plots to have gardens sloping away from properties otherwise interceptor drains to be installed.
- Surface water drainage connected to catchment manhole prior to discharge to soakaway.
- Soakaways to be minimum 5.0m from dwelling foundations and 2.0m from boundary wall foundations. Boundary walls within 2.0m of soakaways to have reinforced foundations. If groundwater is encountered during construction of soakaways engineer to be advised immediately.
- Where drains pass through foundations a flexible joint should be provided within 150mm of the face of the structure and a rock pipe of max. 600mm in length shall be provided.
- Slab stacks filled with air admittance valves may be used instead of soil and vent pipes subject to architects approval (except where drainage connection exceeds 10m before connecting to another ventilated drain, inspection chamber or manhole). Head of drain vent pipes must not be fitted with air admittance valves.
- Where drains pass close to buildings or their Invert levels are below foundations then the trenches are to be backfilled to underside of foundation to approval of the Building Control Officer.
- Where connections to drain runs are not at manholes/inspection chambers connections should be made using oblique 45° junctions.
- The contractor is to keep a record of any variations made on site, including the re-location of sewers or drains, so that an 'As Constructed' drawing can be produced upon completion of the project.
- This drawing is to be read in conjunction with all relevant engineering drawings issued by Kazys Narbutas Consulting for this site only.

Legend:

- Existing foul water sewer
- Type 2 Manhole
- Type 3 Inspection chamber
- Type 4 Inspection chamber
- Bin Store Wash Out
- Domestic foul water drainage with reference
- Type 5 Silt Trap Manhole
- Domestic surface water drain with reference)
- Domestic gravel filled soakaway designed in accordance with Environment Agency criteria. In-situ testing has been undertaken to confirm infiltration rates.
- Domestic drainage discharge into granular sub base through proprietary diffuser unit
- Permeable block paved access court and parking area
- Pedestrian footway constructed in permeable block paving
- Permeable gravel construction -proprietary retention system
- FFL 10.20 Proposed Finished Floor Level
- Bollard- Type to be agreed
- Proposed level (may be amended on site subject to discussion with the Engineer)
- Proposed formation level (may be amended on site subject to discussion with the Engineer)
- Original surveyed level
- Proposed planting-to be read in conjunction with landscape architects details

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.

C	13.04.21	Soakaway granular fill levels added	KN
B	06.04.21	Soakaway depths and formation levels added	KN
A	19.03.21	First issue	KN
Rev.	Date	Details	Initials

PRELIMINARY

Project MAYFLOWER WAY ANGMERING

Client ANGMERING COMMUNITY LAND TRUST

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Drawing Title				
Engineering Details				
Drainage Layout				
Drawn	Checked	Scales	Paper Size	Date
KN		1:250	A1	03.21
Job No.	Drawing No.			Revision
KNC2101	502-01			C