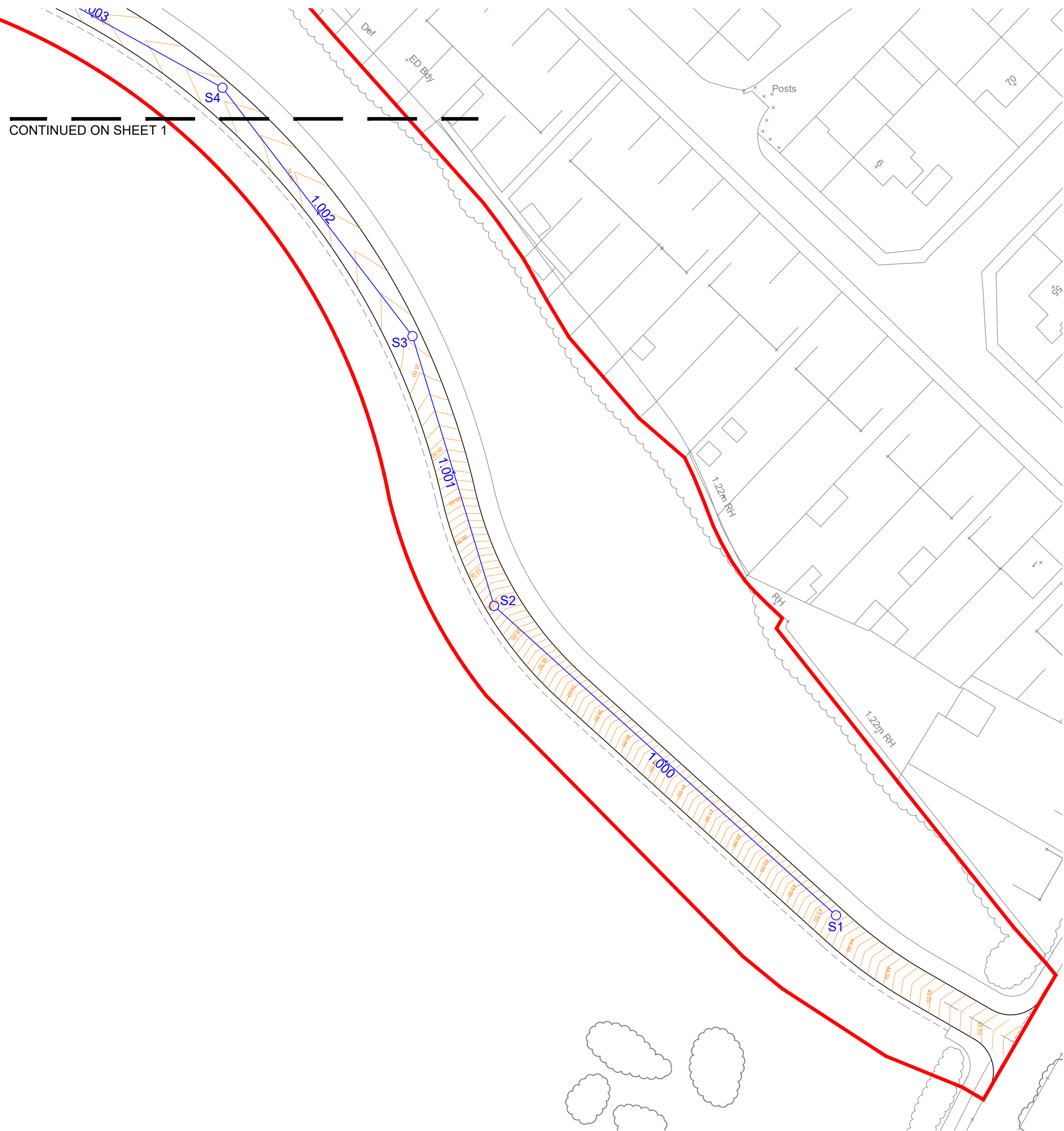


DO NOT SCALE



Notes

- Setting out shall be undertaken using only the information given. Distances should not be scaled from this drawing.
- All sewers shall be constructed in accordance with Design and Construction Guidance (DCG) Standards and United Utilities Details & Guidelines.
- The minimum gravity pipe diameter under adoptable highways shall be 150mm
- It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works. The rates shall include for hand dig around services where necessary. The Contractor shall adhere to the CDM Regulations at all times
- The outsides of all sewers shall be a minimum of 1.0m from kerb lines and the outside of manholes shall be a minimum of 0.5m from kerb lines
- Existing flows in watercourses, sewers and land drains shall be maintained at all times
- Only trained personnel shall be permitted to enter confined spaces
- All materials to bear the relevant B.S. Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement to withstand Class 3 condition (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
- All opening notices etc. as required under Highways Acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or the Network Operator as applicable.
- Where "Structured Wall" UPVC pipes (or similar approved) are used in adoptable drainage they shall be handled and laid in accordance with the manufacturers instructions and will be subject to post installation deformation testing prior to adoption. A Class S Bed and Surround must be used for "Structured Wall" pipes
- Trench backfill in highways to within 1m of highway shall, as directed by the Highway Authority be a suitable granular material all in accordance with Design and Construction Guidance (DCG) Standards.
- Slab levels shall not be varied without reference to the Engineer for guidance.
- Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.

STORM Network 1											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Upstream Manhole			Downstream Manhole			
					Number	Invert	Cover	Number	Invert	Cover	
1.000	150	11	Circular	74.215	S1	42.27	43.62	S2	35.50	37.45	
1.001	225	23	Circular	45.376	S2	35.43	37.45	S3	33.45	34.87	
1.002	225	80	Circular	50.344	S3	33.45	34.87	S4	32.82	34.24	
1.003	225	42	Circular	49.346	S4	32.82	34.24	S5	31.67	33.10	
1.004	225	14	Circular	43.255	S5	31.67	33.10	S6	28.68	30.26	
1.005	225	15	Circular	14.194	S6	28.68	30.26	S7	27.73	29.28	
1.006	225	24	Circular	10.094	S7	27.73	29.28	S8	27.31	28.74	
1.007	225	169	Circular	13.695	S8	27.31	28.74	S9	27.23		
2.000	225	23	Circular	12.990	S10	27.00		S11	26.44	27.87	
2.001	225	16	Circular	26.291	S11	26.44	27.87	S13	24.77	26.20	
2.002	225	12	Circular	16.772	S13	24.77	26.20	S14	23.36	24.80	
2.003	225	12	Circular	21.109	S14	23.36	24.80	S15	21.61	23.03	
2.004	225	11	Circular	13.942	S15	21.61	23.03	S16	20.36	21.89	
2.005	225	11	Circular	12.271	S16	20.36	21.89	S17	19.25	20.88	
2.006	225	11	Circular	10.407	S17	19.25	20.88	S18	18.29	20.02	
2.007	225	16	Circular	69.472	S18	18.29	20.02	S19	13.95	15.71	
2.008	300	76	Circular	25.239	S19	13.87	15.71	S20	13.54	15.09	
2.009	450	398	Circular	19.029	S20	13.39	15.09	S21	13.34		
3.000	150	34	Circular	11.934	S12	25.19	26.54	S13	24.85	26.20	
4.000	225	170	Circular	21.885	S22	17.84	19.26	S27	17.71	19.54	
4.001	300	16	Circular	54.490	S27	17.84	19.54	S28	14.23	15.88	
4.002	600	397	Circular	26.209	S29	13.93	15.88	S30	13.86	16.00	
4.003	600	400	Circular	65.668	S30	13.86	16.00	S31	13.70	15.75	
4.004	600	402	Circular	37.365	S31	13.70	15.75	S40	13.60	15.52	
4.005	600	397	Circular	22.247	S40	13.60	15.52	S41	13.55	15.45	
4.006	600	401	Circular	40.491	S41	13.55	15.45	S42	13.45	15.40	
4.007	675	398	Circular	11.895	S42	13.37	15.40	S43	13.34		
5.000	150	16	Circular	20.298	S23	20.59	21.94	S25	19.32	21.17	
5.001	225	44	Circular	22.216	S25	19.25	21.17	S26	18.74	20.16	
5.002	300	34	Circular	34.578	S26	18.66	20.16	S27	17.84	19.54	
6.000	225	150	Circular	11.325	S24	19.32	20.75	S25	19.25	21.17	
7.000	600	400	Circular	13.055	S28	13.96	15.76	S29	13.93	15.88	
8.000	150	17	Circular	29.843	S32	23.89	25.24	S33	22.18	23.75	
8.001	225	21	Circular	25.636	S33	22.10	23.75	S34	20.90	22.65	
8.002	225	11	Circular	55.760	S34	20.90	22.65	S37	15.73	18.69	
8.003	375	21	Circular	19.167	S37	15.58	18.69	S38	14.65	17.13	
8.004	375	28	Circular	16.300	S38	14.65	17.13	S39	14.08	16.12	
8.005	450	60	Circular	11.933	S39	14.00	16.12	S40	13.80	15.52	
9.000	225	147	Circular	26.099	S35	17.09	18.51	S36	16.91	18.33	
9.001	225	23	Circular	27.274	S36	16.91	18.33	S37	15.73	18.69	
10.000	675	408	Circular	6.536	S44	13.20		S45	13.18	15.10	
10.001	225	98	Circular	18.095	S45	13.18	15.10	S46	13.00	13.40	

FOUL Network 2											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole		Number	Downstream Manhole		
						Invert	Cover		Invert	Cover	
1.000	225	37	Circular	17.562	EX MH1	24.98	27.08	C1	24.50	26.47	
1.001	225	9	Circular	38.951	C1	24.50	26.47	C2	20.07	22.34	
1.002	225	33	Circular	43.737	C2	20.07	22.34	C3	18.77	21.15	
1.003	225	33	Circular	25.384	C3	18.77	21.15	C4	18.00	20.07	
1.004	225	56	Circular	26.450	C4	18.00	20.07	C5	17.52	19.63	
1.005	225	170	Circular	53.886	C5	17.52	19.63	C6	17.21	19.85	
1.006	225	170	Circular	9.890	C6	17.21	19.85	EX MH2	17.15	20.71	
2.000	150	16	Circular	41.251	F101	24.30	25.96	F102	21.68	23.89	
2.001	150	20	Circular	20.891	F102	22.67	23.89	F103	20.66	22.92	
2.002	150	40	Circular	20.278	F103	20.66	22.92	C2	20.15	22.34	
3.000	150	9	Circular	28.879	EX MH3	21.34	24.19	C4	18.07	20.07	

FOUL Network 3											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole		Number	Downstream Manhole		
						Invert	Cover		Invert	Cover	
1.000	150	16	Circular	68.275	F1	17.85	20.22	F2	13.51	15.80	
1.001	150	63	Circular	18.178	F2	13.51	15.80	F3	13.22	15.34	
1.002	150	150	Circular	20.052	F3	13.22	15.34	F4	13.09	15.20	
1.003	150	150	Circular	20.055	F4	13.09	15.20	F5	12.95	15.40	
1.004	150	150	Circular	42.034	F5	12.95	15.40	F6	12.67	15.45	
1.005	150	150	Circular	15.478	F6	12.67	15.45	F18	12.57	15.39	
1.006	150	150	Circular	14.984	F18	12.57	15.39	F19	12.47	15.00	
2.000	150	10	Circular	8.922	F7	14.47	16.77	F9	13.60	16.07	
2.001	150	150	Circular	83.898	F9	13.60	16.07	F10	13.04	15.75	
2.002	150	150	Circular	40.743	F10	13.04	15.75	F17	12.77	15.63	
2.003	150	61	Circular	12.208	F17	12.77	15.63	F18	12.57	15.39	
3.000	150	35	Circular	18.189	F8	14.11	15.91	F9	13.60	16.07	
4.000	150	150	Circular	24.417	F11	16.66	18.49	F12	16.50	18.28	
4.001	150	150	Circular	34.090	F12	16.50	18.28	F14	16.27	18.50	
4.002	150	23	Circular	14.622	F14	16.27	18.50	F15	15.63	17.29	
4.003	150	19	Circular	15.784	F15	15.63	17.29	F16	14.80	16.23	
4.004	150	22	Circular	11.559	F16	14.80	16.23	F17	14.28	15.63	
5.000	150	7	Circular	9.746	F13	17.67	19.32	F14	16.27	18.50	

Legend

- Site Boundary
- Existing
 - COMBINED Existing Combined Sewer
 - COMBINED Existing Combined Sewer To Be Abandoned
 - Existing Watercourse
- Proposed
 - S01 Adoptable Surface Water Sewer
 - F01 Adoptable Foul Sewer
 - 600 W Brick Retaining Wall
 - 450 FOE Flag Retaining Wall
 - 150 UB Underbuild
 - 150 STEP Step In Slab
 - 150 GB Gravel Board
 - FFL 18.65 Plot Slab Level
 - IFC Flow Control Manhole
 - Sewer Easement
 - +0.95 -0.95 Depth of fill (Existing level to proposed)
 - SUDS Basin
 - Rising Main
 - Land Drain

PRELIMINARY



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Web: http://coopers.co.uk

Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU



MINDALE FARM,
MELIDEN.

Engineering Layout
Sheet 2 of 2

DRAWING NUMBER		SCALE at A1		1:500	
8658 / SK01-2		DATE	09.12.25	REVISION	
		DRAWN	PW		
		CHECKED	AJ		

0 5 10 15 20 25 30 35 40 45 50
SCALE BAR (m)

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