



**Application Number: 17/00465**

**Location: Estuary View Business Park Boorman Way Whitstable**

**Item: Conditions 4 and 5**

Appendix A: drawings 10378- 510,511, 512

Appendix B: Surface water calculations

Appendix C: S106 Application form, covering letter from Graham Land Developments dated 26<sup>th</sup> July 2018, S106 Approval letter from Southern Water dated 17<sup>th</sup> September 2018

#### **Condition 4**

The proposed disposal of surface water and foul water is based on the previously approved scheme and detailed calculations provided in previous planning applications CA/14/02339 and CA/15/01696/VAR.

The proposal within these applications was to design the surface water system including attenuation pond to cater for flows from the fully developed Business Park and adjacent Retail Park. The pond currently discharges surface water at an agreed rate of 4.0l/sec. It has been agreed with Canterbury City Council (CCC), and relevant conditions discharged, confirming that the rate of discharge can be increased to 21.0l/sec by replacement of the existing Hydrobrake.

There will be a requirement to divert some of the routes of the existing surface water and foul water drains to accommodate the proposed layouts. Appendix A refers. This will have no detrimental impact on the drains capacity, including the attenuation pond as the calculations have been produced using the same criteria and flows used in the calculations submitted with planning application CA/14/02339 and agreed and consented by CCC. Refer to calculations for 1 in 1 year, 1 in 30 year and 1 in 100 year plus 30% climate change allowance. Appendix B refers

As a result of the above there will be no increased risk to flooding both on and off the site and the originally agreed drainage strategy will ensure that no silts or other pollutants will have a detrimental impact on receiving waters. Existing Petrol Interceptors and SuDS system will be maintained as maintenance strategy within original planning consents.

Works for phase 1 and the diversion of the surface water will begin in January 2019 with a completion date of June 2020

Current programme for phase 2 has a start date January 2026 with a completion date of September 2027. Correspondence from Graham Land Developments to Southern Water dated 26<sup>th</sup> July 2018. Appendix C confirms.

#### **Condition 5**

The proposed disposal of foul water is based on the previously approved scheme and detailed calculations provided in previous planning applications CA/14/02339 and CA/15/01696/VAR.

The developer has liaised with Southern Water (SW) and a S106 application (SW ref DS-CPS-103860) was submitted with supporting documentation on 17<sup>th</sup> August 2018. Southern Water confirmed in correspondence dated 17<sup>th</sup> September 2018 that a connection is permitted. Southern Water confirmed this is not a confirmation that capacity is available as this is a separate matter, to be reviewed under a consultation, from CCC planning authority and Southern Water. This is outside the control of the developer

Phase 1 flow based on 101 suite care facility = 350 l/per person/day = 0.4l/sec

Phase 2 flow based on 102 suite acute care home – 350 l/per person/per day = 0.4 l/sec

Refer to Graham Land Developments letter to Southern Water dated 26<sup>th</sup> July 2018 for proposed connection date and occupancy dates.




## **Appendix A**

(refer to A1 drawings 10378/510/511/512)



## Appendix B

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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Surface Network 1

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	1	Add Flow / Climate Change (%)	0
M5-60 (mm)	19.700	Minimum Backdrop Height (m)	0.200
Ratio R	0.400	Maximum Backdrop Height (m)	1.500
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	1.200
Maximum Time of Concentration (mins)	30	Min Vel for Auto Design only (m/s)	1.00
Foul Sewage (l/s/ha)	0.000	Min Slope for Optimisation (1:X)	500
Volumetric Runoff Coeff.	0.750		

Designed with Level Soffits

Time Area Diagram for Surface Network 1 at outfall OFS (pipe 2.012)

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	1.036	4-8	0.628	8-12	0.000

Total Area Contributing (ha) = 1.664

Total Pipe Volume (m<sup>3</sup>) = 30.414


Time Area Diagram at outfall (pipe 4.019)

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.918	4-8	1.094

Total Area Contributing (ha) = 2.012


Total Pipe Volume (m<sup>3</sup>) = 43.927

Network Design Table for Surface Network 1




















PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
2.000	43.730	0.400	109.3	0.020	5.00	0.0	0.600		150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.000	50.00	5.76	47.500	0.020	0.0	0.0	0.0	0.96	17.0	2.7

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
2.001	14.577	0.200	72.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.000	35.557	0.150	237.0	0.600	5.00	0.0	0.600	o	450	Pipe/Conduit	
3.001	26.188	1.990	13.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.002	5.342	0.500	10.7	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.002	7.751	0.050	155.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.003	29.720	0.200	148.6	0.057	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.004	41.080	0.205	200.4	0.042	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.005	15.795	0.095	166.3	0.196	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.006	36.268	2.370	15.3	0.109	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.007	28.647	1.325	21.6	0.102	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.008	12.024	0.555	21.7	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.009	37.164	1.320	28.2	0.034	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.010	25.049	1.050	23.9	0.278	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.011	15.212	0.300	50.7	0.192	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.012	18.424	1.880	9.8	0.034	0.00	0.0	0.600	o	375	Pipe/Conduit	
4.000	54.436	0.240	226.8	1.100	5.00	0.0	0.600	o	450	Pipe/Conduit	
4.001	19.055	1.760	10.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.002	6.534	0.150	43.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.003	24.001	0.190	126.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table


PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.001	49.77	5.96	47.100	0.020	0.0	0.0	0.0	1.18	20.8	2.7
3.000	50.00	5.45	51.050	0.600	0.0	0.0	0.0	1.32	209.3	81.2
3.001	50.00	5.16	50.900	0.000	15.0	0.0	0.0	2.79	49.3	15.0
3.002	50.00	5.19	47.400	0.000	15.0	0.0	0.0	3.10	54.8	15.0
2.002	49.37	6.07	46.750	0.020	15.0	0.0	0.0	1.26	89.1	17.7
2.003	47.94	6.45	46.700	0.077	15.0	0.0	0.0	1.29	91.0	25.0
2.004	45.83	7.07	46.500	0.119	15.0	0.0	0.0	1.11	78.3	29.8
2.005	45.14	7.29	46.295	0.315	15.0	0.0	0.0	1.22	86.0	53.5
2.006	44.67	7.44	46.200	0.424	15.0	0.0	0.0	4.04	285.5	66.3
2.007	44.25	7.58	43.905	0.526	15.0	0.0	0.0	3.40	240.1	78.0
2.008	44.09	7.63	42.655	0.526	15.0	0.0	0.0	3.91	431.6	78.0
2.009	43.56	7.81	42.100	0.560	15.0	0.0	0.0	3.43	378.4	81.1
2.010	43.24	7.92	40.780	0.838	15.0	0.0	0.0	3.72	411.2	113.1
2.011	42.96	8.02	39.730	1.030	15.0	0.0	0.0	2.55	281.6	134.8
2.012	42.81	8.07	36.400	1.064	15.0	0.0	0.0	5.82	642.4	138.4
4.000	50.00	5.67	49.600	1.100	0.0	0.0	0.0	1.35	214.0	149.0
4.001	50.00	5.07	49.360	0.000	30.0	0.0	0.0	4.80	339.6	30.0
4.002	50.00	5.11	47.600	0.000	30.0	0.0	0.0	2.39	168.9	30.0
4.003	50.00	5.40	46.880	0.000	30.0	0.0	0.0	1.40	98.8	30.0

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
4.004	11.202	0.340	32.9	0.161	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.005	16.030	0.380	42.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.006	21.029	2.000	10.5	0.130	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.007	16.719	0.430	38.9	0.044	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.008	18.965	1.205	15.7	0.073	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.009	8.877	0.160	55.5	0.071	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.010	18.215	0.120	151.8	0.020	0.00	0.0	0.600	o	375	Pipe/Conduit	
4.011	7.039	0.040	176.0	0.033	0.00	0.0	0.600	o	375	Pipe/Conduit	
4.012	16.130	0.465	34.7	0.010	0.00	0.0	0.600	o	375	Pipe/Conduit	
4.013	10.388	0.525	19.8	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.014	24.386	0.160	152.4	0.010	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.015	21.882	0.200	109.4	0.023	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.016	13.256	0.100	132.6	0.013	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.000	23.103	2.475	9.3	0.150	5.00	0.0	0.600	o	225	Pipe/Conduit	
4.017	27.171	0.320	84.9	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.018	11.628	0.940	12.4	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.019	15.240	3.050	5.0	0.174	0.00	0.0	0.600	o	450	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
4.004	50.00	5.47	46.690	0.161	30.0	0.0	0.0	2.75	194.3	51.8
4.005	50.00	5.58	46.350	0.161	30.0	0.0	0.0	2.43	171.6	51.8
4.006	50.00	5.65	44.530	0.291	30.0	0.0	0.0	4.88	344.6	69.4
4.007	50.00	5.76	42.530	0.335	30.0	0.0	0.0	2.53	178.8	75.4
4.008	50.00	5.84	42.100	0.408	30.0	0.0	0.0	3.98	281.5	85.2
4.009	49.99	5.91	40.895	0.479	30.0	0.0	0.0	2.12	149.5	94.9
4.010	49.19	6.11	40.660	0.499	30.0	0.0	0.0	1.47	162.2	96.5
4.011	48.86	6.20	40.540	0.532	30.0	0.0	0.0	1.36	150.5	100.4
4.012	48.54	6.29	40.500	0.542	30.0	0.0	0.0	3.09	340.8	101.3
4.013	48.40	6.32	39.885	0.542	30.0	0.0	0.0	4.59	729.5	101.3
4.014	47.51	6.57	39.360	0.552	30.0	0.0	0.0	1.64	261.5	101.3
4.015	46.86	6.76	39.200	0.575	30.0	0.0	0.0	1.94	309.0	103.0
4.016	46.44	6.89	39.000	0.588	30.0	0.0	0.0	1.76	280.6	103.9
5.000	50.00	5.09	41.600	0.150	0.0	0.0	0.0	4.31	171.3	20.3
4.017	45.76	7.09	38.900	0.738	30.0	0.0	0.0	2.21	351.1	121.5
4.018	45.65	7.12	38.580	0.738	30.0	0.0	0.0	5.80	923.2	121.5
4.019	45.57	7.15	37.640	0.912	30.0	0.0	0.0	9.14	1453.8	142.5


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Micro Drainage	Network 2016.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
2.000	-	-	100	0.020	0.020	0.020
2.001	-	-	100	0.000	0.000	0.000
3.000	-	-	100	0.600	0.600	0.600
3.001	-	-	100	0.000	0.000	0.000
3.002	-	-	100	0.000	0.000	0.000
2.002	-	-	100	0.000	0.000	0.000
2.003	-	-	100	0.057	0.057	0.057
2.004	-	-	100	0.042	0.042	0.042
2.005	-	-	100	0.196	0.196	0.196
2.006	-	-	100	0.109	0.109	0.109
2.007	-	-	100	0.102	0.102	0.102
2.008	-	-	100	0.000	0.000	0.000
2.009	-	-	100	0.034	0.034	0.034
2.010	-	-	100	0.278	0.278	0.278
2.011	-	-	100	0.192	0.192	0.192
2.012	-	-	100	0.034	0.034	0.034
4.000	-	-	100	1.100	1.100	1.100
4.001	-	-	100	0.000	0.000	0.000
4.002	-	-	100	0.000	0.000	0.000
4.003	-	-	100	0.000	0.000	0.000
4.004	-	-	100	0.161	0.161	0.161
4.005	-	-	100	0.000	0.000	0.000
4.006	-	-	100	0.130	0.130	0.130
4.007	-	-	100	0.044	0.044	0.044
4.008	-	-	100	0.073	0.073	0.073
4.009	-	-	100	0.071	0.071	0.071
4.010	-	-	100	0.020	0.020	0.020
4.011	-	-	100	0.033	0.033	0.033
4.012	-	-	100	0.010	0.010	0.010
4.013	-	-	100	0.000	0.000	0.000
4.014	-	-	100	0.010	0.010	0.010
4.015	-	-	100	0.023	0.023	0.023
4.016	-	-	100	0.013	0.013	0.013
5.000	-	-	100	0.150	0.150	0.150
4.017	-	-	100	0.000	0.000	0.000
4.018	-	-	100	0.000	0.000	0.000
4.019	-	-	100	0.174	0.174	0.174
				Total	Total	Total
				3.676	3.676	3.676

Free Flowing Outfall Details for Surface Network 1

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
2.012	OFS	35.500	34.520	0.000	0	0

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Free Flowing Outfall Details for Surface Network 1

Outfall Pipe Number	Outfall C. Level Name	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
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4.019		36.000	34.590	0.000	0 0
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Simulation Criteria for Surface Network 1


Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m <sup>3</sup> /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	2	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.700	Storm Duration (mins)	30
Ratio R	0.400		



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Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000  
Hot Start (mins) 0 MADD Factor \* 10m<sup>3</sup>/ha Storage 2.000  
Hot Start Level (mm) 0 Inlet Coefficient 0.800  
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000  
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 2  
Number of Online Controls 2 Number of Time/Area Diagrams 0  
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details


Rainfall Model FSR Ratio R 0.400  
Region England and Wales Cv (Summer) 0.750  
M5-60 (mm) 19.700 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 150.0 DVD Status OFF  
Analysis Timestep Fine Inertia Status OFF  
DTS Status ON

Profile(s)

Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
Return Period(s) (years) 1, 30, 100  
Climate Change (%) 0, 0, 30

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surchage	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
2.000	1	15 Winter	100	+30%					47.592
2.001	2	15 Winter	100	+30%	100/15 Winter				47.312
3.000	3	15 Winter	100	+30%	30/15 Winter				51.852
3.001	EX S201	240 Winter	100	+30%	1/30 Winter				51.764
3.002	EX S2	240 Winter	100	+30%					47.455
2.002	3	15 Winter	100	+30%	100/15 Summer				47.286
2.003	4	15 Winter	100	+30%	100/15 Summer				47.279
2.004	5	15 Winter	100	+30%	100/15 Summer				47.232
2.005	6	15 Winter	100	+30%	30/15 Summer				47.101
2.006	EX S6	15 Winter	100	+30%	100/15 Summer				46.678
2.007	EX S5	15 Winter	100	+30%	100/15 Summer				45.264
2.008	EX S4	15 Winter	100	+30%	100/15 Summer				43.548
2.009	EX S3A	15 Winter	100	+30%	100/15 Summer				43.175
2.010	EXS3	15 Winter	100	+30%	100/15 Summer				42.459
2.011	EXS2	15 Winter	100	+30%	30/15 Summer				41.248
2.012	EXS1	15 Winter	100	+30%					36.682
4.000	EXS103	15 Winter	100	+30%	30/15 Summer				52.033
4.001	EXS102	120 Winter	100	+30%	30/15 Winter				50.300
4.002	EXS101	120 Winter	100	+30%					47.706
4.003	EXS1	120 Winter	100	+30%					46.992
4.004	EXS132	15 Winter	100	+30%					46.887
4.005	EXS131	15 Winter	100	+30%					46.547

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Micro Drainage	Network 2016.1	

Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
		Depth (m)	Volume (m <sup>3</sup> )			Flow (l/s)		
2.000	1	-0.058	0.000	0.67		11.0	OK	
2.001	2	0.062	0.000	0.75		14.3	SURCHARGED	
3.000	3	0.352	0.000	1.82		334.6	SURCHARGED	
3.001	EX S201	0.714	0.000	0.28		13.1	SURCHARGED	
3.002	EX S2	-0.095	0.000	0.30		13.1	OK	
2.002	3	0.236	0.000	0.50		30.8	SURCHARGED	
2.003	4	0.279	0.000	0.62		51.4	SURCHARGED	
2.004	5	0.432	0.000	0.92		67.2	SURCHARGED	
2.005	6	0.506	0.000	2.22		161.3	SURCHARGED	
2.006	EX S6	0.178	0.000	0.82		214.9	SURCHARGED	
2.007	EX S5	1.059	0.000	1.16		250.8	SURCHARGED	
2.008	EX S4	0.518	0.000	0.87		252.3	SURCHARGED	
2.009	EX S3A	0.700	0.000	0.79		269.1	SURCHARGED	
2.010	EXS3	1.304	0.000	1.07		380.1	FLOOD RISK	
2.011	EXS2	1.143	0.000	2.17		465.4	SURCHARGED	
2.012	EXS1	-0.093	0.000	0.91		481.5	OK	
4.000	EXS103	1.983	0.000	2.96		580.6	SURCHARGED	
4.001	EXS102	0.640	0.000	0.09		26.3	SURCHARGED	
4.002	EXS101	-0.194	0.000	0.27		26.3	OK	
4.003	EXS1	-0.188	0.000	0.30		26.3	OK	
4.004	EXS132	-0.103	0.000	0.75		109.0	OK	
4.005	EXS131	-0.103	0.000	0.75		108.2	OK	

Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
4.006	EXS130	15	Winter	100	+30%	100/15	Winter	
4.007	EXS129A	15	Winter	100	+30%	100/15	Summer	100/15 Summer
4.008	EXS129	15	Winter	100	+30%	100/15	Summer	
4.009	EXS128	15	Winter	100	+30%	30/15	Summer	
4.010	EXS27	15	Winter	100	+30%	30/15	Summer	
4.011	EXS26	15	Winter	100	+30%	30/15	Summer	
4.012	12	15	Winter	100	+30%	100/15	Winter	
4.013	EXS25	15	Winter	100	+30%	100/15	Winter	
4.014	EXS24	15	Winter	100	+30%	100/15	Summer	
4.015	EXS23	15	Winter	100	+30%	100/15	Summer	
4.016	13	15	Winter	100	+30%	30/15	Winter	
5.000	15	15	Winter	100	+30%			
4.017	14	15	Winter	100	+30%	100/15	Summer	
4.018	EXS23B	15	Winter	100	+30%			
4.019	EXS23C	15	Winter	100	+30%			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
4.006	EXS130	44.853	0.023	0.000	0.60	181.6	SURCHARGED	
4.007	EXS129A	44.103	1.273	3.093	1.18	179.2	FLOOD	2
4.008	EXS129	43.618	1.218	0.000	0.86	209.7	FLOOD RISK	
4.009	EXS128	42.721	1.526	0.000	2.44	244.4	SURCHARGED	
4.010	EXS27	41.786	0.751	0.000	1.89	252.9	SURCHARGED	
4.011	EXS26	41.363	0.448	0.000	2.64	267.3	SURCHARGED	
4.012	12	40.889	0.014	0.000	1.02	271.3	SURCHARGED	
4.013	EXS25	40.371	0.036	0.000	0.65	266.0	SURCHARGED	
4.014	EXS24	40.153	0.343	0.000	1.23	269.5	SURCHARGED	
4.015	EXS23	39.914	0.264	0.000	1.09	275.9	SURCHARGED	
4.016	13	39.675	0.225	0.000	1.57	279.5	SURCHARGED	
5.000	15	41.719	-0.106	0.000	0.54	85.1	OK	
4.017	14	39.432	0.082	0.000	1.13	337.5	SURCHARGED	
4.018	EXS23B	38.836	-0.194	0.000	0.62	337.5	OK	
4.019	EXS23C	37.844	-0.246	0.000	0.41	402.3	OK	



## Appendix C



# Application to Connect to a Public Sewer

(Sec 106 Water Industry Act 1991)

325050/A/DEVSRV-  
S106



## SUCCESSFULLY SUBMITTED YOUR FORM

Your application for New Sewer Connection with application no

**DS\_CPS-103860**

has been successfully submitted on 17/08/2018 04:24 PM.

You can track your application status through 'My Dashboard'

A

### Guidance Notes:

#### Connection to the public sewerage system– guidance notes and technical specification

**These notes have been compiled to provide assistance and background information for persons wishing to make a connection to a public sewer within the Southern Water region.**

This application is for the purpose of approval to permit communication to be made to the public sewer, under S106 of the Water Industry Act 1991. This approval is to the means and mode of construction. It does not confirm that capacity is available for the proposed development in the public sewer network.

From the 1st April 2017, Construction companies in England and Wales will have the choice of where they purchase their commercial wastewater services from. Where those companies require sewer connections for commercial purposes, be that temporary building connections, sheltered accommodation, student accommodation or business premises, they need to contact the market retailer of their choice. A list of the retailers can be found here <http://www.open-water.org.uk>.

For all other sewer connections please refer to Developer Services. If there is a site with both domestic and commercial elements, then the sewer connection for the domestic elements will need to be applied for through Developer Services and the connections for the commercial element through the market retailer of the developer's choice.

For billing purposes Developers will need to advise us of the market retailer of their choice, or be allocated one by us as a default. This means that if the developer has not selected their retailer within 8 working days of the connection being made, this will default to the retailer that Ofwat will select on their behalf.

#### The application procedure

Read these guidance notes and technical specification which will provide guidance on the materials and workmanship required to meet Southern Water standards. Additional information is contained in the latest *Sewers for Adoption* which is published by the Water Research Centre and available from [www.wrcplc.co.uk/sfa](http://www.wrcplc.co.uk/sfa).

Complete the online application form and return it to the address shown at the end of these notes together with the relevant fee, planning consent and drawings.

Southern Water will give its decision on your proposal within 21 days. **You must not programme your works to commence within this period.** Failure to include any of the requested information or payment will be deemed as an incomplete application and may result in your application being delayed/ returned.


**At least two working days before intending to carry out the works**, you or your contractor should contact the Assistant Project Manager as shown on the approval letter to arrange a mutually convenient inspection date. Every effort will be made by Southern Water to meet your required inspection date providing that the two days notice has been given.

Please state the property address and address to which the plan should be sent. For more information including the current charges payable please refer to our website:

[www.southernwater.co.uk/mains-and-sewer-maps](http://www.southernwater.co.uk/mains-and-sewer-maps)

Alternatively, in accordance with the Water Industry Act (1991), members of the public may view the public sewer and water maps at our Chatham office between 10am and 3pm, Monday to Friday. Please contact the LandSearch team on 0330 303 0276 or email [searches@southernwater.co.uk](mailto:searches@southernwater.co.uk) to arrange an appointment.

**B**

**Applicant Details:** 

**Name:(Company name if appropriate) \***

Graham Land and Developments

**Contact name:(if different)**

Paul Stephens

**Address: \***

20 Cranley Road  
Burwood Park  
Walton on Thames  
Surrey

**Postcode: \* **

KT12 5BP

**Contact details:**

**Daytime phone number: \***

07483 150264

**Alternate Contact Number:**


**Fax no:**

**Email: \***

pstephens@chessmann.co.uk

*Please click [here](#) to read our privacy statement.*

**C**

**Contractor/Consultant Details:** 

**Name:(Company name if appropriate) \***

NJP Consulting Engineers

**Contact name:(if different)**

**Address: \***

20 st andrews crescent  
Cardiff

**Postcode: \* **

cf10 3dd

**Contact details:**

**Daytime phone number: \***

02920729500

**Alternate Contact Number:**

**Fax no:**

**Email: \***

melson@njpuk.com

*Please click here to read our privacy statement.*

**D**

**Site Details:** 

**Site/project name and location: \***

Estuary View Business Park, Boorman Way Whitstable

**Planning application reference number: \***

17/00465

**Building regulations reference number: \***

none

**Site Address: \***

Estuary View Business Park  
Wraik Hill  
Whitstable  
Kent

**Postcode: \*** 

CT5 3SE

**Southern Water** provides sewerage services where you are connected to the sewer.

Please check your site is in the Southern Water catchment area: <https://www.southernwater.co.uk/your-area>

**If existing building, state method of drainage:**

new build

**Number of properties: \***

1

**Type of properties:**

Integrated Community Healthcare Centre

**Is there an existing water supply to the property? \***

Yes  No

If NO, is it intended to connect to a water supply/ who will do it?: \*


yes/ we dont know yet

Is this a new build? \*

Yes  No  Conversion  Extension

Please click here to read our privacy statement.

E

Details of the public sewer to which you propose to connect: 

Please indicate type of sewer: \*

- Foul Number of connections: 1
- Surface water Number of connections: 1
- Combined Number of connections: 1

Expected date of connection to public sewer

04/03/2019

Details of Foul Connection : Connection Number 1

Diameter (mm) and material of construction

150

Approximate depth (metres):

1

Location (road, verge, garden etc):

SW demarcation chamber 7401 is on site. We propose to connect into existing private drainage pre designed and i

Details of proposed connection

Connection Type (tick as appropriate)

- Splay Cut Pipe  Oblique junction  New manhole  Existing lateral
- External backdrop  Oblique saddle  Existing manhole  Existing private sewer

NB. No saddle connections will be permitted to pipes of 225mm (9") or less in diameter. No plastic pipework will be permitted in manholes

Diameter (mm) 150


and material Ultrarib

of connecting pipe

Is connection to be pumped?

Yes  No

F

Details of sewer and drains upstream of connection: 

Where sewers are to be offered for adoption under Section 104 they should be constructed in accordance with the provisions of the current edition of Sewers for Adoption – a design and construction guide for developers. You should not infer that any approval for your mode of connection to the public sewerage system given under Section 106 of the Water Industry Act 1991 constitutes an approval for your site drainage proposals as a whole.



## G

Required Documents: 

- Copies of the drainage layout plan at 1:100 (or larger), showing location of sewers and manholes on site and up to the connection point
- Copy of planning consent
- Site location plan at 1:1250 (or larger)

## Checklist:

- Site boundary clearly shown
- Roads clearly shown
- Adjacent buildings clearly shown
- Private pipe run to Southern Water network clearly shown

## Please Note:

- Maximum file limit is 50MB
- Allowed file types are DOCX, DOC, PDF, XLS, XLSX, JPG, JPEG, BMP, PNG, DWG (auto cad), DXF (auto cad), DGN (microstation), PRP (microstation), PRW (microstation)

## Documents already uploaded:



10378- P500.pdf




A-687 04A Location Plan.pdf



CA\_\_17\_\_00465-DECISION\_NOTICE\_.pdf

## H

Payments & Charges: 

## Terms and conditions

If the application has been made by the client/agent and not the contractor who will be undertaking the work, the client/agent is obliged to ensure that the contractor is familiar with the terms of approval and in particular the requirement to give reasonable notice of the intention to commence work on site

## Connection to the Public Sewerage System – PAYMENT SLIP

Name(Company name if appropriate): Graham Land and Developments

Contact name(if different): Paul Stephens

Site address: Estuary View Business Park Wraik Hill Whitstable Kent

Postcode: CT5 3SE

Connection Type	Number Required	Cost per connection	Total Cost
New manhole	0	355.00 (inc. 20% VAT)	0.00
Any other type of connection as listed in section E	1	277.00 (inc. 20% VAT)	277.00
			<b>£ 277.00</b>

Amount to pay	
S106 Connect to a Public Sewer	£ 230.83
VAT (20%)	£ 46.17
<b>Total Fee</b>	<b>£ 277.00</b>

Do you require a VAT receipt?  Yes  No

Preferred payment method: **BACS**

Credit/Debit Card	<b>BACS</b>	Cheque
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Payments can be made directly via BACS transfer to:

**Southern Water Services Ltd  
Miscellaneous Income Account  
National Westminster Bank Plc  
South Street Branch  
Worthing**

**Sort Code - 60-24-31  
Account No - 73840548**

(However please ensure that you confirm the application number DS\_CPS-103860 you are making payment for in the reference line)

### I Checklist And Declaration:

Please ensure that you have included the following items with this application:

Failure to complete this application in full and provide relevant information will result in the application being returned and/or refused.

By signing this application you are not automatically granted permission to connect.

Under no circumstances must any person enter the public sewerage system without the express permission of Southern Water.

I confirm to the best of my knowledge the information I have supplied I complete and correct.

Signature: rnelson@njpuk.com

Full Name:

Date: 17/08/2018 16:24:08

Position: \* engineer

### J Important Health and Safety Notice:

I refer you to Southern Water Health and Safety Advisory, which can be viewed in the Developer & builders section of our website at: [southernwater.co.uk/health-safety-advisory](http://southernwater.co.uk/health-safety-advisory)

There are some areas in the Southern Water region where asbestos cement pipes and fibre reinforced pipes have been installed as part of the public sewerage system. There are also concrete pipes, which contain up to 10 per cent asbestos fibre.

Unfortunately it is not always possible to identify these pipes prior to commencing work on site.

If you are proposing to carry out works on a public sewer which is made of such material or if during the course of your works you discover that the sewer to which you are proposing to connect is made of such material(s), you must ensure that:

- The person and/or contractor carrying out the works are competent to do so and all staff adequately trained in working with such material(s)
- A safe system of working is put in place and operated for the entire duration of the work.
- Disposal of any pipework/affected material is carried out in accordance with current legislation and codes of practice.

Your attention is drawn to:

- The Control of Asbestos at Work Regulations 1987
- The Control of Asbestos at Work (Amendment) Regulations 1992
- All other legislation relating to health and safety at work

I have read and understood the information relating to asbestos and the Health and Safety Advisory and will pass the information on to the persons/contractor carrying out the work

Signature: rnelson@njpuk.com

Full Name:

Date: 17/08/2018 16:24:08

Position: \* engineer

# **GRAHAM LAND & DEVELOPMENTS LIMITED**

20 Cranley Road, Burwood Park, Walton on Thames, Surrey, KT12 5BP  
Phone: 01932 228330 Fax: 01932 219096 E-mail: [ernie@grahamcare.co.uk](mailto:ernie@grahamcare.co.uk)

**Southern Water  
Developer Services  
Sparrowgrove House  
Sparrowgrove  
Otterbourne  
Hampshire  
SO21 2SW**

**26th July 2018**

Dear Sirs

**Proposal: Foul and Surface Water Connections  
Site: Estuary View Business Park, Boorman Way, Whitstable, CT5 3SE  
Planning ref: 17/00465**

Further to our engineers recent discussions with yourselves, we provide the following information to assist in your assessment of our application for connection of foul and surface water drainage at the above named development.

## **Planning Approval Ref: 17/00465**

The planning approval dated 30th May 2017 is for the development of a 102 suite acute care home (Phase 2) and a 101 suite care facility (Phase 1), providing an overall provision of 203 bedrooms with associated support infrastructure.

## **Surface Water Drainage**

Our proposal is for the surface water to connect via the existing pond, which has been designed to cope with the total output from the Estuary View development, with the hydrobrake adjusted where necessary to cater for the additional flow, but limited to an overall discharge of 4.0l/sec/ha.

This is as defined within our planning application and represents the position for the Estuary View development as a whole.

## **Foul Water Drainage**

We require access to the mains foul drainage system. On 28th May 2015, Southern Water carried out a Stage 2 capacity check and identified 3 areas within the public network where improvements were required to improve capacity. This capacity check provided the basis of our proposal within our planning application reference 17/00465.

Since this initial report, our engineers NJP recently liaised with Southern Water regarding a capacity check and your letter reference DS\_CC\_PDE-102698 dated 17th July 2018 responded to this enquiry.

We're now in a position where we urgently need to move this forward in order for us to submit and satisfy the pre-start planning condition relating to drainage.

To move forward we have been asked to respond with the following information:

*Directors: Ernie Graham & Dr Karen Graham; Registered in England Number 6526530*

Proposed start date (Phase 1)	05 /11 /2018
Proposed connection date (Phase 1)	04/ 03 /2019
First occupation date (Phase 1)	29/ 06 /2020
Forecast completion date (Phase 1)	29/ 06 /2020
Proposed date of full occupancy (Phase 1)	28/ 06 /2021
Proposed start date (Phase 2)	05/ 01 /2026
Proposed connection date (Phase 2)	04/ 05 /2026
First occupation date (Phase 2)	06/ 09 /2027
Forecast completion date (Phase 2)	03/ 09 /2027
Proposed date of full occupancy (Phase 2)	26/ 01 /2029

Build out period (Per month for each year of development)												
Year	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
2018											1	1
2019	1	1	1	1	1	1	1	1	1	1	1	1
2020	1	1	1	1	1	1						
2021												
2022												
2023												
2024												
2025												
2026	1	1	1	1	1	1	1	1	1	1	1	1
2027	1	1	1	1	1	1	1	1				

It is Graham Land & Developments intention to construct the 101 suite care facility as Phase 1 of the development with an intended start on site of November 2018, followed by the 102 suite acute care home as Phase 2, with an anticipated start date approximately 5 – 6 years after completion of Phase 1, probably some time around 2026. This is however dependent on fill rates for Phase 1 of the development and market conditions pertaining at the time.

As mentioned earlier within this letter, key to defining a start date for Phase 1 and commencement of the whole programme of works is the discharge of the prestart planning conditions, two of which, conditions 4 and 5, relate to foul and surface water drainage. Until we receive approval from planning we are unable to progress our works on site

Your most prompt assistance in progressing and finalising a response in coordination with our structural and drainage engineers NJP would be greatly appreciated.

Your Faithfully



Paul Stephens  
MCIQB  
Senior Project Manager  
For and on behalf of Graham Land & Developments Ltd  
Telephone: 029 20732355  
Mobile: 07483 150264  
Email: pstephens@chessmann.co.uk



JOB NO: 10378

Mr Rob Nelson  
NJP Consulting Engineers  
20 St Andrews  
Crescent  
Cardiff  
CF10 3DD



Developer Services  
Southern Water  
Sparrowgrove House  
Sparrowgrove  
Otterbourne  
Hampshire  
SO21 2SW

Tel: 0330 303 0119

Your Reference:

-----  
Our Reference:

DS\_CPS-103860

Date:

17/09/2018

**Application to Connect to the Public Sewerage System - Section 106 Water Industry Act 1991. Location: Estuary View Business Park, Wralk Hill, Whitstable, Kent, CT5 3SE.**

Dear Mr Nelson,

We refer to your recent application to connect to the public foul sewer at the above location. We are pleased to advise that your proposal, as shown on your drawing 10378-P500 Dated 17/08/2018, is approved subject to:

This letter is for the purpose of approval to permit communication to be made to the public sewer, under S106 of the Water Industry Act 1991.

**It is to the means and mode of construction only.**

S106 approval does not confirm that capacity is available for the proposed development in the public sewer network. Lack of such capacity may increase the risk of flooding and pollution and is a material drainage matter, for the Planning Authority to consider, by way of appropriate Planning Conditions. The availability of such capacity may be assessed through the Capacity Check process.

This letter and any comments or approvals should hence not be considered as approval by Southern Water, to the discharge of any relevant Planning Conditions, relating to drainage. This is a separate matter, to be reviewed under a consultation from the Planning Authority, to discharge any such conditions.

If connection is to be made through land under the ownership of other Parties. Then you are advised to obtain the Landowners consent before carrying out any works.

In approving this application, it is assumed that you have obtained any necessary Building Regulations Approval and /or Highway Authority Road Opening License.

This approval is given based on the information provided in support of this application and the assumption of the final discharge point being to the public foul sewer. If this is different, then this approval becomes invalid.

If as noted above, there is any change in the approved connection point, then you must provide us with revised drawings and details and obtain our approval for the changes prior to the connection being made.

Please note that surface water must not communicate with the public foul sewers.

Connections to existing manhole and the arrangement of pipe junctions within any manholes should be in accordance with Sewers for Adoption 7th edition and Southern Water guidance documentation.

We refer you to Southern Water Health and Safety Advisory that can be viewed in the Developer and Builders section of the Southern Water website as the link below:  
<https://www.southernwater.co.uk/health-safety-advisory>.

**This approval is given on the basis that you will review this Advisory and take the necessary actions concerning Health and Safety.**

Please contact Sarah Simmons our Assistant Project Manager for this area on 07803 259274 giving at least 2 full working days notice, in order for a mutually convenient date and time for the inspection of the works to be arranged.

Yours sincerely,



David Akehurst  
Developer Services