

CALCULATION & DESIGN NOTES SHEET

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Project Title:	Brookleigh, Burgess Hill		
Calculations by:	SL /SBS	Date	05/01/2026
Checked by:	SBS	Date	

Project Number	CR Office and Code	Volume / System	Level / Area	Document Type	Role	Number	Status	Revision
13258	Surrey (CRH)	XX	XX	CA	C	0001	S1	P3
Description								

Background information about the site:

Homes England are looking into the storage capacity of the FW network at EBLR and to work out how often this will need pumping out, currently don't have an outfall installed but houses on one of the parcels will be occupied soon and so need somewhere for all their waste to go. Using the available storage within the network could offer a short-term solution, there would potentially be odour issues and risk of septicity within the effluent build up which may require chemical dosing. The first occupancy numbers would be 12 units in July, gradually building up to 107 units by January next year. Typical household on average is considered to have 2.4 person in England as per Office of Statistics data – taking a more conservative approach, consider 3 person per property. Typical household of 3 people would generate 450 litres of effluent per day according to Building Regs.

Original Calculations

Summary of calculations available storage within the pipe network:

The amount of foul water storage within the pipes would be 10.75m³, for the manholes it would be 11.20m³. This includes the offset of 500mm from the cover levels of the manholes as well as being discounted for benching. **Total storage available within the foul water drainage network would be 21.95m³. Using the 3 person rule generating 450 litres of effluent, for 13 units = 5,850 litres (5.9m³ of effluent). By the same count for 107 units, that would generate 48,150 litres per day, say 49m³ per day.** For the initial 13 properties, the drainage network would be suitable of storing 5.9m³ of effluent for **3 days**. However, temporary storage would need to be installed to be able to store more effluent, especially for 107 units.

Summary of calculations available storage within tank:

Based on the 3 person rule generating 450 litres of effluent, for 107 units = 48,150 litres (49m³ of effluent). We would need to find a tank that is suitable to provide at least 49m³ of storage per day. Typically, cesspit supplier offer tanks that provide 54/55m³ of storage depending on the supplier chosen. That tank would provide **approx. 9 days of storage for the initial 13 units**, without accounting for the storage on the network. Combining the storage of the tank and the storage within the network would provide **approx. 75m³ of storage allowing for up to a 12 days of storage**. For the 107 units, there would need to be 5 tanks of the 54m³ storage capacity to allow for 5 days of effluent storage.

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Projected Occupation:

Bellway has provided an update on projected occupancy

Period	Nos.	Vol. (m ³)	No. of days of available storage	
Nov '25	88	39.6	6	Assuming no emptying
Dec '25	92	41.4	6	
Jan '26	127	57.2	4	
Feb '26	130	58.5	4	
Mar '26	154	69.3	4	
Apr '26	164	73.8	3	
May '26	171	77	3	
Jun '26	178	80.1	3	
Jul '26	193	86.9	3	
Aug '26	193	86.9	3	
Sep '26	214	96.3	3	
Oct '26	235	106	2	
Nov '26	239	108	2	
Dec '26	247	111	2	

Tanker operations during August and September were daily emptying 26.4m³

Based upon occupation of 88 units - assuming daily emptying of 26m³, the full storage capacity will be reached in 18 days.

2 full tankers = 17.6m³ x2= 35.2m³ per day through December
See Emptying Calc sheets

From End of January, emptying frequency will need to be 3 x 17.6m³ per day to keep up with inflow

The frequency of tankers will have to be increased to 4 in March '26
and likely 5 full tankers per day from July '26

Note: The temporary foul storage provision is accounted for the 5 Nos. storage tank with surcharge into the foul network between chambers Temp MH2 up to MHF4 only, all within EBLR and outside of Bellway's parcel and individual plots.

September '25 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow-Emptying)/m ³
Day 1	40	26	14
Day 2	40	26	28
Day 3	40	26	42
Day 4	40	26	56
Day 5	40	26	70
Day 6	40	26	84
Day 7	40	26	98
Day 8	40	26	112
Day 9	40	26	126
Day 10	40	26	140
Day 11	40	26	154
Day 12	40	26	168
Day 13	40	26	182
Day 14	40	26	196
Day 15	40	26	210
Day 16	40	26	224
Day 17	40	26	238
Day 18	40	26	252
Day 19	40	26	266
Day 20	40	26	280
Day 21	40	26	294
Day 22	40	26	308
Day 23	40	26	322
Day 24	40	26	336
Day 25	40	26	350
Day 26	40	26	364
Day 27	40	26	378
Day 28	40	26	392
Day 29	40	26	406
Day 30	40	26	420
Day 31	40	26	434

December '25 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow-Emptying)/m ³
Day 1	40	35.2	4.8
Day 2	40	35.2	9.6
Day 3	40	35.2	14.4
Day 4	40	35.2	19.2
Day 5	40	35.2	24
Day 6	40	35.2	28.8
Day 7	40	35.2	33.6
Day 8	40	35.2	38.4
Day 9	40	35.2	43.2
Day 10	40	35.2	48
Day 11	40	35.2	52.8
Day 12	40	35.2	57.6
Day 13	40	35.2	62.4
Day 14	40	35.2	67.2
Day 15	40	35.2	72
Day 16	40	35.2	76.8
Day 17	40	35.2	81.6
Day 18	40	35.2	86.4
Day 19	40	35.2	91.2
Day 20	40	35.2	96
Day 21	40	35.2	100.8
Day 22	40	35.2	105.6
Day 23	40	35.2	110.4
Day 24	40	35.2	115.2
Day 25	40	35.2	120
Day 26	40	35.2	124.8
Day 27	40	35.2	129.6
Day 28	40	35.2	134.4
Day 29	40	35.2	139.2
Day 30	40	35.2	144
Day 31	40	35.2	148.8

February '26 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow- Emptying)/m ³
Day 1	57.15	52.8	4.35
Day 2	57.15	52.8	8.7
Day 3	57.15	52.8	13.05
Day 4	57.15	52.8	17.4
Day 5	57.15	52.8	21.75
Day 6	57.15	52.8	26.1
Day 7	57.15	52.8	30.45
Day 8	57.15	52.8	34.8
Day 9	57.15	52.8	39.15
Day 10	57.15	52.8	43.5
Day 11	57.15	52.8	47.85
Day 12	57.15	52.8	52.2
Day 13	57.15	52.8	56.55
Day 14	57.15	52.8	60.9
Day 15	57.15	52.8	65.25
Day 16	57.15	52.8	69.6
Day 17	57.15	52.8	73.95
Day 18	57.15	52.8	78.3
Day 19	57.15	52.8	82.65
Day 20	57.15	52.8	87
Day 21	57.15	52.8	91.35
Day 22	57.15	52.8	95.7
Day 23	57.15	52.8	100.05
Day 24	57.15	52.8	104.4
Day 25	57.15	52.8	108.75
Day 26	57.15	52.8	113.1
Day 27	57.15	52.8	117.45
Day 28	57.15	52.8	121.8
Day 29	57.15	52.8	126.15
Day 30	57.15	52.8	130.5
Day 31	57.15	52.8	134.85

March '26 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow-Emptying)/m ³
Day 1	69.3	61.6	7.7
Day 2	69.3	61.6	15.4
Day 3	69.3	61.6	23.1
Day 4	69.3	61.6	30.8
Day 5	69.3	61.6	38.5
Day 6	69.3	61.6	46.2
Day 7	69.3	61.6	53.9
Day 8	69.3	61.6	61.6
Day 9	69.3	61.6	69.3
Day 10	69.3	61.6	77
Day 11	69.3	61.6	84.7
Day 12	69.3	61.6	92.4
Day 13	69.3	61.6	100.1
Day 14	69.3	61.6	107.8
Day 15	69.3	61.6	115.5
Day 16	69.3	61.6	123.2
Day 17	69.3	61.6	130.9
Day 18	69.3	61.6	138.6
Day 19	69.3	61.6	146.3
Day 20	69.3	61.6	154
Day 21	69.3	61.6	161.7
Day 22	69.3	61.6	169.4
Day 23	69.3	61.6	177.1
Day 24	69.3	61.6	184.8
Day 25	69.3	61.6	192.5
Day 26	69.3	61.6	200.2
Day 27	69.3	61.6	207.9
Day 28	69.3	61.6	215.6
Day 29	69.3	61.6	223.3
Day 30	69.3	61.6	231
Day 31	69.3	61.6	238.7

May '26 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow- Emptying)/m ³
Day 1	76.95	70.4	6.55
Day 2	76.95	70.4	13.1
Day 3	76.95	70.4	19.65
Day 4	76.95	70.4	26.2
Day 5	76.95	70.4	32.75
Day 6	76.95	70.4	39.3
Day 7	76.95	70.4	45.85
Day 8	76.95	70.4	52.4
Day 9	76.95	70.4	58.95
Day 10	76.95	70.4	65.5
Day 11	76.95	70.4	72.05
Day 12	76.95	70.4	78.6
Day 13	76.95	70.4	85.15
Day 14	76.95	70.4	91.7
Day 15	76.95	70.4	98.25
Day 16	76.95	70.4	104.8
Day 17	76.95	70.4	111.35
Day 18	76.95	70.4	117.9
Day 19	76.95	70.4	124.45
Day 20	76.95	70.4	131
Day 21	76.95	70.4	137.55
Day 22	76.95	70.4	144.1
Day 23	76.95	70.4	150.65
Day 24	76.95	70.4	157.2
Day 25	76.95	70.4	163.75
Day 26	76.95	70.4	170.3
Day 27	76.95	70.4	176.85
Day 28	76.95	70.4	183.4
Day 29	76.95	70.4	189.95
Day 30	76.95	70.4	196.5
Day 31	76.95	70.4	203.05

July '26 Emptying Calcs

	Inflow /m ³	Emptying /m ³ /day	Storage (Inflow- Emptying)/m ³
Day 1	86.85	88	-1.15
Day 2	86.85	88	-2.3
Day 3	86.85	88	-3.45
Day 4	86.85	88	-4.6
Day 5	86.85	88	-5.75
Day 6	86.85	88	-6.9
Day 7	86.85	88	-8.05
Day 8	86.85	88	-9.2
Day 9	86.85	88	-10.35
Day 10	86.85	88	-11.5
Day 11	86.85	88	-12.65
Day 12	86.85	88	-13.8
Day 13	86.85	88	-14.95
Day 14	86.85	88	-16.1
Day 15	86.85	88	-17.25
Day 16	86.85	88	-18.4
Day 17	86.85	88	-19.55
Day 18	86.85	88	-20.7
Day 19	86.85	88	-21.85
Day 20	86.85	88	-23
Day 21	86.85	88	-24.15
Day 22	86.85	88	-25.3
Day 23	86.85	88	-26.45
Day 24	86.85	88	-27.6
Day 25	86.85	88	-28.75
Day 26	86.85	88	-29.9
Day 27	86.85	88	-31.05
Day 28	86.85	88	-32.2
Day 29	86.85	88	-33.35
Day 30	86.85	88	-34.5
Day 31	86.85	88	-35.65