

TECHNICAL RESPONSE FOR CONDITION DISCHARGE

WOODFIELD HOUSE, BURGESS HILL, RH15 8RA

Consulting Engineers

GTA Civils & Transport Ltd
Maple House
192-198 London Road
Burgess Hill, RH15 9RD
Tel: 01444 871444

RE: DISCHARGE OF PLANNING CONDITIONS 4 & 5 – SURFACE WATER DRAINAGE

Site: Woodfield House, Isaacs Lane, Burgess Hill, West Sussex, RH15 8RA.

Planning Ref: DM/25/3272. Original Application: DM/24/0487 Submission

Date: 27 March 2026

Dear Joseph Swift,

Following the Lead Local Flood Authority (LLFA) response dated 24 February 2026, we have addressed all outstanding points required to discharge Conditions 4 and 5.

The following information is provided in the attached Appendices:

- **Condition 4 (Maintenance & Implementation):** We have provided a full timetable for implementation and a management/maintenance plan to ensure the drainage scheme operates effectively for the development's lifetime. Refer to Appendix D.
- **Condition 5 (MicroDrainage):** Calculations have been updated to include the 3.33% AEP plus climate change event, confirming that no above-ground flooding occurs on-site. Refer to Appendix B.
- **Condition 5 (Exceedance Flow):** We have included a plan mapping the surface water exceedance flow routes for rainfall events in excess of the 1% annual probability. Refer to Appendix A.
- **Condition 5 (SuDS Design & Water Quality):** We have provided details confirming all features are designed in accordance with The SuDS Manual (CIRIA C753). This includes a Water Quality Assessment showing that the mitigation indices of the proposed SuDS components (e.g., attenuation basins) meet the pollution hazard indices for the residential land use. Refer to Appendix C.

We trust this submission addresses all previous concerns and allows for the formal discharge of these conditions.

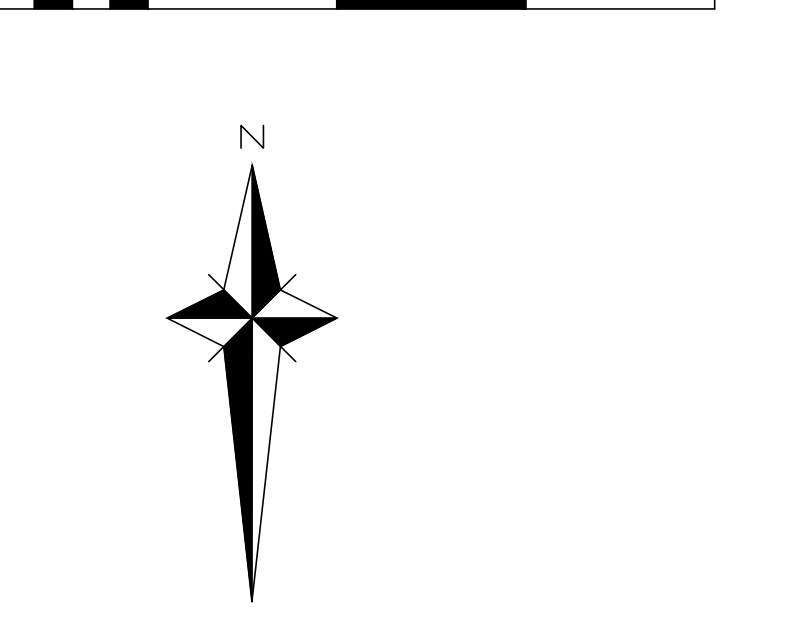
APPENDIX A – EXCEEDANCE FLOW PLAN



- GENERAL NOTES**
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non-intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. Any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with HDB plan requirements.
 5. Copyright: This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.
 7. If viewing this drawing as an Autocad file (.dwg) in digital format then it is done so with this Disclaimer due to the fact that it can be altered and manipulated following its issue by GTA Civils & Transport and therefore any alteration or modification of DWG data files provided by GTA Civils & Transport, by you or a third party, without GTA Civils & Transport's express written approval, is done so entirely at your own risk. Modification includes But is not limited to: turning layers on and off; unfreezing layers and reloading; turning on and off print functions and unloading x-refs.
 8. Your attention is also drawn to the fact that the information contained within this file may be subject to alteration at any time, pending technical approval from an approving authority or at the client's instruction. It is therefore strongly recommended that multiple regular cross checks are made against the current contract drawings.
 9. It is your responsibility to ensure that the correct issue or revision of the DWG data file is being used and requests for updated information made accordingly.

KEY

Flow Arrow



Northern Arc Allocation: Phas
Approved Application DM/21

School Playing Field

INSET SHOWING SOUTH OF THE SITE

T1	FIRST TENDER ISSUE	25.03.26	AE	GK
Rev	Amendments	Date	Drawn	Checked
Status				
Client	 BELLWAY SOUTH LONDON			
Architect				
Project	WOODFIELD HOUSE BURGESS HILL			
Title	EXCEEDANCE FLOW PLAN			
Date	MARCH 26	Scale @ A0	1/200	
Clients Ref.		Project Ref.	13776	
 Maple House, 192-198 London Road, Burgess Hill, West Sussex, BN15 9BD Tel: 01444 571444 Web: www.gta.co.uk				
Drawing Number	13776/1620			Rev.
				T1

APPENDIX B – MICRODRAINAGE CALCULATION

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
PS2	0.108	5.00	33.820	1350	530922.980	121251.243	1.793	32.027
PS3	0.009	5.00	34.309	1200	530958.243	121230.867	2.467	31.842
S1	0.060	5.00	35.145	1350	530969.927	121270.505	1.648	33.497
S2	0.042	5.00	35.309	1200	530980.249	121258.134	1.907	33.402
S3	0.034	5.00	35.042	1200	530976.733	121242.893	1.732	33.310
S4			34.205	1350	530968.248	121226.687	1.655	32.550
S5	0.041	5.00	33.455	1350	530954.819	121221.706	1.655	31.800
S6			32.600	1350	530958.542	121210.671	0.850	31.750
S7			32.600	1350	530953.412	121200.193	1.000	31.600
S8	0.014	5.00	32.600	1350	530948.255	121200.320	1.380	31.220
PS5	0.074	5.00	32.002	1350	530907.219	121192.734	1.630	30.372
PS4			32.479	1200	530937.523	121194.798	2.286	30.193
S9	0.040	5.00	32.348	1350	530941.502	121194.942	2.328	30.020
S10	0.033	5.00	31.904	1350	530945.776	121181.200	1.954	29.950
S11	0.031	5.00	31.619	1350	530951.669	121172.943	1.729	29.890
S12	0.040	5.00	30.760	1350	530936.705	121144.719	1.010	29.750
PS7	0.018	5.00	30.900	450	530905.853	121136.069	0.910	29.990
PS6	0.004	5.00	30.905	600	530927.215	121138.550	1.041	29.864
S13	0.011	5.00	30.881	1350	530929.436	121139.238	1.181	29.700
S14			31.000	1500	530931.896	121135.126	1.350	29.650
S19			30.500	1350	530924.638	121129.431	1.000	29.500
S15			30.500	1350	530921.115	121125.288	1.070	29.430
S16			29.727	1350	530910.368	121121.733	0.357	29.370

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.001	PS2	PS3	40.727	0.600	32.027	31.842	0.185	220.1	300	5.64	50.0
1.002	PS3	S5	9.779	0.600	31.842	31.800	0.042	232.8	300	5.80	50.0
2.000	S1	S2	16.111	0.600	33.497	33.402	0.095	169.6	225	5.27	50.0
2.001	S2	S3	15.641	0.600	33.402	33.310	0.092	170.0	225	5.53	50.0
2.002	S3	S4	18.292	0.600	33.310	32.550	0.760	24.1	225	5.64	50.0
2.003	S4	S5	14.323	0.600	32.550	31.875	0.675	21.2	225	5.73	50.0
1.003	S5	S6	11.646	0.600	31.800	31.750	0.050	232.9	300	5.99	50.0
1.004	S6	S7	11.666	0.600	31.750	31.600	0.150	77.8	375	6.09	50.0
1.005	S7	S8	5.159	0.600	31.600	31.220	0.380	13.6	300	6.11	50.0
1.006	S8	S9	8.632	0.600	31.220	30.095	1.125	7.7	300	6.13	50.0
3.000	PS5	PS4	30.374	0.600	30.372	30.193	0.179	169.7	225	5.51	50.0
3.001	PS4	S9	3.982	0.600	30.193	30.170	0.023	173.1	225	5.57	50.0
1.007	S9	S10	14.391	0.600	30.020	29.950	0.070	205.6	375	6.32	50.0
1.008	S10	S11	10.145	0.600	29.950	29.890	0.060	169.1	375	6.44	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.001	1.055	74.6	14.6	1.493	2.167	0.108	0.0	89	0.823
1.002	1.026	72.5	15.8	2.167	1.355	0.117	0.0	95	0.824
2.000	1.001	39.8	8.1	1.423	1.682	0.060	0.0	69	0.791
2.001	1.000	39.7	13.8	1.682	1.507	0.102	0.0	91	0.909
2.002	2.678	106.5	18.4	1.507	1.430	0.136	0.0	63	2.016
2.003	2.853	113.4	18.4	1.430	1.355	0.136	0.0	61	2.114
1.003	1.026	72.5	39.7	1.355	0.550	0.293	0.0	158	1.048
1.004	2.056	227.1	39.7	0.475	0.625	0.293	0.0	106	1.562
1.005	4.288	303.1	39.7	0.700	1.080	0.293	0.0	73	3.001
1.006	5.709	403.5	41.6	1.080	1.953	0.307	0.0	65	3.736
3.000	1.001	39.8	10.0	1.405	2.061	0.074	0.0	77	0.837
3.001	0.990	39.4	10.0	2.061	1.953	0.074	0.0	77	0.828
1.007	1.260	139.1	57.0	1.953	1.579	0.421	0.0	167	1.200
1.008	1.390	153.5	61.5	1.579	1.354	0.454	0.0	165	1.317

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.009	S11	S12	31.945	0.600	29.890	29.750	0.140	228.2	375	6.89	50.0
1.010	S12	S13	9.103	0.600	29.750	29.700	0.050	182.1	375	7.00	50.0
4.000	PS7	PS6	21.505	0.600	29.990	29.864	0.126	170.7	225	5.36	50.0
4.001	PS6	S13	2.326	0.600	29.864	29.850	0.014	166.1	225	5.40	50.0
1.011	S13	S14	4.792	0.600	29.700	29.650	0.050	95.8	375	7.05	50.0
1.012	S14	S19	9.226	0.600	29.650	29.500	0.150	61.5	375	7.11	50.0
1.013	S19	S15	5.439	0.600	29.500	29.430	0.070	77.7	375	7.16	50.0
1.014	S15	S16	11.319	0.600	29.430	29.370	0.060	188.7	225	7.35	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.009	1.195	132.0	65.7	1.354	0.635	0.485	0.0	187	1.194
1.010	1.339	147.9	71.1	0.635	0.806	0.524	0.0	183	1.327
4.000	0.998	39.7	2.4	0.685	0.816	0.018	0.0	37	0.553
4.001	1.011	40.2	2.9	0.816	0.806	0.022	0.0	41	0.592
1.011	1.851	204.4	75.4	0.806	0.975	0.557	0.0	157	1.714
1.012	2.313	255.5	75.4	0.975	0.625	0.557	0.0	139	2.021
1.013	2.057	227.2	75.4	0.625	0.695	0.557	0.0	148	1.855
1.014	0.948	37.7	75.4	0.845	0.132	0.557	0.0	225	0.966

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	0.750	Skip Steady State	x	Starting Level (m)			

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160 | 2880 | 4320 | 5760 | 7200 | 8640

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0	100	45	0	0
30	45	0	0				

Node PS4 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	30.193	Product Number	CTL-SHE-0032-5000-1000-5000
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	0.5	Min Node Diameter (mm)	1200

Node S8 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	31.220	Product Number	CTL-SHE-0109-5000-0800-5000
Design Depth (m)	0.800	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node S15 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.430	Product Number	CTL-SHE-0145-9900-1000-9900
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	9.9	Min Node Diameter (mm)	1200

Node S7 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	31.600
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	118.8	118.8	1.000	282.7	289.9

Node S19 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	19.5	19.5	1.000	115.0	118.7

Node PS6 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.900
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	240

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	80.0	80.0	0.400	80.0	92.7	0.410	0.0	92.7

Node PS4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	30.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	90.0	90.0	0.800	90.0	116.9	0.810	0.0	116.9

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	PS2	10	32.118	0.091	15.5	0.1296	0.0000	OK
15 minute winter	PS3	11	31.972	0.130	16.4	0.1465	0.0000	OK
15 minute winter	S1	10	33.567	0.070	8.6	0.1001	0.0000	OK
15 minute winter	S2	10	33.499	0.097	14.5	0.1099	0.0000	OK
15 minute winter	S3	10	33.377	0.067	19.1	0.0762	0.0000	OK
15 minute winter	S4	11	32.612	0.062	19.0	0.0889	0.0000	OK
15 minute winter	S5	11	31.963	0.163	40.9	0.2335	0.0000	OK
15 minute winter	S6	10	31.876	0.126	41.2	0.1801	0.0000	OK
120 minute winter	S7	94	31.773	0.173	25.4	23.2023	0.0000	OK
120 minute winter	S8	120	31.784	0.564	19.0	0.8070	0.0000	SURCHARGED
15 minute winter	PS5	10	30.461	0.089	10.6	0.1268	0.0000	OK
600 minute winter	PS4	465	30.343	0.150	1.4	12.4589	0.0000	OK
15 minute winter	S9	10	30.093	0.073	10.9	0.1042	0.0000	OK
15 minute winter	S10	10	30.037	0.087	15.6	0.1247	0.0000	OK
15 minute winter	S11	11	29.988	0.098	19.6	0.1406	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	PS2	1.001	PS3	15.1	0.675	0.202	0.9535	
15 minute winter	PS3	1.002	S5	16.4	0.495	0.226	0.3337	
15 minute winter	S1	2.000	S2	8.5	0.632	0.213	0.2168	
15 minute winter	S2	2.001	S3	14.2	1.090	0.358	0.2062	
15 minute winter	S3	2.002	S4	19.0	2.020	0.178	0.1718	
15 minute winter	S4	2.003	S5	19.0	1.787	0.168	0.1669	
15 minute winter	S5	1.003	S6	41.2	1.242	0.568	0.3894	
15 minute winter	S6	1.004	S7	41.6	2.113	0.183	0.2623	
120 minute winter	S7	1.005	S8	18.9	0.369	0.062	0.2899	
120 minute winter	S8	1.006	S9	5.0	1.939	0.012	0.0222	
15 minute winter	PS5	3.000	PS4	10.5	1.275	0.264	0.2735	
600 minute winter	PS4	3.001	S9	0.3	0.318	0.009	0.0044	
15 minute winter	S9	1.007	S10	10.8	0.629	0.078	0.2473	
15 minute winter	S10	1.008	S11	15.3	0.727	0.099	0.2132	
15 minute winter	S11	1.009	S12	19.7	0.770	0.150	0.8194	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S12	11	29.864	0.114	25.1	0.1634	0.0000	OK
15 minute winter	PS7	10	30.029	0.039	2.6	0.0063	0.0000	OK
15 minute winter	PS6	13	29.902	0.038	3.0	0.2094	0.0000	OK
15 minute winter	S13	11	29.808	0.108	28.7	0.1548	0.0000	OK
120 minute winter	S14	76	29.778	0.128	16.1	0.2255	0.0000	OK
120 minute winter	S19	82	29.772	0.272	24.0	9.2099	0.0000	OK
120 minute summer	S15	82	29.782	0.352	25.5	0.5031	0.0000	SURCHARGED
120 minute winter	S16	84	29.448	0.078	9.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S12	1.010	S13	25.2	0.923	0.170	0.2486	
15 minute winter	PS7	4.000	PS6	2.5	0.573	0.064	0.0953	
15 minute winter	PS6	4.001	S13	2.1	0.513	0.053	0.0097	
15 minute winter	S13	1.011	S14	28.6	1.243	0.140	0.1140	
120 minute winter	S14	1.012	S19	18.3	0.897	0.072	0.5364	
120 minute winter	S19	1.013	S15	25.1	0.465	0.111	0.5205	
120 minute summer	S15	1.014	S16	9.8	0.778	0.261	0.1434	72.0

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	PS2	11	32.512	0.485	57.2	0.6943	0.0000	SURCHARGED
15 minute winter	PS3	11	32.397	0.555	59.6	0.6277	0.0000	SURCHARGED
15 minute winter	S1	11	33.761	0.264	31.8	0.3775	0.0000	SURCHARGED
15 minute winter	S2	11	33.688	0.286	52.4	0.3234	0.0000	SURCHARGED
15 minute winter	S3	11	33.450	0.140	69.4	0.1584	0.0000	OK
15 minute winter	S4	11	32.717	0.167	69.7	0.2395	0.0000	OK
15 minute winter	S5	11	32.351	0.551	149.5	0.7881	0.0000	SURCHARGED
180 minute winter	S6	176	32.261	0.511	36.8	0.7308	0.0000	SURCHARGED
180 minute winter	S7	176	32.261	0.661	35.8	115.1832	0.0000	SURCHARGED
180 minute winter	S8	176	32.260	1.040	14.8	1.4887	0.0000	SURCHARGED
720 minute winter	PS5	705	30.715	0.343	3.4	0.4902	0.0000	SURCHARGED
720 minute winter	PS4	705	30.715	0.522	3.2	44.6291	0.0000	SURCHARGED
120 minute winter	S9	118	30.161	0.141	12.3	0.2023	0.0000	OK
120 minute winter	S10	118	30.161	0.211	18.1	0.3019	0.0000	OK
120 minute winter	S11	118	30.161	0.271	23.5	0.3874	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	PS2	1.001	PS3	54.9	0.779	0.736	2.8680	
15 minute winter	PS3	1.002	S5	58.9	0.836	0.812	0.6886	
15 minute winter	S1	2.000	S2	30.6	0.777	0.769	0.6408	
15 minute winter	S2	2.001	S3	52.2	1.435	1.315	0.5141	
15 minute winter	S3	2.002	S4	69.7	2.597	0.655	0.5272	
15 minute winter	S4	2.003	S5	70.1	1.828	0.618	0.5116	
15 minute winter	S5	1.003	S6	149.6	2.128	2.063	0.7963	
180 minute winter	S6	1.004	S7	35.8	1.325	0.157	1.2867	
180 minute winter	S7	1.005	S8	13.8	0.291	0.046	0.3633	
180 minute winter	S8	1.006	S9	5.6	1.989	0.014	0.0606	
720 minute winter	PS5	3.000	PS4	3.2	0.428	0.082	1.2080	
720 minute winter	PS4	3.001	S9	0.4	0.323	0.010	0.0046	
120 minute winter	S9	1.007	S10	12.3	0.640	0.088	0.7326	
120 minute winter	S10	1.008	S11	18.1	0.762	0.118	0.7561	
120 minute winter	S11	1.009	S12	23.2	0.723	0.176	3.1226	

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S12	118	30.161	0.411	30.2	0.5874	0.0000	SURCHARGED
120 minute winter	PS7	120	30.160	0.170	3.2	0.0271	0.0000	OK
120 minute winter	PS6	120	30.160	0.296	15.3	19.9047	0.0000	SURCHARGED
120 minute winter	S13	116	30.161	0.461	30.9	0.6602	0.0000	SURCHARGED
120 minute winter	S14	118	30.160	0.510	25.6	0.9016	0.0000	SURCHARGED
120 minute winter	S19	120	30.160	0.660	31.0	34.5861	0.0000	SURCHARGED
120 minute winter	S15	120	30.159	0.729	23.6	1.0438	0.0000	SURCHARGED
240 minute winter	S16	100	29.448	0.078	9.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S12	1.010	S13	29.0	0.827	0.196	1.0040	
120 minute winter	PS7	4.000	PS6	3.2	0.556	0.081	0.7742	
120 minute winter	PS6	4.001	S13	-11.5	-0.581	-0.287	0.0925	
120 minute winter	S13	1.011	S14	25.6	1.152	0.125	0.5285	
120 minute winter	S14	1.012	S19	31.0	1.091	0.121	1.0176	
120 minute winter	S19	1.013	S15	23.6	0.458	0.104	0.5999	
120 minute winter	S15	1.014	S16	9.9	0.778	0.262	0.1438	190.5

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	PS2	11	32.795	0.768	71.9	1.0992	0.0000	SURCHARGED
15 minute winter	PS3	11	32.615	0.773	74.5	0.8738	0.0000	SURCHARGED
15 minute winter	S1	11	33.995	0.498	39.8	0.7128	0.0000	SURCHARGED
15 minute winter	S2	11	33.890	0.488	66.2	0.5523	0.0000	SURCHARGED
15 minute winter	S3	11	33.601	0.291	87.7	0.3288	0.0000	SURCHARGED
15 minute winter	S4	11	33.015	0.465	84.1	0.6660	0.0000	SURCHARGED
15 minute winter	S5	11	32.543	0.743	180.7	1.0626	0.0000	SURCHARGED
180 minute winter	S6	176	32.421	0.671	45.2	0.9599	0.0000	FLOOD RISK
180 minute winter	S7	176	32.421	0.821	44.9	153.8615	0.0000	FLOOD RISK
180 minute winter	S8	176	32.420	1.200	15.1	1.7177	0.0000	FLOOD RISK
960 minute winter	PS5	930	30.881	0.509	3.5	0.7287	0.0000	SURCHARGED
960 minute winter	PS4	930	30.881	0.688	3.4	59.0636	0.0000	SURCHARGED
180 minute winter	S9	180	30.296	0.276	12.1	0.3956	0.0000	OK
180 minute winter	S10	180	30.296	0.346	17.6	0.4955	0.0000	OK
180 minute winter	S11	180	30.296	0.406	22.2	0.5811	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	PS2	1.001	PS3	68.6	0.975	0.920	2.8680	
15 minute winter	PS3	1.002	S5	73.8	1.048	1.018	0.6886	
15 minute winter	S1	2.000	S2	38.2	0.959	0.959	0.6408	
15 minute winter	S2	2.001	S3	65.0	1.657	1.634	0.6221	
15 minute winter	S3	2.002	S4	84.1	2.603	0.790	0.7275	
15 minute winter	S4	2.003	S5	82.4	2.072	0.726	0.5696	
15 minute winter	S5	1.003	S6	180.2	2.560	2.486	0.8201	
180 minute winter	S6	1.004	S7	44.9	1.385	0.198	1.2867	
180 minute winter	S7	1.005	S8	14.6	0.297	0.048	0.3633	
180 minute winter	S8	1.006	S9	6.0	1.977	0.015	0.2294	
960 minute winter	PS5	3.000	PS4	3.4	0.389	0.086	1.2080	
960 minute winter	PS4	3.001	S9	0.4	0.332	0.011	0.0051	
180 minute winter	S9	1.007	S10	12.2	0.639	0.088	1.3923	
180 minute winter	S10	1.008	S11	17.2	0.743	0.112	1.0992	
180 minute winter	S11	1.009	S12	21.1	0.696	0.160	3.5234	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S12	180	30.296	0.546	27.6	0.7807	0.0000	SURCHARGED
180 minute winter	PS7	180	30.295	0.305	2.9	0.0485	0.0000	SURCHARGED
180 minute winter	PS6	180	30.295	0.431	12.9	30.2058	0.0000	SURCHARGED
180 minute winter	S13	180	30.295	0.595	28.1	0.8519	0.0000	SURCHARGED
180 minute winter	S14	180	30.295	0.645	22.5	1.1399	0.0000	SURCHARGED
180 minute winter	S19	180	30.295	0.795	26.2	46.7983	0.0000	FLOOD RISK
180 minute winter	S15	180	30.295	0.865	20.4	1.2371	0.0000	FLOOD RISK
15 minute winter	S16	155	29.448	0.078	9.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S12	1.010	S13	26.4	0.788	0.179	1.0040	
180 minute winter	PS7	4.000	PS6	2.9	0.517	0.073	0.8553	
180 minute winter	PS6	4.001	S13	-9.5	-0.505	-0.237	0.0925	
180 minute winter	S13	1.011	S14	22.5	1.083	0.110	0.5285	
180 minute winter	S14	1.012	S19	24.5	1.016	0.096	1.0176	
180 minute winter	S19	1.013	S15	20.4	0.481	0.090	0.5999	
180 minute winter	S15	1.014	S16	9.9	0.778	0.262	0.1438	209.5

APPENDIX C – SUDS DESIGN & WATER QUALITY

APPENDIX C – SUDS DESIGN & WATER QUALITY

Pollutant type	TSS	Metals	Hydrocarbons
Pollution hazard indices			
Residential roofs – Very low	0.2	0.2	0.05
Vehicular areas – Low	0.5	0.4	0.4
SuDS mitigation indices			
Permeable pavement	0.7	0.6	0.7
Attenuation basin	0.5	0.5	0.6
Paving → Attenuation basin	0.95	0.85	1.0

Runoff Treatment – Simple Index Approach

As you can see from the table above, it demonstrates that the proposed SuDS treatment train will sufficiently protect the water environment.

APPENDIX D - DRAINAGE MANAGEMENT & MAINTENANCE PLAN

Drainage Maintenance & Management Plan

Land At Woodfield House – Isaacs Lane – Burgess Hill

Client

Client
Bellway Homes Limited (Southern Counties)
1st Floor, Regent House
Redhill
Surrey
RH1 1QT

Ref: 13776

Date: March 2026

Consulting Engineers

GTA Civils Ltd
Gloucester House
66a Church Walk
Burgess Hill
RH15 9AS

Tel: 01444 871444

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Schedule of Appendices

A - Site Drainage Plan

Issue	Issue date	Compiled	Checked
Planning Issue	March 2026	GK	MR

1 Introduction

- 1.1 This report has been prepared for Bellway Homes in relation to a development at Woodfield House , Isaacs Lane, Burgess Hill. No responsibility is accepted to any third party for all or part of this study in connection with this or any other development.
- 1.2 GTA Civils Ltd. was appointed by the client to provide a Drainage Maintenance & Management Plan (DMMP) as requested by West Sussex County Council, set out in the pre commencement conditions.
- 1.3 The main manholes and pipes taking surface water run off from both houses and highways will not be adopted by the water authority. It will remain private. The mains foul drainage shall be adopted by the water authority (Southern Water), unless shown as private on the attached drawing within the appendix. The drainage around plots will remain private.
- 1.4 Drawings 13776/1600, (in the Appendix) shows all the drainage networks, to be adopted and remain private. The legends shown on these layout shows the differences.

2 Existing and Proposed Site

- 2.1 Existing: the pre-redevelopment site is predominantly greenfield with an old domestic property with a swimming pool.
- 2.2 Proposal: Proposed 30 houses.
- 2.3 Drainage design: a site drainage drawing for the development has been produced by GTA Civils & Transport. This drawing incorporates a number of Sustainable Urban Drainage Systems (SUDS), the maintenance requirements of which are explained in this report.

3 Health and Safety

- 3.1 All those responsible for and involved in the maintenance of the site drainage systems should be safety-conscious and comply with the relevant health and safety legislation. This includes:
- The Health and Safety at Work etc Act 1974
 - The Management of Health and Safety at Work Regulations 1999
 - The Workplace (Health, Safety and Welfare) Regulations 1992
- 3.2 The Estate Management Company is responsible for suitable risk assessment and management to ensure safe working conditions and practices. Measures to protect potential visitors also must be considered.
- 3.3 Specialist contractors used should work to industry guidelines and be able to demonstrate safe working practices.
- 3.4 Employers have a duty to employees to inform them about the risks of their work environment and to decrease the risk as far as reasonably practicable. Appropriate personal protective equipment (PPE) should be provided, and practices/policies implemented based on risk assessments.
- 3.5 Operatives should be trained for working near water. Risks of contaminated water should be considered. Checking for open cuts and using nitrile gloves, waterproof plasters etc is advised.
- 3.6 Entry of pipes, chambers and culverts should be avoided. Work should be carried out from the surface using appropriate equipment. In the event that entry cannot be avoided to perform a critical task, the required safety training, protection measures and precautions must be implemented prior to entry. Lone working should never be attempted.
- 3.7 For further information refer to Section 36 of The SuDS Manual (CIRIA C753).

4 Maintenance Schedule

- 4.1 The following sections detail the main drainage items used within the scheme and details the maintenance requirements for each item.
- 4.2 To ensure ongoing compliance with the requirements of the maintenance schedule, an Estate Management Company will be set up by the Client to administer the site wide infrastructure including all the drainage items listed in the schedule below.
- 4.3 The Estate Management Company will seek financial contributions (in the form of service charges), at regular intervals, from the leaseholders/owners of the development to include for the regular costs of the maintenance of the site drainage. A separate sinking fund will be maintained to provide for the anticipated replacement cost of the major components at the end of the manufacturer's design life. These funds are to be held in bank client accounts kept separate from the bank account of the Estate Management Company

5 Permeable Paving

- 5.1 The Regular inspection and maintenance is important for the effective operation of pervious pavements. Maintenance responsibility for the pervious pavements and its surrounding area will be for the Management Company.
- 5.2 Before handing over the facility to the client, it should be inspected for clogging, litter, weeds and water ponding and all failures should be rectified. After handover, the facility should be inspected regularly, preferably during and after heavy rainfall to check effective operation and to identify any areas of ponding.
- 5.3 Pervious surfaces need to be regularly cleaned of silt and other sediments to preserve their infiltration capability. Experience in the UK is limited, but advice issued with permeable precast concrete paving has suggested a minimum of three surface sweepings per year.

Manufacturers' recommendations should always be followed.

- 5.4 A brush and suction cleaner, which can be a lorry-mounted device or a smaller precinct sweeper, should be used and the sweeping regime should be as follows:
- 1 End of winter (April) – to collect winter debris.
 - 2 Mid-summer (July/August) – to collect dust, flower and grass-type deposits.
 - 3 After autumn leaf fall (November).
- 5.5 Care should be taken in adjusting vacuuming equipment to avoid removal of jointing material. Any lost material should be replaced.
- 5.6 The likely design life (or period before pavement rehabilitation is required) has yet to be established for the UK. However, it should be no different from standard paving assuming that an effective maintenance regime is in place to minimise risks of infiltration clogging.
- 5.7 If reconstruction is necessary, the following procedure should be followed:
1. Lift surface layer and laying course.
 2. Remove any geotextile filter layer.
 3. Inspect sub-base and remove, wash and replace if required.
 4. Renew any geotextile layer.
 5. Renew laying course, jointing material and concrete block paving.
- 5.8 Permeable paving maintenance and monitoring requirements

Schedule	Action	Frequency
Regular Maintenance	Brushing and vacuuming.	Three times per year at end of winter, mid-summer, after autumn leaf fall, or as required based on specific observations.
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required.
Remedial Actions	Remedial work to any depressions, rutting and	As required.

	cracked or broken blocks or deformations in the permeable paving (if applicable) considered detrimental to the structural performance. Rehabilitation of surface and upper structure.	As required
Monitoring	Initial Inspection Inspect for evidence of poor operation and / or weed growth. Inspect silt accumulation rates and establish appropriate brushing techniques	Monthly for 3 months after installation. 3 monthly & 48hrs. after large storms. Annually.

6 Drains, Manholes, Gullies, Silt Pits (Private)

- 6.1 Regular inspection and maintenance is required to ensure the effective long-term operation of private drains, manholes, gullies & silt pits.
- 6.2 Prior to construction: a CCTV survey to be carried out on all existing drainage systems (not being demolished as part of the scheme) and any downstream receiving systems, prior to connection with adopted sewers.
- 6.3 Post Completion: a CCTV survey to be carried out on all new and retained existing drainage systems and any downstream receiving systems, prior to connection with adopted sewers.
- 6.4 The report will be used to prove the integrity of the as-built drainage system prior to issue of practical completion certificate and will be handed over to the Client & Management Company for future reference.
- 6.5 Ongoing maintenance responsibility for all sewers, manholes, inspection chambers, gullies and silt pits will be for the Management Company. Operation and maintenance requirements for all sewer manholes, gullies and silt pits are described in the following table.

Schedule	Action	Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	6 Monthly intervals.
	Common yard & car park & other hard standing areas to be swept clear of debris, to prevent possibility of blockages to the receiving drainage systems.	Monthly.
	Debris removal from gullies & silt pits, channel drains (where may cause risks to performance).	6 Monthly intervals, after autumn leaf fall, or as required based on specific observations.
	Lift and inspect receiving	Monthly.

	manholes to check for any blockages.	
Remedial Actions	Repair any damaged gully gratings or silt pit covers.	As required.
	Replace / fix any loose channel drain covers.	As required.
Monitoring	Carry out full CCTV survey to confirm ongoing integrity of all drains. Inspect all gullies and silt pits & drainage channels during the survey.	10-yearly intervals.

- 6.6 Where appropriate refer also to specialist drainage channel and oil separator manufacturer's information and maintenance requirements.
- 6.7 In all instances, inspection and cleaning should be carried out only by a specialist contractor and in accordance with the guidelines given in 'Safe Working in Sewers and at Sewage Works' published by National Joint Health and Safety Committee for the Water Services.

7 Attenuation Cellular Storage

- 7.1 These structures cannot be accessed directly. The pipes and catchpits upstream of these structures should be checked for silt annually to ensure no build-up of debris. All particulate material shall be cleared from catchpit sumps in accordance with Wavin (or similar approved product) Technical Data to ensure the crates do not become blocked and ineffective.

8 Catchpits

- 8.1 Inspection Frequency: Annually
- 8.2 Function: Allow silt to settle out of runoff prior to discharge to sewer.
- 8.3 Maintenance Requirements: The sumps within the catchpits should be emptied of silt on each inspection.

9 Foul Drainage

- 9.1 Pipes & Gullies within the private areas: Carry out annual visual check of all gullies to ensure all pipes are clear and free flowing. If not, clean out by rodding or jetting.
- 9.2 A CCTV Drainage Survey should be completed every 10 years and any of blockage/waste build up should be jet washed or removed by a licensed Effluent Disposal Contractor.

10 Prevention of Pollution

Maintenance

- 10.1 It is the responsibility of the landowner or appointed Management Company to ensure the Drainage Infrastructure is maintained in accordance with this Drainage Infrastructure Maintenance Plan.
- 10.2 This document should be considered a live document and updated as required throughout the lifetime of the scheme to reflect updated maintenance frequencies and requirements.

Contamination or Dilution of Spillage

- 10.3 The Environment Agency would prefer all spillages on any highway to be contained to prevent any downstream contamination. However, this cannot always be achieved, depending on the nature of the spillage. In all circumstances involving the spillage of substances on the highway it is important that the Environment Agency are notified as soon as possible so that they can provide advice and take appropriate action.
- 10.4 Prompt action following a spillage can prevent or reduce its effects, whilst inappropriate action may cause or worsen the pollution effects. In the design of the drainage on this site, a number of measures have been put in place to prevent any pollution entering the groundwater such as green roofs and permeable paving. The permeable paving sub-base is lined with a geotextile fabric.
- 10.5 In the event of a spillage on site it is the responsibility of the Management Company's staff to clear up any spillage before it enters the drainage system. The primary method of dealing with any spillage of Hydrocarbons should be to use sand to soak up the leak and prevent any Hydrocarbons entering the drainage system. Once sand has been contaminated it should not be washed into the drainage system but disposed of by a Licensed Contractor.

Environment Agency – Emergency Contact Number

- 10.6 In the event of a spillage the Environment Agency should be contacted to notify the event and seek advice. The Environment Agency Incident Hotline is 0800 80 70 60 (Freephone 24hrs).

- End of Report -