North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Inflows Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
B2/2+C2/2	FEH: 100 years: +40 %: 15 mins: Summer	-	5.6	10.080
F3	FEH: 100 years: +40 %: 15 mins: Summer	-	1.5	2.646
F-2	FEH: 100 years: +40 %: 15 mins: Summer	-	0.9	1.620
F1/3+ F2/2	FEH: 100 years: +40 %: 15 mins: Summer	-	2.7	4.842
F1 2/3 + G/3	FEH: 100 years: +40 %: 15 mins: Summer	-	4.4	7.848
G/3	FEH: 100 years: +40 %: 15 mins: Summer	-	0.7	1.206
Road 1	FEH: 100 years: +40 %: 15 mins: Winter	0.57	420.0	194.298
Road 2	FEH: 100 years: +40 %: 15 mins: Winter	0.54	399.9	185.028
Catchment Area (4)	FEH: 100 years: +40 %: 15 mins: Winter	0.09	69.0	31.935
Catchment Area (9)	FEH: 100 years: +40 %: 15 mins: Winter	0.40	297.0	137.418
Catchment Area (10)	FEH: 100 years: +40 %: 15 mins: Winter	0.53	392.3	181.497
Catchment Area (11)	FEH: 100 years: +40 %: 15 mins: Winter	0.79	586.1	271.152
Road 3	FEH: 100 years: +40 %: 15 mins: Winter	0.43	320.9	148.464
Phase 1 - 2	FEH: 100 years: +40 %: 30 mins: Winter	3.80	1233.2	1680.690
Phase 1 Plot Flow - 2	FEH: 100 years: +40 %: 15 mins: Summer	-	28.1	50.580

Phase 1 - 1	FEH: 100 years: +40 %: 30 mins: Winter	11.40	3699.5	5042.068
Phase 1 Plot Flow - 1	FEH: 100 years: +40 %: 15 mins: Summer	-	31.7	57.078
Phase 1 - 3	FEH: 100 years: +40 %: 15 mins: Winter	2.00	762.4	686.567
Phase 1 Plot Flow - 3	FEH: 100 years: +40 %: 15 mins: Summer	-	15.0	27.000
H &J	FEH: 100 years: +40 %: 15 mins: Winter	19.17	7307.6	6580.728
Catchment Area (11) (2)	FEH: 100 years: +40 %: 15 mins: Winter	0.40	294.1	136.062
Phase 1 Plot Flow - 1 (1)	FEH: 100 years: +40 %: 15 mins: Summer	-	31.7	57.078
Catchment Area (16)	FEH: 100 years: +40 %: 15 mins: Winter	0.45	333.9	154.476
Catchment Area (17)	FEH: 100 years: +40 %: 15 mins: Winter	0.50	371.0	171.639
C1/2+B3/2	FEH: 100 years: +40 %: 15 mins: Summer	-	3.0	5.436
C2/2+D2	FEH: 100 years: +40 %: 15 mins: Summer	-	8.7	15.660
C1/2+D1/2	FEH: 100 years: +40 %: 15 mins: Summer	-	6.0	10.764
D1/2+E1+E2	FEH: 100 years: +40 %: 15 mins: Summer	-	11.9	21.474
F2/2	FEH: 100 years: +40 %: 15 mins: Summer	-	0.8	1.512
B1+B2/2+B3/2	FEH: 100 years: +40 %: 15 mins: Summer	-	4.4	7.956

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Inflows Summary Storm Phase: Phase (1)	Company Address:		

FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
B2/2+C2/2	FEH: 30 years: +35 %: 15 mins: Summer	-	5.6	10.080
F3	FEH: 30 years: +35 %: 15 mins: Summer	-	1.5	2.646
F-2	FEH: 30 years: +35 %: 15 mins: Summer	-	0.9	1.620
F1/3+ F2/2	FEH: 30 years: +35 %: 15 mins: Summer	-	2.7	4.842
F1 2/3 + G/3	FEH: 30 years: +35 %: 15 mins: Summer	-	4.4	7.848
G/3	FEH: 30 years: +35 %: 15 mins: Summer	-	0.7	1.206
Road 1	FEH: 30 years: +35 %: 15 mins: Winter	0.57	306.4	141.738
Road 2	FEH: 30 years: +35 %: 15 mins: Winter	0.54	291.7	134.973
Catchment Area (4)	FEH: 30 years: +35 %: 15 mins: Winter	0.09	50.3	23.295
Catchment Area (9)	FEH: 30 years: +35 %: 15 mins: Winter	0.40	216.7	100.239
Catchment Area (10)	FEH: 30 years: +35 %: 15 mins: Winter	0.53	286.2	132.399
Catchment Area (11)	FEH: 30 years: +35 %: 15 mins: Winter	0.79	427.5	197.799
Road 3	FEH: 30 years: +35 %: 15 mins: Winter	0.43	234.1	108.306
Phase 1 - 2	FEH: 30 years: +35 %: 30 mins: Winter	3.80	894.5	1219.110
Phase 1 Plot Flow - 2	FEH: 30 years: +35 %: 15 mins: Summer	-	28.1	50.580

Phase 1 - 1	FEH: 30 years: +35 %: 30 mins: Winter	11.40	2683.5	3657.341
Phase 1 Plot Flow - 1	FEH: 30 years: +35 %: 15 mins: Summer	-	31.7	57.078
Phase 1 - 3	FEH: 30 years: +35 %: 15 mins: Winter	2.00	556.2	500.833
Phase 1 Plot Flow - 3	FEH: 30 years: +35 %: 15 mins: Summer	-	15.0	27.000
H &J	FEH: 30 years: +35 %: 15 mins: Winter	19.17	5330.7	4800.463
Catchment Area (11) (2)	FEH: 30 years: +35 %: 15 mins: Winter	0.40	214.5	99.255
Phase 1 Plot Flow - 1 (1)	FEH: 30 years: +35 %: 15 mins: Summer	-	31.7	57.078
Catchment Area (16)	FEH: 30 years: +35 %: 15 mins: Winter	0.45	243.6	112.686
Catchment Area (17)	FEH: 30 years: +35 %: 15 mins: Winter	0.50	270.6	125.211
C1/2+B3/2	FEH: 30 years: +35 %: 15 mins: Summer	-	3.0	5.436
C2/2+D2	FEH: 30 years: +35 %: 15 mins: Summer	-	8.7	15.660
C1/2+D1/2	FEH: 30 years: +35 %: 15 mins: Summer	-	6.0	10.764
D1/2+E1+E2	FEH: 30 years: +35 %: 15 mins: Summer	-	11.9	21.474
F2/2	FEH: 30 years: +35 %: 15 mins: Summer	-	0.8	1.512
B1+B2/2+B3/2	FEH: 30 years: +35 %: 15 mins: Summer	-	4.4	7.956

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
Swale A (0)	FEH: 2 years: +0 %: 15 mins: Winter	18.600	16.500	16.636	0.136	116.5	0.154	0.000	113.5	59.671	OK
Swale A (1)	FEH: 2 years: +0 %: 15 mins: Winter	14.300	13.000	13.169	0.169	113.5	0.191	0.000	109.0	59.436	OK
Swale B (0)	FEH: 2 years: +0 %: 1440 mins: Winter	22.100	19.850	19.883	0.033	5.6	0.038	0.000	5.6	967.497	OK
Swale B (1)	FEH: 2 years: +0 %: 1440 mins: Winter	19.300	17.000	17.044	0.044	5.6	0.050	0.000	5.6	967.119	OK
Swale C (0)	FEH: 2 years: +0 %: 15 mins: Winter	18.600	16.800	16.928	0.128	100.3	0.145	0.000	97.0	57.020	OK
Swale C(0)	FEH: 2 years: +0 %: 15 mins: Winter	16.500	14.000	14.118	0.118	97.0	0.134	0.000	94.3	56.741	OK
Swale D (1)	FEH: 2 years: +0 %: 15 mins: Winter	22.800	19.200	19.245	0.045	8.7	0.051	0.000	8.7	15.219	OK
Swale D (2)	FEH: 2 years: +0 %: 15 mins: Winter	19.300	16.900	16.970	0.070	8.7	0.080	0.000	8.8	14.322	OK
Swale D (0)	FEH: 2 years: +0 %: 1440 mins: Winter	15.000	13.350	13.640	0.290	18.5	0.328	0.000	18.3	2656.542	OK
Swale D (4)	FEH: 2 years: +0 %: 15 mins: Winter	17.800	16.100	16.218	0.118	75.7	0.134	0.000	71.4	47.294	OK
Swale D (3)	FEH: 2 years: +0 %: 15 mins: Winter	18.700	16.800	16.967	0.167	78.9	0.189	0.000	75.7	47.985	OK
Swale E (0)	FEH: 2 years: +0 %: 15 mins: Winter	19.300	16.000	16.169	0.169	146.3	0.192	0.000	137.1	83.043	OK
Swale E (1)	FEH: 2 years: +0 %: 15 mins: Winter	15.000	13.470	13.727	0.257	137.1	0.290	0.000	112.6	80.729	OK
Simple Junction	FEH: 2 years: +0 %: 1440 mins: Winter		12.533	12.638	0.105	13.0			13.0	1718.234	OK
Simple Junction (1)	FEH: 2 years: +0 %: 1440 mins: Winter		12.891	13.020	0.129	24.5			24.5	3277.702	OK

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
Swale A (0)	FEH: 100 years: +40 %: 15 mins: Winter	18.600	16.500	18.601	2.101	493.4	2.975	0.600	445.5	233.691	Flood
Swale A (1)	FEH: 100 years: +40 %: 15 mins: Winter	14.300	13.000	14.300	1.300	445.5	1.753	0.283	429.3	233.869	Flood
Swale B (0)	FEH: 100 years: +40 %: 15 mins: Winter	22.100	19.850	19.883	0.033	5.6	0.038	0.000	5.6	9.897	OK
Swale B (1)	FEH: 100 years: +40 %: 15 mins: Winter	19.300	17.000	17.077	0.077	5.6	0.087	0.000	5.6	9.524	OK
Swale C (0)	FEH: 100 years: +40 %: 15 mins: Winter	18.600	16.800	17.075	0.275	404.7	0.311	0.000	395.6	199.182	OK
Swale C(0)	FEH: 100 years: +40 %: 15 mins: Winter	16.500	14.000	14.603	0.603	395.6	0.682	0.000	307.3	199.407	Surcharged
Swale D (1)	FEH: 100 years: +40 %: 180 mins: Winter	22.800	19.200	19.245	0.045	8.7	0.051	0.000	8.7	187.479	OK
Swale D (2)	FEH: 100 years: +40 %: 15 mins: Winter	19.300	16.900	17.473	0.573	73.5	0.648	0.000	57.6	22.666	Surcharged
Swale D (0)	FEH: 100 years: +40 %: 15 mins: Winter	15.000	13.350	14.242	0.892	239.5	1.008	0.000	231.7	171.158	Surcharged
Swale D (4)	FEH: 100 years: +40 %: 15 mins: Winter	17.800	16.100	16.337	0.237	239.9	0.268	0.000	233.5	161.501	OK
Swale D (3)	FEH: 100 years: +40 %: 15 mins: Winter	18.700	16.800	17.492	0.692	320.9	0.783	0.000	239.9	170.705	Surcharged
Swale E (0)	FEH: 100 years: +40 %: 15 mins: Winter	19.300	16.000	17.662	1.662	598.0	1.880	0.000	583.7	289.376	Surcharged
Swale E (1)	FEH: 100 years: +40 %: 15 mins: Winter	15.000	13.470	15.007	1.537	583.7	8.922	7.192	409.1	289.532	Flood
Simple Junction	FEH: 100 years: +40 %: 240 mins: Winter		12.533	12.643	0.110	14.1			14.1	308.369	OK
Simple Junction (1)	FEH: 100 years: +40 %: 1440 mins: Winter		12.891	13.034	0.143	29.4			29.4	4143.883	OK

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
Swale A (0)	FEH: 30 years: +35 %: 15 mins: Winter	18.600	16.500	16.775	0.275	361.1	0.311	0.000	354.3	172.765	OK
Swale A (1)	FEH: 30 years: +35 %: 15 mins: Winter	14.300	13.000	13.439	0.439	354.3	0.497	0.000	337.6	172.637	Surcharged
Swale B (0)	FEH: 30 years: +35 %: 1440 mins: Winter	22.100	19.850	19.883	0.033	5.6	0.038	0.000	5.6	967.497	OK
Swale B (1)	FEH: 30 years: +35 %: 1440 mins: Winter	19.300	17.000	17.044	0.044	5.6	0.050	0.000	5.6	967.119	OK
Swale C (0)	FEH: 30 years: +35 %: 15 mins: Winter	18.600	16.800	17.036	0.236	300.3	0.266	0.000	292.8	149.594	OK
Swale C(0)	FEH: 30 years: +35 %: 15 mins: Winter	16.500	14.000	14.249	0.249	292.8	0.282	0.000	279.0	149.302	OK
Swale D (1)	FEH: 30 years: +35 %: 120 mins: Winter	22.800	19.200	19.245	0.045	8.7	0.051	0.000	8.7	124.839	OK
Swale D (2)	FEH: 30 years: +35 %: 15 mins: Winter	19.300	16.900	17.144	0.244	23.6	0.276	0.000	23.0	16.700	OK
Swale D (0)	FEH: 30 years: +35 %: 15 mins: Winter	15.000	13.350	13.801	0.451	205.8	0.510	0.000	179.4	130.997	Surcharged
Swale D (4)	FEH: 30 years: +35 %: 15 mins: Winter	17.800	16.100	16.311	0.211	207.8	0.239	0.000	199.8	121.323	OK
Swale D (3)	FEH: 30 years: +35 %: 15 mins: Winter	18.700	16.800	17.148	0.348	234.1	0.394	0.000	207.8	124.661	OK
Swale E (0)	FEH: 30 years: +35 %: 15 mins: Winter	19.300	16.000	16.328	0.328	439.5	0.370	0.000	419.8	217.327	OK
Swale E (1)	FEH: 30 years: +35 %: 15 mins: Winter	15.000	13.470	14.331	0.861	419.8	0.974	0.000	313.9	216.342	Surcharged
Simple Junction	FEH: 30 years: +35 %: 960 mins: Winter		12.533	12.643	0.110	14.1			14.1	1294.198	OK
Simple Junction (1)	FEH: 30 years: +35 %: 1440 mins: Winter		12.891	13.027	0.136	26.7			26.7	3816.156	OK

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Swale H2 - Ex	FEH: 2 years: +0 %: 30 mins: Winter	14.492	13.612	0.216	0.312	305.1	42.397	0.000	0.000	301.9	478.892	2	96.310
Swale G - Ex	FEH: 2 years: +0 %: 15 mins: Winter	20.779	17.714	0.109	0.114	277.7	70.803	0.000	0.000	256.3	215.053	8	65.793
Tank (1)	FEH: 2 years: +0 %: 1440 mins: Winter	13.770	13.770	0.495	0.495	267.3	6191.687	0.000	0.000	171.6	20496.701	440	69.042
Swale I - Ex	FEH: 2 years: +0 %: 30 mins: Winter	15.045	14.701	0.550	0.401	860.9	295.591	0.000	0.000	816.9	1271.618	5	77.673
Swale H - Ex	FEH: 2 years: +0 %: 30 mins: Winter	17.181	15.640	0.188	0.148	305.1	31.284	0.000	0.000	300.8	474.409	1	97.163
Swale I -2	FEH: 2 years: +0 %: 15 mins: Winter	15.100	15.022	0.080	0.222	92.0	57.804	0.000	0.000	95.2	48.673	25	94.063
Tank (3)	FEH: 2 years: +0 %: 15 mins: Summer	14.865	14.865	0.065	0.065	1507.2	1364.902	0.000	0.000	0.0	0.000		93.500
Swale F - Ex	FEH: 2 years: +0 %: 60 mins: Summer	21.602	21.320	0.190	0.520	190.2	54.619	0.000	0.000	157.4	369.615	3	96.522
Detention Basin 1	FEH: 2 years: +0 %: 1440 mins: Winter	13.000	13.000	0.287	0.287	27.4	1023.031	0.000	0.000	13.0	1718.447	975	52.411
Detention Basin 2	FEH: 2 years: +0 %: 1440 mins: Winter	13.638	13.638	0.438	0.438	41.5	1815.254	0.000	0.000	24.5	3278.668	762	33.863

Status
OK
OK
OK
OK
OK
OK
OK
OK
OK
OK

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Swale H2 - Ex	FEH: 100 years: +40 %: 15 mins: Winter	14.683	13.988	0.407	0.688	1120.4	131.015	0.000	0.000	1318.2	1237.373	2	88.596
Swale G - Ex	FEH: 100 years: +40 %: 15 mins: Winter	20.846	17.791	0.176	0.191	861.6	158.558	0.000	0.000	685.3	554.208	6	23.395
Tank (1)	FEH: 100 years: +40 %: 360 mins: Winter	14.548	14.548	1.273	1.273	1927.7	15915.044	0.000	0.000	241.5	8180.145	624	20.425
Swale I - Ex	FEH: 100 years: +40 %: 30 mins: Winter	15.568	15.466	1.073	1.166	3731.9	1052.369	0.000	0.000	2677.7	5581.287	5	20.512
Swale H - Ex	FEH: 100 years: +40 %: 30 mins: Winter	17.365	15.840	0.371	0.348	1262.1	91.697	0.000	0.000	1247.0	1778.806	1	91.685
Swale I -2	FEH: 100 years: +40 %: 15 mins: Winter	15.493	15.488	0.473	0.688	531.9	418.453	0.000	0.000	673.8	142.882	40	57.019
Tank (3)	FEH: 100 years: +40 %: 720 mins: Summer	15.600	15.600	0.800	0.800	1542.1	16808.385	0.000	0.000	35.6	2132.586	7559	19.960
Swale F - Ex	FEH: 100 years: +40 %: 60 mins: Winter	22.553	22.553	1.141	1.753	777.3	743.475	0.000	0.000	232.0	1287.263	42	52.661
Detention Basin 1	FEH: 100 years: +40 %: 240 mins: Winter	13.113	13.114	0.400	0.401	250.5	1442.528	0.000	0.000	14.1	308.601	1265	32.897
Detention Basin 2	FEH: 100 years: +40 %: 1440 mins: Winter	13.790	13.790	0.590	0.590	80.5	2478.937	0.000	0.000	29.4	4144.935	863	9.682

Status
OK
Flood Risk
OK
OK
OK
OK
OK
OK
OK
OK
OK

FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Swale H2 - Ex	FEH: 30 years: +35 %: 15 mins: Winter	14.629	13.894	0.353	0.594	826.3	100.516	0.000	0.000	949.9	911.108	3	91.251
Swale G - Ex	FEH: 30 years: +35 %: 15 mins: Winter	20.828	17.768	0.158	0.168	659.8	127.403	0.000	0.000	538.3	443.964	6	38.447
Tank (1)	FEH: 30 years: +35 %: 960 mins: Winter	14.263	14.263	0.988	0.988	707.1	12346.783	0.000	0.000	219.5	20119.092	539	38.266
Swale I - Ex	FEH: 30 years: +35 %: 30 mins: Winter	15.390	15.113	0.895	0.813	2715.8	684.405	0.000	0.000	2298.2	4022.005	4	48.305
Swale H - Ex	FEH: 30 years: +35 %: 30 mins: Winter	17.315	15.777	0.321	0.285	923.4	71.759	0.000	0.000	912.0	1317.181	1	93.493
Swale I -2	FEH: 30 years: +35 %: 15 mins: Winter	15.351	15.342	0.331	0.542	365.4	273.811	0.000	0.000	457.8	123.345	38	71.875
Tank (3)	FEH: 30 years: +35 %: 1440 mins: Winter	15.480	15.480	0.680	0.680	435.0	14289.973	0.000	0.000	29.5	3131.687	8079	31.953
Swale F - Ex	FEH: 30 years: +35 %: 60 mins: Winter	22.216	22.216	0.804	1.416	564.0	466.110	0.000	0.000	206.6	1046.517	29	70.321
Detention Basin 1	FEH: 30 years: +35 %: 960 mins: Winter	13.122	13.122	0.409	0.409	66.2	1474.788	0.000	0.000	14.1	1294.429	1088	31.397
Detention Basin 2	FEH: 30 years: +35 %: 1440 mins: Winter	13.704	13.704	0.504	0.504	65.4	2101.901	0.000	0.000	26.7	3817.173	802	23.419

Status
OK
OK
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OK
OK

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Connections Summary Storm Phase: Phase (1)	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe (5)	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	Swale H - Ex	Swale H2 - Ex	18.519	15.672	0.170	474.409	3.4	0.04	300.8	OK
Pipe (11)	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	Tank (3)	Swale I - 2	15.800	14.865	0.112	18.869	0.0	0	0.0	OK
Pipe (4)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale I - 2	Swale I - Ex	16.020	14.934	0.373	0.000	0.6	0.04	95.2	OK
Pipe (9)	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	Swale F - Ex	Swale G - Ex	23.000	21.085	0.300	369.615	2.4	1.74	157.4	OK
Pipe (2)	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	Swale I - Ex	Tank (1)	15.780	14.802	0.389	1240.683	2.9	0.3	816.9	OK
Pipe (7)	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	Swale H2 - Ex	Tank (1)	15.976	13.535	0.199	478.892	3.1	0.45	301.9	OK
Pipe (6)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale G - Ex	Tank (1)	17.800	17.704	0.113	215.053	5.2	0.03	256.3	OK
Pipe3.3	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale D (0)	Detention Basin 2	15.000	13.557	0.135	56.686	2.0	0.58	70.5	OK
Pipe1.0	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale A (0)	Swale A (1)	18.600	16.636	0.152	59.671	2.7	0.28	113.5	OK
Pipe1.1	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale A (1)	Detention Basin 1	14.300	13.169	0.126	59.436	3.3	0.31	109.0	OK
Pipe2.0	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	Swale B (0)	Swale B (1)	22.100	19.883	0.039	19.977	1.1	0.03	5.6	OK
Pipe2.1	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	Swale B (1)	Swale C (0)	19.300	17.044	0.073	19.597	0.9	0.04	5.6	OK
Pipe2.2	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale C (0)	Swale C (0)	18.600	16.928	0.123	57.020	2.7	0.17	97.0	OK
Pipe2.3	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale C (0)	Detention Basin 1	16.500	14.118	0.101	56.741	4.9	0.26	94.3	OK
Pipe3.0	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale D (1)	Swale D (2)	22.800	19.245	0.058	15.219	1.0	0.03	8.7	OK
Pipe3.3	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale D (4)	Swale D (0)	17.800	16.218	0.162	47.294	1.6	0.22	71.4	OK
Pipe3.1	FEH: 2 years: +0 %: 60 mins: Winter	Pipe	Swale D (2)	Swale D (3)	19.300	16.960	0.088	61.310	0.8	0.05	8.9	OK
Pipe3.2	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale D (3)	Swale D (4)	18.700	16.967	0.143	47.985	2.0	0.36	75.7	OK
Pipe4.0	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale E (0)	Swale E (1)	19.300	16.169	0.213	83.043	1.7	0.23	137.1	OK

Pipe4.1	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Swale E (1)	Detention Basin 2	15.000	13.727	0.160	80.729	2.2	0.55	112.6	OK
Pipe	FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	Detention Basin 1	Simple Junction	13.300	13.000	0.112	1718.234	0.9	0.9	13.0	Surcharged
Pipe (1)	FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	Detention Basin 2	Simple Junction (1)	13.850	13.638	0.132	3277.702	1.0	0.64	24.5	Surcharged

FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe (5)	FEH: 100 years: +40 %: 30 mins: Winter	Pipe	Swale H - Ex	Swale H2 - Ex	18.519	15.858	0.376	1778.806	4.6	0.17	1247.0	OK
Pipe (11)	FEH: 100 years: +40 %: 1440 mins: Winter	Pipe	Tank (3)	Swale I - 2	15.800	15.748	0.229	346.030	0.5	0.34	35.6	Surcharged
Pipe (4)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale I - 2	Swale I - Ex	16.020	15.381	0.837	0.000	1.2	0.25	673.8	OK
Pipe (9)	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	Swale F - Ex	Swale G - Ex	23.000	22.247	0.300	1287.263	3.3	2.56	232.0	Surcharged
Pipe (2)	FEH: 100 years: +40 %: 30 mins: Winter	Pipe	Swale I - Ex	Tank (1)	15.780	15.414	0.985	5073.355	3.6	1	2677.7	Surcharged
Pipe (7)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale H2 - Ex	Tank (1)	15.976	13.782	0.475	1237.373	4.5	1.96	1318.2	OK
Pipe (6)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale G - Ex	Tank (1)	17.800	17.764	0.223	554.208	6.8	0.08	685.3	Flood Risk
Pipe3.3	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale D (0)	Detention Basin 2	15.000	14.242	0.375	171.158	2.2	1.89	231.7	Surcharged
Pipe1.0	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale A (0)	Swale A (1)	18.600	18.601	0.375	233.691	4.0	1.11	445.5	Flood
Pipe1.1	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale A (1)	Detention Basin 1	14.300	14.300	0.375	233.869	4.0	1.24	429.3	Flood
Pipe2.0	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	Swale B (0)	Swale B (1)	22.100	19.883	0.052	9.897	1.1	0.03	5.6	OK
Pipe2.1	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	Swale B (1)	Swale C (0)	19.300	17.070	0.168	9.512	0.9	0.04	5.6	OK
Pipe2.2	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale C (0)	Swale C (0)	18.600	17.075	0.439	199.170	3.0	0.69	395.6	OK
Pipe2.3	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale C (0)	Detention Basin 1	16.500	14.603	0.300	199.407	5.4	0.84	307.3	Surcharged

Pipe3.0	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	Swale D (1)	Swale D (2)	22.800	19.245	0.139	30.881	1.0	0.03	8.8	OK
Pipe3.3	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale D (4)	Swale D (0)	17.800	16.337	0.375	161.501	2.1	0.71	233.5	OK
Pipe3.1	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale D (2)	Swale D (3)	19.300	17.473	0.375	14.381	0.8	0.35	57.6	Surcharged
Pipe3.2	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale D (3)	Swale D (4)	18.700	17.492	0.375	162.420	2.4	1.14	239.9	Surcharged
Pipe4.0	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale E (0)	Swale E (1)	19.300	17.662	0.525	289.376	2.7	0.97	583.7	Surcharged
Pipe4.1	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Swale E (1)	Detention Basin 2	15.000	15.007	0.450	289.532	2.6	2.02	409.1	Flood
Pipe	FEH: 100 years: +40 %: 240 mins: Winter	Pipe	Detention Basin 1	Simple Junction	13.300	13.113	0.120	308.369	0.9	0.98	14.1	Surcharged
Pipe (1)	FEH: 100 years: +40 %: 1440 mins: Winter	Pipe	Detention Basin 2	Simple Junction (1)	13.850	13.790	0.148	4143.883	1.1	0.76	29.4	Surcharged

North West Cambridge Masterplan:	Date: 14/05/2025		
	Designed by: MR	Checked by: BL	Approved By: BL
Report Details: Type: Connections Summary Storm Phase: Phase (1)	Company Address:		

FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe (5)	FEH: 30 years: +35 %: 30 mins: Winter	Pipe	Swale H - Ex	Swale H2 - Ex	18.519	15.806	0.316	1317.181	4.3	0.13	912.0	OK
Pipe (11)	FEH: 30 years: +35 %: 1440 mins: Winter	Pipe	Tank (3)	Swale I - 2	15.800	15.480	0.218	393.531	0.4	0.28	29.5	Surcharged
Pipe (4)	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale I - 2	Swale I - Ex	16.020	15.237	0.691	0.000	1.1	0.17	457.8	OK
Pipe (9)	FEH: 30 years: +35 %: 60 mins: Winter	Pipe	Swale F - Ex	Swale G - Ex	23.000	21.910	0.300	1046.517	2.9	2.28	206.6	Surcharged
Pipe (2)	FEH: 30 years: +35 %: 30 mins: Winter	Pipe	Swale I - Ex	Tank (1)	15.780	15.160	0.761	3723.410	3.6	0.85	2298.2	OK
Pipe (7)	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale H2 - Ex	Tank (1)	15.976	13.708	0.385	911.108	4.3	1.41	949.9	OK
Pipe (6)	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale G - Ex	Tank (1)	17.800	17.745	0.177	443.964	6.4	0.06	538.3	OK
Pipe3.3	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale D (0)	Detention Basin 2	15.000	13.801	0.300	130.997	2.1	1.46	179.4	Surcharged
Pipe1.0	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale A (0)	Swale A (1)	18.600	16.775	0.357	172.765	3.3	0.88	354.3	OK
Pipe1.1	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale A (1)	Detention Basin 1	14.300	13.439	0.318	172.637	3.9	0.97	337.6	Surcharged
Pipe2.0	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale B (0)	Swale B (1)	22.100	19.883	0.039	9.897	1.1	0.03	5.6	OK
Pipe2.1	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale B (1)	Swale C (0)	19.300	17.044	0.138	9.513	0.9	0.04	5.6	OK
Pipe2.2	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale C (0)	Swale C (0)	18.600	17.036	0.242	149.594	3.4	0.51	292.8	OK
Pipe2.3	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale C (0)	Detention Basin 1	16.500	14.249	0.223	149.302	5.3	0.76	279.0	OK

Pipe3.0	FEH: 30 years: +35 %: 30 mins: Summer	Pipe	Swale D (1)	Swale D (2)	22.800	19.245	0.100	30.880	1.0	0.03	8.9	OK
Pipe3.3	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale D (4)	Swale D (0)	17.800	16.311	0.331	121.323	1.9	0.61	199.8	OK
Pipe3.1	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale D (2)	Swale D (3)	19.300	17.144	0.296	14.310	0.8	0.14	23.0	OK
Pipe3.2	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale D (3)	Swale D (4)	18.700	17.148	0.280	122.271	2.4	0.98	207.8	OK
Pipe4.0	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale E (0)	Swale E (1)	19.300	16.328	0.525	217.327	1.9	0.69	419.8	OK
Pipe4.1	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Swale E (1)	Detention Basin 2	15.000	14.331	0.450	216.342	2.2	1.55	313.9	Surcharged
Pipe	FEH: 30 years: +35 %: 960 mins: Winter	Pipe	Detention Basin 1	Simple Junction	13.300	13.122	0.120	1294.198	0.9	0.98	14.1	Surcharged
Pipe (1)	FEH: 30 years: +35 %: 1440 mins: Winter	Pipe	Detention Basin 2	Simple Junction (1)	13.850	13.704	0.140	3816.156	1.0	0.69	26.7	Surcharged

Appendix L SUDS PROFORMA

Appendix F Surface water drainage pro-forma

Applicants should complete this form and submit it to the LPA, referencing from where in their submission documents this information is taken. The proforma is supported by the DEFRA/ EA guidance on Rainfall Runoff Management. and uses the storage calculator on www.UKsuds.com. The proforma should be considered alongside other supporting SuDS Guidance, but focuses on ensuring flood risk is not made worse elsewhere. This proforma is based upon current industry standard practice.

1. Site details

Site	North West Cambridge Masterplan
Address & post code or LPA reference	Land Between Huntingdon Road, Madingley Road and M11, Eddington, North West Cambridge, Cambridgeshire
Grid Reference	OS X (Eastings): 542265 ; OS Y (Northings): 260661
Is the existing site developed or Greenfield?	The Site is predominantly greenfield
Total Site Area served by drainage system (excluding open space) (Ha)(1)	56.75 ha

1. The Greenfield runoff off rate from the development which is to be used for assessing the requirements for limiting discharge flow rates and attenuation storage from a site should be calculated for the area that forms the drainage network for the site whatever size of site and type of drainage technique. Please refer to the Rainfall Runoff Management document or CIRIA manual for detail on this.

2. Impermeable area

	Existing	**Proposed**	**Difference (Proposed-Existing)**	**Notes for developers and Local Authorities**
Impermeable area (ha)	7.1 ha	39.6 ha	32.5 ha	If proposed > existing, then runoff rates and volumes will be increasing. Section 6 must be filled in. If proposed ≤ existing, then section 6 can be skipped & section 7 filled in.
Drainage Method (infiltration/sewer/watercourse)	Infiltration + Water-course	Water-course	N/A	If different from the existing, please fill in section 3. If existing drainage is by infiltration and the proposed is not, discharge volumes may increase. Fill in section 6.

3. Proposing to discharge surface water via

	Yes	No	Evidence that this is possible	Notes for developers and Local Authorities
Infiltration		X		e.g. soakage tests. Section 6 (infiltration) must be filled in if infiltration is proposed.
To watercourse	X			e.g. Is there a watercourse nearby?
To surface water sewer		X		Confirmation from sewer provider that sufficient capacity exists for this connection.
Combination of above		X		e.g. part infiltration part discharge to sewer or watercourse. Provide evidence above.

4. Peak Discharge Rates[1] **VALUES ADDED ARE L/S/HA**

	Existing rates (l/s)	Proposed rates (l/s)	Difference (l/s) (Proposed-Existing)	Notes for developers and Local Authorities
Greenfield QBAR	1.98	N/A	N/A	QBAR is approx. 1 in 2 storm event. Provide this if Section 6 (QBAR) is proposed.
1 in 1	1.73	2	0.27	Proposed discharge rates (with mitigation) should be no greater than existing rates for all corresponding storm events. e.g. discharging all flow from site at the existing 1 in 100 event increases flood risk during smaller events.
1 in 30	7.08	2	-5.08	
1 in 100	8.38	2	-6.38	
1 in 100 + climate change	N/A	2	N/A	To mitigate for climate change the proposed 1 in 100 +CC must be no greater than the existing 1 in 100 runoff rate. If not, flood risk increases under climate change. 30% should be added to the peak rainfall intensity.

1. This is the maximum flow rate at which storm water runoff leaves the site during a particular storm event.

The surface water runoff is proposed to discharge at 2 l/s/ha for the whole development site in order to control the proposed runoff volume in accordance with Ciria C753 Manual

5. Calculate additional volumes for storage[(1)]

	Existing volume (m^3)	Proposed volume (m^3)	Difference (m^3) (Proposed-Existing)	Notes for developers and Local Authorities
1 in 1				Proposed discharge volumes (without mitigation) should be no greater than existing volumes for all corresponding storm events. Any increase in volume increases flood risk elsewhere. Where volumes are increased section 6 must be filled in.
1 in 30				
1 in 100				
1 in 100 + climate change				To mitigate for climate change the volume discharge from site must be no greater than the existing 1 in 100 storm event. If not, flood risk increases under climate change.

1. The total volume of water leaving the development site. New hard surfaces potentially restrict the amount of storm water that can go to the ground, so this needs to be controlled so not to make flood risk worse to properties downstream.

6. Calculate attenuation storage[(1)]

		Notes for developers and Local Authorities
Storage Attenuation volume (Flow rate control) required to retain rates as existing (m^3)	Refer to section 6 Surface Water Drainage Strategy and to Appendix J for the Drainage Strategy in the report.	

1. Attenuation storage is provided to enable the rate of runoff from the site into the receiving watercourse to be limited to an acceptable rate to protect against erosion and flooding downstream. The attenuation storage volume is a function of the degree of development relative to the greenfield discharge rate.

7. How is Storm Water stored on site?(1)

			Notes for developers and Local Authorities
Infiltration	**State the Site's Geology and known Source Protection Zones (SPZ)**	No infiltration into the ground. BGS bedrock Mudstone and Chalk. Site does not lie in SPZ area	Avoid infiltrating in made ground. Infiltration rates are highly variable and refer to Environment Agency website to identify and source protection zones (SPZ)
	Are infiltration rates suitable?	N/A	Infiltration rates should be no lower than $1x10^{-6}$ m/s.
	State the distance between a proposed infiltration device base and the ground water (GW) level	N/A	Need 1m (min) between the base of the infiltration device & the water table to protect Groundwater quality & ensure GW doesn't enter infiltration devices. Avoid infiltration where this isn't possible.
	Were infiltration rates obtained by desk study or infiltration test?	N/A	Infiltration rates can be estimated from desk studies at most stages of the planning system if a backup attenuation scheme is provided.
	Is the site contaminated? If yes, consider advice from others on whether infiltration can happen.	N/A	Water should not be infiltrated through land that is contaminated. The Environment Agency may provide bespoke advice in planning consultations for contaminated sites that should be considered.
In light of the above, is infiltration feasible?	**Yes/No? If the answer is No, please identify how the storm water will be stored prior to release**	No. Discharge to a water body	If infiltration is not feasible how will the additional volume be stored? The applicant should then consider the following options in the next section.

1. Storage is required for the additional volume from site but also for holding back water to slow down the rate from the site. This is known as attenuation storage and long term storage. The idea is that the additional volume does not get into the watercourses, or if it does it is at an exceptionally low rate. You can either infiltrate the stored water back to ground, or if this isn't possible hold it back with on-site storage. Firstly, can infiltration work on site?

Storage requirements

The developer must confirm that either of the two methods for dealing with the amount of water that needs to be stored on site.

- **Option 1 Simple:**
  Store both the additional volume and attenuation volume in order to make a final discharge from site at QBAR (Mean annual flow rate). This is preferred if no infiltration can be made on site. This very simply satisfies the runoff rates and volume criteria.
- **Option 2 Complex:**
  If some of the additional volume of water can be infiltrated back into the ground, the remainder can be discharged at a very low rate of 2 l/sec/hectare. A combined storage calculation using the partial permissible rate of 2 l/sec/hectare and the attenuation rate used to slow the runoff from site.

All run-off is restricted to 2l/s/ha which is equivalent to Qbar.		**Notes for developers and Local Authorities**
Please confirm what option has been chosen and how much storage is required on site.		The developer at this stage should have an idea of the site characteristics and be able to explain what the storage requirements are on site and how it will be achieved.

8. Please confirm

		Notes for developers and Local Authorities
Which SuDS measures have been used? **Refer to section 6 Surface Water Drainage Strategy and to Appendix J for the Drainage Strategy in the report.**		SuDS can be adapted for most situations even where infiltration isn't feasible e.g. impermeable liners beneath some SUDS devices allows treatment but not infiltration. See CIRIA SUDS Manual C697.
Drainage system can contain in the 1 in 30 storm event without flooding	Yes	This a requirement for sewers for adoption & is good practice even where drainage system is not adopted.
Any flooding between the 1 in 30 & 1 in 100 plus climate change storm events will be safely contained on site.	Yes	Safely: not causing property flooding or posing a hazard to site users i.e. no deeper than 300mm on roads/footpaths. Flood waters must drain away at section 6 rates. Existing rates can be used where runoff volumes are not increased.
How are rates being restricted (hydrobrake etc)	Hydro brake	Hydrobrakes to be used where rates are between 2l/s to 5l/s. Orifices may not work below 5l/s as the pipes may block. Pipes with flows < 2l/s are prone to blockage but this can be overcome with careful product selection and SuDS design.

Adoption strategy of the SuDS will be developed in the detail design post Outline Planning Application.

		Notes for developers and Local Authorities
Please confirm the owners/adopters of the SuDS throughout the development. Please list all the owners.		If these are multiple owners then a drawing illustrating exactly what features will be within each owner's remit must be submitted with this Proforma.
How are the entire SuDS to be maintained?	**Maintenance plan for SuDS will be developed in the detail design post Outline Planning Application and is expected to follow best practice.**	If the features are to be maintained directly by the owners as stated in answer to the above question please answer yes to this question and submit the relevant maintenance schedule for each feature. If it is to be maintained by others than above please give details of each feature and the maintenance schedule. Clear details of the maintenance proposals of all element of the proposed drainage system must be provided. Poorly maintained drainage can lead to increased flooding problems in the future.

9. Evidence

Pro-forma Section	Document reference where details quoted above are taken from:	Page Number
2		
3		
4		
5		
6		
7		

The above form should be completed using evidence from the Flood Risk Assessment where applicable, surface water drainage strategy and site plans. It should serve as a summary sheet of the drainage proposals and should clearly show that the proposed rate and volume as a result of development will not be increasing. If there is an increase in rate or volume, the rate or volume section should be completed to set out how the additional rate/volume is being dealt with. This form is completed using factual information from the Flood Risk Assessment and Site Plans and can be used as a summary of the surface water drainage strategy on this site.

Form completed by:	Maja Raicevic
Qualification of person responsible for signing off this pro-forma:	Civil Engineer
Company:	AECOM
On behalf of (Client's details):	The University of Cambridge
Date:	15.05.2025.

Appendix M EA Correspondence

North West Cambridge

Meeting with the EA

30th January 2026

Delivering a better world

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Meeting Overview

Proposed Agenda

1. Introductions
2. Executive Summary
3. Masterplan context
4. Site Topography and Levels
5. Flood risk background (previous consented scheme)
6. Proposed Development
7. Water Supply and Foul Water
8. AOB

Executive Summary

Executive Summary

- Site is predominantly in Flood Zone 1 with small area in the north-west corner located in Flood Zone 2 based on the EA flood mapping at the time of project commencement. Updated flood maps have been reviewed and the FRA will be updated to reflect this. The update flood maps do not impact the scheme.

- All habitable buildings located within Flood Zone 1.

- Site benefits from the flood alleviation scheme constructed in Phase 1 and has remained a key design constraint going forward.

- Site land raising being undertaken to avoid bulk offsite disposal to landfill.

- Surface water drainage strategy proposes to restrict runoff to greenfield rates prior to discharge to the Washpit Brook. Two stages of attenuation proposed prior to discharge from the site.

- Meetings attended with the LLFA and Anglian Water. LLFA comments have been addressed and Anglian Water objection has been removed.

Masterplan Context

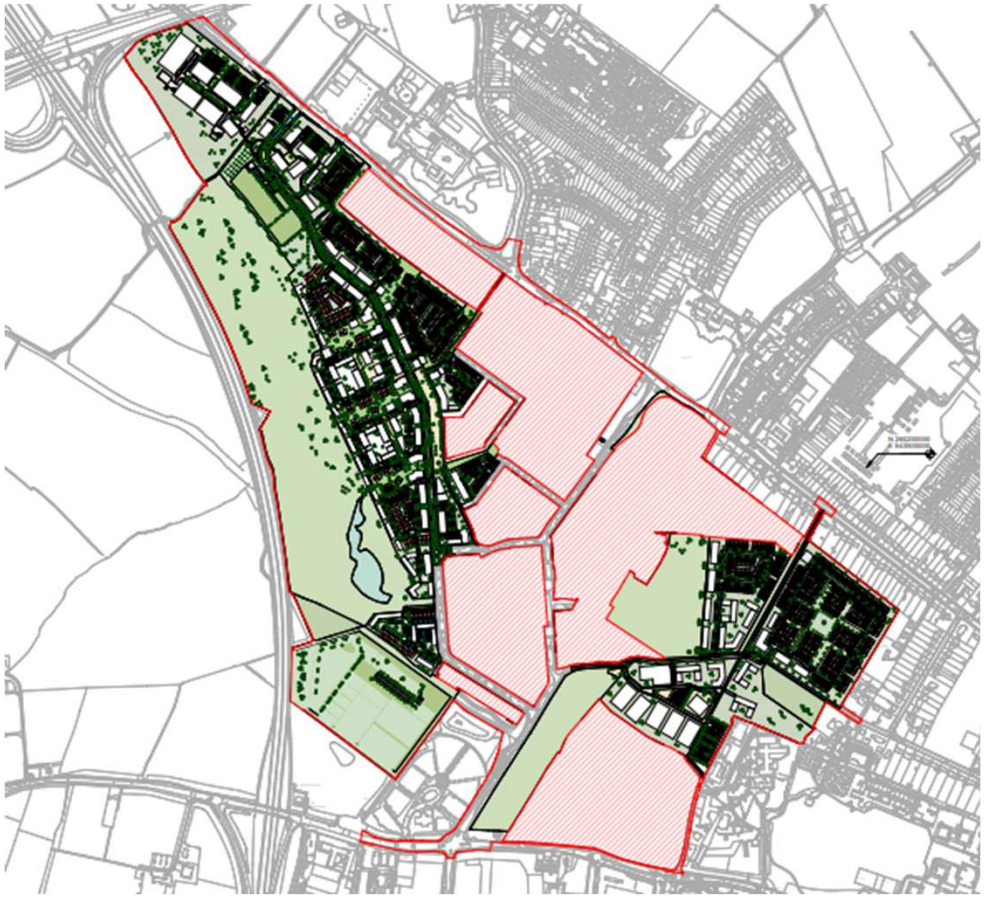
Proposed Development Scheme Update

- Proposals seek an uplift to between 4500 and 6000 dwellings, student accommodation, employment, retail and community use. Benefits from existing although largely lapsed planning permissions.

- Allocated site under South Cambridgeshire Local Plan (2018) and North West Cambridge Area Action Plan (2009) for residential led mixed-use development. Site allocated for approximately 3000 dwellings, alongside other uses with emerging joint Local Plan to include uplift of approximately 1500 homes for to meet housing needs.

- Phase 1 (1800 dwellings)

- Flood risk and drainage strategy mimics previously consented scheme, updated with latest climate change parameters and flood maps.



Site Topography and Levels

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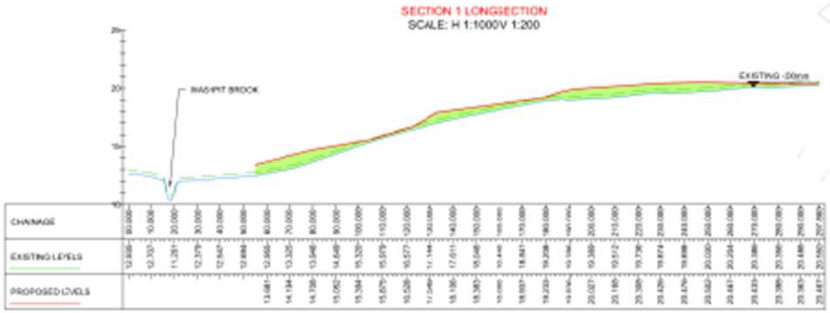
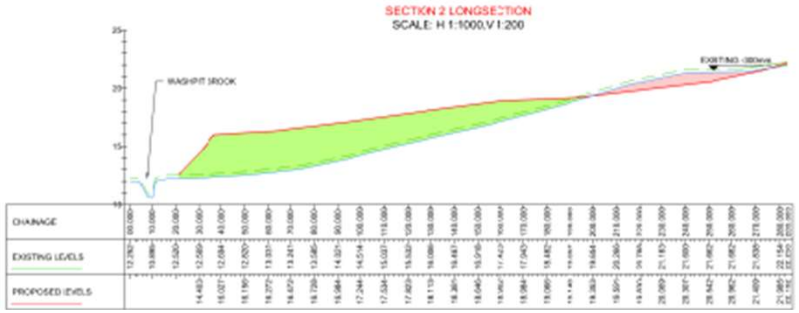
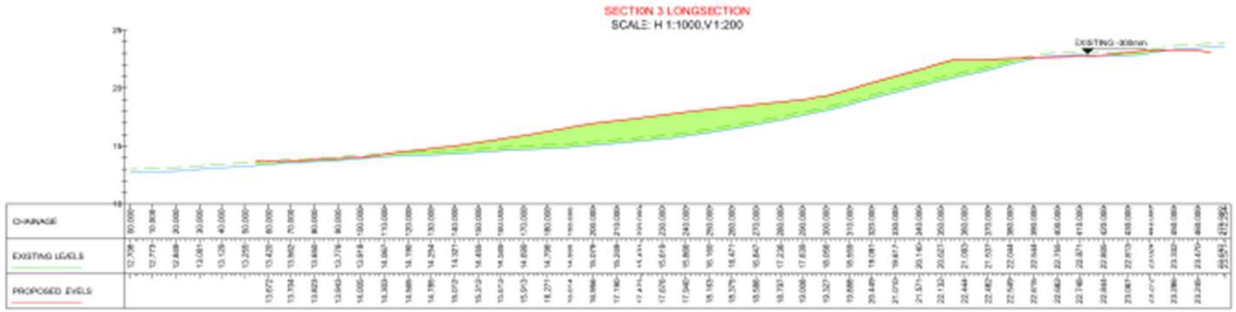
Site Topography and Levels

- Localized stockpiles of arisings within the site
- Need for reuse of the existing stockpiled arisings within the site and avoid offsite disposal
- Raised plot levels to facilitate reuse of arisings and limit excavation within the site.
- No land raising or built development within the latest Flood Zone 3 extent.


SECTION 1 LONGSECTION
SCALE: H 1:1000V 1:200
WASHPIT BROOK
EXISTING -00m
CHAINAGE
EXISTING LEVELS
PROPOSED LEVELS


SECTION 2 LONGSECTION
SCALE: H 1:1000,V 1:200
WASHPIT BROOK
CHAINAGE
EXISTING LEVELS
PROPOSED LEVELS


SECTION 3 LONGSECTION
SCALE: H 1:1000,V 1:200
CHAINAGE
EXISTING LEVELS
PROPOSED LEVELS


N
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C2
D1
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E1
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E3
F1
F2
F3
G

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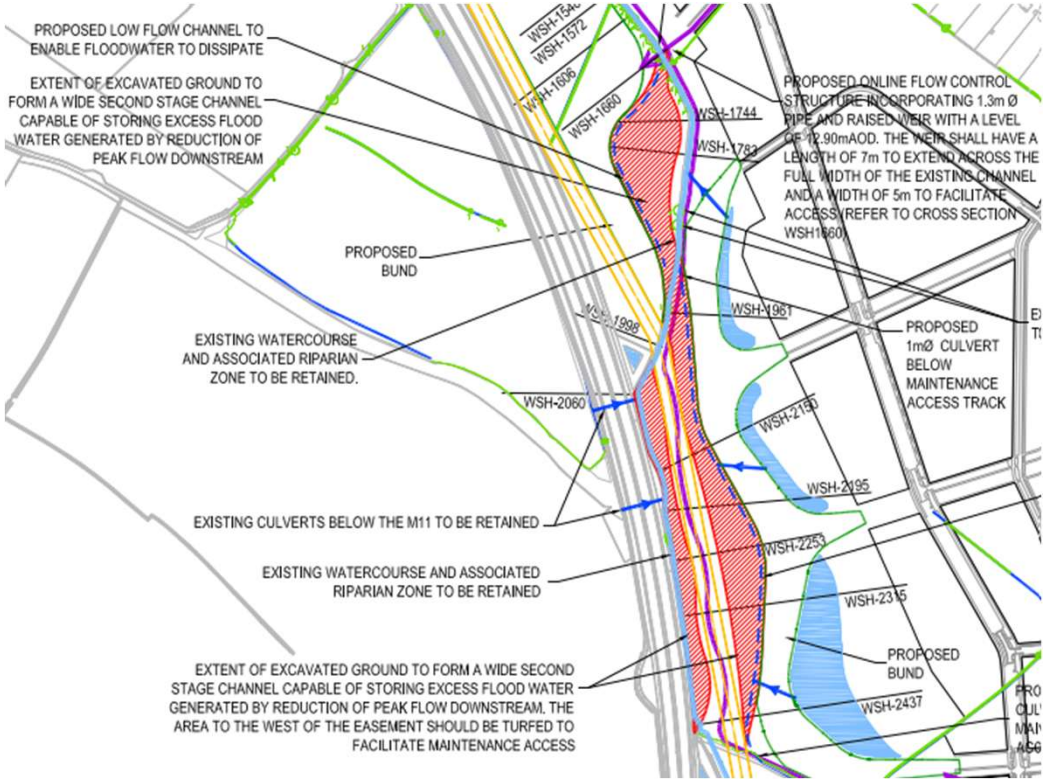
Flood Risk Background

Flood Risk Background

- Flood Alleviation Scheme implemented for Washpit Brook

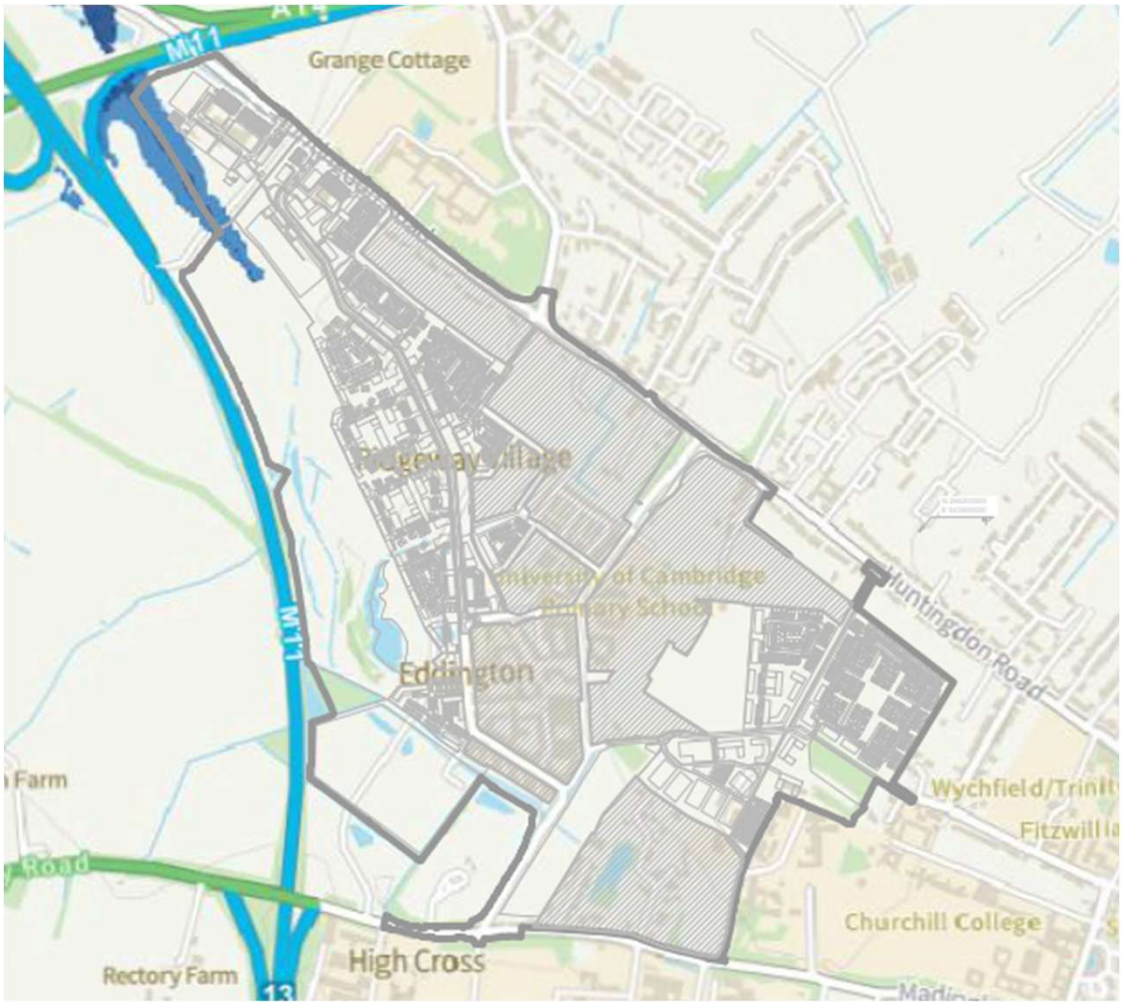


Proposed Development

Proposed Development

- Site is still mostly within Flood Zone 1 with northwestern extent partly within Flood Zone 2 and and a small area adjacent to the Washpit Brook within Flood Zone 3.
- Small extent of building (non-residential) and foul pumping station within the updated Flood Zone 2 extent.
- Building and foul pumping station encroaches slightly into the 1 in 100 year +25% CC modelled flood extent, however, the flood extent is based on a conservative estimate of climate change allowance.
- Area immediately adjacent to the Washpit Brook remained to be open space similar to existing. No built development or land raising within Flood Zone 3 extent.

Extract of the northwestern extent of site against the flood zone map



Extract of proposed development against the latest EA flood zone map

Proposed Development

- Sitewide surface water drainage strategy proposes to restrict the runoff to greenfield rate of 2 l/s/ha at the plot stage and prior to discharge to the Washpit Brook preventing any increase in flood risk from existing scenario.

- Access to the building and pumping station will be from areas within Flood Zone 1 where proposed levels are minimum 13mAOD (approx. 360mm above the 100-year +25% CC modelled flood level at the nearest modelled node within the Washpit Brook).

Further mitigation at detailed design:

- Any electrical control equipment for the foul pumping station will be water resistant and located outside of the Flood Zone 2 extent.

- Cover level of the pumping station can be raised to be above surrounding ground level to provide further resilience.

- Flood resistant and resilient materials to be implemented for the proposed building within Flood Zone 2 and 100 year +25% CC flood extent. Details would be developed at detailed design stage.

- Any sensitive electrical equipment, wiring and sockets will be recommended to be raised to be at least 600mm above the estimated 100 year +25% flood level within the Washpit Brook. Details would be developed at detailed design stage.

Water Supply and Foul Water

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Water Supply and Foul Water

- Meeting held with Anglian Water to discuss foul water strategy and Anglian Water's concerns. This successfully resulted in removal of Anglian Water's objection. The foul water strategy mimics that of the previous consented scheme.

- Proposals to limit potable water to 80 l/person/day via supplementing demand by non-potable water. This is proposed to be via plot specific systems to provide development flexibility. This strategy mimics that of the previous consented scheme.

- The non-potable strategy has been discussed with and accepted in principle by Cambridge Water.

- Discussions were also held with Cambridge Water with respect to potable supply. Cambridge Water has confirmed in writing that there is sufficient potable water to supply the original consented number of units without intervention and has confirmed that there should be sufficient potable water for the uplifted development requiring some minor infrastructure interventions within the Eddington development.

- Confirmation of potable water intervention requirements will be determined with Cambridge Water via capacity assessments during the detailed design stage.

- No proposals to extract groundwater at any point during the development and occupation of this scheme. Furthermore, there are no proposals to infiltrate any surface water runoff to the ground.

AOB

PROJECT NAME: North West Cambridge Masterplan

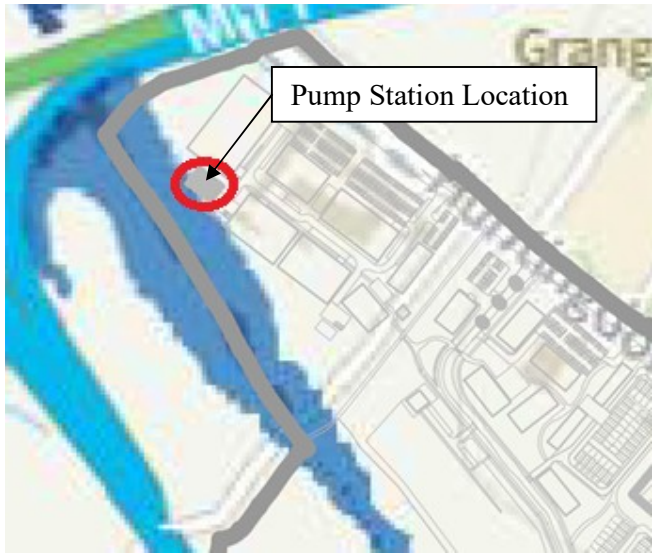
SCHEDULE OF APPLICANT'S RESPONSES TO COMMENTS RECEIVED

DATE ISSUED: 30/01/2026

COMMENTS RECEIVED FROM:	Environment Agency (EA)	**FORMAT:**	Email	**DATE RECEIVED:**	30/10/2025
SUBJECT:	Flood Risk and Surface Water Drainage				

ID	ISSUE	COMMENT	RESPONSE
1.	Up-to-date flood risk information	Include the most up-to-date flood risk information available at the site.	The Flood Risk Assessment will be updated to include the updated fluvial flood map. The latest EA fluvial flood map has been reviewed against the proposed Site. The Site still lies mostly within Flood Zone 1 with northwestern extent partly within Flood Zone 2 and a small area adjacent to the Washpit Brook within Flood Zone 3 (Figure 1 below). The extent of the Site within Flood Zone 2 is mostly open spaces with a small exent of the building and foul pumping station in the northwestern extent encroaching into Flood Zone 2 (Figure 2 below). The building is non-residential to be used for commercial, retail, office, etc and classed as "Less Vulnerable". The foul pumping is classed as "Water Compatible". Both use class is considered deemed appropriate within Flood Zone 2 andFigure 2 below). Additional mitigation measures are outlined under section 4 below. The area within Flood Zone 3 is to remain as open space similar to existing with existing levels retained.

ID	ISSUE	COMMENT	RESPONSE
			 **Figure 1 Extract of the proposed development against the latest flood zone map**

ID	ISSUE	COMMENT	RESPONSE
			 **Figure 2 Extract of the northwestern extern of site against the flood zone map**
2.	Sequential Approach	Demonstrate that a sequential approach has been taken to the site layout.	A sequential approach has been taken as to the site layout. All habitable buildings are located within Flood Zone 1. A small extent of the development in the northwestern corner of the site is within the updated Flood Zone 2 extent, however, these are mostly open spaces. The updated Flood Zone 2 extent slightly encroaches into one of the non-residential buildings, with use class “Less Vulnerable” which is deemed appropriate for development within Flood Zone 2. Small extent of the foul pumping station is also within the Flood Zone 2. The pump station is classed a “Water compatible” development and therefore deemed appropriate within Flood Zone 2. The 1 in 100 year +25% climate change (CC) flood extent per the modelling undertaken by AECOM shows similar slight encroachment over one of the proposed building. The flood extent shown is a very conservative estimate allowing for climate change beyond the required value (9%). The encroachment are over the “Less Vulnerable” building and “Water compatible” foul pumping station. Further mitigation measures are incorporated as part of

ID	ISSUE	COMMENT	RESPONSE
			the proposed development as summarised in section 4 below.
3.	Floodplain storage	Demonstrate that there will be no loss of floodplain storage at the site and no increase in flood risk elsewhere.	There is no loss of floodplain storage as a result of the development proposals. Whilst the latest flood zone map shows Flood Zone 3 extent along the area adjacent to the Washpit Brook, no built development or land raising is proposed within this area. There is no built development proposed within functional floodplain. A small extent of the building and pumping station in the northwestern corner of the site is shown to be within the 1 in 100 +25% CC modelled flood extent, however, the flood extent is based on a conservative estimate with significantly higher climate change allowance. For avoidance of doubt, there is no built development or land raising proposed within the Flood Zone 3 extent. Refer to Figure 2 above.
4.	Flood risk mitigation measures	Demonstrate that adequate flood risk mitigation measures will be included in the design of the proposed development to ensure the development will be safe for its lifetime.	Adequate flood mitigation measures have been included as described below. The Flood Alleviation Scheme (FAS), approved under the previous consented scheme, has been implemented in full as part of the Phase 1 works to reduce the risk of flooding to and from the Site. Sitewide levels have been raised to facilitate reuse of arisings and limit excavation with the site providing access to higher ground levels. Levels raising is outside of the Flood Zone 3 extent. The sitewide surface water drainage strategy for the development proposes to restrict the surface water runoff to greenfield rate of 2 l/s/ha within the plots and prior to final discharge from the site to the Washpit Brook and therefore preventing any increase in flood risk from existing scenario. The building and foul pumping station in the northwestern extent of the Site which falls slightly within Flood Zone 2 and the modelled 100-year +25% CC flood extent will have access to the road and open space within Flood Zone 1. Further resilient and resistant measures can be incorporated, to be detailed at next stage. • Access to the building and pumping station would be from areas within Flood Zone 1 where proposed levels are minimum 13mAOD (360mm above the 100-year+25%

ID	ISSUE	COMMENT	RESPONSE
			flood level at the nearest modelled node within the Washpit Brook). • Any electrical control equipment for the foul pumping station will be water resistant and located outside of the Flood Zone 2 extent. • Cover level of the pumping station can be raised to be above surrounding ground level to provide further resilience. • Using flood resistant and resilient materials for the proposed building within Flood Zone 2 and 100 year +25% CC flood extent. • Raising all sensitive electrical equipment, wiring and sockets to be at least 600mm above the estimated 100 year +25% flood level within the Washpit Brook.
5		Water Resources	Discussions were held with Cambridge Water pre-planning confirming capacity to accommodate the number of dwellings (approximately 1,300 units) approved under the original planning permission. Cambridge Water highlighted that there may be a requirement for local infrastructure reinforcement to accommodate any uplift in unit numbers beyond the original consent, however, this would be subject to infrastructure modelling study at the detailed design stage which is envisaged to be secured by condition. Non-potable demand would be addressed via on-plot non-potable water collection and distribution networks. Any non-potable reinforcement requirement required would be subject to further discussion with Cambridge Water at the detailed design stage, to be secured by condition. Metering strategy will developed as part of the detailed design stage with the need for smart metering assessed at this point.
6		Water Abstraction	No water abstraction proposed as part of the proposed development.
7		Construction Period	Comments are noted

ID	ISSUE	COMMENT	RESPONSE
8		Occupational/Operational Period	Comments are noted
9		Non-domestic	Comments are noted
10		Water Efficiency and Re-use	Details of water efficient fittings and recycling measures would be developed at detailed design. Metering strategy will developed as part of the detailed design stage with the need for smart metering assessed at this point.
11		Water Body Protection	Comments are noted
12		Groundwater and Contaminated Land	There are no proposals for direct infiltration of surface water to ground. All surface water will either be captured for reuse, or conveyed via a SuDS network to the Washpit Brook via petrol interceptors and other pollution control measures as required.
13		Water Quality / Waste water Disposal	Anglian Water has provided an updated response (dated 04/12/2025) confirming approval in principle for the development to discharge foul water into the sewer via existing connection constructed as part of Phase 1 works under the previous outline consent.

PROJECT NAME: North West Cambridge Masterplan

SCHEDULE OF APPLICANT'S RESPONSES TO COMMENTS RECEIVED

DATE ISSUED: 25/02/2026

COMMENTS RECEIVED FROM:	Environment Agency (EA)	FORMAT:	Email	DATE RECEIVED:	13/02/2026
SUBJECT:	Flood Risk Technical Comments				

ID	ISSUE	COMMENT	RESPONSE
1.		We acknowledge that the Flood Risk Assessment (FRA) will be updated to include the updated flood zones shown on our Flood Map for Planning. The extent of Flood Zones 2 and 3 at the site should be defined based on the modelling of Washpit Brook undertaken by AECOM (i.e. the modelled 1 in 1000 and 1 in 100 year flood extents) rather than the flood zones shown on our Flood Map. As we reviewed the model of Washpit Brook at the outline application stage and the flood zones shown on our Flood Map are based on our New National Model (which should only be considered indicative), the modelled flood extents are considered to be a better representation of the flood risk at the site.	The FRA includes the 1 in 100 year + Climate Change (CC) flood extent, after implementation of the Flood Alleviation Scheme (FAS), as the design flood event in accordance with the EA standing advice.
2.		We note that a sequential approach has been taken to the site layout. However, this should be based on the modelled flood extents rather than the Flood Zones shown on our Flood Map for the reasons given above. Some justification should be provided for one of the buildings being partly sited within Flood Zone 2 and within the 1 in 100 year flood extent, including a 25% allowance for climate change.	The proposed building is non-residential, classed as Less Vulnerable which is deemed acceptable within Flood Zone 2. The proposed plot arrangement is a reference scheme which will be developed further at reserved matters stage where the plot layout can be amended so the buildings are outside of the 100 year + 25% CC flood extent. The revised FRA will highlight the requirement for the building to be outside of the 100 year +25% CC flood extent at reserved matters.
3.		We acknowledge that the 1 in 100 year flood extent, including a 25% allowance for climate change, is based on a conservative estimate of the impacts of climate change. However, in the absence of any other 1 in 100	The proposed plot arrangement is a reference scheme which will be developed further at reserved matters stage where any built development and land raising can be amended to be outside of the 1 in 100 year + 25% CC flood extent. The requirement will be noted in the

ID	ISSUE	COMMENT	RESPONSE
		year plus climate change modelled flood data, this extent should be used to determine the requirement for floodplain compensation. Although no built development or land raising is proposed within Flood Zone 3, it is unclear whether any built development or land raising is proposed within the modelled 1 in 100 year flood extent, based on the modelling undertaken by AECOM. This should be clarified in the revised FRA. If it is not possible to revise the site layout to avoid any built development or land raising within the 1 in 100 year modelled flood extent, including a 25% allowance for climate change, we would expect an outline floodplain compensation scheme to be included in the revised FRA. Alternatively, if the site layout is likely to change at the reserved matters stage, the FRA should state that all built development and land raising will be located outside the 1 in 100 year flood extent, including a 25% allowance for climate change.	revised FRA. If this is not achievable, flood compensation will be provided as part of the reserved matters application, to be secured by condition.
4.		The proposed flood resistant and resilient measures for the building and foul pumping station in the northwestern extent of the site are acceptable in principle. We would expect finished floor levels of the proposed building within Flood Zone 2 to be set 600mm above the estimated 1 in 100 year 25% climate change flood level, in line with our freeboard allowance guidance	The access to the building which slightly encroaches into Flood Zone 2 extent will be from area in Flood Zone 1 where proposed levels are at least 300mm above the 100 year +25% CC modelled flood level. EA standing advice suggest freeboard could be reduced to 300mm if there is certainty in the estimated flood level. Given the flood level is estimated based on 25% CC allowance which is considered conservative, the above is deemed suitable. Additionally, the plot arrangement is subject to further development at reserved matters stage where the plot layout can be amended so the buildings are outside of the Flood Zone 2 and 1 in 100 year + 25% flood extent.

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