

Drainage Strategy Technical Note		
Project Name & Number:	Steton Works	D2348
Site Address:	Turners Hill Road, Crawley Down, West Sussex RH10 4HQ	
Subject:	Drainage Strategy Technical Note	
Client:	JW Stratton Ltd	
Prepared by and Date:	S Burnett	17/07/2025
Revision	V1.0	



1. INTRODUCTION

BP Civils has previously prepared a drainage strategy (D2348/DS1.2) in respect of the proposed residential development at Steton Works, Turners Hill Road, Crawley Down consisting of 5 No. dwellings.

The 5 No. dwelling scheme was granted outline planning approval (DM/22/0867) further to appeal (APP/D3830/W/22/3303070).

JW Stratton Ltd has confirmed that a planning application is to be submitted for 2 No. additional dwellings at the site. The proposed site layout is contained within **Appendix A**.

This technical note has been prepared to demonstrate that foul and surface water drainage has been considered in respect of the 2 No. additional dwellings and that an appropriate method of drainage can be provided to support this increased level of development at the site.

This technical note shall be read in conjunction with the drainage strategy (D2348/DS1.2) prepared in relation to the planning approved 5 No. dwelling scheme.

2. DEVELOPMENT IMPACT

The additional 2 No. dwellings proposed will result in an additional 223m² in impermeable area as demonstrated by drawing PL301 (Additional 2 No. Dwellings Impermeable Areas).

3. SURFACE WATER DRAINAGE

It is proposed that surface water drainage in respect of the additional 2 No. dwellings will follow the principles established in respect of the 5 No. dwelling scheme.

The additional 2 No. private parking areas will be of a permeable construction. The permeable construction will match that of the design in respect of the 5 No. dwelling scheme.

An additional 64m² of permeable paving will be provided in view of the additional 2 No. units.

Captured run-off from the permeable paving in addition to the roof catchment will drain to the proposed on-site surface water drainage system which will discharge to the ordinary watercourse on the western side of Turners Hill Road. Flows will be restricted to a maximum of 1.00 l/s for all storm events up to and including the 100-year + 40% climate change event.

An allowance of 10% in respect of the proposed roof catchment has been allowed for the potential impacts of urban creep across the design life of the development.

Drawing PL001.2 (Additional 2 No. Dwellings Proposed Drainage) has been prepared to demonstrate the surface water drainage arrangement in respect of the additional 2 No. units and how this will communicate with the surface water drainage system designed in relation to the 5 No. dwelling scheme.

Updated surface water drainage calculations are contained within **Appendix B**.

4. TREATMENT AND WATER QUALITY

The additional 2 No. private parking areas will be of a permeable construction.

In accordance with the CIRIA SuDS Manual C753 regarding methods for managing pollution risks, the risk posed by surface water run-off to the receiving environment depends on the pollution hazard at the site (the source), SuDS treatment techniques (the pathway), and the sensitivity of the environment (the receptor).

The simple index approach considers whether SuDS techniques are appropriate for the site. The states that for SuDS components to deliver adequate treatment, the total pollution mitigation index for each contaminant type should equal or exceed the pollution hazard index.

The SuDS Manual outlines three categories of pollution hazard identification, which vary depending on proposed land use, which are as follows:

- Total Suspended Solids (TSS).
- Metals (M).
- Hydrocarbons (H).

In accordance with C753 Table 26.2, the proposed land uses at the site are categorised as follows:

- Residential Roofs– Very low/TSS=0.2/M=0.2/H=0.05
- Individual property driveways, residential car parks, low traffic roads – Low/TSS=0.5/M=0.4/H=0.4

In accordance with C753 Table 26.3, the values of SuDS Mitigation indices are provided for permeable paving:

- Permeable Pavement – TSS=0.7/M=0.6/H=0.7

The use of permeable paving will ensure that run-off from the site receives a level of treatment required by the SuDS Manual, with hydrocarbons being filtered by the aggregate and geotextile layers.

As the pollution hazard index does not exceed any pollution mitigation index for any contaminant type, the proposed SuDS methods will provide sufficient treatment for the proposed development.

5. MAINTENANCE

Maintenance is required to ensure the long-term operational performance of the proposed surface water drainage system.

Maintenance in relation to the additional 2 No. dwellings shall follow the same maintenance regime as required in relation to the 5 No. dwelling scheme.

Drainage System feature	Proposed maintenance / remedial works	Required frequency of works
Permeable Paving	Surface raking/sweeping to reduce/remove silt and debris accumulation.	Every 8 to 12 weeks
	Removal / management of weed growth	At least once a year
Diffuser units & catch pits, gully sumps and drains	Inspection and additional cleansing as required.	Annual
	Desilting	Year 1, Year 3, then every 5 years
Pipework	Jetting to clear blockages	As required

Infrastructure which is 'shared' (i.e. serving more than a single plot and/or falling outside of any individual plot's curtilage) will be the responsibility of an appointed Management Company.

The responsibility of any drainage infrastructure supporting a single dwelling will be the sole responsibility of the owner/occupier of the associated dwelling.

6. FOUL WATER DRAINAGE

It is proposed that the additional 2 No. units will drain to the foul water drainage system to be implemented in respect of the 5 No. dwelling scheme. This system will drain to Southern Water's public foul water sewer located beneath Turners Hill Road.

The additional 2 No. units will result in a further estimated peak foul water flow of 0.09 l/s (based on Sewer Sector Guidance, Appendix C, Design and Construction Guidance).

Connection to the public foul water sewer network will be subject to a S106 application and approval from Southern Water.

Recent changes to infrastructure and connection charges (OFWAT Charging Rules) place the onus on the sewerage undertaker to reinforce their network should there no longer be sufficient capacity to serve the new development. Funding for this is provided by revised charging arrangements for infrastructure and connection charges for each dwelling constructed comprising a Network Reinforcement Charge and Site-Specific Charges. The revised charging arrangement (funded by the developer) covers alterations to the Existing Sewer Network and the sewerage undertaker remains responsible for the cost of reinforcing their Strategic Assets. The developer is responsible for connecting the development to the public sewer network.

7. OFF-SITE IMPACTS

The rate of run-off discharging off site in respect of the surface water drainage system will remain at 1.00 l/s, as is proposed in relation to the 5 No. dwelling scheme. Attenuation on site is to be provided within the permeable paving construction in addition to volume of storage provided within the piped system and a supplementary storage tank.

The proposed surface water drainage system in relation to the 5 No. dwelling scheme will improve the off-site situation by removing existing surface water flows from the site, and groundwater ingress, from Southern Water's public foul water sewer network, and discharging run-off instead to the ordinary watercourse on the western side of Turners Hill Road at a restricted rate of 1.00 l/s.

Foul water from the proposed development will drain to Southern Water's public foul water sewer, via a new connection established in relation to the 5 No. dwelling scheme.

8. CONCLUSION

The foul and surface water drainage proposals in relation to the additional 2 No. dwellings will follow the principles established in relation to the 5 No. dwelling scheme.

In respect of surface water drainage, the highest ranking solution in respect of the drainage hierarchy is provided, in view of site constraints and limitations. This provides significant betterment when compared with existing site surface water drainage methods.

The enclosed drawings and calculations demonstrate that the additional 2 No. dwelling will not have a detrimental impact upon the surface water drainage system proposed in relation to the 5 No. dwelling scheme.

In view of the above factors, it is considered that the additional 2 No. dwellings are suitable from a foul and surface water drainage perspective.

APPENDICES

APPENDIX A

CDM 2015 Health & Safety Information

This information relates only to 'Significant Hazards' identified on this drawing and is to be read in conjunction with the Designer's Hazard Register.

Accommodation Schedule

Main Site				
Plot 1	3-Bedroom House	Semi-Detached	1,165 sqft	2CPS
Plot 2	3-Bedroom House	Semi-Detached	1,221 sqft	2CPS

Total; 2 Dwellings

- Application Boundary
- Ownership Boundary
- Building to be demolished

DRAFT

Rev	Date	Revision Details	Dr	Ch
-----	------	------------------	----	----



London: 76 Great Suffolk Street
London, SE1 0BL
T 0207 928 2773 E london@eearchitecture.com
Sussex: 64 - 68 Brighton Road, Worthing
West Sussex, BN11 2EN
T 01903 248777 E sussex@eearchitecture.com
Bristol: Westworks, Beacon Tower
Colston Street, Bristol, BS1 4XE
T 0117 214 1101 E bristol@ecwestworks.com
ECE Architecture
www.eearchitecture.com

Client's Name
JW Stratton

Job Title
Stetton Works, Turners Hill Road,
Crawley Down

Drawing Title
Proposed Site Plan

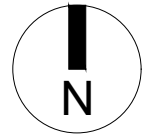
Scale
1:250 @ A2
metres 5 10 15 20 25

Drawn	Checked	Date
AX	AK	01.07.25

Job No	Drawing No	Rev
7504A	PL 03	-

Status
APPROVAL

CAD Plot date: 1/07/2025 - 14:17:29 7504 - mast plot 6 & 7.dwg



APPENDIX B

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Diameter (m)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S1	0.000	1.350	Type C	111.488	110.151	1.187	533750.427	138387.729
S2	0.000	1.350	Type C	111.459	110.071	1.238	533742.723	138396.929
S59	0.000	0.000	Unknown	111.434	110.042	1.241	533740.896	138400.841
S3	0.000	1.350	Type C	111.278	109.963	1.165	533735.904	138411.529
S4	0.000	1.350	Type C	111.167	109.916	1.101	533731.253	138417.014
S5	0.000	1.350	Type C	110.972	109.847	0.975	533721.038	138418.411
S60	0.000	0.000	Unknown	110.655	109.740	0.765	533708.635	138408.296
S45	0.002	0.450	Unknown	110.575	109.995	0.430	533707.146	138409.437
S46	0.000	1.350	Unknown	110.518	109.938	0.430	533701.564	138404.761
S61	0.000	0.000	Unknown	110.564	109.705	0.709	533705.008	138397.233
S44	0.133	1.350	Unknown	110.420	109.690	0.580	533703.887	138401.131
S6	0.011	1.350	Type C	110.378	109.657	0.572	533698.913	138400.368
S8	0.002	0.450	Unknown	110.472	109.892	0.430	533698.348	138402.941
S9	0.000	1.350	Unknown	110.300	109.720	0.430	533692.802	138399.076
S7	0.000	1.350	Type C	110.047	109.550	0.347	533684.401	138393.555
S48	0.000	0.000	Type C	110.565	109.425	0.990	533667.368	138387.363

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	S1	110.151	S2	110.071	Circ	0.15mØ	12.000	150.0	0.600	1.187	1.238
1.001	S2	110.071	S59	110.042	Circ	0.15mØ	4.317	150.0	0.600	1.238	1.241
1.002	S59	110.042	S3	109.963	Circ	0.15mØ	11.796	150.0	0.600	1.241	1.165
1.003	S3	109.964	S4	109.916	Circ	0.15mØ	7.192	150.0	0.600	1.165	1.101
1.004	S4	109.916	S5	109.847	Circ	0.15mØ	10.310	150.0	0.600	1.101	0.975
1.005	S5	109.847	S60	109.740	Circ	0.15mØ	16.005	150.0	0.600	0.975	0.765
1.006	S60	109.740	S6	109.657	Circ	0.15mØ	12.545	150.0	0.600	0.765	0.572
2.000	S45	109.995	S46	109.938	Circ	0.15mØ	7.282	128.4	0.600	0.430	0.430
2.001	S46	109.938	S6	109.657	Circ	0.15mØ	5.131	18.2	0.600	0.430	0.572
3.000	S61	109.705	S6	109.657	Circ	0.15mØ	6.853	141.6	0.600	0.709	0.572
4.000	S44	109.690	S6	109.657	Circ	0.15mØ	5.032	150.0	0.600	0.580	0.572
1.007	S6	109.657	S7	109.550	Circ	0.3mØ	16.032	150.0	0.600	0.422	0.197
5.000	S8	109.892	S9	109.720	Circ	0.15mØ	6.760	39.2	0.600	0.430	0.430
5.001	S9	109.720	S7	109.550	Circ	0.15mØ	10.053	59.1	0.600	0.430	0.347
1.008	S7	109.550	S48	109.425	Circ	0.15mØ	18.123	145.3	0.600	0.347	0.990

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
Permeable Paving 2	S45	2.125	110.575	109.995	0.00000000	2.00	533704.604	138407.573
Permeable Paving1	S44	114.060	110.420	109.690	0.00000000	2.00	533744.014	138397.664
Permeable Paving 3	S8	2.101	110.472	109.892	0.00000000	2.00	533697.069	138401.949

Outfall Details

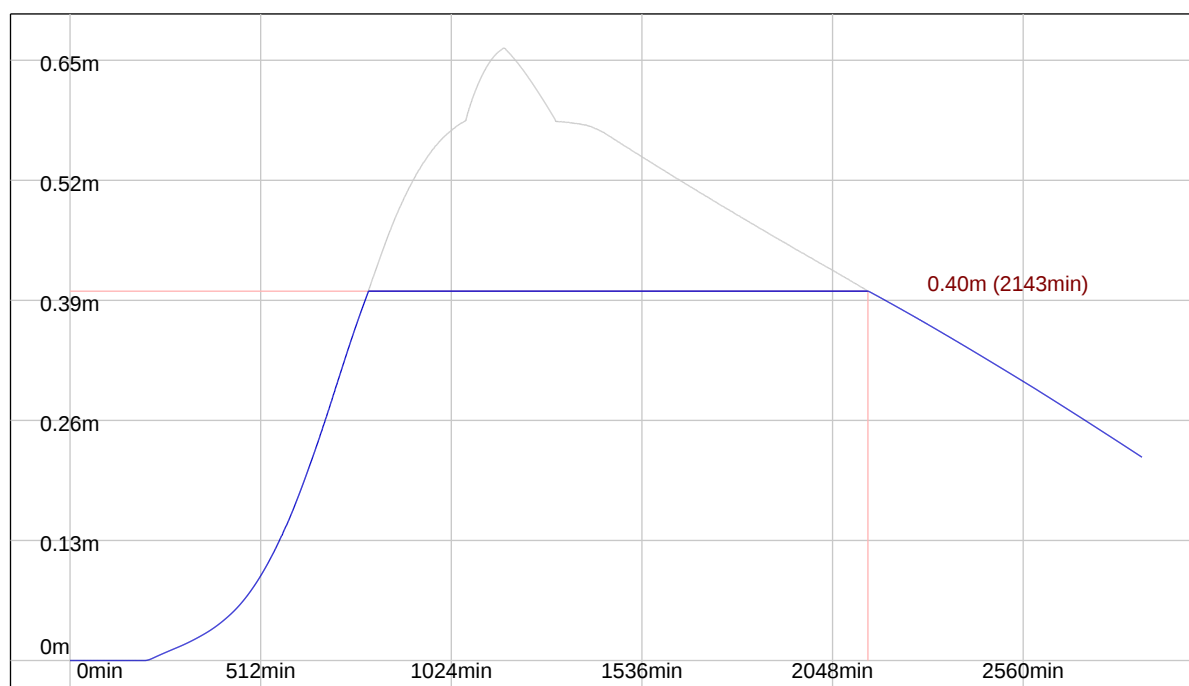
Outfall Manhole S48 : Free Discharge

Flow Control Details

Tank Structure at Manhole S61

Tank Invert (m)	Tank Height (m)	Porosity Ratio (%)	Area (m2)	Effective Area (m2) Area x Porosity Ratio	Max Storage (m3) Effective Area x Height	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
109.705	0.400	95.00	24.500	23.275	9.310	0.00000000	0.00000000	2.00

Tank at S61 (100Yr+40% 1440Min Winter)

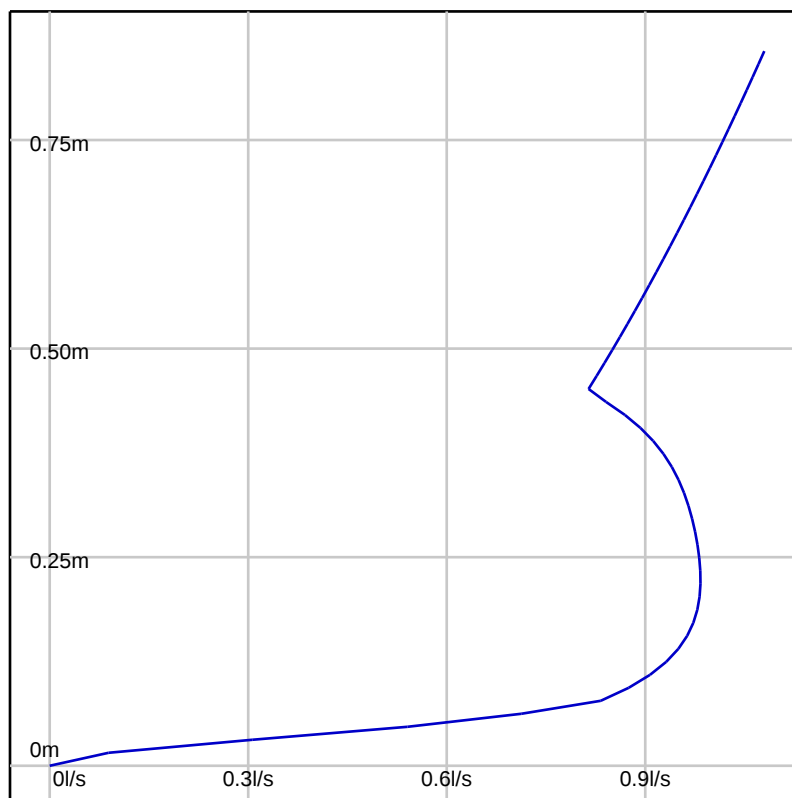


Controls within Manhole S6

Hydro-Brake® Optimum Control at Manhole S6

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0050-1000-0721-1000	0.722	1.000	0.000	0.223	0.984	0.449	0.812

Hydro-Brake® Optimum Control at S6

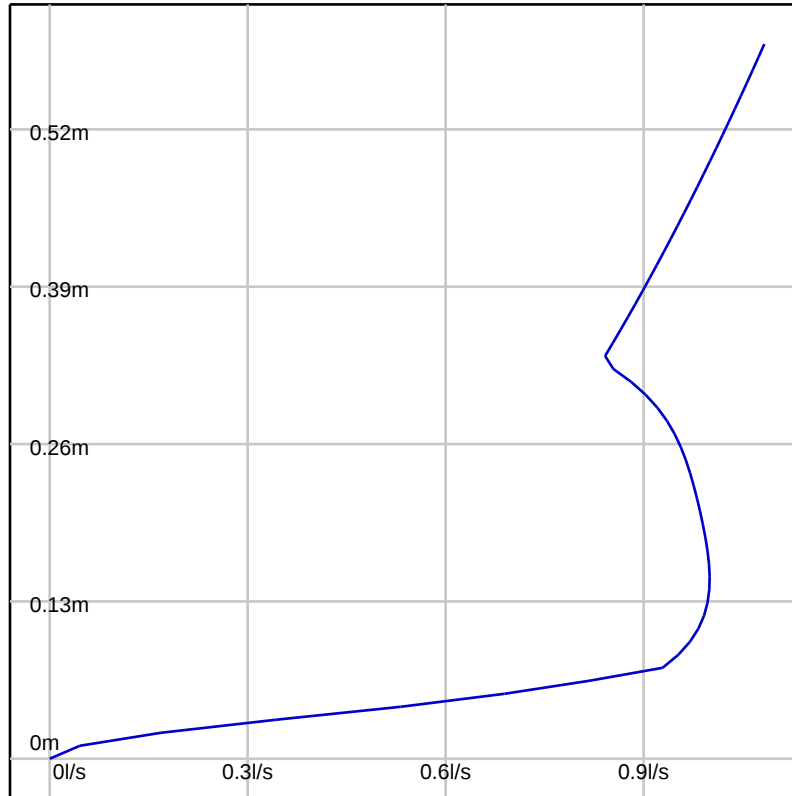


Controls within Manhole S7

Hydro-Brake® Optimum Control at Manhole S7

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0054-1000-0497-1000	0.497	1.000	0.000	0.148	1.000	0.328	0.836

Hydro-Brake® Optimum Control at S7



Simulation Settings

FEH2022 (point): Filename=FEH_Point_Descriptors_533738_138413_v5_0_1.xml

Summer (Cv: 1.00), Winter (Cv: 1.00)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080

Return Periods (yrs) + Climate Change: (2, +0%), (10, +0%), (30, +0%), (30, +35%), (100, +0%), (100, +40%)

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
2Yr 15Min Winter	31.821	0.00	0.00	30Yr+35% 15Min Summer	111.814	0.00	0.18
2Yr 15Min Summer	31.821	0.00	0.00	30Yr+35% 15Min Winter	111.814	0.00	0.17
2Yr 30Min Winter	20.910	0.00	0.00	30Yr+35% 30Min Summer	74.280	0.00	0.29
2Yr 30Min Summer	20.910	0.00	0.00	30Yr+35% 30Min Winter	74.280	0.00	0.29
2Yr 60Min Winter	13.200	0.00	0.00	30Yr+35% 60Min Summer	47.209	0.00	0.40
2Yr 60Min Summer	13.200	0.00	0.00	30Yr+35% 60Min Winter	47.209	0.00	0.40
2Yr 120Min Summer	9.158	0.00	0.00	30Yr+35% 120Min Summer	28.415	0.00	0.41
2Yr 120Min Winter	9.158	0.00	0.00	30Yr+35% 120Min Winter	28.415	0.00	0.41
2Yr 180Min Winter	7.302	0.00	0.00	30Yr+35% 180Min Summer	20.954	0.00	0.39
2Yr 180Min Summer	7.302	0.00	0.00	30Yr+35% 180Min Winter	20.954	0.00	0.39
2Yr 240Min Summer	6.027	0.00	0.00	30Yr+35% 240Min Summer	16.927	0.00	0.36
2Yr 240Min Winter	6.027	0.00	0.00	30Yr+35% 240Min Winter	16.927	0.00	0.36
2Yr 360Min Summer	4.594	0.00	0.00	30Yr+35% 360Min Summer	12.425	0.00	0.31
2Yr 360Min Winter	4.594	0.00	0.00	30Yr+35% 360Min Winter	12.425	0.00	0.31
2Yr 480Min Summer	3.774	0.00	0.00	30Yr+35% 480Min Summer	9.957	0.00	0.26
2Yr 480Min Winter	3.774	0.00	0.00	30Yr+35% 480Min Winter	9.957	0.00	0.25
2Yr 600Min Summer	3.217	0.00	0.00	30Yr+35% 600Min Summer	8.382	0.00	0.20
2Yr 600Min Winter	3.217	0.00	0.00	30Yr+35% 600Min Winter	8.382	0.00	0.20
2Yr 720Min Summer	2.813	0.00	0.00	30Yr+35% 720Min Summer	7.280	0.00	0.15
2Yr 720Min Winter	2.813	0.00	0.00	30Yr+35% 720Min Winter	7.280	0.00	0.16
2Yr 960Min Summer	2.278	0.00	0.00	30Yr+35% 960Min Summer	5.837	0.00	0.06
2Yr 960Min Winter	2.278	0.00	0.00	30Yr+35% 960Min Winter	5.837	0.00	0.06
2Yr 1440Min Winter	1.691	0.00	0.00	30Yr+35% 1440Min Summer	4.294	0.00	0.00
2Yr 1440Min Summer	1.691	0.00	0.00	30Yr+35% 1440Min Winter	4.294	0.00	0.00
2Yr 2160Min Summer	1.267	0.00	0.00	30Yr+35% 2160Min Summer	3.171	0.00	0.00
2Yr 2160Min Winter	1.267	0.00	0.00	30Yr+35% 2160Min Winter	3.171	0.00	0.02
2Yr 2880Min Summer	1.041	0.00	0.00	30Yr+35% 2880Min Summer	2.559	0.00	0.00
2Yr 2880Min Winter	1.041	0.00	0.00	30Yr+35% 2880Min Winter	2.559	0.00	0.04
2Yr 4320Min Summer	0.802	0.00	0.00	30Yr+35% 4320Min Summer	1.900	0.00	0.03
2Yr 4320Min Winter	0.802	0.00	0.00	30Yr+35% 4320Min Winter	1.900	0.00	0.06
2Yr 5760Min Summer	0.676	0.00	0.00	30Yr+35% 5760Min Summer	1.545	0.00	0.05
2Yr 5760Min Winter	0.676	0.00	0.00	30Yr+35% 5760Min Winter	1.545	0.00	0.04
2Yr 7200Min Summer	0.597	0.00	0.00	30Yr+35% 7200Min Summer	1.322	0.00	0.06
2Yr 7200Min Winter	0.597	0.00	0.00	30Yr+35% 7200Min Winter	1.322	0.00	0.00
2Yr 8640Min Summer	0.543	0.00	0.00	30Yr+35% 8640Min Summer	1.169	0.00	0.04
2Yr 8640Min Winter	0.543	0.00	0.00	30Yr+35% 8640Min Winter	1.169	0.00	0.00
2Yr 10080Min Summer	0.504	0.00	0.00	30Yr+35% 10080Min Summer	1.057	0.00	0.02
2Yr 10080Min Winter	0.504	0.00	0.00	30Yr+35% 10080Min Winter	1.057	0.00	0.00
10Yr 15Min Summer	62.966	0.00	0.07	100Yr 15Min Summer	104.638	0.00	0.15
10Yr 15Min Winter	62.966	0.00	0.00	100Yr 15Min Winter	104.638	0.00	0.15
10Yr 30Min Summer	41.483	0.00	0.09	100Yr 30Min Summer	70.172	0.00	0.26
10Yr 30Min Winter	41.483	0.00	0.09	100Yr 30Min Winter	70.172	0.00	0.26
10Yr 60Min Summer	26.241	0.00	0.13	100Yr 60Min Summer	44.966	0.00	0.38
10Yr 60Min Winter	26.241	0.00	0.13	100Yr 60Min Winter	44.966	0.00	0.38
10Yr 120Min Summer	16.348	0.00	0.15	100Yr 120Min Summer	26.505	0.00	0.38
10Yr 120Min Winter	16.348	0.00	0.14	100Yr 120Min Winter	26.505	0.00	0.38
10Yr 180Min Summer	12.297	0.00	0.14	100Yr 180Min Summer	19.334	0.00	0.35
10Yr 180Min Winter	12.297	0.00	0.14	100Yr 180Min Winter	19.334	0.00	0.35
10Yr 240Min Summer	9.967	0.00	0.12	100Yr 240Min Summer	15.609	0.00	0.32
10Yr 240Min Winter	9.967	0.00	0.12	100Yr 240Min Winter	15.609	0.00	0.32
10Yr 360Min Summer	7.375	0.00	0.09	100Yr 360Min Summer	11.459	0.00	0.26
10Yr 360Min Winter	7.375	0.00	0.08	100Yr 360Min Winter	11.459	0.00	0.26
10Yr 480Min Summer	5.939	0.00	0.07	100Yr 480Min Summer	9.212	0.00	0.21
10Yr 480Min Winter	5.939	0.00	0.06	100Yr 480Min Winter	9.212	0.00	0.20
10Yr 600Min Summer	5.003	0.00	0.06	100Yr 600Min Summer	7.800	0.00	0.15

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
10Yr 600Min Winter	5.003	0.00	0.05	100Yr 600Min Winter	7.800	0.00	0.15
10Yr 720Min Summer	4.341	0.00	0.05	100Yr 720Min Summer	6.817	0.00	0.10
10Yr 720Min Winter	4.341	0.00	0.05	100Yr 720Min Winter	6.817	0.00	0.10
10Yr 960Min Summer	3.474	0.00	0.05	100Yr 960Min Summer	5.526	0.00	0.04
10Yr 960Min Winter	3.474	0.00	0.05	100Yr 960Min Winter	5.526	0.00	0.04
10Yr 1440Min Summer	2.546	0.00	0.03	100Yr 1440Min Summer	4.119	0.00	0.00
10Yr 1440Min Winter	2.546	0.00	0.02	100Yr 1440Min Winter	4.119	0.00	0.00
10Yr 2160Min Summer	1.878	0.00	0.00	100Yr 2160Min Summer	3.068	0.00	0.00
10Yr 2160Min Winter	1.878	0.00	0.00	100Yr 2160Min Winter	3.068	0.00	0.03
10Yr 2880Min Summer	1.519	0.00	0.00	100Yr 2880Min Summer	2.478	0.00	0.02
10Yr 2880Min Winter	1.519	0.00	0.00	100Yr 2880Min Winter	2.478	0.00	0.04
10Yr 4320Min Summer	1.140	0.00	0.00	100Yr 4320Min Summer	1.823	0.00	0.04
10Yr 4320Min Winter	1.140	0.00	0.00	100Yr 4320Min Winter	1.823	0.00	0.07
10Yr 5760Min Summer	0.939	0.00	0.00	100Yr 5760Min Summer	1.460	0.00	0.06
10Yr 5760Min Winter	0.939	0.00	0.00	100Yr 5760Min Winter	1.460	0.00	0.02
10Yr 7200Min Summer	0.814	0.00	0.00	100Yr 7200Min Summer	1.231	0.00	0.04
10Yr 7200Min Winter	0.814	0.00	0.00	100Yr 7200Min Winter	1.231	0.00	0.00
10Yr 8640Min Summer	0.729	0.00	0.00	100Yr 8640Min Summer	1.074	0.00	0.01
10Yr 8640Min Winter	0.729	0.00	0.00	100Yr 8640Min Winter	1.074	0.00	0.00
10Yr 10080Min Winter	0.666	0.00	0.00	100Yr 10080Min Summer	0.958	0.00	0.00
10Yr 10080Min Summer	0.666	0.00	0.00	100Yr 10080Min Winter	0.958	0.00	0.00
30Yr 15Min Summer	82.825	0.00	0.09	100Yr+40% 15Min Summer	146.493	0.00	0.30
30Yr 15Min Winter	82.825	0.00	0.09	100Yr+40% 15Min Winter	146.493	0.00	0.29
30Yr 30Min Summer	55.022	0.00	0.16	100Yr+40% 30Min Summer	98.241	0.00	0.44
30Yr 30Min Winter	55.022	0.00	0.16	100Yr+40% 30Min Winter	98.241	0.00	0.44
30Yr 60Min Summer	34.969	0.00	0.24	100Yr+40% 60Min Summer	62.952	0.00	0.56
30Yr 60Min Winter	34.969	0.00	0.24	100Yr+40% 60Min Winter	62.952	0.00	0.56
30Yr 120Min Summer	21.048	0.00	0.25	100Yr+40% 120Min Summer	37.107	0.00	0.58
30Yr 120Min Winter	21.048	0.00	0.25	100Yr+40% 120Min Winter	37.107	0.00	0.58
30Yr 180Min Summer	15.521	0.00	0.23	100Yr+40% 180Min Summer	27.068	0.00	0.58
30Yr 180Min Winter	15.521	0.00	0.23	100Yr+40% 180Min Winter	27.068	0.00	0.58
30Yr 240Min Summer	12.539	0.00	0.20	100Yr+40% 240Min Summer	21.853	0.00	0.58
30Yr 240Min Winter	12.539	0.00	0.20	100Yr+40% 240Min Winter	21.853	0.00	0.58
30Yr 360Min Summer	9.203	0.00	0.14	100Yr+40% 360Min Summer	16.042	0.00	0.53
30Yr 360Min Winter	9.203	0.00	0.14	100Yr+40% 360Min Winter	16.042	0.00	0.53
30Yr 480Min Summer	7.375	0.00	0.09	100Yr+40% 480Min Summer	12.897	0.00	0.47
30Yr 480Min Winter	7.375	0.00	0.09	100Yr+40% 480Min Winter	12.897	0.00	0.46
30Yr 600Min Summer	6.209	0.00	0.05	100Yr+40% 600Min Summer	10.919	0.00	0.40
30Yr 600Min Winter	6.209	0.00	0.05	100Yr+40% 600Min Winter	10.919	0.00	0.40
30Yr 720Min Summer	5.392	0.00	0.03	100Yr+40% 720Min Summer	9.544	0.00	0.34
30Yr 720Min Winter	5.392	0.00	0.04	100Yr+40% 720Min Winter	9.544	0.00	0.34
30Yr 960Min Winter	4.324	0.00	0.04	100Yr+40% 960Min Summer	7.736	0.00	0.46
30Yr 960Min Summer	4.324	0.00	0.03	100Yr+40% 960Min Winter	7.736	0.00	0.73
30Yr 1440Min Summer	3.180	0.00	0.05	100Yr+40% 1440Min Summer	5.767	0.00	0.37
30Yr 1440Min Winter	3.180	0.00	0.06	100Yr+40% 1440Min Winter	5.767	0.00	0.68
30Yr 2160Min Summer	2.349	0.00	0.06	100Yr+40% 2160Min Summer	4.295	0.00	-0.04
30Yr 2160Min Winter	2.349	0.00	0.06	100Yr+40% 2160Min Winter	4.295	0.00	0.12
30Yr 2880Min Summer	1.895	0.00	0.05	100Yr+40% 2880Min Summer	3.469	0.00	-0.03
30Yr 2880Min Winter	1.895	0.00	0.03	100Yr+40% 2880Min Winter	3.469	0.00	-0.03
30Yr 4320Min Summer	1.407	0.00	0.02	100Yr+40% 4320Min Summer	2.552	0.00	-0.04
30Yr 4320Min Winter	1.407	0.00	0.00	100Yr+40% 4320Min Winter	2.552	0.00	-0.02
30Yr 5760Min Summer	1.144	0.00	0.00	100Yr+40% 5760Min Summer	2.043	0.00	-0.01
30Yr 5760Min Winter	1.144	0.00	0.00	100Yr+40% 5760Min Winter	2.043	0.00	0.03
30Yr 7200Min Summer	0.979	0.00	0.00	100Yr+40% 7200Min Summer	1.724	0.00	0.01
30Yr 7200Min Winter	0.979	0.00	0.00	100Yr+40% 7200Min Winter	1.724	0.00	0.04
30Yr 8640Min Summer	0.866	0.00	0.00	100Yr+40% 8640Min Summer	1.504	0.00	0.02
30Yr 8640Min Winter	0.866	0.00	0.00	100Yr+40% 8640Min Winter	1.504	0.00	0.06
30Yr 10080Min Summer	0.783	0.00	0.00	100Yr+40% 10080Min Winter	1.342	0.00	0.04
30Yr 10080Min Winter	0.783	0.00	0.00	100Yr+40% 10080Min Summer	1.342	0.00	0.03

Simulation Results

Return Period Yrs: 2.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	110.151	0.000	0.000		OK
S2	-	0	110.071	0.000	0.000		OK
S59	-	0	110.042	0.000	0.000		OK
S3	-	0	109.963	0.000	0.000		OK
S4	-	0	109.916	0.000	0.000		OK
S5	-	0	109.847	0.000	0.000		OK
S60	600 min Summer	419	109.813	0.073	0.000		OK
S45	120 min Summer	67	110.004	0.010	0.117		OK
S46	120 min Summer	68	109.944	0.006	0.116		OK
S61	600 min Summer	413	109.813	0.108	0.000		OK
S44	600 min Summer	422	109.813	0.123	0.059		OK
S6	600 min Summer	413	109.813	0.157	0.950		OK
S8	120 min Summer	67	109.899	0.007	0.122		OK
S9	120 min Summer	67	109.728	0.008	0.123		OK
S7	600 min Summer	411	109.664	0.114	0.957		OK
S48	600 min Summer	411	109.451	0.026	0.957		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	0	S1	S2	0.000	0.000	0.000	0.000	OK
1.001	15 min Winter	0	S2	S59	0.000	0.000	0.000	0.000	OK
1.002	15 min Winter	0	S59	S3	0.000	0.000	0.000	0.000	OK
1.003	15 min Winter	0	S3	S4	0.000	0.000	0.000	0.000	OK
1.004	15 min Winter	0	S4	S5	0.000	0.000	0.000	0.000	OK
1.005	600 min Summer	419	S5	S60	0.037	0.000	0.000	0.000	OK
1.006	600 min Summer	608	S60	S6	0.112	0.005	0.039	0.003	OK
2.000	120 min Summer	67	S45	S46	0.008	0.332	0.116	0.007	OK
2.001	480 min Summer	298	S46	S6	0.077	0.010	0.062	0.001	OK
3.000	600 min Summer	655	S61	S6	0.129	0.020	0.115	0.008	OK
4.000	600 min Summer	422	S44	S6	0.137	0.129	1.012	0.070	OK
1.007	600 min Summer	415	S6	S7	0.068	0.143	0.945	0.010	OK
5.000	120 min Summer	67	S8	S9	0.007	0.374	0.123	0.004	OK
5.001	600 min Summer	402	S9	S7	0.059	0.010	0.053	0.002	OK
1.008	600 min Summer	411	S7	S48	0.026	0.474	0.957	0.065	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	120 min Summer	67	110.007	0.012	0.108		OK
Permeable Paving1	600 min Summer	415	109.814	0.124	0.858		OK
Permeable Paving 3	120 min Summer	66	109.903	0.011	0.130		OK

Return Period Yrs: 10.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	110.151	0.000	0.000		OK
S2	-	0	110.071	0.000	0.000		OK
S59	-	0	110.042	0.000	0.000		OK
S3	-	0	109.963	0.000	0.000		OK
S4	-	0	109.916	0.000	0.000		OK
S5	480 min Winter	402	109.907	0.060	0.003		OK
S60	480 min Winter	416	109.907	0.167	0.012		Surcharged
S45	30 min Summer	23	110.010	0.015	0.313		OK
S46	30 min Summer	23	109.947	0.009	0.311		OK
S61	480 min Winter	409	109.907	0.202	0.038		Surcharged
S44	480 min Winter	408	109.907	0.217	0.627		Surcharged
S6	480 min Winter	410	109.907	0.250	1.032		OK
S8	30 min Summer	23	109.903	0.011	0.323		OK
S9	30 min Summer	23	109.732	0.012	0.324		OK
S7	480 min Summer	398	109.708	0.158	0.887		Surcharged
S48	480 min Summer	385	109.451	0.026	0.997		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	0	S1	S2	0.000	0.000	0.000	0.000	OK
1.001	15 min Summer	0	S2	S59	0.000	0.000	0.000	0.000	OK
1.002	15 min Summer	0	S59	S3	0.000	0.000	0.000	0.000	OK
1.003	15 min Summer	0	S3	S4	0.000	0.000	0.000	0.000	OK
1.004	480 min Winter	402	S4	S5	0.030	0.000	0.000	0.000	OK
1.005	480 min Winter	417	S5	S60	0.105	0.003	0.044	0.003	OK
1.006	480 min Winter	732	S60	S6	0.150	0.014	0.220	0.015	Surcharged
2.000	30 min Summer	23	S45	S46	0.012	0.455	0.311	0.020	OK
2.001	120 min Summer	71	S46	S6	0.079	0.033	0.239	0.006	OK
3.000	480 min Winter	728	S61	S6	0.150	0.046	0.801	0.054	Surcharged
4.000	120 min Winter	81	S44	S6	0.150	0.166	1.855	0.129	Surcharged
1.007	480 min Summer	473	S6	S7	0.102	0.181	2.990	0.033	OK
5.000	30 min Summer	23	S8	S9	0.012	0.506	0.324	0.011	OK
5.001	360 min Winter	252	S9	S7	0.077	0.013	0.079	0.003	OK
1.008	480 min Summer	385	S7	S48	0.026	0.479	0.997	0.068	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	30 min Summer	23	110.016	0.021	0.315		OK
Permeable Paving1	480 min Winter	408	109.908	0.218	0.900		OK
Permeable Paving 3	30 min Summer	23	109.912	0.020	0.312		OK

Return Period Yrs: 30.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	110.151	0.000	0.000		OK
S2	-	0	110.071	0.000	0.000		OK
S59	-	0	110.042	0.000	0.000		OK
S3	600 min Winter	519	109.975	0.012	0.010		OK
S4	480 min Winter	445	109.975	0.060	0.003		OK
S5	480 min Winter	445	109.975	0.128	0.001		OK
S60	480 min Winter	445	109.975	0.235	0.004		Surcharged
S45	30 min Summer	22	110.012	0.018	0.415		OK
S46	480 min Winter	439	109.975	0.037	0.012		OK
S61	480 min Winter	447	109.975	0.270	0.000		Surcharged
S44	480 min Winter	443	109.975	0.285	1.276		Surcharged
S6	480 min Winter	450	109.975	0.319	0.995		Surcharged
S8	30 min Summer	22	109.905	0.013	0.426		OK
S9	30 min Summer	22	109.734	0.014	0.426		OK
S7	360 min Summer	300	109.726	0.176	0.999		Surcharged
S48	360 min Summer	303	109.451	0.026	1.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	0	S1	S2	0.000	0.000	0.000	0.000	OK
1.001	15 min Summer	0	S2	S59	0.000	0.000	0.000	0.000	OK
1.002	600 min Winter	519	S59	S3	0.006	0.000	0.000	0.000	OK
1.003	480 min Winter	468	S3	S4	0.036	0.010	0.032	0.002	OK
1.004	480 min Winter	481	S4	S5	0.094	0.005	0.056	0.004	OK
1.005	480 min Winter	477	S5	S60	0.139	0.004	0.075	0.005	OK
1.006	2880 min Summer	2394	S60	S6	0.150	0.019	0.301	0.021	Surcharged
2.000	480 min Winter	439	S45	S46	0.020	0.296	0.080	0.005	OK
2.001	480 min Winter	439	S46	S6	0.094	0.009	0.080	0.002	OK
3.000	2160 min Summer	2121	S61	S6	0.150	0.041	0.710	0.048	Surcharged
4.000	30 min Winter	31	S44	S6	0.150	0.308	4.911	0.340	Surcharged
1.007	360 min Winter	683	S6	S7	0.122	0.170	2.029	0.022	OK
5.000	30 min Summer	22	S8	S9	0.013	0.546	0.426	0.015	OK
5.001	180 min Summer	110	S9	S7	0.079	0.033	0.242	0.010	OK
1.008	360 min Summer	303	S7	S48	0.026	0.480	1.000	0.068	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	30 min Summer	22	110.020	0.025	0.422		OK
Permeable Paving1	480 min Winter	444	109.976	0.286	0.902		OK
Permeable Paving 3	30 min Summer	22	109.915	0.023	0.418		OK

Return Period Yrs: 30.0

Climate Change %: 35

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	110.151	0.000	0.000		OK
S2	720 min Winter	679	110.105	0.034	0.001		OK
S59	720 min Winter	687	110.105	0.063	0.019		OK
S3	720 min Winter	674	110.105	0.142	0.012		OK
S4	720 min Winter	682	110.105	0.190	0.046		Surcharged
S5	720 min Winter	686	110.105	0.258	0.010		Surcharged
S60	720 min Winter	684	110.105	0.365	0.032		Surcharged
S45	720 min Winter	694	110.105	0.111	0.089		OK
S46	720 min Winter	681	110.105	0.167	0.069		Surcharged
S61	720 min Winter	689	110.106	0.401	0.041		Surcharged
S44	720 min Winter	681	110.105	0.415	0.717		Surcharged
S6	720 min Winter	680	110.105	0.449	0.971		Flood Risk
S8	30 min Summer	21	109.907	0.015	0.598		OK
S9	240 min Winter	219	109.753	0.033	0.028		OK
S7	240 min Winter	217	109.753	0.203	0.996		Flood Risk
S48	2880 min Summer	1634	109.451	0.026	1.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	720 min Winter	679	S1	S2	0.017	0.000	0.000	0.000	OK
1.001	720 min Winter	693	S2	S59	0.049	0.024	0.078	0.005	OK
1.002	720 min Winter	695	S59	S3	0.102	0.006	0.072	0.005	OK
1.003	720 min Winter	717	S3	S4	0.146	0.008	0.071	0.005	OK
1.004	360 min Winter	367	S4	S5	0.150	0.006	0.103	0.007	Surcharged
1.005	360 min Winter	372	S5	S60	0.150	0.006	0.105	0.007	Surcharged
1.006	2160 min Winter	2780	S60	S6	0.150	0.018	0.286	0.020	Surcharged
2.000	720 min Winter	685	S45	S46	0.131	0.296	0.138	0.009	OK
2.001	1440 min Summer	1418	S46	S6	0.150	0.011	0.196	0.005	Surcharged
3.000	2160 min Winter	2779	S61	S6	0.150	0.042	0.728	0.049	Surcharged
4.000	15 min Winter	22	S44	S6	0.150	0.366	6.167	0.427	Surcharged
1.007	240 min Winter	215	S6	S7	0.150	0.204	1.124	0.012	OK
5.000	360 min Winter	280	S8	S9	0.018	0.383	0.134	0.005	OK
5.001	240 min Winter	219	S9	S7	0.091	0.021	0.181	0.008	OK
1.008	2880 min Summer	1634	S7	S48	0.026	0.480	1.000	0.068	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	720 min Winter	681	110.105	0.111	0.038		OK
Permeable Paving1	720 min Winter	685	110.106	0.416	0.814		OK
Permeable Paving 3	30 min Summer	21	109.921	0.029	0.605		OK

Return Period Yrs: 100.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	110.151	0.000	0.000		OK
S2	960 min Winter	814	110.073	0.003	0.003		OK
S59	960 min Winter	823	110.073	0.031	0.009		OK
S3	960 min Winter	813	110.073	0.110	0.037		OK
S4	960 min Winter	813	110.073	0.158	0.042		Surcharged
S5	960 min Winter	817	110.073	0.226	0.035		Surcharged
S60	960 min Winter	813	110.073	0.333	0.033		Surcharged
S45	960 min Winter	816	110.073	0.079	0.019		OK
S46	960 min Winter	812	110.073	0.135	0.036		OK
S61	960 min Winter	824	110.073	0.368	0.052		Surcharged
S44	960 min Winter	807	110.073	0.383	1.022		Surcharged
S6	960 min Winter	810	110.073	0.417	0.878		Surcharged
S8	30 min Summer	21	109.907	0.014	0.557		OK
S9	360 min Winter	291	109.746	0.026	0.027		OK
S7	360 min Winter	293	109.746	0.196	1.000		Surcharged
S48	60 min Summer	104	109.451	0.026	1.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	960 min Winter	814	S1	S2	0.001	0.000	0.000	0.000	OK
1.001	960 min Winter	823	S2	S59	0.017	0.026	0.024	0.002	OK
1.002	960 min Winter	991	S59	S3	0.070	0.007	0.036	0.002	OK
1.003	960 min Winter	949	S3	S4	0.130	0.009	0.062	0.004	OK
1.004	960 min Summer	962	S4	S5	0.150	0.006	0.103	0.007	Surcharged
1.005	600 min Summer	615	S5	S60	0.150	0.006	0.111	0.008	Surcharged
1.006	4320 min Winter	3681	S60	S6	0.150	0.018	0.280	0.019	Surcharged
2.000	960 min Winter	826	S45	S46	0.107	0.273	0.151	0.010	OK
2.001	960 min Winter	812	S46	S6	0.143	0.011	0.144	0.003	OK
3.000	4320 min Summer	3757	S61	S6	0.150	0.038	0.653	0.044	Surcharged
4.000	15 min Winter	24	S44	S6	0.150	0.362	5.890	0.408	Surcharged
1.007	360 min Winter	291	S6	S7	0.142	0.177	1.091	0.012	OK
5.000	30 min Summer	22	S8	S9	0.015	0.593	0.554	0.019	OK
5.001	360 min Winter	291	S9	S7	0.088	0.015	0.124	0.005	OK
1.008	1440 min Winter	978	S7	S48	0.026	0.480	1.000	0.068	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	960 min Winter	823	110.073	0.079	0.019		OK
Permeable Paving1	960 min Winter	813	110.074	0.384	0.999		OK
Permeable Paving 3	30 min Summer	21	109.920	0.027	0.573		OK

Return Period Yrs: 100.0

Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	1440 min Winter	1166	110.369	0.218	0.000		Surcharged
S2	1440 min Winter	1166	110.369	0.298	0.029		Surcharged
S59	1440 min Winter	1166	110.369	0.326	0.041		Surcharged
S3	1440 min Winter	1165	110.368	0.405	0.052		Surcharged
S4	1440 min Winter	1165	110.368	0.453	0.061		Surcharged
S5	1440 min Winter	1165	110.368	0.522	0.063		Surcharged
S60	1440 min Winter	1166	110.368	0.628	0.027		Flood Risk
S45	1440 min Winter	1166	110.369	0.374	0.071		Flood Risk
S46	1440 min Winter	1166	110.368	0.430	0.070		Flood Risk
S61	1440 min Winter	1166	110.368	0.663	0.008		Surcharged
S44	1440 min Winter	1166	110.368	0.678	0.967		Flood Risk
S6	1440 min Winter	1166	110.368	0.712	1.070		Flood Risk
S8	30 min Summer	21	109.910	0.018	0.847		OK
S9	240 min Winter	187	109.776	0.056	0.065		OK
S7	240 min Winter	185	109.776	0.226	1.006		Flood Risk
S48	4320 min Summer	2320	109.451	0.026	1.000		Outfall

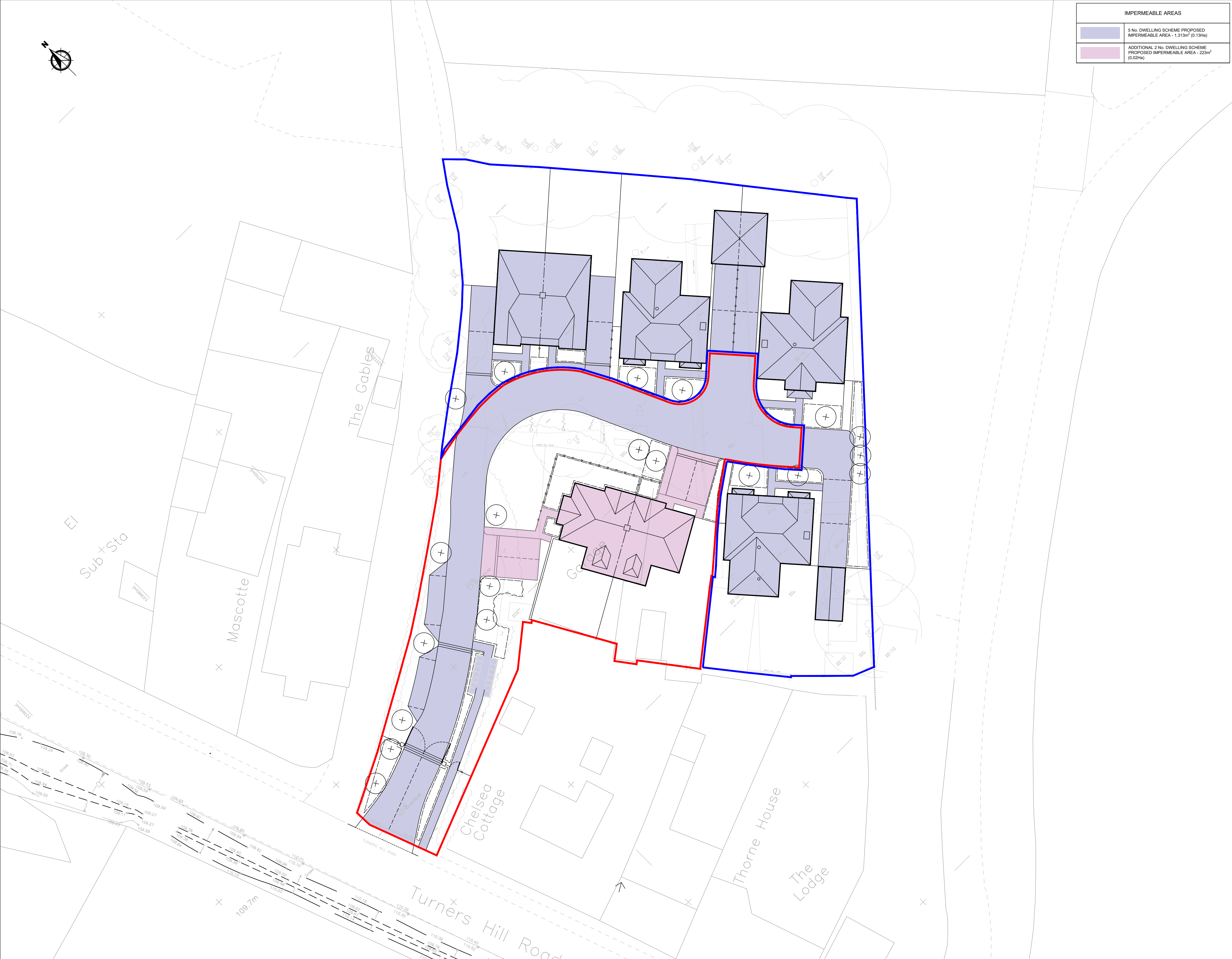
Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	1440 min Winter	1070	S1	S2	0.150	0.006	0.107	0.007	Surcharged
1.001	960 min Winter	870	S2	S59	0.150	0.027	0.198	0.014	Surcharged
1.002	960 min Winter	870	S59	S3	0.150	0.014	0.244	0.017	Surcharged
1.003	960 min Winter	870	S3	S4	0.150	0.012	0.214	0.015	Surcharged
1.004	960 min Winter	848	S4	S5	0.150	0.011	0.190	0.013	Surcharged
1.005	960 min Winter	848	S5	S60	0.150	0.014	0.250	0.017	Surcharged
1.006	8640 min Summer	6977	S60	S6	0.150	0.019	0.294	0.020	Surcharged
2.000	240 min Summer	175	S45	S46	0.150	0.463	0.349	0.022	Surcharged
2.001	180 min Summer	121	S46	S6	0.150	0.040	0.388	0.009	Surcharged
3.000	2880 min Winter	4316	S61	S6	0.150	0.037	0.636	0.043	Surcharged
4.000	30 min Winter	33	S44	S6	0.150	0.342	6.042	0.419	Surcharged
1.007	240 min Winter	184	S6	S7	0.173	0.214	1.148	0.013	OK
5.000	240 min Winter	180	S8	S9	0.031	0.455	0.235	0.008	OK
5.001	240 min Winter	187	S9	S7	0.103	0.029	0.299	0.013	OK
1.008	4320 min Summer	2320	S7	S48	0.026	0.480	1.000	0.068	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving 2	1440 min Winter	1167	110.368	0.374	0.012		OK
Permeable Paving1	1440 min Winter	1166	110.370	0.680	0.995		Flood Risk
Permeable Paving 3	30 min Summer	20	109.928	0.036	0.916		OK

DRAWINGS



IMPERMEABLE AREAS	
	5 No. DWELLING SCHEME PROPOSED IMPERMEABLE AREA - 1.313m ² (0.134a)
	ADDITIONAL 2 No. DWELLING SCHEME PROPOSED IMPERMEABLE AREA - 223m ² (0.024a)

NOTES

- This drawing is to be read in conjunction with all other BP Civils drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
- BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
- Do not scale. Work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
- All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
- The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
- Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 10002432. BP Civils accept no liability for any inaccuracies with the data.

-	16/07/25	Original Issue
Rev.	Date	Amendments



BP CIVILS
Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 01243 210418
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status **FOR INFORMATION**
NOT FOR CONSTRUCTION

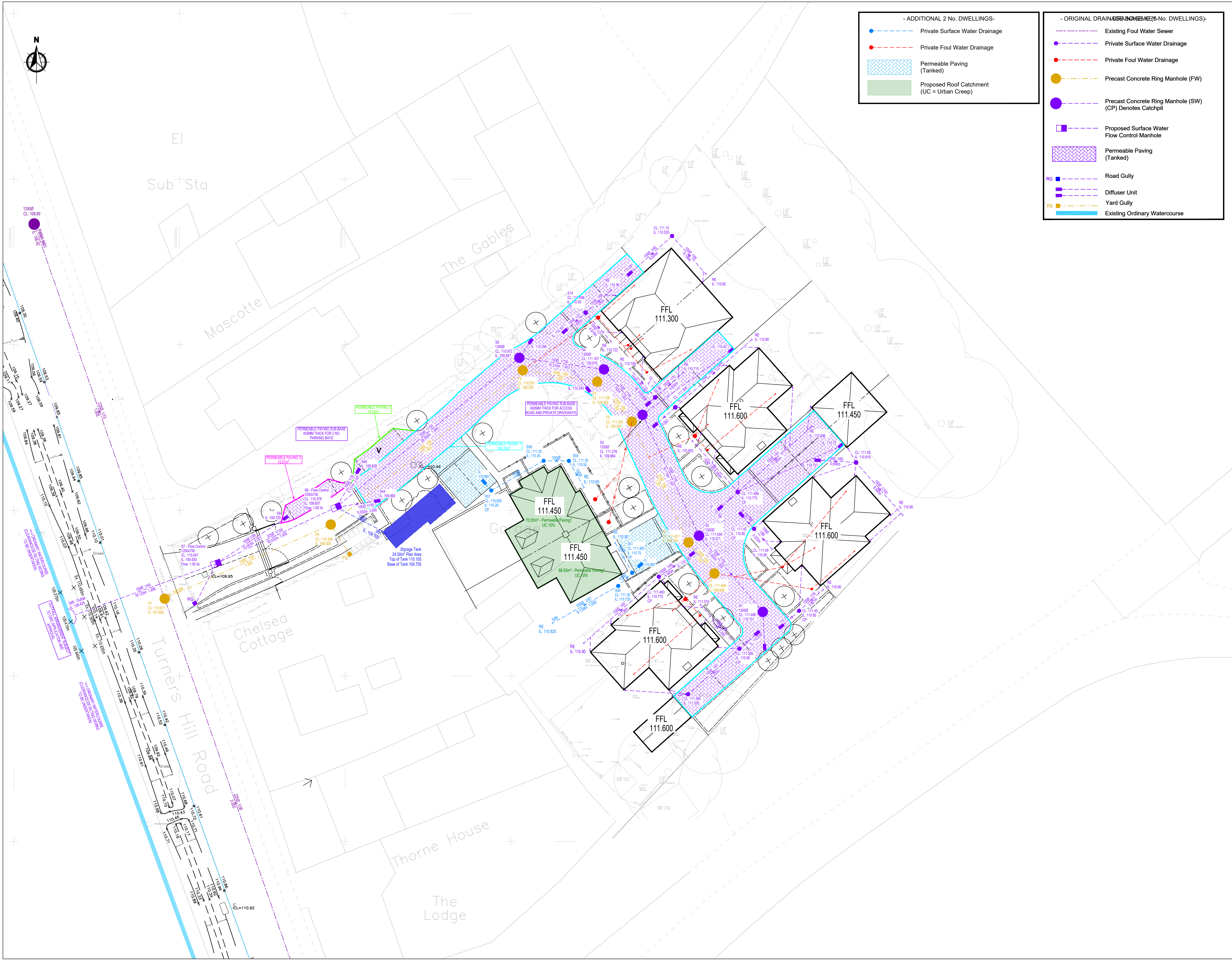
Client
JW Stratton

Project
**Steton Works,
Turners Hill Road, Crawley Down**

Drawing Title
**Additional 2 No. Dwellings
Impermeable Areas**

Scale at A1	Date	Drawn By	Checked By	Project No.
1:200	Jul. '25	SPB	MJA	D2348

Drawing Code	Drawing No	Rev.
000-BPC-WD-ZZ-D-C-	PL301	-



- ADDITIONAL 2 No. DWELLINGS-

- Private Surface Water Drainage
- Private Foul Water Drainage
- Permeable Paving (Tanked)
- Proposed Roof Catchment (UC = Urban Creep)

- ORIGINAL DRAINAGE & 2 No. DWELLINGS-

- Existing Foul Water Sewer
- Private Surface Water Drainage
- Private Foul Water Drainage
- Precast Concrete Ring Manhole (FW)
- Precast Concrete Ring Manhole (SW) (CP) Denotes Catchpit
- Proposed Surface Water Flow Control Manhole
- Permeable Paving (Tanked)
- Road Gully
- Diffuser Unit
- Yard Gully
- Existing Ordinary Watercourse

- This drawing is to be read in conjunction with all other BP Civils drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
- BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
- Do not scale work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
- All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
- The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
- Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 100022432. BP Civils accept no liability for any inaccuracies with the data.
- The client shall ensure that all licences, consents and approvals required to implement the works are in place prior to commencing construction.

RESIDUAL HAZARDS

- In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:
- Buried services. Contractor to refer to record drawings and use CAT to locate existing services and undertake necessary precautions and investigation prior to excavating.
 - Working in live traffic. Contractor to ensure traffic management is designed, erected and maintained to protect the workforce and the public. Contractor to undertake necessary precautions and ensure suitable traffic management is in place prior to commencement.
 - Working in live sewers. Contractor to ensure operatives are familiar and competent with the dangers of working in live sewers.
 - Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structure. Demolition works to be completed before excavations for new works are undertaken.
 - High groundwater. Works to be undertaken in months when groundwater levels are not as high, if possible. Excavations made as shallow as possible. Operatives to be suitably trained and provided with relevant PPE.
- Appropriate risk assessments and method statements should be prepared to manage these risks as required.

Rev.	Date	Original Issue	Amendments
-	17/07/25	Original Issue	



BP CIVILS
Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 01243 210418
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status
PLANNING
NOT FOR CONSTRUCTION

Client
JW Stratton

Project
Steton Works,
Turners Hill Road, Crawley Down

Drawing Title
Proposed Drainage

Scale at A1	Date	Drawn By	Checked By	Project No.
1:200	Mar. '25	JHL	MJA	D2348
Drawing Code	Drawing No.	Rev.		
000-BPC-WD-ZZ-D-C	PL001	P1		