FOUL & STORM WATER DESIGN - DRAINAGE STRATEGY

GENERAL - The site was previously occupied by a large house built in

STORM WATER - The existing site is a brown field site being previously occupied and measures some 0.11 ha in area. it is located in flood zone 1 area for fluvial flooding and storm water flooding. No flood risk assessment was required for this project.

The proposed site offer the following areas:-

Site boundary area - 2200 sq.m
Roofs - (5 x 78 sq.m) = 390 sq.m
External permeable road - 368 sq.m

The existing ground offers good porosity tests which were carried out by the client offering an average design rate of 1.35×10^{-5} m/s with a factor of safety of 1.5 to offers a required infiltration pavement depth of 240mm solution beneath the private road using a open graded asphalt and infiltration gravel blanket to discharge the site storm water. The CBR value will determine if a further capping layer is required.

This road pavement will also receive the rainwater flows from the roof rainwater butts and threshold drainage channels. Flow from the water butts allow roof water to then enter a a catch/silt pit which provides settlement. The outlet pipe then connects to the piped below ground system to the final infiltration soakaway beneath the private road. The road surface will be open graded asphalt and this will need to be kept clean to ensure waterways are maintained.

The road infiltration storage volume is flat at finished and formation levels thus ensuring that water retention is maximised in the volume available with no high areas of pavement.

Around the houses is provided an infiltration permeable pavement which drains itself to the ground - No additional flows from roofs or other areas are added to this, therefore there is no concentration of flows - the pavement drains only its own area.

All infiltration volumes have been designed to achieve sufficient storage for a 100 year +40% climate change storm.

The attenuated storage will infiltrate to the ground and it is important to note that the construction requires a geotextile beneath to separate formation and stone layers - Refer to SDA detail no.

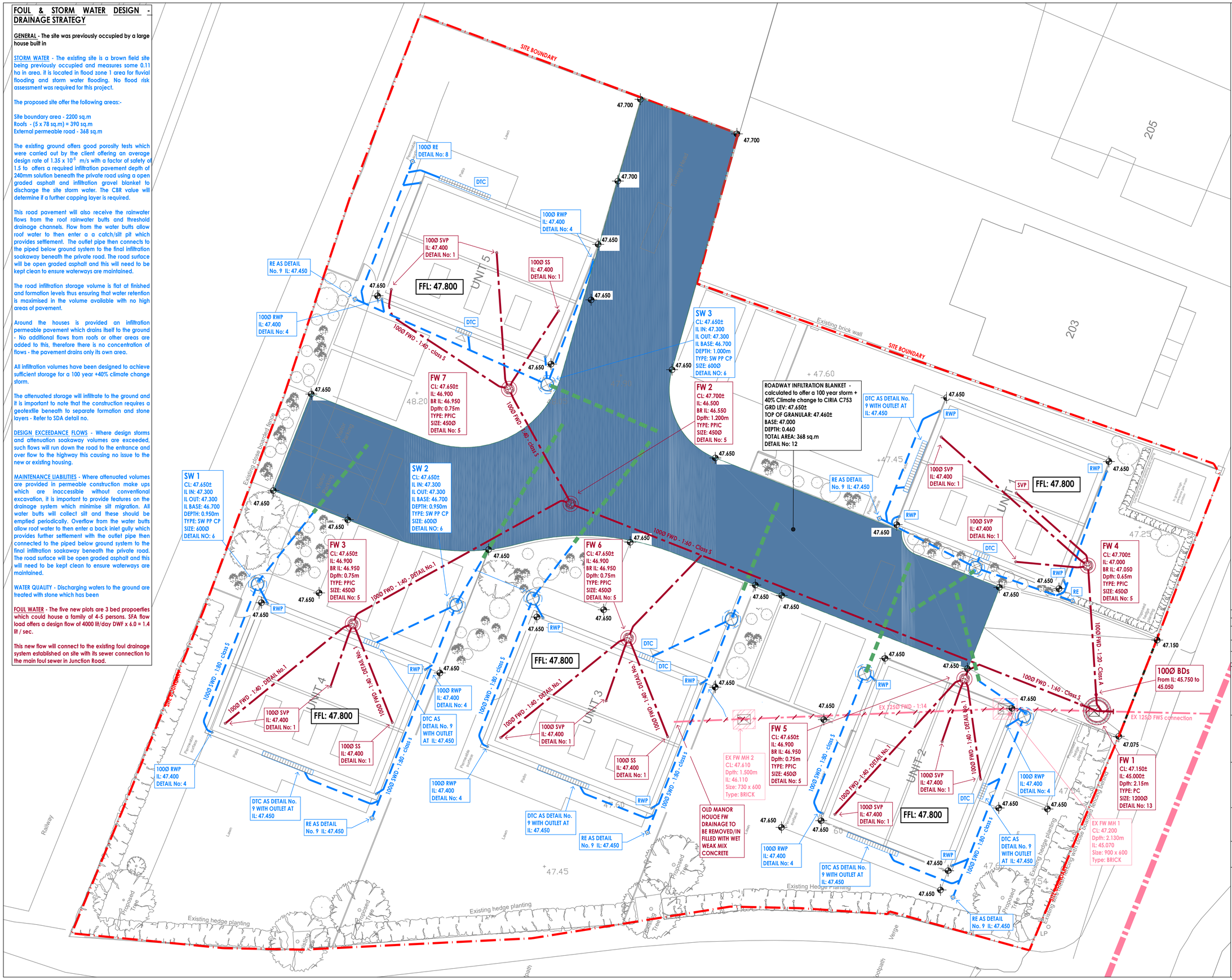
DESIGN EXCEEDANCE FLOWS - Where design storms and attenuation soakaway volumes are exceeded, such flows will run down the road to the entrance and over flow to the highway this causing no issue to the new or existing housing.

MAINTENANCE LIABILITIES - Where attenuated volumes are provided in permeable construction make ups which are inaccessible without conventional excavation, it is important to provide features on the drainage system which minimise silt migration. All water butts will collect silt and these should be emptied periodically. Overflow from the water butts allow roof water to then enter a back inlet gully which provides further settlement with the outlet pipe then connected to the piped below ground system to the final infiltration soakaway beneath the private road. The road surface will be open graded asphalt and this will need to be kept clean to ensure waterways are maintained.

WATER QUALITY - Discharging waters to the ground are treated with stone which has been

FOUL WATER - The five new plots are 3 bed propoerties which could house a family of 4-5 persons. SFA flow load offers a design flow of 4000 lit/day DWF x 6.0 = 1.4 lit / sec.

This new flow will connect to the existing foul drainage system established on site with its sewer connection to the main foul sewer in Junction Road.



ABBREVIATIONS / LEGEND

AAV	AIR ADMITTANCE VALVE
AC	ACCESS CHAMBER
ACC	ACCESS
ASBC	ASBESTOS CEMENT
AFFL	ABOVE FINISHED FLOOR LEVEL
BD	BACKDROP
BE	BLANKED END
BIG	BACK INLET GULLY
BGL	BELOW GROUND LEVEL
BR	BRANCH
BSSL	BELOW SLAB SOFFIT LEVEL
CE	CLEANING EYE
CI	CAST IRON
CL	COVER LEVEL
CON	CONCRETE
CP	CATCHPIT
DC	DRAINAGE CHANNEL
DCO	DRAINAGE CHANNEL OUTLET
DL	DRAIN LINER
DTC	DRAINAGE THRESHOLD CHANNEL
DP	DRAIN POINT
FA	FROM ABOVE
FB	FROM BELOW
FC	FLEXIBLE CONNECTION
FAI	FRESH AIR INLET
FWD	FOUL WATER DRAIN
FWG	FOUL WATER GULLY
FWS	FOUL WATER SEWER
GL	GROUND LEVEL
GT	GREASE TRAP
HL	HIGH LEVEL
IC	INSPECTION CHAMBER
IL	INVERT LEVEL
IT	INTERCEPTING TRAP
LL	LOW LEVEL
LWG	LIGHTWELL GULLY
MH	MANHOLE
ML	MID LEVEL
OD	OVERDRAIN
OTG	OPEN TOP GULLY
OTBIG	OPEN TOP BACK INLET GULLY
PAL	PATCH LINER
PE	POLYETHYLENE
PF	PITCH FIBRE
PM	PUMP MAIN
PP	POLYPROPYLENE
PPAC	POLYPROPYLENE AC
PPIC	POLYPROPYLENE IC
PCC	PRECAST CONCRETE
PRS	PIPE RESHAPE
PVC	POLYVINYL CHLORIDE
RE	RODDING EYE
RG	ROAD GULLY
ROC	ROOT CUT
RWH	RAINWATER HARVESTING
RWP	RAINWATER PIPE
SP	SOIL PIPE
SHG	SHOWER GULLY
STBIG	SEALED TOP BACK INLET GULLY
STP	SEWAGE TREATMENT PLANT
SuDS	SUSTAINABLE DRAINAGE SYSTEMS
SVP	SOIL VENT PIPE
SS	STUB STACK
SWD	STORM WATER DRAIN
SWS	STORM WATER SEWER
SWTD	STORM WATER TREATMENT DEVICE
TA	TO ABOVE
TB	TO BELOW
TBC	TO BE CONFIRMED
TD	TO DRAIN
UB	URINAL BOWL
UD	UNDERDRAIN
UTL	UNABLE TO LIFT
UTT	UNABLE TO TRACE
UTS	UNABLE TO SURVEY
VC	VITRIFIED CLAYWARE
VTA	VENT TO ATMOSPHERE
WC	WATER CLOSET
WHB	WASH HAND BASIN
WG	WASTE GULLY
WP	WASTE PIPE
WVP	WASTE VENT PIPE
YG	YARD GULLY

THIS DRAWING IS SUBJECT TO:-

- EXISTING FOUNDATIONS
- APPROVAL BY THE PLANNERS
- APPROVAL BY BUILDING CONTROL

Rev	Description	Date	By
P4	Drainage altered to suit 5 nr house application.	22.08.2025	SAD
P3	PLANNING ISSUE	11.12.2019	SAD
P2	Soakaways removed and drainage altered to suit the 10m restriction distance by Network Rail.	25.10.2019	SAD
P1	PRELIMINARY ISSUE	11.10.2019	SAD

CLIENT:

Mrs K Safronova

PROJECT:

201 Junction Road Burgess Hill West Sussex RH15 0NU

TITLE:

Site Plan - Proposed Foul and Storm Water Drainage

SCALE:
GA 1:100 @ A1
GA 1:200 @ A3

DRAWING STATUS:
FOR PLANNING

JOB No: **1593**

DWG No & Rev: **100 P4**

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