IMPORTANT NOTE:

THE DRAINAGE DESIGN SHOWN IS SUBJECT TO SOUTHERN s106 AND BUILD OVER/NEAR TO AGREEMENT

This is drawing is copyright and remains in the ownership of Simon Dent Associates (SDA)

This drawing should be read in conjunction with the design team's relevant documents, drawings & details.

Existing public & private utility services and drainage locations shown have been derived from non-intrusive survey techniques. Their location is not accurate and the contractor must satisfy himself using open excavation where the location of such plant and apparatus is critical in construction.

If the contractor has constructed from this drawing without necessary approvals from Local Planning Authorities, Building Control, Sewerage Undertakers, Environment Agency etc then any abortive work shall be at his own financial risk and not the responsibility of SDA.

If the contractor has constructed from this drawing whilst the drawing remains 'PRELIMINARY' status, then any abortive work shall be at his own financial risk and not the responsibility of SDA.

The contractor should NOT construct any works should there be any doubt with information shown from any of the source. ALWAYS USE GIVEN DIMENSIONS ONLY. ALWAYS ASK IF IN DOUBT.

ALWAYS PRINT THIS DRAWING IN COLOUR

FW IC 1
CL: 10.400±
IL: 9.400
DEPTH: 1.000
TYPE: PPIC
SIZE: 450Ø
COV SIZE: 450 x 450
COV DUTY: D400
DETAIL No: 5

EXSTG FW MHs TO BE REMOVED AND PIPE LAID IN PLACE WITH JOINTS TO EXISTING SEWER AS DETAIL No. 11

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.000±

EXISTING FWS FROM THIS POINT UPSTREAM IS FILLED WITH CONCRETE AND IS TO HAVE MANHOLE REMOVED AND PIPE CAPPED OFF TO SUIT SOUTHERN WATER.

PERMEABLE PAVED AREA WITH GRAVEL BLANKET BENEATH AS DETAIL No. 12

GRAVEL BLANKET GB1
TOP OF GRAVEL: 10.300
BASE OF GRAVEL: 9.900
REFER DETAIL No. 12

NOTE: REMOVE EXSTG FWDs

REMOVE GULLY AND RELOCATE RWP TO WATER BUTT & DISCHARGE WITH RWS ONTO BLOCK CHANNEL RUNNING INTO RAIN GARDEN - SEE DETAIL No. 13

PIPES THROUGH EXISTING FOUNDATION AS DETAIL No. 10

GRASS AND 31m² RAIN GARDEN WITH GRAVEL BLANKET BENEATH AS DETAIL No. 13.

NOTE: SVP AT HL IN CELLAR - PROVIDE ACC ON PIPE AT BRANCH AND AT EXIT THROUGH CELLAR WALL

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.000

EXSTG FW MHs AND PIPES TO BE REMOVED/FILLED WITH LEAN MIX CONCRETE.

2 x 100Ø RWPs CONNECT TO BIG AS DETAIL No. 4 - IL: 10.100±

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.000

OUTLINE OF CELLAR BENEATH

EXSTG SVP TO BE ABANDONED

EXISTING SVP TO BE REMOVED.

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.100

REMOVE GULLY AND RUN EXSTG RWP TO DISCHARGE WITH RWS RWS ONTO BLOCK CHANNEL RUNNING INTO RAIN GARDEN

EXSTG RWG TO BE REMOVED AND REPLACED WITH NEW SWD AS DETAIL No. 4

GRAVEL BLANKET GB1
TOP OF GRAVEL: 10.050
BASE OF GRAVEL: 9.650
REFER DETAIL No. 13

GRASS AND 31m² RAIN GARDEN WITH GRAVEL BLANKET BENEATH AS DETAIL No. 13.

FW IC 2
CL: 10.400±
IL: 9.600
DEPTH: 0.800
TYPE: PPIC
SIZE: 450Ø
COV SIZE: 450 x 450
COV DUTY: D400
DETAIL No: 5

GRAVEL BLANKET GB1
TOP OF GRAVEL: 10.050
BASE OF GRAVEL: 9.650
REFER DETAIL No. 13

GRASS AND 15m² RAIN GARDEN WITH GRAVEL BLANKET BENEATH AS DETAIL No. 13.

NEW 100Ø RWP CONNECTS TO OTBIG AS DETAIL No. 12 - IL: 10.100±

NOTE: REMOVE EXSTG FWDs AND MANHOLE CHAMBER

NEW 100Ø RWP WITH RWS OVER PERMEABLE PAVING.

NOTE: REMOVE EXSTG SWDs AND MANHOLE CHAMBER

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.100

NEW 100Ø RWP WITH RWS OVER PERMEABLE PAVING.

SW PP CP
CL: 10.430
IL IN: 10.000
IL OUT: 9.900
IL BASE: 9.600
SIZE: 700Ø
TYPE: SW PP CP
C/O: 600 x 600
DETAIL No. 5

NOTE: NEW RW DRAINAGE REPLACES THE PREVIOUS ROOF DRAINAGE OF THE EXISTING ROOF OUTLINE WITH NO ADDITIONAL ROOF AREA

PERMEABLE PAVED AREA WITH GRAVEL BLANKET BENEATH AS DETAIL No.

NEW 100Ø RWP AS DETAIL No. 4 - IL: 10.000±

LAY NEW FWD IN AREA OF NEW FOUNDATIONS WITH LINTOLS AND NOTCHES IN MASS CONCRETE AS DETAIL No. 3

FW IC 3
CL: 10.400±
IL: 9.930
DEPTH: 0.470
TYPE: PPIC
SIZE: 450Ø
COV SIZE: 450 x 450
COV DUTY: D400
DETAIL No: 5

NEW 100Ø SVPs DROP TO FWD AS DETAIL No. 1
IL: 10.000

NEW 100Ø OTG AS DETAIL No. 8
IL: 9.900

CONNECT TO EXSTG AT IL: 9.750 ± - TBC ON SITE

FW IC 4
CL: 10.400±
IL: 9.900
DEPTH: 0.500
TYPE: PPIC
SIZE: 450Ø
COV SIZE: 450 x 450
COV DUTY: D400
DETAIL No: 5

PERMEABLE PAVED AREA WITH GRAVEL BLANKET BENEATH AS DETAIL No.12

GRAVEL BLANKET GB3
TOP OF GRAVEL: 10.200
BASE OF GRAVEL: 9.800
IL OVERDRAIN: 9.900
REFER DETAIL No. 12

CONNECT TO EXISTING USING 'FLEXSEAL' COUPLINGS USING APPROPIATE GASKETS FOR PIPE BARRELL DIAMETERS - SEE DETAIL No. 11

GRAVEL BLANKET GB2
TOP OF GRAVEL: 10.050
BASE OF GRAVEL: 9.500
REFER DETAIL No.13

FOR DRAINAGE SPECIFICATION NOTES REFER TO SDA DRAWING 201

10.000 TBM

North Court Road

King Street

DRAINAGE STRATEGY
FOUL & STORM WATER DESIGN -

GENERAL - The drainage scheme shown is designed to provide that information required by Worthing Borough Council to enable discharge of planning condition 16 and 17 under the approval reference AWDM /1950 /19.

The existing site is predominantly a combined system of foul and storm water connecting to the foul sewer.

The site development refurbishes the existing building from a previous public house use to new residential apartments. The whole existing site is both roof and hardstanding and drained positively to the sewerage systems. THERE IS NO INCREASE OF HARDSTANDING OR ROOF AREAS

STORM WATER -

The existing rainwater from the roofs connects to the foul drainage system.

To ensure betterment, shallow infiltration gravel blankets have been used based on BRE 365 site testing. The infiltration blankets are shallow and used in conjunction with design recommendation from the CIRIA fact sheet 'Using SuDS close to buildings' for use where adjacent the building sub-structure.

All rainwater pipes from the roofs run to a catchpit from where run off is distributed through the overdrains as detailed. There are three gravel blanket zones which are placed in the main below grassed areas with small areas of permeable paving also.

Where possible raingardens are used to run the rainwater run to and these are shown in the gravel blanket GB1 and GB2. Their size is commensurate with the 20% of roof area they serve as recommended in the UK Raingarden guidance.

The gravel blankets have been sized using the FEH rainfall data for the OS grid ref for the Worthing site and offer the 100 year (1% AEP event) with 45% climate change.

DRAINAGE MAINTENANCE PLAN

It is important to provide features on the drainage system which minimise silt migration.

- All rainwater pipes with shoes and gutters should be cleaned twice a year.
- The catchpit chambers should be cleaned out and emptied regularly twice a year.
- All gullies and drainage channels and outlets should be cleaned out and emptied regularly twice a year.
- All pipes should be cleaned/jetted once a year.

FOUL WATER - All foul water drainage is to collect into the existing foul drainage system with several new runs and chambers provided accordingly.

ABBREVIATIONS / LEGEND

AAV	AIR ADMITTANCE VALVE
AC	ACCESS CHAMBER
ACC	ACCESS
ASBC	ASBESTOS CEMENT
AFFL	ABOVE FINISHED FLOOR LEVEL
BD	BACKDROP
BIG	BACK INLET GULLY
BGL	BELOW GROUND LEVEL
BR	BRANCH
BSSL	BELOW SLAB SOFFIT LEVEL
CE	CLEANING EYE
CI	CAST IRON
CL	COVER LEVEL
CP	CATCHPIT
DC	DRAINAGE CHANNEL
DCO	DRAINAGE CHANNEL OUTLET
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
PE	POLYETHYLENE
PF	PITCH FIBRE
PM	PUMP MAIN
PP	POLYPROPYLENE
PPAC	POLYPROPYLENE AC
PPIC	POLYPROPYLENE IC
PCC	PRECAST CONCRETE
PVC	POLYVINYL CHLORIDE
RE	RODDING EYE
RG	ROAD GULLY
RWP	RAINWATER PIPE
SP	SOIL PIPE
SHG	SHOWER GULLY
STBIG	SEALED TOP BACK INLET GULLY
STP	SEWAGE TREATMENT PLANT
SVP	SOIL VENT PIPE
SS	STUB STACK
SWD	STORM WATER DRAIN
SWS	STORM WATER SEWER
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
UTV	UNABLE TO VIEW
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

EXISTING FOUL WATER LEGEND / KEY

- EXISTING FWD WITH GRADIENT AND CCTV SECTION REF — 100Ø FWD - 1:40 - [S4]
- ASSUMED FWD ROUTE
- EXISTING BRICK CHAMBER - REFER EX 001 FOR SIZE
- EXISTING FWG GULLY
- EXISTING FW DP - SVP - SS
- EXISTING INTERCEPTOR TRAP (IT)

EXISTING STORM WATER LEGEND / KEY

- EXISTING SWD WITH GRADIENT AND CCTV SECTION REF — 100Ø SWD - 1:60 - [S7]
- ASSUMED SWD ROUTE
- EXISTING BRICK CHAMBER - REFER EX 001 FOR SIZE
- EXISTING SWG GULLY
- DRAINAGE CHANNEL (DC)
- EXISTING RWP

IMPORTANT NOTE:

READ SDA DRAWING EX 001 FOR ALL EXISTING DRAINAGE LEVELS AND INFORMATION

EXISTING DRAINAGE NOTES

THIS DRAWING IS A RECORD OF THE BRIEF DRAINAGE SURVEY CARRIED OUT BY 'EYES ON DRAINAGE' AND SDA ON 22ND JUNE 2023.

ALTHOUGH CONSIDERED A FAIR RECORD OF THE EXISTING DRAINAGE, CRITICAL DIMENSIONS AND SETTING OUT SHOULD BE CHECKED ON SITE WITH PIPES AND BURIED SERVICES TO USE INVASIVE TECHNIQUES (EXCAVATION) TO ASCERTAIN THEIR EXACT LOCATION.

THE BUILDING / LAND SURVEY WAS CARRIED OUT BY OTHERS AND SHOULD NOT BE RELIED UPON FOR CRITICAL DIMENSIONS, WHICH SHOULD BE TAKEN ON SITE BY THE CONTRACTOR.

IN ADDITION TO THE MAIN OBSERVATIONS RECORDED FOR PIPES, ALWAYS JET CLEAN THE EXISTING SYSTEM PRIOR TO ANY WORKS BEING UNDERTAKEN.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE EYES ON DRAINAGE CCTV DRAINAGE SURVEY REPORT.

CCTV DEFECT TAGS

- R — TREE ROOTS
- J — DISPLACED/OPEN JOINT
- F — FRACTURE or CRACK
- G — HEAVY GREASE or FOGs
- Sp — SPALLING
- B — BLOCKAGE or DEBRIS

PROPOSED FW DRAINAGE LEGEND / KEY

- PROPOSED FWD / GRADIENT / BEDDING — 100Ø FWD - 1:40 - CLASS S
- EXSTG FWD
- EXSTG FWD/FWS FILLED WITH CONCRETE/REMOVED
- PROPOSED 450Ø PPIC - 150Ø OUTLETS AS DETAIL No. 5
- PROPOSED FWG GULLY - REFER 100 FOR TYPE - AS DETAIL No. 12
- PROPOSED FW DP - SVP - SS AS DETAIL No. 1

PROPOSED SW DRAINAGE LEGEND / KEY

- PROPOSED SWD / GRADIENT / BEDDING — 100Ø SWD - 1:80 - CLASS S
- EXSTG SWD REMOVED
- GEOCRATE OVERDRAIN AS DETAIL No. 12
- PP SW CP AS DETAIL No. 6
- RWP AS DETAIL No. 4
- WATER BUTT AS DETAIL No. 13
- PERMEABLE PAVING WITH GRAVEL BLANKET BENEATH
- RAINGARDEN WITH GRAVEL BLANKLET BENEATH
- GRAVEL BLANKET

Rev	Description	Date	Chkd
P5	SuDS infiltration introduced where basement not being used with raingardens and gravel blankets to facilitate planning approval and removal of conditions.	14/11/23	SAD
P4	Updated to show recently discovered existing drainage to be redundant. New SW drainage separation removed to suit Southern Water requirements. RWGs added to downpipes for odour traps. Latest architects background layout shown.	10/10/23	SAD
P3	Attenuation and flow control removed following discussion with Southern Water	30/09/23	SAD
P2	Updated to suit recent drainage trench and survey work	27/08/23	SAD
P1	PRELIMINARY ISSUE	25/07/23	SAD

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Client: Temple & Co Property Investments

Project: Southdown Inn, 38 Northcourt Road Worthing BN

Drawing title: Proposed Ground floor - Below ground drainage

Drawing status: **PRELIMINARY**

Project no	Scales	Drawing no	Rev
1807	A1 - 1:50 A3 - 1:100	100	P5