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- KEY**
- SITE BOUNDARY
  - PROPOSED ADOPTABLE STORM SEWER
  - PROPOSED ADOPTABLE HEADWALL
  - PROPOSED ADOPTABLE FOUL WATER SEWER
  - EXISTING 800mm AQUEDUCT
  - DUNLEY BROOK (CULVERTED WATERCOURSE)
  - PRIVATE DRIVES INFILTRATING VIA CELLULAR SOAKAWAYS
  - PRIVATE DRIVES INFILTRATING VIA PRIVATE INFILTRATION BASINS
  - PRIVATE DRIVES DISCHARGING TO GRAVITY SEWER NETWORK
  - PLOTS DISCHARGING VIA CELLULAR SOAKAWAY
  - PLOTS DISCHARGING TO GRAVITY SEWER NETWORK
  - PLOTS INFILTRATING VIA PRIVATE INFILTRATION BASINS
  - DRAINAGE EASEMENT
  - INFILTRATION LAND DRAIN
  - PROPOSED PRIVATE INFILTRATION BASIN
  - APPROXIMATE FINISHED FLOOR LEVEL
  - BANKING
  - EXPOSED BRICKWORK WITH NUMBER OF COURSES
  - MASONRY RETAINING WALL WITH HEIGHT
  - GRAVEL BOARD WITH HEIGHT
  - TANKING WITH NUMBER OF COURSES

**NOTES:**

ALL DESIGN INFORMATION IS PRELIMINARY AND SUBJECT TO DETAILED DESIGN.

SEVERN TRENT WATER, WORCESTERSHIRE COUNTY COUNCIL & THE LLFA WILL NEED TO APPROVE THE DRAINAGE PRINCIPLES.

REV	DESCRIPTION	DATE	BY	AUTH
C	DRAINAGE STRATEGY UPDATED TO NEW LAYOUT	15.12.20	NN	CAO
B	DRAINAGE STRATEGY UPDATED TO NEW LAYOUT	20.10.20	NN	CAO
A	DRAINAGE STRATEGY UPDATED TO NEW LAYOUT	05.10.20	NN	CAO

CUSTOMER  
**BARRATT WEST MIDLANDS**

PROJECT  
**LAND WEST OF PEARL LANE STOURPORT ON SEVERN**

TITLE  
**DRAINAGE STRATEGY AND LEVELS - SHEET 2**

STATUS  
**PRELIMINARY/FOR PLANNING**

DRAWN	AUTHORISED	SCALE	DATE
PB	CAO	1:500@A0	07.10.19
PROJECT NO.	DRAWING NO.	REV	
0056	4	C	



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APPROXIMATELY 105 DWELLINGS AND ASSOCIATED GARAGES, PRIVATE DRIVES AND 15 SHARED DRIVES TO BE DRAINED VIA INFILTRATION BASINS LOCATED IN POS. INDICATIVE LOCATIONS SHOWN.

ALL INFILTRATION FEATURES SERVING DRIVEWAYS TO INCLUDE DOWNSTREAM DEFENDER OR SIMILAR APPROVED OIL SEPARATOR PRIOR TO ANY INFILTRATION INTO THE GROUND.

ASSUMED INFILTRATION RATE =  $3.92 \times 10^{-6} \text{m/s}$  BASED ON AVERAGE RATE FROM SITE WIDE TESTING CARRIED OUT BY GEORISK MANAGEMENT.

APPROXIMATELY 119 DWELLINGS AND ASSOCIATED GARAGES, PRIVATE DRIVES AND 8 SHARED DRIVES TO BE DRAINED VIA PRIVATE GEOCELLULAR SOAKAWAYS.

APPROXIMATELY  $7.5 \text{m}^3$  SOAKAWAY VOLUME REQUIRED PER PLOT. TOTAL APPROXIMATE GEOCELLULAR VOLUME REQUIRED =  $2300 \text{m}^3$ .

ASSUMED INFILTRATION RATE =  $3.92 \times 10^{-6} \text{m/s}$  BASED ON AVERAGE RATE FROM SITE WIDE TESTING CARRIED OUT BY GEORISK MANAGEMENT.

IT HAS BEEN OBSERVED THAT THE 'HALF DRAIN' TIME OF SOME PERMEABLE PAVED DRIVEWAYS AND CELLULAR SOAKAWAY UNITS MAY BE IN EXCESS OF 24HOURS DURING THE 10 YEAR RETURN PERIOD. THE LLFA SHOULD BE CONSULTED TO DETERMINE AN ACCEPTABLE THRESHOLD FOR THE HALF DRAIN TIME.

