



**ONLINE ATTENUATION BASIN**  
 TOP LEVEL: 21.35  
 BASE LEVEL: 20.35m  
 DEPTH: 1000mm  
 SIDE SLOPES: 1:3 MAX.  
 VOLUME: 185m<sup>3</sup>  
 1:1yr MAX. WL: 20.45m  
 1:30yr (+30%) MAX. WL: 20.78  
 1:100yr (+45%) MAX. WL: 20.85

**OFFLINE SWALE FOR EXCESS ROAD RUNOFF**  
 DEPTH: 200mm  
 SIDE SLOPES: 1:4  
 VOLUME: 6.4m<sup>3</sup>

- DRAINAGE STRATEGY NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELATED ENGINEERS, ARCHITECTS & SUB-CONTRACTORS DRAWINGS. IN THE CASE OF DISCREPANCIES BETWEEN DRAWINGS REFER TO SPD STUDIO FOR CLARIFICATION.
  - TOPOGRAPHICAL SURVEY UNDERTAKEN BY SURVEY SOLUTIONS, DRAWING REF. 30207PL5-01 DATED SEPTEMBER 2022.
  - THIS DRAWING IS BASED ON THE PROPOSED SITE PLAN PRODUCED BY MILENNA HOMES, DRAWING REF. 02198-PL-029 DATED DECEMBER 2022.
  - RAIN WATER PIPE & SOIL AND VENT PIPE LOCATIONS ARE TO BE CONFIRMED AT THE DETAILED DESIGN STAGE.
  - ALL INVERT AND COVER LEVELS ARE TO BE CONFIRMED AT THE DETAILED DESIGN STAGE.
  - PROPOSED SURFACE AND FOUL WATER DRAINAGE CONNECTIONS TO THE EXISTING WATER COURSE IS SUBJECT TO APPROVAL BY THE LEAD LOCAL FLOOD AUTHORITY.
  - EXACT POSITION, TYPE AND NUMBER OF ABOVE GROUND DRAINAGE POINTS TO BE CONFIRMED BY ARCHITECT DURING THE DETAILED DESIGN STAGE. THEREFORE ALLOWANCE SHOULD BE MADE FOR INDIVIDUAL DRAINAGE CONNECTIONS ACCORDINGLY.
  - EXTERNAL LEVELS AT LEVEL THRESHOLDS TO BE DESIGNED TO HAVE SUFFICIENT FALL AWAY FROM STRUCTURE TO OMIT THE NEED FOR THRESHOLD DRAINS.
  - FOOTWAYS AND PATIO AREAS TO BE LAID TO FALL TO SOFT LANDSCAPED AREAS. LANDSCAPED AREAS TO BE NO HIGHER THAN ADJACENT HARD STANDING AREAS.
- DRAINAGE STRATEGY DESIGN CRITERIA:**
- PRELIMINARY SURFACE WATER ATTENUATION SIMULATIONS HAVE IDENTIFIED A POTENTIAL STORAGE REQUIREMENT OF 89-121m<sup>3</sup> TO ACCOMMODATE A 1:100 YEAR RAINFALL EVENT (INCLUDING AN ADDITIONAL 45% FOR ANY POTENTIAL CLIMATE CHANGE IMPACT) BASED ON THE FOLLOWING DESIGN PARAMETERS:  
 MS-80mm = 20,000mm  
 RATIO R = 0.450  
 IMPERMEABLE AREA = 0.145 HECTARES  
 1:100yr (+45%) DISCHARGE RATE = 1 l/s
  - THE SURFACE WATER DETAILS ILLUSTRATED ON THIS PLAN ARE SUBJECT TO HYDRAULIC MODELING DURING THE DETAILED DESIGN STAGE TO ESTABLISH THE PEAK WATER LEVEL ASSOCIATED WITH A 1:100 YEAR RAINFALL EVENT (INCLUDING CLIMATE CHANGE).
  - DISCHARGE LOCATION TO BE CONFIRMED BY OTHERS

**KEY**

- PRIVATE FOUL WATER PIPE
- FOUL WATER CHAMBER
- PRIVATE SURFACE WATER PIPE
- PRIVATE PERFORATED PIPE
- SURFACE WATER CHAMBER
- PRIVATE DRAINAGE HYDROBRAKE FLOW CONTROL
- SURFACE WATER HEADWALL
- PERMEABLE PAVING DIFFUSERS
- PRIVATE PERMEABLE PAVING CONSTRUCTION
- SURFACE WATER FLOW ROUTE
- OPEN SUDS ATTENUATION FEATURE
- HEADWALL
- TREE PROTECTION AREA
- HIGH PRESSURE GAS MAIN NO-BUILD EASEMENT
- SITE BOUNDARY

NOT FOR CONSTRUCTION  
 FOR INFORMATION ONLY

REV	DESCRIPTION	DR	CHK	DATE
01	SITE LAYOUT UPDATED AND LLFA COMMENTS ADDED	Q	DL	09.10.23
00	FIRST ISSUE	Q	DL	13.09.23

**SPD STUDIO**  
 SUSTAINABLE PLANNING DESIGN

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CLIENT: MILENNA HOMES  
 PROJECT TITLE: RECTORY ROAD, HAWKWELL  
 DRAWING TITLE: DRAINAGE STRATEGY

SCALE	DRAWING STATUS
1:200 @ A1	FOR PLANNING
DRAWN BY: GI	APPROVED BY: DC
CHECKED BY: DL	DATE: SEP/23
DRAWING NO: SPD203-E-300	REV: 01

