

# Bond Ings



- KEY:**
- Site Boundary
  - Surface Water Sewer
  - Surface Water Manhole
  - Surface Water Rising Main
  - Surface Water Channel Drain
  - Surface Water Filter Drain
  - Impermeable Area - 1.01ha (Surface Water Drainage)
  - Impermeable Area (Other Area) - 2.06ha (Drained to Attenuation Tank)
  - Easement from Watercourse
  - Train line Easement
  - Water In Area To Be Used In AD Process (Leachate Area)
  - Gas Pipe And Easement

**NOTES:**

ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND DOCUMENTS ASSOCIATED WITH THIS PROJECT.

ALL EXISTING AND PROPOSED DIMENSIONS, LEVELS AND LOCATIONS TO BE CHECKED AND VERIFIED BY THE MAIN CONTRACTOR ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS AND ANY ANOMALIES REPORTED TO THE ENGINEER.

Drainage levels to be confirmed at the detail design stage.

**Surface Water Attenuation Basin:**  
 Designed for 1 in 100yr+40%CC  
 Attenuation Volume: 1312.6m<sup>3</sup>  
 Base Level: 5.300  
 Depth: 1.5m  
 Freeboard: 0.3m  
 Basin Banks: 1:4  
 Impermeable area: 1.02ha  
 Flow Control: 1.6l/s (QBAR)

**Headwall (outfall)**  
 IL: 7.8m  
 Concrete headwall to be constructed on existing watercourse. Level of watercourse to be checked prior to construction to ensure compatibility with proposed levels. Non-return Valve to be fitted. Further engineering considerations required when making piped connection through existing bund. Access to headwall for maintenance purposes to be allowed for. Headwall may be constructed using traditional brickwork or gabion baskets.

**Package Pumping Station**  
 PS to be designed by PS specialist (including pump rate).  
 CL: 7.4m  
 IL: TBC

Area that collects water used in the AD process (annual rainfall levels over area provided less water than required for the process)

Other Areas (Blue area) to drain to geocellular attenuation tank. Area to be drained via Channel/Gully system. Area to slope to east to fall to drain. Layout indicates bund surrounding fenced area to prevent any spillages from running off into surroundings.

Gravel area surrounding post digester assumed to be free draining and not to be at risk of spillages/leaks

Access track constructed from agricultural mix asphalt (as stated on site plan) and drained via filter drains

300mm vertical clearance. Gas asset owner will need consulting prior to any work being undertaken.

Indicative location of package treatment plant. Location and method of connection TBC at the detailed design stage.

Area to drain to filter drain to North West

Drainage easement to be reviewed at detailed design stage

Flow Control

**Geocellular SW Attenuation**  
 Designed for 1 in 100yr+40%CC  
 CL: 7.7m  
 IL: 5.9m  
 Volume: 2307.4m<sup>3</sup>  
 Discharge Rate: 3.2l/s (QBAR)  
 Dims: 46m x 44m x 1.2m depth  
 Use:- 0.4m deep (95% void) Polypipe Polystorm geocellular attenuation or similar approved. Minimum 600mm cover to be provided. Ventilation to be provided.  
 Filtration/separator interceptor to be used prior to tank

P03	13/01/26	Updated Layout	BD	DA	DA
P02	15/12/25	Updated Layout	BD	RB	DA
P01	27/11/25	Issued for comment / approval	BD	RB	DA
Rev	Date	Description	DRA	CHK	APP

**Project**  
Home Farm

**Client**  
Halstow Energy

**Drawing Title**  
Indicative Surface Water Drainage Design

**Scale** 1:1000@A1    **Date** 13/01/26    **Status** Preliminary

**DWG No.** SHF.0174.006-ENZ-XX-XX-DR-D-0001    **Revision** P03

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