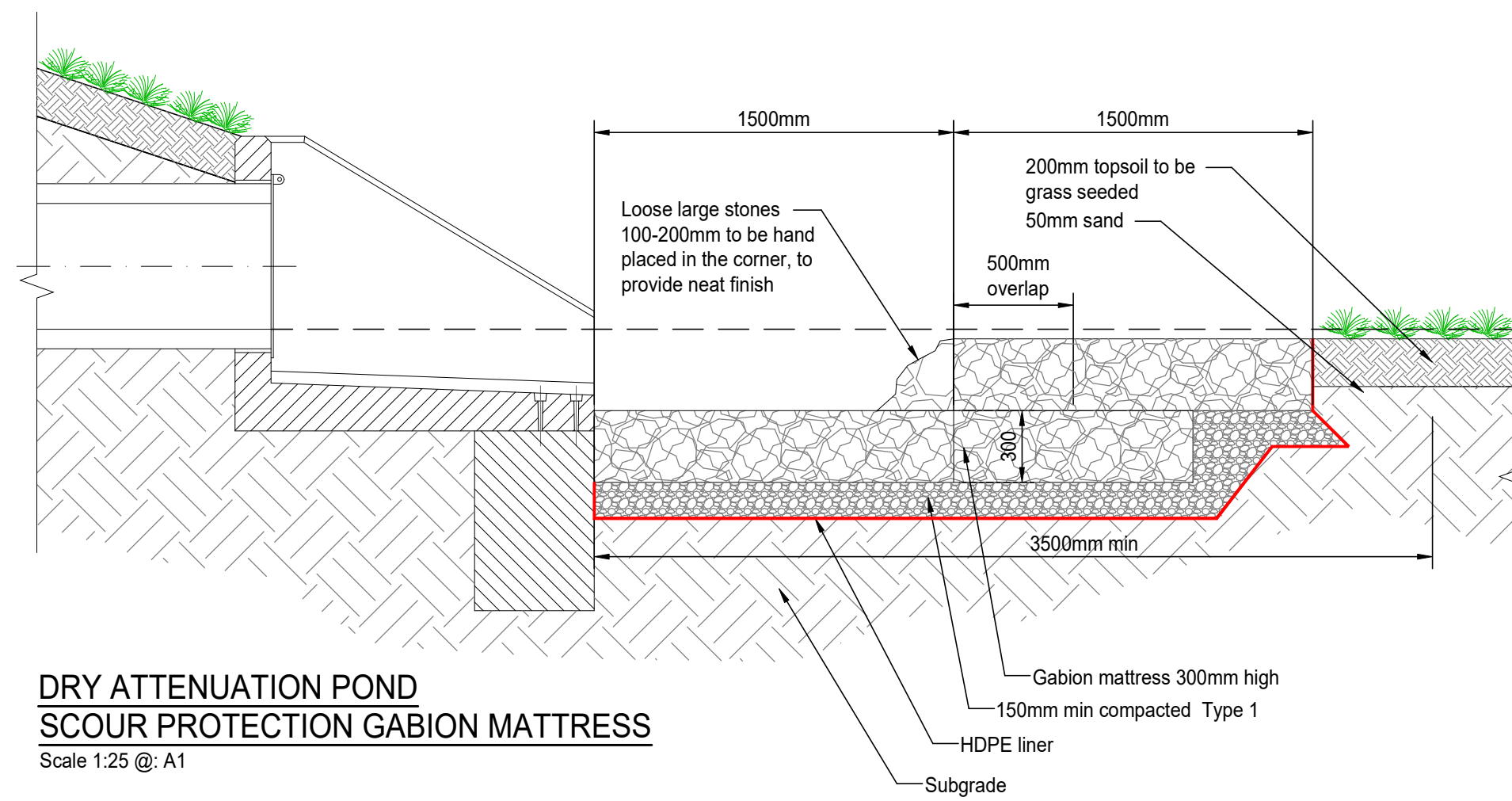
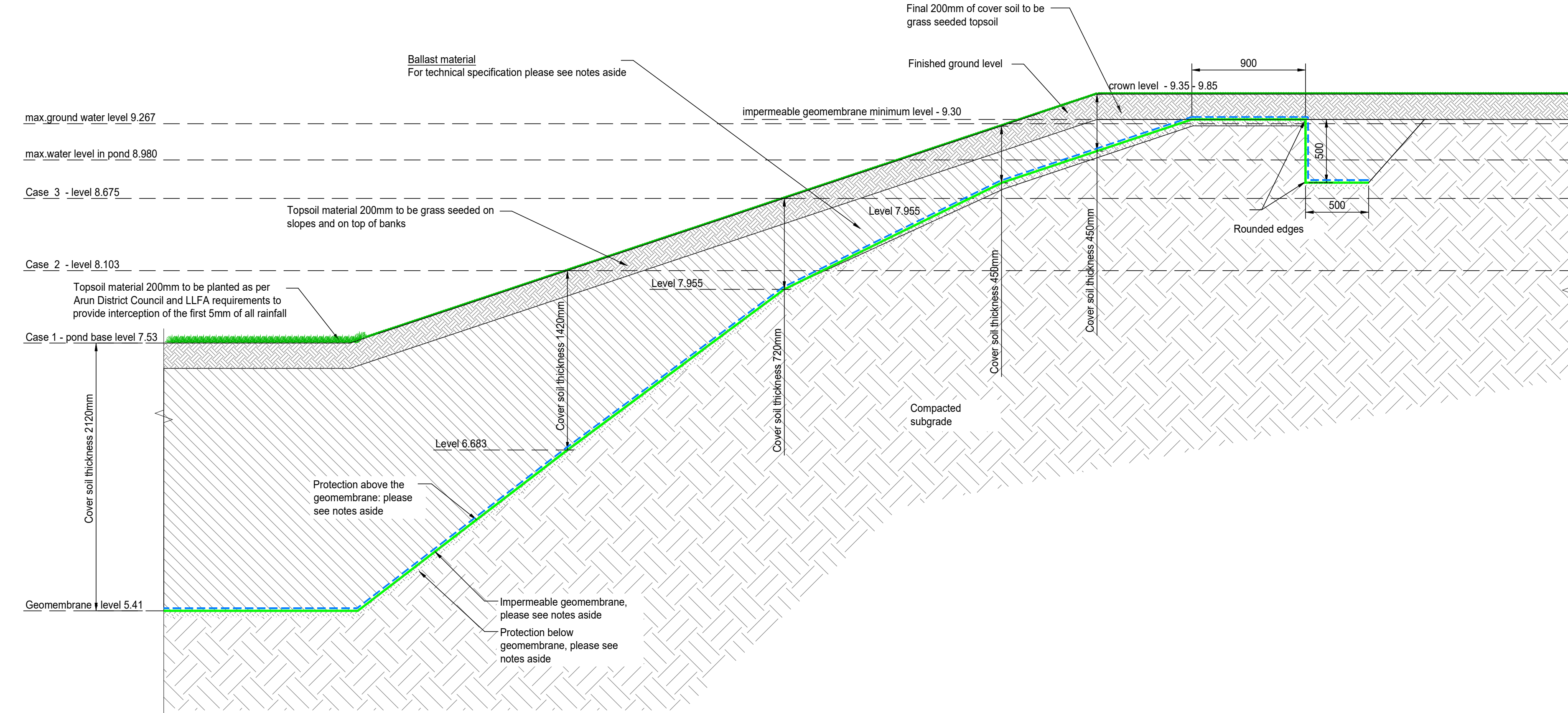




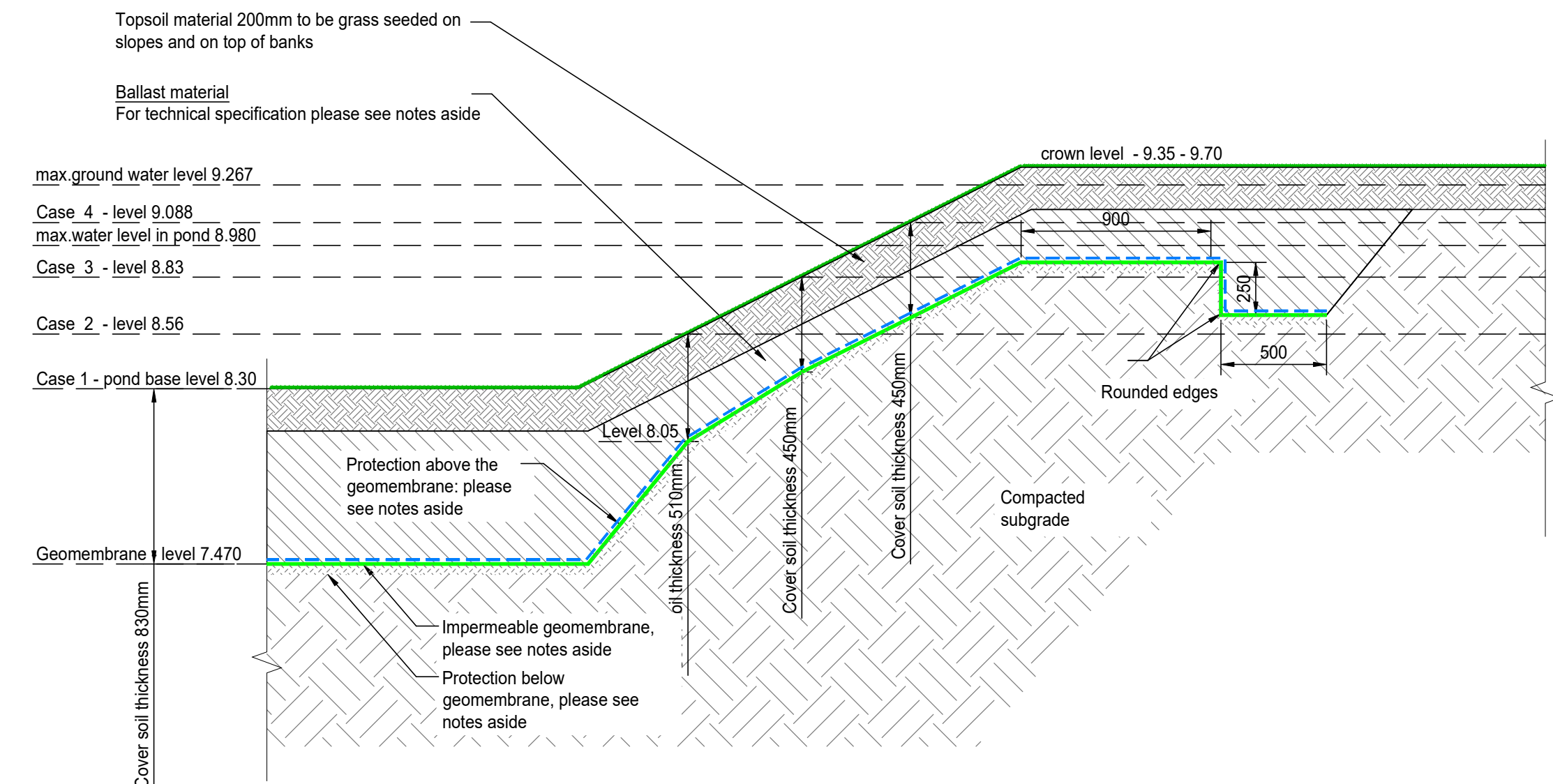
Scale 1:25 @: A1

Notes:

1. Gabions mattresses are to be installed in accordance with manufacturer's instructions.
2. All gabion mattresses panel intersections are to be laced with wire mesh.
3. Gabion mattress 300mm high, aperture 76.2 x 76.2mm, 4mm core thickness. Sold in different sizes to suit site condition and required total plan size/shape:
 - * 1.0m x 0.50m x 0.30m
 - * 1.5m x 0.50m x 0.30m
 - * 2.0m x 0.50m x 0.30m
 - * 1.0m x 1.0m x 0.30m
 - * 2.0m x 1.0m x 0.30m
 - * 3.0m x 2.0m x 0.30m
4. Gabion mattress are to be 76.2mm x 76.2mm aperture 3mm Galvan corrosion protection coating (95% Zinc 5% Aluminium for up to 4 times the life of a galvanised finish) welded mesh baskets wire as per EN 10218-2
5. Gabion infill stone shall be hard and durable and 150mm nominal size but not less than 100mm and not greater than 200mm. Gabion infill stone shall be angular and placed flat to minimise voids and provide a dense stable mass. Gabion stone shall be hand picked after placing by machine. Stones to the top shall be selected and hand placed to provide a neat finish.



Scale: 1:25@A1



Scale: 1:25@A1

1. General
- This drawing shall be read in conjunction with all relevant design drawings and documents.
 - Construction shall be based on the latest revision of the RSK calculation report "Attenuation Basins – Design Calculation for Mitigation Measures Against the Buoyancy Force Acting on the Waterproof Liner", reference 134658-2-R01 (Rev A).
2. Impermeable Geomembrane
- The attenuation pond shall be lined with a fully welded, impermeable geomembrane system designed to prevent uncontrolled infiltration or exfiltration.
- The geomembrane shall be manufactured from either:
- LLDPE (Linear Low-Density Polyethylene), minimum 1.0 mm thickness, or
 - HDPE (High-Density Polyethylene), 1.0–2.0 mm thickness.
- The geomembrane shall provide:
- Permeability $\leq 1 \times 10^{-12}$ m/s
 - High resistance to puncture, UV exposure, and chemical degradation
 - Weldable seams suitable for air-channel or spark testing
 - BBA-certified materials or equivalent.
- Joining and Sealing
- All geomembrane seams shall be hot-wedge welded or extrusion welded by trained operatives.
 - All welds shall be tested using:
 - Air-channel testing for dual-track welds, or
 - Spark testing for single-track welds.
 - Any defects shall be repaired using welded patches and re-tested.
- Penetrations and Details
- All pipe penetrations, outlets, inlets, and structures shall be sealed using prefabricated collars, welded boots, or manufacturer-approved detailing.
 - Corners, steps, and changes in level shall be formed using pre-welded panels where practicable to minimise on-site welding.
3. Protection Above the Geomembrane
- A non-woven protection geotextile, minimum 500 g/m² (e.g., Terram 1000), shall be installed directly above the geomembrane to provide puncture resistance and cushioning against overlying granular materials.
 - Geotextile overlaps shall be a minimum of 300 mm, with joints secured to prevent displacement during backfilling.
4. Protection Below the Geomembrane
- A minimum 50 mm protective layer shall be placed beneath the geomembrane to prevent puncture from the sub-base or formation.
- The protective layer may comprise:
- 50 mm clean, fine sand, or
 - A suitable alternative cushioning material (e.g., fine blinding layer or heavy-duty protection geotextile).
- The formation shall be inspected to ensure it is free from sharp objects, protrusions, or debris prior to installation.
5. Covering and Backfilling
- The geomembrane shall be fully encapsulated between protective layers before any backfilling takes place.
 - Backfill shall be placed in controlled layers to avoid displacement or damage to the liner system.
 - Angular stone shall not be placed directly on the geomembrane without adequate protection.
6. Ballast material above geomembrane / geotextile
- Provide a compacted granular ballast layer above the geomembrane to resist uplift forces from high groundwater levels.
 - Ballast material to have density not lower than 20kN/m³, to be confirmed by Contractor and Client.
 - Minimum bulk density of placed material to meet or exceed the value assumed in the RSK buoyancy calculation report (ref. 134658-2-R01 (Rev A)).
 - Material shall be placed and compacted in accordance with:
 - SHW Clause 612 (compaction requirements), and
 - Manufacturer guidance for placement of the geomembrane.
 - No angular stone to be placed directly on the geomembrane; ensure protection geotextile is in place prior to placement.
 - Place fill in controlled layers, compacted to achieve the design density required to provide uplift resistance.
 - Avoid trafficking directly over the geomembrane; use temporary load-spreading measures where required.

/	15.12.2025	-	AJM / PDB
Rev.	Date	Description of issue	Rev/Chkd
Revisions:			

Issue Purpose:

Projec

Barratt Homes
Land West of Lidsey Road
Woodgate, West Sussex

Drawing Title:
Phase 1
Attenuation Pond
Construction Details

Designer's Risk Assessment Reference
DS_0707_15/DRA/Civils

Specification Reference

Drawn By: _____ Checked By: _____

Scale: _____ Date: _____

NTS@A1 December 2025

DS 0707 15/INF/116

Harborough Innovation Centre,
Airfield Business Park, Leicester Road
Market Harborough,
Leicestershire,
LE16 7WB
info@wilsondee.co.uk

Copyright © WilsonDee Ltd. This drawing shall remain the copyright of WilsonDee Ltd.
Any dimensions derived by scaling are done so at your own risk. If there should be any doubt or
query regarding the interpretation of the information given on this drawing, please enquire directly
to WilsonDee Ltd. before executing such part of the works.

For guidance only. Do not scale off this drawing
Scale 1:1 10mm 20mm 30mm 40mm 50mm