

- Notes**  
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- All dimensions in millimeters.
  - The specification referred to in this drawing is the *Specification for Highway Works (SHW)* published by T.S.O. (The Stationery Office).
  - Impermeable Liner to be laid on sand bedding with no sharp objects which could cause damage to liner. Alternatively, a protective geotextile fleece could be laid below the liner (min 300g/sp.m).
  - 500x500 anchor trench for membrane to be constructed around full perimeter of basin at 150mm above High Water Level. Anchor trench to be filled with backfill material to SHW CI 505.2, compacted as specified in SHW CI 612.
  - 300 mm thick layer of Class 5A or 5B Topsoil to SHW CI 618.
  - Maintenance track to be formed with grass reinforced cellular paving units 76mm to 100mm thick, laid on a 20mm thick blinding layer of medium coarse sand to BS 7533 Part 4 and SHW CI 1104(v). Steel mesh reinforcement to BS4483 reference A193. Concrete 30MN/m<sup>2</sup> at 28 days with air entrainment of 3%. 10mm maximum aggregate placed around formers and mesh and levelled to tops of formers. After 48 hours melt exposed tops of formers and fill with soil. Following settlement sow at a rate of 50g/m<sup>2</sup> and top up with fine friable topsoil, apply fertiliser as necessary.
  - The sand blind should be of sufficiently coarse grading to enable permeability and to withstand being trafficked during construction. It should also be free draining to avoid volume changes during saturation and drying.
  - Sub-base: 150mm thick layer of Type 1 material to SHW CI 803. Alternative materials can be used for the maintenance track, subject to the Engineer's approval.
  - Where CBR tests are undertaken, a result of 4% or greater will generally suggest that a sub-base depth of 150mm is sufficient for up to 30 tonne loads. For 40 tonne loads a minimum of 200mm depth is recommended. For lower CBR figures an increase in depth of 100mm per 1% is normally considered to be appropriate.
  - Terram 100 or equal approved Staple Fibre Needle Punched and Thermally Bonded Nonwoven Geotextiles to BS 8661.
  - For guidance and reference on detention basin detailed design, see *Scottish Water: Sewers for Scotland V4.0*.

Revision Details				
Drawn by	Check by	Check Date	Check Date	Surf.x



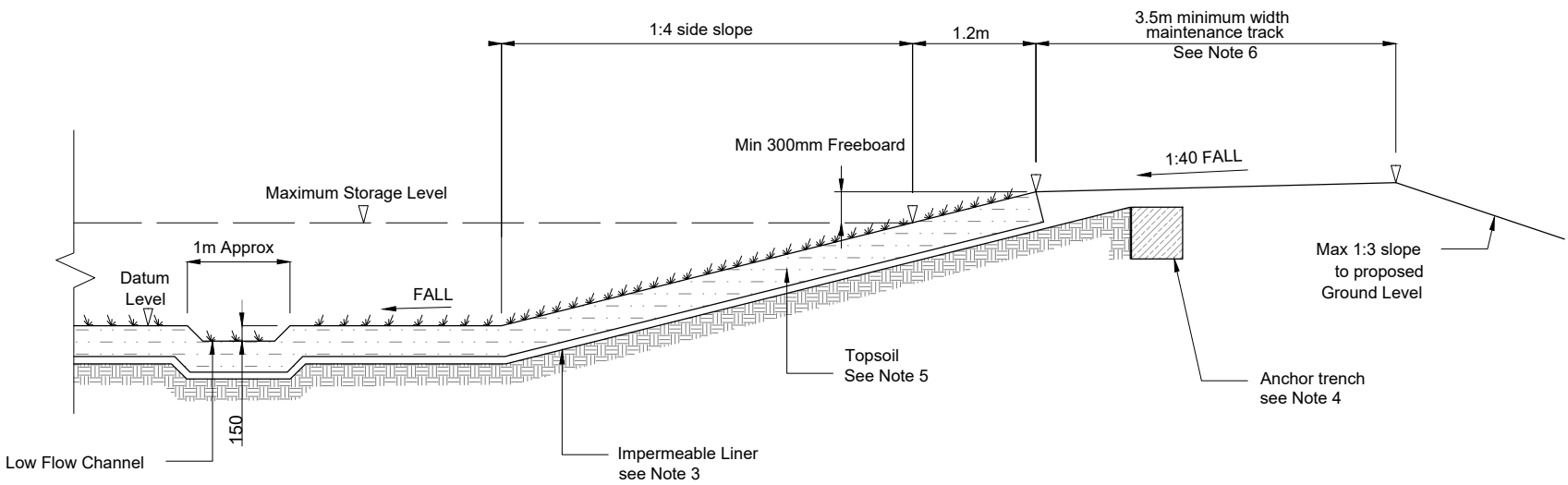
Project: Standard details. Series 0500:  
 Drainage and service ducts

Title: Detention basin: Construction details

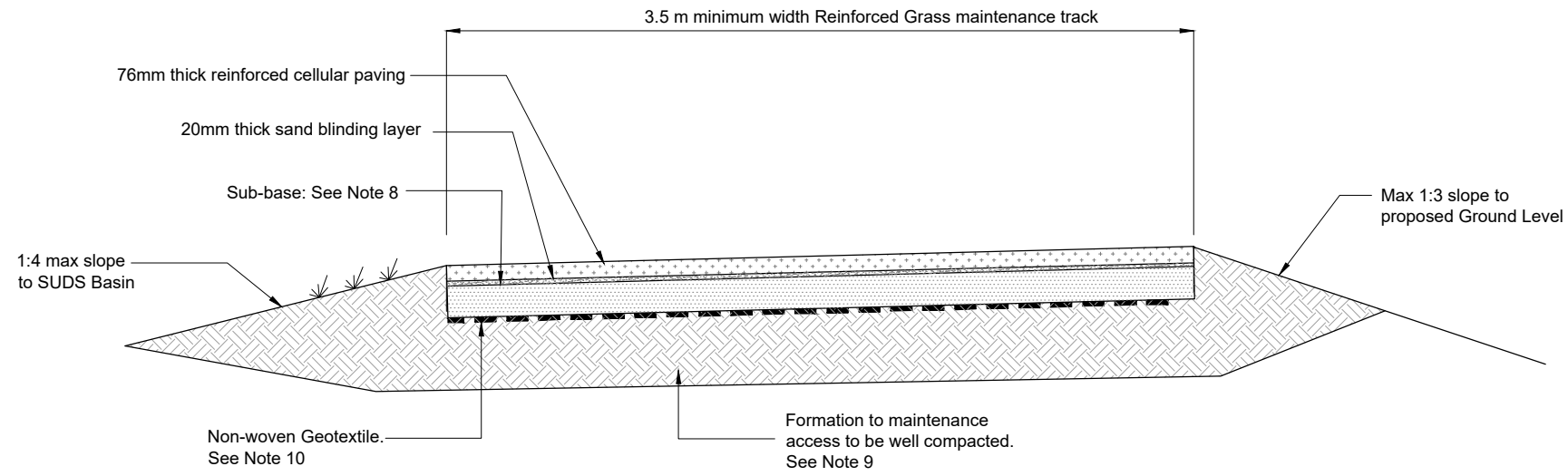
Scale (at A4): Not to scale

Drawn	JC	Date	11/2023
Checked	CHK	Date	11/2023

Drawing No: SD/0500/09 Rev: 1



Typical section through detention basin



Typical section through maintenance track