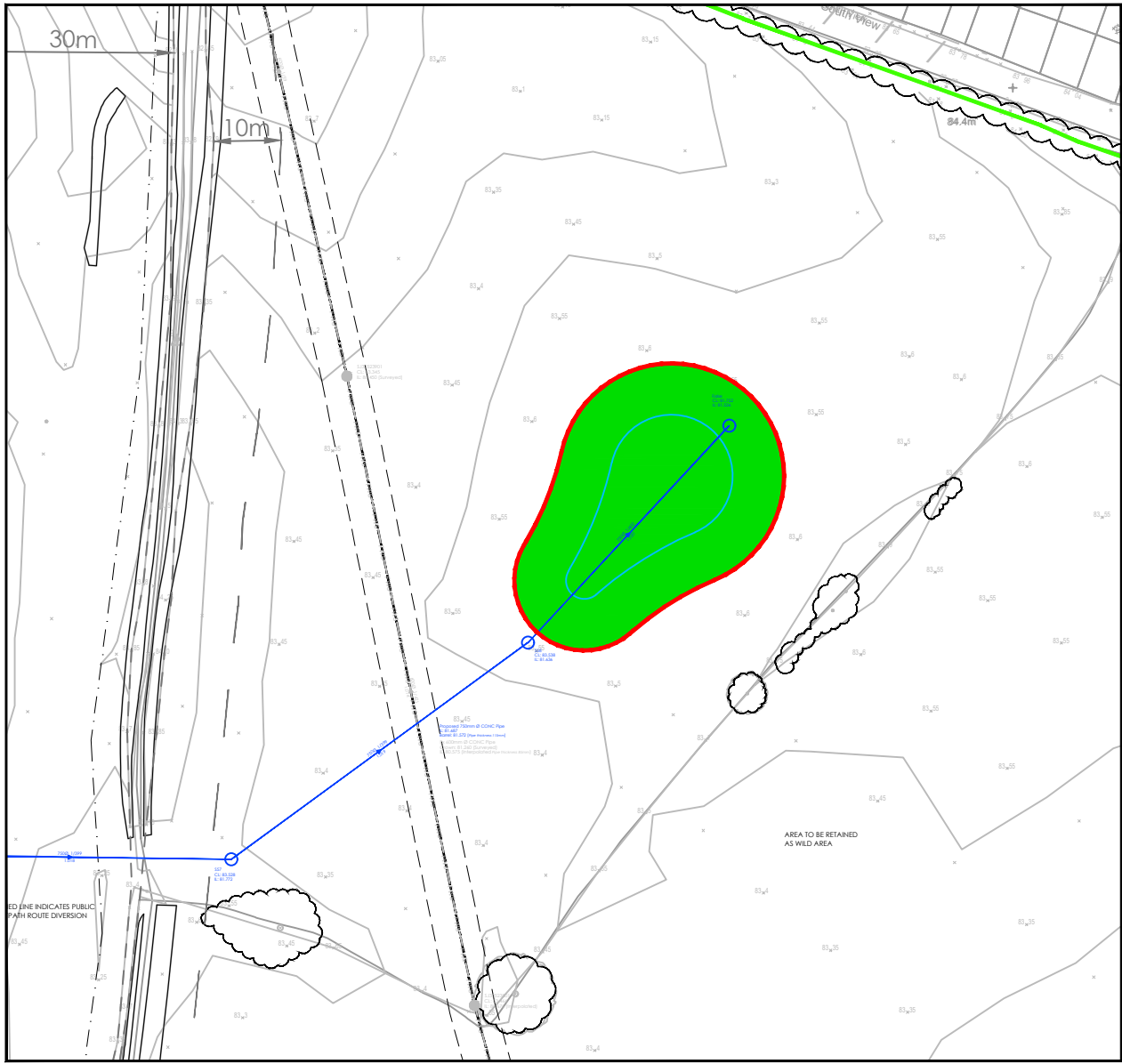




SITE PLAN
Scale 1:5000



INSET 1
Scale 1:1000

Basin Details

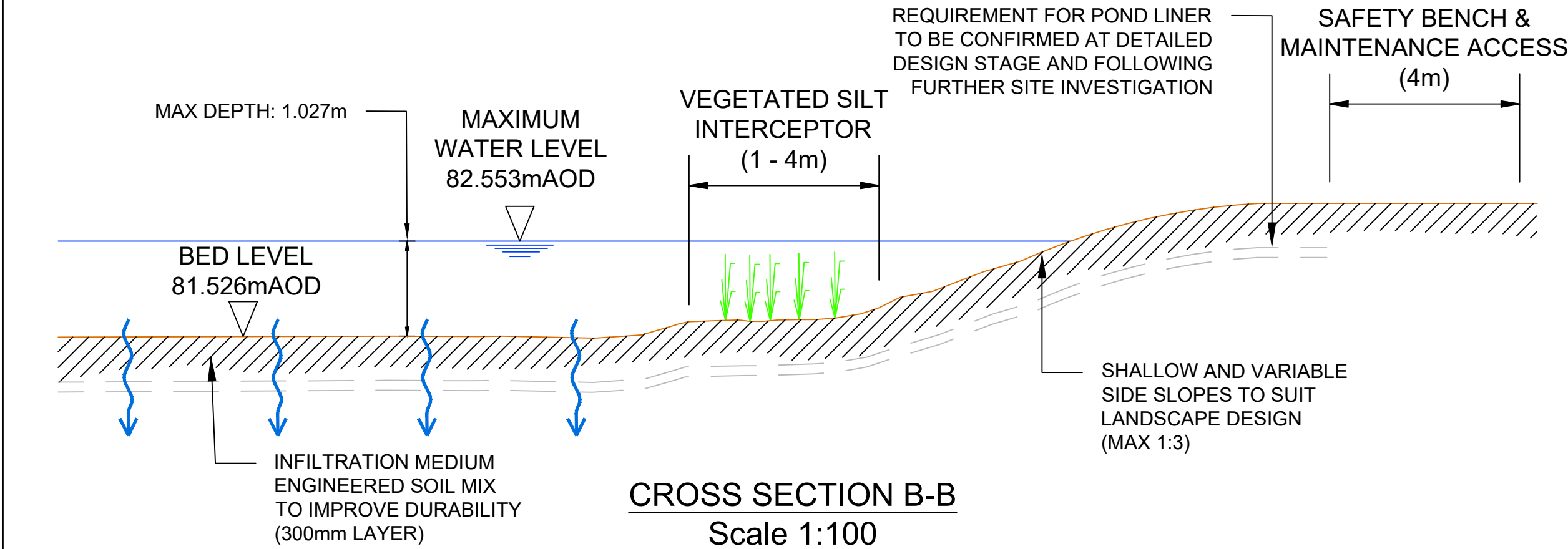
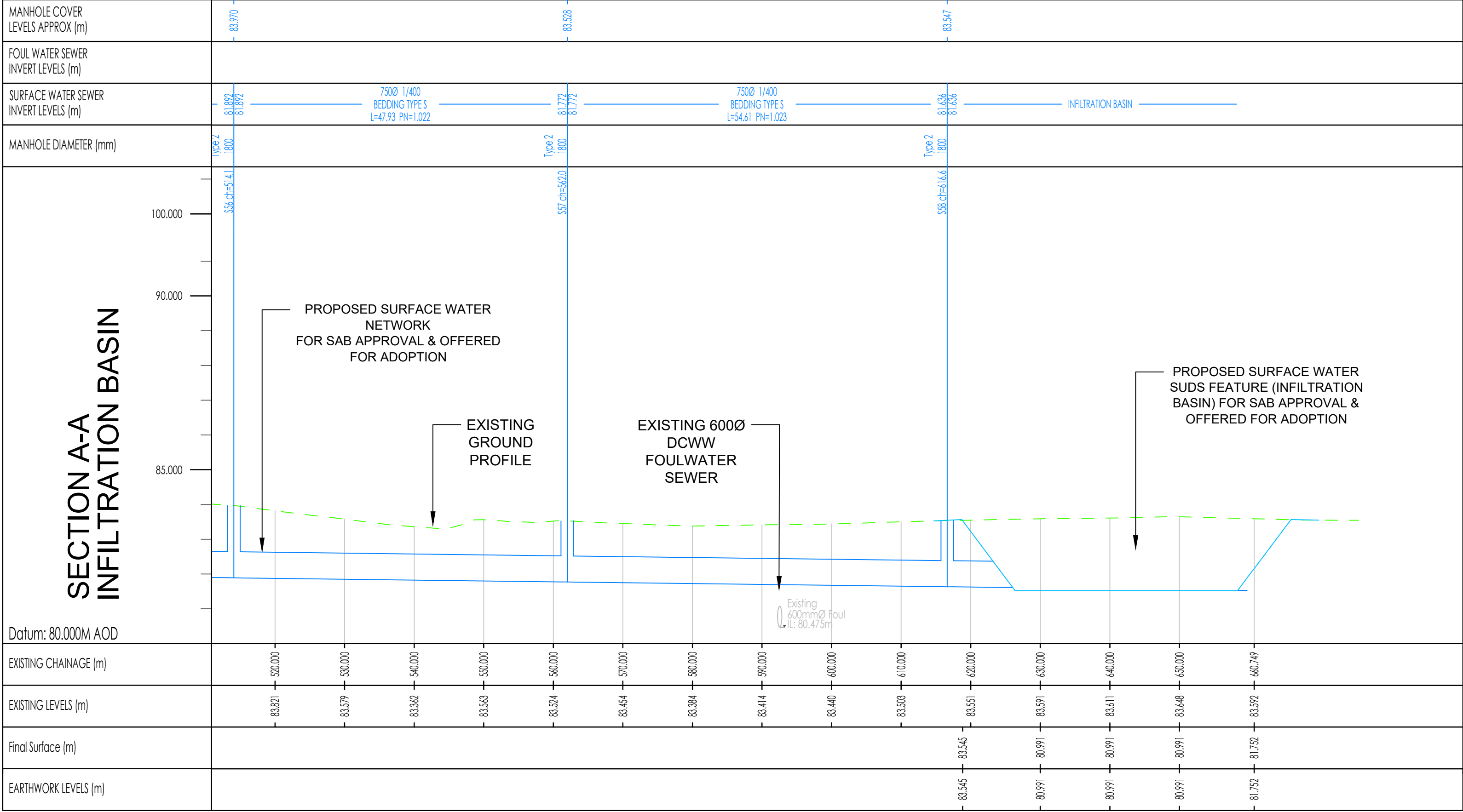
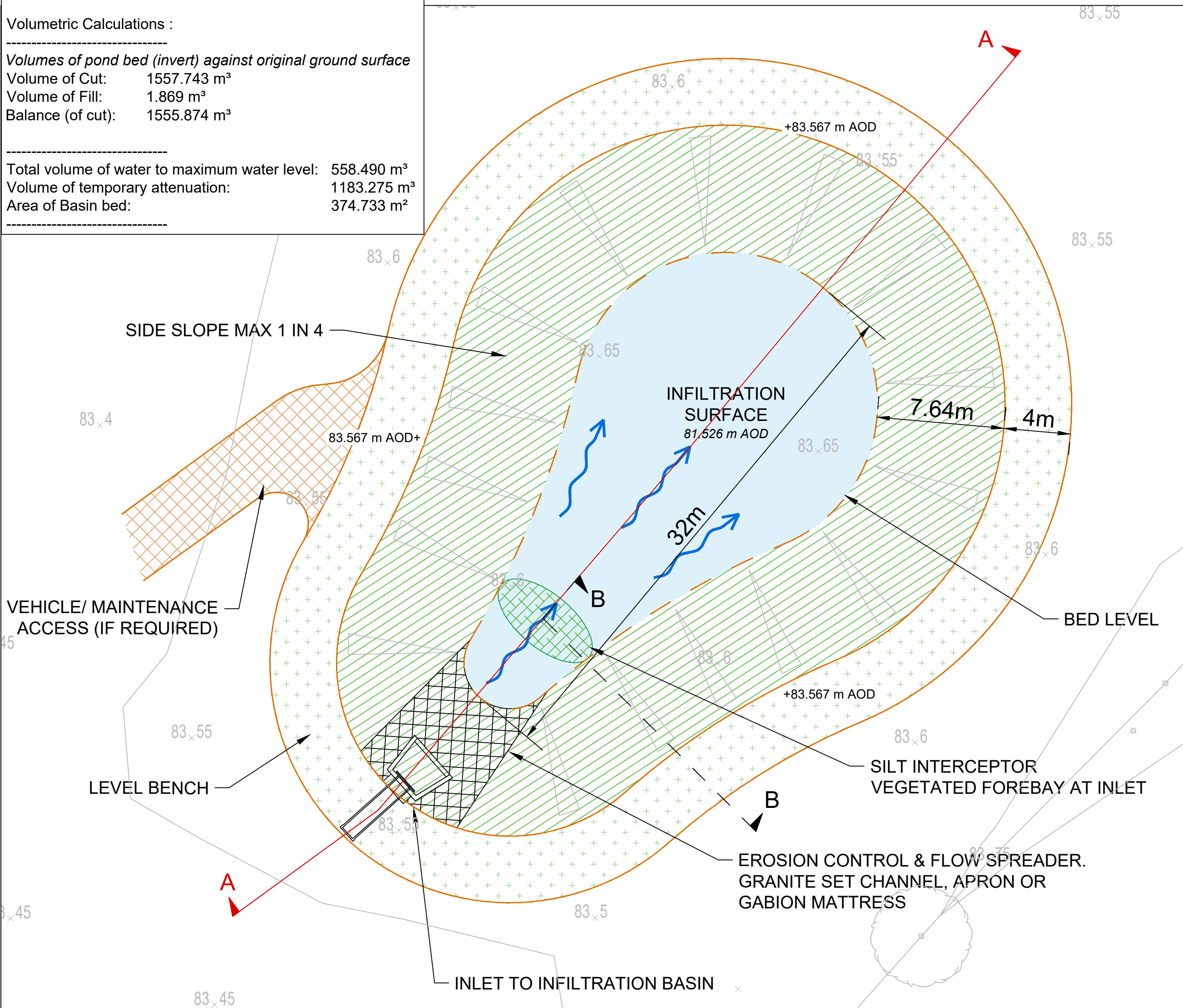
Lowest perimeter Level: 83.567 m AOD
Freeboard: 1.014 m
Maximum Water Level: 82.553 m AOD
Depth: 1.027 m
Basin bed (invert) Level: 81.526 m AOD

Volumetric Calculations :

Volumes of pond bed (invert) against original ground surface

Volume of Cut: 1557.743 m³
Volume of Fill: 1.869 m³
Balance (of cut): 1555.874 m³

Total volume of water to maximum water level: 558.490 m³
Volume of temporary attenuation: 1183.275 m³
Area of Basin bed: 374.733 m²



Infiltration Basins

Infiltration basins are similar to detention basins except that they are designed to allow water to soak into the ground as well as provide storage. They generally collect surface water runoff from small areas and are usually off-line to prevent siltation, excessive pollution and effects of spillage.

It is crucial that source control measures intercept silt and pollution to prevent clogging of the surface and ensure that only clean surface water runoff infiltrates into the ground. Infiltration basins are not suitable for pollution hot spots like industrial sites.

Key Design Standards

- The infiltration potential of the soil and subsoil must be confirmed by geo-technical tests.
- The stability of the ground must be confirmed and an analysis of likely infiltration pathways and risk to surrounding features undertaken.
- Silt and pollution must be removed upstream in source control features.
- An inlet flow spreader is required to distribute flows across the basin ideally using a widening grass channel inlet.
- The base should be level across the basin to encourage even infiltration with a slight fall of between 1 in 100 and 1 in 200 along the basin to distribute water evenly.
- The water table should be at least 1m below the surface.
- Side slopes to the basin should be 1 in 3 maximum with clear access for maintenance.
- Basins require an overflow to allow for design exceedance or outlet blockage.
- Informal use of infiltration basins should take into account the risk of compaction of the base, so vehicle access must be prevented.

A	28.02.22	First issue to Wrexham for SAB review	CP
Mark	Date	Details	By

Revision history

Drawing originator:



Client:



Project title:

Rhosrobin,
Wrexham

Drawing title:

Sustainable Drainage (SAB)
Infiltration Basin Details

Scale: As Indicated for the original size of A1

Drawn by: CP | Checked by: RA | Passed by: RA | Date: Feb 2022

Drawing status:

For Approval

Job No:	Drawing No:	Project	Origin	Volume	Level	Type	Discip	Number	Revision:
CGH04	xx	BET	xx	xx	xx	C	151	A	

Do not scale this drawing
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