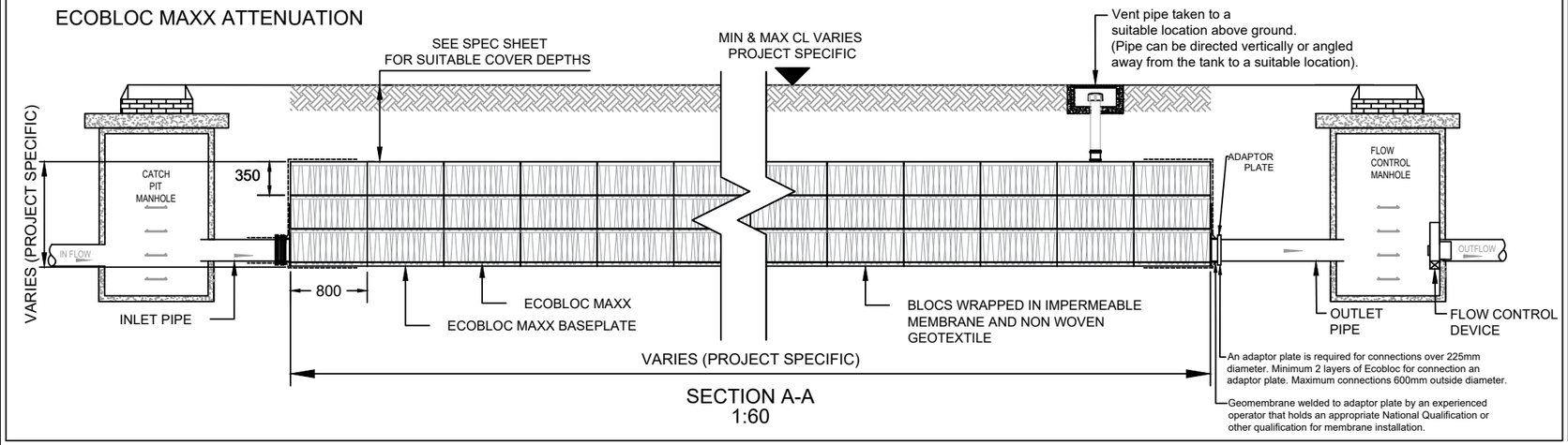
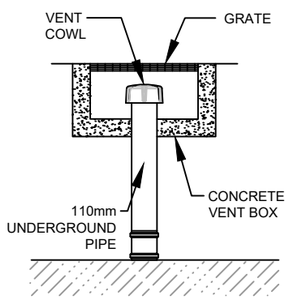
ECOBLOC MAXX ATTENUATION



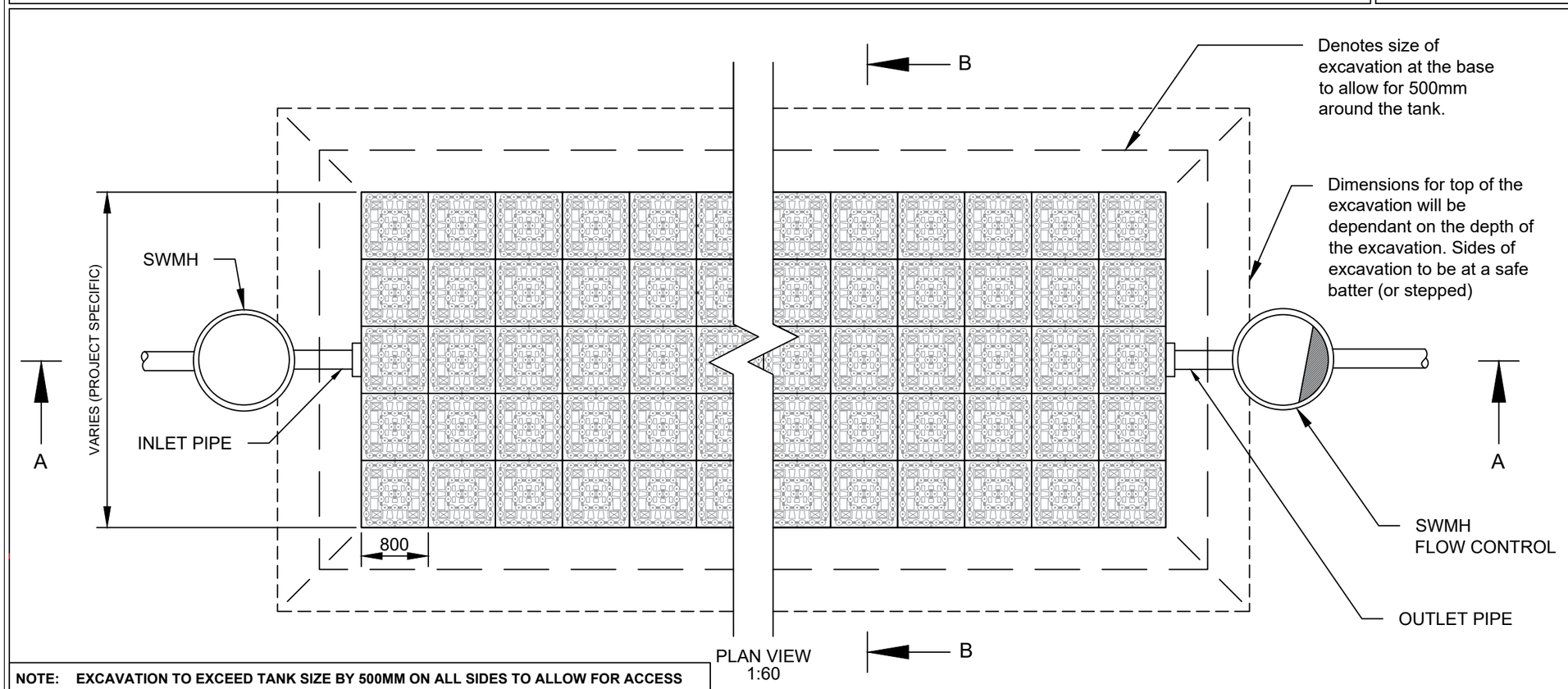
SECTION A-A
1:60

VENT DETAIL



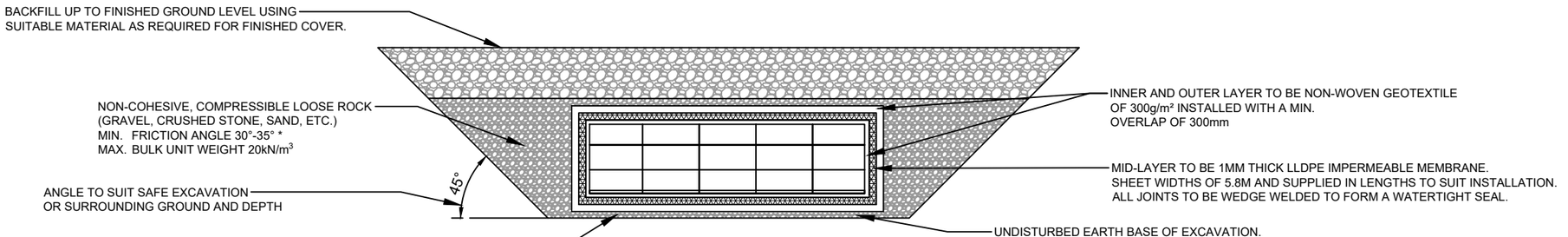
1:25

NB. The attenuation tank must be vented to a suitable location above ground and it is recommended to have one Ø110mm vent pipe for every 7,500m² of impermeable catchment area.



PLAN VIEW
1:60

NOTE: EXCAVATION TO EXCEED TANK SIZE BY 500MM ON ALL SIDES TO ALLOW FOR ACCESS



SECTION B-B
1:75

* These values depends on installation conditions.
Please, contact GRAF Technical team for more details.

DO NOT SCALE - IF IN DOUBT ASK

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Graf Australia Pty Ltd Ltd makes no warranty or guarantee in relation to the suitability of any of the layout details shown on this drawing in relation to a particular scheme.

NOTES:-

1. All dimensions in mm, unless otherwise stated.
2. All dimensions are nominal and may vary within manufacturing tolerances.
3. All site temporary enabling works by others.
4. Graf products to be installed in strict accordance with Graf recommendations.
5. This drawing is intended for guidance only. Confirmation of the suitability for a particular project should be sought from the consulting engineers prior to final design or commencement of any construction works.

ECOBLOC MAXX

	Ecobloc	Baseplate
Dimensions (mm)	800 x 800 x 350	800 x 800 x 40
Gross Volume (m3)	0.225m³	0.025m³
Net Volume (m3)	0.217m³	0.020m³
Material	Polypropylene	Polypropylene
Weight	9kg	4kg
Void Ratio	>96% depending on number of layers	
Inspectable	Yes, when combined with EcoBloc Flex	

Conform to load requirements of AS5100

REV.	DESCRIPTION	BY	DATE
2	LATEST REVISION	MV	04.01.2022
1	LATEST REVISION	MV	09.11.2021

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DRAWN :	MV	DATE :	04.01.2022
CHECKED :	LB	SCALE :	VARIOUS@A3

PROJECT
GRAF STANDARD DETAILS

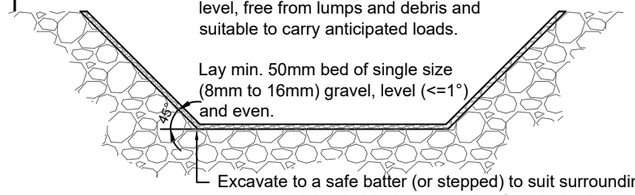
DESCRIPTION
ATTENUATION TANK
using GRAF ECOBLOC MAXX

DRAWING No. DWG-343 REV. 2 (Pg.1)

1

Excavation to comply with the size and depth of the tank proposed.
Excavation area to be smooth, firm and level, free from lumps and debris and suitable to carry anticipated loads.

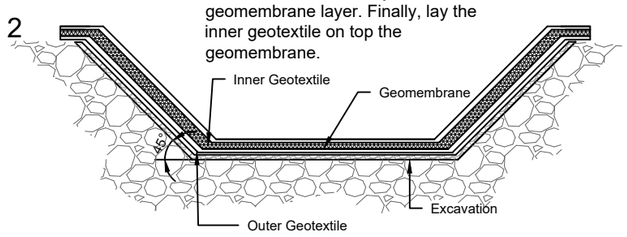
Lay min. 50mm bed of single size (8mm to 16mm) gravel, level (<=1°) and even.

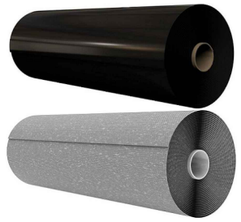


Excavate to a safe batter (or stepped) to suit surrounding ground and depth. Maximum height of vertical sides to be according to local regulations.

2

Lay the outer geotextile on the base of the excavation and up the sides of the trench followed by the geomembrane layer. Finally, lay the inner geotextile on top the geomembrane.



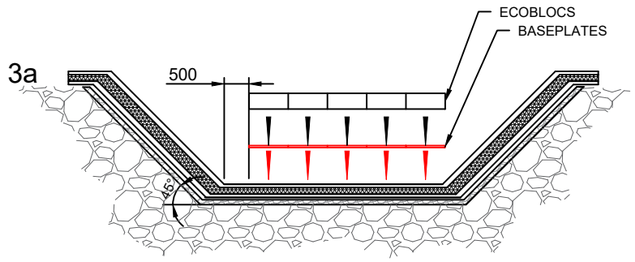


Geomembrane:
1mm Thick LLDPE Geomembrane

Geotextile:
300g/m² Non-woven

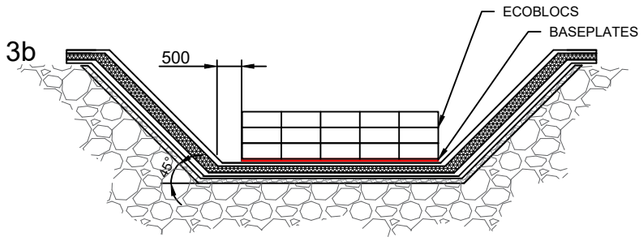
Geomembranes and Geotextiles with characteristics less than those specified are unlikely to be suitable and are therefore not recommended for use with Graf Australia systems for this application

3a



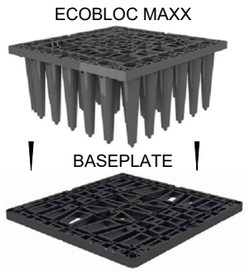
Place the Baseplates on the inner geotextile layer followed by the first layer of Ecoblocs securing them with connectors.

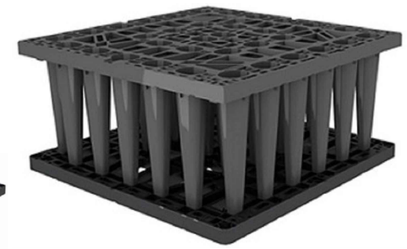
3b



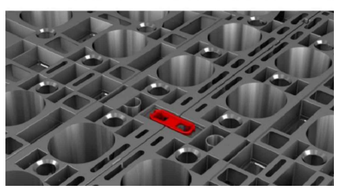
After all layers of Ecoblocs are placed and secured, install the Endplates. Endplates are clipped to the tank where it is required.

Assemble Baseplate and Ecobloc Maxx as shown below.

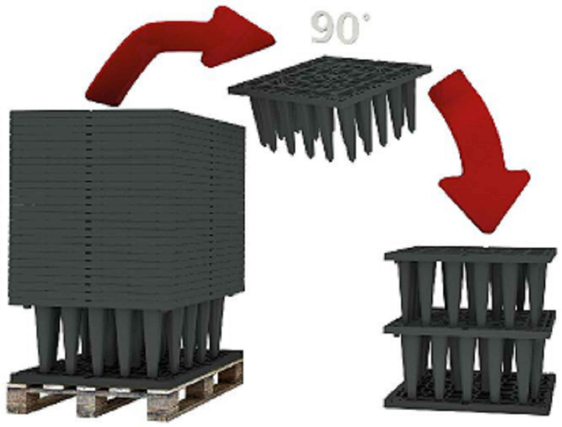


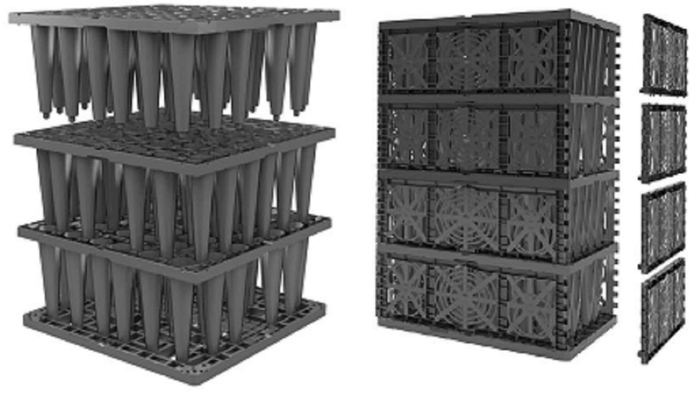


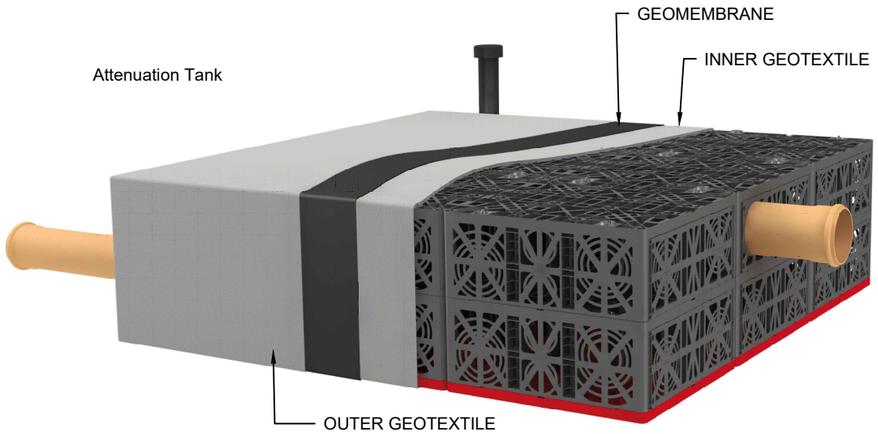
Place the one layer of Ecoblocs on top of the previously placed layer of Baseplates ensuring the connector clips are locking the Ecoblocs together.



Connector clips are Red for illustration purposes only and are Grey in colour

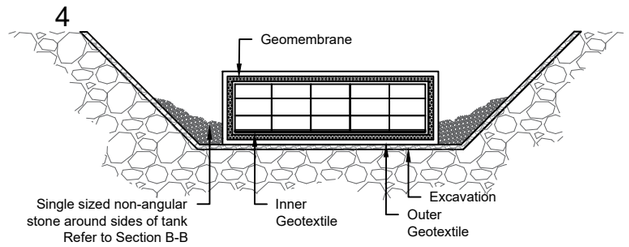






Finally, wrap the blocs with the inner geotextile followed by the geomembrane ensuring it is heat welded then wrap with the outer geotextile to protect the membrane. Geomembrane must be joined by an experienced operator that holds an appropriate National Qualification or other qualification for membrane installation.

4



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INSTALLATION METHOD:-

1. a) Excavate the trench with a safe batter (or stepped) ensuring the footprint allows for sufficient space between tank and the sides (minimum 500mm around all sides of the tank).
   b) Mark out the position of the tank including inlets and outlets.
   c) Lay min. 50mm of single sized non angular stone (8 to16mm) as a base for the tank. This can be laid to a maximum fall of 1°.

2. a) Lay the outer geotextile over the base of the excavation and up the sides of the trench, overlapping any joins by a minimum of 300mm.
   b) Lay the geomembrane on top of the outer geotextile.
   c) Geomembrane must be joined by thermal fusion heated wedge welding by an experienced operator that holds an appropriate National Qualification or other qualification for membrane installation. It is recommended that the Dual Seam method is used as this generates an unwelded channel which can be pressured with air to check the integrity of the weld.
   d) Lay the inner geotextile over the geomembrane before starting to build the tank.
   e) The geomembrane and geotextile used must meet the specification stated on the drawing.

3. a) Place EcoBloc Maxx Baseplates on top of the inner geotextile until the base of the tank is completed. Clip Baseplates together using the connectors.
   b) Place Ecoblocs Maxx on the Baseplates clipping each adjacent bloc using the connectors. Ecoblocs will only fit in the correct orientation. Push down firmly to ensure the Ecobloc is located correctly.
   c) Install the next layer of Ecoblocs on top of the first layer until the layers all completed. Ensure Ecoblocs are secured with connectors.
   d) Fit Endplates to the sides of each bloc by positioning the bottom in place then pushing firmly on the top section to locate into place.

4. a) Fix adaptor plates to the sides of the blocs in the required position for the inlet and outlet pipes, when required.
   b) Cut a hole in the geomembrane and geotextile for inlet and outlet connections.
   c) Pull geomembrane up around the sides and fully wrap the blocs, securing the top in place by heated wedge welding to the side panels.
   d) Cover the top and sides with the outer geotextile to protect the geomembrane.
   e) Install vent pipe connection into the top of the tank at a suitable location.
   f) Backfill around the tank in 300mm layers increments using non-cohesive, compressible loose rock (gravel, crushed rock, sand, etc).
   g) Connect inlet/outlet pipes and weld/glue them to have a watertight connection.
   h) In order to prevent silt from entering the tank it is recommended that silt traps or catchpit manholes are installed upstream of any inlet.These should be regularly maintained to avoid the buildup of any

N.B. Installation method may vary depending on depth of the tank and is project specific. For more information or technical questions please contact our Technical Department at Graf Australia.

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1	LATEST REVISION	MV	09.11.2021

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DRAWN : MV DATE : 04.01.2022
CHECKED : LB SCALE : VARIOUS@A3

PROJECT
GRAF STANDARD DETAILS

DESCRIPTION
ATTENUATION TANK
using GRAF ECOBLOC MAXX

DRAWING No. DWG-343 REV. 2 (Pg.2)