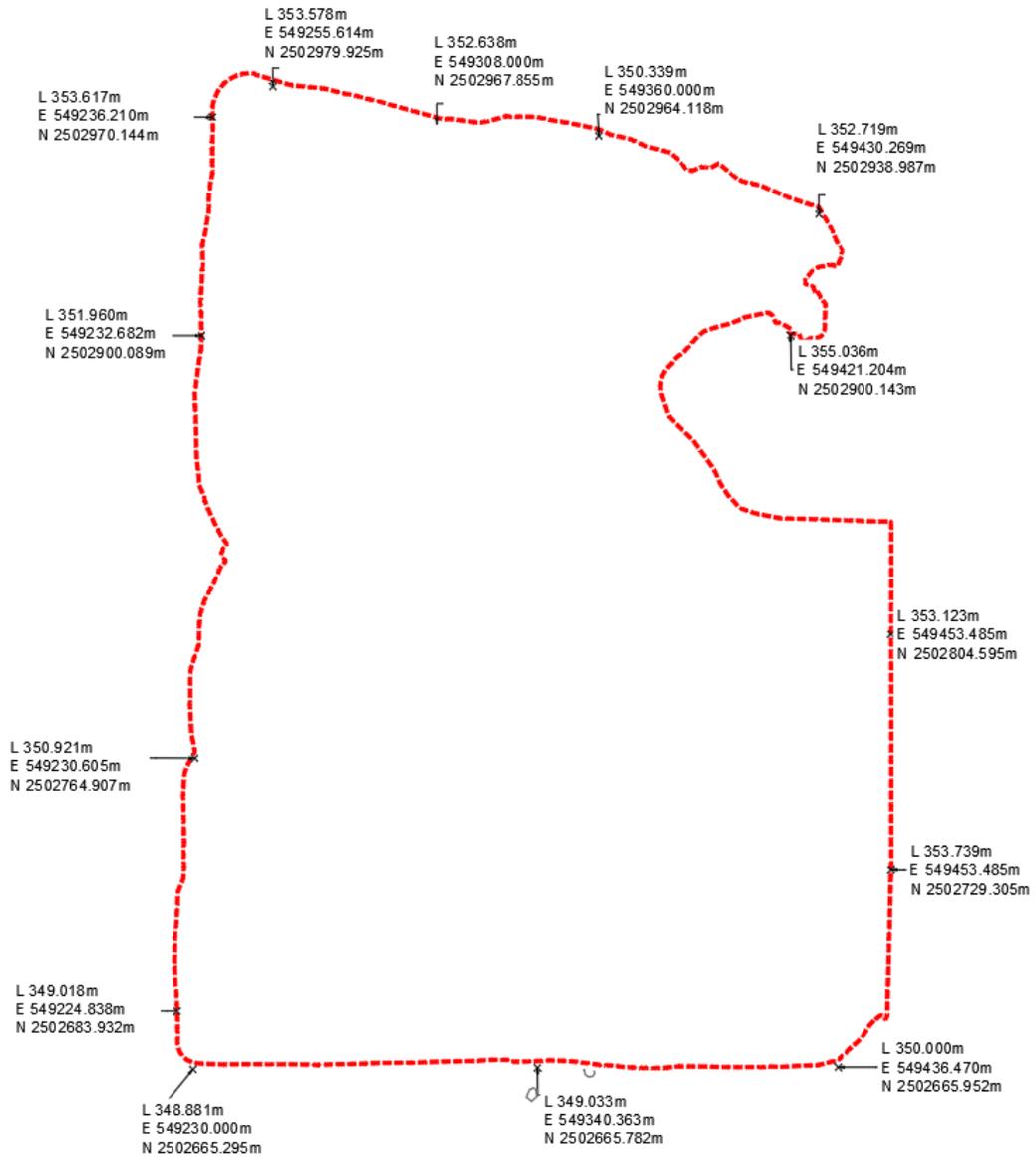


Coordinate the work area

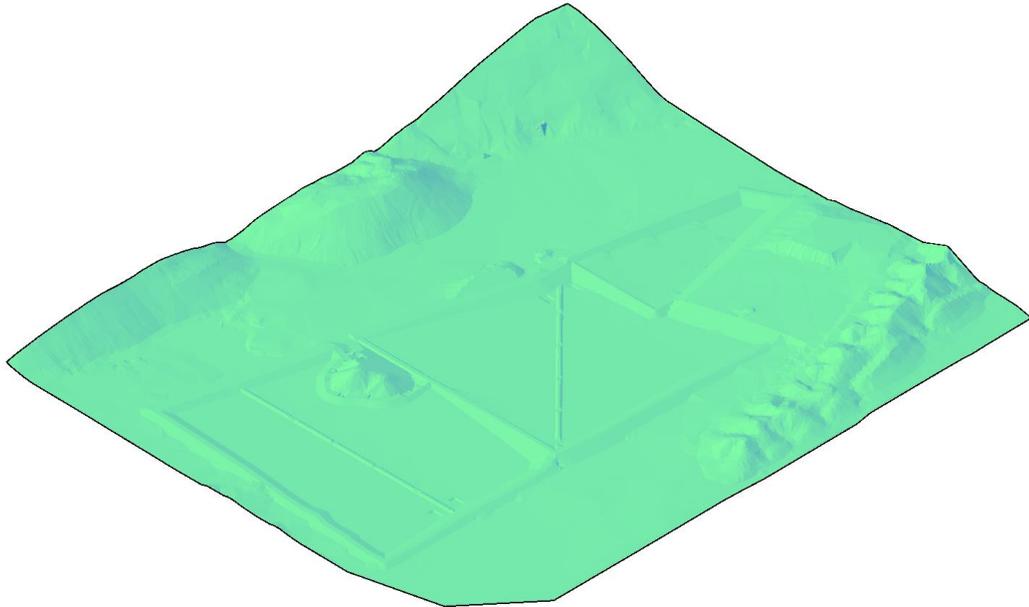


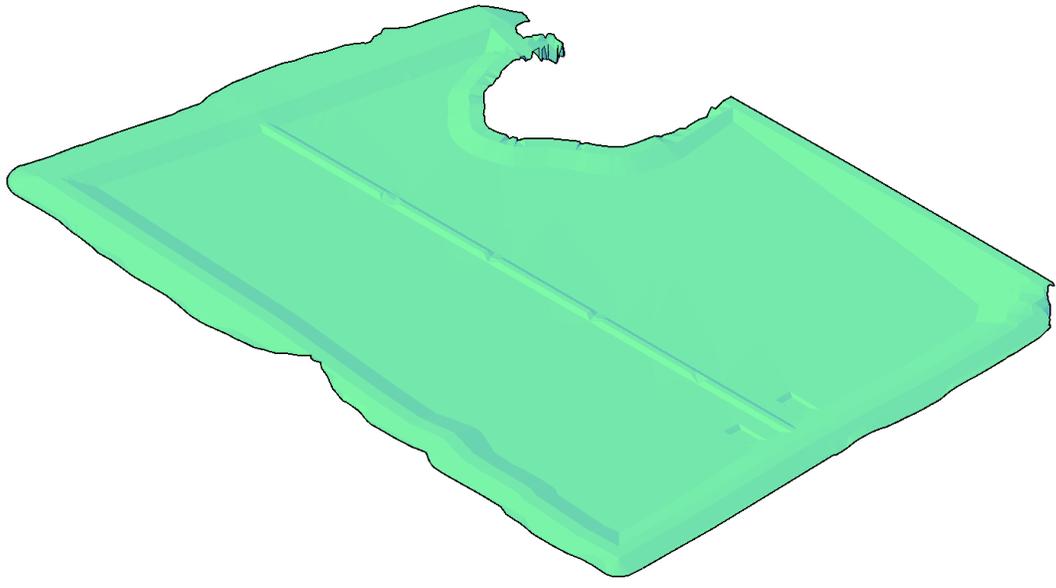
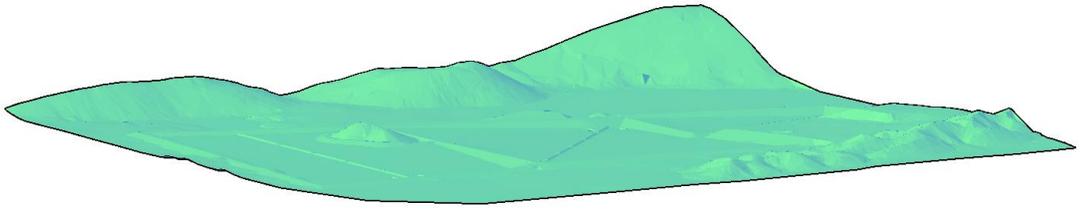
Elevations in area project :

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	347.053	353.000	Light Green
2	353.000	358.000	Light Blue
3	358.000	364.000	Pink
4	364.000	402.000	Light Orange



Area project 62121 m2:





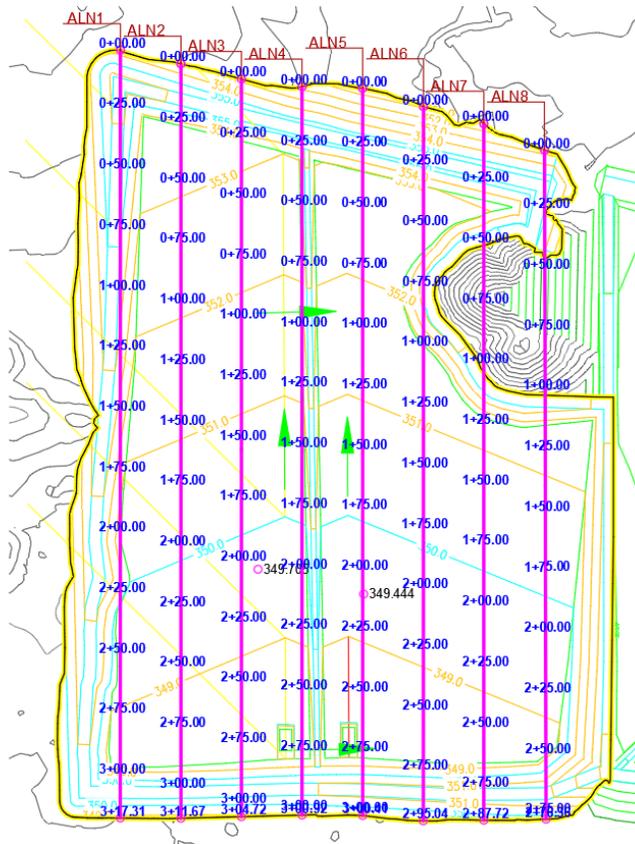
INFORMATION ABOUT SURFACE

Surface Properties - Surface1

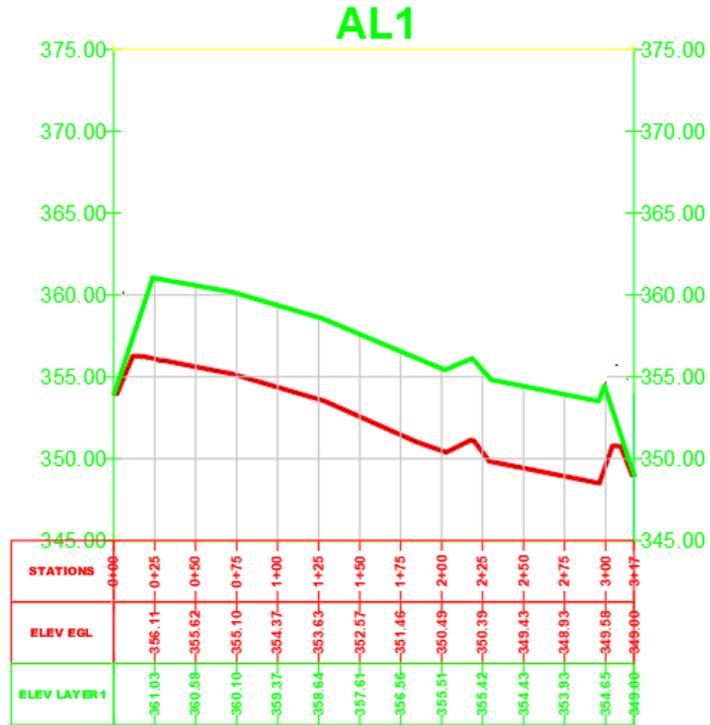
Information | Definition | Analysis | Statistics

Statistics	Value
General	
Revision number	0
Number of points	4108
Minimum X coordinate	549224.101m
Minimum Y coordinate	2502663.545m
Maximum X coordinate	549453.485m
Maximum Y coordinate	2502982.063m
Minimum elevation	347.069m
Maximum elevation	360.000m
Mean elevation	351.231m
Extended	
TIN	

The work area was divided into 8 paths and these paths are illustrated in the following figure , A station was placed every 25 meters



The following profile show the results of backfilling for the first layer for five meters



ALN2



AL3



AL4



AL5



AL6



AL7



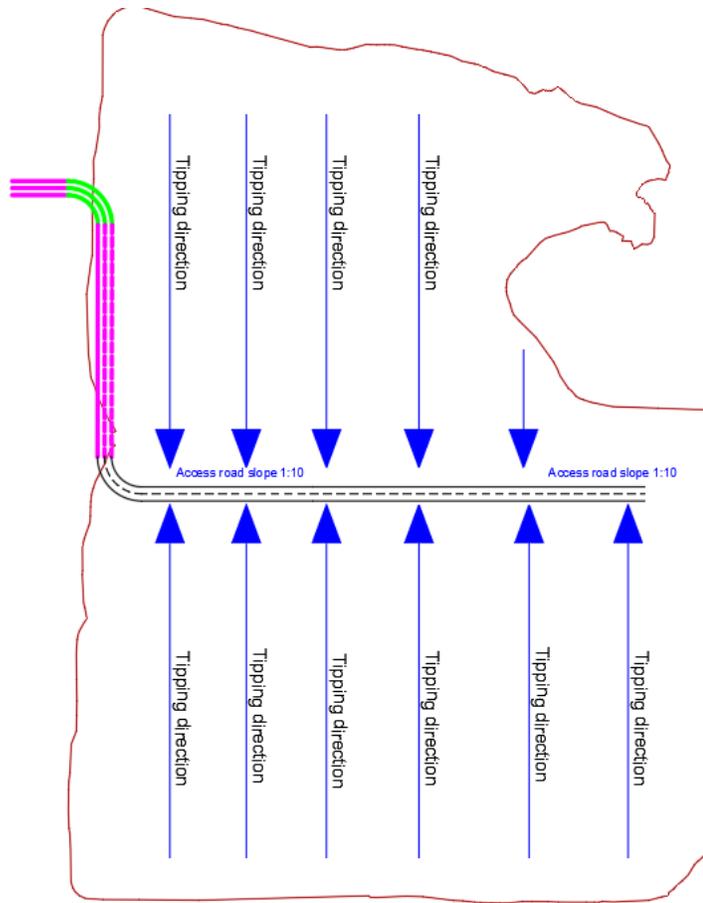


Filling plan design

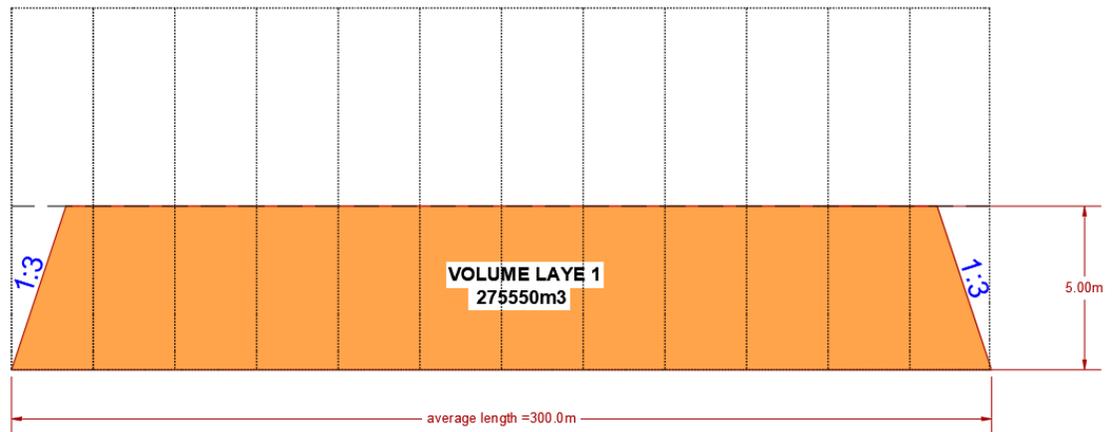
A. First layer (base – embankment)

The Filling Plan was started with first 5 meters in Zone 2 -Layer 1, above the base of the cell with no compaction (it acts as a loose cushion) to protect the HDPE liner and the underground gravel leachate drainage system, the compaction process was applied in the layers above the base protective layer to maintain the waste global density 850 kg / m³, then continues filling to the level of the side embankment around 5 m. The cell will be filled in the sequence shown in the cross section. And filling two parts part1 from road to north and part2 from road to south

Vertical average height	Estimated waste in ton
352-365	234217.5



Tipping direction in the first layers

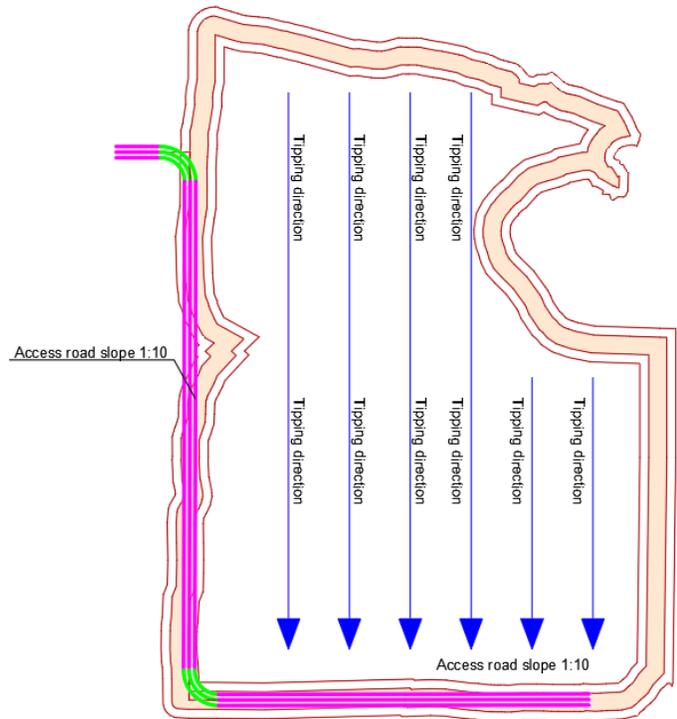


The cross section shows the estimated filling volume of the first layers

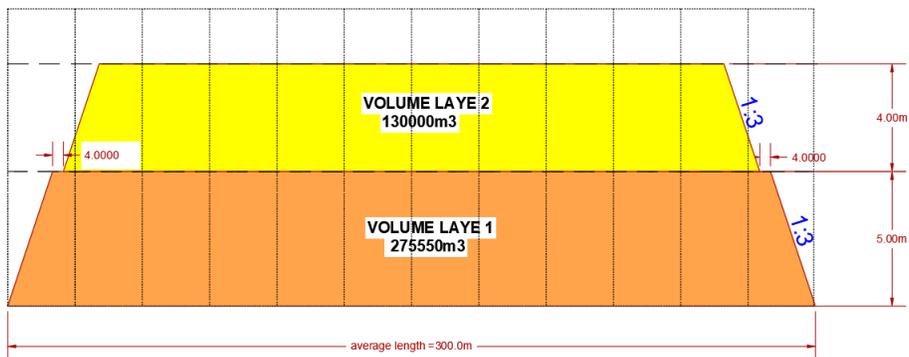
B. 2nd layer

The second waste layer will be placed over the previous waste starting from south to north in cell 1 with the below details

Vertical average height	Estimated waste in ton
356-369	110500



Tipping direction in 2nd layer after embankment (from east to west)

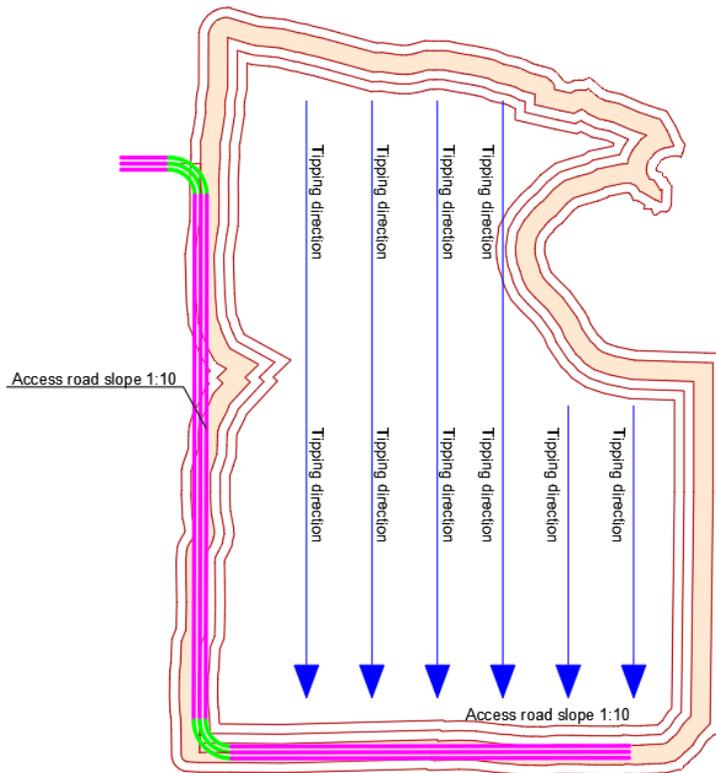


The cross section shows the estimated filling volume of layer 2

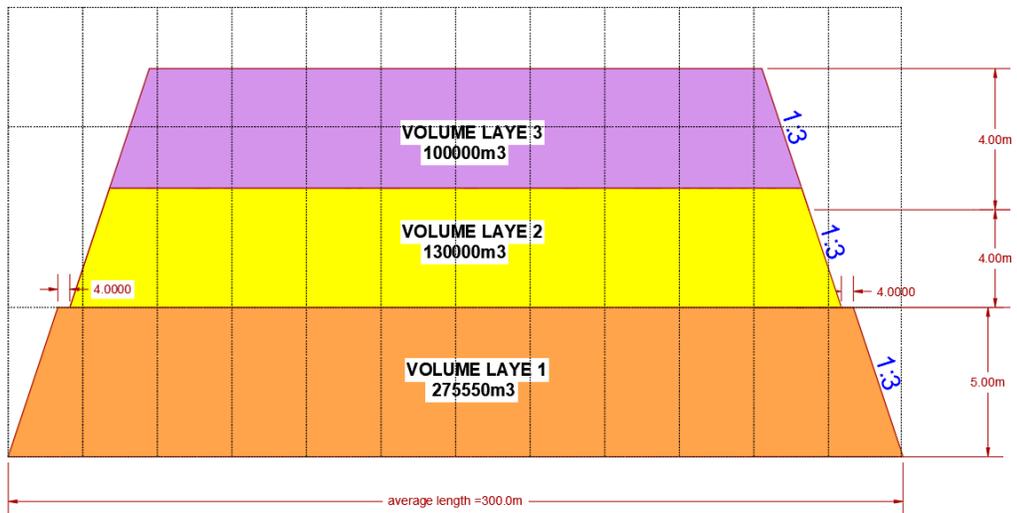
C. 3rd layer

The third waste layer will be placed on top of the second waste layer and will be filled from south to north in cell 1

Vertical average height	Estimated waste in ton
360-373	85000



Tipping direction in 3rd layer after embankment (from south to north)



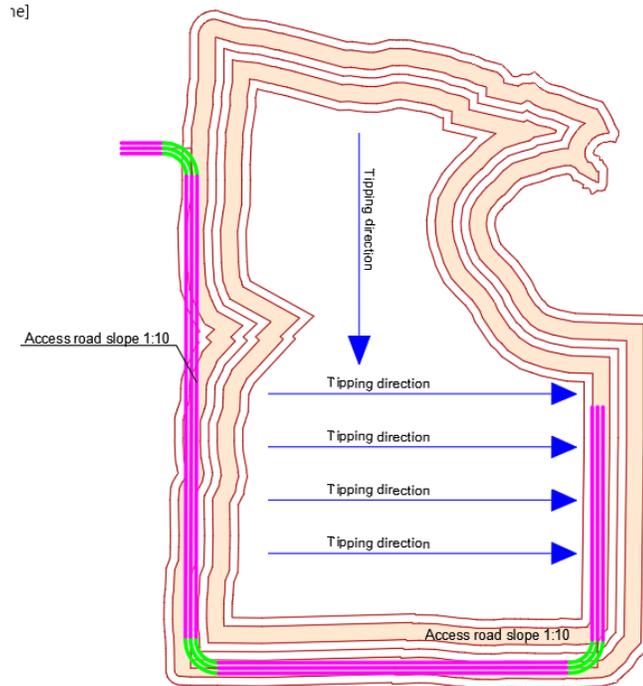
The cross section shows the estimated filling volume of layer 3

D. 4th layer

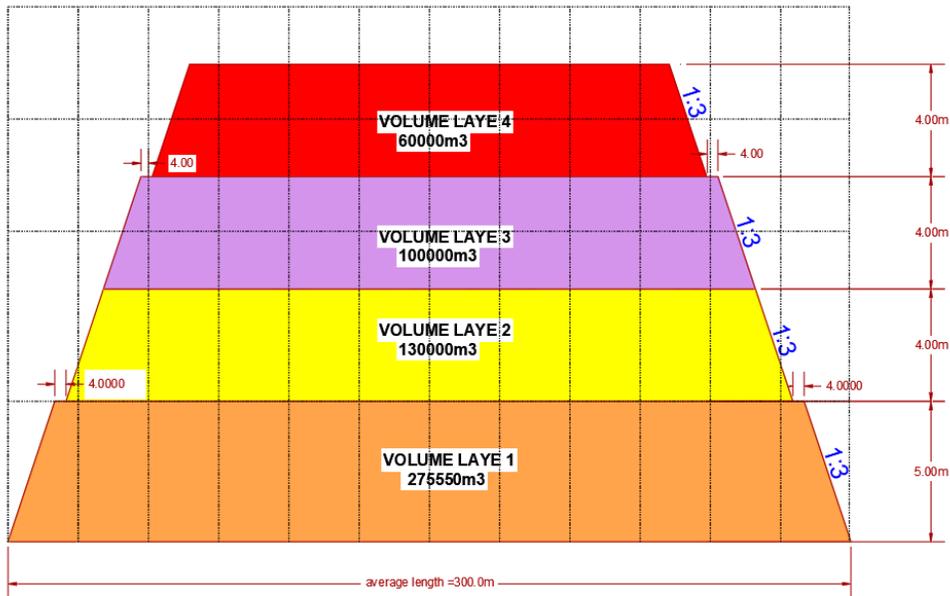
After the completion 3rd layer a bench 4 m wide will be left before to start 4th layer.

- The fourth waste layer number will be placed above the third waste layer and will be populated from east to west in cell 1.

Vertical average height	Estimated waste in ton
364-377	51000



Tipping direction in 4th layer after embankment (from east to west)

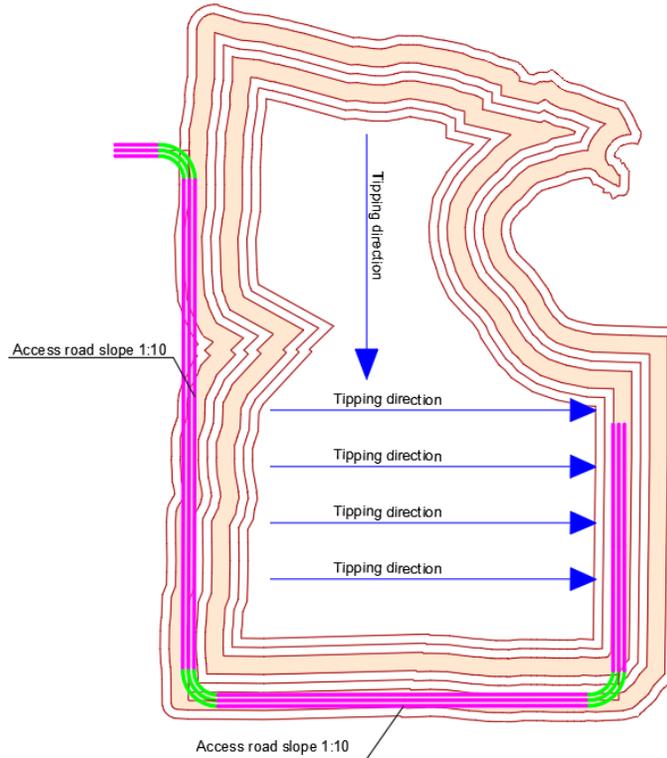


The cross section shows the estimated filling volume of layer 4

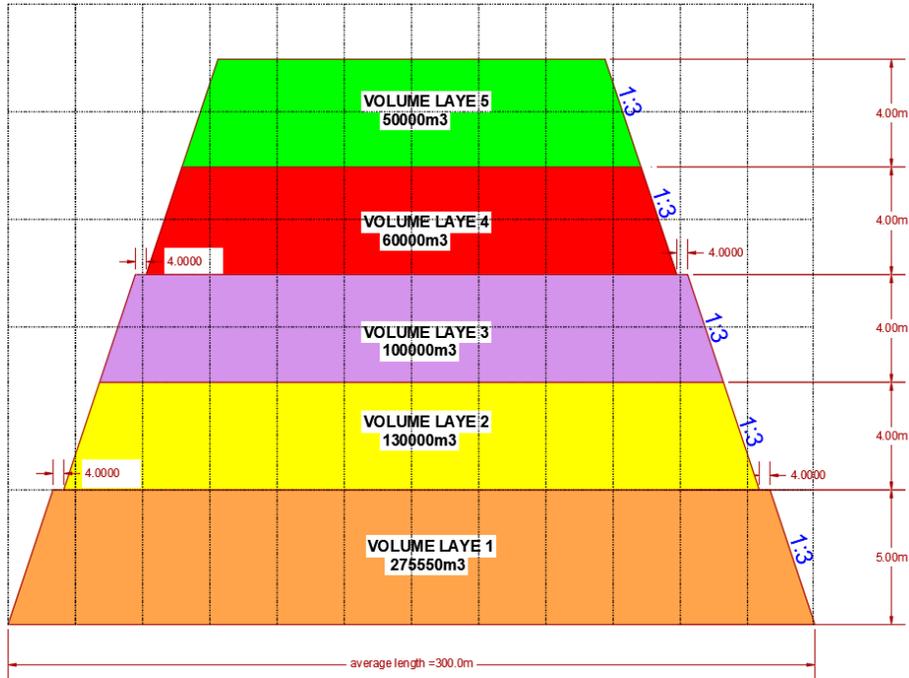
E. 5th layer

Waste layer number five will be placed on top of waste layer number fourth and will be filled from east to west in cell 1.

Vertical average height	Estimated waste in ton
368-381	42500



Tipping direction in 5th layer after embankment (from east to west)



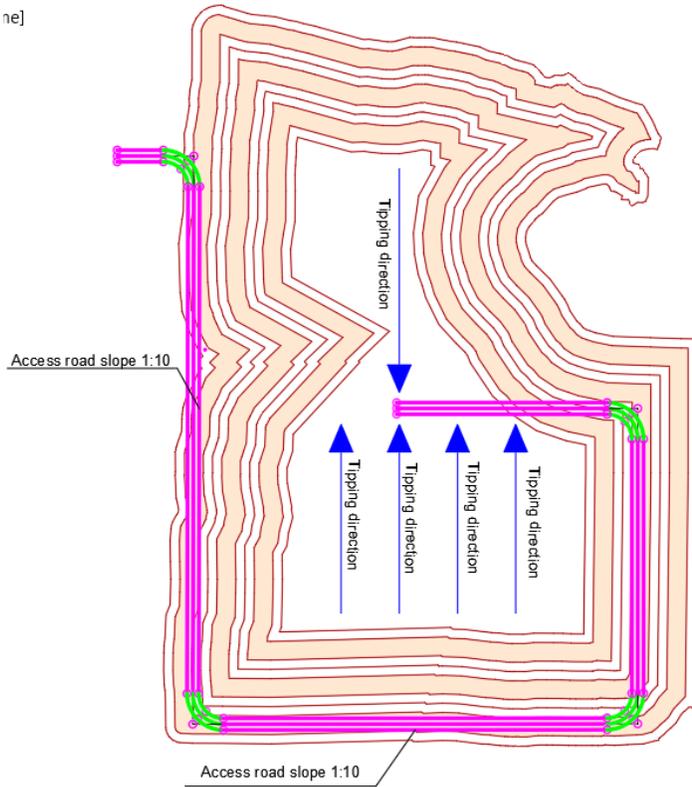
The cross section shows the estimated filling volume of layer 5

F. 6th layer

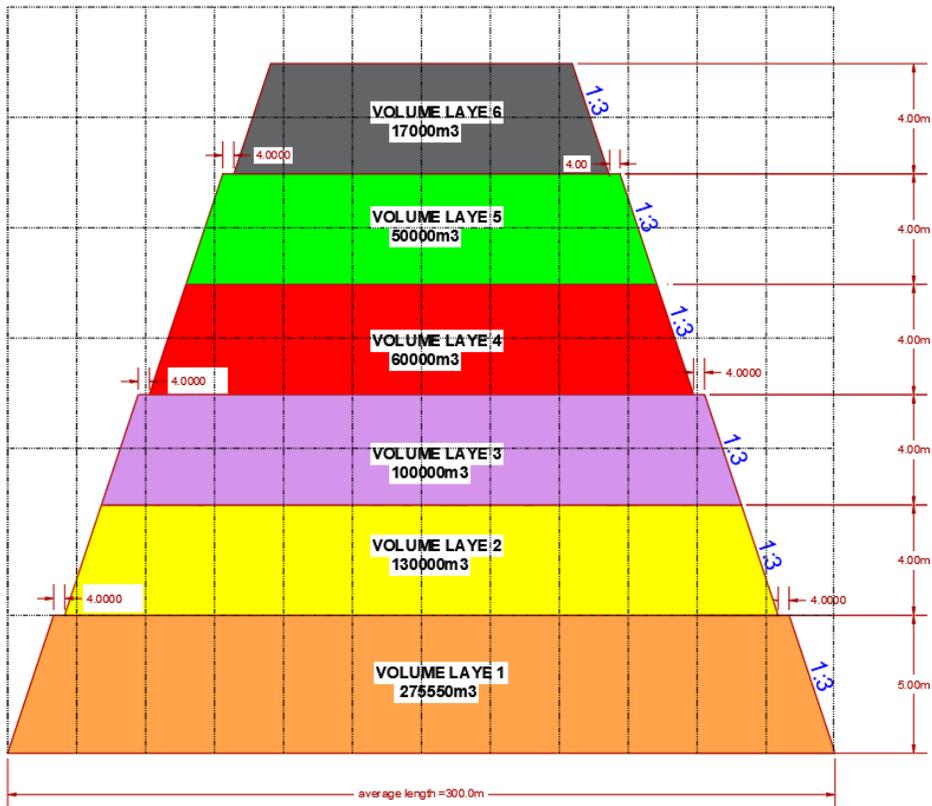
After the completion 5th layer a bench 4 m wide will be left before to start 6th layer.
 – Waste layer number six will be placed on top of waste layer number five and will be filled road to north and road to south in cell 1.

Vertical average height	Estimated waste in ton
372-385	14450

ne]



Tipping direction in 6th layer after embankment (filled from road to north and road to south)

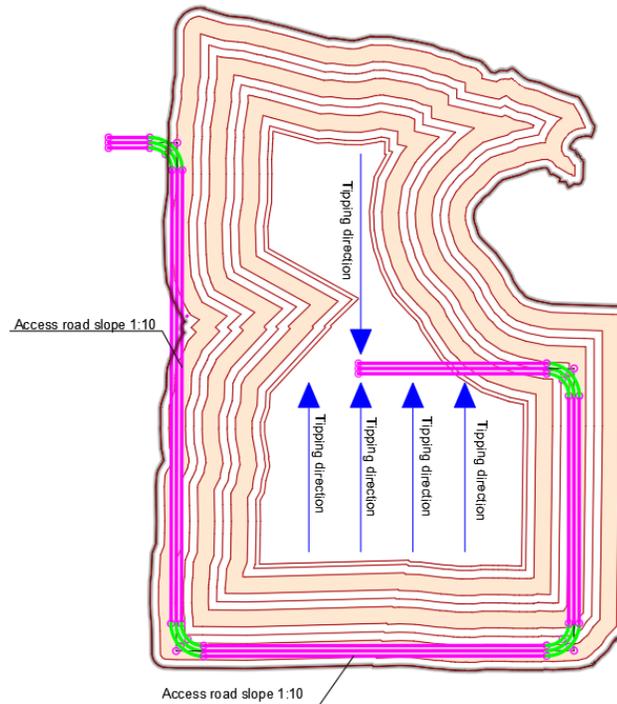


The cross section shows the estimated filling volume of layer 6

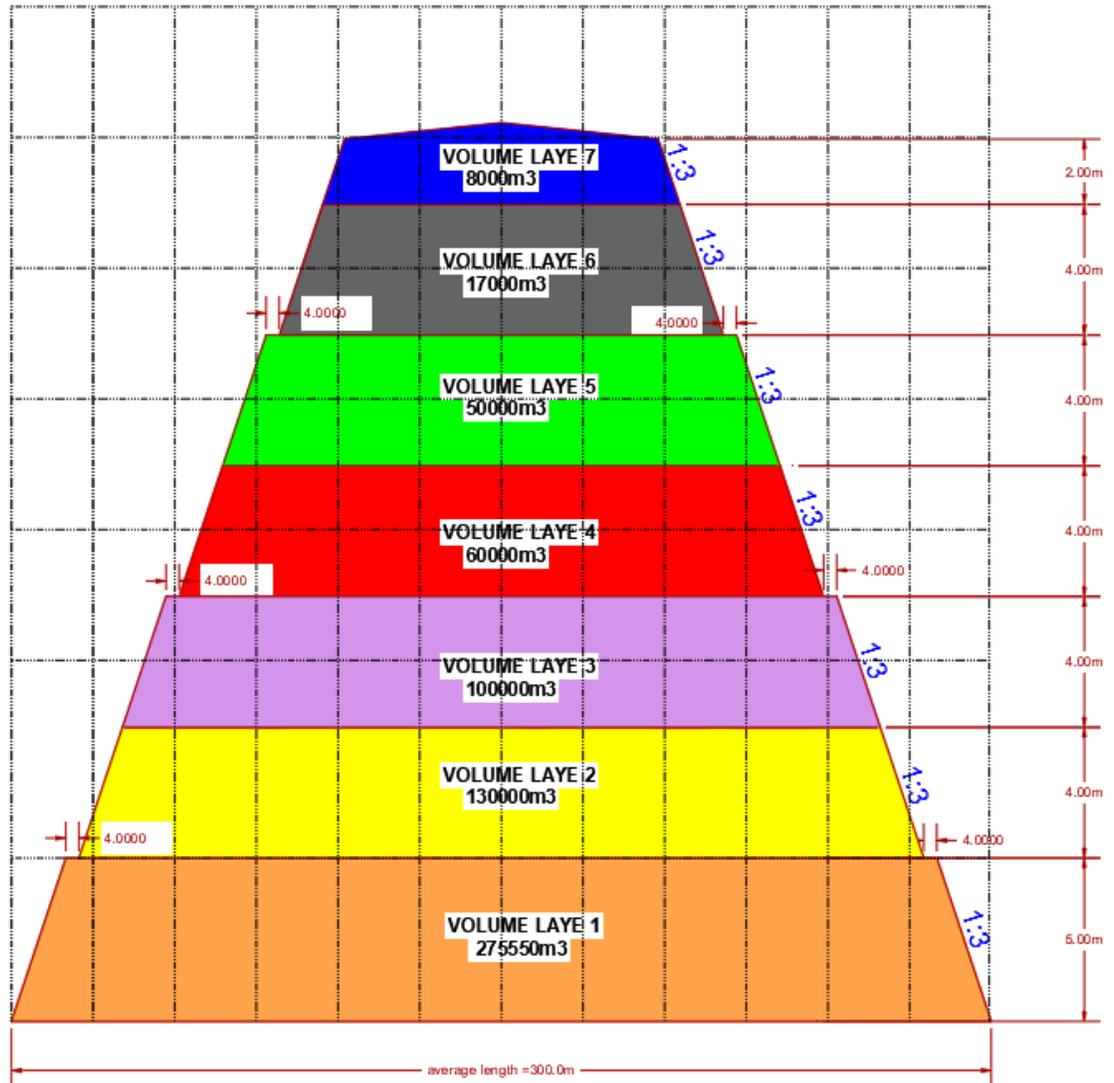
G. 7th layer

Waste layer number seven will be placed on top of waste layer number six and will be filled from road to north and road to south in cell 1
– The gradient on the plateau of the top waste level will be about 5% and the width of the plateau is not less than 50 m.

Vertical average height	Estimated waste in ton
374-387	14450



Tipping direction in 7th layer after embankment (filled from road to north and road to south)



The cross section shows the estimated filling volume of layer 7

Access Road

It will be designed at a slope of 1V:10H gradient and a width of 10 m to allow easy access to each new waste layer and start from the cell entrance (west to east direction)

Daily Cover & intermediate cover

- ○ The daily cover material will be applied in approx. 15 cm layer to cover the compacted waste at the end of day and removed prior to the next waste deposition, and the key objectives of placing daily cover are to:
 - – Minimize windblown-litter.
 - – Control odors.
 - – Prevent infestation by flies and vermin.

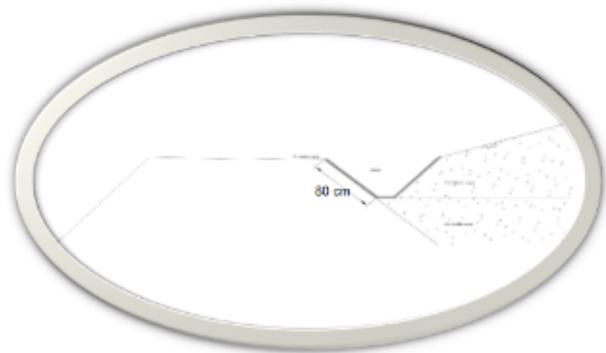
- – Reduce the risk of fire.
 - – Minimize contamination of runoff generating potential leachate out of the landfill.
- the intermediate cover will be placed on areas that have received waste but will be inactive for more than two months and the average thickness of the intermediate cover will be 30 cm.

Runoff Management

Aveda will maintain a slope length of approximately 80 cm (waste free on the embankment) to form a runoff drain between the waste layer and the embankment, this drain will prevent the polluted water from contaminating the unlined areas adjacent to the cell.

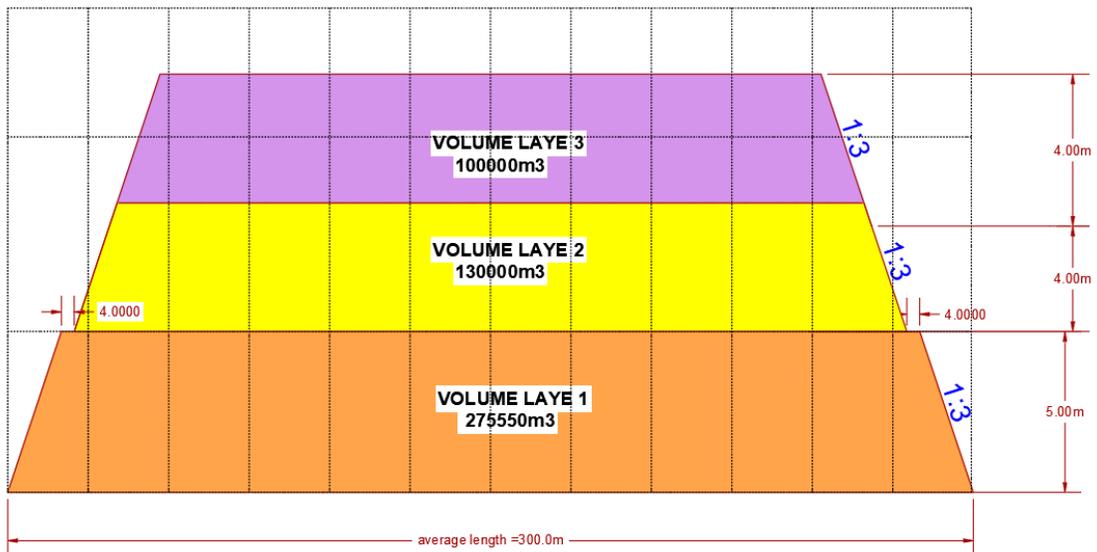
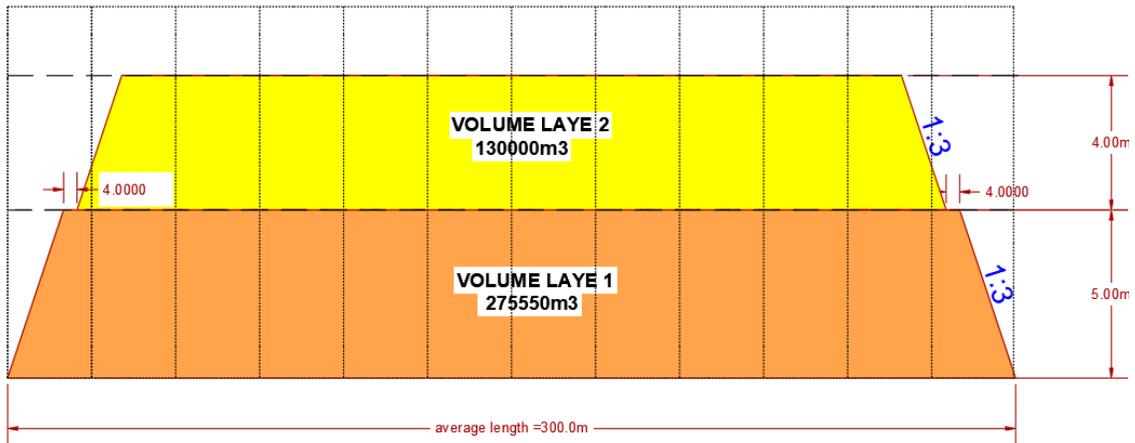
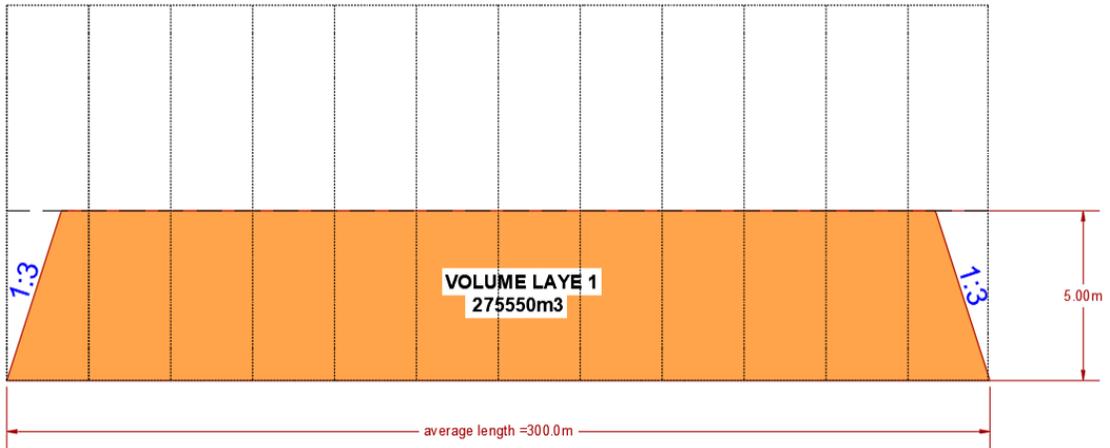
Runoff Management

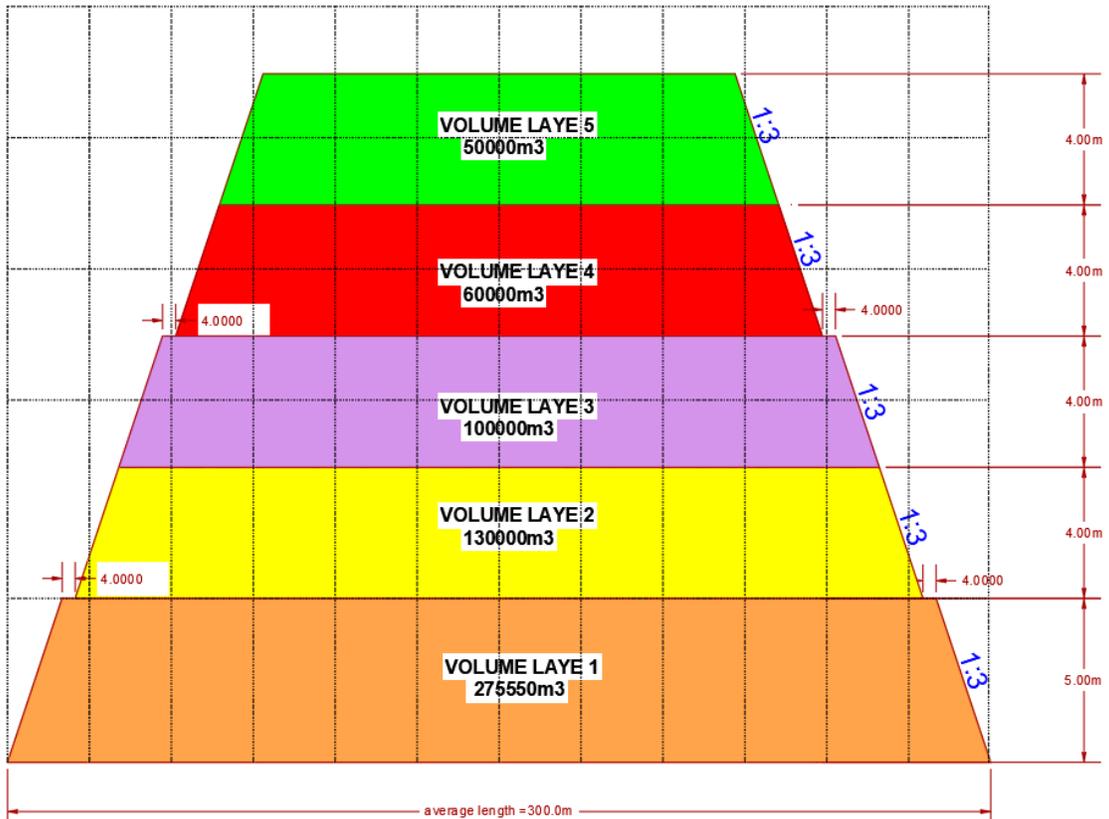
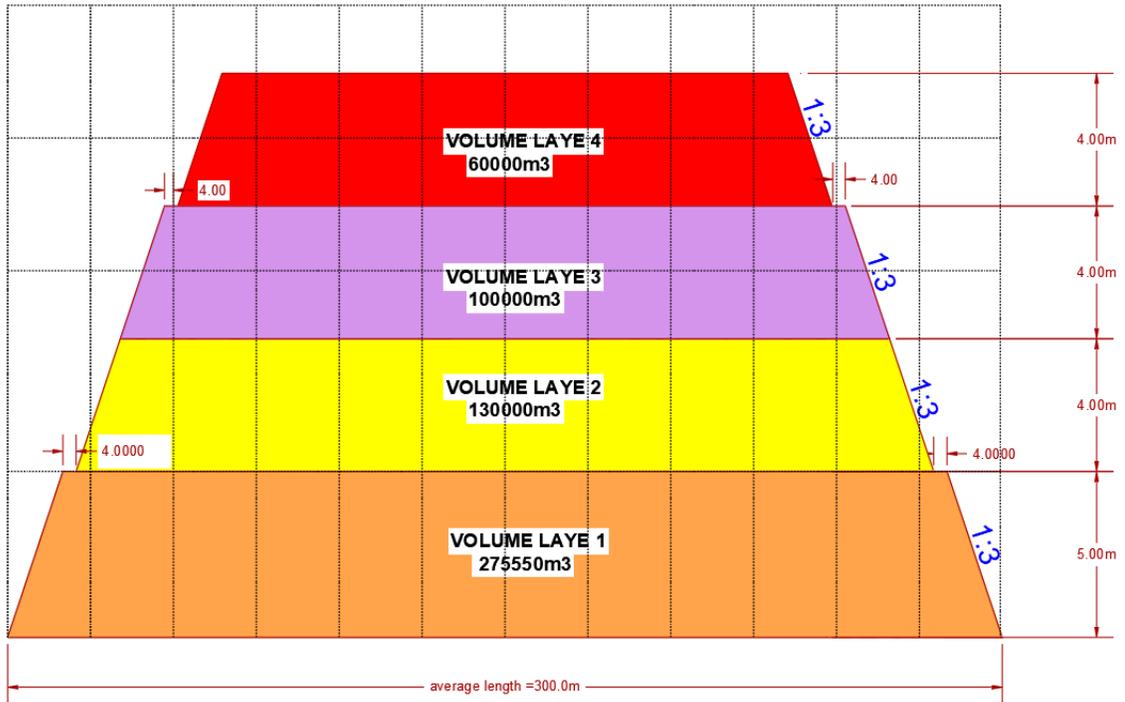
Aveda will maintain a slope length of approximately 80 cm (waste free on the embankment) to form a runoff drain between the waste layer and the embankment, this drain will prevent the polluted water from contaminating the unlined areas adjacent to the cell.

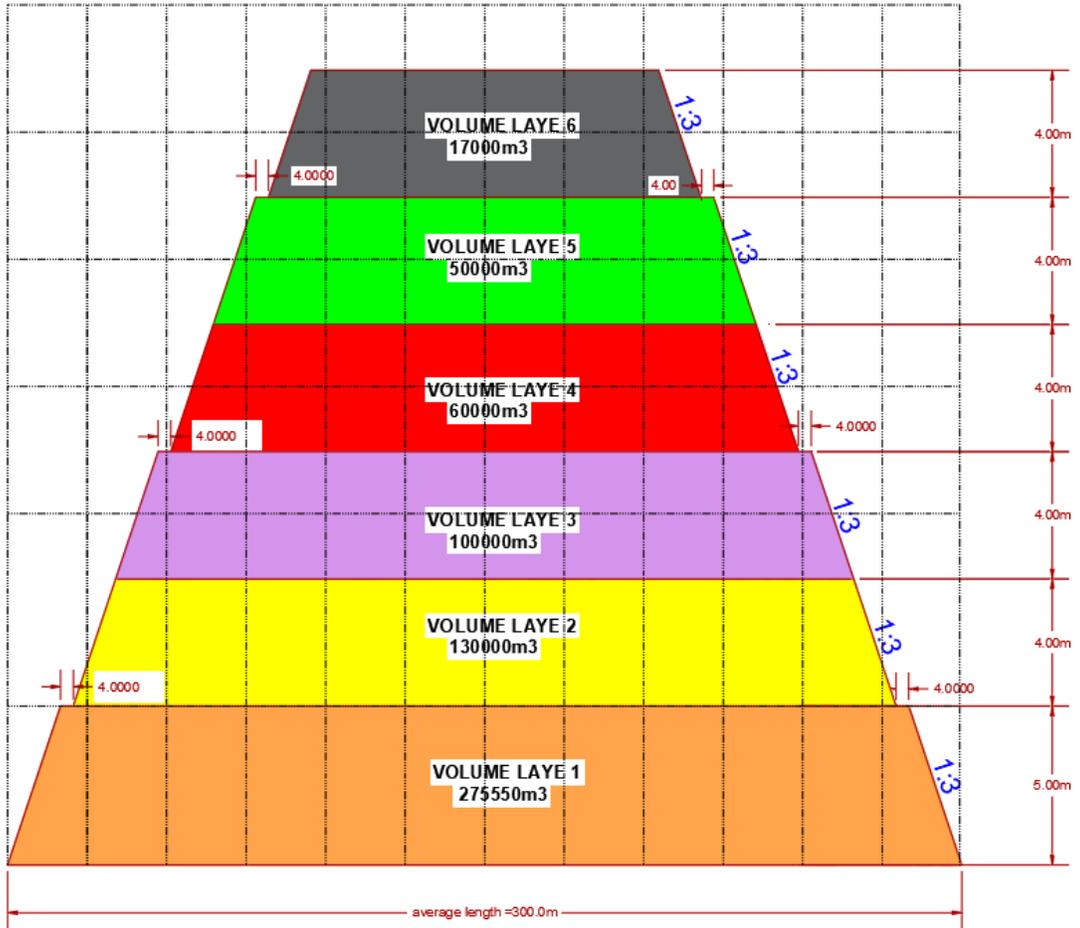


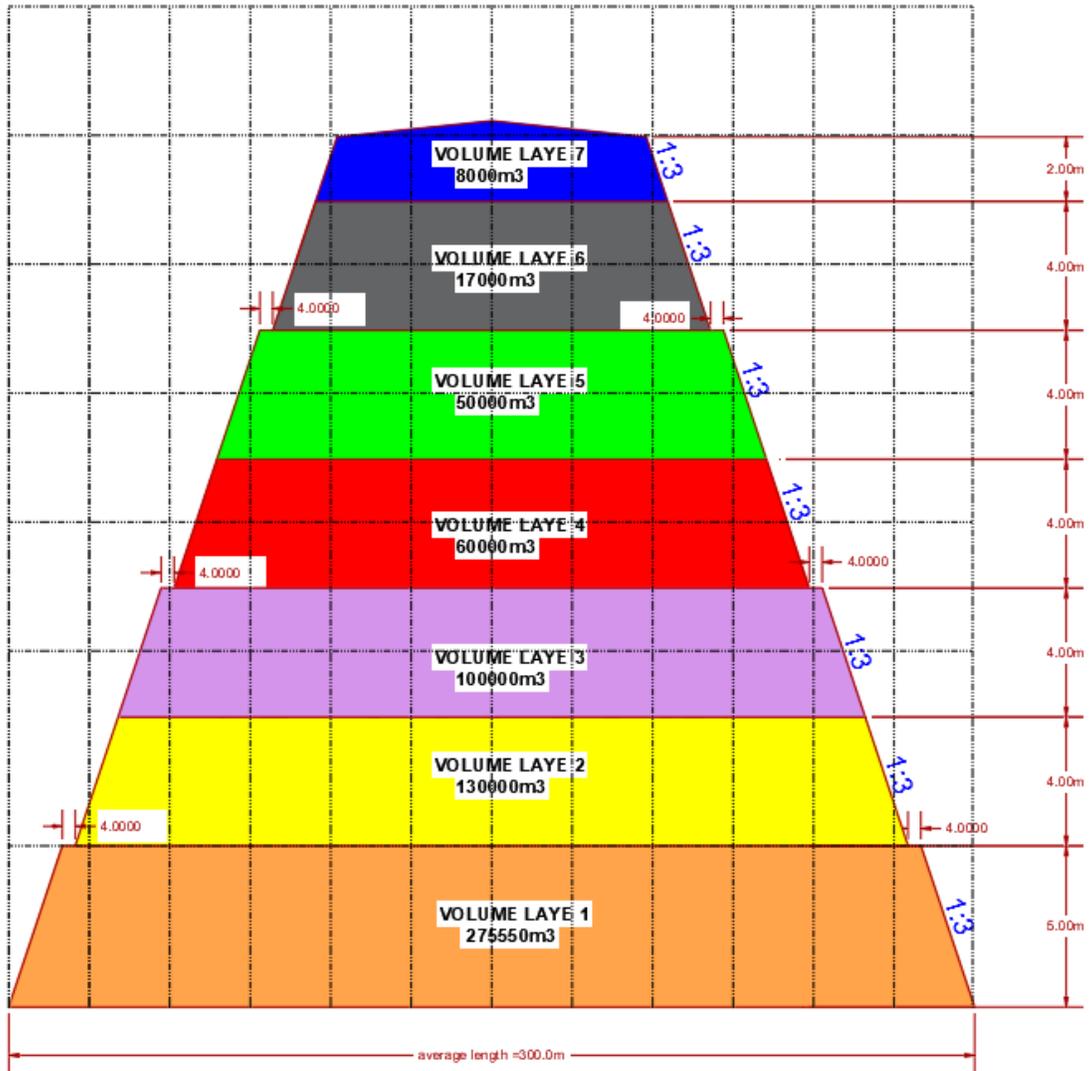
Appendix A (Cross-sections)

AutoCAD file submitted separately

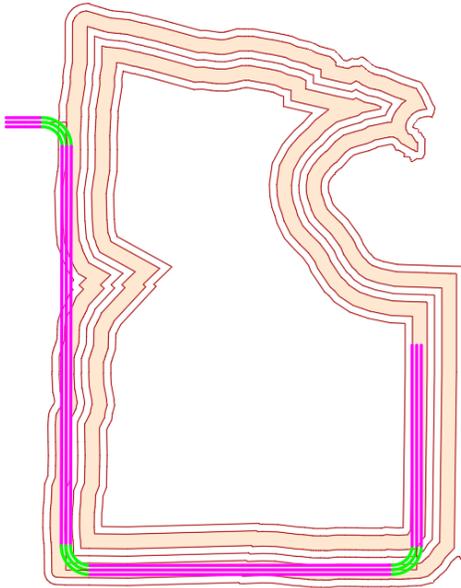
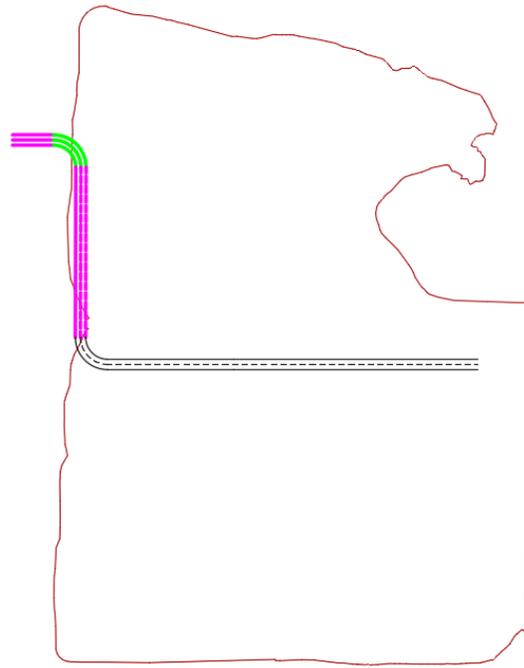
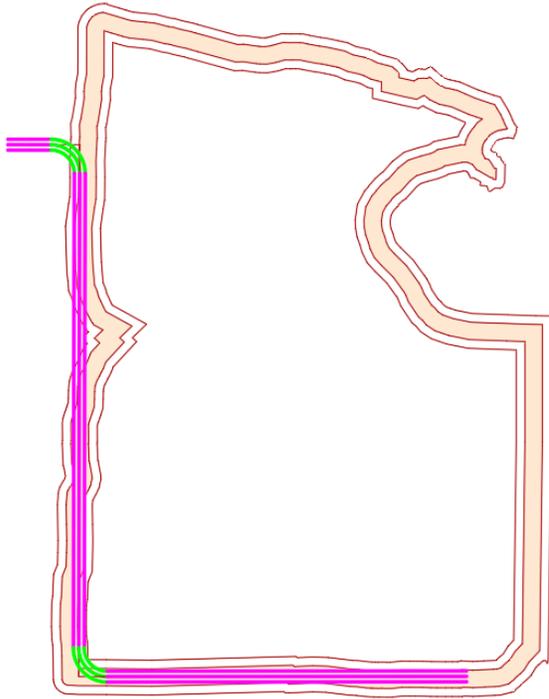


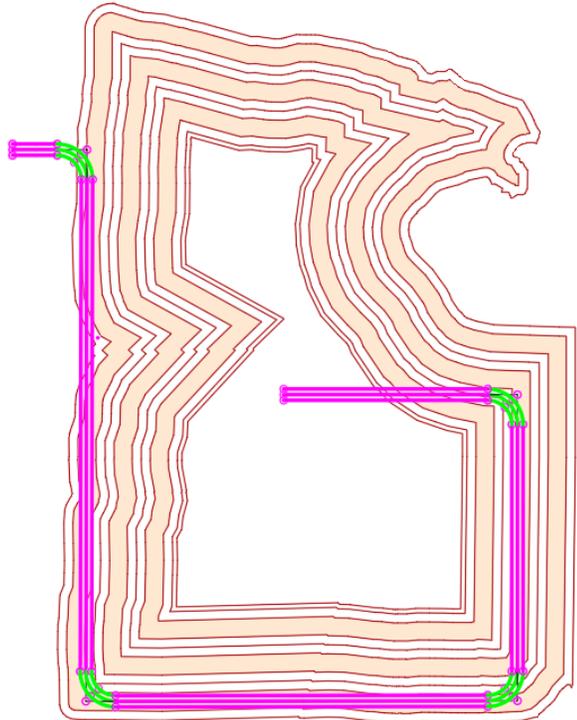
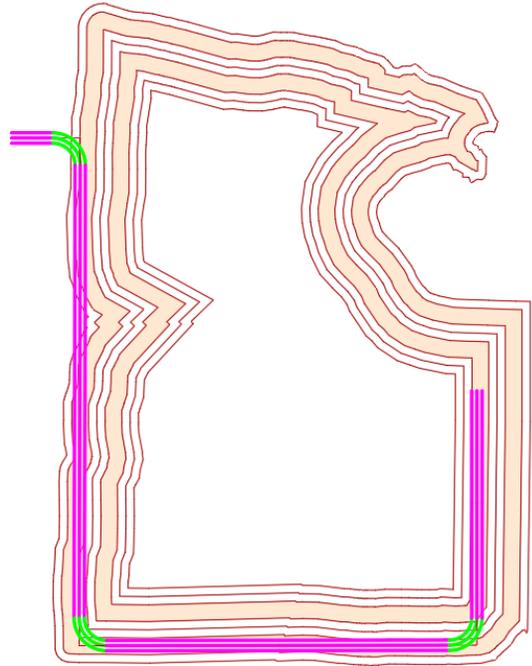
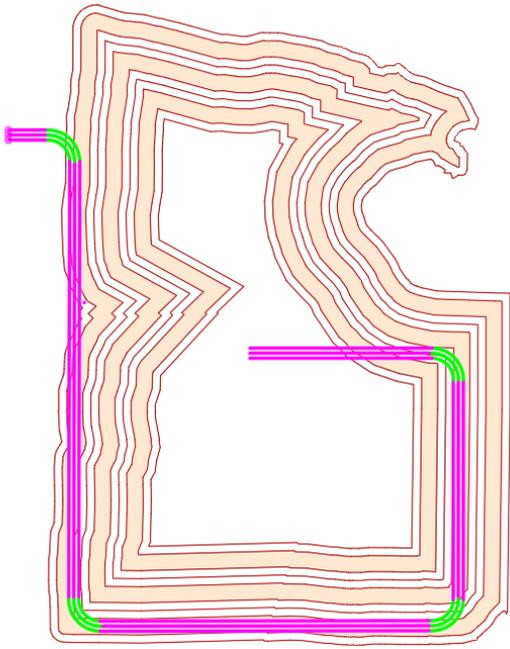






Appendix B (Filling Sequences)





The following table shows the backfill quantities for each layer, knowing that the total is 640,000 cubic meters and the total backfill height is 27 metres.

Volume m ³	Hight filling (m)	Number layer
275550	5	Layer1
130000	4	Layer2
100000	4	Layer3
60000	4	Layer4
50000	4	Layer5
17000	4	Layer6
8000	2	Layer7

The following figure shows 3d model of the backfill layers, indicating the sizes of the layers used in the backfilling process

