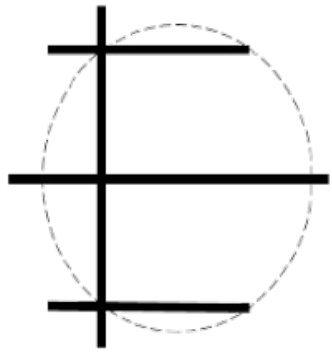


COSETTA

Vertical Drains Design



COSETTA

Vertical Drains Design

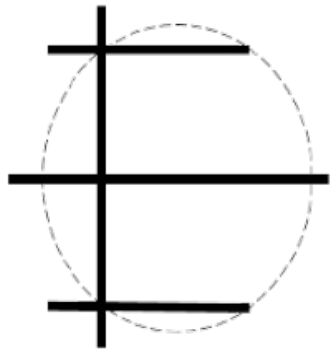
About

Cosetta1.0 is a software used for the design of vertical drains, also for estimate the settlement of embankments and triangular slopes.

This product has been developed by Wafy BOUASSIDA (Phd, M.Sc, PEng) and Siwar KHALED (PEng).

The different features of Cosetta are :

- Short term and oedometric settlement of embankments
- Short term and oedometric settlement of triangular slopes
- Short term and oedometric settlement of circular foundation
- Vertical drain design (spacing using Barron's method and Carillo's method)
- Design of rigid inclusion (determining the improvement area ratio $\eta\%$)



COSETTA

Vertical Drains Design

Different modules



Settlement of embankment



Settlement of triangular slopes



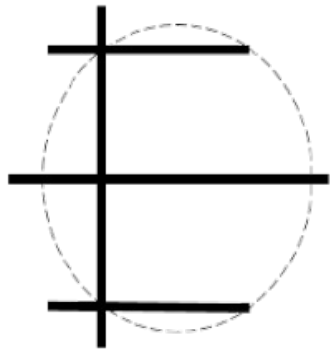
Settlement of circular foundation



Vertical drain design



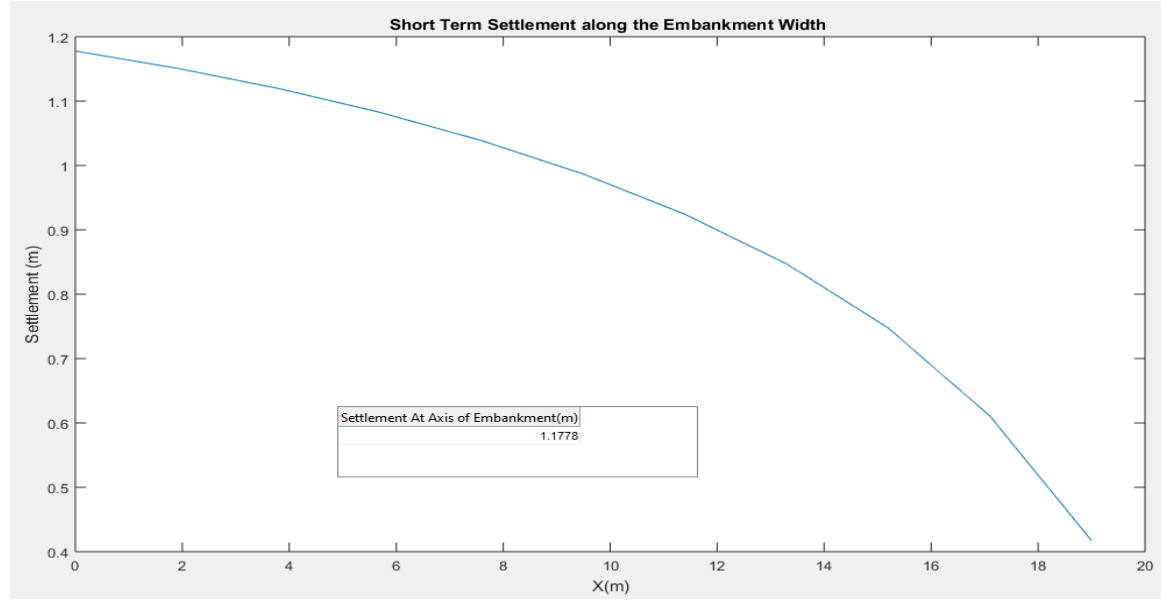
Rigid inclusion



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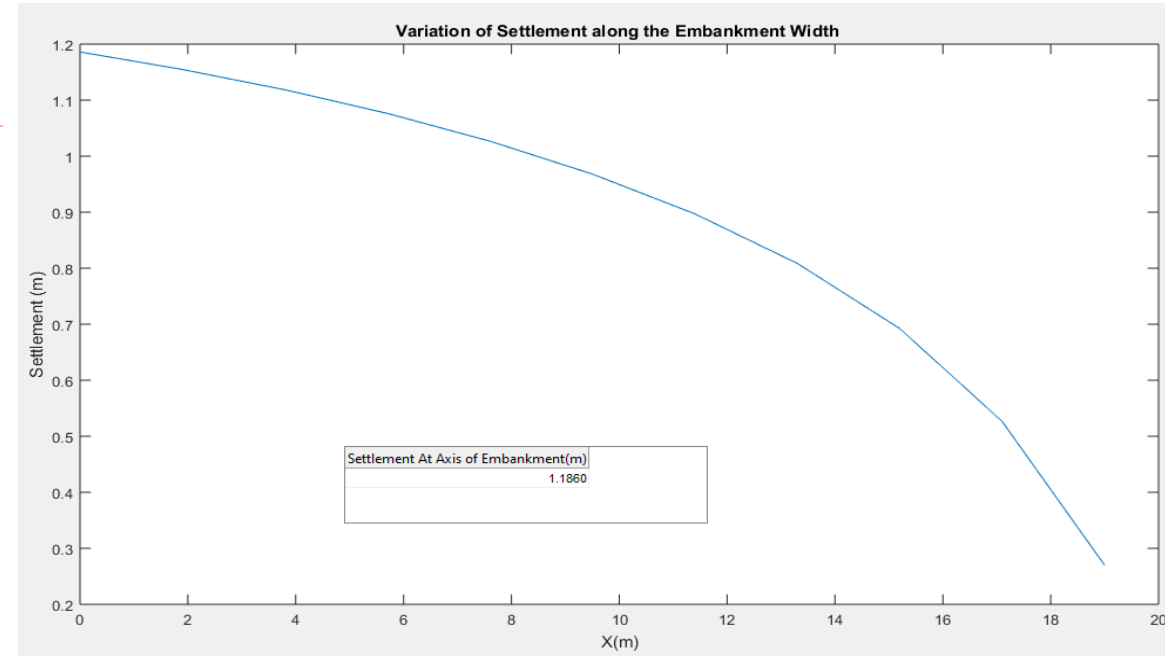
Vertical Drains Design

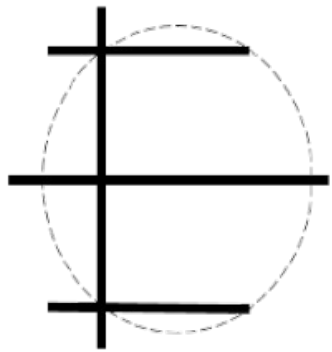
Some outputs



Short term settlement along the embankment width

Odometric settlement along the embankment width

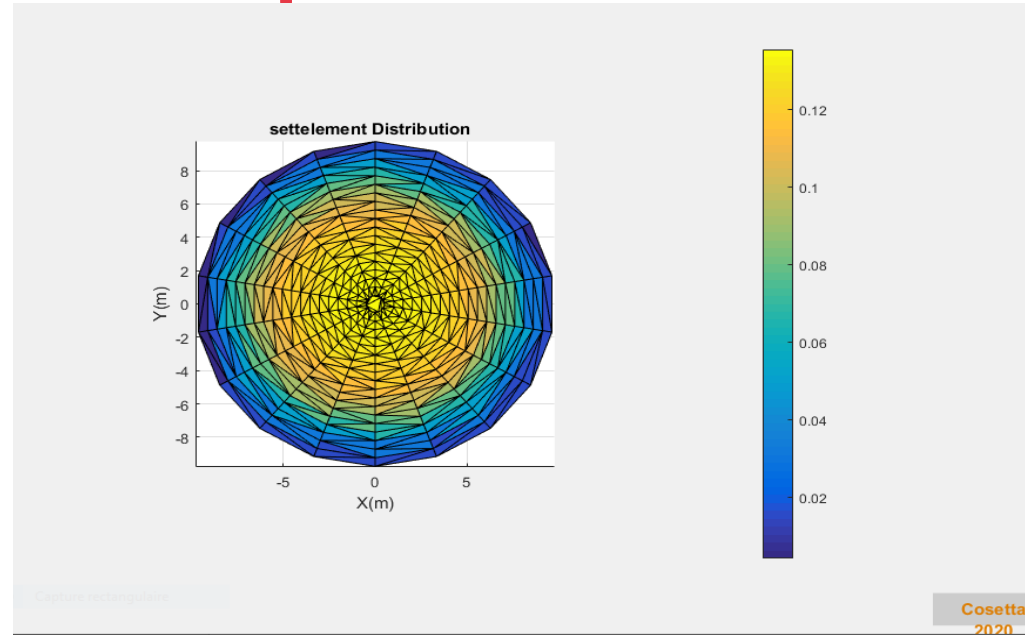




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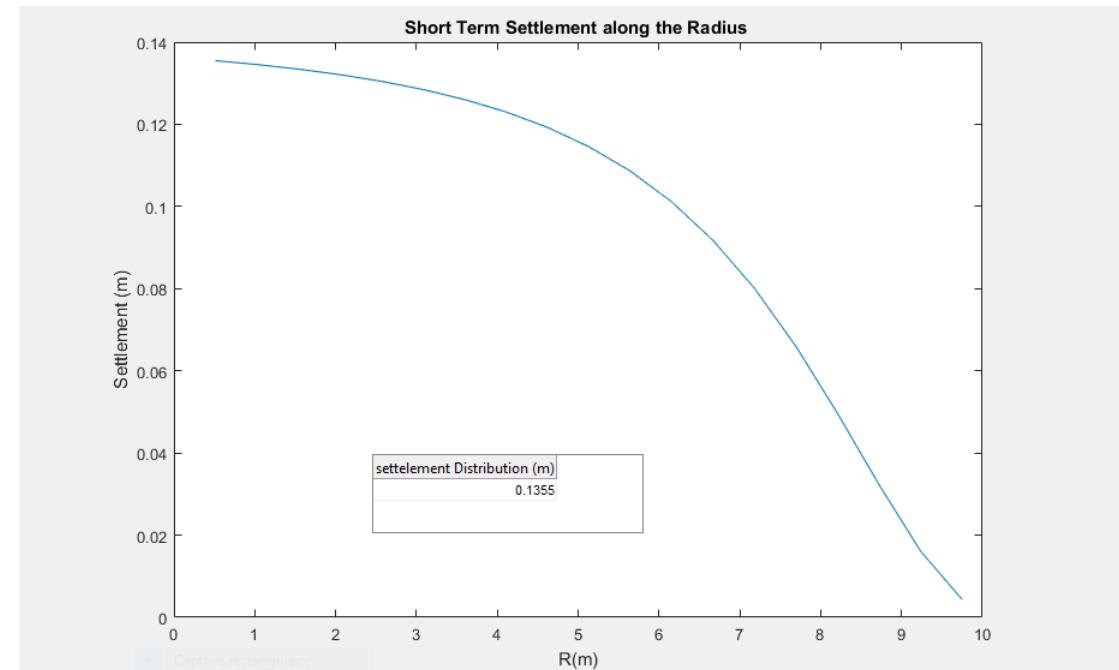
Vertical Drains Design

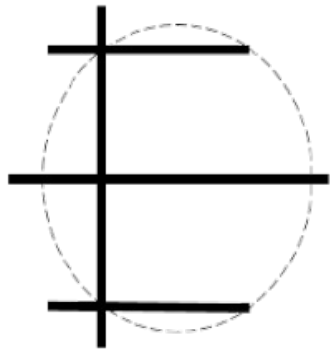
Some outputs



Settlement distribution along the tank diameter (3D)

Short term settlement along the tank diameter

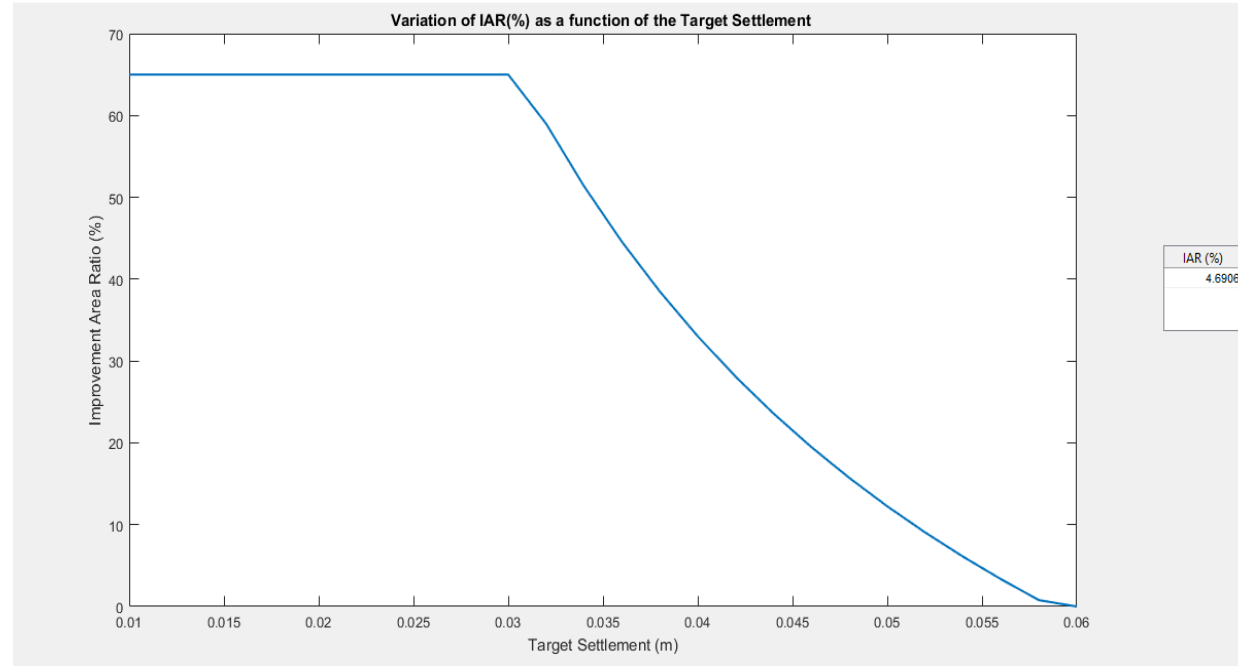




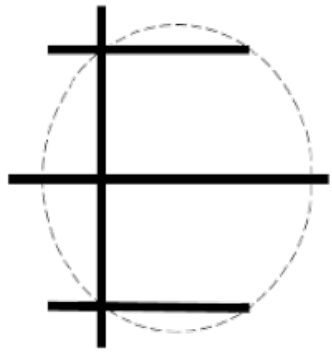
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Vertical Drains Design

Some outputs



Design of rigid inclusion



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Vertical Drains Design

Some outputs

Spacing (m)
2.4000

Squared pattern

Cosetta

The diagram illustrates the layout of vertical drains. On the left, a grid of eight drains is shown in a square pattern with a spacing 's' between them. On the right, a single circular drain is shown with a diameter 'D_o'. The spacing 's' is defined as the distance between the centers of adjacent drains.



Spacing between vertical drains



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Vertical Drains Design