

RETAINING WALL SOLUTIONS.

OUR RETAINING WALL SOLUTIONS.

Optera are experts in retaining wall failure diagnosis and repair. Working in logistically challenging sites, our solutions are catered towards the challenges, working in a domestic scenario presents. Whilst traditional techniques involve digging and cutting a safe angle of repose behind the failed wall to facilitate the works, we use a number of different anchor stabilisation solutions, catering for all soil and rock types, allowing the slope to remain at a far steeper angle reducing the need for large scale spoil removal and reinstatement.

Our drilling rigs are able to access even the most challenging of sites and provide stability to the slope, combined with reinforced geotextiles, we can secure a slope to allow the safe removal of the failed wall. Similar technology is typically employed in the foundation design of the new wall and using the latest in lightweight fill technology, we are able to rebuild a reinforced concrete wall and reform the ground behind without the same ongoing risks of lateral load and hydrostatic pressure build up.

Our in-house design and build team are able to react and amend designs as sites vary considerably on jobs and our solutions are tailored to these ever-changing set of parameters.

HOW CAN IT HELP YOU.

- Optera's design and build solution reacts faster than the traditional tendered design approach, resulting in works on site much quicker, reducing life cycle and critically, reducing the risk of further collapse and damage.
- Our design team, working with site teams are able to amend and refine designs as the site evolves and changes are required. This collaborative approach saves both time and cost.
- The stabilisation of slopes with drilled or driven anchors reduces muck away, time and site creep, reducing the impact on surrounding sites.
- Our hybrid design approach, often reduces foundation design, utilising the anchors in the management of bending moments, reduces the foundation requirement, saving both time and cost.

THE BENEFITS.

- Optera are able to react to emergency situations, implementing emergency works to reduce risk and to make it safe.
- Our in-house investigations are able to understand the cause of failure and implement a solution which caters for the site.
- Using numerous drilling and driven anchor solutions, we are able to stabilise slopes without the need for extensive slope reprofiling.
- Our design approach often allows a more modest foundation design, incorporating foundation reinforcement into the RC wall design.
- Our walls are always backed up with suitable drainage solutions and lightweight fill technology to reduce ongoing lateral loads.
- The walls are typically faced with natural stone or other original features, mimicking the original structure to harmonise the solution with its natural environment.

FOR MORE INFORMATION ON OUR RETAINING WALL SOLUTIONS

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