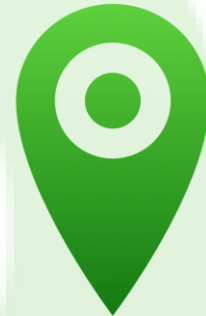


Mapper



TM

Made Ground Mapping To Mitigate Risk



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2 What Are The Risks?

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Appendix A – Made Ground Contour Plan

1 Mitigating Risk in the Ground - Why

The cost of made ground removal, “muck-away” is a perennial topic. Following discussion with a client in relation to made ground removal costs on a particularly problematic site we have given this some thought.

2 What Are The Risks?

The possibility of their being greater depths of made ground, encountering made ground comprising a clearly different material from that identified in the site investigation or uncertainty about volumes actually removed all have implications for:

- Cost
- Programme
- Environmental compliance

3 Limitations of a Typical Site Investigation

In a typical site investigation, we are aiming to find the geotechnical parameters of the natural strata, take samples targeted at potential sources of contamination or hand dig trial pits to determine foundation depths or perimeter conditions. So any information gleaned on the nature and depth of made ground is a by-product of the investigation.

4 The Unknowns

From the site investigation we have some information, but we do not have a complete picture across the site of:

- Depth of made ground.
- Nature of made ground.
- Categorisation of made ground, ie is it hazardous and to what category of landfill can it be taken?

5 The Solution

A specific, cost effective, element of the site investigation targeting the nature and depth of made ground.

6 The Made Ground Mapping Package

We will place a grid across the site, spacing to suit the size of the site and perceived level of risk. At each grid intersection we will hand auger to establish the nature and depth of made ground.

We will then produce a site plan with contours of made ground depth, a sample from a fictitious site is shown in appendix A.

With this information we can obtain a much better estimate of the volume of made ground than would be possible from a typical site investigation.

With a better understanding of the nature of the made ground and variations across the site both contamination and waste acceptance criteria (WAC) testing can be targeted more cost effectively.

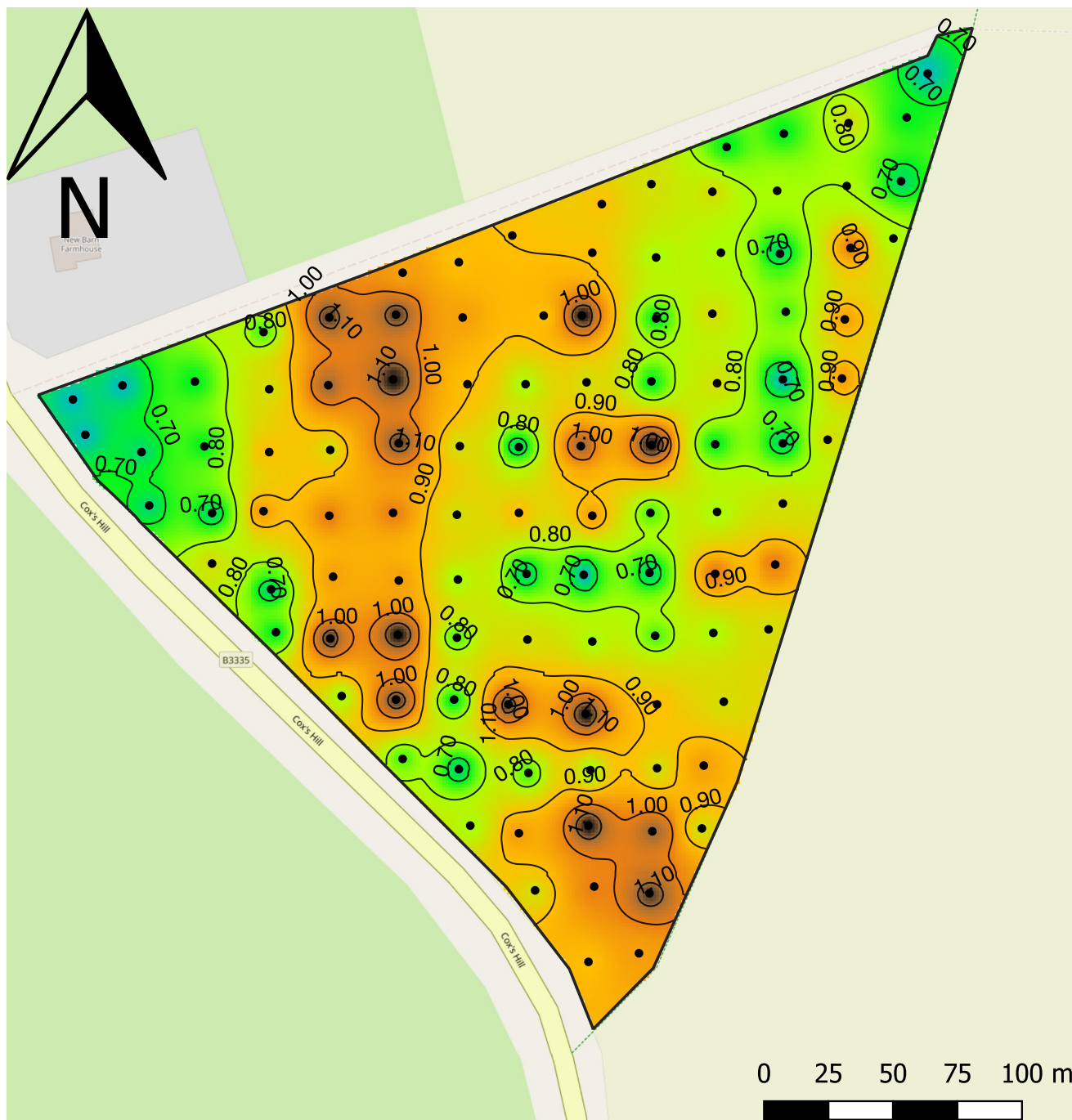
7 The Benefits

More information for clients, project managers and tenderers on ground conditions leading to:

- Greater cost certainty
- Reduced risk of project delay
- More certainty of environmental compliance




Appendix A – Made Ground Contour Plan

Project	Example Site				
Project No	4321	Reference:	SK01	Date:	14/01/19 NTS
Title	Made Ground Depth				



Legend

Example Site

-  Outline
-  Boreholes
-  Contours

Made Ground Depth

-  0.6mbgl
-  0.7mbgl
-  0.8mbgl
-  0.9mbgl
-  1.0mbgl
-  1.1mbgl
-  1.2mbgl



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