

Ground Stabilisation CASE STUDY

Maskew Ave – Building and Externals Stabilisation

Project	JJM2735 – Building and Storage Depot Stabilisation
Location	Maskew Avenue Peterborough Development
Client	Barnack Estates
Key works delivered	Capping and Subbase Replacement - Stabilisation
Project Duration	Oct 2022
Stabilised Area	5,000m2
Earthworks	By JJMac Ground Stabilisation



PROJECT OVERVIEW

- Re-development of the former Parcelforce site in Peterborough
- The site of the Millfield Autos new Storage depot required an element of remediation and Levelling.
- In-situ treatment of the material in 2 x 300mm deep layers with 4.0% Cement Addition to building footprint.
- In-situ treatment of the material in 2 x 300mm deep layers with 4.0% Cement Addition to the external areas.
- Client requirements 95% Compaction and 30% CBR Non-Frost Susceptibility
- Building Floor 450mm make up laid directly onto the Stabilised Layers
- Independent Design and testing carried out by i2 Laboratories



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PROJECT CHALLENGES

- The project programme was challenging as the remediation and levelling works were inserted into the Stabilisation Package at late stage of planning.
- Binder spreading, water delivery and mixing had to be very precise to ensure the design CBR would be achieved.
- The project has a very stringent test and compliance schedule. All target MCV and CBR test were taken daily
- Proximity to other works on site meant very well managed works and deliveries were always required.

ENGINEERING AND SOLUTIONS TO OVERCOME THE CHALLENGES

To overcome the project challenges set by the client, our team:

- Worked with the client and advised on the findings of the site won material testing and classification.
- Once the site was Remediated and levelled, the challenge was to spread and stabilise the host material by mixing with Cement and complying with the stringent testing schedule for the stabilised material.
- Our site team set to work with the MC team to develop a system to allow both earthworks and stabilisation to progress efficiently.

Levelling and Remediation



Site Ready for Stabilisation







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STABILISATION CONSTRUCTION

Agile equipment utilised for this job due to the confines of the site. JJMac could not utilise any area outside the site boundary.

Tractor mounted Stabilisation Wirtgen 250WS Mixers were selected for this project





Completed Works

Stabilised area with 6f protection layer ready for construction works





ADVANTAGES

The works had numerous advantages to this site.

- Utilise site won material from Excavations for Stabilisation
- Reduction of Primary Aggregates
- Reduction of Lorries from the surrounding roads

BENEFITS TO CLIENT

