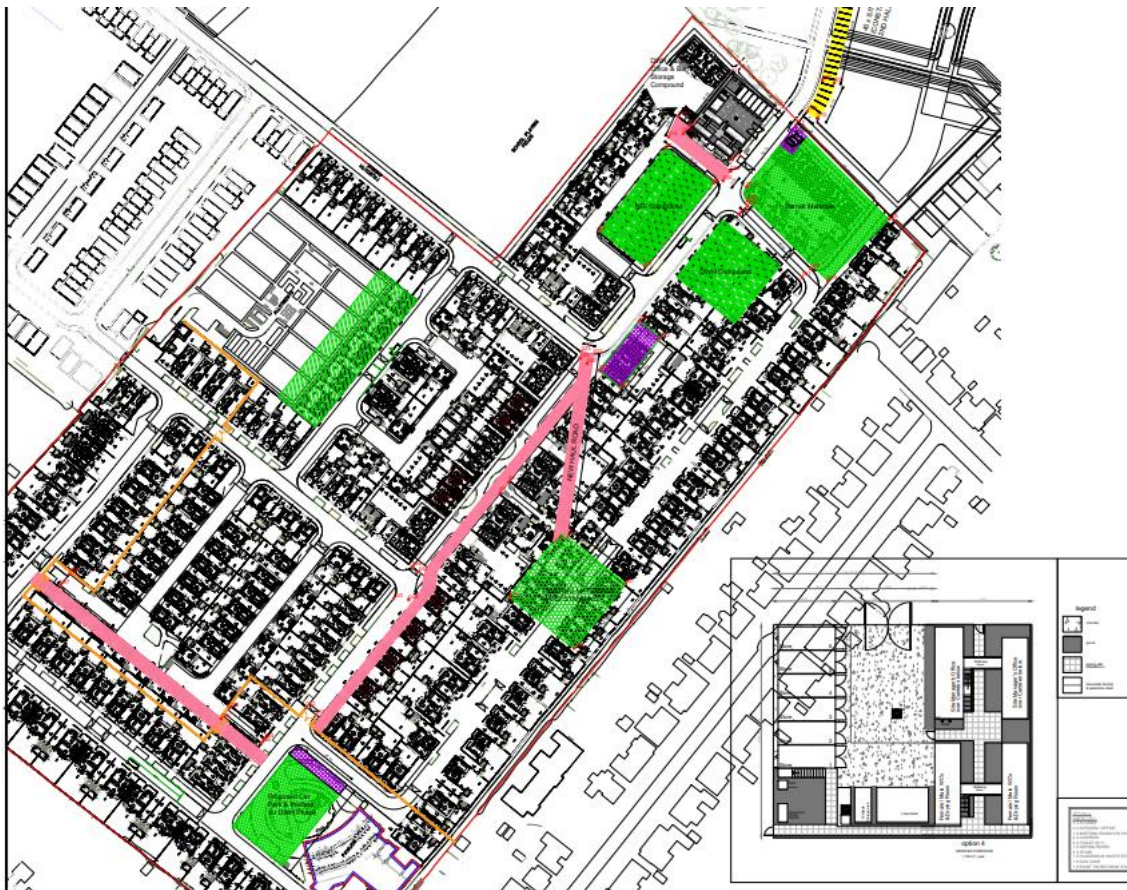


Darwin Green – Embankment Stabilisation

Project	JJM2710 – Compound and Haul Roads
Location	Darwin Green Cambridge
Client	Barratts
Key works delivered	Ground Stabilisation
Project Duration	April 2022
Stabilised Area	5,000m ²
Earthworks	By JJMac



PROJECT OVERVIEW

- Construct Site Compounds and Haul Roads on with Site won 7A Sub Soil
- 1,000m³ of 7A material excavated from nearby Attenuation Pond which was modified with cement
- Client requirements 95% Compaction and 30% CBR Non Frost Susceptibility
- JJMac tested and classified the material as suitable to achieve these requirements

PROJECT CHALLENGES

The project was very challenging due to the client requirements for the existing levels of the site. Each area to be stabilised required to be raised min 150mm AGL to prevent water logging.

The soil had to be double mixed with the cement to break down the soils due to the high clay content. GPS Dozer required to create the passive drainage falls prior to trimming and compaction.

Material is to be laid in accordance MCHW1 Clause 608 (Table 6/1) and Clause 616 and compacted in accordance clause 612 and Table 6/4. The method of compaction for Class 7A material is an "End Product" requirement.

*This requires **95% of maximum dry density** of BS 1377 : Part 4 (2.5kg rammer method) or a dry density corresponding to 5% air voids at field mc, whichever is lower.*

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.
- The challenge was to spread and stabilise the excavated material by mixing with Cement and complying with the stringent testing schedule for the 7A material.
- Our site team set to work. Excavating the ponds and carting the 7A material and using our GPS intelligent dozer to place in 300mm layers for mixing in-situ.



Stabilisation during Construction Phase



Completed Works



ADVANTAGES

The works had numerous advantages to this site.

- Utilise site won material from Excavations for Modification
- Elimination of Primary Aggregates for making up levels
- Elimination of Stone Lorries from the Villages and surrounding Roads

BENEFITS TO CLIENT