



Story House, Lords Way
Kingmoor Business Park
Carlisle, Cumbria, CA6 4SL

T: 01228 404550

E: info@storyhomes.co.uk
www.storyhomes.co.uk

Mr C Harrison
Principal Planning Officer
Development Management
Thriving Places
Cumberland Council
The Market Hall
Market Place
Whitehaven
Cumbria
CA28 7JG

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Dear Mr Harrison

Foundation Design and Justification

Following review of the site investigation information and proposed development levels, Structensor Consulting prepared a foundation zoning assessment for the development. The assessment identified areas where conventional strip or trench fill foundations could be founded within suitable natural strata and areas where vibro ground improvement was required to support residential foundations.

The adopted vibro solution comprises vibro stone columns designed by Town & Country Vibro Ltd. The purpose of the vibro treatment is to improve the bearing characteristics of the ground and control settlement beneath the proposed foundations. Settlement calculations undertaken by Town & Country Vibro Ltd indicate predicted settlements of less than 25mm and angular distortion within 1:500.

The vibro treatment extends through made ground, engineered upfill and any identified soft or loose soils before terminating within competent natural strata. The solution is intended to improve the engineering performance of the near-surface ground profile and provide a suitable founding platform for residential development.

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The vibro stone column solution was selected as the most appropriate foundation system having regard to the site ground conditions, proposed earthworks and residential loading requirements. The system provides an efficient means of improving bearing capacity and controlling settlement whilst avoiding the need for more extensive deep foundation solutions across significant parts of the development.

The limitations of the system are that its performance is dependent upon completion of the approved remediation and earthworks strategy, installation in accordance with the specialist design and verification requirements, and achievement of the specified ground improvement criteria through the proposed testing regime.

Yours sincerely

M Davis

Matt Davis
Senior Engineer