



DEEP FOUNDATIONS INSTITUTE

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GUIDANCE NOTE 3

COMPARISON OF ENERGY USAGE IN FOUNDATIONS

The table below is intended to give an indication of the likely relative energy consumption from the installation of foundations for a new building on a site that has been previously developed.

Foundation installation is energy intensive and if made of concrete uses large quantities of cement – a high CO2 material. Sustainable foundations will minimize the consumption of energy, the use of materials and the production of waste.

| Type of Foundation | Consumption of Materials | Installation Energy |
|---|--------------------------|---------------------|
| New foundations positioned not to clash with existing foundations | High | High |
| New foundations clash with existing foundations so that they need to be removed | Very High | Very High |
| Re-use existing foundations but not adequate on their own so supplemented with some new foundations | Medium | Medium |
| Re-use existing foundations so that they are adequate on their own | Low | Low |

