



| Soil Classification |                                  |                     |         |            |
|---------------------|----------------------------------|---------------------|---------|------------|
| Basic Soil Type     | Sub Group                        | Compaction/Strength | SPT-N   | ASTM Class |
| Sands               | Sand                             | Very Loose          | 0-3     | 8          |
|                     |                                  | Loose               | 3-8     | 5          |
|                     |                                  | Compact             | 8-30    | 3          |
|                     | Sandy Clay/Sandy Silt            | Soft                | 3-8     | 5          |
| Silt                | Silts                            | Firm                | 8-30    | 3          |
|                     |                                  | Stiff               | 30-58   | 1          |
|                     | Silty Clay                       | Very Soft           | 7-14    | 6          |
|                     |                                  | Soft                | 14-25   | 5          |
| Clays               | Clay                             | Firm                | 25-60   | 4          |
|                     |                                  | Stiff               | 7-14    | 8          |
|                     |                                  | Very Stiff          | 4-8     | 7          |
|                     | Organic Clay Silt or Sand        | Hard                | 14-25   | 6          |
|                     |                                  |                     | 35-60   | 5          |
|                     |                                  |                     | >60     | 3          |
| Peats               | Peat                             | Firm                | 0-5     | 8          |
|                     |                                  | Spongy Plastic      | 0-5     | 8          |
| Chalks              |                                  | Very Weak           | 0-5     | 6          |
|                     |                                  | Weak                | 25-100  | 2          |
|                     |                                  | Moderately Weak     | 100-250 | 1          |
|                     | Moderately strong to very strong | >250                | 0       |            |

**Notes:**

The above classifications are outlined in BS 5930 with the exception of chalk and the "Sands" and "Clays" sections have been expanded. Also chalk is not covered in the ASTM classification, but for the purposes of predicting loads it has been assigned values. The range of pull out loads in strong chalks can be considerably higher than shown on the chart and field tests need to be carried out to obtain accurate values.

The Standard Penetration Test (SPT) N values quoted above are in accordance with BS1377:1990 Part9, ASTM Standard D1586-84 and AS 1289.6.3.1-1993

