Project Reference	21.04.022
Site Location	Harbury Playing Fields, Constance Drive, Warwickshire CV33 9HZ
OS Grid Reference	437319, 259530
Development Proposals	An electric vehicle charging station facility, complete with a wind turbine, solar panels, electrical storage battery and ancillary services
Current Site Use and Existing Buildings	Village Hall at the northern end, with car park, grassed playing fields, all weather sports pitches, cycle sports area and skate park beyond
Topography	The site is generally flat and slopes very gently up to the south, with an elevation difference, across the site, of about 2m
Vegetation	The interior of the site was devoid of significant vegetation, but there was a hedge of trees and shrubs along nearly all of the eastern and southern boundaries, parts of the western boundary, around the children's play area, and on the eastern side of the car park. More specifically to the four areas of proposed development, are the following approximated distances to significant vegetation: Area B: <2m to a 2m high hedgerow (to the west) and 13.2m to 10m high trees (to the east); Area C: <2m to a 2m high hedgerow (to the west) and <2m to 10m high trees (to the east); Area W1: 12.5m to an 8m high tree hedge (to the east); Area W2: 9.7m to a 14m high Oak? tree (to the north-east) and 8.8m to a 14m high Oak? tree (to the south-east)
Published Geology	Quaternary superficial Till, with the Late Triassic bedrock Rugby Limestone Member (of the Blue Lias Formation) beneath
Site History	The site was formed of two large agricultural fields, on the southern (agricultural) side of the village, from the date of the earliest map (1885) and the map of 1971 shows the Village Hall at the northern end and the remainder of the site marked as Playing Fields (and, later, as Recreation Ground). The all-weather (tennis) court is first shown on the map of 1987 and the cycle sports area and skate park are first seen on aerial imagery dated 2006
Unexploded Ordnance	Low risk
Ground Conditions Encountered	A cover of Fill/Topsoil and localised Made Ground to a maximum depth of 0.80m; over Till, with thin beds of Glacio-Fluvial Deposits; and Glacio-Fluvial Deposits below about 4.2m at the southern end of the site
Groundwater	Not encountered. (Water inflow in CT02 was, most likely, from a broken land drain)
Chemical Attack on Buried Concrete	Design Sulphate Class DS-1, characteristic pH, 6.4 Aggressive Chemical Environment for Concrete, AC-1
Foundations (Proposed Battery Store and Proposed Wind Turbine)	The existing pavement construction area for the proposed battery store area should be adequate to support modest loadings without undergoing undue settlement. The Till should prove a suitable bearing stratum for foundations to support the wind turbine on spread foundations, such as pads or a raft. Foundation depths to be assessed in accordance with NHBC Standards, with a recommended *minimum* depth for pad foundations, of 0.90m. If the bearing pressure stated below are insufficient, then consideration should be given to the use of short pile foundations bearing into the Glacio-Fluvial Deposits (below about 4.2m depth).
Bearing Pressures (Proposed Battery Store and Proposed Wind Turbine)	Safe Bearing Pressure of 100kPa for a raft foundation, with a recommendation to assess likely settlements once building loads are known. Allowable Bearing Pressure (for 25mm total settlement) of 140kPa for isolated square bases up to 3.00m wide at 0.90m depth, increasing, with depth of placement, at a uniform rate of 10kPa/0.2m depth, to a maximum of 220kPa at a depth of 2.50m
Hardstanding Design (Proposed Car Park)	Preliminary design California Bearing Ratio values: • Till: 3.0% • Made Ground (if extensive): 1.0% These soils are potentially frost-susceptible