SPI PILING
A E YATES GROUP

CASE STUDY

TOOTHILL SUBSTATION
SWINDON

Energy / Power

CLIENT
INSTALCOM LIMITED

CONTRACT NO.
C21479

PROCESS
ABI TM 14/17 TELESCOPIC LEADER RIG

Our client Instalcom Limited, requested our assistance in installing 40nr 339mm diameter tubular bearing piles with a 12mm wall thickness. These piles had the top 2.5m painted as the tops of the piles were elevated above ground level to build a new switch house within a live substation making the new equipment Flood Resilient.
With working so close to transformers and live electricity, 2 vibration monitors were set up prior to our arrival to monitor the existing electricity structure, in particular, older mercury trip switches which are extremely sensitive to vibration.
SPI Piling were responsible for setting out of the pile locations to allow the 450mm diameter dangle drill on the Kobelco 350LC excavator to drill down 6.0m to minimise the vibration levels within the live substation. Once the pile locations were augered, the grizzly side-grip vibratory hammer picked each tube up and vibrated them into the ground, once the piles were installed to a depth of 7.0m, the Grizzly hammer locked onto a driving plate welded inside the tubes to prevent any of the top 2.5m painted section to be scratched. When the Grizzly vibratory hammer hit refusal criteria, the DX25 excavator mounted impact hammer was attached to the excavator and all piles driven to the required depth of 7.8m below platform level.


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0845 450 7475