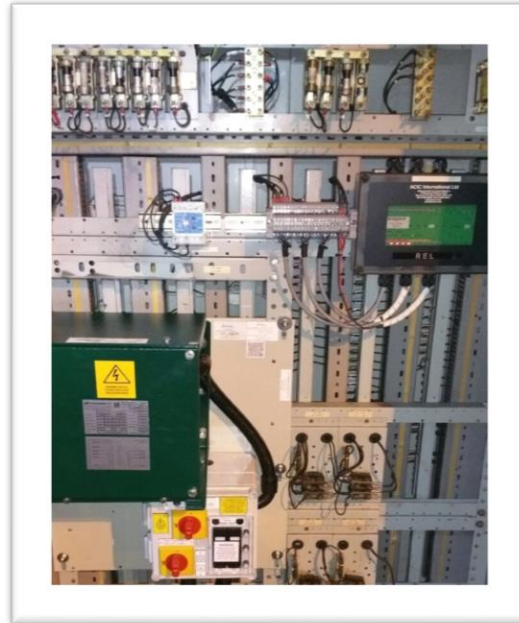




CLIENT – McNicholas

PROJECT VALUE –
>£1M

DATE – Sept 2017 to Aug
2019



PROGRAMME DESCRIPTION:

As part of Network Rail Sussex and Kent Region requirements to rectify non-compliances, Poise was commissioned by McNicholas to undertake the variation for the Phase 1 & 2 works, comprising of 433No. Location Cases (LOCs). Deliverables included provision of 5No. Generic Form A/B Electrical and Civil designs as well as 20No. Typical Signalling designs for the installation of Class II 650V equipment within the existing Location Cases or Standalone FSP cabinets. We also delivered the signalling Testing & Commissioning packs for each site, As-Built for Signalling, E&P and Civil for each site and the Signalling GIC's. Poise provided Electrical, Civil and Signalling CRE's to the project.

Further variation to undertake an additional 70 sites for earthing bonding remedial design works of Location Cases, which included 2No. Typical Signalling Designs, production of Testing and Commissioning packs at each site, Signalling As-Built and GIC's per site.

PROJECT DESCRIPTION:

NR were notified to comply with an instruction from the ORR to physically verify that LOCs are connected to Earth via an earth rod/mat/another source and ensure that any exposed live parts are mitigated against. Subsequently, the integrity of the Earth connection and resistance to Earth of the rob/mat/another source have to be verified for compliance against NR/L2/SIGELP/27418 & NR/L3/SIGELP/27420.

An existing FSP containing 650V connections is deemed compliant if it is determined that it meets the following conditions:

- A) Suitably connected to an earth mat/rod of sufficient cross-section to meet calculated

- B) The resistance to earth of the earth rod/mat is compliant to NR/L2/SIGELP/274 and NR/L3/SIGELP/@&420
- C) Equipotential bonding exists within the existing LOC
- D) There are no live 650V exposed components
- E) The existing equipment in the LOC is Class II rated

McNicholas originally approached Poise in order to develop the most cost-effective method of assessing and potentially upgrading all LOCs in the Kent and Sussex region.

An analytical approach was undertaken to develop an accurate and cost effective GRIP 1-4 Delivery Strategy. This involved the following approach:

- Conduct surveys across a range of 650V sites from the total of 1387 sites identified by NR.
- Produce a survey report and a series of drawings which provide a detailed assessment of the asset and its site.
- Analyse the information gained from the site surveys to undertake an extensive analysis on the full list of 1387 sites.
- Produce generic electrical design (Form A level) solutions that can be developed and used at a later stage when the surveys of all sites are completed.

The Phase 1 & 2 scope of works followed this process of efficient delivery by narrowing down to the minimum number of generic E&P and Civil designs as well as typical Signalling Solutions. Each site was then allocated the relevant combinations of generic and typical designs for installation and Poise supported in the production of Testing and Commissioning Packs as well as As-Built drawing updates and chairing GICs.

As a result, we have implanted delivery strategy and design works to support over 1000 Location Cases as part of this safety critical programme of works.