



Contract Reference: TCA 3/7/1462

Schedule 2 – Requirements Specification

1. Requirement Overview

The Newhaven Remote Radio site suffered a total power outage following the installation of a new BT fibre optic link to the site, the blackout was caused by the underground electrical services cable being damaged, and the incoming mains fuse ruptured. A temporary generator was installed to keep the site operational while repairs to the underground cable were completed.

The initial defect was identified at a point where the BT fibre and existing mains cable crossed, and a cable joint installed to affect a repair.

The power was restored but unfortunately a further fault occurred a week or so later, and the site was placed back on the generator while further investigations were conducted.

It is believed that further impact damage may have been caused during the fibre cable installation. However, this is impossible to confirm without exposing the whole length of existing cable and risking damaging the fibre optic cable in the process.

It is difficult to prove with certainty the exact location of the fibre optic cable now the excavations have settled, but the installers have provided a route plan of the installation.

A Cable Avoidance Tool (CAT Scan) was used to prove the route of the existing electrical cable, with the hope that if segregated at any stage it could have been reused to prevent the whole route being excavated. It was noted that there have also been several newly installed benches and a signpost which are close to or directly above the existing cable route.

Although the lower section of the power cable does run on the opposite side of the road and the original fault occurred at the cross over point, the existing cable utilises a 95mm² 4-core cable to provide a single-phase TN-CS supply by utilising 2 phase conductors on the live side and a single neutral conductor, the fourth conductor serves as an earth. This does not lend itself for reuse with current 3 core SWA cable construction and jointing methods and therefore it is recommended that the cable in its entirety should be replaced.

The existing switchgear within the main electrical intake (what3words – slows.pumpkin.tucked) is in a poor condition and requires replacement as does the external sub distribution switchgear at the entrance to the radio site.



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The site is still running on temporary generator with accumulating costs for the hire and fuel.

The requirement is to replace the defective underground electrical supply cable between the electric intake position and the external sub distribution point together with the replacement of primary and sub distribution switchgear which is corroded and in poor condition.

2. Quality of Workmanship

All works should be completed to a high standard, be fit for purpose and in accordance with current British Standards, industry best practice and relevant Regulations for each work element. All electrical work is to be undertaken by a National Inspection Council for Electrical Installation Contracting (NICEIC) or equivalently accredited electrical engineer.

The contractor is to pay the necessary fees to all associated sub consultants, i.e., building control, local authority planning etc.

A viewing day for tenderers to visit site is TBC.

3. Scope/Specifics

Preliminaries:

- The supplier is to include for all management, design and calculations and act as the principal designer / principal contractor under this Design and Build project to ensure the new installation is compliant with current British Standards, Regulations and Industry best practice.
- The supplier is to confirm whether they consider these works to be notifiable under the CDM 2015 regulations.
- The supplier is to provide an outline program of works
- The supplier is to provide copies of relevant insurance cover
- The supplier is to include for identification of underground services.
- The supplier is to allow for all environmental safeguards while working within the Castle Hill Nature Reserve, which is classed as a Site of Nature Conservation Importance.
- Space and resources within the Tower are limited and therefore the supplier is to provide appropriate welfare facilities for the duration of the works.
- Although the roadway is very lightly used, the lookout and Radio Site will require to be always accessible. Therefore, traffic management, road plates, barriers etc. and fencing should be included for as necessary.

Main Incoming Supply Building Works:



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- To replace the corroded incoming main switchgear utilising the existing UK Power service cutout and IMServ metering. All UK Power isolation costs are to be included for.
- To replace the existing corroded ancillary equipment, including the distribution board, anti-condensation heater, light switch and RCD socket. Retain the galvanized trunking and conduit if considered reusable.
- To replace the existing fluorescent light fitting for LED and install emergency lighting.

Underground Cabling Works:

- To cut existing tarmac roadway within the approved wayleave to form a clean excavation route from the main incoming supply point to the NCI Lookout Tower entrance gate. Excavate and install the new cable, ensuring suitable depths and electrical cable warning tape are maintained. Backfill and make good the tarmac to at least the same standard as is in existence. Consolidation of the backfill is to be undertaken to ensure the tarmac repair will remain stable in the long term.
- The trench route has been measured at approximately 450 meters and the cable length at 470 meters. The supplier is to confirm these lengths prior to ordering the cable.
- Install suitable tray work for the exposed weather conditions to support the new supply cable and terminate / test the cabling prior to energisation. Appropriate earth bonding is to be provided for safety etc.

Lookout Tower External Sub Main Distribution Works:

- To install new fully weatherproof enclosure adjacent to the existing sub main facility and fit out with suitable sub distribution switchgear prior to connection of the new underground supply cable. Once all tests are complete and satisfactory, by arrangement, shutdown the temporary generator supply and transfer the existing Tower & Radio Room supply cables across to the new submain enclosure
- To remove the old sub distribution enclosure and cut back the incoming supply cable to prevent a trip hazard. Make good all surfaces to minimise further degradation.



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4. Completion Documentation

To supply an O&M / H&S files 1 x hard copy & 1 x electronic on memory stick which includes:

- A brief description of the works,
- Any hazards not eliminated during the design.
- Electrical design characteristics
- Any hazardous materials used or identified during the project.
- Test Certification,
- Equipment information and suppliers,
- Updated electrical schematic including amended protective device information. Maintenance and cleaning regimes
- Locations of any additional services identified during the works.
- Long term disposal strategy.
- A handover file for the property, including copies of all Electrical Safety Test Certificates, maintenance/servicing information, building control certification, etc.

5. Timeframes

The requirement is for this service/product to be in place by 15th December 2023.

6. Guarantee

The quality of workmanship will be guaranteed by the 12 months defects period from the agreed date of completion, during which time the contractor will be required to return to site to rectify any deficiencies with the installations.

7. Delivery

The MCA requires works to commence as soon as possible after contract award. Tenderers should state in their tender their lead time for commencing work and the expected time on site for completion of all works and handover to the MCA. The MCA will favour Tenderers who offer a short lead time to commence works on site, as well as a programme that minimises time required on site.

8. Payments

Payment shall be made upon completion and sign-off of works by MCA. Payment shall be subject to the receipt of a valid and correctly submitted invoice.

Invoices should be submitted electronically to:



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SSa.invoice@sharedservicesarvato.co.uk and must include the Purchase Order number issued by the MCA.

The MCA pays undisputed invoices 30 days in arrears.

9. Sustainability

The MCA is committed to sustainable procurement. This means making the necessary decisions to protect our environment and to operate its procurement activity in an economically, socially and environmentally responsible way. Tenderers should indicate ways in which their organisation promotes and practices sustainable development and how this can impact on this contract.

More information on the environmental consideration can be found at:

- <https://www.gov.uk/government/policies/making-sustainable-development-a-part-of-all-government-policy-and-operations>
- <https://www.gov.uk/government/collections/sustainable-procurement-the-government-buying-standards-gbs>