

# Confidential Client Data Halls Denmark

This project involves the buildout of two data halls within an existing building at our client's DK campus. Each data hall will be rated to 3.5mW for a total deliverable of 7mW of critical load. The scope of work includes fitout of Data Hall 5000 and 6000 located in building VIB.01 which is an existing 40,000 m2 data center building. The scope will include construction of new gypsum board partitions, installation of intake / exhaust louvers, evap / filter media, hot aisle containment, and all associated mechanical and electrical equipment to support bringing the new data halls online.

As General Contractor Suir Engineering is responsible, inter alia, for the management, scheduling, completion of the design, co-ordination, expediting, construction, Co-Ordination of commissioning and handover of the facilities associated with the scope of works.

Suir Engineering have full responsibility for the Civil and architectural electrical, mechanical Services installation.

All work is being undertaken at a live Data Center and requires special care and consideration of the operations and live services at the facility.

## Scope of work

### Electrical Services Installation

- High voltage, 20kV, distribution system
- All low voltage (480V, 415V, 400V) cabling and distribution, including containment and distribution boards
- Dual duplex fibre backbone network for the PLC, SCADA and ENMS systems, site wide fire alarm and detection system
- UPS cabling and distribution,
- Final circuit cabling and containment.
- All HV, LV, earth power cables for the DH5000 and 6000 equipment.
- IT/Comms - All principal installation,
- Heating & Cooling provision to each switchroom / external substation.
- Internal lighting installation.
- Emergency lighting installation
- Internal and External small power installation
- All power supplies
- Fire detection and alarm system,
- Aspirating smoke detection and interfacing.
- Security systems including CCTV, access control and intruder alarm
- Earthing and bonding. - Lightning protection system
- All builders work associated with containment, chases, ducts and penetrations.
- Overall testing and commissioning of all electrical services
- All required handover documentation including as fitted record drawings, test certificates, operation and maintenance (O&M) manuals and health and safety fire information.

### Mechanical Services Installation

- Data Hall Cooling System:
- This system comprises of the following principle components:
  - Injection dampers
  - Evaporative cooling system
  - Merv 13 filters and housing
  - Recirculation dampers
  - Data Hall supply fan arrays
  - UPS/Transformer room extract fans
  - Exhaust dampers
  - Corridor Systems
  - The corridors between Data Halls are supplied with air from the Data Halls for heating, cooling and ventilation.
  - External Electrical Buildings The external electrical buildings are cooled via:
    - Direct fresh air – extract of hot air from above transformers
    - External Cooling units serving the switchboard areas

### Civil, Structural and Architectural

- Initial compound set-up including provision for security (hoarding, security hut, access turnstiles), pedestrian access, site offices, welfare, storage, workshop and applicable services
- Protection of works areas local to live operating equipment
- Forming of opes in external & internal walls, applicable floors and ceilings for ducted services, pipes and cable entries.
- Making good and fire sealing of the appropriate opes as required
- Installation of ceilings
- Installation of Roof Pipe & Cable Entry Boxes
- Installation of mezzanine.
- Exterior Wall Cladding Panels.
- Constructing new Partition Walls & Doors in appointed areas
- GPR survey prior to work on underground services

Client: **Confidential**

Duration: **12 Months**

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