

Case Study: North West Ambulance Service Mechanical Electrical Installation

Client: NWS NHS Trust

Principal Contractor: Walter Carefoot & Sons [Construction] Ltd

Sector: Healthcare

Electrical Budget: £97,000

Mechanical Budget: £118,295

Completed: February 2026

Services Used

- Project management
- Electrical Engineering
- Mechanical Engineering
- Data
- Fire & Intruder Alarms
- CCTV
- Air Conditioning
- MVHR

North West Ambulance Service provides emergency medical services, 111 urgent care, and patient transport across North West England.

NWAS acquired new premises in Huyton, Liverpool and Meel Group was appointed to install the mechanical and electrical services.

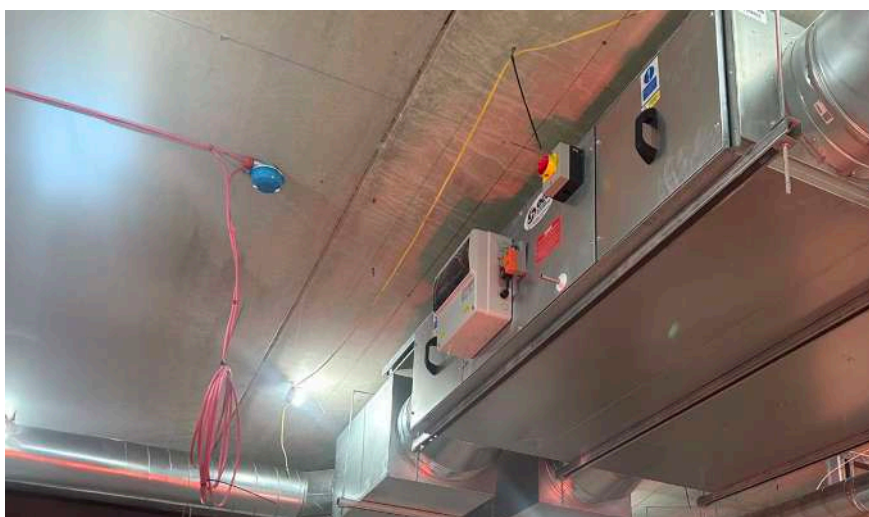
Project Summary:

The existing building required total refurbishment and conversion into a new ambulance station. The building was stripped back to its shell as part of the scheme. Walter Carefoot & Sons acted as Principal Contractor, undertaking the builders' works and Meel Group Projects were contracted to deliver the Mechanical & Electrical installation.

Electrical Scope:

Key Points:

- Data
- CCTV
- Fire Alarm
- Intruder Alarm
- Access Control
- Switchgear Installation
- Containment Installation
- Lighting, Emergency Lighting
- External Lighting
- Small Power



Electrical Distribution:

The existing main switchboard was retained, with a new sub-main installed to supply a dedicated distribution board. The new board incorporates separate lighting and power sections, integral energy metering, and surge protection, improving monitoring capability and system resilience.

Lighting & Emergency Systems:

High-efficiency LED lighting was installed throughout, supported by intelligent controls including presence detection, dimming, and timeclock/photocell operation for external areas.

A compliant emergency lighting system provides three hours of illumination in the event of mains failure, ensuring safe evacuation.

- Presence/absence detection
- Manual switching
- Dimming capability
- Timeclock and photocell control for dusk-to-dawn applications (external lighting)



Small Power & Mechanical Integration:

New small-power circuits and socket outlets were installed in line with current regulations, with accessible, colour-contrasting accessories to support inclusivity.

Electrical supplies were provided to key mechanical systems, including MVHR, air conditioning, water heaters, and external plant.

Data, Fire & Security:

A Cat6 structured cabling network was installed to support WiFi, telephony, and ICT services.

The building was equipped with a fully addressable fire alarm system, alongside disabled WC alarms, intruder detection, CCTV and access control systems.

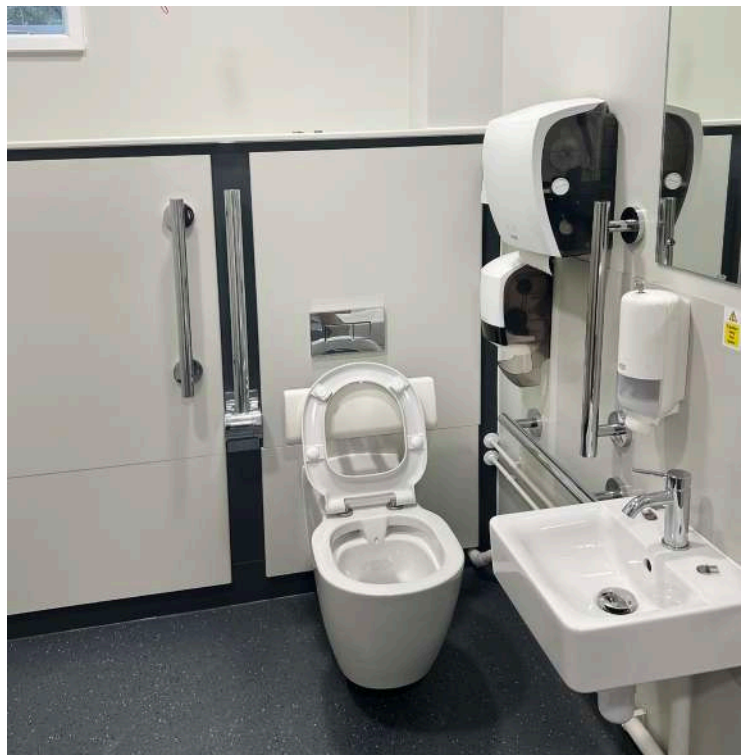


Mechanical Scope:

The strip-out works comprised of the removal of air conditioning equipment, redundant ductwork, pipe tube and sanitaryware items and the removal of redundant radiators.

The mechanical installation included the supply and installation of the following services:

- The installation of supply and extract ductwork including the installation of an MVHR unit to provide fresh air to the office and utility spaces.
- Air conditioning units were installed in the office areas.
- The existing boiler required modifications to accommodate new heating system.
- Installation of new, efficient heat emitters (radiators) in office and utility areas.



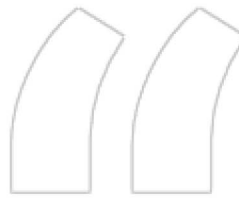


Health and Safety:

At the Meel Group, we take Health & Safety very seriously, and all RAMs were in place. No accidents or near misses occurred during the project

Results:

Our M&E installation was delivered a week ahead of schedule, and the client is very happy with the results.



The Results:

The North West Ambulance Service now has a Huyton station with energy-efficient, fully compliant lighting and heating, and an integrated data infrastructure designed for the purpose.

